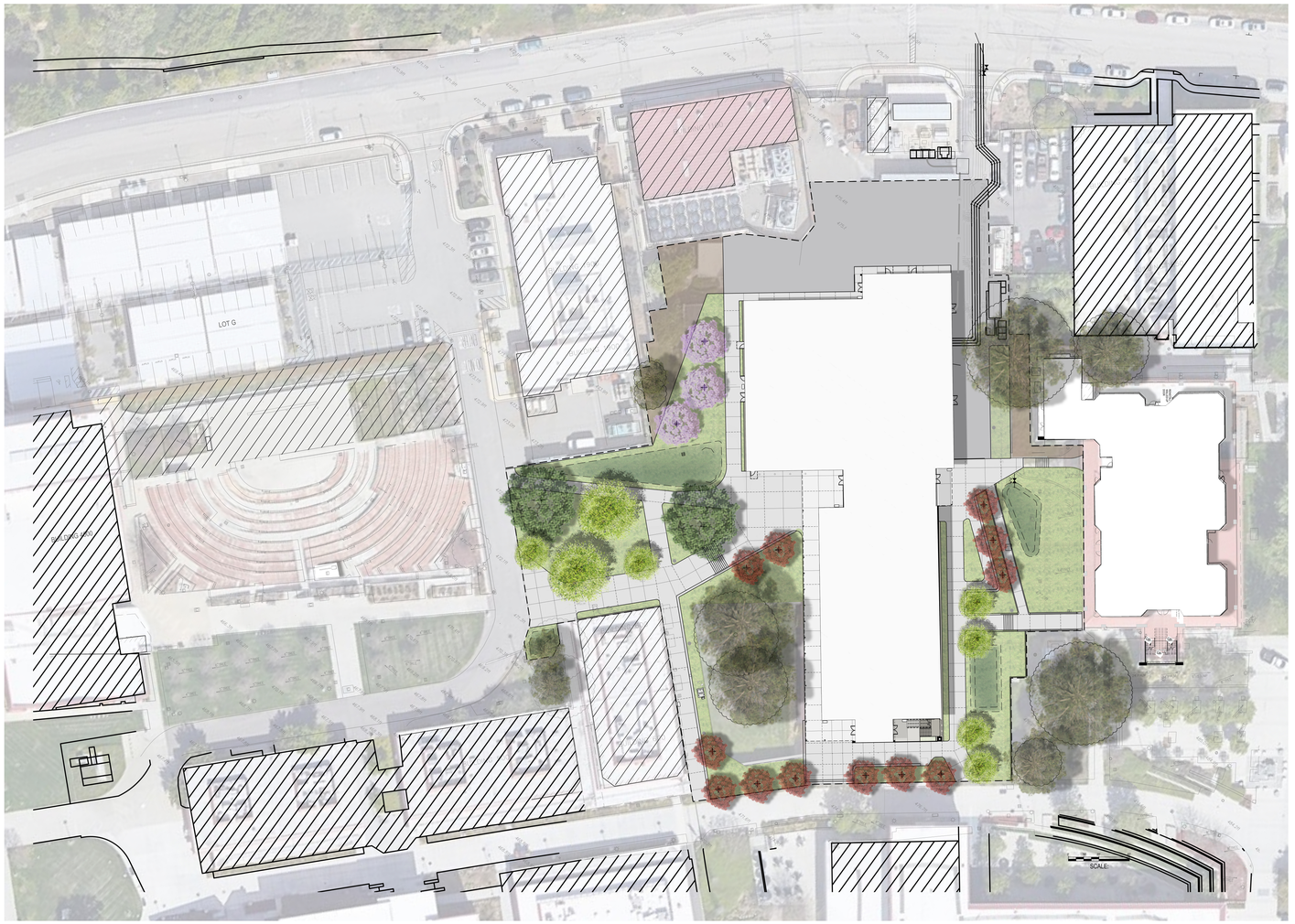
LAS POSITAS COLLEGE STEAM BUILDING PROJECT
INC 2 - BUILDINGS 1500 AND 1800

3000 Campus Hill Dr, Livermore, CA 94551



LAS POSITAS COLLEGE

3000 CAMPUS HILL DRIVE,
LIVERMORE, CA 94551

SCOPE DESCRIPTION

INCREMENT 1:
SITE DEMOLITION - INCLUDES BUILDING DEMOLITION OF EXISTING BUILDING 800 STRUCTURE AND ALL ASSOCIATED BUILDING SYSTEMS, REMOVAL OF UNDERGROUND UTILITIES SERVING B800, DEMOLITION OF SURROUNDING SITE FEATURES, LANDSCAPING, AND APPURTENANCES, SOIL TREATMENT OF SUBGRADE IN PREPARATION FOR NEW STEAM BUILDING STRUCTURE, RELOCATION OF BUILDING SYSTEMS FROM B800 THAT SERVES BUILDING 1800 TO NEW LOCATION ADJACENT TO B1800, AND RE-ROUTING OF UNDERGROUND POWER INFRASTRUCTURE IMPACTED BY B800 DEMOLITION.

INCREMENT 2:
BUILDING 1500-NEW TWO-STORY BUILDING: APPROX 53,200 GSF, CONTAINING SCIENCE AND ARTS CLASSROOMS, SHARED OFFICES, AND PHOTOGRAPHY SUITE. SCIENCES INCLUDE CHEMISTRY, BIOLOGY, ANATOMY, AND ASSOCIATED PREP SPACES. ARTS CLASSROOMS INCLUDE PHOTOGRAPHY, GRAPHIC DESIGN, PAINTING, AND DRAWING. SCOPE INCLUDES FIRE SPRINKLERS, FIRE ALARM, AND SUPPORTING UTILITIES.

BUILDING 1800 (EXISTING) - ALTERATION TO EXISTING SCIENCE BUILDING: ALTERATIONS LIMITED TO THE GROUND FLOOR INTERIOR ONLY. ALTERATION TO INCLUDE NEW ROOM FINISHES, NEW CEILINGS, LAB CASEWORK, LIGHTING, AV EQUIPMENT, AND SUPPORTING UTILITIES. ALTERATIONS ARE BELOW VALUATION THRESHOLD. NO STRUCTURAL REHABILITATION IS REQUIRED.

CALIFORNIA CLIMATE ZONE

CLIMATE ZONE 12

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VOLUME 1 OF 2

ISSUED FOR:
PERMIT SET
DSA # 01-121987

ISSUE DATE:
24JUL2025

14794

Plot Date: 8/25/2025 4:02:34 PM

INCREMENT 01

SHEET NUMBER	SHEET NAME	PERMIT SET
GENERAL		
G0.0	PROJECT COVER SHEET	•
G1.1	PROJECT SHEET INDEX AND GENERAL PROJECT INFORMATION	•
G2.2	GENERAL ACCESSIBILITY REQUIREMENTS	•
G2.3	SITE EMERGENCY ACCESS PLAN	•
G2.4	SITE ACCESSIBILITY PLAN	•
5		
CIVIL		
C0.0	CIVIL NOTES, LEGEND, AND ABBREVIATIONS	•
C1.1	TOPOGRAPHIC KEY PLAN	•
C1.2	TOPOGRAPHIC SURVEY (FOR REFERENCE ONLY)	•
C1.3	TOPOGRAPHIC SURVEY (FOR REFERENCE ONLY)	•
C1.4	TOPOGRAPHIC SURVEY (FOR REFERENCE ONLY)	•
C2.0	SURFACE DEMOLITION KEY PLAN	•
C2.1	SURFACE DEMOLITION PLAN	•
C2.2	SURFACE DEMOLITION PLAN	•
C2.3	SURFACE DEMOLITION PLAN	•
C2.4	SURFACE DEMOLITION PLAN	•
C3.0	UTILITY DEMOLITION KEY PLAN	•
C3.1	UTILITY DEMOLITION PLAN	•
C3.2	UTILITY DEMOLITION PLAN	•
C3.3	UTILITY DEMOLITION PLAN	•
C3.4	UTILITY DEMOLITION PLAN	•
C4.0	UTILITY PLAN KEY PLAN	•
C4.1	UTILITY PLAN	•
C4.2	UTILITY PLAN	•
C4.3	UTILITY SECTIONS	•
C5.0	ROUGH GRADING PLAN	•
C6.0	CONSTRUCTION DETAILS	•
21		
ARCHITECTURAL		
A0.1	ARCHITECTURAL ABBREVIATIONS AND SYMBOLS	•
AD2.1	SITE DEMOLITION PLAN	•
AD2.2	SITE DEMOLITION PLAN - ENLARGED NORTH	•
AD2.3	SITE DEMOLITION PLAN - ENLARGED SOUTH	•
AD4.1	SITE DEMOLITION ENLARGED PLANS AND SECTIONS	•
A1.0	ARCHITECTURAL SITE PLAN	•
A5.1	B1800 AIR/ VACUUM EQUIPMENT PLACEMENT	•
7		
PLUMBING		
P0.1	PLUMBING ABBREVIATIONS/ SYMBOLS/ GENERAL NOTES	•
PD1.1	PLUMBING SITE DEMOLITION PLAN	•
P1.1	PLUMBING SITE PLAN	•
P5.1	PLUMBING ENLARGED PLAN, DETAILS & SCHEDULES	•
4		
MECHANICAL		
M0.1	MECHANICAL ABBREVIATIONS AND SYMBOLS	•
M1.1	SITE PLAN	•
2		
ELECTRICAL		
E0.1	ELECTRICAL ABBREVIATIONS AND SYMBOLS	•
E0.2	ELECTRICAL GENERAL NOTES	•
E0.3	ELECTRICAL SCHEDULES	•
ED1.0	ELECTRICAL SITE DEMOLITION PLAN	•
E1.1	ELECTRICAL SITE PLAN	•
E2.1	B1800- LEVEL 1 POWER PLAN	•
E3.1	LPC CAMPUS ONE LINE DIAGRAM	•
E3.2	B1800 - SINGLE LINE DIAGRAM	•
E6.1	ELECTRICAL DETAILS	•
9		

TOTAL SHEET COUNT: 48

INCREMENT 02 - VOL 1

SHEET NUMBER	SHEET NAME	PERMIT SET
GENERAL		
G0.0.1	PROJECT COVER SHEET VOL 1	•
G0.1.1	PROJECT SHEET INDEX VOL 1	•
G1.1.1	BUILDING CODE SUMMARY	•
G1.2.1	MINIMUM PLUMBING FACILITIES	•
G1.3.1	CAL GREEN MANDATORY MEASURES COMPLIANCE - B1500	•
G1.3.2	CAL GREEN MANDATORY MEASURES COMPLIANCE - B1800	•
G1.4.1	SITE ACCESSIBILITY AND EMERGENCY ACCESS - OVERALL CAMPUS	•
G1.5.1	SITE ACCESSIBILITY AND EMERGENCY ACCESS	•
G2.1.1	BUILDING 1500 - FIRE AND LIFE SAFETY DRAWINGS	•
G2.2.1	BUILDING 1800 - FIRE AND LIFE SAFETY DRAWINGS	•
G2.3.1	BUILDING 1500 - CONTROL AREA PLANS	•
11		
CIVIL		
C.1.0.0	CIVIL NOTES, LEGEND, AND ABBREVIATIONS	•
C.1.1.0	EXISTING CONDITIONS PLAN	•
C.1.2.0	FIRE ACCESS PLAN	•
C.1.3.0	HORIZONTAL CONTROL PLAN	•
C.1.3.1	SITE AND GRADING KEY PLAN	•
C.1.3.2	SITE AND GRADING PLAN	•
C.1.3.3	SITE AND GRADING PLAN	•
C.1.3.4	SITE AND GRADING PLAN	•
C.1.3.5	GRADING SECTIONS	•
C.1.3.6	GRADING SECTIONS	•
C.1.4.0	UTILITY KEY PLAN	•
C.1.4.1	UTILITY PLAN	•
C.1.4.2	UTILITY PLAN	•
C.1.4.3	UTILITY PLAN	•
C.1.5.0	STORMWATER MANAGEMENT PLAN	•
C.1.6.0	CONSTRUCTION DETAILS	•
C.1.6.1	CONSTRUCTION DETAILS	•
C.1.6.2	CONSTRUCTION DETAILS	•
18		
LANDSCAPE		
L0.0.0	COVER SHEET	•
L0.0.1	GENERAL NOTES	•
L0.0.2	TREE REMOVAL & PROTECTION PLAN	•
L1.1.1	LAYOUT & MATERIAL PLAN	•
L1.2.0	PLANTING PLAN	•
L1.2.1	TREE PLAN	•
L5.0.0	LANDSCAPE DETAILS	•
L5.0.1	LANDSCAPE DETAILS	•
L6.0.0	PLANTING DETAILS	•
L6.0.1	PLANTING DETAILS	•
10		
IRRIGATION		
I6.0.0	IRRIGATION LEGEND	•
I6.0.1	IRRIGATION NOTES AND CALCULATIONS	•
I6.1.1	HYDROZONE MAP	•
I6.1.2	IRRIGATION PLAN	•
I6.2.1	IRRIGATION DETAILS	•
I6.2.2	IRRIGATION DETAILS	•
I6.2.3	IRRIGATION DETAILS	•
I6.2.4	IRRIGATION DETAILS	•
8		
STRUCTURAL		
S0.01	GENERAL NOTES	•
S0.02	GENERAL NOTES	•
S0.03	GENERAL NOTES	•
S0.04	COLD-FORMED STEEL FRAMING GENERAL NOTES	•
S0.05	FLOOR VIBRATION AND LOADING CRITERIA	•
S0.06	AXIOMETRIC VIEWS	•
S2.01	LEVEL 1 FOUNDATION PLAN	•
S2.02	LEVEL 2 FRAMING PLAN	•
S2.02C	LEVEL 2 COLLECTOR REINFORCEMENT PLAN	•
S2.03	ROOF FRAMING PLAN	•
S2.03C	ROOF COLLECTOR REINFORCEMENT PLAN	•
S2.04	ROOF MECHANICAL SUPPORT FRAMING PLAN	•
S3.00	TYPICAL CONCRETE DETAILS	•
S3.01	TYPICAL CONCRETE DETAILS	•
S3.02	TYPICAL CONCRETE DETAILS	•
S3.03	CONCRETE DETAILS	•
S3.05	TYPICAL FOUNDATION DETAILS	•
S3.06	TYPICAL FOUNDATION DETAILS	•
S3.07	TYPICAL FOUNDATION DETAILS	•
S3.10	ELECTRICAL EQUIPMENT FOUNDATIONS	•
S4.01	MOMENT FRAME ELEVATIONS	•
S4.02	MOMENT FRAME ELEVATIONS	•
S4.10	SIDEPLATE GENERAL NOTES	•
S4.11	SIDEPLATE COLUMN DETAILS, A TYPE	•
S4.12	SIDEPLATE BEAM DETAILS	•
S4.13	SIDEPLATE FIELD ERECTION DETAILS	•
S4.14	SIDEPLATE MISCELLANEOUS DETAILS	•
S4.15	SIDEPLATE COORDINATION ITEMS	•
S4.16	SIDEPLATE CONSTRUCTION GUIDELINES	•
S4.17	SIDEPLATE CONSTRUCTION GUIDELINES	•
S5.00	TYPICAL STEEL DETAILS	•
S5.01	TYPICAL STEEL DETAILS	•
S5.02	STEEL DETAILS	•
S5.05	TYPICAL STEEL DECK DETAILS	•
S5.06	TYPICAL STEEL DECK DETAILS	•
S5.07	TYPICAL STEEL DECK DETAILS	•
S5.08	HANGER AND BRACE CONNECTIONS TO BARE METAL DECK	•
S5.10	GRAVITY COLUMN SCHEDULE	•
S5.12	COLLECTOR DETAILS	•
S5.13	MISCELLANEOUS STEEL DETAILS	•
S5.14	MISCELLANEOUS STEEL DETAILS	•
S5.21	ROOF MECHANICAL SCREEN SUPPORT FRAMING ELEVATIONS	•
S5.31	ENTRY CANOPY FRAMING DETAILS	•
S5.32	ENTRY CANOPY SECTIONS AND DETAILS	•
S5.33	ENTRY CANOPY SECTIONS AND DETAILS	•
S5.41	MOMENT FRAME DETAILS	•
S5.42	TYPICAL SCREEN WALL DETAILS	•
S5.50	CEILING MOUNTED EQUIPMENT PLAN	•
S5.51	LIGHT GRID SUPPORT FRAMING PLANS AND DETAILS	•
S5.52	CEILING MOUNTED EQUIPMENT ANCHORAGE DETAILS	•
S5.53	EXHAUST DUCT SUPPORT FRAMING	•
S5.54	MECHANICAL DOG-HOUSE SUPPORT FRAMING	•
S5.55	MECHANICAL DOG-HOUSE SUPPORT FRAMING	•
S7.01	STAIR 1 PARTIAL PLANS & SECTIONS	•
S7.02	STAIR 1 FRAMING DETAILS	•
S7.03	STAIR 1 FRAMING DETAILS	•
S7.11	STAIR 2 PARTIAL PLANS AND SECTIONS	•
S7.12	STAIR 2 FRAMING DETAILS	•
S7.21	STAIR 3 PARTIAL PLANS AND SECTIONS	•
S7.22	STAIR 3 FRAMING DETAILS	•
S7.31	TYPICAL STAIR DETAILS	•
S7.41	ELEVATOR PARTIAL PLANS AND SECTIONS	•
S7.42	ELEVATOR BASIS OF DESIGN	•
S7.43	ELEVATOR BASIS OF DESIGN	•
S9.01	TYPICAL INTERIOR PARTITION WALL ELEVATION AND SCHEDULES	•
S9.02	TYPICAL INTERIOR PARTITION WALL DETAILS	•
S9.03	TYPICAL INTERIOR PARTITION WALL DETAILS	•
S9.04	TYPICAL INTERIOR PARTITION WALL DETAILS	•
S9.05	TYPICAL INTERIOR PARTITION WALL DETAILS	•
S9.06	TYPICAL INTERIOR PARTITION WALL DETAILS	•
S9.07	MISCELLANEOUS INTERIOR PARTITION WALL DETAILS	•
S9.08	MISCELLANEOUS INTERIOR PARTITION WALL DETAILS	•
S9.20	TYPICAL EXTERIOR WALL ELEVATION AND SCHEDULES	•
S9.21	LEVEL 1 EXTERIOR WALL ELEVATION CALLOUT PLAN	•
S9.22	LEVEL 2 EXTERIOR WALL ELEVATION CALLOUT PLAN	•
S9.23	ROOF EXTERIOR WALL ELEVATION CALLOUT PLAN	•
S9.24	EXTERIOR BUILDING ELEVATIONS	•
S9.25	EXTERIOR BUILDING ELEVATIONS	•
S9.26	EXTERIOR BUILDING SECTIONS AND DETAILS	•
S9.27	EXTERIOR BUILDING SECTIONS AND DETAILS	•
S9.28	EXTERIOR FRAMING DETAILS	•
S9.29	EXTERIOR FRAMING DETAILS	•
S9.41	WING WALL ELEVATIONS AND DETAILS	•
S9.42	WING WALL ELEVATIONS AND DETAILS	•
S9.43	WING WALL ELEVATIONS AND DETAILS	•
S9.44	WING WALL DETAILS	•

INCREMENT 02 - VOL 1

SHEET NUMBER	SHEET NAME	PERMIT SET
86		
ARCHITECTURAL		
A0.0.1	ARCHITECTURAL ABBREVIATIONS AND SYMBOLS	•
A0.0.2	TYPICAL TOILET ROOM MOUNTING HEIGHTS AND STALL CONFIGURATION DIAGRAMS	•
A0.0.3	TYPICAL MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS	•
A0.0.4	TYPICAL RULES FOR DETERMINING MOUNTING HEIGHTS AND LOCATIONS	•
A0.0.5	TYPICAL REFLECTED CEILING PLAN LOCATIONS AND CONFIGURATIONS	•
A1.1.0	ARCHITECTURAL SITE PLAN	•
A1.1.1	ARCHITECTURAL SITE DETAILS	•
AD2.1.1	B1800 - LEVEL 1 DEMOLITION FLOOR PLAN	•
AD3.1.1	B1800 - LEVEL 1 DEMOLITION REFLECTED CEILING PLAN	•
A2.1.1	BUILDING 1500 - LEVEL 1 FLOOR PLAN	•
A2.1.2	BUILDING 1500 - LEVEL 2 FLOOR PLAN	•
A2.1.3	BUILDING 1500 - ROOF PLAN	•
A2.2.1	BUILDING 1800 - LEVEL 1 FLOOR PLAN	•
A2.2.2	BUILDING 1800 - LEVEL 2 FLOOR PLAN	•
AS2.1	BUILDING 1500 - LEVEL 1 SLAB EDGE PLAN	•
AS2.2	BUILDING 1500 - LEVEL 2 SLAB EDGE PLAN	•
AS2.3	BUILDING 1500 - ROOF SLAB EDGE PLAN	•
AS2.4	BUILDING 1800 - LEVEL 1 SLAB PLAN	•
A3.1.1	BUILDING 1500 - LEVEL 1 REFLECTED CEILING PLAN	•
A3.1.2	BUILDING 1500 - LEVEL 2 REFLECTED CEILING PLAN	•
A3.2.1	BUILDING 1800 - LEVEL 1 REFLECTED CEILING PLAN	•
A4.0	BUILDING 1500 - EXTERIOR PERSPECTIVES	•
A4.1.1	BUILDING 1500 - OVERALL EXTERIOR ELEVATIONS	•
A4.2.1	BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS NORTH	•
A4.2.2	BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS SOUTH	•
A4.2.3	BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS EAST	•
A4.2.4	BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS WEST	•
A4.2.5	BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS ROOF	•
A4.3.1	BUILDING 1500 - BUILDING SECTIONS	•
A4.3.2	BUILDING 1500 - BUILDING SECTIONS	•
A4.3.3	BUILDING 1500 - BUILDING SECTIONS	•
A4.3.4	BUILDING 1800 - BUILDING SECTIONS	•
A4.4.1	BUILDING 1500 - EXTERIOR WALL SECTIONS	•
A4.4.2	BUILDING 1500 - EXTERIOR WALL SECTIONS	•
A5.0.1	EXTERIOR WALL ASSEMBLIES	•
A5.0.2	EXTERIOR ROOF AND SOFFIT ASSEMBLIES	•
A5.1.1	BUILDING 1500 - WATERPROOFING DETAILS - BELOW & ABOVE GRADE	•
A5.1.2	BUILDING 1500 - EXTERIOR SECTION DETAILS	•
A5.1.3	BUILDING 1500 - EXTERIOR SECTION DETAILS	•
A5.1.4	BUILDING 1500 - EXTERIOR SECTION DETAILS	•
A5.1.5	BUILDING 1500 - EXTERIOR SECTION DETAILS	•
A5.1.6	BUILDING 1500 - EXTERIOR SECTION DETAILS	•
A5.2.1	BUILDING 1500 - EXTERIOR PLAN DETAILS	•
A5.2.2	BUILDING 1500 - EXTERIOR PLAN DETAILS	•
A5.2.3	BUILDING 1500 - EXTERIOR PLAN DETAILS	•
A5.2.4	BUILDING 1500 - EXTERIOR PLAN DETAILS	•
A5.4.1	BUILDING 1500 - ROOF DETAILS	•
A5.4.2	BUILDING 1500 - ROOF DETAILS	•
A5.4.3	BUILDING 1500 - ROOF DETAILS	•
A5.4.4	BUILDING 1500 - ROOF DETAILS	•
A5.5.1	BUILDING 1500 - EXTERIOR CURTAIN WALL ELEVATIONS	•
A5.5.2	BUILDING 1500 - EXTERIOR CURTAIN WALL ELEVATIONS	•
A5.7.1	BUILDING 1500 - MISC EXTERIOR DETAILS - WEST CANOPY	•
A5.7.2	BUILDING 1500 - MISC EXTERIOR DETAILS - EAST CANOPY	•
A5.7.3	BUILDING 1500 - MISC EXTERIOR DETAILS - VERTICAL SHADING STRUCTURES	•
A6.1.1	BUILDING 1500 - STAIR 1 PLANS AND SECTIONS	•
A6.1.2	BUILDING 1500 - STAIR 2 PLANS AND SECTIONS	•
A6.1.3	BUILDING 1500 - STAIR 3 PLANS AND SECTIONS	•
A6.1.4	BUILDING 1500 - TYPICAL STAIR 1 & 3 DETAILS	•
A6.1.5	BUILDING 1500 - STAIR 1 DETAILS	•
A6.1.6	BUILDING 1500 - STAIR 3 DETAILS	•
A6.1.7	BUILDING 1500 - STAIR 2 DETAILS	•
A6.1.8	BUILDING 1500 - STAIR 2 DETAILS	•
A6.2.1	BUILDING 1500 - ELEVATOR PLANS, ELEVATIONS AND SECTIONS	•
A6.2.2	BUILDING 1500 - ELEVATOR - BASIC ACCESSIBILITY REQUIREMENTS	•
A6.2.3	BUILDING 1500 - ELEVATOR DETAILS	•
A7.1.1	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - RESTROOMS	•
A7.1.2	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SINGLE OCC. RESTROOMS & LACTATION ROOM	•
A7.2.1	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - LOBBY	•
A7.2.2	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - MICROBIOLOGY & BIO WORKROOM	•
A7.2.3	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ANATOMY 15104	•
A7.2.4	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ANATOMY 15106	•
A7.2.5	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CADAVER	•
A7.2.6	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED LEARNING - ANATOMY	•
A7.2.7	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHYSIOLOGY	•
A7.2.8	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - BIO PREP	•
A7.2.9	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GRAPHIC DESIGN LAB	•
A7.2.10	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY COMP LAB	•
A7.2.11	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY MAIN LAB	•
A7.2.12	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY DARKROOM	•
A7.2.13	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY STUDIO & STORAGE	•
A7.2.14	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PAINTING STUDIO	•
A7.2.15	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - DRAWING STUDIO	•
A7.2.16	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INTRO CHEM 15212	•
A7.2.17	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INTRO CHEM 15216	•
A7.2.18	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ORG CHEM	•
A7.2.19	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CHEM LAB PREP	•
A7.2.20	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CHEM WASTE/STOR.	•
A7.2.21	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GEN CHEM 15211	•
A7.2.22	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GEN CHEM 15215	•
A7.2.23	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INSTRUMENT ROOM	•
A7.3.1	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - FACULTY SUITE	•
A7.3.2	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES L2	•
A7.3.3	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES	•
A7.3.4	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES	•
A7.3.5	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ALCOVED SOCIAL SPACES	•
A7.4.1	BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CUSTODIAL ROOM	•
A7.6.1	BUILDING 1800 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHYSICS LAB	•
A7.6.2	BUILDING 1800 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ENGINEERING ELECTRICAL	•
A7.6.3	BUILDING 1800 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ENGINEERING MATERIALS	•
A8.1.1	BUILDING 1500 - INTERIOR ELEVATIONS - LEVEL 1 COMMON CORRIDORS	•
A8.1.2	BUILDING 1500 - INTERIOR ELEVATIONS - LEVEL 2 COMMON CORRIDORS	•
A8.1.3	BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES	•
A8.1.4	BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES	•
A8.1.5	BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES	•
A8.2.1	BUILDING 1800 - INTERIOR ELEVATIONS	•
A9.1.0	INTERIOR FINISH SYSTEM DETAILS - FLOOR/WALL TRANSITIONS	•
A9.2.1	PARTITION SYSTEMS	•
A9.2.3	PARTITION SYSTEMS DETAILS - FRAMING	•
A9.2.4	PARTITION SYSTEMS DETAILS - HEAD & SILL	•
A9.2.5	PARTITION SYSTEMS DETAILS	•
A9.2.6	PARTITION SYSTEMS DETAILS - PENETRATION DETAILS	•
A9.2.10	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.11	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.12	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.13	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.14	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.15	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.16	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.2.17	FIRE RESISTANCE RATED ASSEMBLY DETAILS	•
A9.3.1	BUILDING 1500 - DOOR AND WINDOW SCHEDULE	•
A9.3.2	BUILDING 1800 - DOOR AND WINDOW SCHEDULE	•
A9.3.3	BUILDING 1500 - INTERIOR OPENING DETAILS	•
A9.4.1	CEILING DETAILS	•
A9.4.2	CEILING DETAILS	•
A9.4.3	CEILING DETAILS	•
A9.4.4	DSA IR 25-2 CEILING DETAILS AND NOTES	•
A9.4.5	DSA IR 25-2 CEILING DETAILS AND NOTES	•
A9.4.6	DSA IR 25-2 & 25-3 CEILING DETAILS AND NOTES	•
A9.4.7	TYPICAL CEILING DETAILS	•
A9.4.8	TYPICAL CEILING DETAILS	•
A9.5.1	MISCELLANEOUS INTERIOR DETAILS	•
A9.5.2	MISCELLANEOUS INTERIOR DETAILS	•
A9.5.3	MISCELLANEOUS INTERIOR DETAILS	•
A9.5.4	BUILDING 1800 - MISCELLANEOUS DETAILS	•
A9.6.1	WOODWORK DETAILS	•
A9.6.2	WOODWORK DETAILS	•
AI1.1	BUILDING 1500 - FINISH SCHEDULE	•
AI2.1.1	BUILDING 1500 - LEVEL 1 FINISH PLAN	•

INCREMENT 02 - VOL 1

SHEET NUMBER	SHEET NAME	PERMIT SET
AI2.1.2	BUILDING 1500 - LEVEL 2 FINISH PLAN	•
AI2.2	BUILDING 1800 - LEVEL 1 FINISH PLAN	•
AG2.1	BUILDING 1500 - LEVEL 1 AND 2 SIGNAGE PLANS	•
AG2.2	BUILDING 1800 - LEVEL 1 SIGNAGE PLAN AND SCHEDULE	•
AG3.1	BUILDING 1500 - SIGNAGE SCHEDULE	•
AG4.1	SIGNAGE TYPES	•
AG4.2	SIGNAGE DETAILS	•
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LAB PLANNING		
Q0.1.1	BUILDING 1500 -GENERAL INFORMATION	•
Q0.1.2	BUILDING 1500 -CASEWORK LEGEND	•
Q1.1.1	BUILDING 1500 -CASEWORK SCHEDULES	•
Q1.1.2	BUILDING 1500 -EQUIPMENT SCHEDULES	•
Q2.1.1	BUILDING 1500 -LEVEL 1 LAB FLOOR PLAN	•
Q2.1.2	BUILDING 1500 -LEVEL 2 LAB FLOOR PLAN	•
Q7.1.1	BUILDING 1500 -ENLARGED FLOOR PLAN -LEVEL 1 AREA 1	•
Q7.1.2	BUILDING 1500 -ENLARGED FLOOR PLAN -LEVEL 1 AREA 2	•
Q7.1.3	BUILDING 1500 -ENLARGED FLOOR PLAN -LEVEL 2 AREA 1	•
Q7.1.4	BUILDING 1500 -ENLARGED FLOOR PLAN -LEVEL 2 AREA 2	•
Q7.1.5	BUILDING 1500 -ENLARGED FLOOR PLAN -LEVEL 2 AREA 3	•
Q8.1.1	BUILDING 1500 - UNIQUE LAB ELEVATIONS	•
Q9.1.1	BUILDING 1500 - LAB CASEWORK DETAILS	•
Q9.1.2	BUILDING 1500 - LAB CASEWORK DETAILS	•
Q9.1.3	BUILDING 1500 - STUDENT ISLAND BENCH DETAILS	•
Q9.1.4	BUILDING 1500 - LAB BENCH & EQUIPMENT MOUNTING DETAILS	•
Q9.1.5	BUILDING 1500 - PHOTO PROCESSING SINK DETAILS	•
Q9.1.6	BUILDING 1500 - PHOTOGRAPHY & ARTS DETAILS	•
Q9.1.7	BUILDING 1500 - EXHAUST & FUME HOOD DETAILS	•
Q0.2.1	BUILDING 1800 -GENERAL INFORMATION & CASEWORK LEGEND	•
Q1.2.1	BUILDING 1800 -CASEWORK & EQUIPMENT SCHEDULES	•
Q2.2.1	BUILDING 1800 -LEVEL 1 LAB FLOOR PLAN	•
Q7.2.1	BUILDING 1800 -ENLARGED FLOOR PLAN -LEVEL 1 AREA 1	•
Q7.2.2	BUILDING 1800 -ENLARGED FLOOR PLAN -LEVEL 1 AREA 2	•
Q9.2.1	BUILDING 1800 -LAB CASEWORK DETAILS	•
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TOTAL SHEET COUNT: 304

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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ISSUED FOR	REV NO.	DATE

1. PROJECT SUMMARY

REFER TO COVER PAGE FOR PROJECT SCOPE OF WORK.

2. CODES & STANDARDS

THE FOLLOWING IS A PARTIAL SUMMARY OF APPLICABLE CODES AND STANDARDS FOR THIS PROJECT.
ALL WORK SHALL CONFORM TO 2022 TITLE 24 CALIFORNIA CODE OF REGULATIONS (CCR)

CALIFORNIA BUILDING STANDARDS CODE (C.C.R., TITLE 24), 2022 ED.
- CALIFORNIA BUILDING CODE *(CBC)*
- CALIFORNIA ELECTRICAL CODE *(CEC)*
- CALIFORNIA ENERGY CODE *(CEC)*
- CALIFORNIA FIRE CODE *(CFC)*
- CALIFORNIA GREEN BUILDING STANDARDS CODE *(CGBSC)*
- CALIFORNIA MECHANICAL CODE *(CMC)*
- CALIFORNIA PLUMBING CODE *(CPC)*

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- *NFPA 10-2018,* STD. FOR PORTABLE FIRE EXTINGUISHERS
- *NFPA 13-2022,* STD. FOR THE INSTALLATION OF SPRINKLER SYS.
- *NFPA 24-2022,* STD. FOR INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
- *NFPA 70-2020,* NATIONAL ELECTRICAL CODE
- *NFPA 72-2022,* NATIONAL FIRE ALARM AND SIGNALING CODE
- *NFPA 80-2019,* STD. FOR FIRE DOORS
- *NFPA 105-2019,* STD. FOR SMOKE DOOR ASSEMBLIES AND OTHER OPENING PROTECTIVES
- *NFPA 110-2019,* STD. FOR EMERGENCY AND POWER SYSTEMS
- *NFPA 111-2019,* STD. ON STORED ELECTRICAL ENERGY EMERGENCY AND STANDBY POWER SYSTEMS

ACCESSIBILITY GUIDELINES
- *ASADG-2010,* US DOJ ADA STANDARDS FOR ACCESSIBLE DESIGN
- *ANSI A117.1-2016,* ACCESSIBLE AND USABLE BLDGS AND FACILITIES
- *CBC CHAPTER 11B*

ADDITIONAL GUIDELINES
- *ASME/A17.1-2019,* SAFETY CODE FOR ELEVATORS & ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS CONT.
- ASHRAE STANDARD 110 METHOD OF TESTING PERFORMANCE OF LABORATORY FUME HOODS.
- ASHRAE 189.1 – STANDARD FOR THE DESIGN OF HIGH-PERFORMANCE BUILDINGS
- SMACNA – FIRE AND SMOKE DAMPER INSTALLATION GUIDE.
- SMACNA – GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS
- SMACNA – STANDARDS FOR DUCT CONSTRUCTION.
- ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA.
- AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- ANSI Z9.5 AMERICAN NATIONAL STANDARD FOR LABORATORY VENTILATION.
- AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) INDUSTRIAL VENTILATION.
- AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI).
- AIR DIFFUSION COUNCIL (ADC).
- AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA).
- AMERICAN GAS ASSOCIATION (AGA).
- AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 110 – METHODS OF TESTING PERFORMANCE OF LABORATORY FUME HOODS
- Z9.5 – LABORATORY VENTILATION
- AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- AMERICAN WATER WORKS ASSOCIATION (AWWA).
- ASSOCIATED AIR BALANCE COUNCIL (AABC).
- MANUFACTURERS STANDARDIZATION SOCIETY OF VALVE AND FITTING INDUSTRY (MSS).
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME).
- ANSI/SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- UNDERWRITERS' LABORATORIES (UL)
- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
- INSULATED CABLE ENGINEERS ASSOCIATION (ICEA)
- ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)

3. OCCUPANCY CLASS.

(CBC CHAPTER 3 & SECTION 508)

NEW STEAM BUILDING:
BUILDING HAS THE FOLLOWING OCCUPANCIES: PRIMARY OCCUPANCY USE TO BE GROUP B WITH MIXED USE GROUP A-3, AND S-2
A-3 OCCUPANCY (2022 CBC 303.4)
- CLASSROOMS (WITH MORE THAN 50 OCCUPANTS)
- LOBBY/COLLABORATIVE SPACES (WITH MORE THAN 50 OCCUPANTS)

B OCCUPANCY (2022 CBC 304)
- SHARED FACULTY OFFICES
- EDUCATIONAL LABORATORIES (WITH LESS THAN 50 OCCUPANTS)
- CLASSROOMS (WITH LESS THAN 50 OCCUPANTS).
- CONFERENCE ROOMS / BREAK ROOMS (WITH LESS THAN 50 OCCUPANTS)
- PREP ROOMS / RECEIVING AREA
- STORAGE (LESS THAN 100 SF)

S-2 OCCUPANCY (2022 CBC 311)
- MECHANICAL AND ELECTRICAL ROOMS
- STORAGE (LARGER THAN 100 SF)

B1800 ALTERATIONS:
EXISTING BUILDING HAS THE FOLLOWING OCCUPANCIES WITH THE OCCUPANCY USE OF B PER THE RECORD DOCUMENTS:
- ENGINEERING AND PHYSICS CLASSROOMS
- CLASSROOM SUPPORT SPACES
- OFFICES
- GENERAL CLASSROOMS
- STUDENT STUDY SPACES

11. ELEVATORS

(CBC CHAPTER 30)

AMBULANCE STRETCHER REQUIREMENTS *(CBC 3002.4)*
DESIGN INCLUDES AT LEAST ONE ELEVATOR CAR SERVING ALL FLOORS THAT IS SIZED FOR AN AMBULANCE STRETCHER.

DESIGN INCLUDES ENOUGH ROOM IN THE ELEVATOR TO ACCOMODATE ONE AMBULANCE STRETCHER OF NOT LESS THAN 24 INCHES BY 84 INCHES WITH 5-INCH RADIUS CORNERS IN THE HORIZONTAL, OPEN POSITION. REFER TO CODE-REQUIRED SIGNAGE SECTION FOR ELEVATOR MARKINGS.

HOISTWAY VENTING *(CBC 3003.4)*
DESIGN INCLUDES EMERGENCY HOISTWAY VENTING, ACTIVATED BY SMOKE DETECTION AND MANUAL CONTROL. AT THE TOP OF THE SHAFT OF ELEVATOR HOISTWAYS THAT CONTAIN THE DRIVING MACHINE (MACHINE ROOM-LESS ELEVATORS). DESIGN INCLUDES STANDBY POWER FOR THE HOISTWAY VENTILATION SYSTEM.

MACHINE/CONTROL ROOMS *(CBC 3005)*
ELEVATOR MACHINE/CONTROL ROOMS ARE NOT OPEN TO ELEVATOR HOISTWAYS, THEREFORE PRESSURIZATION OF ELEVATOR MACHINE/CONTROL ROOMS IS NOT REQUIRED OR PROVIDED IN THE DESIGN.

REFER TO THE FIRE-RESISTANCE RATING REQUIREMENTS SECTION FOR MINIMUM MACHINE/CONTROL ROOM RATINGS.

ELEVATOR LOBBIES/HOISTWAY OPENING PROTECTION *(CBC 3006)*
DESIGN INCLUDES SUPPLEMENTAL HOISTWAY OPENING PROTECTION FOR ALL ELEVATOR HOISTWAYS THAT CONNECT MORE THAN THREE STORIES, PER *CBC 3006.2.* HOISTWAY OPENING PROTECTION IS NOT REQUIRED ON LEVELS OF EXIT DISCHARGE PER *CBC 3006.2, EXCEPTION 2.*

DESIGN PROVIDES REQUIRED SUPPLEMENTAL HOISTWAY OPENING PROTECTION VIA ELEVATOR LOBBIES PROTECTED BY SMOKE PARTITIONS, AS ALLOWED FOR FULLY-SPRINKLERED BUILDINGS BY *CBC 3006.3, ITEM 2.*

10. MEANS OF EGRESS

BUILDING OCCUPANT LOAD *(CBC 1004)*
THE LIFE SAFETY OCCUPANT LOAD IS CALCULATED BY DETERMINING THE INDIVIDUAL FUNCTIONS OF SPACE FOR EACH ROOM OR AREA PER *CBC TABLE 1004.5.*

REFER TO OCCUPANT LOAD TABLES FOR THE DESIGN-BASIS OCCUPANT LOAD. ASSIGNED FUNCTIONS OF SPACE ARE INDICATED ON THE LIFE SAFETY PLANS.

NUMBER OF MEANS OF EGRESS *(CBC 1006)*
DESIGN INCLUDES TWO MEANS OF EGRESS FOR ALL STORIES AND ALL AREAS WITH OCCUPANT LOADS OR COMMON PATHS OF TRAVEL IN EXCESS OF THOSE NOTED IN *CBC TABLE 1006.2.1,* UNLESS NOTED OTHERWISE.

REFER TO LIFE SAFETY DRAWINGS FOR EXIT DETAILS.

ACCESSIBLE MEANS OF EGRESS *(CBC 1009)*
DESIGN INCLUDES AT LEAST ONE ACCESSIBLE MEANS OF EGRESS FROM EVERY ACCESSIBLE SPACE, AS REQUIRED BY *CBC 1009.1.* DESIGN INCLUDES AT LEAST TWO ACCESSIBLE MEANS OF EGRESS FROM EVERY ACCESSIBLE SPACE THAT REQUIRES TWO OR MORE MEANS OF EGRESS.

DESIGN INCLUDES ACCESSIBLE MEANS OF EGRESS VIA INTERIOR EXIT STAIRWAYS COMPLYING WITH *CBC 1009.3* AND TWO-WAY COMMUNICATIONS SYSTEMS COMPLYING WITH *CBC 1009.8.*

INTERIOR EXIT STAIRWAY NOT ACCESSIBLE EGRESS *(CBC 1009.3):* NO AREA OF REFUGE REQUIRED OR PROVIDED SINCE THE BUILDING IS FULLY-SPRINKLERED *(CBC 1009.3.3, EXCEPTION 2).* MINIMUM WIDTH OF STAIRS IS AS REQUIRED BY OTHER SECTIONS OF THE CODE *(CBC 1009.3.2, EXCEPTION 1).*

TWO-WAY COMMUNICATIONS SYSTEM FOR RESCUE ASSISTANCE *(CBC 1009.8):* TWO-WAY COMMUNICATION SYSTEM PHONES ARE NOT REQUIRED OR PROVIDED AT THE LEVEL OF EXIT DISCHARGE, IN ACCORDANCE WITH *CBC 1009.8.*

AREA OF REFUGE *(CBC 1009.6):* PER *CBC 1009.3.3, EXCEPTION 2* AND *CBC 1009.4.2, EXCEPTION 2,* AREAS OF REFUGE ARE NOT REQUIRED SINCE THE BUILDING IS FULLY SPRINKLERED.

SEPARATION OF EXITS & MEANS OF EGRESS *(CBC 1007)*
DESIGN INCLUDES EXITS THAT ARE SEPARATED BY A MINIMUM OF ONE-THIRD THE OVERALL LENGTH OF THE MAXIMUM DIAGONAL OF THE SPACE SERVED, IN ACCORDANCE WITH *CBC 1007.1.1, EXCEPTION 2,* FOR FULLY-SPRINKLERED BUILDINGS.

WHERE TWO MEANS OF EGRESS ARE REQUIRED FROM A SPACE, SEPARATION FOR THE MEANS OF EGRESS FROM THE SPACE IS INCORPORATED INTO THE DESIGN AS NOTED ABOVE FOR EXITS.

EXIT AND EGRESS SEPARATION ARE MEASURED PER *CBC 1007.1.1.1* AS NOTED BELOW:
- EXIT/EXIT ACCESS DOORS: ANY POINT ALONG THE WIDTH OF THE DOOR.
- EXIT ACCESS STAIRWAYS: THE CLOSEST RISER.

COMMON PATH OF TRAVEL, EXIT ACCESS TRAVEL DISTANCE, AND DEAD ENDS *(CBC 1006, 1017, AND 1020)*
DESIGN INCORPORATES THE FOLLOWING COMMON PATH OF TRAVEL, EXIT ACCESS TRAVEL DISTANCE, AND DEAD END LENGTH LIMITS *(CBC TABLE 1006.2.1 and 1017.2):*

OCC.	COMMON PATH	EXIT ACCESS[1]	DEAD END[2]
A-3	75 FT	250 FT	20 FT
B	100 FT	300 FT	50 FT
S-2	100 FT	400 FT	50 FT

[1] *EXIT ACCESS IS MEASURED TO THE NEAREST EXIT ALONG THE NATURAL PATH OF TRAVEL.*
[2] *DEAD END LENGTHS ARE NOT LIMITED WHERE THE LENGTH OF THE DEAD-END IS LESS THAN 2.5 TIMES THE LEAST WIDTH OF THE DEAD-END CORRIDOR (CBC 1020.4, EXCEPTION 3).*

EXIT DISCHARGE *(CBC 1028)*
ALL EXIT STAIRS DISCHARGE DIRECTLY TO THE EXTERIOR.

ILLUMINATION OF MEANS OF EGRESS *(CBC 1008)*
MINIMUM ILLUMINATION LEVEL (NORMAL POWER): 1 FOOTCANDLE (11 LUX)
MINIMUM ILLUMINATION LEVEL (EMERGENCY POWER): 0.1 FOOTCANDLE (1 LUX)
MAXIMUM MIN-MAX ILLUMINATION RATIO (EMERGENCY POWER): 40:1
MINIMUM DURATION OF EMERGENCY LIGHTING POWER: 90 MINUTES

DESIGN INCLUDES ILLUMINATION OF THE MEANS OF EGRESS, INCLUDING PATH OF TRAVEL TO THE PUBLIC WAY FROM THE EXIT DISCHARGE IN ACCORDANCE WITH *CBC 1008.*

REFER TO ELECTRICAL DRAWINGS FOR MEANS OF EGRESS AND EMERGENCY LIGHTING DETAILS.

EXIT SIGNS *(CBC 1013)*
DESIGN INCLUDES EXIT SIGNS FOR EXIT DOORS AND EXIT ACCESS DOORS. DESIGN INCLUDES ADDITIONAL EXIT SIGNS SUCH THAT NO POINT IN THE MEANS OF EGRESS IS MORE THAN 100 FEET FROM THE NEAREST VISIBLE EXIT SIGN. ROOMS OR AREAS THAT ONLY REQUIRE ONE MEANS OF EGRESS DO NOT REQUIRE EXIT SIGNS, PER *CBC 1013.1, EXCEPTION 1.*

REFER TO ELECTRICAL-SERIES DRAWINGS FOR INTERNALLY-ILLUMINATED EXIT SIGN LOCATIONS.

EGRESS CAPACITY *(CBC 1005)*
DESIGN INCLUDES COMPONENTS SIZED TO ACCOMMODATE THE REQUIRED OCCUPANT LOAD OR THE MINIMUM WIDTH REQUIRED FOR THE COMPONENT, WHICHEVER IS GREATER.

IN ALL AREAS REQUIRING AT LEAST TWO EXITS OR ACCESS TO AT LEAST TWO EXITS, THE CAPACITY OF EXITS AND MEANS OF EGRESS ARE DISTRIBUTED SO THAT THE LOSS OF ANY SINGLE EXIT OR MEANS OF EGRESS WILL NOT REDUCE THE AVAILABLE CAPACITY TO LESS THAN 50 PERCENT OF THE REQUIRED CAPACITY, PER *CBC 1005.5.*

CAPACITY IS BASED ON THE FOLLOWING FACTORS:
- STAIRWAYS: 0.2 INCHES PER OCCUPANT (PER CBC 1005.3.1 EXCEPTION 1)
- OTHER COMPONENTS: 0.15 INCHES PER OCCUPANT (PER CBC 1005.3.2 EXCEPTION 1)

REFER TO LIFE SAFETY PLANS FOR REQUIRED AND PROVIDED EGRESS CAPACITY AT EACH EXIT.

CORRIDORS *(CBC 1020)*
DESIGN INCLUDES CLEAR EGRESS CORRIDOR WIDTHS SIZED FOR THE OCCUPANT LOAD SERVED OR THE FOLLOWING, WHICHEVER IS GREATER.

MIN. WIDTH	CORRIDOR TYPE
24 INCHES	ACCESS TO MECHANICAL, PLUMBING, OR ELECTRICAL EQUIPMENT
36 INCHES	SERVING AN OCCUPANT LOAD OF LESS THAN 50
44 INCHES	ALL OTHER CORRIDORS

CORRIDORS ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SINCE THE BUILDING IS FULLY-SPRINKLERED AND DOES NOT CONTAIN GROUP H OR GROUP R OCCUPANCIES.

CORRIDORS WITHOUT CEILINGS AND CORRIDOR VOLUME BELOW CEILINGS ARE NOT DESIGNED TO SERVE AS SUPPLY, RETURN, EXHAUST, RELIEF OR VENTILATION AIR DUCTS, PER *CBC 1020.6.*

DESIGN INCLUDES CORRIDOR CEILING PLENUMS THAT SERVE AS RETURN-AIR PLENUMS, AS ALLOWED BY *CBC 1020.6.1, CONDITION 1.* THIS IS LIMITED TO CORRIDORS THAT ARE NOT REQUIRED TO BE FIRE-RATED, PER *CBC 1020.6.1, CONDITION 1.* REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR RETURN-AIR CONFIGURATION AND DETAILS.

REFER TO THE COMMON PATH, EXIT ACCESS, AND DEAD-END PORTION OF THIS CODE SUMMARY FOR DEAD-END LIMITS. REFER TO ARCHITECTURAL DRAWINGS FOR CORRIDOR WIDTHS.

DOORS *(CBC 1010)*
FOR PIVOT AND SIDE-HINGED SWINGING DOORS:
- MINIMUM CLEAR WIDTH: 32 INCHES
- MAXIMUM LEAF WIDTH: 48 INCHES
- MINIMUM HEADROOM: 80 INCHES

DESIGN INCLUDES PIVOT OR SIDE-HINGED SWINGING DOORS IN THE MEANS OF EGRESS EXCEPT:
- WHERE SERVING AREAS WITH LESS THAN 10 OCCUPANTS. *(CBC 1010.1.2, EXCEPTION 9)*

REFER TO THE FIRE-RESISTANCE RATED CONSTRUCTION PORTION OF THIS CODE SUMMARY FOR DOOR FIRE-RATING REQUIREMENTS. REFER TO ARCHITECTURAL SERIES DRAWINGS FOR DOOR AND HARDWARE DETAILS. REFER TO LIFE SAFETY DRAWINGS FOR MINIMUM WIDTHS OF SELECT EGRESS DOORS BASED ON ASSIGNED EGRESS LOAD.

STAIRWAYS *(CBC 1011, 1019, AND 1023)*
MINIMUM WIDTH (> 50 OCCUPANTS): 44 INCHES
MINIMUM WIDTH (< 50 OCCUPANTS): 36 INCHES *(CBC 1011.2, EXCEPTION 1)*
MINIMUM HEADROOM: 80 INCHES
MINIMUM LANDING DEPTH: 48 INCHES
MINIMUM LANDING WIDTH: EQUAL TO ACTUAL STAIR WIDTH
MAXIMUM VERTICAL HEIGHT BETWEEN LANDINGS: 12 FEET
MAXIMUM RISER HEIGHT: 7 INCHES
MINIMUM TREAD DEPTH: 11 INCHES

REFER TO LIFE SAFETY DRAWINGS FOR REQUIRED STAIR WIDTHS BASED ON OCCUPANT LOADS. REFER TO ARCHITECTURAL SERIES DRAWINGS FOR STAIR DETAILS. DESIGN DOES NOT USE STAIRS OR STEPS FOR CHANGES OF ELEVATION LESS THAN 12 INCHES, PER *CBC 1003.5.*

ROOF ACCESS
ROOF ACCESS IS PROVIDED VIA A ROOF HATCH IN CUSTODIAN ROOM 15283 PER 1011.12.2.

SLOPED WALKWAY *(CBC 1012)*
MAXIMUM SLOPE: 1 IN 20

DESIGN INCLUDES SLOPED WALKWAYS. WHEN THE SLOPE EXCEEDS 1:20 (5 PERCENT), A RAMP IS REQUIRED AND PROVIDED. FOR SLOPES LESS THAN 1:20, THE SURFACE IS TREATED AS A LEVEL SURFACE AND NO HANDRAILS ARE REQUIRED OR PROVIDED PER *CBC 1012.*

RAMPS *(CBC 1012)*
MAXIMUM SLOPE: 1 IN 12
MAXIMUM VERTICAL RISE: 30 INCHES
MINIMUM WIDTH: 44 INCHES
MIN. WIDTH BETWEEN HANDRAILS: 36 INCHES WHEN PART OF AN ACCESSIBLE ROUTE *(CBC 1014.8)*
MINIMUM HEADROOM: 80 INCHES
MINIMUM LANDING LENGTH: 60 INCHES

DESIGN INCLUDES RAMPS AT ALL SLOPES THAT EXCEED 1:20 (5 PERCENT). DESIGN INCLUDES HANDRAILS FOR RAMPS AS REQUIRED BY *CBC 1012.* REFER TO THE ASSEMBLY AISLES SECTION OF THIS CODE SUMMARY FOR REQUIREMENTS RELATED TO RAMPS IN ASSEMBLY SEATING. REFER TO ARCHITECTURAL DRAWINGS FOR RAMP DETAILS.

HANDRAILS *(CBC 1014)* **AND GUARDS** *(CBC 1015)*
HANDRAIL HEIGHT: 34 TO 38 INCHES AFF
HANDRAIL EXTENSION: 12 INCHES BEYOND TOP AND BOTTOM, UNLESS CONTINUOUS
HANDRAIL RETURN: TO WALL, FLOOR, OR GUARD
HANDRAIL DIAMETER (CIRCULAR): 1 ¼ TO 2 INCH CIRCULAR CROSS-SECTION
HANDRAIL PERIMETER (NON-CIRC.): 4 TO 6 ¼ INCH PERIMETER WITH 1-INCH MINIMUM CROSS-SECTION
HANDRAIL CLEARANCE TO WALL: 2 ¼ INCHES

GUARD HEIGHT: 42 INCHES
GUARD MAXIMUM OPENING: 4-INCH SPHERE
GUARD MAXIMUM OPENING (ELECTRICAL, MECHANICAL, PLUMBING ACCESS): 21-INCH SPHERE

DESIGN INCLUDES HANDRAILS FOR ALL EXIT ACCESS, EXIT AND EXIT DISCHARGE STAIRWAYS AND RAMPS *(CBC 1014.1).*

DESIGN INCLUDES GUARDS AT ALL WALKING SURFACES WITH A VERTICAL DROP OF 30 INCHES WITHIN 36 HORIZONTAL INCHES OF THE WALKING SURFACE *(CBC 1015.2).*

AISLES *(CBC 1018 & 1030)*
DESIGN INCLUDES AISLES AND AISLE ACCESSWAYS IN ALL OCCUPIED AREAS WITH SEATS, FURNITURE, AND OTHER EQUIVALENT COMPONENTS.

NON-ASSEMBLY AISLE WIDTH:
DESIGN INCLUDES MINIMUM AISLE WIDTHS THAT ARE NOT LESS THAN REQUIRED FOR CORRIDORS, AS REQUIRED BY *CBC 1018.3 & 1018.5.* MINIMUM AISLE WIDTH MAY BE REDUCED TO 28 INCHES FOR AN AISLE THAT IS:
- NON-PUBLIC.
- SERVING AN OCCUPANT LOAD LESS THAN 50.
- NOT REQUIRED TO BE ACCESSIBLE BY *CBC CHAPTER 11B.*

REFER TO ARCHITECTURAL SERIES DRAWINGS FOR AISLE WIDTHS.

ASSEMBLY AISLE MINIMUM WIDTH *(CBC 1030.9.1)*

LEVEL/RAMPED AISLES (SEATING ON BOTH SIDES)	42 INCHES
LEVEL/RAMPED AISLES (SEATING ON ONE SIDE)	36 INCHES

HANDRAILS MAY PROJECT INTO THE REQUIRED WIDTH OF STEPPED AND RAMPED AISLES IN ACCORDANCE WITH *CBC 1014.8.*

ASSEMBLY AISLE CAPACITY FACTORS *(CBC 1030.6.1 & 1030.13.1.1)*

LEVEL AISLES	0.20 INCHES PER OCCUPANT

EVALUATION OF CAPACITY UTILIZED IN THIS DESIGN ASSUMES BALANCED USE OF AVAILABLE MEANS OF EGRESS, PER *CBC 1030.9.2.* WHERE EGRESS TRAVEL IS POSSIBLE IN TWO DIRECTIONS, AISLES ARE UNIFORM IN WIDTH OR REQUIRED CAPACITY, PER *CBC 1030.9.4.*

ASSEMBLY AISLE ACCESSWAY WIDTH AND CAPACITY
MINIMUM WIDTH, SEATING AT TABLES: 12 INCHES + 0.5 INCHES PER 1 FOOT OF ACCESSWAY >12 FEET
MINIMUM WIDTH, SEATING IN ROWS, DUAL-ACCESS: 12 INCHES + 0.3 INCHES PER SEAT >14 SEATS
MINIMUM WIDTH, SEATING IN ROWS, SINGLE-ACCESS: 12 INCHES + 0.6 INCHES PER SEAT >7 SEATS
MAXIMUM WIDTH, SEATING IN ROWS: 22 INCHES

DESIGN INCLUDES AISLE ACCESSWAYS AT FOR SEATING AT TABLES AND SEATING IN ROWS WITH MINIMUM WIDTHS THAT MEET OR EXCEED THE VALUES ABOVE. AISLE ACCESSWAYS FOR SEATING AT TABLES ALSO MEET THE REQUIREMENTS OF *CBC 1005.1* BASED ON THE OCCUPANT LOAD SERVED.

MINIMUM WIDTH FOR SEATING AT TABLES DOES NOT APPLY TO AISLE ACCESSWAYS LESS THAN 6 FEET IN LENGTH AND SERVE NO MORE THAN FOUR OCCUPANTS, PER THE EXCEPTION TO *CBC 1030.13.1.1.*

ASSEMBLY AISLE AND AISLE ACCESSWAY CLEAR WIDTH MEASUREMENT
CLEAR WIDTH IS MEASURED TO WALLS, SEATING EDGES, AND TREAD EDGES, PER *CBC 1030.9.6.*

CLEAR WIDTHS FOR SEATING AT TABLES AND COUNTERS WITHOUT FIXED SEATS ARE MEASURED FROM A LINE 19 INCHES AWAY FROM AND PARALLEL TO THE TABLE/COUNTER, PER *CBC 1030.13.1.*

CLEAR WIDTH FOR TABLES AND COUNTERS WITH FIXED SEATS ARE MEASURED FROM THE BACK OF THE SEAT, PER *CBC 1030.13.1.1.*

CLEAR WIDTH FOR ROWS OF SEATS ARE MEASURED FROM THE BACK OF ONE ROW TO THE NEAREST PROJECTION OF THE NEXT, PER *CBC 1030.13.2.* MEASUREMENTS FOR SELF-RISING SEATS ARE TAKEN WITH THE SEATS IN THE UPRIGHT POSITION.

ASSEMBLY AISLE TRAVEL DISTANCE
REFER TO THE EXIT ACCESS TRAVEL DISTANCE SECTION OF THIS CODE SUMMARY FOR MAXIMUM TRAVEL DISTANCE LIMITS. TRAVEL IS NOT MEASURED OVER OR ON SEATS, PER *CBC 1030.7.*

ASSEMBLY AISLE COMMON PATH OF TRAVEL
MAXIMUM ASSEMBLY AISLE ACCESSWAY COMMON PATH OF TRAVEL: 30 FEET
MAXIMUM ASSEMBLY AISLE COMMON PATH OF TRAVEL, ≥ 50 OCCUPANTS: 30 FEET
MAXIMUM ASSEMBLY AISLE COMMON PATH OF TRAVEL, < 50 OCCUPANTS: 75 FEET

DESIGN LIMITS COMMON PATH OF TRAVEL TO THE LIMITS ABOVE, PER *CBC 1030.8* AND *1030.13.1.2.*

WHERE A PATH OF TRAVEL REQUIRES TRAVEL FROM AN AISLE THROUGH A ROW OF SEATS TO ANOTHER AISLE, THE NUMBER OF SEATS DOES NOT EXCEED 24. MINIMUM CLEAR WIDTH FOR SUCH ROWS IS 12 INCHES PLUS 0.6 INCHES FOR EVERY SEAT ABOVE SEVEN IN THE ROW OF SEATING BETWEEN THE AISLES.

ASSEMBLY AISLE DEAD ENDS
DESIGN LIMITS DEAD END AISLES TO 20 FEET OR 16 ROWS, PER *CBC 1030.9.5, EXCEPTIONS 1 AND 2.* DEAD-ENDS MAY EXCEED 16 ROWS WHEN SEATS BEYOND THE 16TH ROW HAVE ACCESS TO ANOTHER AISLE WITHIN 24 SEATS, PER *CBC 1030.9.5, EXCEPTION 2.* MINIMUM CLEAR WIDTH FOR SUCH ACCESS IS 12 INCHES PLUS 0.6 INCHES FOR EVERY SEAT ABOVE SEVEN IN THE ROW OF SEATING BETWEEN AISLES.

12. CODE-REQUIRED SIGNAGE

REFER TO ARCHITECTURAL AND SIGNAGE DRAWINGS FOR DETAILS OF THE CODE-REQUIRED SIGNAGE INDICATED BELOW.

POSTING OF OCCUPANT LOAD
DESIGN INCLUDES MAXIMUM OCCUPANT LOAD SIGNS FOR ASSEMBLY ROOMS AND SPACES, PER *CBC 1004.9.*
ACCESSIBLE SIGNAGE
DESIGN INCLUDES RAISED CHARACTERS THAT COMPLY WITH CBC 11B-703.2, BRAILLE THAT COMPLIES WITH 11B-703.3, AND VISUAL CHARACTERS THAT COMPLY WITH CBC 11B-703.5, FOR THE FOLLOWING CODE-REQUIRED SIGNAGE TYPES:
- TACTILE EXIT SIGNAGE
- TWO-WAY COMMUNICATION SIGNAGE
- DIRECTIONAL SIGNAGE
- STAIRWAY IDENTIFICATION SIGNAGE
- ELEVATOR SIGNAGE

TACTILE EXIT SIGNAGE
DESIGN INCLUDES TACTILE EXIT SIGNS AT THESE LOCATIONS:
- EACH GRADE-LEVEL EXTERIOR EXIT DOOR.
  MARKING: EXIT
- EACH EXIT DOOR LEADING DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY A STAIRWAY.
  MARKING: EXIT STAIR (RAMP) DOWN
- EACH EXIT DOOR LEADING DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT VIA AN EXIT ENCLOSURE OR PASSAGEWAY.
  MARKING: EXIT ROUTE
- EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT REQUIRES AN EXIT SIGN IN ACCORDANCE WITH *CBC 1013.1.*
  MARKING: EXIT ROUTE

TWO-WAY COMMUNICATION SIGNAGE
DESIGN INCLUDES DIRECTIONS FOR THE USE OF THE TWO-WAY COMMUNICATION SYSTEM, INSTRUCTIONS FOR SUMMONING ASSISTANCE VIA THE TWO-WAY COMMUNICATION SYSTEM, AND WRITTEN IDENTIFICATION OF THE LOCATION POSTED ADJACENT TO THE TWO-WAY COMMUNICATION SYSTEM.
DIRECTIONAL SIGNAGE
DESIGN INCLUDES DIRECTIONAL SIGNAGE INDICATING LOCATION OF OTHER MEANS OF EGRESS AND ACCESSIBLE MEANS OF EGRESS, PER *CBC 1009.10.* DESIGN INCLUDES THESE SIGNS AT:
- ELEVATOR LANDINGS
- EACH EXIT WHICH IS NOT AN ACCESSIBLE EGRESS PATH

STAIRWAY IDENTIFICATION SIGNAGE
DESIGN INCLUDES IDENTIFICATION SIGNAGE AT EACH FLOOR LANDING IN ALL INTERIOR EXIT STAIRS AND RAMPS CONNECTING MORE THAN THREE STORIES. IDENTIFICATION SIGNAGE INDICATES:
- DIRECTION TO EXIT DISCHARGE.
- STORY OF EXIT DISCHARGE.
- TOP AND BOTTOM STORY SERVED.
- AVAILABILITY OF ROOF ACCESS.

ELEVATOR SIGNAGE - GENERAL
DESIGN INCLUDES A SIGN COMPLYING WITH *CBC 3002.3* LOCATED AT EACH LANDING OF THE ELEVATOR AND SAYING THE FOLLOWING: "IN FIRE EMERGENCY, DO NOT USE THE ELEVATOR. USE EXIT STAIRS".
ELEVATOR SIGNAGE - ELEVATOR FOR AMBULANCE STRETCHER
DESIGN INCLUDES THE INTERNATIONAL SYMBOL FOR EMERGENCY MEDICAL SERVICES (STAR OF LIFE) LOCATED ON ELEVATORS DESIGNED TO ACCOMODATE AMBULANCE STRETCHERS. THESE SYMBOLS ARE NOT LESS THAN 3 INCHES IN HEIGHT AND PLACED INSIDE BOTH SIDES OF THE HOISTWAY DOOR FRAME.
BUILDING ADDRESS IDENTIFICATION SIGNAGE
DESIGN INCLUDES ADDRESS IDENTIFICATION FOR FIRST RESPONDERS THAT COMPLIES WITH *CBC 502.1.*

12. PROJECT GENERAL NOTES

HE FOLLOWING PROJECT GENERAL NOTES APPLY TO THE ENTIRE DRAWING SET AND ARE NOT SPECIFIC TO ANY ONE DISCIPLINE, UNLESS OTHERWISE NOTED:

1. THE DRAWING SET AND SPECIFICATIONS (PROJECT MANUAL) ARE COMPLEMENTARY AND ESTABLISH DETAILED MINIMUM REQUIREMENTS FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT.
2. THE DRAWING SET CONSISTS OF ALL SHEETS LISTED BY THE SHEET INDEX. THE WORK DESCRIBED BY THE DRAWINGS OF ANY ONE DISCIPLINE MAY BE AFFECTED BY THE WORK DESCRIBED ON DRAWINGS OF ANOTHER DISCIPLINE AND MAY REQUIRE REFERENCE TO DRAWINGS OF ANOTHER DISCIPLINE. AS SUCH, DO NOT DISTRIBUTE OR UTILIZE PARTIAL SETS OF DRAWINGS.
3. COLUMN GRID LINES IDENTIFIED BY A LETTER DESIGNATION ARE PARALLEL, UNLESS OTHERWISE NOTED. COLUMN GRID LINES IDENTIFIED BY A NUMBER DESIGNATION ARE PARALLEL AND ARE PERPENDICULAR TO THOSE WITH LETTER DESIGNATIONS, UNLESS OTHERWISE NOTED.
4. DISCIPLINE GENERAL NOTES, SYMBOLS AND DEFINITIONS APPLICABLE TO EACH DISCIPLINE'S DRAWINGS MAY BE FOUND AT THE FRONT OF EACH DISCIPLINE'S PORTION OF THE DRAWING SET AND ARE LISTED IN THE SHEET INDEX.
5. UNLESS INDICATED OTHERWISE, THE "ARCHITECTURAL" SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES.
6. THE DRAWINGS MAY MAKE REFERENCE TO OR ILLUSTRATE ITEMS WHICH ARE NOT PART OF THE WORK OF THE CONTRACT. THESE "NOT IN CONTRACT" ITEMS AS INDICATED ARE REFERENCED OR ILLUSTRATED FOR THE CONTRACTOR'S REFERENCE, INFORMATION AND COORDINATION ONLY.
7. EXISTING CONDITIONS, IF SHOWN, ARE FROM AVAILABLE RECORD DRAWINGS AND/OR VISUAL FIELD SURVEYS. VERIFY ACTUAL EXISTING CONDITIONS A

PLUMBING OCCUPANT LOAD DIAGRAMS



1 LEVEL 1 - PLUMBING CALCULATION PLAN
SCALE: 1/16" = 1'-0"



2 LEVEL 2 - PLUMBING CALCULATION PLAN
SCALE: 1/16" = 1'-0"

PLUMBING FIXTURE CALCULATIONS

LEVEL 1

REQUIRED

OCCUPANTS: 598 (299 MALE 299 FEMALE)

OCCUPANCY: BUSINESS - B	WATER CLOSETS		URINALS	LAVATORIES		BATHTUBS / SHOWERS	DRINKING FOUNTAINS
	MALE	FEMALE		MALE	FEMALE		
RATIO:	1: 1-50 2: 51-100 3: 101-200 4: 201-400 OVER 400: +1 FOR EACH ADD'L 500	1: 1-15 2: 16-30 3: 31-50 4: 51-100 8: 101-200 11: 201-400 OVER 400: +1 FOR EACH ADD'L 150	1: 1-100 2: 101-200 3: 201-300 4: 401-600 OVER 600: +1 FOR EACH ADD'L 300 MALES	1: 1-75 2: 76-150 3: 151-200 4: 201-300 5: 301-400 OVER 400: +1 FOR EACH ADD'L 250	1: 1-50 2: 51-100 3: 101-150 4: 151-200 5: 201-300 6: 301-400 OVER 400: +1 FOR EACH ADD'L 200		1:150
REQUIRED:	4.00	11.00	3.00	4.00	5.00	--	4.00

PROVIDED

OVERALL BUILDING SUMMARY	WATER CLOSET		LAVATORIES		BATHTUBS OR SHOWERS	DRINKING FOUNTAINS	OTHER
	MALE	FEMALE	MALE	FEMALE			
SUBTOTAL REQUIRED:	4.00	11.00	4.00	5.00	0	4.00	1 SERVICE SINK
TOTAL REQUIRED:	4	11	4	5	0	4	1 SERVICE SINK
WC PROVIDED:	5	12	--	--	--	--	--
LAV PROVIDED:	--	--	7	8	--	--	--
URINALS PROVIDED: *(NOTE 2)*	3	--	--	--	--	--	--
DF PROVIDED: *(NOTE 6)*	--	--	--	--	--	4	--
TOTAL PROVIDED:	8	12	7	8	0	4	2
SINGLE-OCCUPANT RESTROOMS INCLUDED IN THE ABOVE TOTALS *(NOTE 3)*:							3
FAMILY RESTROOMS PROVIDED IN ADDITION TO ABOVE TOTALS *(NOTE 4)*:							0
FAMILY BATHING ROOMS PROVIDED IN ADDITION TO ABOVE TOTALS *(NOTE 5)*:							0

NOTE 1:
THE CODE REQUIRES ONLY (1) SERVICE SINK PER BUILDING IF ALL OCCUPANCIES HAVE ACCESS TO THE SERVICE SINK AT ALL TIMES. IN HOSPITALS: (1) SERVICE SINK PER FLOOR ARE REQUIRED.

NOTE 2:
IN 'A' AND 'E' OCCUPANCIES: URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67% OF THE REQ'D WC. IN ALL OTHER OCCUPANCIES: URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50% OF THE REQ'D WC.

NOTE 3:
SINGLE-OCCUPANT RESTROOM = (1) WC AND (1) LAV PROVIDED FIXTURES DISTRIBUTED AMONGST EACH SEX

NOTE 4:
FAMILY OR ASSITED-USE TOILET ROOMS = (1) WC AND (1) LAV PROVIDED

NOTE 5:
FAMILY OR ASSITED-USE BATHING ROOMS = (1) WC AND (1) LAV PROVIDED AND (1) SHOWER OR (1) BATH

NOTE 6:
WATER COOLERS OR BOTTLED WATER DISPENSERS SHALL BE PERMITTED TO BE SUBSTITUTED FOR NOT MORE THAN 50 PERCENT OF THE REQUIRED DRINKING FOUNTAINS.

PLUMBING OCCUPANT LOAD

PLUMBING TYPE OF OCCUPANCY	AREA	PLUMBING OCCUPANT LOAD
ASSEMBLY	140 SF	4.6
ASSEMBLY	144 SF	4.8
ASSEMBLY	417 SF	13.9
ASSEMBLY	188 SF	6.27
ASSEMBLY	318 SF	10.6
ASSEMBLY	172 SF	5.7
ASSEMBLY	85 SF	2.8
BUSINESS	100 SF	0.67
BUSINESS	81 SF	0.5
BUSINESS	373 SF	2.5
BUSINESS	333 SF	2.2
BUSINESS	307 SF	2.1
BUSINESS	195 SF	1.3
BUSINESS	115 SF	0.8
LAB-EDUCATIONAL	1192 SF	23.8
LAB-EDUCATIONAL	1447 SF	28.9
LAB-EDUCATIONAL	1010 SF	20.2
LAB-EDUCATIONAL	996 SF	19.9
LAB-EDUCATIONAL	1313 SF	26.2
LAB-EDUCATIONAL	1298 SF	25.9
LAB-EDUCATIONAL	1072 SF	21.4
LAB-EDUCATIONAL	1343 SF	26.9
LAB-EDUCATIONAL	1262 SF	25.2
LAB-EDUCATIONAL	769 SF	15.4
LAB-EDUCATIONAL	1287 SF	25.7
LAB-EDUCATIONAL	831 SF	16.6
LAB-EDUCATIONAL	1483 SF	29.7
LAB-EDUCATIONAL	1461 SF	29.2
LAB-EDUCATIONAL	1161 SF	23.2
LAB-EDUCATIONAL	1140 SF	22.8
LAB-EDUCATIONAL	1298 SF	25.9
LAB-EDUCATIONAL	1296 SF	25.9
LAB-EDUCATIONAL	1603 SF	32.1
LAB-EDUCATIONAL	757 SF	15.1
LAB-EDUCATIONAL	1153 SF	23.1
LAB-NON. EDUC.	304 SF	3.1
LAB-NON. EDUC.	253 SF	2.5
LAB-NON. EDUC.	290 SF	2.9
LAB-NON. EDUC.	306 SF	3.1
LAB-NON. EDUC.	306 SF	3.1
LAB-NON. EDUC.	471 SF	4.7
LAB-NON. EDUC.	335 SF	6.7
LAB-NON. EDUC.	585 SF	5.8
LAB-NON. EDUC.	370 SF	3.7
TOTAL POCC		597.44

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

PROJECT NORTH

SHEET TITLE
MINIMUM PLUMBING FACILITIES

14794
PROJECT NUMBER

CD **G1.2.1**
SHEET NUMBER

Author
Plot Date: 7/24/2025 1:28:05 PM

A5.602
CALGreen VERIFICATION GUIDELINES
MANDATORY MEASURES CHECKLIST
2022 CALGreen Code

Application: This checklist shall be used for nonresidential projects that meet one of the following: new construction, building additions of 1,000 square feet or greater, or building alterations with a permit valuation of $200,000 or more pursuant to Section 301.3 AND do not trigger a Tier 1 or Tier 2 requirement:

Y = Yes (section has been selected and/or included)
N/A = Not Applicable (code section does not apply to the project—mainly used for additions and alterations)
O = Other (provide explanation)
[N] = New construction pursuant to Section 301.3
[A] = Additions and/or Alterations pursuant to Section 301.3

Chapter 5 Divisions

DIVISION 5.1 Planning and Design

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Storm water pollution prevention for projects that disturb less than 1 acre of land	5.106.1 through 5.106.2	Y				Spec Section 018113.71 By Contractor
Mandatory	Short-term bicycle parking (with exception)	5.106.4.1.1	Y				Sheet G1.4.1
Mandatory	Long-term bicycle parking	5.106.4.1.2 through 5.106.4.1.5	Y				Sheet G1.4.1
Mandatory	Electric vehicle (EV) charging [N] w/ exceptions	5.106.5.3	Y				DSA #01-109257
Mandatory	EV capable spaces [N]	5.106.5.3.1	Y				DSA #01-109257
Mandatory	Electric vehicle (EV) charging Stations (EVCS)	5.106.5.3.2	Y				DSA #01-109257
Mandatory	Use of automatic load management systems (ALMS)	5.106.5.3.3	Y				DSA #01-109257
Mandatory	Accessible EVCS	5.106.5.3.4	Y				DSA #01-109257
Mandatory	Note for EVCS signs	5.106.5.3.4	Y				DSA #01-109257
Mandatory	TABLE 5.106.5.3.1 w/ footnotes	5.106.3.1, 5.106.3.2	Y				DSA #01-109257
		and 5.106.3.3					
Mandatory	Electric vehicle (EV) charging: medium-duty and heavy-duty [N]	5.106.5.4	Y				DSA #01-109257
Mandatory	Electric vehicle charging readiness requirements for warehouses, grocery stores and retail stores with planned off-street loading spaces [N]	5.106.5.4.1	Y				DSA #01-109257
Mandatory	TABLE 5.106.5.4.1	5.106.5.4 and 5.106.5.4.1	Y				DSA #01-109257
Mandatory	Light pollution reduction [N] (with exceptions, notes and table)	5.106.8 through 5.106.8.2	Y				Spec Section 265600
Mandatory	Grading and paving (exception for additions and alterations not altering the drainage path)	5.106.10	Y				Sheets C.1.3.1 to C.1.3.4

DIVISION 5.2 Energy Efficiency

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Meet the minimum energy efficiency standard	5.201.1	Y				Refer to Electrical and Mechanical Drawings and Specs

DIVISION 5.3 Water Efficiency and Conservation

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Separate meters (new buildings or additions > 50,000 sf that consume more than 100 gal/day)	5.303.1.1	Y				Refer to Plumbing Drawings and Specs
Mandatory	Separate meters (for tenants in new buildings or additions that consume more than 1,000 gal/day)	5.303.1.2	Y				Refer to Plumbing Drawings and Specs
Mandatory	Water closets shall not exceed 1.28 gallons per flush (gpf)	5.303.3.1	Y				Spec Section 224213.13
Mandatory	Wall-mounted urinals shall not exceed 0.125 gpf	5.303.3.2.1	Y				Spec Section 224213.16
Mandatory	Floor-mounted urinals shall not exceed 0.5 gpf	5.303.3.2.2	Y				Spec Section 224213.16
Mandatory	Single showerhead shall have maximum flow rate of 1.8 gpm (gallons per minute) at 80 psi	5.303.3.3.1			N/A		
Mandatory	Multiple showerheads serving one shower shall have a combined flow rate of 1.8 gpm at 80 psi	5.303.3.3.2			N/A		
Mandatory	Nonresidential lavatory faucets	5.303.3.4.1					Spec Section 224216.13
Mandatory	Kitchen faucets	5.303.3.4.2			N/A		
Mandatory	Wash fountains	5.303.3.4.3			N/A		
Mandatory	Metering faucets	5.303.3.4.4			N/A		
Mandatory	Metering faucets for wash fountains	5.303.3.4.5			N/A		
Mandatory	Pre-rinse spray valve	5.303.3.4.6			N/A		
Mandatory	Food waste disposers	5.303.4.1			N/A		
Mandatory	Areas of additions or alterations	5.303.5			N/A		
Mandatory	Standards for plumbing fixtures and fittings	5.303.6	Y				See Plumbing Drawings and Specifications
Mandatory	Outdoor potable water use in landscape areas (with notes)	5.304.1	Y				Sheet I6.0.1

DIVISION 5.4 Material Conservation and Resource Efficiency

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Weather protection	5.407.1	Y				See Architectural Drawings and Specifications
Mandatory	Moisture control: sprinklers	5.407.2.1	Y				See Irrigation Drawings and Specifications
Mandatory	Moisture control: exterior door protection	5.407.2.2.1	Y				See Architectural Drawings and Specifications
Mandatory	Moisture control: flashing	5.407.2.2.2	Y				See Architectural Drawings and Specifications
Mandatory	Construction waste management—comply with either: Sections 5.408.1.1, 5.408.1.2, 5.408.1.3 or more stringent local ordinance	5.408.1.1, 5.408.1.2, 5.408.1.3	Y				Spec Section 017419 By Contractor
Mandatory	Construction waste management: documentation	5.408.1.4	Y				Spec Section 017419 By Contractor
Mandatory	Universal waste [A]	5.408.2	Y				Spec Section 017419 By Contractor
Mandatory	Excavated soil and land clearing debris (100% reuse or recycle)	5.408.3	Y				Spec Section 017419 By Contractor
Mandatory	Recycling by occupants (with exception)	5.410.1			N/A		
Mandatory	Recycling by occupants: additions (with exception)	5.410.1.1			N/A		
Mandatory	Recycling by occupants: sample ordinance	5.410.1.2			N/A		
Mandatory	Commissioning new buildings (≥ 10,000 sf) [N]	5.410.2	Y				Spec Sections 220800, 230800, 260800
Mandatory	Owner's or owner representative's Project Requirements (OPR) [N]	5.410.2.1	Y				
Mandatory	Basis of Design (BOD) [N]	5.410.2.2	Y				
Mandatory	Commissioning plan [N]	5.410.2.3	Y				Spec Sections 220800, 230800, 260800
Mandatory	Functional performance testing [N]	5.410.2.4	Y				Spec Sections 220800, 230800, 260800
Mandatory	Documentation and training [N]	5.410.2.5	Y				Spec Section 017900
Mandatory	Systems manual [N]	5.410.2.5.1	Y				Spec Section 017823
Mandatory	Systems operation training [N]	5.410.2.5.2	Y				Spec Section 017900
Mandatory	Commissioning report [N]	5.410.2.6	Y				Spec Sections 220800, 230800, 260800
Mandatory	Testing and adjusting for new buildings < 10,000 sf or new systems that serve additions or alterations [A]	5.410.4			N/A		
Mandatory	System testing plan for renewable energy, landscape irrigation and water reuse [A]	5.410.4.2			N/A		
Mandatory	Procedures for testing and adjusting	5.410.4.3	Y				
Mandatory	Procedures for HVAC balancing	5.410.4.3.1	Y				Spec Section 230593
Mandatory	Reporting for testing and adjusting	5.410.4.4	Y				By Contractor
Mandatory	Operation and maintenance (O&M) manual	5.410.4.5					Spec Section 017823
Mandatory	Inspection and reports	5.410.4.5.1	Y				

DIVISION 5.5 Environmental Quality

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Fireplaces	5.503.1			N/A		
Mandatory	Woodstoves	5.503.1.1			N/A		
Mandatory	Temporary ventilation	5.504.1	Y				Refer to Mechanical Specifications
Mandatory	Covering of ducts openings and protection of mechanical equipment during construction	5.504.3	Y				Spec Section 233113
Mandatory	Adhesives, sealants, and caulks	5.504.4.1	Y				Spec Section 018113.71
Mandatory	Paints and coatings	5.504.4.3	Y				Spec Section 018113.71
Mandatory	Aerosol paints and coatings	5.504.4.3.1	Y				Spec Section 018113.71
Mandatory	Aerosol paints and coatings: verification	5.504.4.3.2	Y				By Contractor
Mandatory	Carpet systems	5.504.4.4	Y				Spec Section 018113.71
Mandatory	Carpet cushion	5.504.4.4.1	Y				Spec Section 018113.71
Mandatory	Carpet adhesives per Table 5.504.4.1	5.504.4.4.2	Y				Spec Section 018113.71
Mandatory	Composite wood products	5.504.4.5					Spec Section 018113.71
Mandatory	Composite wood products: documentation	5.504.4.5.3					Spec Section 018113.71
Mandatory	Resilient flooring systems	5.504.4.6	Y				Spec Section 018113.71
Mandatory	Resilient flooring: verification of compliance	5.504.4.6.1	Y				By Contractor
Mandatory	Thermal insulation	5.504.4.7	Y				Spec Section 018113.71
Mandatory	Verification of compliance	5.504.4.7.1	Y				By Contractor
Mandatory	Acoustical ceilings and wall panels	5.504.4.8	Y				Spec Section 018113.71
Mandatory	Verification of compliance	5.504.4.8.1	Y				By Contractor
Mandatory	Filters (with exceptions)	5.504.5.3	Y				Refer to Mechanical Specifications
Mandatory	Filters: labeling	5.504.5.3.1	Y				By Contractor
Mandatory	Environmental tobacco smoke (ETS) control	5.504.7			N/A		
Mandatory	Indoor moisture control	5.505.1	Y				Refer to Mechanical Drawings and Specs
Mandatory	Outside air delivery	5.506.1	Y				Refer to Mechanical Drawings and Specs
Mandatory	Carbon dioxide (CO_2) monitoring	5.506.2	Y				Refer to Mechanical Drawings and Specs
Mandatory	Acoustical control (with exception)	5.507.4					Sheet A9.2.1
Mandatory	Exterior noise transmission, prescriptive method (with exceptions)	5.507.4.1			N/A		
Mandatory	Noise exposure where noise contours are not readily available	5.507.4.1.1			N/A		
Mandatory	Performance method	5.507.4.2			N/A		
Mandatory	Site features	5.507.4.2.1	Y				See Landscape Drawings and Specifications
Mandatory	Documentation of compliance	5.507.4.2.2	Y				
Mandatory	Interior sound transmission (with note)	5.507.4.3					Sheet A9.2.1
Mandatory	Ozone depletion and greenhouse gas reductions	5.508.1					Refer to Division 23 Specifications
Mandatory	Chlorofluorocarbons (CFCs)	5.508.1.1					Refer to Division 23 Specifications
Mandatory	Halons	5.508.1.2					Refer to Division 23 Specifications
Mandatory	Supermarket refrigerant leak reduction for retail food stores 8,000 square feet or more	5.508.2 through 5.508.2.6.3			N/A		
	END OF MANDATORY PROVISIONS						

Documentation Author's / Responsible Designer's Declaration Statement
□ **Mandatory:** I attest that these mandatory provisions checklist is accurate and complete.

Signature: Veronica Kaplinskiy (Digitally signed by Veronica Kaplinskiy DN: E=Veronica.Kaplinskiy@smithgroup.com, CN=Veronica Kaplinskiy, OU=Users, OU=SF, DC=smithgroup, DC=com Date: 2025.07.21 13:51:26-07'00')	
Company: SmithGroup	Date: 7/24/2025
Address: 301 Battery Street, 4th Floor	License: C-39168
City/State/Zip: San Francisco, CA 94111	Phone: 415.227.0100

DSA 403-C
CALGREEN CODE SUBMITTAL CHECKLIST

EXHIBIT C
Section 5.409.3 PRODUCT GWP COMPLIANCE—PRESCRIPTIVE PATH

Professional in General Responsible Charge Declaration Statement:

I attest that prescriptive compliance has been met according to the requirements of Title 24, Part 11 (CALGreen) Section 5.409.3 and products specified do not exceed the global warming potential as specified in CALGreen Table 5.409.3. Furthermore, I will ensure during construction that the material specifications will be reviewed for substantial conformance with the global warming potential limits indicated on the approved documents.

Signature: Carey Woo (Digitally signed by Carey Woo DN: E=Carey.Woo@smithgroup.com, CN=Carey Woo, OU=Users, OU=SF, DC=smithgroup, DC=com Date: 2025.07.21 17:30:58-07'00')	
Name: Carey Woo	Date: 07/21/2025
Address: 301 Battery Street, 4th Floor	License: C25287
City/State/Zip: San Francisco, CA 94111	Phone: 415-365-3444

DGS DSA 403-C (Revised 08/13/24) DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — Page 8 of 8 STATE OF CALIFORNIA

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
CAL GREEN MANDATORY MEASURES COMPLIANCE - B1500

14794
PROJECT NUMBER

CD
G1.3.1
SHEET NUMBER

Plot Date: 7/23/2025 4:21:41 PM Author

A5.602

CALGreen VERIFICATION GUIDELINES
MANDATORY MEASURES CHECKLIST
2022 CALGreen Code

Application: This checklist shall be used for nonresidential projects that meet one of the following: new construction, building additions of 1,000 square feet or greater, or building alterations with a permit valuation of $200,000 or more pursuant to Section 301.3 AND do not trigger a Tier 1 or Tier 2 requirement:

Y = Yes (section has been selected and/or included)
N/A = Not Applicable (code section does not apply to the project—mainly used for additions and alterations)
O = Other (provide explanation)
[N] = New construction pursuant to Section 301.3
[A] = Additions and/or Alterations pursuant to Section 301.3

Chapter 5 Divisions

DIVISION 5.1 Planning and Design

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Storm water pollution prevention for projects that disturb less than 1 acre of land	5.106.1 through 5.106.2			N/A		Remodel only, no addition
Mandatory	Short-term bicycle parking (with exception)	5.106.4.1.1			N/A		No new parking spaces are being added
Mandatory	Long-term bicycle parking	5.106.4.1.2 through 5.106.4.1.5			N/A		No new parking spaces are being added
Mandatory	Electric vehicle (EV) charging [N] w/ exceptions	5.106.5.3			N/A		Alterations-only project
Mandatory	EV capable spaces [N]	5.106.5.3.1			N/A		Alterations-only project
Mandatory	Electric vehicle (EV) charging Stations (EVCS)	5.106.5.3.2			N/A		Alterations-only project, no new parking spaces are being added
Mandatory	Use of automatic load management systems (ALMS)	5.106.5.3.3			N/A		
Mandatory	Accessible EVCS	5.106.5.3.4			N/A		
Mandatory	Note for EVCS signs	5.106.5.3.4			N/A		
Mandatory	TABLE 5.106.5.3.1 w/ footnotes	5.106.3.1, 5.106.3.2			N/A		
Mandatory	Systems manual [N]	5.410.2.5.1			N/A		
Mandatory	Systems operation training [N]	5.410.2.5.2			N/A		
Mandatory	Commissioning report [N]	5.410.2.6			N/A		
Mandatory	Testing and adjusting for new buildings < 10,000 sf or new systems that serve additions or alterations [A]	5.410.4			N/A		
Mandatory	System testing plan for renewable energy, landscape irrigation and water reuse [A]	5.410.4.2			N/A		
Mandatory	Procedures for testing and adjusting	5.410.4.3			N/A		
Mandatory	Procedures for HVAC balancing	5.410.4.3.1			N/A		
Mandatory	Reporting for testing and adjusting	5.410.4.4			N/A		
Mandatory	Operation and maintenance (O&M) manual	5.410.4.5			N/A		
Mandatory	Inspection and reports	5.410.4.5.1			N/A		

DIVISION 5.5 Environmental Quality

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Fireplaces	5.503.1			N/A		
Mandatory	Woodstoves	5.503.1.1			N/A		
Mandatory	Temporary ventilation	5.504.1	Y				Refer to Mechanical Specifications
Mandatory	Covering of ducts openings and protection of mechanical equipment during construction	5.504.3	Y				Spec Section 233113
Mandatory	Adhesives, sealants, and caulks	5.504.4.1	Y				Spec Section 018113.71

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
		and 5.106.3.3					
Mandatory	Electric vehicle (EV) charging: medium-duty and heavy-duty [N]	5.106.5.4			N/A		
Mandatory	Electric vehicle charging readiness requirements for warehouses, grocery stores and retail stores with planned off-street loading spaces [N]	5.106.5.4.1			N/A		
Mandatory	TABLE 5.106.5.4.1	5.106.5.4 and 5.106.5.4.1			N/A		
Mandatory	Light pollution reduction [N] (with exceptions, notes and table)	5.106.8 through 5.106.8.2			N/A		
Mandatory	Grading and paving (exception for additions and alterations not altering the drainage path)	5.106.10			N/A		Alteration project, maintaining existing drainage pattern

DIVISION 5.2 Energy Efficiency

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Meet the minimum energy efficiency standard	5.201.1	Y				Refer to Electrical and Mechanical Drawings and Specs

DIVISION 5.3 Water Efficiency and Conservation

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Separate meters (new buildings or additions > 50,000 sf that consume more than 100 gal/day)	5.303.1.1			N/A		
Mandatory	Separate meters (for tenants in new buildings or additions that consume more than 1,000 gal/day)	5.303.1.2			N/A		
Mandatory	Water closets shall not exceed 1.28 gallons per flush (gpf)	5.303.3.1			N/A		
Mandatory	Wall-mounted urinals shall not exceed 0.125 gpf	5.303.3.2.1			N/A		
Mandatory	Floor-mounted urinals shall not exceed 0.5 gpf	5.303.3.2.2			N/A		
Mandatory	Single showerhead shall have maximum flow rate of 1.8 gpm (gallons per minute) at 80 psi	5.303.3.3.1			N/A		
Mandatory	Multiple showerheads serving one shower shall have a combined flow rate of 1.8 gpm at 80 psi	5.303.3.3.2			N/A		
Mandatory	Nonresidential lavatory faucets	5.303.3.4.1			N/A		
Mandatory	Kitchen faucets	5.303.3.4.2			N/A		
Mandatory	Wash fountains	5.303.3.4.3			N/A		
Mandatory	Metering faucets	5.303.3.4.4			N/A		
Mandatory	Metering faucets for wash fountains	5.303.3.4.5			N/A		
Mandatory	Pre-rinse spray valve	5.303.3.4.6			N/A		
Mandatory	Food waste disposers	5.303.4.1			N/A		
Mandatory	Areas of additions or alterations	5.303.5			N/A		
Mandatory	Standards for plumbing fixtures and fittings	5.303.6	Y				See Plumbing Drawings and Specifications
Mandatory	Outdoor potable water use in landscape areas (with notes)	5.304.1			N/A		

DIVISION 5.4 Material Conservation and Resource Efficiency

Requirement	SECTION TITLE	CODE SECTION	Y	N	N/A	O	PLAN SHEET, SPEC, OR ATTACH REFERENCE
Mandatory	Weather protection	5.407.1			N/A		
Mandatory	Moisture control: sprinklers	5.407.2.1			N/A		
Mandatory	Moisture control: exterior door protection	5.407.2.2.1			N/A		
Mandatory	Moisture control: flashing	5.407.2.2.2			N/A		
Mandatory	Construction waste management—comply with either: Sections 5.408.1.1, 5.408.1.2, 5.408.1.3 or more stringent local ordinance	5.408.1.1, 5.408.1.2, 5.408.1.3	Y				Spec Section 017419
Mandatory	Construction waste management: documentation	5.408.1.4	Y				Spec Section 017419
Mandatory	Universal waste [A]	5.408.2	Y				Spec Section 017419
Mandatory	Excavated soil and land clearing debris (100% reuse or recycle)	5.408.3			N/A		
Mandatory	Recycling by occupants (with exception)	5.410.1			N/A		
Mandatory	Recycling by occupants: additions (with exception)	5.410.1.1			N/A		
Mandatory	Recycling by occupants: sample ordinance	5.410.1.2			N/A		
Mandatory	Commissioning new buildings (≥ 10,000 sf) [N]	5.410.2			N/A		
Mandatory	Owner's or owner representative's Project Requirements (OPR) [N]	5.410.2.1			N/A		
Mandatory	Basis of Design (BOD) [N]	5.410.2.2			N/A		
Mandatory	Commissioning plan [N]	5.410.2.3			N/A		
Mandatory	Functional performance testing [N]	5.410.2.4			N/A		
Mandatory	Documentation and training [N]	5.410.2.5			N/A		
Mandatory	Paints and coatings	5.504.4.3	Y				Spec Section 018113.71
Mandatory	Aerosol paints and coatings	5.504.4.3.1	Y				Spec Section 018113.71
Mandatory	Aerosol paints and coatings: verification	5.504.4.3.2	Y				By Contractor
Mandatory	Carpet systems	5.504.4.4	Y		N/A		
Mandatory	Carpet cushion	5.504.4.4.1	Y		N/A		
Mandatory	Carpet adhesives per Table 5.504.4.1	5.504.4.4.2	Y		N/A		
Mandatory	Composite wood products	5.504.4.5			N/A		
Mandatory	Composite wood products: documentation	5.504.4.5.3			N/A		
Mandatory	Resilient flooring systems	5.504.4.6	Y				Spec Section 018113.71
Mandatory	Resilient flooring: verification of compliance	5.504.4.6.1	Y				By Contractor
Mandatory	Thermal insulation	5.504.4.7	Y				Refer to Specs – Division 7
Mandatory	Verification of compliance	5.504.4.7.1	Y				By Contractor
Mandatory	Acoustical ceilings and wall panels	5.504.4.8	Y				Spec Section 018113.71
Mandatory	Verification of compliance	5.504.4.8.1	Y				By Contractor
Mandatory	Filters (with exceptions)	5.504.5.3	Y				Spec Section 230800
Mandatory	Filters: labeling	5.504.5.3.1	Y				By Contractor
Mandatory	Environmental tobacco smoke (ETS) control	5.504.7			N/A		
Mandatory	Indoor moisture control	5.505.1	Y				Refer to Mechanical Drawings and Specs
Mandatory	Outside air delivery	5.506.1	Y				Refer to Mechanical Drawings and Specs
Mandatory	Carbon dioxide (CO_2) monitoring	5.506.2	Y				Refer to Mechanical Drawings and Specs
Mandatory	Acoustical control (with exception)	5.507.4			N/A		
Mandatory	Exterior noise transmission, prescriptive method (with exceptions)	5.507.4.1			N/A		
Mandatory	Noise exposure where noise contours are not readily available	5.507.4.1.1			N/A		
Mandatory	Performance method	5.507.4.2			N/A		
Mandatory	Site features	5.507.4.2.1			N/A		
Mandatory	Documentation of compliance	5.507.4.2.2			N/A		
Mandatory	Interior sound transmission (with note)	5.507.4.3			N/A		
Mandatory	Ozone depletion and greenhouse gas reductions	5.508.1			N/A		
Mandatory	Chlorofluorocarbons (CFCs)	5.508.1.1			N/A		
Mandatory	Halons	5.508.1.2			N/A		
Mandatory	Supermarket refrigerant leak reduction for retail food stores 8,000 square feet or more	5.508.2 through 5.508.2.6.3			N/A		
	END OF MANDATORY PROVISIONS						

Documentation Author's / Responsible Designer's Declaration Statement

☐ **Mandatory:** I attest that these mandatory provisions checklist is accurate and complete.

Signature:

Veronica Kaplinskiy

Digitally signed by Veronica Kaplinskiy
DN: cn=Veronica Kaplinskiy, o=SmithGroup, ou=Users, ou=SF_DC=smithgroup, dc=com
Date: 2025.07.21 10:51:00-07'00'

Company: SmithGroup	Date: 7/24/2025
Address: 301 Battery Street, 4th Floor	License: C-39168
City/State/Zip: San Francisco, CA 94111	Phone: 415.227.0100

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
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415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

CAL GREEN MANDATORY MEASURES COMPLIANCE - B1800

14794

PROJECT NUMBER

CD

G1.3.2

SHEET NUMBER

Author

Plot Date: 7/23/2025 4:21:49 PM

PARKING CALCULATIONS

2022 CBC 11B-208.2 MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES

LOT F (PER RECORD DOCUMENTS):
DSA APPLICATION #01-109257

TOTAL (E) STAFF, (E) GENERAL STUDENT AND VISITOR PARKING SPACES = **121**
ACCESSIBLE PARKING SPACES = 10
ACCESSIBLE VAN PARKING SPACES = 2
MOTORCYCLE PARKING SPACES = 2
EV CHARGING STALLS = 2

MINIMUM REQUIRED ACCESSIBLE PARKING

MINIMUM TOTAL ACCESSIBLE PARKING REQUIRED= **5 SPACES**
MINIMUM VAN ACCESSIBLE PARKING SPACES ASSIGNED = 1 SPACE (1:6 OF TOTAL)

PROVIDED ACCESSIBLE PARKING (PER RECORD DOCUMENTS)

VAN ACCESSIBLE PARKING SPACES = 2
STANDARD ACCESSIBLE PARKING SPACES = 10
TOTAL = 12

2022 CALGREEN 5.106.4.2 MINIMUM NUMBER OF BICYCLE SPACES

MINIMUM REQUIRED STUDENT BICYCLE PARKING **= 4 2-BIKE CAPACITY RACKS**
MINIMUM REQUIRED STAFF BICYCLE PARKING **= 2 STAFF LOCKABLE SPACES**

PROVIDED STUDENT BICYCLE PARKING **= 10 2-BIKE CAPACITY RACKS**
PROVIDED STAFF BICYCLE PARKING **= 2 STAFF LOCKABLE SPACES**

(E) BIKE RACKS



(E) BIKE LOCKERS



(E) TOW-AWAY SIGNAGE
DSA # 01-109257

(E) EMERGENCY TELEPHONE.
REF. DETAIL 43/A1.1.1

(E) EV CHARGING STALLS,
DSA # 01-109257, REF. A1/A-103

(E) ACCESSIBLE PARKING ZONE 1
DSA # 01-109257, REF. E3/A-103

(E) ACCESSIBLE PARKING ZONE 2
DSA # 01-109257, REF. A1/A-103

(E) ACCESSIBLE PARKING ZONE 3
DSA # 01-109257, REF. C3/A-103

(E) ACCESSIBLE PARKING ZONE 4
DSA # 01-109257, REF. A3/A-103

(E) BUS SHELTER, BOARDING, & ALIGHTING AREA
DSA # 01-121492,
REF. 2/GA101

(E) CURB RAMPS,
DSA # 01-121492,
REF. 11/G-511

(E) CURB RAMP,
DSA # 01-121492
REF. 12/G-511

1 G1.5.1

LOT A
EXISTING PARKING FOR STAFF, STUDENTS, AND VISITORS

LOT B
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS
DSA # 01-111019, 01-115572

LOT C
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS

LOT D
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS

LOT E
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS

LOT F
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS
DSA #01-109257

LOT G
EXISTING PARKING FOR STAFF, STUDENTS, AND VISITORS

LOT H
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS

LOT P
EXISTING PARKING FOR STAFF, STUDENTS AND VISITORS

BUILDING 4000
DSA # 01-108836

BUILDING 400
DSA # 36610

BUILDING 500
DSA # 37718
DSA# 01-100279
DSA# 01-111234
DSA#01-122145

BUILDING 600
DSA # 39643
DSA# 01-111234
DSA#01-122145

BUILDING 700
DSA # 33718
DSA# 01-100279
DSA#01-111234

BUILDING 1000
DSA # 44666

BUILDING 1200
DSA # 44666

BUILDING 1300
DSA # 61569

BUILDING 1600
DSA # 01-111019

BUILDING 1650
DSA# 01-115160

BUILDING 1800
DSA # 60016
DSA# 01-111060

BUILDING 2000
DSA # 54873

BUILDING 2100
DSA # 01-109253

BUILDING 2300
DSA # 01-109257

BUILDING 1700
DSA # 01-108915
DSA# 01-111214

BUILDING 2400
DSA # 01-116525
DSA# 01-106513

BUILDING 2500
DSA # 02-105516

1 LEVEL 1 - CAMPUS PLAN
SCALE: 1 : 1440

GRAPHIC LEGEND

EXITING SYMBOLS
- PRIMARY ENTRANCE

PATH SYMBOLS
- ACCESSIBLE PATH OF TRAVEL

FIRE SERVICE SYMBOLS
- EXISTING FIRE HYDRANT
- EXISTING EMERGENCY PHONE

BUILDING & SITE IDENTIFICATION TAGS
- EXISTING BUILDING BOUNDARY
- (E) BLDG NAME DSA # — EXISTING BUILDING TAG
- EXISTING PROPERTY LINE BOUNDARY

TRANSPORTATION SYMBOLS
- ACCESSIBLE PARKING STALLS
- ACCESSIBLE BUS STOP
- ENTRY POINT TO CAMPUS FROM PUBLIC SIDEWALK

GENERAL SHEET NOTES

1. THE PURPOSE OF THE SITE ACCESSIBILITY AND OVERALL CAMPUS SITE PLAN DRAWING IS TO ILLUSTRATE THE FOLLOWING IN SCHEMATIC FASHION:
   - THE EXISTING ACCESSIBLE PATH OF TRAVEL TO THE NEAREST EXISTING ACCESSIBLE PARKING & TRANSIT STOP
2. AOR HAS FIELD VERIFIED THE NUMBER OF EXISTING PARKING STALLS AND CONFIRMED THAT IT MEETS THE MINIMUM ACCESSIBLE STALLS REQUIRED PER CBC 11B-208.2.
3. ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP-RESISTANT. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT BE STEEPER THAN 1:20. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AN DFREE OF OBJECTS PROTRUDING MORE THAN 4" FROM THE WALL, ABOVE 27" AND LESS THAN 80" ABOVE THE FLOOR. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.
4. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
   - THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NON-COMPLIANT WITH THE CBC. HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT `S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NON-COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.
5. REFER TO CIVIL DRAWINGS FOR FIRE ACCESS PLAN.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

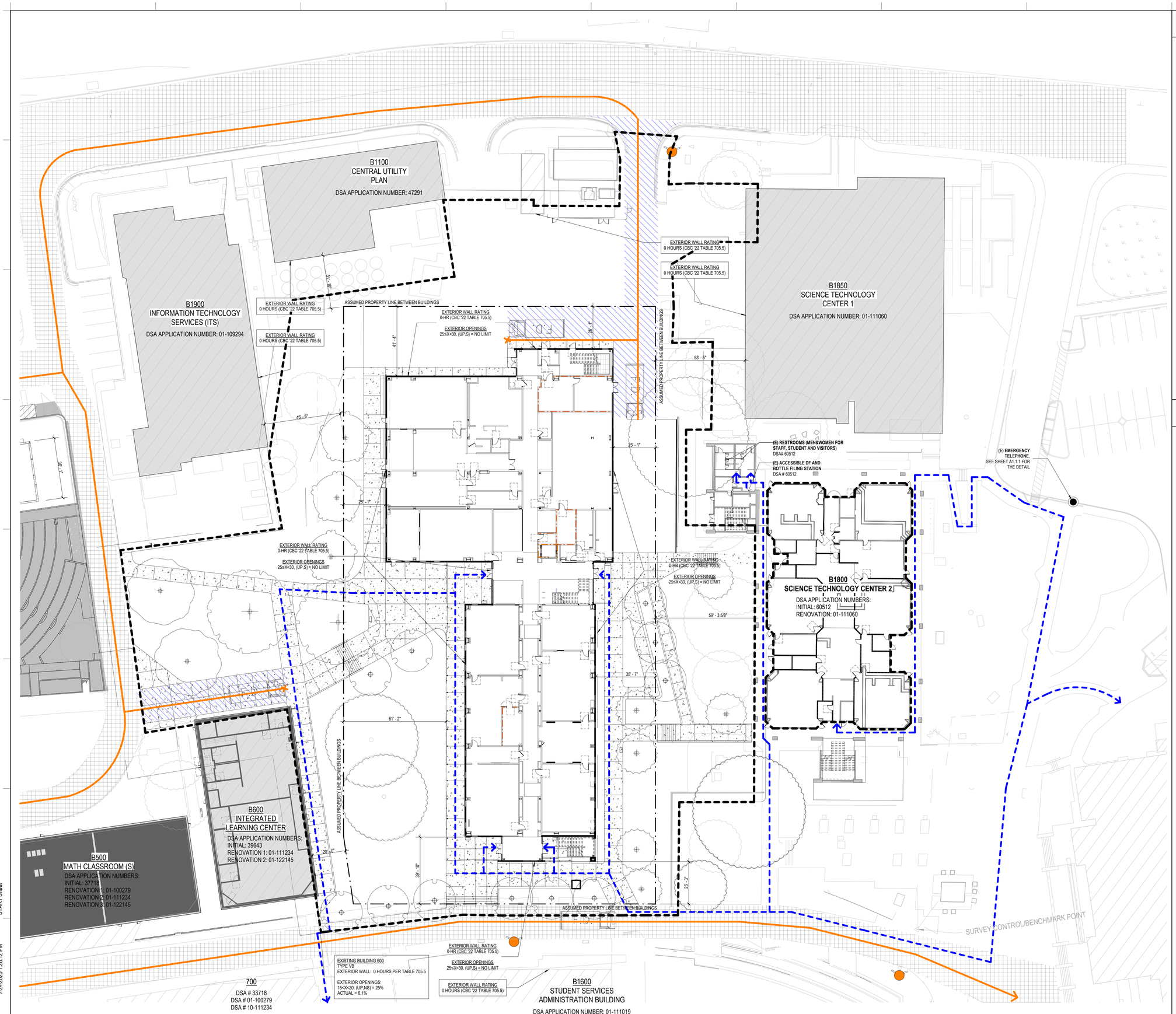
SHEET TITLE
SITE ACCESSIBILITY AND EMERGENCY ACCESS - OVERALL CAMPUS

PROJECT NUMBER 14794

SHEET NUMBER **G1.4.1**

START Sheet

Plot Date: 7/23/2025 4:34:25 PM



1 SITE ACCESSIBILITY AND EMERGENCY ACCESS PLAN
SCALE: 3/64" = 1'-0"

START Sheet
7/24/2025 1:28:12 PM
Plot Date:

GRAPHIC LEGEND

EXITING SYMBOLS

(E) = EXIT TO EXTERIOR
(E) = Existing Construction

PATH SYMBOLS

ACCESSIBLE PATH OF TRAVEL
FIRE TRUCK ACCESS TRAVEL

FIRE SERVICE SYMBOLS

EXISTING FIRE APPARATUS ACCESS ROAD / EMERGENCY VEHICLE ACCESS
NEW FIRE APPARATUS ACCESS ROAD / EMERGENCY VEHICLE ACCESS
EXISTING FIRE HYDRANT
EXISTING EMERGENCY PHONE
(E)FDC = EXISTING FIRE DEPARTMENT CONNECTION
(E)FKS = EXISTING FIREMAN'S KEYSAFE (KNOX BOX)
F.D. FIRE TRUCK

GENERAL SHEET NOTES

1. THE PURPOSE OF THE SITE ACCESSIBILITY AND OVERALL CAMPUS SITE PLAN DRAWING IS TO ILLUSTRATE THE FOLLOWING IN SCHEMATIC FASHION:
   - THE EXISTING ACCESSIBLE PATH OF TRAVEL TO THE NEAREST EXISTING ACCESSIBLE PARKING & TRANSIT STOP
2. AOR HAS FIELD VERIFIED THE NUMBER OF EXISTING PARKING STALLS AND CONFIRMED THAT IT MEETS THE MINIMUM ACCESSIBLE STALLS REQUIRED PER CBC 119.208.2.
3. ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP-RESISTANT. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT BE STEEPER THAN 1:20. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AN DFREE OF OBJECTS PROTRUDING MORE THAN 4" FROM THE WALL, ABOVE 27" AND LESS THAN 80" ABOVE THE FLOOR. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.
4. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
   - THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NON-COMPLIANT WITH THE CBC, HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NON-COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.
5. REFER TO CIVIL DRAWINGS FOR FIRE ACCESS PLAN.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

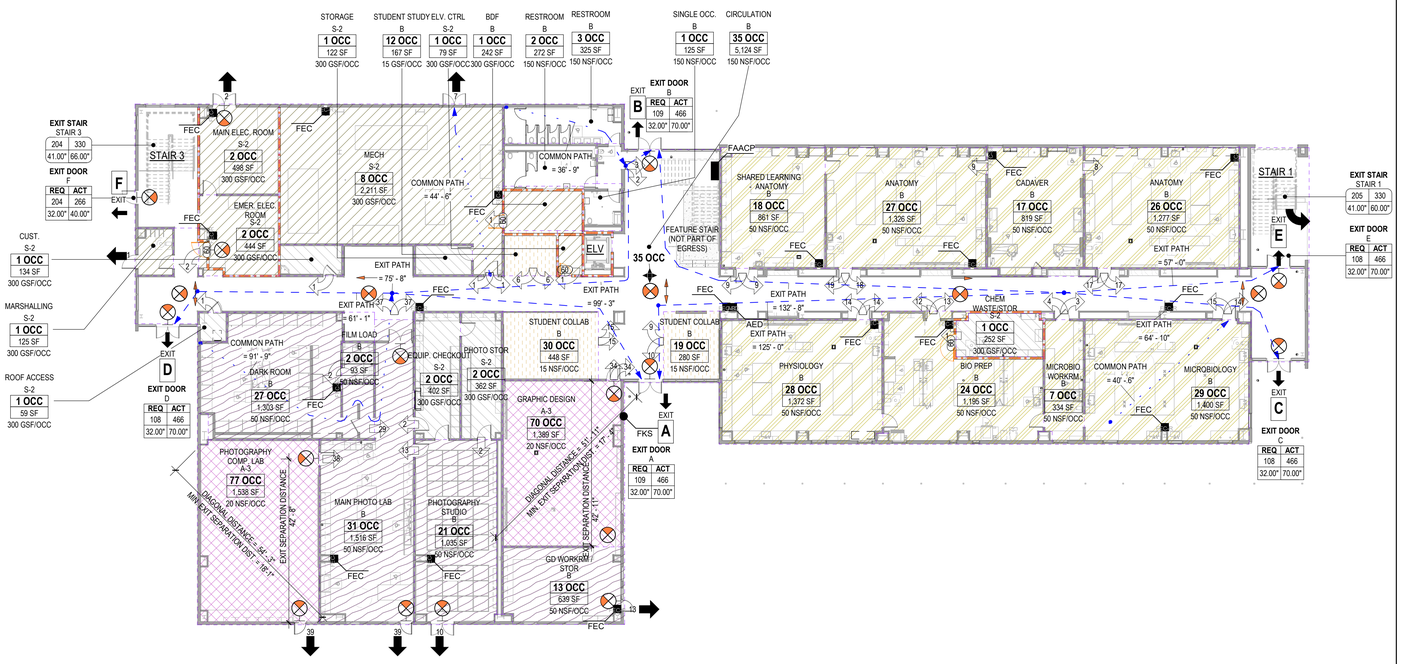
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

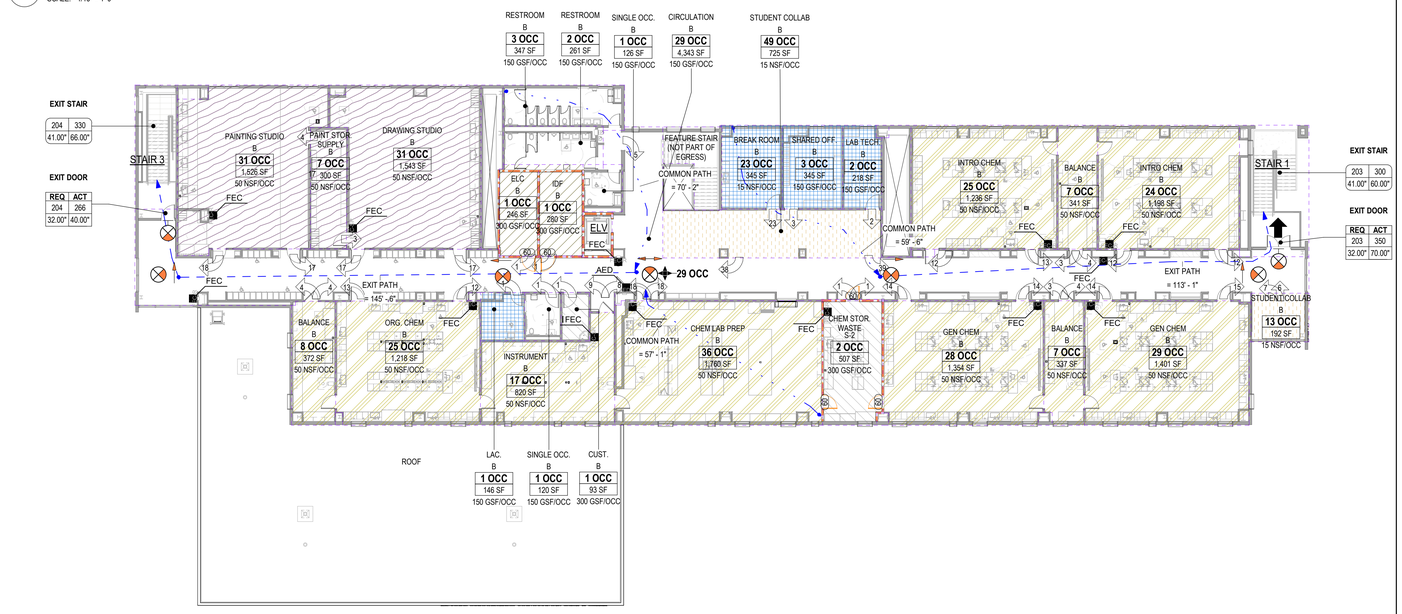
SHEET TITLE
SITE ACCESSIBILITY AND EMERGENCY ACCESS

14794
PROJECT NUMBER

CD
SHEET NUMBER
G1.5.1



1 LEVEL 1
SCALE: 1/16" = 1'-0"



2 LEVEL 2
SCALE: 1/16" = 1'-0"

OCCUPANT LOAD

FUNCTION OF SPACE	AREA	CBC '22 OLF	OCCUPANT LOAD
LEVEL 1			
A-3			
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1389 SF	20	70
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1538 SF	20	77
A-3	2927 SF		147
B			
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	167 SF	15	12
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	280 SF	15	19
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	448 SF	15	30
CIRCULATION	125 SF	150	1
CIRCULATION	272 SF	150	2
CIRCULATION	325 SF	150	3
CIRCULATION	5124 SF	150	35
MECHANICAL AREAS	242 SF	300	1
SCIENCE CLASSROOM	334 SF	50	7
SCIENCE CLASSROOM	819 SF	50	17
SCIENCE CLASSROOM	861 SF	50	18
SCIENCE CLASSROOM	1195 SF	50	24
SCIENCE CLASSROOM	1277 SF	50	26
SCIENCE CLASSROOM	1326 SF	50	27
SCIENCE CLASSROOM	1372 SF	50	28
SCIENCE CLASSROOM	1400 SF	50	29
SHOP/VOCATIONAL CLASSROOM	93 SF	50	2
SHOP/VOCATIONAL CLASSROOM	639 SF	50	13
SHOP/VOCATIONAL CLASSROOM	1035 SF	50	21
SHOP/VOCATIONAL CLASSROOM	1303 SF	50	27
SHOP/VOCATIONAL CLASSROOM	1516 SF	50	31
B	20151 SF		373
S-2			
MECHANICAL AREAS	79 SF	300	1
MECHANICAL AREAS	125 SF	300	1
MECHANICAL AREAS	498 SF	300	2
MECHANICAL AREAS	444 SF	300	2
MECHANICAL AREAS	2211 SF	300	8
STORAGE	252 SF	300	1
STORAGE	59 SF	300	1
STORAGE	134 SF	300	1
STORAGE	122 SF	300	1
STORAGE	402 SF	300	2
STORAGE	362 SF	300	2
S-2	4689 SF		22
LEVEL 1	27767 SF		542
LEVEL 2			
B			
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	192 SF	15	13
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	725 SF	15	49
BUSINESS AREAS	146 SF	150	1
BUSINESS AREAS	218 SF	150	2
BUSINESS AREAS	345 SF	150	3
BUSINESS AREAS	345 SF	150	23
CIRCULATION	126 SF	150	1
CIRCULATION	120 SF	150	1
CIRCULATION	261 SF	150	2
CIRCULATION	347 SF	150	3
CIRCULATION	4343 SF	150	29
MECHANICAL AREAS	246 SF	300	1
MECHANICAL AREAS	280 SF	300	1
SCIENCE CLASSROOM	341 SF	50	7
SCIENCE CLASSROOM	337 SF	50	7
SCIENCE CLASSROOM	372 SF	50	8
SCIENCE CLASSROOM	820 SF	50	17
SCIENCE CLASSROOM	1198 SF	50	24
SCIENCE CLASSROOM	1236 SF	50	25
SCIENCE CLASSROOM	1218 SF	50	25
SCIENCE CLASSROOM	1354 SF	50	28
SCIENCE CLASSROOM	1401 SF	50	29
SCIENCE CLASSROOM	1760 SF	50	36
SHOP/VOCATIONAL CLASSROOM	300 SF	50	7
SHOP/VOCATIONAL CLASSROOM	1526 SF	50	31
SHOP/VOCATIONAL CLASSROOM	1543 SF	50	31
STORAGE	93 SF	300	1
B	21193 SF		405
S-2			
STORAGE	507 SF	300	2
S-2	507 SF		2
LEVEL 2	21700 SF		407
	49467 SF		949

EGRESS TRAVEL SUMMARY

PATH ID	LENGTH
LEVEL 1	
EXIT PATH	132' - 8"
LEVEL 2	
EXIT PATH	145' - 6"

GRAPHIC LEGEND

FUNCTION OF SPACE LEGEND

- ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)
- BUSINESS AREAS
- CIRCULATION
- GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)
- SHOP/VOCATIONAL CLASSROOM
- SCIENCE CLASSROOM
- MECHANICAL AREAS
- STORAGE

FIRE-RESISTANCE-RATED WALL ASSEMBLIES

NEW | EXISTING — 1 HOUR FIRE-RESISTANCE RATING

DOOR, GLAZING, AND SHUTTER FIRE-RESISTANCE-RATING SYMBOLS

(60) DOOR AND SHUTTER FIRE RESISTANCE RATING (LISTED IN MINUTES)

FUNCTION OF SPACE TAG

OCC CLASS ABRV — OCCUPANCY CLASSIFICATION ABBREVIATION
10 OCC — OCCUPANT LOAD
95,000 SF — AREA OF SPACE
300 GSF/OCC — OCCUPANT LOAD FACTOR

EXITING SYMBOLS

OCC NO. OF OCCUPANTS AT NODE

INTERSECTION NODE

= EXIT TO EXTERIOR (E) = Existing Construction

= EXIT FROM A SPACE (E) = Existing Construction

= DEAD END

= COMMON PATH OF EXIT TRAVEL

= EXIT ACCESS

EGRESS COMPONENT CAPACITY SYMBOLS

DOOR: REQUIRED CAPACITY / ACTUAL CAPACITY (REQ 204, ACT 266); CALCULATED CLEAR WIDTH REQUIRED (IN.) / CLEAR WIDTH PROVIDED (IN.) (RCP 32", ACP 40")

STAIR: REQUIRED CAPACITY / ACTUAL CAPACITY (180, 200); CALCULATED EXIT WIDTH REQUIRED (IN.) / EXIT WIDTH PROVIDED (IN.) (26", 36")

EXIT SIGN SYMBOLS

EXIT LIGHT - WALL/CEILING MOUNTED DIRECTIONAL ARROWS AS INDICATED SHADING INDICATES ILLUMINATED FACE

FIRE PROTECTION SYMBOLS

FEC FIRE EXTINGUISHER CABINET
FAACP FIRE ALARM ANNUNCIATOR CONTROL PANEL
FKS FIREMAN'S KEYSAFE (KNOX BOX)
AED AUTOMATED EXTERNAL DEFIBRILLATOR

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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT — CAREY S. WOO — C-25287 — 3 / 31 / 2027 — Renewal — STATE OF CALIFORNIA

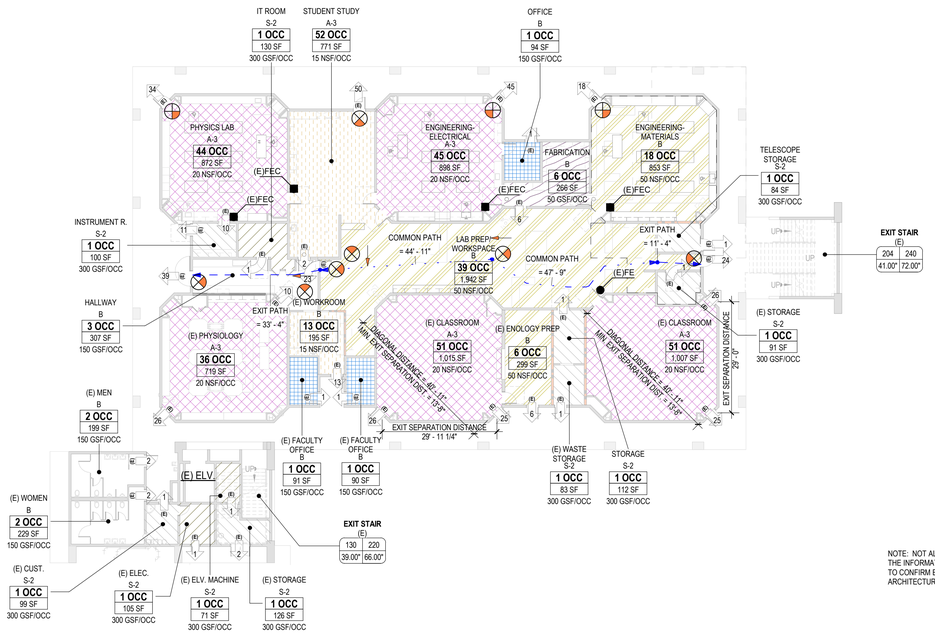
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - FIRE AND LIFE SAFETY DRAWINGS

14794
PROJECT NUMBER

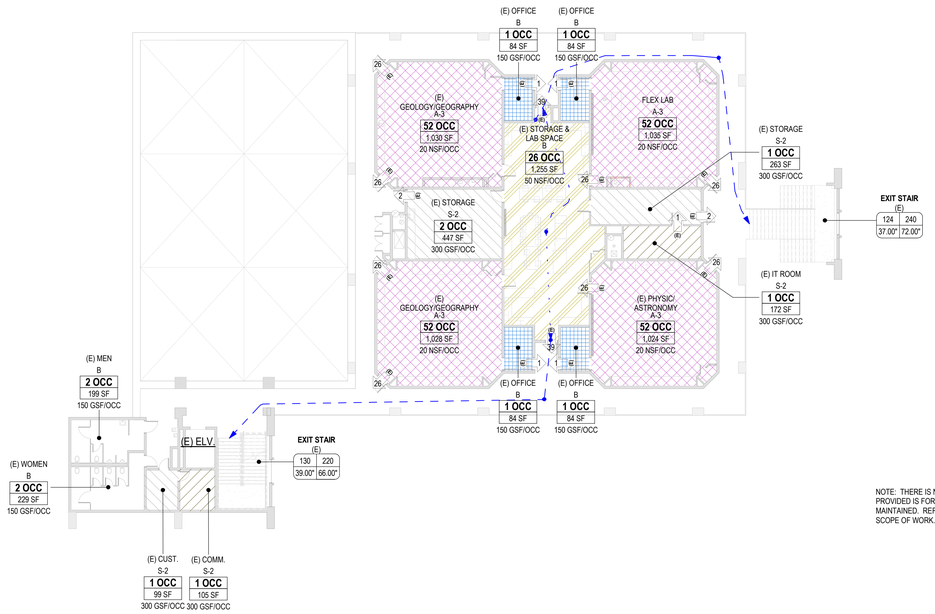
CD **G2.1.1**
SHEET NUMBER

START Sheet
7/23/2025 4:22:56 PM
Plot Date:



1 LIFE SAFETY PLAN - LEVEL 1
SCALE: 1/16" = 1'-0"

NOTE: NOT ALL ROOMS ON THIS LEVEL HAS SCOPE OF WORK. THE INFORMATION PROVIDED IS FOR EVALUATION PURPOSES TO CONFIRM EGRESS IS MAINTAINED. REFER TO ARCHITECTURAL FLOOR PLANS FOR PROJECT SCOPE OF WORK.



2 LIFE SAFETY PLAN - LEVEL 2
SCALE: 1/16" = 1'-0"

NOTE: THERE IS NO PROJECT SCOPE ON LEVEL 2. THE INFORMATION PROVIDED IS FOR EVALUATION PURPOSES TO CONFIRM EGRESS IS MAINTAINED. REFER TO ARCHITECTURAL FLOOR PLANS FOR PROJECT SCOPE OF WORK.

OCCUPANT LOAD

Code Function of Space	AREA	CBC '22 OLF	OCCUPANT LOAD
LEVEL 1			
A-3			
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	771 SF		52
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1007 SF		0
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	719 SF		36
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	872 SF		44
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	898 SF		45
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1015 SF		51
A-3	5282 SF		228
B			
ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)	195 SF		13
BUSINESS AREAS	94 SF		1
BUSINESS AREAS	91 SF		1
BUSINESS AREAS	90 SF		1
CIRCULATION	199 SF		2
CIRCULATION	229 SF		2
CIRCULATION	307 SF		3
SCIENCE CLASSROOM	299 SF		6
SCIENCE CLASSROOM	853 SF		18
SCIENCE CLASSROOM	1942 SF		39
SHOP/VOCATIONAL CLASSROOM	266 SF		6
B	4565 SF		92
S-2			
MECHANICAL AREAS	130 SF		1
MECHANICAL AREAS	105 SF		1
MECHANICAL AREAS	71 SF		1
STORAGE	100 SF		1
STORAGE	112 SF		1
STORAGE	83 SF		1
STORAGE	84 SF		1
STORAGE	91 SF		1
STORAGE	99 SF		1
STORAGE	126 SF		1
S-2	1001 SF		10
LEVEL 1	10848 SF		330
LEVEL 2			
A-3			
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1030 SF		52
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1035 SF		52
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1024 SF		52
GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)	1028 SF		52
A-3	4116 SF		208
B			
BUSINESS AREAS	84 SF		1
BUSINESS AREAS	84 SF		1
BUSINESS AREAS	84 SF		1
BUSINESS AREAS	84 SF		1
CIRCULATION	199 SF		2
CIRCULATION	229 SF		2
SCIENCE CLASSROOM	1255 SF		26
B	2019 SF		34
S-2			
MECHANICAL AREAS	172 SF		1
MECHANICAL AREAS	105 SF		1
STORAGE	263 SF		1
STORAGE	99 SF		1
STORAGE	447 SF		2
S-2	1085 SF		6
LEVEL 2	7220 SF		248
	18068 SF		578

GROSS BUILDING AREA

Name	Area
LEVEL 1	
IN SCOPE	7503 SF
N.I.C.	2920 SF
N.I.C.	1193 SF
N.I.C.	1647 SF
	13264 SF
LEVEL 2	
N.I.C	10467 SF
N.I.C.	1423 SF
	11890 SF
LEVEL 3	
N.I.C.	780 SF
	780 SF
TOTAL GROSS BUILDING AREA	25934 SF

IN SCOPE / TOTAL GROSS BUILDING AREA = 7503 / 25934
= 29%

GRAPHIC LEGEND

- ASSEMBLY - UNCONCENTRATED (TABLES AND CHAIRS)
- BUSINESS AREAS
- CIRCULATION
- GENERAL EDUCATION CLASSROOM (OVER 50 OCCUPANTS)
- SHOP/VOCATIONAL CLASSROOM
- SCIENCE CLASSROOM
- MECHANICAL AREAS
- STORAGE

FIRE-RESISTANCE-RATED WALL ASSEMBLIES

NEW | EXISTING — 1 HOUR FIRE-RESISTANCE RATING

FUNCTION OF SPACE TAG

OCC CLASS ABRV — OCCUPANCY CLASSIFICATION ABBREVIATION
10 OCC — OCCUPANT LOAD
95.000 SF — AREA OF SPACE
300 GSF/OCC

EXITING SYMBOLS

= EXIT FROM STORY (E) = Existing Construction
= EXIT FROM A SPACE (E) = Existing Construction
= DEAD END
= COMMON PATH OF EXIT TRAVEL
= EXIT ACCESS

EGRESS COMPONENT CAPACITY SYMBOLS

DOOR
REQUIRED CAPACITY — REQ | ACT — ACTUAL CAPACITY
RCP | ACP
CALCULATED CLEAR WIDTH REQUIRED (IN.) — RWP | AWP — CLEAR WIDTH PROVIDED (IN.)

STAIR
REQUIRED CAPACITY — 180 | 200 — ACTUAL CAPACITY
CALCULATED EXIT WIDTH REQUIRED (IN.) — 26" | 36" — EXIT WIDTH PROVIDED (IN.)

EXIT SIGN SYMBOLS

EXIT LIGHT - WALL/CEILING MOUNTED DIRECTIONAL ARROWS AS INDICATED SHADING INDICATES ILLUMINATED FACE

FIRE PROTECTION SYMBOLS

FEC — FIRE EXTINGUISHER CABINET
FAACP — FIRE ALARM ANNUNCIATOR CONTROL PANEL
FKS — FIREMAN'S KEYSAFE (KNOX BOX)
AED — AUTOMATED EXTERNAL DEFIBRILLATOR

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

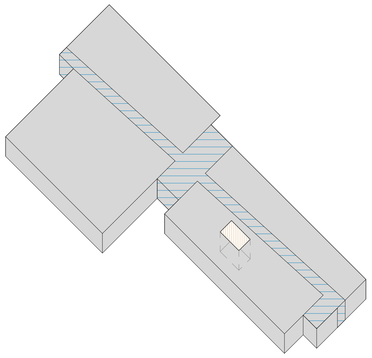
SHEET TITLE
BUILDING 1800 - FIRE AND LIFE SAFETY DRAWINGS

14794
PROJECT NUMBER

CD
SHEET NUMBER
G2.2.1

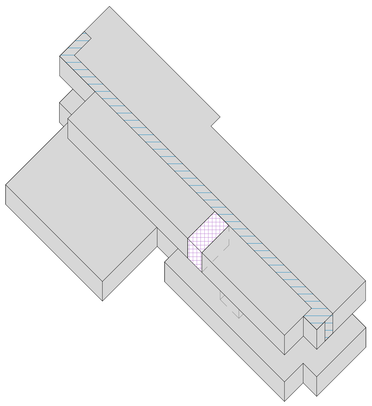
Author
7/23/2025 5:36:06 PM
Plot Date:

CONTROL AREA DIAGRAMS



CONTROL AREA 1A
CONTROL AREA 1B
CIRCULATION

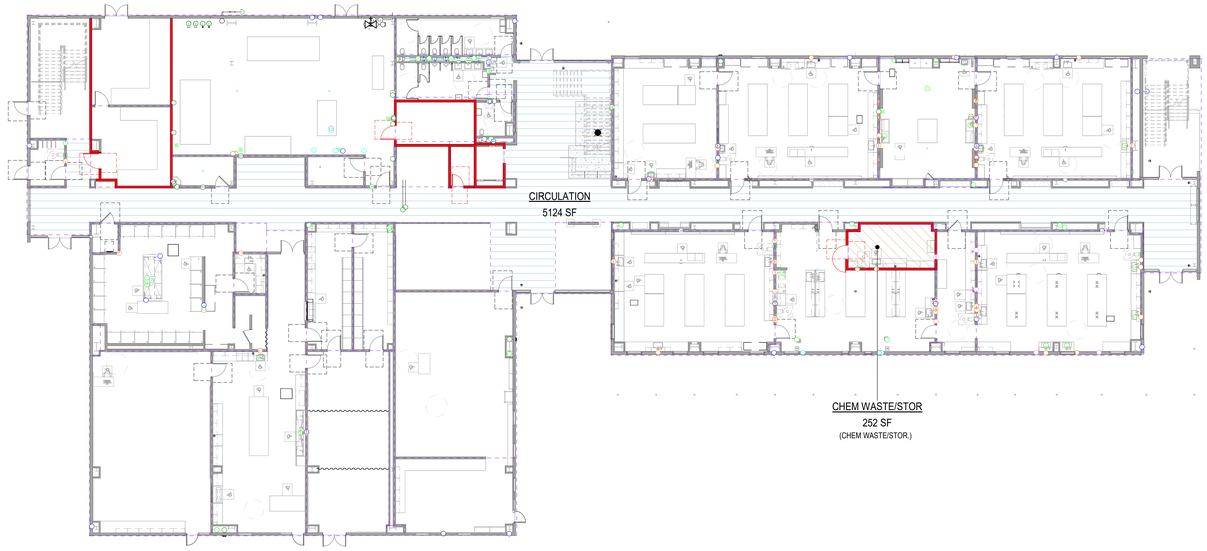
CONTROL AREA DIAGRAM - LEVEL 1



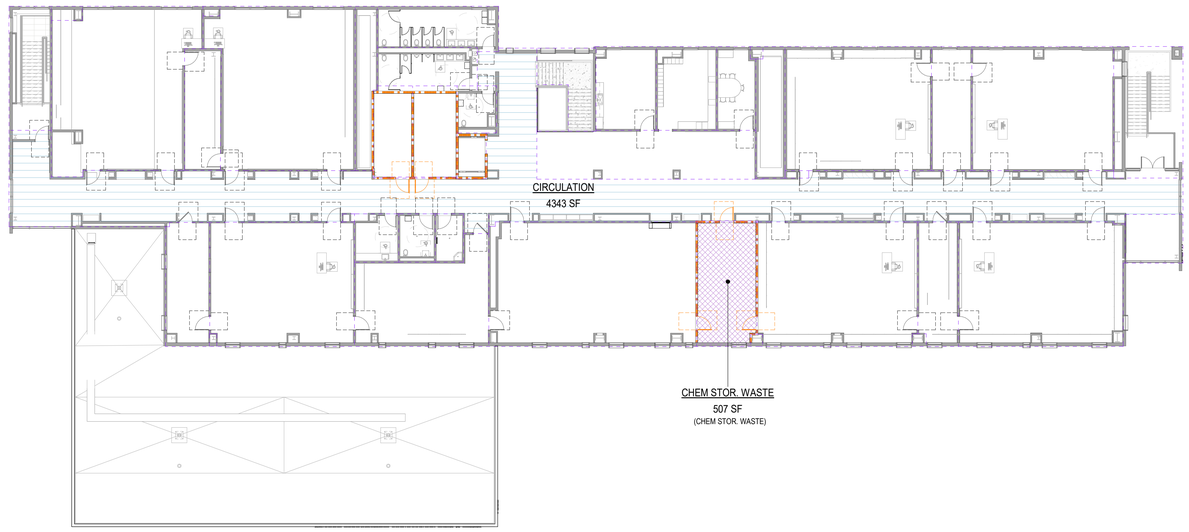
CONTROL AREA 1A
CONTROL AREA 2A
CIRCULATION

CONTROL AREA DIAGRAM - LEVELS 1-2

CONTROL AREA PLANS



1 LEVEL 1 - CONTROL AREA PLAN
SCALE: 1/16" = 1'-0"



2 LEVEL 2 - CONTROL AREA PLAN
SCALE: 1/16" = 1'-0"

DESIGN AND NUMBER OF CONTROL AREAS PER CBC 414.2.2

CONTROL AREA	STORIES ABOVE GRADE	PERCENTAGE OF MAQ PER CONTROL AREA	MAX NUMBER OF CONTROL AREAS PER STORY	FIRE RESISTANCE RATING
1A	1	100	4	1 HOUR
1B	1	100	4	1 HOUR
2A	2	75	3	1 HOUR

NOTE: CONTROL AREA 1A IS OPEN TO LEVEL 2 DUE TO THE DESIGN, NUMBER, AND MAQ OF HAZARDOUS MATERIALS SHALL COMPLY WITH LEVEL 2 REQUIREMENTS FOR CONTROL AREA 1A.

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STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - CONTROL AREA PLANS

14794
PROJECT NUMBER

CD
G2.3.1
SHEET NUMBER

START Sheet
7/23/2025 4:23:19 PM
Plot Date:

LEGEND

	EXISTING	PROPOSED
SAWCUT AND CONFORM LINE		
RETAINING WALL		
A.C. PAVEMENT		
CONC. VALLEY GUTTER		
CONC. SIDEWALK OR PAD		
6" CURB & GUTTER		
EDGE OF A.C. PAVEMENT	EP	
6" VERTICAL CURB		
CENTER LINE		
SANITARY SEWER MAIN	8" SS	8" SS
STORM DRAIN MAIN	12" SD	15" SD
PERFORATED PIPE		6" SD
WATER MAIN	6" W	6" W
FIRE WATER MAIN	6" FW	4" FW
DOMESTIC WATER MAIN	6" DW	4" DW
CHILLED WATER SUPPLY	6" CHWS	4" CHWS
CHILLED WATER RETURN	6" CHWR	4" CHWR
IRRIGATION LINE	2" IRR	4" IRR
HOT WATER SUPPLY & RETURN	HWS—HWR	HWS HWR
STEAM LINE	ST	ST
TRENCH DRAIN		
CONDENSATE RETURN	CR	CR
METAL BEAM GUARD RAIL		
SILT FENCE		
FLOW LINE		
CHAIN LINK FENCE	x x	x x
GAS MAIN	G	2" G
ELECTRIC AND SIGNAL DUCT BANK	E	E
OVERHEAD ELECTRIC LINE	OHE	OHE
UNDERGROUND ELECTRIC LINE	UGE	UGE
STREET LIGHT CONDUIT	SL	SL
CONTOUR ELEVATION LINE	85	90 89
SPOT ELEVATION	x 95.94	FG 95.94
DIRECTION OF SLOPE		2:1 1%
GAS METER		GM
GAS VALVE		
WATER METER		WM
WATER VALVE		
FIRE HYDRANT		
BACK FLOW PREVENTOR	PIV	
POST INDICATOR VALVE		PIV
FIRE DEPARTMENT CONNECTION		
WATER LINE TEE		
CAP AND PLUG END		
AIR RELEASE VALVE		ARV
SIGN		
ACCESSIBLE RAMP		
CONCRETE THRUST BLOCK		
REDUCER		
SANITARY SEWER MANHOLE		
SANITARY SEWER CLEANOUT	SSCO	SSCO
STORM DRAIN MANHOLE		
STORMCEPTOR		
STORM DRAIN AREA DRAIN		
STORM DRAIN CATCH BASIN	CB	
STORM DRAIN CURB INLET		
STORM DRAIN CLEANOUT	SDCO	SDCO
ELECTROLIER		
JOINT POLE		
OVERLAND RELEASE		
CONSTRUCTION DETAIL REFERENCE		15 / C5.2 DETAIL REFERENCE / SHEET REFERENCE

ABBREVIATIONS

AB	–	AGGREGATE BASE
AC	–	ASPHALT CONCRETE
AD	–	AREA DRAIN
ADA	–	AMERICANS WITH DISABILITIES ACT
ASB	–	AGGREGATE SUBBASE
BC	–	BEGINNING OF CURVE
BFP	–	BACK FLOW PREVENTOR
BLDC	–	BUILDING CORNER
BLDG	–	BUILDING
BOD	–	BOTTOM OF DOCK
BOL	–	BOLLARD
BOS	–	BOTTOM OF STEP
BOW	–	FG @ BOTTOM OF WALL
BVC	–	BEGIN VERTICAL CURVE
BW	–	BACK OF WALK
C	–	CONCRETE OR CIVIL
C&G	–	CURB AND GUTTER
CB	–	CATCH BASIN
CI	–	CURB INLET
CIP	–	CAST IRON PIPE
CL	–	CENTER LINE OR CLASS
CMP	–	CORRUGATED METAL PIPE
CO	–	CLEANOUT
CONC	–	CONCRETE
CONST	–	CONSTRUCTION OR CONSTRUCT
CY	–	CUBIC YARD
DCDA	–	DOUBLE CHECK DETECTOR ASSEMBLY
DI	–	DROP INLET
DIP	–	DUCTILE IRON PIPE
DOM	–	DOMESTIC
DW	–	DOMESTIC WATER
DWG	–	DRAWING
E	–	EAST
EC	–	END OF CURVE
EP	–	EDGE OF PAVEMENT
ER	–	END OF RETURN
EVC	–	END VERTICAL CURVE
ELEV	–	ELEVATION
EX., EXIST.	–	EXISTING
FC	–	FACE OF CURB
FDC	–	FIRE DEPARTMENT CONNECTION
FF	–	FINISHED FLOOR
FG	–	FINISHED GRADE
FH	–	FIRE HYDRANT
FL	–	FLOW LINE
FOUND	–	FOUNDATION
FS	–	FINISHED SURFACE
FT	–	FOOT
FW	–	FIRE WATER
G	–	GROUND ELEVATION
GB	–	GRADE BREAK
GV	–	GATE VALVE
HCR	–	ACCESSIBLE RAMP
HP	–	HIGH POINT
INV	–	INVERT ELEVATION
JP	–	JOINT POLE
JT	–	JOINT TRENCH
LIP	–	LIP OF GUTTER
LP	–	LOW POINT
LSA	–	LANDSCAPE ARCHITECT
MAX	–	MAXIMUM
MEP	–	MECHANICAL/ELECTRICAL/PLUMBING
MH	–	MANHOLE
MIN	–	MINIMUM
MPVC	–	MIDPOINT OF VERTICAL CURVE
MON	–	MONUMENT
N	–	NORTH
N.I.C.	–	NOT IN CONTRACT
NO	–	NUMBER
NTS	–	NOT TO SCALE
P	–	PAVEMENT ELEVATION
PCC	–	PORTLAND CEMENT CONCRETE / POINT OF CONTINUOUS CURVATURE
PIV	–	POST INDICATOR VALVE
PL	–	PROPERTY LINE
PMH	–	POWER MANHOLE
POC	–	POINT ON CURVE
PP	–	POWER POLE
PRC	–	POINT OF REVERSE CURVATURE
PVC	–	POLYVINYL CHLORIDE PIPE
R	–	RADIUS
RC	–	RELATIVE COMPACTION
RCP	–	REINFORCED CONCRETE PIPE
RPPA	–	REDUCED PRESSURE PRINCIPLE ASSEMBLY
R/W	–	RIGHT OF WAY
S	–	SLOPE OR SOUTH
S.A.D.	–	SEE ARCHITECTURAL DRAWINGS
SB	–	SEDIMENT BASIN
SD	–	STORM DRAIN
S.E.D.	–	SEE ELECTRICAL DRAWINGS
SF	–	SILT FENCE
SG	–	SUBGRADE
S.L.D.	–	SEE LANDSCAPE DRAWINGS
S.M.D.	–	SEE MECHANICAL DRAWINGS
SMH	–	SIGNAL MANHOLE
S.P.D.	–	SEE PLUMBING DRAWINGS
SS	–	SANITARY SEWER
STA	–	STATION
STD	–	STANDARD
S/W	–	SIDEWALK
TC	–	TOP OF CURB
TD	–	TRENCH DRAIN
TOD	–	TOP OF DOCK
TOE	–	TOE OF SLOPE
TOS	–	TOP OF STAIR
TOW	–	FG @ TOP OF WALL
TS	–	TOP OF SLAB
TYP	–	TYPICAL
UON	–	UNLESS OTHERWISE NOTED
U/G	–	UNDERGROUND
VC	–	VERTICAL CURVE
WM	–	WATER METER
WV	–	WATER VALVE
W	–	WEST
WWF	–	WELDED WIRE FABRIC
W/	–	WITH

CONSTRUCTION NOTES

1. ALL OFF-SITE CONSTRUCTION MATERIAL AND METHODS SHALL COMPLY WITH THE LATEST EDITION OF THE CITY OF LIVERMORE AND THE LATEST CALTRANS STANDARD PLANS & SPECIFICATIONS.
2. CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE CITY OF LIVERMORE POLICE AND FIRE DEPARTMENTS.
3. CONTRACTOR SHALL POST ON THE SITE, EMERGENCY TELEPHONE NUMBERS FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS.
4. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY UNLESS AN EXCAVATION PERMIT SPECIFIES OTHERWISE.
5. THE CONTRACTOR SHALL HIRE A STREET CLEANING CONTRACTOR TO CLEAN UP DIRT AND DEBRIS FROM CITY STREETS THAT ARE ATTRIBUTABLE TO THE DEVELOPMENT'S CONSTRUCTION ACTIVITIES.
6. ALL GRADING SHALL BE PERFORMED IN SUCH A MANNER AS TO COMPLY WITH THE STANDARDS ESTABLISHED BY THE AIR QUALITY MAINTENANCE DISTRICT FOR AIRBORNE PARTICULATES (DUST).
7. ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO. UNAPPROVED GRADING WORK SHALL BE REMOVED AND REDONE AT THE CONTRACTORS EXPENSE.
8. ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY DURING THE CONSTRUCTION PERIOD.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OF UNDERGROUND FACILITIES DAMAGED DURING THE CONSTRUCTION PERIOD.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL ENCROACHMENT, EXCAVATION, CONCRETE, ELECTRICAL, PLUMBING, ETC. PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION FOR ANY WORK.
12. THE CONTRACTOR SHALL HAVE A SUPERINTENDENT OR REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.
13. STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON CITY STREETS WILL NOT BE PERMITTED.
14. CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MUFFLED. UNNECESSARY IDLING OF GRADING CONSTRUCTION EQUIPMENT IS PROHIBITED.
15. CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER OR STORM DRAIN.
16. A CONTAINED AND COVERED AREA ON-SITE SHALL BE USED FOR STORAGE OF CEMENT BAGS, PAINTS, FLAMMABLE, OILS, FERTILIZERS, PESTICIDES, OR ANY OTHER MATERIALS THAT HAVE POTENTIAL FOR BEING DISCHARGED TO THE STORM DRAIN SYSTEM BY WIND OR IN THE EVENT OF A MATERIAL SPILL.
17. ALL CONSTRUCTION DEBRIS SHALL BE GATHERED ON A REGULAR BASIS AND PLACED IN A DUMPSTER WHICH IS EMPTIED OR REMOVED WEEKLY. WHEN FEASIBLE, TARPS SHALL BE USED ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORMWATER POLLUTION.
18. ANY TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS.
19. CONCRETE TRUCKS AND CONCRETE FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.

DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

UTILITY/POTHOLE NOTE

THE TYPES, LOCATIONS, SIZES AND /OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND FACILITIES AND UTILITIES BY POTHOLING PRIOR TO COMMENCING CONSTRUCTION.

GENERAL UTILITY NOTES

1. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CLIENT, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.

DIMENSIONS

ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.

UNDERGROUND WORK CAUTION

CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. FOR NORTHERN CALIFORNIA DIAL 811 OR (800) 227-2600. FOR OTHER AREAS CALL (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

HAZARDOUS MATERIALS NOTE

THERE MAY BE ASBESTOS CONTAINING PIPE AND PIPE INSTALLATION OR OTHER HAZARDOUS MATERIALS WITHIN THE PROJECT AREA. THE CONTRACTOR WILL PROTECT ALL HAZARDOUS CONTAINING ITEMS DURING THE EXECUTION OF THIS CONTRACT. ADDITIONALLY THE CONTRACTOR WILL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS REGARDING CONSTRUCTION ACTIVITIES NEAR HAZARDOUS MATERIALS.

PROJECT DESCRIPTION

PROJECT PROPOSES TO UPGRADE EXISTING ACCESSIBLE PATHS AND PROVIDE EGRESS TO BUILDINGS 500 AND 600.

CONSTRUCTION FENCE

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
2. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS ONLY FOR VISUAL CONFORMANCE OF THIS CONSTRUCTION SITE TO THE CITY OF LIVERMORE STANDARDS. CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES TO KEEP THE SITE SECURE AND SAFE.

FIRE SAFETY NOTES

APPLICABLE CODES AS OF MAY 24, 2024:

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)

2022 CALIFORNIA BUILDING CODE, VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR)
(2021 EDITION INTERNATIONAL BUILDING CODE)

2022 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)
(2021 EDITION NATIONAL ELECTRICAL CODE)

2022 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)
(2021 EDITION UNIFORM MECHANICAL CODE)

2022 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)
(2021 EDITION UNIFORM PLUMBING CODE)

2022 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)

2022 CALIFORNIA ELEVATOR SAFETY ORDERS (CHAPTER 4, TITLE 8, CCR)

2022 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)

2022 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

PARTIAL LIST OF APPLICABLE STANDARDS:

NFPA 13 – AUTOMATIC SPRINKLER SYSTEMS – 2022 EDITION
NFPA 14 – STANDPIPE SYSTEMS – 2022 EDITION
NFPA 17A – WET CHEMICAL SYSTEMS – 2022 EDITION
NFPA 24 – PRIVATE FIRE MAINS – 2022 EDITION
NFPA 72 – NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED)
(NOTE: SEE UL STANDARD 1971 FOR " VISUAL DEVICES) – 2022 EDITION
NFPA 253 – CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS – 2022 EDITION
NFPA 20 – STATIONARY PUMPS FOR FIRE PROTECTION – 2022 EDITION
NFPA 99 – HEALTH CARE FACILITIES – 2022 EDITION
THE PROVISIONS OF C.F.C. & C.B.C. CHAPTER 33 SHALL BE ENFORCED ON THIS PROJECT.

UNDERGROUND FIRE SERVICE TO FIRE HYDRANTS REQUIREMENTS:

NFPA 24, SEC. 10.1.6.1: UNLESS THE REQUIREMENTS OF 10.1.6.2 ARE MET, ALL FERROUS METAL PIPE SHALL BE LINED IN ACCORDANCE WITH THE APPLICABLE STANDARDS IN TABLE 10.1.1

NFPA 24, SEC. 10.3.6.2: ALL BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.

NFPA 24, SEC. 10.8.3.5: CORROSION RESISTANCE. AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES SHALL BE CLEANED AND THOROUGHLY COATED WITH BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL.

NFPA 24, SEC. 10.8.2: THRUST BLOCKS SHALL BE CONSIDERED SATISFACTORY WHERE SOIL IS SUITABLE FOR THEIR USE. THRUST BLOCKS SHALL BE OF A CONCRETE MIX NOT LEANER THAN ONE PART CEMENT, TWO AND ONE HALF PARTS SAND, AND FIVE PARTS STONE. THRUST BLOCKS SHALL BE PLACED BETWEEN UNDISTURBED EARTH AND THE FITTING TO BE RESTRAINED, AND SHALL BE CAPABLE OF RESISTING THE CALCULATED THRUST FORCES. WHEREVER POSSIBLE, THRUST BLOCKS SHALL BE PLACED SO THAT THE JOINTS ARE ACCESSIBLE FOR REPAIR.

NFPA 24, SEC. 10.10.2.1: UNDERGROUND PIPING, FROM THE WATER SUPPLY TO THE SYSTEM RISER, AND LEAD-IN CONNECTIONS TO THE SYSTEM RISER SHALL BE COMPLETELY FLUSHED BEFORE THE CONNECTION IS MADE TO THE DOWNSTREAM FIRE PROTECTION SYSTEM PIPING. THE FLUSHING OPERATION SHALL BE CONTINUED FOR A SUFFICIENT TIME TO ENSURE THOROUGH CLEANING. THE MINIMUM RATE OF FLOW SHALL BE NOT LESS THAN THAT SPECIFIED IN SECTION 11.10.2.

NFPA 24, SEC. 10.10.2.2.1: ALL PIPING AND ATTACHED APPURTENANCES SUBJECT TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE AT +/-5 PSI FOR 2 HOURS.

NFPA 24, SEC 10.10.1: THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING: (1) NOTIFYING THE AUTHORITY HAVING JURISDICTION AND THE OWNER'S REPRESENTATIVE OF THE TIME AND DATE TESTING IS TO BE PERFORMED; (2) PERFORMING ALL REQUIRED ACCEPTANCE TESTS; (3) COMPLETING AND SIGNING THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE(S) SHOWN IN FIGURE 10.10.1.

NFPA 24, SEC. 10.4: THE DEPTH OF COVER OVER WATER PIPES SHALL NOT BE LESS THAN 2-1/2 FEET TO PREVENT MECHANICAL DAMAGE. PIPE UNDER DRIVEWAYS SHALL BE BURIED AT A MINIMUM DEPTH OF 3 FEET. PIPE UNDER RAILROAD TRACKS SHALL BE BURIED AT A MINIMUM DEPTH OF 4 FEET.

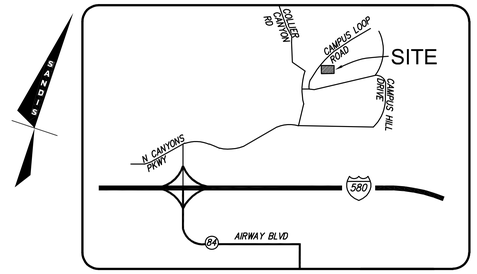
NFPA 24, SEC. 10.6.1: PIPE SHALL NOT BE RUN UNDER BUILDINGS EXCEPT WHERE PERMITTED IN 10.6.2 AND 10.6.3

PAVEMENT SECTIONS

1. SEE GEOTECHNICAL REPORT FOR ALL FLATWORK AND VEHICULAR PAVEMENT SECTIONS AND BASE REQUIREMENTS.
2. THE FINAL OR SURFACE LAYER OF ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL ALL ON-SITE IMPROVEMENTS HAVE BEEN COMPLETED, INCLUDING ALL GRADING, AND ALL UNACCEPTABLE CONCRETE WORK HAS BEEN REMOVED AND REPLACED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND/OR DEVELOPER'S CIVIL ENGINEER.
3. ALL PAVING SHALL BE IN CONFORMANCE WITH SECTION 26 "AGGREGATE BASE" AND SECTION 39 "ASPHALT CONCRETE" PER LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.

ACCESSIBILITY NOTES

1. ALL SITE WORK SHALL BE IN CONFORMANCE WITH TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND WITH THE AMERICANS WITH DISABILITIES ACT.
2. CURB RAMPS SHALL NOT EXCEED A SLOPE OF 1:12 (8.33%).
3. PATH OF TRAVEL TO BUILDINGS SHALL NOT EXCEED A SLOPE OF 1:20 (5%) UNLESS RAILINGS ARE SHOWN ON ARCHITECTURAL PLANS, IN WHICH CASE THE SLOPE SHALL NOT EXCEED 1:12 (8.33%).
4. A 2% MAXIMUM SLOPE LANDING SHALL BE PROVIDED AT PRIMARY ENTRANCES TO BUILDINGS, THE LANDINGS SHALL HAVE A MINIMUM WIDTH OF 60" AND A MINIMUM DEPTH OF 60" WHEN THE DOOR OPENS INTO THE BUILDING, AND 42" PLUS THE WIDTH OF THE DOOR WHEN THE DOOR OPENS ONTO THE LANDING.
5. RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES OF 1:20 (5%) AND 1:12 (8.33%), AND SHALL HAVE A MINIMUM WIDTH OF 48" AND A MAXIMUM CROSS-SLOPE OF 2%. RAMPS EXCEEDING 2'-6" VERTICAL SHALL HAVE INTERMEDIATE (2% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN THE DIRECTION OF TRAVEL OF 60". BOTTOM LANDINGS AT CHANGES IN RAMP DIRECTION SHALL HAVE A MINIMUM LENGTH OF 72".
6. MAXIMUM CROSS SLOPE ON ANY SIDEWALK OR RAMP SHALL BE 2% MAXIMUM. MAXIMUM SLOPE WITHIN PARKING STALLS DESIGNATED AS ACCESSIBLE PARKING SHALL BE 2% IN ANY DIRECTION.
7. ALL SIDEWALKS SHALL HAVE A 4' MINIMUM CLEAR WIDTH FOR ACCESSIBLE CONFORMANCE.



VICINITY MAP
NOT TO SCALE

PROJECT DESCRIPTION

PROJECT PROPOSES TO CONSTRUCT THE NEW STEAM BUILDING, A TWO-STORY CLASSROOM BUILDING, LOCATED IN THE CENTER OF THE LAS POSITAS CAMPUS, BETWEEN EXISTING BUILDINGS 600 AND 1800.

GENERAL SITE NOTES

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. ALL WORK ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
3. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH "(E)" OR "EX." AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO THE ENGINEER.
4. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
5. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE CLIENT, THE CONSULTING ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CLIENT OR THE CONSULTING ENGINEER.

PROJECT SITE MAINTENANCE

1. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
2. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
3. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND-BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
4. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
5. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.

DUST CONTROL NOTES

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
2. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE CITY OF LIVERMORE'S DEPARTMENT OF PUBLIC WORKS.
3. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.
4. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT-TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
6. GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT SWPPP (IF ONE EXISTS) OR AS APPLICABLE PER LOCAL REGULATIONS AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS. ALL GRADING OPERATIONS SHALL BE SUSPENDED DURING SECOND (OR WORSE) STAGE SMOG ALERTS.

RECORD DRAWING NOTE

THE CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE CITY ENGINEER AND DEVELOPER'S CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE CITY ENGINEER.

CIVIL SHEET INDEX

C.1.0.0 CIVIL NOTES, LEGEND, AND ABBREVIATIONS
C.1.1.0 EXISTING CONDITIONS PLAN
C.1.2.0 FIRE ACCESS PLAN
C.1.3.0 HORIZONTAL CONTROL PLAN
C.1.3.1 SITE AND GRADING KEY PLAN
C.1.3.2 SITE AND GRADING PLAN
C.1.3.3 SITE AND GRADING PLAN
C.1.3.4 SITE AND GRADING PLAN
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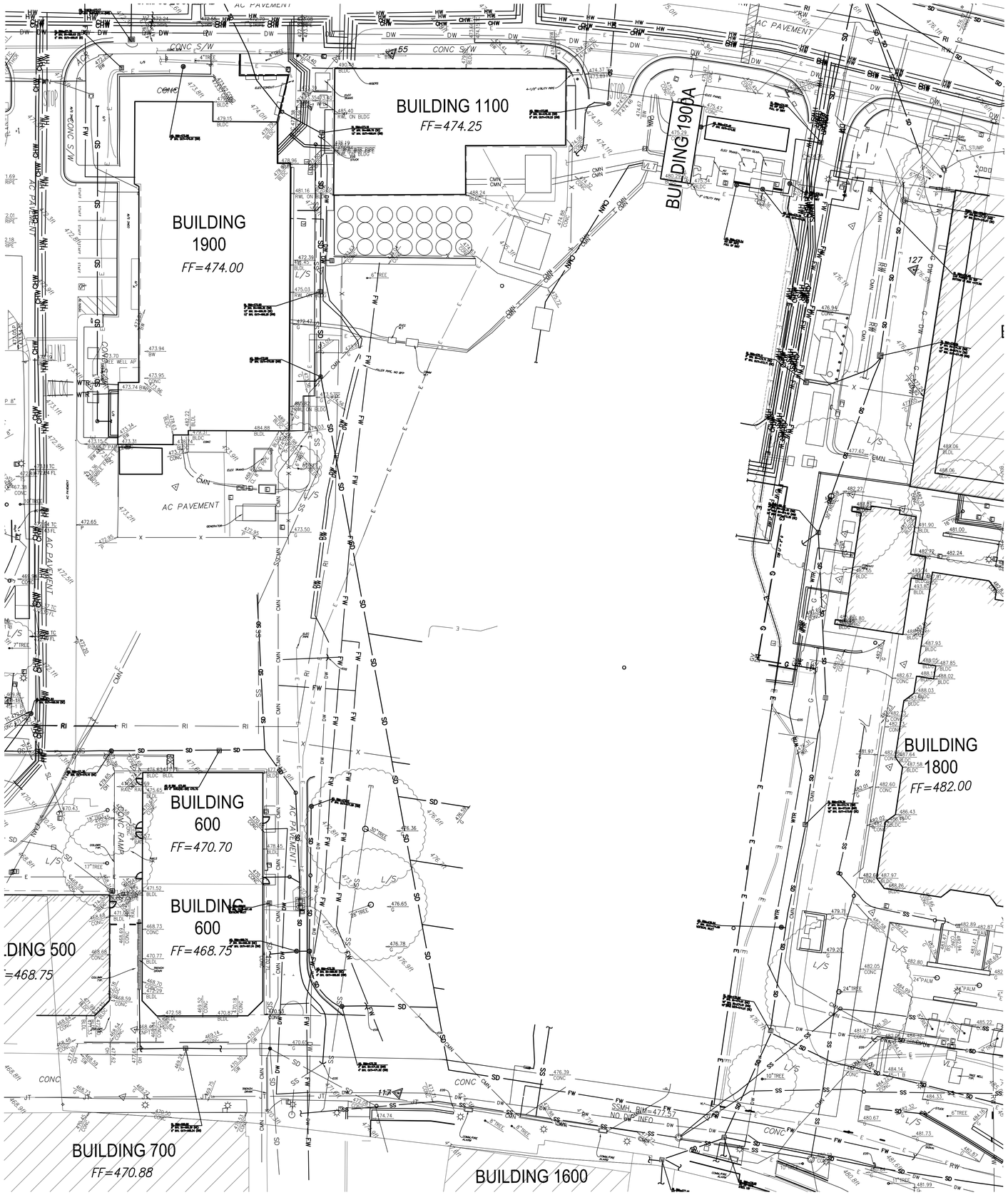
C.1.3.6 GRADING SECTION
C.1.4.0 UTILITY KEY PLAN
C.1.4.1 UTILITY PLAN
C.1.4.2 UTILITY PLAN
C.1.4.3 UTILITY PLAN
C.1.5.0 STORMWATER MANAGEMENT PLAN
C.1.6.0 CONSTRUCTION DETAILS
C.1.6.1 CONSTRUCTION DETAILS
C.1.6.2 CONSTRUCTION DETAILS

CONSTRUCT





GENERAL NOTES

PRIOR TO CONSTRUCTION OF THE STEAM BUILDING PROJECT IT IS ANTICIPATED THAT THE LPC INC1 SITE DEMOLITION AND UTILITIES PROJECT (DSA APP 01-121987) WILL BE COMPLETED.

SHEET SHOWS THE SITE CONDITIONS POST COMPLETION OF THE SITE DEMOLITION AND UTILITIES PROJECT PER DESIGN PLANS DATED OCTOBER 2024. CONTRACTOR TO VERIFY FINAL CONDITIONS PRIOR TO CONSTRUCTION.

UNDERGROUND UTILITY NOTE

THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THIS SURVEY.

SURVEY NOTES

1. *ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.*
2. *DATES OF FIELD SURVEY: 08/03/23, 08/04/23, 08/07/23, 08/08/23, 08/10/23, 08/11/23, 08/14/23, 08/17/23, 08/21/23, 08/23/23, 08/30/23.*
3. *COORDINATES, BEARINGS, AND DISTANCES SHOWN ARE BASED ON AN ASSUMED COORDINATE SYSTEM. SEE SURVEY CONTROL TABLE BELOW FOR PROJECT COORDINATES. THE VERTICAL DATUM FOR THE SURVEY IS BASED ON LAS POSITAS COLLEGE BENCHMARK NO. 22 – 3/4" IRON PIPE WITH PLUG ON THE SOUTH SIDE OF THE LOOP ROAD, APPROX. 1100' FROM THE WEST ENTRY TO THE CAMPUS FROM COLLIER CANYON ROAD.*

   ELEVATION = 466.71

SURVEY CONTROL TABLE

Point #	Elevation	Northing	Easting	Description
1	544.08	13183.80	13290.31	CUT X
3	540.66	13065.26	12784.71	CNTL
35	530.04	12503.70	12911.45	CUT X
37	537.93	12217.93	13008.92	60D FEATHER
38	515.89	11929.30	12605.77	CUT X

LAS POSITAS COLLEGE

INCREMENT II -
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3000 CAMPUS HILL DR
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SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

SANDIS
SANDIS.NET

DATE 7 / 21 / 2025

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. KUYKENDALL
No. 70870
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

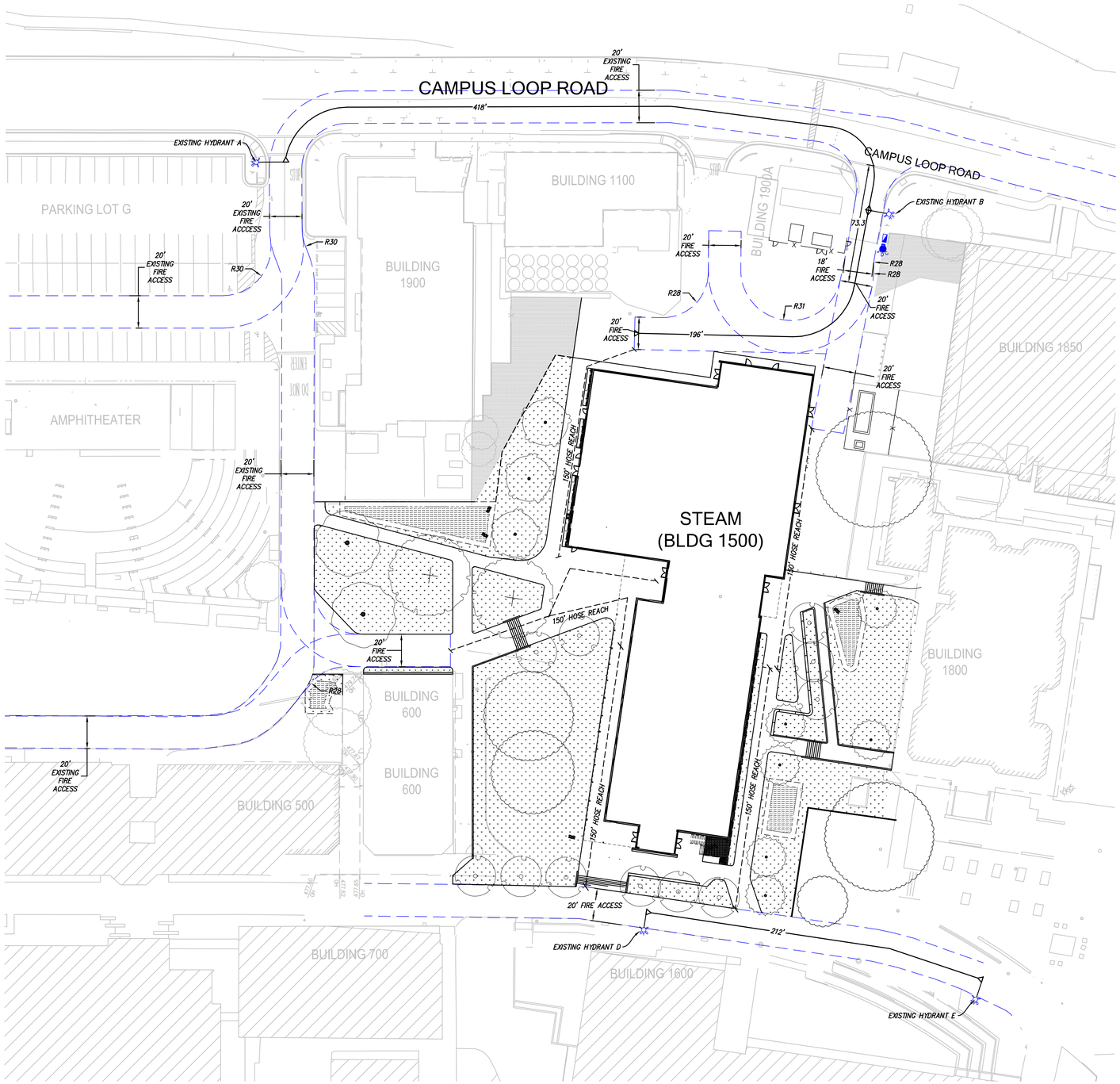
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE
EXISTING CONDITIONS PLAN

14794

PROJECT NUMBER
CD **C.1.1.0**
SHEET NUMBER



LEGEND

- PROPOSED FIRE HYDRANT
- BACKFLOW PREVENTER
- EXISTING FIRE HYDRANT TO REMAIN
- PIV — PROPOSED POST INDICATOR VALVE
- PROPOSED FIRE DEPARTMENT CONNECTION
- FIRE ACCESS ROUTE
- FIRE LANE STRIPING PER LIVERMORE FIRE DEPARTMENT POLICY GUIDELINES
- 30' — HYDRANT SPACING ALONG FIRE ACCESS ROAD (CFC C103.1)
- 30' — DISTANCE FROM FIRE ACCESS TO FURTHEST POINT ON EXTERIOR OF FIRST STORY (CFC 503.1.1)

FIRE FLOW TEST DATA

HYDRANT D WEST OF BUILDING 1850
14-INCH LINE — STATIC PRESSURE = 117 PSI
FIRE HYDRANT — AVAILABLE FLOW @ 20 PSI = 1775 GPM

HYDRANT B WEST OF BUILDING 1850
8-INCH LINE — STATIC PRESSURE = 116 PSI
FIRE HYDRANT — AVAILABLE FLOW @ 20 PSI = 1968 GPM

FLOW TEST DATA SOURCE: SANDIS INITIAL FIRE FLOW TEST 03/21/2025

FIRE FLOW REQUIREMENTS

STEAM

CONSTRUCTION TYPE:	TYPE II-B	
GROSS BUILDING FLOOR AREA:	52,648 SF	
FULLY SPRINKLERED:	YES	
REFERENCE FIRE FLOW	4750 GPM	(CFC TABLE B105.1(2))
% OF REF. FIRE FLOW REQUIRED	50%	(CFC TABLE B105.2)
REQUIRED FIRE FLOW:	2375 GPM	
REQUIRED FIRE FLOW DURATION:	2 HR	(CFC TABLE B105.1(2) & B105.2)
REQUIRED NUMBER OF HYDRANTS:	3	(CFC TABLE C102.1)
AVERAGE HYDRANT SPACING:	450 FT	(CFC TABLE C102.1)

NOTES:
1. VALUES LISTED PER 2022 CALIFORNIA FIRE CODE APPENDIX B AND CC.

FIRE PROTECTION NOTES

1. FIRE APPARATUS ROADWAYS, INCLUDING PUBLIC OR PRIVATE STREETS OR ROADS USED FOR VEHICLE ACCESS SHALL BE INSTALLED AND IN SERVICE PRIOR TO CONSTRUCTION.
2. FIRE PROTECTION WATER SERVING ALL HYDRANTS SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON SITE.
3. PRIOR TO COMBUSTIBLE MATERIAL ARRIVING ON THE SITE, CONTACT THE LIVERMORE FIRE DEPARTMENT TO SCHEDULE AN INSPECTION OF ROADWAYS AND FIRE HYDRANTS. CFC 2022.

DSA **810**

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PL 09-01: Fire Flow for Buildings*.

PROJECT INFORMATION	
School District/Owner:	Chabot Las Positas Community College District
Project Name/School:	Increment II STEAM Building / Las Positas College
Project Address:	3000 Campus Hill Dr, Livermore CA 94551

FIRE & LIFE SAFETY INFORMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☑		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☑		No ☐
3.	Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes ☐		No ☑
	Refer to the following website for FHSZ locations: Fire Hazard Severity Zones in State Responsibility Area	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.	X			
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.	X			
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.			X	
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			X	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

School District Acceptance of Acceptable Design Alternates

By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: _____ Title: _____

Signature: _____ Date: _____

LOCAL FIRE AUTHORITY (LFA) INFORMATION			
LFA Agency Name:	Livermore Pleasanton Fire Dept.		
LFA Review Official:	RYAN Rucker		
Title:	Fire Marshal	Work Phone:	925 454-2330
Work Email:	rrucker@lpfire.org		

LFA Reviewer's Signature: _____ Date: 3/25/25

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

SANDIS
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DATE 7/21/2025

REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. KUYKENDALL — No. 70870 — Exp. 6/30/25 — CIVIL — STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

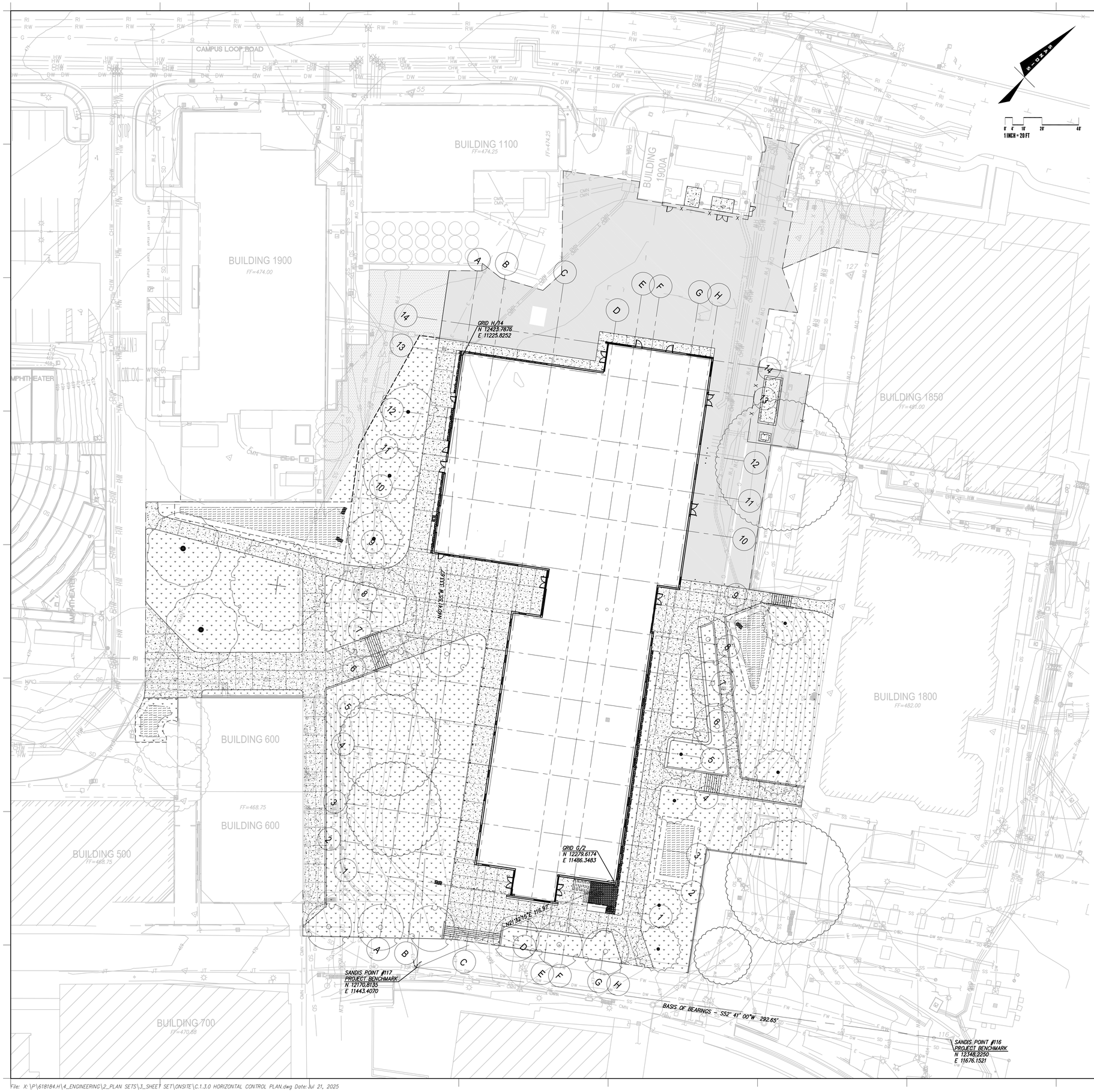
PROJECT NORTH

SHEET TITLE
FIRE ACCESS PLAN

14794

PROJECT NUMBER
CD **C.1.2.0**

SHEET NUMBER



LEGEND

- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- TOP OF SLOPE
- TOE OF SLOPE
- 194 / 195 — CONTOURS
- AC PAVEMENT (1 / C1.6.0)
- VEHICULAR CONCRETE (2 / C1.6.0)
- PLANTING, SEE LANDSCAPE PLAN FOR DETAILS.
- BIO-TREATMENT AREA (4 / C1.6.0)
- MULCH, SEE LANDSCAPE PLAN FOR DETAILS.

PROJECT BENCHMARK NOTE:

SANDIS POINT No. 117 – NORTH SIDE OF BUILDING 1600 AND SOUTH OF BUILDING 800, APPROX. 34' FROM BUILDING 1600.

ELEVATION = 472.88 FEET

BASIS OF BEARINGS

BASIS OF BEARINGS FOR THIS PROJECT ARE BASED UPON A LINE FROM A CONTROL POINT ON THE NORTH SIDE OF BUILDING 1600 AND SOUTH OF BUILDING 800 (SANDIS POINT No. 117) TO A CONTROL POINT SOUTH EAST OF BUILDING 800 AND NORTH EAST OF BUILDING 1600 (SANDIS POINT No. 58606).

BASIS OF BEARINGS POINT TABLE				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
117	12170.81	11443.41	472.88	CUT X
116	12348.23	11676.15	484.53	CUT X

LAS POSITAS COLLEGE

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R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE

HORIZONTAL CONTROL PLAN

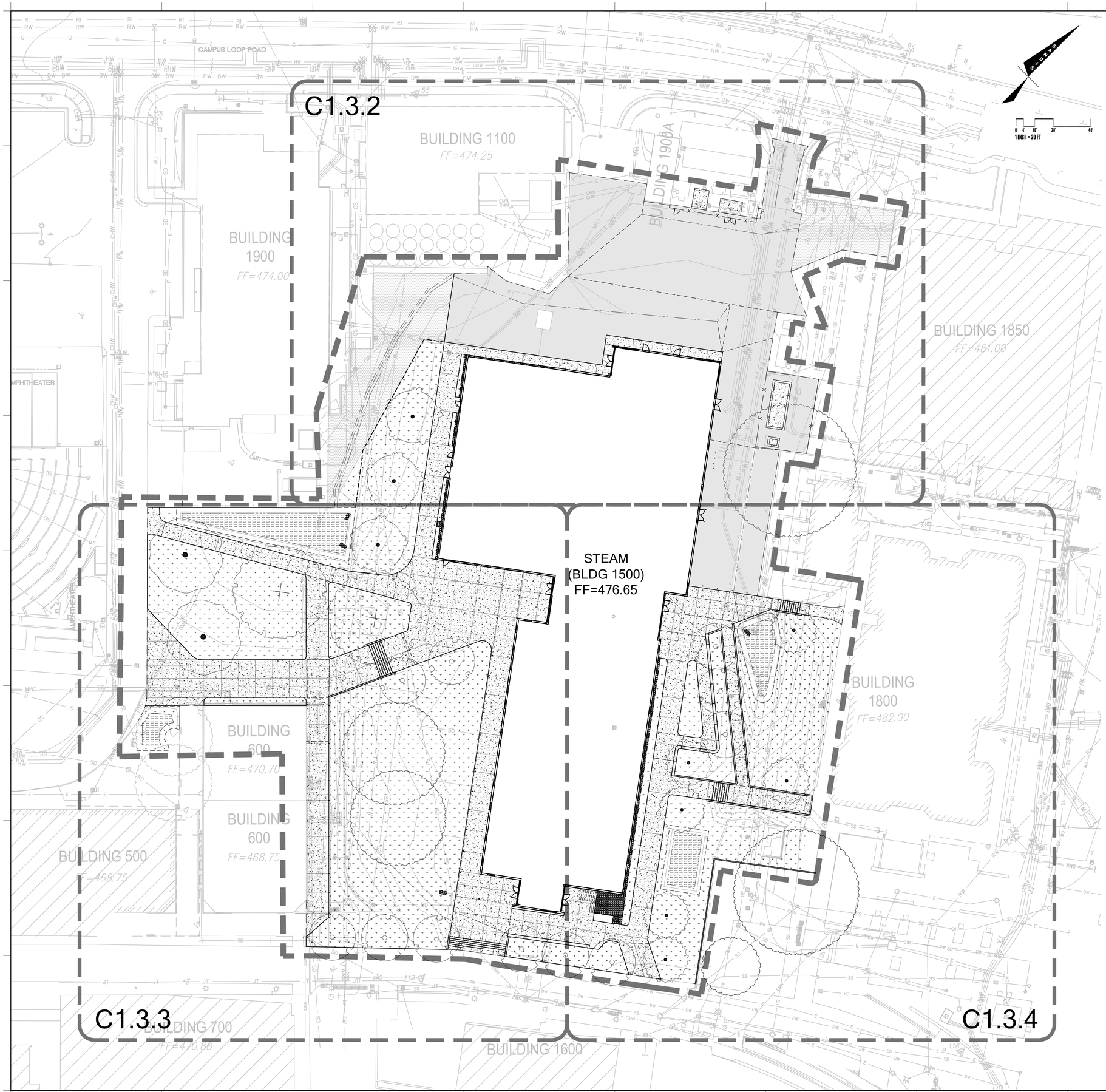
14794

PROJECT NUMBER

CD **C.1.3.0**

SHEET NUMBER

File: X:\P\618184.H\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C.1.3.0 HORIZONTAL CONTROL PLAN.dwg Date: Jul 21, 2025



LEGEND

- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- TOP OF SLOPE
- TOE OF SLOPE
- 194 / 195 CONTOURS
- AC PAVEMENT (1 / C.1.6.0)
- VEHICULAR CONCRETE (2 / C.1.6.0)
- BIO-TREATMENT AREA (4 / C.1.6.1)
- PLANTING, SEE LANDSCAPE PLAN FOR DETAILS.
- MULCH, SEE LANDSCAPE PLAN FOR DETAILS.

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

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SANDIS
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DATE 7 / 21 / 2025

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STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
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6-30-27

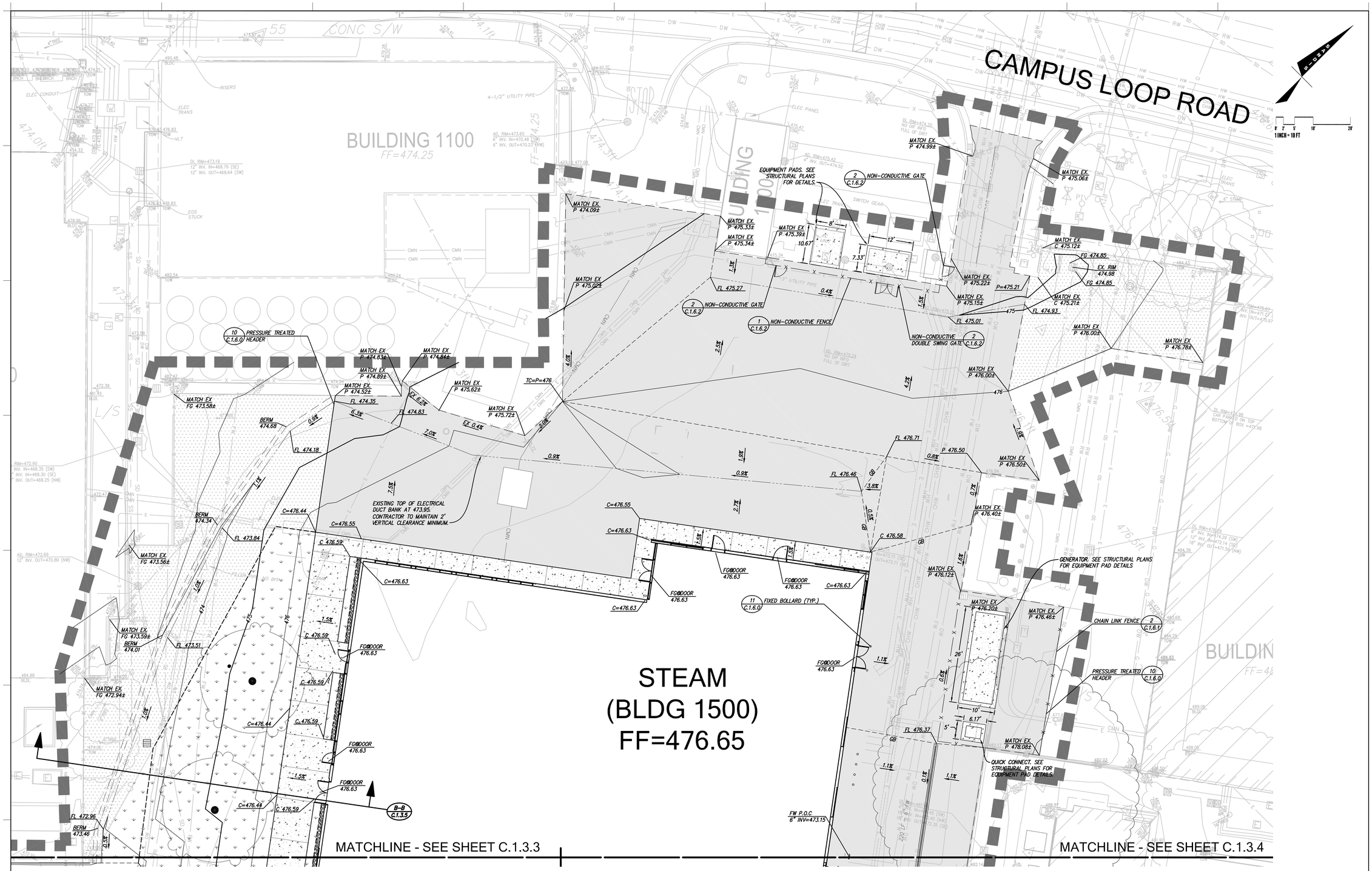
PROJECT NORTH

SHEET TITLE
SITE AND GRADING KEY PLAN

14794

PROJECT NUMBER
CD **C.1.3.1**
SHEET NUMBER

File: X:\P\618184.H\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C.1.3.1 SITE AND GRADING KEY PLAN.dwg Date: Jul 21, 2025



GENERAL NOTES

1. SEE SHEET C.1.3.1 FOR LEGEND AND NOTES.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

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SANDIS.NET

DATE 7 / 21 / 2025

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6-30-27

PROJECT NORTH

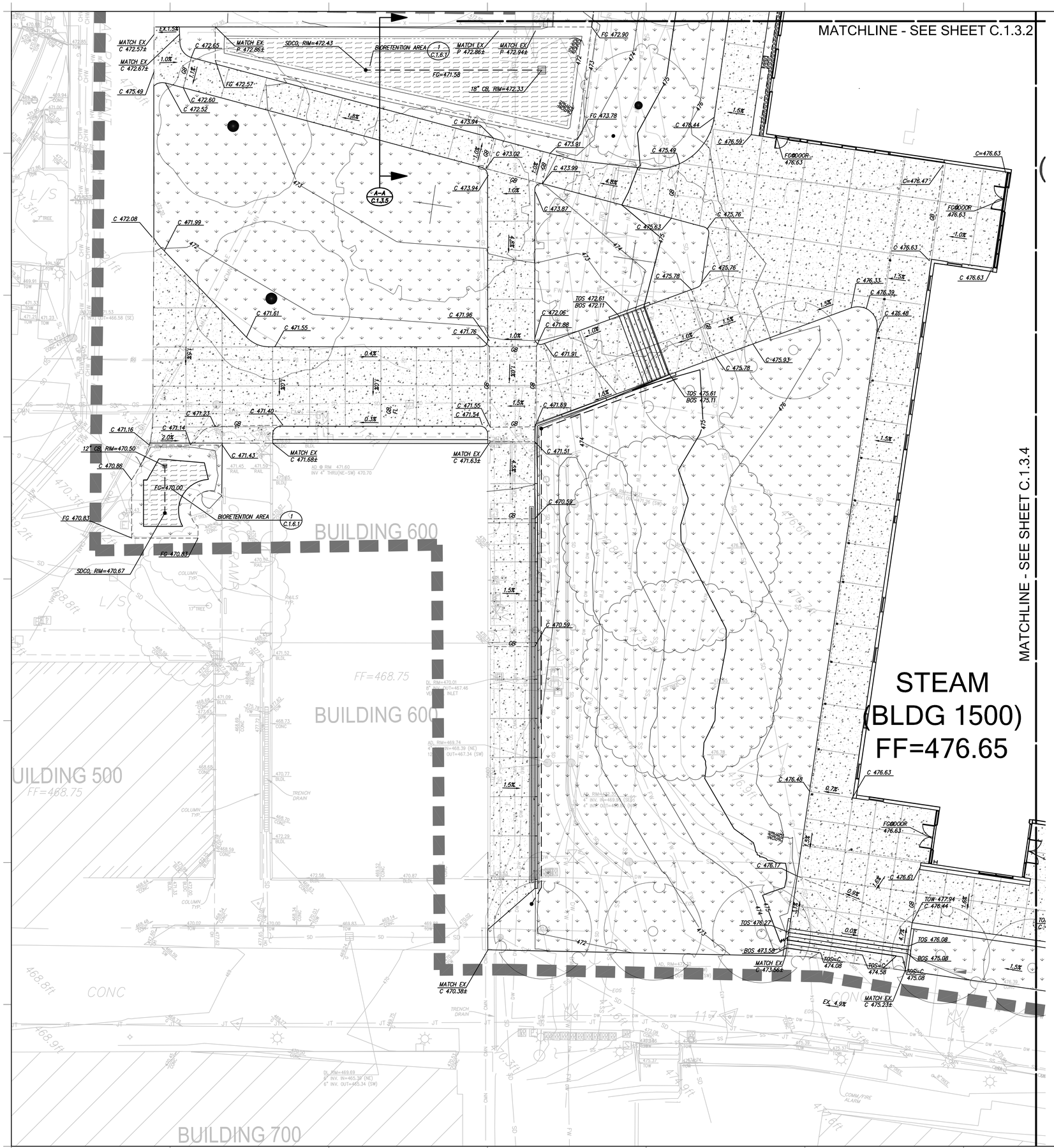
SHEET TITLE
SITE AND GRADING PLAN

14794

PROJECT NUMBER
CD

C.1.3.2

SHEET NUMBER


MATCHLINE - SEE SHEET C.1.3.2
MATCHLINE - SEE SHEET C.1.3.4
STEAM
(BLDG 1500)
FF=476.65
BUILDING 600
FF=468.75
BUILDING 500
FF=468.75
BUILDING 700
BIORETENTION AREA
BIORETENTION AREA
A
A
C.1.3.5
C.1.6.1
C.1.6.1
MATCH EX C 472.57±
MATCH EX C 472.67±
MATCH EX P 472.86±
MATCH EX P 472.86±
MATCH EX P 472.94±
SDCO, RIM=472.43
FG=471.58
18" CB, RIM=472.33
FG 472.90
FG 472.57
FG 473.78
C 472.65
C 472.60
C 472.52
C 473.94
C 473.91
C 473.02
C 473.99
C 473.94
C 473.87
C 475.49
C 476.44
C 476.59
C 475.76
C 475.63
C 475.78
C 476.63
C 476.47
C 476.63
C 476.33
C 476.39
C 476.48
C 475.93
C 475.78
C 476.63
FG DOOR 476.63
FG DOOR 476.63
C 472.08
C 471.99
C 471.61
C 471.55
C 471.96
C 471.76
C 471.91
C 472.06
C 471.88
TOS 472.61
BOS 472.11
C 471.69
C 471.55
C 471.54
C 471.40
C 471.23
C 471.14
C 471.16
C 471.43
C 471.51
C 470.59
C 470.59
TOS 475.61
BOS 475.71
12" CB, RIM=470.50
C 470.86
FG=470.00
FG 470.83
FG 470.83
SDCO, RIM=470.67
MATCH EX C 471.68±
MATCH EX C 471.63±
MATCH EX C 470.38±
C 476.17
C 476.61
C 476.44
TOW 477.94
TOS 476.27
BOS 473.58
TOS 476.08
BOS 475.08
TOS=C 474.08
TOS=C 474.58
TOS=C 475.08
MATCH EX C 473.56±
MATCH EX C 475.23±
EX 4.9%
FG 476.65
FG 476.65
FG 476.65
FG 476.65
TOS 476.65
BOS 476.15
TOS 476.65
BOS 476.15
TOS 476.65
BOS 476.15

MATCHLINE - SEE SHEET C.1.3.2

MATCHLINE - SEE SHEET C.1.3.3

STEAM (BLDG 1500) FF=476.65

BUILDING 1800
FF=482.00

GENERAL NOTES

1. SEE SHEET C.1.3.1 FOR LEGEND AND NOTES.

0' 2' 5' 10' 20'
1 INCH = 10 FT

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

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6-30-27

PROJECT NORTH

SHEET TITLE
SITE AND GRADING PLAN

PROJECT NUMBER
14794

CD **C.1.3.4**
SHEET NUMBER

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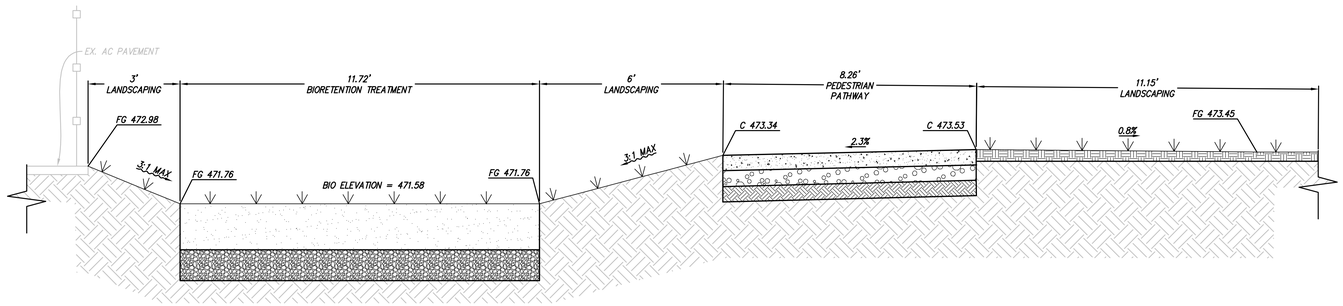
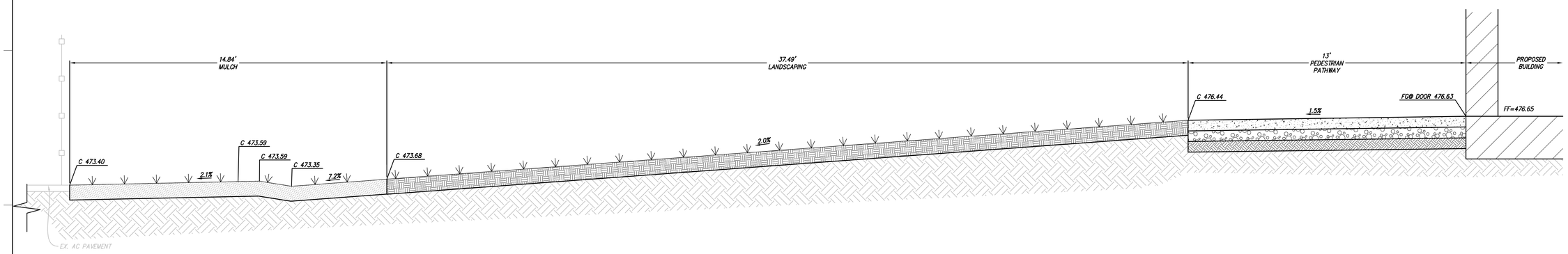


GRADING SECTION A–A

1"=2'



GRADING SECTION B–B

1"=2'

LAS POSITAS COLLEGE

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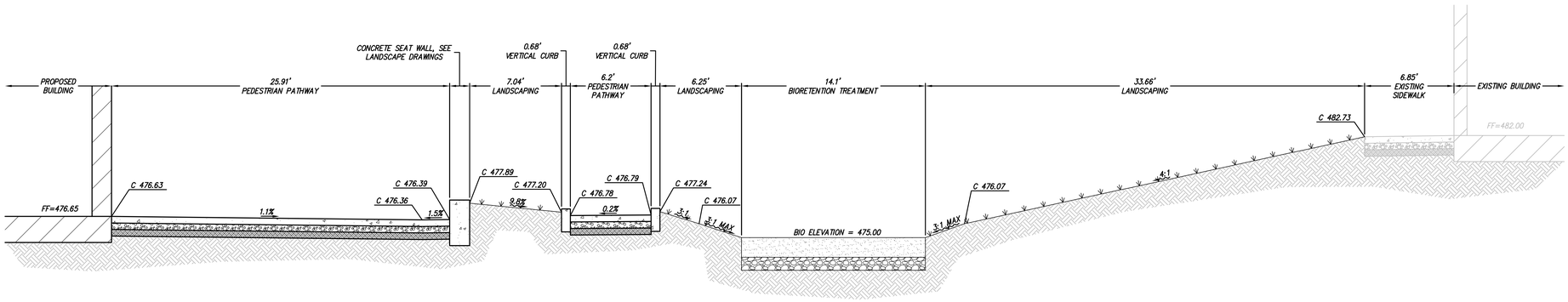
PROJECT NORTH

SHEET TITLE
GRADING SECTIONS

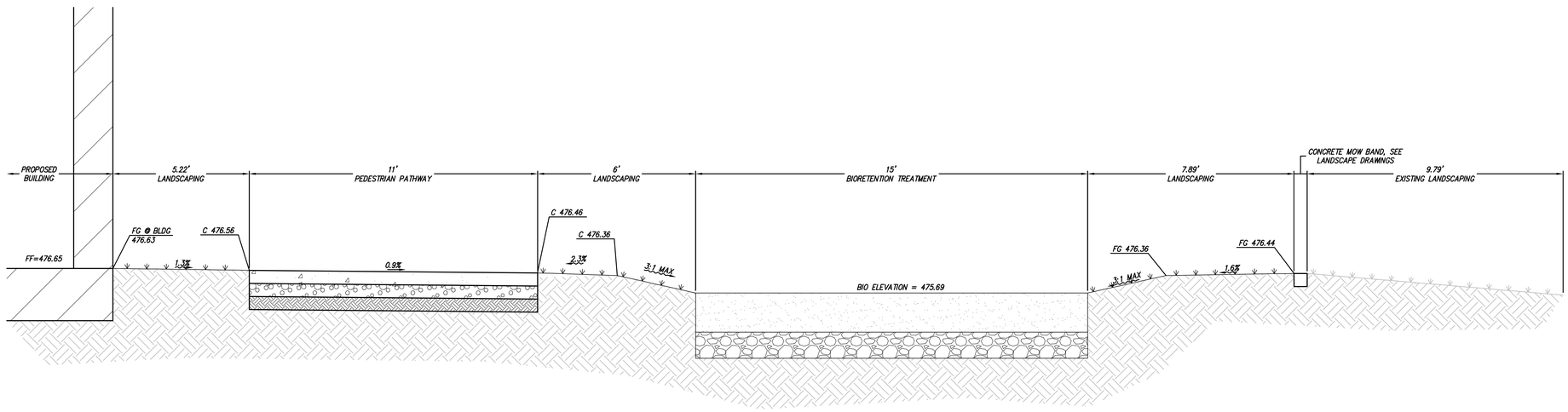
14794
PROJECT NUMBER

CD
SHEET NUMBER
C.1.3.5



GRADING SECTION C–C

1"=4'



GRADING SECTION D–D

1"=2'

LAS POSITAS COLLEGE

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6-30-27

PROJECT NORTH

SHEET TITLE

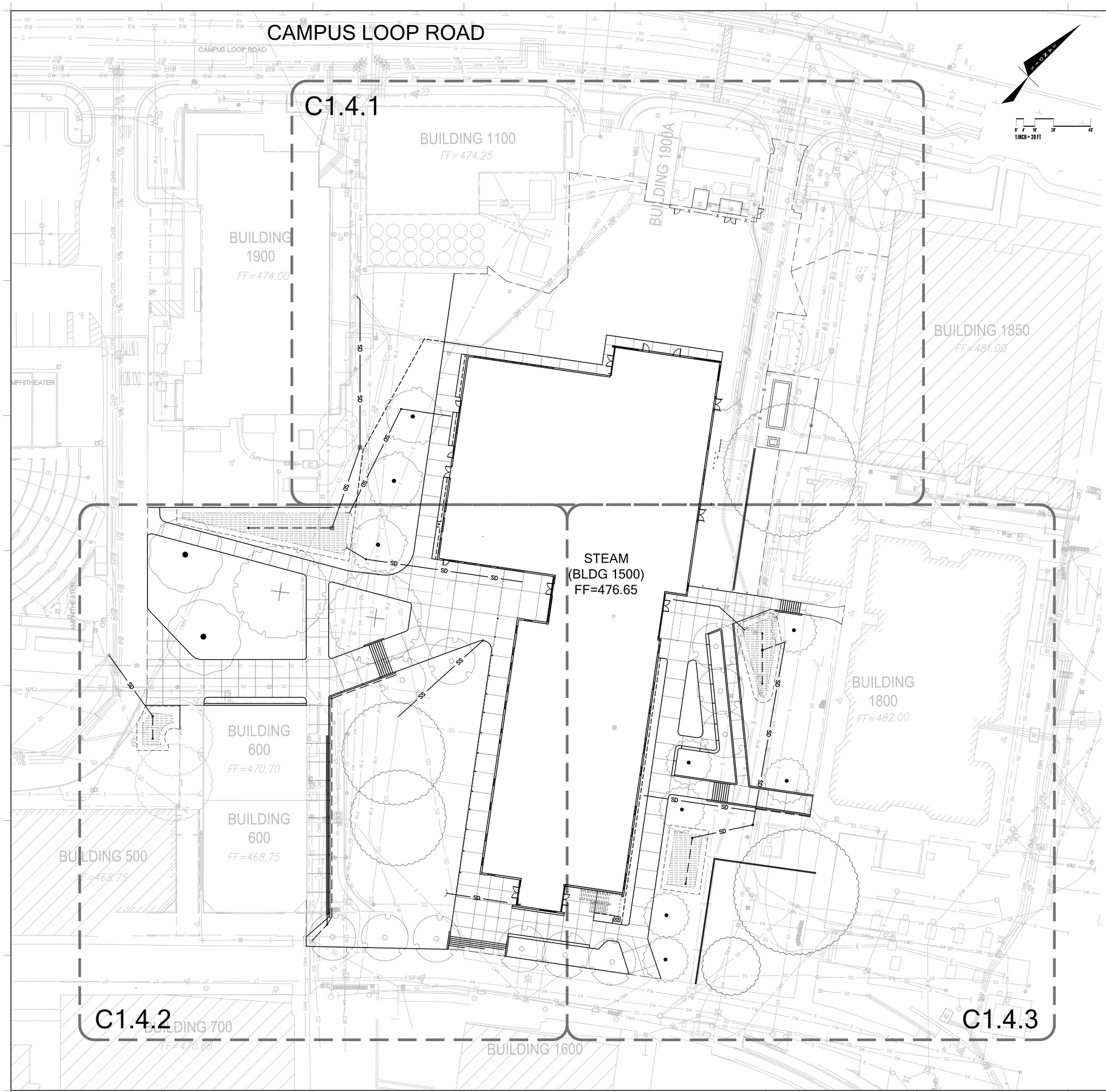
GRADING SECTION

14794

PROJECT NUMBER

CD **C.1.3.6**

SHEET NUMBER



LEGEND

BIO-TREATMENT AREA

UTILITY NOTES

1. CONTRACTOR TO RECONNECT ALL EXISTING SERVICE LATERALS TO PROPOSED MAINS AND MAINTAIN SERVICE FOR EXISTING BUILDINGS THROUGH DURATION OF CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH A DETAILED SCHEDULE FOR ANY SERVICE INTERRUPTIONS AND SHALL NOTIFY THE OWNERS REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO COMMENCING A SHUTDOWN. THE SHUTDOWN PERIOD SHALL NOT EXCEED 24 HOURS.

LAS POSITAS COLLEGE

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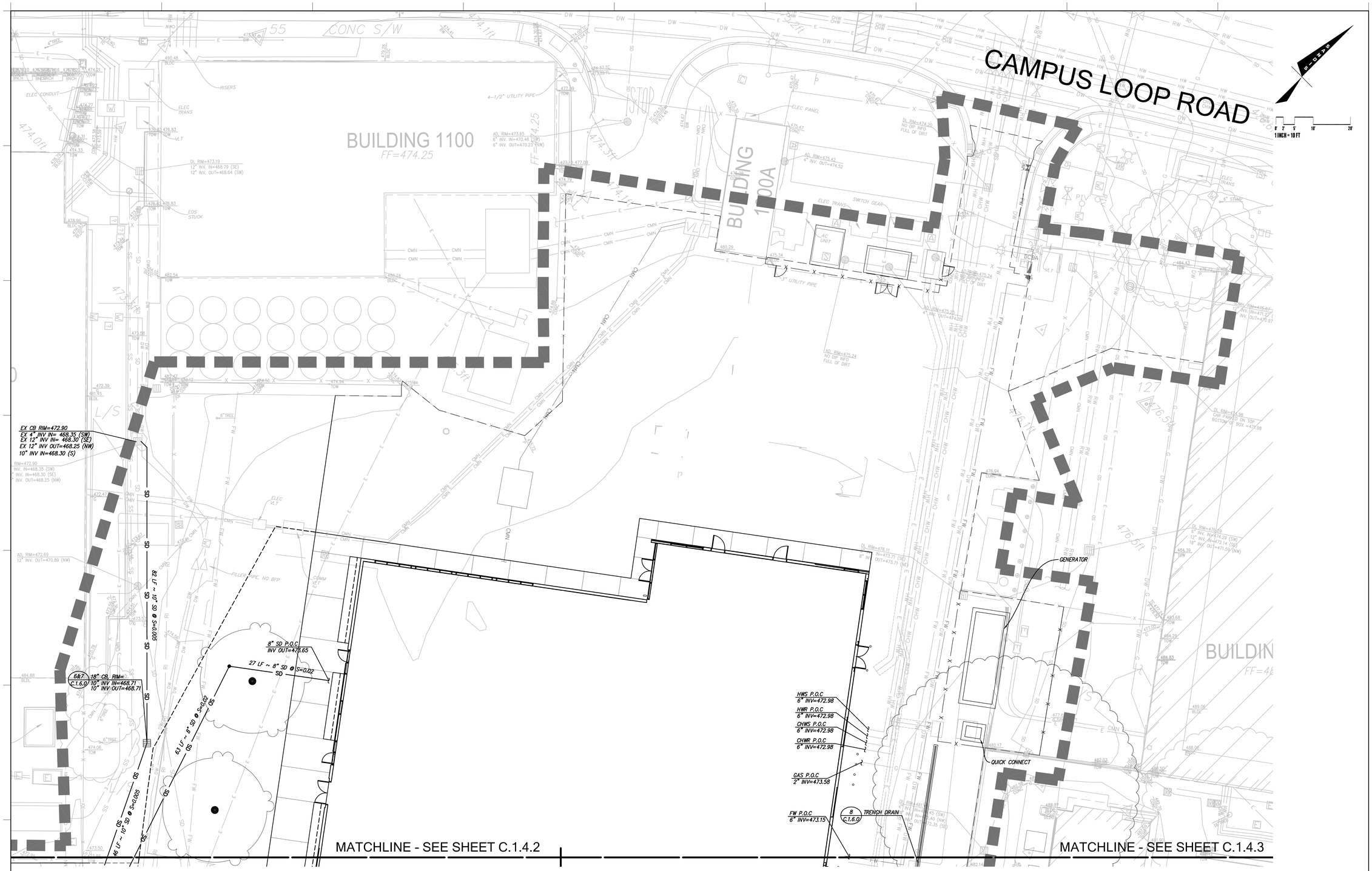
6-30-27

PROJECT NORTH

SHEET TITLE
UTILITY KEY PLAN

14794
PROJECT NUMBER

CD **C.1.4.0**
SHEET NUMBER



MATCHLINE - SEE SHEET C.1.4.2

MATCHLINE - SEE SHEET C.1.4.3

GENERAL NOTES

1. SEE SHEET C1.4.0 FOR LEGEND AND NOTES.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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6-30-27

PROJECT NORTH

SHEET TITLE

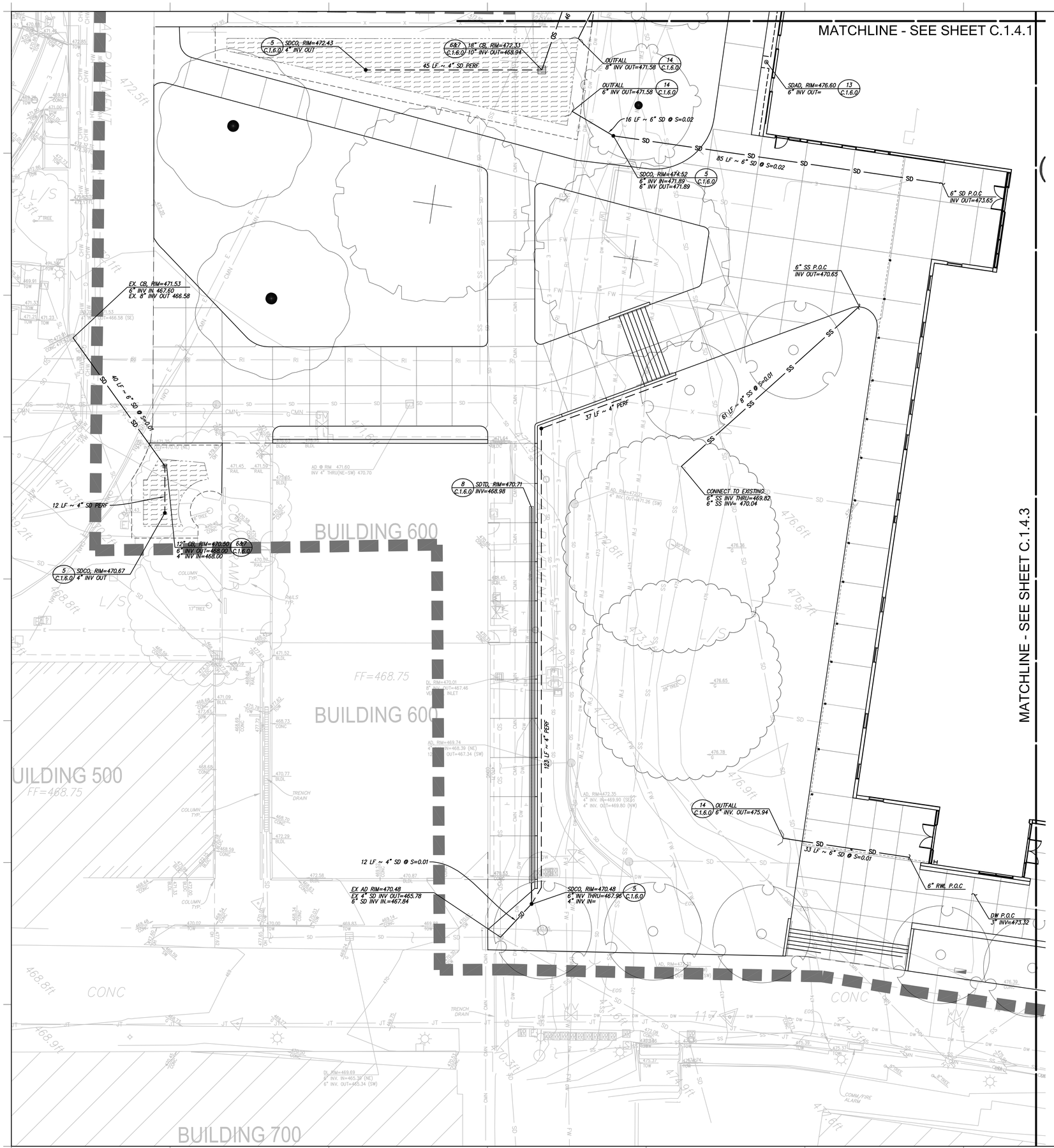
UTILITY PLAN

14794

PROJECT NUMBER

CD **C.1.4.1**

SHEET NUMBER



GENERAL NOTES

1. SEE SHEET C.1.4.0 FOR LEGEND AND NOTES.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

SANDIS
SANDIS.NET

DATE 7 / 21 / 2025

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. KUYKENDALL
No. 70870
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE

UTILITY PLAN

14794

PROJECT NUMBER

CD

C.1.4.2

SHEET NUMBER

MATCHLINE - SEE SHEET C.1.4.1

MATCHLINE - SEE SHEET C.1.4.2

STEAM (BLDG 1500) FF=476.65

6" RWL P.O.C

14 OUTFALL C.1.6.0 8" INV. OUT=475.00

51 LF ~ 6" SD @ S=0.01

SDCO, RIM=475.67 4" INV OUT — 5 C.1.6.0

9 LF ~ 4" SD PERF

13 LF ~ 8" SD @ S=0.01

DI, RIM=476.16
EX 4" INV. IN=475.16 (SW)
EX 18" INV. OUT=473.11 (NW)
18" INV. IN=473.26 (SE)
8" INV IN=473.11

12" CB, RIM=475.50 — 6&7 C.1.6.0
8" INV OUT=473.24

18 LF ~ 4" SD PERF

SDCO, RIM=475.67 4" INV OUT — 5 C.1.6.0

100 LF ~ 18" SD @ S=0.004

8" SD P.O.C
INV OUT=474.65

61 LF ~ 8" SD @ S=0.01

29 LF ~ 4" SD PERF

34 LF ~ 8" SD @ S=0.005

WYE CONNECT
8" INV IN=474.05
18" INV THRU=473.77

24" CB, RIM=477.37
8" INV IN=473.80
EX. 18" INV IN=473.80
18" INV. OUT=473.65)

12" CB, RIM=476.19 — 6&7 C.1.6.0
4" INV IN=473.81
8" INV OUT=473.81

25 LF ~ 4" SD PERF

SDCO, RIM=476.36 4" INV OUT 473.81 — 5 C.1.6.0

18" INV. OUT=474.01 (SE)

SSMH, RIM=477.57
NO DIP INFO

BUILDING 1800
FF=482.00

DI, RIM=482.18
4" INV. IN=479.13 (SW)
4" INV. IN=479.13 (NE)
14" INV. OUT=479.06 (SE)

DI, RIM=482.01
6" INV. IN=479.76 (NW)
6" INV. OUT=479.76 (SE)

DI, RIM=482.12
6" INV. IN=480.67 (NW)
4" INV. OUT=480.62 (SW)

DI, RIM=476.34
4" INV. IN=473.34 (SW)
18" INV. IN=473.64 (NW)
18" INV. OUT=473.64 (SE)

0' 2' 5' 10' 20'
1 INCH = 10 FT

GENERAL NOTES

1. *SEE SHEET C.1.4.0 FOR LEGEND AND NOTES.*

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE

UTILITY PLAN

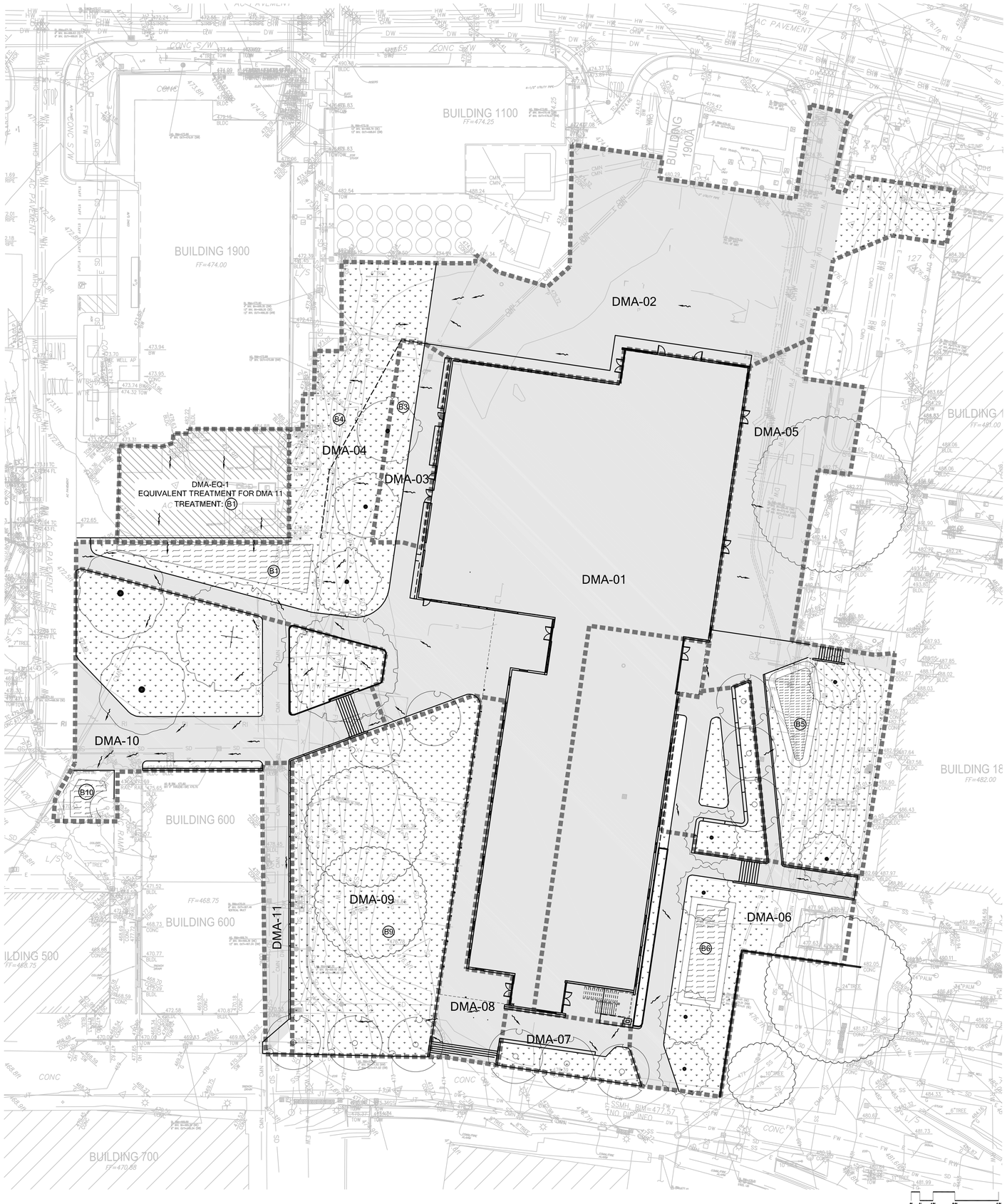
14794

PROJECT NUMBER

CD

C.1.4.3

SHEET NUMBER



STORMWATER MANAGEMENT PLAN LEGEND

- PROPOSED PERVIOUS AREA
- PROPOSED IMPERVIOUS AREA
- BIO-RETENTION AREA
- SELF-RETAINING AREA LANDSCAPED
- UNDISTURBED IMPERVIOUS AREA EQUIVALENT TREATMENT FOR DMA 11
- DRAINAGE AREA BOUNDARY
- FLOW LINE
- FLOW DIRECTION

HYDROMODIFICATION NOTE:

THE PROJECT PRESENTS METHODS FOR FULFILLING THE REQUIREMENTS FOR THE ALAMEDA COUNTY CLEAN WATER PROGRAM STORMWATER QUALITY CONTROL REQUIREMENTS.

THE PROJECT WILL CREATE AND/OR REPLACE AT LEAST 10,000 SQUARE FEET OF IMPERVIOUS AREA. THE ENTIRE PROJECT REQUIRES STORMWATER TREATMENT PER NPDES PROVISION C.3.

SITE TREATMENT AREA NOTE:

THIS PROJECT IS REPLACING MORE THAN 50% OF THE EXISTING IMPERVIOUS AREA AND THEREFORE MUST TREAT THE ENTIRE SITE.

STORMWATER MANAGEMENT NOTES:

1. *THIS PLAN PRESENTS METHODS AND CALCULATIONS FOR COMPLYING WITH THE REQUIREMENTS OF PROVISION C.3 OF THE MUNICIPAL REGIONAL STORMWATER PERMIT IN ACCORDANCE WITH THE ALAMEDA COUNTY PROGRAM AND THE CITY OF LIVERMORE REQUIREMENTS.*
2. *THE FOLLOWING TREATMENT MEASURES ARE PROPOSED TO REGULATE THE QUALITY OF STORM WATER LEAVING THE SITE*
   - 2.1. *BIO-RETENTION AREA – RUNOFF IN THIS AREA IS DIRECTED TO A BIO-RETENTION PLANTER/AREA FOR FILTRATION, INFILTRATION AND EVAPOTRANSPIRATION PRIOR TO EXISTING THE SITE. PLANTING AND SOIL REQUIREMENTS APPLY, SEE DETAIL*
   - 2.2. *SELF-TREATING AREA – RUNOFF IN THIS AREA ORIGINATES IN AND FLOWS THROUGH PLANTING PRIOR TO EXITING THE PROJECT SITE, NO TREATMENT IS REQUIRED.*
   - 2.3. *SELF-RETAINING AREA – RUNOFF IN THIS AREA IS DIRECTED TO A DEPRESSED LANDSCAPE AREA THAT ALLOWS WATER TO POND TO 3" PRIOR TO LEAVING THE SITE. NO SPECIAL LANDSCAPING OR SOILS ARE REQUIRED.*

C.3 STORMWATER TREATMENT MEASURES

DMA #	TCM #	Treatment Type	Sizing Method[2]	Drainage Area (s.f.)	Impervious Area[4] (s.f.)	Pervious Area (Landscape) (s.f.)	Bioretention			Self Retaining areas				Comments
							Bioretention Area Required[2] (s.f.)	Bioretention Area Provided (s.f.)	Overflow Riser Height (in)	Storage Depth Required (ft)	2:1 Ratio Design Criteria Met?	Storage Depth Provided (ft)		
1	B1	Bioretention unlined w/ underdrain[1]	3. Flow-Volume Combo	40,358	36,562	3,796	N/A[5]	1,109	8	N/A	N/A	N/A		See Footnote 5.
2	B2	Bioretention lined w/ underdrain[1]	3. Flow-Volume Combo	9,587	8,890	654	N/A[5]	270	6	N/A	N/A	N/A		See Footnote 5.
3	B3	Self-retaining areas (landscaped)	N/A	2,121	1,110	1,011	N/A	N/A	N/A	0.17	YES	0.25		Refer to note 2.3, Sheet C.1.5.0
4	B4	Self-treating areas (landscaped)	N/A	5,066	0	5,066	N/A	N/A	N/A	N/A	N/A	N/A		Refer to note 2.2, Sheet C.1.5.0
5	B5	Bioretention unlined w/ underdrain	2C. Flow: 4% Method*2	10,698	5,263	5,428	232	456	6	N/A	N/A	N/A		See Footnote 2.
6	B6	Bioretention unlined w/ underdrain[1]	2C. Flow: 4% Method*2	8,883	3,862	5,021	175	611	6	N/A	N/A	N/A		See Footnote 2.
7	B7	Bioretention unlined w/ underdrain1	2C. Flow: 4% Method*2	1,598	861	737	37	72	6	N/A	N/A	N/A		See Footnote 2.
8	B8	Self-retaining areas (landscaped)	N/A	1,696	935	761	N/A	N/A	N/A	0.19	YES	0.25		Refer to note 2.3, Sheet C.1.5.0
9	B9	Self-treating areas (landscaped)	N/A	9,874	0	9,874	N/A	N/A	N/A	N/A	N/A	N/A		Refer to note 2.2, Sheet C.1.5.0
10	B10	Bioretention unlined w/ underdrain[1]	2C. Flow: 4% Method*2	9,863	3,880	5,983	179	180	6	N/A	N/A	N/A		See Footnote 2.
11	EQ-1[3]	Untreated	N/A	1,690	1,690	0	N/A	N/A	N/A	N/A	N/A	N/A		Being equivalently treated by EQ-1
EQ-1[3]	B1	Bioretention unlined w/ underdrain[1]	3. Flow-Volume Combo	3,828	3,828	0	N/A[5]	1,109	8	N/A	N/A	N/A		Equivalent Treatment for DMA 11
			Totals:	105,262	66,881	38,331								

Footnotes:

1 "Lined" refers to an impermeable liner placed on the bottom of a Bioretention basin or a concrete Flow-Through Planter, such that no infiltration into native soil occurs.
2 Sizing for Bioretention Area Required calculated using the 4% Method (Impervious Area x 0.04). Conversion factor of C=0.1 was used to convert Pervious areas to Impervious areas.
3 DMA 11 is not being treated but will be treated by Equivalent Treatment Area EQ-1. Area EQ-1 is equal to or greater than the required treatment area of DMA 11. EQ-1 is not required to be treated as it is undisturbed area.
4 Treatment type of Self-Treating or Self-Retaining should only be used with landscape based treatment. If previous pavement is proposed for Self-Treating or Retaining, use the Pervious Pavement selection.
5 See separate Sizing Calculation worksheet for Bioretention areas sized per Flow-Volume Combo Method.

Worksheet for Calculating the Combination Flow and Volume Method

Instructions: After completing Section 1, make a copy of this Excel file for each Drainage Management Area within the project. Enter information specific to the project and DMA in the cells shaded in yellow. Cells shaded in light blue contain formulas and values that will be automatically calculated.

1.0 Project Information

1-1	Project Name:	INCREMENT II - STEAM BUILDING PROJECT
1-2	City application (1):	LIVERMORE
1-3	Site Address or APN:	3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551
1-4	Site Area:	2.42 Acres
1-5	Site Mean Annual Precip. (MAP)[1]	13.5 Inches
	Refer to the Mean Annual Precipitation Map in Appendix D of the C.3 Technical Guidance to determine the MAP, in inches, for the site.	Click here for map
1-6	Applicable Rain Gauge[2]	San Jose
	Enter "Oakland Airport" if the site MAP is 18.4 inches or greater. Enter "San Jose" if the site MAP is less than 18.4 inches.	
	MAP adjustment factor is automatically calculated as:	1.08

(The "Site Mean Annual Precipitation (MAP)" is shared by the MAP for the applicable rain gauge, shown in Table 6.2, below.)

2.0 Calculate Percentage of Impervious Surface for Drainage Management Area (DMA)

2-1	Name of DMA:			2	
	For items 2-2 and 2-3, enter the acres in square feet for each type of surface within the DMA.				
	Type of Surface	Area of surface type within DMA (Sq. Ft.)	Adjust Pervious Surface	Effective Impervious Area	
2-2	Impervious surface	40,390	1.0	40,390	
2-3	Pervious surface	3,796	0.1	380	
	Total DMA Area (square feet) =	44,186			
2-4	*Total Effective Impervious Area (EIA)*	40,770	Square feet		

3.0 Calculate Unit Basin Storage Volume in Inches

Table 5.5 - Unit Basin Storage Volumes (in inches) for 80 Percent Capture Using 48 Hour Drawdowns
Unit Basin Storage Volume (in) for Applicable Runoff

Applicable Rain Gauge (Adjusted Mean Annual Precipitation)	Mean Annual Precipitation (in)	Coefficient of 1.10
San Jose	13.5	0.47
	14.0	0.56

3-1	*Unit basin storage volume from Table 5.5*	0.56	Inches
	(The coefficient for this method is 1.10, due to the conversion of any basin sizing to effective impervious area)		
3-2	*Adjusted unit basin storage volume*	0.60	Inches
	(The unit basin storage volume is adjusted by applying the MAP adjustment factor.)		
3-3	*Required Capture Volume (in cubic feet)*	2,049	Cubic feet
	(The adjusted unit basin sizing volume (inches) is multiplied by the size of the DMA and converted to feet)		

4.0 Calculate the Duration of the Rain Event

4-1	Rainfall intensity	0.2 Inches per hour
4-2	Divide item 3-3 by item 4-1	3.01 Hours of Rain Event Duration

5.0 Preliminary Estimate of Surface Area of Treatment Measure

5-1	4% of DMA impervious surface	1,631	Square feet
5-2	Area 25% smaller than item 5-1	1,223	Square feet
5-3	Volume of revised runoff for area in item 5-2	1,536	Cubic feet (item 5-2 * 5 inches per hour * (1/12 * item 4-2)

6.0 Initial Adjustment of Depth of Surface Ponding Area

6-1	Subtract item 5-3 from item 3-3	513	Cubic feet (Amount of runoff to be stored in ponding area)
6-2	Divide item 6-1 by item 5-2	0.47 feet	Depth of stored runoff in surface ponding area)
6-3	Convert item 6-2 from ft to inches	5.0 inches	Depth of stored runoff in surface ponding area)
6-4	If ponding depth in item 6-3 meets your target depth, skip to item 8-1. If not, continue to Step 7-1.		

7.0 Optimize Size of Treatment Measure

7-1	Enter an area larger or smaller than item 5-2	1,109	Sq.ft. (enter larger area if you need less ponding depth, smaller for more depth.)
7-2	Volume of revised runoff for area in item 7-1	1,383	Cubic feet (item 7-1 * 5 inches per hour * (1/12 * item 4-2)
7-3	Subtract item 7-2 from item 3-3	666	Cubic feet (Amount of runoff to be stored in ponding area)
7-4	Divide item 7-3 by item 7-1	0.59 Feet	Depth of stored runoff in surface ponding area)
7-5	Convert item 7-4 from ft to inches	7.09 inches	Depth of stored runoff in surface ponding area)
7-6	If the ponding depth in item 7-5 meets target, stop here. If not, repeat Steps 7-1 through 7-5 until you obtain target depth.		

8.0 Surface Area of Treatment Measure for DMA

8-1	Final surface area of treatment:[3]	1,109	Square feet (Either item 5-2 or final amount in item 7-1)

Note: Check with the local jurisdiction as to its policy regarding the minimum bioretention surface area allowed.

Worksheet for Calculating the Combination Flow and Volume Method

Instructions: After completing Section 1, make a copy of this Excel file for each Drainage Management Area within the project. Enter information specific to the project and DMA in the cells shaded in yellow. Cells shaded in light blue contain formulas and values that will be automatically calculated.

1.0 Project Information

1-1	Project Name:	INCREMENT II - STEAM BUILDING PROJECT
1-2	City application (1):	LIVERMORE
1-3	Site Address or APN:	3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551
1-4	Site Area:	2.42 Acres
1-5	Site Mean Annual Precip. (MAP)[1]	13.5 Inches
	Refer to the Mean Annual Precipitation Map in Appendix D of the C.3 Technical Guidance to determine the MAP, in inches, for the site.	Click here for map
1-6	Applicable Rain Gauge[2]	San Jose
	Enter "Oakland Airport" if the site MAP is 18.4 inches or greater. Enter "San Jose" if the site MAP is less than 18.4 inches.	
	MAP adjustment factor is automatically calculated as:	1.08

(The "Site Mean Annual Precipitation (MAP)" is shared by the MAP for the applicable rain gauge, shown in Table 6.2, below.)

2.0 Calculate Percentage of Impervious Surface for Drainage Management Area (DMA)

2-1	Name of DMA:			2	
	For items 2-2 and 2-3, enter the acres in square feet for each type of surface within the DMA.				
	Type of Surface	Area of surface type within DMA (Sq. Ft.)	Adjust Pervious Surface	Effective Impervious Area	
2-2	Impervious surface	8,890	1.0	8,890	
2-3	Pervious surface	654	0.1	65	
	Total DMA Area (square feet) =	9,544			
2-4	*Total Effective Impervious Area (EIA)*	8,955	Square feet		

3.0 Calculate Unit Basin Storage Volume in Inches

Table 5.5 - Unit Basin Storage Volumes (in inches) for 80 Percent Capture Using 48 Hour Drawdowns
Unit Basin Storage Volume (in) for Applicable Runoff

Applicable Rain Gauge (Adjusted Mean Annual Precipitation (in))	Mean Annual Precipitation (in)	Coefficient of 1.10
San Jose	13.5	0.47
	14.0	0.56

3-1	*Unit basin storage volume from Table 5.5*	0.56	Inches
	(The coefficient for this method is 1.10, due to the conversion of any basin sizing to effective impervious area)		
3-2	*Adjusted unit basin storage volume*	0.60	Inches
	(The unit basin storage volume is adjusted by applying the MAP adjustment factor.)		
3-3	*Required Capture Volume (in cubic feet)*	450	Cubic feet
	(The adjusted unit basin sizing volume (inches) is multiplied by the size of the DMA and converted to feet)		

4.0 Calculate the Duration of the Rain Event

4-1	Rainfall intensity	0.2 Inches per hour
4-2	Divide item 3-3 by item 4-1	3.01 Hours of Rain Event Duration

5.0 Preliminary Estimate of Surface Area of Treatment Measure

5-1	4% of DMA impervious surface	358	Square feet
5-2	Area 25% smaller than item 5-1	269	Square feet
5-3	Volume of revised runoff for area in item 5-2	337	Cubic feet (item 5-2 * 5 inches per hour * (1/12 * item 4-2)

6.0 Initial Adjustment of Depth of Surface Ponding Area

6-1	Subtract item 5-3 from item 3-3	113	Cubic feet (Amount of runoff to be stored in ponding area)
6-2	Divide item 6-1 by item 5-2	0.47 feet	Depth of stored runoff in surface ponding area)
6-3	Convert item 6-2 from ft to inches	5.0 inches	Depth of stored runoff in surface ponding area)
6-4	If ponding depth in item 6-3 meets your target depth, skip to item 8-1. If not, continue to Step 7-1.		

7.0 Optimize Size of Treatment Measure

7-1	Enter an area larger or smaller than item 5-2	270	Sq.ft. (enter larger area if you need less ponding depth, smaller for more depth.)
7-2	Volume of revised runoff for area in item 7-1	335	Cubic feet (item 7-1 * 5 inches per hour * (1/12 * item 4-2)
7-3	Subtract item 7-2 from item 3-3	115	Cubic feet (Amount of runoff to be stored in ponding area)
7-4	Divide item 7-3 by item 7-1	0.43 Feet	Depth of stored runoff in surface ponding area)
7-5	Convert item 7-4 from ft to inches	5.12 inches	Depth of stored runoff in surface ponding area)
7-6	If the ponding depth in item 7-5 meets target, stop here. If not, repeat Steps 7-1 through 7-5 until you obtain target depth.		

8.0 Surface Area of Treatment Measure for DMA

8-1	Final surface area of treatment:[3]	270	Square feet (Either item 5-2 or final amount in item 7-1)

Note: Check with the local jurisdiction as to its policy regarding the minimum bioretention surface area allowed.

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PROJECT NORTH

SHEET TITLE

STORMWATER MANAGEMENT PLAN

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PROJECT NUMBER

CD

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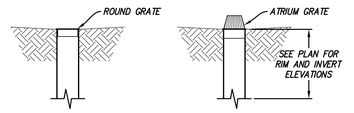
C.1.5.0

PIPE SIZE	NDS MODEL NUMBER*	
	ATRIUM GRATE (BLACK PLASTIC)	ROUND GRATE (BLACK PLASTIC)
4"	78	11
6"	90	40
8"	1290**	10
10"	N/A	1040
12"	N/A	1240

*OR APPROVED EQUIVALENT

**12" SQUARE TO 8" ADAPTER REQUIRED TO CONNECT TO 8" RISER PIPE

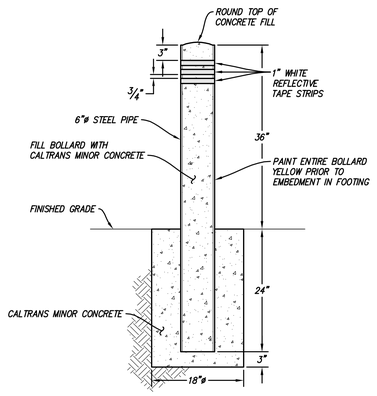


NOTES:

1. RISER DIAMETER SHALL MATCH STORM DRAIN AREA DRAIN SIZE.
2. THRU/OUT PIPE SIZE SHALL BE EQUAL OR GREATER THAN RISER DIAMETER.

LANDSCAPE AREA DRAIN 13

1"=1'

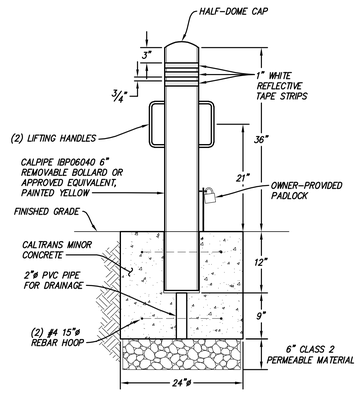


NOTES:

1. COORDINATE BOLLARD AND TAPE COLOR WITH OWNER'S REPRESENTATIVE.

6" FIXED BOLLARD 11

1"=1'

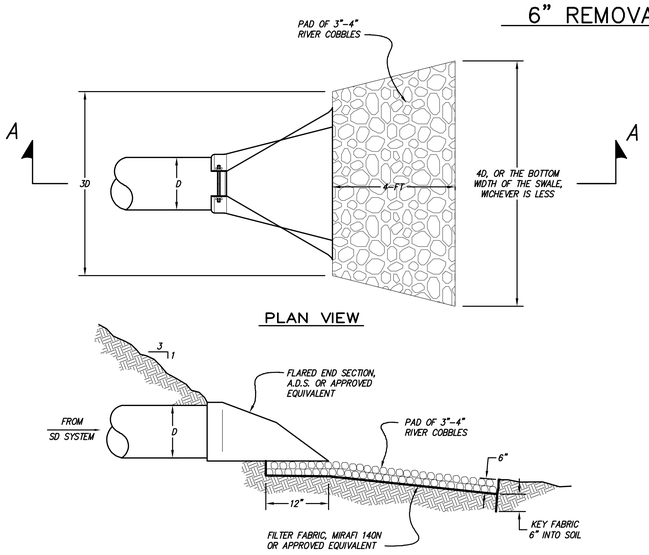


NOTES:

1. COORDINATE BOLLARD AND TAPE COLOR WITH OWNER'S REPRESENTATIVE.

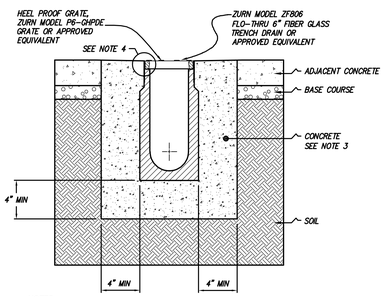
6" REMOVABLE BOLLARD 12

1"=1'



OUTFALL 14

N.T.S.

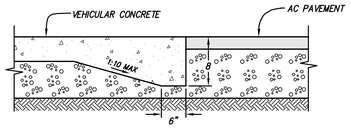


NOTES:

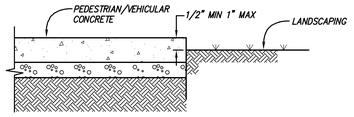
1. ZURN MODEL ZF806 PREFABRICATED TRENCH DRAIN OR APPROVED EQUIVALENT.
2. IT IS NECESSARY TO ENSURE THE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR THE EXISTING GROUND CONDITIONS. ENGINEERING ADVICE MAY BE REQUIRED.
3. A MINIMUM CONCRETE STRENGTH OF 3000 PSI IS REQUIRED. THE CONCRETE SHALL BE VIBRATED TO ELIMINATE AIR POCKETS.
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" ABOVE THE TOP OF THE CHANNEL EDGE.

TRENCH DRAIN DETAIL 8

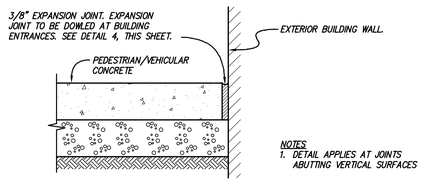
N.T.S.



VEHICULAR CONCRETE @ AC PAVEMENT



CONCRETE SIDEWALK @ LANDSCAPING



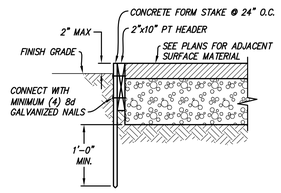
NOTES

1. DETAIL APPLIES AT JOINTS ABUTTING VERTICAL SURFACES

CONCRETE EDGE @ BLDG FACE

CONCRETE EDGE DETAILS 9

N.T.S.

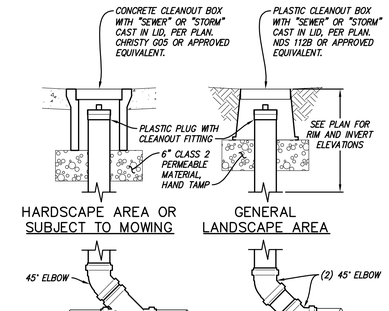


NOTES:

1. IF ADJACENT SURFACE IS DECOMPOSED GRANITE, HEADER SHALL BE SET 2" HIGHER THAN DECOMPOSED GRANITE GRADE.

PRESSURE TREATED HEADER 10

1"=1'



NOTES:

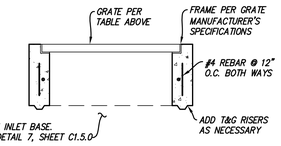
1. RISER DIAMETER SHALL MATCH THRU/OUT PIPE SIZE.

GRAVITY CLEANOUT 5

1"=1'

	OLDCASTLE GRATE MODEL NUMBER		
A x B	PEDESTRIAN*	LANDSCAPE / NON-TRAFFIC	H20 RATED
12"x12"	SD-13 12X12	PEDESTRIAN SD-12 12X12	TRAFFIC SD-12 12X12
18"X18"	SD-13 18X18	PEDESTRIAN SD-12 18X18	TRAFFIC SD-12 18X18
24"X24"	SD-13 24X24	PEDESTRIAN SD-12 24X24	TRAFFIC SD-12 24X24
36"X36"	SD-13 36X36	PEDESTRIAN SD-12 36X36	TRAFFIC SD-12 36X36
24"X48"	SD-13 24X48	PEDESTRIAN SD-12 24X48	TRAFFIC SD-12 24X48

* OR APPROVED EQUIVALENT GRATE WITH 1/4" MAX OPENINGS



NOTES:

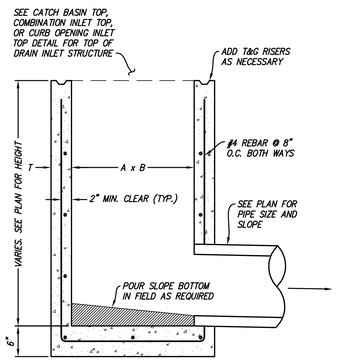
1. SEE PLANS FOR CATCH BASIN SIZE AND TYPE.
2. FRAME SHALL BE ANCHORED TO CONCRETE PER MANUFACTURER'S SPECIFICATIONS.
3. FOR JUNCTION BOXES (JB) IN NON-VEHICULAR AREAS ONLY, REPLACE GRATE WITH NON-SLIP SOLID STEEL COVER. ADD "STORM DRAIN" TEXT TO LID.

CATCH BASIN TOP 6

1"=1'

A x B	T	MAX PIPE SIZE	OLDCASTLE MODEL
12"x12"	4"	8"	DI-1212
18"X18"	4"	12"	DI-1818
24"X24"	4"	18"	DI-2424
36"X36"	6"	24"	DI-3636
24"X48"	5"	18",36"	DI-2448
36"X48"	6"	24",36"	DI-3648

NOTE: MAX SIZES ARE BASED ON PERPENDICULAR CONNECTION

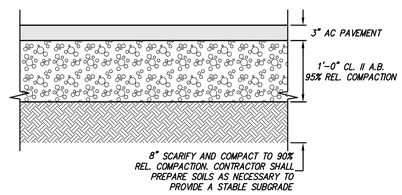


NOTES:

1. SEE PLANS FOR DRAIN INLET SIZE.
2. PRE-CAST DRAIN INLET IN LIEU OF CAST-IN-PLACE INLET IS ACCEPTABLE, OLDCASTLE OR APPROVED EQUIVALENT.

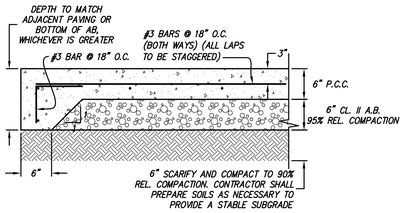
DRAIN INLET BASE 7

1"=1'



ASPHALT PAVEMENT 1

1"=1'

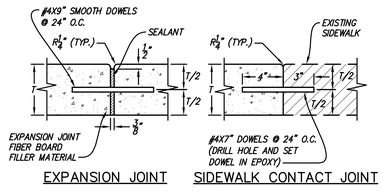


NOTES:

1. SEE DETAIL 4, THIS SHEET FOR JOINT DETAIL.

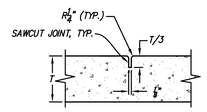
VEHICULAR CONCRETE 2

1"=1'

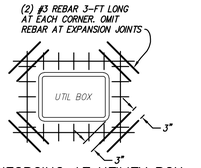


EXPANSION JOINT

SIDEWALK CONTACT JOINT



SCORE/CONTROL JOINT



REINFORCING AT UTILITY BOX

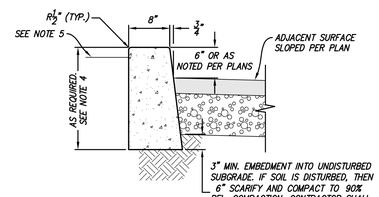
1"=20"

NOTES:

1. REFER TO LANDSCAPE PLANS AND/OR PROJECT SPECIFICATIONS FOR JOINT SPACING.
2. REFER TO LANDSCAPE PLANS FOR SCORE PATTERN.

CONCRETE JOINTS 3

1"=0.5'



NOTES:

1. ALL EXPOSED CONCRETE EDGES (HORIZONTAL AND VERTICAL) SHALL BE 1/2" RADIUS.
2. #4x12" SLIP DOWELS AND 1/4" EXPANSION JOINTS TO BE PROVIDED AT 20' ON CENTER ALONG THE LENGTH OF CURB. MATERIAL FOR EXPANSION JOINTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 1751.
3. REFER TO PLANS FOR ADJACENT PAVEMENT SECTIONS.
4. TOTAL CURB HEIGHT IS BASED ON ADJACENT PAVEMENT SECTION, PLUS CURB HEIGHT PER PLAN, PLUS 3" BELOW FULL PAVEMENT SECTION (14" MINIMUM).
5. SEE PLANS FOR ADJACENT SURFACE MATERIAL AND SLOPE. GRADE SHALL BE FLUSH WITH TOP OF CURB WHEN SURFACE IS PAVED. WHEN ADJACENT TO LANDSCAPING, REFER TO LANDSCAPE PLANS FOR GRADE AT BACK OF CURB.

6" VERTICAL CURB 4

1"=1'

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

SANDIS SANDIS.NET

DATE 7 / 21 / 2025

REGISTERED PROFESSIONAL ENGINEER MICHAEL A. KUYKENDALL No. 70870 Exp. 6/30/25 CIVIL STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE

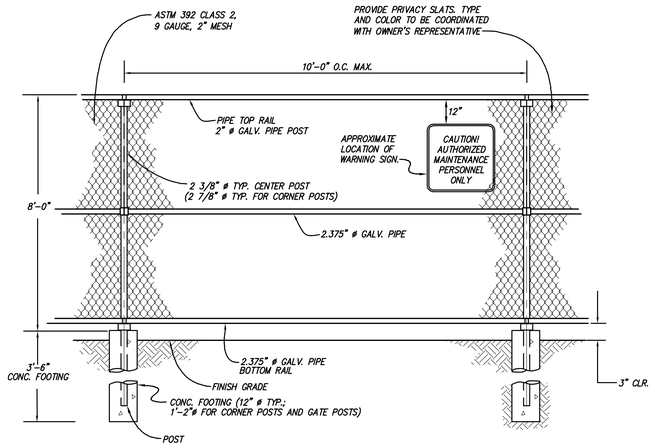
CONSTRUCTION DETAILS

14794

PROJECT NUMBER

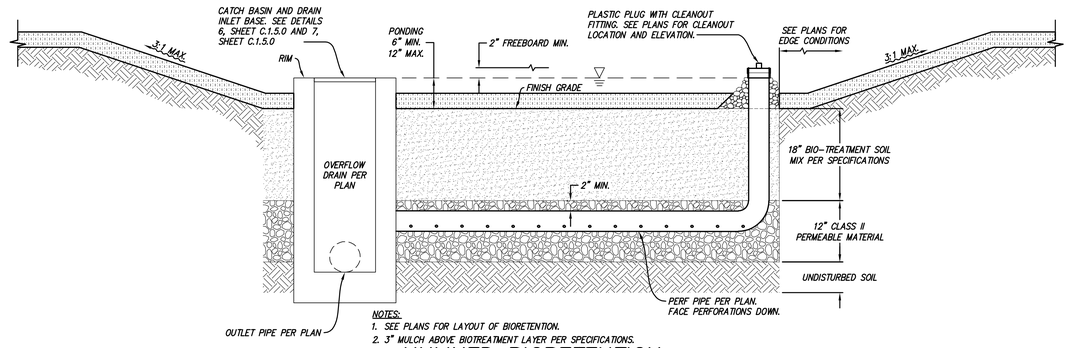
CD **C.1.6.0**

SHEET NUMBER



TYP. CHAIN LINK FENCE DETAIL 2

N.T.S.



NOTES:
1. SEE PLANS FOR LAYOUT OF BIORETENTION.
2. 3" MULCH ABOVE BIOTREATMENT LAYER PER SPECIFICATIONS.

UNLINED BIORETENTION SECTION 1

1"=1'

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DATE 7 / 21 / 2025

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. KUYKENDALL
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Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH



SHEET TITLE

CONSTRUCTION DETAILS

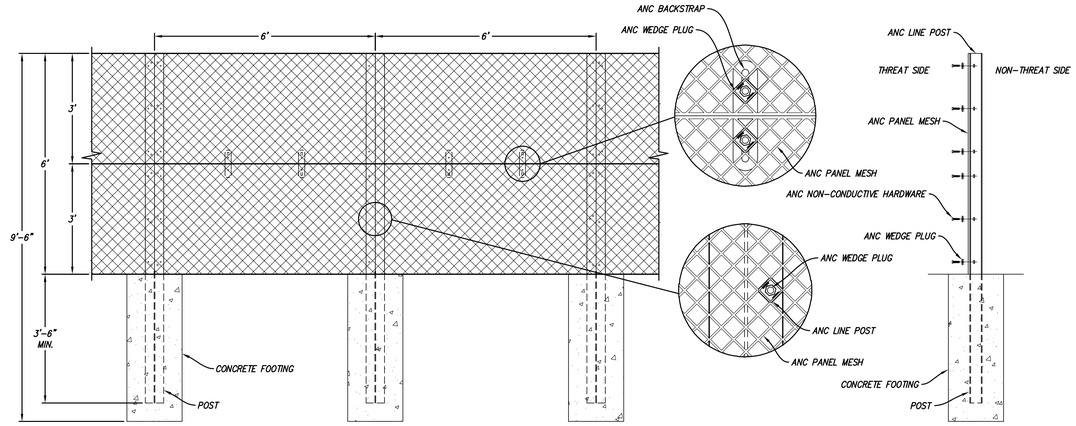
14794

PROJECT NUMBER

CD

C.1.6.1

SHEET NUMBER



FRONT ELEVATION

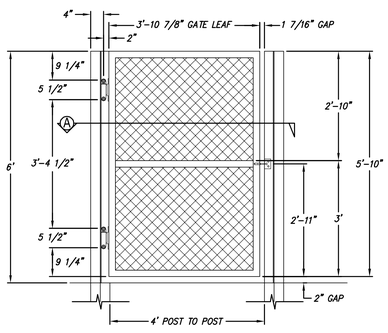
SIDE ELEVATION

NOTES:
1. CONCRETE FOUNDATION TO BE DETERMINED BY OTHERS. SEASAFE RECOMMENDS MIN. 6" COVER BETWEEN ANC POST AND SOIL INTERFACE IN ALL DIRECTIONS.

NON-CONDUCTIVE ELECTRICAL FENCE DETAIL

N.T.S.

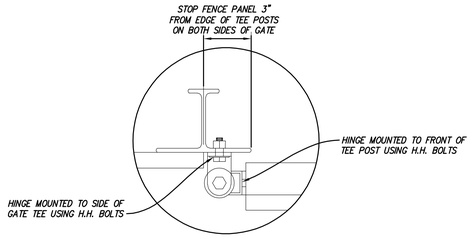
1



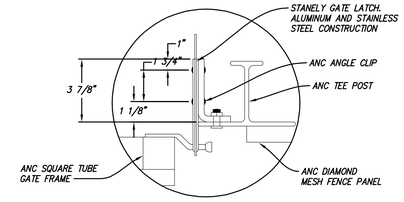
FRONT ELEVATION



SECTION A



DETAIL A-A

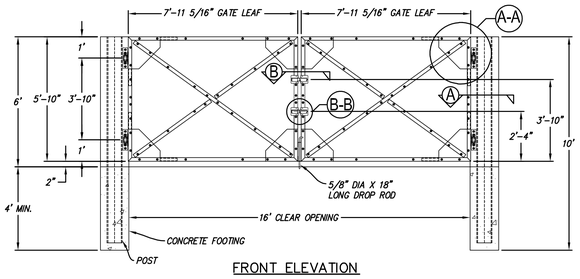


DETAIL B-B

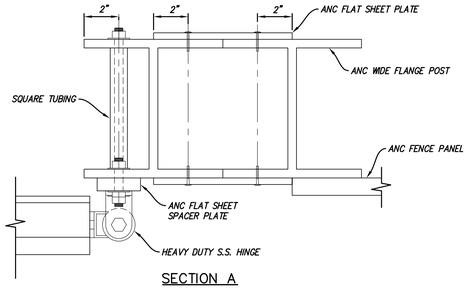
NON-CONDUCTIVE ELECTRICAL GATE DETAIL

N.T.S.

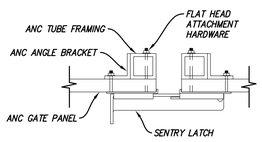
2



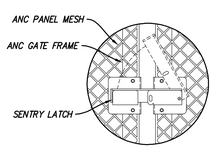
FRONT ELEVATION



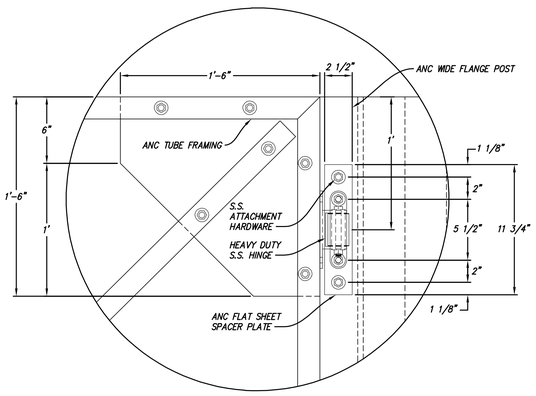
SECTION A



SECTION B



DETAIL B-B



DETAIL A-A

NON-CONDUCTIVE ELECTRICAL DOUBLE SWING GATE

N.T.S.

3

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

SANDIS
SANDIS.NET

DATE 7 / 21 / 2025

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. KUYKENDALL
No. 70870
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES
6-30-27

PROJECT NORTH

SHEET TITLE

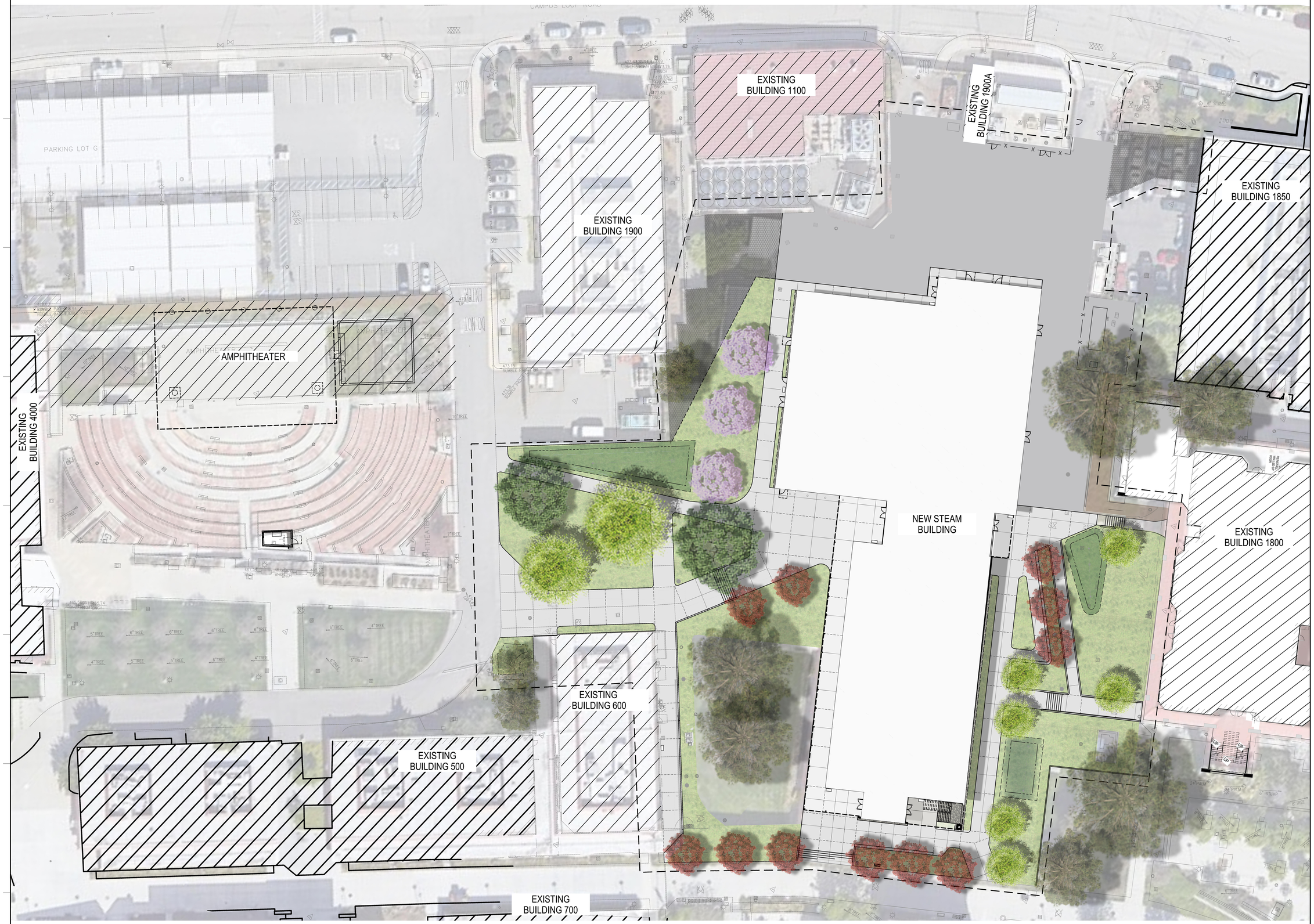
CONSTRUCTION DETAILS

14794

PROJECT NUMBER

CD **C.1.6.2**

SHEET NUMBER



LAS POSITAS COLLEGE

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4807
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

NORTH

0' 10' 20' 40'
SCALE:

SHEET TITLE
COVER SHEET

14794
PROJECT NUMBER

CD
SHEET NUMBER
L0.0.0

Plot Date:

ABBREVIATIONS

A	
ABD	ABANDONED
ABS	ACRYLONITRILE BUTADIENE STYRENE
AC	ACRES
ADA	AMERICANS WITH DISABILITIES ACT
ANLA	AMERICAN NURSERY AND LANDSCAPE ASSOCIATION
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	
B.M.	BENCHMARK
BIT	BITUMINOUS
BLDG	BUILDING
B/F	BOTTOM OF FOOTING
B/S	BOTTOM OF SWALE
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION
BVCS	BEGINNING OF VERTICAL CURVE STATION
B/W	BOTTOM OF WALL (FINISH GRADE)
C	
CB	CATCH BASIN
CI	CURB INLET
CIP	CAST IRON PIPE
CL	CLASS
CMP	CORRUGATED METAL PIPE
CON	CONDENSATE
CO	CLEANOUT
CONC	CONCRETE
CONTR	CONTRACTOR
CU FT	CUBIC FOOT
CURV	CURVATURE
CU YD	CUBIC YARD
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
D	
DEMO	DEMOLISH
DEPT	DEPARTMENT
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
E	
E	EAST, EASTING COORDINATE
EA	EACH
EG	EXISTING GRADE
ELEV	ELEVATION
E/P	EDGE OF PAVEMENT (EDGE OF METAL)
EQ	EQUAL
ESVCP	EXTRA STRENGTH VITRIFIED CLAY PIPE
EVCE	END OF VERTICAL CURVE ELEVATION
EVCS	END OF VERTICAL CURVE STATION
EX	EXISTING
F	
FF:	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FLASH	FLASHING
FM	FORCE MAIN
FT	FOOT, FEET
FURN	FURNISHING
G	
GALV	GALVANIZED
GAS	NATURAL GAS
G/C:	GUTTER OF CURB (FLOWLINE)
GVL	GRAVEL
H	
H	HIGH
HB	HOSE BIBB
HCAP	ADA HANDICAP
HDPE	HIGH-DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HORZ	HORIZONTAL
HP	HIGH POINT
HT	HEIGHT
I	
I.D.	INNER DIAMETER
IN	INCH, INCHES
INCL	INCLUDE, INCLUDING
INL	INLET
INV:	PIPE INVERT ELEVATION
IRR	IRRIGATION
K	
K	K VALUE
J	
JT	JOINT
L	
L	LENGTH
LF	LINEAR FEET
LPT	LOW POINT
LN	LANE
LT	LIGHT
LTG	LIGHTING
LVC	LENGTH OF VERTICAL CURVE
M	
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
M.E.	MATCH EXISTING
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODIFIED
N	
N	NORTH, NORTHING COORDINATE
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O	
O.C.	ON CENTER
O.D.	OUTER DIAMETER
OFF	OFFSET
OPT	OPTIONAL
P	
PC	POINT OF CURVATURE (POC)
PED	PEDESTRIAN
PERF	PERFORATED
PERP	PERPENDICULAR
PLMB	PLUMBING
PREFAB	PREFABRICATED
PREP	PREPARATION
PROJ	PROJECTED
PROP	PROPOSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT, POINT OF TANGENCY (POT)
PVC	POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PWR	POWER
Q	
QTY	QUANTITY
R	
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCPT	RECEPTACLE
RD	ROAD
REF	REFERENCE
REINF	REINFORCED, REINFORCEMENT
REM	REMOVE
REQD	REQUIRED
RIM:	RIM ELEVATION
ROW	RIGHT OF WAY
S	
S	SOUTH
SAN	SANITARY SEWER
SCH	SCHEDULE
SECT	SECTION
SESC	SOIL EROSION AND SEDIMENTATION CONTROL
SIM	SIMILAR
SP	SPACE, SPACED, SPACING
SQ FT	SQUARE FEET
SQ YD	SQUARE YARD
ST	STREET
ST LT	STREET LIGHT
STA	STATION
STAG	STAGGER, STAGGERED
STD	STANDARD
STL	STEEL
SSL	STAINLESS STEEL
STM	STORM SEWER
STRUCT	STRUCTURAL
SUBCONTR	SUBCONTRACTOR
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
T	
T	TELECOM
T/C	TOP OF CURB
TEMP	TEMPORARY
T/F	TOP OF FOOTING
T/S	TOP OF SWALE
T/W	TOP OF WALL
TYP.	TYPICAL
U	
UD	UNDERDRAIN
UTIL	UTILITY
V	
V/B:	VALVE BOX
VERT	VERTICAL
W	
W	WEST
W/M	WATER MAIN
W/O	WITHOUT
WWF	WELDED WIRE FABRIC
Y	
YD	YARD DRAIN
SYMBOL	
Ø	DIAMETER
±	PLUS/MINUS
Δ	DELTA

GENERAL NOTES

1. PRIOR TO START OF PROJECT WORK, VERIFY ALL SITE CONDITIONS AND SUBMIT A PROJECT WORK PLAN TO THE OWNER FOR REVIEW AND COMMENT. PRESENT THE WORK PLAN AT THE OWNER'S PRE-CONSTRUCTION MEETING. DO NOT BEGIN PRIOR TO THE 'PRE-CONSTRUCTION MEETING' AND WRITTEN AUTHORIZATION TO PROCEED IS ISSUED BY THE OWNER.
2. NOTIFY THE ARCHITECT IN WRITING OF ANY IDENTIFIED DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF WORK. DURING PERFORMANCE OF THE WORK, VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND CROSS-CHECK DETAILS AND DIMENSION SHOWN ON THE DRAWINGS WITH RELATED REQUIREMENTS ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK. IN ALL CASES WHERE A CONFLICT MAY OCCUR, THE ARCHITECT SHALL BE NOTIFIED AND WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
3. PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
4. TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION, INCLUDING DAMAGES TO UTILITIES, WALKS, WALLS, DRIVES, CURBS, ETC. PHOTOGRAPH PRE-CONSTRUCTION CONDITIONS. REPAIR ANY UNDOCUMENTED DAMAGE AT NO COST TO THE OWNER.
5. SECURE ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES WITH UTILITIES ON THE SITE PRIOR TO THE CONSTRUCTION OF THE PROJECT. ADHERE TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS OR REGULATIONS PERTAINING TO THE PROJECT.
6. ESTABLISH AND MAINTAIN SITE SECURITY UNTIL PROJECT ACCEPTANCE.
7. USE DIMENSIONS SHOWN ON DRAWINGS FOR LAYOUT OF THE WORK. DO NOT USE SCALE DIMENSIONS FROM PLANS, SECTIONS OR DETAILS ON THE DRAWINGS.
8. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS.
9. DETAILS NOTED AS TYPICAL SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. WHERE NO SPECIFIC DETAIL IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT.
10. TAKE NOTE OF ALL GRADING AND DRAINAGE WAYS AND MAINTAIN THESE DRAIN WAYS FLOWS FREE OF OBSTRUCTIONS.
11. COORDINATE CONSTRUCTION OF PENETRATIONS, SLEEVES, VARIATIONS IN THE SLAB ELEVATIONS, DEPRESSED AREAS AND ALL OTHER ARCHITECTURAL, CIVIL, IRRIGATION, SIGNAGE, MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS.
12. DISPOSE OF ALL ELEMENTS DESIGNATED FOR REMOVAL IN A LEGAL MANNER. PROVIDE RECEIPTS AND LETTERS FROM DISPOSAL SITES TO OWNER AS REQUIRED BY THE OWNER.
13. PREPARE ALL SUBGRADES IN ACCORDANCE WITH RECOMMENDATIONS OF GEOTECHNICAL ENGINEER. PROVIDE PROOF OF ALL REQUIRED SOIL COMPACTION TO THE OWNER.
14. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
15. COORDINATE WORK OF SUBCONTRACTORS AND ALL OTHER CONTRACTORS TO ENSURE ORDERLY AND EFFICIENT COMPLETIONS OF ALL WORK.
16. ALL ABBREVIATIONS, SYMBOLS, AND LEGENDS SHOWN ON THIS DRAWING ARE NOT NECESSARILY USED.

ACCESSIBILITY NOTES

1. ALL SITE WORK SHALL COMPLY WITH CURRENT CALIFORNIA BUILDING CODE (CALIFORNIA CODE OF REGULATIONS TITLE 24), CURRENT STANDARDS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE CURRENT FAIR HOUSING ACT DESIGN MANUAL.
2. ALL PAVING AREAS SHALL BE ACCESSIBLE PER TITLE 24. ALL PAVING SURFACES ARE TO BE STABLE, FIRM, AND SLIP RESISTANT WITH CROSS SLOPES NOT TO EXCEED 2% IN ANY DIRECTION, UNLESS OTHERWISE NOTED. ACCESSIBLE PATHS OF TRAVEL ARE BARRIER-FREE ACCESS ROUTES AT LEAST 48" CLEAR IN WIDTH AND WITHOUT ANY ABRUPT VERTICAL LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. ALL ACCESSIBLE PATHWAYS SHALL BE SLOPED LESS THAN 5% IN THE DIRECTION OF TRAVEL, UNLESS OTHERWISE NOTED.
3. ALL ACCESSIBLE PATHS OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS BELOW 80" ABOVE FINISH GRADE. OBJECTS WITH LEADING EDGES LOCATED BETWEEN 27" AND 80" ABOVE FINISH GRADE SHALL NOT PROTRUDE MORE THAN 4" HORIZONTALLY INTO THE PATH OF TRAVEL. EXCEPTIONS INCLUDE HANDRAILS, DOOR CLOSERS, AND DOOR STOPS. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE OBJECT PROTRUSION IS BEYOND THE LIMITS ALLOWED.

MATERIALS NOTES

1. IN ADDITION TO THOSE SHOWN, EXPANSION JOINTS SHALL BE LOCATED AT ALL FIXED SITE ELEMENTS.
2. HATCH PATTERNS ARE SHOWN FOR REFERENCE ONLY. HATCHES DO NOT REPRESENT DIRECTIONAL LAYOUT OR PATTERN OF MATERIALS.
3. REFER TO CIVIL AND/OR SIGNAGE DRAWINGS FOR PARKING VEHICULAR STRIPING AND SIGNAGE.
4. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING.
5. SEE OTHER DISCIPLINE DRAWINGS AND SPECIFICATIONS FOR FURTHER INFORMATION REGARDING MATERIALS NOT DESCRIBED ON THESE PLANS.

PLANTING NOTES

1. INDEPENDENT OF NUMERIC QUANTITIES ON DRAWINGS OR IN THE PLANT SCHEDULE, DETERMINE THE PLANT MATERIAL QUANTITIES REQUIRED BY THE PLANS. SPACE PLANT MATERIALS AS SHOWN ON PLANS AND INDICATED IN PLANT SCHEDULE. PLANT MATERIALS SHALL CONFORM TO PLANT SCHEDULES AND SIZES SHALL BE THE MINIMUM INDICATED ON THE PLANT SCHEDULE OR LARGER. INSTALLATION OF LARGER PLANTS AT NO ADDITIONAL COST TO OWNER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ANLA "STANDARDS FOR NURSERY STOCK".
2. PRIOR TO INSTALLATION, DEMARCATE LAYOUT OF ALL PLANTING BEDS, SEED AREAS, AND INDIVIDUAL TREES FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT AND COLLEGE'S GROUND SUPERVISOR. INCLUDE PERENNIAL GROUPINGS BY SPECIES FOR INTERNAL BED LAYOUTS. FLAGGING OR STAKES MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE LANDSCAPE ARCHITECT WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAY MAKE MINOR ADJUSTMENTS AS NECESSARY. SUCH ADJUSTMENTS WILL BE AT NO ADDITIONAL COST TO THE OWNER.
3. SEEDING APPLIES TO ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES EVEN IF ACTIVITIES EXTEND BEYOND THE APPROXIMATED SEEDING LIMITS INDICATED ON THE DRAWINGS. REPAIR ANY DISTURBED AREAS TO THE SAME CONDITION AS ORIGINALLY FOUND AND TO THE OWNER'S SATISFACTION. IN AREAS WHERE LAWN IS DISTURBED BEYOND THE LIMITS OF CONSTRUCTION, REPLACE LAWN WITH NEW LAWN SEED (INCLUDING TOPSOIL, SEED AND MULCH) AT NO ADDITIONAL COST TO THE OWNER. REFER TO SPECIFICATIONS FOR SEED MIXES.
4. MINIMIZE CULTIVATION WITHIN THE DRIPLINES OF EXISTING TREES. PREPARE SOIL FOR SEEDING BY MINIMIZING DISTURBANCE TO 4-INCH DEPTH. HAND CULTIVATE WHEN ENCOUNTERING ROOTS. NO HEAVY EQUIPMENT ALLOWED WITHIN DRIPLINE OF EXISTING TREES.
5. SHOVEL-CUT PLANTING BED EDGES UNLESS LABELED OTHERWISE.
6. MULCH PLANTING BEDS PER SPECIFICATIONS. KEEP MULCH 4 INCHES FROM TREE TRUNKS AND SHRUB CROWNS.
7. CONTACT "811" UNDERGROUND UTILITIES LOCATION CENTER PRIOR TO INSTALLATION OF PLANT MATERIAL AND IRRIGATION SYSTEM.
8. LEGALLY DISPOSE OF DEBRIS ASSOCIATED WITH PLANTING OFF-SITE.

LAYOUT NOTES

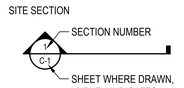
1. SET AUXILIARY BENCHMARKS AND CONTROL POINTS AS NEEDED TO LAYOUT AND CONSTRUCT WORK.
2. THESE CONSTRUCTION DRAWINGS HAVE BEEN CREATED WITH AUTOCAD PROGRAM SOFTWARE, USING SITE BENCHMARKS AND A SITE COORDINATE SYSTEM BASED ON THE PROVIDED SURVEY. AN ELECTRONIC COPY OF THE DRAWING FILES, SUITABLE FOR DOWNLOADING INTO SURVEY SOFTWARE PROGRAMS, WILL BE PROVIDED FOR CONSTRUCTION LAYOUT WHEN CONSTRUCTION DOCUMENTS ARE 'APPROVED FOR CONSTRUCTION.' AS SUCH, THESE CONSTRUCTION DRAWINGS ONLY SHOW KEY DIMENSIONS, BASELINES AND CONTROL POINTS OF CERTAIN KEY FEATURES.
3. THE CONTRACTOR IS RESPONSIBLE TO LAYOUT ALL IMPROVEMENTS AS SHOWN AND SPECIFIED.
4. ALL DIMENSIONS MUST BE FIELD VERIFIED AND ANY DISCREPANCIES REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
5. DIMENSIONS ARE TO BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. ADJUST LAYOUT AS DIRECTED BY THE ENGINEER TO ENSURE PROPER CONNECTION TO EXISTING FACILITIES AND SITE AMENITIES.
7. PAVING RADII SHALL BE FORMED COMPLETELY AND SMOOTHLY TRANSITION INTO TANGENTS AND ADJOINING LINES. FLAT CURVE SEGMENTS IN HORIZONTAL LAYOUT SHALL BE REMOVED AND REPLACED AT NO COST TO OWNER.
8. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND ENGINEERING PLANS FOR THE LAYOUT, DIMENSIONS, ANGLES AND ELEVATIONS OF ALL BUILDINGS, STRUCTURES, UTILITIES, CURBS AND GUTTERS.

LANDSCAPE SHEET INDEX

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
L0.0.0	Cover Sheet
L0.0.1	General Notes
L0.0.2	Tree Removal & Protection Plan (For Reference Only)
L1.1.1	Layout & Material Plan
L1.2.0	Planting Plan
L1.2.1	Tree Plan
L5.0.0	Landscape Details
L5.0.1	Landscape Details
L6.0.0	Planting Details
L6.0.1	Planting Details

REFERENCE SYMBOLS

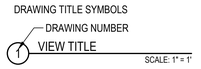
SITE SECTION



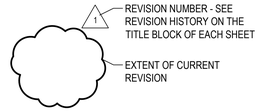
PLANT MATERIAL LABEL



DRAWING TITLE SYMBOLS



REVISION NUMBER AND EXTENT



LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4907
Todd Kohli
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

NORTH

SHEET TITLE

GENERAL NOTES

14794

PROJECT NUMBER

CD

L0.0.1

SHEET NUMBER

Plot Date:

TREE PROTECTION NOTES

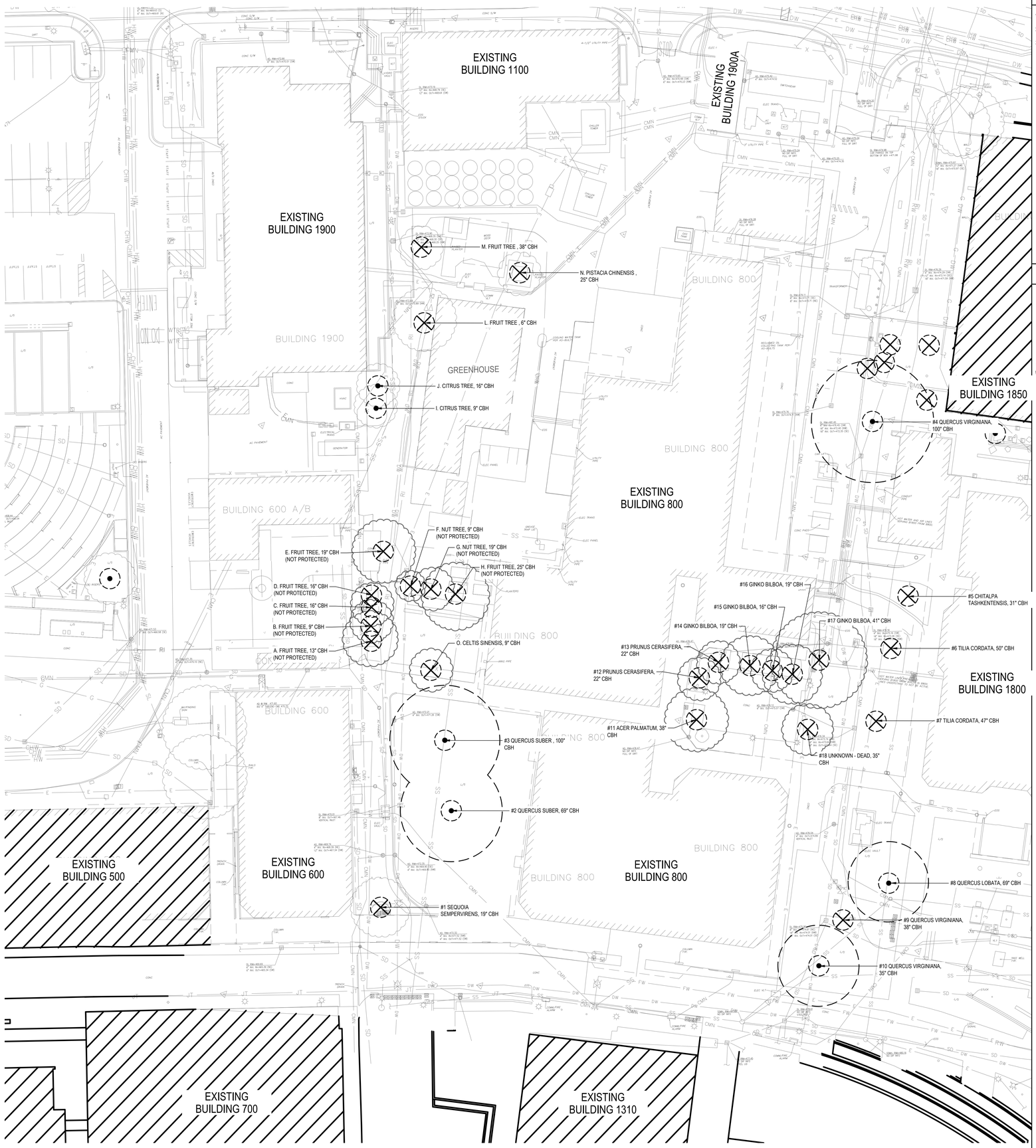
1. REFER TO PRELIMINARY ARBORIST REPORT PREPARED BY DUTCHOVER & ASSOCIATES MARCH 2024.
2. THE DEMOLITION AND CONSTRUCTION SUPERINTENDENTS SHALL COORDINATE WITH THE CONSULTING ARBORIST BEFORE BEGINNING WORK TO REVIEW ALL WORK PROCEDURES, ACCESS ROUTES, STORAGE AREAS, AND TREE PROTECTION MEASURES.
3. DO NOT LIME SOIL WITHIN 30' OF ANY TREE DESIGNATED FOR PRESERVATION. LIME IS TOXIC TO TREE ROOTS.
4. CONTRACTOR TO ENSURE EXISTING IRRIGATION SYSTEM TO REMAIN IN OPERATION FOR PRESERVED TREES AND PLANTING.
5. THE PROJECT LANDSCAPE ARCHITECT OR ARBORIST SHALL VERIFY THAT TREE PROTECTION MEASURES ARE IN PLACE PRIOR TO THE START OF DEMOLITION AND SITE CLEARING. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT ONE WEEK PRIOR TO REVIEW.
6. APPLY AND MAINTAIN 4 TO 6-INCH WOOD CHIP MULCH WITHIN THE TREE PROTECTION ZONE. KEEP THE MULCH 2-FEET FROM THE BASE OF TREE TRUNKS
7. AVOID PULLING AND BREAKING OF ROOTS OF TREES TO REMAIN. IF ROOTS ARE ENTWINED WITH THOSE OF TREES TO BE REMOVED, THE PROJECT REQUIRES FIRST SEVERING THE MAJOR WOODY ROOT MASS BEFORE EITHER REMOVING THE TREE OR GRINDING THE STUMP BELOW GROUND.
8. TREES TO BE RETAINED MAY REQUIRE PRUNING TO PROVIDE CLEARANCE AND/OR CORRECT DEFECTS IN STRUCTURE. ALL PRUNING IS TO BE APPROVED OF AND SUPERVISED BY AN ISA CERTIFIED ARBORIST AND SHALL ADHERE TO THE LATEST EDITIONS OF THE ANSI Z133 AND A300 STANDARDS AS WELL AS THE ISA BEST MANAGEMENT PRACTICES FOR TREE PRUNING. PRUNING CONTRACTOR SHALL HAVE THE C25/D61 LICENSE SPECIFICATION.
9. AN I.S.A. CERTIFIED ARBORIST SHALL BE PRESENT AT ALL TIMES DURING PRUNING. ALL PRUNING SHALL BE IN ACCORDANCE WITH THE TREE PRUNING GUIDELINES OF THE INTERNATIONAL SOCIETY OF ARBORICULTURE AND ADHERE TO THE MOST RECENT EDITION OF THE AMERICAN NATIONAL STANDARDS FOR TREE CARE OPERATIONS (Z133.1) AND TREE PRUNING (A300).
10. IN NO CASE SHOULD ROOT PRUNING OCCUR CLOSER THAN 3X THE DIAMETER OF THE TREE TRUNK.
11. WHERE UTILITY TRENCHES ARE REQUIRED WITHIN PROTECTION ZONES, EXPOSE ROOTS BY DIGGING A TRENCH. WHEN ROOT 2" OR LARGER ARE ENCOUNTERED, STOP EXCAVATION. EXPOSE ROOTS BY HAND OR AIR SPADE. PRUNE EXPOSED ROOTS WITH SHARP PRUNING INSTRUMENTS. DO NOT PAINT CUT ENDS. DO NOT BREAK, TEAR, CHOP, OR SLANT THE CUTS. DO NOT USE A BACKHOE OR OTHER EQUIPMENT THAT RIPS, TEARS, OR PULLS ROOTS. WHERE POSSIBLE, EXCAVATE UNDER OR AROUND TREE ROOTS BY HAND OR WITH AIR SPADE, OR TUNNEL UNDER THE ROOTS BY DRILLING, AUGER BORING, OR PIPE JACKING.
12. ROOTS THAT ARE 6" AND LARGER SHOULD BE SHAVED TO THE DEPTH OF EXCAVATION RATHER THAN REMOVED IF POSSIBLE.
13. DO NOT ALLOW EXPOSED ROOTS TO DRY OUT BEFORE PLACING PERMANENT BACKFILL. PROVIDE TEMPORARY EARTH COVER OR PACK WITH PEAT MOSS AND WRAP WITH BURLAP. WATER AND MAINTAIN IN A MOIST CONDITION. TEMPORARILY SUPPORT AND PROTECT ROOTS FROM DAMAGE UNTIL THEY ARE PERMANENTLY RELOCATED AND COVERED WITH SOIL.
14. EVALUATE ANY INJURY TO TREES THAT SHOULD OCCUR DURING CONSTRUCTION. NOTIFY THE PROJECT ARBORIST SO THAT APPROPRIATE TREATMENTS CAN BE APPLIED.
15. MINIMIZE CULTIVATION WITHIN THE TREE PROTECTION ZONE OF EXISTING TREES. PREPARE SOIL FOR SEEDING BY MINIMIZING DISTURBANCE TO 4-INCH DEPTH. HAND CULTIVATE WHEN ENCOUNTERING ROOTS.
16. TREES THAT ARE DAMAGED OR KILLED DURING CONSTRUCTION SHALL BE REPLACED IN KIND, AS APPROVED BY THE PROJECT ARCHITECT.

TREE PROTECTION ZONE:

17. A TREE PROTECTION ZONE SHALL BE IDENTIFIED FOR EACH TREE TO BE PRESERVED. THE TREE PROTECTION ZONE FOR EACH TREE SHALL BE THE DRIPLINE OF THE TREE AS NOTED ABOVE. WHERE TREES GROW IN GROUPS, FENCE AROUND A COLLECTIVE TPZ USING THE DIAMETERS OF THE EDGE TREES TO CALCULATE THE RADIUS, OR THE EDGE OF EXISTING PAVEMENT.
18. FENCE ALL TREES TO BE RETAINED TO COMPLETELY ENCLOSE THE TREE PROTECTION ZONE PRIOR TO DEMOLITION, GRUBBING OR GRADING. FENCES SHALL BE 6-FOOT TALL CHAIN LINK WITH POSTS SUNK INTO THE GROUND OR EQUIVALENT AS APPROVED BY THE CITY.
19. ATTACH A SIGN TO THE TREE PROTECTION FENCING. SIGN SHALL READ "TREE PROTECTION ZONE. NO HEAVY EQUIPMENT." OR LANGUAGE DESIGNATED BY THE CITY OF LIVERMORE. SIGN SHALL BE SHOP-FABRICATED, RIGID PLASTIC OR METAL SHEET WITH ATTACHMENT HOLES PRE-PUNCHED AND REINFORCED; LEGIBLY PRINTED WITH NONFADING LETTERING 3-INCH- HIGH MINIMUM, BLACK CHARACTERS ON WHITE BACKGROUND.
20. FENCES MUST BE INSTALLED PRIOR TO BEGINNING DEMOLITION AND MUST REMAIN UNTIL CONSTRUCTION IS COMPLETE.
21. NO GRADING, EXCAVATION, CONSTRUCTION OR STORAGE OR DUMPING OF MATERIALS SHALL OCCUR WITHIN THE TREE PROTECTION ZONE.
22. NO UNDERGROUND SERVICES INCLUDING UTILITIES, SUB-DRAINS, WATER OR SEWER SHALL BE PLACED IN THE TREE PROTECTION ZONE.
23. THE FOLLOWING WORK IS PROHIBITED WITHIN THE TREE PROTECTION ZONE: GRADING AND STORAGE OF SOIL, CONSTRUCTION ACCESS ROUTES, TRAVEL AND PARKING OF ALL VEHICLES AND CONSTRUCTION EQUIPMENT, GRADE CHANGES AND EXCAVATIONS, MATERIAL STORAGE AND STAGING, FUEL AND MIXING AREAS, WASHOUT AREAS FOR CONCRETE AND OTHER MATERIALS.
24. MAINTAIN THE TREE PROTECTION ZONES FREE OF WEEDS AND TRASH.

ADDITIONAL GUIDELINES:

25. ENSURE THAT ALL TREES TO BE PRESERVED ARE ACCURATELY LOCATED. PLOT TREES TO BE PRESERVED AND TREE PROTECTION ZONES ON THE SITE PLAN, AND HAVE THE CONSULTING ARBORIST REVIEW THESE PLANS.
26. PRESERVE EXISTING STANDS OF TREES IN GROUPS, MAINTAINING THE EXISTING GRADES OF PLANTING BEDS AROUND THE TREES TO THEIR DRIPLINES, WHERE POSSIBLE.
27. ANY CHANGES TO THE PLANS AFFECTING THE TREES SHOULD BE REVIEWED BY THE CONSULTING ARBORIST WITH REGARD TO TREE IMPACTS. THESE INCLUDE, BUT ARE NOT LIMITED TO, SITE PLANS, IMPROVEMENT PLANS, UTILITY AND DRAINAGE PLANS, GRADING PLANS, LANDSCAPE AND IRRIGATION PLANS, AND DEMOLITION PLANS.
28. PLAN FOR TREE PRESERVATION BY DESIGNING ADEQUATE SPACE AROUND TREES TO BE PRESERVED. THIS IS THE TREE PROTECTION ZONE: NO GRADING, EXCAVATION, CONSTRUCTION OR STORAGE OF MATERIALS SHOULD OCCUR WITHIN THAT ZONE. ROUTE UNDERGROUND SERVICES INCLUDING UTILITIES, SUB-DRAINS, WATER OR SEWER AROUND THE TREE PROTECTION ZONE.
29. CONSIDER THE VERTICAL CLEARANCE REQUIREMENTS NEAR TREES DURING DESIGN. AVOID DESIGNS THAT WOULD REQUIRE PRUNING MORE THAN 20% OF A TREE'S CANOPY.
30. ALL PLANS AFFECTING TREES SHALL BE REVIEWED BY THE CONSULTING ARBORIST WITH REGARD TO TREE IMPACTS. THESE INCLUDE, BUT ARE NOT LIMITED TO, DEMOLITION PLANS, GRADING PLANS, DRAINAGE PLANS, UTILITY PLANS, AND LANDSCAPE AND IRRIGATION PLAN
31. IRRIGATION SYSTEMS MUST BE DESIGNED SO THAT NO TRENCHING SEVERS ROOTS LARGER THAN 1" IN DIAMETER WILL OCCUR WITHIN THE TREE PROTECTION ZONE
32. TREE PRESERVATION GUIDELINES PREPARED BY THE CONSULTING ARBORIST, WHICH INCLUDE SPECIFICATIONS FOR TREE PROTECTION DURING DEMOLITION AND CONSTRUCTION, SHOULD BE INCLUDED ON ALL PLANS.
33. ANY HERBICIDES PLACED UNDER PAVING MATERIALS MUST BE SAFE FOR USE AROUND TREES AND LABELED FOR THAT USE.
34. ENSURE ADEQUATE BUT NOT EXCESSIVE WATER IS SUPPLIED TO TREES; IN MOST CASES OCCASIONAL IRRIGATION WILL BE REQUIRED. AVOID DIRECTING RUNOFF TOWARD TREES.
35. FENCE ALL TREES TO BE RETAINED TO COMPLETELY ENCLOSE THE TREE PROTECTION ZONE PRIOR TO DEMOLITION, GRUBBING OR GRADING. FENCES ARE TO REMAIN UNTIL ALL GRADING AND CONSTRUCTION IS COMPLETED.
36. WHERE DEMOLITION MUST OCCUR CLOSE TO TREES, SUCH AS REMOVING CURB AND PAVEMENT, INSTALL TEMPORARY TRUNK PROTECTION DEVICES SUCH AS WINDING SILT SOCK WATTLE OR WOOD PLANKS AROUND TRUNKS OR STACKING HAY BALES AROUND TREE TRUNKS TO A HEIGHT OF APPROXIMATELY 5'. ANY LOW BRANCHES THAT ARE WITHIN THE WORK ZONE SHOULD ALSO BE PROTECTED. REMOVE TRUNK PROTECTION AFTER DEMOLITION IS COMPLETED AND INSTALL PROTECTIVE FENCE AT THE LIMITS OF THE TREE PROTECTION ZONE. THE TYPE AND EXTENT OF TRUNK PROTECTION CAN BE DETERMINED WHEN PROJECT PLANS ARE AVAILABLE FOR REVIEW BY THE CONSULTING ARBORIST. DO NOT RETAIN WATTLING AROUND TREE TRUNKS FOR MORE THAN 2 MONTHS TO AVOID DAMAGING TRUNKS FROM EXCESS MOISTURE.
37. PRUNE TREES TO BE PRESERVED TO CLEAN THE CROWN OF DEAD BRANCHES 1-INCH AND LARGER IN DIAMETER, RAISE CANOPIES AS NEEDED FOR CONSTRUCTION ACTIVITIES.
    - 37.1. ALL PRUNING SHALL BE DONE BY A STATE OF CALIFORNIA LICENSED TREE CONTRACTOR (C61/D49). ALL PRUNING SHALL BE DONE BY CERTIFIED ARBORIST OR CERTIFIED TREE WORKER IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES FOR PRUNING (INTERNATIONAL SOCIETY OF ARBORICULTURE, 2002) AND ADHERE TO THE MOST RECENT EDITIONS OF THE AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS (Z133.1) AND PRUNING (A300).
    - 37.2. THE CONSULTING ARBORIST WILL PROVIDE PRUNING SPECIFICATIONS PRIOR TO SITE DEMOLITION.
    - 37.3. BRANCHES EXTENDING INTO THE WORK AREA THAT CAN REMAIN FOLLOWING DEMOLITION SHALL BE TIED BACK AND PROTECTED FROM DAMAGE.
    - 37.4. WHILE IN THE TREE THE ARBORIST SHALL PERFORM AN AERIAL INSPECTION TO IDENTIFY ANY DEFECTS, WEAK BRANCH AND TRUNK ATTACHMENTS AND DECAY NOT VISIBLE FROM THE GROUND. ANY ADDITIONAL WORK NEEDED TO MITIGATE DEFECTS SHALL BE REPORTED TO THE PROPERTY OWNER
38. TREE(S) TO BE REMOVED THAT HAVE BRANCHES EXTENDING INTO THE CANOPY OF TREE(S) OR LOCATED WITHIN THE TREE PROTECTION ZONE OF TREE(S) TO REMAIN SHALL BE REMOVED BY A CERTIFIED ARBORIST OR CERTIFIED TREE WORKER AND NOT BY THE DEMOLITION CONTRACTOR. THE CERTIFIED ARBORIST OR CERTIFIED TREE WORKER SHALL REMOVE THE TREES IN A MANNER THAT CAUSES NO DAMAGE TO THE TREE(S) AND UNDERSTORY TO REMAIN. STUMPS SHALL BE GROUND BELOW GRADE
39. TREES TO BE REMOVED SHALL BE FELLED SO AS TO FALL AWAY FROM TREE PROTECTION ZONE AND AVOID PULLING AND BREAKING OF ROOTS OF TREES TO REMAIN. IF ROOTS ARE ENTWINED, THE CONSULTING ARBORIST MAY REQUIRE FIRST SEVERING THE MAJOR WOODY ROOT MASS BEFORE EXTRACTING THE TREES, OR GRINDING THE STUMP BELOW GROUND.
40. STRUCTURES AND UNDERGROUND FEATURES TO BE REMOVED WITHIN THE TREE PROTECTION ZONE SHALL USE EQUIPMENT THAT WILL MINIMIZE DAMAGE TO TREES ABOVE AND BELOW GROUND, AND OPERATE FROM OUTSIDE THE TREE PROTECTION ZONE. TIE BACK BRANCHES AND WRAP TRUNKS WITH PROTECTIVE MATERIALS TO PROTECT FROM INJURY AS DIRECTED BY THE CONSULTING ARBORIST. THE CONSULTING ARBORIST SHALL BE ON-SITE DURING ALL OPERATIONS WITHIN THE TREE PROTECTION ZONE TO MONITOR DEMOLITION ACTIVITY



SHEET NOTES

1. **DRAWING SHOWN FOR REFERENCE ONLY.** SEE INCREMENT 1 - DEMO PACKAGE.
2. CONTRACTOR TO PROTECT TREES OUTSIDE AND ADJACENT TO SCOPE OF WORK.
3. SEE TREE PROTECTION NOTES.

LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- MINIMUM TREE PROTECTION ZONE, TPZ, PER ARBORIST REPORT SEE NOTES

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4907
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

NORTH

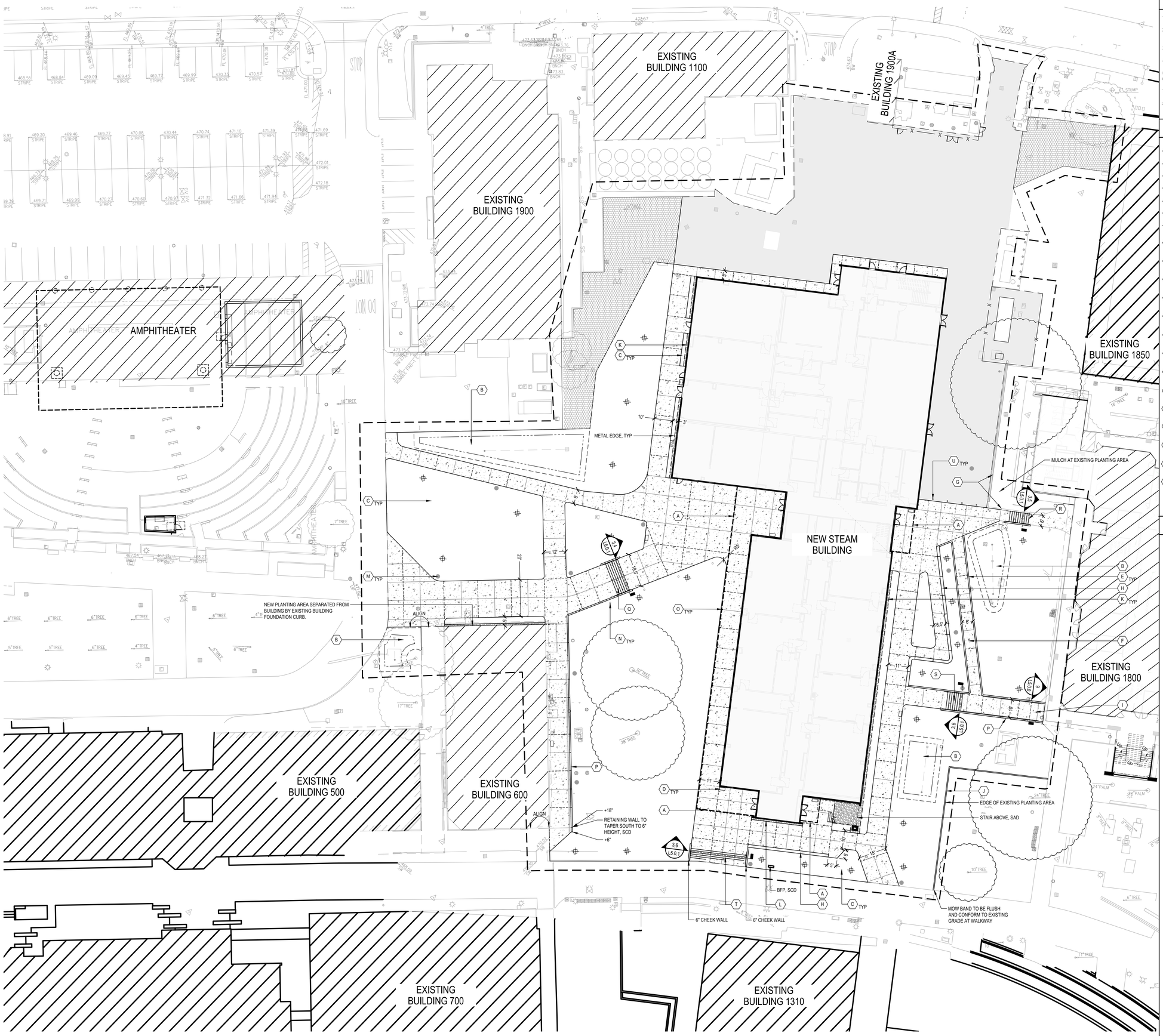
0' 10' 20' 40'
SCALE:

SHEET TITLE
TREE REMOVAL & PROTECTION PLAN

14794
PROJECT NUMBER

CD
SHEET NUMBER
L0.0.2

Plot Date:



SHEET NOTES

1. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE, UTILITY AND OTHER SITE INFORMATION NOT SHOWN IN LANDSCAPE DRAWINGS.
2. CONTRACTOR TO PROTECT EXISTING TREES OUTSIDE AND ADJACENT TO LIMIT OF WORK DURING CONSTRUCTION. TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND.
3. SEE SHEETS L5.0.0-L5.0.1 LANDSCAPE DETAILS FOR ADDITIONAL INFORMATION REGARDING SITE MATERIALS.
4. SEE SHEET L1.2.0 FOR PLANTING PLAN, AND SHEET L1.2.1 FOR TREE PLAN.
5. ALL TRASH RECEPTACLES TO BE OFCI.
6. EXISTING PLANTING AREA DISTURBED DURING CONSTRUCTION TO BE REPLACED IN KIND.
7. STONE MAINTENANCE EDGE TO BE PLACED ALONG BUILDING WALLS WHERE ADJACENT PLANTING OCCURS.
8. BIKE PARKING: SEE SHEET G1.4.1 FOR CAMPUS LOCATIONS PROVIDED BY OWNER.

KEYED NOTES

A	BUILDING CANOPY	
B	STORMWATER PLANTING AREA - BIORETENTION	
C	PLANTING AREA	
D	TRASH RECEPTACLE (OFCI), NOT ANCHORED	
E	CURB, SCD	
F	CONCRETE SLOPED WALKWAY	
G	EXISTING RETAINING WALL	
H	(N) CONCRETE SEAT WALL	7 / L5.0.0
I	CONCRETE RAMP WITH HANDRAIL & CHEEK WALL	1 / L5.0.1
J	CONCRETE MOW BAND	2 / L5.0.0
K	STONE MAINTENANCE EDGE AT PLANTING	1 / L6.0.1
L	STONE MAINTENANCE EDGE AT CONCRETE PAVEMENT	3 / L6.0.1
M	LIGHT POLE IN PLANTING	5 / L5.0.0
N	ILLUMINATED BOLLARD	3,4 / L5.0.0
O	BUILDING COLUMN, SAD	
P	CONCRETE RETAINING WALL	8 / L5.0.0
Q	CONCRETE SITE STAIR 1	3, 4 / L5.0.1
R	CONCRETE SITE STAIR 2	3, 5 / L5.0.1
S	CONCRETE SITE STAIR 3	3, 6 / L5.0.1
T	CONCRETE SITE STAIR 4	3, 6 / L5.0.1
U	BOLLARD, SCD	

LEGEND

- SCOPE OF WORK LINE
- METAL EDGE — 2 / L6.0.1
- SAW CUT SCORE JOINTS, TYP
- EXPANSION JOINTS, TYP
- CONCRETE PAVEMENT — 1 / L5.0.0
- ASPHALT - SEE CIVIL DRAWINGS
- ROCK MULCH, SEE SPECS
- NEW TREE 24" BOX
- EXISTING TREE TO REMAIN, PROTECT IN PLACE. SEE TREE PROTECTION PLAN ON SHEET L0.0.2.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT — Todd Kohli No. 4907 — Signature — 06/30/2026 Renewal Date — 07/24/2025 Date — STATE OF CALIFORNIA

NORTH

0 10' 20' 40'

SCALE:

SHEET TITLE

LAYOUT & MATERIAL PLAN

14794

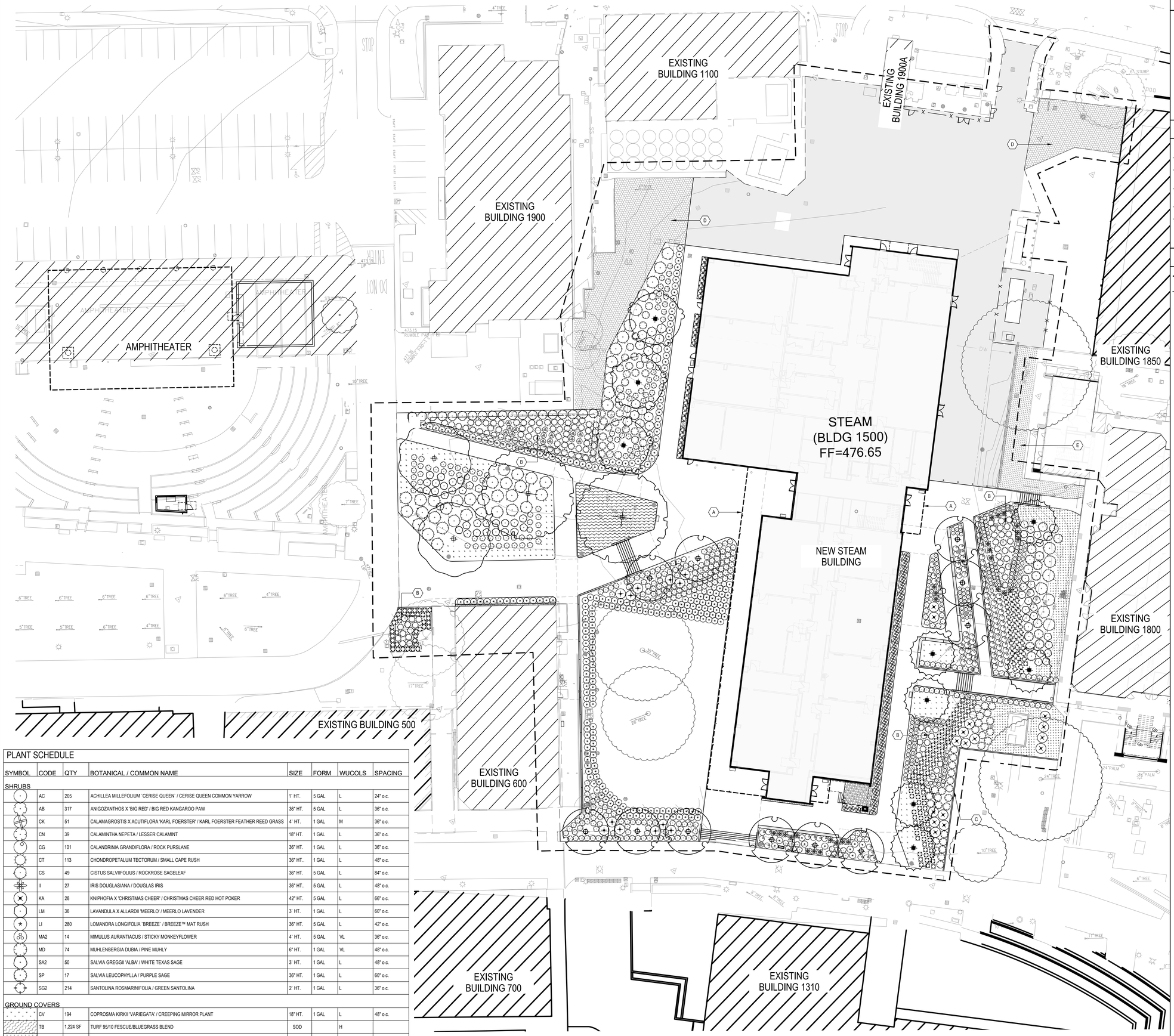
PROJECT NUMBER

CD

L1.1.1

SHEET NUMBER

Plot Date:



SHEET NOTES

1. PLANTS TO BE MINIMUM 5 GAL, WITH AN ESTIMATED MINUMUM SPACING OF 30".
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE, UTILITY AND OTHER SITE INFORMATION NOT SHOWN IN LANDSCAPE DRAWINGS.
3. CONTRACTOR TO PROTECT EXISTING TREES. TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND. SEE TREE PROTECTION NOTES L0.0.2.
4. SEE SHEET L1.2.1 FOR TREE INFORMATION.
5. EXISTING PLANTING AREA DISTURBED DURING CONSTRUCTION TO BE REPLACED IN KIND.

KEYED NOTES

- A BUILDING CANOPY ABOVE, SEE ARCHITECTURAL DRAWINGS
- B STORMWATER PLANTING AREA
- C CONCRETE MOW BAND — 2 / L5.0.0
- D ROCK MULCH, SEE SPECS
- E BARK MULCH, SEE SPECS

LEGEND

- SCOPE OF WORK LINE
- METAL EDGE — 2 / L6.0.1
- NEW TREE 24" BOX
- EXISTING TREE TO REMAIN, PROTECT IN PLACE. SEE TREE PROTECTION PLAN ON SHEET L0.0.2.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	FORM	WUCOLS	SPACING
SHRUBS							
	AC	205	ACHILLEA MILLEFOLIUM 'CERISE QUEEN' / CERISE QUEEN COMMON YARROW	1' HT.	5 GAL	L	24" o.c.
	AB	317	ANIGOZANTHOS X 'BIG RED' / BIG RED KANGAROO PAW	36" HT.	5 GAL	L	36" o.c.
	CK	51	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / KARL FOERSTER FEATHER REED GRASS	4' HT.	1 GAL	M	36" o.c.
	CN	39	CALAMINTHA NEPETA / LESSER CALAMINT	18" HT.	1 GAL	L	36" o.c.
	CG	101	CALANDRINIA GRANDIFLORA / ROCK PURSLANE	36" HT.	1 GAL	L	36" o.c.
	CT	113	CHONDROPETALUM TECTORUM / SMALL CAPE RUSH	36" HT.	1 GAL	L	48" o.c.
	CS	49	CISTUS SALVIIFOLIUS / ROCKROSE SAGELEAF	36" HT.	5 GAL	L	84" o.c.
	II	27	IRIS DOUGLASIANA / DOUGLAS IRIS	36" HT.	5 GAL	L	48" o.c.
	KA	28	KNIPHOFIA X 'CHRISTMAS CHEER' / CHRISTMAS CHEER RED HOT POKER	42" HT.	5 GAL	L	66" o.c.
	LM	36	LAVANDULA X ALLARDII 'MEERLO' / MEERLO LAVENDER	3' HT.	1 GAL	L	60" o.c.
	LI	280	LOMANDRA LONGIFOLIA 'BREEZE' / BREEZE™ MAT RUSH	36" HT.	5 GAL	L	42" o.c.
	MA2	14	MIMULUS AURANTIACUS / STICKY MONKEYFLOWER	4' HT.	5 GAL	VL	36" o.c.
	MD	74	MUHLENBERGIA DUBIA / PINE MUHLY	6" HT.	1 GAL	VL	48" o.c.
	SA2	50	SALVIA GREGGII 'ALBA' / WHITE TEXAS SAGE	3' HT.	1 GAL	L	48" o.c.
	SP	17	SALVIA LEUCOPHYLLA / PURPLE SAGE	36" HT.	1 GAL	L	60" o.c.
	SG2	214	SANTOLINA ROSMARINIFOLIA / GREEN SANTOLINA	2' HT.	1 GAL	L	36" o.c.
GROUND COVERS							
	CV	194	COPROSMA KIRKII 'VARIEGATA' / CREEPING MIRROR PLANT	18" HT.	1 GAL	L	48" o.c.
	TB	1,224 SF	TURF 95/10 FESCUE/BLUEGRASS BLEND	SOD		H	
	WLA	188	WESTRINGIA FRUTICOSA 'WES05' / LOW HORIZON™ COAST ROSEMARY	1' HT.	5 GAL	L	36" o.c.

Plot Date:

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT — Todd Kohli No. 4907 — Signature — 06/30/2026 Renewal Date — 07/24/2025 Date — STATE OF CALIFORNIA

NORTH

0' 10' 20' 40'
SCALE:

SHEET TITLE
PLANTING PLAN

14794
PROJECT NUMBER

CD
SHEET NUMBER
L1.2.0

EXISTING BUILDING 1100

EXISTING BUILDING 1900A

EXISTING BUILDING 1900

AMPHITHEATER

NEW STEAM BUILDING

METAL EDGE, TYP

EXISTING BUILDING 1850

EXISTING BUILDING 1800

EXISTING BUILDING 500

EXISTING BUILDING 600

EXISTING BUILDING 700

EXISTING BUILDING 1310

SHEET NOTES

1. TREES TO BE 24" BOX SIZE
2. SEE CIVIL DRAWINGS FOR GRADING, DRAINAGE, UTILITY AND OTHER SITE INFORMATION NOT SHOWN IN LANDSCAPE DRAWINGS.
3. CONTRACTOR TO PROTECT EXISTING TREES. TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND. SEE TREE PROTECTION NOTES L0.0.2.
4. EXISTING PLANTING AREA DISTURBED DURING CONSTRUCTION TO BE REPLACED IN KIND.

KEYED NOTES

A BUILDING CANOPY ABOVE, SEE ARCHITECTURAL DRAWINGS

B BUILDING COLUMN, SEE ARCHITECTURAL DRAWINGS

LEGEND

SCOPE OF WORK LINE

NEW TREE 24" BOX

EXISTING TREE TO REMAIN, PROTECT IN PLACE. SEE TREE PROTECTION PLAN ON SHEET L0.0.2.

CALGREEN 5.106.12
Shade Trees

SURFACE PARKING LOT AREAS

PAVED AREA SURFACE TOTAL	N/A
TOTAL SHADED SURFACE	N/A
% SHADED AREA [50% MIN REQUIRED]	N/A

HARDSCAPE AREAS

PAVED AREA SURFACE TOTAL	21,311 SF
REQ. SHADE	4,262 SF
TOTAL SHADED SURFACE	4294.5 SF
% SHADED AREA [20% MIN REQUIRED]	20.15%

LANDSCAPE AREAS

LANDSCAPED AREA SURFACE TOTAL	15,069 SF
TOTAL SHADED SURFACE	4379 SF
% SHADED AREA [20% MIN REQUIRED]	29%

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	MATURE HEIGHT	FORM	WUCOLS
TREES						
	AB2	12	ACER BUERGERIANUM / TRIDENT MAPLE	40'	24" BOX	M
	AH	2	AESCULUS HIPPOCASTANUM / EUROPEAN HORSECHESTNUT	50'	24" BOX	VL
	JM	3	JACARANDA MIMOSIFOLIA / JACARANDA	40'	24" BOX	M
	PD	6	PARKINSONIA X 'DESERT MUSEUM' / DESERT MUSEUM PALO VERDE	30'	24" BOX	L
	ZS	2	ZELKOVA SERRATA / JAPANESE ZELKOVA	60'	24" BOX	M

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SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT · Todd Kohli No. 4907 · Signature 06/30/2026 Renewal Date 07/24/2025 Date · STATE OF CALIFORNIA

NORTH

0' 10' 20' 40'

SCALE:

SHEET TITLE

TREE PLAN

14794

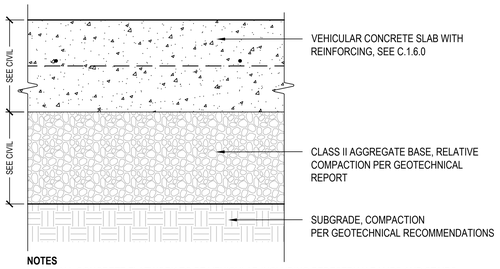
PROJECT NUMBER

CD

L1.2.1

SHEET NUMBER

Plot Date:

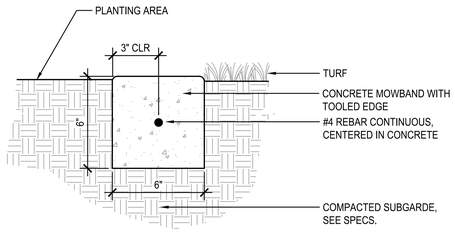


NOTES

1. ALL CONCRETE FLATWORK TO BE VEHICULAR INCLUDING PEDESTRIAN RAMPS AND STAIRS.
2. MEDIUM BROOM FINISH
3. PROVIDE SCORE JOINTS (SJ) AND EXPANSION JOINTS (EJ) AS SHOWN ON PLAN.
4. PROVIDE (EJ) MAX. 20' O.C. BOTH DIRECTIONS, ADJACENT TO BUILDINGS,WALLS, AND OTHER VERTICAL ELEMENTS, UNLESS OTHERWISE NOTED ON PLANS.
5. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAILS.

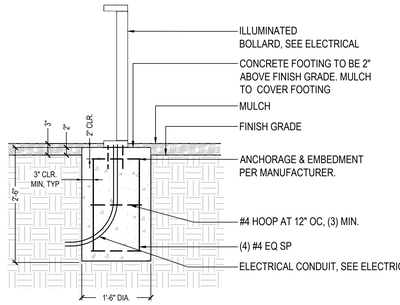
1 CONCRETE PAVEMENT

Scale: 3":1'



2 CONCRETE MOW BAND

Scale: 3":1'

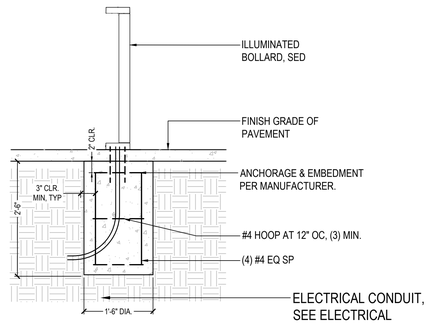


NOTES:

1. SEE ELECTRICAL DRAWINGS AND SPECS FOR BOLLARD FIXTURE INFORMATION
2. INSTALL PER MANUFACTURER RECOMMENDATIONS

3 ILLUMINATED BOLLARD IN PLANTING

Scale: 3/4" :1'-0"

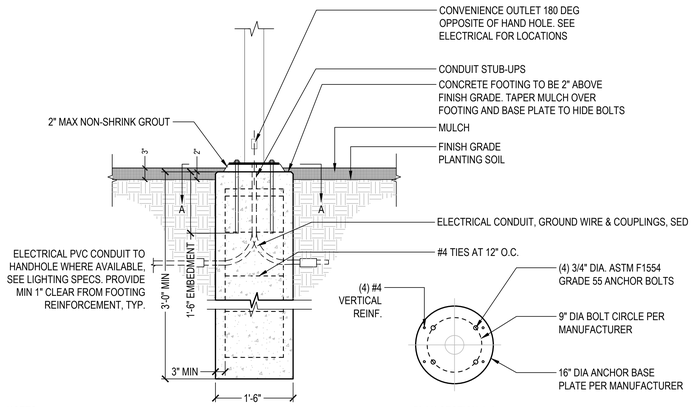


NOTES:

1. SEE ELECTRICAL DRAWINGS AND SPECS FOR BOLLARD FIXTURE INFORMATION
2. INSTALL PER MANUFACTURER RECOMMENDATIONS

4 ILLUMINATED BOLLARD IN HARDSCAPE

Scale: 3/4" :1'-0"

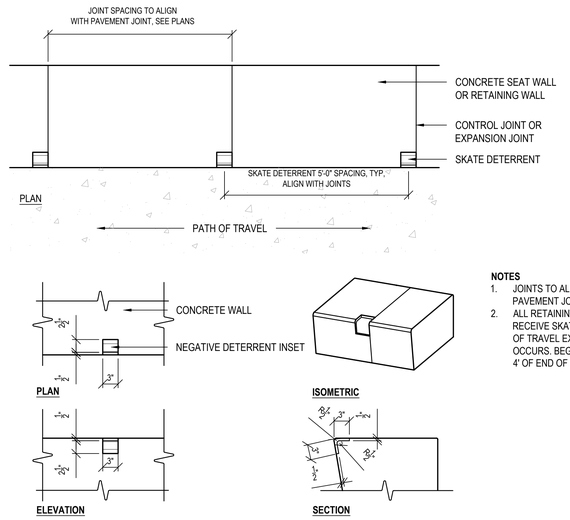


NOTES:

1. 12 FT POLE HEIGHT
2. SEE ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULE AND POLE AND FIXTURE DETAILS.
3. INSTALL PER MANUFACTURER RECOMMENDATIONS

5 LIGHT POLE IN PLANTING

Scale:3/4:1'

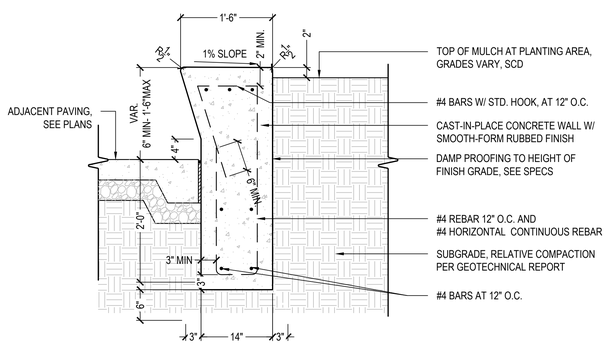


NOTES

1. JOINTS TO ALIGN WITH CONCRETE PAVEMENT JOINTS PER PLAN.
2. ALL RETAINING AND SEAT WALLS TO RECEIVE SKATE DETERRENTS ALONG PATH OF TRAVEL EXCEPT WHERE RAILING OCCURS. BEGIN SKATE DETERRENT WITHIN 4' OF END OF RAIL.

6 SKATE DETERRENT

Scale:1":1'

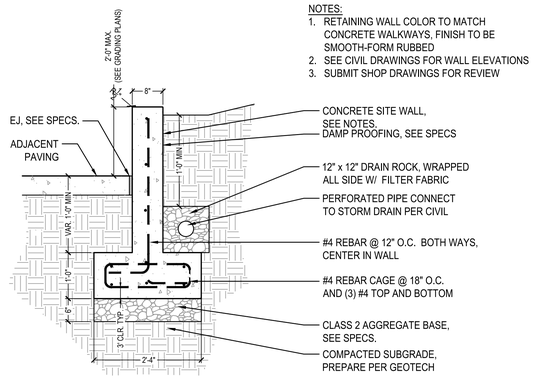


NOTE:

1. ALL SEAT WALLS TO RECEIVE SKATE DETERRENTS ON SIDES FACING WALKWAYS, SEE 7/L5.0.1
2. PROVIDE SHOP DRAWINGS FOR APPROVAL
3. DAMP PROOFING TO NOT SHOW ABOVE FINISH GRADE

7 CONCRETE SEAT WALL

Scale:1":1'



NOTES:

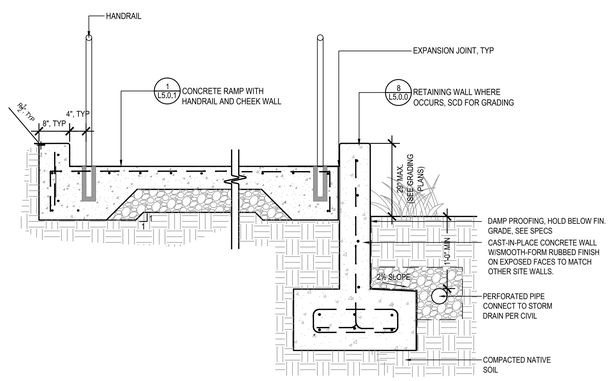
1. RETAINING WALL COLOR TO MATCH CONCRETE WALKWAYS, FINISH TO BE SMOOTH-FORM RUBBED
2. SEE CIVIL DRAWINGS FOR WALL ELEVATIONS
3. SUBMIT SHOP DRAWINGS FOR REVIEW

NOTE:

1. ALL RETAINING WALLS TO RECEIVE SKATE DETERRENTS ON SIDES FACING WALKWAYS, SEE 6/L5.0.0

8 CONCRETE RETAINING WALL

Scale: 3/4":1'



9 CONCRETE RAMP AT RETAINING WALL

Scale: 3/4":1'

Plot Date:

LAS POSITAS COLLEGE

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SMITHGROUP

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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

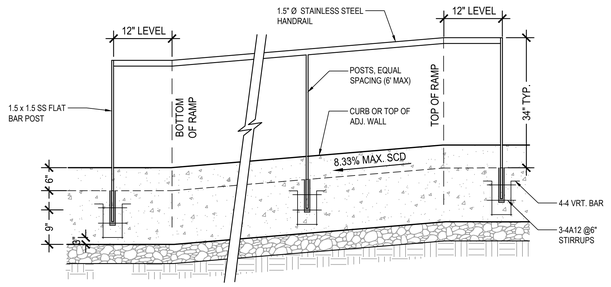
LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4907
Todd Kohli
Renewal Date 06/30/2026
Current Date 07/24/2025
Date
STATE OF CALIFORNIA

SHEET TITLE
LANDSCAPE DETAILS

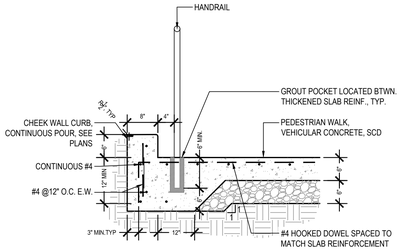
14794
PROJECT NUMBER

CD
SHEET NUMBER

L5.0.0



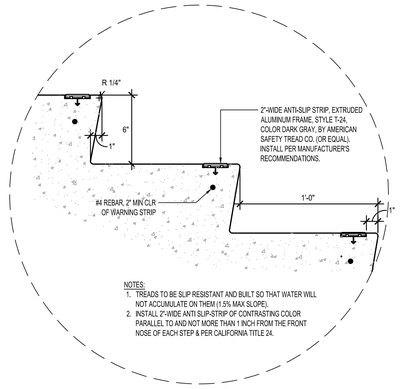
NOTES:
1. DESIGN INTENT SHOWN ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT.
2. PROVIDE 5' MIN. LEVEL LANDING (2% MAX) TOP & BOTTOM OF RAMP. 30" MAX RISE W/O INTERMEDIATE LANDING.
3. DOWEL TOP AND BOTTOM OF RAMP TO ADJACENT PAVING AND WALLS
4. EASE ALL EXPOSED EDGES, 1/8" RADIUS, TYP.
5. INSTALL HANDRAIL PLUMB & LEVEL W/ EXTENSIONS IN DIRECTION OF TRAVEL. SEE PLANS FOR LOCATION OF HANDRAILS.
6. EMBED POSTS W/ QUICK SETTING NON-SHRINK GROUT. GROUT POCKET 1" LARGER THAN POSTS, 2" CLEAR MIN. OF EDGE OF CONCRETE & 3" CLEAR MIN. OF EXPANSION JOINTS.
7. SEE CIVIL FOR GRADING



TYPICAL CHEEK WALL SECTION

1 CONCRETE RAMP WITH HANDRAIL & CHEEK WALL

Scale: 3/4":1'



NOTES:
1. TREADS TO BE SLIP RESISTANT AND BUILT SO THAT WATER WILL NOT ACCUMULATE ON THEM (1.5% MAX SLOPE).
2. INSTALL 2"-WIDE ANTI SLIP-STRIP OF CONTRASTING COLOR PARALLEL TO AND NOT MORE THAN 1 INCH FROM THE FRONT NOSE OF EACH STEP & PER CALIFORNIA TITLE 24.

2 STAIR NOSING

Scale: 3/16":1'

TYPICAL STAIR SECTION

NOTES:
1. DESIGN INTENT SHOWN ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT.
2. INSTALL HANDRAIL PLUMB AND LEVEL W/ EXTENSIONS IN DIRECTION OF TRAVEL. SEE PLANS FOR LOCATION OF HANDRAILS.
3. EMBED POSTS W/ QUICK SETTING NON-SHRINK GROUT. GROUT POCKET 1" LARGER THAN POSTS. KEEP GROUT POCKET 2" CLEAR MIN. OF EDGE OF CONCRETE AND 3" CLEAR MIN OF ALL EXPANSION JOINTS.
4. TREADS TO BE SLIP RESISTANT AND BUILT SO THAT WATER WILL NOT ACCUMULATE ON THEM (1.5% MAX SLOPE)
5. DOWEL TOP AND BOTTOM OF STAIRS TO ADJACENT PAVING AND WALLS, SEE SPECS. DOWEL TO BE #4 @ 18" OR 24" IN O.C.

3 CONCRETE STAIR WITH HANDRAIL & CHEEK WALL - TYPICAL

Scale: 3/4":1'

NOTES:
1. DESIGN INTENT SHOWN ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT.
2. EMBED POSTS W/ QUICK SETTING NON-SHRINK GROUT. GROUT POCKET 1" LARGER THAN POSTS. 2" CLEAR MIN. OF EDGE OF CONCRETE & 3" CLEAR MIN OF ALL EXPANSION JOINTS.

TYPICAL CHEEK WALL SECTION

NOTES:
1. DESIGN INTENT SHOWN ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT.

TYPICAL CHEEK WALL AT STAIR SECTION

SECTION - SITE STAIR 1

4 CONCRETE SITE STAIR 1

Scale: 3/4":1'

NOTES:
1. DESIGN INTENT SHOWN ONLY. SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT.
2. INSTALL HANDRAIL PLUMB AND LEVEL W/ EXTENSIONS IN DIRECTION OF TRAVEL. SEE PLANS FOR LOCATION OF HANDRAILS.
3. EMBED POSTS W/ QUICK SETTING NON-SHRINK GROUT. GROUT POCKET 1" LARGER THAN POSTS. KEEP GROUT POCKET 2" CLEAR MIN. OF EDGE OF CONCRETE AND 3" CLEAR MIN OF ALL EXPANSION JOINTS.
4. TREADS TO BE SLIP RESISTANT AND BUILT SO THAT WATER WILL NOT ACCUMULATE ON THEM (1.5% MAX SLOPE)
5. DOWEL TOP AND BOTTOM OF STAIRS TO ADJACENT PAVING AND WALLS, SEE SPECS.

SECTION SITE STAIR 2

5 CONCRETE SITE STAIR 2

Scale: 3/4":1'

SECTION - SITE STAIR 3 & 4

6 CONCRETE SITE STAIR 3 & 4

Scale: 3/4":1'

Plot Date:

LAS POSITAS COLLEGE

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

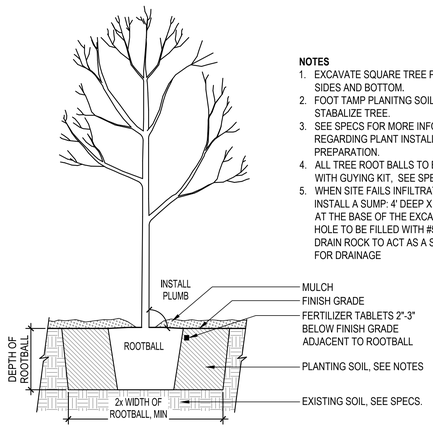
SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4901
Signature 06/30/2026 Renewal Date
07/24/2025 Date
STATE OF CALIFORNIA

SHEET TITLE
LANDSCAPE DETAILS

14794
PROJECT NUMBER

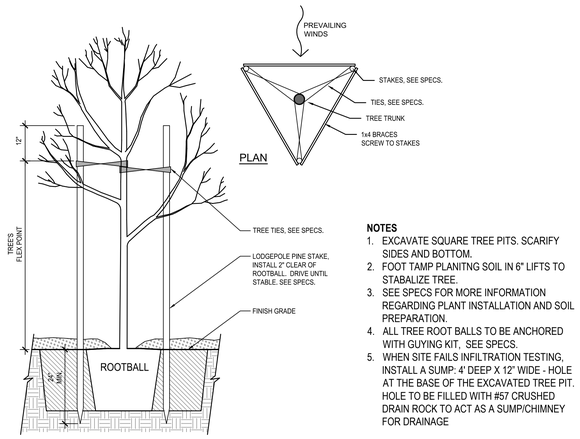
CD
SHEET NUMBER
L5.0.1



NOTES
1. EXCAVATE SQUARE TREE PITS. SCARIFY SIDES AND BOTTOM.
2. FOOT TAMP PLANITNG SOIL IN 6" LIFTS TO STABALIZE TREE.
3. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.
4. ALL TREE ROOT BALLS TO BE ANCHORED WITH GUYING KIT, SEE SPECS.
5. WHEN SITE FAILS INFILTRATION TESTING, INSTALL A SUMP: 4' DEEP X 12" WIDE - HOLE AT THE BASE OF THE EXCAVATED TREE PIT. HOLE TO BE FILLED WITH #57 CRUSHED DRAIN ROCK TO ACT AS A SUMP/CHIMNEY FOR DRAINAGE

1 TREE PLANTING

Scale: 1/2"=1'-0"



NOTES
1. EXCAVATE SQUARE TREE PITS. SCARIFY SIDES AND BOTTOM.
2. FOOT TAMP PLANITNG SOIL IN 6" LIFTS TO STABALIZE TREE.
3. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.
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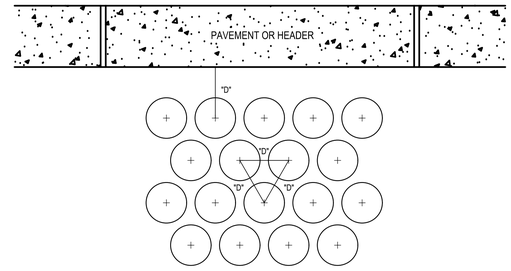
5. WHEN SITE FAILS INFILTRATION TESTING, INSTALL A SUMP: 4' DEEP X 12" WIDE - HOLE AT THE BASE OF THE EXCAVATED TREE PIT. HOLE TO BE FILLED WITH #57 CRUSHED DRAIN ROCK TO ACT AS A SUMP/CHIMNEY FOR DRAINAGE

2 TREE STAKING

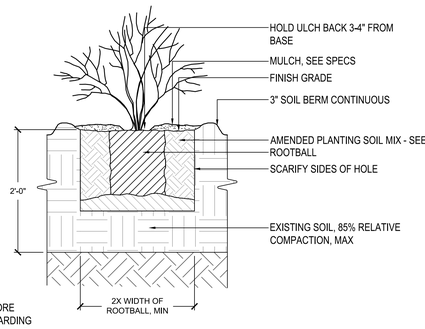
Scale: 1/2"=1'-0"



D=DIMENSION OF PLANT SPACING (SHRUB, GROUNDCOVER OR PERENNIAL) AS SHOWN IN SCHEDULE OR ON PLANS

3 TYPICAL PLANT SPACING

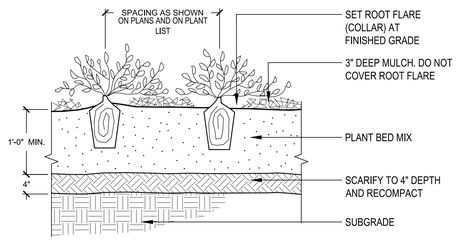
Scale: NTS



NOTE:
1. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.

4 SHRUB PLANTING

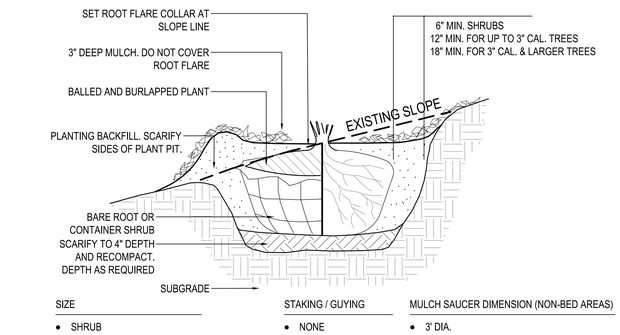
Scale: 1"=1'-0"



NOTE:
1. DEPTH OF PLANTING BACKFILL MUST BE CONFIRMED AND LIMITS OF BED SHOWN ON THE PLANS AND LABELED ACCORDINGLY. USE SAME DEPTH THROUGHOUT PROJECT AND MATCH WITH SHRUB PLANTING - BED
2. VERIFY QUALITY OF SUBSOIL IF CLAY - BED UNDER DRAIN MUST BE CONSIDERED TO PREVENT ROOT ROT.
3. CONTAINER PLANTS: REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED

5 GROUNDCOVER, NATIVE GRASSES + PERENNIALS

Scale: 1"=1'-0"

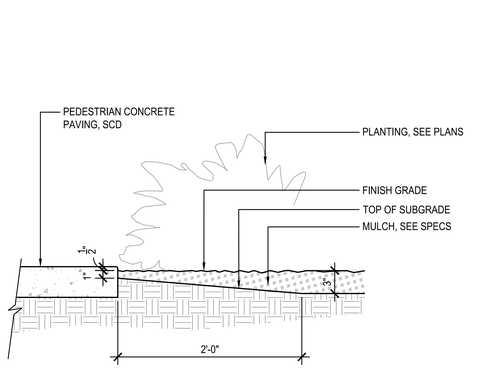


SIZE	STAKING / GUYING	MULCH SAUCER DIMENSION (NON-BED AREAS)
• SHRUB • TREE: 2" CAL. & SMALLER • TREE: BETWEEN 2.5" & 3.5" CAL. • TREE: LARGER THAN 3.5" CAL.	• NONE • DOUBLE STAKE • TRIPLE STAKE • TRIPLE GUY	• 3' DIA. • 4' DIA. • 5' DIA. • 8' DIA.

NOTES
1. REMOVE BURLAP FROM TOP 1/3 OF BALL, OR, WITH CONTAINER PLANTS, REMOVE POTS AND SEPARATE POT BOUND ROOTS AS SPECIFIED.
2. DO NOT PRUNE

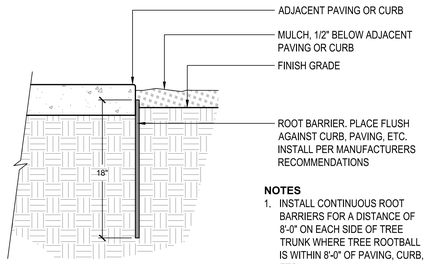
6 PLANTING ON SLOPE

Scale: 1"=1'-0"



7 MULCH AT PAVING

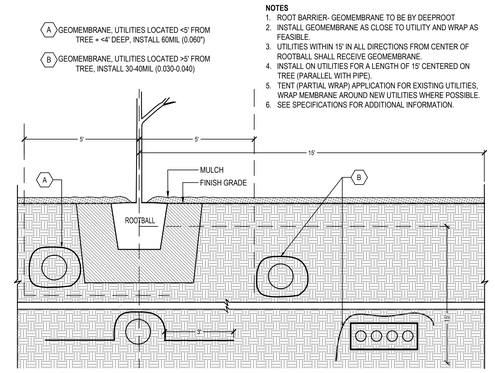
Scale: 1-1/2"=1'-0"



NOTES
1. INSTALL CONTINUOUS ROOT BARRIERS FOR A DISTANCE OF 8'-0" ON EACH SIDE OF TREE TRUNK WHERE TREE ROOTBALL IS WITHIN 8'-0" OF PAVING, CURB, ETC.

8 ROOT BARRIER

Scale:1-1/2"=1'-0"



NOTES
1. ROOT BARRIER- GEOMEMBRANE TO BE BY DEEPROOT
2. INSTALL GEOMEMBRANE AS CLOSE TO UTILITY AND WRAP AS FEASIBLE.
3. UTILITIES WITHIN 15' IN ALL DIRECTIONS FROM CENTER OF ROOTBALL SHALL RECEIVE GEOMEMBRANE.
4. INSTALL ON UTILITIES FOR A LENGTH OF 15' CENTERED ON TREE (PARALLEL WITH PIPE).
5. TENT (PARTIAL WRAP) APPLICATION FOR EXISTING UTILITIES, WRAP MEMBRANE AROUND NEW UTILITIES WHERE POSSIBLE.
6. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

9 ROOT BARRIER AT UTILITIES

Scale:3/8"=1'-0"

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4807
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

SHEET TITLE

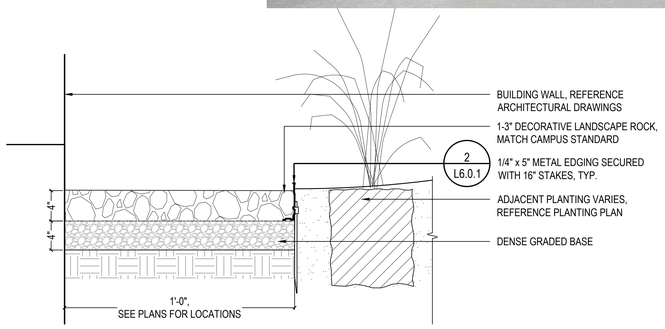
PLANTING DETAILS

PROJECT NUMBER 14794

CD

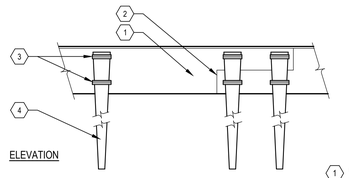
SHEET NUMBER **L6.0.0**



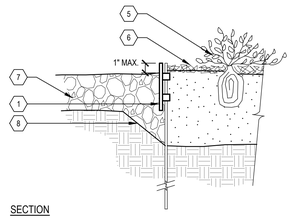


1 STONE MAINTENANCE EDGE AT PLANTING

Scale: 1/2"=1'-0"



ELEVATION



SECTION

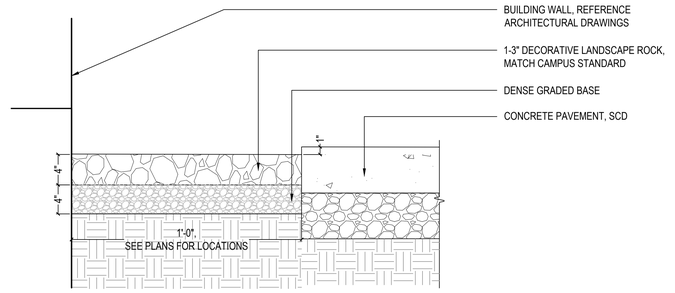
1. GALVANIZED $\frac{1}{8}$" X 5" STEEL EDGING AS SPECIFIED
2. FLUSH OVERLAP JOINT ASSEMBLY
3. PUNCHED SLOTS
4. 16" STEEL STAKES - SET ON INSIDE EDGE OF PLANT BED @ 4'-0" O.C. AND AT 'WILD' ENDS
5. PLANT BED
6. 3" DEEP MULCH TO BE $\frac{1}{2}$" BELOW TOP OF EDGING
7. STONE MAINTENANCE EDGE
8. SUBGRADE TRANSITION SHALL OCCUR OUTSIDE OF EDGE OF PLANT BED

NOTES

1. 16'-0" SECTIONS SHALL INCLUDE (5) 16" STEEL STAKES.
2. COMPACT GRADES ADJACENT TO EDGING TO AVOID SETTLING. FINISH GRADE SHALL BE 1/2" BELOW TOP OF EDGING. STEEL EDGING AT SOD INTERFACE TO BE ADJUSTED IN FIELD TO CREATE LEVEL WALKING SURFACE.
3. CORNERS/INTERSECTIONS - CUT BASE OF EDGING UP HALF WAY AND FORM A CONTINUOUS CORNER.

2 METAL EDGE

Scale: 1"=1'0"



3 STONE MAINTENANCE EDGE AT CONCRETE PAVEMENT

Scale: 1/2"=1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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PLANTING DETAILS

14794

PROJECT NUMBER

CD

SHEET NUMBER

L6.0.1

Plot Date:

IRRIGATION PIPE/SLEEVE

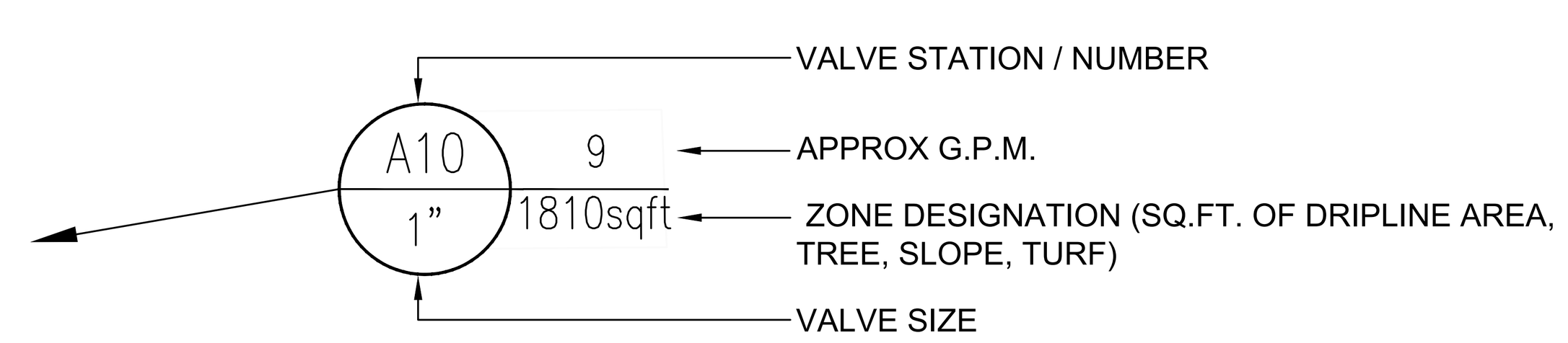
SYMBOL	MFR.	MODEL NO. / DESCRIPTION	DETAIL
	AS APRVD	'PURPLE' PVC PIPE, SCH 40, 3/4" - 1-1/4", AS LATERAL LINES. 12" BELOW GRADE. SEE PLAN FOR SIZES	I6.2.1/H
	AS APRVD	'PURPLE' PVC PIPE, SCH 40, 3/4" - 1-1/4", AS TREE ZONE LATERALS (THICK LINE). 12" BELOW GRADE. SEE PLAN FOR SIZES.	I6.2.1/H
	AS APRVD	'PURPLE' PVC PIPE, PVC SCH 40, 1-1/2", AS MAINLINES, 18" BELOW GRADE.	I6.2.1/H
	AS APRVD	PIPE AND WIRE SLEEVES; SYMBOL EQUATES BOTH A SEPARATE PIPE SLEEVE AND A SEPARATE WIRE SLEEVE. USE SCH 40 PVC PIPE FOR PVC PIPE SLEEVE, MINIMUM TWICE THE DIAMETER OF PIPE CARRIED. PLACE SLEEVES BELOW ALL PAVING, HARDSCAPE, ETC, AND AS DIRECTED BY SCHOOLS AUTHORIZED REPRESENTATIVE. ALL SLEEVES ARE NOT SHOWN ON PLAN FOR DRAWING CLARITY. IRRIGATION CONTRACTOR SHALL VERIFY THE EXACT TERMINUS LOCATIONS, DEPTH, AND SIZES WITH GENERAL CONTRACTOR BEFORE COMMENCING WORK.	I6.2.1/H
	N/A	EXISTING RECYCLED WATER IRRIGATION MAINLINE.	N/A
	N/A	MAINLINE CONNECTION SYMBOL. CONTRACTOR SHALL CONNECT NEW PROPOSED 1-1/2" PVC MAINLINE TO EXISTING RECYCLED WATER IRRIGATION MAINLINE. CONTRACTOR SHALL SUPPLY ALL HARDWARE AND FITTINGS REQUIRED TO CONNECT PROPOSED IRRIGATION MAINLINE TO EXISTING RECYCLED WATER IRRIGATION MAINLINE.	N/A

IRRIGATION CONTROLLER AND RELATED EQUIPMENT

SYMBOL	MFR.	MODEL NO. / DESCRIPTION	DETAIL
A	SITE ONE	PEDESTAL CONTROLLER ASSEMBLY: • SA67-RM-24/DXICA/RMD1-19/RMLA-5/RSE/GRPA/GRP-3-5/CAB-14-Y-XX/PMR/EMP16. TOTAL LENGTH OF CAB-14-Y DECODER CABLE TO BE DETERMINED BY CONTRACTOR. • ASSEMBLY 'A' WITH 19 *DECODERS, 5 DECODER SURGE PROTECTION KITS, 5 SURGE DECODER GROUNDING KITS, AND 1 CONTROLLER GROUNDING KIT*. CONTRACTOR SHALL SET UP CELLULAR MODEM WITH CELLULAR PLAN FOR RAIN MASTER WEB-BASED 'DATA SERVICE PLAN' CENTRAL INTERNET MANAGEMENT. CONTROLLER PEDESTAL SHALL BE MOUNTED ON A V.I.T. 'QUICKPAD' BASE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROLLER SET UP REQUIREMENTS TO OPERATE THE CENTRAL CONTROL DATA TRANSFER USING CELLULAR PHONE SERVICE. CONTRACTOR SHALL ASSIST THE COLLEGE MAINTENANCE DEPARTMENT WITH THE DOWNLOADABLE SOFTWARE APP FOR MOBILE PHONE. CONTRACTOR SHALL VERIFY EXACT CONTROLLER LOCATION WITH COLLEGE'S AUTHORIZED REPRESENTATIVE BEFORE INSTALLATION. VERIFY ROUTING OF ELECTRICAL CONDUCTORS WITHIN CONDUIT TO THE CONTROLLER LOCATION WITH THE ELECTRICAL CONTRACTOR. DUE TO THE PROPOSED LOCATION OF THE CONTROLLER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY ADDITIONAL EQUIPMENT AS MAY BE NECESSARY FOR THE OPERATION OF WEB-BASED SOFTWARE PROGRAMMING WITHOUT COMPLICATION. CONTACT SITE-ONE REPRESENTATIVE ERIK ANDERSON, (949) 285-4048, FOR ASSEMBLY ORDERING AND PROGRAMMING.	I6.2.2/A
NO SYMBOL	SITE ONE	V.I.T. 'QUICK-PAD' CONTROLLER PEDESTAL MOUNTING PAD, MODEL EMP-16, AS PART OF CONTROLLER ASSEMBLY PACKAGE.	I6.2.2/A
RS	SITE ONE	WIRED RAIN SENSOR, AS PART CONTROLLER ASSEMBLY PACKAGE.	I6.2.2/A
NO SYMBOL	SITE ONE	RAIN MASTER LAGUNA CENTRAL SOFTWARE WITH TEN-YEAR WEATHER SERVICE SUBSCRIPTION) AS PART OF CONTROLLER ASSEMBLY PACKAGE. AFTER ACTIVATION CONTRACTOR SHALL TURN OVER TO COLLEGE'S AUTHORIZED REPRESENTATIVE ALL PAPERWORK, DOCUMENTS, ACCESS CODES, ETC.	N/A
NO SYMBOL	SITE ONE	CONTROLLER CERTIFICATION; SITE-ONE TECHNICIAN SHALL REVIEW CONTROLLER INSTALLATION, CONTROLLER GROUNDING, AND WIRING INSTALLATION. TECHNICIAN SHALL VERIFY BOTH THE GROUNDING CONNECTIONS AND OHMS RESISTANCE ARE WITHIN SPECIFICATION. TECHNICIAN SHALL NOT RELEASE OF ANY PART OF THE CONTROLLER ASSEMBLY INSTALLATION UNTIL ALL FACETS OF THE INSTALLATION ARE MET WITH APPROVAL. AFTER ACTIVATION OF WARRANTY CONTRACTOR SHALL TURN OVER TO COLLEGE'S AUTHORIZED REPRESENTATIVE ALL PAPERWORK, DOCUMENTS, ACCESS CODES, ETC.	N/A
NO SYMBOL	SITE ONE	SINGLE RCV DECODER: MODEL RMD-1. INSTALL AT RCV LOCATIONS. CONNECT TO CONTROLLER VIA 2-WIRE CABLE. LINE SURGE PROTECTION DECODER: MODEL RMLA, CONNECT TO 2-WIRE CABLE.	I6.2.2/B,C,F
NO SYMBOL	SITE ONE	2-WIRE DECODER CABLE, MODEL CAB-14-Y; #14 GAUGE INSTALL ALL CABLE WITHIN 1-1/4" ELECTRICAL CONDUIT. CONNECT TO CONTROLLER PER MANUFACTURER'S SPECIFICATIONS.	I6.2.2/B,C,D,F,G
S	AS APRVD	2-WIRE DECODER CABLE GROUNDING: CONTRACTOR SHALL GROUND PER MANUFACTURER'S SPECIFICATIONS, BUT NOT LESS THAN PER LOCAL AND NATIONAL ELECTRICAL CODE. USE SYSTEM SURGE PROTECTION AT A MAXIMUM OF 450-475 FEET APART ALONG ENTIRE LENGTH OF 2-WIRE CABLE, AT THE ENDS OF THE 2-WIRE CABLE RUN AND AT THE END OF ANY CABLE RUN OFF-SHOOT LEG LONGER THAN 50' FROM MAIN 2-WIRE CABLE RUN. SEE PLAN FOR APPROXIMATE LOCATIONS. CONTACT SITEONE REPRESENTATIVE ERIC ANDERSON, (949) 285-4048, FOR ADDITIONAL INFORMATION. GROUND WIRE TO GROUND ROD/PLATE CONNECTION SHALL BE BY CADWELD 'ONE-SHOT' PROCESS ONLY. USE OF GROUNDING CLAMPS IS NOT AN ACCEPTABLE INSTALLATION. MAXIMUM RESISTANCE SHALL BE NO MORE THAN 10 OHMS. CONTRACTOR SHALL PROVIDE PROOF OF MEASURED RESISTANCE TO OWNER'S AUTHORIZED REPRESENTATIVE BEFORE MAINTENANCE PERIOD BEGINS.	I6.2.2/D
G	AS APRVD	CONTROLLER GROUNDING: CONTRACTOR SHALL GROUND CONTROLLER PER MANUFACTURER'S SPECIFICATIONS, BUT NOT LESS THAN PER LOCAL AND NATIONAL ELECTRICAL CODE. GROUND WIRE/ROD CONNECTION SHALL BE BY CADWELD PROCESS ONLY, CLAMPS ARE NOT AN ACCEPTABLE SUBSTITUTE. MAXIMUM RESISTANCE SHALL BE 10 OHMS OR LESS. CONTRACTOR SHALL PROVIDE PROOF OF MEASURED RESISTANCE TO OWNER'S AUTHORIZED REPRESENTATIVE BEFORE MAINTENANCE PERIOD BEGINS AND INCLUDE DOCUMENT WITHIN SUBMITTED OPERATIONS AND MAINTENANCE MANUAL.	I6.2.4/A,C
G	SITEONE	CONTROLLER GROUNDING EQUIPMENT SHALL INCLUDE: MODEL GRPA; ONE GROUND PLATE 4"X36", AND ONE GROUND ROD 5/8"X8' (WITH CADWELD) AND TWO BAGS OF GROUND ENHANCEMENT EARTH CONTACT BACKFILL MATERIAL (HARDENING) AMOUNT AS NEEDED TO COMPLETELY ENCASE PLATE AND ROD, CADWELD 'ONE-SHOT' CONNECTION SYSTEM FOR ROD AND WIRE. DECODER GROUNDING EQUIPMENT: MODEL GRP-3; ONE GROUND PLATE 4"X36" (WITH CADWELD) AND ONE BAG OF GROUND ENHANCEMENT EARTH CONTACT BACKFILL MATERIAL (HARDENING) AMOUNT AS NEEDED TO COMPLETELY ENCASE PLATE. CADWELD 'ONE-SHOT' CONNECTION SYSTEM FOR ROD AND WIRE.	I6.2.4/A,C
NO SYMBOL	RAIN BIRD	PULL BOX, STANDARD RECTANGULAR SIZE, MODEL VB-STD, FOR ALL 2-WIRE CABLE SPLICES AND LOCATE AT TWO HUNDRED LINEAR FEET (200') ALONG CABLE ROUTE WHEN RCV BOX IS NOT AVAILABLE. ALSO AT ALL CABLE ROUTING CHANGE-OF-DIRECTION. LOOP 2-WIRE CABLE MIN. 36" TO PULL OUTSIDE OF BOX. LABEL LID '2W CABLE'.	I6.2.3/F
EL	BY OTHERS	117 VOLT ELECTRICAL POWER, PROVIDED BY ELECTRICIAN. CONTRACTOR SHALL COORDINATE AND VERIFY CONTROLLER PEDESTAL LOCATION IN FIELD WITH ELECTRICIAN. ELECTRICIAN SHALL ROUTE AND INSTALL ALL CONDUIT AND CONDUCTORS TO WITHIN THE CONTROLLER PEDESTAL LOCATION. IRRIGATION CONTRACTOR SHALL CONNECT IRRIGATION CONTROLLER TO ELECTRICAL STUB-OUT. CONTROLLER CIRCUIT SHALL BE SUPPLIED BY A DEDICATED BREAKER FROM THE POWER SOURCE.	N/A
NO SYMBOL	N/A	DUE TO POSSIBLE UNFORESEEN CHANGES IN THE FIELD IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL CONDUITS, SLEEVES, AND WIRE ROUTING WITH GENERAL CONTRACTOR AND ANY AFFECTED ON-SITE TRADES AS REQUIRED THROUGHOUT PROJECT.	N/A

IRRIGATION VALVE IDENTIFICATION

xxxsq.ft. = AREA OF INLINE DRIP ZONE IN SQUARE FEET
TREES = TREE BUBBLER SYSTEMS
OVRHD = OVERHEAD ROTARY SYSTEMS
P.S. DRIP = POINT SOURCE SYSTEMS
SLOPE = HANGING DRIP SYSTEMS ON SLOPE



IRRIGATION UTILITIES

SYMBOL	MFR.	MODEL NO. / DESCRIPTION	DETAIL
	NIBCO	MAINLINE ISOLATION VALVE: MODEL T-113-BHW. VALVE TO MATCH MAINLINE SIZE.	I6.2.1/G
	RAIN BIRD	3/4" QUICK COUPLER VALVE: MODEL 33RC. CONTRACTOR SHALL SUPPLY 2 QC KEYS,MODEL 33-DK WITH 3/4" x 8" BRASS NIPPLE, 3/4" BRASS THREADED COUPLER, AND A BUCKNER-SUPERIOR BRASS UPWARD 3/4"X 3/4" BENT-NOSE HOSE BIB, MODEL I401. ATTACH ALL TOGETHER TO PROVIDE A QCV KEY ASSEMBLY. CONTRACTOR SHALL TURN OVER KEY TO COLLEGE'S REPRESENTATIVE AT COMPLETION OF MAINTENANCE PERIOD.	I6.2.1/F
	RAINBIRD	REMOTE CONTROL VALVE, MODEL EFB-CP, SIZE AS SHOWN. INSTALL SPEARS 1" GRAY THREADED (FIPT) BALL VALVE, MODEL 2621-010G ON UPSTREAM SIDE OF VALVE FOR ISOLATION.	I6.2.1/C
	RAINBIRD	1" DRIP ZONE ASSEMBLY: RAIN BIRD RCV, MODEL 100-EFB-CP, RAIN BIRD LARGE CAPACITY DISC FILTER, MODEL LCRBY100D, AND RAIN BIRD 1" 40 PSI PRESSURE REGULATOR, MODEL PSI-H40100. INSTALL SPEARS 1" GRAY THREADED (FIPT) BALL VALVE, MODEL 2621-010G ON UPSTREAM SIDE OF VALVE FOR ISOLATION.	I6.2.1/D,E

IRRIGATION MISCELLANEOUS

SYMBOL	MFR.	MODEL NO. / DESCRIPTION	DETAIL
NO SYMBOL	SPEARS	PVC FITTINGS/NIPPLES: 1.) REQUIRED FOR ALL SOLVENT WELD MAINLINE FITTINGS 1-1/2 INCH (11/2") TO 2-1/2" INCH (21/2"), USE SPEARS PVC CL 315 BLUE 'EVERTUFF' FITTINGS, MODEL 4XX-XXXT, OR SCH 80 FITTINGS. 2.) REQUIRED FOR ALL SOLVENT WELD MAINLINE FITTINGS 3 INCH (3") TO 4 FOUR INCH (4"), USE SPEARS PVC CL 315 BLUE 'EVERTUFF' FITTINGS ONLY, MODEL 4XX-XXXT. 3.) REQUIRED FOR ALL FITTINGS WITH A THREADED MALE AND/OR FEMALE COMPONENT 1 INCH (1") OR LARGER, USE SPEARS PVC CL 315 BLUE 'EVERTUFF' TYPE OR SCH 80 FITTINGS. FEMALE FITTINGS REQUIRE STAINLESS STEEL REINFORCED COLLAR. 4.) FOR ALL THREADED PLASTIC NIPPLES USE SCH 80 PVC.	N/A
NO SYMBOL	DURA	1", 1-1/2" AND 2" COUPLING MANIFOLD SYSTEM (0-RING MIPT x SWIVEL) IRRIGATION VALVE CONNECTION FITTING TO PVC MALE ADAPTER WITHIN RCV MANIFOLD. APPROVED FITTING SUBSTITUTE / REPLACEMENT FOR PVC UNIONS. P/N 332-010 AND 332-015 AND 332-020. INSTALL ON EITHER SIDE OF RCV. USE REDUCING PVC MALE ADAPTERS TO UPSIZE TO PVC PIPE AS REQUIRED. FITTING IS O-RING SEALED, DO NOT USE PASTE, DOPE, OR TEFLON TAPE. SIZE PER RCV SIZE.	I6.2.1/C,E
NO SYMBOL	RAIN BIRD	SPECIFICATION GRADE IRRIGATION VALVE BOXES FOR IRRIGATION EQUIPMENT. USE AS REQUIRED: MODELS VB-JMBP, VB-STDP, VB-10RNDP, AND VB-7RND. WITH PURPLE LIDS.	I6.2.1/B
NO SYMBOL	SITEONE	2-WIRE DECODER CABLE, MODEL CAB-14-Y; #14 GAUGE. INSTALL ALL CABLE WITHIN 1-1/4" ELECTRICAL CONDUIT. CONNECT TO CONTROLLER PER MANUFACTURER'S SPECIFICATIONS.	I6.2.1/H, I6.2.2/B,C,D,F,G
NO SYMBOL	SPEARS	WIRE SPLICE CONNECTOR, MODEL DS-400 WITH PRE-FILLED DIELECTRIC SILICONE SEALANT FOR RCV AND DECODER CABLE CONNECTIONS AND SPLICES.	I6.2.3/C
NO SYMBOL	CHRISTY'S	ALL REMOTE CONTROL VALVES SHALL BE OUTFITTED WITH A PURPLE ID TAG INDICATING THE VALVE NUMBER.	I6.2.1/C,E
NO SYMBOL	N/A	CONTRACTOR SHALL COORDINATE ALL CONDUITS, SLEEVES, AND WIRE ROUTING WITH GENERAL CONTRACTOR AND ANY AFFECTED ON-SITE TRADES AS REQUIRED THROUGHOUT PROJECT.	N/A
NO SYMBOL	CHRISTY'S	FOR POTABLE WATER SYSTEMS USE 3" WIDE METALLIC DETECTABLE BLUE MARKER TAPE, MODEL TA-DT-3-BI. FOR RECYCLED WATER SYSTEMS USE 3" WIDE METALLIC DETECTABLE PURPLE MARKER TAPE, MODEL TA-DT-3-PRW. TAPE SHALL BE INSTALLED 12" ABOVE ALL IRRIGATION MAINLINES AND SLEEVES.	I6.2.1/H
NO SYMBOL	MARIFI	LANDSCAPE FABRIC, MODEL 150N OR 160N, OR APPROVED EQUAL. INSTALL WITHIN ALL VALVE BOXES. PLACE BENEATH ROCK/GRAVEL DRAINAGE MATERIAL AND COVER PIPE HOLES.	I6.2.1/C,E,F,G; I6.2.3/F,G
NO SYMBOL	ACORN INT'L	GOPHER SCREEN, 19 GAUGE GALVANIZED STEEL WIRE SCREEN MESH MATERIAL,1/2"x1/2" MESH SIZE. OR EQUAL. INSTALL BELOW ALL VALVE BOX BOTTOM EDGES. PLACE BENEATH LANDSCAPE FABRIC. COVER PIPE HOLES.	I6.2.1/C,E,F,G; I6.2.3/F,G

POINT SOURCE SHRUB IRRIGATION

SYMBOL	MFR.	MODEL NO. / DESCRIPTION	DETAIL
PD — POINT SOURCE DRIP AREA	GPH PRODUCTS	POINT SOURCE SHRUB IRRIGATION AREA OUTLINE. DIAGRAMMATICALLY SHOWN FOR CLARITY ONLY. ALL 'BACKBONE' PIPING SHALL BE SCH 40 PVC. FOR POINT SOURCE ZONES: INSTALL ONE OR TWO 2 GPH SPEC-FLOW CHECK VALVE THRDED EMISSION DEVICES, MODEL GPSTCV-2-M (MULCH CAMO) DIRECTLY ADJACENT TO EDGE OF EACH SHRUB ROOTBALL. INSTALL USING 3/8" BROWN PVC FLEX HOSE, MODEL GPVCAR050IRR-BR WITH BROWN MALE ADAPTER FITTING, MODEL G436073BR. CUT HOSE TO FIT. INSTALL EMISSION DEVICE 1" ABOVE MULCH LAYER. ALWAYS INSTALL ON UPHILL SIDE OF SHRUB. INSTALL WHERE GRAVITY FLOW TRAVELS THROUGH MIDDLE OF ROOTBALL.	I6.2.4/A,B
PD	N/A	PVC LATERAL PIPE CONNECTION TO PVC POINT SOURCE ZONE AREA PIPE.	N/A
F	SPEARS	FLUSH VALVE ASSEMBLY: PROVIDE GRAY 1/2" PVC THREADED BALL VALVE, MODEL 2621-005G, WITH CHAMPION IRRIGATION PRODUCTS (ARROWHEAD BRASS) BRASS HOSE-TO-PIPE THREAD INSERT ADAPTER, MODEL #10F, FOR FLUSHING PVC EXHAUST MANIFOLD PIPE WITH STANDARD GARDEN HOSE. INSTALL FLUSH VALVE INSIDE 7" ROUND VALVE BOX, ONE AT THE END OF EACH AND EVERY PIPE RUN IN EACH DIRECTION. MULTIPLE FLUSH VALVES MAY BE REQUIRED WITHIN DRIP ZONE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLUSH VALVES REQUIRED, AS PLANS MAY NOT SHOW ALL FLUSH VALVES REQUIRED FOR A PARTICULAR AREA. INSTALL FINAL LOCATION 18" FROM PAVING FOR EASE OF MAINTENANCE.	I6.2.4/A,B; I6.2.3/G
NO SYMBOL	HUNTER	ECO-ID: SPRINKLER BODY WITH VISIBLE YELLOW STEM INDICATES ZONE IS IN OPERATION. INSTALL ONE UNIT WITHIN EACH POINT SOURCE ZONE ADJACENT TO RCV ASSEMBLY. ATTACH TO POLY OR PVC VIA 1/2" MPT CONNECTION. INSTALL HUNTER'S MANUALLY INSTALLED CHECK VALVE (P/N 462237SP) IN EACH UNIT FOR ELIMINATION OF LOW HEAD DRAINAGE.	I6.2.4/A,B; I6.2.3/D

SHRUB DRIP EMISSION TABLE	
PLANT SIZE	# OF DEVICES
1 GALLON SHRUB	1 - 2 GPH
5 GALLON SHRUB	1 - 2 GPH
15 GALLON SHRUB	2 - 2 GPH

FOR 15 G. SHRUB/TREE, INSTALL DEVICES ON EITHER SIDE OF SHRUB ON HIGH SIDE OF PLANT. GRAVITY FLOW SHALL TRAVEL DOWNWARD ON EITHER SIDE OF PLANT.

TREE IRRIGATION - BUBBLER

SYMBOL	MFR.	DESCRIPTION	GPM	RADIUS	P/R-HR.	PSI	DETAIL
B	RAIN BIRD	POP-UP SPRINKLER BODY WITH MULTI-STREAM BUBBLER NOZZLE. USE MODEL RD-06-S-P30-F WITH HUNTER MSBN SERIES NOZZLES. EACH SYMBOL REPRESENTS TWO (2) TO SIX (6) BUBBLER UNITS PER TREE. INSTALL MODEL MSBN-25Q FOR 15 GAL TO 48 INCH BOX TREE. INSTALL MODEL MSBN-50Q AND 50H FOR 60 AND 72 INCH BOX TREE. PLACE SPRINKLER BODY 1 FOOT FROM ROOTBALL ON OPPOSING CORNERS FOR 15G & 24". PLACE SPRINKLER BODY 1 FOOT FROM ROOTBALL ON FOUR OPPOSITE CORNERS FOR 36" TO 72". PLACE MSBN-50H AT SIDES OF TREE FOR 60" & 72". DO NOT ALLOW WATER TO MIGRATE ACROSS HARDSCAPED AREAS. IRRIGATION CONTRACTOR SHALL INSURE THAT POINTS OF WATER HIT EDGE OF ROOTBALL AND NOT ON HARDSCAPE AREAS. *NOTE: FOR HEADS UNDER TREE GRATES INSTALL SHORTER APPROPRIATE RISER LENGTH AS REQUIRED TO CAUSE NO INTERFERENCE WITH GRATE.	0.25(1) 0.50(1)	1'-2'	1.0"	30	I6.2.1/A; I6.2.3/E,H

OVERHEAD IRRIGATION

Q H F	MFR.	DESCRIPTION	GPM 90°	GPM 180°	GPM 360°	RADIUS	P/R-HR.	PSI	DETAIL
	RAIN BIRD	RD-06-S-P30-F W/ 12' HE-VAN SERIES NOZZLE (Q, H, F)	0.59	1.18	2.37	10-12 FT	1.58"	30	I6.2.1/A
	RAIN BIRD	RD-06-S-P30-F W/ 15' HE-VAN SERIES NOZZLE (Q, H, F)	0.93	1.85	3.70	12-15 FT	1.58"	30	I6.2.1/A

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES



SHEET TITLE
IRRIGATION LEGEND

14794
PROJECT NUMBER

CD
I6.0.0
SHEET NUMBER

Plot Date:

GENERAL IRRIGATION NOTES

DESIGN CRITERIA:

1. THE IRRIGATION DESIGN IS BASED ON THE EQUIPMENT MANUFACTURERS, MODELS, AND SPECIFICATIONS AS SHOWN IN THE PLAN, LEGEND, DETAILS, AND SPECIFICATIONS. IN THE EVENT THE IRRIGATION CONTRACTOR CHOOSES TO USE AN ALTERNATE PRODUCT, THE PRODUCT MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBSTITUTION AND MUST MEET THE SAME DESIGN PARAMETERS (PRECIPITATION RATES, FLOW CHARACTERISTICS, PRESSURE LOSS CHARACTERISTICS, OPTIMAL OPERATING PRESSURE REQUIREMENTS, PROGRAMMING PROTOCOL, ETC). THE IRRIGATION CONTRACTOR WILL BE RESPONSIBLE FOR ALL ASSOCIATED CHANGES AND DESIGN REQUIREMENTS (REDESIGN, PLAN CHECK, LAYOUT, CONSTRUCTION ADMINISTRATION, ETC.) AND SHALL TAKE ON AND ASSUME ALL LIABILITY FOR THE DESIGN, IMPLEMENTATION OF THE DESIGN, AND OPERATION OF THE IRRIGATION SYSTEM.
2. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO PROCURE AN ORIGINAL SET OF THESE PRINTED IRRIGATION PLANS FOR BIDDING AND CONSTRUCTION.
3. XEROX COPIES OF THESE PLANS ARE NOT ALLOWED FOR BIDDING AND CONSTRUCTION AS THEY MAY NOT SHOW IRRIGATION SYMBOLS, LINE WEIGHTS, OR LINE TYPES CLEARLY.
4. ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE IRRIGATION CONTRACTOR.
5. THE IRRIGATION CONTRACTOR SHALL VERIFY SITE CONDITIONS, PROPERTY LINES, DIMENSIONS AND THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE UNIVERSITY'S REPRESENTATIVE. IRRIGATION CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO BIDDING AND COMMENCING WORK.
6. THE IRRIGATION CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
7. THE IRRIGATION CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
8. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
9. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SYMBOL SIZES ARE SHOWN FOR DESIGN CLARITY ONLY. IRRIGATION CONTRACTOR SHALL MEASURE ALL DISTANCES AND SPACING FROM CENTER OF SYMBOLS ON THE PLAN AND TRANSFER THOSE DISTANCES TO THE FIELD USING A PROPER MEASURING DEVICE SUCH AS A MEASURE TAPE OR WHEEL.
10. THE IRRIGATION CONTRACTOR UNDERSTANDS IT IS THE INTENT OF THESE DRAWINGS TO IRRIGATE ALL NEW PLANT MATERIAL, AND EXISTING PLANT MATERIAL AS REQUIRED, UNLESS SPECIFICALLY NOTATED IN THE DRAWINGS THAT A PLANT MATERIAL IS A NON-IRRIGATED TYPE. WHEN PLANT MATERIAL IS SHOWN IN THESE DRAWINGS TO NOT HAVE IRRIGATION SUBSCRIBED TO IT, THE IRRIGATION CONTRACTOR SHALL CONTACT THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE AND/OR THE LANDSCAPE ARCHITECT THROUGH THE PROJECT 'REQUEST FOR INFORMATION' (R.F.I.) PROCESS FOR CLARIFICATION AND FURTHER DIRECTION. IT IS THE INTENT OF THESE DRAWINGS THAT ALL NEW PLANT MATERIAL RECEIVE A MINIMUM OF 100% IRRIGATION COVERAGE FROM TWO ADJACENT SPRINKLERS WHEN OVERHEAD SYSTEMS ARE USED, AND AT LEAST ONE OR MORE EMITTER POINTS PER PLANT, AS DIRECTED IN THE DRIP EMITTER LEGEND, WHEN IRRIGATION DRIP SYSTEMS ARE USED. IF THE IRRIGATION CONTRACTOR FAILS TO NOTIFY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE AND/OR THE LANDSCAPE ARCHITECT OF A DISCREPANCY THE IRRIGATION CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR IRRIGATION TO THE PLANT MATERIAL. IRRIGATION SHALL BE OF THE SAME TYPE AS THE SURROUNDING AREA. ULTIMATELY, IT IS RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO PROVIDE IRRIGATION TO EVERY PLANT THAT IS INSTALLED UNDER HIS SUPERVISION.
11. DURING THE COURSE OF DESIGN THE IRRIGATION CONSULTANT CANNOT FORESEE EXISTING TREE CANOPY SIZE OR DENSITY, OR ESTIMATE EXACT SUN/SHADE RELATIONSHIP PATTERNS OF THE TREES. WHERE SPRINKLER HEADS AND/OR SPRAY COVERAGE LANDS IN AND/OR AROUND TREE SHADE COVER PATTERNS IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO MAKE MINOR FIELD ADJUSTMENTS AS MAY BE NECESSARY TO THE SPRINKLER HEAD LAYOUT AND NOZZLE SELECTION TO ACCOMMODATE SHADE DENSITY AND SHADE PATTERNS AS REQUIRED TO REDUCE OVER-WATERING OR UNDER-WATERING IN THESE AREAS. WHERE IRRIGATED SUNNY AREAS ARE FOUND TO BE WITHIN OR AROUND A SHADED AREA SPRINKLER ZONE, IRRIGATION CONTRACTOR WILL BE REQUIRED TO ADD ADDITIONAL HEADS AND/OR INCREASE NOZZLE SIZE AS MAY BE NECESSARY TO PROVIDE ADDITIONAL WATER TO THE SUNNY AREA.

PERIMETER IRRIGATION NOTE:

12. ALL ADJACENT SYSTEMS SHALL MAINTAIN AUTOMATIC PROGRAMMED WATERING SCHEDULES THROUGHOUT CONSTRUCTION. NO DISRUPTION OF THE EXISTING IRRIGATION SYSTEMS WATERING WILL BE ALLOWED DURING CONSTRUCTION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/MODIFICATION OF ALL ADJACENT IRRIGATION SYSTEMS EQUIPMENT THAT IS AFFECTED BY PROPOSED IRRIGATION IMPROVEMENTS. IRRIGATION CONTRACTOR SHALL ADJUST AND CAP OFF EXISTING ADJACENT IRRIGATION SYSTEMS AS REQUIRED. IRRIGATION CONTRACTOR SHALL REPAIR SAID SYSTEMS TO A LIKE NEW MANNER, PROVIDING COMPLETE 100% HEAD TO HEAD COVERAGE IN ALL AREAS WITH SYSTEM LAYOUT AS APPROVED BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE. IRRIGATION CONTRACTOR SHALL CONFIRM ALL AREAS REQUIRING MODIFICATION WITH THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO BIDDING AND COMMENCING WORK.

EQUIPMENT / P.O.C. NOTES:

13. VERIFY THE ACTUAL LOCATION AND SIZE OF WATER METER AND BOTH STATIC AND DYNAMIC WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE P.O.C INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL P.O.C. INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT. SHOULD THE IRRIGATION CONTRACTOR FAIL TO FIELD VERIFY THE P.O.C. INFORMATION AND NOTIFY THE ABOVE, ANY ADDITIONAL COSTS INCURRED BY CHANGES REQUIRED TO BE MADE TO THE IRRIGATION SYSTEM BECAUSE OF LOW OR HIGH PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
14. P.O.C. EQUIPMENT LAYOUT INCLUDING, BUT NOT LIMITED TO, IRRIGATION WATER METER, ELECTRICAL STUB-OUT, BACKFLOW ASSEMBLY, MASTER VALVE, FLOW SENSOR, AND FERTILIZER INJECTOR IS DIAGRAMMATIC DUE TO THE SCALE OF THE DRAWING. LOCATIONS MAY BE SHOWN WITHIN PAVING AND/OR ORIENTED IN A CERTAIN DIRECTION FOR CLARITY ONLY. PLAN DOES NOT ACCOUNT FOR EQUIPMENT BY OTHERS WITHIN VICINITY OF P.O.C. IRRIGATION CONTRACTOR SHALL VERIFY SPECIFIC LAYOUT ORIENTATION AND ACTUAL EQUIPMENT LOCATIONS WITH UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION OF EQUIPMENT.
15. ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTION DEVICE AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE. IRRIGATION CONTRACTOR SHALL CONTACT REPRESENTATIVE BEFORE COMMENCING WORK.
16. THE IRRIGATION CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT WHERE SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT CONDITIONS EXIST, WHICH ARE NOT INDICATED ON THE PLANS. SUCH CONDITIONS MAY HAVE BEEN UNKNOWN AND NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND/OR UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK. SHOULD THE IRRIGATION CONTRACTOR FAIL TO NOTIFY THE ABOVE, ANY ADDITIONAL COSTS INCURRED BY REQUIRED CHANGES SHALL BE THE SOLE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE UNIVERSITY.
17. INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY, AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.

CONTROLLER / WIRE NOTES:

18. IRRIGATION CONTRACTOR SHALL REFER TO IRRIGATION LEGEND FOR CONTROLLER TYPE. FINAL LOCATION OF CONTROLLER AND ELECTRICAL P.O.C. SHALL BE CONFIRMED WITH THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.
19. IRRIGATION CONTRACTOR SHALL COORDINATE AND VERIFY CONTROLLER PEDESTAL LOCATION IN FIELD WITH ELECTRICIAN FOR CONTROLLER POWER CIRCUIT ROUTING.
20. CONNECTION OF IRRIGATION CONTROLLER TO THE PROVIDED ELECTRICAL STUB-OUT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION IRRIGATION CONTRACTOR AND INSTALLATION THEREOF SHALL BE PER LOCAL CODE REQUIREMENTS. IRRIGATION CONTRACTOR MAY CHOOSE, IF SO DESIRED, TO SUB THIS WORK TO THE ELECTRICAL IRRIGATION CONTRACTOR.
21. CONTROLLER POWER SOURCE SHALL BE SUPPLIED FROM A 'CONTROLLER DEDICATED' CIRCUIT BREAKER.
22. ALL CONTROL WIRE UNDER PAVED AREAS SHALL BE INSTALLED WITHIN A PVC SLEEVE. MINIMUM SIZE: 1-1/2 INCH- FOR UP TO 15 WIRES; 2 INCH- FOR 16-20 WIRES; 3 INCH- FOR 21-55 WIRES. FOR SLEEVE RUNS LONGER THAN 40 FEET REDUCE WIRE COUNT PER SLEEVE SIZE BY 25%.
23. IRRIGATION CONTRACTOR SHALL ROUTE TWO ADDITIONAL 'CONTROL' WIRES AND ONE ADDITIONAL 'COMMON' WIRE ALONG ENTIRE MAINLINE ROUTE AND ALONG EACH AND EVERY LEG OF MAINLINE ROUTE. ROUTE WIRES INTO EACH AND EVERY RCV VALVE BOX. WHERE VALVE BOXES ARE GROUPED INTO A MANIFOLD, ROUTE WIRES INTO FIRST VALVE BOX ON MANIFOLD ONLY. SPARE 'CONTROL' WIRES SHALL BE OF A DIFFERENT COLOR THAN THOSE USED ON THE PROJECT. 'COMMON' WIRE SHALL BE OF A DIFFERENT COLOR THAN THAT USED ON THE PROJECT, OR WHITE WITH A STRIPE.
24. IRRIGATION CONTRACTOR SHALL INSTALL FLOW SENSOR WIRE WITHIN A SEPARATE 1" SCH 40 PVC ELECTRICAL CONDUIT.

CONTROLLER PROGRAMMING NOTES:

25. SYSTEMS ARE DESIGNED TO OPERATE MULTIPLE RCV'S CONCURRENTLY. IRRIGATION CONTRACTOR SHALL PROGRAM CONTROLLER TO OPERATE MULTIPLE RCV'S CONCURRENTLY. THE MAXIMUM OPERATIONAL FLOW FOR A SYSTEM SHALL BE 25 GPM FOR A 1" METER, 50 GPM FOR 1-1/2" METER, 85 GPM FOR 2" METER. SET UP THE CONTROLLER 'FLOW MANAGEMENT' PROGRAM TO OPERATE UNDER THESE CONDITIONS . CONTACT SITEONE REPRESENTATIVE, ERIK ANDERSON, (949) 285-4048 FOR MORE PROGRAMMING INFORMATION.
26. SHOW WATER USE SCHEDULE NOTING IRRIGATION CYCLES AND RUN TIMES PER STATION OR PLANT TYPE (TURF, SHRUB, TREES, SUN, SHADE) MONTHLY OR SEASONALLY.
27. ADD MULTIPLE START TIMES TO PREVENT RUN OFF.
28. WATERING SHALL OCCUR BETWEEN 6PM & 6AM.

SYSTEM GROUNDING NOTES:

29. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING CONTROLLER PER MANUFACTURERS REQUIREMENTS. IRRIGATION CONTRACTOR SHOULD CONTACT CONTROLLER MANUFACTURER FOR GROUNDING INSTALLATION INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO INFORM AND WORK WITH THE ELECTRICAL IRRIGATION CONTRACTOR SO AS TO PROVIDE ADEQUATE GROUNDING AS DETERMINED BY CONTROLLER MANUFACTURER.
30. IRRIGATION CONTRACTOR SHALL USE U.L. APPROVED GROUND ROD AND GROUND PLATE WITH CADWELD 'ONE-SHOT' CONNECTION PROCESS FOR CONNECTING THE #6 AWG GROUND WIRE FROM THE CONTROLLER GROUND LUG TO THE ROD. MAXIMUM GROUND RESISTANCE SHALL BE PER CONTROLLER MANUFACTURERS SPECIFICATIONS, BUT NOT GREATER THAN 10 OHMS. CONTACT VINCE NOLLETTI, PAIGE ELECTRIC, FRESNO, CA (559) 431-2574 FOR ADDITIONAL CONTROLLER GROUNDING INSTALLATION INFORMATION.
31. IRRIGATION CONTRACTOR SHALL REFER TO DETAILS 'R1-I1.2.2/D' FOR SYSTEM GROUNDING INSTALLATION. CONTACT VINCE NOLLETTI, PAIGE ELECTRIC, FRESNO, CA (559) 431-2574 FOR ADDITIONAL CONTROLLER GROUNDING INSTALLATION INFORMATION. ALSO IRRIGATION CONTRACTOR MAY CONTACT CONTROLLER ASSEMBLY MANUFACTURER FOR ADDITIONAL CONTROLLER GROUNDING INSTALLATION INFORMATION.

OVERHEAD SPRINKLER / BUBBLER NOTES:

32. ALL HEADS ARE INTENDED TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS.
33. OVERHEAD SPRINKLER (SPRAY/ROTOR) HEADS ADJACENT TO ANY NON-PERMEABLE PAVING SHALL BE INSTALLED A MINIMUM DISTANCE OF 24" INCHES FROM THE NON-PERMEABLE SURFACE TO MINIMIZE ANY OVERSPRAY ON TO SURFACE.
34. ALL HEADS ARE REQUIRED TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO ROADWAYS, PATHWAYS, BUILDINGS, WALLS, FENCES, AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW. REPLACEMENT OR ADDITION OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNIT AFTER FIELD REVIEW OF AN AREA DETERMINES SUCH IS REQUIRED.
35. ALL IRRIGATION (SPRAY OR DRIP) ADJACENT TO BUILDING SHALL BE INSTALLED A MINIMUM DISTANCE OF 12" INCHES FROM BUILDING TO AVOID OVERSPRAY ON TO BUILDING OR WINDOWS OR FOUNDATION SATURATION.
36. IRRIGATION CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO TREES, LIGHT POLES, BOLLARDS, FIRE HYDRANTS, DRINKING FOUNTAINS, ETC. IRRIGATION CONTRACTOR SHALL ADD SPRINKLER HEADS AND/OR REPLACE 'HALF PATTERN' NOZZLES WITH TWO 'QUARTER PATTERN' NOZZLES AS REQUIRED TO ACHIEVE 100% COVERAGE IN ALL AREAS THAT REQUIRE ADJUSTING. ADDITIONAL HEADS SHALL BE INSTALLED AT NO ADDITIONAL COSTS TO THE CONTRACT. VERIFY ALL HEAD LAYOUT WITH THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

RCV / QCV NOTES:

37. REMOTE CONTROL VALVES AND ISOLATION VALVE LOCATIONS ON THIS DRAWING ARE APPROXIMATE. THE LANDSCAPE IRRIGATION CONTRACTOR SHALL STAKE OUT EACH ELECTRICAL CONTROL VALVE AND ISOLATION VALVE LOCATION FOR REVIEW AND APPROVAL BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION OF ALL VALVES. FINAL LOCATION AND EXACT POSITIONING FOR ELECTRIC CONTROL VALVES AND ISOLATION VALVES SHALL BE DETERMINED BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE. MINOR MODIFICATIONS OF REMOTE CONTROL VALVES AND ISOLATION VALVE LOCATIONS AS REQUESTED BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE SHALL BE PROVIDED BY THE IRRIGATION CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT. FAILURE TO OBTAIN UNIVERSITY'S APPROVAL PRIOR TO THE INSTALLATION SHALL CAUSE THE IRRIGATION CONTRACTOR TO MAKE PROJECT DIRECTED REVISIONS AT NO ADDITIONAL COST TO THE UNIVERSITY. IN GENERAL, UNLESS OTHERWISE DIRECTED BY THE UNIVERSITY, ALL VALVES SHALL BE INSTALLED WITHIN THREE FEET FROM EDGE OF HARDSCAPE, WALK OR CURB IN SHRUB PLANTING AREAS.
38. RCV SYMBOL LOCATIONS ARE SHOWN DIAGRAMMATICALLY FOR CLARITY ONLY. TO CONCEAL VALVE BOX LOCATIONS INSTALL EQUIPMENT AWAY FROM BUILDING ENTRANCES AND OTHER AREAS AS DETERMINED BY UNIVERSITY'S AUTHORIZED REPRESENTATIVE. IRRIGATION CONTRACTOR SHALL CONFIRM LOCATIONS WITH UNIVERSITY'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.
39. ALL RCV'S AND QCV'S SHALL BE INSTALLED ON A SUB-MAIN MANIFOLD AS SHOWN IN DETAIL 'N-I1.2.3/E'. RCV AND QCV SYMBOLS ARE SHOWN DIAGRAMMATICALLY ON TOP OF MAINLINE FOR CLARITY ONLY. PLAN DOES NOT SHOW THE MANIFOLD FOR CLARITY PURPOSES.
40. ALL QUICK COUPLER VALVES SHALL TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER VALVES SHALL BE INSTALLED AS SHOWN IN THE INSTALLATION DETAILS. INSTALL QUICK COUPLERS WITHIN 18 INCHES OF HARDSCAPE. IRRIGATION CONTRACTOR SHALL TEE OFF OF MAINLINE WITH 1-1/4 INCH MAINLINE PIPE WHERE APPLICABLE TO LOCATE QUICK COUPLER VALVE WITHIN ADJACENT SHRUB OR GROUNDCOVER AREAS AND/OR 18 INCHES FROM HARDSCAPE.

TRENCHING IN VICINITY OF EXISTING TREES NOTE:

41. WHENEVER ROOTS OF EXISTING TREES ARE ENCOUNTERED DURING TRENCHING OPERATIONS, THE IRRIGATION CONTRACTOR SHALL REROUTE MAIN LINE TRENCHES. DO NOT CUT ROOTS OVER 1" IN DIAMETER. ALL CUTS SHALL BE A CLEAN SHARP CUT. IF TRENCHING IS REQUIRED, THE IRRIGATION CONTRACTOR SHALL HAND DIG THE TRENCHES TAKING CARE NOT TO DAMAGE ROOTS. NO MECHANICAL TRENCHING WITHIN THE DRIPLINE OF THE EXISTING TREE WILL BE ALLOWED. PROTECT ALL ROOTS EXPOSED TO SUNLIGHT WITH MOIST BURLAP UNTIL COVERED WITH SOIL.

PIPE / SLEEVE NOTES:

42. MAINLINE LAYOUT IS DIAGRAMMATIC DUE TO THE SCALE OF THE DRAWINGS. ROUTING MAY BE SHOWN WITHIN BUILDINGS AND/OR PAVING FOR CLARITY ONLY, ACTUAL MAINLINE LOCATION TO BE WITHIN PLANTER A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP. IRRIGATION CONTRACTOR SHALL ADJUST MAINLINE ROUTING TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO TREES, LIGHT POLES, BOLLARDS, FIRE HYDRANTS, DRINKING FOUNTAINS, CONCRETE FOOTINGS, ETC.
43. MAINLINE AND/OR LATERAL PIPE ROUTING SHOWN OUTSIDE PROPERTY LINE AND/OR L.O.W. IS DIAGRAMMATIC AND FOR CLARITY ONLY, IRRIGATION CONTRACTOR SHALL ROUTE MAINLINE WITHIN PROPERTY LINE AND/OR L.O.W.
44. ALL PIPE MATERIAL AND INSTALLATION LABOR REQUIRED FOR MAINLINE OR LATERAL LINE ADJUSTMENTS DUE TO ACCOMMODATIONS IN THE FIELD SHALL BE INCLUDED WITHIN CONTRACTED PRICE AND MAY NOT BE SUBMITTED AS A CHANGE ORDER TO THE ORIGINAL BID.
45. NO PVC PIPE MAINLINES SHALL BE ROUTED OR ALLOWED CLOSER THAN 12 FEET FROM ANY TREE TRUNK AT ANY TIME. PIPE ROUTING AS SHOWN ON PLANS IS FOR DIAGRAMMATIC PURPOSES ONLY. WHEN PIPE MUST BE ROUTED CLOSER THAN 12 FEET BECAUSE OF HARDSCAPE CONSTRAINTS OR OTHER OBSTACLES IRRIGATION CONTRACTOR SHALL INSTALL MAINLINE PIPE WITHIN SLEEVE WHERE PIPE IS WITHIN 12 FEET OF THE TRUNK AND SO INDICATE THE PIPE ROUTING AND SLEEVE LOCATIONS ON THE AS-BUILT DRAWINGS.
46. SLEEVES AND THEIR LOCATIONS ARE DIAGRAMMATICALLY SHOWN FOR CLARITY ONLY. ALL IRRIGATION SLEEVES MAY NOT BE SHOWN FOR CLARITY PURPOSES. IRRIGATION CONTRACTOR SHALL INSTALL SLEEVES BELOW ALL PAVING, HARDSCAPE, ETC. AND AS DIRECTED BY THE UNIVERSITY'S AUTHORIZED REPRESENTATIVE. ALL PIPE UNDER PAVED AREAS SHALL BE INSTALLED IN A SLEEVE, AT MINIMUM TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL SLEEVES TO BE INSTALLED AT MINIMUM DEPTH AS SHOWN ON THE PIPE/SLEEVING DETAIL. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
47. ALL SLEEVE ENDS MUST BE SEALED WITH FOAM SEALANT INSIDE PIPE TO MINIMIZE DEBRIS INTRUSION.
48. LATERAL LINES MAY BE SHOWN WITHIN BUILDINGS AND/OR PAVING FOR CLARITY ONLY, ACTUAL LOCATION TO BE WITHIN PLANTER.
49. ALL CONVENTIONAL CONTROL WIRE UNDER HARDSCAPE AND/OR PAVED AREAS SHALL BE INSTALLED WITHIN A SLEEVE OR CONDUIT, SEE LEGEND FOR TYPE. MINIMUM SIZE: 1-1/2 INCH- FOR UP TO 15 WIRES (#14 GAUGE); 2 INCH- FOR 16-20 WIRES (#14 GAUGE); 3 INCH- FOR 21-55 WIRES (#14 GAUGE). FOR SLEEVE RUNS LONGER THAN 40 FEET REDUCE WIRE COUNT PER SLEEVE SIZE BY 25%. ALL SLEEVES TO BE INSTALLED AT MINIMUM DEPTH AS SHOWN ON THE PIPE/SLEEVING DETAIL. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.

DRIP/LOW VOLUME SYSTEMS- GENERAL NOTES:

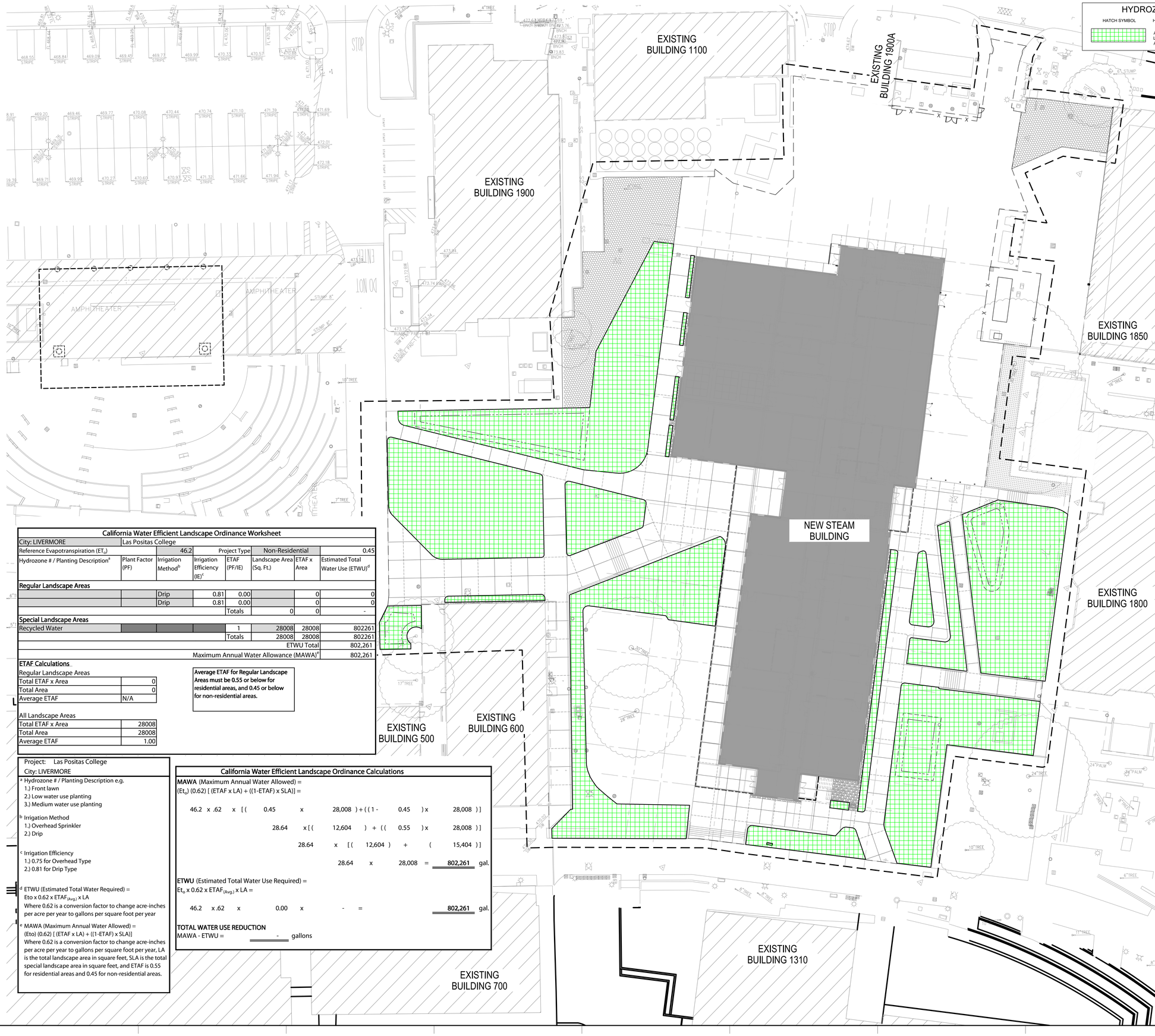
50. ALL MAINLINES AND LATERAL LINES SHALL BE THOROUGHLY FLUSHED CLEAN BEFORE DRIP MANIFOLD ASSEMBLIES AND/OR DRIP TUBING CONNECTIONS ARE MADE. ALL DRIP TUBING LINES SHALL BE FLUSHED CLEAN BEFORE BACKFILLING.
51. ALL LATERAL LINES FOR DRIP ZONES SHALL BE PVC SCH 40 PIPE.

DRIP/LOW VOLUME SYSTEMS- DRIPLINE NOTES:

52. DRIPLINE SYSTEMS RUN TIMES SHALL ALWAYS BE PROGRAMMED TO USE THE CONTROLLER'S 'CYCLE AND SOAK' FUNCTION FOR "PULSE IRRIGATION" PROGRAMMING. AFTER DETERMINING TOTAL ZONE RUN TIME IRRIGATION CONTRACTOR SHALL BREAK THE RUN TIME INTO A MINIMUM OF 3-4 CYCLES. INEFFICIENT IRRIGATION OCCURS WHEN ONLY ONE CYCLE IS USED. WATER WILL MIGRATE BELOW THE ROOT ZONE OF TURF OR PLANTS VIA 'GRAVITY FLOW'. SHORT RUN TIMES ALLOW WATER TO SPREAD THROUGHOUT AREA MORE EFFICIENTLY.
53. ALL DRIPLINE TUBING LAYOUT SHALL FOLLOW AND ROUTE PARALLEL TO GRADE, EXCEPT WHERE A LONGITUDE LAYOUT MAY BE FEASIBLE TO FOLLOW PLANTER LINES WHICH ARE NOT PARALLEL TO GRADE FOR CONSTRUCTIBLE PURPOSES. LAYOUT AS SHOWN IN THE PLANS DOES NOT ALWAYS DEPICT ACTUAL LAYOUT DIRECTION. HATCH PATTERNS OF DRIP AREAS AS SHOWN IN PLAN ARE DIAGRAMMATICAL ONLY.
54. DUE TO REQUIREMENT OF MAXIMUM SYSTEM EFFICIENCY ALL DRIPLINE TUBING SHALL LAY LEVEL WITHIN TRENCH. TRENCHES SHALL BE LEVELED ACROSS BOTTOM OF TRENCH, AT NO TIME SHALL BOTTOM OF TRENCH UNDULATE.
55. IRRIGATION CONTRACTOR SHALL COMPACT ALL DRIPLINE TRENCHES TO 95% SOIL COMPACTION. CONSISTENT COMPACTION IS REQUIRED TO PROVIDE EFFICIENT AND EVEN WATERING OF TURF OR SHRUB PLANT MATERIAL.
56. IRRIGATION CONTRACTOR SHALL AND IS REQUIRED TO USE THE RAIN BIRD INSERT TOOL, MODEL FITINGS-TOOL FOR INSTALLATION OF RAIN BIRD DRIPLINE INSERT FITTINGS. IRRIGATION CONTRACTOR SHALL ALWAYS INSERT FITTING UNTIL THE FITTING 'STOP' IS ABUTTED TO TUBING.
57. FOR DRIPLINE SYSTEMS IN TURF: IT IS RECOMMENDED TO INSTALL ONE OR TWO DRIP LINES AT A TIME DUE TO THE CLOSE PROXIMITY OF THE 12" SPACING OF ADJACENT LINES. INSTALLATION OF ONLY ONE OR TWO LINES ALLOWS FOR PROPER TRENCHING AND SOIL COMPACTION THAT IS REQUIRED.
58. FOR SHRUB AREAS ON SLOPES INSTALLED WITH DRIPLINE TUBING THE IRRIGATION CONTRACTOR SHALL BE HELD ACCOUNTABLE FOR CREATING A TRIANGULAR WETTING PATTERN ACROSS ALL SLOPES. LAY TUBING HORIZONTAL TO SLOPE. OFFSET THE EMITTERS BY HALF THE EMITTER SPACING WHEN INSTALLING TUBING TO CREATE A TRIANGULAR WETTING PATTERN ACROSS THE SLOPE. DO NOT INSTALL TUBING SO AS THE EMITTERS ARE DIRECTLY IN LINE (PERPENDICULAR) WITH EACH OTHER.

DRIP/LOW VOLUME SYSTEMS- POINT SOURCE DRIP NOTES:

59. VERIFY THE ACTUAL PLANT QUANTITIES AND SIZES FROM THE LANDSCAPE PLANS PRIOR TO BIDDING OR COMMENCING WORK. IRRIGATION CONTRACTOR TO PROVIDE THE QUANTITY OF EMITTERS, BASED ON THE ACTUAL PLANT COUNT WITH REFERRAL TO THE EMITTER TABLE SHOWN IN THE LEGEND.
60. IRRIGATION CONTRACTOR TO PROVIDE THE QUANTITY OF EMITTERS BASED ON THE ACTUAL SHRUB AND TREE COUNT AND THE EMITTER TABLES SHOWN. ANY REFERENCE TO TOTAL EMITTER QUANTITIES ON THESE PLANS IS FOR DESIGN USE ONLY. VERIFY THE ACTUAL SHRUB AND TREE QUANTITIES AND SIZES FROM THE LANDSCAPE PLANS PRIOR TO BIDDING OR COMMENCING WORK.
61. THE EMITTER TABLE IN LEGEND IS ESTIMATED EMITTER QUANTITIES AND FLOWS. IRRIGATION CONTRACTOR SHALL INSTALL EMITTERS AS SHOWN IN THE TABLE AT INITIAL INSTALLATION.
62. SUB-LATERAL PIPING AS SHOWN IN DETAIL 'N-I1.2.3/C' SHALL BE 1/2" SCH 40 PIPE. 'BACKBONE' LATERALS SHALL BE PER PLAN SIZE.
63. THE IRRIGATION PLANS AND THE SPECIFICATION OF INDIVIDUAL EMITTERS DO NOT TAKE INTO ACCOUNT THE EXPOSURE IDIOSYNCRASIES OF LOCATION, RELATIVE TO SUN OR SHADE PATTERNS WITHIN A ZONE. BEFORE COMMENCING WORK IRRIGATION CONTRACTOR SHALL FIELD REVIEW ALL PLANTER AREAS WHERE POINT SOURCE DRIP ZONES ARE SHOWN ON THE PLANS. IRRIGATION CONTRACTOR MAY BE REQUIRED TO SUBSTITUTE THE SIZE OF EMITTER (FLOW RATE) AS CALLED OUT IN THE LEGEND FOR ANOTHER OF A HIGHER OR LOWER FLOW RATE, DEPENDING ON THE LOCATION OF THE EMITTER. FOR SHRUBS LOCATED WITHIN A SHADED AREA AN EMITTER WITH A LOWER FLOW RATE (I.E. 1/2X FLOW RATE) MAY BE REQUIRED THAN WHAT IS REQUIRED FOR THE SAME SHRUB TYPE INSTALLED WITHIN A SUNNY AREA. SHRUBS INSTALLED WITHIN A HIGH HEAT INDEX AREA, SUCH AS WITHIN THE SPHERE OF INFLUENCE OF A GROUND LEVEL WINDOW (OR OTHER REFLECTIVE SURFACE) ON A SOUTH OR WEST FACING EXPOSURE, MAY REQUIRE A HIGHER FLOW EMITTER TO COMPENSATE FOR THE HIGHER WATER EVAPORATION LOSS FROM THE SOIL. WHEN AREAS ARE FOUND, SUCH AS LISTED ABOVE, ON A PROJECT THE IRRIGATION CONTRACTOR SHALL REVIEW AREAS WITH THE LANDSCAPE ARCHITECT FOR REQUIRED INDIVIDUAL EMITTER SUBSTITUTIONS. SUCH EMITTER SUBSTITUTIONS SHALL NOT INCREASE THE COST OF THE PROJECT.
64. FOR MULTI-OUTLET DRIP MANIFOLDS: UNITS SHALL BE ALIGNED WITH TREES AS SHOWN IN THE DETAILS. INSTALL AT DISTANCE FROM TREE PER LEGEND DESCRIPTION. CONFIRM ALL PROPOSED LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.
65. TREE/PALM DRIP SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE THE UP-SIZING OF EMITTERS TO COMPENSATE FOR FUTURE PLANT GROWTH. MAINTENANCE PERSONNE



California Water Efficient Landscape Ordinance Worksheet

City: LIVERMORE	Las Positas College						
Reference Evapotranspiration (ET_o)		46.2	Project Type	Non-Residential			0.45
Hydrozone # / Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (Sq. Ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[d]
Regular Landscape Areas							
		Drip	0.81	0.00		0	0
		Drip	0.81	0.00		0	0
				Totals	0	0	-
Special Landscape Areas							
Recycled Water				1	28008	28008	802261
				Totals	28008	28008	802261
						ETWU Total	802,261
						Maximum Annual Water Allowance (MAWA)[e]	802,261

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	0
Total Area	0
Average ETAF	N/A

All Landscape Areas

Total ETAF x Area	28008
Total Area	28008
Average ETAF	1.00

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

Project: Las Positas College
City: LIVERMORE

[a] Hydrozone # / Planting Description e.g.
1.) Front lawn
2.) Low water use planting
3.) Medium water use planting

[b] Irrigation Method
1.) Overhead Sprinkler
2.) Drip

[c] Irrigation Efficiency
1.) 0.75 for Overhead Type
2.) 0.81 for Drip Type

[d] ETWU (Estimated Total Water Required) =
Eto x 0.62 x $ETAF_{(Avg.)}$ x LA
Where 0.62 is a conversion factor to change acre-inches per acre per year to gallons per square foot per year

[e] MAWA (Maximum Annual Water Allowed) =
(Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]
Where 0.62 is a conversion factor to change acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is 0.55 for residential areas and 0.45 for non-residential areas.

California Water Efficient Landscape Ordinance Calculations

MAWA (Maximum Annual Water Allowed) =
(Et_o) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)] =

46.2 x .62 x [(0.45 x 28,008) + ((1 - 0.45) x 28,008)]

28.64 x [(12,604) + ((0.55) x 28,008)]

28.64 x [(12,604) + (15,404)]

28.64 x 28,008 = **802,261** gal.

ETWU (Estimated Total Water Use Required) =
Et_o x 0.62 x $ETAF_{(Avg.)}$ x LA =

46.2 x .62 x 0.00 x - = **802,261** gal.

TOTAL WATER USE REDUCTION
MAWA - ETWU = - gallons

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT — Todd Kohli No. 4801 — Signature — 06/30/2026 Renewal Date — 07/24/2025 Date — STATE OF CALIFORNIA

NORTH

SHEET TITLE
HYDROZONE MAP

0' 10' 20' 40'
SCALE:

14794
PROJECT NUMBER

CD
SHEET NUMBER
I6.1.1

GROUNDCOVER AREAS DRIP NOTE:

DUE TO GROW-IN PATTERNS THE CONTRACTOR MAY BE REQUIRED TO TEMPORARILY IRRIGATE ALL 'GROUNDCOVER AREAS' AND/OR TIGHTLY SPACED PLANT MATERIAL INSTALLED WITHIN DRIP SYSTEM AREAS BY HAND WATERING OR BY USING TEMPORARY OVERHEAD SPRINKLERS, UNTIL THE PLANT ROOTS HAVE BECOME ESTABLISHED INTO THE SOIL PROFILE IN SUFFICIENT QUANTITY AND DEPTH TO BE IRRIGATED SOLELY BY THE DRIP SYSTEMS. DURING GROUNDCOVER ESTABLISHMENT THE CONTRACTOR SHALL OPERATE THE DRIP SYSTEMS AND MANUALLY IRRIGATE AS REQUIRED TO ESTABLISH ROOT GROWTH. AS PLANT ROOTS ARE DEVELOPED, THE HAND WATERING OR OVERHEAD SPRINKLER IRRIGATION OF THE GROUNDCOVER AREAS SHALL BE REDUCED UNTIL NO LONGER REQUIRED. THE AMOUNT AND DURATION OF MANUAL IRRIGATION WILL VARY WITH LOCAL CLIMATE CONDITIONS, SOIL PROFILE, AND OTHER SITE SPECIFIC FACTORS. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR THE ESTABLISHMENT OF THE 'GROUNDCOVER AREAS' AND ITS ROOTS AND SHALL BE REQUIRED TO WEAN THE GROUNDCOVERS OFF OF HAND WATERING OR TEMPORARY OVERHEAD IRRIGATION PRIOR TO FINAL ACCEPTANCE AND TURN-OVER OF THE PROJECT.

EXISTING BUILDING 1100

EXISTING BUILDING 1900A

EXISTING BUILDING 1900

EXISTING BUILDING 1850

EXISTING BUILDING 1800

EXISTING BUILDING 600

EXISTING BUILDING 500

EXISTING BUILDING 700

EXISTING BUILDING 1310

NEW STEAM BUILDING

PEDESTAL CONTROLLER
REFER TO NOTE "B" AT RIGHT

P.O.C. LOCATION
REFER TO NOTE "A" AT RIGHT

P.O.C. LOCATION
REFER TO NOTE "A" AT RIGHT

EXISTING MAINLINE AND CONTROL WIRES TO REMAIN, P.I.P. OPERATES RCV'S OUTSIDE SCOPE OF WORK

EXISTING MAINLINE AND CONTROL WIRES TO REMAIN, P.I.P. OPERATES RCV'S OUTSIDE SCOPE OF WORK

EXISTING MAINLINE AND CONTROL WIRES TO REMAIN, P.I.P. OPERATES RCV'S OUTSIDE SCOPE OF WORK

EXISTING MAINLINE AND CONTROL WIRES TO REMAIN, P.I.P. OPERATES RCV'S OUTSIDE SCOPE OF WORK

CONTRACTOR SHALL CONNECT NEW MAINLINE TO EXISTING MAINLINE IN APPROXIMATELY THIS LOCATION

EXISTING TREES AND PLANTING TO REMAIN. PATCH & REPAIR IN KIND TO MATCH WHERE DISTURBED BY CONSTURCTION.

IRRIGATION DESIGN WATER CONSERVATION STATEMENT:

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

SMITHGROUP
FIRM

TODD KOHLI
LANDSCAPE ARCHITECT

4901
LICENSE NO.

06/30/26
EXPIRATION DATE

NOTE A:
TWO POINTS OF CONNECTION SHALL BE TO AN EXISTING 1-1/2" RECYCLED IRRIGATION MAINLINE. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE P.O.C. INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL P.O.C. INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT OR SCHOOL'S AUTHORIZED REPRESENTATIVE. SHOULD THE CONTRACTOR FAIL TO VERIFY THE P.O.C. INFORMATION ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

MINIMUM STATIC WATER PRESSURE REQUIRED	85 PSI
DESIGN WATER PRESSURE	85 PSI
MAXIMUM SYSTEM DEMAND	16 GPM
MINIMUM RESIDUAL PRESSURE	0 PSI

NOTE B:
CONTRACTOR SHALL REFER TO IRRIGATION LEGEND FOR CONTROLLER TYPE AND SIZE. THE FINAL LOCATION OF CONTROLLER AND ELECTRICAL P.O.C. SHALL BE CONFIRMED WITH SCHOOL'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

NOTE 1:
EMITTERS, BUBBLERS AND LATERAL LINES MAY BE SHOWN WITHIN PAVING AND BUILDING FOR CLARITY ONLY, ACTUAL LOCATION TO BE WITHIN PLANTER. EMITTERS AND DRIP MANIFOLDS SHALL BE ALIGNED WITH SHRUBS AND TREES PER INSTALLATION DETAILS. CONFIRM ALL LAYOUT IN FIELD WITH SCHOOL'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

NOTE 2:
MAINLINE SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL MAINLINE LOCATION TO BE A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLE, TYP.

NOTE 3:
ALL PIPING AND WIRE SHALL BE SLEEVED UNDER PAVING. ALL SLEEVES TO BE MINIMUM 2X DIAMETER OF PIPE INSIDE. ALL MAINLINE SLEEVE SHALL BE ACCOMPANIED WITH A WIRE SLEEVE. SLEEVES TO EXTEND MINIMUM 12 INCHES BEYOND PAVING.

NOTE 4:
A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE LANDSCAPE ARCHITECT OF THE PLANTING/IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

NOTE 5:
AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE SCHOOL WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

NOTE 6:
AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED BY A DISINTERESTED 3rd PARTY CERTIFIED IRRIGATION AUDITOR AT THE TIME OF FINAL INSPECTION.

NOTE 7:
AN IRRIGATION AUDIT SHALL BE COMPLETED BY A 3rd PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR AT REGULAR INTERVALS PER THE STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE. THE AUDIT SHALL BE PROVIDED TO THE CITY OF SACRAMENTO REVIEW AND APPROVAL.

NOTE 8:
CHANGES TO THE APPROVED PLANS OR FIELD SUBSTITUTIONS SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT AND THE SCHOOL. IF THE OWNER/CONTRACTOR DEVIATES FROM THE APPROVED PLAN WITHOUT PRIOR WRITTEN APPROVAL THEY WILL BE REQUIRED TO MAKE ANY CORRECTIONS, AT THEIR OWN EXPENSE, TO BRING THE LANDSCAPE AND IRRIGATION INTO COMPLIANCE WITH THE APPROVED PLANS AND THE STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE.

VALVE LOCATION NOTE:
ELECTRIC CONTROL VALVES AND ISOLATION VALVE LOCATIONS ON THIS DRAWING ARE APPROXIMATE. THE IRRIGATION CONTRACTOR SHALL STAKE OUT EACH ELECTRICAL CONTROL VALVE AND ISOLATION VALVE LOCATION FOR REVIEW AND APPROVAL BY SCHOOL'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION OF ALL VALVES. FINAL LOCATION AND EXACT POSITIONING FOR ELECTRIC CONTROL VALVES AND ISOLATION VALVES SHALL BE DETERMINED BY THE SCHOOL'S AUTHORIZED REPRESENTATIVE. MINOR MODIFICATIONS OF ELECTRIC CONTROL VALVES AND ISOLATION VALVE LOCATIONS AS REQUESTED BY THE SCHOOL'S AUTHORIZED REPRESENTATIVE SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SCHOOL. FAILURE TO OBTAIN THE SCHOOL'S AUTHORIZED REPRESENTATIVE'S APPROVAL PRIOR TO THE INSTALLATION SHALL CAUSE THE CONTRACTOR TO MAKE SCHOOL DIRECTED REVISIONS AT NO ADDITIONAL COST TO THE SCHOOL. IN GENERAL, UNLESS OTHERWISE DIRECTED BY SCHOOL'S AUTHORIZED REPRESENTATIVE, ALL VALVES SHALL BE INSTALLED AS SHOWN IN SHRUB PLANTING AREAS.

CONTROLLER ASSEMBLY LOCATION NOTE:
CONTROLLER LOCATION SHOWN ON THIS DRAWING IS APPROXIMATE. THE IRRIGATION CONTRACTOR SHALL STAKE OUT THE CONTROLLER LOCATION FOR REVIEW AND APPROVAL BY THE SCHOOL'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION OF THIS EQUIPMENT. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL CONNECTION FROM 120 VOLT POWER SOURCE TO THE CONTROLLER AND ALL WIRE CONNECTIONS FROM ALL VALVES AND APPURTENANCE VALVES TO TERMINAL STRIP. ALL ELECTRICAL WORK SHALL CONFORM TO LOCAL STATE AND NATIONAL ELECTRICAL CODES AND REGULATIONS. FINAL LOCATION AND EXACT POSITIONING OF THE CONTROLLER SHALL BE DETERMINED BY THE SCHOOL'S AUTHORIZED REPRESENTATIVE. MINOR MODIFICATIONS OF CONTROLLER REQUESTED BY THE SCHOOL SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SCHOOL. FAILURE TO OBTAIN SCHOOL'S APPROVAL PRIOR TO THE INSTALLATION SHALL CAUSE THE CONTRACTOR TO MAKE SCHOOL DIRECTED REVISIONS AT NO ADDITIONAL COST TO THE SCHOOL.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4901
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

NORTH

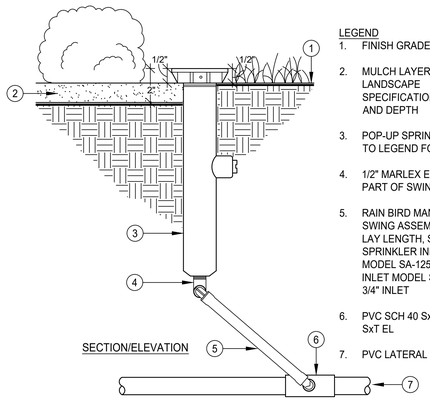
SHEET TITLE
IRRIGATION PLAN

0' 10' 20' 40'
SCALE:

14794
PROJECT NUMBER

CD
SHEET NUMBER
I6.1.2

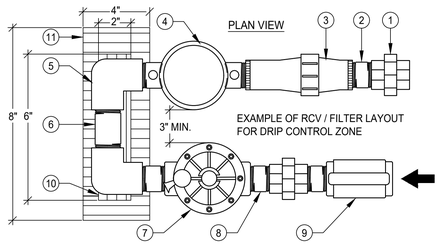
Plot Date:



LEGEND
1. FINISH GRADE
2. MULCH LAYER*, REFER TO LANDSCAPE SPECIFICATIONS FOR TYPE AND DEPTH
3. POP-UP SPRINKLER. REFER TO LEGEND FOR TYPE
4. 1/2" MARLEX EL FITTING, PART OF SWING ASSEMBLY.
5. RAIN BIRD MANUFACTURED SWING ASSEMBLY; 12" MIN. LAY LENGTH, SIZE PER SPRINKLER INLET
   MODEL SA-125050 - 1/2"
   INLET MODEL SA-125075 - 3/4" INLET
6. PVC SCH 40 SxSxT TEE OR SxT EL
7. PVC LATERAL PIPE

NOTES:
A. USE TEFLON TAPE ON ALL EXPOSED THREADS.
B. WHERE A MULCH LAYER IS USED AS GROUND COVER INSTALL TOP OF SPRINKLER BODY 1/2" ABOVE MULCH COVER, AT NO TIME SHALL MULCH BURY THE CAP.
C. WHEN MULCH LAYER IS NOT PRESENT INSTALL TOP OF SPRINKLER BODY 2" ABOVE FINISH GRADE.
D. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
E. INSTALL SPRINKLER HEADS 6" FROM PAVING EDGE IN GROUND COVER AREAS.
F. INSTALL SPRINKLER HEADS 4" FROM PAVING EDGE IN TURF AREAS.
G. INSTALL SPRINKLER HEADS 12" FROM ALL BUILDINGS, WALLS, AND FENCES.
G. INSTALL SPRINKLER HEADS MINIMUM OF 24" FROM ALL CURBS, SIDEWALKS, AND OTHER NON-PERMEABLE HARDSCAPE.
H. INSTALL SPRINKLER HEADS PLUMB.
I. ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS, OR BUILDINGS. DO NOT SCALE DRAWINGS.

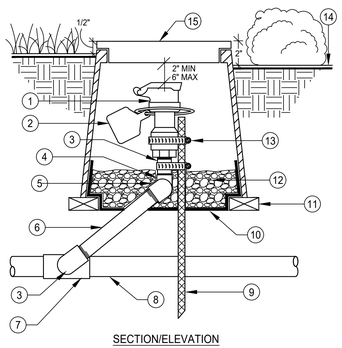
A POP-UP SPRINKLER
SCALE: N.T.S.



NOTES:
A. TO INSURE ALL COMPONENTS RESIDE WITHIN SPECIFIED VALVE BOX CONTRACTOR MAY BE REQUIRED TO INSTALL DRIP RCV ASSEMBLY AS SHOWN.
B. REFER TO DETAIL E FOR COMPONENTS WITHIN VALVE BOX.

LEGEND
1. PVC SCH 80 UNION. RCV SIZE. (2 REQ.)
2. SCH 80 NIPPLE, REGULATOR SIZE x CL, (2 REQ.)
3. INLINE PRESSURE REGULATOR. REFER TO LEGEND FOR SPECIFICATION
4. DISC FILTER. REFER TO LEGEND FOR SPECIFICATION
5. SCH 80 TT EL. RCV SIZE. (2 REQ.)
6. SCH 80 NIPPLE, RCV SIZE x LENGTH AS REQUIRED TO HAVE SEPARATION OF RCV AND FILTER
7. REMOTE CONTROL VALVE
8. SCH 80 NIPPLE, RCV SIZE x 2", (3 REQ.)
9. THREADED PVC BALL VALVE. RCV SIZE. REFER TO LEGEND FOR SPECIFICATION
10. VALVE ASSEMBLY SUPPORT. USE 2" x 6" WOOD BLOCK-VERTICAL POSITION (LENGTH AS REQUIRED FOR LEVEL ASSEMBLY)
11. VALVE ASSEMBLY SUPPORT. USE 2" x 4" x 8" WOOD BLOCK-HORIZONTAL POSITION

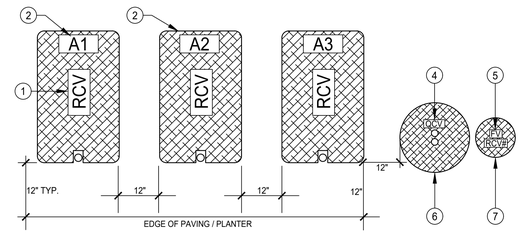
D SUPPORT ASSEMBLY FOR DRIP RCV
SCALE: N.T.S.



NOTES:
A. PER DEH REQUIREMENTS ALL QUICK COUPLER VALVES SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE.
B. SET TOP OF VALVE BOX 1/2" ABOVE FINISHED GRADE IN TURF AREAS.
C. IN SHRUB AREAS INSTALL VALVE BOX 2" ABOVE SOIL LEVEL OR 1" ABOVE MULCH LAYER, WHICHEVER IS HIGHER.

LEGEND
1. QUICK COUPLING VALVE. SEE LEGEND FOR SPECIFICATION
2. APPURTENANCE PURPLE ID TAG
3. BRASS NIPPLE- QCV SIZED 4" MIN. LENGTH
4. BRASS ST. ELL (2 REQ.)
5. BRASS ELL
6. BRASS NIPPLE- QCV SIZED
   12" MIN. LENGTH FOR 18" TRENCH
   18" MIN. LENGTH FOR 24" TRENCH
7. PVC SCH 80 FITTING, TEE / ELL
8. PVC MAINLINE SEE LEGEND FOR SPECIFICATION
9. #4 REBAR 36" MIN. LENGTH
10. LANDSCAPE FABRIC + GOPHER SCREEN
11. SUPPORT BRICKS (3 REQ.)
12. 3/4" CRUSHED GRAVEL, MIN. 1 CUBIC FOOT
13. STAINLESS STEEL CLAMP (2 REQ.)
14. FINISH GRADE
15. 10" ROUND SPECIFICATION GRADE VALVE BOX WITH "T" COVER. HEATED BRANDED MARKED 'QCV'

F QUICK COUPLER ASSEMBLY
SCALE: N.T.S.



PLAN VIEW

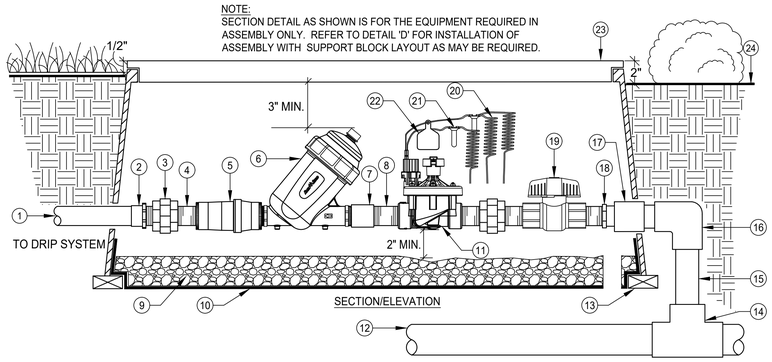
NOTES:
A. SPECIFICATION GRADE VALVE BOXES BY RAIN BIRD ONLY.
B. VALVE BOXES SHALL BE LABELED BY HOT IRON BRANDING.
C. LOCATE VALVE ASSEMBLIES 18"-24" FROM HARDSCAPE.
D. LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
E. CENTER VALVE BOXES OVER VALVE TO FACILITATE SERVICING VALVE.
F. SET RCV AND VALVE ASSEMBLIES IN GROUND-COVER/SHRUB AREA WHERE POSSIBLE.
G. SET BOXES AT EQUAL ELEVATIONS W/ TOPS AT 2" ABOVE MULCH IN SHRUBS AND 1/2" ABOVE FINISH GRADE IN TURF.
H. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
I. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOXES.

ARV	AIR RELIEF VALVE	FV	FLUSH VALVE ASSEMBLY
BS	BASKET STRAINER	GV	GATE VALVE
BV	BALL VALVE	GRD	GROUND ROD
CCC	COMMUNICATION SPLICES	MS	MOISTURE SENSOR
DRIP	TREE DRIP MANIFOLD	MV	MASTER VALVE
FI	FERTILIZER INJECTOR	SB	SPLICE BOX
FS	FLOW SENSOR	RCV	REMOTE CONTROL VALVE
		QCV	QUICK COUPLER VALVE

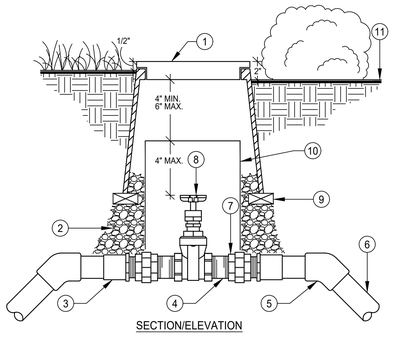
LEGEND
1. 'RCV' HEAT BRANDED ON VALVE BOX LID
2. APPROPRIATE CONTROLLER AND STATION NUMBER HEAT BRANDED ON VALVE BOX LID
3. RECTANGULAR SPECIFICATION GRADE VALVE BOX, TYP.
4. 'QCV' HEAT BRANDED ON VALVE BOX LID
5. 'FV' WITH DRIP ZONE RCV STATION NUMBER HEAT BRANDED ON ALL DRIP SYSTEM FLUSH VALVE BOX LIDS
6. 10" ROUND SPECIFICATION GRADE QUICK COUPLER VALVE BOX, TYP.
7. 7" ROUND DRIP VALVE BOX, TYP.
8. 'DRIP' WITH TREE DRIP ZONE RCV STATION NUMBER HEAT BRANDED ON ALL TREE DRIP MANIFOLD BOX LIDS

B VALVE BOX LOCATION / MARKING
SCALE: N.T.S.

NOTE:
SECTION DETAIL AS SHOWN IS FOR THE EQUIPMENT REQUIRED IN ASSEMBLY ONLY. REFER TO DETAIL 'D' FOR INSTALLATION OF ASSEMBLY WITH SUPPORT BLOCK LAYOUT AS MAY BE REQUIRED.

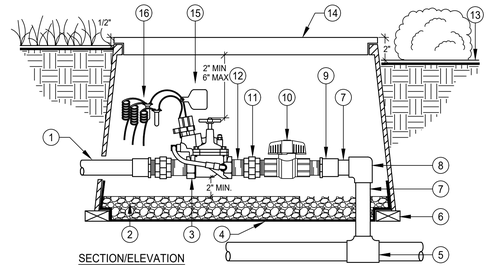


E RCV ASSEMBLY FOR DRIP ZONES
SCALE: N.T.S.



LEGEND
1. RAIN BIRD 12" RECTANGULAR VALVE BOX, MODEL VB-STD, WITH "T" COVER MARKED "GV" HEAT BRANDED
2. 3/4" CRUSHED GRAVEL, MIN. 1 CUBIC FOOT
3. SCH 80 PVC MALE ADAPTER
4. SCH 80 RISERS (4" LENGTH, 2 REQ.)
5. SCH 80 PVC 45 ELBOW
6. PVC MAINLINE PIPE
7. SCH 80 PVC UNION (2 REQ.)
8. GATE VALVE, REFER TO LEGEND FOR TYPE
9. SOLID BRICK SUPPORTS (4 REQ.) NOMINAL SIZE
10. 8" PVC PIPE CL 160, LENGTH AS REQ.
11. FINISH GRADE

G MAINLINE/MANIFOLD ISOLATION GATE VALVE
SCALE: N.T.S.

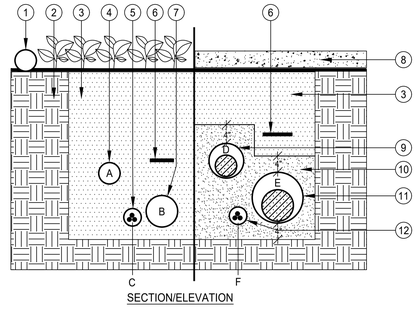


NOTES:
A. SET TOP OF VALVE BOX 1/2" ABOVE FINISHED GRADE IN TURF AREAS.
B. IN SHRUB AREAS INSTALL VALVE BOX 2" ABOVE SOIL LEVEL OR 1" ABOVE MULCH LAYER, WHICHEVER IS HIGHER.

LEGEND
1. PVC LATERAL LINE PIPE TO ZONE
2. 3/4" CRUSHED GRAVEL, MIN. 5"-6" DEPTH
3. REMOTE CONTROL VALVE, REFER TO LEGEND FOR SPECIFICATION
4. LANDSCAPE FABRIC + GOPHER SCREEN
5. PVC SCH 80 MAINLINE TEE/ELL FITTING
6. SOLID BRICK, NOMINAL SIZE (MIN. 4 REQ.)
7. PVC PIPE, MINIMUM PRESSURE RATING-315 PSI, SIZE PER IMMEDIATE DOWNSTREAM RCV LATERAL SIZE
8. PVC SCH 80 SS EL, SIZE PER #7
9. SCH 40 PVC MALE ADAPTER MIPT x SLIP, OR REDUCING MA. THREAD SIZE PER RCV THREAD SIZE. (2 REQ.) SLIP SIZE PER #7
10. RCV ISOLATION VALVE. RCV SIZE. REFER TO LEGEND FOR TYPE
11. PVC SCH 80 TT UNION, (2 REQ), SIZE PER RCV. (MAY SUBSTITUTE WITH DURA COUPLING MANIFOLD SYSTEM, P/N 332-010, 332-015, 332-020. SCH 80 NIPPLES DOWNSTREAM AND UPSTREAM OF RCV ARE NOT REQUIRED)
12. PVC SCH 80 PVC NIPPLE, RCV SIZE, MIN. LENGTH 3" (3 REQ.)
13. FINISH GRADE
14. RAIN BIRD RECTANGULAR SPECIFICATION GRADE VALVE BOX WITH BOLT DOWN "T" COVER. HEAT BRAND "RCV" AND ZONE # ON LID
15. RCV ID TAG
16. CONTROL WIRES WITH WATER TIGHT SPLICES PROVIDE 24" COIL OF WIRE AT VALVE

C RCV ASSEMBLY FOR OVERHEAD SYSTEMS
SCALE: N.T.S.

LEGEND
1. LATERAL LINE PIPE. REFER TO PLAN FOR SIZE
2. MALE ADAPTER, SIZE PER DRIP ZONE LATERAL
3. SCH 80 PVC TT UNION, SIZE PER RCV, TWO REQUIRED, TYP.
4. SCH 80 PVC 'CLOSE' NIPPLE, FOUR REQUIRED
5. INLINE PRESSURE REGULATOR. REFER TO LEGEND FOR SPECIFICATION
6. DISC FILTER,120 MESH RING ELEMENT. REFER TO LEGEND FOR SPECIFICATION
7. SCH 80 PVC TxT COUPLER
8. SCH 80 PVC NIPPLE. SIZE AS REQUIRED TO ALLOW FILTER TO FIT ADJACENT TO VALVE SOLENOID WITHOUT INTERFERENCE, ONE REQUIRED
9. 3/4" CRUSHED GRAVEL, MIN. 5" DEPTH
10. LANDSCAPE FABRIC + GOPHER SCREEN
11. REMOTE CONTROL VALVE
12. MAINLINE, WHEN MANIFOLD PIPE, SIZE PER LARGEST LATERAL LINE SIZE IN MANIFOLD, TYP.
13. NOMINAL SIZE SOLID BRICK (MIN. 6 REQ.
14. MANIFOLD TEE/EL FITTING (2"+, USE SCH 80)
15. PVC PIPE, SIZE PER LARGEST LATERAL PIPE SIZE
16. EL, SIZE PER #15 (2"+, USE SCH 80)
17. SS COUPLER, SIZE PER #16
18. SCH 40 BUSHING, SxF, OR MALE ADAPTER, AS MAY BE REQUIRED
19. PVC BALL VALVE, RCV SIZE. REFER TO LEGEND FOR SPECIFICATION
20. CONTROL WIRES PROVIDE 24" COIL OF WIRE AT VALVE
21. CONTROL WIRE SPLICE CONNECTION
22. RCV ID TAG
23. RAIN BIRD JUMBO RECTANGULAR VALVE BOX HEAT BRANDED WITH "RCV" AND ZONE #
24. FINISH GRADE



DEPTH CHART	A	B	C	D	E	F
6" & LARGER	-	36"	36"	36"	36"	36"
3" & 4"	18"	24"	24"	30"	36"	36"
21/2" & SMALLER	12"	18"	18"	24"	30"	30"
WIRING	-	-	BESIDE MAIN	-	-	BESIDE MAIN

NOTES:
A. ALL PIPE SLEEVE UNDER ASPHALT OR VEHICULAR TRAFFIC PAVING SHALL HAVE 4 INCHES OF SURROUNDING BACKFILL MATERIAL, CONSISTING OF CLEAN SAND, ON ALL SIDES OF PIPE.
B. ALL MAINLINE PIPE 3" AND LARGER SHALL HAVE 4 INCHES OF SURROUNDING BACKFILL MATERIAL, CONSISTING OF CLEAN SAND, ON ALL SIDES OF PIPE.
C. SLEEVE UNDER PEDESTRIAN WALKWAYS SHALL EQUAL DEPTHS INDICATED IN COLUMNS A, B, & C.
D. LINES MUST HAVE MIN. CLEARANCE OF 4" FROM EACH OTHER & 12" FROM OTHER TRADES.
E. RUN CONVENTIONAL WIRE BESIDE MAINLINE AT LOCATION SHOWN, TAPE & BUNDLE @ 10' O.C.
F. TIE A 24" LOOP IN ALL WIRING/CABLE AT CHANGES IN DIRECTION, WHEN NOT INSTALLED WITHIN CONDUIT.
G. ALL SLEEVES MUST BE 2X THE DIAMETER OF THE PIPE WITHIN.
H. ALL SLEEVE ENDS MUST BE SEALED WITH FOAM SEALANT INSIDE PIPE TO MINIMIZE DEBRIS INTRUSION.
I. ALL SLEEVES MUST EXTEND 12" MIN. DISTANCE PAST EDGE OF ROADWAY, CURB, OR SIDEWALK.
J. CONTRACTOR MUST ADJUST MAINLINE AROUND ALL STREET LIGHT LOCATIONS, LIGHT BOLLARDS, TREE ROOT BALLS, (MIN. 5' CLEARANCE), AND OTHER OBSTACLES.

H PIPE / WIRE / SLEEVE INSTALLATION
SCALE: N.T.S.

LEGEND
1. ON-GRADE LATERAL PIPE, WHEN SPECIFIED
2. UNDISTURBED SOIL
3. COMPACTED BACKFILL
4. LATERAL LINE
5. 2-WIRE CABLE WITHIN ELECTRICAL CONDUIT
6. MAINLINE TRACER TAPE OR AWG #6 BARE COPPER TRACER WIRE, REFER TO LEGEND FOR SPECIFICATION
7. MAINLINE, REFER TO LEGEND FOR SPECIFICATION
8. ROADWAY / PAVING
9. LATERAL LINE SLEEVE
10. SAND BACKFILL; FILL TO 4" ABOVE, AND 4" BELOW SLEEVE
11. MAINLINE SLEEVE
12. CONTROL WIRE SLEEVE FOR CONVENTIONAL WIRE OR 2-WIRE CABLE

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

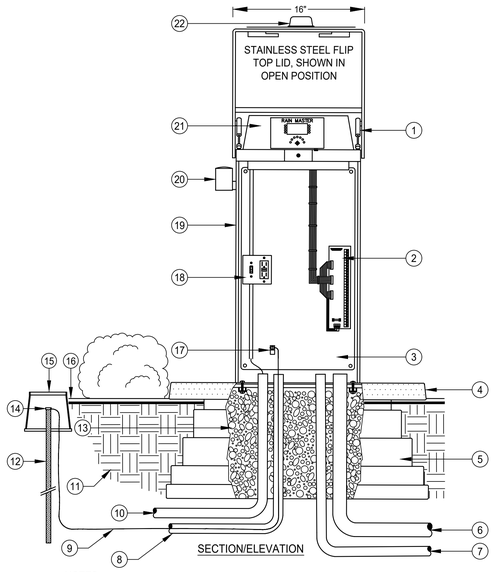
SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4907
Todd Kohli
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

SHEET TITLE
IRRIGATION DETAILS

PROJECT NUMBER
14794

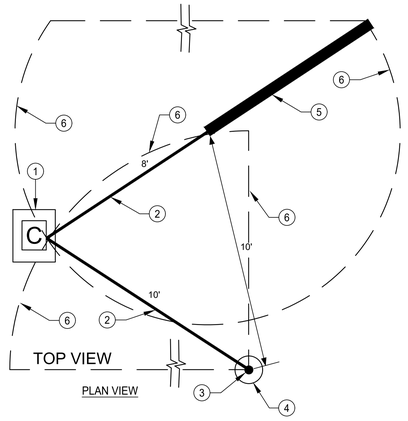
SHEET NUMBER
CD
I6.2.1



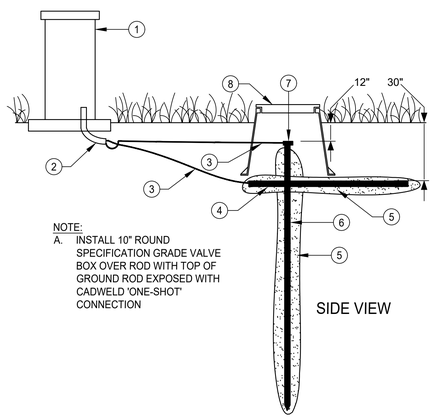
NOTES:
A. CONTROLLER GROUNDING SYSTEM SHALL REQUIRE A COPPER CLAD GROUND PLATE (NOT SHOWN HERE, REFER TO PEDESTAL CONTROLLER GROUNDING DETAIL BELOW) IN ADDITION TO THE 8' GROUND ROD. PLATE SIZES MAY BE 1/32" x 4" x 96" OR 1/32" x 18" x 24" IN SIZE. REFER TO LEGEND FOR SPECIFICATION AND GROUNDING DETAIL BELOW FOR ADDITIONAL INFORMATION.
B. GROUNDING RODS AND PLATES SHALL BE COMPLETELY SURROUNDED WITH MINIMUM 1 INCH THICKNESS OF GROUNDING ENHANCEMENT MATERIAL PER GROUNDING EQUIPMENT MANUFACTURERS. REFER TO MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LEGEND
1. DUAL HYDRAULIC PISTONS SUPPORT LID OPEN
2. CONTROLLER ENCLOSURE TERMINAL STRIP FOR REMOTE CONTROL VALVE WIRE CONNECTION
3. STAINLESS STEEL, U.L. LISTED, PREDRILLED, REMOVABLE BACKBOARD. REMOVABLE FRONT PANEL NOT SHOWN
4. V.I.T. PREFORMED ALUMINUM PAD, 'QUICK PAD'
5. STRONGBOX QUICKPAD ENCLOSURE MOUNTING PAD WITH PREFORMED ALUMINUM PAD, PLASTIC BASE AND ALL STAINLESS STEEL HARDWARE
6. 3" SCH 40 ELECTRICAL SWEEP EL FOR LOW VOLTAGE CONTROL WIRES
7. 1" SCH 40 ELECTRICAL SWEEP EL FOR FLOW SENSOR / COMMUNICATION CABLE
8. 1/2" SCH 40 ELECTRICAL SWEEP EL FOR GROUND WIRE
9. #6 GROUND WIRE
10. SCH 40 ELECTRICAL SWEEP EL FOR 120 VAC POWER - SIZE PER ELECTRICAL REQUIREMENTS
11. COMPACTED SITE SOIL
12. 5/8"X8' COPPER GROUND ROD W/ #6 GROUND WIRE AND CADWELD 'ONE-SHOT' CONNECTION. INSTALL INSIDE A 10" ROUND BOX, GROUND ROD SHALL BE LOCATED MORE THAN 10' AWAY BUT WITHIN 15' OF CONTROLLER. CONTRACTOR SHALL INSTALL GROUND PLATE AS SPECIFIED. SEE DETAIL BELOW.
13. FILL BASE OF QUICKPAD WITH PEA GRAVEL TO TOP OF BASE UNIT
14. 'CADWELD' CONNECTION
15. 10" ROUND VALVE BOX, HEAT BRAND 'GRD' ON LID
16. FINISH GRADE
17. ASSEMBLY GROUND LUG
18. POWER SWITCH AND RECEPTACLE
19. STAINLESS STEEL TOP-ENTRY CONTROLLER ENCLOSURE
20. WIRED RAIN SENSOR IN VANDAL RESISTANT ENCLOSURE. FOR SPECIFICATION, SEE LEGEND FOR TYPE
21. CONTROLLER, SEE LEGEND FOR SPECIFICATION
22. CELL ANTENNA, IF SPECIFIED

A PEDESTAL MOUNT CONTROLLER ASSEMBLY
SCALE: N.T.S.



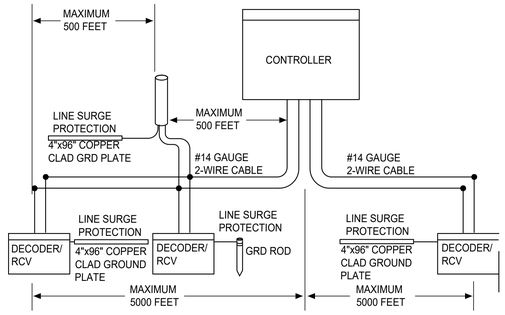
LEGEND
1. CONTROLLER ASSEMBLY PEDESTAL
2. #6 AWG SOLID ISULATED COPPER WIRE
3. U.L. APPROVED 5/8"x8' COPPER GROUND ROD WITH CADWELD 'ONE-SHOT' WIRE CONNECTION, OR CONNECTION BY PAIGE ELECTRIC. INSTALL 10' FROM GRD. PLATE
4. 10" ROUND SPECIFICATION GRADE VALVE BOX
5. 4"x96" COPPER GROUND PLATE, U.L. APPROVED, WITH WIRE CONNECTION BY PAIGE ELECTRIC. INSTALL 10' FROM GRD. ROD
6. 10' RADIUS CIRCLE ELECTRICAL SURGE 'SPHERE OF INFLUENCE'. AT NO TIME SHALL CONTROL WIRES/CABLE PASS THROUGH THIS AREA. ROUTE ALL CONTROL WIRE/CABLE AROUND THIS AREA TO CONTROLLER



NOTE:
A. INSTALL 10" ROUND SPECIFICATION GRADE VALVE BOX OVER ROD WITH TOP OF GROUND ROD EXPOSED WITH CADWELD 'ONE-SHOT' CONNECTION

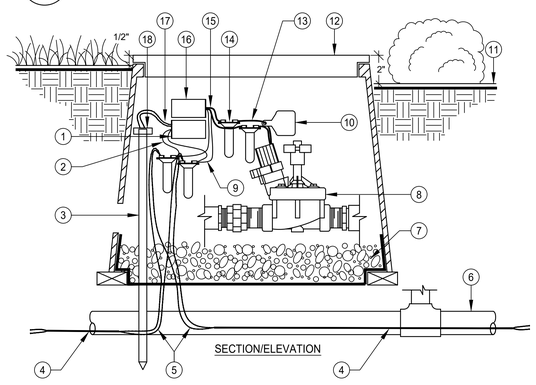
LEGEND
1. CONTROLLER ASSEMBLY PEDESTAL. REFER TO LEGEND FOR SPECIFICATION
2. PVC ELECTRICAL SWEEP ELL (1-½" OR LARGER)
3. #6 AWG SOLID BARE COPPER WIRE
4. U.L. APPROVED 4"x96" COPPER GROUND PLATE
5. GROUNDING ENHANCEMENT EARTH CONTACT MATERIAL. SEE NATIONAL ELECTRIC CODE FOR SPECIFICATION
6. 5/8"x8' COPPER CLAD GROUND ROD, U.L. APPROVED. "NOTE: EXISTING SOIL CONDITIONS IT MAY BE ADVERSE TO INSTALLATION. IRRIGATION CONTRACTOR SHALL VERIFY SOIL CONDITION WITH UNIVERSITY MAINTENANCE PERSONNEL BEFORE AND DURING INSTALLATION. IF CONDITIONS ARE SUCH THAT AN 8' ROD CANNOT PENETRATE, THAN A SHORTER ROD MAY BE NECESSARY.
7. CADWELD 'ONE-SHOT' CONNECTION
8. 10" ROUND SPECIFICATION GRADE VALVE BOX

E PEDESTAL CONTROLLER GROUNDING
SCALE: N.T.S.



NOTES:
A. LINE SURGE PROTECTOR SHALL BE INSTALLED EVERY 450-500 FEET OR FOR EVERY EIGHT DECODERS ON TWO-WIRE PATH.
B. LINE SURGE PROTECTOR SHALL BE INSTALLED AT END OF CABLE RUN THAT TERMINATES IN THE FIELD.
C. FOR END CABLE RUN CONTRACTOR SHALL USE GROUND PLATE WITH 25' #6 GROUND WIRE ATTACHED TO GROUND PLATE FROM FACTORY.

B DECODER 2-WIRE CABLE LAYOUT
SCALE: N.T.S.

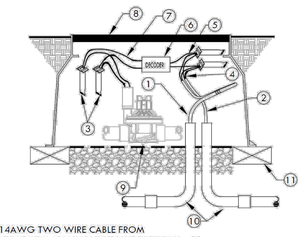


NOTES:
A. CONTRACTOR SHALL CONTACT SITEONE REPRESENTATIVE, ERIK ANDERSON, (949) 285-4048, FOR WIRING PROCEDURE AND ANY REQUIRED INSTALLATION INFORMATION.
B. SURGE PROTECTION SHOULD BE INSTALLED EVERY 450-500 FEET OR FOR EVERY EIGHT DECODERS ON 2-WIRE PATH.
C. MAXIMUM LENGTH OF SECONDARY WIRE PATH FROM DECODER TO SOLENOID IS 6 FEET.
D. PLACE 3 FEET OF EXTRA WIRE IN EVERY VALVE BOX FOR EASIER SERVICING.

LEGEND
1. LINE SURGE PROTECTOR. REFER TO LEGEND FOR TYPE
2. WIRE FROM LINE SURGE PROTECTOR
3. GROUNDING ROD OR PLATE: GROUNDED TO 10 OHMS OR LESS
4. 2-WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR CONTROLLER) WITHIN 1-1/4" ELECTRICAL CONDUIT. REFER TO LEGEND FOR TYPE
5. 2-WIRE CABLE TO DECODER
6. IRRIGATION MAINLINE
7. 3/4" CRUSHED GRAVEL
8. REMOTE CONTROL VALVE
9. WIRE FROM FIELD DECODER
10. ID TAG
11. FINISH GRADE OR TOP OF MULCH
12. RECTANGULAR SPECIFICATION GRADE VALVE BOX WITH COVER
13. SOLENOID WIRE
14. WIRE CONNECTOR
15. WIRE FROM FIELD DECODER
16. FIELD DECODER (WITHOUT LINE SURGE PROTECTION). REFER TO LEGEND FOR TYPE
17. WIRE TO CADWELD' ONE-SHOT' CONNECTOR ON GROUNDING ROD
18. CADWELD 'ONE-SHOT' GROUNDING CONNECTOR

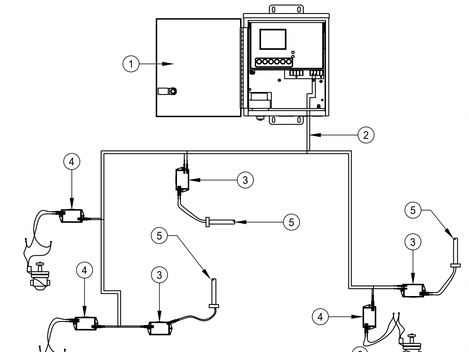
C LINE SURGE DECODER CONNECTION
SCALE: N.T.S.

NOTE:
1. ALL DECODERS SHALL HAVE A VALVE NUMBER ADDRESSED AT CONTROLLER PRIOR TO INSTALLATION.
2. USE U.P. SAFETY CABLE STRIPPER BY KING INNOVATION (MODEL NUMBER 46200) FOR ALL TWO-WIRE SPLICE CONNECTIONS.



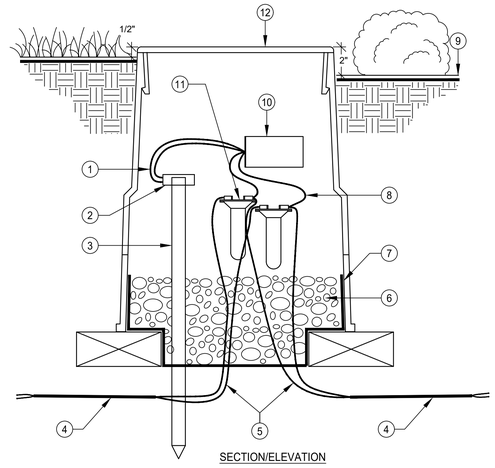
① #14AWG TWO WIRE CABLE FROM CONTROLLER. REFER TO IRRIGATION NOTES FOR MODEL NUMBER OF WIRE. ALLOW A 24" SLACK PER DECODER. USE ELECTRICAL TAPE TO HOLD SLACK CABLES TOGETHER.
② TWO WIRE CABLE TO NEXT DECODER
③ 3M DBR/Y-6 OR APPROVED EQUAL WATERPROOF SPLICE KIT (4 TOTAL)
④ A MAXIMUM OF 4" OF WIRE SHALL BE STRIPPED FROM TWO WIRE CABLE WHEN SPLICING AT DECODERS.
⑤ CONNECT CORRECT DECODER WIRES TO TWO WIRE CABLES.
⑥ DECODER
⑦ CONNECT CORRECT DECODER WIRES TO VALVE SOLENOID WIRES
⑧ VALVE BOX. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
⑨ REMOTE CONTROL VALVE. REFER TO REMOTE CONTROL VALVE DETAIL FOR INSTALLATION INSTRUCTIONS.
⑩ 1.25" CONDUIT FOR 2 WIRE CABLE WITH LONG SWEEPS IN AND OUT OF EACH VALVE BOX. SEAL ALL CONDUIT OPENINGS WITH WATERPROFF FOAM.
⑪ BRICK-ONE ON EACH CORNER

F DECODER INSTALLATION
SCALE: N.T.S.



LEGEND
1. CONTROLLER, WALL MOUNT OR PEDESTAL. REFER TO LEGEND FOR SPECIFICATION
2. 2-WIRE CABLE (PATH) WITHIN 1-1/4" CONDUIT
3. LINE SURGE PROTECTOR. INSTALL @ MAX. 450 - 500 FOOT INTERVALS ALONG 2-WIRE PATH AND AT TERMINUS OF EVERY RUN
4. VALVE DECODER
5. GROUND PLATE WITH CADWELD CONNECTION. MIN. 10 OHMS RESISTANCE REQUIRED
6. ZONE VALVE (TYP.)

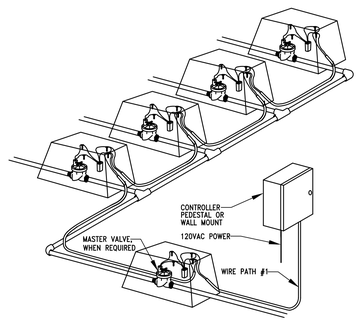
GENERIC TWO-WIRE PATH LAYOUT



NOTES:
A. CONTRACTOR SHALL CONTACT SITEONE REPRESENTATIVE, ERIK ANDERSON, (949) 285-4048, FOR WIRING PROCEDURE AND ANY REQUIRED INSTALLATION INFORMATION.
B. LINE SURGE PROTECTOR SHALL BE INSTALLED EVERY 450-500 FEET OR FOR EVERY EIGHT DECODERS ON TWO-WIRE PATH.
C. LINE SURGE PROTECTOR TO BE INSTALLED AT END OF WIRE RUN THAT TERMINATES IN THE FIELD.

LEGEND
1. WIRE FROM LINE SURGE PROTECTION TO CADWELD' ONE-SHOT' CONNECTOR ON GROUNDING ROD
2. CADWELD 'ONE-SHOT' GROUNDING CONNECTOR
3. GROUNDING ROD OR PLATE: GROUNDED TO 10 OHMS OR LESS
4. 2-WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR CONTROLLER) WITHIN 1-1/4" ELECTRICAL CONDUIT
5. 2-WIRE CABLE TO SENSOR DECODER
6. 3/4" CRUSHED GRAVEL
7. LANDSCAPE FABRIC
8. WIRE FROM DECODER
9. FINISH GRADE OR TOP OF MULCH
10. LINE SURGE PROTECTOR. REFER TO LEGEND FOR TYPE
11. WIRE CONNECTOR
12. 10" ROUND SPECIFICATION GRADE VALVE BOX WITH COVER

D CONNECTING LINE SURGE DECODER TO 2-WIRE PATH
SCALE: N.T.S.



NOTES:
A. SINGLE TWO-WIRE PATH LINE SURGE PROTECTOR TO BE INSTALLED AT END OF WIRE RUN THAT TERMINATES IN THE FIELD.
B. MAKE ALL WIRE SPLICES IN VALVE BOXES.
C. LEAVE A MINIMUM OF 18" EXTRA WIRE AT ALL SPLICE POINTS ABOVE VALVE BOX. SIZE CABLE LOOP ACCORDINGLY.

G DECODER SINGLE 2-WIRE PATH
SCALE: N.T.S.

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP
301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

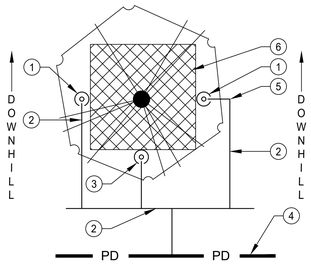
SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT Todd Kohli No. 4901 Signature 06/30/2026 Renewal Date 07/24/2025 Date STATE OF CALIFORNIA

SHEET TITLE
IRRIGATION DETAILS

14794
PROJECT NUMBER

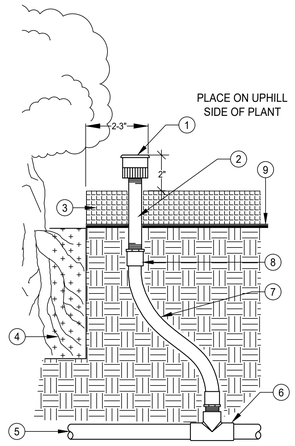
CD
SHEET NUMBER
I6.2.2



SECTION/ELEVATION

NOTES:
A. FOR SLOPED PLANTERS ALL EMITTERS ARE REQUIRED TO BE PLACED 6"-12" ABOVE PLANT ROOT BALL ON THE UPHILL SIDE OF PLANT DEPENDING ON SLOPE ANGLE.
B. FINAL HEIGHT ABOVE PLANT SHALL BE DETERMINED IN THE FIELD BASED ON SLOPE ANGLE. AFTER SUFFICIENT RUN TIME, WETTING PATTERN SHALL APPROXIMATELY REPRESENT NO MORE THAN 2/3 WET PATTERN BELOW PLANT STEM WITH 1/3 WET PATTERN ABOVE PLANT STEM.
C. FOR SINGLE EMITTER INSTALLATION: PLACE EMITTER ABOVE (UPHILL) PLANT IN LOCATION TO ALLOW WATER TO FLOW ACROSS CENTER OF ROOTBALL.
D. FOR MULTIPLE EMITTER INSTALLATION: PLACE EMITTERS ABOVE PLANT IN LOCATIONS TO ALLOW WATER TO FLOW ON EITHER SIDE OF ROOTBALL.

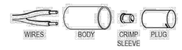
LEGEND
1. UNIT PLACEMENT FOR 15 GALLON SHRUB, TYP. REFER TO EMISSION TABLE IN LEGEND. PLACE EMISSION DEVICE AT EDGE OF ROOTBALL. ADJUST PER ROOTBALL SIZE, TYPICAL
2. 1/2" SCH 40 PVC 'SUB-LATERAL' PIPE, TYP. NOT SHOWN ON PLAN FOR DESIGN CLARITY
3. UNIT PLACEMENT FOR 1 OR 5 GALLON SHRUB, TYP. REFER TO EMISSION TABLE IN LEGEND. PLACE EMITTERS AT EDGE OF ROOTBALL. ADJUST PER ROOTBALL SIZE, TYPICAL
4. SCH 40 PVC 'BACKBONE' LATERAL PIPE, AS SHOWN ON PLAN.
5. 1/2" PVC ELBOW AS REQUIRED
6. ROOT BALL OF SHRUB



SECTION/ELEVATION

LEGEND
1. 1/2" THREAD EMISSION DEVICE. REFER TO LEGEND FOR SPECIFICATION
2. 1/2"X4" SCH 80 NIPPLE
3. MULCH COVER. SEE LANDSCAPE PLANS FOR TYPE AND DEPTH
4. ROOT BALL OF SHRUB
5. PVC LATERAL LINE PIPE. INSTALL 12"-24" FROM ROOTBALL
6. PVC SCH 40 TEE (SST) / EL (SF). LAY FITTING FLAT ON ITS SIDE AS MAY BE NEEDED FOR EASIER INSTALLATION OF FLEX RISER
7. 1/2" IPS FLEX PVC IRRIGATION PIPE WITH 3/8"x1/2" PVC MALE ADAPTERS. REFER TO LEGEND FOR SPECIFICATION
8. 1/2" PVC FEMALE ADAPTER
9. FINISH GRADE

NOTE:
A. INSTALL EMISSION DEVICE AT MAXIMUM 2"-3" FROM ROOTBALL.
B. PLACE BUBBLER ON UPHILL SIDE OF PLANT ROOTBALL, AS REQUIRED. ADJUST PER ROOTBALL SIZE.



1. Insert wires through holes in base of body.
2. Twist stripped wires together and apply crimp sleeve with an indent type crimping tool. Trim excess bare wire.
3. DS-100 & DS-150 ONLY - Fill Plug to brim with DS-300 sealant.
4. Invert body and insert plug into body until it snaps tight.
5. Push wires all the way into the plug to completely seal the crimp sleeve.
6. DS-100 & DS-150 ONLY - Be certain sealant has formed into all holes in body.

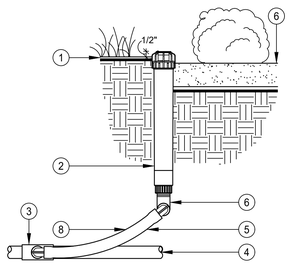


DS-100 & DS-150 Dri-Splice
- DS-100 fits AWG #18, #14, #12, or #10
- DS-150 fits AWG #14, #12, #10, #8, or #6
- Designed to ensure waterproof connections
- Easily installed in the field without special tools
- Permanent protection for underground wire splices
- Requires the use of DS-300 Sealant

DS-400 & DS-450 Pre-Filled Dri-Splice
- All the features of the DS-100 or DS-150, plus the added benefit of being pre-filled with Dielectric Silicone Sealant
- Reduced inventory requirements
- Ensures proper amount and type of Sealant every time
- Eliminates costly waste and clean-up
- Makes installations quick, clean and efficient

A POINT SOURCE EMISSION DEVICE LAYOUT

SCALE: N.T.S.



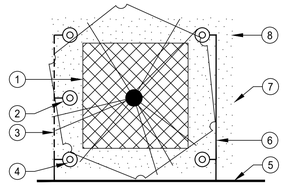
SECTION/ELEVATION

LEGEND
1. FINISH GRADE
2. ECO-INDICATOR
3. DRIP MANIFOLD TEE OR EL
4. PVC DRIP MANIFOLD PIPE. SEE SPECIFICATIONS FOR DEPTH REQUIREMENTS
5. SWING JOINT: HUNTER 'PRO-FLEX' TUBING, HSBE-050 ELBOWS (2)
6. 1/2" MARLEX STREET EL
7. MULCH LAYER
8. ALTERNATE INSTALL: WHEN ATTACHING UNIT TO DRIP TUBING CONTRACTOR MAY INSTALL UNIT USING 1/2" BARBED INSERT FITTINGS AND DRIP POLYETHYLENE TUBING

NOTES:
A. INSTALL ONE (1) ECO-ID WITHIN EACH PLANTER TO SHOW EXTENT OF ZONE WHILE UNDER OPERATION.
B. DUE TO CLARITY ISSUES ECO-ID SYMBOLS ARE NOT SHOWN ON PLAN.
C. CONTRACTOR SHALL REVIEW EACH DRIP ZONE AREA AND LAYOUT TO DETERMINE EXACT QUANTITY OF ECO-ID UNITS TO INSTALL. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNITS REQUIRED ON THE PROJECT.
D. IN TURF AREAS INSTALL UNIT 1/2" ABOVE FINISHED GRADE.
E. IN SHRUB AREAS INSTALL UNIT 2" ABOVE SOIL LEVEL OR 1" ABOVE MULCH LAYER, WHICHEVER IS HIGHER.
F. DUE TO NO FACTORY INSTALLED CHECK VALVE INSTALL AT HIGH POINTS OF ZONE, OR INSTALL HUNTER MANUALLY INSTALLED CHECK VALVE, P/N 462237SP.

B POINT SOURCE EMISSION DEVICE ASSEMBLY

SCALE: N.T.S.



PLAN VIEW

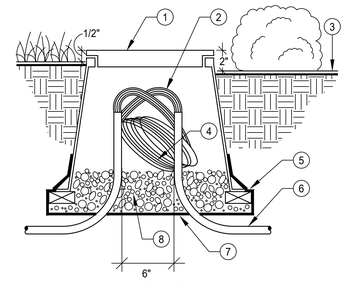
UNITS QUANTITY TABLE			
TREE SIZE	# OF UNITS	TREE SIZE	# OF UNITS
15 GALLON	2	48" BOX	4
24" BOX	2	60" BOX	6
36" BOX	4	72" BOX	6

LEGEND
1. ROOT BALL OF TREE
2. SPRAY BODY LOCATION, TYPICAL FOR 60" AND 72" TREES
3. 1/2" PVC PIPE, AS REQUIRED
4. SPRINKLER BODY, TYPICAL. REFER TO LEGEND FOR TYPE AND NOZZLE SPECIFICATION
5. PVC LATERAL LINE ZONE PIPE. SEE SPECIFICATIONS FOR TYPE AND DEPTH REQUIREMENTS. REFER TO PLAN SHEET FOR PIPE SIZE TABLE
6. 1/2" PVC LATERAL LINE PIPE TO SPRINKLER, TYPICAL
7. SURROUNDING LANDSCAPE
8. PVC ELBOW AS REQUIRED

NOTES:
A. INSTALL SPRINKLER HEADS 24" FROM ROOTBALL EDGE.
B. WHERE A MULCH LAYER IS USED AS GROUND COVER INSTALL TOP OF SPRINKLER BODY 1/2" ABOVE MULCH COVER, AT NO TIME SHALL MULCH BURY THE CAP.
C. WHEN MULCH LAYER IS NOT PRESENT INSTALL TOP OF SPRINKLER BODY 1" ABOVE FINISH GRADE.
D. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
E. INSTALL SPRINKLER HEADS PLUMB.
F. ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS, OR BUILDINGS. DO NOT SCALE DRAWINGS.

C WIRE CONNECTION

SCALE: N.T.S.



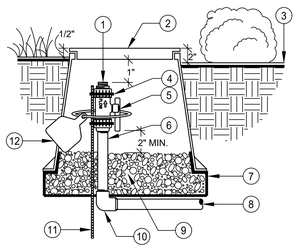
SECTION/ELEVATION

NOTES:
A. PROVIDE WIRE JUNCTION/PULL BOX AT EVERY CHANGE OF DIRECTION AND AT MAXIMUM 200 FOOT INTERVALS.
B. SET TOP OF VALVE BOX 1/2" ABOVE FINISHED GRADE IN TURF AREAS.
C. IN SHRUB AREAS INSTALL VALVE BOX 2" ABOVE SOIL LEVEL OR 1/2" ABOVE MULCH LAYER, WHICHEVER IS HIGHER.

LEGEND
1. RECTANGULAR SPECIFICATION GRADE VALVE BOX WITH BOLT DOWN COVER. BOX TO BE PLACED AT RIGHT ANGLE TO HARDSCAPE EDGE. HEAT BRAND "PB" ONTO LID
2. FLOW SENSOR WIRE
3. FINISH GRADE
4. 36" WIRE EXPANSION LOOP TYPICAL
5. BRICK SUPPORTS
6. PVC ELECTRICAL SWEEP EL
7. LANDSCAPE FABRIC + GOPHER SCREEN
8. 3/4" CRUSHED GRAVEL, MIN. 6" DEPTH

D DRIP ZONE OPERATION INDICATOR ASSEMBLY

SCALE: N.T.S.



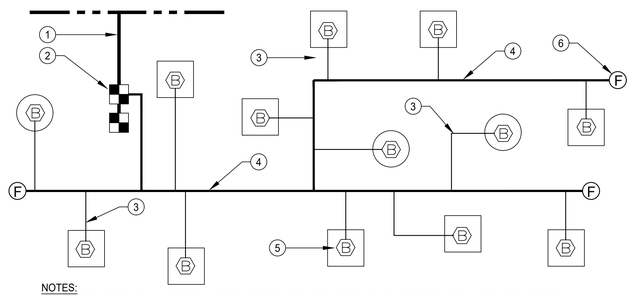
SECTION/ ELEVATION

NOTES:
A. FOR TREE/PALM ZONES: PLACE FLUSH VALVE AT MINIMUM FORTY EIGHT (48") INCHES FROM TREE/PALM ROOT BALL, TYPICAL.
B. POINT SOURCE DRIP ZONES: INSTALL FROM PVC 'BACKBONE' PIPE. SEE DETAIL LI-5.02/F ON THIS SHEET.
C. INSTALL ONE (1) FV IN EACH DIRECTION FROM RCV AT MINIMUM, OR AS MANY AS SHOWN ON THE PLAN IN ANY ZONE.
D. INSTALL IN LOCATIONS AS DESCRIBED IN THE LEGEND.
E. CONTRACTOR SHALL REVIEW TREE DRIP ZONE AREA AND LAYOUT TO DETERMINE EXACT QUANTITY OF FV'S TO INSTALL. DUE TO FIELD CHANGES OR OTHER REASONS TOTAL FLUSH VALVE SYMBOLS SHOWN ON PLAN MAY NOT EQUAL TOTAL QUANTITY OF FV'S REQUIRED.
F. SET TOP OF VALVE BOX 1/2" ABOVE FINISHED GRADE IN TURF AREAS.
G. IN SHRUB AREAS INSTALL VALVE BOX 2" ABOVE SOIL LEVEL OR 1" ABOVE MULCH LAYER, WHICHEVER IS HIGHER.

LEGEND
1. BRASS HOSE/PIPE ADAPTER, ARROWHEAD BRASS/CHAMPION IRRIGATION PRODUCTS, MODEL #10F (3/4" MALE HOSE THREAD TO 1/2" MALE PIPE THREAD)
2. 7" ROUND SPECIFICATION GRADE VALVE BOX, HEAT BRAND "FV" ONTO LID
3. FINISH GRADE
4. STAINLESS STEEL CLAMPS, TYP.
5. 1/2" PVC SCH 80 THREADED BALL VALVE. REFER TO LEGEND FOR SPECIFICATION
6. SCH 80 PVC NIPPLE 1/2" x LENGTH AS REQUIRED
7. LANDSCAPE FABRIC + GOPHER SCREEN
8. WHEN USED FOR SUB-SURFACE TUBING DRIP ZONES, REFER TO LEGEND: PVC SCH 40 PIPE FROM DRIP ZONE MANIFOLD 'FOOTER'. MANIFOLD PIPE SIZE BASED ON ZONE FLOW. REFER TO LEGEND FOR PIPE SIZE.
9. 3/4" CRUSHED GRAVEL, MIN. 5"-6" DEPTH
10. PVC SLIP (LINE SIZE) x 1/2" THREAD ELL (SF)
11. (#3) 3/8" x 24" REBAR STAKE
12. APPURTENANCE PURPLE ID TAG

E TREE/PALM IRRIGATION LAYOUT

SCALE: N.T.S.

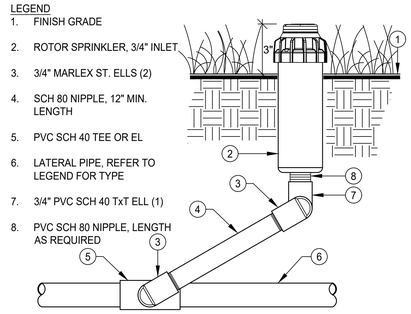


NOTES:
A. CONTRACTOR SHALL ROUTE LATERAL PIPE THROUGHOUT ZONE USING BEST INSTALLATION PRACTICES.
B. PLACE SPRINKLER BODY EIGHTEEN INCHES (24") FROM TREE/PALM ROOT BALL, TYPICAL.

LEGEND
1. MAINLINE, REFER TO LEGEND FOR TYPE
2. TREE/PALM MICRO-SPRAY VALVE ASSEMBLY, REFER TO LEGEND FOR SPECIFICATION
3. 1/2" SCH 40 PVC SUB-LATERAL PIPE TO TREE LOCATION, TYPICAL
4. SCH 40 PVC LATERAL 'BACKBONE' PIPE, TYPICAL. REFER TO PIPE SIZE TABLE FOR SIZES
5. TREE IRRIGATION ASSEMBLY SYMBOL. SEE LAYOUT DETAIL FOR BUBBLER QUANTITY
6. FLUSH VALVE WITHIN 7" ROUND VALVE BOX, TYPICAL.

F WIRE PULL BOX

SCALE: N.T.S.



SECTION/ELEVATION

LEGEND
1. FINISH GRADE
2. ROTOR SPRINKLER, 3/4" INLET
3. 3/4" MARLEX ST. ELLS (2)
4. SCH 80 NIPPLE, 12" MIN. LENGTH
5. PVC SCH 40 TEE OR EL
6. LATERAL PIPE, REFER TO LEGEND FOR TYPE
7. 3/4" PVC SCH 40 TxT ELL (1)
8. PVC SCH 80 NIPPLE, LENGTH AS REQUIRED

NOTES:
A. ALL FITTING/PIPE THREADS SHALL HAVE A MIN. OF 4 WRAPS OF TEFLON TAPE.
B. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
C. INSTALL SPRINKLER HEADS 4" FROM PAVING EDGE IN TURF AREAS.
D. INSTALL SPRINKLER HEADS 12" FROM ALL BUILDINGS AND WALLS.
E. INSTALL SPRINKLER HEADS PLUMB.
F. ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS. DO NOT SCALE DRAWINGS.

G DRIP ZONE FLUSH VALVE ASSEMBLY

SCALE: N.T.S.

H TREE/PALM SYSTEMS PVC LATERAL LAYOUT

SCALE: N.T.S.

I BIOSWALE ROTOR INSTALLATION

SCALE: N.T.S.

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

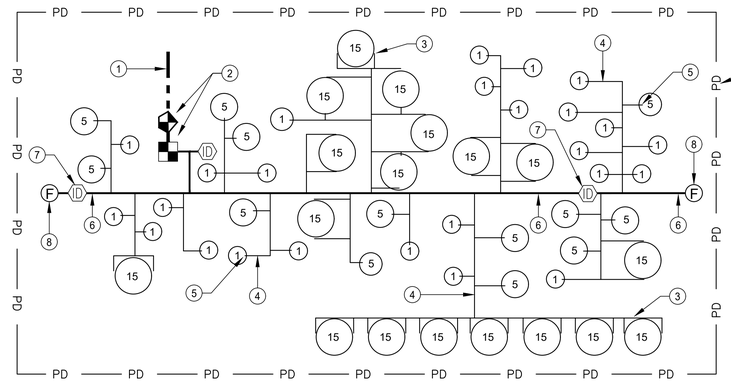
SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT — Todd Kohli No. 4901 — Signature 06/30/2026 Renewal Date — 07/24/2025 Date — STATE OF CALIFORNIA

SHEET TITLE
IRRIGATION DETAILS

14794
PROJECT NUMBER

CD I6.2.3
SHEET NUMBER

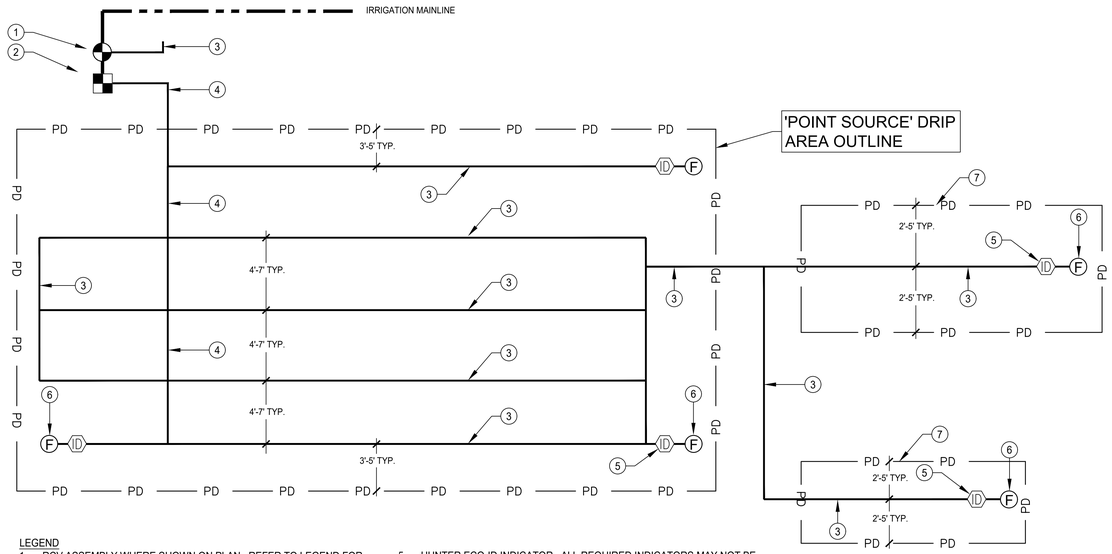


LEGEND
1. MAINLINE, REFER TO LEGEND FOR TYPE.
2. CONTROL VALVE ASSEMBLY, REFER TO LEGEND FOR TYPE
3. 15 GALLON SHRUB 'DOUBLE BUBBLER' LAYOUT EXAMPLE
4. 1/2" SCH 40 PVC DRIP 'SUB-LATERAL' PIPE, TYPICAL. PIPE NOT SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY
5. EMMITER PLACEMENT (TYPICAL), SEE DETAIL ON THIS SHEET
6. 1" SCH 40 PVC 'BACKBONE' LATERAL PIPE. PIPE NOT SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY
7. HUNTER ECO-ID INDICATOR. MINIMUM TWO. THREE MAY BE REQUIRED IN (LONG/LARGE) ZONES
8. FLUSH VALVE WITHIN 7" ROUND VALVE BOX, TYPICAL.

NOTES:
A. SCHEMATIC LAYOUT ONLY SHOWING EMITTERS PER PLANT. ACTUAL INSTALLED LATERAL LINE PVC FLEX PIPE AND PVC HARD PIPE RUNS MAY BE DIFFERENT.
B. CONTRACTOR SHALL ROUTE SUB-LATERAL PIPE THROUGHOUT ZONE USING BEST INSTALLATION PRACTICES.
C. FOR SLOPED PLANTERS ALL EMITTERS ARE REQUIRED TO BE PLACED 6"-12" ABOVE PLANT ROOT BALL ON THE UPHILL SIDE OF PLANT DEPENDING ON SLOPE ANGLE.
D. FINAL HEIGHT ABOVE PLANT SHALL BE DETERMINED IN THE FIELD BASED ON SLOPE ANGLE. AFTER SUFFICIENT RUN TIME, WETTING PATTERN SHALL APPROXIMATELY REPRESENT NO MORE THAN 2/3 WET PATTERN BELOW PLANT STEM WITH 1/3 WET PATTERN ABOVE PLANT STEM.
E. FOR SINGLE EMITTER INSTALLATION: PLACE BUBBLER/EMITTER ABOVE (UPHILL) PLANT IN LOCATION TO ALLOW WATER TO FLOW ACROSS CENTER OF ROOTBALL.
F. FOR MULTIPLE EMITTERS INSTALLATION: PLACE BUBBLERS/EMITTERS ABOVE PLANT IN LOCATIONS TO ALLOW WATER TO FLOW ON EITHER SIDE OF ROOTBALL.

A POINT SOURCE / PVC LATERAL LAYOUT

SCALE: N.T.S.



LEGEND
1. RCV ASSEMBLY WHERE SHOWN ON PLAN. REFER TO LEGEND FOR TYPE
2. DRIP RCV ASSEMBLY WHERE SHOWN ON PLAN. REFER TO LEGEND FOR TYPE
3. 3/4" SCH 40 PVC LATERAL PIPE. THE LATERAL LINE PIPE IS NOT SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY. CONTRACTOR SHALL SPACE LATERAL LINES ACROSS ZONE IN ACCORDANCE WITH PLANT LAYOUT AND SPACING. REFER TO DETAIL 'I6.2.3/B' #5 - "PVC LATERAL LINE PIPE. INSTALL 12-24" FROM ROOTBALL". THE REQUIRED PIPE SPACING SHORTENS PVC FLEX PIPE TO MANAGEABLE LENGTHS.
4. 1" SCH 40 PVC 'BACKBONE LATERAL PIPE. PIPE NOT SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY
5. HUNTER ECO-ID INDICATOR. ALL REQUIRED INDICATORS MAY NOT BE NOT SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY. WHEN ZONE CONTINUES FOR A DISTANCE ADD AN INDICATOR IN VICINITY OF RCV, AS WELL AS AT ENDS OF RUN.
6. FLUSH VALVE WITHIN 7" ROUND VALVE BOX, TYPICAL. ALL REQUIRED FLUSH VALVES MAY NOT BE SHOWN ON IRRIGATION PLAN FOR DESIGN CLARITY
7. ADDITIONAL AREAS UNDER POINT SOURCE DRIP IRRIGATION. MAY BE MULTIPLE AREAS CONNECTED TO SAME RCV. REFER TO PLAN

B POINT SOURCE / 'BACKBONE' PVC LATERAL SAMPLE LAYOUT

SCALE: N.T.S.

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED LANDSCAPE ARCHITECT
Todd Kohli No. 4907
Signature
06/30/2026
Renewal Date
07/24/2025
Date
STATE OF CALIFORNIA

SHEET TITLE
IRRIGATION DETAILS

14794
PROJECT NUMBER

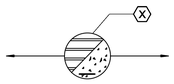
CD
SHEET NUMBER
I6.2.4

LEGEND:

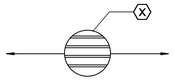
STEEL "W" SECTION

STEEL PIPE OR ROUND HSS SECTION

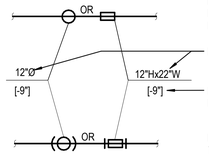
STEEL HSS SECTION



INDICATES CONCRETE FILL ON STEEL DECK MARK AND STEEL DECK DIRECTION. SEE SCHEDULE ON 5-S5.05



INDICATES BARE STEEL DECK MARK AND STEEL DECK DIRECTION. SEE SCHEDULE ON 5-S5.05

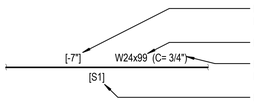


INDICATES UNREINFORCED ROUND OR RECTANGULAR PENETRATION THROUGH BEAM WEB. SEE 16-S5.01

PENETRATION DIMENSION

DISTANCE FROM TOP OF BEAM. TO ℄ OF PENETRATION.

INDICATES REINFORCED PENETRATION THROUGH BEAM WEB. SEE 16-S5.01

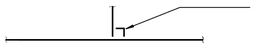


INDICATES TOP OF STEEL RELATIVE TO NOMINAL T.O. STEEL. @ EACH LEVEL.

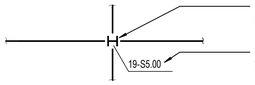
INDICATES BEAM OR GIRDER SIZE

INDICATES UPWARD CAMBER AT MIDSPAN OF BEAM

INDICATES STUD PATTERN, SEE11-S5.05 &15-S5.05

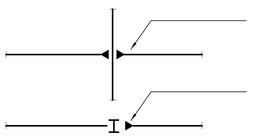


INDICATES FULL DEPTH STIFFENER ℄ SEE 9-S5.01

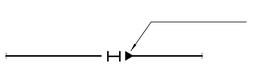


INDICATES ORIENTATION OF WIDE FLANGE COLUMN.

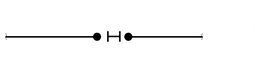
REFERS TO SPECIFIC DETAIL WHEN NOTED ON PLAN.



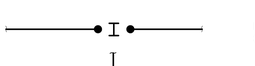
INDICATES MOMENT OF BEAM TO GIRDER. SEE11-S5.00



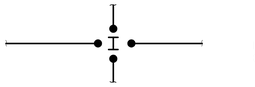
INDICATES MOMENT CONNECTION TO COLUMN WEB. SEE 10-S5.00



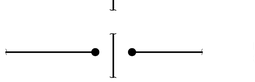
INDICATES MOMENT CONNECTION TO COLUMN FLANGE. SEE 9-S5.00



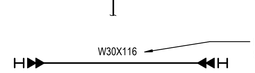
INDICATES WELDED COLLECTOR CONNECTION PER 1-S5.12



INDICATES WELDED COLLECTOR CONNECTION PER 12-S5.12

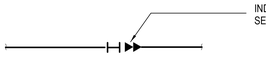


INDICATES WELDED COLLECTOR CONNECTION PER 9-S5.12

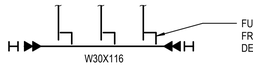


INDICATES WELDED COLLECTOR CONNECTION PER 13-S5.12

MOMENT FRAME BEAM. SEE S4.01 TO S4.02



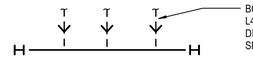
INDICATES SIDE-PLATE MOMENT CONNECTION. SEE S4.10 TO S4.17.



FULL DEPTH STIFFENER PLATE OF FRAME BEAM. SEE 9-S5.01 FOR DETAIL.



SEISMIC MOMENT FRAME:
1. SEE SHEETS S4.01 TO S4.02 FOR FRAME SIZES.
2. SEE SHEETS S4.10- S4.20 FOR CONNECTIONS.
3. SEE SHEET S3.06 FOR GRADE BEAMS AT MOMENT FRAMES.
4. SEE S5.04 FOR BASE PLATE.



BOTTOM FLANGE BRACING PROVIDE L4x4x1/2 TYP. U.O.N. ⩛ IS THE DIRECTION OF DOWNWARD SLOPE. SEE DETAIL 1-S5.02

CONCRETE

INDICATES MEP UNIT PAD IN PLAN, SEE 13-S5.07 FOR DETAILS

CMU, SEE 1-S0.02

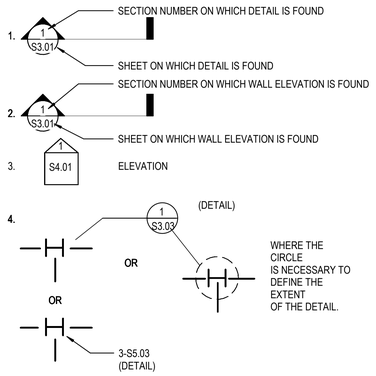
EXPANDED POLYSTYRENE IN SECTION, U.O.N.

DEPRESSION IN SLAB OR FINISH FLOOR

FINISH ELEVATION DESIGNATION OF TOP OF STRUCTURAL CONCRETE. SEE PLANS FOR ELEVATION ASSOCIATED WITH DESIGNTATION, TYPICAL, U.O.N.

DRAWINGS SYMBOLS

A. THE SYMBOLS ON PLANS TO INDICATE SECTIONS, ELEVATIONS, AND DETAILS ARE AS FOLLOWS:



B. SEE LEGEND ON PLAN SHEETS FOR ADDITIONAL SYMBOLS.

DETAIL NUMBERING:

THE NUMBERING SYSTEM FOR SECTIONS, ELEVATIONS AND DETAILS ON THESE DRAWINGS TYPICALLY IS AS SHOWN ON THE FOLLOWING DIAGRAM:

20	16	12	8	4
19	15	11	7	3
18	14	10	6	2
17	13	9	5	1

WHERE MORE THAN ONE BLOCK IS USED FOR A SINGLE DETAIL, THE NUMBER OF THE LOWER RIGHT CORNER IS USED; THUS NUMBERS ARE ALWAYS IN THE SAME LOCATION ON THE SHEET.

ABBREVIATIONS (MAY BE USED WITH OR WITHOUT PERIOD)

#	POUND OR NUMBER
&	AND
@	AT
Ø	DIAMETER OR ROUND
A.B.	ANCHOR BOLT (ROD)
ABV	ABOVE
ACI	AMERICAN CONCRETE INSTIUTE
ADD'L	ADDITIONAL
ADJ	ADJACENT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
AOR	ARCHITECT OF RECORD
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCITY OF CIVIL ENGINEERS
ASTM	ASTM INTERNATIONAL
AWS	AMERICAN WELDING SOCIETY
(B)	BOTTOM
B.O.	BLOCK OUT
B.O.F.	BOTTOM OF FOOTING
BF	BRACED FRAME
BLDG	BUILDING
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BRDG	BRIDGING
BTWN	BETWEEN
B.U.	BACK-UP
C	CAMBER
CALC	CALCULATION
CANT	CANTILEVER
CBC	CALIFORNIA BUILDING CODE
C-C	CENTER TO CENTER
C.E.	CIVIL ENGINEER
CEM	CEMENT
C.I.P.	CAST-IN-PLACE
C.J.	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH FILL
CMU	CONCRETE MASONRY UNIT (BLOCK)
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUITY (PL)
CONTR	CONTRACTOR
CP	COMPLETE PENETRATION (WELD)
CTR	CENTER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DEFL	DEFLECTION
DEG	DEGREES
DEPR	DEPRESSION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
D.O.	DITTO (REPEAT)
DWG	DRAWING
DWL	DOWEL
E	EAST
(E)	EXISTING
EA	EACH
(EC)	EPOXY COATED
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBED	EMBEDMENT
ENGR	ENGINEER OR ENINEERED
E.O.D.	EDGE OF DECK
E.P.S.	EXPANDED POLYSTYRENE
EQ	EQUAL
EQPT	EQUIPMENT
E.S.	EACH SIDE
ESR	EVALUATION SERVICE REPORT (ICC OR IAPMO)
E-W	EAST-TO-WEST (DIRECTION)
E.W.	EACH WAY
EXP	EXPANSION (ANCHOR)
EXT	EXTERIOR
F.D.P.P.	FULL DEPTH PARTIAL PENETRATION
FDN	FOUNDATION
F.F.	FAR FACE
FIN	FINISH
FLG	FLANGE
FLR	FLOOR
F.O.	FACE OF
F.O.C.	FACE OF CONCRETE
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FPRF	FIREPROOF
FRM	FRAME
F.S.	FAR SIDE
FT	FEET
FTG	FOOTING
FUT	FUTURE
GA	GAUGE
GALV	GALVANIZED
G.B.	GRADE BEAM
GEO	GEOTECHNICAL
GLB	GLUED LAMINATED BEAM (WOOD)
GR	GRADE
(H)	HORIZONTAL
H.B.	HOLLO-BOLT (OR EQUAL)
HD	HEAD OR HEADED BAR
HDR	HEADER
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
H.P.	HIGH POINT
H.S.A.B.	HIGH STRENGTH ANCHOR BOLT
H.S.B.	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
I	MOMENT OF INERTIA (IN^4)
ICC	INTERNATIONAL CODE COUNCIL
I.D.	INSIDE DIAMETER
ID	IDENTIFICATION OR MARK
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
IN.	INCHES
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
K	KIPS (1000 LBS)
"K"	AISC K DIMENSION (DETAILING)
"K1"	AISC K1 DIMENSION (DETAILING)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LB(S)	POUND(S)
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
L.P.	LOW POINT
LSL	LONG SLOTTED HOLE
LTWT	LIGHTWEIGHT
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT STRUCTURAL CONCRETE
MAX	MAXIMUM
M.B.	MACHINE BOLT
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
(N)	NEW
N	NORTH
NAVD	NORTH AMERICAN VERTICAL DATUM
N.F.	NEAR FACE
NGVD	NATIONAL GEODETIC VERTICAL DATUM
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
N-S	NORTH-TO-SOUTH (DIRECTION)
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZED HOLE
P/C	PRECAST CONCRETE
PDF	POWDER DRIVEN FASTENER
PERP	PERPENDICULAR (AT 90 DEGREES)
PH	PENTHOUSE
PIL	PILASTER
PL	PLATE
PLWD	PLYWOOD (OR OSB)
PP	PARTIAL PENETRATION
P.Q.R.	PROCEDURE QUALIFICATION RECORD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
P/T	PRESTRESSED OR POST-TENSIONED
PTD	PRIME PAINTED
PTN	PARTITION
R	RADIUS
RAD	RADIUS
R/C	REINFORCED CONCRETE
R.D.	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQ'D	REQUIRED
REV	REVISION OR REVISED
R.O.	ROUGH OPENING
S	SOUTH
S.A.D.	SEE ARCH DRAWINGS
S.C.	SLIP CRITICAL
S.C.D.	SEE CIVIL DRAWINGS
SCHED	SCHEDULE
SDC	SEISMIC DESIGN CATEGORY
SDI	STEEL DECK INSTIUTE
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
S.E.D.	SEE ELECTRICAL DRAWINGS
SF	SQUARE FEET
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
S.J.	SAWCUT JOINT
S.L.D.	SEE LANDSCAPE DRAWINGS
SLRS	SEISMIC LOAD RESISTING SYSTEM
S.M.D.	SEE MECH. DRAWINGS
SMF	STEEL MOMENT FRAME
SMS	SHEET METAL SCREW
S.O.G.	SLAB ON GRADE
S.P.D.	SEE PLUMBING DRAWINGS
SPEC	SPECIFICATION
SQ	SQUARE
S.S.	STAINLESS STEEL
SSL	SHORT SLOTTED HOLE
STD	STANDARD
STIFF	STIFFENER (PL)
STIRR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRIC (ABOUT)
(T)	TOP
T.B.	TIE BEAM
THK	THICK
THRU	THROUGH
TJI	PREFABRICATED I-JOIST (WOOD)
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TRANS	TRANSVERSE
T&B	TOP AND BOTTOM
TSW	TOP SEAM WELD
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
U.T.	ULTRASONIC TESTING
ULT	ULTIMATE
(V)	VERTICAL
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
W	WEST
W.A.	WEDGE ANCHOR
W/	WITH
WF	WIDE FLANGE BEAM (W-SHAPE)
WK.PT.	WORK POINT
W/O	WITHOUT
W.P.	WATERPROOFING
W.P.S.	WELD PROCEDURE SPECIFICATION
WT	WEIGHT
WWF	WELDED WIRE FABRIC
XS	EXTRA STRONG

SHEET LIST

SHEET NUMBER	SHEET TITLE
S0.01	GENERAL NOTES
S0.02	GENERAL NOTES
S0.03	GENERAL NOTES
S0.04	COLD-FORMED STEEL FRAMING GENERAL NOTES
S0.05	FLOOR VIBRATION AND LOADING CRITERIA
S0.06	AXIOMETRIC VIEWS
S2.01	LEVEL 1 FOUNDATION PLAN
S2.02	LEVEL 2 FRAMING PLAN
S2.02C	LEVEL 2 COLLECTOR REINFORCEMENT PLAN
S2.03	ROOF FRAMING PLAN
S2.03C	ROOF COLLECTOR REINFORCEMENT PLAN
S2.04	ROOF MECHANICAL SUPPORT FRAMING PLAN
S3.00	TYPICAL CONCRETE DETAILS
S3.01	TYPICAL CONCRETE DETAILS
S3.02	TYPICAL CONCRETE DETAILS
S3.03	CONCRETE DETAILS
S3.05	TYPICAL FOUNDATION DETAILS
S3.06	TYPICAL FOUNDATION DETAILS
S3.07	TYPICAL FOUNDATION DETAILS
S3.10	ELECTRICAL EQUIPMENT FOUNDATIONS
S4.01	MOMENT FRAME ELEVATIONS
S4.02	MOMENT FRAME ELEVATIONS
S4.10	SIDEPLATE GENERAL NOTES
S4.11	SIDEPLATE COLUMN DETAILS, A TYPE NARROW
S4.12	SIDEPLATE COLUMN DETAILS, B TYPE NARROW
S4.13	SIDEPLATE COLUMN DETAILS, C TYPE NARROW
S4.14	SIDEPLATE BEAM DETAILS, NARROW
S4.15	SIDEPLATE FIELD ERECTION AND MISCELLANEOUS DETAILS
S4.16	SIDEPLATE COORDINATION ITEMS
S4.17	SIDEPLATE CONSTRUCTION GUIDELINES
S5.00	TYPICAL STEEL DETAILS
S5.01	TYPICAL STEEL DETAILS
S5.02	STEEL DETAILS
S5.05	TYPICAL STEEL DECK DETAILS
S5.06	TYPICAL STEEL DECK DETAILS
S5.07	TYPICAL STEEL DECK DETAILS
S5.08	HANGER AND BRACE CONNECTIONS TO BARE METAL DECK
S5.10	GRAVITY COLUMN SCHEDULE
S5.12	COLLECTOR DETAILS
S5.13	MISCELLANEOUS STEEL DETAILS
S5.14	MISCELLANEOUS STEEL DETAILS
S5.21	ROOF MECHANICAL SCREEN SUPPORT FRAMING ELEVATIONS
S5.31	ENTRY CANOPY FRAMING PLANS
S5.32	ENTRY CANOPY SECTIONS AND DETAILS
S5.33	ENTRY CANOPY SECTIONS AND DETAILS
S5.41	MOMENT FRAME DETAILS
S5.42	TYPICAL MECHANICAL SCREEN DETAILS
S5.50	CEILING MOUNTED EQUIPMENT PLAN
S5.51	LIGHT GRID SUPPORT FRAMING PLANS AND DETAILS
S5.52	CEILING MOUNTED EQUIPMENT ANCHORAGE DETAILS
S5.53	EXHAUST DUCT SUPPORT FRAMING
S5.54	MECHANICAL DOG-HOUSE SUPPORT FRAMING
S5.55	MECHANICAL DOG-HOUSE SUPPORT FRAMING
S7.01	STAIR 1 PARTIAL PLANS & SECTIONS
S7.02	STAIR 1 FRAMING DETAILS
S7.03	STAIR 1 FRAMING DETAILS
S7.11	STAIR 2 PARTIAL PLANS AND SECTIONS
S7.12	STAIR 2 FRAMING DETAILS
S7.21	STAIR 3 PARTIAL PLANS AND SECTIONS
S7.22	STAIR 3 FRAMING DETAILS
S7.31	TYPICAL STAIR DETAILS
S7.41	ELEVATOR PARTIAL PLANS AND SECTIONS
S7.42	ELEVATOR BASIS OF DESIGN
S7.43	ELEVATOR BASIS OF DESIGN
S9.01	TYPICAL INTERIOR PARTITION WALL ELEVATION AND SCHEDULES
S9.02	TYPICAL INTERIOR PARTITION WALL DETAILS
S9.03	TYPICAL INTERIOR PARTITION WALL DETAILS
S9.04	TYPICAL INTERIOR PARTITION WALL DETAILS
S9.05	TYPICAL INTERIOR PARTITION WALL DETAILS
S9.06	TYPICAL INTERIOR PARTITION WALL DETAILS
S9.07	MISCELLANEOUS INTERIOR PARTITION WALL DETAILS
S9.08	MISCELLANEOUS INTERIOR PARTITION WALL DETAILS
S9.20	TYPICAL EXTERIOR FRAMING ELEVATION AND SCHEDULES
S9.21	LEVEL 1 EXTERIOR FRAMING ELEVATION CALLOUT PLAN
S9.22	LEVEL 2 EXTERIOR FRAMING ELEVATION CALLOUT PLAN
S9.23	ROOF EXTERIOR FRAMING ELEVATION CALLOUT PLAN
S9.24	EXTERIOR FRAMING ELEVATIONS
S9.25	EXTERIOR FRAMING ELEVATIONS
S9.26	EXTERIOR FRAMING SECTIONS AND DETAILS
S9.27	EXTERIOR FRAMING SECTIONS AND DETAILS
S9.28	EXTERIOR FRAMING DETAILS
S9.29	EXTERIOR FRAMING DETAILS
S9.41	WING WALL ELEVATIONS AND DETAILS
S9.42	WING WALL ELEVATIONS AND DETAILS
S9.43	WING WALL ELEVATIONS AND DETAILS
S9.44	WING WALL DETAILS

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEEMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE

GENERAL NOTES

2023-045S
PROJECT NUMBER

S0.01
SHEET NUMBER

Author

8/21/2025 5:07:42 PM
Plot Date:

GENERAL

A. FOR MORE DETAILED INFORMATION, SEE PROJECT SPECIFICATIONS. THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER THESE NOTES.

B. ALL CONSTRUCTION SHALL CONFORM TO THE CALIFORNIA BUILDING CODE (CBC), TITLE 24, 2022 EDITION

C. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.

D. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND RESOLVED BEFORE PROCEEDING WITH THE WORK.

E. DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY CALLED OUT OR NOT.

F. THE CONTRACTOR MUST SUBMIT IN WRITING ANY REQUESTS FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED.

G. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED, OR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE UNIVERSITY'S REPRESENTATIVE.

DIMENSIONAL CONTROL.

A. DO NOT USE SCALED DIMENSIONS. WHERE NO WRITTEN DIMENSION IS PROVIDED, CONSULT WITH THE OWNER'S REPRESENTATIVE FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

B. THE FOLLOWING MEMBERS CAN BE LOCATED WITHOUT WRITTEN DIMENSIONS:

1. CENTER MEMBERS ON GRID LINES THAT ARE SHOWN LOCATED ON GRID LINES.
2. SPACE MEMBERS EQUALLY BETWEEN MEMBERS ON GRID LINES OR MEMBERS OTHERWISE LOCATED, WHERE MEMBERS ARE SHOWN EQUALLY SPACED.

C. ELEVATIONS NOTED ON THE STRUCTURAL DRAWINGS USE THE FOLLOWING CONVENTIONS:

1. ACTUAL ELEVATIONS ARE DESIGNATED IN FEET (EXAMPLE: EL +203'-7"), REFERENCING NGVD DATUM. ACTUAL ELEVATIONS ARE USED AT ROOF AND LANDSCAPED AREA LEVELS IF APPLICABLE.
2. FEATURES THAT ARE CLOSELY RELATED TO OTHER SIMILAR ELEMENTS AT INDIVIDUAL FLOORS, ARE REFERENCED TO THE ELEVATION OF THE TYPICAL ELEMENT AT THAT LEVEL. DIMENSIONS ARE GIVEN IN INCHES.
   a. TOP OF CONCRETE AT DEPRESSED AREAS IS RELATED TO TYPICAL TOP OF CONCRETE (EXAMPLE: T.O.C. -2").
   b. TOP OF STEEL IS REFERENCED TO TYPICAL TOP OF CONCRETE FOR THAT LEVEL [EXAMPLE: W12x14 (-6")].

D. DIMENSION POINTS ARE AS FOLLOWS, UNLESS OTHERWISE INDICATED:

1. TYPICAL, U.O.N.: CENTERLINE.
2. WALLS: FACE OF CONCRETE OR MASONRY SURFACES OR FACE OF STUDS.
3. STEEL ANGLES AND CHANNELS: FACE.
4. FLAT FRAMING: TOP OF STEEL OR TOP OF CONCRETE.

E. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL CONTROL FOR THE FOLLOWING STRUCTURAL FEATURES, UNLESS DIMENSIONS ARE NOTED ON THE STRUCTURAL DRAWINGS:

1. SLAB EDGES AT BUILDING PERIMETER AND SHAFTS.
2. PLAN LOCATION OF CHANGES IN ELEVATION OF TOP OF CONCRETE SLABS, INCLUDING DEPRESSIONS, STEPS, AND TRENCHES.
3. LOCATION OF SLOPE BREAKS IN PLAN AND TOP OF SLAB PROFILE AT RAMPS AND SLOPED SLABS.
4. LOCATION AND SIZE OF CURBS AND PADS.

COORDINATION OF DOCUMENTS.

A. ALTHOUGH WATERPROOFING AND DRAINAGE ITEMS ARE SOMETIMES PICTURED ON THE STRUCTURAL DRAWINGS FOR REFERENCE, THESE ITEMS ARE THE DESIGN RESPONSIBILITY OF OTHERS AND ARE DETAILED AND/OR SPECIFIED ELSEWHERE, S.A.D.

B. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND DETAILS OF NON-BEARING INTERIOR AND EXTERIOR WALL CONSTRUCTION.

C. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATIONS AND SIZES OF THE FOLLOWING ITEMS:

1. ANCHOR BOLTS, INSERTS AND HANGERS FOR ATTACHMENT OF NONSTRUCTURAL BUILDING COMPONENTS.
2. CONCRETE PADS AND CURBS FOR SUPPORT OF EQUIPMENT AND PIPING.
3. ITEMS EMBEDDED IN STRUCTURAL ELEMENTS, INCLUDING DRAINS, SLEEVES, CONDUITS, AND BOXES.
4. OPENINGS AND RECESSES IN SLAB.

D. ITEMS THAT ARE NOT SHOWN ON STRUCTURAL DRAWINGS, BUT AFFECT STRUCTURAL ELEMENTS, SHALL BE SUBJECT TO LIMITATIONS OF THE STRUCTURAL DETAILS LISTED BELOW, EXCEPT AS APPROVED BY OWNER'S REPRESENTATIVE.

ITEM	DETAIL REFERENCE
PENETRATIONS THROUGH FOOTINGS AND GRADE BEAMS	13-S3.00
CONDUITS THROUGH SLAB-ON-GRADE	15-S3.01
CONDUITS IN SLAB OR CONCRETE CURBS	NOT PERMITTED
DRILLED DOWELS, POST-INSTALLED ANCHORS	15-S3.00 & 16-S3.00
WEB OPENINGS IN STEEL BEAMS	16-S5.01
SMALL OPENINGS IN DECK AND CONCRETE FILL	2-S5.07
LARGE OPENINGS IN DECK AND CONCRETE FILL	1-S5.07
ROUND PENETRATION IN CONCRETE FILL OVER STEEL DECK	7-S5.07
OPENINGS IN BARE STEEL DECK	3-S5.07
CONDUITS IN FILL OVER STEEL DECK	NOT PERMITTED
PERMISSIBLE SUSPENDED LOADS TO DECK W/ CONC. FILL	11-S5.06
PERMISSIBLE SUSPENDED LOADS TO BARE METAL DECK	3-S5.06

E. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND DETAILS OF MISCELLANEOUS STEEL ITEMS, INCLUDING BUT NOT LIMITED TO:

1. FRAMING THAT SERVES SOLELY AS A COMPONENT OF NON-BEARING STUD WALL OR CURTAIN WALL ASSEMBLY, INCLUDING JAMB FRAMING AT ROLL-DOWN DOORS, JAMB AND/ OR HEAD REINFORCEMENT AT OTHER STUD AND CURTAIN ASSEMBLIES, CANTILEVER FRAMING FOR SILLS AND PARTIAL HEIGHT WALLS.
2. ORNAMENTAL METAL, INCLUDING RAILINGS, SUN CONTROL DEVICES AND TRELLISES.

DESIGN CRITERIA

A. APPLICABLE CODE: ALL WORK SHALL CONFORM TO THE CALIFORNIA BUILDING CODE (CBC), TITLE 24, 2022 EDITION.

B. LIVE LOADS: SEE S0.05 FOR LOADING PLANS.

C. WIND DESIGN PARAMETERS:

1. BASIC WIND SPEED:	99 MPH
2. RISK CATEGORY:	III
3. EXPOSURE:	C
4. INTERNAL PRESSURE COEFFICIENT:	+/- 0.18
5. COMPONENT AND CLADING PRESSURE:	SEE S0.03 FOR WIND PRESSURES FOR EXTERIOR WALLS AND ROOF COMPONENTS AND CLADDING

D. SEISMIC DESIGN PARAMETERS:

SITE LOCATION:	LATTITUDE 37.7110° LONGITUDE -121.8017°
METHODOLOGY:	MODAL RESPONSE SPECTRUM ANALYSIS
CRITERIA:	ASCE 7-16 CHAPTER 12
RISK CATEGORY:	III
MAPPED MCE PARAMETERS:	S_S = 1.727g S_1 = 0.600g
SITE CLASS:	D
SITE SPECIFIC DE PARAMETERS:	S_{MS} = 1.727 S_{M1} = 1.530 S_{DS} = 1.151 S_{D1} = 1.020
SEISMIC DESIGN CATEGORY:	D
SEISMIC IMPORTANCE FACTOR:	I = 1.25
SEISMIC FORCE-RESISTING SYSTEMS PER ASCE 7-16 TABLE 12.2-1:	STEEL SPECIAL MOMENT FRAME (SMRF) R = 8 Ωo = 3.0 C_d = 5.5
SEISMIC RESPONSE COEFFICIENT (Cs):	STRENGTH DESIGN: 0.18 g (NORT-SOUTH AND EAST-WEST DIRECTION) DRIF DESIGN: 0.18 g (NORT-SOUTH AND EAST-WEST DIRECTION)
DESIGN BASE SHEAR (Vs):	STRENGTH DESIGN: 1302.36 kip (NORT-SOUTH AND EAST-WEST DIRECTION) DRIFT DESIGN: 1302.36 kip (NORT-SOUTH AND EAST-WEST DIRECTION)
BUILDING PERIODS:	NOURTH-SOUTH: T = 0.74 s EAST-WEST T = 0.73 s

E. INTERSTORY SEISMIC DRIFT: THE MAXIMUM INTERSTORY DRIFT BETWEEN ANY LEVEL AND THE LEVEL BELOW FOR THE BUILDING AS FOLLOWS, AT DESIGN EARTHQUAKE LEVEL

	SEISMIC (FACTORED BASIS)	
LEVEL	N-S	E-W
	Δ (INCH)	Δ (INCH)
ROOF	3.10	2.82
L2	3.10	2.91

F. PERIMETER FRAMING DEFLECTION:

1. UNDER DESIGN LIVE LOADS:
   A. PERIMETER BEAMS WILL DEFLECT A MAXIMUM OF 3/8" TYPICAL

G. SLAB DEFLECTION FOR DESIGN INTERIOR PARTITION WALL HEAD DETAILS: 3/4" MAX.

H. FOUNDATION DESIGN CRITERIA:

1. THE FOUNDATION DESIGN IS BASED ON CRITERIA AND RECOMMENDATIONS IN THE "GEOTECHNICAL EVALUATION AND GELOGIC HAZARDS ASSESSMENT, LAS POSITAS COLLEGE - STEAM BUILDING, 3000 CAMPUS HILL DRIVE, LIVERMORE, CALIFORNIA", DATED NOVEMBER 22, 2023, PROJECT #401294038, BY NINYO & MOORE. INCLUDING UPDATES.
2. FOUNDATION BEARING CAPACITIES.
   a. ALLOWABLE BEARING PRESSURES FOR SHALLOW FOOTINGS:
      WALL FOOTINGS: 2,000 PSF (ASD)
      COLUMN FOOTINGS: 2,000 PSF (ASD) - BEARING DEPTH 2' TO 4'
      5,000 PSF (ASD) - BEARING DEPTH ≥ 4'. (MAX. 270 KIP)
      THE ABOVE VALUES MAY BE INCREASED BY ONE-THIRD FOR WIND OR SEISMIC LOAD CASES.
   b. DRILLED PIERS:
      SKING FRICTION: 60 PSF/FT OF DEPTH (DOWNWARD)
      40 PSF/FT OF DEPTH (UPWARD)
      THE ABOVE VALUES MAY BE INCREASED BY ONE-THIRD FOR WIND OR SEISMIC ALTERNATIVE BASIC LOAD COMBINATIONS.
3. FOUNDATION LATERAL AND UPLIFT CAPACITIES.
   a. LATERAL BEARING PRESSURE:
      LATERAL BEARING PRESSURE = 300 PSF PER FOOT OF DEPTH (ASD; DEAD AND LIVE)
      = 400 PSF PER FOOT OF DEPTH (ASD; DEAD, LIVE, AND WIND OR SEISMIC)
      NEGLECT TOP 12" DEPTH OF SOIL WHERE GROUND ADJACENT TO FOUNDATION IS NOT COVERED BY SLAB OR PAVEMENT.
   b. FRICTION AT BASE OF FOOTING:
      fs = 0.35 FOR FOOTINGS.
   c. UPLIFT RESISTANCE:
      WEIGHT OF MATERIAL ABOVE A PLANE RISING UP AND AWAY FROM THE BOTTOM EDGES OF THE FOOTINGS AT 20° OFF PLUMB IS CONSIDERED, ALONG WITH THE WEIGHT OF THE FOOTING, IS CONSIDERED FOR UPLIFT RESISTANCE. A UNIT WEIGHT OF 120 PCF FOR SOIL OR AGGREGATE AND 150 PCF FOR NORMAL WEIGHT CONCRETE IS USED.

I. GROUND WATER TABLE ELEVATION = 46.5' BELOW GRADE SURFACE

J. NONSTRUCTURAL SEISMIC DESIGN FOR SEISMIC DEMANDS ON ARCHITECTURAL, MECHANICAL,OR ELECTRICAL COMPONENTS OF THE BUILDING THAT ARE PERMANENTLY INSTALLED IN, OR ARE AN INTEGRAL PART OF, A BUILDING SYSTEM, INCLUDING SEISMIC ANCHORAGE AND BRACING, THE FOLLOWING CRITERIA ARE TO BE USED:

1. IMPORTANCE FACTOR (I_p)
   Ip = 1.5 FOR COMPONENTS REQUIRED TO FUNCTION FOR LIFE-SAFETY PURPOSES AFTER AN EARTHQUAKE, INCLUDING FIRE PROTECTION SPRINKLER SYSTEMS AND EGRESS STAIRWAYS.
   Ip= 1.0 FOR OTHER CASES

CONCRETE

A. REINFORCING STEEL

1. ALL BARS, U.O.N.: ASTM A615, GR 60 OR ASTM A706, DEFORMED, U.O.N. AS FOLLOWS:
   a. ASTM A706, GR 60 AT FOUNDATION REINFORCEMENT.
   b. EPOXY-COATED REINFORCEMENT: ASTM A775 AND D3963, FABRICATE REINF. PRIOR TO COATING.
2. SPIRAL: ASTM A706, DEFORMED; OR ASTM A82, SMOOTH.
   a. AT SPLICE, LAP 40 DIAMETERS AND PROVIDE SEISMIC HOOK AT ENDS INTO CORE.
   b. AT ENDS, PROVIDE TWO FINISHING TURNS AND SEISMIC HOOK AT END INTO CORE.
3. WELDED WIRE FABRIC: ASTM A185.
   a. AT LAP SPLICE, OVERLAP CROSSING WIRES 6" MINIMUM.
4. HEADED BARS:
   a. WHERE HEADED BARS ARE SHOWN, CONFORM TO ASTM A970.
   b. HEADED BARS OR ICC APPROVED MECHANICAL "TERMINATORS", SUCH AS HRC 555(ESR-2935), WILL BE PERMITTED TO BE SUBSTITUTED FOR HOOKS AT OTHER LOCATIONS AT CONTRACTOR'S OPTION, SUBJECT TO APPROVAL OF UNIVERSITY'S REPRESENTATIVE AND DSA.
5. MECHANICAL BAR SPLICES: COVER AND CLEARANCE REQUIREMENTS SHALL BE MAINTAINED AT BAR COUPLERS.
   a. WHERE MECHANICAL SPLICES ARE SHOWN, PROVIDE TYPE 1 COUPLERS, U.O.N.
   b. MECHANICAL SPLICES WILL BE PERMITTED AT OTHER LOCATIONS AT CONTRACTOR'S OPTION, SUBJECT TO APPROVAL OF UNIVERSITY'S REPRESENTATIVE FOR LOCATION AND TYPE OF COUPLER.
   c. ALL SPLICES AT GRADE 80 REINF SHALL BE MECHANICAL SPLICES.
6. CONCRETE MIXES: SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

MIX	USE	MIN. STRENGTH	AGG. SIZE	SLUMP
A	FOUNDATION ELEMENTS INCLUDING SPREAD FOOTINGS, GRADE BEAMS, ELEVATOR PITS, AND SUMP PITS	4,000 PSI	SIZE 57 OR 67	5"
A-EC	ALTERNATIVE MIX DESIGN FOR MIX "A"	4,000 PSI	SIZE 57 OR 67	6"
B	SLAB-ON-GROUND, NORMAL-WEIGHT CONCRETE FILL OVER STEEL DECK, CURBS, EQUIPMENT PADS, STAIR PAN FILLS, AND MISCELLANEOUS CONCRETE.	4,000 PSI	SIZE 57	6"

POST-INSTALLED ANCHORS

WHEN INSTALLING DRILL-IN ANCHORS AND/OR POWDER DRIVEN PINS IN EXISTING, NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. CLEARANCE OF 1" BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND / OR PIN IS REQUIRED.

A. DRILLED DOWELS

1. USE ONLY ADHESIVE ANCHOR SYSTEMS THAT HAVE ISSUED AN ICC-ES REPORT IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC308. ANCHOR SYSTEMS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE. FOR ADHESIVE ANCHORS, WHERE OTHER THAN BOND IS BEING TESTED, THE TESTING APPARATUS SHALL NOT BE LOCATED WITHIN 1.5 TIMES THE ANCHOR'S EMBEDMENT DEPTH TO AVOID RESTRICTING THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURRING.
   a. HIT RE500-V3 ADHESIVE ANCHORING SYSTEM, HILTI, INC. (ICC ESR-3814), OR EQUAL.
   b. SET-XP EPOXY ADHESIVE, SIMPSON STRONG-TIE CO. (ICC ESR-2508), OR EQUAL.
2. TESTING PROCEDURE:
   a. A HYDRAULIC CYLINDER SHALL BE USED TO APPLY THE TENSION LOAD TO THE ANCHOR WITH THE CYLINDER SUPPORTED ON A LOADING PLATE HAVING A HOLE DIAMETER EQUAL TO (1.5) TO (2.0) TIMES THE ANCHOR HOLE DIAMETER.
   b. ANCHORS SHALL BE TESTED TO SCHEDULED TENSION TEST LOAD VALUES LISTED IN DETAIL 16-S3.00 .
3. FREQUENCY:
   a. THE SPECIAL INSPECTOR WILL TEST 50% OF ANCHORS IN NON-STRUCTURAL APPLICATIONS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF OF THE ANCHORS IN EACH GROUP SHALL BE TESTED.
   b. THE SPECIAL INSPECTOR WILL TEST 100% OF ANCHORS IN STRUCTURAL APPLICATIONS.
4. ACCEPTANCE CRITERIA:
   a. ANCHOR SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF (15) SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST. TWO WAYS TO DETERMINE DISCERNABLE MOVEMENT ARE:
      i. LOOSENING OF WASHER UNDER THE NUT.
      ii. CONTINUOUS LOSS OF JACKING PRESSURE.
   b. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME CATEGORY, NOT PREVIOUSLY TESTED, SHALL BE TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS THE TEST REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. THE INITIAL TESTING FREQUENCY SHALL THEN BE RESUMED.

B. EXPANSION ANCHORS

1. EXPANSION ANCHORS SHALL BE LIMITED TO:
   a. KWIK BOLT TZ2, BY HILTI (ESR-4266).
   b. STRONG BOLT 2, BY SIMPSON STRONG TIE (ESR-3037).
   c. POWER-STUD + SD2/SD4 BY POWERS FASTENERS (ESR-2502).
   d. TRUBOLT + WEDGE ANCHOR, BY ITW RED HEAD (ESR-2251).
2. TESTING PROCEDURE:
   a. ALL TEST EQUIPMENT (INCLUDING TORQUE WRENCHES) IS TO BE CALIBRATED BY AN APPROVED TESTING AGENCY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
   b. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION.
   c. TEST ANCHORS TO SCHEDULED INSTALLATION TORQUE WITH A CALIBRATED TORQUE WRENCH IN THE PRESENCE OF THE INSPECTOR OF RECORD.
   d. FIELD TEST ANCHORS BY THE TORQUE WRENCH METHOD TO THE SCHEDULED LOADS IN ACCORDANCE WITH SPECIFICATIONS. ANCHOR SIZES NOTED AS "N.A." ARE EITHER NOT PROVIDED BY THE MANUFACTURER OR ARE NOT VALID ANCHORS FOR USE IN CRACKED CONCRETE CONDITIONS AND SHOULD NOT BE USED.
3. THE USE OF ZINC-COATED CARBON STEEL ANCHORS IS LIMITED TO DRY, INTERIOR LOCATIONS. POST-INSTALLED ANCHORS EXPOSED TO WEATHER SHALL BE STAINLESS STEEL.

INSTALLATION TORQUE SCHEDULE: CARBON STEEL [STAINLESS STEEL]					
ANCHOR DIAMETER (IN)	1/4	3/8	1/2	5/8	3/4
STRONG-BOLT 2 TORQUE (FT LBS)	4	30	60	90	150
KWIK BOLT TZ2 TORQUE (FT LBS)	4	30	50	40	110
POWER-STUD + TORQUE (FT LBS)	N.A.	20	40	60	110
TRUBOLT + TORQUE (FT LBS)	4	25	55	N.A.	N.A.

3. FREQUENCY:
   a. THE SPECIAL INSPECTOR WILL TEST 50% OF ANCHORS IN NON-STRUCTURAL APPLICATIONS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF OF THE ANCHORS IN EACH GROUP SHALL BE TESTED.
   b. THE SPECIAL INSPECTOR WILL TEST 100% OF ANCHORS IN STRUCTURAL APPLICATIONS.
4. ACCEPTANCE CRITERIA:
   a. ANCHORS SHALL REACH THE SPECIFIED TORQUE WITHIN ONE-HALF TURN OF THE NUT.
   b. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME CATEGORY, NOT PREVIOUSLY TESTED, SHALL BE TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS THE TEST REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. THE INITIAL TESTING FREQUENCY SHALL THEN BE RESUMED.

STEEL

A. W-SHAPES: ASTM A992.
B. ANGLES, CHANNELS, BENT PLATE SLAB EDGE FORMS : ASTM A36, U.O.N.
C. PLATE: ASTM A572, GRADE 50 TYPICAL; ASTM A36 WHERE NOTED.
D. SQUARE, AND RECTANGULAR TUBES: ASTM A500, GRADE C.
E. ROUND TUBES: ASTM A500, GRADE C.
F. PIPES: ASTM A53, TYPE E, GRADE B, TYP. U.O.N. ASTM A53, TYPE S, GRADE B FOR AESS SHAPES.
G. HIGH STRENGTH BOLTS: ASTM A325, U.O.N. BOLTS ARE INSTALLED AS PRETENSIONED, U.O.N. IF CONTRACTOR CHOOSES TO USE TWIST-OFF TENSION-CONTROL TYPE BOLTS, ASTM F1852 MAY BE SUBSTITUTED FOR ASTM A325.
H. MACHINE BOLTS AND THRU-BOLTS: ASTM A307 GRADE A.
I. STANDARD ANCHOR BOLTS: ASTM F1554, GRADE 36, U.O.N.
J. HIGH STRENGTH ANCHOR BOLTS: ASTM F1554, GRADE 105.
K. SHEAR CONNECTOR STUDS: AWS D1.1, TYPE B, AUTOMATICALLY END WELDED.
L. WELDING:
   1. ELECTRODES: E70XX
   2. SEISMIC LOAD RESISTING SYSTEM (SLRS) WELDS: ALL WELDED CONNECTIONS THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM (SFRS) ARE DEMAND CRITICAL WELDS (DCW) AND SHALL BE CAPABLE OF PRODUCING WELDS (SEE SPECIFICATIONS) WITH CHARPY V-NOTCH (CVN) TOUGHNESS AS FOLLOWS:
      a. 40 MIN. FT-LBS AT 70 DEG. F AS DETERMINED BY AWS D1.8, ANNEX A
      b. 20 FT-LBS AT 0 DEG. F, PER AWS A5.
   3. ALL WELDS AT THE FOLLOWING LOCATIONS SHALL BE CONSIDERED DEMAND CRITICAL WELDS:
      a. MOMENT FRAME COLUMN SPLICES AND BASE PLATE CONNECTIONS.
      b. MOMENT FRAME BEAM-TO-COLUMN CONNECTIONS.
      c. COLLECTOR BEAM END CONNECTIONS.
      d. CONNECTIONS AS DESIGNATED ON DRAWINGS.
M. U.O.N., STEEL ELEMENTS AT EXTERIOR LOCATIONS ARE HOT DIPPED GALVANIZED INCLUDING AESS CONNECTORS. AESS MEMBERS ARE NOT HOT-DIPPED GALVANIZED; SEE SPECIFICATIONS FOR PRIMER REQUIREMENTS. PROVIDE GALVANIZING RELIEF HOLES AS REQUIRED, AND FILL WITH FREEZE PLUGS.

METAL DECK

A. ASTM A653, GRADE 33, GALVANIZED G60 AT INTERIOR, G90 AT EXTERIOR.
B. SHEAR CONNECTOR STUDS: AWS D1.1, AUTOMATICALLY END WELDED TO PROVIDE COMPLETE FUSION BETWEEN END OF STUD AND STEEL MEMBER, AS-WELDED SIZE AS NOTED.

STRUCTURAL STEEL FRAMING NOTES

A. CODE: COMPLY WITH ANSI / AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", 2016, FOR ALL TOLERANCES, SPACINGS, MINIMUM WELD SIZES, AND OTHER DETAILS NOT NOTED OR SHOWN.

B. CONNECTIONS: USE CONNECTIONS DESIGNATED AS "TYPICAL" WHERE SPECIFIC CONNECTION DETAILS ARE NOT CALLED OUT. WHERE GEOMETRY OR OTHER CONDITIONS VARY FROM CONDITIONS OF THE TYPICAL CONNECTIONS, PROVIDE SIMILAR CONNECTIONS OF EQUAL STRENGTH.

C. OPENINGS: FOR FRAMING AT OPENINGS NOT NOTED ON PLANS, SEE TYPICAL DETAILS.

D. COMPOSITE CONSTRUCTION: ALL STEEL BEAMS, JOISTS AND GIRDERS SHALL HAVE WELDED STUDS U.O.N.

CONTRACTOR FURNISHED DESIGN (OR DELEGATED DESIGN)

THE CONTRACTOR SHALL EMPLOY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF CALIFORNIA, TO PREPARE A FULLY ENGINEERED DESIGN IN ACCORDANCE WITH THE REFERENCED REQUIREMENTS, DRAWINGS, SPECIFICATIONS. THE CALCULATIONS SHALL BE STAMPED BY THE PROFESSIONAL ENGINEER. S.A.D. FOR A COMPLETE LIST OF DEFERRED APPROVAL ITEMS.

HAZARDOUS MATERIALS

RUTHERFORD & CHEKENE ASSUMES NO RESPONSIBILITY FOR THE MANAGEMENT OF HAZARDOUS MATERIALS THAT MAY BE ON THE SITE.

A. RUTHERFORD & CHEKENE HAS NOT PERFORMED INVESTIGATIONS TO DETERMINE THE PRESENCE OF HAZARDOUS MATERIALS. THE UNIVERSITY WILL PROVIDE THE RESULTS OF SUCH INVESTIGATIONS IF THEY HAVE BEEN PERFORMED.

B. THE CM/CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT PERSONNEL WITHIN THE WORK AREA ARE PROTECTED FROM EXPOSURE TO HAZARDOUS MATERIALS. IF HAZARDOUS MATERIALS ARE DISCOVERED, THE CM/CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UNIVERSITY'S REPRESENTATIVE AND CEASE WORK UNTIL CONDITIONS CAN BE MAINTAINED IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

STRUCTURAL STEEL FINISHES

ALL STRUCTURAL STEEL SHALL BE UNFINISHED EXCEPT AS NOTED BELOW:

SCOPE	FINISH	SPECIFICATION REFERENCE (PRIMER)	SPECIFICATIONS REFERENCED BY ARCHITECT (FINISH)
EXTERIOR BUILDING CANOPY	HOT-DIPPED GALVANIZED	-	05 12 00
STAIR 1, STAIR 2, AND STAIR 3 INCLUDING HANDRAILS AND GUARDRAILS	INTERIOR PAINTING / HP COATING	05 12 00	05 71 00 / 05 73 00 / 09 91 23
EXPOSED STRUCTURAL STEEL	INTERIOR PAINTING	05 12 00	05 12 00 / 09 91 23

STRUCTURAL OBSERVATION

THE PROJECT STRUCTURAL ENGINEER WILL PERFORM STRUCTURAL OBSERVATION IN ACCORDANCE WITH SECTION 1704A OF THE CALIFORNIA BUILDING CODE. STRUCTURAL OBSERVATION WILL CONSIST OF VISITS AT THE FOLLOWING STAGES OF CONSTRUCTION.

1. AFTER PLACEMENT OF REINFORCEMENT AND ANCHOR RODS, AND PRIOR TO CONCRETE PLACEMENT FOR BUILDING FOUNDATION.
2. AFTER STRUCTURAL STEEL ERECTION AND DURING WELD-OFF. INCLUDES OBSERVATION OF REINFORCEMENT AND SHEAR CONNECTOR STUDS.
3. UPON COMPLETION OF WELD OF STRUCTURAL FRAME.
4. DURING FIT-OUT TO OBSERVE MISCELLANEOUS CONDITIONS.

STRUCTURAL TESTING AND INSPECTION.

A. TESTING AND INSPECTION SHALL BE PERFORMED PER DSA-APPROVED TESTING AND INSPECTION PROGRAM.
B. REFER TO DSA APPROVED TEST AND INSPECTION FROM DSA 103-22: LISTING OF STRUCTURAL TESTS & INSPECTIONS, 2022 CBC.

Author

8/21/2025 5:07:44 PM

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		05JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE

GENERAL NOTES

2023-045S

PROJECT NUMBER

S0.02

SHEET NUMBER

GENERAL WIND DESIGN CRITERIA (STEAM BUILDING)	
BASIC WIND SPEED	99 MPH (LRFD LEVEL)
RISK CATEGORY	III (TYP) - III (STEAM BUILDING)
EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT	±0.18
VELOCITY PRESSURE @ MEAN ROOF HT. = qh	21.24 psf

LRFD WIND PRESSURES FOR EXTERIOR WALLS AND ROOF - COMPONENTS AND CLADDING

COMPONENTS AND CLADDING - ROOF

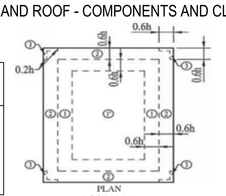
ASCE 7-16 - CHAPTER 30 - PART 1 (LOW RISE) - FIG. 30.3-2A

FOR ROOF WIND PRESSURES:

MEAN ROOF HEIGHT, h = 32 FT 0.6h = 19.2 FT; 0.2h = 6.4 FT

VELOCITY PRESSURE COEFF. @ HT. h = K_h = 1.00

VELOCITY PRESSURE AT HT. h = q_h = 21.24 PSF



ROOF PLAN

COMPONENTS AND CLADDING FOR ROOF	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
AWAY FROM ROOF SURFACE - NET NEGATIVE PRESSURES (OUTWARD)	PW [PSF]	PW [PSF]
ZONE 1'	22.9	16.0
ZONE 1	39.9	25.1
ZONE 2	52.7	33.6
ZONE 3	71.8	33.6

COMPONENTS AND CLADDING FOR ROOF	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
TOWARD ROOF SURFACE - NET POSTIVE PRESSURES (INWARD)	PW [PSF]	PW [PSF]
ALL ZONES	16.0	16.0

COMPONENTS AND CLADDING - WALLS

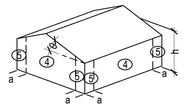
ASCE 7-16 - CHAPTER 30 - PART 1 (LOW RISE) - FIG. 30.3-1

FOR WALL WIND PRESSURES:

VELOCITY PRESSURE COEFF. @ HT. h = K_h = 1.00

VELOCITY PRESSURE AT HT. h = q_h = 21.2 PSF

WALL PROJECTION	HORIZ. DIM. NORMAL TO WIND	HORIZ. DIM. PARALLEL TO WIND	EDGE STRIP
	B [FT.]	L [FT.]	a [FT.]
NORTH/SOUTH	302	135	12.8
EAST/WEST	135	302	12.8



WALL ELEVATION

COMPONENTS AND CLADDING FOR WALLS	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
WINDWARD WALL - NET NEGATIVE PRESSURES (INWARD)	PW [PSF]	PW [PSF]
ZONE 4	22.9	17.2
ZONE 5	22.9	17.2

COMPONENTS AND CLADDING FOR WALLS	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
LEEWARD WALL - NET POSITIVE PRESSURES (OUTWARD)	PW [PSF]	PW [PSF]
ZONE 4	24.8	19.1
ZONE 5	30.6	19.1

COMPONENTS AND CLADDING FOR PARAPETS	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
WINDWARD WALL - NET NEGATIVE PRESSURES (INWARD)	PW [PSF]	PW [PSF]
ZONE 2	70.3	44.6
ZONE 3	90.0	44.6
LEEWARD WALL - NET POSITIVE PRESSURES (OUTWARD)	PW [PSF]	PW [PSF]
ZONE 4	41.5	29.6
ZONE 5	47.4	29.6

COMPONENTS AND CLADDING - AWNINGS AND CANOPIES

ASCE 7-16 - CHAPTER 30.11 - FIG. 30.11-1A

FOR MEAN CANOPY HEIGHT (ft) = 11.5

VELOCITY PRESSURE AT HT. h = q_h = 21.24 PSF

CONSIDERING UPPER AND LOWER SURFACES SEPARATELY:	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
NEGATIVE PRESSURE (AWAY FROM SURFACE):		
UPPER SURFACE:	23.4	16.0
LOWER SURFACE:	17.0	16.0
POSITIVE PRESSURE (TOWARDS SURFACE):		
UPPER & LOWER SURFACE:	17.0	16.0
CONSIDERING BOTH SURFACES SIMULTANEOUSLY:	EFFECTIVE WIND AREA = 10 S.F.	EFFECTIVE WIND AREA = 500 S.F.
NEGATIVE PRESSURE (UPLIFT):	16.0	16.0
POSITIVE PRESSURE (DOWNWARD):	19.1	16.0

NOTES:

1. EFFECTIVE WIND AREA FOR THE COMPONENT BEING CONSIDERED SHOULD BE TAKEN AS SPAN LENGTH TIMES EFFECTIVE WIDTH, WHERE EFFECTIVE WIDTH NEED NOT BE LESS THAT 1/3 THE SPAN LENGTH, TYPICAL FOR WINDWARD AND LEEWARD PRESSURES.
2. THE PRESSURES NOTED ABOVE ARE LISTED PER CBC SECTION 1603A.1.4. THE CLADDING MANUFACTURER SHALL PROVIDE SUBMITTALS THAT INCLUDE CALCULATIONS FOR THE WIND PRESSURES USED IN THE DESIGN OF THEIR CLADDING AND COMPONENTS.
3. TABULATED WIND PRESSURES ARE AT LRFD LEVEL.

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SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
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SHEET TITLE

GENERAL NOTES

2023-045S

PROJECT NUMBER

S0.03

SHEET NUMBER

TABLE 1 - FASTENERS AND CONNECTORS

NOTES: SEE SECTION AND DETAILS FOR LOCATIONS AND NUMBER OF CONNECTIONS				
CONNECTOR TYPE	SUBTRATE	DESCRIPTION	PRODUCT	NOTED ON PLANS AS
SCREWS	METAL TRACK	PAN HEAD	SIMPSON SELF-DRILLING SCREWS PER ESR-3006 OR EQUAL.	SMS, SIZE AS NOTED ON PLANS
	STUD-TO-STUD	HEX HEAD OR PAN HEAD	SIMPSON SELF-DRILLING SCREWS PER ESR-3006 OR EQUAL.	SMS, SIZE AS NOTED ON PLANS
PAF'S (POWDER ACTUATED FASTENERS)	STRUCTURAL STEEL	0.157" DIA	SIMPSON PDPA PER ESR-2138	PAF
PAF'S (POWDER ACTUATED FASTENERS)	CONCRETE	0.157" DIA x 1 1/4" EMBED	SIMPSON PDPA PER ESR-2138	PAF
MECHANICAL ANCHORS	CONCRETE	3/8" DIA x 2 1/2" EMBED	SIMPSON TITEN HD PER ESR-2713	SCREW ANCHOR
MECHANICAL ANCHORS	CONCRETE	3/8" DIA x 2 5/16" EMBED	SIMPSON STRONG-BOLT 2 PER ESR-3037	EXP ANCHOR

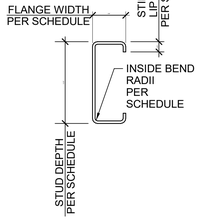
FASTENERS AND CONNECTOR NOTES

1. ALL FASTENERS SHALL BE THE MIN. SIZES AND EMBEDMENTS OF THE ABOVE CHART UON IN THE PLANS.
2. ALL FASTENERS SHALL BE INSTALLED IN ACCORD WITH THE NOTED ESR REPORT AND THE REQUIREMENTS OF THE GOVERNING AUTHORITY. TEST LOADS SHALL BE PER MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE BASED ON APPROVED ESR REPORT. FOR TORQUE TESTING OF SCREW ANCHORS, CALIBRATED TORQUE WRENCH SHALL ATTAIN THE ESR REPORT'S SPECIFIED TORQUE WITHIN ONE-QUARTER (1/4) TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.
3. SCREWS LISTED IN THE ABOVE CHART SHALL BE SUFFICIENT LENGTH TO ENSURE PENETRATION INTO STEEL STUD BY AT LEAST 3 FULL DIAMETER THREADS
4. FOR MECHANICAL ANCHORS, THE EMBEDMENT LISTED IN THE ABOVE CHART IS THE NOMINAL EMBEDMENT, h_{nom} :



STUD PROPERTIES

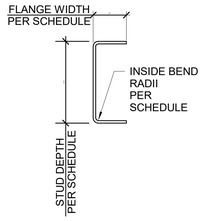
MINIMUM REQUIRED STIFFENING LIP LENGTH	
FLANGE WIDTH MIN.	STIFFENING LIP LENGTH (in.)
1 1/4"	0.188"
1 3/8"	0.375"
1 5/8"	0.500"
2"	0.625"
2 1/2"	0.625"
3"	0.625"
3 1/2"	1.000"



STUD / TRACK DEPTH	
1 5/8"	1.625"
2 1/2"	2.500"
3 5/8"	3.625"
4"	4.000"
6"	6.000"
8"	8.000"

INSIDE BEND RADII PER MATERIAL THICKNESS	
33 MIL	0.0764"
43 MIL	0.0712"
54MIL	0.0849"
68 MIL	0.1069"
97 MIL	0.1525"
118 MIL	0.1863"

TRACK PROPERTIES



TRACK FLANGE WIDTH	
1"	1.000"
1 1/4"	1.250"
1 1/2"	1.500"
2"	2.000"
2.5"	2.500"
3"	3.000"

INSIDE BEND RADII PER MATERIAL THICKNESS	
33 MIL	0.0764"
43 MIL	0.0712"
54MIL	0.0849"
68 MIL	0.1069"
97 MIL	0.1525"
118 MIL	0.1863"

PROTECTED ZONE

1. THIS PROJECT INCLUDES STRUCTURAL STEEL MEMBERS THAT ARE PART OF THE LATERAL SEISMIC SYSTEM OF THE MAIN BUILDING STRUCTURE THAT HAVE PROTECTED ZONES. THE PROTECTED ZONES ARE IDENTIFIED IN THE STRUCTURAL PLANS. NO CONNECTIONS OF ANY KIND (WELDS OR SHOT PINS) ARE ALLOWED TO BE MADE TO THESE PROTECTED ZONES. THE CONTRACTOR NEEDS TO BECOME FAMILIAR WITH THE LOCATIONS OF THESE PROTECTED ZONES PRIOR TO START OF CONSTRUCTION.
2. WE HAVE DETAILED THE FRAMING CONNECTIONS IN THESE DRAWINGS TO AVOID THE PROTECTED ZONE LOCATIONS. HOWEVER, SHOULD THESE DRAWINGS BE INTERPRETED TO REQUIRE A CONNECTION AT A PROTECTED ZONE, DO NOT DO SO. CONTACT SEOR FOR DIRECTION.

WINDOW FRAMING COORDINATION

1. EXTERIOR WALL SYSTEMS FREQUENTLY CONTAIN WINDOWS AND WINDOW FRAMING SYSTEMS THAT ARE DESIGNED AND INSTALLED BY OTHER PARTIES. THESE DRAWINGS SHOULD BE PROVIDED TO THESE PARTIES AND REVIEWED PRIOR TO CONSTRUCTION. ISSUES REVIEWED SHOULD INCLUDE COMPATIBILITY OF THE WINDOW SYSTEM WITH RESPECT TO INTER STORY DRIFT REQUIREMENTS. WHERE WINDOWS ARE CONTAINED WITHIN STUD FRAMING, THE STUD FRAMING SYSTEM IS DESIGNED TO SUPPORT THE WINDOW AT TOP AND BOTTOM ONLY. CONNECTIONS DIRECTLY TO THE JAMB STUDS ARE NOT ANTICIPATED UNLESS NOTED ON THE DETAILS.

WELDING SHEET STEEL

1. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS D1.3.
   a. FOLLOW PROPER PRECAUTIONS AND PROCEDURES FOR WELDING TO GALVANIZED STEEL.
2. WELDING ELECTRODES SHALL CONFORM TO THE FOLLOWING:
   a. 54 MIL AND HEAVIER E70XX
   b. 43 MIL AND LIGHTER E60XX
   c. TO STRUCTURAL STEEL E70XX LOW HYDROGEN
3. WELDS SHALL BE FILLET WELDS OR FLARE GROOVE WELDS WITH THE FOLLOWING NOMINAL SIZES, BASED ON THINNER CONNECTED PART:
   a. 54 MIL AND HEAVIER 1/8 INCH
   b. 43 MIL 3/32 INCH
   c. 30 MIL 1/16 INCH
4. REPAIR FRAMING MEMBERS BURNED THROUGH BY WELDING BY APPLICATION OF SUITABLE STITCH PLATES PER DTLS.

GENERAL

1. ALL MATERIALS AND WORKMANSHIP TO CONFORM TO TITLE 24 PART 1 & 2 OF THE 2022 CALIFORNIA BUILDING CODE (CBC).
2. GENERAL NOTES AND TYPICAL DETAILS APPLY TO DRAWINGS UNLESS OTHERWISE NOTED. SPECIFIC NOTES AND DRAWING DETAILS TAKE PRECEDENCE OVER THESE GENERAL NOTES AND TYPICAL DETAILS.
3. STRUCTURAL DRAWINGS ARE INTENDED ONLY TO IDENTIFY FRAMING MEMBER SIZES AND CONNECTION DETAILS. REFER TO ARCHITECTURAL DRAWINGS FOR WALL CONFIGURATION, DIMENSIONS, AND ACCESSORIES REQUIRED FOR A COMPLETE AND ROPER INSTALLATION.
4. SEE S9.01-S9.44 FOR ADDITIONAL NOTES FOR INTERIOR PARTITION WALLS.

DESIGN CRITERIA

1. DESIGN LOADS (WIND AND SEISMIC): REFER TO SHEETS 2-S0.03
2. DESIGN STORY DRIFT (SEISMIC) REFER TO SHEET 1-S0.02.
3. VERTICAL DEFLECTION ALLOWANCE:
   a. 1/2" @ OTHER EXTERIOR WALLS.
   b. 3/4" @ INTERIOR PARTITION WALLS.
4. LATERAL LOAD DEFLECTION CRITERIA:
   a. CEMENT PLASTER: SPAN/ 360, TYP.
   b. METAL PANELS: SPAN/ 240, TYP.
   c. BRICK VENEER CLADDING: SPAN/ 600, TYP.
   d. INTERIOR PAINTED WALLS: SPAN/180, TYP.

COLD FORMED FRAMING MEMBERS

1. FRAMING MEMBERS ARE DESIGNATED USING SSMA STANDARD NOMENCLATURE. REFER TO "LEGEND" FOR DESCRIPTION.

DESIGNATED THICKNESS (MILS)	STANDARD GAGE NO.
118	10
97	12
68	14
54	16
43	18
33	20

2. FRAMING MEMBERS SHALL CONFORM TO REQUIREMENTS OF ICC EVALUATION SERVICE "ACCEPTANCE CRITERIA FOR COLD FORMED FRAMING MEMBERS" (AC46) AS EVIDENCED BY ACTIVE ICC EVALUATION SERVICE REPORT.
3. COLD FORMED FRAMING SHALL BE MANUFACTURED BY AN SSMA MEMBER OR OTHER APPROVED MANUFACTURER WITH A CURRENT ICC EVALUATION REPORT.
4. SHEET STEEL SHALL CONFORM TO THE FOLLOWING:
   a. 54 MIL AND HEAVIER: 50 KSI MIN YIELD, 65 KSI MIN TENSILE. ASTM A1003, ST50H OR APPROVED EQUAL.
   b. 43 MIL AND LIGHTER: 33 KSI MIN YIELD, 45 KSI MIN TENSILE. ASTM A1003, ST33H OR APPROVED EQUAL.
5. EXCEPT AS OTHERWISE DESIGNATED ON DRAWINGS, MEMBERS SHALL CONFORM TO THE FOLLOWING:
   a. STUDS: PER DETAILS.
   b. TRACK: PER DETAILS.
6. PUNCHED STUDS: UTILITY PUNCH HOLES IN STUD WEBS SHALL BE MANUFACTURER'S STANDARD. SEE 4-S9.05.
   a. HOLES SHALL BE LOCATED AWAY FROM CONNECTIONS. HOLES SHALL BE LOCATED A MINIMUM OF 10 INCHES FROM ENDS OF MEMBER.
   b. OPENINGS IN STUD WEBS, OTHER THAN MANUFACTURER'S STANDARD, ARE PROHIBITED UNLESS SHOWN ON DRAWINGS OR APPROVED BY OWNER'S REPRESENTATIVE AND DSA.
   c. WHERE STUD TYPE MEMBERS ARE USED FOR OTHER USES, SUCH AS BUILT UP HEADERS, MEMBERS SHALL BE UNPUNCHED.
7. TOP TRACK: SPLICE EXTERIOR TOP TRACK USING TYPICAL DETAILS PROVIDED.
8. RIM TRACK: SPLICE RIM TRACKS USING TYPICAL DETAILS PROVIDED.
9. BRIDGING: BRIDGING IS REQUIRED FOR LATERAL AND ROTATIONAL BRACING OF STUDS.
10. WHERE SLOTTED TRACK IS INDICATED IN THE PLANS, USE CEMCO (CST)/SLP-TRK ESR-2012 OR APPROVED EQUAL.

FINISH COORDINATION

1. THESE DRAWINGS ONLY DEPICT THE COLD FORMED STEEL FRAMING THAT IS DESIGNED TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE FINISHES APPLIED TO THIS FRAMING AND FASTENING THEREOF ARE SPECIFIED AND DESIGNED BY OTHERS AND ARE BEYOND THE SCOPE OF THESE DRAWINGS. THE ADEQUACY OF THE FRAMING TO RECEIVE FINISH ATTACHMENTS MUST BE EVALUATED BY THOSE DESIGNING THE FINISHES.
2. THESE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

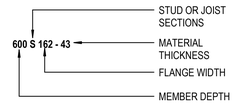
DESIGN ACCOMMODATION OF STORY DRIFT AT EXTERIOR ELEMENTS

1. EXTERIOR WALL PANELS ARE DESIGNED TO ACCOMMODATE INTERSTORY DRIFT BY MEANS OF SLIDING CONNECTIONS AND/OR BENDING OF STEEL. IF SLIDING CONNECTIONS ARE USED CARE MUST BE TAKEN TO PREVENT BINDING OF THE SLIDING MECHANISM. OCCASIONALLY TEMPORARY CONNECTIONS PREVENTING SLIDING ARE REQUIRED FOR INSTALLATION. THESE TEMPORARY CONNECTIONS SHOULD BE REMOVED BEFORE FINISHES ARE COMPLETED. FASTENERS FROM FINISHES SHOULD BE INSTALLED IN SUCH A WAY THAT WOULD ALLOW MOVEMENT OF INTENDED SLIP CONNECTIONS.
2. DAMAGE TO THE EXTERIOR WALL PANELS IS EXPECTED DURING A MAXIMUM CONSIDERED EARTHQUAKE. PERPENDICULAR WALL INTERSECTIONS CANNOT ACCOMMODATE INTER STORY DRIFT THROUGH SLIDING CONNECTIONS WITHOUT LARGE VERTICAL JOINTS AT THE INTERSECTIONS. SINCE SUCH JOINTS ARE GENERALLY UNDESIRABLE THEY HAVE NOT BEEN SPECIFIED IN THESE DRAWINGS. DAMAGE AT THESE INTERSECTIONS IS EXPECTED DURING A MAXIMUM CONSIDERED EARTHQUAKE. THE DESIGN IS INTENDED TO ENSURE THAT THE CONNECTIONS DO NOT FAIL AND PREVENT THE ELEMENT FROM CARRYING THE APPLIED LOADS.

LEGEND

STANDARD STUD IDENTIFICATION (SSMA NOMENCLATURE)

STUD IDENTIFICATION SHALL BE AS SHOWN:



1-S0.02
1. MEMBER DEPTH:
   (EXAMPLE: 6"=600/100 INCHES)
   ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE TO INSIDE DIMENSION.
2. STYLE:
   (EXAMPLE: STUD OR JOIST SECTIONS=S)
   THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:
   S = STUD
   T = TRACK
   U = CHANNEL SECTIONS
   F = FURRING CHANNEL SECTIONS
3. FLANGE WIDTH:
   (EXAMPLE: 1 5/8"=1.625"=162x1/100 INCHES)
   ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.
4. MATERIAL THICKNESS:
   (EXAMPLE: 0.0541IN = 54MILS; 1 MIL. = 1/1000 IN.)
   MATERIAL THICKNESS IS THE MINIMUM BASE METAL THICKNESS IN MILS. MINIMUM BASE METAL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS.
   A. 118 MIL. (10GA) 0.1242"
   B. 97 MIL. (12GA) 0.1017"
   C. 68 MIL. (14GA) 0.0713"
   D. 54 MIL. (16GA) 0.0566"
   E. 43 MIL. (18GA) 0.0451"
   F. 33 MIL. (20GA) 0.0346"

SCREW FASTENERS

1. SCREWS SHALL BE SELF DRILLING TAPPING SCREWS THAT ARE ICC EVALUATION SERVICE APPROVED FOR USE IN ENGINEERED CONNECTIONS OF COLD-FORMED STEEL MEMBERS. SCREWS SHALL CONFORM TO ASTM C1513.
2. MINIMUM NOMINAL FASTENER STRENGTH OF SCREWS (DETERMINED BY TESTS) SHALL BE AS FOLLOW:

SIZE	SHEAR, P_{SS} (LB)	TENSION, P_{TS} (LB)
#8	1278	586
#10	1644	1158
#12	2330	2325

3. EXCEPT AS OTHERWISE DESIGNATED, SELECT HEAD STYLE BEST SUITED TO INSTALLATION CONDITIONS AND DRILL POINT SUITED TO MATERIAL THICKNESS, AS RECOMMENDED BY SCREW MANUFACTURER.
   a. SCREWS INSTALLED IN SLOTTED HOLES SHALL BE #14 SHOULDERED SCREW, AS MANUFACTURED BY SIMPSON-STRONG-TIE, PER ICC ESR-4294.
4. INSTALL SCREWS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. ENSURE PENETRATION INTO SHEET STEEL OF BY AT LEAST 3 FULL THREADS.
5. THE SPACING BETWEEN SCREWS SHALL NOT BE LESS THAN 3 SCREW DIAMETERS. THE DISTANCE FROM THE CENTER OF SCREW TO EDGE OF METAL SHALL NOT BE LESS THAN 1-1/2 SCREW DIAMETERS.

CONNECTIONS TO STRUCTURE

1. WELDING: CONFORM TO REQUIREMENTS FOR WELDING OF SHEET STEEL.
2. CONCRETE ANCHORS: USE ANCHOR TYPE DESIGNATED ON DRAWINGS, EXCEPT AS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
   a. SCREW ANCHORS: SIMPSON TITEN (ESR-2713), OR APPROVED EQUAL. EXCEPT AS OTHERWISE DESIGNATED, ANCHORS SHALL BE 3/8 INCH DIAMETER WITH MINIMUM NOMINAL EMBEDMENT LENGTH OF 2-1/2 INCHES AND MINIMUM EDGE DISTANCE OF 2-1/2 INCHES.
   b. EXPANSION ANCHORS: KWIK BOLT TZ2 BY HILTI (ESR-4266), OR APPROVED EQUAL. EXCEPT AS OTHERWISE DESIGNATED, ANCHORS SHALL BE 3/8 INCH DIAMETER WITH A MINIMUM NOMINAL EMBEDMENT LENGTH OF 2-3/8 INCHES.
   c. ANCHORS SHALL NOT BE INSTALLED IN HOLES WHERE REINFORCING BARS ARE ENCOUNTERED DURING DRILLING. RELOCATE ANCHORS MINIMUM 2 INCHES FROM ABANDONED HOLE.
3. POWDER DRIVEN FASTENERS (PDF/ PAF): KNURLED BALLISTIC POINT PINS WITH 0.157" DIA. SHANK, 0.30" HEAD AND MANUFACTURER'S STANDARD METAL "TOPHAT" WASHER. PINS SHALL BE SUITABLE FOR ATTACHMENT TO STRUCTURAL STEEL SUBSTRATE. X-U FASTENERS BY HILTI (ESR-2269), OR APPROVED EQUAL.
   a. THE SPACING BETWEEN PINS SHALL NOT BE LESS THAN 1 INCH IN STEEL. THE DISTANCE FROM THE CENTER OF PIN TO EDGE OF STEEL SHALL NOT BE LESS THAN 1 INCH. THE SPACING BETWEEN PINS IN CONCRETE SHALL NOT BE LESS THAN 4" AND THE MINIMUM EDGE DISTANCE SHALL NOT BE LESS THAN 3".

INSPECTION AND TESTING

1. SEE SHEET S0.02.

ABBREVIATIONS - COLD FORMED FRAMING

ICC-ESR INTERNATIONAL CODE COUNCIL EVALUATION SERVICE REPORT

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SEALS AND SIGNATURES



SHEET TITLE
COLD-FORMED STEEL FRAMING GENERAL NOTES

2023-045S
PROJECT NUMBER

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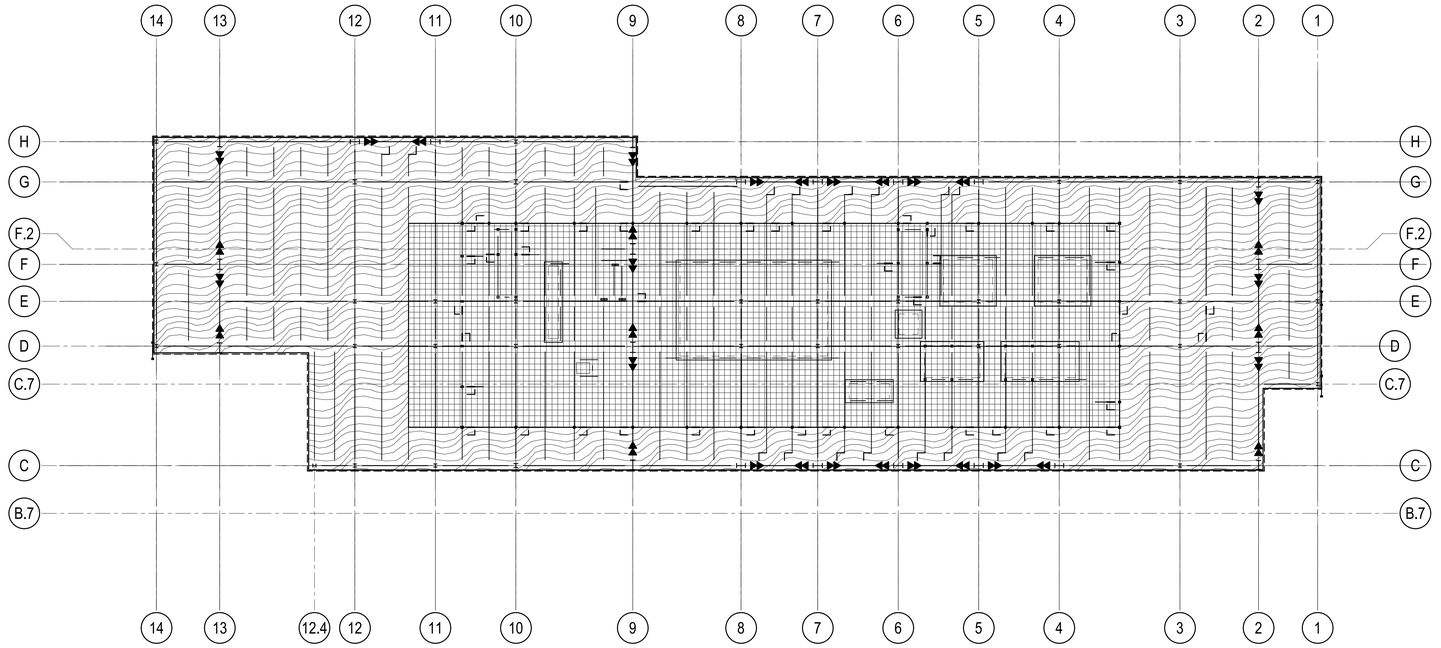


NOTE: SEE 1 FOR FLAT LOAD TABLE LEGEND.

ROOF FLAT LOAD PLAN 3

LOAD TABLES LEGEND

PLAN FILL PATTERN	FLOOR USAGE	SUPERIMPOSED DEAD LOAD GRAVITY/SEISMIC	LIVE LOAD	VIBRATION CRITERIA
	LABS, TEACHING LABS, LAB SUPPORT	119 PSF/ 119 PSF	60 PSF RED.	SENSITIVE EQUIP V<4,000 mips @ 75 steps/min
	CLASSROOMS / ART STUDIOS	119 PSF/ 119 PSF	50 PSF RED.	NON-LAB SPACE V<12,000 mips @ 126 steps/min
	OFFICE, PUBLIC, & CORRIDOR SPACE	94 PSF/ 104 PSF	80 PSF RED.	NON-LAB SPACE V<12,000 mips @ 126 steps/min
	LOBBY AREAS	94 PSF/ 104 PSF	100 PSF UNRED.	NON-LAB SPACE V<12,000 mips @ 126 steps/min
	ROOF	103 PSF/ 108 PSF	20 PSF RED.	NONE
	ROOF MECHANICAL SERVICE AREAS	108 PSF/ 113 PSF	50 PSF RED.	NONE
	ROOF L2	35 PSF/ 40 PSF	50 PSF RED.	NONE

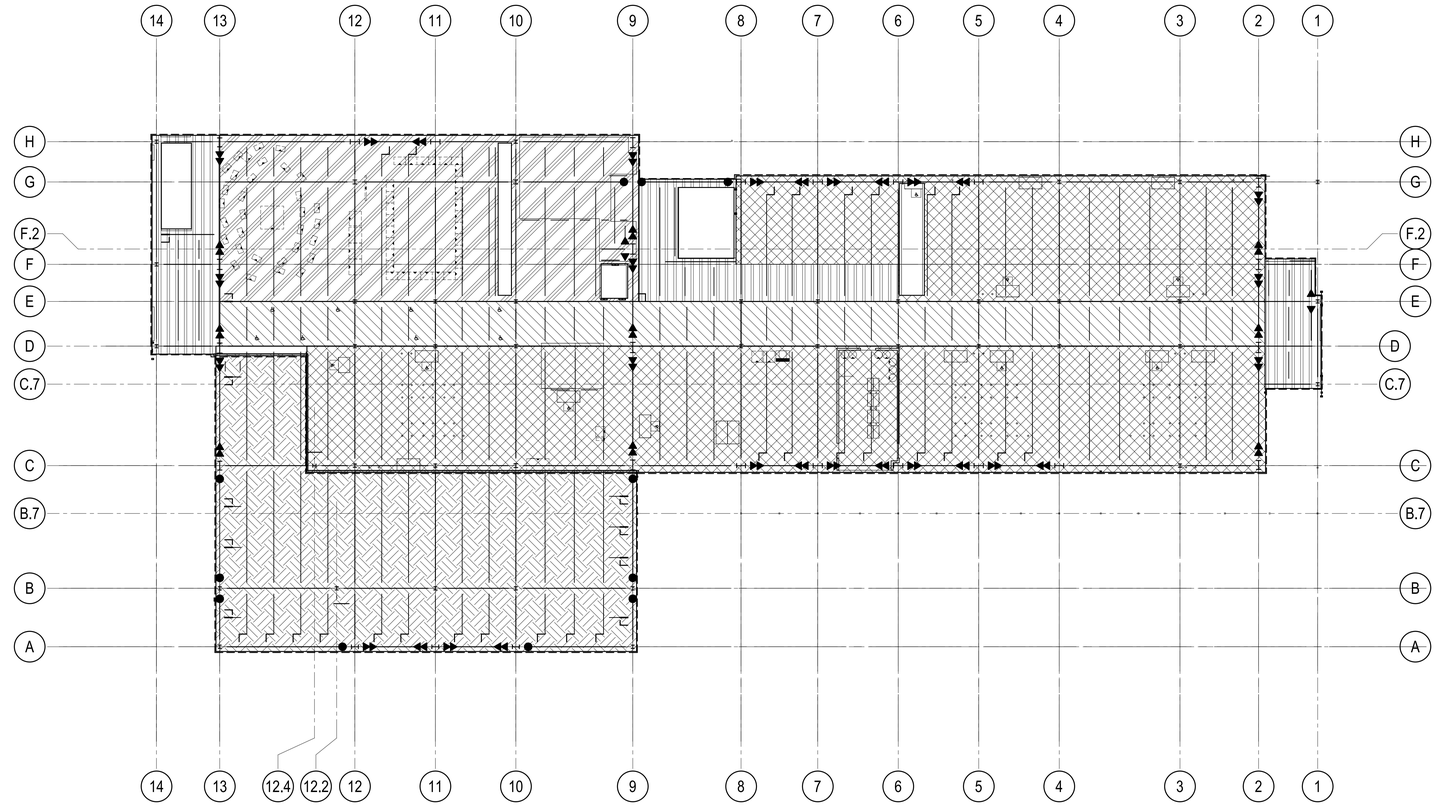
NOTES:
1. SEE PLAN SHEETS FOR EQUIPMENT OPERATING WEIGTH NOT NOTED ON LOAD PLANS.
2. SEISMIC SUPERIMPOSED LOADS DO NOT INCLUDE WEIGTH OF THE STRUCTURE.

CLADDING LOADS

PLAN LINEWORK STYLE	CLADDING DESCRIPTION	SUPERIMPOSED DEAD LOAD (*)
– – — — –	TYP. CLADDING	23.3 PSF

(*) PSF REFERS TO WEIGHT PER AREA OF VERTICAL SURFACE OF THE CLADDING

NOTE: LINE DENOTE THE APPROXIMATE LOCATION OF CLADDING USED FOR STRUCTURAL CALCULATIONS. S.A.D. FOR EXTENSION AND ELEVATION OF CLADDING SYSTEM.



LEVEL 2 FLAT LOAD PLAN 1

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SHEET TITLE
FLOOR VIBRATION AND LOADING CRITERIA

2023-045S
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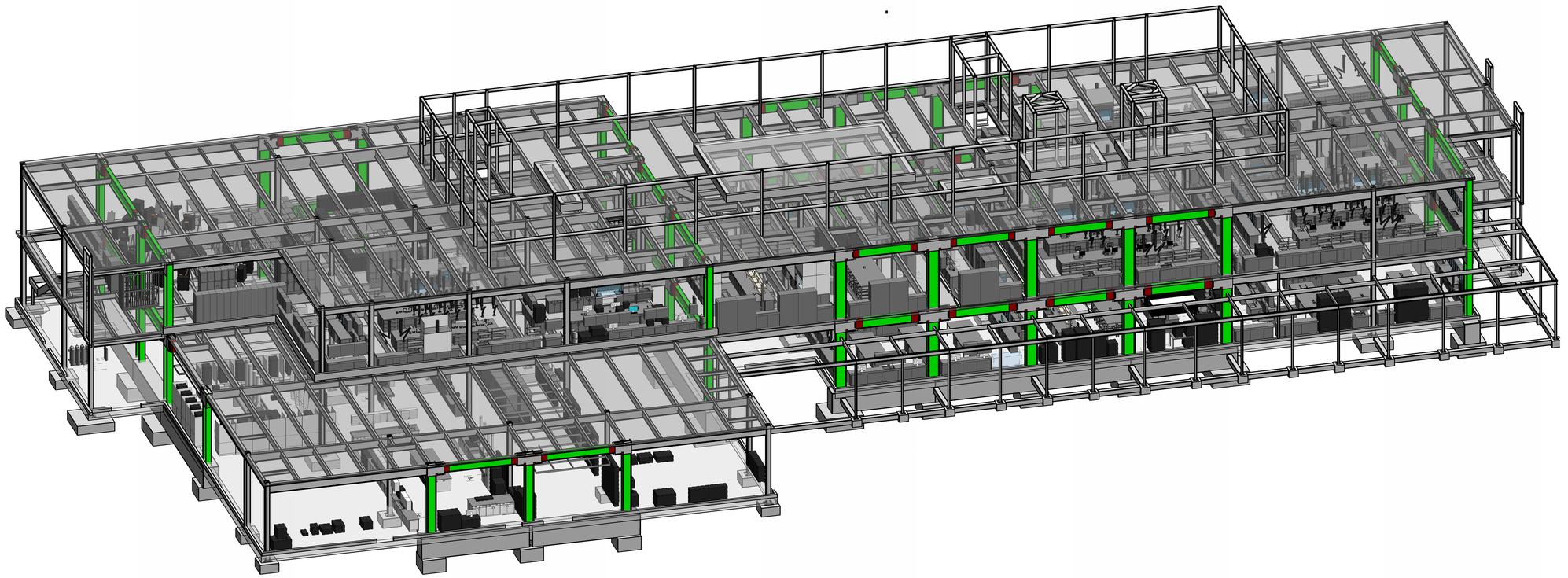

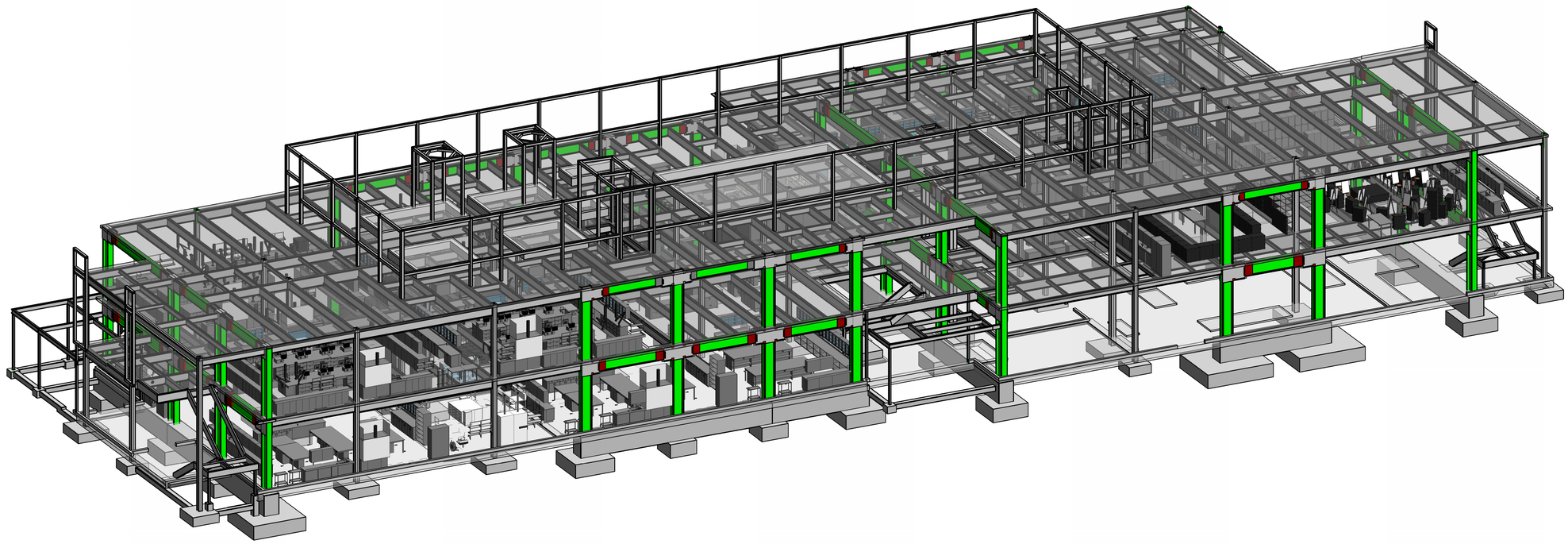

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SCHEMATIC DESIGN		20SEP2024

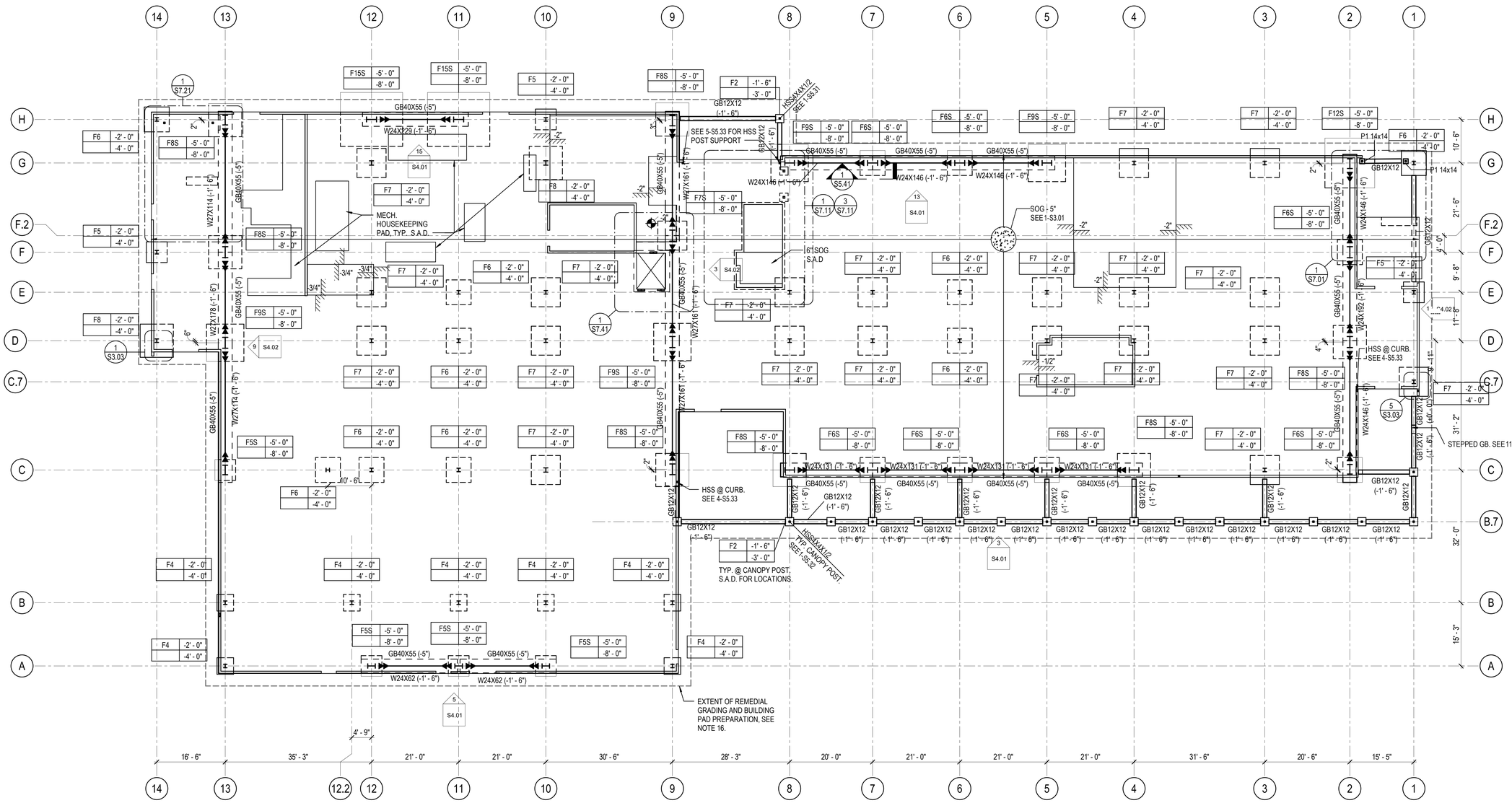
SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
AXIOMETRIC VIEWS

2023-045S
PROJECT NUMBER

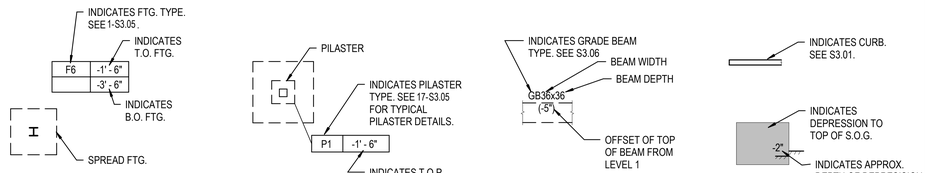
S0.06
SHEET NUMBER



NOTES:

1. ELEVATIONS ARE RELATIVE TO NOMINAL FLOOR LEVEL 1 TOP OF CONCRETE ELEVATION 0 - 0", WHERE LEVEL 1 IS DATUM EL. +476.65'.
2. SEE S0.01 FOR TYPICAL FRAMING LEGEND, ABBREVIATIONS, AND STRUCTURAL SHEET LIST.
3. SEE S0.02, S0.03, AND S0.04 FOR GENERAL NOTES.
4. SEE S0.05 FOR FLOOR VIBRATION AND LOADING CRITERIA.
5. SEE SHEETS S3.00 & S3.02 FOR TYPICAL CONCRETE DETAILS.
6. SEE S3.05 FOR TYPICAL FOUNDATION DETAILS AND SPREAD FOOTING SCHEDULE.
7. TOPS OF GRADE BEAMS VARY SEE PLANS
8. SEE 1-S5.10 FOR NON-FRAME COLUMNS SIZES AND BASE PLATES, SEE S4.01, S4.02 & S5.41 FOR FRAME COLUMNS AND BASE PLATES.
9. ALTHOUGH WATERPROOFING AND DRAINAGE ITEMS ARE SOMETIMES SHOWN ON STRUCTURAL DRAWINGS FOR REFERENCE, SPECIFICATION AND DETAILING OF THESE ITEMS ARE THE DESIGN RESPONSIBILITY OF OTHERS AND ARE DETAILED AND/OR SPECIFIED ELSEWHERE.
10. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION, DIMENSIONS AND EXTENT OF SLAB DEPRESSIONS, DEPRESSIONS AT WALKOFF MATS, OPENINGS, CURBS, AND SLOPES IN TOP OF CONCRETE.
11. FOR SIZES AND LOCATIONS OF EQUIPMENT SUPPORT PADS AND CURBS, AND FOR EQUIPMENT ANCHORAGES AND BRACING, SEE M/E/P DRAWINGS.
12. SEE LANDSCAPE AND CIVIL DRAWINGS FOR PLANTERS AND SITE FEATURES ADJACENT TO BUILDING PERIMETER FOUNDATIONS AND EDGE OF SLAB ON GRADE.
13. HSS POST FOR CLADDING LATERAL SUPPORT. SEE 12-S5.13FOR TOP CONN AND 4-S5.13 FOR EMBED PLATE BOTTOM CONN.
14. SEE S7.41 FOR ELEVATOR SECTIONS.
15. S7.01 - S7.31 FOR STAIRS PLANS AND DETAILS.
16. TO MITIGATE LOOSE, SOFT, OR OTHERWISE UNSUITABLE MATERIAL BELOW SHALLOW FOUNDATIONS AND CONCERNS RELATED TO UNDOCUMENTED AND POTENTIALLY COLLAPSIBLE FILL FOR THE PROPOSED CONSTRUCTION, REMEDIAL GRADING SHOULD BE PERFORMED TO PREPARE THE BUILDING PADS. THE REMEDIAL GRADING SHOULD CONSIST OF OVEREXCAVATING THE PAD AND BACKFILLING THE PAD WITH ENGINEERED FILL. BASED ON THE SUBSURFACE CONDITIONS ENCOUNTERED IN THE BORINGS, THE ANTICIPATED DEPTH OF REMOVAL IS 3 FEET BELOW THE EXISTING GRADE AT THE PROPOSED BUILDING FOOTPRINT (SEE CIVIL DRAWINGS FOR EXISTING GRADE INFORMATION). THE GEOR SHOULD INSPECT THE REMEDIAL EXCAVATIONS AND EVALUATE IF ADDITIONAL EXCAVATION IS NEEDED. THE LATERAL LIMITS OF THE REMEDIAL EXCAVATION SHOULD EXTEND 3 FEET BEYOND THE BUILDING FOOTPRINT. TO MITIGATE THE POTENTIAL FOR SWELL OR HEAVE DUE TO EXPANSIVE SOIL, THE BUILDING SHOULD BE CONSTRUCTED OVER A PAD OF FILL WITH LOW EXPANSION CHARACTERISTICS USING IMPORTED FILL CONFORMING TO THE GEOTECHNICAL REPORT. THE PAD OF LOW EXPANSION FILL SHOULD EXTEND TO 3 FEET BELOW THE NOMINAL BOTTOM OF SLAB AND 3 FEET OUTSIDE THE BUILDING FOOTPRINT. THE GRANULAR BASE LAYER UNDER THE SLAB-ON-GRADE MAY BE CONSIDERED AS PART OF THE LAYER WITH LOW EXPANSION CHARACTERISTICS.

GRAPHIC LEGEND:



LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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DESIGN DEVELOPMENT		08JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

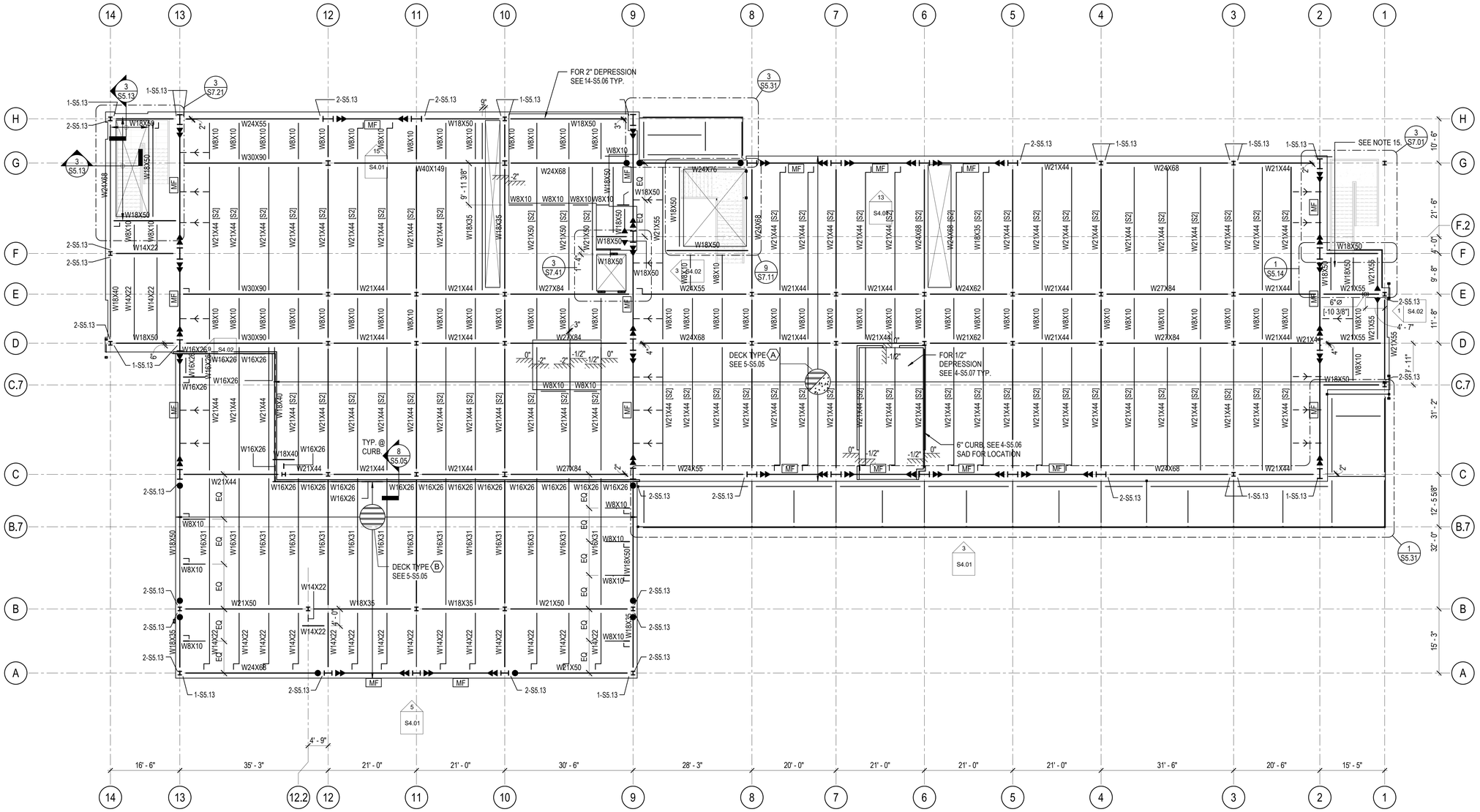
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
LEVEL 1 FOUNDATION PLAN

2023-045S
PROJECT NUMBER

S2.01
SHEET NUMBER

Author
8/21/2025 5:08:28 PM
Plot Date:



LEVEL 2 FRAMING PLAN

3/32" = 1'-0" 1

NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR GRID DIMENSIONS.
2. TYPICAL TOC ELEVATION RELATIVE TO LEVEL 1: +16' - 0".
3. TYPICAL T.O.S. ELEVATION, U.O.N IS:
   A. FOR DECK TYPE A: -0' - 6 1/2"
   B. FOR DECK TYPE B: -0' - 1 1/2"
4. WHERE NOTED, T.O.S. ELEVATIONS ARE MEASURED FROM TYPICAL TOP OF CONCRETE.
5. SEE FRAME ELEVATIONS 5-S4.01 3-S4.01 13-S4.01, 15-S4.01, 1-S4.02, 3-S4.02 & 9-S4.02 FOR MOMENT FRAME SIZES.
6. SEE SHEETS S5.00 AND S5.01 FOR TYPICAL STEEL FRAMING DETAILS. SEE S5.00 & S5.01 FOR TYPICAL HSS DETAILS.
7. SEE SHEETS S5.05, S5.06, & S5.07 FOR TYPICAL STEEL DECK & CONC FILL DETAILS.
8. ALL BEAMS SHALL HAVE S1 STUD PATTERN, U.O.N. ALL GIRDERS SHALL HAVE S2 STUD PATTERN, U.O.N. ALL MOMENT FRAME BEAMS SHALL HAVE S2 STUD PATTERN, U.O.N.
9. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION, DIMENSIONS AND EXTENT OF SLAB DEPRESSIONS, CURBS, AND SLOPES IN TOP OF CONCRETE.
10. LARGE OPENINGS ARE SHOWN ON PLANS. SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR LOCATION AND DIMENSIONS OF SMALL OPENINGS THROUGH CONCRETE FILL ON STEEL DECK. SEE SHEET S5.07 FOR FRAMING AT OPENINGS.
11. S.A.D. FOR LOCATION AND EXTENT OF TOPPING SLABS.
12. S.A.D. FOR LOCATION AND EXTENT OF MECHANICAL EQUIPMENT PADS. SUPPORT BEAMS FOR PADS SHALL BE CENTERED BELOW PAD CURBS. SEE FOR CONCRETE CURBS AND MECHANICAL PAD DETAILS.
13. DISTANCE FROM CENTERLINE OF BEAM TO EDGE OF SLAB IS 1' - 0" AT INTERIOR EDGE OF DECK CONDITIONS, UNLESS OTHERWISE NOTED ON PLAN. 13-S5.07
14. DISTANCE FROM CENTERLINE OF BEAM TO EDGE OF SLAB IS 1' - 2" AT EXTERIOR EDGE OF DECK CONDITIONS, UNLESS OTHERWISE NOTED ON PLAN.
15. BEAMS OCCUR ON A GRIDLINE OR ARE EQUALLY SPACED BETWEEN GRIDLINES UNLESS OTHERWISED NOTED.
16. SEE ARCHITECTURAL SLAB PLAN DRAWINGS FOR EDGE OF SLAB DIMENSIONS FROM GRID LINES.
17. STAIR 1 FRAMING INSTALLATION TO OCCUR AFTER LEVEL 2 FLOOR LANDING IS POURED. CONTRACTOR TO COORDINATE LEVEL 2 FLOOR LANDING CONCRETE POUR WITH STAIR 1 INSTALLATION.
18. LATERAL BRACING MAY BE ATTACHED TO BEAM BOTTOM FLANGES WITH CONSENT OF SEOR. ALL LATERAL ATTACHMENT TO BOTTOM FLANGES SHALL BE BRACED PER 1-S5.02.
19. SEE 1-S5.50 FOR SURGICAL LIGHT SUPPORT FRAMING PLAN.
20. SEE 1-S5.51 FOR LIGHT GRID SUPPORT FRAMING PLAN.
21. SEE S5.08 FOR DUCT AND PIPING SUPPORT CONNECTION TO DECK WITH NO FILL DETAILS.

GRAPHIC LEGEND:

SEE S0.01 FOR GRAPHICAL LEGEND

Author

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LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEAM
No. 3237
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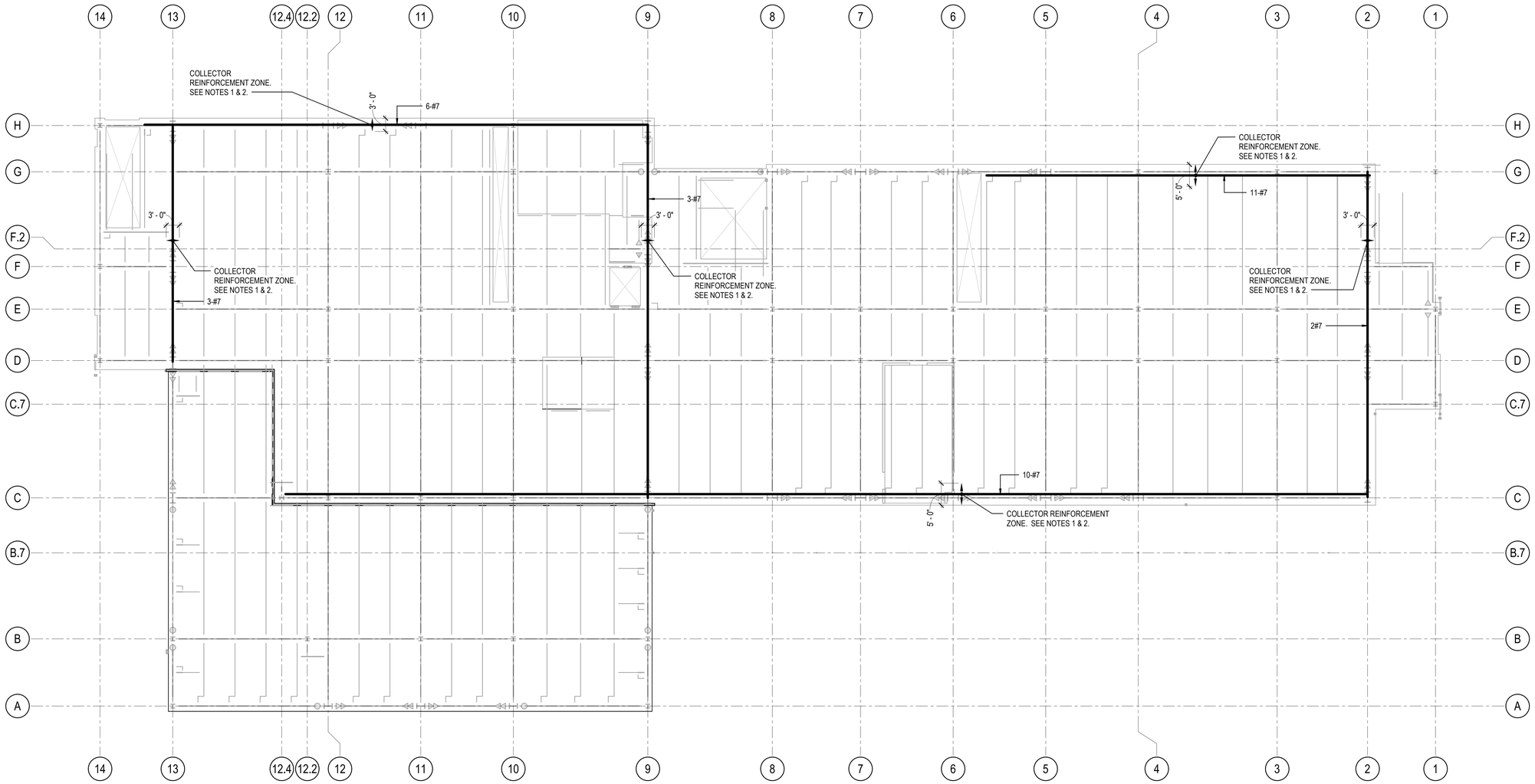
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
LEVEL 2 FRAMING PLAN

2023-045S
PROJECT NUMBER

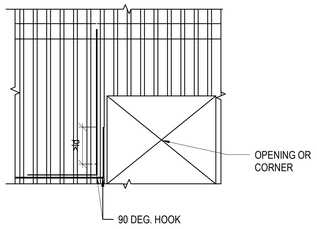
S2.02
SHEET NUMBER



NOTES:
1. CORING OF CONCRETE FILL OVER METAL DECK NOT PERMITTED FOR PENETRATIONS IN FLOOR ASSEMBLY.
2. ALL PROPOSED BLOCKOUTS FOR PENETRATIONS IN COLLECTOR REINFORCEMENT ZONES TO BE COORDINATED AND CONFIRMED WITH THE SEOR.

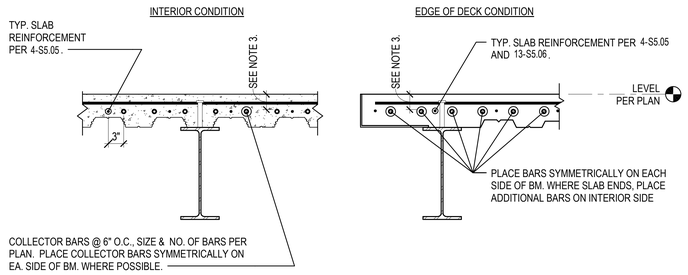
LEVEL 2 COLLECTOR REINFORCEMENT PLAN 2

3/32" = 1'-0"



CHORDS AND COLLECTORS REINFORCEMENT CORNER LAYOUT 5

1" = 1'-0"



NOTES:
1. DECK PARALLEL TO BEAM SHOWN, DECK PERPENDICULAR TO BEAM SIMILAR.
2. STUDS, WELDS, AND ADDITIONAL DECK CONNECTIONS NOT SHOWN FOR CLARITY.
3. MINIMUM CLEAR COVER REQUIREMENT FOR COLLECTOR BARS IS 2 1/2".

CHORDS AND COLLECTORS ADDED REINFORCEMENT LAYOUT 1

1" = 1'-0"

Author
Plot Date: 8/21/2025 5:08:36 PM

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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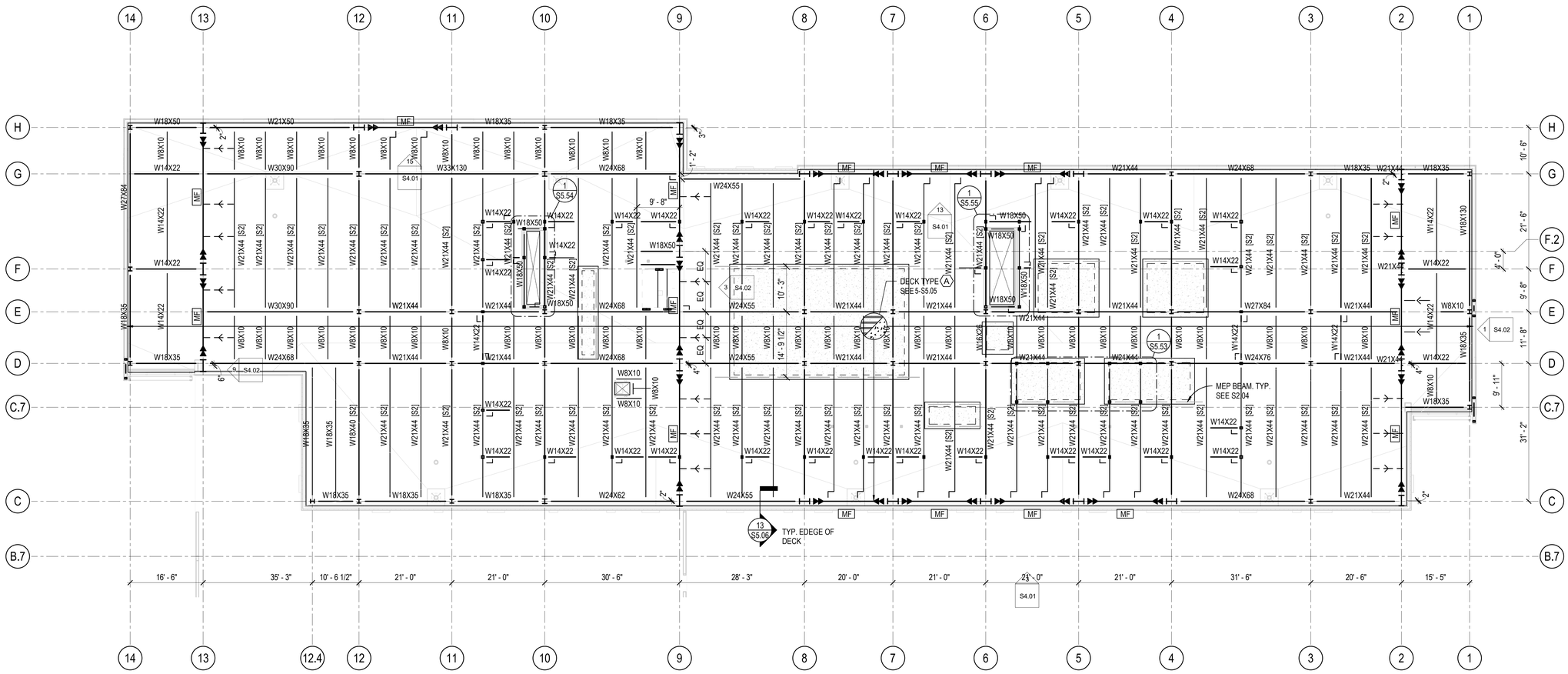
SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEEMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
LEVEL 2 COLLECTOR REINFORCEMENT PLAN

2023-045S
PROJECT NUMBER

S2.02C
SHEET NUMBER



NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR GRID DIMENSIONS.
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18. LATERAL BRACING MAY BE ATTACHED TO BEAM BOTTOM FLANGES WITH CONSENT OF SEOR. ALL LATERAL ATTACHMENT TO BOTTOM FLANGES SHALL BE BRACED PER 1-S5.02.
19. SEE 9-S5.50 AND 3-S5.50 FOR EXHAUST SNORKEL SUPPORT FRAMING PLANS.
20. FOR PAD MOUNTED EQUIPMENT INFORMATION AND ALLOWABLE EQUIPMENT WEIGTH SEE S2.04.

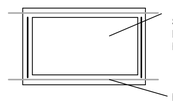
GRAPHIC LEGEND:

SCREEN WALL SUPPORT:



INDICATES POST FROM SCREEN WALL, SEE S5.42 FOR DETAILS

PAD MOUNTED EQUIP LEGEND:



SEE S2.04 FOR ALLOWABLE EQUIP WEIGHT AND INFO. NOT NOTED

MEP BEAM. SEE S2.04

Author

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LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE

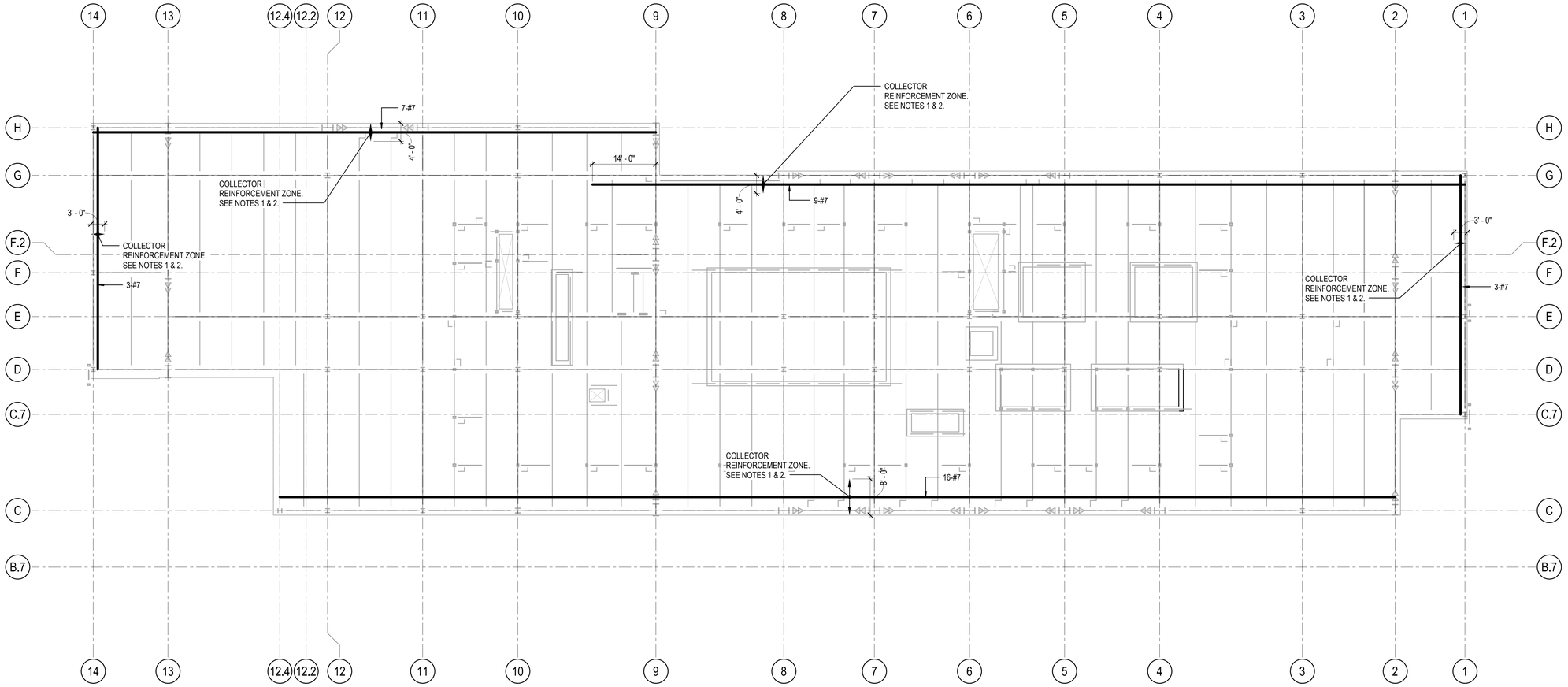
ROOF FRAMING PLAN

2023-045S

PROJECT NUMBER

S2.03

SHEET NUMBER



NOTES:
1. CORING OF CONCRETE FILL OVER METAL DECK NOT PERMITTED FOR PENETRATIONS IN FLOOR ASSEMBLY.
2. ALL PROPOSED BLOCKOUTS FOR PENETRATIONS IN COLLECTOR REINFORCEMENT ZONES TO BE COORDINATED AND CONFIRMED WITH THE SEOR.
3. SEE SHEET S2.02C FOR INFO NOT NOTED

ROOF COLLECTOR REINFORCEMENT PLAN
3/32" = 1'-0" 1

Plot Date: 8/21/2025 5:08:43 PM Author

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

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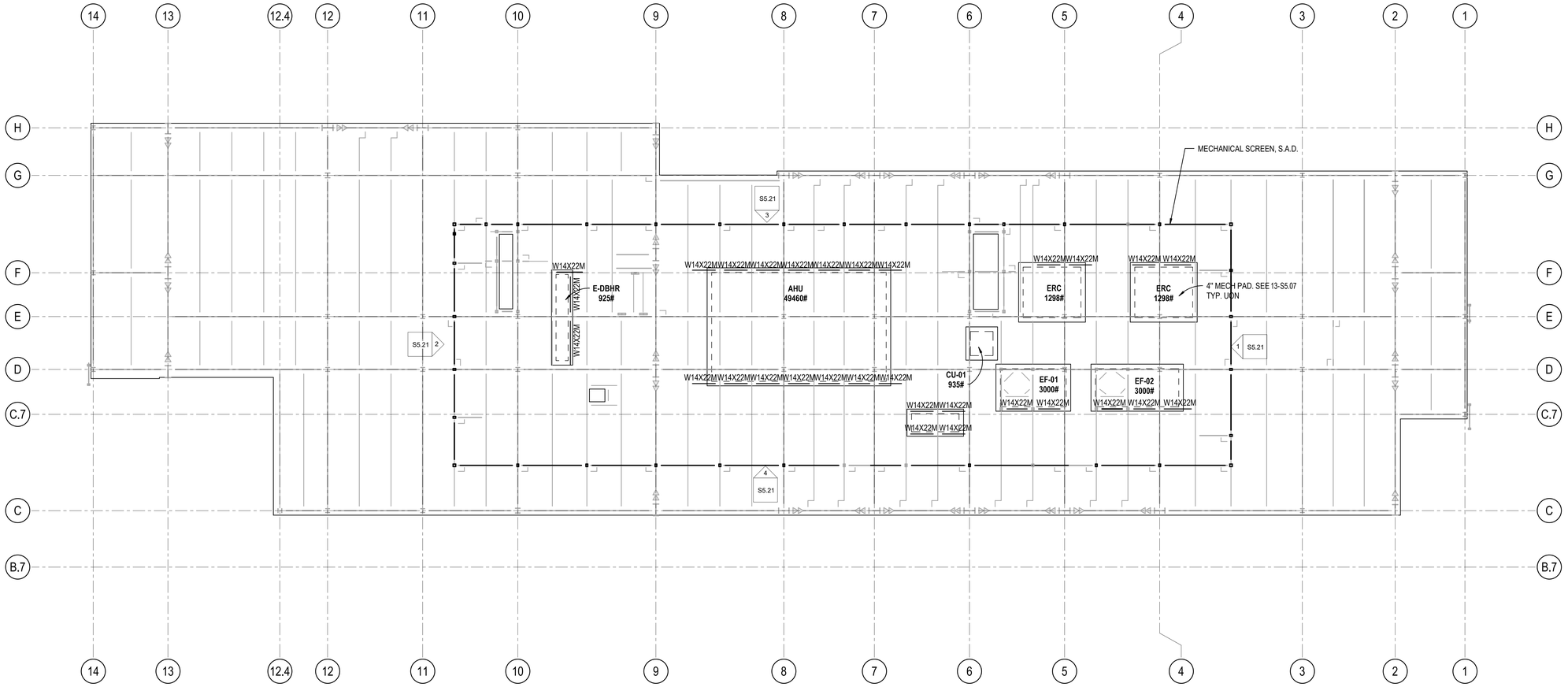
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
ROOF COLLECTOR REINFORCEMENT PLAN

2023-045S
PROJECT NUMBER

S2.03C
SHEET NUMBER



NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR GRID DIMENSIONS.
2. SEE S2.04 FOR ADDITIONAL NOTES.
3. TYPICAL TOC ELEVATION RELATIVE TO LEVEL 1: +32' - 0".
4. S.A.D. FOR LOCATION AND EXTENT OF MECHANICAL EQUIPMENT PADS. SUPPORT BEAMS FOR PADS SHALL BE CENTERED BELOW PAD CURBS. SEE13-S5.07 FOR CONCRETE CURBS AND MECHANICAL PAD DETAILS. .

GRAPHIC LEGEND:

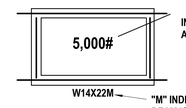
ROOF MECHANICAL EQUIPMENT NOTES:

1. THE LOCATION & SIZE OF THE MAJOR MECHANICAL SYSTEM EQUIPMENT SHOWN ON THESE PLANS ARE INDICATIVE ONLY. THE FINAL UNIT SIZE & LOCATION WILL BE KNOWN ONCE THE EQUIPMENT VENDOR HAS BEEN SELECTED. THE EQUIPMENT NAMES & KNOWN WEIGHTS ARE DOCUMENTED ON THESE PLANS.
2. THE GENERAL CONTRACTOR IS TO BE RESPONSIBLE TO NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF THE ACTUAL 'INSTALLED WEIGHT' EXCEEDS THE WEIGHTS SHOWN ON THESE DRAWINGS. THE 'INSTALLED WEIGHT' IS CONSIDERED TO BE THE WEIGHT OF THE UNIT ITSELF AND THE WEIGHT OF ANY MANUFACTURER PROVIDED BASE ASSEMEBLIES.
3. NOTE THE STATED LOAD IS FOR MECHANICAL UNITS AND BASE ASSEMBLIES ONLY. IF ADDITIONAL CONCRETE CURBS OR HOUSEKEEPING PADS ARE REQUIRED AND ARE NOT SHOWN ON THESE DRAWINGS THEN THE STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED.
4. THE GENERAL CONTRACTOR MUST NOTIFY THE STRUCTURAL ENGINEER OF RECORD OF ANY PIECE OF MECHANICAL EQUIPMENT (OUTSIDE OF THE MECHANICAL ROOM) WHOSE WEIGHT EXCEED 1000# AND IS NOT SHOWN INDICATIVELY ON THIS PLAN
5. VERIFY EQUIPMENT SUPPORT PAD ELEVATIONS WITH ARCHITECTURAL DRAWINGS

SCREEN WALL SUPPORT:

INDICATES POST FROM SCREEN WALL, SEE S5.42 FOR DETAILS

PAD MOUNTED EQUIP LEGEND:



INDICATES MAXIMUM ALLOWABLE EQUIP WEIGHT

"M" INDICATES LOCATION OF BEAM IS BY MEP. SHEAR PLATE IS FIELD WELDED.

Author
8/21/2025 5:08:47 PM
Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

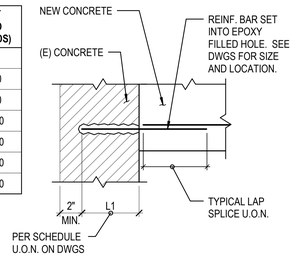
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
ROOF MECHANICAL SUPPORT FRAMING PLAN

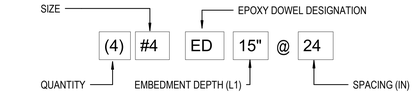
2023-045S
PROJECT NUMBER

S2.04
SHEET NUMBER

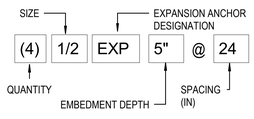
BAR SIZE	MAXIMUM HOLE DIAMETER	MINIMUM EMBED. (L1)	TEST LOAD (POUNDS)
#3	1/2"	6"	—
#4	5/8"	8"	4,800
#5	3/4"	10"	7,500
#6	1"	12"	11,000
#7	1 1/8"	14"	14,500
#8	1 1/4"	16"	19,000
#9	1 1/2"	18"	24,000



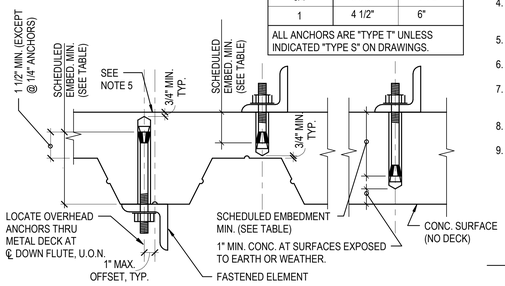
NOTES:
1. SEE SPECIFICATIONS FOR EPOXY ADHESIVE REQUIREMENTS. ADHESIVE SHALL BE APPROVED FOR SEISMIC ANCHORAGE IN CRACKED CONCRETE IN ACCORDANCE WITH ICC-ES AC308.
2. INSTALL DOWELS IN ACCORDANCE WITH APPROVED MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE SCHEDULED EMBEDMENT WHERE NOT DESIGNATED ON REFERENCE DETAIL.
4. NOTIFY ARCHITECT FOR CLARIFICATION, WHERE CONCRETE THICKNESS DOES NOT ALLOW DESIGNATED EMBEDMENT.
5. DO NOT CUT (E) REINFORCING STEEL OR OTHER EMBEDDED ITEMS; RELOCATE DOWELS AS ACCEPTABLE TO ARCHITECT.
6. SPECIAL INSPECTION BY TESTING LABORATORY IS REQUIRED DURING INSTALLATION.
7. TENSION TESTING OF A SAMPLE OF DOWELS FOR EACH DAY'S PLACEMENT IS REQUIRED IN ACCORDANCE WITH THE SPECIFICATIONS. TEST TO SCHEDULED VALUES WHERE TEST LOAD IN NOT DESIGNATED IN REFERENCE DETAILS.



EPOXY-GROUTED DOWEL 16

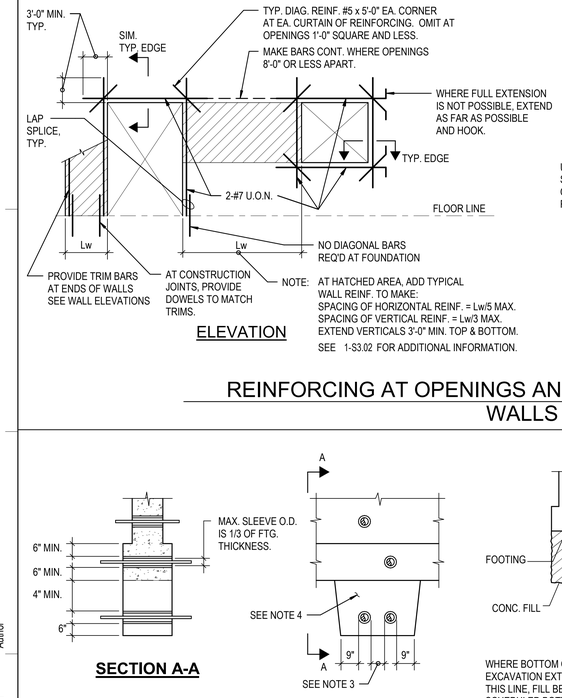


ANCHOR DIAMETER	MINIMUM EMBEDMENT	
	TYPE S	TYPE T
1/4	1 1/2"	1 1/2"
3/8	1 3/4"	2 1/4"
1/2	2 1/4"	3"
5/8	2 7/8"	3 3/4"
3/4	3 3/8"	4 1/2"
1	4 1/2"	6"
ALL ANCHORS ARE "TYPE T" UNLESS INDICATED "TYPE S" ON DRAWINGS.		

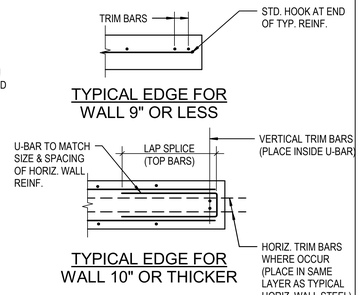


NOTES:
1. ACCEPTABLE WEDGE TYPE ANCHORS ARE (NO SUBSTITUTIONS):
   * KWIK - BOLT TZ2 BY HILTI, ESR-4266
   * STRONG BOLT 2 BY SIMPSON, ESR-3037
   * RED HEAD TRUBOLT BY ITW RAMSET, ESR-2427
2. INSTALL ANCHORS IN ACCORDANCE WITH REQUIREMENTS OF ICC REPORT FOR SPECIFIC ANCHOR.
3. DO NOT CUT REINFORCING STEEL DURING DRILLING OF HOLES.
4. DRILL DEPTH OF HOLES AS REQUIRED TO ACHIEVE SCHEDULED EMBEDMENT AFTER FINAL TORQUING. NOTIFY ARCH. FOR DIRECTION WHERE SCHEDULED EMBEDMENT CANNOT BE ACHIEVED.
5. TAKE MEASURES TO PREVENT SPALLING OF CONCRETE AT ENDS OF DRILLED HOLES.
6. SCHEDULED EMBEDMENT IS MEASURED FROM SURFACE OF STRUCTURAL CONCRETE.
7. FIELD TEST ANCHORS BY THE TORQUE WRENCH METHOD TO MANUFACTURER'S SPECIFICATIONS. THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-QUARTER TURN OF THE NUT.
8. DETAIL SHOWS INSTALLATION @ FILL ON STEEL DECK, INSTALLATION @ CONC. WALL SIM.
9. SCHEDULED EMBEDMENTS ARE MINIMUMS. PROVIDE DEEPER EMBEDMENTS WHEN REQ'D. PER REFERENCED DETAIL.

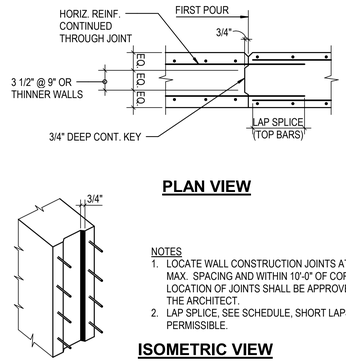
EXPANSION ANCHOR 15



ELEVATION



REINFORCING AT OPENINGS AND EDGES OF CONCRETE WALLS 14



PLAN VIEW

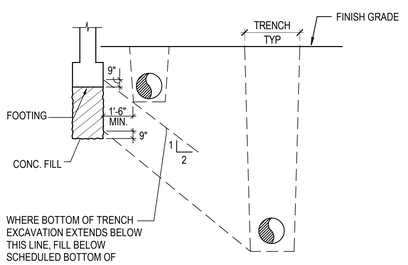
NOTES
1. LOCATE WALL CONSTRUCTION JOINTS AT 60'-0" MAX. SPACING AND WITHIN 10'-0" OF CORNERS. LOCATION OF JOINTS SHALL BE APPROVED BY THE ARCHITECT.
2. LAP SPLICE, SEE SCHEDULE, SHORT LAPS NOT PERMISSIBLE.

ISOMETRIC VIEW

VERTICAL CONSTRUCTION JOINT IN CONCRETE WALL 10

SECTION A-A

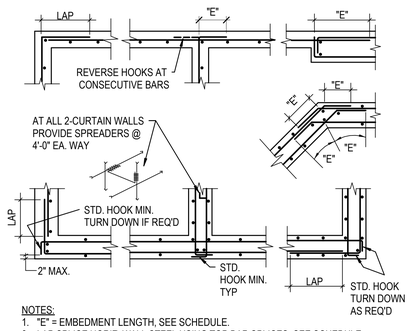
PERPENDICULAR TO FOOTINGS



PARALLEL TO FOOTINGS

NOTES:
1. DO NOT PASS PIPES UNDER OR THROUGH ISOLATED SPREAD FOOTINGS.
2. PROVIDE SLEEVES FOR ALL PIPES PASSING THROUGH CONCRETE WITH I.D. 2" LARGER THAN PIPE.
3. CLEARANCE BETWEEN ADJACENT SLEEVES SHALL BE NOT LESS THAN THE DIA. OF LARGER SLEEVE OR 6" MINIMUM.
4. FOR PIPES BELOW FOOTINGS OR GRADE BEAMS, EXCAVATE AS SHOWN AND FILL WITH CONCRETE PRIOR TO PLACING FOOTING OR GRADE BEAM.

PIPE PENETRATIONS AT STRIP FOOTINGS AND GRADE BEAMS 13

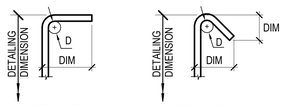


NOTES:
1. "E" = EMBEDMENT LENGTH, SEE SCHEDULE.
2. LAP SPLICE HORIZ. WALL STEEL USING TOP BAR SPLICES, SEE SCHEDULE.
3. MINIMUM WALL REINF. U.O.N.
   WALLS < 8" #4 @ 12 E.W.
   WALLS > 8" #4 @ 12 E.W., E.F.

HORIZ. REINF. DETAILS @ WALLS & CONT. FOOTINGS 9

STIRRUP & TIE HOOKS & BENDS			
DIM. / BAR	D	90° HOOK DIM	135° HOOK DIM
#3	1 1/2"	4"	3"
#4	2"	4 1/2"	3"
#5	2 1/2"	6"	3 3/4"
#6	4 1/2"	12"	4 1/2"
#7	5 1/4"	14"	5 1/4"
#8	6"	16"	6"

NOTES:
1. D=INSIDE BEND DIAMETER.
2. USE ONLY FOR STIRRUPS & TIES.

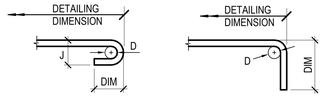


90° HOOK 135° HOOK

STIRRUP & TIE HOOKS & BENDS

STANDARD HOOK DIMENSIONS					
DIM. / BAR	D	90° HOOK DIM	180° HOOK DIM	180° HOOK J
#3	2 1/4"	6"	5"	3"
#4	3"	8"	6"	4"
#5	3 3/4"	10"	7"	5"
#6	4 1/2"	1'-0"	8"	6"
#7	5 1/4"	1'-2"	10"	7"
#8	6"	1'-4"	11"	8"
#9	9 1/2"	1'-7"	1'-3"	11 3/4"
#10	10 3/4"	1'-10"	1'-5"	1'-1 1/4"
#11	12"	2'-0"	1'-7"	1'-2 3/4"

NOTES:
1. D=INSIDE BEND DIAMETER.
2. INCREASE HK "DIM" WHERE INDICATED ON DRAWINGS.



180° HOOK 90° HOOK

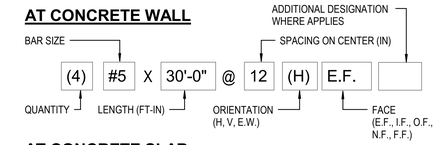
STANDARD HOOKS & BENDS

REINFORCING BAR HOOKS & BENDS 11

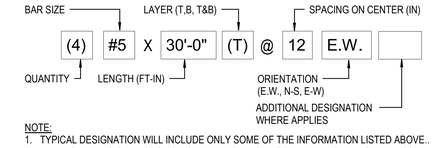
MINIMUM CONCRETE COVER FOR REINFORCING STEEL (FROM SURFACE OF CONCRETE TO SURFACE OF STEEL)	
SURFACE CAST AGAINST EARTH . . . . . (EXCEPT SLAB ON GRADE)	3"
SURFACE EXPOSED TO EARTH OR WEATHER	
NO. 6 AND LARGER BAR	2"
NO. 5 AND SMALLER BAR OR WWF.	1 1/2"
SURFACE NOT EXPOSED TO EARTH OR WEATHER	
STRUCTURAL SLAB OR WALLS	
NO. 7 AND LARGER	1 1/2"
NO. 6 AND SMALLER	1"
BEAM TO STIRRUPS	1 1/2"
COLUMN TO SPIRAL OR TIES	1 1/2"
SHOTCRETE WALL AT FORMED FACE	2"

CONCRETE PROTECTION FOR REINFORCING STEEL 8

AT CONCRETE WALL



AT CONCRETE SLAB



NOTE:
1. TYPICAL DESIGNATION WILL INCLUDE ONLY SOME OF THE INFORMATION LISTED ABOVE..
2. ADDITIONAL DESIGNATIONS FOR GR 75 BARS, EPOXY COATED BARS, AND STAINLESS BARS WILL BE INCLUDED WHERE APPLICABLE.

REINFORCING BAR DESIGNATIONS 4

REINFORCING BAR LAP SPLICE (inches)											
BAR / LAP SPLICE	MIN F'c (PSI)	BAR POSITION	#3	#4	#5	#6	#7	#8	#9	#10	#11
LAP SPLICE, TYPICAL U.O.N.	3,000	TOP	29	38	47	56	82	94	106	119	132
		OTHER	22	29	36	43	63	72	81	91	101
	4,000	TOP	25	33	41	49	71	81	91	103	114
		OTHER	19	25	31	37	54	62	70	79	87
	5,000	TOP	23	30	37	45	64	73	82	93	102
		OTHER	17	23	28	34	49	56	63	71	78
	6,000	TOP	21	28	34	41	59	67	75	84	93
		OTHER	16	21	26	31	45	51	57	64	71
LAP SPLICE, LIGHT WEIGHT CONC.	4,000	TOP	33	43	55	65	94	108	121	137	151
		OTHER	25	33	42	50	72	83	93	105	116
LAP SPLICE, GRADE 80 BARS	6,000	TOP	28	36	45	54	77	89	99	112	124
		OTHER	21	27	34	41	59	68	76	86	95
SHORT LAP SPLICE (SEE NOTE L4)	4,000 NW	TOP	21	21	25	30	43	49	55	62	69
		OTHER	16	16	19	23	33	37	42	47	53

NOTES:

L1. LAP SPLICE LENGTHS ARE FOR NORMAL WEIGHT CONCRETE (UNIT WEIGHT GREATER THAN 145 PCF), U.O.N.

L2. TYPICAL LAP SPLICE REQUIRES MINIMUM CLEAR OF 1 BAR DIA. AND MINIMUM CLEAR SPACING BETWEEN LAPPED BARS OF 2 BAR DIA. STAGGER LAP SPLICES OF ADJACENT BARS WHERE NECESSARY TO ACHIEVE MINIMUM CLEAR SPACING BETWEEN LAPPED BARS.

L3. AT COLUMNS CONFINED BY TIES AND SPLICED USING OFFSET SPLICES, MINIMUM CLEAR SPACING BETWEEN LAPPED BARS MAY BE REDUCED TO 1 1/2 BAR DIA.

L4. WHERE BARS HAVE MINIMUM COVER OF 2 BAR DIA. AND THE CLEAR SPACING BETWEEN LAPPED BARS IS 4 BAR DIAS. MINIMUM, SHORT LAP SPLICES SHALL BE ALLOWED. (APPLIES ONLY TO NW CONCRETE AND GR 60 REINF.)

L5. TOP BARS ARE HORIZONTAL BARS WITH 12 INCHES OR MORE OF CONCRETE PLACED BELOW.

L6. SPLICE SHALL BE CONTACT LAP SPLICES, EXCEPT WHERE NONCONTACT SPLICES ARE INDICATED ON DRAWINGS. AT NONCONTACT SPLICES SPACE BARS MAXIMUM 1/5TH OF LAP LENGTH, 6 INCHES MAXIMUM ON CENTER.

REINFORCING BAR LAP SPLICES 2

REINFORCING BAR EMBEDMENT (inches)											
BAR / EMBEDMENT	MIN F'c (PSI)	BAR POSITION	#3	#4	#5	#6	#7	#8	#9	#10	#11
EMBEDMENT, TYPICAL UON.	3,000	TOP	23	29	37	43	63	72	81	91	102
		OTHER	17	22	28	33	48	55	62	70	78
	4,000	TOP	20	25	32	38	55	63	71	80	88
		OTHER	15	19	24	29	42	48	54	61	67
	5,000	TOP	17	23	29	34	50	56	63	71	78
		OTHER	13	17	22	26	38	43	48	54	60
	6,000	TOP	16	21	26	32	45	51	58	65	72
		OTHER	12	16	20	24	34	39	44	50	55
EMBEDMENT, LIGHT WEIGHT CONC.	4,000	TOP	25	34	42	50	73	84	94	106	117
		OTHER	19	26	32	38	56	64	72	81	90
EMBEDMENT, GRADE 80 BARS	4,000	TOP	24	32	39	47	68	78	88	99	110
		OTHER	18	24	30	36	52	60	67	76	84
SHORT EMBEDMENT (SEE NOTE 2)	4,000 NW	TOP	16	16	20	24	33	38	43	49	54
		OTHER	12	12	15	18	25	29	33	37	41
HOOK EMBEDMENT	4,000 NW										
			8	10	12	15	17	19	22	25	27
	6,000 NW										
			6	8	10	12	14	16	18	20	22
HEADED BAR EMBEDMENT	4,000 NW										
			6	8	10	12	14	16	18	20	22
	6,000 NW										
			6	7	8	10	11	13	14	16	18

NOTES:
1. EMBEDMENT LENGTHS ARE FOR NORMAL WEIGHT CONCRETE (UNIT WEIGHT GREATER THAN 145 PCF), U.O.N.
2. WHERE EMBEDDED BARS HAVE A MINIMUM COVER OF 2 BAR DIA. AND THE CLEAR SPACING BETWEEN EMBEDDED BARS IS 4 BAR DIA. MINIMUM, SHORT EMBEDMENT LENGTH SHALL BE ALLOWED. (APPLIES ONLY TO NW CONCRETE AND GR 60 REINF.)
3. TOP BARS ARE HORIZONTAL BARS WITH 12 INCHES OR MORE OF CONCRETE PLACED BELOW.
4. HOOK EMBEDMENT LENGTHS MAY BE MULTIPLIED BY 0.7 WHERE SIDE COVER IS 2 1/2" OR GREATER AND FOR 90-DEGREE HOOK THE COVER ON THE BAR EXTENSION IS AT LEAST 2".
5. HEADED BAR EMBEDMENT LENGTHS APPLY ONLY TO NW CONCRETE. CLEAR COVER TO BAR SHALL BE 2 BAR DIA. MINIMUM AND CLEAR SPACING BETWEEN BARS SHALL BE 4 BAR DIA. MINIMUM.

REINFORCING BAR EMBEDMENT 1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

RUTHERFORD + CHEKENE
Structural | Geotechnical
101 Mission Street, Suite 300
San Francisco CA 94105
T 415 568 4400
F 415 618 0684
www.ruthchek.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		05JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

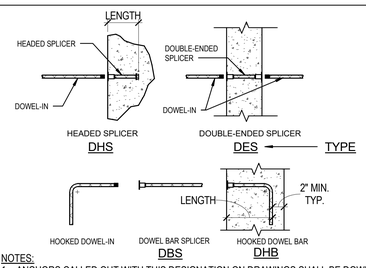
SHEET TITLE
TYPICAL CONCRETE DETAILS

PROJECT NUMBER
2023-045S

SHEET NUMBER
S3.00

Author

Plot Date: 8/21/2025 5:08:50 PM

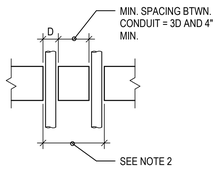


NOTES:
1. ANCHORS CALLED OUT WITH THIS DESIGNATION ON DRAWINGS SHALL BE DOWEL SPLICE BARS ASTM A615 GR 60 OR A706. SEE SPECS FOR ADD'L INFO.
2. HOOKS AND BENDS OF BAR PER ACI 318 CHAPTER 25.
3. SEE DRAWINGS FOR SIZE, LENGTH AND SPACING OF DOWEL-IN BARS. DOWEL-IN BAR THREADS TO MATCH DOWEL COUPLER SYSTEM.



DOWEL BAR SPLICE DESIGNATION

19

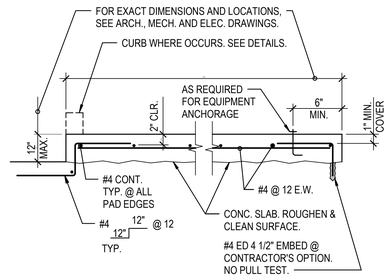


PIPE THROUGH SLAB OR WALL

NOTES:
1. D=SLEEVE OR CONDUIT OUTSIDE DIAMETER.
2. WHERE CLEAR DISTANCE BETWEEN SLEEVES IS IMPOSSIBLE, THIS AREA SHALL BE TREATED AS SINGLE LARGE OPENING. SEE 1-S3.02.
3. SINGLE PENETRATIONS WITH D<5" DO NOT REQUIRE ADDED TRIM REINFORCING.
4. PENETRATIONS THROUGH WALL SHALL BE AT 90° TO THE WALL.
5. PENETRATIONS REQUIRE SLEEVES OR BLOCKOUTS PRIOR TO CONCRETE POUR.

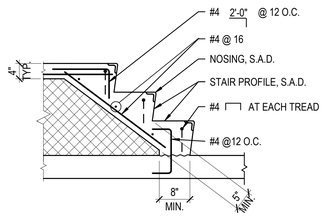
SLEEVE CONDUIT THROUGH SLAB-ON-GRADE

15

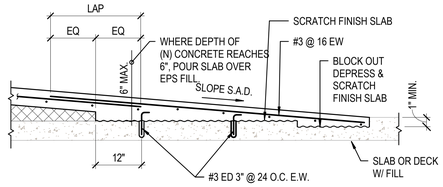


HOUSEKEEPING PAD

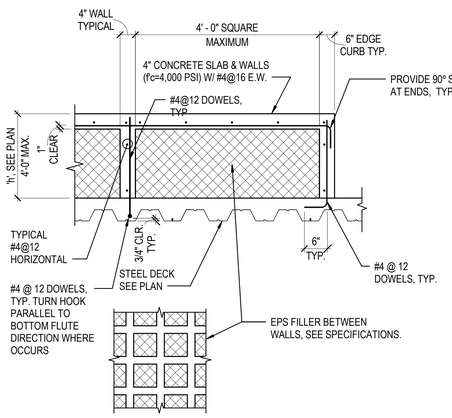
11



@ CONC. STEPS

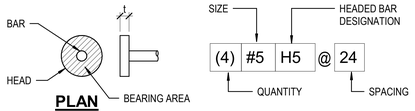


@ RAMP TRANSITION



OVER STEEL DECK

	'H5' BARS		'H10' BARS	
BAR SIZE	MIN. HEAD BEARING AREA (SQ. IN)	MIN. HEAD THICKNESS (IN)	MIN. HEAD AREA (SQ. IN)	MIN. HEAD THICKNESS (IN)
#4	0.80	0.25	2.0	0.43
#5	1.24	0.31	3.1	0.50
#6	1.76	0.38	4.4	0.56
#7	2.40	0.44	6.0	0.62
#8	3.16	0.50	7.9	0.62
#9	4.00	0.56	10.0	0.68
#10	5.08	0.64	12.7	0.75
#11	6.24	0.70	15.6	0.81



PLAN

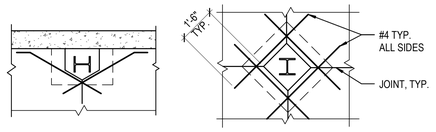
NOTES:
1. ALL HEADED BARS SHALL BE A706 AND CONFORM TO ASTM A970.
2. CLEAR SPACING OF H5 HEADED BARS SHALL BE 4 X DIA OF BAR MINIMUM.
3. SPACING OF H10 HEADED BARS SHALL BE PER DETAIL IN THE DRAWINGS.

HEADED DEFORMED BAR SCHEDULE & DESIGNATION

17

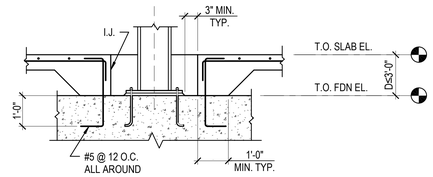
BUILT UP SLAB

9

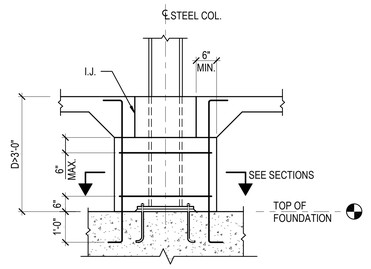


PLAN AT WALL

PLAN INTERIOR



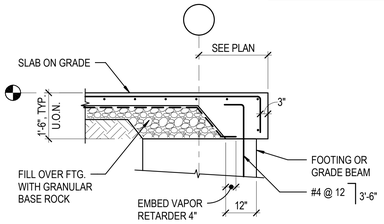
FOR 'D' ≤ 3'-0"



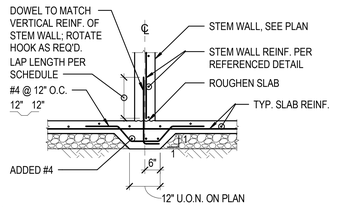
FOR 'D' > 3'-0"

NOTE: STEEL COLUMN SHOWN, CONCRETE COLUMN SIMILAR.

THICKENED SECTION AT COLUMN

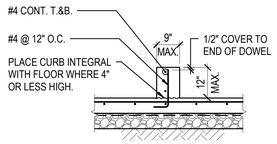


THICKENED SECTION AT EDGE ATOP FOOTING OR GRADE BEAM

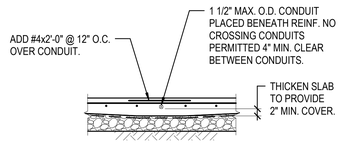


NOTE:
THICKEN SLAB FULL LENGTH OF STEM WALL; SEE PLAN FOR EXTENT.

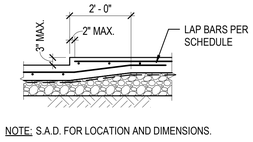
THICKENED SECTION AT STEM WALL



CURB

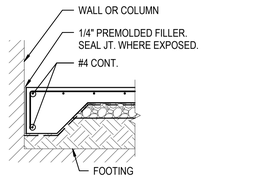


CONDUIT



NOTE: S.A.D. FOR LOCATION AND DIMENSIONS.

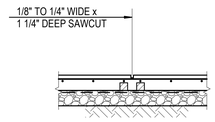
DEPRESSION



NOTE: PROVIDE ISOLATION JOINTS WHERE SHOWN OR NOTED AND WHEREVER SLAB ABUTS BUILDING WALLS, COLUMNS, ETC.

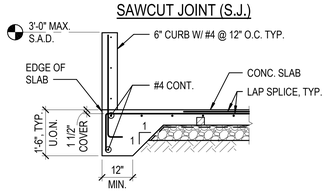
ISOLATION JOINT (I.J.)

AT WALL/ COLUMN

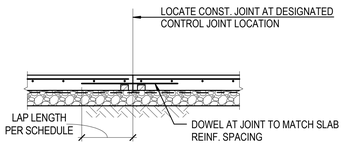


NOTE: PROVIDE JOINTS AT EACH COLUMN LINE. SKEW JOINTS WHERE REQUIRED TO SUIT COLUMNS.

SAWCUT JOINT (S.J.)

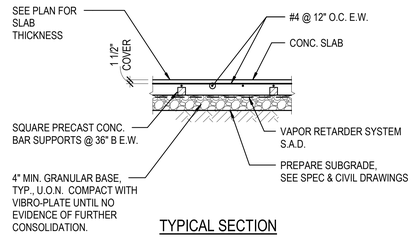


THICKENED SECTION AT EDGE



NOTE: PROVIDE JOINTS AS REQ'D. BY CONTRACTOR BUT IN NO CASE MORE THAN 100 FEET ON CENTER, U.O.N. ON PLANS.

CONSTRUCTION JOINT (C.J.)



TYPICAL SECTION

TYPICAL SLAB ON GRADE DETAILS

1

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95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		05JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEIMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE
TYPICAL CONCRETE DETAILS

2023-045S
PROJECT NUMBER

S3.01
SHEET NUMBER

Author
8/21/2025 5:08:52 PM
Plot Date:

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No. 3237
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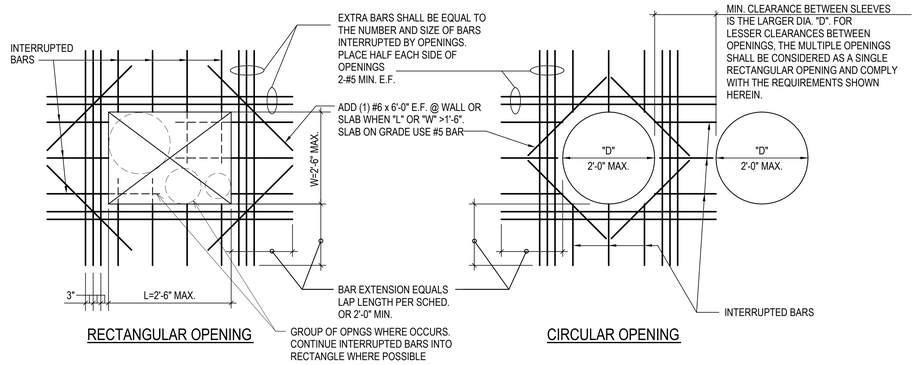
STRUCTURAL
STATE OF CALIFORNIA



REQUIREMENTS FOR PENETRATIONS THROUGH CONCRETE SLABS OR WALLS

1. EMBEDDED CONDUITS OR PIPES IN WALLS OR SLABS ARE NOT ALLOWED UNLESS SPEFICALLY NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. ATTACH CONDUIT OR PIPE TO FACE OF WALLS OR SLABS. CONDUITS/PIPES THAT MUST PASS THROUGH WALL SHALL BE PLACED THROUGH SLEEVES OR BLOCKOUTS PROVIDED FOR THEIR USE WHEREVER POSSIBLE.
2. PENETRATIONS THROUGH WALLS OR SLABS SHALL BE AT RIGHT ANGLES TO THE WALL OR SLAB(+/- 10 DEGREES).
3. SINGLE PENETRATIONS SMALLER THAN 5" DIAMETER REQUIRE NO ADDITIONAL TRIM REINFORCEMENT. NOTIFY ARCHITECT OF SIZE AND LOCATIONS OF WALL OR SLAB PENETRATIONS 5 INCH DIAMETER AND LARGER NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. CORED OPENINGS WILL NOT BE PERMITTED IN CONCRETE WALLS OR SLABS UNLESS SPECIFICALLY DETAILED IN THE STRUCTURAL DRAWINGS.

REINFORCING AT SLAB AND WALL OPENINGS

1/2" = 1'-0"

1

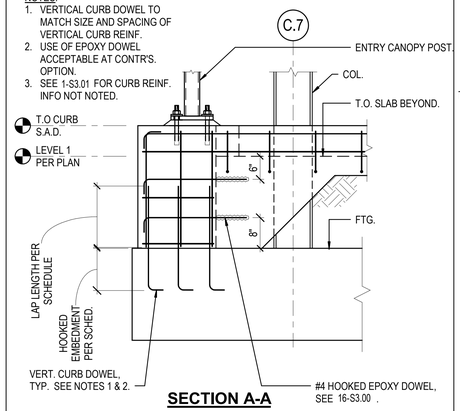
SHEET TITLE
TYPICAL CONCRETE DETAILS

2023-045S
PROJECT NUMBER

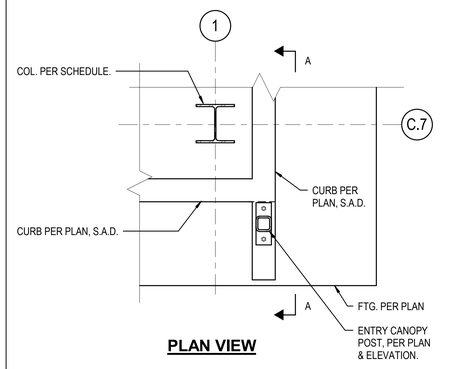
S3.02
SHEET NUMBER

Plot Date: 8/21/2025 5:08:53 PM Author

NOTES:
1. VERTICAL CURB DOWEL TO MATCH SIZE AND SPACING OF VERTICAL CURB REINF.
2. USE OF EPOXY DOWEL ACCEPTABLE AT CONTR'S. OPTION.
3. SEE 1-S3.01 FOR CURB REINF. INFO NOT NOTED.



SECTION A-A



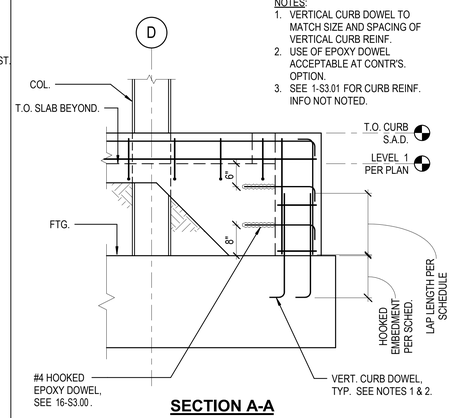
PLAN VIEW

CURB PLAN VIEW AT GRID 1 AND C.7

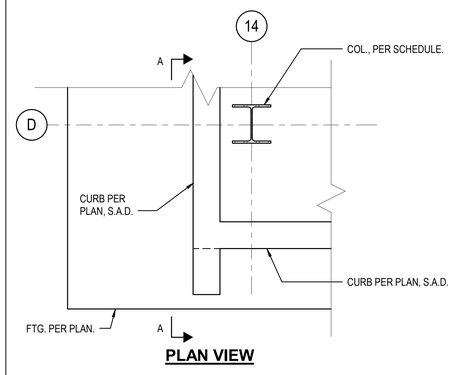
3/4" = 1'-0"

5

NOTES:
1. VERTICAL CURB DOWEL TO MATCH SIZE AND SPACING OF VERTICAL CURB REINF.
2. USE OF EPOXY DOWEL ACCEPTABLE AT CONTR'S. OPTION.
3. SEE 1-S3.01 FOR CURB REINF. INFO NOT NOTED.



SECTION A-A



PLAN VIEW

CURB PLAN VIEW AT GRID 14 AND D

3/4" = 1'-0"

1

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Exp. 03-31-27
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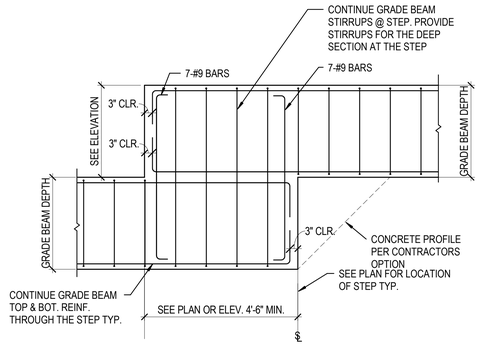
STATE OF CALIFORNIA

SHEET TITLE
CONCRETE DETAILS

2023-045S
PROJECT NUMBER

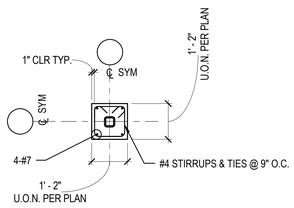
S3.03
SHEET NUMBER

Author
8/21/2025 5:08:54 PM
Plot Date:

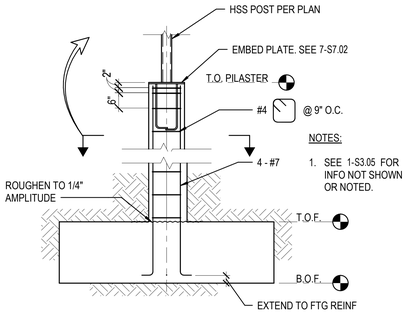


TYPICAL STEPPED GRADE BEAM

1/2" = 1'-0" 11

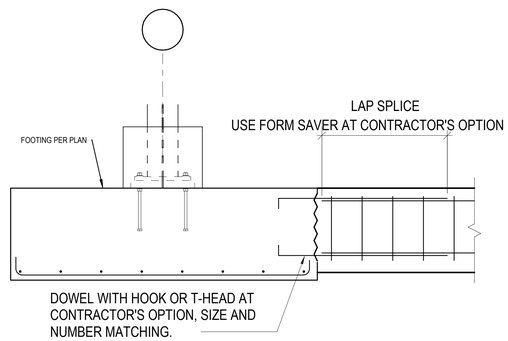


PLAN



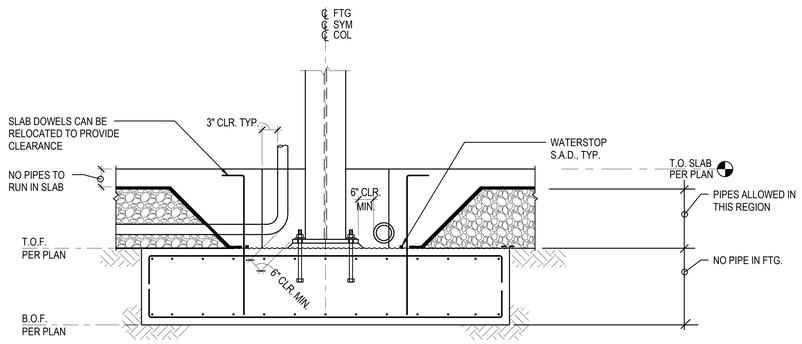
PILASTER P1 AT HSS POST

1/2" = 1'-0" 17



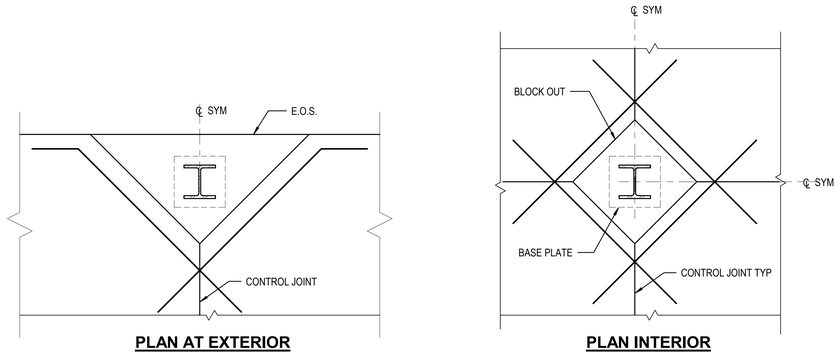
GB TO FOOTING

1/2" = 1'-0" 10



PIPES NEAR SPREAD FOOTINGS

1/2" = 1'-0" 9



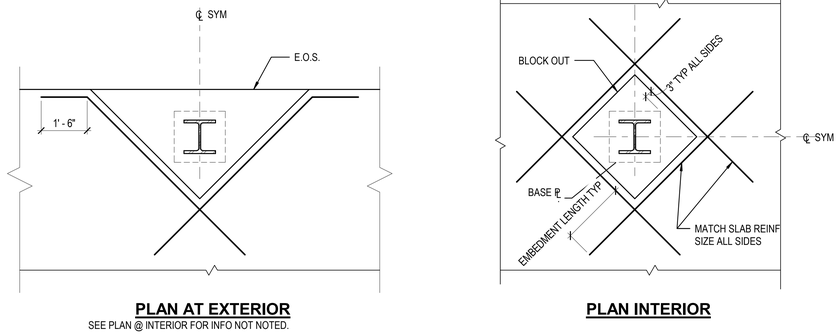
PLAN AT EXTERIOR

SEE PLAN @ INTERIOR FOR INFO NOT NOTED.

PLAN INTERIOR

PLAN @ BLOCKOUT @ JOINTED SLABS

SEE BLOCKOUT @ UN-JOINTED SLABS FOR INFO NOT NOTED

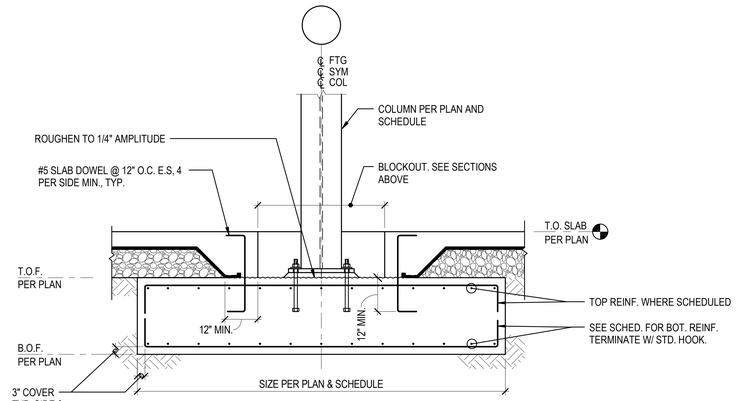


PLAN AT EXTERIOR

SEE PLAN @ INTERIOR FOR INFO NOT NOTED.

PLAN INTERIOR

PLAN @ BLOCKOUT @ UN-JOINTED SLABS



NOTES:
1. COL., BASE PLATE, & A.B. SHOWN FOR CONTEXT ONLY.
2. SEE13-S5.10 FOR BASE PLATE & A.B. INFO.
3. SEE 9-S3.05 FOR ALLOWABLE PIPE LAYOUT NEAR SPREAD FOOTINGS.
4. SEE 13-S5.10 FOR GRAVITY COLUMN BASE PLATE INFO NOT NOTED.
5. SEE S5.41 FOR LATERAL COLUMN BASE PLATE INFO.
6. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING REQUIREMENTS

SPREAD FOOTING SCHEDULE

MARK	WxL	THICKNESS	REINFORCEMENT	COMMENTS
F2	2' - 0" x 2' - 0"	1' - 6"	3 - #5 E.W.	BOT. REINFORCEMENT ONLY.
F4	4' - 0" x 4' - 0"	2' - 0"	6 - #6 E.W.	BOT. REINFORCEMENT ONLY.
F5	5' - 0" x 5' - 0"	2' - 0"	7 - #6 E.W.	BOT. REINFORCEMENT ONLY.
F6	6' - 0" x 6' - 0"	2' - 0"	8 - #6 E.W.	BOT. REINFORCEMENT ONLY.
F7	7' - 0" x 7' - 0"	2' - 0"	8 - #7 E.W.	BOT. REINFORCEMENT ONLY.
F8	8' - 0" x 8' - 0"	2' - 0"	9 - #7 E.W.	BOT. REINFORCEMENT ONLY.
F5S	5' - 0" x 5' - 0"	3' - 0"	8 - #7 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F6S	6' - 0" x 6' - 0"	3' - 0"	9 - #7 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F7S	7' - 0" x 7' - 0"	3' - 0"	10 - #7 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F8S	8' - 0" x 8' - 0"	3' - 0"	9 - #8 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F9S	9' - 0" x 9' - 0"	3' - 0"	10 - #8 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F12S	12' - 0" x 12' - 0"	3' - 0"	13 - #8 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.
F15S	15' - 0" x 13' - 0"	3' - 0"	14 - #9 E.W., T&B.	SEE 9-S5.41FOR ADDED HEADED BARS.

TYP. SPREAD FOOTING

1/2" = 1'-0" 1

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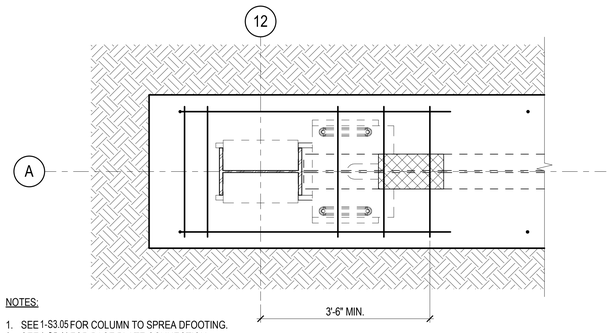
SHEET TITLE
TYPICAL FOUNDATION DETAILS

2023-045S
PROJECT NUMBER

S3.05
SHEET NUMBER

Author
8/21/2025 5:08:57 PM
Plot Date:

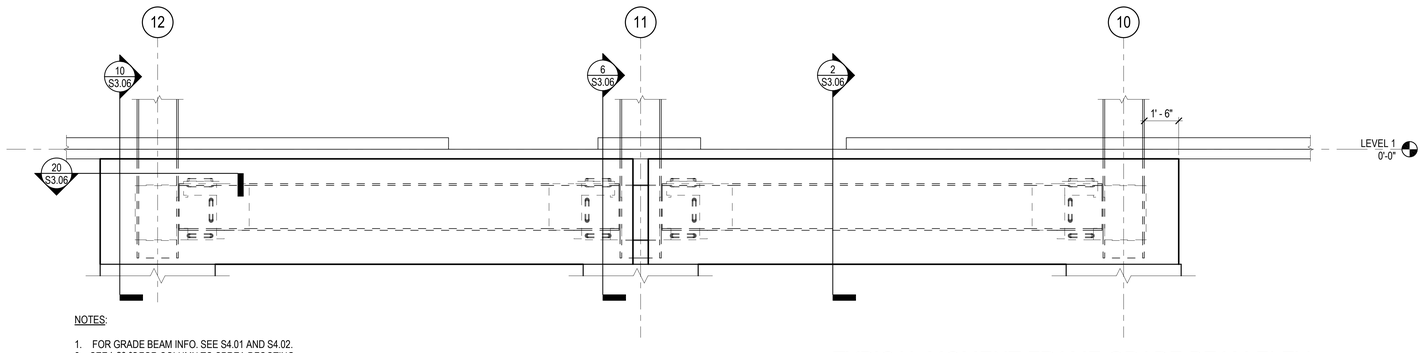


NOTES:

1. SEE 1-S3.05 FOR COLUMN TO SPREA DFOOTING.
2. SEE 1-S5.41 FOR BASE PLATE CONNECTION.

SIDEPLATE GRADE BEAM PLAN VIEW

3/4" = 1'-0" 20

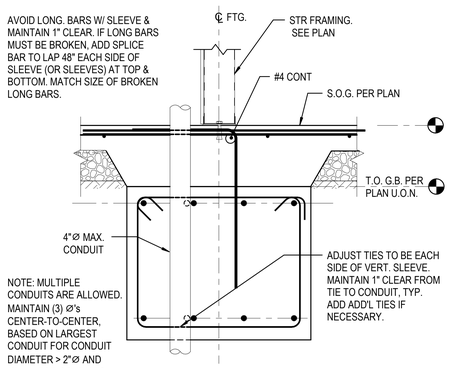


NOTES:

1. FOR GRADE BEAM INFO. SEE S4.01 AND S4.02.
2. SEE 1-S3.05 FOR COLUMN TO SPREA DFOOTING.
3. SEE 1-S5.41 FOR BASE PLATE CONNECTION.

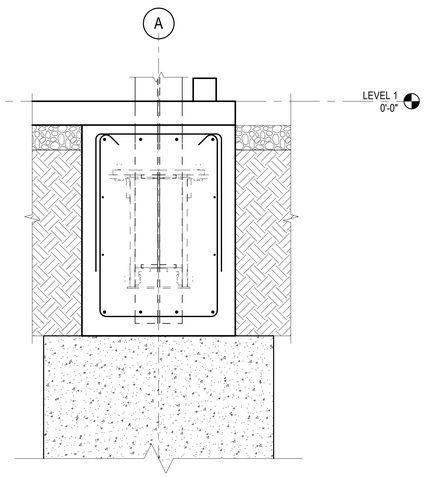
TYPICAL MOMENT FRAME GRADE BEAM ELEV.

3/8" = 1'-0" 4



VERT. ELECTRICAL CONDUIT THROUGH GRADE BEAM

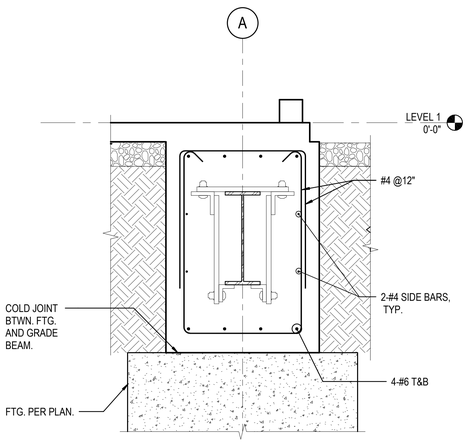
1" = 1'-0" 18



NOTE: SEE 2 AND 6 FOR INFORMATION NOT NOTED.

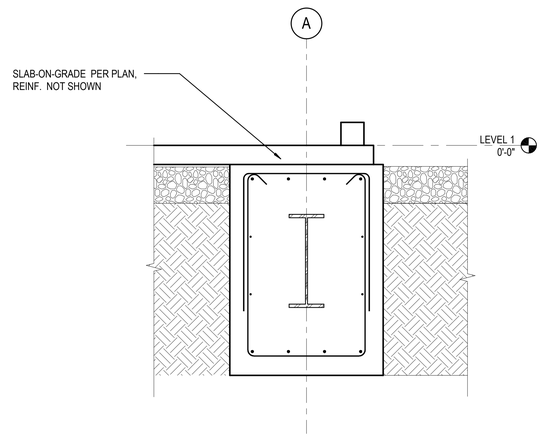
TYP. GB SECTION WITH SIDE PLATES ON OPP. SIDE

3/4" = 1'-0" 10



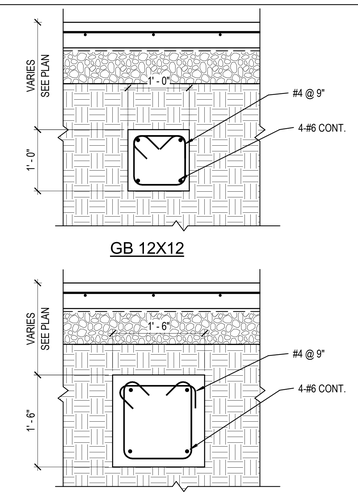
GB TYP. SECTION AT SIDEPLATE CONNECTION

3/4" = 1'-0" 6



TYP. SEISMIC GRADE BEAM SECTION

3/4" = 1'-0" 2



TYPICAL GRADE BEAM SECTIONS

1" = 1'-0" 1

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEEMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE

TYPICAL FOUNDATION DETAILS

2023-045S

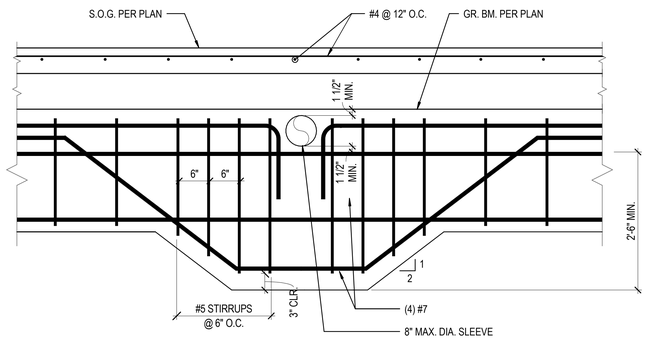
PROJECT NUMBER

S3.06

SHEET NUMBER

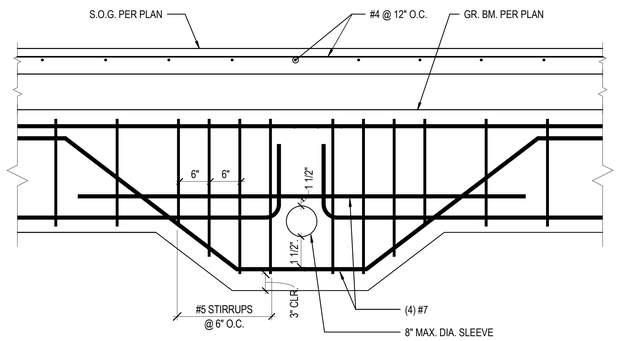
Author

Plot Date: 8/21/2025 5:08:59 PM



GR. BM. PENETRATION DETAIL

1" = 1'-0" 2



GR. BM. PENETRATION DETAIL

1" = 1'-0" 1

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

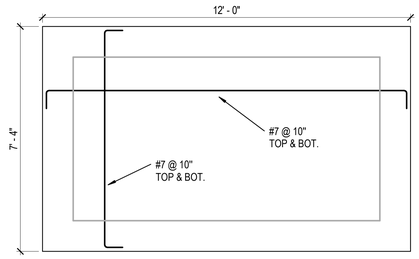
SHEET TITLE

TYPICAL FOUNDATION DETAILS

2023-045S
PROJECT NUMBER

S3.07
SHEET NUMBER

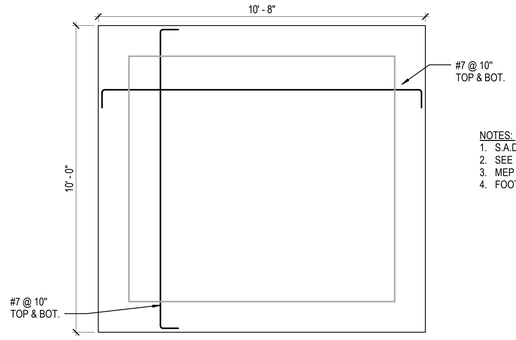
Plot Date: 8/21/2025 5:09:00 PM
Author



FOOTING 144"x88"x30"

NOTES:
1. S.A.D FOR FOOTING LOCATION.
2. SEE 9-S3.10 FOR TYP. SECTION.
3. MEP EQUIPMENT SHOWN IN GRAY FOR REFERENCE ONLY (S.E.D)
4. FOOTING NAMING IS WIDTH X LENGTH X DEPTH (IN)

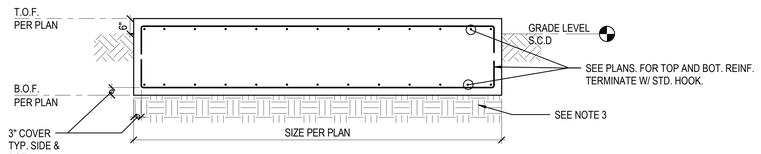
SWITCHBOARD FOOTING REINF. PLAN 12



FOOTING 128"x120"x30"

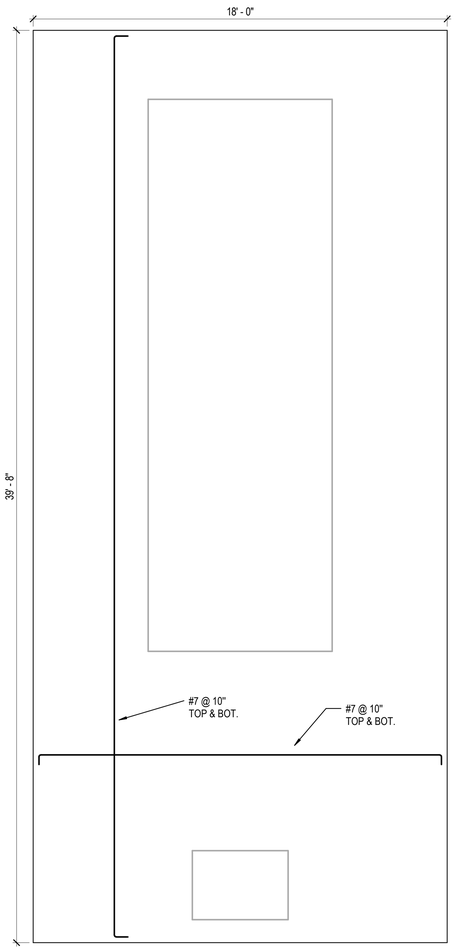
NOTES:
1. S.A.D FOR FOOTING LOCATION.
2. SEE 9-S3.10 FOR TYP. SECTION.
3. MEP EQUIPMENT SHOWN IN GRAY FOR REFERENCE ONLY (S.E.D)
4. FOOTING NAMING IS WIDTH X LENGTH X DEPTH (IN)

TRANSFORMER FOOTING REINF. PLAN 4
1/2" = 1'-0"



NOTES:
1. SEE 9-S3.05 FOR ALLOWABLE PIPE LAYOUT NEAR FOOTINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING REQUIREMENTS
3. SEE NOTE 16 ON S2.01 FOR REQUIRED SUBGRADE PREPARATION.

TYP. MAT SECTION 9
1/2" = 1'-0"



FOOTING 216"x476"x30"

NOTES:
1. S.A.D FOR FOOTING LOCATION.
2. SEE 9-S3.10 FOR TYP. SECTION.
3. MEP EQUIPMENT SHOWN IN GRAY FOR REFERENCE ONLY (S.E.D)
4. FOOTING NAMING IS WIDTH X LENGTH X DEPTH (IN)

GENERATOR FOOTING REINF. PLAN 1
3/8" = 1'-0"

LAS POSITAS COLLEGE

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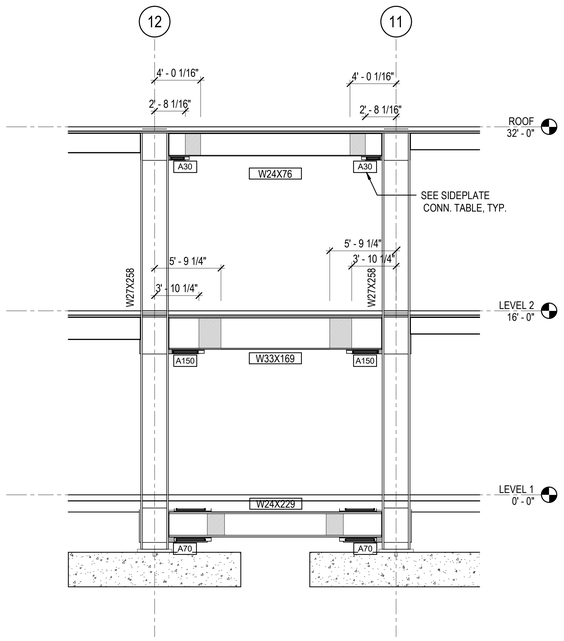
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
ELECTRICAL EQUIPMENT FOUNDATIONS

2023-045S
PROJECT NUMBER

S3.10
SHEET NUMBER

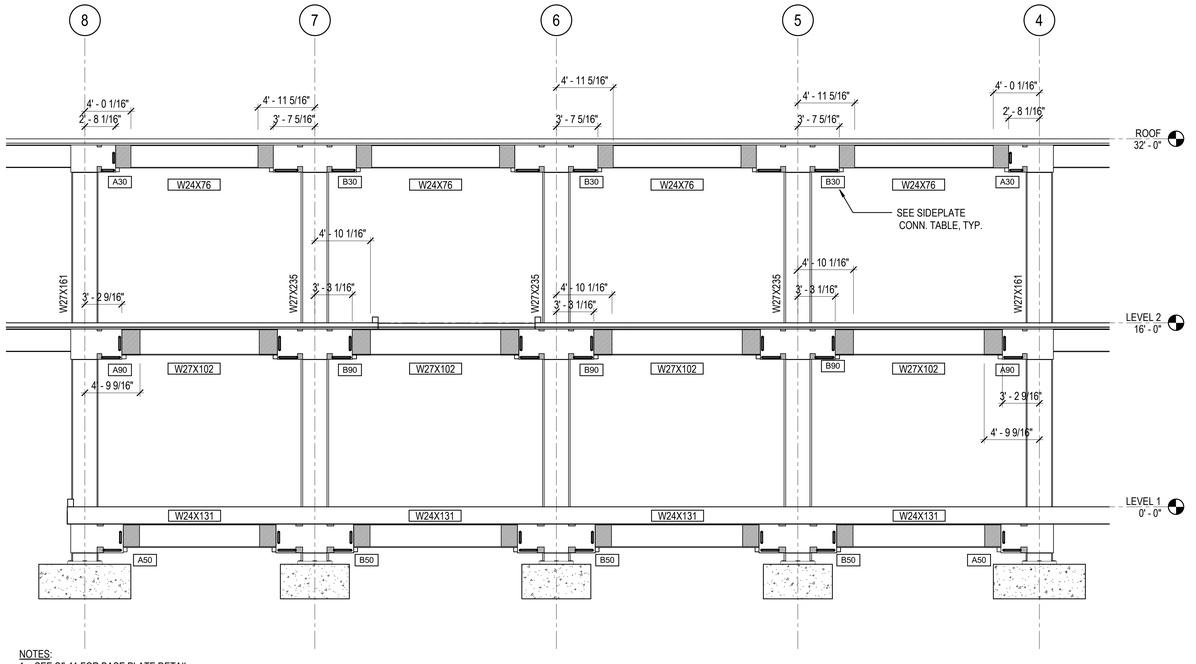
Author
8/21/2025 5:09:01 PM
Plot Date:



NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

MOMENT FRAME ELEVATION LINE H

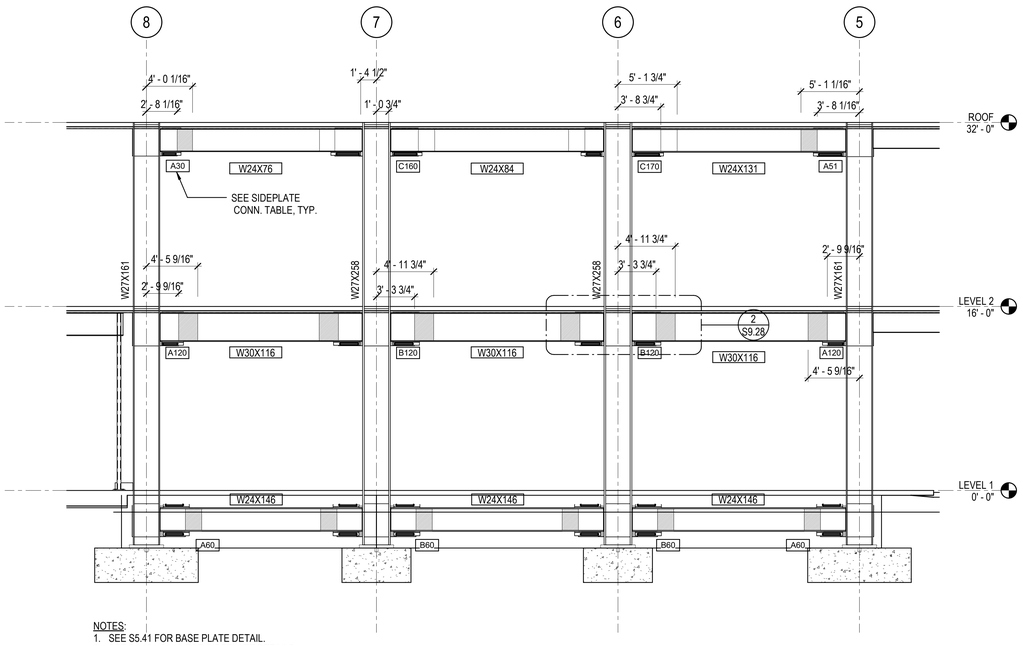
3/16" = 1'-0" 15



NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

MOMENT FRAME GRID LINE C

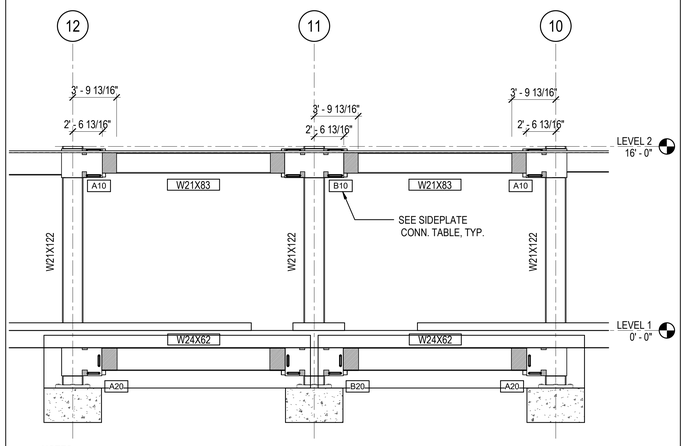
3/16" = 1'-0" 3



NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

MOMENT FRAME GRID LINE G

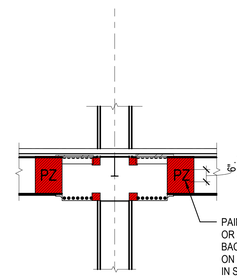
3/16" = 1'-0" 13



NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

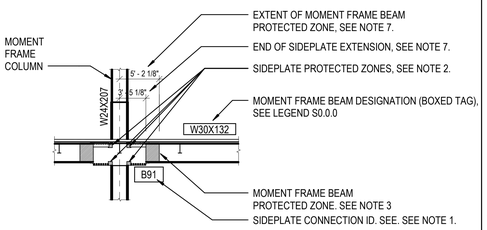
MOMENT FRAME GRID LINE A

3/16" = 1'-0" 5



PAINT LETTERS "PZ" IN EITHER BLACK OR WHITE LETTERS AGAINST A RED BACKGROUND. USE DIMENSIONS SHOWN ON MOMENT FRAME ELEVATIONS AND IN SIDEPLATE DETAILS FOR LEGTH OF PROTECTED ZONE

PROTECTION ZONE SIGNAGE



NOTES:
1. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
2. SEE S4.15-S4.17 FOR SIDEPLATE PROTECTED ZONES.
3. DIMENSIONS ARE APPROXIMATE ONLY & DO NOT GOVERN OVER THE DIMENSIONS SHOWN IN THE SIDEPLATE SCHEDULES

SIDEPLATE MOMENT FRAME CONNECTION LEGEND

1/8" = 1'-0" 1

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DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE

MOMENT FRAME ELEVATIONS

2023-045S

PROJECT NUMBER

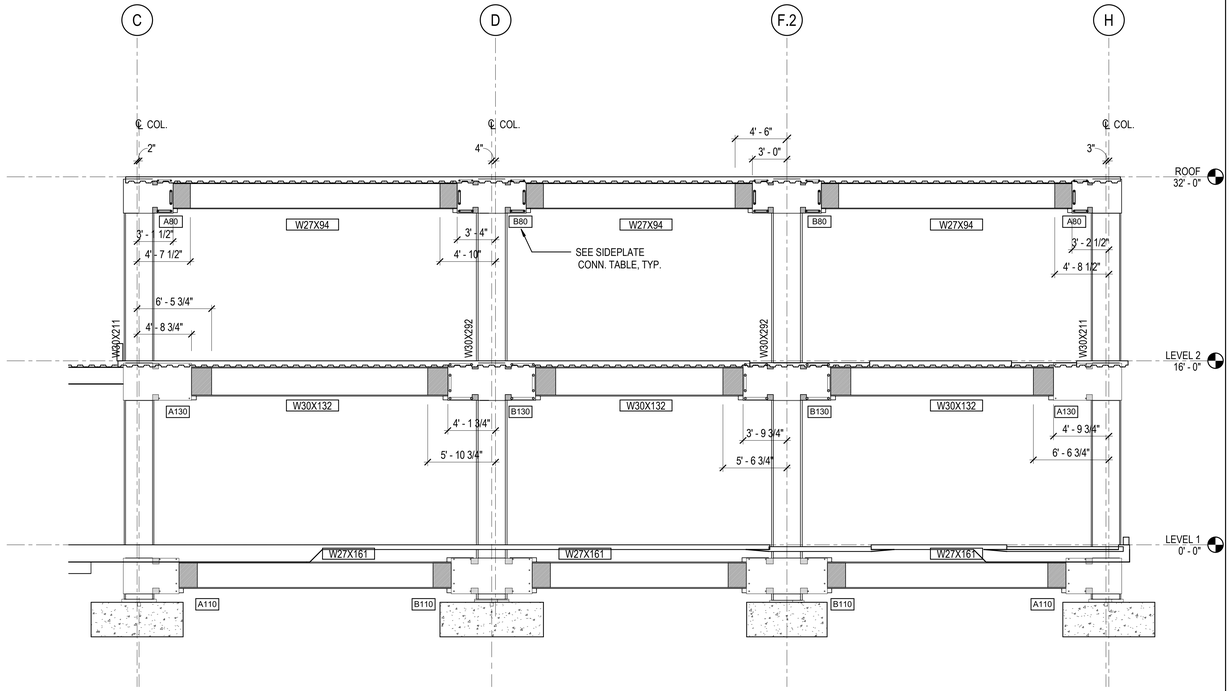
S4.01

SHEET NUMBER

Author

8/21/2025 5:09:05 PM

Plot Date:

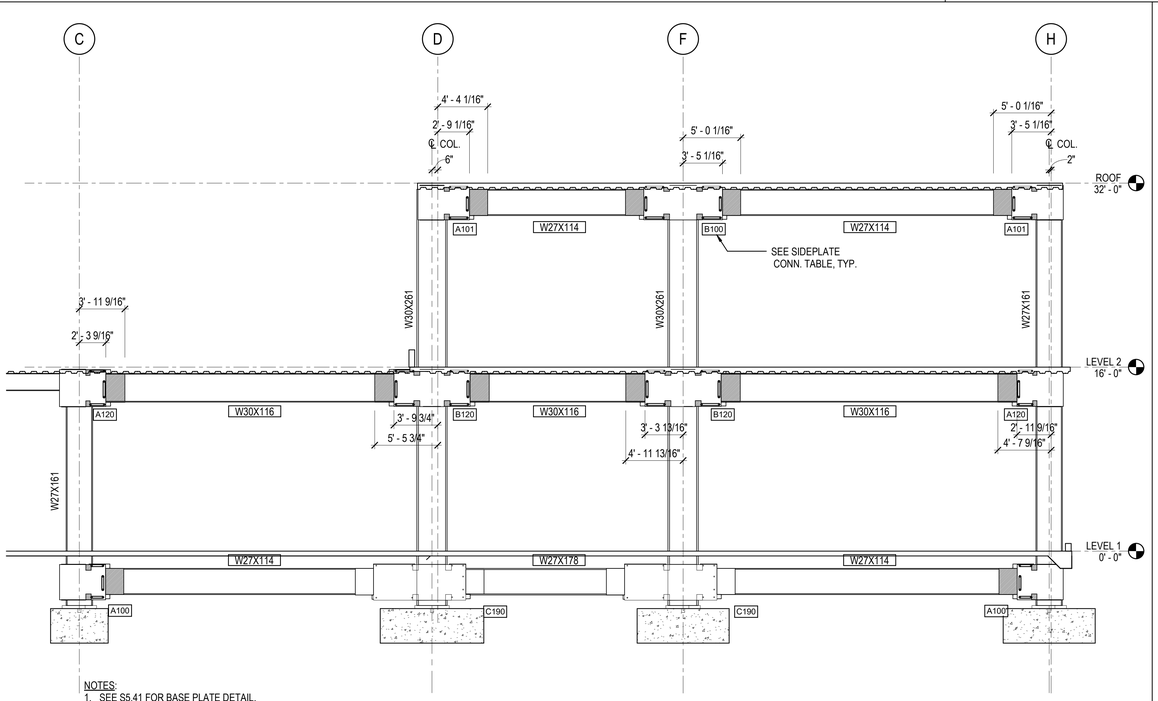


NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

SEE 1-1S4.01 FOR LEGEND

MOMENT FRAME ELEVATION LINE 9

3/16" = 1'-0" 3



NOTES:
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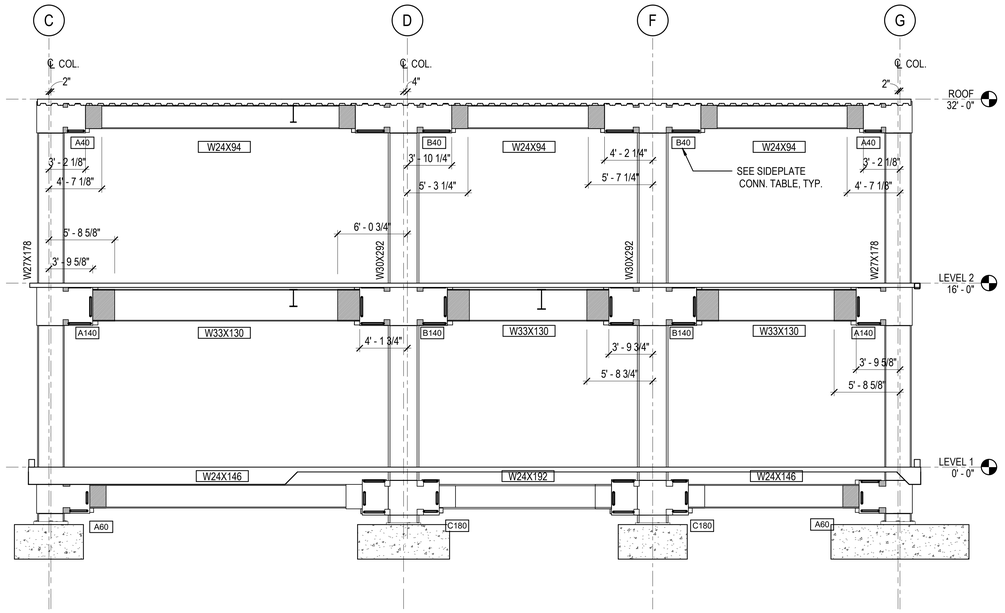
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

SEE 1-1S4.01 FOR LEGEND

MOMENT FRAME ELEVATION LINE 13

3/16" = 1'-0" 9



NOTES:
1. SEE S5.41 FOR BASE PLATE DETAIL.
2. SEE S4.10 - S4.17 FOR SIDEPLATE DETAILS.
3. SEE S3.06 FOR GRADE BEAM DETAILS.

SEE 1-1S4.01 FOR LEGEND

MOMENT FRAME GRID LINE 2

3/16" = 1'-0" 1

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No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE

MOMENT FRAME ELEVATIONS

2023-045S

PROJECT NUMBER

S4.02

SHEET NUMBER

Author

Plot Date: 8/21/2025 5:09:09 PM

PROJECT SPECIFIC INFORMATION

PROJECT NUMBER:	**24046**
SUBMITTAL NUMBER:	S-04
SUBMITTAL DATE:	07/16/2025
PROJECT NAME:	LAS POSITAS COLLEGE, STEAM BUILDING, B1800 BUILDING, AMPHITHEATER
LOCATION:	LIVERMORE, CA
CONNECTION TYPE:	SIDEPLATE PLUS
NUMBER OF BUILDINGS:	1
APPROX. TOTAL GROSS SQUARE FOOTAGE:	51000
NUMBER OF STORIES:	2

eDATA:

a. THERE MAY BE eDATA AVAILABLE FOR YOUR PROJECT WHICH IS AVAILABLE FOR DOWNLOAD AT WWW.SIDEPLATE.COM. eDATA MAY INCLUDE:
   - eSTIMATE FILE IN EXCEL FORMAT FOR USE IN AFFIRMING SIDEPLATE CONNECTION MATERIAL QUANTITIES.
   - ComponentXML FILE FOR USE IN ASSISTING DETAILING EFFORTS.

b. ESTIMATED NUMBER OF SIDEPLATE JOINTS FOR THIS PROJECT = 74
c. ESTIMATED NUMBER OF SIDEPLATE JOINTS FOR THIS PROJECT THAT ARE **NOT** SUPPORTED BY eDATA = 0
d. MISCELLANEOUS DETAILS, TYPICALLY DESIGNATED BY M#, ARE NOT SUPPORTED.

INSTRUCTIONS TO STEEL FABRICATOR

1. SIDEPLATE LICENSE FEE:
   a. THE STEEL FABRICATOR'S BID PRICE FOR PROCUREMENT, FABRICATION AND ERECTION OF STRUCTURAL AND MISCELLANEOUS STEEL SHALL INCLUDE THE SIDEPLATE LICENSE FEE FOR THE PROJECT. EACH PROSPECTIVE STEEL FABRICATOR WHO BIDS THE PROJECT SHALL FORMALLY REQUEST THE SIDEPLATE LICENSE FEE BY ACCESSING THE SIDEPLATE WEBSITE (http://www.sideplate.com).
   b. UPON THE SUCCESSFUL STEEL FABRICATOR SIGNING A CONTRACT TO FABRICATE STRUCTURAL STEEL FOR THIS PROJECT, THE STEEL FABRICATOR SHALL SUBMIT A PURCHASE ORDER (PO) TO SIDEPLATE SYSTEMS, INC. FOR THE TOTAL AMOUNT OF THE SIDEPLATE LICENSE FEE AND SHALL INCLUDE SAID FEE IN ITS FIRST CONSTRUCTION DRAW.
   c. THE STEEL FABRICATOR SHALL MAKE PAYMENT OF THE SIDEPLATE LICENSE FEE DIRECTLY TO:

      SIDEPLATE SYSTEMS, INC.
      25909 PALA, SUITE 200
      MISSION VIEJO, CA 92691
      TEL: 949-238-8900

SUBMITTALS

1. IN ADDITION TO THE REQUIRED SUBMITTALS SPECIFIED BY THE BALANCE OF THE CONTRACT DOCUMENTS, THE FOLLOWING SUBMITTALS SHALL BE SENT TO SIDEPLATE SYSTEMS, INC. ELECTRONICALLY VIA THE STRUCTURAL ENGINEER OF RECORD FOR THEIR REVIEW AND DISPOSITION:
   a. QUALITY CONTROL PROGRAM (REQUIRED IF NOT AISC CERTIFIED)
   b. ONE ELECTRONIC COPY OF ALL STRUCTURAL STEEL DRAWINGS THAT EITHER DIRECTLY PERTAINS TO AND/OR AFFECTS THE SHOP FABRICATION OR FIELD ERECTION OF THE SIDEPLATE STEEL FRAME CONNECTION SYSTEM, INCLUDING THE INITIAL SUBMITTAL AND ALL CORRECTED RE-SUBMITTALS OF AFFECTED DRAWINGS. SIDEPLATE SYSTEMS, INC. SHALL BE GIVEN, AS A MINIMUM, THE SAME SPECIFIED REVIEW TIME (NOT LESS THAN SEVEN BUSINESS DAYS) AS THE ENGINEER OF RECORD.
   c. PROCEDURE QUALIFICATION RECORD (PQR), OR WELDING PROCEDURE SPECIFICATIONS (WPS) AND CURRENT CERTIFICATE OF CONFORMANCE BY THE WIRE MANUFACTURER.
2. SENT BY SIDEPLATE:
   a. INTELLECTUAL PROPERTY RIGHTS NOTICE LABEL.
   b. USPTO PATENT LABEL STICKERS, SEE INTELLECTUAL PROPERTY SECTION FOR PLACEMENT.

MEETINGS

1. PRE-DETAILING MEETING
   a. PRIOR TO THE START OF DETAILING OF THE SHOP DRAWINGS, THE FABRICATION CONTRACTOR SHALL FORMALLY REQUEST A PRE-DETAILING MEETING FROM SIDEPLATE SYSTEMS, INC. THIS MEETING IS TYPICALLY A WEBINAR TO DISCUSS BEST PRACTICES FOR THE DETAILING OF THE SIDEPLATE CONNECTIONS, AND TO CREATE A PROACTIVE FORUM TO ANSWER ANY QUESTIONS.
2. PRE-FABRICATION MEETING
   a. PRIOR TO THE START OF FABRICATION, THE FABRICATION CONTRACTOR SHALL FORMALLY REQUEST A PRE-FABRICATION MEETING FROM SIDEPLATE SYSTEMS, INC. THIS MEETING IS TYPICALLY A WEBINAR TO DISCUSS BEST PRACTICES FOR THE FABRICATION OF THE SIDEPLATE CONNECTIONS, AND TO CREATE A PROACTIVE FORUM TO ANSWER ANY QUESTIONS.
3. PRE-ERECTION MEETING
   a. PRIOR TO THE START OF STEEL ERECTION, THE ERECTION CONTRACTOR SHALL FORMALLY REQUEST A PRE-ERECTION MEETING FROM SIDEPLATE SYSTEMS, INC. THIS MEETING IS TYPICALLY A WEBINAR TO DISCUSS BEST PRACTICES FOR FIELD ERECTION OF THE SIDEPLATE BEAMS AND COLUMNS, AND TO CREATE A PROACTIVE FORUM TO ANSWER ANY QUESTIONS.

GENERAL

1. THE GOVERNING CODES SHALL CONSIST OF ANSI/AWS D1.1-2015 (AWS D1.1), ANSI/AWS D1.8-2016, ANSI/AISC 358-16 (INCLUDING SUPPLEMENT NO. 2), AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (JUNE 15, 2016), 2014 RCSC SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS, AND ALL APPLICABLE BUILDING AND JURISDICTIONAL CODES AND PROJECT STANDARDS SPECIFIED IN THE PROJECT SPECIFICATION STRUCTURAL STEEL SECTION. WHERE THE REQUIREMENTS DIFFER BETWEEN SIDEPLATE CONNECTION NOTES, THE GENERAL STRUCTURAL NOTES, AND THE GOVERNING CODES, THE MORE STRINGENT SECTION CRITERIA SHALL CONTROL.
2. ALPHA AND NUMERIC DESIGNATORS (X) & (#) USED HEREIN TO SIMPLIFY THE IDENTIFICATION OF PLATES, ANGLES, AND WELDS ARE DEFINED BELOW:

{A}	SIDE PLATE FOR UNIAXIAL CONNECTIONS
{B}	BEAM FLANGE COVER PLATE, AS REQUIRED
{C}	VERTICAL SHEAR PLATE OR FLAT BAR WELDED TO BEAM WEB, AS REQUIRED
{D}	HORIZONTAL SHEAR PLATE OR FLAT BAR WELDED TO COLUMN WEB, AS REQUIRED
{E}	VERTICAL ANGLE WELDED TO THE VERTICAL SHEAR PLATE (C), AS REQUIRED
{F}	VERTICAL SHEAR ELEMENT (VSE) WHICH CONSISTS OF PLATE (C) AND ANGLE (E) MATERIAL, AS REQUIRED
{G}	LONGITUDINAL ANGLE WELDED TO THE OUTSIDE FACE OF SIDE PLATE (A), AS REQUIRED
{H}	LONGITUDINAL ANGLE WELDED TO THE BOTTOM BEAM FLANGE (OR TOP BEAM FLANGE AS REQUIRED)
{T}	HORIZONTAL PLATE WELDED TO THE OUTSIDE FACE OF SIDE PLATE (A), AS REQUIRED
{1}	FILLET WELD CONNECTING SIDE PLATE (A) TO HORIZONTAL SHEAR PLATE (D) OR COLUMN
{2}	FILLET (AND/OR FLARE BEVEL) WELD CONNECTING INSIDE FACE OF SIDE PLATE (A) TO COLUMN [DEMAND CRITICAL]
{3}	FILLET WELD CONNECTING HORIZONTAL SHEAR PLATE (D) TO COLUMN, AS REQUIRED
{4}	FILLET WELD TO CONSTRUCT VSE (F) AND TO CONNECT IT TO THE WEB OF THE BEAM, AS REQUIRED
{5}	FILLET (AND/OR PJP) WELD CONNECTING BEAM FLANGE TIPS TO COVER PLATE (B) AND/OR LONGITUDINAL ANGLE (H), AS REQUIRED [DEMAND CRITICAL]
{5a}	FILLET WELD CONNECTING OUTSIDE FACE OF BEAM FLANGE TO COVER PLATE {B} AND/OR LONGITUDINAL ANGLE (H), AS REQUIRED [DEMAND CRITICAL]
({5p})	PJP WELD CONNECTING ANGLE (H) TO BEVELED BEAM FLANGE [DEMAND CRITICAL]
{8}	FILLET (AND/OR PJP) WELD CONNECTING LONGITUDINAL ANGLE (G) (AND/OR PLATE (T)) TO SIDE PLATE (A), AS REQUIRED [DEMAND CRITICAL]
({8p})	PJP WELD CONNECTING PLATE {T} TO SIDE PLATE (A), AS REQUIRED [DEMAND CRITICAL]
{9}	FILLET WELD CONNECTING SIDE PLATE (A) TO COLUMN FACE, WRAPPED AROUND THREE SIDES OF SIDE PLATE (A) [DEMAND CRITICAL]
{10}	FILLET WELD TO CONSTRUCT SIDE PLATE SLOTTED INTERLOCK ASSEMBLY [DEMAND CRITICAL]
{10p}	PJP WELD TO CONSTRUCT SIDE PLATE SLOTTED INTERLOCK ASSEMBLY [DEMAND CRITICAL]
{10r}	REINFORCING FILLET WELD TO CONSTRUCT SIDE PLATE SLOTTED INTERLOCK ASSEMBLY [DEMAND CRITICAL]
{13}	FILLET WELD CONNECTING BUILT UP ANGLE (H) PLATES TOGETHER, AS REQUIRED [DEMAND CRITICAL]
({13p})	PJP WELD CONNECTING BUILT UP ANGLE (H) PLATES TOGETHER, AS REQUIRED [DEMAND CRITICAL]

3. ALPHA DESIGNATORS, USED HEREIN TO SIMPLIFY THE IDENTIFICATION OF DIMENSIONS OF THE SIDEPLATE CONNECTIONS, ARE DEFINED BELOW:

GAP	PHYSICAL SEPARATION BETWEEN THE END OF THE MOMENT FRAME BEAM AND THE ADJOINING FACE OF THE COLUMN FLANGE (AKA COLUMN/BEAM SEPARATION)
A	EXTENSION OF SIDE PLATE (A) FROM THE FACE OF THE COLUMN
B	DEPTH OF SIDE PLATE (A)
C	LENGTH OF COVER PLATE (B) AND/OR LONGITUDINAL ANGLE (H)
D	LENGTH OF SLOT FROM THE TOE OF THE RADIUS IN THE COVER PLATE (B), AS REQUIRED
E	EDGE DISTANCE OF BOLT HOLES IN COVER PLATE (B), AS REQUIRED
F	DISTANCE FROM END OF SIDE PLATE (A) TO A CJP WELDED SPLICE IN THE FLANGES AND WEB OF THE MOMENT FRAME BEAM, AS REQUIRED
G	GAGE DISTANCE TO CENTERLINE OF BOLT HOLES IN ANGLES {G} AND {H}, AND PLATE {T}, AS REQUIRED
H	ADDED DIMENSION TO COLUMN FLANGE WIDTH TO DEFINE TOTAL COVER PLATE {B} WIDTH
J	DISTANCE FROM END OF THE BEAM TO CENTERLINE OF VERTICAL BOLT HOLES IN VSE {F}, AS REQUIRED
K	CUT DIMENSION ON ANGLE {H}
L	DISTANCE FROM CENTERLINE OF HORIZONTAL BOLT HOLES IN BOTTOM ANGLE {H} TO BOTTOM MOST BOLT HOLE IN VSE {F}
R	RADIUS OF SLOT DIMENSION IN COVER PLATE {B}
S	HORIZONTAL SPACING BETWEEN BOLT HOLES
Y	ADDED DIMENSION TO COLUMN FLANGE WIDTH FOR ALLOWABLE SPREAD OF SIDE PLATES {A}

MATERIAL

1. PLATE, FLAT BAR, AND ANGLE MATERIAL:
   a. ALL PLATE MATERIAL SHALL BE ASTM A572, GRADE 50.
   b. ANGLE AND BAR MATERIAL SHALL HAVE A HIGH STRENGTH STEEL SPECIFICATION AND SHALL HAVE A MINIMUM YIELD STRENGTH (F_y) OF 50 KSI.
   c. ALL PLATE MATERIAL 2 INCHES THICK AND GREATER SHALL MEET THE FOLLOWING ADDITIONAL REQUIREMENTS:
      - CHARPY V-NOTCH (CVN) TOUGHNESS SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF ASTM A673, FREQUENCY P. A MINIMUM CVN TOUGHNESS OF 20 FT-LB AT A TEMPERATURE OF 70°F, IN ACCORDANCE WITH ASTM A6, SUPPLEMENTARY REQUIREMENT S5, SHALL BE DOCUMENTED IN THE CERTIFIED MILL TEST REPORT (CMTR). IF THE CMTR DOES NOT DOCUMENT THE MINIMUM CVN VALUES, A COUPON SHALL BE REMOVED FROM THE END OF EACH PIECE OF PLATE TO BE TESTED. THE LENGTH OF COUPON SHALL BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE MEMBER. A TEST SPECIMEN SHALL BE MACHINED FROM EACH COUPON IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, SECTION A3-1d, BUILT-UP HEAVY SHAPES.
2. WELD FILLER METAL:
   a. THE WELD FILLER METAL AND ASSOCIATED WELDING PROCESS FOR ALL FILLET WELDS SHALL MEET THE REQUIREMENTS OF AWS D1.1 AND D1.8 SECTION 6.1 AND SHALL BE ANY OF THE FOLLOWING:
      - E70T-5, E71T-5, OR E70TG-K2 FOR FCAW
      - E7XT-9 FOR FLUX CORED ARC WELDING (FCAW) WITH GAS SHIELDING
      - F7A2-EXXX FOR SUBMERGED ARC WELDING (SAW)
      - E7018 STICK ELECTRODE FOR SHIELDED METAL ARC WELDING (SMAW)
      - ER70S-X, E70C-XM, OR E70C-XC FOR GMAW (EXCEPT SHORT CIRCUIT TRANSFER)
   b. THE WELD FILLER METAL USED FOR FILLET WELDS TO CONSTRUCT THE SIDEPLATE CONNECTION SYSTEM PRESENTED HEREIN SHALL DEMONSTRATE AN ENERGY EQUIVALENT TO A MINIMUM CVN TOUGHNESS OF 20 FT-LB IMPACT STRENGTH AT A TEMPERATURE OF 0°F AND 40 FT-LB IMPACT STRENGTH AT 70°F AS DETERMINED BY AWS CLASSIFICATION TEST METHODS OR MANUFACTURER CERTIFICATION.
   c. ALL WELD FILLER METAL SHALL SATISFY A MAXIMUM DIFFUSIBLE HYDROGEN CONTENT REQUIREMENT PER AWS D1.1 AND D1.8 SECTION 6.1, OF 16 MILLILITERS OF HYDROGEN PER 100 GRAMS OF WELD METAL (H16) OR LESS.
   d. REFER TO AWS D1.8 ANNEX B FOR REQUIREMENTS WHEN MIXING FCAW-S WITH OTHER WELD PROCESSES.
3. HIGH STRENGTH BOLTS/FASTENERS:
   a. BOLTS SHALL BE TYPE 1 OR TYPE 3 AND SHALL BE ASTM F3125, GRADE A490-X OR GRADE F2280-X, OR F3148 FIXED SPLINE BOLT ASSEMBLIES. THE BOLT HEAD SHALL BE DISTINCTIVELY MARKED WITH A MINIMUM MARKING OF A490, A490TC, OR 144 RESPECTIVELY. AN ALTERNATIVE DESIGN THAT MEETS THE REQUIREMENTS OF RCSC SECTION 2.8 MAY BE USED, WITH THE WRITTEN APPROVAL FROM SIDEPLATE SYSTEMS, INC.
   b. FOR BOLTS UP TO 1 1/4 INCH DIAMETER WASHERS SHALL BE ORDINARY THICKNESS AND ASTM F436 TYPE 1 OR TYPE 3. 1 1/2 INCH DIAMETER BOLTS SHALL REQUIRE 5/16 INCH THICK WASHER.
   c. NUTS SHALL BE ASTM A563 GRADE DH OR DH3.
   d. THE BOLT ASSEMBLY SHALL BE COVERED IN A LIGHT PROTECTIVE OIL. F2280 AND F3148 ASSEMBLIES SHALL ONLY BE LUBRICATED BY THE SUPPLIER.
   e. THE MILL TEST REPORT (MTR) MUST HAVE DOCUMENTED LOT TRACEABILITY, STATEMENT OF DIMENSIONAL RESULTS, FULL CHEMICAL AND MECHANICAL TEST RESULTS TO THE SPECIFICATIONS ABOVE.
   f. THE USE OF FINGER SHIMS ARE ACCEPTABLE PER BOLTING SECTION 8.
4. ROLLED SHAPES:
   a. ALL ROLLED SHAPES USED FOR COLUMNS AND BEAMS IN CONSTRUCTING SIDEPLATE MOMENT FRAMES SHALL BE ASTM A992 GRADE 50 UNO.
   b. FOR EACH DIFFERENT SIZE OF STEEL FRAME COLUMNS AND BEAMS IDENTIFIED IN THE CONTRACT DOCUMENTS AS PART OF THE SFRS INVOLVING ASTM A6 HOT-ROLLED SHAPES WITH FLANGES > 1/2 INCHES THICK OR THICKER, CHARPY V-NOTCH (CVN) TOUGHNESS SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF ASTM A673, FREQUENCY H. A MINIMUM CVN TOUGHNESS OF 20 FT-LB AT A TEMPERATURE OF 70°F, IN ACCORDANCE WITH ASTM A6, SUPPLEMENTARY REQUIREMENT S30, SHALL BE DOCUMENTED IN THE CERTIFIED MILL TEST REPORT (MTR). IF THE CMTR DOES NOT DOCUMENT THE MINIMUM CVN VALUES, A COUPON SHALL BE REMOVED FROM THE END OF EACH MEMBER SHAPE SAMPLED. THE LENGTH OF COUPON SHALL BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE MEMBER. A TEST SPECIMEN SHALL BE MACHINED FROM EACH COUPON, IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, SECTION A3-1c FOR ROLLED HEAVY SHAPES. THE LONGITUDINAL AXIS OF THE TEST SPECIMEN SHALL BE LOCATED AS NEAR AS PRACTICABLE TO A POINT MIDWAY BETWEEN THE INNER FLANGE SURFACE AND THE CENTER OF FLANGE THICKNESS, AT THE INTERSECTION OF THE WEB MID-THICKNESS.
5. WELDED BUILT-UP SHAPES:
   a. FOR EACH DIFFERENT SIZE OF STEEL FRAME COLUMNS AND BEAMS IDENTIFIED IN THE CONTRACT DOCUMENTS AS PART OF THE SFRS INVOLVING PLATE 2 INCHES THICK OR THICKER USED TO CONSTRUCT WELDED BUILT-UP SECTIONS SHALL FOLLOW PLATE MATERIAL SPECIFICATIONS OUTLINED IN SECTION 1.
6. HSS TUBE SHAPES:
   a. ALL HSS SHAPES USED FOR BEAMS IN CONSTRUCTING SIDEPLATE MOMENT FRAMES SHALL, AS A MINIMUM, BE ASTM A500 GRADE B OR GRADE C OR ASTM A1085.
   b. ALL HSS SHAPES USED FOR COLUMNS IN CONSTRUCTING SIDEPLATE MOMENT FRAMES SHALL BE ASTM A1085.

PREPARATION

1. THE STEEL FABRICATION AND ERECTION SUBCONTRACTORS SHALL EMPLOY A DISTORTION CONTROL PROGRAM PRIOR TO THE START OF SIDEPLATE MOMENT FRAME FABRICATION. THE DISTORTION CONTROL PROGRAM SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF AWS D1.1 SECTION 5.20 AND 5.21 TO ENSURE THAT THE FOLLOWING ARE MAINTAINED:
   - DIMENSIONAL ACCURACY
   - FRAMING AND ALIGNMENT TOLERANCES
   - COMPLIANCE WITH AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, SECTION 7.0, ERECTION PROVISIONS
   - CONSTRUCTION OF JOINT PREPARATION AND WELD SHRINKAGE
2. BASE METAL SURFACE PREPARATION: SURFACES ON WHICH WELD METAL IS TO BE DEPOSITED, INCLUDING BUT NOT LIMITED TO COLUMN FLANGE TIPS (I.E., COLUMN FLANGE-TO-SIDE PLATE (A) ATTACHMENT), BEAM FLANGE TIPS (I.E., BEAM FLANGE-TO-COVER PLATE (B) ATTACHMENT), AND THERMAL CUT EDGES (E.G., LONGITUDINAL EDGES OF COVER PLATE (B)), SHALL BE SMOOTH, UNIFORM, AND FREE FROM LOOSE OR THICK SCALE, SLAG, RUST, MOISTURE, GREASE AND OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
3. THERMAL CUTTING:
   a. THE ROUGHNESS OF ALL THERMAL-CUT SURFACES SHALL BE NO GREATER THAN AN ANSI SURFACE ROUGHNESS VALUE OF 1000 MICRO-INCHES; CUT ROUGHNESS EXCEEDING THIS VALUE AND NOTCHES OR GOUGES NOT MORE THAN 3/16 INCH DEEP SHALL BE REMOVED BY MACHINING OR GRINDING. NOTCHES OR GOUGES DEEPER THAN 3/16 INCH SHALL BE REPAIRED PER AWS.
   b. FLAME CUT SURFACES SHALL BE FREE OF GLOBULES AND LOOSE SLAG. THE THERMAL CUTTING EQUIPMENT SHALL BE ADJUSTED AND MANIPULATED SO AS TO AVOID CUTTING BEYOND (INSIDE) THE PRESCRIBED LINES.
   c. THERMAL CUTTING PROCESSES SHALL BE LIMITED TO PLASMA ARC-CUTTING OR OXYFUEL GAS PROCESSES.
4. WEB/FLANGE FILLET AREA:
   a. UNLESS NOTED OTHERWISE, VERTICAL SHEAR PLATES {C} (AS REQUIRED) AND HORIZONTAL SHEAR PLATES {D} (AS REQUIRED) SHALL HAVE THEIR INSIDE CORNERS CLIPPED PER AWS D1.8 CLAUSE 4 TO PREVENT WELDING IN THE K-AREA BETWEEN WEB AND FLANGE WHEN THE COLUMN FLANGE IS THICKER THAN W16x. THESE CLIPS SHALL START AND END A DISTANCE OF 1 1/2 INCHES FROM THE TANGENT OF THE FLANGE TO THE WEB FILLET (I.E., THE AISC 'k' DIMENSION). THE DIMENSIONS OF THE CLIPPED CORNER SHALL BE DETAILED ON THE SHOP DRAWINGS.
   b. WELD {3} RETURNS ON THE INSIDE FACE OF THE COLUMN FLANGES (AS OCCURS). IN NO CASE SHALL A WELD TIE-IN OF WELD {3} BE LOCATED ACROSS THE CLIPPED CORNER OF THE HORIZONTAL SHEAR PLATES {D} AT THE K-AREA BETWEEN WEB AND FLANGE.
5. ANY HOLE MAKING METHODS ALLOWED BY AISC SPECIFICATIONS ARE ALLOWED WITH THE EXCEPTION THAT WHEN USING A THERMAL CUTTING PROCESS, IT IS NOT PERMITTED FOR PLATES THICKER THAN 2 INCHES (50 MM).

WELDING

1. WELDER QUALIFICATION: THE PERFORMANCE OF ALL WELDERS, WELDING OPERATORS AND TACK WELDERS SHALL BE QUALIFIED IN CONFORMANCE WITH AWS D1.1, SECTION 4, PART C TO DEMONSTRATE ABILITY TO PRODUCE SOUND WELDS.
2. WELDING PROCEDURE SPECIFICATIONS (WPS):
   a. THE CONTRACTOR'S STEEL SUBCONTRACTOR SHALL PREPARE A SPECIFIC WRITTEN WPS FOR EVERY DIFFERENT WELDING APPLICATION. DIFFERENT WELDING APPLICATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE JOINT DETAILS AND TOLERANCES, PREHEAT AND INTERPASS TEMPERATURE, SINGLE OR MULTIPLE STRINGER PASSES, WELDING CURRENT, POLARITY, ALLOWABLE AMPERAGE RANGES, ALLOWABLE VOLTAGE RANGES, ALLOWABLE TRAVEL SPEED RANGES, ELECTRODE EXTENSION, ROOT TREATMENT, WELDING POSITION, WELDING PROCESS, ELECTRODE MANUFACTURER, FILLER METAL TRADE NAME FOR THE ELECTRODE TYPE SELECTED, AND OTHER ESSENTIAL VARIABLES AS DEFINED IN AWS D1.1 REQUIRED TO COMPLETE THE FABRICATION AND ERECTION OF THE SPECIFIED SIDEPLATE CONNECTIONS. AMPERAGE, VOLTAGE, TRAVEL SPEED AND ELECTRODE EXTENSION SHALL BE WITHIN THE FILLER METAL MANUFACTURER'S RECOMMENDATIONS.
   b. EACH WPS PREPARED SHALL BE BASED ON AND REFERENCED TO A CURRENT CERTIFICATE OF CONFORMANCE PROVIDED BY THE WIRE MANUFACTURER AND SHALL BE USED AS A SUPPORTING PQR PROVIDED FULL COMPLIANCE WITH EVERY SINGLE CONDITION OF PREQUALIFICATION FOUND IN AWS D1.1 SECTION 3 AND AWS D1.8 HIGH AND LOW HEAT INPUT FOR PREQUALIFIED FILLET AND CJP WELDS. THE SELECTION OF THIS OPTION BY THE STEEL FABRICATION/ERECTION SUBCONTRACTOR IS PREDICATED ON ITS ACKNOWLEDGEMENT THAT ITS QUALIFIED WELDERS ARE EXPERIENCED AND CONFIDENT IN THE USE AND SETTINGS SPECIFIED IN THE CERTIFICATE OF CONFORMANCE WITH THE ALLOWABLE TOLERANCES FOR ESSENTIAL VARIABLES FOUND IN TABLE 3.7 OF AWS D1.1. PREVIOUS WPS QUALIFICATION PERFORMED BY THE STEEL FABRICATION/ERECTION SUBCONTRACTOR THAT COMPLIES WITH THE PROVISIONS HEREIN MAY SATISFY THIS REQUIREMENT. EACH WPS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD, AND TO SIDEPLATE SYSTEMS, INC. FOR REVIEW AND DISPOSITION PRIOR TO STARTING THE WORK.
   c. THE APPROVED WPS FOR EACH APPLICABLE PRODUCTION WELD SHALL BE CLEARLY DISPLAYED TO PROVIDE READY ACCESS BY THE ASSIGNED WELDERS, WELDING SUPERVISORS AND INSPECTORS.
   d. IN LIEU OF THE ABOVE PROCEDURE, THE STEEL FABRICATOR MAY CHOOSE TO QUALIFY A WPS BASED ON A PROCEDURE QUALIFICATION RECORD (PQR), WHICH SHALL BE PROVIDED WITH THE WPS SUBMITTAL. THE PQR SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1, SECTION 4.1 AND EMPLOY THE PROPER ACCEPTANCE CRITERIA.
3. TACK WELDS:
   a. TACK WELDS SHALL BE PLACED WHERE THEY WILL BE INCORPORATED INTO A FINAL WELD AND SHALL BE SUBJECT TO THE SAME QUALITY REQUIREMENTS AS THE FINAL WELDS, INCLUDING POSITION, PREHEAT AND UNDERCUT, IN ACCORDANCE WITH AWS D1.1. THESE QUALITY REQUIREMENTS SHALL APPLY EQUALLY TO TACK WELDING OF ANY OTHER CONSTRUCTION AIDS.
4. PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS:
   a. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURES FOR A GIVEN THICKNESS OF BASE METAL TO BE WELDED SHALL BE IN ACCORDANCE WITH AWS D1.1 TABLE 3.3.
   b. IN NO CASE, REGARDLESS OF THE WELDING PROCESS, SHALL THE PREHEAT TEMPERATURE BE LESS THAN THAT REQUIRED TO DRIVE OFF ANY SURFACE MOISTURE OR CONDENSATION WHICH MAY BE PRESENT ON THE STEEL ELEMENTS TO BE WELDED.
   c. MAXIMUM INTERPASS TEMPERATURE SHALL NOT EXCEED 550°F, MEASURED AT A DISTANCE NOT EXCEEDING THREE INCHES FROM THE START OF THE NEXT PASS. WELDING OPERATORS AND INSPECTORS SHALL UTILIZE TEMPERATURE MEASURING DEVICES.
5. ALL SLAG SHALL BE REMOVED AFTER EACH WELD PASS AND THE WELD AND THE ADJACENT BASE METAL SHALL BE CLEANED BEFORE WELDING OVER PREVIOUSLY DEPOSITED WELD METAL. THIS REQUIREMENT SHALL APPLY NOT ONLY TO SUCCESSIVE LAYERS BUT ALSO TO SUCCESSIVE BEADS AND TO THE CRATER AREA WHEN WELDING IS RESUMED AFTER ANY INTERRUPTION. IN ACCORDANCE WITH AWS D1.1 SECTION 5.29.1.
6. PEENING SHALL NOT BE ALLOWED.
7. WELD RUN-OFF TABS SHALL NOT BE USED FOR FILLET WELDS (EXCEPT WHEN REQUIRED ON INTERLOCKING SLOTTED SIDE PLATES).
8. WELD END TERMINATIONS FOR RECESSED PLATE (D) OPTION ONLY WHERE WELD {3} IS REQUIRED ON BOTH WEB AND FLANGES:
   a. IN ORDER TO PREVENT TIE-IN BETWEEN THE ENDS OF WELD {3} CLOSEST TO THE INSIDE FACE OF SIDE PLATE (A) AND WELD {1} THE ENDS OF WELD {1} SHALL BE HELD BACK FROM THE FLANGE TIP OF {3} BY A DISTANCE EQUAL TO WELD {3} PLUS 1/8 INCH. IN NO CASE SHALL A WELD TIE-IN BETWEEN THE ENDS OF WELD {1} AND THE ENDS OF WELD {3} CLOSEST TO THE INSIDE FACE OF SIDE PLATE (A) BE ALLOWED. FABRICATION PRIORITY IS GIVEN HEREIN TO WELDING FILLET WELD {3} ALONG ITS FULL DISTANCE.
9. ARC STRIKES WITHIN THE BEVELED GROOVE BOUNDARIES ON BOTH THE INTERIOR AND EXTERIOR FACES OF SIDE PLATES {A}, WITHIN THE TOP AND BOTTOM 6 INCHES OF PLATE HEIGHT SHALL BE AVOIDED. IF THEY DO OCCUR, THEY SHALL BE REMOVED BY GRINDING AND SHALL HAVE BASE METAL REPAIRED PER AWS D1.8 SECTION 6.18, WITH NON-DESTRUCTIVE TESTING AS NECESSARY.

BOLTING

1. BOLTS/FASTENERS SHALL BE INSTALLED TO PRETENSIONED CONDITION USING ONE OF THE METHODS PRESCRIBED HERE: TURN-OF-NUT (A490), CALIBRATED WRENCH (A490), TWIST-OFF-TYPE TENSION-CONTROL BOLT (F2280), TORQUE AND ANGLE METHOD (F3148), OR WHEN HEAVY HEX BOLTS ARE REQUIRED DIRECT TENSION INDICATORS (DTI) (ASTM F959). FOR TURN-OF-NUT THE THREAD AND NUT SHOULD BOTH BE MARKED TO MAKE SURE THE REQUIRED TURN IS ACHIEVED.
2. FOR ALL PRETENSIONING METHODOLOGIES, ALL FASTENER ASSEMBLIES WITHIN THE JOINT SHALL FIRST BE BROUGHT TO A SNUG TIGHT CONDITION, FOLLOWED BY A SYSTEMATIC PRETENSIONING PROCESS. PRETENSIONING SHALL BEGIN AT THE MOST RIGID PART OF THE JOINT AND CONTINUE IN A MANNER THAT WILL MINIMIZE THE RELAXATION OF PREVIOUSLY PRETENSIONED FASTENERS, UNTIL THE CONNECTED PLIES ARE IN AS FIRM CONTACT AS POSSIBLE. IN ADDITION:
   a. FOR TURN-OF-NUT METHOD, AFTER SNUGGING THE JOINT USING AT LEAST A FEW IMPACTS OF A WRENCH OR THE FULL EFFORT OF AN IRON WORKER, ROUTINE MARKING OR MATCH-MARKING SHALL BE USED TO VERIFY RELATIVE BOLT AND NUT ROTATION TO RCSC TABLE 8.2. FOR BOLT LENGTHS NOT EXCEEDING FOUR DIAMETERS (4D) UP TO 8D, THE BOLT AND NUT SHALL BE ROTATED 180 DEGREES (1/2 TURN). FOR BOLT LENGTHS OVER 8D UP TO 12D, THE BOLT OR NUT SHALL BE ROTATED 240 DEGREES (2/3 TURN). FOR BOLT LENGTHS OVER 12D, THE REQUIRED ROTATION SHALL BE DETERMINED USING A BOLT TENSION MEASUREMENT DEVICE.
   b. FOR CALIBRATED WRENCH METHOD, THE WRENCH AND BOLT ASSEMBLY LOT SHALL BE TESTED IN COMBINATION DAILY. IF NECESSARY, THE WRENCH SHALL BE CALIBRATED FOR PROPER OUTPUT PRIOR TO USE. THE INSTALLATION TORQUE NEED NOT PRODUCE A RELATIVE ROTATION EQUAL TO OR GREATER THAN THAT SPECIFIED BY THE TURN-OF-NUT METHOD.
   c. FOR TWIST-OFF-TYPE TENSION-CONTROL BOLT METHOD, FINAL TENSIONING SHALL BE DONE IN A CONTINUOUS OPERATION UNTIL THE TIP TWISTS OFF. ANY BOLT ASSEMBLIES WHICH HAD THE TIP TWIST OFF DURING THE SNUGGING OPERATION SHALL BE REMOVED AND REPLACED.
   d. FOR COMBINED METHOD (ASTM F3148), AFTER SNUGGING THE JOINT USING THE APPROPRIATE INSTALLATION TOOL, ROUTINE MONITORING OR MATCH MARKING SHALL BE USED TO VERIFY RELATIVE BOLT AND NUT ROTATION. FOR BOLT LENGTHS UP TO 4D, THE NUT SHALL BE ROTATED 90 DEGREES (1/4 TURN). FOR BOLT LENGTHS OVER 4D UP TO 8D, THE NUT SHALL BE ROTATED 120 DEGREES (1/3 TURN). FOR BOLT LENGTHS OVER 8D THE MANUFACTURER SHALL PROVIDE APPROPRIATE INSTALLATION REQUIREMENTS.
3. REUSE OF A490, F2280, AND F3148 BOLT ASSEMBLIES SHALL NOT BE ALLOWED. TOUCHING UP OR RE-TIGHTENING BOLTS THAT MAY HAVE BEEN LOOSENED BY THE INSTALLATION OF ADJACENT BOLTS SHALL NOT BE CONSIDERED TO BE A REUSE.
4. ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS.
5. THE BOLT LENGTH USED SHALL BE SUCH THAT THE BOLT THREAD EXTENDS BEYOND OR IS AT LEAST FLUSH WITH THE OUTER FACE OF THE NUT WHEN PROPERLY INSTALLED.
6. FASTENER COMPONENTS SHALL BE P

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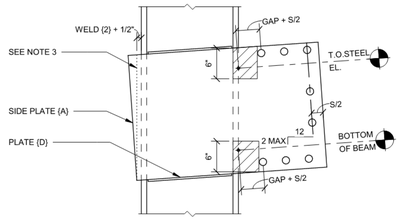
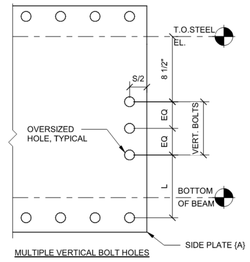
.bat BOLTS



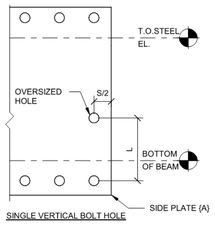
FRONT ELEVATION

NOTE(S):
1. FOR BEAM SLOPES GREATER THAN 2 INCHES PER FOOT, CONTACT SIDEPLATE SYSTEMS, INC.
2. COORDINATE PLATES, ANGLES, AND DIMENSIONS WITH RESPECT TO THE SLOPE OF THE CONNECTION.
3. AT CONTRACTOR'S DISCRETION, SIDE PLATE {A} MAY BE CUT AS SHOWN.

4 SLOPED UP CONNECTION
N.T.S.



MULTIPLE VERTICAL BOLT HOLES



SINGLE VERTICAL BOLT HOLE

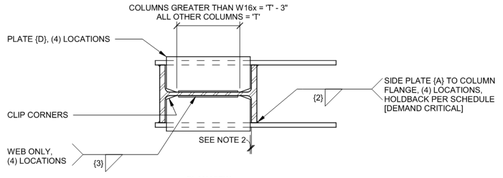
NOTE(S):
1. SEE COLUMN SCHEDULE FOR BOLT QUANTITY.

3 SIDE PLATE {A} VSE BOLT HOLE DETAIL (AS APPLICABLE)
N.T.S.

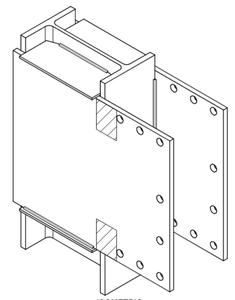
ID	COLUMN PANEL ZONE DESIGN (INCHES)						SIDE PLATE {A} EXTENSION DESIGN (INCHES)											
	COLUMN	PLATE	WELD				BEAM			PLATE				BOLT				
	SERIES	{D}	{1}	{2}		{3}	SHAPE	GAP	VSE APPLICABILITY	{A}				DIAMETER	HORIZONTAL #	VERTICAL #	G	L	S
		THICKNESS	SIZE	SIZE	HOLD BACK	SIZE				THICKNESS	B	E	Y						
A10	W21x	3/8	1/4	3/8	1 1/2	1/4	W21X83	2	No	7/8	29 7/8	1 1/2	2	1 1/8	4	-	2 1/2	-	4 1/2
A20	W21x	3/8	1/4	1/4	1 1/2	1/4	W24X62	2 1/4	Yes	1	33 1/4	1 5/8	1 3/4	1 1/2	3	2	2 7/8	8	5 3/4
A30	W27x	3/8	1/4	5/16	1 1/2	1/4	W24X76	2 1/4	Yes	1	32 3/8	1 1/2	1 1/2	1 1/8	4	2	2 1/2	8	4
A40	W27x	3/8	1/4	3/8	1 1/2	1/4	W24X94	2 1/4	No	1	32 3/4	1 1/2	2 1/4	1 1/8	5	-	2 1/2	-	4
A50	W27x	3/8	1/4	7/16	2	1/4	W24X131	3 1/4	Yes	1 1/2	34	1 5/8	2 1/4	1 1/2	4	2	2 7/8	8	5 3/4
A51	W27x	3/8	1/4	1/2	2	1/4	W24X131	3 1/4	Yes	1 1/2	33	1 1/2	2 7/8	1 1/8	6	3	2 1/2	8	4 1/2
A60	W27x	3/8	3/8	9/16	2 1/2	3/8	W24X146	3 3/4	Yes	1 3/4	34 1/4	1 5/8	2	1 1/2	4	2	2 7/8	8	5 3/4
A70	W27x	1/2	1/2	1	2 1/2	1/2	W24X229	6	Yes	2 3/4	35 1/2	1 5/8	2	1 1/2	6	3	2 7/8	8	5 3/4
A80	W30x	3/8	1/4	5/16	1 1/2	1/4	W27X94	2	Yes	7/8	35 3/8	1 1/2	2	1 1/8	4	3	2 1/2	8	4 1/2
A90	W27x	3/8	1/4	3/8	1 1/2	1/4	W27X102	2 1/4	Yes	1	35 5/8	1 1/2	2 3/4	1 1/8	5	3	2 1/2	8	4 1/2
A100	W27x	3/8	1/4	3/8	1 1/2	1/4	W27X114	2 1/4	Yes	1	36 3/4	1 5/8	1 3/4	1 1/2	3	3	2 7/8	8	5 3/4
A101	W27x, W30x	3/8	1/4	3/8	2	1/4	W27X114	2 3/4	Yes	1 1/4	35 3/4	1 1/2	2 3/8	1 1/8	5	3	2 1/2	8	4 1/2
A110	W30x	3/8	1/4	7/16	2	1/4	W27X161	3 1/4	Yes	1 1/2	37 1/8	1 5/8	2 1/4	1 1/2	4	3	2 7/8	8	5 3/4
A120	W27x	3/8	1/4	3/8	1 1/2	1/4	W30X116	2 1/4	Yes	1	38 1/2	1 1/2	1 3/4	1 1/8	5	3	2 1/2	8	3 1/2
A130	W30x	3/8	1/4	7/16	2	1/4	W30X132	3 1/4	No	1 1/2	38 3/4	1 1/2	3 1/2	1 1/8	8	-	2 1/2	-	4 1/2
A140	W27x	3/8	1/4	7/16	2	1/4	W33X130	2 3/4	Yes	1 1/4	41 5/8	1 1/2	3 1/8	1 1/8	6	3	2 1/2	8	4 1/2
A150	W27x	3/8	3/8	5/8	2 1/2	3/8	W33X169	3 3/4	Yes	1 3/4	42 3/8	1 1/2	2 1/2	1 1/8	8	4	2 1/2	8	3 1/2

NOTE(S):
1. FOR VERTICAL BOLT HOLE INFORMATION SEE DETAIL 3 / S4.11
2. AS APPLICABLE, FOR MISCELLANEOUS DETAILS INDICATED BY IDS "M#", REFER TO SIDEPLATE MISCELLANEOUS DETAILS SHEET.

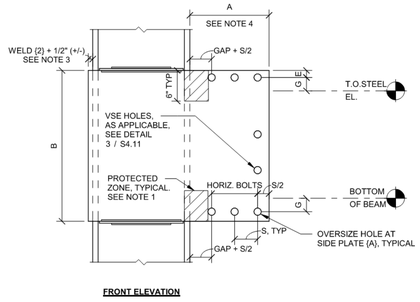
2 A TYPE NARROW COLUMN CONNECTION SCHEDULE
N.T.S.



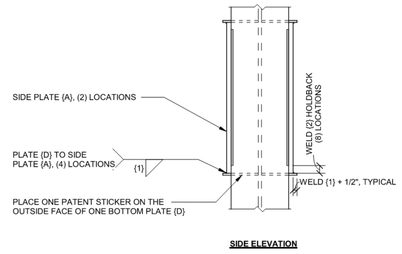
PLAN VIEW



ISOMETRIC

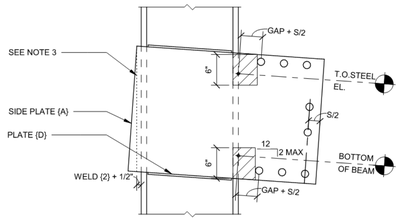


FRONT ELEVATION



SIDE ELEVATION

NOTE(S):
1. PROTECTED ZONE ON SIDE PLATE EXTENDS FROM INSIDE FACE OF COLUMN FLANGE TO EDGE OF BOLT HOLE.
2. DIMENSION BETWEEN PLATE {D} AND INSIDE FACE OF COLUMN FLANGE SHALL NOT EXCEED 1/4 INCH. THIS DIMENSION MAY VARY DEPENDING ON THE DETAILER'S PREFERENCE TO ACCOMMODATE MILL TOLERANCE AND/OR THE UNIFORMITY OF PIECE MARKS.
3. THE 1/2 INCH OVERHANG ON THE SIDE PLATE {A} IS TO ENSURE SUFFICIENT ROOM FOR WELD {2}, THE +/- TOLERANCE IS APPLIED SO THAT IF DESIRED, THE DETAILER CAN MAKE THE SIDE PLATES {A} THE SAME LENGTH WITH SLIGHTLY VARYING COLUMN DEPTHS WITHIN A GROUP OF THE SAME CONNECTION ID'S.
4. DIMENSION A = GAP+(HORIZONTAL BOLTS)*(S)



FRONT ELEVATION

NOTE(S):
1. FOR BEAM SLOPES GREATER THAN 2 INCHES PER FOOT, CONTACT SIDEPLATE SYSTEMS, INC.
2. COORDINATE PLATES, ANGLES, AND DIMENSIONS WITH RESPECT TO THE SLOPE OF THE CONNECTION.
3. AT CONTRACTOR'S DISCRETION, SIDE PLATE {A} MAY BE CUT AS SHOWN.

5 SLOPED DOWN CONNECTION
N.T.S.

1 A TYPE NARROW BOLTED CONNECTION
N.T.S.

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ISSUED FOR	DATE
PERMIT SET	24JUL2025
95% CONSTRUCTION DOCS	13JUN2025
50% CONSTRUCTION DOCS	24MAR2025
DESIGN DEVELOPMENT	09JAN2025
SCHEMATIC DESIGN	20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER ANDREW AIM No. S 6654 STRUCTURAL STATE OF CALIFORNIA
07/18/2025

SHEET TITLE
SIDEPLATE COLUMN DETAILS, A TYPE NARROW

2023-045S
PROJECT NUMBER

CD **S4.11**
SHEET NUMBER

Author
7/18/2025 11:02:52 AM
Plot Date:

INTELLECTUAL PROPERTY RIGHTS NOTICE
The SIDEPLATE® steel frame connection system is covered by one or more of U.S. Pat. Nos. 6,138,427; 6,516,583; 6,591,573; 7,178,296; 8,122,671; 8,122,672; 8,146,322; 8,176,706; 8,205,408; and 9,091,065 and foreign counterparts. Other U.S. and foreign applications pending.

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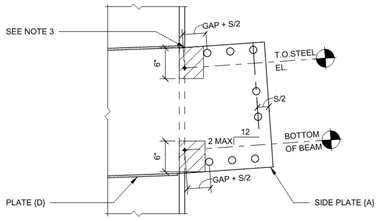
v17.32.08
[illegible] BOILTO



FRONT ELEVATION

NOTE(S):
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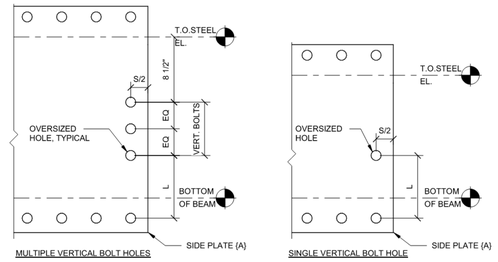
2. COORDINATE PLATES, ANGLES, AND DIMENSIONS WITH RESPECT TO THE SLOPE OF THE CONNECTION.
3. BEGIN SLOPE OF SIDE PLATE AT OUTSIDE FACE OF COLUMN FLANGE, TYPICAL. NOTE THAT SLOPE OF SIDE PLATE WITHIN THE COLUMN EXTENTS MAY NOT MATCH SLOPE OF BEAM.

4 SLOPED UP CONNECTION
N.T.S.



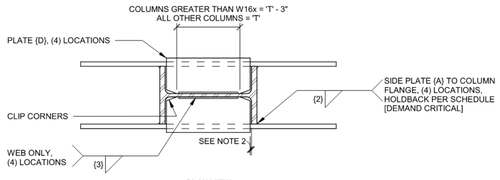
NOTE(S):
1. SEE COLUMN SCHEDULE FOR BOLT QUANTITY.

3 SIDE PLATE {A} VSE BOLT HOLE DETAIL (AS APPLICABLE)
N.T.S.

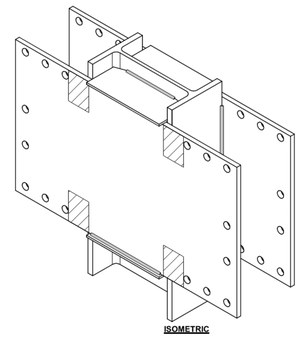
ID	COLUMN PANEL ZONE DESIGN (INCHES)						SIDE PLATE {A} EXTENSION DESIGN (INCHES)												
	COLUMN	PLATE	WELD				BEAM			PLATE				BOLT					
	SERIES	{D}	{1}	{2}		{3}	SHAPE	GAP	VSE APPLICABILITY	{A}				DIAMETER	HORIZONTAL #	VERTICAL #	G	L	S
		THICKNESS	SIZE	SIZE	HOLD BACK	SIZE				THICKNESS	B	E	Y						
B10	W21x	3/8	1/4	1/2	1 1/2	1/4	W21X83	2	No	7/8	29 7/8	1 1/2	2	1 1/8	4	-	2 1/2	-	4 1/2
B20	W21x	3/8	1/4	3/8	1 1/2	1/4	W24X62	2 1/4	Yes	1	33 1/4	1 5/8	1 3/4	1 1/2	3	2	2 7/8	8	5 3/4
B30	W27x	3/8	1/4	7/16	1 1/2	1/4	W24X76	2	No	7/8	32 3/8	1 1/2	4	1 1/8	6	-	2 1/2	-	4 1/2
B40	W30x	3/8	3/8	9/16	2	3/8	W24X94	2 3/4	No	1 1/4	32 3/4	1 1/2	3 1/4	1 1/8	7	-	2 1/2	-	4 1/2
B50	W27x	1/2	3/8	3/4	2	3/8	W24X131	3 1/4	Yes	1 1/2	34	1 5/8	2 1/4	1 1/2	4	2	2 7/8	8	5 3/4
B60	W27x	5/8	1/2	7/8	2 1/2	1/2	W24X146	3 3/4	Yes	1 3/4	34 1/4	1 5/8	2	1 1/2	4	2	2 7/8	8	5 3/4
B80	W30x	3/8	1/4	7/16	1 1/2	1/4	W27X94	2	Yes	7/8	35 3/8	1 1/2	2	1 1/8	4	3	2 1/2	8	4 1/2
B90	W27x	1/2	3/8	9/16	1 1/2	3/8	W27X102	2 1/4	Yes	1	35 5/8	1 1/2	2 3/4	1 1/8	5	3	2 1/2	8	4 1/2
B100	W30x	3/8	3/8	9/16	2	3/8	W27X114	2 3/4	Yes	1 1/4	35 3/4	1 1/2	2 3/8	1 1/8	5	3	2 1/2	8	4 1/2
B110	W30x	5/8	1/2	13/16	2	1/2	W27X161	3 1/4	Yes	1 1/2	37 1/8	1 5/8	2 1/4	1 1/2	4	3	2 7/8	8	5 3/4
B120	W27x, W30x	1/2	3/8	5/8	2	3/8	W30X116	2 3/4	Yes	1 1/4	38 1/2	1 1/2	2 3/8	1 1/8	5	3	2 1/2	8	4 1/2
B130	W30x	1/2	3/8	5/8	2	3/8	W30X132	2 3/4	Yes	1 1/4	38 3/4	1 1/2	3 1/8	1 1/8	6	3	2 1/2	8	4 1/2
B140	W30x	1/2	3/8	11/16	2	3/8	W33X130	2 3/4	Yes	1 1/4	41 5/8	1 1/2	3 1/8	1 1/8	6	3	2 1/2	8	4 1/2

NOTE(S):
1. FOR VERTICAL BOLT HOLE INFORMATION SEE DETAIL 3 / S4.12
2. AS APPLICABLE, FOR MISCELLANEOUS DETAILS INDICATED BY IDS "M#", REFER TO SIDEPLATE MISCELLANEOUS DETAILS SHEET.

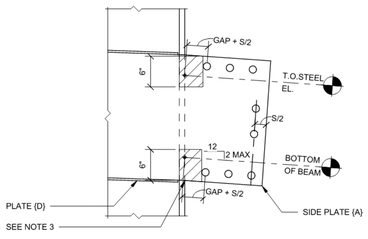
2 B TYPE NARROW COLUMN CONNECTION SCHEDULE
N.T.S.



PLAN VIEW



ISOMETRIC



FRONT ELEVATION

NOTE(S):
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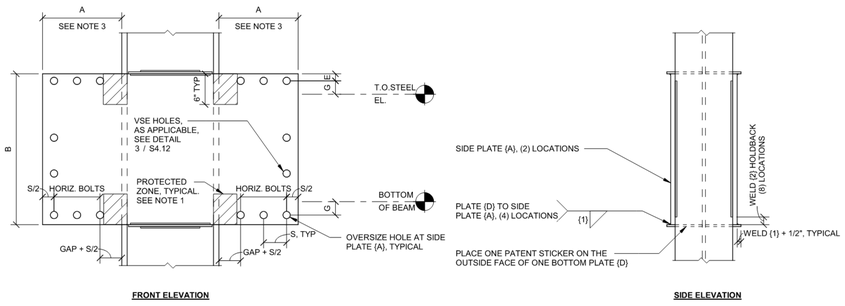
2. COORDINATE PLATES, ANGLES, AND DIMENSIONS WITH RESPECT TO THE SLOPE OF THE CONNECTION.
3. BEGIN SLOPE OF SIDE PLATE AT OUTSIDE FACE OF COLUMN FLANGE, TYPICAL. NOTE THAT SLOPE OF SIDE PLATE WITHIN THE COLUMN EXTENTS MAY NOT MATCH SLOPE OF BEAM.

5 SLOPED DOWN CONNECTION
N.T.S.



FRONT ELEVATION

SIDE ELEVATION

NOTE(S):
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3. DIMENSION A = GAP+(HORIZONTAL BOLTS)*(S)

1 B TYPE NARROW BOLTED CONNECTION
N.T.S.

Plot Date: 7/18/2025 11:02:53 AM Author

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SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — ANDREW KIM — No. S 6654 — STRUCTURAL — STATE OF CALIFORNIA

07/18/2025

SHEET TITLE

SIDEPLATE COLUMN DETAILS, B TYPE NARROW

2023-045S
PROJECT NUMBER

CD **S4.12**
SHEET NUMBER

INTELLECTUAL PROPERTY RIGHTS NOTICE
The SIDEPLATE® steel frame connection system is covered by one or more of U.S. Pat. Nos. 6,138,427; 6,516,583; 6,591,573; 7,178,296; 8,122,671; 8,122,672; 8,146,322; 8,176,706; 8,205,408; and 9,091,065 and foreign counterparts. Other U.S. and foreign applications pending.

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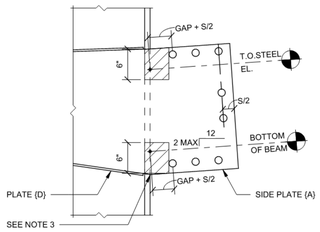
BWF BOLTED



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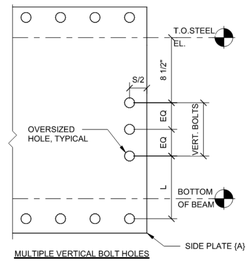
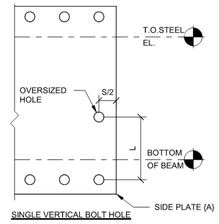
3. BEGIN SLOPE OF SIDE PLATE AT OUTSIDE FACE OF COLUMN FLANGE, TYPICAL. NOTE THAT SLOPE OF SIDE PLATE WITHIN THE COLUMN EXTENTS MAY NOT MATCH SLOPE OF BEAM.

4 SLOPED UP CONNECTION
N.T.S.



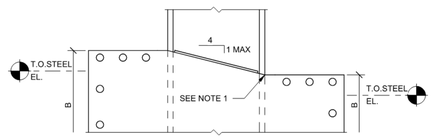
MULTIPLE VERTICAL BOLT HOLES



SINGLE VERTICAL BOLT HOLE

NOTE(S):
1. SEE COLUMN SCHEDULE FOR BOLT QUANTITY.

3 SIDE PLATE{A} VSE BOLT HOLE DETAIL (AS APPLICABLE)
N.T.S.



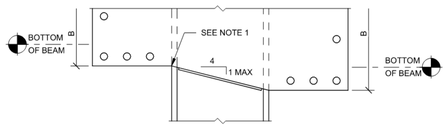
FRONT ELEVATION

NOTE(S):
1. BEGIN SLOPE OF SIDE PLATE (A) AT OUTSIDE FACE OF COLUMN FLANGE, TYPICAL.

ID	COLUMN PANEL ZONE DESIGN (INCHES)						SIDE PLATE (A) EXTENSION DESIGN (INCHES)											
	COLUMN	PLATE	WELD				BEAM			PLATE				BOLT				
	SERIES	{D}	{1}	{2}		{3}	SHAPE	GAP	VSE APPLICABILITY	{A}				DIAMETER	HORIZONTAL #	VERTICAL #	G	L	S
		THICKNESS	SIZE	SIZE	HOLD BACK	SIZE				THICKNESS	B	E	Y						
C160	W27x	3/8	1/4	7/16	1 1/2	1/4	W24X76	2	No	1	32 5/8	1 1/2	3 5/8	1 1/8	6	-	2 1/2	-	4 1/2
							W24X84	2 1/4	No		32 5/8	1 1/2	3 5/8	1 1/8	6	-	2 1/2	-	4 1/2
C170	W27x	1/2	3/8	5/8	2	3/8	W24X84	2	Yes	1 1/2	33	1 1/2	1 3/8	1 1/8	4	2	2 1/2	8	4 1/2
							W24X131	3 1/4	Yes		33	1 1/2	2 7/8	1 1/8	6	3	2 1/2	8	4 1/2
C180	W30x	5/8	1/2	7/8	2 1/2	1/2	W24X146	3 1/4	Yes	2	36	1 5/8	1 1/4	1 1/2	4	2	3 3/8	10	4 1/2
							W24X192	4 1/2	Yes		36	1 5/8	1 3/4	1 1/2	5	2	3 3/8	10	4 1/2
C190	W30x	5/8	1/2	7/8	2 1/2	1/2	W27X114	2 1/4	Yes	2 1/4	37 1/4	1 5/8	7/8	1 1/2	3	3	2 7/8	8	5 3/4
							W27X178	5	No		37 1/4	1 5/8	3 1/8	1 1/2	7	-	2 7/8	-	5 3/4

NOTE(S):
1. FOR VERTICAL BOLT HOLE INFORMATION SEE DETAIL 3 / S4.13
2. AS APPLICABLE, FOR MISCELLANEOUS DETAILS INDICATED BY IDS "MI#", REFER TO SIDEPLATE MISCELLANEOUS DETAILS SHEET.

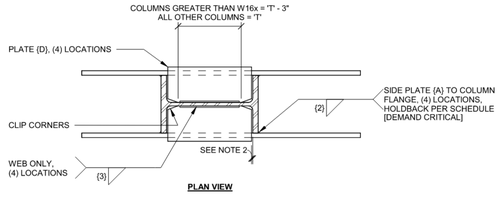
7 SUBTLE STEP TOP DETAIL
N.T.S.



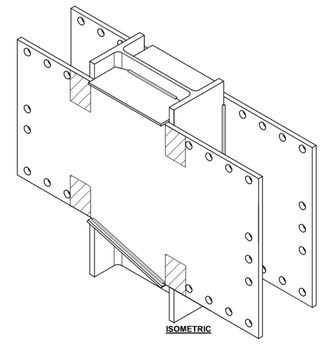
FRONT ELEVATION

NOTE(S):
1. BEGIN SLOPE OF SIDE PLATE (A) AT OUTSIDE FACE OF COLUMN FLANGE, TYPICAL.

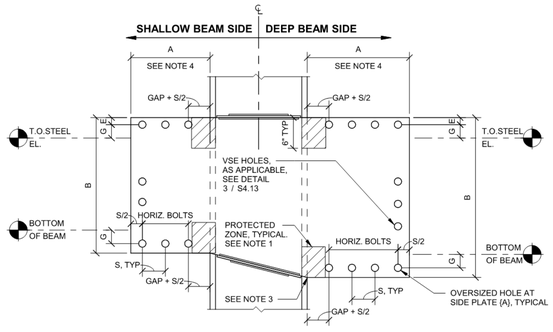
2 C TYPE NARROW COLUMN CONNECTION SCHEDULE
N.T.S.



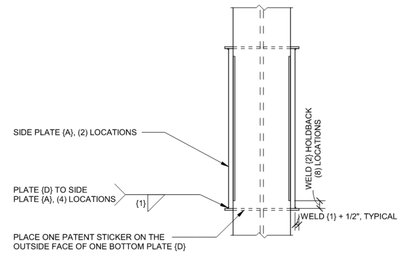
PLAN VIEW



ISOMETRIC



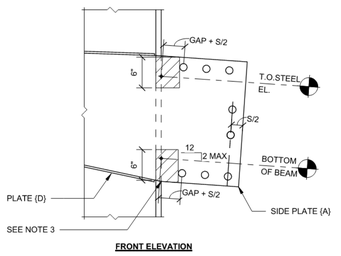
FRONT ELEVATION



SIDE ELEVATION

NOTE(S):
1. PROTECTED ZONE ON SIDE PLATE EXTENDS FROM INSIDE FACE OF COLUMN FLANGE TO EDGE OF BOLT HOLE.
2. DIMENSION BETWEEN PLATE (D) AND INSIDE FACE OF COLUMN FLANGE SHALL NOT EXCEED 1/4 INCH. THIS DIMENSION MAY VARY DEPENDING ON THE DETAILER'S PREFERENCE TO ACCOMMODATE MILL TOLERANCE AND/OR THE UNIFORMITY OF PIECE MARKS.
3. BEGIN SLOPE OF SIDE PLATE AT OUTSIDE FACE OF COLUMN, TYPICAL.
4. DIMENSION A = GAP+(HORIZONTAL BOLTS)*(S)

6 SUBTLE STEP BOTTOM DETAIL
N.T.S.



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5 SLOPED DOWN CONNECTION
N.T.S.

1 C TYPE NARROW BOLTED CONNECTION
N.T.S.

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REGISTERED PROFESSIONAL ENGINEER — ANDREW NIM — No. S 6654 — STRUCTURAL — STATE OF CALIFORNIA
07/18/2025

SHEET TITLE
SIDEPLATE COLUMN DETAILS, C TYPE NARROW

2023-045S
PROJECT NUMBER
CD **S4.13**
SHEET NUMBER

Author
Plot Date: 7/18/2025 11:02:53 AM

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The SIDEPLATE® steel frame connection system is covered by one or more of U.S. Pat. Nos. 6,138,427; 6,516,583; 6,591,573; 7,178,296; 8,122,671; 8,122,672; 8,146,322; 8,176,706; 8,205,408; and 9,091,065 and foreign counterparts. Other U.S. and foreign applications pending.

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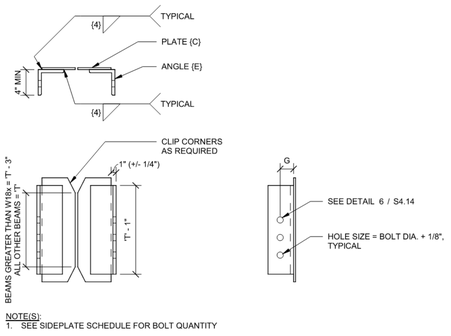
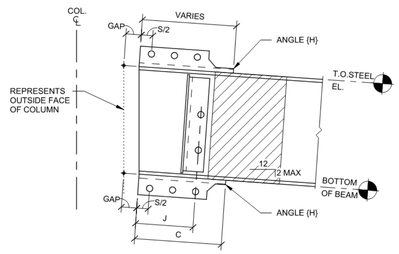
BASE BOLTED



NOTE(S):
1. SEE SIDEPLATE SCHEDULE FOR BOLT QUANTITY

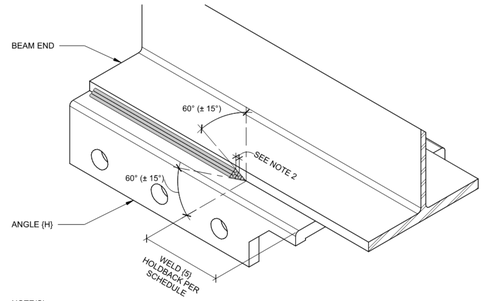
8 VSE {F} DETAIL (AS APPLICABLE)
N.T.S.



ELEVATION VIEW

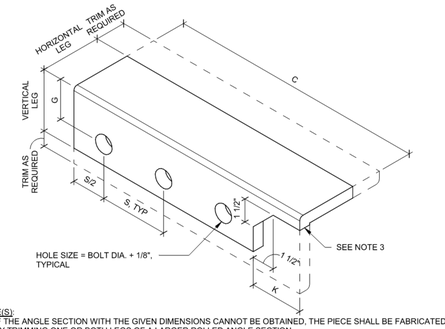
NOTE(S):
1. FOR BEAM SLOPES GREATER THAN 2 INCHES PER FOOT, CONTACT SIDEPLATE SYSTEMS, INC.

7 SLOPED DOWN BEAM END
N.T.S.



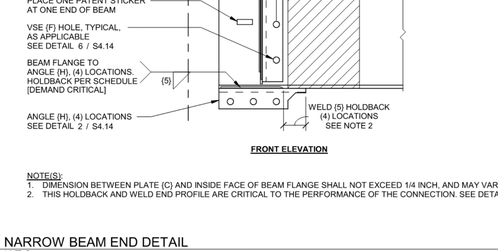
NOTE(S):
1. WELD {5} IS SHOWN FROM THE BOTTOM BEAM FLANGE TO THE BOTTOM ANGLE {H}, BUT IT ALSO OCCURS ON THE TOP BEAM FLANGE WHERE IT CONNECTS TO COVER PLATE {B} OR TOP ANGLE {H}. THERE ARE FOUR TOTAL LOCATIONS PER BEAM END.
2. USING APPROXIMATELY A 1/4 INCH STEP BETWEEN ALL WELD PASSES WILL PROVIDE THE REQUIRED TRANSITION AS DEMONSTRATED THROUGH PHYSICAL TESTING. END PROFILE SHALL BE APPROXIMATELY 60 DEGREES +/- 15 DEGREES.

3 WELD {5} HOLDBACK AND END PROFILE
N.T.S.



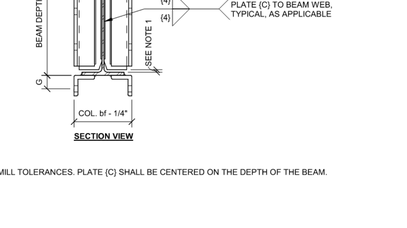
NOTE(S):
1. IF THE ANGLE SECTION WITH THE GIVEN DIMENSIONS CANNOT BE OBTAINED, THE PIECE SHALL BE FABRICATED BY TRIMMING ONE OR BOTH LEGS OF A LARGER ROLLED ANGLE SECTION.
2. SUGGESTED ANGLE {H} SIZE PROVIDED IN SCHEDULE IS BASED ON COMMONLY AVAILABLE SHAPES PER AISC. IF THE ANGLE {H} SECTION WITH THE GIVEN DIMENSIONS CANNOT BE OBTAINED, THE PIECE SHALL BE FABRICATED BY TRIMMING ONE OR BOTH LEGS OF A LARGER AVAILABLE ANGLE SECTION.
3. ANY ANGLE OF THE REQUIRED THICKNESS THAT IS CAPABLE OF MEETING THE PROPER MATERIAL SPECIFICATIONS AND LEG DIMENSION REQUIREMENTS GIVEN IN THE SCHEDULE MAY BE USED FOR ANGLE {H}.
4. MITER CUT NEED NOT BE FLUSH WITH HORIZONTAL LEG. DIMENSION MITER CUT TO UNDERSIDE OF HORIZONTAL LEG SHALL NOT EXCEED 1/2 INCH.

2 ANGLE {H} DETAIL
N.T.S.



NOTE(S):
1. SEE BEAM END SCHEDULE FOR BOLT QUANTITY.
2. EFFECTS OF MILL AND FABRICATION TOLERANCES ARE ACCOUNTED FOR BY MEASURING FROM THE CENTERLINE OF THE HORIZONTAL ROW OF BOLTS IN THE BOTTOM ANGLES {H}.

6 VSE {F} HOLE DETAIL (AS APPLICABLE)
N.T.S.



ELEVATION VIEW

NOTE(S):
1. FOR BEAM SLOPES GREATER THAN 2 INCHES PER FOOT, CONTACT SIDEPLATE SYSTEMS, INC.

5 SLOPED UP BEAM END
N.T.S.

NOTE(S):
1. DIMENSION BETWEEN PLATE {C} AND INSIDE FACE OF BEAM FLANGE SHALL NOT EXCEED 1/4 INCH, AND MAY VARY DEPENDING ON BEAM MILL TOLERANCES. PLATE {C} SHALL BE CENTERED ON THE DEPTH OF THE BEAM.
2. THIS HOLDBACK AND WELD END PROFILE ARE CRITICAL TO THE PERFORMANCE OF THE CONNECTION. SEE DETAIL 3 / S4.14

4 NARROW BEAM END DETAIL
N.T.S.

ID	BEAM DESIGN (INCHES)																						SEE NOTE
	BEAM			PLATE	ANGLE						WELD							BOLT					
	SHAPE	GAP	VSE APPLICABILITY	{C}	{H}					{E}	{4}	{5}		{5a}		{13}	{13p}	DIAMETER	HORIZONTAL #	VERTICAL #	G	J	L	S	
				THICKNESS	SUGGESTED SIZE	C	K	HORIZONTAL LEG	VERTICAL LEG	SIZE	SIZE	SIZE	HOLD BACK	SIZE	HOLD BACK	SIZE	SIZE								
B10, A10	W21X83	2	No	-	L4X4X3/4	21 1/2	3 1/2	4	4	-	-	1/2	5 1/2	1/2	3 1/2	-	-	1 1/8	4	-	2 1/2	-	-	4 1/2	-
B20, A20	W24X62	2 1/4	Yes	3/8	L6X6X1	21 1/4	4	4 1/2	4 1/2	L6X6X5/8	1/4	3/8	6	3/8	4	-	-	1 1/2	3	2	2 7/8	14 3/8	8	5 3/4	-
A30	W24X76	2 1/4	Yes	3/8	L6X6X1	20	4	5	4	L4X4X5/8	1/4	7/16	6	7/16	4	-	-	1 1/8	4	2	2 1/2	14	8	4	-
B30	W24X76	2	No	-	L6X4X3/4	31	4	5	4	-	-	5/16	6	5/16	4	-	-	1 1/8	6	-	2 1/2	-	-	4 1/2	-
A40	W24X94	2 1/4	No	-	L6X6X1	24	4	5	4	-	-	1/2	6	1/2	4	-	-	1 1/8	5	-	2 1/2	-	-	4	-
B40	W24X94	2 3/4	No	-	L6X4X3/4	35 1/2	4	6	4	-	-	3/8	6	3/8	4	-	-	1 1/8	7	-	2 1/2	-	-	4 1/2	-
A50, B50	W24X131	3 1/4	Yes	3/8	L6X6X1	27	4	5	4 1/2	L6X6X5/8	1/4	9/16	6	9/16	4	-	-	1 1/2	4	2	2 7/8	20 1/8	8	5 3/4	-
A51	W24X131	3 1/4	Yes	3/8	L6X4X3/4	31	4	5	4	L4X4X5/8	1/4	3/8	6	3/8	4	-	-	1 1/8	6	3	2 1/2	24 3/4	8	4 1/2	-
B60, A60	W24X146	3 3/4	Yes	3/8	L6X6X1	27	4	5	4 1/2	L6X6X5/8	1/4	9/16	6	9/16	4	-	-	1 1/2	4	2	2 7/8	20 1/8	8	5 3/4	-
A70	W24X229	6	Yes	3/4	L6X6X1	38 1/2	4	5	4 1/2	L6X6X3/4	7/16	1/2	6	1/2	4	-	-	1 1/2	6	3	2 7/8	31 5/8	8	5 3/4	-
A80	W27X94	2	Yes	3/8	L6X4X3/4	22 1/2	4 1/2	5	4	L4X4X5/8	1/4	3/8	6 1/2	3/8	4 1/2	-	-	1 1/8	4	3	2 1/2	15 3/4	8	4 1/2	-
B80	W27X94	2	Yes	3/8	L6X4X3/4	22 1/2	4 1/2	6	4	L4X4X5/8	1/4	3/8	6 1/2	3/8	4 1/2	-	-	1 1/8	4	3	2 1/2	15 3/4	8	4 1/2	-
A90, B90	W27X102	2 1/4	Yes	3/8	L6X4X3/4	27	4 1/2	5	4	L4X4X5/8	1/4	3/8	6 1/2	3/8	4 1/2	-	-	1 1/8	5	3	2 1/2	20 1/4	8	4 1/2	-
A100	W27X114	2 1/4	Yes	3/8	L6X6X1	21 3/4	4 1/2	5	4 1/2	L6X6X5/8	1/4	9/16	6 1/2	9/16	4 1/2	-	-	1 1/2	3	3	2 7/8	14 3/8	8	5 3/4	-
B100, A101	W27X114	2 3/4	Yes	3/8	L6X4X3/4	27	4 1/2	5	4	L4X4X5/8	1/4	3/8	6 1/2	3/8	4 1/2	-	-	1 1/8	5	3	2 1/2	20 1/4	8	4 1/2	-
A110	W27X161	3 1/4	Yes	3/8	L6X6X1	27 1/2	4 1/2	5	4 1/2	L6X6X5/8	1/4	9/16	6 1/2	9/16	4 1/2	-	-	1 1/2	4	3	2 7/8	20 1/8	8	5 3/4	-
B110	W27X161	3 1/4	Yes	3/8	L6X6X1	27 1/2	4 1/2	6	4 1/2	L6X6X5/8	1/4	9/16	6 1/2	9/16	4 1/2	-	-	1 1/2	4	3	2 7/8	20 1/8	8	5 3/4	-
A120	W30X116	2 1/4	Yes	3/8	L6X6X1	22 1/2	5	5	4	L4X4X5/8	1/4	1/2	7	1/2	5	-	-	1 1/8	5	3	2 1/2	15 3/4	8	3 1/2	-
B120	W30X116	2 3/4	Yes	3/8	L6X4X3/4	27 1/2	5	5	4	L4X4X5/8	1/4	3/8	7	3/8	5	-	-	1 1/8	5	3	2 1/2	20 1/4	8	4 1/2	-
A130	W30X132	3 1/4	No	-	L6X4X3/4	41	5	5	4	-	-	7/16	7	7/16	5	-	-	1 1/8	8	-	2 1/2	-	-	4 1/2	-
B130	W30X132	2 3/4	Yes	3/8	L6X4X3/4	32	5	6	4	L4X4X5/8	1/4	3/8	7	3/8	5	-	-	1 1/8	6	3	2 1/2	24 3/4	8	4 1/2	-
A140	W33X130	2 3/4	Yes	3/8	L6X4X3/4	32 1/2	5 1/2	5	4	L4X4X5/8	1/4	3/8	7 1/2	3/8	5 1/2	-	-	1 1/8	6	3	2 1/2	24 3/4	8	4 1/2	-
B140	W33X130	2 3/4	Yes	3/8	L6X4X3/4	32 1/2	5 1/2	6	4	L4X4X5/8	1/4	3/8	7 1/2	3/8	5 1/2	-	-	1 1/8	6	3	2 1/2	24 3/4	8	4 1/2	-
A150	W33X169	3 3/4	Yes	3/8	L6X6X1	33 1/2	5 1/2	5	4	L4X4X5/8	1/4	7/16	7 1/2	7/16	5 1/2	-	-	1 1/8	8	4	2 1/2	26 1/4	8	3 1/2	-
C160	W24X76	2	No	-	L6X4X3/4	31	4	5	4	-	-	5/16	6	5/16	4	-	-	1 1/8	6	-	2 1/2	-	-	4 1/2	-
	W24X84	2 1/4	No	-	L6X4X3/4	31	4	5	4	-	-	3/8	6	3/8	4	-	-	1 1/8	6	-	2 1/2	-	-	4 1/2	
C170	W24X84	2	Yes	3/8	L6X4X3/4	22	4	5	4	L4X4X5/8	1/4	7/16	6	7/16	4	-	-	1 1/8	4	2	2 1/2	15 3/4	8	4 1/2	-
	W24X131	3 1/4	Yes	3/8	L6X4X3/4	31	4	5	4	L4X4X5/8	1/4	3/8	6	3/8	4	-	-	1 1/8	6	3	2 1/2	24 3/4	8	4 1/2	
C180	W24X146	3 1/4	Yes	3/8	L10X10X1-3/8	22	4	6	5	L6X6X5/8	1/4	3/4	6	3/4	4	11/16	9/16	1 1/2	4	2	3 3/8	15 3/4	10	4 1/2	1
	W24X192	4 1/2	Yes	1/2	L10X10X1-3/8	26 1/2	4	6	5	L6X6X5/8	5/16	11/16	6	11/16	4	11/16	9/16	1 1/2	5	2	3 3/8	20 1/4	10	4 1/2	
C190	W27X114	2 1/4	Yes	3/8	L6X6X1	21 3/4	4 1/2	5	4 1/2	L6X6X5/8	1/4	9/16	6 1/2	9/16	4 1/2	-	-	1 1/2	3	3	2 7/8	14 3/8	8	5 3/4	-
	W27X178	5	No	-	L6X6X1	44 3/4	4 1/2	5	4 1/2	-	-	9/16	6 1/2	9/16	4 1/2	-	-	1 1/2	7	-	2 7/8	-	-	5 3/4	-

NOTE(S):
1. THE SPECIFIED HORIZONTAL ANGLE {H} MAY BE SUBSTITUTED WITH A BUILT-UP ANGLE WITH THE CORRECT DIMENSIONS CONSTRUCTED ACCORDING TO DETAIL 3 / S4.15

1 NARROW BEAM END SCHEDULE
N.T.S.

LAS POSITAS COLLEGE

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SIDEPLATE® POWERED BY MiTek

ISSUED FOR	DATE
PERMIT SET	24JUL2025
95% CONSTRUCTION DOCS	13JUN2025
50% CONSTRUCTION DOCS	24MAR2025
DESIGN DEVELOPMENT	09JAN2025
SCHEMATIC DESIGN	20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER ANDREW KIM No. S 6654 STRUCTURAL STATE OF CALIFORNIA
07/18/2025

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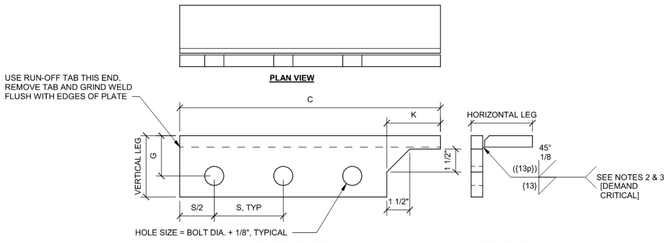
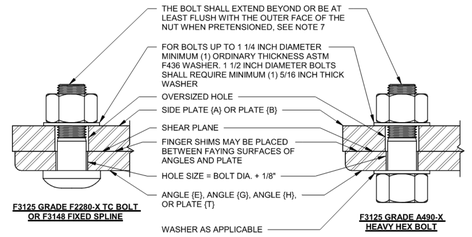


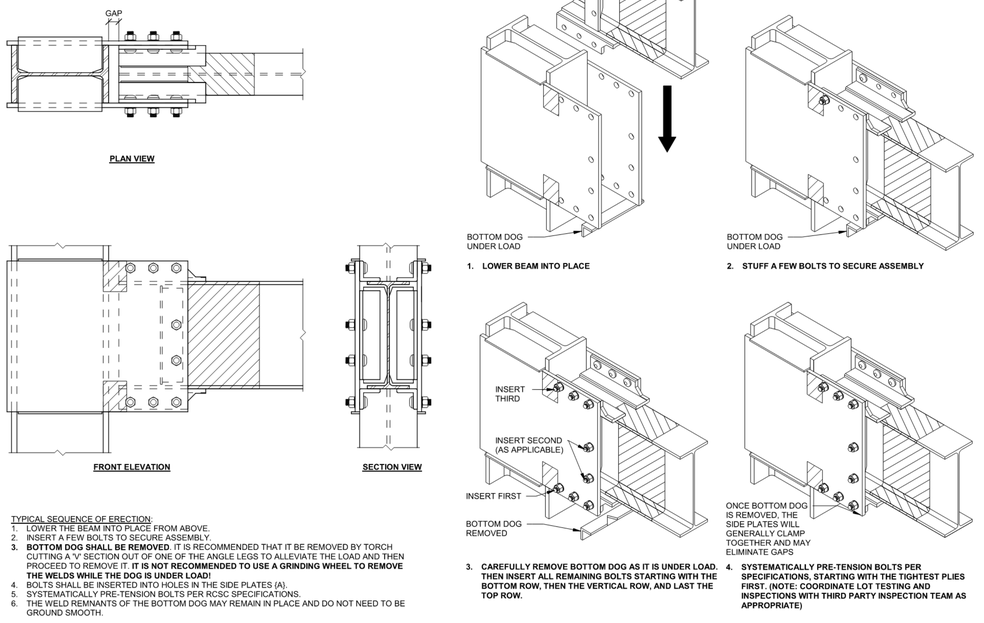
NOTE(S):
1. PLATE MATERIAL SHALL BE A572 GRADE 50.
2. TO HOLD 1/8 INCH GAP, IT IS RECOMMENDED THAT A 1/8 INCH WELD WIRE BE PLACED BETWEEN THE PLATES BEFORE WELDING. THE WIRE WILL BE CONSUMED DURING THE WELDING PROCESS. WELD SIZES AS SCHEDULED ACCOUNT FOR 1/8 INCH ROOT OPENING.
3. NO HOLDBACKS PERMITTED FOR GROOVE AND FILLET WELDS FOR BUILT-UP ANGLE WELDS
4. BUILT-UP ANGLE NOT CREATED BY SIDEPLATE CUSTOM COMPONENT TOOL.

3 BUILT UP ANGLE {H} DETAIL
N.T.S.



NOTE(S):
1. BOLTS SHALL BE INSTALLED AS SHOWN TO KEEP THREADS OUTSIDE OF SHEAR PLANE.
2. BOLTS SHALL BE SYSTEMATICALLY INSTALLED AS OUTLINED IN THE BOLTING SPECIFICATIONS. FIRST TO A SNUG TIGHT CONDITION, AND THEN PRETENSIONED.
3. USE FINGER SHIMS FOR GAPS GREATER THAN 1/8 INCH UP TO 1/4 INCH. CONTACT SIDEPLATE SYSTEMS, INC. IF GAPS ARE GREATER THAN 1/4 INCH.
4. NUT SHALL BE ASTM A563.
5. THE BOLT/FASTENER ASSEMBLY SHALL BE COVERED IN A LIGHT PROTECTIVE OIL.
6. FOLLOW QUALITY CONTROL SECTION FOR EXPOSURE LIMITATION ON BOLTS/FASTENERS.
7. STEEL DETAILER TO COORDINATE BOLT LENGTHS WITH REQUIRED WASHERS AND POTENTIAL SHIMMING THICKNESS WITH STEEL FABRICATOR.
8. ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS.
9. THE MINIMUM EDGE DISTANCE FROM THE CENTER OF THE HOLE TO THE EDGE OF THE CONNECTED PART IS PERMITTED TO BE LESS THAN THE MINIMUM EDGE DISTANCE PRESCRIBED BY AISC TABLE J3.4 FOR EACH BOLT DIAMETER, BUT SHALL NOT BE LESS THAN ONE BOLT DIAMETER.
10. BOLT ORIENTATION IS PERMITTED TO BE FLIPPED IF THE FOLLOWING CONDITIONS ARE MET:
    A. IF A HEAVY HEX BOLT IS USED, AN ADDITIONAL WASHER ON THE OVERSIZED HOLE SIDE IS REQUIRED. VERIFY THREAD ARE EXCLUDED FROM THE SHEAR PLANE.
    B. IF A TC BOLT IS USED, NO ADDITIONAL WASHER IS REQUIRED. VERIFY THREADS ARE EXCLUDED FROM THE SHEAR PLANE.
11. WHEN USING DIRECT TENSION INDICATORS (DTI) FOR PRETENSIONING. VERIFY IF ADDITIONAL WASHER IS REQUIRED TO ENSURE DTIs CAN WORK EFFECTIVELY WHEN PRETENSIONED.

2 FIELD BOLTING DETAIL
N.T.S.



TYPICAL SEQUENCE OF ERECTION:
1. LOWER THE BEAM INTO PLACE FROM ABOVE.
2. INSERT A FEW BOLTS TO SECURE ASSEMBLY.
3. **BOTTOM DOG SHALL BE REMOVED.** IT IS RECOMMENDED THAT IT BE REMOVED BY TORCH CUTTING A 'V' SECTION OUT OF ONE OF THE ANGLE LEGS TO ALLEVIATE THE LOAD AND THEN PROCEED TO REMOVE IT. **IT IS NOT RECOMMENDED TO USE A GRINDING WHEEL TO REMOVE THE WELDS WHILE THE DOG IS UNDER LOAD!**
4. BOLTS SHALL BE INSERTED INTO HOLES IN THE SIDE PLATES {A}.
5. SYSTEMATICALLY PRE-TENSION BOLTS PER RCSC SPECIFICATIONS.
6. THE WELD REMNANTS OF THE BOTTOM DOG MAY REMAIN IN PLACE AND DO NOT NEED TO BE GROUND SMOOTH.

ID	ERECTION DESIGN (INCHES)				
	BEAM	BOLT			
	SHAPE	DIAMETER	HORIZONTAL #	VERTICAL #	TOTAL # PER BEAM END
B10, A10	W21X83	1 1/8	4	-	16
B20, A20	W24X62	1 1/2	3	2	16
A30	W24X76	1 1/8	4	2	20
B30	W24X76	1 1/8	6	-	24
A40	W24X94	1 1/8	5	-	20
B40	W24X94	1 1/8	7	-	28
A50, B50	W24X131	1 1/2	4	2	20
A51	W24X131	1 1/8	6	3	30
B60, A60	W24X146	1 1/2	4	2	20
A70	W24X229	1 1/2	6	3	30
A80, B80	W27X94	1 1/8	4	3	22
A90, B90	W27X102	1 1/8	5	3	26
A100	W27X114	1 1/2	3	3	18
B100, A101	W27X114	1 1/8	5	3	26
A110, B110	W27X161	1 1/2	4	3	22
A120, B120	W30X116	1 1/8	5	3	26
A130	W30X132	1 1/8	8	-	32
B130	W30X132	1 1/8	6	3	30
A140, B140	W33X130	1 1/8	6	3	30
A150	W33X169	1 1/8	8	4	40
C160	W24X76	1 1/8	6	-	24
	W24X84	1 1/8	6	-	24
C170	W24X84	1 1/8	4	2	20
	W24X131	1 1/8	6	3	30
C180	W24X146	1 1/2	4	2	20
	W24X192	1 1/2	5	2	24
C190	W27X114	1 1/2	3	3	18
	W27X178	1 1/2	7	-	28

4 NARROW BEAM ERECTION SCHEDULE
N.T.S.

1 NARROW BEAM ERECTION DETAIL
N.T.S.

LAS POSITAS COLLEGE

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SIDEPLATE® POWERED BY MiTek

ISSUED FOR	DATE
PERMIT SET	24JUL2025
95% CONSTRUCTION DOCS	13JUN2025
50% CONSTRUCTION DOCS	24MAR2025
DESIGN DEVELOPMENT	09JAN2025
SCHEMATIC DESIGN	20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER ANDREW AIM No. S 6654 STRUCTURAL STATE OF CALIFORNIA
07/18/2025

SHEET TITLE
SIDEPLATE FIELD ERECTION AND MISCELLANEOUS DETAILS

PROJECT NUMBER 2023-045S

CD **S4.15**
SHEET NUMBER

Author
Plot Date: 7/18/2025 11:02:55 AM

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The SIDEPLATE® steel frame connection system is covered by one or more of U.S. Pat. Nos. 6,138,427; 6,516,583; 6,591,573; 7,178,296; 8,122,671; 8,122,672; 8,146,322; 8,176,706; 8,205,408; and 9,091,065 and foreign counterparts. Other U.S. and foreign applications pending.

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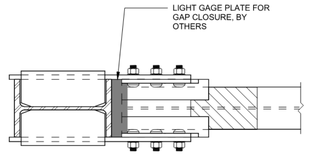
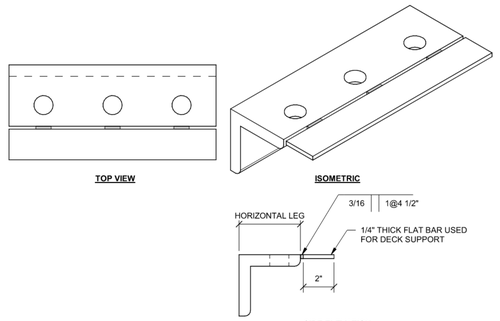


PLAN VIEW

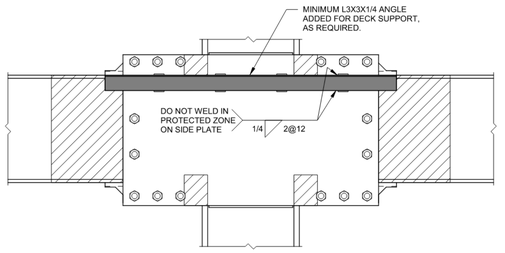
NOTE(S):
1. THE STEEL DETAILER SHOULD CONFIRM AND COORDINATE WITH THE GENERAL CONTRACTOR AND/OR STEEL FABRICATOR WHICH PREFERRED OPTION OR PROJECT SPECIFIC CRITERIA TO USE FOR THE GAP CLOSURE.
2. SEE GENERAL NOTES FIREPROOFING SECTION FOR MORE DETAILS.

8 (OPTIONAL) GAP CLOSURE DETAIL NARROW
N.T.S.



NOTE(S):
1. THE STEEL DETAILER SHOULD CONFIRM AND COORDINATE WITH THE GENERAL CONTRACTOR AND/OR STEEL FABRICATOR WHICH PREFERRED OPTION OR PROJECT SPECIFIC CRITERIA TO USE FOR THE DECK SUPPORT.

4 (OPTIONAL) WELDED FLAT BAR TO ANGLE {G} FOR DECK SUPPORT
N.T.S.



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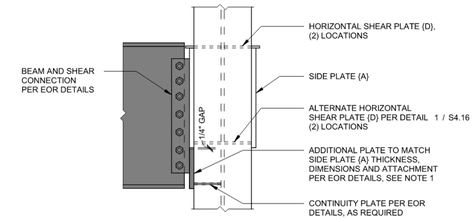
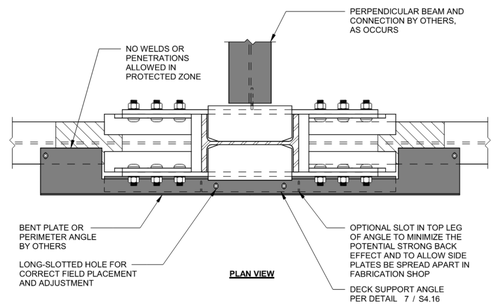
7 (OPTIONAL) DECK SUPPORT ANGLE DETAIL
N.T.S.



NOTE(S):
1. PLATE SHALL BE A572 GRADE 50. NO WELD TIE-IN ACROSS 1/4 INCH GAP.
2. LONGITUDINAL ANGLES {G} NOT SHOWN FOR CLARITY.
3. SEE SCHEDULE FOR INFORMATION NOT SHOWN.

3 DEEP SHEAR CONNECTION TO SIDEPLATE CONNECTION (AS APPLICABLE)
N.T.S.



NOTE(S):
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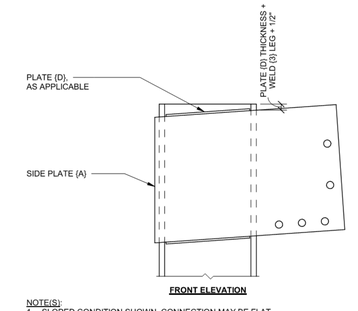
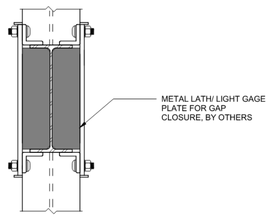
6 (OPTIONAL) NARROW CONFIGURATION SLAB EDGE DETAIL
N.T.S.



NOTE(S):
1. SLOPED CONDITION SHOWN. CONNECTION MAY BE FLAT.
2. LONGITUDINAL ANGLES {G} NOT SHOWN FOR CLARITY.

2 DISCONTINUOUS COLUMN DETAIL
N.T.S.



NOTE(S):
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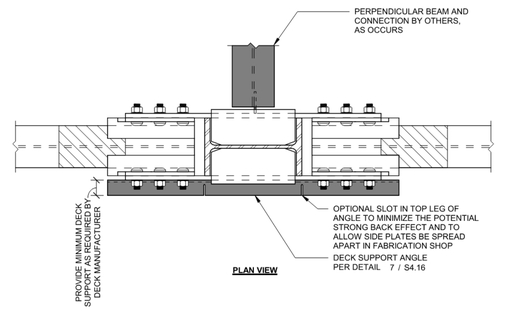
2. SEE GENERAL NOTES FIREPROOFING SECTION FOR MORE DETAILS.

9 (OPTIONAL) NO VSE BEAM GAP CLOSURE DETAIL NARROW
N.T.S.



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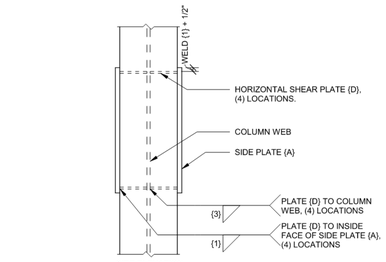
5 (OPTIONAL) NARROW CONFIGURATION DECK SUPPORT DETAIL
N.T.S.



NOTE(S):
1. LONGITUDINAL ANGLES {G} NOT SHOWN FOR CLARITY.
2. SEE SCHEDULE FOR INFORMATION NOT SHOWN.

1 PLATE {D} ALTERNATE DETAIL
N.T.S.

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER ANDREW KIM No. S 6654 STRUCTURAL STATE OF CALIFORNIA
07/18/2025

SHEET TITLE
SIDEPLATE COORDINATION ITEMS

PROJECT NUMBER 2023-045S

CD

SHEET NUMBER S4.16

Author

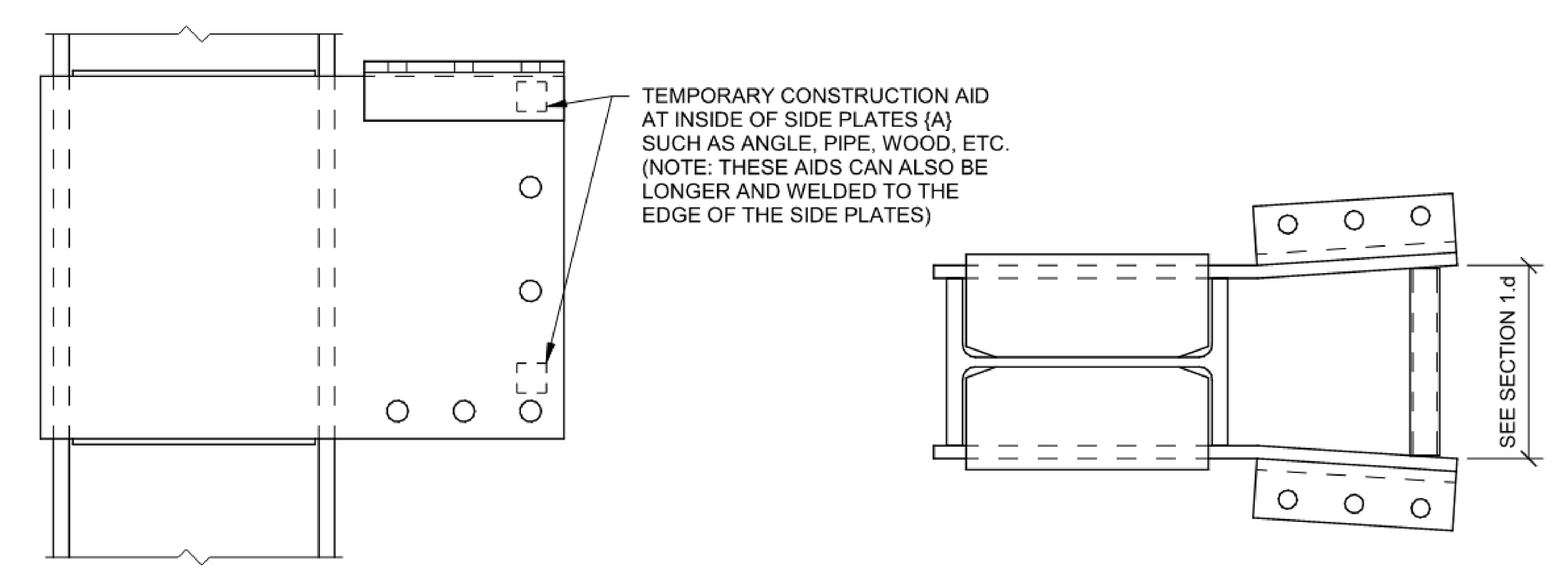
Plot Date: 7/18/2025 11:02:56 AM

CONSTRUCTION GUIDELINES

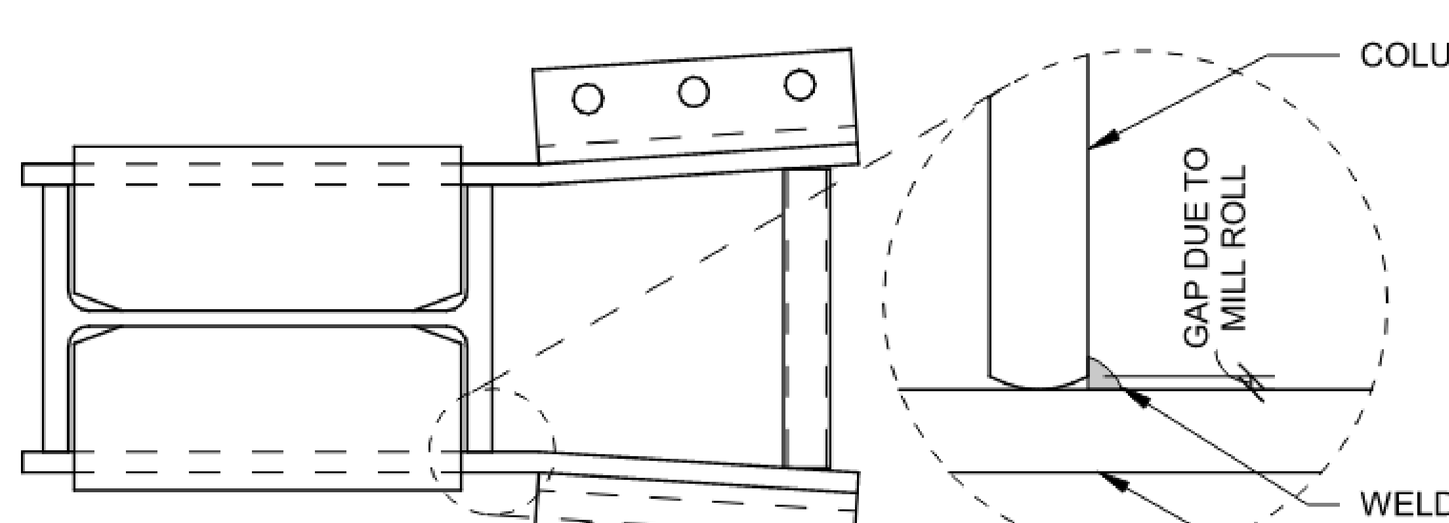
1. THE CONTRACTOR SHALL ASSUME FULL AND COMPLETE RESPONSIBILITY FOR THE MEANS AND METHODS OF CONSTRUCTING THE STEEL FRAME USING THE SIDEPLATE BOLTED SYSTEM. CONSTRUCTION MEANS AND METHODS SHALL BE COMPLIANT WITH THE CURRENT PROVISIONS OF AWS D1.1, AWS D1.8, THE AISC 360 CODE OF STANDARD PRACTICE, THE RCSC HIGH-STRENGTH BOLTING SPECIFICATIONS, AND THE CONSTRUCTION GUIDELINES PROVIDED HEREIN AND SHALL INCLUDE, BUT ARE NOT LIMITED TO:
   a. DIMENSIONAL VERIFICATION AND CONTROL
   b. FILLET WELD END PROFILE AND HOLD BACK DISTANCES FROM EDGE OF PLATE, SEE GRAPHIC NO. 7 AND GRAPHIC NO. 8
   c. STEEL DETAILING AND ERECTION DRAWINGS
   d. FABRICATION AND ERECTION PROCEDURES (INCLUDING METHODS FOR CONTROLLING DISTORTION DUE TO WELD SHRINKAGE, AND FOR CONTROLLING COMBINED MILL, FABRICATION AND ERECTION TOLERANCES)
   e. WELDING PROCEDURES
   f. WELDING SEQUENCE OF FABRICATED AND ERECTED ELEMENTS
   g. QUALITY CONTROL MEASURES
   h. CONSTRUCTION AIDS SUCH AS ERECTION RIGGING AND SHORING
   i. PROPER BOLT HOLE ALIGNMENT
   j. PROPER PRETENSIONING OF BOLTS
2. THE SEQUENCE OF CONSTRUCTION OPTIONS PROVIDED BELOW IN THESE CONSTRUCTION GUIDELINES HAVE PROVEN TO BE SUCCESSFUL BY STEEL FABRICATORS AND ERECTORS TO COST EFFICIENTLY CONSTRUCT THE BOLTED SIDEPLATE CONNECTION SYSTEM. VARIATIONS TO THESE CONSTRUCTION SEQUENCE OPTIONS PROVIDED BELOW SHALL BE SUBMITTED FOR REVIEW AND DISPOSITION TO SIDEPLATE SYSTEMS, INC.
3. A PRE-DETAILING MEETING, PRE-FABRICATION MEETING, AND PRE-ERECTION MEETING WITH A SIDEPLATE SYSTEMS, INC REPRESENTATIVE ARE REQUIRED FOR ALL PROJECTS. THE MEETINGS ARE INTENDED TO SHARE BEST PRACTICES AND COMMON MISTAKES TO AVOID.
4. COLUMN/BEAM SEPARATION (GAP) CLOSURE
   a. PROVIDE A FOLDED STRIP OF LIGHT GAGE METAL, OR SIMILAR, SECURED TO STEEL SURFACES BY DUCT TAPE OR A TACK WELD LOCATED AS CLOSE AS PRACTICABLE TO THE MID SECTION OF THE BEAM FLANGES OR TOP COVER PLATE {B} ACROSS THE PHYSICAL COLUMN/BEAM SEPARATION (GAP) BETWEEN THE BEAM FLANGES OR TOP COVER PLATE {B} AND THE FACE OF COLUMN FLANGE. THIS SHALL PREVENT CONCRETE FILL FROM ENTERING THROUGH THE SEPARATION (GAP).
   b. IN NO CASE SHALL THE FOLDED STRIP OF LIGHT GAGE MATERIAL BE WELDED TO THE EDGE OF SIDE PLATE {A}, OR TO THE FACE OF COLUMN FLANGE TO ACHIEVE CLOSURE OF THE PHYSICAL COLUMN/BEAM SEPARATIONS.
5. WHEN NO VSE OPTION IS SPECIFIED, PROVIDE A CLOSURE PLATE, AS NEEDED, FOR SFRM MATERIAL TO MORE EASILY ADHERE TO. ATTACH CLOSURE PLATE TO THE INSIDE OR OUTSIDE FACE OF THE SIDE PLATE {A} WITHIN THE MIDDLE HALF OF THE SIDE PLATE {A} HEIGHT. DO NOT ATTACH CLOSURE PLATE TO THE BEAM FLANGES OR WEB.

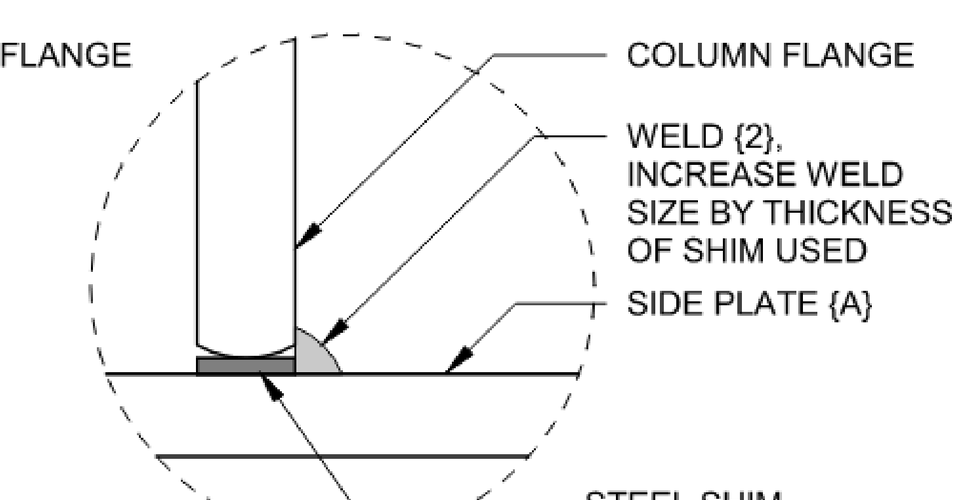
SHOP FABRICATION OF THE SIDEPLATE BOLTED SYSTEM

1. COLUMN TREE ASSEMBLY
   a. TACK SIDE PLATES {A} AND HORIZONTAL SHEAR PLATES {D} TO THE COLUMN.
      - QC INSPECTION SHALL PROVIDE VERIFICATION THAT ACTUAL COLUMN FLANGE WIDTH IS AT LEAST NOMINAL COLUMN FLANGE WIDTH WHERE THE SIDE PLATES {A} ARE TO BE INSTALLED. IN THE UNLIKELY EVENT ACTUAL COLUMN FLANGE WIDTH IS LESS THAN NOMINAL, BUT WITHIN AISC STANDARD MILL TOLERANCES (-3/16 INCH), OR THERE IS A FLANGE OFFSET CREATING A CONDITION WHERE THE SIDE PLATES {A} ARE NOT PARALLEL TO ONE ANOTHER, THE FOLLOWING MAY BE APPLIED:
         - PLACE A STRUCTURAL GRADE SHIM (A572 GRADE 50KSI) BETWEEN THE SIDE PLATE {A} AND THE COLUMN FLANGE TO OFFSET THE DEFICIENT DISTANCE. THE CORRESPONDING WELD {2} SHALL THEN BE INCREASED BY THE SHIM THICKNESS.
      - QC INSPECTION SHALL PROVIDE VERIFICATION THAT THE CENTERLINE OF THE BOTTOM ROW OF THE LONGITUDINAL BOLT HOLES ARE SET TO THEIR CORRECT ELEVATION. THIS CENTERLINE MARK WILL BECOME THE WORKING POINT FOR THE CORRECT PLACEMENT OF ANGLE {G}, AS REQUIRED, AND IS ULTIMATELY USED TO SET THE ELEVATION FOR THE TOP OF STEEL IN THE SYSTEM.
   b. WELD HORIZONTAL SHEAR PLATES {D} TO COLUMN WEB USING FILLET WELDS {3} ON OUTER FACE OF PLATE. WHEN WELD {3} OCCURS ON THE COLUMN FLANGES, A WELD TIE-IN OF FILLET WELDS {3} SHALL NOT BE ALLOWED ACROSS THE CLIPPED CORNER OF HORIZONTAL SHEAR PLATE {D} AT THE K-LINE AREA. SEE **PREPARATION** NOTE 4.a IN SIDEPLATE GENERAL NOTES.
   c. WELD HORIZONTAL SHEAR PLATES {D} TO SIDE PLATE {A} USING FILLET WELD {1}.
   d. TEMPORARILY MAINTAIN A SLIGHT (E.G. 1/2 INCH +/-) FLARED-OUT SEPARATION OF SIDE PLATES {A} (CARE SHALL BE TAKEN TO NOT OVER SPREAD IN THIS CONDITION, AS THAT MAY BREAK THE TACKS HOLDING THE SIDE PLATE {A} IN PLACE). IN ANTICIPATION OF WELD {2} SHRINKAGE EFFECTS, PLACE SUITABLE CONSTRUCTION AIDS (SUCH AS ANGLE, PIPES OR WOOD BLOCK) AT THE TOP AND BOTTOM OF SIDE PLATE {A}. AIDS MAY BE CUT TO FIT AND BEAR ON THE INSIDE FACE OF SIDE PLATES {A} OR CUT LONG AND TACKED TO THE EDGES OF SIDE PLATES {A}. SUCH CONSTRUCTION AIDS ACT AS SPACERS DURING THE WELDING AND SUBSEQUENT COOL DOWN OF FILLET WELDS {2}. SEE GRAPHIC NO. 1.
   e. WELD INSIDE FACE OF SIDE PLATES {A} TO THE FLANGE TIPS OF COLUMN USING FILLET WELDS {2}. REFER TO GRAPHIC NO. 2 FOR CONDITIONS WITH NON-SQUARE COLUMN FLANGE TOES DUE TO MILL ROLLING.
      - SHIMS ARE PERMITTED BETWEEN SIDE PLATE {A} AND COLUMN FLANGE IN CONDITIONS DUE TO MILL ROLLING.
      - THE MATERIAL GRADE OF THE SHIM SHALL MATCH THE GRADE USED ON THE SIDE PLATE {A}.
      - FILLET WELD SIZE SHALL BE INCREASED BY THE THICKNESS OF THE SHIM USED.
      - REFER TO GRAPHIC NO. 2A FOR MORE DETAIL.
   f. COLUMN FLANGE TRIMMING IS PERMITTED FOR CONDITIONS DUE TO MILL ROLLING.
      - TRIMMING MAY BE PERFORMED VIA GRINDING TO SMOOTH OUT ROUGH TRANSITIONS.
      - TRIMMING SHALL BE DONE FOR THE FULL LENGTH OF THE SIDE PLATE {A} DEPTH (DIMENSION B) PLUS 12 INCHES ABOVE AND BELOW THE TOP AND BOTTOM EDGES OF SIDE PLATE {A}.
      - IF REPAIR WELDING IS REQUIRED TO FIX GAPS AND GOUGES LARGER THAN 3/16 INCH, IT SHALL BE DONE FOLLOWING AWS PROTOCOLS AND WITH AN APPROVED WPS.
      - THE FINAL SURFACE SHALL HAVE A MINIMUM 500 MICRO-INCH ANSI WORKMANLIKE FINISH.
      - ANY AND ALL TRANSITIONS SHALL BE 10:1.
      - THE FINAL FLANGE WIDTH DIMENSION SHALL BE, AS A MINIMUM, THE NOMINAL DESIGN DIMENSION.
   g. AS REQUIRED, WELD ANGLES {G} TO THE TOP EDGE AND FACE OF SIDE PLATE {A} USING FILLET WELDS {8}. CARE SHALL BE GIVEN TO THE PLACEMENT OF ANGLE {G} AT THE CORRECT ELEVATION RELATIVE TO THE 'WORKING POINT' OF THE CENTERLINE OF THE BOTTOM LONGITUDINAL BOLT HOLES IN SIDE PLATE {A}.
   h. AFTER COOL DOWN OF COMPLETED FILLET WELDS {2}, REMOVE TOP CONSTRUCTION AID. VERIFY MINIMUM CLEAR SPREAD DIMENSION (ACTUAL COLUMN FLANGE WIDTH) BETWEEN SIDE PLATES {A}, SEE GRAPHIC NO. 3. THIS IS THE REQUIRED CLEARANCE FOR INSERTING THE BEAM ASSEMBLY.
      - IF CLEARANCE VERIFICATION IS SUFFICIENT (I.E. NOT LESS THAN THE ACTUAL COLUMN FLANGE WIDTH AND NOT EXCEEDING THE MAXIMUM SPREAD DIMENSION Y), A SUITABLE ERECTION AID (AKA BOTTOM 'DOG') SHALL BE WELDED TO THE BOTTOM EDGE OF THE SIDE PLATES {A}. IT SHALL BE SUFFICIENTLY STRONG TO REMAIN IN PLACE DURING TRANSPORTATION AND ERECTION OF THE BEAM. THIS ERECTION AID WILL BE UNDER LOAD AND CARE SHALL BE TAKEN WHEN REMOVING.
      - IF CLEARANCE VERIFICATION IS NOT SUFFICIENT (I.E. LESS THAN THE NOMINAL COLUMN FLANGE WIDTH), FLEX SIDE PLATES {A} BY JACKING THEM APART TO A DIMENSION GREATER THAN THE WIDTH OF COLUMN FLANGE. MAXIMUM SEPARATION SHALL NOT EXCEED WIDTH OF COLUMN FLANGE PLUS SCHEDULED SPREAD DIMENSION Y. ONCE NECESSARY CLEARANCE HAS BEEN ESTABLISHED, A SUITABLE ERECTION AID (AKA BOTTOM 'DOG') SHALL THEN BE WELDED TO BOTTOM EDGE OF SIDE PLATES {A}. IT SHALL BE SUFFICIENTLY STRONG TO REMAIN IN PLACE DURING TRANSPORTATION AND ERECTION OF BEAM ASSEMBLY. THIS ERECTION AID WILL BE UNDER LOAD AND CARE SHALL BE TAKEN WHEN REMOVING.
      - ALTERNATELY, HEAT STRAIGHTENING OF THE PLATES MAY BE USED TO MEET THE MINIMUM CLEAR DIMENSION SPREAD WITH THE FOLLOWING CRITERIA:
         - USING A 3/4 INCH ROSE BUD HEATING TIP, HEAT THE OUTSIDE FACE OF THE SIDE PLATE ADJUNCT TO THE FREE UNSUPPORTED SIDE OF THE COLUMN FLANGE FOR MAJORITY OF THE FULL DIMENSION B DEPTH (HOLD HEATING BACK FROM TOP AND BOTTOM ENDS OF SIDE PLATE {A} BY 2 INCHES). THE WIDTH OR HEAT ZONE SHALL BE 3/4 INCH TO 1 1/4 INCH. TRAVEL SPEED OF HEATING SHALL BE 2 INCHES PER MINUTE AND MAXIMUM TEMPERATURE INPUT SHALL NOT BE MORE THAN 950 DEGREES.



GRAPHIC NO. 1 - COLUMN TREE ASSEMBLY PREPARATION FOR WELD {2}

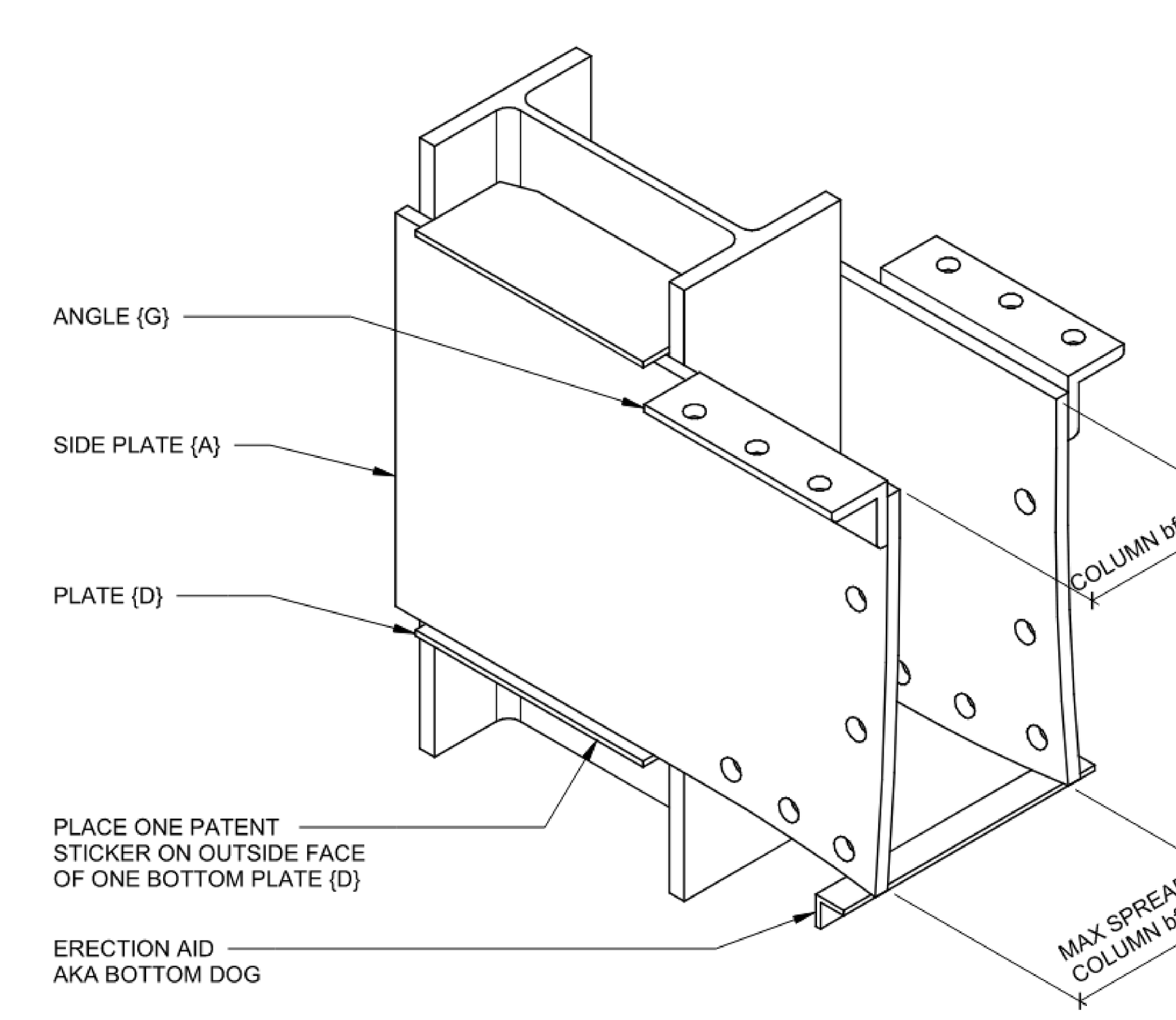




GRAPHIC NO. 2A - STEEL SHIM BETWEEN COLUMN FLANGE AND SIDE PLATE {A}

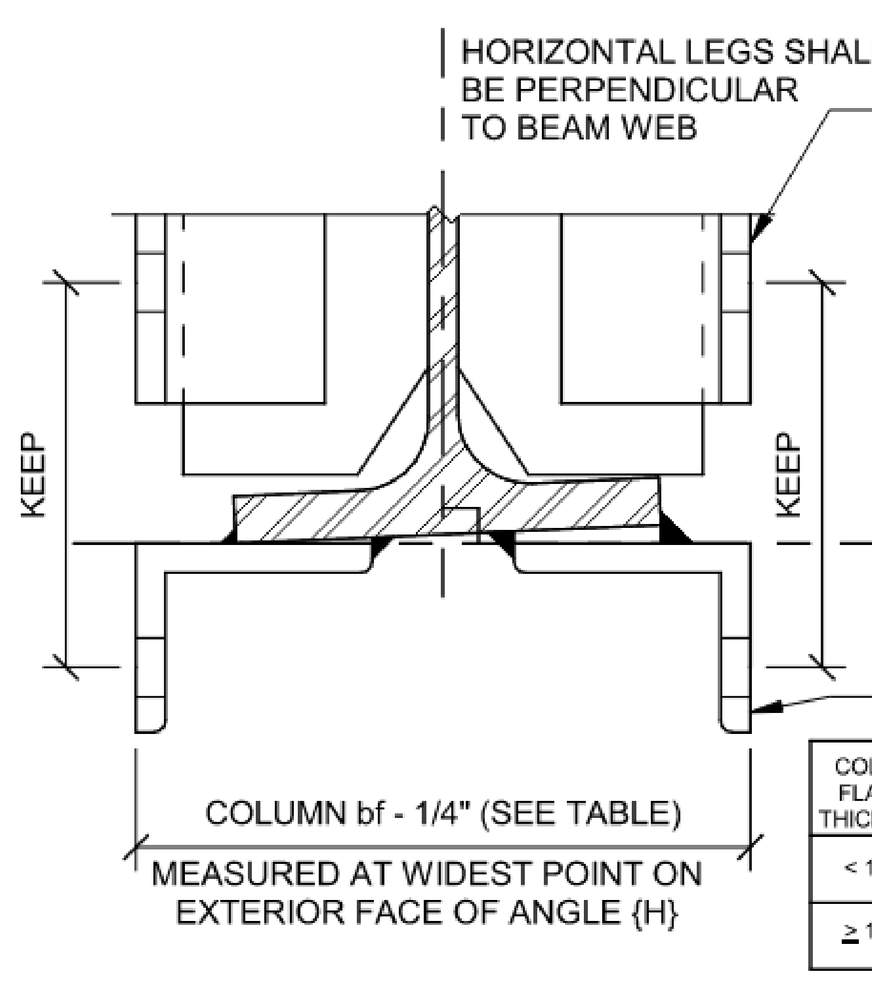
- IF MILL ROLL GAP ≤ 1/16", PERFORM FILLET WELD {2} AS SCHEDULED.
- IF MILL ROLL GAP > 1/16", RUN AN INITIAL PASS TO FILL GAP. THEN PERFORM FILLET WELD {2} AS SCHEDULED.

GRAPHIC NO. 2 - MILL ROLL INDUCED GAP



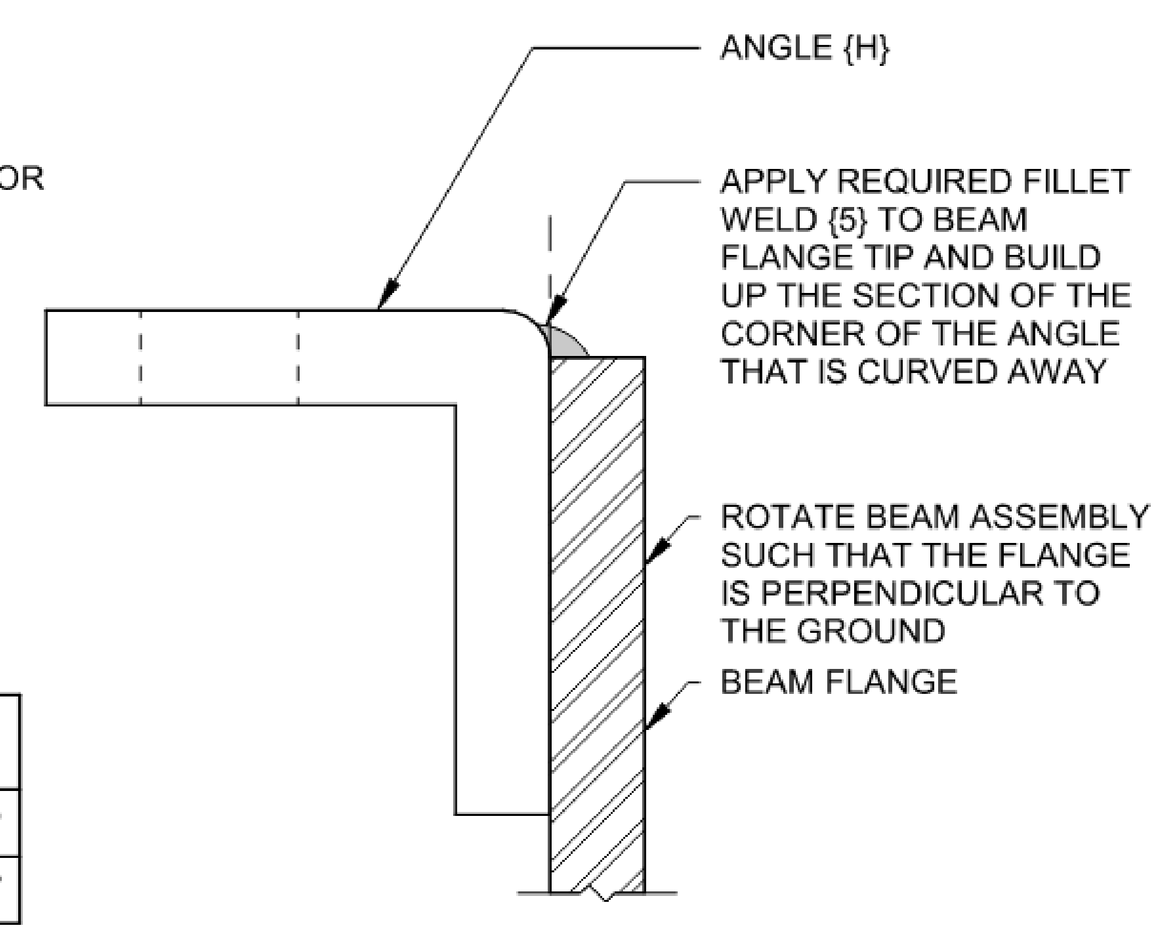
GRAPHIC NO. 3 - COMPLETED SIDEPLATE BOLTED COLUMN TREE ASSEMBLY

2. BEAM ASSEMBLY
   a. THE COVER PLATE {B} AND LONGITUDINAL ANGLES {H} SHALL BE PLACED AS PERPENDICULAR AS POSSIBLE TO THE WEB OF BEAM, REGARDLESS OF POSSIBLE FLANGE TILT (AS ROLLED BY THE MILL). SEE GRAPHIC NO. 4.
   b. PLACEMENT OF ANGLES {H} SHALL BE SUCH THAT THEIR BOLT HOLES ARE ALIGNED WITH EACH OTHER AS MUCH AS POSSIBLE IN BOTH THEIR VERTICAL AND HORIZONTAL POSITIONS, ALLOWING THE CENTERLINE OF THE LONGITUDINAL ROWS TO BE THE 'WORKING POINT' FOR THE PLACEMENT OF VSE {F}. THIS WILL PROVIDE ASSURANCE THAT THE LONGITUDINAL BOLT HOLES IN THE BEAM ASSEMBLY WILL LINE UP WITH THE LONGITUDINAL BOLT HOLTS IN THE COLUMN ASSEMBLY. ANY OVER RUN IN THE AS BUILT DIMENSIONS WILL CREATE A GAP BETWEEN ANGLES {G} AND COVER PLATE {B}. SHIM AS REQUIRED. ANY UNDER RUN IN THE AS BUILT DIMENSIONS SHOULD BE ACCOMMODATED BY THE OVERSIZED BOLT HOLE TOLERANCES.
   c. IN THE EVENT THE RADIUS OF THE ANGLE IS LARGER THAN THE EDGE DISTANCE REQUIRED TO PLACE FILLET WELD {5} FROM THE ANGLE {H} TO THE BEAM FLANGE TIPS, ROTATE ASSEMBLY ON ITS SIDE SO THAT THE WEB IS PARALLEL TO THE GROUND. IN THIS POSITION THE RADIUS OF THE ANGLE CAN BE BUILT UP. SEE GRAPHIC NO. 5.
   d. NOTE THAT IN SOME CONDITIONS ANGLES MAY NOT BE 90 DEGREES. CARE SHALL BE GIVEN TO MEASURE THE SUGGESTED WIDTH FROM THE MOST EXTREME POINT ON THE EXTERIOR FACE OF ANGLE {H} (WHICH MAY OCCUR AT THE TOE OF THE ANGLE VERSES ITS APEX).
   e. THE ENTIRE EXTERIOR FACE OF THE OUTSTANDING LEG OF ANGLE {H} SHALL BE PLACED PARALLEL TO THE WEB OF THE BEAM AS MUCH AS PRACTICABLE.
   f. WELD COVER PLATES {B} AND ANGLES {H} TO BEAM FLANGE USING FILLET WELD {5} AND {5a}. SEE GRAPHIC NO. 8.
   g. WELD VSE {F} TO THE BEAM WEB, AS REQUIRED. SEE GRAPHIC NO. 8. IT IS RECOMMENDED THAT THE VSE {F} BE WELDED LAST AS A DISTORTION CONTROL METHOD DUE TO THE POTENTIAL WARPING EFFECTS OF WELD {5}. THE EXTERIOR FACE OF THE VSE {F} SHALL EITHER BE FLUSH WITH THE EXTERIOR FACE OF ANGLE {H}, OR SLIGHTLY RECESSED TOWARDS THE BEAM WEB UP TO 1/16 INCH FROM THE EXTERIOR FACE OF ANGLE {H}, SEE GRAPHIC NO. 4. THE VERTICAL PLACEMENT OF THE VSE {F} SHALL BE SET BY THE KEEP DIMENSION FROM ITS BOTTOM BOLT HOLE TO THE CENTERLINE OF THE BOTTOM LONGITUDINAL ROW OF BOLT HOLES IN ANGLES {H} (I.E. THE 'WORKING POINT' OF THE BEAM). THIS WILL VERIFY PROPER ALIGNMENT OF THE BOLT HOLES IN THE COLUMN ASSEMBLY WITH THOSE IN THE BEAM ASSEMBLY, IRRESPECTIVE OF MILL TOLERANCES.
   h. TACK WELDING IN THE BEAM PROTECTED ZONE SHALL NOT BE PERMITTED. IF THIS SHOULD OCCUR, IT SHALL BE REPAIRED BY FOLLOWING AWS PROTOCOLS.

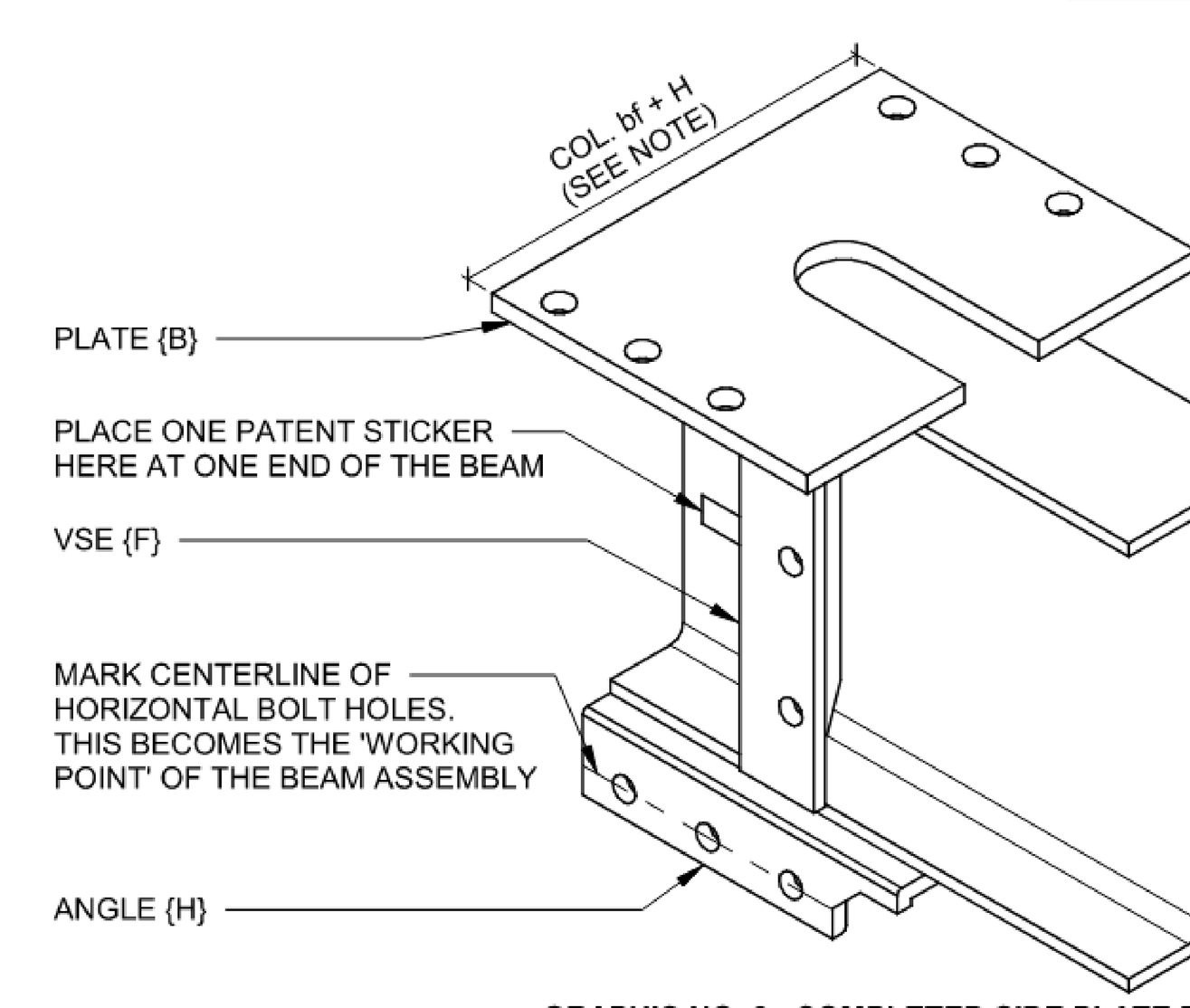


COLUMN FLANGE THICKNESS	REPORTED AVERAGE MILL OVERRUNS	SUGGESTED ANGLE {H} PLACEMENT
< 1 1/2"	0" - 3/16"	COLUMN bf - 1/4"
≥ 1 1/2"	1/8" - 5/16"	COLUMN bf - 1/8"

GRAPHIC NO. 4 - ANGLE {H} PLACEMENT

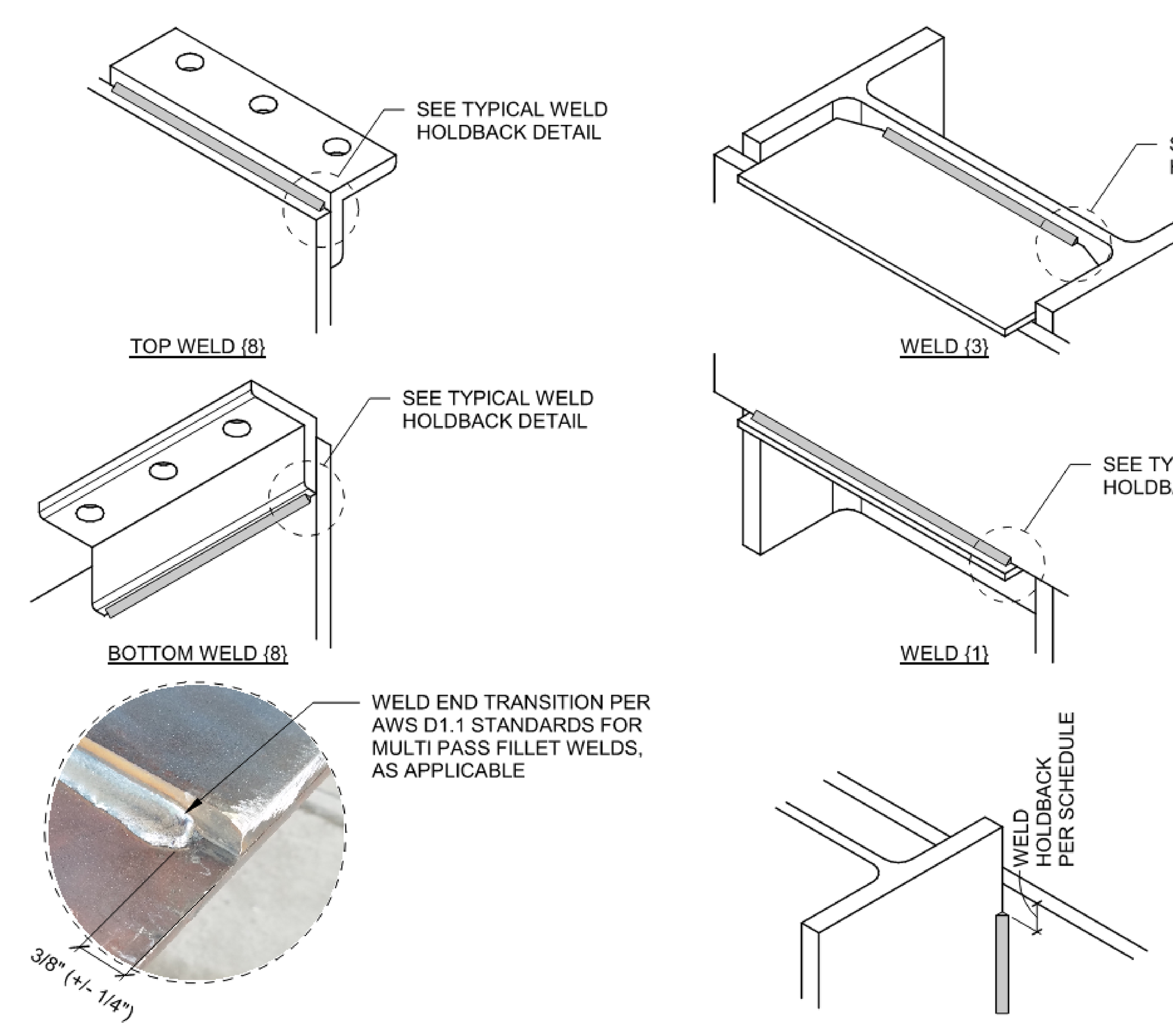


GRAPHIC NO. 5 - ROTATE BEAM ASSEMBLY TO FACILITATE WELD {5} MATERIAL AT MINIMAL EDGE DISTANCE

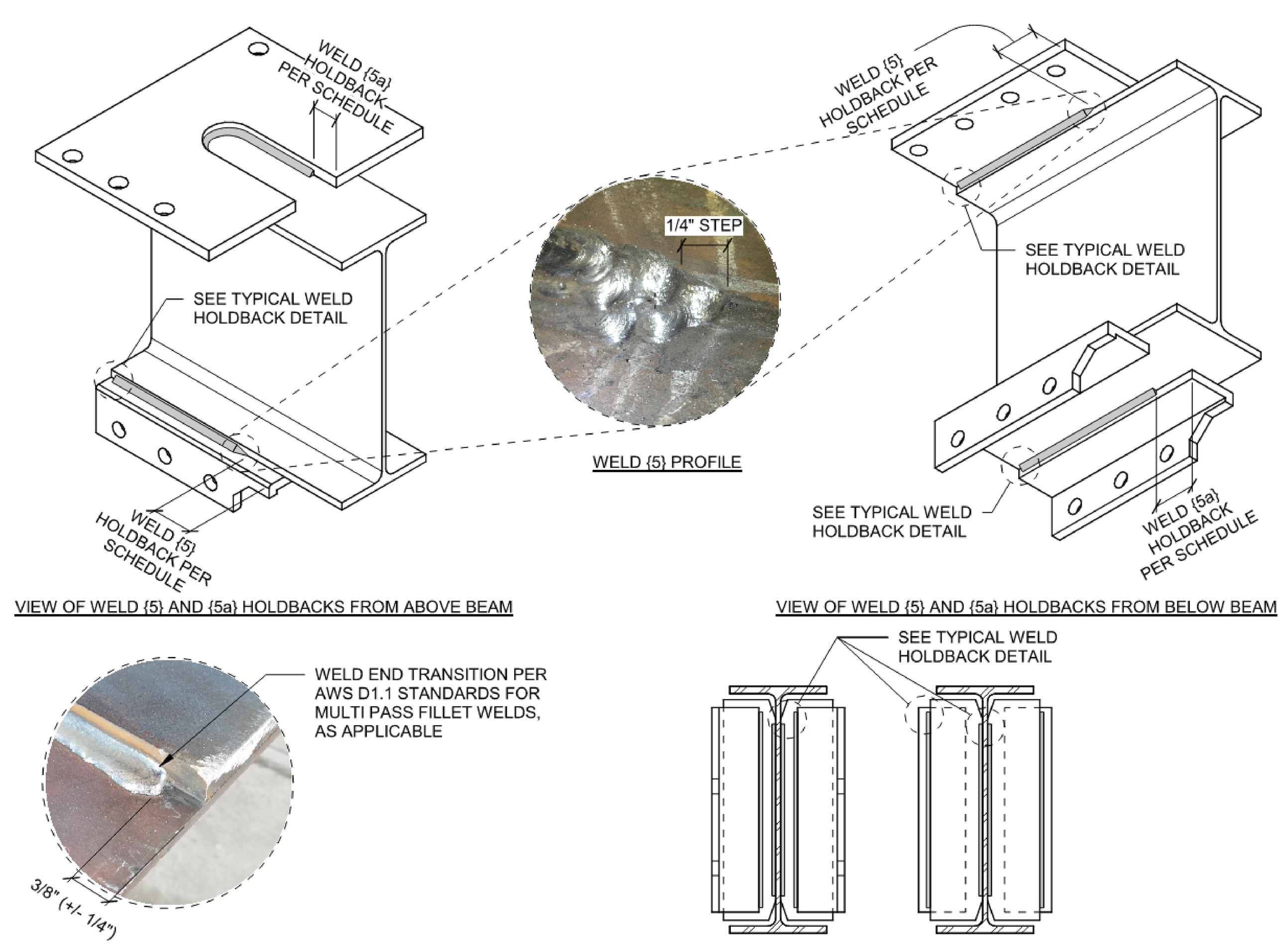


NOTE:
WHEN COLUMN FLANGE THICKNESS IS GREATER THAN 1 1/2 INCHES, INCREASE COVER PLATE WIDTH BY 1/8 INCH.

GRAPHIC NO. 6 - COMPLETED SIDE PLATE BOLTED BEAM END



GRAPHIC NO. 7 - COLUMN ASSEMBLY WELD END PROFILES AND HOLDBACKS

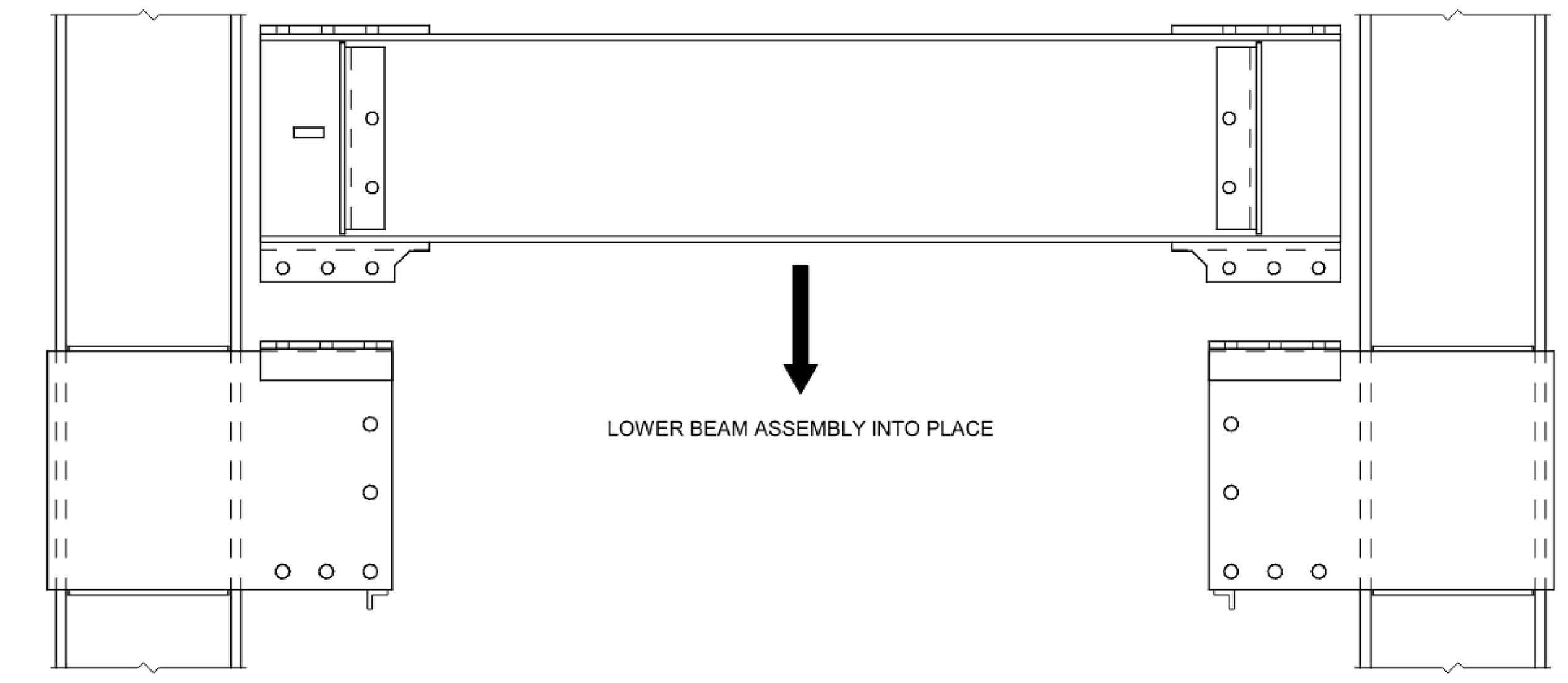


GRAPHIC NO. 8 - BEAM ASSEMBLY WELD END PROFILES AND HOLDBACKS

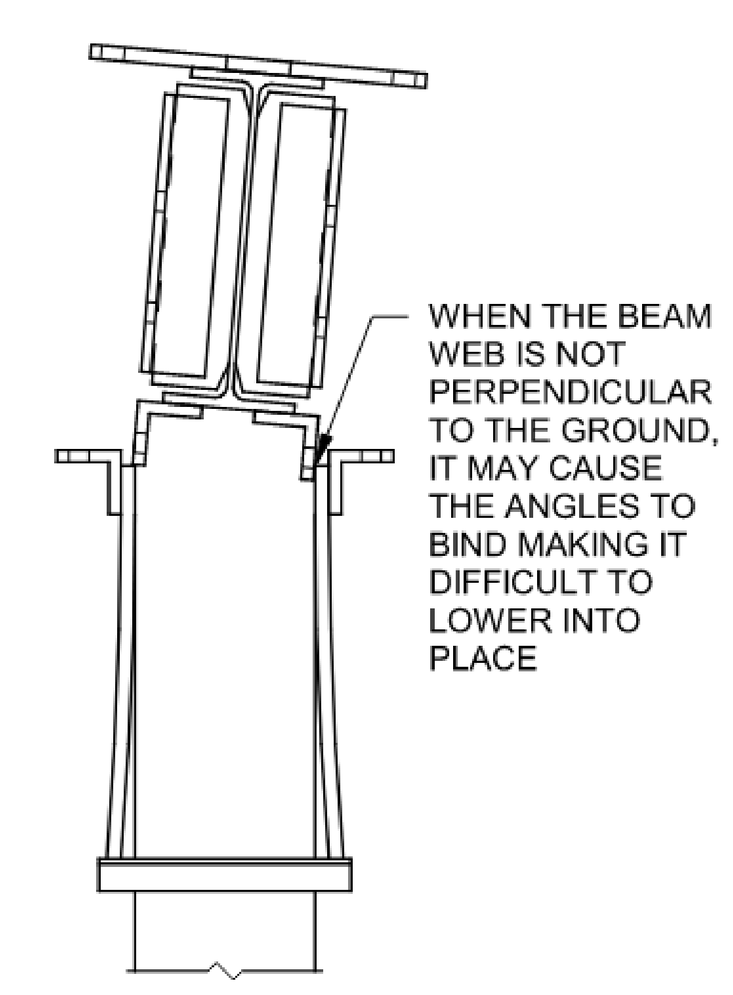
3. THE FOLLOWING FABRICATION AND SEPARATION MEASURES ARE IMPLEMENTED AND MAINTAINED THROUGH DELIVERY TO THE FIELD IN ORDER TO FACILITATE THE LOWERING INTO PLACE OF THE BEAM ASSEMBLY BETWEEN SIDE PLATES {A} OF OPPOSING COLUMN ASSEMBLIES.
   a. MAINTAIN, AS A MINIMUM, THE ACTUAL COLUMN FLANGE WIDTH ANYWHERE IN BETWEEN THE INTERIOR FACES OF SIDES PLATES {A} FROM TOP TO BOTTOM, TO ENSURE SUFFICIENT RATTLE SPACE UPON LOWERING THE BEAM ASSEMBLY INTO PLACE.
   b. THE DETAILED DISTANCE FROM EXTERIOR FACES OF ANGLES {H} ON THE BEAM ASSEMBLY SHALL BE CORRESPONDINGLY DIMENSIONED PER THE TABLE IN GRAPHIC NO. 4. THIS REDUCTION SHALL BE BASED ON THE FABRICATOR'S EXPERIENCE WITH THE TYPICAL MILL OVERRUNS IN THE COLUMN FLANGE WIDTH FOR THE COLUMN SECTIONS BEING USED. THE PROPER DETAILED DIMENSIONING OF THESE ANGLES {H} IS TO FACILITATE ERECTION CLEARANCE DURING THE LOWERING OF THE BEAM ASSEMBLY INTO PLACE.
      - IT IS IMPORTANT TO MAINTAIN SUFFICIENT EDGE DISTANCE BETWEEN THE LONGITUDINAL FACE OF THE BOTTOM ANGLES {H} WITH RESPECT TO ITS APEX AND RADIUS AND THE CORRESPONDING FLANGE TIP OF THE BEAM FOR PLACEMENT OF WELD {5}, SEE GRAPHIC NO. 5.

FIELD ERECTION OF SIDEPLATE BOLTED SYSTEM

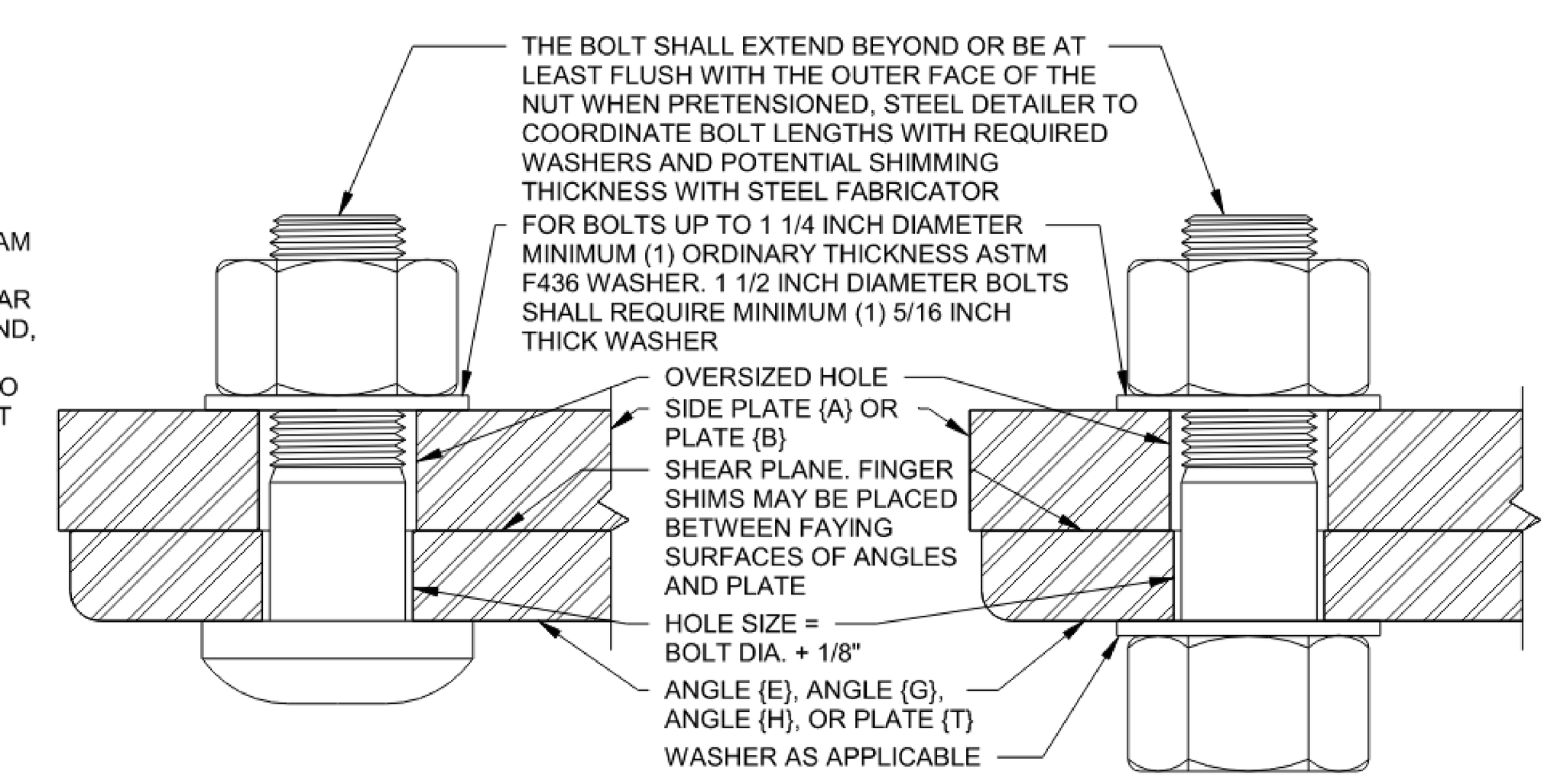
1. LOWER THE BEAM ASSEMBLY INTO OPPOSING COLUMN ASSEMBLIES. SEE GRAPHIC NO. 9
   a. RACK BEAM SUCH THAT WEB IS PERPENDICULAR TO THE GROUND, FACILITATING MAXIMUM TOLERANCE WITHOUT THE BEAM BEING TILTED AS IT IS LOWERED DOWN BETWEEN THE SIDE PLATES {A}, SEE GRAPHIC NO. 10.
   b. IF THE OPPOSING COLUMNS ARE SLIGHTLY SKEWED IN RELATION TO ONE ANOTHER, MAKING IT DIFFICULT TO LOWER THE BEAM DOWN BETWEEN THEM SIMULTANEOUSLY, THE BEAM ASSEMBLY CAN BE TILTED AND PLACED FIRST ON ONE COLUMN (LIKELY THE ONE WITH THE GREATEST TWIST). THEN A CHOKER ON THE OPPOSITE END OF THE BEAM CAN BE USED TO PULL IT OVER SO THAT IT IS IN ALIGNMENT ALLOWING THE FREE END OF THE BEAM TO BE DROPPED DOWN INTO PLACE. **IN NO CASE SHALL THE BEAM BE OVERDRAWN OR TWISTED SUCH THAT THE NON-PARALLEL COLUMNS' ERECTION AIDS FAIL.**
2. CAREFULLY REMOVE BOTTOM 'DOG' WHICH IS UNDER LOAD. IT IS RECOMMENDED THAT IT BE REMOVED BY TORCH CUTTING A 'V' SECTION OUT OF ONE OF THE ANGLE LEGS TO ALLEVIATE THE LOAD AND THEN PROCEED TO REMOVE IT. **IT IS NOT RECOMMENDED TO USE A GRINDING WHEEL TO REMOVE THE WELDS WHILE THE DOG IS UNDER LOAD!** BOTTOM 'DOG' ATTACHMENT WELD MAY REMAIN AND IS NOT NECESSARY TO BE GROUND FLUSH. BOTTOM DOGS SHALL BE REMOVED PRIOR TO PRETENSIONING SIDEPLATE BOLTS.
3. INSTALL BOLTS WHICH SERVE AS CLAMPING DEVICES TO 1) PULL SIDE PLATES {A} IN AS CLOSE AS PRACTICABLE TO THE ANGLES {H} OF THE BEAM ASSEMBLY AND 2) PULL ANGLES {G} ON COLUMN TREE ASSEMBLY AS CLOSE AS PRACTICABLE TO COVER PLATE {B}. BOLTS SHALL BE SYSTEMATICALLY INSTALLED AS OUTLINED IN THE BOLTING SPECIFICATIONS, FIRST TO A SNUG TIGHT CONDITION AND THEN PRETENSIONED. PRIOR TO PRETENSIONING, THE DISTANCE BETWEEN FAYING SURFACES SHALL BE MEASURED. IF DISTANCE EQUALS 1/8 INCH OR LESS, NO FURTHER ACTION IS REQUIRED PRIOR TO PRETENSIONING. IF DISTANCE IS GREATER THAN 1/8 INCH UP TO 1/4 INCH, A SINGLE-PLY FINGER SHIM SHALL BE INSTALLED BETWEEN FAYING SURFACES PRIOR TO PRETENSIONING. FOR GAPS GREATER THAN 1/4 INCH, CONTACT SIDEPLATE FOR REMEDIAL MEASURES. WASHER IS REQUIRED UNDER THE NUT (AND IN SOME CASES UNDER THE HEAD OF HEAVY HEX). BOLTS SHALL BE INSTALLED AS SHOWN IN GRAPHIC NO. 11.
4. BOLT IN FIELD AS SHOWN IN GRAPHIC NO. 12 AND GRAPHIC NO. 13 TO COMPLETE ASSEMBLY.



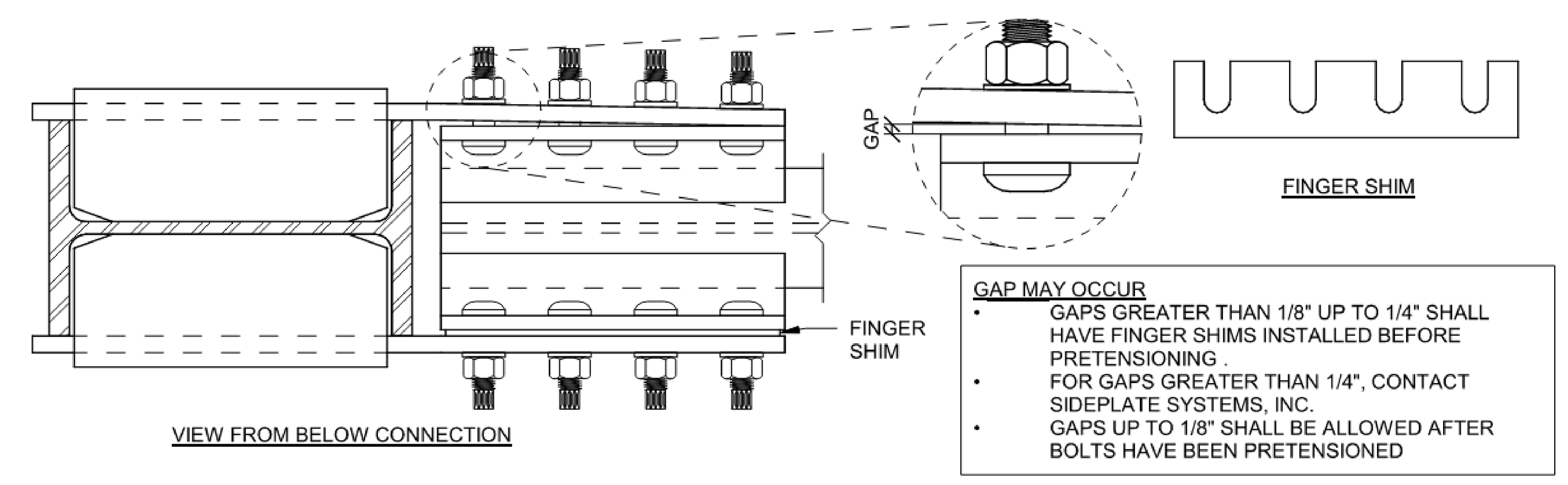
GRAPHIC NO. 9 - FIELD ERECTION OF SIDEPLATE BEAM ASSEMBLY



GRAPHIC NO. 10 - INCORRECTLY RACKED BEAM

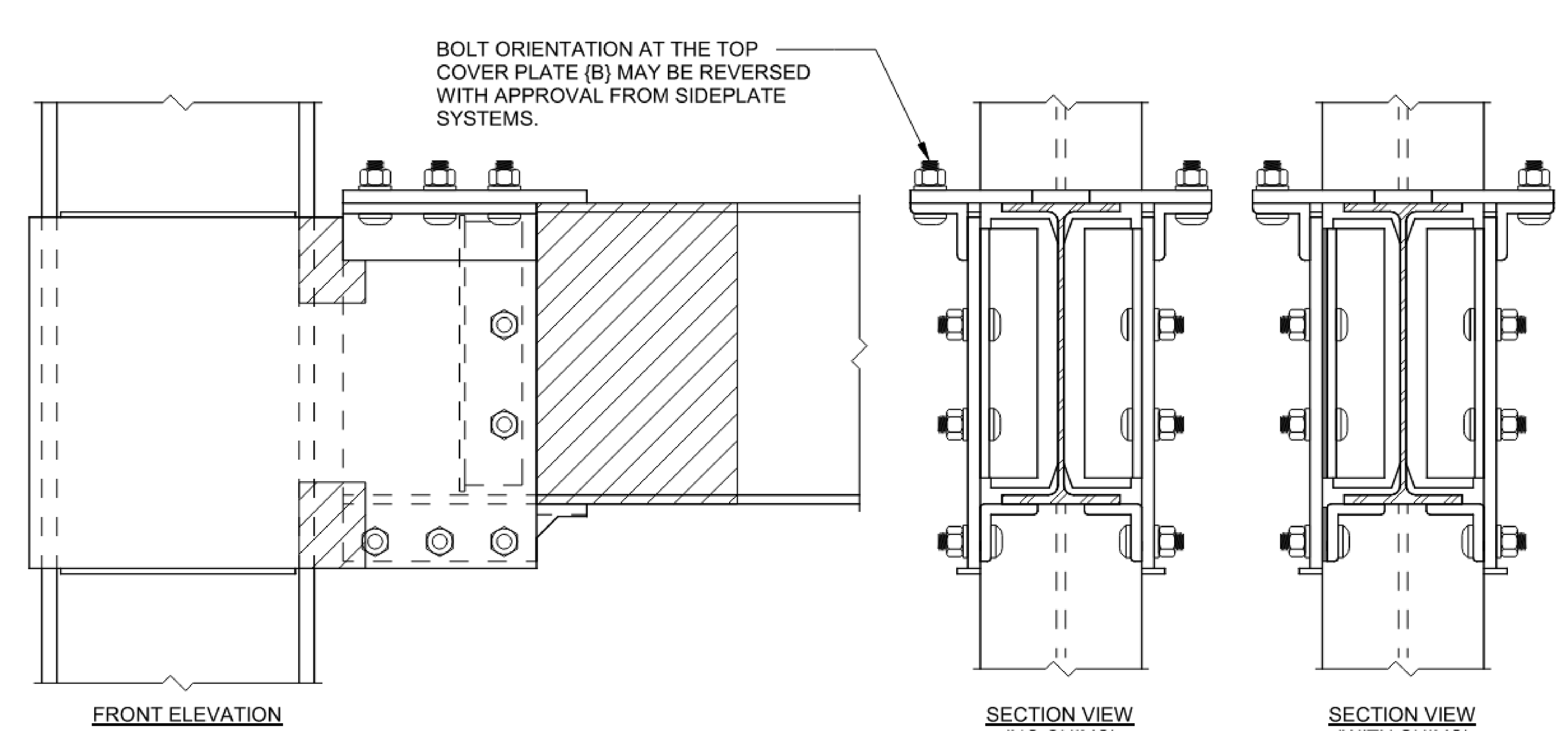


GRAPHIC NO. 11 - BOLTING DETAIL

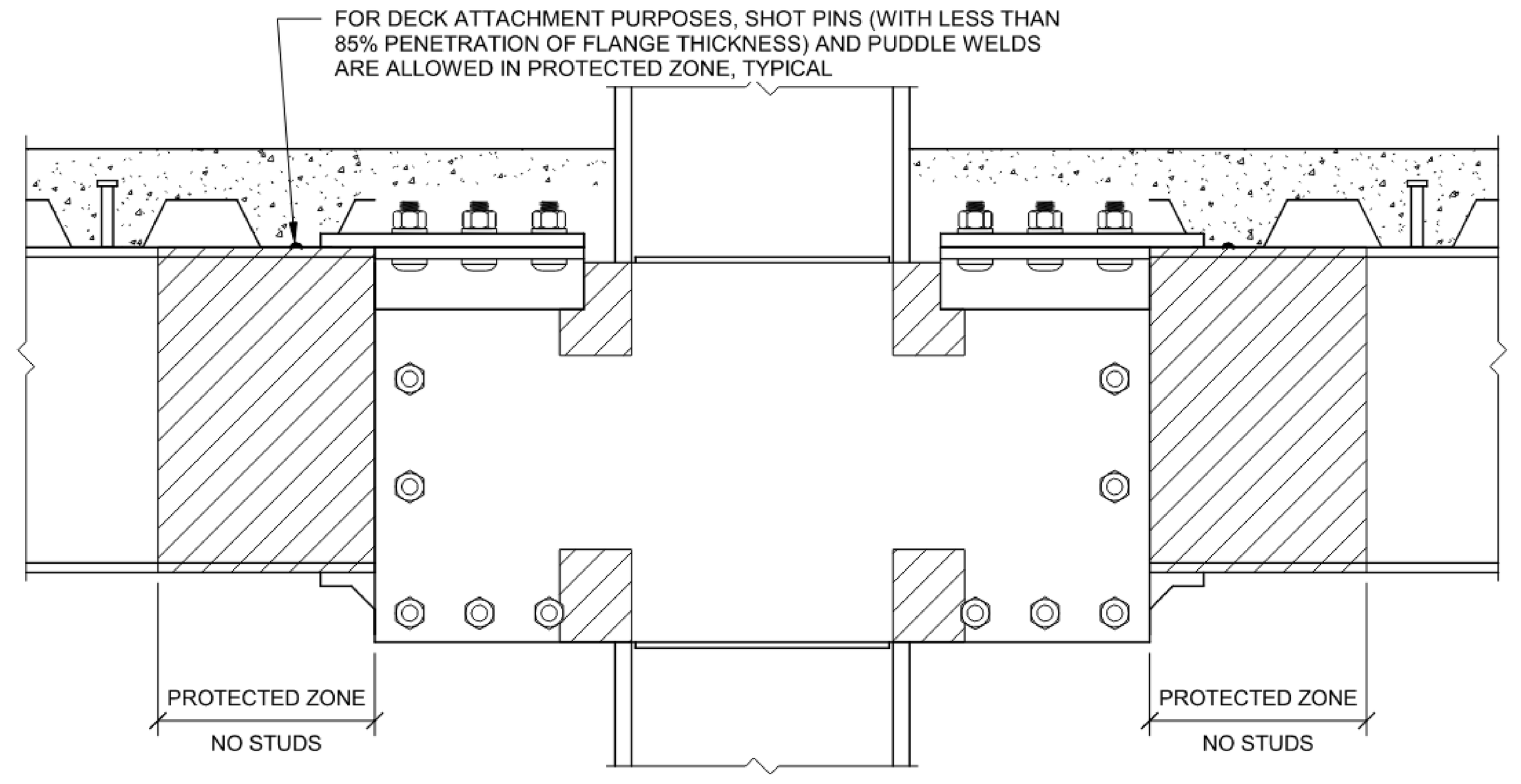


GAP MAY OCCUR
- GAPS GREATER THAN 1/8" UP TO 1/4" SHALL HAVE FINGER SHIMS INSTALLED BEFORE PRETENSIONING .
- FOR GAPS GREATER THAN 1/4", CONTACT SIDEPLATE SYSTEMS, INC.
- GAPS UP TO 1/8" SHALL BE ALLOWED AFTER BOLTS HAVE BEEN PRETENSIONED

GRAPHIC NO. 12 - CONDITION PRIOR TO TIGHTENING BOLTS



GRAPHIC NO. 13 - COMPLETED SIDEPLATE BOLTED CONNECTION



GRAPHIC NO. 14 - STUDS AND PUDDLE WELDS AT BEAM PROTECTED ZONE

SMF BOLTED

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INCREMENT II - STEAM BUILDING PROJECT

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San Francisco CA 94105
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ISSUED FOR	DATE
PERMIT SET	24JUL2025
95% CONSTRUCTION DOCS	19JUN2025
50% CONSTRUCTION DOCS	24MAR2025
DESIGN DEVELOPMENT	09JAN2025
SCHEMATIC DESIGN	20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER ANDREW KIM No. S 6654 STRUCTURAL STATE OF CALIFORNIA
07/18/2025

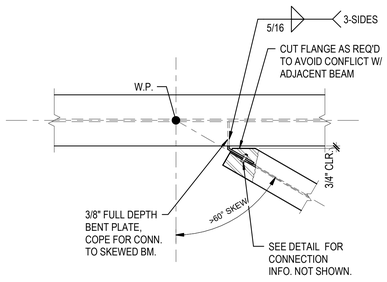
SHEET TITLE
SIDEPLATE CONSTRUCTION GUIDELINES

2023-045S
PROJECT NUMBER

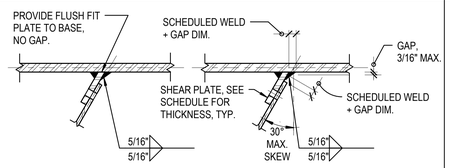
CD

S4.17
SHEET NUMBER

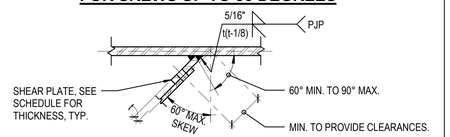
Plot Date: 7/18/2025 11:02:57 AM Author



FOR SKEWS GREATER THAN 60 DEGREES



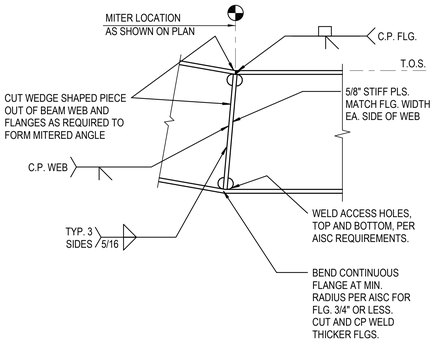
FOR SKEWS UP TO 30 DEGREES



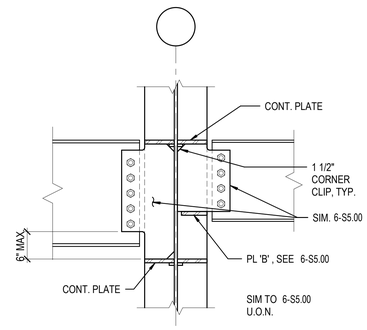
FOR SKEWS UP TO 60 DEGREES

NOTES:
1. SEE 1 WHERE "SCHEDULE" IS REFERENCED.
2. SEE APPLICABLE BEAM CONNECTION DETAIL FOR INFORMATION NOT SPECIFIED.

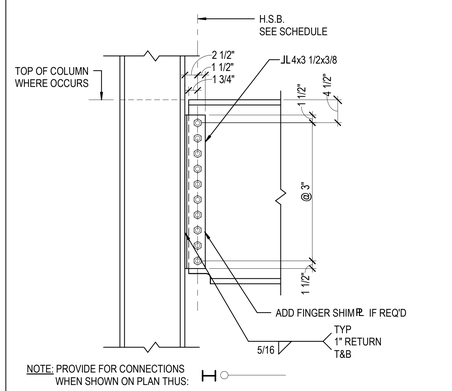
SHEAR CONNECTOR PLATES AT SKEWED MEMBERS — 16



MITERED BEAM — 12

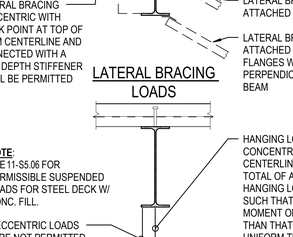


BEAM TO COL WEB AT CONTINUITY PLATES — 8



NOTE: PROVIDE FOR CONNECTIONS WHEN SHOWN ON PLAN THUS:

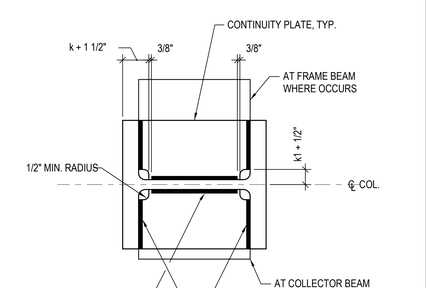
DOUBLE ANGLE GIRDER TO COLUMN FLANGE — 4



SEE DETAIL 3 FOR INFORMATION NOT NOTED

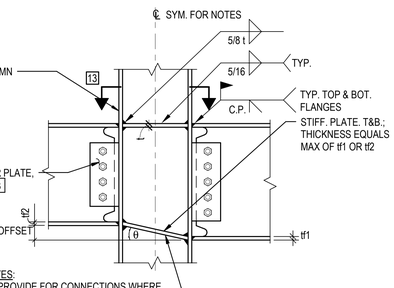
TYP. HSS TO WF COL. CONN. — 19

1" = 1'-0"



NOTES:
1. HIGHLIGHT SPLICE PLATE ON SHOP DRAWINGS FOR REVIEW BY ENGINEER.
2. WHEN DEPTH OF BEAM IS SAME AS DEPTH OF GIRDER, USE SPLICE PLATE ON BOTTOM FLANGE SIMILAR TO TOP FLANGE. SHIM AS REQUIRED.

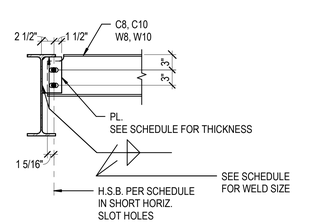
WHERE GIRDER FLANGE IS SAME THICKNESS OR THINNER THAN BEAM FLANGE



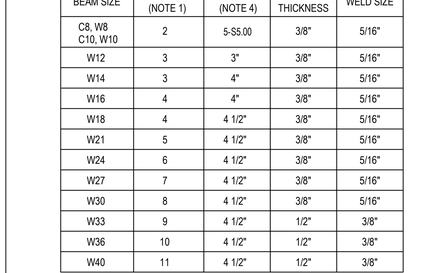
NOTE: CONDITION WHERE BEAM AND GIRDER ARE THE SAME SIZE NOT SHOWN. PROVIDE C.P. WELD AT BOTTOM FLANGE WHEN BEAM AND GIRDER ARE THE SAME SIZE.

WHERE GIRDER FLANGE IS THICKER THAN OR EQUAL TO BEAM FLANGE

TYPICAL MOMENT CONNECTION OF BEAM TO GIRDER — 11

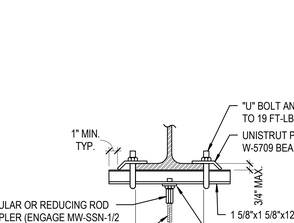


COLUMN WEB PLATE AT DEEP COLUMNS — 7



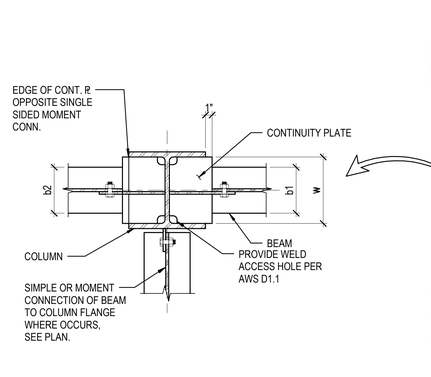
NOTES:
1. SEE "BOLTED SHEAR PLATE CONNECTION SCHEDULE" WHERE "SCHEDULE" IS REFERENCED.

SIMPLE CONNECTION OF BEAM TO COLUMN FLANGE — 3



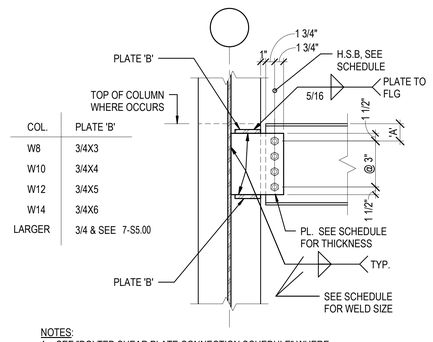
HANGER ATTACHEMENT TO STEEL BEAM — 18

1" = 1'-0"



NOTES:
1. PROVIDE FOR CONNECTIONS WHERE SHOWN THUS ON PLAN

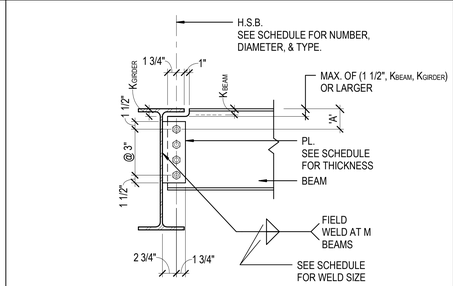
MOMENT CONNECTION OF BEAM TO COLUMN WEB — 10



COL.	PLATE 'B'
W8	3/4X3
W10	3/4X4
W12	3/4X5
W14	3/4X6
LARGER	3/4 & SEE 7-S5.00

NOTES:
1. SEE "BOLTED SHEAR PLATE CONNECTION SCHEDULE" WHERE "SCHEDULE" IS REFERENCED.

SIMPLE CONNECTION OF BEAM TO COL. WEB — 6



NOTES:
1. SEE "BOLTED SHEAR PLATE CONNECTION SCHEDULE" WHERE "SCHEDULE" IS REFERENCED.
2. COPE BOTTOM FLANGE WHERE BEAM DEPTH MATCHES SUPPORT BEAM.
3. SEE 2-S5.01 WHERE BEAM IS DEEPER THAN SUPPORT BEAM.

TYPICAL CONNECTION OF BEAM TO GIRDER — 2

PERMISSIBLE SUPERIMPOSED LOADS FROM STEEL BEAMS — 17

1" = 1'-0"

COLUMN CONTINUITY PLATE MOMENT CONN. TO COL. FLG. — 13

NOTES:
1. PROVIDE FOR CONNECTIONS WHERE SHOWN THUS ON PLAN:
2. SEE 8-S5.00 FOR SIMPLE CONNECTION OF INTERSECTING BEAM TO COLUMN WEB WHERE OCCURS.
3. SEE 16-S5.12 FOR TOP OF COL. WHERE OCCURS.

WHEN TOP OR BOTTOM BEAM FLANGES ARE OFFSET SUCH THAT θ ≤ 30°, SLOPE STIFF. PLATE AS SHOWN. WHEN TOP OR BOTTOM BEAM FLANGES ARE OFFSET SUCH THAT θ > 30°, PROVIDE HORIZONTAL STIFF. PLATE OPPOSITE EACH FLANGE.

MOMENT CONNECTION OF BEAM TO COLUMN FLANGE — 9

NOTES:
1. SEE "BOLTED SHEAR PLATE CONNECTION SCHEDULE" WHERE "SCHEDULE" IS REFERENCED.

C8, W8, C10, W10 CONNECTION — 5

BEAM SIZE	NO. BOLTS (NOTE 1)	A (NOTE 4)	SHEAR PLATE THICKNESS	WELD SIZE
C8, W8 C10, W10	2	5-S5.00	3/8"	5/16"
W12	3	3"	3/8"	5/16"
W14	3	4"	3/8"	5/16"
W16	4	4"	3/8"	5/16"
W18	4	4 1/2"	3/8"	5/16"
W21	5	4 1/2"	3/8"	5/16"
W24	6	4 1/2"	3/8"	5/16"
W27	7	4 1/2"	3/8"	5/16"
W30	8	4 1/2"	3/8"	5/16"
W33	9	4 1/2"	1/2"	3/8"
W36	10	4 1/2"	1/2"	3/8"
W40	11	4 1/2"	1/2"	3/8"

NOTES:
1. BOLTS SHALL BE 7/8"Ø A325 OR F1852 H.S.B. U.O.N.
2. BOLTS SHALL BE INSTALLED IN STD. HOLES, U.O.N.
3. BOLTS SHALL BE PRETENSIONED, U.O.N.
4. USE LISTED 'A' DIM. WHEREVER PRACTICAL.

BOLTED SHEAR PL. CONNECTION SCHEDULE — 1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

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Structural | Geotechnical
101 Mission Street, Suite 300
San Francisco CA 94105
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F 415 618 0684
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		05JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEIMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE

TYPICAL STEEL DETAILS

2023-045S

PROJECT NUMBER

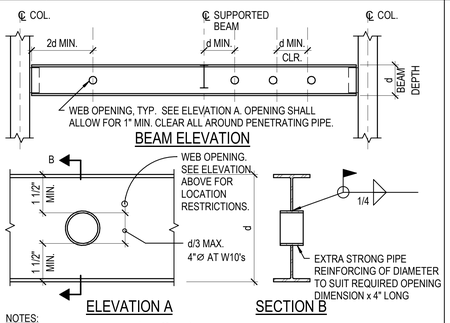
S5.00

SHEET NUMBER

Author

8/21/2025 5:09:20 PM

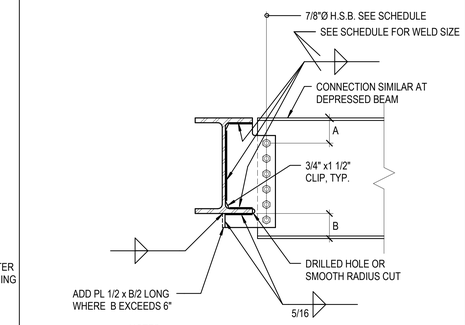
Plot Date:



NOTES:
1. SHOWN THUS ON PLAN:
2. OPENINGS 3" IN DIAMETER OR LESS THRU BEAMS OF DEPTH 12" AND GREATER DO NOT REQUIRE PIPE REINF.
3. THEY MUST CONFORM WITH ALL HORIZONTAL AND VERTICAL LOCATION RESTRICTIONS SHOWN ABOVE.

TYPICAL ROUND WEB PENETRATION IN W BEAM

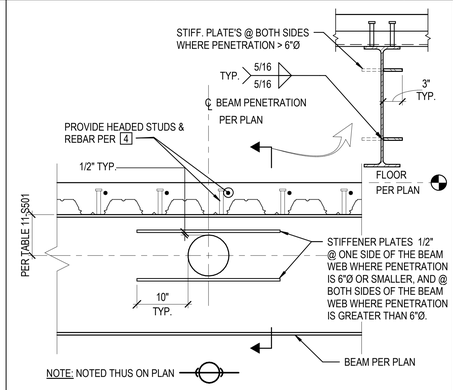
12" = 1'-0" | 16



NOTES:
1. SEE 1-S5.00 WHERE "SCHEDULE" IS REFERENCED.
2. SEE 2-S5.00 FOR INFO NOT SHOWN.

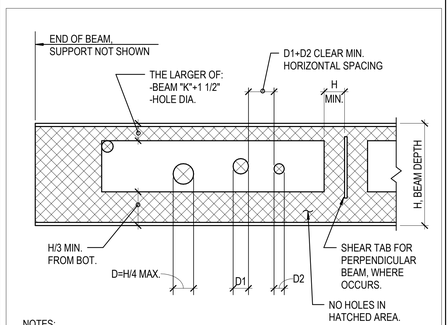
TYPICAL BEAM TO SHALLOW SUPPORT BEAM

12



REINFORCED CIRCULAR BEAM PENETRATION

1" = 1'-0" | 8



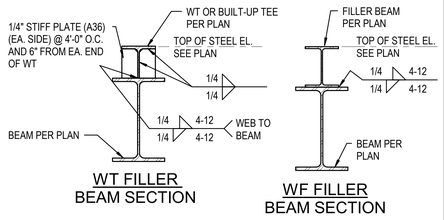
NOTES:
1. HOLES ARE ACCEPTABLE ONLY IN BEAMS WITH SINGLE ROW BOLTED END CONNECTIONS. OBTAIN ENGINEER'S APPROVAL FOR OTHER CONDITIONS.
2. HOLES SHALL BE MACHINE OXYGEN CUT.

UNREINFORCED CIRCULAR HOLES IN STEEL BEAMS

1" = 1'-0" | 4

d < 1 1/2" ℄ FILLER BEAM SECTION

1 1/2" ≤ d ≤ 6" HSS FILLER BEAM SECTION



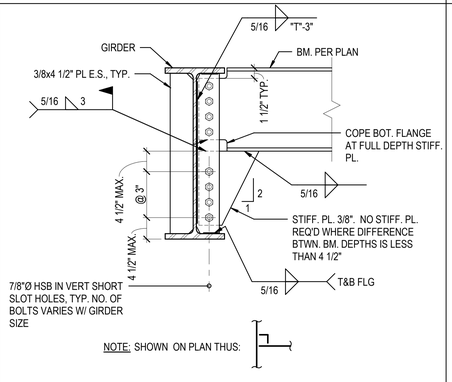
WT FILLER BEAM SECTION

WF FILLER BEAM SECTION

NOTE: STEEL DECK AND CONC. FILL NOT SHOWN.

TYPICAL FILLER BEAM

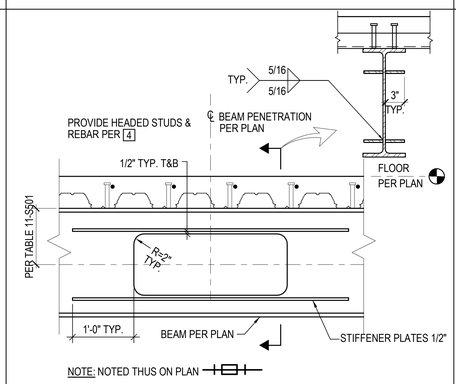
1" = 1'-0" | 14



NOTES:
1. SEE 1-S5.00 WHERE "SCHEDULE" IS REFERENCED.

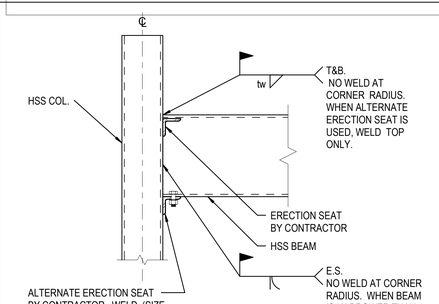
CONNECTION AT DEPRESSED BEAM

11



REINFORCED RECTANGULAR BEAM PENETRATION

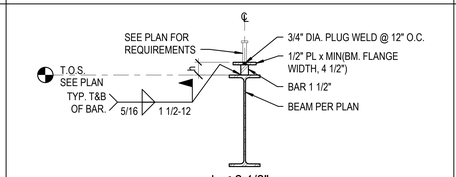
1" = 1'-0" | 5



tw = WALL THICKNESS OF THINNEST MEMBER.

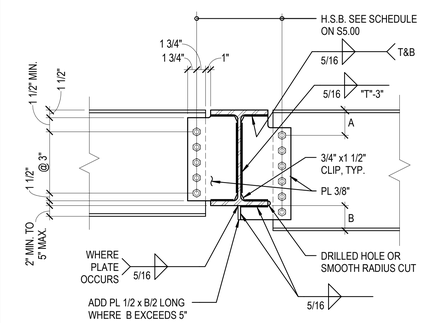
TYP. HSS BEAM TO HSS COLUMN

1" = 1'-0" | 3



TYPICAL FILLER BEAM DETAIL

6



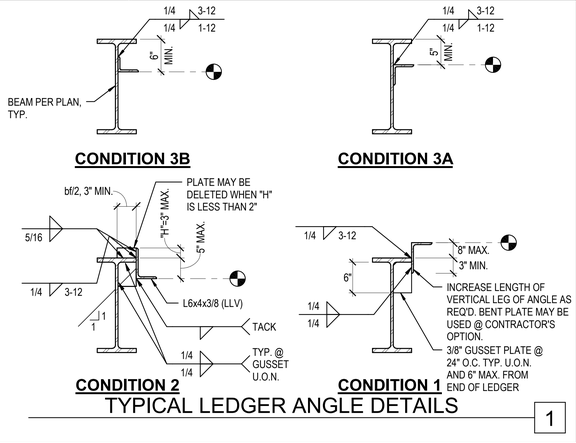
TYPICAL BEAM TO SHALLOW SUPPORT BEAM

2

FULL DEPTH CONNECTION OF BEAM TO GIRDER

9

NOTES:
1. ANGLE SIZE TO BE L4x3x3/8 (LLH) TYP., UON.
2. WHERE APPLICABLE EITHER CONDITION 3A OR 3B MAY BE USED @ CONTRACTOR'S OPTION.



TYPICAL LEDGER ANGLE DETAILS

1

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50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

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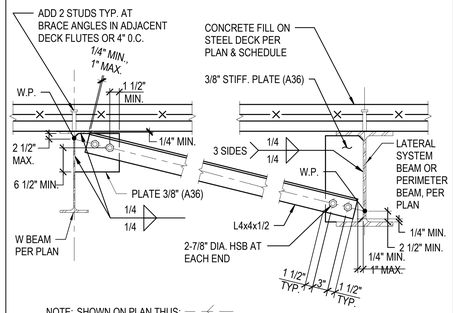
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL STEEL DETAILS

2023-045S
PROJECT NUMBER

S5.01
SHEET NUMBER

Author
Plot Date: 8/21/2025 5:09:24 PM



NOTE: SHOWN ON PLAN THUS: — < —
LOW END OF BRACE OCCURS AT LATERAL SYSTEM BEAM/PERIMETER BEAM.

LATERAL BRACE DETAIL 1

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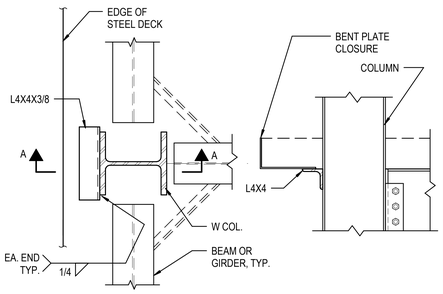
SHEET TITLE
STEEL DETAILS

2023-045S
PROJECT NUMBER

S5.02
SHEET NUMBER

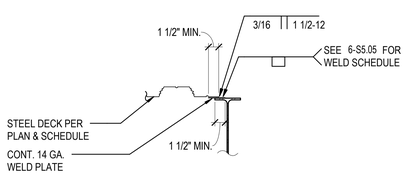
Plot Date: 8/21/2025 5:09:24 PM Author



PLAN SECTION A-A

NOTES:
1. SEE 19-S5.05 FOR INFO NOT SHOWN OR NOTED.
2. SEE S4.10 THROUGH S4.16 FOR DECK SUPPORT INFO AT SIDEPLATE CONNECTIONS.

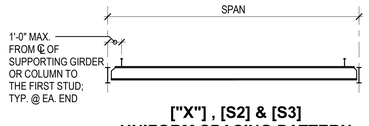
DECK SUPPORT AT PERIMETER COLUMNS 20



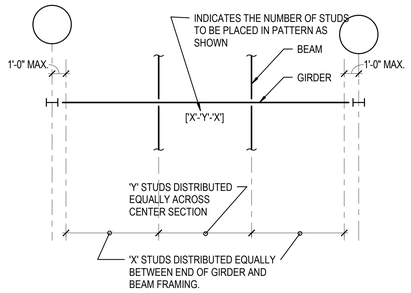
NOTE: SEE ALSO NOTE #7 ON 1-S5.05.

DECK SUPPORT WHERE SIDE BEARING IS LESS THAN 1 1/2" 16

	DECK ORIENTATION TO BEAM	
	⊥	∥
["X"]	"X" STUDS DISTRIBUTED EQUALLY OVER FULL LENGTH OF BEAM,	
[S2]	2 STUDS/FLUTE	1 STUD @ 6" O.C.
[S3]	3 STUDS/FLUTE	3 STUDS @ 12" O.C.



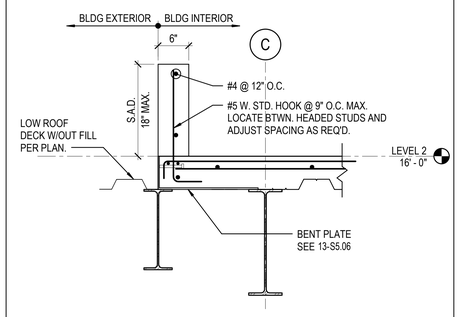
["X"] , [S2] & [S3] UNIFORM SPACING PATTERN



VARIABLE SPACING PATTERN

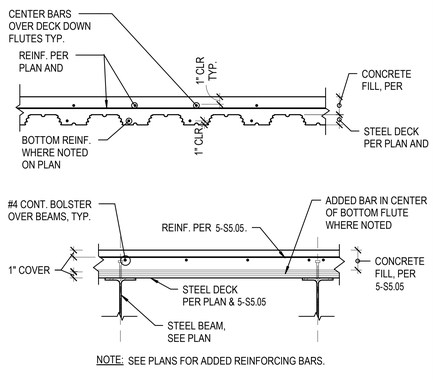
NOTES:
1. ALL WELDED SHEAR STUDS SHALL BE 3/4" DIAMETER. SEE 5 FOR STUD LENGTH.
2. THE NUMBER OF STUDS REQUIRED IS INDICATED ON FRAMING PLANS BY [S1], [S2], OR ['X'-'Y'-'X']. WHERE NO MARK IS SHOWN, PROVIDE STUD AT 12" O.C. MAXIMUM ALL W MEMBERS SUPPORTING CONCRETE FILL.
3. START STUDS 1'-0" MAX. FROM C.L. OF SUPPORTING GIRDER OR COLUMN.
4. WHEN THE NUMBER OF STUDS IN A SECTION CONFLICTS WITH THE PLAN CALLOUT, THE PLAN CALL-OUT GOVERNS

TYPICAL SHEAR STUD SPACING PATTERNS 11



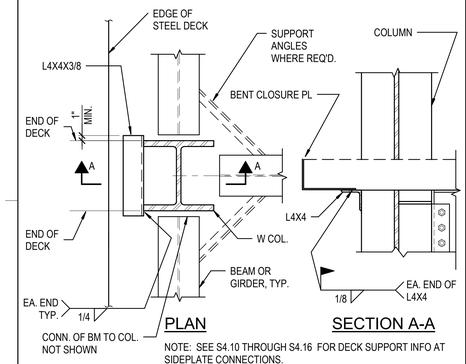
LOW ROOF AT GRID C 8

1" = 1'-0"



NOTE: SEE PLANS FOR ADDED REINFORCING BARS.

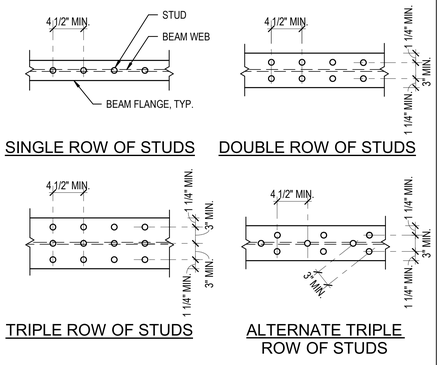
REINFORCING FOR CONCRETE FILL OVER STEEL DECK 4



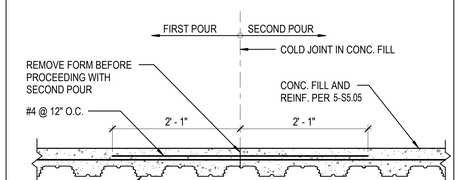
PLAN SECTION A-A

NOTE: SEE S4.10 THROUGH S4.16 FOR DECK SUPPORT INFO AT SIDEPLATE CONNECTIONS.

TYP. DECK SUPPPORT AT EXT. COL - STRONG AXIS 19



SHEAR STUD MINIMUM SPACING 15



POUR CUT-OFF FOR CONCRETE FILL OVER DECK 7

TYPE	PROFILE	REMARKS
W2	12" 7" 5" 2" 5" 36"	VENTED COMPOSITE FLOOR DECK
PLB	6" 2 1/2" 3 1/2" 1 3/4" 36"	NON-PERFORATED DECK

REFER TO 5 FOR USE.

STEEL DECK PROFILES 3

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SHEET TITLE
TYPICAL STEEL DECK DETAILS

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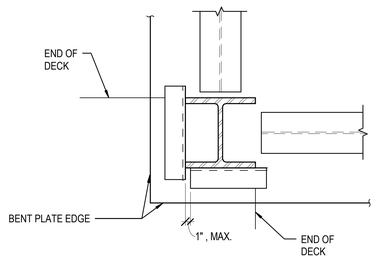
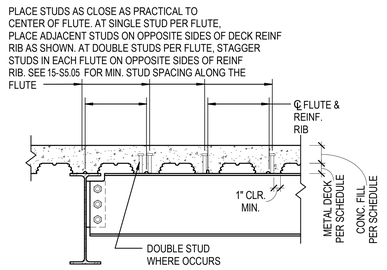
SHEET NUMBER

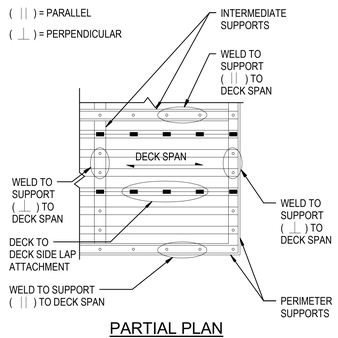


NOTE: SEE 19-S5.05 AND 20-S5.05 FOR INFO NOT SHOWN OR NOTED

TYP. DECK SUPPORT AT CORNER COL. 18



SHEAR STUD PLACEMENT 14



PARTIAL PLAN

DECK ATTACHMENT PATTERN

PATTERN TYPE	ATTACHMENT		
	TO SUPPORT PERPENDICULAR TO DECK RIBS	TO SUPPORT PARALLEL TO DECK RIBS	DECK TO DECK SIDE LAPS
FD	PUDDLE WELD ALL DOWN FLUTES	PUDDLE WELD @ 12" O.C.	12"O.C. (SEE NOTE 4)
RD	PUDDLE WELD IN 36/5 PATTERN AT DOWN FLUTES	PUDDLE WELD @ 12" O.C. AT INTERMEDIATE SUPPORTS. PUDDLE WELD @ 12" O.C. AT PERIMETER SUPPORTS.	8"O.C. (SEE NOTE 4)

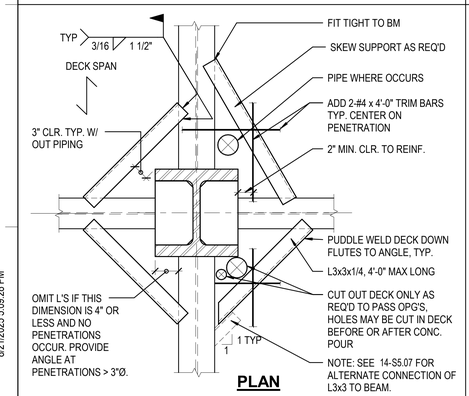
NOTES:
1. ALL PUDDLE WELDS SHALL HAVE 1/2"Ø MIN. EFFECTIVE FUSION AREA.
2. ALL BUTTON PUNCHES SHALL BE 3/16"Ø, WITH BUTTON PROTRUDING NOTICEABLY.
3. SHEAR STUDS WELDED THROUGH THE DECK, WITH A MINIMUM COVER 1" FROM THE EDGE OF THE DECK TO THE STUD CENTER LINE, MAY BE SUBSTITUTED ONE FOR ONE FOR A PUDDLE WELD. ALIGN AND SECURE DECK IN POSITION AS REQUIRED BEFORE INSTALLING SHEAR STUDS.
4. CONNECT SIDELAPS OF ROOF DECK, INCLUDING ROOF DECK TO RECEIVE INSULATING CONCRETE FILL, USING PROPRIETARY TOOL AT SPACING DESIGNATED IN TABLE. ACCEPTABLE CONNECTIONS ARE VSC2 BY VERCO AND DELTAGRIP BY ASC.

STEEL DECK ATTACHMENT SCHEDULE 6

NOTES:

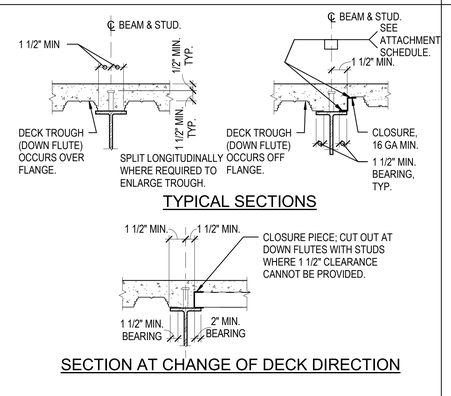
1. SEE SPECIFICATIONS AND "GENERAL NOTES" FOR ADDITIONAL INFORMATION.
2. SEE PLANS FOR TYPE, EXTENT, DIRECTION OF DECK, AND THICKNESS OF CONCRETE FILL OVER DECK. S.A.D. FOR EDGE DISTANCES AND FOR LOCATIONS AND SIZES OF OPENINGS, DROPS, CURBS, DEPRESSIONS AND OTHER NON-TYPICAL CONDITIONS.
3. U.O.N. ON PLANS OR IN DECK SPECIFICATIONS, THE DETAILS AND NOTES ON THIS SHEET SHALL BE INCORPORATED INTO THE PROJECT AT ALL LOCATIONS WHERE STEEL DECK IS USED, WHETHER SPECIFICALLY CALLED OUT OR NOT.
4. WHEREVER POSSIBLE, DECK LAYOUT SHALL PROVIDE SHEETS OF SUFFICIENT LENGTH TO CONTINUOUSLY SPAN AT LEAST THREE SPANS. ENDS SHALL TERMINATE OVER A SUPPORT PERPENDICULAR TO THE DECK SPAN, EXCEPT AT OPENINGS OR BUILDING EDGES WHERE DECKS MAY BE CANTILEVERED AS PER DETAILS.
5. WHEN DECK IS CONTINUOUS OVER TWO SPANS, DECK DOES NOT REQUIRE VERTICAL SHORING DURING CONCRETE FILL PLACEMENT. FOR OTHER LAYOUTS, INCLUDING CANTILEVERED EDGES, SHORE DECK AS REQUIRED BY MANUFACTURER.
6. DECK SHALL HAVE A MINIMUM OF 2" BEARING AT ALL SUPPORTING MEMBERS PERPENDICULAR TO DECK SPAN AND 1 1/2" AT ALL MEMBERS PARALLEL TO DECK SPAN.
7. WHERE TWO ADJACENT DECK SHEETS ARE SUPPORTED BY ONE FRAMING MEMBER, EACH SHEET SHALL INDIVIDUALLY SATISFY THE REQUIREMENTS OF NOTE 6 AND OF THE ATTACHMENT SCHEDULE, DETAIL 6-S5.05 .
8. LIGHTS, DUCTS AND OTHER ITEMS, EXCEPT ACOUSTIC TILE CEILING, SHALL NOT BE SUPPORTED FROM STEEL DECK WITHOUT CONCRETE FILL. LIGHTS, DUCTS AND OTHER ITEMS, EXCEPT ACOUSTIC TILE CEILINGS, SHALL NOT BE SUPPORTED FROM STEEL DECK WITH CONCRETE FILL UNLESS APPROVED BY ARCHITECT. ANCHORAGE OF APPROVED ITEMS MUST CONFORM WITH DECK MANUFACTURER'S RECOMMENDATIONS. SEE 3 &11/S5.06 FOR ALLOWABLE SUSPENDED LOADS .
9. CONDUITS OR PIPES ARE NOT PERMITTED IN CONCRETE FILL OVER STEEL DECK.
10. STEEL DECK SUPPLIER SHALL DETERMINE THE LAYOUT OF DECKING SHEETS TO PROVIDE THE BEARING REQUIRED AND ALLOW FOR INSTALLATION OF SHEAR STUDS. SUPPLIER SHALL CUT DECK AS REQUIRED FOR LAYOUT, AND PROVIDE ALL NECESSARY FORMING AND CLOSURE PIECES.

DECK NOTES 1



PLAN

DECK SUPPORT AT COLUMNS 17



TYPICAL SECTIONS

SECTION AT CHANGE OF DECK DIRECTION

DECK AND SHEAR STUD PLACEMENT 13

MARK (SEE PLAN)	PROPERTIES		FILL ABOVE DECK		ATTACHMENT		REQ'D PROPERTIES OF DECK PLUS FILL ASSEMBLY		REMARKS
	TYPE & GAGE	I_{MIN} (IN^4)	THICKNESS ABOVE DECK & FILL TYPE	REINFORCEMENT	STUD LENGTH	PATTERN	ALLOWABLE SUPERIMPOSED LOAD	FIRE RATING	
(A)	W2 18	0.564	4 1/2" NWC	#4 @ 12" O.C. E.W.	3/4" DIA x 5"	FD	400 PSF, 8' - 6" 1, 2, & 3 SPAN	2 HOUR	SEE PLAN FOR ADD. REINF. SEE 11-S5.05 FOR ANCHORAGE INFO.
(B)	PLB 18 GR. 50	0.302	NONE	NONE	N.A.	RD	115 PSF, 7' - 6" 2 SPAN	NONE	SEE S5.06 & S5.07 FOR ADDITIONAL INFO.

NOTES:
1. SEE PLAN FOR LOCATION OF DECK TYPE.
2. SEE 6 FOR DECK ATTACHMENT.
3. SEE 13 FOR SHEAR CONNECTOR STUD REQUIREMENTS.
4. FILL THICKNESS IS MEASURED FROM TOP OF DECK. **INCREASE FILL THICKNESS AS REQUIRED TO COMPENSATE FOR DECK DEFLECTION**. SEE SPECIFICATIONS.
5. ALLOWABLE SUPERIMPOSED LOAD VALUES ARE MINIMUM ICC VALUES FOR DECK OR DECK + CONCRETE FILL. FOR DECK WITHOUT FILL, DEFELCTION SHALL NOT EXCEED L/240 FOR ALLOWABLE LOAD.

STEEL DECK AND CONCRETE FILL SCHEDULE 5

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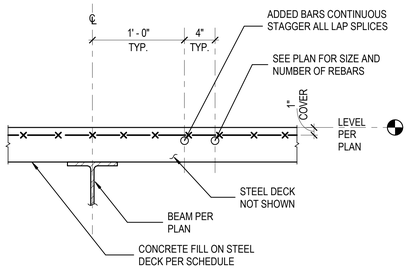
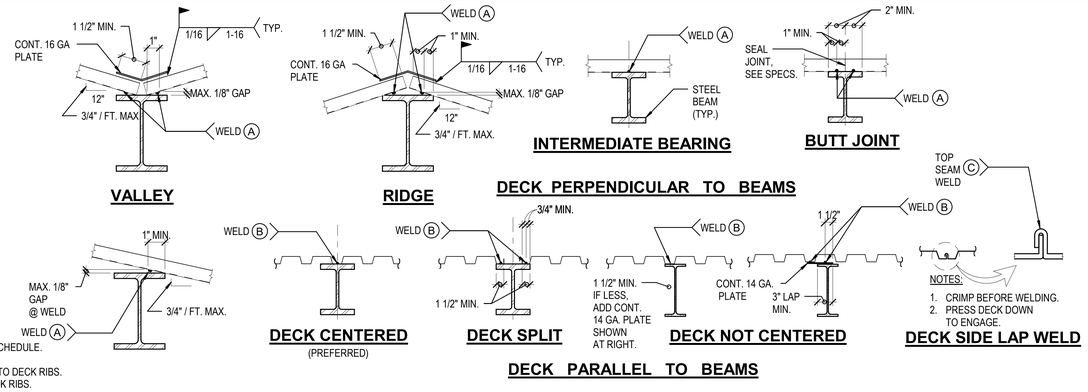
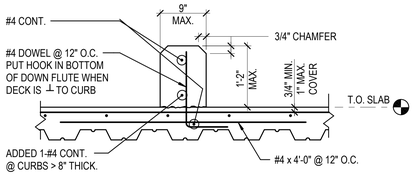


ADDED REBAR AT DECK WITH CONCRETE FILL — 20

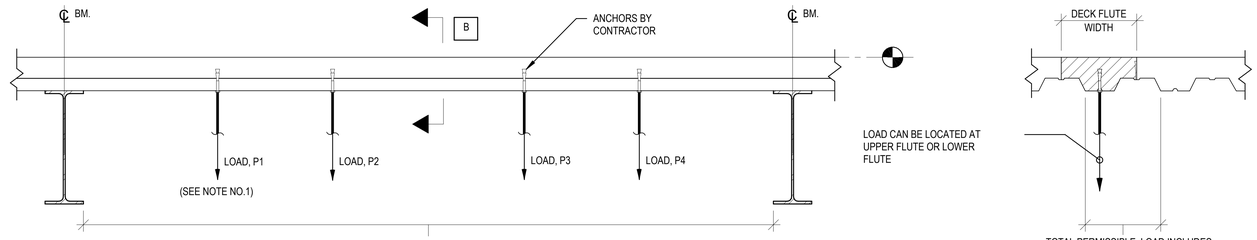


NOTES:
1. SEE 6-S5.05 FOR STEEL DECK ATTACHMENT SCHEDULE.
2. WELDS ARE DESIGNATED AS FOLLOWS:
   - (A) WELD TO SUPPORT PERPENDICULAR TO DECK RIBS.
   - (B) WELD TO SUPPORT PARALLEL TO DECK RIBS.
   - (C) TOP SEAM WELD.
3. SEE 9-S5.06 WHERE ROOF SLOPES EXCEED 3/4" /FT, OR WHERE GAP BETWEEN BEAM AND DECK EXCEEDS LIMITS OF DETAILS.

TYP. STEEL DECK TO BEAM WELD DETAILS-W/O SHEAR STUDS OR CONC. FILL — 8



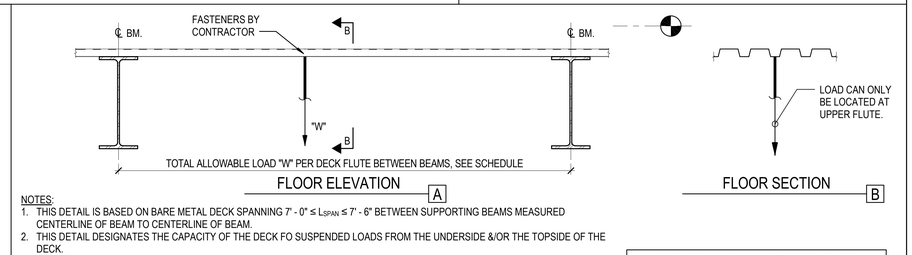
TYPICAL 9" MAX WIDE CURB ON STEEL DECK — 4



TOTAL PERMISSIBLE LOAD PER DECK FLUTE BTWN. BEAMS (TYPICAL CONDITION)	MAIN DECK SPAN
700# (ALLOWABLE)	BETWEEN 7'-0" TO 10'-0"

NOTES:
1. "LOAD P" IS IN POUNDS AND IS DEFINED AS ALLOWABLE GRAVITY PLUS SEISMIC LOADS.
2. TOTAL PERMISSIBLE LOADS (ASD LEVEL) SHOWN IN SCHEDULE ARE THE SUMMATION OF LOADS (P1, P2, P3, P4, ETC.) ALONG ONE SINGLE FLUTE AND ARE PER ONE FOOT WIDE STRIP OF DECK. CONTRACTOR TO VERIFY TOTAL CUMMULATIVE LOAD FROM ALL M/E/P TRADES DOES NOT EXCEED VALUES SHOWN IN SCHEDULE.
3. WHERE LOADS EXCEED LOAD VALUES SHOWN ON SCHEDULE, MAKE ATTACHMENT TO STEEL BEAM. SEE 17-S5.00 FOR PERMISSIBLE SUPERIMPOSED LOADS ON STEEL BEAMS.

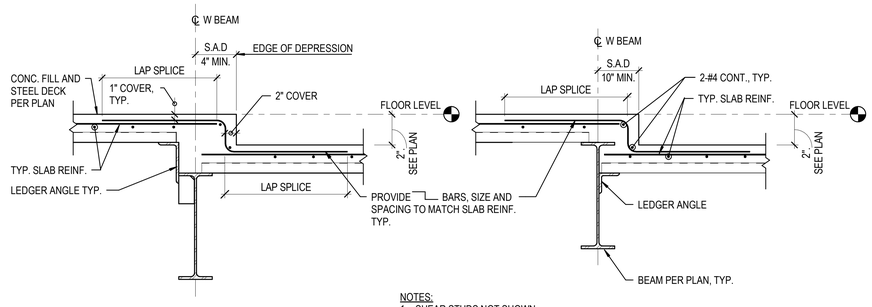
PERMISSIBLE SUSPENDED LOADS TO STEEL DECK W/ CONC. FILL — 11



NOTES:
1. THIS DETAIL IS BASED ON BARE METAL DECK SPANNING 7' - 0" ≤ L_{SPAN} ≤ 7' - 6" BETWEEN SUPPORTING BEAMS MEASURED CENTERLINE OF BEAM TO CENTERLINE OF BEAM.
2. THIS DETAIL DESIGNATES THE CAPACITY OF THE DECK FO SUSPENDED LOADS FROM THE UNDERSIDE &/OR THE TOPSIDE OF THE DECK.
3. LOAD CAPACITY IS AT ALLOWABLE STRESS LEVELS AND IS FOR GRAVITY LOADS ONLY. SEISMIC BRACING TO BARE METAL DECK IS NOT STRUCTURALLY ACCEPTABLE. ALL SEISMIC BRACING MUST BE FASTENED TO STRUCTURAL STEEL FRAMING, SEE 17-S5.00.
4. LOAD CAPACITY IS THE LOAD THAT MAY BE APPLIED TO ONE DECK FLUTE BETWEEN SUPPORTING BEAMS. WHERE MULTIPLE LOADS OCCUR, THE TOTAL OF THE LOADS MUST BE LESS THAN THE CAPACITIES INDICATED.
5. WHERE MULTIPLE LOADS OCCUR AND WHERE LOADS EXCEED CAPACITY LISTED, CONTRACTOR'S DESIGN ENGINEER SHALL PREPARE COMPUTATIONS INDICATING THAT SPECIFIED SHEAR AND MOMENT CAPACITY OF THE DECK IS NOT EXCEEDED.
6. FASTENERS AND SPREADERS SHALL BE DESIGNED IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS AND APPLICABLE CODES AND INDUSTRY STANDARDS.
7. WHERE THE IMPOSED LOADS EXCEED VALUES LISTED, THE CONTRACTOR'S DESIGN ENGINEER SHALL DESIGN SUPPLIMENTAL STEEL FRAMING TO SPAN BACK TO THE PRIMARY STRUCTURAL FRAMING CAPABLE OF RESISTING THE IMPOSED LOADS.

SUSPENDED LOAD CAPACITY SCHEDULE (ASD)			
LOAD CASE	CAPACITY "W"	SHEAR	MOMENT
GRAVITY	110 LB	110 LB	783 LB-FT

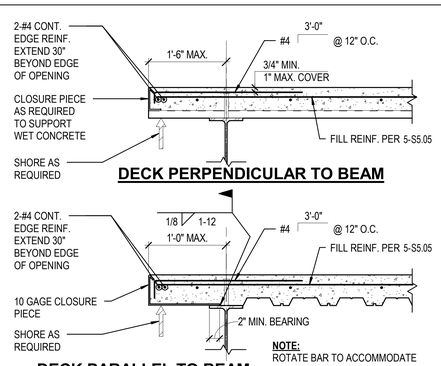
ALLOWABLE LOADS SUSPENDED FROM BARE METAL DECK — 3



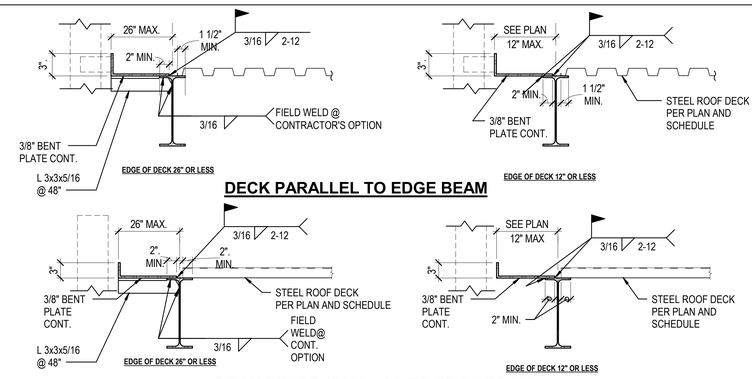
NOTES:
1. SHEAR STUDS NOT SHOWN.
2. SEE TYPICAL STEEL DETAILS FOR LEDGER SUPPORT DETAILS.

2" SLAB DEPRESSION @ LEVEL 2 DECK PERPENDICULAR — 14

1" = 1'-0"

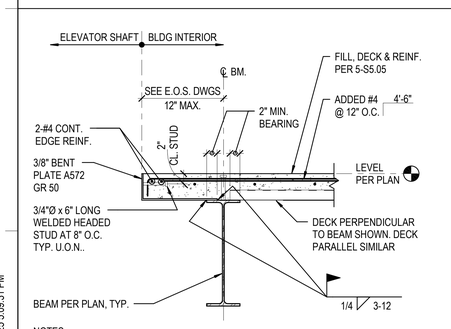


EDGE OF DECK AT BUILDING INTERIOR — 10



TYPICAL EDGE OF DECK AT DECK WITHOUT CONCRETE FILL — 2

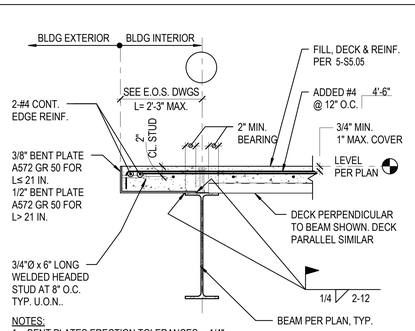
1" = 1'-0"



NOTES:
1. BENT PLATES ERECTION TOLERANCES=±1/4".
2. ALL BENT PLATE TO BE FIELD INSTALLED.
3. ALL EDGE OF DECK BENT PLATE TO BE SURVEYED AND DOCUMENTED FOR LEVELNESS BEFORE AND AFTER PLACING CONCRETE, TYPICAL. SEE SPECIFICATIONS.

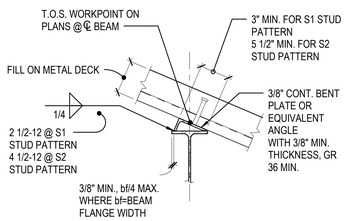
EDGE OF DECK AT LEVEL 2 ELEVATOR SHAFT — 17

1" = 1'-0"



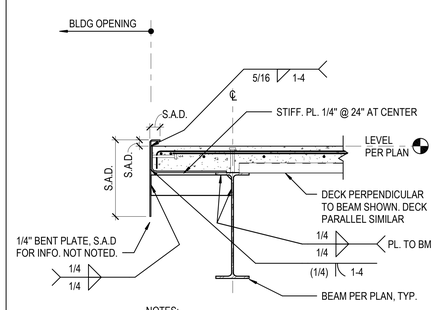
NOTES:
1. BENT PLATES ERECTION TOLERANCES=±1/4".
2. ALL BENT PLATE TO BE FIELD INSTALLED.
3. ALL EDGE OF DECK BENT PLATE AT EACH LEVEL TO BE SURVEYED AND DOCUMENTED FOR LEVELNESS BEFORE AND AFTER PLACING CONCRETE, TYPICAL. SEE SPECIFICATIONS.

TYP. EDGE OF DECK AT BUILDING EXTERIOR — 13



BENT PLATE SUPPORT AT SLOPING DECK — 9

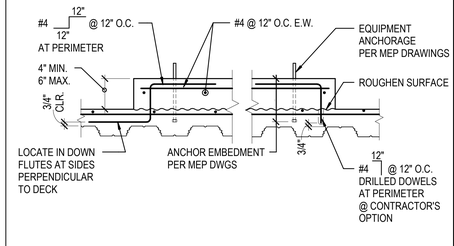
1" = 1'-0"



NOTES:
1. SEE 10-S5.06 FOR INFO. NOT NOTED.
2. SEE 13-S5.06 FOR INFO. NOT NOTED.

EDGE OF DECK @ LEVEL 2 GUARDRAIL (STAIR 2) — 5

1" = 1'-0"



TYPICAL PAD DECK WITH CONC. FILL — 1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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RUTHERFORD + CHEKENE
Structural | Geotechnical
101 Mission Street, Suite 300
San Francisco CA 94105
T 415 568 4400
F 415 618 0684
www.ruthchek.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

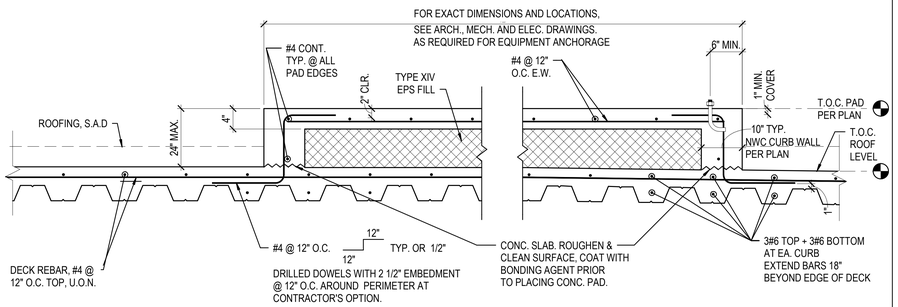
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL STEEL DECK DETAILS

2023-045S
PROJECT NUMBER

S5.06
SHEET NUMBER

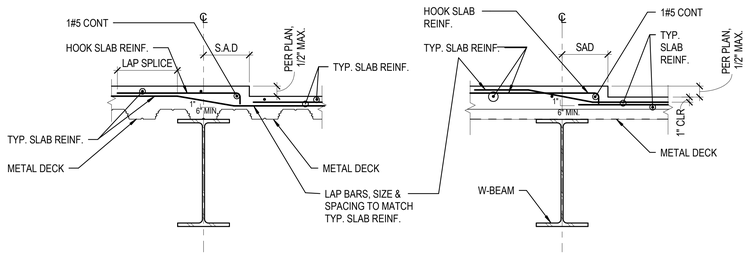
Plot Date: 8/21/2025 5:09:31 PM



NOTES:
1. S.A.D. EDGE OF SLAB DRAWINGS FOR EXTENT OF PAD.
2. THIS DETAIL APPLIES ONLY FOR EQUIPMENT WEIGHING LESS THAN 400#

TYPICAL HOUSEKEEPING PAD @ SMALL EQUIPMENT

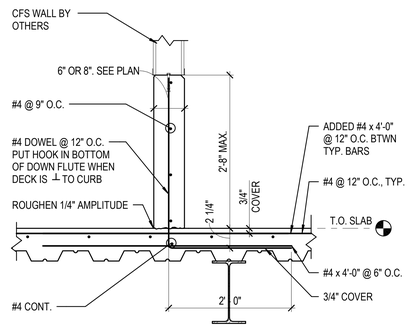
1" = 1'-0" — 16



NOTES:
1. STUDS NOT SHOWN FOR CLARITY.

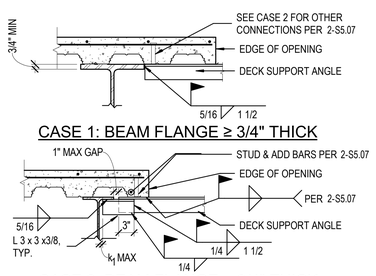
TYPICAL 1/2" DEPRESSION IN CONC. FILL

1" = 1'-0" — 4



6" AND 8" CURB DETAIL

1" = 1'-0" — 18



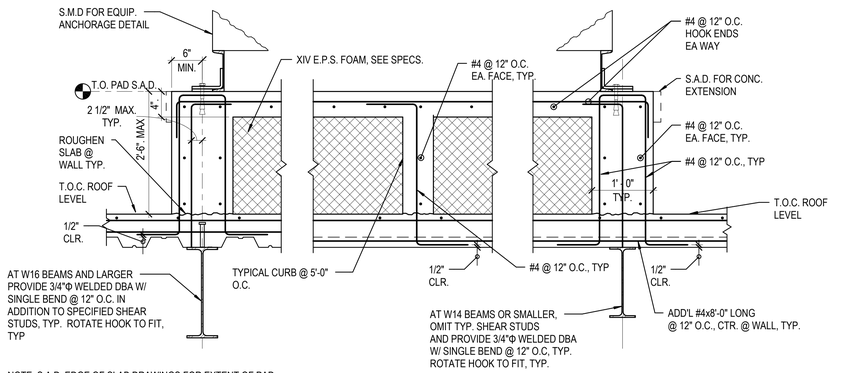
CASE 1: BEAM FLANGE ≥ 3/4" THICK

CASE 2: BEAM FLANGE < 3/4" THICK

NOTES:
1. CASE 1 OR 2 MAY BE USED AS ALTERNATE CONNECTION OF DECK ANGLE AT DETAIL 2-S5.07 HEADED STUDS ARE NOT APPLICABLE.
2. CASE 1 OR 2 MAY BE USED AS ALTERNATE CONNECTION OF DECK ANGLE AT DETAIL 2-S5.07 WHERE CONNECTION TO 2 TROUGHS IS NOT POSSIBLE. CONSTRUCT ALL OTHER PARTS OF 2-S5.07.

ALT. ANGLE CONNECTION AT SMALL OPENINGS

14

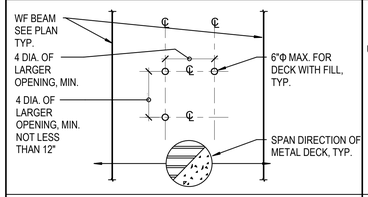
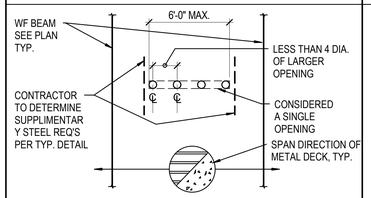
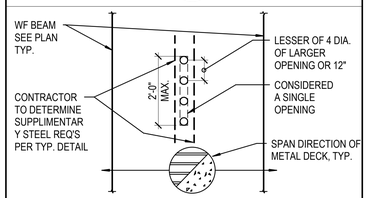
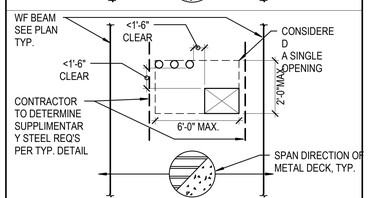
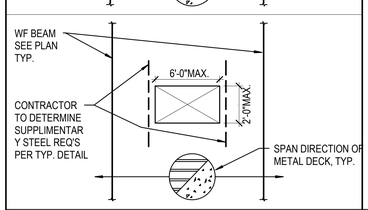
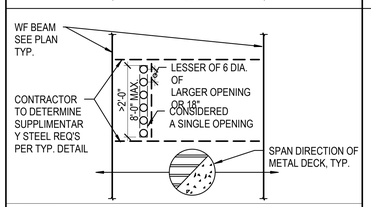
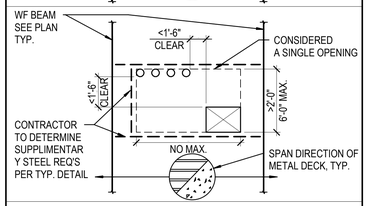
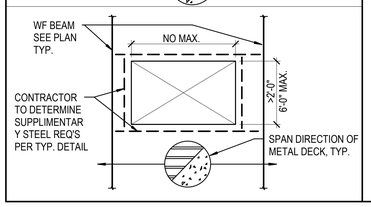


NOTE: S.A.D. EDGE OF SLAB DRAWINGS FOR EXTENT OF PAD

TYPICAL EQUIP. PAD DETAIL @ ROOF LEVEL @ WIDE FLANGE BEAM SUPPORT

1" = 1'-0" — 13

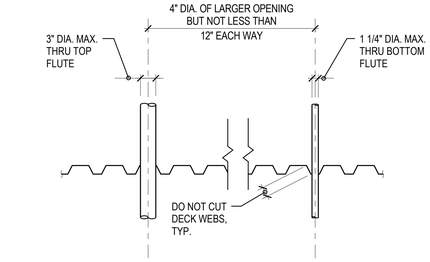
DECK PENETRATION PATTERN

	CLASSIFICATION / DETAIL
	UNREINFORCED OPENING SEE 7-S5.07
	SMALL OPENING SEE 2-S5.07
	
	
	
	
	LARGE OPENING SEE 1-S5.07
	

NOTE:
CHECK FIRST IF OPENING (S) MEET THE CRITERIA FOR UNREINFORCED .
IF NOT, CHECK IF OPENING (S) MEET THE CRITERIA FOR REINFORCED.
IF NOT, THEN OPENING (S) SHALL BE FRAMED.

CLASSIFICATION OF OPENINGS IN DECK

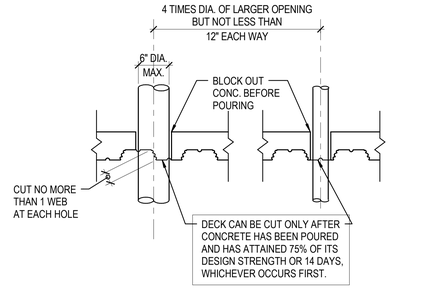
9



IF OPENINGS ARE CLOSER OR LARGER THAN SHOWN, REINFORCE DECK PER 3-S5.07.

UNREINFORCED ROUND OPENING AT DECK W/O CONC.

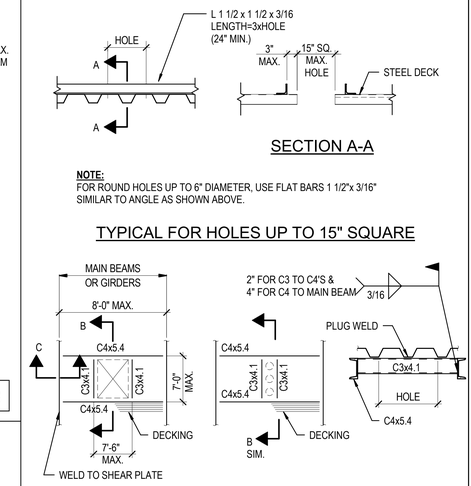
8

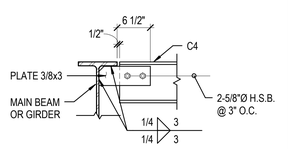


IF OPENINGS ARE CLOSER OR LARGER THAN SHOWN, REINFORCE DECK PER 1-S5.07 OR 2-S5.07 .

UNREINFORCED ROUND OPENING AT DECK WITH CONCRETE FILL

1" = 1'-0" — 7





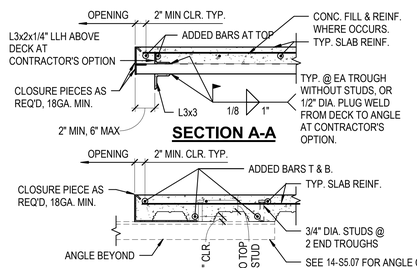
SECTION C-C

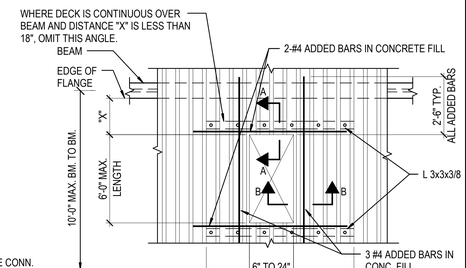
FOR HOLES MORE THAN 15" SQUARE (LESS THAN 7'-6")

NOTE: DECK CAN BE CUT ONLY AFTER REINFORCING HAS BEEN INSTALLED.

TYPICAL OPENING IN TYPE "B" DECK

3

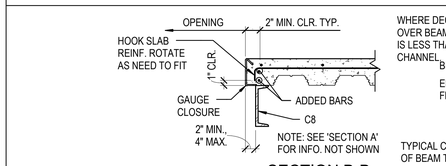


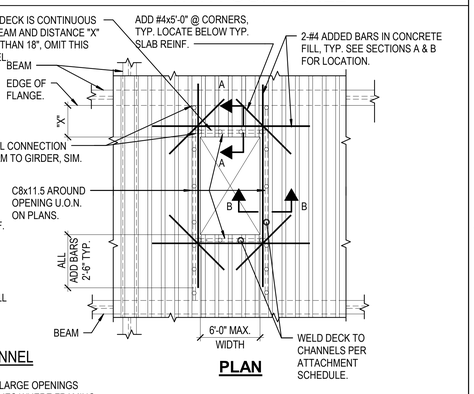


NOTES:
1. REFER TO ARCH., MECH. AND ELEC. DWGS. FOR SIZE AND LOCATION OF OPENINGS; SMALL OPENINGS ARE NOT TYPICALLY SHOWN ON STRUCTURAL DRAWINGS.
2. PRIOR TO CONCRETE POUR, SMALL OPENINGS SHOULD BE BLOCKED OUT AND DECK LEFT INTACT. IF OPENING IS CUT PRIOR TO THE FILL PLACEMENT, CONTRACTOR TO PROVIDE CLOSURE PIECES AND SHORING AS REQ'D.
3. HOLES LESS THAN 6" DIAMETER AND CUTTING NO MORE THAN 1 WEB OF DECK NEED NO REINFORCEMENT PER 7-S5.07. AT MULTIPLE OPENINGS SEE 9-S5.07.

SMALL OPENING IN DECK WITH CONC. FILL

2





NOTES:
1. REFER TO ARCH., MECH. AND ELEC. DWGS. FOR SIZE AND LOCATION OF OPENINGS; LARGE OPENINGS MAY OR MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. THE ABOVE DETAIL APPLIES WHERE FRAMING AROUND LARGE OPENINGS IS NOT SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
2. SEE 9-S5.07 FOR CLASSIFICATIONS OF OPENINGS AND COMBINATION OF OPENINGS.

LARGE OPENING IN DECK WITH CONC. FILL

1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

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smithgroup.com

RUTHERFORD + CHEKENE
Structural | Geotechnical
101 Mission Street, Suite 300
San Francisco CA 94105
T 415 568 4400
F 415 618 0684
www.ruthchek.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		05JAN2025
SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

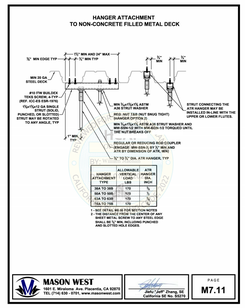
REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEIMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE
TYPICAL STEEL DECK DETAILS

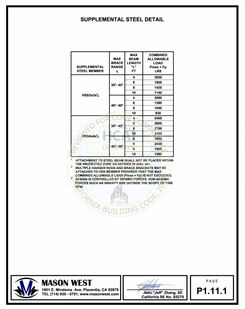
2023-045S
PROJECT NUMBER

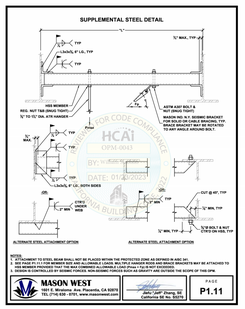
S5.07
SHEET NUMBER

Author
8/21/2025 5:09:35 PM
Plot Date:

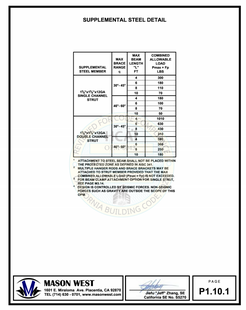


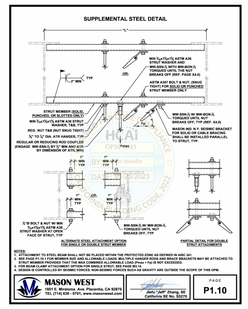
HANGER ROD CONN. TO DECK ONLY — 4



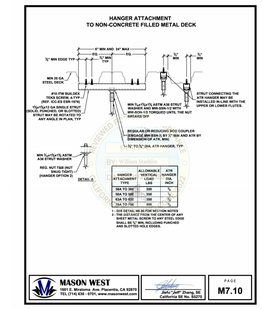


BRACE TO SUPPLEMENTAL STEEL — 11



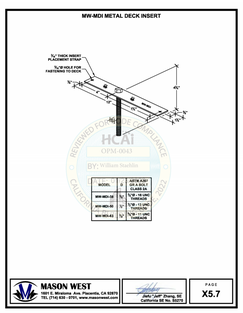


BRACE TO SUPPLEMENTENTAL STEEL — 7

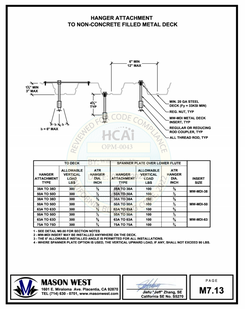


NOTES:
1. SEE DETAIL 1 FOR "DETAIL M0.00"

HANGER ROD CONN. TO DECK ONLY — 3

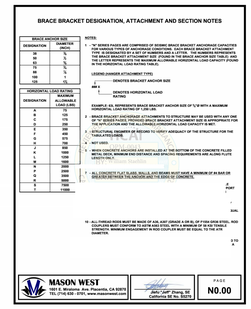


MW-MDI HANGER INSERT DETAIL — 10

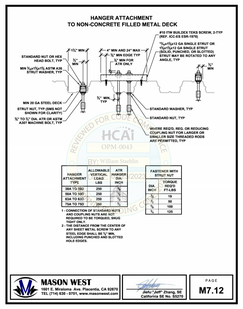


SEE DETAIL 10-S5.08
FOR HANGER STRAP
DETAIL

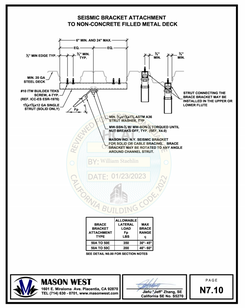
HANGER TO DECK ONLY — 6



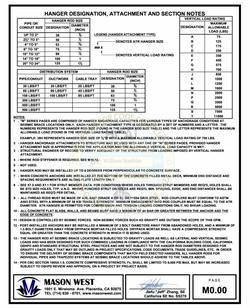
OPM NO.OO — 2



HANGER TO DECK ONLY — 9



HANGER BRACE TO DECK ONLY — 5



OPM MO.OO — 1

Author

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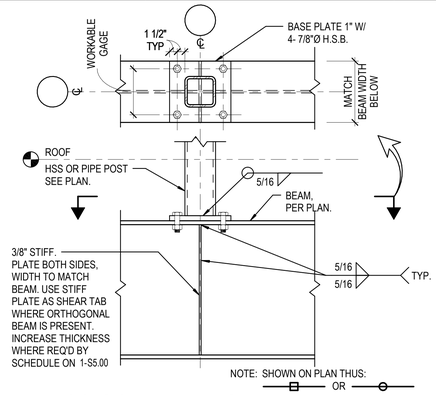


HSS COLUMN BASE AT STEEL BEAM

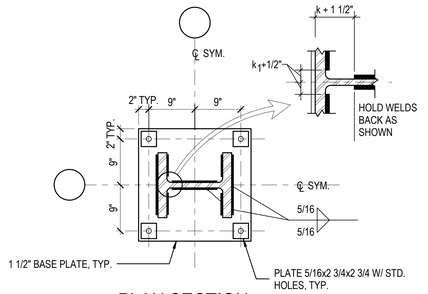
1" = 1'-0" 8

TABLE 14-2, AISC 15TH ADDITION

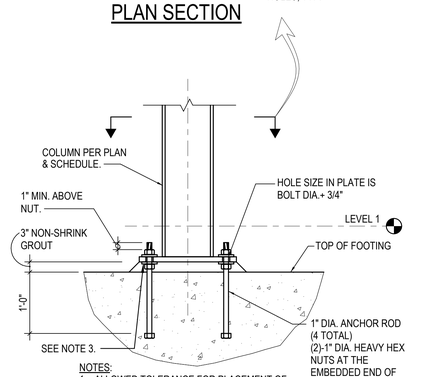
ANCHOR ROD DIAMETER (IN.)	HOLE DIAMETER (IN.)	WASHER SIZE (IN.)	MIN. WASHER THICKNESS (IN.)
3/4	1 5/16	2	1/4
7/8	1 9/16	2 1/2	5/16
1	1 7/8	3	3/8
1 1/4	2 1/8	3 1/2	1/2
1 1/2	2 3/8	4	1/2
1 3/4	2 7/8	4 1/2	5/8
2	3 1/4	5	3/4
2 1/2	3 3/4	5 1/2	7/8

TYPICAL SIZE FOR WASHER & ANCHOR ROD IN BASE PLATES

1" = 1'-0" 4



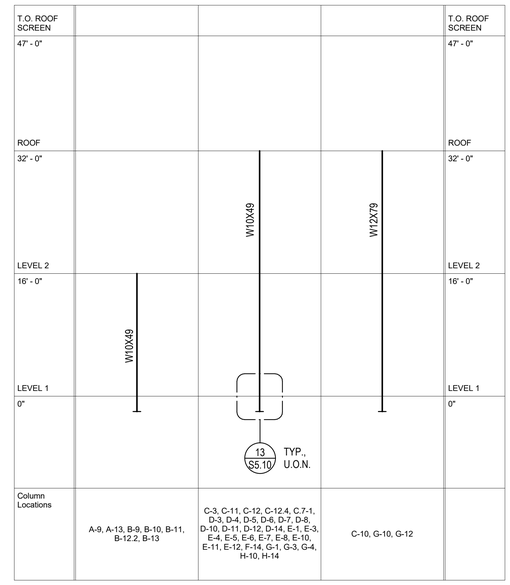
PLAN SECTION



NOTES:
1. ALLOWED TOLERANCE FOR PLACEMENT OF ANCHOR ROD IS AS PERMITTED BY BASE PLATE OVERSIZED HOLE.
2. SEE 17-S3.05 FOR BASE PLATE INFO FOR COLUMNS AT PILASTERS.
3. WASHER & LEVELING NUT, OR SHIM AT CONTRACTOR'S OPTION.

TYP. NON-FRAME COLUMN BASE

1" = 1'-0" 13



NOTES:
1. SEE S4.01, S4.02 & S5.41 FOR COLUMNS AT MOMENTO FRAMES.

GRAVITY COLUMN SCHEDULE

1 4

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SCHEMATIC DESIGN		20SEP2024

SEALS AND SIGNATURES

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SHEET TITLE
GRAVITY COLUMN SCHEDULE

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PROJECT NUMBER

S5.10
SHEET NUMBER

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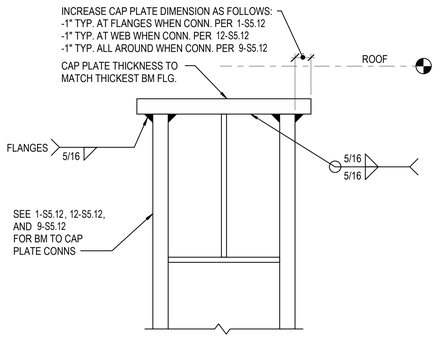
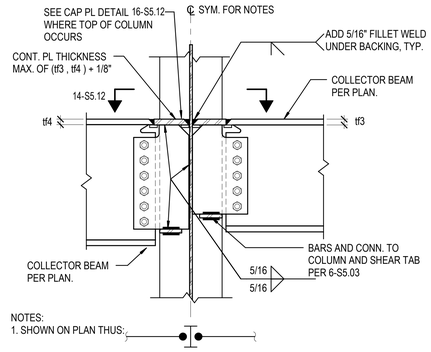
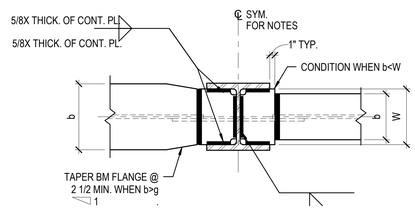


TOP OF COLUMN AT WELDED BEAM FLANGE 1" = 1'-0" 16



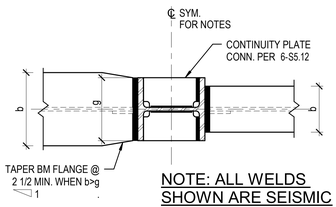
WELDED TOP BEAM FLANGE TO COLUMN WEB CONN. 1" = 1'-0" 12

NOTE: ALL WELDS ON THIS SHEET ARE DEMAND CRITICAL



NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS

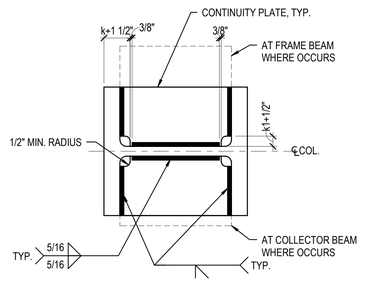
DETAIL FOR TAPER OF BEAM FLANGE TO COLUMN WEB 1" = 1'-0" 14



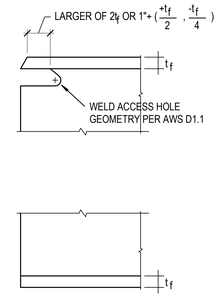
NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS

DETAIL FOR TAPER OF BEAM FLANGE TO COLUMN FLANGE 1" = 1'-0" 10

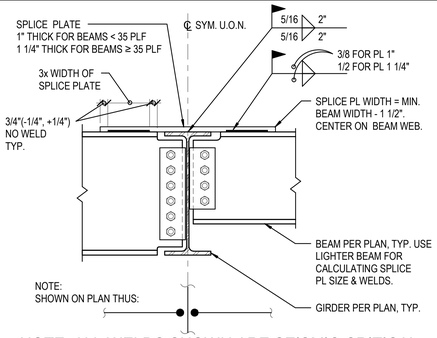
NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS



COLUMN CONTINUITY PLATE 1" = 1'-0" 6

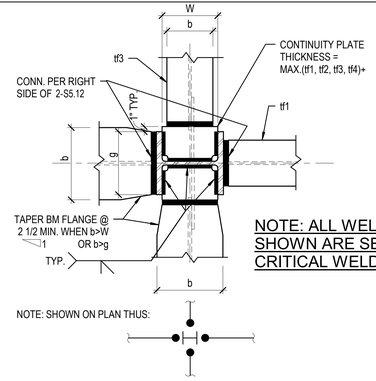


COLLECTOR BEAM WELD ACCESS HOLE 3" = 1'-0" 2



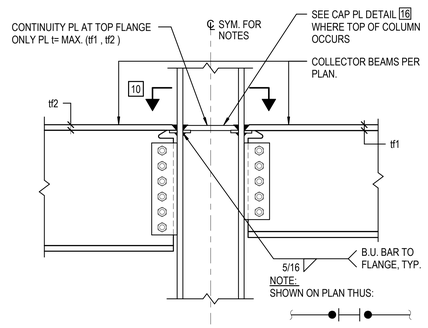
NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS

WELDED TOP FLANGE BEAM TO GIRDER CONNECTION 1" = 1'-0" 13



NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS

COLUMN FLANGE AND WEB CONNECTION 1" = 1'-0" 9



NOTE: ALL WELDS SHOWN ARE SEISMIC CRITICAL WELDS

WELDED TOP FLANGE BEAM TO COLUMN FLANGE CONNECTION 1" = 1'-0" 1

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STATE OF CALIFORNIA

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S5.12
SHEET NUMBER

Author
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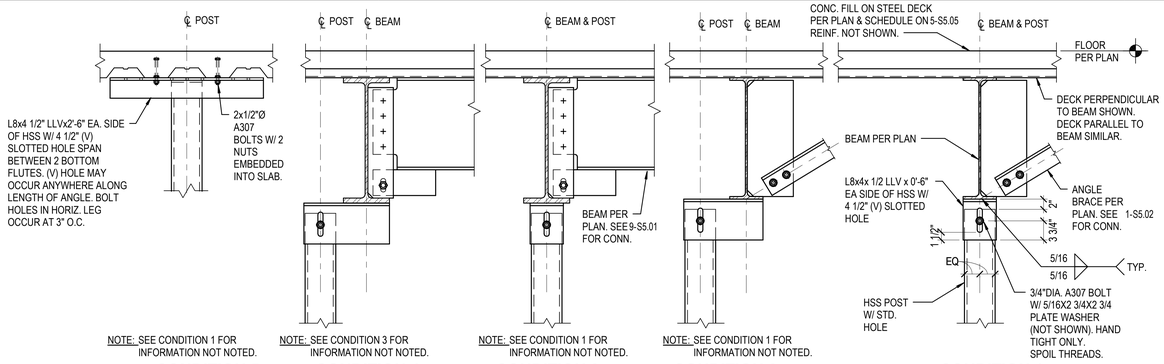


NOTE: SEE CONDITION 1 FOR INFORMATION NOT NOTED.

CONDITION 5

NOTE: SEE CONDITION 3 FOR INFORMATION NOT NOTED.

CONDITION 4

NOTE: SEE CONDITION 1 FOR INFORMATION NOT NOTED.

CONDITION 3

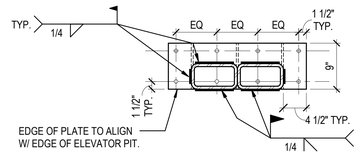
NOTE: SEE CONDITION 1 FOR INFORMATION NOT NOTED.

CONDITION 2

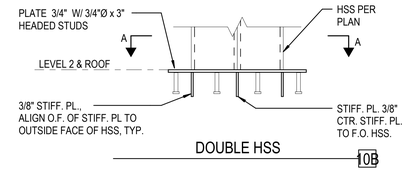
CONDITION 1

DETAIL NOTES:
1. GAP BETWEEN HSS POST AND UNDERSIDE OF BEAM MAY DECREASE AFTER CONCRETE FILL IS POURED AND IT HAS BEEN ACCOUNTED FOR IN THE DESIGN.
2. WHERE THE W BEAM SLOPES, GAP IS MEASURED TO BEAM LOW POINT.

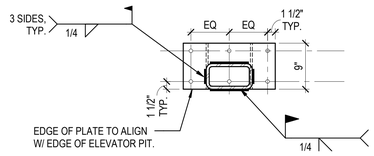
CONNECTION AT TOP OF NON-BEARING HSS POSTS
1" = 1'-0" — 12



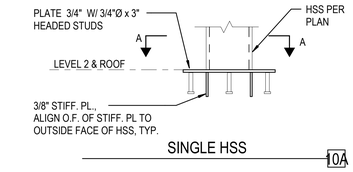
PLAN SECTION A-A



DOUBLE HSS — 10B

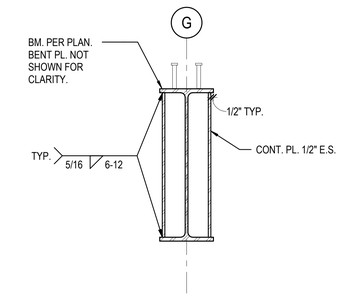


PLAN SECTION A-A

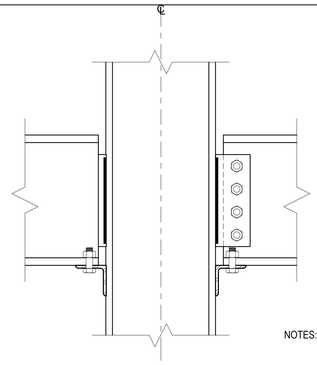


SINGLE HSS — 10A

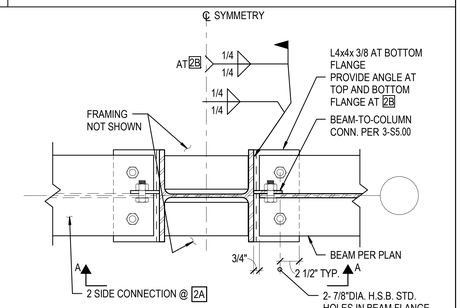
CONNECTION AT TOP OF NON-BEARING HSS POSTS
1" = 1'-0" — 4



COVER PLATE BEAM BRACING
1" = 1'-0" — 3

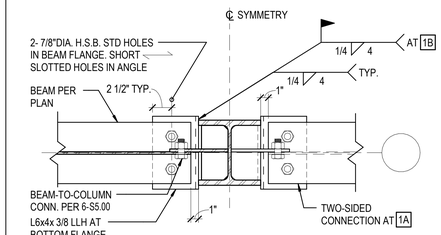


ELEVATION A-A



NOTES: ALL CONNECTIONS AT LEVEL 2 BARE METAL DECK ROOF ARE 2B .

BOTTOM FLANGE CONN.
1 1/2" = 1'-0" — 2B | 2A | 2



NOTES:
1. CONDITION AT MOMENT FRAME COLUMN SIM. AT SIM. CONDITION, WELD ANGLE TO SIDE PLATE (A)AT TOP AND BOTTOM OF ANGLE IN LIEU OF ANGLE END OUTSIDE OF PROTECTED ZONE.
2. ALL CONNECTIONS AT LEVEL 2 BARE METAL DECK ROOF ARE 2B .

BOTTOM FLANGE CONN.
1 1/2" = 1'-0" — 1B | 1A | 1

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MISCELLANEOUS STEEL DETAILS

2023-045S

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S5.13

SHEET NUMBER

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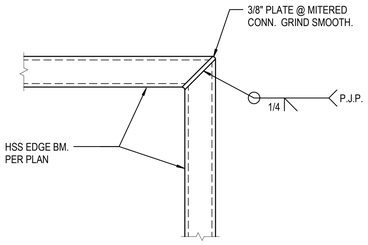
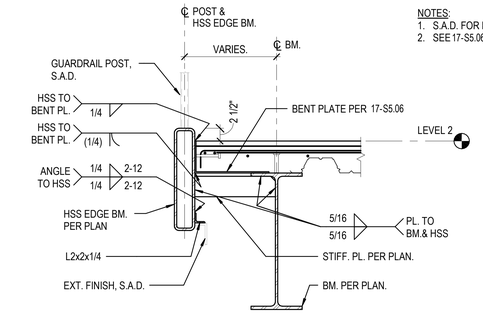


PERIMETER HSS MITERED CONN.

1 1/2" = 1'-0"

4

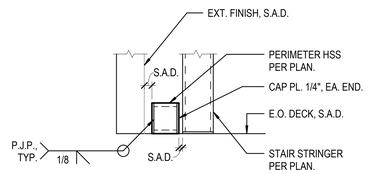


NOTES:
1. S.A.D. FOR FINISH AND FINISH CONN. INFO.
2. SEE 17-S5.06 FOR INFO NOT NOTED.

PERIMETER HSS CONN. SECTION

1" = 1'-0"

3



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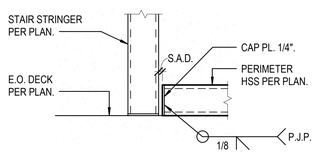

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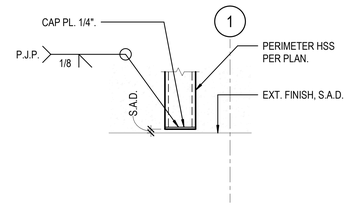

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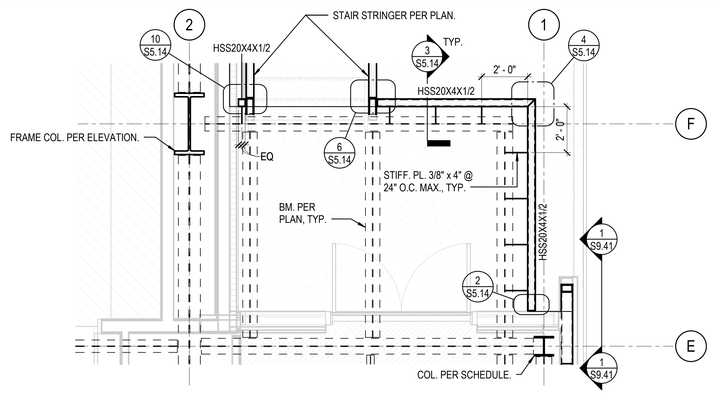

STAIR 1 - LEVEL 2 LANDING PARTIAL PLAN

3/8" = 1'-0"

1

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SHEET NUMBER

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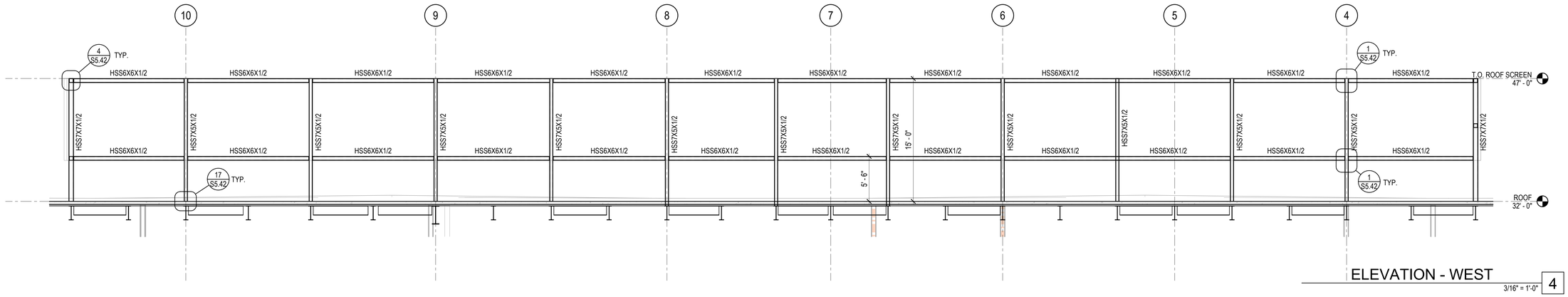
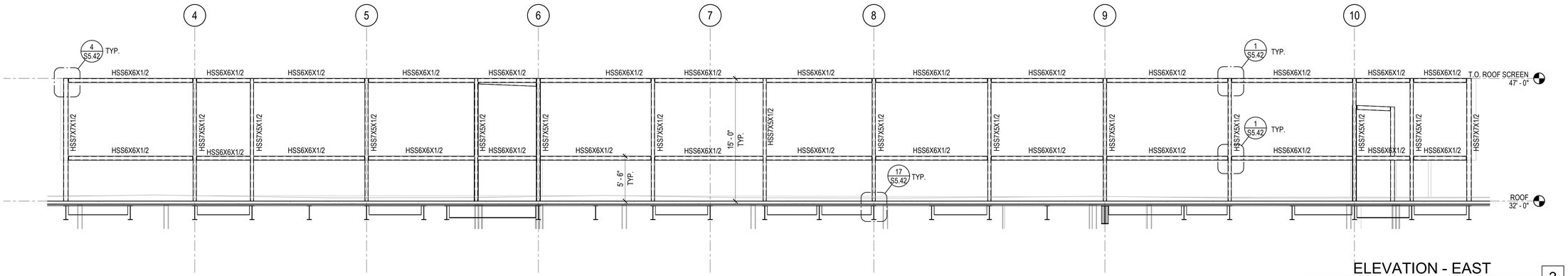


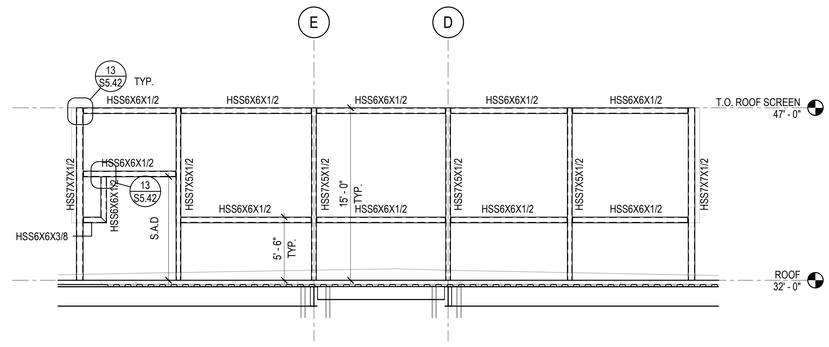
ELEVATION - WEST

3/16" = 1'-0" 4



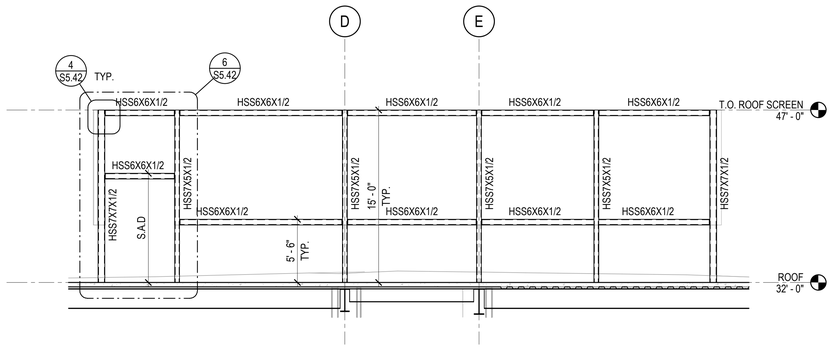
ELEVATION - EAST

3/16" = 1'-0" 3



ELEVATION - NORTH

3/16" = 1'-0" 2



ELEVATION - SOUTH

3/16" = 1'-0" 1

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STATE OF CALIFORNIA

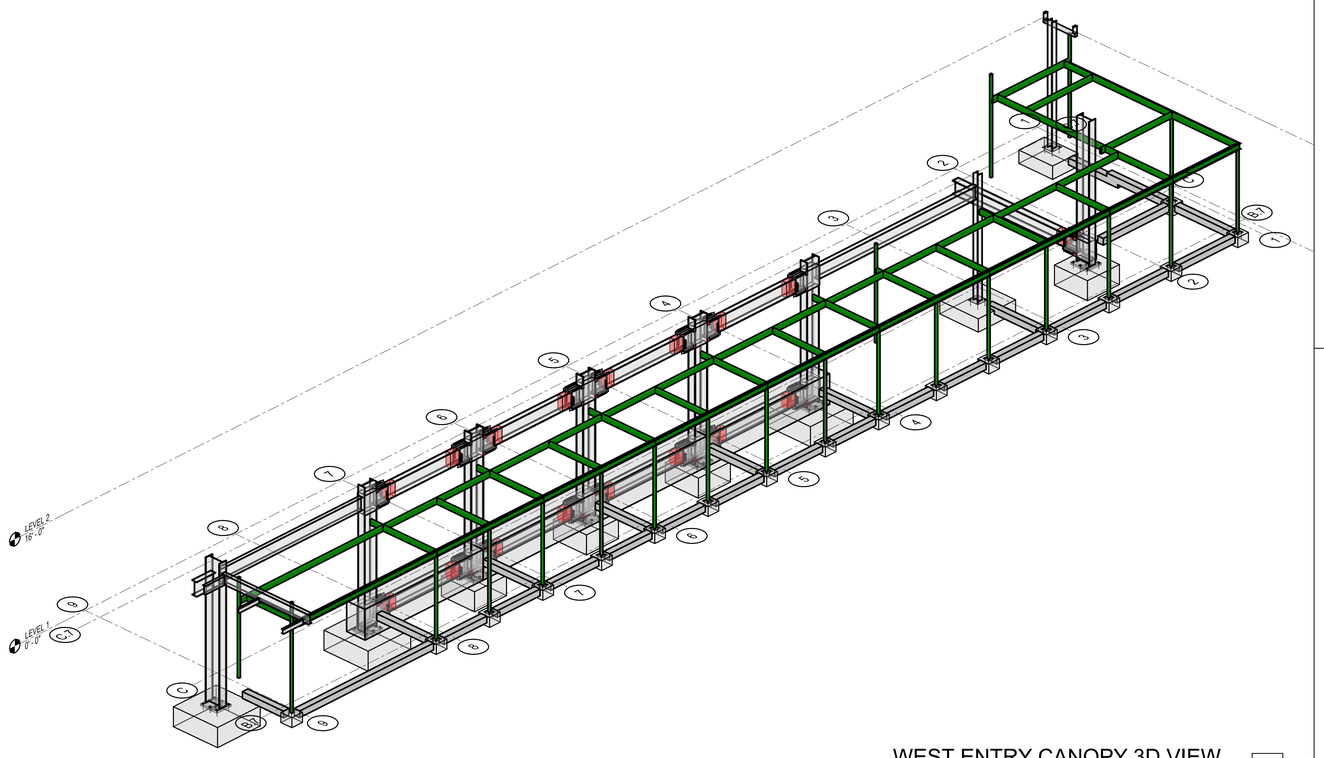
SHEET TITLE

ROOF MECHANICAL SCREEN SUPPORT FRAMING ELEVATIONS

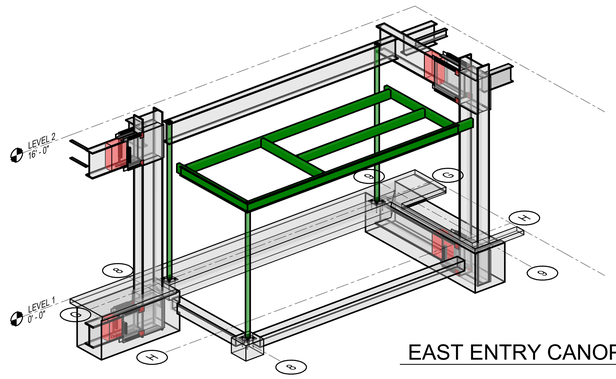
2023-045S
PROJECT NUMBER

S5.21
SHEET NUMBER

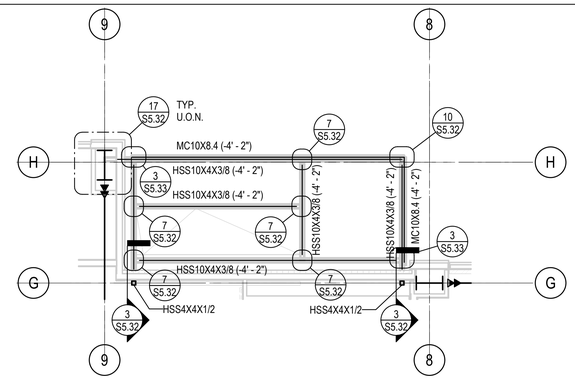
Plot Date: 8/21/2025 5:10:07 PM Author



WEST ENTRY CANOPY 3D VIEW 11



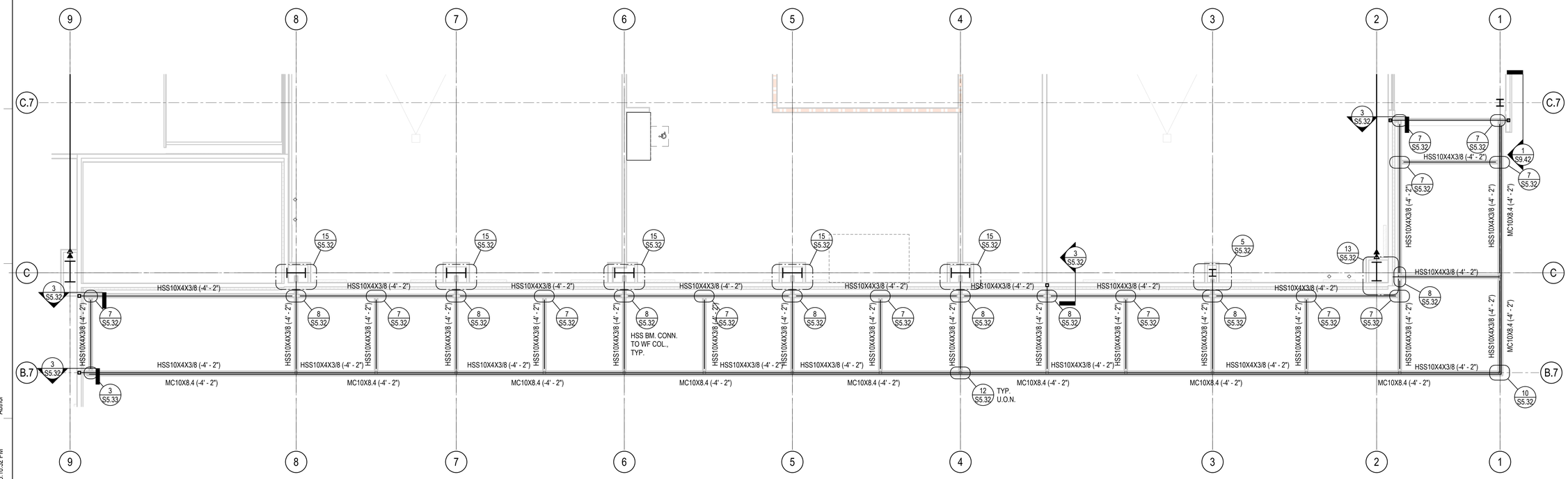
EAST ENTRY CANOPY 3D VIEW 4



NOTE: SEE S5.32 & S5.33 FOR CANOPY SECTIONS AND DETAILS

EAST ENTRY CANOPY FRAMING PLAN 3

3/16" = 1'-0"



NOTE: SEE S5.32 & S5.33 FOR CANOPY SECTIONS AND DETAILS

WEST ENTRY CANOPY FRAMING PLAN 1

3/16" = 1'-0"

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50% CONSTRUCTION DOCS		24MAR2025

SEALS AND SIGNATURES

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STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
ENTRY CANOPY FRAMING PLANS

2023-045S
PROJECT NUMBER

S5.31
SHEET NUMBER

Author
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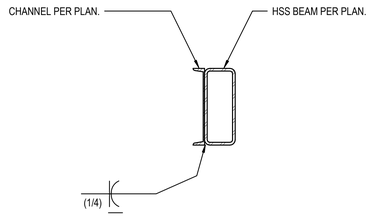
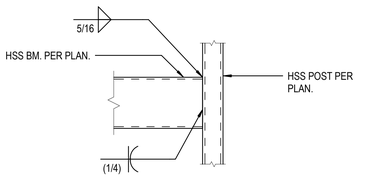
Plot Date:



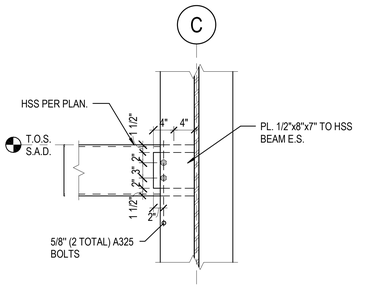
TYP. CHANNEL TO HSS CONN.

1 1/2" = 1'-0" 20

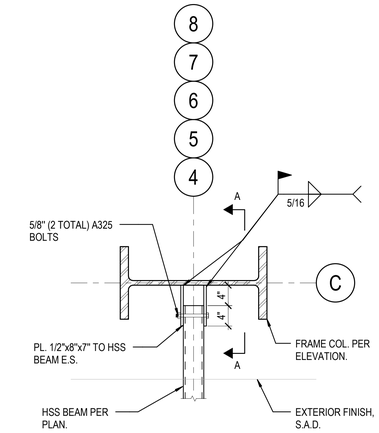


TYP. HSS BM. TO HSS POST CONN.

1" = 1'-0" 19



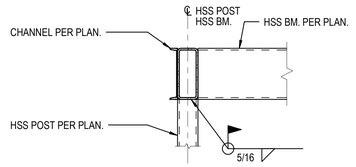
SECTION A-A



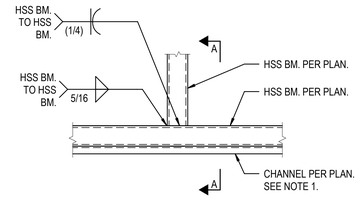
PLAN

HSS BEAM CONN TO WF COLUMN

1" = 1'-0" 15



SECTION A-A

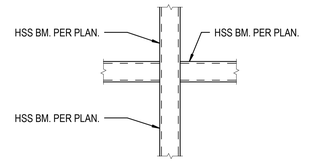


PLAN

NOTE: SEE 20-S5.32 FOR CHANNEL CONN. INFO NOT NOTED.

TYP. CONT. HSS BM. TO POST CONN.

1" = 1'-0" 12

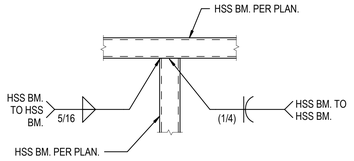


PLAN

NOTE: SEE 7-S5.32 FOR INFO. NOT NOTED.

TYP. HSS BM. TO HSS BM. CONN.

1" = 1'-0" 8

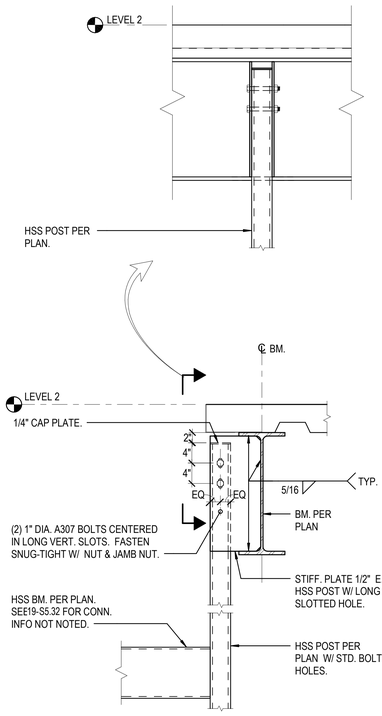


PLAN

1. NOTES:
2. CHANNEL PER PLAN NOT SHOWN FOR CLARITY, SEE 20-S5.32.
3. S.A.D. FOR CHANNEL TERMINATION INFO. ALONG HSS BM. SEE 3-S5.33 FOR CHANNEL TO HSS BM. WELD INFO.

TYP. HSS BM. TO HSS BM. CONN.

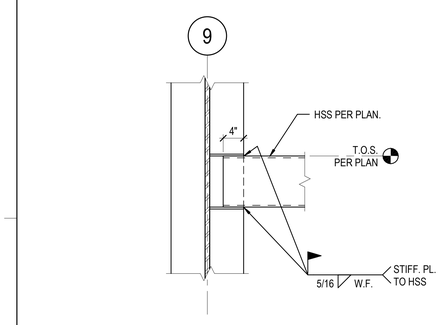
1" = 1'-0" 7



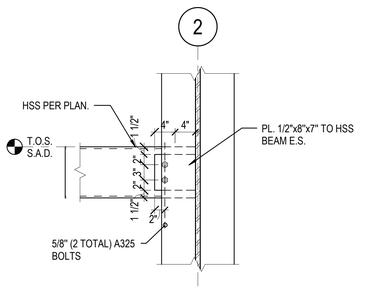
NOTE: SLAB REINF. NOT SHOWN FOR CLARITY.

TOP OF HSS POST CONN.

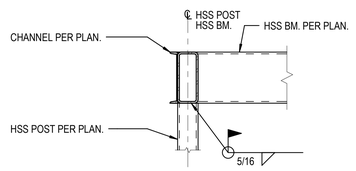
1" = 1'-0" 3



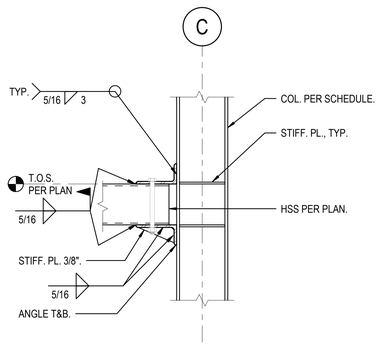
SECTION A-A



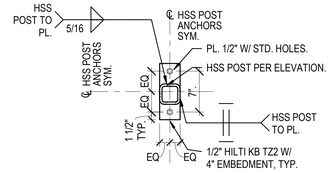
SECTION A-A



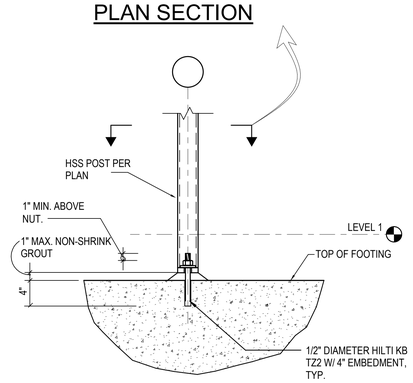
SECTION A-A



SECTION A-A

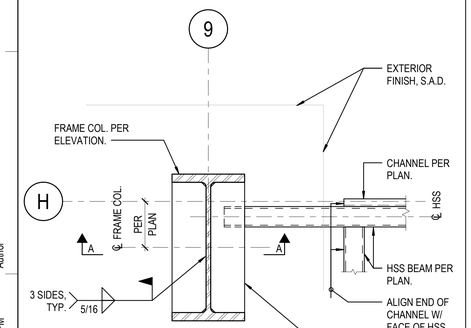


PLAN SECTION



CANOPY POST BASE

1" = 1'-0" 1

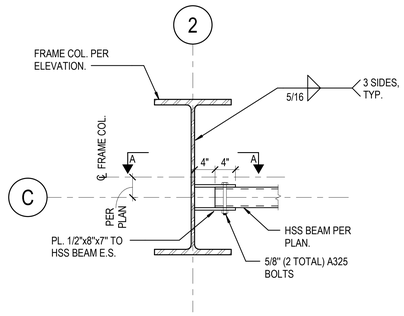


PLAN

NOTE: SEE20-S5.32 FOR CHANNEL CONN. INFO NOT NOTED.

HSS BM. TO FRAME COL. CONN.

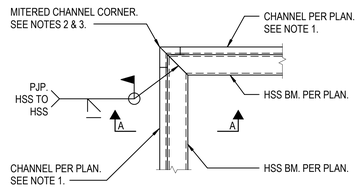
1" = 1'-0" 17



PLAN

HSS BEAM CONN TO WF COLUMN

1" = 1'-0" 13

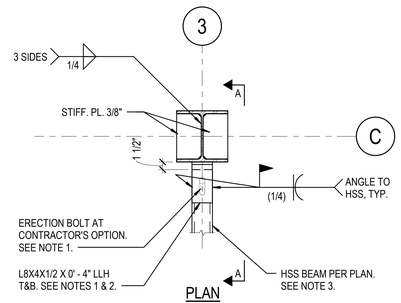


PLAN

NOTES:
1. SEE 20-S5.32 FOR CHANNEL CONN. INFO NOT NOTED.
2. MITERED CHANNEL CORNER TO BE SHOP FABRICATED.
3. SEE 1-S5.33 FOR MITERED CHANNEL CORNER CONN. INFO.

TYP. CORNER HSS BM. TO HSS BM. CONN. AT POST

1" = 1'-0" 10



PLAN

NOTES:
1. ERECTION BOLT BY OTHERS. ERECTION BOLT SHOWN HALFTONE FOR CLARITY.
2. PROVIDE LONG SLOTTED HOLE IN ANGLES T&B. WHERE ERECTION BOLT IS USED.
3. PROVIDE STANDARD HOLE IN HSS BM. WHERE ERECTION BOLT IS USED.

HSS BEAM CONN TO WF COLUMN

1" = 1'-0" 5

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SHEET TITLE

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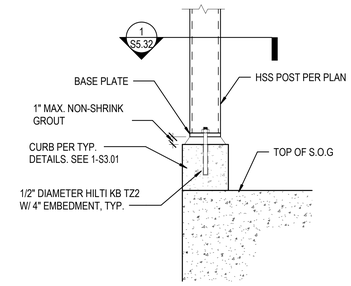
2023-045S

PROJECT NUMBER

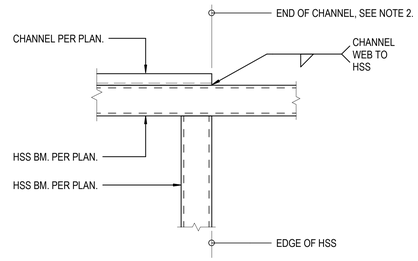
S5.32

SHEET NUMBER



CANOPY POST BASE @ CURB 4

1 1/2" = 1'-0"

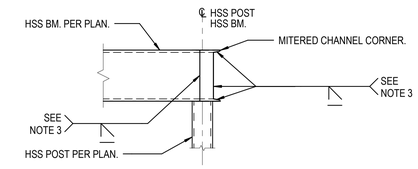


PLAN

NOTES:
1. SEE 7-S5.32 FOR INFO NOT NOTED.
2. ALIGN END OF CHANNEL W/ EDGE OF HSS.

TYP. CHANNEL TERMINATION 3

1 1/2" = 1'-0"

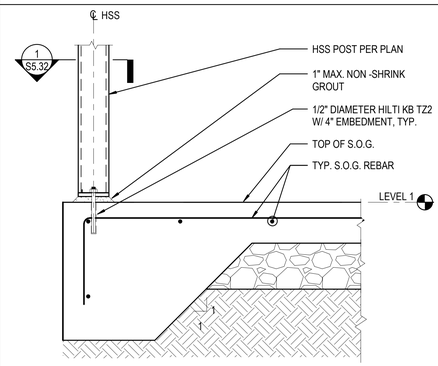


SECTION

NOTES:
1. STRUCTURAL ELEMENTS NOT PART OF MITERED CHANNEL CORNER SHOWN HALFTONE FOR CLARITY.
2. MITERED CHANNEL CORNER TO BE SHOP FABRICATED.
3. PROVIDE FULL-DEPTH PJP AT CHANNEL FLANGES AND CHANNEL WEB.

TYP. MITERED CHANNEL CORNER 2

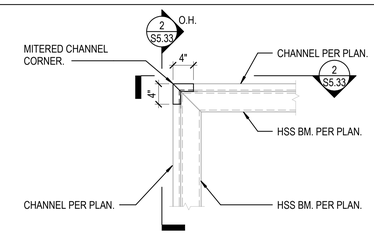
1" = 1'-0"



NOTE : SEE 1-S3.01 FOR INFO NOT NOTED

CANOPY HSS POST @ EDGE OF SLAB 5

1 1/2" = 1'-0"



PLAN

NOTE:
STRUCTURAL ELEMENTS NOT PART OF MITERED CHANNEL CORNER SHOWN HALFTONE FOR CLARITY.

TYP. MITERED CHANNEL CORNER 1

1" = 1'-0"

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SHEET TITLE

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SHEET NUMBER

Author
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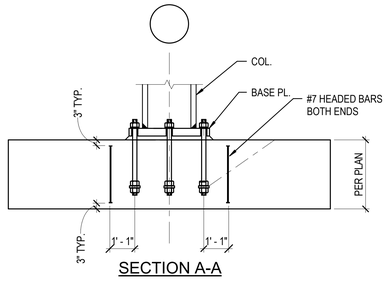
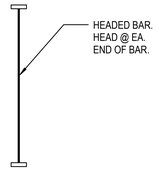


SECTION A-A

HEADED BARS ELEVATION

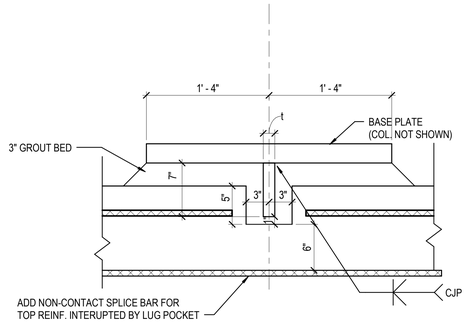
3/8" = 1'-0" | 10



NOTES:
1. HEADED BARS MUST CONFORM TO ASTM A970.

HEADED BAR

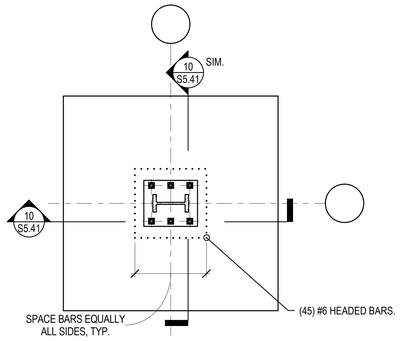
1" = 1'-0" | 6



NOTES:
1. t = 3" TYP, UON.
2. t = 3 1/2" FOR COLUMNS D/13, F/13, D/9, F.2/9, C/7, G/7, C/6, G/6, D/2, F/2, H/12, H/11 AND C/5.

SHEAR LUG DETAIL

1 1/2" = 1'-0" | 3

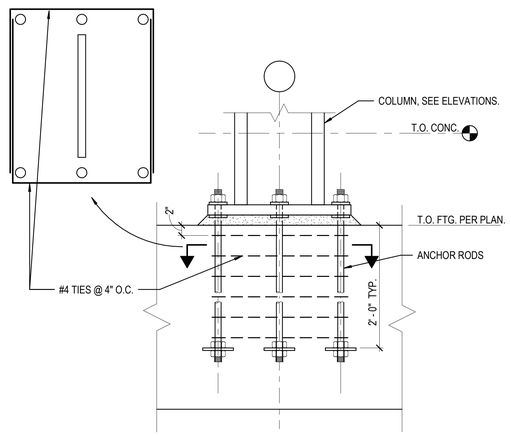


PLAN

NOTES:
1. SEE 1-S3.05 FOR SPREAD FOOTING INFO NOT NOTED.
2. SEE 1C-S5.41 FOR ANCHOR ROD INFO NOT NOTED.
3. SEE 10-S5.41 FOR INFO NOT NOTED
4. SEE 6-S5.41 FOR HEADED BAR INFO NOT NOTED.

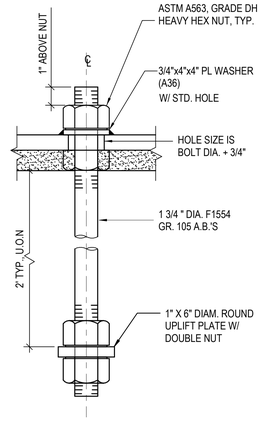
ADDED HEADED BARS @ SEISMIC FOOTINGS

1/4" = 1'-0" | 9



ADDITIONAL REINFORCEMENT AT ANCHOR BOLTS

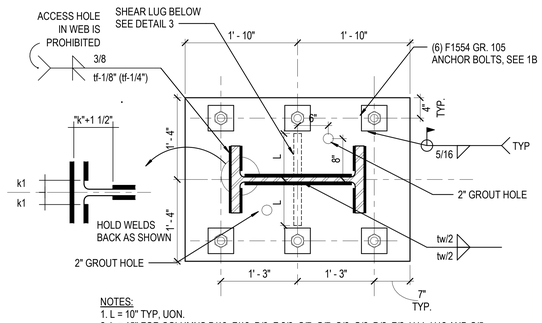
1" = 1'-0" | 1C



DETAIL
NO SCALE

BASE PLATE ANCHOR BOLT

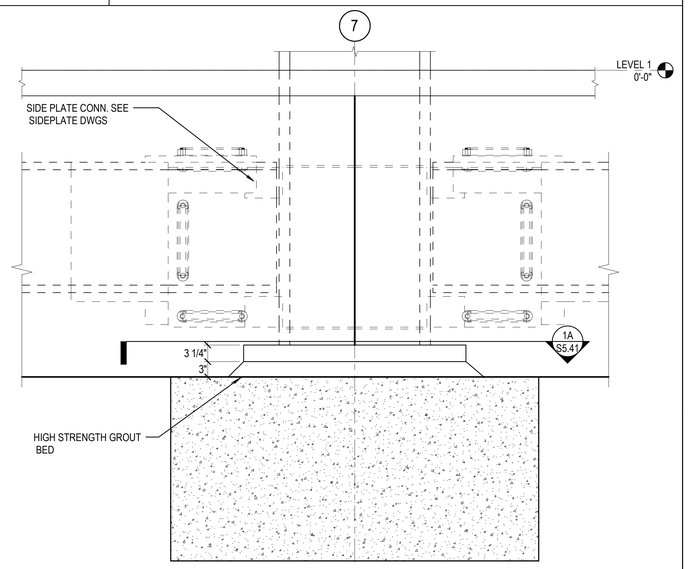
1" = 1'-0" | 1B



NOTES:
1. L = 10" TYP, UON.
2. L = 15" FOR COLUMNS D/13, F/13, D/9, F.2/9, C/7, G/7, C/6, G/6, D/2, F/2, H11, H12 AND C/5.
3. ALL WELDS ARE DEMAND CRITICAL

MOMENT FRAME BASE PLATE PLAN

1" = 1'-0" | 1A



MOMENT FRAME BASE PLATE ELEVATION

1" = 1'-0" | 1

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Author
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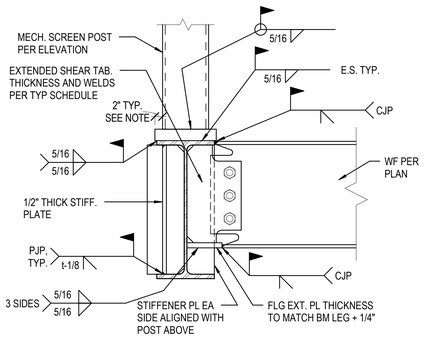
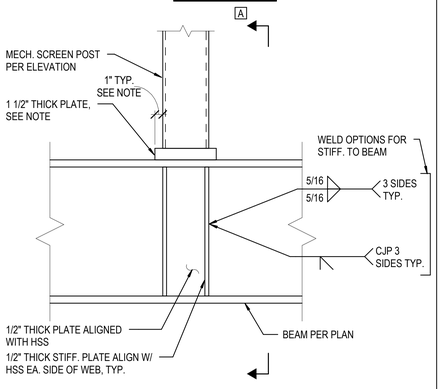


CONDITION 2: WF EQUAL TO OR NARROWER THAN HSS BASE PLATE

SECTION A-A

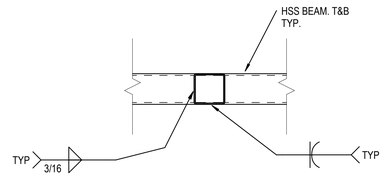
CONDITION 1: WF WIDER THAN HSS BASE PLATE

SECTION A-A

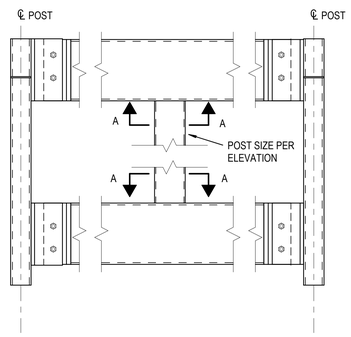


NOTE: INCREASE DIMENSION AND WIDTH OF PLATE AS NEEDED WHERE POST IS NOT ALIGNED WITH THE LONGITUDINAL AXIS OF THE SUPPORTING BEAM. TRAPEZOIDAL BASE PLATE MAY BE REQUIRED.

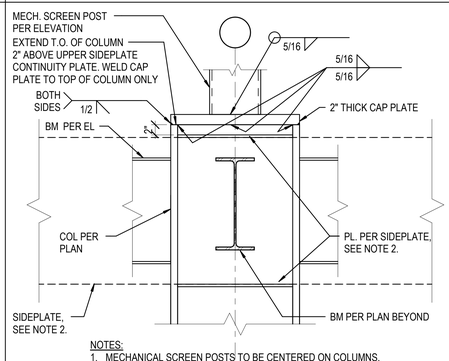
TYPICAL SCREEN POST BASE AT WF BEAM 1 1/2" = 1'-0" 17



PLAN A-A

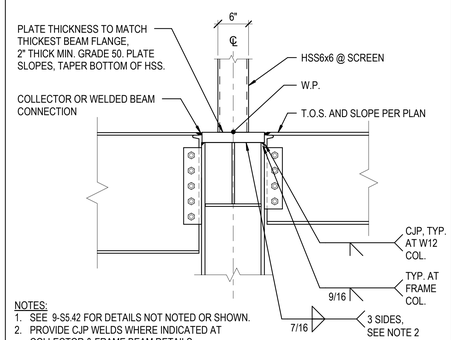


TYPICAL INTERMEDIATE POST CONNECTION 1" = 1'-0" 13



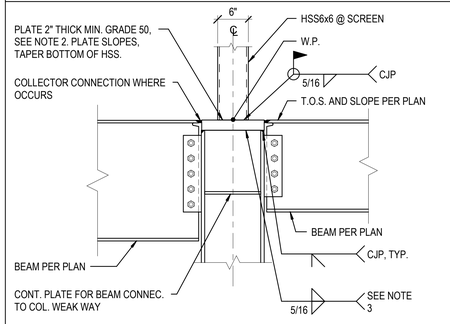
NOTES:
1. MECHANICAL SCREEN POSTS TO BE CENTERED ON COLUMNS.
2. SEE S4.10 THROUGH S4.15 FOR SIDEPLATE CONNECTION DETAILS.

TYP. MECH. SCREEN POST BASE CONN. 1" = 1'-0" 11



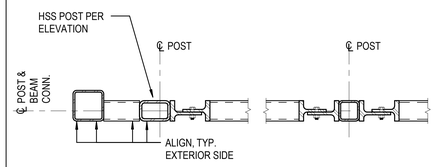
NOTES:
1. SEE 9-S5.42 FOR DETAILS NOT NOTED OR SHOWN.
2. PROVIDE CJP WELDS WHERE INDICATED AT COLLECTOR & FRAME BEAM DETAILS

TYP. SCREEN POST BASE CONN. AT WELDED BM. AT COL. 1" = 1'-0" 10

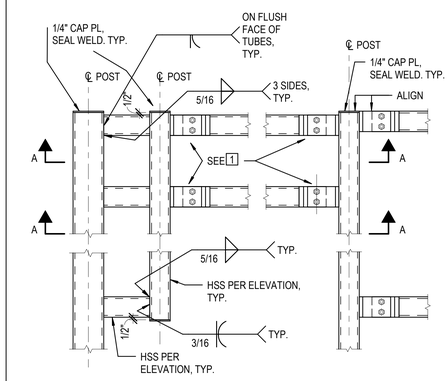


NOTES:
1. SEE 3-S5.00 FOR DETAILS NOT NOTED OR SHOWN.
2. INCREASE THICKNESS OF PLATE WHERE REQUIRED FOR COLLECTOR CONNECTION, SEE 10-S5.42
3. INCREASE WELD SIZE WHERE REQUIRED FOR COLLECTOR CONNECTION, SEE 10-S5.42
4. SEE 10-S5.42 FOR SCREEN POST BASE AT WELDED BEAM.

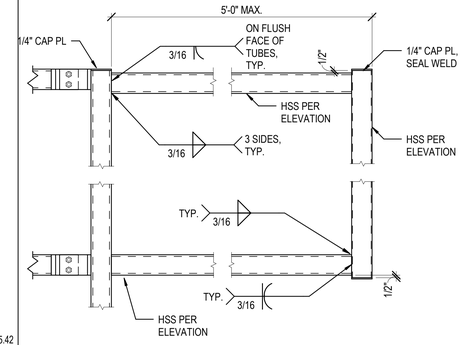
TYP. SCREEN POST BASE CONNEC. AT NON-FRAME COL. 1" = 1'-0" 9



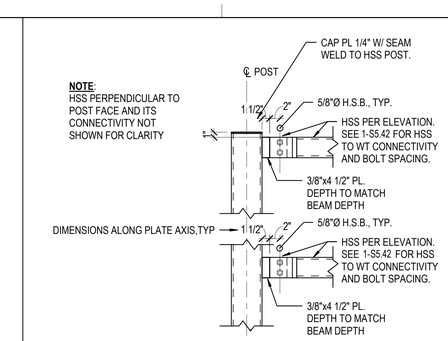
PLAN A-A



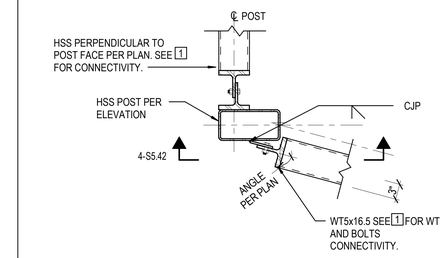
TYPICAL DOOR FRAMING CONDITION 1" = 1'-0" 6



CANTILEVERED FRAMING CONDITION 1" = 1'-0" 5

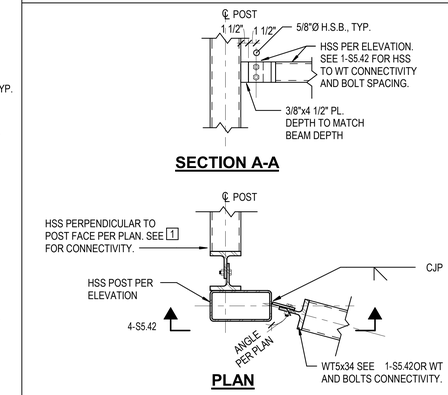


CORNER POST ELEVATION 1" = 1'-0" 4



PLAN

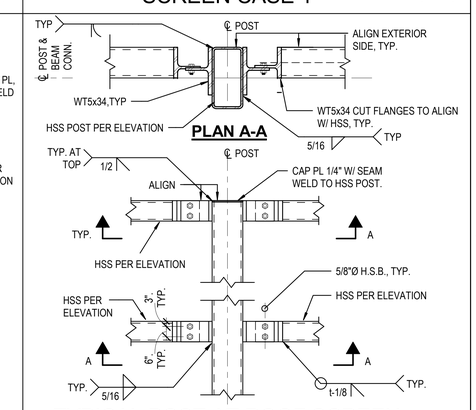
TYPICAL CORNER POST AT ROOF SCREEN CASE 2 1" = 1'-0" 3



SECTION A-A

PLAN

TYPICAL CORNER POST AT ROOF SCREEN CASE 1 1" = 1'-0" 2



PLAN A-A

TYPICAL POST AT ROOF SCREEN 1" = 1'-0" 1

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50% CONSTRUCTION DOCS		24MAR2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
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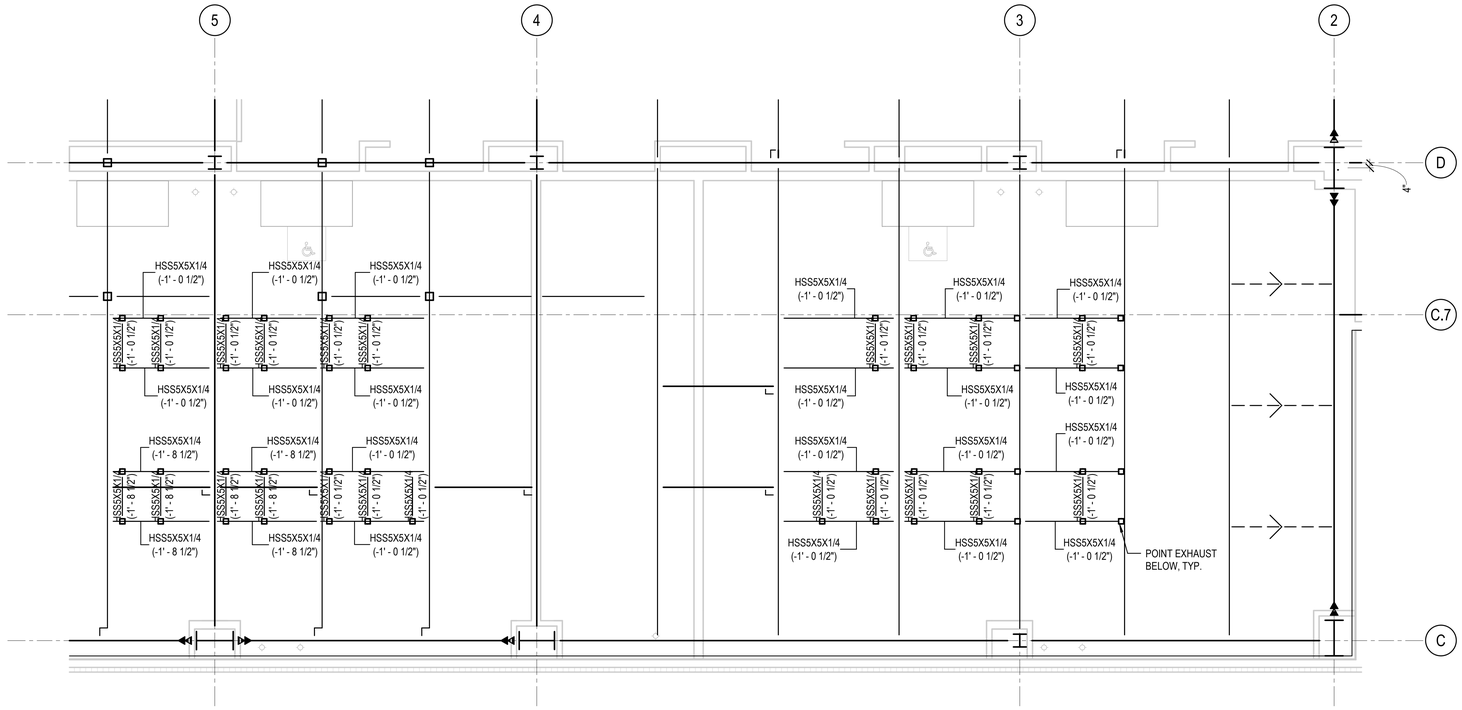
SHEET TITLE
TYPICAL MECHANICAL SCREEN DETAILS

PROJECT NUMBER
2023-045S

SHEET NUMBER
S5.42

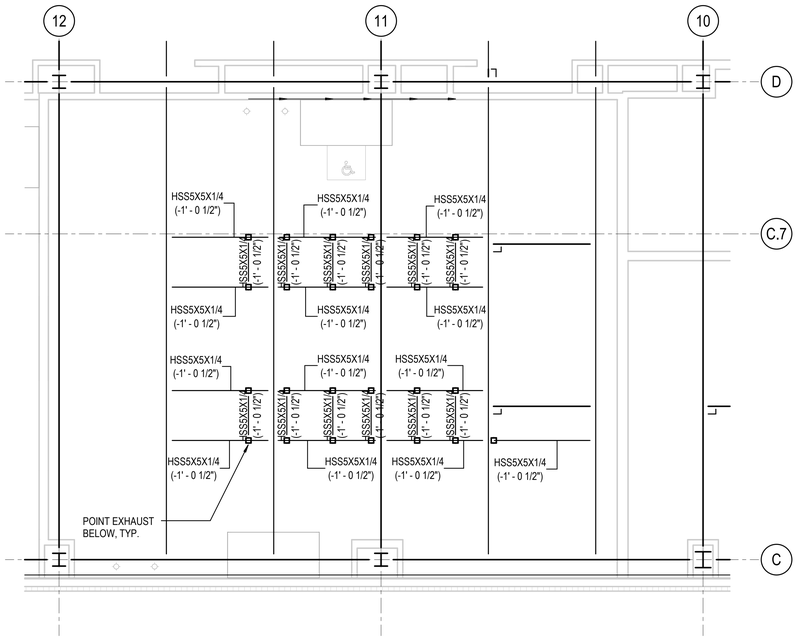
Author
8/21/2025 5:10:43 PM
Plot Date:



NOTES:
1. SEE S2.03 FOR ROOF FRAMING INFO.
2. WHERE NOTED, T.O.S. ELEVATIONS ARE MEASURED FROM TYPICAL ROOF TOP OF CONCRETE.
3. S.A.D. FOR EXHAUST SNORKEL INFO.

ROOF LEVEL EXHAUST SNORKLE SUPPORT FRAMING PLAN

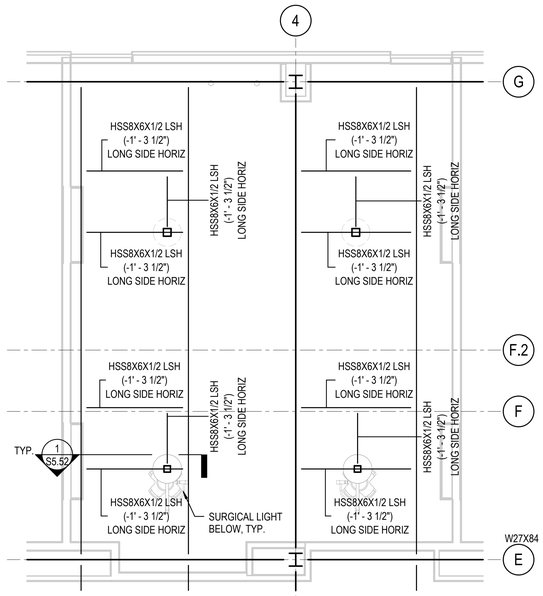
1/4" = 1'-0" 3



NOTES:
1. SEE S2.03 FOR ROOF FRAMING INFO.
2. WHERE NOTED, T.O.S. ELEVATIONS ARE MEASURED FROM TYPICAL ROOF TOP OF CONCRETE.
3. S.A.D. FOR EXHAUST SNORKEL INFO.

ROOF LEVEL EXHAUST SNORKLE SUPPORT FRAMING PLAN

1/4" = 1'-0" 9



NOTES:
1. SEE S2.02 FOR LEVEL 2 FRAMING INFO.
2. WHERE NOTED, T.O.S. ELEVATIONS ARE MEASURED FROM TYPICAL TOP OF CONCRETE.
3. S.A.D. FOR SURGICAL LIGHT INFO.

LEVEL 2 SURGICAL LIGHT SUPPORT FRAMING PLAN

1/4" = 1'-0" 1

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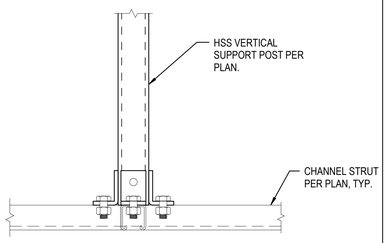
SHEET TITLE
CEILING MOUNTED EQUIPMENT PLAN

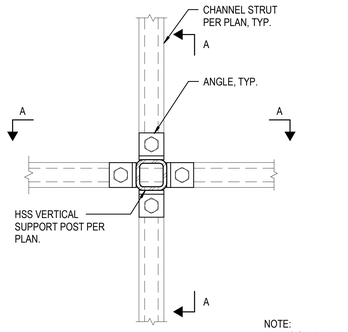
2023-045S
PROJECT NUMBER

S5.50
SHEET NUMBER

Author
8/21/2025 5:10:49 PM
Plot Date:



SECTION A-A

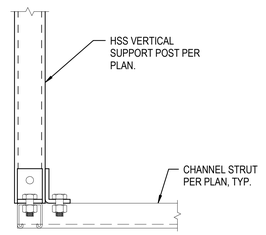


PLAN VIEW

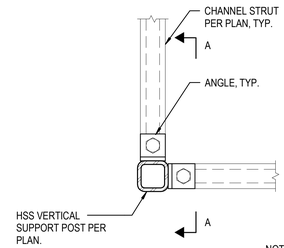
NOTE:
SEE 12-S5.51 FOR INFO NOT SHOWN

DETAIL

3" = 1'-0" 19



SECTION A-A

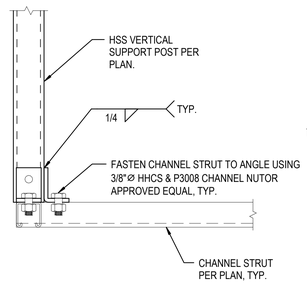


PLAN VIEW

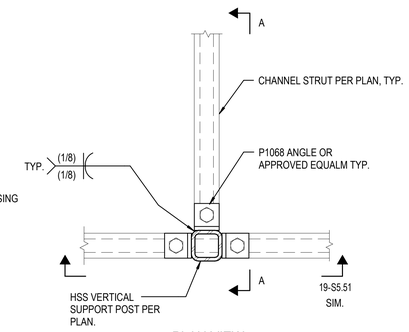
NOTE:
SEE 12-S5.51 FOR INFO NOT NOTED.

DETAIL

3" = 1'-0" 17



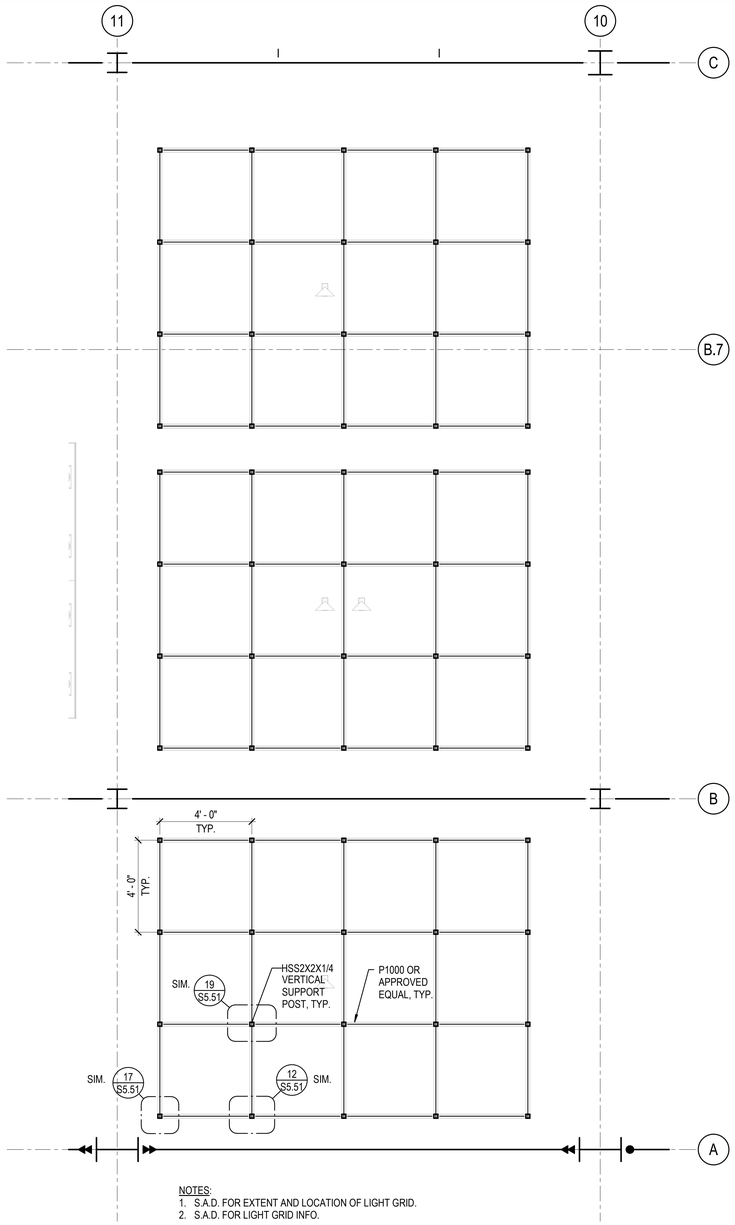
SECTION A-A



PLAN VIEW

DETAIL

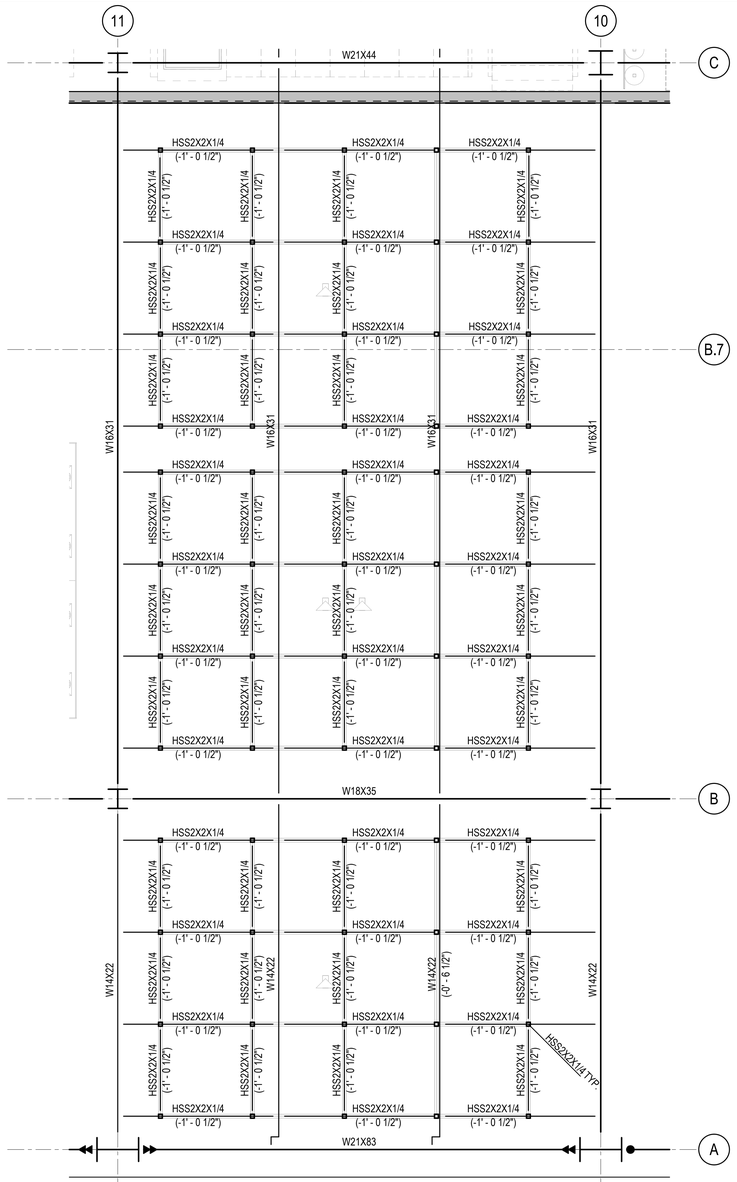
3" = 1'-0" 12



NOTES:
1. S.A.D. FOR EXTENT AND LOCATION OF LIGHT GRID.
2. S.A.D. FOR LIGHT GRID INFO.

LEVEL 1 REFLECTED CEILING PLAN - LIGHT GRID SUPPORT FRAMING

3/8" = 1'-0" 9



NOTES:
1. SEE S2.02 FOR ROOF FRAMING INFO.
2. WHERE NOTED, T.O.S. ELEVATIONS ARE MEASURED FROM TYPICAL TOP OF CONCRETE.
3. S.A.D. FOR LIGHT GRID INFO.
4. SEE S5.52 FOR SUPPORT FRAMING CONN. INFO.

LEVEL 2 LIGHT GRID SUPPORT FRAMING PLAN

3/8" = 1'-0" 1

Author

8/21/2025 5:10:53 PM

Plot Date:

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SEALS AND SIGNATURES

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SHEET TITLE

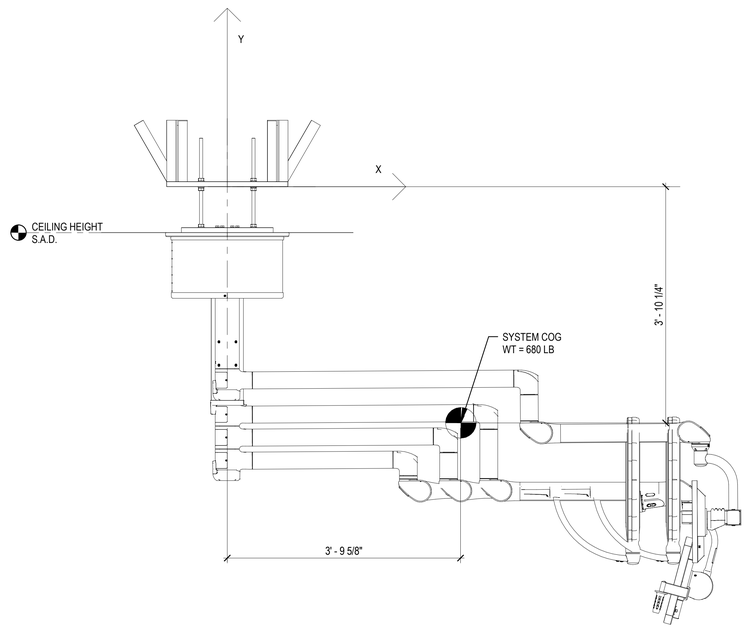
LIGHT GRID SUPPORT FRAMING PLANS AND DETAILS

2023-045S

PROJECT NUMBER

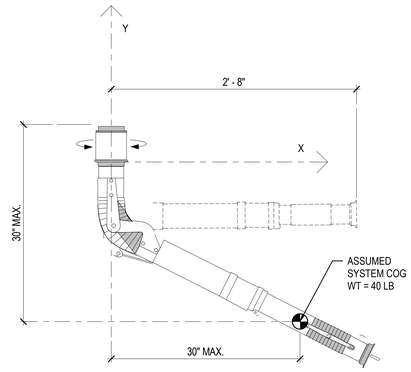
S5.51

SHEET NUMBER



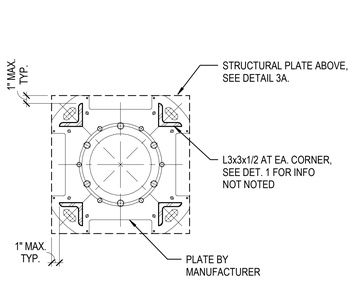
OVERHEAD SURGICAL LIGHT

1" = 1'-0" 11



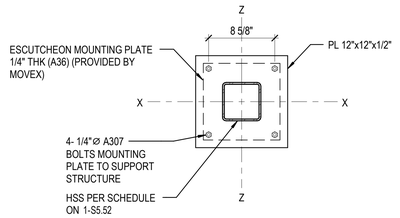
EXHAUST SNORKEL

1 1/2" = 1'-0" 8



SECTION AT SURGICAL LIGHT PLATE

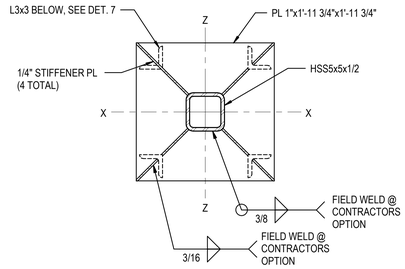
1 1/2" = 1'-0" 7



PLAN AT STRUCTURAL PLATE

NOTE:
SEE DETAIL 3A FOR INFO NOT NOTED

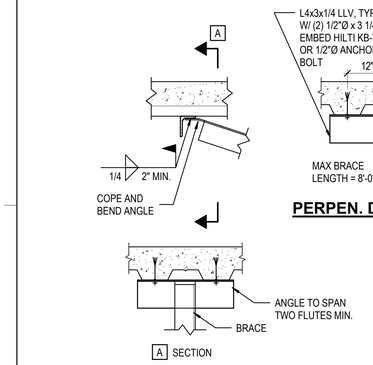
STRUCT. PLATE FOR EXHAUST SNORKEL 3B

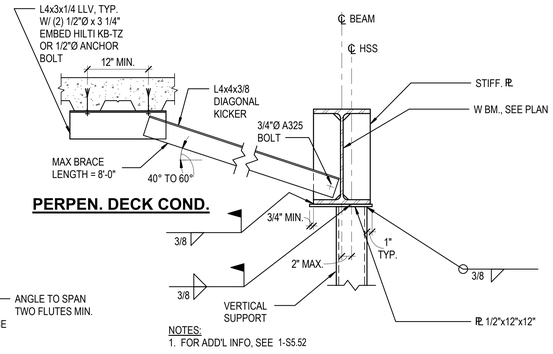


STRUCT. PLATE FOR SURGICAL LIGHT (TYP., U.O.N.) 3A

BOOM SUPPORT PLATE DETAIL

1 1/2" = 1'-0" 3





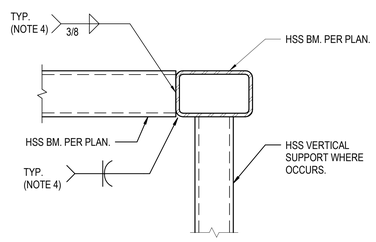
PERPEN. DECK COND.

NOTES:
1. FOR ADD'L INFO, SEE 1-S5.52

PARALLEL DECK COND.

OVERHEAD BOOM SUPPORT AT W BEAM

1" = 1'-0" 14

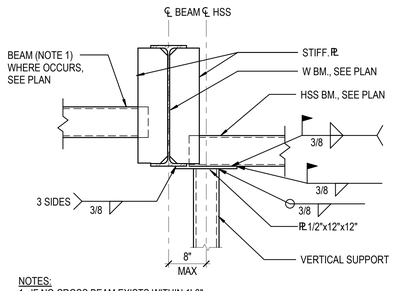


NOTES:

1. SEE 1-S5.52 FOR ADD'L INFO.

SECTION

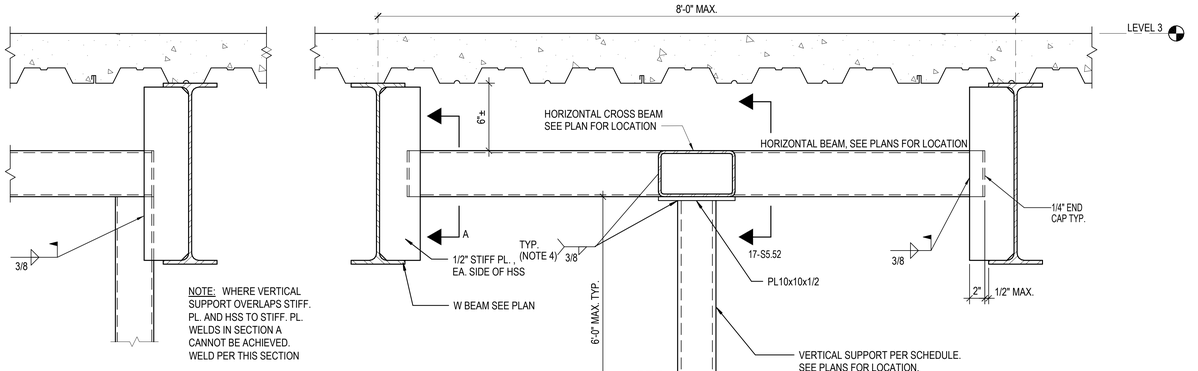
1 1/2" = 1'-0" 17



NOTES:
1. IF NO CROSS BEAM EXISTS WITHIN 1'-0" OF BOOM, ADD DIAGONAL BRACE PER 14-S5.52
2. FOR ADD'L INFO, SEE 1-S5.52

OVERHEAD BOOM SUPPORT AT W BEAM

1" = 1'-0" 13

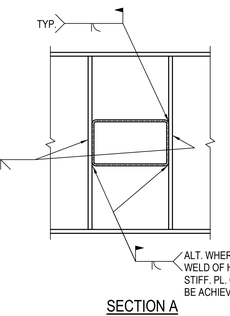


B VERTICAL SUPPORT AT STIFF. PL.

NOTE: WHERE VERTICAL SUPPORT OVERLAPS STIFF. PL. AND HSS TO STIFF. PL. WELDS IN SECTION A CANNOT BE ACHIEVED. WELD PER THIS SECTION

UNIT	EQUIP. DETAIL	VERT. SUPPORT	STRUCTURAL PLATE DETAIL
SURGICAL LIGHT	11-S5.52	HSS 5X5X1/2	3A
EXHAUST SNORKEL	8-S5.52	HSS 4X4X1/4	3B
LIGHT GRID		HSS 2X2X1/4	NOT APPLICABLE

NOTE:
1. SEE 13-S5.52 & 14-S5.52 WHERE BOOM IS LOCATED NEAR MAIN W BEAM
2. COORDINATE DIMENSION 'Y' WITH SUTGICAL LIGHT MANUFACTURER MOUNTING AND UTILITY LINE ROUTING REQTS.
3. SEE SURGICAL LIGHT MANUFACTURER INSTALLATION REQUIREMENTS FOR REQUIRED DISTANCE. RECOMMEND USING MAXIMUM DISTANCE SUGGESTED BY MANUFACTURER
4. FIELD WELD AT CONTRACTOR'S OPTION.



ELEVATION

SECTION A

TYPICAL OVERHEAD BOOM / MONITOR / LIGHT GRID SUPPORT

1 1/2" = 1'-0" 1

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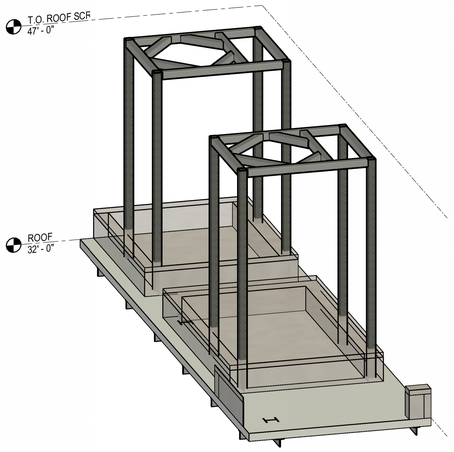
SHEET TITLE
CEILING MOUNTED EQUIPMENT ANCHORAGE DETAILS

PROJECT NUMBER
2023-045S

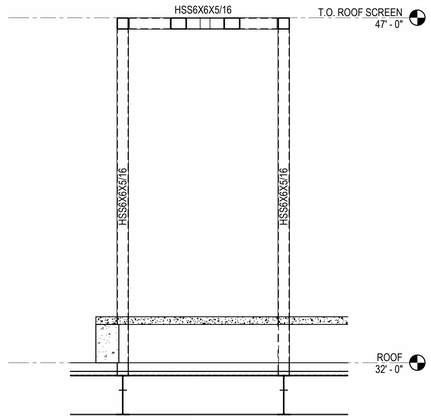
SHEET NUMBER
S5.52

Author

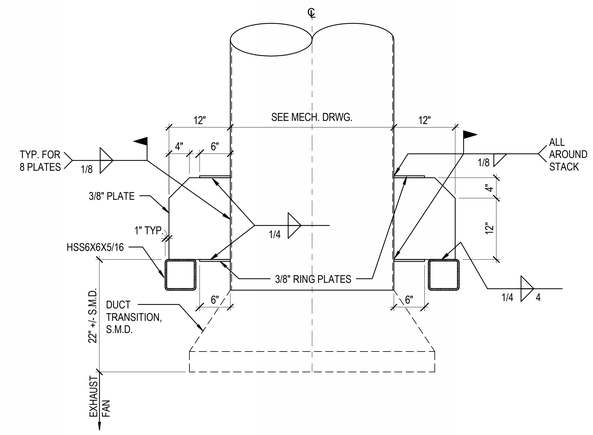
Plot Date: 8/21/2025 5:10:56 PM



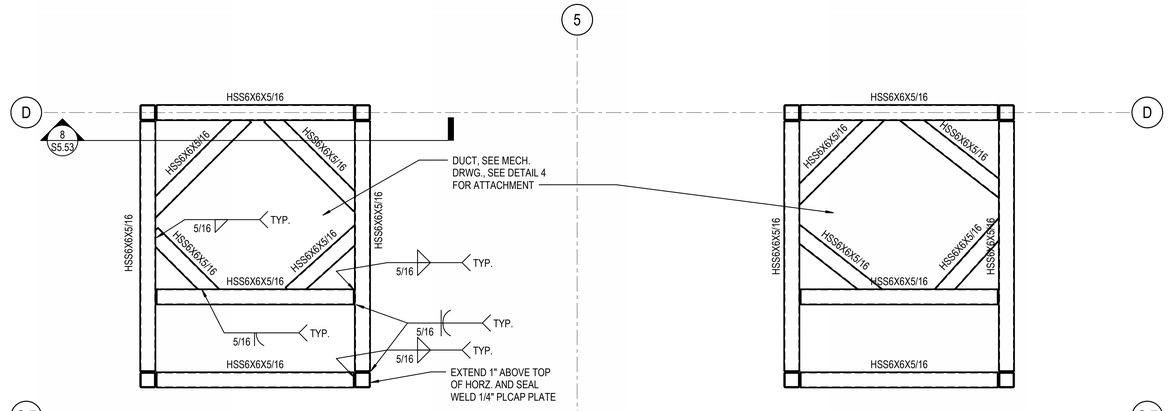
EXHAUST DUCT SUPPORT FRAME 20

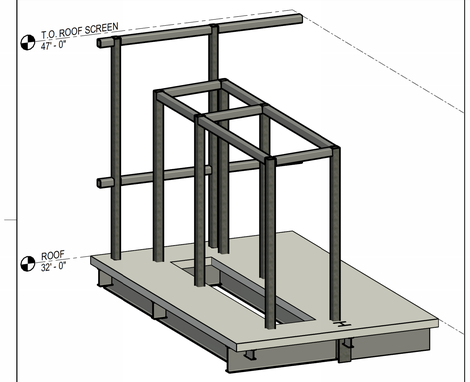


SECTION
3/8" = 1'-0" 8

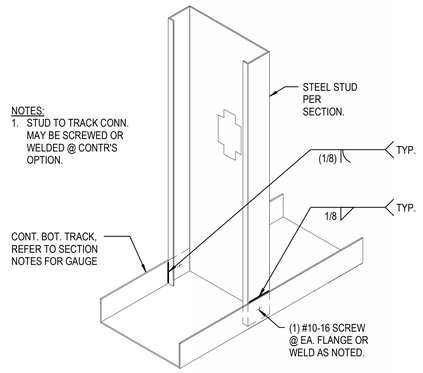


STACK CONNECTION DETAIL
1" = 1'-0" 4

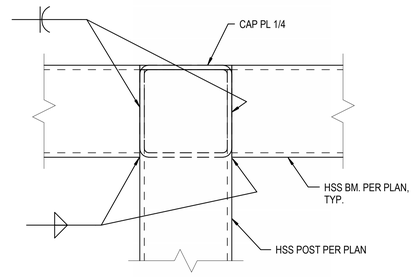

5
D
HSS6X6X5/16
8
S5.53
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16
DUCT, SEE MECH.
DRWG., SEE DETAIL 4
FOR ATTACHMENT
5/16
TYP.
HSS6X6X5/16
5/16
TYP.
5/16
TYP.
5/16
TYP.
5/16
TYP.
HSS6X6X5/16
EXTEND 1" ABOVE TOP
OF HORZ. AND SEAL
WELD 1/4" PLCAP PLATE
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16
HSS6X6X5/16



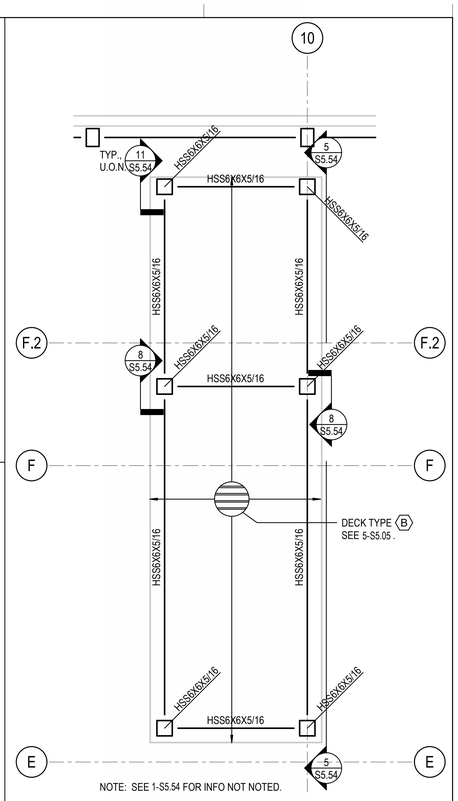
DOGHOUSE 1 ISOMETRIC VIEW 20



TYP. STUD TO BOT. CONNECTION 3" = 1'-0" 12

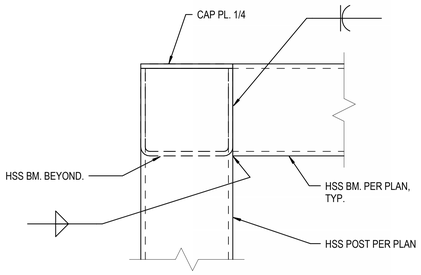


MID. POST CONNECTION DETAIL 3" = 1'-0" 8

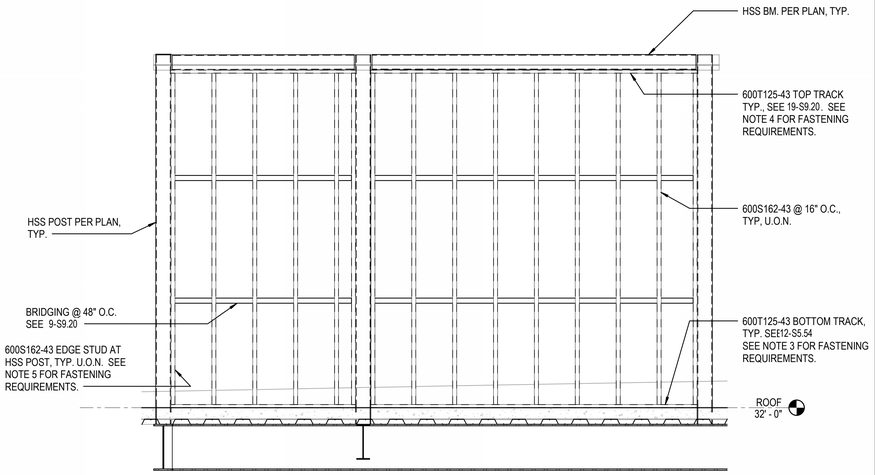


NOTE: SEE 1-S5.54 FOR INFO NOT NOTED.

DOGHOUSE 1 SUPPORT FRAMING PLAN AT TOP LEVEL 1/2" = 1'-0" 3

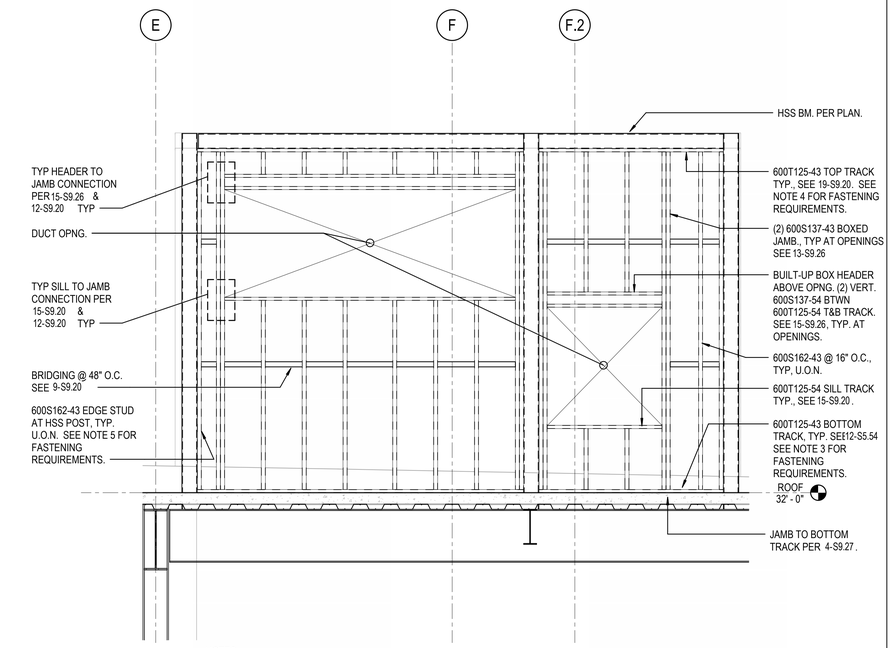


CORNER POST CONNECTION DETAIL 3" = 1'-0" 11



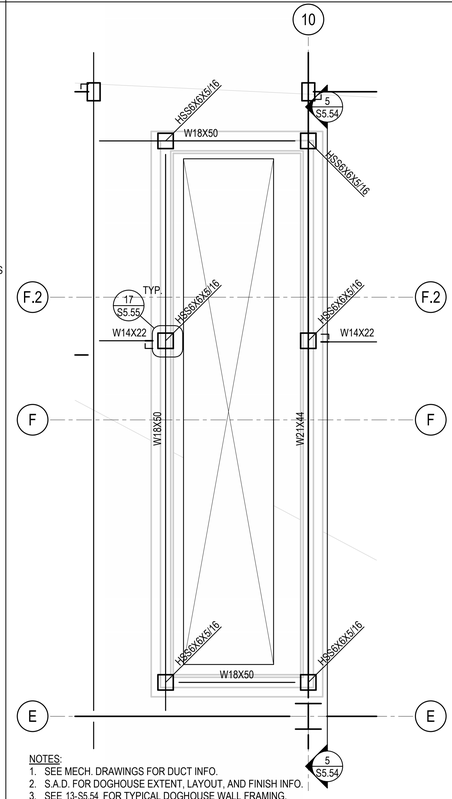
NOTES:
1. S.A.D. FOR DOG-HOUSE EXTENT AND LAYOUT.
2. S.M.D. FOR DUCT SIZE AND LOCATION.
3. BOTTOM TRACK ANCHORED TO CONCRETE W/ 3/8"⌀ SIMPSON TITEN HD @ 16" O.C. W/ 2.5" NOMINAL EMBEDMENT, TYP.
4. FASTEN TOP TRACK TO HSS BEAM USING PAF @ 12" O.C. MAX.
5. FASTEN EDGE STUD TO HSS POST USING PAF @ 12" O.C. MAX.

TYPICAL DOGHOUSE ELEVATION VIEW 1/2" = 1'-0" 13



NOTES:
1. S.A.D. FOR DOG-HOUSE EXTENT AND LAYOUT.
2. S.M.D. FOR DUCT SIZE AND LOCATION.
3. BOTTOM TRACK ANCHORED TO CONCRETE W/ 3/8"⌀ SIMPSON TITEN HD @ 16" O.C. W/ 2.5" NOMINAL EMBEDMENT, TYP.
4. FASTEN TOP TRACK TO HSS BEAM USING PAF @ 12" O.C. MAX.
5. FASTEN EDGE STUD TO HSS POST USING PAF @ 12" O.C. MAX.

DOGHOUSE ELEVATION VIEW 1/2" = 1'-0" 5



NOTES:
1. SEE MECH. DRAWINGS FOR DUCT INFO.
2. S.A.D. FOR DOGHOUSE EXTENT, LAYOUT, AND FINISH INFO.
3. SEE 13-S5.54 FOR TYPICAL DOGHOUSE WALL FRAMING.

DOGHOUSE 1 SUPPORT FRAMING PLAN AT ROOF LEVEL 1/2" = 1'-0" 1

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

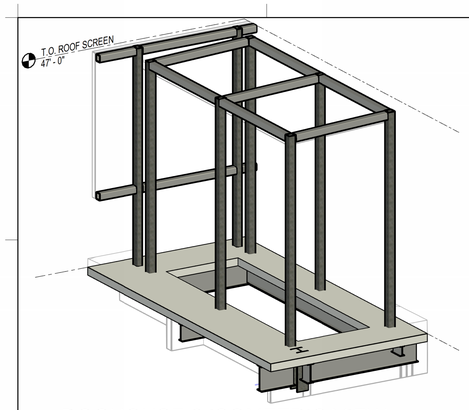
REGISTERED PROFESSIONAL ENGINEER DAVID S. BLEIMAN No. 3237 Exp. 03-31-27 STRUCTURAL STATE OF CALIFORNIA

SHEET TITLE
MECHANICAL DOG-HOUSE SUPPORT FRAMING

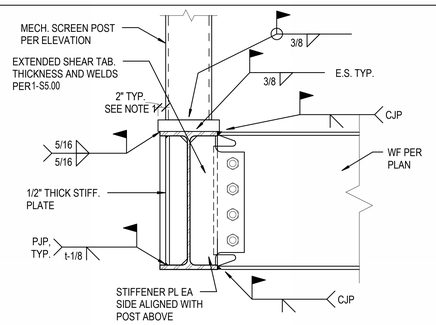
2023-045S
PROJECT NUMBER

S5.54
SHEET NUMBER

Author
8/21/2025 5:11:50 PM
Plot Date:

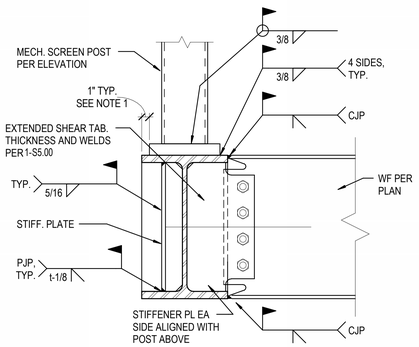


DOGHOUSE 2 ISOMETRIC VIEW 20



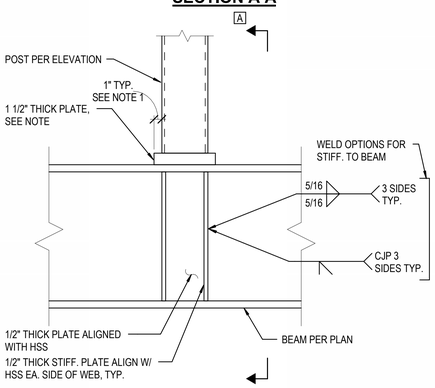
CONDITION 2: WF EQUAL TO OR NARROWER THAN HSS BASE PLATE

SECTION A-A



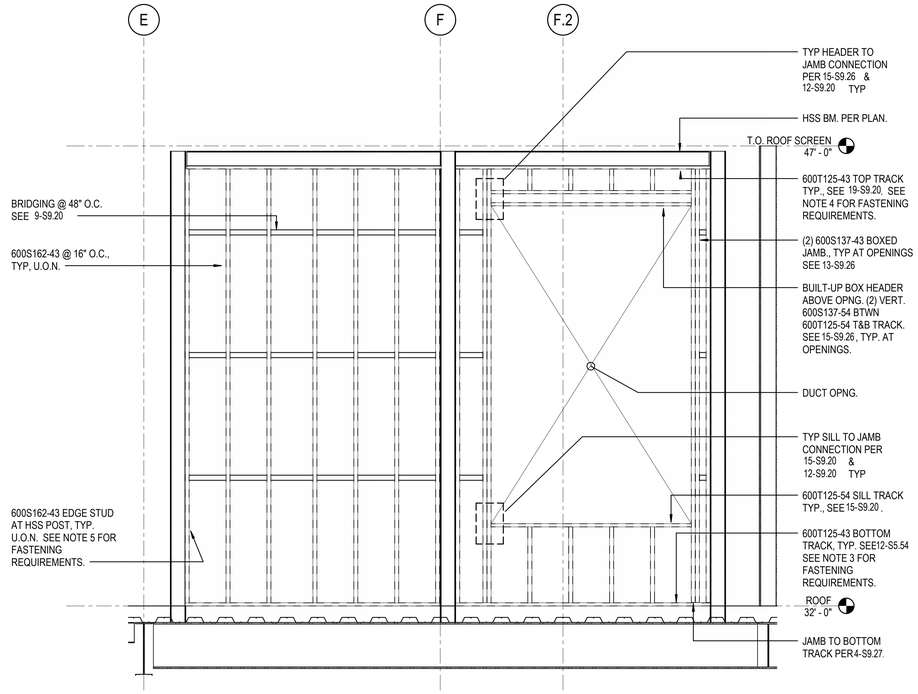
CONDITION 1: WF WIDER THAN HSS BASE PLATE

SECTION A-A



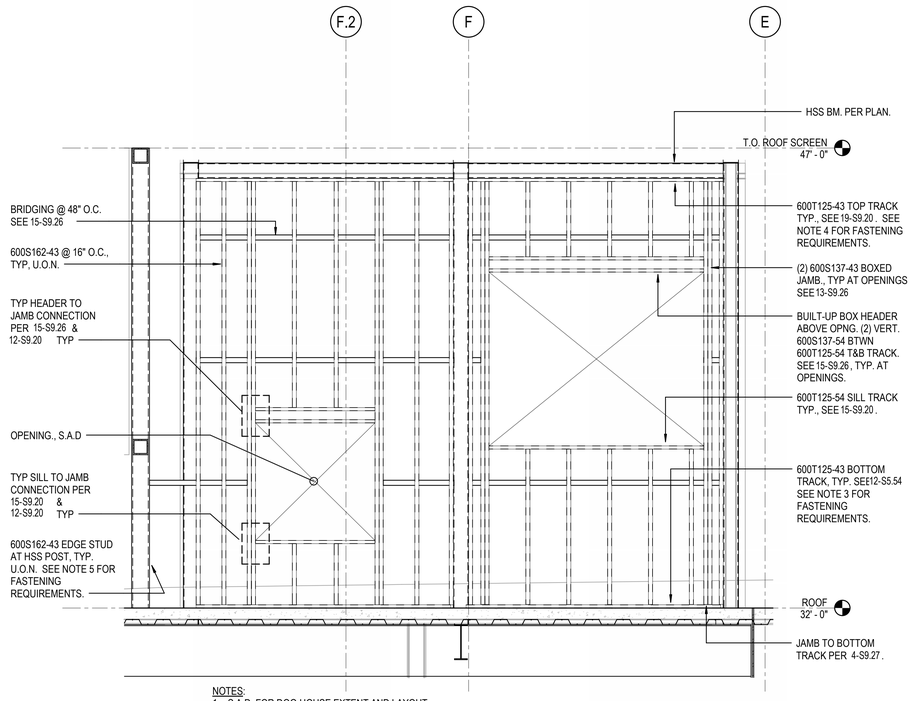
NOTES:
1. INCREASE DIMENSION AND WIDTH OF PLATE AS NEEDED WHERE POST IS NOT ALIGNED WITH THE LONGITUDINAL AXIS OF THE SUPPORTING BEAM. TRAPEZOIDAL BASE PLATE MAY BE REQUIRED.
2. WHEN THE TRANSVERSE BEAM IS SHALLOWER THAN THE GIRDER, SEE 17-S5.42 ; WELDS SHALL BE AS SPECIFIED IN THIS DETAIL.

TYPICAL SCREEN POST BASE AT WF BEAM 1 1/2" = 1'-0" 17



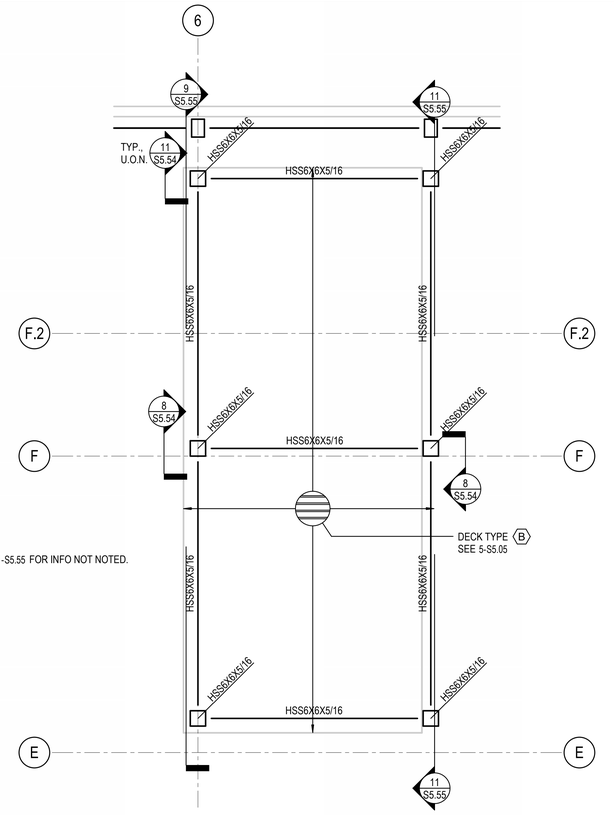
NOTES:
1. S.A.D. FOR DOG-HOUSE EXTENT AND LAYOUT.
2. S.M.D. FOR DUCT SIZE AND LOCATION.
3. BOTTOM TRACK ANCHORED TO CONCRETE W/ 3/8"⌀ SIMPSON TITEN HD @ 16" O.C. W/ 2.5" NOMINAL EMBEDMENT, TYP.
4. FASTEN TOP TRACK TO HSS BEAM USING PAF @ 12" O.C. MAX.
5. FASTEN EDGE STUD TO HSS POST USING PAF @ 12" O.C. MAX.

DOGHOUSE ELEVATION VIEW 1/2" = 1'-0" 11



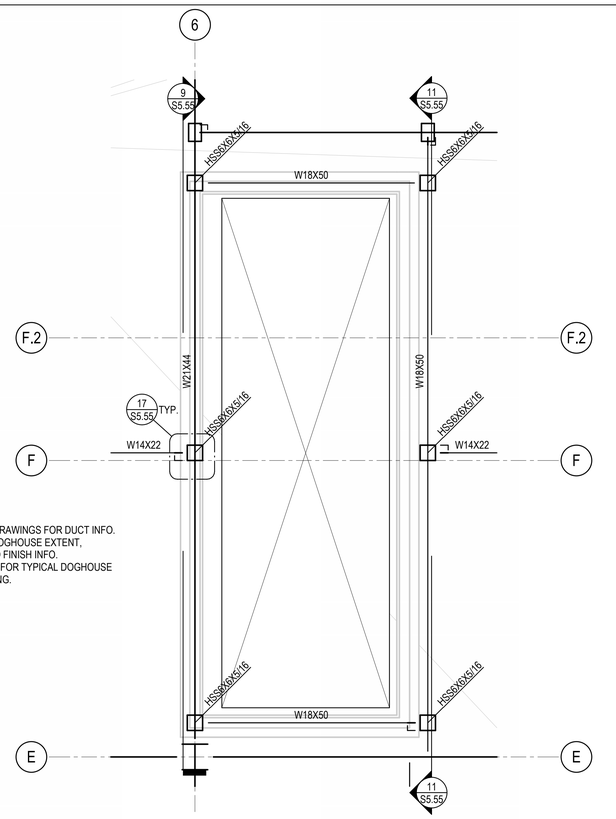
NOTES:
1. S.A.D. FOR DOG-HOUSE EXTENT AND LAYOUT.
2. S.M.D. FOR DUCT SIZE AND LOCATION.
3. BOTTOM TRACK ANCHORED TO CONCRETE W/ 3/8"⌀ SIMPSON TITEN HD @ 16" O.C. W/ 2.5" NOMINAL EMBEDMENT, TYP.
4. FASTEN TOP TRACK TO HSS BEAM USING PAF @ 12" O.C. MAX.
5. FASTEN EDGE STUD TO HSS POST USING PAF @ 12" O.C. MAX.

DOGHOUSE ELEVATION VIEW 1/2" = 1'-0" 9



NOTE: SEE 1-S5.55 FOR INFO NOT NOTED.

DOGHOUSE 2 SUPPORT FRAMING PLAN AT ROOF LEVEL 1/2" = 1'-0" 3



NOTES:
1. SEE MECH. DRAWINGS FOR DUCT INFO.
2. S.A.D. FOR DOGHOUSE EXTENT, LAYOUT, AND FINISH INFO.
3. SEE 13-S5.54 FOR TYPICAL DOGHOUSE WALL FRAMING.

DOGHOUSE 2 SUPPORT FRAMING PLAN AT ROOF LEVEL 1/2" = 1'-0" 1

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San Francisco CA 94105
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www.ruthchek.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

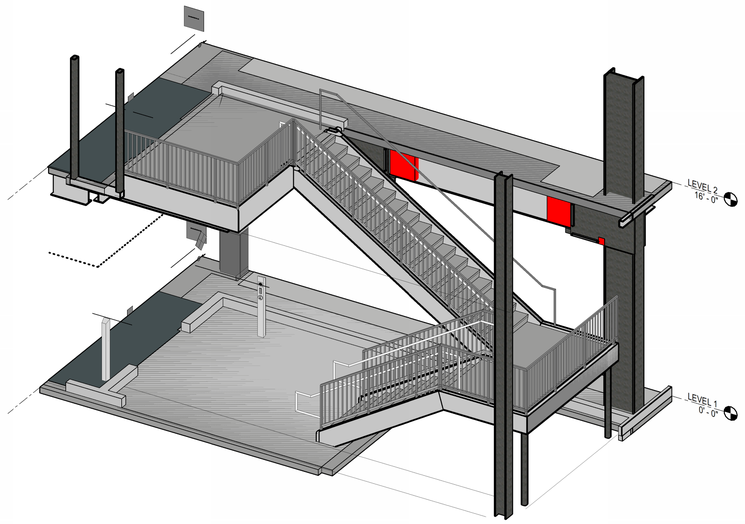
REGISTERED PROFESSIONAL ENGINEER DAVID S. BLEIMAN No. 3237 Exp. 03-31-27 STRUCTURAL STATE OF CALIFORNIA

SHEET TITLE
MECHANICAL DOG-HOUSE SUPPORT FRAMING

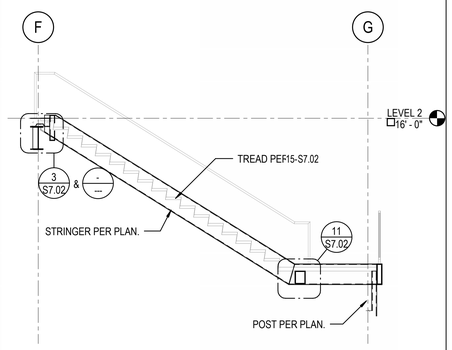
PROJECT NUMBER 2023-045S

SHEET NUMBER **S5.55**

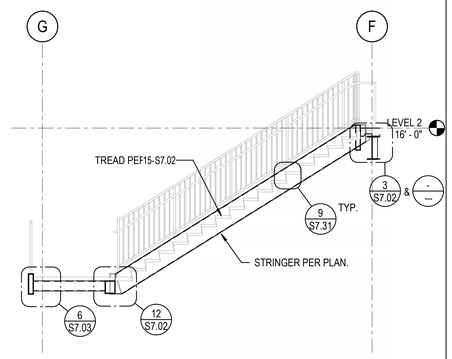
Author
8/21/2025 5:12:17 PM
Plot Date:



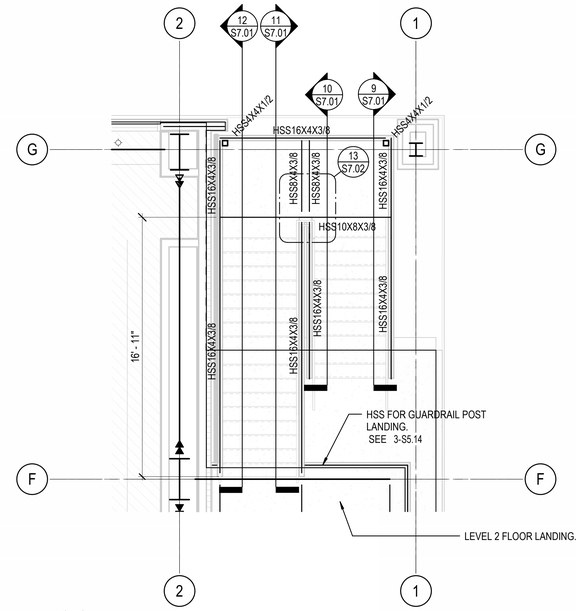
STAIR 1 AXIOMETRIC VIEW 15



STAIR 1 SECTION
1/4" = 1'-0" 12

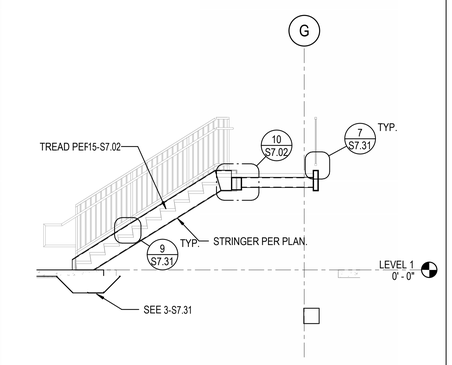


STAIR 1 SECTION
1/4" = 1'-0" 11

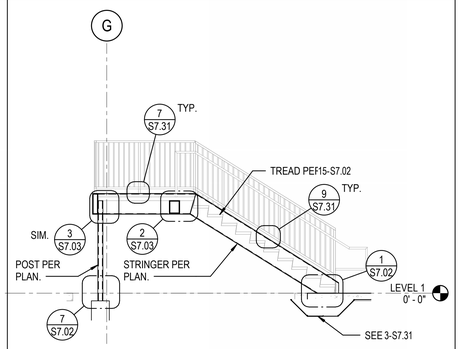


NOTES:
1. STAIR 1 FRAMING INSTALLATION TO OCCUR AFTER LEVEL 2 FLOOR LANDING IS POURED.
2. CONTRACTOR TO COORDINATE LEVEL 2 FLOOR LANDING CONCRETE POUR WITH STAIR 1 INSTALLATION.
3. ALL STAIR FRAMING SHOWN TO BE HOT-DIPPED GALVANIZED.

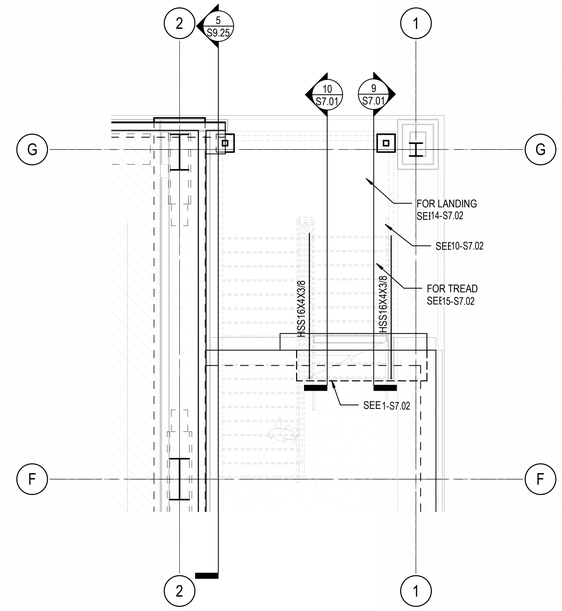
STAIR 1 FRAMING PLAN - LEVEL 2
1/4" = 1'-0" 3



STAIR 1 SECTION
1/4" = 1'-0" 10



STAIR 1 SECTION
1/4" = 1'-0" 9



STAIR 1 FRAMING PLAN - LEVEL 1
1/4" = 1'-0" 1

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

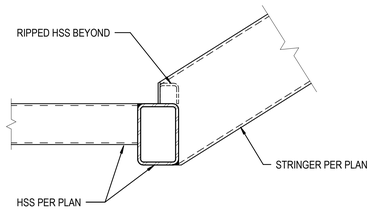
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
STAIR 1 PARTIAL PLANS & SECTIONS

2023-045S
PROJECT NUMBER

S7.01
SHEET NUMBER

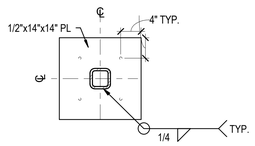
Author
8/21/2025 5:12:24 PM
Plot Date:



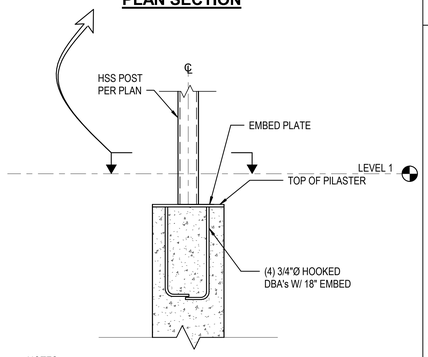
NOTE: SEE 9 FOR INFO. NOT NOTED.

UP OUTSIDE STRINGER CONN. AT INTERMED. LANDING

1" = 1'-0" | 12



PLAN SECTION

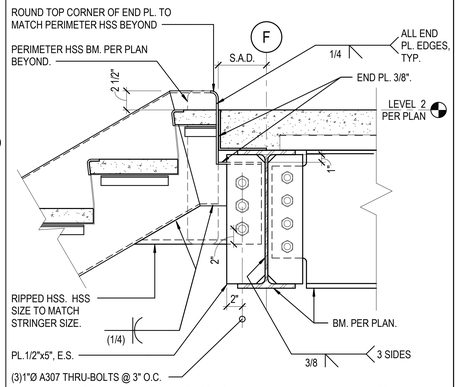


NOTES:

1. PILASTER REINFORCEMENT NOT SHOWN FOR CLARITY. SEE 17-S3.05.
2. S.A.D. FOR WATERPROOFING REQUIREMENTS.

HSS COLUMN BASE PLATE @ PILASTER

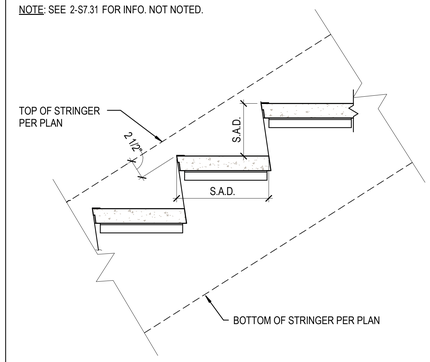
1" = 1'-0" | 7



STRINGER CONN. AT LEVEL 2

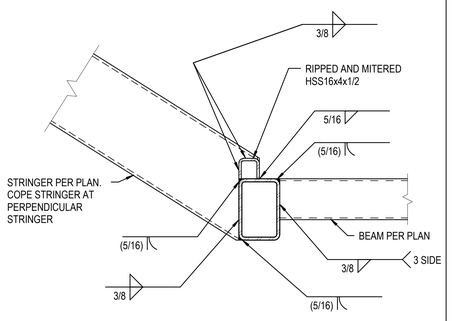
1 1/2" = 1'-0" | 3

NOTE: SEE 2-S7.31 FOR INFO. NOT NOTED.



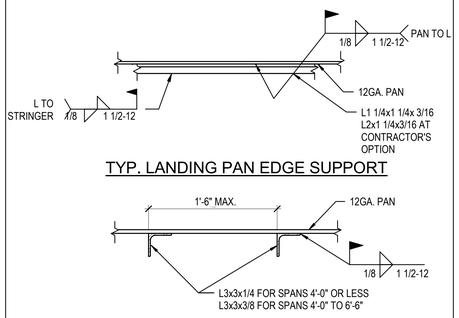
STAIR 1 TREAD SUPPORT

1 1/2" = 1'-0" | 15



UP INSIDE STRINGER CONN. AT INTERMED. LANDING

1" = 1'-0" | 11



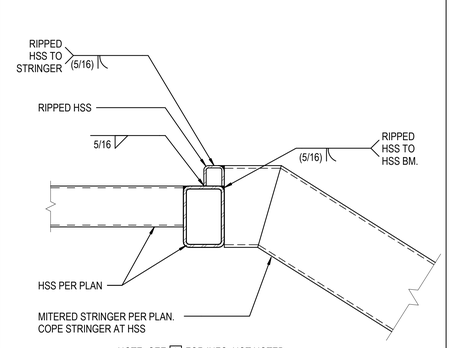
TYP. LANDING PAN EDGE SUPPORT

NOTE: WELD VERT. LEG OF L TO END STRINGER 2" MIN.

TYP. LANDING PAN SUPPORT

TYPICAL STAIR CONCRETE LANDING AND TREAD DETAILS

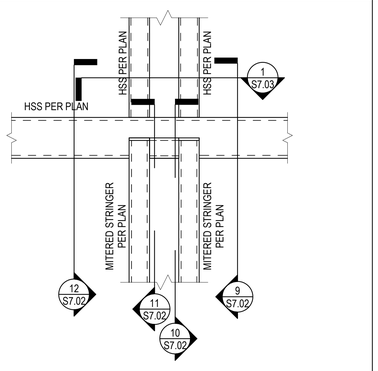
1 1/2" = 1'-0" | 14



NOTE: SEE 9 FOR INFO. NOT NOTED.

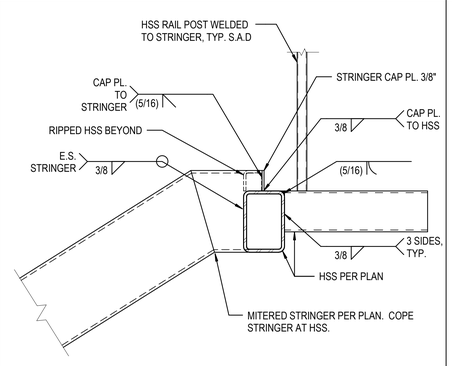
DOWN INSIDE STRINGER CONN. AT INTERMED. LANDING

1" = 1'-0" | 10



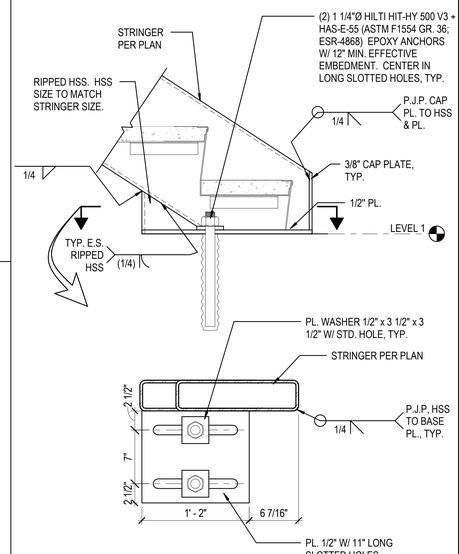
ENLARGED STAIR 1 FRAMING PLAN - AT LANDING

1" = 1'-0" | 13



DOWN OUTSIDE STRINGER CONN. AT INTERMED. LANDING

1" = 1'-0" | 9



STAIR 1 STRINGER CONN. AT BASE

1 1/2" = 1'-0" | 1

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DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
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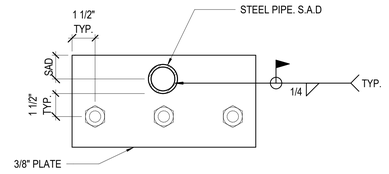
SHEET TITLE
STAIR 1 FRAMING DETAILS

2023-045S
PROJECT NUMBER

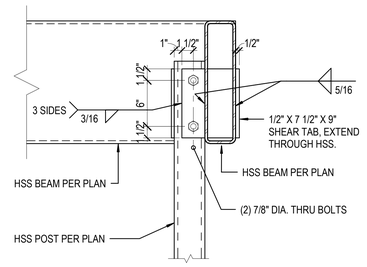
S7.02
SHEET NUMBER

Author
8/21/2025 5:12:27 PM
Plot Date:

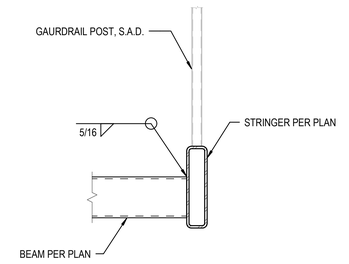


NOTE:
3/4"Ø STUDS W/2" MIN. EMBEDMENT AT CONTRACTOR'S OPTION WITH EMBEDS.

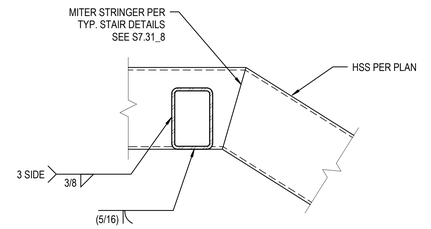
STAIR 1 POST EMBED PLATE SUPPORT AT TOP LANDING 3" = 1'-0" 7



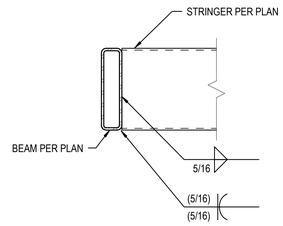
HSS STRINGER TO POST DETAIL 1 1/2" = 1'-0" 3



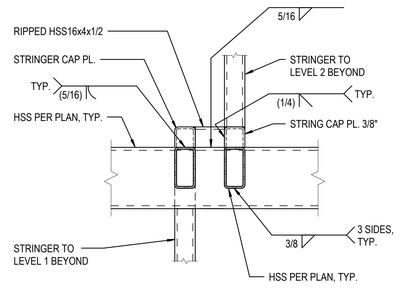
STAIR 1 BEAM TO STRINGER CONNECTION 1" = 1'-0" 6



BEAM TO STRINGER CONN. AT INTERMED. LANDING 1" = 1'-0" 2



STAIR 1 BEAM TO STRINGER CONNECTION 1" = 1'-0" 5



STAIR 1 LANDING CONNECTION 1" = 1'-0" 1

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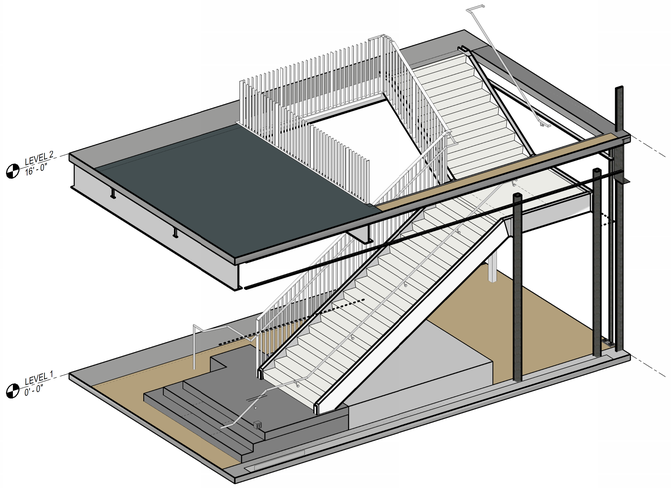
STAIR 1 FRAMING DETAILS

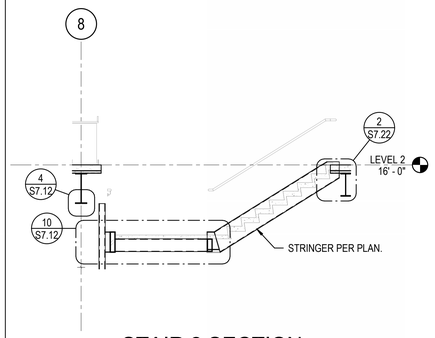
2023-045S
PROJECT NUMBER

S7.03
SHEET NUMBER

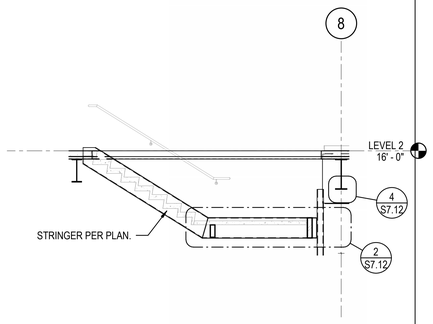
Plot Date: 8/21/2025 5:12:30 PM Author



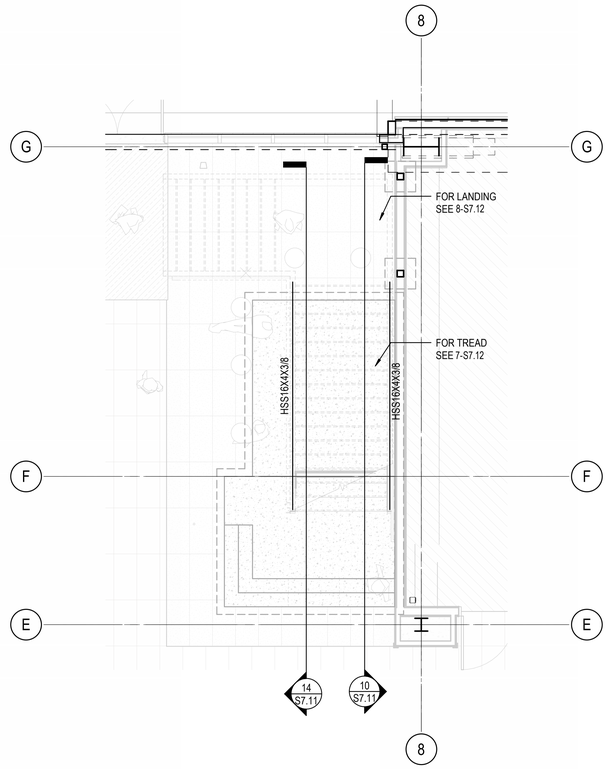
STAIR 2 AXIOMETRIC VIEW 15



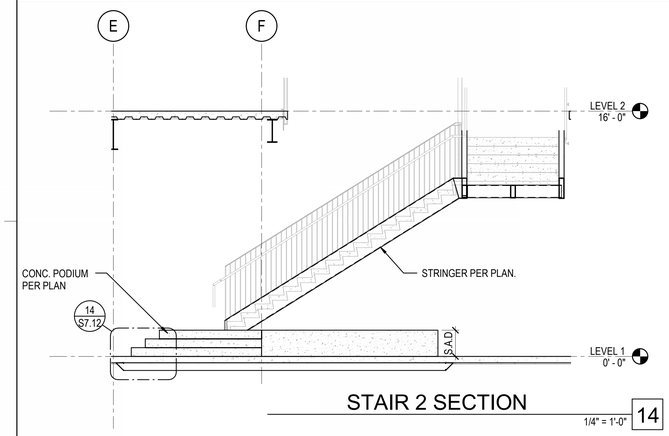
STAIR 2 SECTION
1/4" = 1'-0" 12



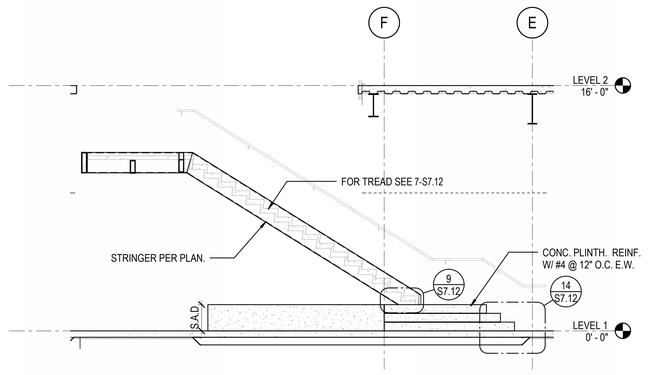
STAIR 2 SECTION
1/4" = 1'-0" 11



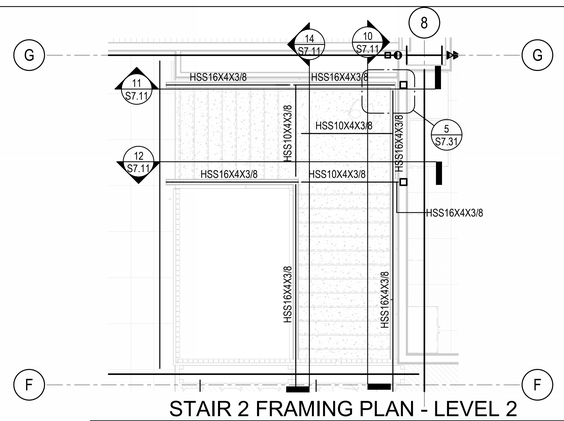
STAIR 2 FRAMING PLAN - LEVEL 1
1/4" = 1'-0" 3



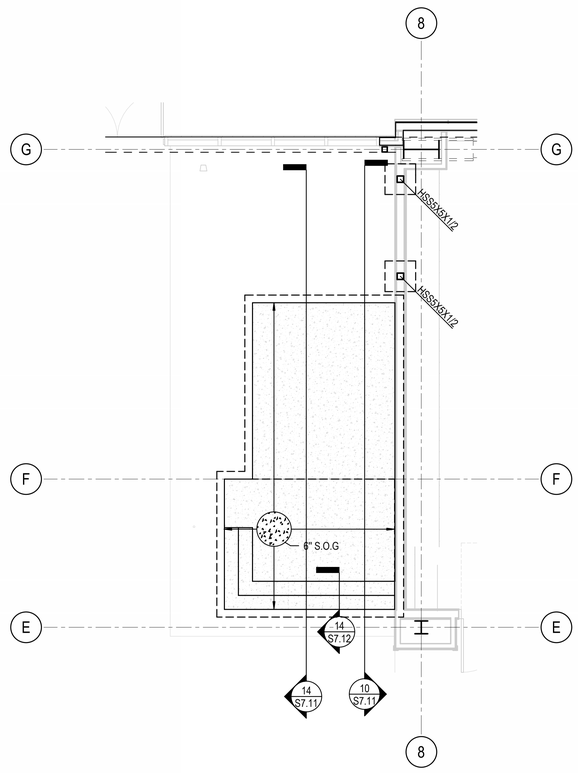
STAIR 2 SECTION
1/4" = 1'-0" 14



STAIR 2 SECTION
1/4" = 1'-0" 10



STAIR 2 FRAMING PLAN - LEVEL 2
1/4" = 1'-0" 9



STAIR 2 FRAMING PLAN - LEVEL 1 PODIUM
1/4" = 1'-0" 1

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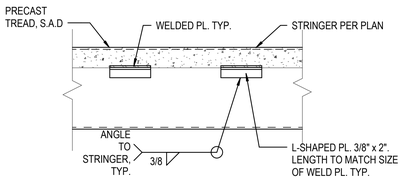
STATE OF CALIFORNIA

SHEET TITLE
STAIR 2 PARTIAL PLANS AND SECTIONS

2023-045S
PROJECT NUMBER

S7.11
SHEET NUMBER

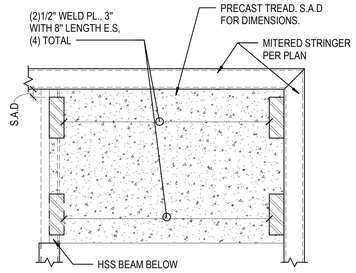
Author
8/21/2025 5:12:37 PM
Plot Date:



NOTE: SEE 8-S7.12 FOR INFO NOT NOTED.

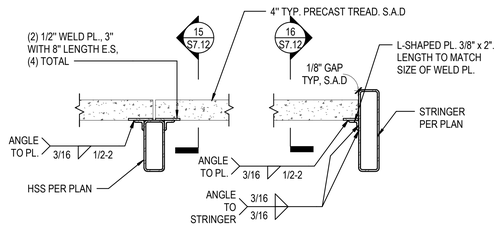
ANGLE TO STRINGER CONNECTION ON PRECAST LANDING

1" = 1'-0" | 16



PLAN

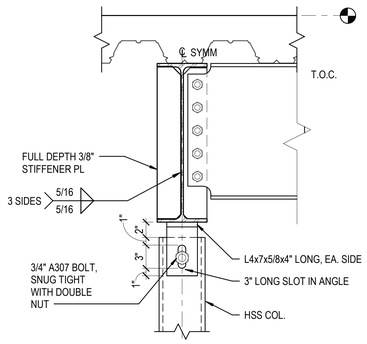
NOTE: S.A.D FOR PRECAST TREAD DIMENSIONS.



SECTION

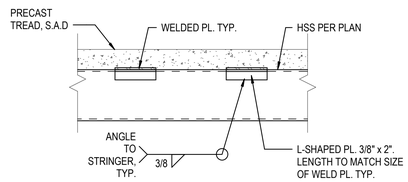
TYP. PRECAST SUPPORT AT INTERMEDIATE LANDING

1" = 1'-0" | 8



TOP OF HSS CONN.

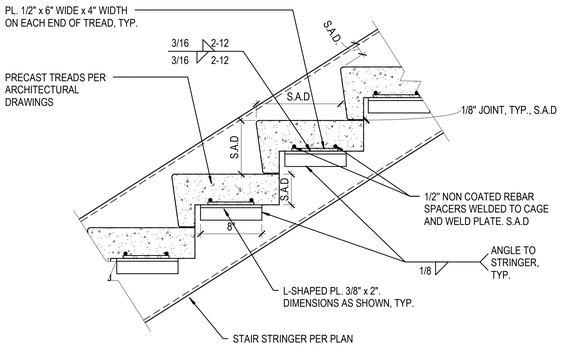
1 1/2" = 1'-0" | 4



NOTE: SEE 8-S7.12 FOR INFO NOT NOTED.

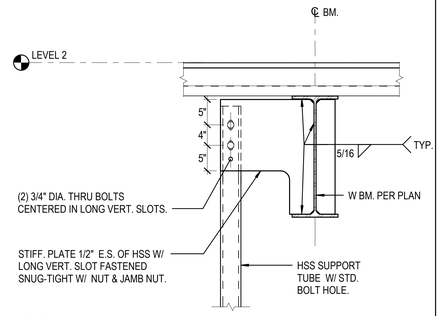
ANGLE TO HSS BEAM CONNECTION ON PRECAST LANDING

1" = 1'-0" | 15



TYP. PRECAST TREAD SUPPORT DETAIL

1 1/2" = 1'-0" | 7

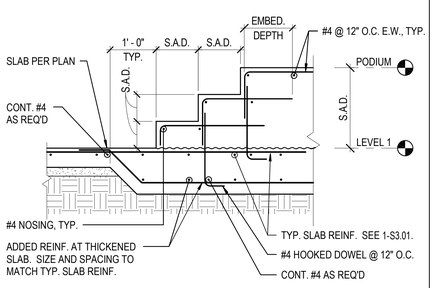


NOTES:
1. SLAB REINF. NOT SHOWN FOR CLARITY.

HSS COL SUPPORT AT FLOOR ABOVE

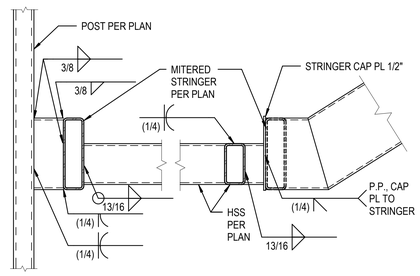
1" = 1'-0" | 3

NOTE: SEE 9-S3.00 FOR REINF. INFO AT CORNER CONDITION.



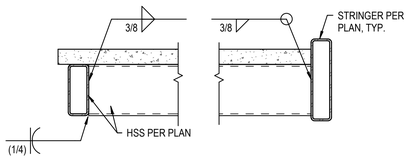
SECTION AT PODIUM

3/4" = 1'-0" | 14



SECTION DETAIL

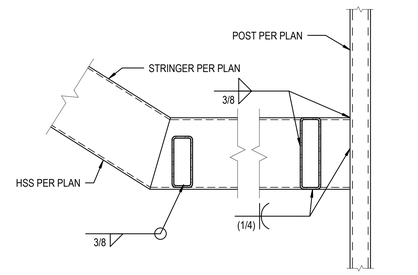
1" = 1'-0" | 10



NOTE: SEE 8-S7.12 FOR INFO. NOT NOTED.

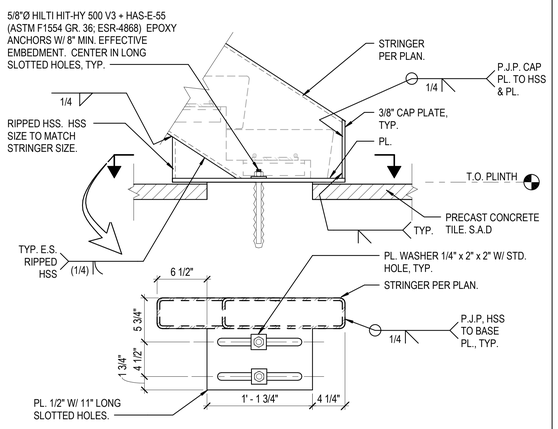
CONN. OF LANDING ELEMENT TO STRINGERS AT STAIR 2

1" = 1'-0" | 6



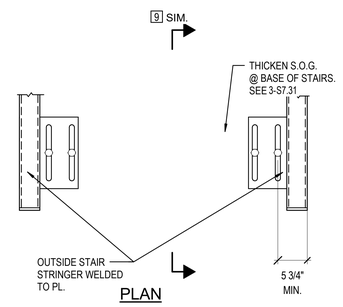
HSS STRINGER TO POST DETAIL

1" = 1'-0" | 2



STRINGER CONNECTION AT BASE

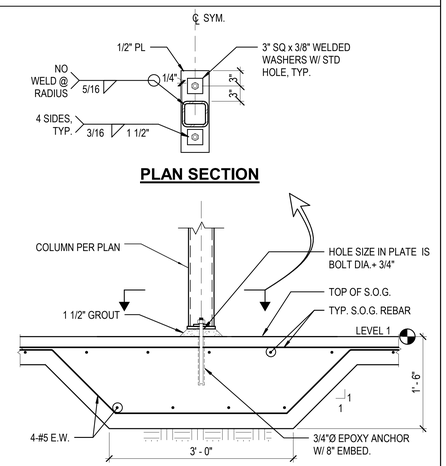
1 1/2" = 1'-0" | 9



PLAN

S.O.G. THICKENING @ STRINGER BASE

1" = 1'-0" | 5



PLAN SECTION

HSS COL SUPPORT AT S.O.G.

1" = 1'-0" | 1

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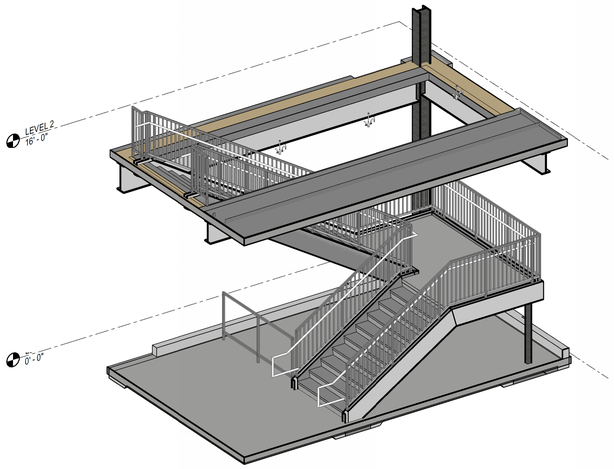
SHEET TITLE
STAIR 2 FRAMING DETAILS

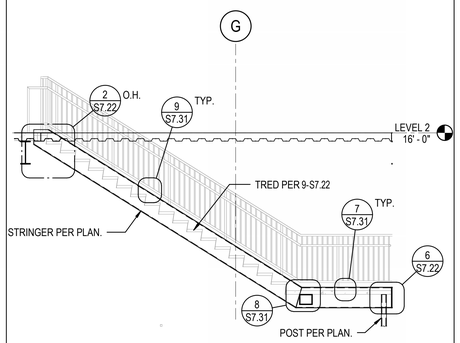
PROJECT NUMBER
2023-045S

SHEET NUMBER
S7.12

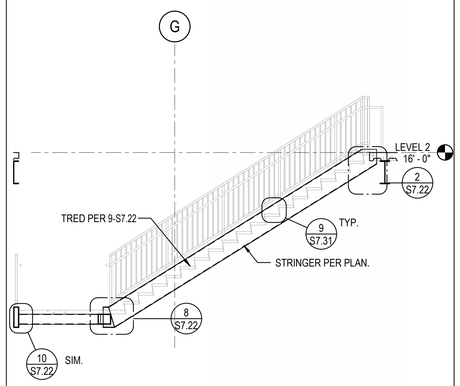
Author
Plot Date: 8/21/2025 5:12:41 PM



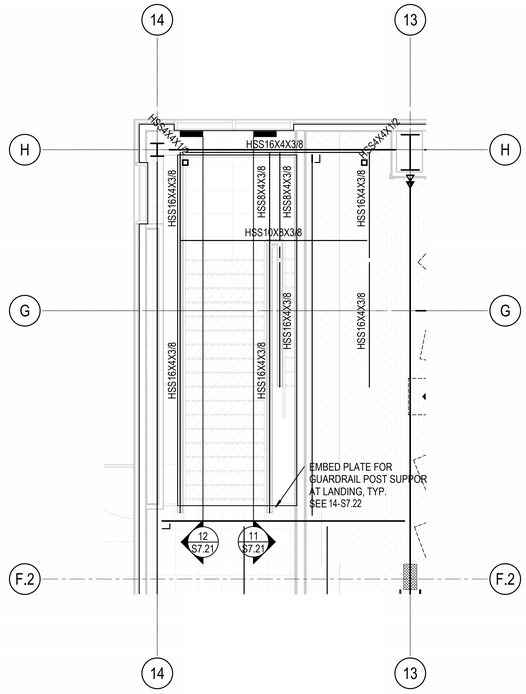
STAIR 3 AXIOMETRIC VIEW 15



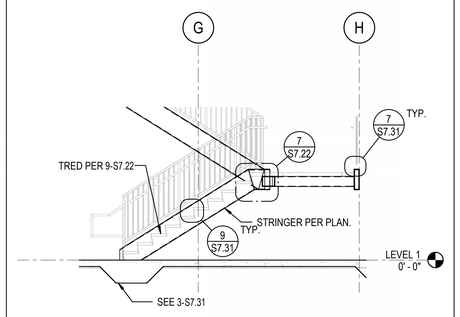
STAIR 3 SECTION
1/4" = 1'-0" 12



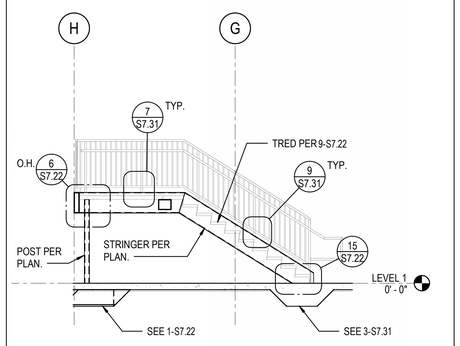
STAIR 3 SECTION
1/4" = 1'-0" 11



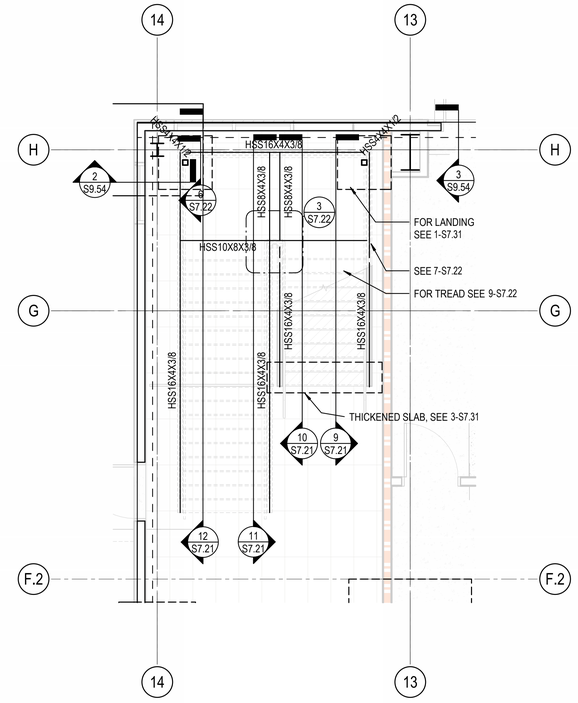
STAIR 3 FRAMING PLAN - LEVEL 2
1/4" = 1'-0" 3



STAIR 3 SECTION
1/4" = 1'-0" 10



STAIR 3 SECTION
1/4" = 1'-0" 9



STAIR 3 FRAMING PLAN - LEVEL 1
1/4" = 1'-0" 1

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SHEET TITLE
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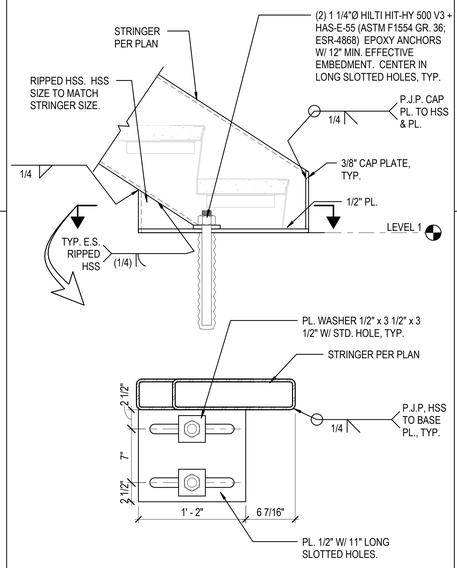
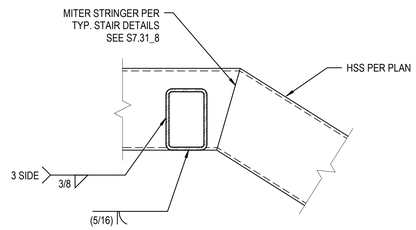
2023-045S
PROJECT NUMBER

S7.21
SHEET NUMBER

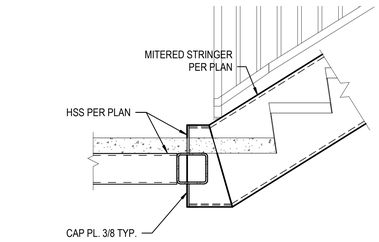
Plot Date: 8/21/2025 5:12:48 PM Author



STRINGER CONNECTION AT BASE
1 1/2" = 1'-0" 15

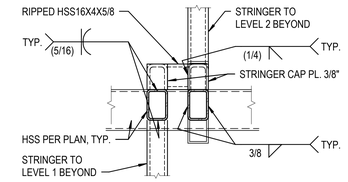


BEAM TO STRINGER CONN. AT INTERMED. LANDING
1" = 1'-0" 12

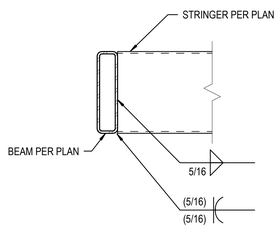


NOTE: SEE 7-S7.22 FOR INFO. NOT NOTED.

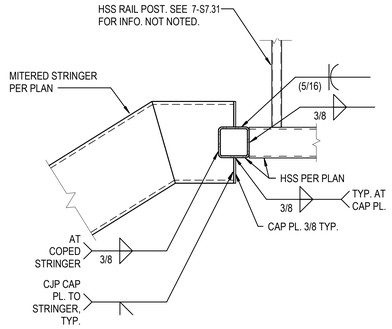
STAIR 3 UP STRINGER CONN. AT INTERMED. LANDING
1" = 1'-0" 8



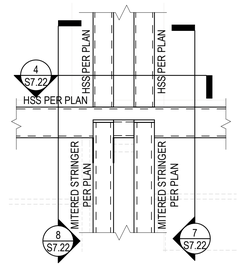
STAIR 3 CONN. AT INTERMED. LANDING
1" = 1'-0" 4



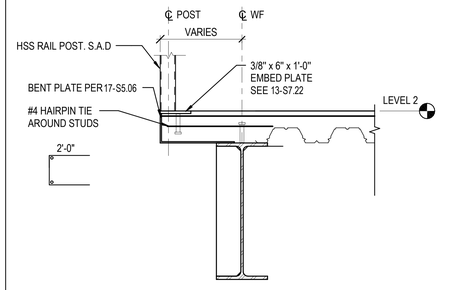
STAIR 3 BEAM TO STRINGER CONNECTION
1" = 1'-0" 11



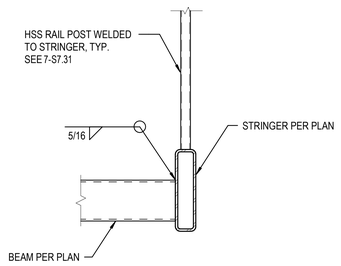
STAIR 3 DOWN STRINGER CONN. AT INTERMED. LANDING
1" = 1'-0" 7



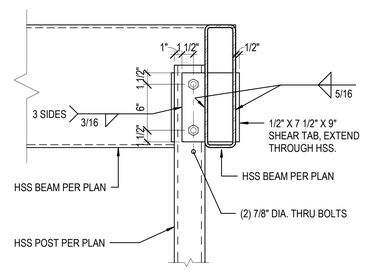
ENLARGED STAIR 3 FRAMING PLAN - AT LANDING
1" = 1'-0" 3



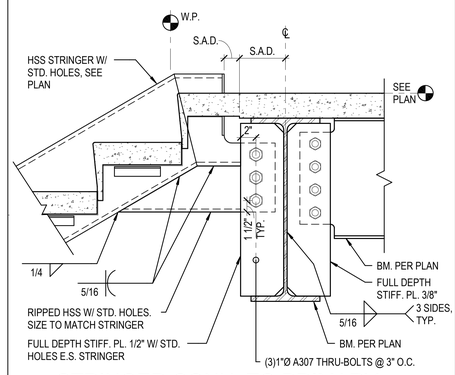
STAIR 3 GUARDRAIL POST SUPPORT AT TOP LANDING
1" = 1'-0" 14



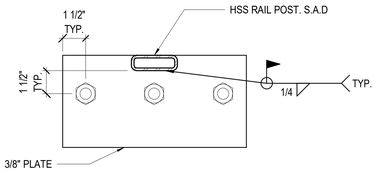
STAIR 3 BEAM TO STRINGER CONNECTION
1" = 1'-0" 10



HSS STRINGER TO POST DETAIL
1 1/2" = 1'-0" 6



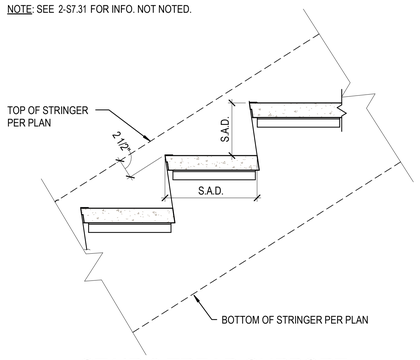
STRINGER CONN. TO PRIMARY STRUCTURE
1 1/2" = 1'-0" 2



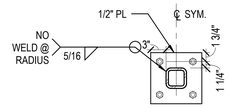
NOTE:
3/4"Ø STUDS W/2" MIN. EMBEDMENT AT CONTRACTOR'S OPTION WITH EMBEDS.

STAIR 3 POST EMBED PLATE SUPPORT AT LANDING
3" = 1'-0" 13

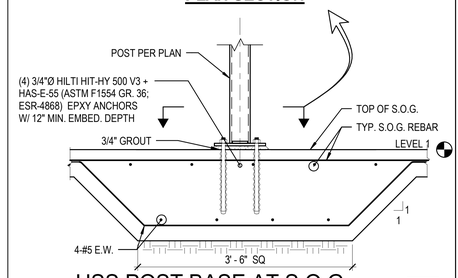
NOTE: SEE 2-S7.31 FOR INFO. NOT NOTED.



STAIR 3 TREAD SUPPORT
1 1/2" = 1'-0" 9



PLAN SECTION



HSS POST BASE AT S.O.G.
1" = 1'-0" 1

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025

SEALS AND SIGNATURES

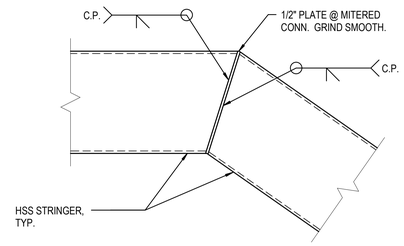
REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEEMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE
STAIR 3 FRAMING DETAILS

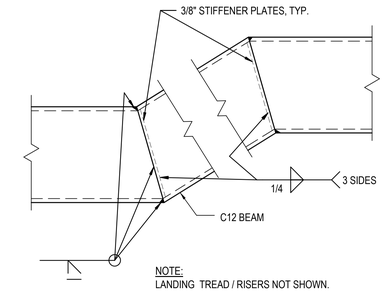
PROJECT NUMBER
2023-045S

SHEET NUMBER
S7.22

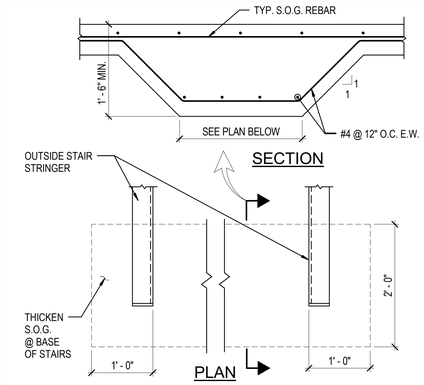
Author
Plot Date: 8/21/2025 5:12:53 PM



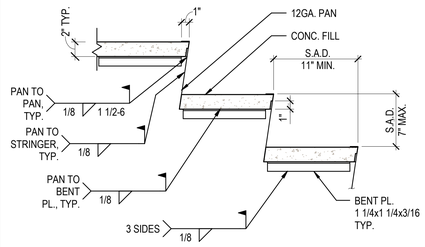
TYPICAL MITER @ HSS STRINGER
1" = 1'-0" 8



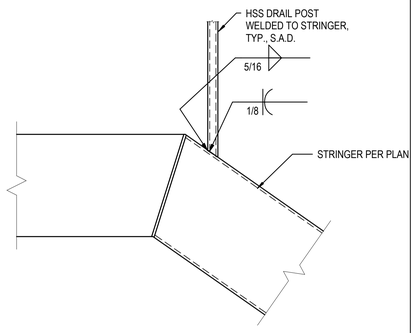
TYPICAL CHANNEL STRINGER MITER
1 1/2" = 1'-0" 4



TYPICAL S.O.G. - THICKENING @ BASE OF OF STAIRS
1" = 1'-0" 3

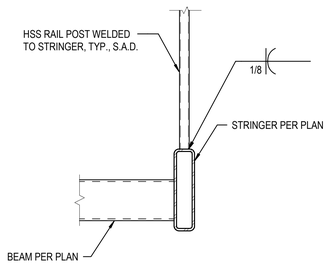


TYP. TREAD WELDS FOR CAST TREADS
1 1/2" = 1'-0" 2



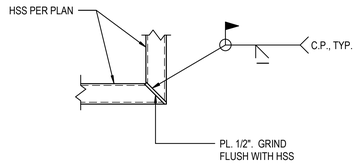
NOTE: SEE S7.02 & S7.22 FOR INFO. NOT NOTED.

TYP. POST RAIL TO INCLINED STRINGER
1" = 1'-0" 9

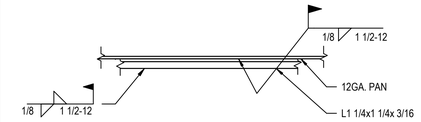


NOTE: SEE S7.02 & S7.22 FOR INFO. NOT NOTED

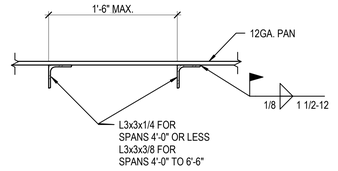
TYP. POST RAIL TO HORIZONTAL STRINGER
1" = 1'-0" 7



CORNER MITER CONN.
1" = 1'-0" 5



TYP. LANDING PAN EDGE SUPPORT



NOTE: WELD VERT. LEG OF L TO END STRINGER 2" MIN.

TYPICAL LANDING PAN STIFF.
1 1/2" = 1'-0" 1

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SEALS AND SIGNATURES

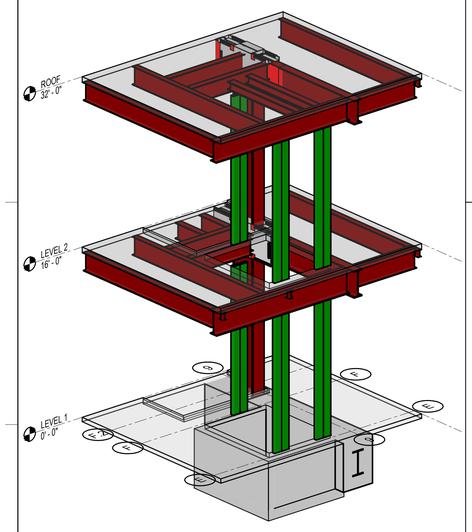
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL STAIR DETAILS

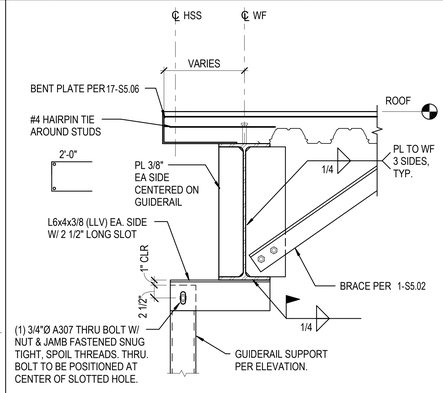
2023-045S
PROJECT NUMBER

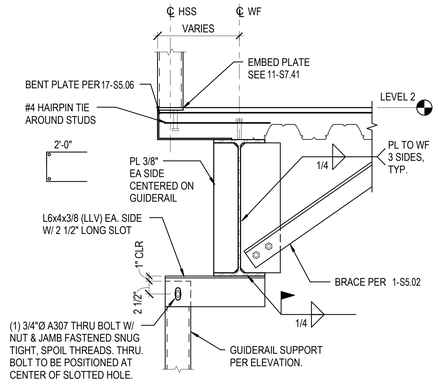
S7.31
SHEET NUMBER

Author
8/21/2025 5:12:55 PM
Plot Date:

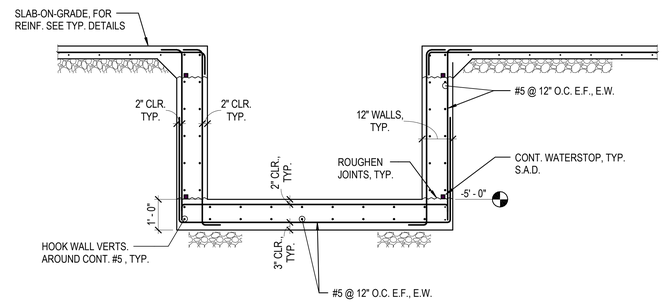


ELEVATOR 3D VIEW 19

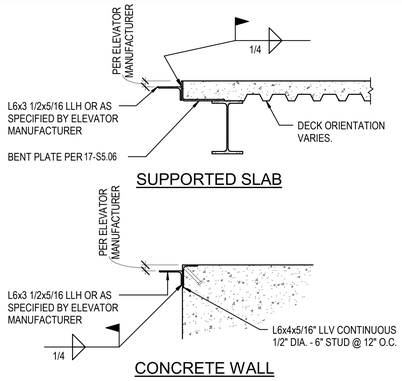




TYP GUIDERAIL SUPPORT POST CONN. AT FLOOR 1" = 1'-0" 12



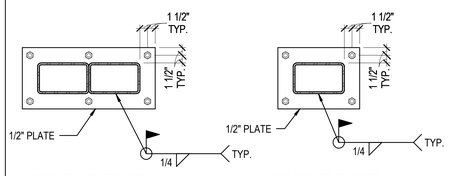
ELEVATOR PIT SECTION 1/2" = 1'-0" 4



SUPPORTED SLAB

CONCRETE WALL

TYPICAL ELEVATOR SILL 3/4" = 1'-0" 15

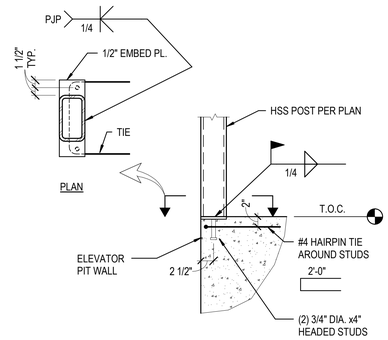


DOUBLE POST **SINGLE POST**

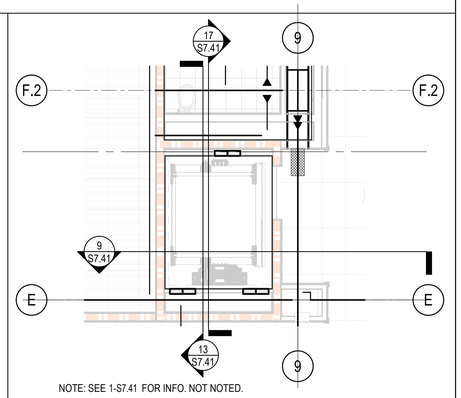
NOTE:
3/4"Ø EXPANSION ANCHORS W/ 4" MIN. EMBEDMENT AT CONTRACTOR'S OPTION WITH EMBEDS. 3/4"Øx5" STUDS MAY BE USED IN LIEU OF EXPANSION ANCHORS.

TYP. BASE PLATE

GUIDE RAIL SUPPORT POST CONN. AT ELEVATOR PIT SLAB 1" = 1'-0" 11

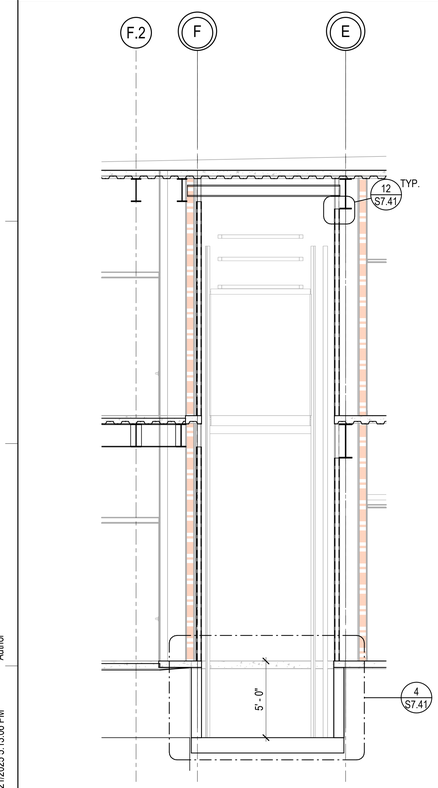


GUIDERAIL SUPPORT POST CONN. AT TOP OF PIT WALL 1" = 1'-0" 7



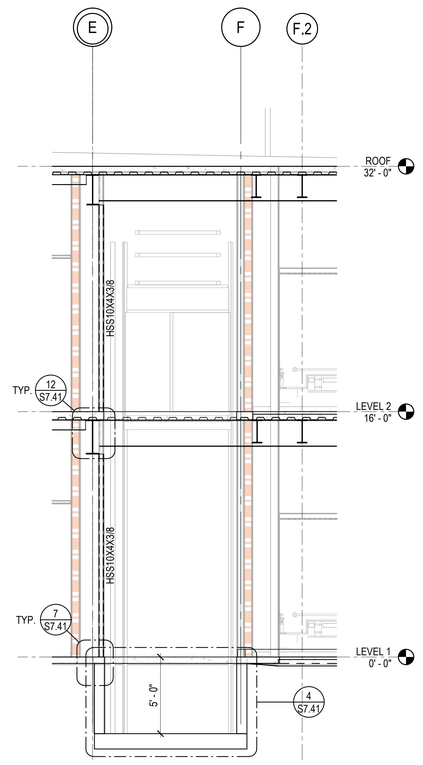
NOTE: SEE 1-S7.41 FOR INFO. NOT NOTED.

LEVEL 2 ELEVATOR PARTIAL PLAN 1/4" = 1'-0" 3



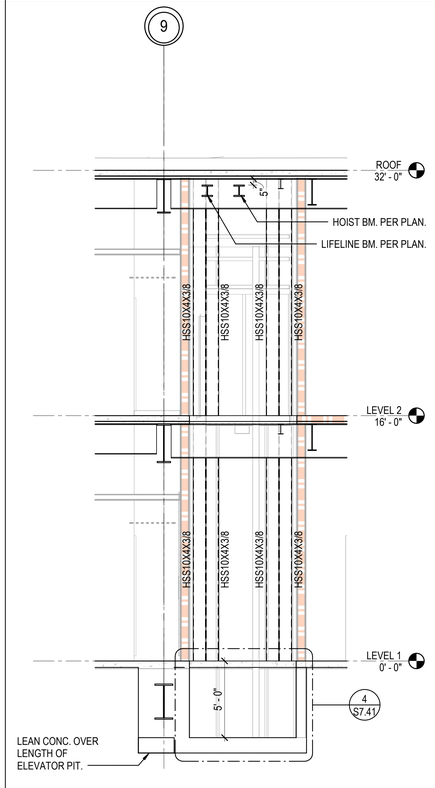
NOTE: SEE S7.42 & S7.43 FOR ADDITIONAL INFO.

SECTION AT ELEVATOR 1/4" = 1'-0" 17



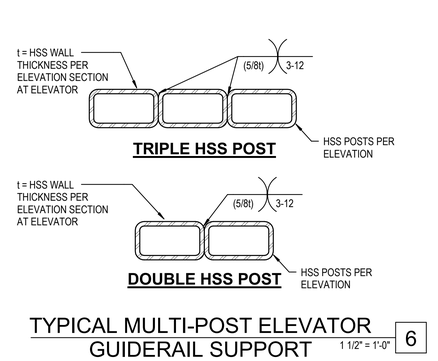
NOTE: SEE S7.42 & S7.43 FOR ADDITIONAL INFO.

SECTION AT ELEVATOR 1/4" = 1'-0" 13



NOTE: SEE S7.42 & S7.43 FOR ADDITIONAL INFO.

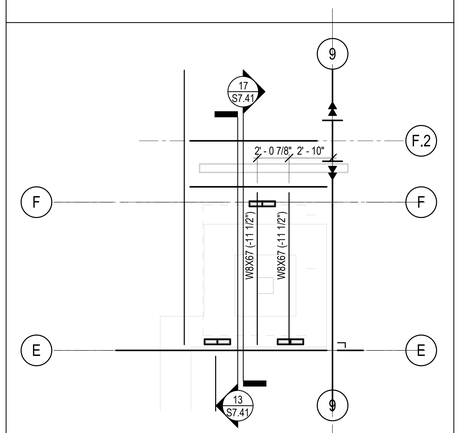
SECTION AT ELEVATOR 1/4" = 1'-0" 9



TRIPLE HSS POST

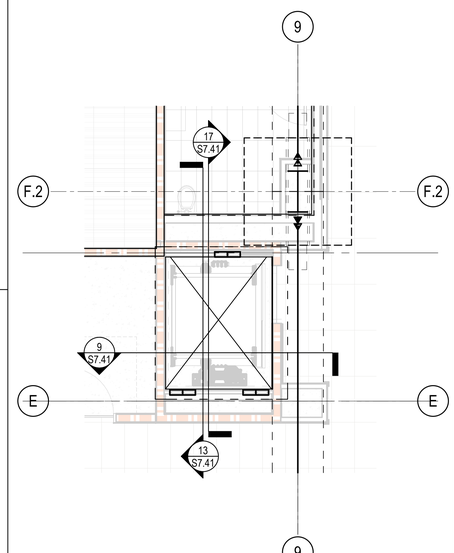
DOUBLE HSS POST

TYPICAL MULTI-POST ELEVATOR GUIDERAIL SUPPORT 1 1/2" = 1'-0" 6



NOTE: SEE 1-S7.41 FOR INFO. NOT NOTED.

ROOF LEVEL ELEVATOR PARTIAL PLAN 1/4" = 1'-0" 5



NOTES:
1. S.A.D. FOR ELEVATOR SHAFT EXTENT AND ELEVATOR LAYOUT.
2. CONTRACTOR TO COORDINATE GUIDE RAIL SUPPORT POSTS WITH ELEVATOR MANUFACTURER.
3. ASSUME (3) HSS10X4X1/2 GUIDE RAIL SUPPORT POSTS PER LEVEL FOR COST ALLOWANCE.
4. ASSUME ELEVATOR PIT SLAB IS 12" THICK S.O.G. REINFORCED W/ #5 @ 12" O.C. E.W. T&B. FOR COST ALLOWANCE.
5. ASSUME ELEVATOR PIT WALLS ARE 8" THICK WALLS REINFORCED W/ #5 @ 12" O.C. FOR COST ALLOWANCE.

LEVEL 1 ELEVATOR PARTIAL PLAN 1/4" = 1'-0" 1

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95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

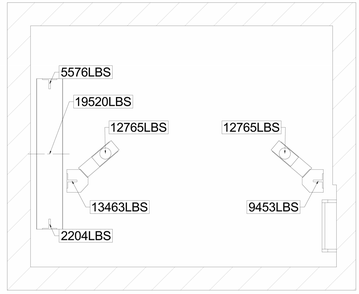
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
ELEVATOR PARTIAL PLANS AND SECTIONS

2023-045S
PROJECT NUMBER

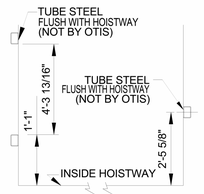
S7.41
SHEET NUMBER

Author
8/21/2025 5:13:06 PM
Plot Date:



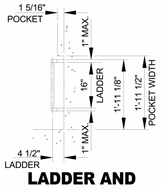
PIT PLAN VIEW

FORCE SHOWN INCLUDES DOUBLING FOR IMPACT



TUBE STEEL RAIL BRACKET SUPPORT

ELEV. No. 1



LADDER AND POCKET DETAIL

ELEV. No. 1

ELEV. No.	DUTY	SPEED	SERVICE TYPE
1	3500#	150 F.P.M.	PASSENGER

APPROVAL
THIS ARRANGEMENT AND
SUPPLEMENTARY NOTES APPROVED

SIGNED: _____ DATE: _____

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Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.:	PIT VIEW
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

DIRECTIONAL ARROW INDICATES NORTH

EXPRESS DRAW: WEB 20

NOTE - DO NOT SCALE THIS DRAWING

Fire Prevention Prep/Work

25. Provide hoistway walls designed and constructed in accordance with the required fire rating (including those places where elevator fixture boxes, rail bracket fastenings, and any other penetration into the hoistway walls).

26. In the United States provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s) designated by Otis.
A. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing.

B. For each group of elevators, provide a normally closed contact representing all smoke detectors located in lobbies, hoistways, or control rooms/spaces but not the smoke detector at the designated return landing (see above) or the smoke detectors as described below:
1) If a smoke detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to activate the same normally closed contact as the smoke detector located in the lobby at the lower of the two recall landings.

2) If the control room/space(s) are located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landing.

C. Requirements for intermittently illuminating the fire hat visual signal in the car operating panel, either 1) or 2) must be selected.
1) For a single unit, or group of elevators having control room/space(s) and one common hoistway, provide one additional normally closed contact representing the control room/space(s) and hoistway smoke detectors.

2) If the group contains more than one hoistway, and hoistway smoke detectors are installed, provide one normally closed contact for each elevator. The contact is to represent the smoke detectors in the control room/space(s) or hoistway containing that particular elevator.

D. In jurisdictions enforcing A17.1-2019/B44.19 or later editions of the Elevator & Escalator Safety Code, and where fire alarm initiating devices are located in the hoistway, access panels that are rated and listed for the application and comply to A17.1-2019/B44.19 requirement 2.8.2.4 shall be provided and located in areas not to interfere with elevator equipment. See Otis contract layout and coordinate with local Otis representative.

27. In Canada provide smoke detectors, located as required, with wiring from the sensing devices to the controller(s).
A. For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing and if provided, from the sensing device in the pit.

B. For each group of elevators, provide a normally closed contact representing all smoke detectors located in elevator lobbies, but not the smoke detector at the designated return landing (see above), and if provided, from the sensing device in the top of the hoistway.

C. For each group of elevators, provide a normally closed contact representing the smoke detector in the elevator machine space.

D. If the control space is located at the designated return landing, the smoke detectors located therein shall be wired to activate the same normally closed contact as the smoke detector at the designated landing. For each group of elevators, provide in addition to the above, a normally closed contact representing the sensing devices in the pit or at the top of the hoistway. (For the Fire Hat in the Elevator).

E. In jurisdictions enforcing A17.1-2019/B44.19 or later editions of the Elevator & Escalator Safety Code, and where fire alarm initiating devices are located in the hoistway, access panels that are rated and listed for the application and comply to A17.1-2019/B44.19 requirement 2.8.2.4 shall be provided and located in areas not to interfere with elevator equipment. See Otis contract layout and coordinate with local Otis representative.

28. In the United States, if sprinklers are installed in the hoistway(s), or machine space(s), a means to automatically disconnect the main line power supply of the affected elevator and any other power supply used to move the elevator upon or prior to the application of water is required (unless prohibited by local code). Smoke detectors shall not be used to activate sprinklers in hoistway(s), or machinery spaces or to disconnect the mainline power supply.

In addition, when the Automatic Recovery Operation (ARO) is specified, the means provided to automatically disconnect power to the elevator shall be equipped with an additional auxiliary contact that is positively opened when power is removed from the elevator system. This automatically controlled mainline disconnect must be provided with all associated wiring and conduit to the controller.

29. Provide an "ABC" fire extinguisher, minimum 10 lbs for machine space, and located convenient to the top landing elevator entrance.

30. Provide control room/space(s) and door to code compliant fire-resistive construction.

Electrical Requirements

31. 3 Phase Power MRL - Provide a permanent three (3) phase electrical-feeder system with a separate equipment-grounding conductor terminating in the elevator controller located at the top landing or transformer located at the top of the hoistway. Permanent three (3) phase electrical-feeder to be terminated at the elevator controller or transformer at the start of installation of the top landing elevator entrance and the timing of connection to Otis controller shall be coordinated with the elevator installer. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. Provide a fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to elevator controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013 (2) (a)] located at the point of power distribution in the building. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the elevator controller. Size of main contacts to suit elevator power characteristics. Fuses, if provided, are to be current limiting class J or equivalent. Circuit breakers, if provided, are to have current limiting characteristics equivalent to class J Fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

Electrical Requirements continued

Single Phase Power MRL - Provide a permanent single phase electrical-feeder system with a separate equipment-grounding conductor terminating to the transformer located at the top of the hoistway. Permanent single phase electrical-feeder to be terminated at the transformer at the start of installation of the top landing elevator entrance and the timing of connection to Otis controller shall be coordinated with the elevator installer. Feeder conductors and grounding conductor sized according to elevator current characteristics shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. Provide a fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to elevator controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013 (2) (a)] located at the point of power distribution in the building. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the elevator controller. Size of main contacts to suit elevator power characteristics. Fuses, if provided, are to be current limiting class J or equivalent. Circuit breakers, if provided, are to have current limiting characteristics equivalent to class J Fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

MRL Configuration (controller located in hoistway entrance) with Transformer - If a transformer is required and the controller is to be located in the hoistway entrance, the transformer must be located in an electrical room. The transformer must be mounted and wired as per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1). Provide conduit and wiring to the transformer as well as between the transformer and the controller located in the hoistway entrance in accordance with the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1). Contact your local Otis representative for details.

32. 3 Phase Power Control Room/Space - Provide a permanent three (3) phase electrical-feeder system with a separate equipment-grounding conductor terminating in the control room/space(s), located per Otis layout. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013(2)(a)]. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the controller. Size of main contacts to suit elevator power characteristics. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

Single Phase Power Control Room/Space - Provide a permanent single phase electrical-feeder system with a separate equipment-grounding conductor terminating in the control room/space(s), located per Otis layout. Feeder conductors and grounding conductor sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form. Feeder conductors and grounding conductor must be copper. A fused disconnect switch or circuit breaker capable of being locked in the open position, for each elevator per the National Electrical Code (ANSI/NFPA 70) or Canadian Electrical Code (C22.1) with feeder or branch wiring to controller [NEC 620-51, 620-61(D), and 620-62] or [CEC Rule 38-013(2)(a)]. The disconnecting means required by the National Electrical Code or Canadian Electrical Code CEC [Rule 38-051] shall be provided with all associated wiring and conduit to the controller. Size of main contacts to suit elevator power characteristics. Fuses are to be current limiting class RK1 or equivalent. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current. Accelerating current typically is the peak as indicated on the Otis Confirmation of Power Supply Form, and lasts for duration not to exceed 7 seconds. Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power listed on the Otis Confirmation of Power Supply form.

33. Provide a dedicated 125 volt, 15 ampere single-phase branch circuit with a fused disconnect switch or circuit breaker located at the point of power distribution in the building. The fused disconnect or circuit breaker shall be capable of being locked in the open position. This branch circuit supplies the car lights, car top receptacle, auxiliary lighting power source and ventilation on each car in compliance with the National Electrical Code [NEC620-53] or Canadian Electrical Code [CEC Rule 36-053]. Termination of this branch circuit shall be in the elevator controller located at the top landing and shall be connected at the same time as the permanent three (3) phase power referenced in the previous paragraph.

[Optional] Otis ONE TM Pro / Otis ONE TM Plus Gateway Disconnect
In jurisdictions enforcing ASME A17.1-2019 / CSA B44.19 or later editions or Otis ONE TM Pro / Otis ONE TM Plus has been selected, and when an elevator group has 4 cars and a rise of 18m (60 ft) or greater. Provide a dedicated 125 volt, 15 ampere, single-phase power supply with a fused SPST disconnect switch or circuit breaker and a separate equipment grounding conductor, per group of elevators in the same location as the main line elevator disconnect. This disconnect or breaker shall be capable of being locked in the open position per National Electrical Code or Canadian Electrical Code. If emergency (standby) power system is supplied, this disconnect must be arranged to be fed from the same emergency (standby) power transfer switch as the elevator group.

34. All 125 volt, 15 or 20 ampere single-phase receptacles installed in pits, machine spaces, control room/space(s) shall be of the ground-fault circuit-interrupter type (GFCI). A dedicated single-phase receptacle supplying a permanently installed pit sump pump shall not require GFCI protection.

35. Provide electric power for lights, tools, welding, hoisting, etc. during installation with sufficient power for starting, testing and adjusting the elevator. Provide a 220 volt, 30 ampere single-phase 4 wire electrical supply for platform operation during construction, available at the start of elevator installation.

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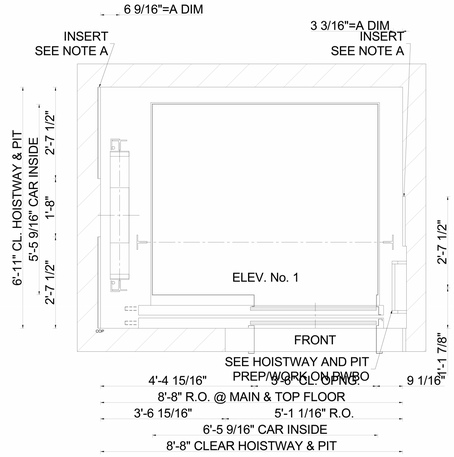

PLAN VIEW

SEE NOTE 5, PWBO SHEET

ELEV. No.	DUTY	SPEED	SERVICE TYPE
1	3500#	150 F.P.M.	PASSENGER

NOTE A
THESE DIMENSIONS ARE BASED ON HOISTWAY SIZES SHOWN & 31 1/2" INSERTS. IF EITHER OF THESE VARY, CONSULT THE SALES REPRESENTATIVE.

APPROVAL
THIS ARRANGEMENT AND
SUPPLEMENTARY NOTES APPROVED

SIGNED: _____ DATE: _____

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OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.:	PLAN VIEW
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

DIRECTIONAL ARROW INDICATES NORTH

EXPRESS DRAW: WEB 20

NOTE - DO NOT SCALE THIS DRAWING

The following items must be performed or provided at no cost to Otis Elevator Company ("OTIS") by the Owner or General Contractor or their agents in accordance with governing codes. The price and installation schedule of Otis is based on these job-site conditions existing at the beginning and during the installation of the elevator equipment. Failure to provide the items specified in this list will result in additional work performed by Otis Elevator beyond the scope of our contract causing installation delays. A change order will be submitted by Otis for materials and/or labor expended. All work must be performed per the applicable national and or local codes.

General Prep/Work

1. Provide on-site storage area for elevator equipment as follows: dry and enclosed, provides roll-able access to the elevator hoistway at the ground level, located within 100 feet (30480mm) of the hoistway and is larger than 25 x 20 feet (7620mm x 6096mm) per elevator. Any warranties provided by Otis for elevator equipment are null and void if equipment is stored in a manner other than a dry enclosed building structure.
2. Provide sufficient on-site refuse containers for the proper disposal of elevator packaging material. Should sufficient refuse containers not be provided, disposal of packaging material shall become the responsibility of the owner.
3. Provide any cutouts to accommodate elevator equipment (troughing, venting, and hall fixtures), along with the patching/painting of walls, floors, or partitions together with the painting of entrance doors and frames, if required.
Floor to floor heights are to be measured from finished floor to finished floor with the minimum distance between floors to be no less than entrance height plus 1ft.3in. For ft entrances this equates to a minimum distance of 8ft.3in. and for 8ft entrances a minimum of 9ft.3in.

Hoistway & Pit Prep/Work

4. Provide and install a steel, I-beam shaped hoist beam with a maximum flange width of 8 1/16" (220mm), from side wall to side wall at the top of the hoistway, capable of withstanding a minimum net live load of 5000 lb (2268 kg) per elevator for support of lifelines. Reference Otis Layout for location. A 4" minimum clearance is required from top of beam to top of hoistway.

Provide and install a second beam, shaped lifeline beam, from side wall to side wall at the top of the hoistway, capable of withstanding a minimum net live load of 5000 lb (2268 kg) per elevator for support of lifelines. Reference Otis Layout for location. A 4" minimum clearance is required from top of beam to top of hoistway.

5. Provide a clear plumb hoistway with variations from the size shown on the Otis layout not to exceed -0"/+1"(25mm) and not less than the clear dimensions shown on the Otis layout.

6. Provide adequate rail bracket supports, bracket spacing as required by governing code, from pit floor to top of hoistway to comply with the rail reaction forces detailed on the Otis Contract Layout. Provide adequate support for the top rail brackets at locations above the top landing as specified on the Otis Layout. Provide separator beams where required. Unless approved by Otis, rail-bracket attachment supports must be exposed and flush with the clear hoistway line.
If the floor-to-floor height exceeds the maximum bracket spacing allowed by the elevator code, Otis requires some form of steel support to properly attach our guide rail brackets. The maximum allowed bracket spacing is indicated in the rail force and bracket detail table on the Otis layout. Any rail bracket mounting surfaces that are not in line with the finished hoistway dimension (i.e. the clear hoistway line) may need to be extended to meet the required distance. Otis agrees to provide guidance on this matter at the appropriate time.
If rail bracket embedded plates or inserts are provided by Otis they shall be installed by others in accordance with Otis documentation and instructions.
If vertical tube steel is utilized as rail support, see the Otis layout for any specific requirements.
No utilities are to be installed within the hoistway exclusion zones identified on the Otis Layout. These zones are reserved for the installation and anchoring of rail brackets and elevator equipment.

7. Provide adequate support at all fastening points of each entrance. Provide plumb vertical surfaces for entrances and entrances and building sill line. For MRL installations, a horizontal support member is to be provided 20" (508mm) above the clear opening at the controller landing to support the entrance and controller components. If any other floor height exceeds 12'-0" (3657mm), a horizontal support member is to be provided 12" (305mm) above the clear opening. For MRL installations, if entrance finish protection is installed, a section of such protection must be removable to allow safe and convenient access to the Inspection & Test panel of the elevator.

8. Prior to the start of installation, provide a dry, properly framed, enclosed and vented hoistway in accordance with all applicable codes.

9. A.) Protection from Falls:
As required by the Occupational Safety and Health Administration (OSHA) 1926.502 B) (1-3) a freestanding removable barricade at each hoistway opening at each floor. Barricades shall be 42" (1067mm) high, with mid-rail and kick board, and withstand 200 lbs. (90.7kg) of vertical and horizontal pressure.
B.) Protection from Falling Objects:
As required by the Occupational Safety and Health Administration (OSHA) 1926.502(j) hoistway protection from falling debris and other trades materials by either:
1.)Full extension screening/mesh in front of all elevator entrances
2.)Secured/controlled access to all elevator lobbies (lock and key) with posted Notice "only elevator personnel beyond this protection."
Notes:
Items A.) and B.) can be integrated systems.
Hoistway barricades and screening shall be constructed, maintained and removed by others.

10. Provide a pit floor designed to sustain vertical forces (based on safety impact) on car and counterweight rails and impact loads on car and counterweight buffers as shown on the Otis layout. The pit must be dry and clean. The elevator pit must have a floor drain or sump pump to prevent the accumulation of water. Location to be coordinated with Otis to avoid all elevator components and access areas. In areas requiring fire fighters emergency operation (FEO) a sump pump/drain shall be provided that shall have the capacity to remove a minimum of 11.4m3/h (3,000 gal/h) per elevator (ASME A17.1/CSA B44 latest applicable code year section 2.2.2.5). Otis recommends that the owner verify the drain or sump pump system is in compliance with all applicable codes and laws.

11. TOP and BOTTOM landings (and the MAIN landing where applicable), are not to be constructed until after all elevator equipment is installed in the hoistway.
The entire front wall must be open for installation with the following rough opening dimensions (to be shown on layouts):
-Rough Opening Width = CLEAR HOISTWAY WIDTH
-Rough Opening Height = 2942mm (9'-8") for a 2134mm (7') entrance height
2947mm (9'-8") for a 2438mm (8') entrance height
If the controller is located on the REAR entrance, the wall at this rear entrance should also have these rough opening dimensions. Remaining front entrance walls are not to be constructed until after door frames and sills are in place.
The rough openings, per sizes shown on the Otis layout, are required. Prior to the completion and turnover of the elevator(s), all entrance walls must be installed and rough openings filled in complete to maintain fire rated hoistway requirements.

Hoistway & Pit Prep/Work continued

12. In jurisdictions enforcing A17.1-2019/B44.19 and earlier editions of the Elevator & Escalator Safety Code, provide and install a fixed vertical iron ladder in each pit as required by governing code and located per Otis layout or as coordinated with your local Otis representative. Ladder width and pit wall pocket requirements are shown in the pit plan view on the Otis layout. For entrance heights of up to 7' (2134mm) the top rung of the ladder must be even with the bottom landing. For entrance heights greater than 7' (2134mm) the top rung must be 12" (305mm) above the bottom landing. Hand grips must be provided to a height of 4' (1219mm) above the bottom landing. Hand grips must have 4-1/2" (114mm) radial clearance, from their centerline, to any obstruction in the hoistway. (Refer to the detail views for typical ladder arrangement) If pit depth is greater than 9'-10" (3000mm) [13'-9" (4191mm) with no floor below bottom landing], a pit access door is required.

In jurisdictions enforcing A17.1-2022/B44.22 or later editions of the Elevator & Escalator Safety Code, provide and install a vertical iron ladder that includes a switch for pit ladder detection that has a positively open contact that complies to UL/CSA 60947 as per A17.1/B44.22 or later edition, section 2.2.4.2.7 when a person is detected on the ladder in each pit as required by governing code. Ladder shall be located per Otis layout or as coordinated with your local Otis representative. Ladder width and pit wall pocket requirements are shown in the pit plan view on the Otis layout. For entrance heights of up to 7' (2134mm) the top rung of the ladder must be even with the bottom landing. For entrance heights greater than 7' (2134mm) the top rung must be 12" (305mm) above the bottom landing. Hand grips must be provided to a height of 4' (1219mm) above the bottom landing. Hand grips must have 4-1/2" (114mm) radial clearance, from their centerline, to any obstruction in the hoistway unless rungs, cleats, or steps are provided above the access door sill to the top of the ladder. (Refer to the detail views for typical ladder arrangement). If pit depth is greater than 9'-10" (3000mm) [13'-9" (4191mm) with no floor below bottom landing], a pit access door is required.
Please contact your local Otis representative to coordinate selection of this equipment.

13. Install permanent light fixture in each elevator pit with illumination of not less than 100 lx (10 fc) as measured at the pit floor. The light bulb(s) shall be externally guarded to prevent contact and accidental breakage. The light switch shall be so located as to be accessible from the pit ladder.

In jurisdictions enforcing ASME A17.1-2022 / CSA B44.22 and later editions: provide hoistway lighting (5 foot-candles/50 lux light intensity measured on top of car) for the entire length of the hoistway. Circuits that power the lighting means are to be arranged to accommodate feeds from the building emergency, standby, or emergency lighting power supply if provided. The means to turn on hoistway lighting shall be switched automatically by turning on a contactor or alternate switching means provided by the building, the turn on circuit of which shall be connected to a relay contact in the controller (capable of switching 120/240VAC/3A) provided by Otis. See note in the layout documents, refer to the wiring diagrams and contact your local Otis representative if needed.

14. Glass used in hoistway construction must block 98% or more of incident full-spectrum ultraviolet radiation for the full height of the hoistway.

15. Provide and install guarding of counterweight in a multiple-elevator hoistway as required, when a counterweight is located between elevators, the counterweight runway shall be guarded on the side next to the adjacent elevator. The guarding must meet or exceed the requirements of ASME A17.1/CSA B44 latest applicable code year, section 2.3.2.3.
If an emergency door in a blind hoistway is required, provide an outward swinging single section type door with door closer and a self closing barrier per ASME A17.1/CSA B44 latest applicable code year, section 2.11.1.2. Contact your local Otis personnel for a detailed drawing (AAA269002_FM) showing Otis specific requirements.

16. In jurisdictions enforcing A17.1-2022/B44.22 or later editions of the Elevator & Escalator Safety Code, and where Emergency Responder Radio Communication Devices (Coax cable and Access panels) are located in the hoistway, these devices shall be installed in a location that does not interfere with elevator equipment.

MRL Machine Space Prep/Work

17. Maintain the temperature at the top of the hoistway (machine space) between 32° F (0° C) and 104° F (40° C). This space also includes the the car controller which is mounted at the top landing. Relative humidity shall not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown in Otis Confirmation of Power Supply form. Local codes may require tighter temperature ranges and higher ventilation levels. Please check with your local code authority for the exact requirements in your area. If your machinery space temperature exceeds this requirement, contact your local Otis sales representative for assistance.

18. Install a permanent light fixture at the top of the hoistway (machine space) of not less than 200-lux (19 fc) as measured at the level of the standing surface on the car when the elevator is at the top landing. Light switch is to be located in the hoistway per the Otis layout.

19. Install a permanent light fixture at the top landing entrance (control space), in the hall, of not less than 200-lux (19 fc) as measured at the floor level. Light switch is to be located close to the elevator entrance.

Control Room/Space and Machine Space Prep/Work

20. Provide a suitable control room/space(s) with access and ventilation in accordance with all applicable codes and regulations. The control room/space(s) shall be maintained at a temperature between 32F (0C) and 104F (40C) to be measured 1500 mm (1830 mm) above the floor and 1 foot (305 mm) out from the front center of the car controller(s). Relative humidity is not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown on the Otis Confirmation of Power Supply form. Local codes may require tighter temperature ranges and higher ventilation levels, please check with your local code authority for the exact requirements in your area. If your control room/space(s) temperatures exceed these requirements, contact your local Otis sales area. If your control room/space(s) temperatures exceed these requirements, contact your local Otis sales representative for assistance.

21. Provide illumination of control room/space(s) of not less than 200 LUX (19 FC) as measured at floor level. Light switch is to be located within 18" (157 mm) to the lock-jamb side of the access door to the control room/space(s).

22. Provide control room/space(s) with self-closing and self-locking doors with a group 2 locking device. In addition, ensure that all air gaps around the doors are sealed (i.e. threshold, weather stripping, etc.).

23. Maintain the temperature at the top of the hoistway (machine space) between 32° F (0° C) and 104° F (40° C). Relative humidity shall not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown in Otis Confirmation of Power Supply form. If your machinery space temperature exceeds this requirement, contact your local Otis sales representative for assistance.

24. Install a permanent light fixture at the top of the hoistway (machine space) of not less than 200-lux (19 fc) as measured at the level of the standing surface on the car when the elevator is at the top landing. Light switch is to be located in the hoistway per the Otis layout.

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NOTE - DO NOT SCALE THIS DRAWING

OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.:	PWBO 1 OF 2
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

EXPRESS DRAW: WEB 20

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

RUTHERFORD + CHEKENE

Structural | Geotechnical

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San Francisco CA 94105
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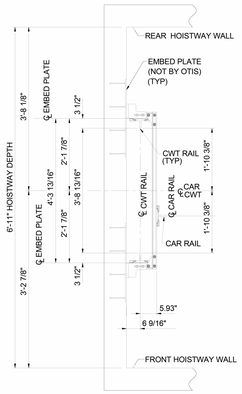

EMBED LOCATION DETAIL
COUNTERWEIGHT BRACKET SUPPORTS
(NOT TO SCALE)
ELEV. No. 1

NOTE A
THESE DIMENSIONS ARE BASED ON HOISTWAY SIZES SHOWN & 30" INSERTS. IF EITHER OF THESE VARY, CONSULT THE SALES REPRESENTATIVE.

APPROVAL
THIS ARRANGEMENT AND SUPPLEMENTARY NOTES APPROVED
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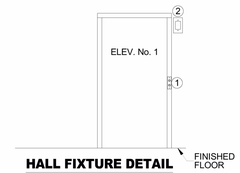
OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.: EMBED DETAIL	
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

NOTE - DO NOT SCALE THIS DRAWING
EXPRESS DRAW: WEB 20



HALL FIXTURE DETAIL
1 HALL BUTTONS @ ALL FLOORS
2 HALL LANTERNS @ FLOOR(S) 1, 2

NOTE - DO NOT SCALE THIS DRAWING

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OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.: HALL FIXTURES	
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

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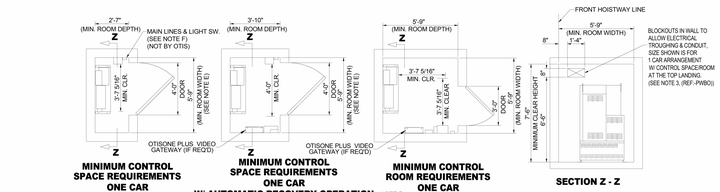

MINIMUM CONTROL SPACE REQUIREMENTS ONE CAR WITHOUT AUTOMATIC RECOVERY OPERATION

MINIMUM CONTROL SPACE REQUIREMENTS ONE CAR W/ AUTOMATIC RECOVERY OPERATION W/ OTISONE PLUS VIDEO

NOTE E
CHECK LOCAL BUILDING CODES FOR HALLWAY CLEARANCES WHEN CONTROL DOORS ARE OPENED FOR SERVICE OF THE ELEVATOR.

MINIMUM CONTROL ROOM REQUIREMENTS ONE CAR

NOTE F
THE FRONT SURFACE OF THE MAINLINE DISCONNECT MUST PROJECT INTO CLEAR OPENING OF CONTROL SPACE. IF THE SIZE OF THE CONTROL SPACE IS INCREASED, A MEANS OF LOCATING THE MAINLINE DISCONNECT INTO THE CLEAR OPENING MUST BE PROVIDED.

SECTION Z - Z

NOTES:
WEIGHT OF CONTROLLER = 350 lbs.

NOTE 23A
TWO (2) 6"X6" (152mmX152mm) CUTOUTS ARE REQUIRED (NOT BY OTIS). THE ACTUAL LOCATION OF THE CUTOUTS FOR THE TO AND FROM OIL PIPE AND ELECTRICAL TROUGH WILL VARY DEPENDENT UPON MACHINE ROOM LOCATION AND CONFIGURATION.

NOTE - DO NOT SCALE THIS DRAWING

APPROVAL
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OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.: CONTROL ROOM	
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
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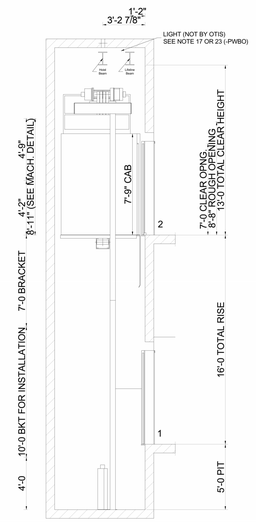
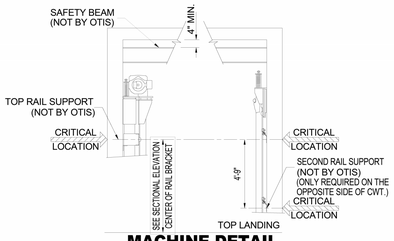


HOISTWAY SECTION
FOR MAX. SPACING BETWEEN INSERTS SEE RAIL FORCE DETAIL
ELEV. No. 1



MACHINE DETAIL
**ALL LOCATION DIMENSIONS TO FOLLOW A TOLERANCE OF +/- 1"

RAIL FORCE & BRACKET SPACING DETAIL



SEE NOTES 6 & 7

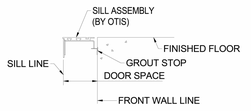
CAR	R1	518 lbs
	R2	90 lbs
	VX	2035 lbs
	VY	1018 lbs
	MAXIMUM BRACKET SPACING	12'-0"
	RAIL SIZE	1-1/2
CWT	R1	252 lbs
	R2	18 lbs
	VX	2132 lbs
	VY	1066 lbs
	MAXIMUM BRACKET SPACING	12'-0"
	RAIL SIZE	1-1/2
DEH (DEAD END HITCH)	R1	660 lbs
	R2	1590 lbs

IN MULTICAR GROUPS THE VALUES ABOVE ARE THE LARGEST VALUES FOR THE ENTIRE GROUP

FIRST INTERMEDIATE RAIL SUPPORT LOCATION TO BE LOCATED 14' 0" FROM PIT FLOOR. ALL OTHER INTERMEDIATE SUPPORTS CANNOT EXCEED THE MAXIMUM BRACKET SPACING IN THE RAIL FORCE & BRACKET SPACING DETAIL

CAR R1 = SAFETY APPLICATION
CWT R1 = LOADING OR RUNNING
R2 = LOADING OR RUNNING
BUILDING RAIL SUPPORTS (NOT BY OTIS) SHALL BE DESIGNED TO SUSTAIN THE HORIZONTAL RAIL FORCES WITH A MAXIMUM ALLOWABLE DEFLECTION OF 1/16" (1.5mm) FOR NON-SEISMIC CONDITION OR 1/8" (3mm) FOR SEISMIC APPLICATIONS

ELEV. No.	DUTY	SPEED	SERVICE TYPE
1	3500#	150 F.P.M.	PASSENGER



DETAIL "A"
SILL SUPPORT
ADEQUATE SUPPORT AT ALL FASTENING POINTS OF ENTRANCE ASSEMBLY REQUIRED. MUST WITHSTAND A HORIZONTAL PULL-OUT FORCE OF 140 LBS. @ EA. FASTENING POINT (8 @ EA. ENTRANCE) INCLUDING SUPPORT FOR CENTER SILL SUPPORT BRACKET (NOT BY OTIS).

NOTE - DO NOT SCALE THIS DRAWING

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OTIS

Gen3 Edge

CAB TYPE = VENERCB	COUNTER WEIGHT SAFTEY = N
SEISMIC = ZONE3	GLASS BACK CAR = N
REVISION DATE: 1/16/2025	
DWG. NO.: ELEVATION 1	
BUILDING Las Positas College - Steam Bldg Project	
LOCATION Livermore CA	
CONT. WITH	
OWNER	
ARCHT. Ipek Tezcan - SmithGroup	
CONTRACT NO.	

NOTE - DO NOT SCALE THIS DRAWING
EXPRESS DRAW: WEB 20

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

RUTHERFORD + CHEKENE
Structural | Geotechnical
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San Francisco CA 94105
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PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025

SEALS AND SIGNATURES



SHEET TITLE
ELEVATOR BASIS OF DESIGN

2023-045S

PROJECT NUMBER
S7.43

SHEET NUMBER

Author
Plot Date: 8/21/2025 5:13:56 PM

CONDITION	REQUIREMENTS	NOTES	STUD DETAIL	BACKING PLATE DETAIL	MIN. ROWS OF BACKING	BACKING PLATE TYPE	FASTENER "A" TO STUD
"A"	PARTITION WALL WITHOUT ATTACHMENTS.		1-S9.02	NONE	NONE	NONE	NONE
"B"	PARTITION WALL SUPPORTING COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: - DISTRIBUTING UP TO 20 LB VERTICAL LOAD PER STUD (15 PLF FOR STUDS AT 16" O.C.). - CENTER OF GRAVITY 6" MAX FROM THE FACE OF THE STUD.	USE FOR SMALL ITEMS SUCH AS URINAL SCREEN, AV RACKS.	2-S9.02	2-S9.05	1	A	3 #10 S.M.S.
"C"	PARTITION WALL SUPPORTING COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: - DISTRIBUTING UP TO 50 LB VERTICAL LOAD PER STUD (37 PLF FOR STUDS AT 16" O.C.). - CENTER OF GRAVITY 6" MAX FROM THE FACE OF THE STUD.	USE FOR SMALL ITEMS SUCH AS DOOR STOPS, MIRROR, TOILET ACCESSORIES, ACOUSTIC PANELS, DISPALYS, SINKS.	2-S9.02	3-S9.05	1	B	3 #10 S.M.S.
"D"	PARTITION WALL SUPPORTING COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: - DISTRIBUTING UP TO 250 LB LATERAL LOAD PER STUD (188 PLF FOR STUDS AT 16" O.C.). - CENTER OF GRAVITY 6" MAX FROM THE FACE OF THE STUD.	USE FOR WALL MOUNTED HAND RAILS AND GRAB BARS.	2-S9.02	3-S9.05	1	B	3 #10 S.M.S.
"E"	PARTITION WALL SUPPORTING OVERHEAD COMPONENTS OR EQUIPMENT AND FLOOR SUPPORTED BASE COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: - DISTRIBUTING UP TO 200 LB VERTICAL LOAD PER STUD (150 PLF FOR STUDS AT 16" O.C.) AT THE OVERHEAD CONDITION AND -DISTRIBUTING UP TO 500 LB FLOOR SUPPORTED, VERTICAL LOAD TO BE SUPPORTED LATERALLY PER STUD (414 PLF FOR STUDS AT 16" O.C.) AT THE BASE CONDITION.	USE FOR UPPER WALL HUNG 2'-6" TALL CABINETS, 2'-6" TALL X 1'-6" DEEP SHELVING, DISPLAY CASES, AND UPTO 3'-0" TALL X 2' -6" DEEP BASE CABINETS PER SHEET Q0.1.1, STORAGE CABINETS OR COMPONENTS UPTO 550LBS	5-S9.02	3-S9.05	2 @ UPPER CONDITION, 1 @ BASE CONDITION.	B	3 #10 S.M.S.
"F"	PARTITION WALL AT FLOOR SUPPORTED COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: -DISTRIBUTING UP TO 1,000 LB FLOOR SUPPORTED, VERTICAL LOAD TO BE SUPPORTED LATERALLY PER STUD (752 PLF FOR STUDS AT 16" O.C.).	USE FOR FULL HEIGHT CABINETS AND SHELVING UP TO 3'-0" DEEP AND 7'-0" TALL, FULL HEIGHT CANVAS STORAGE, DISPALY CASES, 6' BIOSFETY CABINET.	7-S9.02	6-S9.05	2	C	5 #10 S.M.S.
"G"	PARTITION WALL SUPPORTING COMPONENTS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL: -DISTRIBUTING UP TO 300 LB VERTICAL LOAD PER STUD (226 PLF FOR STUDS AT 16" O.C.). -CENTER OF GRAVITY 6" MAX FROM THE FACE OF THE STUD.	USE FOR WALL MOUNTED BABY CHANGING STATIONS, WOOD BENCH, WOOD TABLES.	2-S9.02	3-S9.05	2	B	3 #10 S.M.S.

SCHEDULE: PARTITION STUD LOAD CONDITIONS 3

LOCATION	MAX. HT.	MIN. STUD SIZE	MAX. SPACING	LOAD CONDITION (NOTE 2)	NOTES
ALL LEVELS	15.58'	600S137-43	16" O.C.	"A", "B", "C"	-
ALL LEVELS	15.58'	600S137-54	16" O.C.	"D", "G"	2 PAF TOP AND 1 SCREW ANCHOR BOT PER STUD
ALL LEVELS	15.58'	600S137-43	16" O.C.	"E"	2 PAF TOP AND 2 PAF BOT PER STUD
ALL LEVELS	15.58'	600S137-68	16" O.C.	"F"	2 PAF TOP AND 1 SCREW ANCHOR BOT PER STUD
LEVEL 1 TO 2	15.58'	800S137-43	16" O.C.	"C"	8" STUD WALL AT CADEVER STATION. S.A.D FOR LOCATION.
ALL LEVELS	15.58'	362S137-54	16" O.C.	"A", "B", "D"	3 5/8" STUDS FULL HEIGHT FURRING WALL AT CORRIDOR 1 SCREW ANCHOR TOP AND 2 PAF'S BOT PER STUD
LEVEL 2 TO ROOF	15.58'	(2) 400S137-54	16" O.C.	"E", "F"	TYPICAL STUDS AT 4 " STUD WALL IN LEVEL 2 NORTH CORRIDOR. 2 PAF TOP AND 1 SCREW ANCHOR BOT PER STUD

NOTES:
1. PARTITION WALL DESIGN ASSUMES TWO LAYERS OF 5/8" GYPSUM WALL BOARD IS INSTALLED ON BOTH SIDES OF THE STUD STUD IN ADDITION TO LOAD CONDITION NOTED.
2. REFER TO DETAIL 3-S9.01 FOR LOAD CONDITION DEFINITIONS.
3. P.A.F. SHALL BE 0.157 DIA. x 1" EMBED PER GENERAL NOTES SHEET S0.04.
4. SCREW ANCHORS PER S0.03.
5. S.A.D. FOR STUD SIZES NOT NOTED HERE.

SCHEDULE TYPICAL PARTITION STUD 2

3 5/8" STUD WALL OPENING SCHEDULE

OPNG. WIDTH	MAX. PARTITION HT.	MAX. DOOR HT.	MAX. OPNG. HT.	LOAD[2] COND.	JAMB				HEADER	SILL
					NO. AND SIZE OF STUDS	STUDS/ DTL	TOP TRACK CONN.	BOT. TRACK CONN.	DETAIL	DETAIL
≤ 4'-0"	15.58'	9'-0"	5'-0"	"D"	(3) 362S137-54	3-S9.04	9-S9.03 (4) PAF'S	3-S9.03 ADD (1) BENT PL CONNECTION	6-S9.04	5-S9.04
≤ 10'-0"							9-S9.03 (2) SCREW ANCHORS		10-S9.04	9-S9.04

4" STUD WALL OPENING SCHEDULE

OPNG. WIDTH	MAX. PARTITION HT.	MAX. DOOR HT.	MAX. OPNG. HT.	LOAD[2] COND.	JAMB				HEADER	SILL
					NO. AND SIZE OF STUDS	STUDS/ DTL	TOP TRACK CONN.	BOT. TRACK CONN.	DETAIL	DETAIL
≤ 4'-0"	15.58'	9'-0"	5'-0"	"D"	(3) 400S137-54	3-S9.04	9-S9.03 (4) PAF'S	3-S9.03 ADD (1) BENT PL CONNECTION	6-S9.04	5-S9.04

6" STUD WALL OPENING SCHEDULE

OPNG. WIDTH	MAX. PARTITION HT.	MAX. DOOR HT.	MAX. OPNG. HT.	LOAD[2] COND.	JAMB				HEADER	SILL
					NO. AND SIZE OF STUDS	STUDS/ DTL	TOP TRACK CONN.	BOT. TRACK CONN.	DETAIL	DETAIL
≤ 4'-0"	15.58'	9'-0"	5'-0"	"E" TO "G"	(2) 600S137-43	3-S9.04	(4) PAF'S 9-S9.03	3-S9.03 ADD (1) BENT PL CONNECTION	6-S9.04	5-S9.04
				"A" TO "D"			(2) PAF'S 9-S9.03			
≤ 10'-0"				"A" TO "G"	(2) 600S137-54	3-S9.04	9-S9.03 (4) PAF'S	3-S9.03 ADD (2) BENT PL CONNECTION	10-S9.04	9-S9.04
≤ 14'-0"					(3) 600S137-54	3-S9.04	9-S9.03 (2) SCREW ANCHORS	3-S9.03 ADD (2) BENT PL CONNECTION	10-S9.04	9-S9.04
ELEVATOR DOOR OPNG. IN SHAFT WALL		8'-0"	-	"A"	SEE DETAIL 17-S9.06	17-S9.06	9-S9.03 (2) PAF'S	3-S9.03 ADD (1) BENT PL CONNECTION	10-S9.04	-

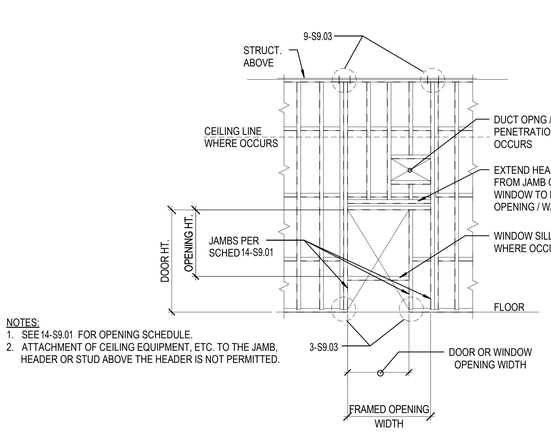
NOTES:
1. PARTITION WALL OPNG DESIGN ASSUMES TWO LAYERS OF 5/8" GYPSUM WALL BOARD IS INSTALLED ON BOTH SIDES OF STUD IN ADDITION TO LOAD CONDITION NOTED.
2. REFER TO DETAIL 4-S9.01 FOR LOAD CONDITION.
3. P.A.F's SHALL BE 0.157"⌀ x 1" EMBED PER GENERAL NOTES SHEET S0.04.

SCHEDULE: TYPICAL PARTITION OPENING 14

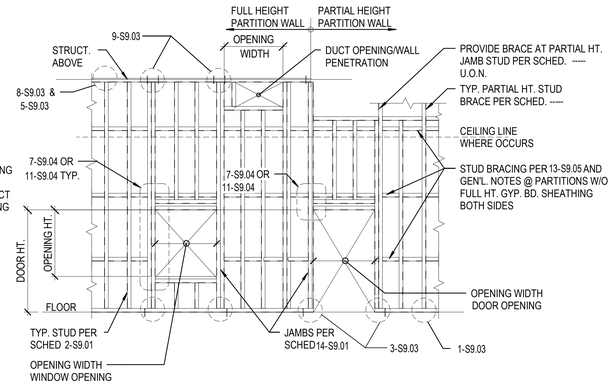
GENERAL

1. SEE SHEET S0.04 FOR COLD-FORMED STEEL FRAMING GENERAL NOTES.
2. FIELD SUBSTITUTION OF STEEL MATERIAL AND FASTENERS ARE NOT ALLOWED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER AND DSA.
3. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR ON AN ANGLE SUCH AS BRACING TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN IN POSITION UNTIL PROPERLY FASTENED.
4. SPLICES IN TOP TRACK ARE REQUIRED WHERE TOP TRACK IS NOT ATTACHED TO A COMMON CONTINUOUS STRUCTURAL MEMBER AND SHALL BE ACCOMPLISHED WITH A NESTED STUD OF THE SAME GAGE AS TRACK WITH A 10" LENGTH AND (4) #10 S.M.S. EACH SIDE, EACH TRACK U.N.O. ON PLANS.
5. LATERAL BRIDGING FOR STEEL STUDS IS REQUIRED WHEN WALL BOARD, INSTALLED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE REQUIREMENTS, DOES NOT CONTINUE FULL HEIGHT ON BOTH SIDES.
6. TRACKS SHALL BE UNPUNCHED WITH GAUGE TO MATCH STUD FRAMING UNLESS NOTED OTHERWISE.
7. STUDS MUST BE FULLY SEATED INTO THE WALL BOTTOM TRACKS. (1/16" MAXIMUM GAP BETWEEN THE STUDS AND THE TRACK WEBS).

INTERIOR LIGHT GAUGE FRAMING NOTES 13



NOTES:
1. SEE14-S9.01 FOR OPENING SCHEDULE.
2. ATTACHMENT OF CEILING EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED.



TYPICAL PARTITION WALL ELEVATION 1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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SAN FRANCISCO, CA 94111
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RUTHERFORD + CHEKENE
Structural | Geotechnical
101 Mission Street, Suite 300
San Francisco CA 94105
T 415 568 4400
F 415 618 0684
www.ruthchek.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025

SEALS AND SIGNATURES

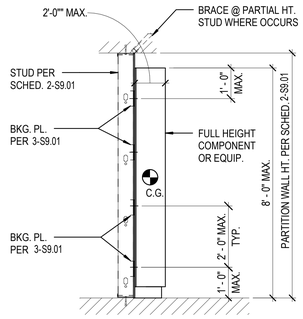
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEAM
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL INTERIOR PARTITION WALL ELEVATION AND SCHEDULES

2023-045S
PROJECT NUMBER

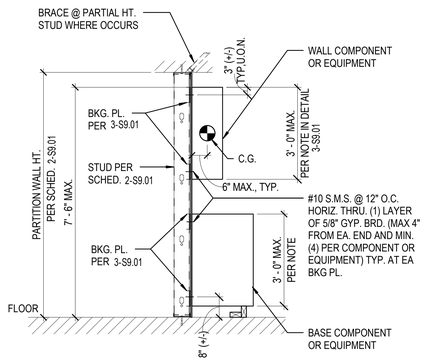
S9.01
SHEET NUMBER

Author
8/21/2025 5:13:59 PM
Plot Date:



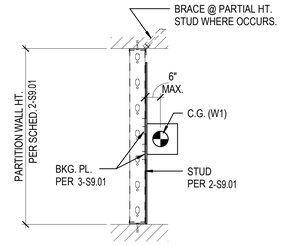
NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING COMPONENTS OR EQUIP. THAT CONFORM TO THE REQ'MTS OF CONDITION "F" PER SCHED. 2-S9.01 & 3-S9.01 .
2. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING FULL HT COMPONENT OR EQUIP ON ONE SIDE OF THE WALL . WHERE COMPONENTS OR EQUIP OCCUR ON BOTH SIDES OF WALL, THE FOLLOWING OPTION MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE, AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON SCHED AND DTL'S. (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
3. SEE TYP. PARTITION DTL. 1-S9.02 FOR INFO. NOT NOTED.
4. SEE 5-S9.02 FOR INFO. NOT NOTED.

STUD CONDITION F — 7



OPTION 2

COMPONENT/EQUIP. MOUNTED TO BOTH SIDES OF WALL



OPTION 1

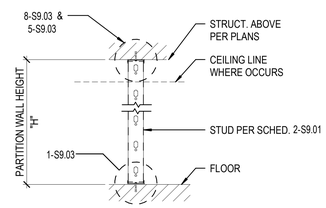
COMPONENT/EQUIP. MOUNTED TO ONE SIDE OF WALL

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING COMPONENTS OR EQUIP THAT CONFORM TO THE REQUIREMENTS OF CONDITION "B", "C" "D" & "G" PER SCHED. 2-S9.01 & 3-S9.01
2. WHERE COMPONENTS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE PARTITION WALL, EITHER OF THE FOLLOWING OPTIONS MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON SCHED AND DTL'S. (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
   B. LIMIT THE COMBINED WEIGHT OF COMPONENTS OR EQUIPMENT ON OPPOSITE SIDES OF WALL AS SHOWN IN OPTION 2. FOR EXAMPLE: W1 = 50 LB/STUD MAX
      W2 + W3 = 50 LB/ STUD MAX
3. SEE TYP. PARTITION DTL. 1-S9.02 FOR INFO. NOT NOTED.

STUD CONDITION B, C, D & G — 2

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING COMPONENTS OR EQUIP THAT CONFORM TO THE REQ'MTS OF CONDITION "E" PER SCHED. 2-S9.01 & 3-S9.01.
2. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING OVERHEAD AND/OR BASE CABINET OR EQUIP ON ONE SIDE OF THE WALL. WHERE COMPONENTS OR EQUIP OCCUR ON BOTH SIDES OF WALL, THE FOLLOWING OPTION MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE, AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON SCHED AND DTL'S. (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
3. SEE TYP. PARTITION DTL. 1-S9.02 FOR INFO. NOT NOTED.

STUD CONDITION E — 5



FULL HEIGHT PARTITION WALL

NOTES:
1. SEE 3-S9.01 FOR DEFINITION OF PARTITION WALL CONDITIONS.
2. BRIDGING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
3. SEE ---- FOR PARTIAL HEIGHT PARTITION WALLS.
4. STUD CONDITION "A" SHOWN FOR PARTITION WITHOUT ATTACHMENTS. SEE SCHEDULE 3-S9.01 .

TYP. PARTITION STUD STUD CONDITION A — 1

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PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE

TYPICAL INTERIOR PARTITION WALL DETAILS

2023-045S

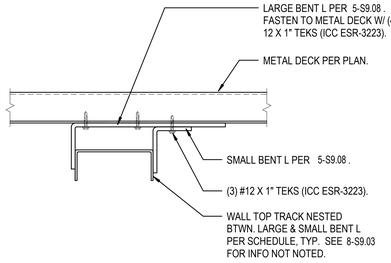
PROJECT NUMBER

S9.02

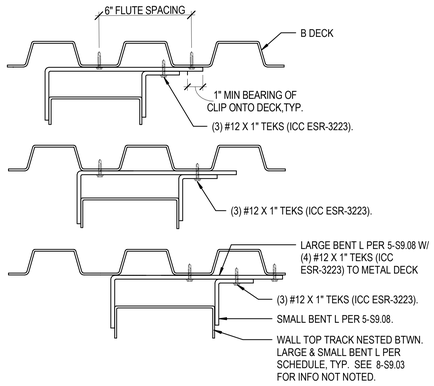
SHEET NUMBER

Author

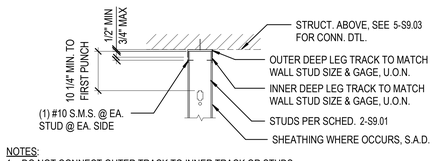
Plot Date: 8/21/2025 5:14:01 PM



TYP. T.O. WALL CONN. AT BARE METAL DECK — 16



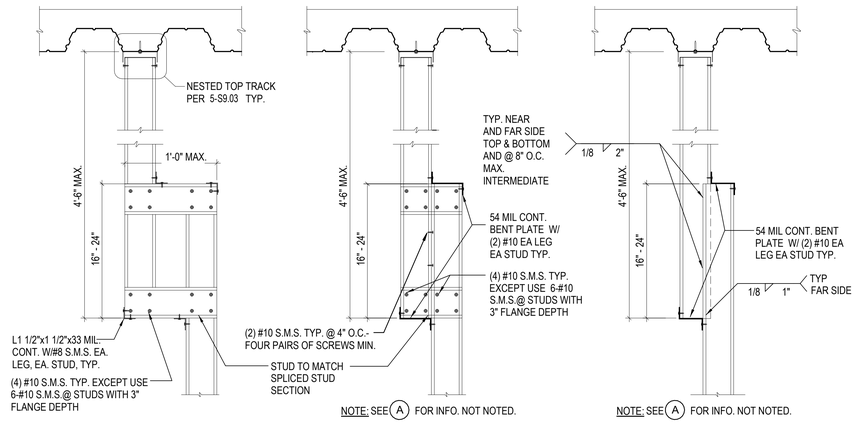
TYP. T.O. WALL CONN. AT BARE METAL DECK — 12



NOTES:
1. DO NOT CONNECT OUTER TRACK TO INNER TRACK OR STUDS.
2. DO NOT CONNECT WALL FINISH TO OUTER TRACK.
3. S.A.D. FOR INFO. NOT NOTED OR SHOWN.
4. TRACKS AT JAMB CONDITION FOR OPENINGS BETWEEN 10'-0" AND 14'-0" WIDE, USE 14 GAGE MINIMUM.

NESTED TRACK

TOP TRACK CONN. — 8



NOTE: SEE (A) FOR INFO. NOT NOTED.

NOTE: SEE (A) FOR INFO. NOT NOTED.

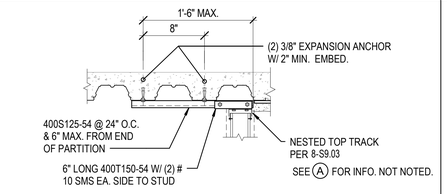
A OFFSET GREATER THAN STUD WIDTH

B OFFSET EQUAL TO STUD WIDTH

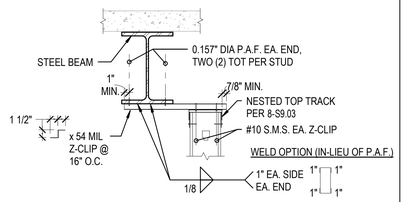
C OFFSET LESS THAN STUD WIDTH

NOTE: SEE S9.08 FOR ALTERANTE T.O. WALL CLIP CONNECTIONS FOR WALLS PARALLEL TO DECK FLUTS.

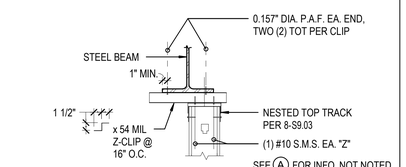
HEAD OF OFFSET WALL DETAIL — 10



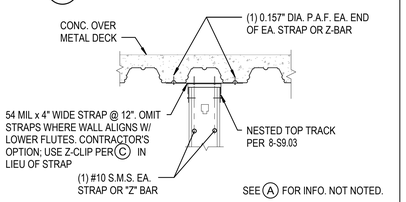
E NEAR OBSTRUCTION



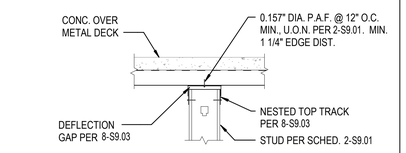
D OFFSET TO W - BEAM



C AT W - BEAM



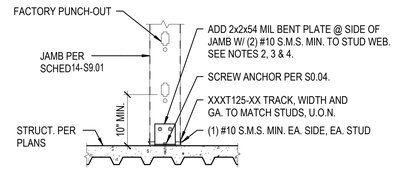
B FLUTES PARALLEL



A FLUTES PERPENDICULAR

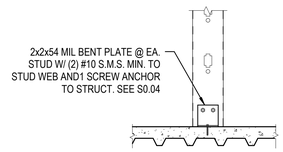
NOTES:
1. PROVIDE CONN. FROM TOP TRACK TO STRUCT. WITHIN 6" OF WALL END.
2. SEE SCHED.14-S9.01 AND DETAIL 3-S9.04 FOR DTL. AT JAMB STUDS.
3. SEE S0.04 FOR P.A.F. AND EXPANSION ANCHOR SPECIFICS.
4. SEE S9.08 FOR ALTERNATE T.O. WALL CONNECTIONS AT CONCRETE FILL OVER METAL DECK.

TYP. TOP TRACK TO STRUCT. — 5

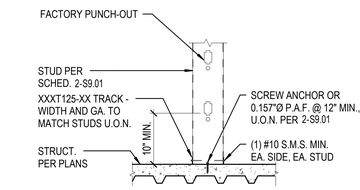


NOTES:
1. SEE SCHED 14-S9.01 FOR INFO NOT NOTED.
2. WHERE ONE BENT PLATE IS CALLED OUT IN SCHED.14-S9.01 , BENT PLATE IS TO BE LOCATED ON THE OPPOSITE SIDE OF THE THE JAMB AS THE OPENING.
3. WHERE TWO BENT PLATES ARE CALLED OUT IN SCHED. 14-S9.01 , ONE BENT PLATE IS TO BE LOCATED ON THE OPPOSITE SIDE OF THE JAMB AS THE OPENING AND THE OTHER BENT PLATE IS TO BE ORIENTED SO THAT THE HORIZONTAL LEG EXTENDS UNDER THE JAMB
4. BENT PLATE IS TO BE INSTALLED PRIOR TO JAMB INSTALLATION

JAMB STUD BOT. TRACK CONN. — N.T.S. 3



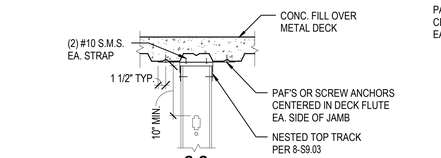
B ALTERNATE
WHERE CONT. BOT. TRACK IS NOT USED



A TYP. BOTTOM TRACK COND.

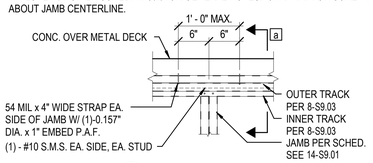
NOTES:
1. SEE SCHED. 14-S9.01 FOR DTL. AT JAMB STUDS.
2. SEE S0.04 FOR P.A.F. AND EXPANSION ANCHOR SPECIFICS.

TYP. BOT.TRACK TO STRUCT. — 1

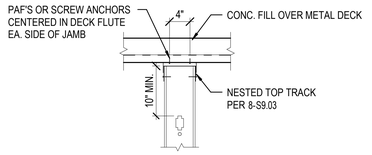


a-a

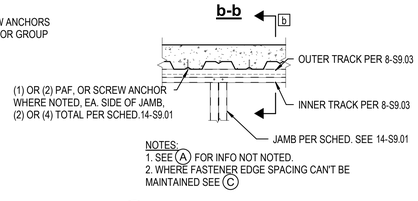
NOTE: WHERE WALL COINCIDES W/ LOW FLUTE. OMIT STRAPS & CTR. P.A.F.'S OR SCREW ANCHORS IN FLUTE W/ NO.PER SCHED. 14-S9.01 OR GENERAL NOTES. CTR. P.A.F. OR SCREW ANCHOR GROUP ABOUT JAMB CENTERLINE.



A FLUTES PARALLEL



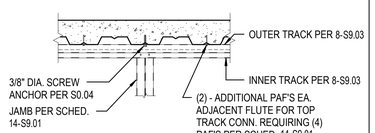
b-b



NOTES:
1. SEE (A) FOR INFO NOT NOTED.
2. WHERE FASTENER EDGE SPACING CAN'T BE MAINTAINED SEE (C)

B FLUTES PERPENDICULAR
JAMB BTWN. FLUTES

NOTE:
SEE S9.08 FOR ALTERNATE T.O. WALL CLIP CONNECTIONS FOR WALLS PARALLEL AND PERPENDICULAR TO DECK FLUTES.



NOTE: SEE (A) FOR INFO NOT NOTED.

C FLUTES PERPENDICULAR

JAMB STUD TOP TRACK CONN. — 1" = 1'-0" 9

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SEALS AND SIGNATURES

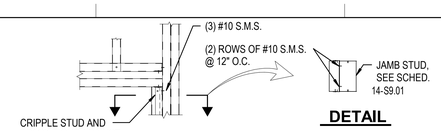
REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEAMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE
TYPICAL INTERIOR PARTITION WALL DETAILS

PROJECT NUMBER 2023-045S

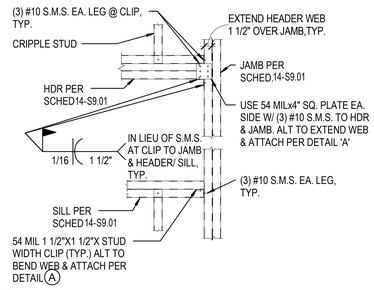
SHEET NUMBER **S9.03**

Author
8/21/2025 5:14:04 PM
Plot Date:

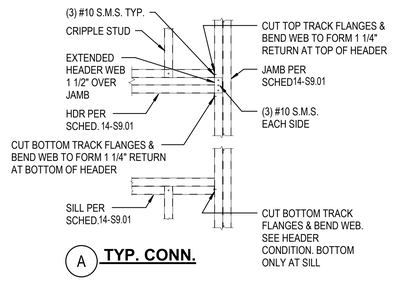


DETAIL

C **ALTERNATE CONN. 2 - AT DOOR HDRS**



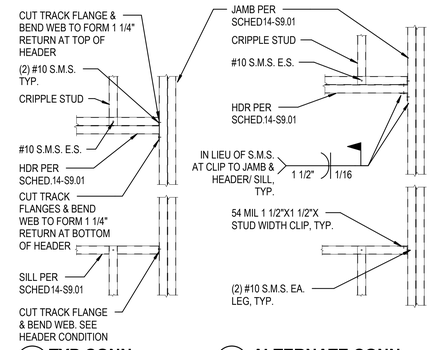
B **ALTERNATE CONN. 1**



A **TYP. CONN.**

HDR & SILL CONN. TO JAMB STUDS AT OPNG. 4'-0" TO 14'-0" MAX.

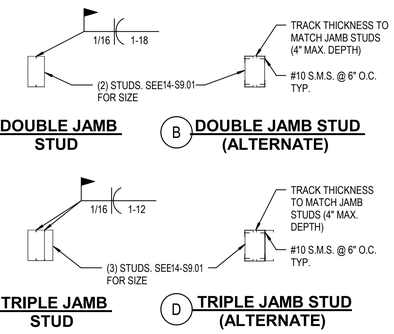
1" = 1'-0" 11



B **TYP CONN.** A **ALTERNATE CONN.**

HDR & SILL CONN TO JAMB AT OPNG 4'-0" MAX

1" = 1'-0" 7

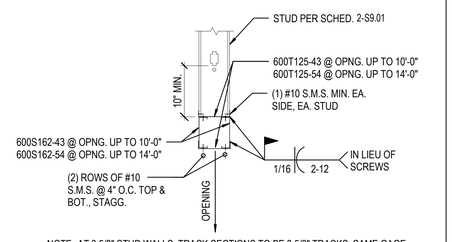


A **DOUBLE JAMB STUD** B **DOUBLE JAMB STUD (ALTERNATE)**

C **TRIPLE JAMB STUD** D **TRIPLE JAMB STUD (ALTERNATE)**

JAMB STUDS

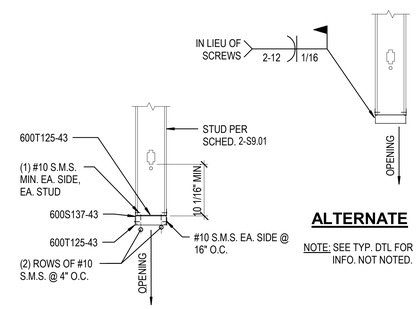
1" = 1'-0" 3



NOTE: AT 3 5/8" STUD WALLS, TRACK SECTIONS TO BE 3 5/8" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE. AT 4" STUD WALLS, TRACK SECTIONS TO BE 4" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE.

HDR AT OPNG. 4'-0" TO 14'-0" MAX.

1" = 1'-0" 10



ALTERNATE

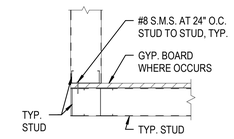
NOTE: SEE TYP. DTL FOR INFO. NOT NOTED.

TYP HDR

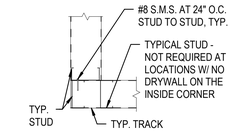
NOTE: AT 3 5/8" STUD WALLS, TRACK SECTIONS TO BE 3 5/8" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE. AT 4" STUD WALLS, TRACK SECTIONS TO BE 4" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE.

HDR. AT OPNG. 4'-0" MAX.

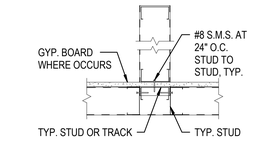
1" = 1'-0" 6



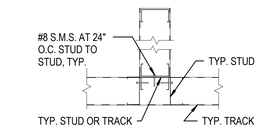
D **TYP. CORNER PLAN OPTION 2**



C **TYP. CORNER PLAN OPTION 1**



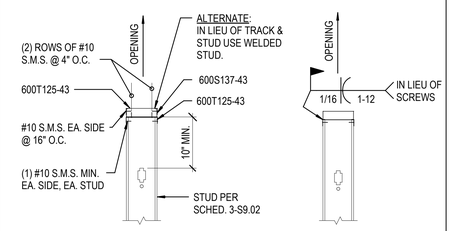
B **TYP. INTERSECTION PLAN OPTION 2**



A **TYP. INTERSECTION PLAN OPTION 1**

TYP. STUDS @ CORNERS & INTERSECTIONS

1 1/2" = 1'-0" 1

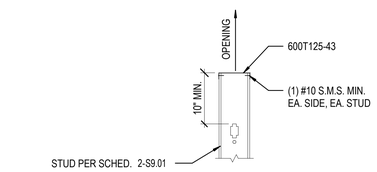


TYP. SILL **ALTERNATE**

NOTES:
1. AT 3 5/8" STUD WALLS, TRACK SECTIONS TO BE 3 5/8" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE. AT 4" STUD WALLS, TRACK SECTIONS TO BE 4" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE.
2. SEE TYP. DTL FOR INFO. NOT NOTED.

SILL AT OPNG. 4'-0" TO 14'-0" MAX.

1" = 1'-0" 9



NOTE: AT 3 5/8" STUD WALLS, TRACK SECTIONS TO BE 3 5/8" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE. AT 4" STUD WALLS, TRACK SECTIONS TO BE 4" TRACKS, SAME GAGE AND FLANGE WIDTH AS SHOWN HERE.

SILL AT OPNG. 4'-0" MAX.

1" = 1'-0" 5

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SEALS AND SIGNATURES

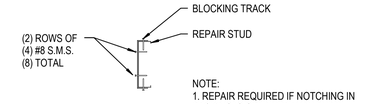
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL INTERIOR PARTITION WALL DETAILS

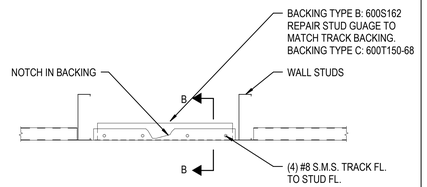
PROJECT NUMBER 2023-045S

SHEET NUMBER **S9.04**

Author
Plot Date: 8/21/2025 5:14:06 PM

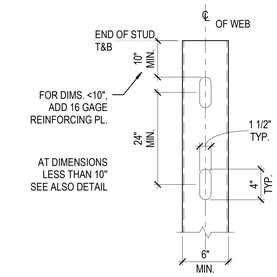


SECTION B

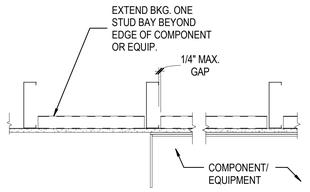


PLAN A

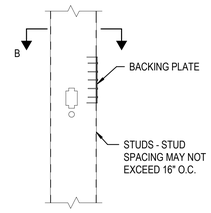
NOTCHED BACKING REPAIR DETAIL 12



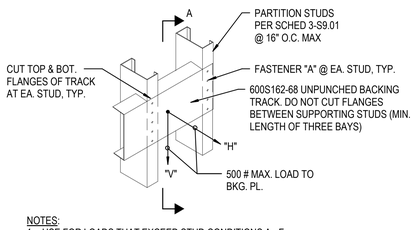
TYPICAL CFS STRUCTURAL STUD UTILITY HOLE DETAIL 4



PLAN B

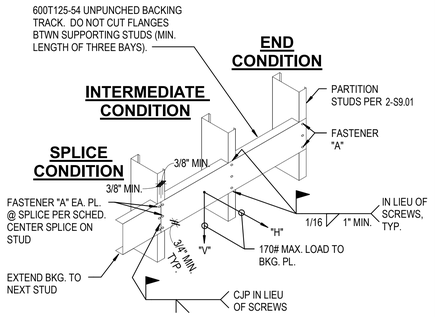


SECTION A



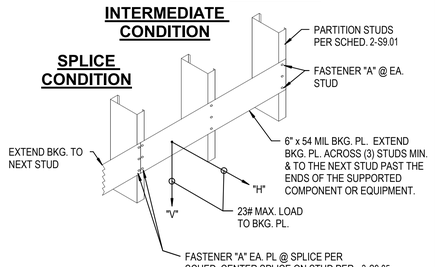
NOTES:
1. USE FOR LOADS THAT EXCEED STUD CONDITIONS A - F.
2. SEE BACKING PLATE TYPE B FOR INFO NOT NOTED.
3. MINIMUM 16 GAGE FOR STUDS SUPPORTING BACKING PLATE TYPE C.

BACKING PLATE TYPE C 6



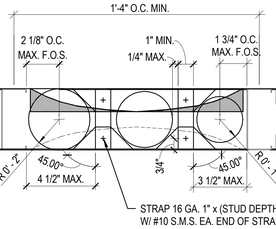
NOTES:
1. SEE 1-S9.05 FOR TYPICAL BACKING PLATE DETAILS.
2. MINIMUM 20 GAGE FOR STUDS SUPPORTING BACKING PLATE TYPE B.

BACKING PLATE TYPE B 3



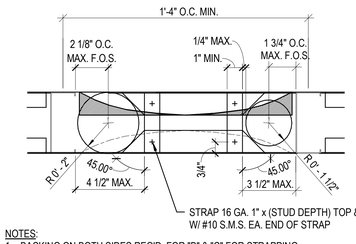
NOTES:
1. SEE 1-S9.05 FOR TYPICAL BACKING PLATE DETAILS.
2. SEE 3-S9.05 FOR ALT. WELDING OPTION.
3. MINIMUM 20 GAGE FOR STUDS SUPPORTING BACKING PLATE TYPE A.

BACKING PLATE TYPE A 2



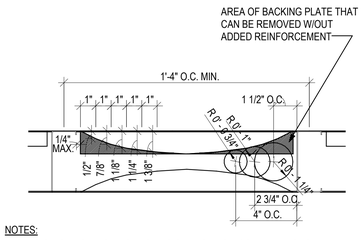
NOTES:
1. BACKING ON BOTH SIDES REQ'D. FOR "B" & "C" FOR STRAPPING.
2. TOP & BOTTOM STRAPS REQ'D. FOR CUTS ON ONE SIDE OR BOTH SIDES.

C



NOTES:
1. BACKING ON BOTH SIDES REQ'D. FOR "B" & "C" FOR STRAPPING.
2. TOP & BOTTOM STRAPS REQ'D. FOR CUTS ON ONE SIDE OR BOTH SIDES.

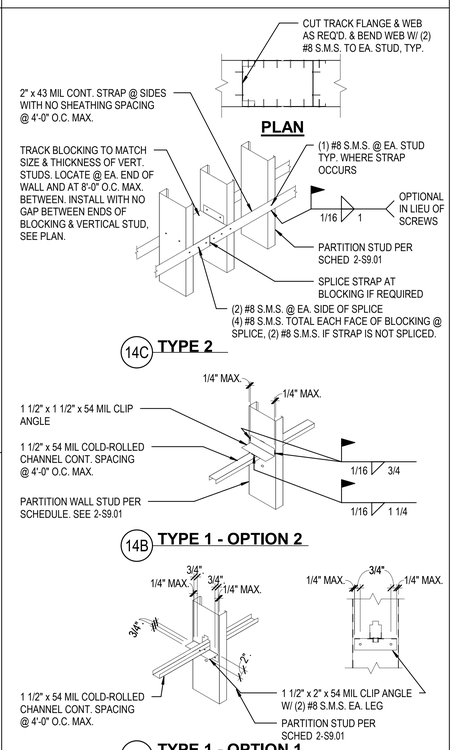
B



NOTES:
1. CUTS ON ONE SIDE OR BOTH SIDES OF BACKING W/ OUT REINFORCEMENT NEEDED.
2. STRAP NOT REQ'D IF INTERFERENCE IS WITHIN GIVEN DIMS OF "A".

A

BACKING OBSTRUCTION REPAIR ALTERNATES 9



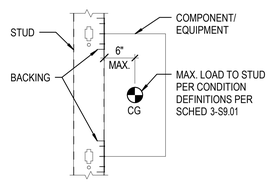
14C **TYPE 2**

14B **TYPE 1 - OPTION 2**

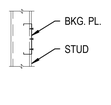
14A **TYPE 1 - OPTION 1**

NOTES:
1. LATERAL BRACING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
2. NOTCHING OR CUTTING OF COLD-ROLLED CHANNEL IS NOT PERMITTED FOR ANY CONDITION.
3. AT CONTRACTOR'S OPTION, PROVIDE 1 1/2"x54 MIL CRC W/ (2) #10 SMS EA. STUD @ 4' - 0" O.C. AT TYPE 1 WALLS IN LIEU OF OPTIONS 1 & 2.

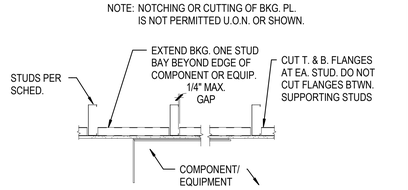
TYP. STUD BRIDGING 13



1A SECTION



1B SECTION



1C PLAN DETAIL

TYPICAL BACKING PLATE DETAILS 1

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

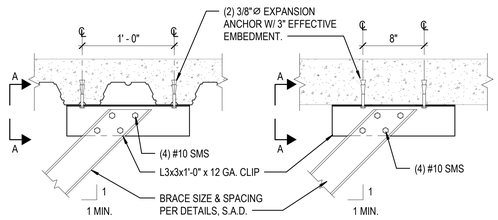
REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEIMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE
TYPICAL INTERIOR PARTITION WALL DETAILS

2023-045S
PROJECT NUMBER

S9.05
SHEET NUMBER

Author
8/21/2025 5:14:09 PM
Plot Date:



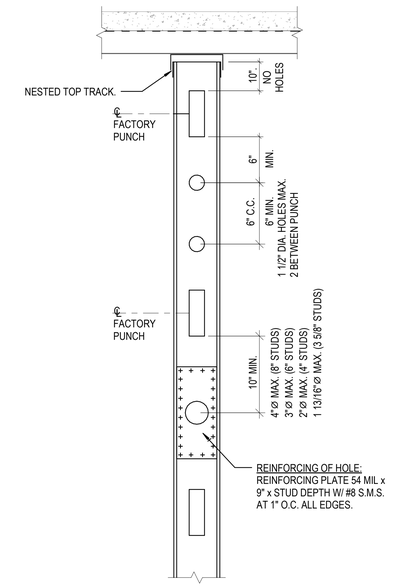
PERPENDICULAR TO FLUTES **PARALLEL TO FLUTES**



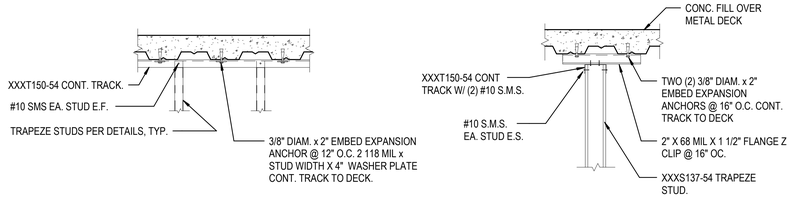
NOTE:
KICKER NOT SHOWN
FOR CLARITY.

SECTION A-A

BRACE CONN. TO CONCRETE FILLED METAL DECK 15



TYPICAL STUD PUNCHOUT / HOLES 1 1/2" = 1'-0" 2



NOTE: SEE (A) FOR INFO NOT NOTED.

(B) **TRAPEZE TO DECK FLUTES PERPENDICULAR**

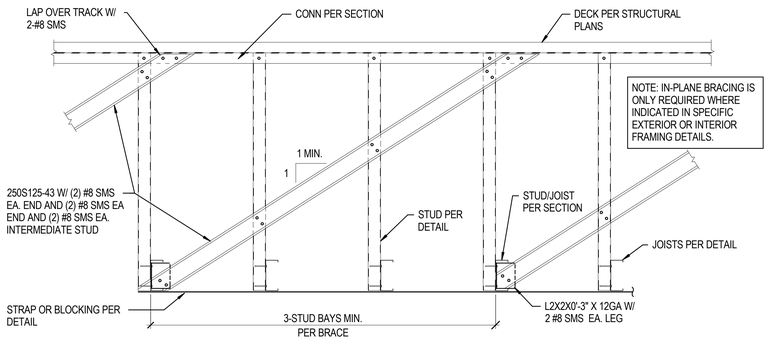
(A) **TRAPEZE TO DECK FLUTES PARALLEL**

TRAPEZE CONNECTION 10

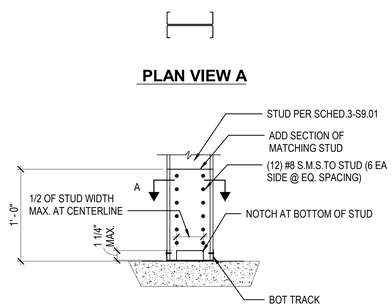
MAXIMUM HEIGHT "H"	H = 15'-0" MAX. (LEVEL 1)
	600JS34 600ES34

NOTE: ALL FASTENERS TO BE #10 SMS @ 2'-0" O.C. TYP. U.O.N.

SHAFT WALL-ELEVATOR DOOR OPENING REINFORCEMENT N.T.S. 17



IN-PLANE BRACING 9



PUNCHOUT AT STUD BASE 1

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DAVID S. BLEIMAN
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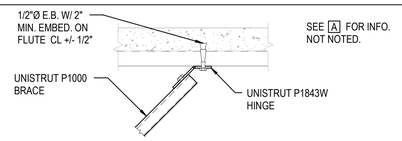
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
TYPICAL INTERIOR PARTITION WALL DETAILS

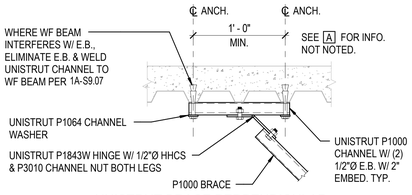
2023-045S
PROJECT NUMBER

S9.06
SHEET NUMBER

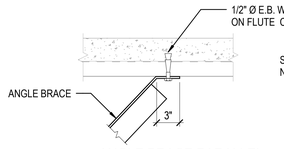
Author
8/21/2025 5:14:10 PM
Plot Date:



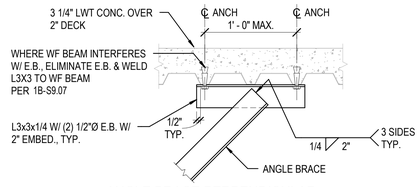
UNISTRUT BRACE PARALLEL TO FLUTES D



UNISTRUT BRACE PERPENDICULAR TO FLUTES C

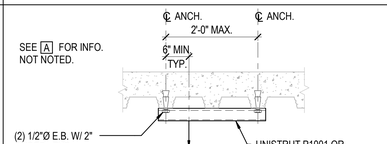


ANGLE BRACE PARALLEL TO FLUTES B

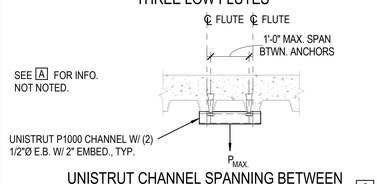


ANGLE BRACE PERPENDICULAR TO FLUTES A

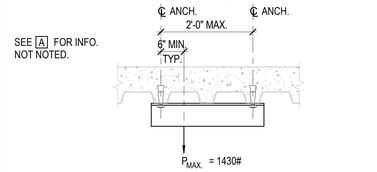
BRACE TO CONC. FILL OVER DECK 17



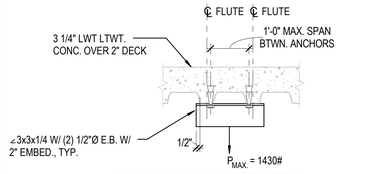
UNISTRUT CHANNEL SPANNING BETWEEN THREE LOW FLUTES D



UNISTRUT CHANNEL SPANNING BETWEEN TWO LOW FLUTES C

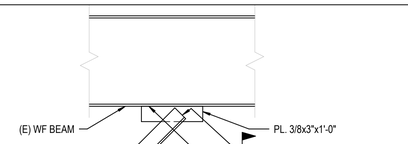


ANGLE SPANNING BTWN. THREE LOW FLUTES B

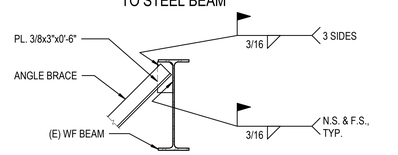


ANGLE SPANNING BETWEEN TWO LOW FLUTES A

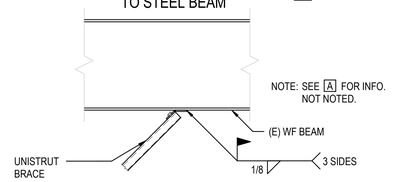
SUSPENDED LOAD FROM CONC. FILL OVER DECK 13



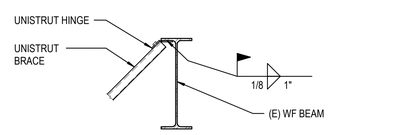
ANGLE BRACE PARALLEL TO STEEL BEAM D



ANGLE BRACE PERPENDICULAR TO STEEL BEAM C

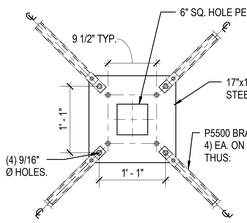


UNISTRUT BRACE PARALLEL TO STEEL BEAM B

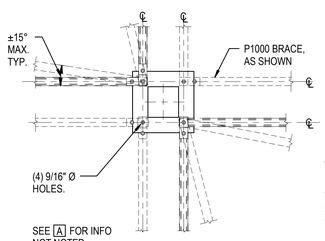


UNISTRUT BRACE PERPENDICULAR TO STEEL BEAM A

BRACE TO STEEL BEAM 9

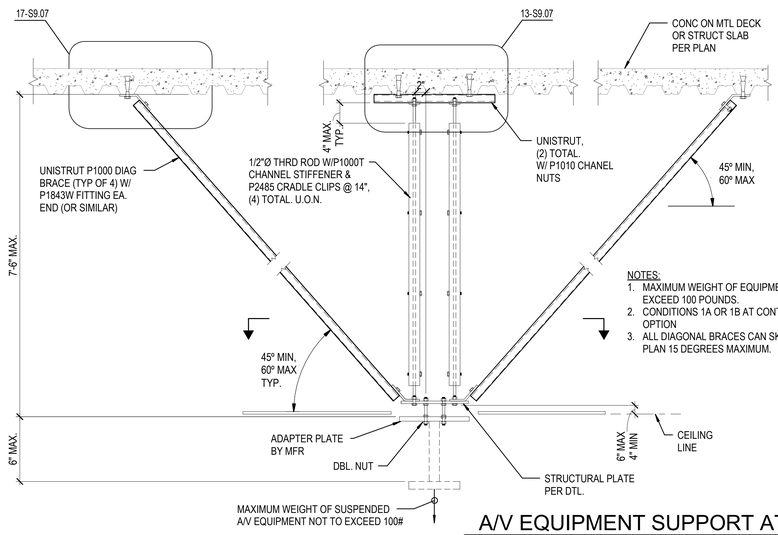


1A **PLAN-FOUR BRACE CONDITION**



NOTE:
BRACE LOCATION MAY BE PLACED ALTERNATE SIDE TO THAT SHOWN PROVIDED ONE BRACE IN LINE W/ EACH OF THE FOUR ℄ s' IS MAINTAINED IN ANY CONFIGURATION.

1B **PLAN-FOUR BRACE CONDITION**



NOTES:
1. MAXIMUM WEIGHT OF EQUIPMENT NOT TO EXCEED 100 POUNDS.
2. CONDITIONS 1A OR 1B AT CONTRACTOR'S OPTION
3. ALL DIAGONAL BRACES CAN SKEW IN PLAN 15 DEGREES MAXIMUM.

A/V EQUIPMENT SUPPORT AT CONC. FILL OVER DECK 1

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DAVID S. BLEIMAN
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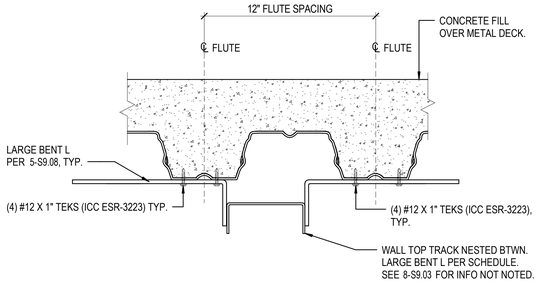
STATE OF CALIFORNIA

SHEET TITLE
MISCELLANEOUS INTERIOR PARTITION WALL DETAILS

2023-045S
PROJECT NUMBER

S9.07
SHEET NUMBER

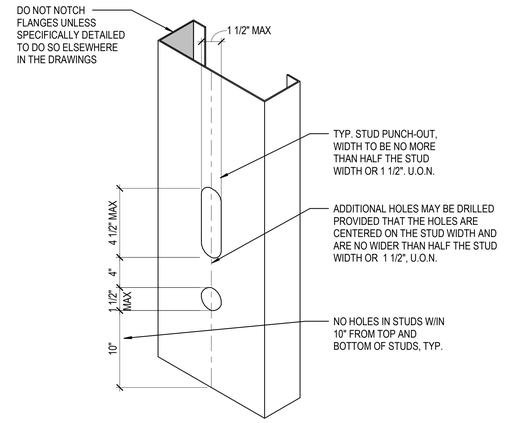
Author
8/21/2025 5:14:13 PM
Plot Date:



NOTES:
1. SCREWS ARE FOR ATTACHMENT BEFORE CONCRETE POUR.
2. SEE FASTENING PATTERN PER 5-S9.08 FOR INFO NOT NOTED.

ALTERNATE T.O. WALL CLIP CONN. - WALL PARALLEL TO DECK FLUTES

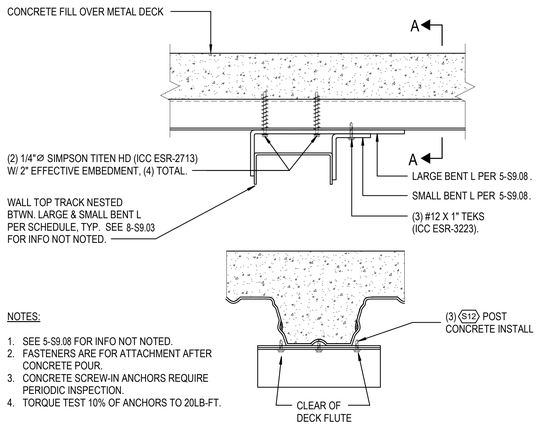
3" = 1'-0" | 8



NOTES:
1. ANY HOLES OUTSIDE OF THE ABOVE NOTED CONDITIONS MUST BE VERIFIED BY THE SEOR PRIOR TO CUTTING.
2. LINE UP PUNCHOUTS IN ADJACENT STUDS FOR PASSING UTILITIES.

PUNCH OUT

4



NOTES:
1. SEE 5-S9.08 FOR INFO NOT NOTED.
2. FASTENERS ARE FOR ATTACHMENT AFTER CONCRETE POUR.
3. CONCRETE SCREW-IN ANCHORS REQUIRE PERIODIC INSPECTION.
4. TORQUE TEST 10% OF ANCHORS TO 20LB-FT.

SECTION A-A

CONCRETE FILLED DECK

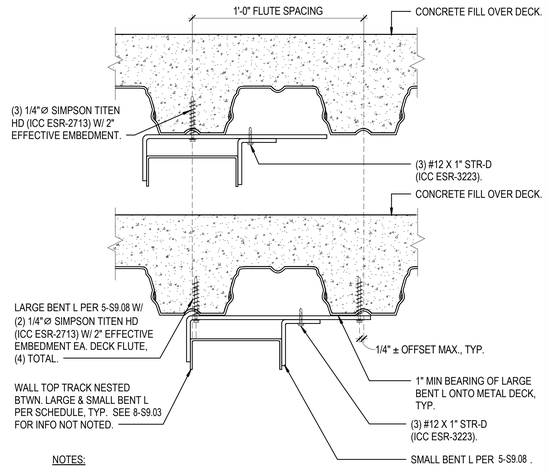
WALL PERPENDICULAR TO DECK POST - CONCRETE

3" = 1'-0" | 14

NOTES:
1. SEE 5-S9.08 FOR INFO NOT NOTED.
2. CONCRETE SCREW-IN ANCHORS REQUIRE PERIODIC INSPECTION.
3. TORQUE TEST 10% OF ANCHORS TO 20 LB-FT.
4. SCREW-IN ANCHORS ARE FOR ATTACHMENT AFTER CONCRETE POUR.

ALTERNATE T.O. WALL CLIP CONN. - WALL PARALLEL TO DECK FLUTES

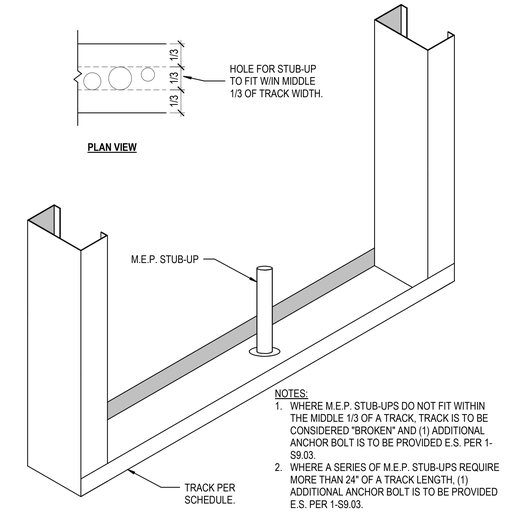
3" = 1'-0" | 10



NOTES:
1. SEE 5-S9.08 FOR INFO NOT NOTED.
2. SCREW-IN ANCHORS ARE FOR ATTACHMENT AFTER CONCRETE POUR.
3. CONCRETE SCREW-IN ANCHORS REQUIRE PERIODIC INSPECTION.
4. TORQUE TEST 10% OF ANCHORS TO 20LB-FT.

ALTERNATE T.O. WALL CLIP CONN. - WALL PARALLEL TO DECK FLUTES

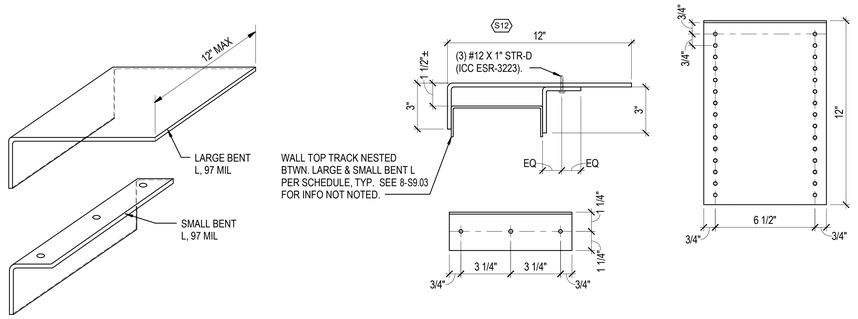
3" = 1'-0" | 6



NOTES:
1. WHERE M.E.P. STUB-UPS DO NOT FIT WITHIN THE MIDDLE 1/3 OF A TRACK, TRACK IS TO BE CONSIDERED "BROKEN" AND (1) ADDITIONAL ANCHOR BOLT IS TO BE PROVIDED E.S. PER 1-S9.03.
2. WHERE A SERIES OF M.E.P. STUB-UPS REQUIRE MORE THAN 24" OF A TRACK LENGTH, (1) ADDITIONAL ANCHOR BOLT IS TO BE PROVIDED E.S. PER 1-S9.03.

TYP M.E.P STUB-UP REQUIREMENTS AT BOT. TRACK

2



NOTES:
1. BENT L's ARE 97 MIL, Fy = 50 KSI
2. LARGE L's ARE TO BE ATTACHED TO WIDE FLANGE BEAMS W/OUT FIREPROOFING W/ (4) P.A.F.
3. LARGE L's ARE TO BE ATTACHED TO Z CLIPS UNDER WIDE FLANGE BEAMS WITH FIREPROOFING W/ (4) #12 X 1" TEKS (ICC ESR-3223).
4. LARGE L's ARE TO BE ATTACHED TO METAL DECK W/OUT CONCRETE FILL W/ (4) #12 X1 " TEKS (ICC ESR-3223).
5. LARGE L's ARE TO BE ATTACHED TO METAL DECK WITH CONCRETE FILL W/ (2) 1/4"Ø SIMPSON TITEN HD (ICC ESR2713) W/ 2" EFFECTIVE EMBEDMENT.
6. LARGE L's ARE TO BE INSTALLED PRIOR TO WALLS BEING PLACED.
7. SMALL L's ARE TO BE INSTALLED TIGHT TO WALLS AFTER WALLS ARE SET. FASTEN SMALL L TO LARGE L WITH (3) #12 X 1" TEKS (ICC ESR-3223) OR W/ (3) P.A.F.
8. ALL SHEET METAL SCREWS (SMS) ARE TO BE OF SUFFICIENT LENGTH TO ALLOW A MINIMUM OF 3 THREADS PROTRUDING THROUGH BACKSIDE OF FASTENED PLYS.

TYP. T.O. WALL CLIP ASSEMBLY INFO.

5

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
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SHEET TITLE
MISCELLANEOUS INTERIOR PARTITION WALL DETAILS

2023-045S
PROJECT NUMBER

S9.08
SHEET NUMBER

Author
8/21/2025 5:14:15 PM
Plot Date:

GENERAL

1. SEE SHEET S0.04 FOR COLD-FORMED STEEL FRAMING GENERAL NOTES.
2. FIELD SUBSTITUTION OF STEEL MATERIAL AND FASTENERS ARE NOT ALLOWED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER AND DSA.
3. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR ON AN ANGLE SUCH AS BRACING TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN IN POSITION UNTIL PROPERLY FASTENED.
4. SPLICES IN TOP TRACK ARE REQUIRED WHERE TOP TRACK IS NOT ATTACHED TO A COMMON CONTINUOUS STRUCTURAL MEMBER AND SHALL BE ACCOMPLISHED WITH A NESTED STUD OF THE SAME GAGE AS TRACK WITH A 10" LENGTH AND (4) #10 S.M.S. EACH SIDE, EACH TRACK U.N.O. ON PLANS.
5. LATERAL BRIDGING FOR STEEL STUDS IS REQUIRED WHEN WALL BOARD, INSTALLED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE REQUIREMENTS, DOES NOT CONTINUE FULL HEIGHT ON BOTH SIDES.
6. TRACKS SHALL BE UNPUNCHED UNLESS NOTED OTHERWISE.
7. STUDS MUST BE FULLY SEATED INTO THE WALL BOTTOM TRACKS. (1/16" MAXIMUM GAP BETWEEN THE STUDS AND THE TRACK WEBS).

EXTERIOR LIGHT GAUGE FRAMING NOTES — 16

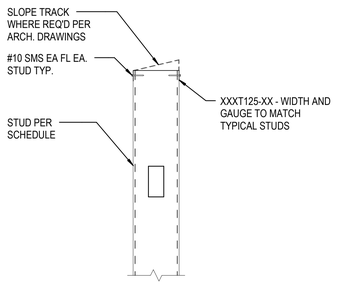
TYPE	OPNG. WIDTH	#10 SCREWS REQUIRED FOR CONNECTION TO JAMB			
		VERTICAL HEADER	LATERAL TOP HEADER	LATERAL BOTTOM HEADER	SILL
⟨A⟩ ⟨E⟩	≤ 2'-0"	2	2	2	2
⟨B⟩ ⟨F⟩ ⟨I⟩	≤ 4'-0"	2	2	2	2
⟨C⟩ ⟨G⟩ ⟨J⟩	≤ 8'-0"	3	3	3	2
⟨D⟩ ⟨H⟩	≤ 10'-0"	3	3	3	2

FASTENERS AT OPENING SCHEDULE — 12

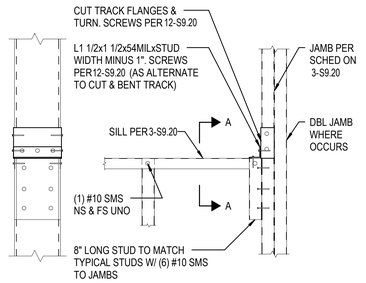
TYPE	MAX. OPNG. WIDTH	MAX. WALL HT.	MAX. DOOR HT.	MAX. OPNG. HT.	LOAD[2] COND.	JAMB	HEADER				SILL	NOTES
						NO. AND SIZE OF STUDS	HEADER TYPE	VERTICAL HEADER	LATERAL TOP HEADER	LATERAL BOTTOM HEADER	NO. AND SIZE OF SILL	
⟨A⟩	≤ 2'-0"	16.0'	8'-2"	13'-6"	"TYP"	(1) 600S137-54	SINGLE TRACK, SEE 20-S9.26	(1) 600T250-54	-	-	(1) 600T125-54	6" JAMBS, HEADERS AND SILLS
⟨B⟩	≤ 4'-0"					(1) 600S137-68	BOXED - TYPE 1, SEE 15-S9.26	(2) 600S125-54	(1) 600T125-54	(1) 600T125-54	(1) 600T125-54	
⟨C⟩	≤ 8'-0"					(2) 600S125-54	BOXED - TYPE 2, SEE 10-S9.26	(2) 600S125-54	(2) 600T125-54	(1) 600T125-54	(1) 600T125-54	
⟨D⟩	≤ 10'-0"		-	2'-11"	"TYP"	(2) 600S125-54	BOXED - TYPE 2, SEE 10-S9.26	(2) 600S125-68	(2) 600T125-68	(1) 600T125-68	(1) 600T125-68	
⟨E⟩	≤ 2'-0"	16.0'	8'-2"	13'-6"	"TYP"	(1) 400S200-68	SINGLE TRACK, SEE 15-S9.26	(1) 400T250-54	-	-	(1) 400T125-54	4" JAMBS, HEADERS AND SILLS
⟨F⟩	≤ 4'-0"					(1) 400S200-68	BOXED - TYPE 1, SEE 15-S9.26	(2) 400S125-54	(1) 400T125-54	(1) 400T125-54	(1) 400T125-54	
⟨G⟩	≤ 8'-0"					(2) 400S200-68 (BOXED)	BOXED - TYPE 2, SEE 10-S9.26	(2) 400S137-68	(2) 400T200-68	(1) 400T200-68	(1) 400T125-68	
⟨H⟩	≤ 10'-0"		-	2'-11"	"TYP"	(2) 400S200-68 (BOXED)	BOXED - TYPE 2, SEE 20-S9.26	(2) 400S200-68	(2) 400T200-68	(1) 400T200-68	(1) 400T200-68	
⟨I⟩	≤ 4'-0"	16.0'	8'-2"	13'-6"	"TYP"	(1) 600S137-68	BOXED - TYPE 1, SEE 10-S9.26	(2) 400S125-54	(1) 400T125-54	(1) 400T125-54	(1) 600T125-54	6" JAMBS & SILLS 4" HEADERS CONN PER 13-S9.27
⟨J⟩	≤ 8'-0"		8'-2"	13'-6"	"TYP"	(2) 600S125-54	BOXED - TYPE 2, SEE 10-S9.26	(2) 400S137-68	(2) 400T200-68	(1) 400T200-68	(1) 600T125-54	

NOTES:
1. EXTERIOR WALL OPNG DESIGN ASSUMES ONE LAYERS OF 5/8" GYPSUM WALL BOARD IS INSTALLED ON THE INNER SIDE OF STUD AND BRIDGING SPACED 48" O.C..
2. REFER TO DETAIL 12-S9.02 FOR LOAD CONDITION.
3. SEE13-S9.26 FOR BOXED JAMB CONNECTION.
4. WHEN THERE IS A JAMB OR HEADER CALLED OUT IN THE ELEVATION CONFLICTING WITH THE SCHEDULE, THE ELEVATION TAKES PRECEDENCE

EXTERIOR WALL OPENING SCHEDULE — 3

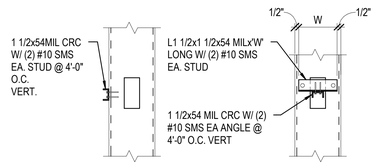


TRACK CLOSURE — 19

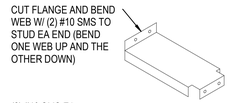


SECTION A-A

SINGLE TRACK SILL — 15



ALTERNATE 1

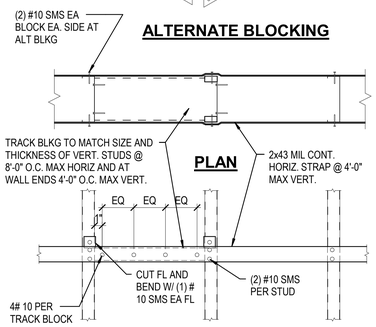


ALTERNATE 2

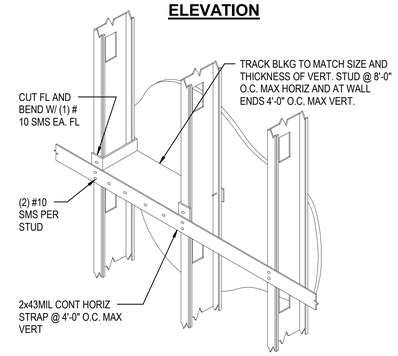
NOTE:

1. PLACE STRAP AND/OR CRC ON SIDE(S) WHERE SHEATHING DOES NOT OCCUR

ALTERNATE BLOCKING



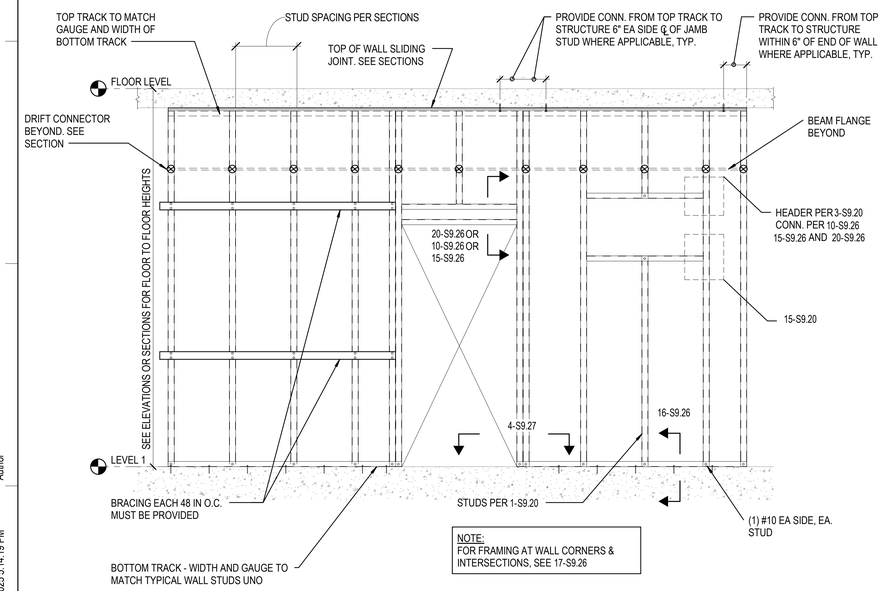
ELEVATION



NOTES:

1. U.O.N, STUD BRIDGING MAY BE INSTALLED PER ANY OF THE THREE METHODS SHOWN IN THE TYPICAL BRIDGING DETAIL.
2. FOR WALL PANELS THAT INCLUDE AN OFFSET, WHERE COMBINED STUDS AND JAMBS ARE USED, BRIDGING SHALL BE INSTALLED PER ALTERNATIVE 2 ONLY.

BRIDGING DETAIL — 9



TYPICAL FLOOR TO FLOOR FRAMING ELEVATION — 13

CONDITION	REQUIREMENTS	NOTES
"TYP"	EXTERIOR WALLS WITHOUT ATTACHMENTS.	- EXTERIOR WALLS WERE DESIGNED FOR THE CRITICAL WIND LOADS (31 PSF C&C WALLS AND 90 PSF FOR C&C PARAPETS). -CONNECTORS WERE CHECKED USING THE WIND LOADS MENTIONED ABOVE AND THE APPLICABLE SEISMIC LOAD FOR FASTENERS PER ASCE 7-16 CHAPTER 13 (40.2 PSF).

EXTERIOR WALLS STUD LOAD CONDITIONS — 2

TYPE	LOCATION	MAX. HT.	MIN. STUD SIZE	MAX. SPACING	LOAD CONDITION (NOTE 2)	NOTES
1	NOTED IN ELEVATIONS	16.0'	400S200-68 (50)	16" O.C.	"TYP"	4" STUD EXTERIOR WALLS
2	NOTED IN ELEVATIONS	16.0'	600S137-54 (50) 400S200-68 (50)	16" O.C.	"TYP"	COMBINED STUD LAYOUT PER 5-S9.27
TYP	TYP. U.O.N.	16.0'	600S137-54 (50)	16" O.C.	"TYP"	6" STUD EXTERIOR WALLS

NOTES:
1. EXTERIOR WALL DESIGN ASSUMES STUD BRACING AT 48 IN O.C., PROVIDED BY EITHER BRIDGING OR WALL SHEATHING.
2. REFER TO DETAIL FOR LOAD CONDITION.
3. FOR TYPE 2 STUDS, PROVIDE BRIDGING PER ALTERNATE 2, DETAIL 9-S9.20 ,TO PROPERLY BRACE THE SECTION

TYPICAL PARTITION STUD SCHEDULE — 1

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SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER — DAVID S. BLEIMAN — No. 3237 — Exp. 03-31-27 — STRUCTURAL — STATE OF CALIFORNIA

SHEET TITLE

TYPICAL EXTERIOR FRAMING ELEVATION AND SCHEDULES

2023-045S

PROJECT NUMBER

S9.20

SHEET NUMBER

Author

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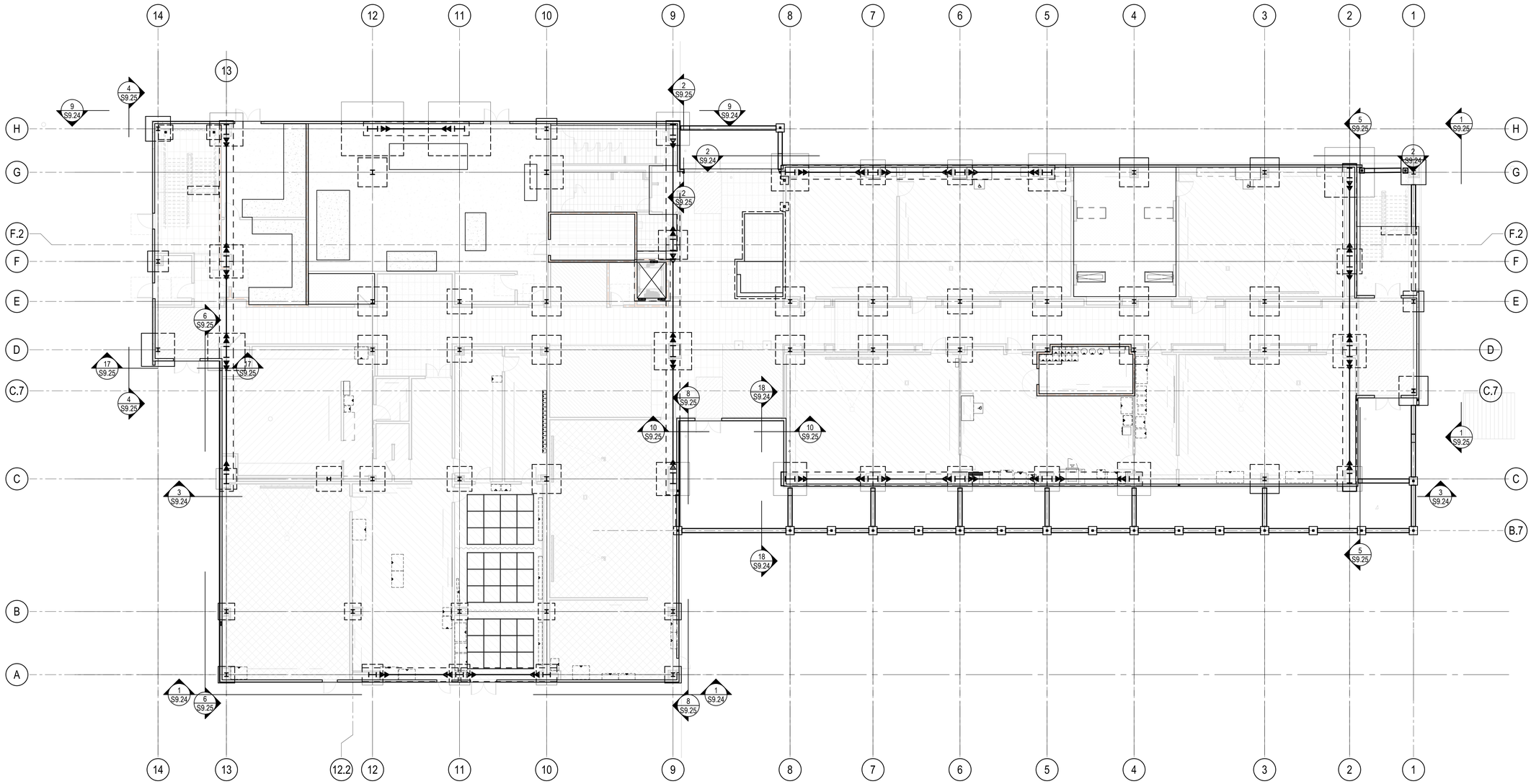
Plot Date:



LEVEL 1 EXTERIOR WALL ELEVATION CALLOUT PLAN

3/32" = 1'-0"

1

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SHEET TITLE

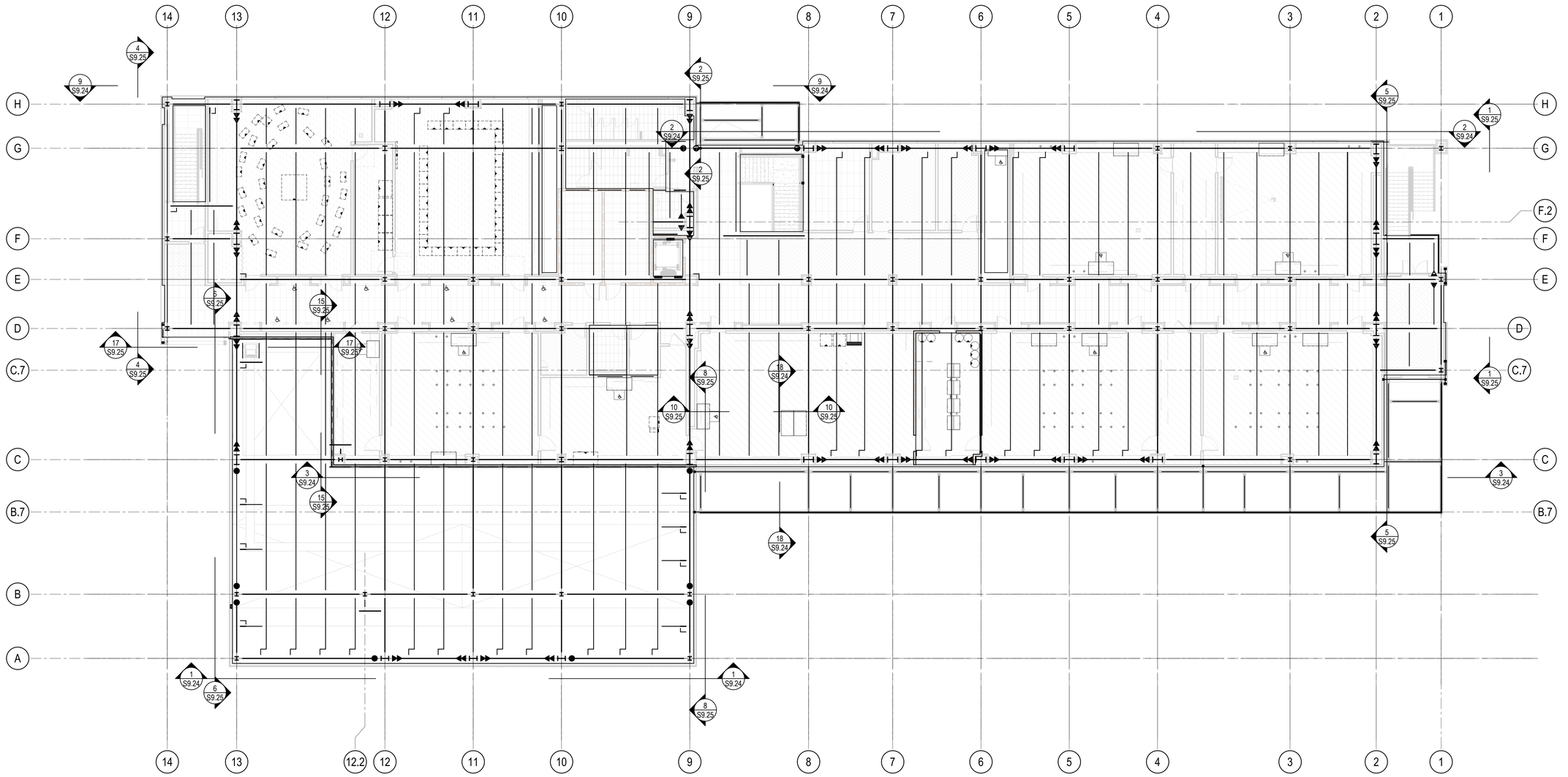
LEVEL 1 EXTERIOR FRAMING ELEVATION CALLOUT PLAN

2023-045S

PROJECT NUMBER

S9.21

SHEET NUMBER



LEVEL 2 EXTERIOR WALL ELEVATION CALLOUT PLAN

3/32" = 1'-0"

1

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INCREMENT II -
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SHEET TITLE

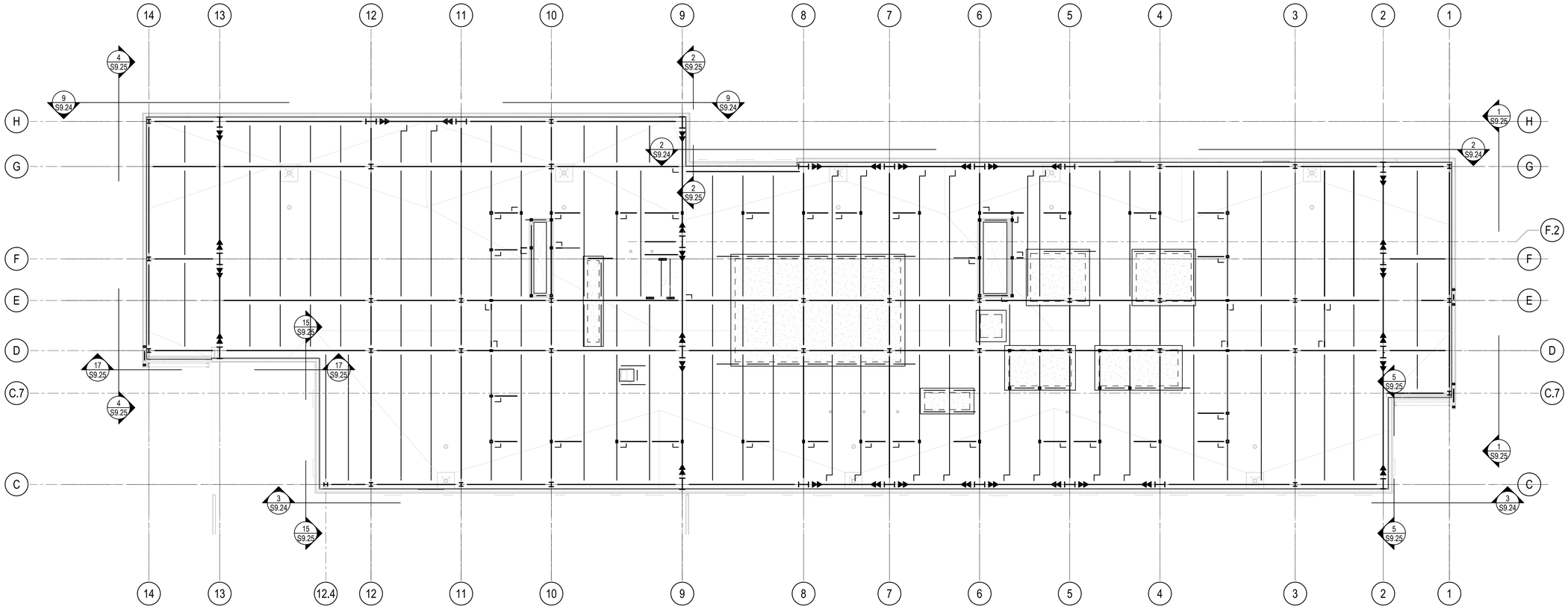
LEVEL 2 EXTERIOR FRAMING ELEVATION CALLOUT PLAN

2023-045S

PROJECT NUMBER

S9.22

SHEET NUMBER



ROOF EXTERIOR WALL ELEVATION CALLOUT PLAN

3/32" = 1'-0"

1

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Author

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SEALS AND SIGNATURES

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SHEET TITLE

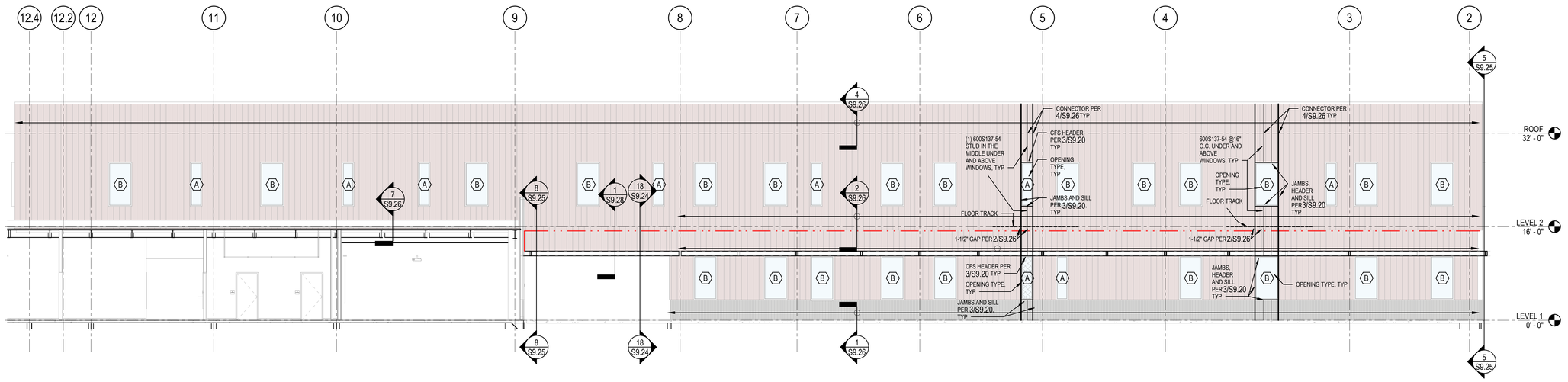
ROOF EXTERIOR
FRAMING ELEVATION
CALLOUT PLAN

2023-045S

PROJECT NUMBER

S9.23

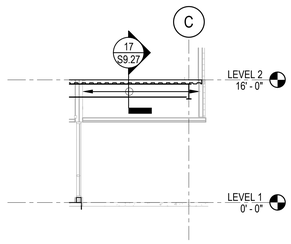
SHEET NUMBER



WEST ELEVATION - LINE C

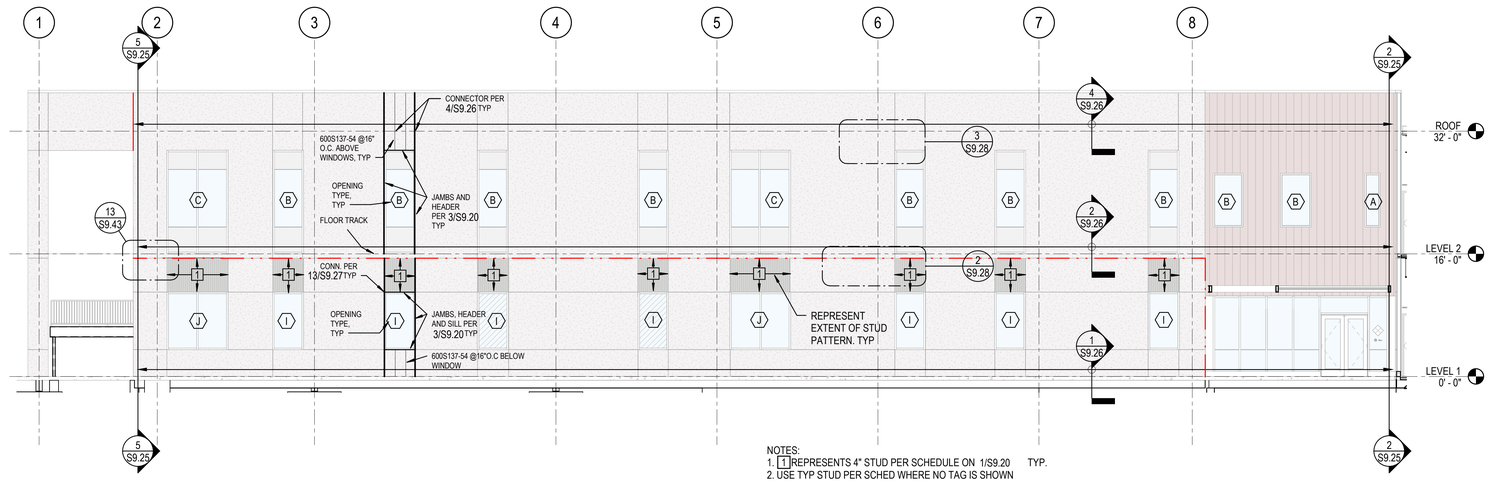
1/8" = 1'-0" 3

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



WALL ELEVATION LINE 8

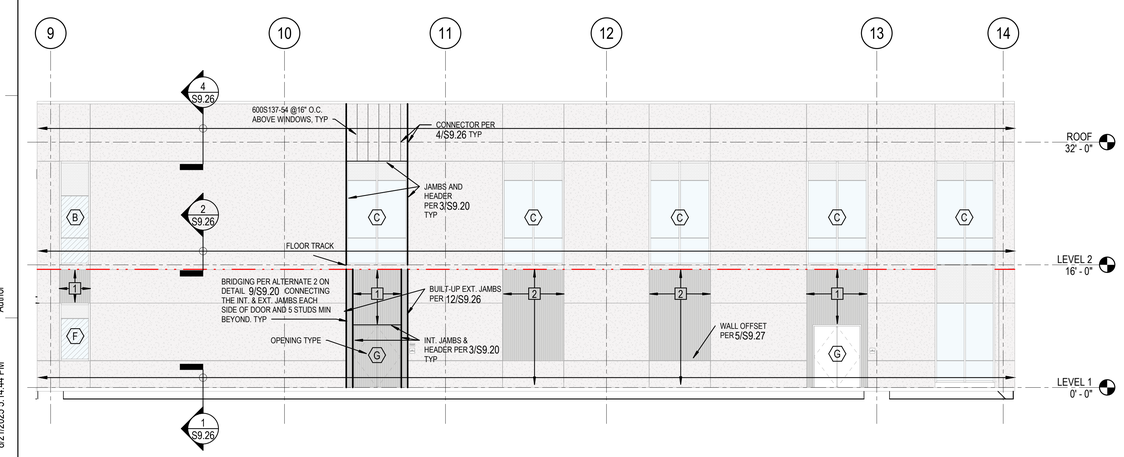
1/8" = 1'-0" 18



EAST ELEVATION LINE G

1/8" = 1'-0" 2

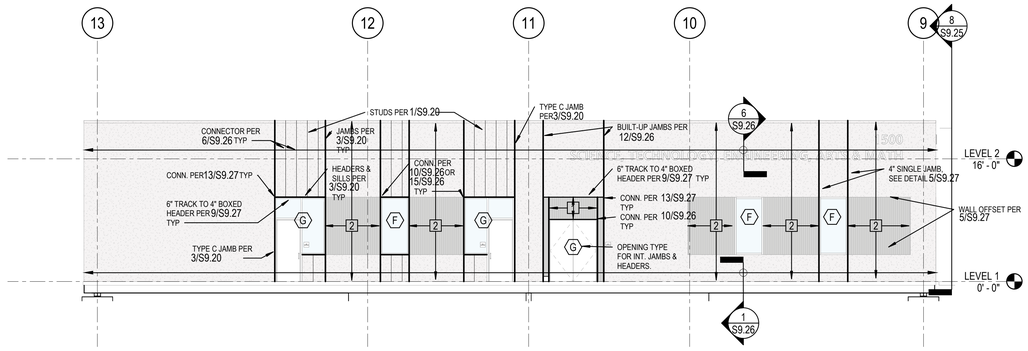
SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



EAST ELEVATION LINE H

1/8" = 1'-0" 9

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



WEST ELEVATION LINE A

1/8" = 1'-0" 1

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES

Author

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50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

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SHEET TITLE

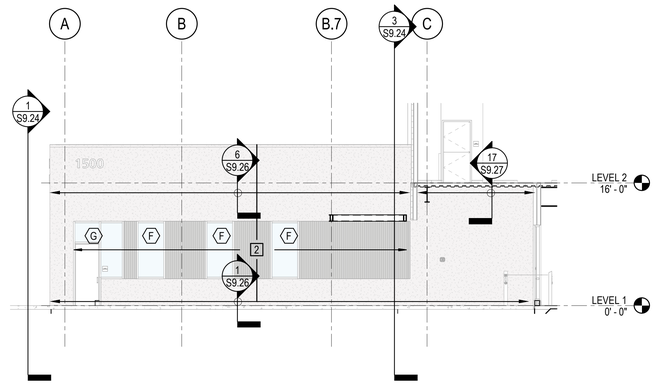
EXTERIOR FRAMING ELEVATIONS

2023-045S

PROJECT NUMBER

S9.24

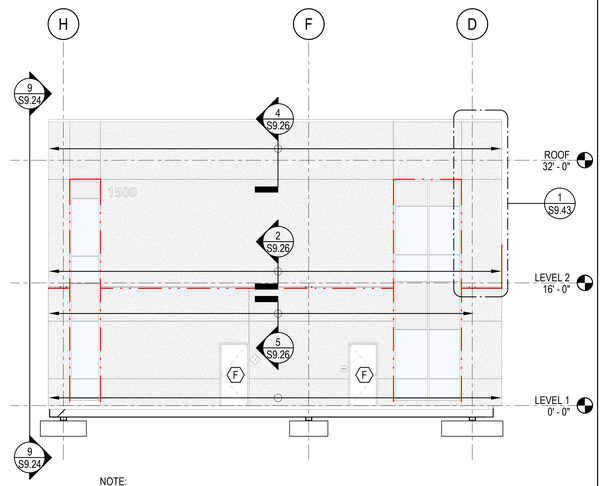
SHEET NUMBER



WALL ELEVATION LINE 9

1/8" = 1'-0" 8

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES

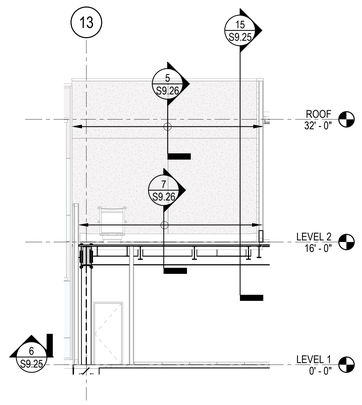


NOTE:
RED LINES REPRESENT CLADDING JOINTS, FOR REFERENCE ONLY. S.A.D. FOR LOCATION AND EXTENT. TYP.

NORTH ELEVATION LINE 14

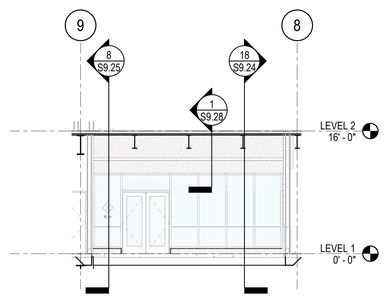
1/8" = 1'-0" 4

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



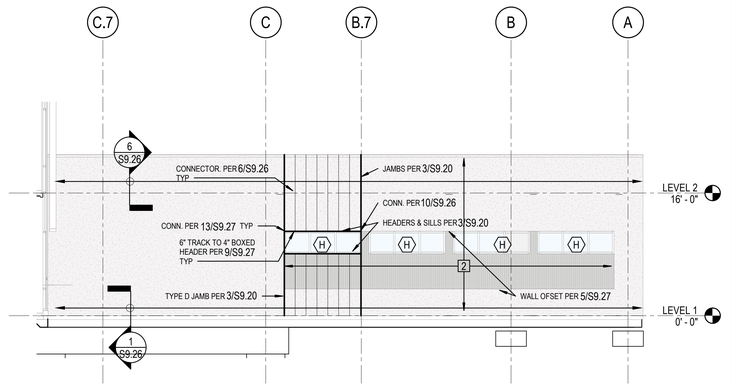
WEST WALL ELEVATION LINE D

1/8" = 1'-0" 17



WEST WALL ELEVATION LINE C.7

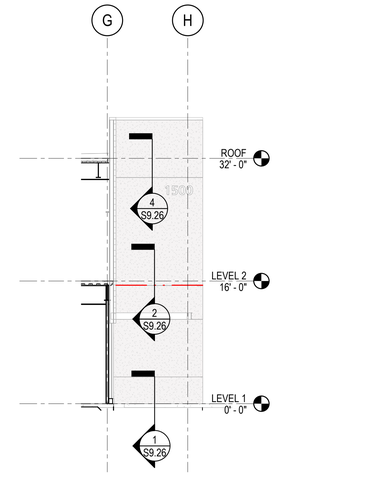
1/8" = 1'-0" 10



NORTH ELEVATION LINE 13

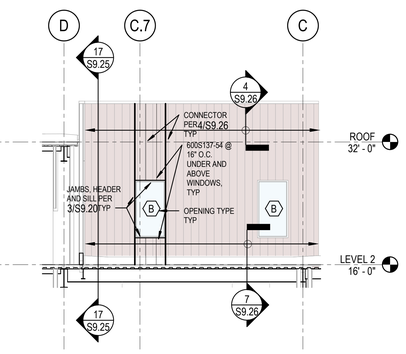
1/8" = 1'-0" 6

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



SOUTH ELEVATION LINE 9

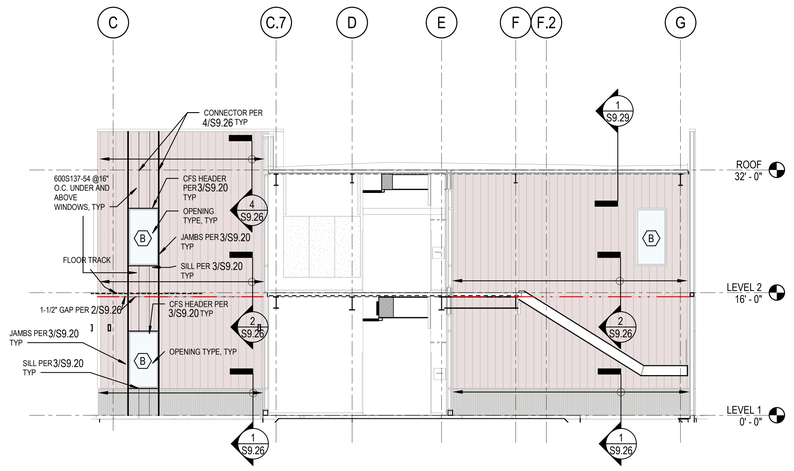
1/8" = 1'-0" 2



NORTH ELEVATION LINE 12

1/8" = 1'-0" 15

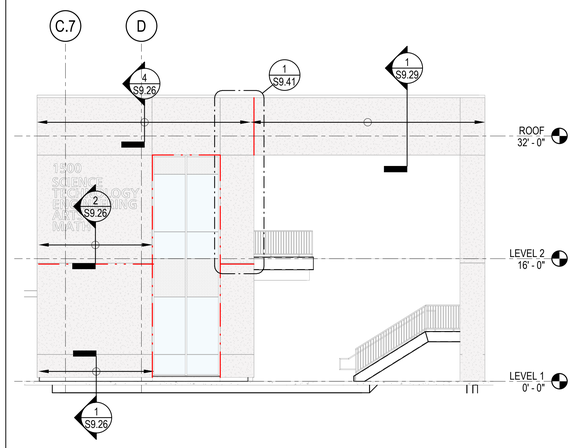
SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



SOUTH ELEVATION LINE 2

1/8" = 1'-0" 5

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES



SOUTH ELEVATION LINE 1

1/8" = 1'-0" 1

SEE SHEET S9.20 FOR TYPICAL EXTERIOR FRAMING DETAILS AND SCHEDULES

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San Francisco CA 94105
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025
95% CONSTRUCTION DOCS		24JUN2025
50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

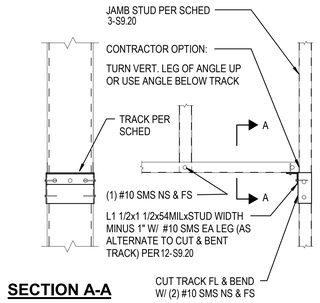
REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
EXTERIOR FRAMING ELEVATIONS

2023-045S
PROJECT NUMBER

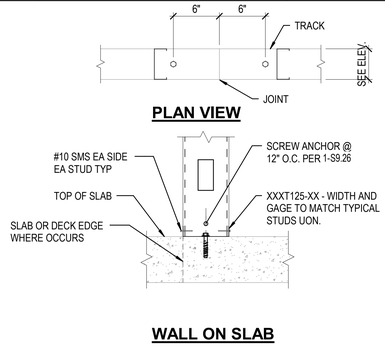
S9.25
SHEET NUMBER

Author
8/21/2025 5:14:52 PM
Plot Date:



SECTION A-A

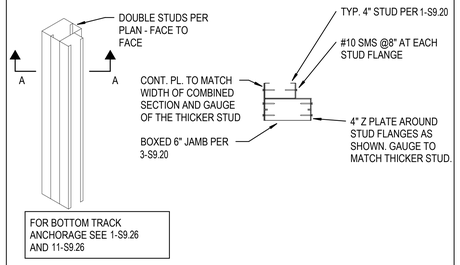
SINGLE TRACK HEADER 20



PLAN VIEW

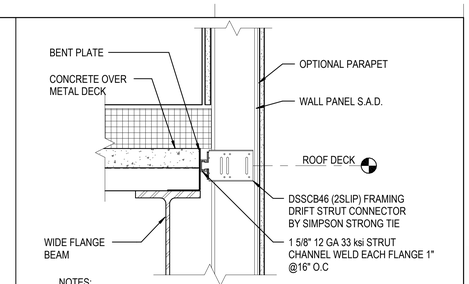
WALL ON SLAB

EXTERIOR STUD WALL BASE @ SOG. 16



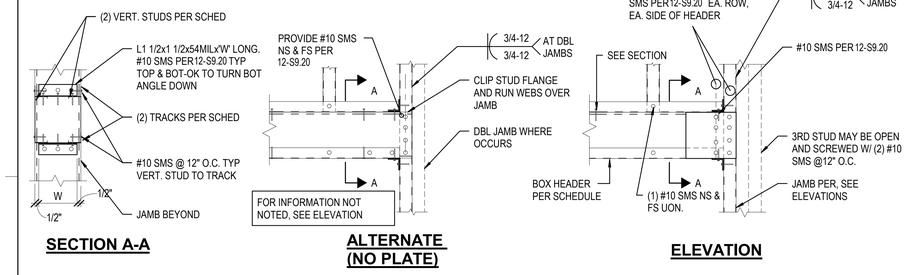
NOTES:
1. BRIDGING IN BUILT SECTIONS SECTIONS PER ALTERNATE 2 DETAIL 9-S9.20

BUILT UP JAMBS SECTION 12
1 1/2" = 1'-0"



NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. ALTERNATE DRIFT BYPASS CONNECTOR, TSN DrifTrak DTSLB EQUIVALENT.
3. MAX. HEIGHT OF PARAPET=5.5FT, S.A.D.
4. SEE DET. 3-S9.28 FOR DRIFT CONN. AT SIDEPLATE CONN.
5. AT 4" STUD, USE DSSCB43.5 (2-SLIP) CONNECTOR.

EXTERIOR FRAMING @ ROOF (W/ CONCRETE FILL) 4
1 1/2" = 1'-0"

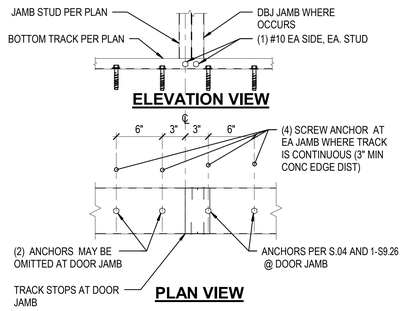


SECTION A-A

ALTERNATE (NO PLATE)

ELEVATION

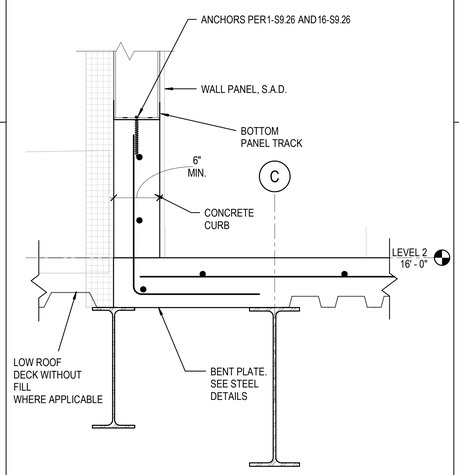
BOX HEADER DETAIL - TYPE 1 15



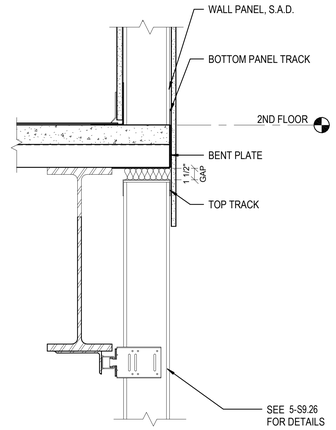
ELEVATION VIEW

PLAN VIEW

JAMB CONNECTION AT SLAB 11

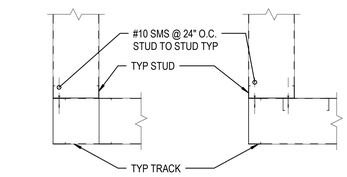


EXTERIOR FRAMING DETAIL 7
1 1/2" = 1'-0"



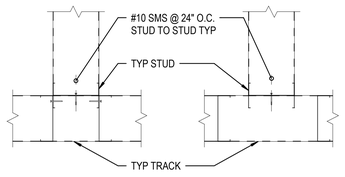
NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. SEE DETAIL 2-S9.28 FOR DRIFT CONN AT SIDEPLATE CONN.

EXTERIOR FRAMING @ LEVEL 2 2
1 1/2" = 1'-0"



ALTERNATE

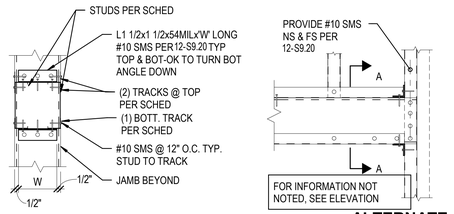
TYPICAL CORNER PLAN



ALTERNATE

TYPICAL INTERSECTION PLAN

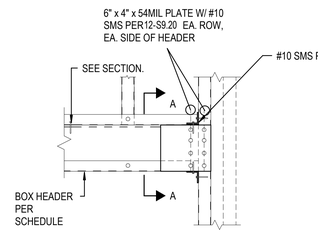
TYPICAL CORNER AND INTERSECTION FRAMING 17



SECTION A-A

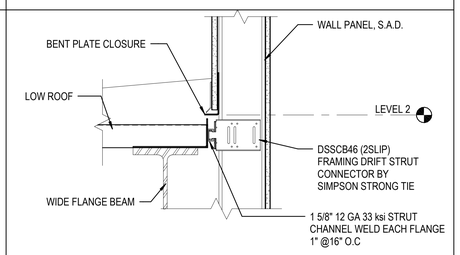
ALTERNATE (NO PLATE)

NOTE:
1. SEE 15-S9.26 FOR INFO NOT NOTED.



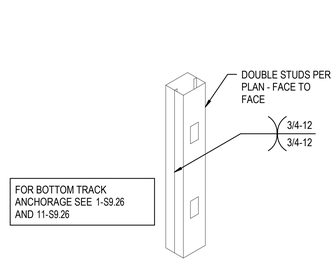
ELEVATION

BOX HEADER DETAIL - TYPE 2 10



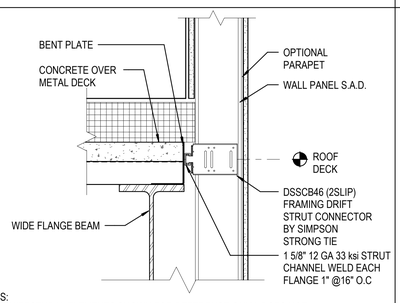
NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. ALTERNATE DRIFT BYPASS CONNECTOR, TSN DrifTrak DTSLB EQUIVALENT
3. AT 4" STUDS, USE DSSCB43.5 (2-SLIP) CONNECTOR.

BALLOON FRAMING @ LEVEL 2 TERRACE 6



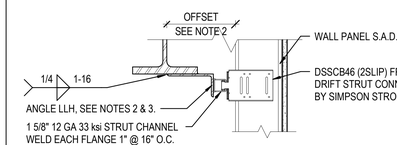
NOTES:
1. SEE 3-S9.20 FOR BOXED JAMBS SECTIONS.

BOXED JAMBS SECTION 13



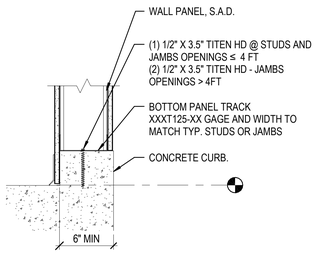
NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. ALTERNATE DRIFT BYPASS CONNECTOR, TSN DrifTrak DTSLB EQUIVALENT.
3. MAX. HEIGHT OF PARAPET=5.5FT, S.A.D.
4. AT 4" STUDS, USE DSSCB43.5 (2-SLIP) CONNECTOR.

BALLOON FRAMING @ ROOF 9
1 1/2" = 1'-0"



NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOW THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. FOR OFFSETS LESS THAN 12 IN., USE ANGLE 9x3x1/4 x 6". FOR OFFSETS BETWEEN 12 IN. AND 15 IN., USE ANGLE 12x3x1/4 x 6". (50 ksi)
3. CENTER ANGLE ON STRUT CHANNEL WELD CENTERLINE.
4. DRIFT BYPASS CONNECTOR FASTENERS AS PROVIDED BY THE MANUFACTURER AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD (SEOR).
5. ALTERNATE DRIFT BYPASS CONNECTOR, TSN DrifTrak DTSLB EQUIVALENT.
6. AT 4" STUDS, USE DSSCB43.5 (2-SLIP) CONNECTOR.

PLATFORM FRAMING @ BYPASS CLIP 5
1 1/2" = 1'-0"



NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.

EXTERIOR STUD WALL BASE @ LEVEL 1 CURB 1
1 1/2" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
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50% CONSTRUCTION DOCS		24MAR2025
DESIGN DEVELOPMENT		09JAN2025

SEALS AND SIGNATURES

REGISTERED PROFESSIONAL ENGINEER
DAVID S. BLEIMAN
No. 3237
Exp. 03-31-27
STRUCTURAL
STATE OF CALIFORNIA

SHEET TITLE
EXTERIOR FRAMING SECTIONS AND DETAILS

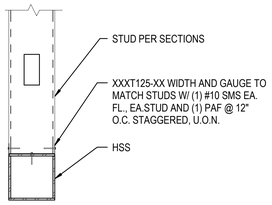
2023-045S

PROJECT NUMBER
S9.26

SHEET NUMBER

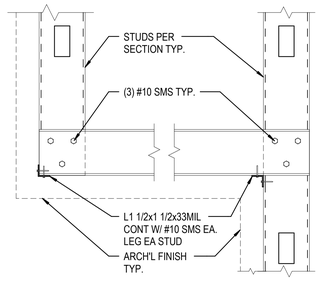
Author

Plot Date: 8/21/2025 5:14:56 PM



BASE OF WALL TO HSS

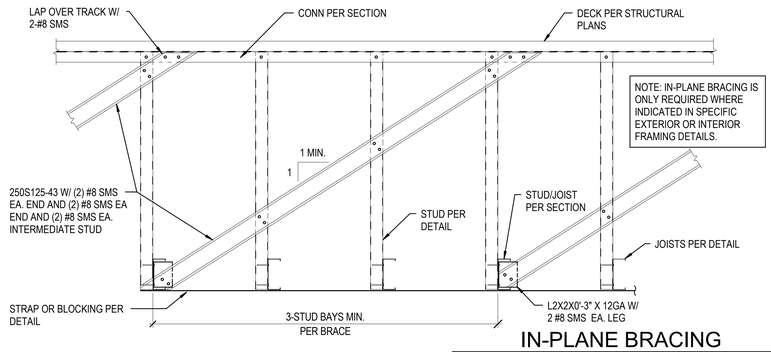
1 1/2" = 1'-0" 20



EXTERIOR CORNER **INTERIOR CORNER**

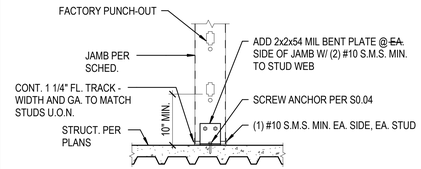
TYPICAL CORNER CLOSURE

1 1/2" = 1'-0" 16



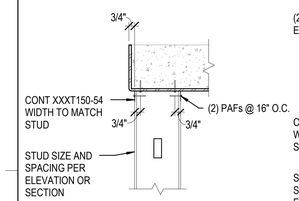
IN-PLANE BRACING

1 1/2" = 1'-0" 8

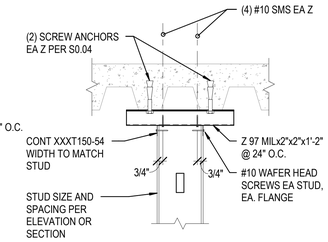


JAMB STUD BOT. TRACK CONN.

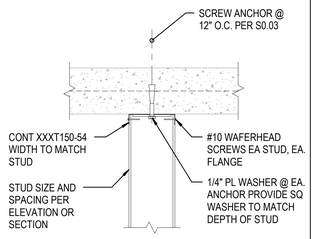
1" = 1'-0" 4



AT BENT PLATE SLAB EDGE



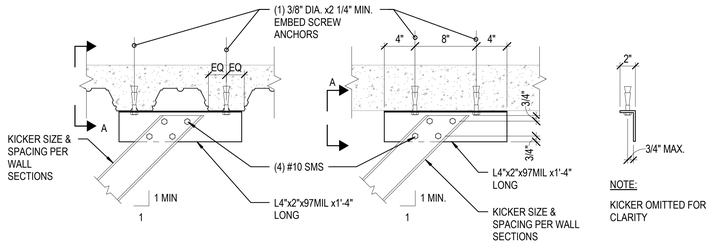
PARALLEL TO DECK



PERPENDICULAR TO DECK

SOFFIT HANGING CONNECTION

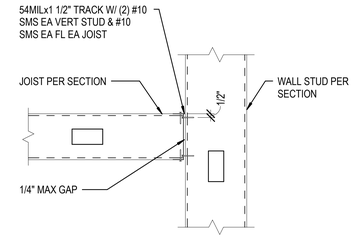
1 1/2" = 1'-0" 15



PERPENDICULAR TO FLUTES **PARALLEL TO FLUTES** **SECTION A**

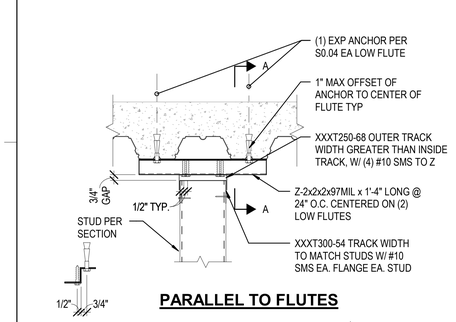
KICKER TO CONCRETE FILLED DECK

1 1/2" = 1'-0" 7



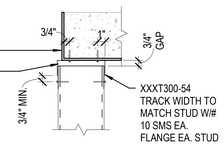
JOIST TO WALL DETAIL

1 1/2" = 1'-0" 3

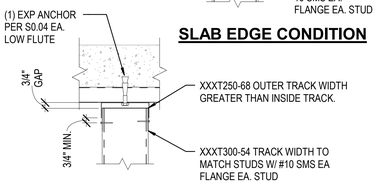


PARALLEL TO FLUTES

SECTION A-A



SLAB EDGE CONDITION

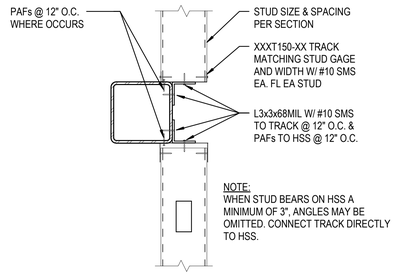


PERPENDICULAR TO FLUTES

SEE S.04 GENERAL NOTES FOR ADDITIONAL INFORMATION

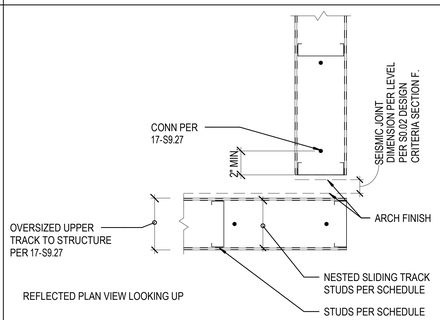
TOP OF WALL SLIDING AND DEFLECTION TRACK

1 1/2" = 1'-0" 17



STUD TO HSS CONNECTION

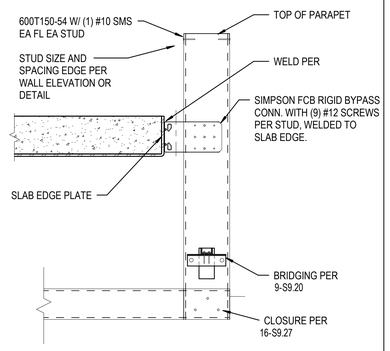
1 1/2" = 1'-0" 14



NOTES:
1. DETAIL SHOWS REFLECTED PLAN VIEW LOOKING UP
2. SEE ARE CHITECTURAL DRAWINGS FOR LOCATIONS OF SEISMIC JOINT AND WALL ASSEMBLY DETAILS.

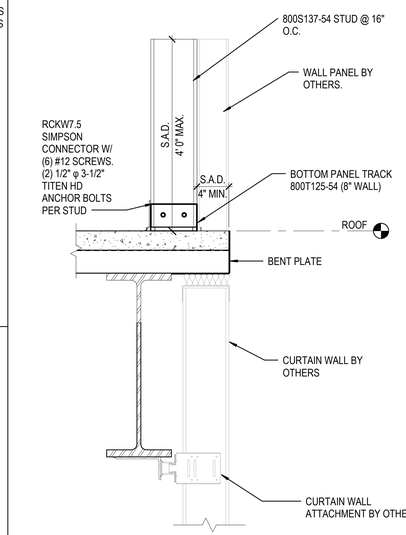
REFLECTIVE PLAN VIEW OF DEFLECTION SLIP TRACK

1 1/2" = 1'-0" 10



BYPASS FRAMING FIXED CLIP CONNECTOR

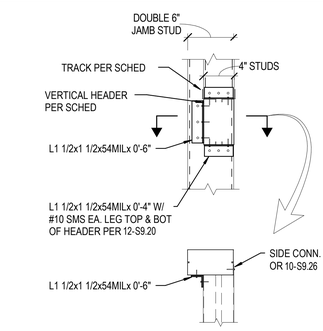
1 1/2" = 1'-0" 6



NOTES:
1. ARCHITECTURAL ELEMENTS SHOWN FOR REFERENCE ONLY. DOES NOT SHOWN THE COMPLETE ARCHITECTURAL ASSEMBLY, S.A.D.
2. PONY WALL WAS NOT DESIGNED TO SUPPORT MULLEONS OF CURTAIN WALLS.

PONY WALL @ PARAPET

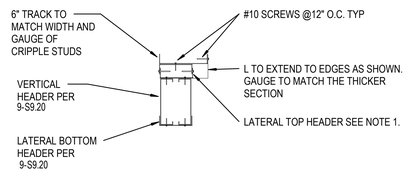
1 1/2" = 1'-0" 1



PLAN VIEW

HEADER @ RECESS FRAMING

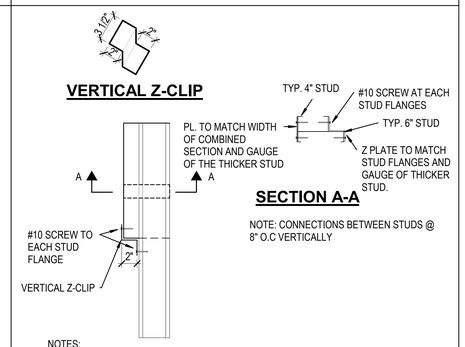
1 1/2" = 1'-0" 13



NOTES:
1. LATERAL TOP HEADER SECTION PER 9-S9.20. WHERE 9-S9.20 SPECIFIES ONE LATERAL TOP HEADER TRACK, A BOXED SECTION MUST BE PROVIDED AS SHOWN.
2. 6" TOP TRACK TO EXTEND UP TO 2 INCHES BEFORE THE 4 INCH JAMB. CONNECTION TO THE JAMB PER 10-S9.26

6" TRACK TO 4" HEADER

1 1/2" = 1'-0" 9



SECTION A-A

NOTE: CONNECTIONS BETWEEN STUDS @ 8" O.C VERTICALLY

NOTES:
1. CONDITION AT TOP OF 4" EXTERIOR WALL SHOWN. CONDITION AT BOTTOM SIM.
2. BRIDGING IN COMBINED SECTIONS PER ALTERNATE 2 DETAIL 9-S9.20
3. S.A.D. FOR WALL OFFSET LOCATIONS.

TYP STUDS TRANSITION

1 1/2" = 1'-0" 5

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REGISTERED PROFESSIONAL ENGINEER DAVID S. BLEIMAN No. 3237 Exp. 03-31-27 STRUCTURAL STATE OF CALIFORNIA

SHEET TITLE

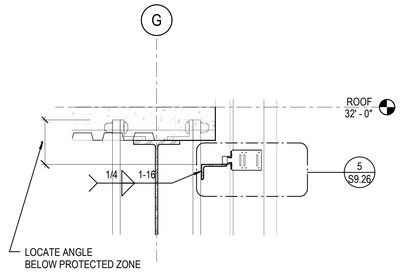
EXTERIOR FRAMING SECTIONS AND DETAILS

PROJECT NUMBER 2023-045S

SHEET NUMBER **S9.27**

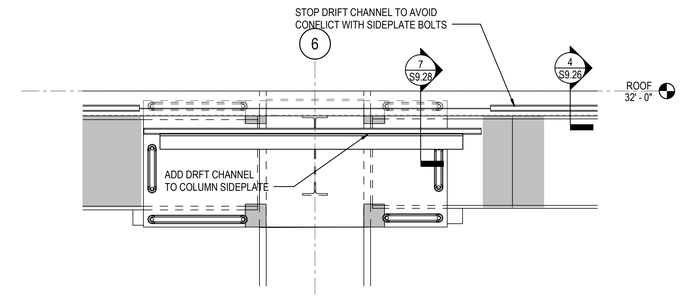
Author

Plot Date: 8/21/2025 5:14:58 PM



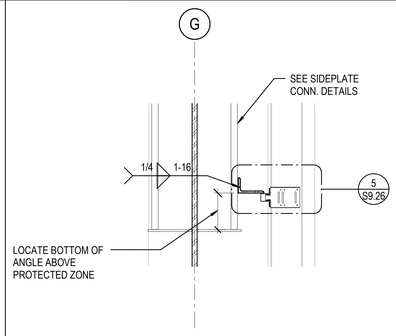
ELEV.

1" = 1'-0" 7



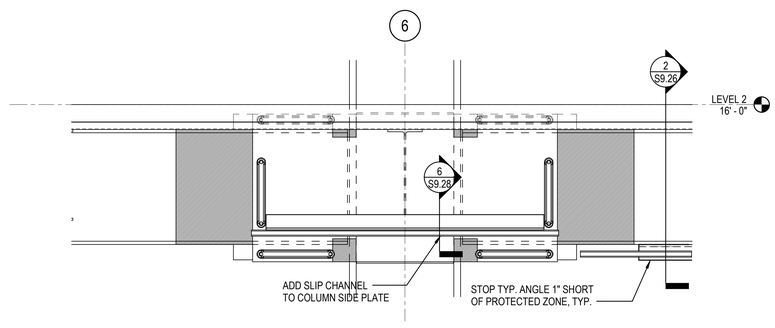
ELEV. @ DECK AND FILL SLIP CHANNEL AT MF CONN.

3/4" = 1'-0" 3



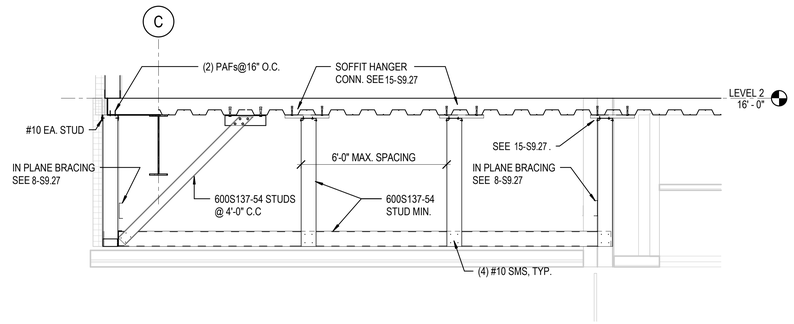
ELEV.

1" = 1'-0" 6



ELEV. @ BOTTOM FLANGE SLIP CHANNEL AT MF CONN.

3/4" = 1'-0" 2



EXTERIOR FRAMING DETAIL

1/2" = 1'-0" 1

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SHEET TITLE
EXTERIOR FRAMING DETAILS

2023-045S
PROJECT NUMBER

S9.28
SHEET NUMBER

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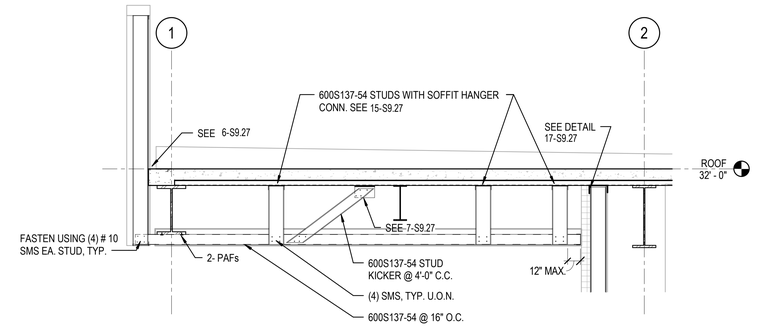

EXTERIOR FRAMING DETAIL

1/2" = 1'-0" 1

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2023-045S
PROJECT NUMBER

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SHEET NUMBER

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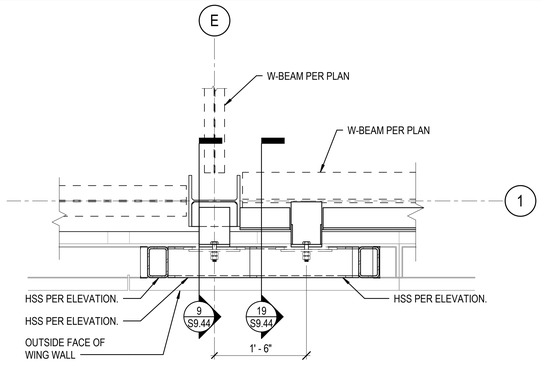
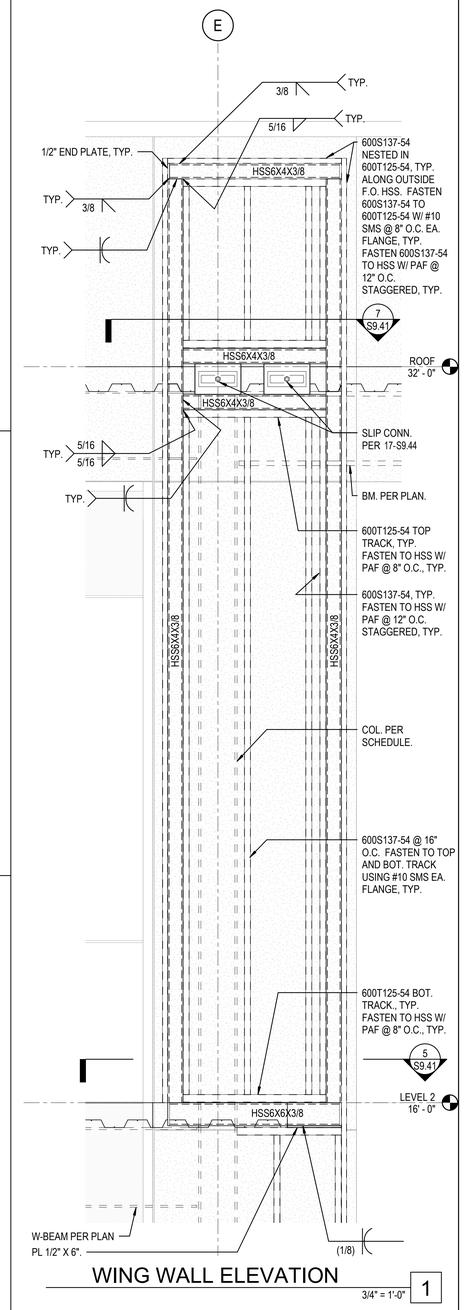


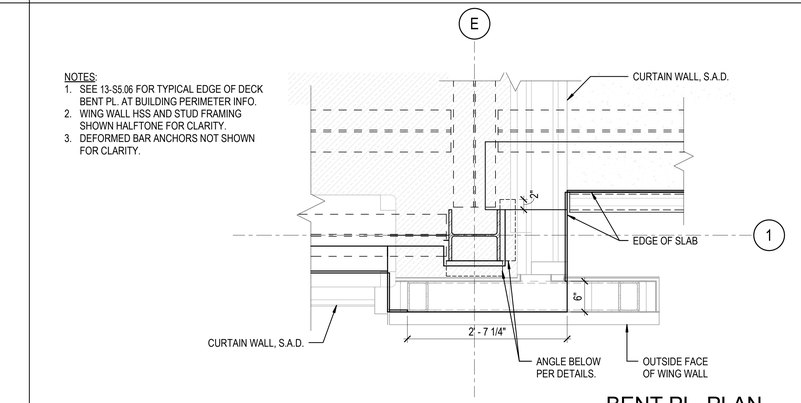
PLAN SECTION

1" = 1'-0" 7



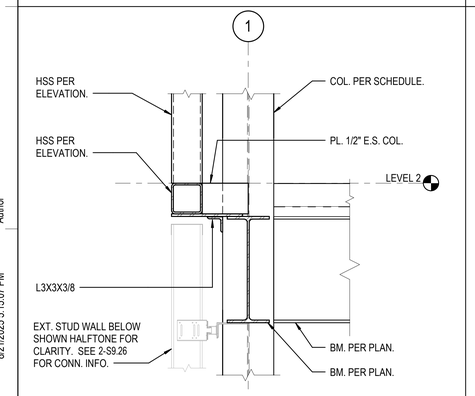
WING WALL ELEVATION

3/4" = 1'-0" 1



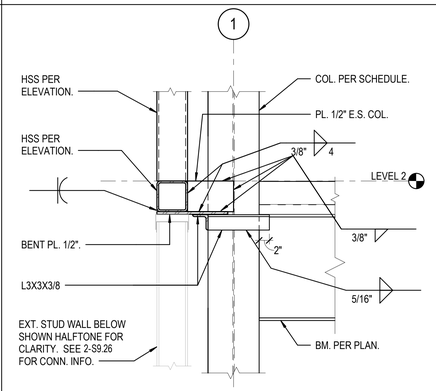
BENT PL. PLAN

1" = 1'-0" 6



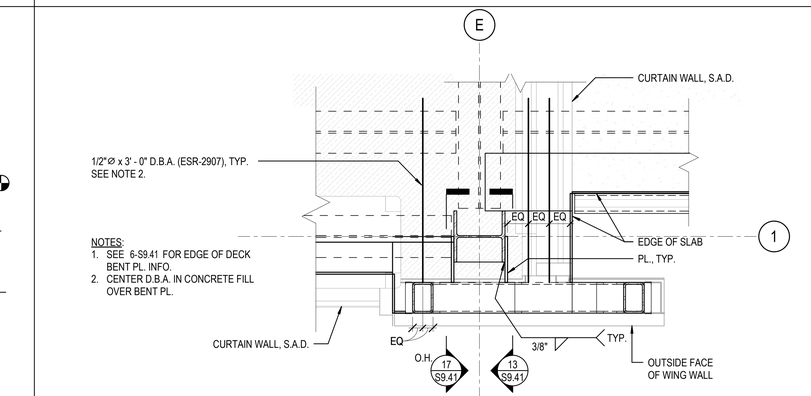
SECTION AT COL.

1" = 1'-0" 17



SECTION AT COL.

1" = 1'-0" 13



PLAN SECTION

1" = 1'-0" 5

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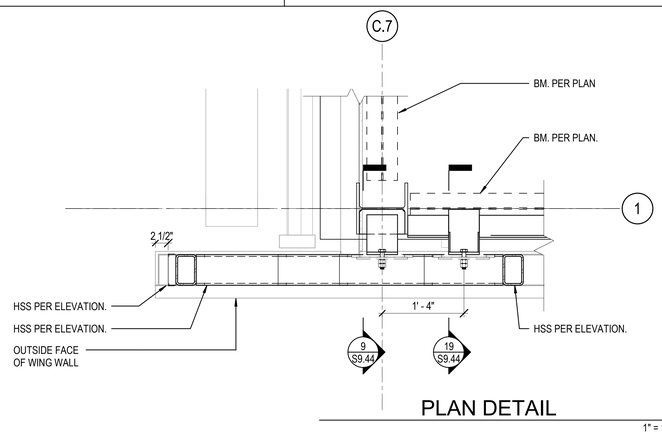
SHEET TITLE

WING WALL ELEVATIONS AND DETAILS

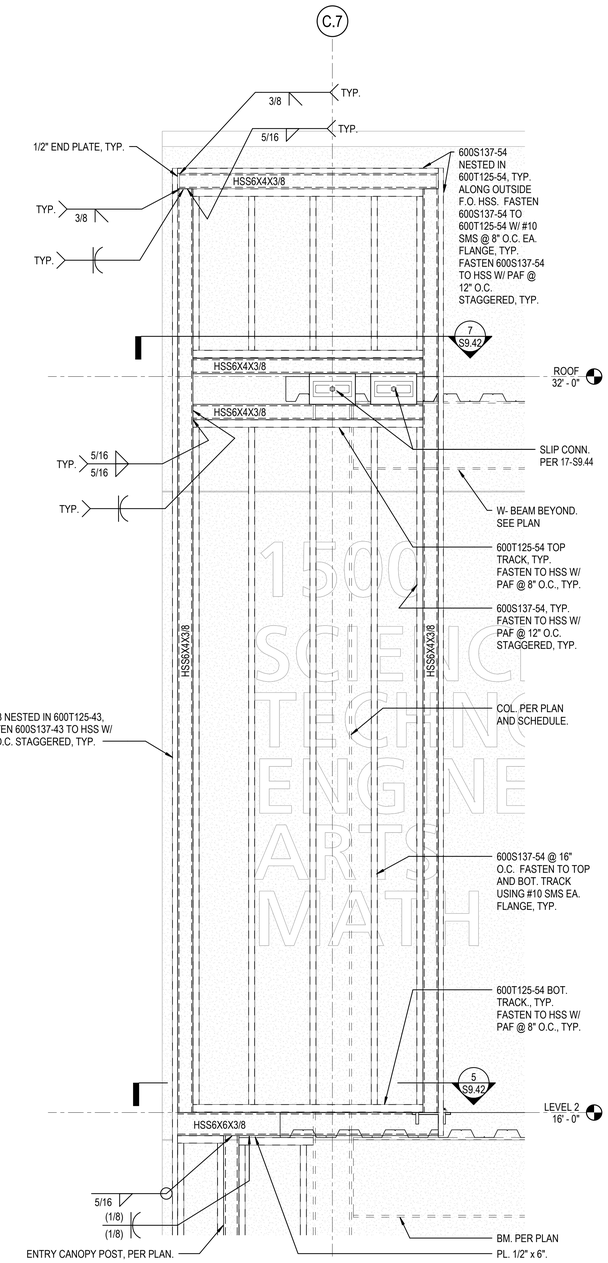
PROJECT NUMBER 2023-045S

SHEET NUMBER **S9.41**



PLAN DETAIL

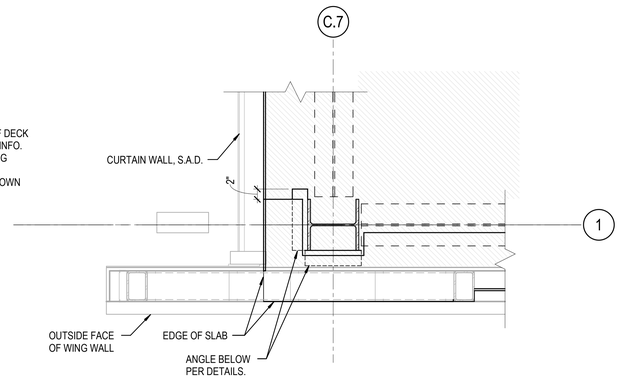
1" = 1'-0" 7



WING WALL ELEVATION

3/4" = 1'-0" 1

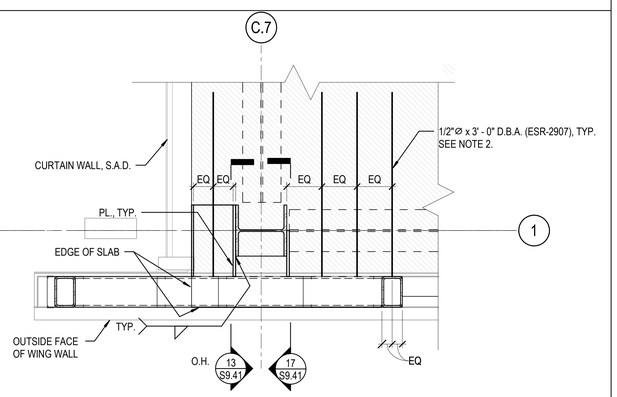
NOTES:
1. SEE 13-S5.06 FOR TYPICAL EDGE OF DECK BENT PL. AT BUILDING PERIMETER INFO.
2. WING WALL HSS AND STUD FRAMING SHOWN HALFTONE FOR CLARITY.
3. DEFORMED BAR ANCHORS NOT SHOWN FOR CLARITY.



BENT PL. PLAN

1" = 1'-0" 6

NOTES:
1. SEE 6-S9.42 FOR EDGE OF DECK BENT PL. INFO.
2. CENTER D.B.A. IN CONCRETE FILL OVER BENT PL.



PLAN DETAIL

1" = 1'-0" 5

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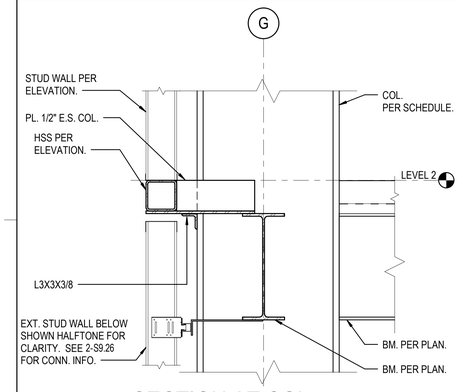
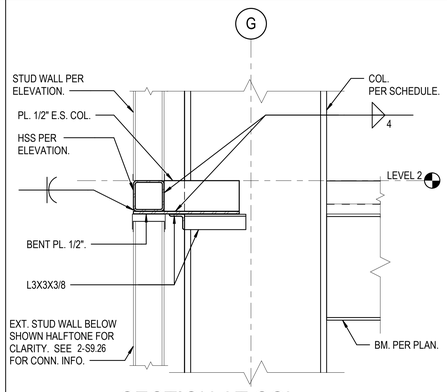


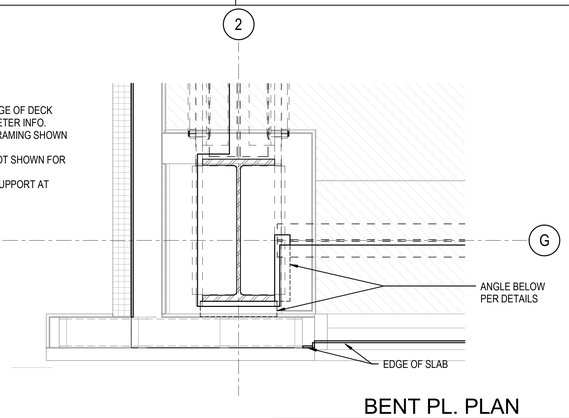
SECTION AT COL.

1" = 1'-0" 20



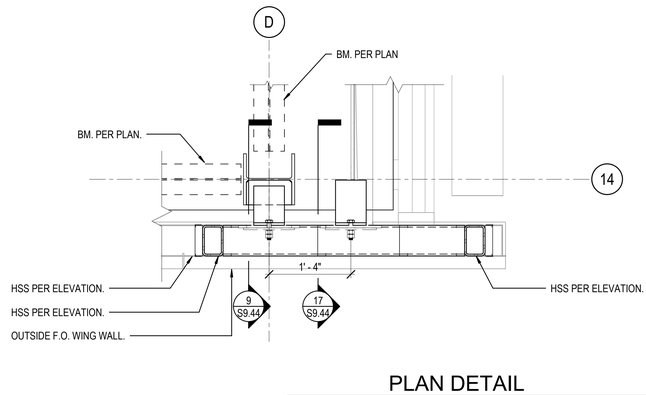
SECTION AT COL.

1" = 1'-0" 16



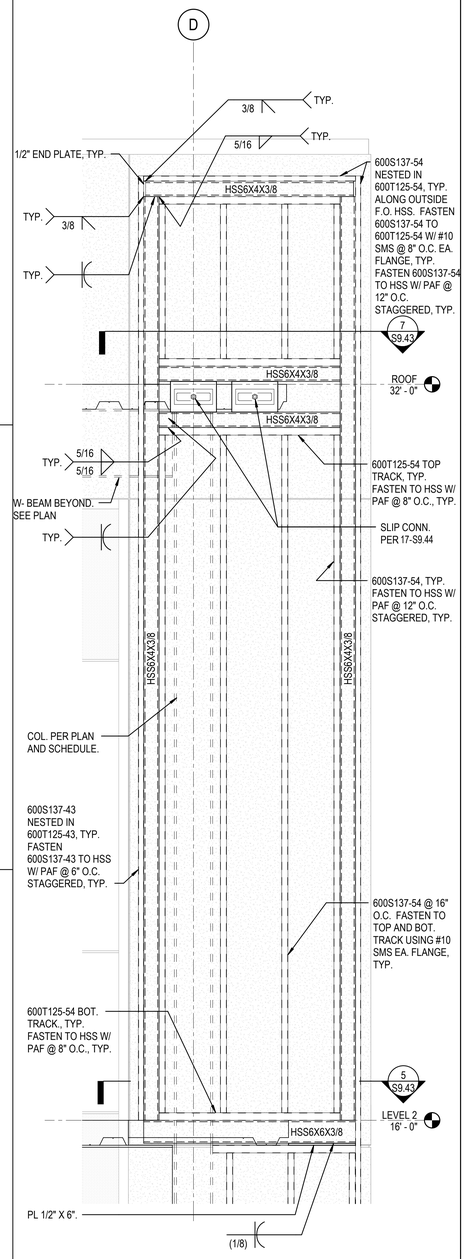
BENT PL. PLAN

1" = 1'-0" 15



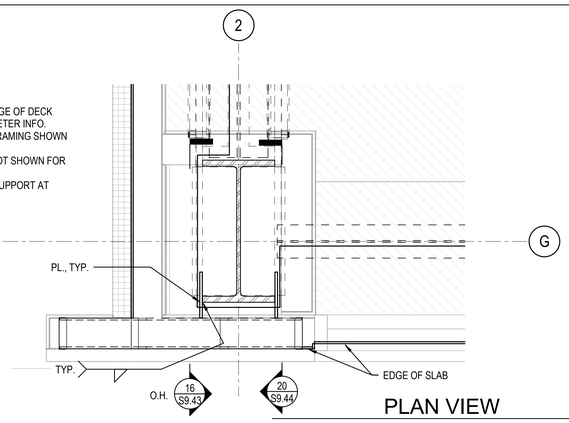
PLAN DETAIL

1" = 1'-0" 7



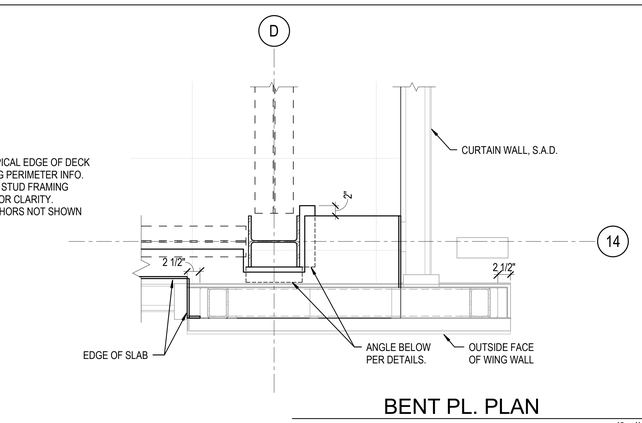
WING WALL ELEVATION

3/4" = 1'-0" 1



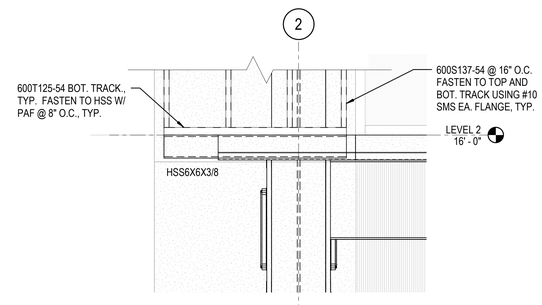
PLAN VIEW

1" = 1'-0" 14



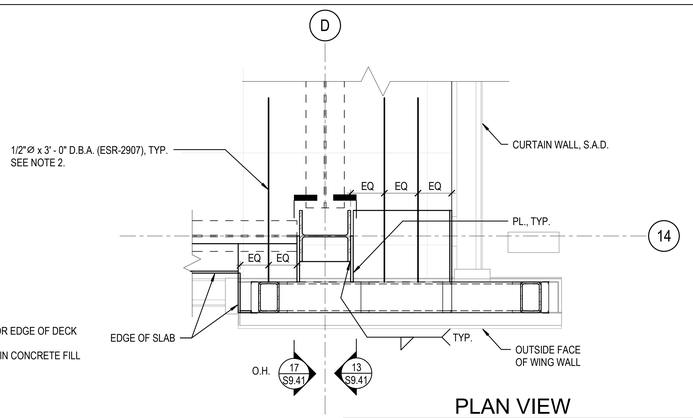
BENT PL. PLAN

1" = 1'-0" 6



EAST ELEVATION LOOKING WEST

3/4" = 1'-0" 13



PLAN VIEW

1" = 1'-0" 5

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SHEET TITLE

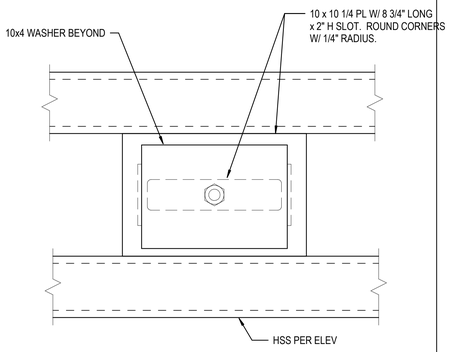
WING WALL ELEVATIONS AND DETAILS

2023-045S

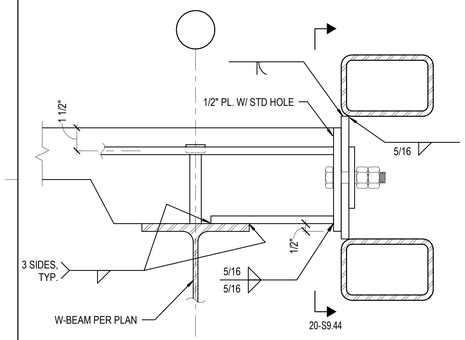
PROJECT NUMBER

S9.43

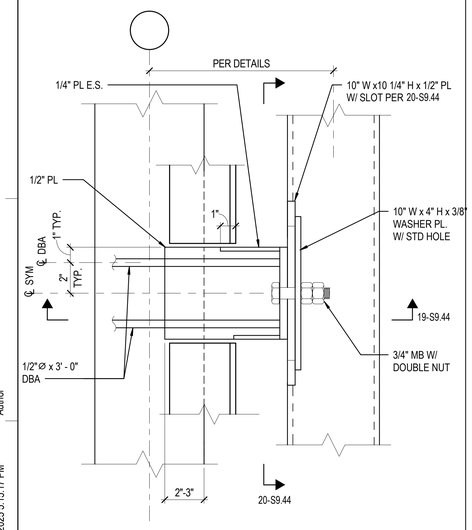
SHEET NUMBER



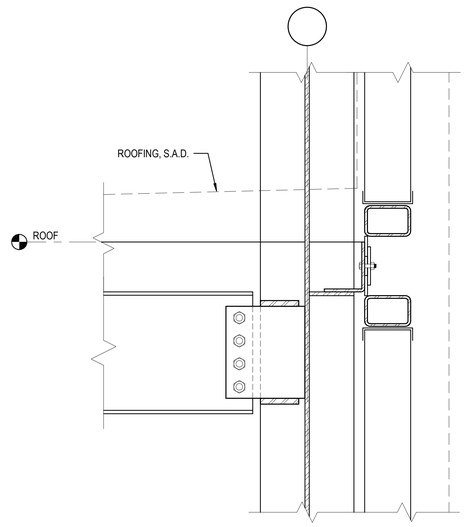
DETAIL 20
3" = 1'-0"



SECTION 19
3" = 1'-0"



PLAN DETAIL 17
3" = 1'-0"



SECTION 9
1 1/2" = 1'-0"

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SHEET TITLE
WING WALL DETAILS

2023-045S
PROJECT NUMBER

S9.44
SHEET NUMBER

ARCHITECTURAL ABBREVIATIONS

A	AB	ANCHOR BOLT
	ACP	ACOUSTICAL CEILING PANEL
	ACS PNL	ACCESS PANEL
	ACT	ACOUSTICAL CEILING TILE
	AD	AREA DRAIN
	ADDL	ADDITIONAL
	ADH	ADHESIVE
	ADJ	ADJUSTABLE
	ADJ	ADJACENT
	AFF	ABOVE FINISH FLOOR
	AFG	ABOVE FINISH GRADE
	AFS	ABOVE FINISH SLAB
	AGGR	AGGREGATE
	ALT	ALTERNATE
	ALUM	ALUMINIM
	ANOD	ANODIZED
	APPROX	APPROXIMATE(LY)
	ARCH	ARCHITECT(URAL)
	AS	ADJUSTABLE SHELF
	ASPH	ASPHALT
	AVG	AVERAGE
	AWF	ACOUSTICAL WALL FABRIC
	AWP	ACOUSTICAL WALL PANEL
B	B	BASE
	B.O.	BOTTOM OF
	BB	BULLETIN BOARD
	BD	BOARD
	BDF	BUILDING DISTRIBUTION FRAME
	BFC	BAFFLE CEILING
	BITUM	BITUMINOUS
	BLDG	BUILDING
	BLKG	BLOCKING
	BM	BENCHMARK
	BOS	BOTTOM OF STEEL
	BOT	BOTTOM
	BRG	BEARING
	BSMT	BASEMENT
	BTWN	BETWEEN
	BUR	BUILT UP ROOFING SYSTEM
C	CAB	CABINET
	CB	CATCH BASIN
	CCR	CARD CONTROL READER
	CCT	CUBICLE CURTAIN TRACK
	CCTV	CLOSED CIRUIT TELEVISION
	CEM	CEMENT, CEMENTITOUS
	CER	CERAMIC
	CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
	CG	CORNER GUARD
	CI	CAST IRON
	CJ	CONTROL JOINT
	CL	CLOCK
	CLG	CEILING
	CLR	CLEAR
	CMU	CONCRETE MASONRY
	CNTR	COUNTER
	COL	COLUMN
	COMM	COMMUNICATIONS
	CONC	CONCRETE
	CONF	CONFERENCE
	CONN	CONNECTION
	CONSTR	CONSTRUCTION
	CONT	CONTINUOUS
	CONTR	CONTRACTOR
	CORR	CORRUGATED
	CPT	CARPET
	CRK	CORK
	CSK	COUNTERSUNK
	CSWK	CASEWORK
	CU	CUBIC
	CUST	CUSTODIAL
D	D	DEPTH
	DBL	DOUBLE
	DBL ACT	DOUBLE ACTING
	DEG	DEGREE
	DEMO	DEMOLISH
	DEPT	DEPARTMENT
	DET	DETAIL
	DF	DRINKING FOUNTAIN
	DIA	DIAMETER
	DIAG	DIAGONAL
	DIFF	DIFFUSER
	DIM	DIMENSION
	DIM PT	DIMENSION POINT
	DISP	DISPENSER
	DIST	DISTANCE
	DN	DOWN
	DR	DRAIN
	DS	DOWNSPOUT
	DSP	DRY STANDPIPE
	DWG	DRAWING
	DWGS	DRAWINGS
E	(E)	EXISTING
	EA	EACH
	EDR	EQUIPMENT DRAWING
	EG	EDGE GUARD
	EIFS	EXTERIOR INSULATION FINISH SYSTEM
	EL	ELEVATION
	ELAST	ELASTOMERIC
	ELEC	ELECTRICAL
	ELEV	ELEVATOR
	EMER	EMERGENCY
	ENCL	ENCLOSURE
	ENGR	ENGINEER
	EOS	EDGE OF SLAB
	EP	ELECTRICAL PANEL
	EPB	ELECTRICAL PANEL BOARD
	EPD	ENVIRONMENTAL PRODUCT DECLARATION
	EPDM	ETHYLENE PROPYLENE DIENE MONOMER
	EPX	EPOXY
	EQ	EQUAL
	EQL SO	EQUALLY SPACED
	EQUIP	EQUIPMENT
	EQUIV	EQUIVALENT
	ER	EPOXY RESIN
	ESCAL	ESCALATOR
	EST	ESTIMATE(D)
	ETR	EXISTING TO REMAIN
	EWC	ELECTRIC WATER COOLER
	EXC	EXCAVATED
	EXH	EXHAUST
	EXP	EXPANSION
	EXP JT	EXPANSION JOINT
	EXT	EXTERIOR
F	F/F	FACE TO FACE
	FA	FIRE ALARM
	FACP	FIRE ALARM CONTROL PANEL
	FAFP	FIRE ALARM FIRE PROTECTION
	FAS	FIRE SLARM STATION
	FB	FLAT BAR
	FCU	FAN COIL UNIT
	FD	FLOOR DRAIN
	FDC	FIRE DEPARTMENT CONNECTION
	FDN	FOUNDATION
	FE	FIRE EXTINGUISHER
	FEC	FIRE EXTINGUISHER CABINET
	FEC-R	RECESSED FIRE EXTINGUISHER CABINET
	FEC-SR	SEMI-RECESSED FIRE EXTINGUISHER CABINET
	FF	FINISH FACE
	FF&E	FURNITURE FIXTURES AND EQUIPMENT
	FH/FEC	FIRE HOSE/FIRE EXTINGUISHER CABINET
	FHC	FIRE HOSE CABINET
	FHMS	FLAT HEAD MACHINE SCREW
	FHWS	FLAT HEAD WOOD SCREW
	FHY	FIRE HYDRANT
	FLAM	FLAMMABLE
	FLASH	FLASHING
	FLEX	FLEXIBLE
	FLUOR	FLUORESCENT
	FO	FACE OF
	FOS	FACE OF STUD
	FRP	FIBERGLASS REINFORCED PLASTIC
	FT	FOOT, FEET
	FTG	FOOTING
	FURN	FURNITURE
	FXTR	FIXTURE
G	G	GAS
	GA	GAUGE, GAGE
	GAL	GALLON
	GALV	GALVANIZED
	GB	GRAB BAR
	GC	GENERAL CONTRACTOR
	GFRC	GLASS FIBER REINFORCED CONCRETE
	GFRG	GLASS FIBER REINFORCED GYPSUM
	GL	GLASS
	GLU LAM	GLUE LAMINATED
	GLZ	GLAZING
	GR	GRADE OR GRADING
	GWB	GYPSUM WALL BOARD
	GYP	GYPSUM
	GYP BD	GYPSUM BOARD
	GYP PLAS	GYPSUM PLASTER
H	H	HIGH
	HB	HOSE BIBB
	HC	HOLLOW CORE
	HD	HEAD
	HDW	HARDWARE
	HDWD	HARDWOOD
	HGT	HEIGHT
	HM	HOLLOW METAL
	HNDRL	HANDRAIL
	HORIZ	HORIZONTAL
	HPC	HIGH PERFORMANCE COATING
	HPD	HEALTH PRODUCT DECLARATION
	HPT	HIGH POINT
	HR	HOUR
	HSS	HOLLOW STRUCTURAL SECTIONS
	HVAC	HEATING-VENTILATION-AIR CONDITIONING
I	ICE	ICE MACHINE
	ID	INSIDE DIAMETER
	IDF	INTERMEDIATE DISTRIBUTION FRAME
	IN	INCH
	INCAND	INCANDESCENT
	INCL	INCLUDE, INCLUDING
	INFO	INFORMATION
	INSUL	INSULATION
	INTR	INTERIOR
	INV	INVERT
	IVT	INTRAVENOUS TRACK
J	JAN	JANITOR
	JST	JOIST
	JT	JOINT
K	KG	KILOGRAM
	KIT	KITCHEN
	KPL	KICK PLATE
	KS	KNEE SPACE
L	L	LENGTH, LONG
	LAB	LABORATORY
	LAC	LACTATION
	LAM	LAMINATE, LAMINATION
	LAV	LAVATORY
	LB	POUND
	LED	LIGHT EMITTING DIODE
	LF	LINEAR FOOT
	LG	LENGTH
	LIN	LINEAR
	LL	LEAD LINED
	LPT	LOW POINT
	LT	LIGHT
	LT WT	LIGHT WEIGHT
	LTG	LIGHTING
	LVR	LOUVER
M	M	METERS
	MACH	MACHINE
	MATL	MATERIAL
	MAX	MAXIMUM
	MB	MACHINE BOLT
	MDF	MEDIUM DENSITY FIBERBOARD
	MDO	MEDIUM DENSITY OVERLAY
	MECH	MECHANICAL
	MED	MEDIUM
	MEMB	MEMBRANE
	MFR	MANUFACTURER
	MH	MANHOLD
	MICRO	MICROVAVE
	MIN	MINIMUM
	MISC	MISCELLANEOUS
	MKB	MARKERBOARD
	MLDG	MOLDING
	MM	MILLIMETERS
	MO	MASONRY OPENING
	MOD	MODULE, MODULAR
	MTD	MOUNTED
	MTG	MOUNTING
	MTL	METAL
	MTLB	METAL BASE
	MULL	MULLION
	MVBL	MOVABLE
N	(N)	NEW
	NA	NOT APPLICABLE
	NAT	NATURAL
	NE	NORTHEAST
	NIC	NOT IN CONTRACT
	NO	NUMBER
	NOM	NOMINAL
	NRC	NOISE REDUCTION COEFFICIENT
	NTS	NOT TO SCALE
	NW	NORTHWEST
O	OA	OVERALL
	OC	ON CENTER
	OCC	OCCUPANCY
	OD	OUTSIDE DIAMETER
	OFCI	OWNER FURNISHED- CONTRACTOR INSTALLED
	OFOI	OWNER FURNISHED- OWNER INSTALLED
	OPP	OPPOSITE
	OPR	OPERABLE
	ORD	OVERFLOW ROOF DRAIN
	OZ	OUNCE
P	PA	PUBLIC ADDRESS
	PART	PARTIAL
	PBD	PARTICLEBOARD
	PBX	PRIVATE TELEPHONE EXCHANGE
	PC	PRIVACY CURTAIN
	PCF	POUNDS PER CUBIC FOOT
	PCI	POUNDS PER CUBIC INCH
	PERF	PERFORATED
	PERIM	PERIMETER
	PERM	PERMANENT
	PERP	PERPENDICULAR
	PI	POINT OF INTERSECTION
	PL	PLATE
	PLAM	PLASTIC LAMINATE
	PLAS	PLASTER
	PLBG	PLUMBING
	PLF	POUNDS PER LINEAR FOOT
	PLYWD	PLYWOOD
	PNL	PANEL
	PNT	PAINT
	PORT	PORTABLE
	PP	PUSH PLATE
	PPM	PARTS PER MILLION
	PPR	PAPER DISPENSER
	PR	PAIR
	PRCST	PRECAST
	PREFAB	PREFABRICATION
	PREFIN	PREFINISHED
	PREP	PREPARATION
	PROJ	PROJECT
	PROP	PROPERTY
	PSF	POUNDS PER SQUARE FOOT
	PSI	POUNDS PER SQUARE INCH
	PT	POINT
	PTD	PAINTED
	PTN	PARTITION
	PVC	POLYVINYL CHLORIDE
	PVG	PAVING
	PVMT	PAVEMENT
	PWR	POWER
Q	QTR	QUARTER
	QTY	QUANTITY
R	R	RISER
	R/O	REVERSE OSMOSIS WATER
	RA	RETURN AIR
	RAD	RADIUS
	RB	RESILIENT BASE
	RCP	REFLECTED CEILING PLAN
	RCPT	RECEPTACLE
	RD	ROOF DRAIN
	RECT	RECTANGULAR
	REF	REFRIGERATOR
	REG	REGISTER
	REINF	REINFORCE (D) (ING) (MENT)
	REQD	REQUIRED
	REQT	REQUIREMENT
	RET	RETURN AIR
	REV	REVISION
	RF	RESILIENT FLOORING
	RH	RIGHT HAND
	RHWS	ROUND HEAD WOOD SCREW
	RM	ROOM
	RND	ROUND
	RO	ROUGH OPENING
	ROW	RIGHT OF WAY
	RS	RESINOUS FLOOR
	RSN	RESIN PANEL
	RWL	RAIN WATER LEADER
S	S	SOUTH
	SA	SUPPLY AIR
	SASM	SELF-ADHERED SHEET MEMBRANE
	SB	SPLASH BLOCK
	SC	SOLID CORE
	SCHED	SCHEDULE
	SCRN	SCREEN
	SD	STORM DRAIN
	SE	SOUTHEAST
	SEC	SECTION
	SED	SEE ELECTRICAL DRAWINGS
	SEG	SEGMENT
	SEP	SEPARATION OR SEPARATE
	SEP JT	SEPARATION JOINT
	SF	SQUARE FEET
	SHT	SHEET, SHEETING
	SHV	SHELVES, SHELVING
	SHWR	SHOWER
	SIM	SIMILAR
	SK	SINK
	SKLR	SPRINKLER
	SMD	SEE MECHANICAL DRAWINGS
	SMS	SHEET METAL SCREW
	SOG	SLAB ON GRADE
	SP	SPACE, SPACED, SPACING
	SPC	SPECIALTY APPLICATION
	SPD	SOAP DISPENSER
	SPEC	SPECIFICATION
	SPKR	SPEAKER
	SQ	SQUARE
	SS	SANITARY SEWER
	SSD	SEE STRUCTURE DRAWING
	SSK	SERVICE SINK
	SSM	SOLID SURFACE MATERIAL
	SST	STAINLESS STEEL
	ST	STAINLESS
	STA	STATION
	STAG	STAGGERED
	STC	SOUND TRANSMISSION COEFFICIENT
	STD	STANDARD
	STL	STEEL
	STN	STONE
	STNB	STONE BASE
	STOR	STORAGE
	STR	STAIR
	STRUCT	STRUCTURAL
	STS	SILICONE TRANSITION SHEET
	STU	STUDENT
	SUSP	SUPSENDED
	SVCE	SERVICE
	SW	SOUTHWEST
	SYMM	SYMMETRICAL
	SYST	SYSTEM
T	T	TREAD
	T&B	TOP AND BOTTOM
	TBD	TO BE DETERMINED
	TC	TOP OF CONCRETE, TOP OF CURB
	TD	TRENCH DRAIN
	TEL	TELEPHONE
	TEMP	TEMPORARY
	THERM	THERMAL
	THK	THICK, THICKNESS
	THRES	THRESHOLD
	THRU	THROUGH
	TL	TILE
	TLB	TILE BASE
	TMPD GL	TEMPERED GLASS
	TO	TOP OF
	TOR	TOP OF RAILING
	TOS	TOP OF STEEL
	TOT	TOTAL
	TOW	TOP OF WALL
	TP	TOP OF PAVEMENT
	TPT	TOILET PARTITION
	TRC	TRASH RECEPTACLE
	TRZ	TERAZZO
	TTB	TELEPHONE TERMINAL BOARD
	TV	TELEVISION
	TYP	TYPICAL
U	UC	UNDER COUNTER
	UL	ULDERWRITERS LABORATORIES
	UON	UNLESS OTHERWISE NOTED
	UPH	UPHOLSTERY
	UPS	UNINTERRUPTABLE POWER SUPPLY
	UTIL	UTILITY
V	VAC	VACUUM
	VB	VALVE BOX
	VCT	VINYL COMPOSITION TILE
	VERT	VERTICAL
	VEST	VESTIBULE
	VIF	VERIFY IN FIELD
	VIT	VITREOUS
	VOL	VOLUME
	VP	VENT PIPE
W	W	WEST
	W/	WITH
	W/D	WASHER/DRYER
	W/O	WITHOUT
	W/W	WALL TO WALL
	WAP	WIRELESS ACCESS POINT
	WB	WHITEBOARD
	WC	WATER CLOSET
	WCHR	WHEELCHAIR
	WCV	WALLCOVERING
	WD	WOOD
	WDB	WOOD BASE
	WDF	WOOD FLOORING
	WDV	WOOD VENEER
	WDW	WINDOW
	WF	WORKABLE FLAT
	WGL	WIRE GLASS
	WM	WIRE MESH
	WO	WHERE OCCURS
	WOM	WALK OFF MAT
	WP	WALL PROTECTION
	WPT	WORKING POINT
	WR	WATER RESISTANT
	WSCT	WAINSCOT
	WSP	WET STANDPIPE
	WT	WEIGHT
	WTHPRF	WEATHERPROOF
	WTR	WINDOW TREATMENT
	WTRPRF	WATERPROOF
	WWF	WELDED WIRE FABRIC
	WWM	WELDED WIRE MESH
X	XFMR	TRANSFORMER
Y	YD	YARD

ARCHITECTURAL FLOOR PLAN SYMBOLS

DIMENSION SYMBOLS

10' - 0" — DIMENSION SHOWN TO:
- STRUCTURAL GRID
- LAYOUT GRID
- CENTERLINE OF ASSEMBLY
- CENTER OF OPENING
- CENTER OF EQUIP/ FURN

GRID OR CENTER LINE TYPICAL

10' - 0" — DIMENSION SHOWN TO:
- PARTITION ASSEMBLY
- EDGE OF DOOR OPENING
- OTHER BUILDING ELEMENT
- WORKING POINT INDICATED ON DETAIL

PARTITION SYMBOLS

PARTITION

EXISTING PARTITION

GENERAL SYMBOLS

BASE CABINETS

BASE AND WALL CABINETS

WALL CABINETS

TOILET PARTITION AND DOOR

HANDRAIL

BUMPER GUARD

CG CG — CORNER GUARD

EG — EDGE GUARD

OVERHEAD ITEMS

UNDER-COUNTER ITEMS

NIC — NOT-IN-CONTRACT ITEMS

FIRE EXTINGUISHER SYMBOLS

FEXT — FIRE EXTINGUISHER BRACKET MOUNTED

FEC — FIRE EXTINGUISHER CABINET SEMI-RECESSED

FEC-R — FIRE EXTINGUISHER CABINET RECESSED

PLUMBING SYMBOLS

TOILET - WALL HUNG

URINAL - FLOOR/WALL HUNG

LAVATORY - COUNTERTOP

LAVATORY - PEDESTAL/WALL HUNG

CUSTODIAL SINK

DRINKING FOUNTAIN / EWC

JANITOR'S RECEPTOR

FD — FLOOR DRAIN IN SLOPING FLOOR

ARCHITECTURAL DEMOLITION SYMBOLS

EXISTING PARTITION TO REMAIN

EXISTING PARTITION TO BE REMOVED

NO OPENING MARK AT EXISTING DOORS WITH NO WORK - TYP

EXISTING DOOR TO REMAIN

EXISTING DOOR AND FRAME TO BE REMOVED

℄ — CENTERLINE

EXISTING WINDOW TO REMAIN

EXISTING WINDOW TO BE REMOVED

EXISTING LAY-IN CEILING TO REMAIN

EXISTING LAY-IN CEILING TO BE REMOVED

DOOR AND INTERIOR OPENING SYMBOLS

122 — DOOR OPENING MARK - TYP

SINGLE OPENING DOOR

DOUBLE ACTING DOOR

PAIR DOORS - EQUAL SIZES

PAIR DOORS - UNEQUAL SIZES

PAIR DOORS - DOUBLE EGRESS

2 PANEL BI-FOLD DOOR

PAIR - BI FOLD DOOR

OVERHEAD ROLLING DOOR

INTERIOR GLAZED WINDOW

DOOR WITH SIDE LIGHT

SLIDING DOOR - BETWEEN JAMBS

SLIDING POCKET DOOR

ARCHITECTURAL REFERENCE SYMBOLS

BUILDING SECTION

SIM / A101 — WALL SECTION NUMBER; DIRECTION OF VIEW; SHEET WHERE DRAWN

WALL SECTION

SIM / A101 — WALL SECTION NUMBER; SHEET WHERE DRAWN; DIRECTION OF VIEW

EXTERIOR ELEVATION

AX.X.X / X — ELEVATION NUMBER AND DIRECTION; SHEET WHERE DRAWN

DETAIL REFERENCE

1 / A101 — SIM; DETAIL NUMBER; SHEET WHERE DRAWN, HYPHEN INDICATES DETAIL ON SAME SHEET.

SECTION DETAIL REFERENCE

1 / A102 — SIM; ELEVATION NUMBER AND DIRECTION; SHEET WHERE DRAWN

INTERIOR ELEVATION REFERENCE

1 / A102 / 2 — ELEVATION NUMBER AND DIRECTION OF VIEW; SHEET WHERE DRAWN

ROOM NAME AND NUMBER

ROOM NAME
101

WINDOW AND LOUVER TYPE MARK

W-X — SEE CORRESPONDING NUMBER ON SCHEDULE

M-X — SEE ASSEMBLY TYPE FOR DETAILS.

WS-X — WINDOW SHADE

C X — CURTAIN WALL TYPE

GL-X — GLASS TYPE MARK

LOU-X — EXTERIOR LOUVER TYPE

LEVEL LINE

SECOND LEVEL +10'-0" — NAME OF LEVEL; INDICATES HEIGHT ABOVE PROJECT DATUM

REVISION EXTENT

EXTENT OF CURRENT REVISION

SHEET KEYNOTE MARK

A502 — SEE CORRESPONDING NUMBERED KEYNOTE ON SHEET WHERE REFERENCE OCCURS

REFERENCE KEYNOTE MARK

088000.A03 — THE FIRST SIX DIGITS REPRESENT THE SPECIFICATION SECTION
EXAMPLE 1: THE CHARACTERS FOLLOWING THE PERIOD REPRESENT PARTICULAR ITEMS OF THE SPECIFIED SYSTEM

061600.5/8" PLYWOOD — EXAMPLE 2: THE TEXT IS THE PRODUCT DESCRIPTION

MATCH LINE REFERENCES

MATCH LINE / SHEET A2.1.1 — REFER TO THE SHEET WHERE CONTINUATION IS FOUND

OR

SHEET A2.1.2 / SHEET A2.1.1 — REFER TO THE SHEETS EITHER SIDE OF THE MATCH LINE

DRAWING TITLE SYMBOLS

1 VIEW NAME SCALE: 1/8" = 1'-0" — BASIC DRAWING TITLE

1 VIEW NAME SCALE: 1/8" = 1'-0" — BASIC DRAWING TITLE WITH LINE

VIEW NAME SCALE: 1/8" = 1'-0" — DRAWING TITLE WHEN ONLY ONE PLAN EXISTS ON THE DRAWING

LAYOUT GRID LINES

A / B — NEW GRID IDENTIFICATION; EXISTING GRID IDENTIFICATION; 90.00°; 1

NORTH ARROW REFERENCES

NORTH — OR — PROJECT NORTH — OR — TRUE NORTH

ARCHITECTURAL MATERIAL INDICATIONS

PLAN AND SECTION

- EARTH
- AGGREGATE BASE COURSE
- CONCRETE
- CONCRETE MASONRY UNIT
- BRICK MASONRY
- PRECAST CONCRETE
- LIMESTONE, SANDSTONE, GRANITE
- MARBLE
- STEEL, STAINLESS STEEL (LARGE SCALE)
- ALUMINUM (LARGE SCALE)
- OTHER METALS (LARGE SCALE)
- WOOD FRAMING / BLOCKING - CONTINUOUS (LARGE SCALE)
- WOOD FRAMING / BLOCKING - DISCONTINUOUS (LARGE SCALE)
- PLYWOOD (LARGE SCALE)
- FINISH WOOD (LARGE SCALE)
- EIFS INSULATION BOARD (LARGE SCALE)
- SEMI-RIGID INSULATION (LARGE SCALE)
- BATT INSULATION (LARGE SCALE)
- MORTAR, SAND, FIREPROOFING, STUCCO, GYPSUM BOARD
- COMPOSITE BOARD (LARGE SCALE)
- ACOUSTIC TILE (LARGE SCALE)
- PROTECTION BOARD (LARGE SCALE)
- CERAMIC TILE (LARGE SCALE)
- GLASS (LARGE SCALE)
- GYPSUM SHEATHING
- GYPSUM BOARD

ELEVATION

- PLASTER CONCRETE
- MASONRY, METAL SIDING (HORIZONTAL)
- GLASS BLOCK, CERAMIC TILE
- METAL SIDING (VERTICAL)
- GLASS

ARCHITECTURAL GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY TO ALL ARCHITECTURAL SERIES SHEETS. FOR GENERAL NOTES APPLICABLE TO ALL SHEETS REFER TO THE "PROJECT GENERAL NOTES":

A. THE ARCHITECTURAL SERIES SHEETS ARE PART OF A COMPLETE SET OF CONSTRUCTION DOCUMENTS DESCRIBING THE WORK FOR THIS PROJECT. USERS OF THESE DOCUMENTS ARE RESPONSIBLE TO REVIEW ALL CONSTRUCTION DOCUMENTS TO UNDERSTAND AND COORDINATE THE GRAPHIC AND ANNOTATED INFORMATION PROVIDED IN THESE ARCHITECTURAL SERIES SHEETS.

B. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATIONS SHOWN, DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES, AND SPECIFICATIONS.

C. ALL VISUALLY EXPOSED STRUCTURAL, MECHANICAL AND ELECTRICAL ELEMENTS, INCLUDING EXPOSED METAL FLOOR AND ROOF DECK, ARE TO BE PAINTED UNLESS OTHERWISE NOTED. THIS INCLUDES ELEMENTS THAT MAY BE VISIBLE THROUGH GRILLES, LOUVERS OR CEILINGS. COLORS AND PAINT MATERIALS ARE DEFINED IN THE FINISH SCHEDULE, THE SPECIFICATIONS, AND THE DRAWINGS AS APPLICABLE TO THE CONSTRUCTION DOCUMENTS.

REFERENCE ELEVATION DEFINITIONS

A. THE TERM "REFERENCE" ELEVATION OR DIMENSIONS REFERS TO A NOMINAL WORK POINT. THE ACTUAL ELEVATION MAY VARY FROM THE REFERENCE POINT. REFER TO APPLICABLE DETAIL TO DETERMINE THE RELATIONSHIP BETWEEN THE ACTUAL ELEVATION OR DIMENSION AND THE STATED REFERENCE POINT.

B. THE DESIGN REFERENCE ELEVATION +0'-0" SHOWN ON THE ARCHITECTURAL DRAWINGS CORRESPONDS TO THE FINISH FLOOR ELEVATION OF THE GROUND FLOOR. ESTABLISH THE ACTUAL ELEVATION WITH RESPECT TO SITE-SPECIFIC BENCHMARKS AND CONTROL POINTS AS DEFINED IN THE CIVIL DRAWINGS.

C. "FINISH FLOOR" ELEVATIONS ARE MEASURED AT THE TOP OF THE CONCRETE FLOOR SLAB UNLESS OTHERWISE NOTED. APPLIED FINISHES SUCH AS RESILIENT FLOORING OR CARPET MAY RAISE THE ACTUAL FINISH SURFACE ABOVE THE REFERENCE ELEVATION PROVIDED FOR THE FINISH FLOOR.

D. WHERE CONCRETE FLOOR SLAB IS DEPRESSED TO ACCOMMODATE MORTAR BEDS, SETTING BEDS, RAISED ACCESS FLOORS, AND OTHER SIMILAR FLOOR ASSEMBLIES, "FINISHED FLOOR" ELEVATIONS ARE MEASURED AS IF CONCRETE DEPRESSION DOES NOT OCCUR.

E. CEILING HEIGHT ELEVATIONS ARE MEASURED TO BOTTOM OF FINISH SURFACES AND STATED IN RELATION TO DISTANCE ABOVE THE REFERENCE ELEVATION FOR THE FINISH FLOOR UNLESS OTHERWISE NOTED.

F. ROOF ELEVATIONS ARE MEASURED TO TOP OF SURFACES AND STATED IN RELATION TO DISTANCE ABOVE THE REFERENCE ELEVATION PROVIDED FOR THE UPPERMOST FINISH FLOOR UNLESS OTHERWISE NOTED. ELEVATIONS GIVEN ARE TO TOP OF STEEL (TOS), TOP OF DECK (TOD), OR TOP OF TAPERED INSULATION (TOT) UNLESS OTHERWISE NOTED.

ARCHITECTURAL ASSEMBLY SYSTEM TAGS

TYPICAL ARCHITECTURAL ASSEMBLY IDENTIFICATION MARK

A000X — PLAN
A000X — SECTION

FOR THE ASSEMBLY TYPES LISTED, SEE THE FOLLOWING SHEETS FOR SYSTEM DETAILS AND DESCRIPTIONS:

TYPE **A** = EXTERIOR WALLS - ABOVE GRADE - SHEET A5.0.X
TYPE **B** = EXTERIOR BELOW GRADE VERTICAL ASSEMBLIES - SHEET A5.0.X
TYPE **H** = EXTERIOR BELOW GRADE HORIZONTAL ASSEMBLIES - SHEET A5.0.X
TYPE **R** = ROOFING SYSTEMS - SHEET A5.0.X
TYPE **S** = EXTERIOR SOFFITS - SHEET A5.0.X
TYPE **X** = EXTERIOR FENESTRATION SYSTEMS - SHEET A5.0.X

TYPE **P** = INTERIOR WALL PARTITIONS - SHEET A9.2.X
TYPE **Y** = INTERIOR FENESTRATION SYSTEMS - SHEET A9.3.X

A000X
- ASSEMBLY TYPE
- ASSEMBLY NAME REPRESENTING: -MAJOR GROUP -FINISH SYSTEM -SUBSTRATE CONFIGURATION
- ASSEMBLY VARIABLE (NOT ALWAYS PRESENT)

ASSEMBLY TAG DESIGNATION

FIRE RESISTIVE RATING INDICATION

1 HOUR FIRE RESISTANCE RATING

1 HOUR EXISTING FIRE RESISTANCE RATING

ARCHITECTURAL SYMBOL NOTES

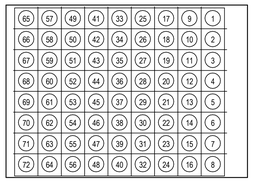
A. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE AND DEFINE TYPICAL GRAPHIC SYMBOLS WHICH MAY TYPICALLY OCCUR ON THE ARCHITECTURAL DRAWINGS.

B. THIS SHEET MAY ILLUSTRATE ABBREVIATIONS, SYMBOLS AND LEGENDS WHICH DO NOT OCCUR AS PART OF THIS PROJECT. REFER TO THE DRAWINGS TO DETERMINE WHICH ITEMS APPLY TO THE WORK OF THIS PROJECT.

C. ADDITIONAL SYMBOLS NOT SHOWN OR DEFINED ON THIS SHEET MAY BE USED ON THE ARCHITECTURAL DRAWINGS AND ARE TYPICALLY DEFINED ON OTHER SHEETS.

D. SYMBOLS ARE NOT DRAWN TO SCALE. TO DETERMINE THE ACTUAL SIZES OF ELEMENTS REPRESENTED BY SYMBOLS, REFER TO THE SPECIFICATIONS AND OTHER SHEETS, AS MAY APPLY.

MODULAR LAYOUT / DETAIL NUMBER

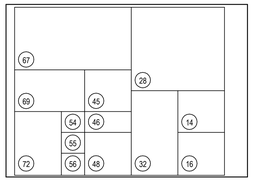


DETAIL MODULE LAYOUT

DETAILS ARE NUMBERED ACCORDING TO THEIR LOCATION ON EACH SHEET AND ARE NOT NUMBERED CONSECUTIVELY. EACH MODULE MAINTAINS THE NUMBER ASSOCIATED WITH IT

THIS SYSTEM CAN BE APPLIED TO ANY SHEET THAT CONTAINS MULTIPLE IMAGES. THE IMAGES ARE NUMBERED ACCORDING TO THE MODULE SYSTEM SHOWN ILLUSTRATED TO THE LEFT

EACH DETAIL MAY OCCUPY ONE OR MORE WHOLE MODULES. THE DETAIL MODULE IS USED TO ESTABLISH THE IDENTIFYING LABEL FOR EACH DETAIL, NOT TO LIMIT THE SIZE OF THE DETAIL



DETAIL NUMBERING EXAMPLE

THE NUMBER OF THE MODULE WHICH OCCURS IN THE LOWER LEFT CORNER OF A SINGLE MODULE OR SEVERAL MODULES GROUPED TOGETHER WILL DEFINE THE FINAL DETAIL NUMBER AS SHOWN IN THE ILLUSTRATION TO THE LEFT. ALTHOUGH THE MODULE NUMBERS OCCUR IN CONSECUTIVE ORDER, NOT ALL NUMBERS ARE NECESSARILY USED ON EACH SHEET

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INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT — CAREY S. WOO — C-25287 — 3 / 31 / 2027 — Renewal 2026 — STATE OF CALIFORNIA

SHEET TITLE

ARCHITECTURAL ABBREVIATIONS AND SYMBOLS

14794

PROJECT NUMBER

CD

A0.0.1

SHEET NUMBER

START Sheet

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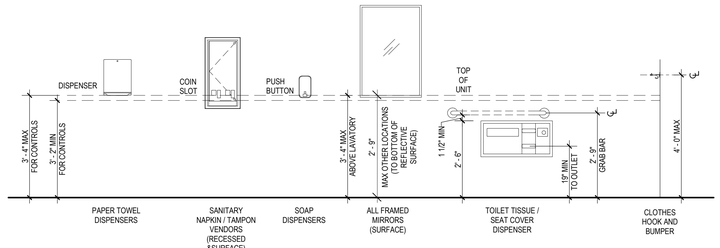
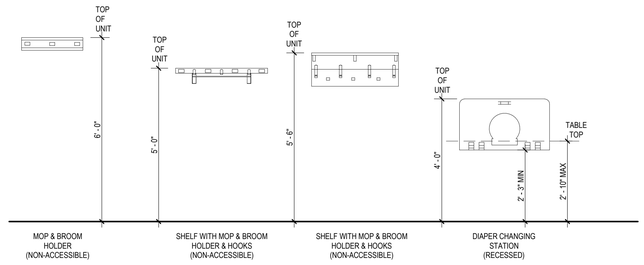
Plot Date:

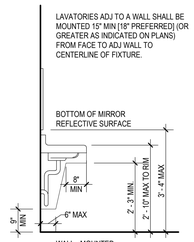
TYPICAL TOILET COMPARTMENT & LAVATORY AREA ACCESSORY MOUNTING HEIGHTS

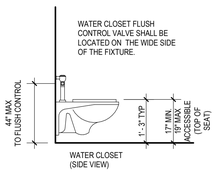


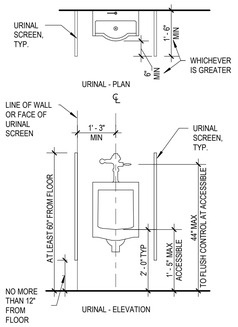
TYPICAL MISCELLANEOUS ACCESSORY MOUNTING HEIGHTS

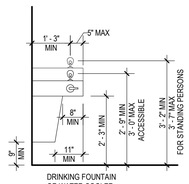


TYPICAL FIXTURE CLEARANCES

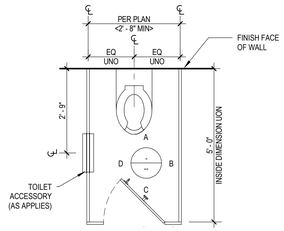






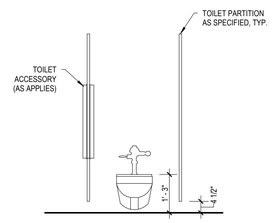


TYPICAL NON-ACCESSIBLE RESTROOM STALL CONFIGURATION DIAGRAMS

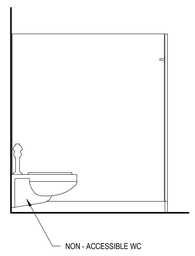


1 TYPICAL RESTROOM STALL PLAN (NON-ACCESSIBLE)

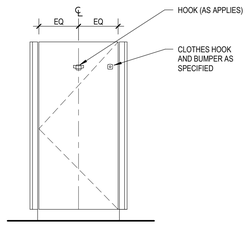
NOTE: SEE TYPICAL MOUNTING HEIGHTS FOR ELEVATIONS ON ACCESSORIES



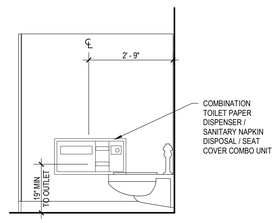
A FIXTURE ELEVATION



B SIDE ELEVATION

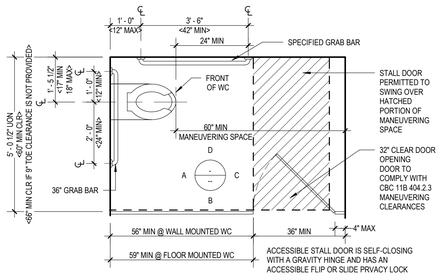


C DOOR ELEVATION



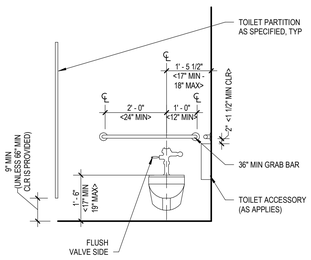
D SIDE ELEVATION

TYPICAL ACCESSIBLE RESTROOM STALL CONFIGURATION DIAGRAMS

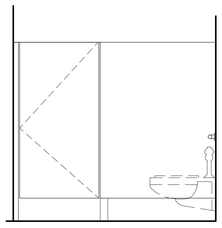


3 ACCESSIBLE STALL PLAN - SIDE ENTRY, IN-SWINGING DOOR

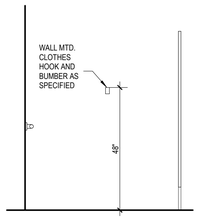
NOTE: SEE TYPICAL MOUNTING HEIGHTS FOR ELEVATIONS ON ACCESSORIES



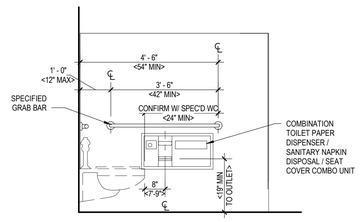
A FIXTURE ELEVATION



B DOOR ELEVATION



C SIDE ELEVATION



D SIDE ELEVATION (COMBINATION ACCESSORY)

GENERAL MOUNTING HEIGHT NOTES

A. IT IS THE INTENT OF THE DESIGN THAT ALL ITEMS SHOWN MOUNTED AT TYPICAL HEIGHTS BE ACCESSIBLE TO PERSONS WITH DISABILITIES.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE TYPICAL MOUNTING HEIGHTS AND - WHERE APPLICABLE - TYPICAL MINIMUM OR MAXIMUM CLEARANCES AND/OR TYPICAL MOUNTING CONFIGURATIONS FOR A VARIETY OF ITEMS. CAUTION: THIS SHEET MAY ILLUSTRATE ITEMS OR CONFIGURATIONS WHICH DO NOT OCCUR AS PART OF THE WORK OF THIS PROJECT. REFER TO THE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES TO DETERMINE WHICH ITEMS AND CONFIGURATIONS APPLY TO THE WORK OF THIS PROJECT.

C. SPECIAL OR NON-TYPICAL MOUNTING HEIGHTS OCCUR ONLY WHERE INDICATED BY ANNOTATED SYMBOLS; BY KEYED NOTES; BY NOTES ON PLANS, ELEVATIONS, OR DETAILS; OR BY UNIQUE DIMENSIONS ON ELEVATIONS OR DETAILS.

D. MOUNTING HEIGHTS, DIMENSIONS, CLEARANCES, AND ACCESS REQUIREMENTS FOR TOILET ACCESSORIES SHOWN ON THIS SHEET ARE BASED UPON SPECIFIC MANUFACTURERS AND MODELS AS INDICATED BY THE "TOILET ACCESSORY SCHEDULE" OR PER THE SPECIFICATIONS. WHEN SIMILAR ACCESSORIES OF OTHER SPECIFIED, ACCEPTABLE MANUFACTURERS (IF ANY) ARE UTILIZED, MOUNTING HEIGHTS, DIMENSIONS, CLEARANCES, AND ACCESS REQUIREMENTS OF THE SIMILAR ACCESSORIES MAY VARY FROM THOSE SHOWN. WHEN SIMILAR ACCESSORIES ARE UTILIZED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIRED TO ACHIEVE THE SAME AESTHETIC AND FUNCTIONAL DESIGN INTENT ILLUSTRATED BY THAT SHOWN ON THE DRAWINGS.

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

TYPICAL TOILET ROOM MOUNTING HEIGHTS AND STALL CONFIGURATION DIAGRAMS

14794

PROJECT NUMBER

CD

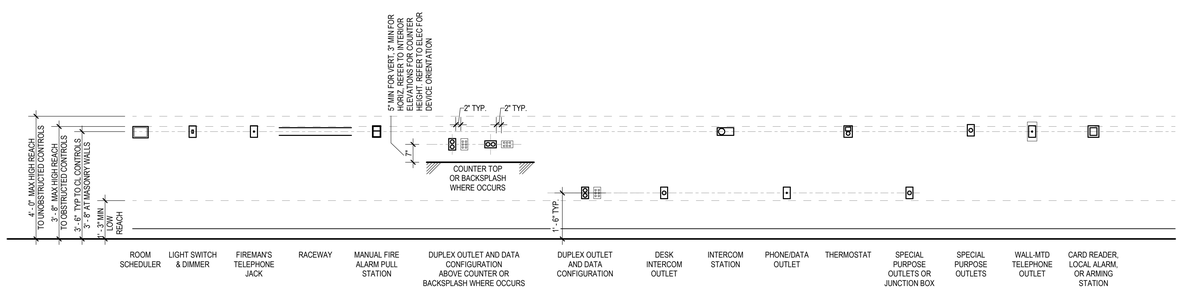
A0.0.2

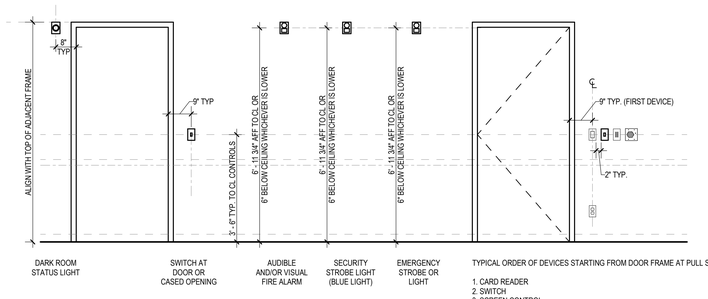
SHEET NUMBER

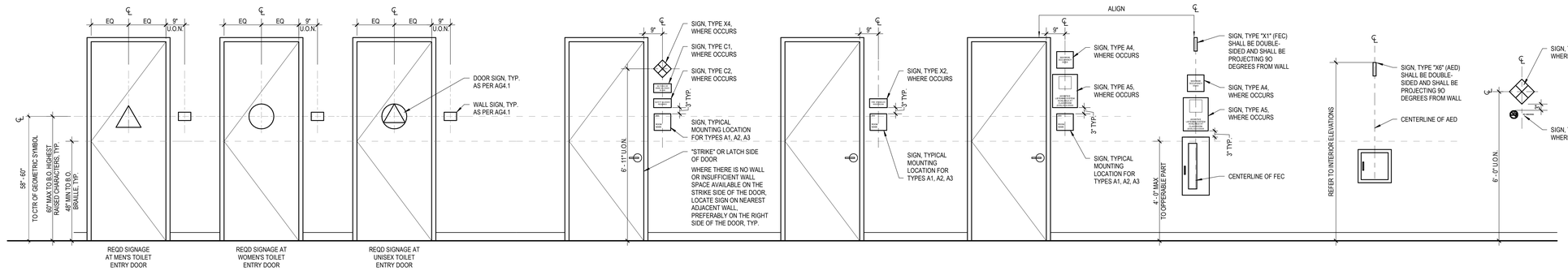
START Sheet

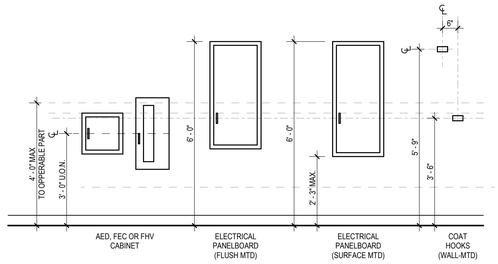
Plot Date: 7/23/2025 4:23:33 PM

TYPICAL MOUNTING HEIGHTS AND CLEARANCES









GENERAL MOUNTING HEIGHT NOTES

A. IT IS THE INTENT OF THE DESIGN THAT ALL ITEMS SHOWN MOUNTED AT TYPICAL HEIGHTS BE ACCESSIBLE TO PERSONS WITH DISABILITIES.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE TYPICAL MOUNTING HEIGHTS AND - WHERE APPLICABLE - TYPICAL MINIMUM OR MAXIMUM CLEARANCES AND/OR TYPICAL MOUNTING CONFIGURATIONS FOR A VARIETY OF ITEMS. CAUTION: THIS SHEET MAY ILLUSTRATE ITEMS OR CONFIGURATIONS WHICH DO NOT OCCUR AS PART OF THE WORK OF THIS PROJECT. REFER TO THE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES TO DETERMINE WHICH ITEMS AND CONFIGURATIONS APPLY TO THE WORK OF THIS PROJECT.

C. NOT ALL PROJECT ITEMS MAY BE REPRESENTED ON THIS SHEET. FOR ITEMS WITH OPERABLE PARTS NOT SHOWN ON THIS SHEET, THE ITEM SHALL BE MOUNTED SUCH THAT THE OPERABLE PART IS A MAXIMUM OF 42" ABOVE FINISH FLOOR UNLESS SPECIFICALLY NOTED OR DIMENSIONED OTHERWISE.

D. THE MOUNTING HEIGHTS, CLEARANCES, AND CONFIGURATIONS SHOWN ON THIS SHEET ARE TYPICAL AND SHALL APPLY TO ALL INSTANCES OF THE ITEM (OR GROUP OF ITEMS) SHOWN UNLESS SPECIFICALLY NOTED OR DIMENSIONED OTHERWISE.

E. SPECIAL OR NON-TYPICAL MOUNTING HEIGHTS OCCUR ONLY WHERE INDICATED BY ANNOTATED SYMBOLS; BY KEY NOTES; BY NOTES ON PLANS, ELEVATIONS, OR DETAILS; OR BY UNIQUE DIMENSIONS ON ELEVATIONS OR DETAILS.

F. FOR ADDITIONAL INFORMATION REGARDING THE PRECEDENCE OF DRAWINGS FOR DETERMINING THE EXACT LOCATION OF EACH EXPOSED PART OF THE WORK, REFER TO THE "ARCHITECTURAL GENERAL NOTES" AND TO THE "TYPICAL RULES FOR DETERMINING MOUNTING HEIGHTS AND LOCATIONS" LOCATED PER THE INDEX OF DRAWINGS IN THIS SET.

G. TYPICAL MOUNTING HEIGHTS MAY BE ILLUSTRATED BY OTHER DRAWING SERIES, SUCH AS Q SERIES. REFER TO THE "INDEX OF DRAWINGS" FOR ADDITIONAL INFORMATION.

H. MOUNTING CONFIGURATION DIAGRAMS ARE ELEVATIONS WHICH ILLUSTRATE TYPICAL RULES GOVERNING THE RELATIONSHIPS BETWEEN, AND PLACEMENT OF, ITEMS WHICH OCCUR IN GROUPS OF RELATED ITEMS OR IN CLOSE PROXIMITY TO OTHER PARTS OF THE WORK (SUCH AS SWITCHES AND DOOR FRAMES). UNLESS OTHER MOUNTING CONFIGURATIONS ARE SPECIFICALLY NOTED, DIMENSIONED, OR ELEVATED, THE TYPICAL RELATIONSHIPS, ARRANGEMENTS, AND THE TYPICAL CONFIGURATION DIAGRAMS APPLY THROUGHOUT THE WORK OF THIS PROJECT.

J. TYPICAL MOUNTING CONFIGURATIONS FOR ADDITIONAL GROUPING NOT SHOWN ON THIS MAY BE SHOWN ON OTHER SHEETS. REFER TO THE "INDEX OF DRAWINGS" FOR ADDITIONAL INFORMATION.

K. A TACTILE EXIT SIGN STATING "EXIT" AND COMPLYING WITH ICC A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN AREA OF REFUGE, AN EXIT STAIRWAY, AN EXIT RAMP, AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE.

L. REFER TO RULE 16 ON A0.4 FOR ITEM MOUNTING HEIGHTS IN MASONRY PARTITIONS.

ARCHITECTURAL DIMENSIONING CONVENTIONS

1. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE WORK AT THE "APPROXIMATE LOCATION SHOWN," DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.

2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THOSE SHOWN OR NOTED) ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATIONS. SEE THE NOTES BELOW AND SYMBOLS ON SHEET A0.1 FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.

3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:

A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:

- STRUCTURAL OR DIMENSIONAL GRID LINES.
- CENTERLINE OF CONCRETE OR CONC MASONRY UNIT WALLS (EXCLUSIVE OF FURRING OR APPLIED FINISHES HAVING THICKNESS). REFER TO THE ARCH PLANS AND SECTIONS, THE STRUCT DRAWINGS, OR PARTITION SCHEDULE TO DETERMINE THE THICKNESS OF CONCRETE OR CONC MASONRY UNIT WALLS.
- CENTERLINE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AT PARTITIONS FRAMED WITH METAL STUDS. REFER TO "PARTITION SCHEDULE" TO DETERMINE THICKNESS OF EACH PARTITION TYPE.
- CENTERLINE OF DOOR, WINDOW, OR LOUVER OPENING.
- CENTERLINE OF EQUIPMENT OR FURNISHING.
- CENTERLINE OF OTHER FEATURES AS INDICATED.

- CONTINUED AT TOP OF NEXT COLUMN

3. NOTE NO 3 CONTINUED:

B. REFER TO SHEET A0.1 FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.

C. DIMENSIONS UTILIZING THE "FACE OF" SYMBOL ARE MEASURED TO:

- FACE OF CONCRETE OR CONC MASONRY UNIT WALL (EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURRING WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS).
- FACE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALL) AS DEFINED BY THE PARTITION SCHEDULE. UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE 'E' BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
- INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE "DOOR SCHEDULE" FOR ADDITIONAL DIMENSIONAL INFORMATION.
- DIMENSION OR WORK POINT AS INDICATED ON RELATED ARCH DETAIL PLAN, SECTION, ELEVATION, LAYOUT OR CONFIGURATION DETAIL, OR CONSTRUCTION DETAIL.

D. REFER TO SHEET A0.1 FOR SYMBOL USED TO INDICATE "FACE OF" DIMENSION.

E. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIM IS MEASURED TO:

- FINISH FACES AT THE MOST NARROW OR CONSTRICTED POINTS OF SECTION WHERE DIMENSION IS SHOWN, WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.

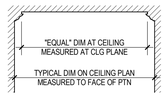
- CONTINUED AT TOP OF NEXT COLUMN

3. NOTE NO 3 CONTINUED:

- FINISH FACES AT THE WIDEST OR MOST EXPANSIVE POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.

F. WHERE "EQUAL" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:

- EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.
- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "FOF" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST, AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF THE CEILING.

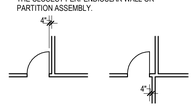


4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES, IN ORDER, TO DETERMINE THE LOCATION OF DOOR OPENINGS:

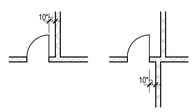
A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.

B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL - OR WALLS - PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:

AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.



AT DOORS OCCURRING IN WALLS OF CONC MASONRY UNIT CONSTRUCTION, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 10 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.



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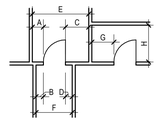
4. NOTE NO 4 CONTINUED:

C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DIM E" OR "DIM F" IS 16'-0" OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS:

- DIMENSION A = 18 INCHES MIN
- DIMENSION B = 12 INCHES MIN
- DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
- DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BD PARTITIONS OR - EVEN MULTIPLE OF 12 CMU MODULE PLUS 2 INCHES AT CONC MASONRY UNIT WALLS
- DIMENSIONS E AND F = AS SHOWN ON PLANS
- DIMENSION G = 36 INCHES MIN
- DIMENSION H = 60 INCHES MIN

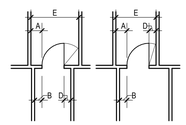


- IF SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DIM A" EQUALS "DIM C" OR "DIM B" EQUALS "DIM D".

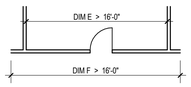
- CONTINUED AT TOP OF NEXT COLUMN

4. NOTE NO 4 CONTINUED:

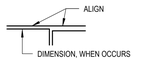
D. IF "DIM E" IN DIAGRAMS BELOW IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED BY NOTE NO 4C ABOVE FOR "DIM A", "DIM B," AND "DIM D" ARE MET - MAXIMIZING "DIM A" AND MINIMIZING "DIM D" TO THE EXTENT POSSIBLE.



E. WHERE DOOR IS SHOWN LOCATED IN A LARGE EXPANSE OF OPEN WALL ("DIM E" AND "DIM F" IN DIAGRAM BELOW BOTH EXCEED 16'-0"), PLACE DOOR AT APPROXIMATE LOCATION SHOWN ON THE PLANS. WHERE DOOR OCCURS IN CMU WALL, PLACE DOOR AT APPROXIMATE LOCATION SHOWN WHILE MINIMIZING "CUT" OR PARTIAL CMU MODULES ADJACENT TO THE JAMBS.



5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN EXPOSED FACES, UNLESS OTHERWISE NOTED.



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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

TYPICAL MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS

PROJECT NUMBER 14794

CD

SHEET NUMBER **A0.0.3**

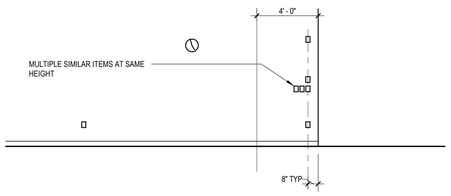
START Sheet

Plot Date: 7/23/2025 4:23:38 PM

TYPICAL RULES FOR DETERMINING MOUNTING HEIGHTS, LOCATIONS, AND CONFIGURATIONS

WHEN NOT DIMENSIONED AND SHOWN LOCATED ADJACENT TO CHANGE IN PLANE OF WALL, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: MOUNT ITEMS IN RELATION TO PLANE CHANGE USING TYPICAL OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS.

WHEN MULTIPLE SIMILAR ITEMS HAVING THE SAME TYPICAL MOUNTING HEIGHT ARE INDICATED, MOUNT FIRST ITEM IN RELATION TO PLANE CHANGE USING TYPICAL OFFSET DIMENSION AND PLACE REMAINING ITEMS ADJACENT TO FIRST ON SIDE OPPOSITE PLANE CHANGE AS ILLUSTRATED BY THIS DIAGRAM.



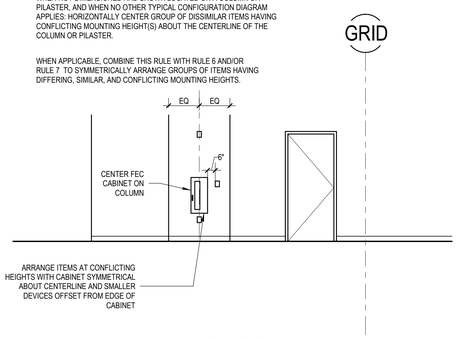
FOR PURPOSES OF THESE RULES, ITEMS SHOWN LOCATED APPROXIMATELY WITHIN 4 FEET OF PLANE CHANGE ARE CONSIDERED TO BE ADJACENT TO CHANGE IN PLANE.

RULE 13

WHEN NOT DIMENSIONED AND LOCATED ADJACENT TO CHANGE IN WALL DIRECTION

WHEN NOT DIMENSIONED AND SHOWN LOCATED ON A COLUMN OR PILASTER, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: HORIZONTALLY CENTER GROUP OF DISSIMILAR ITEMS HAVING CONFLICTING MOUNTING HEIGHT(S) ABOUT THE CENTERLINE OF THE COLUMN OR PILASTER.

WHEN APPLICABLE, COMBINE THIS RULE WITH RULE 6 AND/OR RULE 7 TO SYMMETRICALLY ARRANGE GROUPS OF ITEMS HAVING DIFFERING, SIMILAR, AND CONFLICTING MOUNTING HEIGHTS.

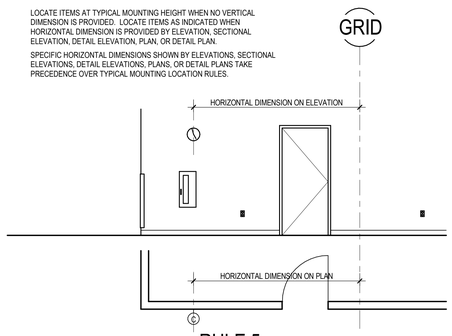


RULE 9

NOT DIMENSIONED AND LOCATED ON COLUMN OR PILASTER

LOCATE ITEMS AT TYPICAL MOUNTING HEIGHT WHEN NO VERTICAL DIMENSION IS PROVIDED. LOCATE ITEMS AS INDICATED WHEN HORIZONTAL DIMENSION IS PROVIDED BY ELEVATION, SECTIONAL ELEVATION, DETAIL ELEVATION, PLAN, OR DETAIL PLAN.

SPECIFIC HORIZONTAL DIMENSIONS SHOWN BY ELEVATIONS, SECTIONAL ELEVATIONS, DETAIL ELEVATIONS, PLANS, OR DETAIL PLANS TAKE PRECEDENCE OVER TYPICAL MOUNTING LOCATION RULES.

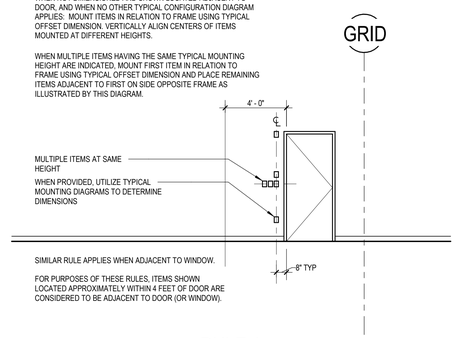


RULE 5

WHEN DIMENSIONED HORIZONTALLY IN PLAN OR ELEVATION, BUT NOT DIMENSIONED VERTICALLY

WHEN NOT DIMENSIONED AND SHOWN LOCATED ADJACENT TO DOOR, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: MOUNT ITEMS IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS.

WHEN MULTIPLE ITEMS HAVING THE SAME TYPICAL MOUNTING HEIGHT ARE INDICATED, MOUNT FIRST ITEM IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION AND PLACE REMAINING ITEMS ADJACENT TO FIRST ON SIDE OPPOSITE FRAME AS ILLUSTRATED BY THIS DIAGRAM.



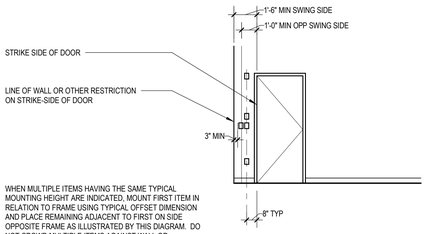
SIMILAR RULE APPLIES WHEN ADJACENT TO WINDOW.

FOR PURPOSES OF THESE RULES, ITEMS SHOWN LOCATED APPROXIMATELY WITHIN 4 FEET OF DOOR ARE CONSIDERED TO BE ADJACENT TO DOOR (OR WINDOW).

RULE 1

NOT DIMENSIONED AND LOCATED ADJACENT TO DOOR OR WINDOW

WHEN NOT DIMENSIONED AND SHOWN LOCATED ADJACENT TO STRIKE SIDE OF DOOR, AND WHEN STRIKE-SIDE CLEARANCE IS BETWEEN 12 INCHES AND 18 INCHES, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: MOUNT ITEMS IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS.



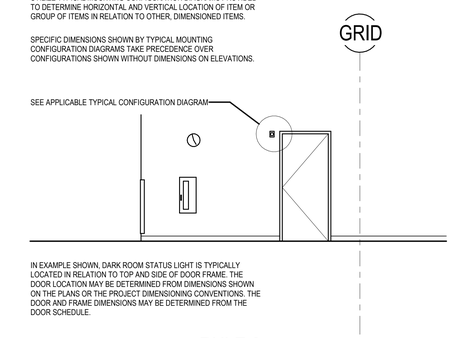
WHEN MULTIPLE ITEMS HAVING THE SAME TYPICAL MOUNTING HEIGHT ARE INDICATED, MOUNT FIRST ITEM IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS. DO NOT CROWD MULTIPLE ITEMS AGAINST WALL OR RESTRICTION.

RULE 10

NOT DIMENSIONED AND LOCATED ADJACENT TO MINIMUM STRIKE-SIDE OF DOOR

UTILIZE TYPICAL MOUNTING CONFIGURATION DIAGRAMS PROVIDED TO DETERMINE HORIZONTAL AND VERTICAL LOCATION OF ITEM OR GROUP OF ITEMS IN RELATION TO OTHER, DIMENSIONED ITEMS.

SPECIFIC DIMENSIONS SHOWN BY TYPICAL MOUNTING CONFIGURATION DIAGRAMS TAKE PRECEDENCE OVER CONFIGURATIONS SHOWN WITHOUT DIMENSIONS ON ELEVATIONS.



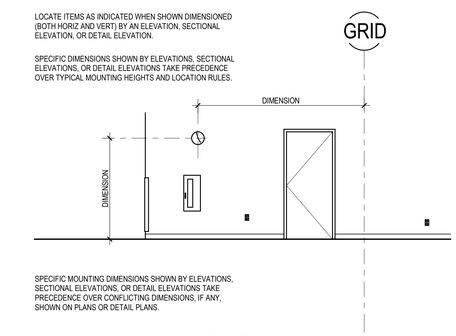
IN EXAMPLE SHOWN, DARK ROOM STATUS LIGHT IS TYPICALLY LOCATED IN RELATION TO TOP AND SIDE OF DOOR FRAME. THE DOOR LOCATION MAY BE DETERMINED FROM DIMENSIONS SHOWN ON THE PLANS OR THE PROJECT DIMENSIONING CONVENTIONS. THE DOOR AND FRAME DIMENSIONS MAY BE DETERMINED FROM THE DOOR SCHEDULE.

RULE 6

WHEN NO DIMENSIONS ARE PROVIDED IN PLANS OR ELEVATIONS

LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED (BOTH HORIZ AND VERT) BY AN ELEVATION, SECTIONAL ELEVATION, OR DETAIL ELEVATION.

SPECIFIC DIMENSIONS SHOWN BY ELEVATIONS, SECTIONAL ELEVATIONS, OR DETAIL ELEVATIONS TAKE PRECEDENCE OVER TYPICAL MOUNTING HEIGHTS AND LOCATION RULES.



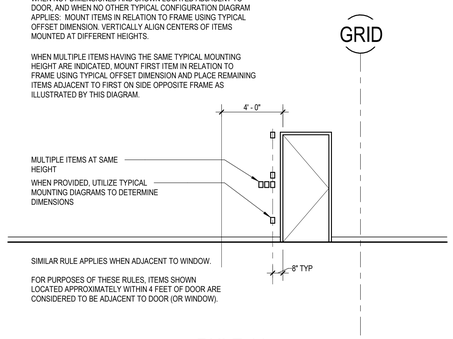
SPECIFIC MOUNTING DIMENSIONS SHOWN BY ELEVATIONS, SECTIONAL ELEVATIONS, OR DETAIL ELEVATIONS TAKE PRECEDENCE OVER CONFLICTING DIMENSIONS, IF ANY, SHOWN ON PLANS OR DETAIL PLANS.

RULE 2

WHEN COMPLETELY DIMENSIONED IN ELEVATION

WHEN NOT DIMENSIONED AND SHOWN LOCATED ADJACENT TO DOOR, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: MOUNT ITEMS IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS.

WHEN MULTIPLE ITEMS HAVING THE SAME TYPICAL MOUNTING HEIGHT ARE INDICATED, MOUNT FIRST ITEM IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION AND PLACE REMAINING ITEMS ADJACENT TO FIRST ON SIDE OPPOSITE FRAME AS ILLUSTRATED BY THIS DIAGRAM.



SIMILAR RULE APPLIES WHEN ADJACENT TO DOOR.

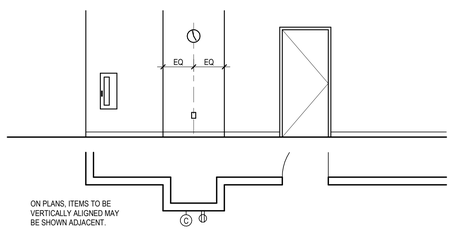
FOR PURPOSES OF THESE RULES, ITEMS SHOWN LOCATED APPROXIMATELY WITHIN 4 FEET OF DOOR ARE CONSIDERED TO BE ADJACENT TO DOOR (OR WINDOW).

RULE 11

NOT DIMENSIONED AND LOCATED ADJACENT TO DOOR OR WINDOW

WHEN NOT DIMENSIONED AND SHOWN LOCATED ON A COLUMN OR PILASTER, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: HORIZONTALLY CENTER ITEM ON FACE OF COLUMN OR PILASTER. ALIGN VERTICALLY CENTERS OF MULTIPLE ITEMS HAVING DIFFERING TYPICAL MOUNTING HEIGHTS.

WHEN MULTIPLE ITEMS HAVING THE SAME TYP MOUNTING HEIGHT ARE INDICATED, HORIZONTALLY CENTER GROUP OF ITEMS ON FACE OF COLUMN OR PILASTER (SEE RULE 7).

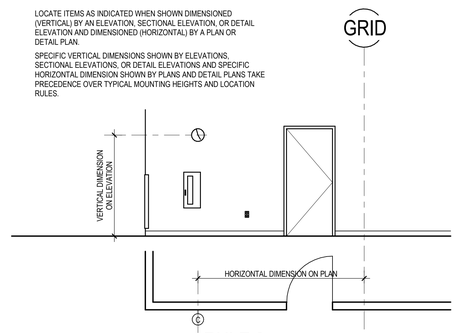


RULE 7

NOT DIMENSIONED AND LOCATED ON COLUMN OR PILASTER

LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED (VERTICAL) BY AN ELEVATION, SECTIONAL ELEVATION, OR DETAIL ELEVATION AND DIMENSIONED (HORIZONTAL) BY A PLAN OR DETAIL PLAN.

SPECIFIC VERTICAL DIMENSIONS SHOWN BY ELEVATIONS, SECTIONAL ELEVATIONS, OR DETAIL ELEVATIONS AND SPECIFIC HORIZONTAL DIMENSION SHOWN BY PLANS AND DETAIL PLANS TAKE PRECEDENCE OVER TYPICAL MOUNTING HEIGHTS AND LOCATION RULES.

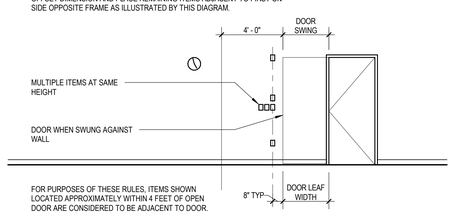


RULE 3

WHEN COMPLETELY DIMENSIONED BY COMBINATION OF PLAN AND ELEVATION

WHEN NOT DIMENSIONED AND SHOWN LOCATED ADJACENT TO DOOR, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: MOUNT ITEMS IN RELATION TO FRAME USING TYP OFFSET DIMENSION. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS. VERTICALLY ALIGN CENTERS OF ITEMS MOUNTED AT DIFFERENT HEIGHTS.

WHEN MULTIPLE ITEMS HAVING THE SAME TYPICAL MOUNTING HEIGHT ARE INDICATED, MOUNT FIRST ITEM IN RELATION TO FRAME USING TYPICAL OFFSET DIMENSION AND PLACE REMAINING ITEMS ADJACENT TO FIRST ON SIDE OPPOSITE FRAME AS ILLUSTRATED BY THIS DIAGRAM.



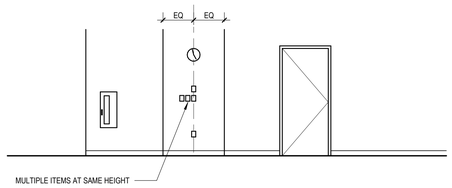
FOR PURPOSES OF THESE RULES, ITEMS SHOWN LOCATED APPROXIMATELY WITHIN 4 FEET OF OPEN DOOR ARE CONSIDERED TO BE ADJACENT TO DOOR.

RULE 12

NOT DIMENSIONED AND LOCATED ADJACENT TO DOOR AND ON WALL AGAINST WHICH DOOR SWINGS

WHEN NOT DIMENSIONED AND SHOWN LOCATED ON A COLUMN OR PILASTER, AND WHEN NO OTHER TYPICAL CONFIGURATION DIAGRAM APPLIES: HORIZONTALLY CENTER GROUP OF SIMILAR ITEMS HAVING THE SAME MOUNTING HEIGHT(S) ABOUT THE CENTERLINE OF THE COLUMN OR PILASTER.

WHEN APPLICABLE, COMBINE THIS RULE WITH RULE 6 TO SYMMETRICALLY ARRANGE GROUPS OF ITEMS HAVING BOTH DIFFERING AND SIMILAR MOUNTING HEIGHTS.

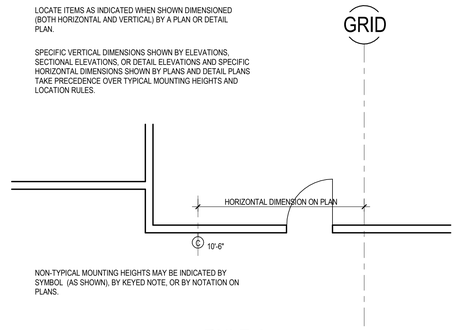


RULE 8

NOT DIMENSIONED AND LOCATED ON COLUMN OR PILASTER

LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED (BOTH HORIZONTAL AND VERTICAL) BY A PLAN OR DETAIL PLAN.

SPECIFIC VERTICAL DIMENSIONS SHOWN BY ELEVATIONS, SECTIONAL ELEVATIONS, OR DETAIL ELEVATIONS AND SPECIFIC HORIZONTAL DIMENSIONS SHOWN BY PLANS AND DETAIL PLANS TAKE PRECEDENCE OVER TYPICAL MOUNTING HEIGHTS AND LOCATION RULES.



NON-TYPICAL MOUNTING HEIGHTS MAY BE INDICATED BY SYMBOL (AS SHOWN), BY KEYED NOTE, OR BY NOTATION ON PLANS.

RULE 4

WHEN COMPLETELY DIMENSIONED ON PLANS

GENERAL MOUNTING NOTES

A. THE A-SERIES DRAWINGS ESTABLISH AND GOVERN THE FINISHED APPEARANCE AND LOCATION OF THE EXPOSED WORK OF ALL TRADES, INCLUDING THAT WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES. LOCATIONS SHOWN ON DRAWINGS OF OTHER DISCIPLINES ARE SCHEMATIC, UNLESS NOTED OTHERWISE ON THE A-SERIES DRAWINGS. THE A-SERIES DRAWINGS TAKE PRECEDENCE FOR DETERMINING THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE WORK.

EXCEPTION: DIMENSIONED LOCATIONS SHOWN ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE:

1. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE A-SERIES DRAWINGS.
2. WHICH A-SERIES SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON VERTICAL SURFACES OF THE PROJECT.

C. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE THE DIMENSIONED LOCATION OF MANY - BUT NOT ALL - EXPOSED PARTS OF THE WORK. APPLY THE RULES ON THIS SHEET - IN ORDER - TO DETERMINE THE LOCATION OF EXPOSED PART OF THE WORK.

1. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED (SEE RULES 1 THRU 3).
2. WHEN SHOWN WITH HORIZONTAL DIMENSION ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS, LOCATE HORIZONTALLY AS DIMENSIONED AND AT THE APPLICABLE TYPICAL MOUNTING HEIGHT (SEE RULE 4).
3. IF NOT SHOWN, OR IF SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE TYPICAL ARCHITECTURAL CONFIGURATION DIAGRAM (SEE RULE 5).
4. WHEN DIMENSION SHOWN ON DRAWINGS OF OTHER DISCIPLINES IS INDICATED TO GOVERN, LOCATE AS DIMENSIONED. UTILIZE RULES 6 THRU 15 TO ESTABLISH RELATIVE LOCATIONS OF ITEMS NOT DIMENSIONED WHICH MAY OCCUR IN PROXIMITY TO THE DIMENSIONED ITEM.
5. IF NO TYPICAL ARCHITECTURAL CONFIGURATION DIAGRAM APPLIES, LOCATE AT APPROXIMATE HORIZONTAL LOCATION SHOWN AND AT APPLICABLE TYPICAL MOUNTING HEIGHT. UTILIZE RULES 6 THROUGH 15 TO ESTABLISH LOCATION AND RELATIONSHIP WITH OTHER PARTS OF THE WORK.

D. TYPICAL ARCHITECTURAL CONFIGURATION DIAGRAMS ARE ELEVATIONS WHICH ILLUSTRATE TYPICAL RULES GOVERNING THE RELATIONSHIPS BETWEEN - AND PLACEMENT OF - ITEMS WHICH OCCUR IN GROUPS OF RELATED ITEMS (SUCH AS TOILET ACCESSORIES) OR IN CLOSE PROXIMITY TO OTHER PARTS OF THE WORK (SUCH AS SWITCHES AND DOOR FRAMES). REFER TO THE "PROJECT SHEET INDEX" FOR ADDITIONAL INFORMATION REGARDING OTHER TYPICAL ARCHITECTURAL CONFIGURATION DRAWINGS PROVIDED FOR THIS PROJECT.

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

TYPICAL RULES FOR DETERMINING MOUNTING HEIGHTS AND LOCATIONS

14794

PROJECT NUMBER

CD

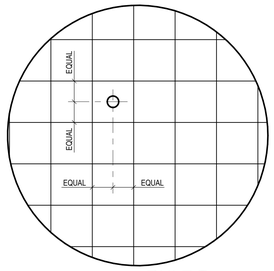
A0.0.4

SHEET NUMBER

Plot Date: 7/23/2025 4:23:42 PM START Sheet

TYPICAL RULES FOR DETERMINING REFLECTED CEILING PLAN LOCATIONS, DIMENSIONS, AND CONFIGURATIONS

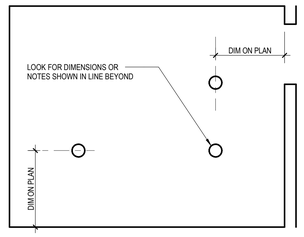
LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) AT CENTER OF PANEL ON SQUARE GRID-TYPE CEILINGS



RULE 7

WHEN NOT DIMENSIONED BUT OCCURS ON A SQUARE GRID-TYPE CEILING

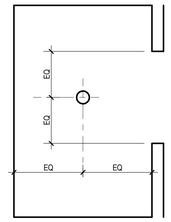
LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).



RULE 5

ALIGN WITH FEATURES SHOWN DIMENSIONED ELSEWHERE IN SPACE

LOCATE ITEMS CENTERED ON ADJACENT OPENING OR FEATURE WHEN SHOWN (BUT NOT DIMENSIONED) OFF-CENTER IN OVERALL SPACE BUT CENTERED AGAINST ADJACENT FEATURE.

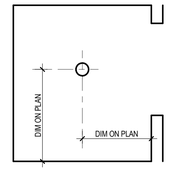


RULE 3

WHEN OFF-CENTER IN SPACE BUT CENTERED ON ADJACENT FEATURE

LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED BY A REFLECTED CEILING PLAN, ENLARGED REFLECTED CEILING PLAN, OR DETAIL.

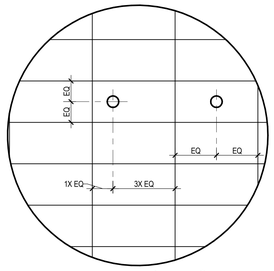
SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS, ELEVATIONS, OR DETAILS TAKE PRECEDENCE OVER TYPICAL LOCATION RULES.



RULE 1

WHEN COMPLETELY DIMENSIONED ON REFLECTED CEILING PLAN

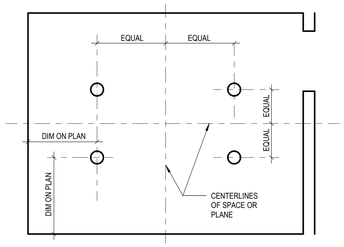
LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) AT CENTER OF SHORT DIRECTION OF RECTANGULAR PANEL; LOCATE AT 1/4, 1/2, OR 3/4 POINT OF LONG DIRECTION OF RECTANGULAR PANEL



RULE 8

WHEN NOT DIMENSIONED BUT OCCURS ON A RECTANGULAR GRID-TYPE CEILING

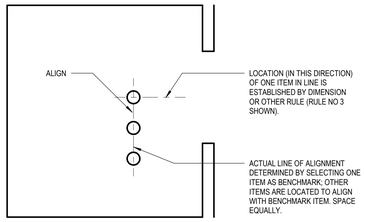
LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).



RULE 6

LOCATE FEATURES SYMMETRICALLY

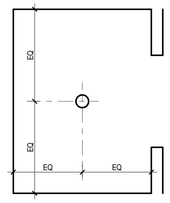
LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) ALIGNED WITH ADJACENT ITEMS FOR WHICH DIMENSIONS OR RULES ARE PROVIDED. VISUAL ALIGNMENT IS CRITICAL. THE CONTRACTOR SHALL SELECT ONE ITEM IN EACH LINE (ON BASIS OF TOLERANCES, SEQUENCE OF CONSTRUCTION, TRADE, OR OTHER CRITERIA) TO SERVE AS THE BENCHMARK FOR EACH ALIGNMENT.



RULE 4

WHEN ALIGNED WITH OTHER FEATURES

LOCATE ITEMS CENTERED IN SPACE (OR CEILING PLANE) WHEN SHOWN (BUT NOT DIMENSIONED) VISUALLY AT APPROXIMATE CENTER OF SPACE.

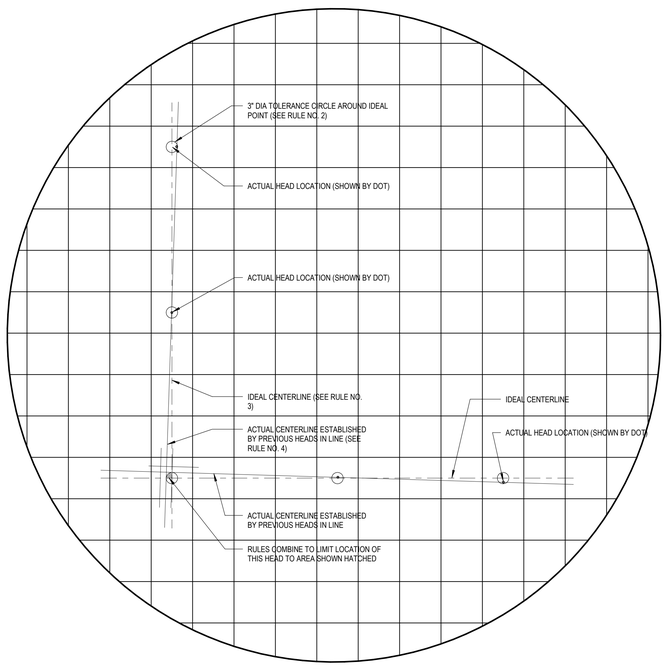


RULE 2

WHEN NOT DIMENSIONED BUT SHOWN CENTERED

TYPICAL TOLERANCES FOR LOCATING SPRINKLER HEADS

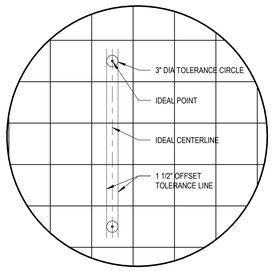
RULES NO. 2, NO. 3, AND 4 WHEN COMBINED MAY RESULT IN MORE RESTRICTIVE TOLERANCES



RULE 5

RULES COMBINED

LOCATE SPRINKLER HEADS WITHIN 3" DIAMETER OF IDEAL POINT DIMENSIONED (OR SHOWN BY RULE) ON REFLECTED CEILING PLAN.

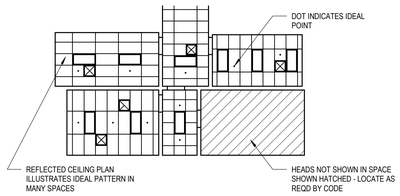


RULE 3

LOCATE LINES OF HEADS WITHIN 1 1/2" OF IDEAL CENTERLINE

FOR MANY SPACES, THE ARCHITECTURAL REFLECTED CEILING PLANS ESTABLISH AN IDEAL PATTERN FOR LOCATING SPRINKLER HEADS. IN SPACES WHERE HEADS ARE SHOWN, FOLLOW PATTERN ESTABLISHED BY THE DRAWINGS. WHERE ADDL HEADS ARE REQUIRED TO CONFORM WITH CODE, PROVIDE HEADS IN GENERAL CONFORMITY WITH PATTERN ESTABLISHED BY THE DRAWINGS.

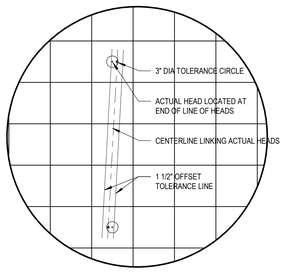
IN SPACES WHERE SPRINKLER HEADS ARE NOT SHOWN BY THE ARCHITECTURAL REFLECTED CEILING PLANS, PROVIDE HEADS ARE REQUIRED BY CODE.



RULE 1

LOCATE HEADS AS SHOWN ON A-SERIES DRAWINGS

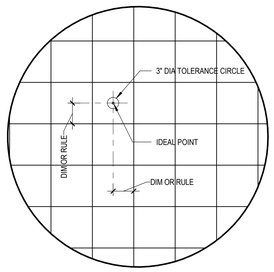
LOCATE SPRINKLER HEADS WITHIN 3" DIAMETER OF IDEAL POINT DIMENSIONED (OR SHOWN BY RULE) ON REFLECTED CEILING PLAN.



RULE 4

LOCATE LINES OF HEADS WITHIN 1 1/2" OF LINE LINKING ACTUAL END HEADS

LOCATE SPRINKLER HEADS WITHIN 3" DIAMETER OF IDEAL POINT DIMENSIONED (OR SHOWN BY RULE) ON REFLECTED CEILING PLAN.



RULE 2

LOCATE HEADS WITHIN 3" DIAMETER OF IDEAL LOCATION POINT

GENERAL SHEET NOTES

A. THE A-SERIES DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS. THE A-SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE WORK. EXCEPTION: DIMENSIONED LOCATIONS SHOWN ON ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE: 1. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS. 2. OCCURRING WITHIN A ROOM OR OTHER IDENTIFIABLE SPACE FOR WHICH ARCH SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON REFLECTED CEILING PLANS OF THE PROJECT.

C. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE THE DIMENSIONED LOCATION OF MANY - BUT NOT ALL - EXPOSED PARTS OF THE WORK. APPLY THE RULES ON THIS SHEET - IN ORDER - TO DETERMINE THE LOCATION OF EXPOSED PART OF THE WORK.

1. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED.
2. IF NOT SHOWN, OR IF SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE RULE.

D. REFER TO THE "ARCHITECTURAL GENERAL NOTES" FOR ADDITIONAL NOTES WHICH MAY BE APPLICABLE TO THE WORK SHOWN ON THIS SHEET.

E. REFER TO THE "PROJECT GENERAL NOTES" FOR ADDITIONAL NOTES WHICH APPLY TO THE ENTIRE PROJECT.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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smithgroup.com

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

TYPICAL REFLECTED CEILING PLAN LOCATIONS AND CONFIGURATIONS

14794

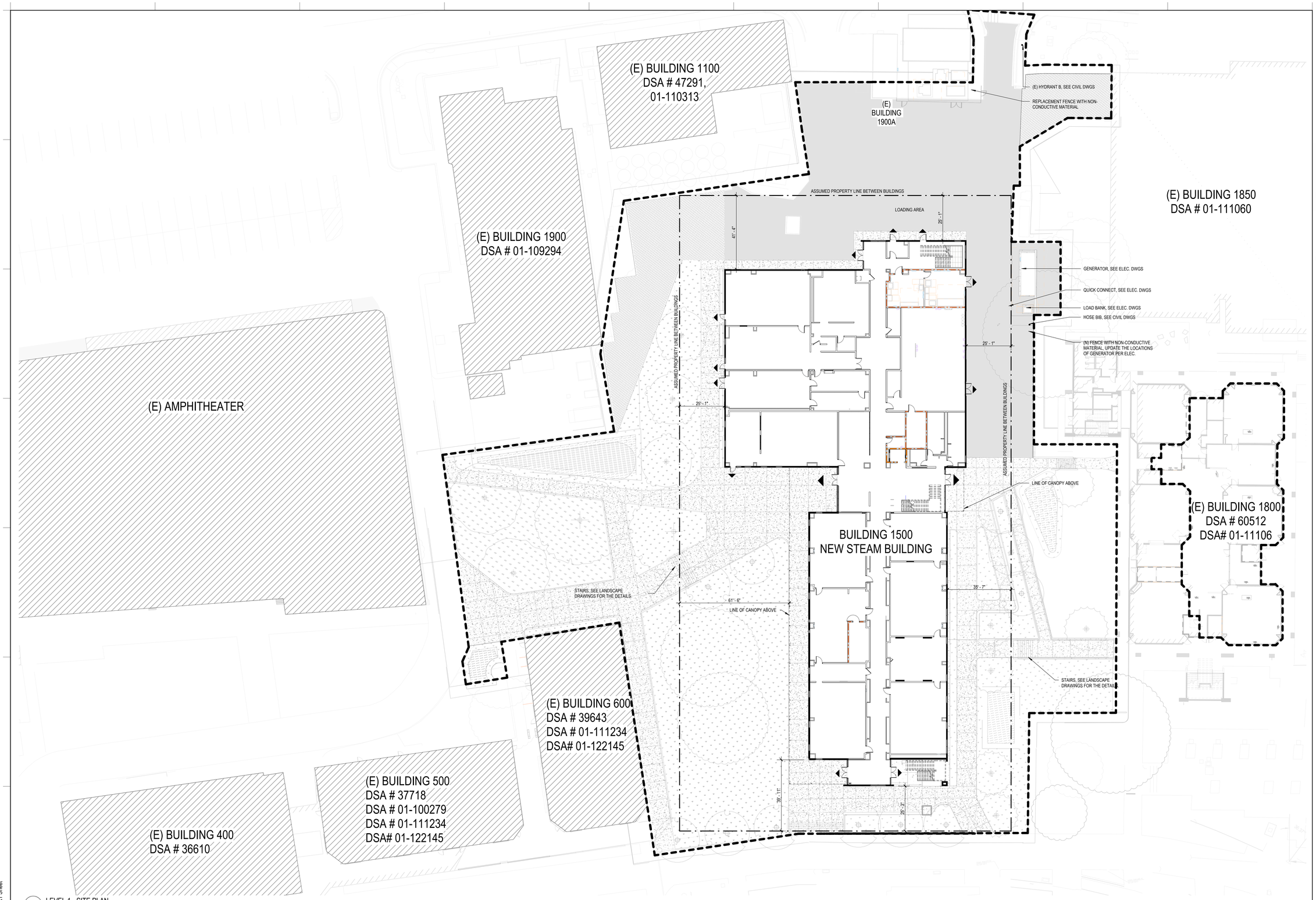
PROJECT NUMBER

CD

A0.0.5

SHEET NUMBER

Plot Date: 7/23/2025 4:23:46 PM START Sheet



1 LEVEL 1 - SITE PLAN
SCALE: 1" = 20'-0"

GRAPHIC LEGEND

- SCOPE OF WORK
- PLANTING AREA, SEE LANDSCAPE DRAWINGS
- DECORATIVE ROCK AT BLDG., SEE LANDSCAPE DRAWINGS
- RESURFACED ASPHALT, SEE CIVIL DRAWINGS
- ROCK MULCH, SEE LANDSCAPE DRAWINGS
- BIORETENTION AREA, SEE LANDSCAPE DRAWINGS

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

START Sheet

Plot Date: 7/23/2025 4:45:15 PM

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INCREMENT II -
STEAM BUILDING PROJECT

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LICENSED ARCHITECT
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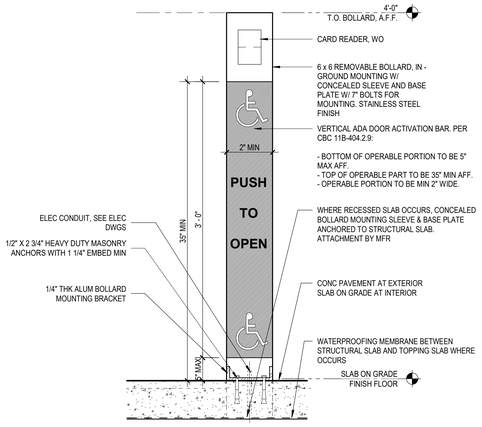
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

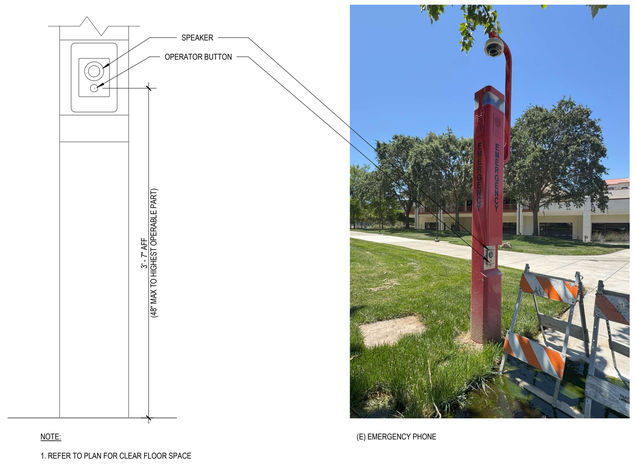
SHEET TITLE
ARCHITECTURAL SITE PLAN

PROJECT NUMBER
14794

CD **A1.1.0**
SHEET NUMBER

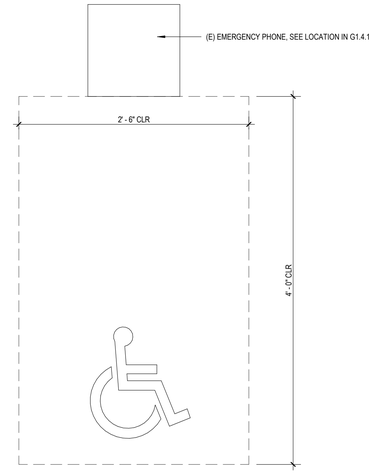


67 TYPICAL ADA BOLLARD MOUNTING
SCALE: 1 1/2" = 1'-0"

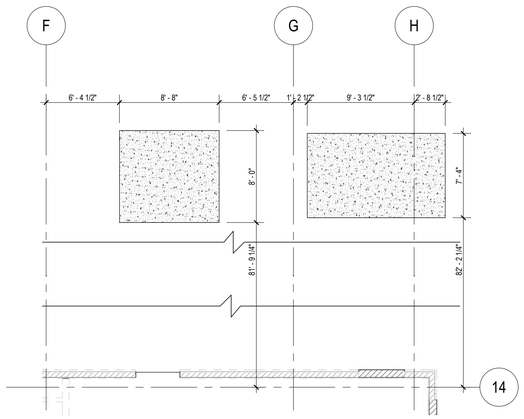


NOTE:
1. REFER TO PLAN FOR CLEAR FLOOR SPACE

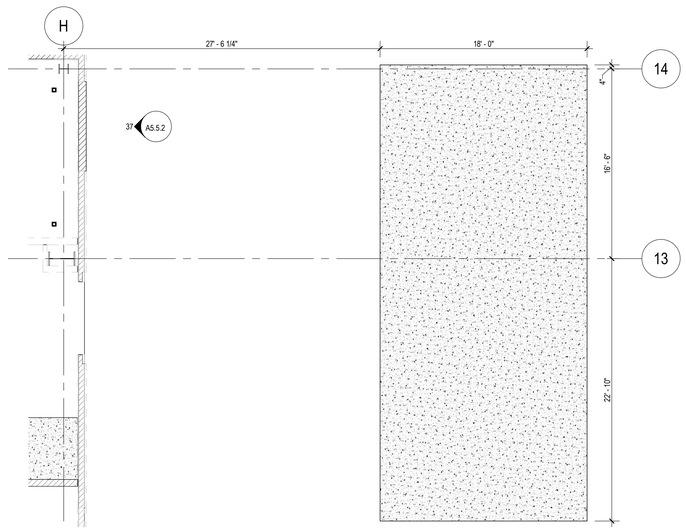
(E) EMERGENCY PHONE



43 (E) EMERGENCY TELEPHONE ACCESSIBILITY DETAIL
SCALE: 1 1/2" = 1'-0"



1 NORTH ELEC. YARD - SLAB PLAN
SCALE: 3/16" = 1'-0"



2 EAST ELEC. YARD - SLAB PLAN
SCALE: 3/16" = 1'-0"

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

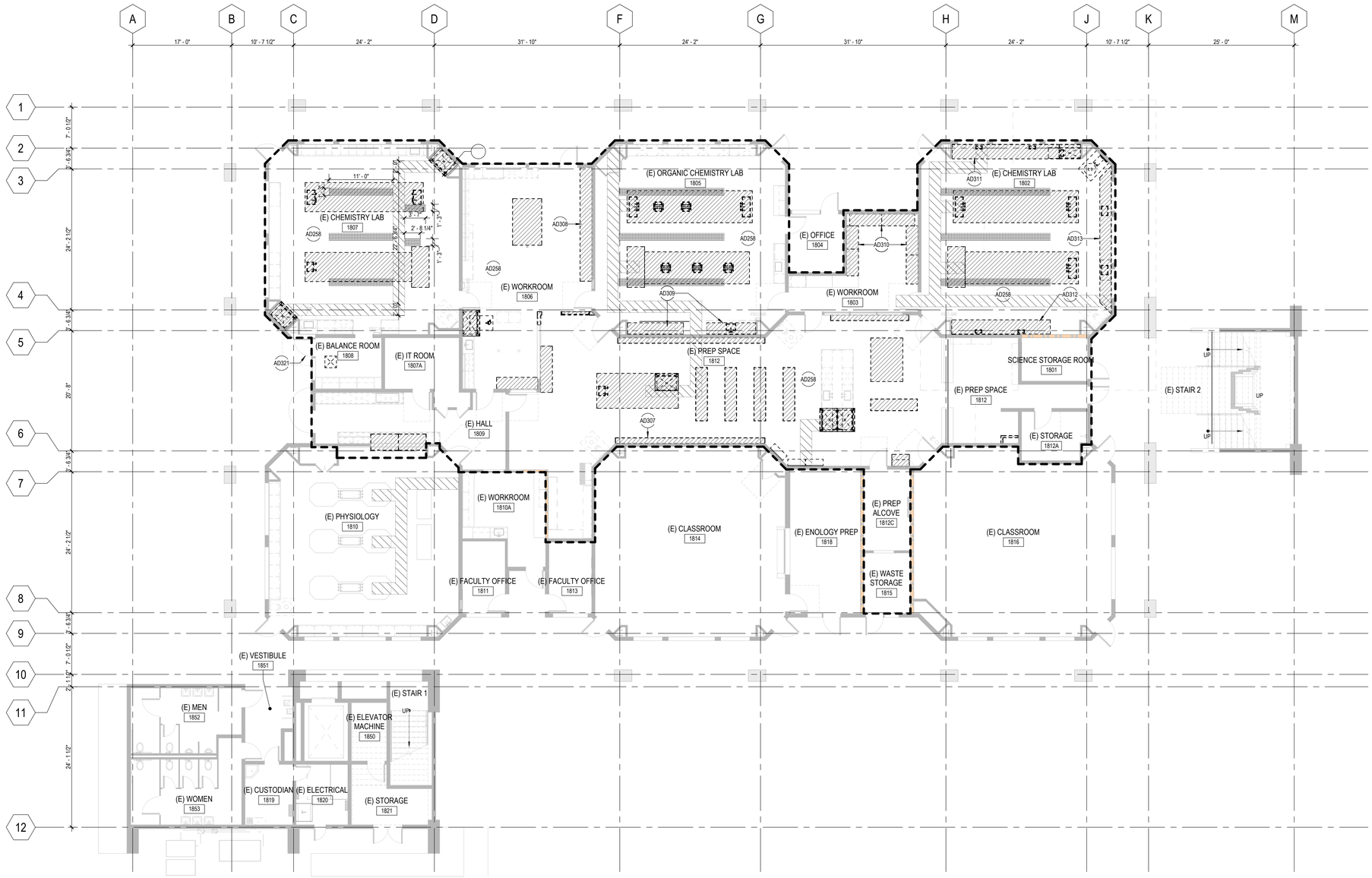
SHEET TITLE
ARCHITECTURAL SITE DETAILS

14794
PROJECT NUMBER

CD

A1.1.1
SHEET NUMBER

Plot Date: 7/24/2025 1:28:14 PM START Sheet



1 LEVEL 1 - FLOOR PLAN DEMO
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- (E) ELEMENT TO BE DEMOLISHED, SEE KEYNOTES FOR ADDITIONAL CLARIFICATION OF DEMOLITION SCOPE
- DEMOLITION OF FLOOR SLAB FOR INSTALLATION OF NEW UTILITIES. PATCH TO MATCH ADJACENT SLAB ASSEMBLY
- EXISTING UTILITY TRENCH
- SCOPE OF WORK

GENERAL SHEET NOTES

A. REFER TO THE PROJECT GENERAL NOTES IN THE G1.X SERIES FOR INFORMATION REGARDING VERFICATION AND PROTECTION OF EXISTING CONDITIONS.

B. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION NOT SHOWN ON THIS DRAWING.

D. CONTRACTORS MUST REVIEW AND COORDINATE WITH BUILDING MAINTENCE TO CONFIRM DEMOLITION SCOPE FOR ALL MECHANICAL, ELECTRICAL, AND PLUMBING FEATURES.

E. DEMOLITION WORK SHALL BE DONE IN A MANNER WHICH WILL NOT CAUSE UNNECESSARY INCONVENIENCE OR DANGER TO USERS OF THE PREMISES AND ADJACENT SITE AND NOT INTERFERE WITH ITS OPERATION. ANY DEMOLITION WORK TO BE PERFORMED MUST BE PLANNED IN ADVANCE AND APPROVED BY THE OWNER.

F. THE CONTRACTOR SHALL MAKE A DETAILED SURVEY OF THE AREAS OF WORK AND DETERMINE THE METHOD OF REMOVING THE SCHEDULED WORK WITHOUT DAMAGE TO AREAS THAT ARE NOT SCHEDULED FOR DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL ELEMENTS THAT ARE TO REMAIN WHICH ARE DAMAGED FROM THE DEMOLITION WORK WITH CONSTRUCTION TO MATCH EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

G. THE DEMOLITION PLAN DOES NOT ACKNOWLEDGE TOXIC MATERIALS AND DOES NOT AUTHORIZE THE DEMOLITION AND OR REMOVAL OF TOXIC MATERIALS. THE DEMOLITION SCOPE DOES NOT ACKNOWLEDGE TOXIC MATERIAL.

H. ALL MATERIALS INDICATED TO BE REMOVED SHALL BE DISPOSED OF PROPERLY AND REMOVED FROM THE SITE.

I. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IS CLASSIFIED AS "SALVAGE FOR OWNER" SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY THE OWNER AND NEATLY STORE AND PROTECT FROM DAMAGE.

J. FOR ALL EXISTING DOORS TO REMAIN, CLEAN ALL SURFACES TO BE FREE OF DIRT AND RESIDUE

K. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IS CLASSIFIED "SALVAGE FOR RELOCATION" SHALL REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR PLACING ITEMS IN STORAGE ON SITE AND FOR THE PROTECTION OF THOSE ITEMS. THESE ITEMS WILL BE RELOCATED. REFER TO THE FLOOR PLANS FOR NEW LOCATIONS.

L. WALL GRILLES THAT ARE EXISTING TO REMAIN TO BE CLEANED IN ALL ROOMS THAT ARE IN SCOPE.

M. REMOVE RUBBER WALL BASE WHERE NEW FLOORING IS SCHEDULED TO BE INSTALLED; REFER TO FINISH PLANS.

N. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.

SHEET KEYNOTES

AD258 DEMOLISH EXISTING FLOORING. PATCH EXISTING FLOOR AND PREPARE FOR NEW FLOORING OVERLAY. PREPARE FOR NEW FLOOR BOXES.
AD307 DEMOLISH EXISTING CASEWORK AND COUNTERTOPS
AD308 EXISTING UPPER CASEWORK TO REMAIN. DEMOLISH LOWER CASEWORK
AD309 DEMOLISH SINK, COUNTER,VALVES AND CAP UTILITIES. KEEP THE REST OF CASEWORK
AD310 EXISTING UPPER CASEWORK TO REMAIN. REMOVE TALL 42"H TABLES FOR REUSE
AD311 DEMOLISH COUNTER, CUPSINKS, VALVES AND CAP UTILITIES, DEMOLISH KNEE SPACE & 1ST CABINET ON SOUTH SIDE. KEEP THE REST OF CASEWORK
AD312 DEMOLISH COUNTER, CUPSINKS, VALVES AND CAP UTILITIES. KEEP THE REST OF CASEWORK
AD313 DEMOLISH COUNTER, SINKS, AND SINK BASE OF SOUTH SINK. KEEP THE REST OF CASEWORK
AD321 REPLACE DOOR. EXISTING FRAME TO REMAIN.

Plot Date: 7/23/2025 4:55:18 PM
START Sheet

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INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

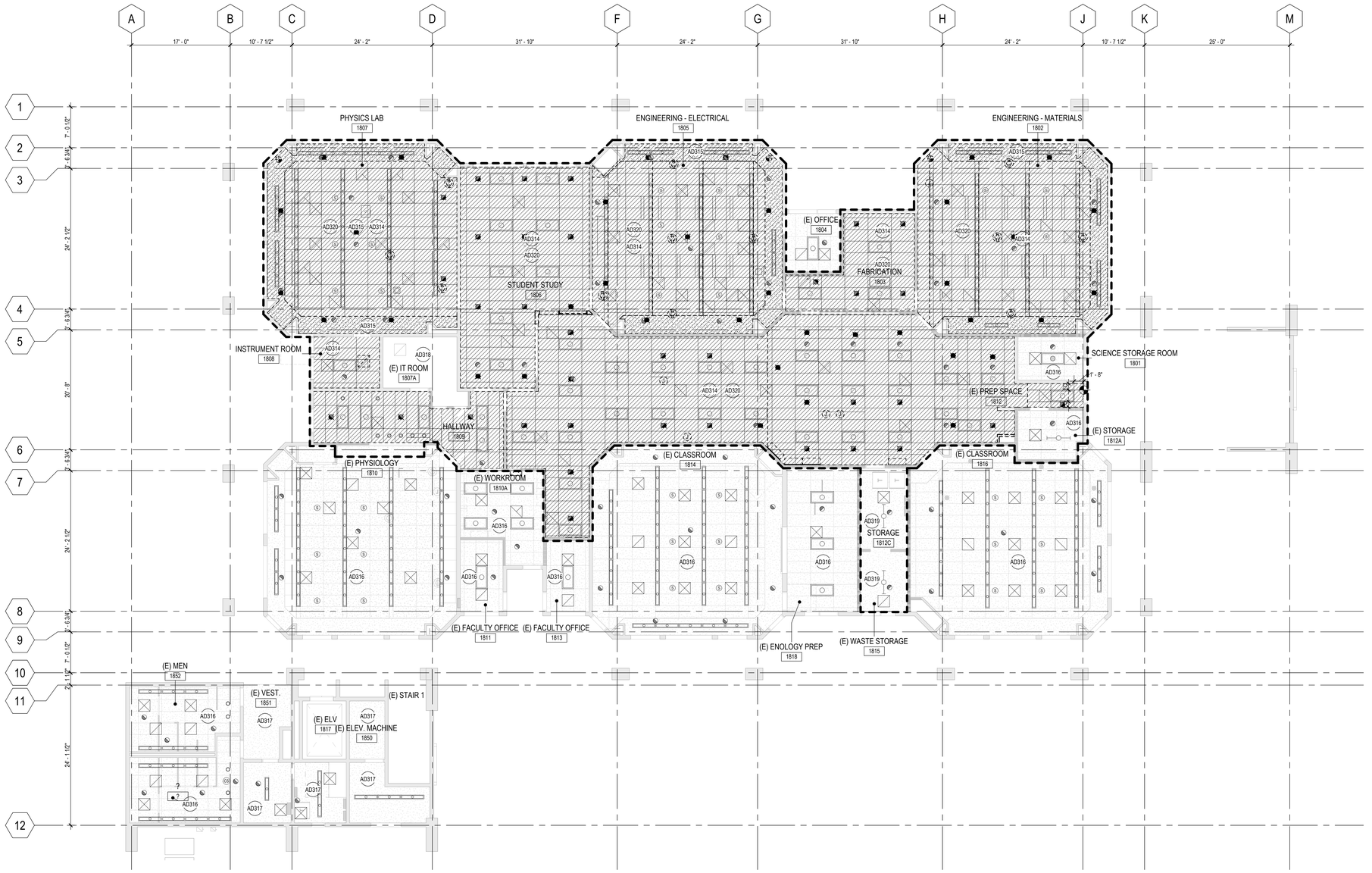
PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1 DEMOLITION FLOOR PLAN

14794

PROJECT NUMBER
CD

AD2.1.1
SHEET NUMBER



1 LEVEL 1 - CEILING DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

START Sheet

Plot Date: 7/23/2025 4:17:14 PM

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- CLG-7 - EXPOSED
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CEILING TRANSITION
- GWB CEILING TO REMAIN
- ACT CEILING TO REMAIN
- DEMOLISHED GWB CEILING
- DEMOLISHED ACT CEILING
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- OCCUPANCY SENSOR, S.E.D.
- DAYLIGHT SENSOR, S.E.D.
- CLG MTD DUPLEX RECEPTACLE, S.E.D.
- AIR SUPPLY DIFFUSER, S.M.D.
- AIR EXHAUST DIFFUSER, S.M.D.
- AIR RETURN DIFFUSER, S.M.D.
- EXIT LIGHT
- LOUDSPEAKER
- RECESSED DOWNLIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- POINT EXHAUST, SEE LAB DWGS
- WINDOW SHADE
- EXTERIOR LOUVER TYPE
- PROJECTOR & PROJECTION SCREEN

GENERAL SHEET NOTES

A. REFER TO THE PROJECT GENERAL NOTES IN THE G1.X SERIES FOR INFORMATION REGARDING VERFICATION AND PROTECTION OF EXISTING CONDITIONS.

B. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION NOT SHOWN ON THIS DRAWING.

D. CONTRACTORS MUST REVIEW AND COORDINATE WITH BUILDING MAINTENCE TO CONFIRM DEMOLITION SCOPE FOR ALL MECHANICAL, ELECTRICAL, AND PLUMBING FEATURES.

E. DEMOLITION WORK SHALL BE DONE IN A MANNER WHICH WILL NOT CAUSE UNNECESSARY INCONVENIENCE OR DANGER TO USERS OF THE PREMISES AND ADJACENT SITE AND NOT INTERFERE WITH ITS OPERATION. ANY DEMOLITION WORK TO BE PERFORMED MUST BE PLANNED IN ADVANCE AND APPROVED BY THE OWNER.

F. THE CONTRACTOR SHALL MAKE A DETAILED SURVEY OF THE AREAS OF WORK AND DETERMINE THE METHOD OF REMOVING THE SCHEDULED WORK WITHOUT DAMAGE TO AREAS THAT ARE NOT SCHEDULED FOR DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL ELEMENTS THAT ARE TO REMAIN WHICH ARE DAMAGED FROM THE DEMOLITION WORK WITH CONSTRUCTION TO MATCH EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

G. THE DEMOLITION PLAN DOES NOT ACKNOWLEDGE TOXIC MATERIALS AND DOES NOT AUTHORIZE THE DEMOLITION AND OR REMOVAL OF TOXIC MATERIALS. THE DEMOLITION SCOPE DOES NOT ACKNOWLEDGE TOXIC MATERIAL.

H. ALL MATERIALS INDICATED TO BE REMOVED SHALL BE DISPOSED OF PROPERLY AND REMOVED FROM THE SITE.

I. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IS CLASSIFIED AS "SALVAGE FOR OWNER" SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY THE OWNER AND NEATLY STORE AND PROTECT FROM DAMAGE.

J. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IS CLASSIFIED "SALVAGE FOR RELOCATION" SHALL REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR PLACING ITEMS IN STORAGE ON SITE AND FOR THE PROTECTION OF THOSE ITEMS. THESE ITEMS WILL BE RELOCATED. REFER TO THE FLOOR PLANS FOR NEW LOCATIONS.

K. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA.

SHEET KEYNOTES

AD314 DEMOLISH (E) ACT CEILING AND LIGHT FIXTURES. PREPARE TO RECEIVE NEW ACT CEILING.
AD315 DEMOLISH (E) GWB CEILING AND LIGHT FIXTURES. PREPARE TO RECEIVE NEW ACT CEILING.
AD316 (E) ACT CEILING TO REMAIN.
AD317 (E) GWB CEILING TO REMAIN.
AD318 (E) EXPOSED CEILING TO REMAIN.
AD319 (E) RATED GWB CEILING TO REMAIN.
AD320 SALVAGE (E) SPEAKERS FOR RE-USE. TEST AND PROTECT OPERATIONAL CABLING SUITABLE FOR RE-USE.

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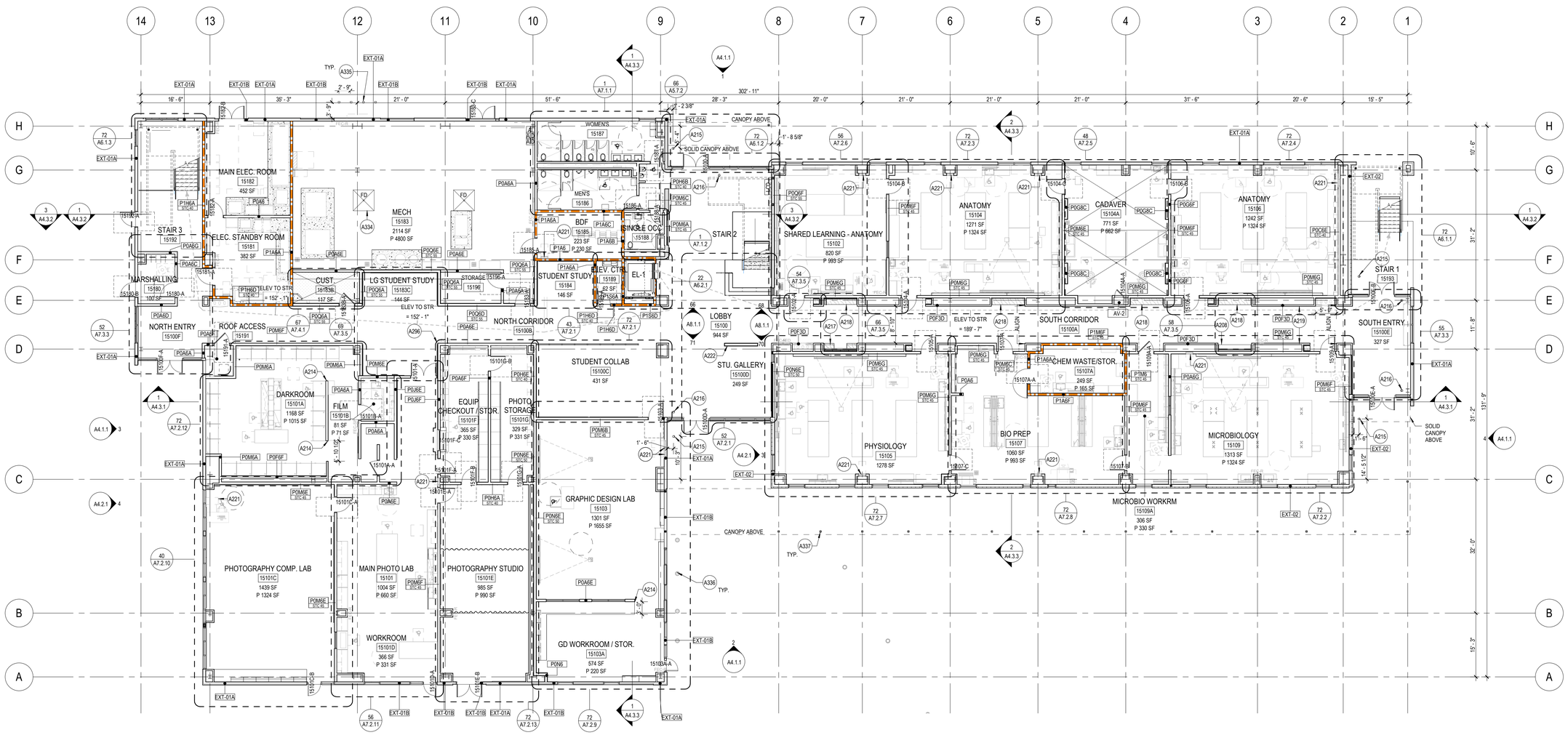
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1 DEMOLITION REFLECTED CEILING PLAN

14794
PROJECT NUMBER

CD **AD3.1.1**
SHEET NUMBER



1 LEVEL 1 - OVERALL FLOOR PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

1 HOUR EXISTING FIRE RESISTANCE RATING

CURTAIN

DISTANCE FROM ELEVATOR TO STAIR NOSING

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO Q-SERIES DRAWINGS FOR ARTS AND LAB PLANNING INFORMATION.

D. REFER TO WALL ASSEMBLIES ON A9.2.X SHEETS & ACOUSTICAL SECTION OF BASIS OF DESIGN DOCUMENT FOR PARTITION STC REQUIREMENTS AND PARTITION TYPES THAT ACHIEVE RECOMMENDED STC REQUIREMENTS.

E. REFER TO A9.2.1 SHEETS FOR WALL TYPES & WALL ASSEMBLIES.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

A208	BUILT-IN BENCH TYP.
A214	ALIGN WALLS WITH EQUIPMENT- REFER TO Q DWG.
A215	BOLLARD POST WITH INTEGRATED CARD READER AND SURFACE MOUNTED VERTICAL AUTO-DOOR ACTUATOR, MOUNTING REQUIREMENTS PER A0.0.2
A216	BOLLARD POST SURFACE MOUNTED VERTICAL AUTO-DOOR ACTUATOR, MOUNTING REQUIREMENTS PER A0.0.2
A217	BUILT-IN ADA BENCH, TYP.
A218	BUILT-IN TABLE, TYP.
A219	ALL FURRING WALLS ALONG CORRIDORS TO BE P0F, UNO
A221	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A222	GALLERY WALL, REFER TO A7.2.1 FOR DETAILS AND DIMENSIONS
A296	CORNER GUARD, TYPICAL FOR ALL CORNERS
A334	SLOPE LINE, SEE SLAB PLANS.
A335	BOLLARD, REFER TO CIVIL DRAWINGS
A336	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
A337	CANOPY POST

Plot Date: 7/23/2025 4:24:28 PM
START Sheet

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

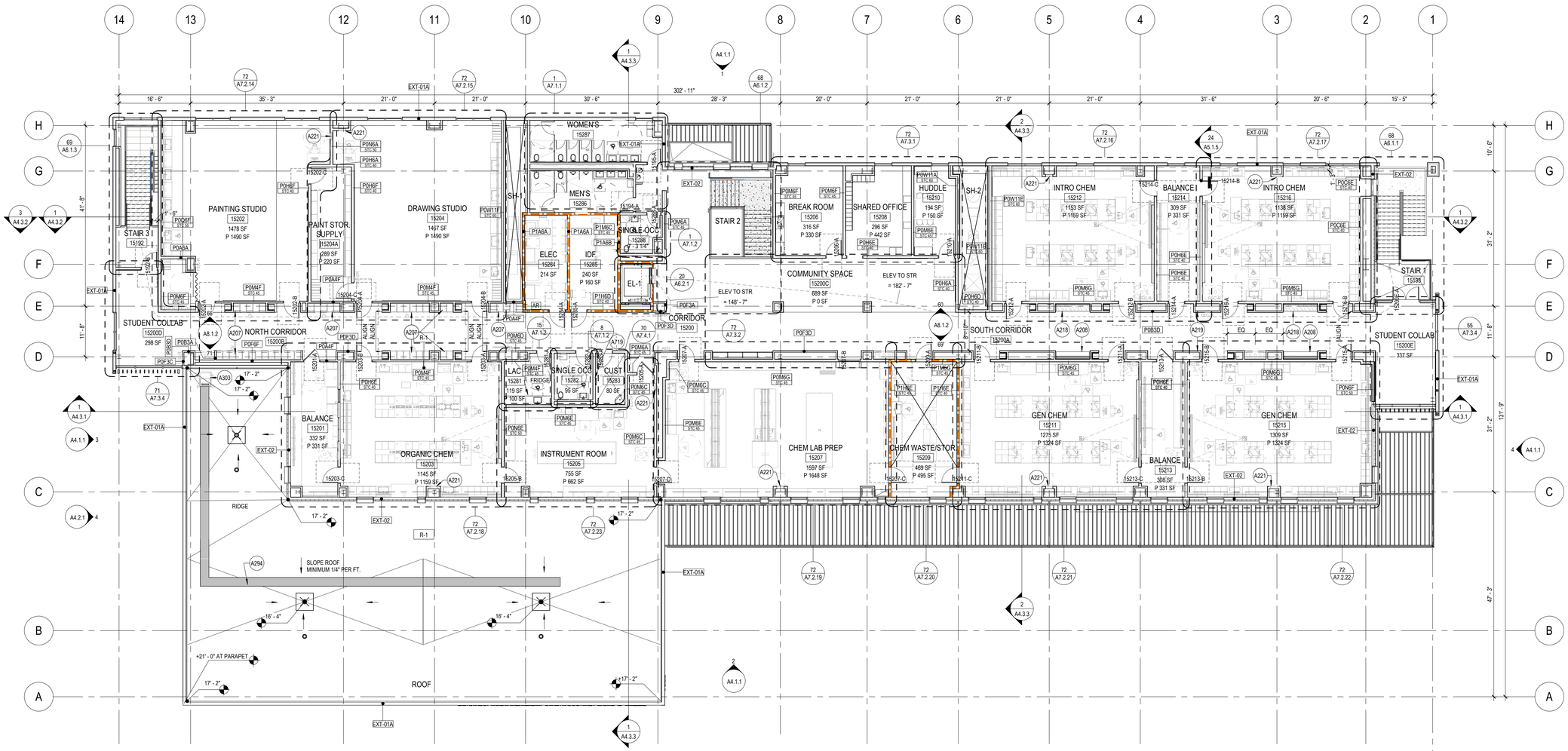
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 1 FLOOR PLAN

14794
PROJECT NUMBER

CD **A2.1.1**
SHEET NUMBER



1 LEVEL 2 - OVERALL FLOOR PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

1 HOUR EXISTING FIRE RESISTANCE RATING

CURTAIN

DISTANCE FROM ELEVATOR TO STAIR NOSING

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO Q-SERIES DRAWINGS FOR ARTS AND LAB PLANNING INFORMATION.

D. REFER TO WALL ASSEMBLIES ON A9.2.X SHEETS & ACOUSTICAL SECTION OF BASIS OF DESIGN DOCUMENT FOR PARTITION STC REQUIREMENTS AND PARTITION TYPES THAT ACHIEVE RECOMMENDED STC REQUIREMENTS.

E. REFER TO A9.2.1 SHEETS FOR WALL TYPES & WALL ASSEMBLIES.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

A207 BUILT-IN LOCKERS.
A208 BUILT-IN BENCH TYP.
A218 BUILT-IN TABLE, TYP.
A219 ALL FURRING WALLS ALONG CORRIDORS TO BE P0F, UNO
A221 ELECTRICAL PANEL. REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A294 PVC ROOF WALKWAY PAD, TYP. AT ROOF
A303 ROOF ACCESS HATCH
A719 DOMESTIC WATER HEATER, REFER TO PLBG DWG.

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START Sheet

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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SEALS AND SIGNATURES

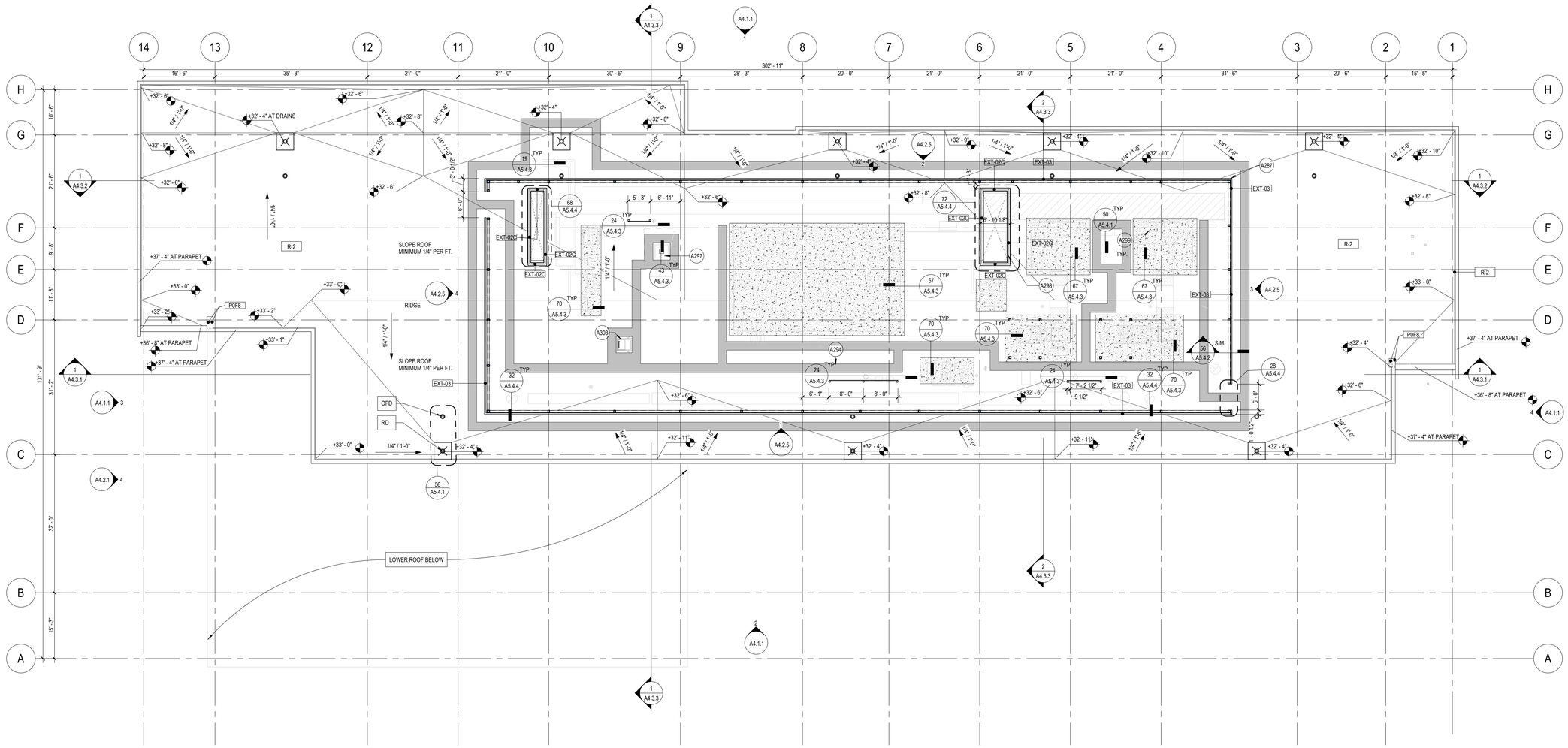
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 2 FLOOR PLAN

PROJECT NUMBER
14794

CD
A2.1.2
SHEET NUMBER



1 ROOF PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. ALL EXTERIOR MECHANICAL EQUIPMENT TO BE MOUNTED ON CONCRETE PADS, APPROXIMATELY 2'-6" ABOVE STRUCTURAL SLAB ELEVATION. WATERPROOF AROUND BASE ISOLATION ASSEMBLIES WITH LIQUID MEMBRANE COMPATIBLE WITH PVC ROOFING. ALLOW FOR STAINLESS STEEL FLASHING AT ALL TRANSITIONS.

D. ALL INTERIOR EQUIPMENT TO BE MOUNTED ON 6-INCH HIGH CONCRETE HOUSEKEEPING PADS.

E. SLOPE FLOORS TO DRAIN AT WET AREAS. PROVIDE TRAFFIC COATING OVER CONCRETE SLAB AT WET AREAS.

SHEET KEYNOTES

A287 MECHANICAL SCREENS
A294 PVC ROOF WALKWAY PAD, TYP. AT ROOF
A297 ELEVATOR ROOF VENT.
A298 MECHANICAL DUCT ENCLOSURE
A299 HOUSEKEEPING PADS
A303 ROOF ACCESS HATCH

Plot Date: 7/23/2025 4:25:10 PM
START Sheet

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

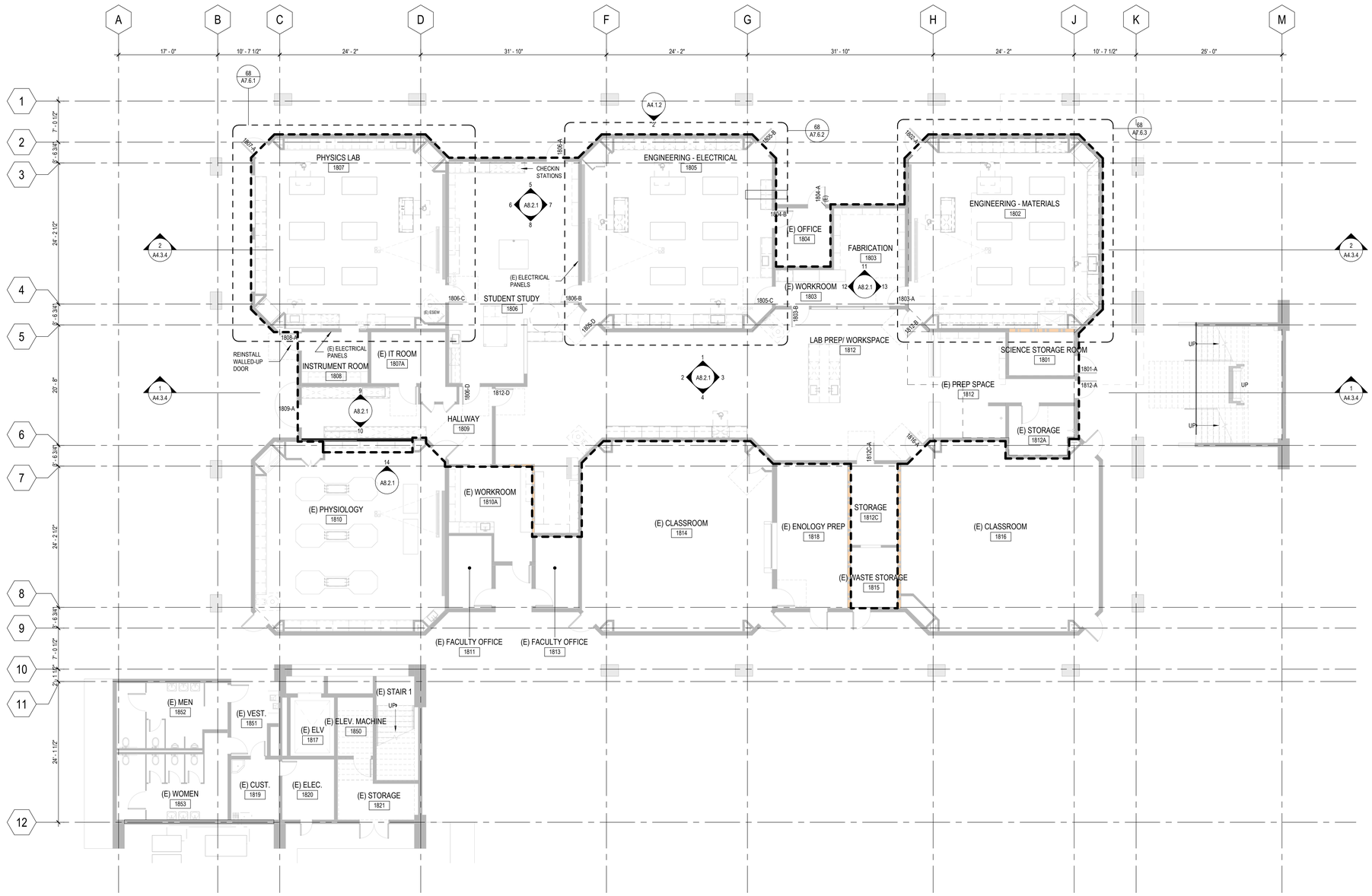
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ROOF PLAN

PROJECT NUMBER
14794

CD

SHEET NUMBER
A2.1.3



1 LEVEL 1 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.

C. REFER TO BASIS OF DESIGN NARRATIVE FOR PROPOSED FINISHES.

D. REFER TO DSA A#60512 AND A#01-111060 FOR EXISTING RESTROOM COMPLIANCE DETAILS.

E. REFER TO DSA A#60512 FOR EXISTING DRINKING FOUNTAIN COMPLIANCE DETAILS.

F. REFER TO SHEET AS2.4 FOR EXISTING UTILITY TRENCH LOCATIONS AND NEW TRENCH LOCATIONS

G. SEE Q7.2.2 FOR FURNITURE COORDINATION WITH INTERIOR ELEVATIONS

H. REFERENCE Q7.2.2. COORDINATE WITH INTERIOR ELEVATIONS PER Q SHEETS.

SHEET KEYNOTES

START Sheet

Plot Date: 7/23/2025 4:57:36 PM

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

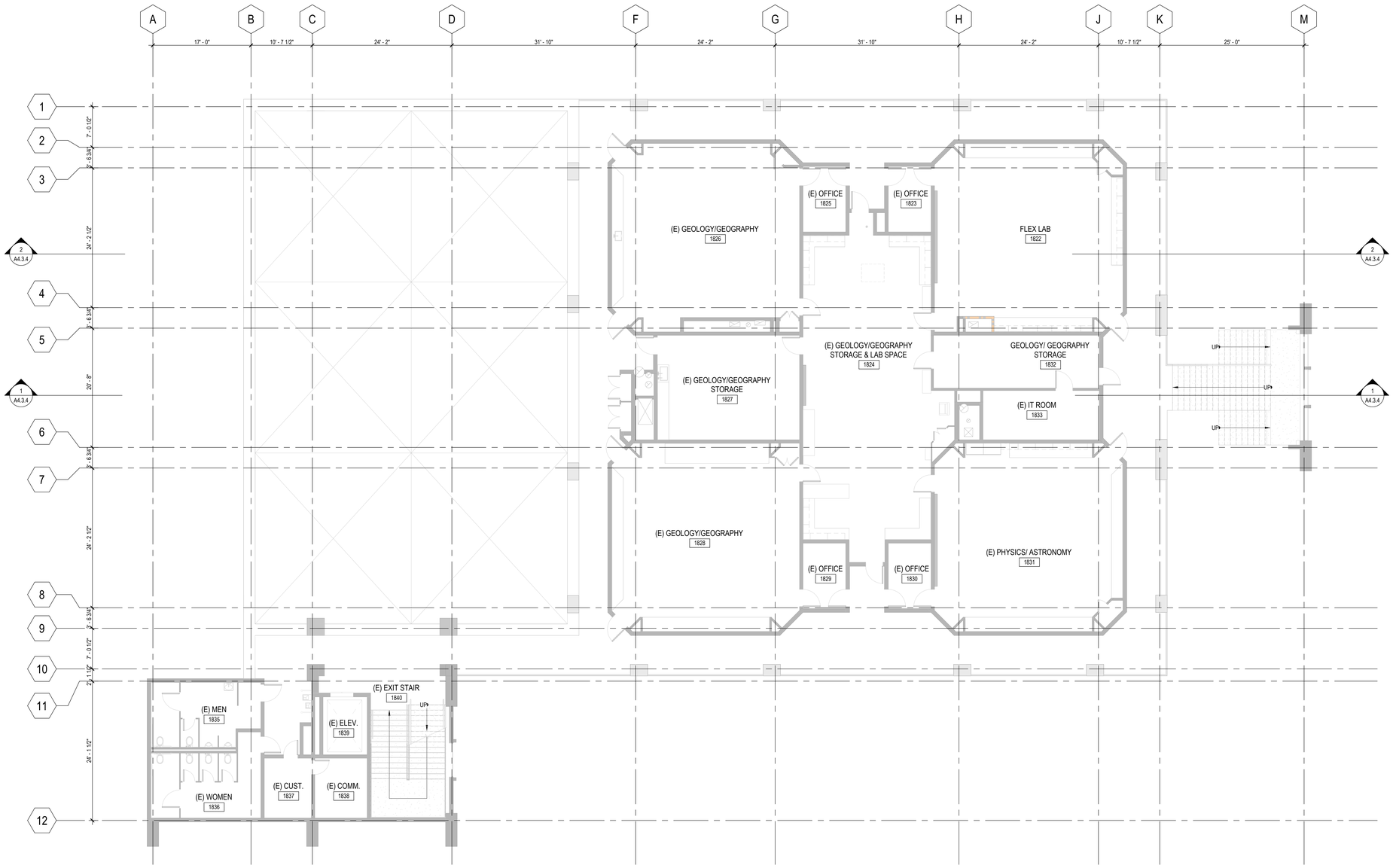
PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1 FLOOR PLAN

14794
PROJECT NUMBER

CD

A2.2.1
SHEET NUMBER



1 LEVEL 2 - FLOOR PLAN
SCALE: 1/8" = 1'-0"

NOTE: THERE IS NO PROJECT SCOPE ON LEVEL 2. THE FLOOR PLAN IS PROVIDED IS FOR INFORMATION ONLY.

GRAPHIC LEGEND

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.

C. REFER TO BASIS OF DESIGN NARRATIVE FOR PROPOSED FINISHES.

D. REFER TO DSA A#60512 AND A#01-111060 FOR EXISTING RESTROOM COMPLIANCE DETAILS.

E. REFER TO DSA A#60512 FOR EXISTING DRINKING FOUNTAIN COMPLIANCE DETAILS.

F. REFER TO SHEET AS2.4 FOR EXISTING UTILITY TRENCH LOCATIONS AND NEW TRENCH LOCATIONS

G. SEE Q7.2.2 FOR FURNITURE COORDINATION WITH INTERIOR ELEVATIONS

H. REFERENCE Q7.2.2. COORDINATE WITH INTERIOR ELEVATIONS PER Q SHEETS.

SHEET KEYNOTES

START Sheet

Plot Date: 7/23/2025 4:58:42 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

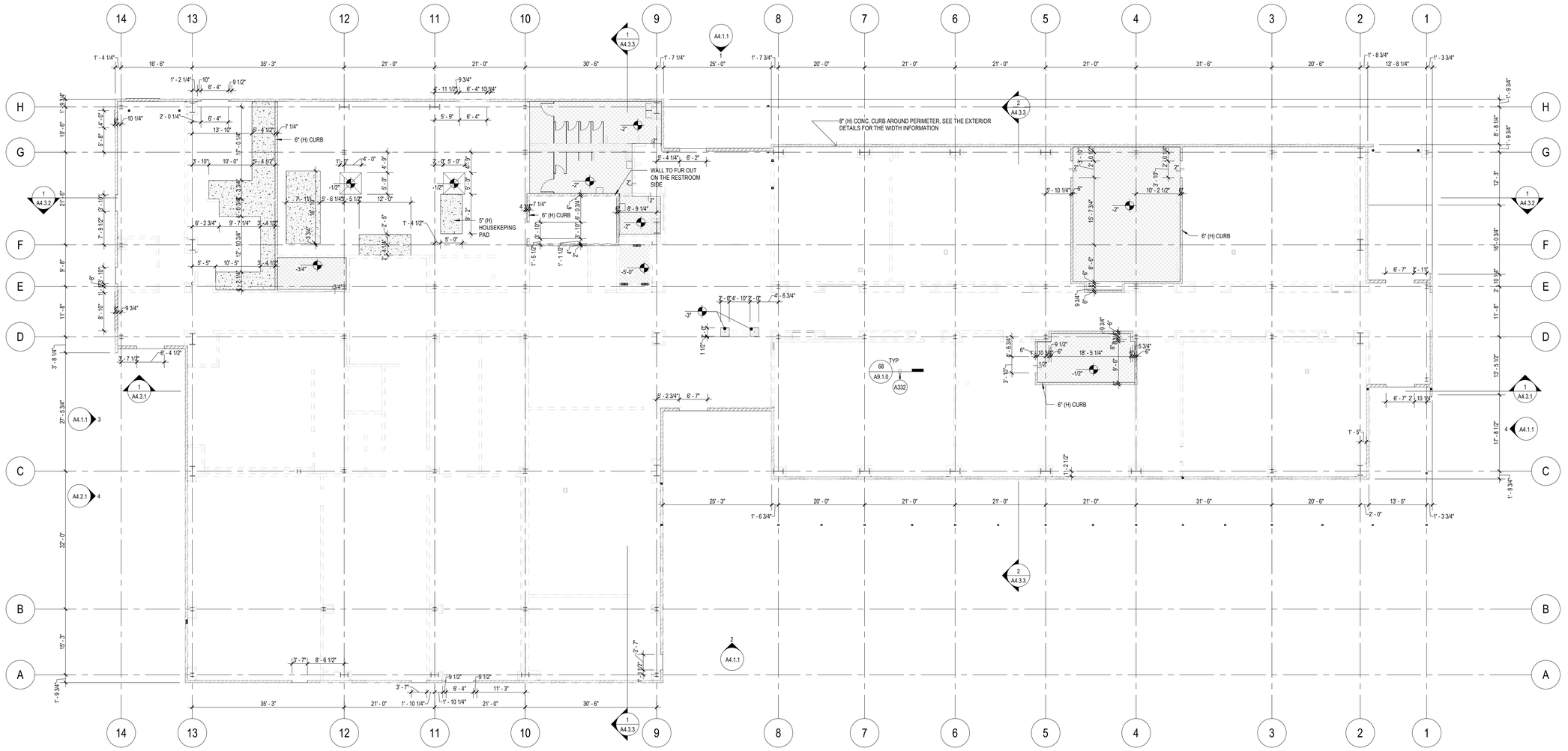
PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 2 FLOOR PLAN

PROJECT NUMBER
14794

CD

SHEET NUMBER
A2.2.2



1 LEVEL 1 - EDGE OF SLAB PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- CONCRETE HOUSEKEEPING PAD
- SLAB DEPRESSION
- 8" (H) CONCRETE CURB, 6" (W) U.O.N.
- 18" (H) CONCRETE CURB, 6" (W) U.O.N.
- WALLS (FOR GRAPHIC PURPOSE)
- SLAB TRANSITION

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
B. ALL DIMENSIONS SHOWN SHALL BE VERIFIED PRIOR TO CONSTRUCTION. PENETRATION LOCATIONS ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. COORDINATE PENETRATION LOCATIONS WITH ELECTRICAL, MECHANICAL, PLUMBING, AND STRUCTURAL DISCIPLINES.
C. VERIFY DEPRESSIONS IN SLABS, IF ANY, WITH FINAL SUBMITTAL OF MATERIAL OR EQUIPMENT SPECIFIED.
D. VERIFY ELECTRICAL AND MECHANICAL EQUIPMENT PADS WITH SPECIFICATIONS AND REQUIREMENTS FOR EACH DISCIPLINE. FINAL LOCATION OF PADS TO BE COORDINATED WITH EQUIPMENT SUBMITTALS.
E. ALL BUS RISER PENETRATIONS SHALL HAVE A 4 MIN. HIGH CURB AROUND THE OPENING AT THE FLOOR SLAB LEVEL
F. COORDINATE ELECTRICAL AND MECHANICAL PIPE SLEEVES THROUGH FLOOR SLABS AND/OR WALLS WITH OTHER DISCIPLINE SHEETS INCLUDED IN THE DRAWING SET.
G. AT ALL TOILET ROOM SLAB DEPRESSIONS AT DRAIN LOCATIONS, THE SLOPE SHALL NOT EXCEED 2% IN ANY DIRECTION.
H. UNLESS OTHERWISE NOTED, SLAB CRACK CONTROL JOINTS TO BE CENTERED ON COLUMNS & BE EQUALLY SPACES BETWEEN COLUMNS.
I. REFER TO FLOOR PLANS AND ENLARGED FLOOR PLANS FOR THE SLOPES THAT ARE ACHIEVED WITH FINISH AND UNDERLAYMENT.
J. PROVIDE VAPOR RETARDER BELOW ALL CONCRETE SLAB ON GRADE CONDITIONS. SEAL ALL PENETRATIONS, PERIMETER, AND TRANSITIONS TO VERTICAL ELEMENTS AND BELOW GRADE WATERPROOFING.

SHEET KEYNOTES

A332 AT ALL ELECTRICAL AND DATA FLOOR BOX LOCATIONS IN SLAB ON GRADE, PROVIDE THICKENED SLAB BELOW JUNCTION BOX AND ALL CONDUIT ROUTING. NOT ALL LOCATIONS ARE SHOWN ON ARCHITECTURAL SLAB EDGE PLAN. REFER TO ARCHITECTURAL FLOOR PLANS, ELECTRICAL, AV, TECHNOLOGY PLANS FOR LOCATIONS. REFER TO STRUCTURAL DRAWINGS FOR SLAB AND REINFORCEMENT INFORMATION.

START Sheet
Plot Date: 7/23/2025 4:25:19 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

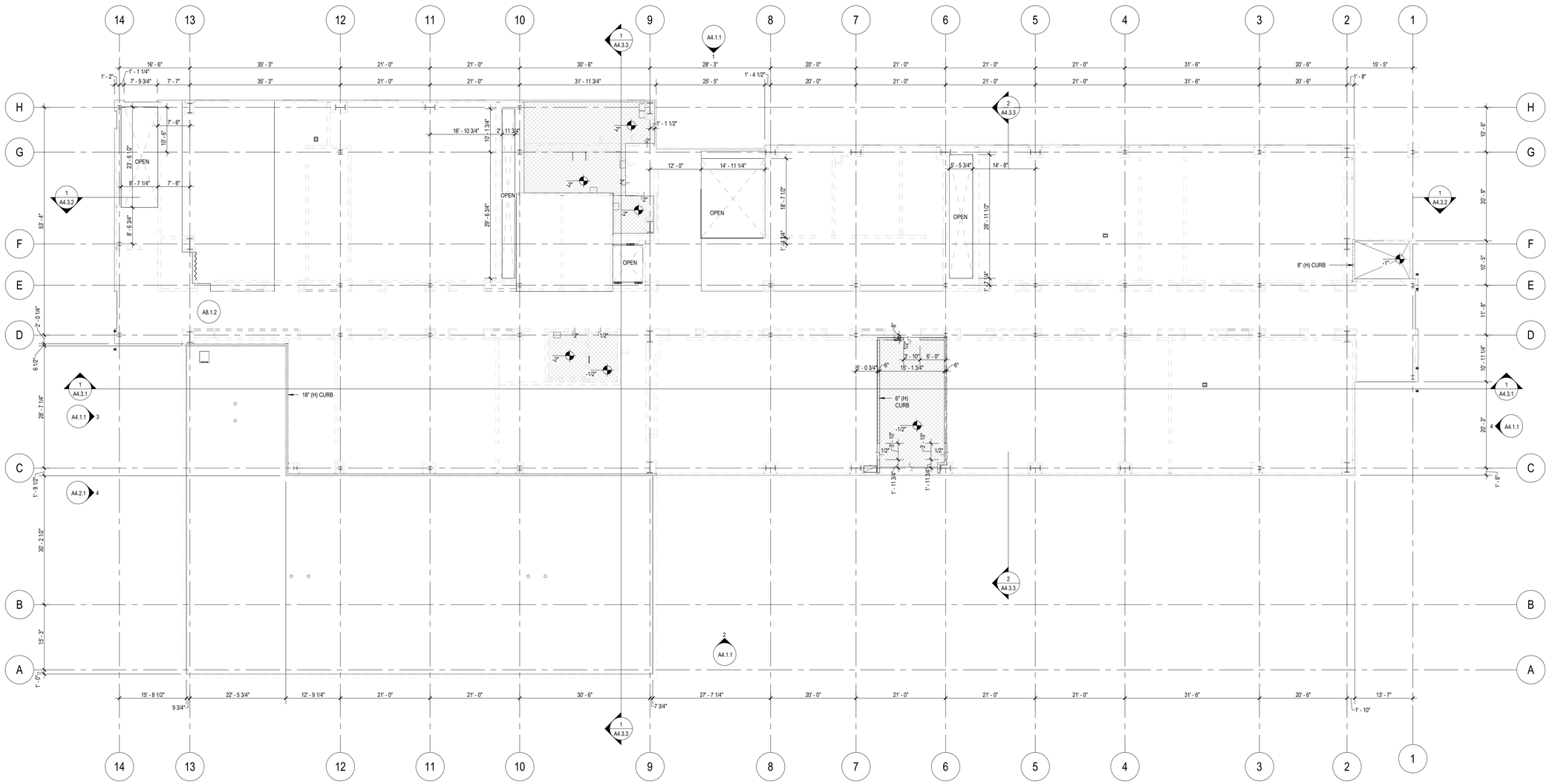
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 1 SLAB EDGE PLAN

14794
PROJECT NUMBER

CD **AS2.1**
SHEET NUMBER



1 LEVEL 2 - EDGE OF SLAB PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- CONCRETE HOUSEKEEPING PAD
- SLAB DEPRESSION
- 8" (H) CONCRETE CURB, 6" (W) U.O.N.
- 18" (H) CONCRETE CURB, 6" (W) U.O.N.
- WALLS (FOR GRAPHIC PURPOSE)
- SLAB TRANSITION

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
B. ALL DIMENSIONS SHOWN SHALL BE VERIFIED PRIOR TO CONSTRUCTION. PENETRATION LOCATIONS ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. COORDINATE PENETRATION LOCATIONS WITH ELECTRICAL, MECHANICAL, PLUMBING, AND STRUCTURAL DISCIPLINES.
C. VERIFY DEPRESSIONS IN SLABS, IF ANY, WITH FINAL SUBMITTAL OF MATERIAL OR EQUIPMENT SPECIFIED.
D. VERIFY ELECTRICAL AND MECHANICAL EQUIPMENT PADS WITH SPECIFICATIONS AND REQUIREMENTS FOR EACH DISCIPLINE. FINAL LOCATION OF PADS TO BE COORDINATED WITH EQUIPMENT SUBMITTALS.
E. ALL BUS RISER PENETRATIONS SHALL HAVE A 4 MIN. HIGH CURB AROUND THE OPENING AT THE FLOOR SLAB LEVEL
F. COORDINATE ELECTRICAL AND MECHANICAL PIPE SLEEVES THROUGH FLOOR SLABS AND/OR WALLS WITH OTHER DISCIPLINE SHEETS INCLUDED IN THE DRAWING SET.
G. AT ALL TOILET ROOM SLAB DEPRESSIONS AT DRAIN LOCATIONS, THE SLOPE SHALL NOT EXCEED 2% IN ANY DIRECTION.
H. UNLESS OTHERWISE NOTED, SLAB CRACK CONTROL JOINTS TO BE CENTERED ON COLUMNS & BE EQUALLY SPACES BETWEEN COLUMNS.
I. REFER TO FLOOR PLANS AND ENLARGED FLOOR PLANS FOR THE SLOPES THAT ARE ACHIEVED WITH FINISH AND UNDERLAYMENT.
J. PROVIDE VAPOR RETARDER BELOW ALL CONCRETE SLAB ON GRADE CONDITIONS. SEAL ALL PENETRATIONS, PERIMETER, AND TRANSITIONS TO VERTICAL ELEMENTS AND BELOW GRADE WATERPROOFING.

SHEET KEYNOTES

Plot Date: 7/23/2025 4:25:25 PM
START Sheet

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
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SEALS AND SIGNATURES

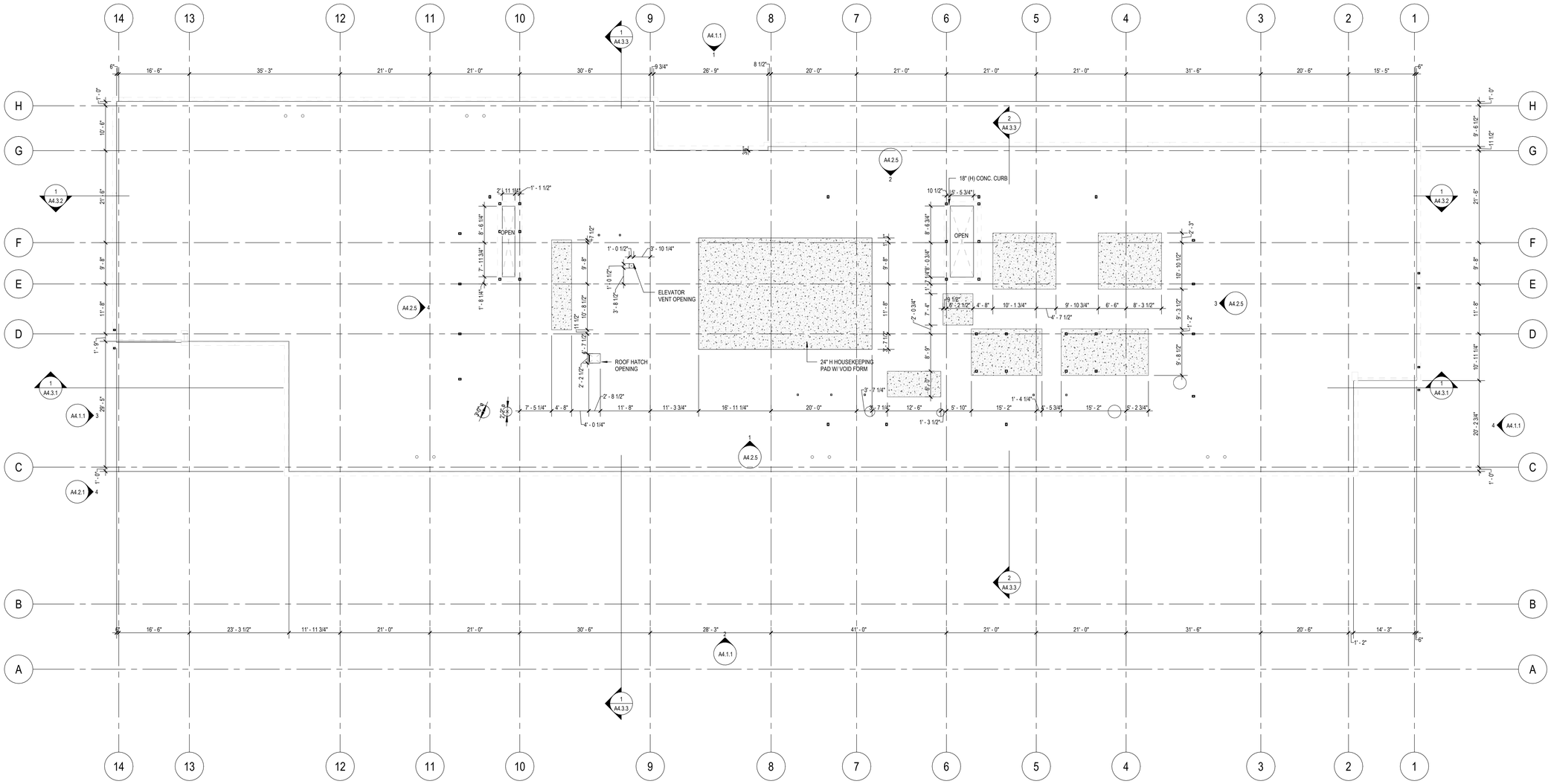
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 2
SLAB EDGE PLAN

14794
PROJECT NUMBER

CD **AS2.2**
SHEET NUMBER



1 ROOF - EDGE OF SLAB PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- CONCRETE HOUSEKEEPING PAD
- SLAB DEPRESSION
- 8" (H) CONCRETE CURB, 6" (W) U.O.N.
- 18" (H) CONCRETE CURB, 6" (W) U.O.N.
- WALLS (FOR GRAPHIC PURPOSE)
- SLAB TRANSITION

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.
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C. VERIFY DEPRESSIONS IN SLABS, IF ANY, WITH FINAL SUBMITTAL OF MATERIAL OR EQUIPMENT SPECIFIED.
D. VERIFY ELECTRICAL AND MECHANICAL EQUIPMENT PADS WITH SPECIFICATIONS AND REQUIREMENTS FOR EACH DISCIPLINE. FINAL LOCATION OF PADS TO BE COORDINATED WITH EQUIPMENT SUBMITTALS.
E. ALL BUS RISER PENETRATIONS SHALL HAVE A 4 MIN. HIGH CURB AROUND THE OPENING AT THE FLOOR SLAB LEVEL
F. COORDINATE ELECTRICAL AND MECHANICAL PIPE SLEEVES THROUGH FLOOR SLABS AND/OR WALLS WITH OTHER DISCIPLINE SHEETS INCLUDED IN THE DRAWING SET.
G. AT ALL TOILET ROOM SLAB DEPRESSIONS AT DRAIN LOCATIONS, THE SLOPE SHALL NOT EXCEED 2% IN ANY DIRECTION.
H. UNLESS OTHERWISE NOTED, SLAB CRACK CONTROL JOINTS TO BE CENTERED ON COLUMNS & BE EQUALLY SPACES BETWEEN COLUMNS.
I. REFER TO FLOOR PLANS AND ENLARGED FLOOR PLANS FOR THE SLOPES THAT ARE ACHIEVED WITH FINISH AND UNDERLAYMENT.
J. PROVIDE VAPOR RETARDER BELOW ALL CONCRETE SLAB ON GRADE CONDITIONS. SEAL ALL PENETRATIONS, PERIMETER, AND TRANSITIONS TO VERTICAL ELEMENTS AND BELOW GRADE WATERPROOFING.

SHEET KEYNOTES

START Sheet
Plot Date: 8/23/2025 6:07:26 PM

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

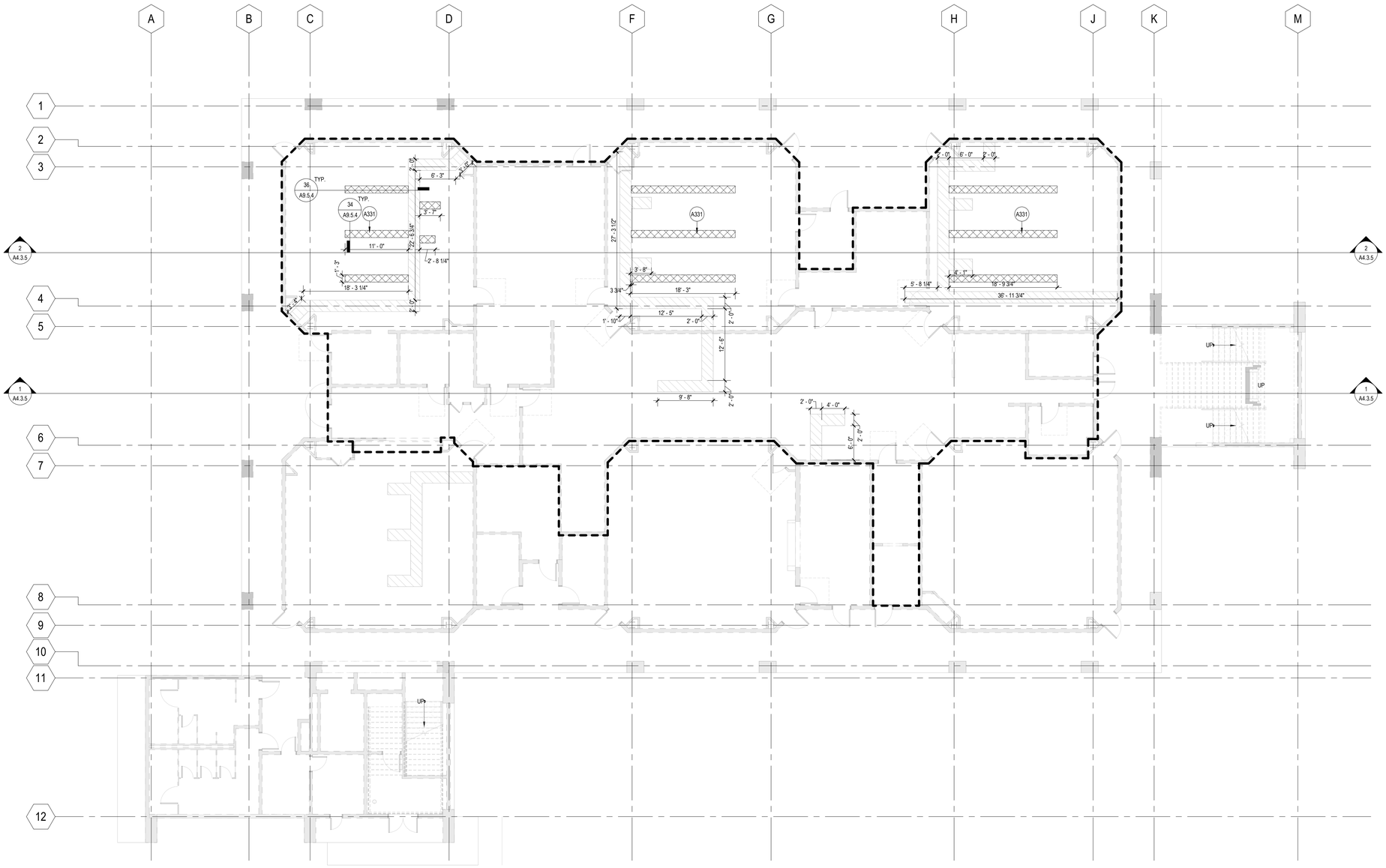
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ROOF SLAB EDGE PLAN

14794
PROJECT NUMBER

CD **AS2.3**
SHEET NUMBER



1 LEVEL 1 - SLAB PLAN
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

EXISTING UTILITY TRENCH

LINE OF NEW TRENCH LOCATION

FLOOR BOX. SEE SHEET E2.4.0

SHEET KEYNOTES

A331 SAW CUT THE (E) CONCRETE FOR NEW FLOOR BOX INSTALLATION AND BACKFILL THE CONCRETE UPON FLOOR BOX AND CONDUIT INSTALLATION

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
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C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

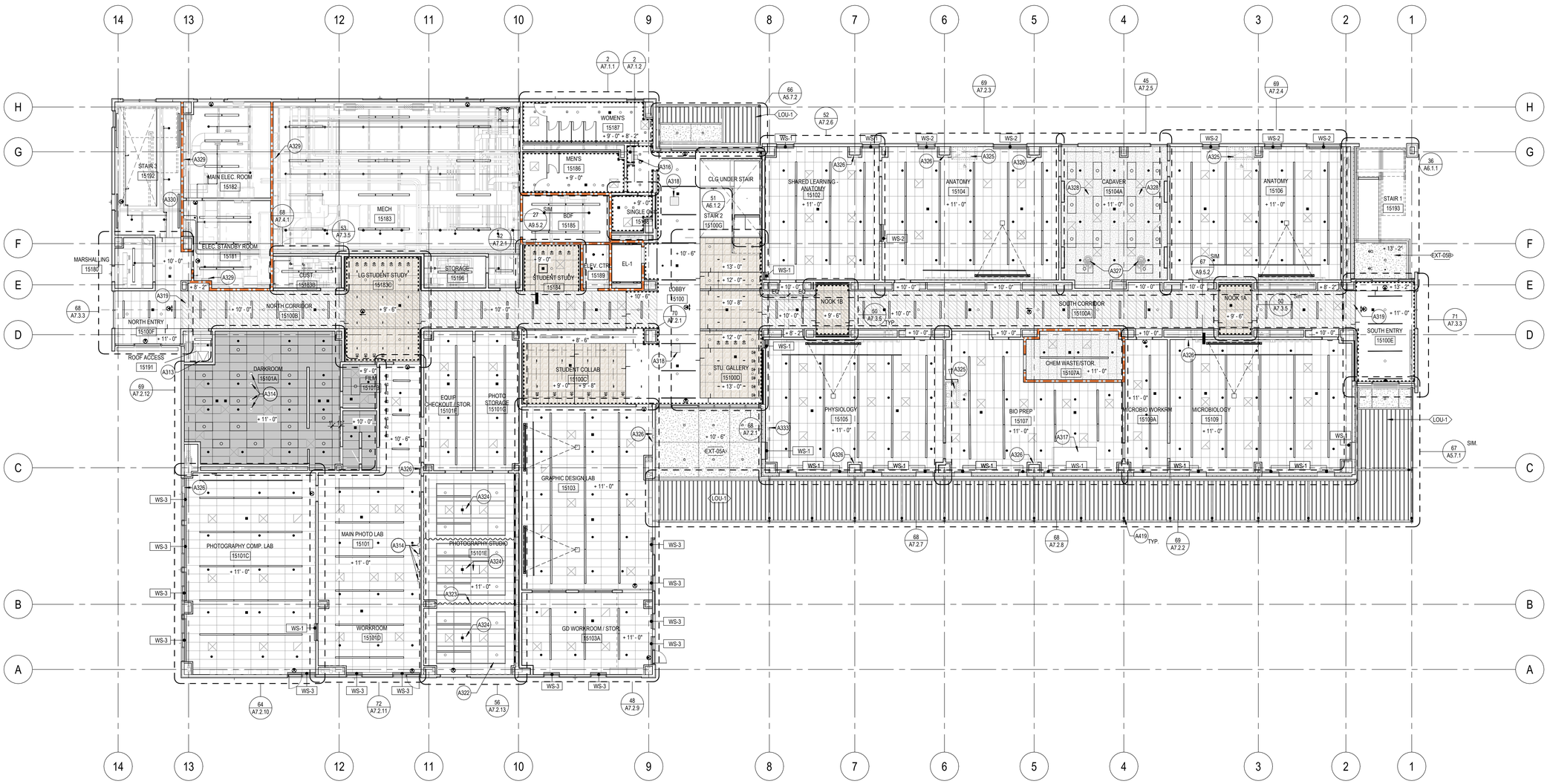
PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1 SLAB PLAN

14794
PROJECT NUMBER

CD
SHEET NUMBER
AS2.4

START Sheet
Plot Date: 7/23/2025 5:36:38 PM



1 LEVEL 1 - REFLECTED CEILING PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CEILING TRANSITION
- CLG-6
- UNISTRUT ABOVE CLG-6
- CLG-7 - EXPOSED
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CEILING MOVEMENT JOINT
- EXIT LIGHT
- LOUDSPEAKER
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- POINT EXHAUST, SEE LAB DWGS
- WS WINDOW SHADE
- LOU EXTERIOR LOUVER TYPE
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SHEET FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. VERTICAL ELEVATIONS ON THIS PLAN ARE SHOWN RELATIVE TO THE FINISH FLOOR DESIGN REFERENCE ELEVATION UNLESS OTHERWISE NOTED. REFER TO THE "REFERENCE ELEVATION DEFINITIONS" LOCATED IN THE A0.X SERIES SHEETS.

C. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.

D. REFER TO THE A0.X SERIES SHEETS FOR TYPICAL RULES AND REQUIREMENTS GOVERNING THE LOCATION OF CEILING ITEMS SHOWN BUT NOT DIMENSIONED ON THE REFLECTED CEILING PLANS.

E. ALL SUSPENDED ACOUSTIC TILE GRID CEILING SYSTEMS SHALL BE CENTERED IN ROOMS UNLESS OTHERWISE NOTED.

F. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

G. REFER TO THE A2.1.X SERIES SHEETS FOR PARTITION TYPE DESIGNATIONS.

H. REFER TO THE 'A' SERIES SHEETS FOR INTERIOR FINISHES, CEILING TYPES INFORMATION.

I. REFER TO LIGHTING DRAWINGS FOR DETAILS ON LIGHT FIXTURES.

J. ALL PROJECTOR ROUGH-IN TO BE CENTERED AT CEILING TILES.

K. PAINT EXPOSED DUCT/UTILITIES STRUCTURE AT NON SERVICE AREA, TYP UON.

L. REFER TO TE2.X SERIES SHEETS FOR CABLE TRAY LOCATIONS.

M. REFER TO TY2.X SERIES SHEETS FOR SECURITY CAMERA LOCATIONS.

N. REFER TO A11.1 FOR WINDOW SHADE TYPES, A9.4.3 FOR DETAILS.

O. REFER TO A11.1 FOR LOUVER TYPE, A5.7.1 AND A5.7.2 FOR LOUVER DETAILS.

SHEET KEYNOTES

A313 ROOF ACCESS HATCH AND LADDER
A314 EXHAUST DUCT WORK, SEE LAB DWG Q9.1.5
A316 12" X 12" RECESSED GYP. BOARD INFILL ACCESS DOOR
A317 CEILING PENETRATION FOR CANOPY HOOD. REFER TO DETAIL ON Q9.1.7
A318 RECESSED ACCESS DOOR WITH GYP BOARD INFILL, FINISH TO MATCH ADJACENT GYP BOARD CEILING. REFER TO 13/A9.4.1
A319 UNISTRUT SYSTEM (DIAGONALLY HATCHED) FOR OVERHEAD MECH PIPING AND SUSPENDED CEILING SUPPORT, REFER TO 67/A9.5.2 FOR DETAILS
A322 UNISTRUT GRID SYSTEM FOR OFCI TRACK LIGHT SUPPORT, SEE DETAIL 69/A9.5.2
A323 CEILING MOUNTED CURTAIN
A324 RECESSED CEILING FOR OFCI CEILING MOUNTED CORD REELS, SEE DETAL 45/A9.5.2
A325 FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION
A326 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A327 CEILING MOUNTED LAB LIGHT SYSTEM, REFER TO 18/A9.4.3 AND LAB DRAWING Q7.1.2
A328 PROVIDE INFRASTRUCTURE FOR FUTURE OVERHEAD LIGHT, REFER TO 18/A9.4.3 AND LAB DRAWING Q7.1.2
A329 REFER TO MEP DRAWINGS FOR WALL MOUNTED PANEL LOCATIONS AND SCHEDULES
A330 PAINT EXPOSED METAL DECK IN STAIR 3 PER A11.1 FINISH SCHEDULE
A333 POINT EXHAUST, SEE LAB DWGS FOR LOCATIONS AND 72/Q9.1.7 FOR DETAIL, TYP
A419 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24/JUL/2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 1 REFLECTED CEILING PLAN

14794

PROJECT NUMBER
CD

A3.1.1
SHEET NUMBER

START Sheet
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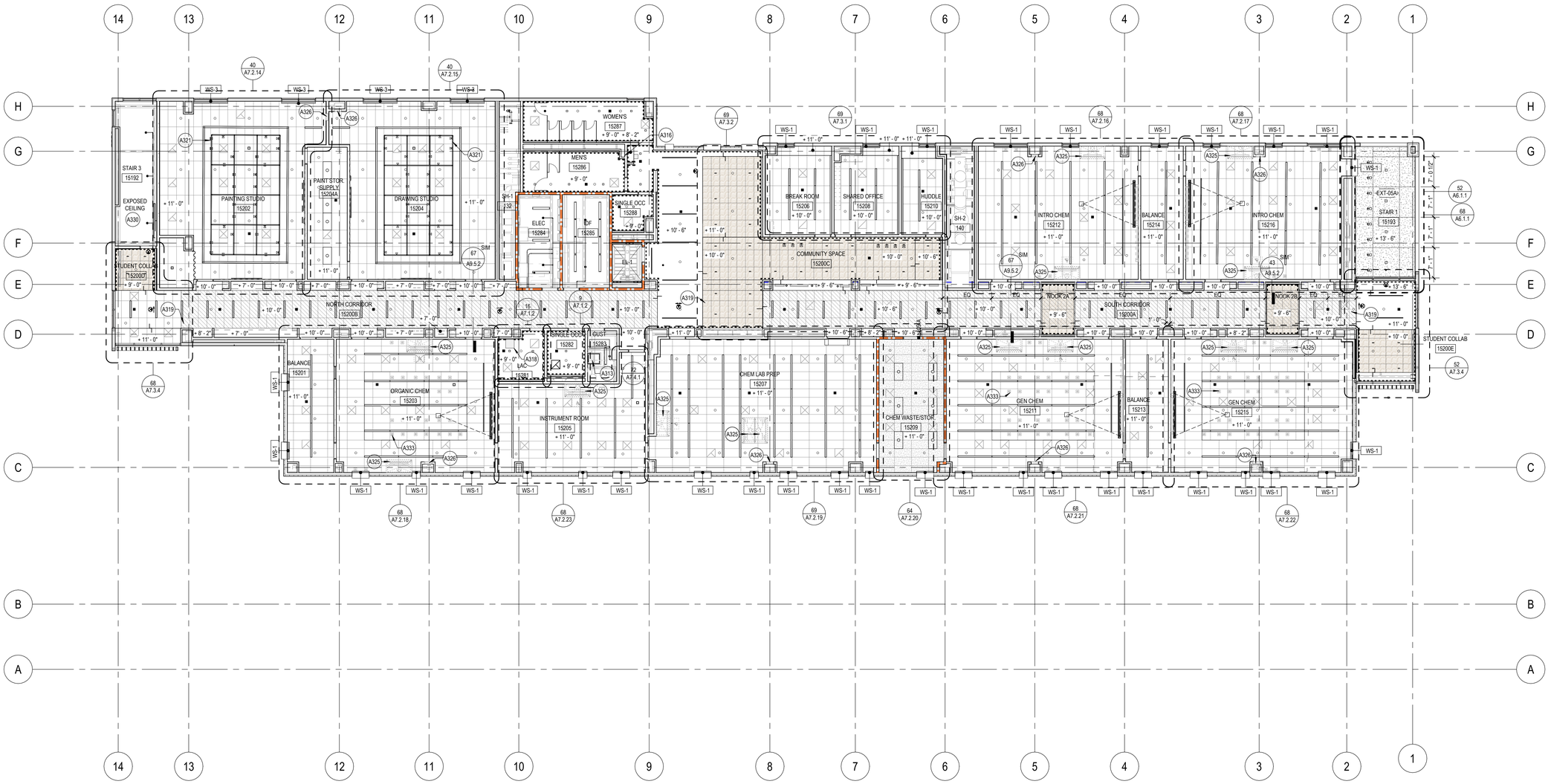

1 LEVEL 2 - REFLECTED CEILING PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CEILING TRANSITION
- CLG-6
- UNISTRUT ABOVE CLG-6
- CLG-7 - EXPOSED
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CEILING MOVEMENT JOINT
- EXIT LIGHT
- LOUDSPEAKER
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- POINT EXHAUST, SEE LAB DWGS
- WS — WINDOW SHADE
- LOU — EXTERIOR LOUVER TYPE
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SHEET FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. VERTICAL ELEVATIONS ON THIS PLAN ARE SHOWN RELATIVE TO THE FINISH FLOOR DESIGN REFERENCE ELEVATION UNLESS OTHERWISE NOTED. REFER TO THE "REFERENCE ELEVATION DEFINITIONS" LOCATED IN THE A0.X SERIES SHEETS.

C. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.

D. REFER TO THE A0.X SERIES SHEETS FOR TYPICAL RULES AND REQUIREMENTS GOVERNING THE LOCATION OF CEILING ITEMS SHOWN BUT NOT DIMENSIONED ON THE REFLECTED CEILING PLANS.

E. ALL SUSPENDED ACOUSTIC TILE GRID CEILING SYSTEMS SHALL BE CENTERED IN ROOMS UNLESS OTHERWISE NOTED.

F. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

G. REFER TO THE A2.1.X SERIES SHEETS FOR PARTITION TYPE DESIGNATIONS.

H. REFER TO THE 'A' SERIES SHEETS FOR INTERIOR FINISHES, CEILING TYPES INFORMATION.

I. REFER TO LIGHTING DRAWINGS FOR DETAILS ON LIGHT FIXTURES.

J. ALL PROJECTOR ROUGH-IN TO BE CENTERED AT CEILING TILES.

K. PAINT EXPOSED DUCT/UTILITIES STRUCTURE AT NON SERVICE AREA, TYP UON.

L. REFER TO TE2.X SERIES SHEETS FOR CABLE TRAY LOCATIONS.

M. REFER TO TY2.X SERIES SHEETS FOR SECURITY CAMERA LOCATIONS.

N. REFER TO AI1.1 FOR WINDOW SHADE TYPES, A9.4.3 FOR DETAILS.

O. REFER TO AI1.1 FOR LOUVER TYPE, A5.7.1 AND A5.7.2 FOR LOUVER DETAILS.

SHEET KEYNOTES

A313 ROOF ACCESS HATCH AND LADDER
A316 12" X 12" RECESSED GYP. BOARD INFILL ACCESS DOOR
A318 RECESSED ACCESS DOOR WITH GYP BOARD INFILL, FINISH TO MATCH ADJACENT GYP BOARD CEILING. REFER TO 13/A9.4.1
A319 UNISTRUT SYSTEM (DIAGONALLY HATCHED) FOR OVERHEAD MECH PIPING AND SUSPENDED CEILING SUPPORT, REFER TO 67/A9.5.2 FOR DETAILS
A321 LINEAR TRACK LIGHT, SEE ELECTRICAL DWG, TYP.
A325 FUME HOOD REFER TO LAB DRAWING 24/QI.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION
A326 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A330 PAINT EXPOSED METAL DECK IN STAIR 3 PER A11.1 FINISH SCHEDULE
A333 POINT EXHAUST, SEE LAB DWGS FOR LOCATIONS AND 72/QI.1.7 FOR DETAIL, TYP

Plot Date: 8/23/2025 6:03:21 PM
START Sheet

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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SAN FRANCISCO, CA 94111
415.227.0100
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

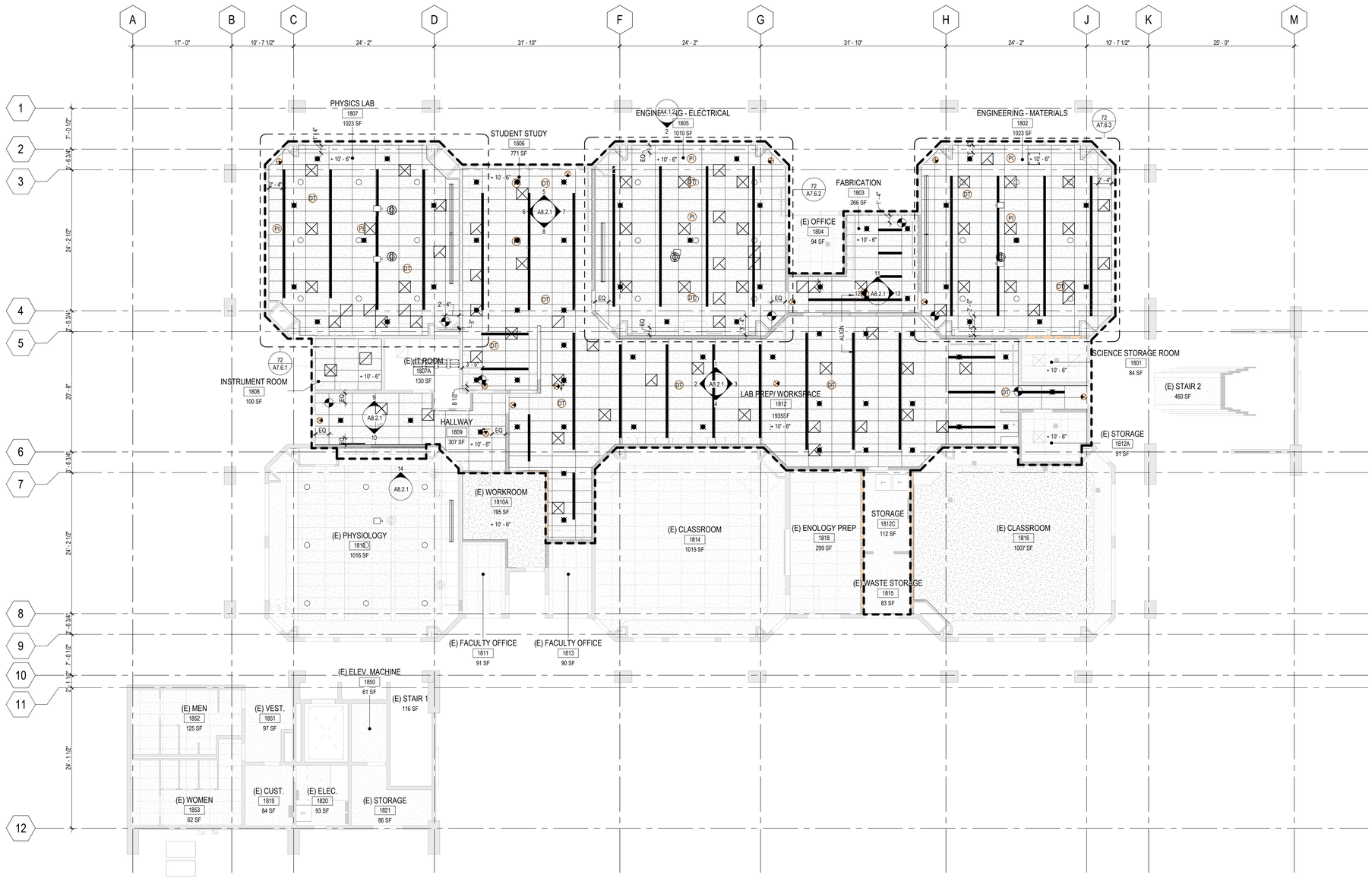
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 2 REFLECTED CEILING PLAN

14794
PROJECT NUMBER

CD
A3.1.2
SHEET NUMBER



1 LEVEL 1 - REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- CLG-7 - EXPOSED
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CEILING TRANSITION
- GWB CEILING TO REMAIN
- ACT CEILING TO REMAIN
- EXIT LIGHT
- LOUDSPEAKER
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- OCCUPANCY SENSOR, S.E.D.
- DAYLIGHT SENSOR, S.E.D.
- CLG MTD DUPLEX RECEPTACLE, S.E.D.
- AIR SUPPLY DIFFUSER, S.M.D.
- AIR EXHAUST DIFFUSER, S.M.D.
- AIR RETURN DIFFUSER, S.M.D.
- RECESSED DOWNLIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- POINT EXHAUST, SEE LAB DWGS
- WINDOW SHADE
- EXTERIOR LOUVER TYPE
- PROJECTOR & PROJECTION SCREEN

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. VERTICAL ELEVATIONS ON THIS PLAN ARE SHOWN RELATIVE TO THE FINISH FLOOR DESIGN REFERENCE ELEVATION UNLESS OTHERWISE NOTED. REFER TO THE "REFERENCE ELEVATION DEFINITIONS" LOCATED IN THE A0.X SERIES SHEETS.

C. FOR BASIC LIFE SAFETY AND CODE INFORMATION APPLYING TO THIS PROJECT, REFER TO THE G2.X SERIES SHEETS LOCATED PER THE PROJECT SHEET INDEX.

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F. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

G. REFER TO THE A2.1.X SERIES SHEETS FOR PARTITION TYPE DESIGNATIONS.

H. REFER TO THE 'A' SERIES SHEETS FOR INTERIOR FINISH INFORMATION.

SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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SAN FRANCISCO, CA 94111
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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1
REFLECTED CEILING PLAN

14794
PROJECT NUMBER

CD
SHEET NUMBER
A3.2.1

START Sheet
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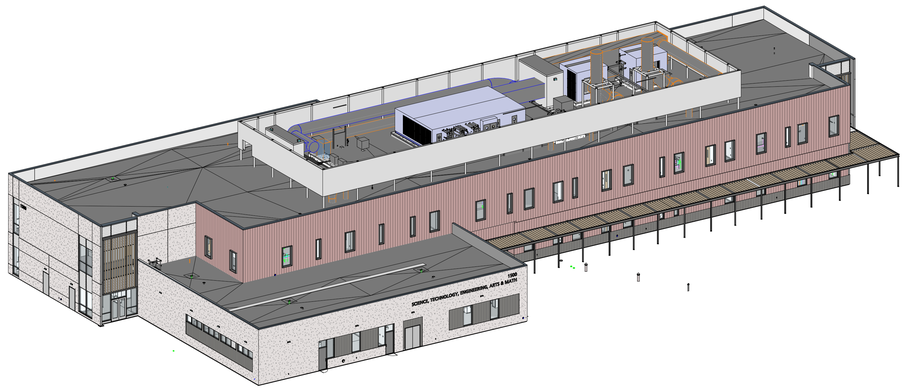
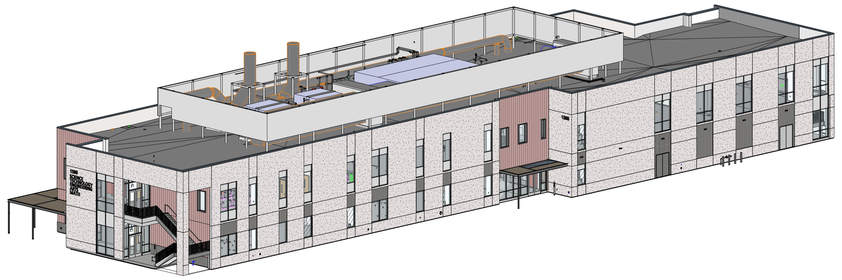
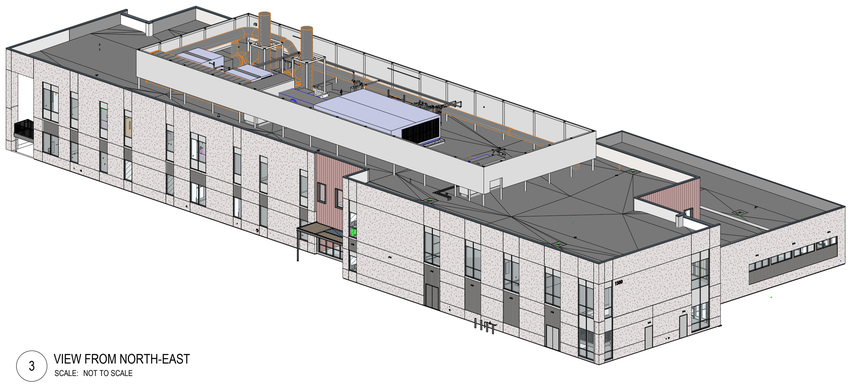


4 VIEW FROM NORTH-WEST
SCALE: NOT TO SCALE



2 VIEW FROM SOUTH-EAST
SCALE: NOT TO SCALE



3 VIEW FROM NORTH-EAST
SCALE: NOT TO SCALE



1 VIEW FROM SOUTH-WEST
SCALE: NOT TO SCALE

GRAPHIC LEGEND

- EXT-01A EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR EXT-01C MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10
- CW-1 ALUMINUM TRIM - EXTERIOR COLOR: MATCH CURTAIN WALL SYSTEM
- PNT-5 ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30
- A EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO
- B EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER
- MOVEMENT JOINT LINE
- C EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE
- X SIGNAGE TYPE

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - EXTERIOR PERSPECTIVES

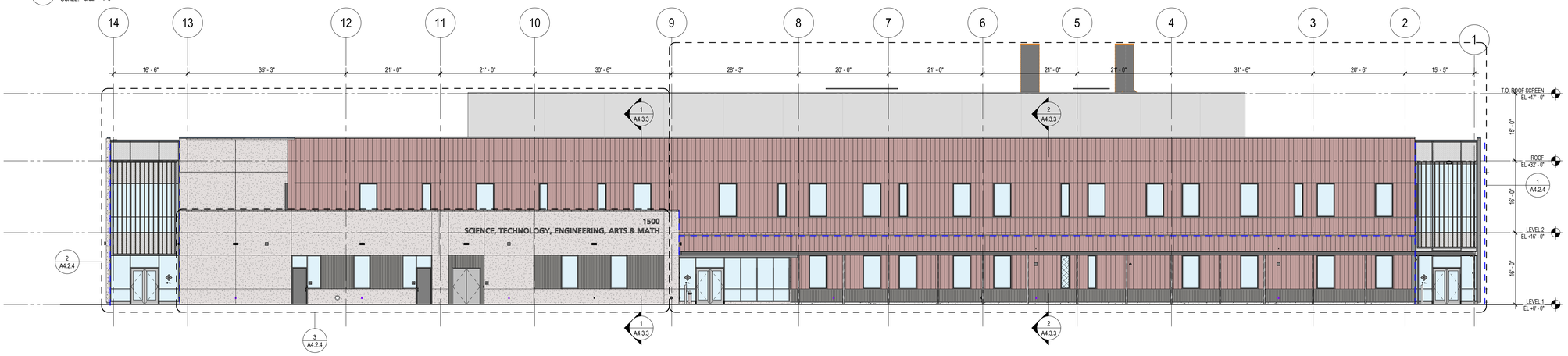
14794
PROJECT NUMBER

CD
A4.0
SHEET NUMBER

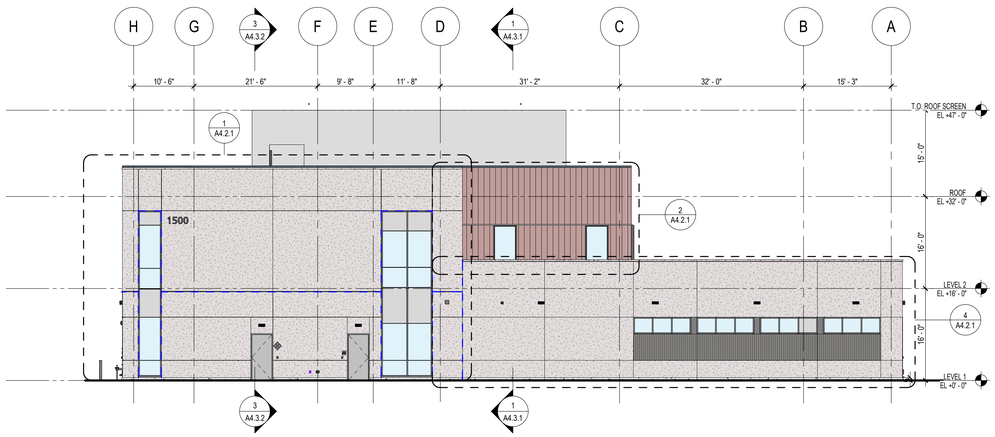
START Sheet
7/23/2025 4:28:16 PM
Plot Date:



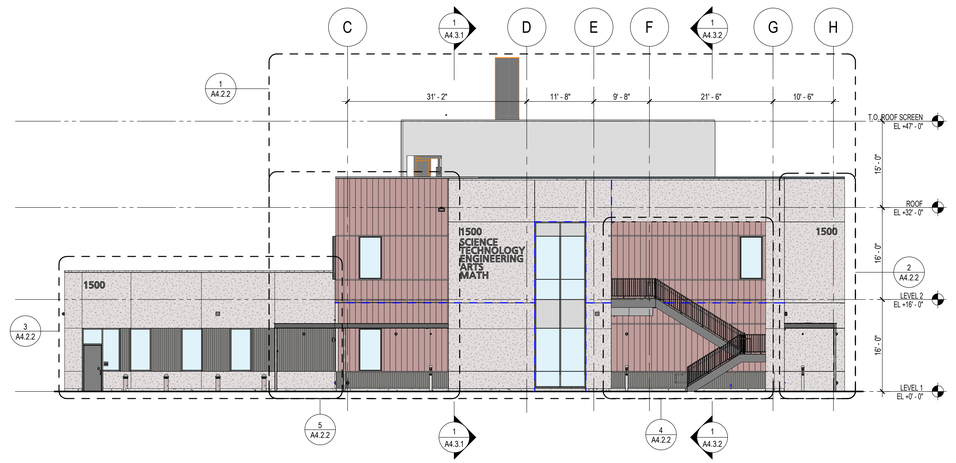
1 OVERALL EXTERIOR ELEVATION - EAST
SCALE: 3/32" = 1'-0"



2 OVERALL EXTERIOR ELEVATION - WEST
SCALE: 3/32" = 1'-0"



3 OVERALL EXTERIOR ELEVATION - NORTH
SCALE: 3/32" = 1'-0"



4 OVERALL EXTERIOR ELEVATION - SOUTH
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

- EXT-01A EXTERIOR — MANUFACTURER: STO; SMOOTH SAND FINISH; COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR / EXT-01C MANUFACTURER: STO; COMBED VERTICAL; COLOR: STO 16280 - STONE 10
- CW-1 ALUMINUM TRIM - EXTERIOR; COLOR: MATCH CURTAIN WALL SYSTEM
- PNT-5 ALUMINUM TRIM - EXTERIOR; COLOR: IRON MOUNTAIN 2134-30
- EXT-02 VENTED RAINSCREEN EXT. WALL; MANUFACTURER: MORIN; 12" METAL PANELS - MX-02/MX-06; COLOR: CUSTOM
- MOVEMENT JOINT LINE
- C EXT-03 EXTERIOR; MANUFACTURER: MORIN; 12" METAL PANEL - MX 06; COLOR: ASCOT WHITE

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

START Sheet

7/23/2025 4:29:22 PM

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

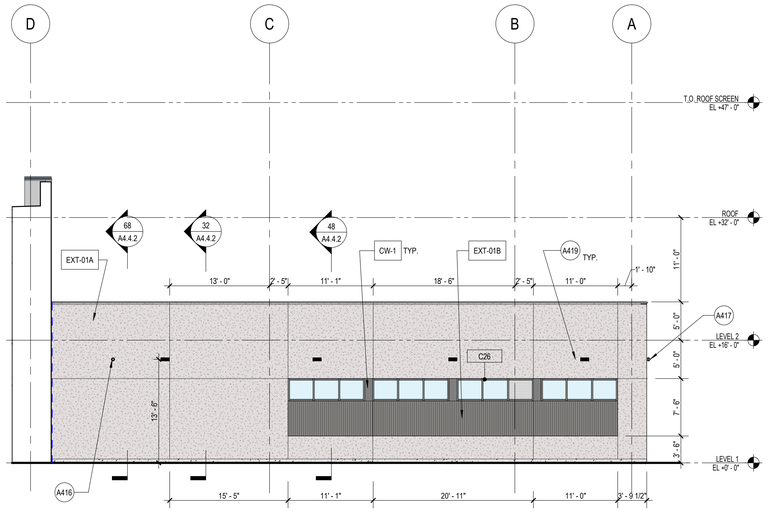
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

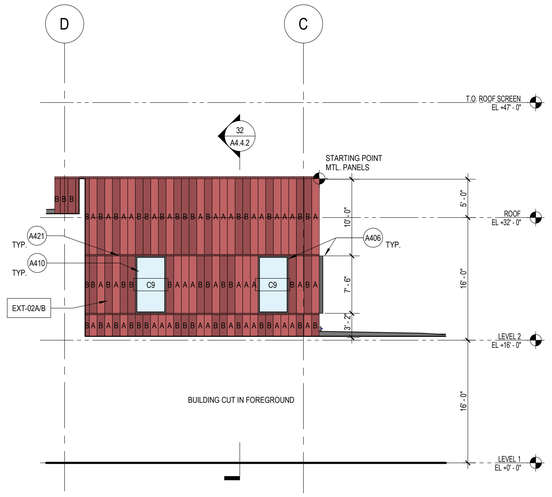
SHEET TITLE
BUILDING 1500 - OVERALL EXTERIOR ELEVATIONS

14794
PROJECT NUMBER

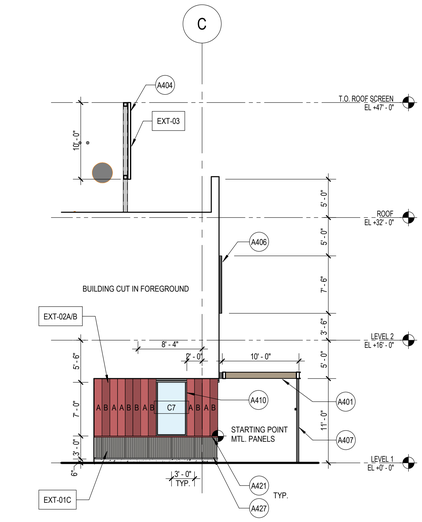
CD
SHEET NUMBER
A4.1.1



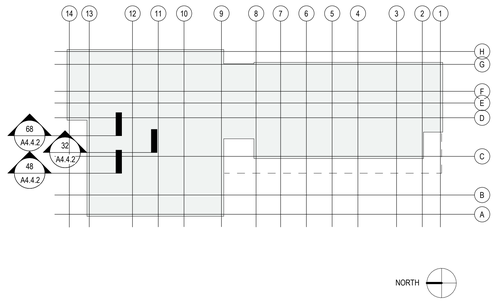
4 ENLARGED EXTERIOR ELEVATION - NORTH - PHOTOGRAPHY
SCALE: 1/8" = 1'-0"



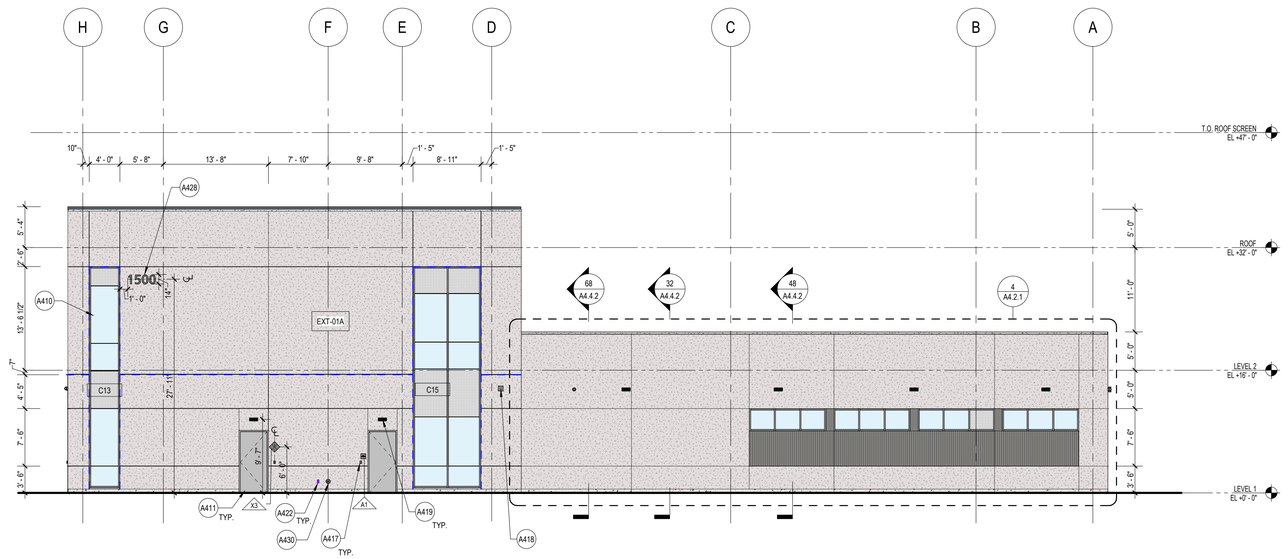
2 ENLARGED EXTERIOR ELEVATION - NORTH - AT LEVEL 2
SCALE: 1/8" = 1'-0"



3 ENLARGED BUILDING ELEVATION - NORTH - WEST ENTRY
SCALE: 1/8" = 1'-0"



WALL SECTIONS KEY PLAN - ELEVATIONS NORTH
SCALE: 1" = 50'-0"



1 ENLARGED EXTERIOR ELEVATION - NORTH
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- EXT-01A EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR / EXT-01C MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10
- CW-1 ALUMINUM TRIM - EXTERIOR COLOR: MATCH CURTAIN WALL SYSTEM
- PNT-5 ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30
- A — EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO
- B — EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER
- MOVEMENT JOINT LINE
- C — EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE
- X — SIGNAGE TYPE

SHEET KEYNOTES

A401 1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES. COLOR: COPPER METALLIC
A404 ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A407 HSS 4"X4"X3/8" CANOPY COLUMN. REFER TO STRUCTURAL DRAWINGS
A410 EXT. CURTAIN WALL SYSTEM
A411 EXTERIOR DOOR, SEE DOOR SCHEDULE
A416 SECURITY CAMERA, REFER TO SECURITY DRAWINGS
A417 CARD READER, REFER TO AV/IT DRAWINGS.
A418 PULLBOX, REFER TO AV/IT DRAWINGS
A419 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A421 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-6 . REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION TO DETERMINE PANEL HEIGHTS PER DESIGN INTENT.
A422 OUTDOOR DUPLEX OUTLET, SEE ELECTRICAL DRAWINGS
A427 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-5. REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION
A428 BUILDING IDENTIFICATION SIGNAGE - TYPE T1. PAINT COLOR: PNT- 5 . REFER TO AG.X SERIES
A430 HOSEBIB, SEE PLUMBING DRAWINGS

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.
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C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.
D. REFER TO THE A4.1.X SERIES SHEETS FOR EXTERIOR ELEVATIONS.
E. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WALL SECTION DETAILS.
F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.
G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.
H. REFER TO AGX SERIES SHEETS AND A0.0.3 FOR SIGNAGE LOCATIONS AND MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS NORTH

14794
PROJECT NUMBER

CD
A4.2.1
SHEET NUMBER

START Sheet
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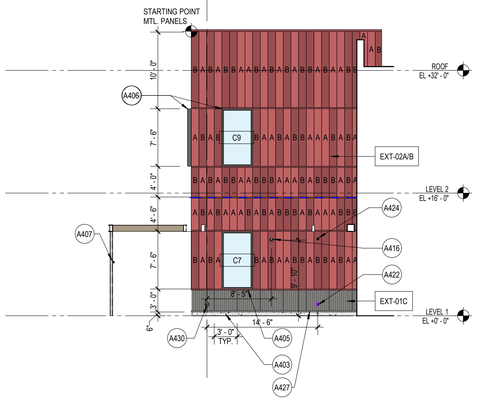
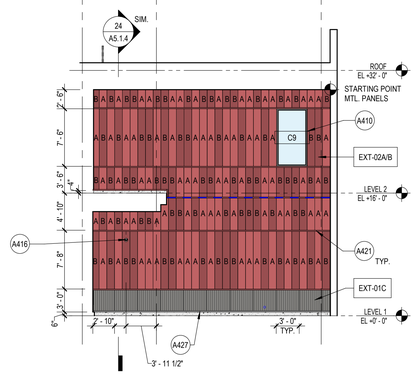
Plot Date:



5 ENLARGED EXTERIOR ELEVATION - SOUTH - EAST ENTRY - METAL PANELS
SCALE: 1/8" = 1'-0"



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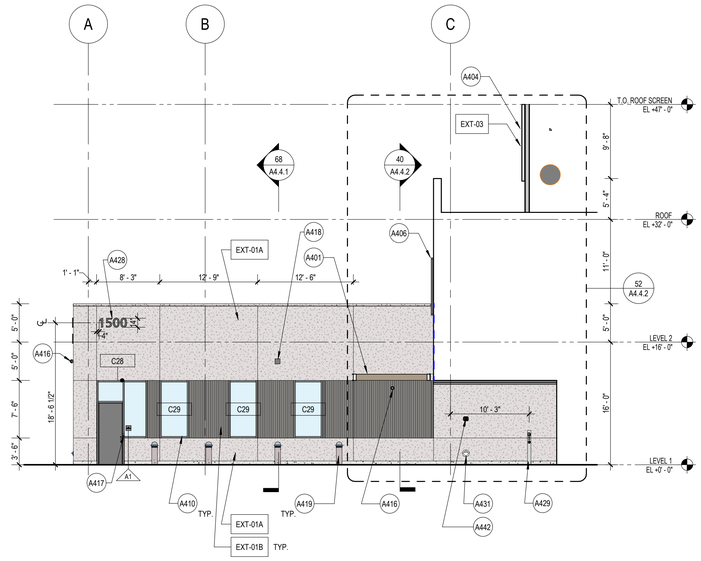
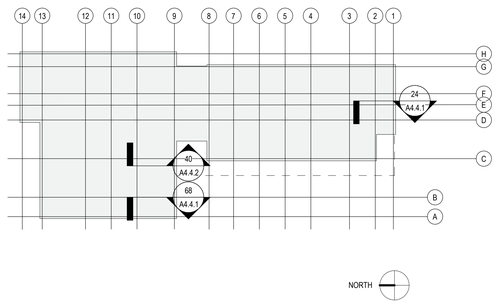
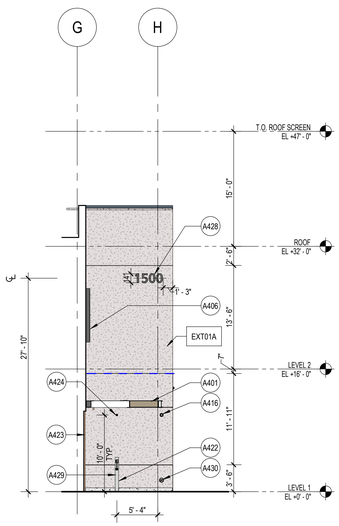
SCALE: 1/8" = 1'-0"



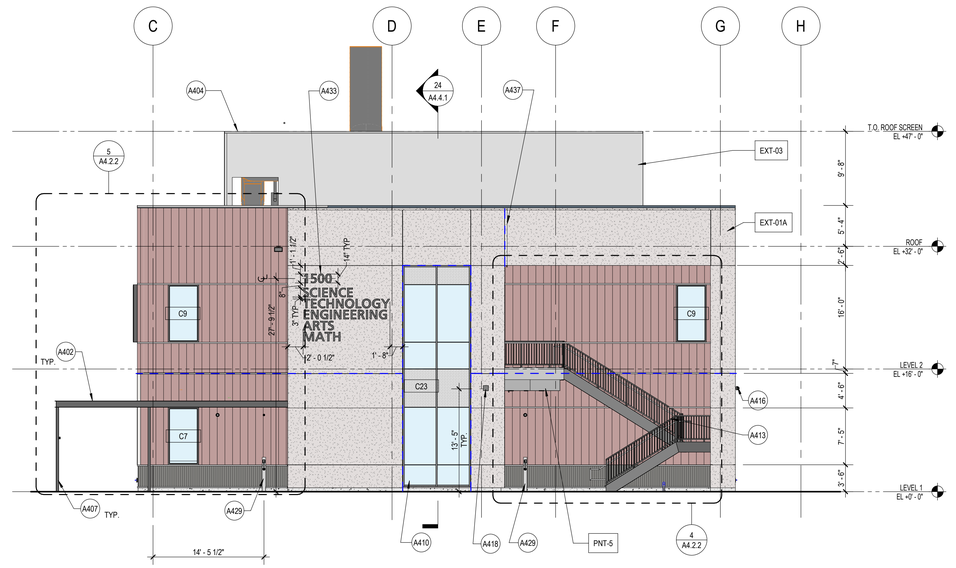
3 ENLARGED EXTERIOR ELEVATION - SOUTH - PHOTOGRAPHY SUITE
SCALE: 1/8" = 1'-0"



WALL SECTIONS KEY PLAN - ELEVATIONS SOUTH
SCALE: 1" = 50'-0"



2 ENLARGED EXTERIOR ELEVATION - SOUTH - EAST ENTRY
SCALE: 1/8" = 1'-0"



1 ENLARGED EXTERIOR ELEVATION - SOUTH
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

EXT-01A	EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10	
EXT-01B EXT-01C	EXTERIOR MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10	
CW-1	ALUMINUM TRIM - EXTERIOR COLOR: MATCH CURTAIN WALL SYSTEM	
PNT-5	ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30	
A	EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO	
B	EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER	
	MOVEMENT JOINT LINE	
C	EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE	
X	SIGNAGE TYPE	

SHEET KEYNOTES

A401 1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES. COLOR: COPPER METALLIC
A402 4"X10" TUBE SUNSHADE SUPPORT STRUCTURE
A403 COMBED STUCCO FINISH, REFER TO EXTERIOR WALL ASSEMBLIES
A404 ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A405 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, 3" DEEP, COLOR: CHARCOAL
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A407 HSS 4"X4"X3/8" CANOPY COLUMN. REFER TO STRUCTURAL DRAWINGS
A410 EXT. CURTAIN WALL SYSTEM
A413 STAIR GUARDRAIL, SEE STAIR SHEET A6.1.5
A416 SECURITY CAMERA, REFER TO SECURITY DRAWINGS
A417 CARD READER, REFER TO AV/IT DRAWINGS.
A418 PULLBOX, REFER TO AV/IT DRAWINGS
A419 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A421 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-6 . REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION TO DETERMINE PANEL HEIGHTS PER DESIGN INTENT.
A422 OUTDOOR DUPLEX OUTLET, SEE ELECTRICAL DRAWINGS
A423 CANOPY DOWNSPOUT SURFACE-MOUNTED, PAINTED PNT-5. SEE PLUMBING DRAWINGS
A424 SIDEWALL CONCEALED SPRINKLER, SEE FAFP DRAWINGS
A427 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-5. REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION
A428 BUILDING IDENTIFICATION SIGNAGE - TYPE T1. PAINT COLOR: PNT- 5 . REFER TO AG.X SERIES
A429 ADA PUSH BUTTON POLE W/ ID CARD READER INTEGRATED
A430 HOSEBIB, SEE PLUMBING DRAWINGS
A431 DOWNSPOUT COVER, SEE PLUMBING DRAWINGS
A433 BUILDING IDENTIFICATION SIGNAGE - TYPE T2. PAINT COLOR: PNT-5. REFER TO AG.X SERIES
A437 4" EXPANSION SEISMIC JOINT COVER MATCH STUCCO COLOR ATTACHED TO THERMAL SPACER WITH 1/4"/20 SST SCREWS
A442 FIRE DEPARTMENT KEY BOX - RECESSED MOUNTED - KNOX BOX 3200

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.

D. REFER TO THE A4.1.X SERIES SHEETS FOR EXTERIOR ELEVATIONS.

E. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WALL SECTION DETAILS.

F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.

G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.

H. REFER TO AGX SERIES SHEETS AND A0.0.3 FOR SIGNAGE LOCATIONS AND MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS SOUTH

14794
PROJECT NUMBER

CD
SHEET NUMBER
A4.2.2

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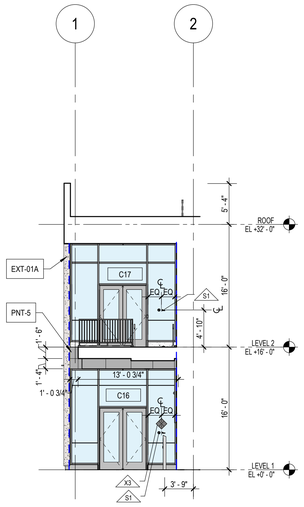
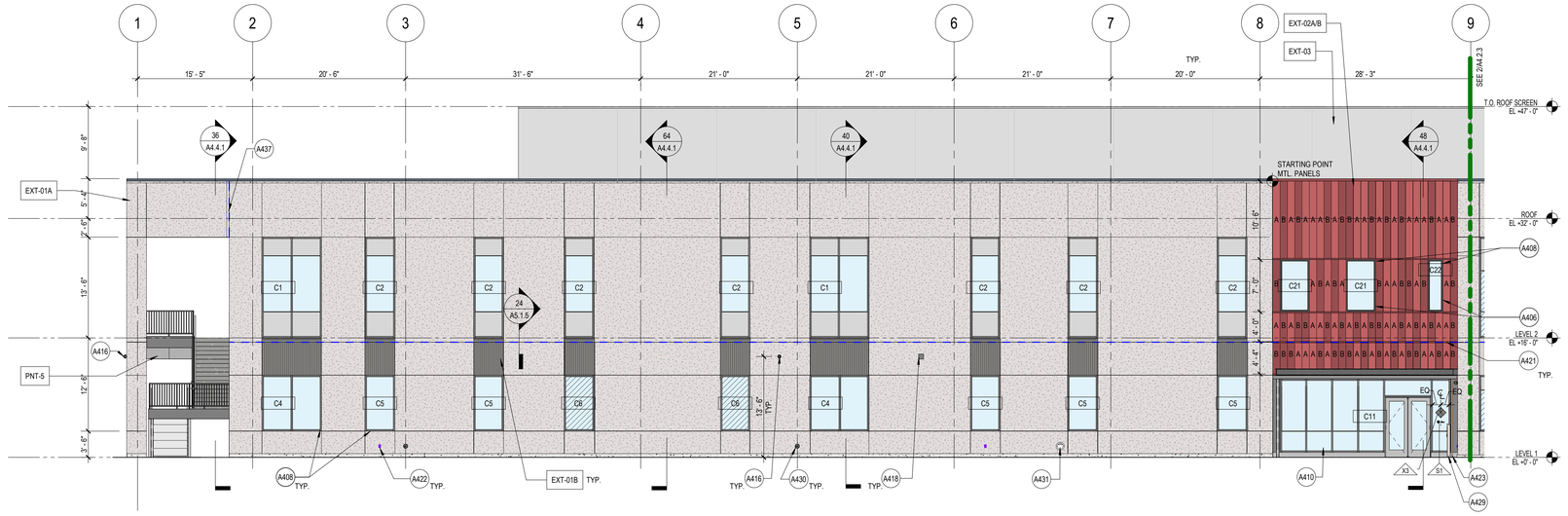
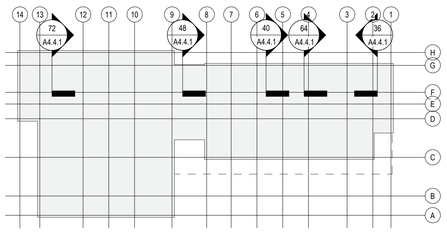


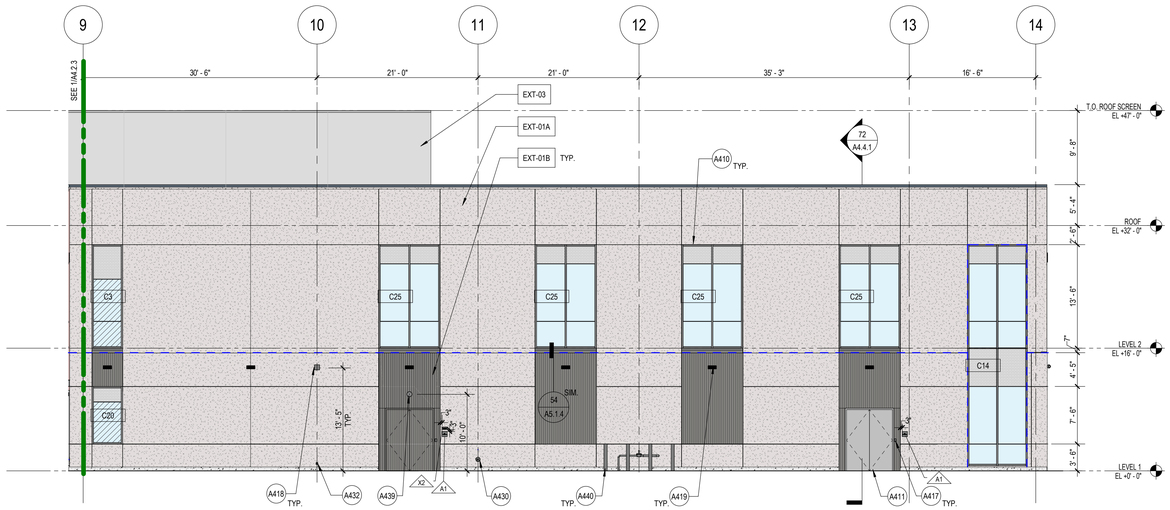
3 ENLARGED EXTERIOR ELEVATION - WEST -SOUTH ENTRY
SCALE: 1/8" = 1'-0"



1 ENLARGED EXTERIOR ELEVATION - EAST
SCALE: 1/8" = 1'-0"



WALL SECTIONS KEY PLAN - ELEVATIONS EAST
SCALE: 1" = 50'-0"



2 ENLARGED EXTERIOR ELEVATION - EAST
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- EXT-01A EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR EXT-01C MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10
- CW-1 ALUMINUM TRIM - EXTERIOR COLOR: MATCH CURTAIN WALL SYSTEM
- PNT-5 ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30
- A EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO
- B EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER
- MOVEMENT JOINT LINE
- C EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE
- X SIGNAGE TYPE

SHEET KEYNOTES

A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A408 EXT. WINDOW SYSTEM
A410 EXT. CURTAIN WALL SYSTEM
A411 EXTERIOR DOOR, SEE DOOR SCHEDULE
A416 SECURITY CAMERA. REFER TO SECURITY DRAWINGS
A417 CARD READER, REFER TO AV/IT DRAWINGS.
A418 PULLBOX, REFER TO AV/IT DRAWINGS
A419 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A421 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-6 . REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION TO DETERMINE PANEL HEIGHTS PER DESIGN INTENT.
A422 OUTDOOR DUPLEX OUTLET, SEE ELECTRICAL DRAWINGS
A423 CANOPY DOWNSPOUT SURFACE-MOUNTED, PAINTED PNT-5. SEE PLUMBING DRAWINGS
A429 ADA PUSH BUTTON POLE W/ ID CARD READER INTEGRATED
A430 HOSEBIB, SEE PLUMBING DRAWINGS
A431 DOWNSPOUT COVER, SEE PLUMBING DRAWINGS
A432 FIRE DRAIN LINE, SEE FAFP DRAWINGS
A437 4" EXPANSION SEISMIC JOINT COVER MATCH STUCCO COLOR ATTACHED TO THERMAL SPACER WITH 1/4"/20 SST SCREWS
A439 FIRE PROTECTION ALARM BELL. REFER TO FAFP DRAWINGS
A440 BOLLARDS TO PROTECT EXT. PIPE. REFER TO CIVIL DRAWINGS

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.
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F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.
G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.
H. REFER TO AGX SERIES SHEETS AND A0.0.3 FOR SIGNAGE LOCATIONS AND MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

START Sheet
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LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
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smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

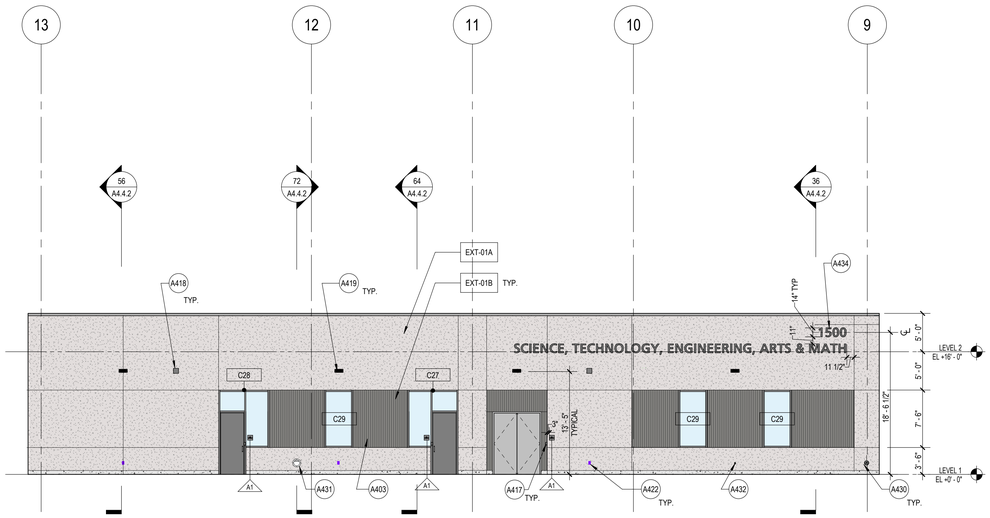
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

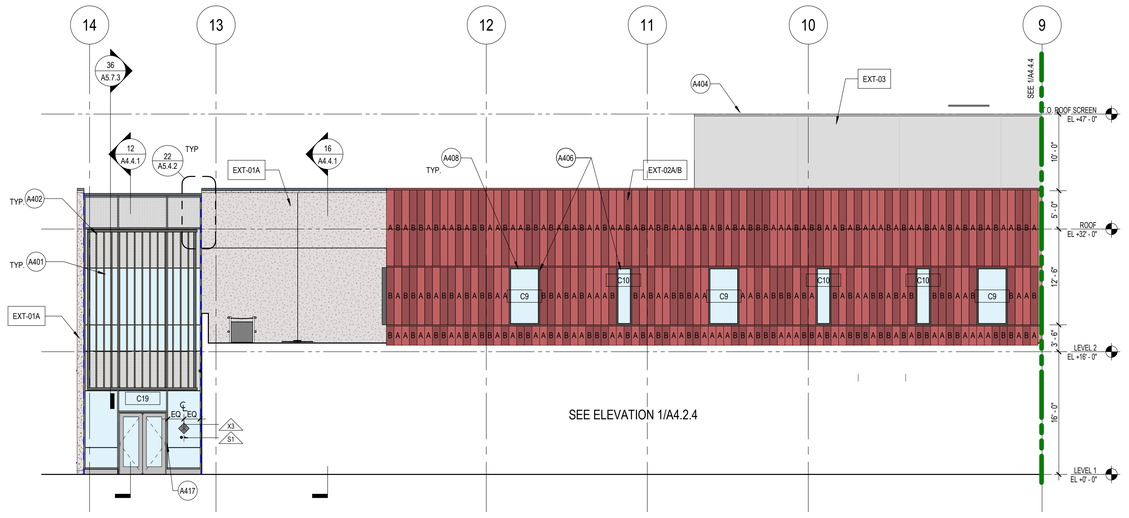
SHEET TITLE
BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS EAST

PROJECT NUMBER
14794

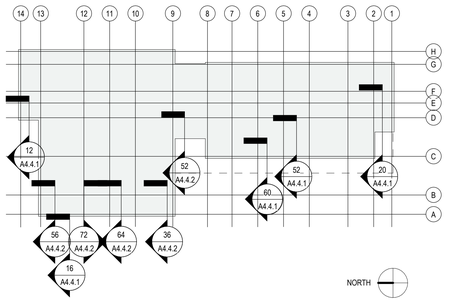
CD
SHEET NUMBER
A4.2.3



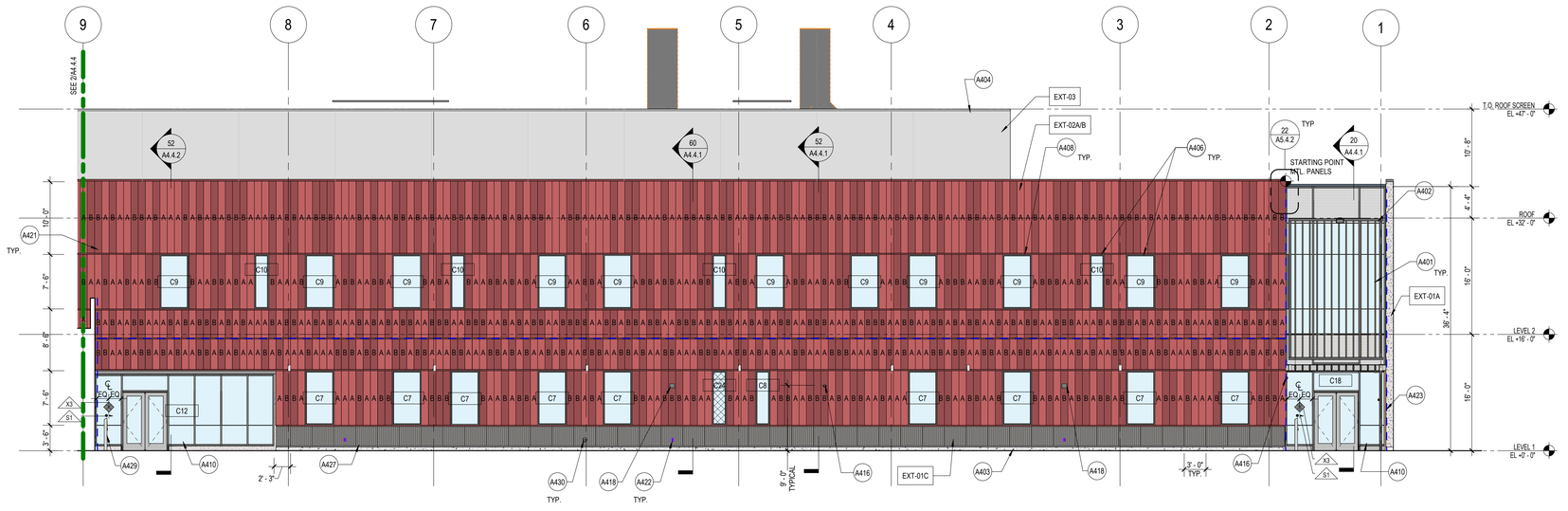
3 ENLARGED EXTERIOR ELEVATION - WEST - PHOTOGRAPHY SUITE
SCALE: 1/8" = 1'-0"



2 ENLARGED EXTERIOR ELEVATION - WEST
SCALE: 1/8" = 1'-0"



WALL SECTIONS KEY PLAN - ELEVATIONS WEST
SCALE: 1" = 50'-0"



1 ENLARGED EXTERIOR ELEVATION - WEST
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- EXT-01A EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR / EXT-01C MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10
- CW-1 ALUMINUM TRIM - EXTERIOR COLOR: MATCH CURTAIN WALL SYSTEM
- PNT-5 ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30
- A EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO
- B EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER
- MOVEMENT JOINT LINE
- C EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE
- X SIGNAGE TYPE

SHEET KEYNOTES

A401 1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES. COLOR: COPPER METALLIC.
A402 4"X10" TUBE SUNSHADE SUPPORT STRUCTURE
A403 COMBED STUCCO FINISH, REFER TO EXTERIOR WALL ASSEMBLIES
A404 ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A408 EXT. WINDOW SYSTEM
A410 EXT. CURTAIN WALL SYSTEM
A416 SECURITY CAMERA, REFER TO SECURITY DRAWINGS
A417 CARD READER, REFER TO AV/IT DRAWINGS.
A418 PULLBOX, REFER TO AV/IT DRAWINGS
A419 LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A421 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-6 . REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION TO DETERMINE PANEL HEIGHTS PER DESIGN INTENT.
A422 OUTDOOR DUPLEX OUTLET, SEE ELECTRICAL DRAWINGS
A423 CANOPY DOWNSPOUT SURFACE-MOUNTED, PAINTED PNT-5. SEE PLUMBING DRAWINGS
A427 CONTINUOUS ALUMINUM EXTRUSION STACK JOINT FLASHING, COLOR: PNT-5. REFER TO EXTERIOR DETAILS FOR THICKNESS OF THE EXTRUSION
A429 ADA PUSH BUTTON POLE W/ ID CARD READER INTEGRATED
A430 HOSEBIB, SEE PLUMBING DRAWINGS
A431 DOWNSPOUT COVER, SEE PLUMBING DRAWINGS
A432 FIRE DRAIN LINE, SEE FAFP DRAWINGS
A434 BUILDING IDENTIFICATION SIGNAGE - TYPE T3. PAINT COLOR: PNT-5 . REFER TO AG.X SERIES

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.
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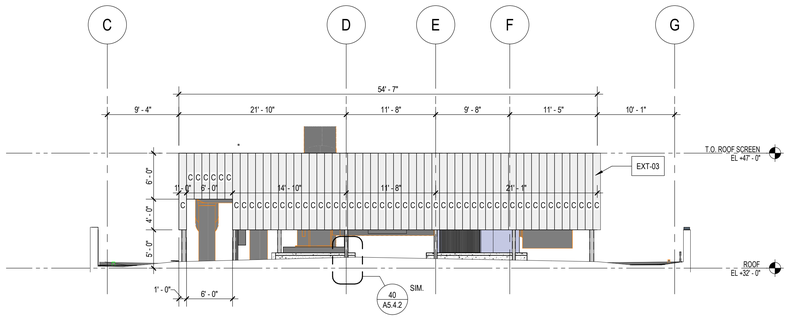
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

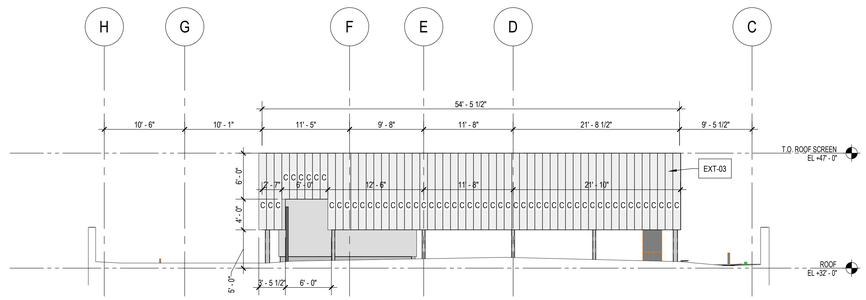
SHEET TITLE
BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS WEST

14794
PROJECT NUMBER
CD
A4.2.4
SHEET NUMBER

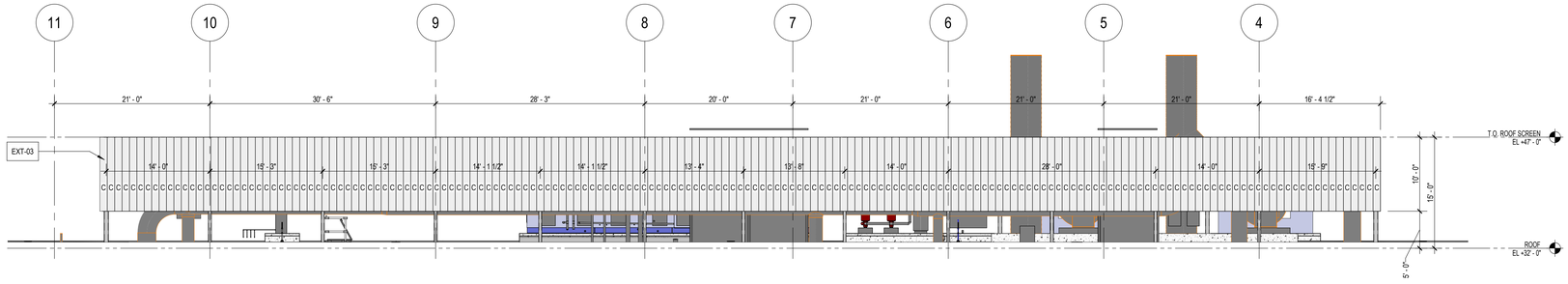
START Sheet
Plot Date: 7/23/2025 4:31:05 PM



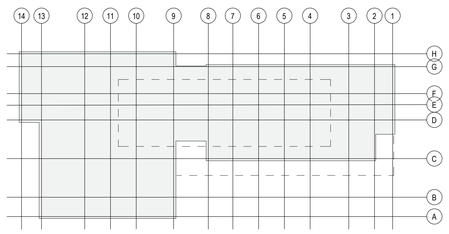
3 ENLARGED EXTERIOR ELEVATION - SOUTH - ROOF SCREEN
SCALE: 1/8" = 1'-0"



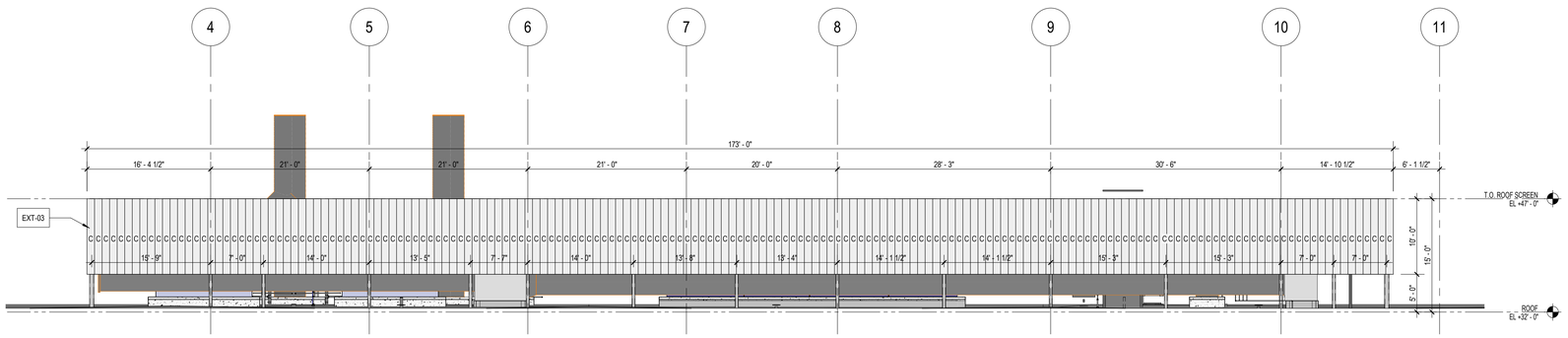
4 ENLARGED EXTERIOR ELEVATION - NORTH - ROOF SCREEN
SCALE: 1/8" = 1'-0"



1 ENLARGED EXTERIOR ELEVATION - WEST - ROOF SCREEN
SCALE: 1/8" = 1'-0"



WALL SECTIONS KEY PLAN - ELEVATIONS ROOF
SCALE: 1" = 50'-0"



2 ENLARGED EXTERIOR ELEVATION - EAST - ROOF SCREEN
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

- EXT-01A EXTERIOR MANUFACTURER: STO SMOOTH SAND FINISH COLOR: STO 16284 - STONE 10
- EXT-01B EXTERIOR EXT-01C MANUFACTURER: STO COMBED VERTICAL COLOR: STO 16280 - STONE 10
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- PNT-5 ALUMINUM TRIM - EXTERIOR COLOR: IRON MOUNTAIN 2134-30
- A EXT-02A EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 02 COLOR: CUSTOM: SW 6629 - JALAPENO
- B EXT-02B EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: CUSTOM - SW 7599 - BRICK PAVER
- MOVEMENT JOINT LINE
- C EXT-03 EXTERIOR MANUFACTURER: MORIN 12" METAL PANEL - MX 06 COLOR: ASCOT WHITE
- X SIGNAGE TYPE

SHEET KEYNOTES

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.

D. REFER TO THE A4.1.X SERIES SHEETS FOR EXTERIOR ELEVATIONS.

E. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WALL SECTION DETAILS.

F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.

G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.

H. REFER TO AGX SERIES SHEETS AND A0.0.3 FOR SIGNAGE LOCATIONS AND MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

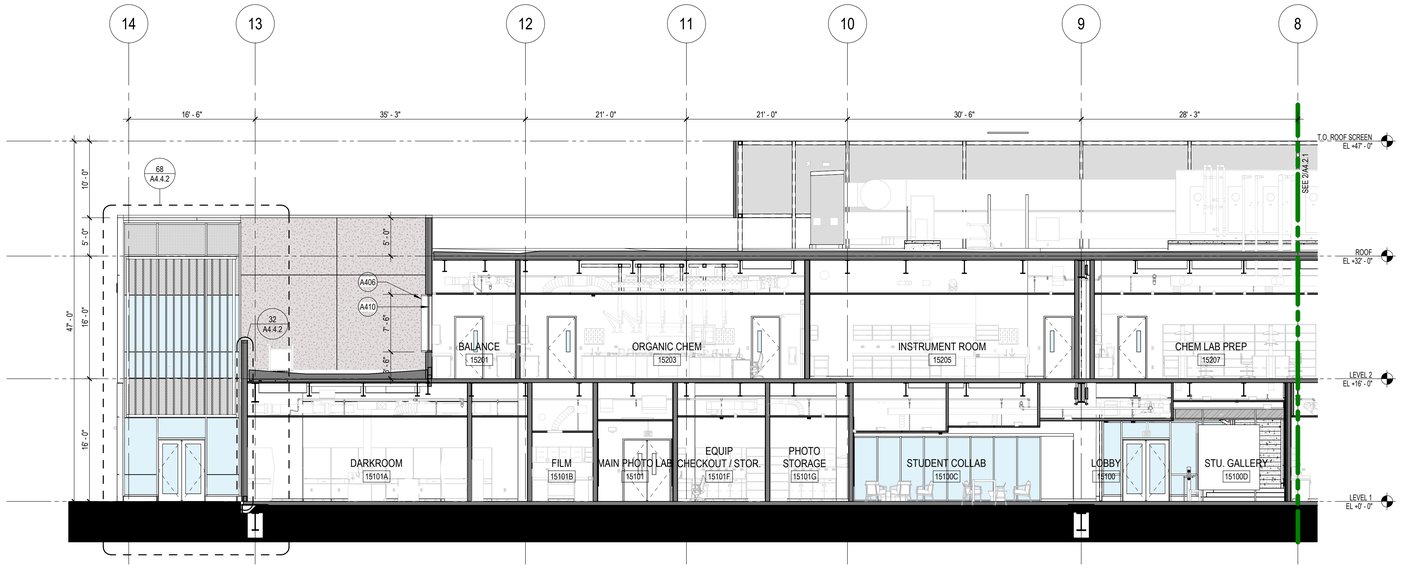
SHEET TITLE
BUILDING 1500 - ENLARGED EXTERIOR ELEVATIONS ROOF

PROJECT NUMBER 14794

CD **A4.2.5**
SHEET NUMBER

START Sheet

Plot Date: 7/23/2025 4:31:25 PM



1 BUILDING SECTION - N-S WEST WING 1
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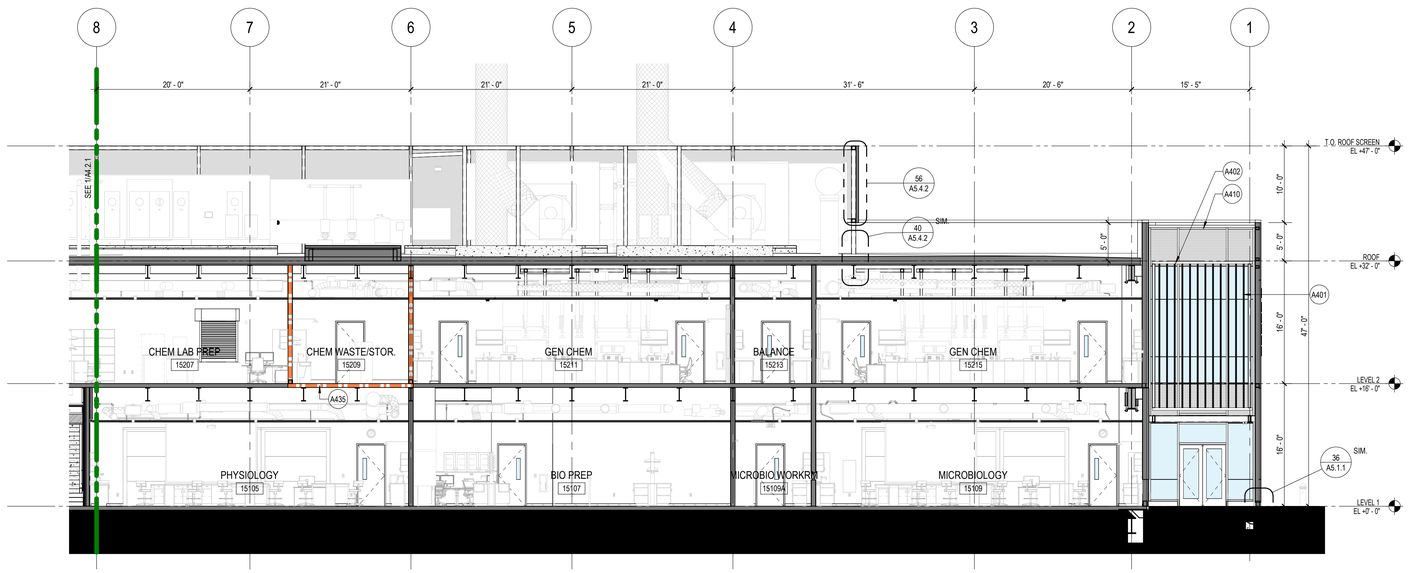

2 BUILDING SECTION - N-S WEST WING 2
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

1 HOUR FIRE RESISTANCE RATING

1 HOUR EXISTING FIRE RESISTANCE RATING

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

A401 1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES. COLOR: COPPER METALLIC
A402 4"X10" TUBE SUNSHADE SUPPORT STRUCTURE
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A410 EXT. CURTAIN WALL SYSTEM
A435 1-HOUR FIRE BARRIER AT FLOOR ASSEMBLY (UL DESIGN NO. N307)

Plot Date: 7/24/2025 1:28:38 PM
START Sheet

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
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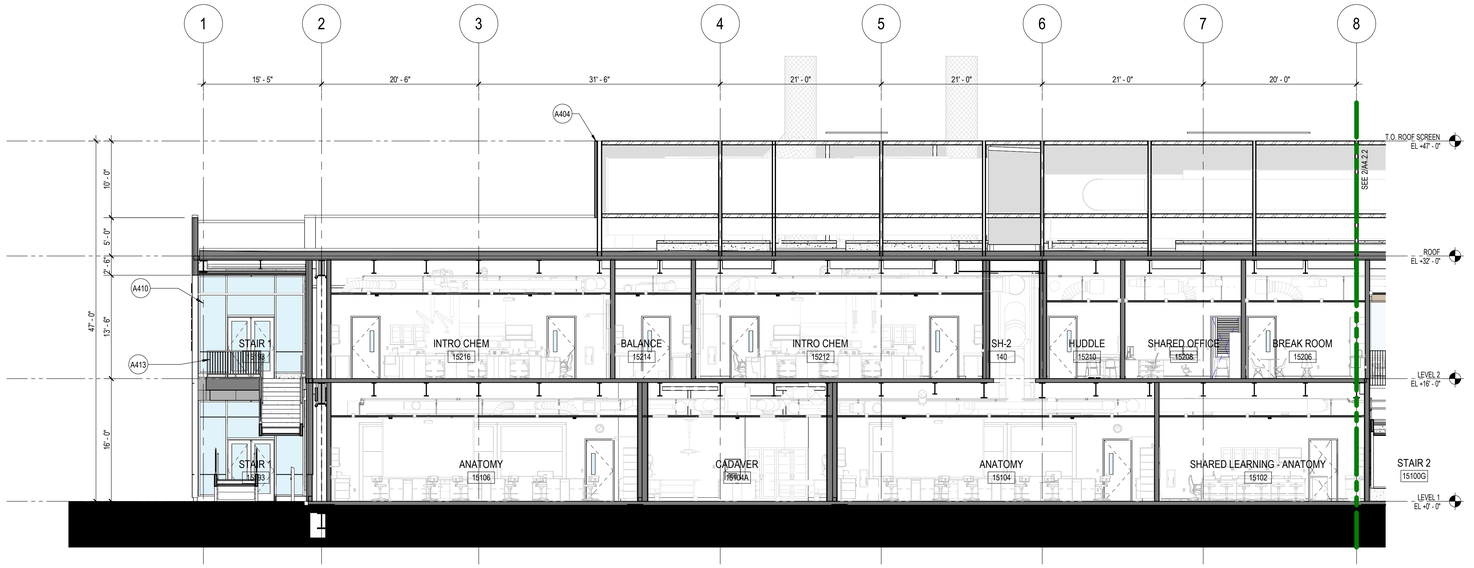
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - BUILDING SECTIONS

14794
PROJECT NUMBER

CD
A4.3.1
SHEET NUMBER



1 BUILDING SECTION - N-S EAST WING 1
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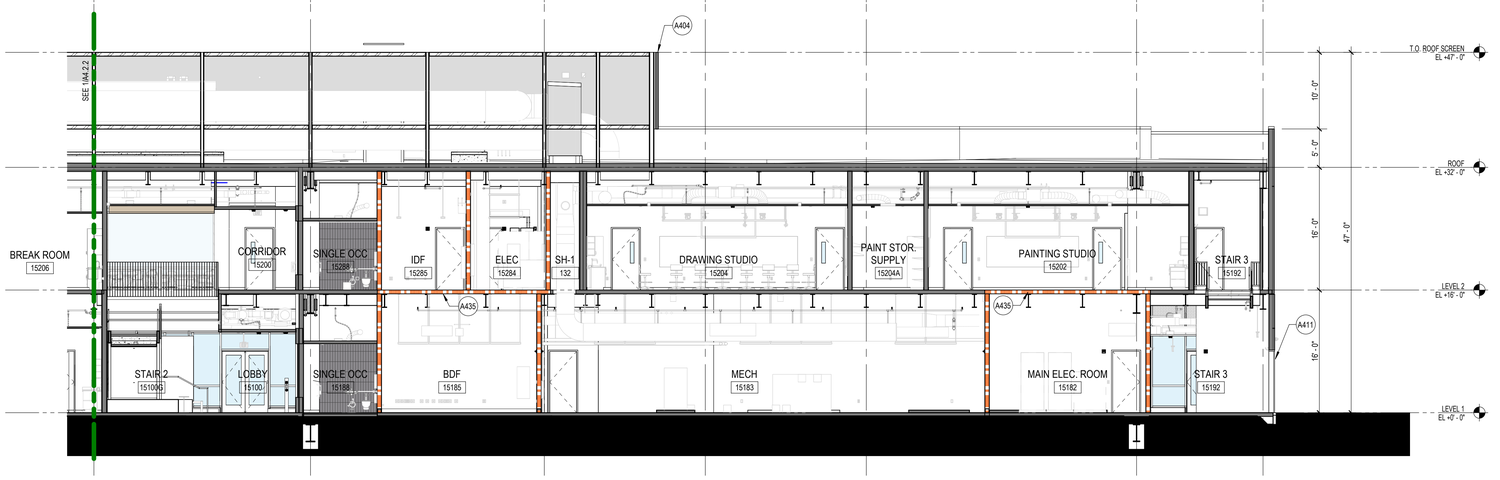

3 BUILDING SECTION - N-S EAST WING 2
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

1 HOUR FIRE RESISTANCE RATING

1 HOUR EXISTING FIRE RESISTANCE RATING

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

A404 ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A410 EXT. CURTAIN WALL SYSTEM
A411 EXTERIOR DOOR, SEE DOOR SCHEDULE
A413 STAIR GUARDRAIL, SEE STAIR SHEET A6.1.5
A435 1-HOUR FIRE BARRIER AT FLOOR ASSEMBLY (UL DESIGN NO. N307)

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

A435

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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - BUILDING SECTIONS

PROJECT NUMBER
14794

CD

SHEET NUMBER
A4.3.2

START Sheet

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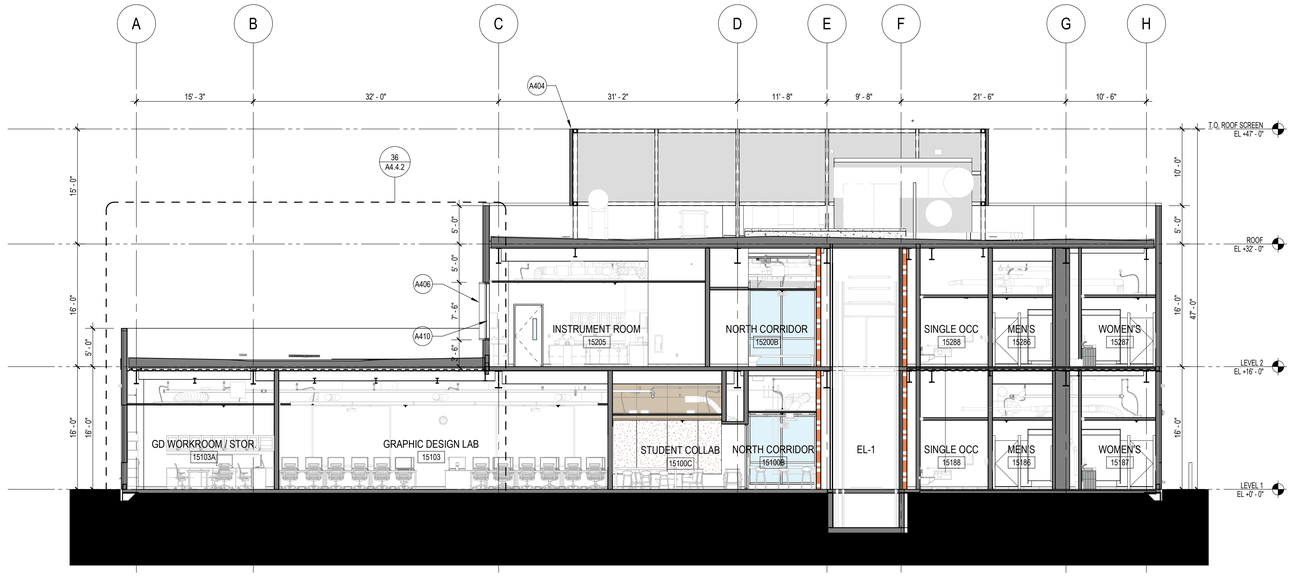

1 BUILDING SECTION W-E NORTH WING
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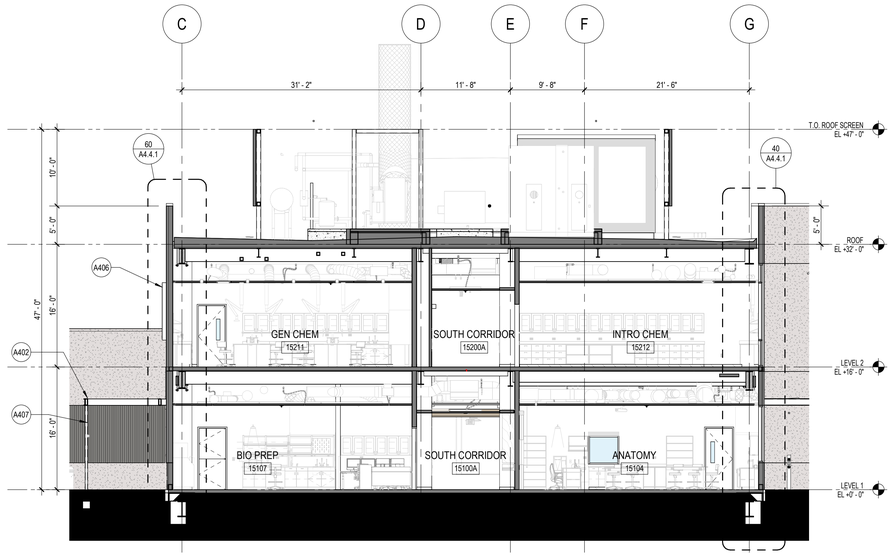

2 BUILDING SECTION - W-E
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

1 HOUR FIRE RESISTANCE RATING

1 HOUR EXISTING FIRE RESISTANCE RATING

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

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C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES

SHEET KEYNOTES

A402 4"X10" TUBE SUNSHADE SUPPORT STRUCTURE
A404 ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A407 HSS 4"X4"X3/8" CANOPY COLUMN. REFER TO STRUCTURAL DRAWINGS
A410 EXT. CURTAIN WALL SYSTEM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - BUILDING SECTIONS

14794
PROJECT NUMBER

CD
SHEET NUMBER
A4.3.3

START Sheet
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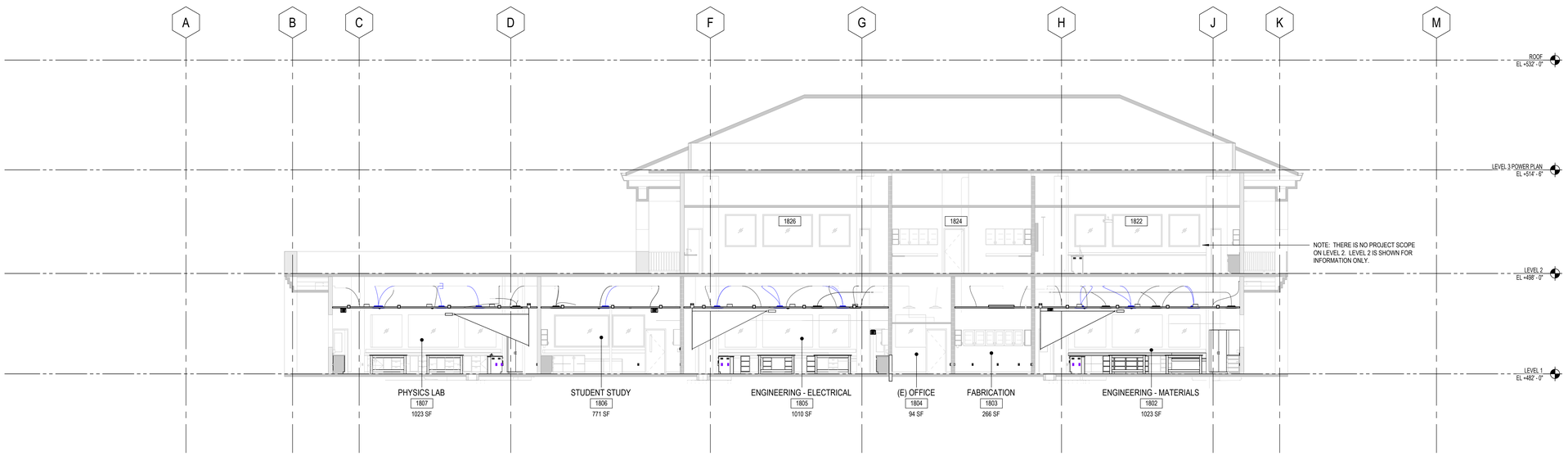

2 BUILDING SECTION - EAST/WEST B
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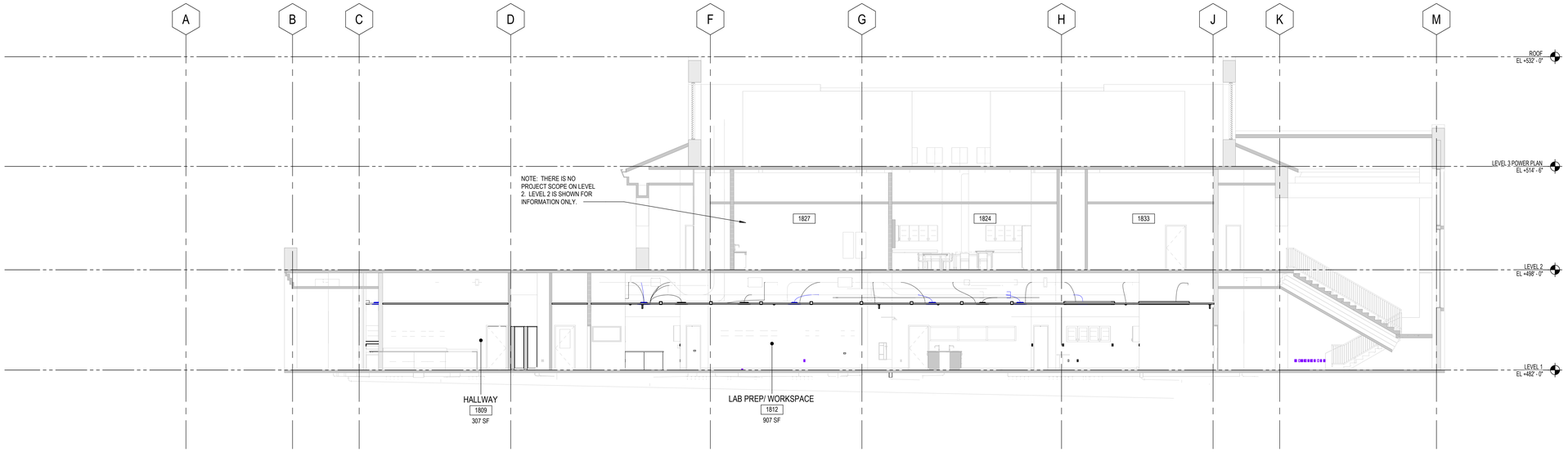

1 BUILDING SECTION - EAST/WEST A
SCALE: 1/8" = 1'-0"

GRAPHIC LEGEND

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.

REFERENCE KEYNOTES

○ SHEET KEYNOTES

START Sheet

Plot Date: 7/23/2025 4:18:03 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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PERMIT SET		24JUL2025

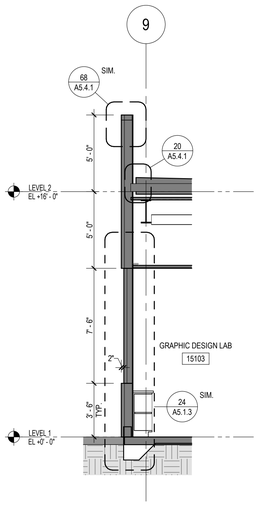
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

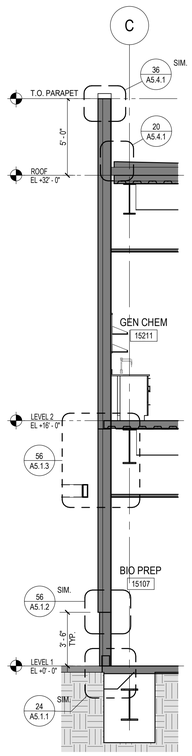
SHEET TITLE
BUILDING 1800 - BUILDING SECTIONS

14794
PROJECT NUMBER

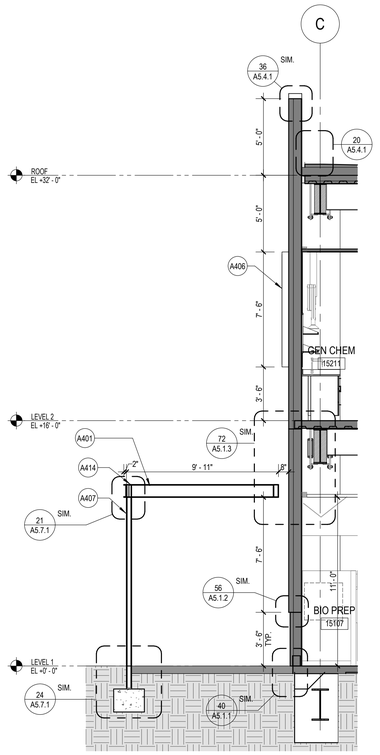
CD
A4.3.4
SHEET NUMBER



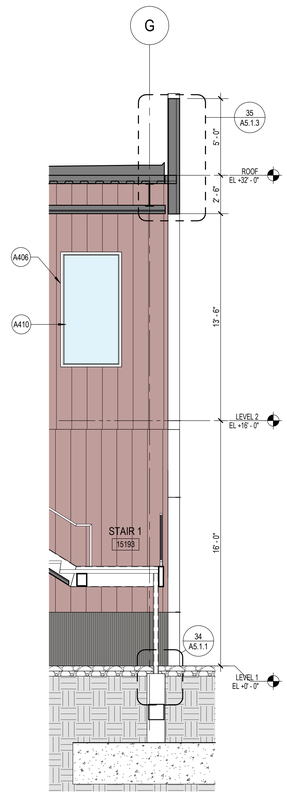
68 WALL SECTION @ GRAPHIC DESIGN LAB
SCALE: 1/4" = 1'-0"



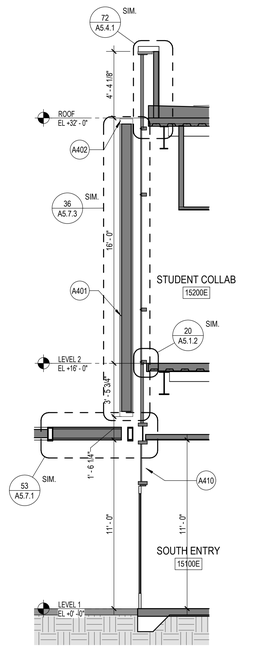
60 WALL SECTION @ METAL PANEL
SCALE: 1/4" = 1'-0"



52 WALL SECTION @ METAL PANEL + CANOPY
SCALE: 1/4" = 1'-0"



36 WALL SECTION @ SOUTH STAIR
SCALE: 1/4" = 1'-0"



20 WALL SECTION @ SOUTHWEST ENTRY
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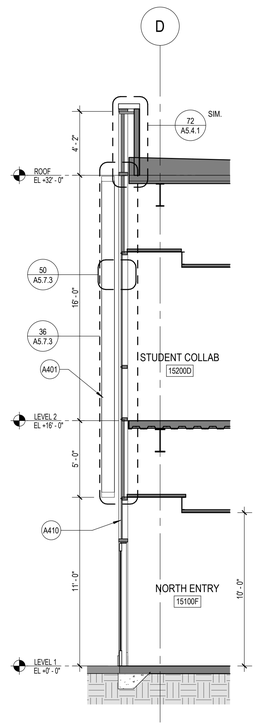

12 WALL SECTION @ NORTH ENTRY
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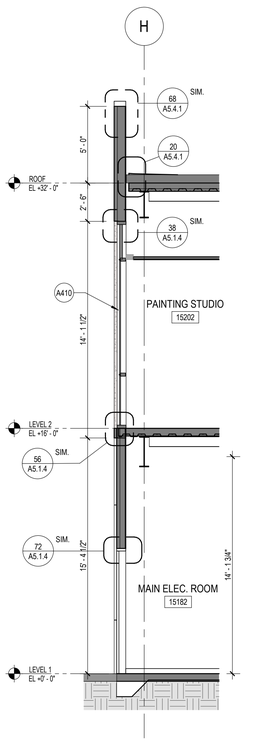
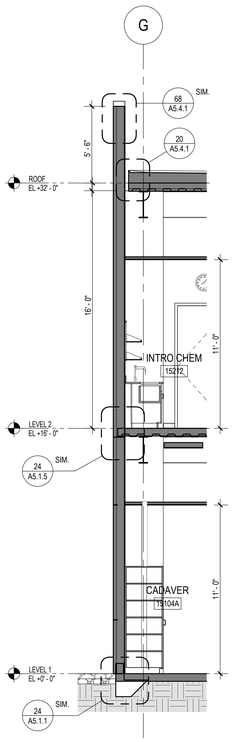
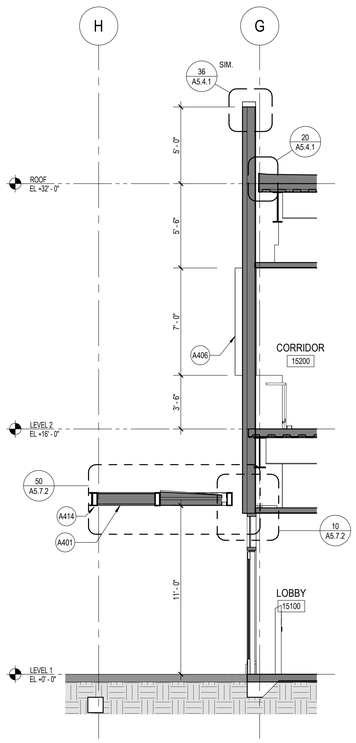


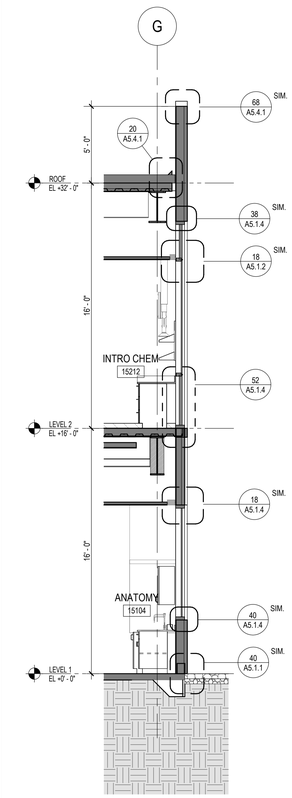
72 WALL SECTION @ ELECTRICAL ROOM DOOR
SCALE: 1/4" = 1'-0"



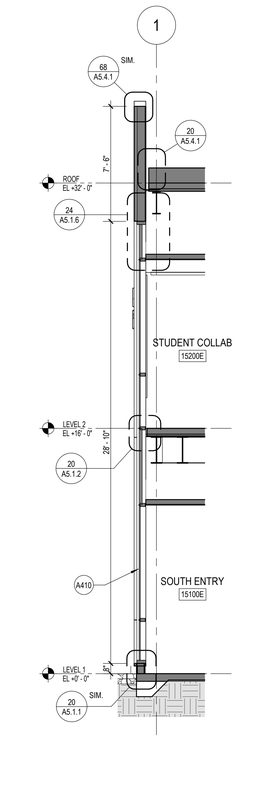
64 WALL SECTION @ CADAVER ROOM
SCALE: 1/4" = 1'-0"



48 WALL SECTION @ EAST ENTRY / LOBBY
SCALE: 1/4" = 1'-0"



40 WALL SECTION @ STUCCO LABS
SCALE: 1/4" = 1'-0"



24 WALL SECTION @ CURATIN WALL ST. COLLAB.
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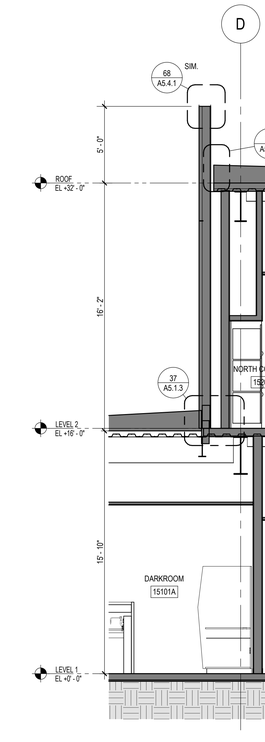

16 WALL SECTION @ STR. + LOCKERS CORRIDOR
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.

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D. REFER TO THE A4.1.X AND A4.2.X SERIES SHEETS FOR EXTERIOR ELEVATIONS.

E. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WALL SECTION DETAILS.

F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.

G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.

REFERENCE KEYNOTES

SHEET KEYNOTES

A401 1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES, COLOR: COPPER METALLIC
A402 4"X10" TUBE SUNSHADE SUPPORT STRUCTURE
A406 KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A407 HSS 4"X4"X3/8" CANOPY COLUMN. REFER TO STRUCTURAL DRAWINGS
A410 EXT. CURTAIN WALL SYSTEM
A414 4"X10" CANOPY BEAM. REFER TO STRUCTURAL DRAWINGS

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - EXTERIOR WALL SECTIONS

14794

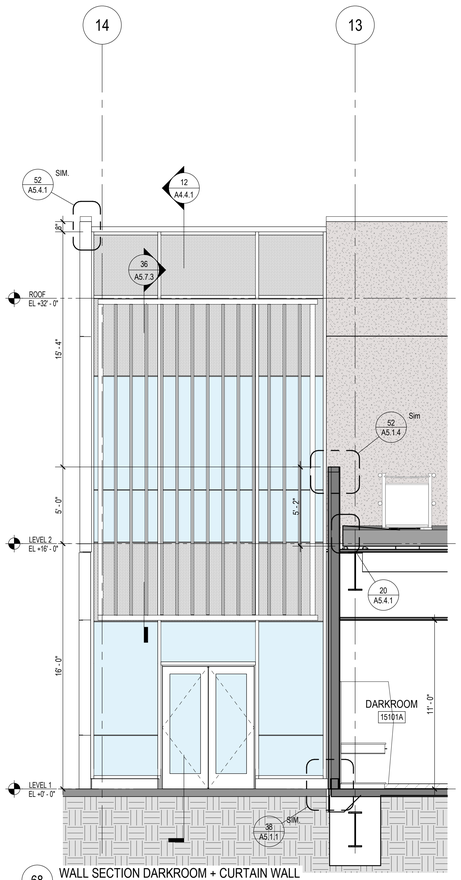
PROJECT NUMBER

CD

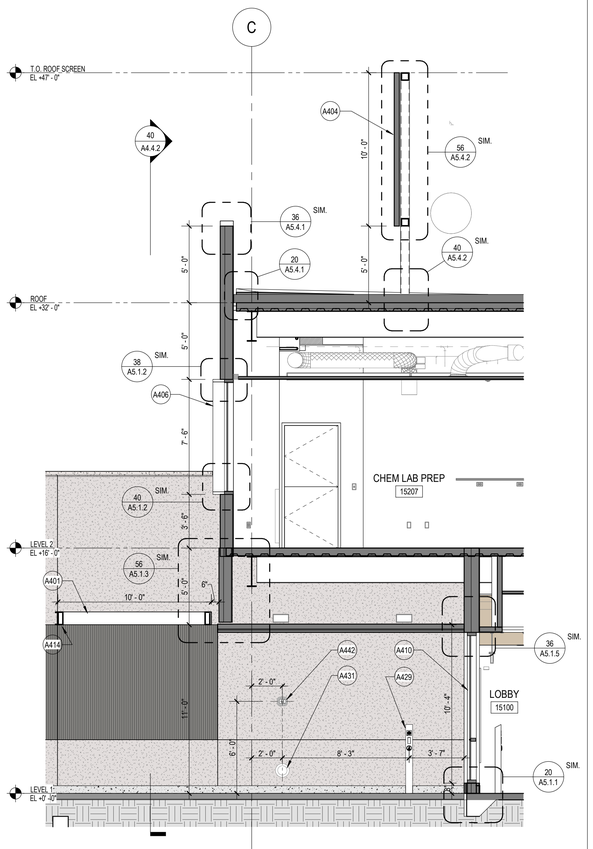
A4.4.1

SHEET NUMBER

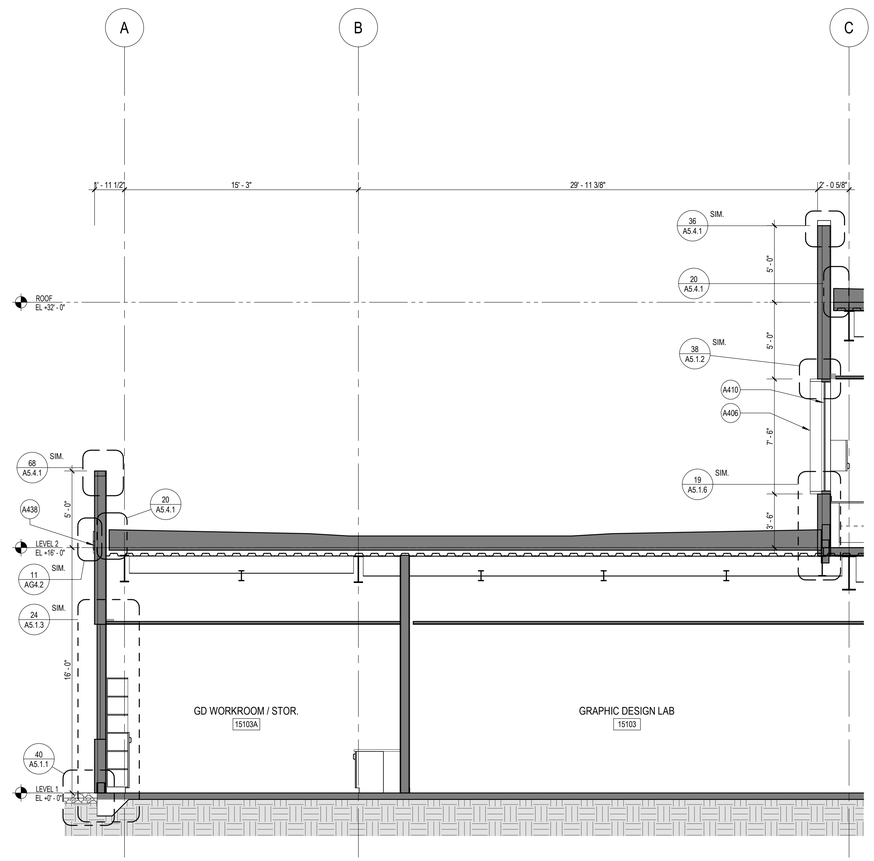
Plot Date: 7/23/2025 4:33:16 PM START Sheet



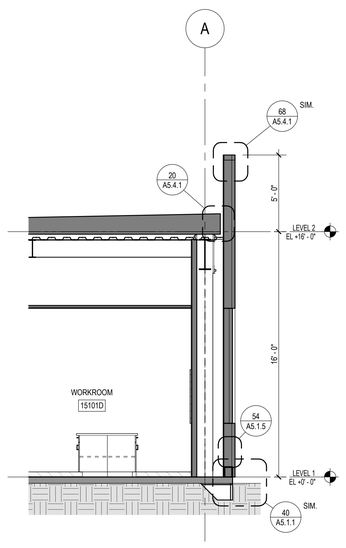
68 WALL SECTION DARKROOM + CURTAIN WALL
SCALE: 1/4" = 1'-0"



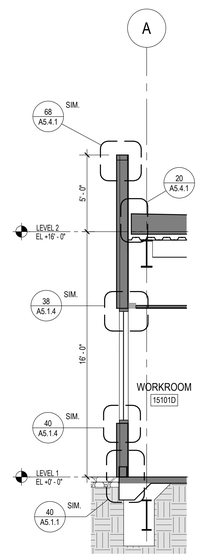
52 WALL SECTION @ WEST ENTRY
SCALE: 1/4" = 1'-0"



36 WALLL SECTION @ GRAPHIC DESIGN LAB
SCALE: 1/4" = 1'-0"



72 WALL SECTION @ WORKROOM 3
SCALE: 1/4" = 1'-0"



64 WALL SECTION @ WORKROOM 2
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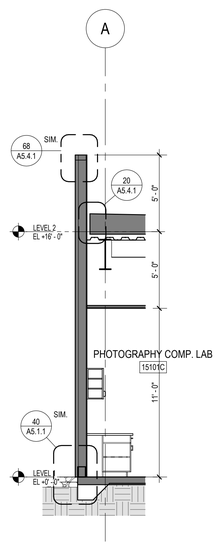
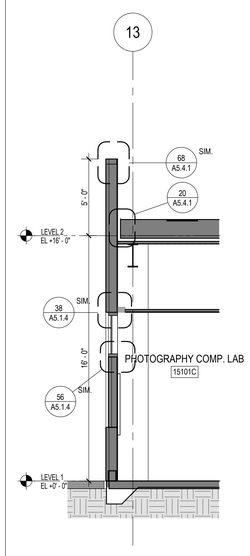


56 WALL SECTION @ PHOTOGRAPHY 1
SCALE: 1/4" = 1'-0"



48 WALL SECTION @ PHOTOGRAPHY 2
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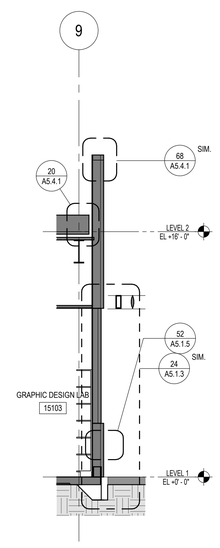
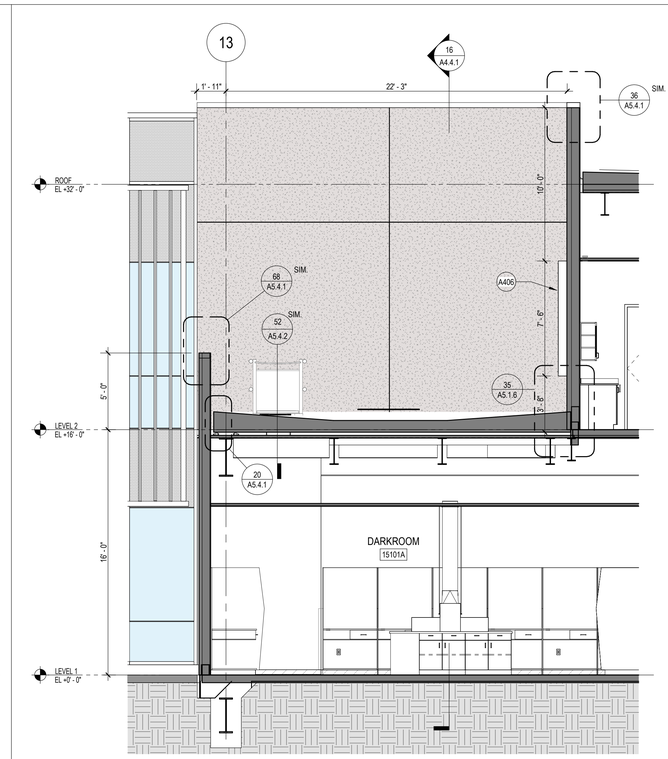


40 WALL SECT @ GRAPHIC DESIGN
SCALE: 1/4" = 1'-0"



32 WALL SECTION @ DARKROOM
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.1 SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED OF THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO AND COORDINATE WITH CIVIL DRAWINGS FOR ALL FINISH GRADES.

D. REFER TO THE A4.1.X AND A4.2.X SERIES SHEETS FOR EXTERIOR ELEVATIONS.

E. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WALL SECTION DETAILS.

F. REFER TO THE A5.5.X SERIES SHEETS FOR EXTERIOR WINDOW AND LOUVER FRAME ELEVATIONS.

G. REFER TO THE A5.4.X SERIES SHEETS FOR ROOFING DETAILS.

REFERENCE KEYNOTES

SHEET KEYNOTES

A401	1"X10" SUNSHADE AIRFOILS - 1-PIECE AIRFOIL - CONSTRUCTION SPECIALTIES, MODEL: LINEAR SUNSHADES. COLOR: COPPER METALLIC
A404	ROOF SCREEN, MORIN METAL PANEL, MATRIX SERIES, MX 06, COLOR: DOVE GRAY. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT
A406	KAWNEER 1600 CURTAIN WALL SYSTEM WITH EXTENDED MULLIONS, COLOR: CHARCOAL
A410	EXT. CURTAIN WALL SYSTEM
A414	4"X10" CANOPY BEAM. REFER TO STRUCTURAL DRAWINGS
A429	ADA PUSH BUTTON POLE W/ ID CARD READER INTEGRATED
A431	DOWNSPOUT COVER, SEE PLUMBING DRAWINGS
A438	EXTERIOR SIGNAGE
A442	FIRE DEPARTMENT KEY BOX - RECESSED MOUNTED - KNOX BOX 3200

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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415.227.0100
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - EXTERIOR WALL SECTIONS

14794

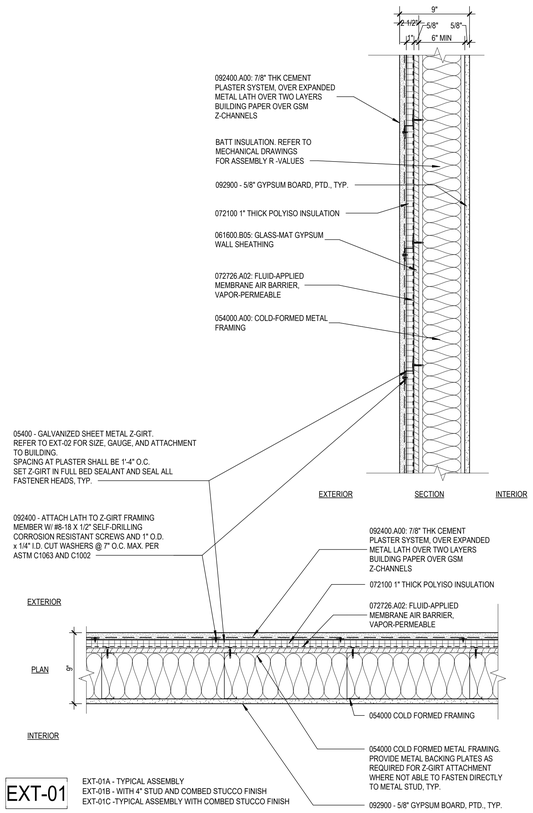
PROJECT NUMBER

CD

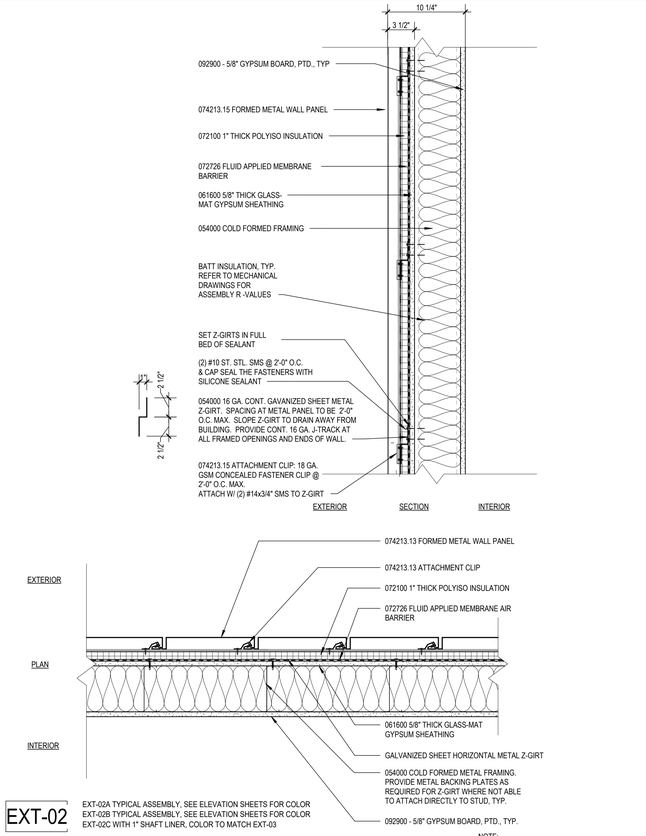
A4.4.2

SHEET NUMBER

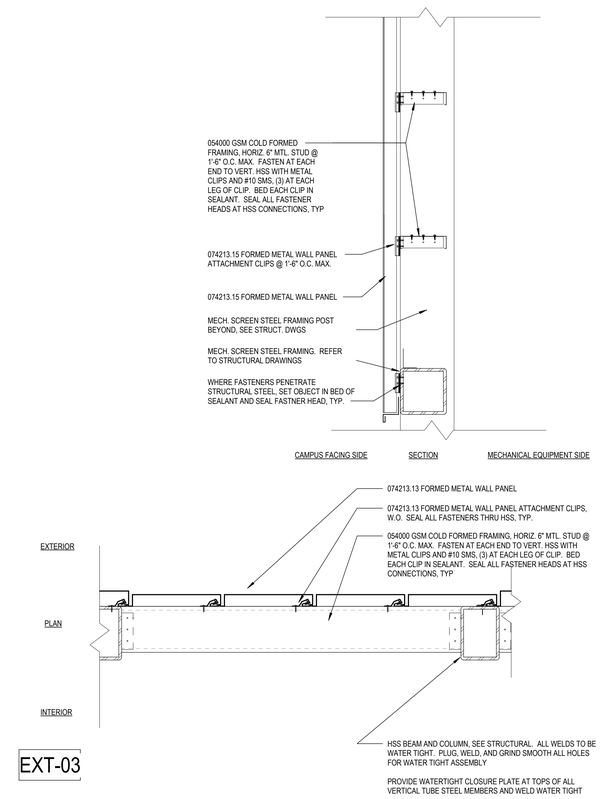
Plot Date: 7/23/2025 4:33:34 PM START Sheet



68 TYPICAL EXTERIOR WALL ASSEMBLY - STUCCO
SCALE: 1 1/2" = 1'-0"



44 TYPICAL EXTERIOR METAL PANEL ASSEMBLY - FORMED METAL PANEL
SCALE: 1 1/2" = 1'-0"



20 TYPICAL EXTERIOR METAL PANEL ASSEMBLY - ROOF SCREEN
SCALE: 1 1/2" = 1'-0"

LAS POSITAS COLLEGE

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STEAM BUILDING PROJECT

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CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

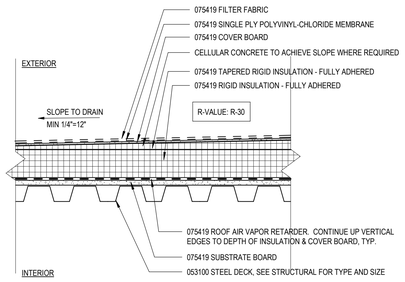
SHEET TITLE
EXTERIOR WALL ASSEMBLIES

14794
PROJECT NUMBER

CD
A5.0.1
SHEET NUMBER

Plot Date: 8/23/2025 6:05:20 PM Author

R-1 TYPICAL ASSEMBLY

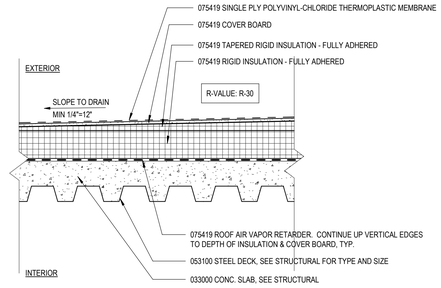


R-1

ROOF ASSEMBLY
SINGLE PLY PVC MEMBRANE
FULLY ADHERED
LEVEL STEEL DECK WITH SUBSTRATE BOARD

NOTE: ROOF COVERING CLASSIFICATION SHALL MEET MININUM CLASS C REQUREMENTS PER *CBC 1505.1*

68 TYPICAL ROOF ASSEMBLY - SINGLE PLY PVC MEMBRANE
SCALE: 1 1/2" = 1'-0"

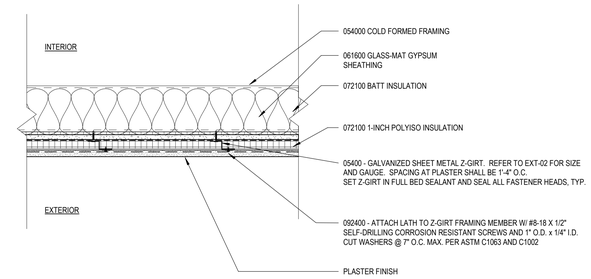


R-2

ROOF ASSEMBLY
SINGLE PLY PVC MEMBRANE
FULLY ADHERED
LEVEL STEEL DECK WITH CONC. INFILL SLAB

NOTE: ROOF COVERING CLASSIFICATION SHALL MEET MININUM CLASS C REQUREMENTS PER *CBC 1505.1*

44 TYPICAL ROOF ASSEMBLY - SINGLE PLY PVC MEMBRANE
SCALE: 1 1/2" = 1'-0"



EXT-05

EXT-05A PLASTER SOFFIT ASSEMBLY. COLOR: STO 16284
EXT-05A PLASTER SOFFIT ASSEMBLY. COLOR: STO 16280

20 EXTERIOR SOFFIT ASSEMBLY - PLASTER
SCALE: 1 1/2" = 1'-0"

LAS POSITAS COLLEGE

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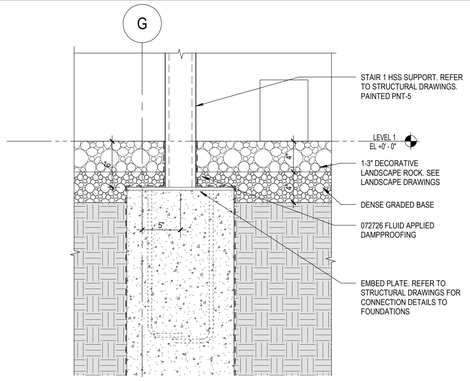
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
EXTERIOR ROOF AND SOFFIT ASSEMBLIES

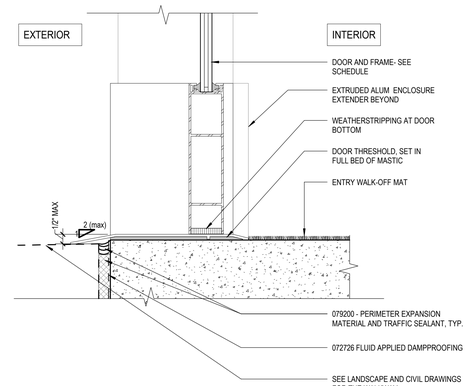
14794
PROJECT NUMBER

CD
A5.0.2
SHEET NUMBER

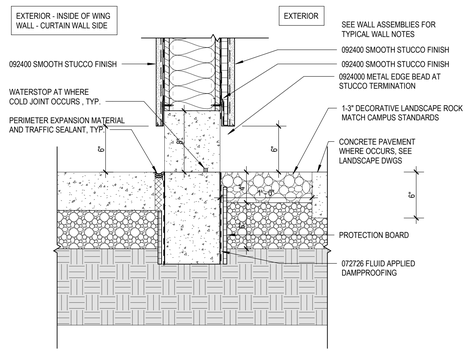
Plot Date: 7/23/2025 4:33:41 PM Author



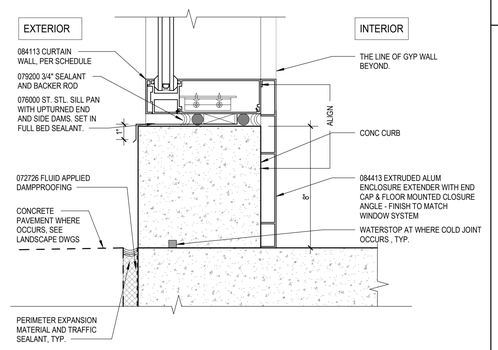
34 STAIR 1 SUPPORT @ COLUMN
SCALE: 1 1/2" = 1'-0" REF: 36 / A4.4.1



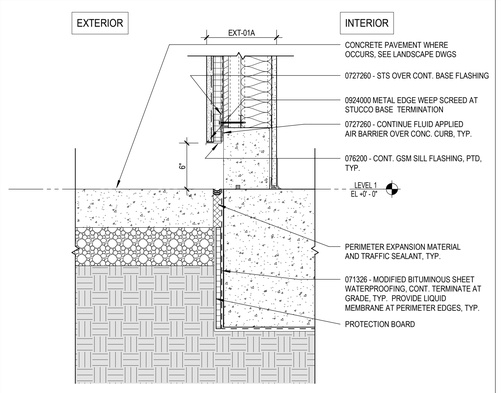
18 TYPICAL SLIDING DOOR @ ENTRY
SCALE: 3" = 1'-0"



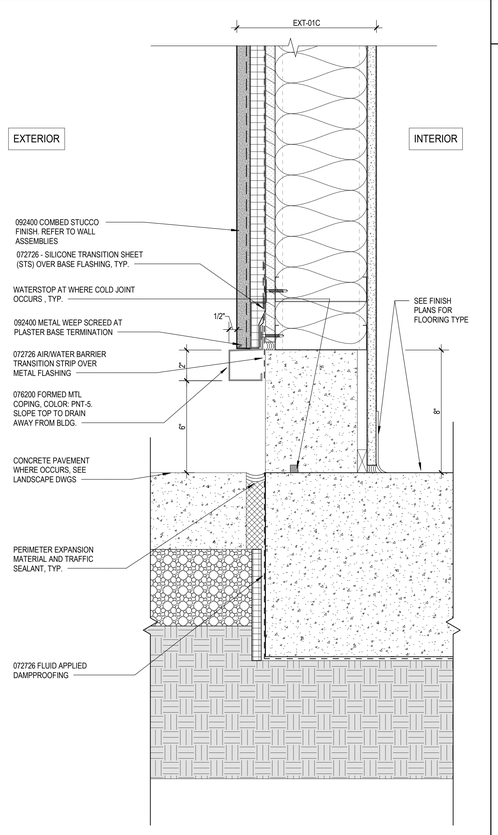
36 SECTION DETAIL - TYPICAL STUCCO WING WALL - SLAB ON GRADE
SCALE: 1 1/2" = 1'-0"



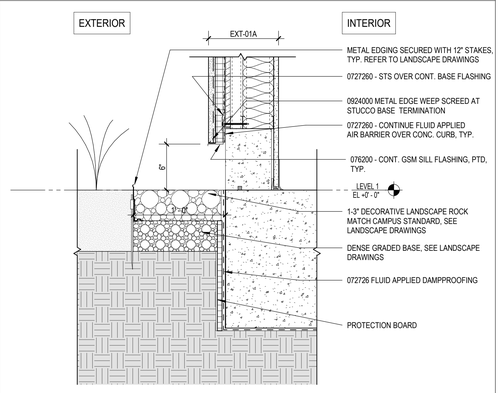
20 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ PAVING
SCALE: 3" = 1'-0"



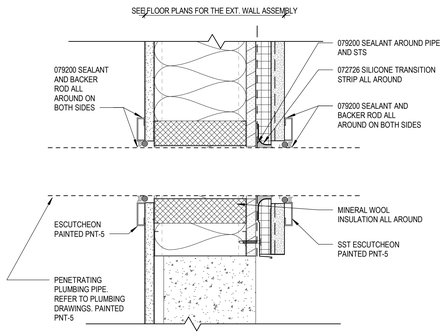
38 TYPICAL DETAIL - STUCCO - CONCRETE CURB @ PAVING
SCALE: 1 1/2" = 1'-0"



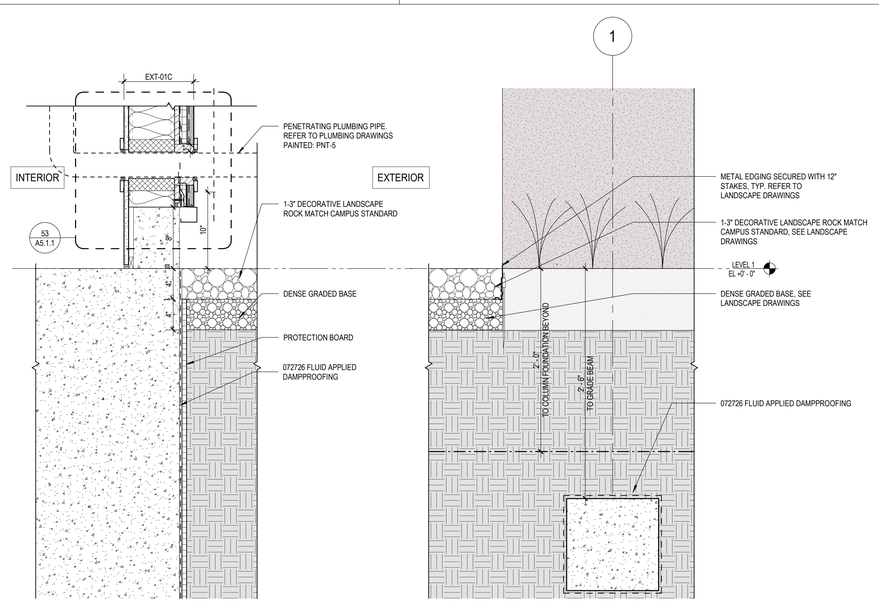
24 SECTION DETAIL - COMBED STUCCO - CONCRETE CURB @ PAVING
SCALE: 3" = 1'-0"



40 TYPICAL DETAIL - STUCCO - CONCRETE CURB @ DECORATIVE ROCK
SCALE: 1 1/2" = 1'-0"



53 SECTION DETAIL - TYPICAL PIPE PENETRATION
SCALE: 3" = 1'-0"



72 SECTION DETAIL - STAIR 1 @ EXT-01C - PIPE PENETRATION @ LANDSCAPE
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. THIS SHEET PROVIDES TYPICAL DETAILS FOR WATERPROOFING SYSTEMS AS DESCRIBED IN THE PROJECT SPECIFICATIONS.

C. ALL PENETRATING PIPES AND CONDUITS MUST BE SECURELY ATTACHED TO THE STRUCTURE PRIOR TO APPLICATION OF WATERPROOFING.

REFERENCE KEYNOTES

SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - WATERPROOFING DETAILS - BELOW & ABOVE GRADE

14794

PROJECT NUMBER

CD

A5.1.1

SHEET NUMBER

START Sheet
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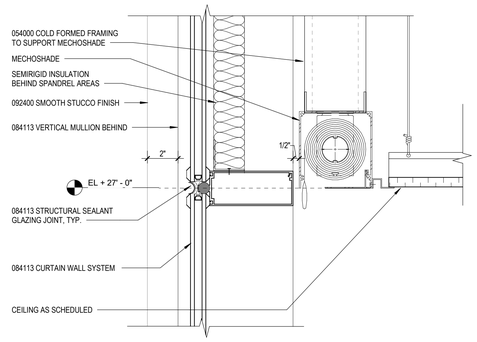
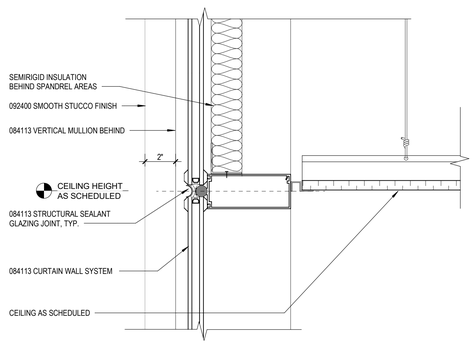
Plot Date:

REFERENCE KEYNOTES

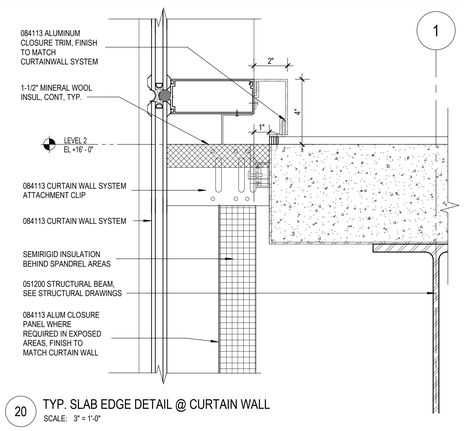
SHEET KEYNOTES



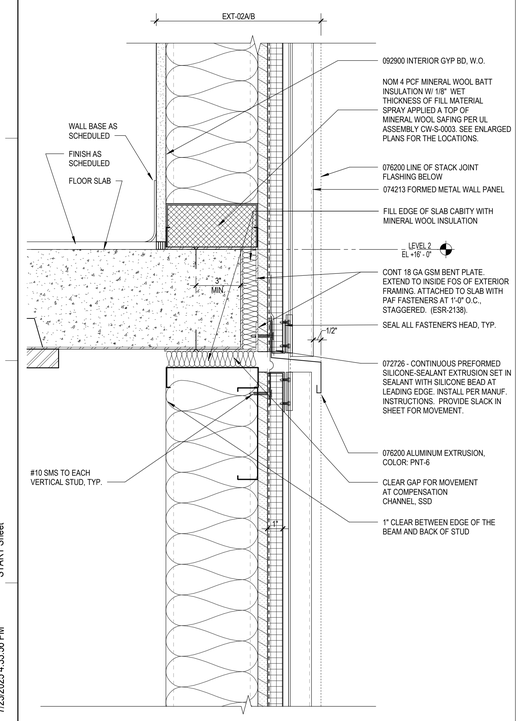
18 TYPICAL DETAIL @ STRUCTURAL SEALANT GLAZING JOINT - SUNSHADE
SCALE: 3" = 1'-0"



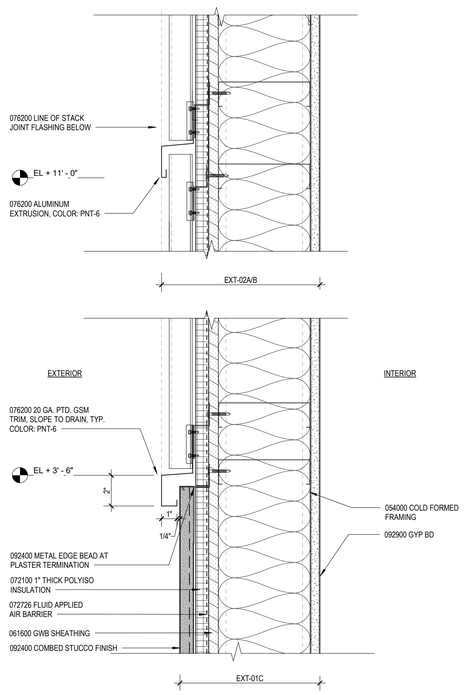
36 TYPICAL DETAIL @ STRUCTURAL SEALANT GLAZING JOINT
SCALE: 3" = 1'-0"



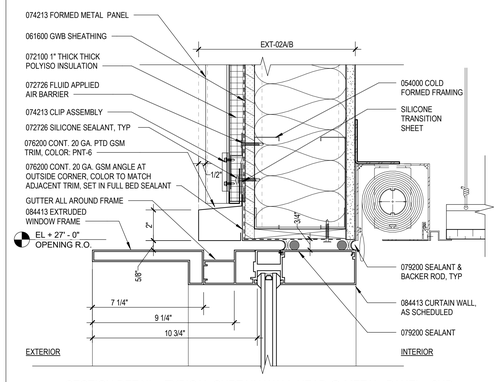
20 TYP. SLAB EDGE DETAIL @ CURTAIN WALL
SCALE: 3" = 1'-0"



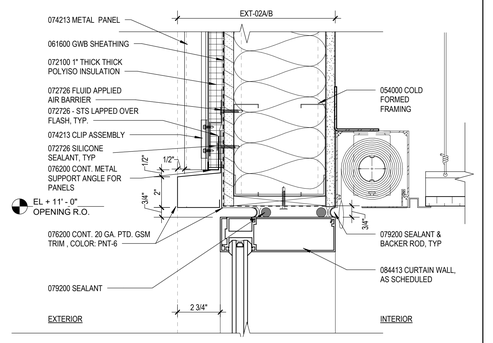
72 TYP. SLAB EDGE DETAIL @ METAL PANEL
SCALE: 3" = 1'-0"



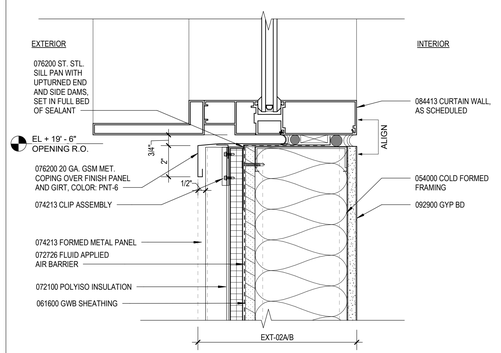
56 SECTION DETAIL - TYPICAL TRANSITION METAL PANELS @ COMBED STUCCO
SCALE: 3" = 1'-0"



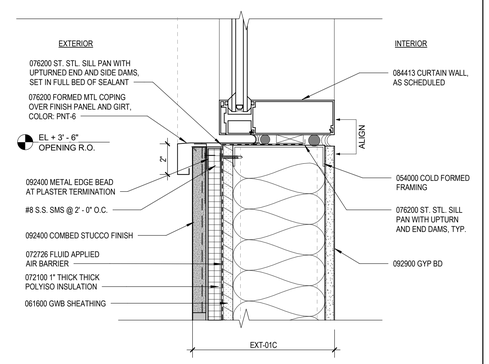
38 SECTION DETAIL - TYPICAL CURTAIN WALL HEAD @ METAL PANEL - 2ND FLOOR
SCALE: 3" = 1'-0"



22 SECTION DETAIL - TYPICAL CURTAIN WALL HEAD @ METAL PANEL - 1ST FLOOR
SCALE: 3" = 1'-0"



40 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ METAL PANEL - 2ND FLOOR
SCALE: 3" = 1'-0"



24 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ COMBED STUCCO - 1ST FLOOR
SCALE: 3" = 1'-0"

LAS POSITAS COLLEGE

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STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - EXTERIOR SECTION DETAILS

PROJECT NUMBER 14794

CD

SHEET NUMBER **A5.1.2**

START Sheet
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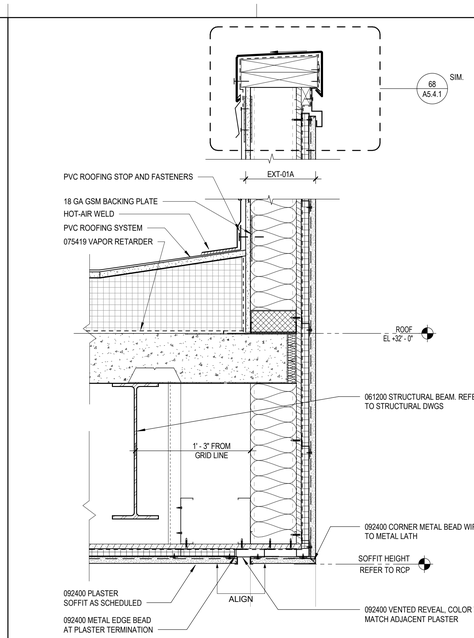
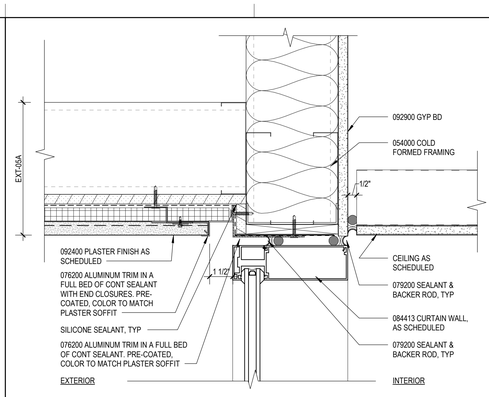


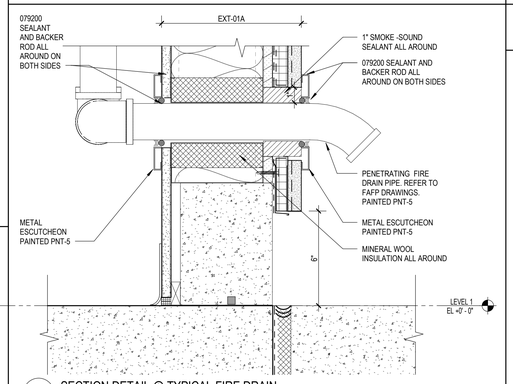
35 SECTION DETAIL - SOFFIT @ STAIR 1
SCALE: 1 1/2" = 1'-0" REF: 36 / A4.4.1



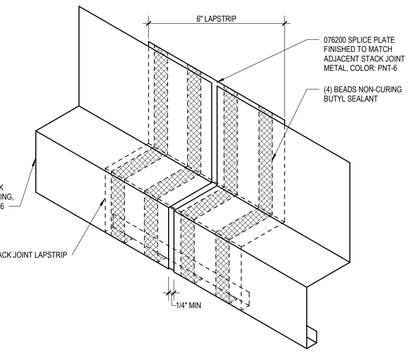
18 SECTION DETAIL - TYPICAL CURTAIN WALL HEAD @ PLASTER SOFFIT
SCALE: 3" = 1'-0" REF: 27 / A5.5.1

REFERENCE KEYNOTES

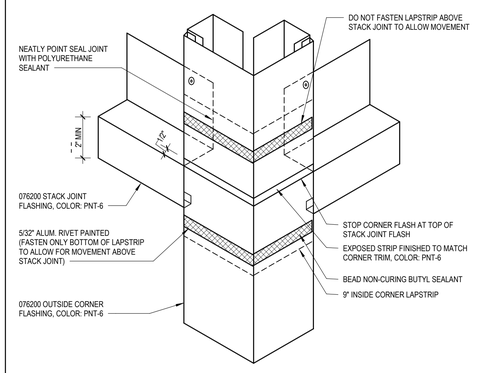
○ SHEET KEYNOTES



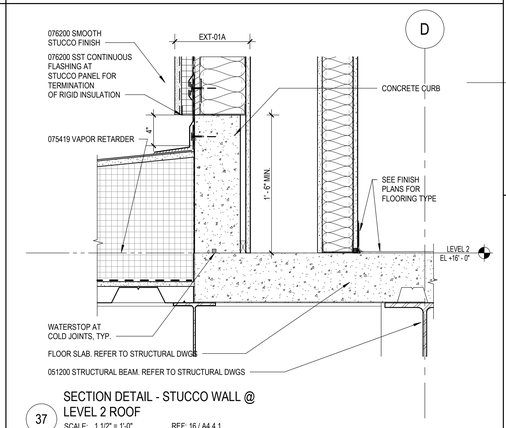
20 SECTION DETAIL @ TYPICAL FIRE DRAIN
SCALE: 3" = 1'-0"



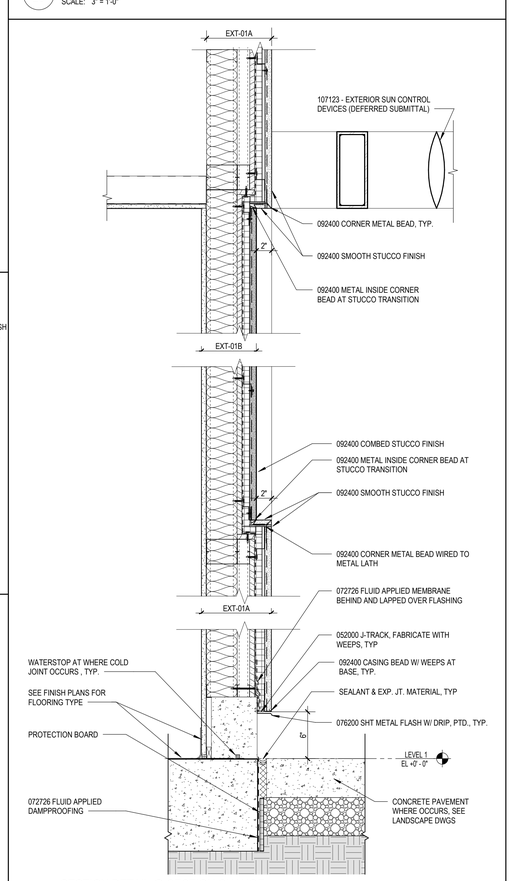
69 STACK JOINT LAPSTRIP @ METAL PANELS
SCALE: 3" = 1'-0"



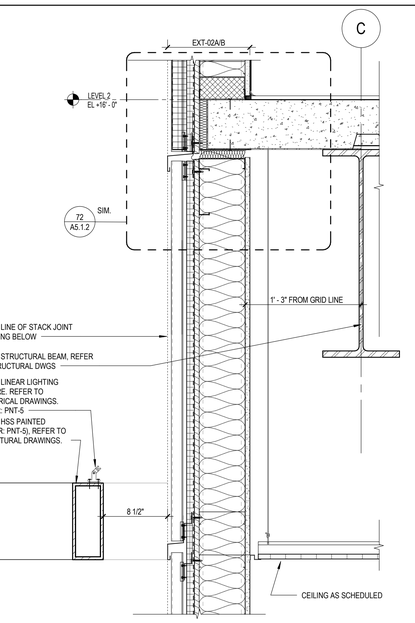
53 O.S. CORNER LAPSTRIP @ STACK & DRIFT JOINT - METAL PANELS
SCALE: 3" = 1'-0"



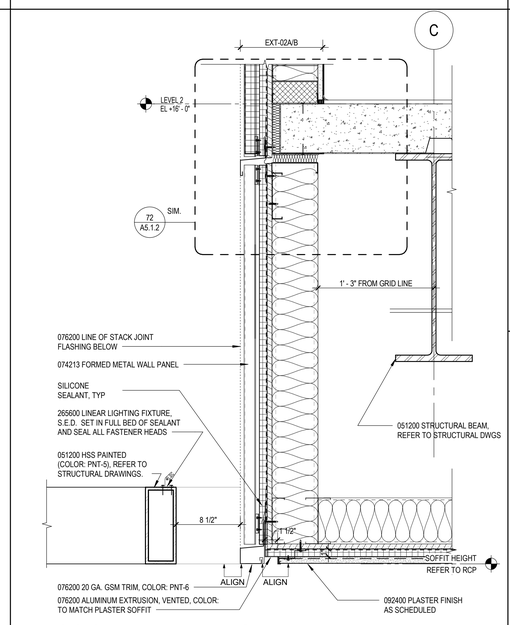
37 SECTION DETAIL - STUCCO WALL @ LEVEL 2 ROOF
SCALE: 1 1/2" = 1'-0" REF: 16 / A4.4.1



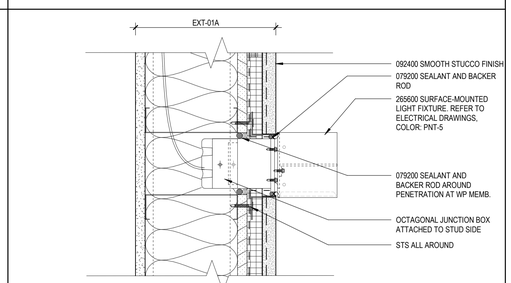
24 SECTION DETAIL @ SECTION CHANGE - COMBED STUCCO
SCALE: 1 1/2" = 1'-0" REF: 68 / A4.4.1



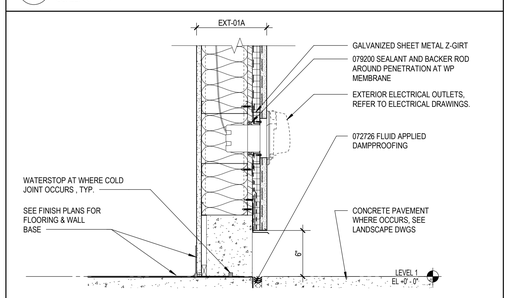
72 SECTION DETAIL - SLAB EDGE @ METAL PANEL WALL @ CANOPY
SCALE: 1 1/2" = 1'-0"



56 SECTION DETAIL - METAL PANEL @ PLASTER SOFFIT - WEST ENTRY
SCALE: 1 1/2" = 1'-0" REF: 60 / A4.4.1



39 TYPICAL DETAIL @ SURFACE-MOUNTED LIGHT FIXTURE
SCALE: 3" = 1'-0"



40 TYPICAL DETAIL @ EXTERIOR OUTLET
SCALE: 1 1/2" = 1'-0"

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SEALS AND SIGNATURES

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SHEET TITLE

BUILDING 1500 - EXTERIOR SECTION DETAILS

14794

PROJECT NUMBER

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A5.1.3

SHEET NUMBER

START Sheet
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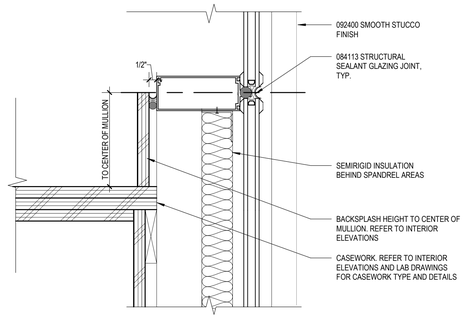
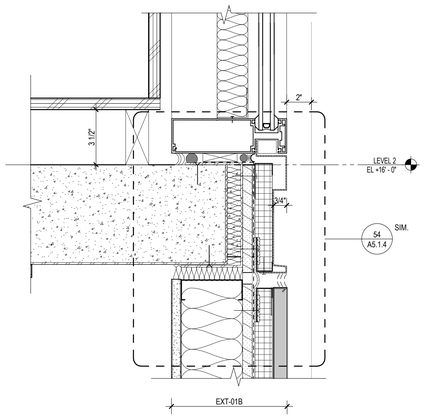
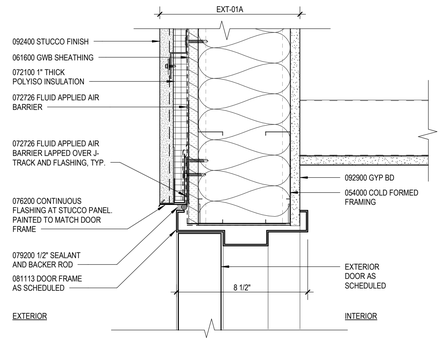
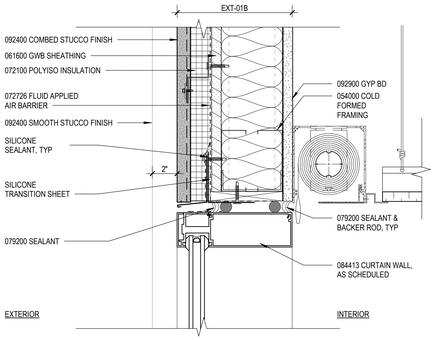




52 SECTION DETAIL - TYPICAL CURTAIN WALL MULLION @ CASEWORK
SCALE: 3" = 1'-0"



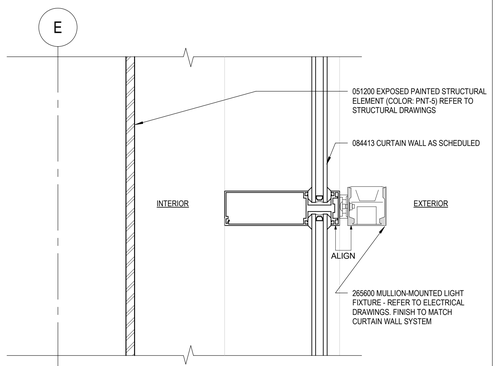
34 SECTION DETAIL - TYPICAL HM DOOR HEAD @ STUCCO / EXT-01A
SCALE: 3" = 1'-0"



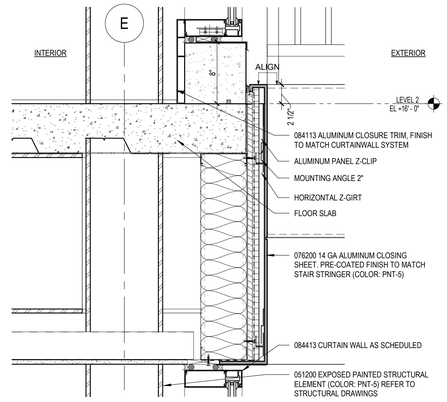
18 SECTION DETAIL - TYPICAL CURTAIN WALL HEAD @ STUCCO / EXT-01B
SCALE: 3" = 1'-0"

REFERENCE KEYNOTES

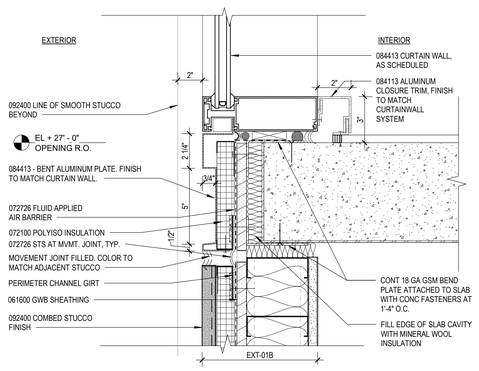
SHEET KEYNOTES



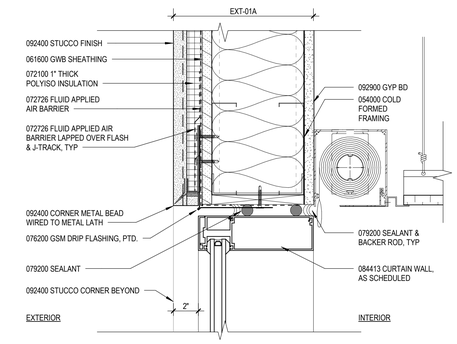
36 SECTION DETAIL - CURTAIN WALL @ MULLION-MOUNTED LIGHT FIXTURE
SCALE: 3" = 1'-0" REF: 27 / A5.5.1



20 SECTION DETAIL - ALUMINUM CLOSING SHEET @ CURTAIN WALL
SCALE: 1 1/2" = 1'-0"

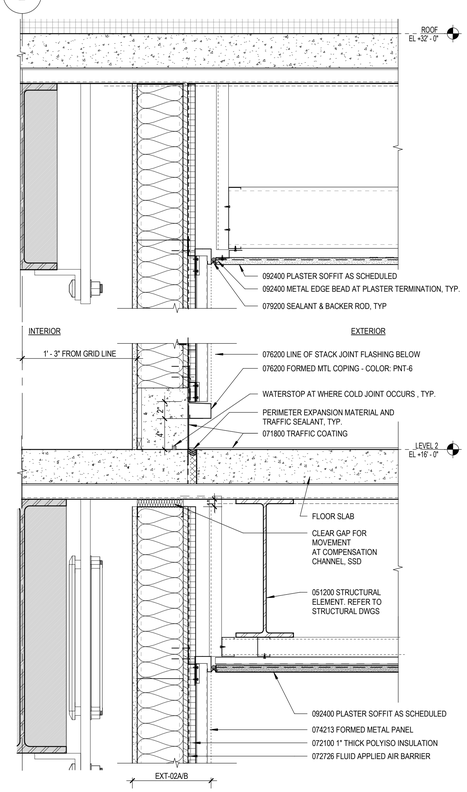


54 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ EXT-01B AT FLOOR SLAB
SCALE: 3" = 1'-0"

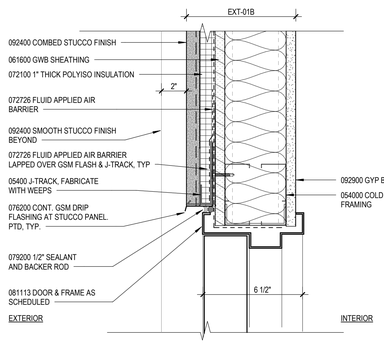


38 SECTION DETAIL - TYPICAL CURTAIN WALL HEAD @ STUCCO / EXT-01A
SCALE: 3" = 1'-0"

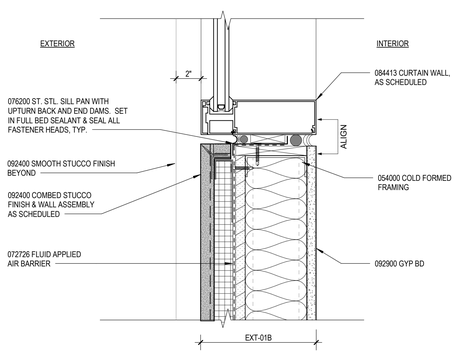
2



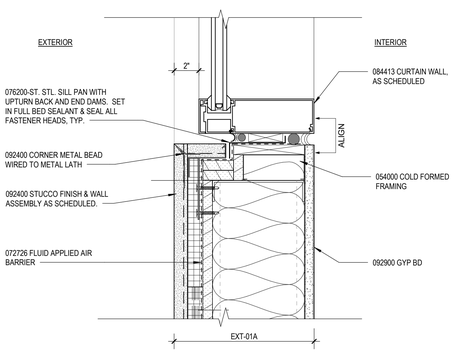
24 SECTION DETAIL - METAL PANEL @TERRACE - SOUTH ENTRY
SCALE: 1 1/2" = 1'-0" REF: 4 / A4.2.2



72 SECTION DETAIL - TYPICAL DOOR HEAD @ STUCCO / EXT-01B
SCALE: 3" = 1'-0"



56 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ STUCCO / EXT-01B
SCALE: 3" = 1'-0"



40 SECTION DETAIL - TYPICAL CURTAIN WALL SILL @ STUCCO / EXT-01A
SCALE: 3" = 1'-0"

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14794

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A5.1.4

SHEET NUMBER

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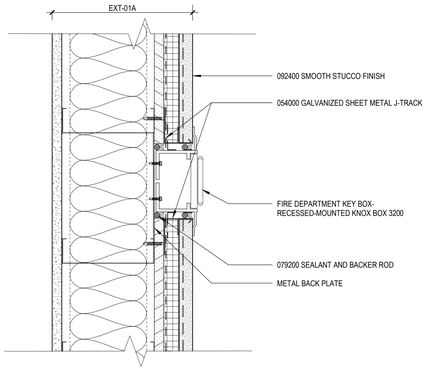
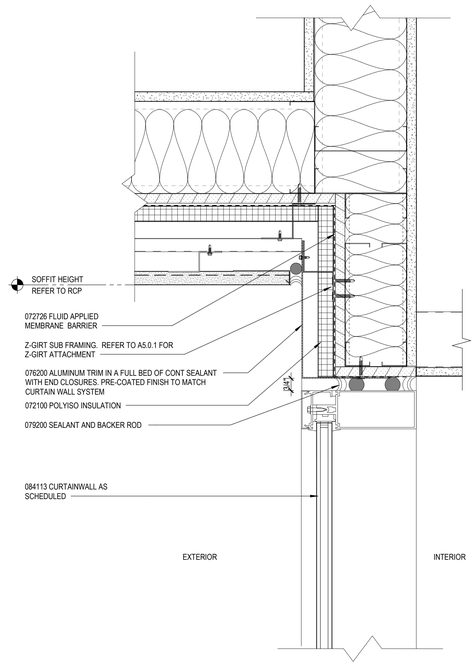
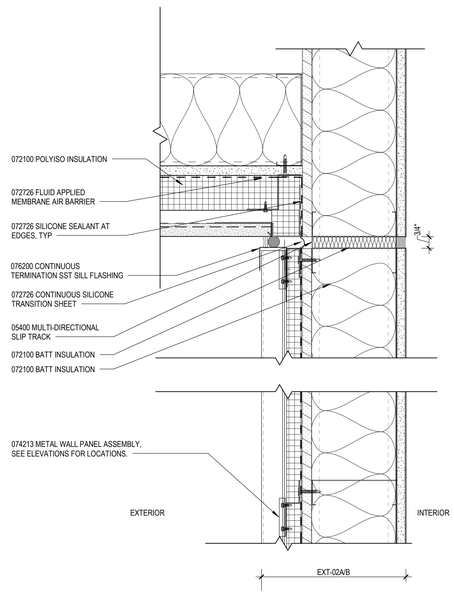


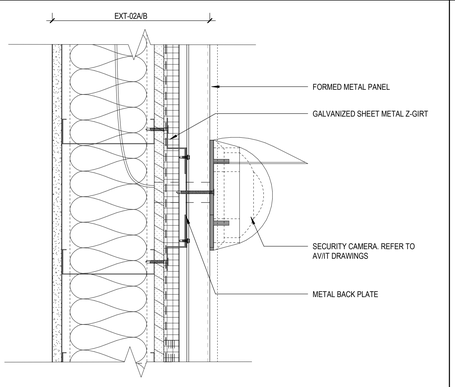
52 TYPICAL DETAIL @ FIRE DEPARTMENT KEY BOX RECESSED-MOUNTED
SCALE: 3" = 1'-0"



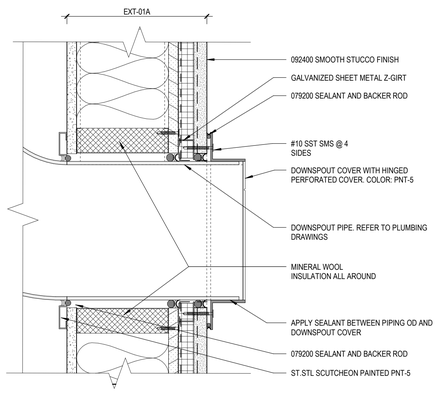
36 SECTION DETAIL - METAL PANEL SOFFIT AT CURTAIN WALL
SCALE: 3" = 1'-0" REF: 52 / A4.4.2



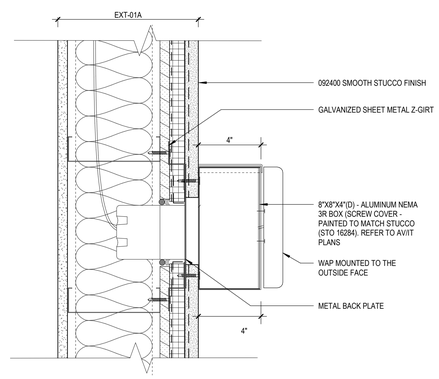
20 SECTION DETAIL - TYPICAL MOVEMENT JOINT AT METAL PANEL SOFFIT
SCALE: 3" = 1'-0"



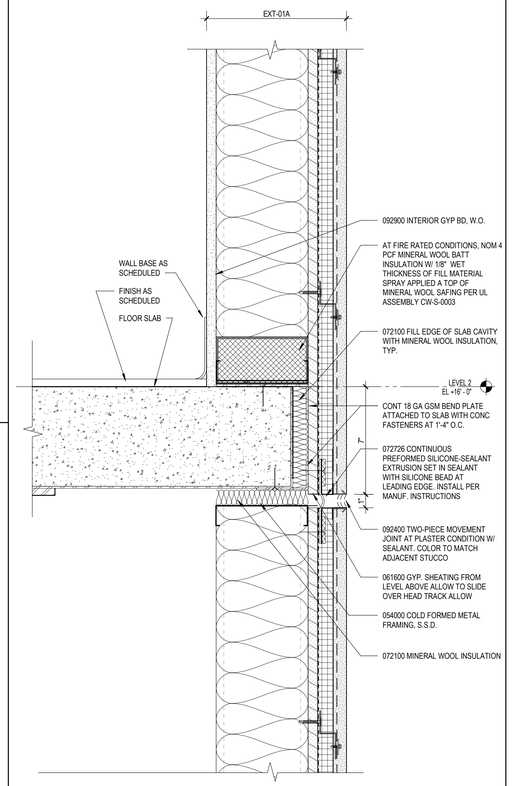
70 TYP. DETAIL @ SECURITY CAMERA ATTACHMENT SURFACE-MTD (MTL PNL)
SCALE: 3" = 1'-0"



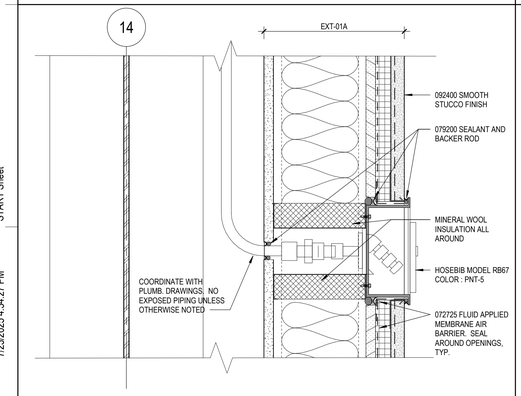
54 TYPICAL DETAIL @ DOWNSPOUT
SCALE: 3" = 1'-0"



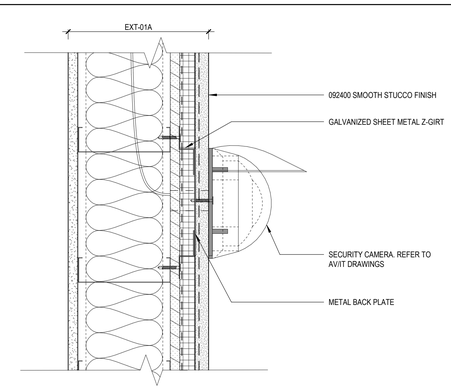
38 TYPICAL STUCCO DETAIL @ NEMA 3R PULLBOX
SCALE: 3" = 1'-0"



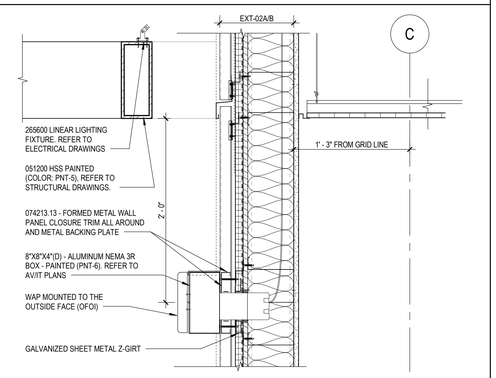
24 TYPICAL SLAB EDGE DETAIL @ STUCCO WALL
SCALE: 3" = 1'-0"



72 TYPICAL DETAIL @ HOSEBIB ATTACHMENT
SCALE: 3" = 1'-0"



56 TYP. DETAIL @ SECURITY CAMERA ATTACHMENT SURFACE-MTD (PLASTER)
SCALE: 3" = 1'-0"



40 SECTION DETAIL - METAL PANEL WALL @ NEMA 3R PULLBOX
SCALE: 1 1/2" = 1'-0"

REFERENCE KEYNOTES

SHEET KEYNOTES

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PROJECT NUMBER

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A5.1.5

SHEET NUMBER

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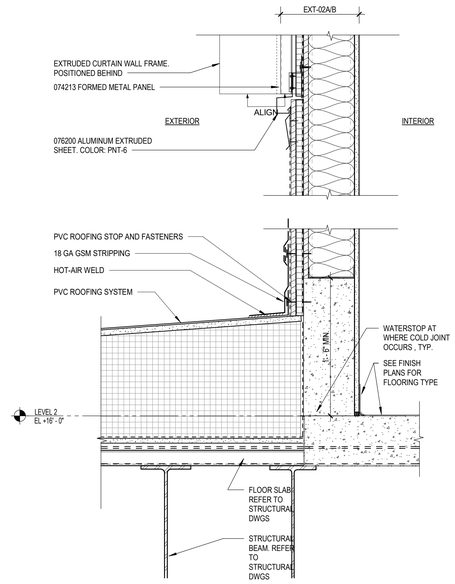
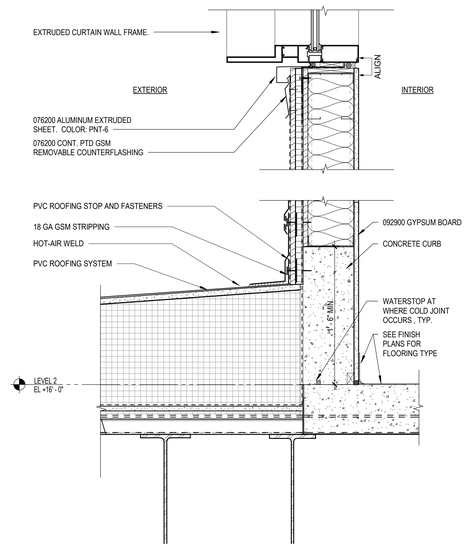
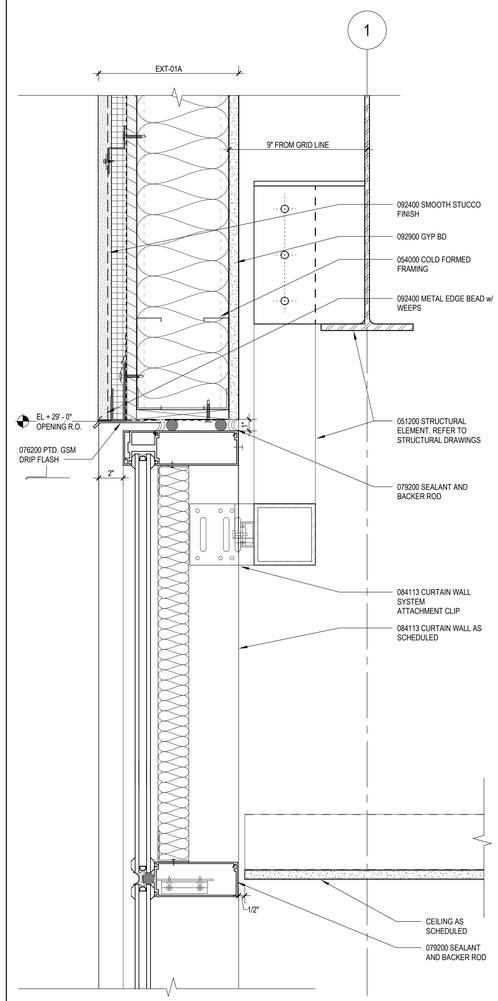


35 SECTION DETAIL @ BALANCE - METAL PANEL WALL @ LEVEL 2/ROOF
SCALE: 1 1/2" = 1'-0" REF: 32 / A4.4.2



19 SECTION DETAIL @ METAL PANEL WALL CURTAIN WALL @ LEVEL 2/ROOF
SCALE: 1 1/2" = 1'-0" REF: 36 / A4.4.2



24 SECTION DETAIL @ TYPICAL CURTAIN WALL HEAD ATTACHMENT
SCALE: 3" = 1'-0"

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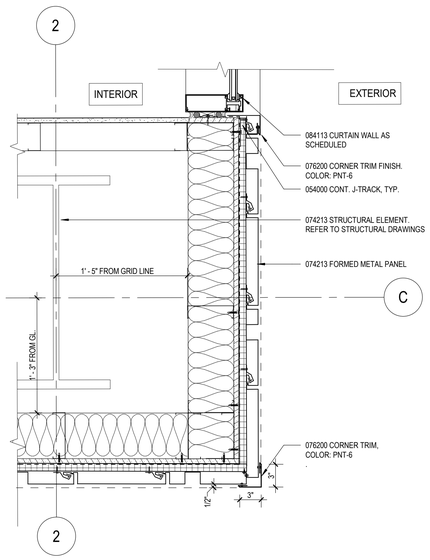
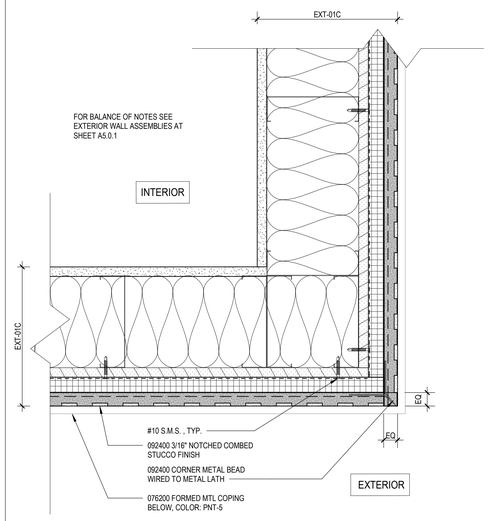
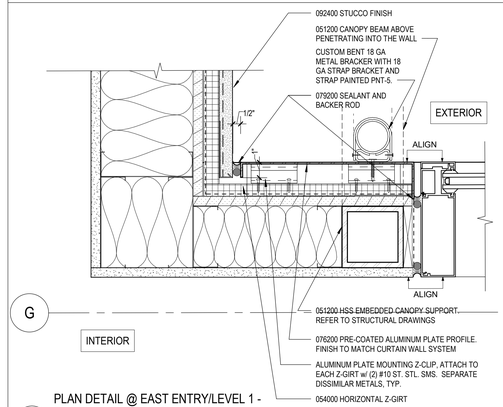


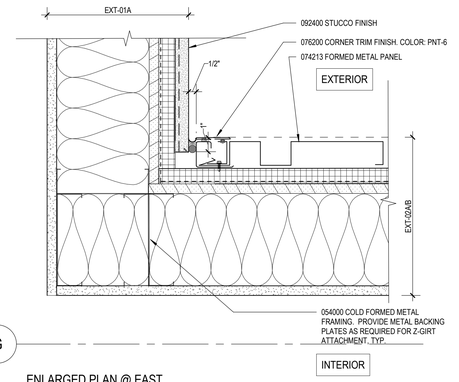
35 PLAN DETAIL @ TYPICAL METAL PANEL CORNER
SCALE: 1 1/2" = 1'-0"



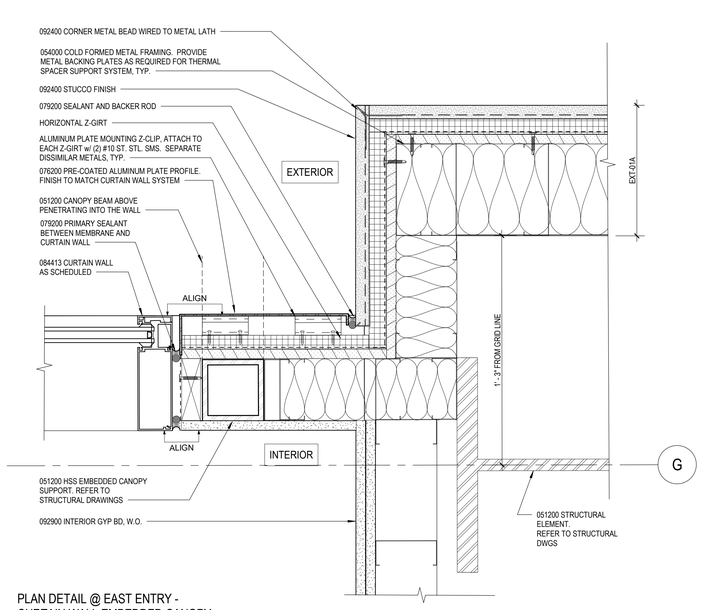
19 PLAN DETAIL - TYPICAL COMBED STUCCO PANEL OUTSIDE CORNER
SCALE: 3" = 1'-0"



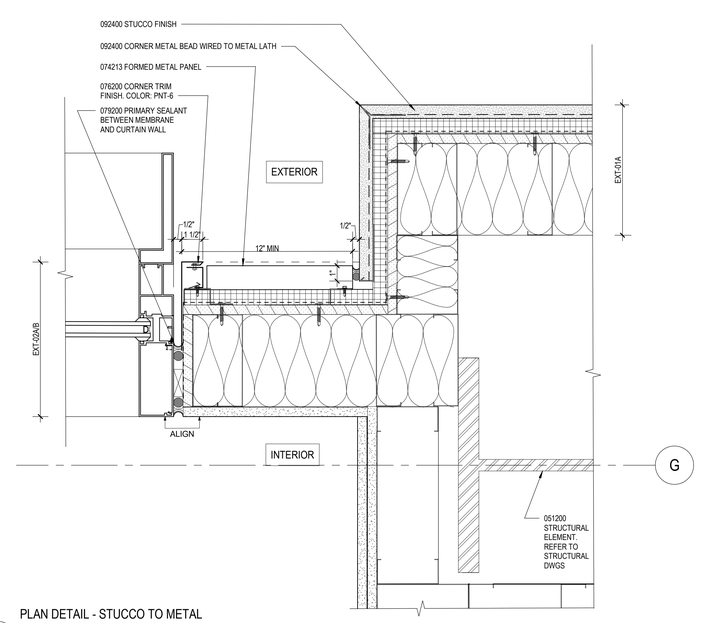
37 PLAN DETAIL @ EAST ENTRY/LEVEL 1 - EMBEDED CANOPY SUPPORT
SCALE: 3" = 1'-0" REF: 72 / A6.1.2



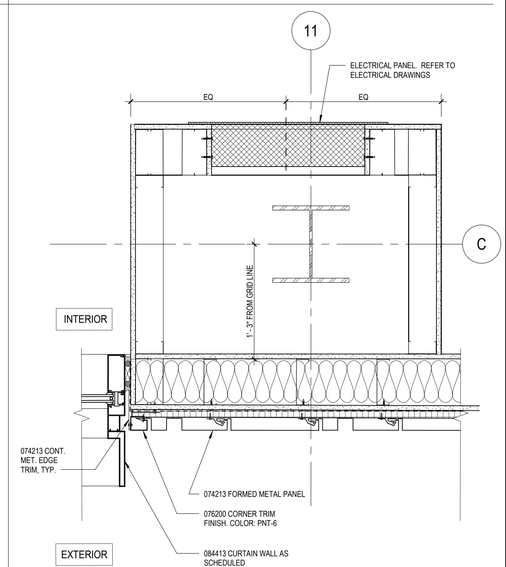
21 ENLARGED PLAN @ EAST ENTRY/LEVEL 2
SCALE: 3" = 1'-0" REF: 68 / A6.1.2



72 PLAN DETAIL @ EAST ENTRY - CURTAIN WALL EMBEDDED CANOPY SUPPORT
SCALE: 3" = 1'-0" REF: 72 / A6.1.2



48 PLAN DETAIL - STUCCO TO METAL PANEL OUTSIDE CORNER
SCALE: 3" = 1'-0" REF: 68 / A6.1.2



24 TYPICAL DETAIL @ COLUMN ENCLOSURE - EXTRUDED WINDOW FRAME
SCALE: 1 1/2" = 1'-0"

REFERENCE KEYNOTES

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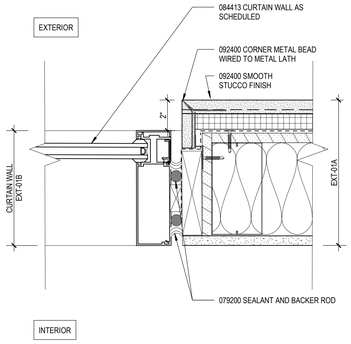
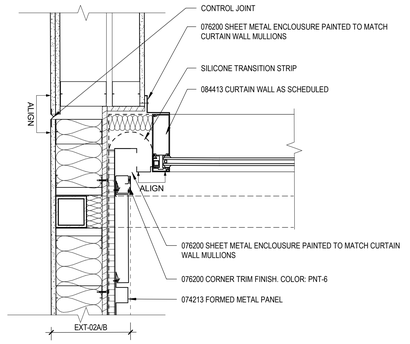
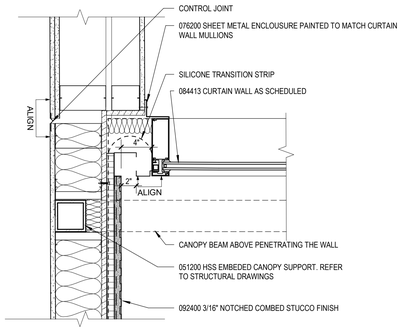


50 TYPICAL DETAIL @ CURTAIN WALL JAMB AT EXT-01A
SCALE: 3" = 1'-0"



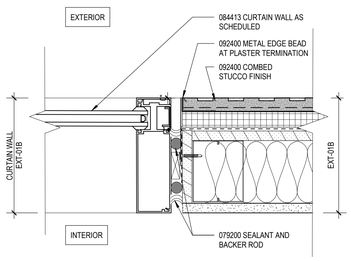
34 SOUTH ENTRY LOBBY @ MOVEMENT JOINT
SCALE: 1 1/2" = 1'-0" REF: 55 / A7.3.3



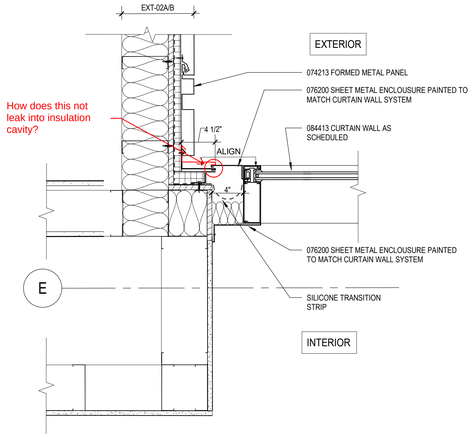
18 SOUTH ENTRY LOBBY @ MOVEMENT JOINT 2
SCALE: 1 1/2" = 1'-0" REF: 55 / A7.3.3

REFERENCE KEYNOTES

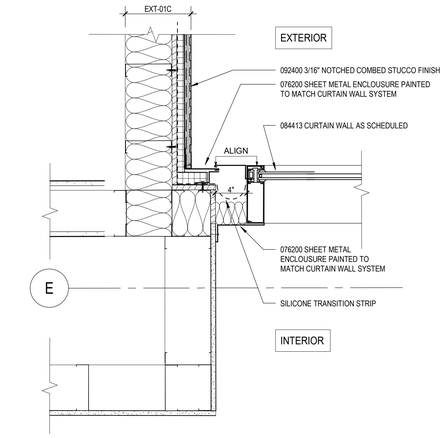
SHEET KEYNOTES



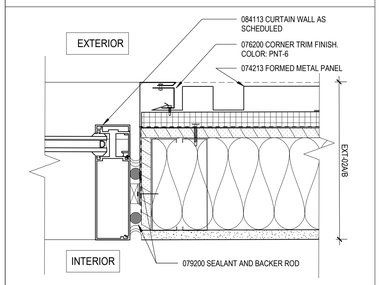
52 TYPICAL DETAIL @ CURTAIN WALL JAMB AT EXT-01B
SCALE: 3" = 1'-0"



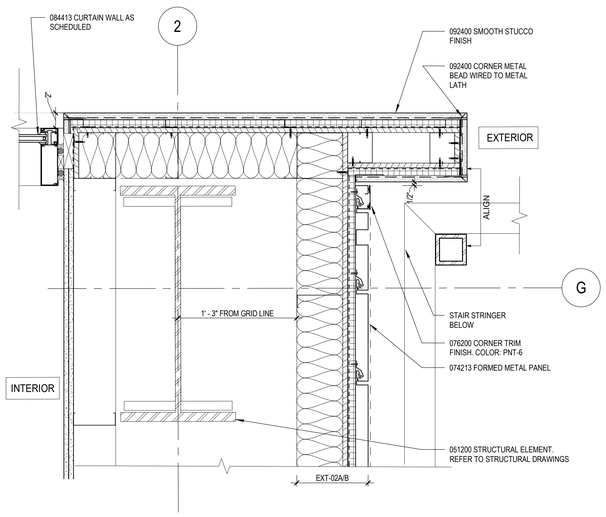
37 PLAN DETAIL - LEVEL 1/2 SOUTH ENTRY LOBBY/METAL PANEL @ MOVEMENT JOINT
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



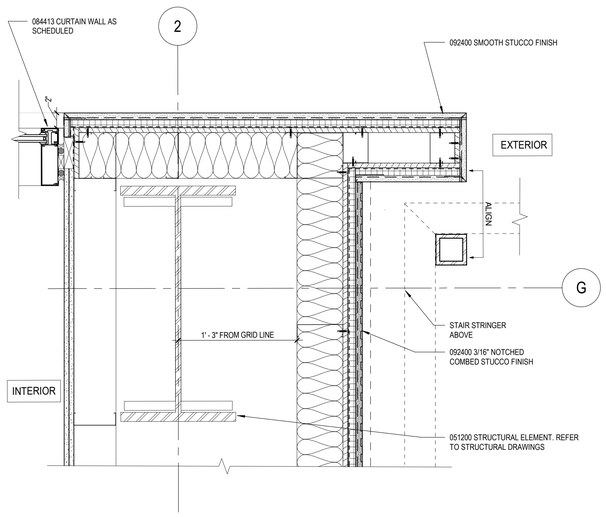
21 PLAN DETAIL - LEVEL 1 SOUTH ENTRY LOBBY/COMBED STUCCO @ MOVEMENT JOINT
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



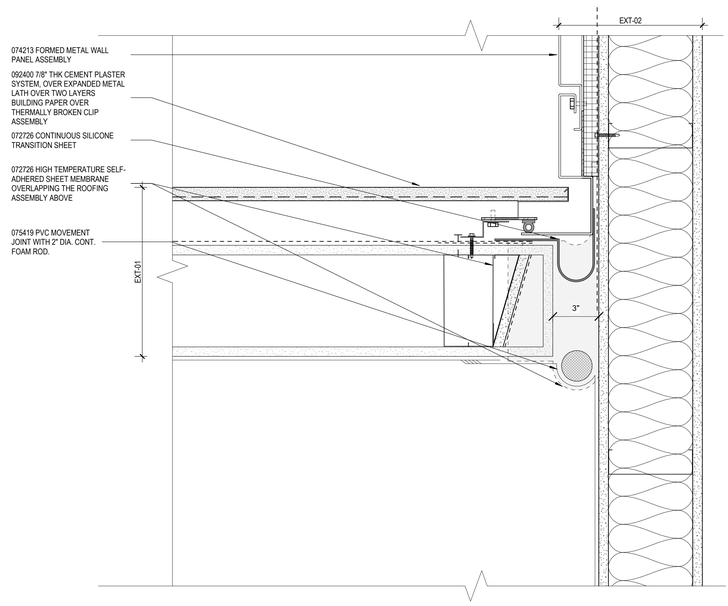
53 TYPICAL DETAIL @ LEVEL 1 - CW JAMB AT EXT-02A/B
SCALE: 3" = 1'-0"



72 PLAN DETAIL - LEVEL 1 - STAIR 1 / METAL PANEL @ STUCCO
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



56 PLAN DETAIL - LEVEL 1 - STAIR 1 / COMBED STUCCO @ STUCCO
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



32 PLAN DETAIL - TYPICAL MOVEMENT JOINT AT STUCCO PARAPET
SCALE: 3" = 1'-0"

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BUILDING 1500 - EXTERIOR PLAN DETAILS

14794

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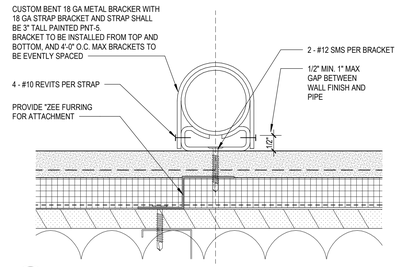
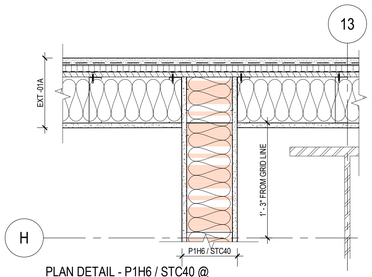
A5.2.2

SHEET NUMBER

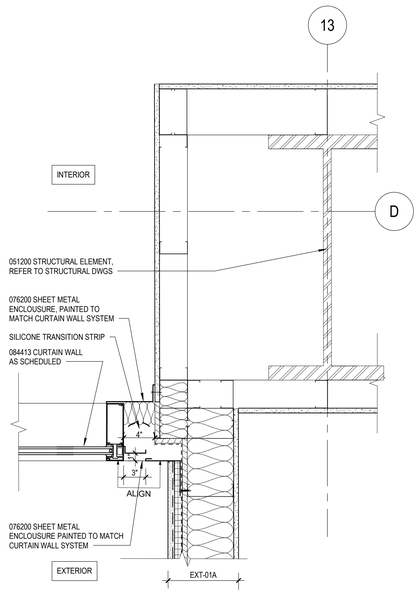
Plot Date: 7/23/2025 4:34:52 PM START Sheet



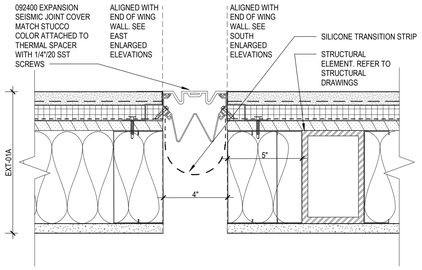
50 DOWN SPOUT BRACKET
SCALE: 6" = 1'-0"



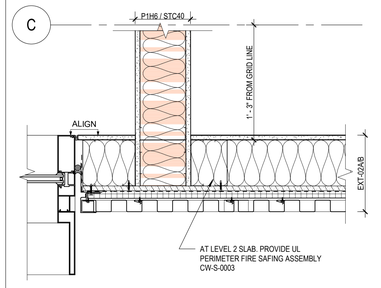
34 PLAN DETAIL - P1H6 / STC40 @ EXT-01A
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.3



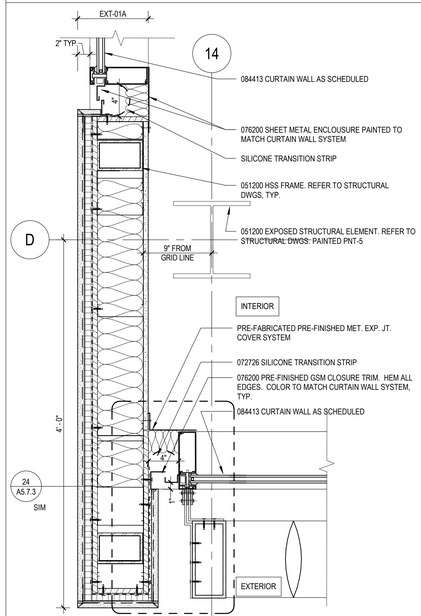
19 PLAN DETAIL - LEVEL 1 NORTH ENTRY @ MOVEMENT JOINT
SCALE: 1 1/2" = 1'-0" REF: 52 / A7.3.3



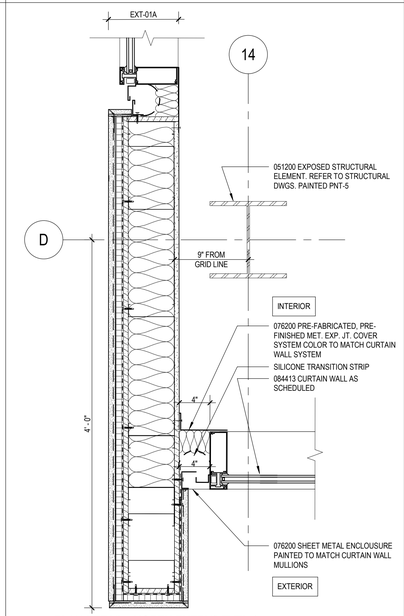
51 PLAN DETAIL - TYPICAL SEISMIC JOINT TRANSITION
SCALE: 3" = 1'-0"



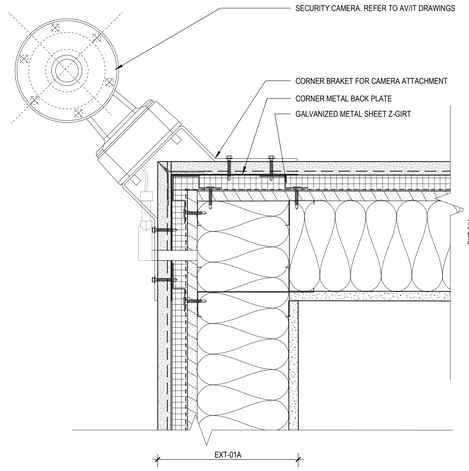
35 PLAN DETAIL - P1H6 / STC40 @ EXT-02
SCALE: 1 1/2" = 1'-0" REF: 72 / A7.2.20



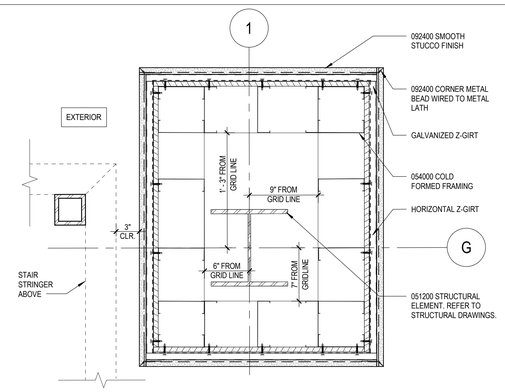
54 STUDENT COLLAB 15200D - ENLARGED PLAN - Callout 1
SCALE: 1 1/2" = 1'-0" REF: 71 / A7.3.4



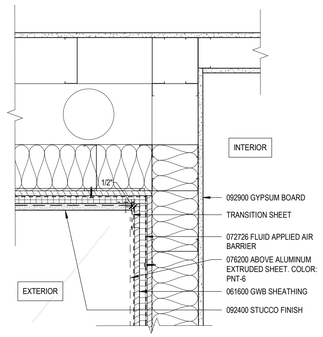
38 PLAN DETAIL - NORTH ENTRY/LEVEL 1 @ WING WALL
SCALE: 1 1/2" = 1'-0" REF: 52 / A7.3.3



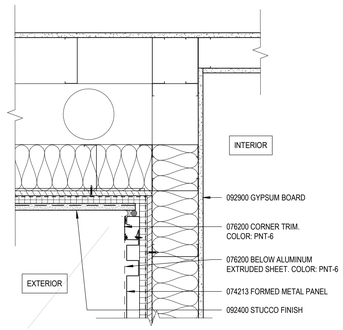
22 PLAN DETAIL - STUCCO WALL @ TYPICAL CORNER CAMERA ATTACHMENT
SCALE: 3" = 1'-0"



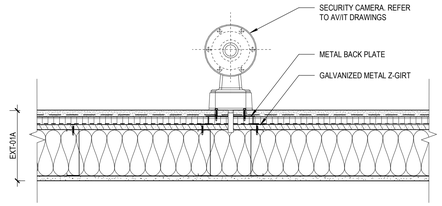
72 PLAN DETAIL - STUCCO COLUMN ENCLOUSURE
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



56 PLAN DETAIL - ORGANIC CHEM (15203)
SCALE: 1 1/2" = 1'-0" REF: 72 / A7.2.18



40 PLAN DETAIL - ORGANIC CHEM (15203) - METAL PANELS
SCALE: 1 1/2" = 1'-0" REF: 72 / A7.2.18



24 PLAN DETAIL - STUCCO WALL @ TYPICAL CAMERA ATTACHMENT
SCALE: 1 1/2" = 1'-0"

REFERENCE KEYNOTES

SHEET KEYNOTES

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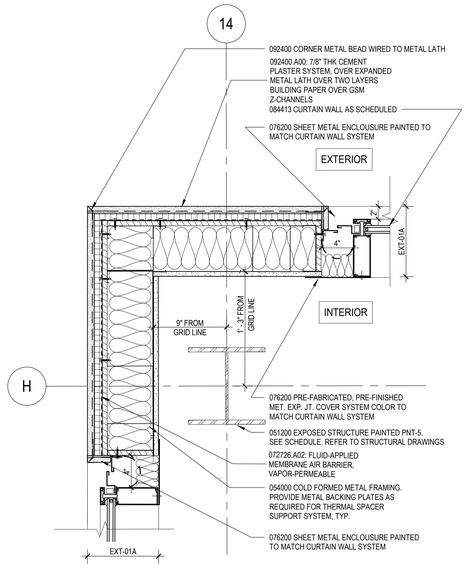
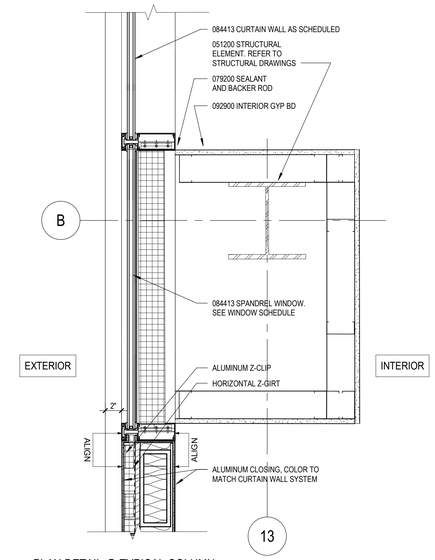


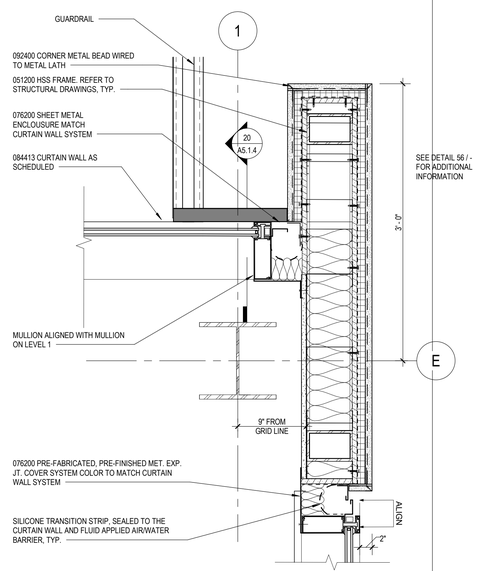
35 PLAN DETAIL @ TYPICAL STUCCO CORNER
SCALE: 1 1/2" = 1'-0"



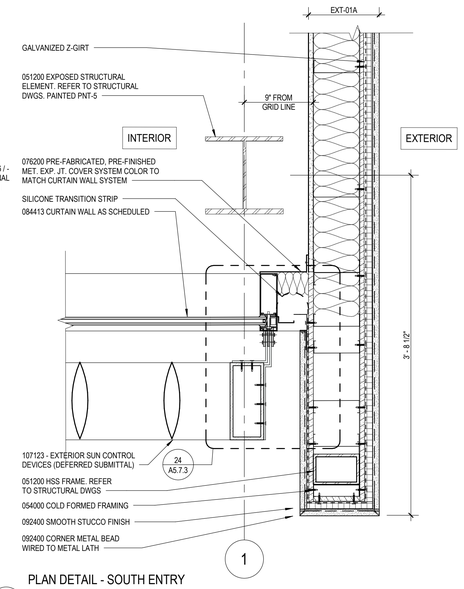
19 PLAN DETAIL @ TYPICAL COLUMN WRAP AT CURTAIN WALL
SCALE: 1 1/2" = 1'-0" REF: 40 / A7.2.10

REFERENCE KEYNOTES

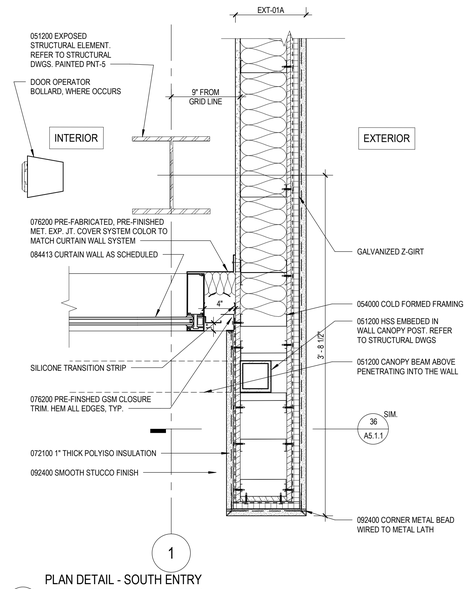
SHEET KEYNOTES



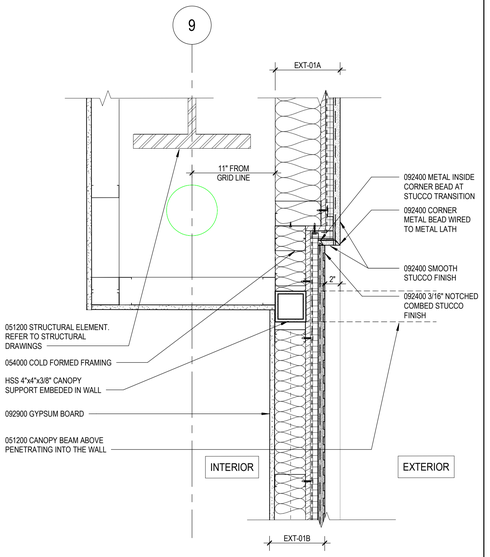
70 PLAN DETAIL - SOUTH ENTRY/LEVEL 2 @ WINGWALL
SCALE: 1 1/2" = 1'-0" REF: 68 / A6.1.1



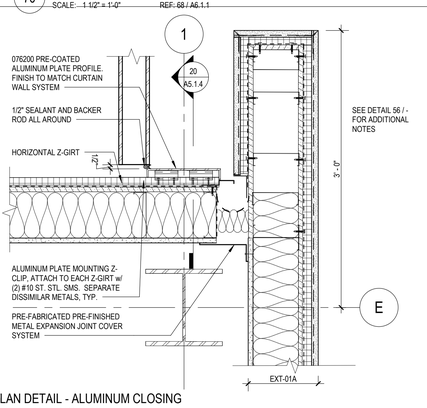
54 PLAN DETAIL - SOUTH ENTRY LOBBY/LEVEL 2 @ WING WALL
SCALE: 1 1/2" = 1'-0" REF: 55 / A7.3.4



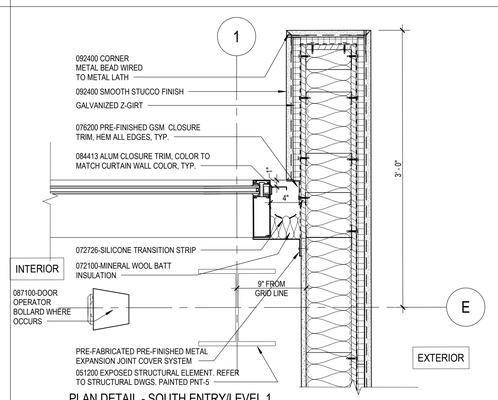
38 PLAN DETAIL - SOUTH ENTRY LOBBY/LEVEL 1 @ WING WALL
SCALE: 1 1/2" = 1'-0" REF: 55 / A7.3.3



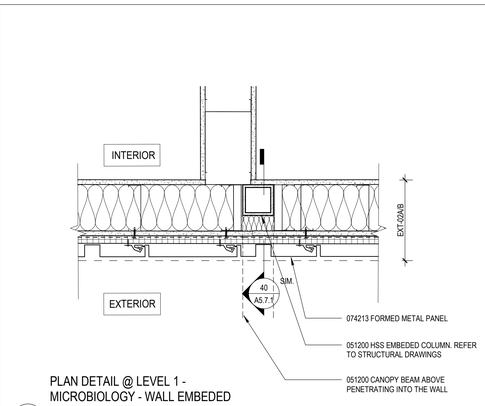
22 TYPICAL DETAIL - STUCCO-COMBED STUCCO TRANSITION
SCALE: 1 1/2" = 1'-0"



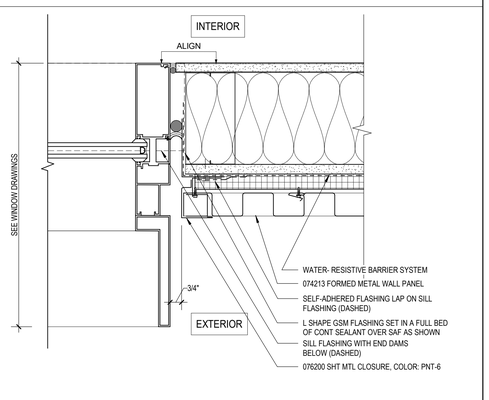
72 PLAN DETAIL - ALUMINUM CLOSING SHEET @ WING WALL
SCALE: 1 1/2" = 1'-0" REF: 36 / A6.1.1



56 PLAN DETAIL - SOUTH ENTRY/LEVEL 1 @ WING WALL
SCALE: 1 1/2" = 1'-0" REF: 72 / A6.1.1



40 PLAN DETAIL @ LEVEL 1 - MICROBIOLOGY - WALL EMBEDED CANOPY SUPPORT
SCALE: 1 1/2" = 1'-0" REF: 69 / A7.2.2



24 PLAN DETAIL @ TYPICAL WINDOW JAMB AT FORMED METAL WALL PANEL
SCALE: 3" = 1'-0"

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SHEET NUMBER

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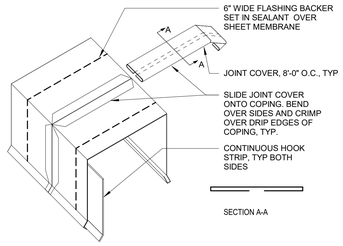
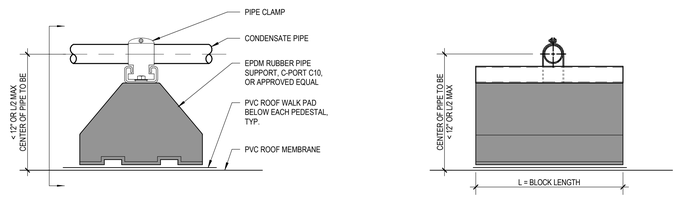


66 SECTION DETAIL - TYPICAL PARAPET COPING JOINT
SCALE: 3" = 1'-0"



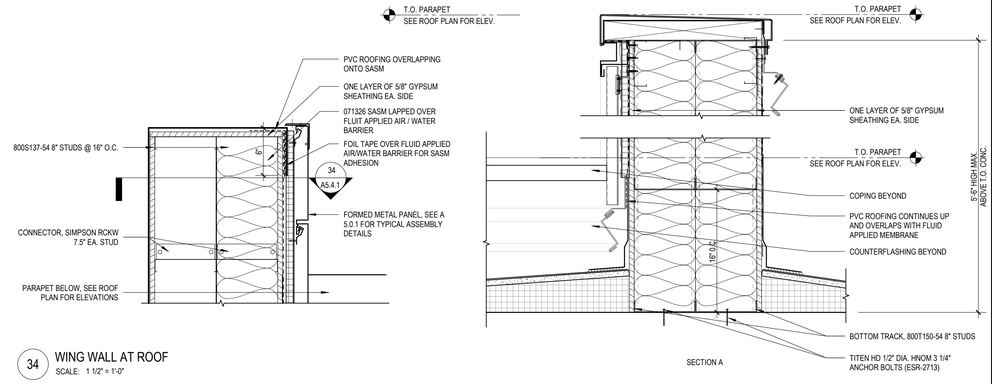
NOTE:

1) SUPPORTS SHALL BE INSTALLED A MAXIMUM OF 6'-0" ON CENTER AND AT EACH CHANGE OF DIRECTION OF PIPING.

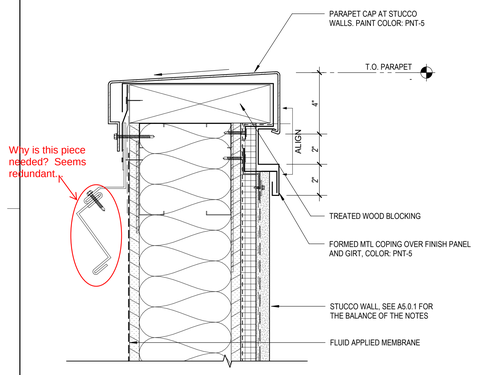
2) ALL EXPOSED CONDENSATE PIPING ON ROOF SHALL BE PAINTED WITH ONE COAT OF PRIMER AND FINISHED WITH (2) COATS OF RUST INHIBITANT PAINT.

3) MAX WEIGHT ON EACH SUPPORT NOT TO EXCEED 14 LBS.

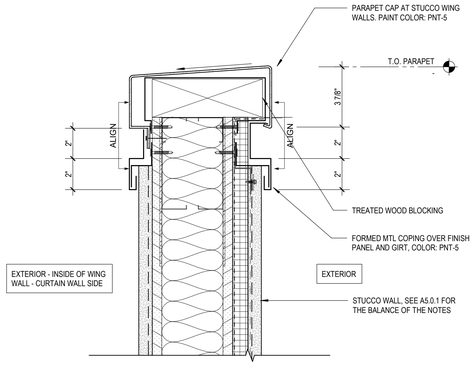
50 ROOF CONDENSATE SUPPORT PIPING DIAGRAM
SCALE: 3" = 1'-0"



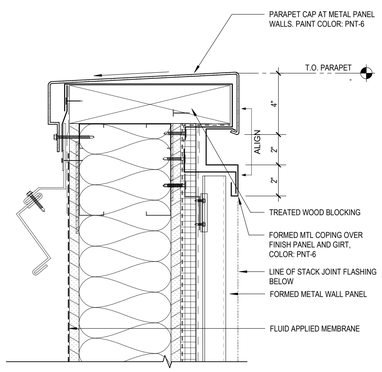
34 WING WALL AT ROOF
SCALE: 1 1/2" = 1'-0"



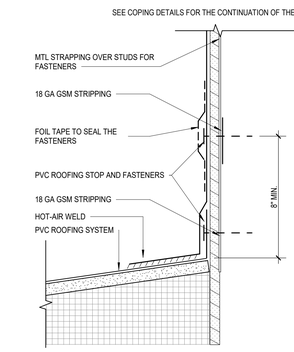
68 SECTION DETAIL - TYP. COPING @ STUCCO WALL
SCALE: 3" = 1'-0"



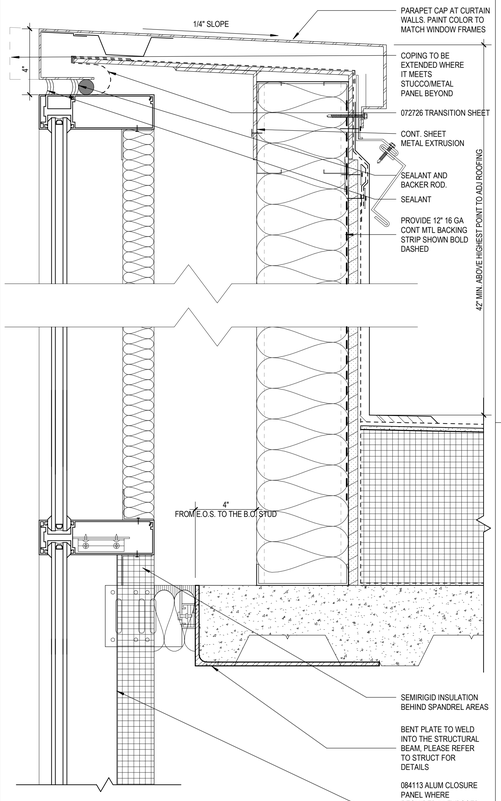
52 SECTION DETAIL - TYP. COPING @ STUCCO WING WALL
SCALE: 3" = 1'-0"



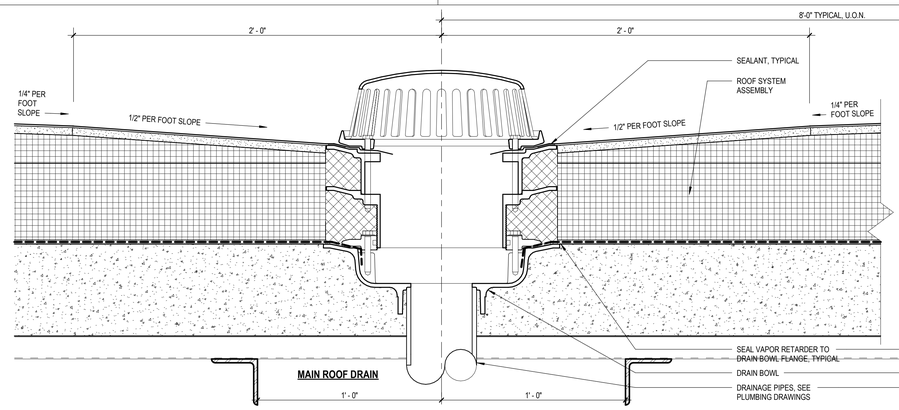
36 SECTION DETAIL - TYPICAL COPING @ FORMED METAL PANEL
SCALE: 3" = 1'-0"

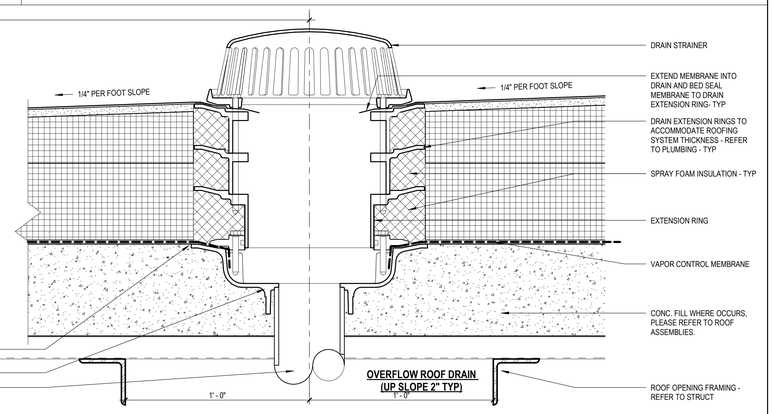


20 SECTION DETAIL - TYPICAL ROOFING AT PARAPET WALL
SCALE: 3" = 1'-0"

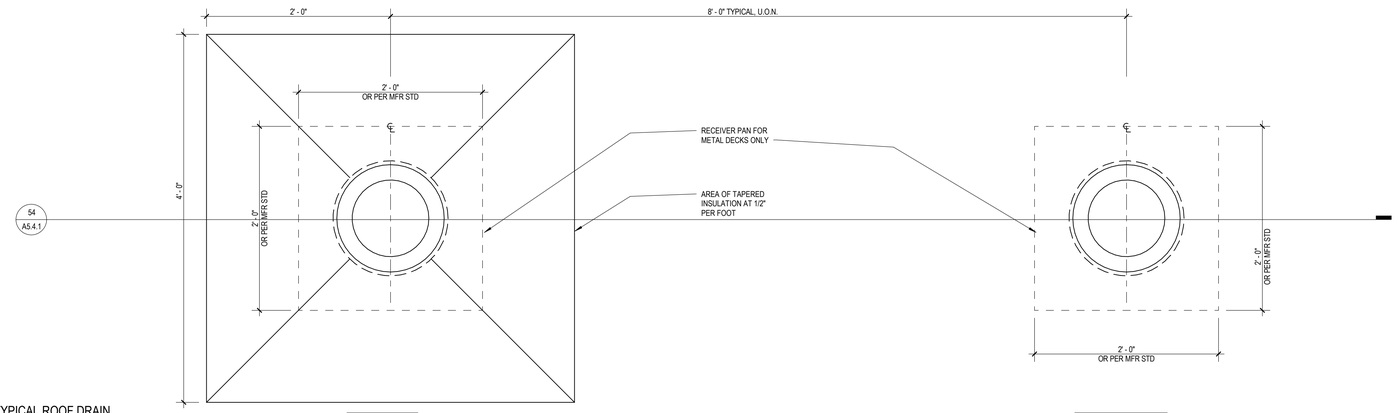


72 SECTION DETAIL - TYPICAL CURTAIN WALL PARAPET
SCALE: 3" = 1'-0"





54 SECTION DETAIL - TYPICAL ROOF DRAIN AND OVERFLOW SECTION
SCALE: 3" = 1'-0"



56 PLAN DETAIL - TYPICAL ROOF DRAIN
SCALE: 1 1/2" = 1'-0"

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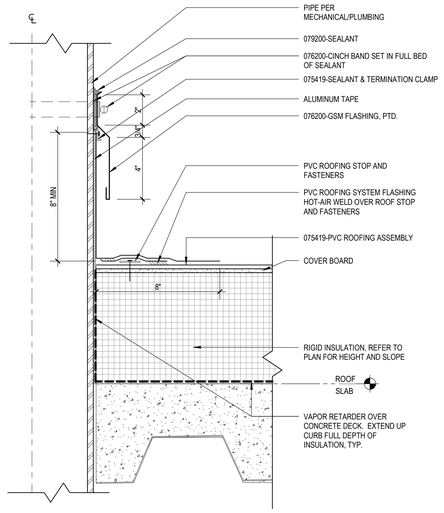
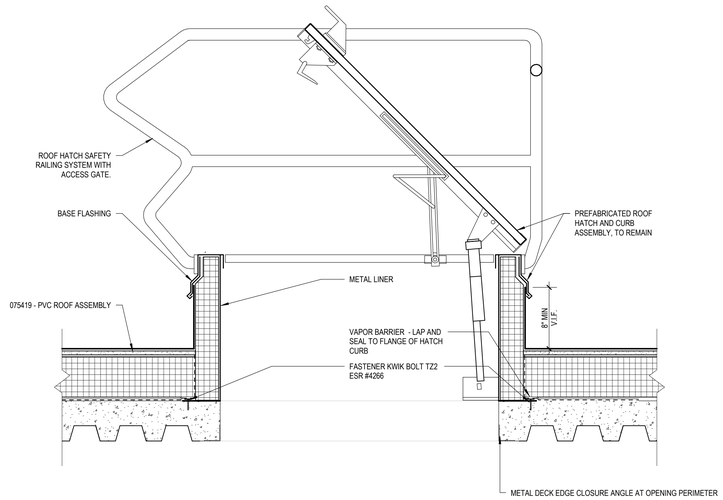
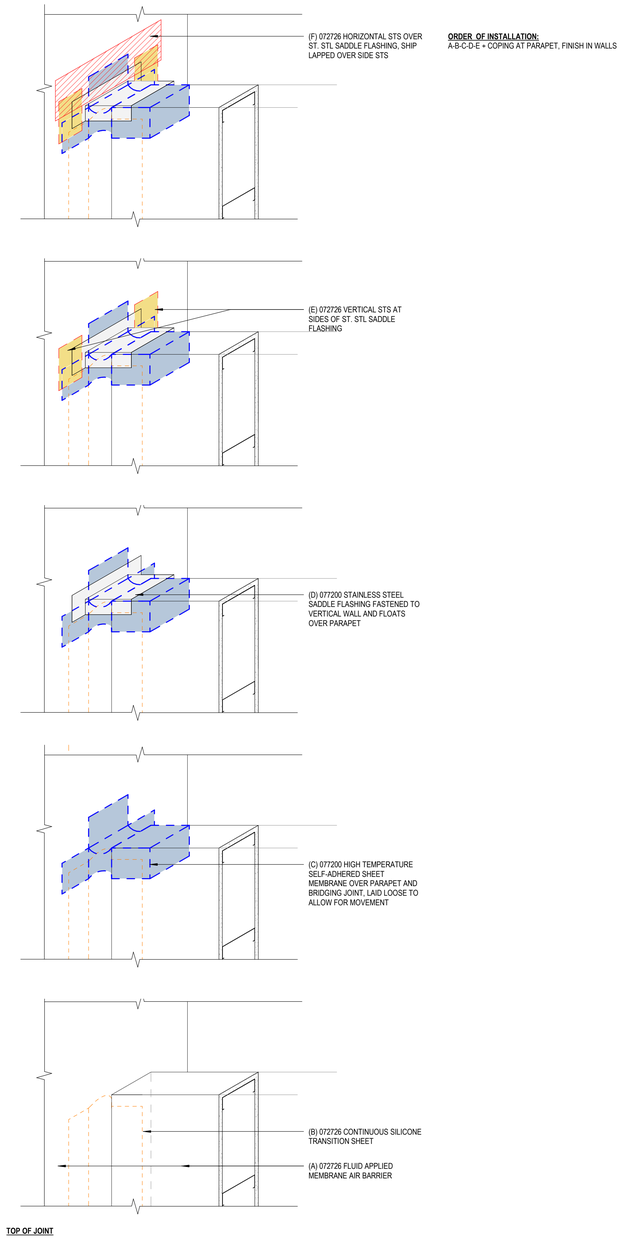


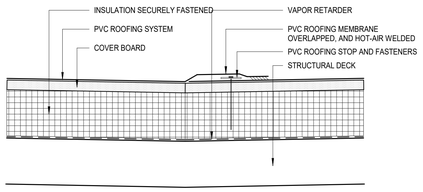
68 SECTION DETAIL - TYPICAL ROOF PIPE PENETRATION DETAIL
SCALE: 3" = 1'-0"



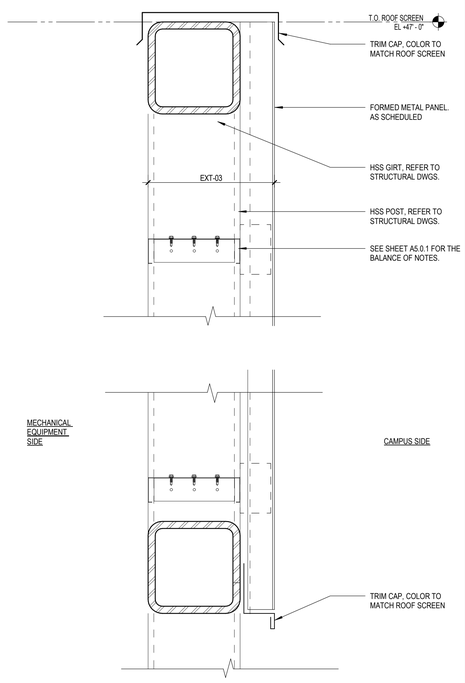
52 SECTION DETAIL - TYPICAL ROOF HATCH
SCALE: 1 1/2" = 1'-0"



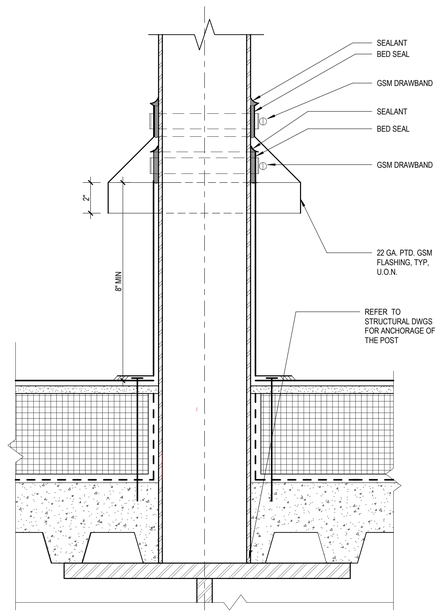
22 3D DETAIL - TYPICAL MOVEMENT JOINT AT DIFF. HEIGHTS
SCALE: 1 1/2" = 1'-0"



72 SECTION DETAIL - TYPICAL ROOFING OVERLAP
SCALE: 3" = 1'-0"



56 SECTION DETAIL - METAL PANEL @ ROOF SCREEN
SCALE: 3" = 1'-0"



40 SECTION DETAIL - TYPICAL MECHANICAL ROOF SCREEN SUPPORT
SCALE: 3" = 1'-0"

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

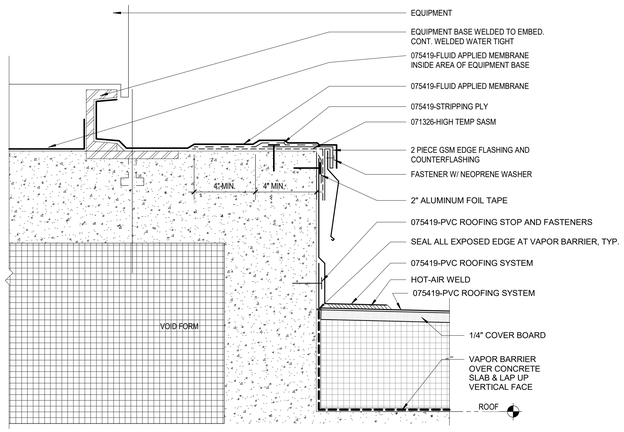
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - ROOF DETAILS

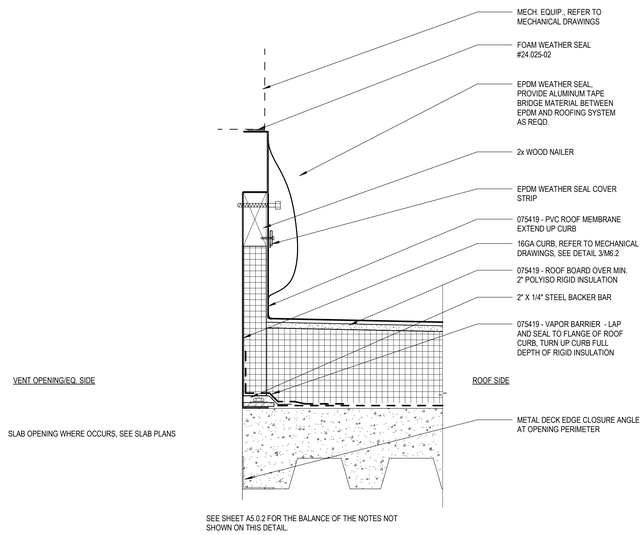
14794
PROJECT NUMBER

CD **A5.4.2**
SHEET NUMBER

START Sheet
7/23/2025 4:35:29 PM
Plot Date:

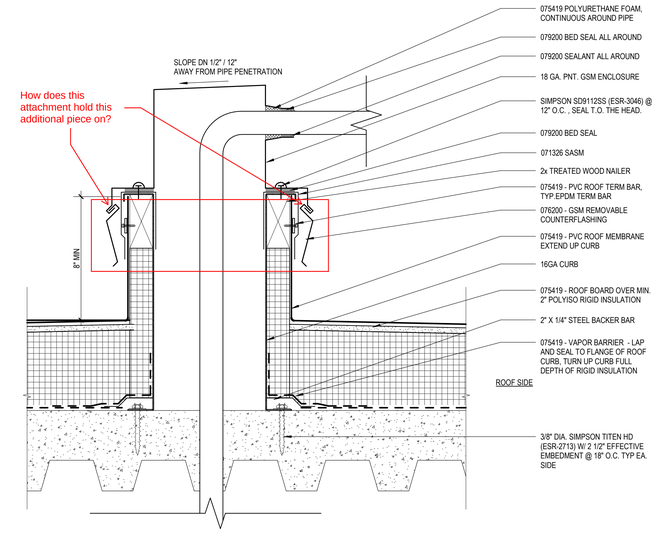


67 SECTION DETAIL - TYP. CONTINUOUS EQUIPMENT BASE
SCALE: 3" = 1'-0"

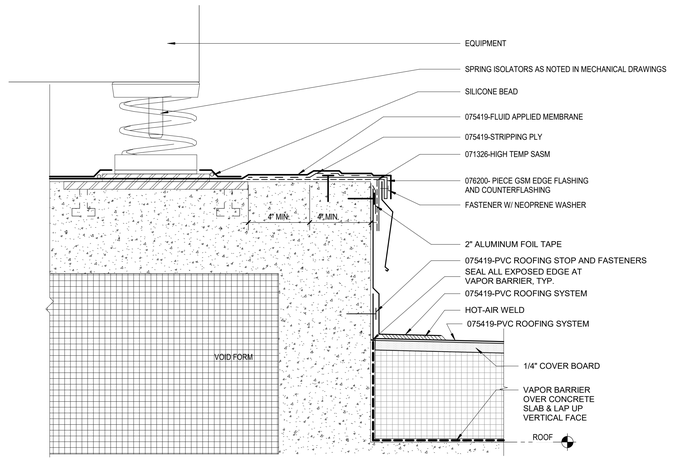


SEE SHEET A5.0.2 FOR THE BALANCE OF THE NOTES NOT SHOWN ON THIS DETAIL.

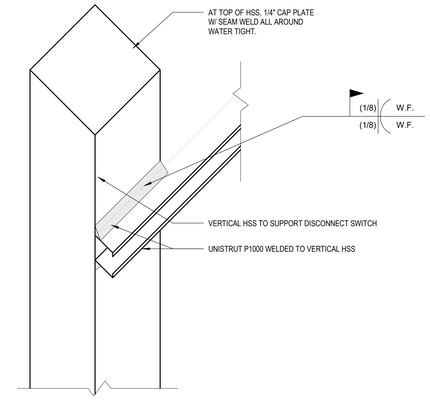
43 SECTION DETAIL - TYP. MANUFACTURED EQ. CURB AT ROOF
SCALE: 3" = 1'-0"



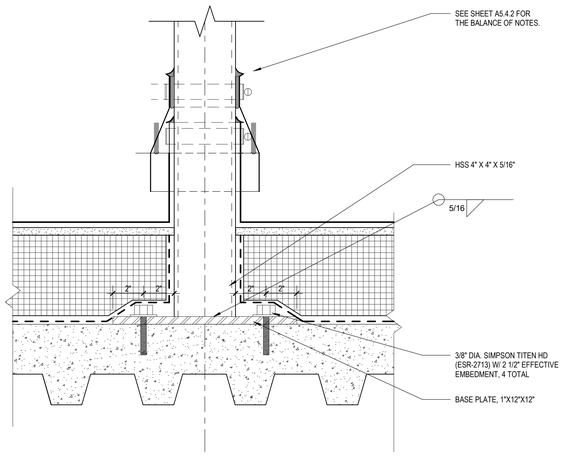
19 SECTION DETAIL - TYP. PIPE CLOSURE AT ROOF
SCALE: 3" = 1'-0"



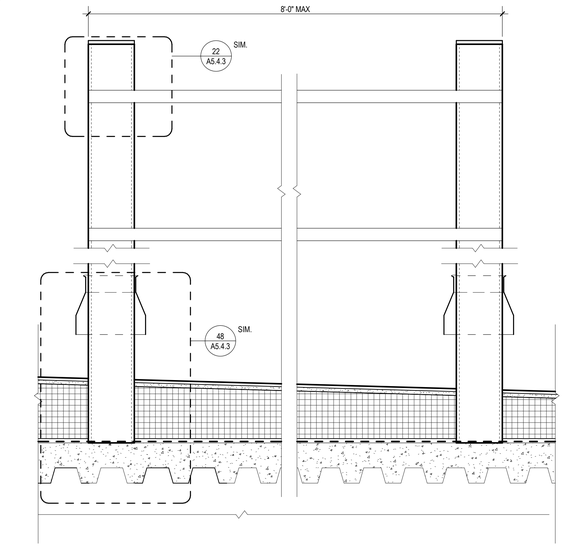
70 SECTION DETAIL - TYP. EQUIPMENT BASE W/ VIBRATION ISOLATOR
SCALE: 3" = 1'-0"



22 3D VIEW - TYP. DISCONNECT SWITCH
SCALE: 3" = 1'-0"



48 SECTION DETAIL - TYP. DISCONNECT SWITCH MOUNTING DETAIL
SCALE: 3" = 1'-0"



24 ELEVATION - TYP. DISCONNECT SWITCH
SCALE: 1 1/2" = 1'-0"

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SHEET TITLE

BUILDING 1500 - ROOF DETAILS

14794
PROJECT NUMBER

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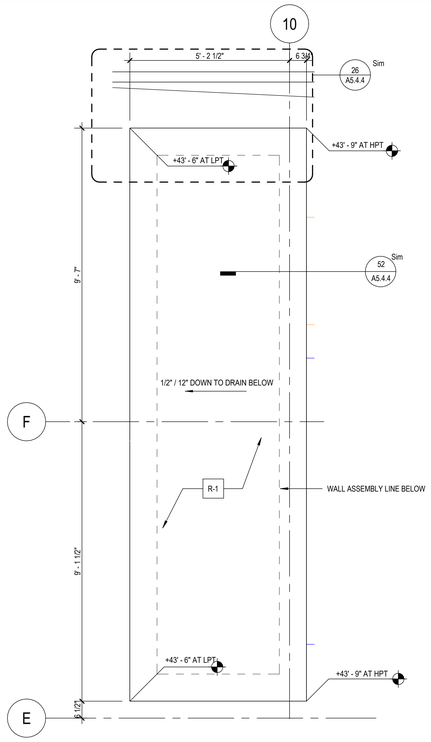
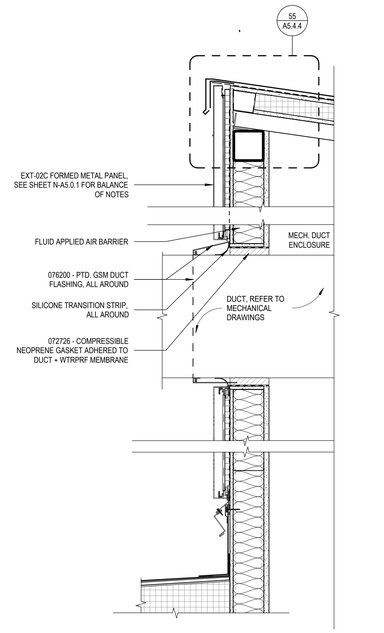
A5.4.3
SHEET NUMBER

START Sheet
7/23/2025 4:35:33 PM
Plot Date:

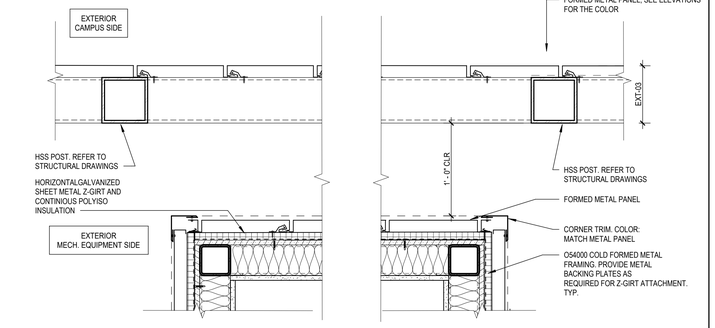


68 ENLARGED PLAN - NORTH MECH. SHAFT ENCLOSURE ROOF
SCALE: 1/2" = 1'-0"

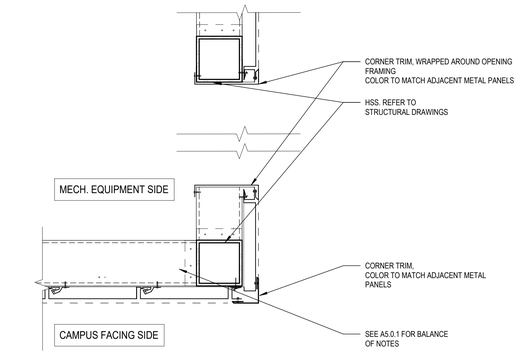


NOTE:
- SEE ROOFING DETAILS AND ROOF ASSEMBLIES FOR TYPICAL ROOFING AND FLASHING NOTES

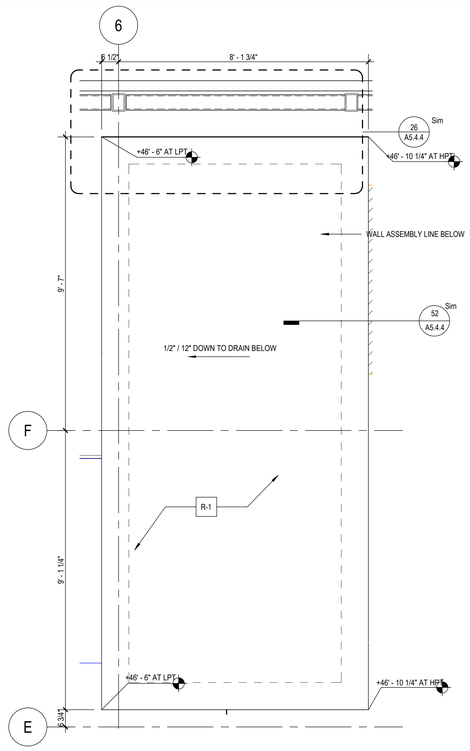
52 SECTION DETAIL - TYP. DUCT PENETRATION AT ROOF
SCALE: 1" = 1'-0"



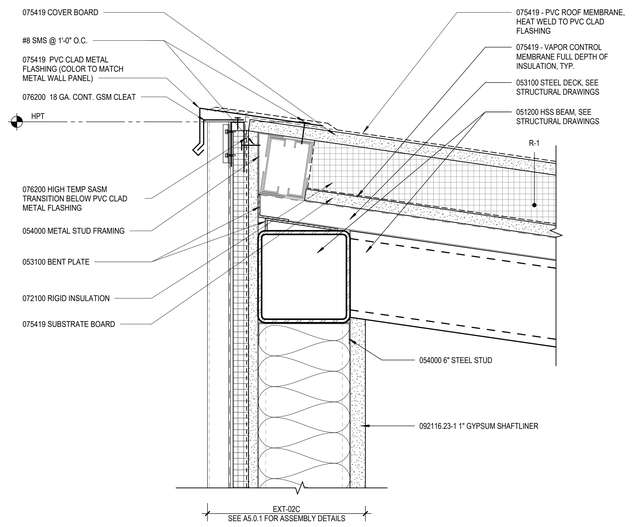
26 PLAN DETAIL - ROOF @ ROOF SCREEN
SCALE: 1 1/2" = 1'-0"



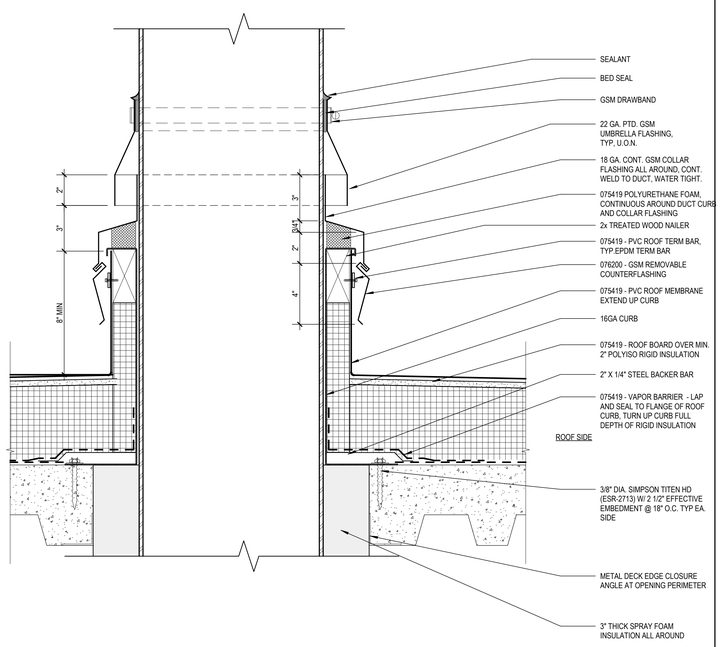
28 PLAN DETAIL - ROOF SCREEN @ OPENING AND CORNER
SCALE: 1 1/2" = 1'-0"



72 ENLARGED PLAN - SOUTH MECH. SHAFT ENCLOSURE ROOF
SCALE: 1/2" = 1'-0"



55 SECTION DETAIL - DUCT ENCLOSURE @ ROOF
SCALE: 3" = 1'-0"



32 SECTION DETAIL - TYP. VERTICAL DUCT PENETRATION AT ROOF
SCALE: 3" = 1'-0"

Plot Date: 8/23/2025 6:05:06 PM START Sheet

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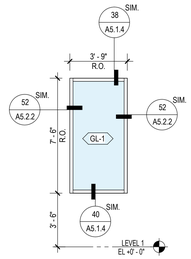
CALIFORNIA

SHEET TITLE
BUILDING 1500 - ROOF DETAILS

PROJECT NUMBER 14794

CD **A5.4.4**

SHEET NUMBER



51 OPENING - C29
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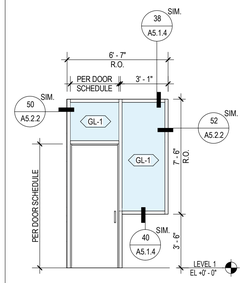

43 OPENING - C28
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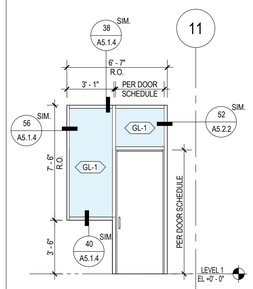

35 OPENING - C27
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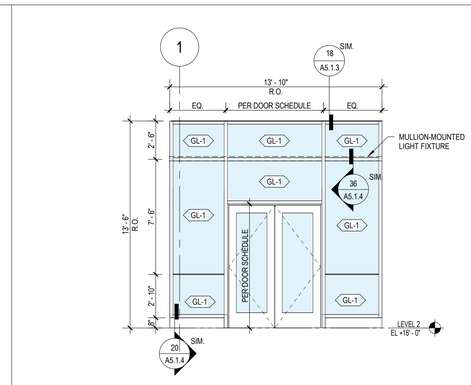
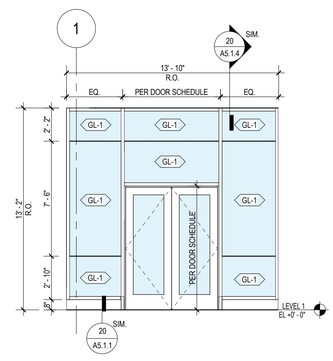
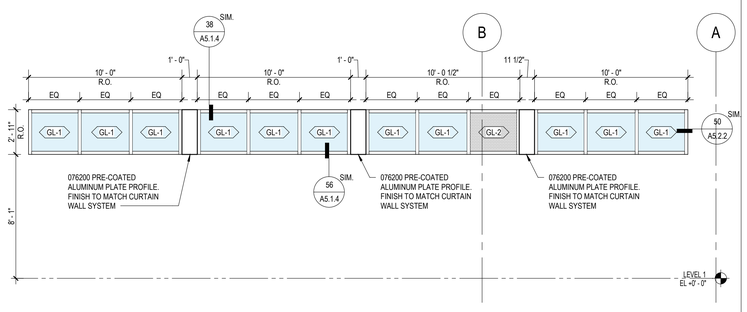


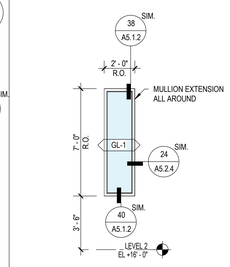
27 CURTAIN WALL - C17
SCALE: 1/4" = 1'-0"



11 CURTAIN WALL - C16
SCALE: 1/4" = 1'-0"



69 OPENING - C26
SCALE: 1/4" = 1'-0"



45 CURTAIN WALL - C22
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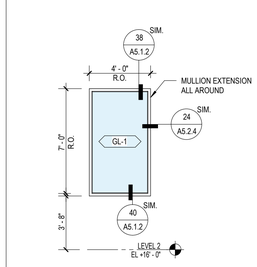

37 CURTAIN WALL - C21
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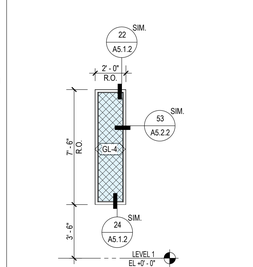
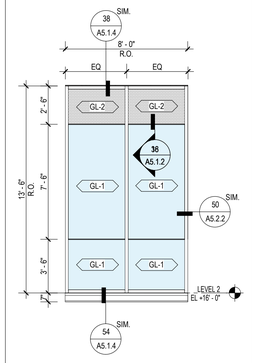
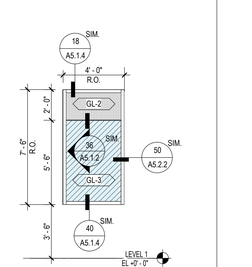


29 CURTAIN WALL - C24
SCALE: 1/4" = 1'-0"



21 CURTAIN WALL - C25
SCALE: 1/4" = 1'-0"



13 CURTAIN WALL - C20
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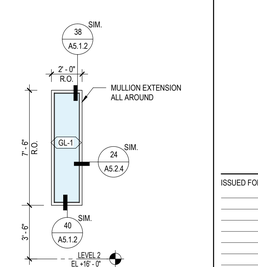
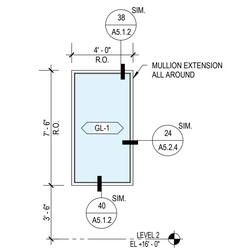
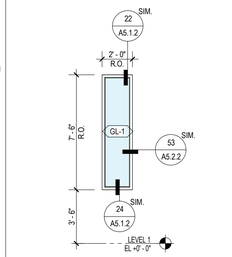


5 CURTAIN WALL - C10
SCALE: 1/4" = 1'-0"



71 CURTAIN WALL C9
SCALE: 1/4" = 1'-0"



63 CURTAIN WALL - C8
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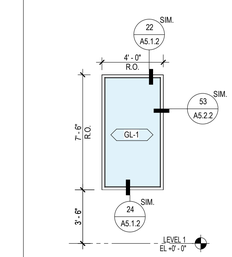
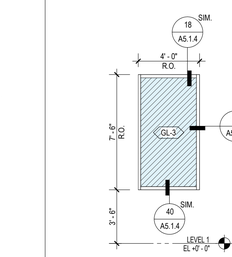
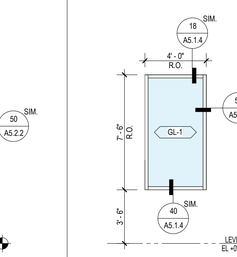


55 CURTAIN WALL - C7
SCALE: 1/4" = 1'-0"



47 CURTAIN WALL - C6
SCALE: 1/4" = 1'-0"



39 CURTAIN WALL - C5
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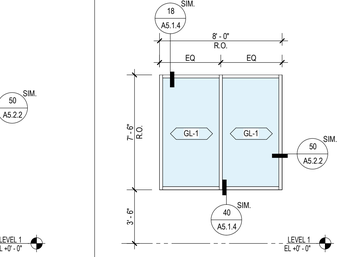

31 CURTAIN WALL - C4
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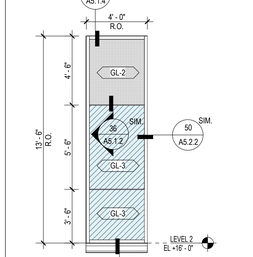
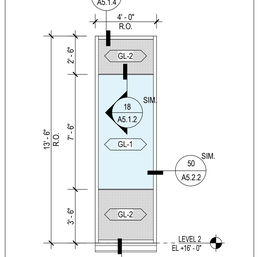
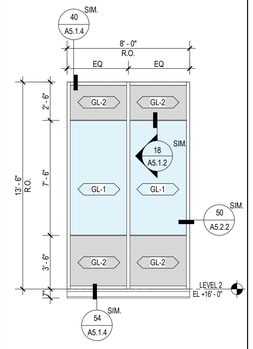


23 CURTAIN WALL - C3
SCALE: 1/4" = 1'-0"



15 CURTAIN WALL - C2
SCALE: 1/4" = 1'-0"



7 CURTAIN WALL - C1
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. SAFETY GLAZING ARE TO BE PROVIDED IN ALL LOCATIONS INDICATED AS PER CBC SECTION 2406.

B. ALL FRIT GLASS ABOVE CEILING LINE SHALL HAVE 2" MINIMUM INSULATION.

C. (SHGC) INDICATES SOLAR HEAT GAIN COEFFICIENCY

GRAPHIC LEGEND

GL-1 EXTERIOR CLEAR GLASS

GL-2 EXTERIOR SPANDREL GLASS

GL-3 EXTERIOR FROSTED GLASS

GL-4 EXTERIOR CLEAR GLASS WITH OPAQUE PRIVACY FILM

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Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 -
EXTERIOR CURTAIN WALL
ELEVATIONS

14794

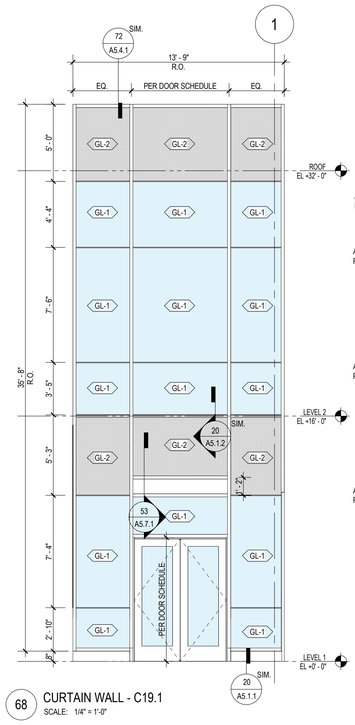
PROJECT NUMBER

CD **A5.5.1**

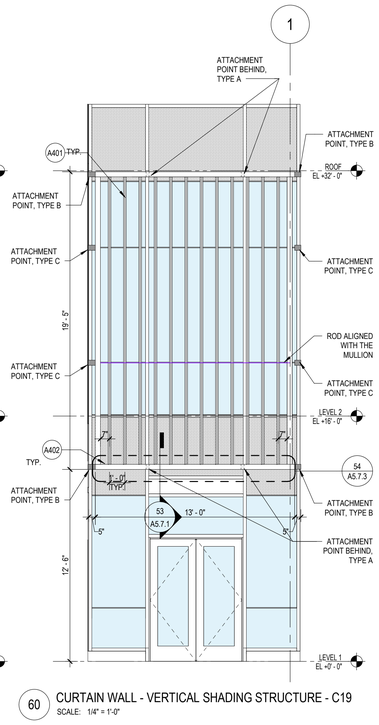
SHEET NUMBER

START Sheet

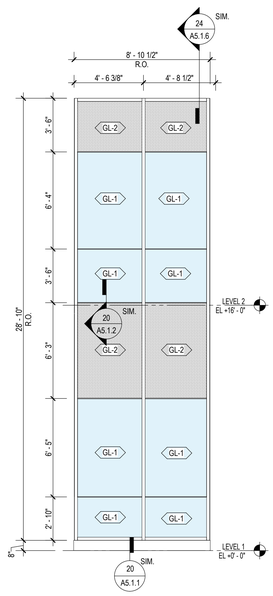
Plot Date: 7/23/2025 4:36:00 PM



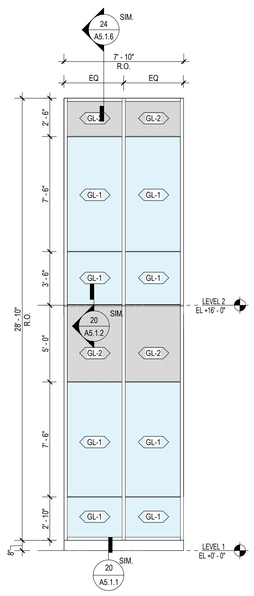
68 CURTAIN WALL - C19.1
SCALE: 1/4" = 1'-0"



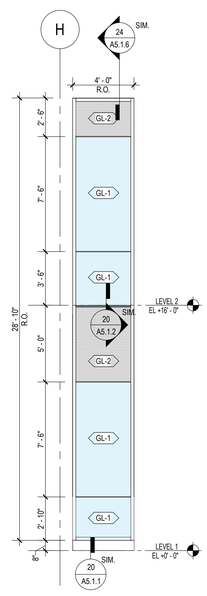
60 CURTAIN WALL - VERTICAL SHADING STRUCTURE - C19
SCALE: 1/4" = 1'-0"



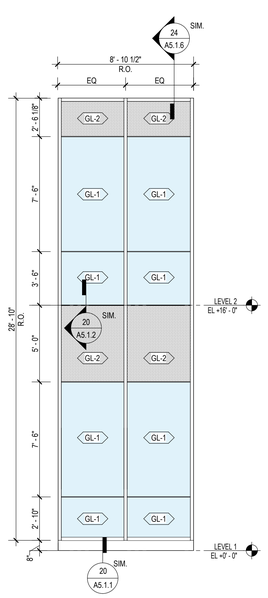
45 CURTAIN WALL - C15
SCALE: 1/4" = 1'-0"



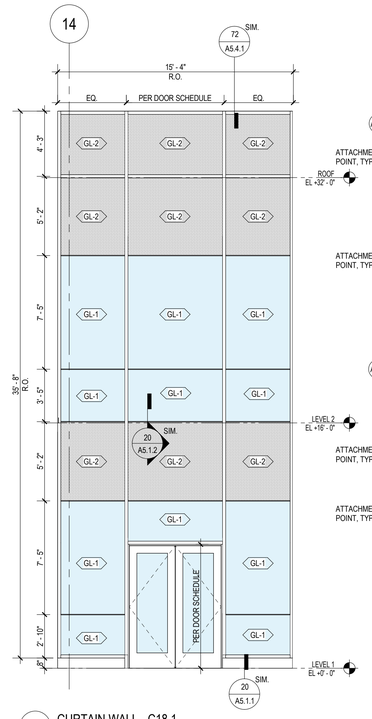
37 CURTAIN WALL - C14
SCALE: 1/4" = 1'-0"



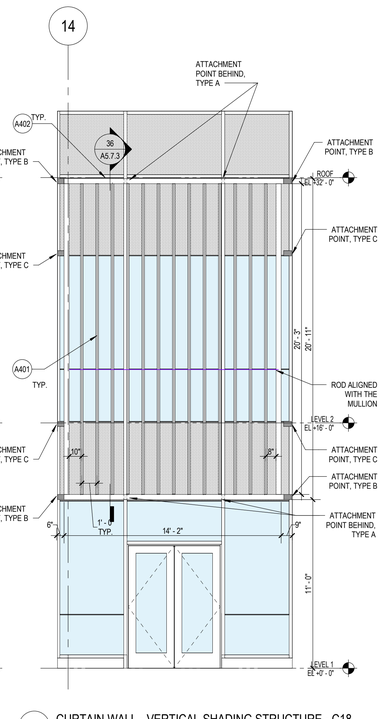
21 CURTAIN WALL - C13
SCALE: 1/4" = 1'-0"



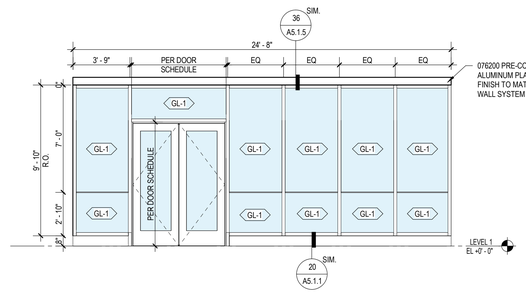
13 CURTAIN WALL - C23
SCALE: 1/4" = 1'-0"



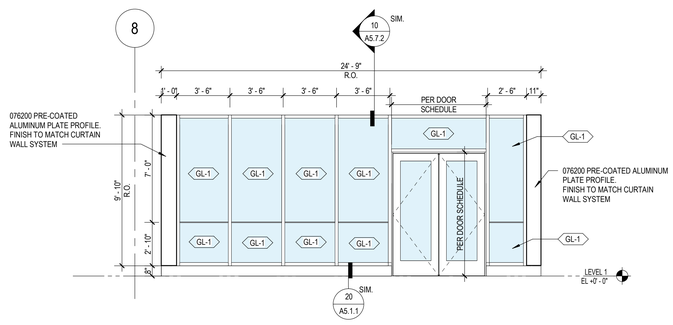
71 CURTAIN WALL - C18.1
SCALE: 1/4" = 1'-0"



63 CURTAIN WALL - VERTICAL SHADING STRUCTURE - C18
SCALE: 1/4" = 1'-0"



47 CURTAIN WALL - C12
SCALE: 1/4" = 1'-0"



23 CURTAIN WALL - C11
SCALE: 1/4" = 1'-0"

SHEET KEYNOTES

GENERAL SHEET NOTES

A. SAFETY GLAZING ARE TO BE PROVIDED IN ALL LOCATIONS INDICATED AS PER CBC SECTION 2406.

B. ALL SPANDREL GLASS ABOVE CEILING LINE SHALL HAVE 2" MINIMUM INSULATION.

C. (SHGC) INDICATES SOLAR HEAT GAIN COEFFICIENCY

GRAPHIC LEGEND

GL-1 EXTERIOR CLEAR GLASS

GL-2 EXTERIOR SPANDREL GLASS

GL-3 EXTERIOR FROSTED GLASS

GL-4 EXTERIOR CLEAR GLASS WITH OPAQUE PRIVACY FILM

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

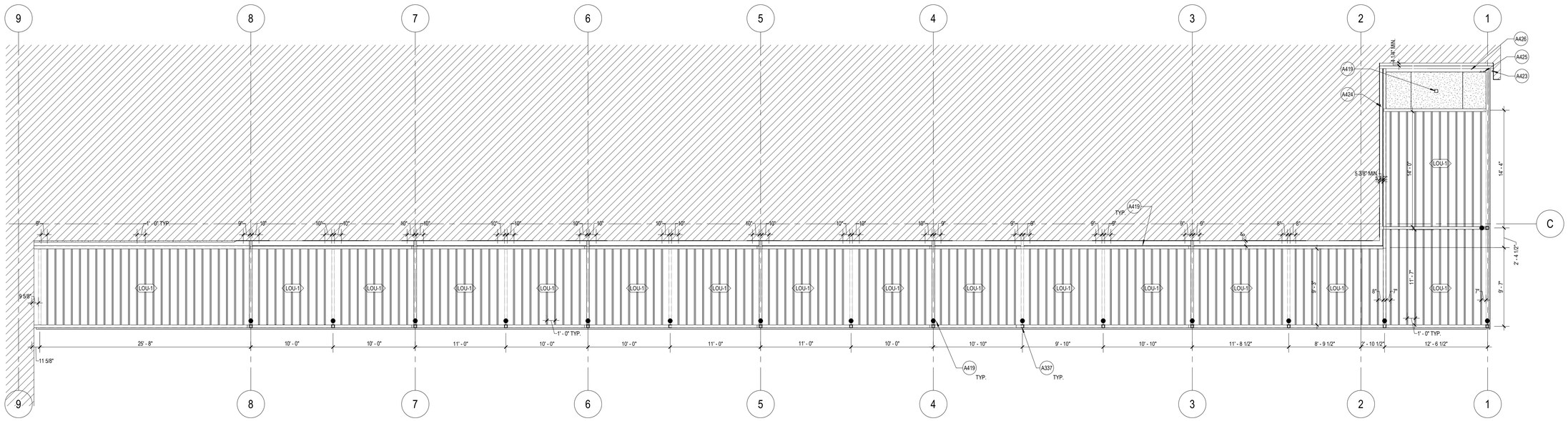
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 -
EXTERIOR CURTAIN WALL
ELEVATIONS

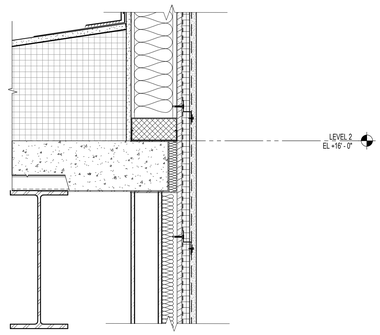
14794
PROJECT NUMBER

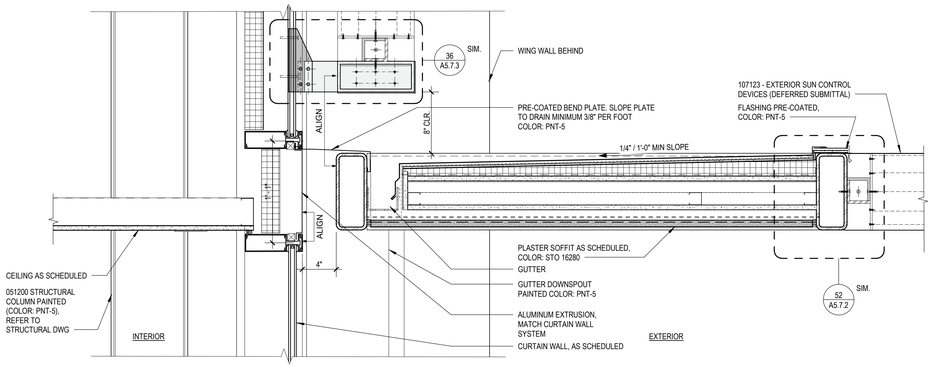
CD
SHEET NUMBER
A5.5.2

START Sheet
Plot Date: 7/23/2025 4:36:13 PM

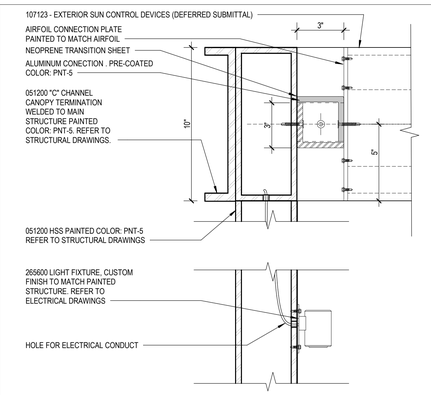


67 ENLARGED PLAN - WEST CANOPY
SCALE: 3/16" = 1'-0"

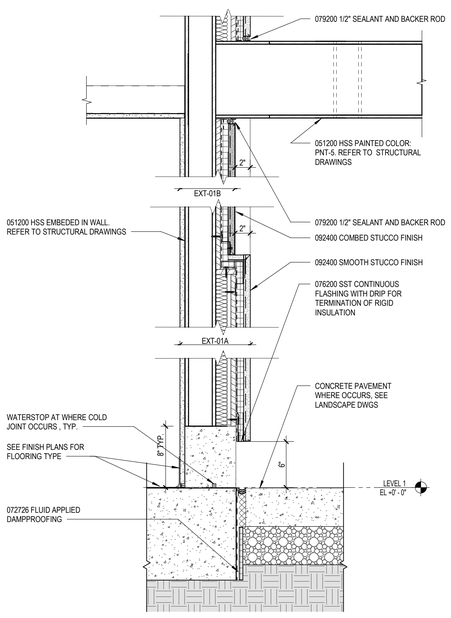




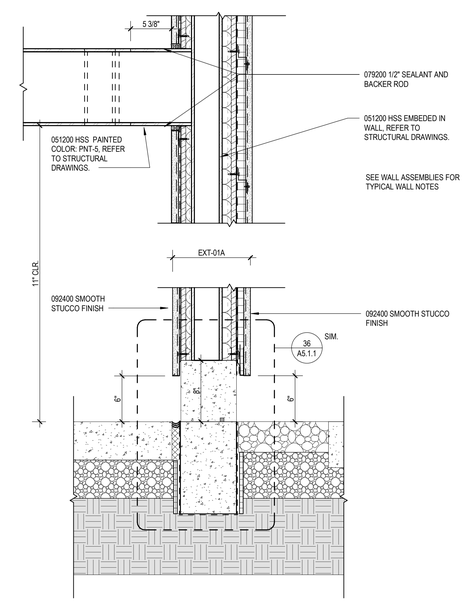
53 SECTION DETAIL - CURTAIN WALL @ CANOPY - SOUTHWEST ENTRY
SCALE: 1 1/2" = 1'-0"



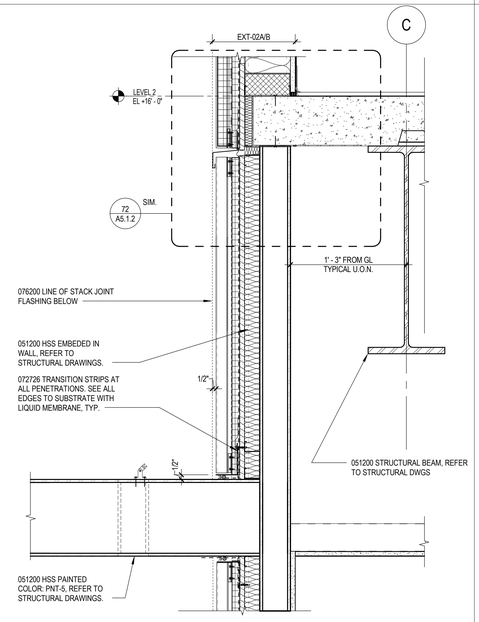
21 SECTION DETAIL - CANOPY POST @ LIGHT FIXTURE & AIRFOIL CONNECTION
SCALE: 3" = 1'-0"



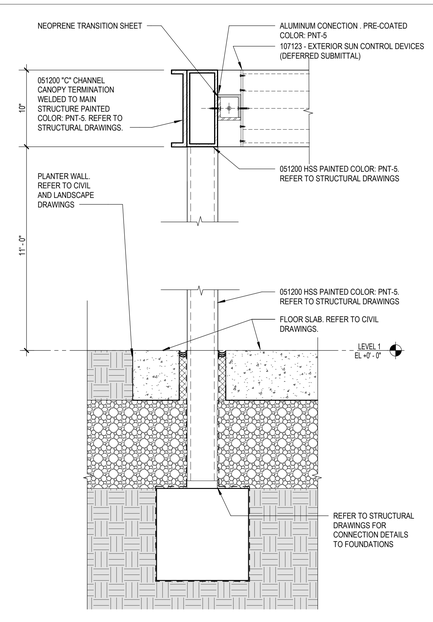
72 SECTION DETAIL @ GRAPHIC DESIGN - SECTION CHANGE AT COMBED STUCCO - EMBEDED COLUMN
SCALE: 1 1/2" = 1'-0"



56 SECTION DETAIL - STUCCO CANOPY PENETRATION @ WING WALL
SCALE: 1 1/2" = 1'-0"



40 SECTION DETAIL - EMBEDED PILAR @ METAL PANEL @ CANOPY CONNECTION
SCALE: 1 1/2" = 1'-0"



24 SECTION DETAIL - CANOPY POST @ CANOPY TERMINATION
SCALE: 1 1/2" = 1'-0"

SHEET KEYNOTES

A337	CANOPY POST.
A419	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A423	CANOPY DOWNSPOUT SURFACE-MOUNTED, PAINTED PNT-5. SEE PLUMBING DRAWINGS
A424	SIDEWALL CONCEALED SPRINKLER, SEE FAFP DRAWINGS
A425	GUTTER OVERFLOW, SEE PLUMBING DRAWINGS
A426	GUTTER SEE PLUMBING DRAWINGS

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PERMIT SET		24JUL2025

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LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - MISC EXTERIOR DETAILS - WEST CANOPY

14794
PROJECT NUMBER

CD
SHEET NUMBER
A5.7.1

START Sheet
7/23/2025 4:36:31 PM
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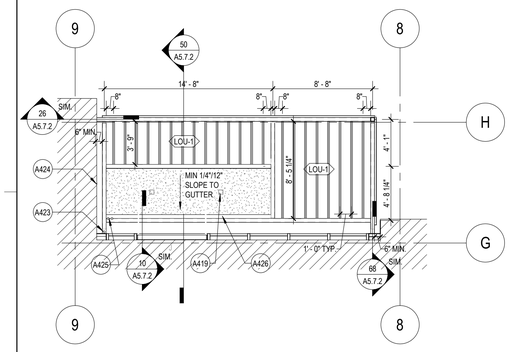
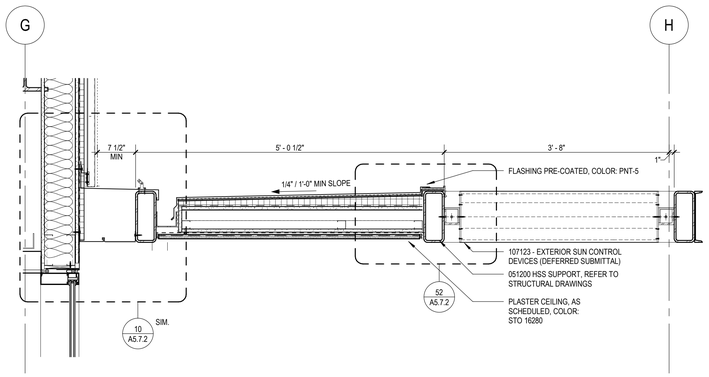


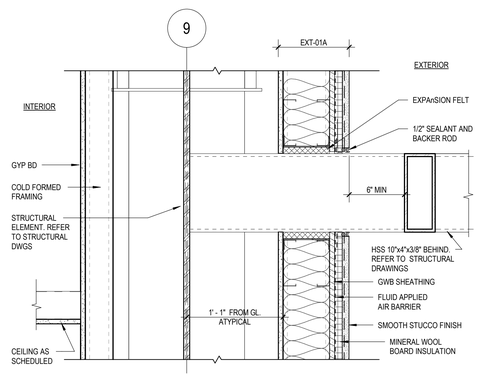
66 ENLARGED REFLECTED CEILING PLAN - EAST CANOPY

SCALE: 3/16" = 1'-0"



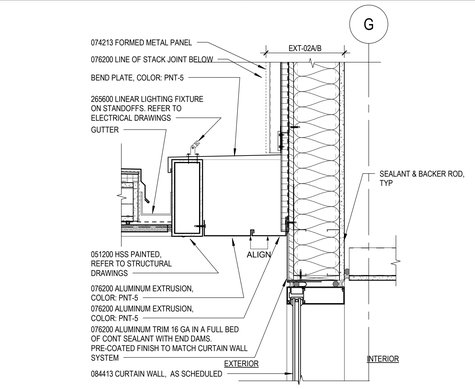
50 SECTION DETAIL - EAST ENTRY @ METAL PANEL @ CANOPY

SCALE: 1" = 1'-0"



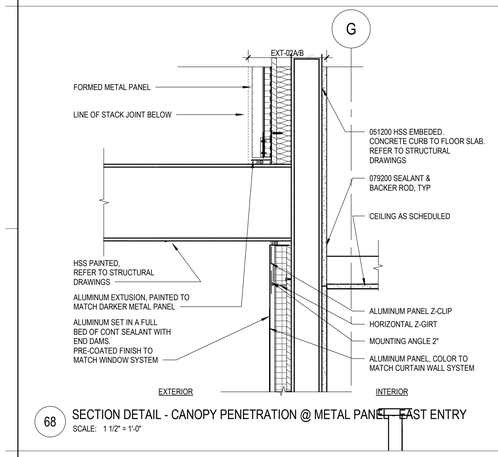
26 SECTION DETAIL - EAST CANOPY @ STUCCO PENETRATION

SCALE: 1 1/2" = 1'-0"



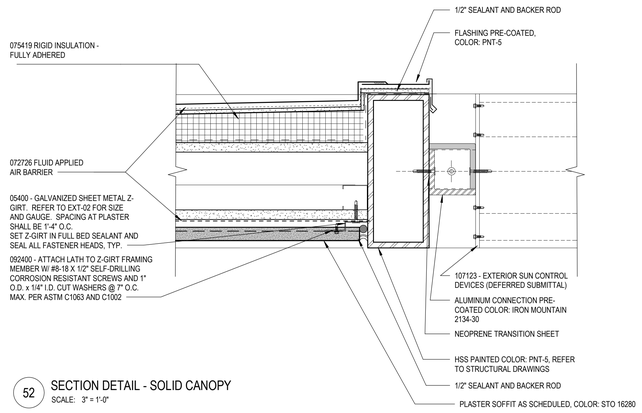
10 SECTION DETAIL - CANOPY @ METAL PANEL - EAST ENTRY

SCALE: 1 1/2" = 1'-0"



68 SECTION DETAIL - CANOPY PENETRATION @ METAL PANEL - EAST ENTRY

SCALE: 1 1/2" = 1'-0"



52 SECTION DETAIL - SOLID CANOPY

SCALE: 3" = 1'-0"

SHEET KEYNOTES

A419	LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS.
A423	CANOPY DOWNSPOUT SURFACE-MOUNTED, PAINTED PNT-5. SEE PLUMBING DRAWINGS
A424	SIDEWALL CONCEALED SPRINKLER, SEE FAFP DRAWINGS
A425	GUTTER OVERFLOW, SEE PLUMBING DRAWINGS
A426	GUTTER SEE PLUMBING DRAWINGS

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - MISC EXTERIOR DETAILS - EAST CANOPY

14794

PROJECT NUMBER

CD

A5.7.2

SHEET NUMBER

START Sheet

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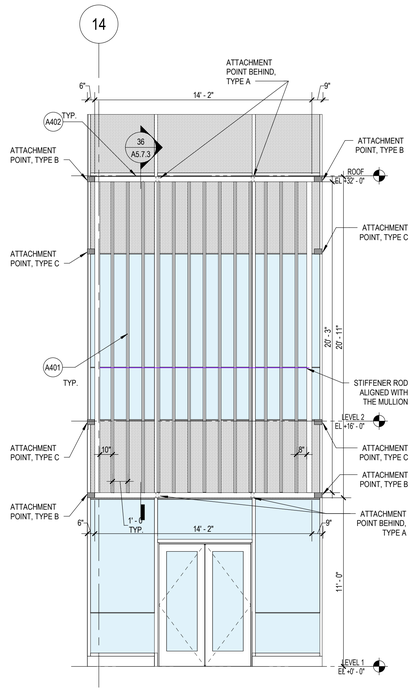

68 CURTAIN WALL - VERTICAL SHADING STRUCTURE - C18
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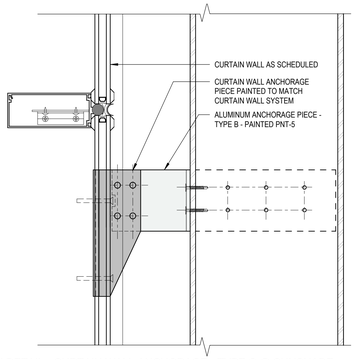
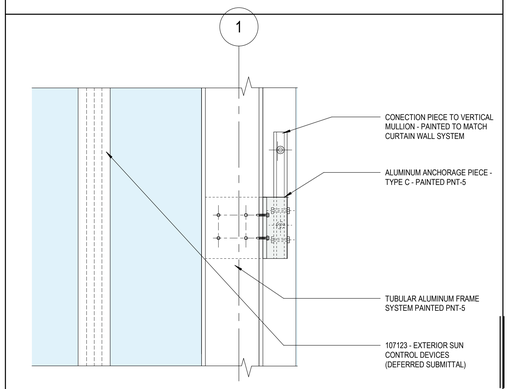
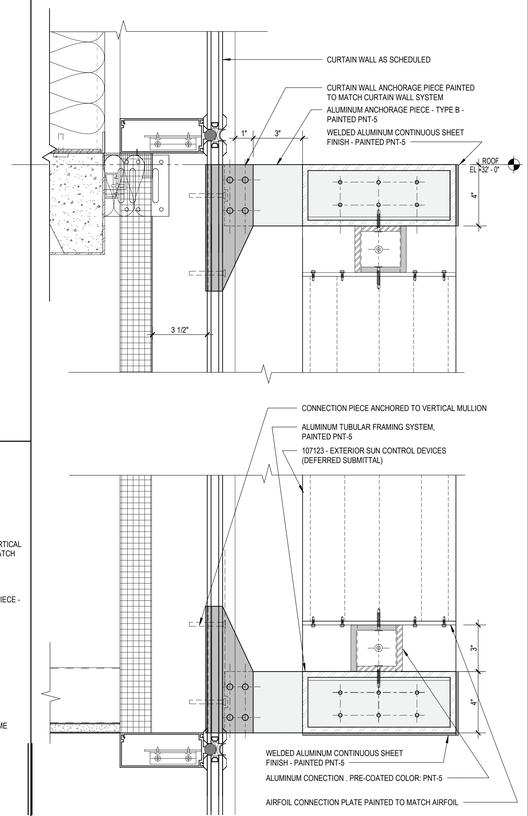


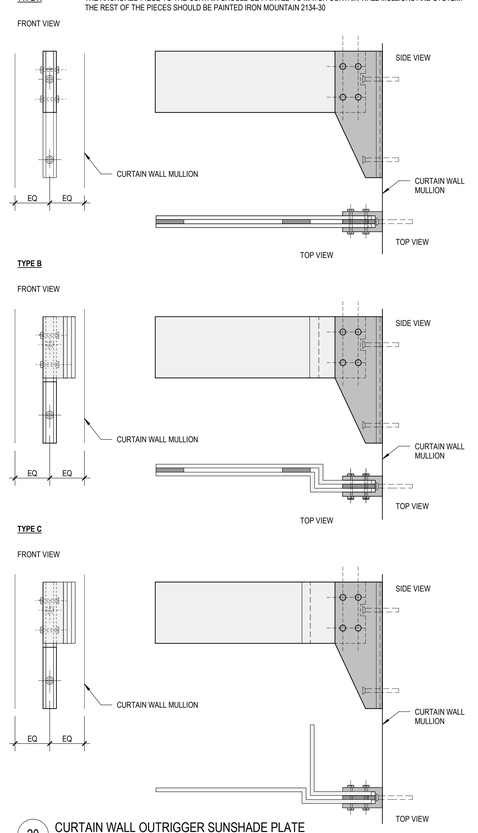
50 SECTION DETAIL - CURTAIN WALL ANCHORAGE - TYPE C @ SUNSHADE SYSTEM
SCALE: 3" = 1'-0"



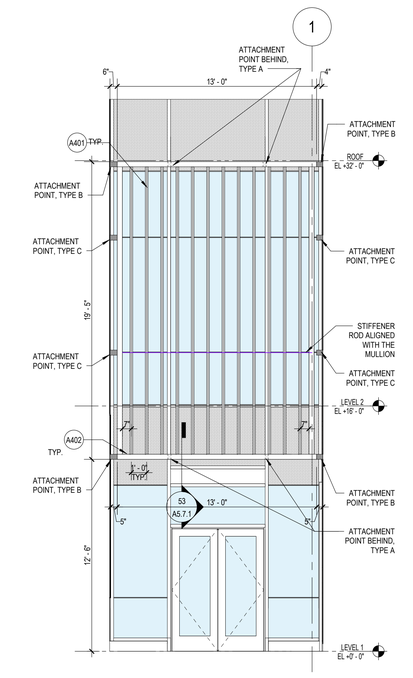
52 SECTION DETAIL - CURTAIN WALL ANCHORAGE - TYPE C @ SUNSHADE SYSTEM - FRAME
SCALE: 3" = 1'-0"



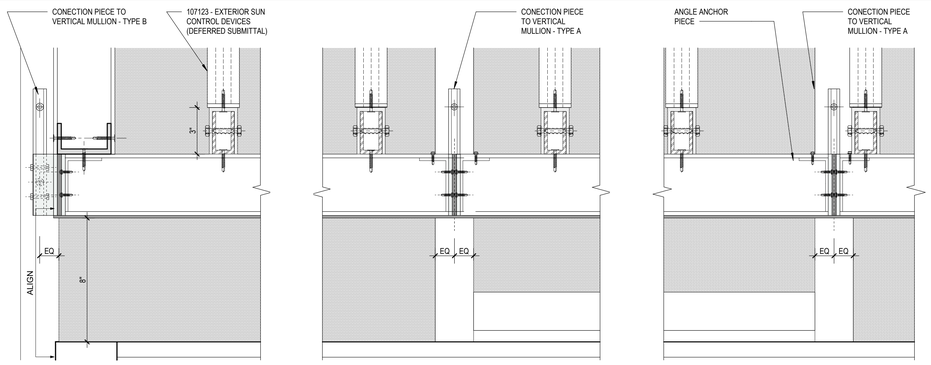
36 SECTION DETAIL - CURTAIN WALL ANCHORAGE - TYPE B @ SUNSHADE SYSTEM
SCALE: 3" = 1'-0"



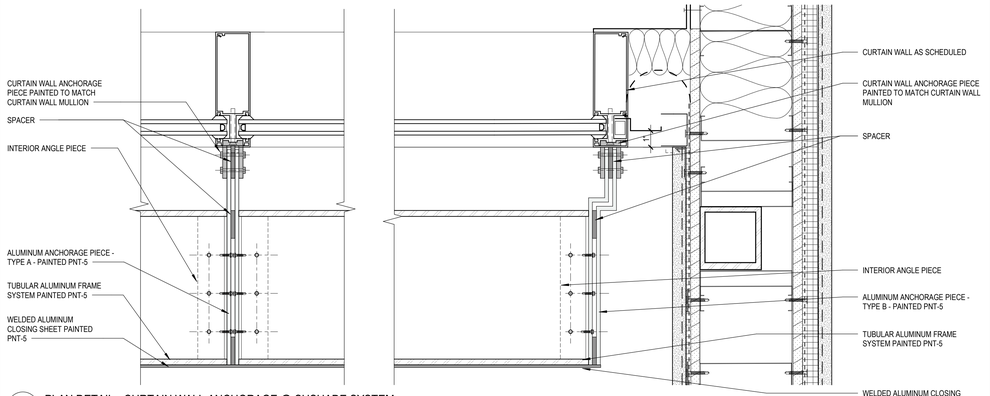
20 CURTAIN WALL OUTRIGGER SUNSHADE PLATE
SCALE: 3" = 1'-0"



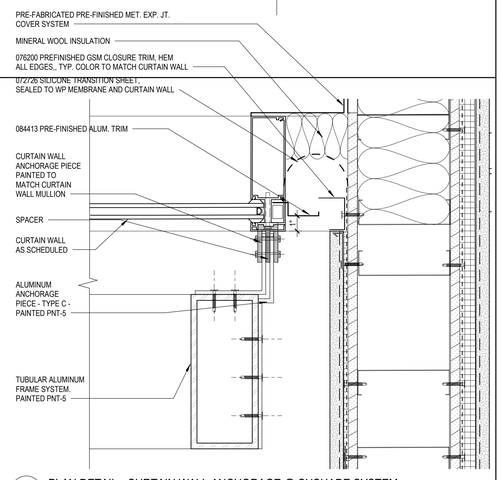
72 CURTAIN WALL - VERTICAL SHADING STRUCTURE - C19
SCALE: 1/4" = 1'-0"



54 SECTION DETAIL - CURTAIN WALL ANCHORAGE @ SUNSHADE SYSTEM - FRAME
SCALE: 3" = 1'-0"



56 PLAN DETAIL - CURTAIN WALL ANCHORAGE @ SUSHADE SYSTEM
SCALE: 3" = 1'-0"



24 PLAN DETAIL - CURTAIN WALL ANCHORAGE @ SUSHADE SYSTEM
SCALE: 3" = 1'-0"

Plot Date: 7/23/2025 4:36:57 PM START Sheet

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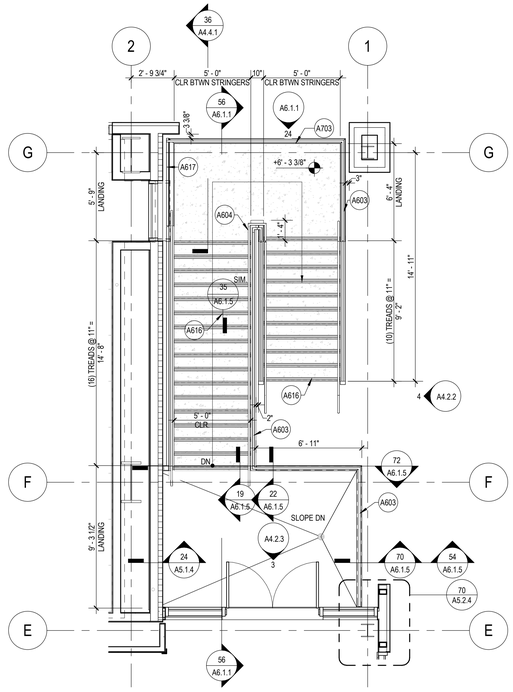
STATE OF CALIFORNIA

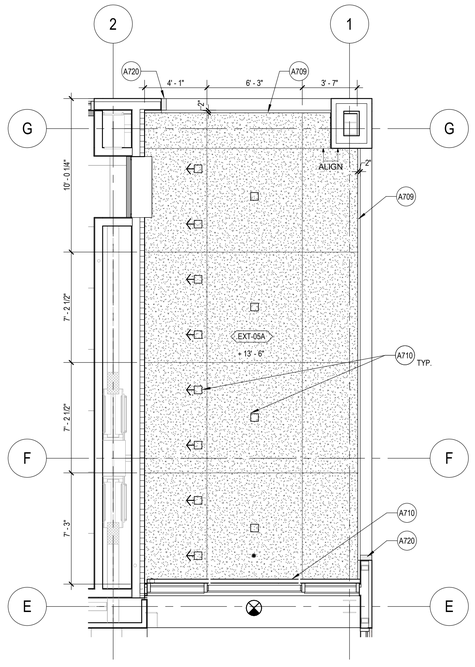
SHEET TITLE
BUILDING 1500 - MISC EXTERIOR DETAILS - VERTICAL SHADING STRUCTURES

14794
PROJECT NUMBER

CD
SHEET NUMBER
A5.7.3



68 ENLARGED PLAN - STAIR 1 LEVEL 2
SCALE: 1/4" = 1'-0"



52 ENLARGED REFLECTED CEILING PLAN - STAIR 1 LEVEL 2
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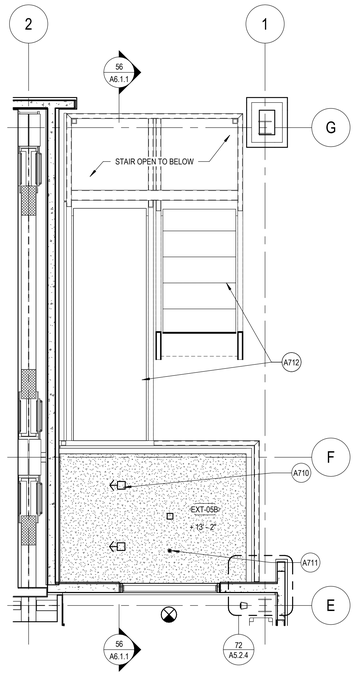
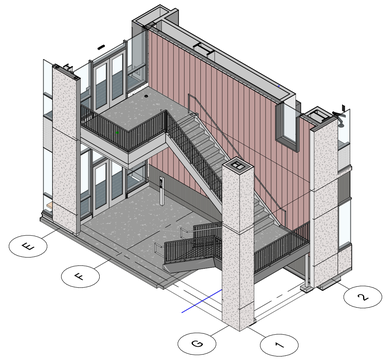
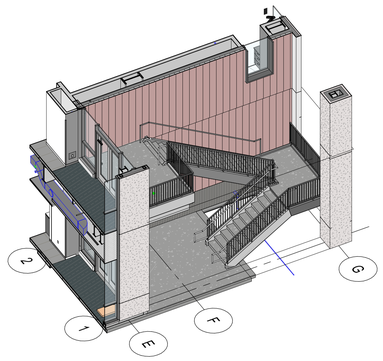


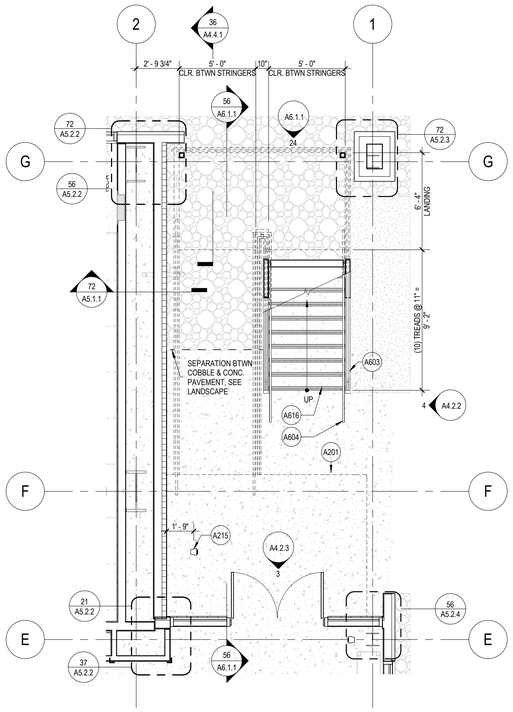
36 ENLARGED RCP - STAIR 1 SOFFIT ON LEVEL 1
SCALE: 1/4" = 1'-0"



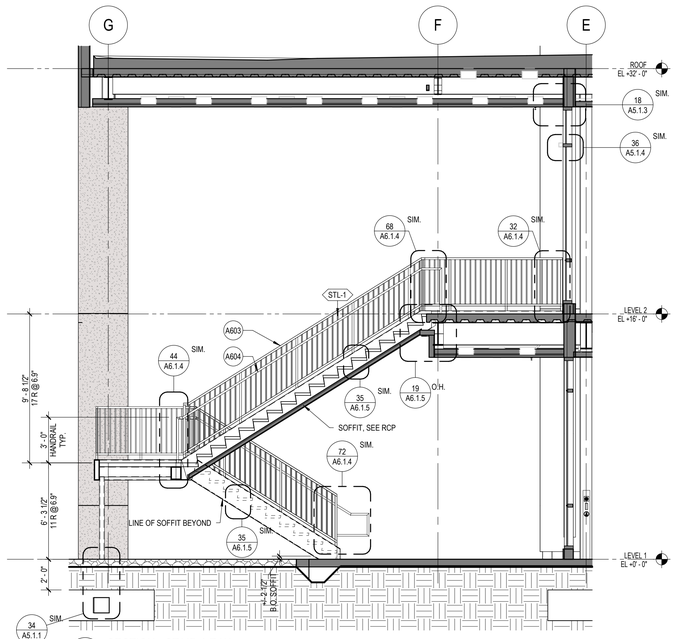
18 AXON 1 - STAIR 1
SCALE: NOT TO SCALE



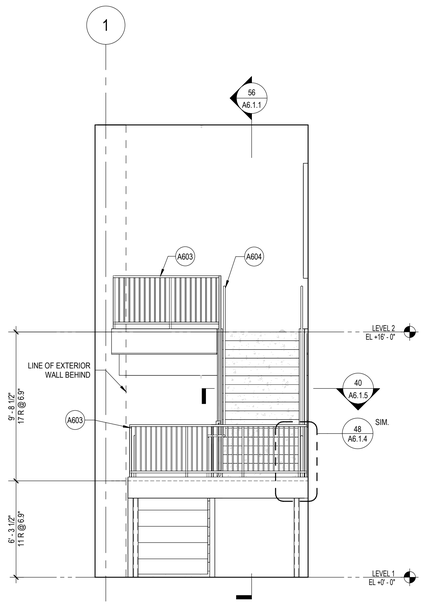
20 AXON 2 - STAIR 1
SCALE: NOT TO SCALE



72 ENLARGED PLAN - STAIR 1 - LEVEL 1
SCALE: 1/4" = 1'-0"



56 SECTION - STAIR 1 E-W
SCALE: 1/4" = 1'-0"



24 ELEVATION - STAIR 1 EAST
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A!2.1.X FOR FINISHES

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A201 LINE OF SOFFIT ABOVE.
A215 BOLLARD POST WITH INTEGRATED CARD READER AND SURFACE MOUNTED VERTICAL AUTO-DOOR ACTUATOR, MOUNTING REQUIREMENTS PER A0.0.2
A603 GUARDRAIL TUBE 1 1/2" SQR. W/ 3/4" SQR. VERTICAL - PICKET BALUSTERS. PAINTED PNT-5
A604 RAILING - CIRCULAR 1.5" PIPE W/ EXTENSION TO FLOOR AT TOP AND POST AT BOTTOM. PAINTED PNT-5
A616 PROVIDE 2" MIN & 4" MAX PAINTED CONTRASTING STRIPE, PLACED PARALLEL TO, AND 1/2 INCH FROM, THE NOSE OF ALL TREADS AS SHOWN, COMPLYING WITH CBC 11B-504.4.1
A617 CONTINUOUS STEEL ANGLE FASTENED TO THREADED RODS, SEE STRUCTURE DWG. PAINTED PNT-5
A703 EXTEND STRINGER TO ATTACH TO COLUMNS ON GRIDLINE G. REFER TO STRUCTURAL DRAWINGS.
A709 ALUMINUM TRIM REVEAL. PRE-COATED TO MATCH PLASTER SOFFIT
A710 LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS. PAINTED TO MATCH CURTAIN WALL SYSTEM
A711 FIRE SPRINKLER. REFER TO FPEA DRAWINGS
A712 ALUMINUM CLOSING SHEET PRE-COATED TO MATCH STAIR STRINGERS/PAINTED PNT-5 W/ REVEAL AND EXPOSED FASTENERS
A720 4" EXPANSION SEISMIC JOINT COVER MATCH ADJACENT STUCCO COLOR ATTACHED TO THERMAL SPACER WITH 1/4"/20 SST SCREWS

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - STAIR 1
PLANS AND SECTIONS

14794

PROJECT NUMBER
CD

A6.1.1

SHEET NUMBER

START Sheet
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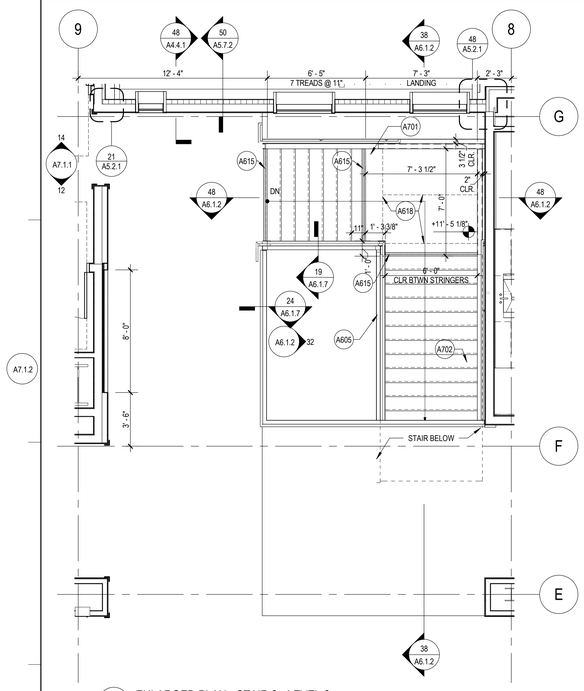
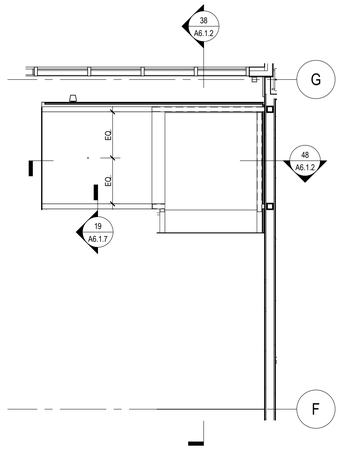
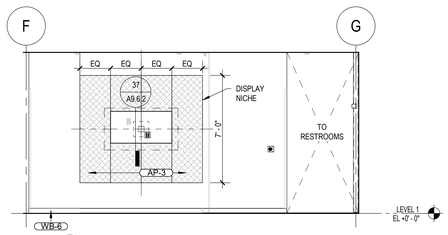


68 ENLARGED PLAN - STAIR 2 - LEVEL 2
SCALE: 1/4" = 1'-0"



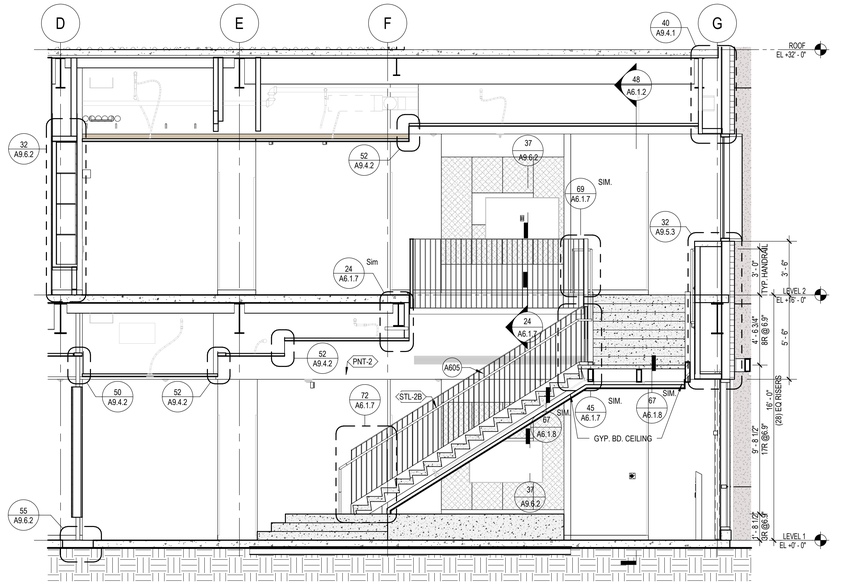
51 ENLARGED RCP - STAIR 2 SOFFIT ON LEVEL 1
SCALE: 1/4" = 1'-0"



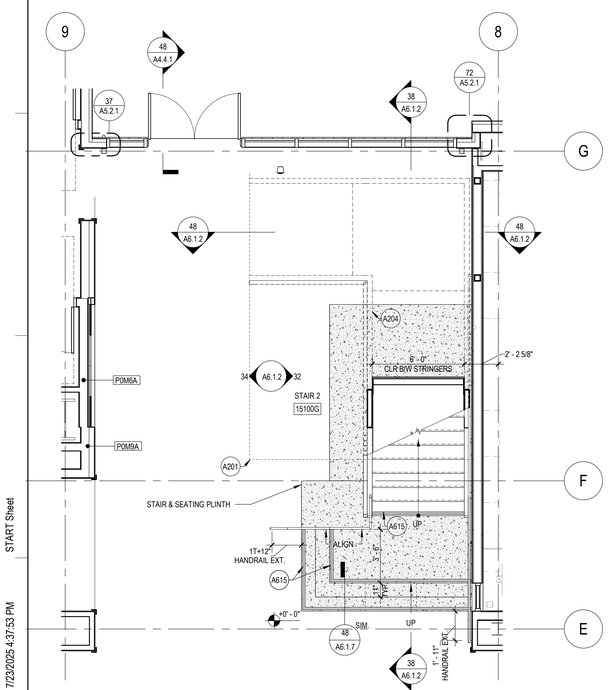
34 INT. ELEVATION - STAIR 2 N
SCALE: 1/4" = 1'-0"



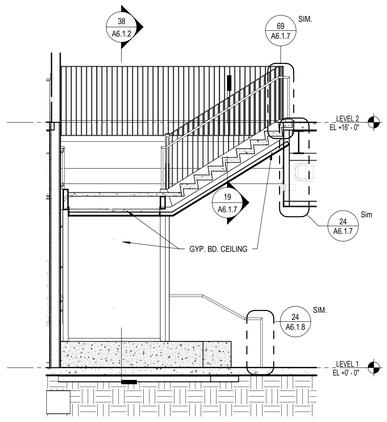
18 3D VIEW - STAIR 2 W
SCALE:



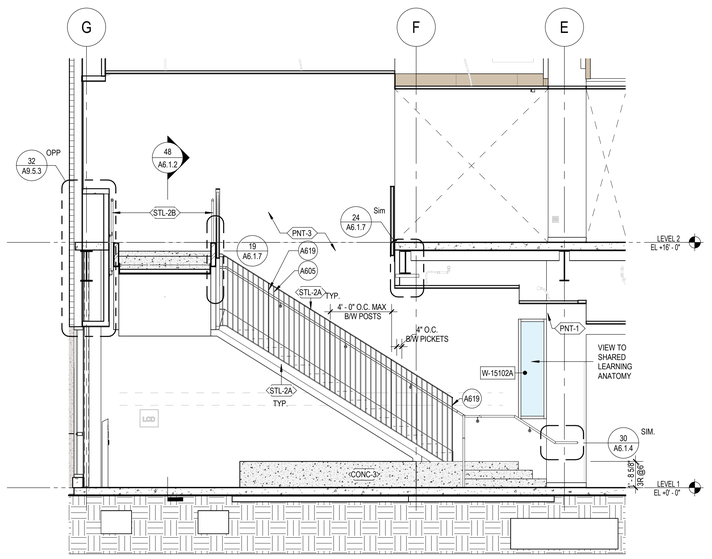
38 SECTION - STAIR 2 E-W
SCALE: 1/4" = 1'-0"



72 ENLARGED PLAN - STAIR 2 - LEVEL 1
SCALE: 1/4" = 1'-0"



48 SECTION - STAIR 2 N-S
SCALE: 1/4" = 1'-0"



32 INT. ELEVATION - STAIR 2 S
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A201	LINE OF SOFFIT ABOVE.
A204	LINE OF STAIR ABOVE.
A605	PAINTED PICKET METAL GUARDRAILS
A615	PROVIDE 2" MIN & 4" MAX CONTRASTING STRIPE PLACED PARALLEL TO, AND 1/2 INCH FROM, THE NOSE OF TOP & BOTTOM TREADS AS SHOWN, COMPLYING WITH CBC 11B-504.4.1
A618	JOINT LINE OF PRECAST CONC. TILES
A619	PAINTED STEEL POST 3"X1/2", TYP.
A701	PRE-CAST CONCRETE INTERMEDIATE LANDING
A702	PRE-CAST CONCRETE STAIR TREADS AND RISERS

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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - STAIR 2
PLANS AND SECTIONS

14794

PROJECT NUMBER

CD **A6.1.2**

SHEET NUMBER

START Sheet

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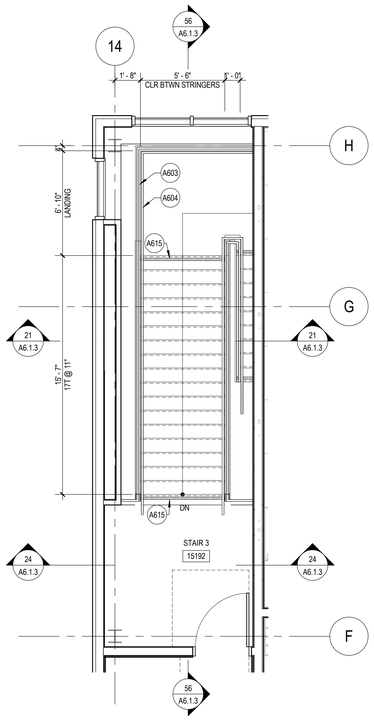
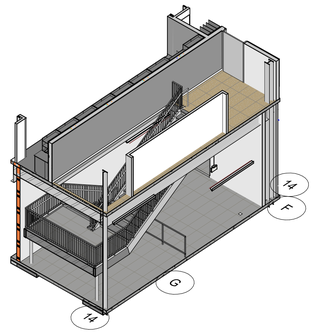


69 ENLARGED PLAN - STAIR 3 - LEVEL 2
SCALE: 1/4" = 1'-0"



51 AXON - STAIR 3
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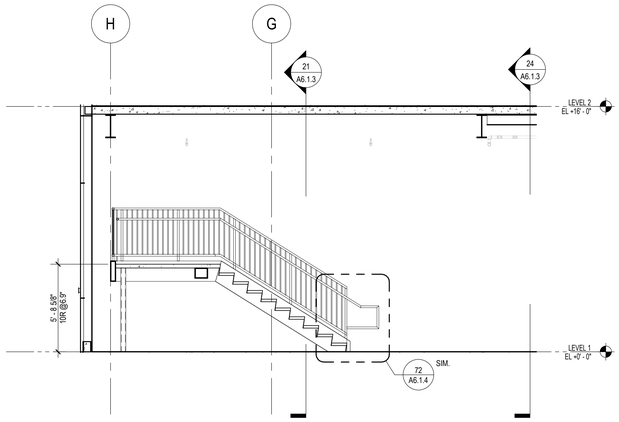
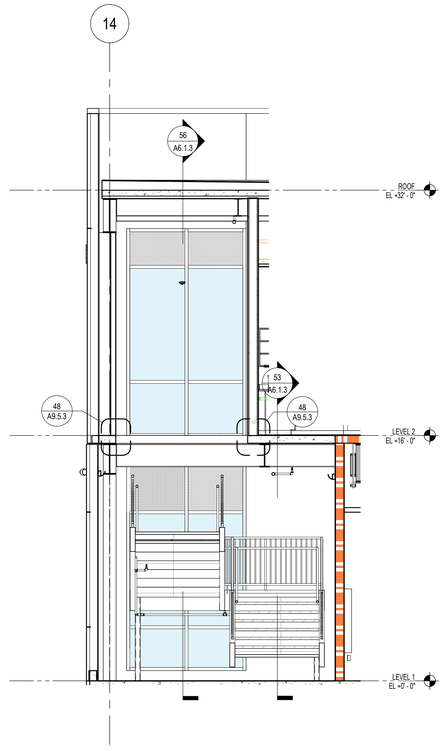
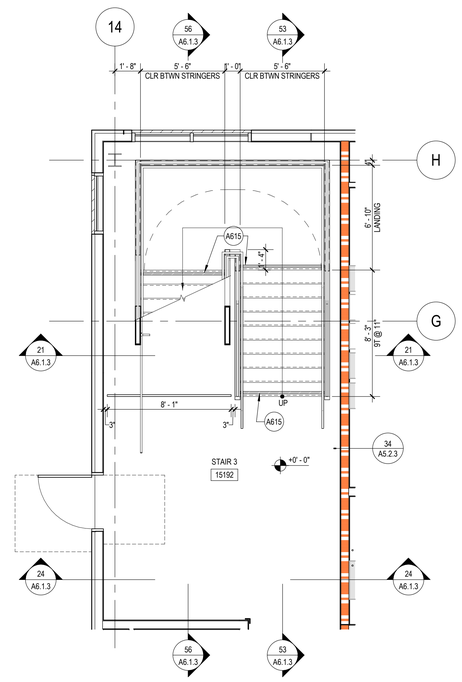


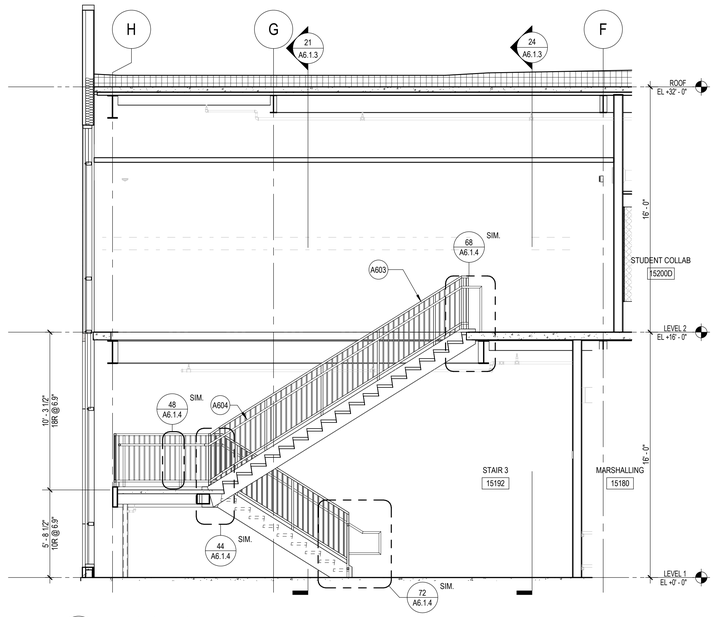
53 STAIR 3 - SECTION 2
SCALE: 1/4" = 1'-0"



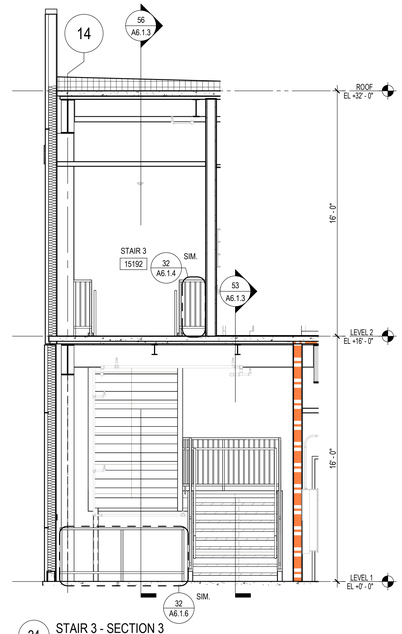
21 STAIR 3 - SECTION 4
SCALE: 1/4" = 1'-0"



72 ENLARGED PLAN - STAIR 3 - LEVEL 1
SCALE: 1/4" = 1'-0"



56 STAIR 3 - SECTION 1
SCALE: 1/4" = 1'-0"



24 STAIR 3 - SECTION 3
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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K. REFER TO A\2.1.X FOR FINISHES

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A603	GUARDRAIL TUBE 1 1/2" SQR. W/ 3/4" SQR. VERTICAL - PICKET BALUSTERS. PAINTED PNT-5
A604	RAILING - CIRCULAR 1.5" PIPE W/ EXTENSION TO FLOOR AT TOP AND POST AT BOTTOM. PAINTED PNT-5
A615	PROVIDE 2" MIN & 4" MAX CONTRASTING STRIPE PLACED PARALLEL TO, AND 1/2 INCH FROM, THE NOSE OF TOP & BOTTOM TREADS AS SHOWN, COMPLYING WITH CBC 11B-504.4.1

LAS POSITAS COLLEGE

INCREMENT II -
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - STAIR 3
PLANS AND SECTIONS

14794

PROJECT NUMBER
CD

A6.1.3
SHEET NUMBER

START Sheet
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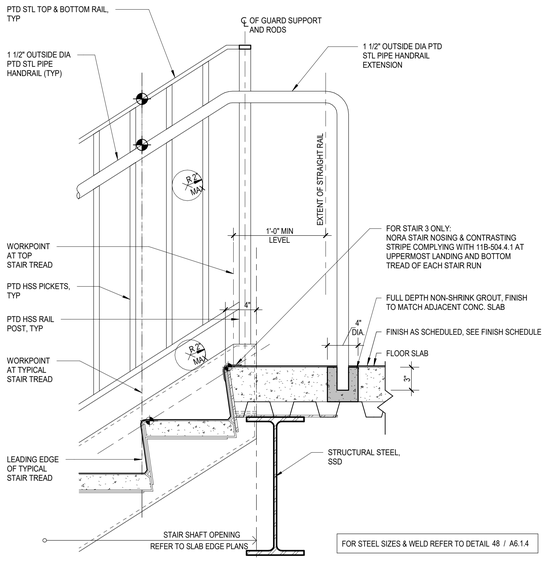
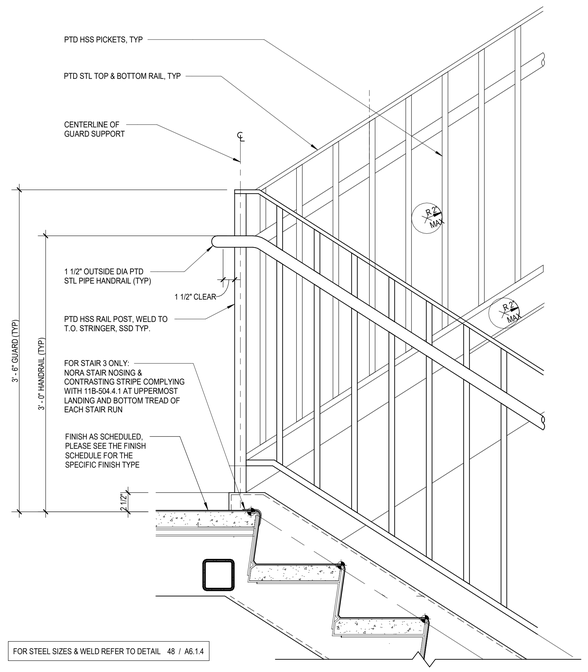
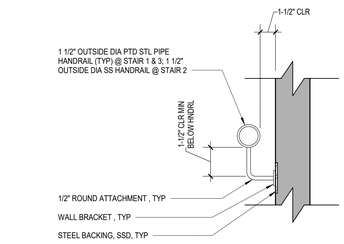


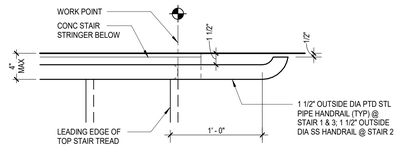
68 STAIR 1 & 3 GUARD & HANDRAIL DETAIL AT TOP FLOOR LANDING
SCALE: 1 1/2" = 1'-0"



44 STAIR 1 & 3 DETAIL AT MID LANDING
SCALE: 1 1/2" = 1'-0"



18 STAIR HANDRAIL WALL MOUNTED DETAIL
SCALE: 1 1/2" = 1'-0"



19 TYPICAL HANDRAIL PLAN DET @ WALL AT TOP OF STAIRS
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

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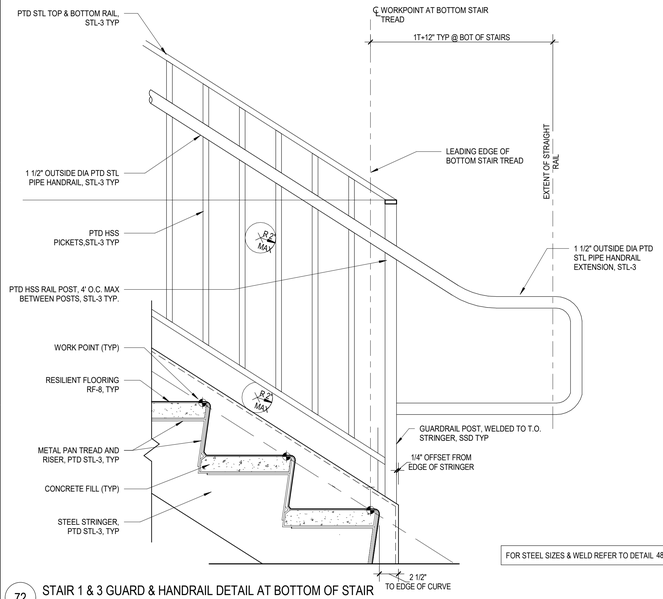
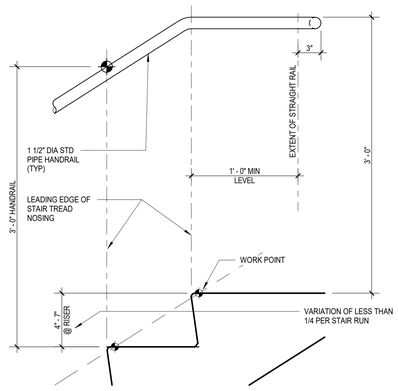
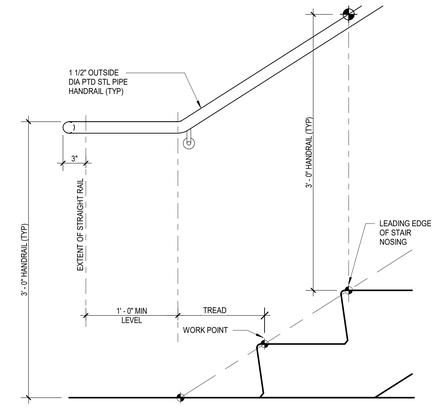


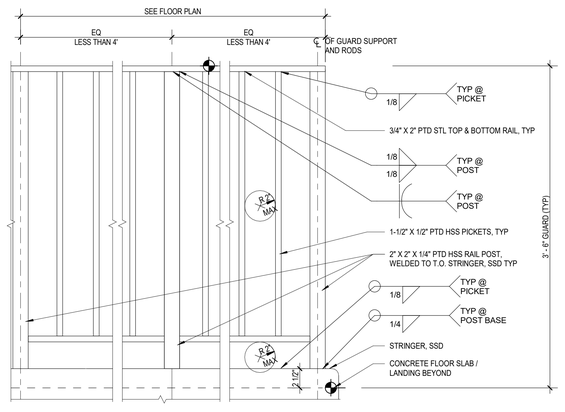
72 STAIR 1 & 3 GUARD & HANDRAIL DETAIL AT BOTTOM OF STAIR
SCALE: 1 1/2" = 1'-0"



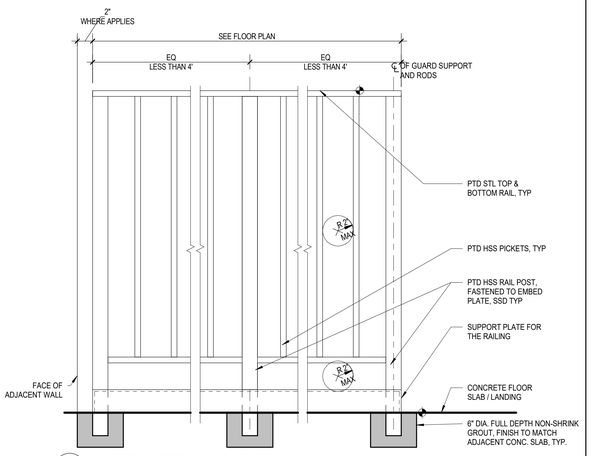
46 TYPICAL HANDRAIL DETAIL @ WALL AT TOP OF STAIRS
SCALE: 1 1/2" = 1'-0"



30 TYPICAL HANDRAIL DETAIL @ WALL AT BOTTOM OF STAIRS
SCALE: 1 1/2" = 1'-0"



48 GUARD AT LAND. OF STAIR 1 & 3 - ON STRINGER
SCALE: 1 1/2" = 1'-0"



32 GUARDRAIL AT TOP LAND. OF STAIR 3
SCALE: 1 1/2" = 1'-0"

FOR STEEL SIZES & WELD REFER TO DETAIL 48 / A6.1.4

SHEET KEYNOTES

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ISSUED FOR	REV NO.	DATE
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Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - TYPICAL STAIR 1 & 3 DETAILS

14794

PROJECT NUMBER

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A6.1.4

SHEET NUMBER

START Sheet
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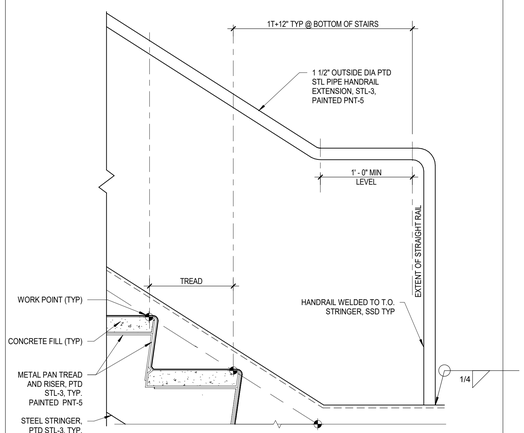
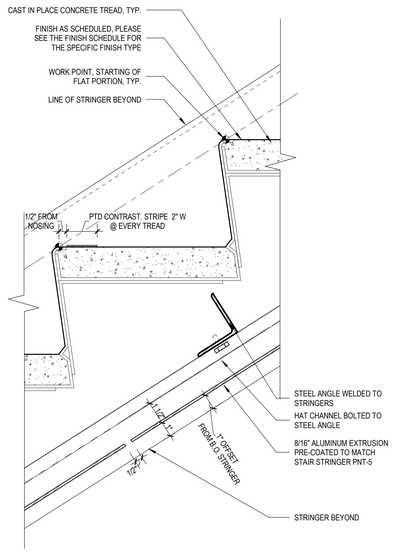
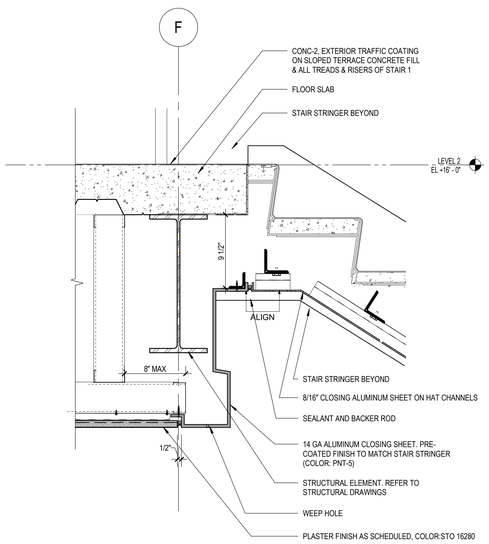


51 STAIR 1 GUARDRAIL DETAIL AT MID. LANDING
SCALE: 1 1/2" = 1'-0"



35 SECTION DETAIL - OPEN CAST IN PLACE STAIR TREAD @ STAIR 1
SCALE: 3" = 1'-0"



19 SECTION DETAIL - TERRACE @ STRINGER - STAIR 1
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A!2.1.X FOR FINISHES

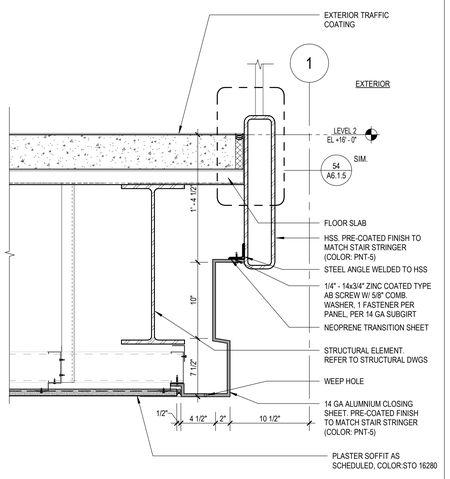
L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

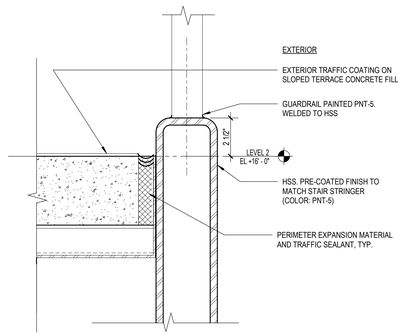
REFERENCE KEYNOTES

SHEET KEYNOTES

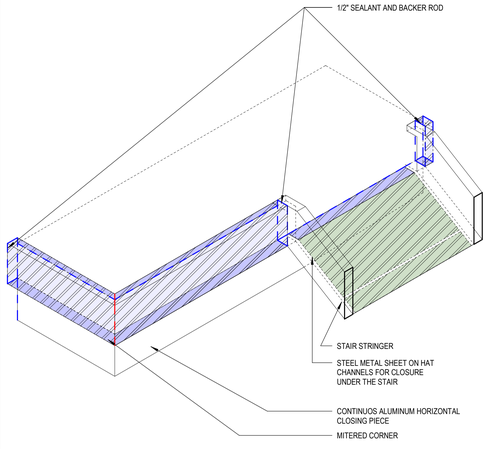
A617 CONTINUOUS STEEL ANGLE FASTENED TO THREADED RODS, SEE STRUCTURE DWG. PAINTED PNT-5



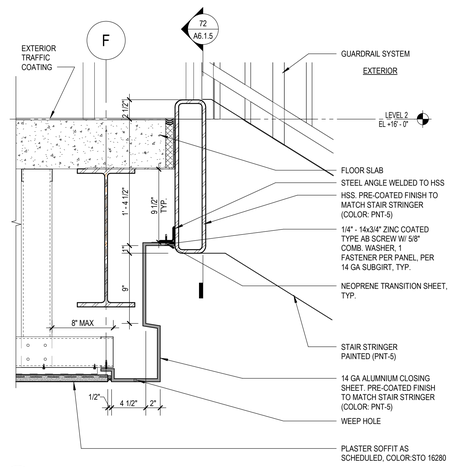
70 SECTION DETAIL - TERRACE - SOUTH ENTRY
SCALE: 1 1/2" = 1'-0"



54 SECTION DETAIL - TERRACE - GUARDRAIL ATTACHMENT
SCALE: 3" = 1'-0"



38 3D AXO - TERRACE @ STAIR 1
SCALE: 1 1/2" = 1'-0"



22 SECTION DETAIL - TERRACE @ STRINGER - SOUTH ENTRY
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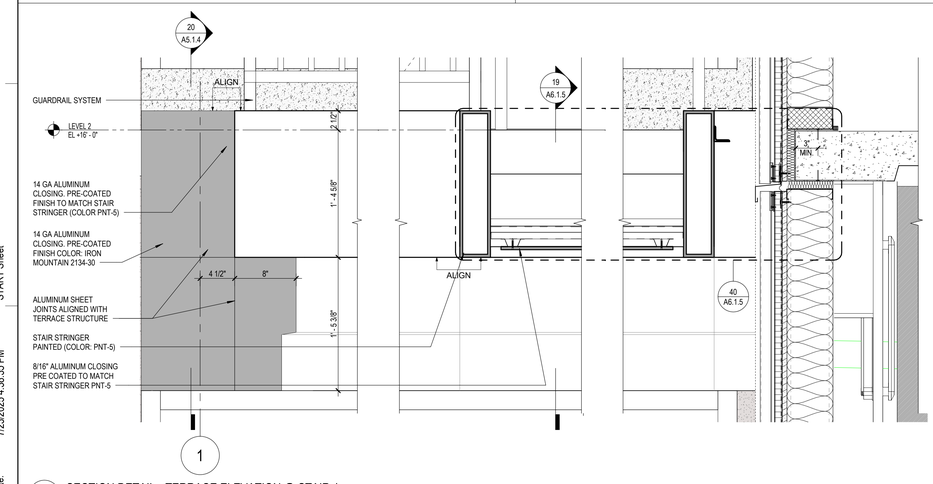
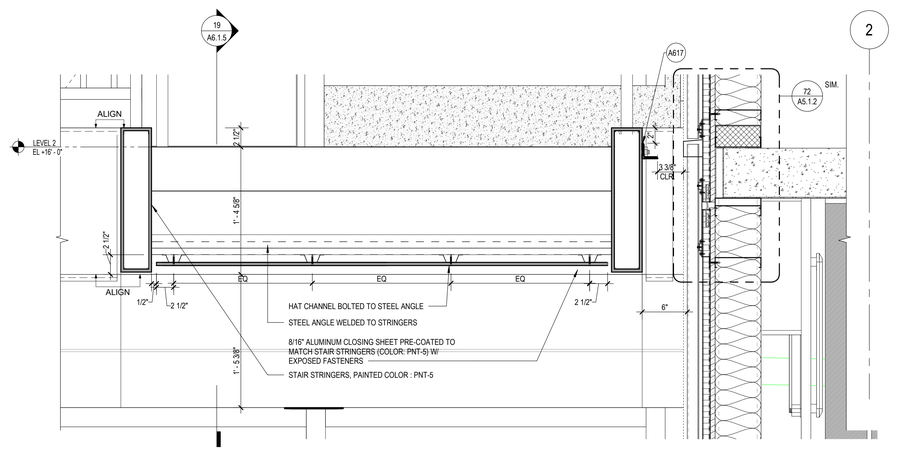


72 SECTION DETAIL - TERRACE ELEVATION @ STAIR 1
SCALE: 1 1/2" = 1'-0"



40 SECTION DETAIL - TERRACE @ STAIR 1
SCALE: 1 1/2" = 1'-0"

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - STAIR 1 DETAILS

14794
PROJECT NUMBER

CD
A6.1.5
SHEET NUMBER

START Sheet
7/23/2025 4:38:35 PM
Plot Date:

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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K. REFER TO A\2.1.X FOR FINISHES

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

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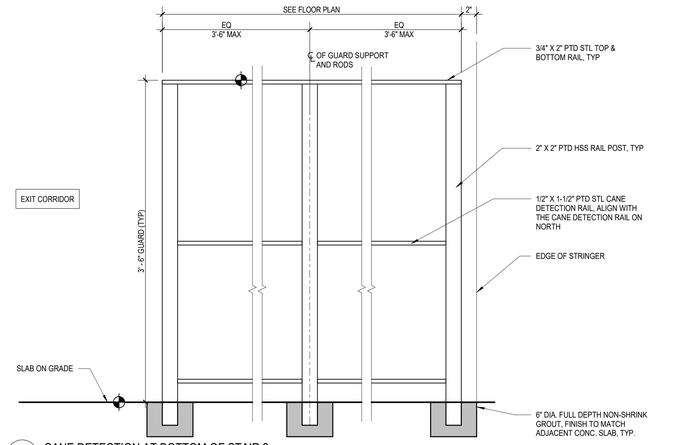
SHEET KEYNOTES



32 CANE DETECTION AT BOTTOM OF STAIR 3
SCALE: 1 1/2" = 1'-0"

FOR WELD REFER TO DETAIL 48 / A6.1.4

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Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - STAIR 3 DETAILS

14794
PROJECT NUMBER

CD **A6.1.6**
SHEET NUMBER

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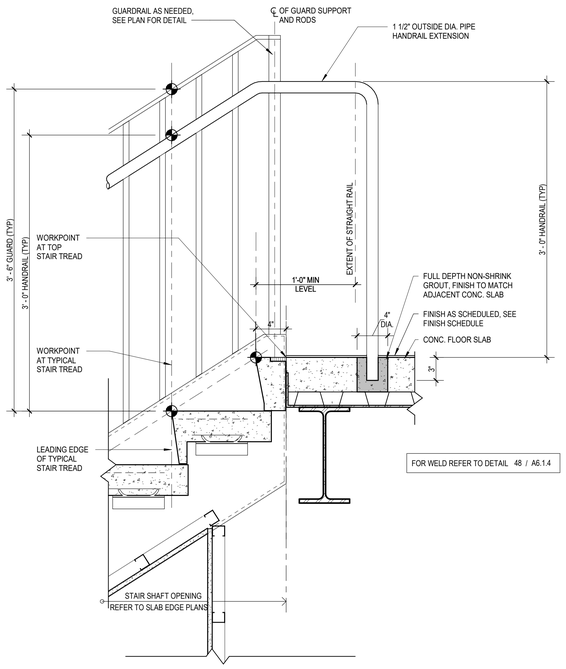
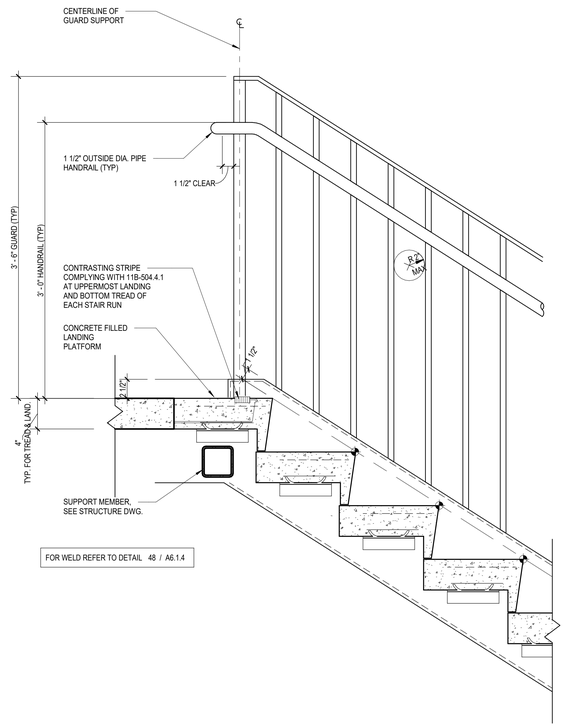
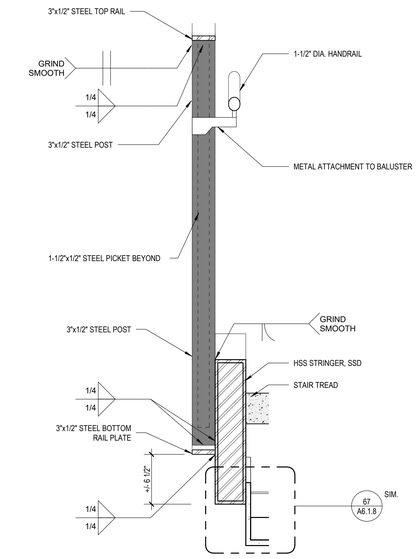


69 STAIR 2 GUARD & HANDRAIL DETAIL AT TOP FLOOR LANDING
SCALE: 1 1/2" = 1'-0"



45 STAIR 2 DETAIL AT MID LANDING
SCALE: 1 1/2" = 1'-0"



19 SECTION DETAIL - STAIR 2 GUARDRAIL @ STRINGER
SCALE: 1 1/2" = 1'-0"

GENERAL SHEET NOTES

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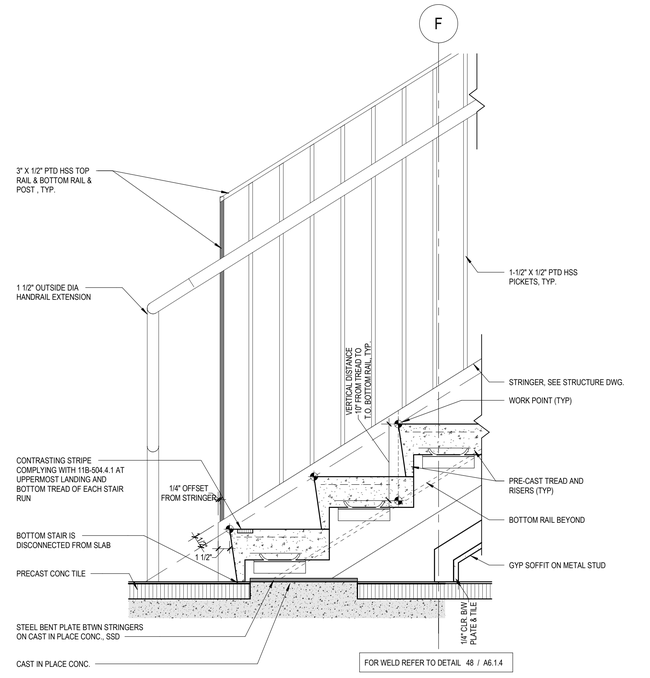
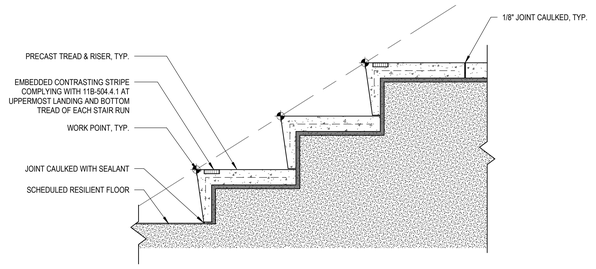
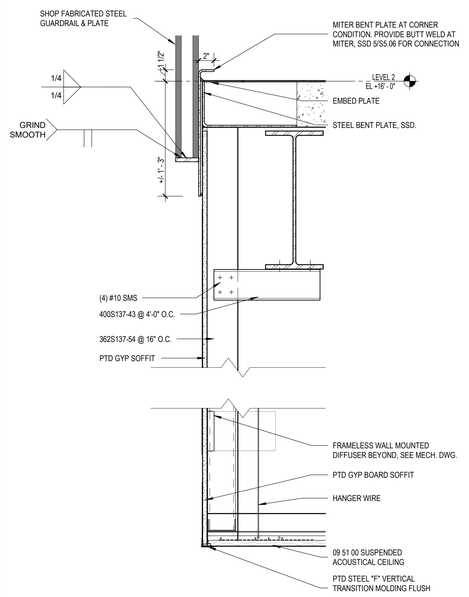
SHEET KEYNOTES



72 STAIR 2 - BOTTOM TREAD & GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



48 SECTION DETAIL - STAIR 2 STEP AT PLINTH PODIUM
SCALE: 1 1/2" = 1'-0"



24 SECTION DETAIL - STAIR 2 GUARDRAIL @ LEVEL 2
SCALE: 1 1/2" = 1'-0"

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CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - STAIR 2 DETAILS

14794

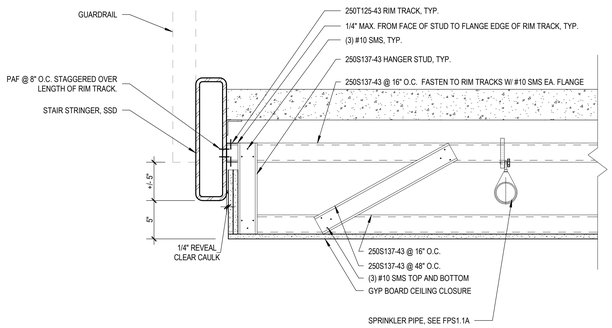
PROJECT NUMBER

CD

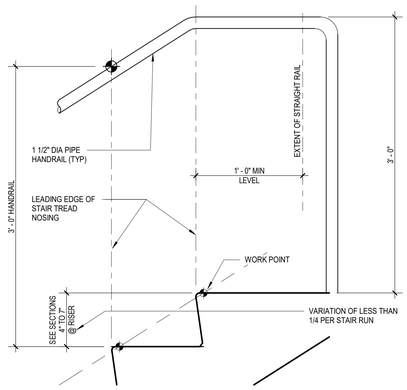
A6.1.7

SHEET NUMBER

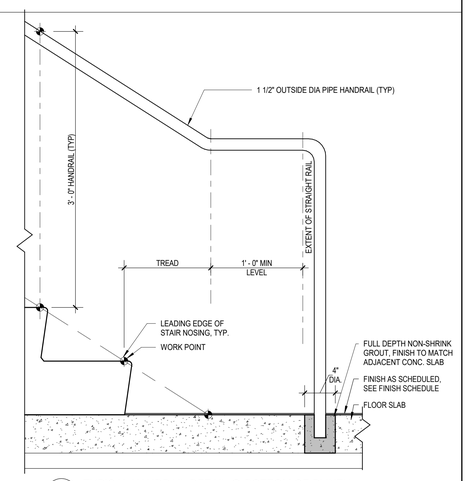
Plot Date: 7/23/2025 4:36:55 PM START Sheet



67 SECTION DETAIL - STAIR 2 SOFFIT ENCLOSURE
SCALE: 1 1/2" = 1'-0"



40 TYPICAL HANDRAIL DETAIL @ TOP OF STAIR 2 PLINTH
SCALE: 1 1/2" = 1'-0"



24 TYPICAL HANDRAIL DETAIL @ BOTTOM OF PLINTH
SCALE: 1 1/2" = 1'-0"

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L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

LAS POSITAS COLLEGE

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CAREY S. WOO
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Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - STAIR 2 DETAILS

14794
PROJECT NUMBER

CD

A6.1.8
SHEET NUMBER

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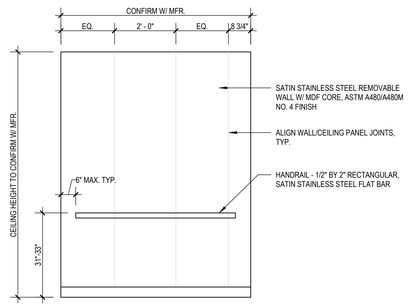
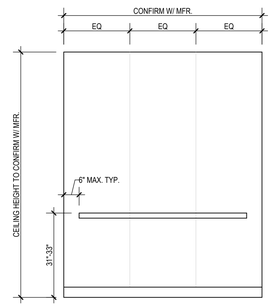
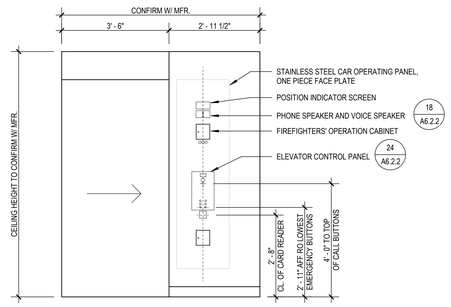


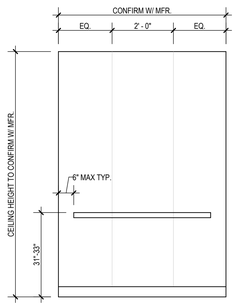
69 ELEVATOR CAB - EAST WALL
SCALE: 1/2" = 1'-0"



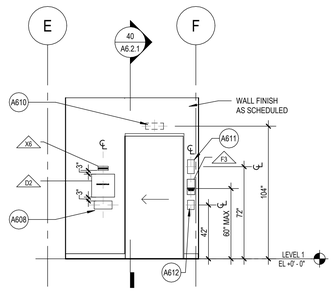
53 ELEVATOR CAB - NORTH WALL
SCALE: 1/2" = 1'-0"



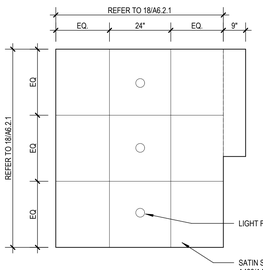
71 ELEVATOR CAB - SOUTH WALL
SCALE: 1/2" = 1'-0"



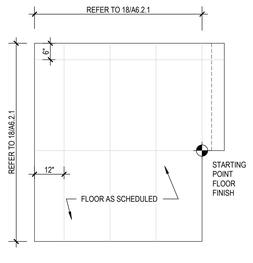
55 ELEVATOR CAB -WEST WALL
SCALE: 1/2" = 1'-0"



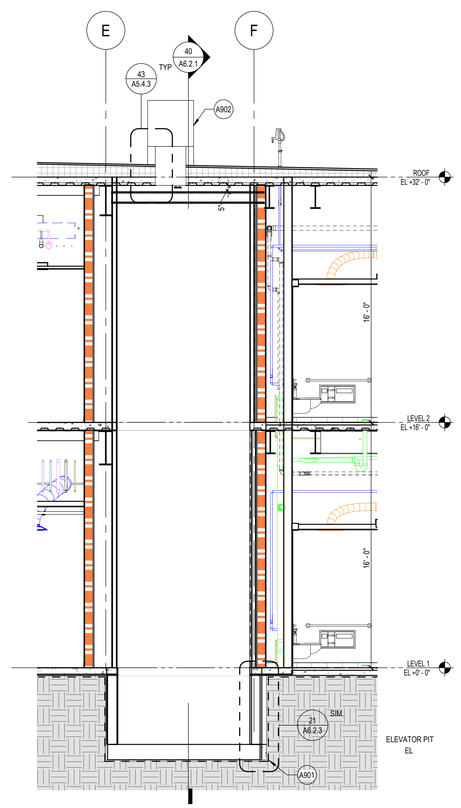
72 ELEVATOR - FRONT ELEVATION
SCALE: 1/4" = 1'-0"



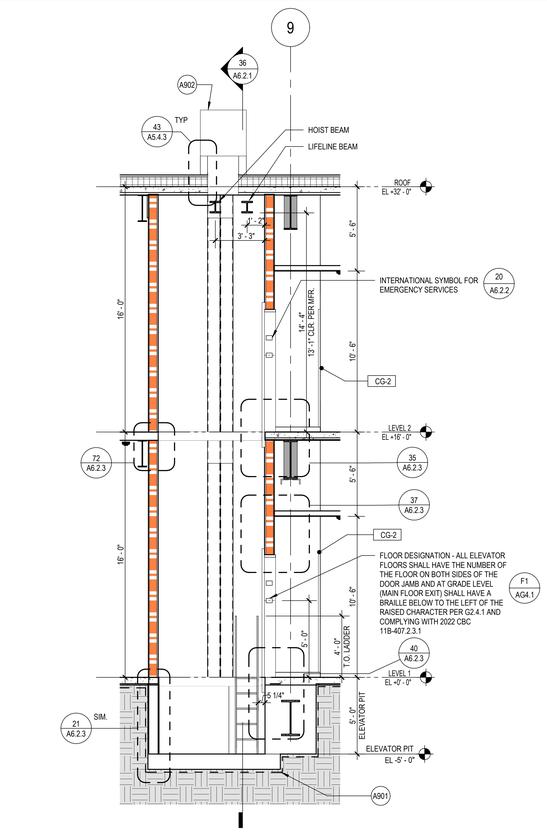
64 ELEVATOR CAB - REFLECTED CEILING PLAN
SCALE: 1/2" = 1'-0"



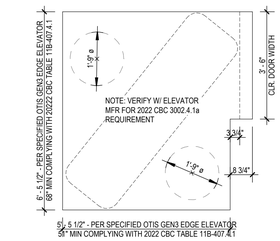
56 ELEVATOR CAB FINISH PLAN
SCALE: 1/2" = 1'-0"



36 ELEVATOR - TRANSVERSE SECTION
SCALE: 1/4" = 1'-0"



40 ELEVATOR - LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"



18 ELEVATOR CAB INTERIOR CLEARANCE PLAN
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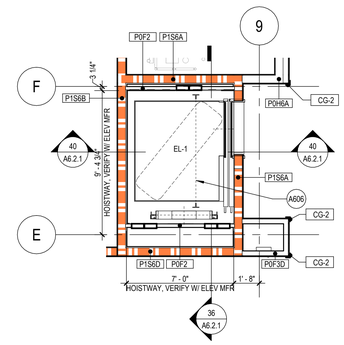
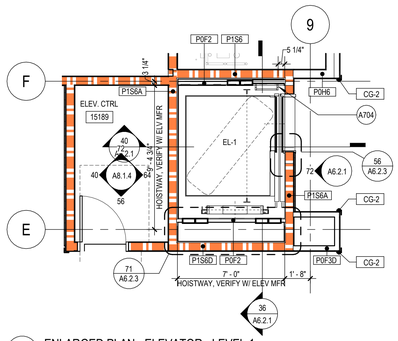
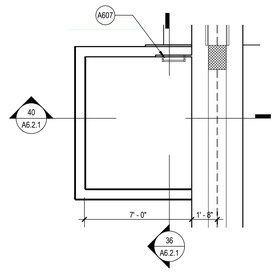


20 ENLARGED PLAN - ELEVATOR - LEVEL 2
SCALE: 1/4" = 1'-0"



22 ENLARGED PLAN - ELEVATOR - LEVEL 1
SCALE: 1/4" = 1'-0"



24 ENLARGED PLAN - ELEVATOR - PIT LEVEL
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

X SIGNAGE TYPE

GENERAL SHEET NOTES

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C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.2 SERIES SHEETS FOR ELEVATOR DETAILS.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

A606	ELEVATOR GUIDE RAIL
A607	ELEVATOR PIT LADDER
A608	2- WAY COMMUNICATION SYSTEM
A610	CAR POSITION INDICATOR (GROUND FLOOR ONLY)
A611	VISIBLE HALL SIGNALS
A612	CALL CONTROLS
A704	PAINTED METAL ELEVATOR PIT LADDER. PROVIDE PIT ALCOVE AS NEEDED TO ASSURE LADDER DOES NOT IMPEDE THE ELEVATOR CAR CLEAR SPACE REQUIREMENTS
A901	BELOW GRADE POSITIVE-SIDE WATERPROOFING SURROUNDING ENTIRE ELEVATOR PIT. WHERE GRADE BEAM OCCURS, EXTEND WTRPRF MEMBRANE ALONG GRADE BEAM A MINIMUM OF 4'-0" AND TERMINATE WITH COMPATIBLE LIQUID MEMBRANE
A902	ELEVATOR VENT WITH MANUFACTURED CURB

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF OKLAHOMA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ELEVATOR PLANS, ELEVATIONS AND SECTIONS

PROJECT NUMBER 14794

CD

SHEET NUMBER **A6.2.1**

START Sheet
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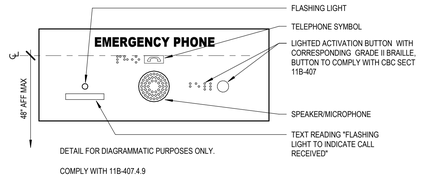

DETAIL FOR DIAGRAMMATIC PURPOSES ONLY.

COMPLY WITH 11B-407.4.9

18 ACCESSIBILITY - ELEVATOR INTERCOM
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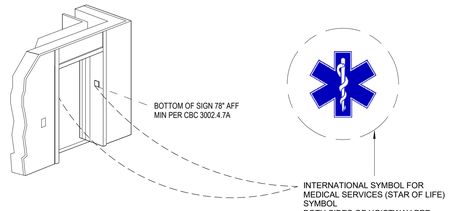
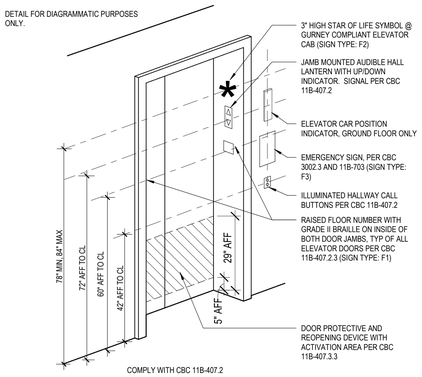


20 INTERNATIONAL SYMBOL FOR MEDICAL SERVICES - ELEVATOR 3
SCALE: 3/4" = 1'-0"

DETAIL FOR DIAGRAMMATIC PURPOSES ONLY.



COMPLY WITH CBC 11B-407.2

22 ACCESSIBILITY - ELEVATOR CAB ENTRANCE
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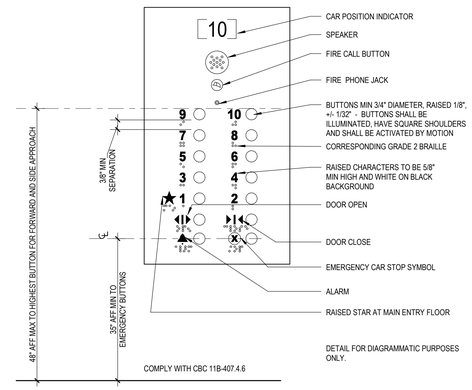

DETAIL FOR DIAGRAMMATIC PURPOSES ONLY.

COMPLY WITH CBC 11B-407.4.6

24 ACCESSIBILITY - ELEVATOR CONTROL PANEL
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.2 SERIES SHEETS FOR ELEVATOR DETAILS.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

ELEVATOR ACCESSIBILITY AND COMPLIANCE NOTES

A. PASSENGER ELEVATORS SHALL BE LOCATED NEAR A MAJOR ACCESSIBLE PATH OF TRAVEL AND PROVISIONS SHALL BE MADE TO ASSURE THAT THEY REMAIN ACCESSIBLE AND USABLE AT ALL TIMES THE BUILDING IS OCCUPIED.

B. ELEVATOR CAB AND CONTROLS TO COMPLY WITH CBC 11B-407 AND INCLUDE THE FOLLOWING FEATURES:

1. THE CAB INSIDE SHALL ALLOW FOR THE TURNING OF A WHEELCHAIR. MINIMUM 80" x 54" CLEAR DISTANCE BETWEEN WALLS OR BETWEEN WALL AND DOOR, EXCLUDING RETURN PANELS. MINIMUM DISTANCE FROM WALL TO RETURN PANEL SHALL NOT BE LESS THAN 51" PER CBC SECT 11B-407.4.1
2. AUTOMATIC REOPENING DOORS WITH A MINIMUM CLEAR WIDTH OF 36" PER CBC SECT 11B-407.3.3
3. FLOOR BUTTONS SHALL BE LOCATED AFF CBC SECT 11B-407.2
4. FLOOR BUTTONS SHALL BE PROVIDED WITH VISUAL INDICATORS TO SHOW WHEN EACH CALL IS REGISTERED. THE VISUAL INDICATORS SHALL BE EXTINGUISHED WHEN EACH CALL IS ANSWERED PER CBC SECT 11B-407.2 CAR CONTROL BUTTONS SHALL BE PROVIDED PER CBC SEC 11B-407.4.6. BUTTONS SHALL BE RAISED, HAVE SQUARE SHOULDERS, MECHANICAL AND ILLUMINATE WHEN PRESSED. RAISED NUMBERS AND LETTERS SHALL BE WHITE ON BLACK BACKGROUND. ENTIRE FACE OF LIGHTED BUTTONS MUST FULLY ILLUMINATE WITH HIGH INTENSITY (WHITE) LIGHT. COLORED RINGS OF LIGHT ARE NOT ACCEPTABLE.
5. EMERGENCY COMMUNICATION DEVICE PER CBC 11B-407.4.9

C. CENTERLINE OF HALL CALL BUTTONS SHALL BE NO HIGHER THAN 42" AFF. BUTTONS SHALL BE A MIN OF 3/4" IN SIZE AND BE RAISED 1/8" +/- 1/32" ABOVE THE SURROUNDING SURFACE. VISUAL INDICATION SHALL BE PROVIDED TO SHOW EACH CALL REGISTERED AND EXTINGUISHED WHEN ANSWERED. OBJECTS ADJACENT TO AND BELOW HALL CALL BUTTONS SHALL NOT PROTRUDE MORE THE 4" FROM THE WALL. THE ENTIRE FACE OF LIGHTED BUTTONS MUST FULLY ILLUMINATE WITH HIGH INTENSITY (WHITE) LIGHT. COLORED RINGS OF LIGHT ARE NOT ACCEPTABLE. CBC SEC 11B-407.2.1

D. PER CBC SEC 11B-407.2.2, HALL LANTERN SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE INDICATING TO THE PROSPECTIVE PASSENGER THE CAR ANSWERING THE CALL AND ITS DIRECTION OF TRAVEL AS FOLLOWS:

1. THE VISUAL SIGNAL FOR EACH DIRECTION SHALL BE MIN 2 1/2" HIGH X 2 1/2" WIDE AND VISIBLE FROM THE PROXIMITY OF THE HALL CALL BUTTON
2. THE AUDIBLE SIGNAL SHALL SOUND ONCE FOR "UP" AND TWICE FOR "DOWN"
3. CENTERLINE OF JAMB MOUNTED HALL LANTERN LOCATED A MIN OF 6'-0" AFF
4. ARROW SHAPES ARE PREFERRED BUT NOT REQUIRED.

E. THE ELEVATOR CAR SHALL BE OF SUCH A SIZE AND ARRANGEMENT TO ACCOMMODATE AN AMBULANCE STRETCHER 24 INCHES BY 84 INCHES (610 MM BY 2134 MM) WITH NOT LESS THAN 5-INCH (127 MM) RADIUS CORNERS, IN THE HORIZONTAL, OPEN POSITION AND SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL FOR EMERGENCY MEDICAL SERVICES (STAR OF LIFE). THE SYMBOL SHALL BE NOT LESS THAN 3 INCHES (76 MM) IN HEIGHT AND SHALL BE PLACED INSIDE ON BOTH SIDES OF THE HOISTWAY DOOR FRAME PER CBC SECTION 3002.4

F. A HANDRAIL SHALL BE PROVIDED ON THE REAR WALL OF THE CAR. THE RAILS SHALL BE SMOOTH AND THE INSIDE SURFACE AL LEAST 1 1/2" CLEAR OF THE WALLS, MOUNTED AT A NOMINAL HEIGHT OF 32" AFF PER CBC SECT 11B-407.4.10

G. IF TWO-WAY INTERCOMMUNICATION DEVICE IS IN CLOSED COMPARTMENT THEN DOOR TO COMPARTMENT MUST HAVE LEVER OR LOOP HARDWARE.

H. THE TWO-WAY COMMUNICATION DEVICE SHALL BE PROVIDED WITH VISUAL, TEXT BASED, AND VIDEO IF AVAILABLE. IT SHALL BE FULLY ACCESSIBLE BY DEAF, HARD OF HEARING, AND SPEECH IMPAIRED, HAS THE ABILITY TO COMMUNICATE WITH EMERGENCY PERSONNEL UTILIZING VIDEO, CHAT OR OTHER APPROVED TECHNOLOGY.

I. EMERGENCY TWO WAY COMMUNICATION SYSTEM IS TO COMPLY WITH ASME A17.1, INCLUDING "HELP" BUTTON.

J. ELEVATOR MUST BE EQUIPPED WITH A DOOR REOPENING DEVICE THAT REOPENS DOOR WHEN OBSTRUCTED DURING CLOSING. DOOR REOPENING DEVICE SHALL REMAIN EFFECTIVE FOR 20 SECONDS MINIMUM AND DEVICE SHALL NOT REQUIRE PHYSICAL CONTACT TO BE ACTIVATED ALTHOUGH CONTACT IS PERMITTED TO OCCUR BEFORE THE DOOR REVERSES PER 11B-407.3.3

K. ADDITIONAL FEATURES TO INCLUDE:

1. ELEVATOR RECALL
2. INTERNATIONAL MEDICAL EMERGENCY SYMBOL (STAR OF LIFE) DOOR CLOSING DELAY PER CBC SECT 11B-407.3.5
3. DOOR JAMB MARKINGS INDICATING FLOOR PER CBC SECT 11B-407.2.3.1
4. SELF LEVELING OPERATION PER CBC SECT 11B-407.4.4
5. EMERGENCY CONTROL BUTTONS AND OTHER OPERATION BUTTONS TO BE LOCATED AT LEAST 35" ABOVE FLOOR

L. SPECIAL PERMITTING REQUIREMENTS:

1. CONTRACTOR TO OBTAIN STATE ELEVATOR PERMIT PRIOR TO INSTALLATION.

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - ELEVATOR - BASIC ACCESSIBILITY REQUIREMENTS

14794
PROJECT NUMBER

CD **A6.2.2**
SHEET NUMBER

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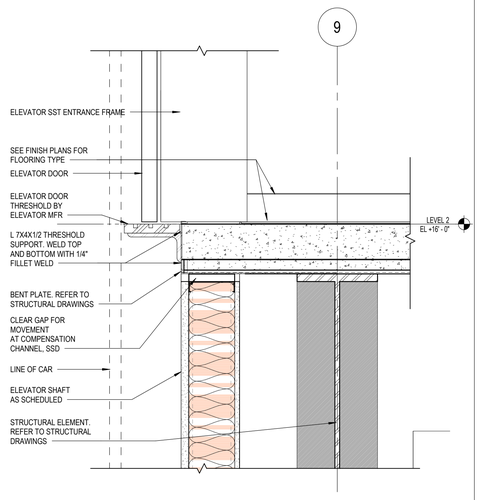
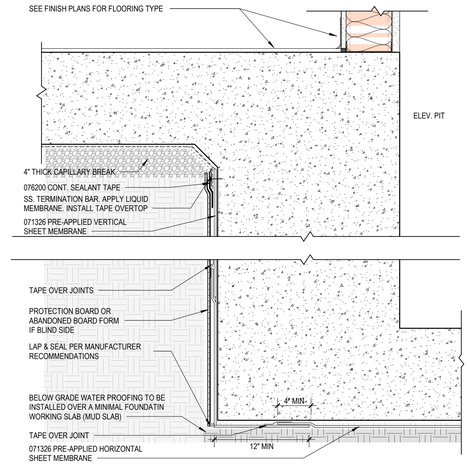


35 SECTION DETAIL - ELEVATOR DOOR SILL @ LEVEL 2
SCALE: 1 1/2" = 1'-0"



19 SECTION DETAIL - TYPICAL WATERPROOFING @ ELEVATOR PIT GRADE BEAM
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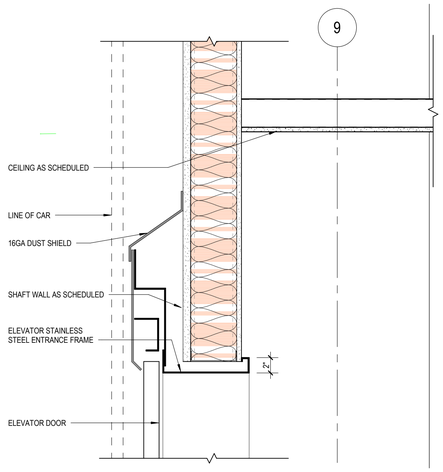
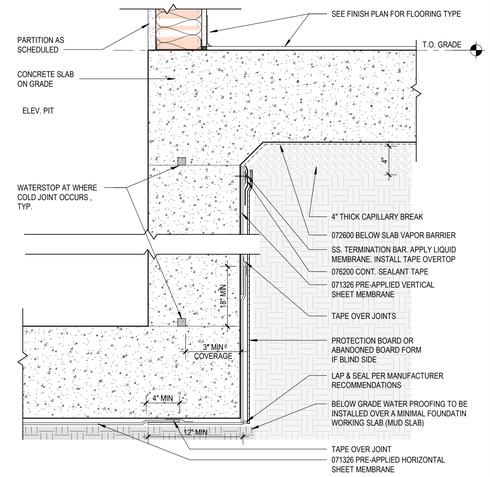


37 SECTION DETAIL - TYPICAL ELEVATOR DOOR HEAD
SCALE: 1 1/2" = 1'-0"



21 SECTION DETAIL - TYPICAL WATERPROOFING @ ELEVATOR PIT WALL
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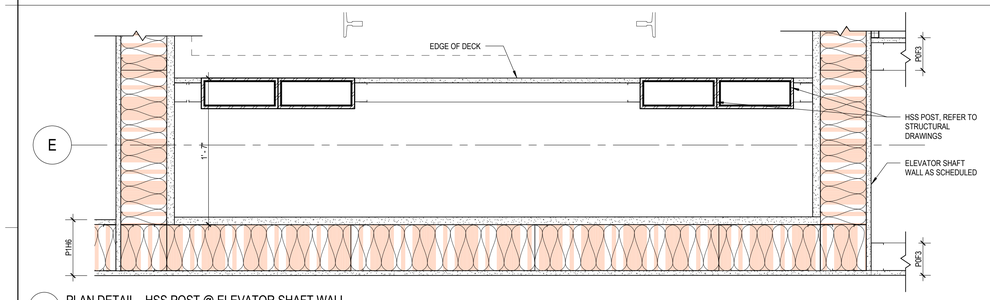
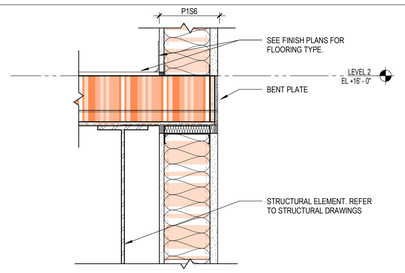
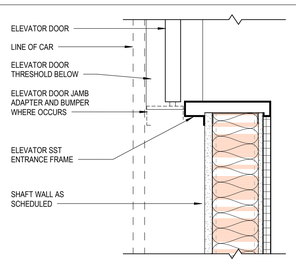


71 PLAN DETAIL - HSS POST @ ELEVATOR SHAFT WALL
SCALE: 1 1/2" = 1'-0"



72 SECTION DETAIL - ELEVATOR DECK DETAIL @ LEVEL 2
SCALE: 1 1/2" = 1'-0"



56 PLAN DETAIL - ELEVATOR DOOR JAMB
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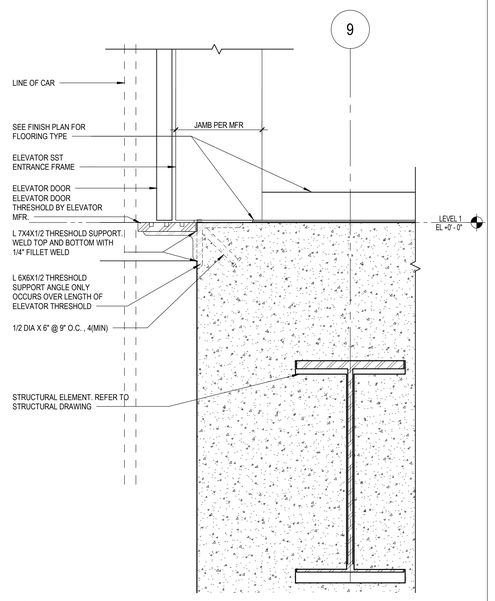

40 SECTION DETAIL - ELEVATOR DOOR SILL @ LEVEL 1
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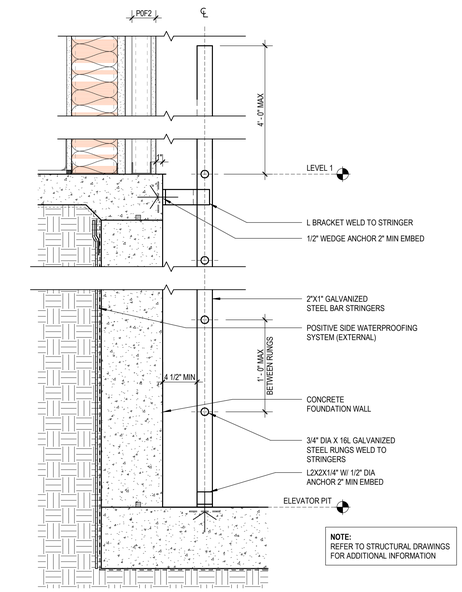

24 SECTION DETAIL - ELEVATOR PIT LADDER
SCALE: 1 1/2" = 1'-0"

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SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 -
ELEVATOR DETAILS

14794
PROJECT NUMBER

CD **A6.2.3**
SHEET NUMBER

START Sheet
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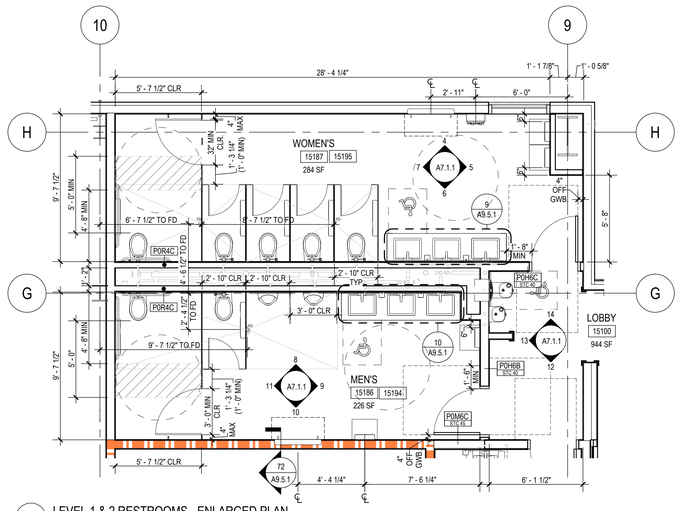

1 LEVEL 1 & 2 RESTROOMS - ENLARGED PLAN
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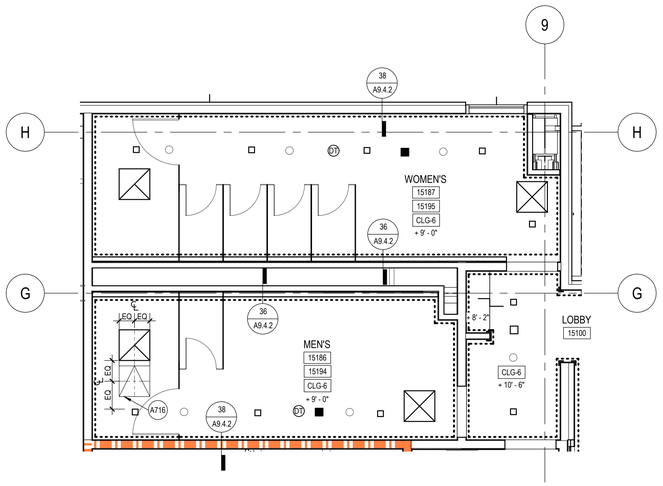

2 LEVEL 1 & 2 RESTROOMS - ENLARGED RCP
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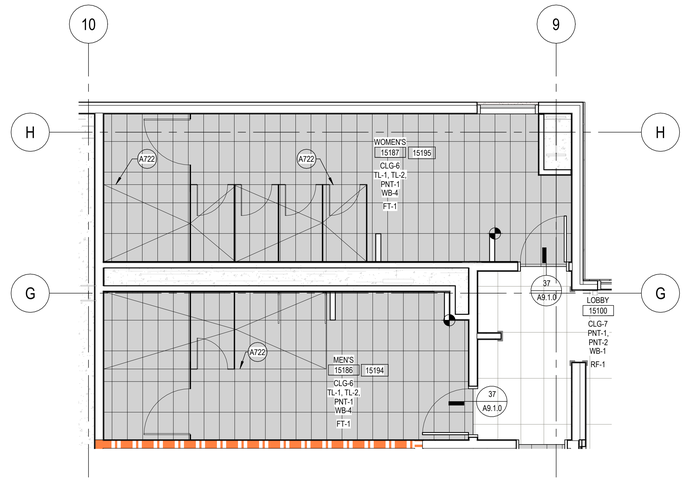

3 LEVEL 1 & 2 RESTROOMS - ENLARGED FINISH PLAN
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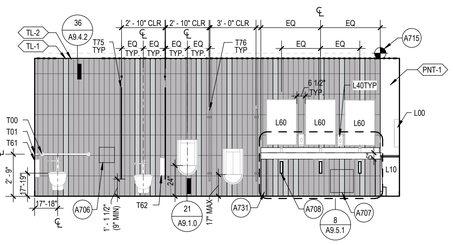

4 LEVEL 1& 2 WOMENS RESTROOM - NORTH ELEVATION
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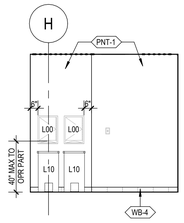

5 LEVEL 1 & 2 WOMENS RESTROOM - EAST ELEVATION
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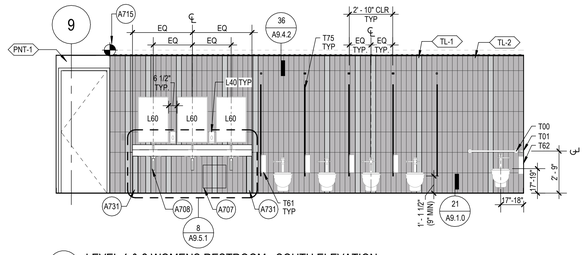

6 LEVEL 1 & 2 WOMENS RESTROOM - SOUTH ELEVATION
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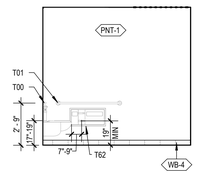

7 LEVEL 1 & 2 WOMENS RESTROOM - WEST ELEVATION
SCALE: 1/4" = 1'-0"

8 LEVEL 1 & 2 MENS RESTROOM - NORTH ELEVATION
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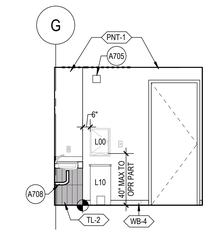

9 LEVEL 1 & 2 MENS RESTROOM - EAST ELEVATION
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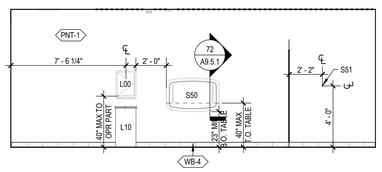

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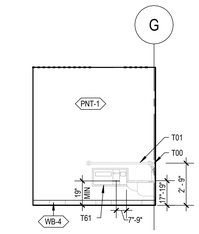
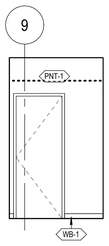
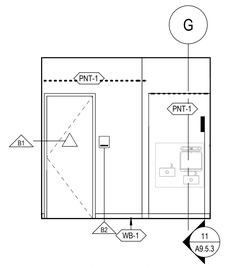


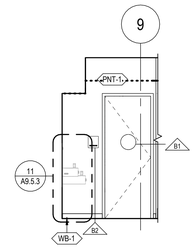
11 LEVEL 1 & 2 MENS RESTROOM - WEST ELEVATION
SCALE: 1/4" = 1'-0"



12 LEVEL 1 & 2 RESTROOM DRINKING FOUNTAIN NOOK SOUTH
SCALE: 1/4" = 1'-0"



13 LEVEL 1 & 2 RESTROOM DRINKING FOUNTAIN NOOK WEST
SCALE: 1/4" = 1'-0"



14 LEVEL 1 & 2 RESTROOM DRINKING FOUNTAIN NOOK NORTH
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

- CLG-6
- CEILING TRANSITION
- RECESSED DOWNLIGHT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- ACCESS PANEL
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- SIGNAGE TYPE
- OCCUPANCY SENSOR
- CLG MOVEMENT JOINT
- TILE START POINT

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A0.0.2 SERIES SHEETS FOR TYPICAL TOILET ROOM MOUNTING HEIGHTS AND STALL CONFIGURATION DIAGRAMS.

E. PROVIDE TYPE BACKING PLATES FOR ALL SURFACE MOUNTED TOILET ACCESSORIES. REFER TO 3/S9.01 AND S9.05 FOR BACKING PLATE SCHEDULE AND INSTALLATION REQUIREMENTS.

F. REFER TO A9.5.X SERIES SHEETS FOR TOILET AND URINAL PARTITION ATTACHMENT DETAILS.

G. REFER TO THE 'A' SERIES SHEETS FOR INTERIOR FINISH INFORMATION.

H. REFER TO THE 'AG' SERIES SHEET FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

A705 8" X 8" RECESSED GYP. BD. INFILL ACCESS PANEL, FINISH TO MATCH ADJ GYP. BD. WALL. REFER TO 56/A9.5.1 & PBLG DWGS

A706 12" X 12" RECESSED TILE INLAY ACCESS PANEL, AS SPECIFIED. REFER TO 64/A9.5.1 & PBLG DWGS

A707 18" X 18" RECESSED TILE INLAY ACCESS PANEL, AS SPECIFIED. REFER TO 64/A9.5.1 & PBLG DWGS

A708 UNDER LAVATORY PIPE INSUL., TYP., PER CBC 11B-606.5. PLUMBEREX, PRO-EXTREME, COLOR: WHITE.

A715 WALL TILE START POINT, REFER TO 36/A9.4.2

A716 24" X 24" RECESSED ACCESS DOOR W/ GYP. BOARD INFILL, FINISH TO MATCH ADJ GYP. BOARD CEILING. LOCATED IN MENS RR 15194 ONLY. REFER TO 13/A9.4.1

A722 SLOPE TO DRAIN 1.8% MAX IN ALL DIRECTIONS

A731 LAVATORY SUPPORTING TILED WALL, TYP.

TOILET ACCESSORIES

ACCESSORY TAG	DESCRIPTION
L00	PAPER TOWEL DISPENSER, OFCI
L10	WASTE RECEPTACLE, OFCI
L30	SANITARY NAPKIN/TAMPON DISPENSER, BOBRICK, SURFACE MOUNTED, B-47069C
L40	SOAP DISPENSER, OFCI
L60	MIRROR, BOBRICK, B165 2436
S50	BABY CHANGING STATION, KOALA KARE, KB310-SSRE
SS1	COAT HOOK WITH BUMPER, BOBRICK B-212
T00	36" GRAB BAR, BOBRICK B5806X36
T01	48" GRAB BAR, BOBRICK B5806X48
T61	COMBINATION TOILET TISSUE, SEAT COVER DISPENSER AND WASTE RECEPTACLE, BOBRICK, SURFACE MOUNTED, RIGHT SIDE, B-30929
T62	COMBINATION TOILET TISSUE, SEAT COVER DISPENSER AND WASTE RECEPTACLE, BOBRICK, SURFACE MOUNTED, LEFT SIDE, B-30919
T75	TOILET PARTITION, BOBRICK, SIERRA SERIES - 2092G.67P, OVERHEAD BRACED, COLOR: FOREST GREEN S004
T76	URINAL SCREEN, BOBRICK, SIERRA SERIES 2095.67 WALL MOUNTED, COLOR: FOREST GREEN

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

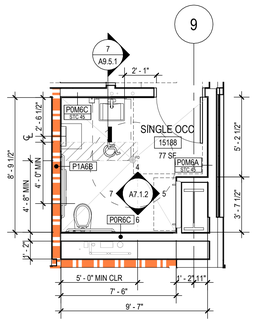
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - RESTROOMS

14794
PROJECT NUMBER

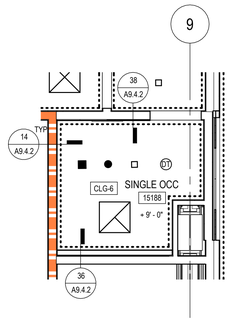
CD
A7.1.1
SHEET NUMBER

START Sheet
8/25/2025 11:48:00 AM
Plot Date:



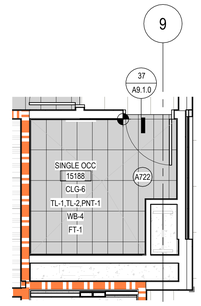
15188/15288 SINGLE OCC. RESTROOM
- ENLARGED FLOOR PLAN

1 SCALE: 1/4" = 1'-0"



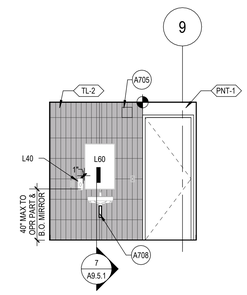
15188/15288 SINGLE OCC. RESTROOM
- ENLARGED RCP

2 SCALE: 1/4" = 1'-0"



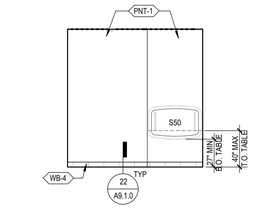
15188/15288 SINGLE OCC. RESTROOM
- ENLARGED FINISH PLAN

3 SCALE: 1/4" = 1'-0"



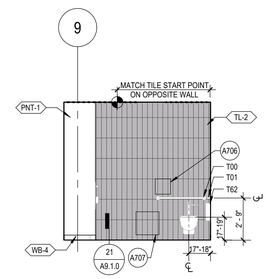
15188/15288 SINGLE OCC. RESTROOM
- EAST ELEVATION

4 SCALE: 1/4" = 1'-0"



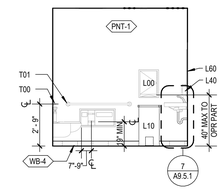
15188/15288 SINGLE OCC. RESTROOM
- SOUTH ELEVATION

5 SCALE: 1/4" = 1'-0"



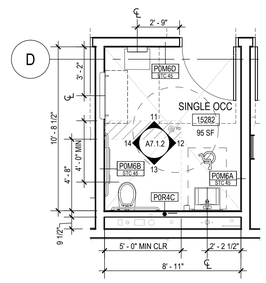
15188/15288 SINGLE OCC. RESTROOM
- WEST ELEVATION

6 SCALE: 1/4" = 1'-0"



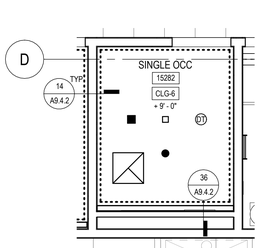
15188/15288 SINGLE OCC. RESTROOM
- NORTH ELEVATION

7 SCALE: 1/4" = 1'-0"



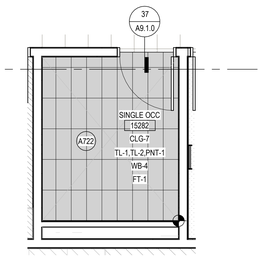
15282 SINGLE OCC. RESTROOM
-ENLARGED FLOOR PLAN

8 SCALE: 1/4" = 1'-0"



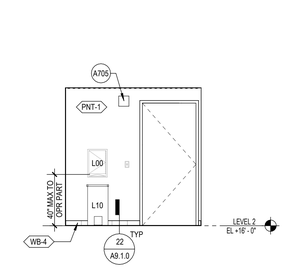
15282 SINGLE OCC. RESTROOM
- ENLARGED RCP

9 SCALE: 1/4" = 1'-0"



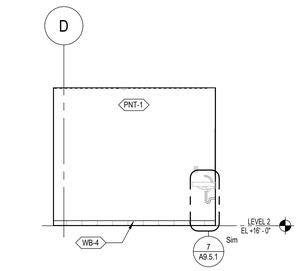
15282 SINGLE OCC. RESTROOM
- ENLARGED FINISH PLAN

10 SCALE: 1/4" = 1'-0"



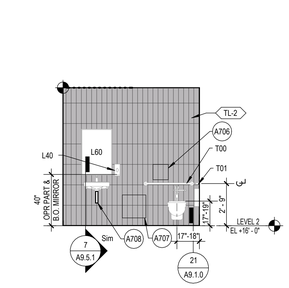
15282 SINGLE OCC. RESTROOM
- EAST ELEVATION

11 SCALE: 1/4" = 1'-0"



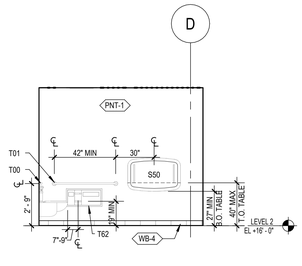
15282 SINGLE OCC. RESTROOM
- SOUTH ELEVATION

12 SCALE: 1/4" = 1'-0"



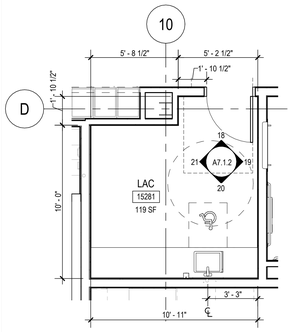
15282 SINGLE OCC. RESTROOM
- WEST ELEVATION

13 SCALE: 1/4" = 1'-0"



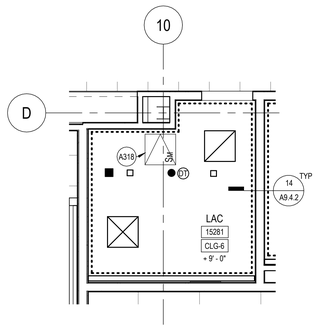
15282 SINGLE OCC. RESTROOM
- NORTH ELEVATION

14 SCALE: 1/4" = 1'-0"



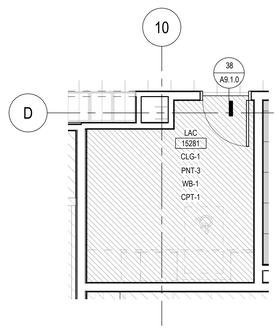
15281 LACTATION ROOM
- ENLARGED FLOOR PLAN

15 SCALE: 1/4" = 1'-0"



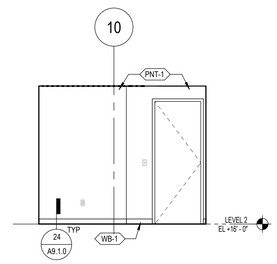
15281 LACTATION ROOM
- ENLARGED RCP

16 SCALE: 1/4" = 1'-0"



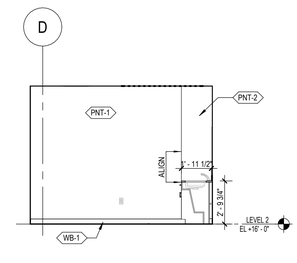
15281 LACTATION ROOM
-ENLARGED FINISH PLAN

17 SCALE: 1/4" = 1'-0"



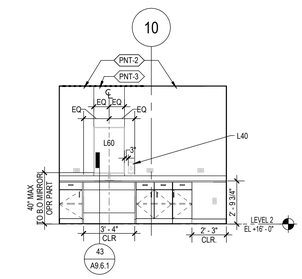
15281 LACTATION ROOM
- EAST ELEVATION

18 SCALE: 1/4" = 1'-0"



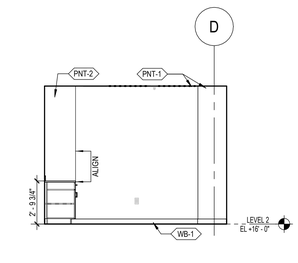
15281 LACTATION ROOM
- SOUTH ELEVATION

19 SCALE: 1/4" = 1'-0"



15281 LACTATION ROOM
- WEST ELEVATION

20 SCALE: 1/4" = 1'-0"



15281 LACTATION ROOM
- NORTH ELEVATION

21 SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

- CLG-6 — CEILING TRANSITION
- RECESSED DOWNLIGHT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- AP — ACCESS PANEL
- SPEAKER STROBE FIRE ALARM
- SPEAKER FIRE ALARM
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- X — SIGNAGE TYPE
- D7 — OCCUPANCY SENSOR
- CLG MOVEMENT JOINT
- TILE START POINT

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A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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H. REFER TO THE 'AG' SERIES SHEET FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

A318 RECESSED ACCESS DOOR WITH GYP BOARD INFILL. FINISH TO MATCH ADJACENT GYP BOARD CEILING. REFER TO 13/A9.4.1

A705 8" X 8" RECESSED GYP. BD. INFILL ACCESS PANEL. FINISH TO MATCH ADJ GYP. BD. WALL. REFER TO 56/A9.5.1 & PBLG DWGS

A706 12" X 12" RECESSED TILE INLAY ACCESS PANEL, AS SPECIFIED. REFER TO 64/A9.5.1 & PBLG DWGS

A707 18" X 18" RECESSED TILE INLAY ACCESS PANEL, AS SPECIFIED. REFER TO 64/A9.5.1 & PBLG DWGS

A708 UNDER LAVATORY PIPE INSUL., TYP.. PER CBC 11B-606.5. PLUMBEREX, PRO-EXTREME, COLOR: WHITE.

A722 SLOPE TO DRAIN 1.8% MAX IN ALL DIRECTIONS

TOILET ACCESSORIES

ACCESSORY TAG	DESCRIPTION
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L40	SOAP DISPENSER, OFCI
L60	MIRROR, BOBRICK, B165 2436
S50	BABY CHANGING STATION, KOALA KARE, KB310-SSRE
S51	COAT HOOK WITH BUMPER, BOBRICK B-212
T00	36" GRAB BAR, BOBRICK B5806X36
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T62	COMBINATION TOILET TISSUE, SEAT COVER DISPENSER AND WASTE RECEPTACLE, BOBRICK, SURFACE MOUNTED, LEFT SIDE, B-30919
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T76	URINAL SCREEN, BOBRICK, SIERRA SERIES 2095.67 WALL MOUNTED, COLOR: FOREST GREEN

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SINGLE OCC. RESTROOMS & LACTATION ROOM 14794

PROJECT NUMBER

CD

A7.1.2

SHEET NUMBER

START Sheet

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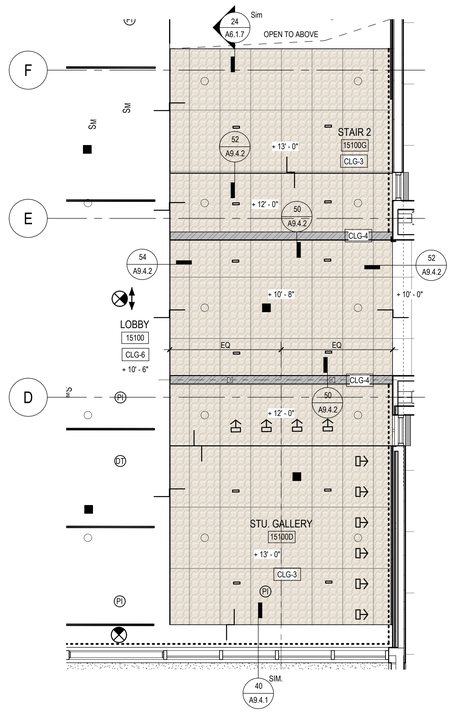
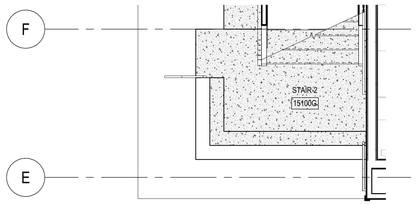
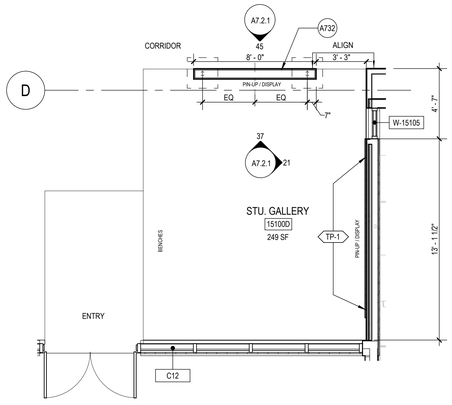


68 STUDENT GALLERY 15100D - ENLARGED RCP
SCALE: 1/4" = 1'-0"





52 STUDENT GALLERY 15100D - ENLARGED PLAN
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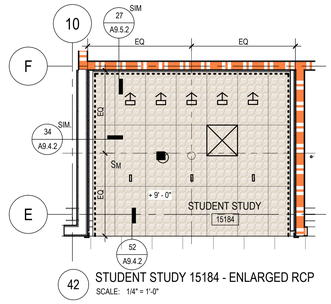
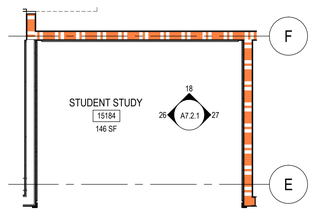
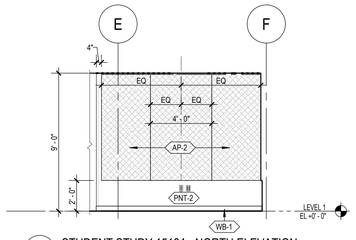


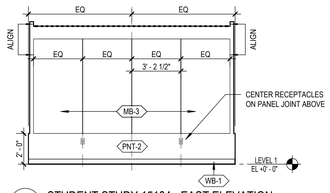
42 STUDENT STUDY 15184 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



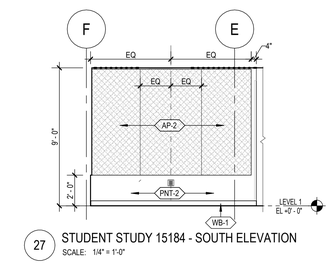
43 STUDENT STUDY 15184 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



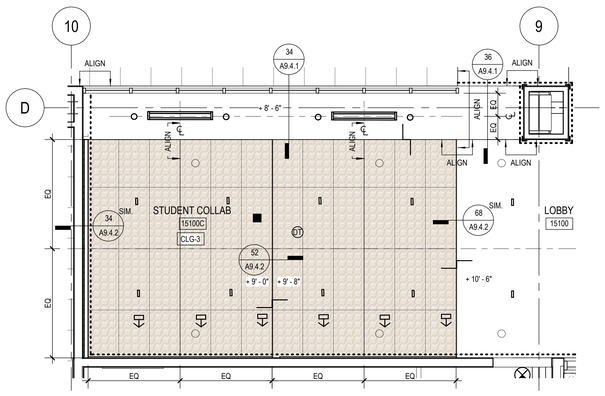
26 STUDENT STUDY 15184 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



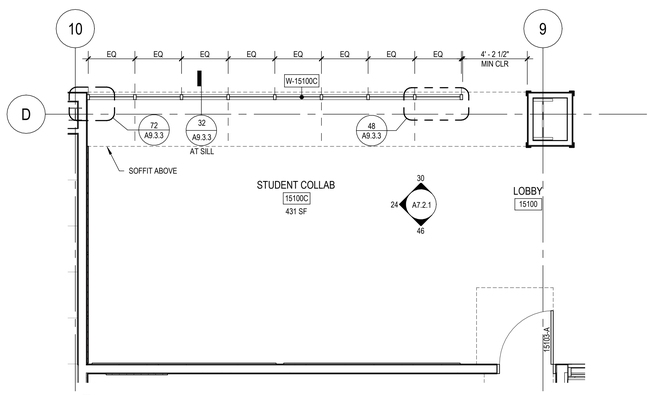
18 STUDENT STUDY 15184 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



27 STUDENT STUDY 15184 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



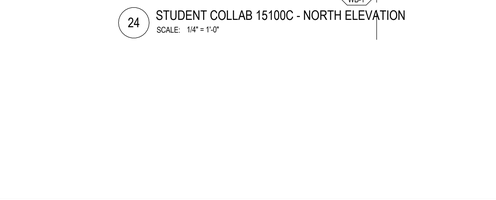
70 STUDENT COLLAB 15100C - ENLARGED RCP
SCALE: 1/4" = 1'-0"



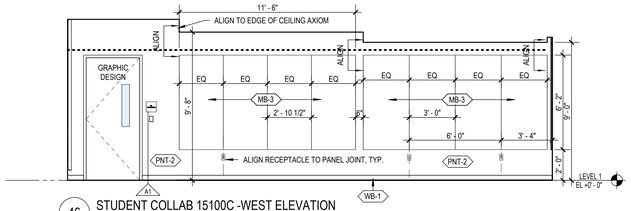
72 STUDENT COLLAB 15100C - ENLARGED PLAN
SCALE: 1/4" = 1'-0"

45 STUDENT GALLERY 15100D - WEST ELEVATION
SCALE: 1/4" = 1'-0"

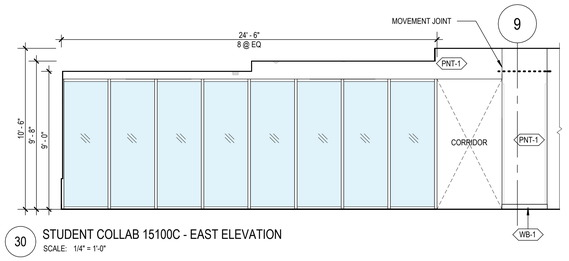
37 STUDENT GALLERY 15100D - EAST ELEVATION
SCALE: 1/4" = 1'-0"



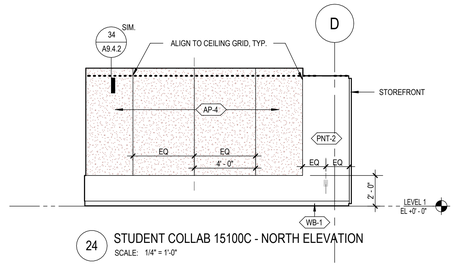
21 STUDENT GALLERY 15100D - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



46 STUDENT COLLAB 15100C -WEST ELEVATION
SCALE: 1/4" = 1'-0"



30 STUDENT COLLAB 15100C - EAST ELEVATION
SCALE: 1/4" = 1'-0"



24 STUDENT COLLAB 15100C - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A732 REFER TO 50,52,53,55/A9.6.2 FOR GALLERY WALL DETAILS

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1/DT OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R FULLY RECESSED FEC, SEE A9.5.2
- X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - LOBBY

14794

PROJECT NUMBER

CD

A7.2.1

SHEET NUMBER

START Sheet
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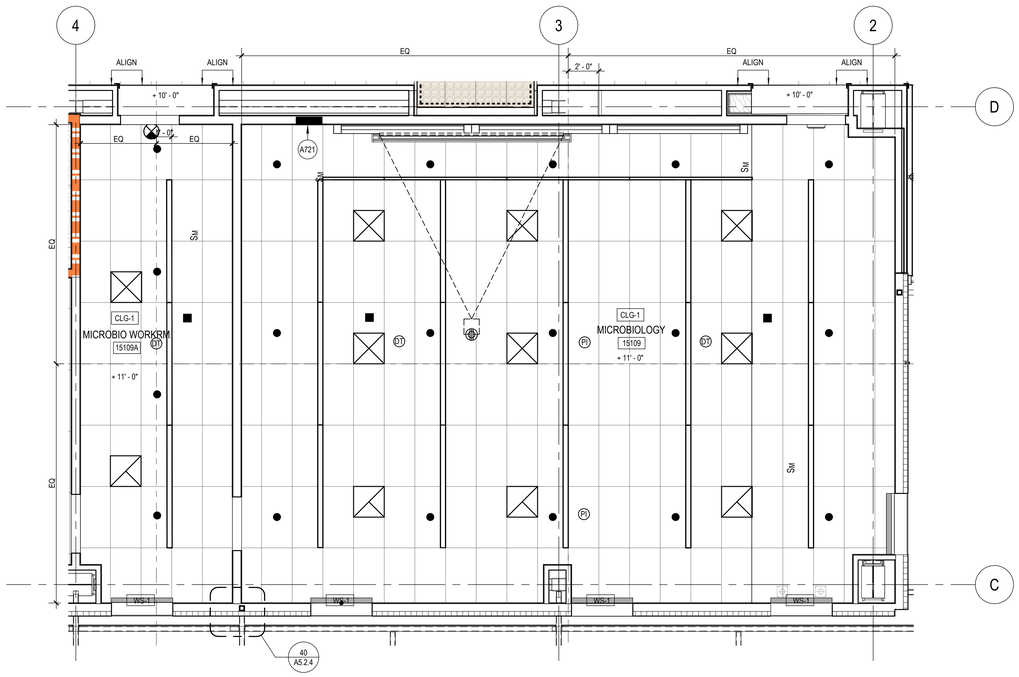
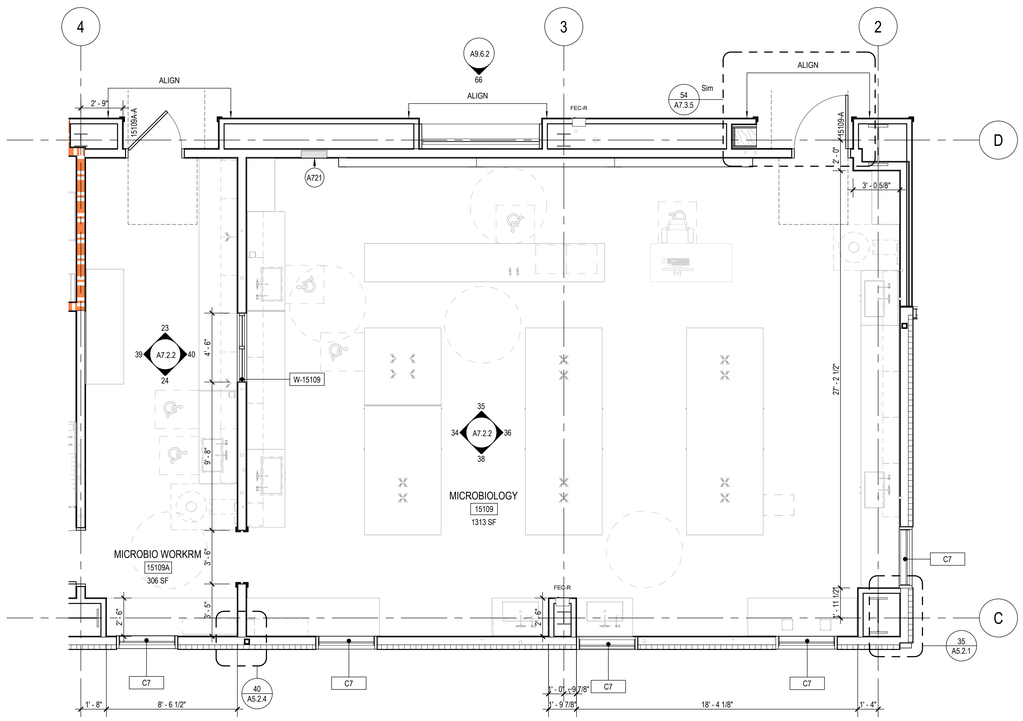
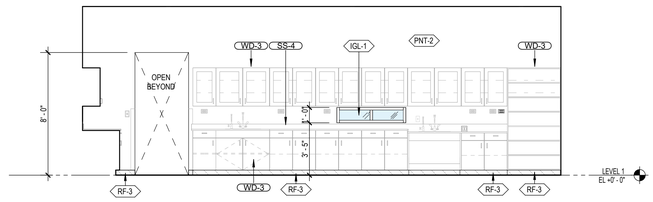


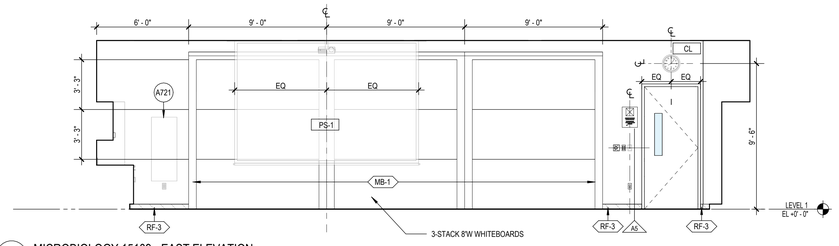
69 MICROBIOLOGY 15109 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



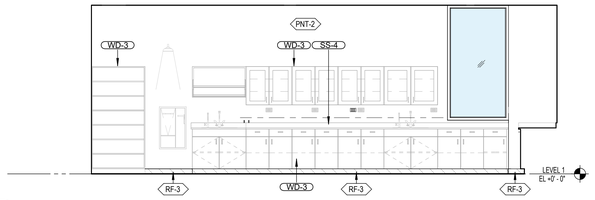
72 MICROBIOLOGY 15109 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



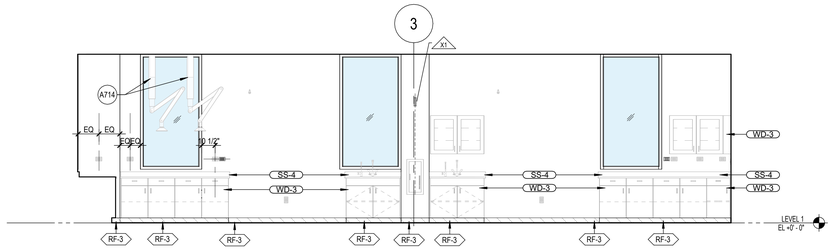
34 MICROBIOLOGY 15109 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



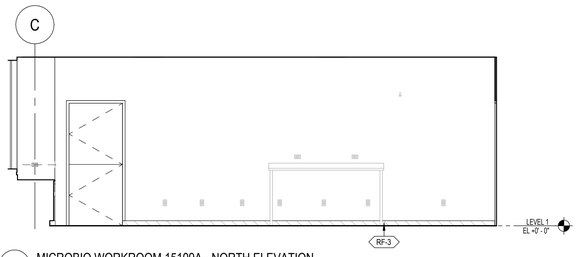
35 MICROBIOLOGY 15109 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



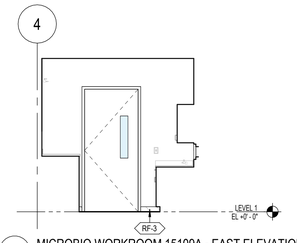
36 MICROBIOLOGY 15109 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



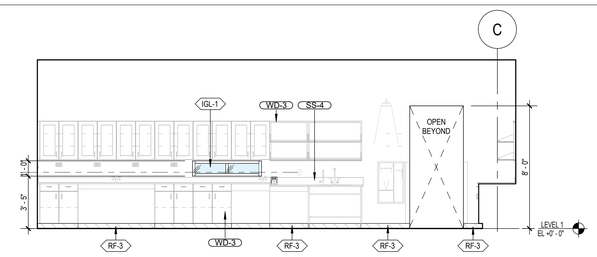
38 MICROBIOLOGY 15109 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



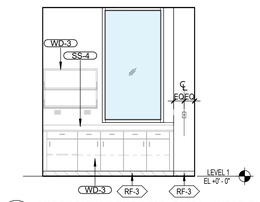
39 MICROBIO WORKROOM 15109A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 MICROBIO WORKROOM 15109A - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 MICROBIO WORKROOM 15109A - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 MICROBIO WORKROOM 15109A - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714 REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
ARCHITECTURAL FINISHES
LAB CASEWORK FINISHES
FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
FEC-R — FULLY RECESSED FEC, SEE A9.5.2
SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - MICROBIOLOGY & BIO WORKROOM

14794

PROJECT NUMBER
CD

A7.2.2
SHEET NUMBER

START Sheet
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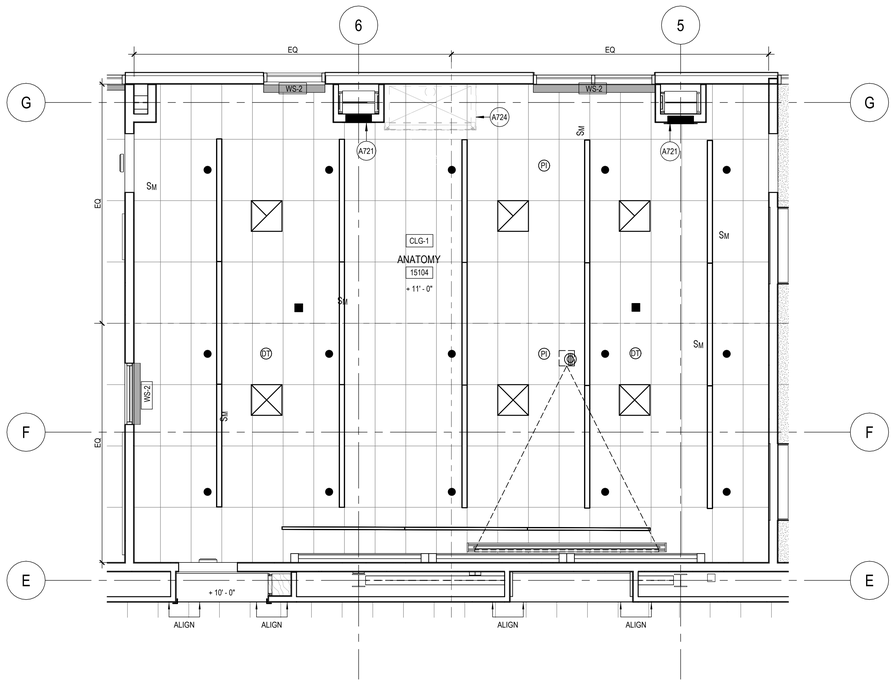

69 ANATOMY 15104 - ENLARGED RCP
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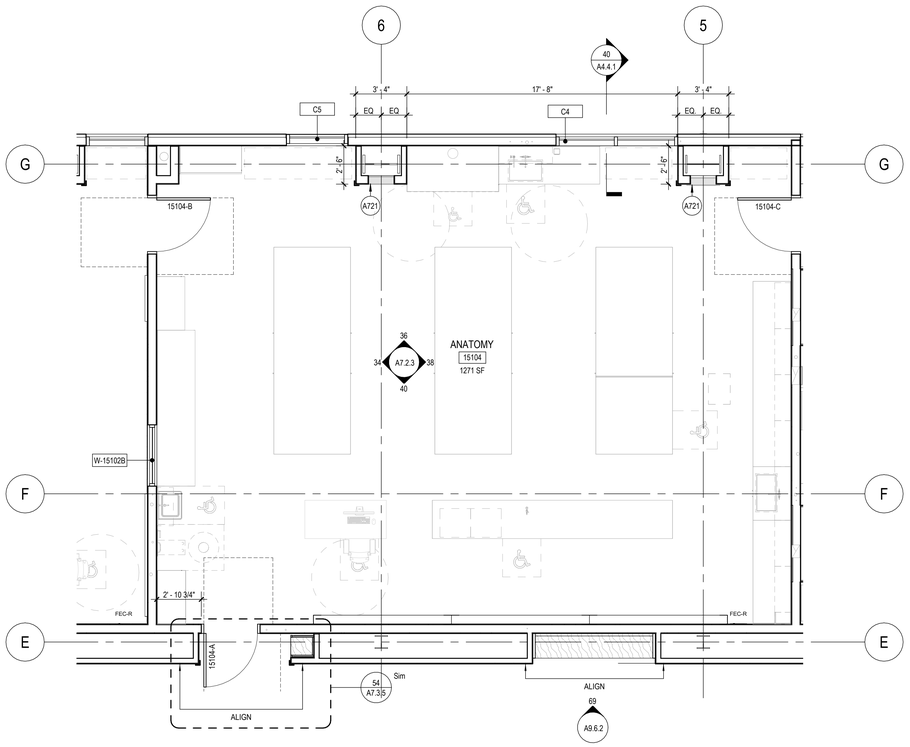
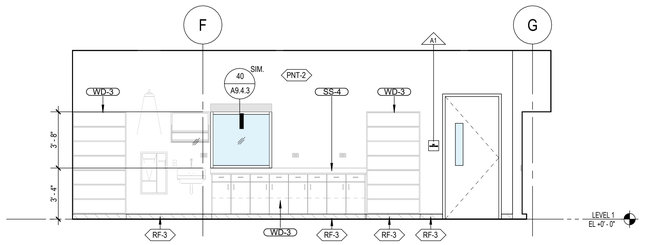
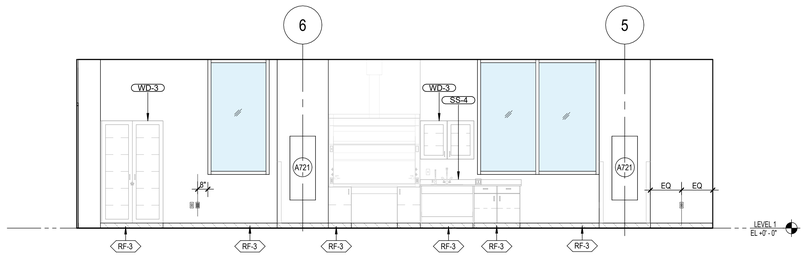


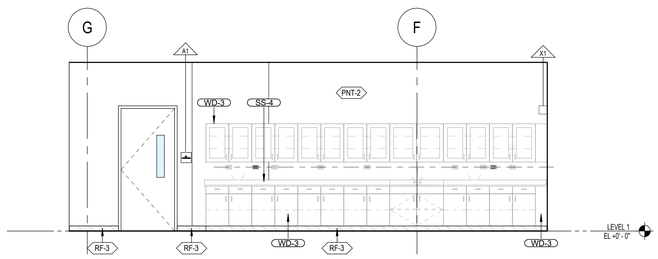
72 ANATOMY 15104 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



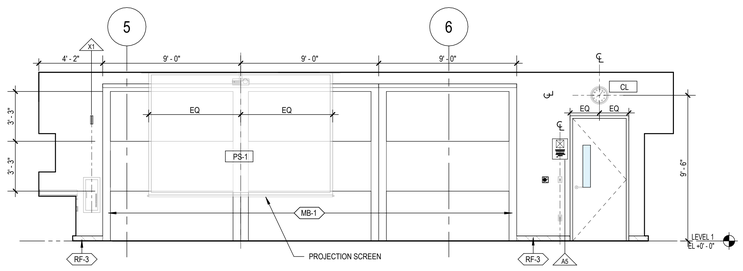
34 ANATOMY 15104 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 ANATOMY 15104 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



38 ANATOMY 15104 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 ANATOMY 15104 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A724 FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
CLG-7 - EXPOSED
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ANATOMY 15104

14794

PROJECT NUMBER
CD

A7.2.3

SHEET NUMBER

START Sheet
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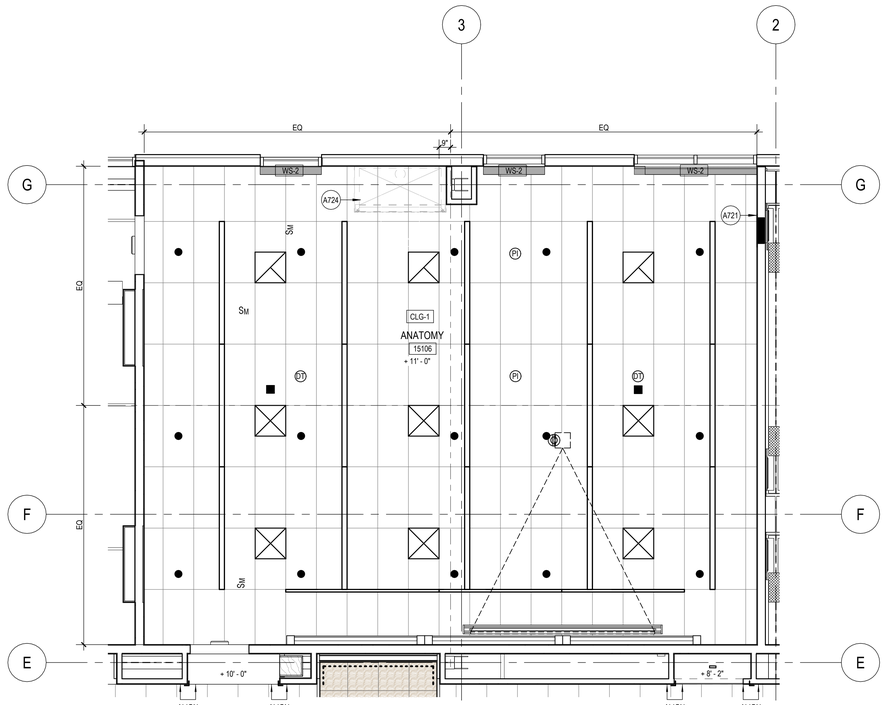

69 ANATOMY 15106 - ENLARGED RCP
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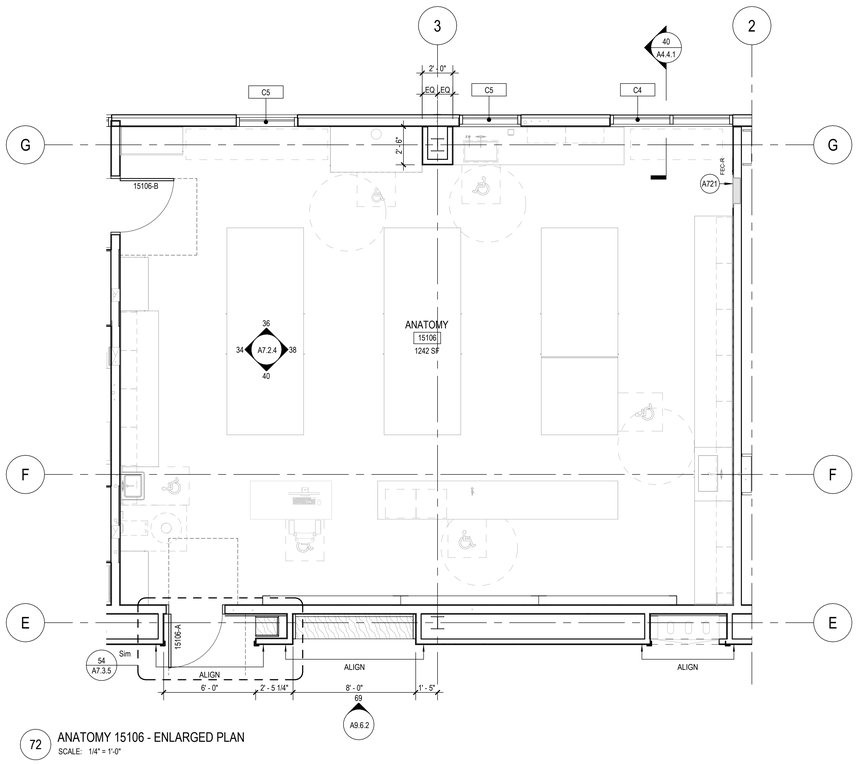
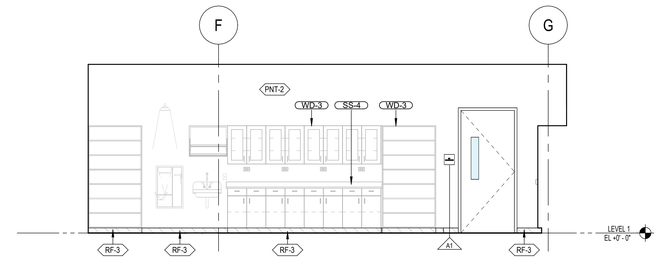
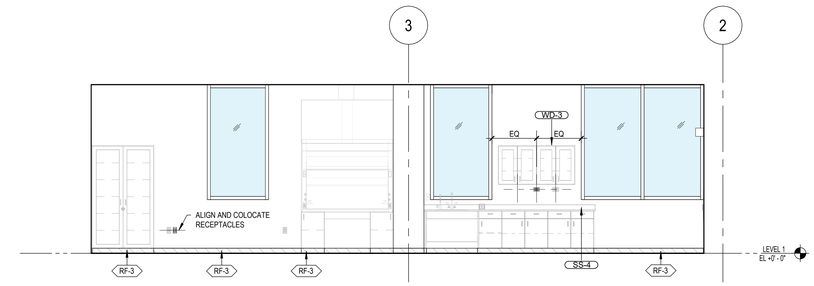


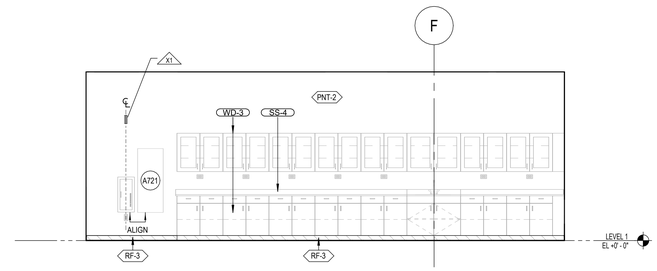
72 ANATOMY 15106 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



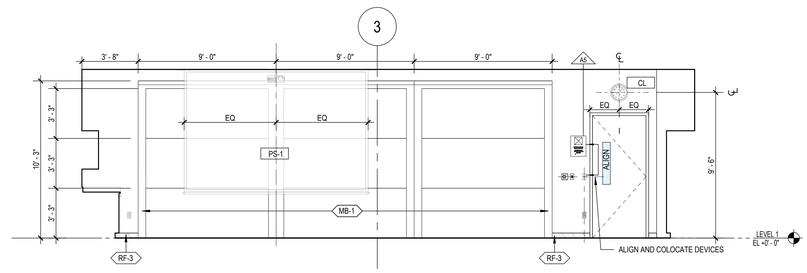
34 ANATOMY 15106 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 ANATOMY 15106 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



38 ANATOMY 15106 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 ANATOMY 15106 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A724 FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 DT OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

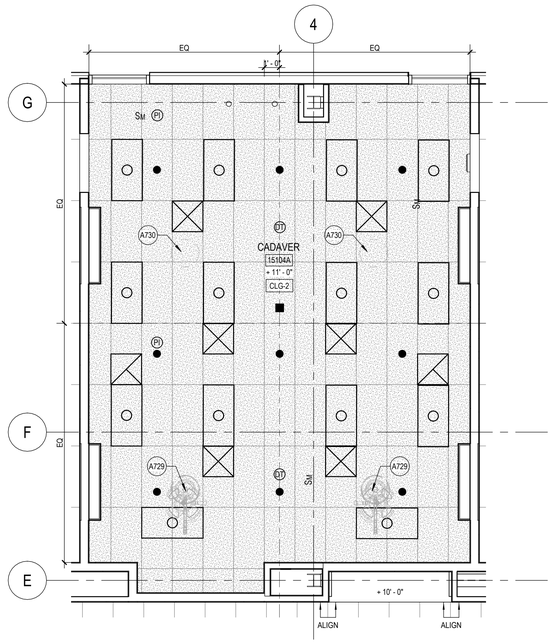
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ANATOMY 15106

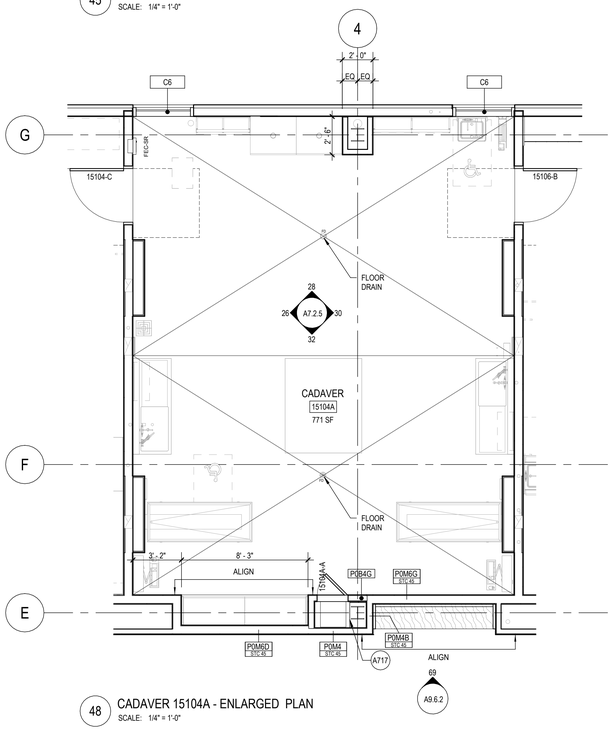
14794
PROJECT NUMBER

CD
A7.2.4
SHEET NUMBER

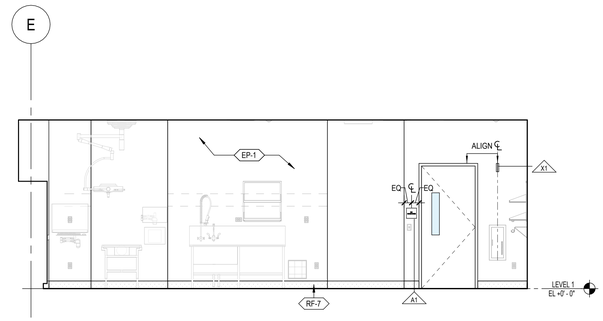
START Sheet
8/25/2025 11:48:57 AM
Plot Date:



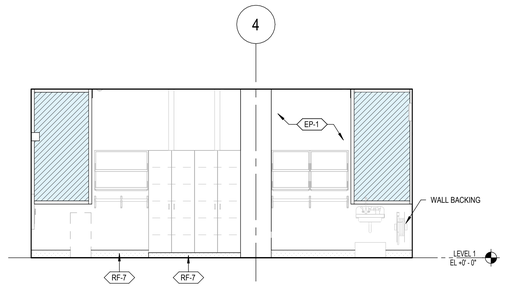
45 CADAVER 15104A - ENLARGED RCP
SCALE: 1/4" = 1'-0"



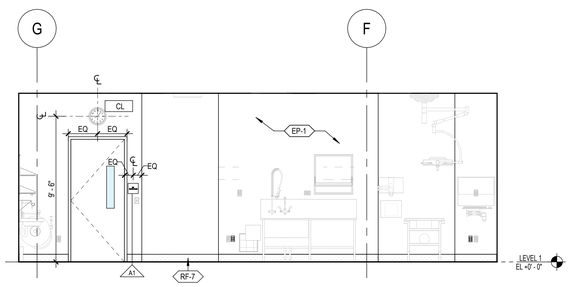
48 CADAVER 15104A - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



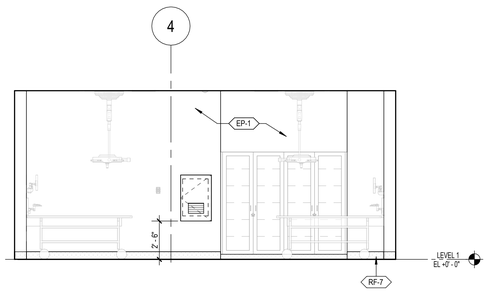
26 CADAVER 15104A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



28 CADAVER 15104A - EAST ELEVATION
SCALE: 1/4" = 1'-0"



30 CADAVER 15104A - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



32 CADAVER 15104A - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A92.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A717	PLATFORM FOR AV RACK, GYP ON 6 " METAL STUD
A729	OVERHEAD SURGICAL LIGHT, REFER TO18/A9.4.3 FOR MOUNTING DETAIL
A730	PROVIDE STRUCT MOUNTING AND ELEC POWER FOR FUTURE OVERHEAD SURGICAL LIGHT, REFER TO 18/A9.4.3 FOR INFO

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1 DT — OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CADAVER

14794

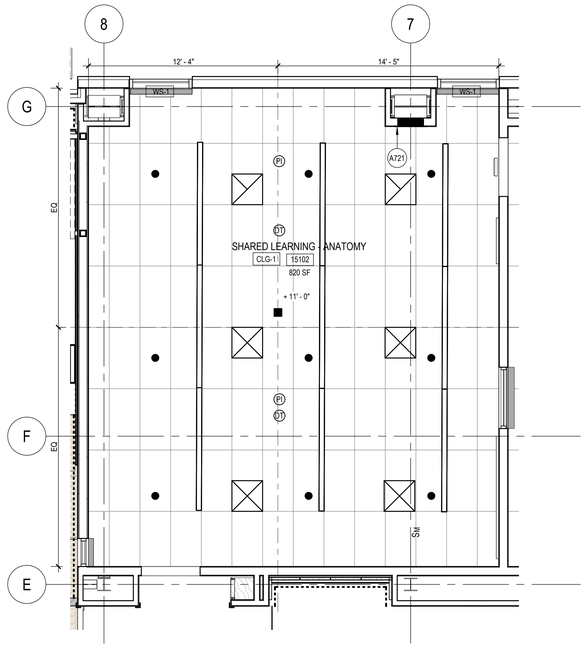
PROJECT NUMBER

CD

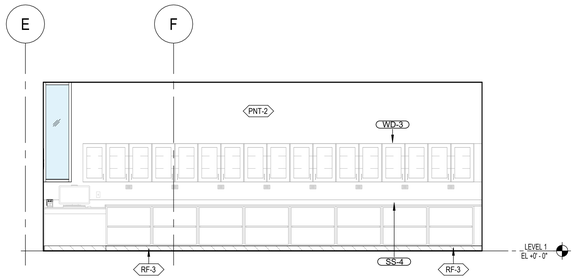
A7.2.5

SHEET NUMBER

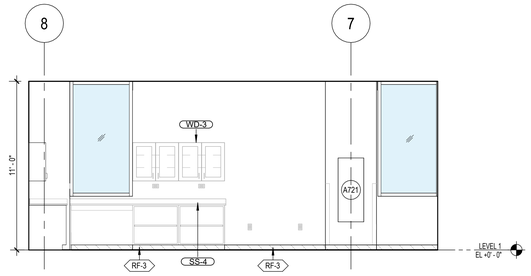
Plot Date: 8/25/2025 11:49:05 AM START Sheet



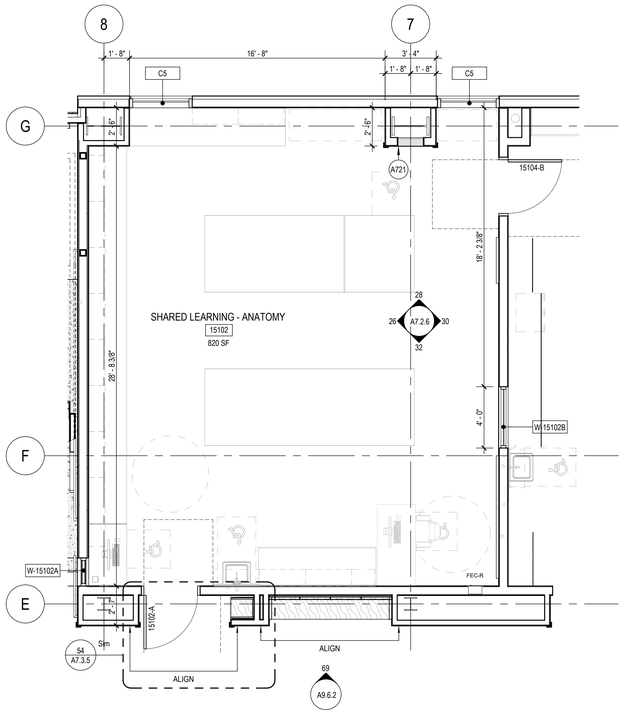
52 SHARED LEARNING ANATOMY 15102 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



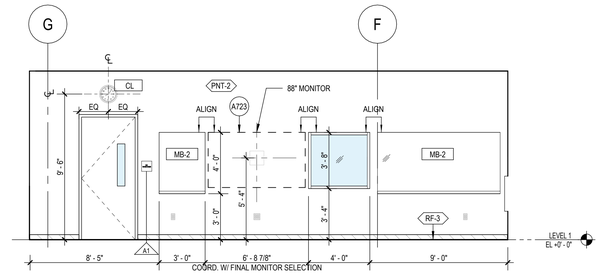
26 SHARED LEARNING ANATOMY 15102 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



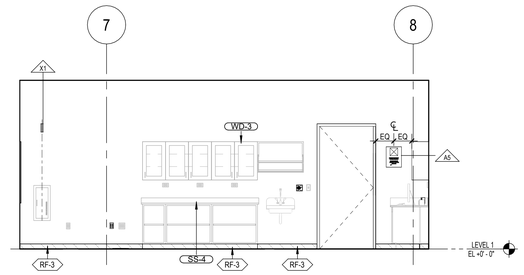
28 SHARED LEARNING ANATOMY 15102 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



56 SHARED LEARNING ANATOMY 15102 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



30 SHARED LEARNING ANATOMY 15102 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



32 SHARED LEARNING ANATOMY 15102 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A723 PROVIDE DATA/POWER/BACKING PLATE/BRACKET (CFCI) FOR DISPLAY SCREEN (CFCI), SEE TELECOM DRAWINGS

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 D7 OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional
STATE OF CALIFORNIA

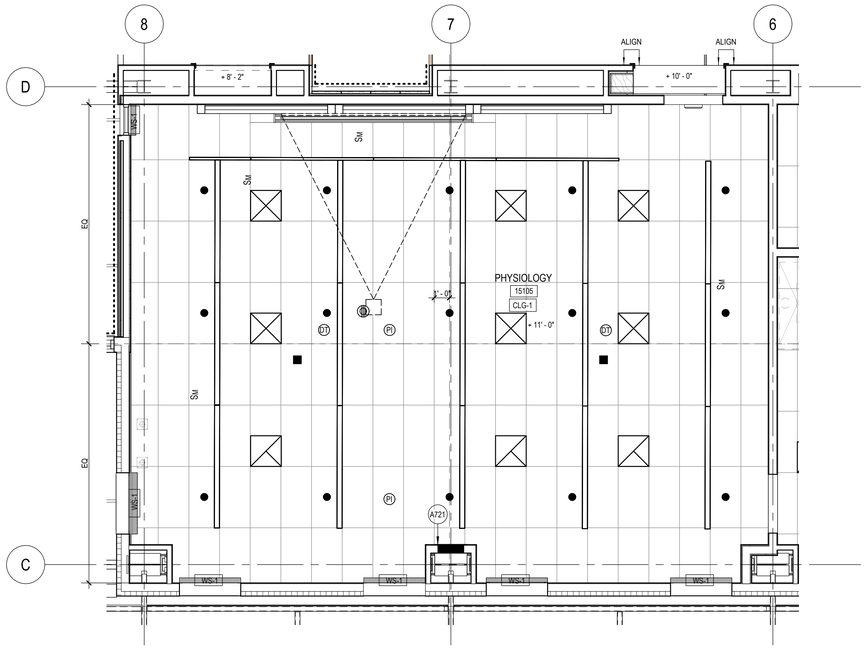
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED LEARNING - ANATOMY

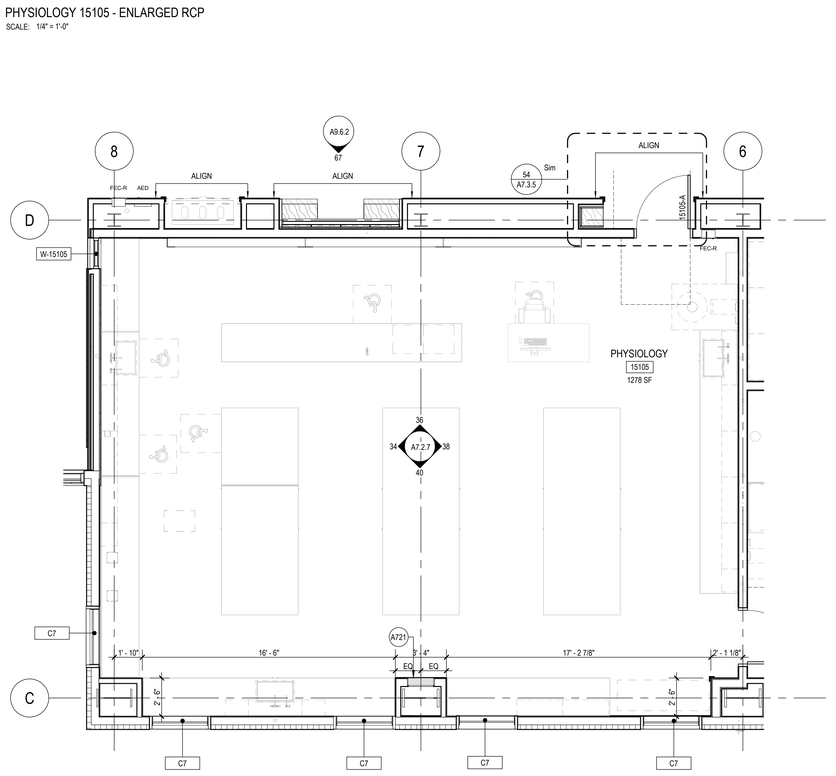
PROJECT NUMBER
14794

CD
A7.2.6
SHEET NUMBER

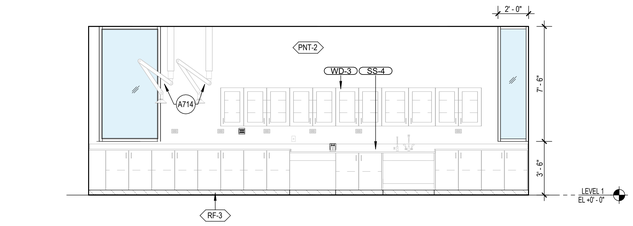
Plot Date: 8/25/2025 11:49:11 AM START Sheet



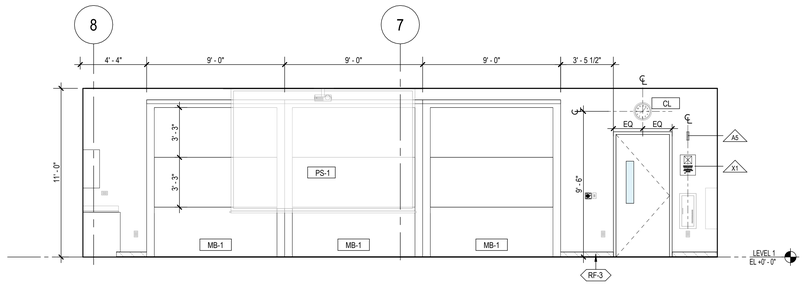
68 PHYSIOLOGY 15105 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



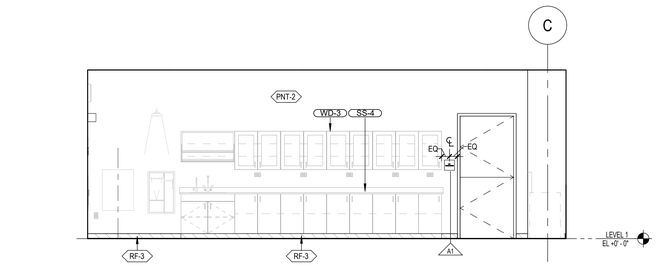
72 PHYSIOLOGY 15105 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



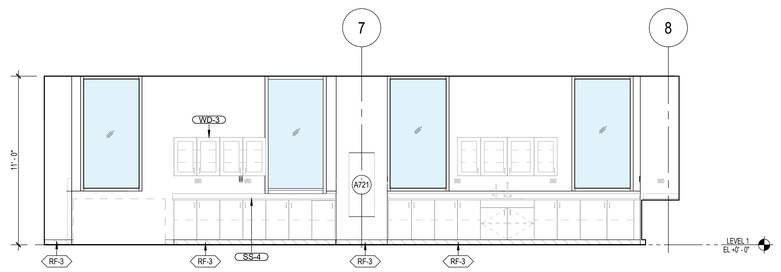
34 PHYSIOLOGY 15105 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 PHYSIOLOGY 15105 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



38 PHYSIOLOGY 15105 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 PHYSIOLOGY 15105 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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K. REFER TO A\2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714 REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 D1 OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

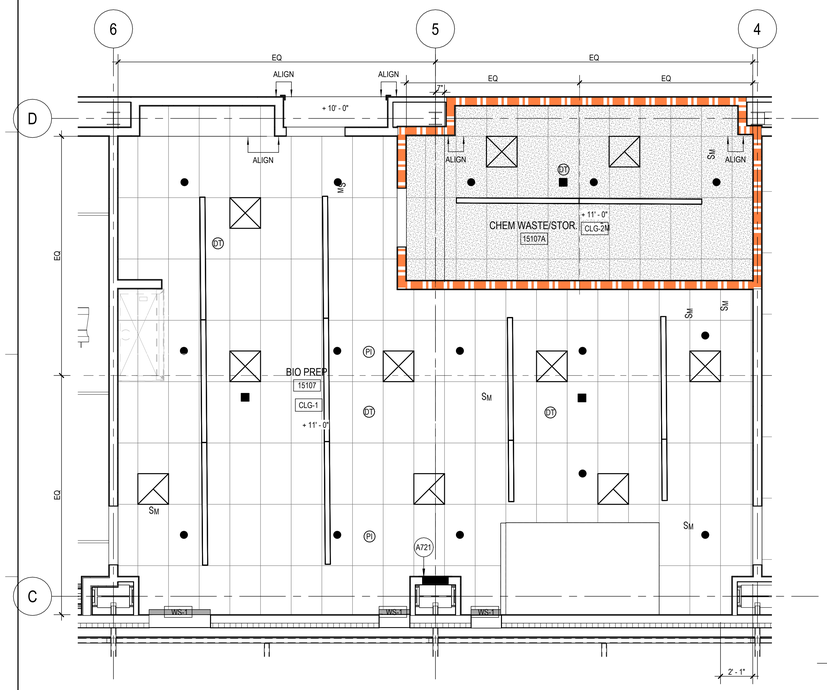
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHYSIOLOGY

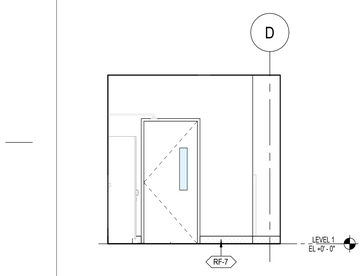
14794
PROJECT NUMBER

CD
SHEET NUMBER **A7.2.7**

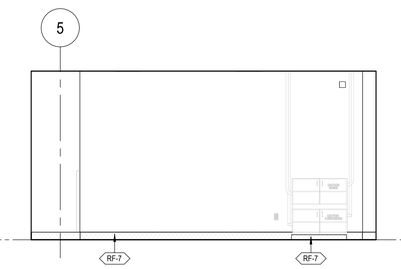
Plot Date: 8/25/2025 11:49:19 AM START Sheet



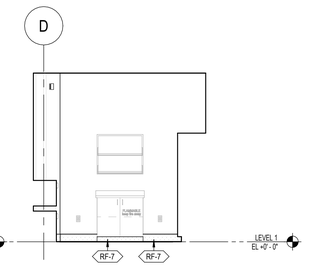
68 BIO PREP 15107 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



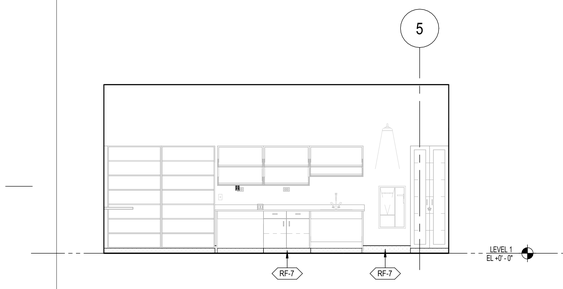
42 CHEM WASTE/STOR. 15107A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



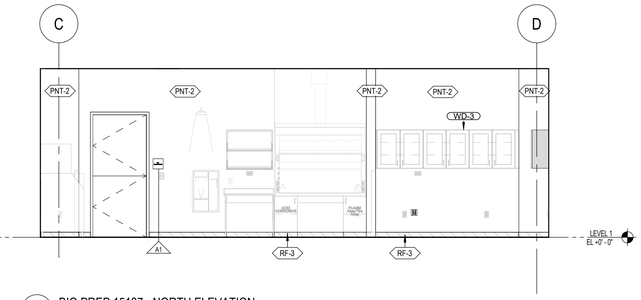
34 CHEM WASTE/STOR. 15107A - EAST ELEVATION
SCALE: 1/4" = 1'-0"



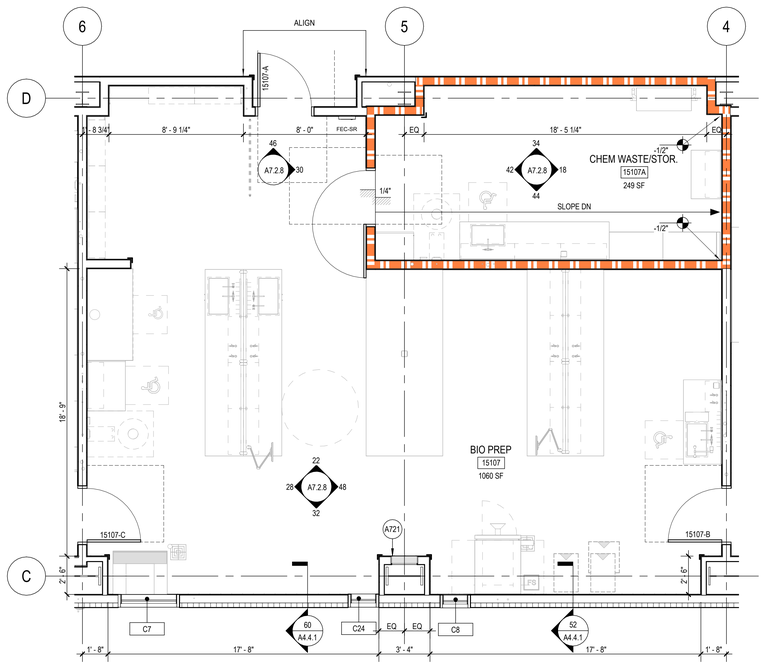
18 CHEM WASTE/STOR. 15107A - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



44 CHEM WASTE/STOR. 15107A - WEST ELEVATION
SCALE: 1/4" = 1'-0"



28 BIO PREP 15107 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



72 BIO PREP 15107 - ENLARGED PLAN
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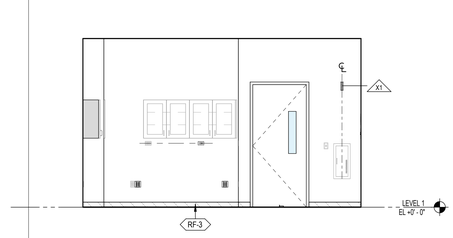
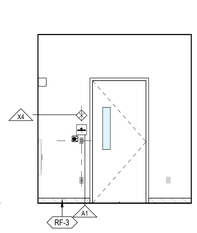
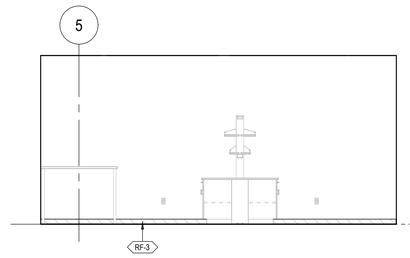


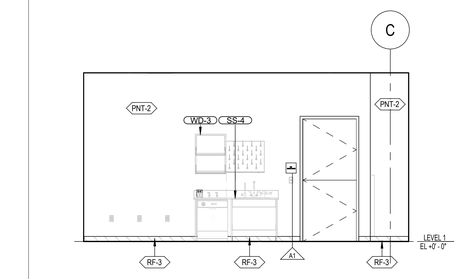
46 BIO PREP 15107 - EAST AT HALL
SCALE: 1/4" = 1'-0"



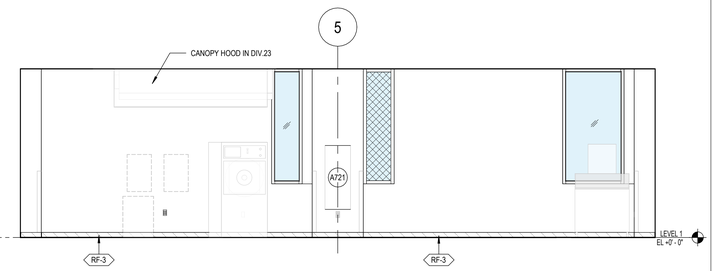
30 BIO PREP 15107 - SOUTH AT HALL
SCALE: 1/4" = 1'-0"



22 BIO PREP 15107 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



48 BIO PREP 15107 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



32 BIO PREP 15107 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1/DT OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R FULLY RECESSED FEC, SEE A9.5.2
- X SIGNAGE TYPE

LAS POSITAS COLLEGE

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional
STATE OF CALIFORNIA

PROJECT NORTH

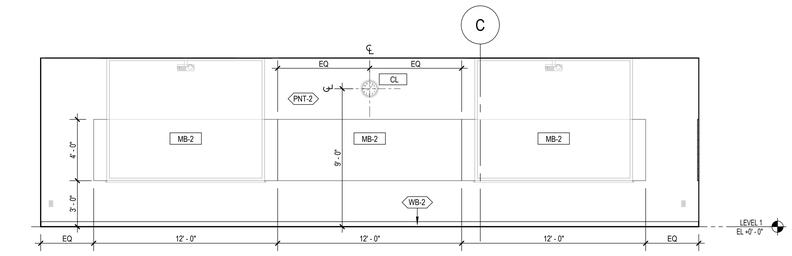
SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - BIO PREP

PROJECT NUMBER
14794

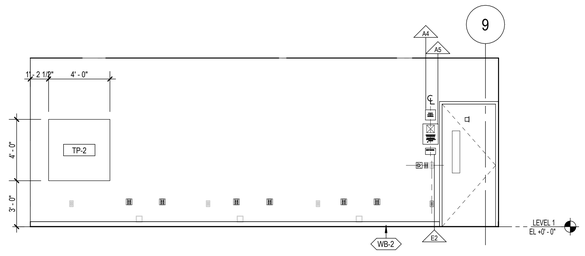
CD

SHEET NUMBER
A7.2.8

Plot Date: 8/25/2025 11:49:32 AM START Sheet



66 GRAPHIC DESIGN LAB 15103 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



42 GRAPHIC DESIGN LAB 15103 - EAST ELEVATION
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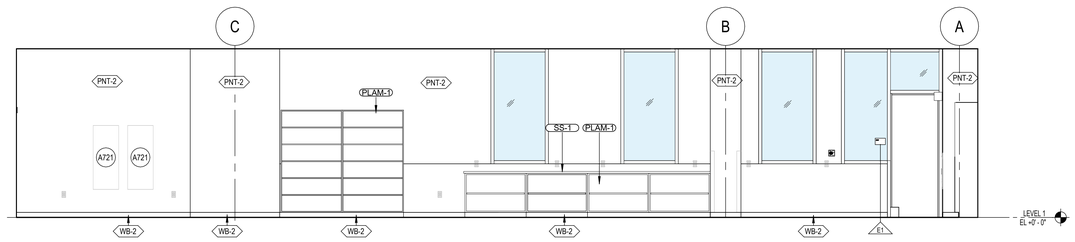
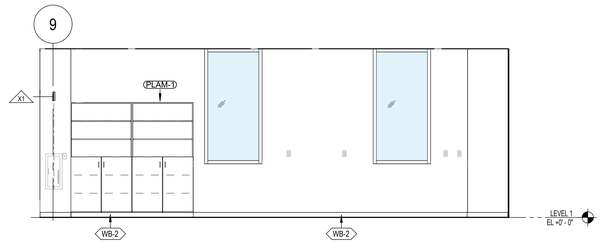


67 GRAPHIC DESIGN LAB 15103 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



35 GD WORKROOM 15103A- WEST ELEVATION
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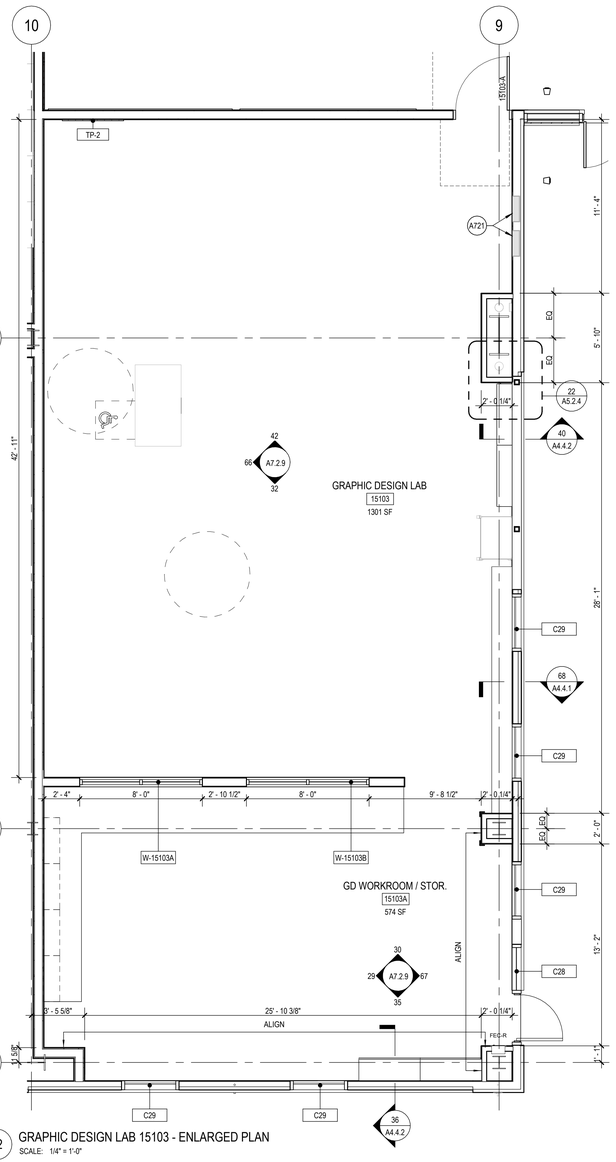
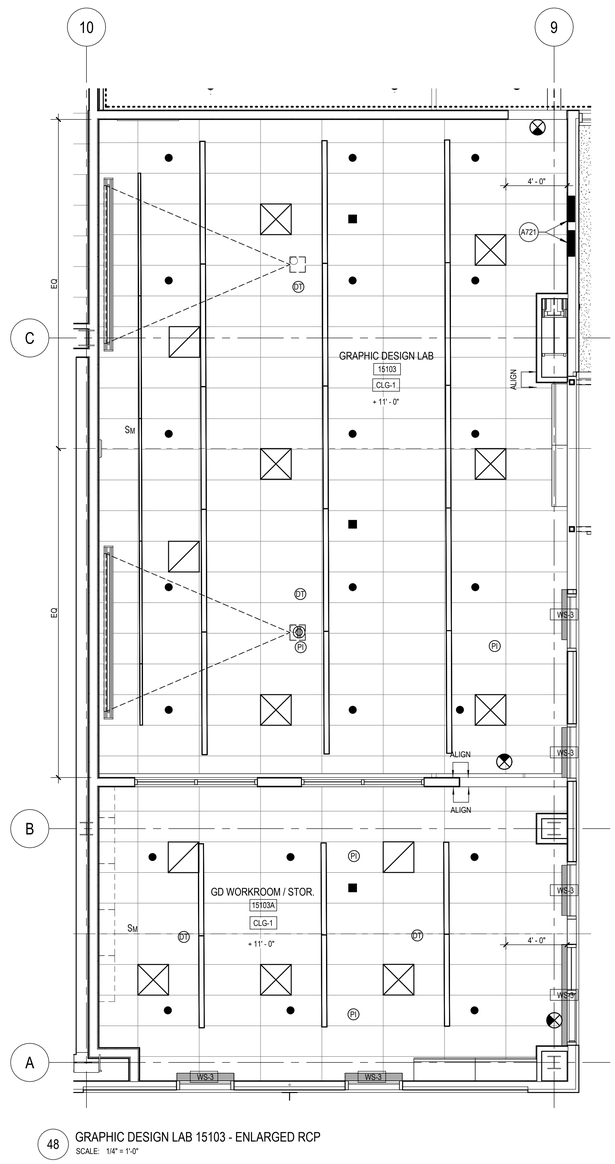


72 GRAPHIC DESIGN LAB 15103 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



48 GRAPHIC DESIGN LAB 15103 - ENLARGED RCP
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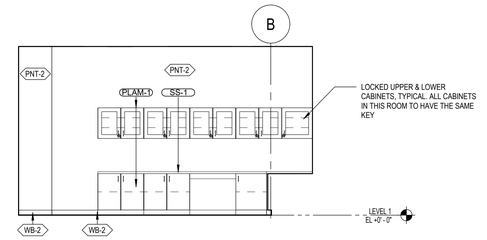
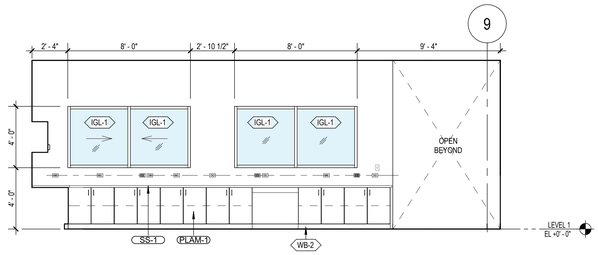


29 GD WORKROOM 15103A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



30 GD WORKROOM 15103A - EAST ELEVATION
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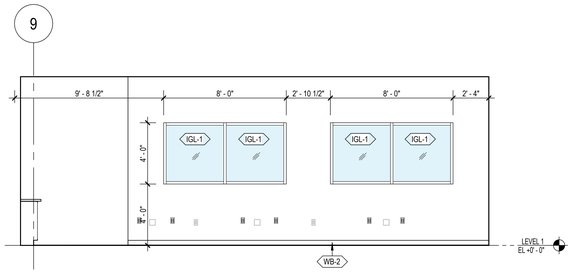

32 GRAPHIC DESIGN LAB 15103 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 D7 OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
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smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

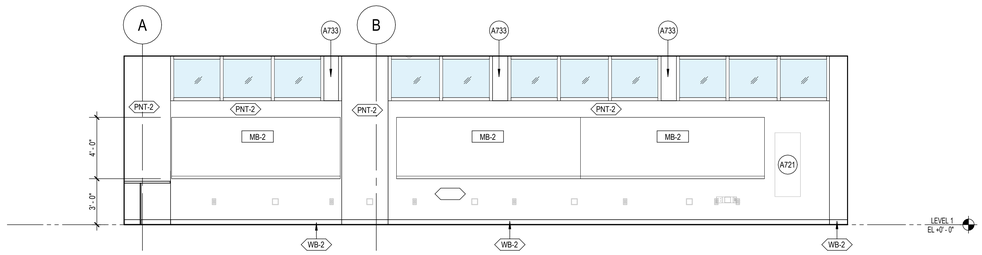
SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GRAPHIC DESIGN LAB

PROJECT NUMBER 14794

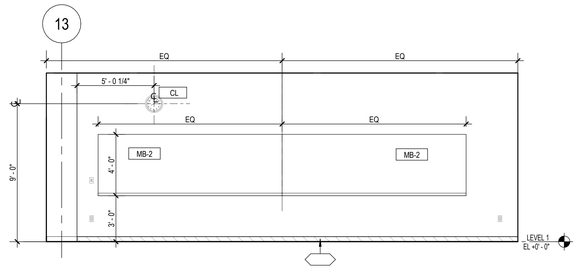
CD **A7.2.9**

SHEET NUMBER

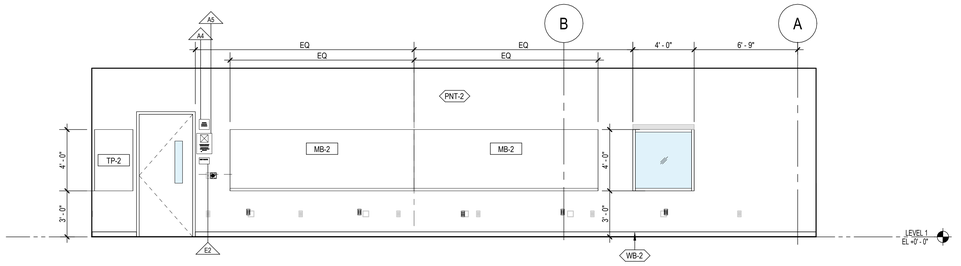
START Sheet
8/25/2025 11:49:41 AM
Plot Date:



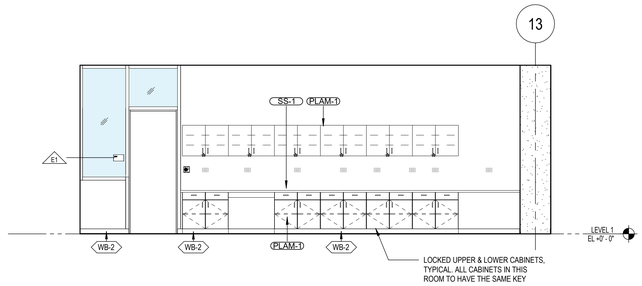
58 PHOTOGRAPHY COMP. LAB 15101C - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



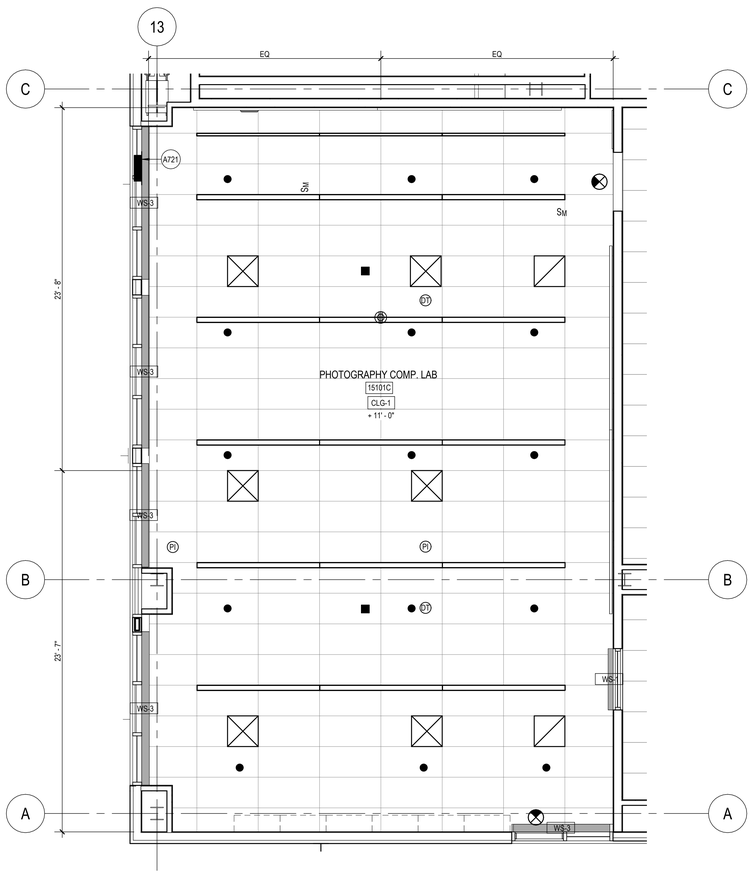
26 PHOTOGRAPHY COMP. LAB 15101C - EAST ELEVATION
SCALE: 1/4" = 1'-0"



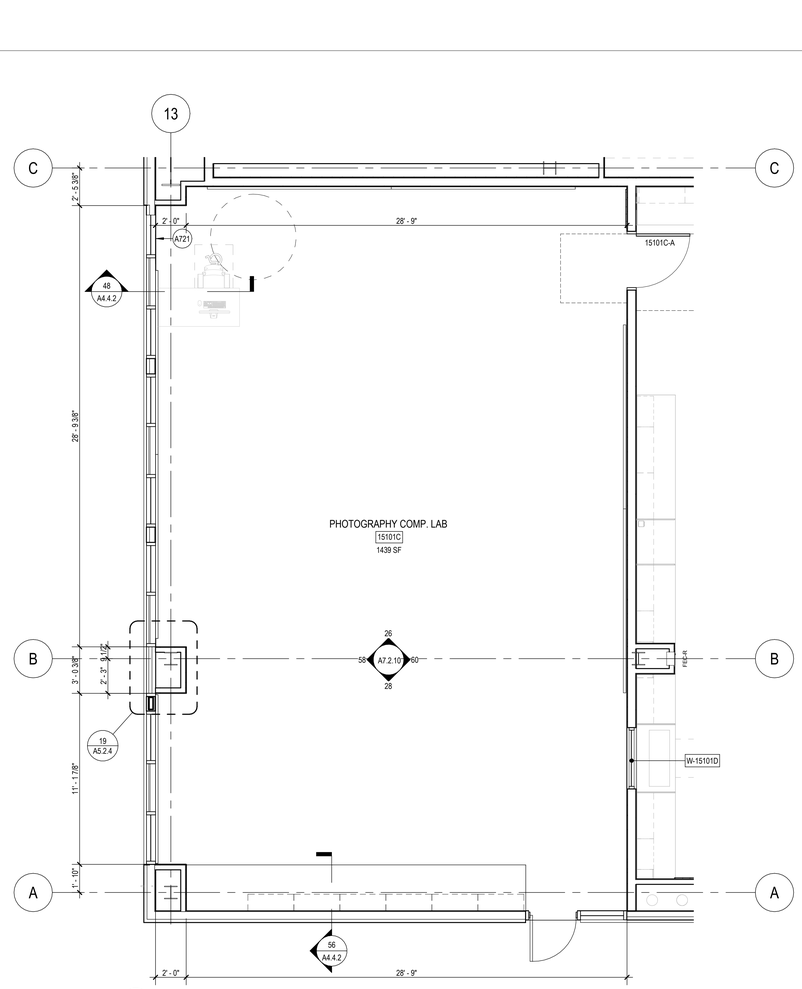
60 PHOTOGRAPHY COMP. LAB 15101C - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



28 PHOTOGRAPHY COMP. LAB 15101C - WEST ELEVATION
SCALE: 1/4" = 1'-0"



64 PHOTOGRAPHY COMP LAB 15101C - ENLARGED RCP
SCALE: 1/4" = 1'-0"



40 PHOTOGRAPHY COMP LAB 15101C - ENLARGED PLAN
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A733 ALUMINUM CLOSING, COLOR TO MATCH CURTAIN WALL SYSTEM. REFER TO DETAIL 19/A5.2.4

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
ARCHITECTURAL FINISHES
LAB CASEWORK FINISHES
FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
FEC-R — FULLY RECESSED FEC, SEE A9.5.2
SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

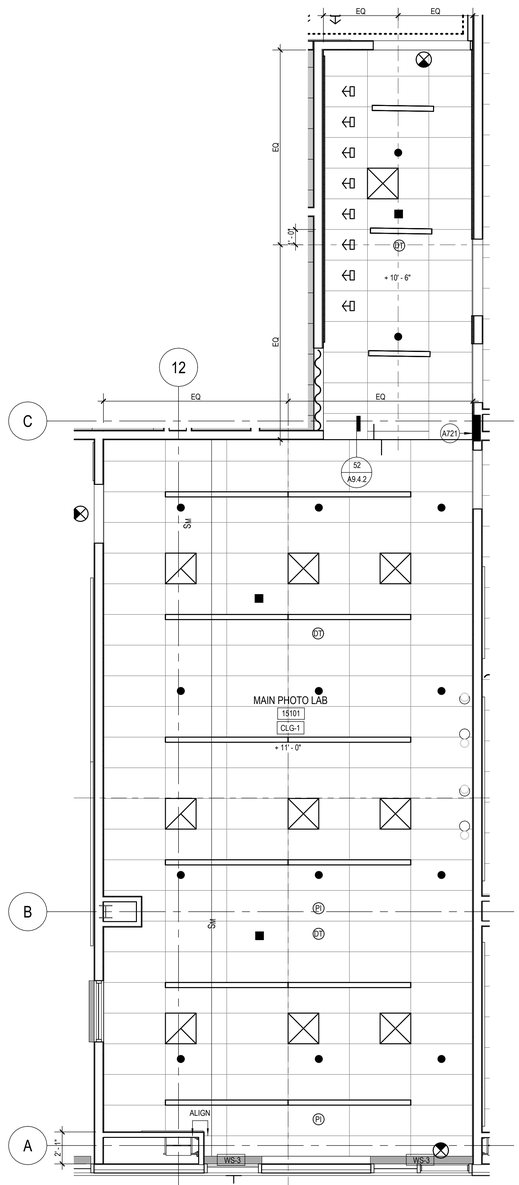
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY COMP LAB

PROJECT NUMBER
14794

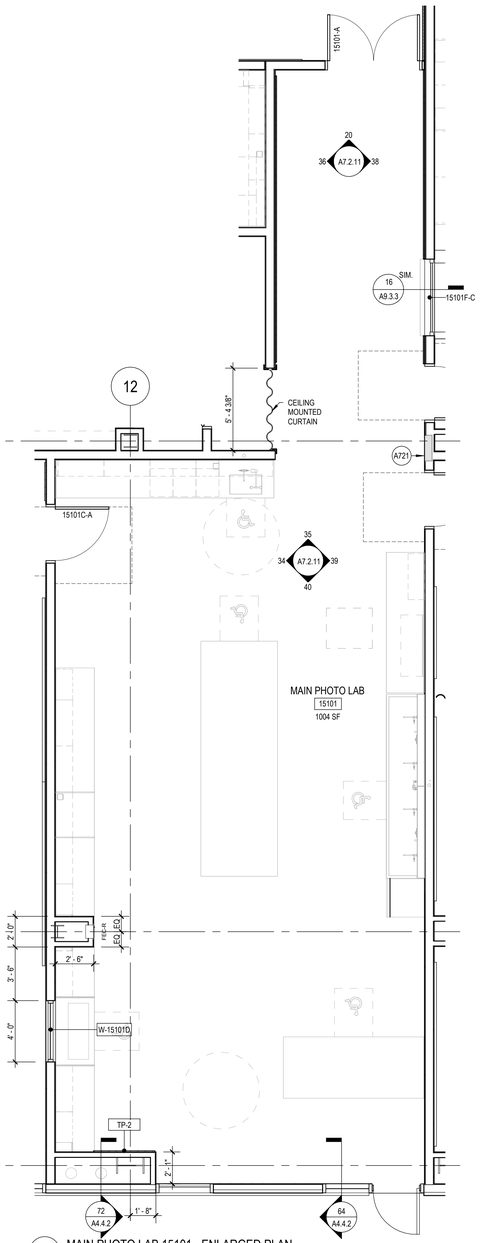
CD
A7.2.10
SHEET NUMBER

Plot Date: 8/25/2025 11:49:48 AM START Sheet



12 C

72 MAIN PHOTO LAB 15101 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



56 MAIN PHOTO LAB 15101 - ENLARGED PLAN
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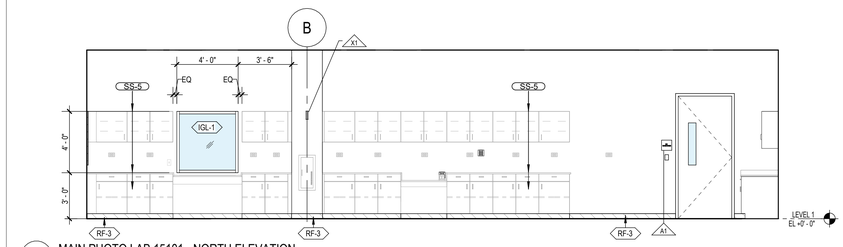

34 MAIN PHOTO LAB 15101 - NORTH ELEVATION
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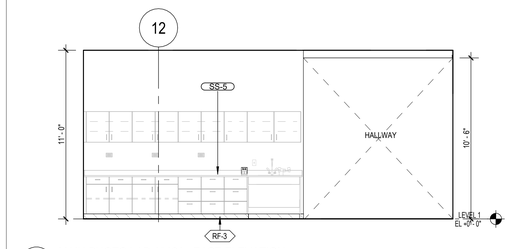

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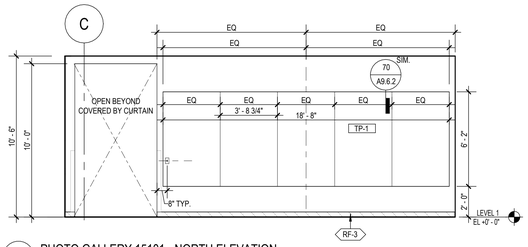

36 PHOTO GALLERY 15101 - NORTH ELEVATION
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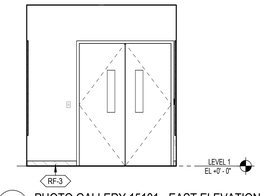

20 PHOTO GALLERY 15101 - EAST ELEVATION
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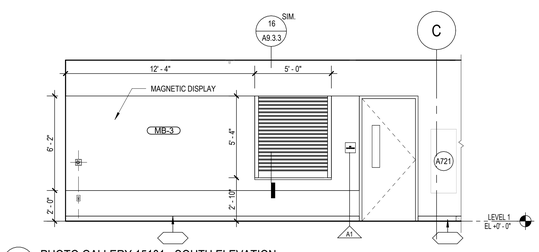

38 PHOTO GALLERY 15101 - SOUTH ELEVATION
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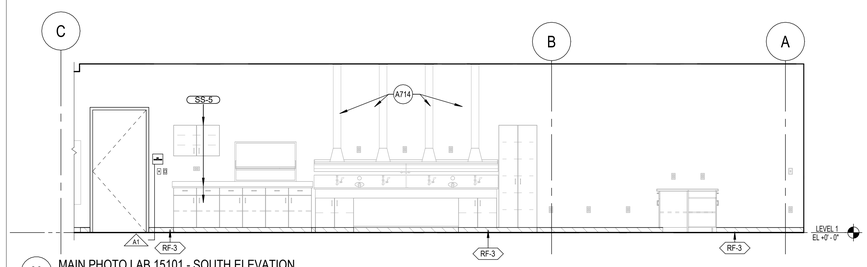
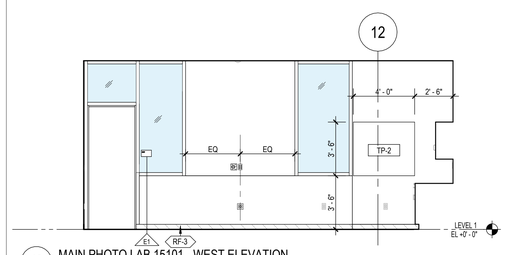


39 MAIN PHOTO LAB 15101 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 MAIN PHOTO LAB 15101 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714	REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT
A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
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- CLG MOVEMENT JOINT
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- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY MAIN LAB

PROJECT NUMBER 14794

SHEET NUMBER CD **A7.2.11**

START Sheet
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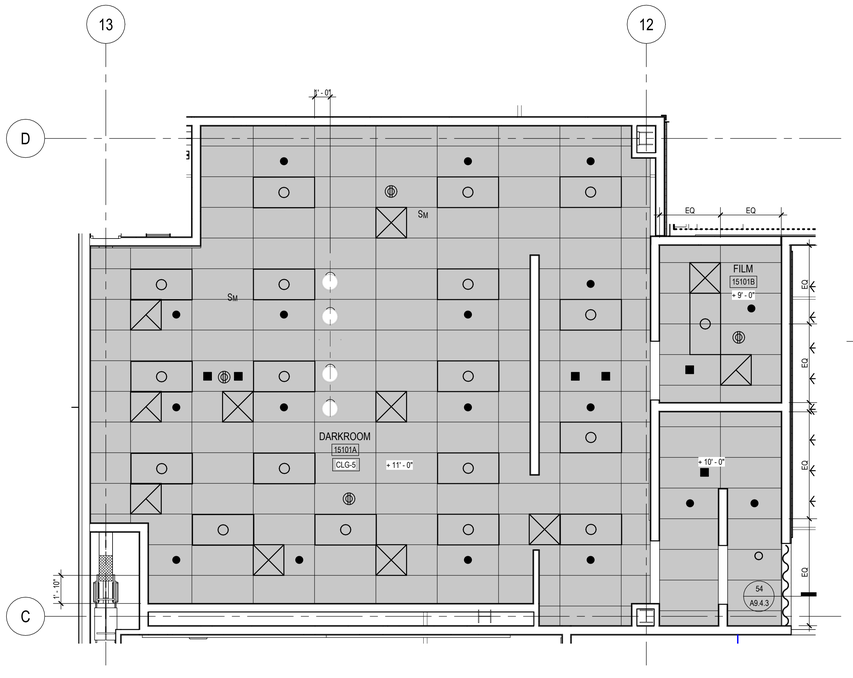
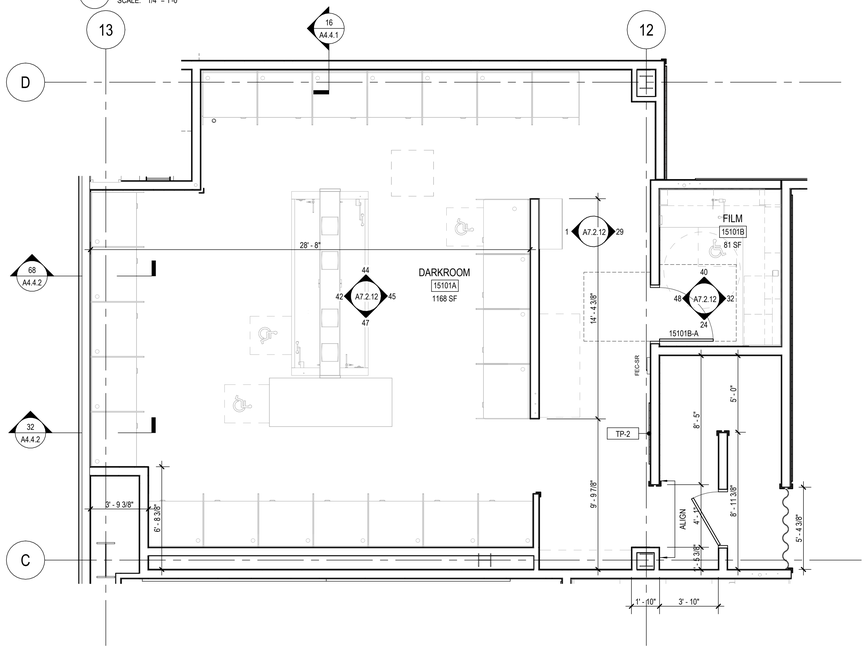


69 DARKROOM 15101A - ENLARGED RCP
SCALE: 1/4" = 1'-0"



72 DARKROOM 15101A - ENLARGED PLAN
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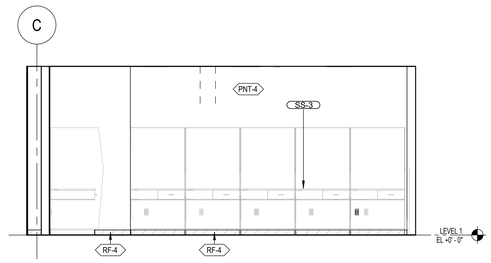
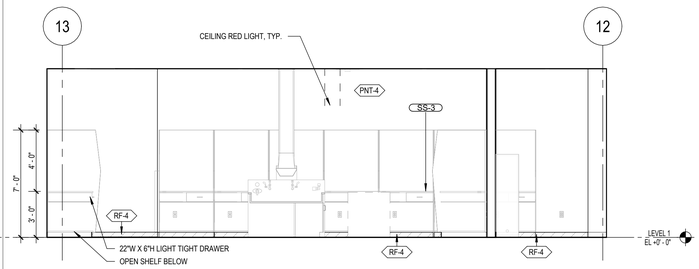


42 DARKROOM 15101A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



1 DARKROOM 1510A - NORTH ELEVATION 2
SCALE: 1/4" = 1'-0"



44 DARKROOM 15101A - EAST ELEVATION
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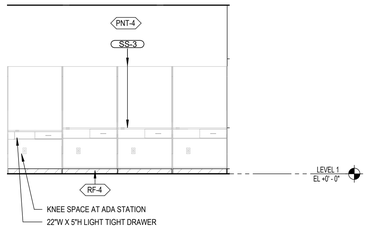

45 DARKROOM 15101A - SOUTH 2 ELEVATION
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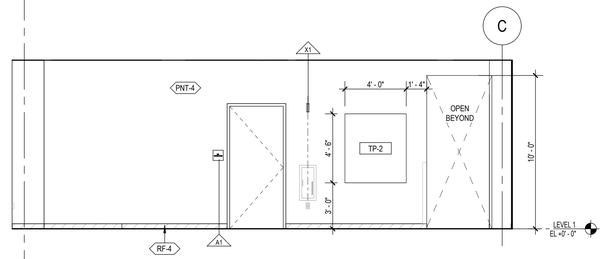
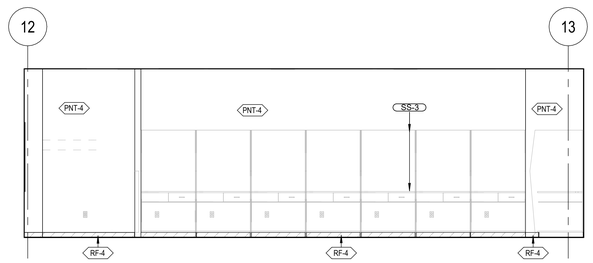


29 DARKROOM 15101A - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



47 DARKROOM 15101A - WEST ELEVATION
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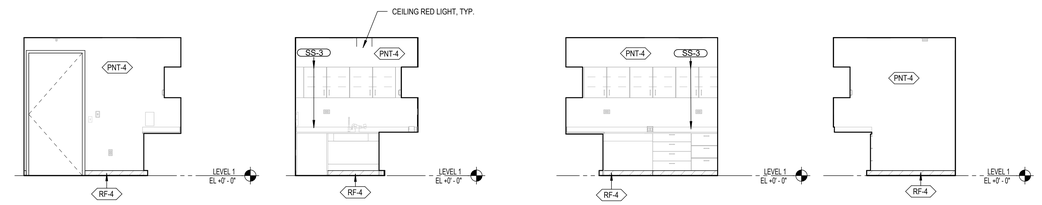

48 PHOTO FILM 15101B - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

40 PHOTO FILM 15101B - EAST ELEVATION
SCALE: 1/4" = 1'-0"

32 PHOTO FILM 15101B - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

24 PHOTO FILM 15101B - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

◯ SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
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- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY DARKROOM

14794

PROJECT NUMBER

CD

A7.2.12

SHEET NUMBER

START Sheet
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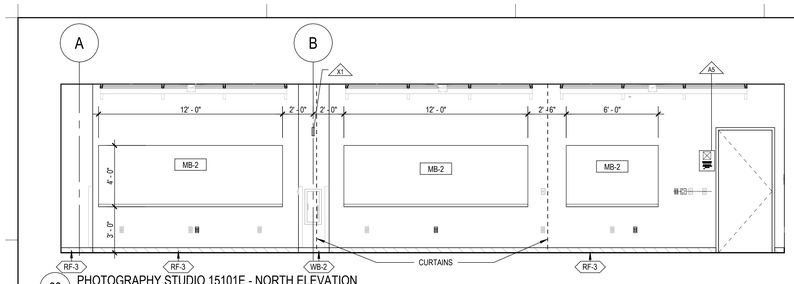
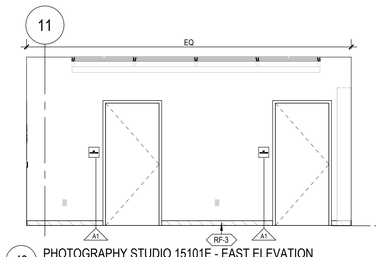
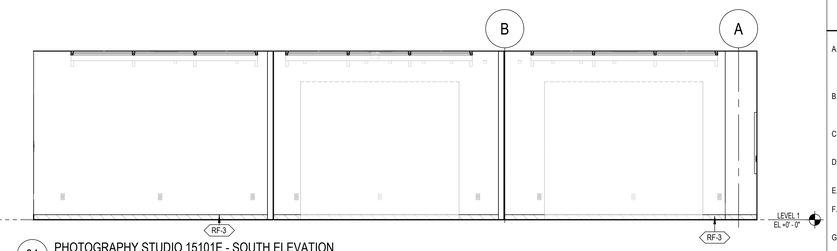


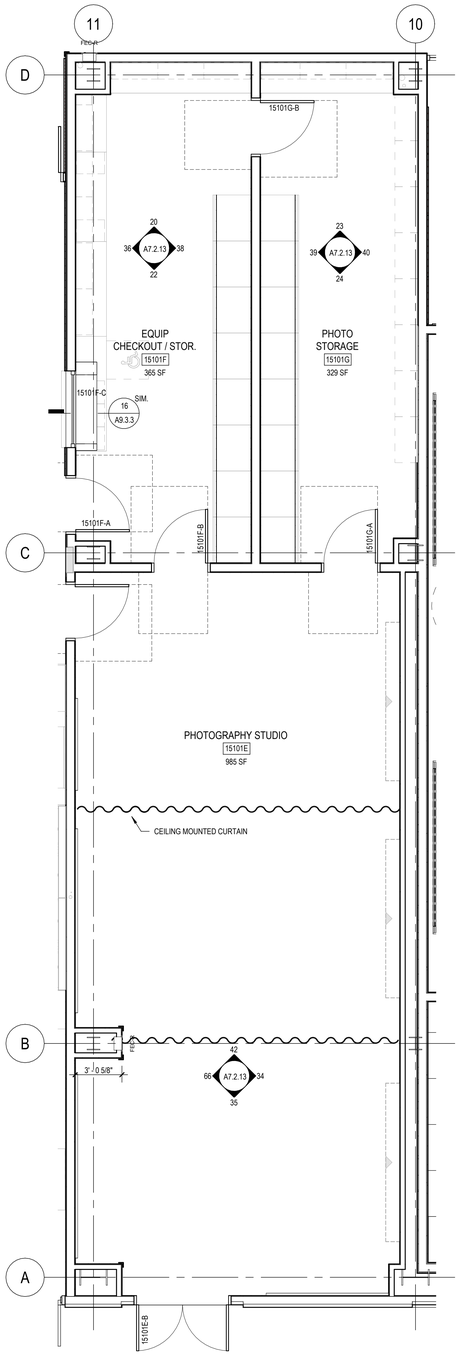
66 PHOTOGRAPHY STUDIO 15101E - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



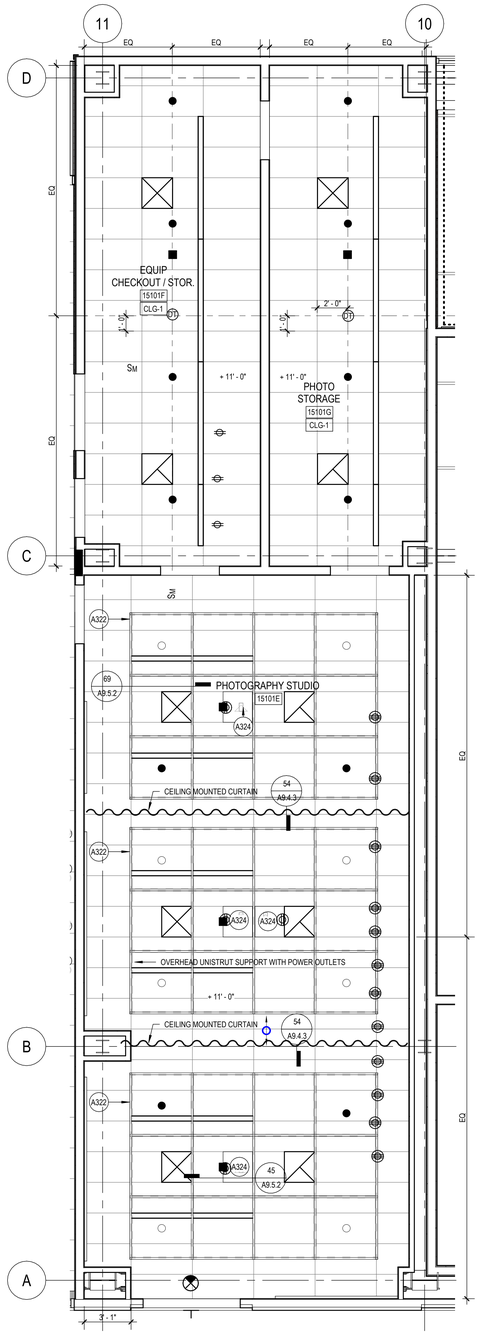
42 PHOTOGRAPHY STUDIO 15101E - EAST ELEVATION
SCALE: 1/4" = 1'-0"



34 PHOTOGRAPHY STUDIO 15101E - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



72 PHOTOGRAPHY STUDIO 15101E - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



56 PHOTOGRAPHY STUDIO 15101E - ENLARGED RCP
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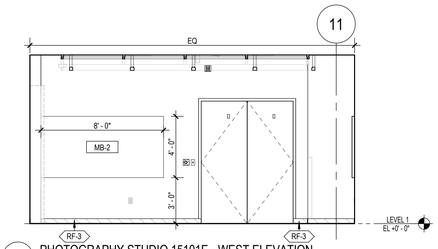
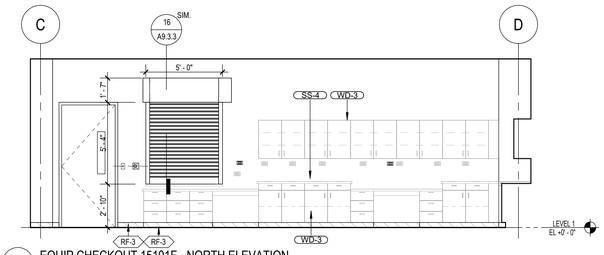
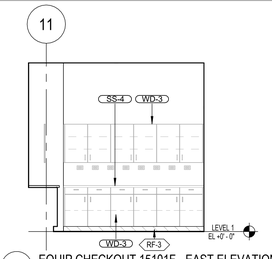


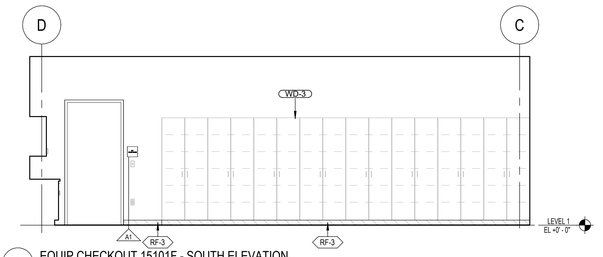
35 PHOTOGRAPHY STUDIO 15101E - WEST ELEVATION
SCALE: 1/4" = 1'-0"



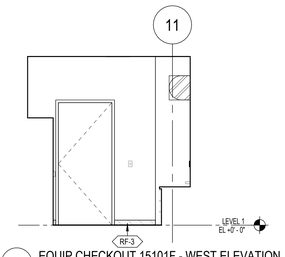
36 EQUIP CHECKOUT 15101F - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



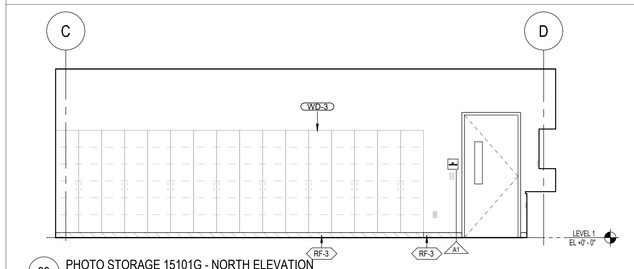
20 EQUIP CHECKOUT 15101F - EAST ELEVATION
SCALE: 1/4" = 1'-0"



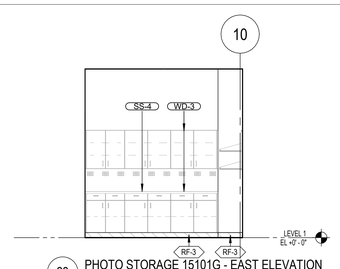
38 EQUIP CHECKOUT 15101F - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



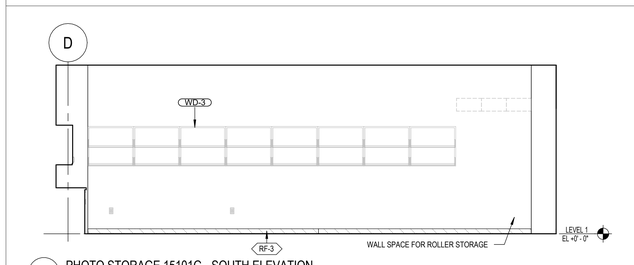
22 EQUIP CHECKOUT 15101F - WEST ELEVATION
SCALE: 1/4" = 1'-0"



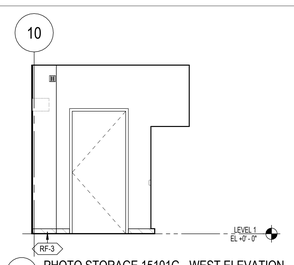
39 PHOTO STORAGE 15101G - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 PHOTO STORAGE 15101G - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 PHOTO STORAGE 15101G - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 PHOTO STORAGE 15101G - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A322 UNISTRUT GRID SYSTEM FOR OFCI TRACK LIGHT SUPPORT, SEE DETAIL 69/A9.5.2

A324 RECESSED CEILING FOR OFCI CEILING MOUNTED CORD REELS, SEE DETAL 45/A9.5.2

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
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- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PHOTOGRAPHY STUDIO & STORAGE

14794

PROJECT NUMBER

CD **A7.2.13**

SHEET NUMBER

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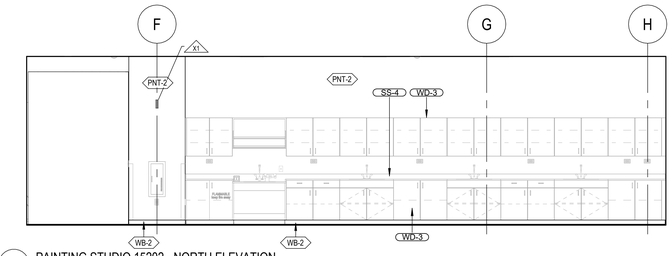

66 PAINTING STUDIO 15202 - NORTH ELEVATION
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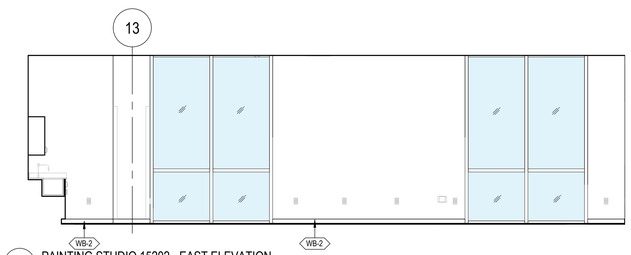

50 PAINTING STUDIO 15202 - EAST ELEVATION
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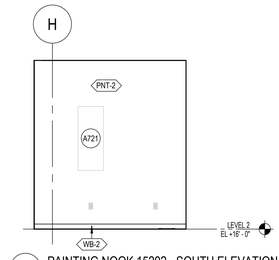

26 PAINTING NOOK 15202 - SOUTH ELEVATION
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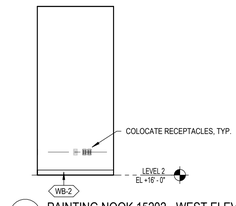

18 PAINTING NOOK 15202 - WEST ELEVATION
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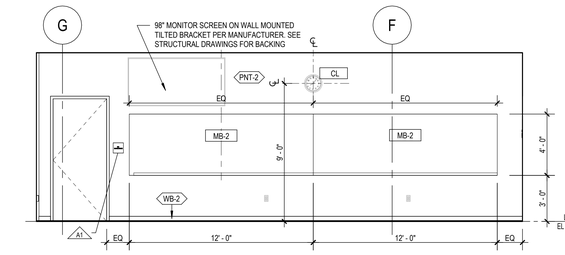

51 PAINTING STUDIO 15202 - SOUTH ELEVATION
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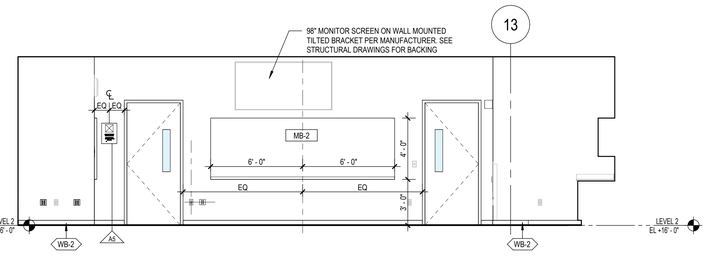
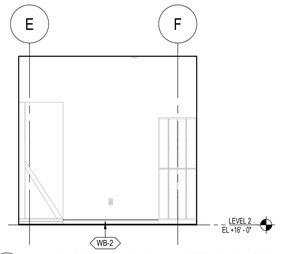


27 PAINTING STUDIO 15202 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



44 PAINTING STUDIO 2 15202 - NORTH ELEVATION
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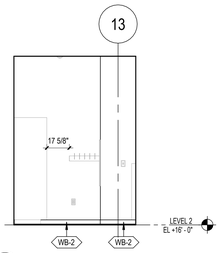

36 PAINTING STUDIO 2 15202 - EAST ELEVATION
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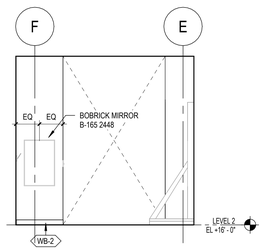
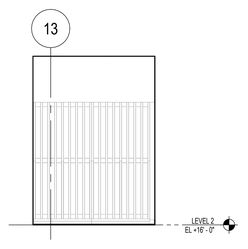


28 PAINTING STUDIO 2 15202 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



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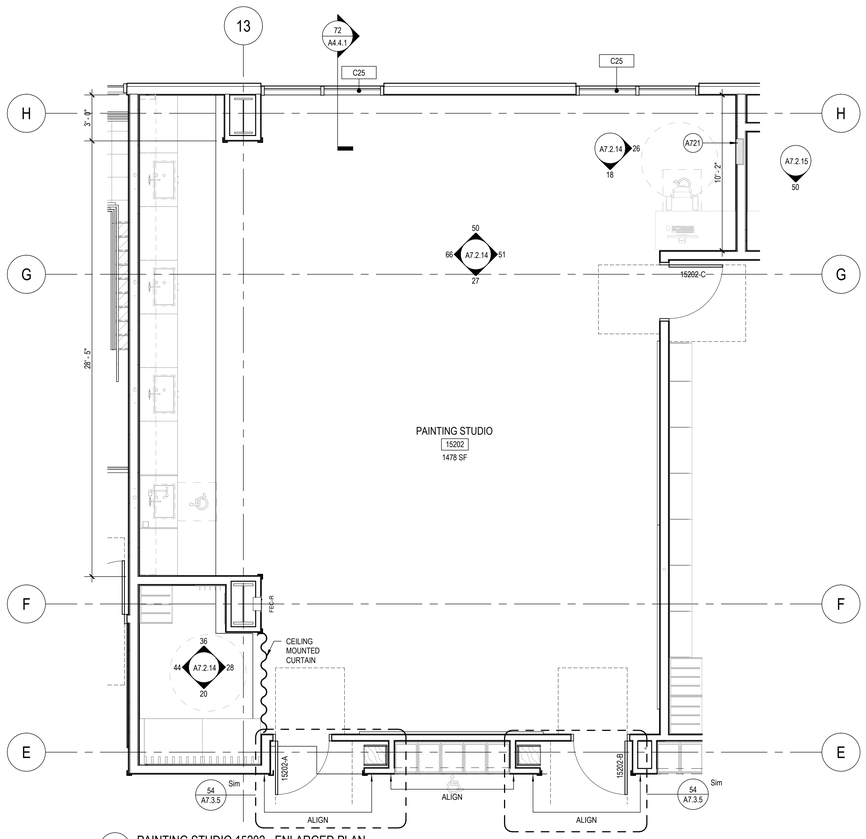

72 PAINTING STUDIO 15202 - ENLARGED PLAN
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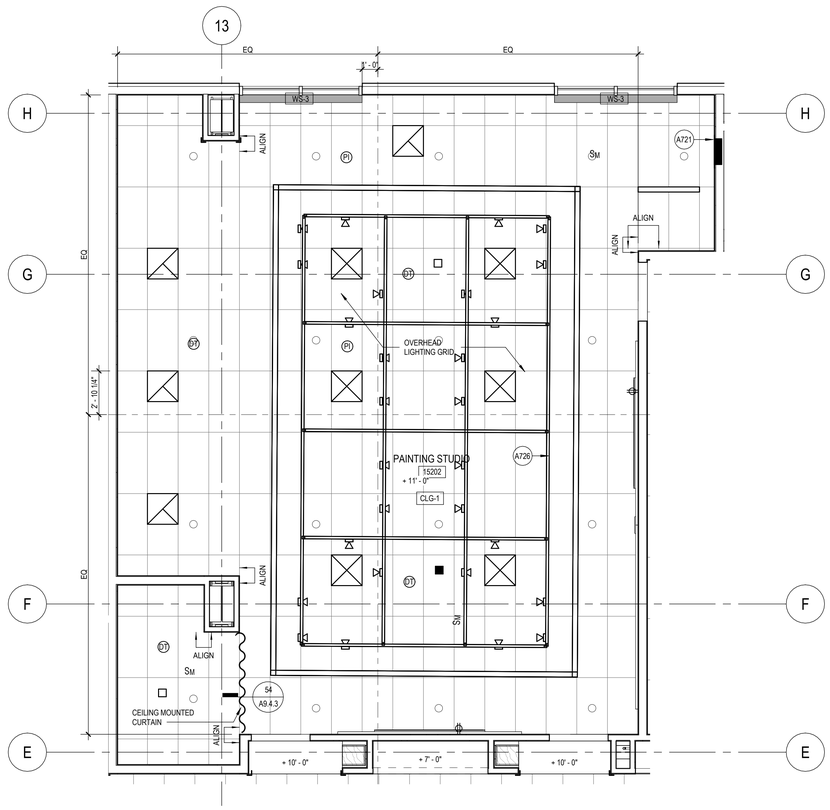

40 PAINTING STUDIO 15202 - ENLARGED RCP
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721	ELECTRICAL PANEL. REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A726	OVERHEAD LIGHTING GRID. SEE SHEET E6.1.3 FOR DETAIL.

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1 D7 OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R FULLY RECESSED FEC, SEE A9.5.2
- X SIGNAGE TYPE

LAS POSITAS COLLEGE

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LIVERMORE, CA 94551

SMITHGROUP

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415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - PAINTING STUDIO

PROJECT NUMBER
14794

CD

SHEET NUMBER
A7.2.14

START Sheet
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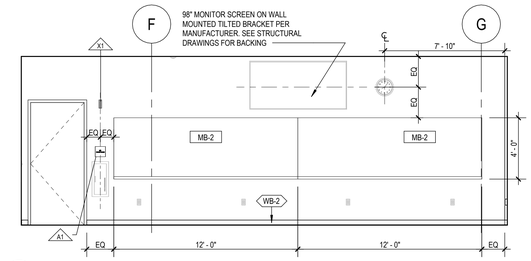

66 DRAWING STUDIO 15204 - NORTH ELEVATION
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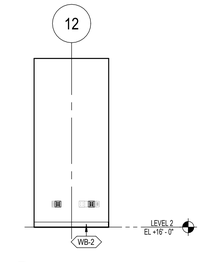

50 DRAWING NOOK 15204A - WEST ELEVATION
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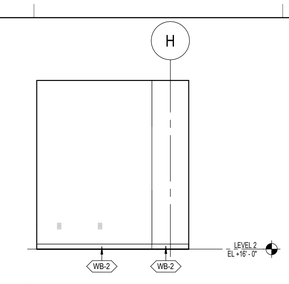

42 DRAWING NOOK 15204A - NORTH ELEVATION
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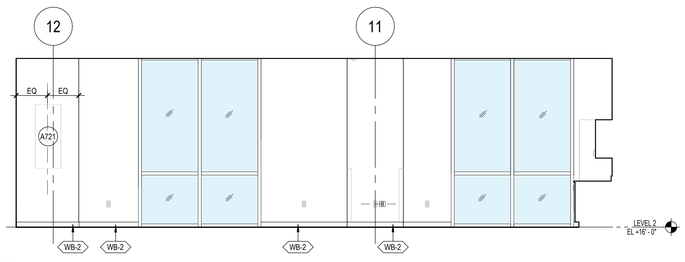
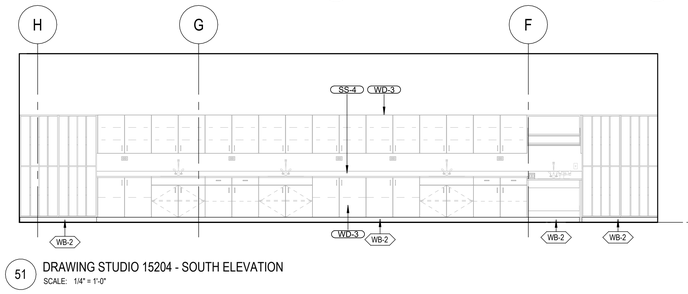


26 DRAWING STUDIO 15204 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



51 DRAWING STUDIO 15204 - SOUTH ELEVATION
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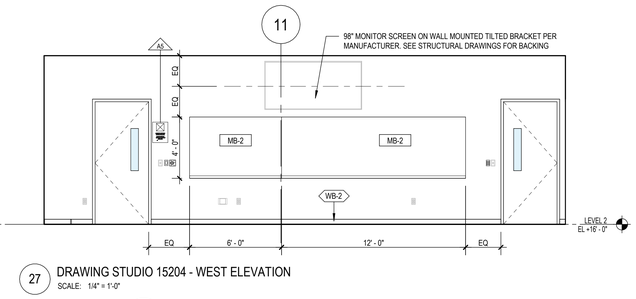
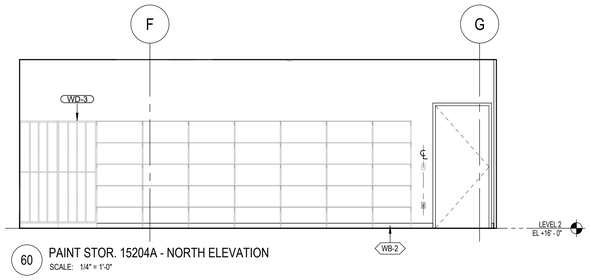
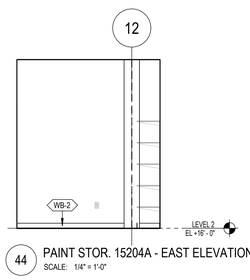


27 DRAWING STUDIO 15204 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



60 PAINT STOR. 15204A - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



44 PAINT STOR. 15204A - EAST ELEVATION
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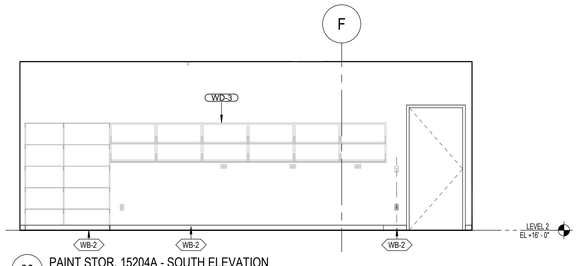

36 PAINT STOR. 15204A - SOUTH ELEVATION
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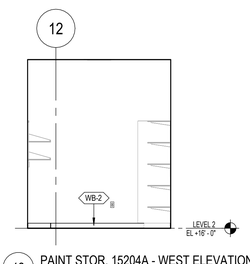

12 PAINT STOR. 15204A - WEST ELEVATION
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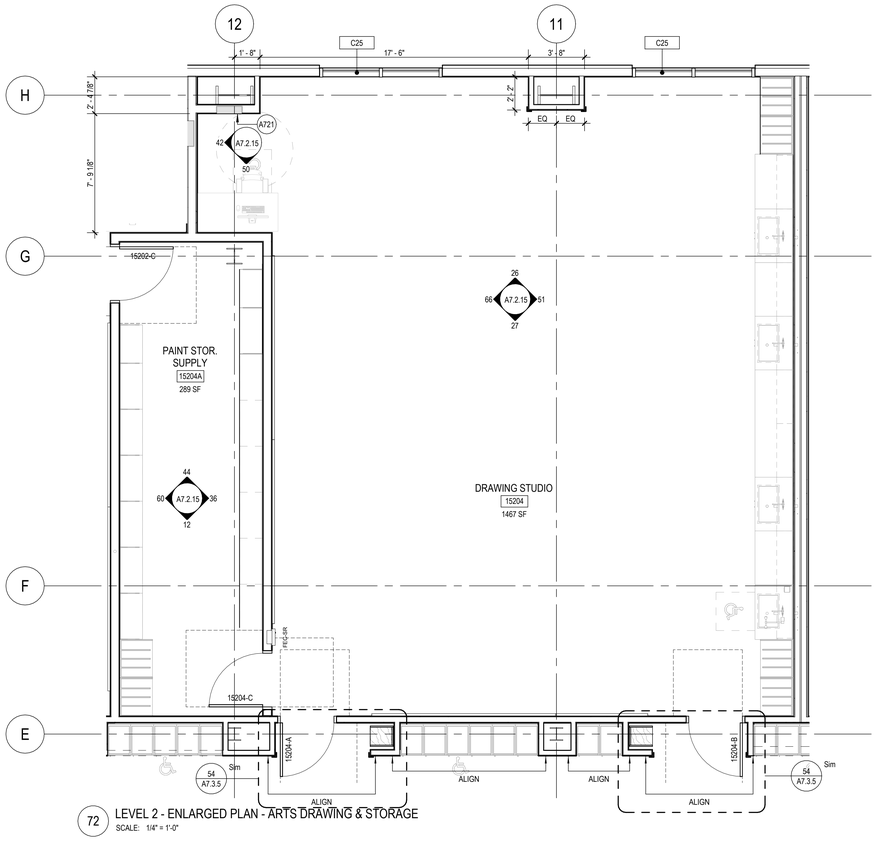

72 LEVEL 2 - ENLARGED PLAN - ARTS DRAWING & STORAGE
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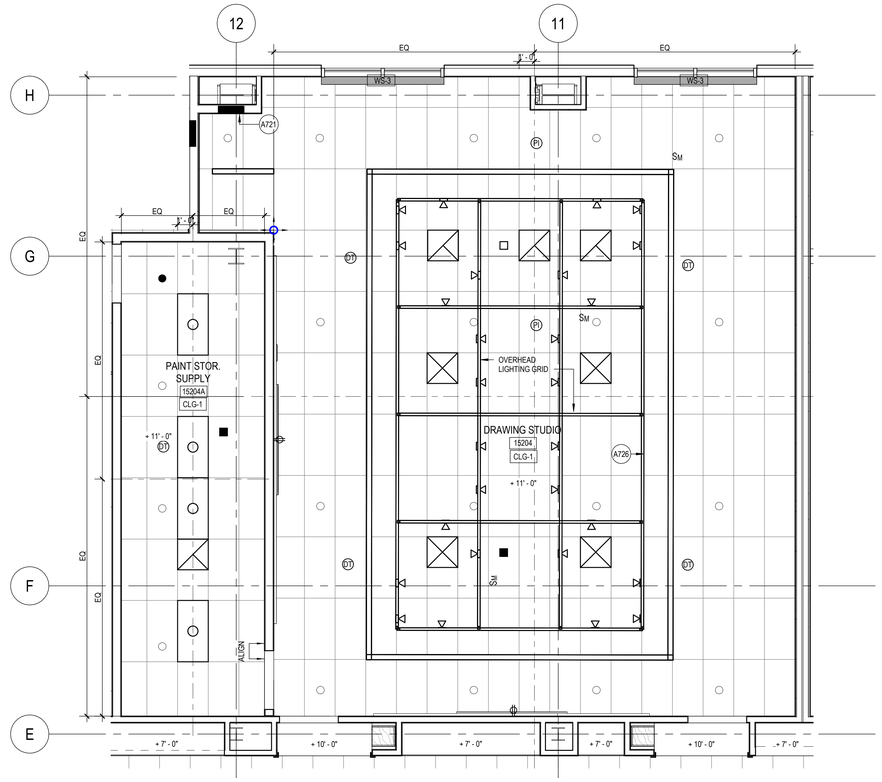

40 DRAWING STUDIO 15204 - ENLARGED RCP
SCALE: 1/4" = 1'-0"

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M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL. REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A726 OVERHEAD LIGHTING GRID. SEE SHEET E6.1.3 FOR DETAIL.

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
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- AIR EXHAUST DIFFUSER
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- RECESSED TROFFER LIGHT
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- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- ARCHITECTURAL FINISHES
- LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP
301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - DRAWING STUDIO

14794

PROJECT NUMBER
CD
A7.2.15
SHEET NUMBER

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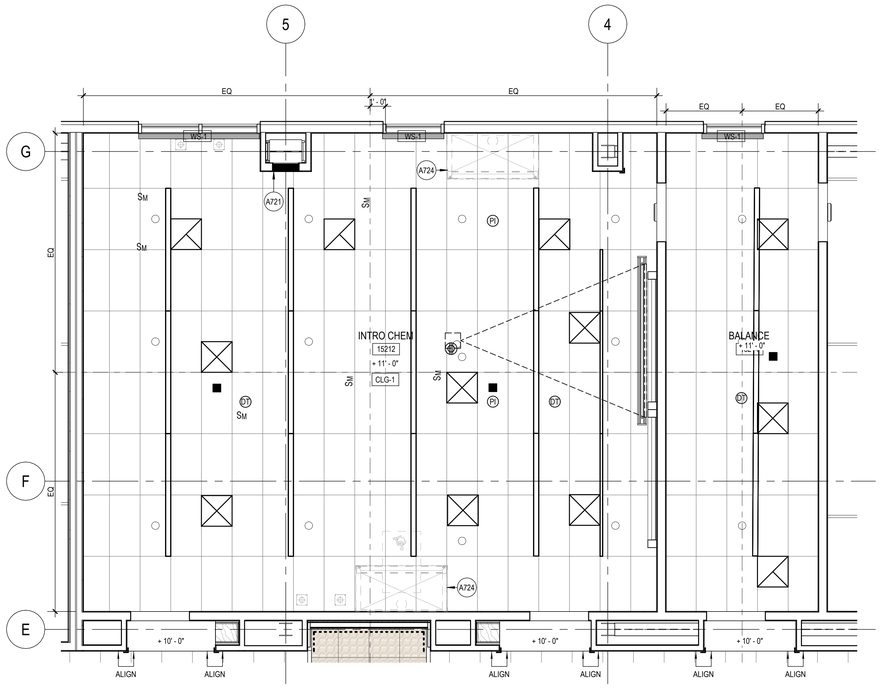
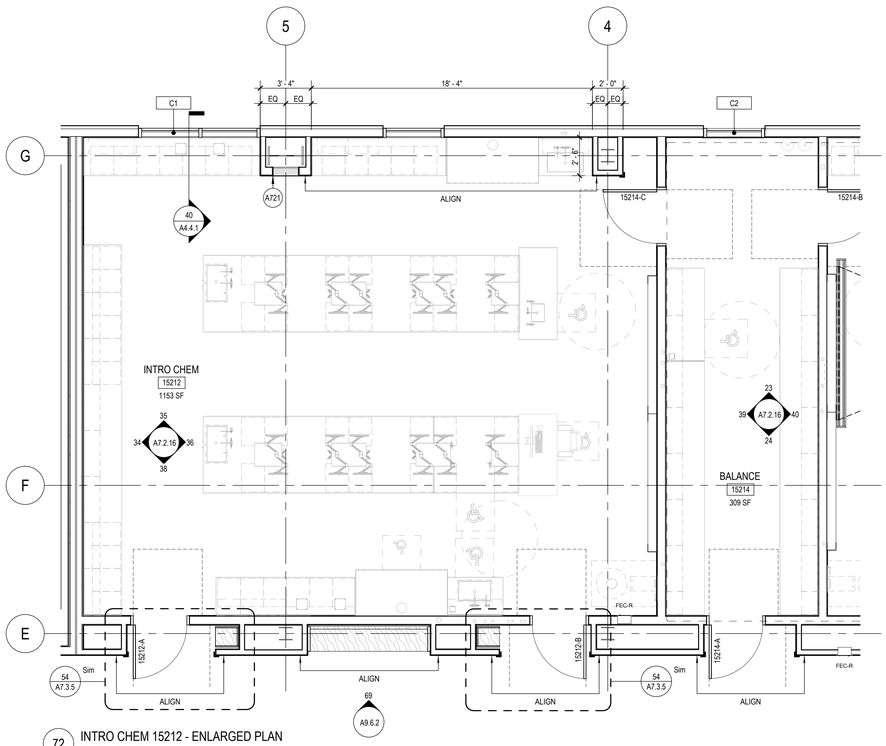
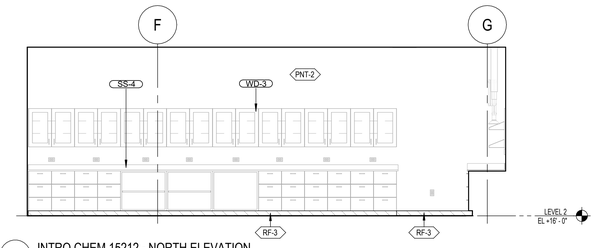


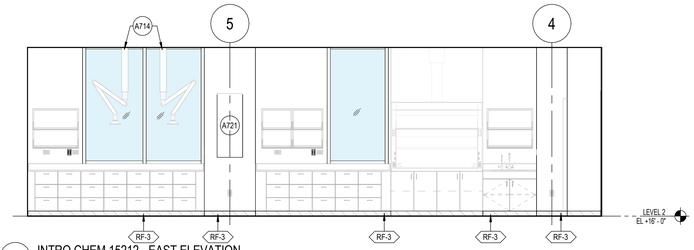
68 INTRO CHEM 15212 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



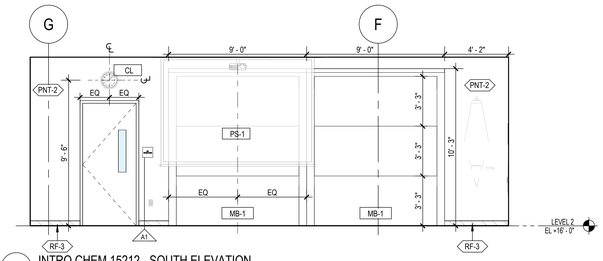
72 INTRO CHEM 15212 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



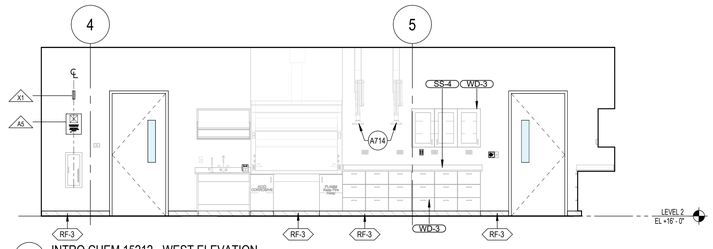
34 INTRO CHEM 15212 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



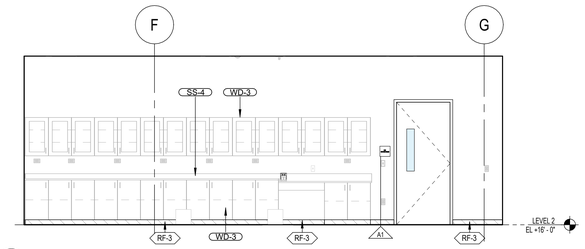
35 INTRO CHEM 15212 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



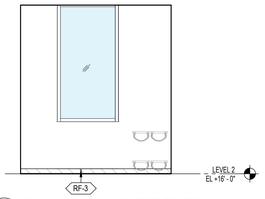
36 INTRO CHEM 15212 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



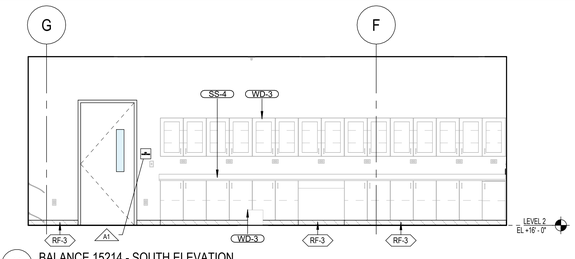
38 INTRO CHEM 15212 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



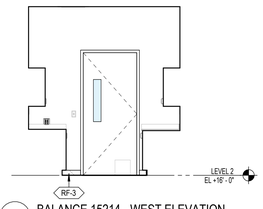
39 BALANCE 15214 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 BALANCE 15214 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 BALANCE 15214 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 BALANCE 15214 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714	REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT
A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A724	FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional Engineer
STATE OF CALIFORNIA

PROJECT NORTH

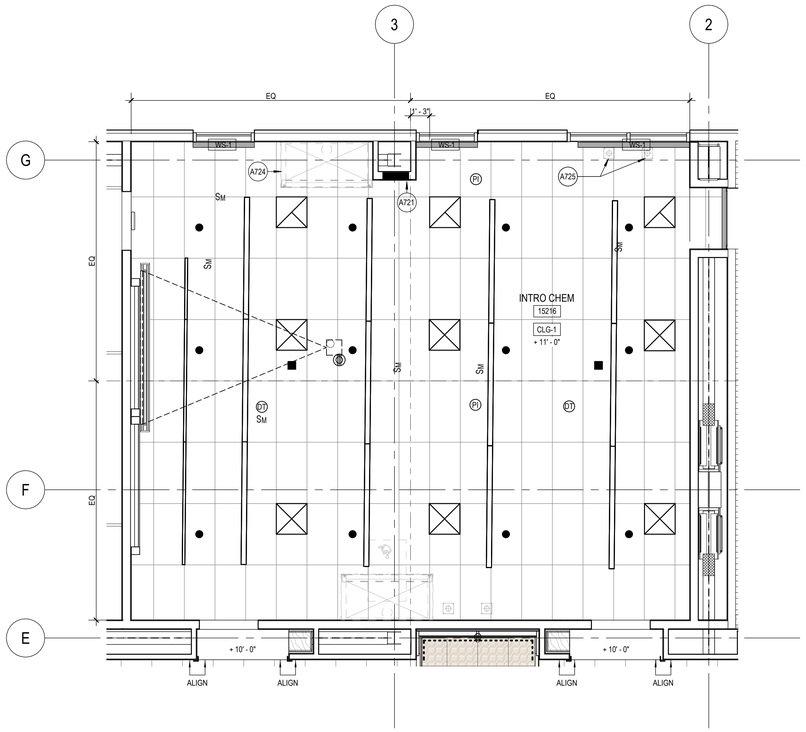
SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INTRO CHEM 15212

PROJECT NUMBER
14794

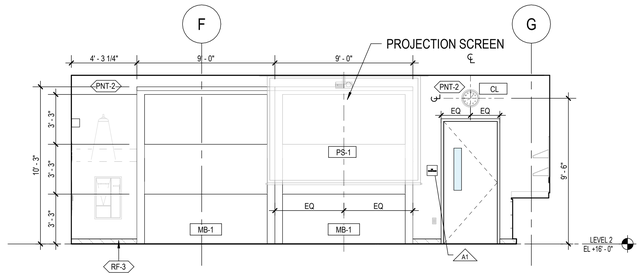
CD

SHEET NUMBER
A7.2.16

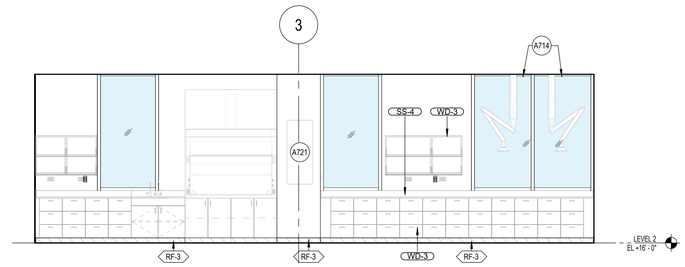
Plot Date: 8/25/2025 11:50:46 AM START Sheet



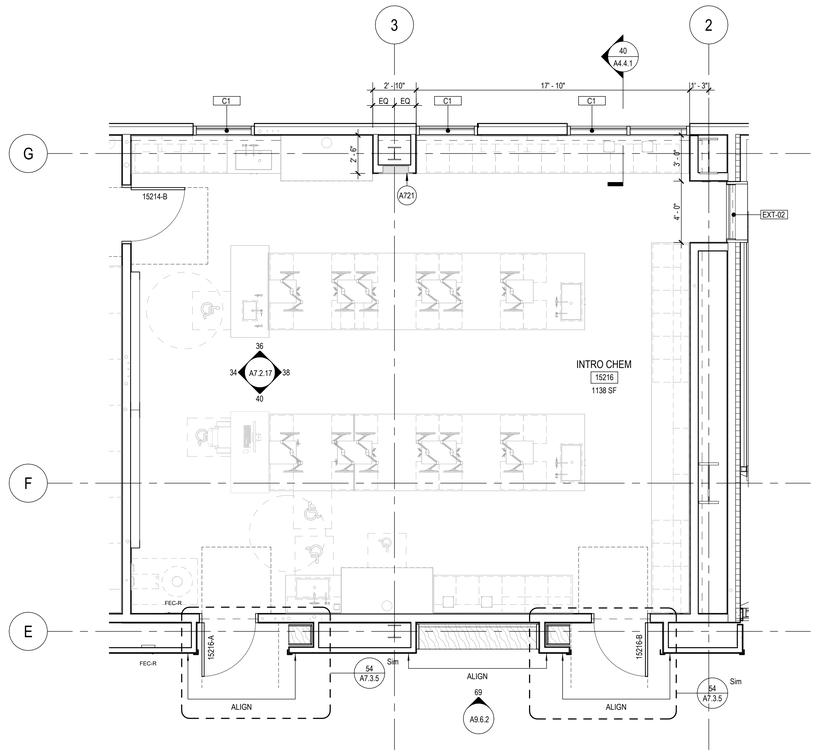
68 INTRO CHEM 15216 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



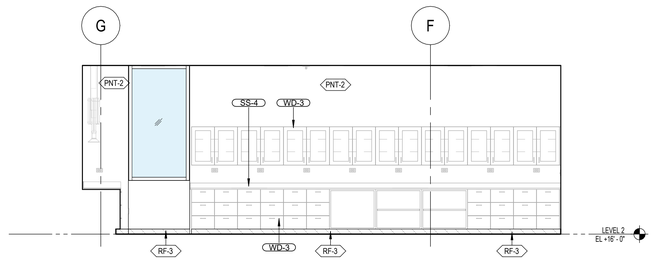
34 INTRO CHEM 15216 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



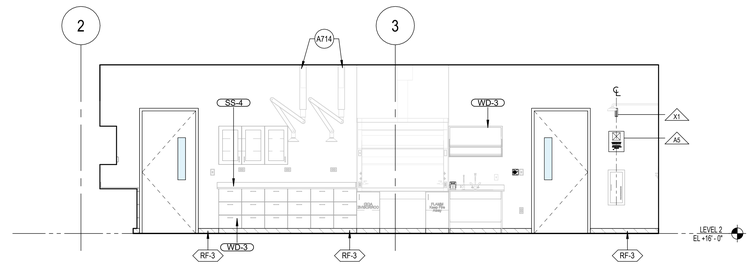
36 INTRO CHEM 15216 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



72 INTRO CHEM 15216 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



38 INTRO CHEM 15216 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 INTRO CHEM 15216 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714	REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT
A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A724	FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION
A725	POINT EXHAUST. SEE DETAIL IN SHEETS Q9.1.X. SEE STRUCTURAL DRAWINGS FOR OVERHEAD SUPPORT

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1/D7 OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R FULLY RECESSED FEC, SEE A9.5.2
- X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

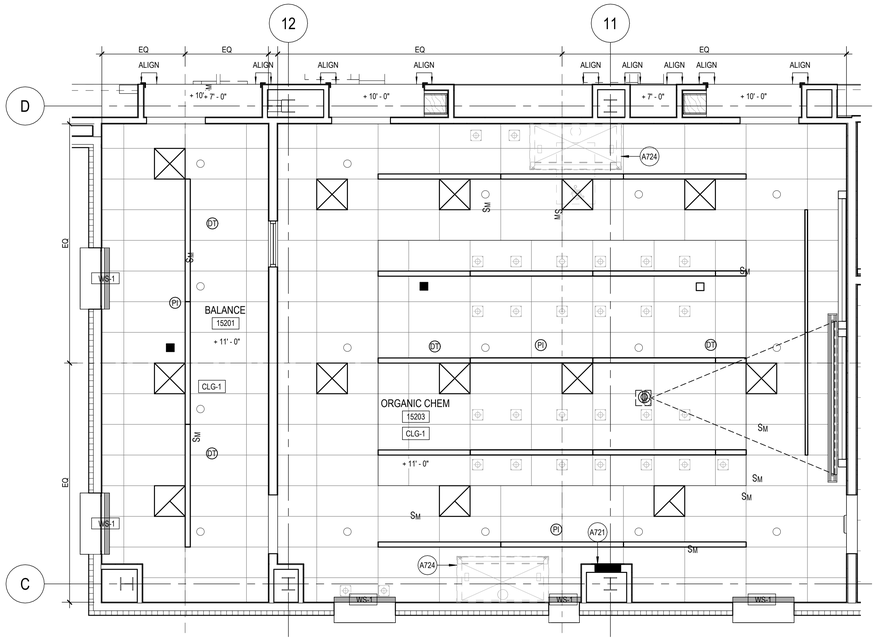
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INTRO CHEM 15216

PROJECT NUMBER
14794

CD **A7.2.17**
SHEET NUMBER

Plot Date: 8/25/2025 11:50:49 AM START Sheet



68 ORG CHEM ENRLARGED RCP
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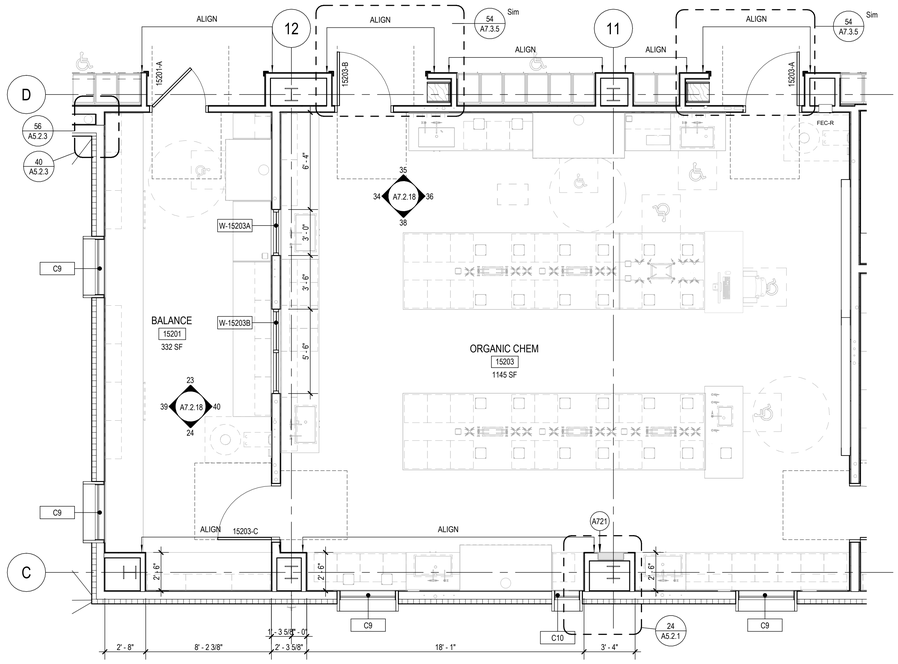
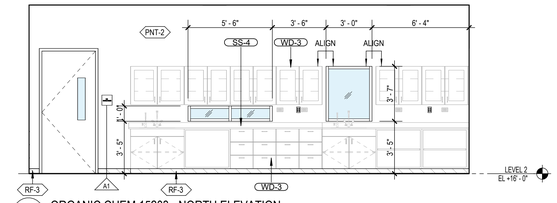
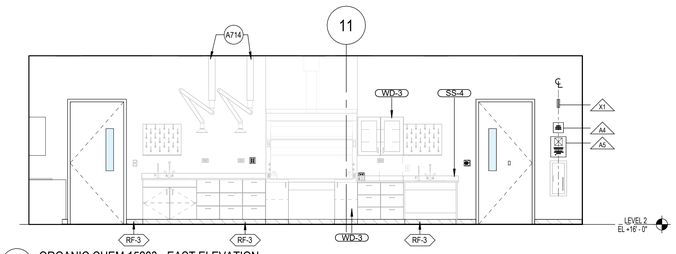


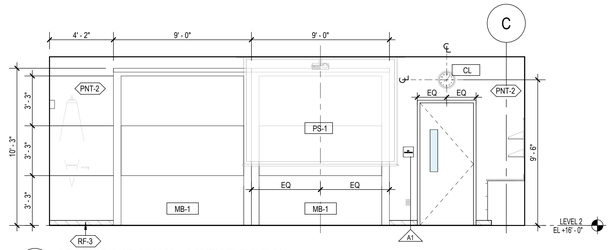
72 ORGANIC CHEM 15203 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



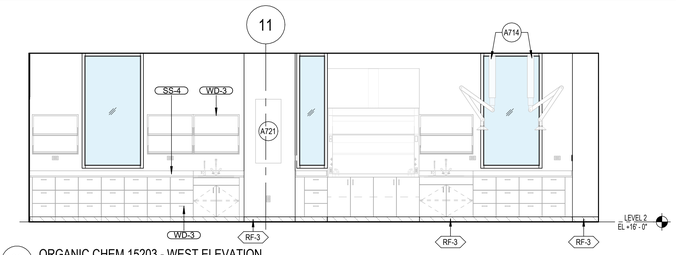
34 ORGANIC CHEM 15203 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



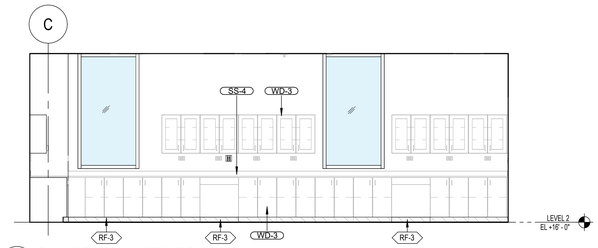
35 ORGANIC CHEM 15203 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



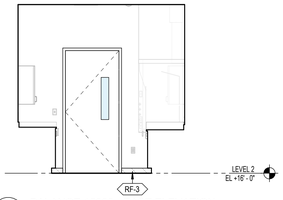
36 ORGANIC CHEM 15203 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



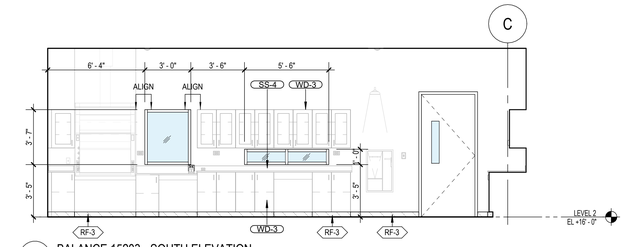
38 ORGANIC CHEM 15203 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



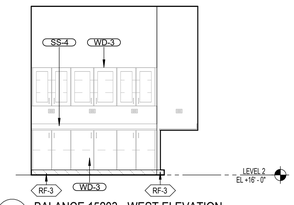
39 BALANCE 15203 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 BALANCE 15203 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 BALANCE 15203 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 BALANCE 15203 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714	REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT
A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A724	FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
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- ARCHITECTURAL FINISHES
- LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- SIGNAGE TYPE

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional Engineer
STATE OF CALIFORNIA

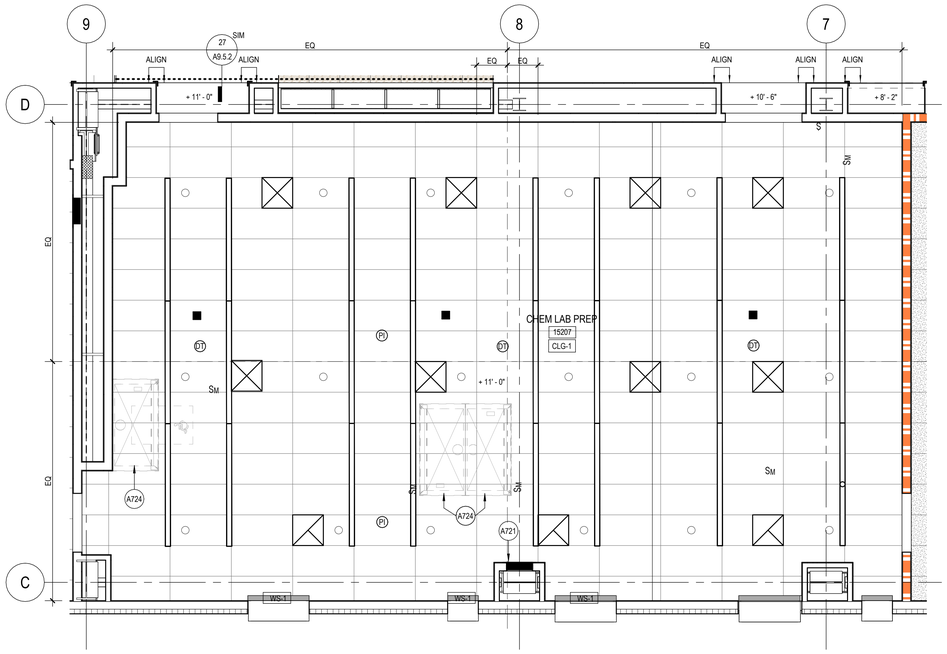
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ORG CHEM

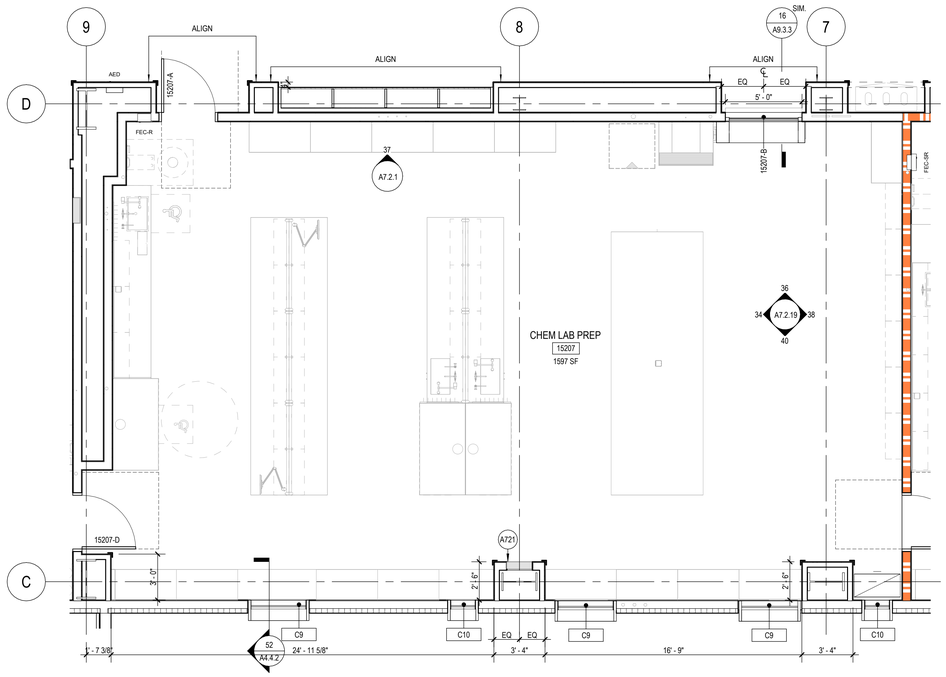
PROJECT NUMBER
14794

CD
SHEET NUMBER
A7.2.18

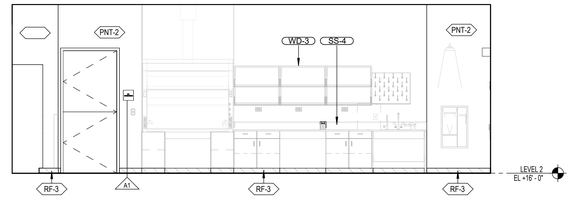
Plot Date: 8/25/2025 11:51:00 AM START Sheet



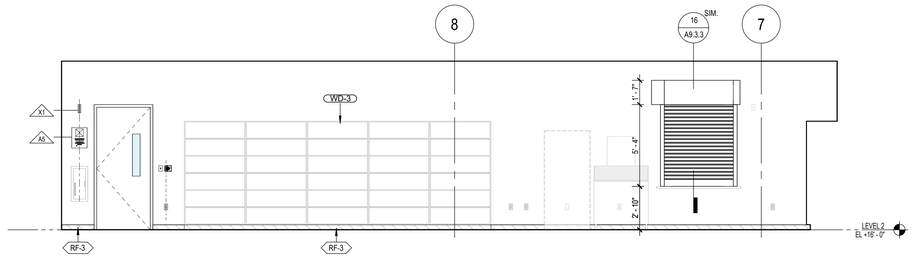
69 CHEM LAB PREP ENLARGED RCP
SCALE: 1/4" = 1'-0"



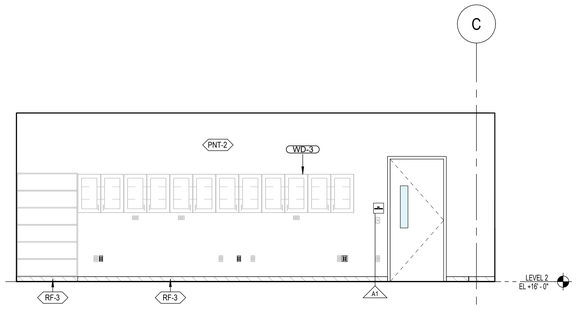
72 CHEM LAB PREP 15207 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



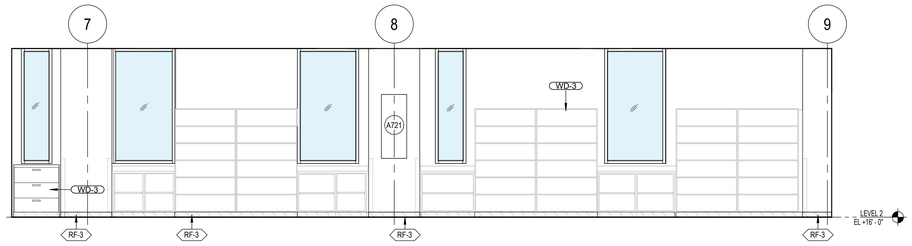
34 CHEM LAB PREP 15207 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 CHEM LAB PREP 15207 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



38 CHEM LAB PREP 15207 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 CHEM LAB PREP 15207 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A724 FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
ARCHITECTURAL FINISHES
LAB CASEWORK FINISHES
FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
FEC-R — FULLY RECESSED FEC, SEE A9.5.2
SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP
301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CHEM LAB PREP

PROJECT NUMBER
14794

CD
SHEET NUMBER
A7.2.19

Plot Date: 8/25/2025 11:51:08 AM START Sheet

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

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M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

◯ SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
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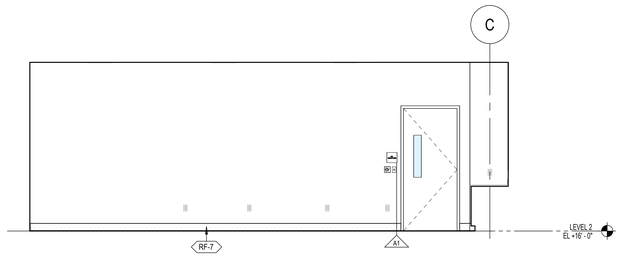
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- ARCHITECTURAL FINISHES
- LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- SIGNAGE TYPE

72 CHEM WASTE/ STOR. 15209 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"

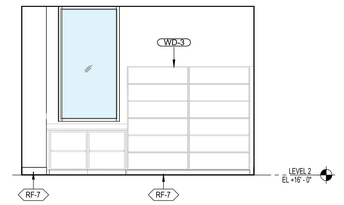
64 CHEM WASTE/ STOR. 15209 - ENLARGED RCP
SCALE: 1/4" = 1'-0"

47 CHEM WASTE/STOR. 15209 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

23 CHEM WASTE/STOR. 15209 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



48 CHEM WASTE/STOR. 15209 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 CHEM WASTE/STOR. 15209 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CHEM WASTE/STOR.

14794

PROJECT NUMBER

CD **A7.2.20**

SHEET NUMBER

START Sheet
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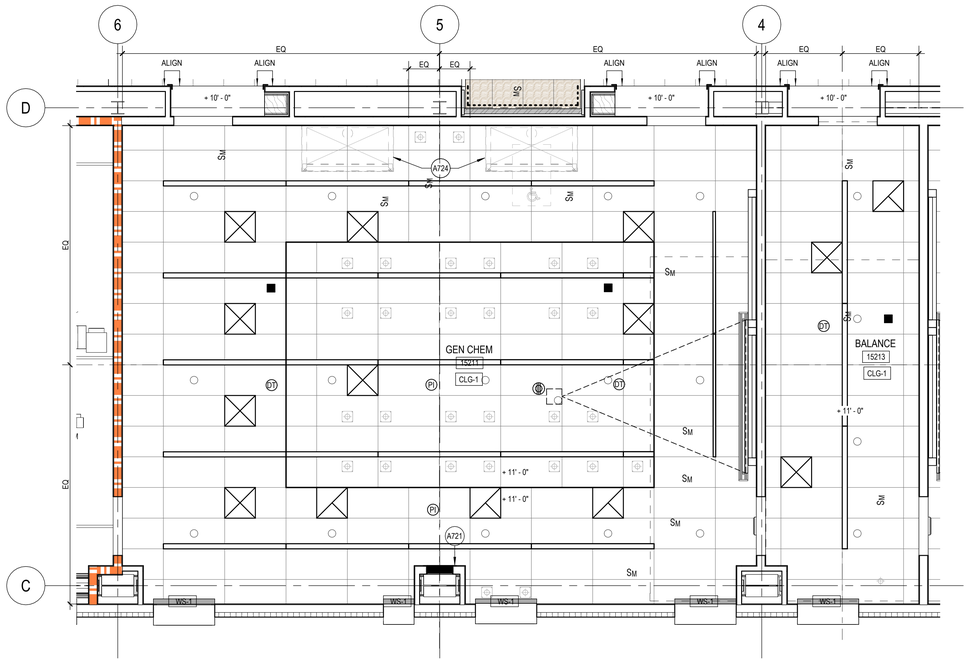

68 GEN CHEM 15211 - ENLARGED RCP
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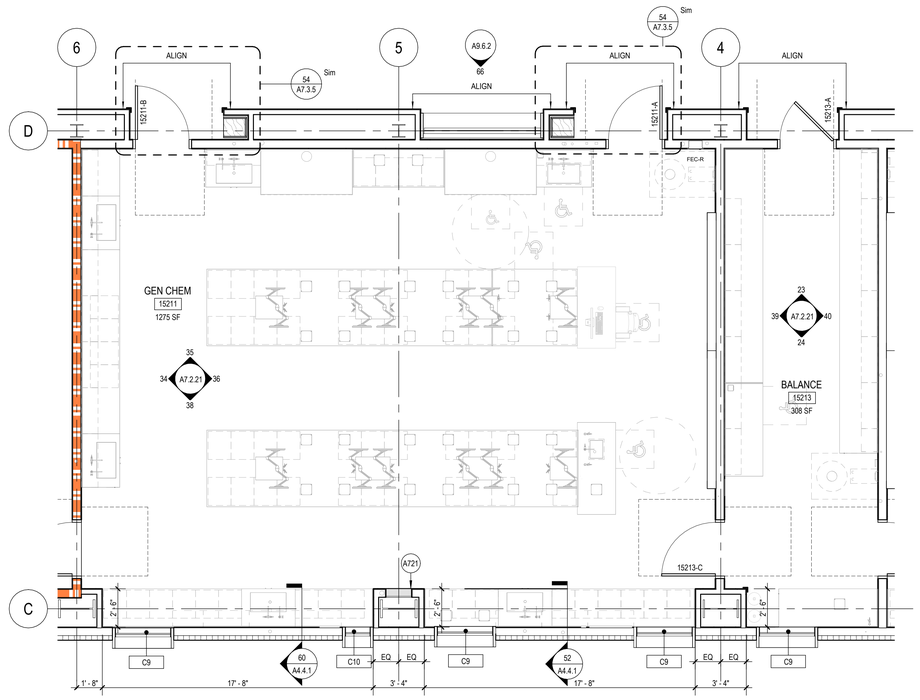
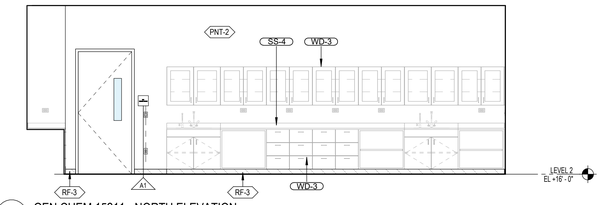
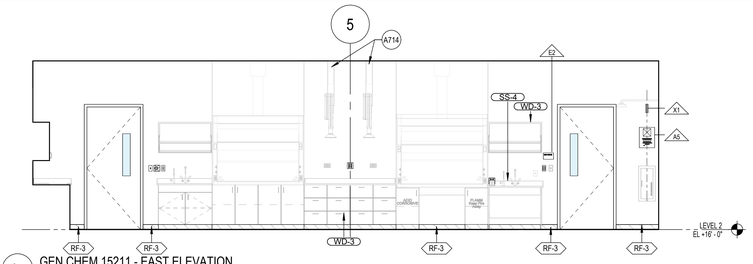


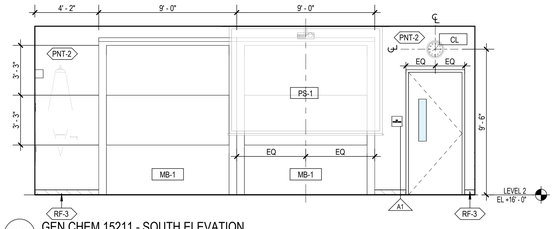
72 GEN CHEM 15211 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



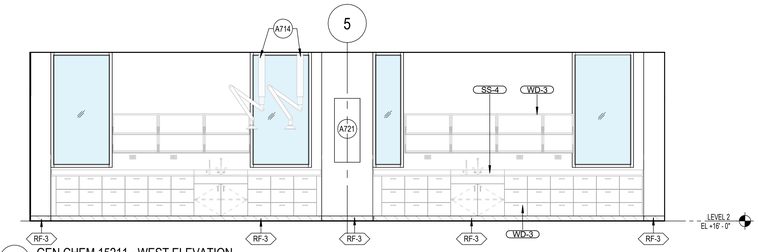
34 GEN CHEM 15211 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



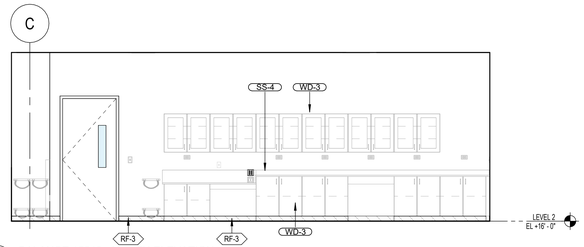
35 GEN CHEM 15211 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



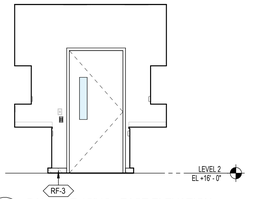
36 GEN CHEM 15211 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



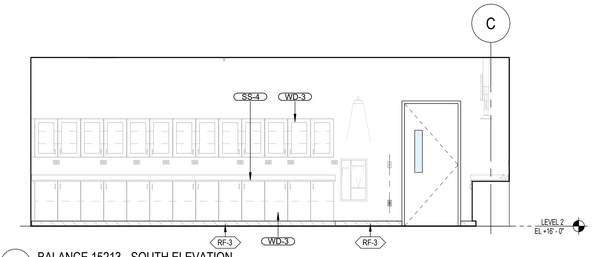
38 GEN CHEM 15211 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



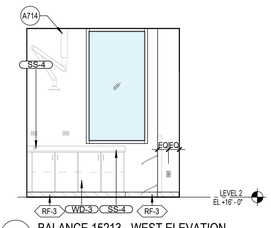
39 BALANCE 15213 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 BALANCE 15213 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 BALANCE 15213 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 BALANCE 15213 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714 REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT

A721 ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS

A724 FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 DT OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GEN CHEM 15211

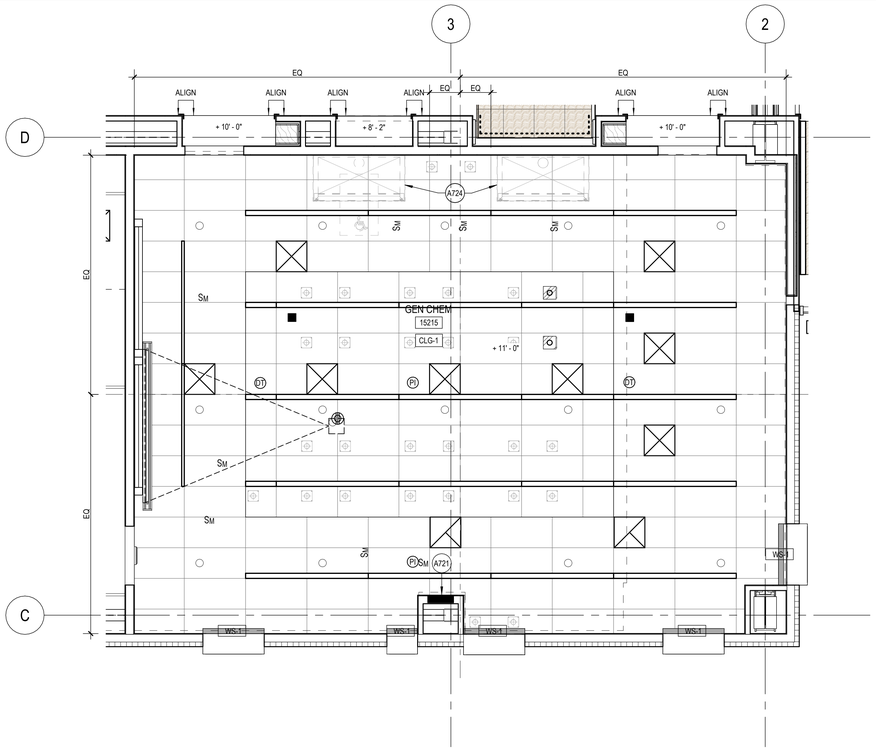
14794

PROJECT NUMBER

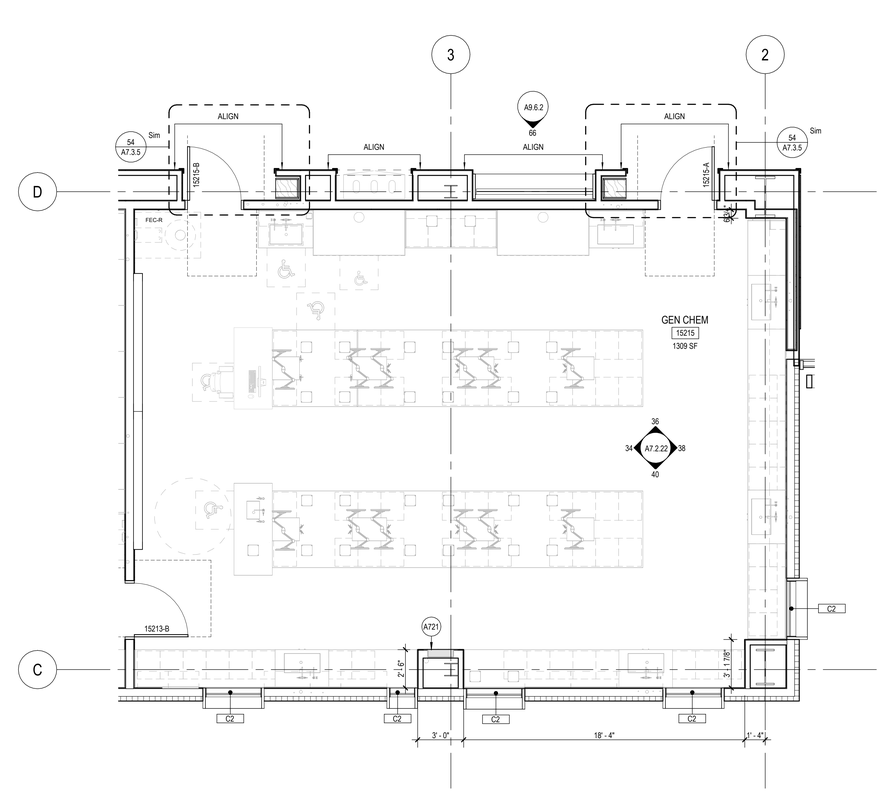
CD **A7.2.21**

SHEET NUMBER

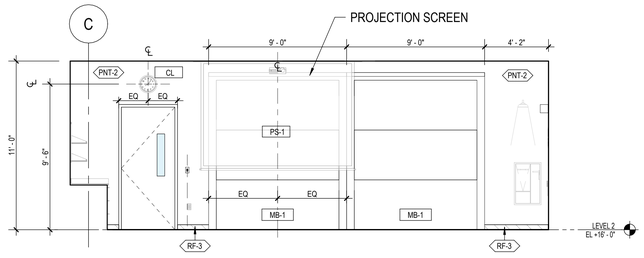
Plot Date: 8/25/2025 11:51:27 AM START Sheet



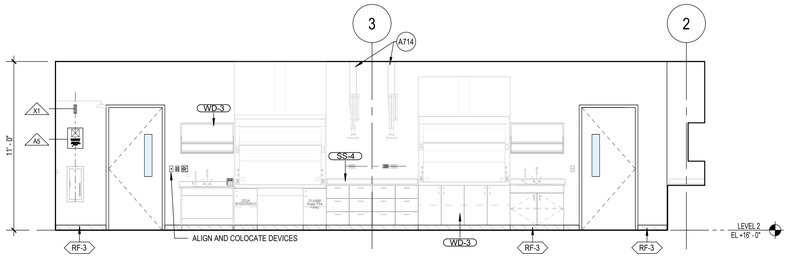
68 GEN CHEM 15215 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



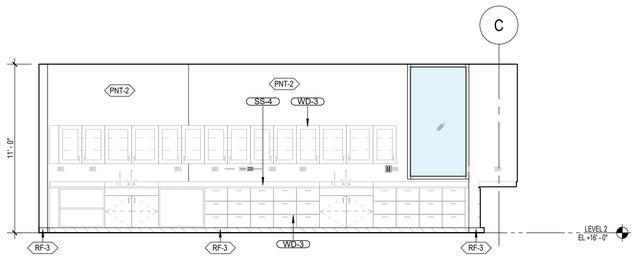
72 GEN CHEM 15215 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



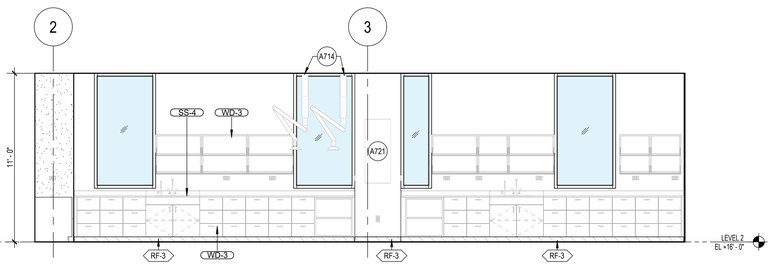
34 GEN CHEM 15215 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 GEN CHEM 15215 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



38 GEN CHEM 15215 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 GEN CHEM 15215 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

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G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A714	REFER TO Q & S DRAWINGS FOR POINT EXHAUST MOUNTING SUPPORT
A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E3 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A724	FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

CLG-1
CLG-2
CLG-3
CLG-4
CLG-5
CLG-6
UNISTRUT ABOVE CLG-1
UNISTRUT ABOVE CLG-3
CLG-7 - EXPOSED
CEILING TRANSITION
CLG MOVEMENT JOINT
EXIT SIGN
LOUDSPEAKER
P1 DT OCCUPANCY/DAYLIGHT SENSOR
FIRE SPRINKLER / STROBE
AIR SUPPLY DIFFUSER
AIR RETURN DIFFUSER
AIR EXHAUST DIFFUSER
RECESSED DOWNLIGHT
RECESSED TROFFER LIGHT
LINEAR PENDANT
LINEAR RECESSED
1 HR RATED WALL ASSEMBLY
PROJECTOR & PROJECTION SCREEN
X ARCHITECTURAL FINISHES
X LAB CASEWORK FINISHES
FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
FEC-R FULLY RECESSED FEC, SEE A9.5.2
X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

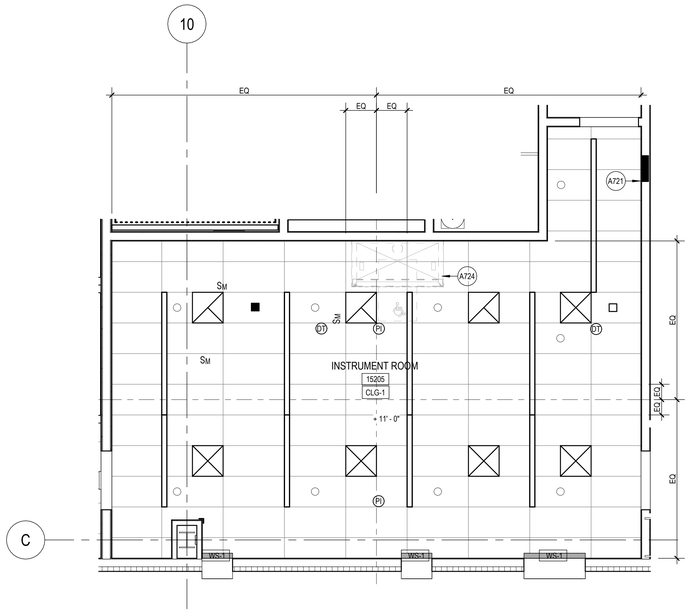
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - GEN CHEM 15215

PROJECT NUMBER 14794

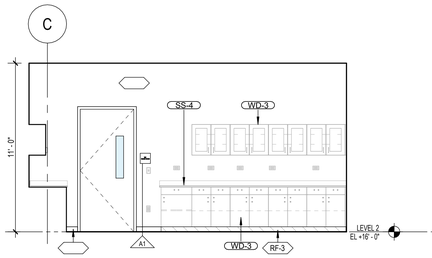
CD **A7.2.22**

SHEET NUMBER

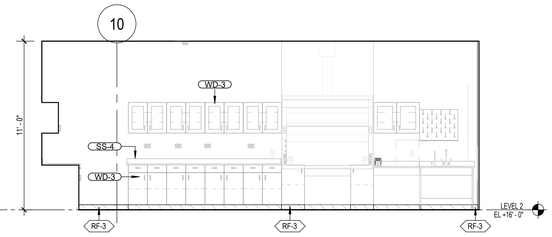
Plot Date: 8/25/2025 11:51:36 AM START Sheet



68 INSTRUMENT ROOM 15205 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



42 INSTRUMENT ROOM 15205 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



26 INSTRUMENT ROOM 15205 - EAST ELEVATION
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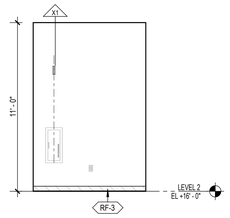

36 ENTRY 15205 - NORTH ELEVATION
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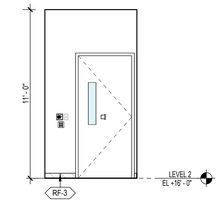
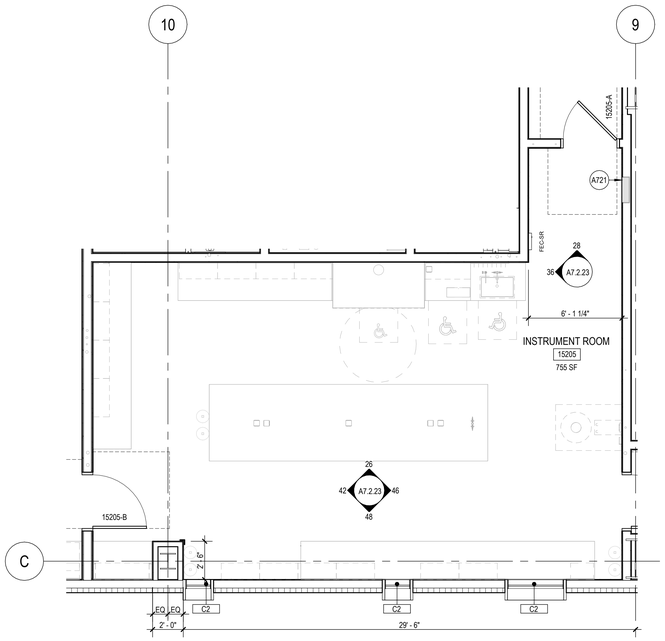


28 ENTRY 15205 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



72 INSTRUMENT ROOM 15205 - ENLARGED PLAN
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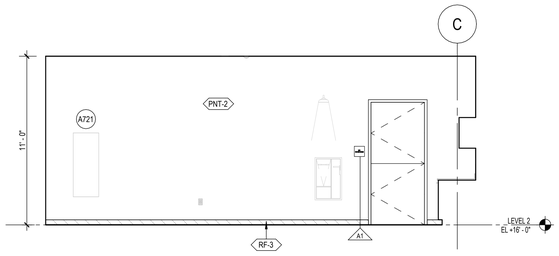
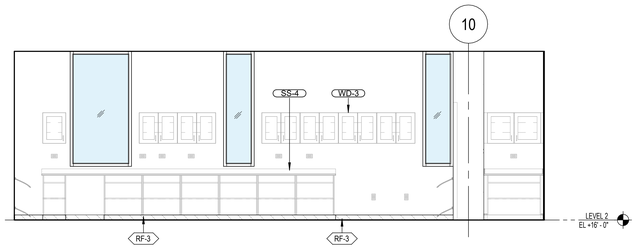


46 INSTRUMENT ROOM 15205 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



48 INSTRUMENT ROOM 15205 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A721	ELECTRICAL PANEL, REFER TO ELECTRICAL E2 SERIES POWER PLANS FOR ELECTRICAL PANEL LOCATIONS
A724	FUME HOOD REFER TO LAB DRAWING 24/Q9.1.7 AND SPEC 115313, SEE MECH DRAWINGS FOR DUCT CONNECTION

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1/D1 OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC-SR SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R FULLY RECESSED FEC, SEE A9.5.2
- X SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - INSTRUMENT ROOM

14794
PROJECT NUMBER

CD **A7.2.23**
SHEET NUMBER

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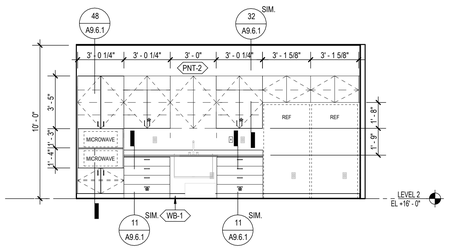
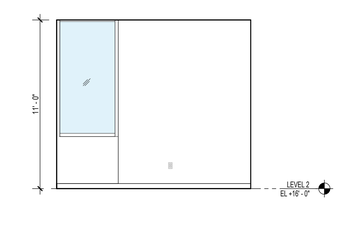


66 BREAK ROOM 15206 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



50 BREAK ROOM 15206 - EAST ELEVATION
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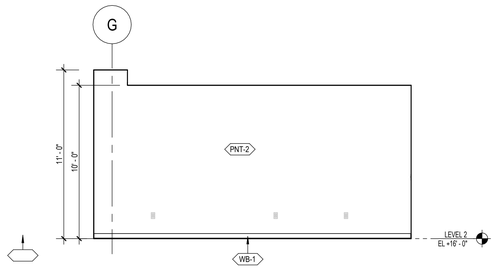
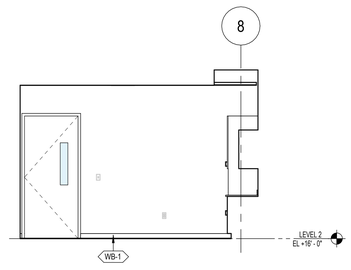
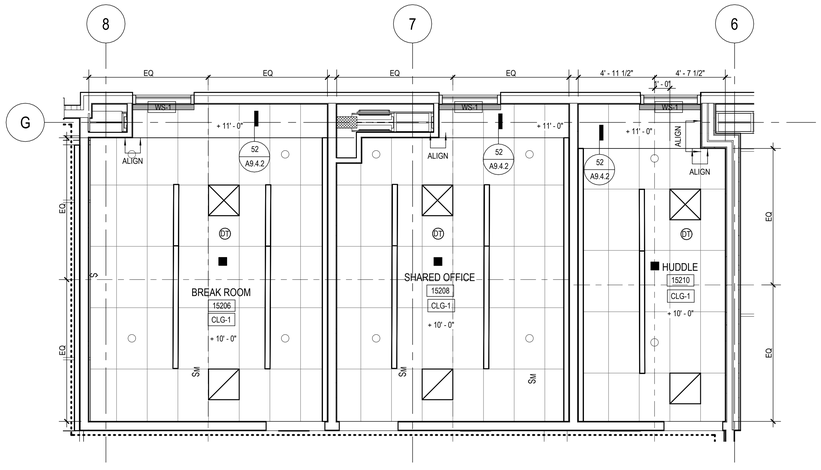


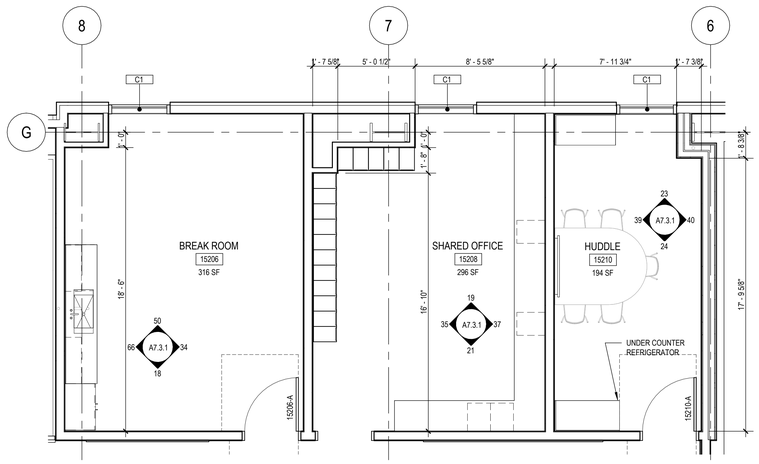
34 BREAK ROOM 15206 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



18 BREAK ROOM 15206 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



69 FACULTY SUITE - ENLARGED RCP
SCALE: 1/4" = 1'-0"



72 ENLARGED PLAN - LEVEL 2 FACULTY SUITE
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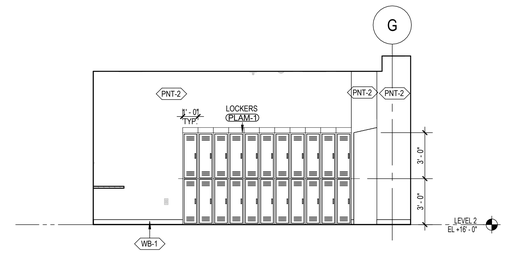
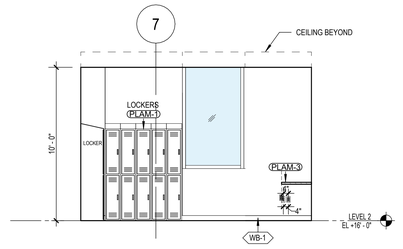


35 SHARED OFFICE 15208 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



19 SHARED OFFICE 15208 - EAST ELEVATION
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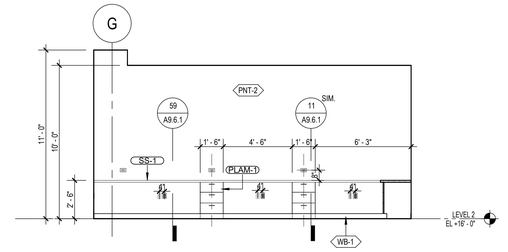

37 SHARED OFFICE 15208 - SOUTH ELEVATION
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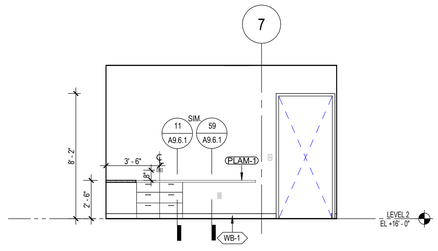
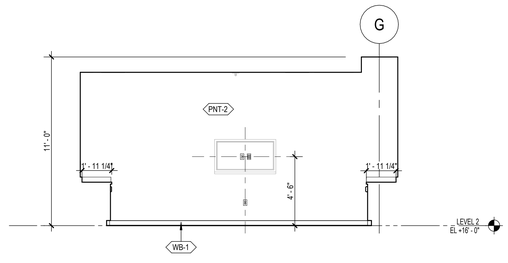
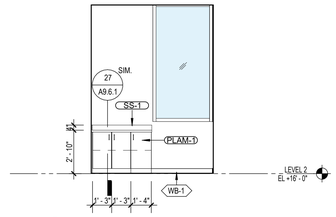


21 SHARED OFFICE 15208 - WEST ELEVATION
SCALE: 1/4" = 1'-0"



39 HUDDLE 15210 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



23 HUDDLE 15210 - EAST ELEVATION
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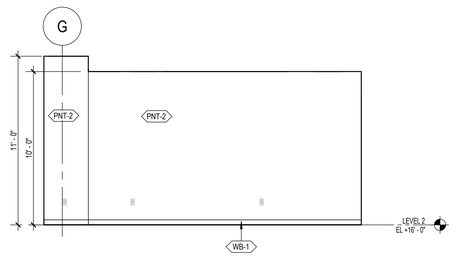
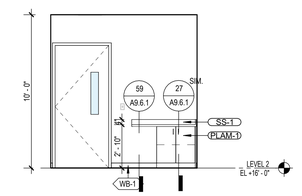


40 HUDDLE 15210 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 HUDDLE 15210 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
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- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- ARCHITECTURAL FINISHES
- LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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301 BATTERY STREET
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - FACULTY SUITE

14794

PROJECT NUMBER

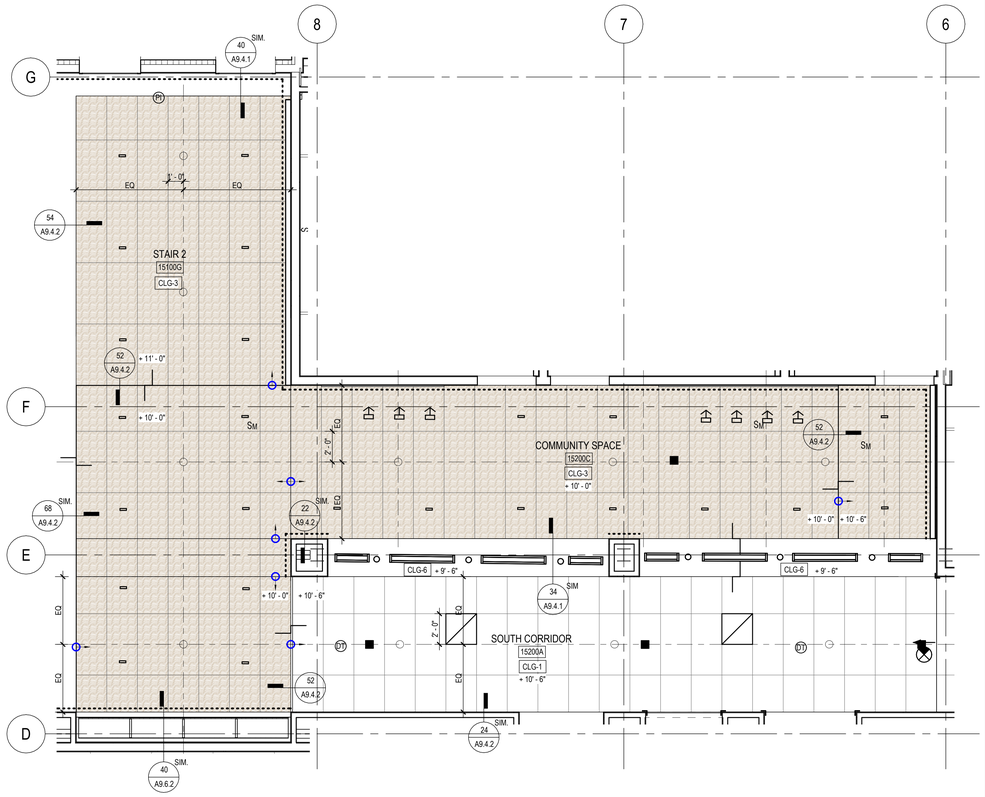
CD

A7.3.1

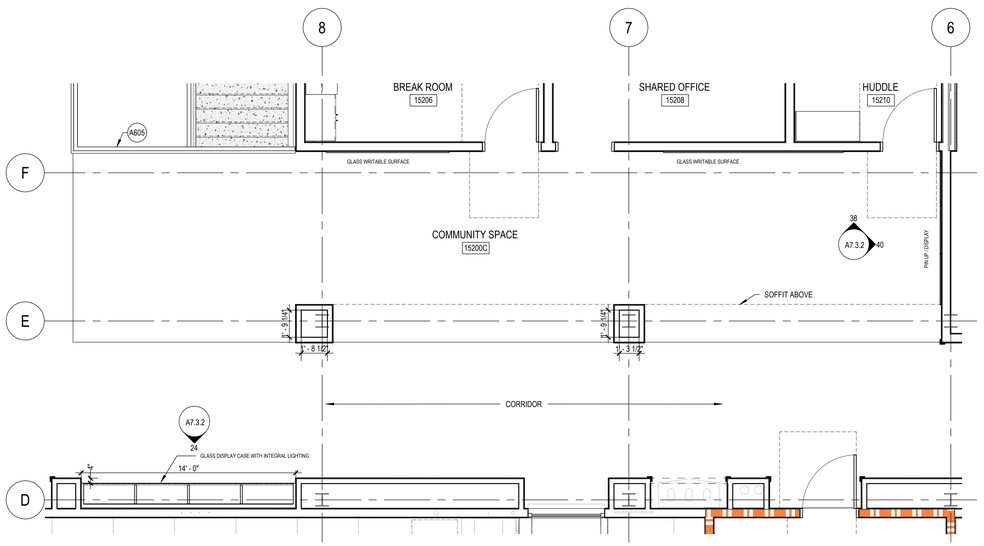
SHEET NUMBER

START Sheet

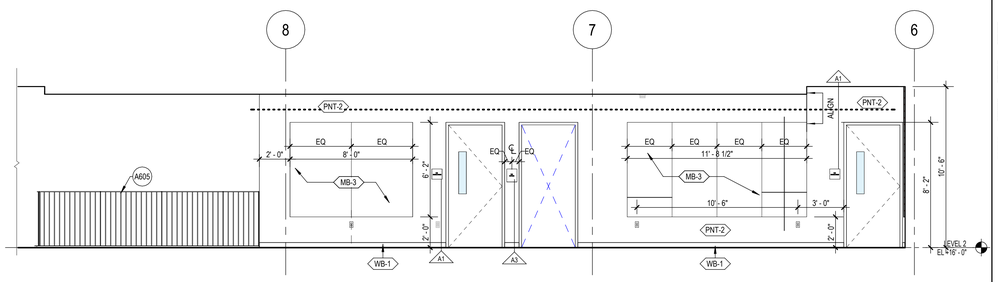
Plot Date: 8/25/2025 11:51:58 AM



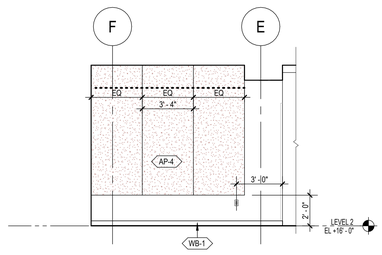
69 COMMUNITY SPACE 15200C - ENLARGED RCP
SCALE: 1/4" = 1'-0"



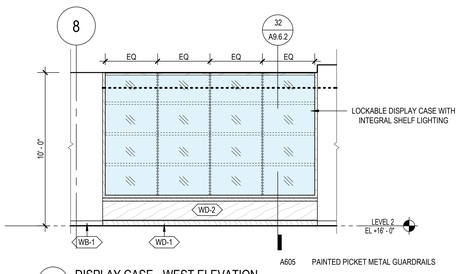
72 COMMUNITY SPACE 15200C - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



38 COMMUNITY SPACE 15200C - EAST ELEVATION
SCALE: 1/4" = 1'-0"



40 COMMUNITY SPACE 15200C - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



24 DISPLAY CASE - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO AI2.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A605 PAINTED PICKET METAL GUARDRAILS

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
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- RECESSED DOWNLIGHT
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- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES L2

14794
PROJECT NUMBER

CD

A7.3.2
SHEET NUMBER

START Sheet
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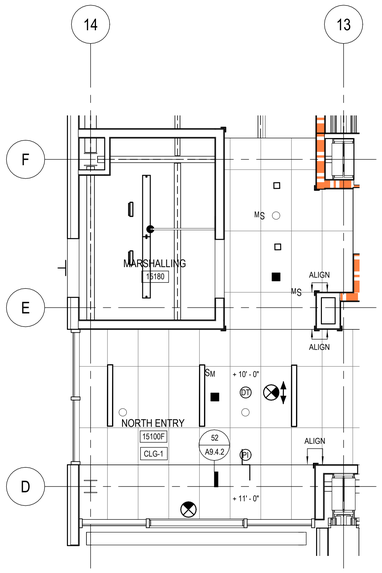
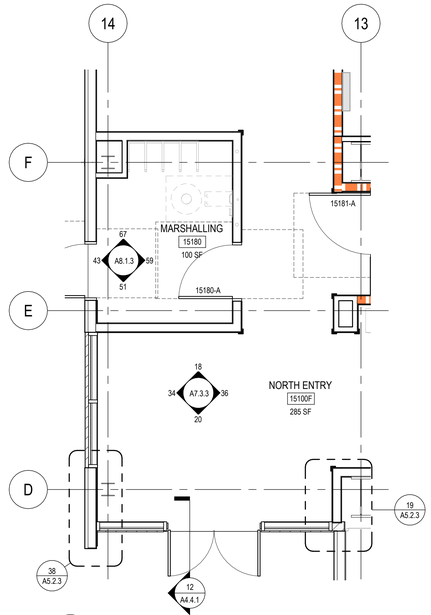


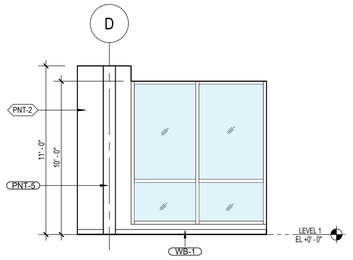
68 NORTH ENTRY LOBBY 15100F - ENLARGED RCP
SCALE: 1/4" = 1'-0"



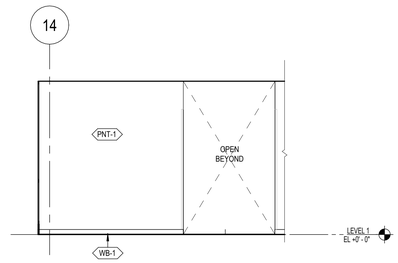
52 NORTH ENTRY LOBBY 15100F - ENLARGED PLAN
SCALE: 1/4" = 1'-0"

71 SOUTH ENTRY LOBBY 15100E - ENLARGED RCP
SCALE: 1/4" = 1'-0"

55 SOUTH ENTRY LOBBY 15100E - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



34 INTERIOR ELEVATION - NORTH ENTRY NORTH
SCALE: 1/4" = 1'-0"



18 INTERIOR ELEVATION - NORTH ENTRY EAST
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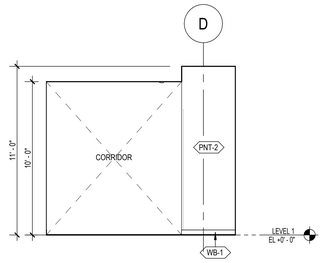
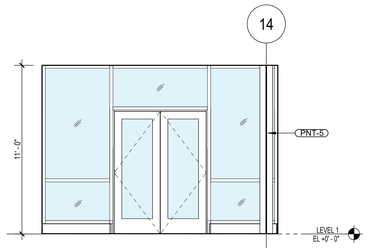
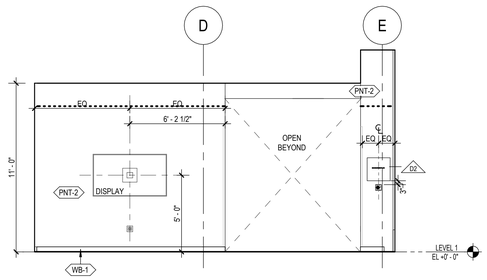


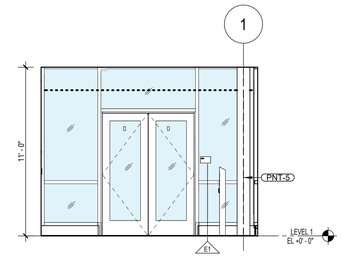
36 INTERIOR ELEVATION - NORTH ENTRY SOUTH
SCALE: 1/4" = 1'-0"



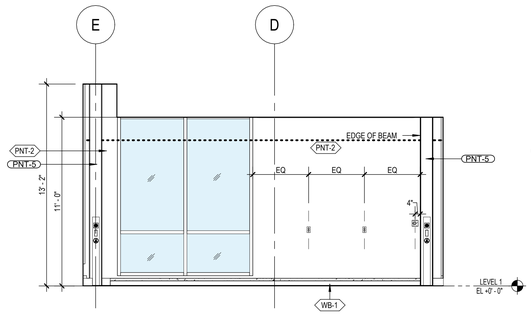
20 INTERIOR ELEVATION - NORTH ENTRY WEST
SCALE: 1/4" = 1'-0"



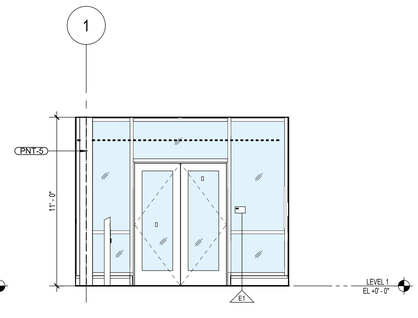
38 INTERIOR ELEVATION - SOUTH ENTRY NORTH
SCALE: 1/4" = 1'-0"



22 INTERIOR ELEVATION - SOUTH ENTRY EAST
SCALE: 1/4" = 1'-0"



39 INTERIOR ELEVATION - SOUTH ENTRY SOUTH
SCALE: 1/4" = 1'-0"



23 INTERIOR ELEVATION - SOUTH ENTRY WEST
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

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J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A12.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
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- SIGNAGE TYPE

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
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STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES

14794

PROJECT NUMBER

CD

A7.3.3

SHEET NUMBER

START Sheet

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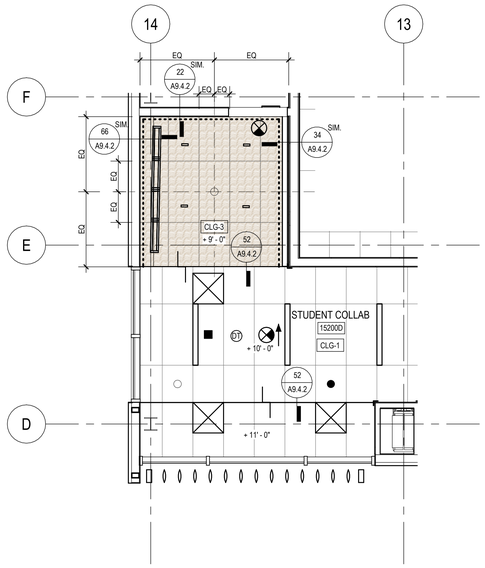
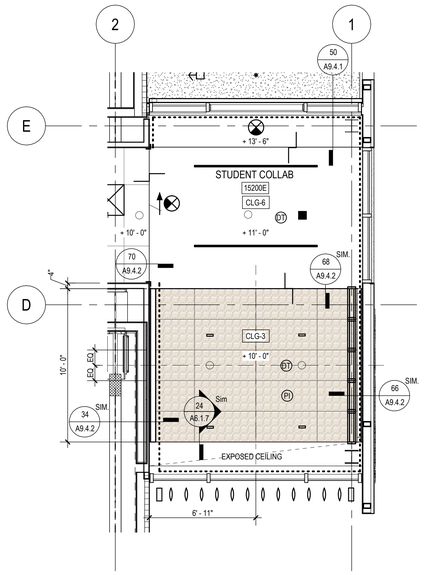


68 STUDENT COLLAB 15200D - ENLARGED RCP
SCALE: 1/4" = 1'-0"



52 STUDENT COLLAB 15200E - ENLARGED RCP
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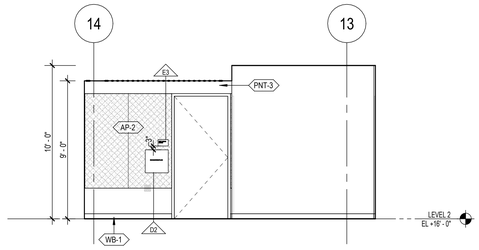
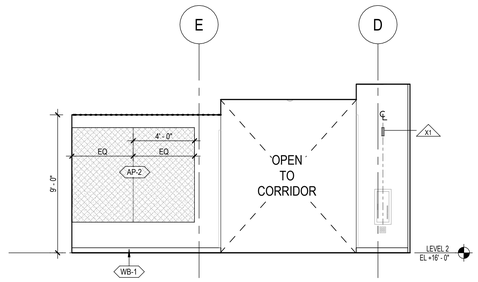
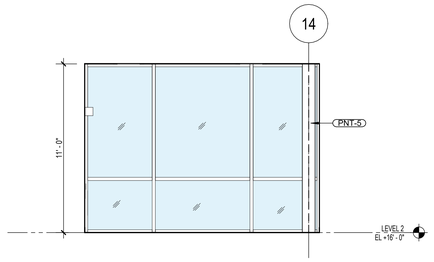


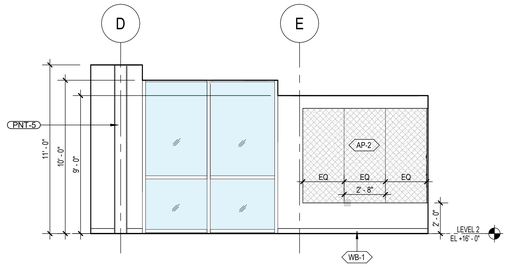
34 STUDENT COLLAB 15200D - EAST ELEVATION
SCALE: 1/4" = 1'-0"



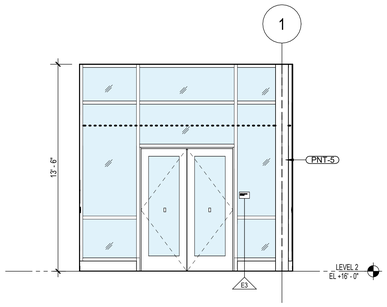
18 STUDENT COLLAB 15200D - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



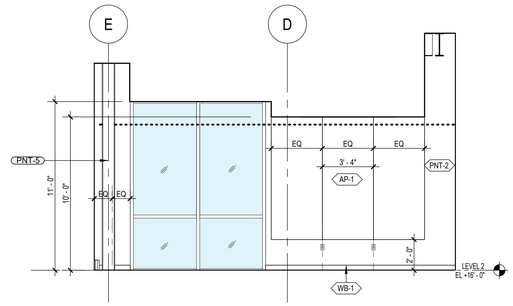
36 STUDENT COLLAB 15200D - WEST ELEVATION
SCALE: 1/4" = 1'-0"



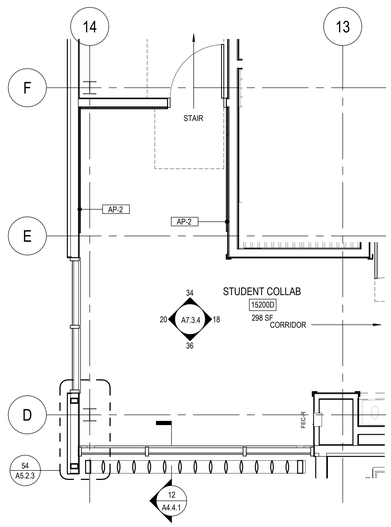
20 STUDENT COLLAB 15200D - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



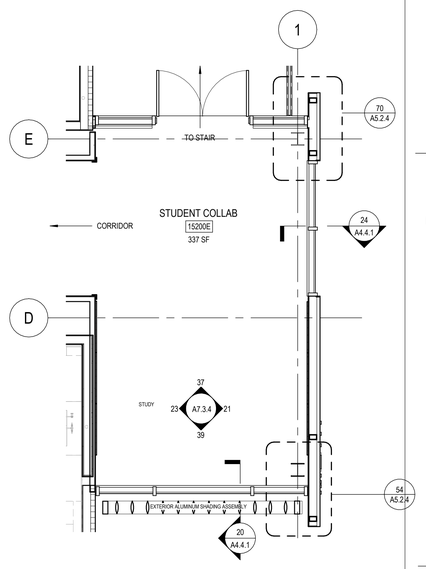
37 STUDENT COLLAB 15200E - EAST ELEVATION
SCALE: 1/4" = 1'-0"



21 STUDENT COLLAB 15200E - SOUTH ELEVATIN
SCALE: 1/4" = 1'-0"



71 STUDENT COLLAB 15200D - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



55 STUDENT COLLAB 15200E - ENLARGED PLAN
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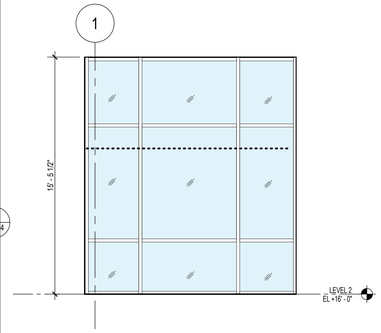
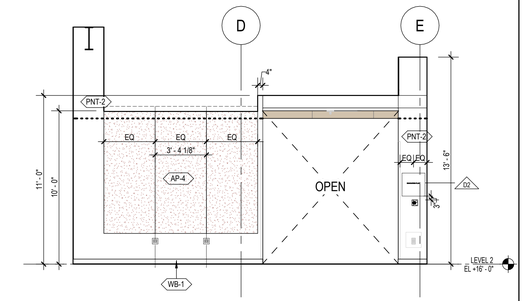


39 STUDENT COLLAB 15200E - WEST ELEVATION
SCALE: 1/4" = 1'-0"



23 STUDENT COLLAB 15200E - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

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E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

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K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

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M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

○ SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
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- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
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STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - SHARED SPACES

14794
PROJECT NUMBER

CD

A7.3.4
SHEET NUMBER

START Sheet
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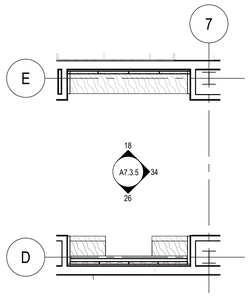
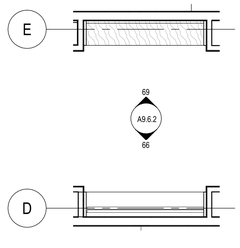
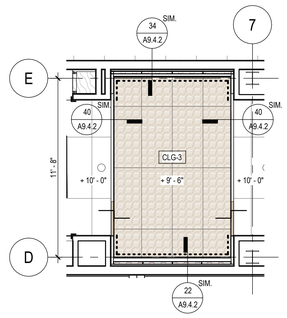


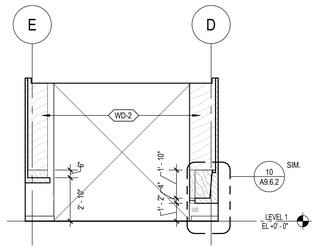
66 ENLARGED PLAN - LEVEL 1 CORRIDOR ADA NOOK
SCALE: 1/4" = 1'-0"



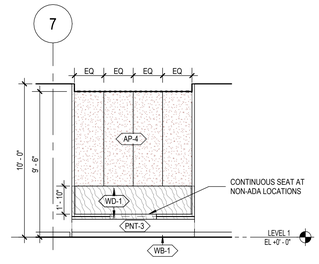
58 ENLARGED PLAN - LEVEL 1 CORRIDOR NOOK
SCALE: 1/4" = 1'-0"



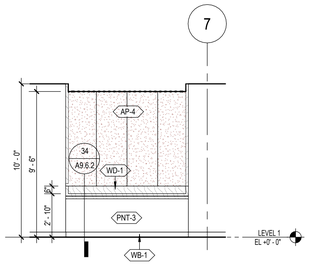
50 ENLARGED RCP - LEVEL 1 CORRIDOR NOOK
SCALE: 1/4" = 1'-0"



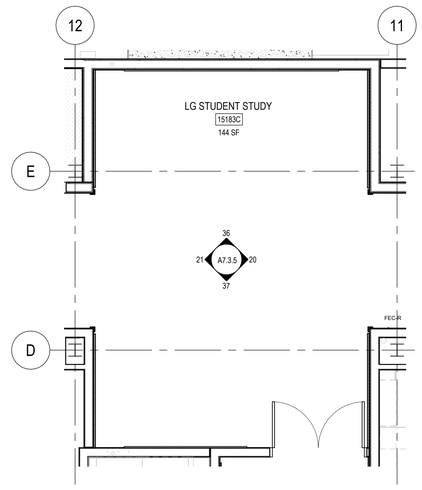
34 INTERIOR SECTION - CORRIDOR NOOKS (N)
SCALE: 1/4" = 1'-0"



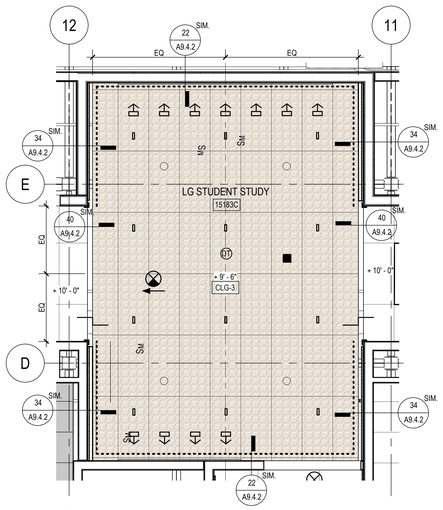
26 INTERIOR ELEVATION - CORRIDOR NOOKS (W)
SCALE: 1/4" = 1'-0"



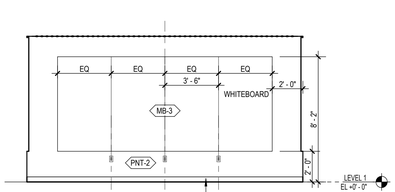
18 INTERIOR ELEVATION - CORRIDOR NOOKS (E)
SCALE: 1/4" = 1'-0"



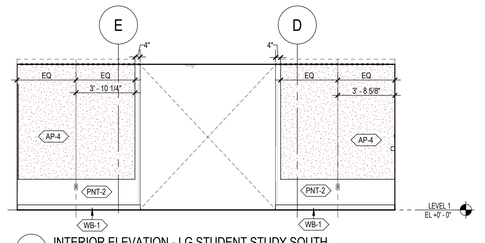
69 LG STUDENT STUDY 15183C - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



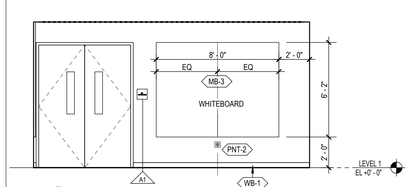
53 LG STUDENT STUDY 15183C - ENLARGED RCP
SCALE: 1/4" = 1'-0"



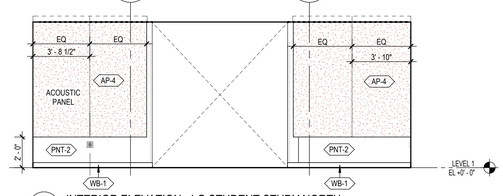
36 INTERIOR ELEVATION - LG STUDENT STUDY EAST
SCALE: 1/4" = 1'-0"



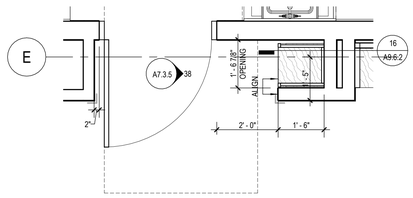
20 INTERIOR ELEVATION - LG STUDENT STUDY SOUTH
SCALE: 1/4" = 1'-0"



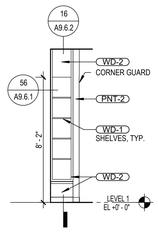
37 INTERIOR ELEVATION - LG STUDENT STUDY WEST
SCALE: 1/4" = 1'-0"



21 INTERIOR ELEVATION - LG STUDENT STUDY NORTH
SCALE: 1/4" = 1'-0"



54 ENLARGED PLAN - LEVEL 1 CORRIDOR CUBBY
SCALE: 1/2" = 1'-0"



38 INTERIOR ELEVATION - DRINK CUBBY
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

C. REFER TO THE LIFE SAFETY PLANS IN THE G2.X SERIES SHEETS FOR FIRE RESISTIVE CONSTRUCTION REQUIREMENTS.

D. REFER TO THE A2.1.X SERIES SHEETS FOR OVERALL LOCATION AND ORIENTATION TO THE BUILDING.

E. REFER TO THE A6.2.X SERIES SHEETS FOR STAIR DETAILS.

F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS S/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

H. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WINDOW SCHEDULE AND GLAZING TYPES.

I. REFER TO AND COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, FIRE PROTECTION, FIRE ALARM, TELECOM, AV, AND SECURITY DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

J. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

○ SHEET KEYNOTES

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- P1 DT — OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- X — SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP
301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

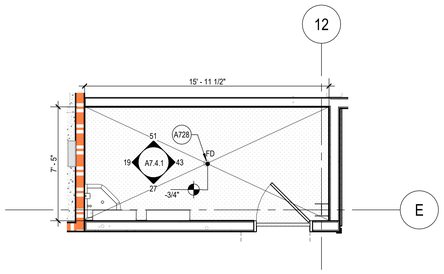
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ALCOVED SOCIAL SPACES

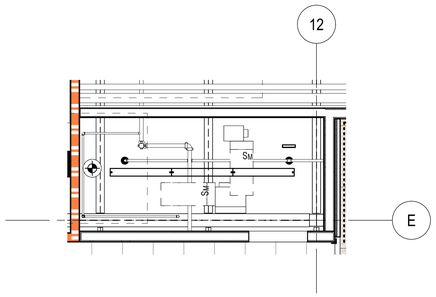
14794
PROJECT NUMBER

CD
A7.3.5
SHEET NUMBER

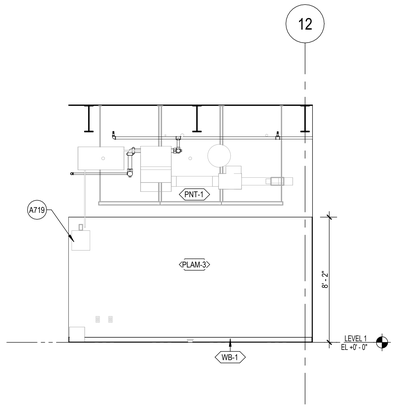
Plot Date: 8/25/2025 11:52:42 AM Author



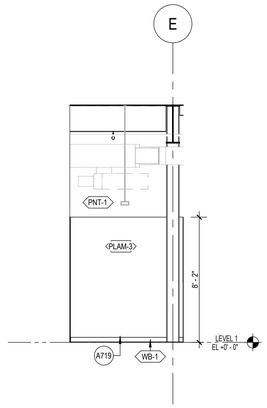
67 CUSTODIAL 15183B- ENLARGED PLAN
SCALE: 1/4" = 1'-0"



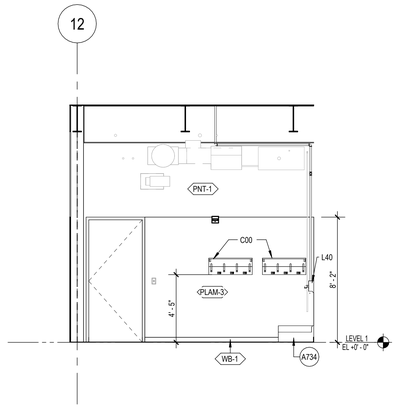
68 CUSTODIAL 15183B - ENLARGED RCP
SCALE: 1/4" = 1'-0"



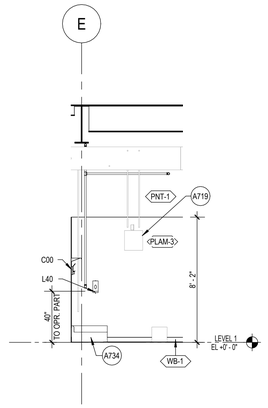
51 CUSTODIAL 15183B - EAST ELEVATION
SCALE: 1/4" = 1'-0"



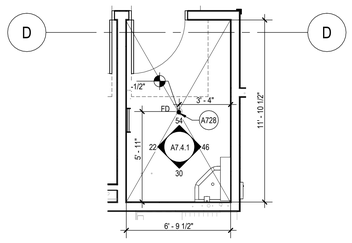
43 CUSTODIAL 15183B - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



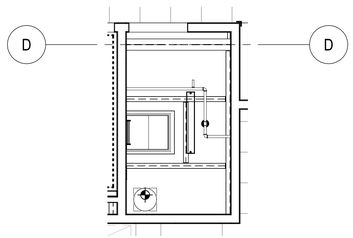
27 CUSTODIAL 15183B - WEST ELEVATION
SCALE: 1/4" = 1'-0"



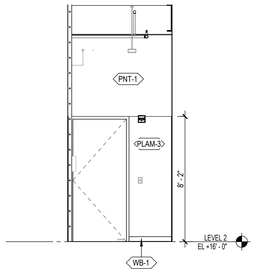
19 CUSTODIAL 15183B - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



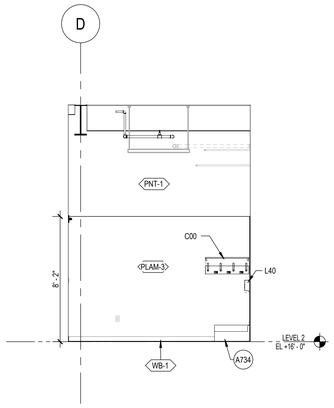
70 CUSTODIAL 15283- ENLARGED PLAN
SCALE: 1/4" = 1'-0"



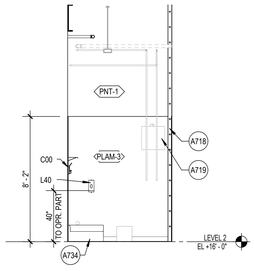
72 CUSTODIAL 15283- ENLARGED RCP
SCALE: 1/4" = 1'-0"



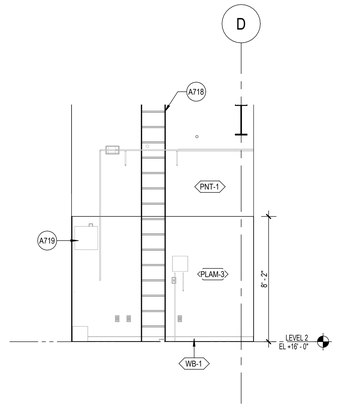
54 CUSTODIAL 15283- EAST ELEVATION
SCALE: 1/4" = 1'-0"



46 CUSTODIAL 15283- SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



30 CUSTODIAL 15283- WEST ELEVATION
SCALE: 1/4" = 1'-0"



22 CUSTODIAL 15283- NORTH ELEVATION
SCALE: 1/4" = 1'-0"

CUSTODIAL ROOM ACCESSORIES

ACCESSORY TAG	DESCRIPTION
L10	WASTE RECEPTACLE, OFCI
L40	SOAP DISPENSER, OFCI

GENERAL SHEET NOTES

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F. REFER TO Q DRAWINGS FOR LAB RELATED CASEWORK, LAYOUT, AND DETAILS. REFER TO Q0.1.1 FOR TYPICAL MOUNTING HEIGHT.

G. REFER AND COORDINATE WITH STRUCTURAL DRAWINGS 3/S9.01 AND S9.05 TO DETERMINE TYPE OF STRUCTURAL BACKING FOR EQUIPMENT AND VERIFY FINAL ANCHORING HEIGHT AND QUANTITY, TYP.

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K. REFER TO A02.1.X FOR FINISHES. ALL WALLS ARE PNT-1, TYP. U.O.N.

L. WALL CLOCKS SHOWN IN ELEVATIONS ARE OFOI AND BATTERY OPERATED

M. OFCI SOAP, PAPER TOWEL DISPENSERS. PROVIDE BACKING PLATE PER STRUCTURAL 3/S9.01

SHEET KEYNOTES

A718	LADDER TO ROOF HATCH ABOVE
A719	DOMESTIC WATER HEATER, REFER TO PLBG DWG.
A728	SLOPE FLOOR TO DRAIN 1.8% MAXIMUM IN ALL DIRECTIONS
A734	MOP SINK, REFER TO PLBG DWGS

GRAPHIC LEGEND

- CLG-1
- CLG-2
- CLG-3
- CLG-4
- CLG-5
- CLG-6
- UNISTRUT ABOVE CLG-1
- UNISTRUT ABOVE CLG-3
- CLG-7 - EXPOSED
- CEILING TRANSITION
- CLG MOVEMENT JOINT
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY/DAYLIGHT SENSOR
- FIRE SPRINKLER / STROBE
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- AIR RETURN DIFFUSER
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- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- ARCHITECTURAL FINISHES
- LAB CASEWORK FINISHES
- FEC-SR — SEMI- RECESSED FEC, SEE A9.5.2
- FEC-R — FULLY RECESSED FEC, SEE A9.5.2
- SIGNAGE TYPE

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

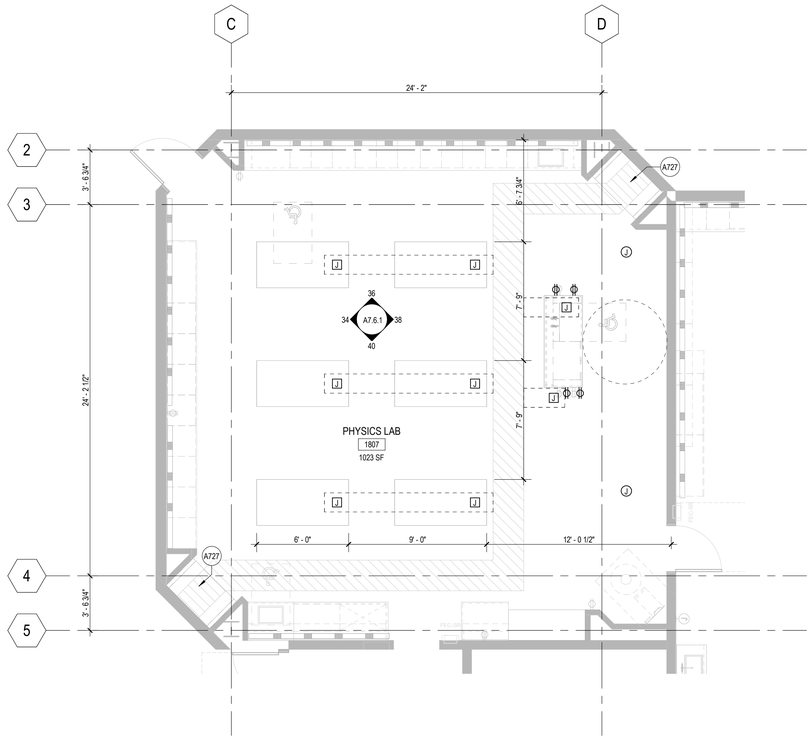
SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - CUSTODIAL ROOM

14794
PROJECT NUMBER

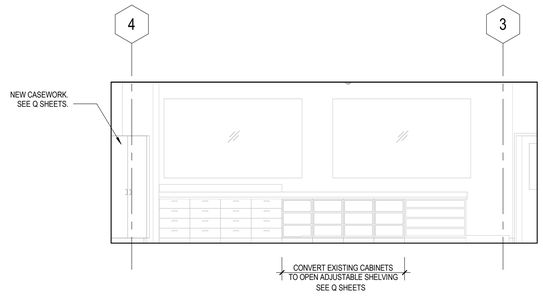
CD

A7.4.1
SHEET NUMBER

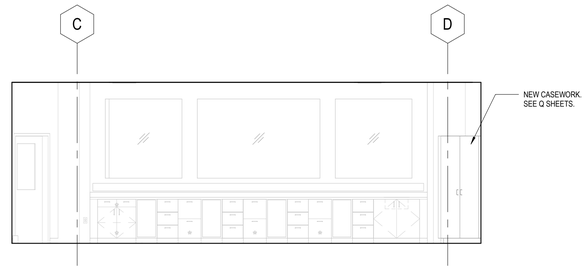
Plot Date: 8/25/2025 11:52:54 AM START Sheet



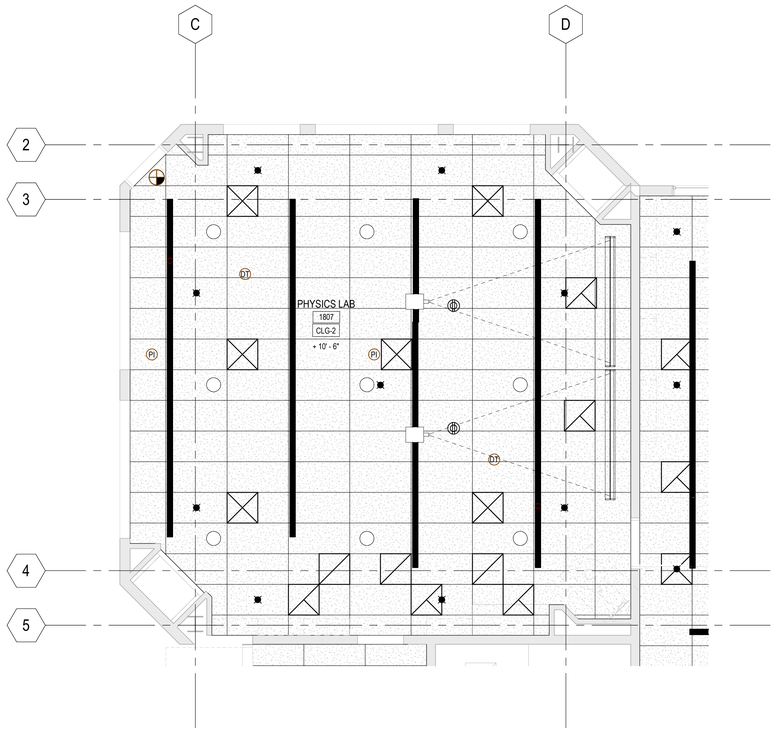
68 PHYSICS LAB 1807 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



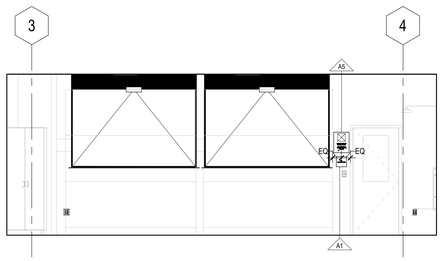
34 PHYSICS LAB 1807 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



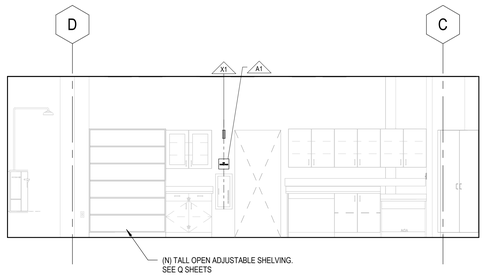
36 PHYSICS LAB 1807 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



72 PHYSICS LAB1807 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



38 PHYSICS LAB 1807 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 PHYSICS LAB 1807 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

- EXISTING UTILITY TRENCH
- LINE OF NEW TRENCH LOCATION
- J — FLOOR BOX. SEE SHEET E2.4.0
- CLG-6
- CEILING TRANSITION
- EXIT SIGN
- S — LOUDSPEAKER
- P — OCCUPANCY SENSOR
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC — FIRE EXTINGUISHER CABINET
- FEC-R — FIRE EXTINGUISHER CABINET, FIRE RATED
- X — SIGNAGE TAG

GRAPHIC LEGEND

A727 NEW CASEWORK, REFER TO Q SHEETS.

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

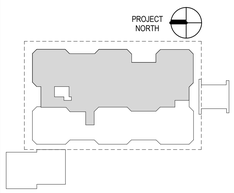
SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA



SHEET TITLE
BUILDING 1800 -
ENLARGED FLOOR PLANS,
RCP AND ELEVATIONS -
PHYSICS LAB

14794
PROJECT NUMBER

CD **A7.6.1**
SHEET NUMBER

START Sheet
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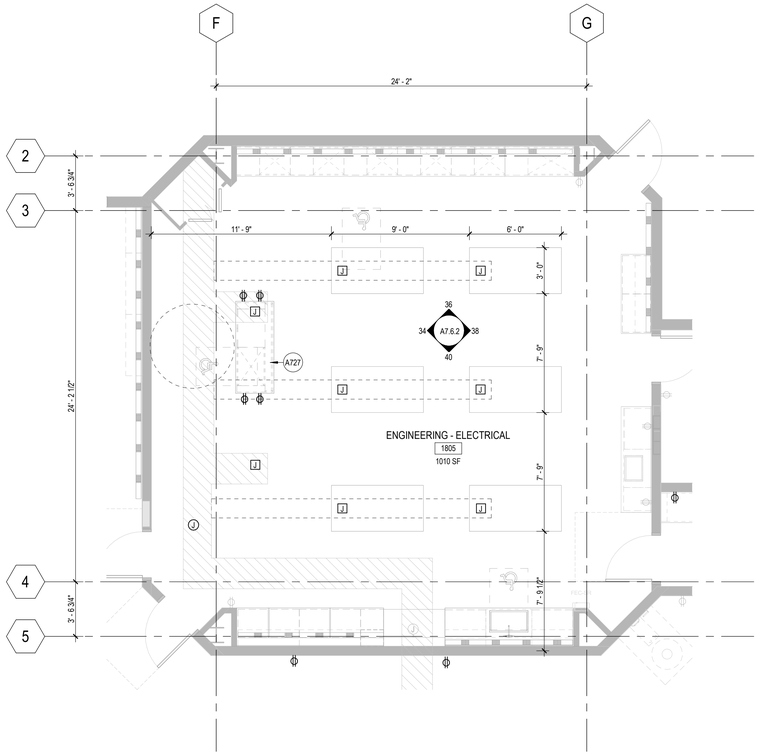
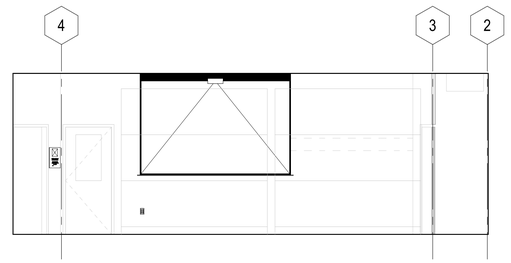
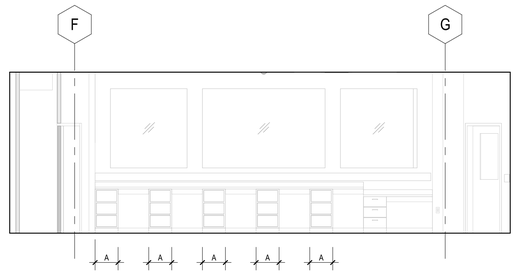
Plot Date:



68 ENGINEERING-ELECTRICAL 1806 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"

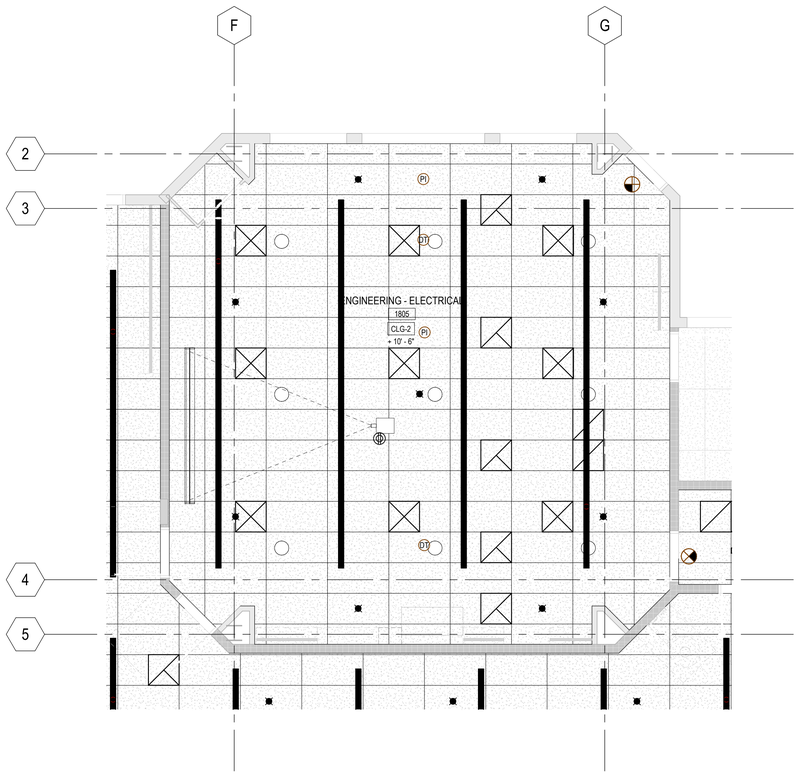


34 ENGINEERING-ELECTRICAL 1806 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

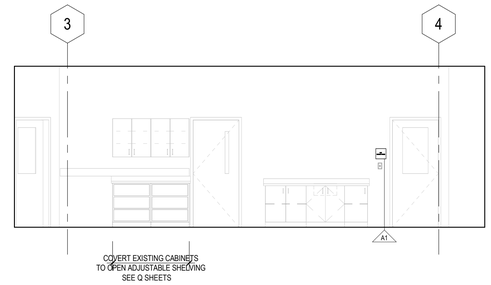


A: CONVERT EXISTING CABINETS TO OPEN ADJUSTABLE SHELVING. SEE Q SHEETS.

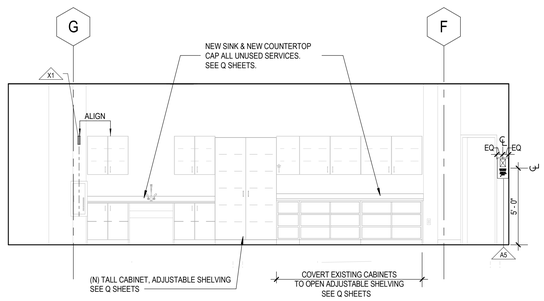
36 ENGINEERING-ELECTRICAL 1806 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



72 ENGINEERING-ELECTRICAL 1806 - ENLARGED RCP
SCALE: 1/4" = 1'-0"



38 ENGINEERING-ELECTRICAL 1806 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 ENGINEERING-ELECTRICAL 1806 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

- EXISTING UTILITY TRENCH
- LINE OF NEW TRENCH LOCATION
- J — FLOOR BOX. SEE SHEET E2.4.0
- CLG-6
- CEILING TRANSITION
- EXIT SIGN
- S — LOUDSPEAKER
- P — OCCUPANCY SENSOR
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X — ARCHITECTURAL FINISHES
- X — LAB CASEWORK FINISHES
- FEC — FIRE EXTINGUISHER CABINET
- FEC-R — FIRE EXTINGUISHER CABINET, FIRE RATED
- X — SIGNAGE TAG

GRAPHIC LEGEND

A727 NEW CASEWORK, REFER TO Q SHEETS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1800 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ENGINEERING ELECTRICAL

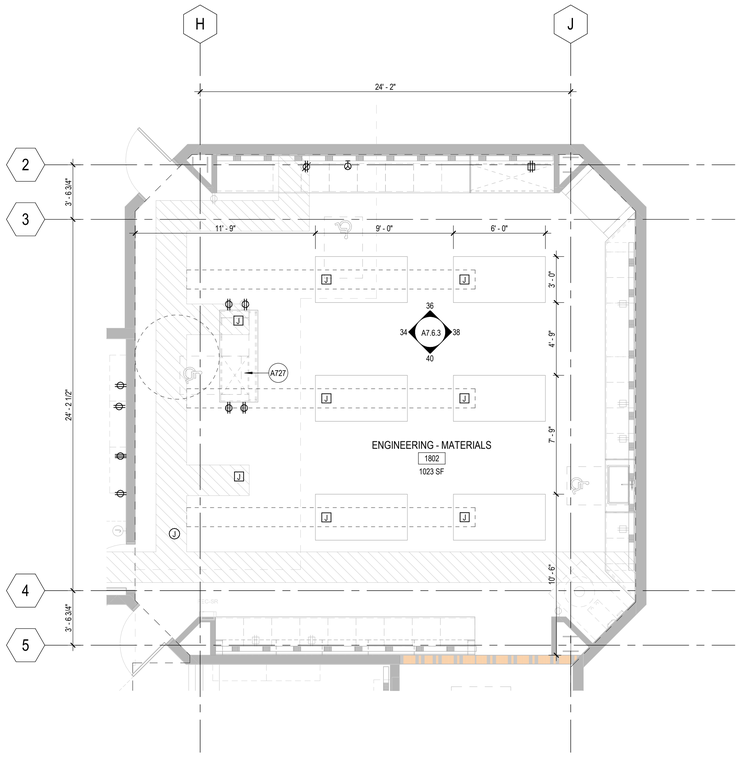
PROJECT NUMBER 14794

CD **A7.6.2**

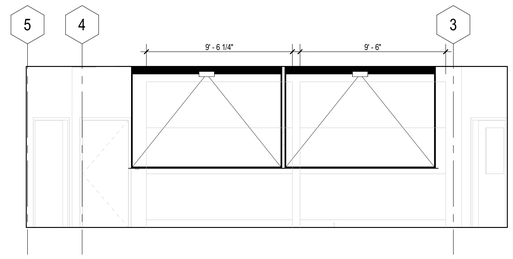
SHEET NUMBER

START Sheet

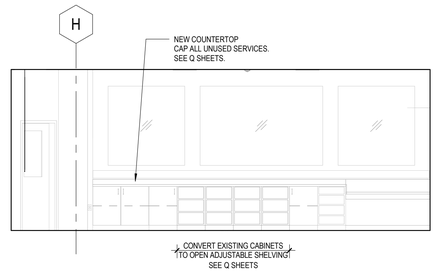
Plot Date: 7/23/2025 5:37:09 PM



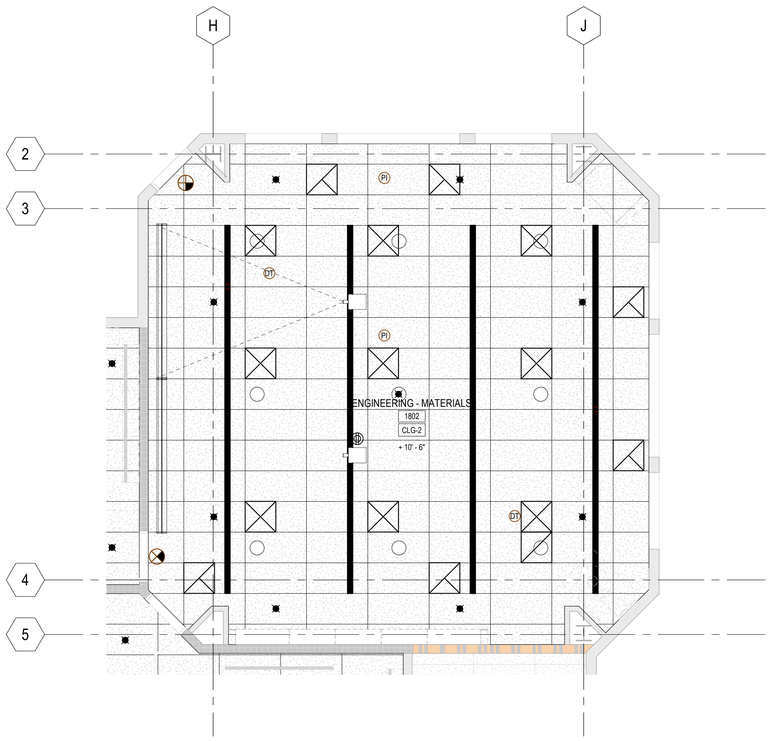
68 ENGINEERING-MATERIALS 1802 - ENLARGED PLAN
SCALE: 1/4" = 1'-0"



34 ENGINEERING-MATERIALS 1802 - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



36 ENGINEERING-MATERIALS 1802 - EAST ELEVATION
SCALE: 1/4" = 1'-0"



72 ENGINEERING-MATERIALS 1802 - ENLARGED RCP
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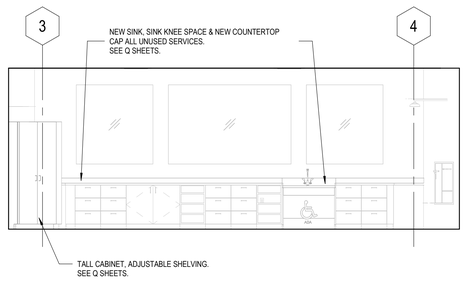
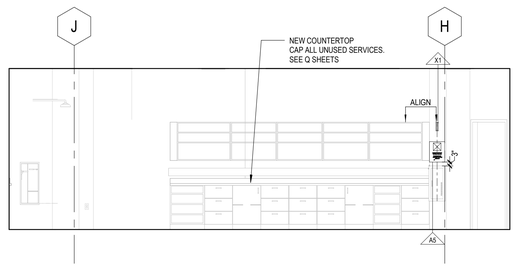


38 ENGINEERING-MATERIALS 1802 - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



40 ENGINEERING-MATERIALS 1802 - WEST ELEVATION
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

- EXISTING UTILITY TRENCH
- LINE OF NEW TRENCH LOCATION
- FLOOR BOX. SEE SHEET E2.4.0
- CLG-6
- CEILING TRANSITION
- EXIT SIGN
- LOUDSPEAKER
- OCCUPANCY SENSOR
- SPRINKLER
- AIR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- AIR EXHAUST DIFFUSER
- RECESSED DOWNLIGHT
- RECESSED TROFFER LIGHT
- LINEAR PENDANT
- LINEAR RECESSED
- 1 HR RATED WALL ASSEMBLY
- PROJECTOR & PROJECTION SCREEN
- X ARCHITECTURAL FINISHES
- X LAB CASEWORK FINISHES
- FEC FIRE EXTINGUISHER CABINET
- FEC-R FIRE EXTINGUISHER CABINET, FIRE RATED
- X SIGNAGE TAG

SHEET KEYNOTES

A727 NEW CASEWORK, REFER TO Q SHEETS.

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1800 - ENLARGED FLOOR PLANS, RCP AND ELEVATIONS - ENGINEERING MATERIALS

14794

PROJECT NUMBER

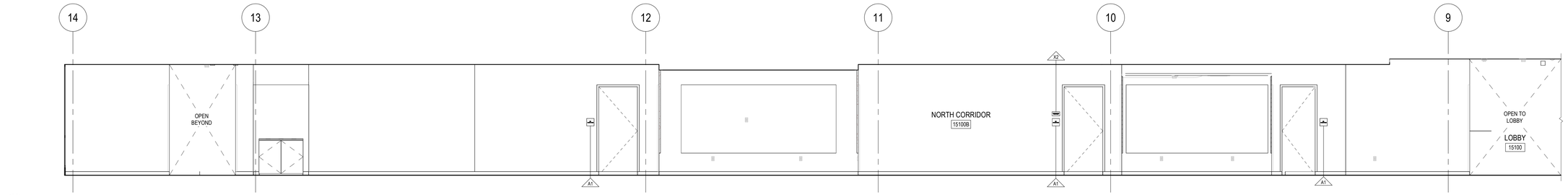
CD

A7.6.3

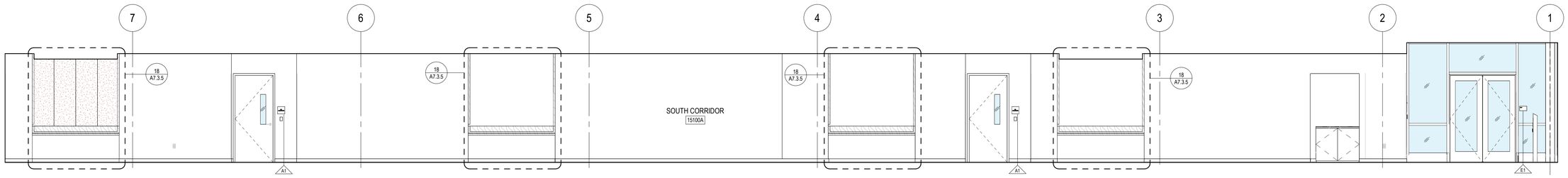
SHEET NUMBER

START Sheet

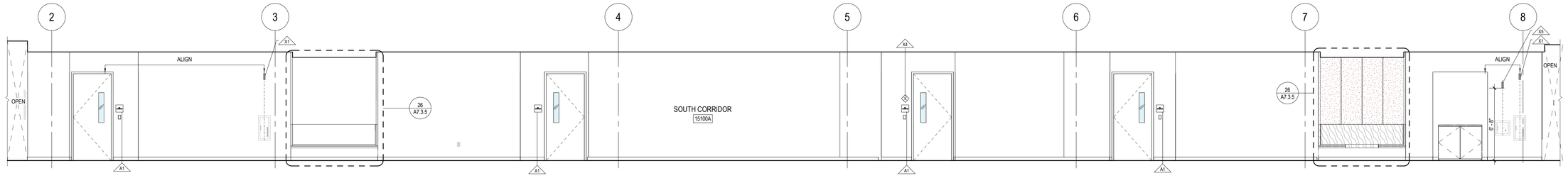
Plot Date: 7/23/2025 5:37:18 PM



66 INTERIOR ELEVATION - LEVEL 1 CORRIDOR NE
SCALE: 1/4" = 1'-0"



68 INTERIOR ELEVATION - LEVEL 1 CORRIDOR SE
SCALE: 1/4" = 1'-0"



70 INTERIOR ELEVATION - LEVEL 1 CORRIDOR SW
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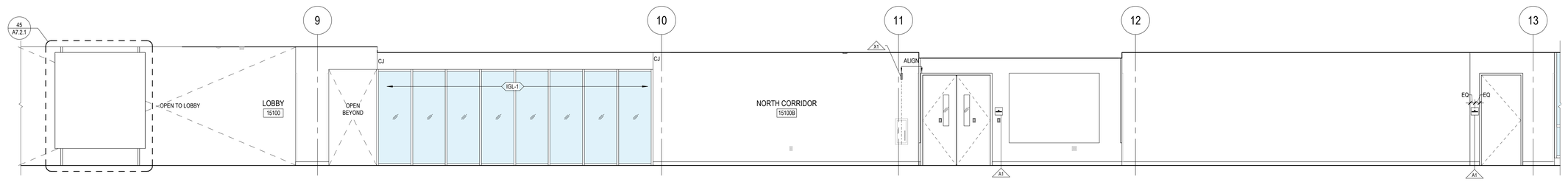

71 INTERIOR ELEVATION - LEVEL 1 CORRIDOR NW
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

X SIGNAGE TYPE

CJ CONTROL JOINT

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO Q-SERIES DRAWINGS FOR ARTS AND LAB PLANNING INFORMATION.

D. REFER TO WALL ASSEMBLIES ON A9.2.X SHEETS & ACOUSTICAL SECTION OF BASIS OF DESIGN DOCUMENT FOR PARTITION STC REQUIREMENTS AND PARTITION TYPES THAT ACHIEVE RECOMMENDED STC REQUIREMENTS.

E. REFER TO A9.2.1 SHEETS FOR WALL TYPES & WALL ASSEMBLIES.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II -
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - INTERIOR ELEVATIONS - LEVEL 1 COMMON CORRIDORS

14794
PROJECT NUMBER

CD
A8.1.1
SHEET NUMBER

START Sheet

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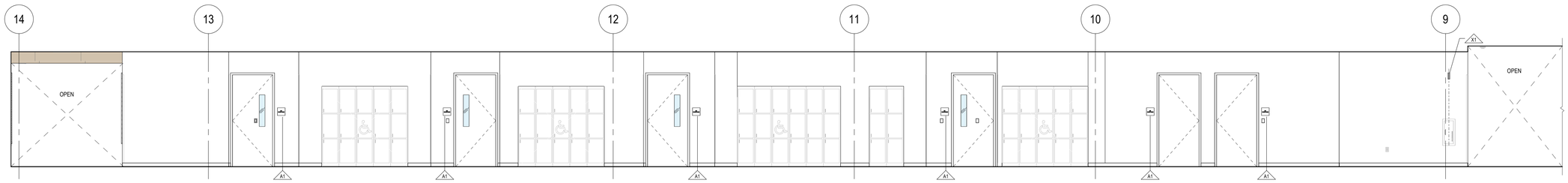
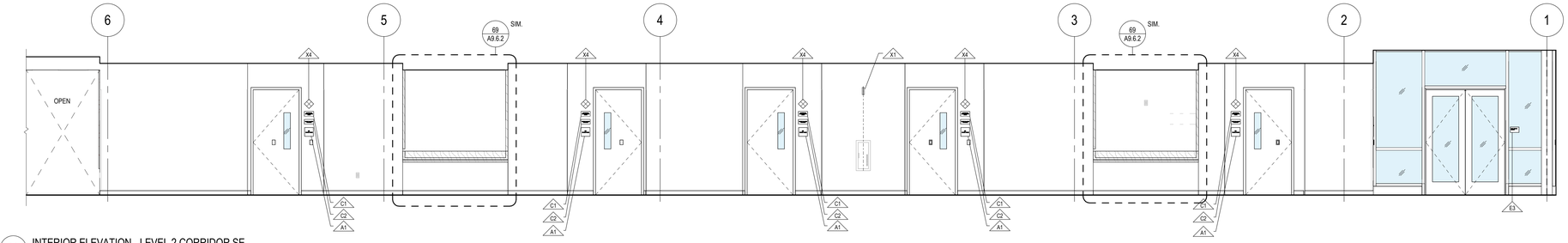
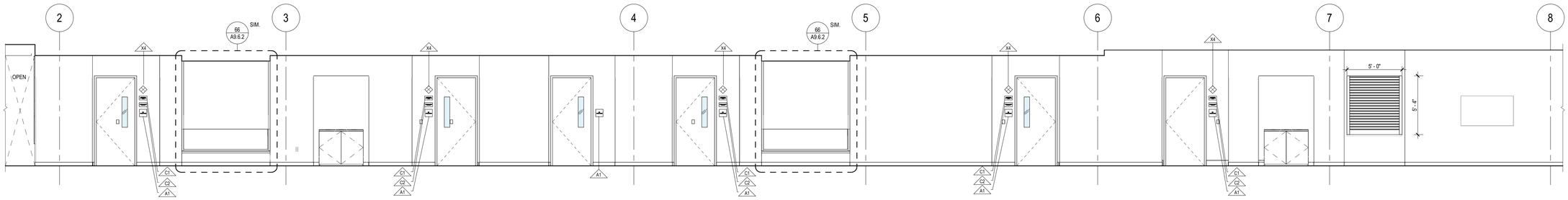


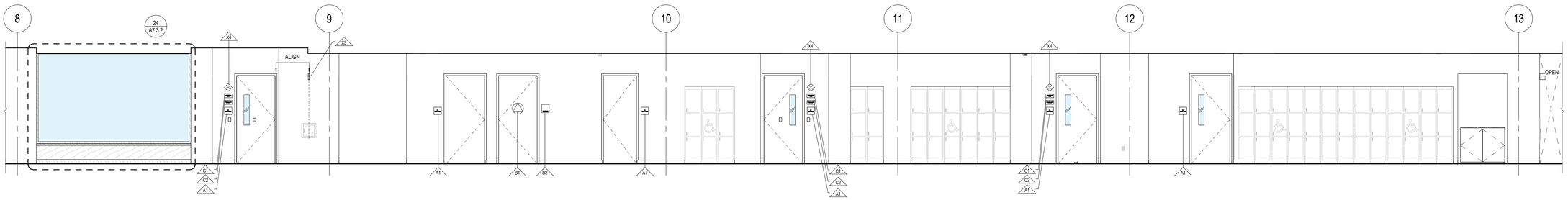
66 INTERIOR ELEVATION - LEVEL 2 CORRIDOR NE
SCALE: 1/4" = 1'-0"



60 INTERIOR ELEVATION - LEVEL 2 CORRIDOR SE
SCALE: 1/4" = 1'-0"



69 INTERIOR ELEVATION - LEVEL 2 CORRIDOR SW
SCALE: 1/4" = 1'-0"



71 INTERIOR ELEVATION - LEVEL 2 CORRIDOR NW
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

X SIGNAGE TYPE

CJ CONTROL JOINT

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

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SHEET KEYNOTES

LAS POSITAS COLLEGE

INCREMENT II -
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
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3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - INTERIOR ELEVATIONS - LEVEL 2 COMMON CORRIDORS

14794
PROJECT NUMBER

CD **A8.1.2**
SHEET NUMBER

START Sheet
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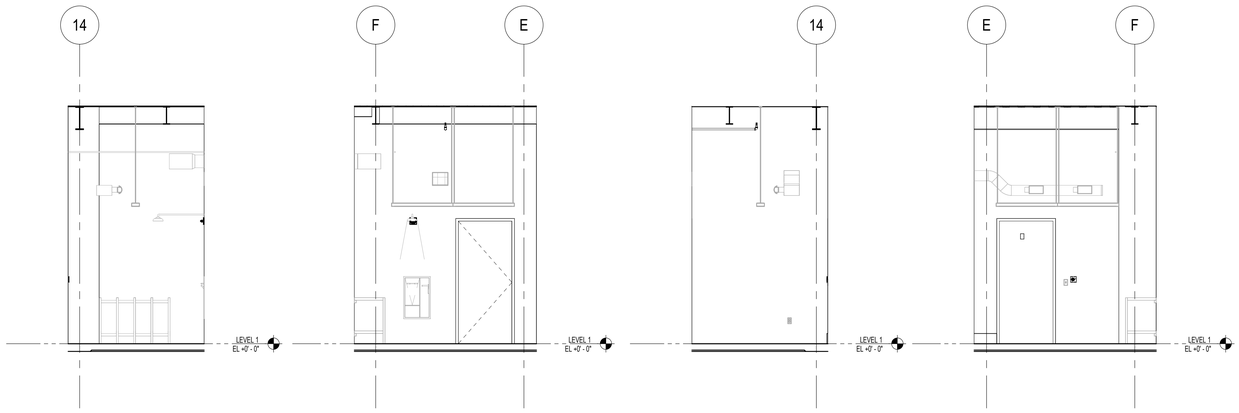
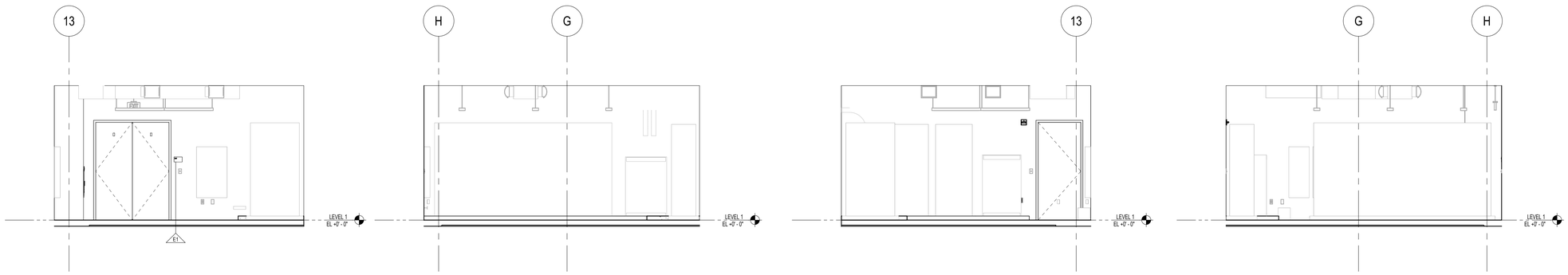


67 MARSHALLING- EAST ELEVATION
SCALE: 1/4" = 1'-0"

59 MARSHALLING- SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

51 MARSHALLING- WEST ELEVATION
SCALE: 1/4" = 1'-0"

43 MARSHALLING - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

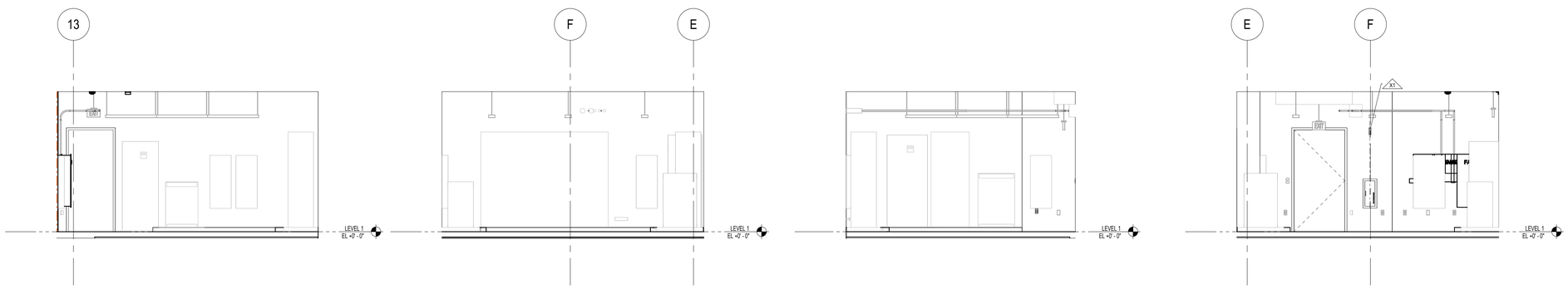


68 MAIN ELEC. ROOM - EAST ELEVATION
SCALE: 1/4" = 1'-0"

52 MAIN ELEC. ROOM - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

36 MAIN ELEC. ROOM - WEST ELEVATION
SCALE: 1/4" = 1'-0"

20 MAIN ELEC. ROOM - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

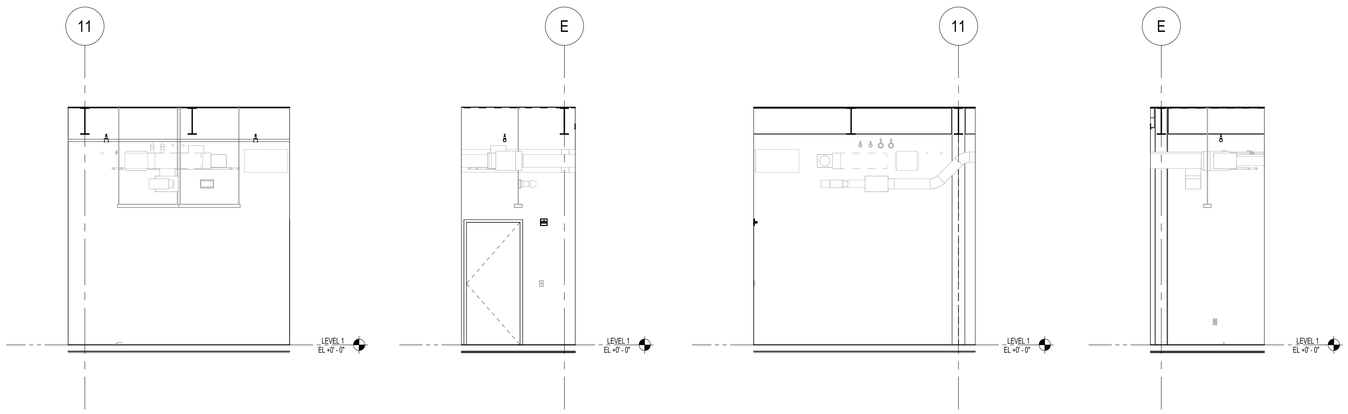


70 ELEC. STAND BY - EAST ELEVATION
SCALE: 1/4" = 1'-0"

54 ELEC. STAND BY - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

38 ELEC. STAND BY - WEST ELEVATION
SCALE: 1/4" = 1'-0"

22 ELEC. STAND BY - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



72 STORAGE - EAST ELEVATION
SCALE: 1/4" = 1'-0"

64 STORAGE - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

48 STORAGE - WEST ELEVATION
SCALE: 1/4" = 1'-0"

40 STORAGE - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

Author

7/23/2025 4:55:56 PM

Plot Date:

LAS POSITAS COLLEGE

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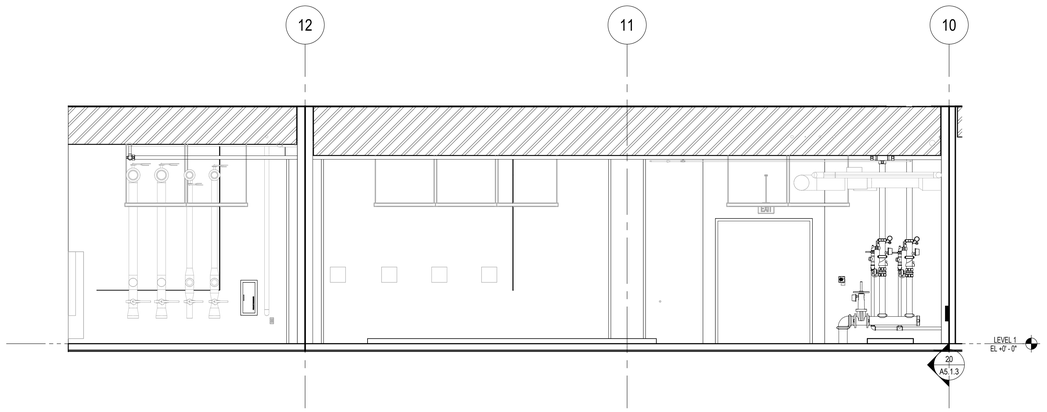
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

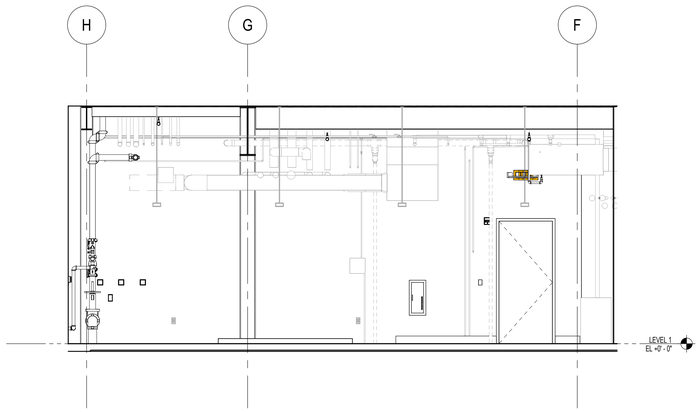
SHEET TITLE
BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES

14794
PROJECT NUMBER

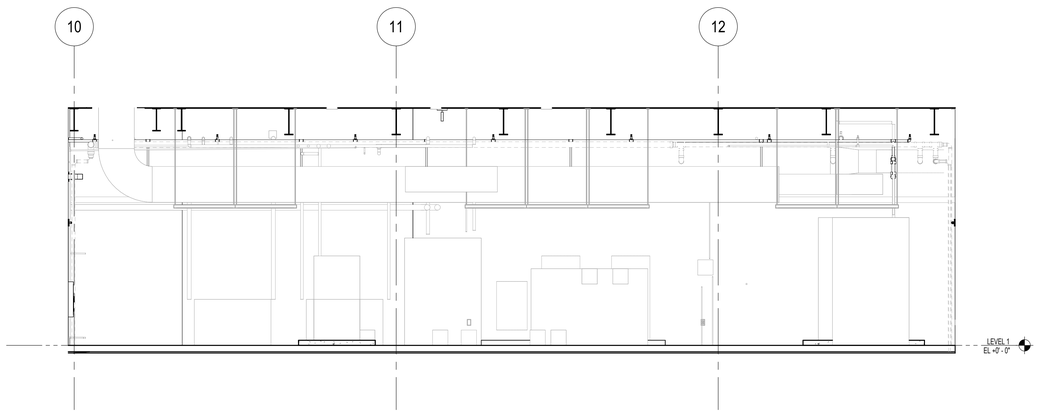
CD
A8.1.3
SHEET NUMBER



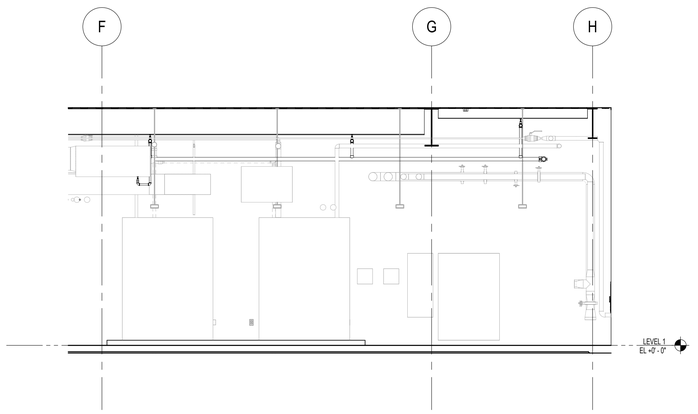
67 MECH. ROOM - EAST ELEVATION
SCALE: 1/4" = 1'-0"



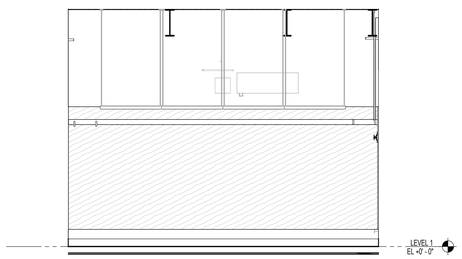
35 MECH. ROOM - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



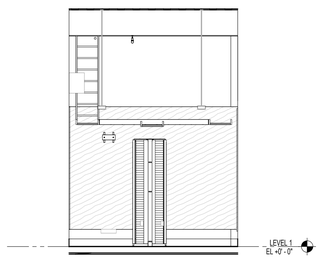
69 MECH. ROOM - WEST ELEVATION
SCALE: 1/4" = 1'-0"



37 MECH. ROOM - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



70 BDF - EAST ELEVATION
SCALE: 1/4" = 1'-0"



54 BDF - SOUTH ELEVATION
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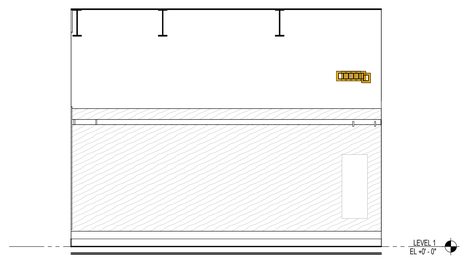
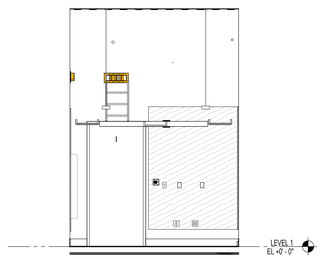
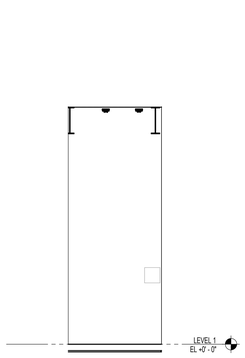


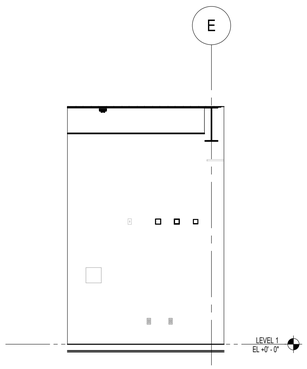
46 BDF - WEST ELEVATION
SCALE: 1/4" = 1'-0"



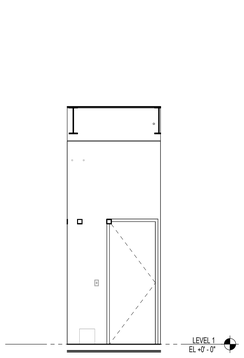
30 BDF - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



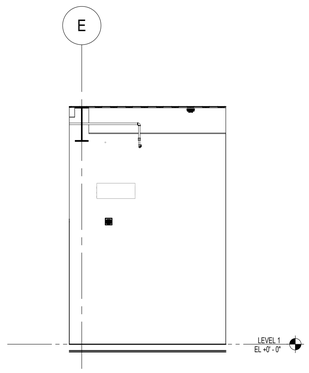
72 ELEV. CONTROL- EAST ELEVATION
SCALE: 1/4" = 1'-0"



64 ELEV. CONTROL- SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



56 ELEV. CONTROL- WEST ELEVATION
SCALE: 1/4" = 1'-0"



40 ELEV. CONTROL- NORTH ELEVATION
SCALE: 1/4" = 1'-0"

Author
7/23/2025 4:56:37 PM
Plot Date:

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

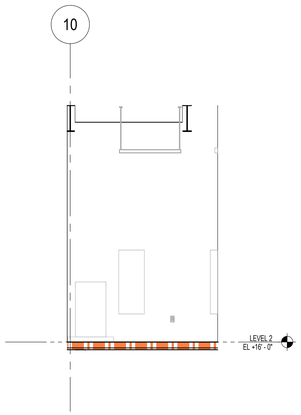
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

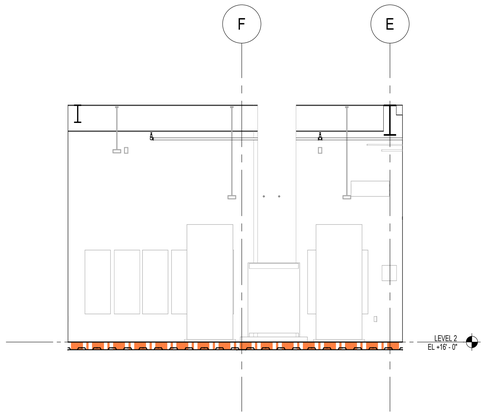
SHEET TITLE
BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES

14794
PROJECT NUMBER

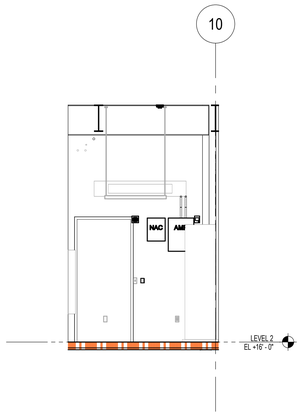
CD
A8.1.4
SHEET NUMBER



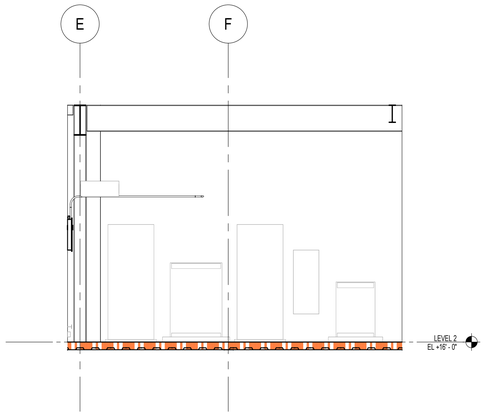
67 ELEC. ROOM - EAST ELEVATION
SCALE: 1/4" = 1'-0"



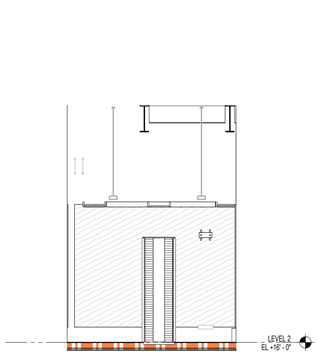
59 ELEC. ROOM - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



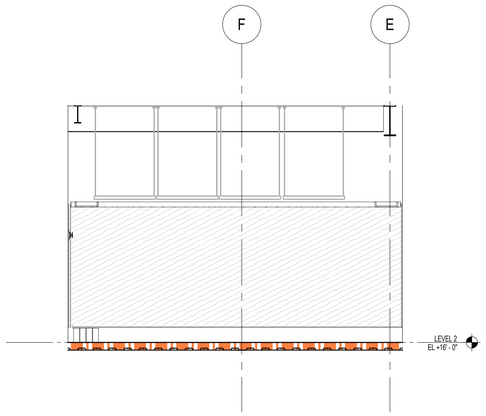
35 ELEC. ROOM - WEST ELEVATION
SCALE: 1/4" = 1'-0"



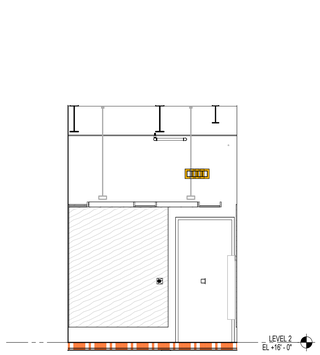
27 ELEC. ROOM - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



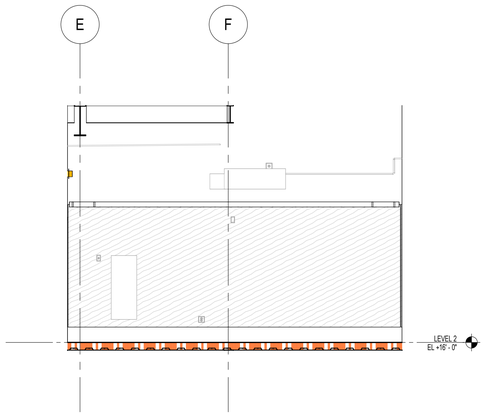
69 IDF - EAST ELEVATION
SCALE: 1/4" = 1'-0"



61 IDF - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



37 IDF - WEST ELEVATION
SCALE: 1/4" = 1'-0"



29 IDF - NORTH ELEVATION
SCALE: 1/4" = 1'-0"

Author
7/23/2025 4:57:03 PM
Plot Date:

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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SEALS AND SIGNATURES

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C-25287
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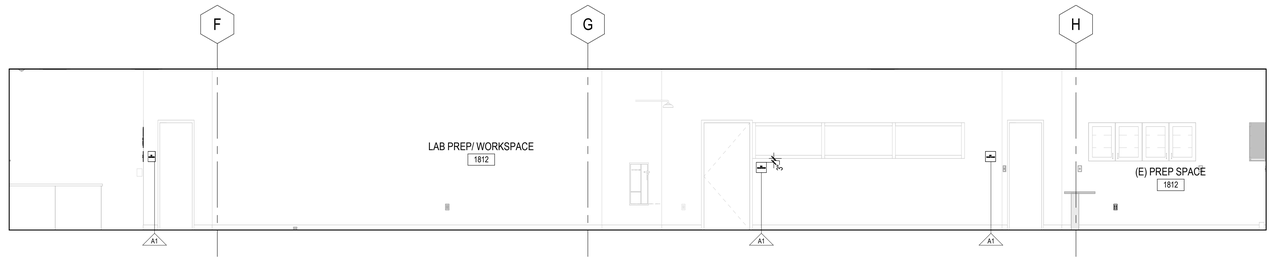
Renewal Date
STATE OF CALIFORNIA

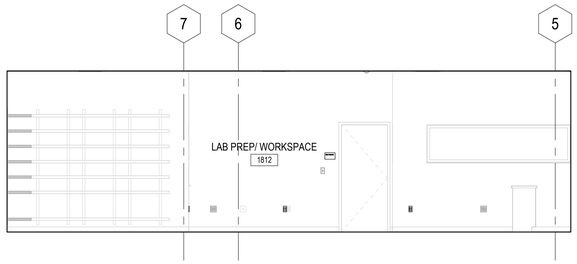
SHEET TITLE
BUILDING 1500 - INTERIOR ELEVATIONS - BOH SPACES

14794
PROJECT NUMBER

CD
A8.1.5
SHEET NUMBER



1 INTERIOR ELEVATION - LAB PREP/WORKSPACE - EAST ELEVATION
SCALE: 1/4" = 1'-0"



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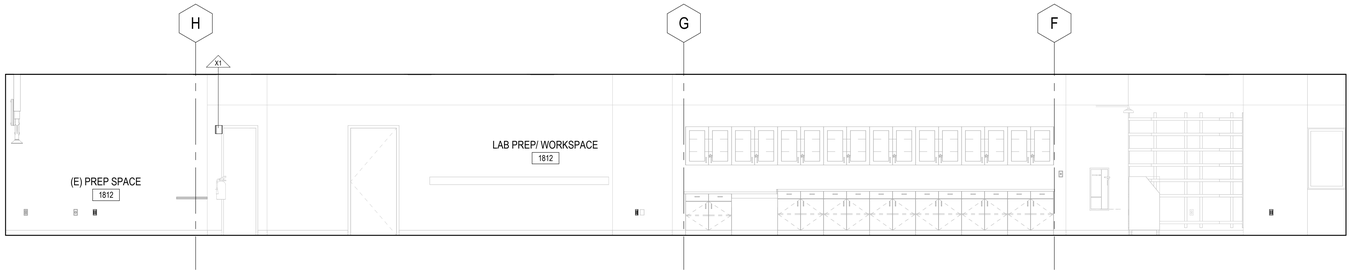
SCALE: 1/4" = 1'-0"



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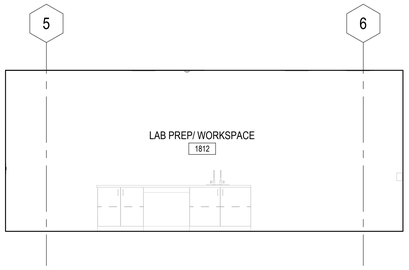
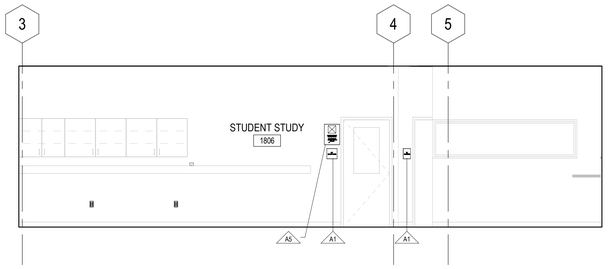
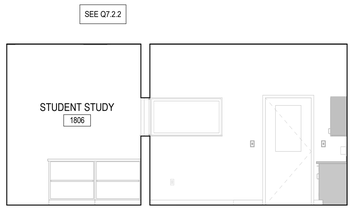
SCALE: 1/4" = 1'-0"



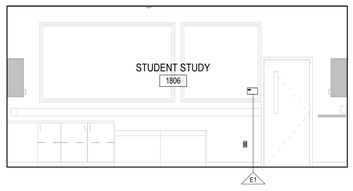
3 INTERIOR ELEVATION - LAB PREP/WORKSPACE WORKBENCH- SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



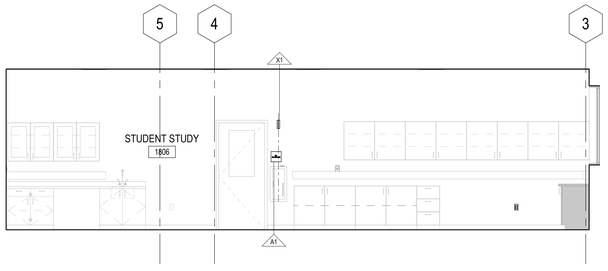
7 INTERIOR ELEVATION - STUDENT STUDY - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



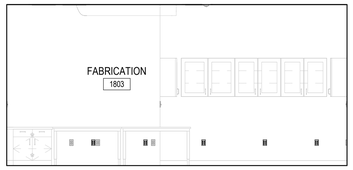
8 INTERIOR ELEVATION - STUDENT STUDY - WEST ELEVATION
SCALE: 1/4" = 1'-0"



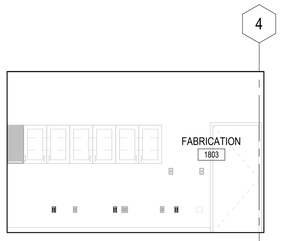
5 INTERIOR ELEVATION - STUDENT STUDY - EAST ELEVATION
SCALE: 1/4" = 1'-0"



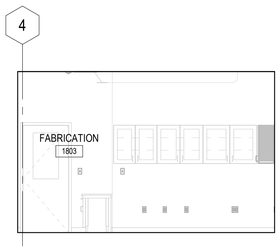
6 INTERIOR ELEVATION - STUDENT STUDY - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



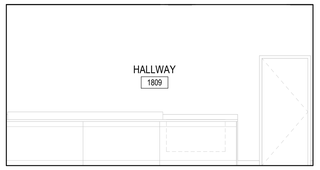
11 INTERIOR ELEVATION - FABRICATION - EAST ELEVATION
SCALE: 1/4" = 1'-0"



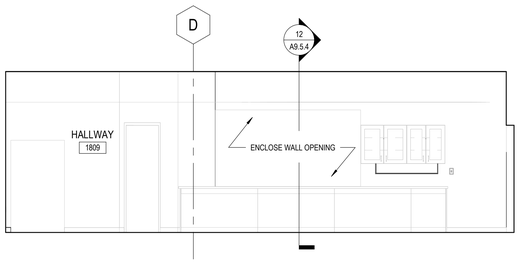
13 INTERIOR ELEVATION - FABRICATION - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



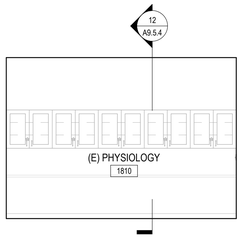
12 INTERIOR ELEVATION - FABRICATION - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



9 INTERIOR ELEVATION - HALLWAY - EAST ELEVATION
SCALE: 1/4" = 1'-0"



10 INTERIOR ELEVATION - HALLWAY - WEST ELEVATION
SCALE: 1/4" = 1'-0"



14 INTERIOR ELEVATION - (E) PHYSIOLOGY INFILL
SCALE: 1/4" = 1'-0"

GRAPHIC LEGEND

X SIGNAGE TAG

START Sheet

7/23/2025 5:37:21 PM

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

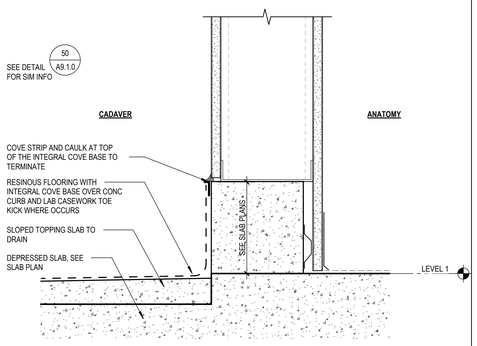
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1800 - INTERIOR ELEVATIONS

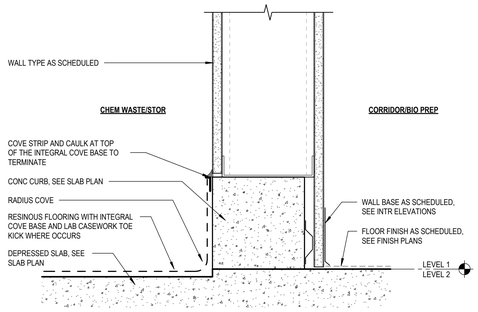
14794
PROJECT NUMBER

CD

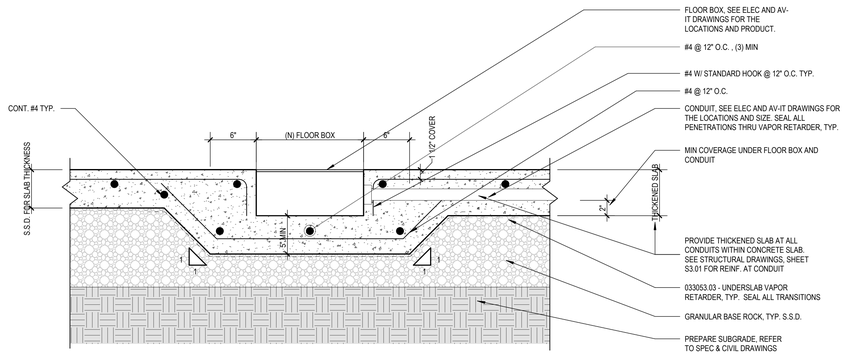
A8.2.1
SHEET NUMBER



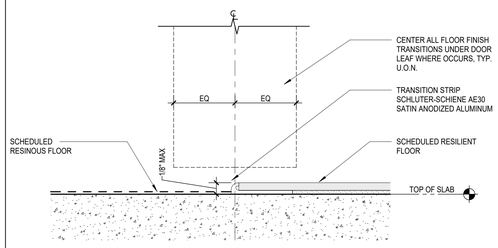
66 SECTION DETAIL - DEPRESSED SLAB & CURB AT CADAVER
SCALE: 3" = 1'-0"



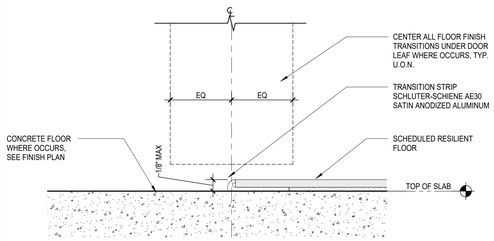
50 SECTION DETAIL - CURB AT SUPPORT SPACES
SCALE: 3" = 1'-0"



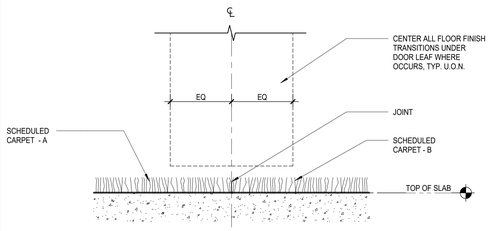
68 SECTION DETAIL - FLOOR BOX COVERAGE AT GRADE
SCALE: 1 1/2" = 1'-0"



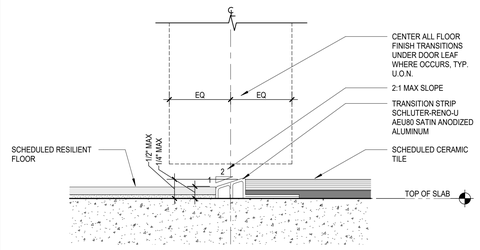
56 FLOOR TRANSITION - RESINOUS TO RESILIENT FLOOR
SCALE: 12" = 1'-0"



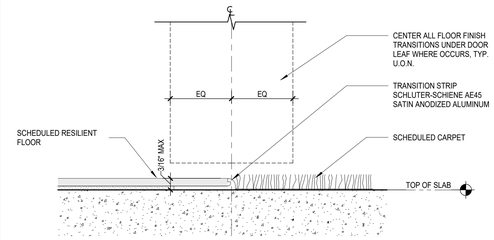
34 FLOOR TRANSITION - CONCRETE TO RESILIENT FLOOR
SCALE: 12" = 1'-0"



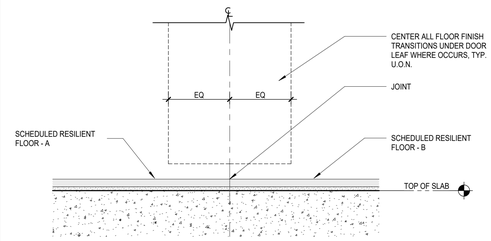
35 FLOOR TRANSITION - CARPET TO CARPET
SCALE: 12" = 1'-0"



37 FLOOR TRANSITION - RESILIENT FLOOR TO CERAMIC TILE
SCALE: 12" = 1'-0"



38 FLOOR TRANSITION - RESILIENT FLOORING TO CARPET
SCALE: 12" = 1'-0"



40 FLOOR TRANSITION - RESILIENT FLOORING TO RESILIENT FLOORING
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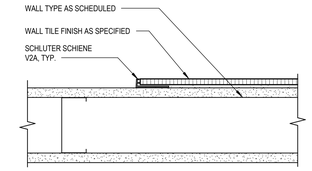
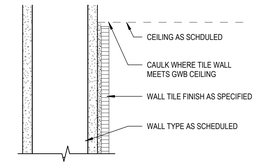
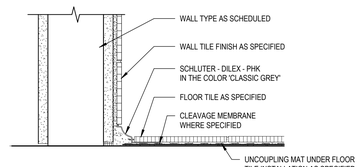


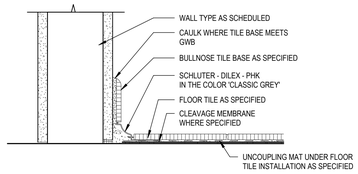
18 WALL TRANSITION - CERAMIC TILE TO GWB
SCALE: 3" = 1'-0"



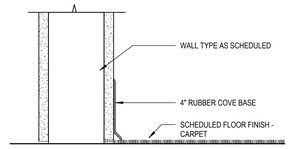
19 WALL TRANSITION - CERAMIC TILE WALL TO GWB CEILING
SCALE: 3" = 1'-0"



21 WALL TRANSITION - CERAMIC TILE WALL TO CERAMIC TILE FLOOR
SCALE: 3" = 1'-0"



22 WALL TRANSITION - CERAMIC TILE BASE TO CERAMIC TILE FLOOR
SCALE: 3" = 1'-0"



24 WALL TRANSITION - RUBBER BASE TO CARPET
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

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SEALS AND SIGNATURES

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C-25287
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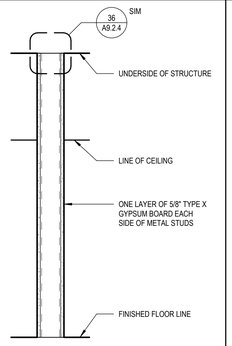
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
INTERIOR FINISH SYSTEM DETAILS - FLOOR/WALL TRANSITIONS

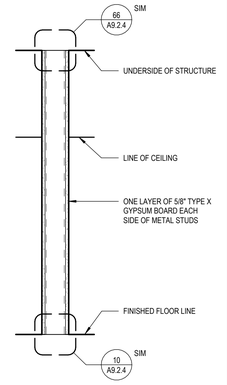
14794
PROJECT NUMBER

CD
A9.1.0
SHEET NUMBER

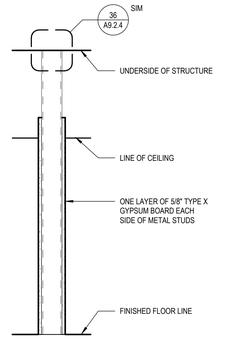
START Sheet
Plot Date: 8/23/2025 5:44:08 PM



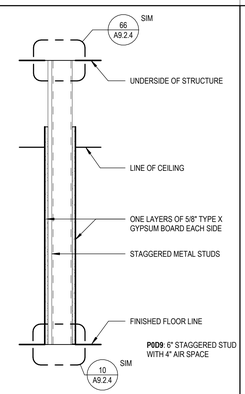
P0A TWO SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



P1A TWO SIDED ASSEMBLY
1 HOUR RATED (UL - U419 OR U465)
SCALE: NTS

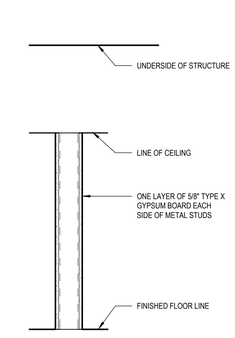


P0B TWO SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS

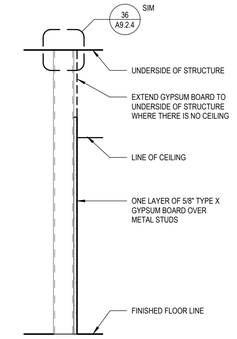


P0D TWO SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS

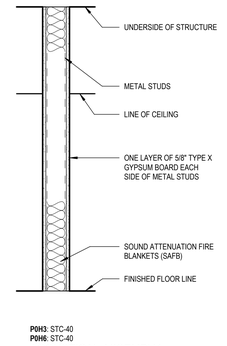
P0D9: 6" STAGGERED STUD WITH 4" AIR SPACE



P0E TWO SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS

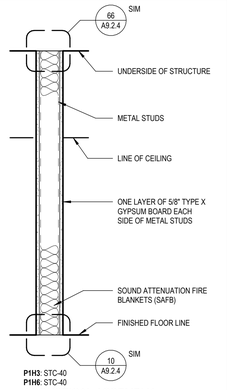


P0F ONE SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



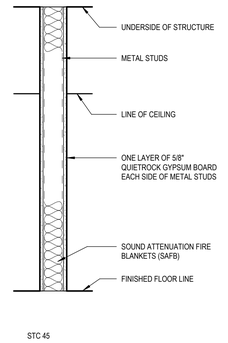
P0H3: STC-40
P0H6: STC-40

P0H ACOUSTICAL ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



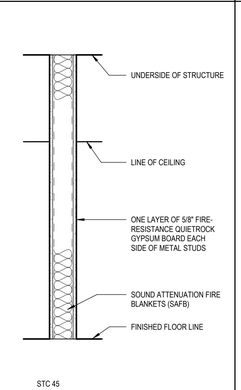
P1H3: STC-40
P1H6: STC-40

P1H ACOUSTICAL ASSEMBLY
1 HOUR RATED (UL - U419 OR U465)
SCALE: NTS



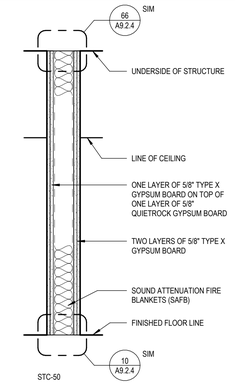
STC 45

P0M ACOUSTICAL ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



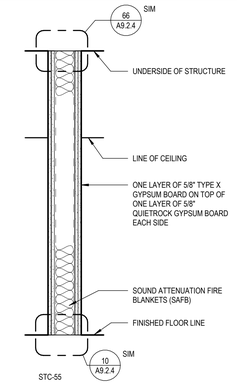
STC 45

P1M ACOUSTICAL ASSEMBLY
1 HOUR RATED (UL-U411 OR U419)
SCALE: NTS



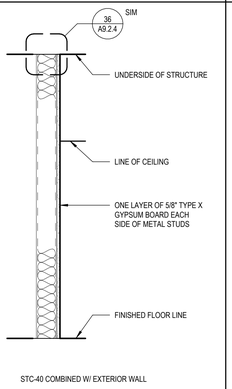
STC-50

P0N ACOUSTICAL ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



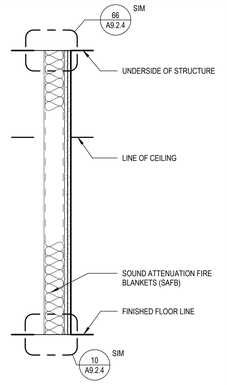
STC-55

P0Q ACOUSTICAL ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



STC-40 COMBINED W/ EXTERIOR WALL

P0C ONE SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



P0G ONE SIDED ASSEMBLY
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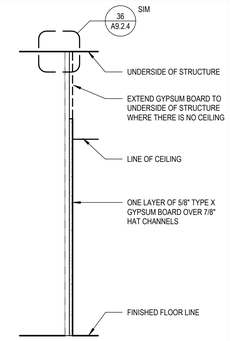
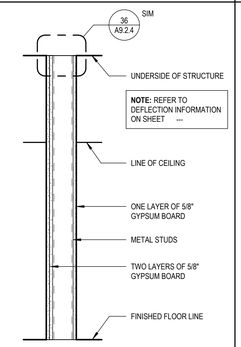
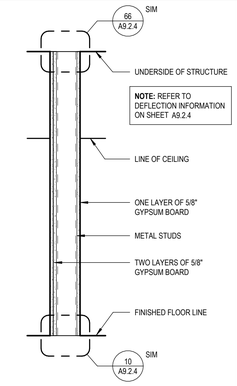
SCALE: NTS



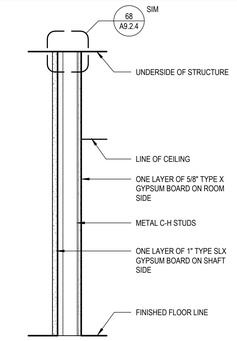
P0K ONE SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



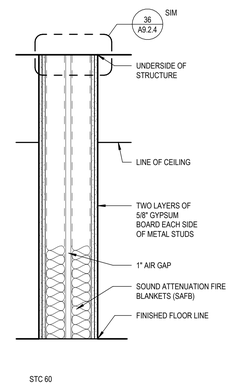
P0L TWO SIDED ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS



P1L TWO SIDED ASSEMBLY
1 HOUR RATED (UL - U419 OR U448)
SCALE: NTS



P1S SHAFT WALL ASSEMBLY
1 HOUR RATED (UL- U415 OR U469)
SCALE: NTS



STC 60

P0W ACOUSTICAL ASSEMBLY
NON-COMBUSTIBLE
SCALE: NTS

PARTITION NOTES

A. PARTITIONS AND FURRING ARE DIMENSIONED TO THE FACE OF PARTITION ASSEMBLY (NOT TO THE FACE OF APPLIED FINISH OR FACE OF STUD), UNLESS OTHERWISE NOTED

B. PARTITION TYPE INDICATIONS ARE INDEPENDENT OF APPLIED FINISHES. SEE FINISH SCHEDULE AND/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES

C. WHERE PARTITION TYPE DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENING, GLAZED PARTITION, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARTITION IN WHICH THE INTERRUPTION OCCURRED

D. THE MINIMUM REQUIREMENTS FOR CONSTRUCTION OF EACH PARTITION TYPE AS EXPRESSED BY THE INDICATED FIRE RATING REFERENCE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS ALSO APPLY AND SHALL GOVERN. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:

1. USE 5/8 THICK GYPSUM BOARD THROUGHOUT
2. USE 16 OC MAX STUD SPACING UNLESS OTHERWISE NOTED. THE SPACING STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING
3. USE STUDS OF GAUGE INDICATED ON STRUCTURE DRAWINGS OR IN THE SPECIFICATIONS. THE GAUGE STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM GAUGE
4. USE STUDS OF DEPTH INDICATED BY THE DRAWINGS. THE DEPTH STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM DEPTH

E. REFER TO THE GYPSUM BOARD PRODUCT LOCATION MATRIX FOR LOCATIONS OF GYPSUM BOARD PRODUCTS.

F. FOR ACOUSTICAL WALL, SEAL PERIMETER OF PARTITION WITH CONT BEAD OF ACOUSTICAL SEALANT. CLOSE ALL GAPS THROUGH OR AROUND PARTITION BY SEALING ALL JOINTS, GAPS AROUND OUTLET BOXES AND PENETRATIONS, INCLUDING THOSE ABOVE FINISH CEILINGS. ISOLATE PARTITION FROM ALL PIPE AND DUCT PENETRATIONS BY STOPPING GYPSUM BOARD AND PIPES/DUCTS WITH BACKER ROD AND ACOUSTICAL SEALANT.

G. FOR FIRE RATED WALL, SEAL PERIMETER OF PARTITION WITH CONT BEAD OF FIRESTOPPING SEALANT. CLOSE ALL GAPS THROUGH OR AROUND PARTITION BY SEALING ALL JOINTS, GAPS AROUND OUTLET BOXES AND PENETRATIONS, INCLUDING THOSE ABOVE FINISH CEILINGS.

FRAMING NOTES

A. ALL INTERIOR NON-LOAD-BEARING METAL WALL FRAMING EXCEEDING 6 FEET IN HEIGHT SHALL RESIST A HORIZONTAL LOAD OF NOT LESS THAN 5 PSF, UNLESS OTHERWISE NOTED OR REQUIRED BY THE SPECIFICATIONS.

B. SEE STRUCTURE DWG S9.01 FOR GAUGE OF METAL STUD. THICKNESS DESIGNATION IS BASED ON THE FOLLOWING MIL THICKNESS FOR INTERIOR NON-LOAD BEARING PARTITION FRAMING, ALL 33 ksi, PER THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA):

18 MIL = 0.0179 INCHES = 25 GAUGE
25 MIL = 0.0250 INCHES = 20 GAUGE (DIMPLED)
30 MIL = 0.0269 INCHES = 20 GAUGE (STANDARD)
33 MIL = 0.0329 INCHES = 20 GAUGE (STRUCTURAL)
43 MIL = 0.0428 INCHES = 18 GAUGE
54 MIL = 0.0538 INCHES = 16 GAUGE

C. ALL INTERIOR NON-LOAD-BEARING METAL WALL FRAMING SHALL BE INSTALLED AT 16" O.C. UNLESS OTHERWISE NOTED.

D. ALL INTERIOR NON-LOAD-BEARING METAL WALL FRAMING SHALL BE INSTALLED WITH A DEFLECTION CRITERIA OF L/240 , UNLESS OTHERWISE NOTED OR REQUIRED BY THE SPECIFICATIONS.

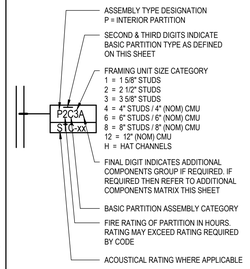
E. WHERE AN ADDITIONAL INTERIOR WALL FINISH IS APPLIED TO THE BASE PARTITION SUCH AS TILE, VENEERS, WOOD PANELING, OR SIMILAR; ALL INTERIOR NON-LOAD-BEARING METAL WALL FRAMING SHALL BE INSTALLED WITH A DEFLECTION CRITERIA OF L/360, UNLESS OTHERWISE NOTED OR REQUIRED BY THE SPECIFICATIONS.

F. LIMITING HEIGHTS OF INTERIOR NON-LOAD-BEARING FRAMING SHALL BE PER THE MANUFACTURERS SPAN TABLES BASED ON THE FOLLOWING CRITERIA OUTLINED IN THIS SET OF DRAWINGS AND THE PROJECT MANUAL: HORIZONTAL LOADING, STUD DEPTH, STUD SPACING, AND DEFLECTION CRITERIA.

G. PROVIDE DEFLECTION TRACKS AT TOP OF ALL FULL HEIGHT PARTITIONS THAT ATTACHED TO STRUCTURE ABOVE

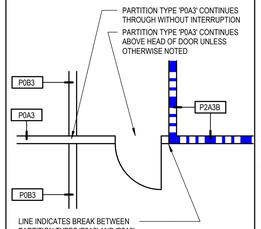
PARTITION TYPE SYMBOL

SYMBOL DEFINITION



USAGE ON FLOOR PLANS

COMPLY WITH 'PRIORITY OF PARTITIONS' AND ASSOCIATED 'PARTITION FRAMING PRIORITY LEGEND' ON SHEET A9.2.3



GYPSUM BOARD PRODUCT LOCATION MATRIX

PRODUCT	LOCATION				
THIS MATRIX MAY ILLUSTRATE PRODUCTS WHICH DO NOT OCCUR AS PART OF THIS PROJECT. REFER TO THE DRAWINGS AND SPECIFICATION TO DETERMINE WHICH PRODUCTS APPLY TO THE WORK OF THIS PROJECT.	WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLY OF JANITORS SINKS FOR FRP INSTALLATION - OR PER FINISH SCHEDULE	SHOWER AND TUB ENCLOSURES	PARTITIONS AND CEILINGS IN ROOMS WITH SHOWERS AND TUBS - EXCLUDING SHOWER AND TUB ENCLOSURE	PARTITIIONS TO RECEIVE TILE FINISH NOT INCLUDING SHOWER AND TUB ENCLOSURES - SEE A9.1, A8 SERIES, AND AF SERIES	FOR USE LOCATIONS OF THESE PRODUCTS REFER TO PARTITION TYPES, PROJECT DETAILS, AND SPECIFICATION
GYPSUM WALLBOARD					●
GYPSUM BOARD, TYPE X					●
FLEXIBLE GYPSUM BOARD					●
FOIL-BACKED GYPSUM BOARD					●
ABUSE-RESISTANT GYPSUM BOARD					●
IMPACT-RESISTANT GYPSUM BOARD					●
MOLD-RESISTANT GYPSUM BOARD			●		●
GYPSUM BOARD, TYPE C					●
GLASS-MAT INTERIOR GYPSUM BOARD	●				
ACOUSTICALLY ENHANCED GYPSUM BOARD					●
SKIM-COATED GYPSUM BOARD					●
GLASS-MAT WATER RESISTANT BACKING BOARD				●	
CEMENTITIOUS BACKER UNIT		●			

ADDITIONAL PARTITION COMPONENTS MATRIX

NOTE: NOT ALL ADDITIONAL COMPONENTS MAY APPLY TO THIS PROJECT

ADDITIONAL COMPONENTS GROUP →	-	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	NOTES
NO. ADDITIONAL COMPONENTS	●																									
NO 1: ADD SMOKE SEAL																										SEE NOTE 1
NO 2: ADD ACOUSTIC SEALANT																										SEE NOTE 2
NO 3: ADD SOUND ATTENUATION BATTS - TYPE I																										SEE NOTE 3
SOUND TRANSMISSION CLASS																										
NO 4: ADD OUTLET BOX ACOUSTIC PADS																										SEE NOTE 4
NO 5: ADD THERMAL INSULATION - TYPE I																										SEE NOTE 5
NO 6: ADD THERMAL INSULATION - TYPE III																										SEE NOTE 6
NO 7: ADD THERMAL INSULATION - RIGID																										SEE NOTE 7
NO 8: PARTITION STUD LOAD CONDITION A		●																								SEE NOTE 13
NO 9: PARTITION STUD LOAD CONDITION B			●																							SEE NOTE 13
NO 10: PARTITION STUD LOAD CONDITION C				●																						SEE NOTE 13
NO 11: PARTITION STUD LOAD CONDITION D					●																					SEE NOTE 13
NO 12: PARTITION STUD LOAD CONDITION E						●																				SEE NOTE 13
NO 13: PARTITION STUD LOAD CONDITION F							●																			SEE NOTE 13
NO 14: PARTITION STUD LOAD CONDITION G								●																		SEE NOTE 13

1. SEAL PERIMETER OF PARTITION WITH CONT BEAD OF TYPE 1 FIRESTOPPING SEALANT. CLOSE ALL GAPS THROUGH OR AROUND PARTITION BY SEALING ALL JOINTS, GAPS AROUND OUTLET BOXES AND PENETRATIONS, INCLUDING THOSE ABOVE FINISH CEILINGS
2. SEAL PERIMETER OF PARTITION WITH CONT BEAD OF ACOUSTICAL SEALANT. CLOSE ALL GAPS THROUGH OR AROUND PARTITION BY SEALING ALL JOINTS, GAPS AROUND OUTLET BOXES AND PENETRATIONS, INCLUDING THOSE ABOVE FINISH CEILINGS. ISOLATE PARTITION FROM ALL PIPE AND DUCT PENETRATIONS BY STOPPING GYPSUM BOARD 1/2" MIN TO 1" MAX FROM PIPE OR DUCT. SEAL GAP BETWEEN GYPSUM BOARD AND PIPES/DUCTS WITH BACKER ROD AND ACOUSTICAL SEALANT
3. SOUND ATTENUATION BATTS (NON-FACED, FRICTION FIT) IN STUD CAVITY. PROVIDE 2 1/2" THICK INSULATION WHERE STUD DEPTH IS 2 1/2". PROVIDE 3 1/2" THICK INSULATION WHERE STUD DEPTH IS 3 5/8" OR GREATER. WHERE STUD DEPTH IS LESS THEN 2 1/2" DEEP, PROVIDE ADDITIONAL COMPONENT NO 4 INSTEAD
4. PROVIDE ACOUSTICAL OUTLET BOX PADS AT ALL ELECTRICAL, TELEPHONE AND DATA OUTLET BOXES AS WELL AS AT ALL SWITCH BOXES. MOLD PAD CAREFULLY AROUND BOX AFTER BOX IS SECURELY ATTACHED TO STUD BEFORE GYPSUM BOARD IS INSTALLED. SEAL ALL OPENINGS WITH OUTLET BOX SEALANT MATERIAL
5. BATT THERMAL INSULATION (NON FACED), OF R-VALUE INDICATED BY MATRIX, FRICTION FIT IN STUD CAVITY
6. BATT THERMAL INSULATION (WITH VAPOR RETARDER FACING), OF R-VALUE INDICATED BY MATRIX, FRICTION FIT IN STUD CAVITY
7. SEMI-RIGID THERMAL INSULATION BOARD OF R-VALUE INDICATED BY MATRIX ON TYPE N OR SPINDLE FASTENERS IN CAVITY SPACE OF PARTITION OR FURRING
8. PROVIDE CONTINUOUS BACKING PLATE OF TYPE AND AT HEIGHT(S) ABOVE FINISH FLOOR AS INDICATED IN MATRIX. CONTINUOUS BACKING PLATE RUNS FULL LENGTH OF INDICATED PARTITION TYPE IN ROOM. REFER TO BACKING PLATE SCHEDULE THIS SHEET
9. PROVIDE LEAD LINED GYPSUM BOARD IN LIEU OF INTERIOR GYPSUM BOARD. COORDINATE INSTALLATION REQUIREMENTS WITH SPECIFICATION SECTION XXXXXX.

   MAINTAIN CONTINUITY OF PROTECTION AT ALL PENETRATIONS PER SPECIFICATION SECTION XXXXXX.
10. PROVIDE CONTINUOUS VAPOR RETARDER BELOW GYPSUM BOARD. ATTACH TO METAL STUDS TO WARM SIDE OF THERMAL INSULATION. SEAL PERIMETER OF SHEET, JOINTS BETWEEN SHEETS, WHERE PIERCED BY FASTENERS AND AROUND PENETRATING ITEMS
11. CONT METAL SECURITY MESH SPOT WELDED TO FACE OF METAL STUDS BEFORE APPLICATION OF GYPSUM BOARD FACING. USE MIN (20 GAGE) OR HEAVIER METAL STUDS
12. PROVIDE CONTINUOUS LAYER OF BALLISTIC SHEATHING BELOW FACE LAYER OF GYPSUM BOARD PER THE PARTITION ASSEMBLY ILLUSTRATED.
13. REFER TO STRUCT DETAIL 3/S9.01 FOR PARTITION STUD LOAD CONDITION SCHEDULE, DETAIL 2/S9.01 FOR PARTITION STUD SCHEDULE.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

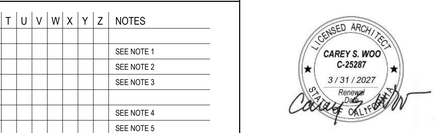
3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES



SHEET TITLE

PARTITION SYSTEMS

14794

PROJECT NUMBER

CD

A9.2.1

SHEET NUMBER

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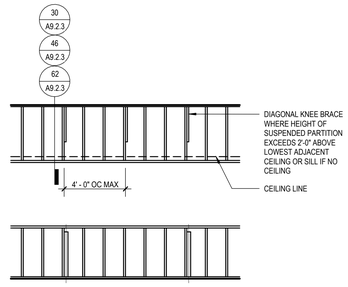
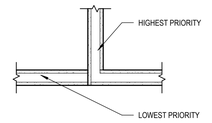


E SUSPENDED PARTITIONS

26 TYPICAL FRAMING ELEVATIONS
SCALE: 1/4" = 1'-0"

PARTITION FRAMING PRIORITY LEGEND



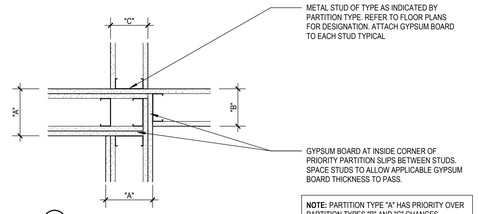
WALL TYPE	PRIORITY
FIRE WALL	PRIORITY 1 (HIGHEST)
FIRE & SMOKE BARRIER	PRIORITY 2
FIRE BARRIER	PRIORITY 3
FIRE PARTITION	PRIORITY 4
SMOKE PARTITION	PRIORITY 5
ACOUSTICAL PARTITION	PRIORITY 6
NON-RATED PARTITION	PRIORITY 7 (LOWEST)

A **HIGHER** WALL RATING TAKES PRIORITY OVER A LOWER WALL RATING

PRIORITY OF PARTITIONS

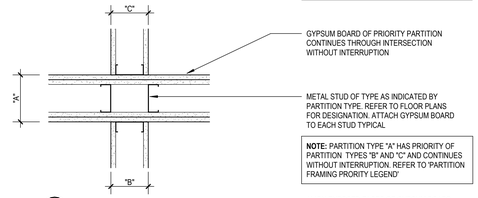
THE "PRIORITY" OF PARTITIONS OF DIFFERENT TYPES IS DETERMINED AS FOLLOWS:

1. A **HIGHER** PARTITION RATING TAKES PRIORITY OVER A LOWER PARTITION RATING
2. FIRE-RATED PARTITIONS HAVE PRIORITY OVER NON-RATED PARTITIONS
3. PARTITIONS WITH GREATER FIRE-RATINGS HAVE PRIORITY OVER PARTITIONS WITH LESSER FIRE-RATINGS. EXAMPLE: TWO-HOUR RATED PARTITIONS HAVE PRIORITY OVER ONE-HOUR FIRE-RATED PARTITIONS.
4. SMOKE-SEALED PARTITIONS HAVE PRIORITY OVER NON-SMOKE SEALED PARTITIONS OF SIMILAR FIRE-RATING. REFER TO A9.2.1 FOR ADDITIONAL COMPONENTS MATRIX ON SHEET FOR REQUIREMENTS
5. ACOUSTICALLY-RATED PARTITIONS HAVE PRIORITY OVER NON-ACOUSTICALLY-RATED PARTITIONS



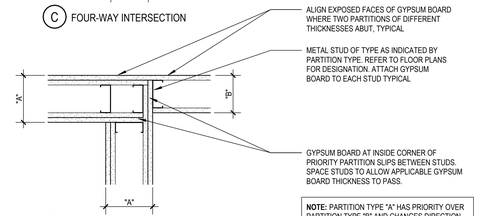
NOTE: PARTITION TYPE "A" HAS PRIORITY OVER PARTITION TYPES "B" AND "C" CHANGES DIRECTION. REFER TO 'PARTITION FRAMING PRIORITY LEGEND'

D FOUR-WAY INTERSECTION



NOTE: PARTITION TYPE "A" HAS PRIORITY OF PARTITION TYPES "B" AND "C" AND CONTINUES WITHOUT INTERRUPTION. REFER TO 'PARTITION FRAMING PRIORITY LEGEND'

C FOUR-WAY INTERSECTION



NOTE: PARTITION TYPE "A" HAS PRIORITY OVER PARTITION TYPE "B" AND CHANGES DIRECTION. REFER TO 'PARTITION FRAMING PRIORITY LEGEND'

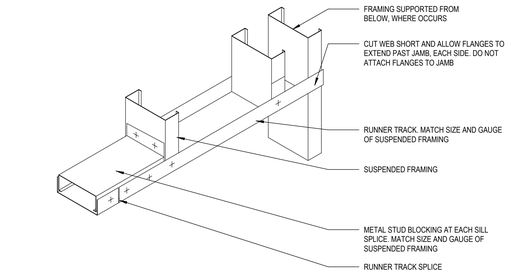
B THREE-WAY INTERSECTION



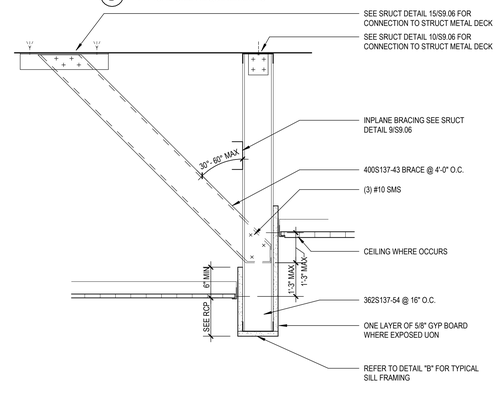
NOTE: PARTITION TYPE "A" HAS PRIORITY OVER PARTITION TYPE "B" AND CONTINUES WITHOUT INTERRUPTION. REFER TO 'PARTITION FRAMING PRIORITY LEGEND'

A THREE-WAY INTERSECTION

14 INTERSECTION FRAMING AND PRIORITY OF PARTITIONS
SCALE: 1 1/2" = 1'-0"
TYPICAL UNLESS OTHERWISE NOTED AND/OR DETAILED

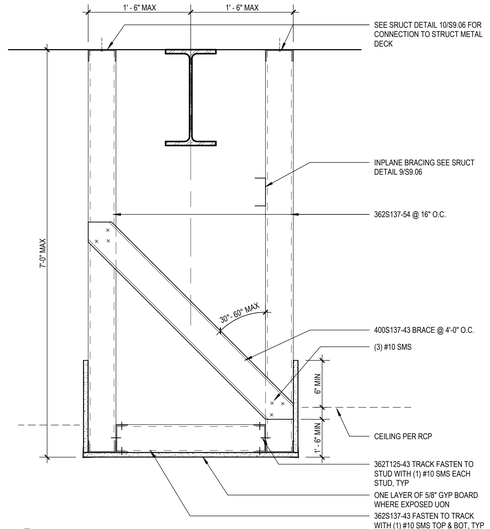


B TYPICAL SILL REQUIREMENTS

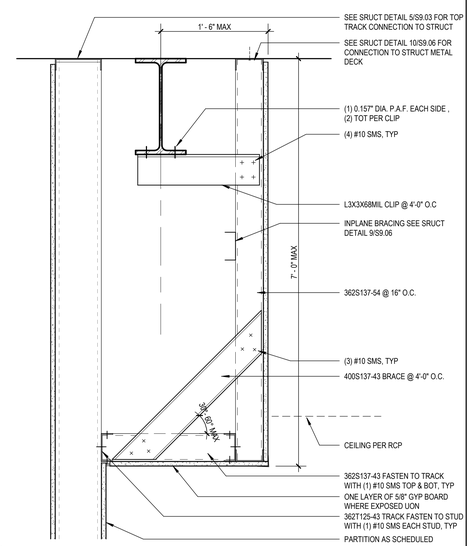


A TYPICAL KNEE BRACE REQUIREMENTS

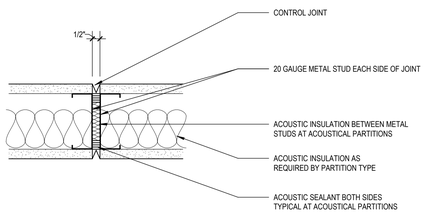
62 SUSPENDED PARTITION - TYPICAL DETAIL - TYPE A
SCALE: 1 1/2" = 1'-0"



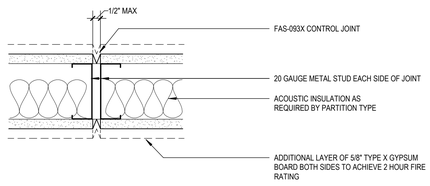
46 SUSPENDED PARTITION - TYPICAL DETAIL - TYPE B
SCALE: 1 1/2" = 1'-0"



30 SUSPENDED PARTITION - TYPICAL DETAIL - TYPE C
SCALE: 1 1/2" = 1'-0"



A NON-RATED PARTITIONS



B FIRE-RATED CONTROL JOINT (1 AND 2 HOUR RATINGS)
UL DESIGN NUMBERS - WW-D-0172, HW-D-0596, HW-D-0621

72 TYPICAL CONTROL JOINTS AT METAL STUD PARTITIONS
SCALE: 3" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
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SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered
STATE OF CALIFORNIA

SHEET TITLE
PARTITION SYSTEMS DETAILS - FRAMING

14794
PROJECT NUMBER

CD **A9.2.3**
SHEET NUMBER

START Sheet
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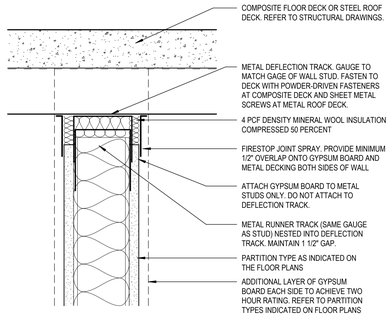
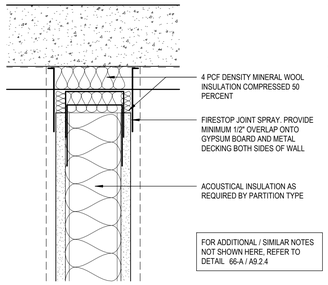
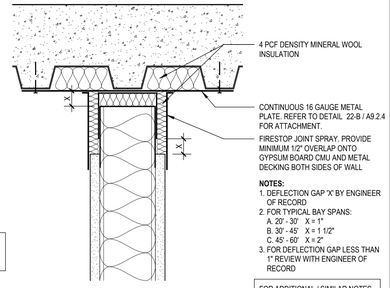
Plot Date:



A PERPENDICULAR TO METAL DECK FLUTES: AT BOTTOM OF FLUTES AT METAL STUD WALL AND METAL DECK



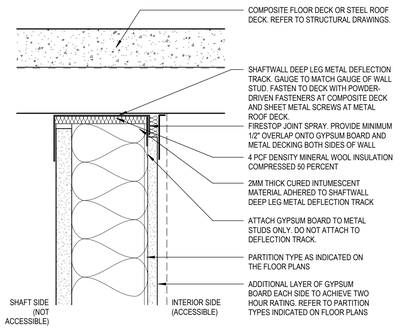
B PERPENDICULAR TO METAL DECK FLUTES: BETWEEN FLUTES



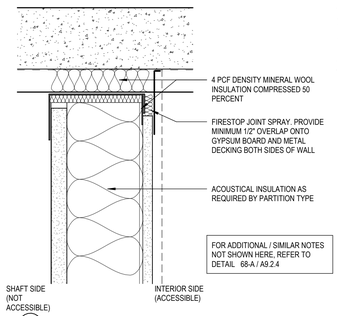
C PARALLEL TO METAL DECK FLUTES

66 TYP FIRE-RATED PARTITION HEAD CONDITIONS (METAL STUD) - 1 AND 2 HOUR RATED
SCALE: 3" = 1'-0"
UL DESIGN NUMBERS - HW-D-0087, HW-D-0031

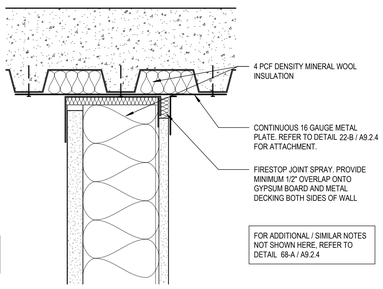
NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



A PERPENDICULAR TO METAL DECK FLUTES: AT BOTTOM OF FLUTES AT METAL STUD WALL AND METAL DECK



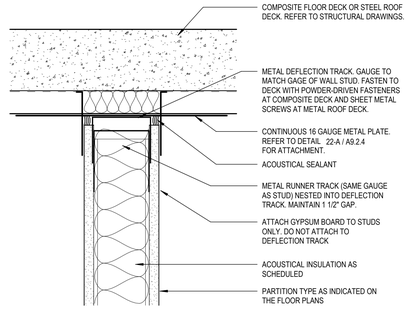
B PERPENDICULAR TO METAL DECK FLUTES: BETWEEN FLUTES



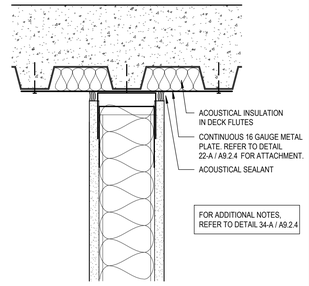
C PARALLEL TO METAL DECK FLUTES

68 TYP FIRE-RATED SHAFTWALL HEAD CONDITIONS (METAL STUD) - 1 AND 2 HOUR RATED
SCALE: 3" = 1'-0"
UL DESIGN NUMBERS - HW-D-0569, HW-D-0570

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



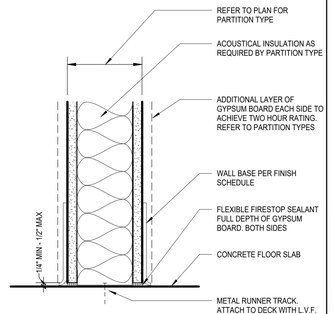
A PERPENDICULAR TO METAL DECK FLUTES: AT BOTTOM OF FLUTES AT METAL STUD WALL AND METAL DECK



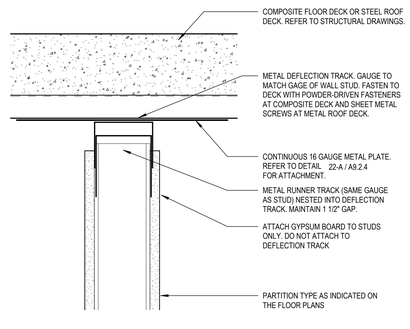
B PARALLEL TO METAL DECK FLUTES AT METAL STUD WALL AND METAL DECK

34 TYP NON-RATED ACOUSTICAL PARTITION HEAD CONDITIONS (METAL STUD)
SCALE: 3" = 1'-0"

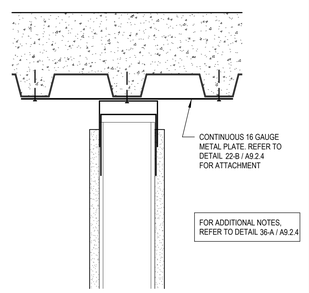
NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



10 TYP FIRE-RATED PARTITION BASE DETAIL(METAL STUD)- 1 AND 2 HOUR RATED
SCALE: 3" = 1'-0"
UL DESIGN NUMBER - BW-S-0059, BW-S-0023 (SHAFTWALL)



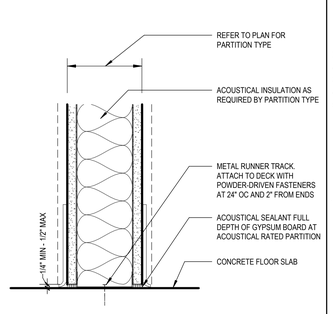
A PERPENDICULAR TO METAL DECK FLUTES: AT BOTTOM OF FLUTES AT METAL STUD WALL AND METAL DECK



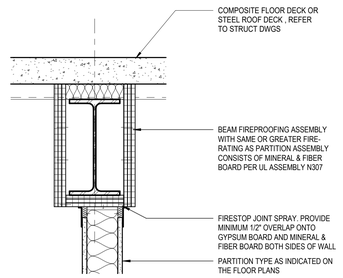
B PARALLEL TO METAL DECK FLUTES AT METAL STUD WALL AND METAL DECK

36 TYP NON-RATED PARTITION HEAD CONDITIONS (METAL STUD)
SCALE: 3" = 1'-0"

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



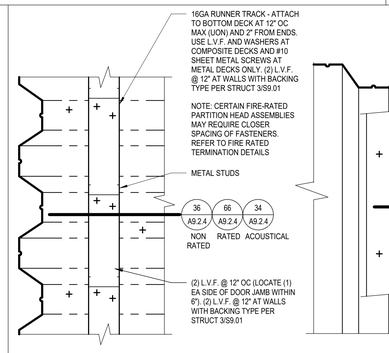
12 TYP NON-RATED PARTITION BASE DETAIL
SCALE: 3" = 1'-0"



A 1 AND 2-HOUR PARTITION AT BEAM

46 TYP FIRE-RATED PARTITION HEAD DETAILS
SCALE: 1 1/2" = 1'-0"
UL DESIGN NUMBERS - N-307

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION

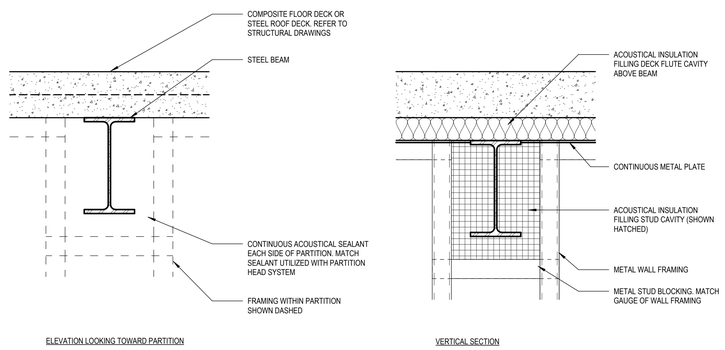


A PERPENDICULAR TO METAL DECK FLUTES

B PARALLEL TO METAL DECK FLUTES

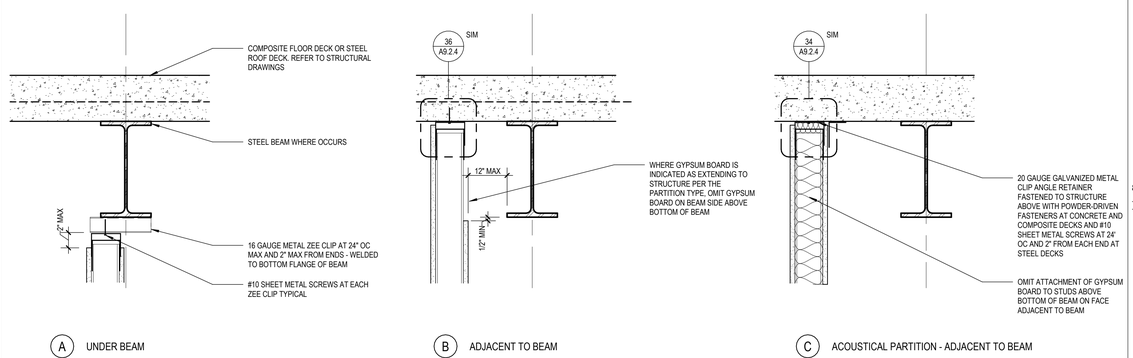
22 METAL STUD FRAMING REFLECTED CEILING PLANS
SCALE: 1 1/2" = 1'-0"
METAL STUD PARTITION AT METAL DECK

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



72 TYP NON-RATED ACOUSTICAL PARTITION PERPENDICULAR TO BEAM
SCALE: 1 1/2" = 1'-0"

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



A UNDER BEAM

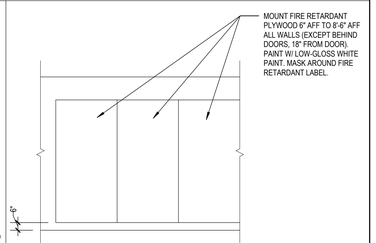
B ADJACENT TO BEAM

C ACOUSTICAL PARTITION - ADJACENT TO BEAM

WHERE PARTITION OCCURS BELOW OR ADJACENT TO PARALLEL TO STEEL OR CONCRETE BEAM

48 TYP NON-RATED PARTITION HEAD DETAILS
SCALE: 1 1/2" = 1'-0"

NOTE: REFER TO S9.03 FOR TOP TRACK CONNECTION INFORMATION



*PLYWOOD TO BE APPLIED TO ALL WALL SURFACES @ MPOE & IDF ROOMS EXCEEDING 24" IN WIDTH

NOTE: (FIRE RETARDANT TREATED WOOD)
WHERE FIRE RETARDANT TREATED WOOD IS USED THE INSTALLATION SHALL BE OBSERVED/INSPECTED BY AHJ AS REQUIRED PRIOR TO PAINTING, ENCLOSING IN CONSTRUCTION OR OTHERWISE OBSCURING. THE WOOD SHALL BE FACTORY TREATED AND SHALL HAVE AT LEAST ONE COMPLETE, VISIBLE STAMP FOR AHJ INSPECTION VERIFICATION, WHEN REQUIRED BY MANUFACTURER'S INSTALLATION GUIDANCE ALL CUT EDGES SHALL BE TREATED TO MAINTAIN FIRE RETARDANT RATING. THE MANUFACTURER'S GUIDES SHALL BE MADE AVAILABLE ON THE JOB SITE FOR REVIEW BY AHJ INSPECTORS.

16 TYP PLYWD WALL @ ELEC ROOMS
SCALE: 1/4" = 1'-0"

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INCREMENT II - STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

SMITHGROUP

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SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Registered Professional
STATE OF CALIFORNIA

SHEET TITLE
PARTITION SYSTEMS DETAILS - HEAD & SILL

PROJECT NUMBER 14794

CD

SHEET NUMBER **A9.2.4**

START Sheet
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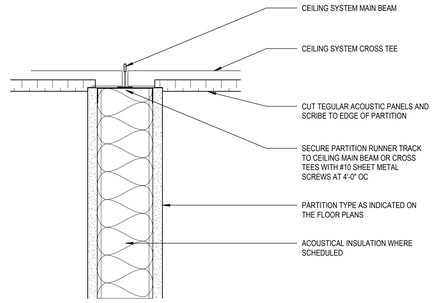
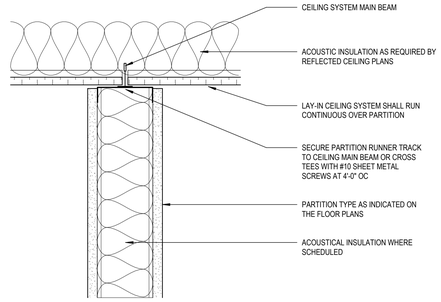


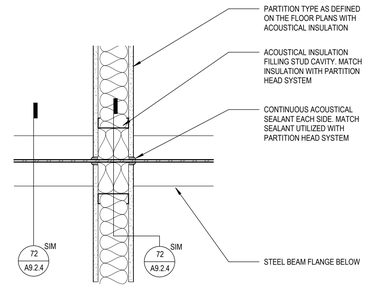
B AT TEGULAR EDGE LAY-IN CEILING



A AT SQUARE EDGE LAY-IN CEILING

TYPICAL CONDITIONS

28 PARTITION HEAD TERMINATION AT CEILING
SCALE: 3" = 1'-0"



TYPICAL

12 NON-RATED ACOUSTICALPARTITION PERPENDICULAR TO BEAM - PLAN SECTION THROUGH BEAM
SCALE: 1 1/2" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

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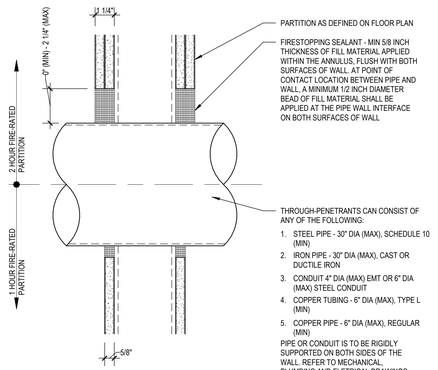
Registered Professional
OF CALIFORNIA

SHEET TITLE
PARTITION SYSTEMS DETAILS

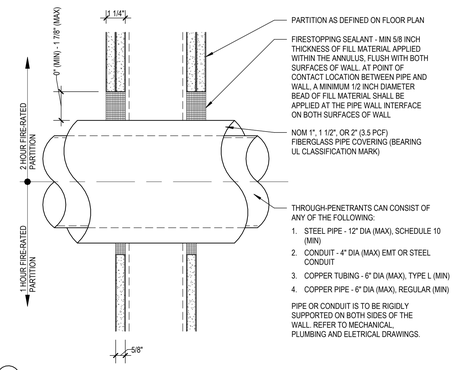
14794
PROJECT NUMBER

CD
A9.2.5
SHEET NUMBER

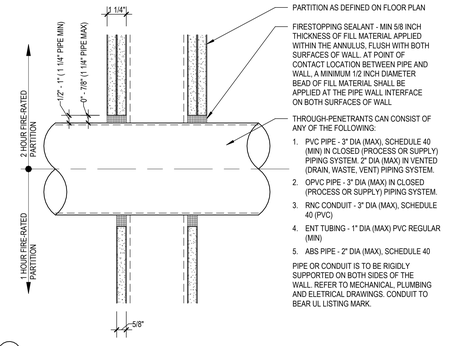
Plot Date: 8/23/2025 5:44:17 PM START Sheet



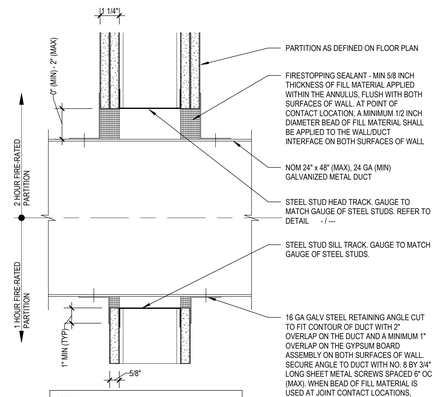
A METAL PIPES OR CONDUITS (UL DESIGN NO. W-L-1054)



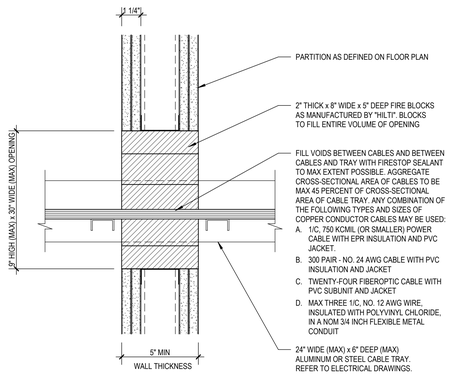
B INSULATED PIPES (UL DESIGN NO. W-L-5029)



C NON-METALLIC PIPES OR CONDUIT (UL DESIGN NO. W-L-2088)

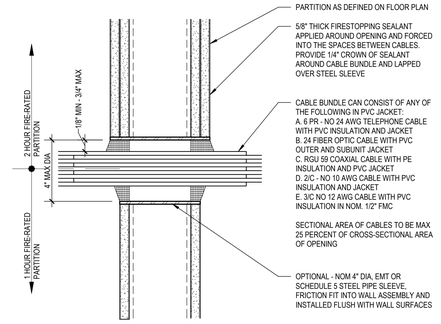


D METAL DUCT WITHOUT FIRE DAMPER (UL DESIGN NO. W-L-7040)



E CABLE TRAY (UL DESIGN NO. W-L-4011)

NOTE:
THIS IS BASED ON A 2-HOUR RATED ASSEMBLY. USE 1 LAYER OF 5/8" GYPSUM BOARD BOTH SIDES OF METAL STUDS FOR 1-HOUR ASSEMBLY.



F CABLE BUNDLE IN METALLIC SLEEVE (UL DESIGN NO. W-L-3111)

TYPICAL AT ONE-HOUR AND TW0-HOUR METAL FRAMED GYPSUM BOARD PARTITIONS

32 THROUGH PENETRATION FIRESTOPPING - MECHANICAL AND ELECTRICAL PENETRATIONS
SCALE: 3" = 1'-0"

Plot Date: 8/23/2025 5:44:18 PM START Sheet

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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SAN FRANCISCO, CA 94111
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
PARTITION SYSTEMS DETAILS - PENETRATION DETAILS

PROJECT NUMBER 14794

CD **A9.2.6**

SHEET NUMBER

UL DESIGN NO - U448

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

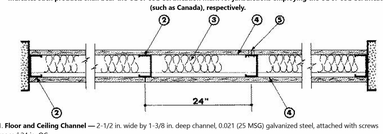
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U448**

August 18, 2023

Nonbearing Wall Rating — 1 HR.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Channel —** 2-1/2 in. wide by 1-3/8 in. deep channel, 0.021 (25 MSG) galvanized steel, attached with screws spaced 24 in. OC.

1A. **Floor and Ceiling Channel —** As an alternate to Item 1, 2-1/2 in. wide by 1-3/8 in. deep channel, 0.021 (25 MSG) galvanized steel, attached with screws spaced 24 in. OC.

KIRII (HONG KONG) LTD — Type KIRII

2. **Steel Studs —** 2-1/2 in. wide by 1-3/8 in. deep channel sections with 1/4 in. lip on each flange tip, 0.021 in. (25 MSG) galvanized steel studs spaced 24 in. OC.

2A. **Steel Studs —** As an alternate to Item 2, 2-1/2 in. wide by 1-3/8 in. deep channel sections with 1/4 in. lip on each flange tip, 0.021 in. (25 MSG) galvanized steel studs spaced 24 in. OC.
KIRII (HONG KONG) LTD — Type KIRII

3. **Batts and Blankets* —** 1-1/2 in. thick mineral wool batts supplied in 2 by 4 ft batts; attached to wallboard with staples 18 in. OC.
ROCKWOOL — Type AFB, min. density 1.8 pcf / 28.8 kg/m^3 (Staples optional).

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts (Staples optional).

ROCK WOOL MANUFACTURING CO — Type Delta Board.

THERMAFIBER/OWENS CORNING — Type SAFB, SAFB FF.

4. **Gypsum Board* —** 1/2 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 0.127 in. diam self-drilling, self-tapping screws, 1 in. long spaced 8 in. OC along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and opposite to opposed side of the assembly.
AMERICAN GYPSUM CO — Types AG-C.

CABOT MANUFACTURING ULC — Type C

CERTAINTEED GYPSUM INC — Type C.

CGC INC — Types C, IP-X2, IPC-AR.

CERTAINTEED GYPSUM INC — Type LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C, FSMR-C.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C.

PANEL REY S A — Type PRC

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

4A. **Gypsum Board* —** (Not Shown) - As an alternate to Item 4. 5/8 in. thick, 4 ft wide installed in described in Item 4.
CGC INC — Type ULIX.

4B. **Gypsum Board* —** (Not Shown) - As an alternate to Item 4. 5/8 in. thick, 4 ft wide installed in described in Item 4. Min 1-1/8 in. screw length.

PANEL REY S A — Type PRX2

5. **Joint Tape and Compound —** Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-08-18

UL DESIGN NO - U411

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

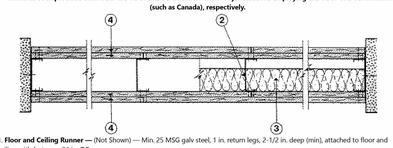
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U411**

March 3rd, 2025

Nonbearing Wall Rating — 2 Hr.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runner —** (Not Shown) — Min. 25 MSG galv steel, 1 in. return legs, 2-1/2 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2A, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CEMCO, LLC — Viper20™ Track

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2B- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in, wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1D. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2E, channel shaped, min 2-1/2 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners 24 in. OC. max.
KIRII (HONG KONG) LTD — Type KIRII

1F. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1G. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2G, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1H. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2J. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2K, channel shaped, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1J. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2L. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
OEG BUILDING MATERIALS — OEG Track

1K. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2M, channel shaped, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners 24 in. OC. max.
CEMCO, LLC — Viper X Track

1L. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2N. Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25

TELLING INDUSTRIES L L C — Type SUPREME D25

UNITED METAL PRODUCTS INC — Type SUPREME D25

1M. **Floor and Ceiling Runner —** (Not shown) - As an alternate to Item 1, For use with Items 2O and 4O - Min 25 MSG galv steel, 1-5/8 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC. max.

1N. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2P, proprietary channel shaped runners, 1-1/4 in. wide by min. 2-1/2 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
PANEL REY S A – SUPRA Track 20EQ/19 mil

2. **Steel Studs —** Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CEMCO, LLC — Viper20™

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Steel Studs —** (As an alternate to Item 2, For use with Item 4D, 4H, and 4I) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2C. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2D. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1D, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2E. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1E, channel shaped studs, min 2-1/2 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
KIRII (HONG KONG) LTD — Type KIRII

2F. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2G. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2H. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2I. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2J. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1H, channel shaped, min 3-5/8 in. wide, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1I, channel shaped studs, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1J, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OEG BUILDING MATERIALS — OEG Stud

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1K, channel shaped studs, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CEMCO, LLC — Viper X

2N. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1L, channel shaped studs, min depth 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25

TELLING INDUSTRIES L L C — Type SUPREME D25

UNITED METAL PRODUCTS INC — Type SUPREME D25

2O. **Framing Members — Steel Studs —** (As an alternate to Item 2) For use with Items 1M and 4O - channel shaped studs min 1-5/8 in. deep, formed of 25 MSG galv steel, max stud spacing 24 in. OC. Studs cut 3/8 in. to 3/4 in. less than assembly height.

2P. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1N, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 2-1/2 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
PANEL REY S A – SUPRA Stud 20EQ/19 mil

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.
See **Batts and Blankets** (BZZZ) category for names of manufacturers

ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m^3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

3A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

3B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

3C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

3D. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft^3.

Applegate Greenfiber Acquisition LLC— Applegate Advanced Stabilized Cellulose Insulation

3E. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3D), for use with Item 4Q — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 2T, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCX, Foamulate 70, and Foamulate HFO.

3F. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3E), for use with Item 4Q — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

BASF CORP- Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Wallsite® 200, Wallsite® US, Wallsite® US-N, Wallsite® HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, Wallsite® XL, Wallsite® MAX, Wallsite® LWP, Wallsite® Plus and Enertite® Max

4. **Gypsum Board* —** 5/8 in. thick, outer layer paper, glass mat or vinyl surfaced. (Laminated System) Gypsum board applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer gypsum board attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC. Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass, AGX-11, LightRoc

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing, 5/8 in. Type C.

CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, GlasRoc-2, Type X-1, Type C, or 5/8" Easi-Lite Type X, Type LWTX

CGC INC — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGILX, CLLX

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFSX, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSMR-C, FSL, Type SBWB, RSX.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C, PG-3, PG-5, PG-9, PG-11, PG-C, PGS-WRS, PGI

PANEL REY S A — Types GREX, GRIX, PRX, RHX, MDX, ETX, PRC, PRC2, PRX2

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C andType X

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, USGX, WRC, WRX

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX

4A. **Gypsum Board* —** (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.
CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

4B. **Gypsum Board* —** (As an alternate to Items 4 and 4A) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attache system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type C, Type GlasRoc

CGC INC — Type SHX

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X, and Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Type SHX, FRX-G

USG MEXICO S A DE C V — Type SHX

4C. **Gypsum Board* —** (As an alternate to Items 4, 4A and 4B) — Two layers of 5/8 in. thick gypsum board applied horizontally or vertically. Inner layer attached to studs with No. 6 by 1 in. long Type S bugle head screws spaced 24 in. OC along the top and bottom tracks starting 2 in. and then 12 in. from the vertical edge. Inner layer screws spaced 24 in. OC along the studs, starting 2 in. and then 12 in. from the top and bottom of the studs and starting 1-1/4 in. from the horizontal joints when installed horizontally. Outer layer attached to studs with 1-5/8 in. long Type S bugle head screws spaced 16 in. OC along the top and bottom tracks starting 1-3/4 in. from the vertical edge. Outer layer screws spaced 16 in. OC along the studs, starting 1-3/4 in. and then 8 in. from the top and bottom of the studs and starting 1-1/4 in. and then 8 in. from the horizontal joints when installed horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers staggered one stud cavity. Horizonta joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers staggered a min of 12 in. When outer layers are installe horizontally, vinyl or caseis, dry or premixed joint compound shall be applied in two coats to joints and screw heads of outer layer. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFSX, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

4D. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direc attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4E. **Gypsum Board* —** (As an alternate to Items 4 through 4D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock ES

4F. **Gypsum Board* —** (As an alternate to Items 4 through 4E) —5/8 in. thick, applied vertically or horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attache system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type SilentFX

4G. **Gypsum Board* —** As an alternate to Item 4 — Nom. 5/8 in. thick, inner layer attached vertically to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs horizontally over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of outer layer must be taped. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.
CABOT MANUFACTURING ULC — Type Blueglass Exterior Sheathing

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PGS-WRS

4H. **Gypsum Board* —** (Not Shown) — (As an alternate to Items 4. For direct attachment only to steel studs Item 2B) — For Direct Application to Studs Only- For use as the base layer on one or both sides of the wall. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on

opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type S 12 steel screws spaced 8 in. OC at perimeter and 12 in OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Fasteners for face layer gypsum panels when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. To be used with Lead Batten Strips (see Item 5A) or Lead Discs (see Item 6A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4I. **Gypsum Board* —** (As an alternate to Item 4, not for use with Items 1C and 2C or 1L and 2N) — Nom. 5/8 in. thick gypsum panel with beveled, square or tapered edges installed as described in Item 4.
CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

4J. **Gypsum Board* —** (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4K. **Gypsum Board —** (As an alternate to Items 4 through 4J, not for use with Items 1C and 2C) — Two layers of nominal 15 mm thic gypsum board applied vertically. Inner layer attached to studs with No. 3.5 x 1-3/8 in. long bugle head, self-drilling screws spaced 23-5/8 in. OC in the field and 15-3/4 in. OC in the perimeter, with the first screw 2 in. from the edge. Outer layer attached to the studs over the inner layer with No. 3.5 x 1-3/4 in. long bugle head, self-drilling screws spaced 11-13/16 in. OC in the field and 7-7/8 in. OC i the perimeter, with the first screw 3/4 in. from the edge. Outer layer screws staggered from inner layer screws. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layer staggered one stud cavity. Self-adhesive fiberglass mesh (9x9 mesh) tape, nom 2 in. wide, applied over all joints of outer layer panels. Dry or premixed joint compound applied in two coats to joints over the mesh tape and screw heads of outer layer.
GYPSEMNA CO LLC — Types M9FW, FW, TF

4L. **Gypsum Board* —** (As an alternate to Items 4 through 4K) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with #6 x 1 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Outer layer attached to studs with #6 x 1-5/8 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Vertical joints are centered over studs and staggered between layers and on opposite sides of the wall. Horizontal joints on the face layer are staggered

UL DESIGN NO - U419

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

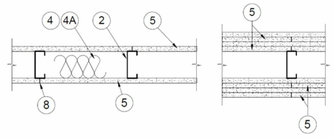
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

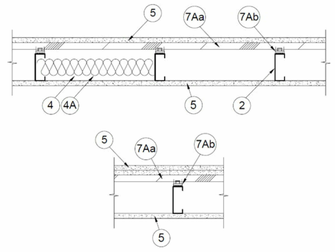
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U419**

February 13, 2025

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**





1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CEMCO, LLC — ViperTrack™

1B. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper20™ Track
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1D. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK
DMFCWBS L L C — ProTRAK
MBA METAL FRAMING — ProTRAK
RAM SALES L L C — Ram ProTRAK
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* — Floor and Ceiling Runner —** For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100
IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

1K. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

1N. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Track

1O. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper X Track

1P. **Framing Members* — Floor and Ceiling Runner —** (Not Shown — Alternate to Item 1) — For use with Item 2R, channel shaped runners pre-equipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max.
HYPERFRAME INC - Hypertrack

1Q. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2S , proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
JJC INTERNATIONAL DISTRIBUTORS — Non-structural Tracks 3-5/8" and 6".

1R. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2T, proprietary channel shaped runners ,min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max
IRONLINE METALS LLC — Bantam Track.

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs —** (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

CEMCO, LLC — Viper25™
CRACO MFG INC — SmartStud25™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™
IMPERIAL MANUFACTURING GROUP INC — Viper25™

2C. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CEMCO, LLC — Viper20™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™
IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. **Framing Members* — Steel Studs —** In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20
TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20
UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2E. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD
DMFCWBS L L C — ProSTUD
MBA METAL FRAMING — ProSTUD
RAM SALES L L C — Ram ProSTUD
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs —**

2J. **Framing Members* — Metal Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members*— Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2O. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Stud

2Q. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CEMCO, LLC — Viper X

2R. **Framing Members* — Steel Studs —** (Not Shown — Alternate to Item 2, For use with Item 1P) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in. depth, spaced a max of 24 in. OC. Studs clipped into floor and ceiling runners (Item 1P). Max 2-3/8 in. extension reveal from top of stud to inside of ceiling runner.

HYPERFRAME INC — Hyperstud

2S. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1Q, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
JJC INTERNATIONAL DISTRIBUTORS — Non-structural Studs 3-5/8" and 6".

2T. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1R, proprietary channel shaped steelstuds, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
IRONLINE METALS LLC — Bantam Stud.

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional – as an alternate to item 4) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional – as an alternate for items 4 or 4A, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. **Foamed Plastic* —** (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCX, Foamulate 70, and Foamulate HFO.

4D. **Foamed Plastic* —** (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for up to 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

BASF CORP - Enertite® NM, Enertite® G, FE178®, Sprayite® 178, Sprayite® 81206, Wallrite® 200, Wallrite® US, Wallrite® US-N, Wallrite HP+, FE137®, FE158®, Sprayite® 158, Sprayite® SP, Sprayite® 81205, Sprayite® Comfort XL, Wallrite® XL, Wallrite® MAX, Wallrite® LWP, Wallrite® Plus and Enertite® Max

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX
UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE
USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE
USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC — Type SHX.
UNITED STATES GYPSUM CO — Type FRX-G, SHX.
USG MEXICO S A DE C V — Type SHX.

5B. **Gypsum Board* —** (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. **Gypsum Board* —** (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC. starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.
CGC INC — Type SCX, ULIX.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX
UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX
USG BORAL DRYWALL SFZ LLC — Type SCX
USG MEXICO S A DE C V — Type SCX

5D. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC — Type USGX
UNITED STATES GYPSUM CO — Type USGX
USG BORAL DRYWALL SFZ LLC — Type USGX
USG MEXICO S A DE C V — Type USGX

5E. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX
UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX
USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX or 3/4 in. thick Types IP-X3 or ULTRACODE
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX
UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR, ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE
USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE
USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC — Type ULIX, ULX
UNITED STATES GYPSUM CO — Type ULIX, ULX
USG MEXICO S A DE C V — Type ULIX

5J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federa specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5K. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Items 4C or 4D) is used) **—** Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

6. **Fasteners —** (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when pane are applied horizontally or vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Items 5B, 5E, 5H, or 5J.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Items 5B, 5E, 5H, or 5J.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No.

UL DESIGN NO - U465

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

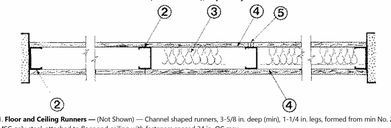
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U465

March 3rd, 2025

Nonbearing Wall Rating — 1 HR.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 — Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2C — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1D. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1E. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1D — For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1F. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1E — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
KIRII (HONG KONG) LTD — Type KIRII

1G. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

1J. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 — For use with Item 2 L, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1K. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2M, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CEMCO, LLC — Viper X Track

1L. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CRACO MFG INC — SmartStud20™

1M. **Framing Members* - Floor and Ceiling Runners –** Not shown – In lieu of Items 1 through 1L – For use with Item 2O, proprietary channel shaped runners, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 20 MSG galv steel (0.0329 in. min bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
PANEL REY S A – SUPRA Track 20/33 mil

1N. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2P, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-5/8 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
PANEL REY S A – SUPRA Track 20EQ/19 mil

1O. **Framing Members* — Floor and Ceiling Runner —** (Not Shown — Alternate to Item 1) — For use with Item 2Q, channel shaped runners pre-equipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max.
HYPERFRAME INC - Hypertrack

1P. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 – For use with Item 2R, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-5/8 in. deep fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
JJC INTERNATIONAL DISTRIBUTORS — Non-structural Tracks 3-5/8" and 6".

1Q. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 — For use with Item 2R, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
IRONLINE METALS LLC — Bantam Track.

2. **Steel Studs —** Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CEMCO, LLC — Viper20™

CRACO MFG INC — SmartStud20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2C. **Steel Studs —** (As an alternate to Item 2, For use with Item 1C) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. See materials in item(s) 4 that require Item 2C studs.

2D. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2E. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2F. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
KIRII (HONG KONG) LTD — Type KIRII

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 through 2F — For use with Item 1G. Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2I. **Framing Members* — Steel Studs —** In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2J. **Framing Members* — Steel Studs —** In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2L. **Framing Members* — Steel Studs —** As an alternate to Items 2 — For use with Item 1J, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2M. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1K, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/4 in. less in length than assembly height.
CEMCO, LLC — Viper X

2N. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1L, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CRACO MFG INC — SmartStud20™

2O. **Framing Members* - Steel Studs –** Not Shown – In lieu of Items 2 through 2N – For use with Item 1M, proprietary channel shaped steel studs, min 1-5/8 in. wide by min 3-5/8 in. deep fabricated from min 20 MSG galv steel (0.0329 in. min bare metal thickness) spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
PANEL REY S A – SUPRA Stud 20/33 mil

2P. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1N, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
PANEL REY S A – SUPRA Stud 20EQ/19 mil

2Q. **Framing Members* — Steel Studs —** (Not Shown — Alternate to Item 2, For use with Item 1O) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in. depth, spaced a max of 24 in. OC. Studs clipped into floor and ceiling runners (Item 1O). Max 2-3/8 in. extension reveal from top of stud to inside of ceiling runner.

HYPERFRAME INC— Hyperstud

2R. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1P, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
JJC INTERNATIONAL DISTRIBUTORS — Non-structural Studs 3-5/8" and 6".

2S. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 – For use with Item 1Q, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min. 0.018 in. thick galvanized steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.
IRONLINE METALS LLC — Bantam Stud.

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.
See **Batts and Blankets** (BZJZ) category for names of Classified companies.

ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m^3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

3A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

3B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

3C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

3D. **Batts and Blankets* —** For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.
See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3E. **Batts and Blankets* —** For use with Item 4R and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

3F. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft^3.

Applegate Greenfiber Acquisition LLC— Applegate Advanced Stabilized Cellulose Insulation

3G. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3F), for use with Item 4U — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCX, Foamulate 70, and Foamulate HFO.

3H. **Foamed Plastic* —** As an alternate to Batts and Blankets (Items 3-3F), for use with Item 4U — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

BASF CORP – Enertite® NIM, Enertite® G, F6378®, Sprayfite® 178, Sprayfite® 81206, Wallfite® 200, Wallfite® US, Wallfite® US-N, Wallfite® HP+, FE137®, FE158®, Sprayfite® 158, Sprayfite® SP, Sprayfite® 81205, Sprayfite® Comfort XL, Wallfite® XL, Wallfite® MAX, Wallfite® LWP, Wallfite® Plus and Enertite® Max.

4. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When Steel Framing Members* (Item 6 or any alternate clips) are used, gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass, LightRoc

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing, 5/8 in. Type C.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, Type X-1, Type C, 5/8" Easi-Lite Type X, Easi-Lite Type X-2, Type LWTX

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base–Type LWX, Water Rated–Type LWX, Sheathing Type–LWX, Soffit–Type LWX, Type DGLW, Water Rated–Type DGLW, Sheathing Type–DGLW, Soffit–Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-B, FSL, RSX.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, PG-9, PG-11, PGS-WRS, PGI

PANEL REY S A — Types GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX, PRX2

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X and Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX, (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4A. **Gypsum Board* —** (As alternate to Item 4) — Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CERTAINTEED GYPSUM INC — Type X-1, Type C, Type EGRG/ GlasRoc, GlasRoc-2, Type SilentFX, Easi-Lite Type X-2

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

GEORGIA-PACIFIC GYPSUM L L C — Types DAP, DAPC, DGG, DS

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X and Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX, (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4B. **Gypsum Board* —** (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.

CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

4C. **Gypsum Board* —** As an alternate to Items 4, 4A, and 4B — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.
GEORGIA-PACIFIC GYPSUM L L C — Type DGG, GreenGlass Type X

4D. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, 4C, 4G — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field, and12 in. along the top and bottom of the wall. When used in widths other than 48 in., gypsum panels to be installed horizontally. When studs (Item 2) spaced a max 16 in. OC, 5/8 in. thick gypsum panels applied vertically or horizontally, 1 in. long spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall.
NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

4E. **Gypsum Board* —** (As an Alternate to Items 4 through 4D) – Installed as described in item 4. 5/8 in. thick, 4 ft wide, applied vertically only and fastened to the studs and plates with 1 in. long Type S steel screws spaced 12 in. OC. When studs (Item 2) spaced a max 16 in. OC, 5/8" in. thick gypsum panels applied vertically or horizontally with 1 in. long Type S steel screws spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall.
NATIONAL GYPSUM CO — Type SBW8

4F. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically and horizontal. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4G. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using Types eXP-C, FSK, FSK-C, FSK-G, FSK-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C and ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CGC INC — Type SCX, ULIX

CERTAINTEED GYPSUM INC — Type LGFC6A, LGFC-C/A

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, and FSMR-C

UNITED STATES GYPSUM CO — Type SCX, ULIX

USG BORAL DRYWALL SFZ LLC — Type SCX

4H. **Gypsum Board* —** (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES

4I. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.
CGC INC — Types SCX, ULIX

UNITED STATES GYPSUM CO — Types SCX, ULIX

USG BORAL DRYWALL SFZ LLC — Type SCX

4J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4K. **Gypsum Board* —** (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.
CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

4L. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applies vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4M. **Gypsum Board* —** (For use with Item 8) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound.
AMERICAN GYPSUM CO — Type AG-C

CABOT MANUFACTURING ULC — 5/8 in. Type C.

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR

CERTAINTEED GYPSUM INC — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C

PANEL REY S A — Types PRC, PRC2

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

4N. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as

UL DESIGN NO - U469

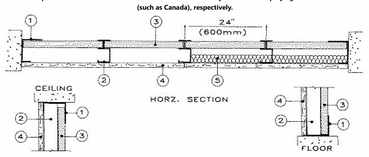
BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U469**

March 3rd, 2025

Assembly Rating — 1 HR
Nonbearing Wall
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs —** "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used), spaced 24 in. or 600 mm OC (max 16 in. OC when Item 4A, 4B, or 4C is used). Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3. **Gypsum Board* —** 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.
CERTAINTEED GYPSUM INC — Types Shaftliner, EGRG Shaftliner or GlasRoc Shaftliner

CGC INC — Type SLX.

CERTAINTEED GYPSUM INC — Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C — Types TP-6, DGUSL, and TRSL

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX.

4. **Gypsum Board* —** 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.
AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc

CABOT MANUFACTURING ULC — 5/8 Type X, Type Blueglass Exterior Sheathing, 5/8 in. Type C.

CERTAINTEED GYPSUM INC — Type C, Type X-1.

CGC INC — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULIX, ULX, or WRC.

CERTAINTEED GYPSUM INC — Types LGFC-C, LGFC-C/A, LGFC6A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type TG-C, Type UWX, Veneer Plaster Base-Type UWX, Water Rated-Type UWX, Sheathing Type-UWX, Soffit-Type UWX, Type DGUW, Water Rated-Type DGUW, Sheathing Type- DGUW, Soffit-Type DGUW, Type UW2X, Veneer Plaster Base - Type UW2X, Water Rated - Type UW2X, Sheathing - Type UW2X, Soffit - Type UW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PG-C, PGS-WRS, PGI

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc Duraline M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C.
UNITED STATES GYPSUM CO — Types C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULIX, ULX or WRC.

USG BORAL DRYWALL SFZ LLC — Types C, SCX

USG MEXICO S A DE C V — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

4A. **Gypsum Board* —** Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints
RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4C. **Gypsum Board* —** (Not Shown - As an Alternate to Item 4.). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4D. **Gypsum Board —** For use with Item 5 - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.

CERTAINTEED GYPSUM INC — Type LWTX

5. **Batts and Blankets* —** (Optional) — Mineral wool batts partially or completely filling stud cavity.
ROCKWOOL — Type AFB, min. density 1.8 pcf / 28.8 kg/m^3

THERMAFIBER/OWENS CORNING — Type SAFB, SAFB FF

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

5C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL
5D. Deleted.

5E. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft^3.

Applegate Greenfiber Acquisition LLC— Applegate Advanced Stabilized Cellulose Insulation

6. **Lead Batten Strips —** For Use with Item 4A - (Not Shown) — Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs or Tabs —** (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6B. **Lead Batten Strips —** (Not Shown, for use with Item 4B) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".

6C. **Lead Discs —** (Not Shown, for use with Item 4B) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

UL DESIGN NO - U415

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

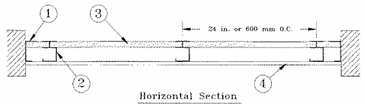
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **U415**

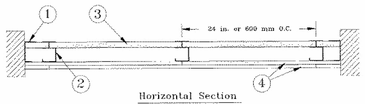
February 14, 2022

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

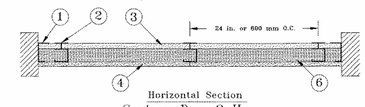
System A – 1 Hr.



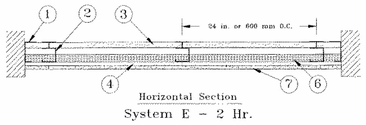
System B – 2 Hr.



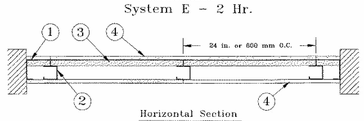
System C – 2 Hr.



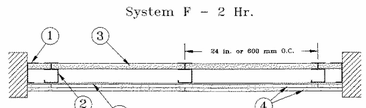
System D – 2 Hr.



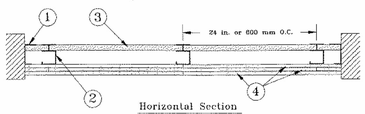
System E – 2 Hr.



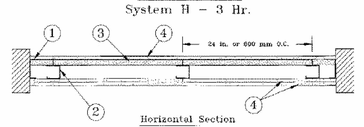
System F – 2 Hr.



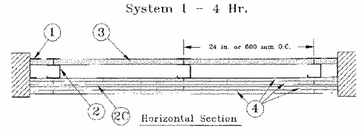
System G – 3 Hr.



System H – 3 Hr.



System I – 4 Hr.



1. **Floor, Side and Ceiling Runners —** "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

2A. **Steel Studs —** (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

2D. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

2E. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

2F. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

PLITEQ INC — Type GENIECLIP

2G. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

2H. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Phillips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

2I. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.
CGC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX

4. **Gypsum Board* —**

System A — 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRC, WRX, USGX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System B — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System C — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

System D — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Horizontal joints need not be backed by steel framing. Requires face layer of 1/2 or 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System E — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System F — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. Outer or face layer attached to resilient furring channels (Item 2B) with 1-5/8 in. long Type S steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System G — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System H — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers ov the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/1 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System I — 4 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).
RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Type Nelco

4C. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

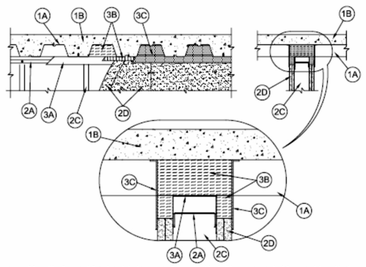
4D. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ

UL DESIGN NO - HW-D-0087

System No. HW-D-0087

June 22, 2023

Assembly Rating — 1 And 2 Hr (See Items 2 And 3B)
Nominal Joint Width — 2 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II And III Movement Capabilities — 20% Compression Or Extension



1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Spray—Applied Fire Resistive Materials* —** Prior to or after the installation of the deflection channel, Forming Material and Fill, Void or Cavity Material (Items 3A, 3B, 3C) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (44 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY

ISOLATEK INTERNATIONAL — Type 300

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Spray—Applied Fire Resistive Materials* —** (Not Shown)—Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY

ISOLATEK INTERNATIONAL — Type 300

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2C). Ceiling runner to be provided with 1 in. (25 mm) flanges. Ceiling runner installed within the U-shaped deflection channel (Item 3A) with a 1-1/2 in. (38 mm) gap maintained between the top of ceiling runner and top of deflection plate.

A1. **Light Gauge Framing*-Slotted Ceiling Runner —** (For use in applications where the nominal joint width does not exceed 1-1/2 in. or 38 mm) - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Slotted ceiling runner installed perpendicular to direction of fluted steel deck before or after fireproofing and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, slotted ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners,steel masonry anchors spaced max 24 in. (610 mm) OC.
CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** (For use in applications where the nominal joint width does not exceed 1 in. or 25 mm) - As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured before or after spray-applied materials to valleys with steel masonry anchors,steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When vertical deflection ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, vertical deflection ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners or steel masonry anchors spaced max 24 in. (610 mm) OC.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800

A3. **Light Gauge Framing* — Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2C). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured before or after spray-applied materials to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, notched ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners or steel masonry anchors spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR

B. **Steel Attachment Clips —** (Optional — Not Shown) — When spray applied fireproofing is used ceiling runner may be secured to deck with Z-shaped clips formed from min. 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom of the steel deck with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened to valleys of steel deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.

C. **Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

D. **Gypsum Board* —** Gypsum board installed to a min total thickness of 5/8 in. (16 mm) or 1-1/4 in. (32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel deck and the top row of screws shall be installed into the studs 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the deflection track. **The hourly rating of the joint system is dependent on the hourly rating of the wall.**

3. **Joint System — Max separation between bottom of floor and top of wall at time of installation of joint system is 2 in. (51 mm). The joint system is designed to accommodate a max 20 or 12.5 percent (see Item 1C) compression or extension from its installed width.** The joint system consists of a deflection channel, forming material and a fill material as follows:
A. **Deflection Channel —** A nom 3-5/8 in. (92 mm) wide by 3 in. (76 mm) deep min No. 22 gauge steel U-shaped channel. Deflection channel installed perpendicular to direction of fluted steel deck and secured to valleys with masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC before or after optional spray-applied fire resistive material is used. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1-1/2 in. (38 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. **Forming Material* —** Nom 4 pcf (64 kg/m^3) density mineral wool batt insulation cut to a length approx equal to the overall thickness of the wall and multiple pieces stacked on top of each other, as needed, and then compressed 25 percent in thickness and inserted into the flutes of the steel deck above the top of the ceiling runner. The mineral wool batt insulation is to project beyond each side of the ceiling runner, flush with wall surfaces. Alternately, nom 4 pcf (64 kg/m3) forming material cut to shape of flute and nom 1 in. (25 mm) longer than thickness of wall; mineral wool compressed from ends and firmly packed into each flute to attain a min compression rate of 14.3 percent in the length (wall thickness) direction to be flush with both wall surfaces. Additional 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide strips for 1 and 2 hr rated assemblies, respectively, of nom 4 pcf (64 kg/m^3) mineral wool batt insulation are to be cut to fill the gap between the top of the gypsum board and bottom of the steel deck. The strips of mineral wool are compressed 50 percent and tightly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel deck on both sides of the wall.
ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

B1. **Forming Material*—Plugs (For use with 3-1/2 in. or 89 mm deep studs or larger) —** (Optional-Not Shown) - Preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling runner. The plugs shall project beyond each side of the ceiling runner, flush with wall surfaces. Additional forming material, described in Item 3B, to be used in conjunction with the plugs to fill the gap between the top of gypsum board and the bottom of plug .
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

B2. **Forming Material* - Strips —** (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide by 4 in. (102 mm) thick precut mineral wool strips for 1 and 2 hr rated assemblies, respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — *CP 767* Speed Strips

C. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When spray-applied fire resistive material is applied to the steel deck, the fill material is to overlap the gypsum board a min of 1/2 in. (13 mm) and the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of wall. When spray-applied fire resistive materials are used, the firestop joint spray shall overlap the wall a min 1/2 in. (13 mm) and overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-06-22

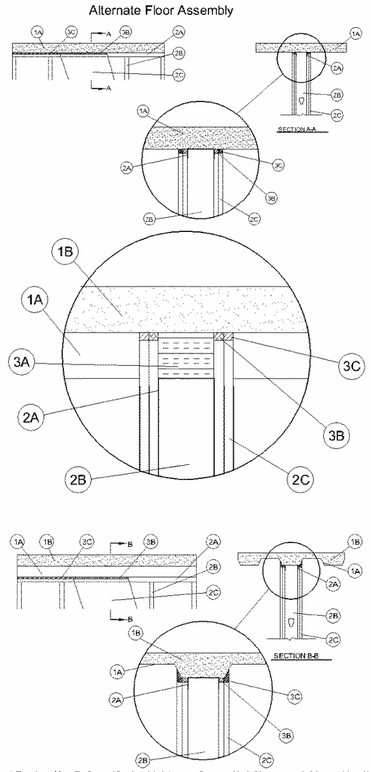
UL DESIGN NO - HW-D-0262

System No. HW-D-0262

June 28, 2011

Assembly Ratings - 1 and 2 Hr (See Item 2)
L Rating At Ambient - Less Than 1 CFM/Lin Ft (See Item 3C)
L Rating At 400°F - Less Than 1 CFM/Lin Ft (See Item 3C)
Joint Width - 5/8 in. Maximum
Class II and III Movement Capabilities - 25% Compression or Extension

Alternate Floor Assembly



1. **Floor Assembly —** The fire rated fluted steel deck / concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight concrete, as measured from the top plane of the floor units.

1A. **Alternate Floor Assembly —** Min. 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete slab.

2. **Wall Assembly —** The 1 hr or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 and V400 Series Wall and Partition Designs in the UL Fire Resistance Directory. When steel floor and form units are used, wall to be perpendicular to or parallel with and centered under the valleys of the steel floor units as shown in the above illustrations. The wall shall include the following construction features:
A. **Steel Floor And Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs. Ceiling runner to be provided with min 1-1/4 in. (32 mm) flanges. Ceiling runner secured to steel floor deck with steel fasteners or welds spaced max 12 in. (305 mm) OC or to slab with masonry anchors spaced max 12 in. (305 mm) OC.

B. **Studs —** Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with the bottom nesting in and resting on floor runner and with the top nesting in ceiling runner without attachment. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board* —** Gypsum board sheets installed to a min total thickness of 5/8 in. (16 mm) and 1-1/4 in. (32 mm) on each side of wall for 1 hr and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that the gypsum board is cut to maintain a max 5/8 in. (16 mm) gap between the gypsum board and the contour of the steel floor or concrete floor slab. In addition, the top row of screws shall be installed into the steel studs 1/2 to 1 in. (13 to 25 mm) below the bottom edge of the ceiling runner flange.

The hourly fire rating of the joint system is equal to the hourly rating of the wall assembly in which it is installed.

3. **Joint System — Max separation between bottom of floor and top of wall is 5/8 in. (16 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width.** The joint system consists of the following.
A. **Forming Material* —** For use when wall is constructed perpendicular to steel floor units. Nom 3 in. (76 mm) thick, min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut into strips to fill the gap between the top of the ceiling runner and bottom of the steel floor units. Mineral wool cut into strips having a width equal to ceiling runner and length approximately 2-1/2 in. (64 mm) longer than flute bottom length, then compressed into flute cavity. Mineral wool may be omitted when Type A Fill, Void or Cavity Material is used.

B. **Forming Material —** (Optional) — In 2 hr fire rated wall assemblies, foam backer rod friction fit into joint opening and recessed min 5/8 in. (16 mm) from each surface of wall.

C. **Fill, Void or Cavity Material* — Sealant —** Min 5/8 in. (16 mm) thickness of fill material applied within joint opening on both sides of wall, flush with each surface of gypsum board.
UNITED STATES GYPSUM CO — Type A or AS. Note: L Ratings apply only when Type AS fill material is used.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

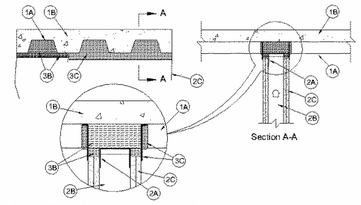
Last Updated on 2011-06-28

UL DESIGN NO - HW-D-0031

System No. HW-D-0031

January 23, 2018

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 1 In.	FT Rating —2 Hr
Class II Movement Capabilities — 25% Compression or Extension	FH Rating — 2 Hr
L Rating At Ambient — Less Than 1 CFM/lin ft (See Item 3C)	FTH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/lin ft (See Item 3C)	Nominal Joint Width - 25 mm
	Class II Movement Capabilities —25% Compression or Extension
	L Rating At Ambient — Less Than 1.55 L/s/lin m (See Item 3C)
	L Rating At 204°C — Less Than 1.55 L/s/lin m (See Item 3C)



1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor deck .

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Spray Applied Fire Resistive Material* —** (Optional, Not Shown) — Prior to the installation of the Deflection Channel, Forming Material and Fill, Void or Cavity Materials (Items 3A, 3B, 3C), the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 11/16 in. (18 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Type MK-6/HT.

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. **The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly.** The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

2. **Wall Assembly —** The 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400- or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). When deflection channel (Item 3A) is used, ceiling runner to be provided with 3 in. (76 mm) flanges. Ceiling runner is installed within the deflection channel with 2 in. (51 mm) gap maintained between the top of ceiling runner and top of deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 3/4 in. (19 mm) greater than nom joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. When optional spray-applied fire resistive material is used on the steel deck and when deflection channel is not used, ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on the steel deck, slotted ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on the steel deck, notched ceiling runner secured through spray-applied material to each valley of deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.
OLMAR SUPPLY INC — Type SCR

B. **Studs —** Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board* —** Gypsum board sheets installed to a min total thickness of 1-1/4 in. (32 mm) on each side of wall. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel floor roof deck and the top row of screws shall be installed into the studs 4-1/2 in. (114 mm) below the lower surface of the floor or roof deck.

3. **Joint System — Max separation between bottom of floor or roof and top of wall is 2 in. (51 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width.** The joint system consists of an optional deflection channel, forming material and a fill material, as follows:
A. **Deflection Channel —** (Optional, Not Shown) — A nom 3-5/8 in. (92 mm) wide by 3 in. (76 mm) deep min 24 gauge steel U-shaped channel. Deflection channel installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. When optional spray- applied fire resistive material is used on the steel deck, deflection channel secured through spray-applied material to each valley of steel deck with min 1-1/2 in. (38 mm) long by min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC . The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 2 in. (51 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. **Forming Material* —** Min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut to the shape of the fluted deck, approximately 20 percent larger than the area of the flutes, with a length equal to the overall thickness of the wall. Insulation compressed into flutes of the steel floor or roof deck above the top of the deflection channel or ceiling runner with the ends flush with the surfaces of the wall. Additional 1-1/4 in. (32 mm) wide sections of mineral wool batt insulation are compressed 50 percent in thickness and installed cut edge first to completely fill the gap above the top of the gypsum board. The forming material shall be installed flush with both surfaces of wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board or Delta-8

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROCKWOOL — Type Safe

THERMAFIBER/OWENS CORNING — Type SAF

C. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or brushed on each side of the wall in the flutes of the steel floor or roof deck and between the top of the gypsum board and the bottom of the steel floor or roof deck to completely cover mineral wool and overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When the steel deck is coated with spray applied material, the fill material shall overlap min 2 in. (51 mm) onto the spray applied material.
3M COMPANY — FireDam™ Spray 200

C1. **Fill, Void or Cavity Material* — Tape —** As an alternate to Item C, Tape cut to size and press applied within fluted areas of joint to completely cover mineral wool lapping min 1 in. (25 mm) onto the contour of the steel floor units and extending to lap min 1 in. (25 mm) onto the gypsum wall. Additional pieces of Tape are applied along the joint to completely cover the remaining mineral wool between bottom of steel deck and top edge of wall along length of joint, lapping min 1 in. (25 mm) onto the contour of the steel floor units and gypsum wall. When the steel deck is coated with spray applied material, the Tape shall overlap min 2 in. (51 mm) onto the spray applied material. Adjoining lengths of Tape shall overlap min 1/2 in. (13 mm). Tape shall be applied at both sides of wall.
3M COMPANY — 3M Fire and Water Barrier Tape

L Ratings apply only when FireDam™ Spray 200 is used.

D. **Isolation Pad —** (Optional, Not Shown) — As an option, max 1/2 in. (13 mm) thick molded high density glass fiber isolation pads may be installed between the deflection channel (Item 3A) and the steel floor or roof deck for sound control purposes. The isolation pad shall be cut to the width of the deflection channel and shall be installed along the entire length of the wall. When the isolation pad is used, the deflection channel shall be secured to the steel deck, through the isolation pad, with mechanical fasteners in conjunction with steel fender washers and neoprene isolation grommets supplied by the maker of the isolation pad material.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2018-01-23

GENERAL SHEET NOTES

A. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE INDUSTRY TESTED FIRE RESISTANCE RATED ASSEMBLY SYSTEMS THAT ARE REQUIRED BY THE CONSTRUCTION TYPE OF THIS PROJECT AND BY CHAPTER 7 OF THE CALIFORNIA BUILDING CODE.

B. IN SOME CASES, THE TESTED ASSEMBLIES SHOWN MAY HAVE BEEN EDITED TO SHOW THE MINIMUM CONSTRUCTION REQUIREMENTS OF THE RESPECTIVE ASSEMBLY. ADDITIONAL MANUFACTURERS MAY BE ACCEPTABLE IN ADDITION TO THOSE LISTED HEREWITH. REFER TO PUBLISHED TESTED ASSEMBLY TO CONFIRM.

C. OTHER TESTED ASSEMBLIES MAY BE SUBSTITUTED FOR THOSE INDICATED. SUCH SUBSTITUTIONS MUST BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

D. NOTE: NOT ALL ASSEMBLIES SHOWN MAY BE USED IN THE PROJECTS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

SHEET TITLE

FIRE RESISTANCE RATED ASSEMBLY DETAILS

14794

PROJECT NUMBER

CD

A9.2.14

SHEET NUMBER

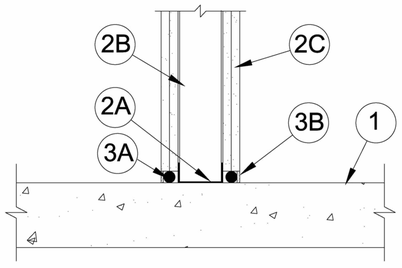
START Sheet
8/23/2025 5:44:36 PM
Plot Date:

UL DESIGN NO - BW-S-0059

System No. BW-S-0059

November 05, 2020

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 and 2 Hr (See Item 1)	F Rating — 1 and 2 Hr (See Item 1)
Nominal Joint Width - 1 In.	FT Rating — 1 and 2 Hr (See Item 1)
	FH Rating — 1 and 2 Hr (See Item 1)
	FTH Rating — 1 and 2 Hr (See Item 1)
	Nominal Joint Width - 25 mm



1. **Floor Assembly —** Min 2-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***.

See **Precast Concrete Units** category in the Fire Resistance Directory for names of manufacturers.

2. **Wall Assembly —** The 1 or 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Floor and Ceiling Runners —** Floor and ceiling runners may consist of either wood studs or steel channel studs. Wood runners to consist of nom 2 by 4 in. (51 by 102 mm). Steel runners to be min 3-1/2 in. (89 mm) wide.

B. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber (or larger) spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

C. **Gypsum Board* —** For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. Wall to be constructed as specified in the individual Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) gap shall be maintained between the top of the floor and the bottom of gypsum board.
The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.

3. **Joint System — Max separation between bottom of floor and top of wall is 1 in. (25 mm).** The joint system shall consist of the following:

A. **Packing Material —** Polyethylene backer rod friction fit within joint opening. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* Sealant —** Min 1/4 in. (6 mm) depth of fill material applied within joint opening on both sides of wall, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant or CFS-S SIL GG Silicone Sealant.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

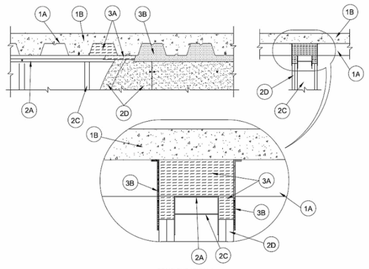
Last Updated on 2020-11-05

UL DESIGN NO - HW-D-0042

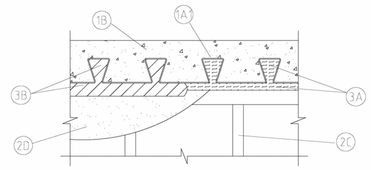
System No. HW-D-0042

August 16, 2024

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Items 2 and 3A)	F Ratings — 1 and 2 Hr (See Items 2 and 3A)
Nominal Joint Width — 1 In.	FT Ratings — 1 and 2 Hr (See Items 2 and 3A)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Items 2 and 3A)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 4 and 3A)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width — 1 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft



CONFIGURATION A



CONFIGURATION B

1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor And Form Units* —** Max 3 in. (76 mm) deep galv steel fluted units.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.

EPIC METALS CORP — Types "EC" or "Toris C"

A2. **Steel Floor And Form Units* (Configuration B) —** Composite max 2 in. (51 mm) deep galv steel fluted units.

NEW MILLENNIUM BUILDING SYSTEMS L L C — Versa-Dek®

A3. **Steel Floor And Form Units* (Configuration B) –** Composite max 2 in. (51 mm) deep galv steel fluted units.

Verco Decking Inc – A Nucor Co – Type 2.0D FORMLOK

A4 **Steel Floor And Form Units* (Configuration B) –** Composite max 2 in. (51 mm) deep galv steel fluted units.

VULCRAFT, DIV OF NUCOR CORP – Type 2.0D FORMLOK

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Materials* —** (Optional, Not Shown) — Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B, respectively) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (45 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB

ISOLATEK INTERNATIONAL — Type 300

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.

EPIC METALS CORP — Types "Toris C" or "ER2R"

A2. **Steel Floor And Form Units* (Configuration B) —** Composite max 2 in. (51 mm) deep galv steel fluted units.

NEW MILLENNIUM BUILDING SYSTEMS L L C — Versa-Dek®

A3. **Steel Floor And Form Units* (Configuration B) –** Composite max 2 in. (51 mm) deep galv steel fluted units.

Verco Decking Inc – A Nucor Co – Type 2.0D FORMLOK

A4 **Steel Floor And Form Units* (Configuration B) –** Composite max 2 in. (51 mm) deep galv steel fluted units.

VULCRAFT, DIV OF NUCOR CORP – Type 2.0D FORMLOK

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

A1. **Steel Floor And Form Units* (Configuration B) —** Composite max 2.5 in. (64 mm) deep galv steel fluted units.
EPIC METALS CORP — Type "Toris C"

B. **Spray Applied Fire Resistive Materials* —** (Not Shown) — Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB

ISOLATEK INTERNATIONAL — Type 300

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor And Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC before optional spray-applied fire resistive material is used. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — SDT250, SDT300

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

OLMAR SUPPLY INC — STT250, STT300

R & P SUPPLY — SCT250, SCT300

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. **Light Gauge Framing* — Vertical Deflection Ceiling Runner —** When the nom joint width is less than or equal to 3/4 in. (19 mm), vertical deflection ceiling runner may be used as an alternate to the ceiling runners in Items 2A and 2A1. Vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800

A3. **Light Gauge Framing* — Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2C). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
OLMAR SUPPLY INC — Type SCR

B. **Steel Attachment Clips —** (Optional — Not Shown) — When spray applied fireproofing is used ceiling runner may be secured to deck with Z-shaped clips formed from min 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom of the steel deck with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened to valleys of steel deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel masonry anchors, steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.

C. **Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When Epic Metals composite floor or roof deck (Item 1A1) is used, steel studs to be min 3-5/8 in. (92 mm) wide. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

D. **Gypsum Board* —** Gypsum board installed to a min total thickness of 5/8 in. and 1-1/4 in. (16 and 32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel deck units and the top row of screws shall be installed into the studs 1-1/2 to 2 in. (38 to 51 mm) below the bottom of the ceiling runner. **The hourly rating of the joint system is dependent on the hourly rating of the wall.**

3. **Joint System — Max separation between bottom of floor or roof and top of wall at time of installation of joint system is 1 in. (13 mm).** The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of forming material and a fill material, as follows:
A. **Forming Material* —** Nom 4 pcf (64 kg/m^3) density mineral wool batt insulation cut with a length approx equal to the overall thickness of the wall. Multiple pieces stacked on top of each other, as needed, and then compressed 25 percent in thickness and inserted into the flutes of the steel deck above the top of the ceiling runner. The mineral wool batt insulation is to project beyond each side of the ceiling runner, flush with wall surfaces. Alternately, nom 4 pcf (64 kg/m^3) forming material cut to shape of flute and nom 1 in. (25 mm) longer than thickness of wall; mineral wool compressed from ends and firmly packed into each flute to attain a min compression rate of 14.3 percent in the length (wall thickness) direction to be flush with both wall surfaces. When Composite Steel Form and Floor Units (Items 1A1, 1A2, 1A3, 1A4) are used, the mineral wool is to be tightly packed into the inverted flutes to the full thickness of the wall. In addition, for the Epic Metals "Toris C" deck, the mineral wool is to be packed to min 25% compression within the recessed indentations immediately above the ceiling runners. For the New Millennium Versa-Dek, pieces of mineral wool shall be packed to the maximum depth possible to fill any embossments within the valleys of the fluted deck. Additional 5/8 in. and 1-1/4 in. (16 and 32 mm) wide strips for 1 and 2 hr rated assemblies, respectively, of nom 4 pcf (64 kg/m^3) mineral wool batt insulation are to be cut to fill the gap between the top of the gypsum board and bottom of the steel deck. The strips of mineral wool are compressed 50 percent and tightly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel deck on both sides of the wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta- Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

A1. **Forming Material* — Plugs —** (Optional, Not Shown) — Preformed mineral wool plugs, formed to the shape of the trapezoidal fluted floor units, friction fit to completely fill the flutes above the ceiling channel. The plugs shall project beyond each side of the ceiling runner, flush with wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of gypsum board and bottom of steel floor units.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

A2. **Forming Material* — Strips —** (Optional) — Nom 5/8 in. and 1-1/4 in. (16 and 32 mm) wide by 2 in. (51 mm) high precut mineral wool strips for 1 and 2 hr rated assemblies respectively. The strips are compressed 50 percent and firmly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

B. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When **Spray-Applied Fire Resistive Material*** is applied to the **Steel Floor and Form Units***, the fill material is to overlap the gypsum board a min of 1/2 in. (13 mm) and the Spray-Applied Fire Resistive Material a min of 2 in. (51 mm) on both sides of wall. When spray-applied fire resistive materials are used, the firestop joint spray shall overlap the wall a min 1/2 in. (13 mm) and overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

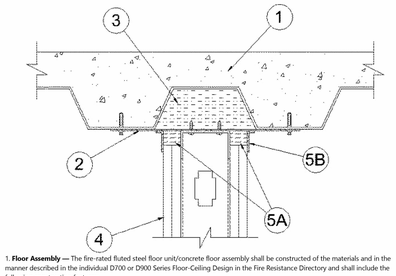
Last Updated on 2024-08-16

UL DESIGN NO - HW-D-0264

System No. HW-D-0264

June 22, 2023

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 4)	F Ratings — 1 and 2 Hr (See Item 4)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 4)
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Item 4)
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Ratings — 1 and 2 Hr (See Item 4)
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression or Extension
	L Rating At Ambient — Less Than 1 CFM/lin ft
	L Rating At 400 F — Less Than 1 CFM/lin ft



1. **Floor Assembly —** The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Material* —** (Optional. Not Shown) - After installation of the steel straps (Item 2), the steel floor uni may be sprayed with the min thickness of material specified in the individual D700 Series Design.
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB

1A. **Roof Assembly —** (Not Shown) - As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling designs in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Roof insulation to consist of min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

C. **Spray-Applied Fire Resistive Material* —** (Optional. Not Shown) - After installation of the steel straps (Item 2), all surfaces of the steel deck may be sprayed with the thickness of material as specified in the individual P700 Series Floor-Ceiling Design. The flutes of the steel deck above the steel straps and wall may be filled with material as an alternate to the Forming Material (Item 3).
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY or MK-10HB

2. **Steel Straps —** Min. 2 in. (51 mm) wide 16 MSG galv steel straps cut to a length to span the flute and overlap the adjacent valleys of fluted floor units or roof deck by 1-1/2 in. (38 mm). Straps spaced max 24 in. (610 mm) OC and fastened to floor or roof assembly with masonry anchors or steel fasteners. As an alternate, min 1 in. (25 mm) long Hilti X-DNI 27 P8 S15 or Hilti X-U 27 P8 S15 powder actuated floor pins with integral min 9/16 in. (14 mm) diam washer may be used to secure steel straps to floor or roof assembly.

3. **Forming Material* - Plugs —** Preformed mineral wool plugs, formed to the shape of the fluted floor units or roof deck, friction fit to completely fill the flutes above the steel straps. Adjacent lengths of plugs to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the plugs.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

3A. **Forming Material* —** As an alternate to item 3, min 4 pcf (64 kg/m^3) mineral wool batt insulation forming material cut to the shape of the fluted floor units or roof deck and friction fit to completely fill the flutes above the steel straps. Adjacent lengths of batts to be tightly butted with butted seams spaced min 24 in. (610 mm) apart along the length of the flutes.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

4. **Wall Assembly —** The 1 hr or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner to be 3/4 in. (19 mm) greater than extended joint width. Ceiling runner installed parallel to direction of fluted steel floor units, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.

A1. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 4A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Items 4B). Ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
CEMCO, LLC — CST , CST325

CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

A2. **Light Gauge Framing*- Notched Ceiling Runner —** As an alternate to the ceiling runners in Items 2A through 2A1, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC.
OLMAR SUPPLY INC — Type SCR

A3. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 4A through 4A2, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 4B). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel to direction of fluted steel floor deck, directly beneath steel straps, and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT

B. **Studs —** Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 3/4 in. (19 mm) to 1 in. (25 mm) less in length than assembly height with bottom nesting in and resting on the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 4A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When slotted ceiling runner (Item 4A3) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall.

C. **Gypsum Board* —** For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board are specified in the individual Wall and Partition Design. For both hourly ratings, a nominal 1-1/2 in. (38 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units and the top row of screws shall be installed into the studs 3 in. (76 mm) below the valleys of the steel floor units.
The hourly ratings of the joint system are dependent on the hourly rating of the wall.

5. **Joint System — Max separation between bottom of floor and top of wall is 1-1/2 in. (38 mm). The joint system is designed to accommodate a max 50percent compression or extension from its installed width.** The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows:
A. Forming Material* — Min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut shall be cut into strips to fill the gap between the top of gypsum board and bottom of the floor units. The width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the mineral wool plug or steel floor units.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

A1. **Forming Material* - Strips —** (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 hr and 2 hr rated assemblies respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

B. **Fill, Void or Cavity Material* - Sealant —** Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material sprayed or troweled on each side of the wall to completely cover the mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board, steel floor units or roof deck and steel straps on both sides of the wall and min 2 in. (51 mm) onto spray-applied fire resistive material (Item 1C).
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-06-22

GENERAL SHEET NOTES

A. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE INDUSTRY TESTED FIRE RESISTANCE RATED ASSEMBLY SYSTEMS THAT ARE REQUIRED BY THE CONSTRUCTION TYPE OF THIS PROJECT AND BY CHAPTER 7 OF THE CALIFORNIA BUILDING CODE.

B. IN SOME CASES, THE TESTED ASSEMBLIES SHOWN MAY HAVE BEEN EDITED TO SHOW THE MINIMUM CONSTRUCTION REQUIREMENTS OF THE RESPECTIVE ASSEMBLY. ADDITIONAL MANUFACTURERS MAY BE ACCEPTABLE IN ADDITION TO THOSE LISTED HEREWITH. REFER TO PUBLISHED TESTED ASSEMBLY TO CONFIRM.

C. OTHER TESTED ASSEMBLIES MAY BE SUBSTITUTED FOR THOSE INDICATED. SUCH SUBSTITUTIONS MUST BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

D. NOTE: NOT ALL ASSEMBLIES SHOWN MAY BE USED IN THE PROJECTS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

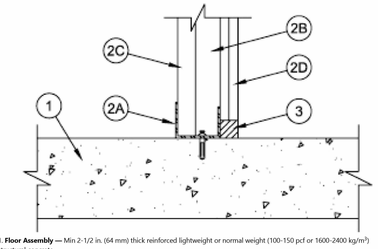
ISSUED FOR	REV NO.	DATE

UL DESIGN NO - BW-S-0023

System No. BW-S-0023

January 13, 2022

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Joint Width —3/4 and 1 In. Max (See Item 3)	FT Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient – 1.65 CFM/Lin ft	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400 F – 1.33 CFM/Lin ft	FTH Ratings — 1 and 2 Hr (See Item 2)
	Joint Width — 3/4 and 1 In. Max (See Item 3)
	L Rating at Ambient – 2.55 L/s/Lin m
	L Rating at 204°C – 2.06 L/s/Lin m



1. **Floor Assembly —** Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) structural concrete.

2. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:
A. **Floor and Ceiling Runners —** J-shaped runner, 2-1/2 in. (64 mm) wide with unequal legs of min 1-1/4 in. (32 mm) and 2 in. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 12 in. (610 mm) OC.

B. **Steel Studs —** C-H-shaped studs, 2-1/2 in. (64 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 in. (10 to 13 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. Studs nest in floor runner at bottom and J runner or slotted ceiling track at top. After installation of gypsum board liner panels (Item 2C), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 in. (13 mm) long self-drilling, self-tapping steel screws. Studs secured to flange of slotted ceiling track on finished side of wall only with No. 8 by 1/2 in. (13 mm) long self-drilling, self-tapping wafer head steel screws at slot midheight.

C. **Gypsum Board* —** 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board liner panels as specified in the individual Wall and Partition Series design. Panels cut 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges inserted in "H"-shaped section of "C-H" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.

D. **Gypsum Board* —** Gypsum board sheets, 1/2 or 5/8 in. (13 or 16 mm) thick, applied vertically or horizontally on finished side of wall as specified in the individual Wall and Partition Series design. A max 1 in. (25 mm) gap when CP 606 sealant (Item 3) is used, or 3/4 in. (19 mm) gap when CP 605 sealant (Item 3) is used, shall be maintained between the gypsum board and the top surface of the concrete floor. The screws attaching the gypsum board layers to the C-H studs shall be located 1 in. (25 mm) above the top of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner and slotted ceiling track.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Fill, Void or Cavity Material* — Sealant —** Max separation between top of floor and bottom of gypsum board on the finish side is 1 in. (25 mm) when CP 606 sealant is used, and 3/4 in. (19 mm) when CP 605 or CFS-S SIL GG sealant is used. The depth of sealant to be installed to fill the linear gap between the bottom of the gypsum board sheets (Item 2D) and the top of the concrete floor shall be equal to the overall thickness of the gypsum board sheets, flush with the finished side of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606, CP 605, or CFS-S SIL GG

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

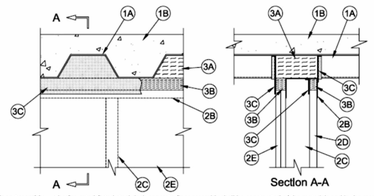
Last Updated on 2022-01-13

UL DESIGN NO - HW-D-0569

System No. HW-D-0569

June 27, 2023

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft



1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory. The floor assembly shall include the following construction features:
A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Materials* —** (Optional, Not Shown) — Prior to or after installation of the steel ceiling runners (Item 2B) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1 3/4 in. (45 mm) thickness of fire resistive material.
GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY

ISOLATEK INTERNATIONAL — Type 300

D. **Steel Attachment Clips —** (Optional, Not Shown) - Used to secure ceiling runner when spray-applied fire resistive material is applied to floor units prior to installation of ceiling runner of wall. Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the floor units with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of roof deck (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 to 3/4 in. (6 to 19 mm) from the surface of the wall.

1A. **Roof Assembly —** (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Steel Attachment Clips —** (Optional, Not Shown) - Used to secure ceiling runner when spray-applied fire resistive material is applied to roof deck prior to installation of ceiling runner of wall. Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the roof deck with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of roof deck (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 to 3/4 in. (6 to 19 mm) from the surface of the wall.

C. **Spray—Applied Fire Resistive Materials* —** (Not Shown)—Prior to or after the installation of the steel ceiling runners, the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

2. **Shaft Wall Assembly —** The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Floor and Wall Runners —** (Not Shown) - J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.

B. **Ceiling Runner —** Ceiling runner of wall assembly shall consist of galv steel channel sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured to steel deck valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC or to steel attachment clips (Item 1D) with steel fasteners spaced max 16 in. (406 mm) OC.

B1. **Light Gauge Framing* - Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to steel deck valleys before or after optional spray-applied fire resistive material is used with steel masonry anchors spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track

TELLING INDUSTRIES L L C — True-Action Deflection Track

B2. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2B through 2B1, slotted ceiling runner to consist of galv steel channel, sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to steel deck valleys with steel masonry anchors, steel fasteners or welds as described in Item B1.
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT

C. **Steel Studs —** C-H-shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. When slotted ceiling runner specified in Item 2B2 is used the C-H-shaped studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC.

D. **Gypsum Board* —** Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.

E. **Gypsum Board* —** Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track.

The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

3. **Joint System — Max separation between bottom of fluted deck surface and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width.** The joint system consists of the following:
A. **Forming Material* —** Min 4 pcf (64 kg/m^3) density mineral wool batt insulation sized to attain a min compression rate of 25 percent in the thickness direction and firmly packed to completely fill the flutes of the steel floor units or roof deck above the ceiling runner as a permanent form. The mineral wool batt insulation is to project beyond the ceiling runner to be flush with the finished wall surfaces. Alternately, nom 4 pcf (64 kg/m^3) forming material cut to shape of flute and nom 1 in. (25 mm) longer than thickness of wall; mineral wool compressed from ends and firmly packed into each flute to attain a min compression rate of 14.3 percent in the length (wall thickness) direction to be flush with both wall surfaces.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

A1. **Forming Material* — Plugs —** As an alternate to Item 3A, preformed mineral wool plugs, formed to the shape of the fluted floor units or roof deck, friction fit to completely fill the flutes above the ceiling runner. The plugs shall project beyond the finished side of the ceiling runner, flush with wall surface.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 Speed Plugs

B. **Forming Material* —** Min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the steel floor unit or roof deck. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the steel floor units or roof deck, flush with the surface of the wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

B1. **Forming Material* - Strips —** As an alternate to Item 2B, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the steel floor unit or roof deck. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the steel floor units or roof deck, flush with the surface of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

C. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on both sides of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on finished side of wall. Fill material to overlap a min of 1/2 in. onto steel deck and ceiling runner on unfinished side of wall with no overlap onto gypsum liner panel. When spray-applied fire resistive material (Item 1C) is applied to the steel deck, the fill material is to overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

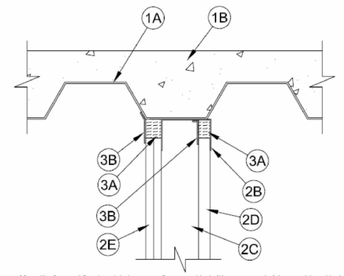
Last Updated on 2023-06-27

UL DESIGN NO - HW-D-0570

System No. HW-D-0570

June 26, 2023

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities — 50% Compression and Extension	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400°F — Less Than 1 CFM/Lin Ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities — 50% Compression and Extension
	L Rating At Ambient — Less Than 1 CFM/Lin Ft
	L Rating At 400°F — Less Than 1 CFM/Lin Ft



1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manne described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory. The floor assembly shall include the following construction features:
A. **Steel Floor and Form Units* —** Max 3 in. (76 mm) deep galv fluted floor units.

B. **Concrete —** Min 2-1/2 in. (64 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete, as measured from the top plane of the floor units.

C. **Spray-Applied Fire Resistive Materials* —** (Optional, Not Shown) — Prior to or after installation of the steel ceiling runners (Item 2B) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1 3/4 in. (45 mm) thickness of fire resistive material.
ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6-HY or MK-10HB

D. **Steel Attachment Clips —** (Optional. Not Shown) - Used to secure ceiling runner when spray-applied fire resistive material is applied to floor units prior to installation of ceiling runner of wall. Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the floor units with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of roof deck (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 to 3/4 in. (6 to 19 mm) from the surface of the wall.

1A. **Roof Assembly —** As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation —** Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.

1B. **Roof Assembly —** As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
A. **Steel Roof Deck —** Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Steel Attachment Clips —** (Optional. Not Shown) - Used to secure ceiling runner when spray-applied fire resistive material is applied to roof deck prior to installation of ceiling runner of wall. Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the roof deck with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of roof deck (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 to 3/4 in. (6 to 19 mm) from the surface of the wall.

C. **Spray—Applied Fire Resistive Materials* —** (Not Shown)—Prior to or after the installation of the steel ceiling runners, the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
ISOLATEK INTERNATIONAL — Type 309

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY or MK-10HB

2. **Shaft Wall Assembly —** The 1 hr or 2 hr fire rated gypsum board/steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. **Floor and Wall Runners —** (Not Shown) - J-shaped runner, equal in width to steel studs (Item 2C), with unequal legs of 1 in. (25 mm) and 2 in. (51 mm), fabricated from 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.

B. **Ceiling Runner —** Ceiling runner of wall assembly shall consist of galv steel channel sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed parallel with direction of fluted steel deck and secured to steel deck valley before or after optional spray-applied fire resistive material is used with steel fasteners or welds spaced max 24 in. (610 mm) OC or to steel attachment clips (Item 1D) with steel fasteners or welds spaced max 16 in. (406 mm) OC.. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.

B1. **Light Gauge Framing* - Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2B, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Slotted ceiling runner installed parallel with direction of fluted steel deck and secured to steel deck valley as described in Item B.
CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track

TELLING INDUSTRIES L L C — True-Action Deflection Track

B2. **Light Gauge Framing* — Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2B through 2B1, slotted ceiling runner to consist of galv steel channel, sized to accommodate steel studs (Item 2C). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner installed parallel with direction of fluted steel deck and secured to steel deck valley with steel masonry anchors, steel fasteners or welds as described in Item B.
SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT

C. **Steel Studs —** C-H-shaped studs, min 4 in. (102 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from 25 MSG galv steel, cut to lengths 3/4 to 1 in. (19 to 25 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. When slotted ceiling runner specified in Item 2B2 is used the C-H-shaped studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC.

D. **Gypsum Board* —** Nom 1 in. (25 mm) thick gypsum board liner panels. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. Vertical edges inserted in H-shaped section of C-H studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.

E. **Gypsum Board* —** Nom 5/8 in. (16 mm) thick gypsum board applied vertically in one or two layers for 1 hr and 2 hr fire rated assemblies, respectively. Panels cut 1-1/2 in. (38 mm) less in length than floor to ceiling height. The screws attaching the gypsum board layers to the C-H studs shall be located 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the ceiling runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling runner or slotted ceiling track.

The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

3. **Joint System — Max separation between bottom of fluted deck surface and top of gypsum board (at the time of installation of the joint system) is 1 1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width.** The joint system consists of the following:
A. **Forming Material* —** Min 4 pcf (64 kg/m^3) density mineral wool batt insulation cut to a thickness twice larger than the distance between the top of the gypsum board and the bottom of the steel floor unit. Material compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Material compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the steel floor units, flush with the surface of the wall.
INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE

THERMAFIBER/OWENS CORNING — Type SAF

A1. **Forming Material* - Strips —** As an alternate to Item 3A, the strips are stacked to a height twice larger than the distance between the top of the gypsum board and the bottom of the steel floor unit. Strips compressed 50 percent and installed within ceiling runner above top of liner panel flush with the inside surface of the panel. Strips compressed and installed on finished side of the wall between the top of the gypsum board and the bottom of the steel floor units, flush with the surface of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

B. **Fill, Void or Cavity Material* —** Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled within stud cavity and on finished side of the shaft wall to completely cover mineral wool forming material. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and ceiling runner within stud cavity. Fill material to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on finished side of wall. When spray-applied fire resistive material (Item 1C) is applied to the steel deck, the fill material is to overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on the finished side of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-06-26

GENERAL SHEET NOTES

A. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE INDUSTRY TESTED FIRE RESISTANCE RATED ASSEMBLY SYSTEMS THAT ARE REQUIRED BY THE CONSTRUCTION TYPE OF THIS PROJECT AND BY CHAPTER 7 OF THE CALIFORNIA BUILDING CODE.

B. IN SOME CASES, THE TESTED ASSEMBLIES SHOWN MAY HAVE BEEN EDITED TO SHOW THE MINIMUM CONSTRUCTION REQUIREMENTS OF THE RESPECTIVE ASSEMBLY. ADDITIONAL MANUFACTURERS MAY BE ACCEPTABLE IN ADDITION TO THOSE LISTED HEREWITH. REFER TO PUBLISHED TESTED ASSEMBLY TO CONFIRM.

C. OTHER TESTED ASSEMBLIES MAY BE SUBSTITUTED FOR THOSE INDICATED. SUCH SUBSTITUTIONS MUST BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

D. NOTE: NOT ALL ASSEMBLIES SHOWN MAY BE USED IN THE PROJECTS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

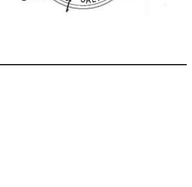
3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES



SHEET TITLE

FIRE RESISTANCE RATED ASSEMBLY DETAILS

14794

PROJECT NUMBER

CD

A9.2.16

SHEET NUMBER

Plot Date: 8/23/2025 5:44:43 PM START Sheet

UL DESIGN NO - N307

Design No. N307

April 28, 2020

Restrained Beam Ratings — 1, 1-1/2, 2, or 3 Hr (See Item 6)

Unrestrained Beam Ratings — 1, 1-1/2 & 2 Hr (See Item 6)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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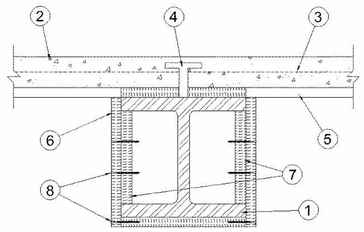

1. **Beam —** W8x28, min size.

2. **Normal Weight or Lightweight Concrete —** Normal weight concrete, carbonate or siliceous aggregate, 150 (+ or -) 3 pcf unit weight, 4500 psi compressive strength. Lightweight concrete, expanded shale, clay or slate aggregate by Rotary-Kiln method, 120 (+ or -) 3 pcf unit weight, 4500 psi compressive strength, vibrated.

3. **Welded Wire Fabric —** 6 by 6 in., No. 10/10 SWG.

4. **Shear Connectors —** (Optional) — Studs, 3/4 in. diam by 3-3/8 in. long, headed type or equivalent per AISC specification. Welded to top flange of beam through the deck.

5. **Steel Floor and Form Units* —** Composite or noncomposite 1-1/2 in. deep fluted types min No. 22 MSG welded to beam.

6. **Mineral and Fiber Boards —** Boards cut in various widths to be compatible with the size of beam being protected. Boards placed parallel with the flange of the beams are cut the width of the flange. Boards placed parallel with the web of the beams are cut the width of the beam (web side) plus twice the board thickness. The voids created by the flutes above the beam to be filled with mineral wool batts having a nom density of 4 lb per cu ft.

Restrained Beam Ratings, Hr	Min. Thickness, In.
1	3/4
1-1/2	3/4
2	3/4
3	1-5/8

Unrestrained Beam Rating Hr	Min Thkns In.
1	3/4
1-1/2	3/4
2	1-5/8

ISOLATEK INTERNATIONAL — Type Dri-Clad

7. **Noggings —** Min 1-1/2 in. thick, pieces of mineral and fiber board (See Item 6). Cut to friction fit between beam flanges; located at horizontal butted joints of adjacent mineral and fiber board sections (Item 6) on the web sides of the beam.

8. **Fasteners —** The boards are fastened to the noggings and to each other by means of spiral screw type fasteners, spaced a max of 4-6 in. OC. The fasteners are installed on both sides of horizontal joints.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-04-28

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Plot Date: 8/23/2025 5:44:44 PM START Sheet

GENERAL SHEET NOTES

A. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE INDUSTRY TESTED FIRE RESISTANCE RATED ASSEMBLY SYSTEMS THAT ARE REQUIRED BY THE CONSTRUCTION TYPE OF THIS PROJECT AND BY CHAPTER 7 OF THE CALIFORNIA BUILDING CODE.

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LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

FIRE RESISTANCE RATED ASSEMBLY DETAILS

14794

PROJECT NUMBER

CD

A9.2.17

SHEET NUMBER

INTERIOR DOOR SCHEDULE

NUMBER	FIRE RATING (MIN)	OPENING WIDTH	OPENING HEIGHT	DOOR ELEVATION	DOOR MATERIAL	DOOR FINISH	FRAME ELEVATION	FRAME MATERIAL	FRAME FINISH	ACOUSTIC REQ.	HARDWARE SET	PANIC HARDWARE	GLASS TYPE	SPECIAL NOTES AND COMMENTS
LEVEL 1														
15101-A	NA	6' - 0"	8' - 0"	N	WD	ST	B	HM	PNT-02	NA	44	•	NA	
15101A-A	NA	3' - 6"	8' - 0"	F	AL	ANDZ	M	AL	PNT-02	NA	48	NA	NA	FLUSH DOOR, NO LIGHT LEAKS.
15101B-A	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	33	NA	NA	PRIVACY, KICK PL.
15101C-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	43	•	IGL-1	CLASSRM, CR, CLOSER, KICK PL.
15101E-A	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	SS-DB	35	NA	NA	CLASSRM, KICK PL.
15101F-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	NA	17	NA	NA	STOR., CR, CLOSER, KICK PL.
15101F-B	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER, KICK PL.
15101F-C	NA	5' - 0"	5' - 4"	CD	HM	PNT-02	NA	NA	NA	NA	45	NA	NA	MOTORIZED ROLL-UP COUNTER DOOR
15101G-A	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER, KICK PL.
15101G-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER, KICK PL.
15102-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	CLASSROOM, CLOSER, KPL
15103-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	41	NA	IGL-1	CR
15104-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15104-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15104-C	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, ARMOR PL, WINDOW SHADE COVER
15104A-A	NA	2' - 0"	3' - 0"	BL	HM	PNT-02	L	HM	PNT-02	NA	47	NA	NA	ACCESS DOOR WITH BOTTOM LOUVER FOR AV RACK
15105-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	CLASSROOM, CLOSER, KPL
15106-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15106-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	18	NA	IGL-1	OFFICE, CLOSER, ARMOR PL, WINDOW SHADE COVER
15107-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	CLASSRM, CLOSER, ARMOR PL
15107-B	NA	3' - 6"	8' - 0"	DT	WD	ST	A	HM	PNT-02	STC-45	21	NA	NA	OFFICE, CLOSER, KPL
15107-C	NA	3' - 6"	8' - 0"	DT	WD	ST	A	HM	PNT-02	STC-45	21	NA	NA	OFFICE, CLOSER, KPL
15107A-A	60	3' - 6"	8' - 0"	N	HM	PNT-02	A	HM	PNT-02	NA	40	NA	IGL-4	OFFICE, CLOSER, ARMOR PL
15109-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15109A-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	26	NA	IGL-1	EXIT ONLY, CLOSER, ARMOR PL.
15180-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	28	NA	NA	STOR., CLOSER, KICK PL.
15181-A	60	4' - 0"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	39	•	NA	STOR., CLOSER, KICK PL.
15182-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	42	•	NA	STOR., CLOSER, KICK PL.
15183-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	STC-45	16	NA	NA	
15183B-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER, KICK PLATE
15185-A	60	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	16	NA	NA	
15186-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	36	NA	NA	PASSAGE, CLOSER, KPL
15187-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	36	NA	NA	PASSAGE, CLOSER, KPL
15188-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	34	NA	NA	RESTRM, CLOSER, KICK PL.
15189-A	60	3' - 0"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	STC-40	15	NA	NA	STOR., CLOSER
15191-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER
15196-A	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	29	NA	NA	STOR., CLOSER
LEVEL 2														
15192-B	NA	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	NA	37	•	NA	PASSAGE, CLOSER
15194-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	36	NA	NA	PASSAGE, CLOSER, KPL
15195-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	36	NA	NA	PASSAGE, CLOSER, KPL
15201-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	27	NA	IGL-1	CLOSER, KPL, CR
15202-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	STORAGE, CLOSER, KPL
15202-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	CLASSROOM, CLOSER, KPL, CR
15202-C	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	SS-DB	30	NA	NA	STOR., KPL
15203-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15203-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	OFFICE, CLOSER, KPL
15203-C	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15204-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	STORAGE, CLOSER, KPL
15204-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	CLASSROOM, CLOSER, KPL, CR
15204-C	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	SS-DB	30	NA	NA	STOR., KPL
15205-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	27	NA	IGL-1	EXIT ONLY, CLOSER, KPL
15205-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	STC-45	19	NA	IGL-1	OFFICE, CLOSER, KPL
15206-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	20	NA	IGL-1	OFFICE, CLOSER
15207-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	CLOSER, ARMOR PL, CR
15207-B	NA	5' - 0"	5' - 4"	CD	HM	PNT-02	NA	HM	PNT-02	STC-30	45	NA	NA	MOTORIZED ROLL-UP COUNTER DOOR
15207-C	60	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	18	NA	IGL-1	OFFICE, CLOSER, ARMOR PL
15207-D	NA	3' - 6"	8' - 0"	DT	WD	ST	A	HM	PNT-02	STC-45	19	NA	NA	OFFICE, CLOSER, KPL
15209-A	60	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	SS-DB	14	NA	NA	STOR., CLOSER, ARMOR PL
15210-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	20	NA	IGL-1	OFFICE, CLOSER
15211-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	STOR., CLOSER, KPL
15211-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	CLASSRM, CLOSER, KPL, CR
15211-C	60	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	18	NA	IGL-1	OFFICE, CLOSER, ARMOR PL
15212-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15212-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	OFFICE, CLOSER, KPL
15213-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	26	NA	IGL-1	EXIT ONLY, CLOSER, ARMOR PL.
15213-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15213-C	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15214-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	26	NA	IGL-1	STORAGE, CLOSER, ARMOR PL., CR
15214-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15214-C	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	19	NA	IGL-1	OFFICE, CLOSER, KPL
15215-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	STORAGE, CLOSER, KPL
15215-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	CLASSROOM, CLOSER, KPL, CR
15216-A	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	40	NA	IGL-1	OFFICE, CLOSER, KPL
15216-B	NA	3' - 6"	8' - 0"	N	WD	ST	A	HM	PNT-02	SS-DB	46	NA	IGL-1	OFFICE, CLOSER, KPL
15281-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	34	NA	NA	PRIVACY, CLOSER, KPL
15282-A	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	32	NA	NA	RESTRM, CLOSER, KICK PL.
15283-A	NA	3' - 6"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	28	NA	NA	STOR., CLOSER, KICK PL.
15284-A	60	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	SS-DB	42	NA	NA	STOR., CLOSER
15285-A	60	3' - 6"	8' - 0"	F	HM	PNT-02	A	HM	PNT-02	SS-DB	16	NA	NA	STOR., CR, CLOSER
15288-A	NA	3' - 0"	8' - 0"	F	WD	ST	A	HM	PNT-02	NA	34	NA	NA	RESTRM, CLOSER, KICK PL.

Grand total: 80

EXTERIOR DOOR SCHEDULE

NUMBER (TBD)	FIRE RATING (MIN)	SIZE WIDTH	SIZE HEIGHT	DOOR ELEVATION	DOOR MATERIAL	DOOR FINISH	FRAME ELEVATION	FRAME MATERIAL	FRAME FINISH	HARDWARE SET	PANIC HARDWARE	GLASS TYPE	SPECIAL NOTES AND COMMENTS
LEVEL 1													
15100-A	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	08	•	GL-01	ENTRY, DOOR OP, CR, DP, CLOSER - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15100D-A	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	12	•	GL-01	ENTRY, DOOR OP, CR, DP, CLOSER - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15100F-A	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	08	•	GL-01	ENTRY, DOOR OP, CR, DP, CLOSER - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15100E-A	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	08	•	GL-01	ENTRY, DOOR OP, CR, DP, CLOSER - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15100E-B	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	12	•	GL-01	ENTRY, DOOR OP, CR, DP, CLOSER - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15103A-A	NA	3' - 0"	8' - 0"	F	AL	ANDZ	I	AL	ANDZ	04	•	NA	ENTRY, CR, DP, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER: CHARCOAL)
15101D-A	NA	3' - 0"	8' - 0"	F	AL	ANDZ	K	AL	ANDZ	04	NA	NA	CR, DP, KICK PL - *COLOR TO MATCH WINDOW FRAMES
15101C-B	NA	3' - 0"	8' - 0"	F	AL	ANDZ	K	AL	ANDZ	04	•	NA	CR, DP, KICK PL - *COLOR TO MATCH WINDOW FRAMES
15192-A	NA	3' - 6"	8' - 0"	F	HM	PNT-05	A	HM	PNT-05	04	•	NA	CR, DP, CLOSER, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15180-B	NA	3' - 6"	8' - 0"	F	AL	ANDZ	A	HM	PNT-05	06	NA	NA	STOR., CR, DP, CLOSER, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15182-B	NA	6' - 0"	8' - 0"	F	AL	ANDZ	B	HM	PNT-05	10	•	NA	STOR., CR, DP, CLOSER, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15183-C	NA	6' - 0"	8' - 0"	F	AL	ANDZ	B	HM	PNT-05	10	•	NA	STOR., CR, DP, CLOSER, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
15101E-B	NA	6' - 0"	8' - 0"	F	HM	PNT-05	B	HM	PNT-05	11	NA	NA	STOR., CR, DP, KICK PL - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)
LEVEL 2													
15200E-A	NA	6' - 0"	8' - 0"	FG	AL	ANDZ	B	AL	ANDZ	09	•	GL-01	ENTRY, CR, DP - *COLOR TO MATCH WINDOW FRAMES (KAWNEER:CHARCOAL)

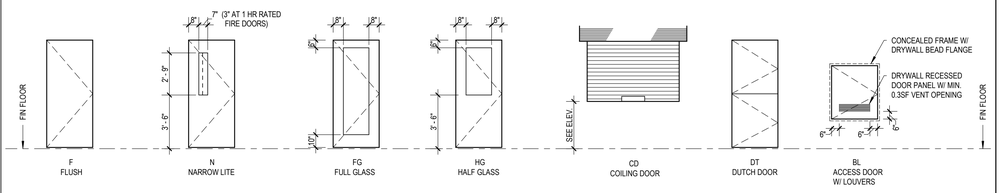
Grand total: 14

INTERIOR WINDOW SCHEDULE

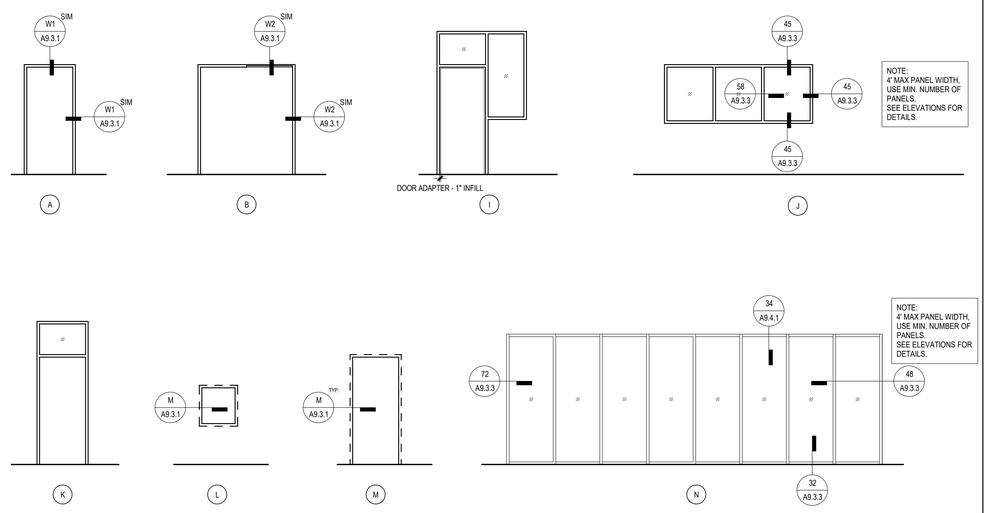
NUMBER	FIRE RATING (MIN)	SIZE WIDTH	SIZE HEIGHT	CONSTRUCTION ELEVATION	CONSTRUCTION FRAME MATERIAL	CONSTRUCTION GLAZING TYPE	SILL HEIGHT	SPECIAL NOTES AND COMMENTS
LEVEL 1								
W-15100C	NA	24' - 6"	8' - 6"	N	AL	IGL-1	0"	
W-15101D	NA	4' - 0"	4' - 0"	J	AL	IGL-1	3' - 0"	
W-15102A	NA	1' - 10"	6' - 6"	J	AL	IGL-2	4' - 6"	DOUBLE GLAZED WITH 2" AIR GAP
W-15102B	NA	4' - 0"	3' - 8"	J	AL	IGL-1	3' - 4"	
W-15103A	NA	8' - 0"	4' - 0"	J	AL	IGL-1	4' - 0"	SLIDING WINDOWS
W-15103B	NA	8' - 0"	4' - 0"	J	AL	IGL-1	4' - 0"	
W-15105	NA	2' - 0"	7' - 6"	J	AL	IGL-2	3' - 6"	DOUBLE GLAZED WITH 2" AIR GAP
W-15109	NA	4' - 6"	1' - 0"	J	AL	IGL-1	3' - 5"	
LEVEL 2								
W-15203A	NA	3' - 0"	3' - 7"	J	AL	IGL-1	3' - 5"	
W-15203B	NA	5' - 6"	1' - 0"	J	AL	IGL-1	3' - 5"	

Grand total: 10

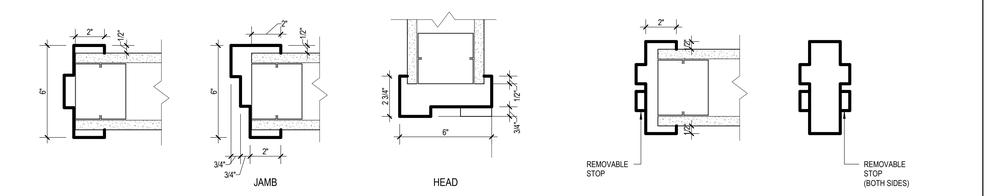
DOOR TYPES

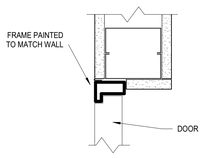


FRAME ELEVATIONS



WRAP-AROUND FRAME PROFILES





ABBREVIATIONS

ABBREVIATIONS USED IN THE "DOOR MATERIAL" AND "FRAME MATERIAL" COLUMNS IN THE SCHEDULE

AL	ALUMINUM
IGL	INSULATED GLAZING UNIT
HM	HOLLOW METAL
WD	WOOD
NA	NOT APPLICABLE

ABBREVIATIONS USED IN THE "DOOR FINISH" AND THE "FRAME FINISH" COLUMNS IN THE SCHEDULE

ANDZ	ANODIZED
PLAM	PLASTIC LAMINATE
PNT #	PAINT COLOR (SEE FINISH SCHEDULE)
ST	STAIN
NA	NOT APPLICABLE
SS-DB	DOOR W/ SINGLE SET OF SOUND SEALS & DOOR BOTTOM
•	PANIC HARDWARE INDICATED

GLASS TYPE

* SAFETY GLAZING ARE TO BE PROVIDED IN ALL LOCATIONS INDICATED AS PER CBC SECTION 2406.

GLASS TYPES

GL-01 - EXTERIOR GLASS TYPE

IGL-1 - INTERIOR GLASS, LOW-IRON LAMINATED GLASS INTERLAYER: CLEAR, 1/2"

IGL-2 - INTERIOR GLASS, 2" AIR GAP BETWEEN (2) 3/8" LOW-RION GLASSES, SEALED AIRTIGHT, 2-3/4" THICK IN TOTAL

IGL-4 - INTERIOR FIRE RATED GLASS, CLEAR, 1/2"

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - DOOR AND WINDOW SCHEDULE

14794

PROJECT NUMBER

CD

A9.3.1

SHEET NUMBER

START Sheet

7/23/2025 4:58:14 PM

Plot Date:

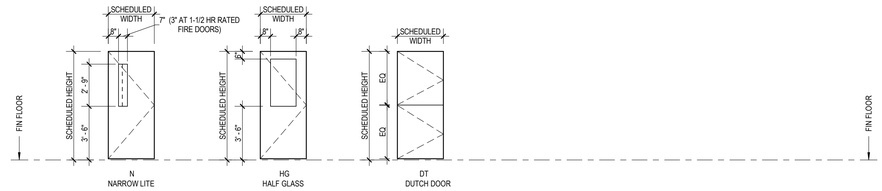
INTERIOR DOOR SCHEDULE

NUMBER	FIRE RATING (MINUTES)	SIZE		DOOR			FRAME			HARDWARE		GLASS TYPE	SPECIAL NOTES AND COMMENTS
		WIDTH	HEIGHT	ELEVATION	MATERIAL	FINISH	ELEVATION	MATERIAL	FINISH	HARDWARE SET	PANIC HARDWARE		
LEVEL 1													
1803-A	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	(E)	ADD KICKPLATE
1803-B	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	NA	ADD KICKPLATE
1804-B	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	(E)	NA	(E)	
1805-C	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	(E)	ADD KICKPLATE
1805-D	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	(E)	NA	NA	
1806-B	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	(E)	ADD KICKPLATE
1806-C	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	(E)	ADD KICKPLATE
1806-D	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	(E)	NA	(E)	
1812-B	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	NA	ADD KICKPLATE
1812-D	60 (E)	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	(E)	NA	NA	
1812C-A	NA	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	(E)	•	(E)	
1816-A	60 (E)	3'-0"	7'-0"	(E)	(E)	(E)	(E)	(E)	PNT	22	NA	NA	ADD KICKPLATE

EXTERIOR DOOR SCHEDULE

NUMBER	FIRE RATING (MINUTES)	SIZE		DOOR			FRAME			HARDWARE		GLASS TYPE	SPECIAL NOTES AND COMMENTS
		WIDTH	HEIGHT	ELEVATION	MATERIAL	FINISH	ELEVATION	MATERIAL	FINISH	HARDWARE SET	PANIC HARDWARE		
LEVEL 1													
1801-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	NA	(E)	
1802-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	•	(E)	
1804-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	NA	(E)	
1805-B	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	•	(E)	
1806-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	•	(E)	
1807-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	•	(E)	
1808-A	NA	3'-0"	7'-0"	N	HM	PNT	(E)	(E)	PNT	02	•	IGL-1	ADD PANIC HARDWARE
1809-A	NA	3'-11"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	(E)	•	(E)	
1812-A	NA	3'-0"	7'-0"	(E)	(E)	PNT	(E)	(E)	PNT	01	•	(E)	REPLACE DOOR BOTTOM, ADD KICKPLATE

DOOR TYPES



ABBREVIATIONS

ABBREVIATIONS USED IN THE "OPENING MATERIAL" AND "FRAME MATERIAL" COLUMNS IN THE SCHEDULE

HM	HOLLOW METAL
(E)	EXISTING
NA	NOT APPLICABLE

ABBREVIATIONS USED IN THE "DOOR FINISH", "FRAME FINISH", AND "HARDWARE" COLUMNS IN THE SCHEDULE

NA	NOT APPLICABLE
PNT	PAINT
•	PANIC HARDWARE INDICATED

GLASS TYPE

IGL-1	EXTERIOR INSULATED GLAZING UNIT, CLEAR GLASS.

* SAFETY GLAZING ARE TO BE PROVIDED IN ALL LOCATIONS INDICATED AS PER CBC SECTION 2406.

SEE AI1.1 INTERIOR FINISH SCHEDULE FOR IGL-1, IGL-2, IGL-3.

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES



SHEET TITLE

BUILDING 1800 - DOOR AND WINDOW SCHEDULE

14794

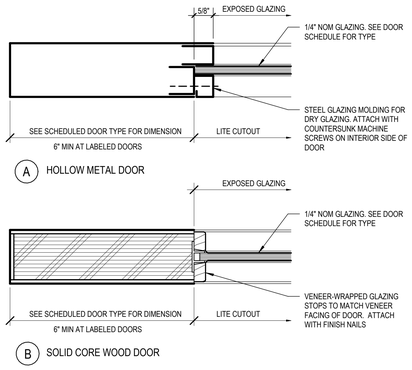
PROJECT NUMBER

CD

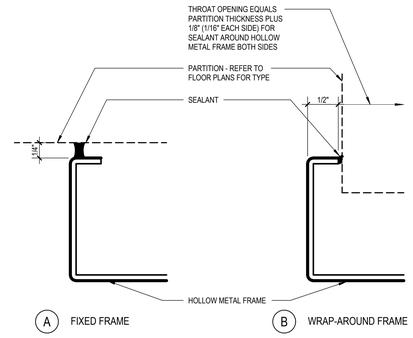
A9.3.2

SHEET NUMBER

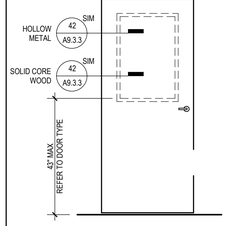
Plot Date: 7/23/2025 5:37:21 PM START Sheet



42 INTERIOR DOOR GLAZING DETAILS
SCALE: 6" = 1'-0"
TYPICAL WHERE SCHEDULED



26 HOLLOW METAL FRAME EDGE
SCALE: 1 : 1
TYPICAL CONDITIONS



1. DOORS WITH 3/4 HR LABELS: THE TOTAL AREA OF EXPOSED GLAZING IN ANY LEAF SHALL NOT EXCEED 1296 SQUARE INCHES. THE MAX WIDTH OF EXPOSED GLAZING IN ANY LITE SHALL NOT EXCEED 30 INCHES. THE MAX HEIGHT OF EXPOSED GLAZING SHALL NOT EXCEED 54 INCHES.
2. DOORS WITH 1 OR 1-1/2 HOUR LABELS: THE TOTAL AREA OF EXPOSED GLAZING IN ANY LEAF SHALL NOT EXCEED 100 SQUARE INCHES. THE MIN DIMENSION OF EXPOSED GLAZING IN ANY LITE SHALL NOT BE LESS THAN 4 INCHES.
3. LITE CUTOUTS SHALL BE NO CLOSER THAN 6 INCHES TO ANY EDGE OF THE DOOR OR THE EDGE OF ANY HARDWARE CUTOUT.
4. WHERE MULTIPLE LITES OCCUR, EACH LITE CUTOUT SHALL BE SEPARATED BY 6" OR GREATER
5. BOTTOM OF VISION PANEL TO BE NOT GREATER THAN 43 INCHES AFF.

SEE SPECIFIC DOOR TYPE FOR ADDITIONAL INFORMATION

10 TYPICAL WOOD AND HOLLOW METAL DOOR LITE DETAILS AND NOTES
SCALE: 1/2" = 1'-0"

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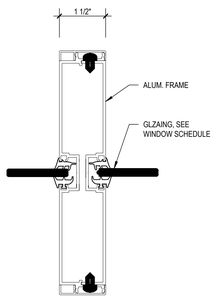
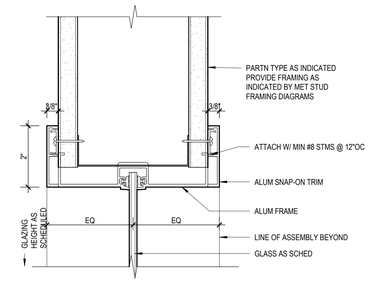
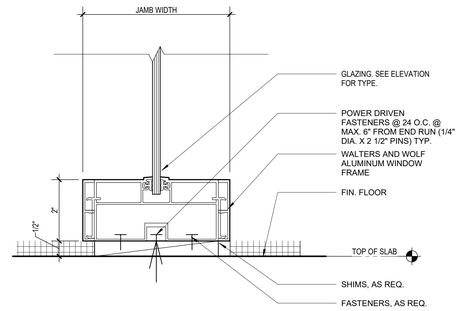


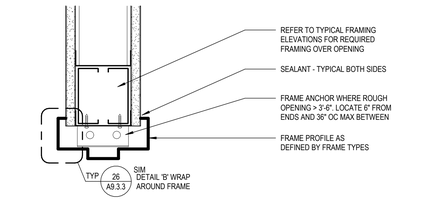
58 INTERMEDIATE VERTICAL MULLION
SCALE: 6" = 1'-0"



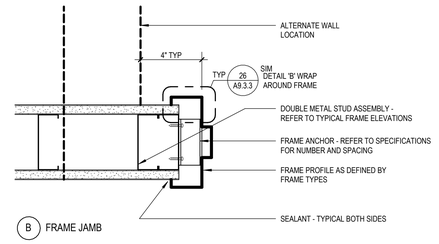
45 AL FRAME DETAIL @ GLASS
SCALE: 6" = 1'-0"



29 ALUMINUM SILL AT FLOOR
SCALE: 6" = 1'-0"

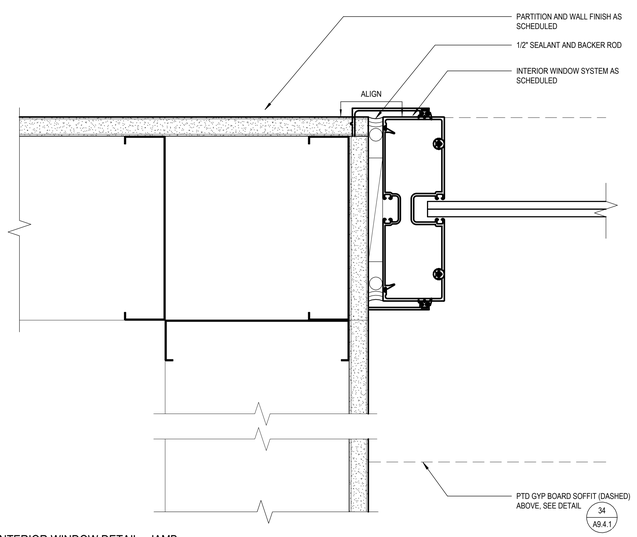


A FRAME HEAD

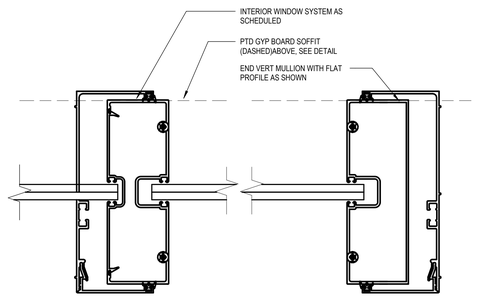


B FRAME JAMB

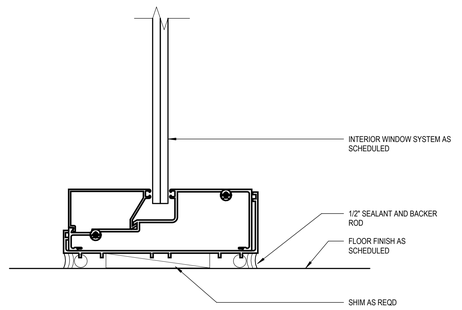
13 TYPICAL INTERIOR OPENING - WRAP-AROUND HOLLOW METAL FRAME
SCALE: 3" = 1'-0"
AT METAL STUD PARTITION



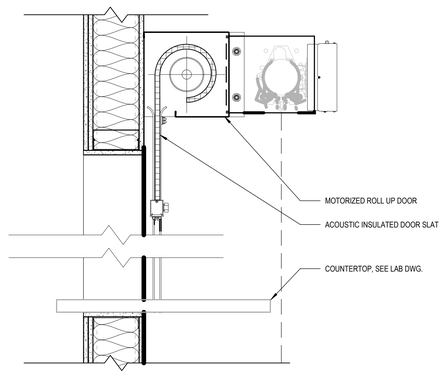
72 INTERIOR WINDOW DETAIL - JAMB
SCALE: 6" = 1'-0"



48 INTERIOR WINDOW DETAIL - INTERMEDIA AND OPEN END
SCALE: 6" = 1'-0"



32 INTERIOR WINDOW DETAIL - SILL
SCALE: 6" = 1'-0"



16 SECTION DETAIL - ROLL UP DOOR
SCALE: 1 1/2" = 1'-0"

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

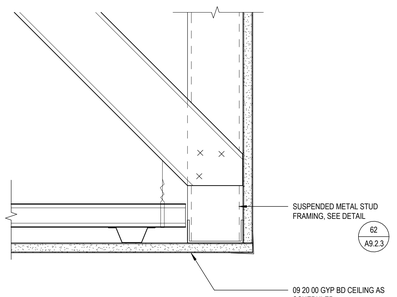


SHEET TITLE
BUILDING 1500 - INTERIOR OPENING DETAILS

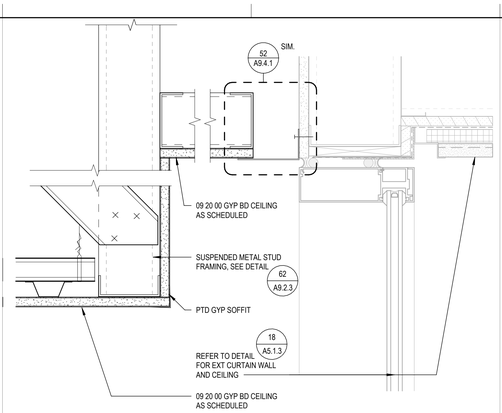
14794
PROJECT NUMBER

CD **A9.3.3**
SHEET NUMBER

Plot Date: 8/23/2025 5:44:51 PM START Sheet



66 GYP BOARD CEILING AND GYP BOARD SOFFIT
SCALE: 3" = 1'-0"



50 GYP BOARD CEILING TO GYP BOARD CEILING
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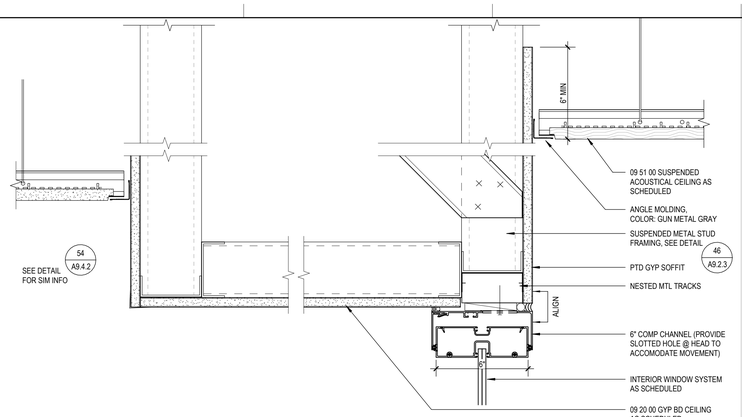
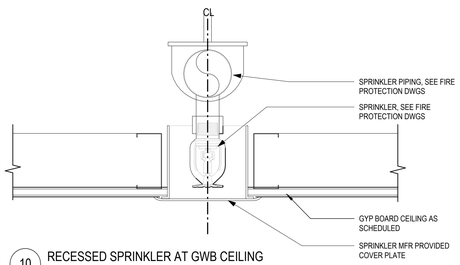
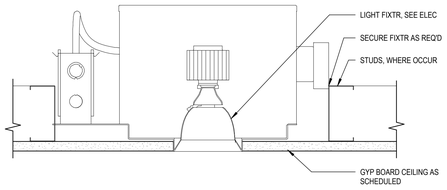


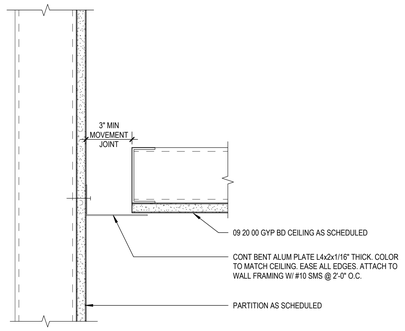
34 GYP BOARD SOFFIT AT INTERIOR WINDOW
SCALE: 3" = 1'-0"



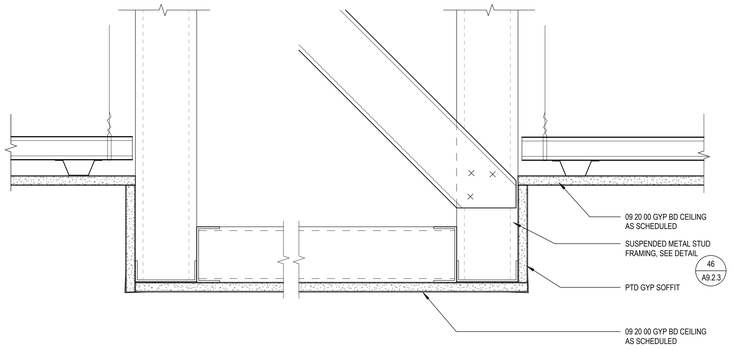
10 RECESSED SPRINKLER AT GWB CEILING
SCALE: 3" = 1'-0"



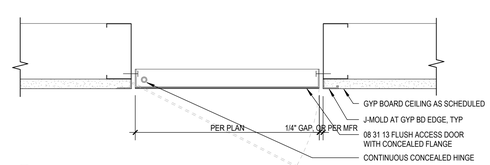
11 RECESSED FIXTURE AT GWB CEILING
SCALE: 3" = 1'-0"



52 TYP MOVEMENT JOINT AT GYP BOARD SOFFIT
SCALE: 3" = 1'-0"



36 GYP BOARD CEILING TO GYP BOARD SOFFIT
SCALE: 3" = 1'-0"



12 TYP FLUSH ACCESS DOOR AT GYP BOARD CEILING
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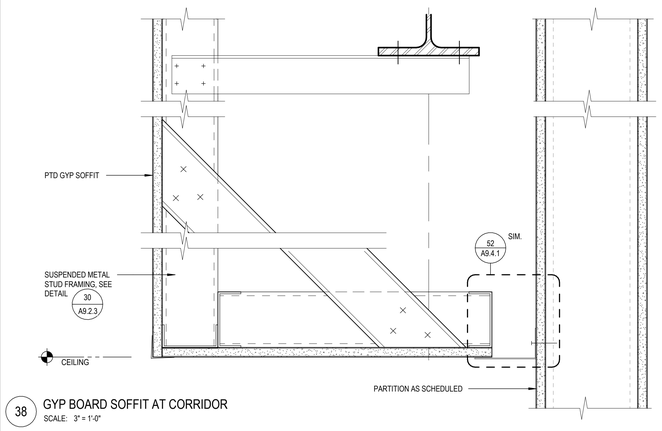

38 GYP BOARD SOFFIT AT CORRIDOR
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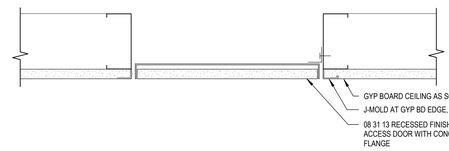

13 TYP FINISH INFILL ACCESS DOOR AT GYP BOARD CEILING
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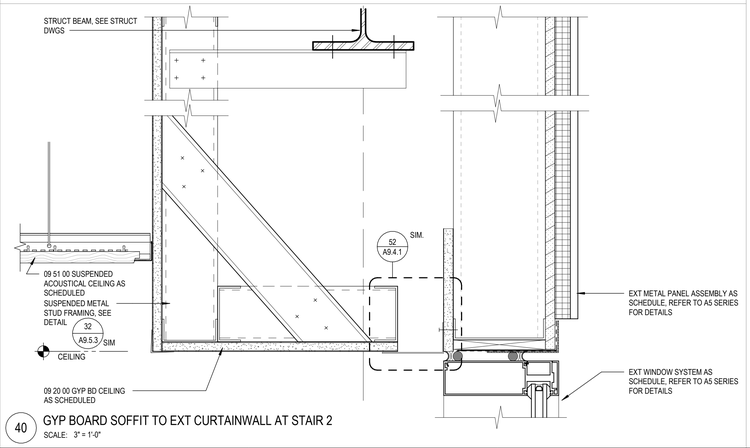

40 GYP BOARD SOFFIT TO EXT CURTAINWALL AT STAIR 2
SCALE: 3" = 1'-0"

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STEAM BUILDING PROJECT

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LIVERMORE, CA 94551

SMITHGROUP

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SAN FRANCISCO, CA 94111
415.227.0100
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

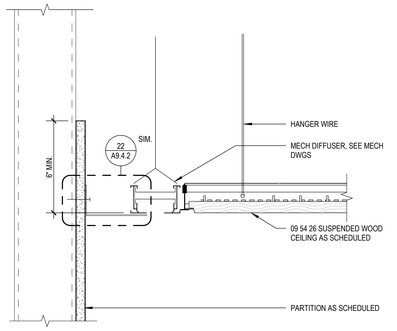
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
CEILING DETAILS

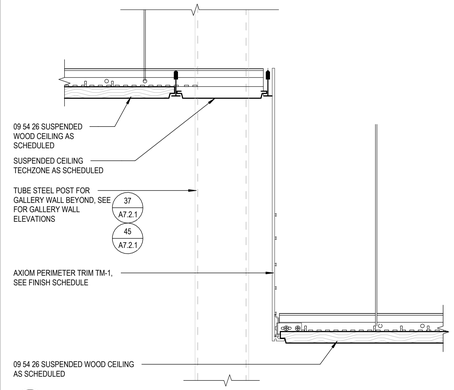
14794
PROJECT NUMBER

CD
A9.4.1
SHEET NUMBER

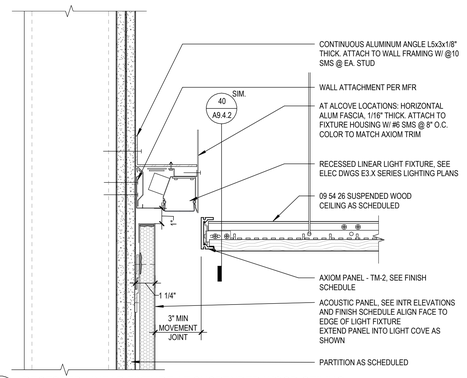
Author
8/23/2025 5:44:53 PM
Plot Date:



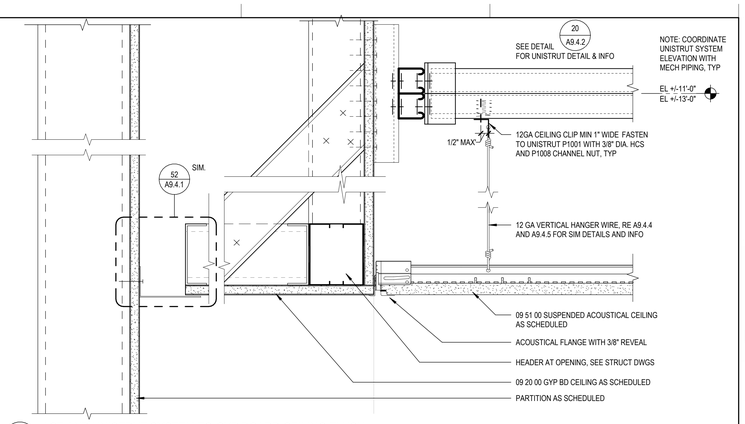
66 SUSPENDED WOOD CEILING AT SLOT DIFFUSER
SCALE: 3" = 1'-0"



50 ACT TO ACT & TECHZONE AT GALLERY WALL
SCALE: 3" = 1'-0"



34 RECESSED LINEAR FIXTURE AT SUSPENDED WOOD CEILING
SCALE: 3" = 1'-0"



18 ACT AND UNISTRUT SYSTEM TO GYP BOARD CEILING FLUSH
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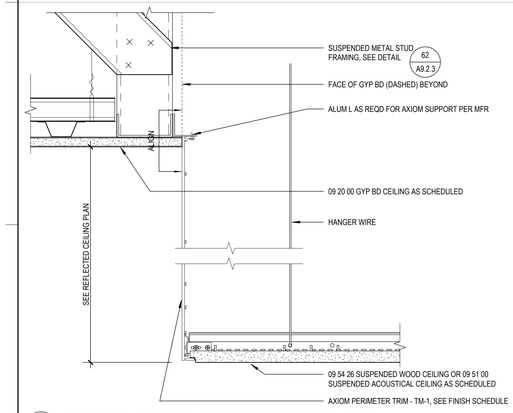
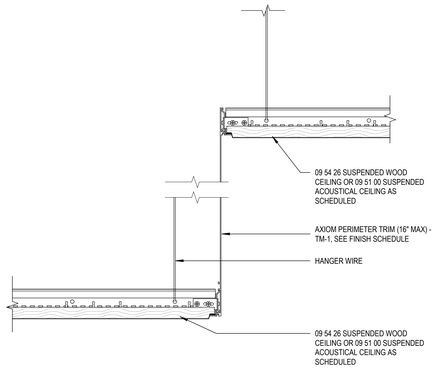
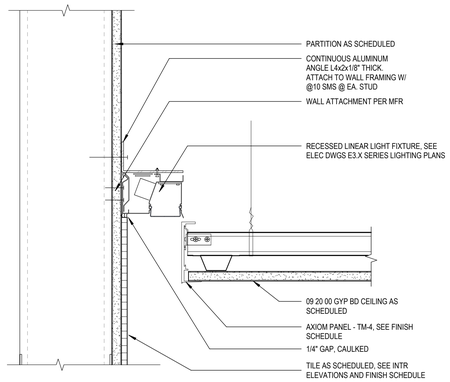


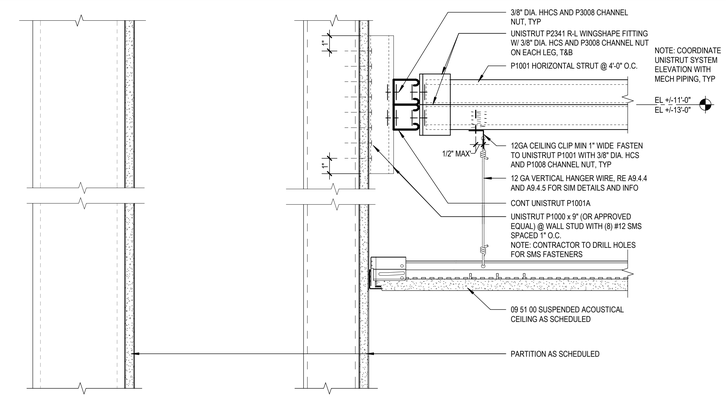
68 SUSPENDED CEILING TO GYP BOARD CEILING WITH AXIOM
SCALE: 3" = 1'-0"



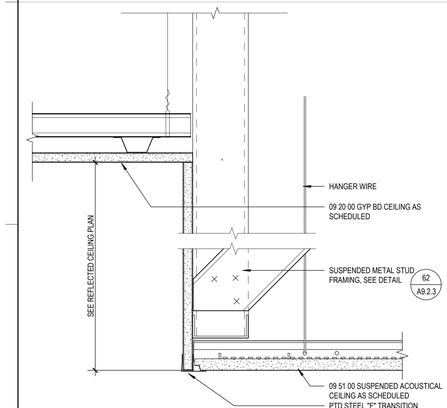
52 SUSPENDED CEILING TO SUSPENDED CEILING WITH TALL AXIOM
SCALE: 3" = 1'-0"



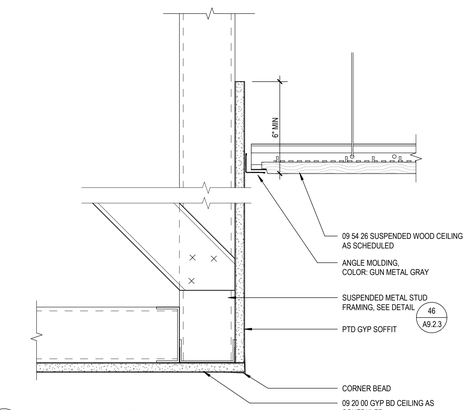
36 RECESSED LINEAR FIXTURE IN RESTROOM
SCALE: 3" = 1'-0"



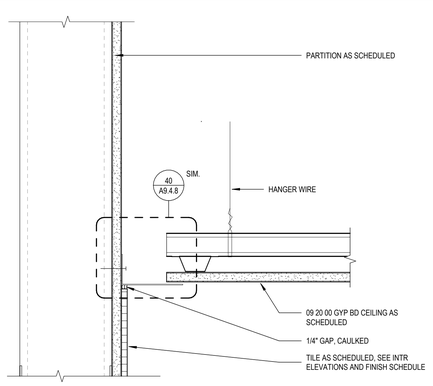
20 ACT AND UNISTRUT SYSTEM
SCALE: 3" = 1'-0"



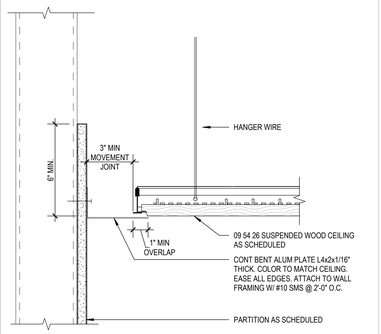
70 GYP BOARD SOFFIT TO ACT CEILING
SCALE: 3" = 1'-0"



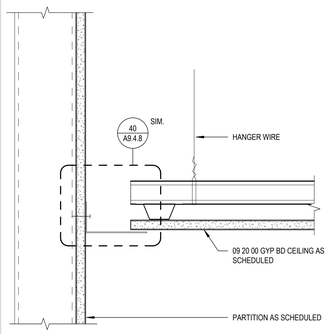
54 GYP BOARD BULKHEAD TO SUSPENDED WOOD CEILING
SCALE: 3" = 1'-0"



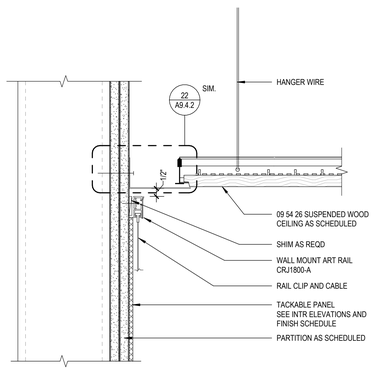
38 GYP BD CEILING AT MOVEMENT JOINT IN RESTROOM
SCALE: 3" = 1'-0"



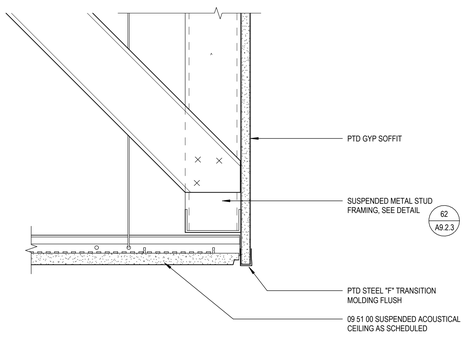
22 TYP MOVEMENT JOINT AT SUSPENDED WOOD CEILING
SCALE: 3" = 1'-0"



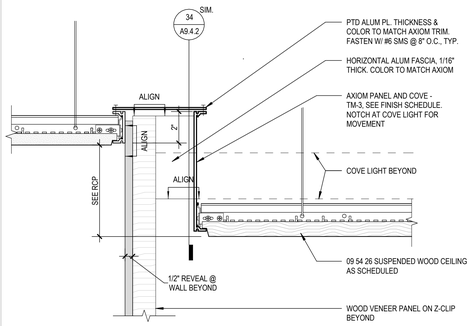
14 GYP BD CEILING AT MOVEMENT JOINT
SCALE: 3" = 1'-0"



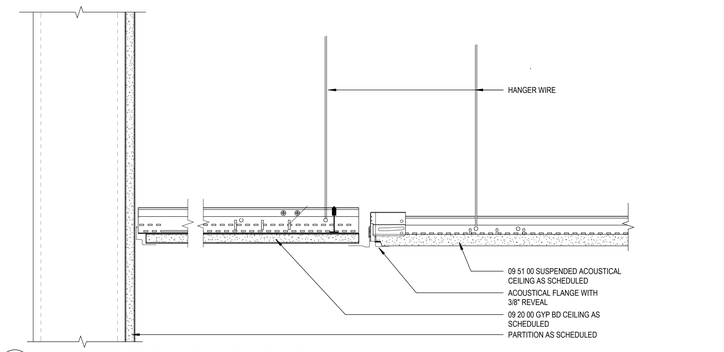
72 ART SUSPENSION AT CEILING
SCALE: 3" = 1'-0"



56 ACT CEILING AND GYP BOARD SOFFIT
SCALE: 3" = 1'-0"



40 ACT TO SUSPENDED WOOD CEILING TRANSITION WITH RECESS AT NOOK
SCALE: 3" = 1'-0"



24 ACT TO GYP BOARD CEILING FLUSH ON METAL GRID
SCALE: 3" = 1'-0"

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
CEILING DETAILS

PROJECT NUMBER 14794

CD

SHEET NUMBER **A9.4.2**

START Sheet
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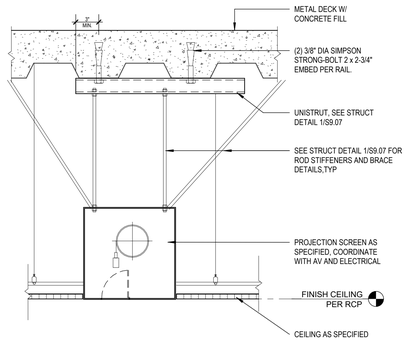
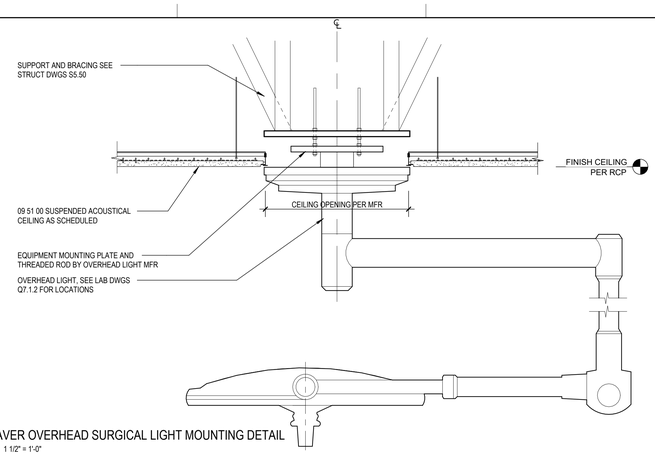
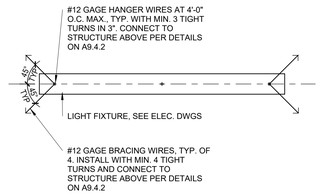
Plot Date:



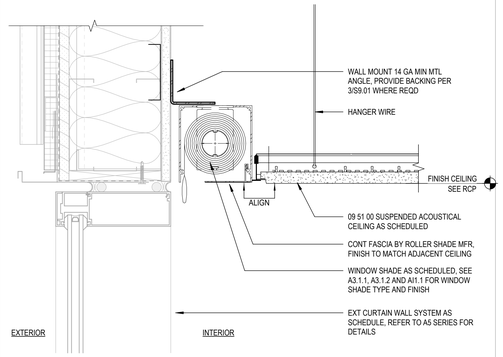
50 PROJECTION SCREEN IN ACT CEILING
SCALE: 1 1/2" = 1'-0"



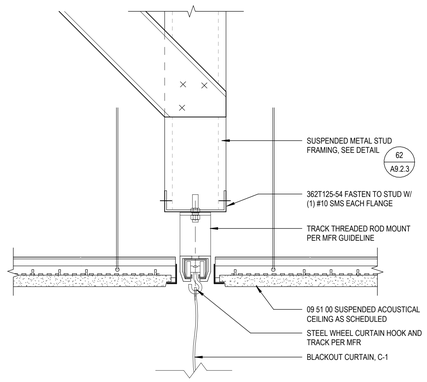
18 CADAVER OVERHEAD SURGICAL LIGHT MOUNTING DETAIL
SCALE: 1 1/2" = 1'-0"



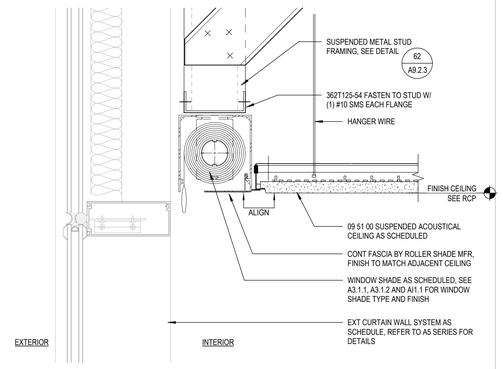
52 LIGHT FIXTURE SUPPORT PLAN DETAIL 2
SCALE: 1" = 1'-0"



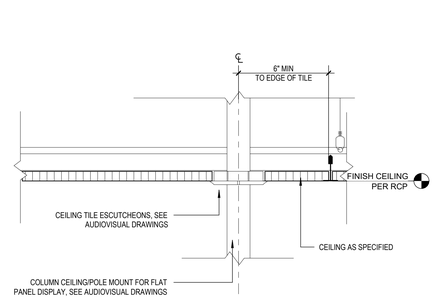
36 ROLLER WINDOW SHADE AT EXTERIOR WALL - WALL MOUNT
SCALE: 3" = 1'-0"



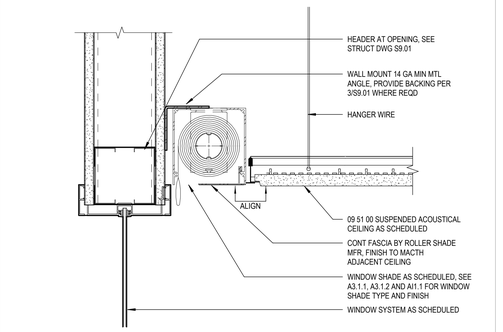
54 BLACKOUT CURTAIN TRACK
SCALE: 3" = 1'-0"



38 ROLLER WINDOW SHADE AT EXTERIOR GLAZING WALL - CEILING MOUNT
SCALE: 3" = 1'-0"



56 CEILING TILE ESCUTCHEON
SCALE: 3" = 1'-0"



40 ROLLER WINDOW SHADE AT INTERIOR WALL
SCALE: 3" = 1'-0"

Author
Plot Date: 8/23/2025 5:44:57 PM

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SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
CEILING DETAILS

PROJECT NUMBER
14794

CD
A9.4.3
SHEET NUMBER

1. CEILING SYSTEM GENERAL NOTES

1.01 Ceiling system components shall comply with ASTM C635 and Section 5.1 of ASTM E580.

1.02 The ceiling grid system shall be rated heavy duty as defined by ASTM C635.

1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project:

Manufacturer:	***[DP to specify]***
Product Name:	***[DP to specify]***
Evaluation Report Number:	***[DP to specify]***
Main Runner Part, Model, or Catalog Number:	***[DP to specify]***
Cross Runner Part, Model, or Catalog Number:	***[DP to specify]***

1.04 Seismic Wall Clip:
Manufacturer's Model: ***[DP to specify if used]***

1.05 Ceiling panels shall not support any luminaires, air terminals, or devices.

1.06 For acoustical tile panels of any material other than mineral or glass fiber, a ¾" clearance shall be provided between the panel and the wall on the sides of the ceiling free to slip. Clearance between ceiling grid runners and walls shall comply with the details on these drawings regardless of ceiling tile material.

2. MATERIALS

2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641. Wire shall be #12 gauge (0.106" diameter) with soft temper and minimum ultimate tensile strength = 70 ksi.

2.02 Galvanized sheet steel (including that used for metal stud compression struts) shall conform to ASTM A653, or other equivalent sheet steel listed in Section A3.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members, (AISI S100). Material 43 mil (18 gauge) thick and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gauge) thick and heavier shall have a minimum yield strength of 50 ksi.

2.03 Electrical metallic tube (EMT) shall conform to ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength of 30 ksi and minimum ultimate strength of 48 ksi.

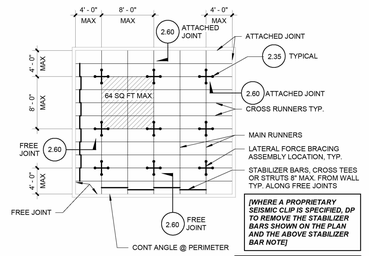
3. ATTACHMENT OF HANGER AND BRACING WIRES

3.01 All ceiling hanger and bracing wires shall be separated at least 6 inches from all unbraced ducts, pipes, conduit, etc.

3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to piping, ductwork, conduit, and equipment.

3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.

Detail Title:	REV: 09/21/2015	Detail No.
CEILING NOTES	REV: 03/2022	1.00
	REV: 11/2023	

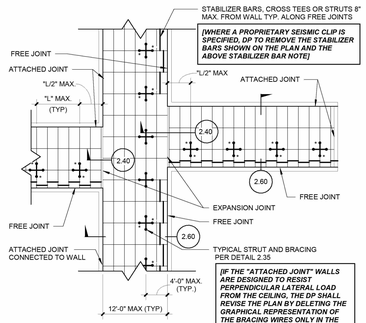


NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 64 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

[WHERE A PROPRIETARY SEISMIC CLIP IS SPECIFIED, DP TO REMOVE THE STABILIZER BARS SHOWN ON THE PLAN AND THE ABOVE STABILIZER BAR NOTE]

[WHERE BRACING ASSEMBLY SPACING CHANGES OVER THE HEIGHT OF THE BUILDING, DP SHALL INDICATE THE REQUIRED SPACING AT EACH LEVEL ON THE REFLECTED CEILING PLANS.]

Detail Title :	REV: 09/21/2015	Detail No.
TYP. CEILING PLAN FOR 8'-0"x8'-0" BRACE ASSEMBLY SPACING	REV: 03/2022	2.10



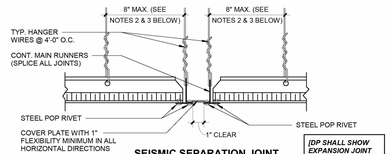
NOTE:
"L" IS MAX. BRACE ASSEMBLY SPACING PER CEILING PLAN DETAIL. FOR EXAMPLE, WHERE 8' x 12' SPACING IS SPECIFIED, USE "L" = 8'.

[IF THE "ATTACHED JOINT" WALLS ARE DESIGNED TO RESIST PERPENDICULAR LATERAL LOAD FROM THE CEILING, THE DP SHALL REVISE THE PLAN BY DELETING THE GRAPHICAL REPRESENTATION OF THE BRACING WIRES ONLY IN THE DIRECTION PERPENDICULAR TO THE CORRIDOR WALLS AS MARKED WITH AN ASTERISK (*). AT THE LOCATION NOTES HERE THE RESULTING SYMBOL WOULD APPEAR THUS:]

[DP SHALL SHOW EXPANSION JOINT LOCATIONS ON THE PROJECT-SPECIFIC REFLECTED CEILING PLANS.]

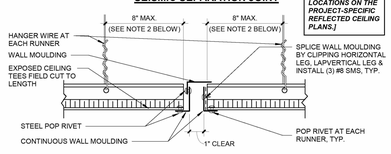
[IN ALL CASES THE DP SHALL REVISE THIS PLAN BY DELETING THE ASTERISK (*).]

Detail Title :	REV: 09/21/2015	Detail No.
CORRIDOR CEILING PLAN (SCHOOL BUILDING)	REV: 03/2022	2.30



SEISMIC SEPARATION JOINT

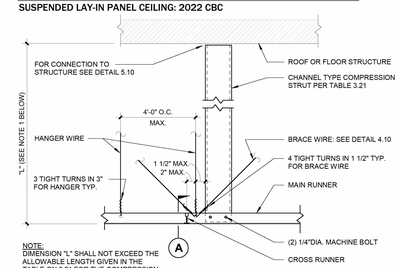
[DP SHALL SHOW EXPANSION JOINT LOCATIONS ON THE PROJECT-SPECIFIC REFLECTED CEILING PLANS.]



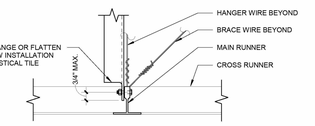
ALTERNATE SEISMIC SEPARATION JOINT

NOTES:
1. DETAILS APPLIES TO SEISMIC SEPARATION JOINT AT CONTINUOUS CEILING AREAS EXCEEDING 2500 SQ. FT. SEE CEILING PLANS FOR LOCATION.
2. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA.
3. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

Detail Title :	REV: 09/21/2015	Detail No.
SEISMIC SEPARATION JOINT	REV: 03/2022	2.45



NOTE:
DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3.21 FOR THE COMPRESSION STRUT SECTION USED.



Detail Title :	REV: 09/21/2015	Detail No.
COMPRESSION STRUT - CHANNEL TYPE	REV: 03/2022	3.10
	REV: 11/2023	

3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.

3.05 Hanger and bracing wire anchorage to the structure shall be installed such that the direction of the anchorage aligns with the direction of the wire. Bracing wire ceiling clips shall be bent as shown in the details and rotated as required to align with the direction of the wire. Screws in wood shall be installed to align with the direction of the wire.

4. FASTENERS AND WELDING

4.01 Sheet metal screws shall comply with ASTM C1513 and ASME B18.6.3. Penetration of screws through joined material shall not be less than three exposed threads.

4.02 Expansion anchors shall be: ***[DP to specify manufacturer, product, evaluation report number, and test load for each size specified per CBC 1910A.5.4.]***

4.03 Power-Actuated Fasteners shall be: ***[DP to specify manufacturer, product, evaluation report number.]***

4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.

4.05 Power-actuated fasteners in concrete or masonry are not permitted for bracing wires.

4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post-installed anchors.

4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING

5.01 All field testing shall be performed in the presence of the project inspector.

5.02 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power-actuated fasteners in concrete shall be field tested for 200 pounds in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1910A.5.

5.03 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent and in accordance with CBC Section 1910A.5.

6. LUMINAIRES

6.01 All luminaires shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the luminaire. A minimum of two screws or approved fasteners are required at each luminaire per ASTM E580 Section 5.3.1.

6.02 Surface-mounted luminaires shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14 gauge. Rotational spring catches are not permitted. A #12 gauge slack safety wire shall be connected from each clamping device to the structure above. Additional supports shall be provided when a luminaire is 8 feet or longer or exceeds 56 pounds. Maximum spacing between supports shall not exceed 8 feet.

Detail Title:	REV: 09/21/2015	Detail No.
CEILING NOTES	REV: 03/2022	1.00
	REV: 11/2023	

NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 96 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

[WHERE A PROPRIETARY SEISMIC CLIP IS SPECIFED, DP TO REMOVE THE STABILIZER BARS SHOWN ON THE PLAN AND THE ABOVE STABILIZER BAR NOTE]

[WHERE BRACING ASSEMBLY SPACING CHANGES OVER THE HEIGHT OF THE BUILDING, DP SHALL INDICATE THE REQUIRED SPACING AT EACH LEVEL ON THE REFLECTED CEILING PLANS.]

Detail Title :	REV: 09/21/2015	Detail No.
TYP. CEILING PLAN FOR 8'-0"x12'-0" BRACE ASSEMBLY SPACING	REV: 03/2022	2.11

NOTES:
1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.

[WHERE A PROPRIETARY LATERAL BRACING ASSEMBLY IS SPECIFIED, DP SHALL PROVIDE DETAILS AND SPECIFICATIONS FOR THE INSTALLATION OF THE ENTIRE ASSEMBLY INCLUDING SPACING, APPROVED GRID MANUFACTURER(S), ATTACHMENT TO THE CEILING GRID, BRACING MEMBER SIZES, ATTACHMENT TO THE FLOOR AND ROOF STRUCTURE, ETC.]

Detail Title :	REV: 09/21/2015	Detail No.
SUSPENSION AND LATERAL BRACING ASSEMBLY	REV: 03/10/2017	2.35
	REV: 03/2022	

ATTACHED JOINT

NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STABILIZERS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. STABILIZER BAR MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. FASTEN ANGLE TO WALL STUD OR BLOCKING AS FOLLOWS:
   A. METAL STUD (20 GA. MIN.) WALL: (1) #10 SMS AT 24" O.C. MAX.
   B. WOOD STUD WALL: #10x2" LONG WOOD SCREW AT 16" O.C. MAX.

STABILIZER (SEE NOTE 3)

[WHERE PROPRIETARY CLIPS ARE SPECIFIED, DP SHALL REVISE THIS DETAIL ACCORDINGLY, WHICH INCLUDES REMOVING ALL REFERENCES TO STABILIZERS. DP SHALL PROVIDE PRODUCT SPECIFIC INFORMATION INCLUDING SMALLER WALL ANGLE (IF APPLICABLE), ATTACHMENT OF THE CLIP TO THE RUNNERS AT THE ATTACHED AND FREE JOINTS, ATTACHMENT OF THE CLIP TO THE WALL ANGLE, AND CLEARANCE OF THE RUNNER TO WALL ANGLE AT THE FREE END.]

FREE JOINT

Detail Title :	REV: 09/21/2015	Detail No.
CEILING PERIMETER	REV: 03/10/2017	2.60
	REV: 03/2022	

OPTION 1 (HANGER WIRE THRU STRUT, SEE NOTE 2)
OPTION 3
OPTION 2 FOR INFO NOT SHOWN OR NOTED, SEE OPTION 1

NOTES:
1. MACHINE BOLT IS NOT REQUIRED ON OPTION 3.
2. OPTION 3 IS PERMITTED ONLY WHERE THE ROOF OR FLOOR STRUCTURE IS SAWN TIMBER WITHOUT GYPSUM BOARD.
3. DIMENSION "L" SHALL NOT TO EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3.21 FOR THE COMPRESSION STRUT USED.

Detail Title :	REV: 09/21/2015	Detail No.
COMPRESSION STRUT - EMT TYPE	REV: 03/2022	3.20
	REV: 11/2023	

6.03 Luminaires weighing less than or equal to 10 pounds supported directly on the ceiling runners shall have a minimum of one #12 gauge slack safety wire connected from the fixture housing to the structure above.

6.04 Luminaires weighing greater than 10 pounds but less than or equal to 56 pounds supported directly on the ceiling runners shall have a minimum of two #12 gauge slack safety wires connected from the fixture housing at diagonal corners to the structure above.

Exception: All luminaires greater than two by four feet weighing less than 56 pounds shall have a #12 gauge slack safety wire at each corner.

6.05 All luminaires weighing greater than 56 pounds shall be independently supported from the structure above. See support details on these drawings for more information.

7. SERVICES WITHIN THE CEILING

7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals, or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or other fasteners specified on the drawings are required. A minimum of two attachments are required at each component.

7.02 Ceiling-mounted services weighing less than or equal to 20 pounds shall have one #12 gauge slack safety wire attached from the terminal or service to the structure above.

7.03 Ceiling-mounted services weighing more than 20 pounds but less than or equal to 56 pounds shall have two #12 gauge slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.

7.04 Ceiling-mounted services weighing more than 56 pounds shall be independently supported from the structure above. See support details on these drawings for more information.

8. OTHER DEVICES WITHIN THE CEILING

8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. Devices weighing more than 10 pounds shall have a #12 gauge slack safety wire anchored to the structure above. Devices weighing more than 20 pounds shall be independently supported from the structure above.

Detail Title:	REV: 09/21/2015	Detail No.
CEILING NOTES	REV: 03/2022	1.00
	REV: 11/2023	

NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

[WHERE A PROPRIETARY SEISMIC CLIP IS SPECIFIED, DP TO REMOVE THE STABILIZER BARS SHOWN ON THE PLAN AND THE ABOVE STABILIZER BAR NOTE]

[WHERE BRACING ASSEMBLY SPACING CHANGES OVER THE HEIGHT OF THE BUILDING, DP SHALL INDICATE THE REQUIRED SPACING AT EACH LEVEL ON THE REFLECTED CEILING PLANS.]

Detail Title :	REV: 09/21/2015	Detail No.
TYP. CEILING PLAN FOR 12'-0"x12'-0" BRACE ASSEMBLY SPACING	REV: 03/2022	2.12

EXPANSION JOINT

[DP SHALL SHOW EXPANSION JOINT LOCATIONS ON THE PROJECT-SPECIFIC REFLECTED CEILING PLANS.]

EXPANSION JOINT ALTERNATE

NOTES:
1. DETAIL APPLIES TO EXPANSION JOINTS AT THE INTERSECTION OF CORRIDORS AND AT THE JUNCTIONS OF CORRIDORS AT LOBBIES AND OTHER SIMILAR AREAS.
2. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA.
3. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

Detail Title :	REV: 09/21/2015	Detail No.
EXPANSION JOINT (SCHOOL BUILDING)	REV: 03/2022	2.40

Detail Title :	REV: 09/21/2015	Detail No.
LUMINAIRE / AIR TERMINAL SUPPORT	REV: 02/10/2016	2.80
	REV: 03/2022	

COMPRESSION STRUT EMT SECTION	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3' - 11"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	6' - 4"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9' - 9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12' - 9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14' - 9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18' - 10"

COMPRESSION STRUT CHANNEL SECTION	MAXIMUM LENGTH
250S125-33	5' - 10"
250S137-33	6' - 10"
362S137-33	8' - 0"
250S137-43	8' - 10"
400S137-43	10' - 10"

Detail Title :	REV: 09/21/2015	Detail No.
COMPRESSION STRUT TABLE	REV: 03/10/2017	3.21
	REV: 03/2022	

Author

8/23/2025 5:45:02 PM

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

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301 BATTERY STREET
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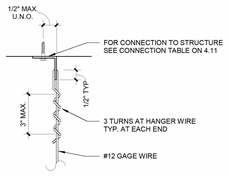
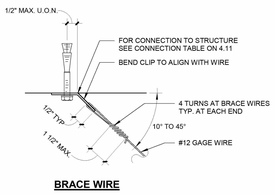
ISSUED FOR	REV NO.	DATE



HANGER WIRE

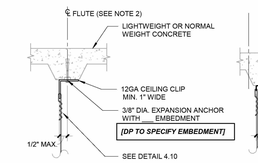


BRACE WIRE

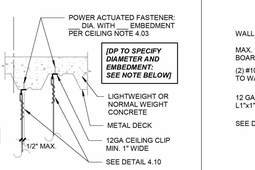
Detail Title :	REV: 09/21/2015	Detail No.
HANGER AND BRACE WIRE CONNECTION - TYP. WIRE TURNS	REV: 03/2022	4.10

STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE HANGER WIRE DETAIL	APPLICABLE BRACE WIRE DETAIL
BARE METAL DECK	4.20	*[TO BE PROVIDED BY DP]*
CONCRETE OVER METAL DECK	4.21	4.31
CONCRETE SLAB, BEAM, OR JOIST	4.22	4.32
STRUCTURAL STEEL	4.23	4.33
METAL STUD WALL	4.24	4.34
~~SAWN TIMBER~~	~~1.25 & 1.30~~	~~1.35~~
~~WOOD I-JOIST~~	~~1.26~~	~~1.35 & 1.37~~
~~WOOD CHORD TRUSS~~	~~1.27 & 1.30~~	~~1.35 & 1.39~~
~~OPEN WEB STEEL JOIST~~	~~1.28 & 1.30~~	~~1.35 & 1.39~~

Detail Title :	REV: 09/21/2015	Detail No.
HANGER AND BRACE WIRE CONNECTION TABLE	REV: 03/2022	4.11
	REV: 11/2023	



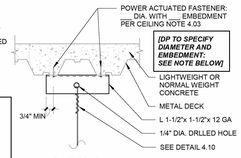
OPTION 1



OPTION 2

NOTES:
1. REFER TO DETAIL S4.10 FOR ADDITIONAL INFORMATION.
2. POST INSTALLED ANCHORS TO BE PLACED NO MORE THAN 1" OFFSET FROM CENTERLINE OF DECK LOW FLUTE.
3. TEST POST-INSTALLED ANCHORS IN ACCORDANCE WITH CEILING NOTES 5.01 AND 5.02.

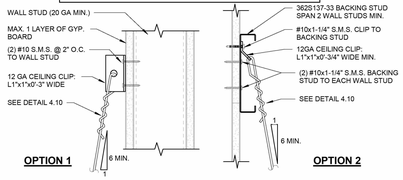
[DP TO SPECIFY ALL OF THE FOLLOWING FOR POWER ACTUATED FASTENERS:
- DIAMETER (0.145" MINIMUM)
- EMBEDMENT (1 1/4" MINIMUM)
AN EMBEDMENT DEPTH LESS THAN 1-1/4" CAN BE PERMITTED IF BOTH OF THE FOLLOWING ARE MET:
1. LESSER EMBEDMENT APPROVED BY THE EVALUATION REPORT.
2. ANCHOR IS CAPABLE OF RESISTING A 90 LB ALLOWABLE LOAD WHEN TESTED PER ASTM E3090 AS REQUIRED BY ASTM E380 SECTION 5.2.7.]



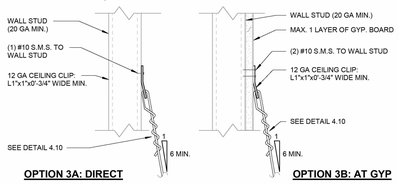
OPTION 3

Detail Title :	REV: 09/21/2015	Detail No.
HANGER WIRE CONNECTION TO CONCRETE OVER METAL DECK	REV: 03/2022	4.21
	REV: 11/2023	

[DP MAY MODIFY THIS DETAIL FOR WOOD STUD WALLS BY REPLACING THE FASTENERS TO THE STUDS WITH No. 10 x 3" LONG WOOD SCREWS.]



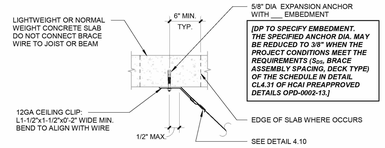
OPTION 1 **OPTION 2**



OPTION 3A: DIRECT **OPTION 3B: AT GYP**

NOTE:
THIS DETAIL APPLIES AT PERIMETER WIRE ATTACHMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO THE STRUCTURE ABOVE.

Detail Title :	REV: 09/21/2015	Detail No.
HANGER WIRE CONNECTION TO METAL STUD WALL	REV: 03/2022	4.24
	REV: 11/2023	

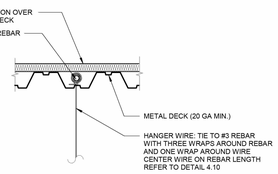


NOTES:
1. TEST POST-INSTALLED ANCHORS IN ACCORDANCE WITH CEILING NOTE 5.03.
2. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.
3. DSA APPROVAL OF A CONSTRUCTION PLAN IS REQUIRED PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PRESTRESSED CONCRETE. THE CONSTRUCTIN PLAN SHALL DEMONSTRATE HOW THE LOCATION OF PRESTRESSING TENDONS AND STRANDS WILL BE LOCATED AND DENOTED AS NECESSARY TO AVOID INTERFERENCE.

Detail Title :	REV: 09/21/2015	Detail No.
BRACE WIRE CONNECTION TO CONCRETE SLAB, BEAM, OR JOIST	REV: 03/2022	4.32
	REV: 11/2023	

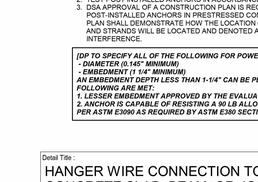
STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE DETAIL
BARE METAL DECK	5.20
CONCRETE OVER METAL DECK	5.21
CONCRETE SLAB, BEAM, OR JOIST	5.30
STRUCTURAL STEEL	5.40
~~SAWN TIMBER WITH GYPSUM BOARD~~	~~5.50~~
~~SAWN TIMBER WITHOUT GYPSUM BOARD~~	~~5.51~~
~~WOOD I-JOIST~~	~~5.52~~

Detail Title :	REV: 09/21/2015	Detail No.
COMPRESSION STRUT CONNECTION TABLE	REV: 03/2022	5.10

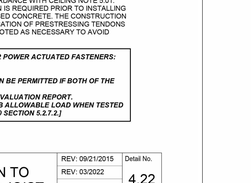


NOTES:
1. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.

Detail Title :	REV: 09/21/2015	Detail No.
HANGER WIRE CONNECTION TO METAL DECK	REV: 03/2022	4.20



OPTION 1



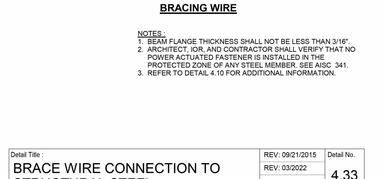
OPTION 2

NOTES:
1. REFER TO 4.10 FOR ADDITIONAL DETAILS.
2. TEST POST INSTALLED ANCHORS IN ACCORDANCE WITH CEILING NOTE 5.01.
3. DSA APPROVAL OF A CONSTRUCTION PLAN IS REQUIRED PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PRESTRESSED CONCRETE. THE CONSTRUCTION PLAN SHALL DEMONSTRATE HOW THE LOCATION OF PRESTRESSING TENDONS AND STRANDS WILL BE LOCATED AND DENOTED AS NECESSARY TO AVOID INTERFERENCE.

[DP TO SPECIFY ALL OF THE FOLLOWING FOR POWER ACTUATED FASTENERS:
- DIAMETER (0.145" MINIMUM)
- EMBEDMENT (1 1/4" MINIMUM)
AN EMBEDMENT DEPTH LESS THAN 1-1/4" CAN BE PERMITTED IF BOTH OF THE FOLLOWING ARE MET:
1. LESSER EMBEDMENT APPROVED BY THE EVALUATION REPORT.
2. ANCHOR IS CAPABLE OF RESISTING A 90 LB ALLOWABLE LOAD WHEN TESTED PER ASTM E3090 AS REQUIRED BY ASTM E380 SECTION 5.2.7.2.]

Detail Title :	REV: 09/21/2015	Detail No.
HANGER WIRE CONNECTION TO CONCRETE SLAB, BEAM, OR JOIST	REV: 03/2022	4.22

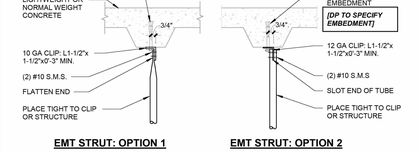
Detail Title :	REV: 09/21/2015	Detail No.
TYPICAL SADDLE TIE DETAIL	REV: 03/2022	4.29



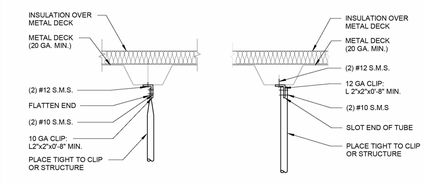
BRACING WIRE

NOTES:
1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, IOR, AND CONTRACTOR SHALL VERIFY THAT NO POWER ACTUATED FASTENER IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE AISC 341.
3. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.

Detail Title :	REV: 09/21/2015	Detail No.
BRACE WIRE CONNECTION TO STRUCTURAL STEEL	REV: 03/2022	4.33

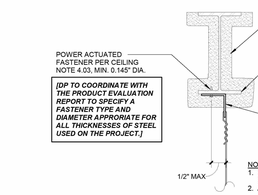


CHANNEL STRUT: OPTION 1 **CHANNEL STRUT: OPTION 2**



EMT STRUT: OPTION 1 **EMT STRUT: OPTION 2**

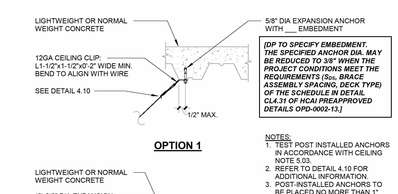
Detail Title :	REV: 09/21/2015	Detail No.
STRUT CONNECTION TO BARE METAL DECK	REV: 03/2022	5.20
	REV: 11/2023	



NOTES:
1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, IOR AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE AISC 341.
3. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.

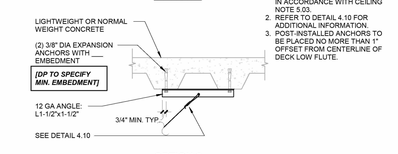
HANGER WIRE

Detail Title :	REV: 09/21/2015	Detail No.
HANGER WIRE CONNECTION TO STRUCTURAL STEEL	REV: 03/2022	4.23



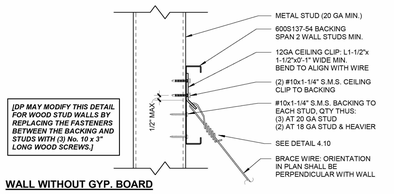
OPTION 1

NOTES:
1. TEST POST INSTALLED ANCHORS IN ACCORDANCE WITH CEILING NOTE 5.03.
2. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.
3. POST-INSTALLED ANCHORS TO BE PLACED NO MORE THAN 1" OFFSET FROM CENTERLINE OF DECK LOW FLUTE.

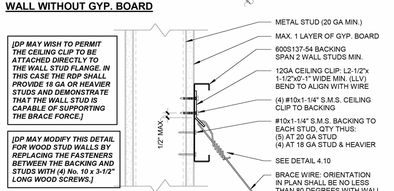


OPTION 2

Detail Title :	REV: 09/21/2015	Detail No.
BRACE WIRE CONNECTION TO CONCRETE OVER METAL DECK	REV: 03/2022	4.31
	REV: 11/2023	

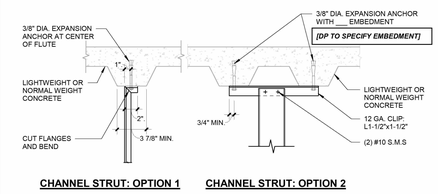


WALL WITHOUT GYP. BOARD



WALL WITH GYP. BOARD

Detail Title :	REV: 09/21/2015	Detail No.
BRACE WIRE CONNECTION TO METAL STUD WALL	REV: 03/10/2017	4.34
	REV: 03/2022	



CHANNEL STRUT: OPTION 1 **CHANNEL STRUT: OPTION 2**

EMT STRUT: OPTION 1 **EMT STRUT: OPTION 2**

Detail Title :	REV: 09/21/2015	Detail No.
STRUT CONNECTION TO CONCRETE OVER METAL DECK	REV: 03/2022	5.21
	REV: 11/2023	

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
DSA IR 25-2 CEILING DETAILS AND NOTES

14794

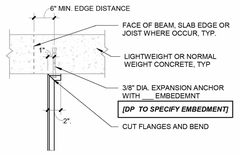
PROJECT NUMBER
CD

A9.4.5

SHEET NUMBER

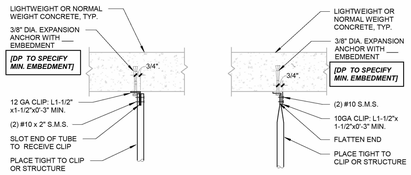
Author

Plot Date: 8/23/2025 5:45:06 PM



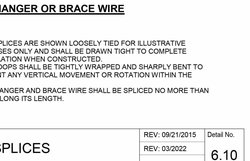
NOTE:
TEST POST INSTALLED ANCHORS IN ACCORDANCE WITH CEILING NOTE 5.01.

CHANNEL STRUT



EMT STRUT: OPTION 1 **EMT STRUT: OPTION 2**

Detail Title :	REV: 09/21/2015	Detail No.
STRUT CONNECTION TO CONCRETE SLAB, BEAM, OR JOIST	REV: 03/2022	5.30
	REV: 11/2023	



NOTES:
1. STRUCTURAL STEEL MEMBER SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO POWER ACTUATED FASTENER IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE AISC 341.

CHANNEL STRUT

EMT STRUT: OPTION 1 **EMT STRUT: OPTION 2**

[DP TO COORDINATE WITH THE PRODUCT EVALUATION REPORT TO SPECIFY A FASTENER TYPE AND DIAMETER APPROPRIATE FOR ALL THICKNESSES OF STEEL USED ON THE PROJECT.]

Detail Title :	REV: 09/21/2015	Detail No.
STRUT CONNECTION TO STRUCTURAL STEEL	REV: 03/2022	5.40
	REV: 11/2023	

HANGER WIRE ONLY

HANGER OR BRACE WIRE

NOTES:
1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.
2. WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION WITHIN THE LOOPS.
3. EACH HANGER AND BRACE WIRE SHALL BE SPLICED NO MORE THAN ONCE ALONG ITS LENGTH.

Detail Title :	REV: 09/21/2015	Detail No.
CEILING WIRE SPLICES	REV: 03/2022	6.10

Author
8/23/2025 5:45:10 PM
Plot Date:

DSA IR 25-3

SUSPENDED GYPSUM BOARD CEILING: 2022 CBC

Disciplines: Structural

History: Revised 08/25/23 Under 2022 CBC
Last Revised 08/24/21 Under 2019 CBC
Original Issue 09/01/99

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

PURPOSE

This Interpretation of Regulations (IR) establishes guidelines for prescriptive suspended gypsum board ceiling systems. The systems described herein represent accepted means of ceiling construction complying with the California Building Code (CBC). This IR does not preclude the use of other systems, including custom designed systems, when approved by DSA.

SCOPE

This IR is applicable to flat and level suspended gypsum board ceiling systems complying with the following limitations:

- Total ceiling weight shall not exceed 4 pounds per square foot (PSF) including luminaires, services, and devices.
- Ceiling shall consist of no more than one layer of gypsum board not exceeding 5/8 inch in thickness.
- Ceiling shall not be accessible.
- Ceiling shall not support building components other than luminaires, heating/ventilation/air conditioning (HVAC) terminals, flexible sprinkler hose fittings, or other lightweight devices such as strobe lights, occupancy sensors, exit signs, etc. as described herein.

Two basic prescriptive systems are established in this IR for incorporation by design professionals into their construction documents.

- T-Bar System: Refer to Section 2 below. This system is also commonly referred to as a "drywall grid system".
- Legacy System: Refer to Section 3 below.

These two systems are separate and distinct; the requirements and details of these systems cannot be mixed unless specifically noted herein.

This IR is not applicable to suspended lay-in panel ceilings, which are addressed in *IR 25-2: Suspended Lay-In Panel Ceiling*.

BACKGROUND

Suspended gypsum board ceilings are used to provide flat, monolithic, cost-efficient ceiling surfaces. Rather than support by traditional ceiling joists, suspended systems are supported by the floor or roof level above through regularly spaced wire hangers. Gypsum board materials and construction, including ceiling requirements, are addressed in CBC Sections 2506 and 2508, respectively. The design of suspended ceilings for seismic forces is governed by the American Society of Civil Engineers Standard 7 (ASCE 7): Minimum Design Loads and Associated Criteria for Buildings and Other Structures as modified by CBC Section 1617A.1.21.

1. GENERAL

1.1 Materials

Materials shall comply with CBC Section 2508 and applicable ASTM standards.

1.1.1 Gypsum board shall be either 1/2 inch or 5/8 inch in thickness.

1.1.2 Cold-formed steel (CFS) sections used in the legacy system or as compression struts in either system shall be identified by a product designation in accordance with American Iron and Steel Institute (AISI) S220, Section A5.3. CFS sections shall conform to ASTM A653 material, or other equivalent ASTM standard listed in AISI S100 Section A3.1 with a minimum yield strength as follows:

1.1.2.1 43 mil (#18 gauge) material and thinner: 33 kips per square inch (ksi).

1.1.2.2 54 mil (#16 gauge) material and thicker: 50 ksi.

1.1.3 Members and components used in the T-bar system shall comply with a product evaluation report per *IR A-5: Acceptance of Products, Materials, and Evaluation Reports* and Section 2.1 below. The evaluation report shall specifically qualify the system for use with gypsum board attached to the underside of the T-bar members.

1.1.4 Hanger and brace wires shall conform to American Society for Testing and Materials (ASTM) A641 and the material properties required by *IR 25-1: Maximum Allowable Load for Ceiling Wires*.

1.1.4.1 Hanger wires shall be #12 gauge (0.106-inch diameter) or larger. Turn of wire connections shall consist of a minimum of three turns within a 3-inch length. Loops shall be tightly wrapped and sharply bent to prevent any vertical movement or rotation of the member within the loops in accordance with ASTM E580 Section 5.2.7.2.

1.1.4.2 Brace wires shall be #12 gauge (0.106-inch diameter) or larger. Turn of wire connections shall consist of a minimum of four turns within a 1½-inch length.

1.1.5 Compression struts shall comply with one of the following. Compression struts are required as a component of lateral bracing assemblies per Section 4.2 below or whenever the code-prescribed seismic loads result in a net upward force on the ceiling.

1.1.5.1 Electrical metallic tubing (EMT) struts shall conform to the American National Standards Institute (ANSI) C80.3 or Underwriter Laboratories (UL) 797, fabricated of carbon steel with G90 galvanizing. EMT shall have minimum yield strength (F_y) of 30 ksi and minimum ultimate strength (F_u) of 48 ksi.

1.1.5.2 Galvanized CFS struts shall comply with Section 1.1.2 above.

1.1.6 Post-installed anchors (e.g., expansion anchors, screw anchors, power actuated fasteners, etc.) shall have a current evaluation report acceptable to DSA in accordance with IR A-5.

1.2 Ceiling Support Hangers

Suspended ceilings constructed in accordance with either Section 2 or Section 3 below require wire hangers as follows:

1.2.1 Hanger wire material, gauge, and turn of wire connections shall comply with Section 1.1.4 above.

1.2.2 Hanger wire shall be attached to main runners as defined in Section 2 or 3 below.

1.2.3 Hanger wire spacing shall not exceed 4 feet on center in both plan directions.

1.2.4 Hanger wire shall be located at the ends of all main and cross runners within 6 inches of the edge of the ceiling (i.e., wall or expansion/seismic joint) and within one-fourth (1/4) of the length of the end member, whichever is least. Perimeter wires are not required when the length of the end member is 6 inches or less.

1.2.5 Hanger wires shall not be out of plumb by more than 1:6 (horizontal to vertical) unless counter-sloping wires are provided in accordance with ASTM C1858 Figure 1. Counter-sloping wires are not allowed unless detailed on the DSA-approved construction documents.

1.2.6 Hanger wires shall be separated at least 6 inches from all unbraced components (e.g., ducts, pipes, conduit, etc.) above the ceiling.

1.2.7 Hanger wires shall be attached to the floor or roof structure above in accordance with ASTM C636. Sheets 4.20 through 4.29 provided in Appendix A of IR 25-2 show acceptable means of connecting hanger wires to the structure.

1.2.8 Where obstructions occur above the ceiling, trapeze or other supplementary supports are required to maintain the required hanger spacing. Sheets CG6.10 and CG6.20 of OPD-0003-13 show acceptable means of supporting hanger wires at obstructions.

1.2.9 Additional hanger wires shall be provided as required at expansion joints, discontinuities, breaks, or other special conditions.

1.3 Access Panels

Access to the space between the ceiling and the floor or roof above is not permitted. A ceiling that is required by the CBC (e.g., per Section 1209.2 at attic spaces) to be accessible shall be designed by the responsible design professional to meet the applicable requirements of the CBC (including Sections 1607A and 2508.1) and ASCE 7 Section 13.3.1.

1.3.1 Small access panels for the inspection, adjustment, or repair of utility switches, valves, sensors, etc. may be allowed if the panel is less than 325 square inches.

1.3.2 Small access panels shall have a permanently attached warning label stating the following: "Warning: Do not climb, walk, or crawl on the gypsum board ceiling or metal framing. Do not store or stow anything on the gypsum board or metal framing."

1.4 Ceiling Luminaires, Services, and Other Devices

Suspended gypsum board ceilings shall not support building components other than luminaires, HVAC terminals, flexible sprinkler hose fittings, or other lightweight devices weighing 20 pounds or less such as strobe lights, occupancy sensors, exit signs, etc. Luminaires, HVAC terminals, flexible sprinkler hose fittings, and other lightweight devices are referred to in this section generally as fixtures.

1.4.1 Fixtures shall be mounted to resist gravity loads in accordance with this section in a manner that will not compromise the ceiling performance. Independent supports as required by Sections 1.4.1.4 and 1.4.1.5 below shall have a capacity to resist four times the weight of the fixture.

1.4.1.1 No gravity loads other than the gypsum board weight shall be applied to the typical cross runners or cross furring. Additional cross runners or cross furring members may be added to the system and specifically dedicated to the support of fixtures.

1.4.1.2 Gypsum board shall not support any fixture.

1.4.1.3 Fixtures weighing 20 pounds or less may be supported by main runners or by supplemental framing connected to the main runners. Fixtures weighing more than 10 pounds shall have a minimum of one #12-gauge safety wire connected from the fixture to the structure above. Safety wires are not required to be taut.

1.4.1.4 Fixtures weighing 56 pounds or less but more than 20 pounds shall be independently supported to the structure above by not less than two taut #12-gauge wires. Other means of supporting the fixture independent of the ceiling system are acceptable when approved by DSA.

1.4.1.5 Fixtures weighing more than 56 pounds shall be independently supported to the structure above by not less than four taut #12-gauge wires. Other means of supporting the fixture independent of the ceiling system are acceptable when approved by DSA.

1.4.2 Fixtures shall be positively attached to the ceiling suspension system by mechanical means to resist a horizontal force equal to the weight of the fixture. The total weight of the suspended ceiling system inclusive of all fixtures resisted by its seismic force resisting system as described in Section 4 below shall not exceed 4 PSF.

1.4.2.1 A minimum of two screws or approved fasteners are required at each fixture.

1.4.2.2 Surface-mounted fixtures shall be attached to main runners with positive clamping devices complying with the following:

1.4.2.2.1 Provide at least two positive clamping devices on each fixture. Provide additional devices for fixtures exceeding 56 pounds or 8 feet in length.

1.4.2.2.2 Clamping device shall completely surround the supporting ceiling runner.

1.4.2.2.3 Clamping device shall be made of steel with a minimum thickness of #14 gauge.

1.4.2.2.4 Rotational spring catches are not compliant.

1.4.2.2.5 Spacing of clamping device shall not exceed 8 feet.

1.4.2.3 When seismic forces are resisted by lateral force bracing assemblies per Section 4.2 below, fixtures shall comply with ASTM E580 Sections 5.3 and 5.4.

1.4.3 When code-prescribed seismic forces are resisted per Section 4.2 below and lateral movement of the suspended ceiling of ¼ inch or more results, penetrations through the ceiling for sprinkler heads and other similar devices that are not integrally tied to the ceiling system in the lateral direction shall comply with one of the following per ASTM E580 Section 5.2.8.5:

1.4.3.1 Provide a 2-inch oversized ring, sleeve, or adapter through the gypsum board to allow free movement of 1 inch in all horizontal directions.

1.4.3.2 Provide a flexible sprinkler hose fitting that can accommodate 1 inch of ceiling movement.

1.4.4 Pendant luminaires shall comply with *IR 16-9: Pendant Luminaires*.

2. T-BAR SYSTEM

2.1 Vertical Support

2.1.1 Ceiling suspension system and its components shall comply with ASTM C635, ASTM C645, the applicable sections of ASTM E580, and the product's evaluation report. Ceiling system shall be installed in accordance with ASTM C636 and ASTM E580 Section 5.2.

2.1.2 Main runner spacing shall not exceed 4 feet on center and the ceiling area supported by each hanger wire shall not exceed 16 square feet. Hanger wires shall comply with Section 1.3 above.

2.1.3 Main runners shall be heavy duty "T" shaped sections in accordance with ASTM C635.

2.1.3.1 Heavy duty main runners shall be capable of carrying an equivalent uniform load of 16 pounds per linear foot (PLF).

2.1.3.2 Wire attachments to main runners shall be made in prepunched holes or holes drilled in accordance with the manufacturer's installation requirements.

2.1.4 Cross runners shall be "T" shaped sections with sufficient capacity to support the screw-attached gypsum board and meeting the following requirements:

2.1.4.1 Cross runners shall be spaced no further than 24 inches on center.

2.1.4.2 Cross runners shall meet the deflection criteria of ASTM C635 Section 4.2.

2.1.4.3 Cross runners shall be connected to main runners in accordance with the manufacturer's requirements.

2.1.5 Main runners, cross runners, splices, expansion devices, and intersection connectors shall be designed to carry a mean ultimate test load of not less than 180 pounds in compression and tension per ASTM E580 Section 5.1.2.

2.1.6 Main and cross runners shall have a bottom flange width of 1-1/4 inches or larger to provide sufficient attachment of the gypsum board at panel edges.

2.2 Seismic Force Resistance

Suspended gypsum board ceilings using the T-bar system shall be capable of resisting code-prescribed seismic loads. Either of the seismic force resisting systems described in Section 4 below may be employed with the T-bar system.

Exception: Suspended ceiling systems with an area of 144 square feet or less surrounded by walls that are laterally braced to the structure above do not require lateral bracing assemblies per Section 4.2 below nor diaphragm analysis per Section 4.3 below.

3. LEGACY SYSTEM

3.1 Vertical Support

3.1.1 Main runner spacing shall not exceed 4 feet on center and the ceiling area supported by each hanger wire shall not exceed 16 square feet. Hanger wires shall comply with Section 1.2 above.

3.1.2 Main runner size, spacing, and spans shall comply with ASTM C754 Table 7. The main runner most frequently used is a 1-1/2-inch cold-rolled channel conforming to AISI designation 150U050-54, weighing 0.414 PLF, and spaced no more than 4 feet on center.

3.1.3 Cross furring shall be 7/8-inch galvanized steel hat channel sections conforming to AISI designation 087F125-18 and spaced at 24 inches on center maximum.

3.1.4 Hanger wires shall be saddle-tied to the main runners. Refer to IR 25-2 Appendix A, Sheet 4.29 or OPD-0003-13, Sheet CG2.32 for acceptable saddle tie details.

3.1.5 Cross-furring shall be saddle-tied to the main runners with at least one strand of #16-gauge or two strands of #18-gauge wire. Refer to OPD-0003-13, Sheet CG2.32 for an acceptable saddle tie detail.

3.1.6 Main runners shall be spliced by lapping and interlocking flanges and installing two #8 sheet metal screws at each end of splice (four screws total). The lap shall be 12 inches long minimum. Refer to OPD-0003-13, Sheet CG2.31 for an acceptable splice detail.

3.1.7 Cross-furring shall be spliced by lapping and interlocking the pieces and installing two #8 sheet metal screws at each end of splice (four screws total). The lap shall be 8 inches long minimum. Refer to OPD-0003-13, Sheet CG2.31 for an acceptable splice detail.

3.2 Seismic Force Resistance

Suspended gypsum board ceilings using the legacy system shall be capable of resisting code-prescribed seismic loads. Either of the seismic force resisting systems described in Section 4 below may be employed with the legacy system.

Exception: Suspended ceiling systems with an area of 144 square feet or less surrounded by walls that are laterally braced to the structure above do not require bracing assemblies per Section 4.2 below nor diaphragm analysis per Section 4.3 below.

4. SEISMIC FORCE RESISTING SYSTEM

Suspended gypsum board ceilings shall resist the seismic forces resulting from the mass of the ceiling itself. The ceiling and its seismic force resisting system shall not resist seismic forces resulting from the mass of other components, such as partition walls.

4.1 General Requirements

4.1.1 Seismic loads are permitted to be resisted by either of the systems defined in this section as follows:

4.1.1.1 Lateral force bracing assemblies in accordance with Section 4.2 below.

4.1.1.2 Diaphragm system in accordance with Section 4.3 below.

4.1.2 Either or both options may be specified on the DSA-approved construction drawings. If both options are provided on the construction drawings as options, only one option can be used for each separate ceiling area.

4.1.3 Fire-resistance-rated systems shall be installed per their listing (e.g., UL, Factory Mutual, etc.) and the manufacturer's installation instructions, which may dictate the lateral system used.

4.2 Lateral Force Bracing

Lateral force bracing assemblies shall comply with ASTM E580 as modified by ASCE 7 Section 13.5.6 and CBC Section 1617A.1.21.

4.2.1 Lateral force bracing assemblies shall consist of a compression strut and four #12-gauge splayed bracing wires oriented 90 degrees from each other in plan.

4.2.1.1 For the T-bar system per Section 2 above refer to IR 25-2 Appendix A, Sheet 2.35.

4.2.1.2 For the legacy system per Section 3 above refer to OPD-0003-13, Sheet CG2.10.

4.2.2 Lateral force bracing assemblies shall be spaced, per Table 1 below for all values of the component importance factor (I_p) of the ceiling. Where different brace spacing is specified at various stories, the respective ceiling plan shall clearly indicate the required brace spacing.

4.2.2.1 For the T-bar system per Section 2 above refer to IR 25-2 Appendix A, Sheets 2.10 through 2.12.

4.2.2.2 For the legacy system per Section 3 above refer to OPD-0003-13, Sheets CG2.20 through CG2.22.

TABLE 1: LATERAL FORCE BRACE ASSEMBLY SPACING

Design Spectral Acceleration Parameter, (S_{DS})	Brace Assembly Spacing	
	z/h ≤ 0.5[a]	z/h > 0.5[a,b]
S_{DS} ≤ 1.15	12'-0" x 12'-0"	12'-0" x 12'-0"
1.15 < S_{DS} ≤ 1.73	12'-0" x 12'-0"	8'-0" x 12'-0"
S_{DS} > 1.73	8'-0" x 12'-0"	8'-0" x 8'-0"

Footnotes:
a) Where, as defined in ASCE 7 Section 13.3.1:
z = height in structure of point of attachment of ceiling with respect to the base.
H = average roof height of the structure with respect to the base.
b) It shall be permitted to use the brace assembly spacing for "z/h > 0.5" for the full building height.

4.2.3 There shall be a brace assembly a distance of not more than one-half (1/2) of the spacing listed in Table 1 above from each surrounding wall, expansion joint, and edge of any ceiling vertical offset. For example, where the brace spacing is 8 feet by 12 feet, the edge distance shall be 4 feet in the direction of the 8-foot spacing and 6 feet in the direction of the 12-foot spacing.

4.2.4 Bracing wires shall be taut and their slope shall not exceed 45 degrees from the plane of the ceiling.

4.2.5 Bracing wire material, gauge, and turn of wire connections shall comply with Section 1.1.4 above.

4.2.5.1 Bracing wires shall be separated at least 6 inches from all unbraced components (e.g., ducts, pipes, conduit, etc.) above the ceiling.

4.2.5.2 Screw-type anchors (i.e., screws, lag screws, eye screws, etc.) supporting brace wires and installed in wood structure shall be installed to align as closely as possible with the direction of the wire. Clips supporting bracing wires shall be bent and rotated as required to align closely with the direction of the wire.

4.2.5.3 Splices in bracing wires are not permitted unless detailed on the DSA-approved construction documents. Splices in bracing wires shall develop the wire allowable load. No more than one splice is allowed in each bracing wire. Refer to IR 25-2 Appendix A, Sheet 6.10 for an acceptable wire splice detail.

4.2.5.4 The attachment of bracing wire to main runner shall not be more than 2 inches away from the compression strut.

4.2.5.5 Power actuated fasteners in concrete are not permitted to support bracing wires.

4.2.5.6 Where custom connections are required, attachment of the bracing wires shall be adequate for the load imposed. The ceiling weight shall not be taken as less than 4 PSF for calculating seismic forces in accordance with ASCE 7 Chapter 13.

4.2.6 Ceiling grid members shall be connected to two adjacent walls and disconnected from the two opposite walls per ASTM E580 Section 5.2.3. Ceiling grid members shall be at least 1-inch clear of the disconnected walls.

4.2.6.1 If walls run diagonally to ceiling grid system runners, one end of the main and cross runners shall be disconnected and a minimum of 1-inch clear of the wall.

4.2.6.2 The width of the perimeter supporting closure angle shall be not less than 2 inches. Use of angles with smaller widths may be permitted with proprietary perimeter clips validated in an evaluation report per Section 1.1.3 above.

4.2.6.3 The closure angle shall be attached to the wall directly to studs spaced at no more than 24 inches on center.

4.2.7 Compression struts shall meet the following requirements:

4.2.7.1 Struts shall be sized to adequately resist the sum of the vertical component of the bracing wire force and the vertical seismic force. The slenderness (kl/r) ratio of struts shall not exceed 300. Sections listed in IR 25-2 Appendix A, Sheet 3.21 meet this requirement for the maximum lengths listed.

4.2.7.2 Compression strut material shall comply with Section 1.1.5 above.

4.2.7.3 The strut shall not be out of plumb by more than 1:6 (horizontal to vertical).

4.2.7.4 Compression struts weighing more than 10 pounds or longer than 10 feet shall be provided with a #12-gauge safety wire connected to the structure above. Safety wires are not required to be taut.

4.2.7.5 Compression struts shall be separated at least 6 inches from all unbraced components (e.g., ducts, pipes, conduit, etc.) above the ceiling.

4.2.8 Expansion and seismic separation joints shall be provided as follows:

4.2.8.1 Expansion joints shall be provided in the ceiling at intersections of corridors and at junctions of corridors and lobbies or other similar areas.

4.2.8.2 For ceiling area exceeding 2,500 square feet, a seismic separation joint shall be provided to divide the ceiling into areas not exceeding 2,500 square feet in accordance with ASTM E580 Section 5.2.9.

4.3 Diaphragm System

A suspended gypsum board ceiling may be designed as a horizontal diaphragm to resist its own seismic loads as prescribed CBC Section 2508.6 and this section.

4.3.1 As prohibited by CBC Section 2508.6.6, gypsum board shall not be used in diaphragm ceilings to resist lateral forces imposed by partitions.

4.3.2 Horizontal gypsum board ceiling diaphragm proportions shall comply with CBC Section 2508.6.1, including the maximum span-to-depth ratio of 1.5:1.

4.3.3 There shall be no steps or vertical offsets in the ceiling plane within the span of the gypsum board diaphragm.

4.3.4 The gypsum board installation shall comply with ASTM C840.

4.3.5 An allowable diaphragm shear equal to 50 PLF is permitted for allowable stress design when the gypsum board is fastened with Hi-Lo Type S or S-12 bugle head screws complying with the following conditions:

4.3.5.1 Screw size: #6 (0.136-inch diameter) or larger.

4.3.5.2 Screw length: 1 inch or 1-1/4 inch.

4.3.5.3 Screw spacing: 12 inches on center maximum at all gypsum board edges and intermediate supports.

4.3.5.4 Screw edge distance: 3/8 inch minimum.

4.3.6 A complete load path for the seismic loads transferred by the gypsum board diaphragm to the primary lateral force resisting system (e.g., diaphragm, shear wall, etc.) must be provided and substantiated.

4.3.7 Ceiling diaphragm forces may be resisted through walls sheathed with gypsum board. Gypsum board fastened to metal studs in accordance with Section 4.3.5 above can be used to resist 50 PLF in the plane of the wall. Gypsum board fastened to wood studs in accordance with Table 2508.6 can be used to resist the allowable shear values listed there. The maximum height-to-width ratio of gypsum sheathed walls used for this purpose shall not exceed 1:1.

4.3.8 Details are required to demonstrate the seismic load transfer from the gypsum board ceiling to the primary lateral force resisting system on all four sides of the diaphragm.

4.4 Proprietary Systems

At the discretion of DSA, proprietary seismic force resisting systems may be accepted on a project-specific basis as follows:

4.4.1 System shall meet the requirements of CBC.

4.4.2 System shall have a valid evaluation report per IR A-5.

5. EXISTING CEILING ALTERATION

5.1 Cut or Altered

Where any portion of an existing suspended ceiling is cut or altered, the entire ceiling in the affected space shall be evaluated to the provisions of the current applicable codes, standards, and this IR. When the evaluation identifies a deficiency, the existing ceiling shall be upgraded to conform to the current provisions.

5.1.1 Where the existing suspended ceiling has lateral force bracing assemblies spaced in compliance with Table 1 above, an evaluation and upgrade of the entire ceiling shall be required only if the area of alteration exceeds 10 percent of the entire ceiling area.

5.1.2 For the purpose of determining upgrade requirements, the "entire" ceiling in the affected space is defined as the area of ceiling bounded by perimeter walls or a combination of walls and expansion or seismic separation joints.

5.1.3 With DSA concurrence, other existing lateral force bracing systems may be deemed equivalent to the bracing system per Section 4.2 above.

5.2 Replacement in Kind

Where the ceiling grid is not cut or altered and the scope of work is limited to replacement of luminaires or fixtures with units of equal size and equal or lesser weight placed in the same location, an upgrade of the ceiling, suspension system, and seismic force resisting system is not required.

5.3 Reuse of Existing Ceiling Wires

Existing ceiling hanger and bracing wires may be reused provided they comply with the following:

5.3.1 The gauge and spacing of wires complies with the current applicable codes, standards, and this IR.

5.3.2 Where a new wire is to be spliced to an existing wire, the design professional in general responsible charge shall prepare and obtain DSA approval of a detail specifying the splice requirements. Detail 6.10 provided in Appendix A of IR 25-2 is an acceptable means of splicing hanger or brace wires.

5.3.3 Existing hanger and bracing wire assemblies shall be tested in accordance with Section 7.2 below.

6. CONSTRUCTION DOCUMENTS

6.1 General Requirements

The items listed in this section are required to be provided in the construction documents when applicable to the project scope. This list includes items common to most projects but is not all-inclusive for every project.

6.1.1 Additional information and details may be required on the construction documents of a specific project for specialty conditions, configurations, products, etc.

6.1.2 It is not permitted to reproduce this IR on the construction documents as a means to meet these requirements.

6.2 T-Bar System Information

When the T-bar system described in Section 2 above is used, a list of acceptable grid systems shall be shown on the construction documents and shall specify the following for each acceptable grid system:

6.2.1 Manufacturer.

6.2.2 Product name.

6.2.3 Evaluation report number.

6.2.4 Main and cross runner part, model, or catalog numbers.

6.2.5 Seismic wall clip (when applicable).

6.3 Suspension System

The ceiling suspension system and its anchorage to the structure shall be fully detailed.

6.3.1 Where accepted proprietary components are utilized, the details on the construction documents shall comply with all evaluation report requirements.

6.3.2 When required to maintain typical hanger spacing while avoiding obstructions, trapeze or other supplementary support details shall be shown on the construction documents.

6.3.3 Where post-installed anchors are installed in concrete construction, embedment depths shall be designed to avoid existing reinforcement. Special care shall be taken to protect the tendons in prestressed concrete.

6.4 Seismic Force Resisting System

The system used to resist the seismic load of the suspended gypsum board ceiling shall be fully detailed.

6.4.1 When used, lateral force bracing assemblies shall be fully detailed, including bracing wires, compression struts, anchorage to the structure, expansion/seismic separation joints, and other requirements of Section 4.2 above. The bracing assembly spacing at each floor and roof level must be clearly specified.

6.4.2 When used, the diaphragm system requirements of Section 4.3 above shall be specified and fully detailed.

6.5 Luminaires, Services and Devices

Anchorage, support, and bracing details for all luminaires, terminals, flexible fire sprinkler hose fittings, and other devices shall be provided in compliance with the requirements of Section 1.4 above.

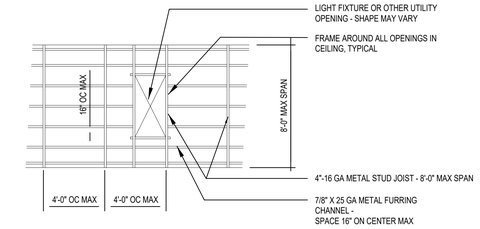
6.6 Partition Walls

The construction documents shall include partition wall details that demonstrate an independent lateral load path and ensure the partition walls do not impose additional lateral forces on the ceiling.

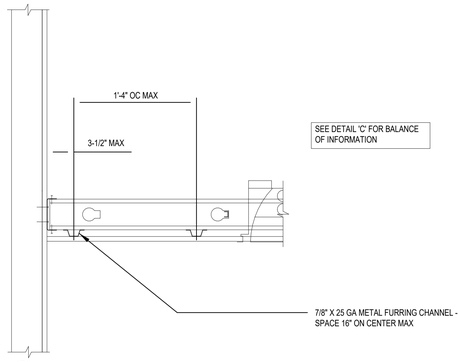
6.7 Construction Details

Typical construction details presented in other resource documents defined in this section are deemed to meet the general requirements of this IR. To be applicable for a specific project the details must be graphically shown on the DSA approved construction drawings. Incorporation by reference is not permitted.

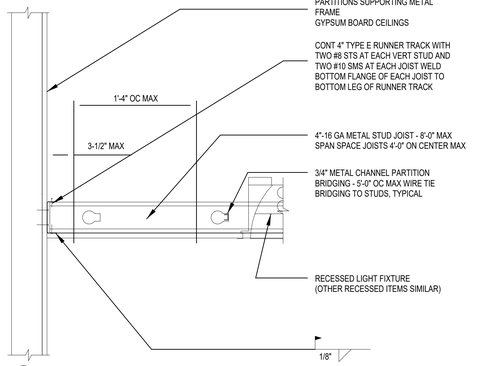
6.7.1 The T-bar system outlined in Section 2 above may employ applicable construction notes and details published in Appendix A of IR 25-2. These details are also available in electronic format. Refer to IR 25-2 Section 5.9 and 5.10 for additional information. The details published in IR 25



A DIAGRAMMATIC CEILING FRAMING PLAN
SCALE: 1/4" = 1'-0"

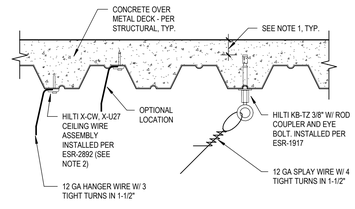


B TYPICAL SECTION

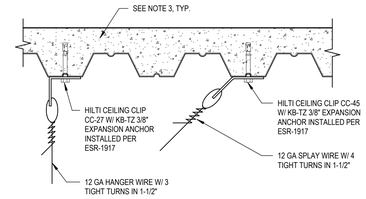


C ALTERNATE SECTION

1 METAL FRAMED GYPSUM BOARD CEILING
SCALE: 1 1/2" = 1'-0"



A HANGER WIRE OPTION 1
(FOR ACOUSTIC CEILING ONLY)

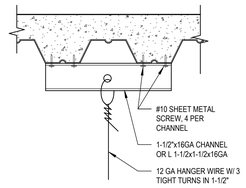


B SPLAY WIRE OPTION 1
(FOR ACOUSTIC CEILING ONLY)

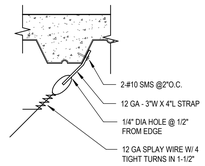
C HANGER WIRE OPTION 2

D SPLAY WIRE OPTION 2

NOTES:
1. PROVIDE MIN. EMBEDMENT AND COVER PER STRUCTURAL DWGS AND ESR REPORT, AS APPLICABLE.
2. ALTERNATE ASSEMBLY: HILTI CEILING CLIP X-CC INSTALLED PER ESR-2184
3. ALL ANCHORAGE CONDITIONS ARE APPROVED FOR USE IN STRUCTURAL CONCRETE FLOOR/ROOF ASSEMBLIES PER THE REFERENCED ASSEMBLY REPORTS.
4. OTHER ASSEMBLIES MAY BE SUBSTITUTED, SUBJECT TO APPROVAL.

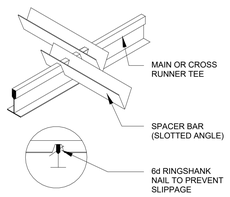


E HANGER WIRE OPTION 3
(METAL DECK ONLY)



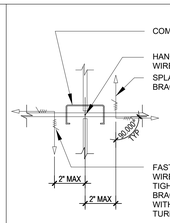
F SPLAY WIRE OPTION 3
(METAL DECK ONLY)

51 HANGER WIRE
SCALE: 1 1/2" = 1'-0"

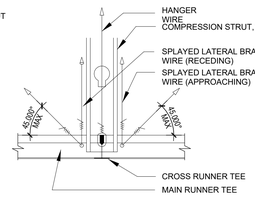


TYPICAL SPLICE

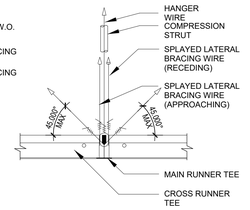
53 SPACER BAR
SCALE: 3" = 1'-0"



A PLAN DETAIL



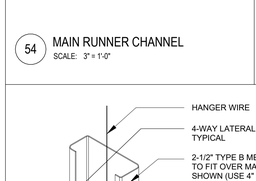
B SECTION
THRU CROSS RUNNER TEE



C SECTION
THRU MAIN RUNNER TEE

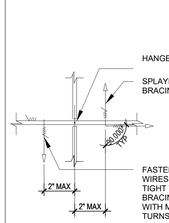
TYPICAL FOR SUSPENDED ACOUSTICAL PANEL OR TILE CEILINGS

45 HANGER AND BRACING WIRE DETAILS
SCALE: 3" = 1'-0"

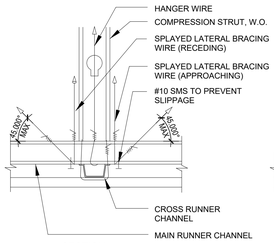


TYPICAL SPLICE

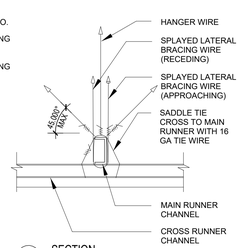
54 MAIN RUNNER CHANNEL
SCALE: 3" = 1'-0"



A PLAN DETAIL



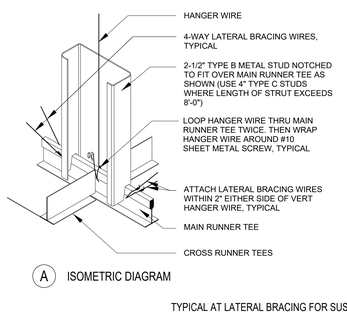
B SECTION
THRU CROSS RUNNER CHANNEL



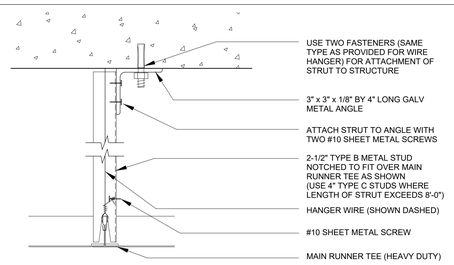
C SECTION
THRU MAIN RUNNER TEE

TYPICAL FOR SUSPENDED GYPSUM BOARD CEILINGS

42 HANGER AND BRACING WIRE DETAILS
SCALE: 3" = 1'-0"



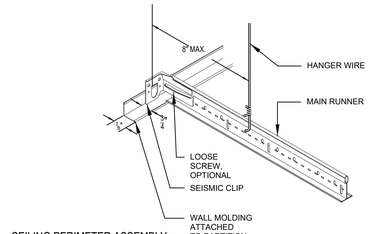
A ISOMETRIC DIAGRAM



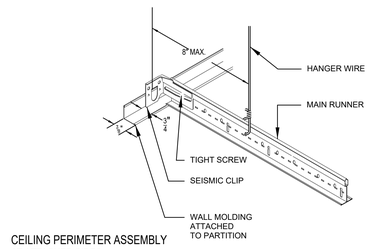
B STRUT ATTACHMENT

TYPICAL AT LATERAL BRACING FOR SUSPENDED ACOUSTICAL PANEL OR TILE CEILINGS

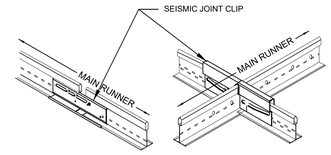
56 COMPRESSION STRUT - METAL STUD
SCALE: 3" = 1'-0"



A CEILING PERIMETER ASSEMBLY
AT UNATTACHED SIDES



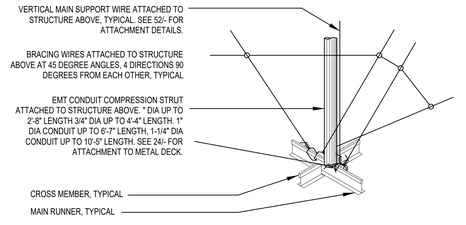
B CEILING PERIMETER ASSEMBLY
AT ATTACHED SIDES



C SEISMIC JOINT CLIP ASSEMBLY
AT CEILINGS GREATER THAN 2,500 SF OR WHERE EXPANSION JOINTS ARE REQUIRED

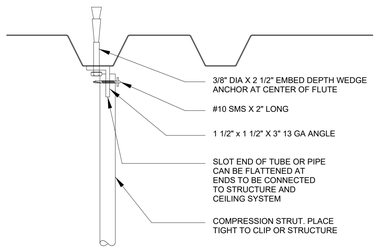
NOTES ALSO SEE

20 CEILING SEISMIC CLIP DETAILS
SCALE: 3" = 1'-0"



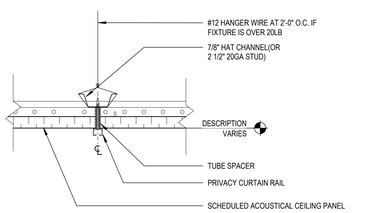
AXONOMETRIC AND SECTION DETAIL

23 HANGER WIRE, COMPRESSION STRUT - EMT- AND LATERAL BRACING
SCALE: 1 1/2" = 1'-0"



AT METAL DECK WITH CONCRETE FILL

24 COMPRESSION STRUT - EMT - ATTACHMENT DETAIL
SCALE: 3" = 1'-0"



72 SURFACE MOUNTED CURTAIN TRACK DETAIL
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

A. THE "GENERAL SUSPENDED CEILING NOTES" SHOWN ON THIS SHEET APPLY TO ALL SUSPENDED CEILING ASSEMBLIES - INCLUDING ALL ACOUSTIC PANEL, ALL ACOUSTIC TILE, AND SUSPENDED GYPSUM BOARD CEILINGS. REFER TO THE ARCHITECTURAL FINISH SCHEDULE AND THE REFLECTED CEILING PLANS TO DETERMINE THE TYPE, LOCATION, AND EXTENT OF EACH CEILING.

B. THE FOLLOWING "GENERAL SUSPENDED CEILING NOTES" INDICATE MINIMUM REQUIREMENTS FOR THE CONSTRUCTION OF USPENDED CEILING ASSEMBLIES. ADDITIONAL AND MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE DETAILS AND SPECIFICATIONS AND/OR BY LOCAL CODES AND REGULATIONS APPLICABLE TO THE PROJECT. COMPLY WITH THE MOST RESTRICTIVE REQUIREMENT.

VERTICAL SUPPORT

1. PROVIDE VERTICAL SUPPORT FOR SUSPENDED CEILING ASSEMBLIES AS NOTED BELOW AND SHOWN BY THE DETAILS.
2. HANGER WIRES SHALL BE PREPARED FROM NO. 12 GAGE (MIN) GALVANIZED, MILD STEEL WIRE.
3. PROVIDE HANGER WIRES AT 4'-0" ON CENTER MAX ALONG THE LENGTH OF ALL MAIN RUNNERS.
4. PROVIDE HANGER WIRES WITHIN 8" MAXIMUM OF THE ENDS OF ALL MAIN AND CROSS RUNNERS, OR (WHEN THE LENGTH OF THE RUNNER IS LESS THAN 32") NOT MORE THAN 1/4 OF THE TOTAL LENGTH FROM THE END.
5. HANGER WIRES SHALL BE WITHIN 1 IN 6 OF TRUE VERTICAL. COUNTER BRACE HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB. WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIALS OR OBSTRUCTIONS. PROVIDE TRAPEZE WHERE OBSTRUCTIONS PRECLUDE DIRECT SUSPENSION, TYPICAL. SEE DETAIL 72/3-A9.4.9 FOR "TRAPEZE SUSPENSION DEVICE" REQUIREMENTS.
6. COMPRESSION STRUTS SHALL NOT REPLACE HANGER WIRES.

ATTACHMENT TO STRUCTURE

1. ATTACH SUSPENDED CEILING ASSEMBLIES TO THE STRUCTURE ABOVE AS NOTED BELOW AND SHOWN BY THE DETAILS.
2. VERTICAL HANGER WIRES SHALL BE ATTACHED TO THE STRUCTURE AS SHOWN BY DETAIL 52 ON THIS SHEET.
3. LATERAL BRACING WIRES SHALL BE CONNECTED TO THE STRUCTURE ABOVE IN THE SAME MANNER AS VERT HANGER WIRES (SEE GENERAL NOTE NO 7 ABOVE) EXCEPT POWDER-DRIVEN FASTENERS ARE NOT PERMITTED.
4. WHERE WIRE ANCHORS ARE UTILIZED, INSTALL SO THAT THE DIRECTION OF THE WIRE ALIGNS WITH THE FORCE ACTING ON THE WIRE.
5. DRILLED-IN ANCHORS: SEE SPEC 031500: WHERE 3/8" DIA WEDGE-TYPE ANCHORS ARE UTILIZED, PROVIDE 1-5/8" MIN EMBEDMENT, 492 POUND MAX ALLOWABLE TENSION WITH SPECIAL TESTING, AND 780 POUND ALLOWABLE SHEAR. WHERE 3/8" DIA DROP-IN TYPE ANCHORS ARE UTILIZED, PROVIDE 1-9/16" MIN EMBEDMENT, 824 POUND ALLOWABLE TENSION WITH SPECIAL TESTING, AND 824 POUND MAX ALLOWABLE SHEAR.
6. POWDER DRIVEN FASTENERS: SEE SPEC 031500 MAY ONLY BE USED WHERE THE DEPTH OF STRUCTURAL CONC EXCEEDS THREE (3) TIMES THE PENETRATION DEPTH OF THE FASTENER AND THERE IS AT LEAST 1-1/2" OF CONCRETE COVER MEASURE LATERALLY IN ALL DIRECTIONS FROM FASTENER. POWER DRIVEN FASTENERS ARE NOT ALLOWED AT PIPING SYSTEMS.
7. ALL ATTACHMENTS TO BEAMS AND SIMILAR STRUCTURAL MEMBERS TO BE MADE PRIOR TO INSTALLATION OF FIREPROOFING, WHERE OCCURS.

PERIMETER ATTACHMENT

1. ATTACH PERIMETER OF SUSPENDED CEILING ASSEMBLIES AS NOTED BELOW AND SHOWN BY THE DETAILS.
2. AT SUSPENDED GYPSUM BOARD CEILING: ATTACH ENTIRE PERIMETER OF CEILING (EXCEPT WHERE SEPARATION JOINTS OCCUR) TO ADJOINING PARTITIONS.

LATERAL FORCE BRACING

1. PROVIDE LATERAL FORCE BRACING AT ALL SUSPENDED CEILING ASSEMBLIES AS NOTEDBELOW AND BY THE DETAILS.
2. LATERAL BRACING WIRES SHALL BE PREPARED FROM NO. 12 GAGE (MIN) GALVANIZED, MILD STEEL WIRE.
3. THE SLOPE OF BRACING WIRES SHALL NOT EXCEED 45 DEGREES MEASURED FROM THE PLANE OF THE CEILING; WIRES SHALL BE TAUT WITHOUT CAUSING THE CEILING TO LIFT.
4. WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS. PROVIDE TRAPEZE WHERE OBSTRUCTIONS PRECLUDE DIRECT ATTACHMENT.
5. AT SUSPENDED ACOUSTICAL PANEL OR TILE CEILINGS: PROVIDE COMPRESSION THRUST STRUT BETWEEN THE MAIN RUNNER AND THE STRUCTURAL MEMBERS SUPPORTING THE FLOOR OR ROOF ABOVE.
6. AT BRACING WIRES INSTALL ANCHOR CLIP SO WIRE ALIGNS WITH THE DIRECTION OF FORCE ACTING ON WIRE.
7. COMPRESSION STRUTS SHALL NOT REPLACE HANGER WIRES. SUSPENDED ACOUSTICAL CEILING SYSTEMS WITH A CEILING AREA OF 144 S.F. OR LESS SURROUNDED BY WALLS WHICH CONNECT DIRECTLY TO THE STRUCTURE ABOVE OR WALLS INDEPENDENTLY BRACED ABOVE CEILING TO STRUCTURE ABOVE, DO NOT REQUIRE BRACING ASSEMBLIES WHEN ATTACHED TO TWO (2) ADJACENT WALLS.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

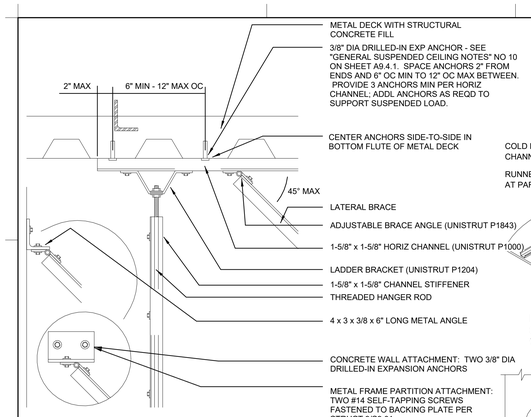
SHEET TITLE
TYPICAL CEILING DETAILS

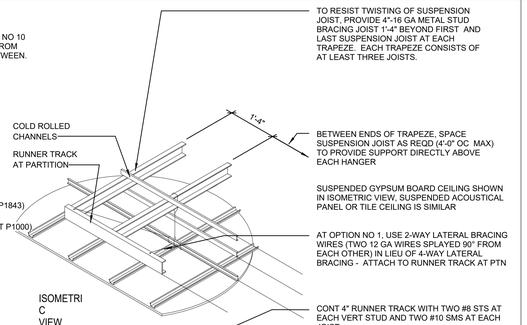
14794
PROJECT NUMBER

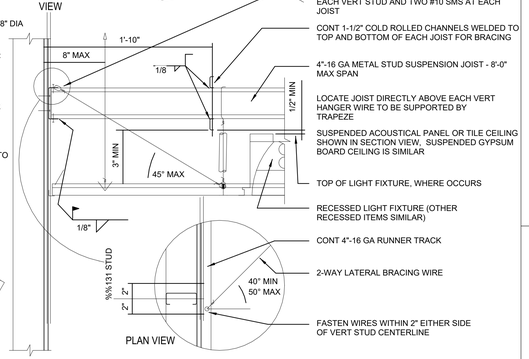
CD

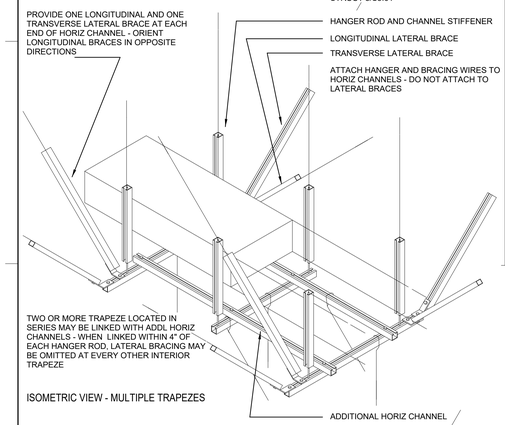
A9.4.7
SHEET NUMBER

Author
8/23/2025 5:45:12 PM
Plot Date:

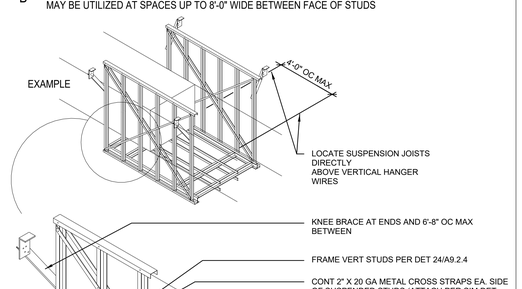


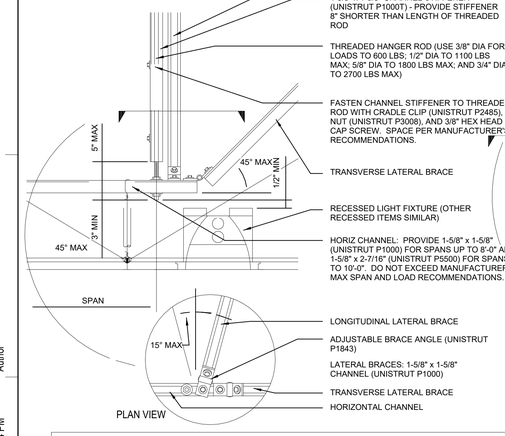


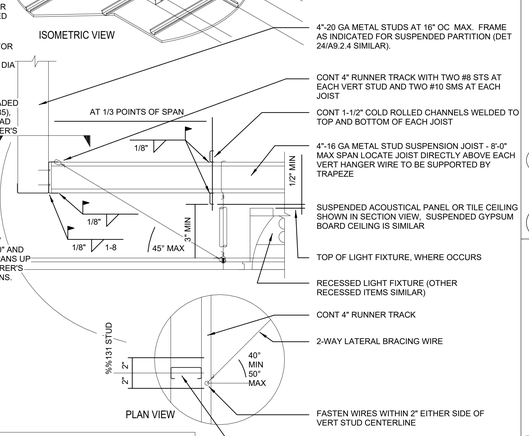




B TRAPEZE OPTION NO 2 (PARTITION SUPPORTED)
MAY BE UTILIZED AT SPACES UP TO 8'-0" WIDE BETWEEN FACE OF STUDS





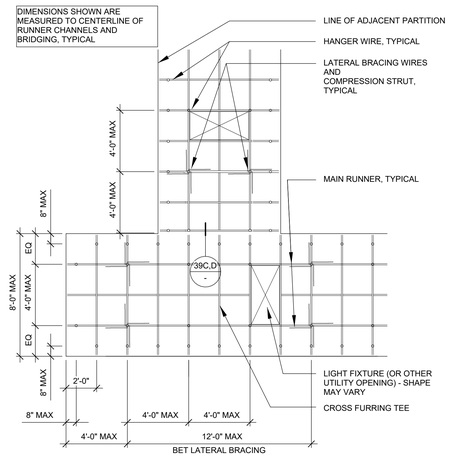


TRAPEZE OPTIONS SHOWN MAY BE SUBSTITUTED BY PRIME TRADE CONTRACTOR DURING CONSTRUCTION. ALTERNATIVE METHODS MUST BE SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND APPROVED BY THE UNIVERSITY'S REPRESENTATIVE PRIOR TO INSTALLATION

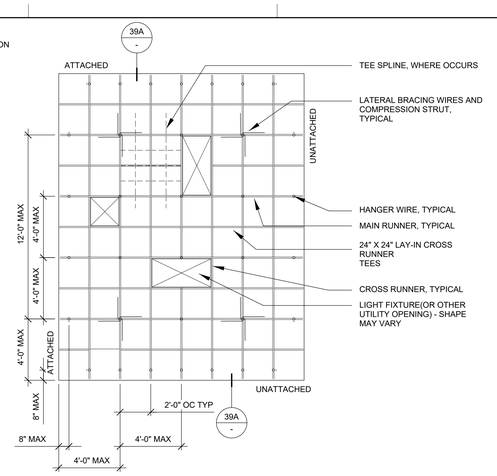
A TRAPEZE OPTION NO 1 (ARCH CHANNEL FRAMING SYSTEM)
MAY BE UTILIZED TO MAX SPAN OF 10'-0"

C TRAPEZE OPTION NO 3 (SUPPORTED BY SUSPENDED PARTITIONS)
MAY BE UTILIZED TO MAX SPAN OF 8'-0" BETWEEN SUSPENDED SUPPORTS

TYP WHERE OBSTRUCTIONS PRECLUDE DIRECT SUSPENSION OF GYPSUM BOARD OR ACOUSTICAL PANEL/TILE CEILINGS

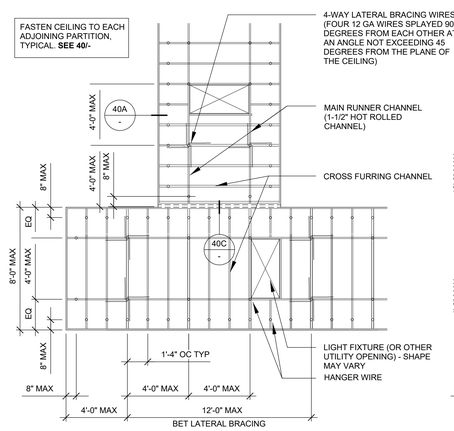


A CORRIDORS AND SPACES UP TO 8'-0" WIDE

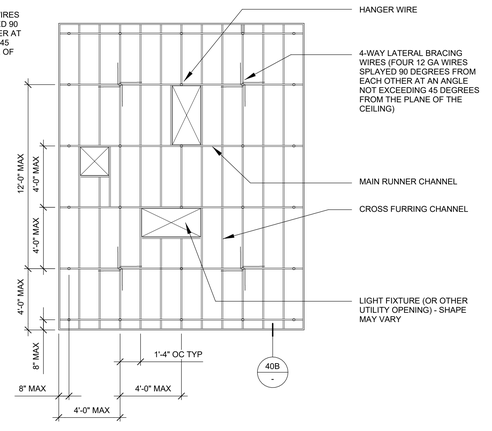


B CORRIDORS AND ROOMS GREATER THAN 8'-0" WIDE

TYPICAL FOR SUSPENDED ACOUSTICAL PANEL OR TILE CEILINGS

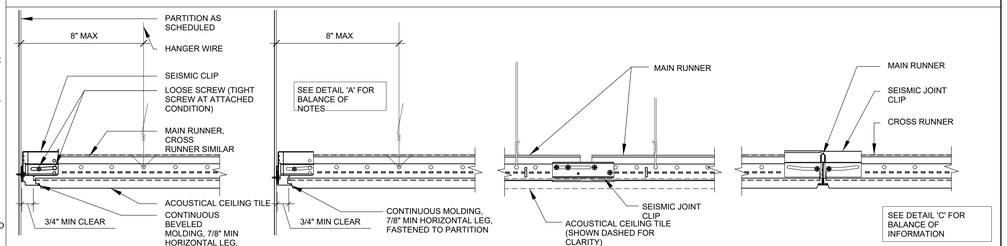


A CORRIDORS GREATER THAN 5'-4" WIDE UP TO 8'-0" WIDE



B CORRIDORS AND ROOMS GREATER THAN 8'-0" WIDE

TYPICAL FOR SUSPENDED GYPSUM BOARD CEILINGS



A SHADOW MOLDING
UNATTACHED SIDE SHOWN, ATTACHED SIM

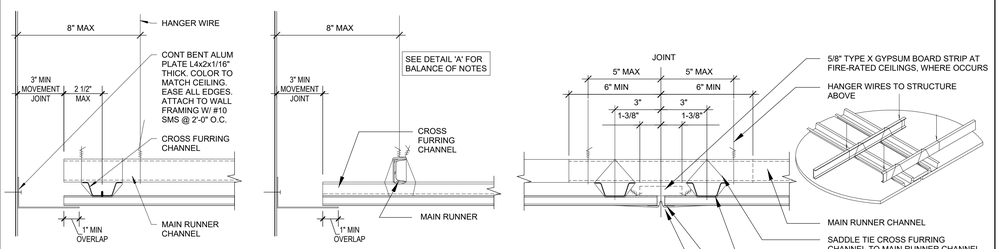
B ANGLE MOLDING (WHERE OCCURS)
UNATTACHED SIDE SHOWN, ATTACHED SIM

C EXPANSION JOINT
AT MAIN RUNNER

D EXPANSION JOINT
AT CROSS AND MAIN RUNNER INTERSECTION

TYPICAL FOR ACOUSTICAL TILE CEILINGS. SEE ALSO

39 PERIMETER CEILING FRAMING AND TRIM DETAILS
SCALE: 3" = 1'-0"



A MAIN RUNNER CHANNELS

B CROSS FURRING CHANNELS

C CONTROL JOINT

TYPICAL FOR SUSPENDED GYPSUM BOARD CEILINGS

40 PERIMETER CEILING FRAMING AND TRIM DETAILS
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

A. THE "GENERAL SUSPENDED CEILING NOTES" SHOWN ON THIS SHEET APPLY TO ALL SUSPENDED CEILING ASSEMBLIES - INCLUDING ALL ACOUSTIC PANEL, ALL ACOUSTIC TILE, AND SUSPENDED GYPSUM BOARD CEILINGS. REFER TO THE ARCHITECTURAL FINISH SCHEDULE AND THE REFLECTED CEILING PLANS TO DETERMINE THE TYPE, LOCATION, AND EXTENT OF EACH CEILING.

B. THE FOLLOWING "GENERAL SUSPENDED CEILING NOTES" INDICATE MINIMUM REQUIREMENTS FOR THE CONSTRUCTION OF USPENDED CEILING ASSEMBLIES. ADDITIONAL AND MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE DETAILS AND SPECIFICATIONS AND/OR BY LOCAL CODES AND REGULATIONS APPLICABLE TO THE PROJECT. COMPLY WITH THE MOST RESTRICTIVE REQUIREMENT.

VERTICAL SUPPORT

1. PROVIDE VERTICAL SUPPORT FOR SUSPENDED CEILING ASSEMBLIES AS NOTED BELOW AND SHOWN BY THE DETAILS.
2. HANGER WIRES SHALL BE PREPARED FROM NO. 12 GAGE (MIN) GALVANIZED, MILD STEEL WIRE.
3. PROVIDE HANGER WIRES AT 4'-0" ON CENTER MAX ALONG THE LENGTH OF ALL MAIN RUNNERS.
4. PROVIDE HANGER WIRES WITHIN 8" MAXIMUM OF THE ENDS OF ALL MAIN AND CROSS RUNNERS, OR (WHEN THE LENGTH OF THE RUNNER IS LESS THAN 32") NOT MORE THAN 1/4 OF THE TOTAL LENGTH FROM THE END.
5. HANGER WIRES SHALL BE WITHIN 1 IN 6 OF TRUE VERTICAL. COUNTER BRACE HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB. WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIALS OR OBSTRUCTIONS. PROVIDE TRAPEZE WHERE OBSTRUCTIONS PRECLUDE DIRECT SUSPENSION, TYPICAL. SEE DETAIL 72/3-A9.4.9 FOR "TRAPEZE SUSPENSION DEVICE" REQUIREMENTS.
6. COMPRESSION STRUTS SHALL NOT REPLACE HANGER WIRES.

ATTACHMENT TO STRUCTURE

1. ATTACH SUSPENDED CEILING ASSEMBLIES TO THE STRUCTURE ABOVE AS NOTED BELOW AND SHOWN BY THE DETAILS.
2. VERTICAL HANGER WIRES SHALL BE ATTACHED TO THE STRUCTURE AS SHOWN BY DETAIL 52 ON THIS SHEET.
3. LATERAL BRACING WIRES SHALL BE CONNECTED TO THE STRUCTURE ABOVE IN THE SAME MANNER AS VERT HANGER WIRES (SEE GENERAL NOTE NO 7 ABOVE) EXCEPT POWDER-DRIVEN FASTENERS ARE NOT PERMITTED.
4. WHERE WIRE ANCHORS ARE UTILIZED, INSTALL SO THAT THE DIRECTION OF THE WIRE ALIGNS WITH THE FORCE ACTING ON THE WIRE.
5. DRILLED-IN ANCHORS: SEE SPEC 031500. WHERE 3/8" DIA WEDGE-TYPE ANCHORS ARE UTILIZED, PROVIDE 1-5/8" MIN EMBEDMENT, 492 POUND MAX ALLOWABLE TENSION WITH SPECIAL TESTING, AND 780 POUND ALLOWABLE SHEAR. WHERE 3/8" DIA DROP-IN TYPE ANCHORS ARE UTILIZED, PROVIDE 1-9/16" MIN EMBEDMENT, 824 POUND ALLOWABLE TENSION WITH SPECIAL TESTING, AND 824 POUND MAX ALLOWABLE SHEAR.
6. POWDER DRIVEN FASTENERS: SEE SPEC 031500 MAY ONLY BE USED WHERE THE DEPTH OF STRUCTURAL CONC EXCEEDS THREE (3) TIMES THE PENETRATION DEPTH OF THE FASTENER AND THERE IS AT LEAST 1-1/2" OF CONCRETE COVER MEASURE LATERALLY IN ALL DIRECTIONS FROM FASTENER. POWER DRIVEN FASTENERS ARE NOT ALLOWED AT PIPING SYSTEMS.
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4. WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS. PROVIDE TRAPEZE WHERE OBSTRUCTIONS PRECLUDE DIRECT ATTACHMENT.
5. AT SUSPENDED ACOUSTICAL PANEL OR TILE CEILINGS: PROVIDE COMPRESSION THRUST STRUT BETWEEN THE MAIN RUNNER AND THE STRUCTURAL MEMBERS SUPPORTING THE FLOOR OR ROOF ABOVE.
6. AT BRACING WIRES INSTALL ANCHOR CLIP SO WIRE ALIGNS WITH THE DIRECTION OF FORCE ACTING ON WIRE.
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INCREMENT II - STEAM BUILDING PROJECT

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

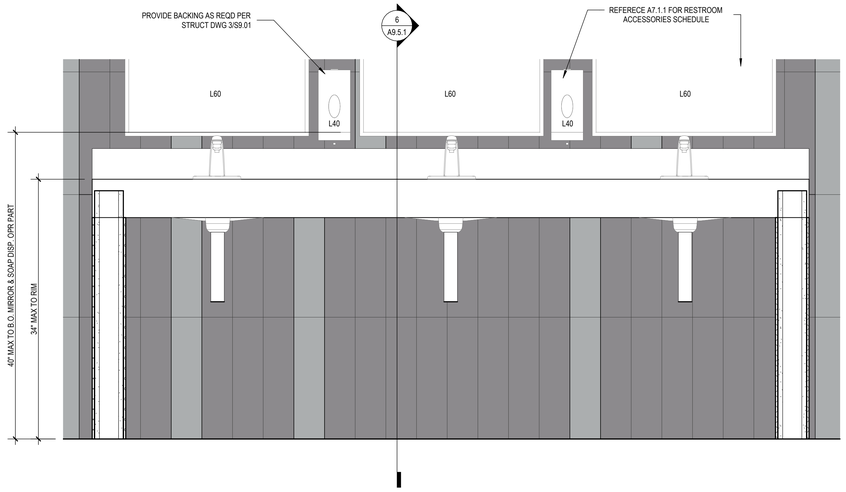
SHEET TITLE
TYPICAL CEILING DETAILS

PROJECT NUMBER
14794

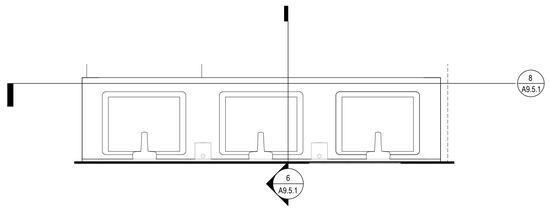
CD **A9.4.8**

SHEET NUMBER

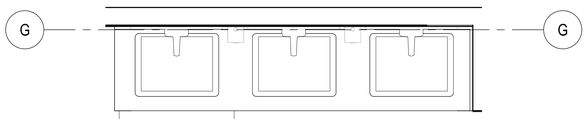
Author
8/23/2025 5:45:14 PM
Plot Date:



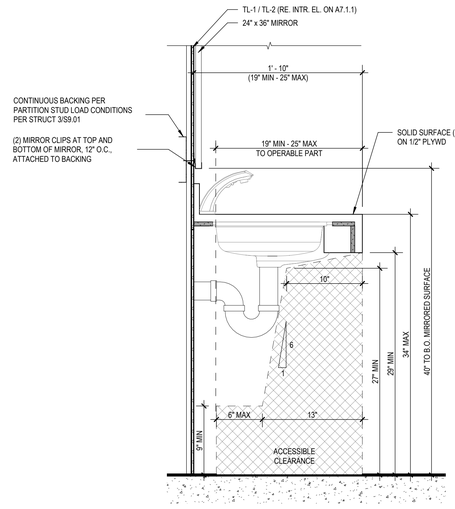
8 TYP. RESTROOM LAVATORY FRONT SECTION
SCALE: 1 1/2" = 1'-0"



9 LAVATORY LAYOUT - WOMEN'S RESTROOM
SCALE: 3/4" = 1'-0"

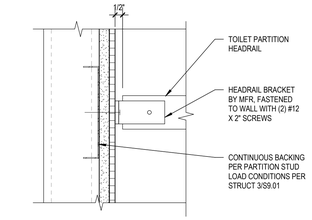


10 LAVATORY LAYOUT - MEN'S RESTROOM
SCALE: 3/4" = 1'-0"

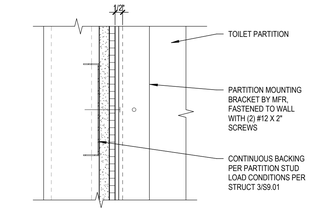


NOTE:
1. ALL EXPOSED SURFACES OF CABINETS SHALL HAVE A FINISHED PANEL. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER LAVATORIES.
2. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO MORE THAN 5 LBS. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE ACCEPTABLE. SELF CLOSING VALVES ARE ALLOWED IF THE FAUCET REAINS OPEN FOR AT LEAST 10 SECONDS.
3. PER DSA INTERPRETATION, DOORS ARE NOT PERMITTED AT ACCESSIBLE SINK - INSTALL PANEL AS SHOWN TO MAINTAIN MINIMUM KNEE & TOE CLEARANCE.
4. ANY OPERABLE PARTS (FAUCET CONTROL, SOAP DISPENSER, ETC.) SHALL NOT BE LOCATED BEYOND TOE SPACE PROVIDED IN DETAIL.
5. EXPOSED PLUMBING IS TO BE JACKETED, PER CBC 11B-606.5.

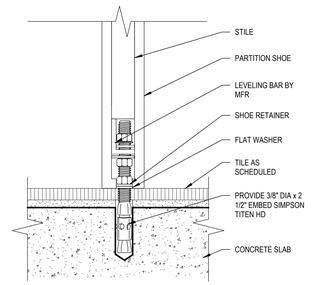
6 TYPICAL RESTROOM LAVATORY SECTION
SCALE: 1 1/2" = 1'-0"



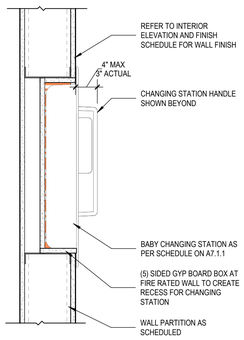
1 TOILET PARTITION OVERHEAD BRACE ATTACHMENT DETAIL
SCALE: 3" = 1'-0"



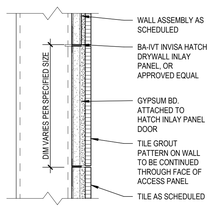
2 TOILET PARTITION ATTACHMENT DETAIL
SCALE: 3" = 1'-0"



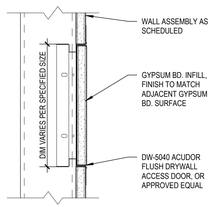
3 TOILET PARTITION FOOTING DETAIL
SCALE: 6" = 1'-0"



72 RECESSED BABY CHANGING STATION DETAIL
SCALE: 1 1/2" = 1'-0"

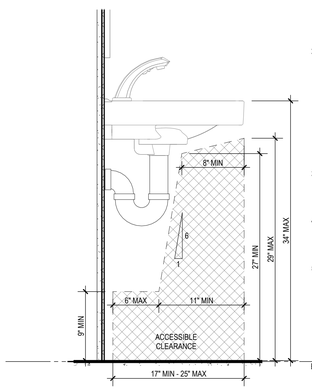


64 RECESSED INLAY TILE ACCESS PANEL DETAIL
SCALE: 3" = 1'-0"



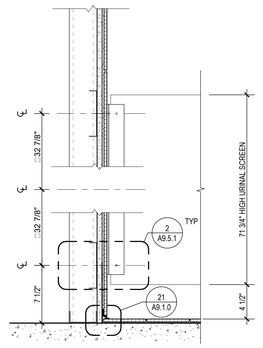
56 RECESSED GYP. BD. INFILL ACCESS PANEL DETAIL
SCALE: 3" = 1'-0"

PROVIDE BACKING PER STRUCT 3/S9.01

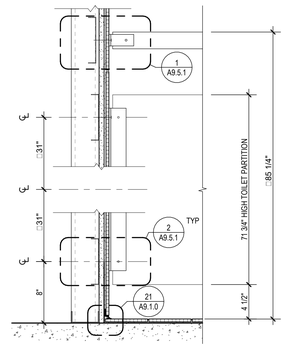


NOTE:
1. ALL EXPOSED SURFACES OF CABINETS SHALL HAVE A FINISHED PANEL. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER LAVATORIES.
2. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO MORE THAN 5 LBS. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE ACCEPTABLE. SELF CLOSING VALVES ARE ALLOWED IF THE FAUCET REAINS OPEN FOR AT LEAST 10 SECONDS.
3. PER DSA INTERPRETATION, DOORS ARE NOT PERMITTED AT ACCESSIBLE SINK - INSTALL PANEL AS SHOWN TO MAINTAIN MINIMUM KNEE & TOE CLEARANCE.
4. ANY OPERABLE PARTS (FAUCET CONTROL, SOAP DISPENSER, ETC.) SHALL NOT BE LOCATED BEYOND TOE SPACE PROVIDED BELOW.
5. UNDER LAVATORY PIPE INSULATION, TYP., PER 11B-606.5. WATER, DRAIN PIPES & BOTTOM OF SINGLE WALL SINKS ACCESSIBLE UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER LAVATORIES. IF SINGLE WALL SINK IS USED, INSULATE BOTTOM OF SINK

7 TYPICAL SINGLE OCC. LAVATORY SECTION
SCALE: 1 1/2" = 1'-0"



4 URINAL SCREEN @ WALL SECTION DETAIL
SCALE: 1 1/2" = 1'-0"



5 TOILET PARTITION @ WALL SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

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SEALS AND SIGNATURES

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CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
MISCELLANEOUS INTERIOR DETAILS

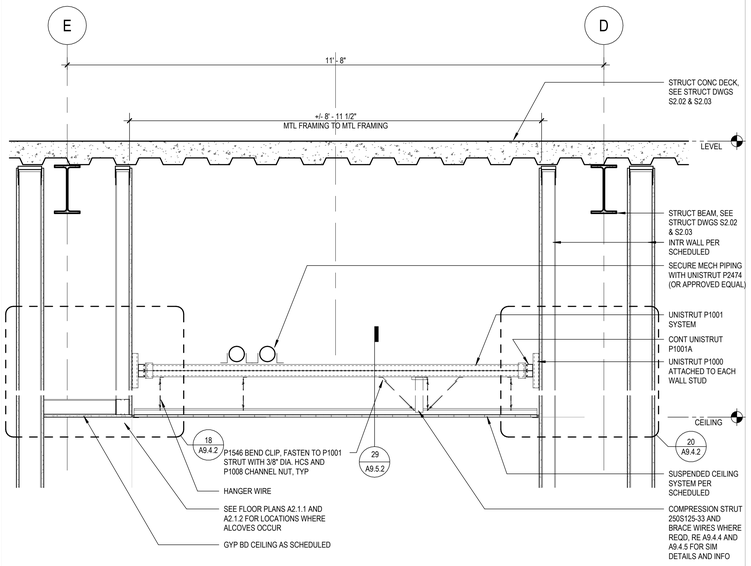
14794

PROJECT NUMBER
CD

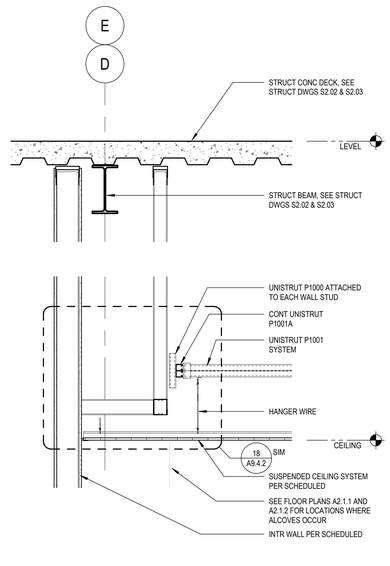
A9.5.1

SHEET NUMBER

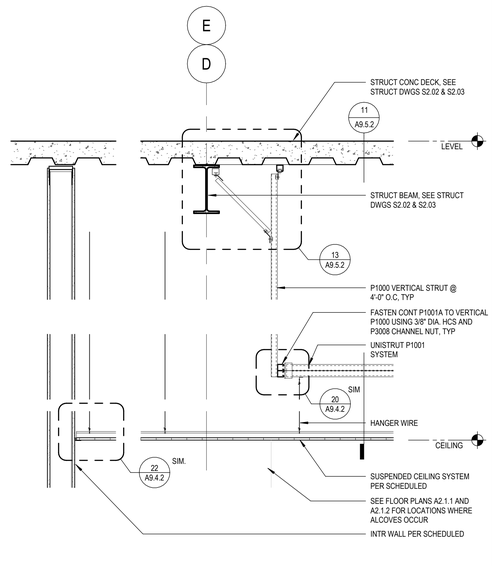
Plot Date: 8/23/2025 5:45:21 PM START Sheet



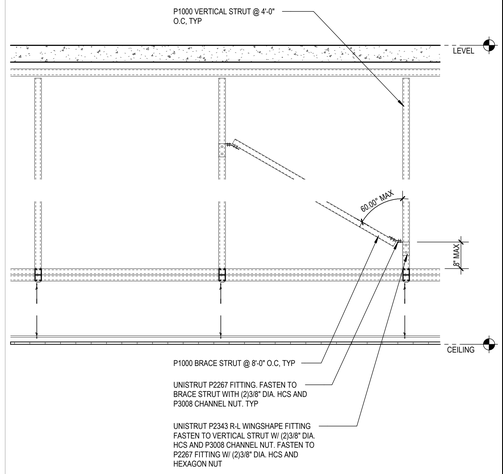
67 SECTION DETAIL - ACT AND UNISTRUT SYSTEM
SCALE: 3/4" = 1'-0"



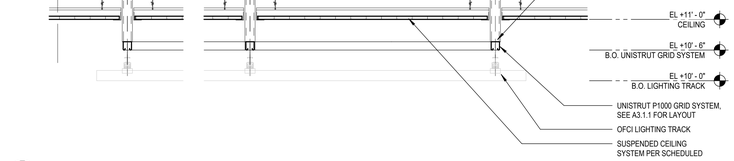
43 SECTION DETAIL - ACT AND UNISTRUT SYSTEM AT ALCOVE
SCALE: 3/4" = 1'-0"



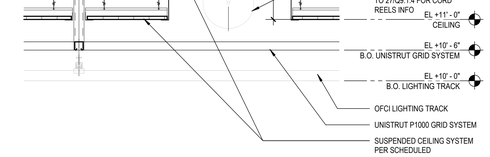
27 SECTION DETAIL - ACT AND UNISTRUT SYSTEM AT STUDY NOOK
SCALE: 3/4" = 1'-0"



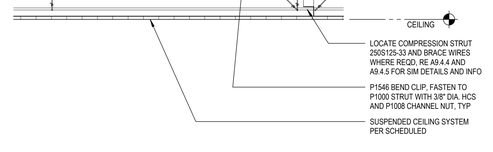
11 SECTION DETAIL - STRUT FRAMING ALONG CORRIDOR AT STUDY NOOK
SCALE: 3/4" = 1'-0"



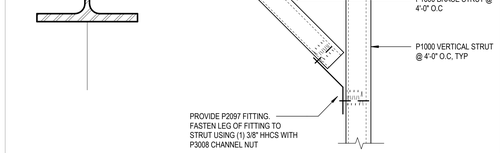
69 PHOTOGRAPHY UNISTRUT GRID - TRACK LIGHT
SCALE: 1" = 1'-0"



45 PHOTOGRAPHY UNISTRUT GRID - CORD REELS
SCALE: 1" = 1'-0"



29 SECTION DETAIL - ACT AND UNISTRUT SYSTEM
SCALE: 1" = 1'-0"



13 UNISTRUT SYSTEM CONNECTION TO STRUCT AT STUDY NOOK
SCALE: 3" = 1'-0"

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14794

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A9.5.2

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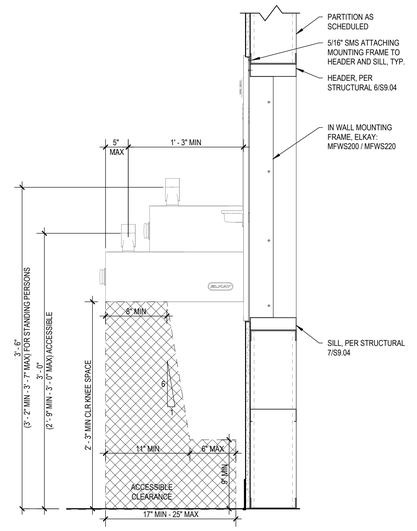
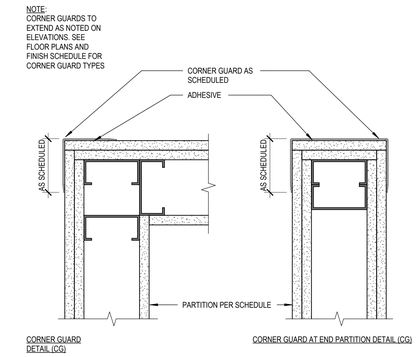
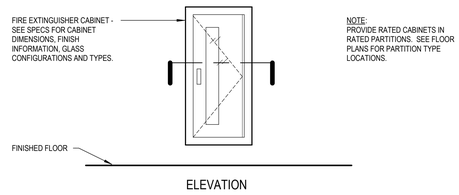
Plot Date: 8/23/2025 5:45:23 PM START Sheet



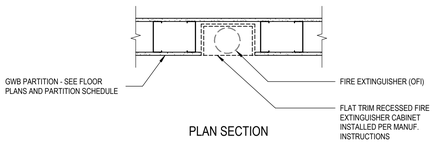
11 TYPICAL SECTION @ DRINKING FOUNTAIN W/ INTEGRAL BOTTLE FILLING STATION
SCALE: 1 1/2" = 1'-0"



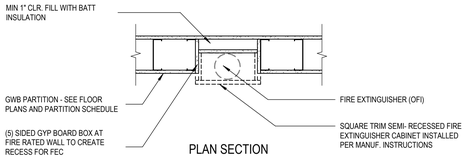
13 SECTION DETAILS AT SURFACE MOUNTED CORNER GUARDS
SCALE: 3" = 1'-0"



ELEVATION

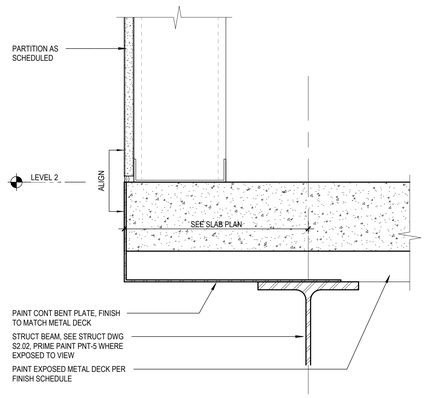


PLAN SECTION

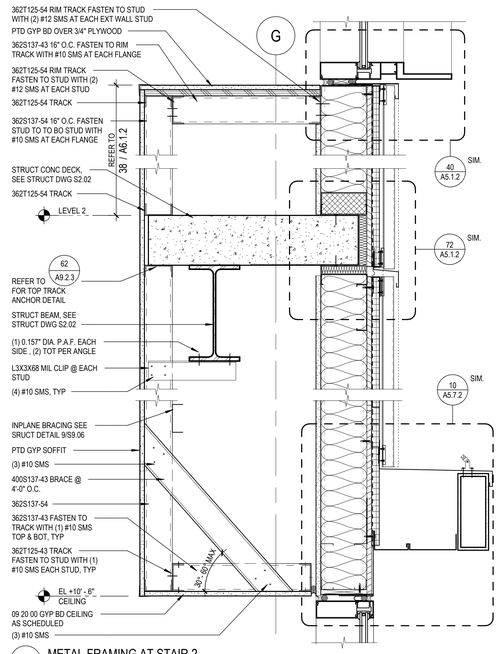


PLAN SECTION

16 ELEVATION AND PLAN DETAILS AT FIRE EXTINGUISHER CABINET
SCALE: 1" = 1'-0"



48 EDGE OF SLAB OPENING - STAIR 3
SCALE: 3" = 1'-0"



32 METAL FRAMING AT STAIR 2
SCALE: 1 1/2" = 1'-0"

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14794
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CD **A9.5.3**
SHEET NUMBER

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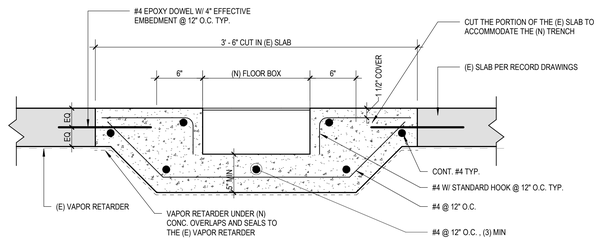
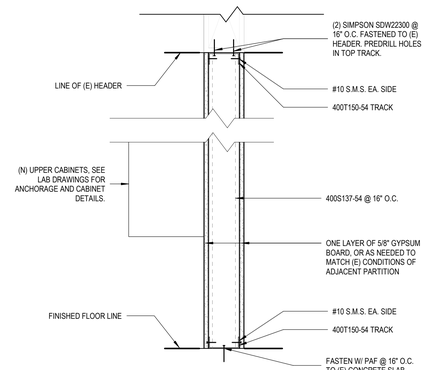
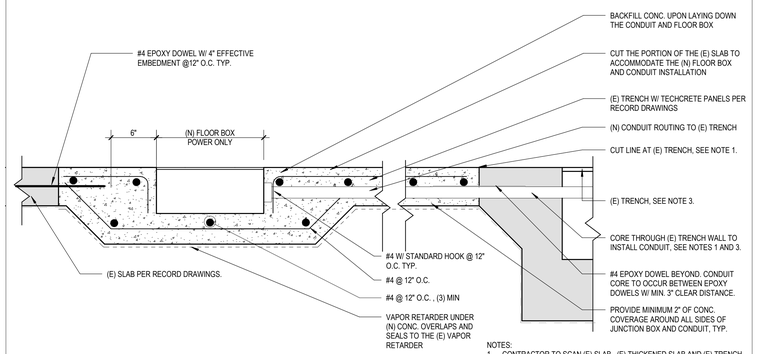


34 SLAB ON GRADE UTILITY TRENCH DETAIL
SCALE: 1 1/2" = 1'-0"

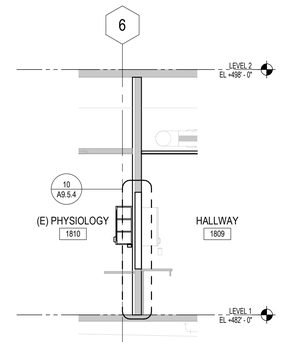


10 INFILL DETAIL @ HALLWAY
SCALE: 1 1/2" = 1'-0"



NOTES:
1. CONTRACTOR TO SCAN (E) SLAB, (E) THICKENED SLAB AND (E) TRENCH WALLS PRIOR TO COMMENCING WORK.
2. SEE DETAIL 34/A9.5.3 FOR INFORMATION NOT NOTED IN THIS DETAIL.
3. CONTRACTOR TO PRESERVE ALL (E) TRENCH AND GRATING SUPPORT ELEMENTS.

36 SLAB ON GRADE UTILITY TRENCH DETAIL
SCALE: 1 1/2" = 1'-0"



12 SECTION - INFILL WALL AT HALLWAY AND CLASSROOM
SCALE: 1/4" = 1'-0"

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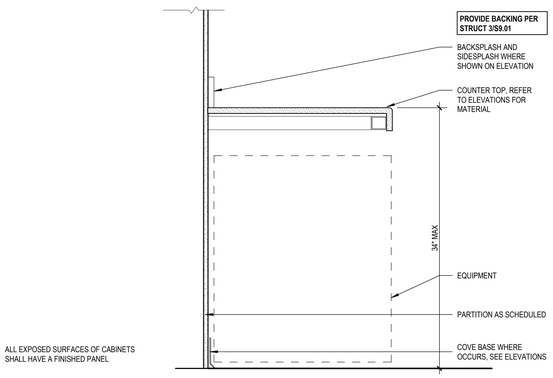
SHEET TITLE
BUILDING 1800 - MISCELLANEOUS DETAILS

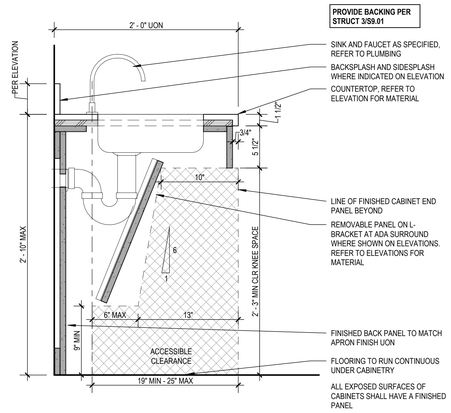
14794
PROJECT NUMBER

CD
A9.5.4
SHEET NUMBER

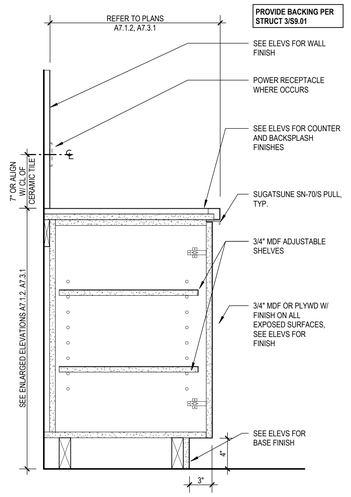
Plot Date: 7/24/2025 10:49:43 AM Author



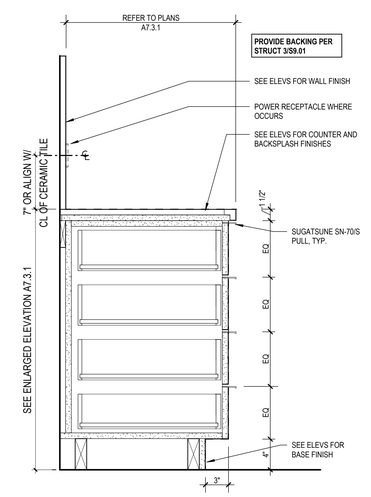
59 COUNTERTOP TYP
SCALE: 1 1/2" = 1'-0"



43 BASE CABINETS WITH SINK
SCALE: 1 1/2" = 1'-0"

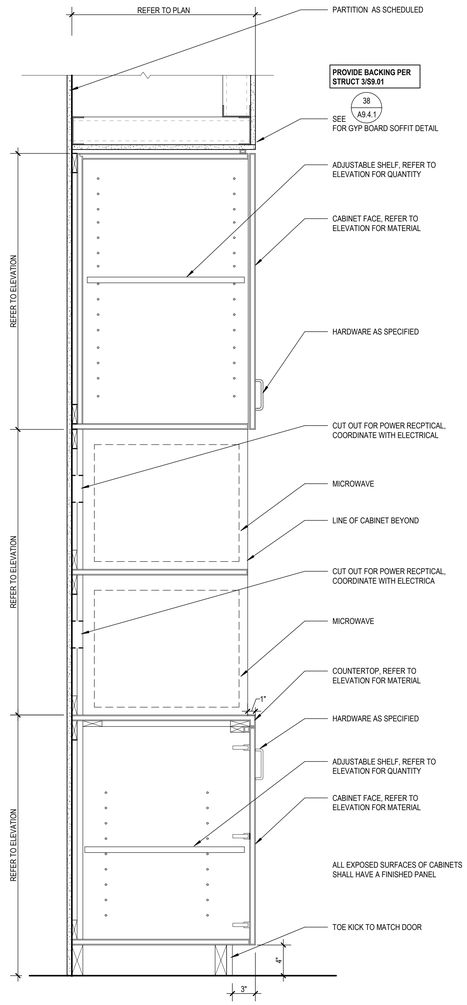


27 BASE CABINETS WITH DOOR
SCALE: 1 1/2" = 1'-0"



11 BASE CABINETS WITH DRAWERS
SCALE: 1 1/2" = 1'-0"

56 FILLER PANEL TYP
SCALE: 3" = 1'-0"



48 TC-MD - TALL CABINET WITH MICROWAVE SHELF, AND DOORS
SCALE: 1 1/2" = 1'-0"

32 UPPER CABINET AT BREAK ROOM
SCALE: 1 1/2" = 1'-0"

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WOODWORK DETAILS

14794
PROJECT NUMBER

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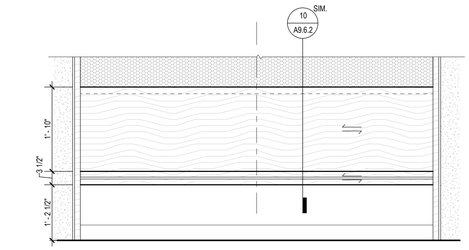
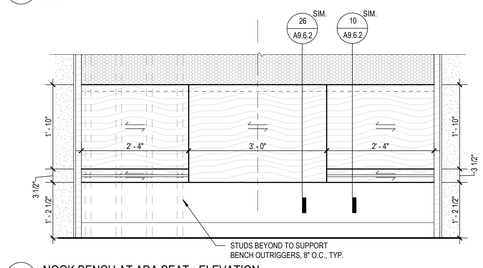
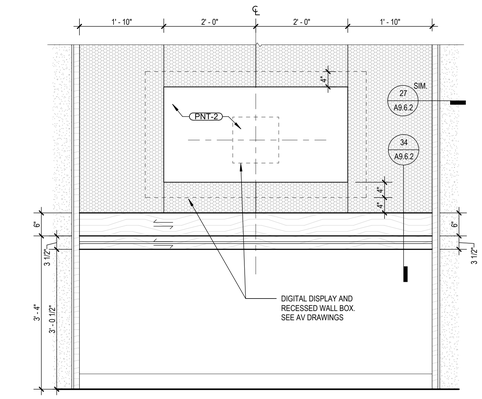
SHEET NUMBER



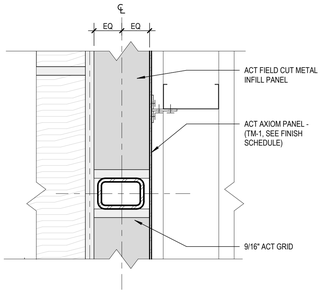
66 NOOK BENCH AT SEAT - ELEVATION
SCALE: 3/4" = 1'-0"



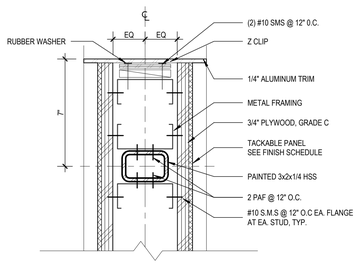
67 NOOK BENCH AT ADA SEAT - ELEVATION
SCALE: 3/4" = 1'-0"



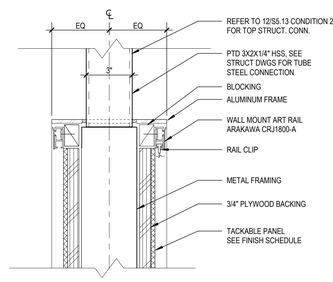
69 NOOK AT BAR TABLETOP
SCALE: 3/4" = 1'-0"



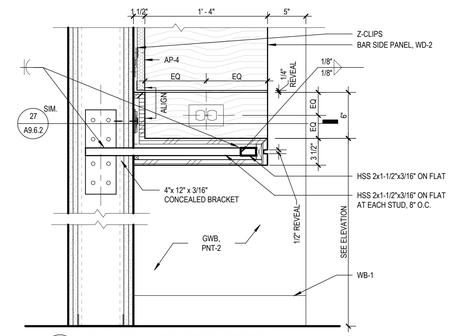
50 GALLERY WALL - RCP DETAIL
SCALE: 3" = 1'-0"



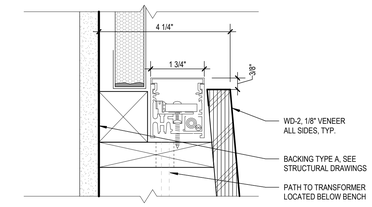
52 GALLERY WALL - PLAN DETAIL
SCALE: 3" = 1'-0"



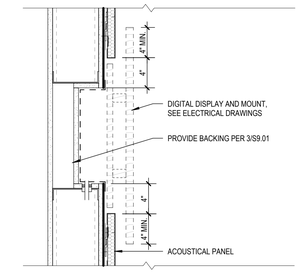
53 GALLERY WALL - AT TOP - SECTION DETAIL
SCALE: 3" = 1'-0"



34 NOOK AT BAR TABLETOP - SECTION
SCALE: 1 1/2" = 1'-0"

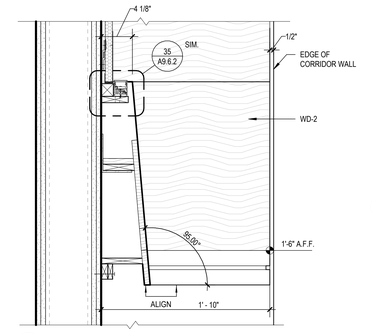


35 NOOK BENCH AT COVE LIGHT - SECTION
SCALE: 6" = 1'-0"

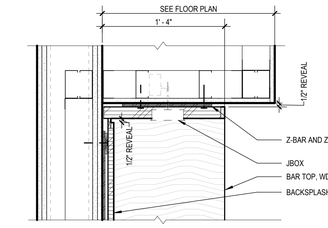


37 DISPLAY BACK-BOX
SCALE: 1 1/2" = 1'-0"

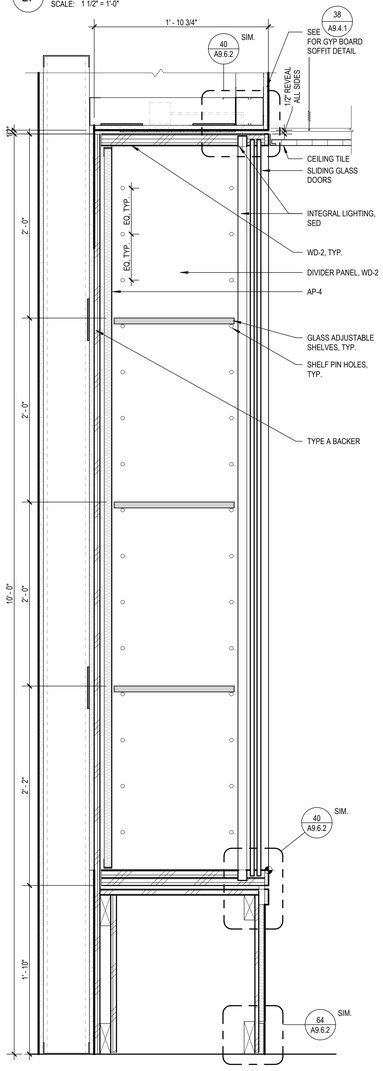
40 DISPLAY CASE - SECTION DETAIL
SCALE: 6" = 1'-0"



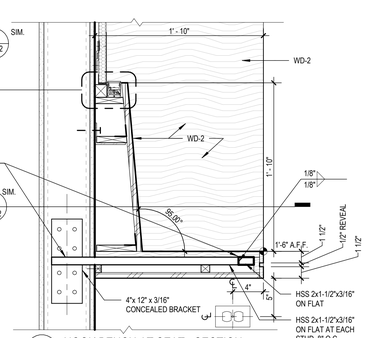
26 NOOK BENCH AT ADA AREA - SECTION
SCALE: 1 1/2" = 1'-0"



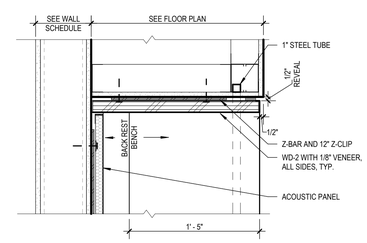
27 NOOK - CORNER AT BAR TABLE
SCALE: 1 1/2" = 1'-0"



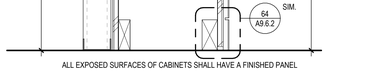
32 DISPLAY CASE - SECTION
SCALE: 1 1/2" = 1'-0"



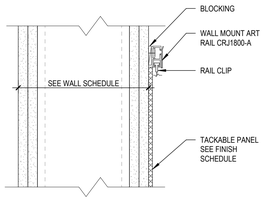
10 NOOK BENCH AT SEAT - SECTION
SCALE: 1 1/2" = 1'-0"



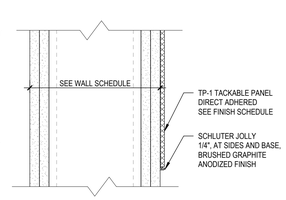
11 NOOK - CORNER AT BENCH - PLAN
SCALE: 1 1/2" = 1'-0"



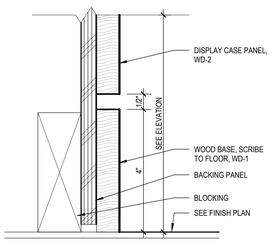
16 DRINK CUBBY - SECTION
SCALE: 1 1/2" = 1'-0"



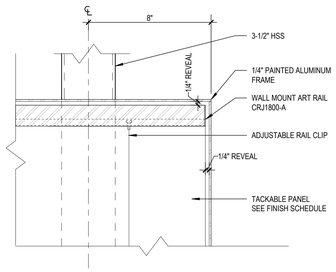
70 ART WALL RAIL
SCALE: 3" = 1'-0"



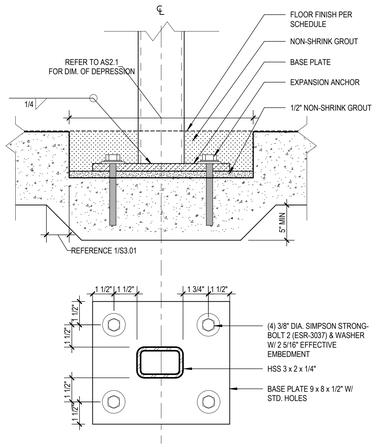
62 TACKABLE PANEL TRIM
SCALE: 3" = 1'-0"



64 WOOD BASE SECTION DETAIL
SCALE: 6" = 1'-0"



56 GALLERY WALL - AT CORNER - ELEVATION DETAIL
SCALE: 3" = 1'-0"



55 GALLERY WALL - FLOOR MOUNT - SECTION DETAIL
SCALE: 3" = 1'-0"

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INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
WOODWORK DETAILS

14794
PROJECT NUMBER

CD
A9.6.2
SHEET NUMBER

START Sheet
8/23/2025 5:45:29 PM
Plot Date:

FINISH AND MATERIAL SCHEDULE

TAG	MATERIAL DESCRIPTION	TYPE	MANUFACTURER/SUPPLIER	SERIES/NAME	COLOR	Material: FINISH	SIZE	INSTALLATION	NOTES
CEILING									
CLG-1	ACOUSTIC CEILING TILE	CEILING	ARMSTRONG	ULTIMA TEGULAR	WHITE		24" x 48"	TEGULAR	CORRIDOR, CLASSROOMS, LABS
CLG-2	ACOUSTIC CEILING TILE	CEILING	ARMSTRONG	CALLA HEALTHZONE AIRASSURE	WHITE		24" x 48"	TEGULAR	CADAVER ROOM
CLG-3	ACOUSTIC CEILING TILE	CEILING	ARMSTRONG	WOODWORKS TEGULAR	HEMLOCK	W4 - PERF.TYPE	24" x 48"	2609BK TEGULAR	SOCIAL ZONES
CLG-4	ACOUSTIC CEILING TILE	CEILING	ARMSTRONG	TECHZONE	GUN METAL		6"	TEGULAR	AT STUDENT GALLERY WALL
CLG-5	ACOUSTIC CEILING TILE	CEILING	ARMSTRONG	BACKSTAGE NOIR	BLACK		24" x 48"	TEGULAR	PRELUDE XL 15/16" CHARCOAL
CLG-6	GYPSUM WALL BOARD	CEILING			WHITE				SOCIAL ZONES, CLASSROOM AND LAB PERIMETER
CLG-7	EXPOSED, NO PAINT	CEILING							
EXTERIOR									
CW-1	CURTAIN WALL FRAME	EXTERIOR	KAWNEER	1600 CURTAIN WALL SYSTEM	CHARCOAL				
EXT-01A	STUCCO	EXTERIOR	STO	SMOOTH SAND FINISH	STO 16284 - STONE 10				
EXT-01B	STUCCO	EXTERIOR	STO	COMBED VERTICAL	STO 16280 - STONE 10	3/16" NOTCH			
EXT-02A	METAL PANEL	EXTERIOR	MORIN	12" METAL PANEL - MX 02	CUSTOM: SW 6629 - JALAPENO				SEE EXTERIOR ELEVATIONS
EXT-02B	METAL PANEL	EXTERIOR	MORIN	12" METAL PANEL - MX 06	CUSTOM - SW 7599 - BRICK PAVER				SEE EXTERIOR ELEVATIONS
EXT-02C	METAL PANEL	EXTERIOR	MORIN	12" METAL PANEL - MX 06	ASCOT WHITE				SHAFT ENCLOUSURE ROOF
EXT-03	METAL PANEL	EXTERIOR	MORIN	12" METAL PANEL - MX 06	ASCOT WHITE				ROOF SCREEN
EXT-05A	STUCCO SOFFIT	EXTERIOR	STO	SMOOTH SAND FINISH	STO 16284 - STONE 10		VARIES	DRY REVEAL	SOUTH STAIR, WEST EXT. ENTRY SOFFIT
EXT-05B	STUCCO SOFFIT	EXTERIOR	STO	SMOOTH SAND FINISH	STO 16280 - STONE 10		VARIES	DRY REVEAL	SOUTH STAIR TERRACE. SOLID CANOPY AREAS
LOU-1	AIRFOIL	EXTERIOR	CONSTRUCTION SPECIALTIES, INC.	1-PIECE AIRFOIL	COPPER METALLIC		1"X10" SECTION		CANOPY AND VERTICAL SHADING STRUCTURE
PNT-5	PAINT	EXTERIOR	BENJAMIN MOORE		IRON MOUNTAIN - 2134-30				SEE EXTERIOR ELEVATIONS AND DETAILS
PNT-6	PAINT	EXTERIOR	SHERWIN WILLIAMS		BRICK PAVER - SW 7599				SEE EXTERIOR ELEVATIONS AND DETAILS
FLOOR									
CONC-1	SEALED CONCRETE	FLOOR							MEP ROOMS
CONC-2	SEALED CONCRETE	FLOOR			TRAFFIC COATING, COLOR TBD				STAIR 1 CAST-IN-PLACE, TRAFFIC COATING ON ALL TREADS & RISERS
CONC-3	PRECAST TREAD AND RISER	FLOOR	WAUSAU	PREMIUM GROUND & POLISHED	G33 MISTY GRAY				STAIR 2 TREAD AND RISER. CUSTOMIZED MIX
CPT-1	CARPET	FLOOR	TARKETT	AFTERMATH II	FIREWORKS - 23614		24" x 24"	QUARTER TURN	SOCIAL ZONES
CPT-2	CARPET	FLOOR	TARKETT	AGGREGATE	STREETSCAPE		24" x 24"	QUARTER TURN	COMPUTER LAB, GRAPHIC DESIGN
CPT-3	CARPET	FLOOR	TARKETT	ABRASIVE ACTION II	CHARCOAL		72" ROLL		WALK OFF MAT
FT-1	CERAMIC TILE	FLOOR	DALTILE	FABRIC ART	MEDIUM GRAY		12" x 24"		EPOXY GROUT - COLOR TBD, CLEAVAGE MEMBRANE WHERE SPECIFIED
RF-1	RESILIENT FLOOR	FLOOR	MOHAWK	HOT & HEAVY II BOLDER 2.5	FLINT		18" x 36"	BRICK ASHLAR	CORRIDOR
RF-2	RESILIENT FLOOR	FLOOR	MOHAWK	HOT & HEAVY II BOLDER 2.5	OBSIDIAN		18" x 36"	BRICK ASHLAR	SOCIAL ZONES
RF-3	RESILIENT FLOOR	FLOOR	NORA	DARIVA	SMOKE		48" ROLL		LABS, 4" INTEGRAL BASE AT WALLS AND LAB CASEWORK
RF-4	RESILIENT FLOOR	FLOOR	NORA	DARIVA	CHARCOAL		48" ROLL		DARKROOM, FILM, 4" INTEGRAL BASE AT WALLS AND LAB CASEWORK
RF-5	RESILIENT FLOOR	FLOOR	TARKETT	COLOR SPLASH SPECKLED	SANDHILL CRANE		24" x 24"		ART CLASSROOMS
RF-6	RESILIENT FLOOR	FLOOR	TARKETT	IQ GRANIT SD	DARK GREY		24" x 24"		BOF, IDF
RF-7	RESINOUS FLOOR	FLOOR	DEX-O-TEX	POSI-TRED-O	BRIGHT GRAY				CUSTODIAL, CHEM WASTE/ STOR., CADAVER (ANTI-SKID)- 6" INTEGRAL BASE AT WALLS, 4" INTEGRAL BASE AT CASEWORK AND STAINLESS STEEL CABINET, REFER TO DETAIL 61/Q9.1.1
RF-8	RESILIENT FLOOR	FLOOR	JOHNSONITE	ANGLE FIT RUBBER STAIR TREAD & RISER	VAPOR GREY 23				STAIR 3 TREAD AND RISER FINISH
PAINT									
EP-1	PAINT - EPOXY	PAINT	BENJAMIN MOORE						
PNT-1	PAINT	PAINT	BENJAMIN MOORE		SIMPLY WHITE	EGGSHELL			EGGSHELL
PNT-2	PAINT	PAINT	BENJAMIN MOORE		PELICAN GRAY	EGGSHELL			ACCENT WALLS
PNT-3	PAINT	PAINT	BENJAMIN MOORE		POMEGRANATE (TBD)	EGGSHELL			ACCENT WALLS
PNT-4	PAINT	PAINT	BENJAMIN MOORE			EGGSHELL			DARKROOM
SPECIALTY									
C-1	BLACKOUT CURTAIN	SPECIALTY	AKON CURTAINS	BLACKOUT VELOUR	BLACK		11' TALL	WITH VALANCE	100% FULLNESS
CG-1	CORNER GUARD	SPECIALTY	KOROSEAL WALL PROTECTION SYSTEMS	KOROGARD G800 SERIES VINYL CORNER GUARD	SIMPLY WHITE (TBD)		3/4"		ALONG CORRIDOR, REFER TO A2.1.1, A2.1.2 & A9.5.2
CG-2	CORNER GUARD	SPECIALTY	KOROSEAL WALL PROTECTION SYSTEMS	KOROGARD G800 SERIES VINYL CORNER GUARD	SIMPLY WHITE (TBD)		1-1/2"		ALONG CORRIDOR, REFER TO A2.1.1, A2.1.2 & A9.5.2
CG-3	CORNER GUARD	SPECIALTY	CONSTRUCTION SPECIALTIES, INC.	CO-8	STAINLESS STEEL (TBD)		3-1/2"		IN LAB SPACES, REFER TO A2.1.1, A2.1.2 & A9.5.2
MB-1	MARKERBOARD	SPECIALTY	CLARIDGE	VERTICAL SLIDING SYSTEM	WHITE - 100		VARIES		LABS AND CLASSROOMS
MB-2	MARKERBOARD	SPECIALTY	CLARIDGE	LCS DELUXE	WHITE - 100		4' TALL		CLASSROOMS
MB-3	MARKERBOARD	SPECIALTY	TM	FCS	BRIGHT WHITE		8' TALL		SOCIAL ZONES
PLAM-2	COMPOSITE	SPECIALTY	BOBRICK	REINFORCED COMPOSITE (SCRC)	FOREST GREEN SC04				RESTROOM TOILET PARTITION
PLAM-3	FIBER REINFORCED PLASTIC	SPECIALTY	ACROVYN	-	MATCH PNT-1				CUSTODIAL ROOMS
SS-1	SOLID SURFACE	SPECIALTY	CORIAN	PEARL GRAY	PEARL GRAY			MITERED CORNERS	PHOTOGRAPHY COMPUTER LAB, BREAK ROOM, HUDDLE, SHARED OFFICE
SS-2	SOLID SURFACE	SPECIALTY	CORIAN	SPARKLING GRANITA	SPARKLING GRANITA			MITERED CORNERS	RESTROOM
SS-3	SOLID SURFACE	SPECIALTY	FUNDERMAX	PHENOLIC RESIN	DEEP BLACK				DARKROOM AND FILM, REFER TO Q-DRAWINGS AND SPEC
SS-4	SOLID SURFACE	SPECIALTY	FUNDERMAX	EPOXY RESIN	GREY				LABS, REFER TO Q-DRAWINGS AND SPEC
SS-5	SOLID SURFACE	SPECIALTY	FUNDERMAX	PHENOLIC RESIN	CHAROCOAL				MAIN PHOTO LAB & WORKROOM, REFER TO Q-DRAWINGS AND SPEC
STL-1	STAIR 1 RAILING & STRINGER	SPECIALTY		PAINTED STEEL	MATCH PNT-5				STAIR 1 GUARDRAIL & STRINGER
STL-2A	STAIR 2 RAILING & STRINGER	SPECIALTY		PAINTED STEEL	MATCH PNT-1				STAIR 2 GUARDRAIL & STRINGER
STL-2B	STAIR 2 HANDRAIL	SPECIALTY			STAINLESS STEEL				STAIR 2 HANDRAIL
STL-3	STAIR 3 RAILING & STRINGER	SPECIALTY		PAINTED STEEL	MATCH PNT-1				STAIR 3 GUARDRAIL & STRINGER
STL-4	PAINTED EXPOSED HSS TUBE	SPECIALTY			CHARCOAL				MATCH CW-1'S COLOR
TM-1	AXIOM TRANSITION	SPECIALTY	ARMSTRONG	AXIOM	MEDIUM TAUPE (MT)		VARIES		AT WOODWORKS CEILING TRANSITIONS, SEE CEILING DETAILS
TM-2	AXIOM TRANSITION	SPECIALTY	ARMSTRONG	AXIOM	MEDIUM TAUPE (MT)		2" TALL		PERIMETER TRIM. AT WOODWORKS CEILING LINEAR LIGHT FIXTURE EDGES, SEE CEILING DETAILS
TM-3	AXIOM TRANSITION	SPECIALTY	ARMSTRONG	AXIOM	MEDIUM TAUPE (MT)		8" TALL		PERIMETER TRIM. AT NOOK TO CEILING TRANSITIONS, SEE CEILING DETAILS
TM-4	AXIOM TRANSITION	SPECIALTY	ARMSTRONG	AXIOM	WHITE (WH)		4" TALL		ONE PIECE DRYWALL TRIM. AT RESTROOM CEILING EDGES, SEE CEILING DETAILS
TP-1	TACKABLE PANEL	SPECIALTY	FORBO	BULLETIN	POTATO SKIN			SCHLUTER TRIM AT EXPOSED EDGES	SOCIAL ZONES, ART RAIL CRJ1800-A, SCHLUTER JOLLY 1/4", AT SIDES AND BASE, BRUSHED GRAPHITE ANODIZED FINISH
TP-2	TACKABLE PANEL	SPECIALTY	FORBO	BULLETIN	OYSTER SHELL			SCHLUTER TRIM AT EXPOSED EDGES	CLASSROOMS
WD-1	WOOD - SOLID	SPECIALTY			WHITE OAK				RIFT SAWN
WD-2	<varies>	SPECIALTY			WHITE OAK			<varies>	RIFT SAWN
WD-3	WOOD - LAB	SPECIALTY	KEWAUNEE	WOOD CASEWORK	SEASIDE OAK - 102				
WS-1	SUNSHADE	SPECIALTY	MECHOSHADE	EUROTWILL	CHARCOAL - 6011	3%		MANUAL	TYPICAL
WS-2	SUNSHADE	SPECIALTY	MECHOSHADE	EUROTWILL & CHELSEA BLACKOUT	CHARCOAL - 6011 & 0253	3% & OPAQUE		MANUAL	ANATOMY LABS
WS-3	SUNSHADE	SPECIALTY	MECHOSHADE	EUROTWILL & CHELSEA BLACKOUT	CHARCOAL - 6011 & 0253	3% & OPAQUE		MOTORIZED	DRAWING CLASSROOM, PAINTING CLASSROOM
WALL									
AP-1	ACOUSTIC PANEL	WALL	AUTEX	CUBE	SAVOYE		1"	SCHLUTER TRIM AT EXPOSED EDGES	SEE INTERIOR ELEVATIONS
AP-2	ACOUSTIC PANEL	WALL	AUTEX	CUBE	CAVALIER		1"	SCHLUTER TRIM AT EXPOSED EDGES	SEE INTERIOR ELEVATIONS
AP-4	FABRIC WRAPPED PANEL	WALL	DECOUSTICS	ACOUSTICAL WALL PANEL (AP)	FABRIC: CARNEGIE XOREL METEOR		1"	SQUARE CORNERS, BUTT JOINT SEAMS	NOOKS, SOCIAL ZONES
TL-1	CERAMIC TILE	WALL	DALTILE	COLOR WHEEL LINEAR	DESERT GRAY	MATTE	4" x 12"	SCHLUTER- DILEX- PHK IN 'CLASSIC GREY' AT TILE WALL FLOOR TRANSITION	RESTROOM FIELD
TL-2	CERAMIC TILE	WALL	DALTILE	COLOR WHEEL LINEAR	SUEDE GRAY	MATTE	4" x 12"	SCHLUTER- DILEX- PHK IN 'CLASSIC GREY' AT TILE WALL FLOOR TRANSITION	RESTROOM ACCENT
WB-1	WALL BASE	WALL	TARKETT	JOHNSONITE TV	BEDROCK		4"		SOCIAL ZONES
WB-2	WALL BASE	WALL	TARKETT	JOHNSONITE TV	BURNT UMBER		4"		CLASSROOMS
WB-4	WALL BASE	WALL	DALTILE	COLOR WHEEL LINEAR	MATTE ARCTIC WHITE	BULLNOSE TRIM (ON 12" SIDE)	4" x 12"	SCHLUTER- DILEX- PHK IN 'CLASSIC GREY' AT GYP. WALL FLOOR TRANSITION	RESTROOM GYP. WALLS
WINDOW & STOREFRONT									
AL-1	ALUMINUM FRAME	WINDOW & STOREFRONT			CHARCOAL	ANODIZED			MATCH CW-1'S COLOR
IGL-1	GLASS	WINDOW & STOREFRONT		LOW-IRON LAMINATED GLASS	INTERLAYER: CLEAR, POLISH EDGE		1/2"		STUDENT COLLABORATION
IGL-2	GLASS	WINDOW & STOREFRONT		DOUBLE GLAZED W/ 2" AIR GAP	CLEAR, POLISH EDGE		2-3/4"		2" AIR GAP BETWEEN 3/8" GLASS

ROOM FINISH SCHEDULE

NUMBER	NAME	FINISH: FLOOR	BASE	WALL	CEILING	SPECIAL NOTES AND COMMENTS
LEVEL 1						
15100	LOBBY	RF-1	WB-1	PNT-1, PNT-2	CLG-7	
15100A	SOUTH CORRIDOR	RF-1	WB-1	PNT-1	CLG-1	
15100B	NORTH CORRIDOR	RF-1	WB-1	PNT-1	CLG-1	
15100C	STUDENT COLLAB	CPT-1	WB-1	PNT-2,AP-2,AP-4	CLG-3	
15100D	STU. GALLERY	CPT-1	WB-1	PNT-1,PNT-2,TP-1	CLG-3, CLG-4	
15100E	SOUTH ENTRY	CPT-3	WB-1	PNT-3, AP-2, AP-3	CLG-3, CLG-4	
15100F	NORTH ENTRY	CPT-3	WB-1	PNT-1	CLG-1	
15100G	STAIR 2	RF-2	WB-1	PNT-3	CLG-3, CLG-4	
15101	MAIN PHOTO LAB	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15101A	DARKROOM	RF-4	RF-4	PNT-4	CLG-5	
15101B	FILM	RF-4	RF-4	PNT-4	CLG-5	
15101C	PHOTOGRAPHY COMP. LAB	CPT-2	WB-2	PNT-1, PNT-2	CLG-1	
15101D	WORKROOM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15101E	PHOTOGRAPHY STUDIO	RF-3	RF-3	PNT-1	CLG-1	
15101F	EQUIP CHECKOUT / STOR.	RF-3	RF-3	PNT-1	CLG-1	
15101G	PHOTO STORAGE	RF-3	RF-3	PNT-1	CLG-1	
15102	SHARED LEARNING - ANATOMY	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15103	GRAPHIC DESIGN LAB	CPT-2	WB-2	PNT-1, PNT-2	CLG-1	
15103A	GD WORKROOM / STOR.	CPT-2	WB-2	PNT-1, PNT-2	CLG-1	
15104	ANATOMY	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15104A	CADAVER	RF-7	RF-7	EP-1	CLG-2	
15105	PHYSIOLOGY	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15106	ANATOMY	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15107	BIO PREP	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15107A	CHEM WASTE/STOR.	RF7	RF-7	PNT-1	CLG-2	
15109	MICROBIOLOGY	RF-3	RF-3	PNT-1, PNT -2	CLG-1	
15109A	MICROBIO WORKRM	RF-3	RF-3	PNT-1	CLG-1	
15180	MARSHALLING	CONC-1	WB-1	PNT-1	CLG-8	
15181	ELEC. STANDBY ROOM	CONC-1	WB-1	PNT-1	CLG-8	
15182	MAIN ELEC. ROOM	CONC-1	WB-1	PNT-1	CLG-8	
15183	MECH	CONC-1	WB-1	PNT-1	CLG-8	
15184	STUDENT STUDY	CPT-1	WB-1	PNT-2,AP-2,AP-4	CLG-3	
15185	BDF	RF-6	WB-1	PNT-1	CLG-8	
15186	MEN'S	FT-1	WB-4	TL-1, TL-2, PNT-1	CLG-6	
15187	WOMEN'S	FT-1	WB-4	TL-1, TL-2, PNT-1	CLG-6	FLOOR TILE INSTALLATION TO INCLUDE CLEAVAGE MEMBRANE
15188	SINGLE OCC	FT-1	WB-4	TL-1,TL-2,PNT-1	CLG-6	FLOOR TILE INSTALLATION TO INCLUDE CLEAVAGE MEMBRANE
15189	ELEV. CTRL	CONC-1	WB-1	PNT-1	CLG-8	
15191	ROOF ACCESS	RF-2	WB-1	PNT-1,PLAM-4	CLG-8	
15192	STAIR 3	RF-1	WB-1	PNT-2, PNT-3	CLG-7	PAINT EXPOSED METAL DECK PNT-2
LEVEL 2						
15100G	STAIR 2	RF-2		PNT-2, PNT-3	CLG-3, CLG-4	
15192	STAIR 3	RF-2	WB-1	PNT-2, PNT-3	CLG-7	PAINT EXPOSED METAL DECK PNT-2
15200	CORRIDOR	RF-1	WB-1	PNT-1	CLG-1	
15200A	SOUTH CORRIDOR	RF-1	WB-6	PNT-1	CLG-1	
15200B	NORTH CORRIDOR	RF-1	WB-6	PNT-1	CLG-1	
15200C	COMMUNITY SPACE	CPT-1	WB-1	PNT-2,PNT-3,TP-1	CLG-3, CLG-4	
15200D	STUDENT COLLAB	CPT-1	WB-1	PNT-3, AP-2	CLG-3, CLG-4	
15200E	STUDENT COLLAB	CPT-1	WB-1	PNT-3, AP-1	CLG-3, CLG-4	
15201	BALANCE	RF-3	RF-3	PNT-1	CLG-1	
15202	PAINTING STUDIO	RF-5	WB-2	PNT-1, PNT-2	CLG-1	
15203	ORGANIC CHEM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15204	DRAWING STUDIO	RF-5	WB-2	PNT-1,PNT-2	CLG-1	
15204A	PAINT STOR. SUPPLY	RF-5	WB-2	PNT-1	CLG-1	
15205	INSTRUMENT ROOM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15206	BREAK ROOM	RF-2	WB-1	PNT-1,PNT-2	CLG-1	
15207	CHEM LAB PREP	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15208	SHARED OFFICE	CPT-1	WB-1	PNT-1,PNT-2	CLG-1	
15209	CHEM WASTE/STOR.	RF-7	RF-7	PNT-1	CLG-2	
15210	HUDDLE	CPT-1	WB-1	PNT-2,PNT-3	CLG-1	
15211	GEN CHEM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15212	INTRO CHEM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15213	BALANCE	RF-3	RF-3	PNT-1	CLG-1	
15214	BALANCE	RF-3	RF-3	PNT-1	CLG-1	
15215	GEN CHEM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15216	INTRO CHEM	RF-3	RF-3	PNT-1, PNT-2	CLG-1	
15281	LAC	CPT-1	WB-1	PNT-3	CLG-1	
15282	SINGLE OCC	FT-1	WB-4	TL-1,TL-2,PNT-1	CLG-7	
15283	CUST	RF-7	WB-5	PNT-1,PLAM-4	CLG-8	
15284	ELEC	RF-6	WB-2	PNT-1	CLG-8	
15285	IDF	RF-6	WB-2	PNT-1	CLG-8	
15286	MEN'S	FT-1	WB-4	PT-1, PT-3, TL-1, TL-2	CLG-6	
15287	WOMEN'S	FT-1	WB-4	TL-1, TL-2, PNT-1	CLG-6	
15288	SINGLE OCC	FT-1	WB-4	TL-1, TL-2, PNT-3	CLG-7	FLOOR TILE INSTALLATION TO INCLUDE CLEAVAGE MEMBRANE

GRAPHIC LEGEND

Room Name
101
Ceiling
Wall
Base
Floor

ROOM NAME
ROOM NUMBER
CEILING FINISH
WALL FINISH
BASE FINISH
FLOOR FINISH

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO THE A9.X SERIES SHEETS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - FINISH SCHEDULE

14794

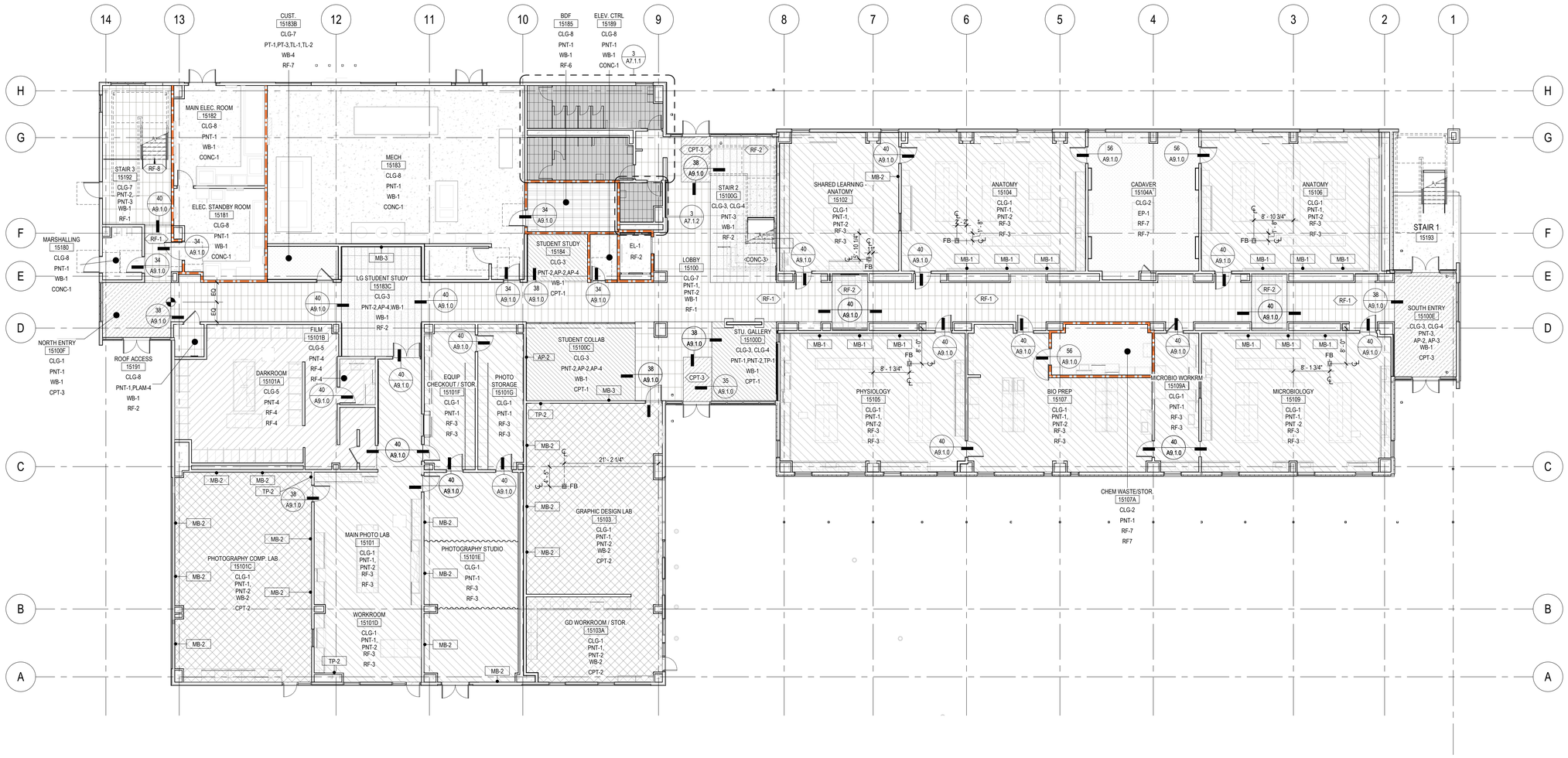
PROJECT NUMBER

CD

AI1.1

SHEET NUMBER

Plot Date: 8/23/2025 6:04:21 PM START Sheet



1 LEVEL 1 - STEAM FINISH PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

Room Name
101
ROOM NAME
ROOM NUMBER
Ceiling — CEILING FINISH
Wall — WALL FINISH
Base — BASE FINISH
Floor — FLOOR FINISH

CONC-1, CPT-1, CPT-2, CPT-3, FT-1, FT-2, RF-1, RF-2, RF-3, RF-4, RF-5, RF-6, RS-1, TR-1, TR-2

GENERAL SHEET NOTES

A. REFER TO THE A0.0.1 SERIES DRAWINGS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS AS WELL AS ABBREVIATIONS USED ON THIS DRAWING.

B. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL SITE INFORMATION NOT SHOWN ON THIS DRAWING.

C. REFER TO Q-SERIES DRAWINGS FOR ARTS AND LAB PLANNING INFORMATION.

D. REFER TO WALL ASSEMBLIES ON A9.2.X SHEETS & ACOUSTICAL SECTION OF BASIS OF DESIGN DOCUMENT FOR PARTITION STC REQUIREMENTS AND PARTITION TYPES THAT ACHIEVE RECOMMENDED STC REQUIREMENTS.

E. REFER TO A9.2.1 SHEETS FOR WALL TYPES & WALL ASSEMBLIES.

F. REFER TO THE 'AG' SERIES SHEETS FOR SIGNAGE INFO AND A0.0.3 FOR SIGNAGE MOUNTING HEIGHTS AND DIMENSIONING CONVENTIONS.

REFERENCE KEYNOTES

○ SHEET KEYNOTES

START Sheet
Plot Date: 7/23/2025 5:01:47 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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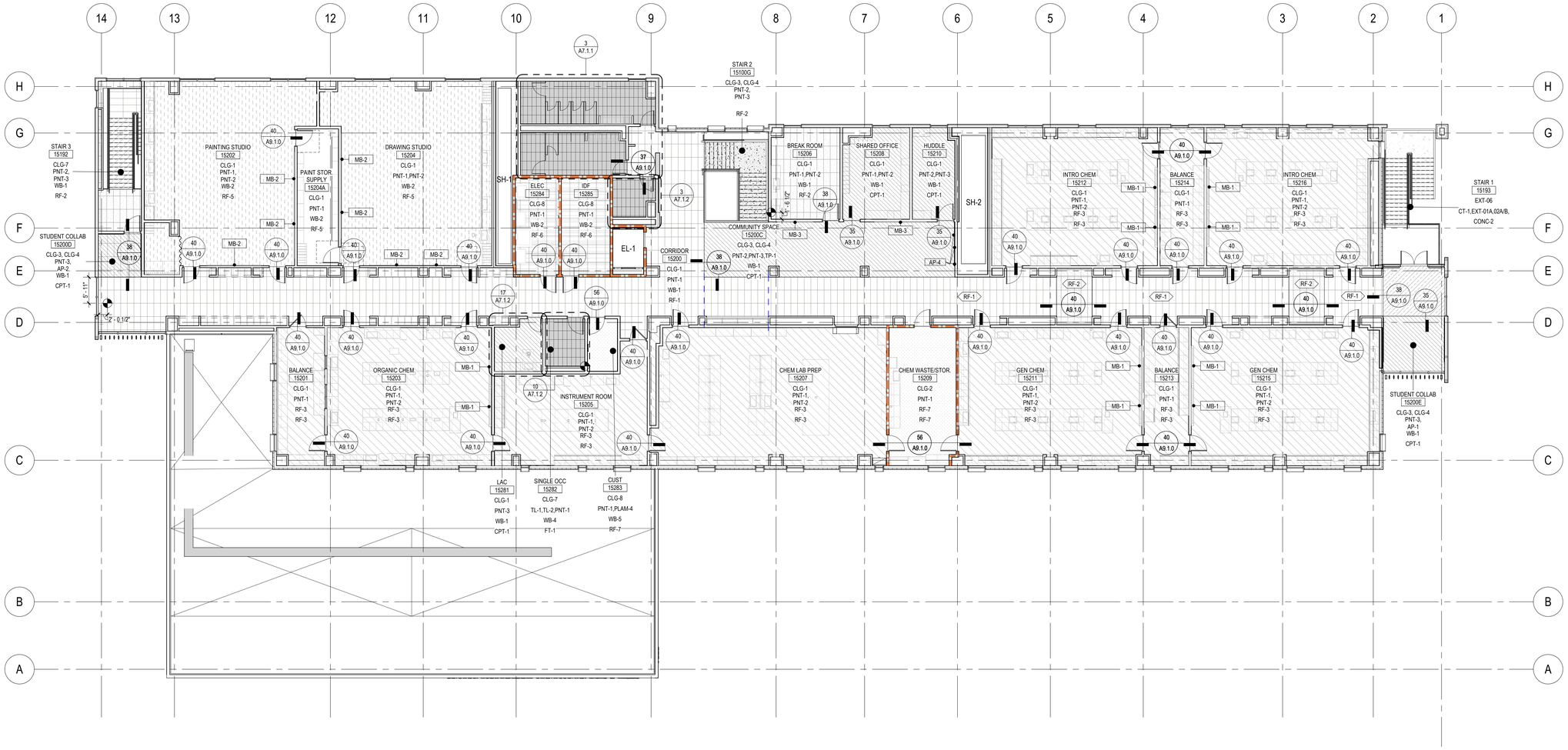
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 1 FINISH PLAN

PROJECT NUMBER
14794

CD **AI2.1.1**
SHEET NUMBER



1 LEVEL 2 - STEAM FINISH PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

Room Name / 101 — ROOM NAME / ROOM NUMBER
Ceiling — CEILING FINISH
Wall — WALL FINISH
Base — BASE FINISH
Floor — FLOOR FINISH

CONC-1, CPT-1, CPT-2, CPT-3, FT-1, FT-2, RF-1, RF-2, RF-3, RF-4, RF-5, RF-6, RS-1, TR-1, TR-2

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REFERENCE KEYNOTES

◯ SHEET KEYNOTES

START Sheet
Plot Date: 7/23/2025 5:02:03 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

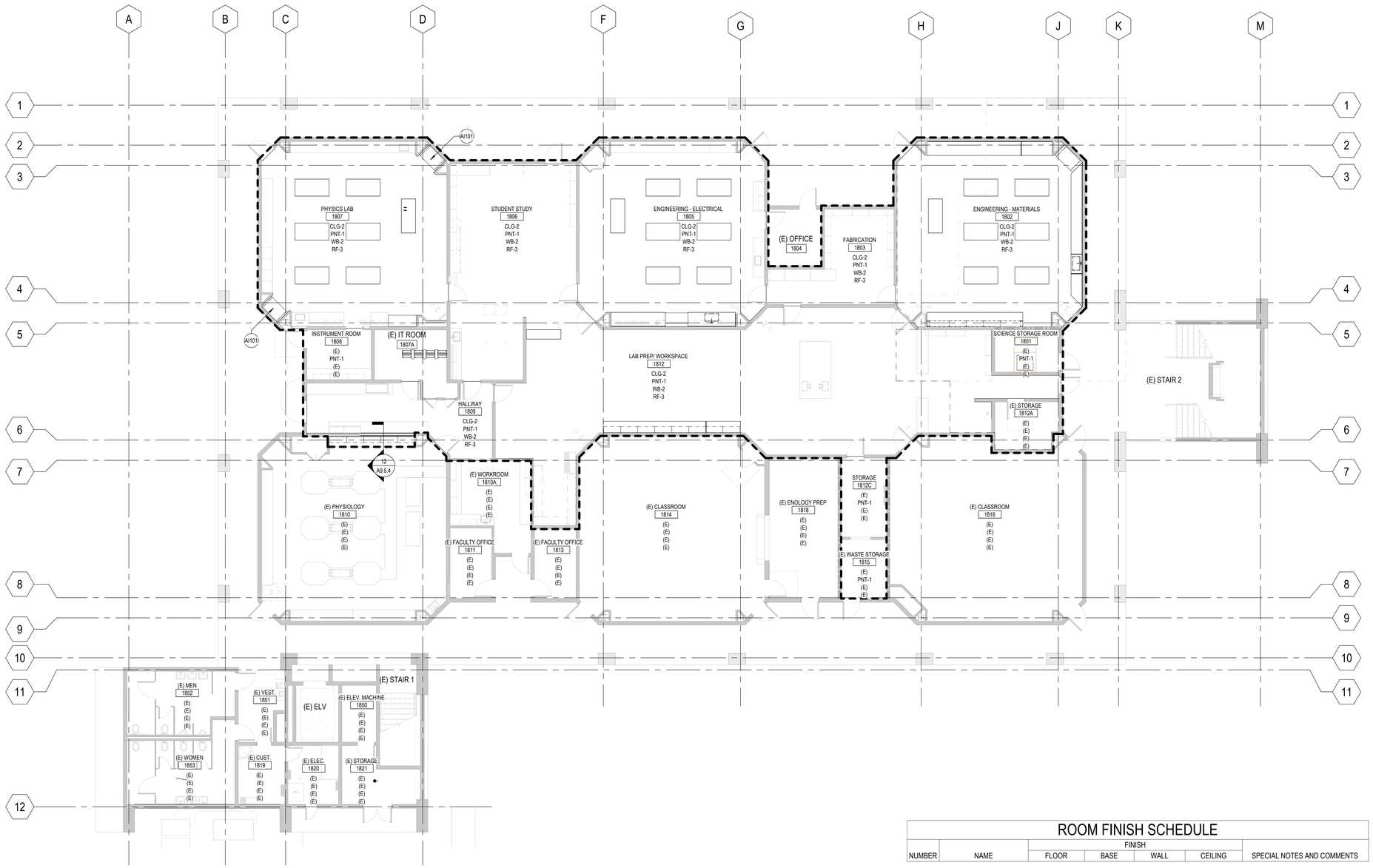
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 2 FINISH PLAN

14794
PROJECT NUMBER

CD **AI2.1.2**
SHEET NUMBER



1 LEVEL 1 - FINISH PLAN
SCALE: 1/8" = 1'-0"

ROOM FINISH SCHEDULE

NUMBER	NAME	FINISH				SPECIAL NOTES AND COMMENTS
		FLOOR	BASE	WALL	CEILING	
LEVEL 1						
1801	SCIENCE STORAGE ROOM	(E)	(E)	PNT-1	(E)	
1802	ENGINEERING - MATERIALS	RF-3	WB-2	PNT-1	CLG-2	
1803	FABRICATION	RF-3	WB-2	PNT-1	CLG-2	
1804	(E) OFFICE	(E)	(E)	(E)	(E)	
1805	ENGINEERING - ELECTRICAL	RF-3	WB-2	PNT-1	CLG-2	
1806	STUDENT STUDY	RF-3	WB-2	PNT-1	CLG-2	
1807	PHYSICS LAB	RF-3	WB-2	PNT-1	CLG-2	
1807A	(E) IT ROOM	(E)	(E)	(E)	(E)	
1808	INSTRUMENT ROOM	(E)	(E)	PNT-1	(E)	
1809	HALLWAY	RF-3	WB-2	PNT-1	CLG-2	
1810	(E) PHYSIOLOGY	(E)	(E)	(E)	(E)	
1810A	(E) WORKROOM	(E)	(E)	(E)	(E)	
1811	(E) FACULTY OFFICE	(E)	(E)	(E)	(E)	
1812	LAB PREP/ WORKSPACE	RF-3	WB-2	PNT-1	CLG-2	
1812A	(E) STORAGE	(E)	(E)	(E)	(E)	
1812C	STORAGE	(E)	(E)	PNT-1	(E)	
1813	(E) FACULTY OFFICE	(E)	(E)	(E)	(E)	
1814	(E) CLASSROOM	(E)	(E)	(E)	(E)	
1815	(E) WASTE STORAGE	(E)	(E)	PNT-1	(E)	
1816	(E) CLASSROOM	(E)	(E)	(E)	(E)	
1818	(E) ENOLOGY PREP	(E)	(E)	(E)	(E)	
1819	(E) CUST.	(E)	(E)	(E)	(E)	
1820	(E) ELEC.	(E)	(E)	(E)	(E)	
1821	(E) STORAGE	(E)	(E)	(E)	(E)	
1850	(E) ELEV. MACHINE	(E)	(E)	(E)	(E)	
1851	(E) VEST.	(E)	(E)	(E)	(E)	
1852	(E) MEN	(E)	(E)	(E)	(E)	
1853	(E) WOMEN	(E)	(E)	(E)	(E)	

GRAPHIC LEGEND

Room Name
101
ROOM NAME
ROOM NUMBER
Ceiling — CEILING FINISH
Wall — WALL FINISH
Base — BASE FINISH
Floor — FLOOR FINISH

RF-3

(E)

GENERAL SHEET NOTES

A. REFER TO THE A0.X SERIES SHEETS FOR ARCHITECTURAL GENERAL NOTES, DRAWING, REFERENCE AND MATERIAL SYMBOLS, ABBREVIATIONS, AS WELL AS DIMENSIONING CONVENTIONS USED ON THIS SHEET.

B. REFER TO THE A8.X SERIES SHEETS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

SHEET KEYNOTES

AI101 (N) PAINT FOR THE INFILL WALL. COLOR TO MATCH EXISTING ADJACENT WALLS.

START Sheet
Plot Date: 7/23/2025 4:27:04 PM

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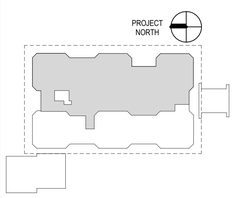
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

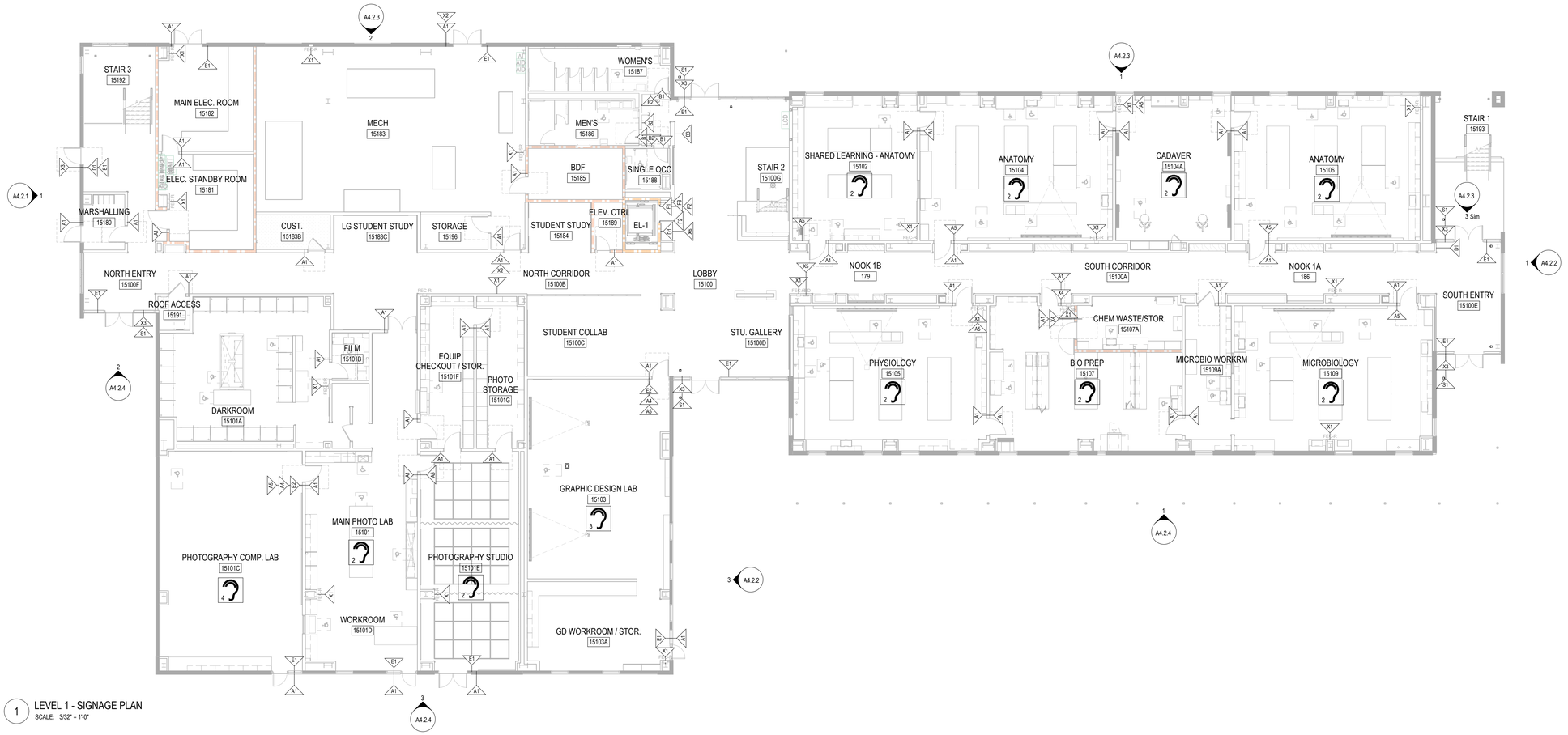


SHEET TITLE
BUILDING 1800 - LEVEL 1 FINISH PLAN AND SCHEDULE

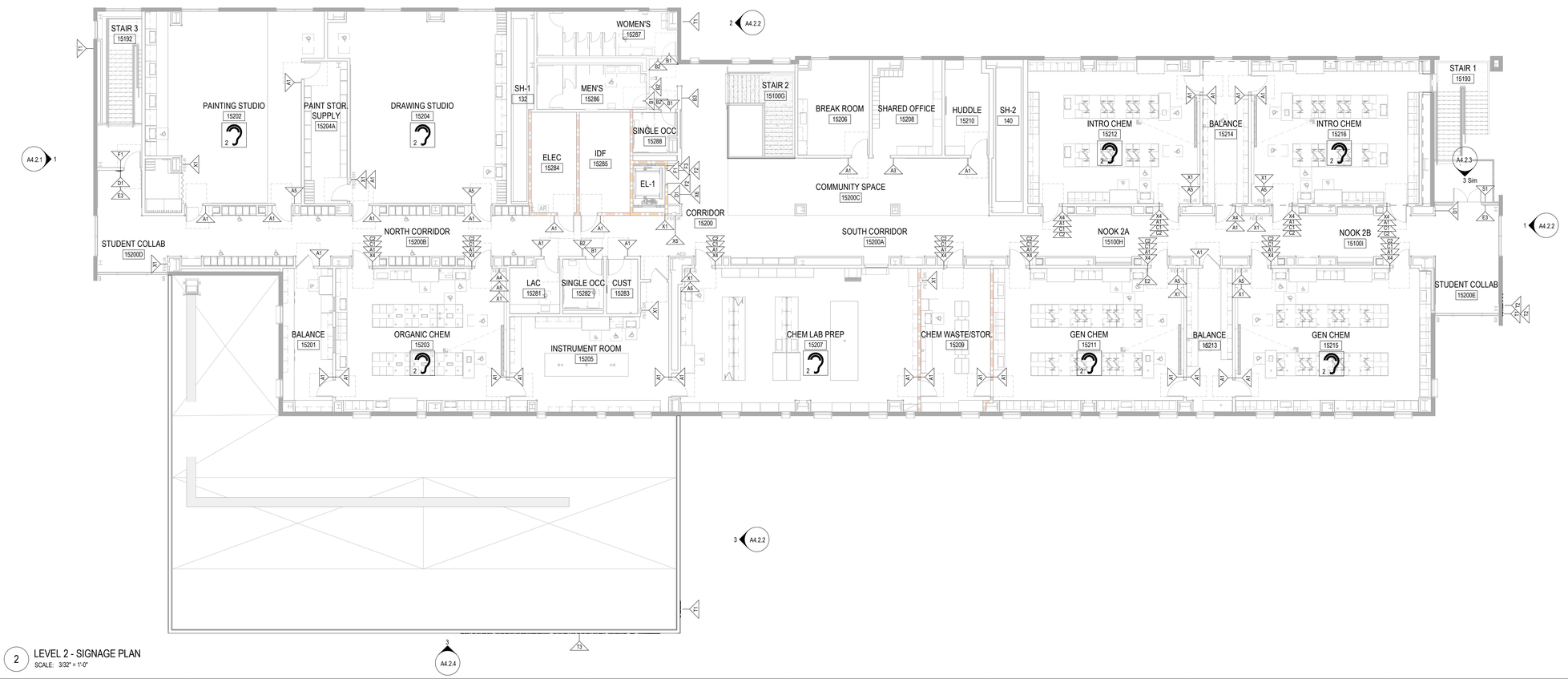
14794
PROJECT NUMBER

CD

AI2.2
SHEET NUMBER



1 LEVEL 1 - SIGNAGE PLAN
SCALE: 3/32" = 1'-0"



2 LEVEL 2 - SIGNAGE PLAN
SCALE: 3/32" = 1'-0"

GRAPHIC LEGEND

SIGNAGE TAG

ALS (ASSISTED LISTENING DEVICE) REQ'D IN THIS ROOM (X = MIN QUANTITY OF RECEIVERS REQ'D)

GENERAL SHEET NOTES

A. BRAILLE: ALL BRAILLE TEXT SHALL BE CONTRACTED GRADE II BRAILLE DOTS, RAISED 1/40" MIN. ABOVE SIGN BACKGROUND. DOTS SHALL BE 1/10" SIGN BACKGROUND. DOTS SHALL BE 1/10" (2.54mm) ON CENTER IN EACH CELL WITH 2/10" (2.54mm) SPACE BETWEEN CELL. BRAILLE TEXT (5.08mm) SHALL CORRESPOND TO LETTERING PROVIDED. BRAILLE SHOULD BE SEPARATED 3/8" - 1/2" FROM CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

B. SIGN LOCATIONS: SEE THE AG2 SERIES PLANS TO DETERMINE THE APPROXIMATE LOCATION OF SIGNS, SIGNAGE TYPES, AND DETAILS. SEE A0.0.3 FOR TYPICAL SIGNAGE HEIGHTS, DIMENSIONING CONVENTION AND SERIES A7 AND A8 INTERIOR ELEVATIONS. FOR ELEVATOR SIGN LOCATIONS, SEE A6.2.1.

C. LETTERING AND NUMBERS: ALL LETTERING AND NUMBERS SHALL BE RAISED 1/32" FROM SIGN FACE (UON), SHALL BE SAME SANS SERIF FONT THROUGHOUT AS INDICATED, AND SHALL BE OF 70% CONTRASTING COLOR (UON) TO SIGN BACKGROUND. LETTERING AND NUMBERS SHALL BE OF HEIGHT INDICATED BY DETAILS (5/8" MIN. WHERE NOT NOTED, EXCEPT FOR FLOOR NUMBER AT MODULE N2) .

D. CONTRASTING COLOR: CHARACTERS, SYMBOLS AND THEIR BACKGROUND SHALL HAVE A MINIMUM OF 70% CONTRAST IN REFLECTANCE RATIO. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

E. TACTILE EXIT SIGNS. A TACTILE EXIT SIGN STATING "EXIT" OR "EXIT ROUTE" AND COMPLYING WITH CBC 2022 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EGRESS STAIRWAY, AN EXIT PASSAGEWAY AND EXIT DISCHARGE.

F. ATTACH SIGNAGE WITH DOUBLE-SIDED TAPE AND SILICONE.

G. FOR FURTHER SIGN TYPE DETAIL INFORMATION REFER TO SPECIFICATIONS.

H. SIGNS SHALL COMPLY WITH CBC 2022, SECTION 11B-703, WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED.

I. VERTICES OF GEOMETRIC SIGNS TO BE RADIUSED BETWEEN 1/8" AND 1/4" INCH, PER CBC 11B-703.7.2.6.4.

J. REFER TO SHEET AV0.0 FOR ADDITIONAL INFORMATION RELATED TO PERMANENT ASSISTED LISTENING SYSTEM.

LAS POSITAS COLLEGE

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - LEVEL 1 AND 2 SIGNAGE PLANS

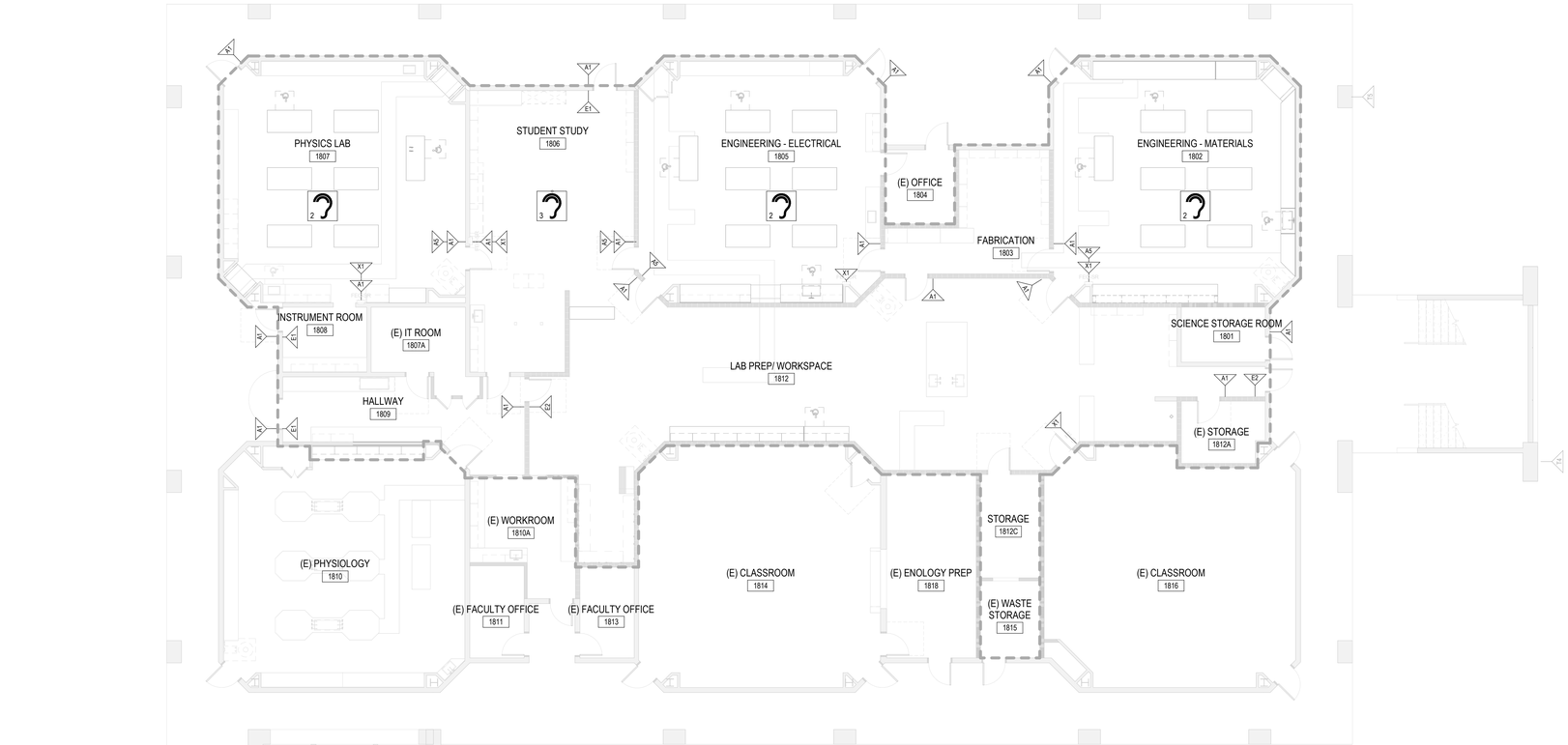
14794

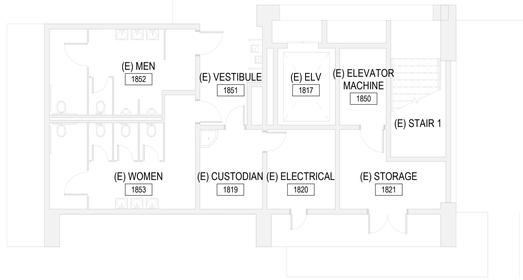
PROJECT NUMBER

CD **AG2.1**

SHEET NUMBER

Plot Date: 7/23/2025 5:02:21 PM START Sheet





1 LEVEL 1 - SIGNAGE PLAN
SCALE: 1/8" = 1'-0"

SIGNAGE SCHEDULE

ROOM NUMBER	ROOM NAME	SIGN NUMBER	SIGN TEXT	SIGN TYPE	QTY	INSERT TEXT	COMMENTS
LEVEL 1							
	EXTERIOR		(E) BUILDING ID	T4	1		WALL SIGN
	EXTERIOR		(E) BUILDING ID	T5	1		WALL SIGN
1801	SCIENCE STORAGE ROOM		ROOM ID	A1	1		WALL SIGN
1802	ENGINEERING - MATERIALS		ROOM ID	A1	1		WALL SIGN
1802	ENGINEERING - MATERIALS		ROOM ID	A1	1		WALL SIGN
1802	ENGINEERING - MATERIALS		FIRE EXTINGUISHER	X1	1		FLAG SIGN
1802	ENGINEERING - MATERIALS		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
1803	FABRICATION		ROOM ID	A1	1		WALL SIGN
1803	FABRICATION		ROOM ID	A1	1		WALL SIGN
1803	FABRICATION		ROOM ID	A1	1		WALL SIGN
1805	ENGINEERING - ELECTRICAL		ROOM ID	A1	1		WALL SIGN
1805	ENGINEERING - ELECTRICAL		ROOM ID	A1	1		WALL SIGN
1805	ENGINEERING - ELECTRICAL		FIRE EXTINGUISHER	X1	1		FLAG SIGN
1805	ENGINEERING - ELECTRICAL		ROOM ID	A1	1		WALL SIGN
1805	ENGINEERING - ELECTRICAL		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
1806	STUDENT STUDY		ROOM ID	A1	1		WALL SIGN
1806	STUDENT STUDY		ROOM ID	A1	1		WALL SIGN
1806	STUDENT STUDY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
1806	STUDENT STUDY		EXIT	E1	1		WALL SIGN
1806	STUDENT STUDY		FIRE EXTINGUISHER	X1	1		FLAG SIGN
1807	PHYSICS LAB		ROOM ID	A1	1		WALL SIGN
1807	PHYSICS LAB		ROOM ID	A1	1		WALL SIGN
1807	PHYSICS LAB		FIRE EXTINGUISHER	X1	1		FLAG SIGN
1807	PHYSICS LAB		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
1808	INSTRUMENT ROOM		ROOM ID	A1	1		WALL SIGN
1808	INSTRUMENT ROOM		ROOM ID	A1	1		WALL SIGN
1808	INSTRUMENT ROOM		EXIT	E1	1		WALL SIGN
1809	HALLWAY		ROOM ID	A1	1		WALL SIGN
1809	HALLWAY		EXIT	E1	1		WALL SIGN
1812	LAB PREP/ WORKSPACE		EXIT ROUTE	E2	1		WALL SIGN
1812	(E) PREP SPACE		EXIT ROUTE	E2	1		WALL SIGN
1812	LAB PREP/ WORKSPACE		FIRE EXTINGUISHER	X1	1		FLAG SIGN
1812	LAB PREP/ WORKSPACE		ROOM ID	A1	1		WALL SIGN
1812A	(E) STORAGE		ROOM ID	A1	1		WALL SIGN

GRAPHIC LEGEND

SIGNAGE TAG

ALS (ASSISTED LISTENING DEVICE) REQ'D IN THIS ROOM (X = MIN QUANTITY OF RECEIVERS REQ'D)

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A. BRAILLE: ALL BRAILLE TEXT SHALL BE CONTRACTED GRADE II BRAILLE DOTS, RAISED 1/40" MIN. ABOVE SIGN BACKGROUND. DOTS SHALL BE 1/10" SIGN BACKGROUND. DOTS SHALL BE 1/10" (2.54mm) ON CENTER IN EACH CELL WITH 2/10" (2.54mm) SPACE BETWEEN CELL. BRAILLE TEXT (5.08mm) SHALL CORRESPOND TO LETTERING PROVIDED. BRAILLE SHOULD BE SEPARATED 3/8" - 1/2" FROM CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

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F. ATTACH SIGNAGE WITH DOUBLE-SIDED TAPE AND SILICONE.

G. FOR FURTHER SIGN TYPE DETAIL INFORMATION REFER TO SPECIFICATIONS.

H. SIGNS SHALL COMPLY WITH CBC 2022, SECTION 11B-703, WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED.

I. VERTICES OF GEOMETRIC SIGNS TO BE RADIUSED BETWEEN 1/8" AND 1/4" INCH, PER CBC 11B-703.7.2.6.4

J. REFER TO SHEET AV0.0 FOR ADDITIONAL INFORMATION RELATED TO PERMANENT ASSISTED LISTENING SYSTEM.

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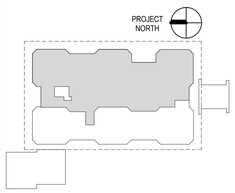


SHEET TITLE

BUILDING 1800 - LEVEL 1 SIGNAGE PLAN AND SCHEDULE

14794

PROJECT NUMBER

CD

AG2.2

SHEET NUMBER

Author

7/23/2025 5:37:33 PM

Plot Date:

SIGNAGE SCHEDULE

ROOM NUMBER	ROOM NAME	SIGN NUMBER	SIGN TEXT	SIGN TYPE	QTY	INSERT TEXT	COMMENTS
EXTERIOR							
			BUILDING ID	T1	1		WALL SIGN/EXTERIOR SIGNAGE
			BUILDING ID	T1	1		WALL SIGN/EXTERIOR SIGNAGE
			BUILDING ID	T2	1		WALL SIGN/EXTERIOR SIGNAGE
			BUILDING ID	T1	1		EXTERIOR RATED WALL SIGN
			BUILDING ID	T3	1		EXTERIOR RATED WALL SIGN
			BUILDING ID	T2	1		EXTERIOR RATED WALL SIGN
			BUILDING ID	T1	1		EXTERIOR RATED WALL SIGN
			BUILDING ID	T1	1		EXTERIOR RATED WALL SIGN
LEVEL 1							
	EL-1		EMERGENCY EVACUATION AT ELEVATOR	D1	1		WALL SIGN
	EL-1		FLOOR NUMBER	F1	1		HOISTWAY DOOR FRAME SIGN
	EL-1		STRETCHER ID	F2	1		HOISTWAY DOOR FRAME SIGN
	EL-1		STRETCHER ID	F2	1		HOISTWAY DOOR FRAME SIGN
	EL-1		IN CASE OF FIRE	F3	1		WALL SIGN
	EL-1		HARDOUS MATERIAL TRANSPORT	X6	1		WALL SIGN
15100	LOBBY		EXIT	E1	1		GLASS SIGN
15100	LOBBY		MAXIMUM OCCUPANCY	A4	1		WALL SIGN
15100	LOBBY		NO SMOKING	S1	1		GLASS SIGN
15100	LOBBY		NO SMOKING	S1	1		GLASS SIGN
15100	LOBBY		NFPA 704	X3	1		GLASS SIGN
15100	LOBBY		NFPA 704	X3	1		GLASS SIGN
15100	LOBBY		RESTROOM DIRECTIONAL	B3	1		FLAG SIGN
15100A	SOUTH CORRIDOR		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15100A	SOUTH CORRIDOR		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15100A	SOUTH CORRIDOR		AED ID	X5	1		WALL SIGN
15100B	NORTH CORRIDOR		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15100D	STU. GALLERY		EXIT	E1	1		GLASS SIGN
15100E	SOUTH ENTRY		NFPA 704	X3	1		GLASS SIGN
15100E	SOUTH ENTRY		EXIT	E1	1		GLASS SIGN
15100E	SOUTH ENTRY		EXIT	E1	1		GLASS SIGN
15100E	SOUTH ENTRY		NO SMOKING	S1	1		GLASS SIGN
15100E	SOUTH ENTRY		NFPA 704	X3	1		GLASS SIGN
15100E	SOUTH ENTRY		EMERGENCY EVACUATION	D1	1		WALL SIGN
15100E	SOUTH ENTRY		NO SMOKING	S1	1		GLASS SIGN
15100F	NORTH ENTRY		NFPA 704	X3	1		GLASS SIGN
15100F	NORTH ENTRY		EXIT	E1	1		GLASS SIGN
15100F	NORTH ENTRY		NO SMOKING	S1	1		GLASS SIGN
15101	MAIN PHOTO LAB		ROOM ID	A1	1		WALL SIGN
15101	MAIN PHOTO LAB		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15101A	DARKROOM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15101B	FILM		ROOM ID	A1	1		WALL SIGN
15101C	PHOTOGRAPHY COMP. LAB		ROOM ID	A1	1		GLASS SIGN
15101C	PHOTOGRAPHY COMP. LAB		ROOM ID	A1	1		WALL SIGN
15101C	PHOTOGRAPHY COMP. LAB		EXIT	E1	1		GLASS SIGN
15101C	PHOTOGRAPHY COMP. LAB		EXIT ROUTE	E2	1		WALL SIGN
15101C	PHOTOGRAPHY COMP. LAB		MAXIMUM OCCUPANCY	A4	1		WALL SIGN
15101C	PHOTOGRAPHY COMP. LAB		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15101D	WORKROOM		ROOM ID	A1	1		GLASS SIGN
15101D	WORKROOM		EXIT	E1	1		GLASS SIGN
15101E	PHOTOGRAPHY STUDIO		ROOM ID	A1	1		WALL SIGN
15101E	PHOTOGRAPHY STUDIO		ROOM ID	A1	1		WALL SIGN
15101E	PHOTOGRAPHY STUDIO		EXIT	E1	1		WALL SIGN
15101E	PHOTOGRAPHY STUDIO		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15101E	PHOTOGRAPHY STUDIO		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15101F	EQUIP CHECKOUT / STOR.		ROOM ID	A1	1		WALL SIGN
15101F	EQUIP CHECKOUT / STOR.		ROOM ID	A1	1		WALL SIGN
15101F	EQUIP CHECKOUT / STOR.		ROOM ID	A1	1		WALL SIGN
15101G	PHOTO STORAGE		ROOM ID	A1	1		WALL SIGN
15102	SHARED LEARNING - ANATOMY		ROOM ID	A1	1		WALL SIGN
15102	SHARED LEARNING - ANATOMY		ROOM ID	A1	1		WALL SIGN
15102	SHARED LEARNING - ANATOMY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15102	SHARED LEARNING - ANATOMY		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15103	GRAPHIC DESIGN LAB		ROOM ID	A1	1		WALL SIGN
15103	GRAPHIC DESIGN LAB		EXIT ROUTE	E2	1		WALL SIGN
15103	GRAPHIC DESIGN LAB		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15103A	GD WORKROOM / STOR.		ROOM ID	A1	1		GLASS SIGN
15103A	GD WORKROOM / STOR.		EXIT	E1	1		GLASS SIGN
15103A	GD WORKROOM / STOR.		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15104	ANATOMY		ROOM ID	A1	1		WALL SIGN
15104	ANATOMY		ROOM ID	A1	1		WALL SIGN
15104	ANATOMY		ROOM ID	A1	1		WALL SIGN
15104	ANATOMY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15104	ANATOMY		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15104A	CADAVER		ROOM ID	A1	1		WALL SIGN
15104A	CADAVER		ROOM ID	A1	1		WALL SIGN
15104A	CADAVER		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15104A	CADAVER		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15105	PHYSIOLOGY		ROOM ID	A1	1		WALL SIGN
15105	PHYSIOLOGY		ROOM ID	A1	1		WALL SIGN
15105	PHYSIOLOGY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15105	PHYSIOLOGY		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15106	ANATOMY		ROOM ID	A1	1		WALL SIGN
15106	ANATOMY		ROOM ID	A1	1		WALL SIGN
15106	ANATOMY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15106	ANATOMY		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15107	BIO PREP		ROOM ID	A1	1		WALL SIGN
15107	BIO PREP		ROOM ID	A1	1		WALL SIGN
15107	BIO PREP		ROOM ID	A1	1		WALL SIGN
15107	BIO PREP		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15107	BIO PREP		NFPA 704	X4	1		WALL SIGN
15107A	CHEM WASTE/STOR.		ROOM ID	A1	1		WALL SIGN
15107A	CHEM WASTE/STOR.		NFPA 704	X4	1		WALL SIGN
15109	MICROBIOLOGY		ROOM ID	A1	1		WALL SIGN
15109	MICROBIOLOGY		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15109	MICROBIOLOGY		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15109A	MICROBIO WORKRM		ROOM ID	A1	1		WALL SIGN
15109A	MICROBIO WORKRM		ROOM ID	A1	1		WALL SIGN
15180	MARSHALLING		ROOM ID	A1	1		WALL SIGN
15180	MARSHALLING		ROOM ID	A1	1		WALL SIGN
15181	ELEC. STANDBY ROOM		ROOM ID	A1	1		WALL SIGN
15181	ELEC. STANDBY ROOM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15181	ELEC. STANDBY ROOM		ROOM ID	A1	1		WALL SIGN
15182	MAIN ELEC. ROOM		ROOM ID	A1	1		WALL SIGN
15182	MAIN ELEC. ROOM		ROOM ID	A1	1		WALL SIGN
15182	MAIN ELEC. ROOM		EXIT	E1	1		WALL SIGN
15182	MAIN ELEC. ROOM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15183	MECH		ROOM ID	A1	1		WALL SIGN
15183	MECH		ROOM ID	A1	1		WALL SIGN
15183	MECH		EXIT	E1	1		WALL SIGN
15183	MECH		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15183	MECH		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15183	MECH		FIRE RISER	X2	1		WALL SIGN
15183	MECH		FIRE RISER	X2	1		WALL SIGN
15183B	CUST.		ROOM ID	A1	1		WALL SIGN
15185	BDF		ROOM ID	A1	1		WALL SIGN
15186	MEN'S		TOILET FACILITY	B2	1		WALL SIGN
15186	MEN'S		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15187	WOMEN'S		TOILET FACILITY	B2	1		WALL SIGN
15187	WOMEN'S		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15188	SINGLE OCC		TOILET FACILITY	B2	1		WALL SIGN
15188	SINGLE OCC		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15189	ELEV. CTRL		ROOM ID	A1	1		WALL SIGN
15191	ROOF ACCESS		ROOM ID	A1	1		WALL SIGN
15192	STAIR 3		EXIT	E1	1		WALL SIGN
15192	STAIR 3		EMERGENCY EVACUATION	D1	1		WALL SIGN
15192	STAIR 3		NFPA 704	X3	1		WALL SIGN
15196	STORAGE		ROOM ID	A1	1		WALL SIGN
LEVEL 2							
	EL-1		EMERGENCY EVACUATION AT ELEVATOR	D1	1		WALL SIGN

SIGNAGE SCHEDULE

ROOM NUMBER	ROOM NAME	SIGN NUMBER	SIGN TEXT	SIGN TYPE	QTY	INSERT TEXT	COMMENTS
	EL-1		FLOOR NUMBER	F1	1		HOISTWAY DOOR FRAME SIGN
	EL-1		STRETCHER ID	F2	1		HOISTWAY DOOR FRAME SIGN
	EL-1		STRETCHER ID	F2	1		HOISTWAY DOOR FRAME SIGN
	EL-1		IN CASE OF FIRE	F3	1		WALL SIGN
	EL-1		HARDOUS MATERIAL TRANSPORT	X6	1		WALL SIGN
15192	STAIR 3		EMERGENCY EVACUATION	D1	1		WALL SIGN
15192	STAIR 3		EXIT STAIR DOWN	E3	1		WALL SIGN
15200	CORRIDOR		RESTROOM DIRECTIONAL	B3	1		FLAG SIGN
15200A	SOUTH CORRIDOR		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15200B	NORTH CORRIDOR		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15200B	NORTH CORRIDOR		AED ID	X5	1		WALL SIGN
15200D	STUDENT COLLAB		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15200D	STUDENT COLLAB		FLOOR NUMBER	F1	1		WALL SIGN
15200E	STUDENT COLLAB		EXIT STAIR DOWN	E3	1		GLASS SIGN
15200E	STUDENT COLLAB		NO SMOKING	S1	1		GLASS SIGN
15200E	STUDENT COLLAB		EMERGENCY EVACUATION	D1	1		WALL SIGN
15201	BALANCE		ROOM ID	A1	1		WALL SIGN
15201	BALANCE		ROOM ID	A1	1		WALL SIGN
15202	PAINTING STUDIO		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15202	PAINTING STUDIO		ROOM ID	A1	1		WALL SIGN
15202	PAINTING STUDIO		ROOM ID	A1	1		WALL SIGN
15202	PAINTING STUDIO		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15203	ORGANIC CHEM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15203	ORGANIC CHEM		ROOM ID	A1	1		WALL SIGN
15203	ORGANIC CHEM		ROOM ID	A1	1		WALL SIGN
15203	ORGANIC CHEM		MAXIMUM OCCUPANCY	A4	1		WALL SIGN
15203	ORGANIC CHEM		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15203	ORGANIC CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15203	ORGANIC CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15203	ORGANIC CHEM		ROOM ID	A1	1		WALL SIGN
15203	ORGANIC CHEM		NFPA 704	X4	1		WALL SIGN
15203	ORGANIC CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15203	ORGANIC CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15203	ORGANIC CHEM		ROOM ID	A1	1		WALL SIGN
15203	ORGANIC CHEM		NFPA 704	X4	1		WALL SIGN
15204	DRAWING STUDIO		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15204	DRAWING STUDIO		ROOM ID	A1	1		WALL SIGN
15204	DRAWING STUDIO		ROOM ID	A1	1		WALL SIGN
15204	DRAWING STUDIO		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15204A	PAINT STOR. SUPPLY		ROOM ID	A1	1		WALL SIGN
15204A	PAINT STOR. SUPPLY		ROOM ID	A1	1		WALL SIGN
15205	INSTRUMENT ROOM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15205	INSTRUMENT ROOM		ROOM ID	A1	1		WALL SIGN
15205	INSTRUMENT ROOM		ROOM ID	A1	1		WALL SIGN
15206	BREAK ROOM		ROOM ID	A1	1		WALL SIGN
15207	CHEM LAB PREP		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15207	CHEM LAB PREP		ROOM ID	A1	1		WALL SIGN
15207	CHEM LAB PREP		ROOM ID	A1	1		WALL SIGN
15207	CHEM LAB PREP		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15207	CHEM LAB PREP		SAFETY GLASSES	C2	1		WALL SIGN
15207	CHEM LAB PREP		NO FOOD OR DRINK	C1	1		WALL SIGN
15207	CHEM LAB PREP		ROOM ID	A1	1		WALL SIGN
15207	CHEM LAB PREP		NFPA 704	X4	1		WALL SIGN
15208	SHARED OFFICE		SHARED OFFICE ID	A3	1		WALL SIGN
15209	CHEM WASTE/STOR.		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15209	CHEM WASTE/STOR.		ROOM ID	A1	1		WALL SIGN
15209	CHEM WASTE/STOR.		ROOM ID	A1	1		WALL SIGN
15209	CHEM WASTE/STOR.		SAFETY GLASSES	C2	1		WALL SIGN
15209	CHEM WASTE/STOR.		NO FOOD OR DRINK	C1	1		WALL SIGN
15209	CHEM WASTE/STOR.		ROOM ID	A1	1		WALL SIGN
15209	CHEM WASTE/STOR.		NFPA 704	X4	1		WALL SIGN
15210	HUDDLE		ROOM ID	A1	1		WALL SIGN
15211	GEN CHEM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15211	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15211	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15211	GEN CHEM		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15211	GEN CHEM		EXIT ROUTE	E2	1		WALL SIGN
15211	GEN CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15211	GEN CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15211	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15211	GEN CHEM		NFPA 704	X4	1		WALL SIGN
15211	GEN CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15211	GEN CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15211	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15211	GEN CHEM		NFPA 704	X4	1		WALL SIGN
15212	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15212	INTRO CHEM		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15212	INTRO CHEM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15212	INTRO CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15212	INTRO CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15212	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15212	INTRO CHEM		NFPA 704	X4	1		WALL SIGN
15212	INTRO CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15212	INTRO CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15212	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15212	INTRO CHEM		NFPA 704	X4	1		WALL SIGN
15213	BALANCE		ROOM ID	A1	1		WALL SIGN
15213	BALANCE		ROOM ID	A1	1		WALL SIGN
15213	BALANCE		ROOM ID	A1	1		WALL SIGN
15214	BALANCE		ROOM ID	A1	1		WALL SIGN
15214	BALANCE		ROOM ID	A1	1		WALL SIGN
15214	BALANCE		ROOM ID	A1	1		WALL SIGN
15214	BALANCE		NFPA 704	X4	1		WALL SIGN
15215	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15215	GEN CHEM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15215	GEN CHEM		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15215	GEN CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15215	GEN CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15215	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15215	GEN CHEM		NFPA 704	X4	1		WALL SIGN
15215	GEN CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15215	GEN CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15215	GEN CHEM		ROOM ID	A1	1		WALL SIGN
15215	GEN CHEM		NFPA 704	X4	1		WALL SIGN
15216	INTRO CHEM		FIRE EXTINGUISHER ID	X1	1		WALL SIGN
15216	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15216	INTRO CHEM		ASSISTED LISTENING SYSTEM	A5	1		WALL SIGN
15216	INTRO CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15216	INTRO CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15216	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15216	INTRO CHEM		NFPA 704	X4	1		WALL SIGN
15216	INTRO CHEM		SAFETY GLASSES	C2	1		WALL SIGN
15216	INTRO CHEM		NO FOOD OR DRINK	C1	1		WALL SIGN
15216	INTRO CHEM		ROOM ID	A1	1		WALL SIGN
15216	INTRO CHEM		NFPA 704	X4	1		WALL SIGN
15281	LAC		ROOM ID	A1	1		WALL SIGN
15282	SINGLE OCC		TOILET FACILITY	B2	1		WALL SIGN
15282	SINGLE OCC		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15283	CUST		ROOM ID	A1	1		WALL SIGN
15284	ELEC		ROOM ID	A1	1		WALL SIGN
15285	IDF		ROOM ID	A1	1		WALL SIGN
15286	MEN'S		TOILET FACILITY	B2	1		WALL SIGN
15286	MEN'S		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15287	WOMEN'S		TOILET FACILITY	B2	1		WALL SIGN
15287	WOMEN'S		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN
15288	SINGLE OCC		TOILET FACILITY	B2	1		WALL SIGN
15288	SINGLE OCC		TOILET FACILITY DOOR SIGNAGE	B1	1		DOOR SIGN

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - SIGNAGE SCHEDULE

14794

PROJECT NUMBER

CD

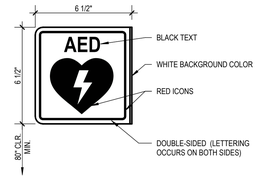
AG3.1

SHEET NUMBER

START Sheet

7/23/2025 5:02:29 PM

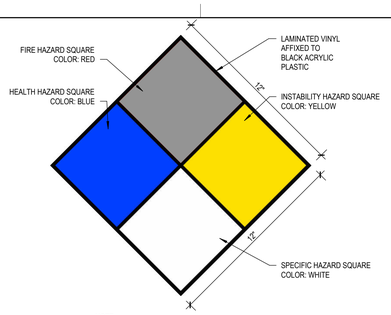
Plot Date:



NOTE:
MOUNTED WITH SIGN FACE ORIENTED 90 DEGREES FROM WALL

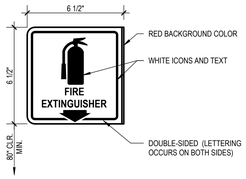
ATTACH SIGNAGE W/ (4) FH COUNTERSUNK SCREWS AND ADHESIVE AT WALL MOUNTED LOCATIONS

X5 SIGNAGE TYPE - AED
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

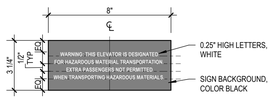
X3 SIGNAGE TYPE - NFPA 704 HAZARDOUS MATERIALS - EXTERIOR
SCALE: 3" = 1'-0"



NOTE:
MOUNTED WITH SIGN FACE ORIENTED 90 DEGREES FROM WALL

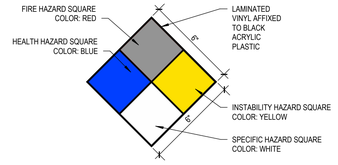
ATTACH SIGNAGE W/ (4) FH COUNTERSUNK SCREWS AND ADHESIVE AT WALL MOUNTED LOCATIONS

X1 SIGNAGE TYPE - FIRE EXTINGUISHER
SCALE: 3" = 1'-0"



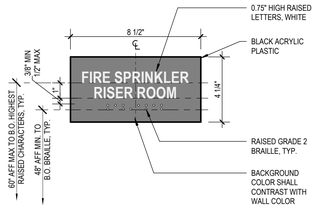
NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS. REFER TO 72/A6.2.1

X6 SIGNAGE TYPE - HAZARDOUS MATERIALS TRANSPORT
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

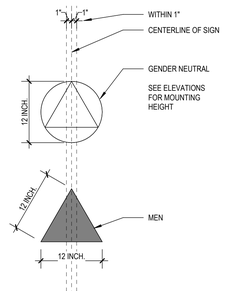
X4 SIGNAGE TYPE - NFPA 704 HAZARDOUS MATERIALS - CLASSROOM DOOR
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

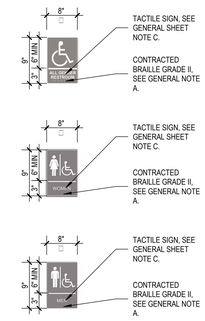
REF:
CBC 1013.4-1
CBC 11B-703.2, 703.3 AND 703.5

X2 SIGNAGE TYPE - FIRE RISER
SCALE: 3" = 1'-0"

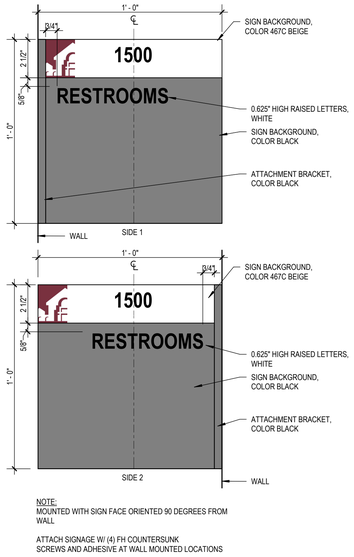


NOTE:
MIN 70% CONTRASTING COLOR BETWEEN SIGNS AND DOOR IS REQUIRED. EACH SYMBOL TO BE MIN 1/4" THICK, TYP.

B1 SIGNAGE TYPE - TOILET FACILITY DOOR SIGNAGE
SCALE: 1" = 1'-0"



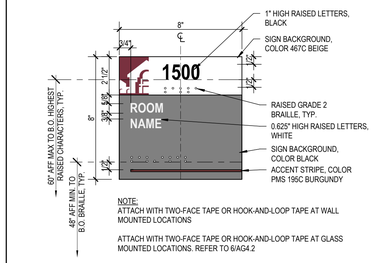
B2 SIGNAGE TYPE - TOILET FACILITY WALL SIGNAGE
SCALE: 1" = 1'-0"



NOTE:
MOUNTED WITH SIGN FACE ORIENTED 90 DEGREES FROM WALL

ATTACH SIGNAGE W/ (4) FH COUNTERSUNK SCREWS AND ADHESIVE AT WALL MOUNTED LOCATIONS

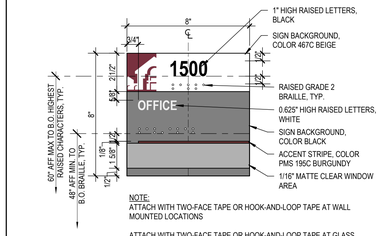
B3 SIGNAGE TYPE - RESTROOM DIRECTIONAL
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REFER TO 6/AG4.2

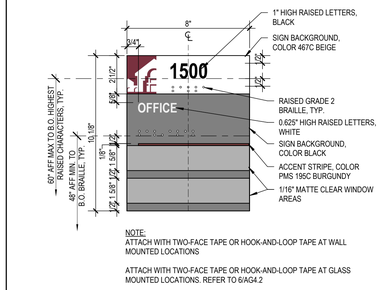
A1 SIGNAGE TYPE - ROOM ID
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REFER TO 6/AG4.2

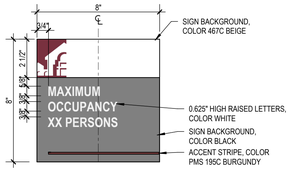
A2 SIGNAGE TYPE - OFFICE ID
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REFER TO 6/AG4.2

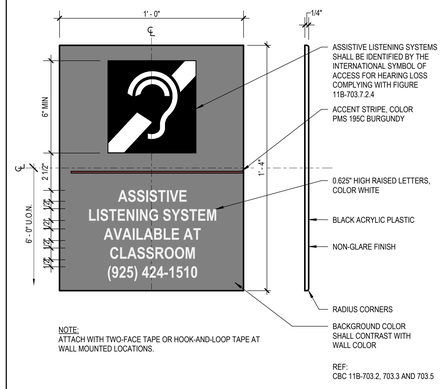
A3 SIGNAGE TYPE - SHARED OFFICE ID
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REFER TO 6/AG4.2

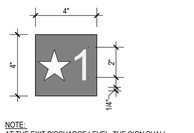
A4 SIGNAGE TYPE - MAXIMUM OCCUPANCY
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS.

REF:
CBC 11B-703.2, 703.3 AND 703.5

A5 SIGNAGE - ASSISTIVE LISTENING SYSTEM
SCALE: 3" = 1'-0"



NOTE:
AT THE EXIT DISCHARGE LEVEL, THE SIGN SHALL INCLUDE A RAISED FIVE POINTED STAR LOCATED TO THE LEFT OF THE IDENTIFYING FLOOR LEVEL PER CBC SECTION 11B-504.8.

THE OUTSIDE DIAMETER OF THE STAR SHALL BE THE SAME AS THE HEIGHT OF THE RAISED CHARACTERS 2 INCHES.

F1 SIGNAGE TYPE - FLOOR NUMBER
SCALE: 3" = 1'-0"



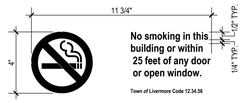
NOTE:
TO BE LOCATED INSIDE BOTH SIDES OF HOISTWAY DOOR FRAME AT 78" - 84" ABOVE THE FLOOR LEVEL AT THE THRESHOLD

F2 SIGNAGE TYPE - STRETCHER
SCALE: 3" = 1'-0"



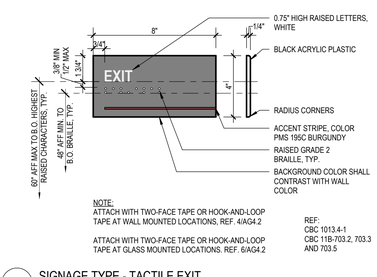
NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS. REFER TO 72/A6.2.1

F3 SIGNAGE TYPE - IN CASE OF FIRE
SCALE: 3" = 1'-0"



NOTE:
SUBSURFACE 3M VINYL, COLOR TBD. NO-SMOKING CODE/ORDINANCE TBD.

S1 SIGNAGE TYPE - NO SMOKING
SCALE: 3" = 1'-0"

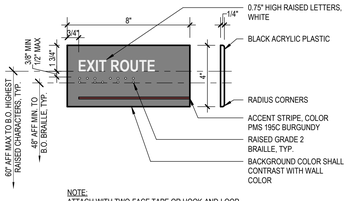


NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS, REF. 4/AG4.2

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REF. 6/AG4.2

REF:
CBC 1013.4-1
CBC 11B-703.2, 703.3 AND 703.5

E1 SIGNAGE TYPE - TACTILE EXIT
SCALE: 3" = 1'-0"

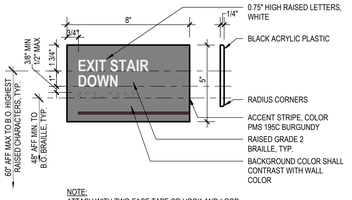


NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS, REF. 4/AG4.2

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REF. 6/AG4.2

REF:
CBC 1013.4-1
CBC 11B-703.2, 703.3 AND 703.5

E2 SIGNAGE TYPE - TACTILE EXIT ROUTE
SCALE: 3" = 1'-0"

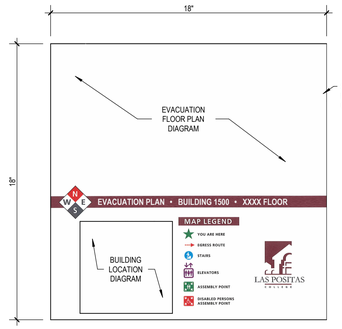


NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS, REF. 4/AG4.2

ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT GLASS MOUNTED LOCATIONS. REF. 6/AG4.2

REF:
CBC 1013.4-1
CBC 11B-703.2, 703.3 AND 703.5

E3 SIGNAGE TYPE - TACTILE EXIT STAIR DOWN
SCALE: 3" = 1'-0"



NOTE:
FINAL GRAPHICS TO BE DETERMINED WITH CONTRACTOR BASED ON FINAL SIGNAGE PLACEMENT

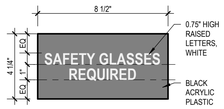
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS. REFER TO 72/A6.2.1

D1 SIGNAGE TYPE - EMERGENCY EVACUATION SIGN
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

C1 SIGNAGE TYPE - NO FOOD OR DRINK
SCALE: 3" = 1'-0"



NOTE:
ATTACH WITH TWO-FACE TAPE OR HOOK-AND-LOOP TAPE AT WALL MOUNTED LOCATIONS

C2 SIGNAGE TYPE - SAFETY GLASSES
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES

A. BRAILLE: ALL BRAILLE TEXT SHALL BE CONTRACTED GRADE II BRAILLE DOTS, RAISED 1/40" MIN. ABOVE SIGN BACKGROUND. DOTS SHALL BE 1/10" SIGN BACKGROUND. DOTS SHALL BE 1/10" (2.54mm) ON CENTER IN EACH CELL WITH 2/10" (2.54mm) SPACE BETWEEN CELL. BRAILLE TEXT (5.08mm) SHALL CORRESPOND TO LETTERING PROVIDED. BRAILLE SHOULD BE SEPARATED 3/8" - 1/2" FROM CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

B. SIGN LOCATIONS: SEE THE AG2 SERIES PLANS TO DETERMINE THE APPROXIMATE LOCATION OF SIGNS, SIGNAGE TYPES, AND DETAILS. SEE A0.0.3 FOR TYPICAL SIGNAGE HEIGHTS, DIMENSIONING CONVENTION AND SERIES A7 AND A8 INTERIOR ELEVATIONS. FOR ELEVATOR SIGN LOCATIONS, SEE A6.2.1.

C. LETTERING AND NUMBERS: ALL LETTERING AND NUMBERS SHALL BE RAISED 1/32" FROM SIGN FACE (UON), SHALL BE SAME SANS SERIF FONT THROUGHOUT AS INDICATED, AND SHALL BE OF 70% CONTRASTING COLOR (UON) TO SIGN BACKGROUND. LETTERING AND NUMBERS SHALL BE OF HEIGHT INDICATED BY DETAILS (5/8" MIN. WHERE NOT NOTED, EXCEPT FOR FLOOR NUMBER AT MODULE NO) .

D. CONTRASTING COLOR: CHARACTERS, SYMBOLS AND THEIR BACKGROUND SHALL HAVE A MINIMUM OF 70% CONTRAST IN REFLECTANCE RATIO. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

E. TACTILE EXIT SIGNS. A TACTILE EXIT SIGN STATING "EXIT" OR "EXIT ROUTE" AND COMPLYING WITH CBC 2022 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EGRESS, STAIRWAY, AN EXIT PASSAGEWAY AND EXIT DISCHARGE.

F. ATTACH SIGNAGE WITH DOUBLE-SIDED TAPE AND SILICONE.

G. FOR FURTHER SIGN TYPE DETAIL INFORMATION REFER TO SPECIFICATIONS.

H. SIGNS SHALL COMPLY WITH CBC 2022, SECTION 11B-703, WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED.

I. VERTICES OF GEOMETRIC SIGNS TO BE RADIUSED BETWEEN 1/8" AND 1/4" INCH, PER CBC 11B-703.7.2.6.4.

J. REFER TO SHEET AV0.0 FOR ADDITIONAL INFORMATION RELATED TO PERMANENT ASSISTED LISTENING SYSTEM.

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

SHEET TITLE
SIGNAGE TYPES

14794

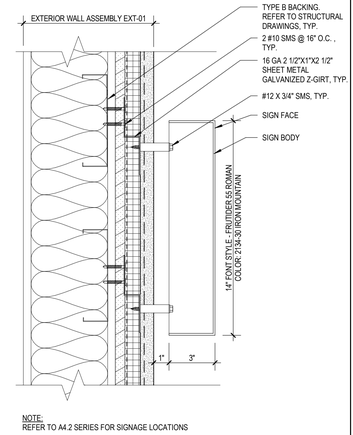
PROJECT NUMBER
CD

AG4.1
SHEET NUMBER

START Sheet
7/23/2025 3:34:06 PM
Plot Date:

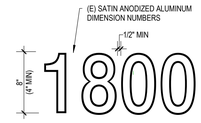


2 BUILDING 1800 - BUILDING IDENTIFICATION SIGNAGE
SIGNAGE TYPE - T4
SCALE: 1 1/2" = 1'-0"

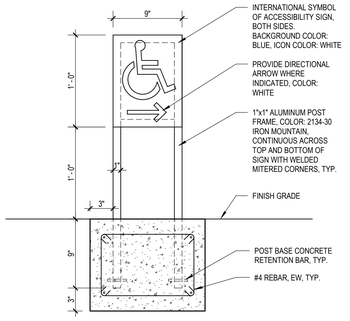


NOTE:
REFER TO A4.2 SERIES FOR SIGNAGE LOCATIONS

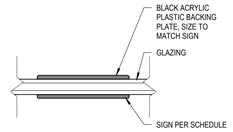
11 BUILDING 2400 - BUILDING IDENTIFICATION ATTACHMENT
SIGNAGE TYPES - T1, T2, T3
SCALE: 3" = 1'-0"



28 BUILDING 1800 - BUILDING IDENTIFICATION SIGNAGE
SIGNAGE TYPE - T5
SCALE: 1 1/2" = 1'-0"



13 SITE DIRECTIONAL SIGN
SCALE: 1 1/2" = 1'-0"



6 SIGN AT GLAZING
SCALE: 3" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

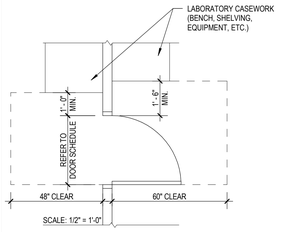
SHEET TITLE
SIGNAGE DETAILS

14794
PROJECT NUMBER

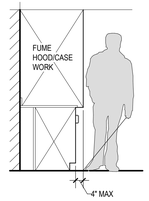
CD
SHEET NUMBER
AG4.2

Plot Date: 7/23/2025 5:02:44 PM START Sheet

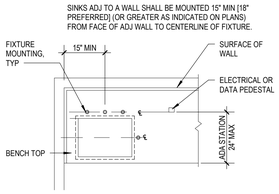
TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES



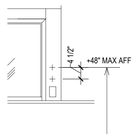
DOOR/ CASEWORK CLEARANCES
(PLAN VIEW)



LIMIT OF PROTRUDING OBJECTS
(WALKING PARALLEL TO A WALL)

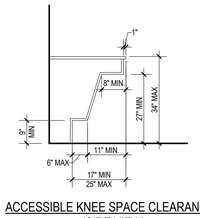


CONDITION AT LAB SINK
(PLAN VIEW)

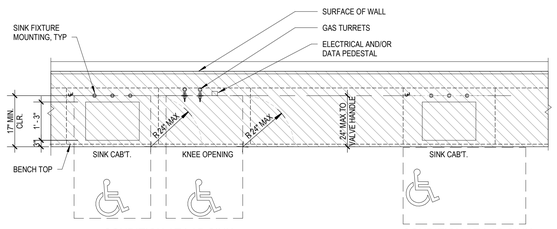


FOR ADA FUME HOODS ONLY:
CENTERLINE OF TOP MOST OPERATING ELEMENTS TO BE A MAXIMUM OF 48" AFF. ANY ADDITIONAL VALVES TO BE MOUNTED IN THE CABINET APRON BELOW. PROVIDE PIPING BETWEEN VALVES AND OUTLETS AS PART OF THE FUME HOOD PRE-PIPING.

ADA FUME HOOD SERVICES
(ELEV. VIEW)



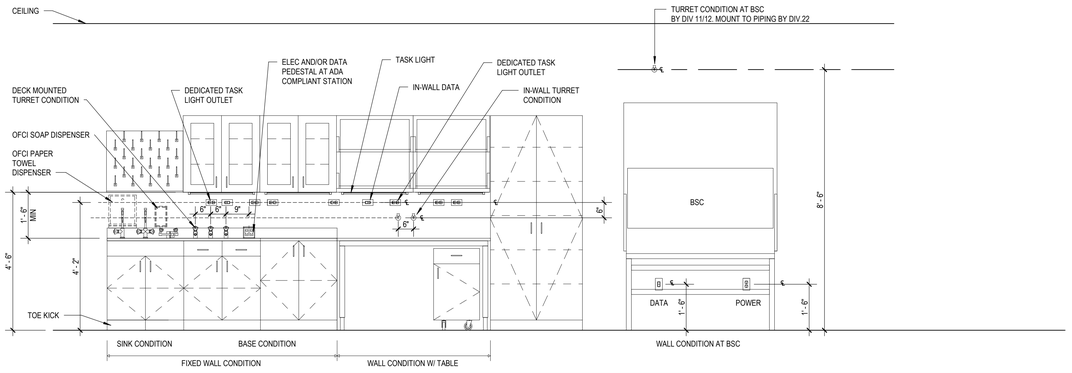
ACCESSIBLE KNEE SPACE CLEARANCES
(SIDE VIEW)



CONDITION AT LAB SINK
(PLAN VIEW - FRONT APPROACH)

CONDITION AT LAB SINK
(PLAN VIEW - SIDE APPROACH)

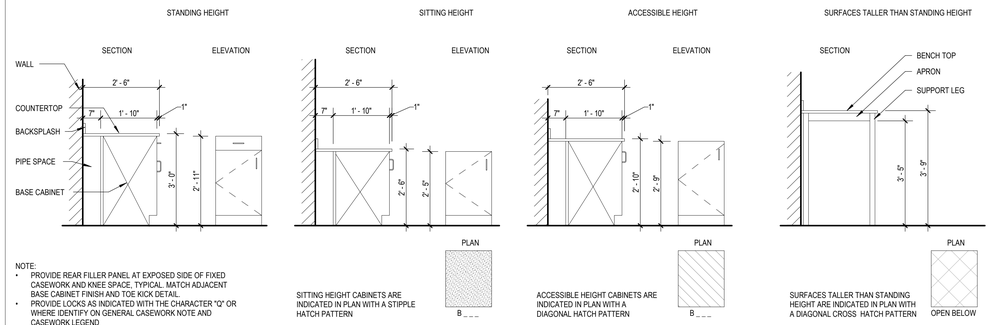
TYPICAL MOUNTING HEIGHT



LINE TYPE LEGEND

- ITEMS IN SCOPE
- ITEMS NOT IN SCOPE
- OFOI/OFCI EQUIPMENT
- ITEMS GREATER THAN 4'-0" AFF OR BELOW COUNTER

BASE CABINET HEIGHT DEFINITION & LEGEND - 1/2" = 1'-0"



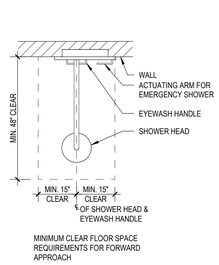
NOTE:
- PROVIDE REAR FILLER PANEL AT EXPOSED SIDE OF FIXED CASEWORK AND KNEE SPACE, TYPICAL. MATCH ADJACENT BASE CABINET FINISH AND TOE KICK DETAIL.
- PROVIDE LOCKS AS INDICATED WITH THE CHARACTER "Q" OR WHERE IDENTIFY ON GENERAL CASEWORK NOTE AND CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

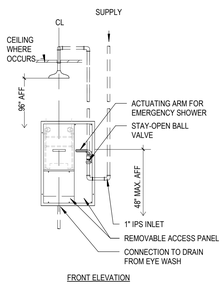
ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

SURFACES TALLER THAN STANDING HEIGHT ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

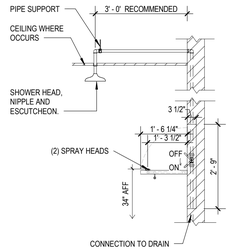
RECESSED SAFETY SHOWER/ EYEWASH - 1/2" = 1'-0"



PLAN VIEW



FRONT ELEVATION



SIDE ELEVATION

NOTE:

IF CEILING IS AT OR GREATER THAN 120" AFF, SHOWER HEAD HORIZONTAL SUPPLY PIPE SHALL COME FROM WALL WITH ESCUTCHEON AND BE OF FINISHED MATERIAL MATCHING SHOWER HEAD.

ELEVATION OF EMERGENCY SHOWER SHALL BE AT OR BELOW SURROUNDING THAT WOULD OTHERWISE IMPACT THE SHOWER FLUID COLUMN.

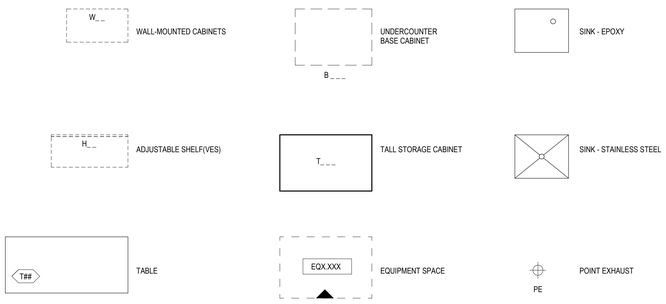
EQUIPMENT ABBREVIATIONS

#	120V	120 VOLTAGE ELECTRICAL RECEPTACLE
	208V	208 VOLTAGE ELECTRICAL RECEPTACLE
A	ADA	AMERICANS WITH DISABILITIES ACT
	AS	ADJUSTABLE SHELF
	AV	ATMOSPHERIC VENT
B	BSC	BIOLOGICAL SAFETY CABINET
C	CA	COMPRESSED AIR
	CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
	CH4	METHANE
	CHW	CHILLED WATER
	CNG	COUNTER GROMMET
	CO2	CARBON DIOXIDE
	CP	CLOSURE PANEL
	CR	CYLINDER RESTRAINTS
	CS	CUP SINK
	CSC	CEILING SERVICE COLUMN
	CSP	CEILING SERVICE PANEL
	CW	COLD WATER
D	DA	DATA RECEPTACLE
	DGV	DOUBLE GAS VALVE
	DI	DEIONIZED WATER
	DR	DRYING RACK (GLASSWARE)
	DUP	DUPLEX OUTLET
E	ELA	END LEG ASSEMBLY
	ER	EPOXY RESIN
	ESEW	EMERGENCY SHOWER EYE WASH
	EW	EYE WASH/DRENCH HOSE
F	FA	FAUCET ASSEMBLY
	FC	FILE CABINET
	FF&E	FURNITURE, FIXTURES, & EQUIPMENT
	FH	FUME HOOD
	FIL	FILLER PANEL
	FP	FOOT PEDAL
H	H2	HYDROGEN
	H2S	HYDROGEN SULFIDE
	HDS	HEAVY DUTY SHELVING
	HP	HIGH PRESSURE
	HW	HOT WATER
L	LA	LAB AIR
	LCH	LAB COAT HOOK
	LCR	LAB CORE ASSEMBLY
	LCS	LAB CUP SINK
	LFH	LAMINAR FLOW HOOD
	LM	LAB MODULE
	LN2	LIQUID NITROGEN
	LS	LIGHT SWITCH
	LSK	LAB SINK
	LV	LAB VACUUM
M	MKB	MARKERBOARD
N	N2	NITROGEN
	NH3	AMONIA
	NO2	NITROGEN DIOXIDE
	NIC	NOT IN CONTRACT
O	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
	OFOI	OWNER FURNISHED OWNER INSTALLED
	OH	OPPOSITE HAND
	OSC	OVERHEAD SERVICE CARRIER
P	PCH	PIPE CHASE
	PCWR	PROCESS COOLING WATER RETURN
	PCWS	PROCESS COOLING WATER SUPPLY
	PE	POINT EXHAUST
	PO	POWER OUTLET
	PPR	PAPER DISPENSER
	PRF	PRE RINSE FIXTURE
	PW	PURE WATER
Q	QGV	QUAD GAS VALVE
R	RO	REVERSE OSMOSIS WATER
	RO/DI	REVERSE OSMOSIS DEIONIZED WATER
S	SG	SPECIALTY GAS
	SGV	SINGLE GAS VALVE
	SO	SENSOR OPERATED
	SPD	SOAP DISPENSER
	SR	SURFACE RACEWAY
	SUL	SULPHER
	SVF	SERVICE FIXTURE
	SVG	SERVICE FIXTURE GROUP
T	TBD	TO BE DETERMINED
	TL	TASK LIGHT
	TLO	TELECOMM OUTLET
	TRC	TRASH RECEPTACLE
U	UON	UNLESS OTHERWISE NOTED
V	VAB	VACUUM BREAKER
	VIF	VERIFY IN FIELD
W	WFA	WALL FRAME ASSEMBLY
	WSH	WIRE SHELF
	WSL	WIRE SHELVING WITH GROW LIGHTS

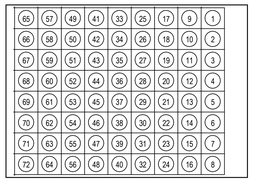
GENERAL CASEWORK NOTES

1. ALL HALF-TONE ITEMS ON THE Q7 ENLARGED PLANS PERTAIN TO WORK BY OTHER DISCIPLINES. ALL WORK IN DIVISION 11/12 IS FULL TONE
2. CASEWORK IS IDENTIFIED WITH A CASEWORK TYPE SYMBOL. REFER TO CASEWORK TYPE SYMBOL DEFINITION FOR MORE DETAIL.
3. MAINTAIN THE OVERALL NOMINAL HEIGHT OF BASE CABINET TOPS AS SHOWN ON DRAWINGS. BEGIN INSTALLATION OF CASEWORK AT THE HIGH POINT OF THE FLOOR AT EACH BENCH WITH THE LEVELERS SCREWED IN AS FAR AS POSSIBLE.
4. OVERALL LENGTH OF BENCH TOPS EQUALS THE DIMENSIONED LENGTH OF THE CASEWORK, PLUS 1/2 INCH OVERHANG AT EACH END.
5. ROOM WALL FINISH BASE TO BE APPLIED TO FIXED CASEWORK/COMPONENTS' BASE AT FLOOR , OR PER ARCHITECTURE A7 SERIES
6. REFER TO E SERIES FOR LOCATIONS AND SPECIFICATION OF TASK LIGHTS AT UNDERSIDE OF WALL CABINETS AND BOTTOM SHELF OF WALL FRAME ASSEMBLY. LIGHT TO BE CENTERED ON UNIT. LIGHT FIXTURE NOMINAL WIDTH SHALL MATCH ACTUAL CASEWORK UNIT DIMENSION. NO VALANCE UON ON ELEVATION
7. PROVIDE RAIL COVERS AT WALL FRAME ASSEMBLIES.
8. SINK ACCESSORIES (SOAP, PAPER TOWEL DISPENSERS) SHALL BE OWNER PROVIDED AND CONTRACTOR INSTALLED, UON. REFER TO ARCHITECTURE A7 SERIES FOR ADDITIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR BACKING INFORMATION
9. PROVIDE LOCKS AT TALL CABINETS, CHEMICAL STORAGE CABINETS, AS NOTED ON CASEWORK LEGEND AND AS DESIGNATED WITH CHARACTER 'Q'.
10. PROVIDE 2'-6" DEEP SINGLE-SIDED WALL BENCH TOPS AND TABLE SURFACES, INCLUDING BACKSPLASH AND 1" FRONT OVERHANG, UON. PROVIDE 5'-0" DEEP DOUBLE-SIDED ISLAND AND PENINSULA BENCH TOPS, INCLUDING A 1" OVERHANG ON EACH SIDE, UON.
11. OFOI CHAIRS & FURNITURE INDICATED IN THE Q SET ARE FOR INFORMATION ONLY.
12. ACCESSIBLE LOCATIONS ARE INDICATED ON FLOOR PLANS WITH A HATCH (REFER TO PLAN SYMBOLS FOR HATCH PATTERN). MODIFY STANDING HEIGHT CABINETS TO FIT UNDER BENCH TOPS INDICATED AT +34" FOR ACCESSIBLE COMPLIANCE. WHERE WALL MOUNTED DRYING RACKS ARE INDICATED, INCLUDE ADDITIONAL DECK MOUNTED UNIT AT THOSE ACCESSIBLE LOCATIONS.
13. ADJUSTABLE WALL-SHELVES SHALL SPAN A MAXIMUM OF 48 INCHES, UON.
14. CASEWORK EQUAL OR LESS THAN 24" IN WIDTH SHALL HAVE A SINGLE HINGED DOOR. CASEWORK ADJACENT TO WALL SHALL HAVE AT LEAST A 1-INCH FILLER BETWEEN CASEWORK AND WALL
15. PROVIDE LABORATORY GRADE WOOD CASEWORK, METAL PAINTED FUME HOODS, METAL PAINTED LOCKERS, AND EPOXY COUNTERTOPS, UON
16. PROVIDE STAINLESS STEEL CASEWORK, AND COUNTERTOPS IN CADAVER ROOM. PROVIDE STAINLESS STEEL COUNTERTOP IN FILM ROOM. PROVIDE STAINLESS STEEL SINKS IN PHOTOGRAPHY DARKROOM, MAIN PHOTO LAB & FILM ROOM.
17. PROVIDE PHENOLIC CASEWORK AND COUNTERTOPS IN PHOTOGRAPHY MAIN PHOTO LAB, PHOTO WORKROOM & DARKROOM. PROVIDE PHENOLIC CASEWORK IN FILM ROOM.
18. FOR VENTING OF UNDERCOUNTER AND TALL ACID AND BASE CHEMICAL STORAGE CABINETS, REFER TO SPECIFICATION SECTIONS 123553 AND 115300 RESPECTIVELY.
19. FOR ROOMS WITH RESINOUS FLOORING, FLOORING IS TO FORM AN INTEGRAL BASE COVED UP INTO FIXED CASEWORK TOE KICK.
20. MOBILE - CABINET ON CASTERS THAT CAN BE EASILY MOVED
MOVABLE - CABINET ON GLIDES
SUSPENDED - CABINET THAT CAN BE ATTACHED BELOW A WORK SURFACE

PLAN SYMBOLS - 1/2" = 1'-0"



DETAIL NUMBERING AND PAGE LAYOUT GUIDE

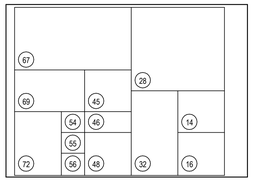


DETAIL MODULE LAYOUT

DETAILS ARE NUMBERED ACCORDING TO THEIR LOCATION ON EACH SHEET AND ARE NOT NUMBERED CONSECUTIVELY. EACH MODULE MAINTAINS THE NUMBER ASSOCIATED WITH IT

THIS SYSTEM CAN BE APPLIED TO ANY SHEET THAT CONTAINS MULTIPLE IMAGES. THE IMAGES ARE NUMBERED ACCORDING TO THE MODULE SYSTEM SHOWN ILLUSTRATED TO THE LEFT

EACH DETAIL MAY OCCUPY ONE OR MORE WHOLE MODULES. THE DETAIL MODULE IS USED TO ESTABLISH THE IDENTIFYING LABEL FOR EACH DETAIL, NOT TO LIMIT THE SIZE OF THE DETAIL



DETAIL NUMBERING EXAMPLE

THE NUMBER OF THE MODULE WHICH OCCURS IN THE LOWER LEFT CORNER OF A SINGLE MODULE OR SEVERAL MODULES GROUPED TOGETHER WILL DEFINE THE FINAL DETAIL NUMBER AS SHOWN IN THE ILLUSTRATION TO THE LEFT. ALTHOUGH THE MODULE NUMBERS OCCUR IN CONSECUTIVE ORDER, NOT ALL NUMBERS ARE NECESSARILY USED ON EACH SHEET

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

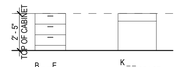
SHEET TITLE
BUILDING 1500 - GENERAL INFORMATION

PROJECT NUMBER
14794

SHEET NUMBER
CD **Q0.1.1**

Author
Plot Date: 7/22/2025 3:01:24 PM

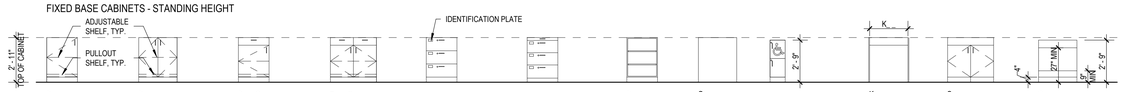
FIXED BASE CABINETS - SITTING HEIGHT



B _ _ E
DRAWERS (EVEN)
(3-8) DRAWERS

K _
KNEESPACE
APRON

FIXED BASE CABINETS - STANDING HEIGHT



B _ _ AL
B _ _ AR
(1) ONE HINGED DOOR
(1) ADJUSTABLE SHELF
(1) BOTTOM PULLOUT
SHELF W/ RETAINER LIP
(SHOWN B _ _ AL)

B _ _ A
TWO DOORS
(2) HINGED DOORS
(1) ADJUSTABLE SHELF
(1) BOTTOM PULLOUT
SHELF W/ RETAINER LIP

B _ _ CL
B _ _ CR
DOOR/ DRAWER
(1) DRAWER
(1) HINGED DOOR
(1) ADJUSTABLE SHELF
(1) BOTTOM PULLOUT
SHELF W/ RETAINER LIP
(SHOWN B _ _ CL)

B _ _C
DOOR/ DRAWER
(2) DRAWERS
(2) HINGED DOORS
(1) ADJUSTABLE SHELF
(1) BOTTOM PULLOUT
SHELF W/ RETAINER LIP

B _ _ E
DRAWERS (EVEN)
(3) DRAWERS

B _ _ Ed
(2) DRAWERS
FILE SUSPENSION RAILS

B _ _ Ef
(4) DRAWERS

W/ KEYED LOCKS
WHERE NOTED
(ALL DRAWERS TO BE
KEYED SEPARATE)

B _ _ Ea
DRAWERS (EVEN)
(1) PULLOUT TABLET
(3) DRAWERS W/
KEYED LOCKS
(ALL DRAWERS TO BE
KEYED SEPARATE)

B _ _ J
NO DOORS W/
SHELVES
(2) ADJUSTABLE
SHELVES

B _ _Ji
NO SHELF

O _ _
OPENING
(EQUIPMENT
SPACE)

B _ _ W
(2) LOCKERS (EVEN) W/
KEYED LOCKS

B _ _ We
(1) LOCKER WITH KEYED
LOCK

(52) LOCKERS TOTAL.
5% OF (52) LOCKERS = 2.6.
PROVIDE (4) ACCESSIBLE
LOCKERS.

(ALL LOCKERS TO BE
KEYED SEPARATE)

K _ _
KNEESPACE
W/ APRON

S _ _
SINK BASE CABINET
(2) DOORS
APRON

S _ _
SINK BASE CABINET
FRONT APPROACH
ACCESSIBLE

SPECIALTY FIXED BASE CABINETS - STANDING HEIGHT

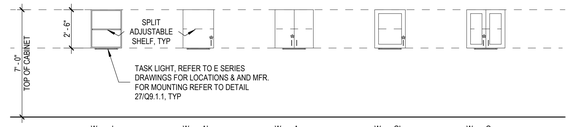


B _ _ BL
B _ _ BR
BASE (pH)
(1) HINGED DOOR
(1) ADJUSTABLE SHELF
(SHOWN B _ _ BL)

B _ _ FL
B _ _ FR
FLAMMABLE
(1) HINGED DOOR
(1) ADJUSTABLE SHELF
(SHOWN B _ _ FL)

B _ _ NL
B _ _ NR
CORROSIVE
(1) HINGED DOOR
(1) SHELF
(SHOWN B _ _ NL)

WALL MOUNTED CABINETS



W _ _ J
(1) SPLIT ADJUSTABLE
SHELF

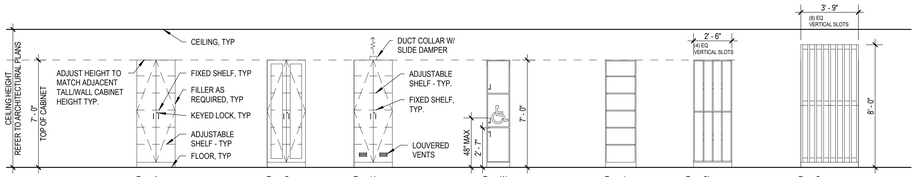
W _ _ AL
W _ _ AR
(1) SPLIT ADJUSTABLE
SHELF
(1) HINGED DOOR
(SHOWN W _ _ AL)

W _ _ A
(1) SPLIT ADJUSTABLE
SHELF
(2) HINGED DOORS

W _ _ GL
W _ _ GR
(1) SPLIT ADJUSTABLE
SHELF
(1) HINGED DOOR
(SHOWN W _ _ GL)

W _ _ G
(1) SPLIT ADJUSTABLE
SHELF
(2) HINGED DOORS

TALL CABINETS



T _ _ A
(2) HINGED DOORS W/
KEYED LOCK
(1) FIXED SHELF
(MIDDLE SHELF)
(4) ADJUSTABLE SHELF

T _ _ G
(2) HINGED DOOR
(1) FIXED SHELF
(MIDDLE SHELF)
(4) ADJUSTABLE
SHELVES

T _ _ V
(2) HINGED DOOR
(1) FIXED SHELF (MIDDLE
SHELF)
(4) ADJUSTABLE SHELVES
4" DIA. VENT COLLAR ON
TOP OF CABINET
LOUVERED VENTS ON
DOORS

T _ _ W
(3) EQUAL STORAGE
LOCKERS W/ KEYED LOCKS

PAINTED METAL
MATERIAL

(141) LOCKERS TOTAL.
5% OF (141) LOCKERS = 7.05.
PROVIDE (8) ACCESSIBLE
LOCKERS.

(ALL LOCKERS TO BE
KEYED SEPARATE)

T _ _ J
(5) ADJUSTABLE
SHELVES

T _ _ Jm
(6) ADJUSTABLE
SHELVES

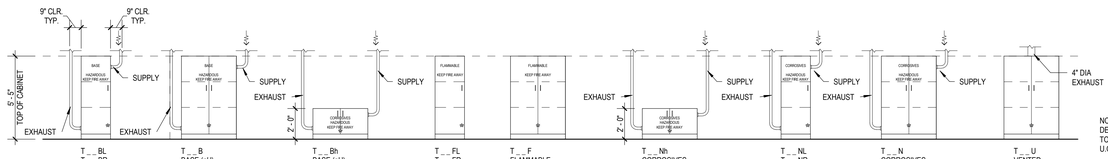
T _ _ Sk
CANVAS STORAGE
NO DOOR
DOUBLE STACKED
(8) EQUAL CANVAS SLOTS

26" DEEP
REFER TO DETAIL
67/Q9.1.6

T _ _ S
CANVAS STORAGE
NO DOOR
(8) EQUAL CANVAS SLOTS

36" DEEP
REFER TO DETAIL
70/Q9.1.6

SPECIALTY TALL CABINETS



NOTE:
DEPTH OF TALL CABINETS
TO BE 18" DEEP, TYP
U.O.N ON PLANS

T _ _ BL
T _ _ BR
BASE (pH)
(1) HINGED DOOR
(2) ADJUSTABLE
SHELVES
(SHOWN T _ _ BL)

T _ _ B
BASE (pH)
(2) HINGED DOORS
(2) ADJUSTABLE
SHELVES

T _ _ Bh
BASE (pH)
(2) HINGED DOORS

PIGGYBACK/STACKABLE

T _ _ FL
T _ _ FR
FLAMMABLE
(1) HINGED DOOR
(2) ADJUSTABLE
SHELVES
(SHOWN T _ _ FL)

T _ _ F
FLAMMABLE
(2) HINGED DOORS
(2) ADJUSTABLE
SHELVES

T _ _ Nh
CORROSIVES
(2) HINGED DOORS

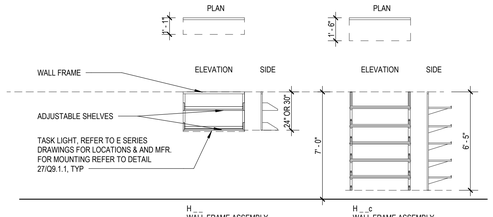
PIGGYBACK/STACKABLE

T _ _ NL
T _ _ NR
CORROSIVES
(1) HINGED DOOR
(2) ADJUSTABLE
SHELVES
(SHOWN T _ _ NL)

T _ _ N
CORROSIVES
(2) HINGED DOORS
(2) ADJUSTABLE
SHELVES

T _ _ U
VENTED
(2) HINGED DOORS
(2) ADJUSTABLE
SHELVES

UPPER SHELVING



H _ _
WALL FRAME ASSEMBLY
(2 SHELVES)
30" HEIGHT WALL FRAME
TASK LIGHT

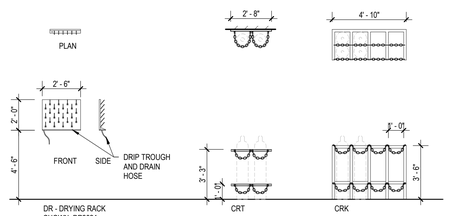
H _ _g
(2 SHELVES)
24" HEIGHT WALL FRAME
TASK LIGHT

H _ _c
WALL FRAME ASSEMBLY
HEAVY DUTY ADJUSTABLE
(5 SHELVES)

H _ _b
(2 SHELVES) 18" DEEP
HEAVY DUTY ADJUSTABLE

NO TASK LIGHT

ACCESSORIES



DR - DRYING RACK
SHOWN: DR3024

NOT SHOWN:
BENCHTOP DRYING
RACK DR1820BT

CRT
CYLINDER
RESTRAINT
SINGLE OR DOUBLE
(REFER TO PLANS
AND DETAIL 21/Q9.1.2)

SHOW: CRT-02

CRK
CYLINDER RACK
SLOTTED STRUT ASSEMBLY
(REFER TO PLANS AND
DETAIL 19/Q9.1.2)

SHOW: CRK-08

CASEWORK TYPE SYMBOL

B 24 AL b

LOCATION DESIGNATION:
B = FIXED BASE
H = SHELVING
K = KNEESPACE
M = MOBILE BASE
O = OPEN
S = SINK CABINET
T = TALL CABINET
U = SUISPENDED BASE
V = MOVABLE BASE
W = WALL CABINET

CABINET WIDTH:
EXAMPLE : 24 = 24 INCHES

EXAMPLE: **B24AL**
FIXED BASE CABINET
24" WIDTH
DOOR(S) ONLY
LEFT HINGED

DETAIL
a = WITH PULL OUT TABLET
b = 2-SHELVES 18"D, HEAVY DUTY
c = 5-SHELVES 18"D, HEAVY DUTY
d = 2-DRAWERS, w/ FILE SUSPENSION RAILS
e = SINGLE LOCKER
f = 4-DRAWERS
g = 24"H UPPER CABINET / SHELVING
h = PIGGYBACK / STACKABLE
i = NO MIDDLE SHELF
j = 2"x2" LEG SUPPORT OR GABLED PANEL
k = DOUBLE STACKED
m= 6 ADJUSTABLE SHELVES
n= WITH FOOT-REST SHELF
p= SINGLE SHELF, STAINLESS STEEL
q= SINGLE SHELF, SOLID PHENOLIC RESIN

FEATURES DESIGNATION:
A = DOOR ONLY
B = BASE pH/ ALKALINE W/ KEYED LOCK
C = DOOR/ DRAWER
D = DRAWER (UNEVEN)
E = DRAWER (EVEN)
F = FLAMMABLES W/ KEYED LOCK
G = GLASS DOOR(S)
H = CUBBY
J = NO DOOR W/ SHELF(VES)
L = LEFT HINGED
N = ACID pH / CORROSIVES W/ KEYED LOCK
P = OXIDIZERS W/ KEYED LOCK
Q = LOCK
R = RIGHT HINGED
S = CANVAS STORAGE
T = TRASH
U = VENTED W/ KEYED LOCK
V = VACUUM
W = LOCKERS W/ KEYED LOCK
X = DRAWER(S)/NO DOOR, W/ SHELVES
Y = ADJUSTABLE ISLAND SHELVING

LAS POSITAS COLLEGE

INCREMENT II -
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LIVERMORE, CA 94551

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SAN FRANCISCO, CA 94111
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 -
CASEWORK LEGEND

14794

PROJECT NUMBER

CD

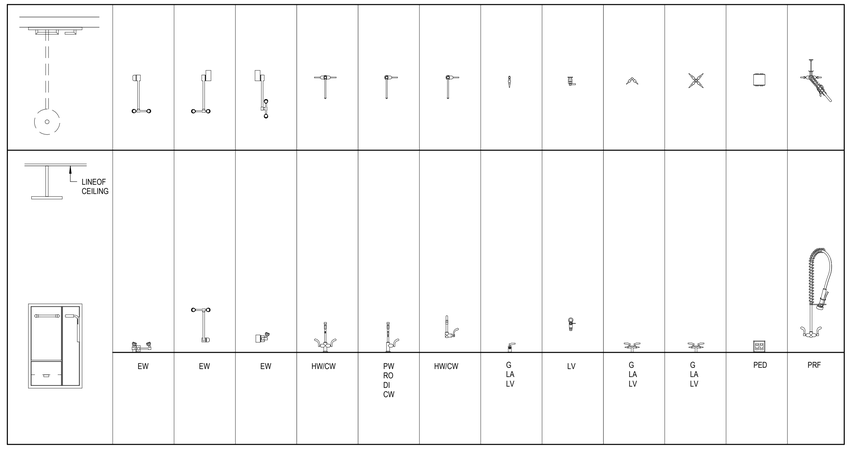
Q0.1.2

SHEET NUMBER

Author

Plot Date: 7/22/2025 3:01:25 PM

FIXTURE LEGEND

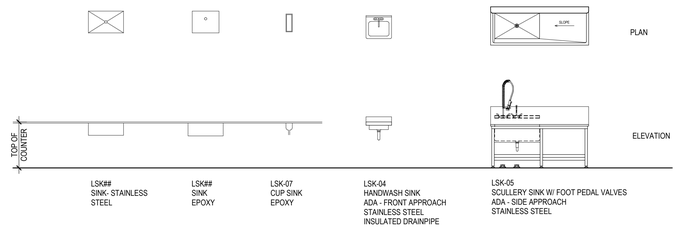


RECESSED EMERGENCY SHOWER AND EYEWASH	DECK MTD SWING DOWN EYE WASH	PANEL MTD SWING DOWN EYE WASH	PANEL MTD SWING DOWN EYE WASH SIDE ACCESS	DECK MTD MIXING FAUCET	DECK MTD SINGLE FAUCET	PANEL MTD SINGLE FAUCET	DECK MTD SINGLE GAS VALVE	WALL MTD SINGLE GAS VALVE	DECK MTD DOUBLE GAS VALVE @ 90 DEGREES	DECK MTD QUAD GAS VALVE @ 90 DEGREES	DECK MTD BACK TO BACK QUAD ELEC OUTLETS	PANEL MOUNTED PRE-RINSE FIXTURE

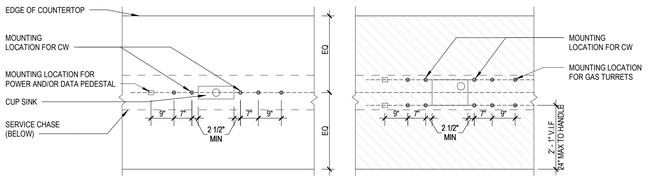
SINK LEGEND

SINK SCHEDULE - CFCI

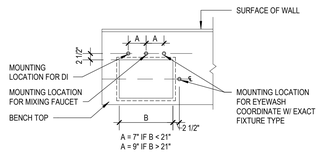
TAG	MOUNTING	MATERIAL	W	D	H	COMMENTS
LSK-01	DROP-IN	EPOXY RESIN	2' - 4"	1' - 3"	1' - 0"	
LSK-02	DROP-IN	STAINLESS STEEL	2' - 1"	1' - 3"	0' - 5"	ADA COMPLIANT. SINK IN FILM 15101B ROOM HAS TEMPERATURE BLENDER
LSK-03	DROP-IN	EPOXY RESIN	2' - 1"	1' - 3"	0' - 5"	ADA COMPLIANT STEP SINK 5'/11" HEIGHT.
LSK-04	WALL	STAINLESS STEEL	1' - 10"	1' - 7"	0' - 5 1/2"	ADA COMPLIANT HANDWASH SINK. INSULATED DRAINPIPE
LSK-05	FLOOR	STAINLESS STEEL	6' - 3"	2' - 6"	2' - 10"	SCULLERY SINK W/ (2) FOOT PEDAL VALVES, EACH CONTROL A PLUBMING FIXTURE
LSK-06	DROP-IN	EPOXY RESIN	1' - 2"	0' - 10"	0' - 5"	ADA COMPLIANT
LSK-07	DROP-IN	EPOXY RESIN	1' - 2"	0' - 5"	0' - 6"	CUP SINK



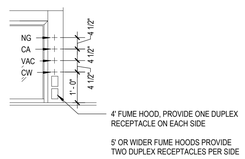
TYPICAL SERVICE FIXTURE DIMENSIONS



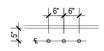
CONDITION AT STUDENT ISLAND
(PLAN VIEW)



CONDITION AT LAB SINK
(PLAN VIEW)



CONDITION AT FUME HOOD
(ELEV. VIEW)



CONDITION AT WALL
(PLAN VIEW)

SERVICE FIXTURE SCHEDULE -.CFCI

TAG	SERVICE(S)	MOUNTING	DESCRIPTION
ESEW	DOMESTIC COLD	WALL	RECESSED EYE WASH/EMERGENCY SHOWER STATION CABINET WITH DRAIN PAN, EYE WASH PLUMBED TO DRAIN, EXPOSED SHOWER HEAD FROM CEILING
MF/1	INDUSTRIAL HOT/COLD	DECK	LABORATORY MIXING FAUCET,WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
MF/2	DOMESTIC HOT/COLD	DECK	LABORATORY MIXING FAUCET,WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, VACUUM BREAKER, AERATOR END
TW/1	INDUSTRIAL HOT/COLD	PANEL	WATER FAUCET, WRIST BLADE HANDLES, 6-INCH RIGID/SWING GOOSENECK, VACUUM BREAKER, SERRATED HOSE END
EW/1	DOMESTIC COLD	PANEL	EYE WASH, AUTO FLOW 90° SWING DOWN, LEFT HAND - LEFT POSITION
EW/2	DOMESTIC COLD	PANEL	EYE WASH, AUTO FLOW 90° SWING DOWN FROM SIDE OF SINK W/ STAINLESS STEEL DUST COVERS
LA/1	LAB AIR (15 PSI)	DECK	SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
LV/1	VACUUM	DECK	DUAL BALL VALVE, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
LV/2	VACUUM	WALL	BALL VALVE, 1/4-TURN HANDLE, 90° ELBOW FITTING, FLOATING ESCUTCHEON, 1/4" O.D. COMPRESSION FITTING.
CA/1	COMPRESSED AIR (100 PSI)	DECK	SINGLE STRAIGHT PATTERN FINE CONTROL NEEDLE VALVE, QUICK CONNECT FITTING, HOODED HANDLE, WITH PRESSURE REGULATOR AND GAUGE
CA/2	COMPRESSED AIR (100 PSI)	DECK	DUAL STRAIGHT PATTERN FINE CONTROL NEEDLE VALVE, QUICK CONNECT FITTING, HOODED HANDLE, WITH PRESSURE REGULATOR AND GAUGE
PED/1	POWER/DATA	DECK	MULTIPLEX ELECTRICAL / DATA PEDESTAL BOX, DOUBLE GANG, SINGLE FACE
PED/2	DATA	DECK	DATA PEDESTAL BOX, DOUBLE GANG, SINGLE FACE
PED/3	POWER	DECK	ELECTRICAL PEDESTAL BOX, DOUBLE GANG, SINGLE FACE
PED/4	POWER	DECK	ELECTRICAL PEDESTAL BOX, DOUBLE GANG, DOUBLE FACE
SVG-01	INDUSTRIAL HOT/COLD	DECK	LABORATORY MIXING FAUCET, WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
	EW		EYE WASH, AUTO FLOW 90° SWING DOWN, LEFT HAND - LEFT POSITION
SVG-02	DI	DECK	NON-RECIRCULATING PURE WATER FAUCET, POLYPROPYLENE-LINED, MANUAL/SELF-CLOSING CONTROL
	INDUSTRIAL HOT/COLD		LABORATORY MIXING FAUCET, WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
SVG-03	INDUSTRIAL HOT/COLD	PANEL	PRE-RINSE UNIT, HOT AND COLD WATER, WRIST BLADE HANDLES, INDUSTRIAL WATER SIGN
	INDUSTRIAL HOT/COLD		LABORATORY MIXING FAUCET, WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
SVG-04	DI	DECK	NON-RECIRCULATING PURE WATER FAUCET, POLYPROPYLENE-LINED, MANUAL/SELF-CLOSING CONTROL
	INDUSTRIAL HOT/COLD		LABORATORY MIXING FAUCET, WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
	EW		EYE WASH, AUTO FLOW 90° SWING DOWN, LEFT HAND - LEFT POSITION
SVG-05	NATURAL GAS	DECK	SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-06	NATURAL GAS	DECK	DUAL BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		DUAL BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-07	NATURAL GAS	DECK	QUAD BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		QUAD BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-08	NATURAL GAS	DECK	DUAL BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	INDUSTRIAL COLD		SINGLE WATER FAUCET, 6-INCH RIGID GOOSENECK, SERRATED HOSE END, INDUSTRIAL WATER SIGN
	INDUSTRIAL COLD		SINGLE WATER FAUCET, 6-INCH RIGID GOOSENECK, SERRATED HOSE END, INDUSTRIAL WATER SIGN
	LAB AIR (15 PSI)		DUAL BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		DUAL BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-09	NATURAL GAS	DECK	QUAD BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	INDUSTRIAL COLD		DUPLEX COLD WATER FAUCET, TWO ANGLE PATTERN WATER VALVES, TWO 6-INCH RIGID GOOSENECKS, TWO SERRATED HOSE ENDS, TWO INDUSTRIAL WATER SIGNS
	INDUSTRIAL COLD		DUPLEX COLD WATER FAUCET, TWO ANGLE PATTERN WATER VALVES, TWO 6-INCH RIGID GOOSENECKS, TWO SERRATED HOSE ENDS, TWO INDUSTRIAL WATER SIGNS
	LAB AIR (15 PSI)		QUAD BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		QUAD BALL VALVES, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-10	NATURAL GAS	FUME HOOD	LEFT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	LAB AIR (15 PSI)		LEFT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	VACUUM		RIGHT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	INDUSTRIAL COLD WATER		RIGHT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 90-DEGREE ANGLE SERRATED HOSE END, INDUSTRIAL WATER SIGN
SVG-11	NATURAL GAS	FUME HOOD	LEFT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	LAB AIR (15 PSI)		LEFT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	VACUUM		RIGHT SIDE - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
SVG-12	NATURAL GAS	FUME HOOD	BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	VACUUM		BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	INDUSTRIAL COLD WATER		BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
SVG-13	NATURAL GAS	ACCESSIBLE FUME HOOD	BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	VACUUM		BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	INDUSTRIAL COLD WATER		BOTH SIDES IN APRON - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 90-DEGREE ANGLE SERRATED HOSE END, INDUSTRIAL WATER SIGN
SVG-14	NATURAL GAS	FUME HOOD	BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
	VACUUM		BOTH SIDES - REMOTE CONTROL BALL VALVE, 1/4-TURN HANDLE, PANEL MOUNTED 45 DEGREE ANGLE SERRATED HOSE END
SVG-15	NATURAL GAS	DECK	SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
	INDUSTRIAL COLD		SINGLE WATER FAUCET, 6-INCH RIGID GOOSENECK, SERRATED HOSE END, INDUSTRIAL WATER SIGN
	LAB AIR (15 PSI)		SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-16	NATURAL GAS	DECK	SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
	INDUSTRIAL COLD		SINGLE WATER FAUCET, 6-INCH RIGID GOOSENECK, SERRATED HOSE END, INDUSTRIAL WATER SIGN
	VACUUM		SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-17	DOMESTIC HOT/COLD	DECK	LABORATORY MIXING FAUCET,WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, VACUUM BREAKER, AERATOR END
	EW		EYE WASH, AUTO FLOW 90° SWING DOWN, LEFT HAND - LEFT POSITION
SVG-18	INDUSTRIAL WATER	DECK	LABORATORY FAUCET, WRIST BLADE HANDLE, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN. CONNECT TO TEMPERATURE BLENDER
	EW		EYE WASH, AUTO FLOW 90° SWING DOWN, LEFT HAND - LEFT POSITION
SVG-19	NATURAL GAS	PANEL	SINGLE BALL VALVES, DECK STRAIGHT PATTERN, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		SINGLE BALL VALVES, DECK STRAIGHT PATTERN, 1/4-TURN HANDLE, SERRATED HOSE END
SVG-20	NATURAL GAS	PANEL	DUAL BALL VALVES, WYE FITTING, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		DUAL BALL VALVES, WYE FITTING, 90 DEGREE, 1/4-TURN HANDLE, SERRATED HOSE END

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - CASEWORK SCHEDULES

14794

PROJECT NUMBER

CD **Q1.1.1**

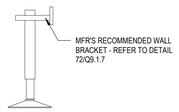
SHEET NUMBER

Author

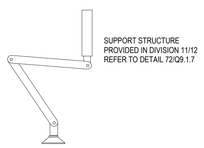
Plot Date: 7/22/2025 3:01:27 PM

POINT EXHAUST SCHEDULE (PE##) - CFCI

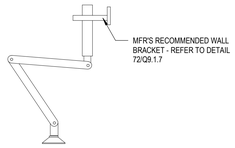
TAG	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING	EXHAUST	STATIC PRESSURE DROP	MECHANICAL NOTES	COMMENTS
PE01	POINT EXHAUST WITH ADJUSTABLE ARM	MOVEX	MiniTEX 3"DIA	CEILING	90 CFM	0.4	DOME HOOD	MTI 125 SERIES CEILING MOUNTING
PE01a	POINT EXHAUST WITH ADJUSTABLE ARM	MOVEX	MiniTEX 3"DIA	WALL	90 CFM	0.4	DOME HOOD	PROVIDE WALL SUPPORT PER MANUFACTURER REQUIREMENT
PE02	POINT EXHAUST AT AA UNIT	MOVEX	MEXAA	WALL	150 CFM	0.1	RECTANGLE HOOD	PROVIDE WALL SUPPORT PER MANUFACTURER REQUIREMENT



ELEVATION - PE02



ELEVATION - PE01 - CEILING MOUNTED



ELEVATION - PE01a - WALL MOUNTED

PLAN

CANOPY HOOD SCHEDULE (CH-##) - CFCI

TAG	WIDTH	DEPTH	WEIGHT	MTG. HT. A.F.F.	EXHAUST CFM	DUCT CONNECTION		COMMENTS
						DUCT NO.	DUCT SIZE	
CH-01	10' - 0"	6' - 0"	250	CEILING	1000	1	12X8	REFER TO MECH SERIES DRAWINGS AND DIV.23 FOR SPECIFICATION

FUME HOOD SCHEDULE (FH-#-#) - CFCI

TAG	DESCRIPTION	W	D	H	MOUNTING	MAX SASH HEIGHT	NO. OF VERTICAL PANELS	DESIGN SASH OPENING	FACE VELOCITY (FPM)	EXHAUST REQUIREMENT (CFM)	HOOD COLLAR	COMMENTS
FH-1-4A	4' ADA CHEMICAL FUME HOOD	4' - 0"	3' - 0"	7' - 4"	COUNTER	2' - 4"	1	18"	100	502	12" O.D.	
FH-1-6	6' CHEMICAL FUME HOOD	6' - 0"	3' - 0"	7' - 4"	COUNTER	2' - 4"	1	18"	100	810	12" O.D.	
FH-1-6A	6' ADA CHEMICAL FUME HOOD	6' - 0"	3' - 0"	7' - 4"	COUNTER	2' - 4"	1	18"	100	810	12" O.D.	

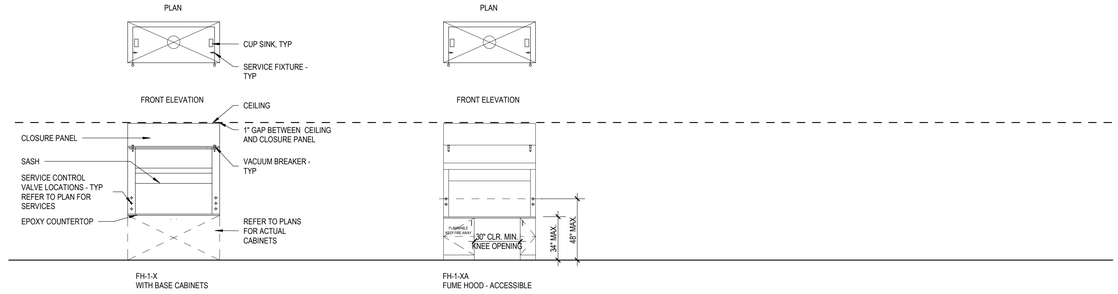
FUME HOOD TYPE SYMBOL

FH - 1 - 4 A

- FUME HOOD IDENTIFICATION
- TYPE DESIGNATION
  - 1 = BENCHTOP CHEMICAL
  - 2 = TEACHING / OBSERVATION
  - 3 = DEMONSTRATION / DOUBLE-SIDED
  - 4 = FLOOR-MOUNTED
  - 5 = DISTILLATION
  - 6 = SPECIALTY / RADIOISOTOPE
  - 7 = SPECIALTY / PERCHLORIC ACID
  - 8 = SPECIALTY / POLYPROPYLENE
  - 9 = SPECIALTY / HYDROCHLORIC-HYDROFLUORIC ACID
- ACCESSIBLE TAG (WHEN NOTED)
- WIDTH DESIGNATION (EXAMPLE: 4 = 4 FEET)

EXAMPLE: **FH-1-4A**
FUME HOOD
BENCHTOP CHEMICAL
4'-0" IN WIDTH
ACCESSIBLE

NOTES:
1.REFER TO SCHEDULE FOR FINAL SASH ORIENTATION AND FUME HOOD SERVICES.
2.VACUUM BREAKER - WHEN WATER SERVICE FIXTURES ARE IDENTIFIED
3. REFER TO DETAIL 24/Q9.1.7 FOR FUMEHOOD DETAILS



GLASSWARE WASHER SCHEDULE (GW-##) - CFCI

TAG	OVERAL DIM. WxHxL (INCHES)			WEIGHT	ENCLOSURE	HW MAX FLOW (GPM)	CW MAX FLOW (GPM)	PW MAX FLOW (GPM)	ELECTRICAL			COMMENTS
	W	D	H						V/PH/Hz	AMP	kVA	
GW-01	24"	28"	32"	202	UNDERCOUNTER	2	4	4	208/1/60	20	4.16	

STERILIZER SCHEDULE (ST-##) - CFCI

TAG	OVERALL DIM.			CHAMBER SIZE			TYPE	ENCLOSURE	DOORS		STEAM TO CHAMBER				CW MAX FLOW (GPM)	HW MAX FLOW (GPM)	A(100 PSIG) MAX FLOW (CFM)	ELECTRICAL									COMMENTS
									DOOR NO.	DOOR TYPE	QUALITY	SOURCE	MAX FLOW (LB/HR)	PRESS				CONTROLS			STEAM GEN.			VACUUM PUMP			
	W	D	H	W	D	H												V/PH/Hz	AMP	kVA	V/PH/Hz	AMP	kVA	V/Ph/hZ	AMP	kVA	
ST-01	3' - 0"	3' - 6"	5' - 11"	2' - 0"	3' - 0"	2' - 0"	PRE-VACUUM	CABINET	1	RIGHT HAND HINGED	CLEAN	ELECTRIC GENERATOR	180	50-80 DYNAMIC	12	12	10-35	120/1/60	20	2.4	208/3/60	83	30	208/3/60	20	7.2	

MISCELLANEOUS LAB EQUIPMENT SCHEDULE - MQ - CFCI

TAG	DESCRIPTION	W	D	H	WEIGHT	MOUNTING	VOLTAGE	PHASE	AMPS	NEMA	DEDICATED	UPS	STAND-BY POWER	DATA	SPECIALTY LIGHTING	ELECTRICAL NOTES	DEDICATED EXHAUST	EXHAUST REQUIREMENT CFM	MECHANICAL NOTES	COLD WATER	HOT WATER	PLUMBING NOTES	COMMENTS
MQ.01	GOGGLE STORAGE	2' - 0 1/2"	0' - 9 1/2"	2' - 8"	45	WALL	120V		25														REFER TO DETAIL 45/Q9.1.4
MQ.02	BACKDROP ROLL VERTICAL STORAGE	1' - 7 1/2"	1' - 1 1/2"	0' - 10"	7	WALL											No	0					REFER TO DETAIL 43/Q9.1.4. BACKDROPS TO ALSO REST ON FLOOR, TOTAL WEIGHT ABOUT 180LBS
MQ.03	BUILT-IN TRANSPARENCY VIEWER W/ CONTROL BOX	4' - 0 3/4"	1' - 8 1/2"	0' - 4 3/4"	41	COUNTER	120V		1								No	0					TRANSPARENCY VIEWER TO BE RECESSED ON COUNTERTOP. REFER TO 72/Q.9.1.6 FOR DETAILS
MQ.04	ICE MACHINE	3' - 6 1/2"	2' - 10"	6' - 1"	1150	FLOOR	115V	1	15											Yes		FLOOR SINK	WEIGHT INCLUDES FULL STORAGE CAPACITY. MOUNTING SLIMAR TO 69/Q9.1.4
MQ.05	PHOTO PROCESSING SINK W/ EXHAUST STACKS	12' - 0"	5' - 0"	1' - 6"		DROP-IN											Yes	3000		Yes	Yes		CUSTOM DESIGN. SINK TO COME WITH EXHAUST VENT SYSTEM. REFER TO 40/Q9.1.5 FOR DETAILS
MQ.06	PHOTO PROCESSING SINK W/ EXHAUST STACKS	12' - 0"	2' - 6"	1' - 6"		DROP-IN											Yes	1200		Yes	Yes		CUSTOM DESIGN. SINK TO COME WITH EXHAUST VENT SYSTEM. REFER TO 72/Q9.1.5 FOR DETAILS
MQ.08	OVERHEAD SURGICAL LIGHT W/ CAMERA	2' - 0 1/2"	2' - 0 1/2"	8' - 2"	191	CEILING	120V				Yes		Yes										CLOSED CIRCUIT CAMERA, NO CONNECTION TO INTERNET. CAMERAS CONNECT TO INTERGRATED AV RACK TO PROJECT INTO BOTH ANATOMY LAB ROOMS. FOR FUTURE STATIONS, PROVIDE ATTACHMENT PLATE WITH INFRASTRUCTURE. REFER TO ARCHITECTURAL DETAIL 18/A9.4.3 FOR CEILING MOUNTING DETAIL
MQ.08A	OVERHEAD SURGICAL LIGHT CONTROL PANEL	1' - 4 1/4"	0' - 3"	13' - 3"	10	WALL	120V		7		Yes			Yes									RECESSED IN WALL PER MANUFACTURER, PROVIDE BACKING IN WALL. INWALL ROUGH-IN BOX TO BE 10"WX10"HX3.5IRTD. REFER TO DETAIL 9/Q9.1.4
MQ.09	SINGLE ADJUSTABLE MONITOR ARM - FOR MONITOR	1' - 8"	0' - 4"	2' - 4"	20	COUNTER	120V							Yes									POWER/DATA REQUIRED FOR ALL-IN-ONE COMPUTER MOUNTED ON ARM. REFER TO 67/Q9.1.2 FOR DETAIL
MQ.10A	DUAL ADJUSTABLE MONITOR ARM - FOR TABLETS	2' - 0"	0' - 4"	1' - 6 3/4"	20	COUNTER	120V							Yes									POWER/DATA REQUIRED FOR TABLETS MOUNTED ON ARMS. RATED WEIGHT 9.9LBS PER ARM. REFER TO 67/Q9.1.3 FOR DETAIL
MQ.10B	DUAL ADJUSTABLE MONITOR ARM - FOR LAPTOPS	2' - 0"	0' - 4"	1' - 6 3/4"	20	COUNTER	120V							Yes									POWER/DATA REQUIRED FOR TABLETS MOUNTED ON ARMS. RATED WEIGHT 9.9LBS PER ARM. REFER TO 69/Q9.1.3 FOR DETAIL
MQ.11	PHOTO PROCESSING SINK	2' - 1"	1' - 3"	0' - 5"		DROP-IN											No	0		Yes	Yes		CUSTOM DESIGN. REFER TO 19/Q9.1.5 FOR DETAILS

NOTE: REFER TO SPECIFICATION IN DIV.11 FOR MANUFACTURER & MODEL

LAB EQUIPMENT SCHEDULE- EQ2-OFCI

SG EQUIPMENT NUMBER	DEPARTMENT	DESTINATION ROOM NAME	DESCRIPTION NAME	MANUFACTURER	MODEL NUMBER	WIDTH	DEPTH	HEIGHT	WEIGHT	MOUNTING HEIGHT	NEMA	POWER_ VOLTAGE	POWER _PHASE	POWER_ AMPS	POWER _UPS	STAND-BY POWER	DATA	ELECTRICAL NOTES	SPECIALTY GASSES	SPECIALTY GASSES NOTE	NATURAL GAS	AIR_LAB	VACUUM_LAB	COLD WATER	HOT WATER	PURE WATER	FLOOR DRAIN_SINK	PLUMBING NOTE	DEDICATED EXHAUST	DEDICATED EXHAUST DESCRIPTION	COMMENTS
EQ2-001	BIOSCIENCES	BIO PREP	AUTOCLAVE	MARKET FORGE	STM-ED	1' - 7"	2' - 6"	2' - 5"	150	3' - 0"	-	208 VA	3	45 A	No	No	-	HARDWIRED, IF 1 PHASE VERSION, 26AMP	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-002	BIOSCIENCES	BIO PREP	AUTOCLAVE	MARKET FORGE	STM-ED	1' - 7"	2' - 6"	2' - 5"	150	3' - 0"	-	208 VA	3	45 A	No	No	-	HARDWIRED, IF 1 PHASE VERSION, 26AMP	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-003	BIOSCIENCES	BIO PREP	U/C EXPLOSIVE PROOF FRIDGE	AMERICAN BIOTECH SUPPLY	ABT-FRP-04	2' - 0"	2' - 0 1/4"	2' - 8 1/4"	114	0' - 0"	-	115 VA	1	1 A	No	Yes	-	HARDWIRED	No	-	No	No	No	No	No	No	No	No	No	-	No	-	MODEL SUGGESTED BY SG
EQ2-004	BIOSCIENCES	CADAVER	DOWNDRAFT CADAVER CARRIER WITH COVER-ADA	MOPEC	HB1550 ADA SINGLE DUCT VENTILATION	2' - 6"	7' - 8"	2' - 10"	275	0' - 0"																				Yes	340CFM ROUND EXHAUST CONNECTION. CONNECTING TO IN-WALL EXHAUST USING FLEXIBLE DUCT TO ALLOW FOR HEIGHT ADJUSTMENT. GC TO VERIFY WITH FINAL SELECTION FROM OWNER	MODEL SUGGESTED BY SG. HEIGHT ADJUSTABLE. COVER W/ HYDROLIC ASSIST & LOCK NEATLY UNDER TABLE DURING USE FOR SAFETY
EQ2-005	BIOSCIENCES	CADAVER	DOWNDRAFT CADAVER CARRIER WITH COVER	MOPEC	HB1510 SINGLE DUCT VENTILATION	2' - 6"	7' - 8"	2' - 10"	275	0' - 0"																				Yes	340CFM ROUND EXHAUST CONNECTION. CONNECTING TO IN-WALL EXHAUST USING FLEXIBLE DUCT TO ALLOW FOR HEIGHT ADJUSTMENT. GC TO VERIFY WITH FINAL SELECTION FROM OWNER	MODEL SUGGESTED BY SG. HEIGHT ADJUSTABLE. COVER W/ HYDROLIC ASSIST & LOCK NEATLY UNDER TABLE DURING USE FOR SAFETY
EQ2-006	BIOSCIENCES	CADAVER	MONITOR & KEYBOARD WALL MOUNTS	MOUNT-IT	MI-1121M MONITOR MOUNT & MI-1765KB KEYBOARD MOUNT	2' - 1"	0' - 8"	3' - 0"	137	4' - 6"		120 VA					YES	POWER/DATA REQUIRED FOR ALL-IN-ONE COMPUTER														MODEL SUGGESTED BY SG
EQ2-007	BIOSCIENCES	CADAVER	MONITOR & KEYBOARD WALL MOUNTS	MOUNT-IT	MI-1121M MONITOR MOUNT & MI-1765KB KEYBOARD MOUNT	2' - 1"	0' - 8"	3' - 0"	137	4' - 6"		120 VA					YES	POWER/DATA REQUIRED FOR ALL-IN-ONE COMPUTER														MODEL SUGGESTED BY SG
EQ2-008	CHEMISTRY	CHEMISTRY PREP	EXPLOSIVE PROOF FRIDGE	AMERICAN BIOTECH SUPPLY	ABT-FRS-30	2' - 11 3/4"	2' - 11"	6' - 5 1/2"	393	0' - 0"	-	115 VA	1	6 A	No	Yes	-	HARDWIRED	No	-	No	No	No	No	No	No	No	No	No	-	No	-	MODEL SUGGESTED BY SG
EQ2-009	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	ELECTRICAL CORD REEL	HDX	HD-800	0' - 3"	0' - 6 1/2"	0' - 10"	7	10' - 6"	-	120 VA	1	10 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-010	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	ELECTRICAL CORD REEL	HDX	HD-800	0' - 3"	0' - 6 1/2"	0' - 10"	7	10' - 6"	-	120 VA	1	10 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-011	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	ELECTRICAL CORD REEL	HDX	HD-800	0' - 3"	0' - 6 1/2"	0' - 10"	7	10' - 6"	-	120 VA	1	10 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-012	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	ELECTRICAL CORD REEL	HDX	HD-800	0' - 3"	0' - 6 1/2"	0' - 10"	7	10' - 6"	-	120 VA	1	10 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-013	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	3-ROLLS BACKDROP	MANFROTTO	TRIPLE HOOKS & EXPAN DRIVES	10' - 4"	0' - 11"	9' - 0"	100	0' - 0"	-	0 VA	0	0 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-014	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	3-ROLLS BACKDROP	MANFROTTO	TRIPLE HOOKS & MOTORIZED EXPAN DRIVES	10' - 4"	0' - 11"	9' - 0"	100	0' - 0"	-	120 VA	0	3 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-015	PHOTOGRAPHY	PHOTOGRAPHY STUDIO	3-ROLLS BACKDROP	MANFROTTO	TRIPLE HOOKS & MOTORIZED EXPAN DRIVES	10' - 4"	0' - 11"	9' - 0"	100	0' - 0"	-	120 VA	0	3 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-016	PHOTOGRAPHY	MAIN PHOTO LAB	FLAT FILE (5-DRAWER)	MAYLINE	C-FILE	4' - 0"	2' - 10"	1' - 4 1/2"	195	0' - 4"	-	0 VA	0	0 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	
EQ2-017	PHOTOGRAPHY	MAIN PHOTO LAB	FLAT FILE (5-DRAWER)	MAYLINE	C-FILE	4' - 0"	2' - 10"	1' - 4 1/2"	195	0' - 4"	-	0 VA	0	0 A	No	No	---	-	No	-	No	No	No	No	No	No	No	No	No	-	No	-	

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - EQUIPMENT SCHEDULES

14794

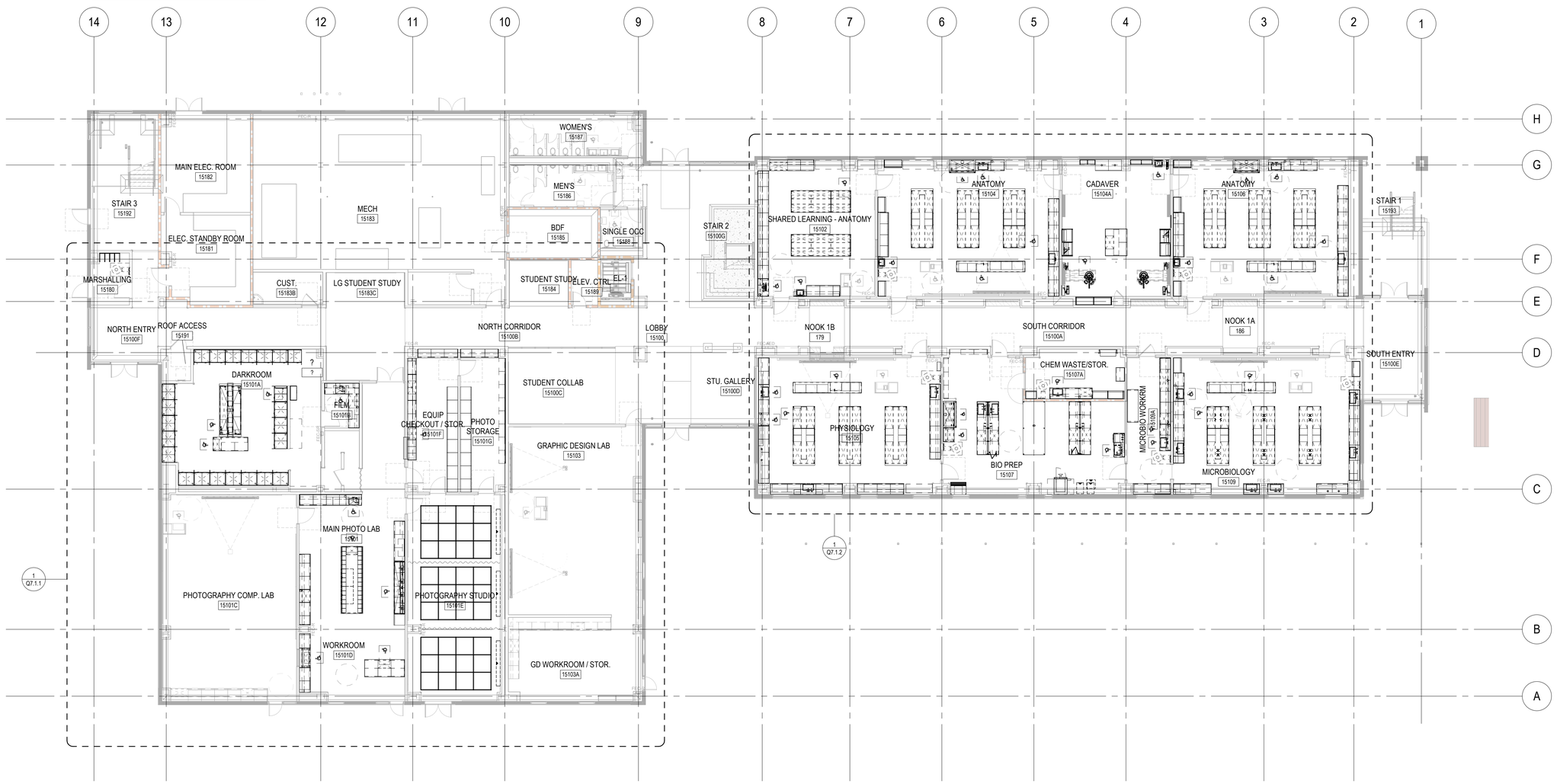
PROJECT NUMBER

CD **Q1.1.2**

SHEET NUMBER

Author

Plot Date: 7/22/2025 3:01:31 PM



1 STEAM BUILDING - LEVEL 1 LAB FLOOR PLAN
SCALE: 3/32" = 1'-0"

Author

7/22/2025 3:01:35 PM

Plot Date:

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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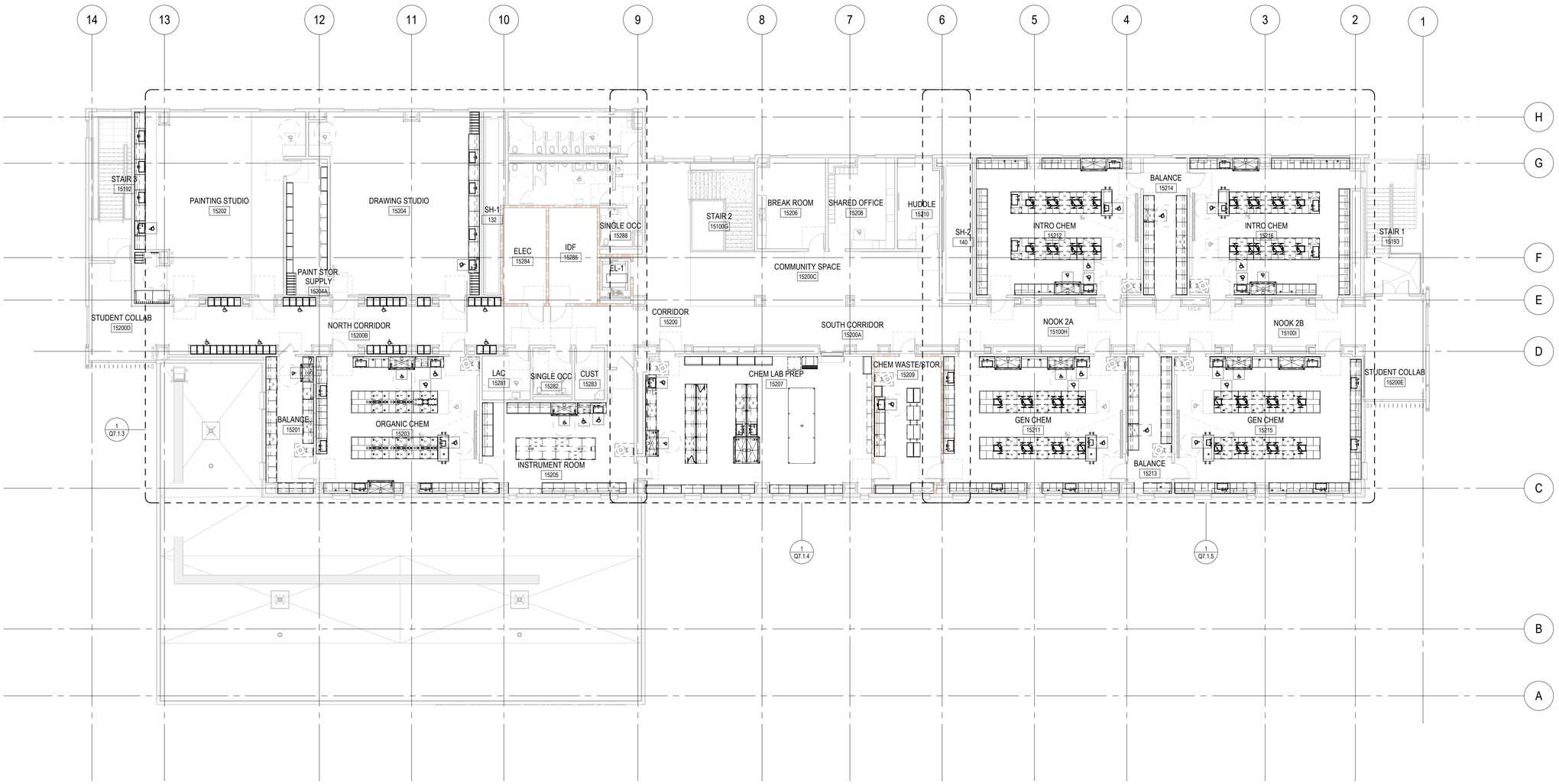
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 1
LAB FLOOR PLAN

[alt. project number] 14794
PROJECT NUMBER

CD **Q2.1.1**
SHEET NUMBER



1 STEAM BUILDING - LEVEL 2 LAB FLOOR PLAN
SCALE: 3/32" = 1'-0"

Author

Plot Date: 7/22/2025 3:01:39 PM

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

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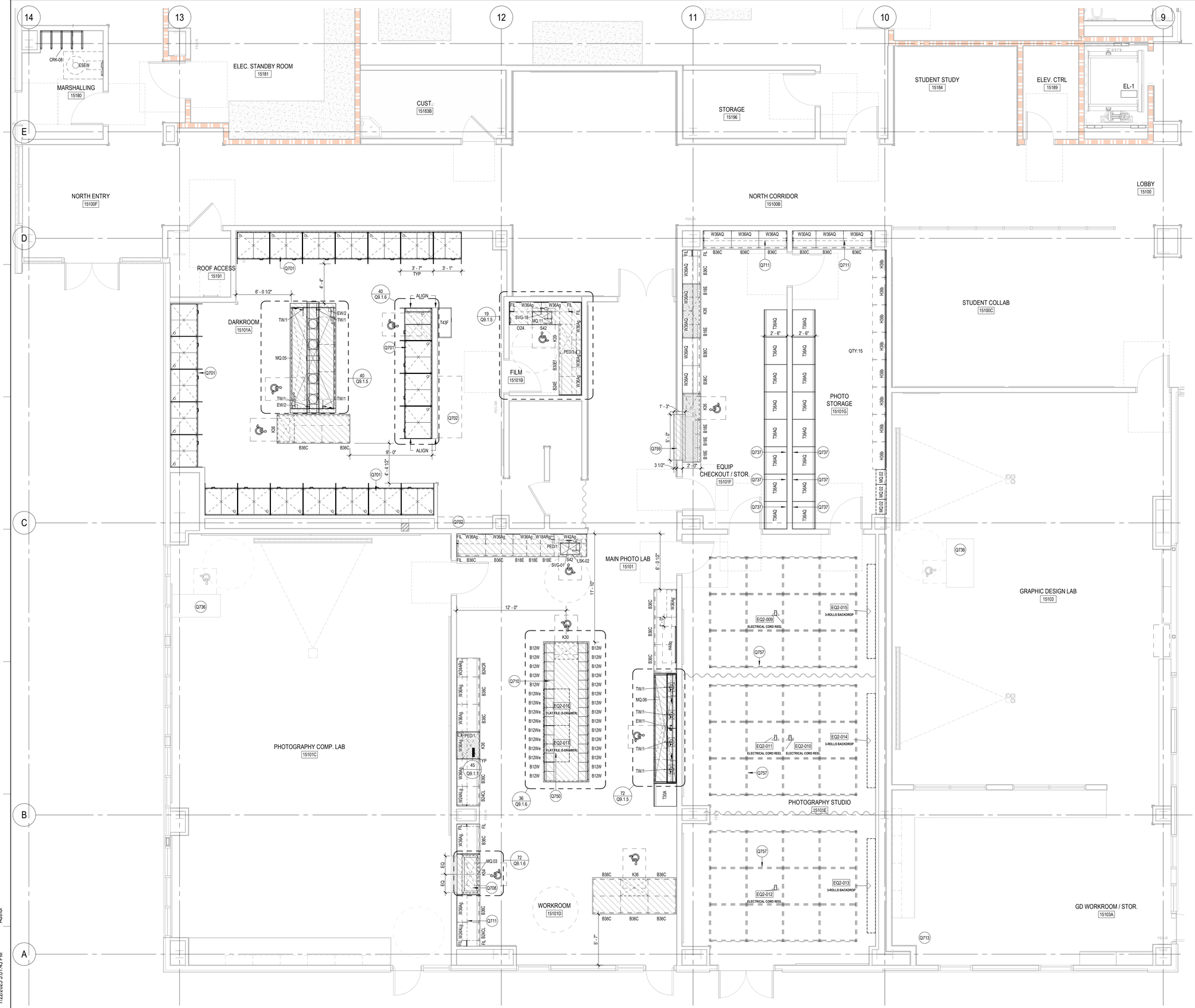
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - LEVEL 2
LAB FLOOR PLAN

[alt. project number] 14794

PROJECT NUMBER
CD **Q2.1.2**
SHEET NUMBER



1 STEAM BUILDING - ENLARGED FLOOR PLAN 1A
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
B. REFER TO Q0.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
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- EQUIPMENT ABBREVIATIONS
- TYPICAL MOUNTING HEIGHTS
- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- RECESSED SAFETY SHOWER / EYEWASH

C. REFER TO Q0.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- CASEWORK TYPE SYMBOLS AND ELEVATIONS
- LAB ACCESSORIES

D. REFER TO Q1.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE

E. REFER TO Q1.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FUMEHOOD SCHEDULE AND SYMBOLS
- CANOPY HOOD SCHEDULE
- POINT EXHAUST SCHEDULE
- GLASSWARE WASHER SCHEDULE
- STERILIZER SCHEDULE
- MISCELLANEOUS EQUIPMENT SCHEDULE
- OFCI EQUIIPMENT SCHEDULE

SHEET KEYNOTES

Q701 DARKROOM ENLARGERS STATIONS. AT EACH STATION: PROVIDE LIGHT-TIGHT DRAWER , POWER BELOW. PROVIDE CUTOUT GROMMET AT COUNTER AND SHELF BELOW COUNTER FOR POWER CORD . ADA STATION TO HAVE ADDITIONAL POWER AT OPEN SHELF, REFER TO CASEWORK DETAILS SHEET Q9.1.6

Q702 SPACE FOR OFCI SUPPLY STORAGE

Q708 LOCATION OF RECESSED TRANSPARENCY VIEWER / LIGHT BOX. COUNTERTOP CUT-OUT PER MANUFACTURE REQUIREMENT. THIS SECTION OF ADA HEIGHT PHENOLIC COUNTERTOP TO HAVE WHITE CORE. REFER TO DETAILS SHEET Q9.1.6

Q710 (52) KEYED LOCKERS TOTAL. EACH LOCKER DOOR TO BE KEYED SEPARATELY. 5% OF TOTAL LOCKERS = 2.6. PROVIDE (3) ACCESSIBLE LOCKERS. REFER TO SHEET Q.0.1.2 FOR ADDITIONAL INFORMATION

Q711 LOCKED UPPER CABINETS, TYPICAL. ALL UPPER CABINETS IN THIS ROOM TO HAVE THE SAME KEY

Q713 ONE OF (2) LOCATIONS TO PART 3D HAND-HELD SCANNER CART.

Q736 INSTRUCTOR STATION WITH POWER/DATA/AV RACK BY AV/IT. REFER TO AV/IT DRAWING FOR INFORMATION

Q737 TYPICAL: PROVIDE CUTOUTS AT BACK OF TALL CABINET FOR OUTLET ACCESS. REFER TO ELECTRICAL DRAWING FOR OUTLET QUANTITY AND MOUNTING HEIGHT

Q750 TYPICAL: FLAT FILE CABINETS OFCI. CONTRACTOR TO RELOCATE FROM EXISTING LOCATIONS AND INSTALL. VERIFY DIMENSIONS IN FIELD PRIOR TO CASEWORK FABRICATION.

Q757 OFCI LIGHTING TRACKS MOUNTED TO UNISTRUT ABOVE. GC TO COORDINATE OFCI LIGHT TRACK LENGTH & QUANTITY WITH OWNER. REFER TO ARCHITECTURAL DETAIL 69/A9.5.2 & STRUCTURAL DETAILS SHEET S.5.51 FOR MOUNTING

Q759 COUNTERTOP AT TRANSACTION WINDOW. REFER TO DETAIL 26/Q9.1.1

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

SURFACES TALLER THAN STANDING HEIGHT (45"AFF) ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLAN - LEVEL 1 AREA 1

14794
PROJECT NUMBER

CD **Q7.1.1**
SHEET NUMBER

Author
7/22/2025 3:01:43 PM
Plot Date:

CASEWORK LEGEND

- SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN
- ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN
- SURFACES TALLER THAN STANDING HEIGHT (45"AFF) ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

SHEET KEYNOTES

Q706	OFCI EQ2-001 & EQ2-002 AUTOCLAVE ARE SECURED TO OFCI TABLE, OFCI SCOPE IS NOT SHOWED. REFER TO DETAIL 67/QP.1.4 FOR MOUNTING
Q711	LOCKED UPPER CABINETS, TYPICAL. ALL UPPER CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q712	LOCKED UPPER & LOWER CABINETS, TYPICAL. ALL CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q715	FLOOR SPACE FOR TORSO MODELS & FULL BODY MODELS. CARTS TO HOLD MODEL ARE OFOI
Q716	STORAGE FOR OFOI PPE
Q717	AT FUMEHOOD, SET BASE CASEWORK TO HAVE NO MORE THAN 4" OVERHANG . TYP
Q718	HOSE WITH REEL, CW - IN DIV 22
Q719	SPECIMEN STORAGE. VENTED CABINETS
Q724	FLOOR SPACE FOR MASSAGE TABLES/ EQUIPMENT , OFOI
Q726	(2) STACKED PIGGY BACK CABINETS (ACIDS CABINET BELOW & BASE CABINET ABOVE). BOTTOM CABINET VENTS TO TURN AND CLEAR UPPER CABINET VENTS, PRIOR TO CONNECT TO VERTICAL SUPPLY/EXHAUST VENTS
Q736	INSTRUCTOR STATION WITH POWER/DATA/AV RACK BY AV/IT. REFER TO AV/IT DRAWING FOR INFORMATION
Q739	POWER/DATA AT SHELVING UPRIGHT POSTS, TYP

GENERAL SHEET NOTES

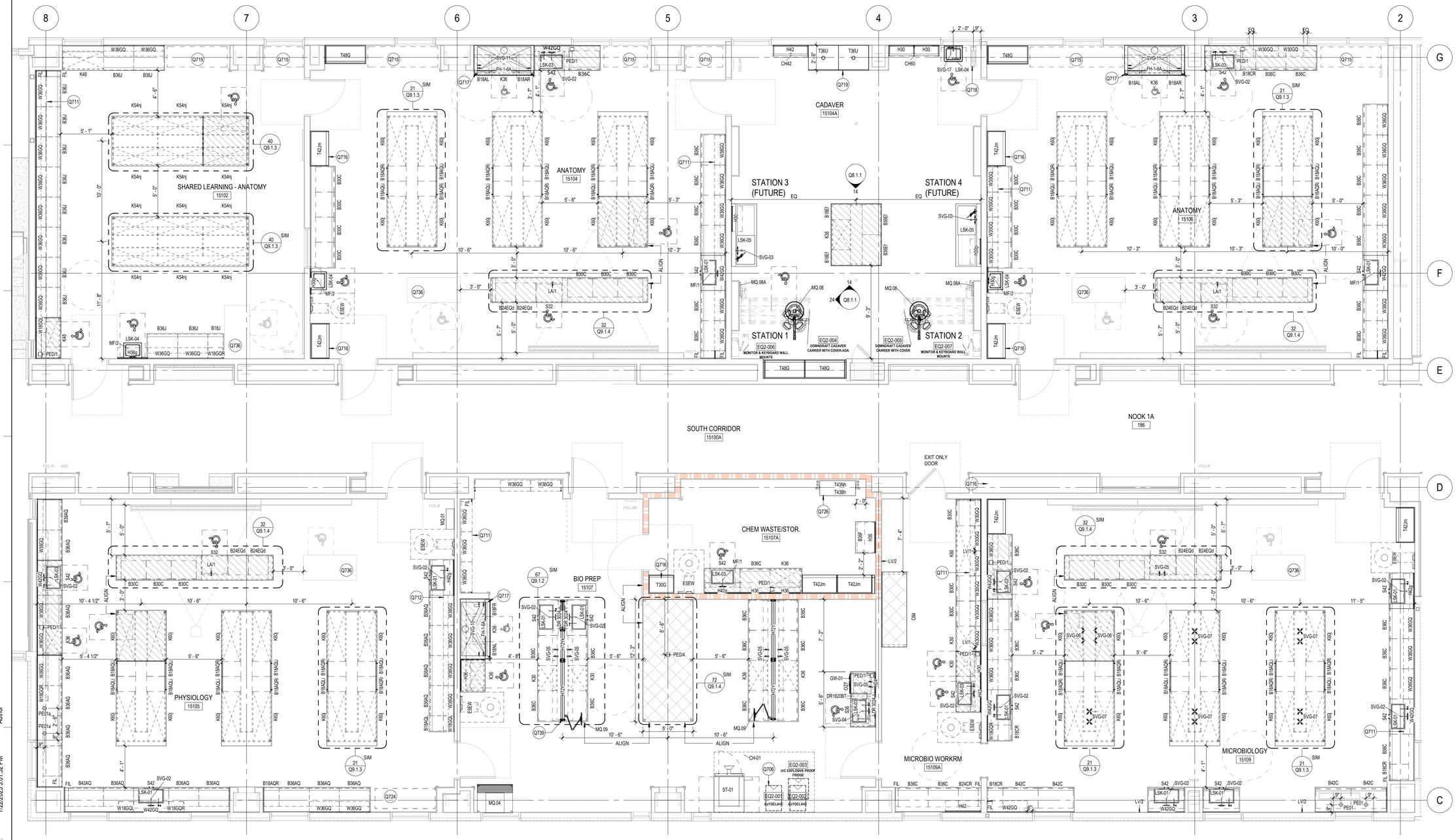
A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.

B. REFER TO Q0.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- GENERAL CASEWORK NOTES
- EQUIPMENT ABBREVIATIONS
- TYPICAL MOUNTING HEIGHTS
- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- RECESSED SAFETY SHOWER / EYEWASH

C. REFER TO Q0.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- CASEWORK TYPE SYMBOLS AND ELEVATIONS
- LAB ACCESSORIES

D. REFER TO Q1.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE

E. REFER TO Q1.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FUMEHOOD SCHEDULE AND SYMBOLS
- CANOPY HOOD SCHEDULE
- POINT EXHAUST SCHEDULE
- GLASSWARE WASHER SCHEDULE
- STERILIZER SCHEDULE
- MISCELLANEOUS EQUIPMENT SCHEDULE
- OFCI EQUIIPMENT SCHEDULE



1 STEAM BUILDING - ENLARGED FLOOR PLAN 1B
SCALE: 1/4" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE

BUILDING 1500 - ENLARGED FLOOR PLAN - LEVEL 1 AREA 2

14794

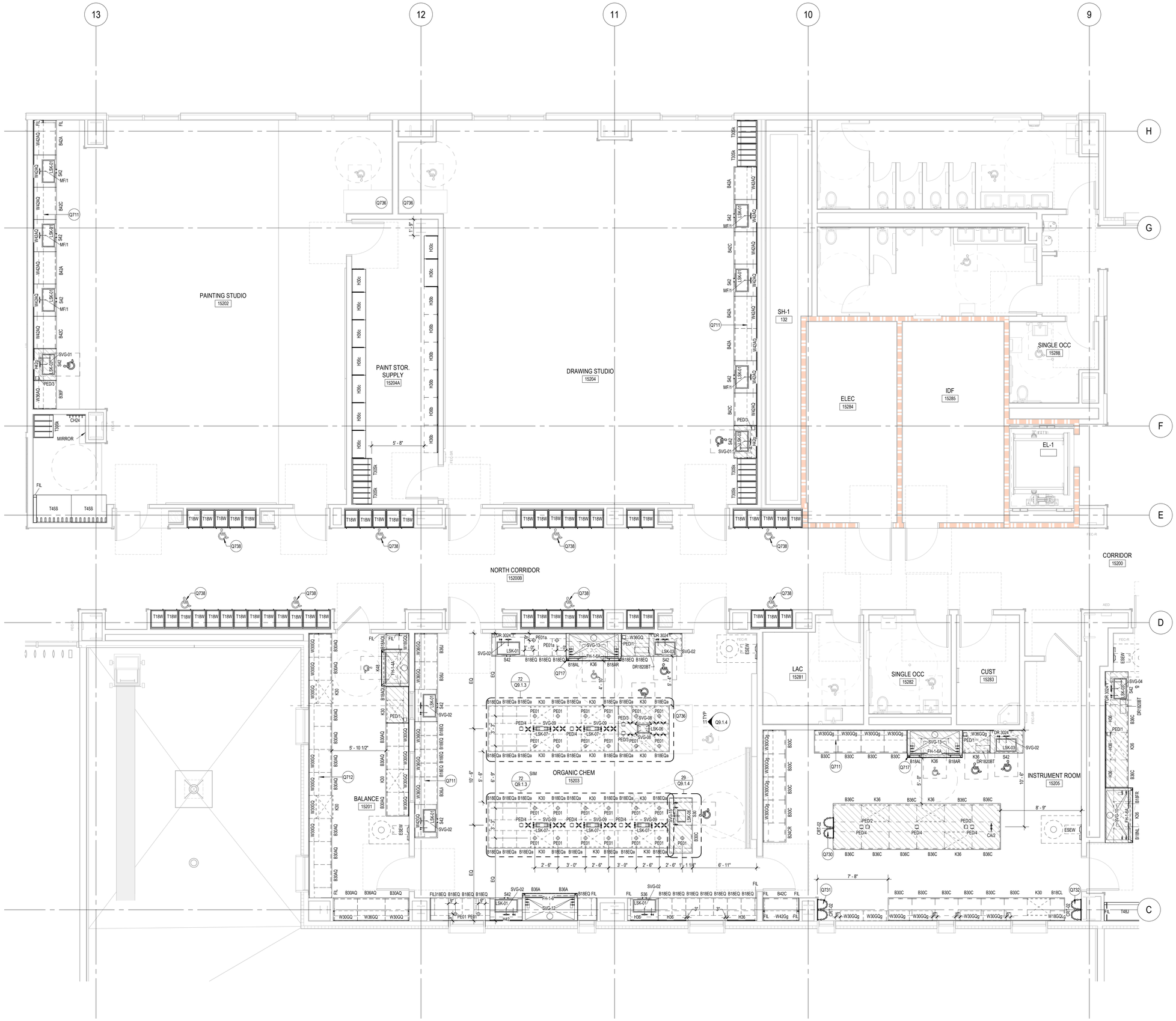
PROJECT NUMBER

CD **Q7.1.2**

SHEET NUMBER

Author

Plot Date: 7/22/2025 3:01:52 PM



1 STEAM BUILDING - ENLARGED FLOOR PLAN 2A
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
B. REFER TO Q0.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- GENERAL CASEWORK NOTES
- EQUIPMENT ABBREVIATIONS
- TYPICAL MOUNTING HEIGHTS
- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- RECESSED SAFETY SHOWER / EYEWASH

C. REFER TO Q0.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- CASEWORK TYPE SYMBOLS AND ELEVATIONS
- LAB ACCESSORIES

D. REFER TO Q1.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE

E. REFER TO Q1.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FUMEHOOD SCHEDULE AND SYMBOLS
- CANOPY HOOD SCHEDULE
- POINT EXHAUST SCHEDULE
- GLASSWARE WASHER SCHEDULE
- STERILIZER SCHEDULE
- MISCELLANEOUS EQUIPMENT SCHEDULE
- OFCI EQUIIPMENT SCHEDULE

SHEET KEYNOTES

Q711	LOCKED UPPER CABINETS, TYPICAL. ALL UPPER CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q712	LOCKED UPPER & LOWER CABINETS, TYPICAL. ALL CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q717	AT FUMEHOOD, SET BASE CASEWORK TO HAVE NO MORE THAN 4" OVERHANG . TYP
Q730	LOCATION OF 2 EXTRA OFOI CYLINDERS. RESTRAINTS ARE CFCI
Q731	LOCATION OF 2 OFOI ULTRA PURE HE CYLINDERS FOR GC+ISQ QD MS EQUIPMENT. RESTRAINTS ARE CFCI
Q732	LOCATION OF 2 OFOI HE CYLINDERS FOR GAS CHROMOTOGRAPH EQUIPMENT. RESTRAINTS ARE CFCI
Q736	INSTRUCTOR STATION WITH POWER/DATA/AV RACK BY AV/IT. REFER TO AV/IT DRAWING FOR INFORMATION
Q738	(141) LOCKERS TOTAL. 5% OF TOTAL LOCKERS = 7.05. PROVIDE (8) ACCESSIBLE LOCKERS. REFER TO SHEET Q.0.1.2 FOR ADDITIONAL INFORMATION ON LOCKER. REFER TO SHEET A8.1.2 FOR ELEVATIONS

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

SURFACES TALLER THAN STANDING HEIGHT (45"AFF) ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

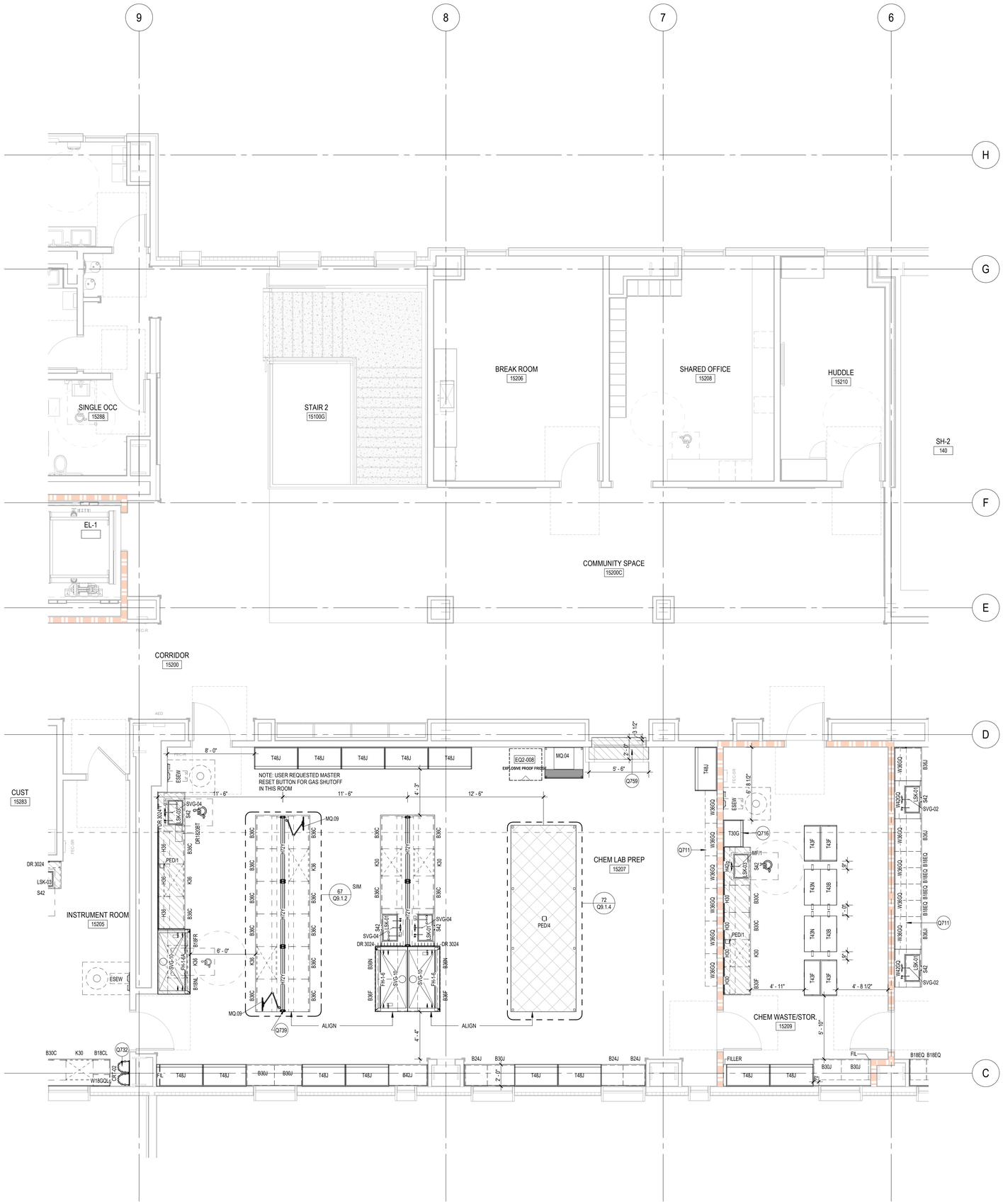
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLAN - LEVEL 2 AREA 1

14794
PROJECT NUMBER

CD
Q7.1.3
SHEET NUMBER

Author
7/22/2025 3:01:59 PM
Plot Date:



1 STEAM BUILDING - ENLARGED FLOOR PLAN 2B
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
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- STERILIZER SCHEDULE
- MISCELLANEOUS EQUIPMENT SCHEDULE
- OFCI EQUIIPMENT SCHEDULE

SHEET KEYNOTES

Q711	LOCKED UPPER CABINETS, TYPICAL. ALL UPPER CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q716	STORAGE FOR OFOI PPE
Q732	LOCATION OF 2 OFOI HE CYLINDERS FOR GAS CHROMOTOGRAPH EQUIPMENT. RESTRAINTS ARE OFCI
Q739	POWER/DATA AT SHELVING UPRIGHT POSTS, TYP
Q759	COUNTERTOP AT TRANSACTION WINDOW. REFER TO DETAIL 26/Q9.1.1

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

SURFACES TALLER THAN STANDING HEIGHT (45"AFF) ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLAN - LEVEL 2 AREA 2

14794
PROJECT NUMBER

CD
Q7.1.4
SHEET NUMBER

Plot Date: 7/22/2025 3:02:03 PM
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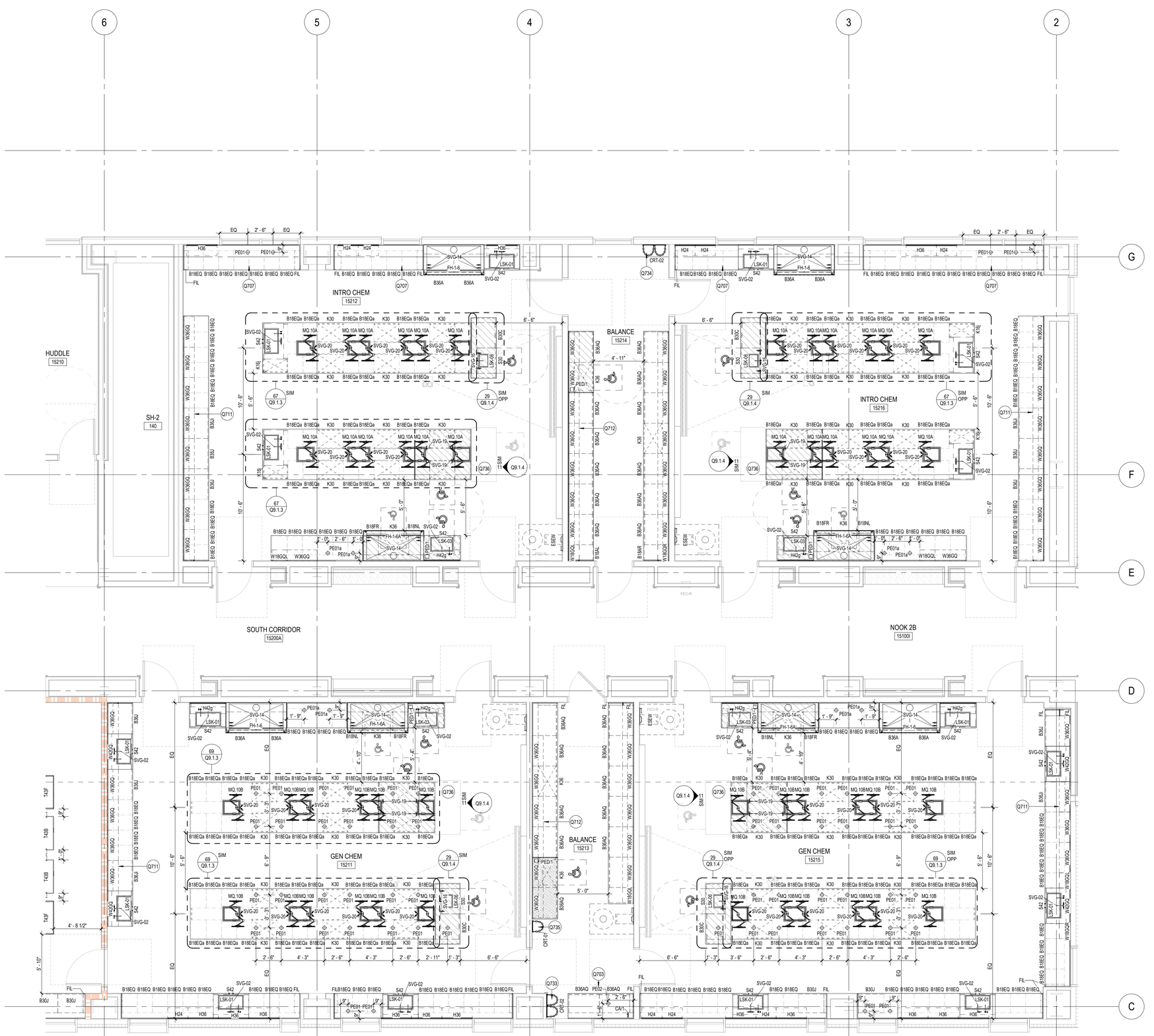

1 STEAM BUILDING - ENLARGED FLOOR PLAN 2C
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

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- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- RECESSED SAFETY SHOWER / EYEWASH

C. REFER TO Q0.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
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- LAB ACCESSORIES

D. REFER TO Q1.1.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE

E. REFER TO Q1.1.2 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FUMEHOOD SCHEDULE AND SYMBOLS
- CANOPY HOOD SCHEDULE
- POINT EXHAUST SCHEDULE
- GLASSWARE WASHER SCHEDULE
- STERILIZER SCHEDULE
- MISCELLANEOUS EQUIPMENT SCHEDULE
- OFCI EQUIIPMENT SCHEDULE

SHEET KEYNOTES

Q703	POINT EXHAUST FOR AA UNIT, MOUNTING SIMILAR TO TYPICAL WALL MOUNTED POINT EXHAUST, REFER TO DETAIL 72/Q9.1.7, BUT USING ADJUSTABLE WALL BRACKET PER MANUFACTURE
Q707	THIS SECTION OF COUNTERTOP TO HAVE BACKSPLASH HIGHER THAN 4"H. BACKSPLASH TO BE TO CENTER OF EXTERIOR GLAZING MULLION PER DETAIL 52/A5.1.4. GC TO VERIFY EXACT BACKSPLASH HEIGHT IN FIELD.
Q711	LOCKED UPPER CABINETS, TYPICAL. ALL UPPER CABINETS IN THIS ROOM TO HAVE THE SAME KEY
Q712	LOCKED UPPER & LOWER CABINETS, TYPICAL. ALL CABINETS IN THIS ROOM TO HAVE THE SAME KEY.
Q733	LOCATION OF 2 OFOI C2H2 CYLINDERS FOR AAS EQUIPMENT. RESTRAINTS ARE CFCI
Q734	LOCATION OF 2 OFOI HE & CO2 CYLINDERS. RESTRAINTS ARE CFCI
Q735	LOCATION OF OFOI O2 CYLINDER. RESTRAINTS ARE CFCI
Q736	INSTRUCTOR STATION WITH POWER/DATA/AV RACK BY AV/IT. REFER TO AV/IT DRAWING FOR INFORMATION

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

SURFACES TALLER THAN STANDING HEIGHT (45"AFF) ARE INDICATED IN PLAN WITH A DIAGONAL CROSS HATCH PATTERN

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INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

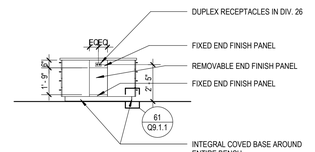
PROJECT NORTH

SHEET TITLE
BUILDING 1500 - ENLARGED FLOOR PLAN - LEVEL 2 AREA 3

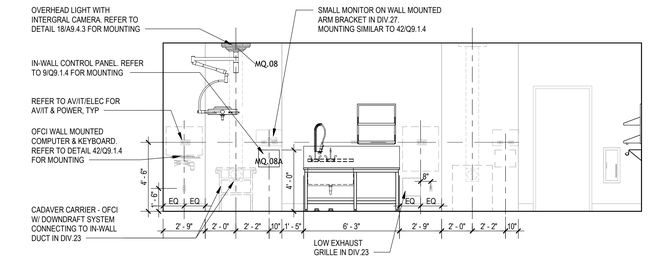
14794
PROJECT NUMBER

CD **Q7.1.5**
SHEET NUMBER

Author
Plot Date: 7/22/2025 3:02:11 PM



14 ELEVATION - CADAVER WORK BENCH
SCALE: 1/4" = 1'-0"



STATION 1
(STATION 2 OPP)

GENERAL NOTES:
- PROVIDE BACKING AS REQUIRED FOR WALL AND CEILING MOUNTED EQUIPMENT

STATION 3 & 4
(FUTURE)

FUTURE STATIONS NOTES:
- PROVIDE INFRASTRUCTURE, SUCH AS EXHAUST DUCTS, CONDUITS, POWER REQUIREMENT, JUNCTION BOXES, WALL/CEILING STRUCTURAL SUPPORTS, REQUIRED IN WALL FRAMING/ROUGH IN BOX FOR CONTROL PANEL, AND STRUCTURAL MOUNTING PLATE FOR FUTURE OVERHEAD LIGHT
- PROVIDE BLANK FACE PLATES AT ALL INFRASTRUCTURE CONNECTIONS

24 ELEVATION - TYPICAL CADAVER STATION
SCALE: 1/4" = 1'-0"

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES



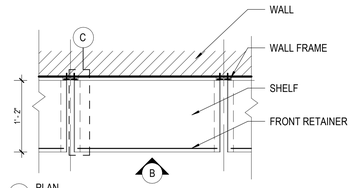
SHEET TITLE
BUILDING 1500 - UNIQUE LAB ELEVATIONS

PROJECT NUMBER
14794

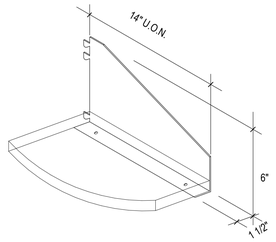
CD

SHEET NUMBER
Q8.1.1

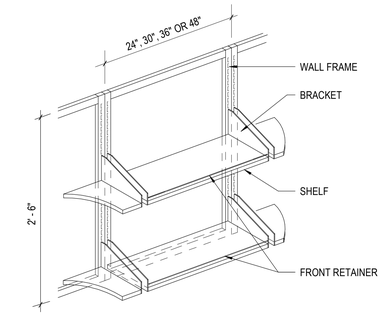
Plot Date: 7/22/2025 3:02:13 PM Author



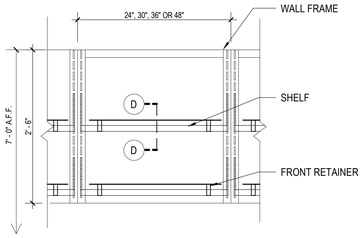
A PLAN
1" = 1' - 0"



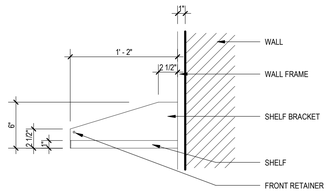
C BRACKET DETAIL
1 1/2" = 1' - 0"



E ISOMETRIC
1/2" = 1' - 0"



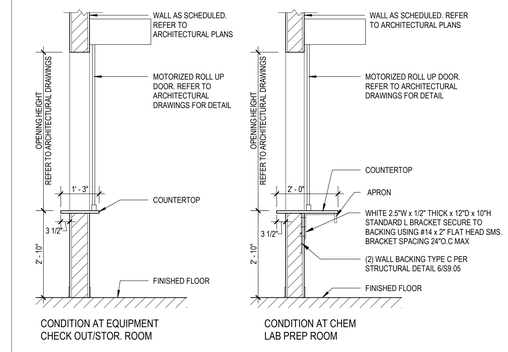
B ELEVATION
1" = 1' - 0"



D SECTION
1 1/2" = 1' - 0"

NOTES:
1. ADJUSTABLE WALL SHELVING ASSEMBLY ANCHORING TO BE SIMILAR TO WALL CABINET ANCHORING, REFER TO 10/Q9.1.1
2. SECURE ALL SHELVING TO SHELF BRACKETS WITH SCREWS, TWO SCREWS AT EACH END.

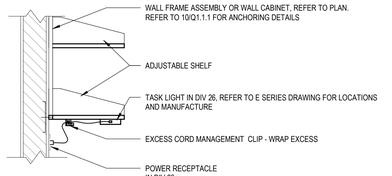
67 DETAIL - ADJUSTABLE WALL ASSEMBLY
SCALE: 1" = 1'-0"



CONDITION AT EQUIPMENT CHECK OUT/STOR. ROOM

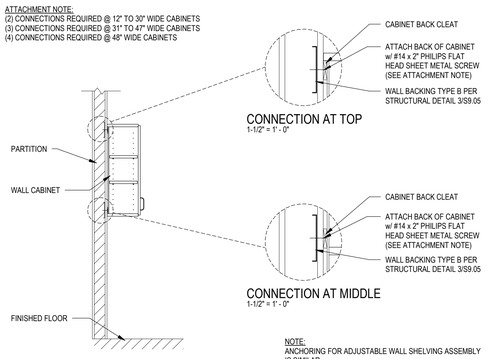
CONDITION AT CHEM LAB PREP ROOM

26 DETAIL - COUNTER AT TRANSACTION WINDOW
SCALE: 1/2" = 1'-0"



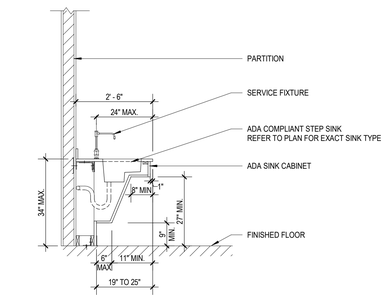
27 DETAIL - TASK LIGHT MOUNTING
SCALE: 1" = 1'-0"

ATTACHMENT NOTE:
(2) CONNECTIONS REQUIRED @ 12" TO 30" WIDE CABINETS
(3) CONNECTIONS REQUIRED @ 31" TO 47" WIDE CABINETS
(4) CONNECTIONS REQUIRED @ 48" WIDE CABINETS



NOTE:
ANCHORING FOR ADJUSTABLE WALL SHELVING ASSEMBLY IS SIMILAR

10 DETAIL - WALL CABINET ANCHORING
SCALE: 1/2" = 1'-0"

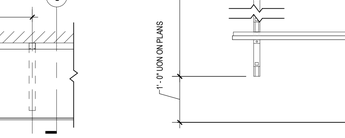


NOTE:
SINK CABINET ANCHORING TO BE SIMILAR TO BASE CABINET ANCHORING REFER TO 16/Q9.1.1

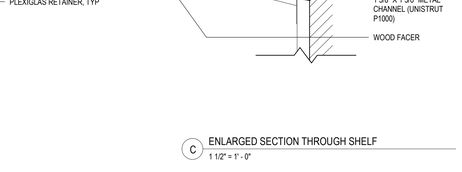
12 DETAIL - BASE CABINET - ADA SINK
SCALE: 1/2" = 1'-0"

NOTE:
SINK CABINET ANCHORING TO BE SIMILAR TO BASE CABINET ANCHORING REFER TO 16/Q9.1.1

14 DETAIL - BASE CABINET - SINK
SCALE: 1/2" = 1'-0"



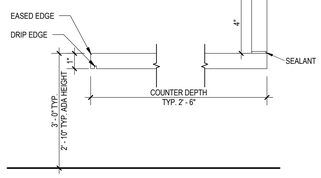
61 DETAIL - RESINOUS INTEGRAL COVED BASE AT SS CASEWORK
SCALE: 3" = 1'-0"



45 DETAIL - BENCH TOP HEIGHT TRANSITION
SCALE: 3" = 1'-0"

STAINLESS STEEL COUNTER DETAILS

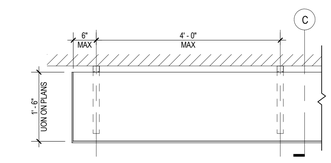
MARINE EDGE AND BACKSPLASH
REFER TO SPECIFICATIONS FOR GAGE AND FINISH



EPOXY COUNTER DETAIL

TYPICAL EDGE AND BACKSPLASH
SOLID EPOXY
REFER TO SPECIFICATIONS FOR TYPE AND COLOR

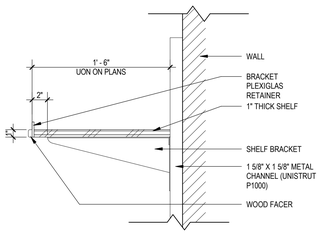
69 DETAIL - BENCH TOP COUNTER TYPICAL DETAIL
SCALE: 3" = 1'-0"



A PLAN
3/4" = 1' - 0"

NOTES:
1. ANCHORING IS SIMILAR TO DETAIL 10/Q9.1.1 BUT PROVIDE WALL BACKING TYPE C PER STRUCTURAL DETAIL 6/S9.05
2. REFER TO PLAN AND CASEWORK LEGEND FOR EXACT QUANTITY OF SHELVES PER LOCATION

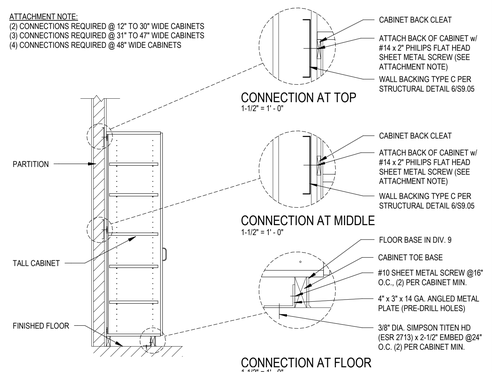
B ELEVATION
3/4" = 1' - 0"



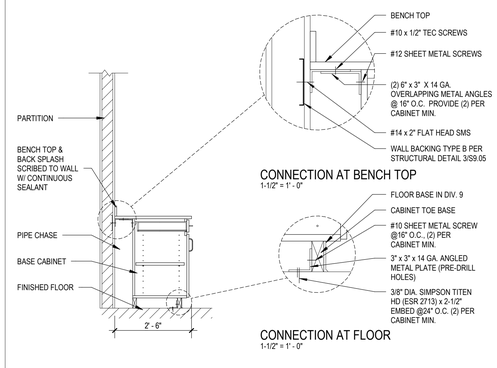
C ENLARGED SECTION THROUGH SHELF
1 1/2" = 1' - 0"

72 DETAIL - HEAVY DUTY ADJUSTABLE WALL SHELVING
SCALE: 3/4" = 1'-0"

ATTACHMENT NOTE:
(2) CONNECTIONS REQUIRED @ 12" TO 30" WIDE CABINETS
(3) CONNECTIONS REQUIRED @ 31" TO 47" WIDE CABINETS
(4) CONNECTIONS REQUIRED @ 48" WIDE CABINETS



32 DETAIL - TALL CABINET ANCHORING
SCALE: 1/2" = 1'-0"



16 DETAIL - BASE CABINET SEISMIC ANCHORING
SCALE: 1/2" = 1'-0"

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PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OKLAHOMA

SHEET TITLE
BUILDING 1500 - LAB CASEWORK DETAILS

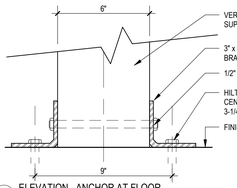
14794

PROJECT NUMBER
CD

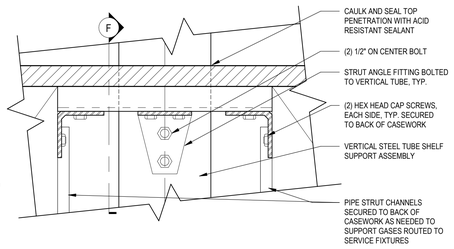
SHEET NUMBER
Q9.1.1

Author

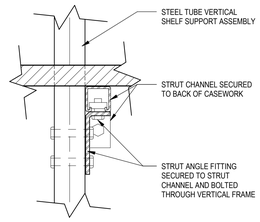
Plot Date: 7/22/2025 3:02:14 PM



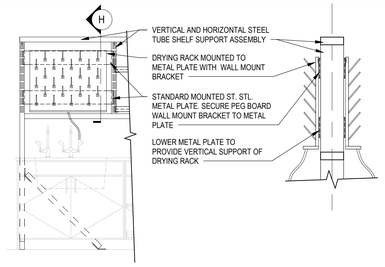
D ELEVATION - ANCHOR AT FLOOR
3" = 1' - 0"



E DETAIL - ANCHOR BELOW BENCH TOP
3" = 1' - 0"

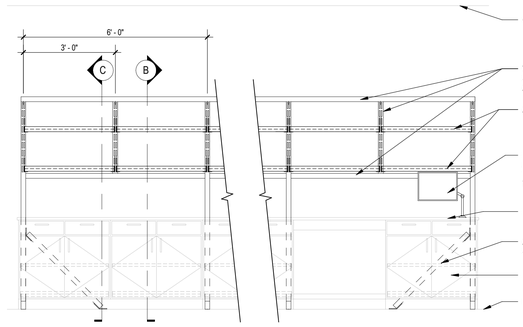


F DETAIL SECTION - ANCHOR BELOW BENCH TOP
3" = 1' - 0"

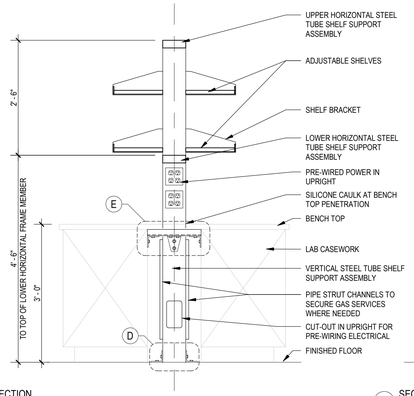


G ELEVATION - DRYING RACK MOUNT
1/2" = 1' - 0"

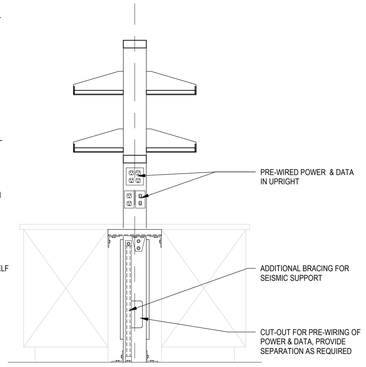
H PARTIAL SECTION - DRYING RACK MOUNT
3/4" = 1' - 0"



A ELEVATION (ELEVATION FOR REFERENCE ONLY. REFER TO LAB PREP SPACES FOR BENCH CONFIGURATIONS)
1/2" = 1' - 0"

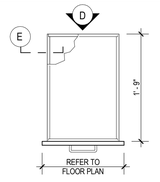


B SECTION
3/4" = 1' - 0"

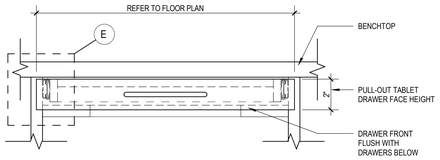


C SECTION (SIMILAR TO SECTION B EXCEPT AS NOTED)
3/4" = 1' - 0"

67 DETAIL - ADJUSTABLE ISLAND BENCH SHELVING - LAB PREP BENCHES
SCALE: 1/2" = 1'-0"

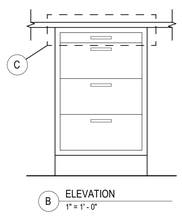


A PLAN - TABLET
1" = 1' - 0"



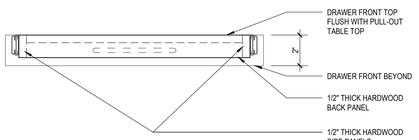
C FRONT ELEVATION
3" = 1' - 0"

E DETAIL
12" = 1' - 0"



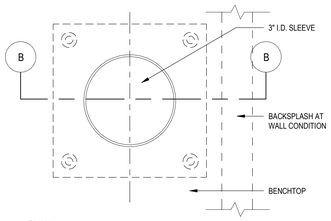
B ELEVATION
1" = 1' - 0"

NOTE:
1. CASEWORK SHOWN FOR REFERENCE ONLY. REFER TO PLANS FOR ACTUAL DRAWER OR DOOR CONFIGURATION

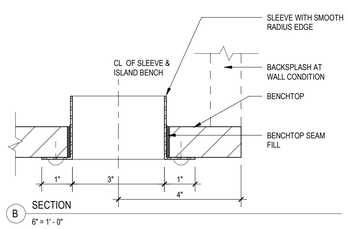


D REAR ELEVATION
3" = 1' - 0"

70 DETAIL - PULL-OUT TABLET AT CASEWORK
SCALE: 1" = 1'-0"

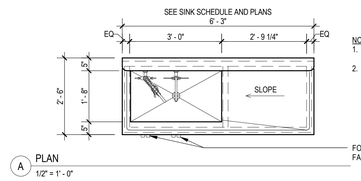


A PLAN
6" = 1' - 0"



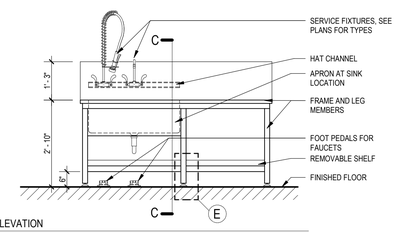
B SECTION
6" = 1' - 0"

72 DETAIL - BENCH TOP SLEEVE
SCALE: 6" = 1'-0"

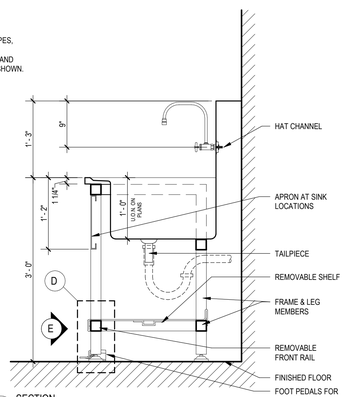


A PLAN
1/2" = 1' - 0"

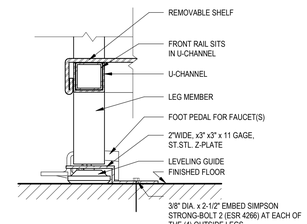
NOTES:
1. FOR SERVICES AND FIXTURE TYPES, SEE FLOOR PLANS.
2. PIPING BETWEEN FOOT PEDALS AND FIXTURES INTENTIONALLY NOT SHOWN.



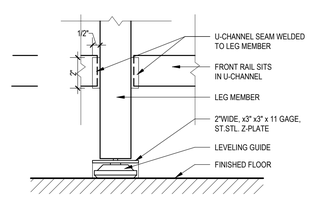
B ELEVATION
1/2" = 1' - 0"



C SECTION
1" = 1' - 0"

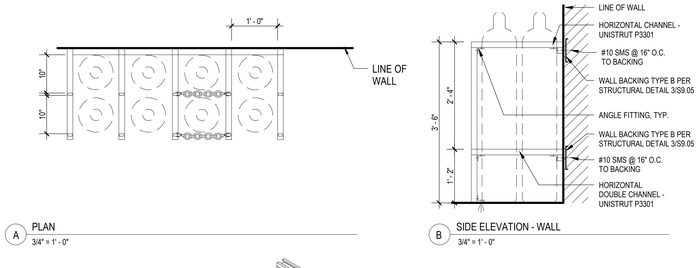


D ENLARGED SECTION
3" = 1' - 0"



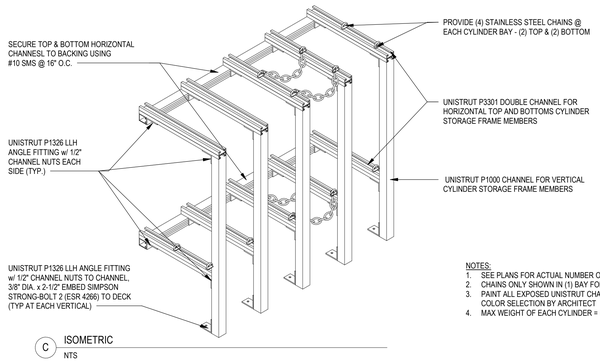
E ENLARGED ELEVATION
3" = 1' - 0"

40 DETAIL - SCULLERY SINK
SCALE: 1/2" = 1'-0"



A PLAN
3/4" = 1' - 0"

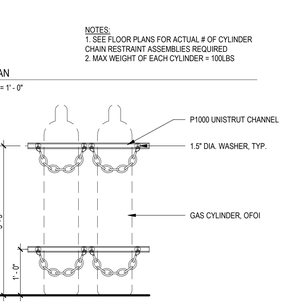
B SIDE ELEVATION - WALL
3/4" = 1' - 0"



C ISOMETRIC
NTS

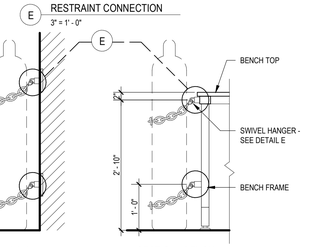
NOTES:
1. SEE PLANS FOR ACTUAL NUMBER OF CYLINDER BAYS REQUIRED.
2. CHAINS ONLY SHOWN IN (1) BAY FOR CLARITY.
3. PAINT ALL EXPOSED UNISTRUT CHANNELS COLOR SELECTION BY ARCHITECT
4. MAX WEIGHT OF EACH CYLINDER = 100 LBS

19 DETAIL - GAS CYLINDER RACK (CRK)
SCALE: 3/4" = 1'-0"



NOTES:
1. SEE FLOOR PLANS FOR ACTUAL # OF CYLINDER CHAIN RESTRAINT ASSEMBLIES REQUIRED
2. MAX WEIGHT OF EACH CYLINDER = 100LBS

A PLAN
3/4" = 1' - 0"



E RESTRAINT CONNECTION
3" = 1' - 0"

B FRONT ELEVATION
3/4" = 1' - 0"

C SECTION - WALL
3/4" = 1' - 0"

D SECTION - BENCH
3/4" = 1' - 0"

21 DETAIL - GAS CYLINDER RESTRAINT (CRT)
SCALE: 3/4" = 1'-0"

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - LAB CASEWORK DETAILS

14794

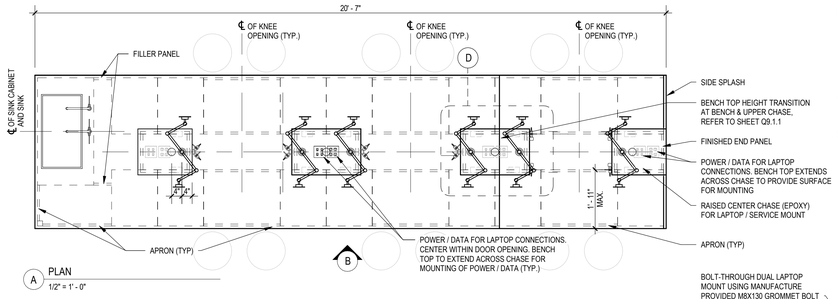
PROJECT NUMBER

CD **Q9.1.2**

SHEET NUMBER

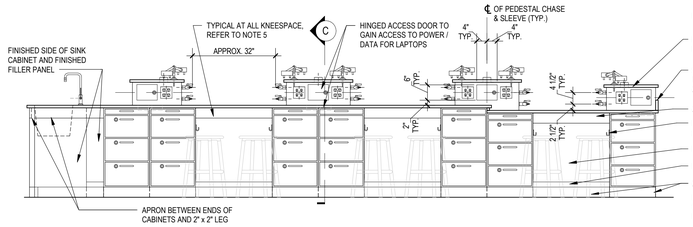
Author

Plot Date: 7/22/2025 3:02:15 PM

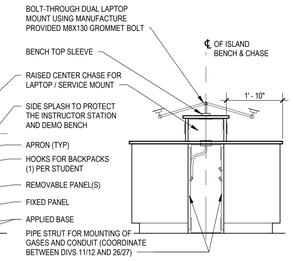


A PLAN
1/2" = 1' - 0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO SHEET Q9.1.1
2. FOR ADDITIONAL INFORMATION NOT SHOWN HERE INCLUDING POINT EXHAUST, REFER TO SHEET Q7.1.5.
3. FOR AV / IT DEVICE MOUNTING FOR INSTRUCTOR STATION REFER TO SHEET Q9.1.4
4. AT THE NON-ACCESSIBLE BENCH REFER TO SHEET Q9.1.4 FOR INTEGRATION WITH THE INSTRUCTOR'S DEMONSTRATION BENCH
5. AT ALL KNEESPACE BACK PANEL, PROVIDE 4INCH GAP w/ MESH SCREEN BETWEEN REMOVEABLE PANEL AND UNDERSIDE OF COUNTERTOP FOR AIR FLOW.

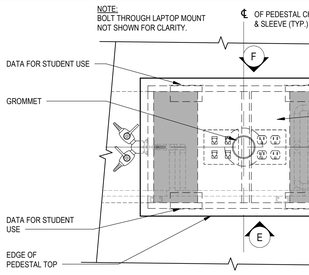


B ELEVATION
1/2" = 1' - 0"

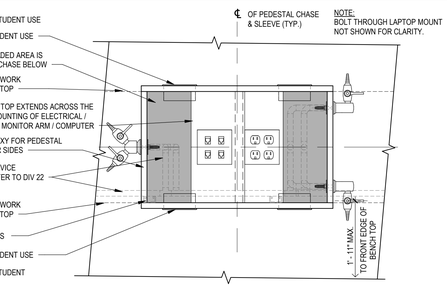


C SECTION
1/2" = 1' - 0"

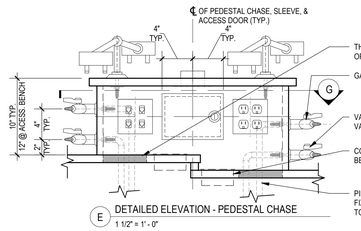
67 DETAIL - INTRO CHEMISTRY STUDENT BENCH ACCESSIBLE CONDITION
SCALE: 1/2" = 1'-0"



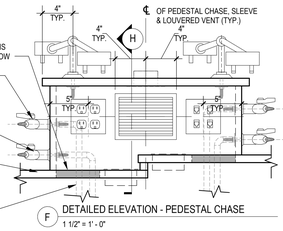
D DETAILED PLAN - PEDESTAL CHASE
1 1/2" = 1' - 0"



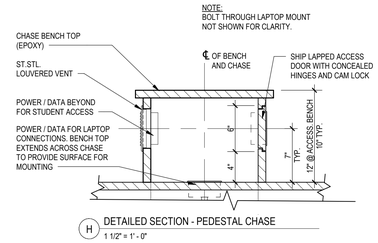
G DETAILED PLAN - PEDESTAL CHASE w/EPOXY TOP REMOVED
1 1/2" = 1' - 0"



E DETAILED ELEVATION - PEDESTAL CHASE
1 1/2" = 1' - 0"

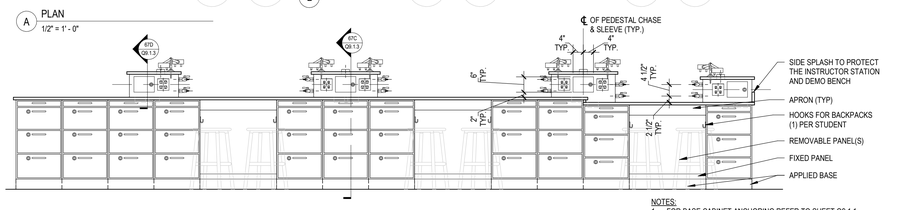


F DETAILED ELEVATION - PEDESTAL CHASE
1 1/2" = 1' - 0"



H DETAILED SECTION - PEDESTAL CHASE
1 1/2" = 1' - 0"

A PLAN
1/2" = 1' - 0"

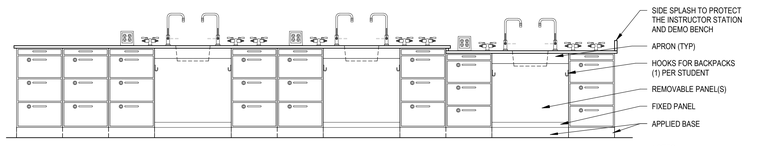


B ELEVATION
1/2" = 1' - 0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO SHEET Q9.1.1
2. FOR ADDITIONAL INFORMATION NOT SHOWN HERE INCLUDING POINT EXHAUST, REFER TO SHEET Q7.1.5.
3. FOR AV / IT DEVICE MOUNTING FOR INSTRUCTOR STATION REFER TO SHEET Q9.1.4
4. FOR PEDESTAL CHASE DETAILS, REFER TO DETAIL 67 THIS SHEET.
5. AT THE NON-ACCESSIBLE BENCH REFER TO SHEET Q9.1.4 FOR INTEGRATION WITH THE INSTRUCTOR'S DEMONSTRATION BENCH

69 DETAIL - GENERAL CHEMISTRY STUDENT BENCH ACCESSIBLE CONDITION
SCALE: 1/2" = 1'-0"

A PLAN
1/2" = 1' - 0"



B ELEVATION
1/2" = 1' - 0"

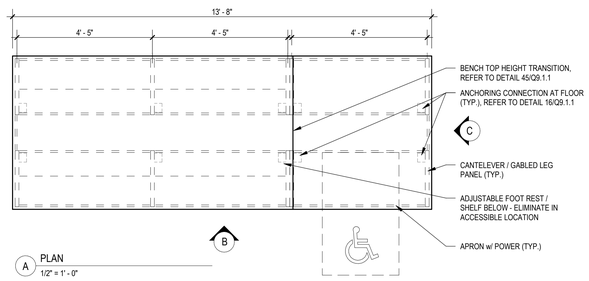
NOTES:
1. FOR BASE CABINET ANCHORING REFER TO SHEET Q9.1.1
2. FOR ADDITIONAL INFORMATION NOT SHOWN HERE INCLUDING POINT EXHAUST, REFER TO SHEET Q7.1.3.
3. FOR AV / IT DEVICE MOUNTING FOR INSTRUCTOR STATION REFER TO SHEET Q9.1.4
4. AT THE NON-ACCESSIBLE BENCH REFER TO SHEET Q9.1.4 FOR INTEGRATION WITH THE INSTRUCTOR'S DEMONSTRATION BENCH

72 DETAIL - ORGANIC CHEMISTRY STUDENT BENCH ACCESSIBLE CONDITION
SCALE: 1/2" = 1'-0"

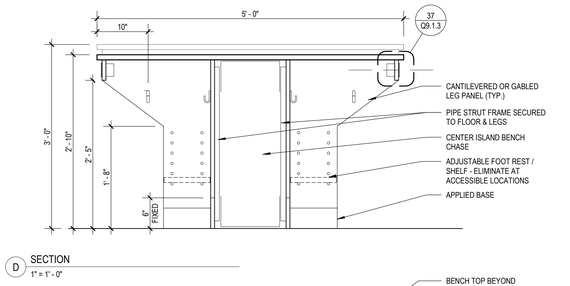
37 DETAIL - ELECTRICAL MOUNTED IN APRON
SCALE: 3" = 1'-0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
2. THIS DETAIL IS FOR MICROBIOLOGY, ANATOMY AND PHYSIOLOGY BENCHES ARE SIMILAR BUT WITH NO GASES.
3. AT ACCESSIBLE CONDITION, ON EACH SIDE OF BENCH, RELOCATE (1) BACKPACK HOOK TO SIDE OF CABINET.

21 DETAIL - BIOSCIENCES STUDENT BENCH
SCALE: 1/2" = 1'-0"



A PLAN
1/2" = 1' - 0"

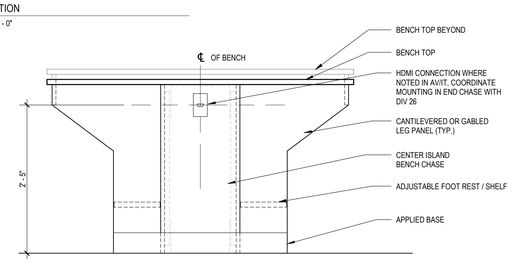


D SECTION
1" = 1' - 0"

B ELEVATION
1/2" = 1' - 0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
2. ELIMINATE ADJUSTABLE SHELF / FOOT REST AT ACCESSIBLE LOCATIONS
3. AT ACCESSIBLE CONDITION, ON EACH SIDE OF BENCH, RELOCATE (1) BACKPACK HOOK TO SIDE OF LEG PANEL.

40 DETAIL - SHARED LEARNING STUDENT BENCH
SCALE: 1/2" = 1'-0"



C END ELEVATION
1" = 1' - 0"

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - STUDENT ISLAND BENCH DETAILS

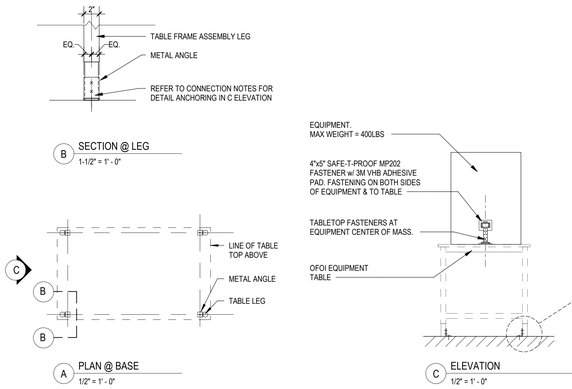
PROJECT NUMBER 14794

CD **Q9.1.3**

SHEET NUMBER

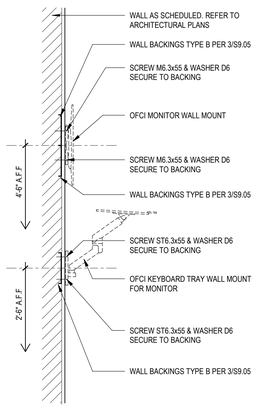
Author

Plot Date: 7/22/2025 3:02:17 PM

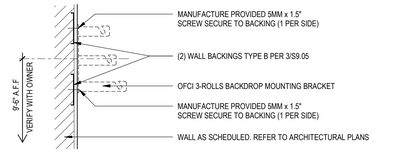


NOTES:
1. GC TO VERIFY WEIGHT OF EQUIPMENT TO CONFIRM WEIGHT NOT EXCEED MAX. WEIGHT PER MANUFACTURE.
2. ACCEPTABLE TO USE SEISMIC BRACKET (BY MANUFACTURER) ATTACHED IN LIEU OF STEEL ANGLE.

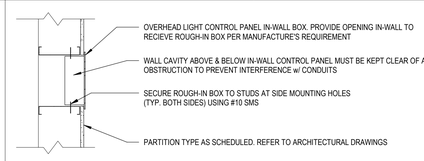
67 DETAIL - TYPICAL TABLE TOP EQUIPMENT & EQUIPMENT TABLE ANCHORING
SCALE: 1 1/2" = 1'-0"



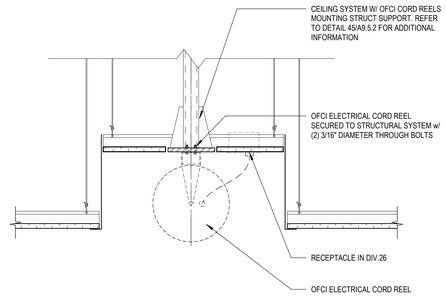
42 DETAIL - OFCI COMPUTER WALL MOUNT
SCALE: 1" = 1'-0"



25 DETAIL - OFCI WALL MOUNT 3-ROLLS BACKDROP
SCALE: 1" = 1'-0"

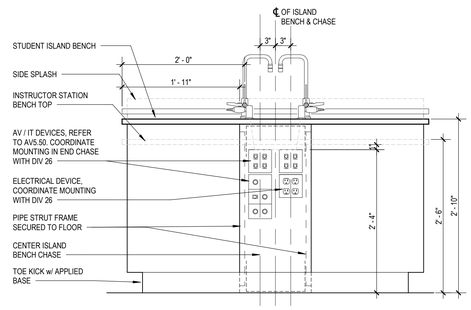


9 DETAIL - PLAN SECTION CADAVER LIGHT IN-WALL CONTROL PANEL (MQ.08A)
SCALE: 1" = 1'-0"

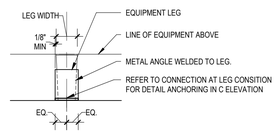


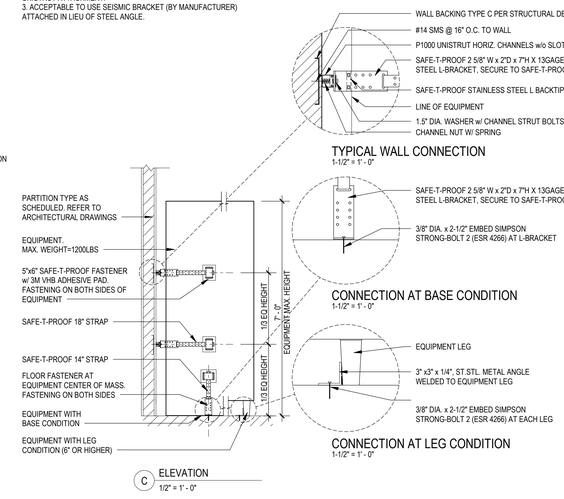
27 DETAIL - OFCI ELECTRICAL CORD REEL MOUNTING
SCALE: 1 1/2" = 1'-0"

NOTES:
1. INSTRUCTOR STATION IN FRONT OF ISLAND BENCH IS SHOWN HALFTONE DASHED.
2. END SIDE SPLASH ON ACCESSIBLE STUDENT BENCH IS SHOWN HALFTONE DASHED. REFER TO STUDENT BENCH DETAILS ON Q9.1.5.
3. INTRO CHEM AND GEN CHEM CONDITIONS ARE SIMILAR EXCEPT NO WATER FAUCET



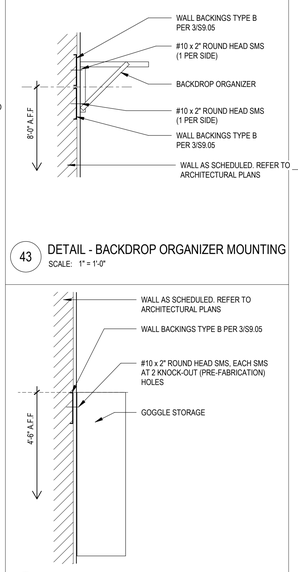
11 DETAIL - ORGANIC CHEMISTRY INSTRUCTOR STATION AV / IT CONNECTION
SCALE: 1" = 1'-0"



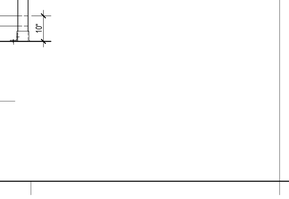


NOTES:
1. GC TO VERIFY WEIGHT OF EQUIPMENT TO CONFIRM WEIGHT NOT EXCEED MAX. WEIGHT PER FASTENER REQUIREMENT.
2. FOR EQUIPMENT LOWER THAN 48"H, USE (1) ROW OF WALL UNISTRUT ATTACHMENT.
3. ACCEPTABLE TO USE SEISMIC BRACKET (BY MANUFACTURER) ATTACHED IN LIEU OF STEEL ANGLE.

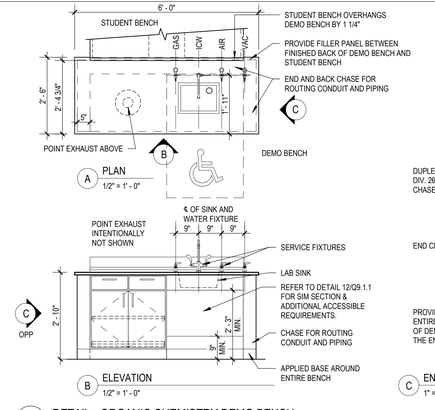
69 DETAIL - TYPICAL EQUIPMENT ANCHORING DETAIL
SCALE: 1/2" = 1'-0"



43 DETAIL - BACKDROP ORGANIZER MOUNTING
SCALE: 1" = 1'-0"

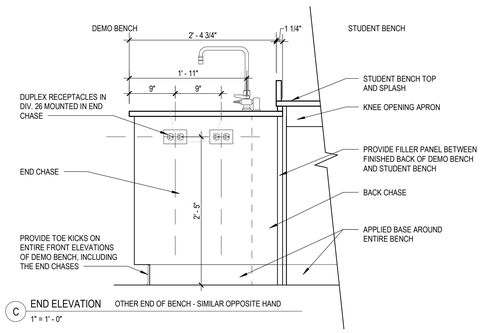


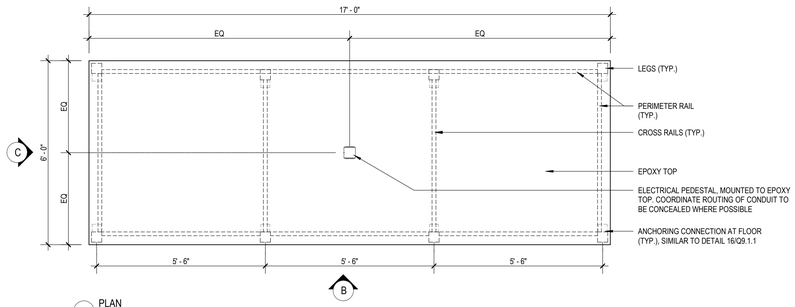
45 DETAIL - GOGGLE STORAGE MOUNTING
SCALE: 1" = 1'-0"



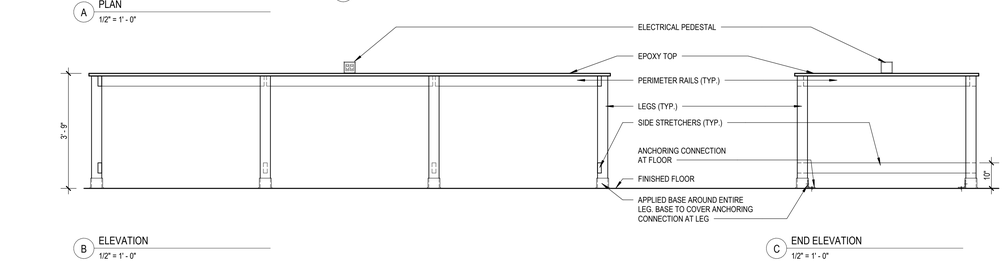
29 DETAIL - ORGANIC CHEMISTRY DEMO BENCH
SCALE: 1/2" = 1'-0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
2. INTRO CHEM AND GEN CHEM DEMO BENCHES ARE SIMILAR EXCEPT NO LAB AIR.

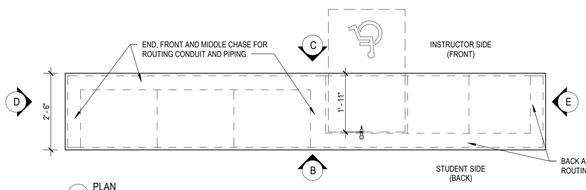




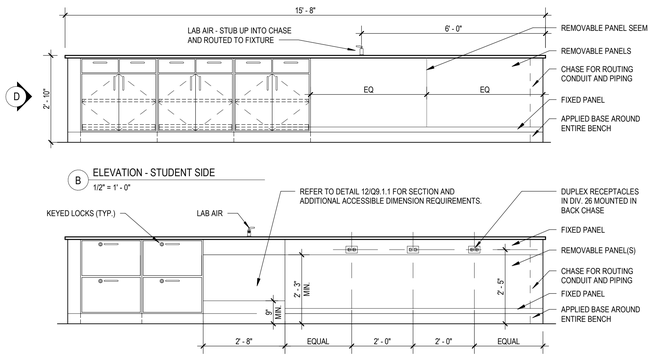
NOTES:
1. BASE ANCHORING SIMILAR TO 16/Q9.1.1
2. REFER TO SPEC SECTION 123553, ARTICLE 2.10 FOR MATERIAL, MEMBERS AND CONSTRUCTION. RACEWAY AS MENTIONED IN THE SPEC IS NOT REQUIRED.
3. BIO PREP ROOM'S CART BENCH IS SIMILAR, EXCEPT FOR BENCH DIMENSIONS. REFER TO PLAN FOR ADDITIONAL INFORMATION

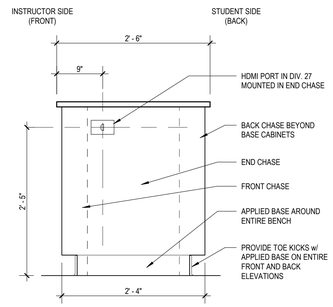


72 DETAIL - CHEM LAB PREP CART BENCH DETAILS
SCALE: 1/2" = 1'-0"



NOTES:
1. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
2. MICROBIOLOGY DEMO BENCH IS SIMILAR EXCEPT FOR GAS AND LAB VACUUM ILO LAB AIR.
3. END ELEVATION NAMED "E" IS SIMILAR BUT OPPOSITE TO ELEVATION "D", EXCEPT FOR QUAD RECEPTACLE IN DIV.26 ILO HDMI PORT





32 DETAIL - ANATOMY / PHYSIOLOGY INSTRUCTOR BENCH DETAILS
SCALE: 1/2" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

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SAN FRANCISCO, CA 94111
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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

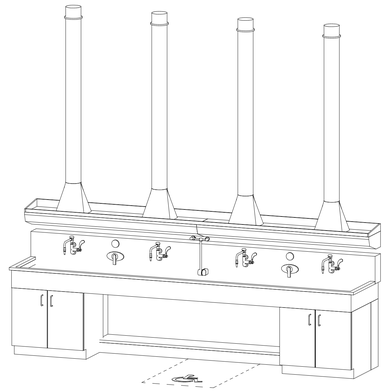
SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - LAB BENCH & EQUIPMENT MOUNTING DETAILS

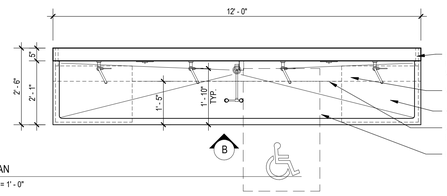
14794
PROJECT NUMBER
CD
Q9.1.4
SHEET NUMBER

Author
7/22/2025 3:02:18 PM
Plot Date:

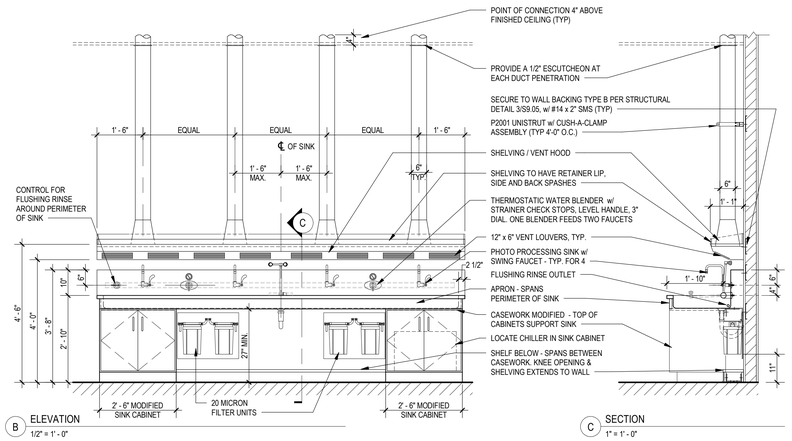


D 3D VIEW
N.T.S

NOTES:
1. EXHAUST DUCT WORK FOR SHELVING / VENT HOOD INTENTIONALLY NOT SHOWN IN PLAN.
2. REFER TO MECHANICAL DRAWINGS FOR VENT HOOD DESIGN.
3. DOMESTIC WATER FEED TO EYEWASH IN DIV 22.
4. LABORATORY COLD WATER FEED TO CHILLER AND LABORATORY HOT WATER FEED TO WATER FILTER UNIT IN DIV 22.
5. ALL INTERCONNECTED PIPING FROM THE CHILLER AND WATER FILTERS TO THE THERMOSTATIC WATER BLENDERS TO THE FAUCETS AND FLUSHING RINSE IN DIV 11/12.
6. DRAIN PIPE TO BE INSULATED
7. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1



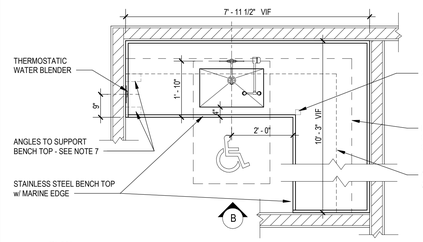
A PLAN
1/2" = 1' - 0"



B ELEVATION
1/2" = 1' - 0"

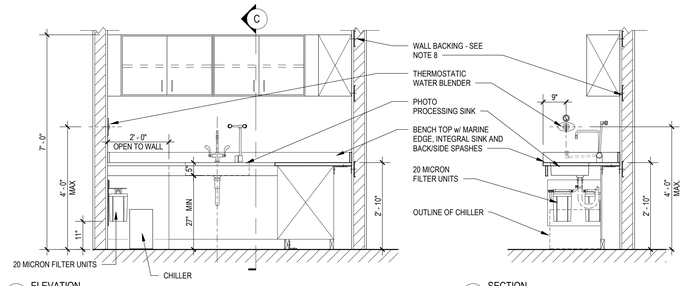
C SECTION
1" = 1' - 0"

72 DETAIL - MAIN PHOTO LAB PROCESSING SINK - MQ.06
SCALE: 1/2" = 1'-0"



NOTES:
1. DOMESTIC WATER FEED TO EYEWASH IN DIV 22.
2. LABORATORY COLD WATER FEED TO CHILLER AND LABORATORY HOT WATER FEED TO WATER FILTER UNIT IN DIV 22.
3. ALL INTERCONNECTED PIPING FROM THE CHILLER AND WATER FILTERS TO THE THERMOSTATIC WATER BLENDERS TO THE FAUCETS AND FLUSHING RINSE IN DIV 11/12.
4. COORDINATE PIPING TO BLENDER IN WALL WITH DIV 9
5. DRAIN PIPE TO BE INSULATED
6. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
7. (2) 6" x 3" x 14 GA. METAL ANGLES SECURED TO WALL BACKING w/ #14 x 2" FLAT HEAD SMS. SECURE ANGLE TO UNDERSIDE OF BENCH TOP w/ #10 x 1/2" TEC SCREWS.
8. WALL BACKING TO BE TYPE B PER STRUCTURAL DETAIL 3/SS9.05 (TYP.)

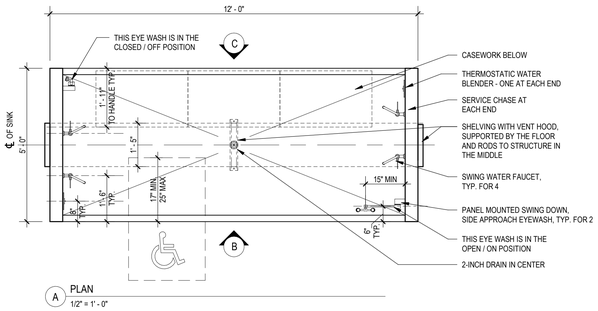
A PLAN
1/2" = 1' - 0"



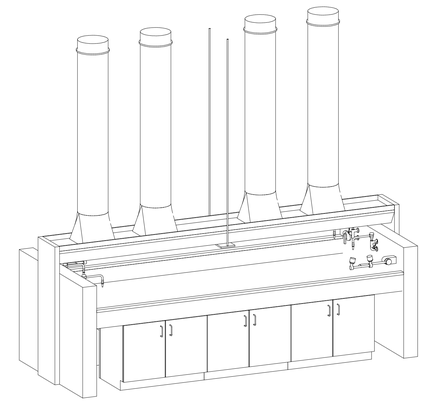
B ELEVATION
1/2" = 1' - 0"

C SECTION
1/2" = 1' - 0"

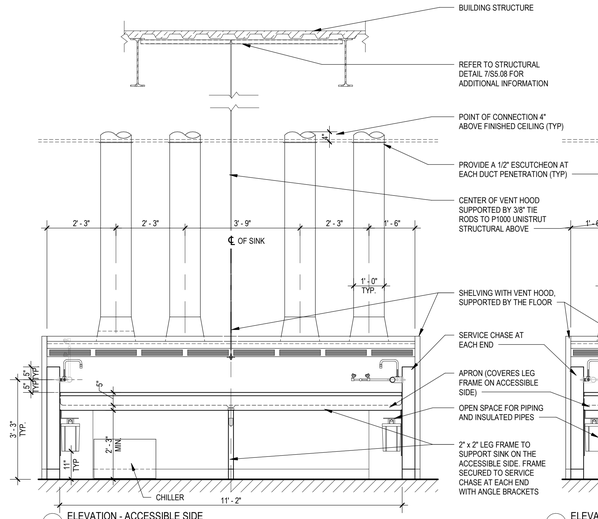
19 DETAIL - FILM ROOM LAB PROCESSING SINK - MQ.11
SCALE: 1/2" = 1'-0"



A PLAN
1/2" = 1' - 0"

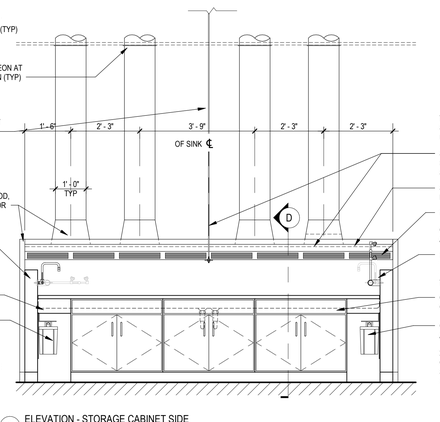


E 3D VIEW
N.T.S

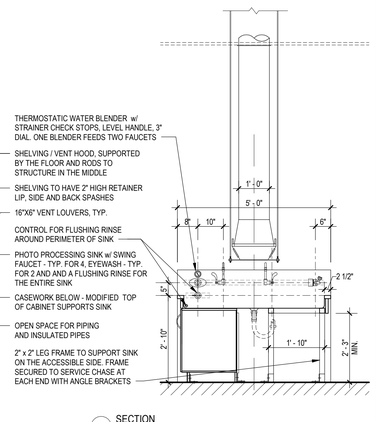


B ELEVATION - ACCESSIBLE SIDE
1/2" = 1' - 0"

NOTES:
1. EXHAUST DUCT WORK FOR SHELVING / VENT HOOD INTENTIONALLY NOT SHOWN IN PLAN.
2. REFER TO MECHANICAL DRAWINGS FOR VENT HOOD DESIGN AND ANCHORING OF DUCT WORK ABOVE CEILING WHICH CARRIES MUCH OF THE WEIGHT OF THE VENT HOOD.
3. DOMESTIC WATER FEED TO EYEWASHES IN DIV 22.
4. LABORATORY COLD WATER FEED TO CHILLER AND LABORATORY HOT WATER FEED TO WATER FILTER UNIT IN DIV 22.
5. ALL INTERCONNECTED PIPING FROM THE CHILLER AND WATER FILTERS TO THE THERMOSTATIC WATER BLENDERS TO THE FAUCETS AND FLUSHING RINSE IN DIV 11/12.
6. DRAIN PIPE TO BE INSULATED
7. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1



C ELEVATION - STORAGE CABINET SIDE
1/2" = 1' - 0"



D SECTION
1/2" = 1' - 0"

40 DETAIL - DARKROOM WALK-A-ROUND PROCESSING SINK - MQ.05
SCALE: 1/2" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

SHEET TITLE

BUILDING 1500 - PHOTO PROCESSING SINK DETAILS

14794

PROJECT NUMBER

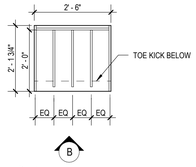
CD **Q9.1.5**

SHEET NUMBER

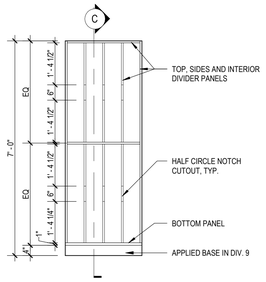
Author

7/22/2025 3:02:19 PM

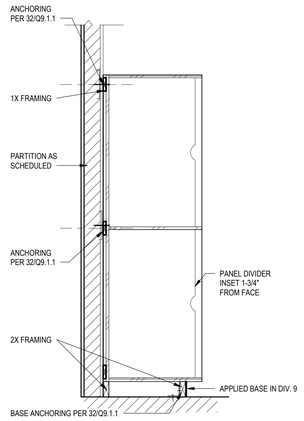
Plot Date:



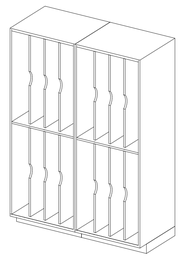
A PLAN
1/2" = 1' - 0"



B ELEVATION
1/2" = 1' - 0"

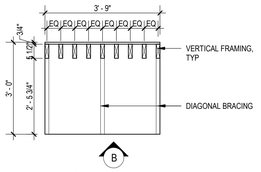


C SECTION
3/4" = 1' - 0"

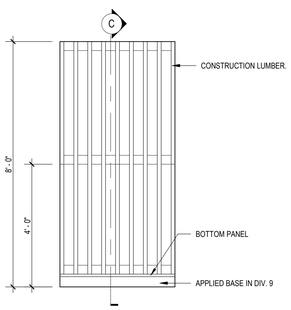


D ISOMETRIC VIEW
NTS

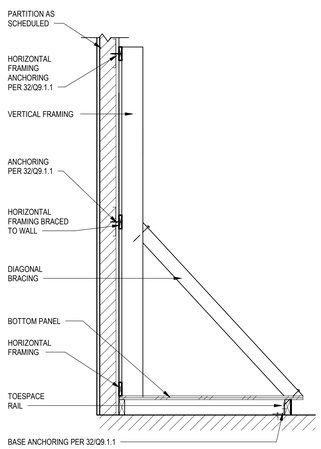
67 DETAIL - ART CANVAS STORAGE - DOUBLE - T30Sk TALL CASEWORK
SCALE: 1/2" = 1'-0"



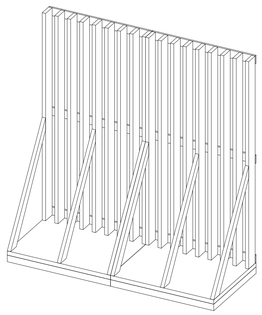
A PLAN
1/2" = 1' - 0"



B ELEVATION
1/2" = 1' - 0"

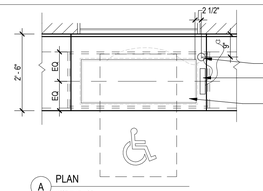


C SECTION
3/4" = 1' - 0"

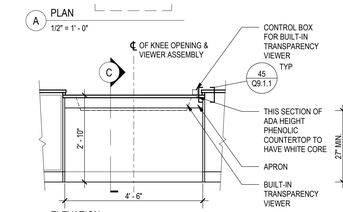


D ISOMETRIC VIEW
NTS

70 DETAIL - ARTS CANVAS STORAGE - FULL HEIGHT - T45S TALL CASEWORK
SCALE: 1/2" = 1'-0"

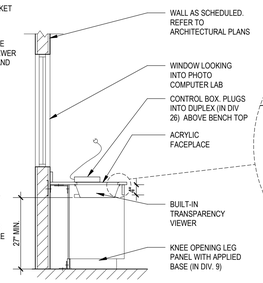


A PLAN
1/2" = 1' - 0"

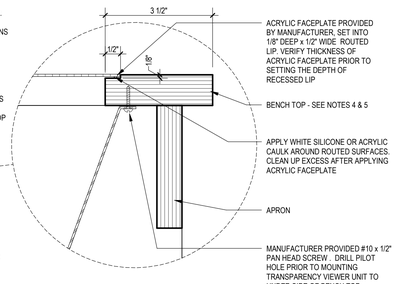


B ELEVATION
1/2" = 1' - 0"

NOTES:
1. FOR BASE CABINET ANCHORING REFER TO DETAIL 16/Q9.1.1
2. THE BUILT-IN TRANSPARENCY VIEWER'S CORD/PLUG ROUTE UP THROUGH THE BENCH TOP GROMMET AND PLUGS INTO THE CONTROL BOX.
3. THE CONTROL BOX PLUGS INTO RECEPTACLE ABOVE BENCH TOP
4. BENCH TOP CORE MATERIAL TO BE WHITE (BOD FUNDERMAX NORTH AMERICA, INC.) WITH FRONT EDGE TO MATCH ADJACENT BENCH TOP EDGE.
5. IF A MANUFACTURER OTHER THAN FUNDERMAX IS USED, APPLY SOLID WHITE EPOXY EDGE DRESSING TO THE 1/8" DEEP X 1/2" WIDE ROUTED LIP, PRIOR TO INSTALLING THE ACRYLIC FACEPLATE.



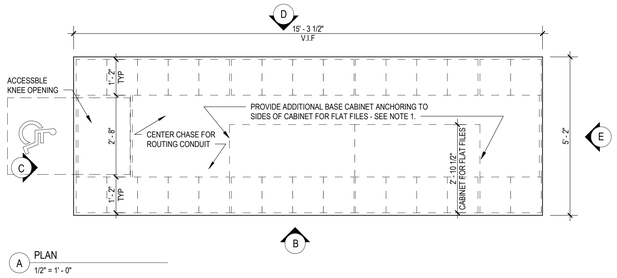
C SECTION
1/2" = 1' - 0"



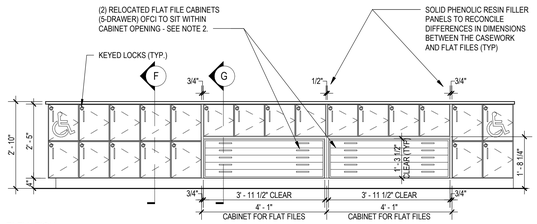
ENLARGED SECTION
6" = 1' - 0"

72 DETAIL - PHOTO RECESSED TRANSPARENCY VIEWER - MQ.03
SCALE: 1/2" = 1'-0"

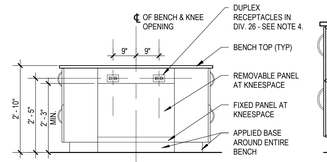
NOTES:
1. BASE CABINET ANCHORING SIMILAR TO DETAIL 16/Q9.1.1
2. OFCI FLAT FILES SIT WITHIN A CABINET w/ OPEN FRONT (NO DOORS). CABINET BASE, SIDES, BACK, AND TOP CONSTRUCTED w/ 3/4" SOLID PHENOLIC PANELS.
3. FRONT FACE OF FLAT FILES TO ALIGN WITH FRONT FACE OF CABINET.
4. FOR DUPLEX RECEPTACLES MOUNTING IN APRON. REFER TO DETAIL 10/Q9.1.5



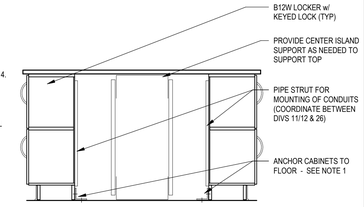
A PLAN
1/2" = 1' - 0"



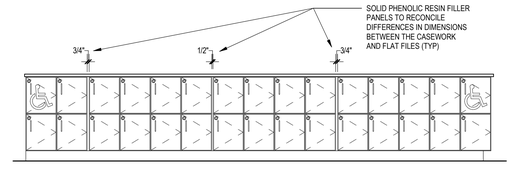
B ELEVATION
1/2" = 1' - 0"



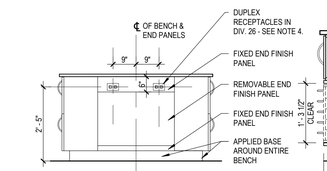
C ELEVATION - END
1/2" = 1' - 0"



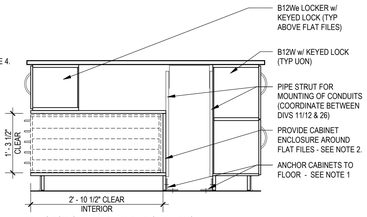
E SECTION - TYPICAL
3/4" = 1' - 0"



D ELEVATION
1/2" = 1' - 0"

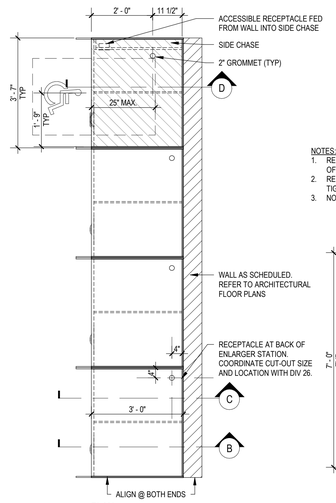


E ELEVATION - END
1/2" = 1' - 0"

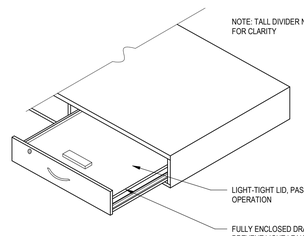


D SECTION - AT FLAT FILE CABINETS
3/4" = 1' - 0"

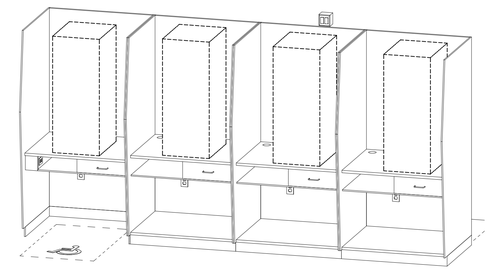
36 DETAIL - MAIN PHOTO LAB LOCKER ISLAND DETAILS
SCALE: 1/2" = 1'-0"



A PLAN
1/2" = 1' - 0"

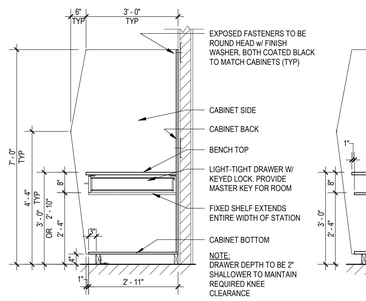


E DETAIL - LIGHT TIGHT DRAWER
1" = 1' - 0"

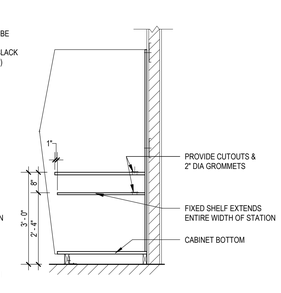


F ISOMETRIC VIEW
NTS

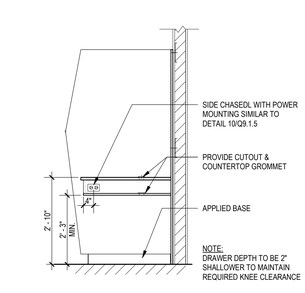
NOTES:
1. REFER TO SHEET Q9.1.1 FOR ANCHORING OF ENLARGER STATIONS - COMBINATION OF BASE DETAIL 16/Q9.1.1 AND TALL CABINET DETAIL 32/Q9.1.1
2. REFER TO SPECIFICATION SECTION 123553.26 FOR MATERIAL THICKNESS AND LIGHT TIGHT DRAWER.
3. NON-ACCESSIBLE STATIONS ARE SIMILAR EXCEPT AS NOTED



B SECTION - THROUGH LIGHT TIGHT DRAWER
1/2" = 1' - 0"



C SECTION - THROUGH OPEN SHELF
1/2" = 1' - 0"



D SECTION - OPEN SHELF AT ACCESSIBLE STATION
1/2" = 1' - 0"

40 DETAIL - ENLARGER STATIONS
SCALE: 1/2" = 1'-0"

LAS POSITAS COLLEGE

INCREMENT II - STEAM BUILDING PROJECT

3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

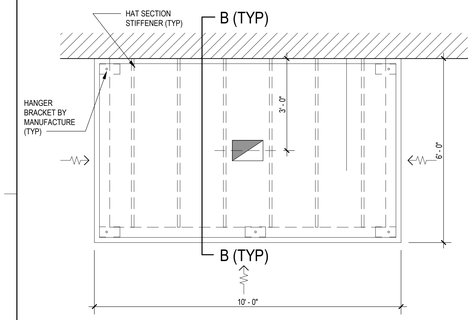
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
CALIFORNIA

SHEET TITLE
BUILDING 1500 - PHOTOGRAPHY & ARTS DETAILS

14794
PROJECT NUMBER

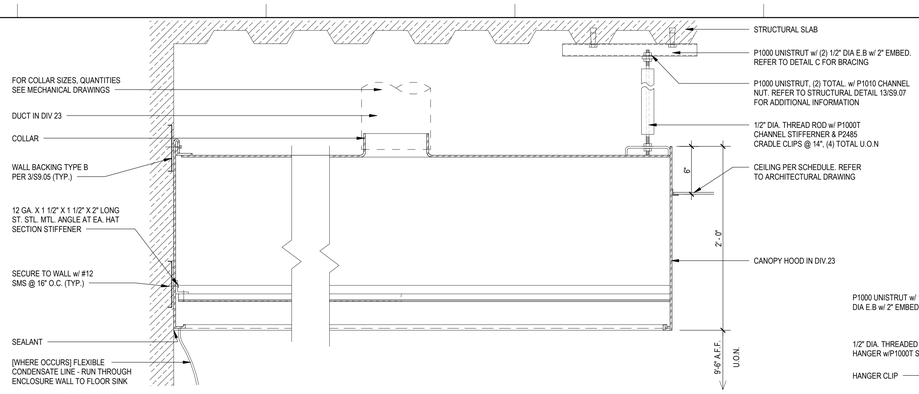
CD
SHEET NUMBER
Q9.1.6

Author
7/22/2025 3:02:21 PM
Plot Date:

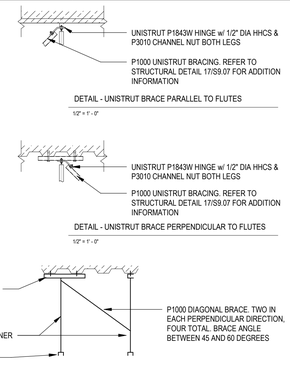


A PLAN
1/2" = 1' - 0"

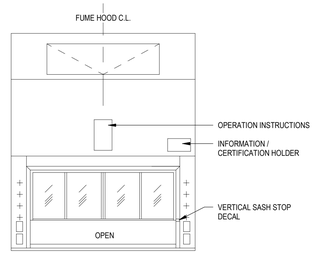
66 DETAIL - CANOPY HOOD - CH-01
SCALE: 1/2" = 1'-0"



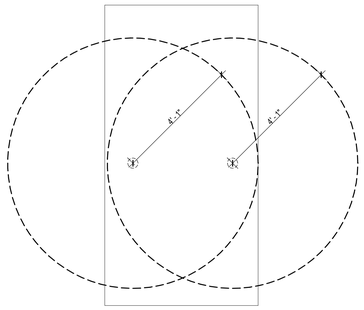
B SECTION
1 1/2" = 1' - 0"



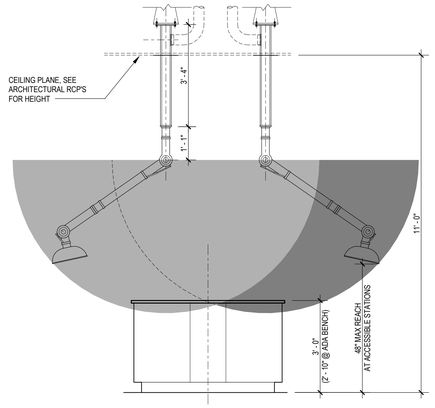
C SECTION - UNISTRUT BRACING
1/2" = 1' - 0"



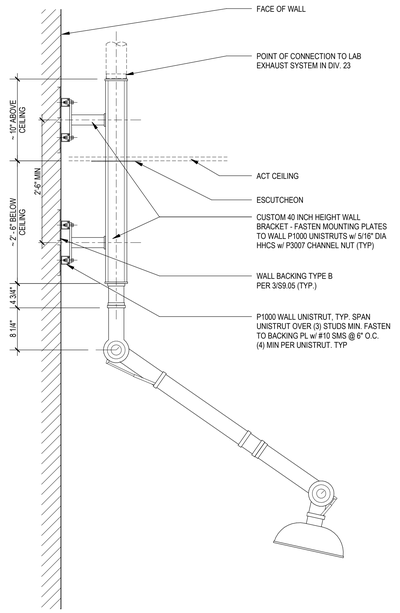
10 DETAIL - FUME HOOD SIGNAGE
SCALE: 1/2" = 1'-0"



B PLAN - AREA OF POINT EXHAUST COVERAGE - CHEMISTRY
1/2" = 1' - 0"

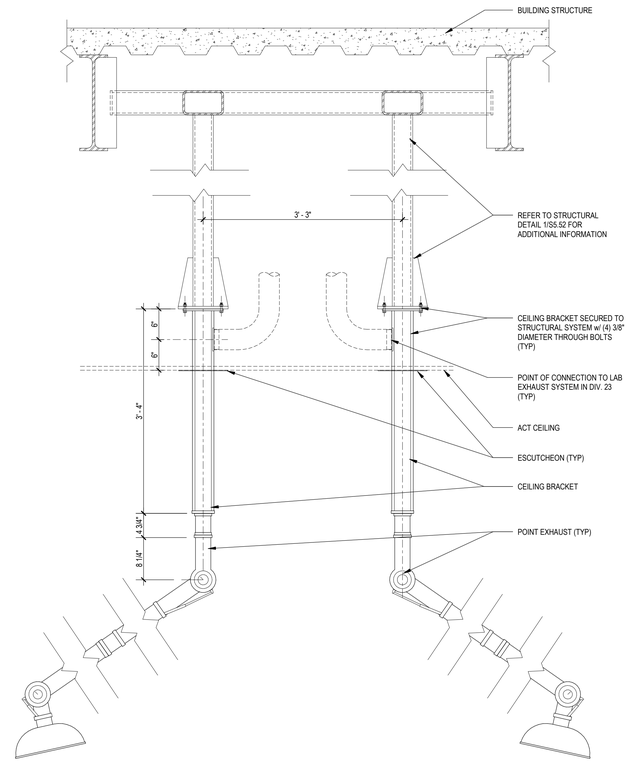


C ELEVATION - AREA OF POINT EXHAUST COVERAGE
1/2" = 1' - 0"

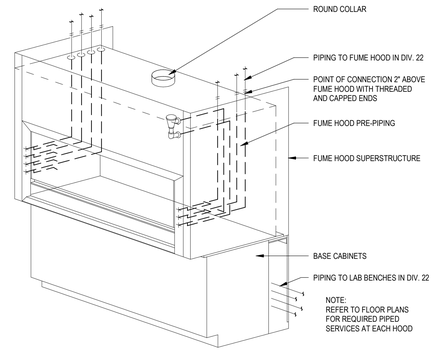


A SIDE ELEVATION - WALL MOUNTED
1" = 1' - 0"

72" DETAIL - POINT EXHAUST
SCALE: 1" = 1'-0"



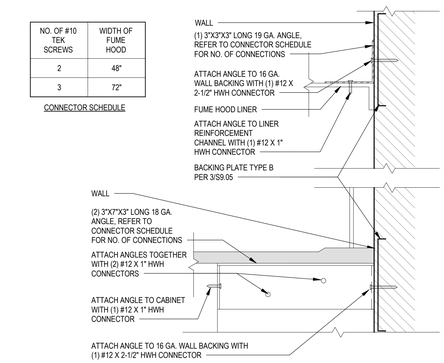
A SIDE ELEVATION ABOVE STUDENT BENCHES - MOUNT TO STRUCTURE
1" = 1' - 0"



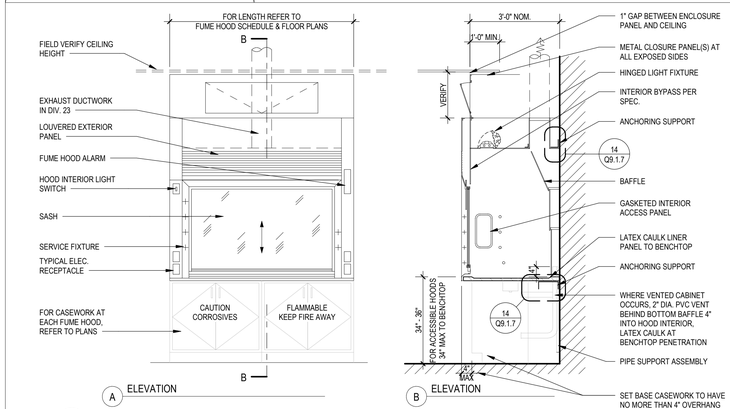
12 DETAIL - FUME HOOD PRE-PIPING
SCALE: 3/8" = 1'-0"

NO. OF #10 TEK SCREWS	WIDTH OF FUME HOOD
2	48"
3	72"

CONNECTOR SCHEDULE



14 DETAIL - FUME HOOD MOUNTING
SCALE: 3" = 1'-0"



A ELEVATION

B ELEVATION

24 DETAIL - FUME HOOD - BENCHTOP
SCALE: 1/2" = 1'-0"

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3000 CAMPUS HILL DR
LIVERMORE, CA 94551

SMITHGROUP

301 BATTERY STREET
4TH FLOOR
SAN FRANCISCO, CA 94111
415.227.0100
smithgroup.com

ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1500 - EXHAUST & FUME HOOD DETAILS

14794
PROJECT NUMBER

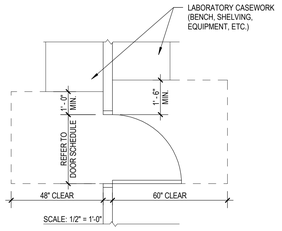
CD

Q9.1.7
SHEET NUMBER

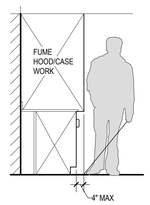
Author

Plot Date: 7/22/2025 3:02:21 PM

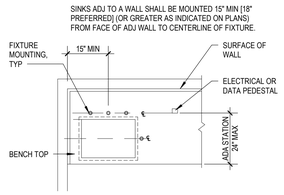
TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES



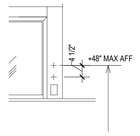
DOOR/ CASEWORK CLEARANCES
(PLAN VIEW)



LIMIT OF PROTRUDING OBJECTS
(WALKING PARALLEL TO A WALL)

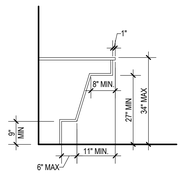


CONDITION AT LAB SINK
(PLAN VIEW)

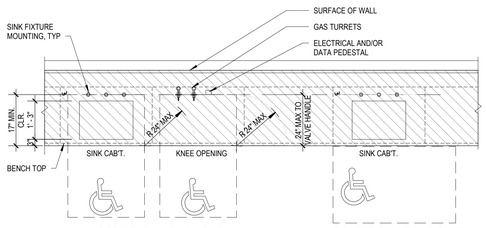


FOR ADA FUME HOODS ONLY:
CENTERLINE OF TOP MOST OPERATING ELEMENTS TO BE A MAXIMUM OF 48" AFF. ANY ADDITIONAL VALVES TO BE MOUNTED IN THE CABINET APRON BELOW. PROVIDE PIPING BETWEEN VALVES AND OUTLETS AS PART OF THE FUME HOOD PRE-PIPING.

ADA FUME HOOD SERVICES
(ELEV. VIEW)



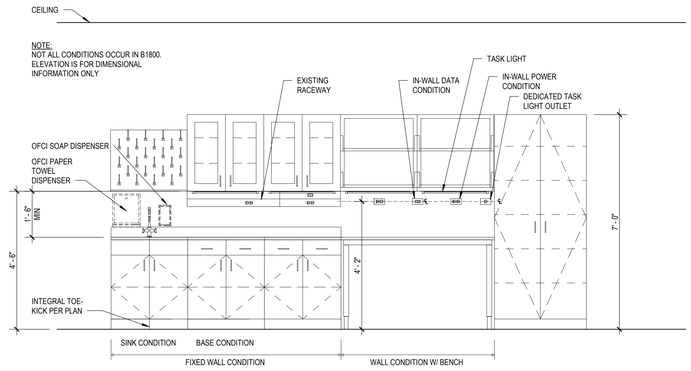
ACCESSIBLE KNEE SPACE CLEARANCES
(SIDE VIEW)



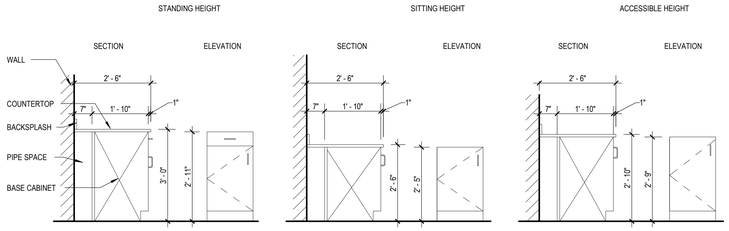
CONDITION AT LAB SINK
(PLAN VIEW - FRONT APPROACH)

CONDITION AT LAB SINK
(PLAN VIEW - SIDE APPROACH)

TYPICAL MOUNTING HEIGHTS



BASE CABINET HEIGHT DEFINITION - 1/2" = 1'-0"



NOTE:
- PROVIDE REAR FILLER PANEL AT EXPOSED SIDE OF FIXED CASEWORK AND KNEE SPACE, TYPICAL. MATCH ADJACENT BASE CABINET FINISH AND TOE KICK DETAIL.
- PROVIDE LOCKS AS INDICATED WITH THE CHARACTER "Q"

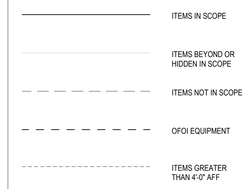
SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

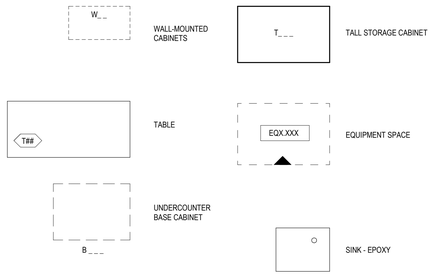
EQUIPMENT ABBREVIATIONS

#	120V	120 VOLTAGE ELECTRICAL RECEPTACLE
	208V	208 VOLTAGE ELECTRICAL RECEPTACLE
A	ADA	AMERICANS WITH DISABILITIES ACT
	AS	ADJUSTABLE SHELF
	AV	ATMOSPHERIC VENT
B	BSC	BIOLOGICAL SAFETY CABINET
C	CA	COMPRESSED AIR
	CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
	CH4	METHANE
	CHW	CHILLED WATER
	CNG	COUNTER GROMMET
	CO2	CARBON DIOXIDE
	CP	CLOSURE PANEL
	CR	CYLINDER RESTRAINTS
	CS	CUP SINK
	CSC	CEILING SERVICE COLUMN
	CSP	CEILING SERVICE PANEL
	CW	COLD WATER
D	DA	DATA RECEPTACLE
	DGV	DOUBLE GAS VALVE
	DI	DEIONIZED WATER
	DR	DRYING RACK (GLASSWARE)
	DUP	DUPLEX OUTLET
E	ELA	END LEG ASSEMBLY
	ER	EPOXY RESIN
	ESEW	EMERGENCY SHOWER EYE WASH
	EW	EYE WASH/DRENCH HOSE
F	FA	FAUCET ASSEMBLY
	FC	FILE CABINET
	FF&E	FURNITURE, FIXTURES, & EQUIPMENT
	FH	FUME HOOD
	FIL	FILLER PANEL
	FP	FOOT PEDAL
H	H2	HYDROGEN
	H2S	HYDROGEN SULFIDE
	HDS	HEAVY DUTY SHELVING
	HP	HIGH PRESSURE
	HW	HOT WATER
L	LA	LAB AIR
	LCH	LAB COAT HOOK
	LCR	LAB CORE ASSEMBLY
	LCS	LAB CUP SINK
	LFH	LAMINAR FLOW HOOD
	LM	LAB MODULE
	LN2	LIQUID NITROGEN
	LS	LIGHT SWITCH
	LSK	LAB SINK
	LV	LAB VACUUM
M	MKB	MARKERBOARD
N	N2	NITROGEN
	NH3	AMONIA
	NO2	NITROGEN DIOXIDE
	NIC	NOT IN CONTRACT
O	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
	OFOI	OWNER FURNISHED OWNER INSTALLED
	OH	OPPOSITE HAND
	OSC	OVERHEAD SERVICE CARRIER
P	PCH	PIPE CHASE
	PCWR	PROCESS COOLING WATER RETURN
	PCWS	PROCESS COOLING WATER SUPPLY
	PE	POINT EXHAUST
	PO	POWER OUTLET
	PPR	PAPER DISPENSER
	PRF	PRE RINSE FIXTURE
	PW	PURE WATER
Q	QGV	QUAD GAS VALVE
R	RO	REVERSE OSMOSIS WATER
	RODI	REVERSE OSMOSIS DEIONIZED WATER
S	SG	SPECIALTY GAS
	SGV	SINGLE GAS VALVE
	SO	SENSOR OPERATED
	SPD	SOAP DISPENSER
	SR	SURFACE RACEWAY
	SUL	SULPHER
	SVF	SERVICE FIXTURE
	SVG	SERVICE FIXTURE GROUP
T	TBD	TO BE DETERMINED
	TL	TASK LIGHT
	TLO	TELECOMM OUTLET
	TRC	TRASH RECEPTACLE
U	UON	UNLESS OTHERWISE NOTED
V	VAB	VACUUM BREAKER
	VIF	VERIFY IN FIELD
W	WFA	WALL FRAME ASSEMBLY
	WSH	WIRE SHELF
	WSL	WIRE SHELVING WITH GROW LIGHTS

LINE TYPE LEGEND



PLAN SYMBOLS - 1/2" = 1'-0"

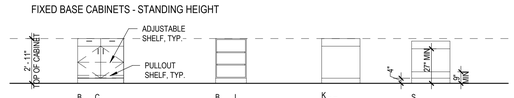


GENERAL CASEWORK NOTES

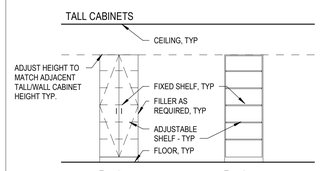
1. ALL HALF-TONE ITEMS ON THE Q7 ENLARGED PLANS PERTAIN TO WORK BY OTHER DISCIPLINES, OR ARE EXISTING PER ARCHITECTURAL DRAWINGS. ALL WORK IN DIVISION 11/12 IS FULL TONE
2. ASEWORK IS IDENTIFIED WITH A CASEWORK TYPE SYMBOL. REFER TO CASEWORK TYPE SYMBOL DEFINITION FOR MORE DETAIL.
3. MAINTAIN THE OVERALL NOMINAL HEIGHT OF BASE CABINET TOPS AS SHOWN ON DRAWINGS. BEGIN INSTALLATION OF CASEWORK AT THE HIGH POINT OF THE FLOOR AT EACH BENCH WITH THE LEVELERS SCREWED IN AS FAR AS POSSIBLE.
4. OVERALL LENGTH OF BENCH TOPS EQUALS THE DIMENSIONED LENGTH OF THE CASEWORK, PLUS 1/2 INCH OVERHANG AT EACH END.
5. ROOM WALL FINISH BASE TO BE APPLIED TO FIXED CASEWORK/COMPONENTS AT FLOOR CONDITIONS.
6. REFER TO E SERIES FOR LOCATIONS AND SPECIFICATION OF TASK LIGHTS AT UNDERSIDE OF WALL CABINETS AND BOTTOM SHELF OF WALL FRAME ASSEMBLY. LIGHT TO BE CENTERED ON UNIT. LIGHT FIXTURE NOMINAL WIDTH SHALL MATCH ACTUAL CASEWORK UNIT DIMENSION. NO VALANCE UON ON ELEVATION
7. SINK ACCESSORIES (SOAP, PAPER TOWEL DISPENSERS) SHALL BE OWNER PROVIDED AND CONTRACTOR INSTALLED, UON.
8. PROVIDE LOCKS AT TALL CABINETS AND AS DESIGNATED WITH CHARACTER 'Q'.
9. PROVIDE 2'-6" DEEP SINGLE-SIDED WALL BENCH TOPS AND TABLE SURFACES, INCLUDING BACKSPLASH AND 1" FRONT OVERHANG, UON.
10. CHAIRS INDICATED IN THE Q SET ARE FOR INFORMATION ONLY.
11. ACCESSIBLE LOCATIONS ARE INDICATED ON FLOOR PLANS WITH A HATCH (REFER TO PLAN SYMBOLS FOR HATCH PATTERN). MODIFY STANDING HEIGHT CABINETS TO FIT UNDER BENCH TOPS INDICATED AT +34" FOR ACCESSIBLE COMPLIANCE.
12. CASEWORK EQUAL OR LESS THAN 24" IN WIDTH SHALL HAVE A SINGLE HINGED DOOR.
13. PROVIDE LABORATORY GRADE WOOD CASEWORK, AND EPOXY COUNTERTOPS, UON. NEW AND MODIFIED CASEWORK & COUNTERTOPS TO MATCH EXISTING CASEWORK AND COUNTERTOP IN B1800

CASEWORK LEGEND

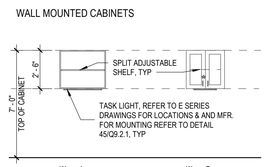
FIXED BASE CABINETS - STANDING HEIGHT



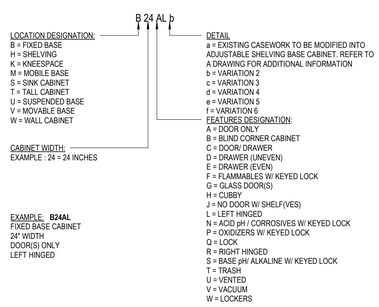
TALL CABINETS



WALL MOUNTED CABINETS

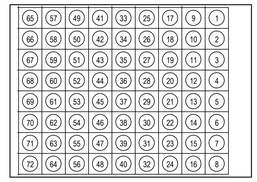


CASEWORK TYPE SYMBOL



EXAMPLE: **B24AL**
FIXED BASE CABINET
24" WIDTH
DOOR(S) ONLY
LEFT HINGED

DETAIL NUMBERING AND PAGE LAYOUT GUIDE

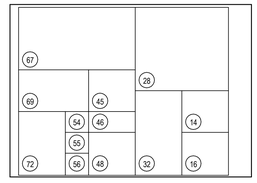


DETAIL MODULE LAYOUT

DETAILS ARE NUMBERED ACCORDING TO THEIR LOCATION ON EACH SHEET AND ARE NOT NUMBERED CONSECUTIVELY. EACH MODULE MAINTAINS THE NUMBER ASSOCIATED WITH IT

THIS SYSTEM CAN BE APPLIED TO ANY SHEET THAT CONTAINS MULTIPLE IMAGES. THE IMAGES ARE NUMBERED ACCORDING TO THE MODULE SYSTEM SHOWN ILLUSTRATED TO THE LEFT

EACH DETAIL MAY OCCUPY ONE OR MORE WHOLE MODULES. THE DETAIL MODULE IS USED TO ESTABLISH THE IDENTIFYING LABEL FOR EACH DETAIL, NOT TO LIMIT THE SIZE OF THE DETAIL



DETAIL NUMBERING EXAMPLE

THE NUMBER OF THE MODULE WHICH OCCURS IN THE LOWER LEFT CORNER OF A SINGLE MODULE OR SEVERAL MODULES GROUPED TOGETHER WILL DEFINE THE FINAL DETAIL NUMBER AS SHOWN IN THE ILLUSTRATION TO THE LEFT. ALTHOUGH THE MODULE NUMBERS OCCUR IN CONSECUTIVE ORDER, NOT ALL NUMBERS ARE NECESSARILY USED ON EACH SHEET

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3000 CAMPUS HILL DR
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ISSUED FOR	REV NO.	DATE
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SEALS AND SIGNATURES

LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
STATE OF CALIFORNIA

SHEET TITLE
BUILDING 1800 - GENERAL INFORMATION & CASEWORK LEGEND

14794
PROJECT NUMBER

CD
Q0.2.1
SHEET NUMBER

Author
7/22/2025 3:17:31 PM
Plot Date:

SERVICE FIXTURE SCHEDULE - CFCI

TAG	SERVICE(S)	MOUNTING	DESCRIPTION
MF/1	INDUSTRIAL HOT/COLD	DECK	LABORATORY MIXING FAUCET,WRIST BLADE HANDLES, 10-INCH RIGID/SWING GOOSENECK, AERATOR END, INDUSTRIAL WATER SIGN
SVG-21	NATURAL GAS	DECK	SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END
	VACUUM		SINGLE BALL VALVE, 1/4-TURN HANDLE, SERRATED HOSE END

NOTE: THIS SERVICE FIXTURE SCHEDULE IS BASED ON THE SCHEDULE FOR B1500.
ALL SERVICES THAT DO NOT EXIST IN B1800 HAVE BEEN REMOVED

FIXTURE LEGEND

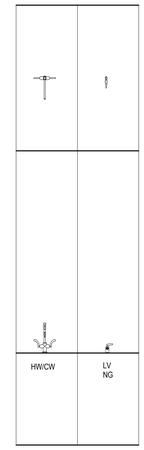
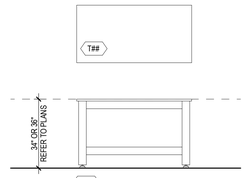


TABLE LEGEND

T## TABLE SCHEDULE - CFCI

TAG	W	D	H	TOP MATERIAL	FRAME MATERIAL	COMMENT
T06	6' - 0"	3' - 0"	3' - 0"	EPOXY	WOOD	HEAVY DUTY. FINISHES TO MATCH EXISTING CASEWORK. REFER TO TABLE DETAIL ON SHEET Q9.2.1

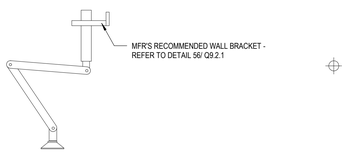


MOVABLE TABLE
ON GLIDES

NOTE:
ALL TABLES TO HAVE SIDE & CENTER STRETCHERS

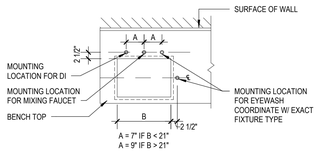
POINT EXHAUST SCHEDULE (PE##) - CFCI

TAG	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING	EXHAUST	STATIC PRESSURE	MECHANICAL NOTES	COMMENTS
PE01a	POINT EXHAUST WITH ADJUSTABLE ARM	MOVEX	MiniTEX 3" DIA	WALL	140 CFM	1	DOME HOOD	

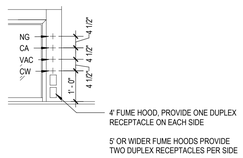


ELEVATION PLAN

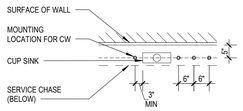
TYPICAL SERVICE FIXTURE DIMENSIONS



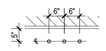
CONDITION AT LAB SINK
(PLAN VIEW)



CONDITION AT FUME HOOD
(ELEV. VIEW)



CONDITION AT CUPSINK WALL
(PLAN VIEW)



CONDITION AT WALL
(PLAN VIEW)

SINK LEGEND

SINK SCHEDULE - CFCI

TAG	MOUNTING	MATERIAL	W	D	H	COMMENTS
LSK-03	DROP-IN	EPOXY RESIN	2' - 1"	1' - 3"	0' - 5"	ADA COMPLIANT STEP SINK.5'/11" HEIGHT

NOTE: THIS SINK SCHEDULE IS BASED ON THE SCHEDULE FOR B1500.
ALL SINKS THAT DO NOT EXIST IN B1800 HAVE BEEN REMOVED

PLAN



ELEVATION



LAS POSITAS COLLEGE

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ISSUED FOR	REV NO.	DATE
PERMIT SET		24JUL2025

SEALS AND SIGNATURES

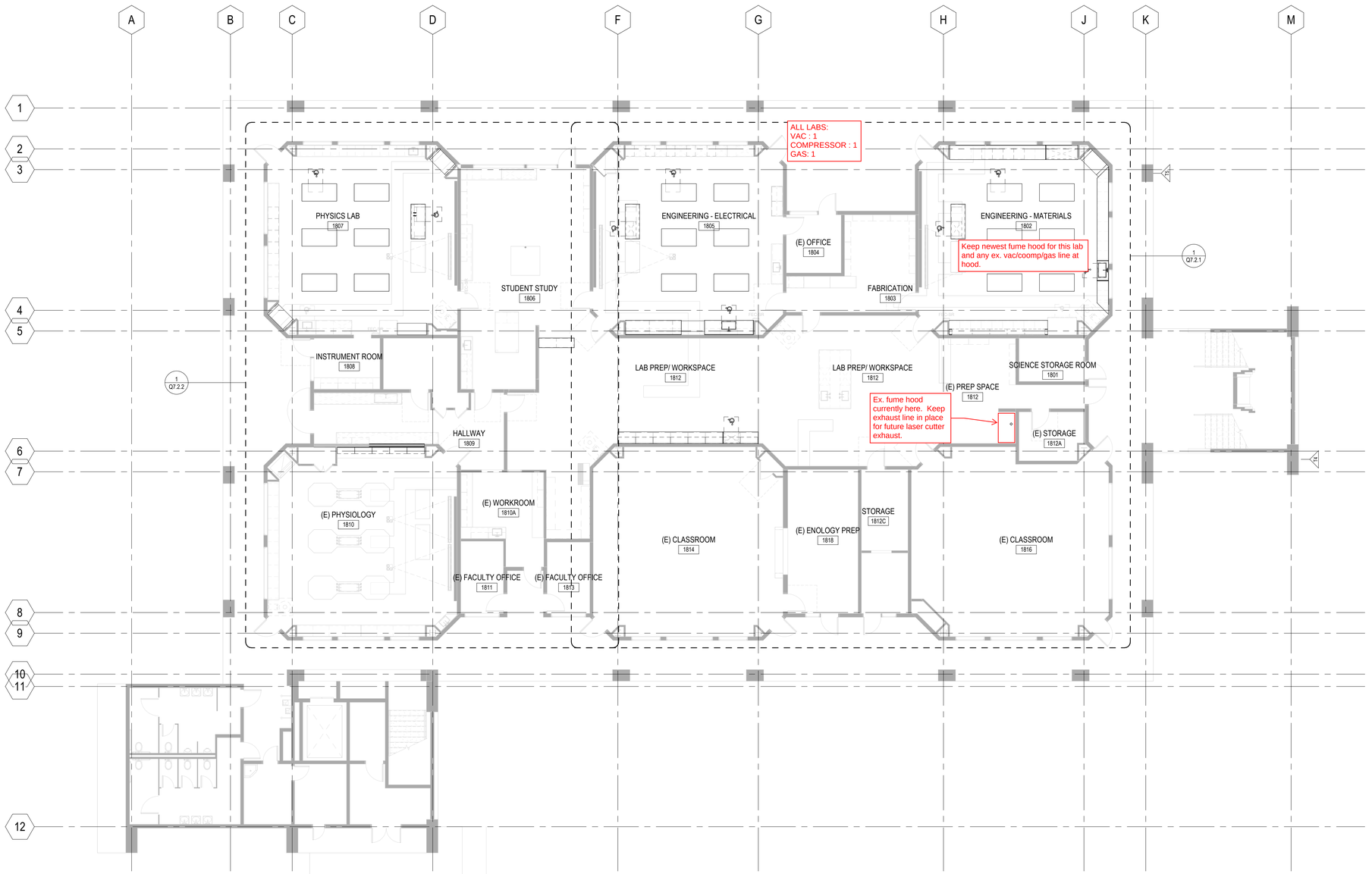
LICENSED ARCHITECT
CAREY S. WOO
C-25287
3 / 31 / 2027
Renewal Date
OF CALIFORNIA

SHEET TITLE
BUILDING 1800 - CASEWORK & EQUIPMENT SCHEDULES

14794
PROJECT NUMBER

CD **Q1.2.1**
SHEET NUMBER

Author
7/22/2025 3:17:31 PM
Plot Date:



1 B1800 - LEVEL 1 LAB FLOOR PLAN
SCALE: 1/8" = 1'-0"

Author

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LAS POSITAS COLLEGE

INCREMENT II -
STEAM BUILDING PROJECT

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C-25287
3 / 31 / 2027
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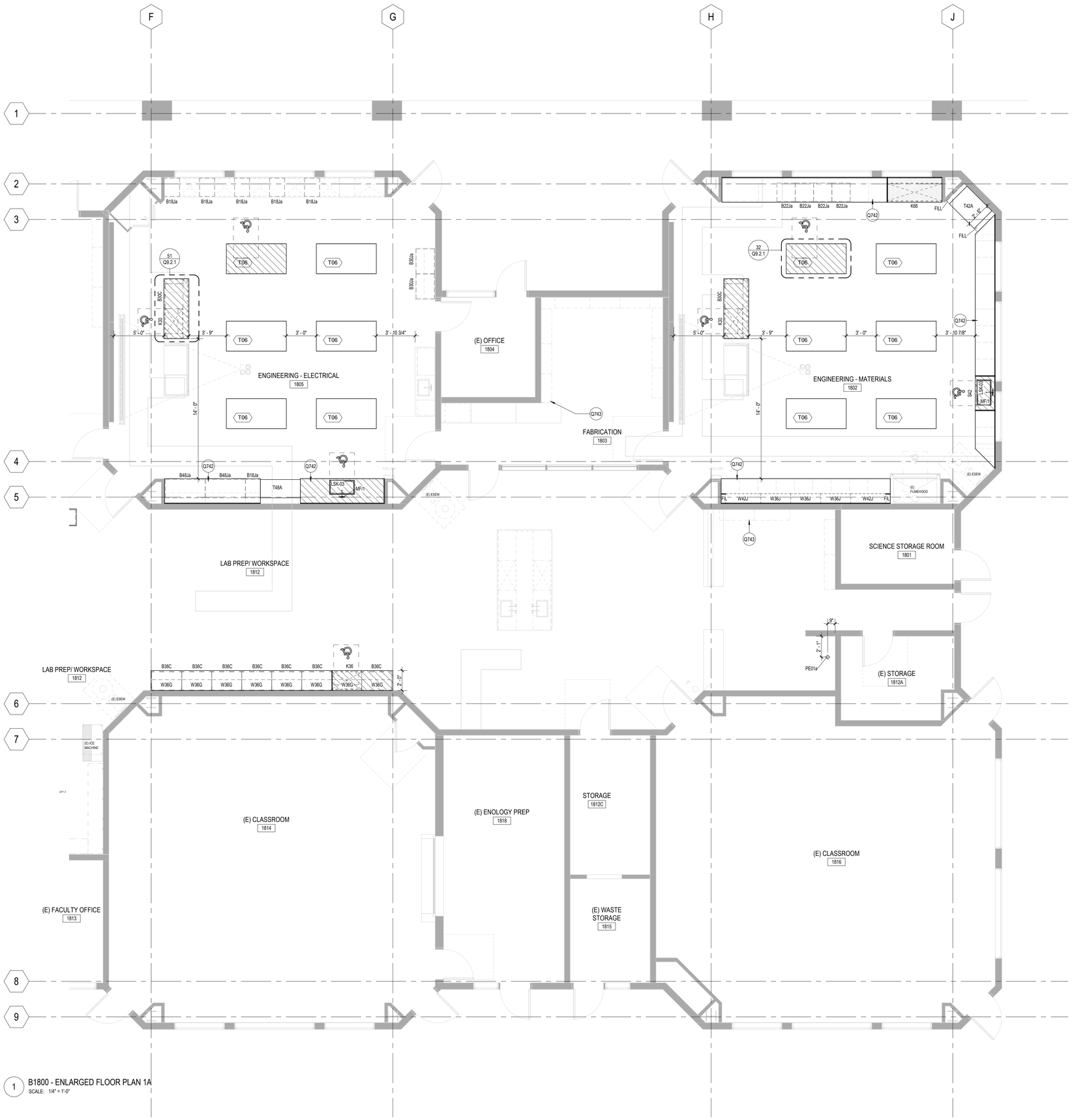
STATE OF CALIFORNIA

PROJECT NORTH

SHEET TITLE
BUILDING 1800 - LEVEL 1
LAB FLOOR PLAN

[alt. project number] 14794
PROJECT NUMBER

CD **Q2.2.1**
SHEET NUMBER



1 B1800 - ENLARGED FLOOR PLAN 1A
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
B. REFER TO Q0.2.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- GENERAL CASEWORK NOTES
- EQUIPMENT ABBREVIATIONS
- TYPICAL MOUNTING HEIGHTS
- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- CASEWORK TYPE SYMBOLS AND ELEVATIONS

C. REFER TO Q1.2.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE
- TABLE LEGEND AND SCHEDULE
- POINT EXHAUST SCHEDULE

SHEET KEYNOTES

Q742 THIS WHOLE LENGTH OF COUNTERTOP TO BE DEMOLISHED. CABINETS TO REMAIN. CAP ALL UNUSED SERVICES PRIOR TO INSTALLATION OF NEW COUNTERTOP. NEW COUNTERTOP TO MATCH EXISTING

Q743 EXISTING CASEWORK TO REMAIN, TYPICAL

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

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SHEET TITLE
BUILDING 1800 - ENLARGED FLOOR PLAN - LEVEL 1 AREA 1

14794
PROJECT NUMBER

CD **Q7.2.1**
SHEET NUMBER

Author
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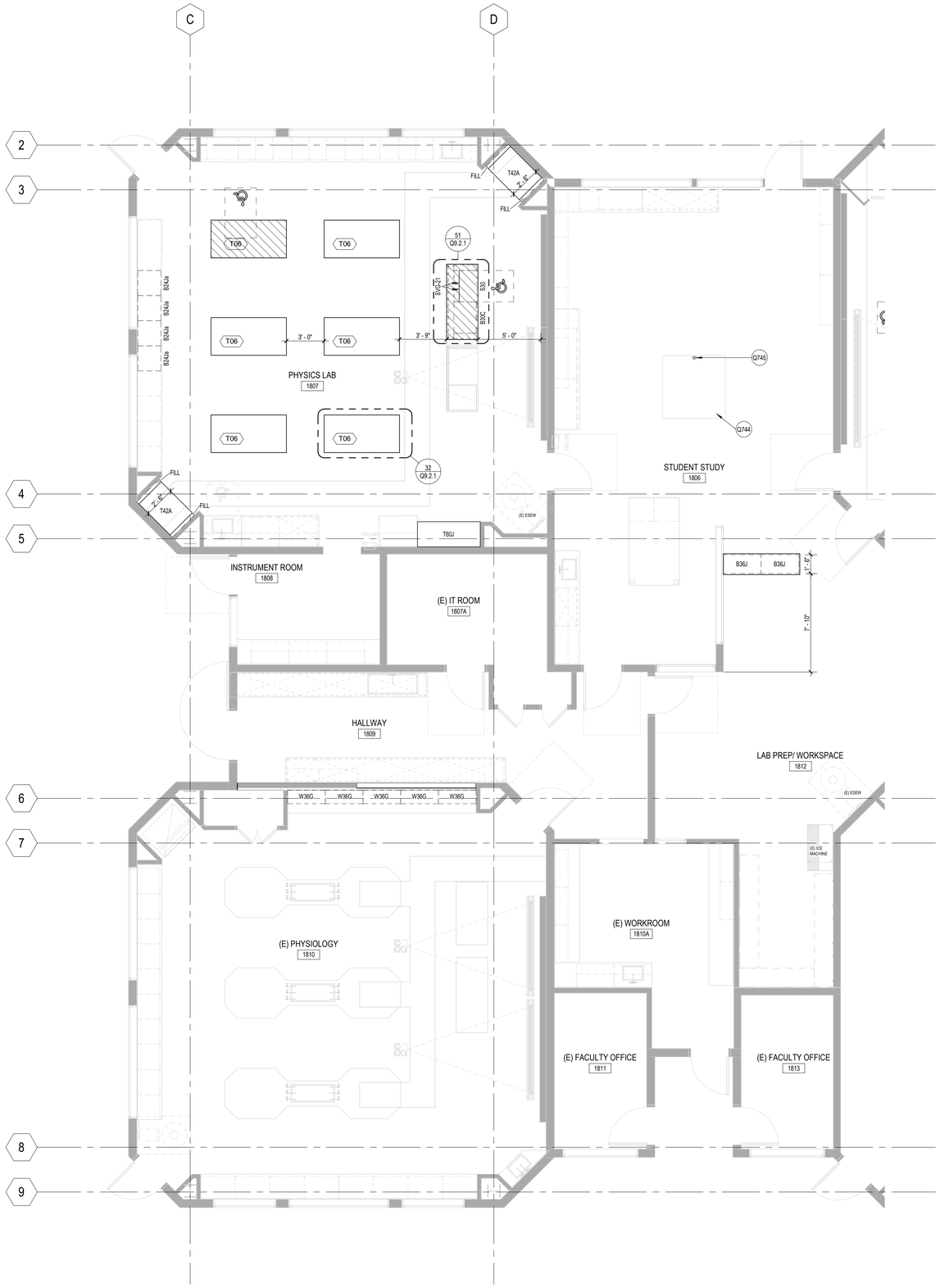

1 B1800 - ENLARGED FLOOR PLAN 1B
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO AND COORDINATE WITH CIVIL, LANDSCAPE, STRUCTURAL, ARCHITECTURE, MECHANICAL, PLUMPING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
B. REFER TO Q0.2.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- GENERAL CASEWORK NOTES
- EQUIPMENT ABBREVIATIONS
- TYPICAL MOUNTING HEIGHTS
- TYPICAL ACCESSIBLE DIMENSIONS AND CLEARANCES
- PLAN SYMBOLS
- CASEWORK TYPE SYMBOLS AND ELEVATIONS

C. REFER TO Q1.2.1 FOR SPECIFIC & ADDITIONAL INFORMATION FOR:
- FIXTURE LEGENDS
- SERVICES FIXTURE SCHEDULE
- TYPICAL SERVICE FIXTURE DIMENSIONS
- LAB SINK LEGEND AND SCHEDULE
- TABLE LEGEND AND SCHEDULE
- POINT EXHAUST SCHEDULE

SHEET KEYNOTES

Q744 EXISTING TABLE TO REMAIN. PATCH AND REPAIR TABLE AS NEEDED AFTER ISLAND BENCH DEMOLITION
Q745 EXISTING POWER POLE & POWER CONNECTION TO REMAIN. PROVIDE ADDITIONAL SUPPORT TO POLE AS NEEDED AFTER ISLAND BENCH DEMOLITION

CASEWORK LEGEND

SITTING HEIGHT CABINETS ARE INDICATED IN PLAN WITH A STIPPLE HATCH PATTERN

ACCESSIBLE HEIGHT CABINETS ARE INDICATED IN PLAN WITH A DIAGONAL HATCH PATTERN

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STEAM BUILDING PROJECT

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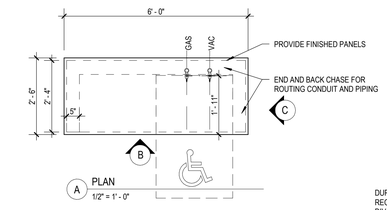
SHEET TITLE
BUILDING 1800 - ENLARGED FLOOR PLAN - LEVEL 1 AREA 2

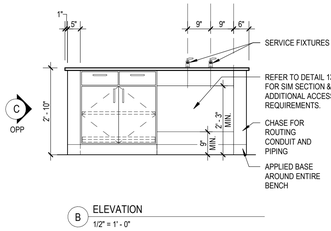
14794
PROJECT NUMBER
CD
SHEET NUMBER
Q7.2.2

Plot Date: 7/22/2025 3:17:33 PM
Author

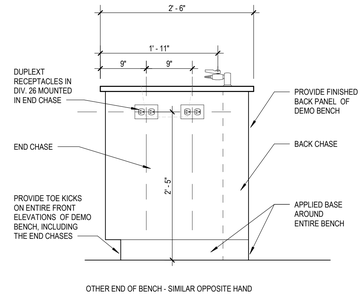
NOTES:
1. FOR BASE CABINET ANCHORING REFER TO 11/Q9.2.1 BASE CABINET ANCHORING DETAILS
2. ENGINEERING DEMO BENCHES ARE SIMILAR EXCEPT NO GAS AND NO LAB VACUUM
3. REFER TO Q7 SERIES FOR BASE CABINET TAGS
4. CASEWORK FINISHES TO MATCH EXISTING



A PLAN
1/2" = 1' - 0"



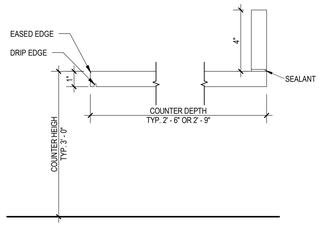
B ELEVATION
1/2" = 1' - 0"



OTHER END OF BENCH - SIMILAR OPPOSITE HAND

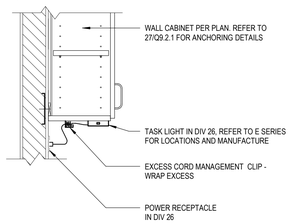
C END ELEVATION
1" = 1' - 0"

51 DETAIL - INSTRUCTOR DEMO BENCH - PHYSIC LAB
SCALE: 1/2" = 1'-0"

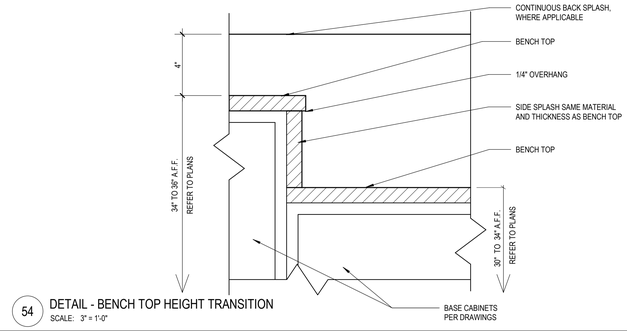


EPOXY COUNTER DETAIL **TYPICAL EDGE AND BACKSPLASH**
SOLID EPOXY
REFER TO SPECIFICATIONS FOR TYPE AND COLOR

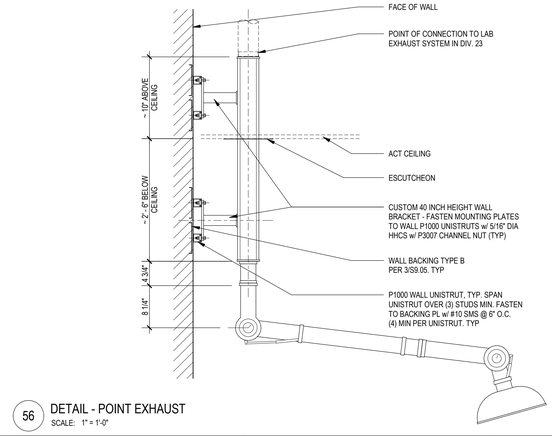
53 DETAIL - BENCH TOP COUNTER DETAIL
SCALE: 3" = 1'-0"



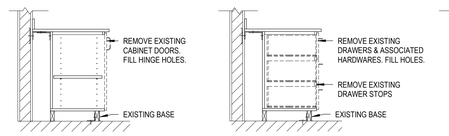
45 DETAIL - TASK LIGHT MOUNTING
SCALE: 1" = 1'-0"



54 DETAIL - BENCH TOP HEIGHT TRANSITION
SCALE: 3" = 1'-0"



56 DETAIL - POINT EXHAUST
SCALE: 1" = 1'-0"



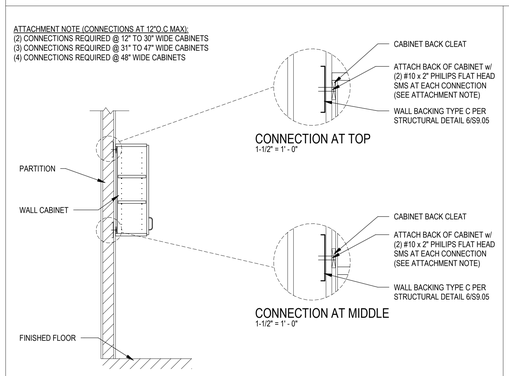
A EXISTING CABINET - DOOR FRONT
1/2" = 1' - 0"

B EXISTING CABINET - DRAWERS
1/2" = 1' - 0"

C CONVERTED TO OPEN SHELVES
1/2" = 1' - 0"

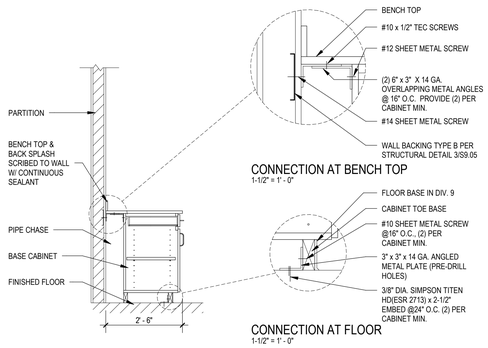
NOTES:
1. INSPECT ALL MODIFIED CABINETS FOR DAMAGE AND REPAIR.
2. IF DAMAGE TO EXPOSED FACES IS GREATER THAN 2" x 2" PROVIDE NEW PANEL.
3. AT EXISTING CABINETS WIDER THAN 48", PROVIDE CENTER VERTICAL DIVIDER WITH (2) COLUMNS OF DRILLED HOLES FOR ADJUSTABLE SHELVES.
4. FILL ANY EXPOSED/UNUSED HOLES & CRACKS.
5. ANY UNFINISHED EXPOSED SURFACES TO BE FINISHED TO MATCH EXISTING
6. ALL REPLACED WOOD TO MATCH EXISTING CASEWORK SPECIES, CUT, STAIN AND FINISH.

25 DETAIL - MODIFIED BASE CASEWORK - TO OPEN ADJUSTABLE SHELVES
SCALE: 1/2" = 1'-0"

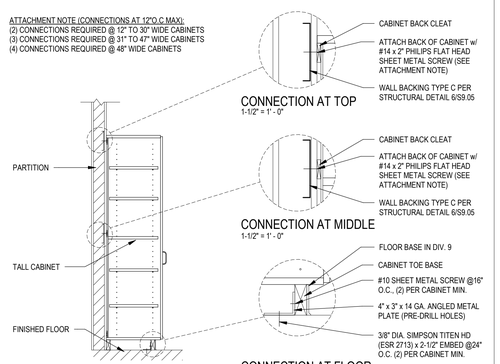


NOTE:
ANCHORING FOR WALL SHELVING IS SIMILAR

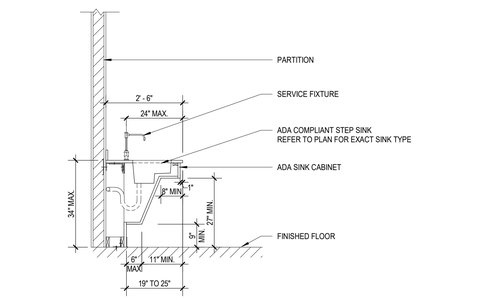
27 DETAIL - WALL CABINET ANCHORING
SCALE: 1/2" = 1'-0"



11 DETAIL - BASE CABINET SEISMIC ANCHORING
SCALE: 1/2" = 1'-0"

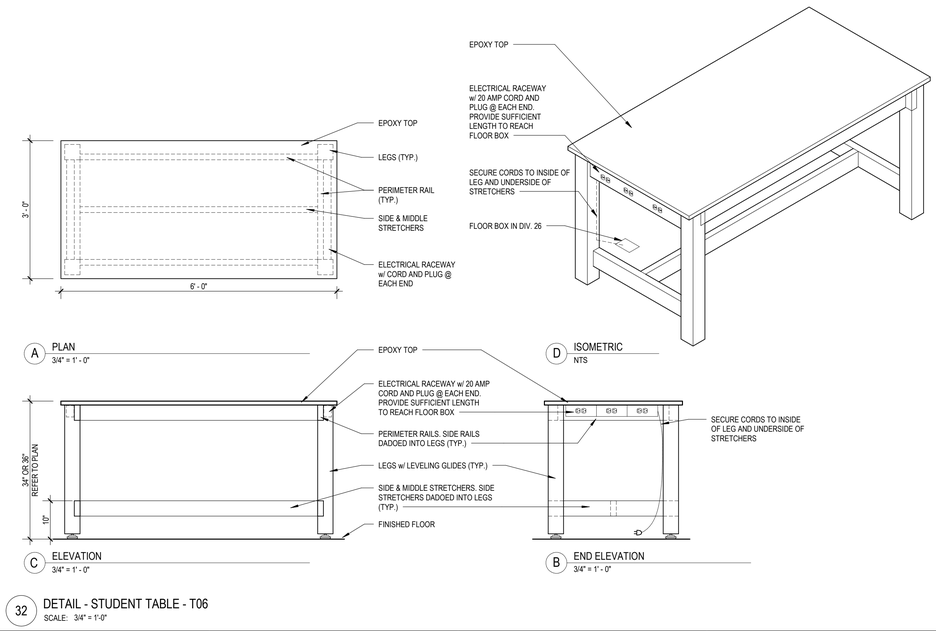


29 DETAIL - TALL CABINET ANCHORING
SCALE: 1/2" = 1'-0"



NOTE:
SINK CABINET ANCHORING TO BE SIMILAR TO BASE CABINET ANCHORING REFER TO 11/Q9.2.1

13 DETAIL - BASE CABINET - ADA SINK
SCALE: 1/2" = 1'-0"



32 DETAIL - STUDENT TABLE - T06
SCALE: 3/4" = 1'-0"

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