HILLSIDE EROSION RESTORATION

3000 CAMPUS HILL DR, LIVERMORE, CA

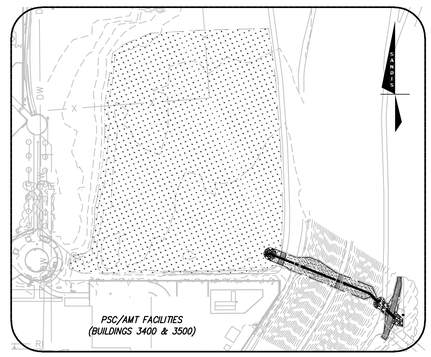
LEGEND

	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		8" SD
WATER MAIN	6" W	8" W
FIRE WATER MAIN	6" FW	8" FW
DOMESTIC WATER MAIN	6" DW	8" DW
CHILLED WATER MAIN	6" CHW	8" CHW
IRRIGATION LINE	2" IRR	8" 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 85
SPOT ELEVATION	x 95.94	FG 95.94
DIRECTION OF SLOPE		2:1 1%
GAS METER	G	GM
GAS VALVE	GV	GV
WATER METER	W	WM
WATER VALVE	WV	WV
FIRE HYDRANT		
BACK FLOW PREVENTOR		
POST INDICATOR VALVE	PIV	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 / C5.00 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

VICINITY MAP



KEY MAP

CONSTRUCTION NOTES

1. ALL ON-SITE CONSTRUCTION MATERIAL AND METHODS SHALL COMPLY WITH THE WITH THE LATEST EDITION OF THE AMERICAN NATIONAL STANDARDS INSTITUTE, COUNTY OF ALAMEDA STANDARD PLANS AND SPECIFICATIONS, AMERICAN CONCRETE INSTITUTE, AMERICAN SOCIETY FOR TESTING AND MATERIALS, STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS, CALIFORNIA CODE OF REGULATIONS, CITY OF LIVERMORE STANDARD PLANS & SPECIFICATIONS, AND THE LATEST CALTRANS STANDARD SPECIFICATIONS (2015).
2. CONTRACTOR SHALL POST ON THE SITE, EMERGENCY TELEPHONE NUMBERS FOR AMBULANCE, POLICE, AND FIRE DEPARTMENTS.
3. 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.
4. UTILITIES AND UNDERGROUND FACILITIES INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH WITH THE APPROPRIATE AGENCIES. NEITHER THE OWNER NOR THE CITY NOR THE DESIGN PROFESSIONAL ASSUMES RESPONSIBILITY THAT THE UTILITIES AND UNDERGROUND FACILITIES INDICATED WILL BE THE UTILITIES AND UNDERGROUND FACILITIES ENCOUNTERED.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, LOCATE AND MARK, AND PROTECT ALL UNDERGROUND FACILITIES. CONTRACTOR TO CONTACT DISTRICT FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK
6. THE CONTRACTOR SHALL HIRE A STREET CLEANING CONTRACTOR TO CLEAN UP DIRT AND DEBRIS FROM CITY STREETS AND CAMPUS STREETS AND PARKING LOT THAT ARE ATTRIBUTABLE TO THE DEVELOPMENT'S CONSTRUCTION ACTIVITIES.
7. 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).
8. ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO.
9. ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY DURING THE CONSTRUCTION PERIOD.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OF UNDERGROUND AND ABOVE GROUND FACILITIES DAMAGED DURING THE CONSTRUCTION PERIOD, INCLUDING BUT NOT LIMITED TO FLAT WORK, SITE WORK, AND LANDSCAPING.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL ENCROACHMENT, EXCAVATION, CONCRETE, ELECTRICAL, PLUMBING, ETC. PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION FOR ANY WORK.
13. THE CONTRACTOR SHALL HAVE A SUPERINTENDENT OR REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.
14. STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON CITY AND CAMPUS STREETS WILL NOT BE PERMITTED.
15. CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MUFFLED. UNNECESSARY IDLING OF GRADING CONSTRUCTION EQUIPMENT IS PROHIBITED.
16. CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER OR STORM DRAIN.
17. 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.
18. ALL CONSTRUCTION DEBRIS SHALL BE GATHERED ON A DAILY BASIS AND PLACED IN A DUMPSTER PROVIDED BY THE CONTRACTOR 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.
19. ANY TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS. TARP SHALL BE SECURED IN SUCH A WAY THAT PREVENTS REMOVAL OR DAMAGE OF MATERIAL DUE TO ENVIRONMENTAL CONDITIONS.
20. CONCRETE TRUCKS AND CONCRETE FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.
21. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL BE CALTRANS CLASS 2 WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

SURVEY NOTES

1. ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. DATES OF FIELD SURVEY: 08/09/2023.
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'	1,318,3.80'	1,329,0.31'	CUT X
2	538.60'	1,312,2.23'	1,379,5.66'	HUB & TACK
3	539.04'	1,312,9.54'	1,357,8.72'	HUB & TACK

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. 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.
4. CONTRACTOR AGREES THAT THEY 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.

GENERAL UTILITY NOTES

1. ALL TRENCHES SHALL BE BACK FILLED PER THE GEOTECHNICAL REPORT OR UTILITY OWNERS STANDARD DETAILS AND SPECIFICATIONS.
2. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
3. 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.

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.

SOILS REPORT

PROJECT HAS BEEN BASED UPON THE GEOTECHNICAL EVALUATION & GEOLOGIC HAZARDS ASSESSMENT DEVELOPED BY THE ADJACENT VITICULATURE FACILITY PROJECT, PROVIDED IN THE NINYO & MOORE GEOTECHNICAL EXPLORATION REPORT DATED 01/14/21. SUPPLEMENTAL RECOMMENDATIONS WERE PROVIDED BY ROCKRIDGE GEOTECHNICAL. ALL WORK SHOULD BE DONE IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS.

DEMOLITION NOTES

1. CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).
2. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
5. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
6. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
7. PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS OTHERWISE NOTED. REPLACE ANY DAMAGED UTILITY TO REMAIN TO KEEP OPERABLE DURING CONSTRUCTION.
8. ALL UTILITY SHUT DOWNS ARE TO BE AVOIDED. IF SHUT DOWNS ARE NECESSARY, CONTRACTOR TO COORDINATE SHUT DOWN WITH UTILITY OWNER WITH 48 HOUR MINIMUM NOTICE.
9. SECURE ALL REQUIRE PERMITS OR CERTIFICATES FOR DEMOLITION OR DISCONTINUANCE OF UTILITIES, PRIOR TO BEGINNING THE WORK.

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 CHABOT-LAS POSITAS COLLEGE DISTRICT STANDARDS.
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.

CONTACT INFO

OWNER:
CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT
CONTACT PERSON: ANN KROLL
3000 CAMPUS HILL DRIVE
LIVERMORE, CA 94551
E: AKROLL@CLPCCD.ORG
PH: 510.514.1369

CIVIL ENGINEER:
SANDIS
CONTACT PERSON: BRIAN CANCIMILLA
636 9TH STREET
OAKLAND, CA 94607
E: BCANCIMILLA@SANDIS.NET
PH: 510.873.8866

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE DEVELOPMENT OF A VACANT FIELD WITHIN THE NORTHEAST PORTION OF THE CAMPUS THAT HAS EXPERIENCED SIGNIFICANT STORMWATER PONDING AND HILLSIDE EROSION AS A RESULT OF THE RECENT STORM EVENTS. THE PROJECT WILL INSTALL A NEW STORM DRAIN CATCH BASIN AND PIPES CONVEYING RUNOFF TO THE BOTTOM OF THE SLOPE, RESTORE AND STABILIZE THE ERODED HILLSIDE AND REBUILD BENCHES AND GRAVEL PATHWAYS. THE DRAINAGE BASIN BELOW WILL BE PROTECTED USING ROCK SLOPE PROTECTION.

SHEET INDEX

811 Know what's below. Call before you dig.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

SANDIS
BUILD ON. SANDIS.NET

DATE: 12-08-23
SCALE: N.T.S.
PROJECT No.: 618184

DATE 12/11 2023
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 6-30-25

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

COVER SHEET, CONSTRUCTION NOTES, AND ABBREVIATIONS

SHEET C0.0 OF SHEETS

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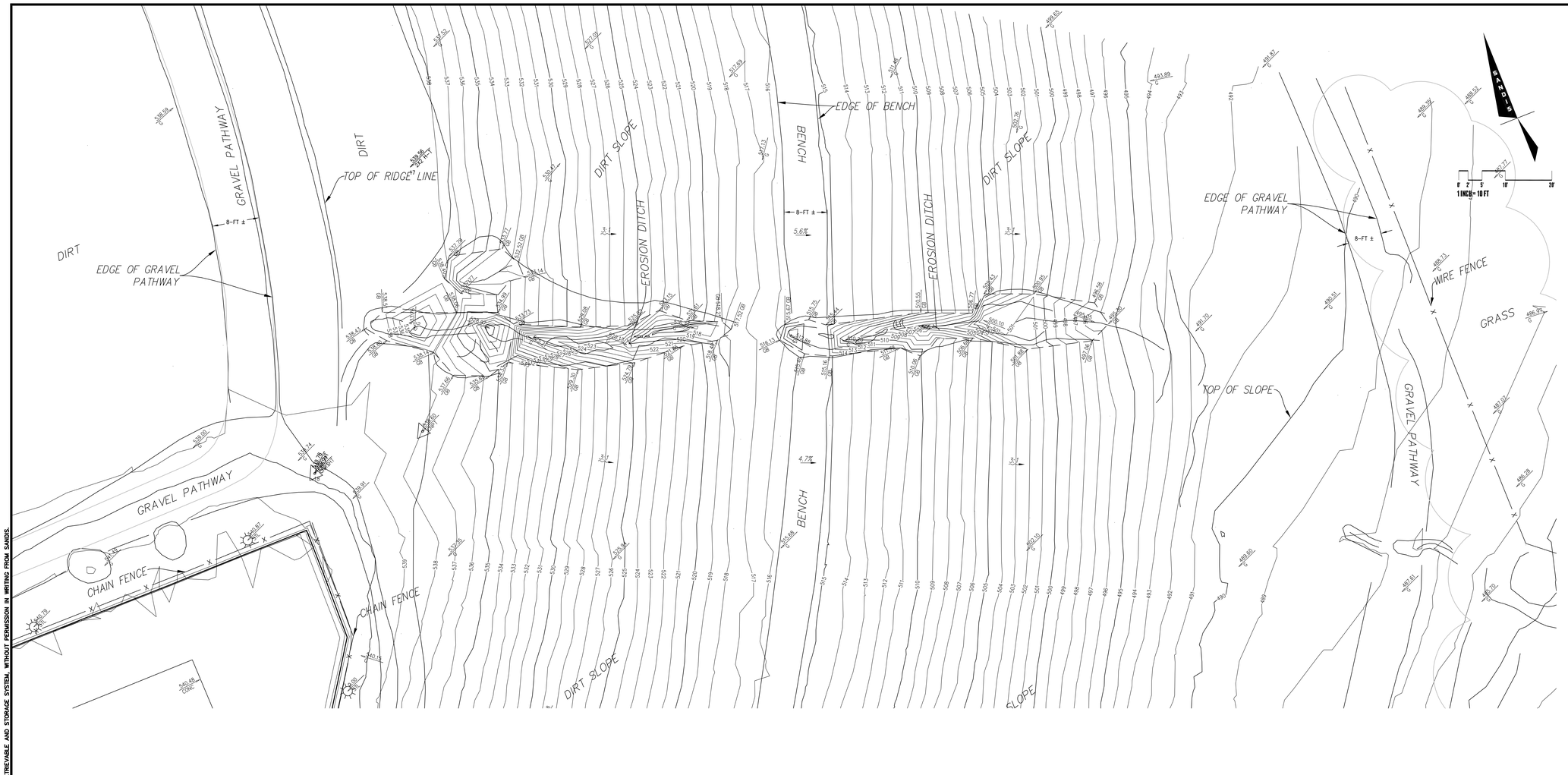

LEGEND

ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.

- CURB LINE
- 196 / 194 — CONTOURS
- X — FENCE LINE, TYPE / HEIGHT AS INDICATED
- SPOT ELEVATION

SYMBOLS & ABBREVIATIONS

BFP	◁	BACK FLOW PREVENTOR
BOL	•	BOLLARD
CNPT	△	CONTROL POINT
CONC		CONCRETE
CONC S/W		CONCRETE SIDEWALK
DD	⊕	DECK DRAIN
DI	▤	DRAIN INLET
EPB	▣	ELECTRIC PULLBOX
FH	⋇	FIRE HYDRANT
G		GROUND
GB		GRADE BREAK
L/S		LANDSCAPE
MISC-CO	⊙	MISCELLANEOUS CLEANOUT
P		PAVEMENT
STL	☼	STREET LIGHT LAMP NO ARM
WM	⋈	WATER METER
WV	⋈	WATER VALVE

SURVEY NOTES

1. ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. DATES OF FIELD SURVEY: 08/08/2023.
3. HORIZONTAL AND VERTICAL CONTROL FOR THIS SURVEY ARE ON AN ASSUMED BASIS.

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.

SANDIS
BUILD ON.
SANDIS.NET

DATE: 12-08-23
SCALE: 1"=10'
PROJECT No.: 618184

DATE 12/11 2023
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25
REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. KUYKENDALL — No. 70870 — Exp. 6/30/25 — CIVIL — STATE OF CALIFORNIA

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

EXISTING CONDITIONS PLAN

SHEET C1.0 OF SHEETS

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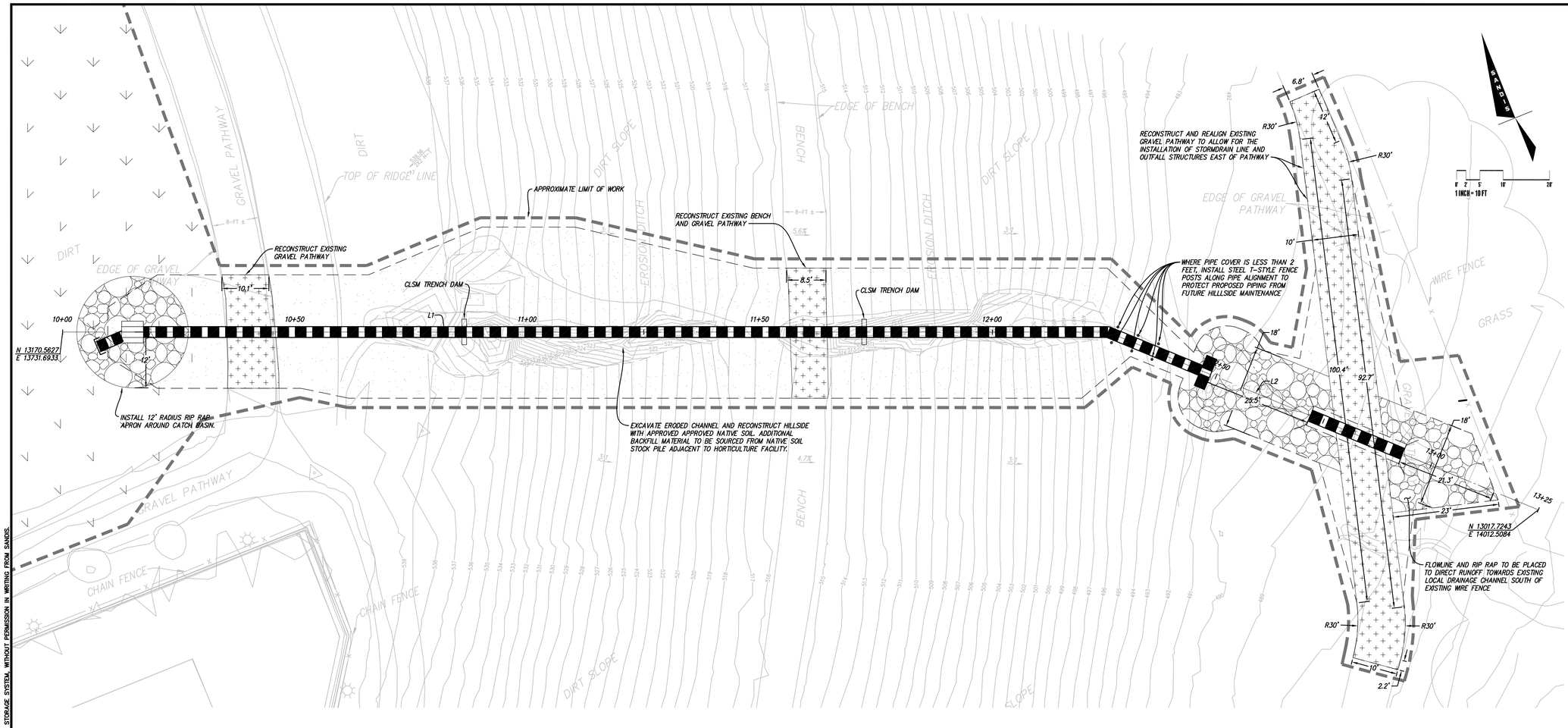
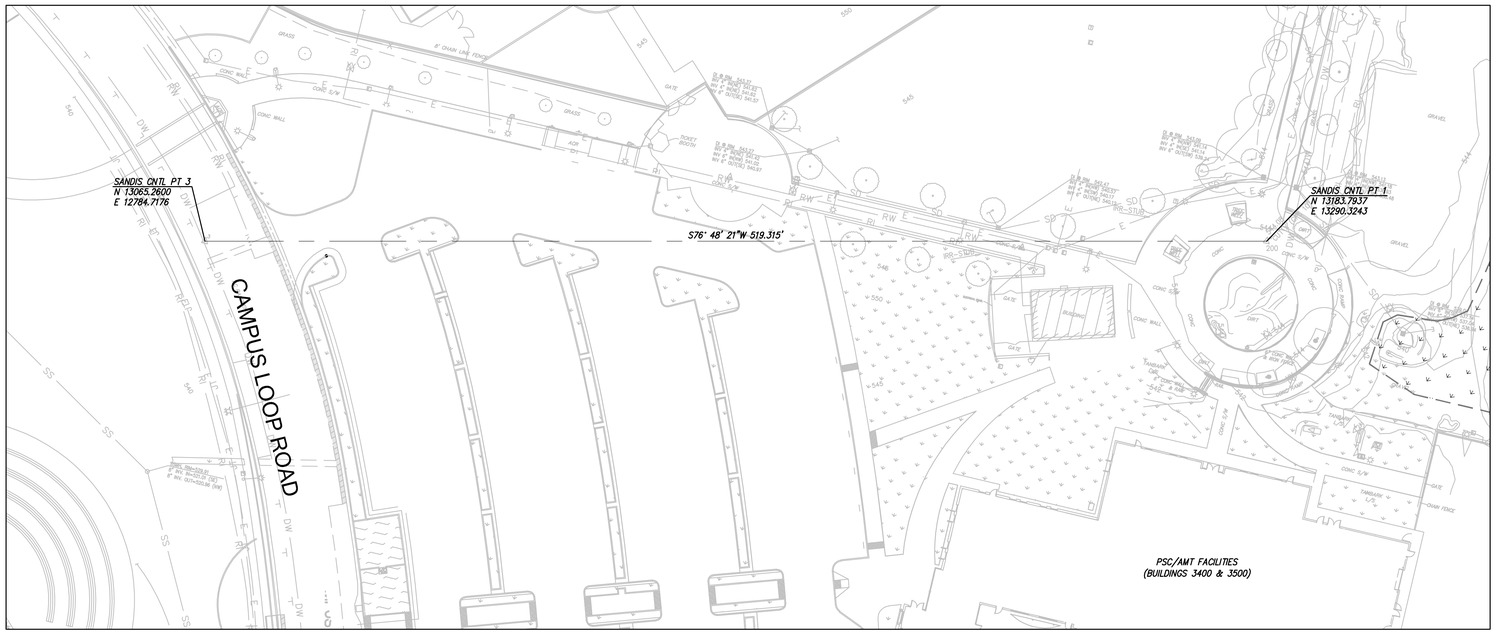


LEGEND

- APPROXIMATE LIMIT OF WORK
- EXTENT OF TRENCH BACKFILL/HILLSIDE RESTORATION
- STORM DRAIN PIPE (HDPE TYPE S)
- GRAVEL ROAD (3 / C4.0)
- TRENCH BACKFILL/HILLSIDE RESTORATION (1 / C4.0)
- RIP RAP (4 / C4.0)

ALIGNMENT SECTIONS

LINE TABLE		
LINE	BEARING	LENGTH
L1	S68°18'42"E	209.83'
L2	S45°52'09"E	100.17'



PROJECT CONTROL
1"=30'

SANDIS
BUILD ON.
SANDIS.NET

DATE: 12-08-23
SCALE: 1"=10'
PROJECT No.: 618184

DATE 12/11 2023
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25
REGISTERED PROFESSIONAL ENGINEER · MICHAEL A. KUYKENDALL · No. 70870 · Exp. 6/30/25 · CIVIL · STATE OF CALIFORNIA

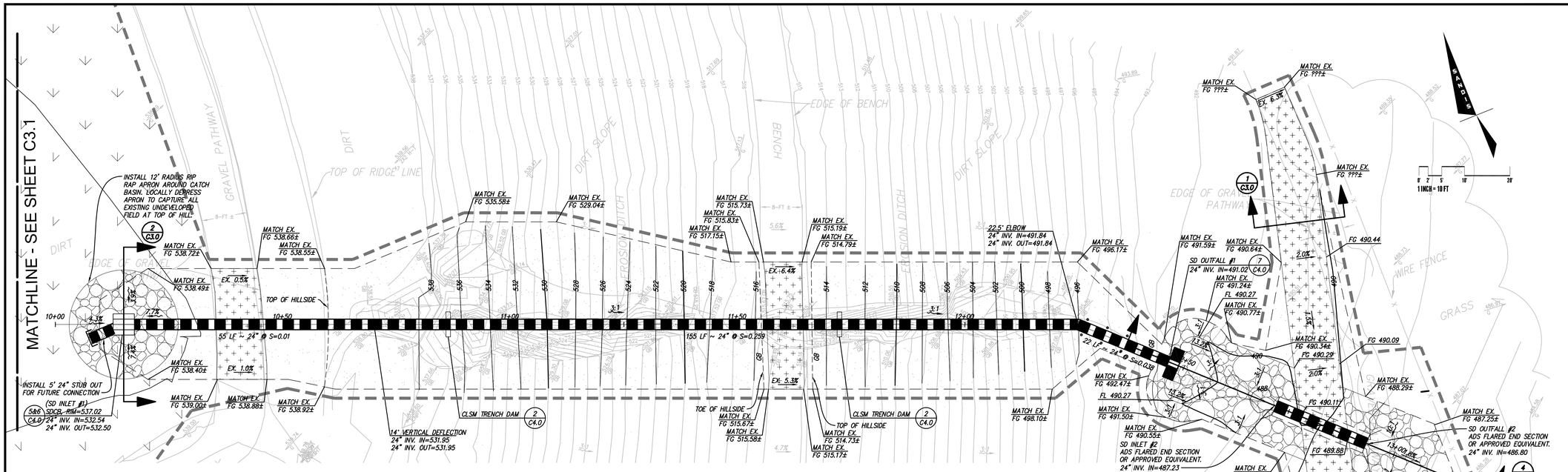
No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

HORIZONTAL CONTROL PLAN

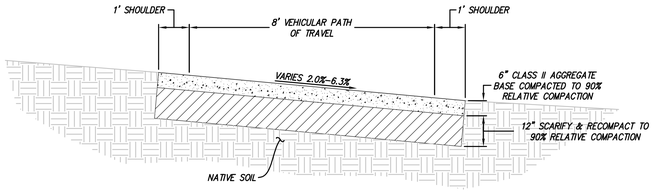
SHEET C2.0 OF SHEETS

File: X:\P\618184\HILLSIDE EROSION RESTORATION PROJECT\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C2.0 HORIZONTAL CONTROL PLAN.dwg Date: Dec 11, 2023 - 3:53 PM

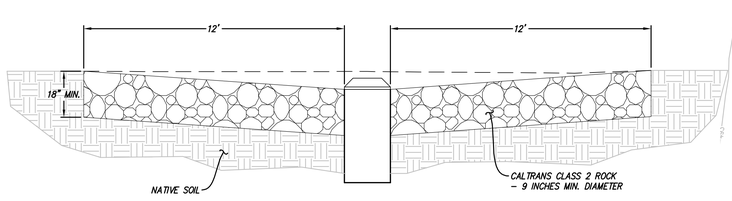


LEGEND

- APPROXIMATE LIMIT OF WORK
- EXTENT OF TRENCH BACKFILL/HILLSIDE RESTORATION
- STORM DRAIN PIPE (HDPE TYPE S)
- GRAVEL ROAD
- TRENCH BACKFILL/HILLSIDE RESTORATION
- RIP RAP



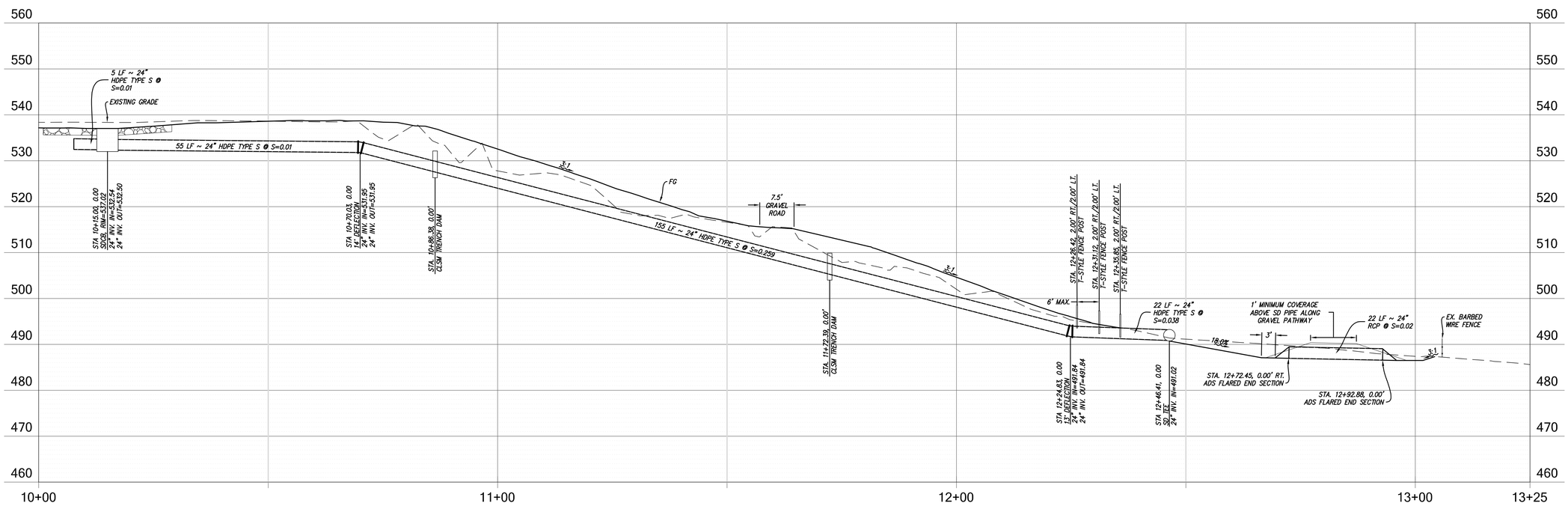
TYPICAL ROADWAY SECTION (1)
1"=2'



HILLSIDE INLET SECTION (2)
1"=4'

EARTHWORK NOTES

1. OVER EXCAVATE ERODED CHANNEL AND CONSTRUCT BENCH CONDITION PER DETAIL 1 ON SHEET C4.0. BACKFILL WITH APPROVED ON-SITE MATERIAL IN LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS AND COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. FILL SECTIONS GREATER THAN 5 FEET IN DEPTH SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.
2. FILL MATERIAL SHALL BE FREE OF ROCKS OR LUMPS IN EXCESS OF 6 INCHES IN DIAMETER, TRASH, DEBRIS, ROOTS, VEGETATION OR OTHER DELETERIOUS MATERIAL. SHALL CONTAIN LESS THAN 3 PERCENT ORGANIC CONTENT BY DRY WEIGHT.
3. THE PROJECT IS A BALANCED CONDITION AND THE FILL MATERIAL SHALL BE SOURCED FROM CUT GENERATED FROM ROUGH GRADING EFFORT SHOWN ON SHEET C3.1. CONTRACTOR SHALL SAMPLE STOCK PILE MATERIAL PRIOR USE TO CONFIRM SUITABILITY.
4. ANY MATERIAL EXCAVATED BY THE PROJECT WHICH IS UNSUITABLE FOR USE AS FILL SHALL BE DISPOSED OF ON-SITE. CONTRACTOR TO COORDINATE WITH DISTRICT REPRESENTATIVE FOR SPECIFIC LOCATION.
5. FIELD QUALITY CONTROL TO BE DONE BY FIELD OBSERVATIONS AND IN-PLACE DENSITY TEST PERFORMED BY THE DISTRICT'S TESTING AGENCY. FIELD TEST SHALL BE AT FREQUENCY NO LESS THAN EVERY LIFT AND EVERY 100 CUBIC YARDS PLACED. CONTRACTOR TO PROVIDE PROPOSED SQUENCE OF WORK TO THE DISTRICT'S REPRESENTATIVE FOR COORDINATION OF FIELD TESTING.
6. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS OR BACKFILLS ARE BELOW SPECIFIED DENSITY, CONTRACTOR SHALL REMEDY THE WORK BY SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO THE DEPTH REQUIRED, AND RE-COMPACT AND RETEST UNTIL REQUIRED DENSITY IS OBTAINED. CONTRACTOR IS RESPONSIBLE THE COST OF THE REWORK AND RETESTING.
7. CONTRACTOR TO PROVIDE REPRESENTATIVE SAMPLES OF FILL MATERIAL TO OWNER'S TESTING AGENCY FOR ANALYSIS AND DEVELOPMENT OF COMPACTION CURVE.



SCALES:
1"=10' HORIZ.
1"=10' VERT.

STORM DRAINAGE NOTES

1. ALL PIPE MATERIALS AND FITTINGS SHALL HDPE CONFORMING TO AASHTO M294 TYPE S.
2. PIPES SHALL BE BEDDED IN TRENCH SAND. TRENCH SAND SHALL BE FREE OF CLAY, ORGANIC MATERIALS AND OTHER DELETERIOUS SUBSTANCES AND CONFORMING TO CALTRANS STANDARD SPECIFICATION SECTION 19-3.02F(2).
3. THOROUGHLY CLEAN STORM DRAIN LINES AND FIELD INLETS OF DIRT, DEBRIS, AND OBSTRUCTIONS OF ANY KIND.
4. AFTER COMPLETION OF PIPE INSTALLATION, INCLUDING COMPACTION TO FINISH GRADE, PERFORM VIDEO INSPECTION OF THE PIPE TO CONFIRM IT IS FREE OF DEFECTS. DEFECTS WOULD INCLUDE GAPS IN JOINTS, OBSTRUCTIONS TO THE PIPELINE, OR DEFLECTION OF PIPE WALLS. VIDEOS SHALL INCLUDE INDICATION OF DISTANCE ALONG PIPE, AND BE TAKEN WITH A CAMERA WITH PAN AND TILT CAPABILITIES.
5. ANY IDENTIFIED DEFECTS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S COST.

WORK DESCRIPTION

INTENT IS TO OVEREXCAVATE ERODED CHANNEL, INSTALL STORM DRAIN LINE, AND RESTABLISH HILLSIDE WITH NATIVE SOIL. IF FILL IS NEEDED, IT SHALL BE SOURCED FROM CUT GENERATED FROM ROUGH GRADING EFFORT. SEE SHEET C3.1.

SANDIS
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BUILD ON.

DATE: 12-08-23
SCALE: 1"=10'
PROJECT No.: 618184

DATE 12/11 2023
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25
REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. KUYKENDALL — No. 70870 — Exp. 6/30/25 — CIVIL — STATE OF CALIFORNIA

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

GRADING AND DRAINAGE PLAN

SHEET C3.0 OF SHEETS

File: X:\P\618184\HILLSIDE EROSION RESTORATION PROJECT\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C3.0 GRADING AND DRAINAGE PLAN.dwg Date: Dec 11, 2023 - 3:55 PM

VITICULTURE FACILITY (UNDER CONSTRUCTION

ADD ALTERNATE (SEE SHEET NOTE)

MATCH EX. FG 541.21±

MATCH EX. FG 540.33±

MATCH EX. FG 541.57±

175.08

311.15

APPROXIMATE LIMIT OF GRADING (24,720 SF)

0.6%

VITICULTURE CONSTRUCTION LAYDOWN FENCE

APPROXIMATE LIMIT OF GRADING (138,967 SF)

125.2

345.31

471.18

477.06

EDGE OF GRAVEL PATHWAY

103.51

374.57

MATCH EX. FG 541.56±

MATCH EX. FG 541.45±

MATCH EX. RIM 539.22±

MATCH EX. FG 541.40±

MATCH EX. FG 540.54±

MATCH EX. FG 540.42±

FL 537.91

FL 537.02

31.67

SEE SHEETS C2.0 AND C3.0 FOR HILLSIDE EROSION RESTORATION HORIZONTAL CONTROL, GRADING, AND DRAINAGE.

SCALE: 1 INCH = 30 FT

LEGEND

- APPROXIMATE LIMIT OF WORK
- EXTENT OF TRENCH BACKFILL/HILLSIDE RESTORATION
- FLOWLINE
- STORM DRAIN PIPE (HDPE TYPE S)
- GRAVEL ROAD
- TRENCH BACKFILL/HILLSIDE RESTORATION
- RIP RAP
- REGRADED SOIL AREA

WORK DESCRIPTION

INTENT IS TO GRADE THE AREA TO GENERATE POSITIVE DRAINAGE TO PROPOSED CATCH BASIN. ANY REQUIRED FILL SHALL BE PROVIDED BY CUT GENERATED FROM GRADING WORK IN THE IMMEDIATE VICINITY. CONTRACTOR TO DISCUSS DIFFERENCES IN FIELD CONDITIONS WITH ENGINEER IF ANY EXIST.

ADD ALTERNATE DESCRIPTION

UPON DEMOBILIZATION AND CONSTRUCTION FENCE REMOVAL OF THE VITICULTURE BUILDING PROJECT, REGRADE AREA TO PROVIDE POSITIVE DRAINAGE TOWARDS PROPOSED DRAINAGE INLET.

SANDIS

BUILD ON.
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DATE: 12-08-23
SCALE: 1"=30'
PROJECT No.: 618184

DATE 12/11 2023

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 6-30-25

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION

LIVERMORE CALIFORNIA

ROUGH GRADING PLAN

SHEET C3.1 OF SHEETS

File: X:\P\618184\HILLSIDE EROSION RESTORATION PROJECT\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C3.1 ROUGH GRADING PLAN.dwg Date: Dec 11, 2023 - 9:46 AM

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BUILD ON.
SANDIS.NET

DATE: 12-08-23
SCALE: 1"=30'
PROJECT No.: 618184

DATE 12/11, 2023
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25

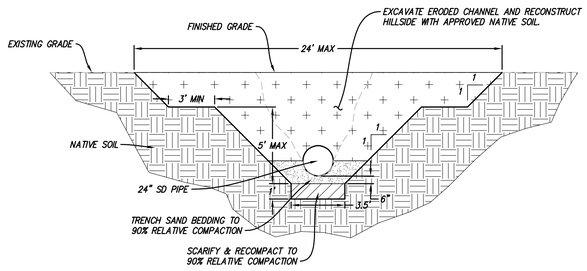
REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. KUYKENDALL — No. 70870 — Exp. 6/30/25 — CIVIL — STATE OF CALIFORNIA

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE — CALIFORNIA

CUT AND FILL MAP

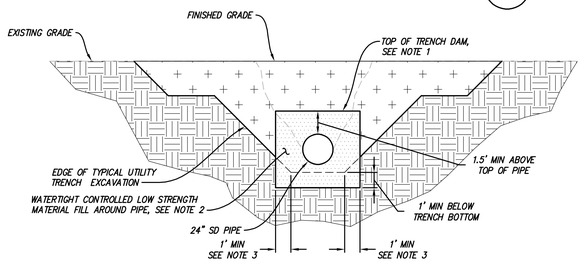
SHEET C3.2 OF SHEETS



CONSTRUCTION NOTES:

1. ADDITIONAL BACKFILL MATERIAL TO BE COLLECTED FROM NATIVE SOIL STOCK PILE ADJACENT TO HORTICULTURE FACILITY.

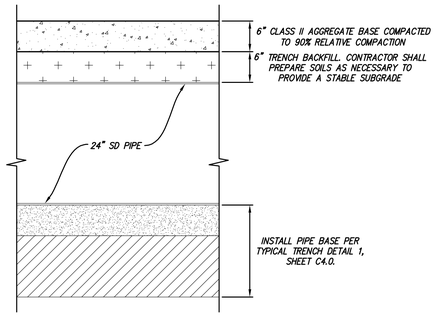
TYPICAL TRENCH SECTION 1
N.T.S.



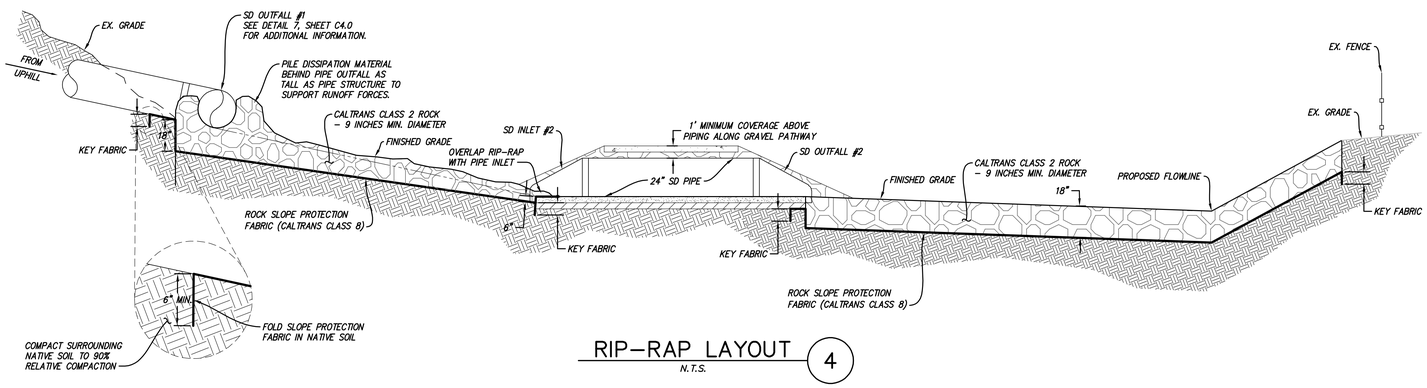
CONSTRUCTION NOTES:

1. REFER TO DESIGN PLANS FOR TRENCH DAM LOCATIONS.
2. CONTROLLED LOW STRENGTH MATERIAL FILL SHALL BE 50 – 100 PSI STRENGTH WITH A WATER CONDUCTIVITY OF 1.0×10^{-6} CM/SEC (MAX).
3. TRENCH DAM SHALL EXTEND BEYOND THE TOE OF TRENCH INTO THE NATIVE SOIL PER THE MINIMUM DIMENSIONS SHOWN. THE TRENCH DAM SHALL HAVE A MINIMUM THICKNESS OF 1' (MEASURED PARALLEL TO THE UTILITY PIPE LENGTH).
4. ADDITIONAL BACKFILL MATERIAL TO BE COLLECTED FROM NATIVE SOIL STOCK PILE ADJACENT TO HORTICULTURE FACILITY.

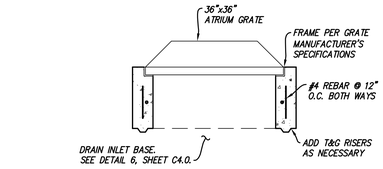
CLSM TRENCH DAM 2
N.T.S.



GRAVEL ROAD SECTION 3
1"=1'



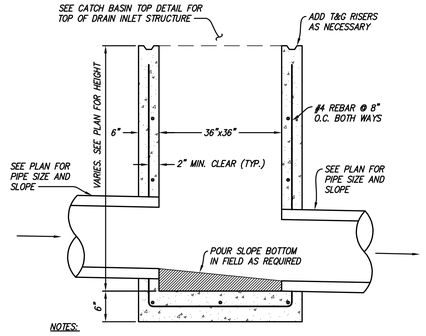
RIP-RAP LAYOUT 4
N.T.S.



NOTES:

1. SEE DETAIL 6 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.

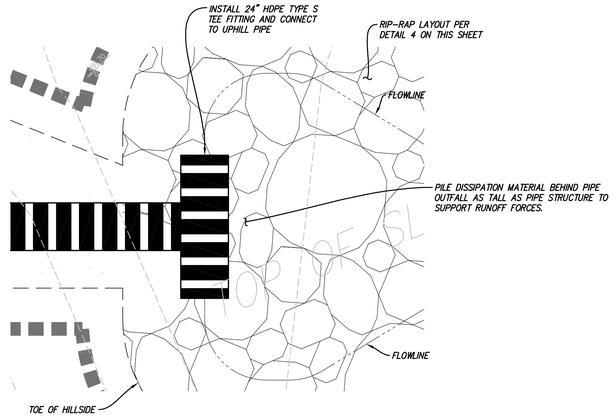
CATCH BASIN TOP 5
1"=1'



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 6
1"=1'



SD OUTFALL 7
N.T.S.

SANDIS
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DATE: 12-08-23
SCALE: 1"=20'
PROJECT No.: 618184

DATE 12/11, 2023
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 6-30-25

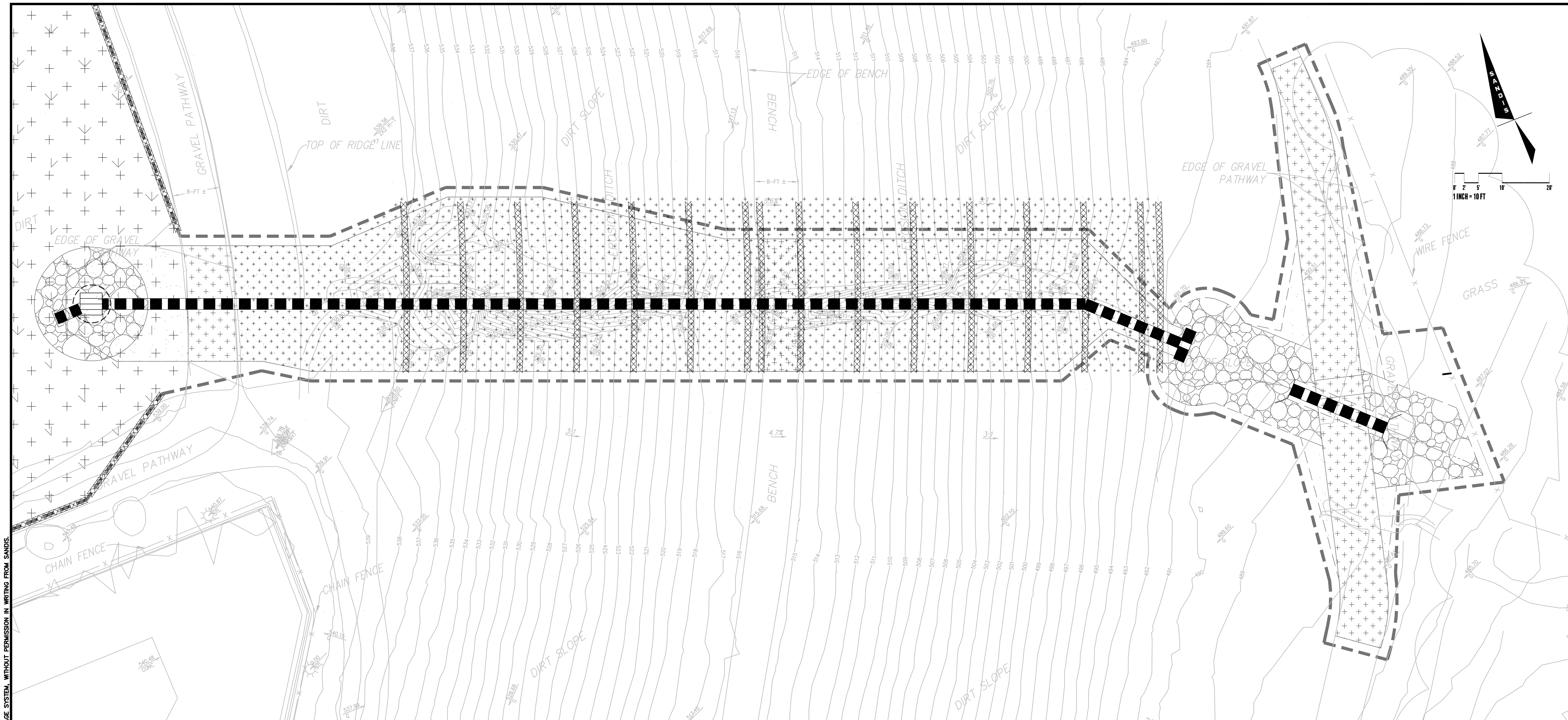
No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

CONSTRUCTION DETAILS

SHEET C4.0 OF SHEETS

File: X:\P\618184\HILLSIDE EROSION RESTORATION PROJECT\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C4.0 CONSTRUCTION DETAILS.dwg Date: Dec 11, 2023 - 3:56 PM



LEGEND

HYDROSEED PLANTING (SEE NOTES)

FIBER ROLL 1/C5.0

INLET PROTECTION 2&3/C5.0

APPROXIMATE AREA OF CONSTRUCTION DISTURBANCE – AREA TO COMPLY WITH REQUIREMENTS IN PROJECT SWPPP

STABILIZED ENTRANCE/EXIT

WATER POLLUTION CONTROL NOTES:

A. TEMPORARY CONSTRUCTION ENTRANCE/EXIT LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO PROVIDE LOCATION WHERE APPROPRIATE.

B. THIS PLAN REPRESENTS POSSIBLE WATER POLLUTION CONTROL MEASURES INCLUDING EROSION CONTROL AND SEDIMENT CONTROL.

C. EXISTING SURFACES SHALL BE UNDISTURBED TO THE EXTENT PRACTICAL.

D. GROUND WATER SHALL NOT BE DISCHARGED WITH STORM WATER. GROUND WATER DEWATERING OPERATIONS SHALL BE COORDINATED AS NEEDED WITH OWNER.

E. CONTRACTOR SHALL PROVIDE EFFECTIVE SOIL COVER FOR AREAS OF CONSTRUCTION ACTIVITY THAT HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE ACTIVE FOR AT LEAST 14 DAYS.

F. ALL EROSION CONTROL AND SEDIMENT CONTROLS TO BE OBTAINED INSTALLED AND MAINTAINED AS REQUIRED IN PROJECT SWPPP.

G. CONTRACTOR TO INSTALL RUN-ON AND RUN-OFF CONTROL MEASURES ACCORDING TO PLANS OR AS NECESSARY TO ENSURE SEDIMENT IS NOT TRANSPORTED FROM SITE.

H. CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.

I. STOCKPILE LOCATION(S) TO BE DETERMINED BY THE CONTRACTOR. COORDINATE WITH SITE QSP.

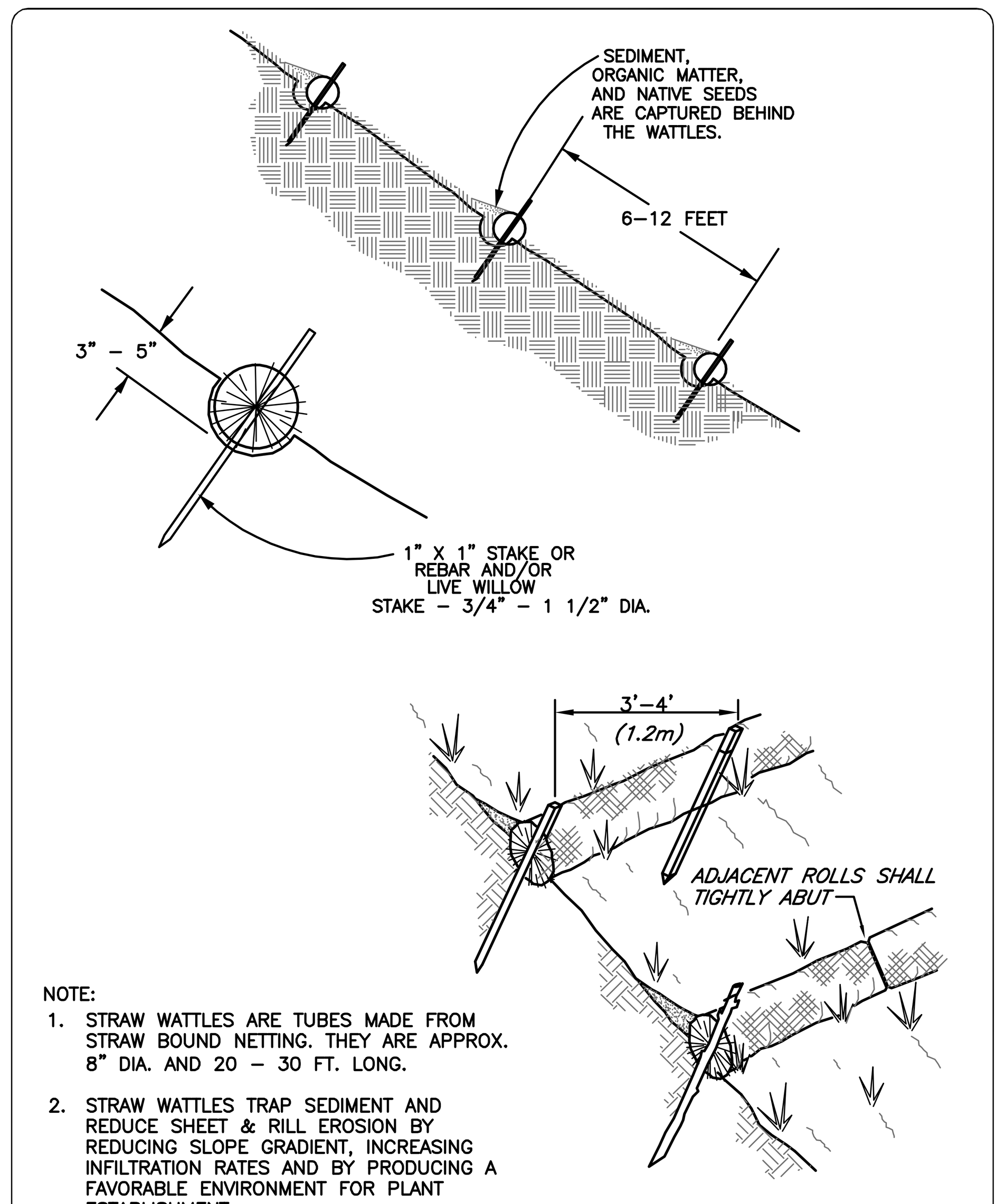
J. ALL CONCRETE TRUCKS TO USE CHUTE WASH BUCKETS FOR CONCRETE RINSE, ALL CONCRETE PUMPS TO CAPTURE CONCRETE RINSE IN SECONDARY CONTAINMENT AND PROPERLY DISPOSE.

K. STREET SWEEPING SHALL BE CHECKED DAILY TO ENSURE DEPOSITED SEDIMENT AND DEBRIS DOES NOT ENTER THE STORM DRAIN SYSTEM. USE REGENERATIVE VACUUM STREET CLEANER TO MITIGATE AIR AND WATER POLLUTION.

L. RUNOFF THAT HAS CONTACTED AMENDED SOIL AREAS SHALL NOT BE ALLOWED TO LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.

HYDROSEED NOTES

1. CALTRANS PERGRASS SHALL BE USED AS HYDROSEED MIX TYPE.
2. IF PLANTED OUTSIDE OF RAINY SEASON, CONTRACTOR TO PROVIDE IRRIGATION PER MANUFACTURER RECOMMENDATIONS UNTIL VEGETATION IS ESTABLISHED.

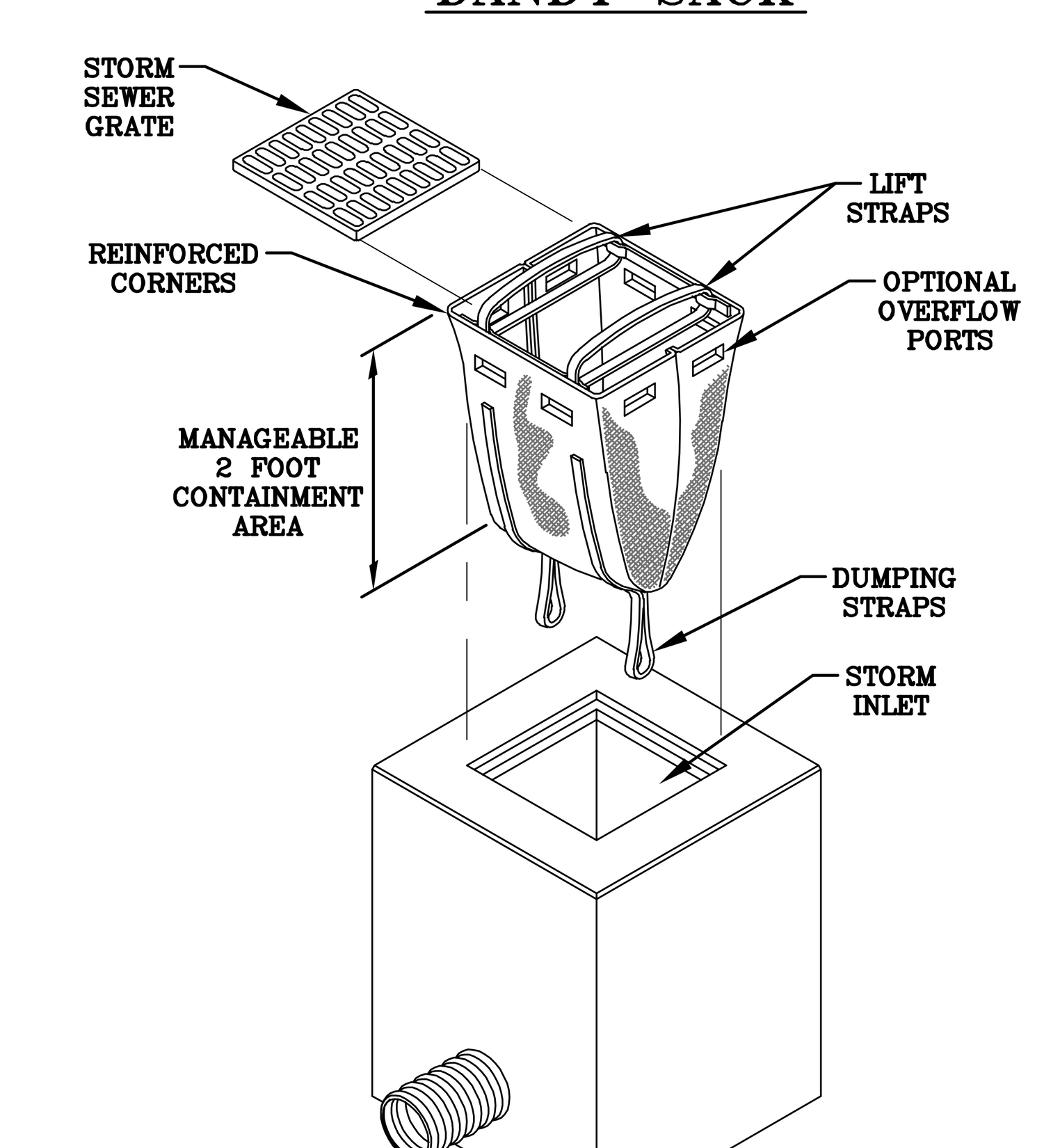


NOTE:
1. STRAW WATTLES ARE TUBES MADE FROM STRAW BOUND NETTING. THEY ARE APPROX. 8" DIA. AND 20 – 30 FT. LONG.
2. STRAW WATTLES TRAP SEDIMENT AND REDUCE SHEET & RILL EROSION BY REDUCING SLOPE GRADIENT, INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3" – 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND WATTLE.

DETAIL 1

STRAW WATTLES

DANDY SACK™



NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY- PASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

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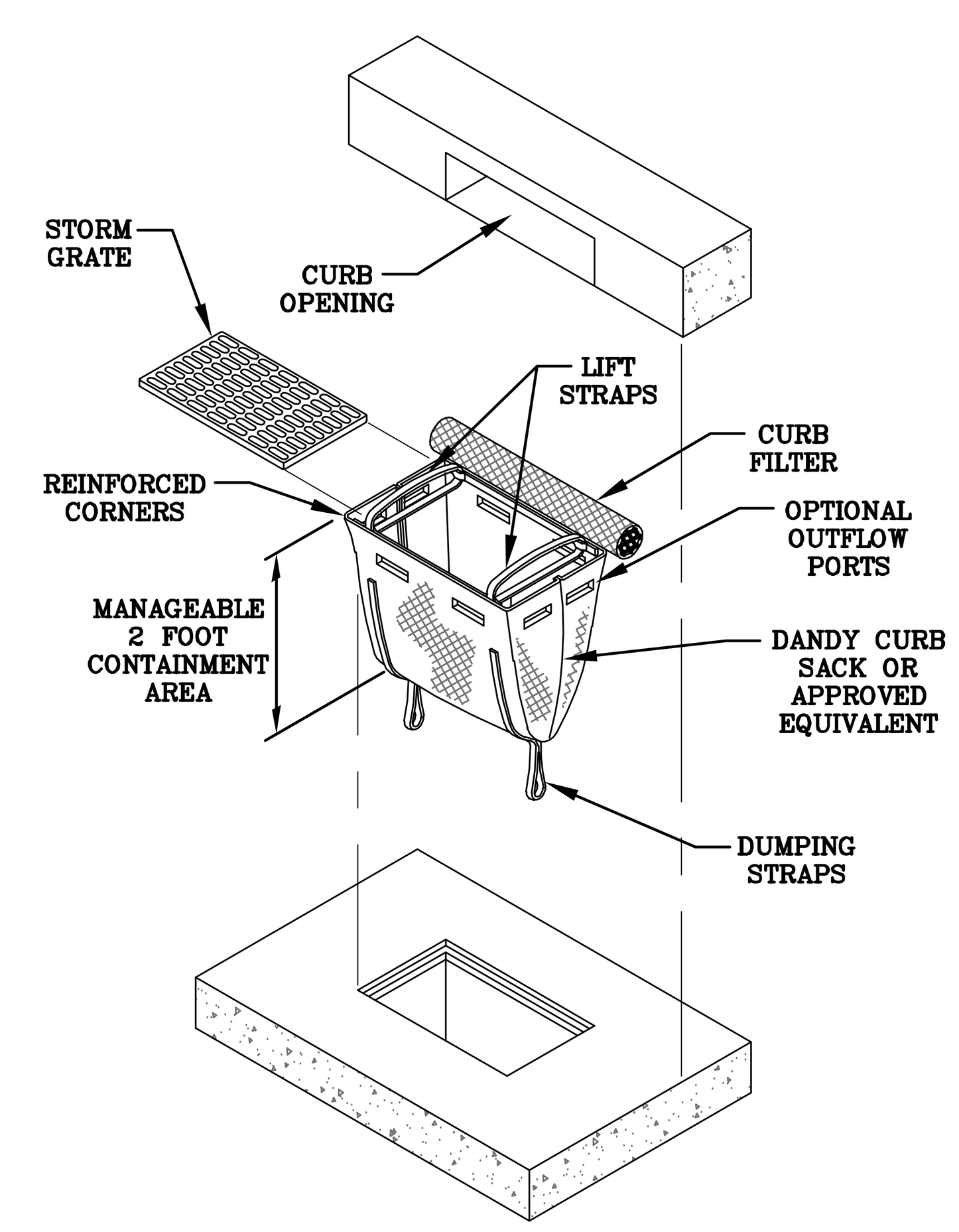
DETAIL 2

DROP INLET SEDIMENT BARRIER



NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

© DANDY CURB SACK

DETAIL 3

CURB INLET SEDIMENT SACK

SANDIS BUILD ON. SANDIS.NET

DATE:	12-08-23
SCALE:	1"=10'
PROJECT No.:	618184

DATE 12/11 2023

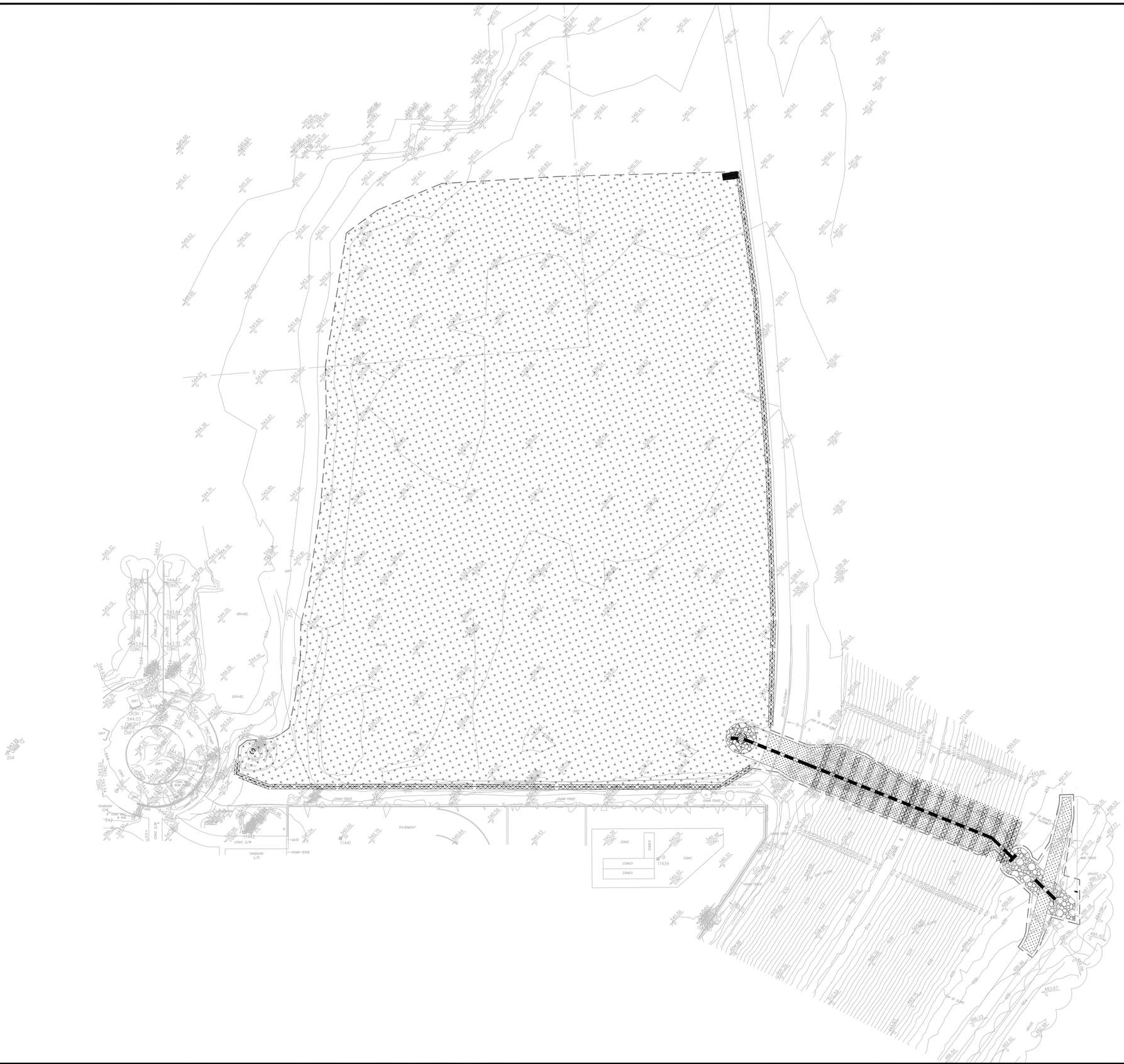
MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION
LIVERMORE CALIFORNIA

SEDIMENT AND EROSION CONTROL PLAN

SHEET C5.0 OF SHEETS



LEGEND

- HYDROSEED PLANTING (SEE NOTES)
- FIBER ROLL (1 / C5.0)
- INLET PROTECTION (2&3 / C5.0)
- APPROXIMATE AREA OF CONSTRUCTION DISTURBANCE – AREA TO COMPLY WITH REQUIREMENTS IN PROJECT SWPPP
- STABILIZED ENTRANCE/EXIT

WATER POLLUTION CONTROL NOTES:

A. TEMPORARY CONSTRUCTION ENTRANCE/EXIT LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO PROVIDE LOCATION WHERE APPROPRIATE.

B. THIS PLAN REPRESENTS POSSIBLE WATER POLLUTION CONTROL MEASURES INCLUDING EROSION CONTROL AND SEDIMENT CONTROL.

C. EXISTING SURFACES SHALL BE UNDISTURBED TO THE EXTENT PRACTICAL.

D. GROUND WATER SHALL NOT BE DISCHARGED WITH STORM WATER. GROUND WATER DEWATERING OPERATIONS SHALL BE COORDINATED AS NEEDED WITH OWNER.

E. CONTRACTOR SHALL PROVIDE EFFECTIVE SOIL COVER FOR AREAS OF CONSTRUCTION ACTIVITY THAT HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE ACTIVE FOR AT LEAST 14 DAYS.

F. ALL EROSION CONTROL AND SEDIMENT CONTROLS TO BE OBTAINED INSTALLED AND MAINTAINED AS REQUIRED IN PROJECT SWPPP.

G. CONTRACTOR TO INSTALL RUN-ON AND RUN-OFF CONTROL MEASURES ACCORDING TO PLANS OR AS NECESSARY TO ENSURE SEDIMENT IS NOT TRANSPORTED FROM SITE.

H. CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.

I. STOCKPILE LOCATION(S) TO BE DETERMINED BY THE CONTRACTOR. COORDINATE WITH SITE QSP.

J. ALL CONCRETE TRUCKS TO USE CHUTE WASH BUCKETS FOR CONCRETE RINSE, ALL CONCRETE PUMPS TO CAPTURE CONCRETE RINSE IN SECONDARY CONTAINMENT AND PROPERLY DISPOSE.

K. STREET SWEEPING SHALL BE CHECKED DAILY TO ENSURE DEPOSITED SEDIMENT AND DEBRIS DOES NOT ENTER THE STORM DRAIN SYSTEM. USE REGENERATIVE VACUUM STREET CLEANER TO MITIGATE AIR AND WATER POLLUTION.

L. RUNOFF THAT HAS CONTACTED AMENDED SOIL AREAS SHALL NOT BE ALLOWED TO LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.

HYDROSEED NOTES

1. CALTRANS PERGRASS SHALL BE USED AS HYDROSEED MIX TYPE.
2. IF PLANTED OUTSIDE OF RAINY SEASON, CONTRACTOR TO PROVIDE IRRIGATION PER MANUFACTURER RECOMMENDATIONS UNTIL VEGETATION IS ESTABLISHED.

SANDIS

BUILD ON. SANDIS.NET

DATE: 12-08-23
SCALE: 1"=10'
PROJECT No.: 618184

DATE 12/11 2023

MICHAEL A. KUYKENDALL
R.C.E. NO. 70870, EXPIRES 6-30-25

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

No.	REVISION	DATE	BY

HILLSIDE EROSION RESTORATION

LIVERMORE CALIFORNIA

SEDIMENT AND EROSION CONTROL PLAN

SHEET C5.1 OF SHEETS

File: X:\P\618184\HILLSIDE EROSION RESTORATION PROJECT\4_ENGINEERING\2_PLAN SETS\3_SHEET SET\ONSITE\C5.0 SEDIMENT AND EROSION CONTROL PLAN.dwg Date: Dec 11, 2023 - 9:38 AM