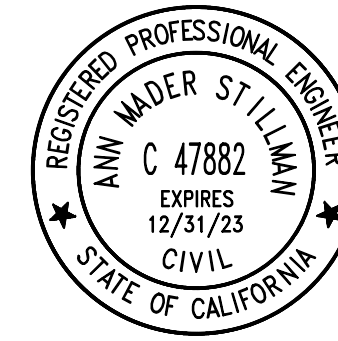


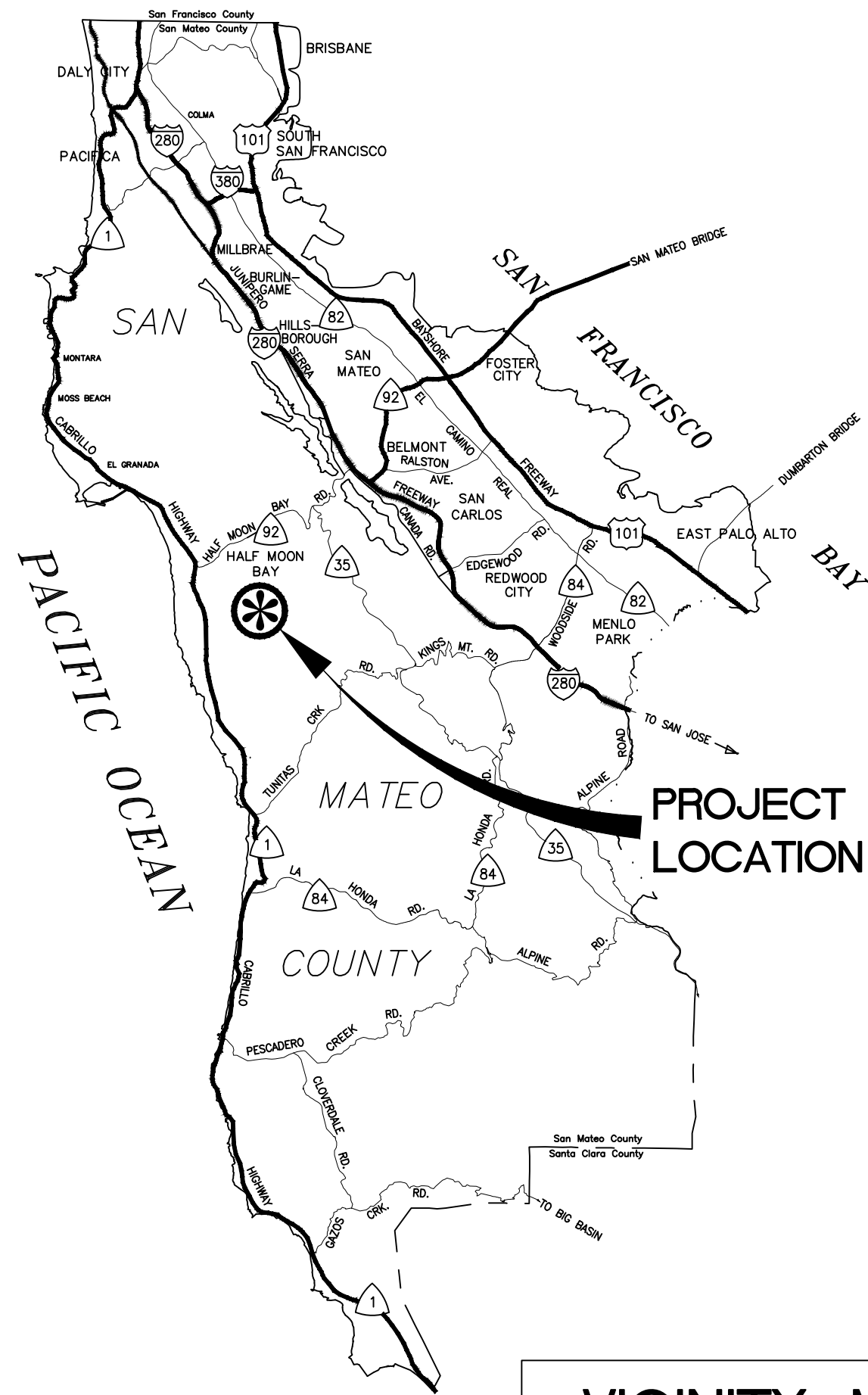
COUNTY OF SAN MATEO CALIFORNIA

HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS [COUNTY PROJECT NO. RW909]

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS
DATED MAY 2018 AND ADOPTED BY SAN MATEO COUNTY, FEBRUARY 11, 2020, BY RESOLUTION NO. 077227

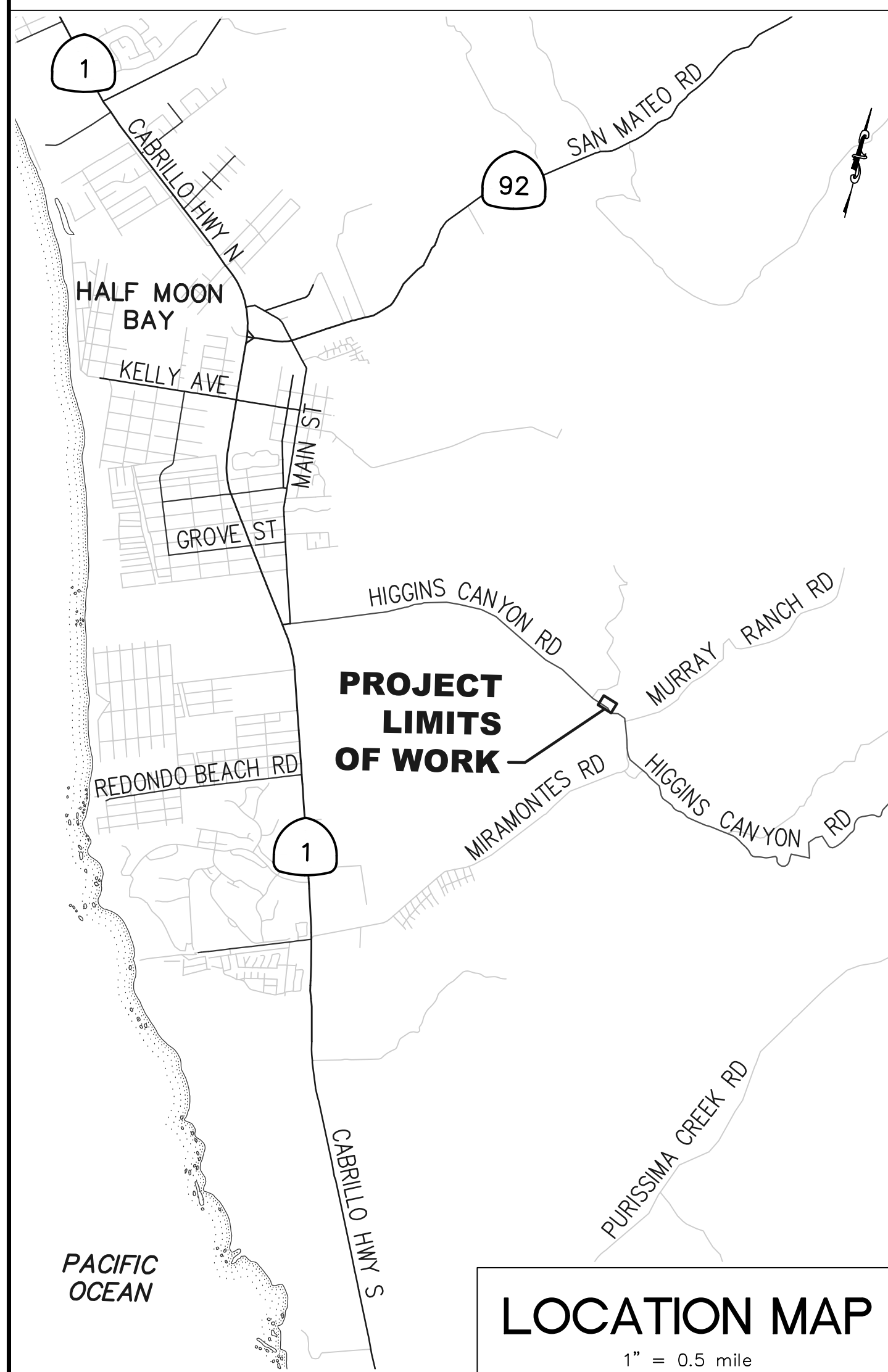


APPROVED: _____
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023



VICINITY MAP

NOT TO SCALE



LOCATION MAP

1" = 0.5 mile

ABBREVIATIONS

AB (CL.2)	AGGREGATE BASE (CLASS 2)
AC	ASPHALT CONCRETE
AC (TYPE B)	ASPHALT CONCRETE (TYPE B)
AGG	AGGREGATE
AV	AVENUE
BC	BACK OF CURB
BW	BACK OF WALK
CATV	CABLE TV
CIDH	CAST-IN-DRILLED-HOLE
CIP	CAST-IN-PLACE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONST	CONSTRUCTION
C&G	CURB AND GUTTER
CL	CENTERLINE, CHAIN LINK, CLASS
DI	DRAINAGE INLET, DROP INLET
DIA, Ø	DIAMETER
DTL	DETAIL
ELE	ELEVATION
EMB	EMBANKMENT
ETW	EDGE OF TRAVEL WAY
EP	EDGE OF PAVEMENT
EX, EXIST	EXISTING
EXC	EXCAVATION
EXL	EXCLUSION
FG	FINISH GROUND
FL, L	FLOW LINE
FTG	FOOTING
GB	GRADE BREAK
HDPE	HIGH-DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
INV	INVERT
JP	JOINT UTILITY POLE
LG, LIP	LIP OF GUTTER
LT, L	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NO.	NUMBER
OG	ORIGINAL GROUND, ON GRADE
OH	OVERHEAD
PCC	PORTLAND CONCRETE CEMENT
PR	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RSP	ROCK SLOPE PROTECTION
RT, R	RIGHT
R/W, ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SHT	SHEET
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
TB	TOP OF BANK
TC	TOP OF CURB
TD	TOP OF DIKE
TG	TOP OF GRATE
TS	TOP OF SIDEWALK
TYP	TYPICAL
UD	UNDER DRAIN
VBR	VEGETATED BOULDER REVETMENT

LEGEND

	SD	STORM DRAIN LINE (EX)
	SD	STORM DRAIN LINE (EX) PROFILE
	SS	SANITARY SEWER LINE "ACTIVE"
	SS	SANITARY SEWER LINE "ACTIVE" PROFILE
	W	WATER LINE "ACTIVE"
	W	WATER LINE "ACTIVE" PROFILE
	W	ACP WATER LINE (Abn)
	W	ACP WATER LINE (Abn) PROFILE
	G	GAS LINE (Abn)
	G	GAS LINE (Abn) PROFILE
	G	GAS LINE "ACTIVE"
	G	GAS LINE "ACTIVE" PROFILE
	T	TELECOMMUNICATION LINE (EX)
	T	JOINT COMMUNICATION LINE (EX) PROFILE
	ROW	RIGHT OF WAY
	EXL	TEMP EXCLUSION FENCE
	SILT	TEMP SILT FENCE
	ESA	TEMP FENCE (TYPE ESA)
	CL	TEMP FENCE (TYPE CL-6)
		NATIVE BACKFILL
		CLASS 2 AGGREGATE BASE - AB (CL. 2) (GRAVEL)
		CLASS 3 CONCRETE
		MISCELLANEOUS ASPHALT CONCRETE
		DEEP LIFT AREAS (0.67' DEEP ASPHALT CONCRETE)
		ROCK SWALE AND FRENCH DRAIN
		EXIST SAKRETE WEIR

	FIRE HYDRANT
	FIRE HYDRANT MARKERS
	MAILBOX
	SIGN
	MONUMENT
	BENCHMARK
	DRIVEWAY NUMBER
	HOUSE NUMBER ADDRESS
	DETAIL NUMBER AND SHEET
	EXISTING TREE
	CLASS 1 FLEXIBLE OBJECT MARKER
	NAIL AND WASHER

(XXX.XX)	(XXX.XX) = EXISTING ELEVATION
XXX.XX	XXX.XX = PROPOSED ELEVATION
+0.00	STATION
(00.00) 00.00	(EXIST ELE) PR ELE AT LIP OF GUTTER

	WATER METER
	WATER VALVE
	GAS VALVE
	JOINT UTILITY POLE
	TELEPHONE POLE
	GUY WIRE ANCHOR
	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	SANITARY SEWER FLUSHING INLET
	STORM DRAIN MANHOLE
	UNDERDRAIN
	BUBBLE-UP BOX
	UNKNOWN MANHOLE
	UTILITY BOX

NOTES

- CONTRACTOR SHALL CONFINE THEIR OPERATIONS AND ACTIVITIES WITHIN THE PROJECT LIMITS, CONSISTING OF ROAD RIGHT-OF-WAY, RIGHTS OF ENTRY AND/OR PROJECT CONFORMS, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- CONTINUOUS DUST CONTROL SHALL BE PROVIDED AS REQUIRED BY SECTION 10 OF THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER.
- LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITIES TO DETERMINE EXACT LOCATIONS AND DEPTHS. CONTRACTOR SHALL CALL USA NORTH 811 (USA) UNDERGROUND SERVICE ALERT A MINIMUM OF 72 HOURS IN ADVANCE OF ANY EXCAVATION OR TRENCHING WORK. USA MAY BE CONTACTED EITHER ON-LINE AT USANORTH811.ORG OR BY PHONE BY DIALING (800) 227-2600 OR 811. WHEN CALLING, BE PREPARED TO GIVE LOCATION AND NATURE OF WORK, START DATE, COMPANY NAME, ADDRESS AND TELEPHONE NUMBER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION AND PRESERVATION OF ALL EXISTING WATER, GAS, SANITARY SEWER, ETC. FACILITIES WHICH ARE NOT TO BE RELOCATED.
- CONTRACTOR IS ADVISED THAT EXCAVATION MAY CONFLICT WITH SANITARY SEWER LATERALS, GAS LINES, WATER LINES AND OTHER UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- NO TREES, VEGETATION OR IMPROVEMENTS (INCLUDING FENCES) SHALL BE REMOVED WITHOUT THE PRIOR WRITTEN CONSENT AND APPROVAL OF THE ENGINEER. VEGETATION AND IMPROVEMENTS WHICH ARE DESIGNATED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 5-1.26 OF THE STANDARD SPECIFICATIONS. THE SURVEY AND ASSOCIATED STAKING SHALL BE IN CONFORMANCE WITH SECTION 100, CONSTRUCTION STAKING AND LAYOUT OF THE SPECIAL PROVISIONS.
- WHEN DIRECTED BY THE ENGINEER, CUT AND FILL SLOPE RATIOS SHALL BE VARIED TO AVOID TREES OR OTHER EXISTING IMPROVEMENTS.
- CONTRACTOR SHALL EXERCISE CARE WHEN EXCAVATING NEAR TREES AND ROOTS OF TREES TO REMAIN. SEE SECTION 102 OF THE SPECIAL PROVISIONS.
- ANY DAMAGE, AS A RESULT OF THE CONTRACTOR'S OPERATION, TO PAVEMENT AND BASE MATERIAL THAT IS TO REMAIN SHALL BE REPAIRED, OR REMOVED AND REPLACED WITH SAME TYPE OF MATERIAL OR APPROVED EQUAL, AS DIRECTED BY THE ENGINEER, AND AT THE SOLE EXPENSE OF THE CONTRACTOR. THE ENGINEER SHALL BE THE SOLE JUDGE OF THE ADEQUACY OF THE COMPLETED REMEDIAL WORK.

SHEET INDEX

- TITLE SHEET
- TRAFFIC CONTROL AND HAUL ROUTE
- LAYOUT AND CONTROL
- CREEK PROTECTION AND BYPASS PLAN
- SITE PLAN
- UNDERPINNING PLAN, ELEVATION, AND TYPICAL SECTION
- RETAINING WALL PLAN, ELEVATION, AND TYPICAL SECTION
- STOCKPILE AND STAGING AREA
- GRADING AND DRAINAGE PLAN
- EROSION CONTROL PLAN
- PLANTING PLAN
- 13.-20. CALTRANS STANDARD DETAILS

BASIS OF BEARINGS

TEMPORARY PROJECT CONTROL POINTS (CP#11 AND CP#4) ARE CENTER OF HUB AND TACK AND MAG NAIL IN ASPHALT CONCRETE, RESPECTIVELY. BASIS OF BEARING IS LINE FROM CP#11 TO CP#4 TAKEN AS N35°54'21"W.

2018 CALTRANS STANDARD PLANS

A85	CHAIN LINK FENCE
B3-6	RETAINING WALL DETAILS NO.2 - TYPICAL GUTTER DETAIL
D73B	PRECAST DRAINAGE INLET - TYPE G1
D78A	GUTTER DEPRESSIONS
D87A	CORRUGATED METAL PIPE, DOWNDRAIN DETAILS
D97C	CORRUGATED METAL PIPE COUPLING DETAILS NO.3
	HELICAL AND UNIVERSAL COUPLERS
T51	TEMP SILT FENCE
T54	TEMP EROSION CONTROL BLANKET

COUNTY OF SAN MATEO STANDARD PLANS

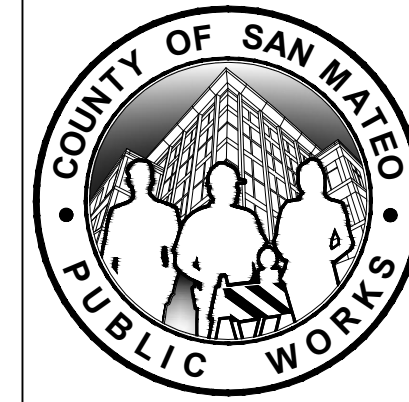
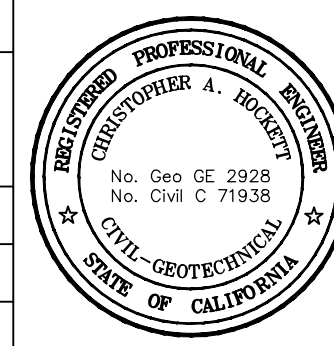
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APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23

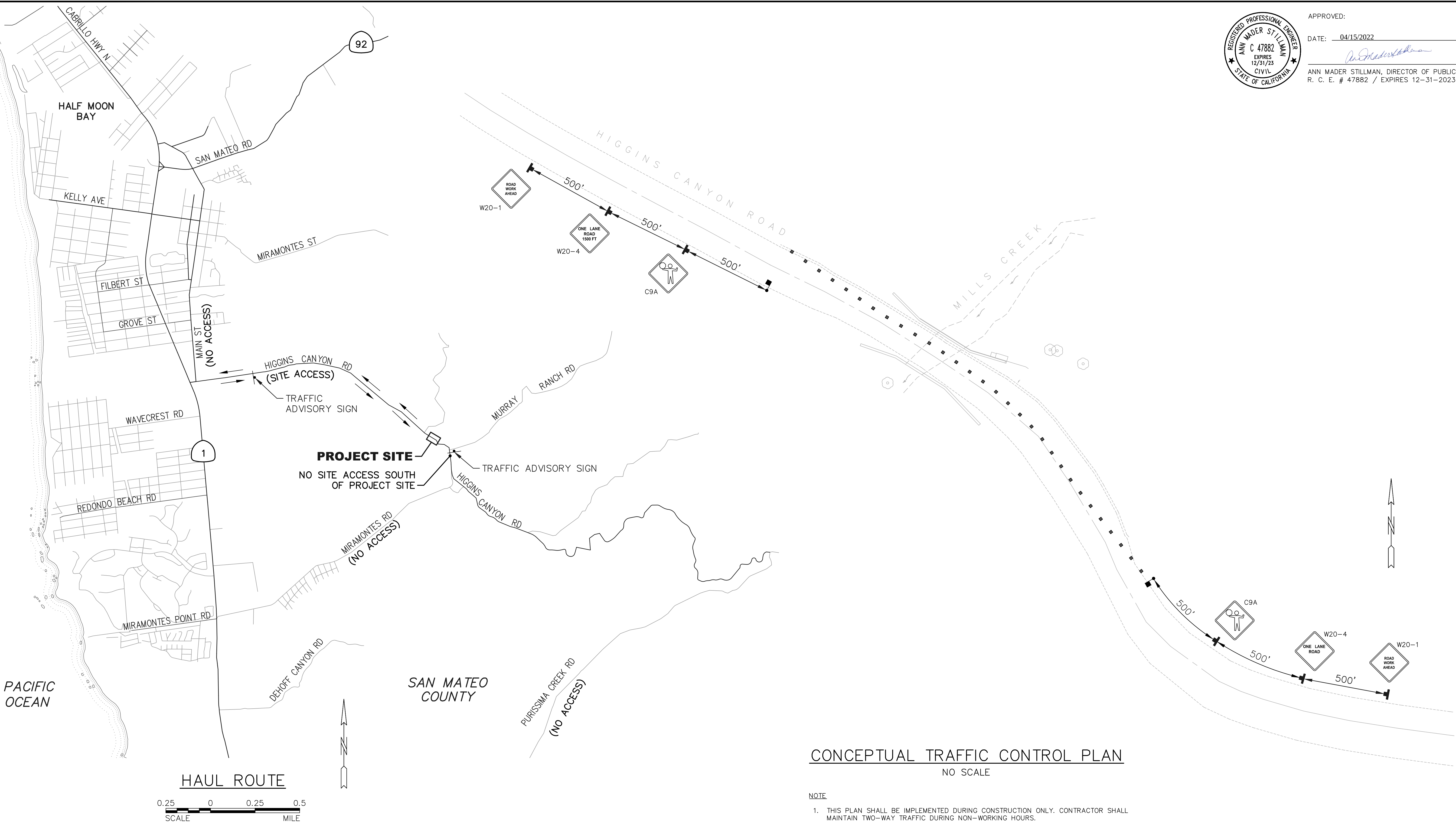


REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: AS SHOWN
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 1 OF 20

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APPROVED:
DATE: 04/15/2022
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R. C. E. # 47882 / EXPIRES 12-31-2023



CONCEPTUAL TRAFFIC CONTROL PLAN
NO SCALE

NOTE
1. THIS PLAN SHALL BE IMPLEMENTED DURING CONSTRUCTION ONLY. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC DURING NON-WORKING HOURS.

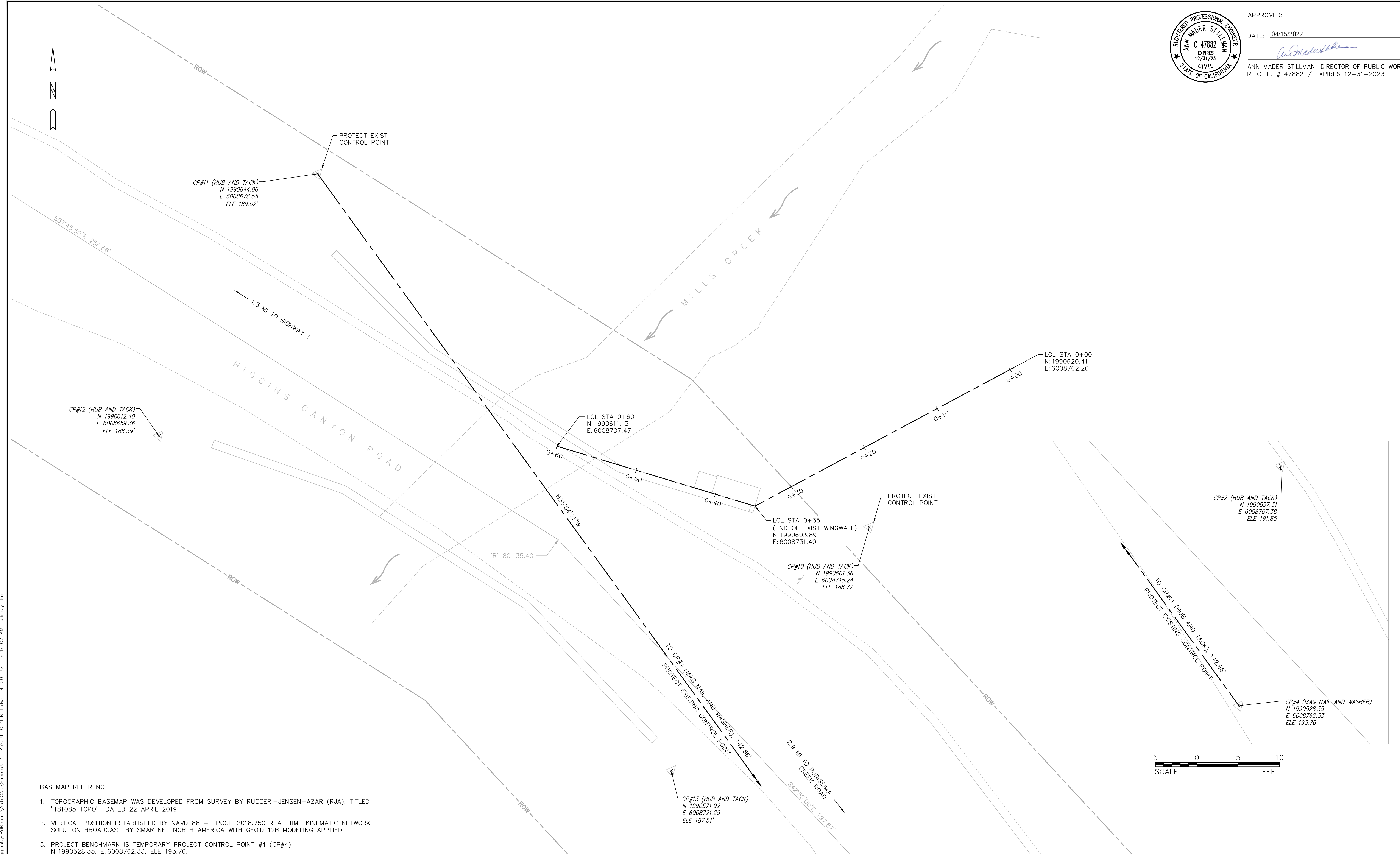
NOTE
1. THE CONTRACTOR SHALL PROVIDE A 15-FOOT MINIMUM TRAVEL WIDTH ACROSS HIGGINS CANYON ROAD BRIDGE AT ALL TIMES. THE CONTRACTOR SHALL ALSO KEEP ONE LANE ALONG HIGGINS CANYON ROAD OPEN AT ALL TIMES. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO BE REVIEWED AND APPROVED BY THE ENGINEER.

LEGEND
SITE ACCESS

 CAL ENGINEERING & GEOLOGY	6455 Almaden Expwy. Suite 100 San Jose, CA 95120 Phone: (408) 440-4542	APPROVED DATE: APRIL 15, 2022			REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS TRAFFIC CONTROL AND HAUL ROUTE	SCALE: AS SHOWN
						DRAWN BY: EV	DATE: APR 2022		
						CHECKED BY: CH	FILE NO.: E5003		
						ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063		
					FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			0 1 2 3 4	SHEET 2 OF 20



APPROVED:
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BASEMAP REFERENCE

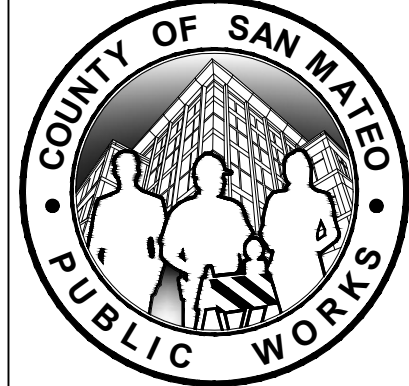
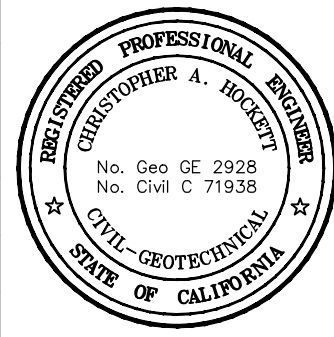
1. TOPOGRAPHIC BASEMAP WAS DEVELOPED FROM SURVEY BY RUGGERI-JENSEN-AZAR (RJA), TITLED "181085 TOPO"; DATED 22 APRIL 2019.
2. VERTICAL POSITION ESTABLISHED BY NAVD 88 - EPOCH 2018.750 REAL TIME KINEMATIC NETWORK SOLUTION BROADCAST BY SMARTNET NORTH AMERICA WITH GEOID 12B MODELING APPLIED.
3. PROJECT BENCHMARK IS TEMPORARY PROJECT CONTROL POINT #4 (CP#4).
N:1990528.35, E:6008762.33, ELE 193.76.
4. TEMPORARY PROJECT CONTROL POINTS (CP#11 AND CP#4) ARE CENTER OF HUB AND TACK AND MAG NAIL IN ASPHALT CONCRETE, RESPECTIVELY. BASIS OF BEARING IS LINE FROM CP#11 TO CP#4 TAKEN AS N35°54'21"W.



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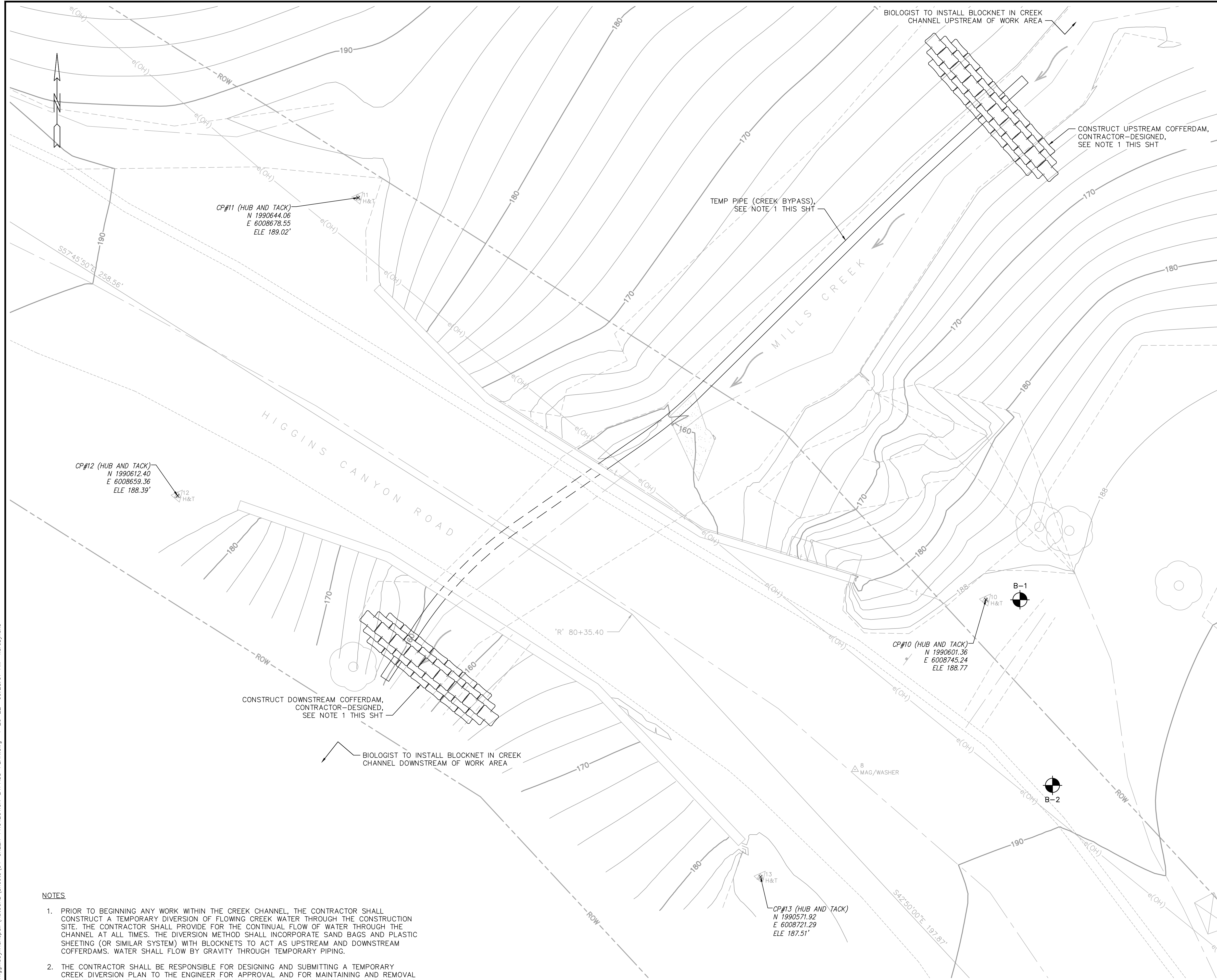
APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
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REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS LAYOUT AND CONTROL		SCALE: 1"=5'
		DRAWN BY: EV			DATE: APR 2022
		CHECKED BY: CH			FILE NO.: E5003
			ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
			FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SHEET 3 OF 20

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NOTES

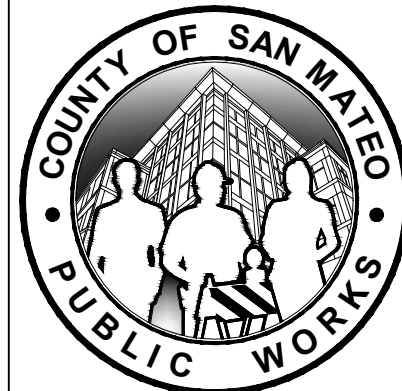
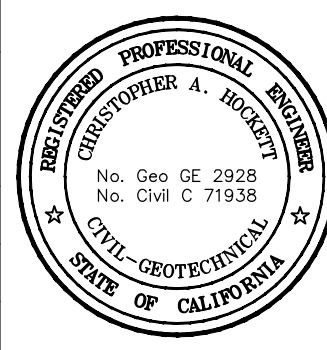
- PRIOR TO BEGINNING ANY WORK WITHIN THE CREEK CHANNEL, THE CONTRACTOR SHALL CONSTRUCT A TEMPORARY DIVERSION OF FLOWING CREEK WATER THROUGH THE CONSTRUCTION SITE. THE CONTRACTOR SHALL PROVIDE FOR THE CONTINUAL FLOW OF WATER THROUGH THE CHANNEL AT ALL TIMES. THE DIVERSION METHOD SHALL INCORPORATE SAND BAGS AND PLASTIC SHEETING (OR SIMILAR SYSTEM) WITH BLOCKNETS TO ACT AS UPSTREAM AND DOWNSTREAM COFFERDAMS. WATER SHALL FLOW BY GRAVITY THROUGH TEMPORARY PIPING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND SUBMITTING A TEMPORARY CREEK DIVERSION PLAN TO THE ENGINEER FOR APPROVAL AND FOR MAINTAINING AND REMOVAL OF THE SYSTEM. THE PLAN SHALL INCLUDE JUSTIFICATION OF ALL COFFERDAM AND PIPE SIZING.
- CONTRACTOR SHALL COORDINATE WITH THE PROJECT BIOLOGIST IN THE FIELD TO CONFIRM THE APPROPRIATE LOCATIONS FOR THE DIVERSION PIPE, BLOCKNETS AND COFFERDAMS, AND MAKE FIELD ADJUSTMENTS, AS NEEDED.



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REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK		SCALE: 1"=5'
		DRAWN BY: EV	EMBANKMENT AND WINGWALL REPAIRS		DATE: APR 2022
		CHECKED BY: CH	CREEK PROTECTION AND BYPASS PLAN		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES					SHEET 4 OF 20



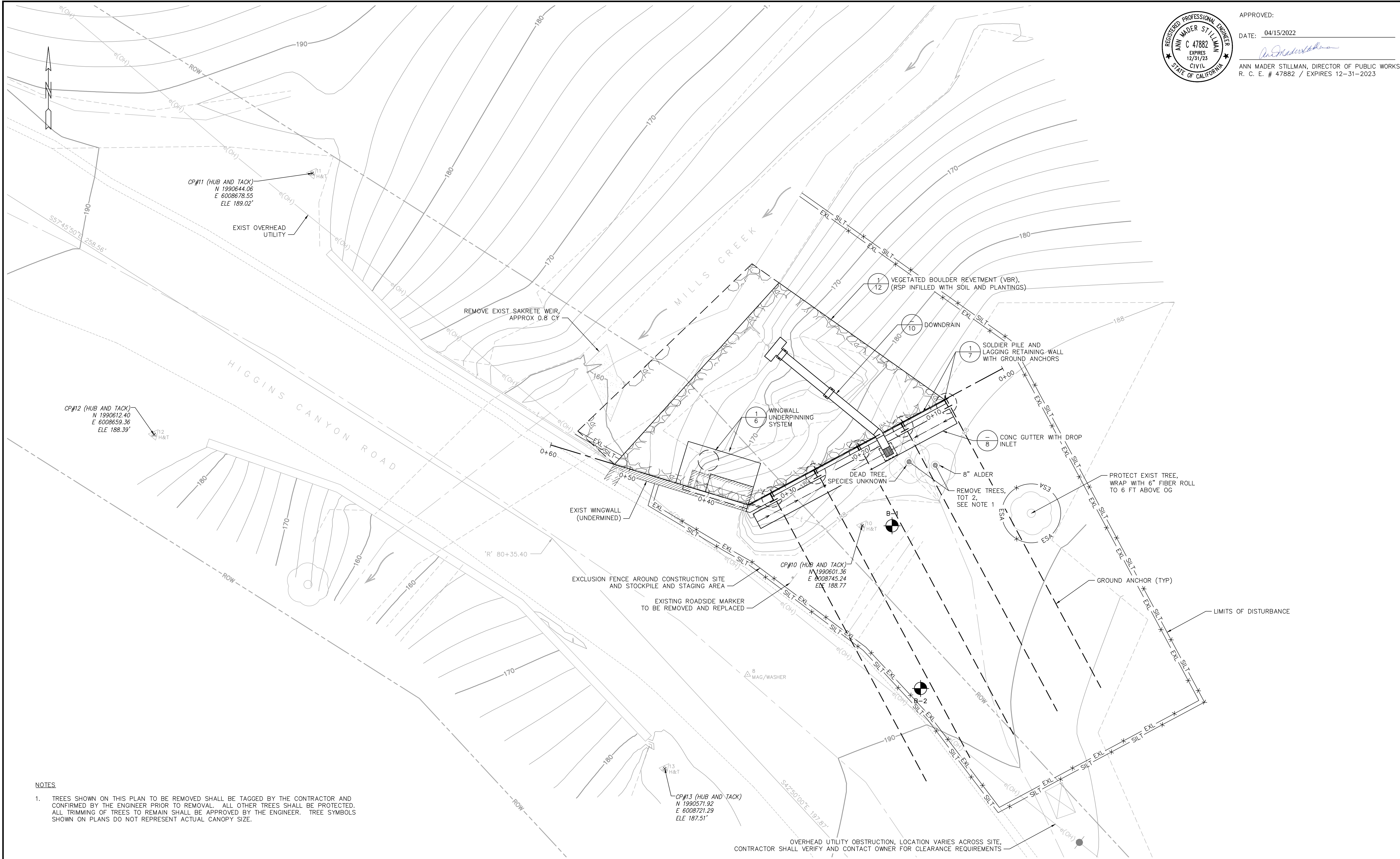
APPROVED:
DATE: 04/15/2022
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DIVERSION NOTES

- THE DIVERSION PLAN SHOWN IS SCHEMATIC. GENERAL REQUIREMENTS ARE PROVIDED BELOW. THE FULL REQUIREMENTS OF THE DIVERSION AND DEWATERING PLAN ARE SPECIFIED IN THE PROJECT TECHNICAL SPECIFICATIONS.
- GENERAL
 - DEWATER THE PROJECT SITE AS REQUIRED TO FACILITATE IN-STREAM CONSTRUCTION AND TO REDUCE POTENTIAL IMPACTS TO WATER QUALITY DOWNSTREAM OF THE PROJECT SITE.
 - CONFIRM THAT A FAVORABLE LONG TERM WEATHER FORECAST (1 WEEK, MIN.) IS OBSERVED PRIOR TO PLACEMENT OF DIVERSION STRUCTURES.
 - PRIOR TO PLACEMENT OF DIVERSION STRUCTURE, REMOVE FISH FROM THE PROJECT REACH, IN ACCORDANCE WITH SECTION 2.
 - DIVERT FLOW ONLY WHEN THE DIVERSION CONSTRUCTION IS OTHERWISE COMPLETE. FOLLOWING ENGINEER'S APPROVAL OF THE COMPLETED WORK, REMOVE DIVERSION BEGINNING AT THE DOWNSTREAM LIMIT, IN AN UPSTREAM DIRECTION.
 - FISH REMOVAL
 - FISH RELOCATION SHALL BE COORDINATED WITH THE COUNTY'S BIOLOGIST PRIOR TO INSTALLING THE TEMPORARY CREEK DIVERSION SYSTEM. PROVIDE NO LESS THAN 72 HOUR NOTIFICATION TO THE COUNTY IN ADVANCE OF TEMPORARY CREEK DIVERSION WORK.
 - BLOCK NETS SHALL BE PROVIDED AND INSTALLED BY THE BIOLOGIST. BLOCK NETS SHALL BE MAINTAINED BY THE CONTRACTOR BOTH UPSTREAM AND DOWNSTREAM OF THE DIVERSION, THROUGHOUT THE PERIOD OF CONSTRUCTION. MAINTENANCE INCLUDES PERIODIC REMOVAL OF ACCUMULATED DEBRIS, AS NECESSARY TO ENSURE FUNCTION. BLOCK NETS SHALL BE REMOVED BY THE BIOLOGIST AFTER THE DIVERSION IS REMOVED AND THE IN CHANNEL WORK AREA IS RE-WATERED.
 - DIVERSION SYSTEM
 - INSTALL A SEALED, TEMPORARY DIVERSION DAM CONSTRUCTED USING GRAVEL FILLED BAGS TO CAPTURE AND DIVERT STREAM FLOW UPSTREAM OF THE PROJECT SITE. THE DAM AND METHOD OF SEALING SHALL BE PLACED AT AN APPROPRIATE DEPTH TO CAPTURE SUBSURFACE STREAM FLOW, AS NEEDED TO DEWATER THE STREAMBED. GRAVEL SHALL BE WASHED PRIOR TO PLACEMENT IN BAGS. THE USE OF SAND WILL NOT BE ALLOWED. NO OTHER DIVERSION METHOD SHALL BE USED WITHOUT AUTHORIZATION OF THE ENGINEER. IF AN ALTERNATE DIVERSION METHOD IS PREFERRED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL, DETAILING THE DESIRED DIVERSION METHOD.
 - THE DIVERSION STRUCTURE SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.
 - IN THE EVENT OF A SIGNIFICANT STORM, THE CONTRACTOR SHALL BE PREPARED TO TAKE NECESSARY MEASURES TO INSURE SAFE PASSAGE OF STORM WATER FLOW THROUGH THE PROJECT AREA, WITHOUT DAMAGE TO EXISTING STRUCTURES, OR INTRODUCTION OF EXCESSIVE SEDIMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY EROSION CONTROL B.M.P.'S.
 - THE DIVERSION SHALL BE CAPABLE OF CONVEYING 150 CFS (ADULT HIGH FLOW) WITH LESS THAN 6 INCHES OF HEAD OVER THE TOP OF PIPE AT THE INLET, AND SHALL BE A MINIMUM DIAMETER OF 10", WITH A MANNING'S ROUGHNESS NOT EXCEEDING .012.
 - DEWATERING OF CONSTRUCTION AREAS
 - THE CONTRACTOR SHALL SUPPLY ALL NECESSARY PUMPS, PIPING, FILTERS, SHORING, AND OTHER TOOLS AND MATERIALS NECESSARY FOR DEWATERING. IF A PUMPED SYSTEM IS RELIED UPON TO ENSURE DOWNSTREAM WATER QUALITY, A BACKUP PUMP OF EQUAL CAPACITY SHALL BE PROVIDED AT ALL TIMES AND THE PUMP MUST BE CONTINUOUSLY MONITORED.
 - DEWATERING ACTIVITIES WHICH MAY BE REQUIRED FOR CONSTRUCTION PURPOSES SHALL COMPLY WITH WATER QUALITY STANDARDS ISSUED BY THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD.
 - DISCHARGE OF WATER FROM THE DEWATERED CONSTRUCTION SITE, EITHER BY GRAVITY OR PUMPING, SHALL BE PERFORMED IN A MANNER THAT PREVENTS EXCESSIVE TURBIDITY FROM ENTERING THE RECEIVING WATERWAYS AND PREVENTS SCOUR AND EROSION OUTSIDE OF THE CONSTRUCTION SITE. PUMPED WATER SHOULD BE PRE-FILTERED WITH A GRAVEL PACK AROUND SUMPS FOR SUBSURFACE FLOWS AND A SILT FENCE AROUND PUMPS FOR SURFACE FLOW. PUMPED WATER SHALL BE DISCHARGED INTO ISOLATED LOCAL DEPRESSIONS, FILTER BAGS, SETTLING (BAKER) TANKS, OR TEMPORARY SEDIMENT BASINS, AS NECESSARY TO MEET WATER QUALITY REQUIREMENTS. WHERE WATER TO BE DISCHARGED INTO MILLS CREEK WILL CREATE EXCESSIVE TURBIDITY, THE WATER SHALL BE ROUTED THROUGH A SEDIMENT INTERCEPTOR OR OTHER FACILITIES TO REMOVE SEDIMENT FROM WATER.



APPROVED:
DATE: 04/15/2022
Ann Mader Stillman
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023



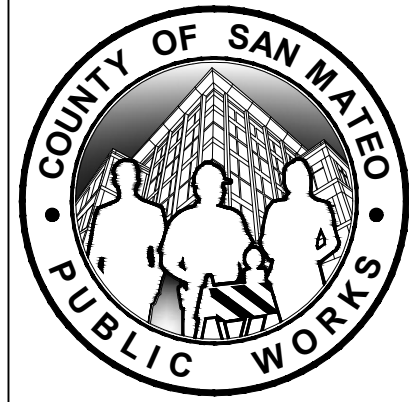
- NOTES
- TREES SHOWN ON THIS PLAN TO BE REMOVED SHALL BE TAGGED BY THE CONTRACTOR AND CONFIRMED BY THE ENGINEER PRIOR TO REMOVAL. ALL OTHER TREES SHALL BE PROTECTED. ALL TRIMMING OF TREES TO REMAIN SHALL BE APPROVED BY THE ENGINEER. TREE SYMBOLS SHOWN ON PLANS DO NOT REPRESENT ACTUAL CANOPY SIZE.



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APPROVED DATE: APRIL 15, 2022

Chris Hockett
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R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23

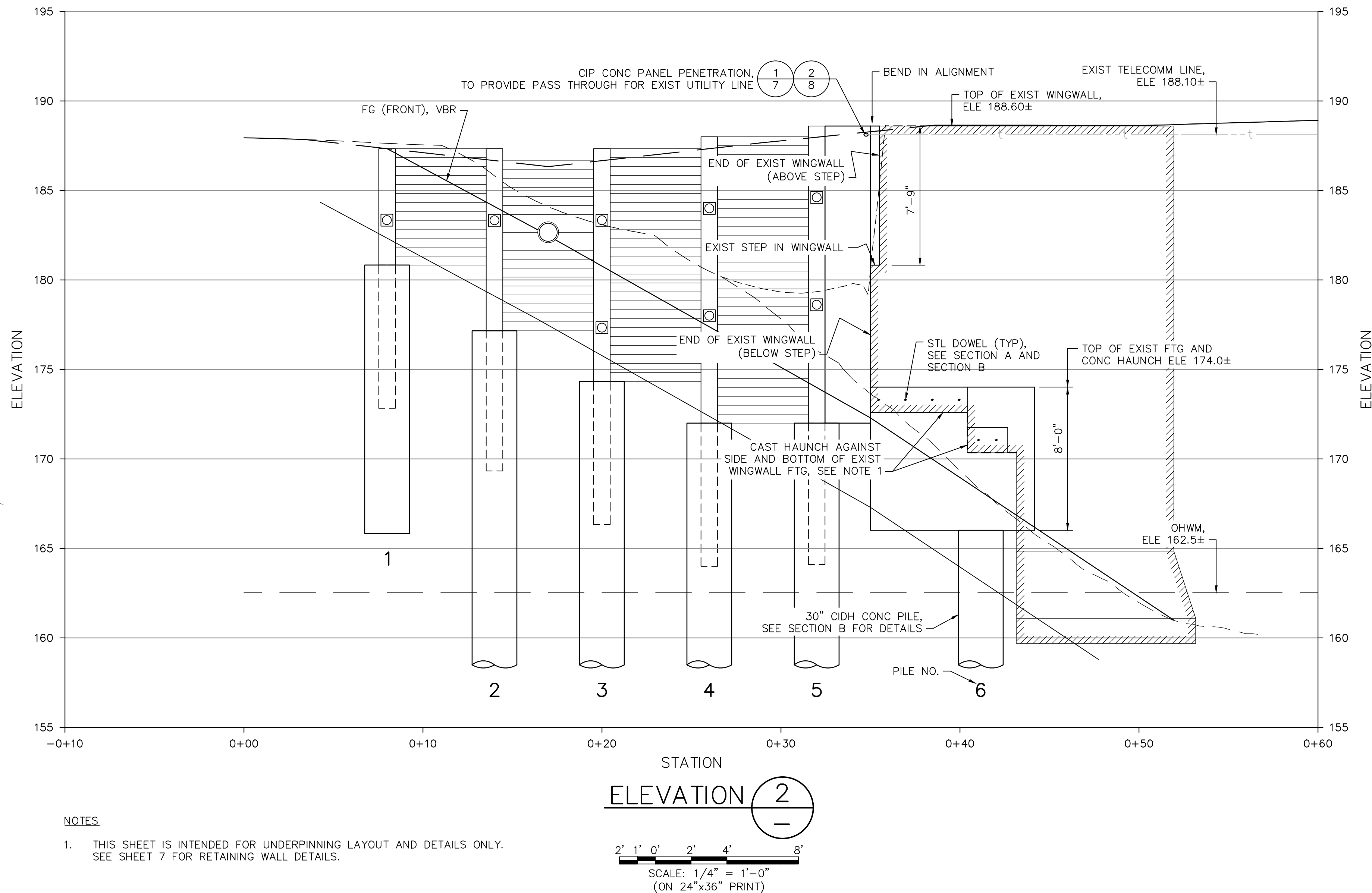
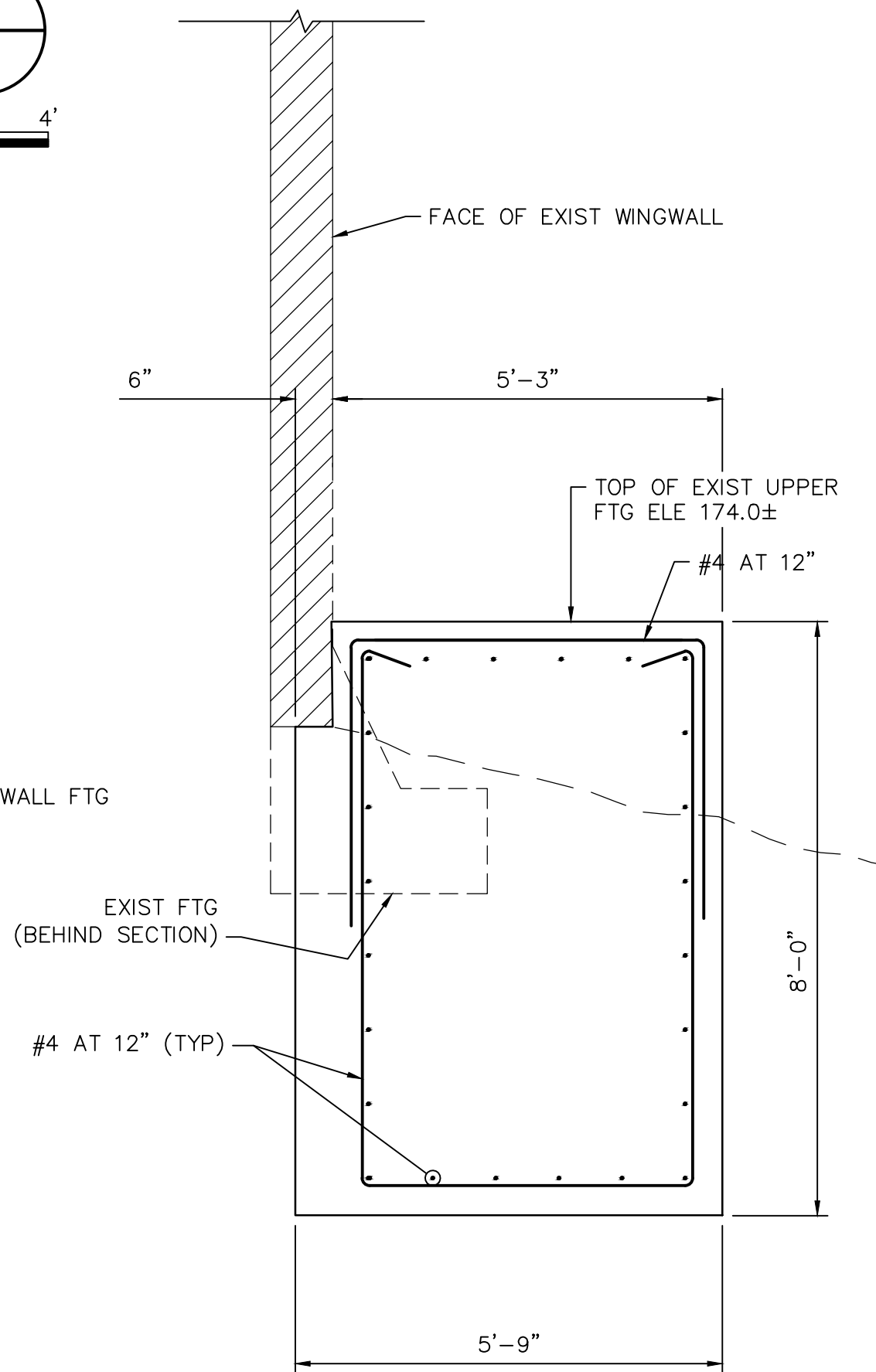
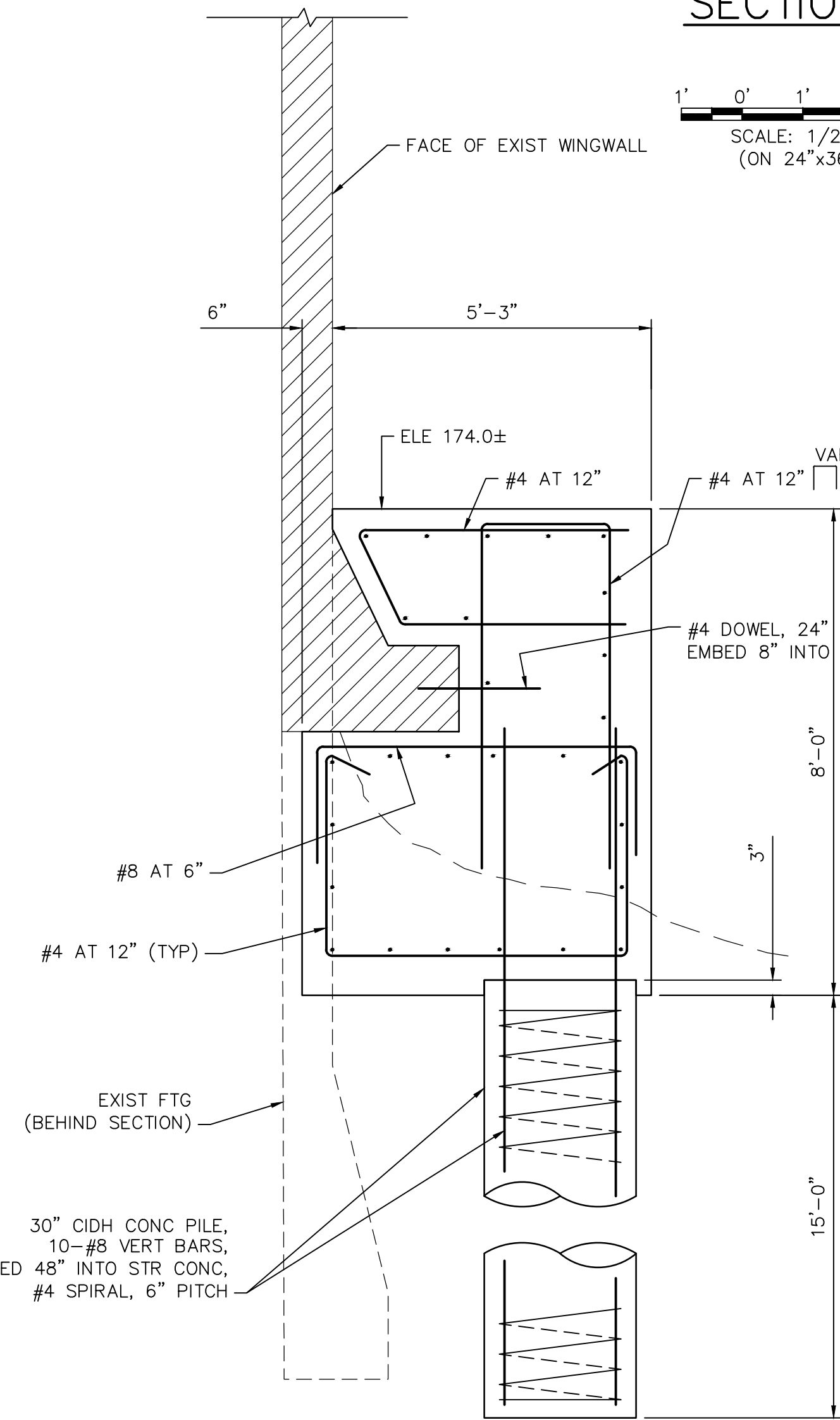
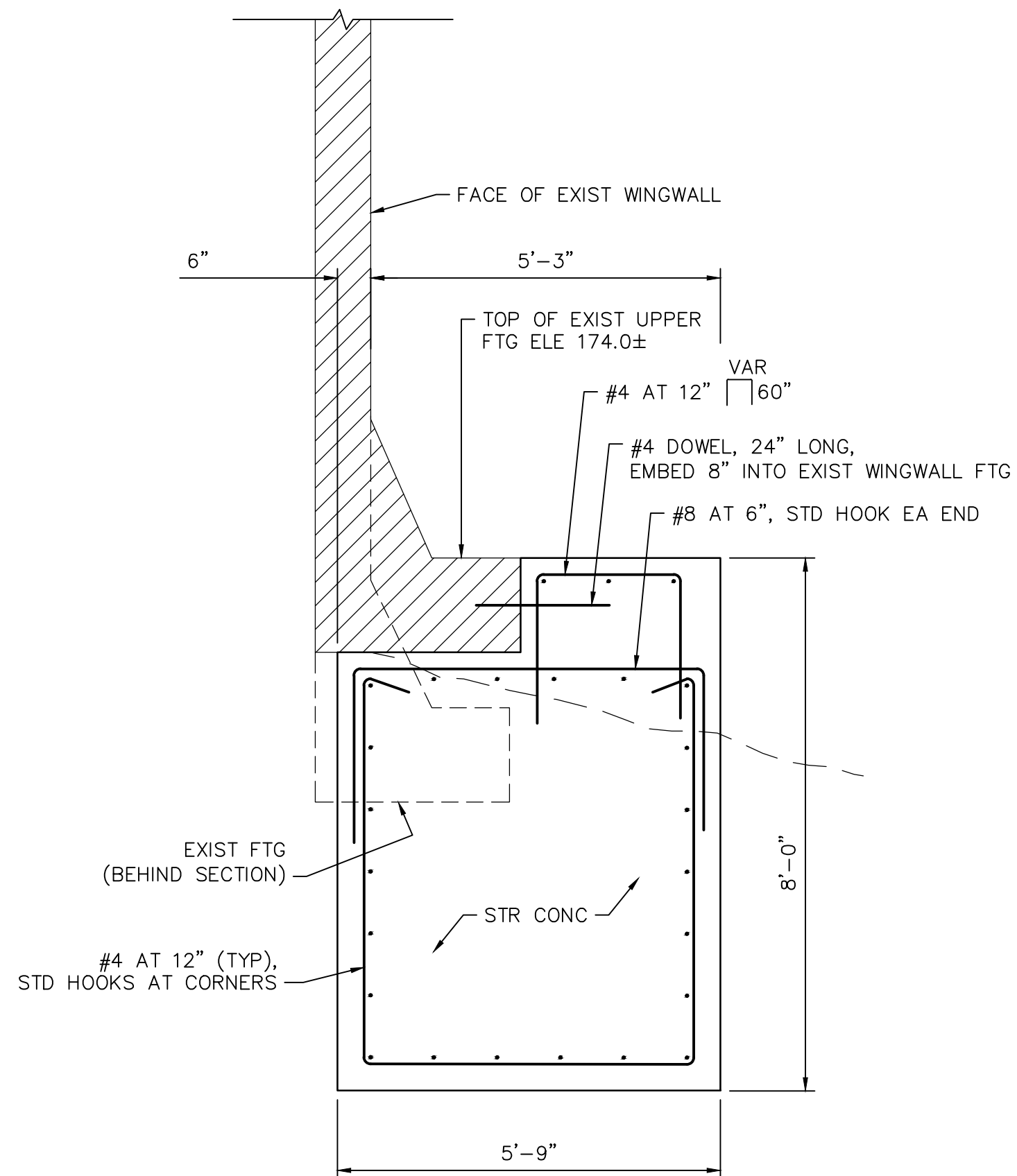


REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS SITE PLAN	SCALE: 1"=5'
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			0 1 2 3 4	SHEET 5 OF 20

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



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NOTES

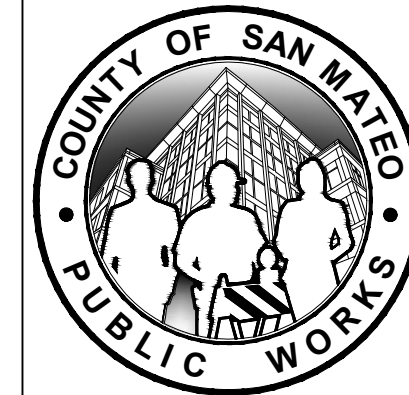
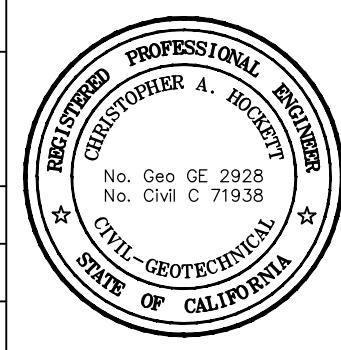
1. THIS SHEET IS INTENDED FOR UNDERPINNING LAYOUT AND DETAILS ONLY. SEE SHEET 7 FOR RETAINING WALL DETAILS.



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23

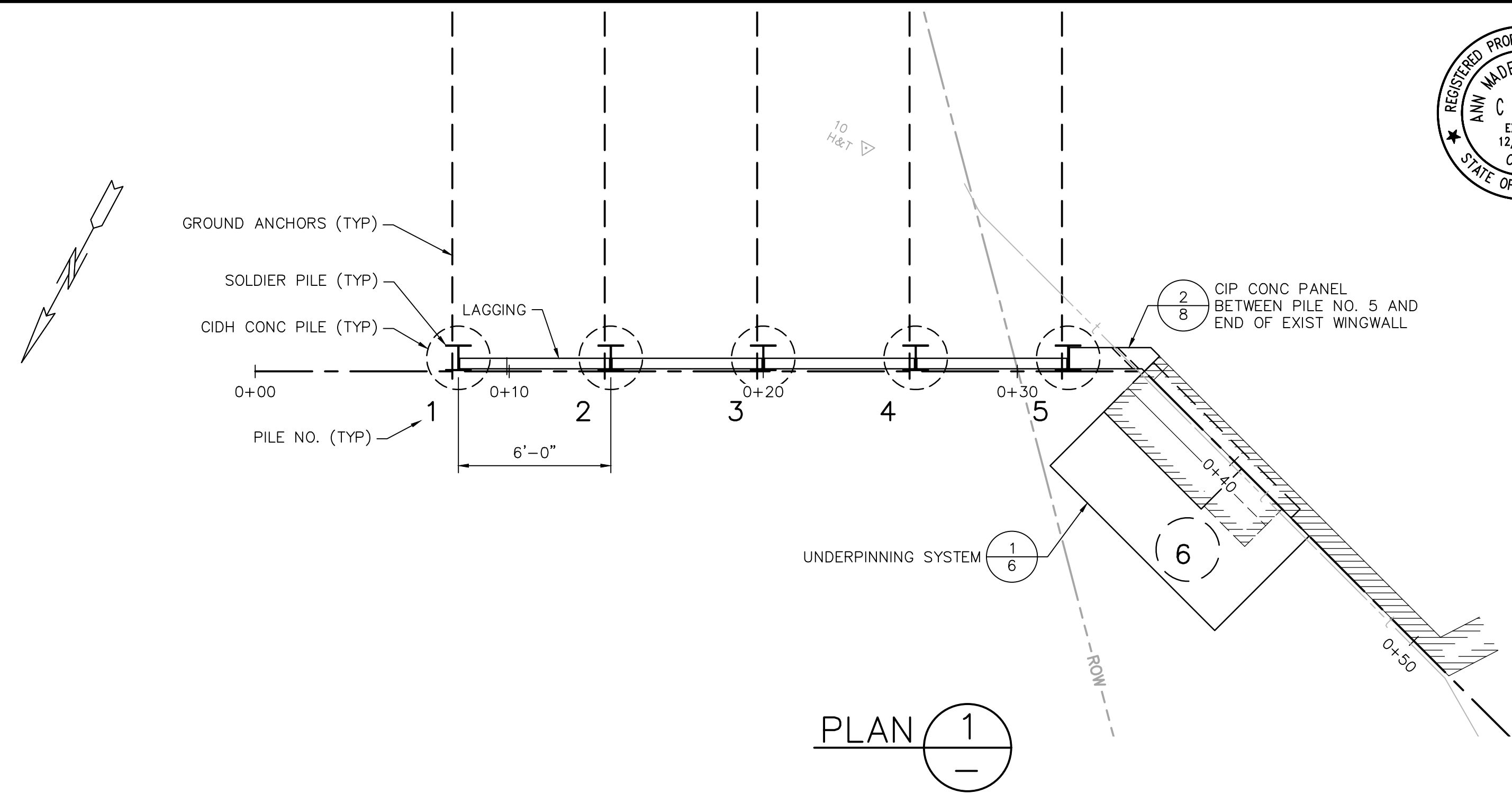


REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: 1/4"=1'
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 6 OF 20

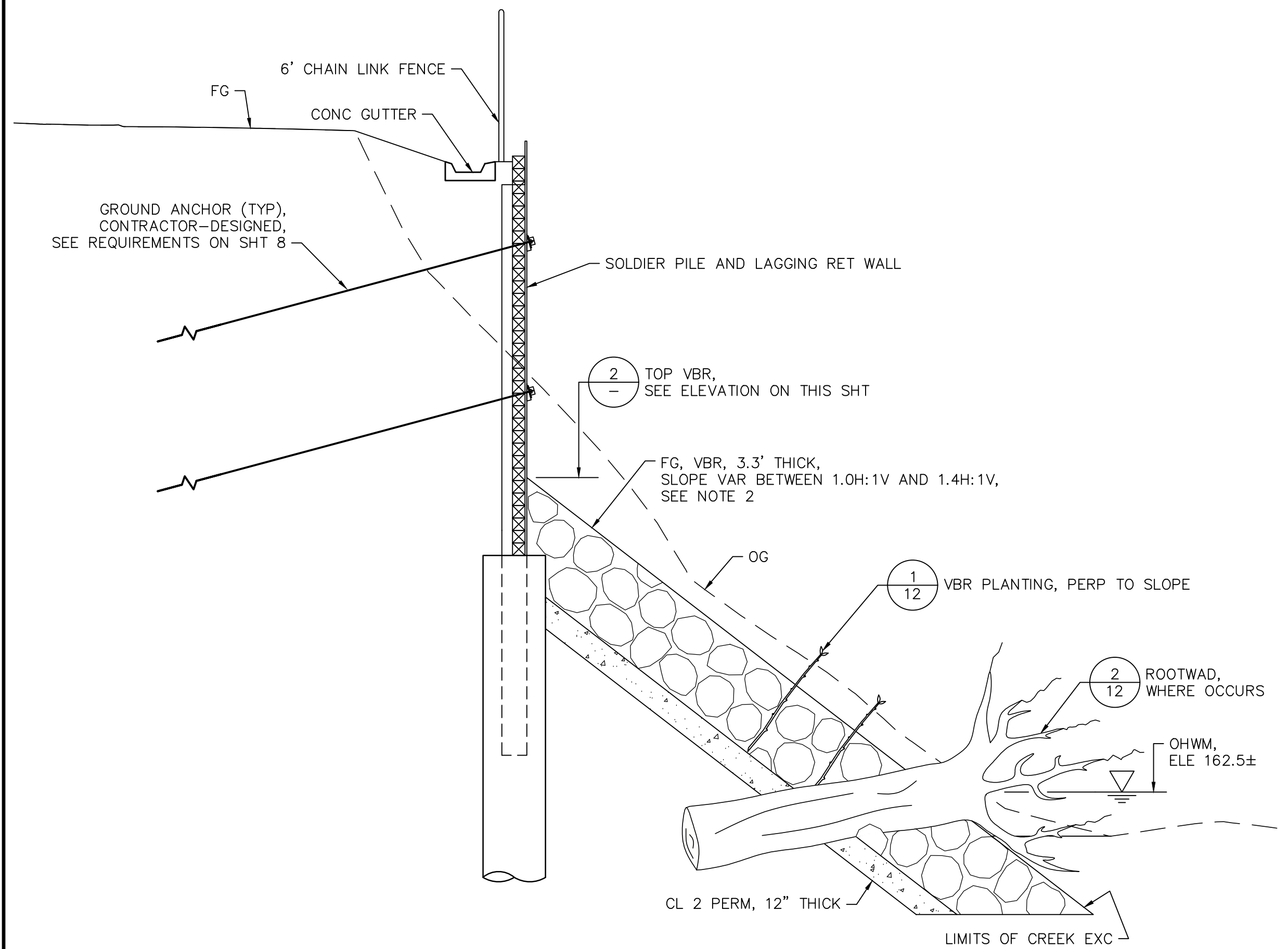
NOTES

1. PRIOR TO PLACING FIRST COURSE OF CONCRETE LAGGING, TOPS OF CONCRETE BACKFILL SHALL BE ADJUSTED BY CHIPPING OR CASTING ADDITIONAL CONCRETE BETWEEN FLANGES TO CREATE A UNIFORM, LEVEL FOOTING FOR LAGGING. CONCRETE LAGGING SHALL BE INSTALLED LEVEL AND PLUMB. DURABLE SPACERS SHALL BE PROVIDED BETWEEN LAGGING COURSES TO CREATE A 1/2-INCH GAP.
2. VEGETATED BOULDER REVETMENT SHALL BE CONSTRUCTED OF 1/4 TON CLASS ROCK SLOPE PROTECTION INFILLED WITH SUITABLE EXCAVATED MATERIAL. SUITABLE EXCAVATED MATERIAL SHALL BE FREE OF ORGANICS AND DELETERIOUS MATERIAL AND BE STOCKPILED ON-SITE. REMAINING EXCAVATED MATERIAL SHALL BE OFFHAULED TO AN APPROPRIATE LOCATION.

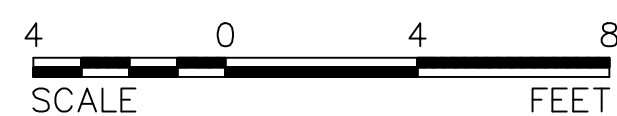
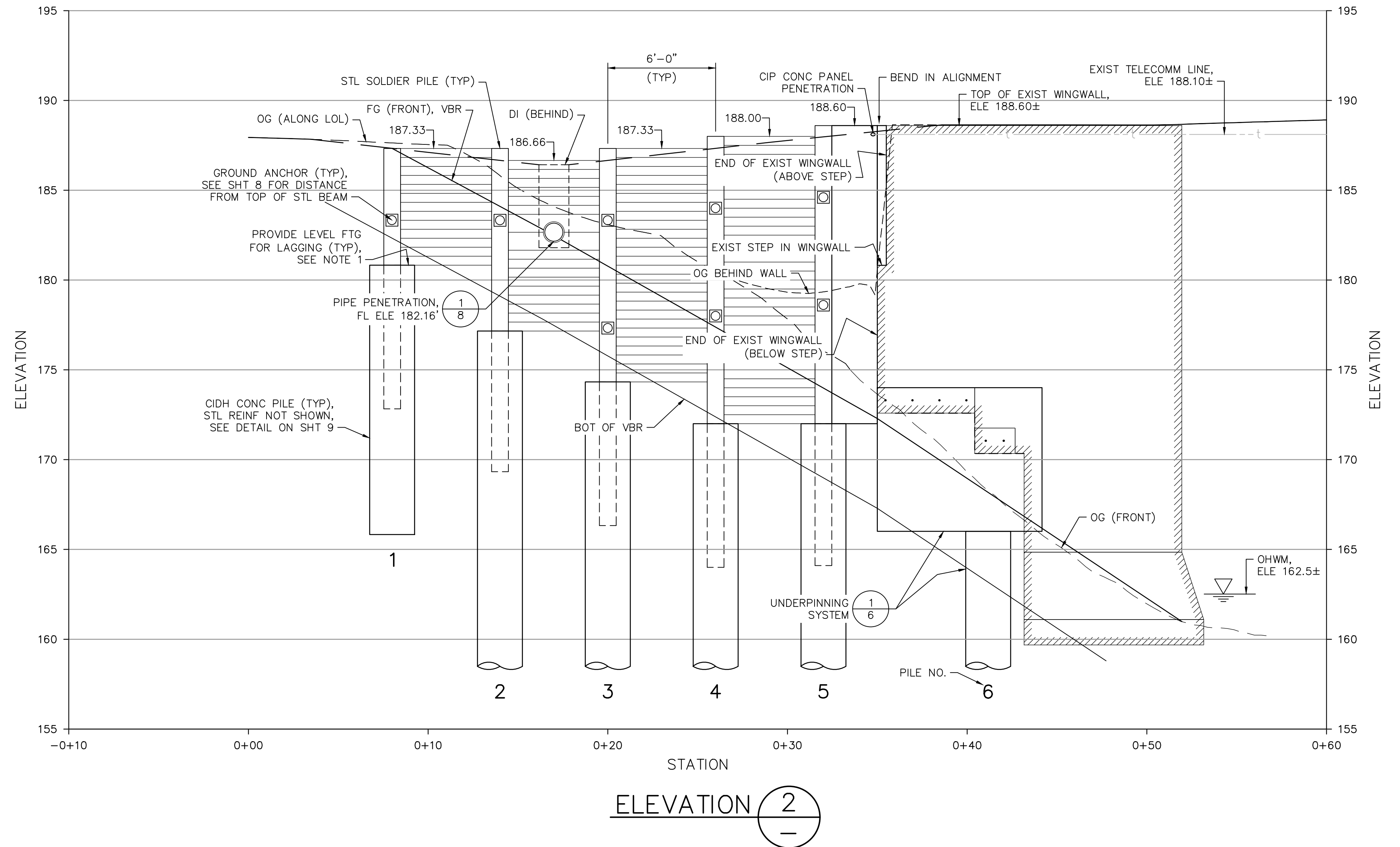
PILE DATA						
PILE NO.	STATION	TOP OF CIDH CONC ELE (FT)	CIDH CONC PILE LENGTH (FT)	TOP OF STL SOLDIER PILE ELE (FT)	STL SOLDIER PILE LENGTH (FT)	BOT OF STL SOLDIER PILE ELE (FT)
1	0+08.0	180.83	15.00	187.33	14.50	172.83
2	0+14.0	177.17	22.17	187.33	18.00	169.33
3	0+20.0	174.33	24.33	187.33	21.00	166.33
4	0+26.0	171.33	22.00	188.00	24.00	164.00
5	0+32.0	170.73	22.00	188.60	24.50	164.10
6	0+41.17	166.25	20.00	N/A	N/A	N/A



APPROVED: _____
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023



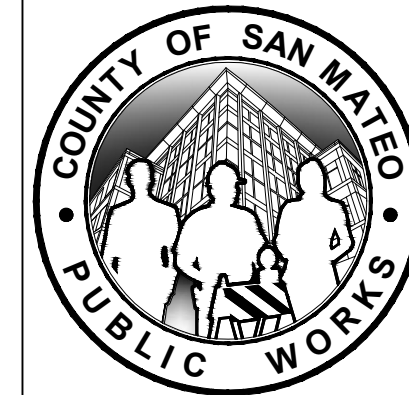
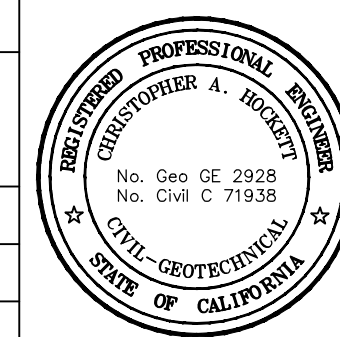
RETAINING WALL TYPICAL SECTION



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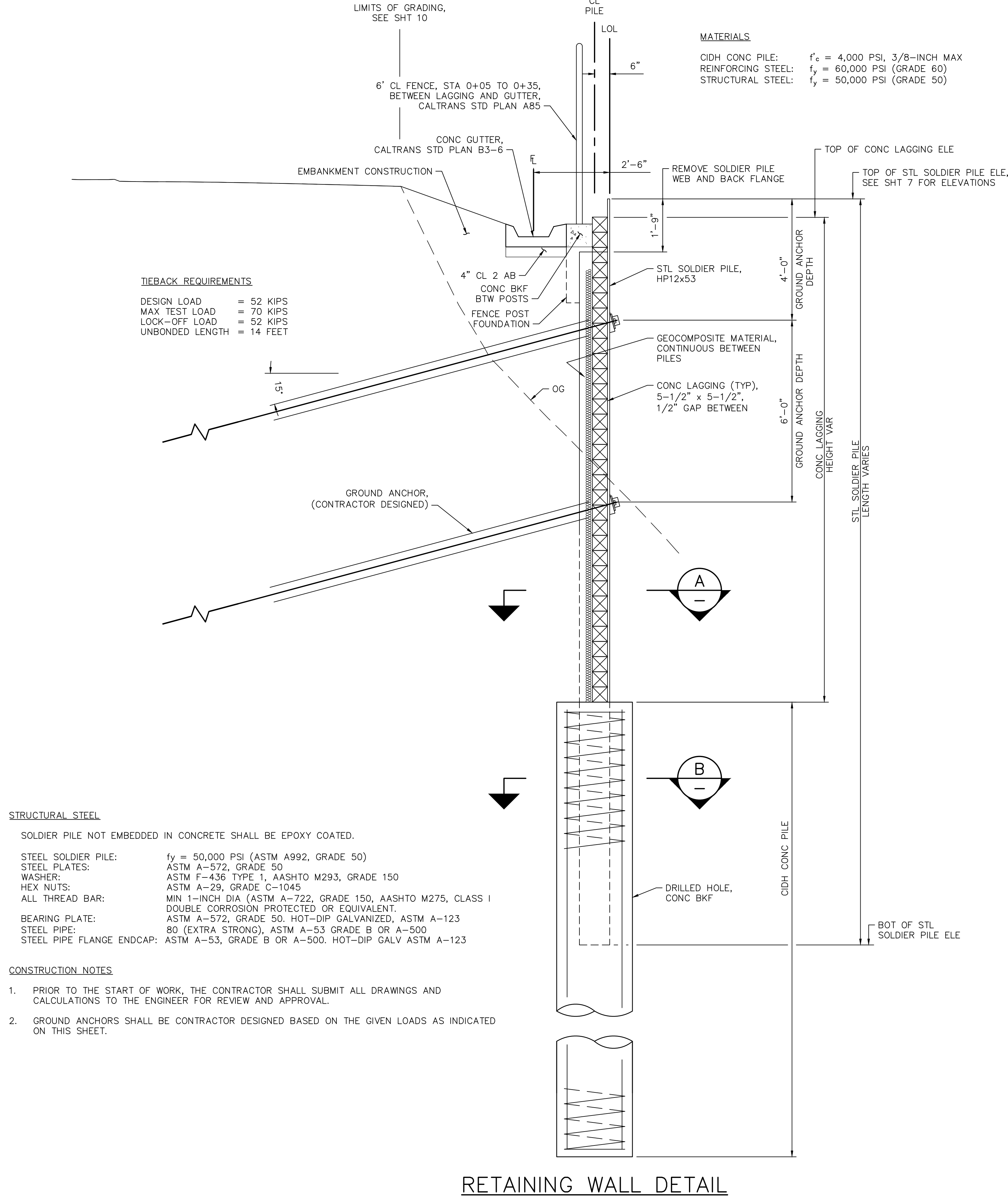
APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK		SCALE: 1"=5'
		DRAWN BY: EV	EMBANKMENT AND WINGWALL REPAIRS		DATE: APR 2022
		CHECKED BY: CH	RET. WALL PLAN / ELE. / TYP. SECTION		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES					
0 1 2 3 4					
					SHEET 7 OF 20

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STRUCTURAL STEEL

SOLDIER PILE NOT EMBEDDED IN CONCRETE SHALL BE EPOXY COATED.

STEEL SOLDIER PILE: $f_y = 50,000$ PSI (ASTM A992, GRADE 50)

STEEL PLATES: ASTM A-572, GRADE 50

WASHER: ASTM F-436 TYPE 1, AASHTO M293, GRADE 150

HEX NUTS: ASTM A-29, GRADE C-1045

ALL THREAD BAR: MIN 1-INCH DIA (ASTM A-722, GRADE 150, AASHTO M275, CLASS I DOUBLE CORROSION PROTECTED OR EQUIVALENT.

BEARING PLATE: ASTM A-572, GRADE 50. HOT-DIP GALVANIZED, ASTM A-123

STEEL PIPE: 80 (EXTRA STRONG), ASTM A-53 GRADE B OR A-500

STEEL PIPE FLANGE ENDCAP: ASTM A-53, GRADE B OR A-500. HOT-DIP GALV ASTM A-123

CONSTRUCTION NOTES

- PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT ALL DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL.
- GROUND ANCHORS SHALL BE CONTRACTOR DESIGNED BASED ON THE GIVEN LOADS AS INDICATED ON THIS SHEET.

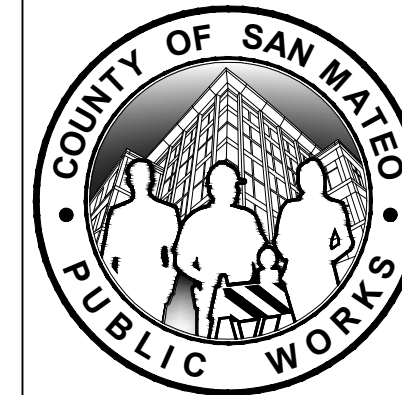
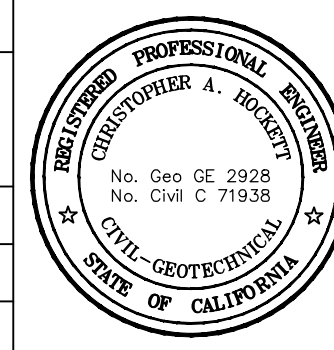
2 0 2 4
SCALE FEET



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Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

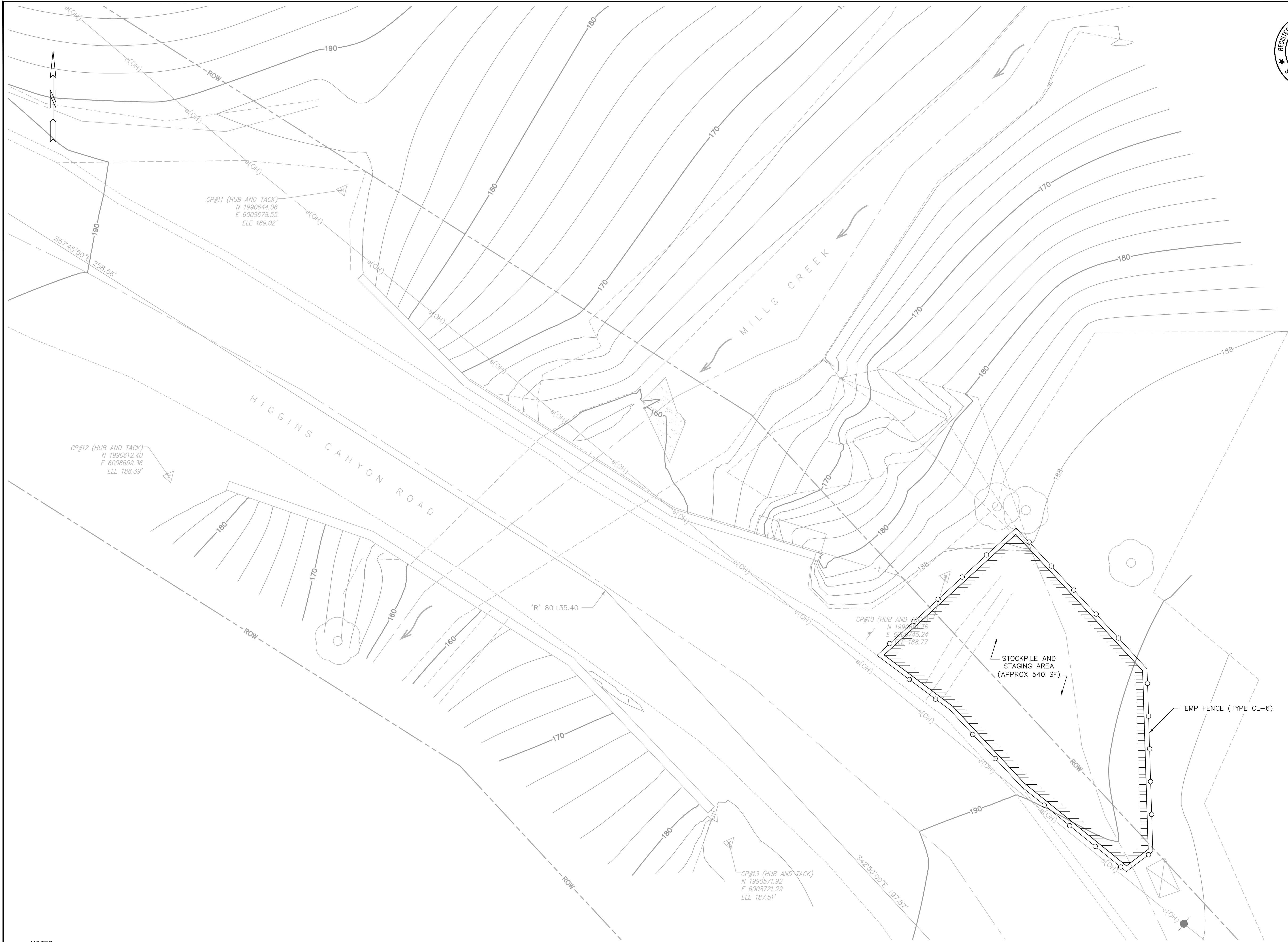
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS RETAINING WALL DETAILS	SCALE: 1"=2'
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 8 OF 20



APPROVED: _____
DATE: 04/15/2022
Ann Mader Stillman
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023



NOTES

1. SEE SHEET 5 FOR FENCING REQUIREMENTS.



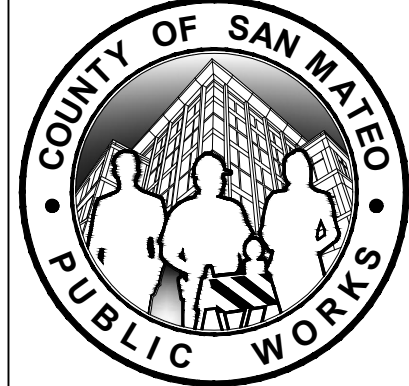
6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

Chris Hockett

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.

R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK	SCALE: 1"=5'
		DRAWN BY: EV	EMBANKMENT AND WINGWALL REPAIRS	DATE: APR 2022
		CHECKED BY: CH	STOCKPILE AND STAGING AREA	FILE NO.: E5003
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 9 OF 20



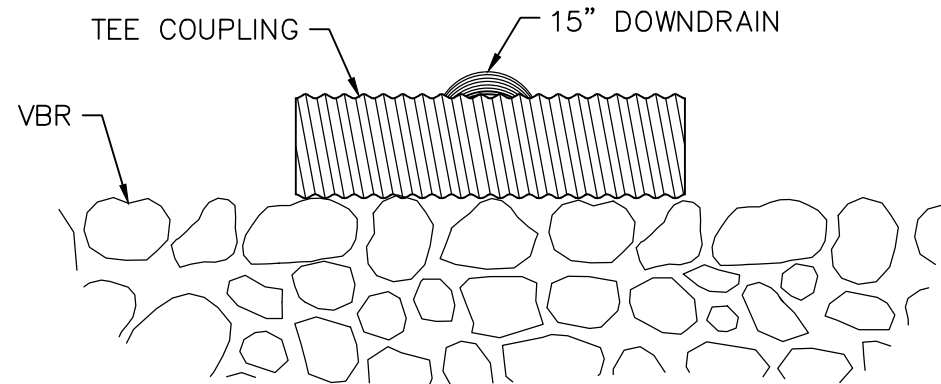
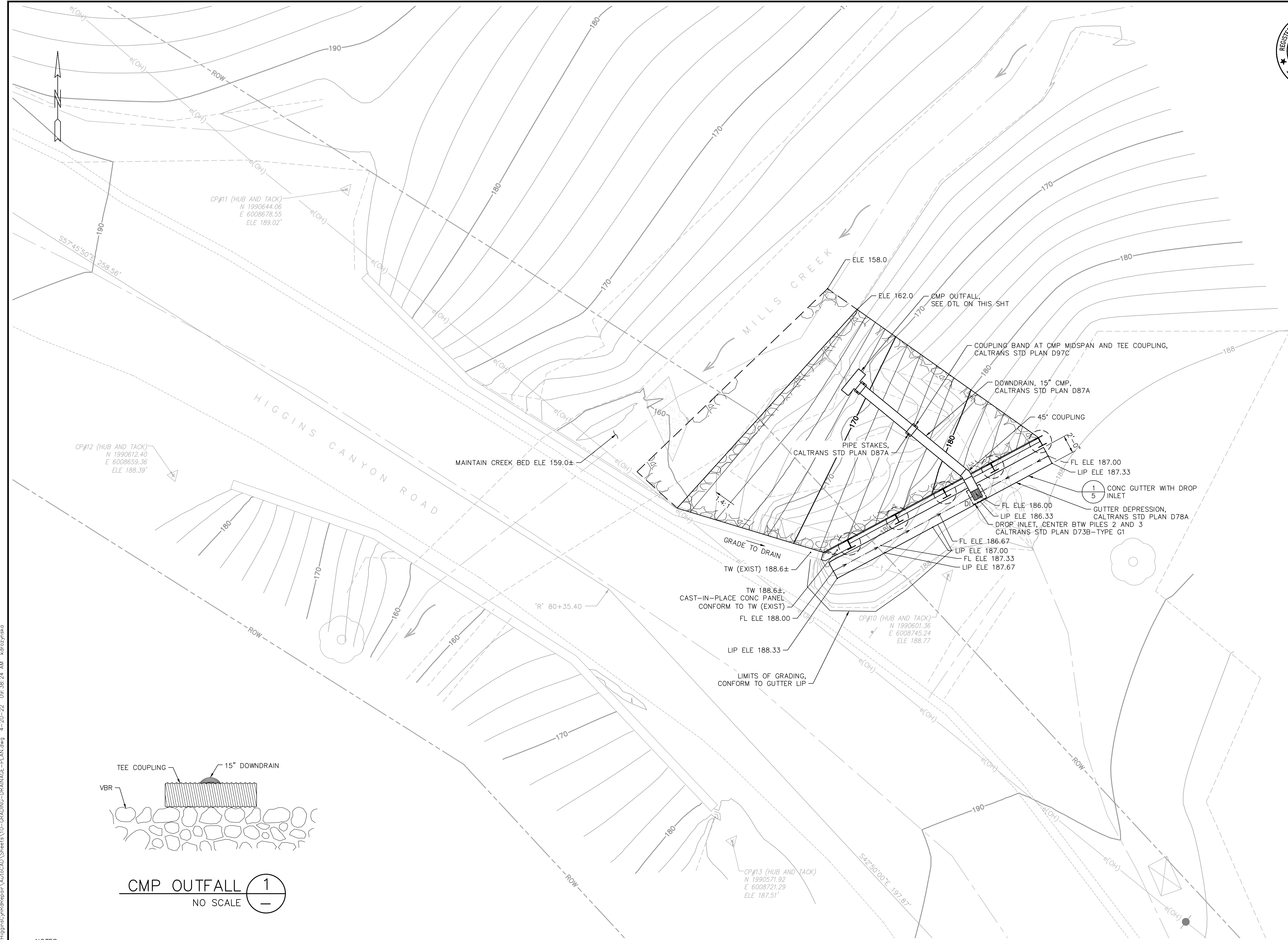
APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

QUANTITIES (TOTAL)

STRUCTURE EXCAVATION = 16 CY
CHANNEL EXCAVATION = 130 CY
STRUCTURE BACKFILL = 16 CY
EMBANKMENT CONSTRUCTION = 42 CY
RSP REVETMENT = 130 CY

QUANTITIES (BELOW OHWM)

CHANNEL EXCAVATION = 35 CY
RSP REVETMENT = 23 CY



CMP OUTFALL 1
NO SCALE

NOTES

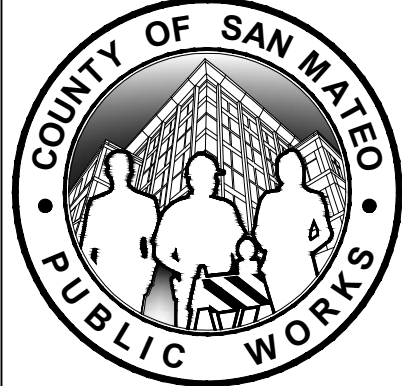
1. GRADING SHALL BE LIMITED TO AREAS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER. GRADING SHALL INCLUDE EXCAVATION AND/OR COMPACTED EARTH FILL TO DEVELOP UNIFORM GRADES AND TO FACILITATE DRAINAGE TOWARD THE RETAINING WALL GUTTER. EARTH FILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION AS DETERMINED BY ASTM D1557.



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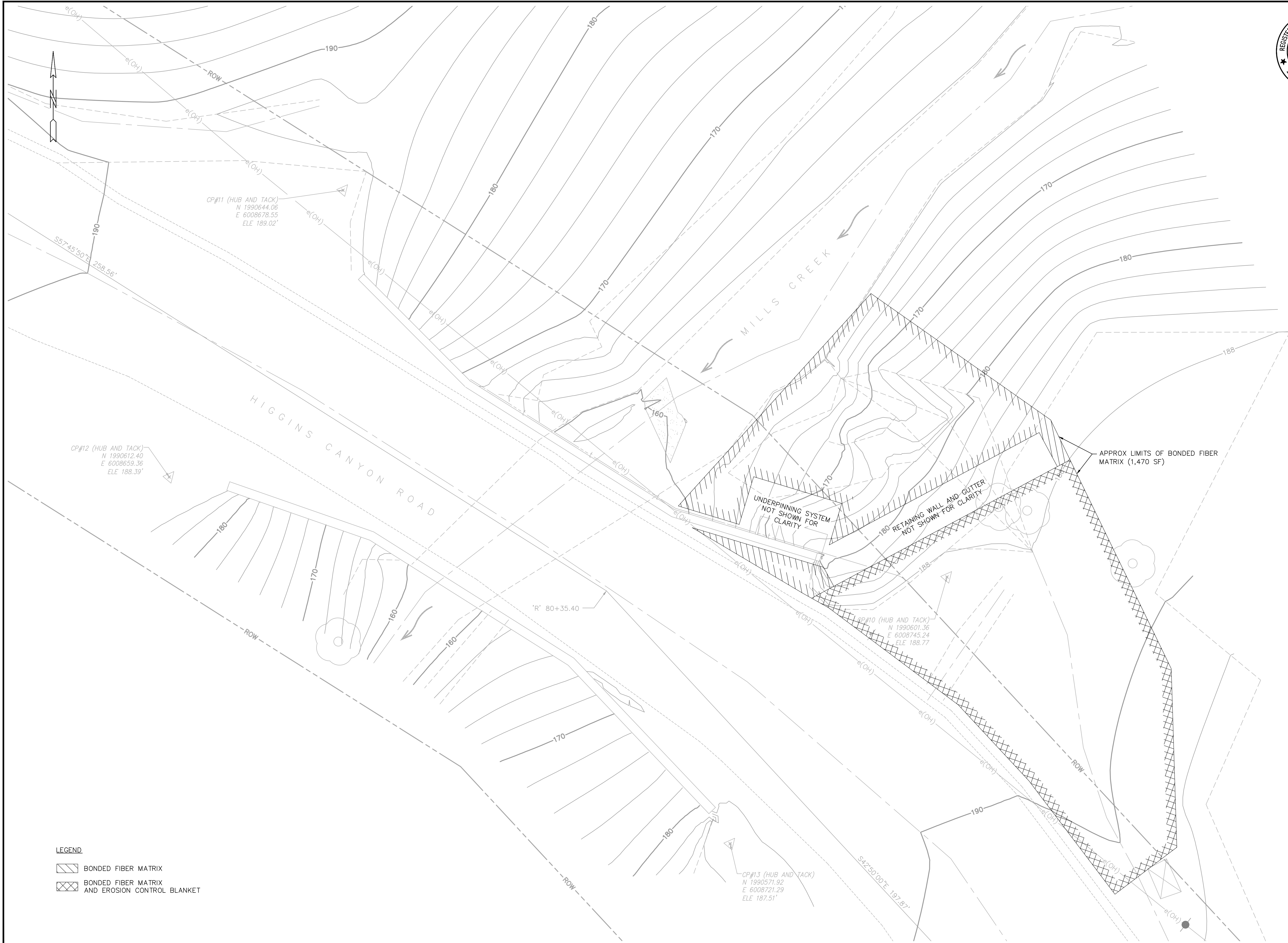
APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK	SCALE: 1"=5'
		DRAWN BY: EV	EMBANKMENT AND WINGWALL REPAIRS	DATE: APR 2022
		CHECKED BY: CH	GRADING AND DRAINAGE PLAN	FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 10 OF 20

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LEGEND

- BONDED FIBER MATRIX
- BONDED FIBER MATRIX AND EROSION CONTROL BLANKET

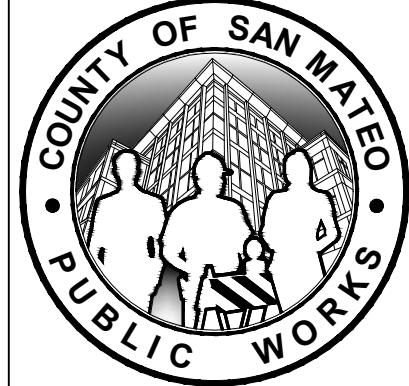
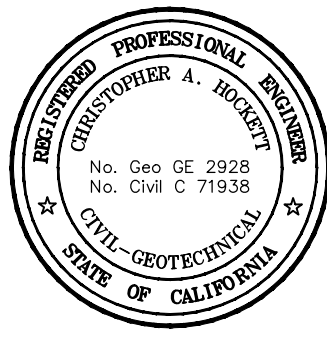


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Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.

R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



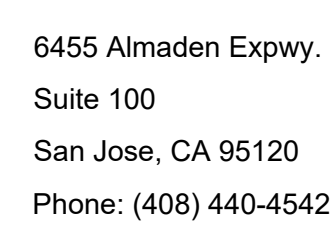
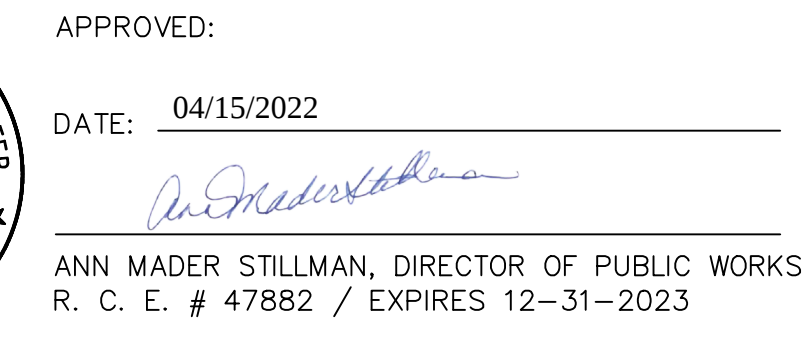
REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS EROSION CONTROL PLAN	SCALE: 1"=5'
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	SHEET 11 OF 20

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

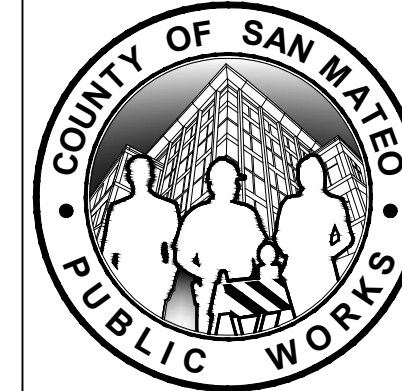


APPROVED:
DATE: 04/15/2022

ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023




CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-20



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS PLANTING PLAN	SCALE: 1"=5'
		DRAWN BY: EV		DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 12 OF 20

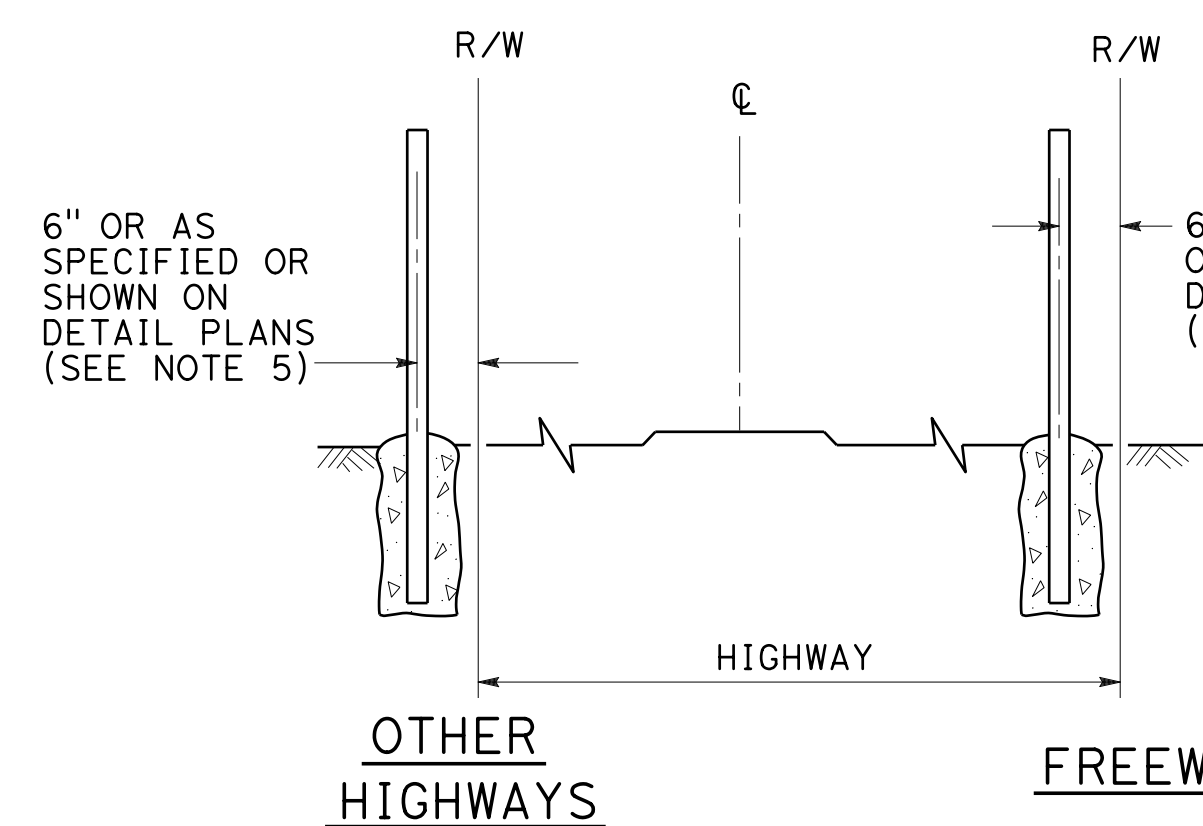


APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

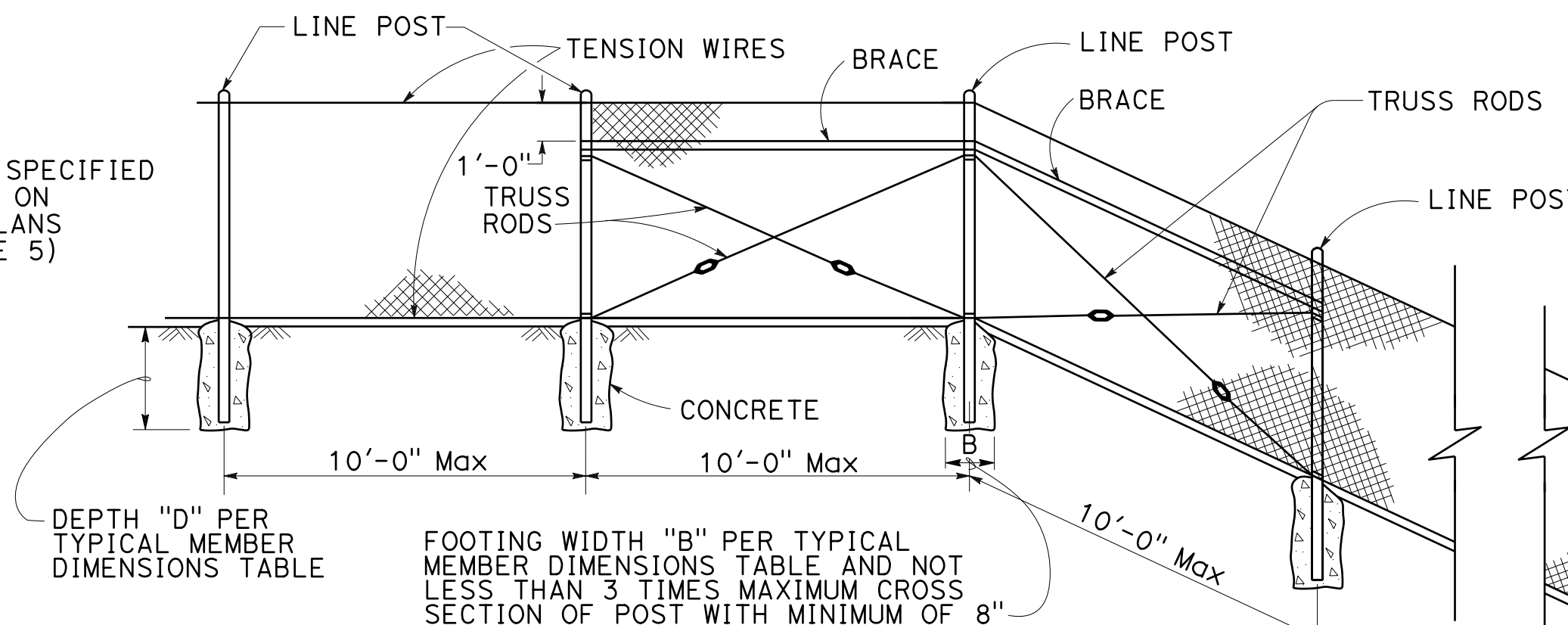
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

B. Valizadeh
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

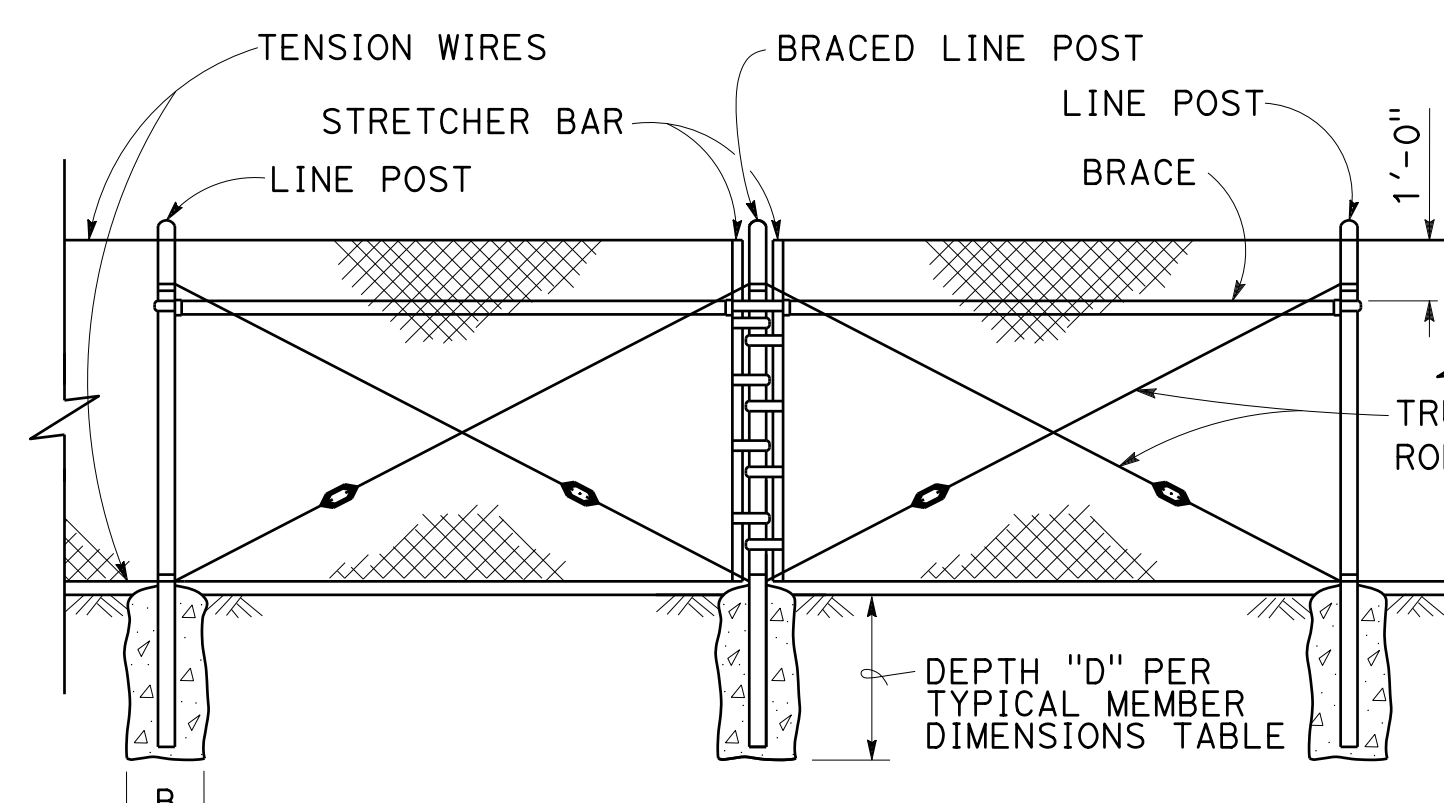
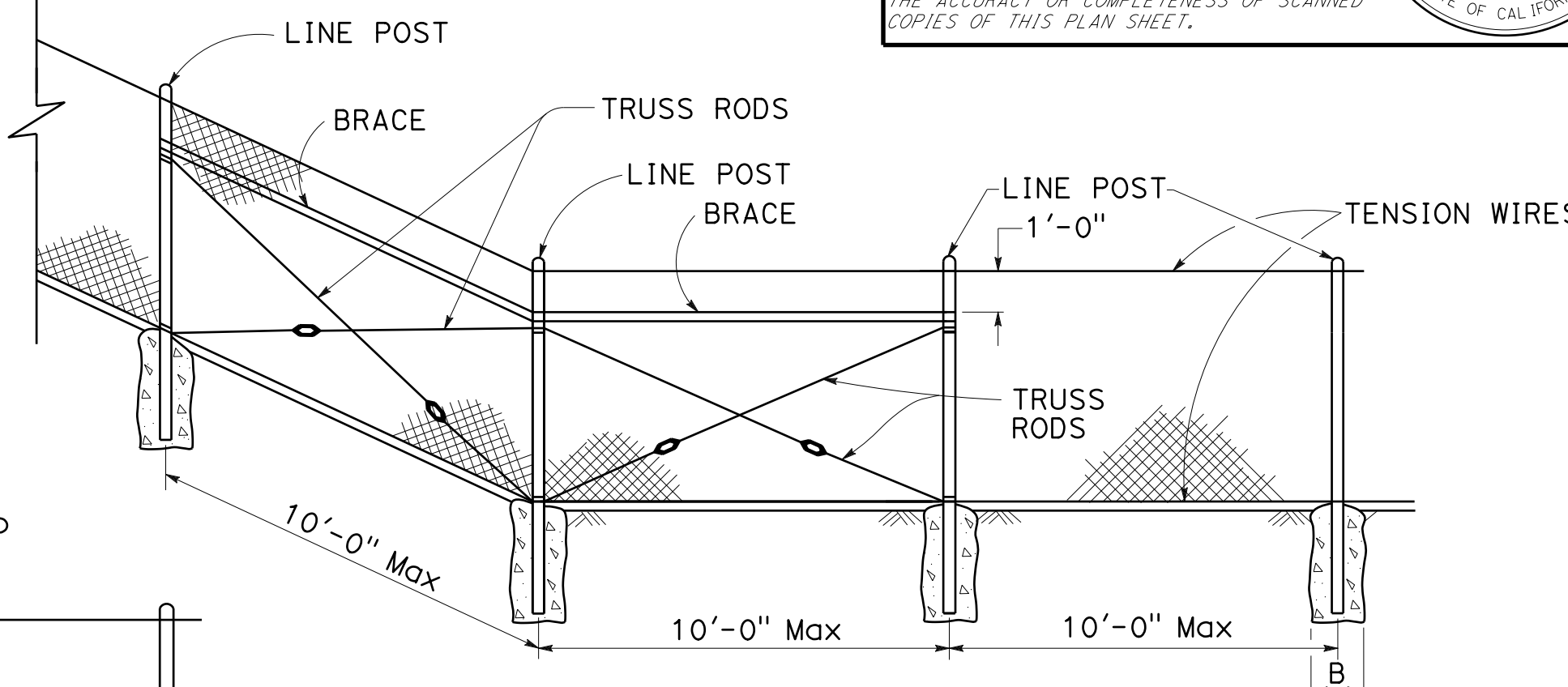
M. Reza Valizadeh
REGISTERED PROFESSIONAL ENGINEER
No. C51902
Exp. 6-30-18
CIVIL
STATE OF CALIFORNIA



FENCE LOCATION

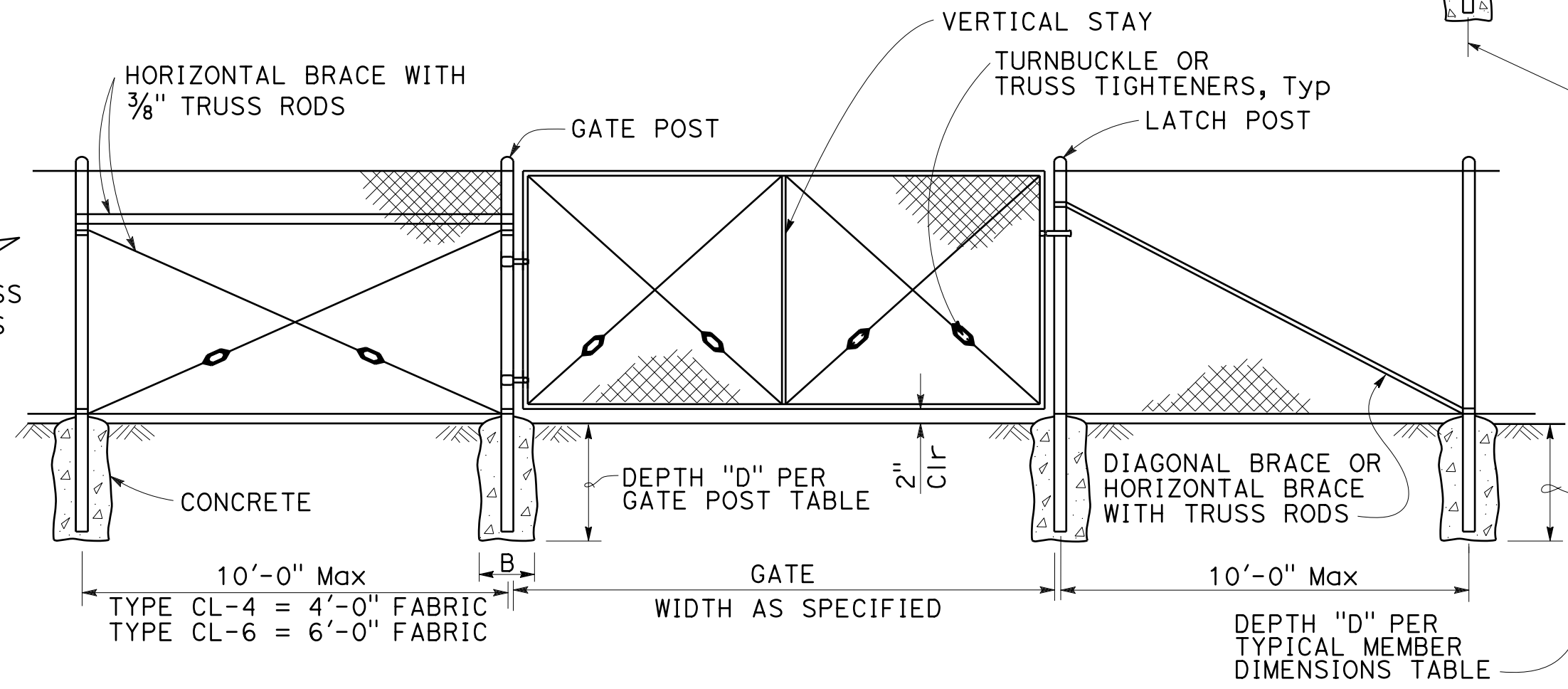


CHAIN LINK FENCE ON SHARP BREAK IN GRADE



BRACED LINE POST INSTALLATION

Braced line post at intervals not exceeding 1000'

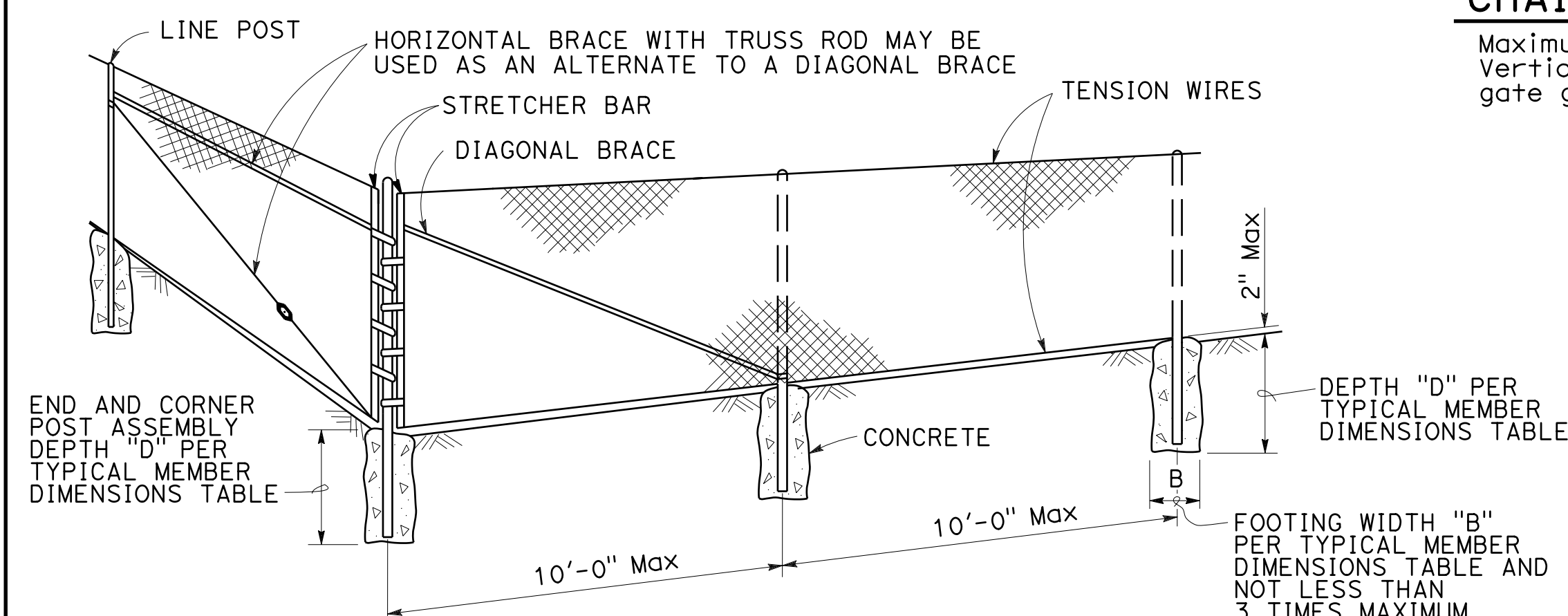


CHAIN LINK GATE INSTALLATION

Maximum Gate Width is 12'-0"
Vertical Stay is required in middle of gate greater than 8'-0" in width.

GATE POST						
FENCE HEIGHT (Max)	SLATTED	B (in)	D (ft)	ROUND PIPE		
				SECTION	ROUND OD PIPE	WEIGHT (lb/ft)
5'-0"	NO	12"	2'-6"	3 Std	3.50"	7.58
6'-0"	NO	12"	2'-6"	3 Std	3.50"	7.58
8'-0"	NO	12"	3'-0"	3 Std	3.50"	7.58
10'-0"	NO	14"	3'-6"	3 Std	3.50"	7.58
5'-0"	YES	12"	3'-0"	3 1/2 Std	4.00"	9.12
6'-0"	YES	14"	3'-6"	4 Std	4.50"	10.80
8'-0"	YES	18"	3'-6"	5 Std	5.56"	14.60
10'-0"	YES	20"	4'-0"	6 Std	6.63"	19.00

Above post dimensions and weights are minimums.
Larger sizes may be used upon approval.



CORNER POST

NOTES:

- The table to the right shows minimum sized posts and braces complying with the specifications. Larger or heavier post and brace sizes may be used upon approval.
- Sections shown in the tables must also comply with the strength requirements and other provisions of the Specifications.
- Other sections which comply with the strength requirements and other provisions of the Specifications may be used upon approval.
- Options exercised shall be uniform on any one project.
- Offset to be 2'-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20'-0" long.
- See Standard Plan A85B for Brace, Stretcher Bar, and Truss Tightener Details.

TYPICAL MEMBER DIMENSIONS (See Notes)													
FENCE HEIGHT (Max)	SLATTED	B (in)	D (ft)	LINE POSTS					BRACES				
				ROUND PIPE			ROLL FORMED		ROUND PIPE			ROLL FORMED	
				SECTION	ROUND OD PIPE	WEIGHT (lb/ft)			SECTION	ROUND OD PIPE	WEIGHT (lb/ft)		
							SECTION	WEIGHT (lb/ft)				SECTION	WEIGHT (lb/ft)
5'-0"	NO	8"	2'-6"	1½ Std	1.90"	2.72	1.875" x 1.625"	1.85	1½" Std	1.90"	2.72	1.625" x 1.250"	1.35
6'-0"	NO	10"	2'-6"	2 Std	2.38"	3.66	1.875" x 1.625"	2.40	2 Std	2.38"	3.66	1.625" x 1.250"	1.35
8'-0"	NO	12"	3'-0"	2½ Std	2.88"	5.80	3.250" x 2.500"	4.50	2 Std	2.38"	3.66	1.625" x 1.250"	1.35
10'-0"	NO	14"	3'-6"	3 Std	3.50"	7.58	3.250" x 2.500"	4.50	2½ Std	2.88"	5.80	1.625" x 1.250"	1.35
5'-0"	YES	12"	3'-0"	3½ Std	4.00"	9.12	N/A	-	2 Std	2.38"	3.66	N/A	-
6'-0"	YES	14"	3'-0"	4 Std	4.50"	10.80	N/A	-	2 Std	2.38"	3.66	N/A	-
8'-0"	YES	18"	3'-6"	5 Std	5.56"	14.60	N/A	-	2 Std	2.38"	3.66	N/A	-
10'-0"	YES	20"	4'-0"	6 Std	6.63"	19.00	N/A	-	2½ Std	2.88"	5.80	N/A	-

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CHAIN LINK FENCE
NO SCALE

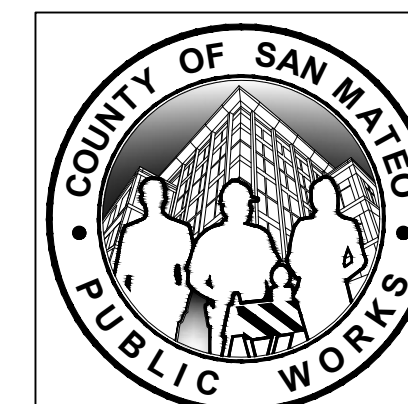
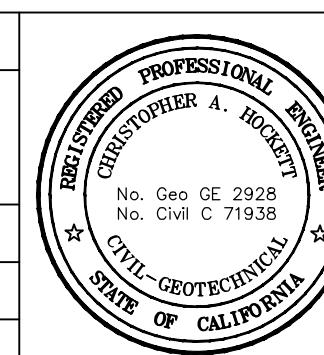
A85



6455 Almaden Expwy.
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Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

Chris Hockett
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23

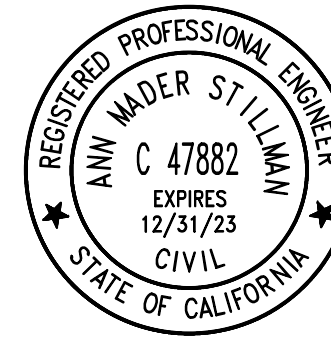


REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (1 OF 8)	DATE: APR 2022
		CHECKED BY: CH	ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	FILE NO.: E5003
			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SHEET 13 OF 20

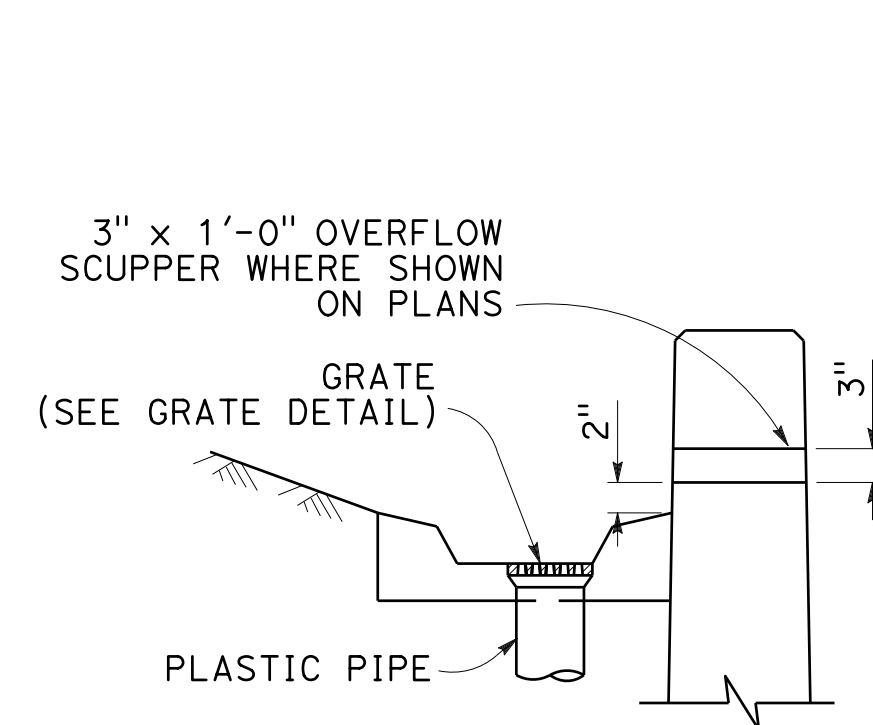


APPROVED:
DATE: 04/15/2022
Ann Mader Stillman
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

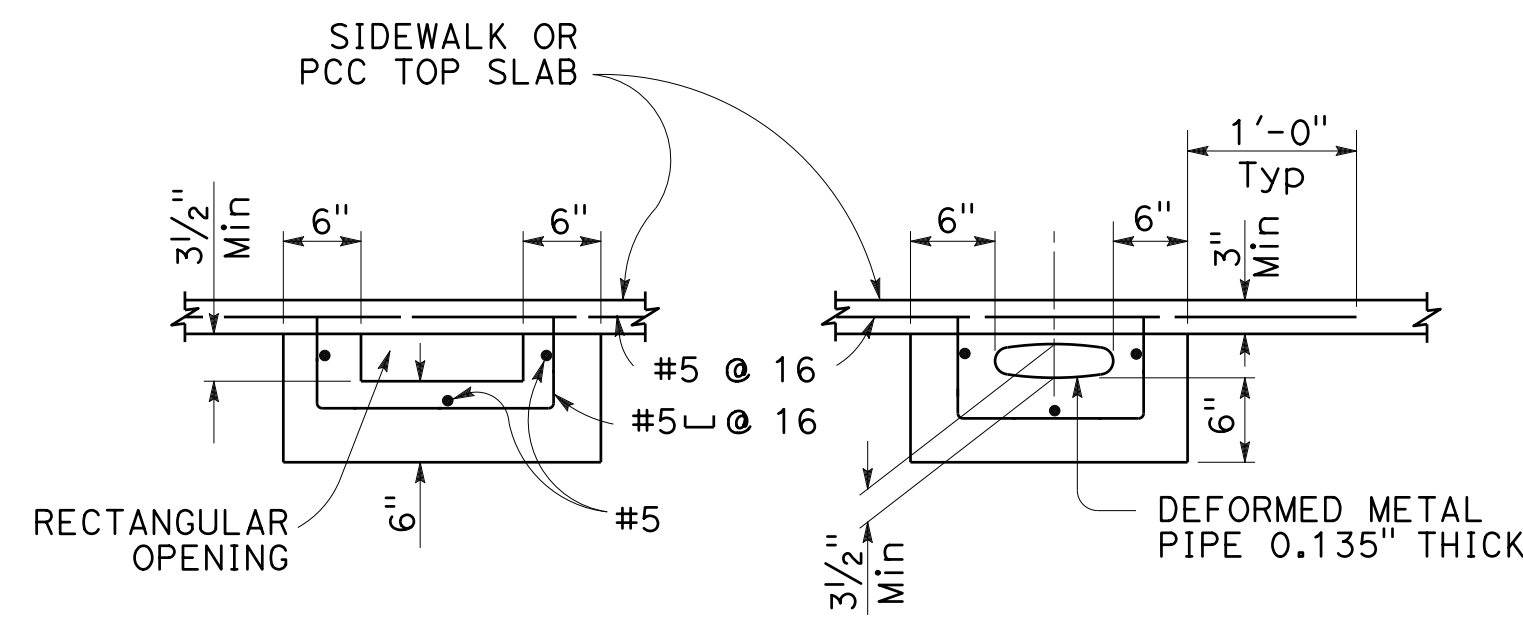
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

Gary Wong
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OF AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

Gary Wong
REGISTERED PROFESSIONAL ENGINEER
No. C58298
Exp. 6-30-18
CIVIL
STATE OF CALIFORNIA

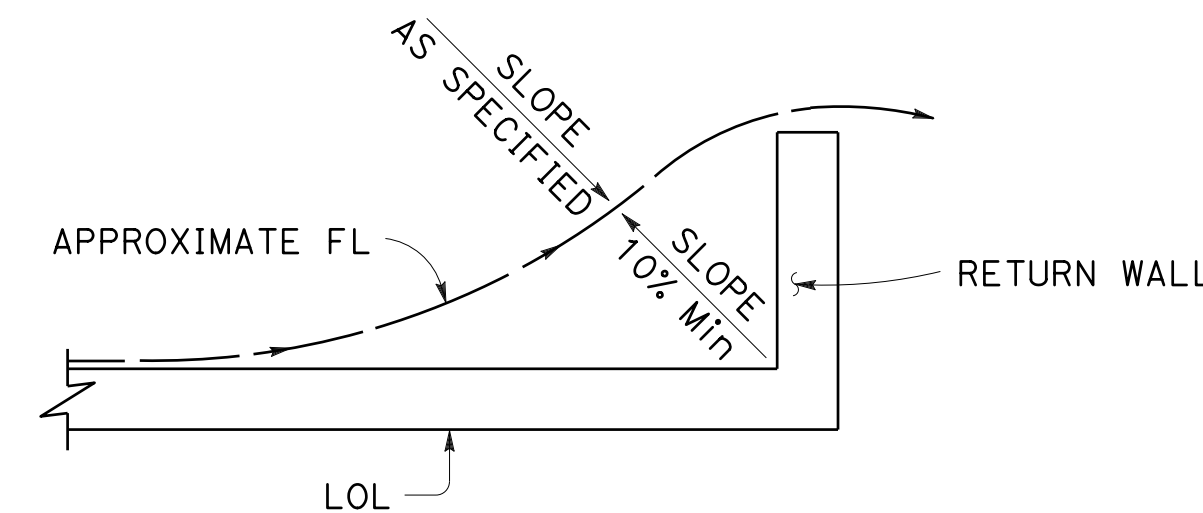


WALL DRAIN DETAIL

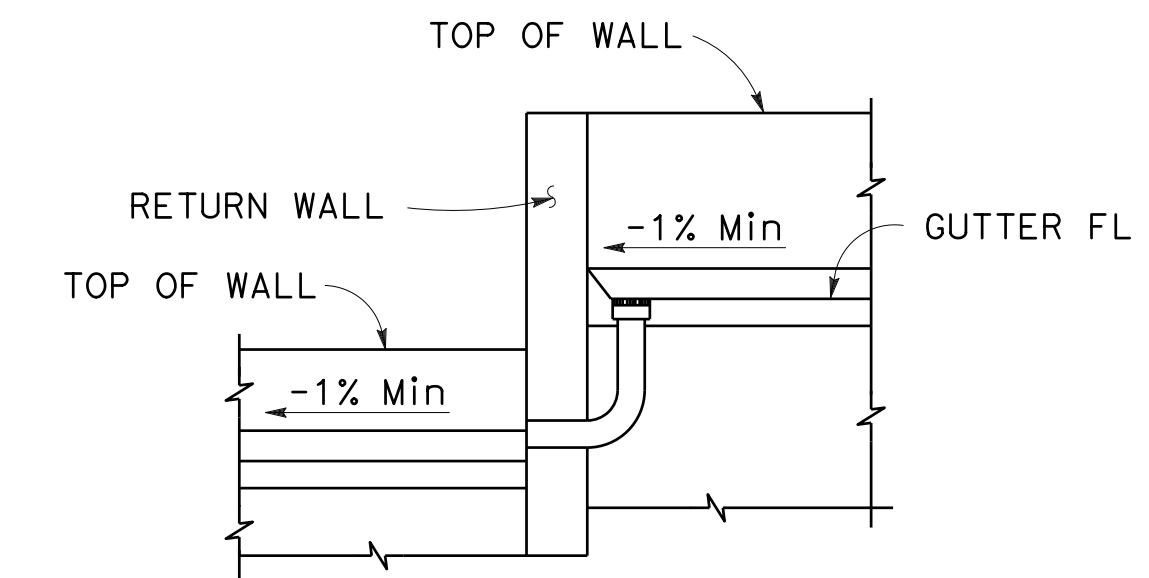


NOTES:
Area of opening to be not less than that of pipe from wall gutter. Make opening transition in wall. Edge opening in curb face to 3/4" minimum radius.

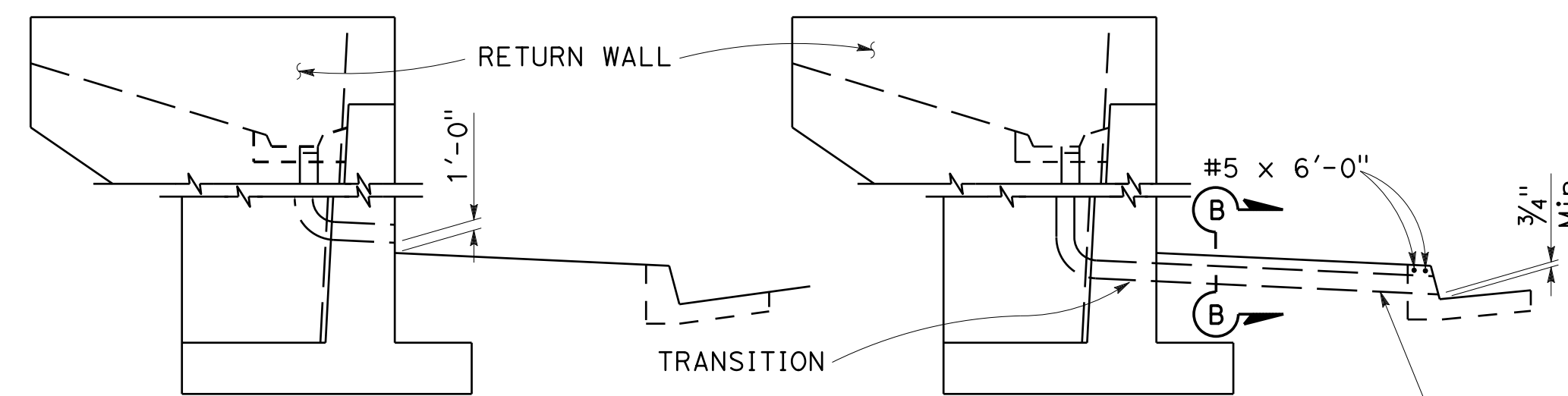
OUTLET DETAIL - SECTION B-B



WALL DRAINAGE WHERE GUTTER NOT REQUIRED



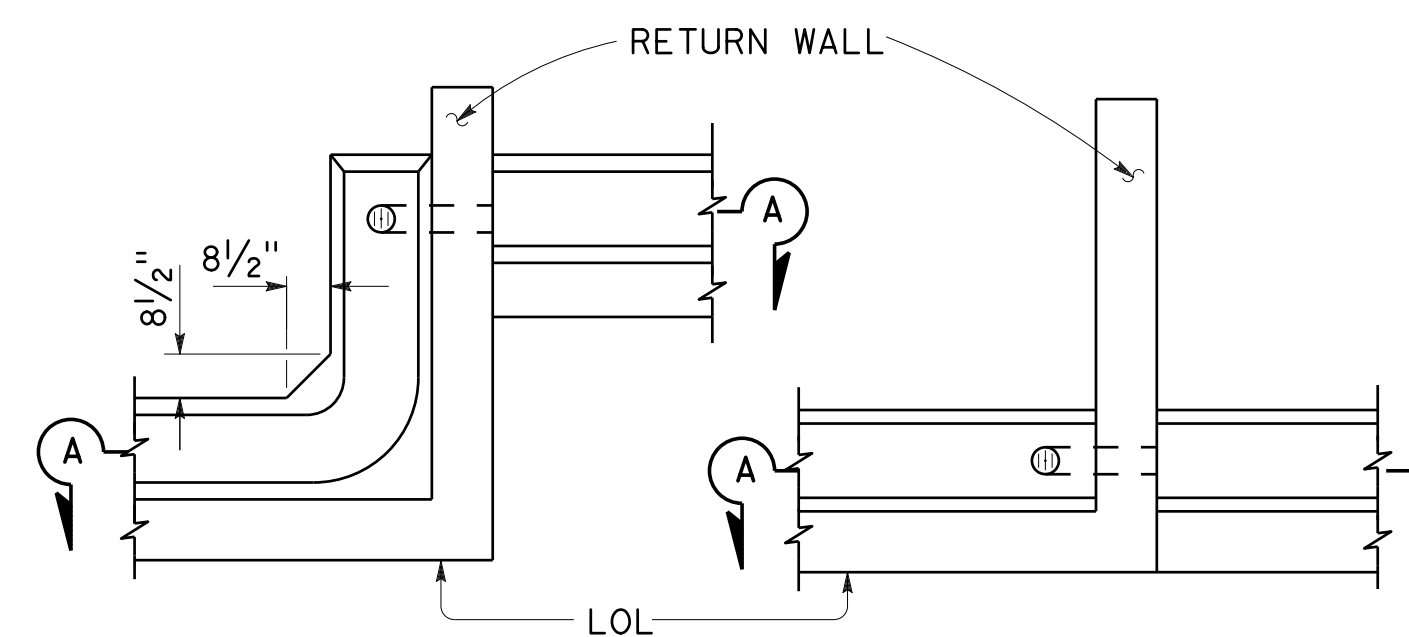
SECTION A-A



RETAINING WALL, FACE OF WALL OUTLET

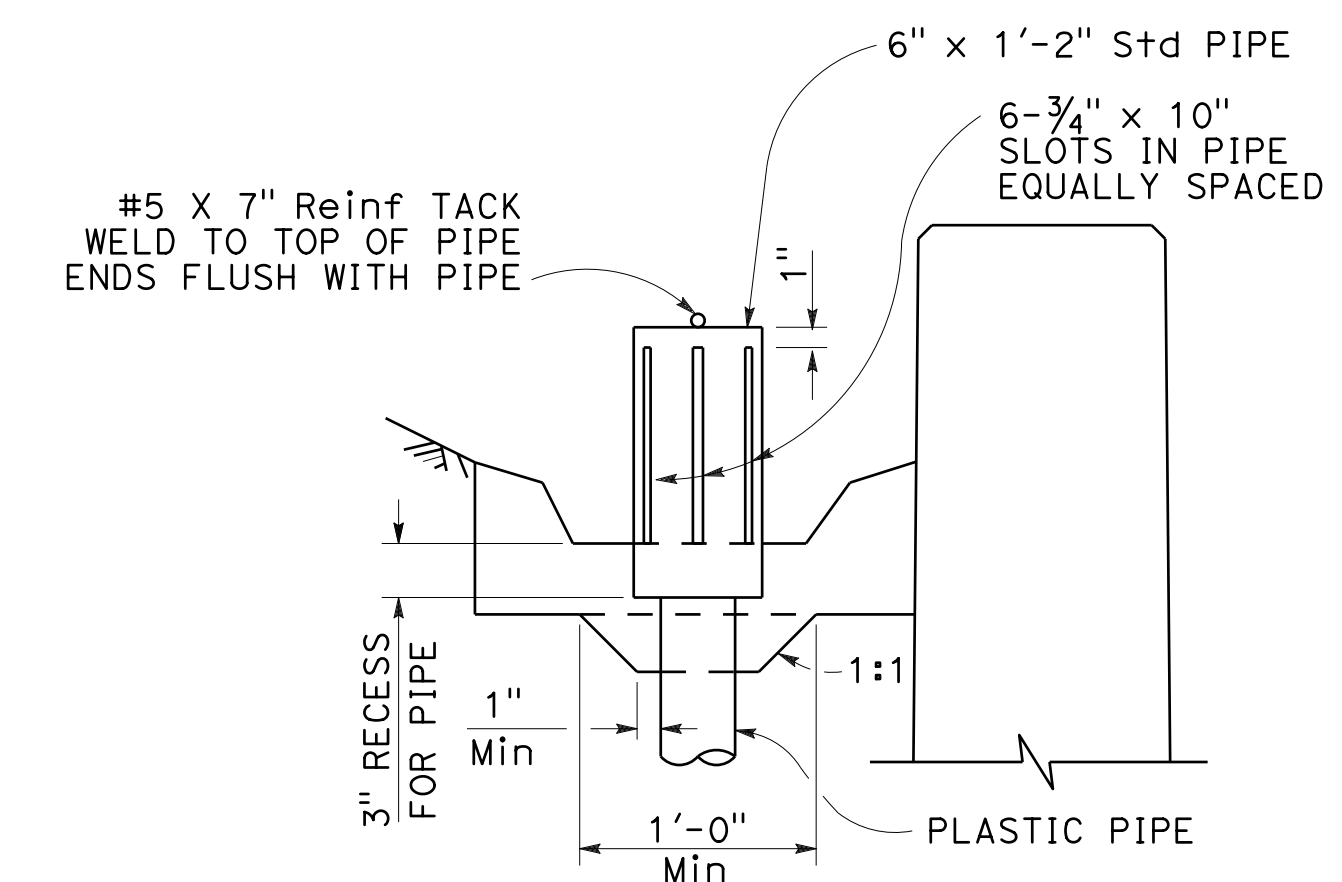
4" PLASTIC PIPE WHEN WALL DRAIN IS 4" OR LESS. FOR LARGER PIPE SEE OUTLET DETAIL-SECTION B-B

RETAINING WALL, GUTTER OUTLET

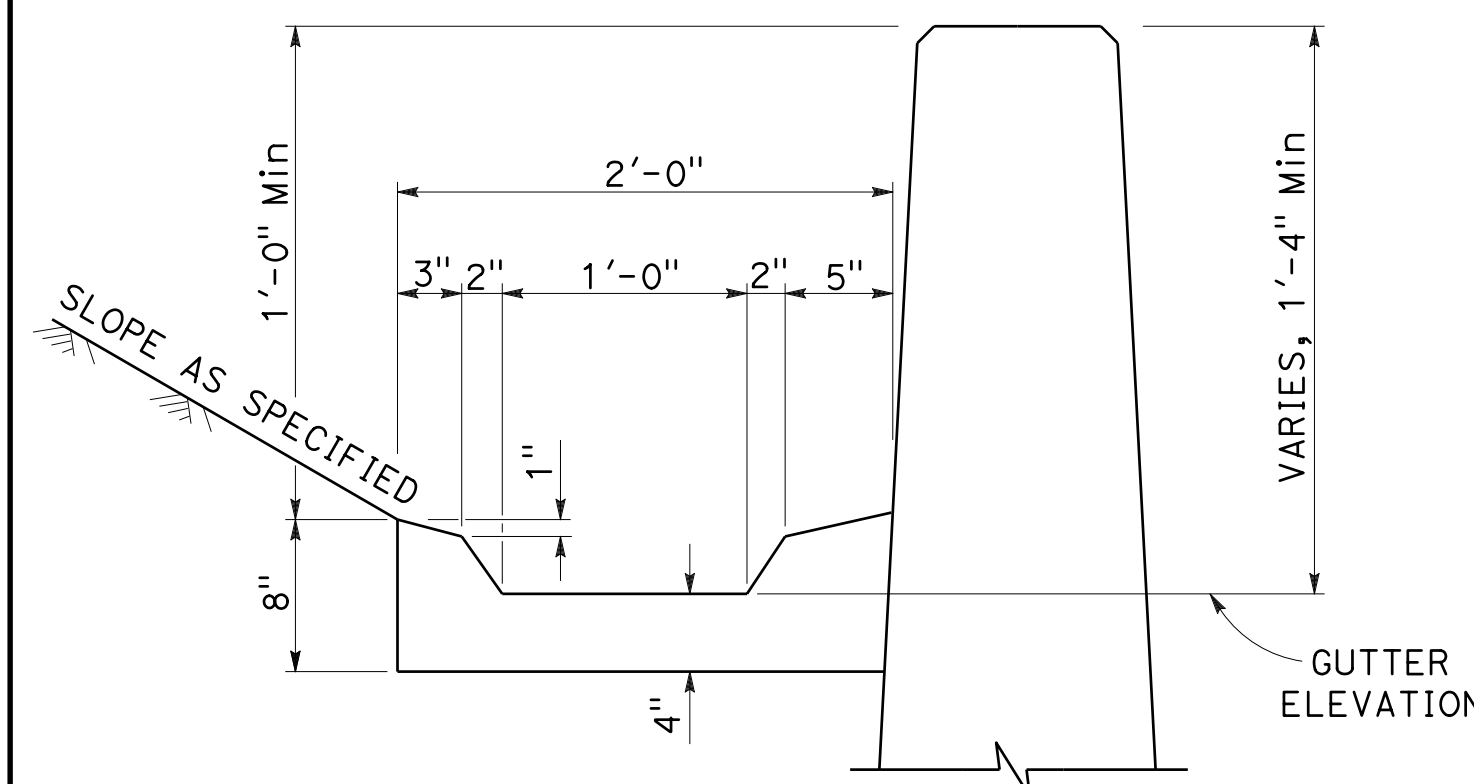


PLAN-OFFSET WALL PLAN-CONTINUOUS WALL

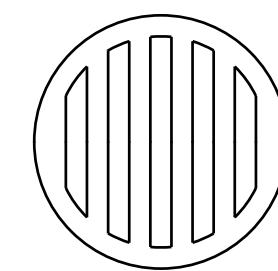
DRAIN THROUGH RETURN WALL



WALL DRAIN WITH PIPE DOME

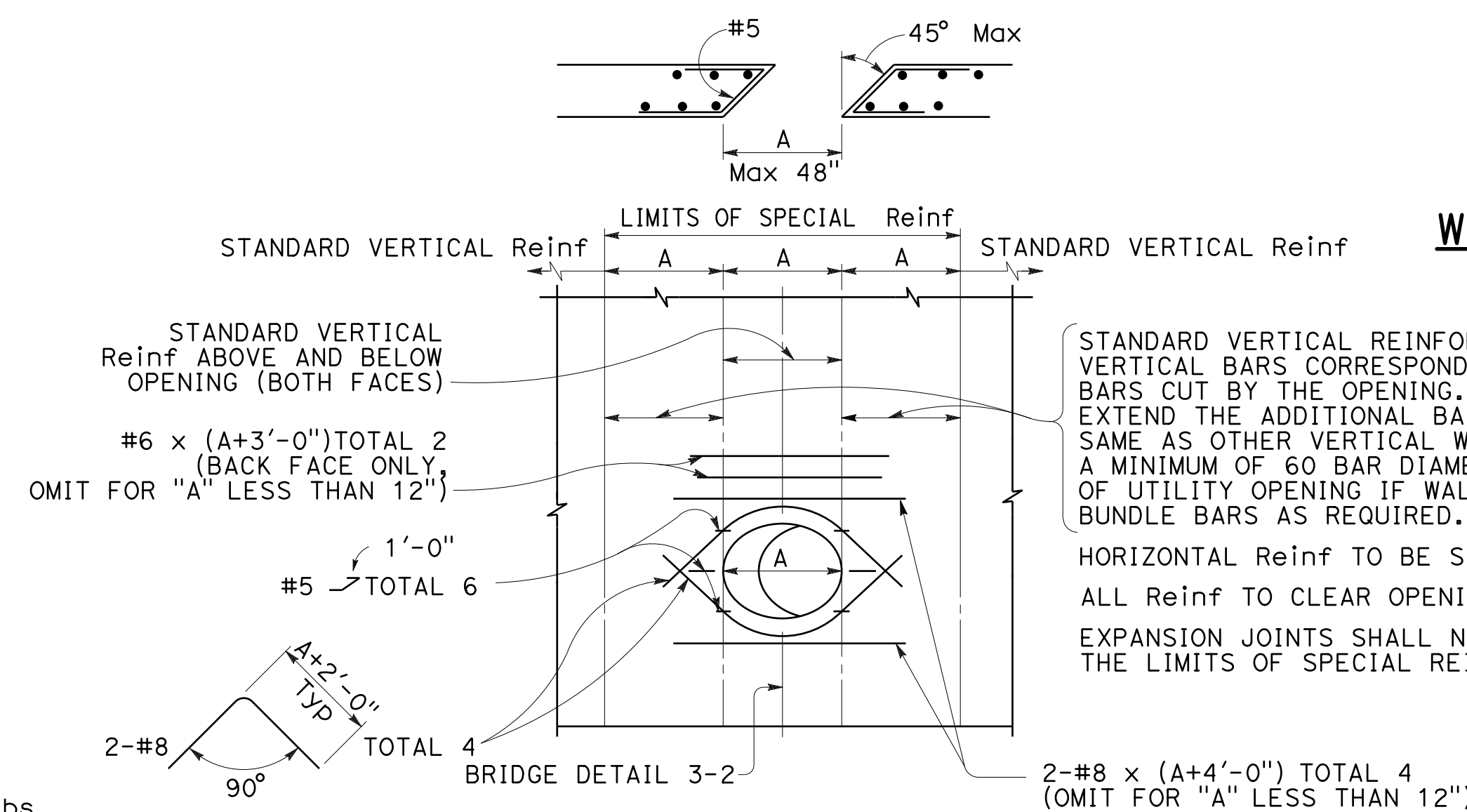


TYPICAL GUTTER DETAIL



GRATE DETAIL

Sizes to fit standard hubs



RETAINING WALL UTILITY OPENING

Max size of opening (A) = 48"
To be used in conjunction with sheet B3-5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
RETAINING WALL DETAILS No. 2

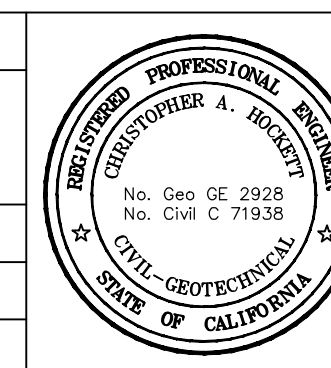
NO SCALE

B3-6



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022
Chris Hockett
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (2 OF 8)	DATE: APR 2022
		CHECKED BY: CH	ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	FILE NO.: E5003
			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 14 OF 20

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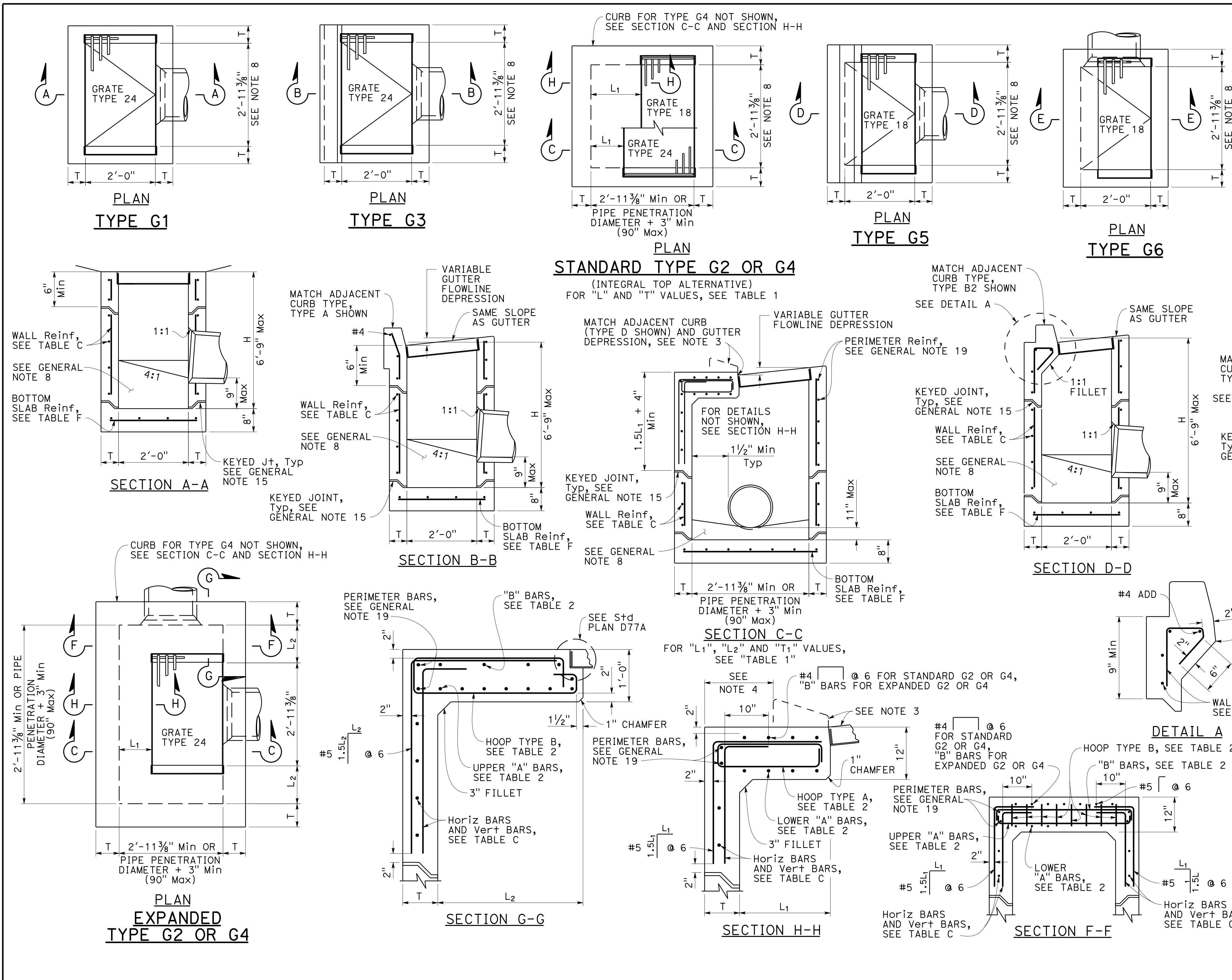


APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

May 31, 2018
PLANS APPROVAL DATE
No. C59976
Exp. 6-30-18
Carl M. Duan
REGISTERED CIVIL ENGINEER
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



2018 STANDARD PLAN D73B

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PRECAST
DRAINAGE INLETS
TYPES G1, G2, G3,
G4, G5 AND G6**
NO SCALE

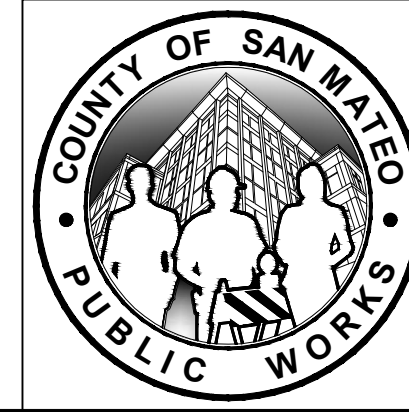
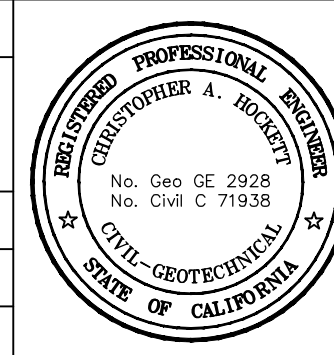
D73B



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (3 OF 8)	DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063	

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

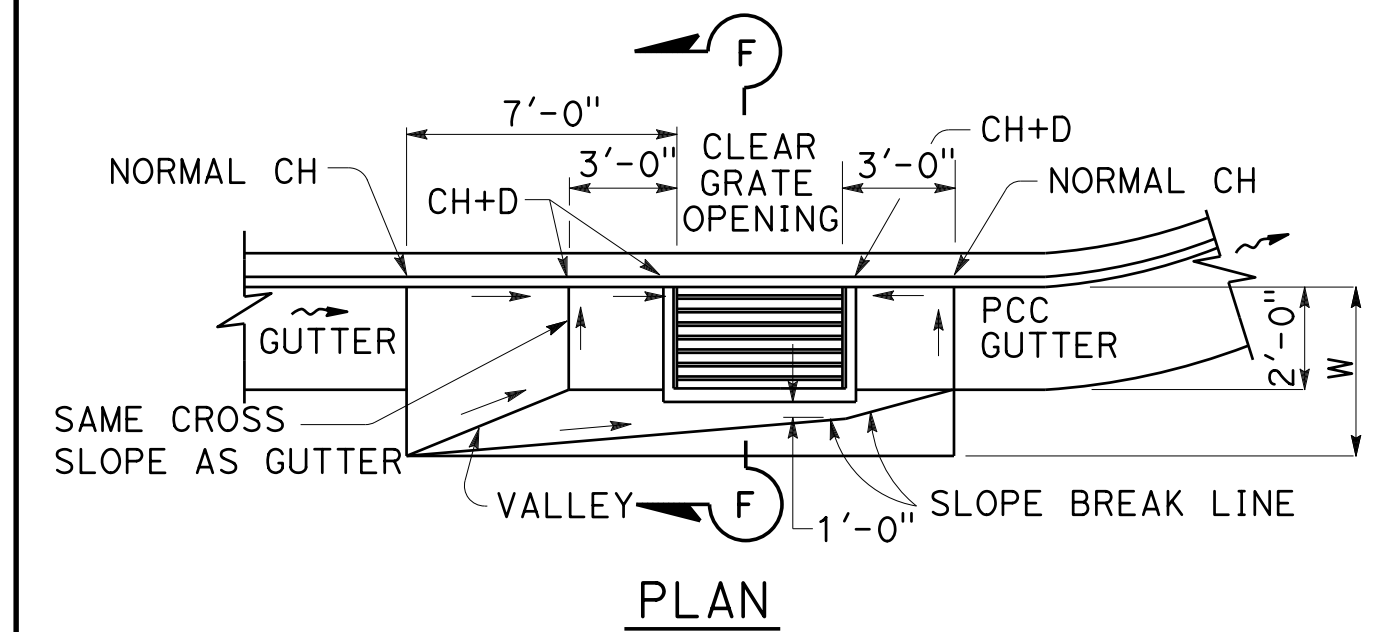
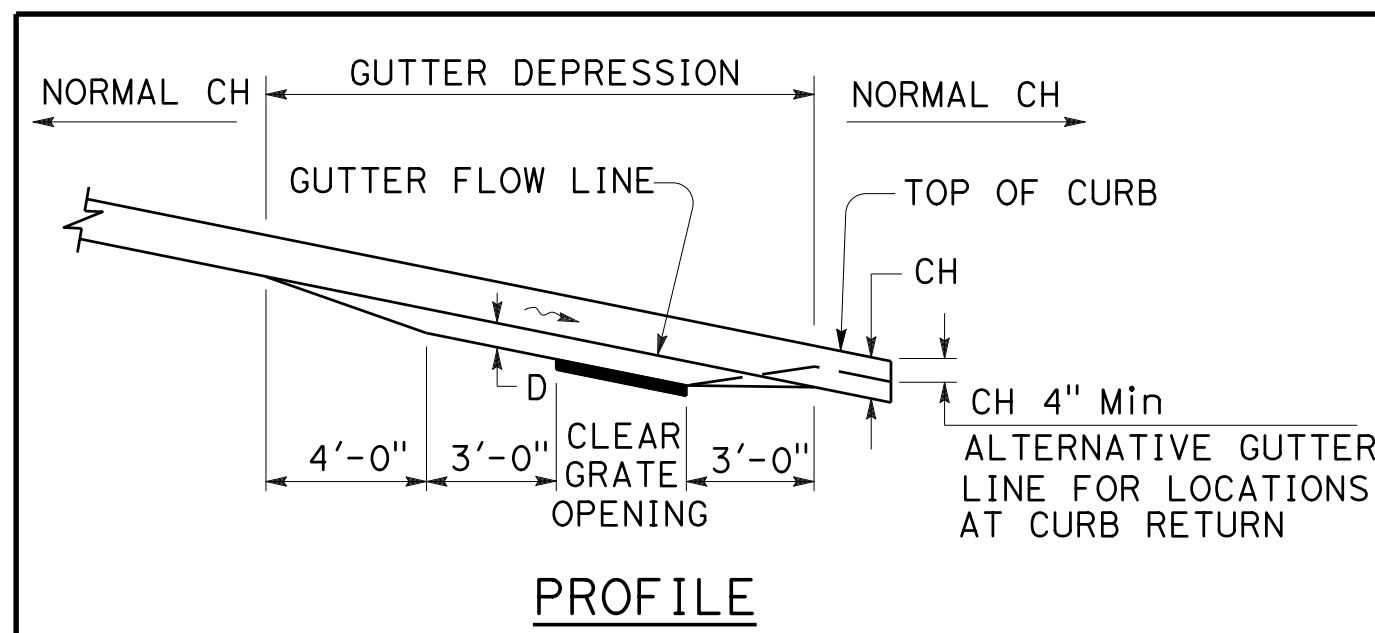
SHEET 15 OF 20



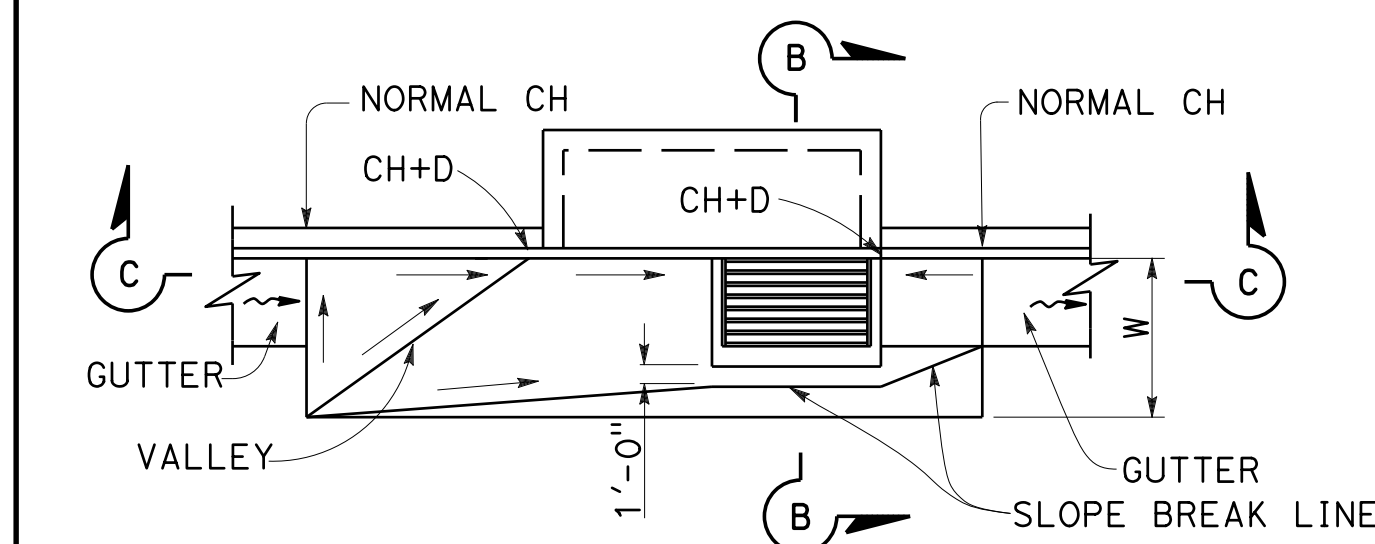
APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

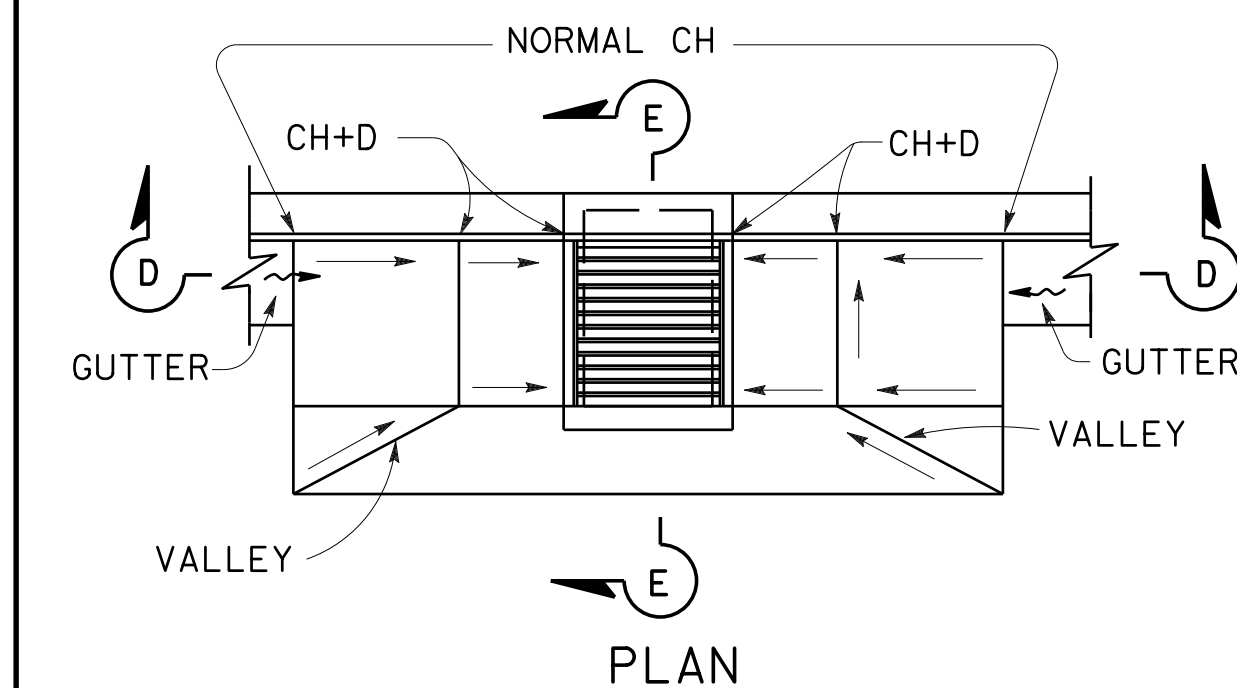
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
Bruce D. Swanger
No. C61257
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA



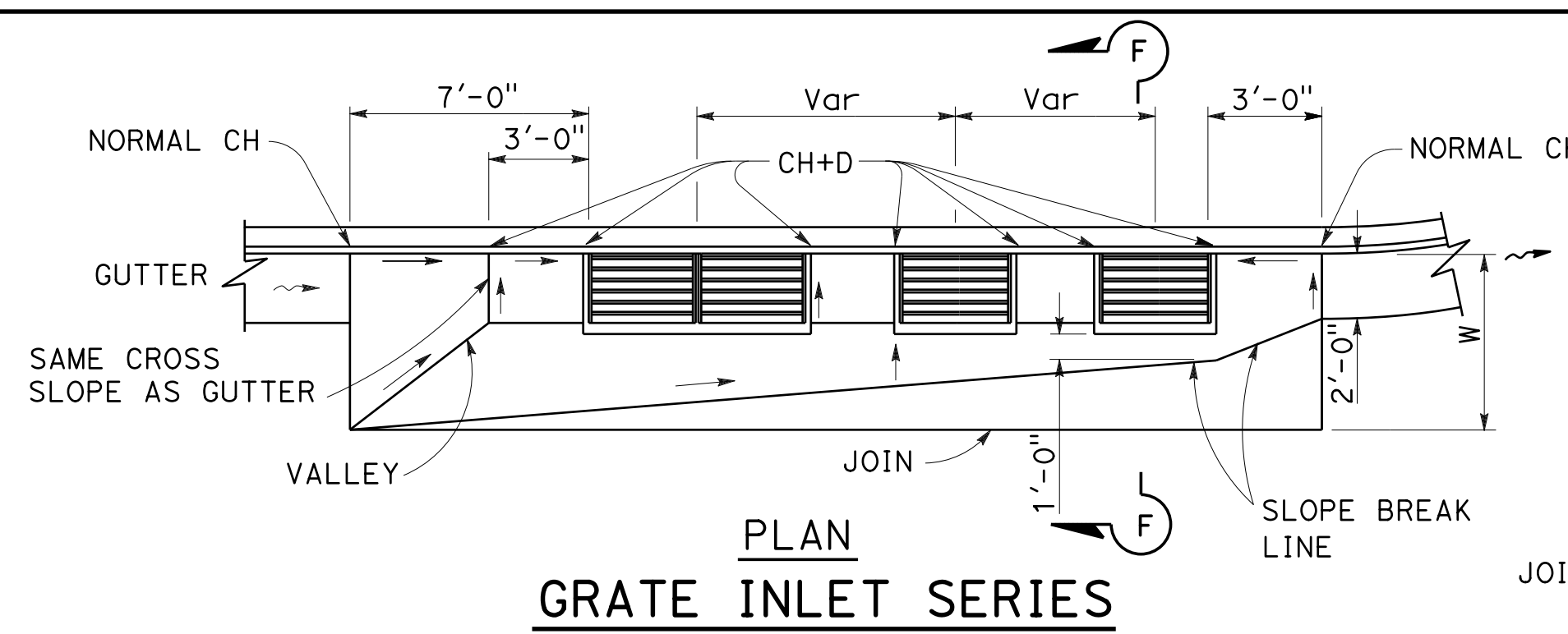
TYPE G0 AND G1 THRU G6 INLETS ON GRADE



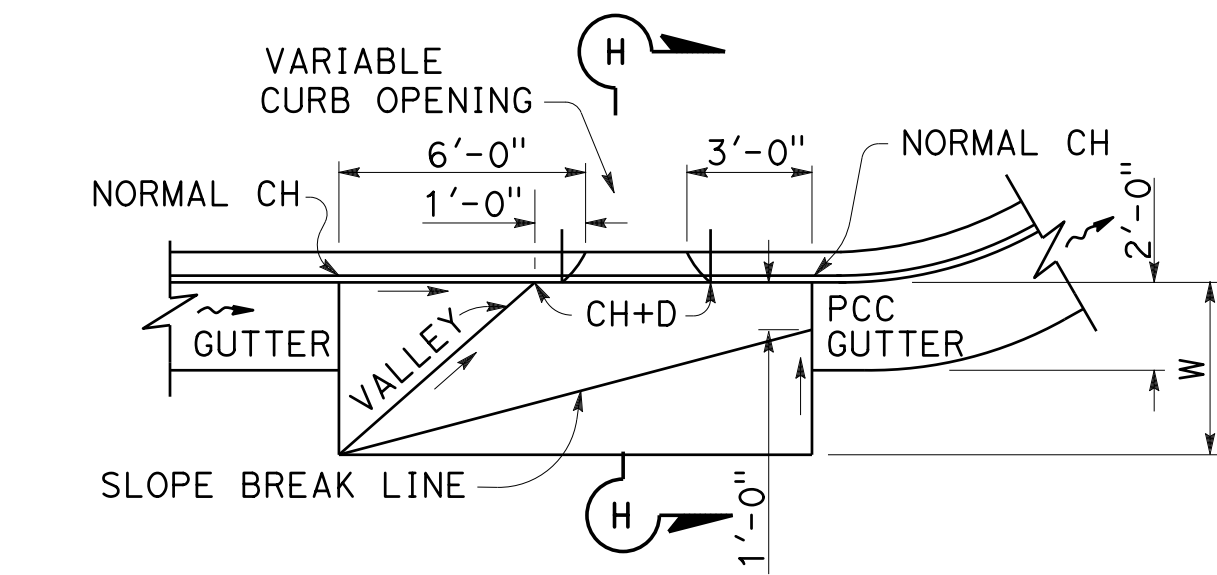
TYPE G0L INLET ON GRADE



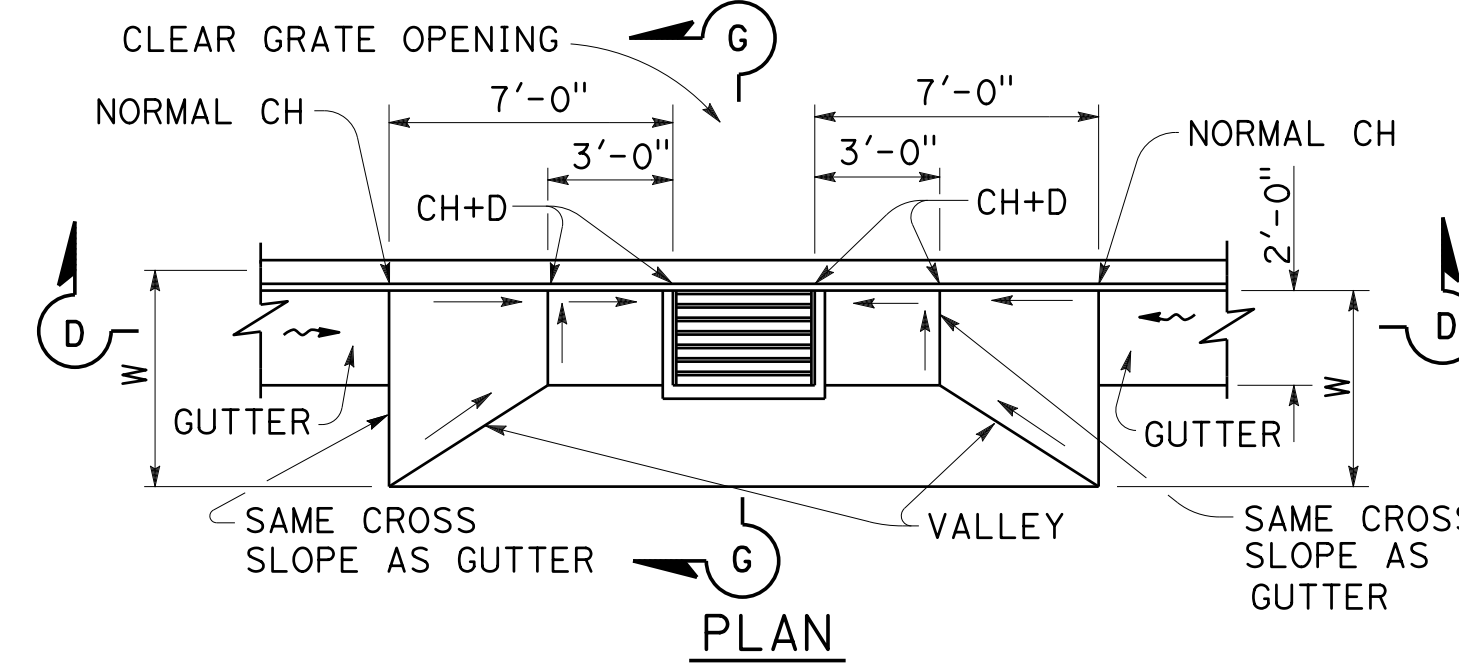
TYPE G0 AND GDO INLET GRADE SAG
(GDO shown)



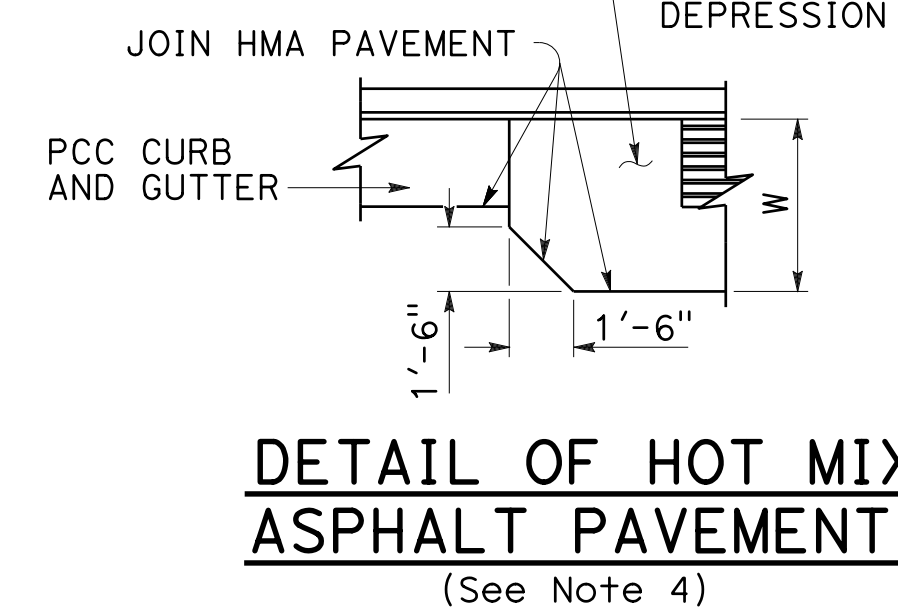
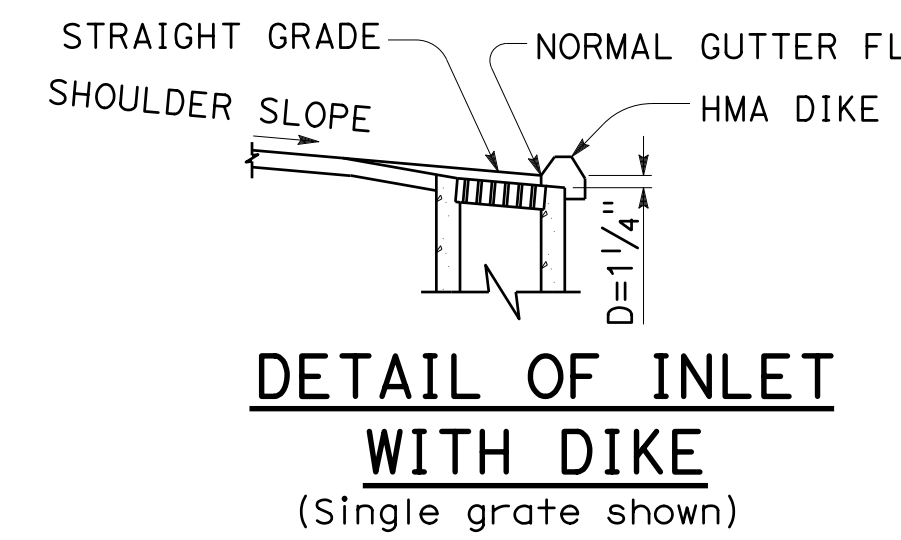
TYPE OS AND OL INLETS IN SERIES ON GRADE



TYPE OS AND OL INLETS ON GRADE

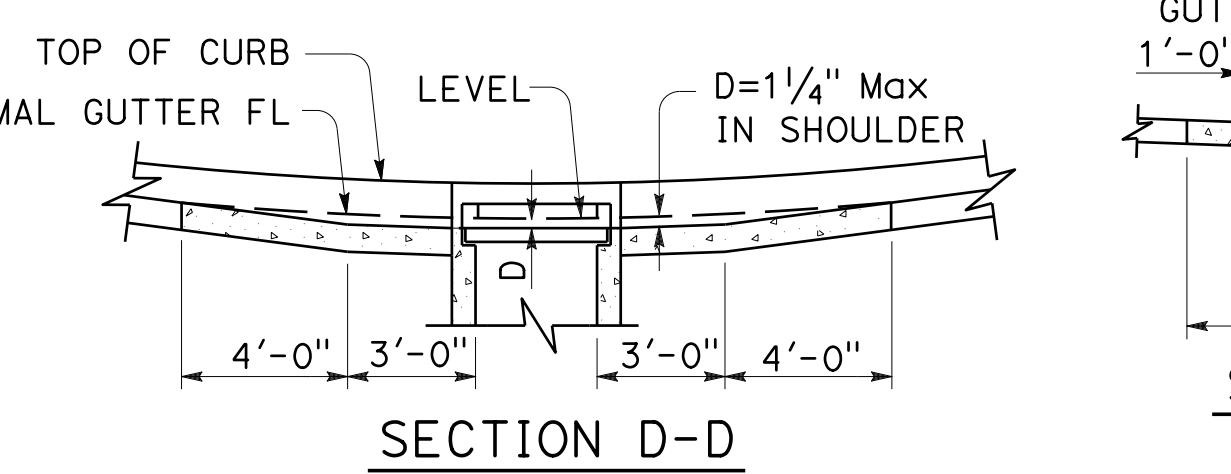
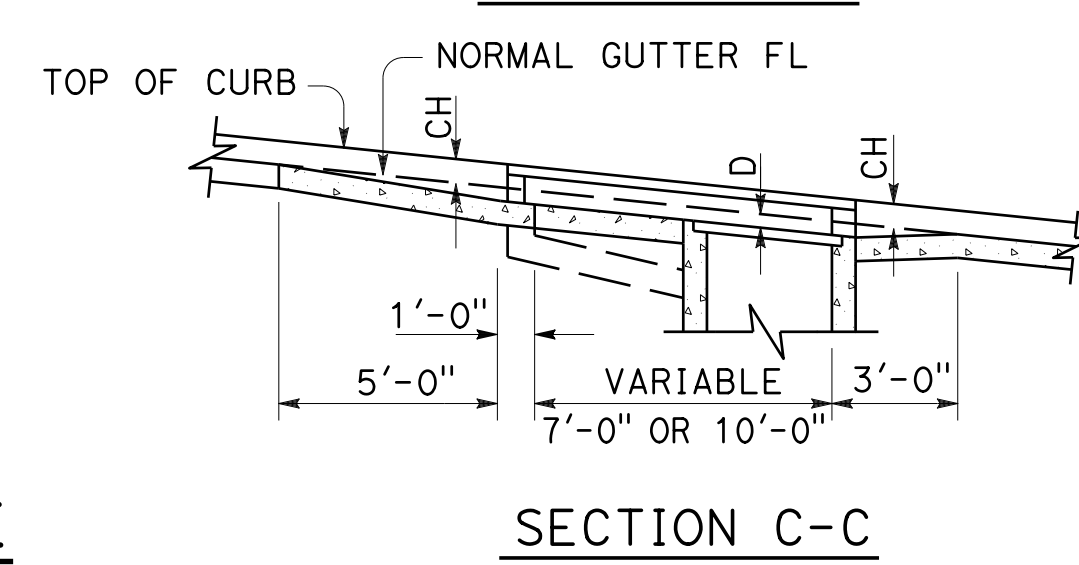
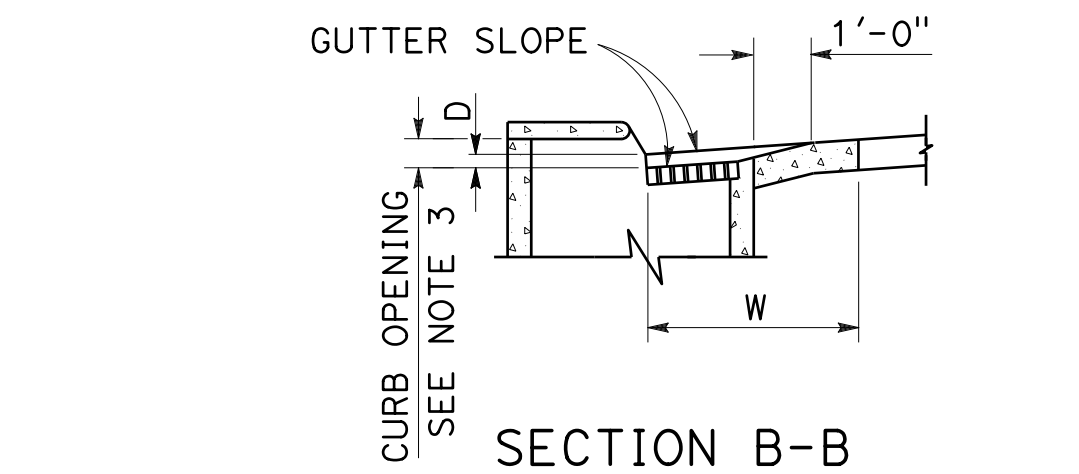


TYPE G1 THRU G6 GT3 AND GT4 INLETS IN GRADE SAG

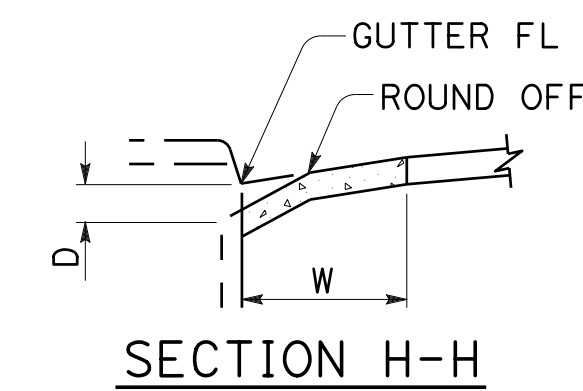
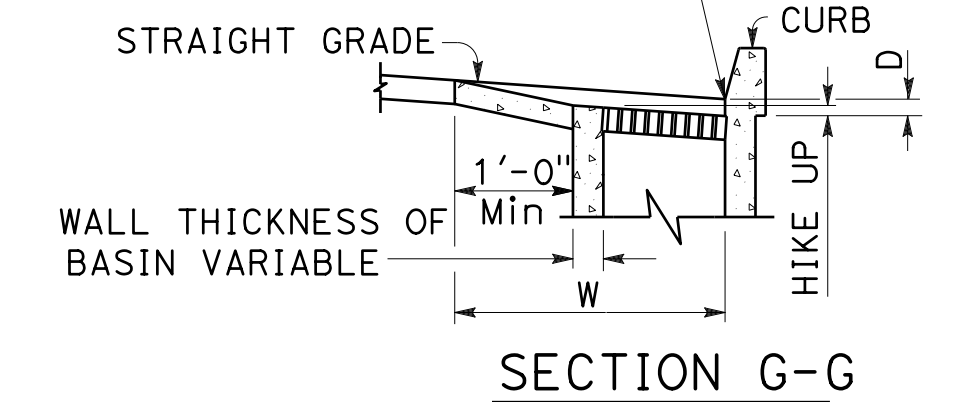
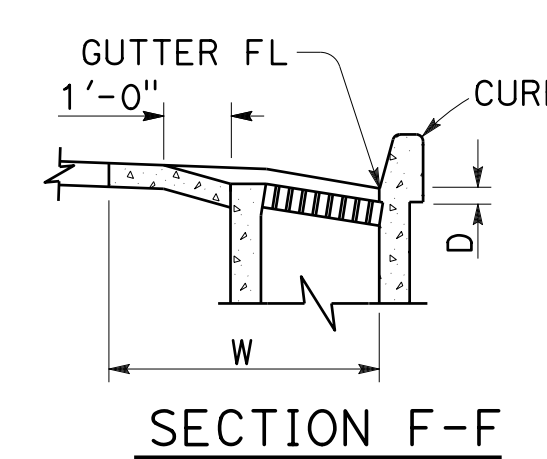
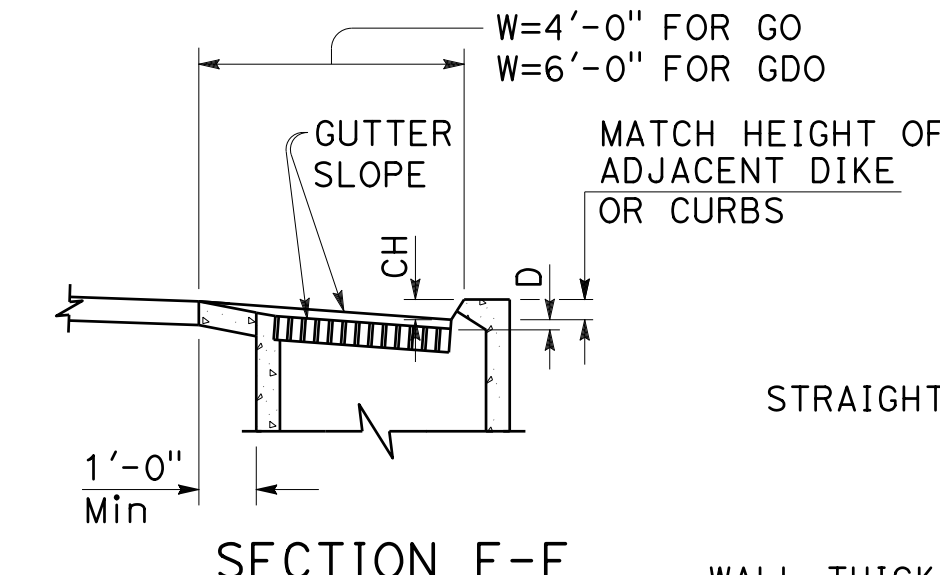


NOTES:

1. W = Width of depressed apron. Depressed aprons shall be 4'-0" on shoulder and 4'-0" to 6'-0" in city street gutters unless otherwise shown.
D = Gutter depression. The gutter depression shall be 1/4" for shoulder and 1/4" to 3" in city street gutter or locations outside of shoulder unless otherwise shown.
CH = Curb Height.
→ = Straight grade, downward slope.
~ = Gutter or shoulders direction of flow.
2. Gutter depressions shall be 8" thick.
3. Establish curb opening height at midpoint of grate.
4. Details shown for concrete pavement. When hot mix asphalt pavement is used, corners to be cut off as shown on Detail of Hot Mix Asphalt Pavement.



TYPE OS AND OL INLETS IN GRADE SAG



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
GUTTER DEPRESSIONS
NO SCALE

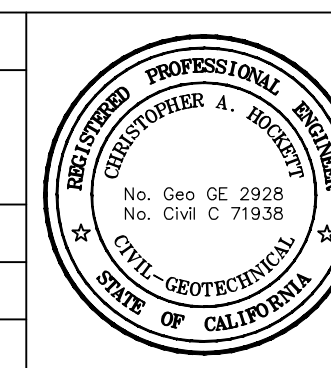
D78A



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



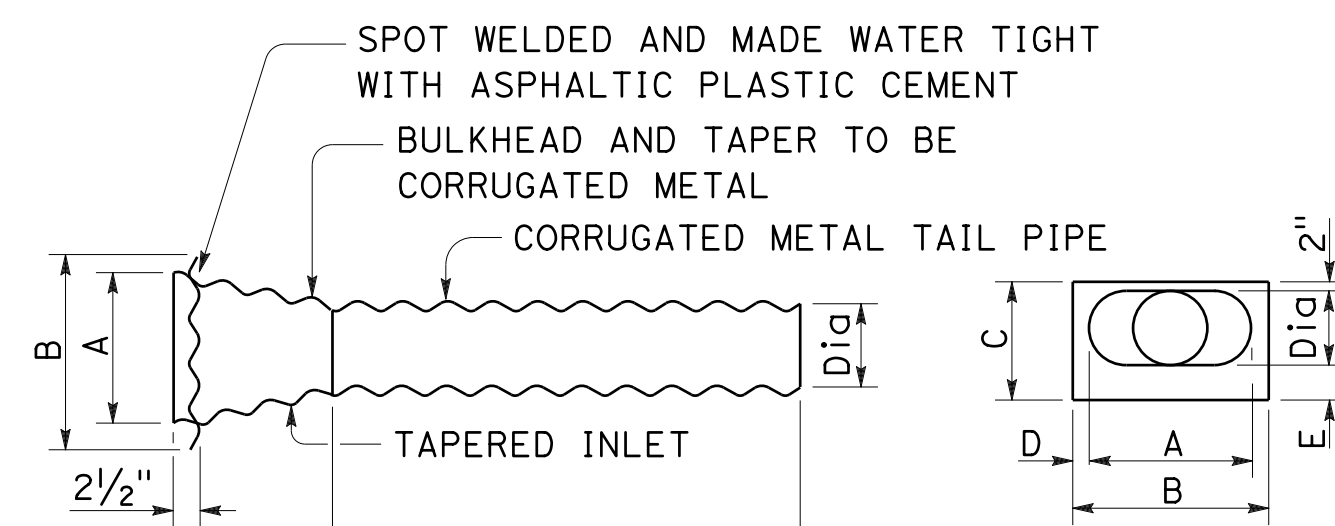
REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (4 OF 8)	DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				
0 1 2 3 4				
SHEET 16 OF 20				



APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

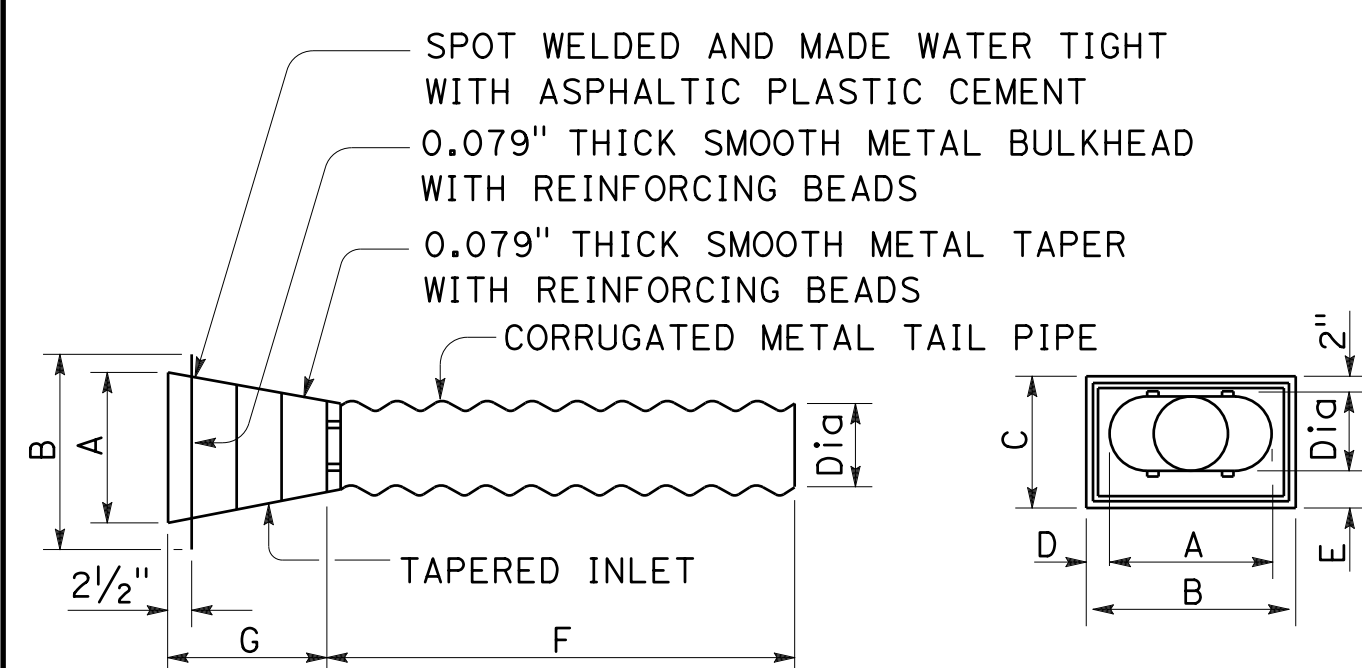
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
Bruce D. Swonger
No. C61257
Exp. 6-30-19
CIVIL
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



PLAN **END VIEW**
Bulkhead and taper of same thickness as tail pipe with 0.079" maximum. Tail pipe of same thickness as downdrain pipe.

ENTRANCE TAPER - TYPE 1 ALTERNATIVE A



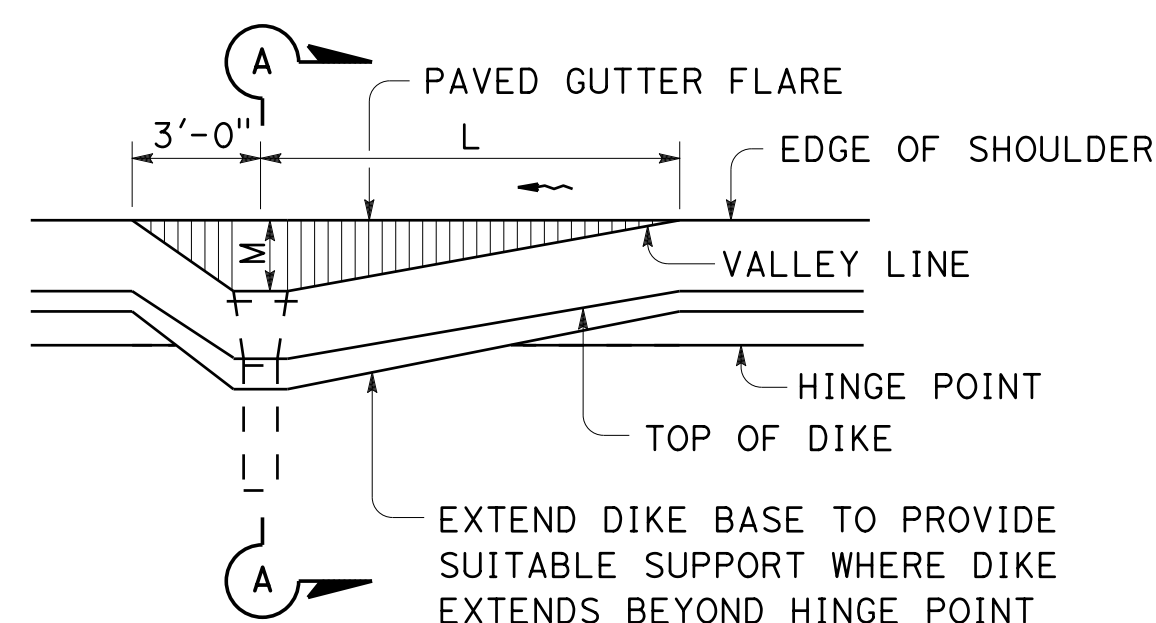
PLAN **END VIEW**
Tail pipe of same thickness as downdrain pipe.

ENTRANCE TAPER - TYPE 1 ALTERNATIVE B

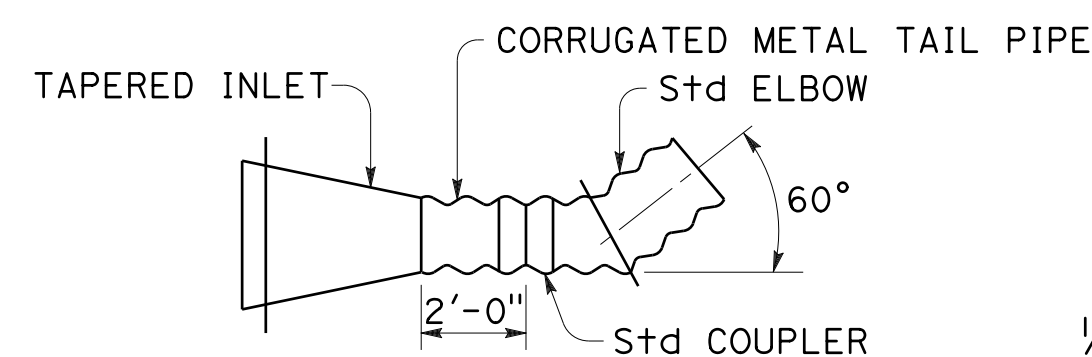
CMP dimensions as tabulated below

P	10"	15"	18"	21"	27"
Q	8"	12"	15"	18"	24"

Slip joint to be same thickness as downdrain pipe.



PLAN MOUNTABLE DIKE TYPE 1



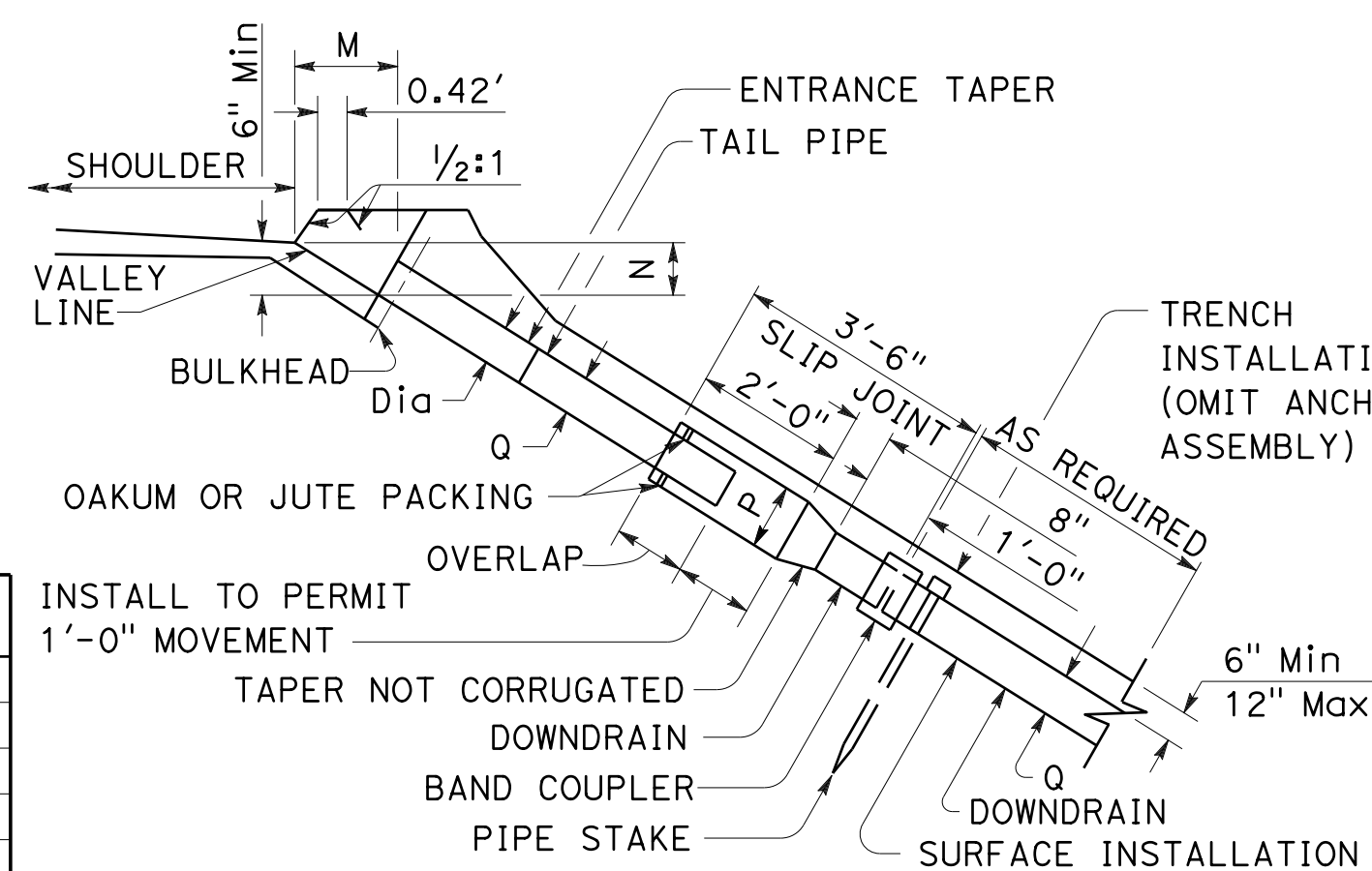
Tapered inlet of same construction and dimensions as Type 1 - Alternative A or B except tail pipe length will be 2'-0".

ENTRANCE TAPER - TYPE 2

Taper joints may be welded or riveted. Dimensions to be as tabulated below for Type 1 Alternatives A and B.

Dia	A	B	C	D	E	F	G
8"	1'-4"	2'-1 1/2"	1'-3"	4 3/4"	5"	6'-0"	2'-0"
12"	1'-6"	2'-1 1/2"	1'-7"	3 3/4"	5"	6'-0"	2'-0"
15"	1'-9"	2'-6"	1'-11"	4 1/2"	6"	6'-0"	2'-0"
18"	2'-0"	2'-10"	2'-3"	5"	7"	6'-0"	2'-0"
24"	2'-10"	3'-10"	2'-11"	6"	9"	4'-0"	4'-0"

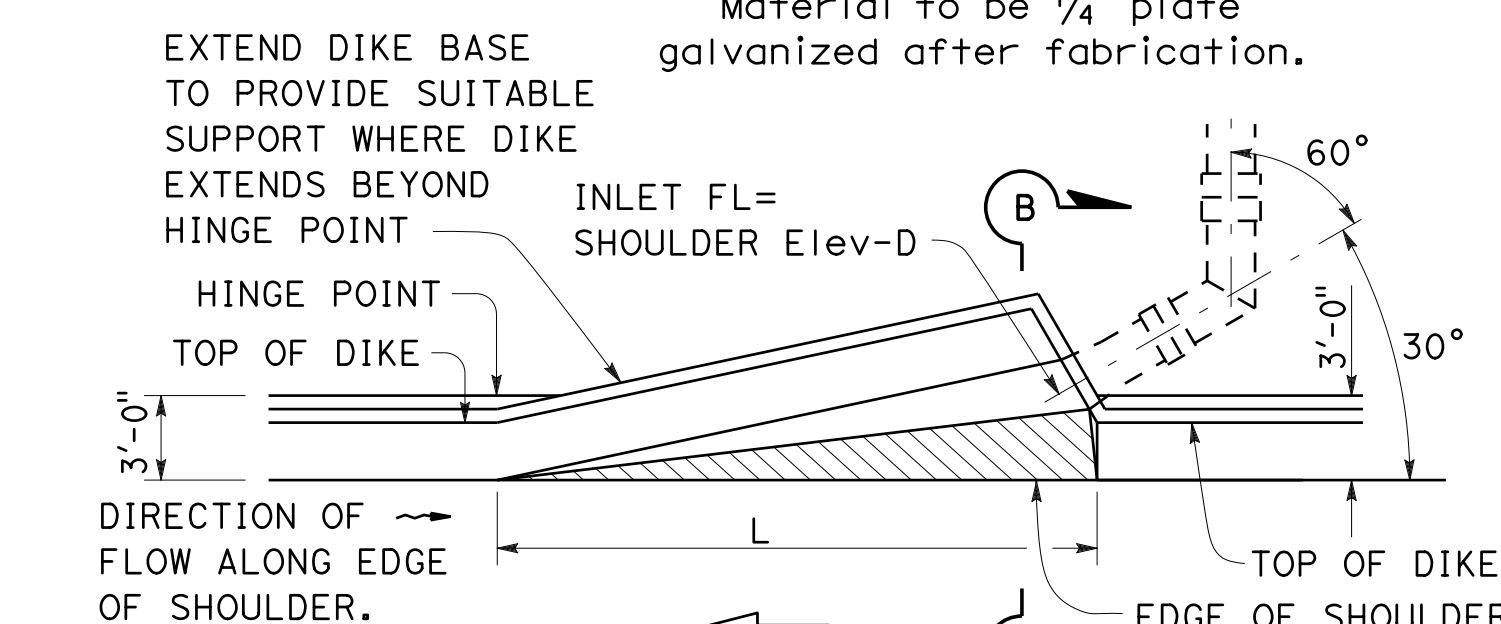
ENTRANCE TAPER - TYPE 1 ALTERNATIVE A AND B



SECTION A-A TYPE 1

NOTES:

1. Cable, slip joint or anchor assembly to be used when specified.
2. Slip joint to be omitted when completely buried.
3. Slip joint for Type 1 entrance taper shown. Type 2 similar.



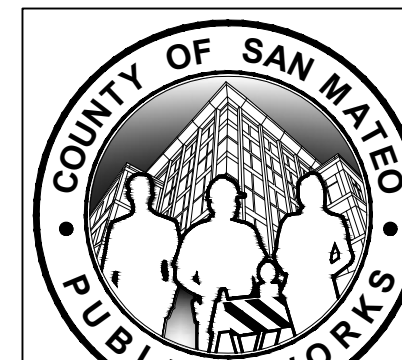
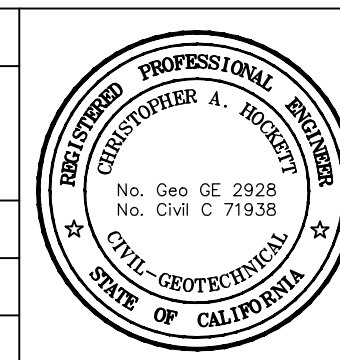
PLAN MOUNTABLE DIKE TYPE 2

(For use on full freeway sections ONLY with grades of 2% or greater)

ENTRANCE TAPER AND PIPE DOWNDRAIN

APPROVED DATE: APRIL 15, 2022

CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (5 OF 8)	DATE: APR 2022
		CHECKED BY: CH	ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	FILE NO.: E5003
			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SHEET 17 OF 20

2018 STANDARD PLAN D87A

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION CORRUGATED METAL PIPE DOWNDRAIN DETAILS

NO SCALE

D87A

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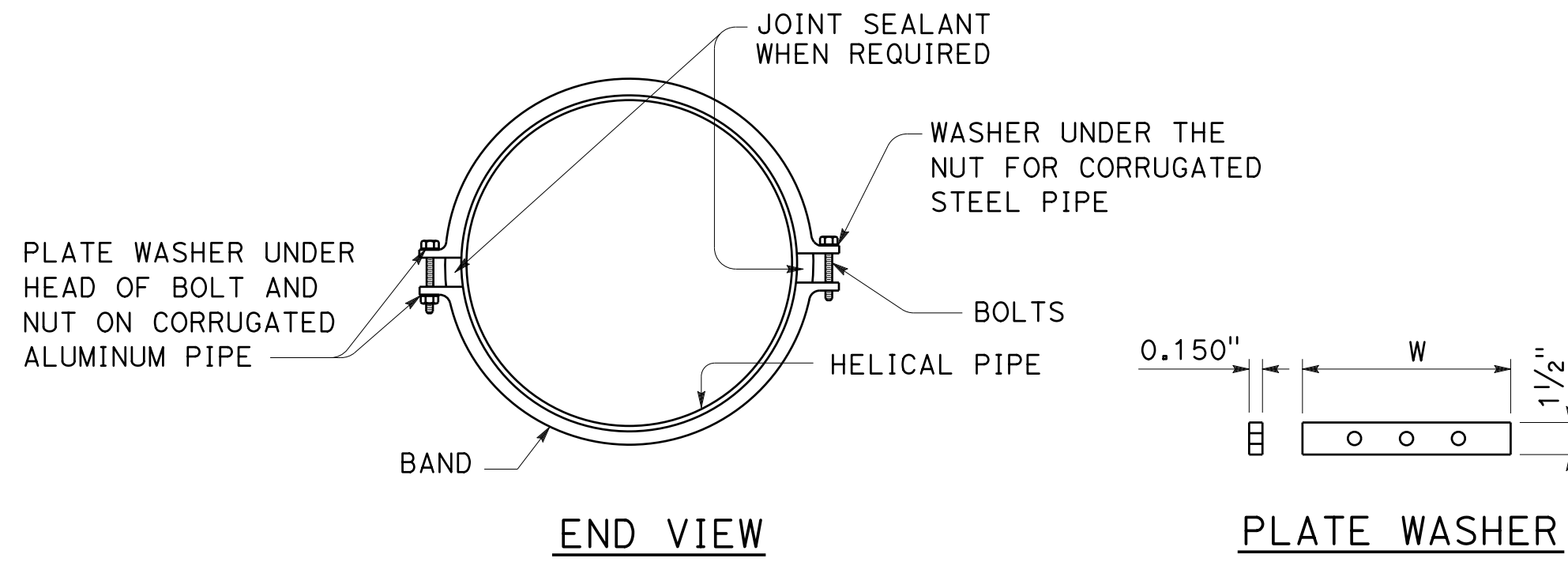


APPROVED:
DATE: 04/15/2022
Ann Mader Stillman
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

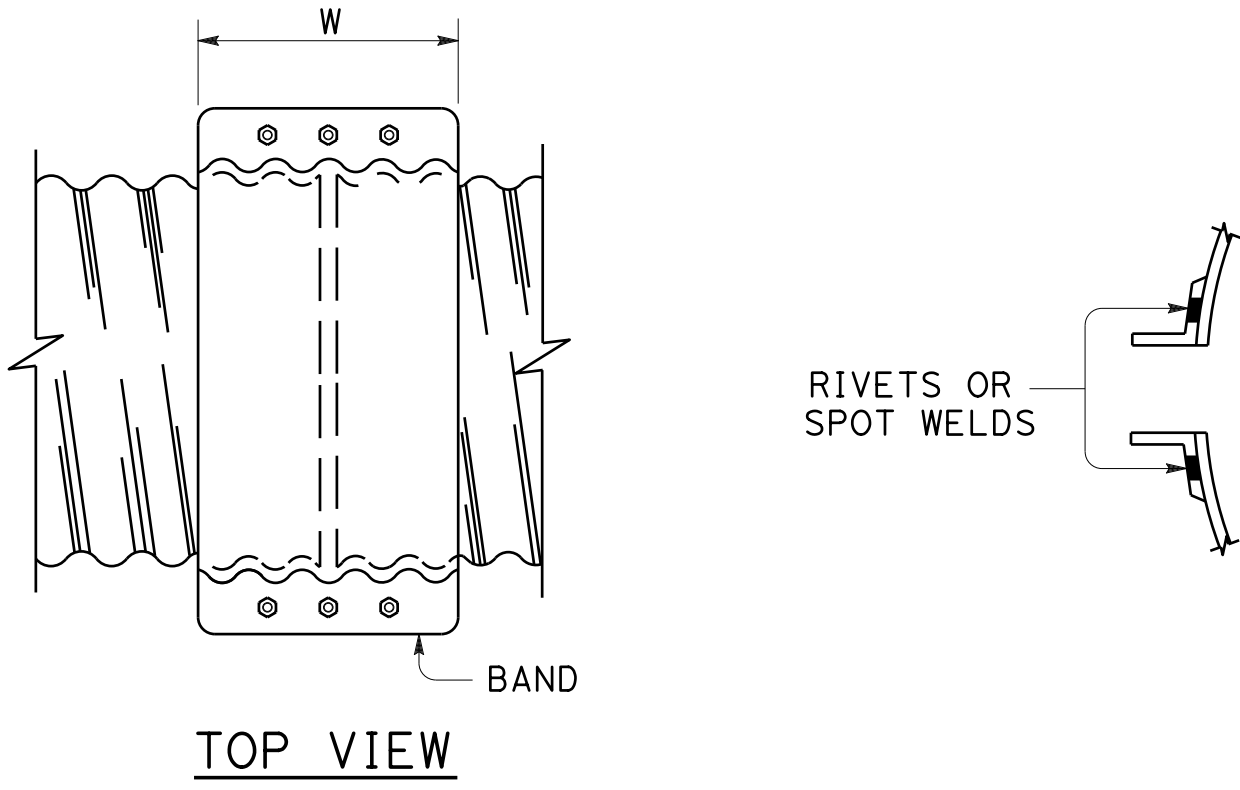
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

dh
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
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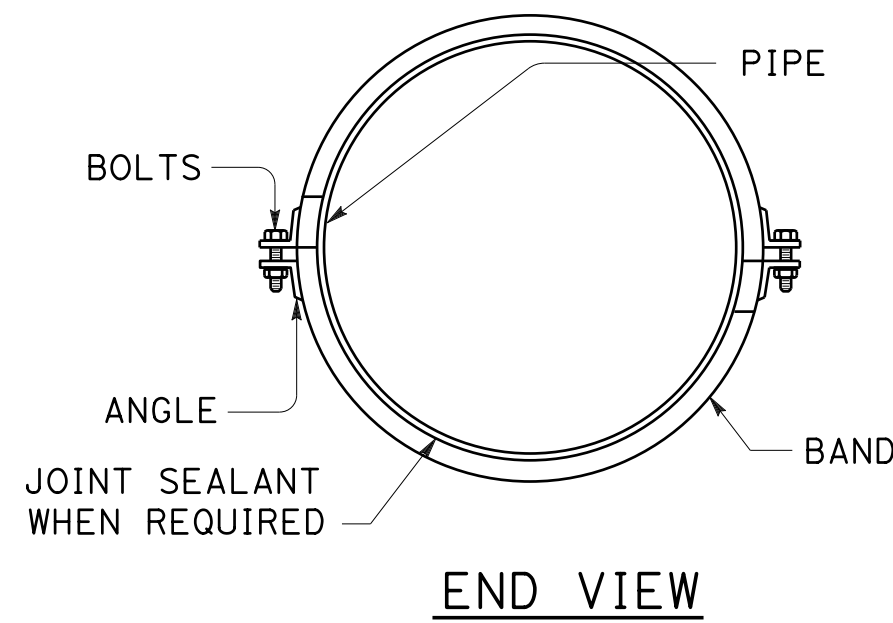
REGISTERED PROFESSIONAL ENGINEER
Bruce D. Swanger
No. C61257
Exp. 6-30-19
CIVIL
STATE OF CALIFORNIA



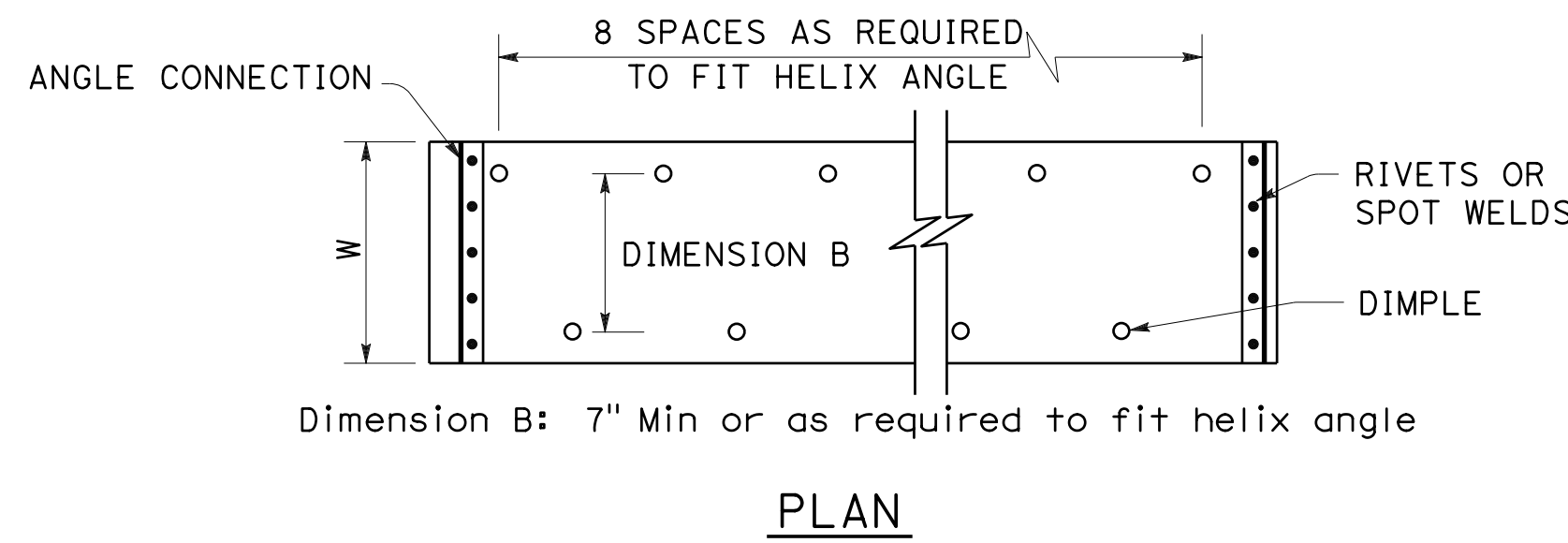
TWO PIECE INTEGRAL FLANGE DIE FORMED BAND



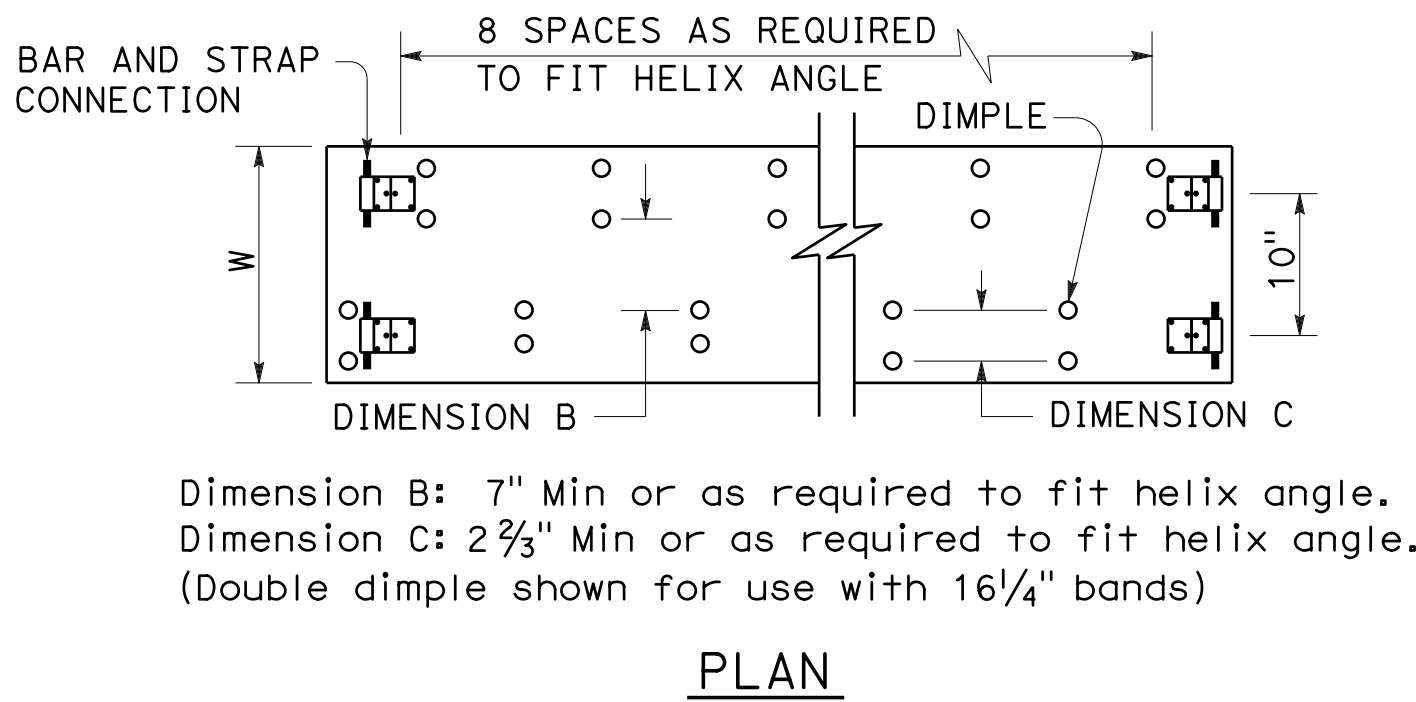
HELICAL COUPLING BANDS



HELICAL BAND



UNIVERSAL COUPLING BANDS



- NOTES:**
1. All ferrous metal coupling band connection hardware shall be galvanized or electroplated in accordance with the Standard specifications.
 2. Dimensions and thicknesses shown are minimum.
 3. Spot welds shall develop minimum required strength of strap.
 4. Fillet welds of equivalent strength may be substituted for spot welds or rivets.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CORRUGATED METAL PIPE
COUPLING DETAILS No. 3
HELICAL AND UNIVERSAL
COUPLERS**

NO SCALE

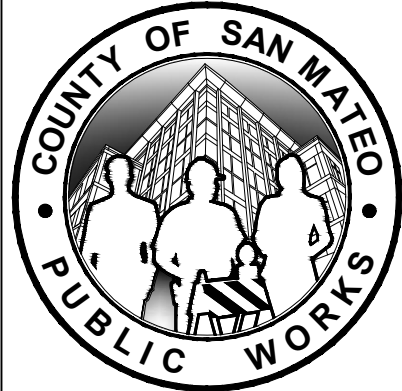
D97C



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

Chris Hockett
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



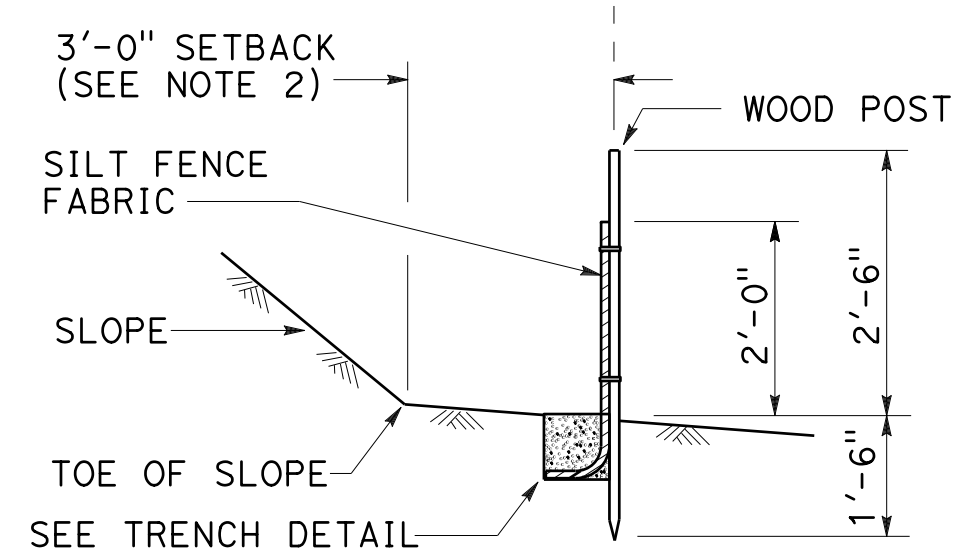
REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (6 OF 8)	DATE: APR 2022
		CHECKED BY: CH	ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	FILE NO.: E5003
			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 18 OF 20



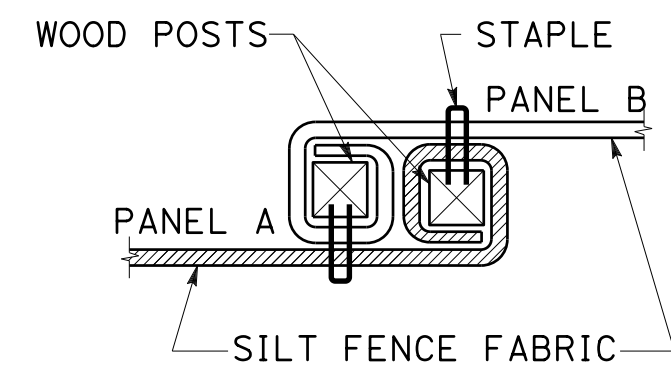
APPROVED:
DATE: 04/15/2022
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

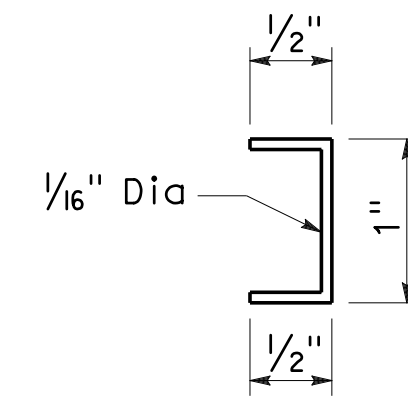
Robert B. Platt
LICENSED LANDSCAPE ARCHITECT
May 31, 2018
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
Robert B. Platt
11-30-18
RECEIVED DATE
STATE OF CALIFORNIA



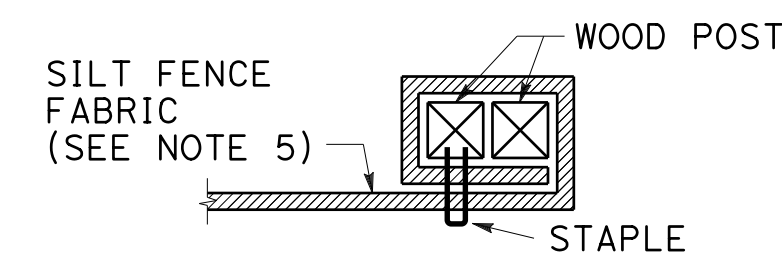
SECTION A-A
TEMPORARY SILT FENCE



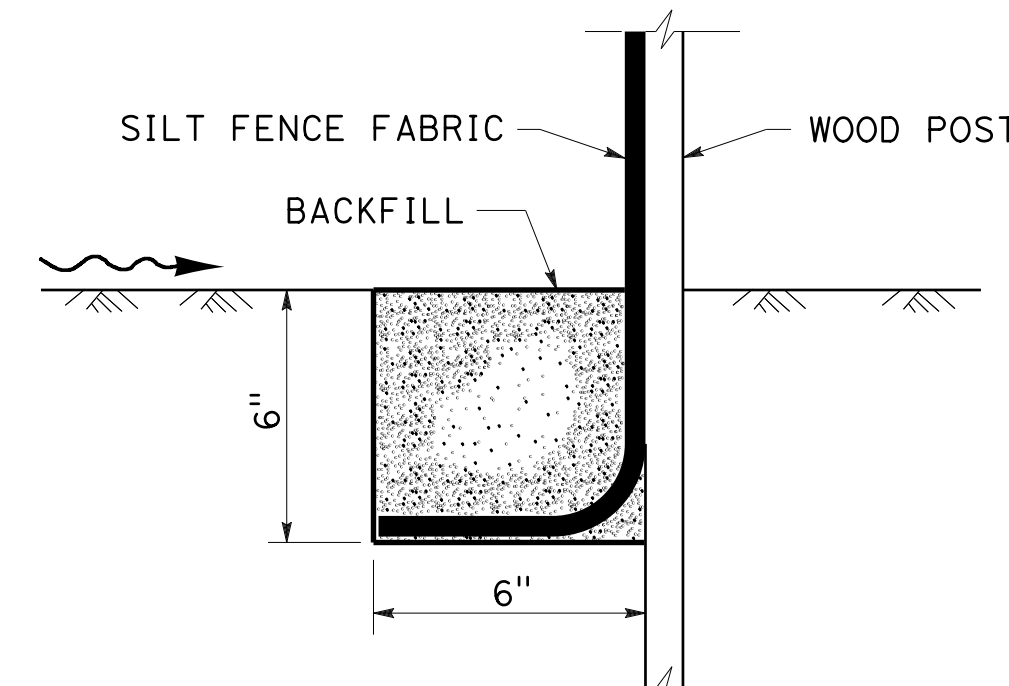
PLAN
POST AT JOINTS
(SEE NOTE 3)



STAPLE DETAIL
(SEE NOTE 6)



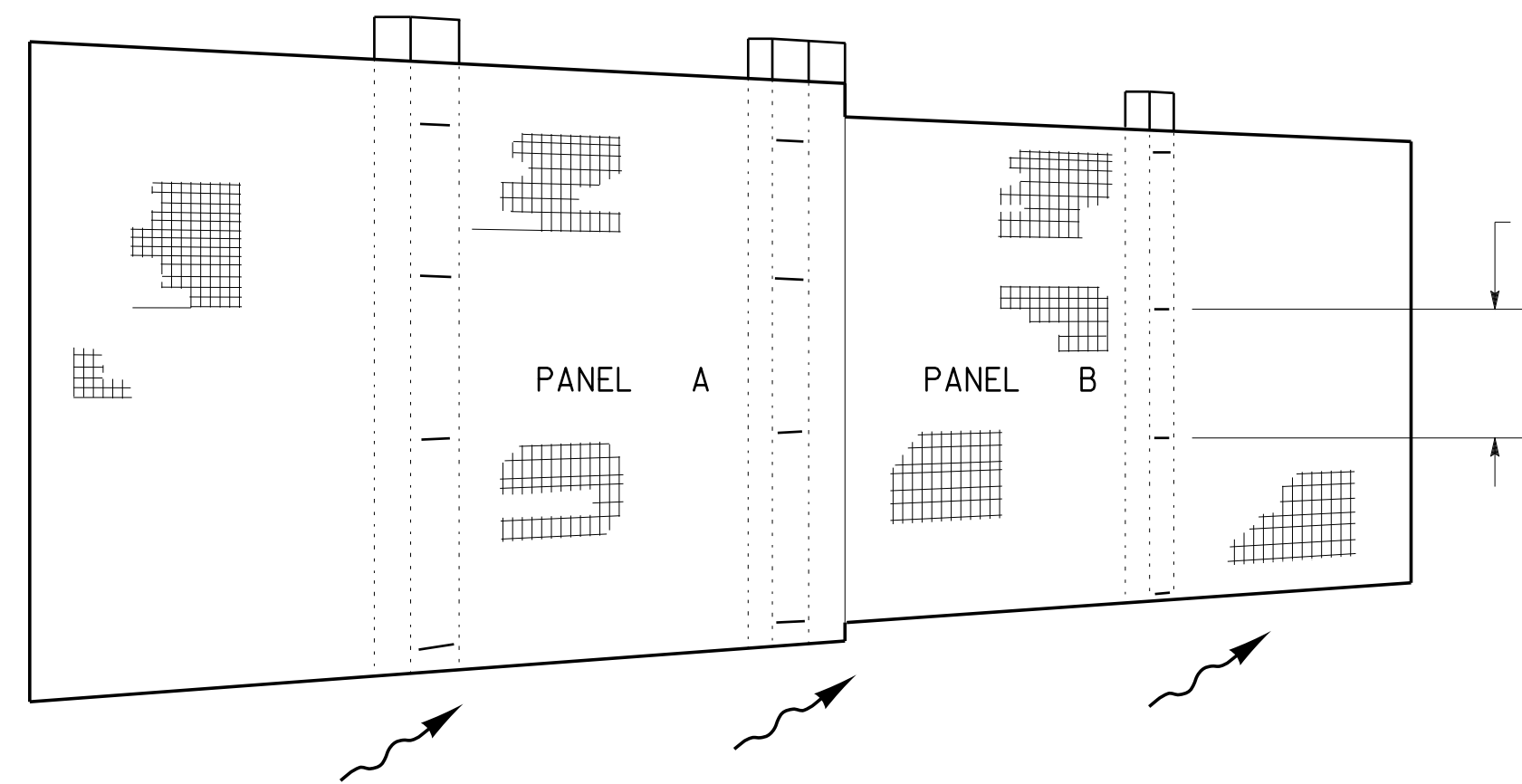
PLAN
END POST DETAIL



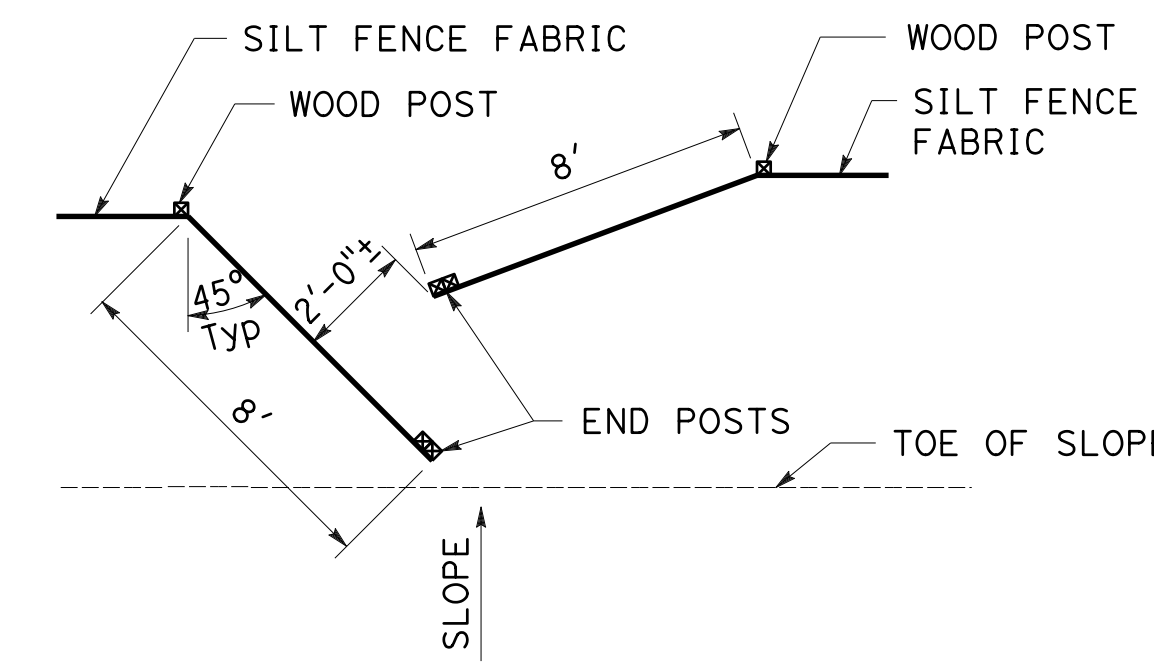
SECTION
TRENCH DETAIL

NOTES:

1. The down stream end of the temporary silt fence shall have the last 8' angled up slope.
2. Setback dimensions may vary to fit field conditions.
3. Posts to overlap and fence fabric to fold around each post one full turn. Secure fabric with 4 staples for each post.
4. Posts shall be driven tightly together to prevent potential flow-through of sediment at the joint. The tops of the posts shall be secured to each other with wire.
5. For each end post, fence fabric shall be folded around two posts one full turn and secured with 4 staples.
6. Minimum of 4 staples shall be installed per post. Dimensions shown are typical.
7. Maintenance openings shall be constructed in a manner to ensure that sediment is retained by the temporary silt fence.
8. Joint sections shall not be placed at sump locations.



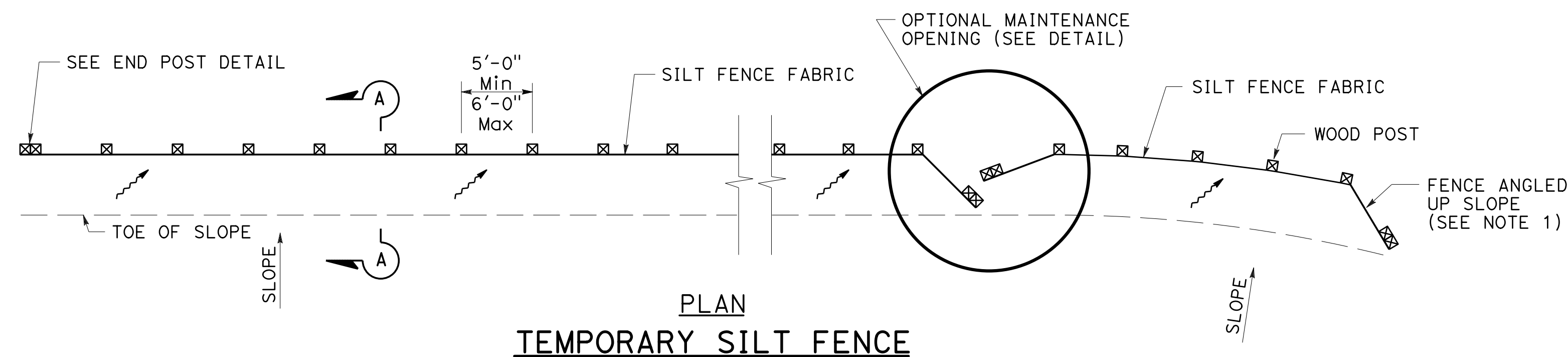
PERSPECTIVE
SILT FENCE PANELS AT JOINTS



PLAN
OPTIONAL MAINTENANCE OPENING DETAIL

LEGEND

- TAMPED BACKFILL
 SLOPE DIRECTION
 DIRECTION OF FLOW



PLAN
TEMPORARY SILT FENCE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY WATER POLLUTION
CONTROL DETAILS
(TEMPORARY SILT FENCE)**

NO SCALE

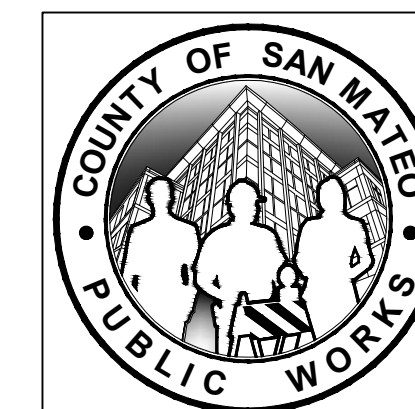
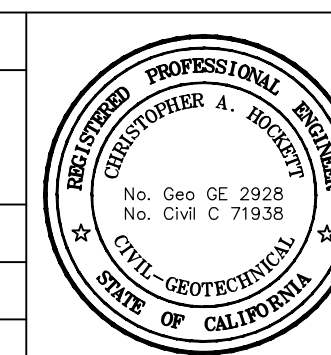
T51



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022

Chris Hockett
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
CAL ENGINEERING & GEOLOGY, INC.
R.C.E. # 71938, R.G.E. # 2928 / EXP 12-31-23



REVISION	DATE	DESIGNED BY: KF	HIGGINS CANYON ROAD BRIDGE AT MILLS CREEK EMBANKMENT AND WINGWALL REPAIRS	SCALE: N/A
		DRAWN BY: EV	CALTRANS STANDARD DETAILS (7 OF 8)	DATE: APR 2022
		CHECKED BY: CH		FILE NO.: E5003
		ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				SHEET 19 OF 20



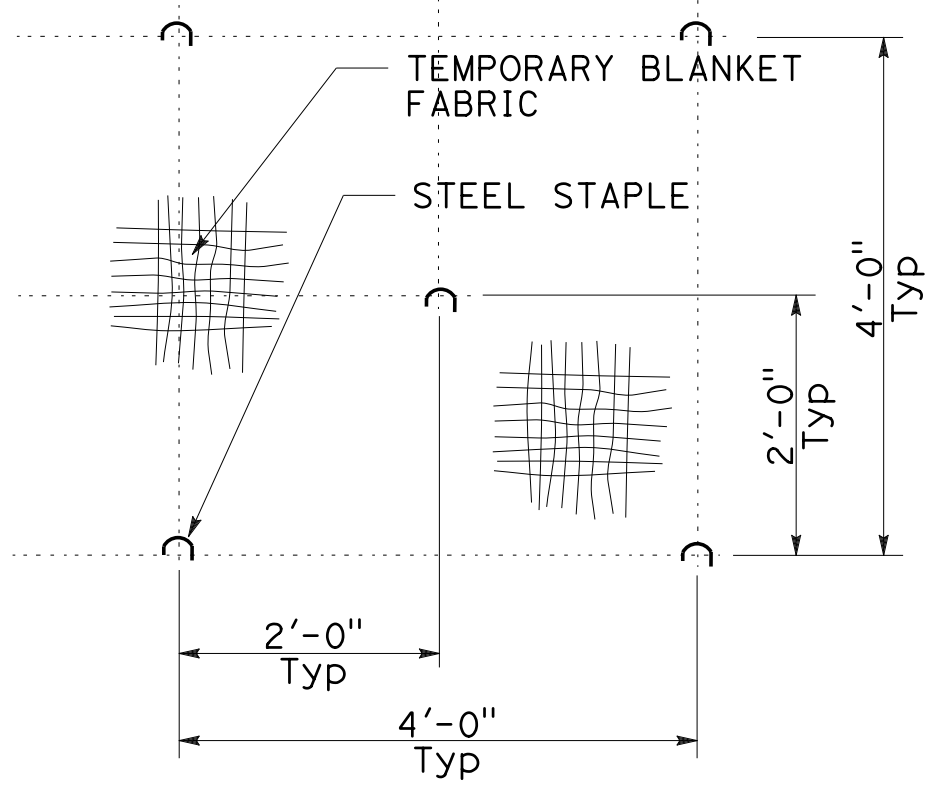
APPROVED:
DATE: 04/15/2022
Ann Mader Stillman
ANN MADER STILLMAN, DIRECTOR OF PUBLIC WORKS
R. C. E. # 47882 / EXPIRES 12-31-2023

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

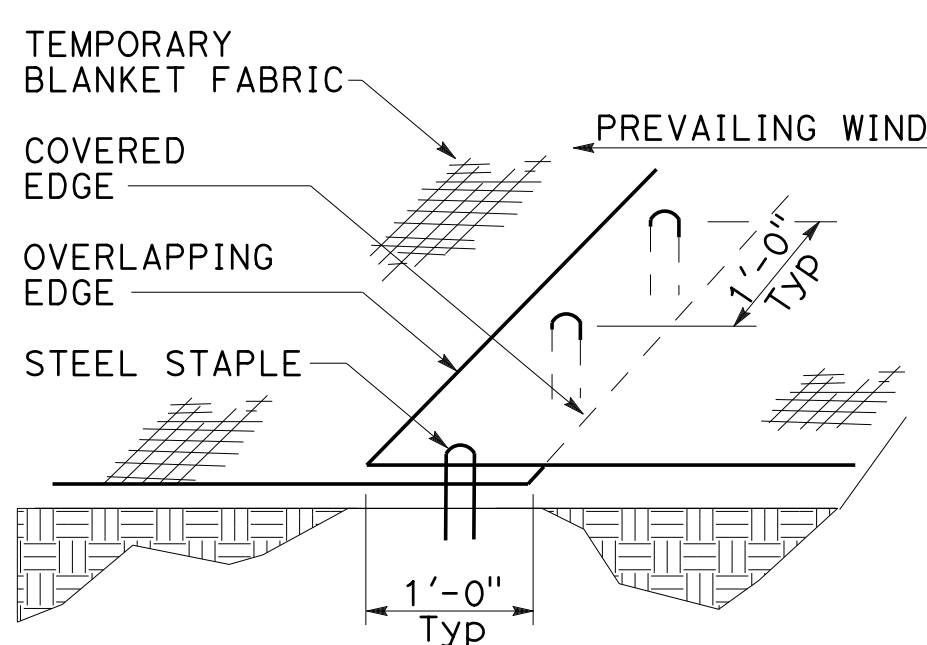
Robert B. Schott
LICENSED LANDSCAPE ARCHITECT
May 31, 2018
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT
11-30-18
RENEWED: 10/18

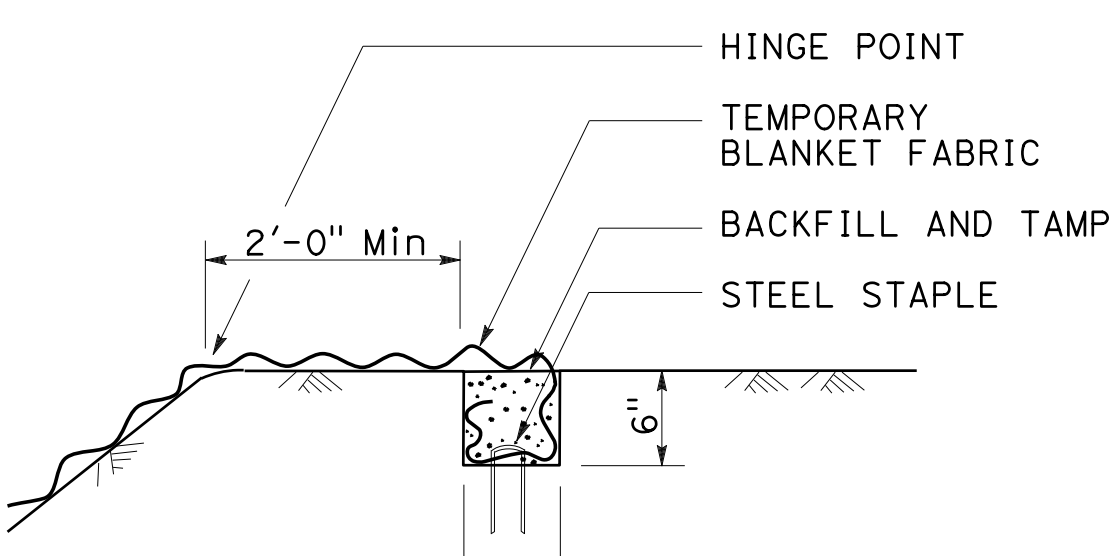
NOTE:
1. Temporary fiber roll shown for reference purposes only.



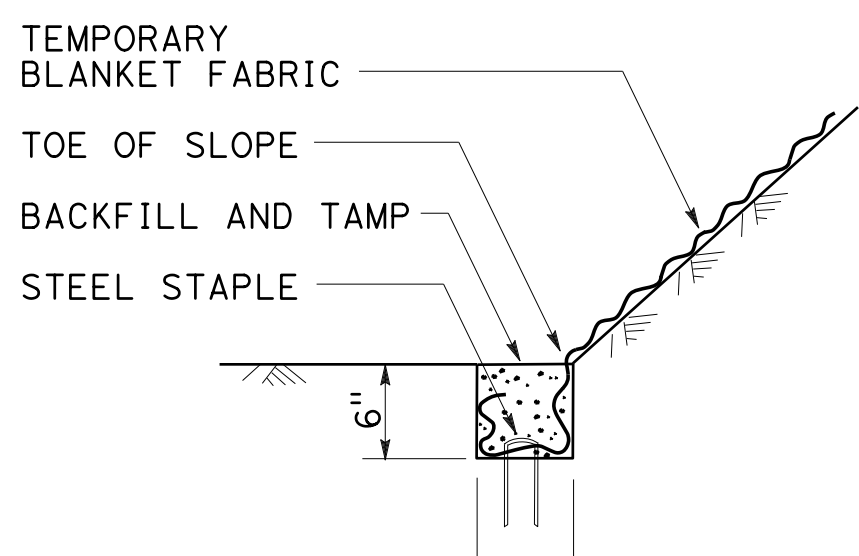
**STAPLE PATTERN
DETAIL A**



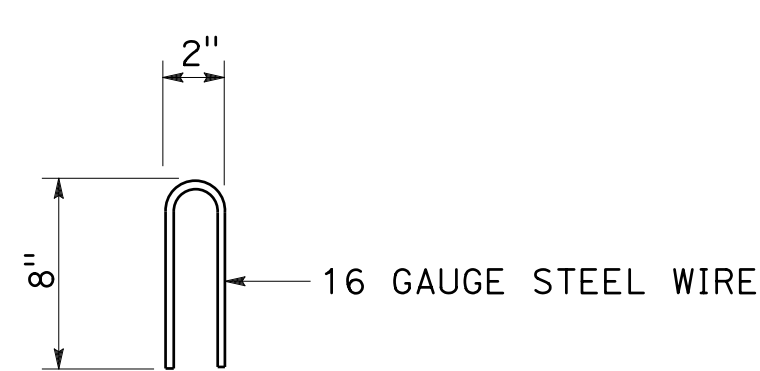
**LONGITUDINAL BLANKET JOINT
DETAIL B**



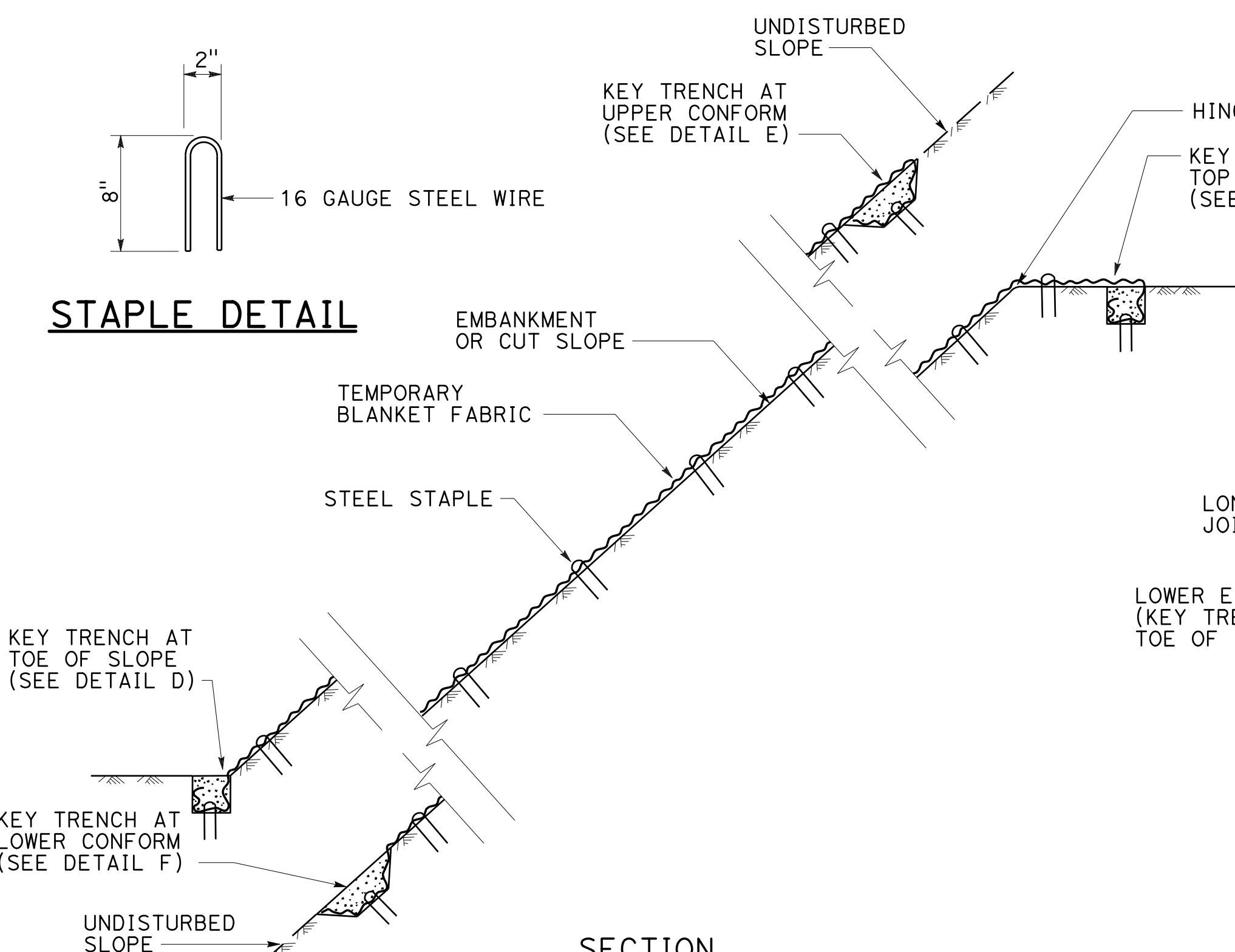
**KEY TRENCH AT
TOP OF SLOPE
DETAIL C**



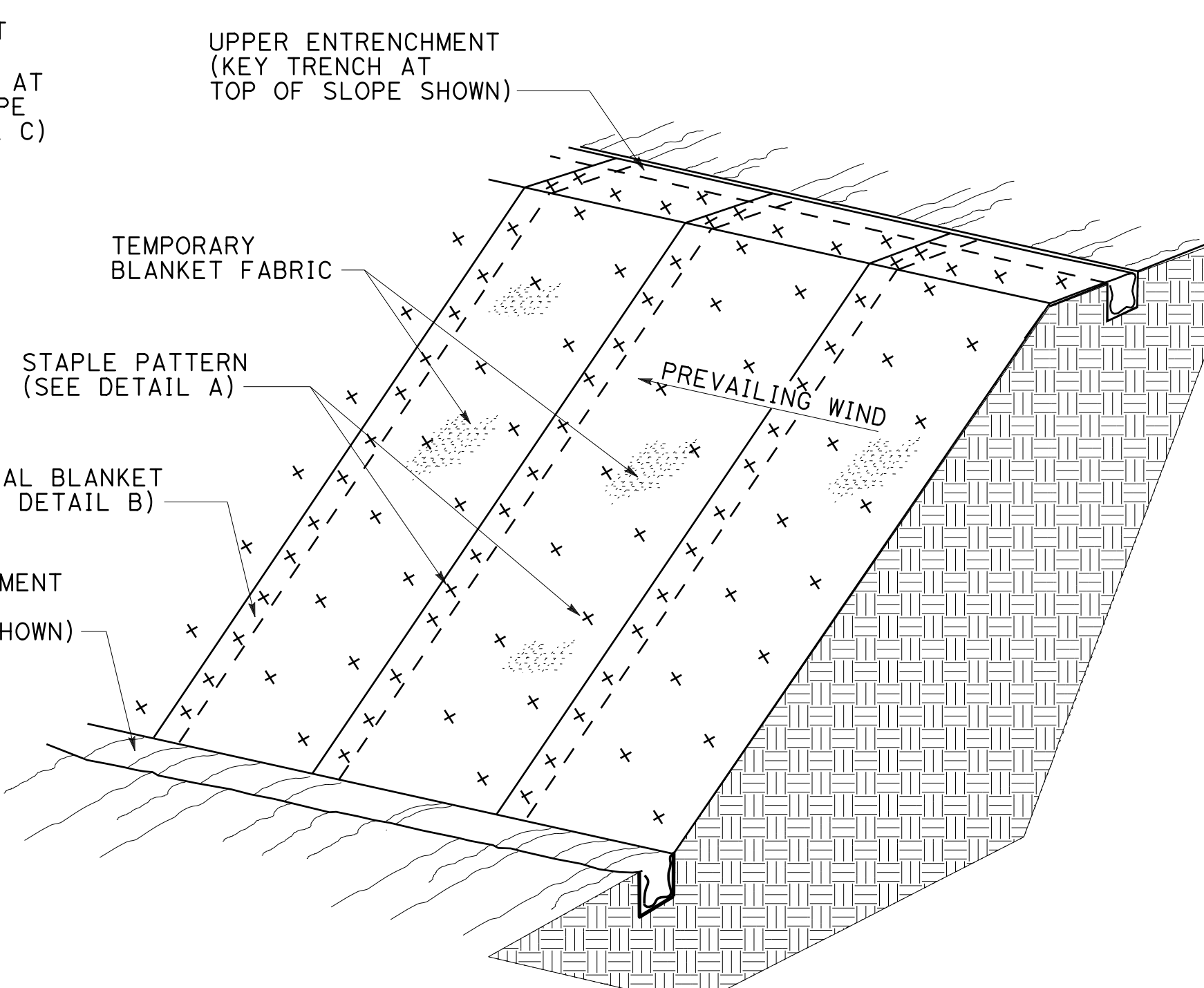
**KEY TRENCH AT
TOE OF SLOPE
DETAIL D**



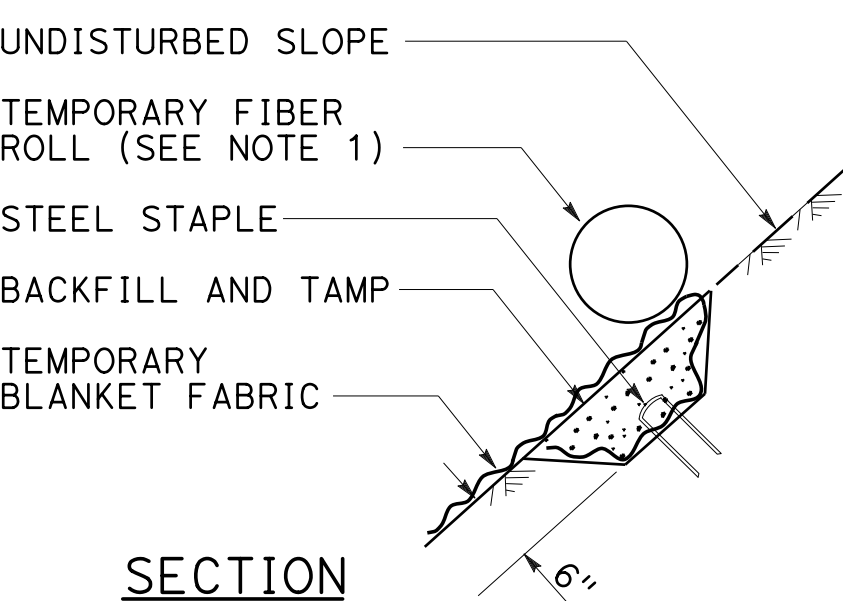
STAPLE DETAIL



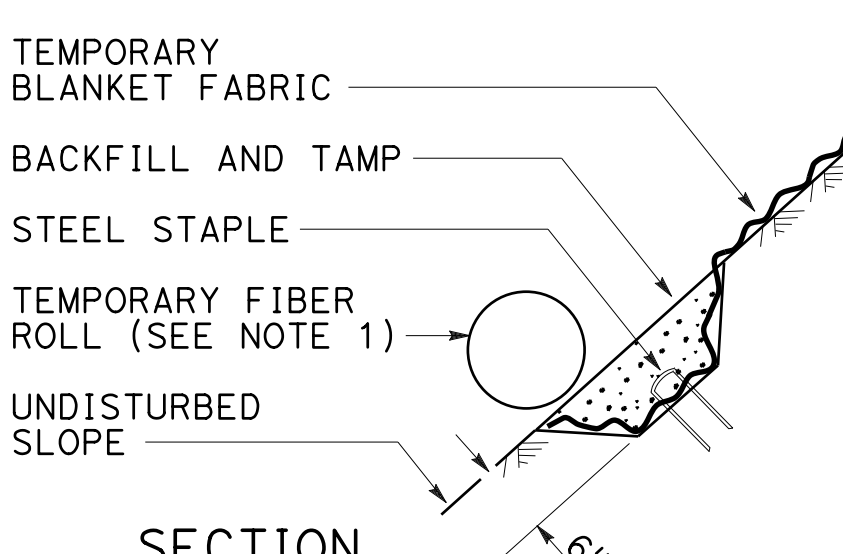
**TEMPORARY EROSION CONTROL BLANKET
ON SLOPE WITH VARIOUS KEY ENTRENCHMENTS**



**TEMPORARY EROSION CONTROL BLANKET
ON SLOPE**



**SECTION
KEY TRENCH AT
UPPER CONFORM
DETAIL E**



**SECTION
KEY TRENCH AT
LOWER CONFORM
DETAIL F**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY WATER POLLUTION
CONTROL DETAILS
(TEMPORARY EROSION CONTROL BLANKET)**

NO SCALE

T54



6455 Almaden Expwy.
Suite 100
San Jose, CA 95120
Phone: (408) 440-4542

APPROVED DATE: APRIL 15, 2022
Chris Hockett
CHRIS HOCKETT, P.E., G.E., PRINCIPAL ENGINEER
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FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				
0 1 2 3 4				
SHEET 20 OF 20				