BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 1 OF 22
	ROAD NO: C4A010			
	MILE POST: 7.60	DESIGNED BY: LF	SHELTER COVE ROAD STORM DAMAGE PROJECT	
	PROJECT NO.: ER-32L0(234)	DRAWN BY: CM		
	CONTRACT NO.: 2717216	REVIEWED BY: JT	TITLE SHEET	
	DATE: NOVEMBER 2019	APPROVED BY: JW		

NOTES

THE CONTRACTOR MUST HAVE A CLASS "A" LICENSE FOR THIS PROJECT.

STANDARD PLAN LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE SPECIAL PROVISIONS.

LATITUDE/LONGITUDE: 40.03784, −124.04089

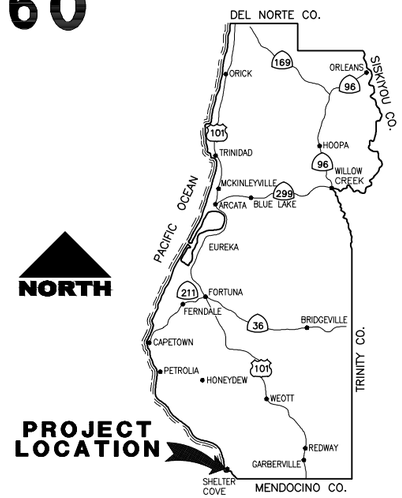
INDEX OF SHEETS

GEOTECH REPORT

2019 CRAWFORD & ASSOCIATES, INC.

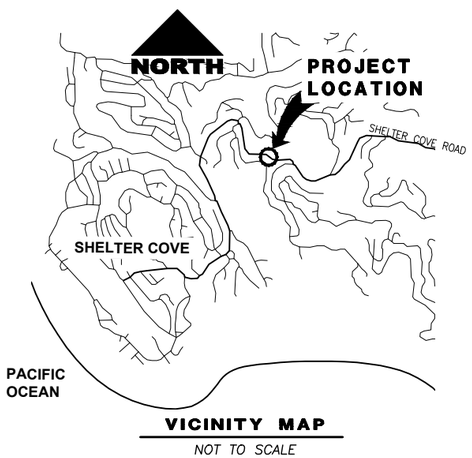
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR CONSTRUCTION OF
SHELTER COVE ROAD (C4A010) AT P.M. 7.60
STORM DAMAGE PROJECT
PROJECT NO. ER-32L0(234)
CONTRACT NO. 2717216

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, STANDARD SPECIFICATIONS, AND LATEST REVISED 2018 STANDARD SPECIFICATIONS



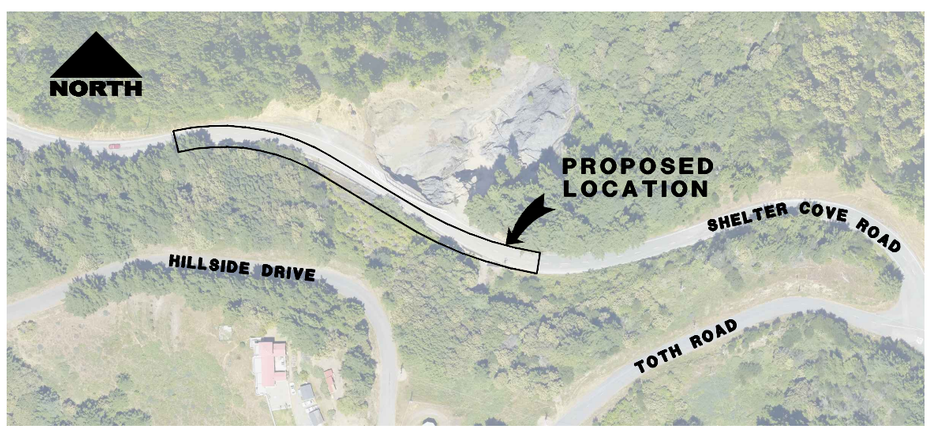
LOCATION MAP

NOT TO SCALE



VICINITY MAP

NOT TO SCALE



JAKE W. WEIR
RCE 72382, EXP. 6/30/2020

11/27/2019
DATE

PROFESSIONAL ENGINEER — JAKE W. WEIR — No. 72382 — Exp. 6/30/20 — CIVIL — STATE OF CALIFORNIA

JASON B. HICKEY
RSE S5783, EXP. 6/30/2020

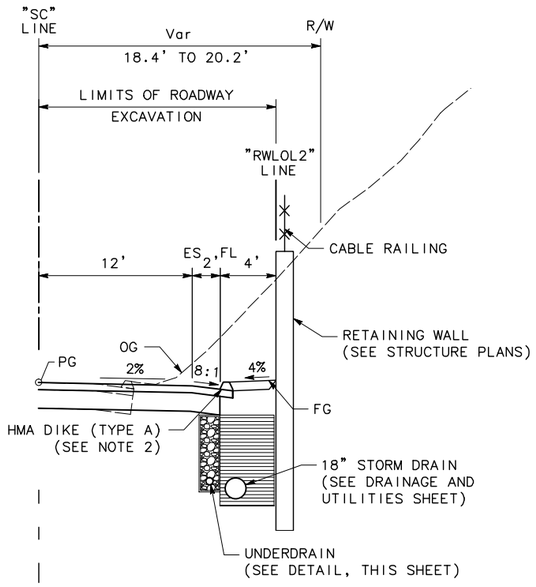
11/27/2019
DATE

PROFESSIONAL ENGINEER — JASON BRADFORD HICKEY — No. S5783 — Exp. 6/30/20 — STRUCTURAL — STATE OF CALIFORNIA

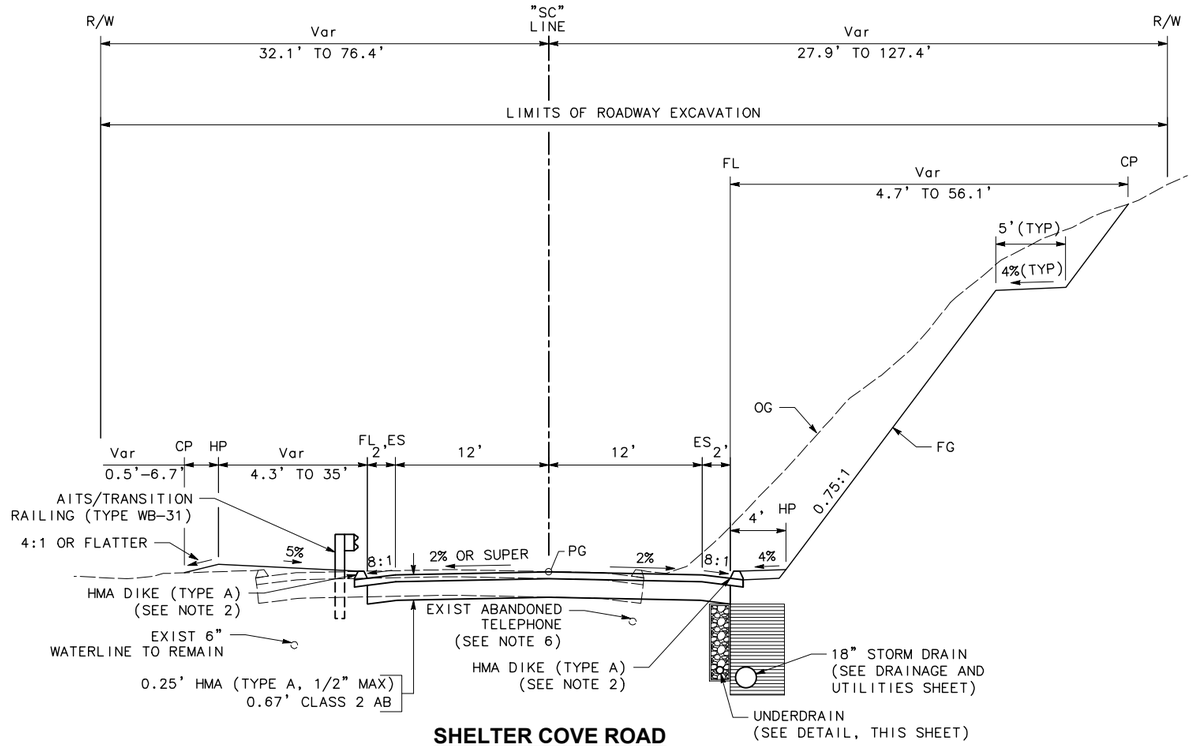
ORIGINAL LOW BID PRICE	CONSTRUCTED BY	RESIDENT ENGINEER
	PROJECT COMPLETED / /	CONSTRUCTION COST $

NOTES:

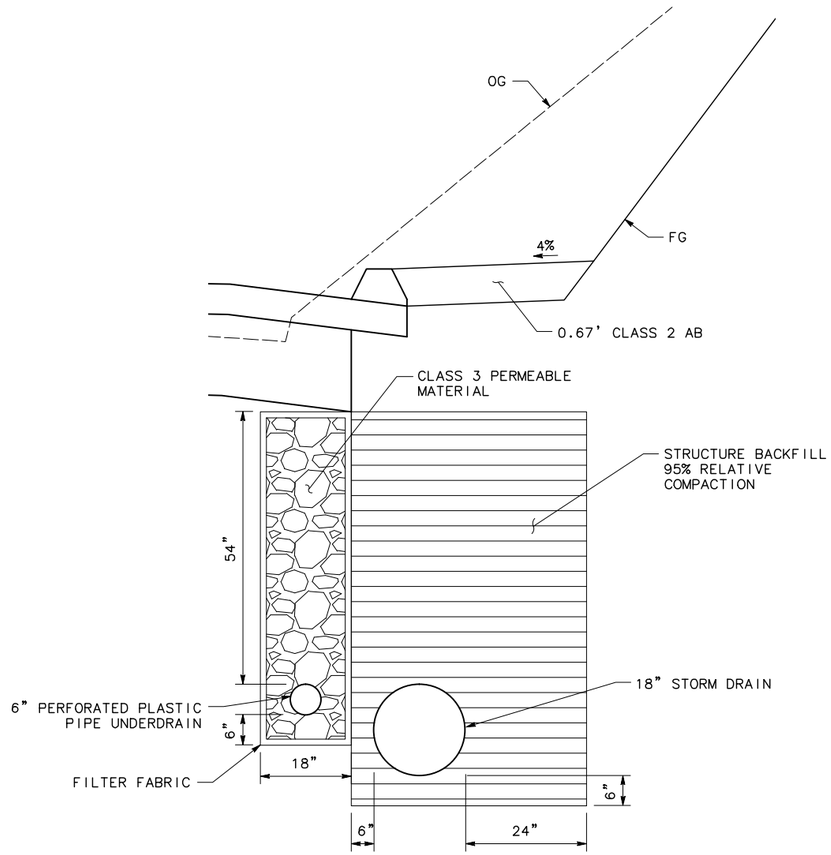
1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATION.
2. FOR HMA DIKE LOCATION AND TYPE, SEE LAYOUT SHEET.
3. FOR UNDERDRAIN DETAILS NOT SHOWN, SEE CALTRANS STANDARD PLANS, D102.
4. FOR PLASTIC CULVERT EXCAVATION AND BACKFILL NOT SHOWN, SEE CALTRANS STANDARD PLANS, A62F.
5. FOR SHOULDER TRANSITION, SEE LAYOUT SHEETS.
6. LOCATION OF ABANDONED UNDERGROUND TELEPHONE VARIES, SEE DRAINAGE AND UTILITY SHEETS 7 & 8.



SHELTER COVE ROAD
"SC" 14+25.00 TO 14+63.48
NO SCALE



SHELTER COVE ROAD
"SC" 10+30.00 TO 12+73.37
"SC" 14+31.72 TO 15+15.63
NO SCALE



UNDERDRAIN DETAIL
NO SCALE

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: LF
PROJECT NO.: ER-32L0(234)	DRAWN BY: CM
CONTRACT NO.: 217216	REVIEWED BY: JT
DATE: NOVEMBER 2019	APPROVED BY: JW

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

TYPICAL ROAD SECTIONS

SHEET 2 OF 22

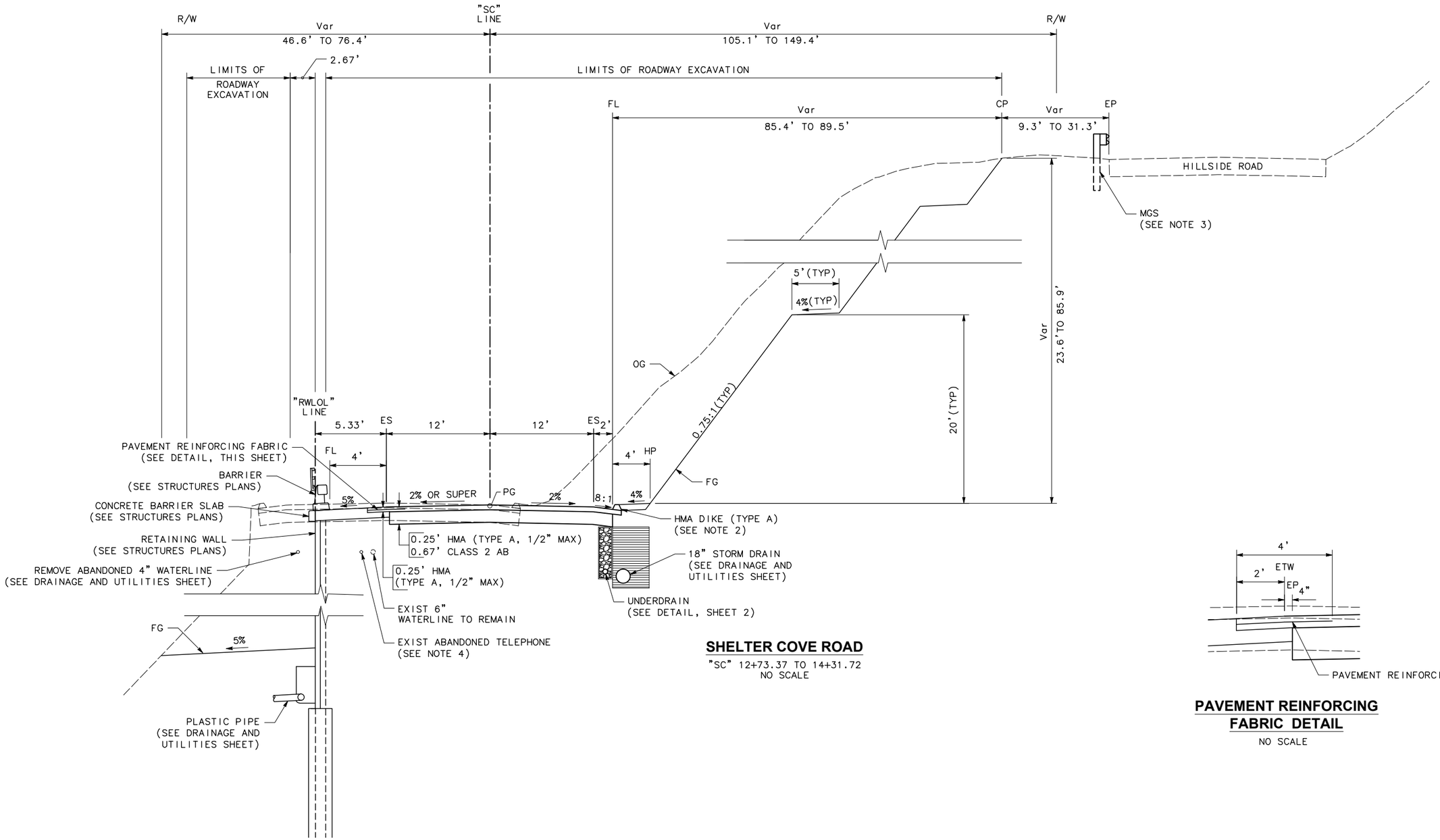
NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATION.
2. FOR HMA DIKE LOCATION AND TYPE, SEE LAYOUT SHEET.
3. FOR MGS LOCATION, SEE LAYOUT SHEET.
4. LOCATION OF ABANDONED UNDERGROUND TELEPHONE VARIES, SEE DRAINAGE AND UTILITY SHEETS 7 & 8.

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	MILE POST: 7.60	DESIGNED BY: LF	TYPICAL ROAD SECTIONS
	PROJECT NO.: ER-32L0(234)	DRAWN BY: CM	
	CONTRACT NO.: 217216	REVIEWED BY: JT	
	DATE: NOVEMBER 2019	APPROVED BY: JW	

SHEET 3 OF 22



SHELTER COVE ROAD

"SC" 12+73.37 TO 14+31.72
NO SCALE

PAVEMENT REINFORCING FABRIC DETAIL

NO SCALE

NOTES:

1. CONTRACTOR MUST COMPLY WITH BUSINESS AND PROFESSIONS CODE SECTION 8771 (b) REGARDING REFERENCING, PRESERVING AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS.

2. IF MONUMENT IS DAMAGED BY CONTRACTOR'S OPERATIONS, CONTRACTOR SHALL REPLACE MONUMENT AT CONTRACTOR'S EXPENSE.

ABBREVIATIONS:

NGS NATIONAL GEODETIC SURVEY
PID PERMANENT IDENTIFIER

LEGEND:

△ CONTROL POINT

DATUM:

1. COORDINATES FOR THIS SURVEY ARE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 1, NAD 83, EPOCH 2007.00 BASED ON A STATIC GPS CONTROL SURVEY PERFORMED ON 5/24/2018. THE MAPPING ANGLE IS 1 DEGREE 20 MINUTES 47 SECONDS– ROTATE BEARINGS COUNTERCLOCKWISE BY THIS ANGLE TO OBTAIN "TRUE" OR GEODETIC BEARINGS. GRID DISTANCES SHOWN SHOULD BE DIVIDED BY THE COMBINED SCALE FACTOR OF 0.99995630 TO OBTAIN GROUND DISTANCES. MAPPING ANGLE AND GRID SCALE FACTOR TAKEN AT CONTROL POINT NO. 105 WHICH IS THE AERIAL TARGET ON THE PROJECT SITE. HORIZONTAL CONTROL IS IN US SURVEY FEET AND IS BASED ON STATIC GPS TIE TO NGS PID "AF9558", WHICH IS THE CONTINUOUSLY OPERATING REFERENCE STATION (CORS) "CAPE MENDOCINO 1". VERTICAL CONTROL IS THE SHELTER COVE LOCAL DATUM, WHICH IS AN APPROXIMATION OF NGVD29 PER A TIE TO BENCHMARK NO. 1 ON A CONCRETE HEADWALL ADJACENT TO THE SHELTER COVE AIRPORT.

2. RIGHT OF WAYS AND PROPERTY LINES SHOWN HEREON ARE BASED ON THE MAP OF THE SHELTER COVE SUBDIVISION, TRACT NO. 42, RECORDED IN BOOK 14 OF MAPS, PAGES 73–138, HUMBOLDT COUNTY RECORDS (HCR), PER TIES TO RECORD CENTERLINES MONUMENTS IN SHELTER COVE ROAD. THIS AREA IS SHOWN ON SHEETS 43 & 44 (PAGES 115 & 116) OF SAID MAP. THE PHYSICAL CENTERLINE OF SHELTER COVE ROAD IN THIS AREA WAS MODIFIED AS SHOWN HEREON PER BOOK 60 OF SURVEYS, PAGE 49, HCR PER TIES TO CENTERLINE MONUMENTS SET PER THAT MAP AND LOCATED HEREON.

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

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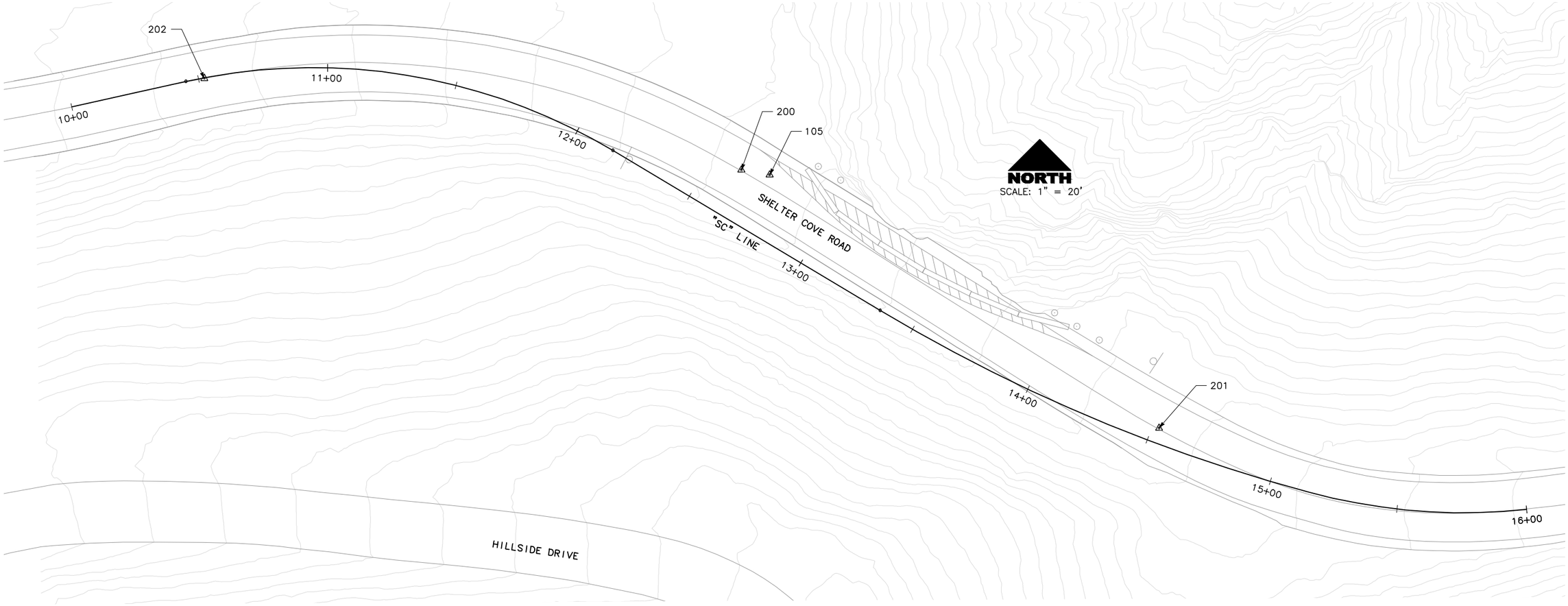
ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 4 OF 22
ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT	
MILE POST: 7.60	DESIGNED BY: LF		
PROJECT NO.: ER-32L0(234)	DRAWN BY: CM	PROJECT CONTROL	
CONTRACT NO.: 217216	REVIEWED BY: JT		
DATE: NOVEMBER 2019	APPROVED BY: JW		



CONSTRUCTION SURVEY CONTROL DATA

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	APPROX. LOCATION
105	1903889.580	5985128.490	817.810	AERIAL TARGET	"SC" 12+72.28 22.95' Lt
200	1903891.410	5985177.590	815.870	MONUMENT	"SC" 12+61.98 18.93' Lt
201	1903792.130	5985278.430	837.880	MONUMENT	"SC" 14+52.66 5.89' Lt
202	1903926.700	5984910.820	787.130	MONUMENT	"SC" 10+52.28 0.25' Lt

NOTE

1. PROVIDE CONCRETE VEGETATION CONTROL UNDER TRANSITION RAILING (TYPE WB-31) AND ALTERNATIVE IN-LINE TERMINAL SYSTEM PER CALTRANS STANDARD PLANS A77N6 & A77N7.

BAR IS ONE INCH ON ORIGINAL DRAWING	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
	MILE POST: 7.60	DESIGNED BY: LF	
	PROJECT NO.: ER-32L0(234)	DRAWN BY: CM	LAYOUT
	CONTRACT NO.: 217216	REVIEWED BY: JT	
	DATE: NOVEMBER 2019	APPROVED BY: JW	

SHEET 5 OF 22

REGISTERED PROFESSIONAL ENGINEER JAKE W. WEIR No. 72382 Exp. 06/30/20 CIVIL STATE OF CALIFORNIA

NORTH
SCALE: 1" = 20'

"SC" +30.00
BEG WIDENING
BEG HMA DIKE (TYPE A)
CONFORM TO EXIST

"SC" 10+00.00
N 1903915.70
E 5984859.73

"SC" +75.88 14.00' Lt
END HMA DIKE (TYPE A)
BEG HMA DIKE (TYPE C)

"SC" +15.66 14.00' Lt
BEG SHLD TRANSITION

"SC" +48.39 15.13' Lt
END HMA DIKE (TYPE C)
BEG HMA DIKE (TYPE F)
BEG TRANSITION RAILING
(TYPE WB-31) W/ ENDCAP (TYPE TC)

"SC" +73.37 17.33' Lt
BEG RETAINING WALL

"SC" +73.37 16.00' Lt
END SHLD TRANSITION
END TRANSITION RAILING (TYPE WB-31)
W/ ENDCAP (TYPE TC)
END HMA DIKE (TYPE F)

"SC" +83.10 31.47' Lt
BEG REMOVE EXIST
RAILING (TYPE K)

CONCRETE
BARRIER SLAB
(SEE STRUCTURES
PLANS)

RETAINING WALL
(SEE STRUCTURES PLANS)

"SC" +04.50 27.33' Lt
END REMOVE EXIST
RAILING (TYPE K)

"SC" +31.72 17.33' Lt
END RETAINING WALL

"SC" +31.72 16.00' Lt
BEG SHLD TRANSITION
BEG HMA DIKE (TYPE F)
BEG TRANSITION RAILING (TYPE WB-31)
W/ ENDCAP (TYPE TC)

"SC" +57.36 16.32' Lt
END SHLD TRANSITION
END TRANSITION RAILING (TYPE WB-31)
END HMA DIKE (TYPE F)
BEG HMA DIKE (TYPE C)

"SC" +08.51 14.00' Lt
END GUTTER TRANSITION
END HMA DIKE (TYPE C)
BEG HMA DIKE (TYPE A)

"SC" 16+00.00 EC
N 1903760.78
E 5985419.93

"SC" +15.63 PCC
END WIDENING
END HMA DIKE (TYPE A)
CONFORM TO EXIST

"SC" +86.34 14.00' Rt
AP

"SC" +80.38 17.73' Rt
BEG HMA DIKE (TYPE A)

"SC" +78.61 15.39' Rt
END HMA GUTTER (TYPE A)

"SC" +77.14 14.00' Rt
AP

"SC" +63.98 17.00' Rt
END RETAINING WALL

"SC" +25.00 17.00' Rt
BEG RETAINING WALL

"SC" +26.85 18.24' Rt
BEG HMA DIKE (TYPE A)

"SC" +45.14 BC

"SC" +45.14 14.00' Rt
AP

"SC" +15.66 EC

"SC" +35.62 BC

N 1903756.84
E 5985051.05
BEG MGS

MGS (150 LF)

N 1903679.08
E 5985168.50
END MGS

EXIST WATER TOWER
65'±

TO SHELTER COVE

TO GARBERVILLE

SHELTER COVE ROAD
"SC" LINE

HILLSIDE DRIVE

EXIST EP

R/W

AITS

ES

2' SHLD

12'

10+00

11+00

12+00

13+00

14+00

15+00

16+00

C1

C2

C3

L1

L2

LOT 16
APN: 110-021-005

LOT 17
APN: 110-021-006

LOT 18
APN: 110-021-007

LOT 19
APN: 110-021-008

LOT 20
APN: 110-021-009

LOT 28
APN: 110-021-070

LOT 29
APN: 110-021-030

LOT 30
APN: 110-021-070

LOT 31
APN: 110-021-032
COUNTY OF HUMBOLDT

LOT 32
APN: 110-021-033
COUNTY OF HUMBOLDT

LOT 33
APN: 110-021-034
COUNTY OF HUMBOLDT

LOT 34
APN: 110-021-035

LOT 31
APN: 110-021-37

LOT 32
APN: 110-021-063

LOT 33
APN: 110-021-039

LEGEND

- CUT LINE
- FILL LINE
- RIGHT OF WAY
- PROPERTY LINE
- MGS, ALTERNATIVE IN-LINE TERMINAL SYSTEM (AITS), OR TRANSITION RAILING (TYPE WB-31)
- RETAINING WALL

ALIGNMENT CURVE TABLE

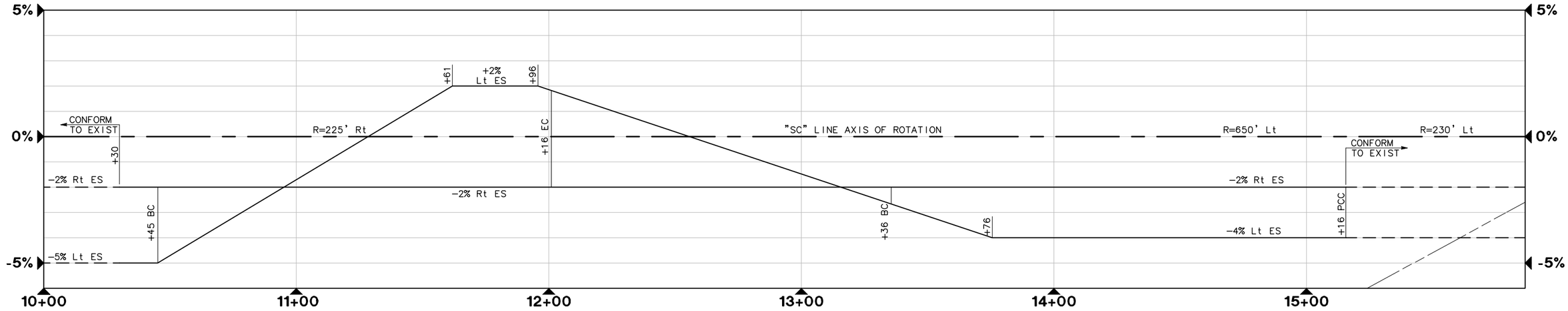
CURVE	RADIUS	DELTA	TANGENT	LENGTH
C1	225.00'	43°25'20"	89.59'	170.52'
C2	650.00'	15°52'01"	90.58'	180.01'
C3	230.00'	21°01'06"	42.67'	84.37'

ALIGNMENT LINE TABLE

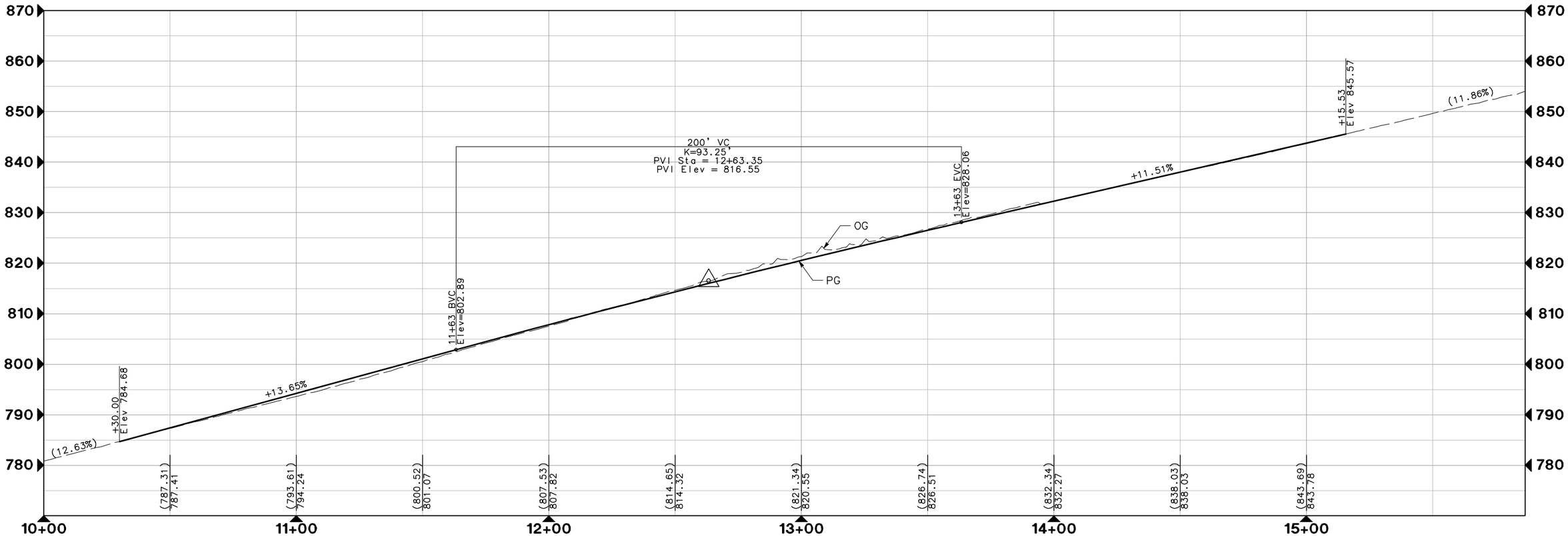
LINE #	LENGTH	DIRECTION
L1	45.14'	N77°28'00"E
L2	119.96'	S59°06'39"E

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
	MILE POST: 7.60	DESIGNED BY: LF	PROFILE AND SUPERELEVATION
	PROJECT NO.: ER-32L0(234)	DRAWN BY: CM	
	CONTRACT NO.: 217216	REVIEWED BY: JT	
	DATE: NOVEMBER 2019	APPROVED BY: JW	

SHEET 6 OF 22



SUPERELEVATION "SC" LINE
SCALE: HORIZ: 1" = 20'



PROFILE "SC" LINE
SCALE: HORIZ: 1" = 20'
VERT: 1" = 10'

NOTES

1. PIPE MUST BE HEAT FUSED HDPE AND HAVE JOINT RESTRAINTS, SEE CALTRANS STANDARD PLANS, D87B.
2. PIPE MUST HAVE A MINIMUM THICKNESS OF 2 INCHES.
3. THE COUNTY OF HUMBOLDT CLAIMS IMPLIED COMMON LAW DEDICATION TO MAINTAIN CULVERTS LOCATED OUTSIDE OF THE COUNTY'S EXISTING EASEMENTS.
4. FOR CABLE ANCHORATE SYSTEM AND ANCHOR ASSEBLY DETAILS NOT SHOWN, SEE CALTRANS STANDARD PLAN D87B, D87C.

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

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ROAD NO: C4A010	DRAWN BY: CM
MILE POST: 7.60	REVIEWED BY: JT
PROJECT NO.: ER-32L0(234)	APPROVED BY: JW
CONTRACT NO.: 217216	
DATE: NOVEMBER 2019	

MARK THOMAS

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

DRAINAGE AND UTILITIES

SHEET 7 OF 22

LEGEND

- EXIST WATERLINE
- EXIST PIPE
- EXIST OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- EXIST UNDERGROUND TELEPHONE LINE
- PROPOSED STORM DRAIN
- PROPOSED 6" UNDERDRAIN
- EXIST GUY WIRE
- EXIST POWER POLE
- PROPOSED POWER POLE
- EXIST FIRE HYDRANT
- EXIST VALVE
- EXIST MANHOLE
- EXIST UNDERGROUND TELEPHONE SERVICE BOX
- EXIST STORM DRAIN
- EXIST TREE
- REMOVE TREE (IF NEEDED)

NORTH

SCALE: 1" = 20'

N 1904313.76
E 5984873.17
BEG 24" PLASTIC PIPE
SEE NOTE 1 AND 2
24" INV(N)= 528.30

RSP & ELBOW ENERGY DISSIPATOR (SEE DETAIL THIS SHEET)

EXIST COUNTY DRAINAGE EASEMENT

96 LF 24" PLASTIC PIPE @ S=13%

EXIST 24" CULVERT

LINDLEY LOOP

TO SHELTER COVE ROAD

N 1904246.83
E 5984811.81
INV Elev 544.04

164 LF 24" PLASTIC PIPE @ S=55.1%

N 1904146.39
E 5984708.99
AP INV Elev 623.21

39 LF 24" PLASTIC PIPE @ S=55.1%

N 1904113.72
E 5984699.82
INV Elev 641.88

47 LF 24" PLASTIC PIPE @ S=200%

N 1904093.34
E 5984694.10
INV Elev 684.21

89 LF 24" PLASTIC PIPE @ S=33%

BEG REMOVE EXIST CMP STORM DRAIN PIPE

N 1904011.98
E 5984671.28
INV Elev 712.10

56 LF 24" PLASTIC PIPE @ S=75%

N 1903955.70
E 5984655.49
EXIST DI (OMP)
TOP OF GRATE= 751.77
FL= 749.99
18" INV(S)= 747.4±
24" INV(N)= 746.06
END 24" PLASTIC PIPE
END REMOVE EXIST CMP PIPE

MATCH LINE SEE SHEET 8

SHELTER COVE ROAD

R/W

EXIST ABANDONED TELEPHONE

RELOCATE 234 LF EXIST 18" PLASTIC PIPE WITH ANCHORS

R/W

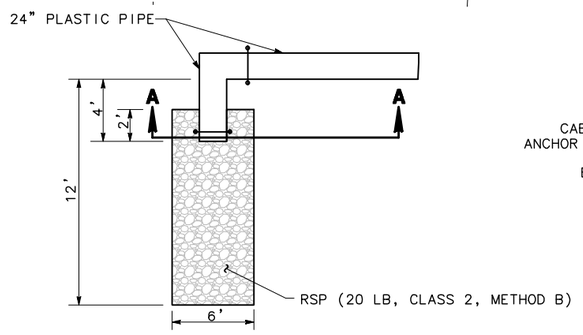
N 1903914.28
E 5984658.66
BEG RELOCATE STORM DRAIN (18" PLASTIC PIPE)
CONNECT TO EXIST DI (OMP)
TOP OF GRATE= 754.9±
FL= 753.6±
18" INV(W)= 751.4±
18" INV(N)= 751.4±

EXIST 18" PLASTIC PIPE

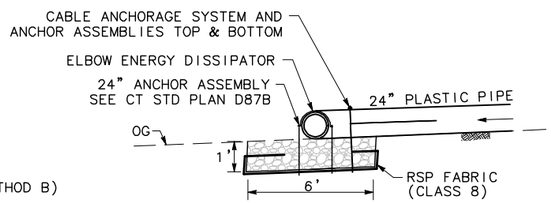
14 LF 24" PLASTIC PIPE @ S=5%

TO SHELTER COVE

N 1903969.18
E 5984659.27
INV Elev 745.44



PLAN



SECTION A-A

ELBOW ENERGY DISSIPATOR & ROCK SLOPE PROTECTION (RSP)

THIS PLAN ACCURATE FOR DRAINAGE AND UTILITY WORK ONLY

NOTES

1. FOR UNDERDRAIN DETAILS NOT SHOWN, SEE CALTRANS STANDARD PLANS, D102.
2. THE COUNTY OF HUMBOLDT CLAIMS IMPLIED COMMON LAW DEDICATION TO MAINTAIN CULVERTS LOCATED OUTSIDE OF THE COUNTY'S EXISTING EASEMENT

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
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ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: LF
PROJECT NO.: ER-32LO(234)	DRAWN BY: CM
CONTRACT NO.: 217216	REVIEWED BY: JT
DATE: NOVEMBER 2019	APPROVED BY: JW

MARK THOMAS

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

DRAINAGE AND UTILITIES

SHEET 8 OF 22

NORTH
SCALE: 1" = 20'

MATCH LINE SEE SHEET 7

TO SHELTER COVE

483 LF 6" UNDERDRAIN

"SC" +25.45 17.69' Rt
BEG UNDERDRAIN
DI (TYPE OMP)
TOP OF GRATE= 785.31
FL= 784.31
6" INV(E)= 775.77
18" INV(E)= 772.39
18" INV(W)= 772.00

"SC" +45.14 15.25' Rt
AP

"SC" +96.29 15.25' Rt
WATERLINE CROSSING
WATER INV= 788.7±
18" INV= 782.19

EXIST 6" WATERLINE TO REMAIN

"SC" +77.08 19.75' Lt
ADJUST VALVE TO GRADE
BEG REM ABANDONED WATERLINE

EXIST 6" WATERLINE TO REMAIN

RELOCATE 446 LF EXIST 18" PLASTIC PIPE WITH ANCHORS (SEE TYPICAL ROAD SECTIONS)

FROM

TO

EXIST ABANDONED TELEPHONE

RSP (SEE DETAIL THIS SHEET)

"SC" +35.37 37.33' Lt
INV=793.05

19 LF 8" PLASTIC PIPE @ S=5%

"SC" +35.37 18.33' Lt
INV=794.00

EXIST OVERHEAD ELECTRIC TO BE RELOCATED (BY RID)

REMOVE 327 LF ABANDONED 4" WATERLINE

EXISTING COUNTY DRAINAGE EASEMENT

EXIST ABANDONED TELEPHONE PEDESTAL TO BE REMOVED

SHELTER COVE ROAD
"SC" LINE

10+00 11+00 12+00 13+00 14+00 15+00 16+00

R/W

EXIST 8" WATERLINE

PROPOSED RELOCATION (BY RID) (SEE SHEET 9)

HILLSIDE DRIVE

EXIST 8" WATER MAIN

"SC" +03.52 10.54' Lt
END REM ABANDONED WATERLINE

EXIST 6" WATERLINE

TO GARBERVILLE

PLACE 3' 18" PLASTIC PIPE

EXIST 18" PLASTIC PIPE

"SC" +15.63 13.25' Rt
END UNDERDRAIN

"SC" +79.69 16.41' Rt
DI (TYPE OMP)
TOP OF GRATE= 842.00
FL= 841.00
18" INV(W)= 830.53
18" INV(S)= 840.2±

"SC" +79.93 19.59' Rt
REMOVE EXIST DI
END RELOCATE STORM DRAIN
(18" PLASTIC PIPE)

EXIST 15" CMP

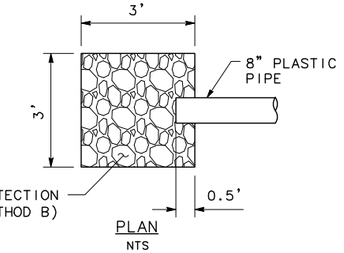
EXIST COUNTY DRAINAGE EASEMENT

EXIST 15" CMP

EXIST OMP

LEGEND

- EXIST WATERLINE
- EXIST PIPE
- EXIST OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- EXIST UNDERGROUND TELEPHONE LINE
- PROPOSED STORM DRAIN
- PROPOSED 6" UNDERDRAIN
- EXIST GUY WIRE
- EXIST POWER POLE
- PROPOSED POWER POLE
- EXIST FIRE HYDRANT
- EXIST VALVE
- EXIST MANHOLE
- EXIST UNDERGROUND TELEPHONE SERVICE BOX
- EXIST STORM DRAIN



PLAN
NTS

RETAINING WALL DRAIN OUTFALL

THIS PLAN ACCURATE FOR DRAINAGE AND UTILITY WORK ONLY

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: LF
PROJECT NO.: ER-32L0(234)	DRAWN BY: CM
CONTRACT NO.: 217216	REVIEWED BY: JT
DATE: NOVEMBER 2019	APPROVED BY: JW

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

DRAINAGE AND UTILITIES

SHEET 9 OF 22

NORTH
SCALE: 1" = 60'

LEGEND

- EXIST WATERLINE
- EXIST PIPE
- EXIST OVERHEAD LINE
- PROPOSED OVERHEAD LINE
- EXIST UNDERGROUND TELEPHONE LINE
- PROPOSED STORM DRAIN
- PROPOSED 6" UNDERDRAIN
- EXIST GUY WIRE
- EXIST POWER POLE
- PROPOSED POWER POLE
- EXIST FIRE HYDRANT
- EXIST VALVE
- EXIST MANHOLE
- EXIST UNDERGROUND TELEPHONE SERVICE BOX
- EXIST STORM DRAIN

REPLACE EXIST POLE (BY RID)
REPLACE EXIST POLE (BY RID)
REPLACE EXIST POLE (BY RID)
SHELTER COVE ROAD
HILLSIDE DRIVE
LINDLEY LOOP W
LINDLEY LOOP W
EXIST OVERHEAD ELECTRIC TO BE RELOCATED (BY RID)
TO SHELTER COVE
"SC" LINE
SHELTER COVE ROAD
TO GARBERVILLE
EP
EP
HILLSIDE DRIVE
EXIST 8" WATER MAIN
EXIST 15" CMP
EXIST COUNTY DRAINAGE EASEMENT
REPLACE EXIST POLE (BY RID)
PROPOSED OVERHEAD ELECTRIC RELOCATION (BY RID)

THIS PLAN ACCURATE FOR DRAINAGE AND UTILITY WORK ONLY

NOTES

1. ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS CALIFORNIA SIGN CODES.
2. SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. PCMS MUST BE INSTALLED AT LEAST 5 DAYS BEFORE COMPLETE ROAD CLOSURE.
4. FOR WESTBOUND TRUCK TRAFFIC:
   NORTH ON TELEGRAPH CREEK ROAD, SOUTH ON BEACH ROAD, SOUTH ON SHELTER COVE ROAD.
5. FOR EASTBOUND TRUCK TRAFFIC:
   NORTH ON BEACH ROAD, EAST ON TELEGRAPH ROAD, EAST ON SHELTER COVE ROAD.
6. FOR WESTBOUND NON-TRUCK TRAFFIC:
   WEST ON TOTH ROAD, SOUTH ON PARSONS ROAD, NORTH ON HILLSIDE DRIVE, NORTH ON SHELTER COVE ROAD.
7. FOR EASTBOUND NON-TRUCK TRAFFIC:
   SOUTH ON HILLSIDE DRIVE, EAST ON PARSON ROAD, WEST ON TOTH ROAD, EAST ON SHELTER COVE ROAD.

LEGEND

⇦ TRUCK DETOUR

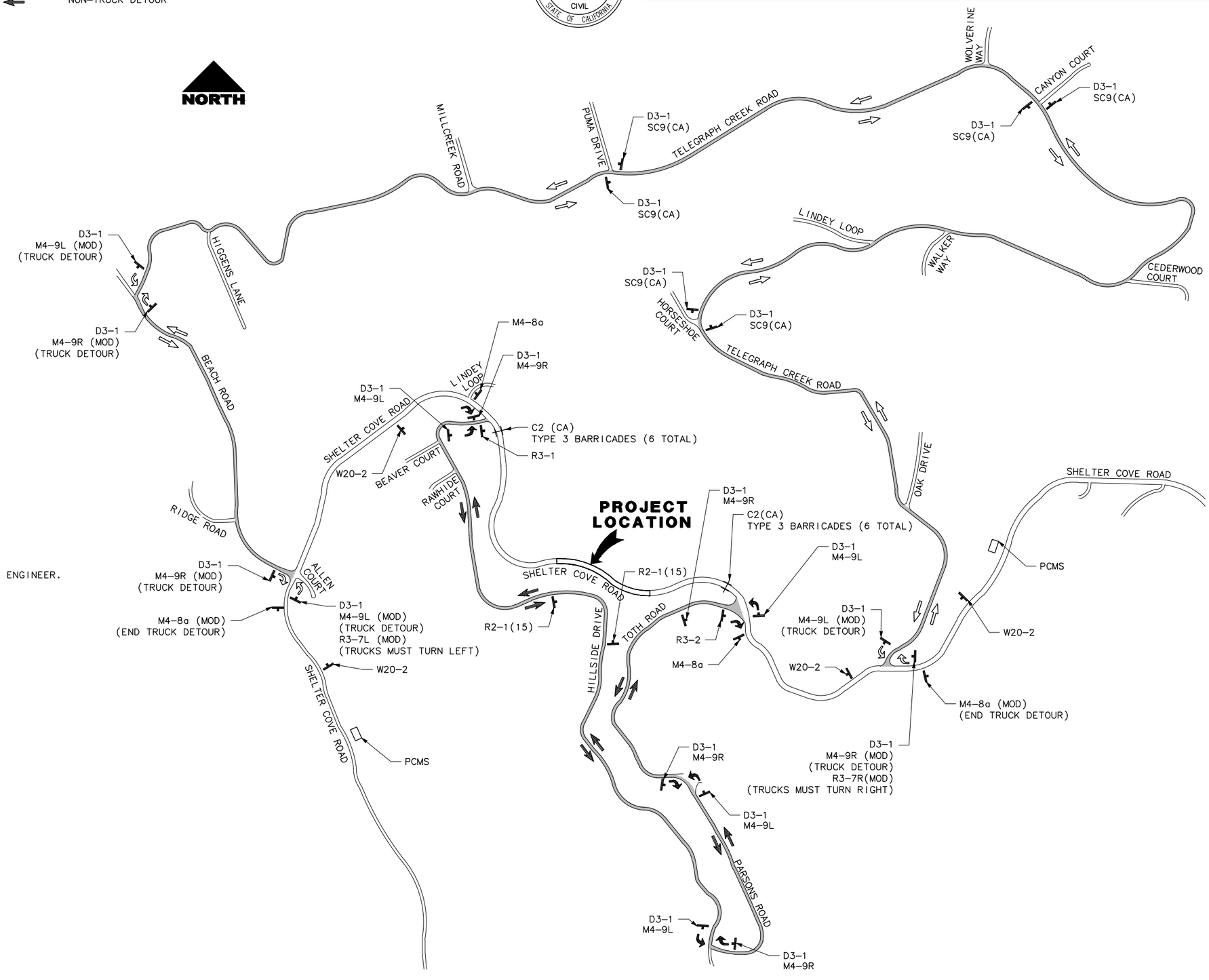
⇦ NON-TRUCK DETOUR

PROJECT FUNDING SIGN DETAIL

PROJECT FUNDING SIGN NOTE:
1. THE PROJECT FUNDING SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.

CONSTRUCTION AREA SIGNS

SIGN CODE	SIGN MESSAGE	# OF SIGNS
D3-1	SHELTER COVE ROAD	20
W20-2	DETOUR 1000 FT AHEAD	4
M4-9(MOD)	TRUCK DETOUR	6
C2(CA)	ROAD CLOSED	2
M4-9	DETOUR	8
R2-1	SPEED LIMIT 15	2
SC9(CA)	DETOUR STRAIGHT	6
R3-1	NO RIGHT	1
R3-2	NO LEFT	1
M4-8a	END DETOUR	2
M4-8a(MOD)	END TRUCK DETOUR	2
R3-7R(MOD)	TRUCKS MUST TURN RIGHT	1
R3-7L(MOD)	TRUCKS MUST TURN LEFT	1



THIS PLAN ACCURATE FOR DETOUR ONLY

REGISTERED PROFESSIONAL ENGINEER — JAKE W. WEIR — No. 72382 — Exp. 06/30/20 — CIVIL — STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: LF
PROJECT NO.: ER-32L0(234)	DRAWN BY: CM
CONTRACT NO.: 217216	REVIEWED BY: JT
DATE: NOVEMBER 2019	APPROVED BY: JW

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

DETOUR PLAN

SHEET 10 OF 22

NOTES

1. CONSTRUCTION ENTRANCE BMP MUST BE USED TO REDUCE VEHICLE TRACKING OF SEDIMENT.

REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

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ROAD NO: C4A010	
MILE POST: 7.60	
PROJECT NO.: ER-32L0(234)	
CONTRACT NO.: 217216	
DATE: NOVEMBER 2019	

MARK THOMAS

DESIGNED BY:	LF
DRAWN BY:	CM
REVIEWED BY:	JT
APPROVED BY:	JW

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

EROSION CONTROL

SHEET 11 OF 22

LEGEND

- HYDROSEED
- TFR TFR — TEMP FIBER ROLL
- TSF — TEMP SILT FENCE
- WASH — TEMP CONCRETE WASHOUT
- TEMP DRAINAGE INLET PROTECTION

NORTH
SCALE: 1" = 20'

CONSTRUCTION ENTRANCE
WASH
TO SHELTER COVE
10+00
11+00
12+00
13+00
14+00
15+00
16+00
TO GARBERVILLE
SHELTER COVE ROAD
"SC" LINE
HILLSIDE DRIVE
R/W
MATCH LINE SEE BELOW
MATCH LINE SEE ABOVE

THIS PLAN ACCURATE FOR EROSION CONTROL ONLY

LEGEND

- No. — PAVEMENT DELINEATION DETAIL
- ● — REMOVE ROADSIDE SIGN
- ◖ — EXISTING ROADSIDE SIGN
- ◄— OBJECT MARKER
- ◄—● DELINEATOR

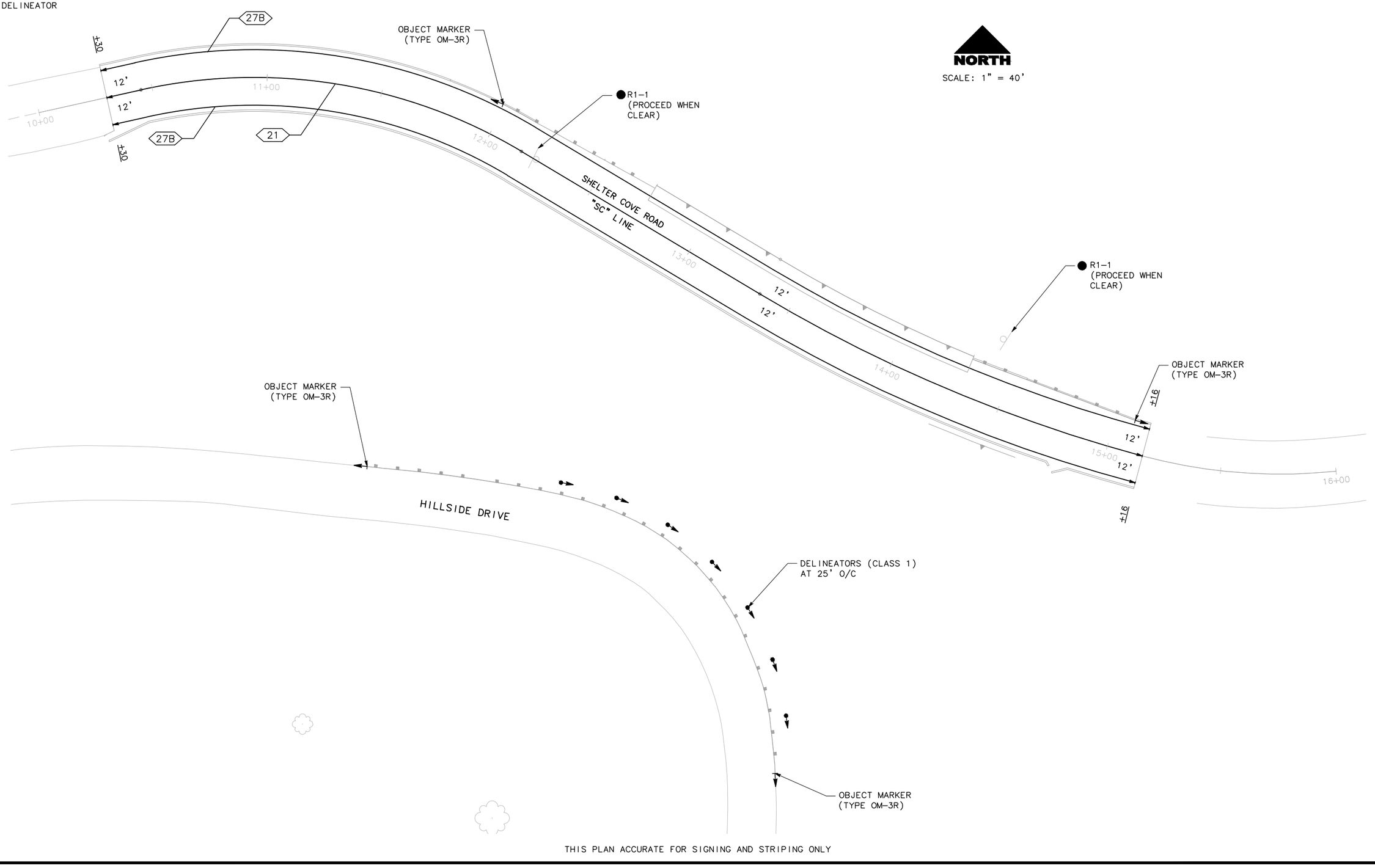
REGISTERED PROFESSIONAL ENGINEER
JAKE W. WEIR
No. 72382
Exp. 06/30/20
CIVIL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	MILE POST: 7.60	DESIGNED BY: LF	SIGNING AND STRIPING
	PROJECT NO.: ER-32L0(234)	DRAWN BY: CM	
	CONTRACT NO.: 217216	REVIEWED BY: JT	
	DATE: NOVEMBER 2019	APPROVED BY: JW	

SHEET 12 OF 22

NORTH

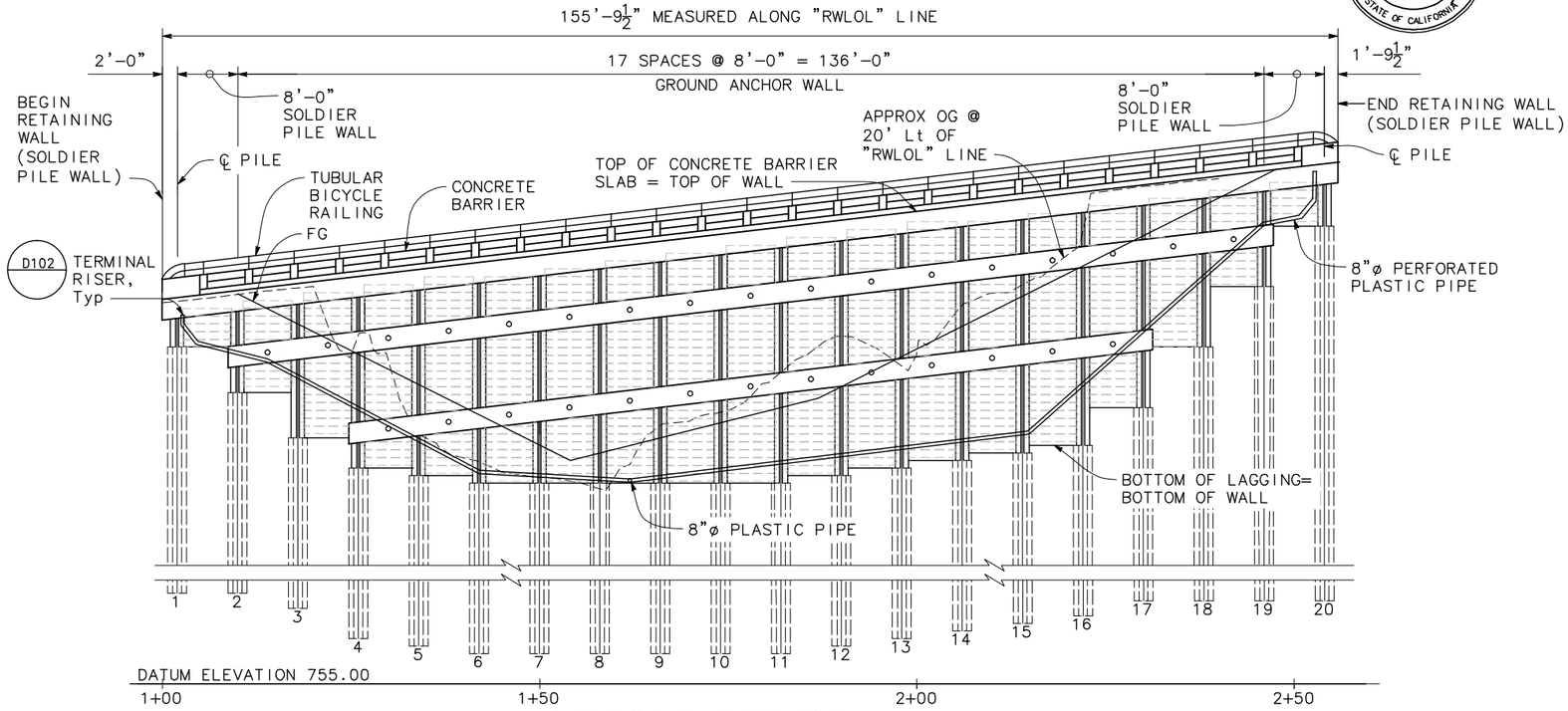
SCALE: 1" = 40'



THIS PLAN ACCURATE FOR SIGNING AND STRIPING ONLY

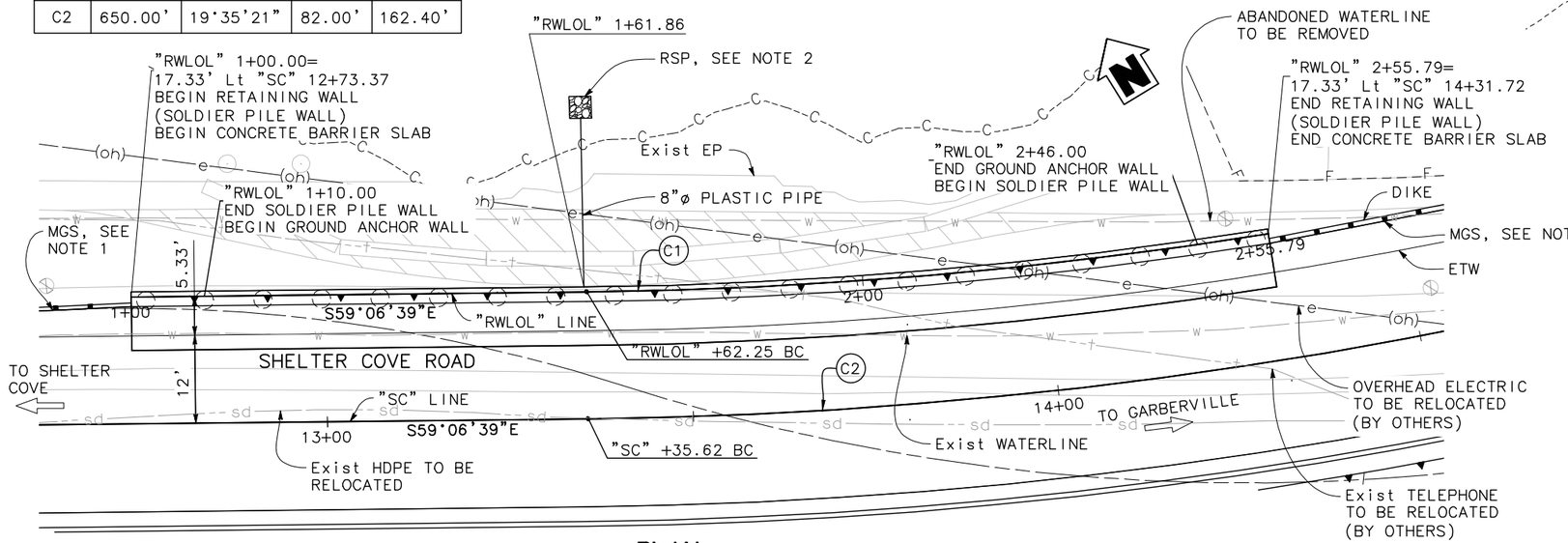
BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD ROAD NO: C4A010 MILE POST: 7.60 PROJECT NO.: ER-32L0(234) CONTRACT NO.: DATE: NOVEMBER 2019	MARK THOMAS DESIGNED BY: MM DRAWN BY: AM REVIEWED BY: TP APPROVED BY: JH	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS SHELTER COVE ROAD STORM DAMAGE PROJECT GENERAL PLAN	SHEET 13 OF 22

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5742
Exp. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

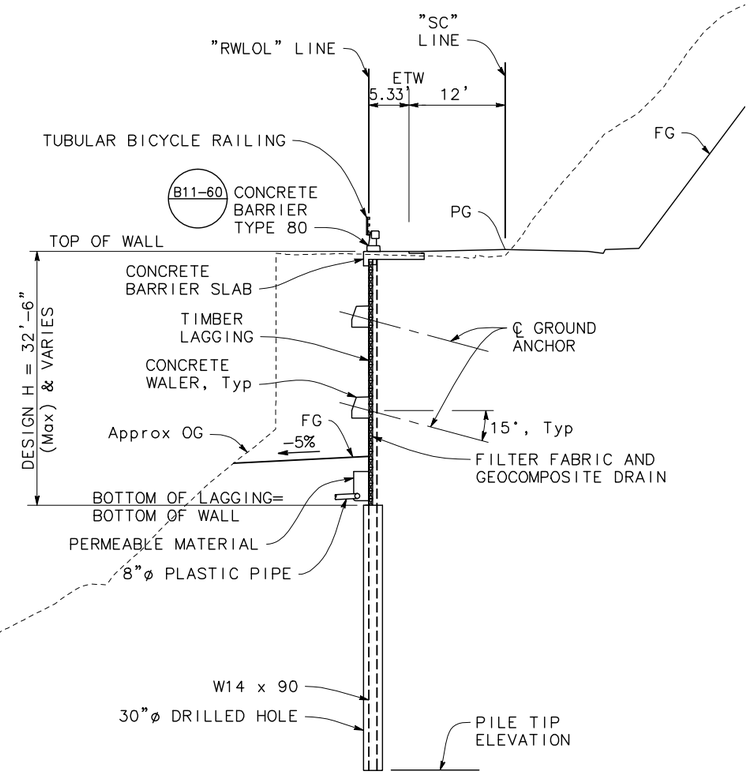


DEVELOPED ELEVATION
1" = 10'

CURVE DATA				
No.	R	Δ	T	L
C1	632.67'	8°28'14"	46.85'	93.53'
C2	650.00'	19°35'21"	82.00'	162.40'



PLAN
1" = 10'



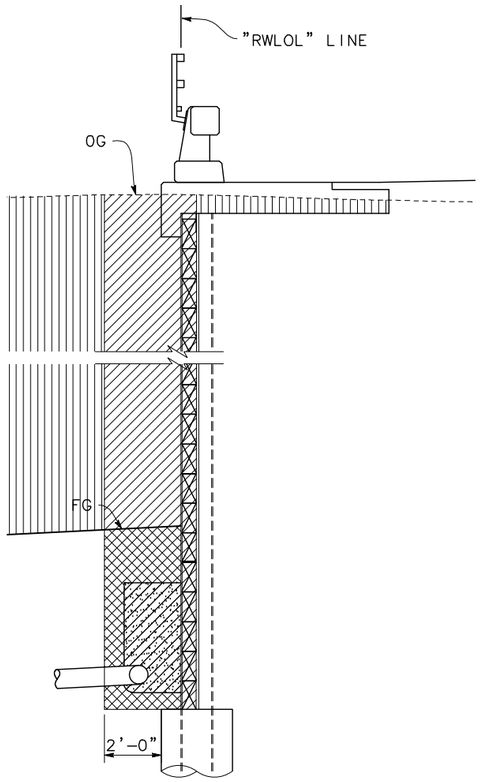
TYPICAL SECTION
1" = 10'

NOTES:

1. For MGS, see "ROADWAY PLANS"
2. For 8"ø plastic pipe outfall and RSP, see "ROADWAY PLANS"
3. For Utility Details, see "ROADWAY PLANS"

LEGEND

◌ – 30 inch diameter drilled hole



STRUCTURE BACKFILL AND EXCAVATION

NO SCALE

- STRUCTURE EXCAVATION, SOLDIER PILE WALL
- STRUCTURE BACKFILL, SOLDIER PILE WALL
- CLASS 2 PERMEABLE MATERIAL
- ROADWAY EXCAVATION

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5742
Exp. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		
	MILE POST: 7.60	DESIGNED BY: MM	SHELTER COVE ROAD STORM DAMAGE PROJECT
	PROJECT NO.: ER-32L0(234)	DRAWN BY: AM	INDEX TO PLANS
	CONTRACT NO.:	REVIEWED BY: TP	
	DATE: NOVEMBER 2019	APPROVED BY: JH	

SHEET 14 OF 22

STANDARD PLANS DATED 2018

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND – LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND – LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND – LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND – LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND – LINES AND SYMBOLS (SHEET 5 OF 5)
B11–60	CONCRETE BARRIER TYPE 80

STANDARD PLANS No.
DETAIL No.

INDEX TO PLANS

SHEET NO.	TITLE
12	GENERAL PLAN
13	INDEX TO PLANS
14	TYPICAL SECTION
15	WALER DETAILS
16	CONCRETE BARRIER SLAB DETAILS
17	SOLDIER PILE WALL LAGGING DETAILS
18	SUB HORIZONTAL GROUND ANCHOR DETAILS
19	DRAINAGE DETAILS
20	TUBULAR BICYCLE RAILING DETAILS
21	SHEET PILE WALL

GENERAL NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition with California Amendments.

LIVE LOAD: 240 psf equivalent to 2 ft soil weight

SOIL PARAMETERS:
Backfill soil weight = 130 lb/ft^3
Active Pressure coefficent, Ka = 0.26
Friction Angle = 34°

SEISMIC PARAMETERS: K_h = 0.31

STEEL SOLDIER PILES: ASTM A572/A, ASTM 572M Grade 50 Min, or ASTM A36/A36M

REINFORCED CONCRETE:
f'c = 4000 psi
fy = 60 ksi

STRUCTURAL TIMBER: Treated Douglas Fir, Grade Dense No. 1 or better Timber to be full sawn.

PRESTRESSING STEEL (GROUND ANCHORS):

Bars – ASTM Designation: A722

Strands – ASTM Designation: A416

T = Design force on ground anchors (Kips)

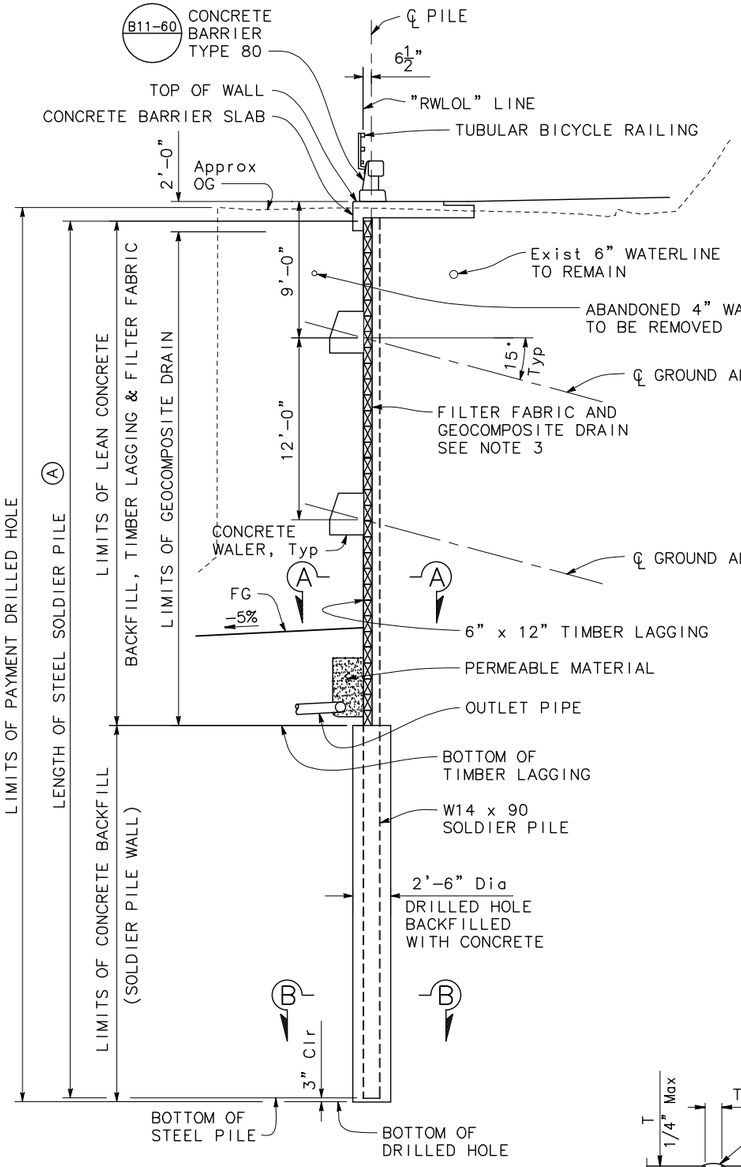
fpu = Minimum ultimate tensile strength of ground anchor steel (ksi)

As(Min) = Minimum cross sectional area of steel in ground anchor (square inch)

$As(Min) = \frac{1.0\ T}{0.75\ fpu}$ (Strands)

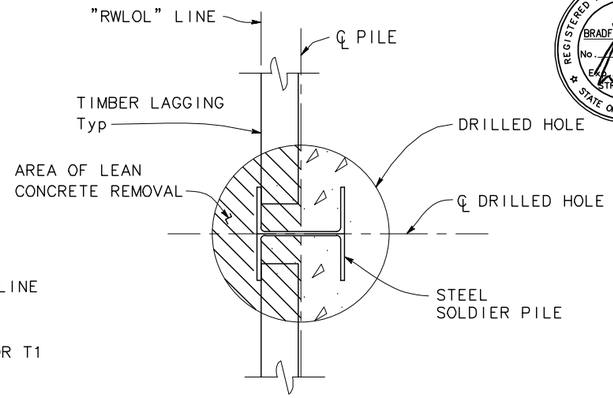
$As(Min) = \frac{1.0\ T}{0.80\ fpu}$ (Bars)

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 15 OF 22
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT	
	MILE POST: 7.60	DESIGNED BY: MM		
	PROJECT NO.: ER-32L0(234)	DRAWN BY: AM	TYPICAL SECTION	
	CONTRACT NO.:	REVIEWED BY: TP		
	DATE: NOVEMBER 2019	APPROVED BY: JH		



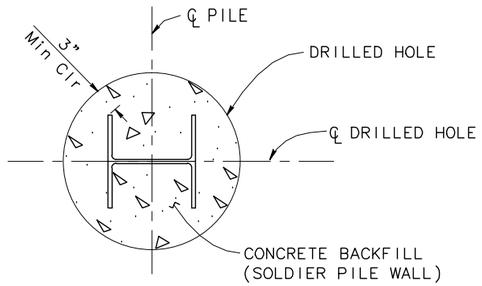
TYPICAL SECTION

1" = 5'



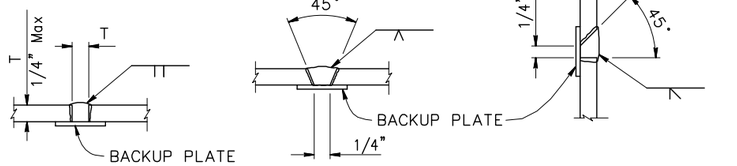
SECTION A-A

NO SCALE



SECTION B-B

NO SCALE



SQUARE GROOVE | SINGLE VEE-GROOVE | SINGLE BEVEL-GROOVE

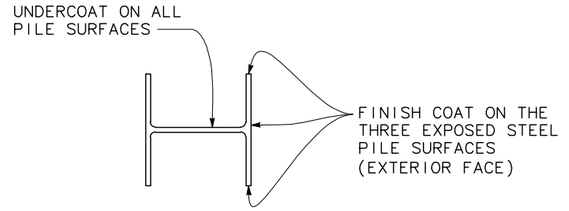
PILE WELDING DETAIL-BUTT JOINTS

NO SCALE

NOTES:

1. Single vee-groove and square groove permitted for all positions.
2. Single bevel-groove permitted for horizonal joints only.
3. Provide filter fabric and geocomposite drain behind lagging from edge to edge of steel pile. Continue geocomposite drain under wall into permeable material.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



LIMITS OF CLEAN + PAINT STEEL SOLDIER PILE

NO SCALE

Ⓐ Clean and paint steel soldier pile from top of pile to 5 feet Min below bottom of lagging

PILE AND GROUND ANCHOR DATA TABLE

PILE NUMBER (N)	"RWLOL" LINE STATION	TOP OF WALL ELEVATION	BOTTOM OF LAGGING ELEVATION	PILE TIP ELEVATION	GROUND ANCHORS *			
					T1		T2	
					T	UNBONDED LENGTH	T	UNBONDED LENGTH
		(ft)	(ft)	(ft)	(kips)	(ft)	(kips)	(ft)
1	1+02.00	817.17	812.0	767.0	N/A	N/A	N/A	N/A
2	1+10.00	818.13	806.0	767.0	165	18.0	N/A	N/A
3	1+18.00	819.08	800.0	765.0	165	18.0	N/A	N/A
4	1+26.00	820.03	796.0	761.0	165	18.0	165	15.0
5	1+34.00	820.96	795.0	760.0	165	18.0	165	15.0
6	1+42.00	821.90	794.0	759.0	165	18.0	165	15.0
7	1+50.00	822.83	794.0	759.0	165	18.0	165	15.0
8	1+58.00	823.75	794.0	759.0	165	18.0	165	15.0
9	1+66.00	824.68	794.0	759.0	165	18.0	165	15.0
10	1+74.00	825.61	794.0	760.0	165	18.0	165	15.0
11	1+82.00	826.53	794.0	760.0	165	18.0	165	15.0
12	1+90.00	827.45	795.0	761.0	165	18.0	165	15.0
13	1+98.00	828.36	796.0	761.0	165	18.0	165	15.0
14	2+06.00	829.30	797.0	762.0	165	18.0	165	15.0
15	2+14.00	830.24	798.0	763.0	165	18.0	165	15.0
16	2+22.00	831.18	799.0	764.0	165	18.0	165	15.0
17	2+30.00	832.13	804.0	764.0	165	18.0	N/A	N/A
18	2+38.00	833.07	812.0	765.0	165	18.0	N/A	N/A
19	2+46.00	834.02	820.0	766.0	N/A	N/A	N/A	N/A
20	2+54.00	834.97	828.0	766.0	N/A	N/A	N/A	N/A

* GROUND ANCHORS CENTERED BETWEEN PILES N_i AND N_{i+1}

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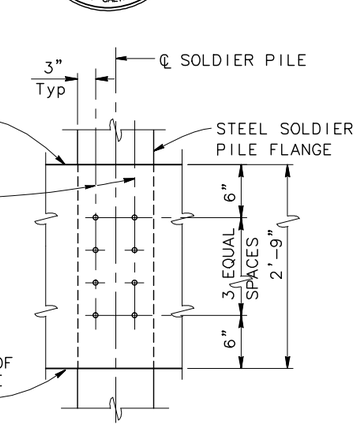
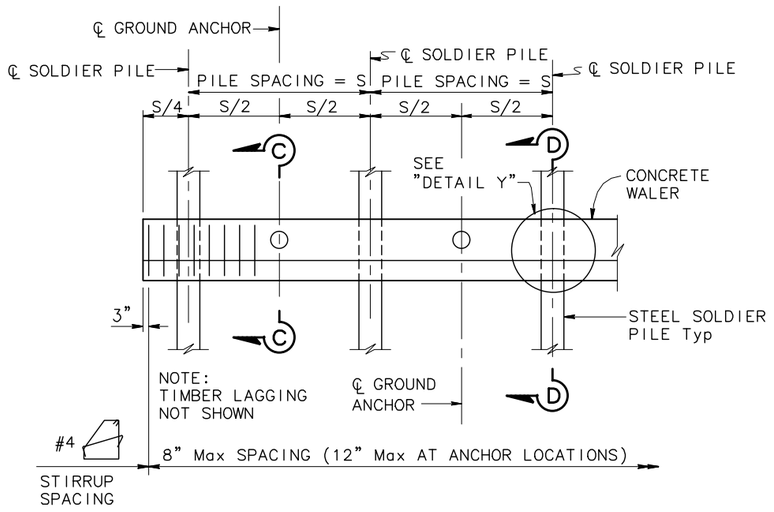


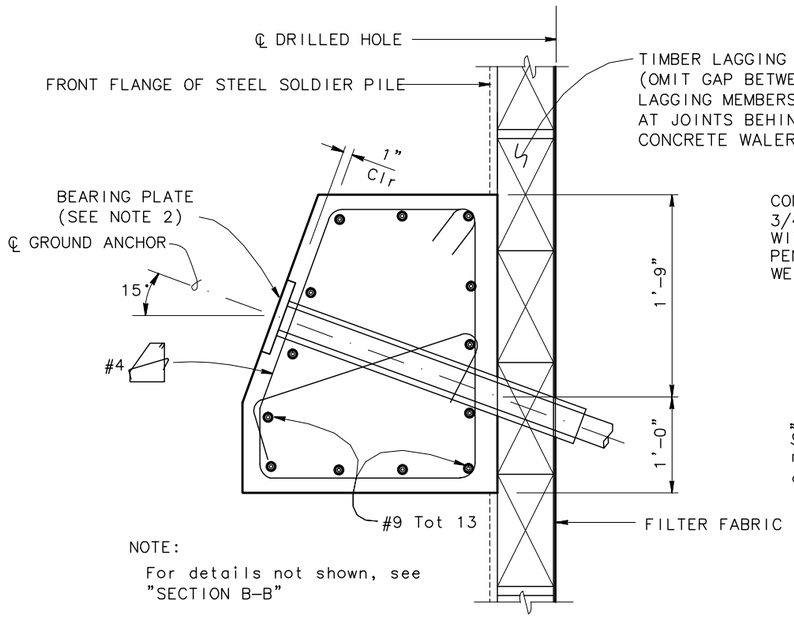
DETAIL Y

NO SCALE



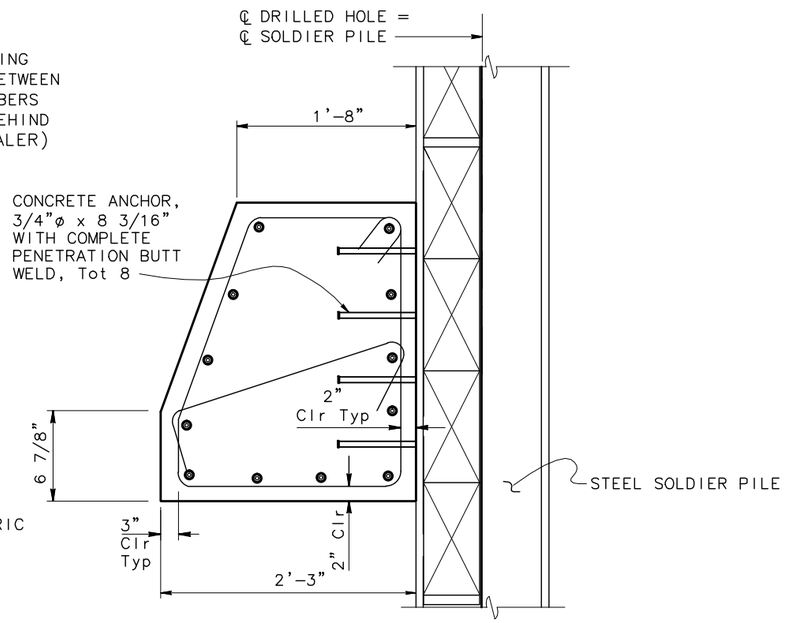
WALER PART ELEVATION

NO SCALE



SECTION C-C

1 1/2" = 1'=0"



SECTION D-D

1 1/2" = 1'=0"

NOTES:

1. Concrete walers may be poured to face of lagging.
2. Bearing plates may be recessed or on face of concrete waler.

JASON BRADFORD HICKEY
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Exp. 6/30/20
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STATE OF CALIFORNIA

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ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
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COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

WALER DETAILS

SHEET 16 OF 22

LEGEND

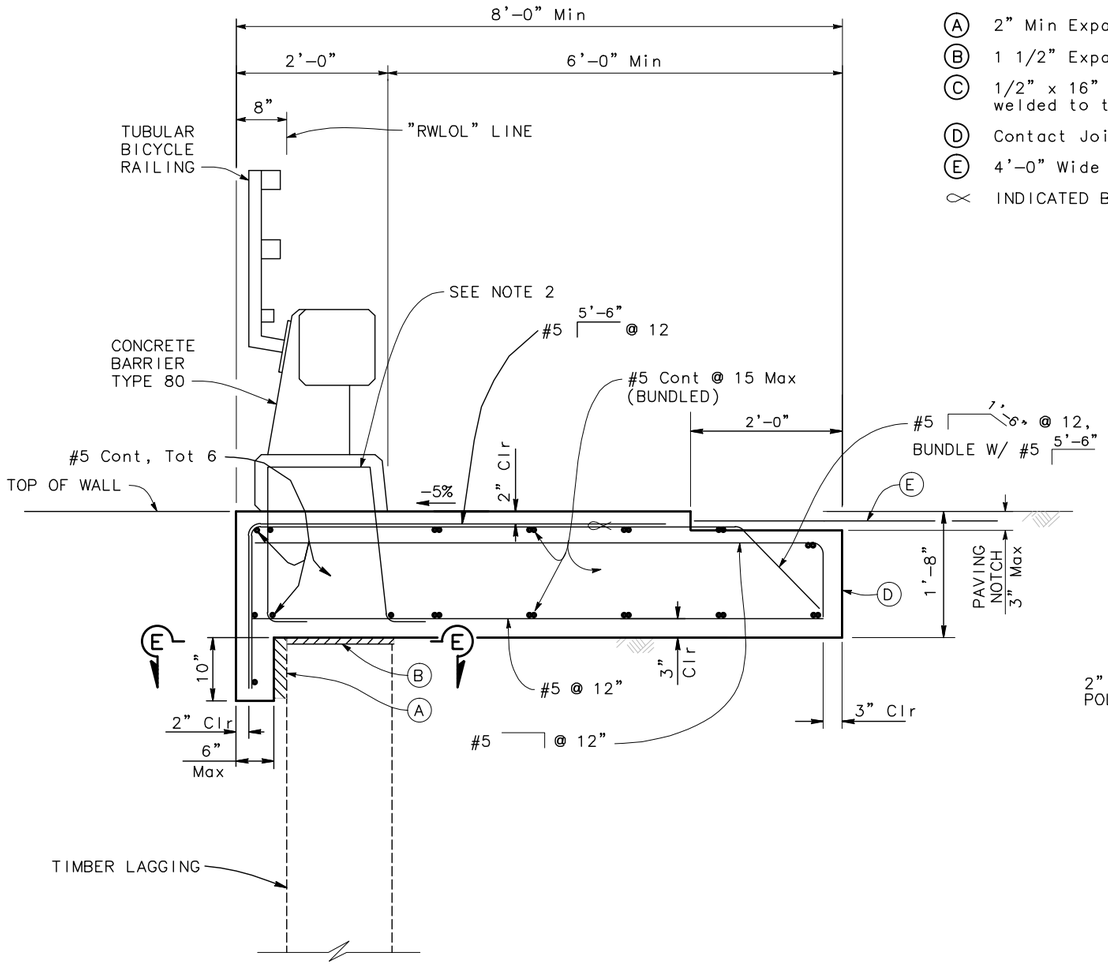
- INDICATES 1 1/2" EXPANDED POLYSTYRENE
- INDICATES 2" EXPANDED POLYSTYRENE
- INDICATES BEARING PAD

NOTES:

1. No expansion joints in concrete coping within wall limits.
2. Not all barrier reinforcement shown.

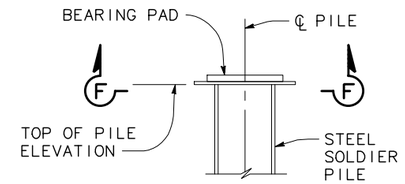
NOTES:

- (A) 2" Min Expanded polystyrene
- (B) 1 1/2" Expanded Polystyrene
- (C) 1/2" x 16" x 16" cover plate welded to top of pile
- (D) Contact Joint
- (E) 4'-0" Wide Pavement Reinforcing Fabric
- ∝ INDICATED BUNDLED BARS



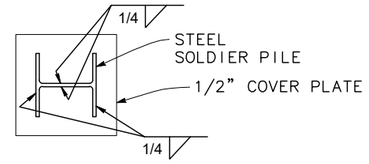
CONCRETE BARRIER SLAB WITH PAVING NOTCH

1" = 1'-0"



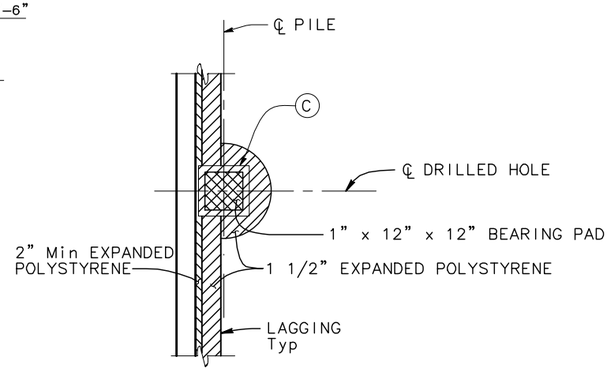
DETAIL X

NO SCALE



SECTION F-F

NO SCALE



SECTION E-E

1/2" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5742
EXP 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

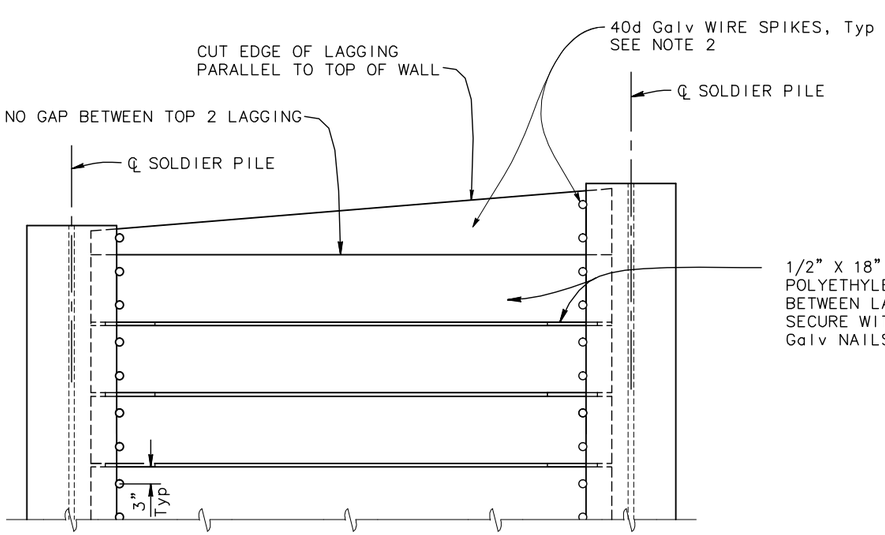
ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: MM
PROJECT NO.: ER-32L0(234)	DRAWN BY: AM
CONTRACT NO.:	REVIEWED BY: TP
DATE: NOVEMBER 2019	APPROVED BY: JH

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

CONCRETE BARRIER SLAB DETAILS

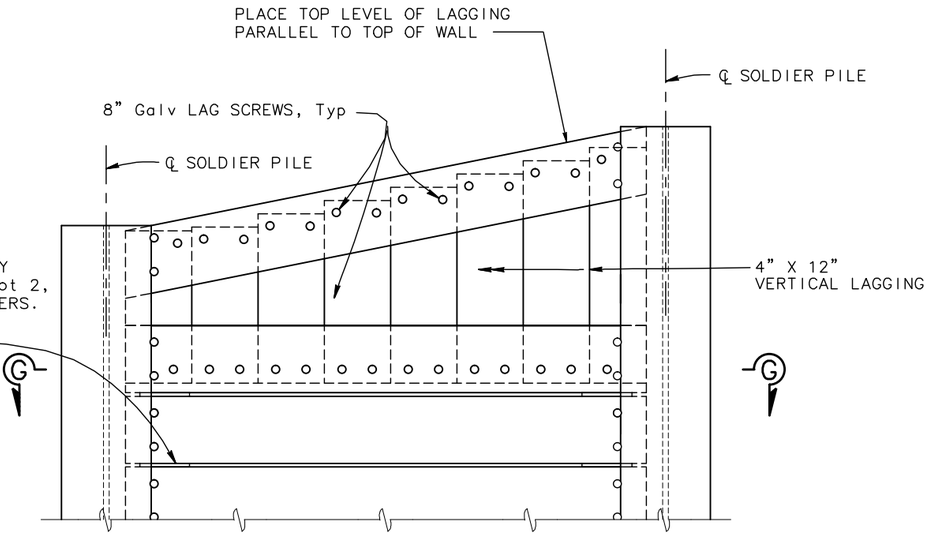
SHEET 17 OF 22



PART ELEVATION

LAGGING DETAILS (ALTERNATIVE 1)

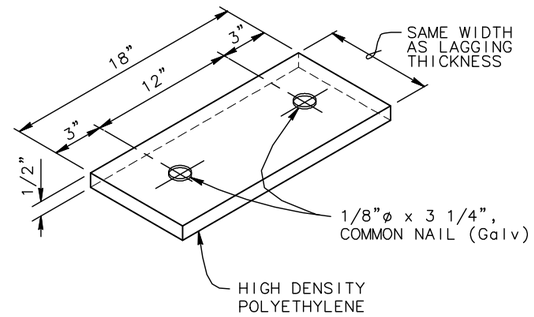
NO SCALE



PART ELEVATION

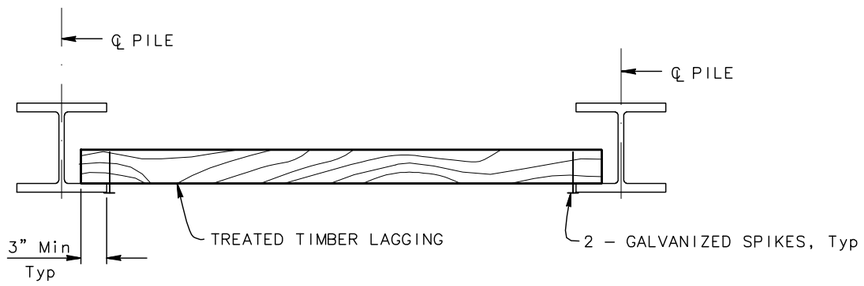
LAGGING DETAILS (ALTERNATIVE 2)

NO SCALE



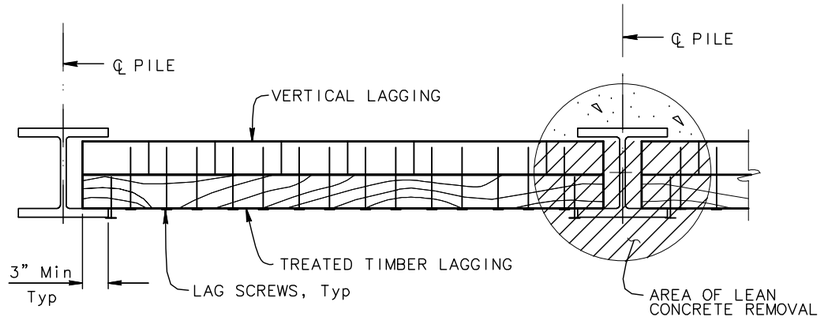
SHIM DETAIL

NO SCALE



PART PLAN

NO SCALE



SECTION G-G

NO SCALE

NOTES:

1. No clipping of timber lagging corners allowed

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5712
EXP. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: SHELTER COVE ROAD	MARK THOMAS
ROAD NO: C4A010	
MILE POST: 7.60	DESIGNED BY: MM
PROJECT NO.: ER-32L0(234)	DRAWN BY: AM
CONTRACT NO.:	REVIEWED BY: TP
DATE: NOVEMBER 2019	APPROVED BY: JH

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

SOLDIER PILE WALL LAGGING DETAILS

SHEET 18 OF 22

BAR IS ONE INCH ON ORIGINAL DRAWING	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	MILE POST: 7.60	DESIGNED BY: MM	SUB HORIZONTAL GROUND ANCHOR DETAILS
	PROJECT NO.: ER-32L0(234)	DRAWN BY: AM	
	CONTRACT NO.:	REVIEWED BY: TP	
	DATE: NOVEMBER 2019	APPROVED BY: JH	

SHEET 19 OF 22

NOTES:

(A) Level of initial grouting for drilled hole 6" in diameter or smaller

(B) Level of secondary grouting

(C) Level of initial grouting inside corrugated sheathing

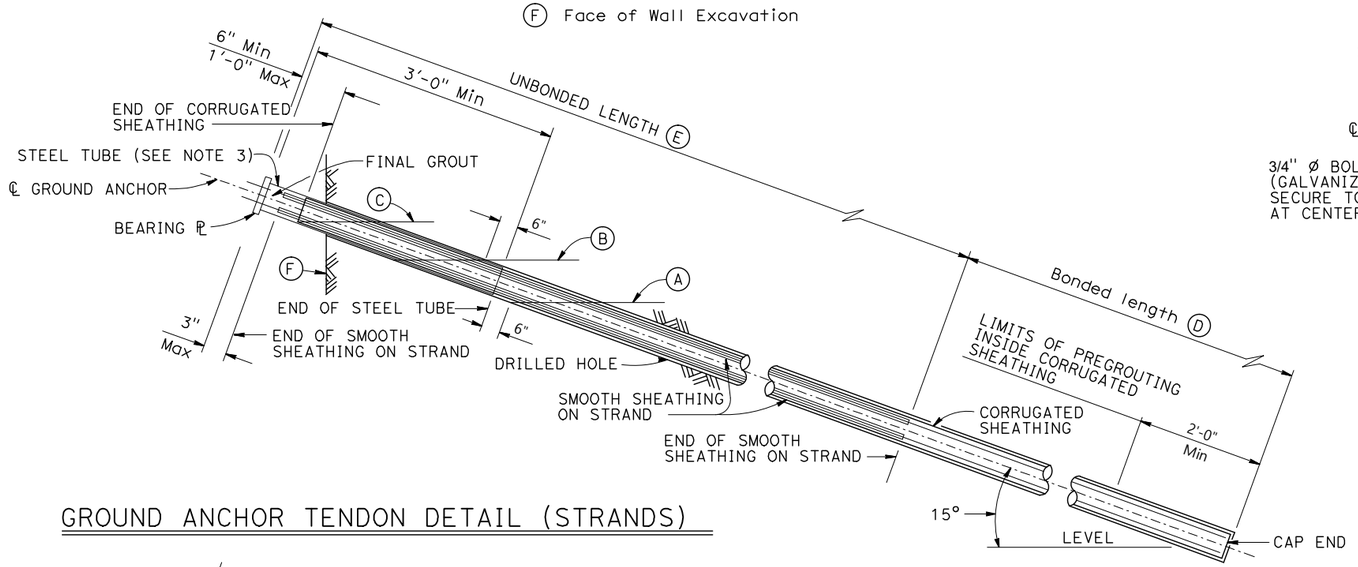
(D) Bonded length shall be determined by the contractor

(E) For unbonded length, see "PILE AND GROUND ANCHOR DATA TABLE" on "TYPICAL SECTION" SHEET

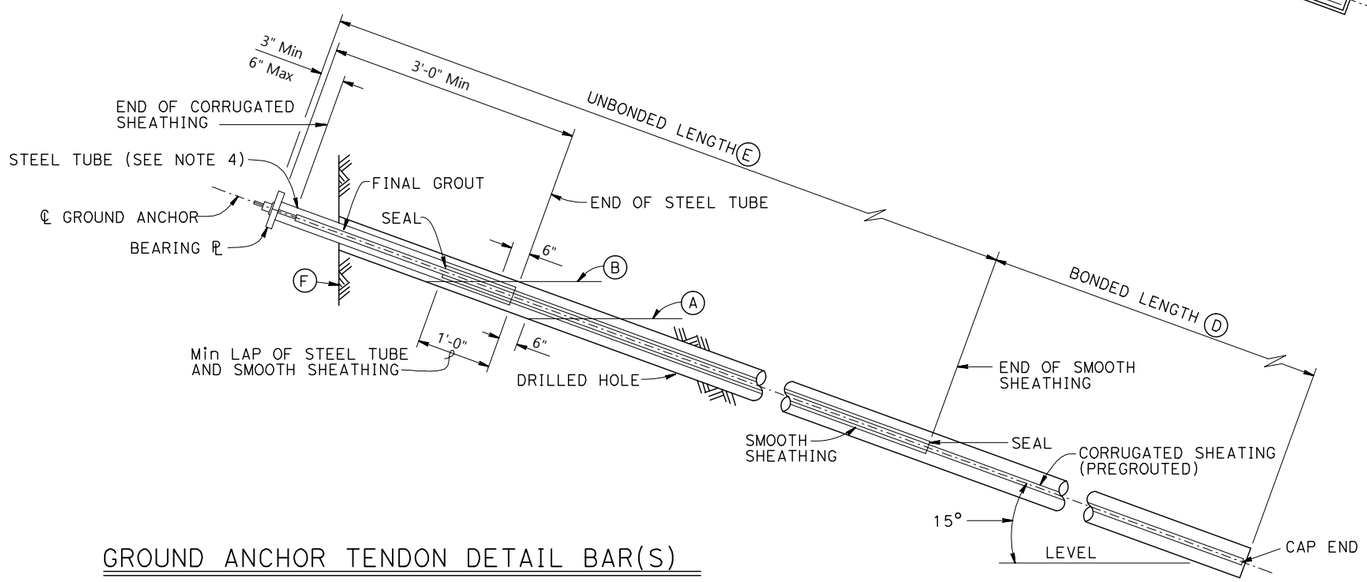
(F) Face of Wall Excavation

NOTES:

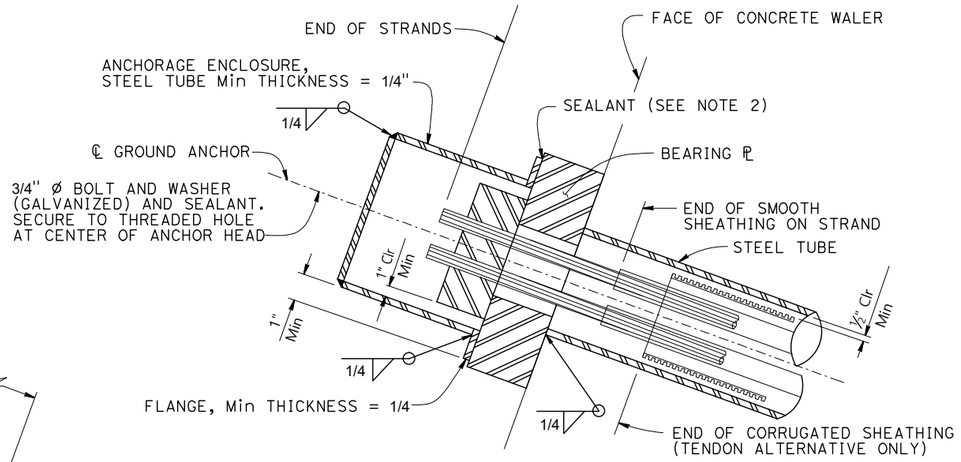
1. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
2. Silicone sealant to cover full width of flange.
3. Steel tube (Min thickness = 1/4") welded to bearing plate. Galvanize assembly after fabrication
4. Steel tube welded to bearing plate. Inside diameter of steel tube (Min thickness = 1/4") to be 1" greater than outside diameter of smooth sheathing.
5. Galvanize assembly after fabrication.



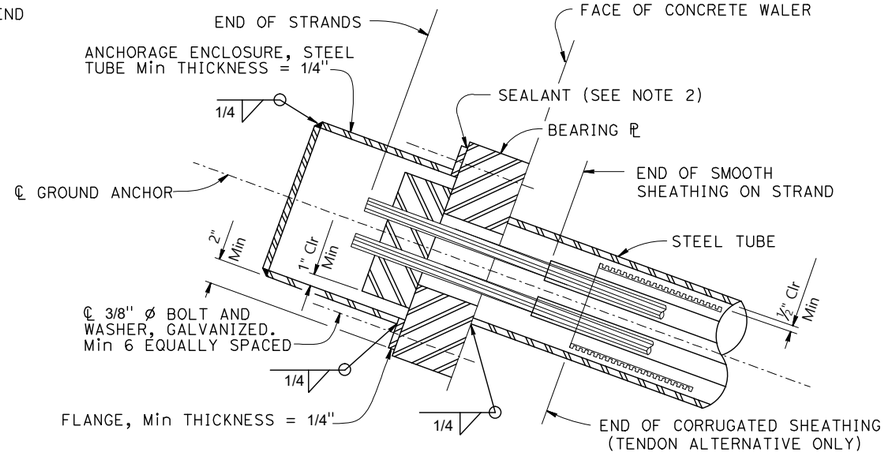
GROUND ANCHOR TENDON DETAIL (STRANDS)



GROUND ANCHOR TENDON DETAIL BAR(S)



ALTERNATIVE X



ALTERNATIVE Y

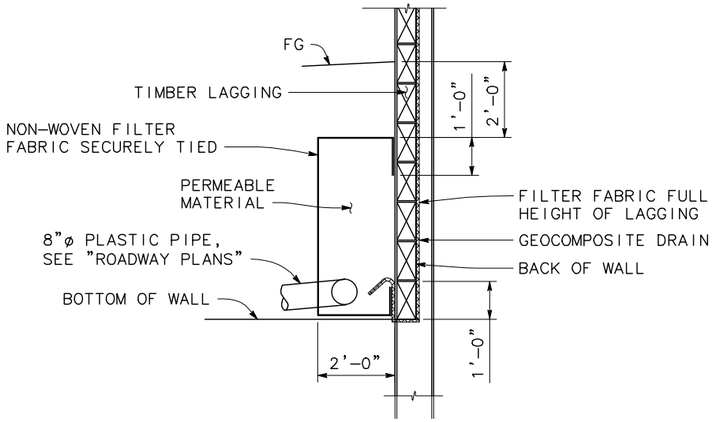
ANCHORAGE ENCLOSURE DETAILS

NO SCALE

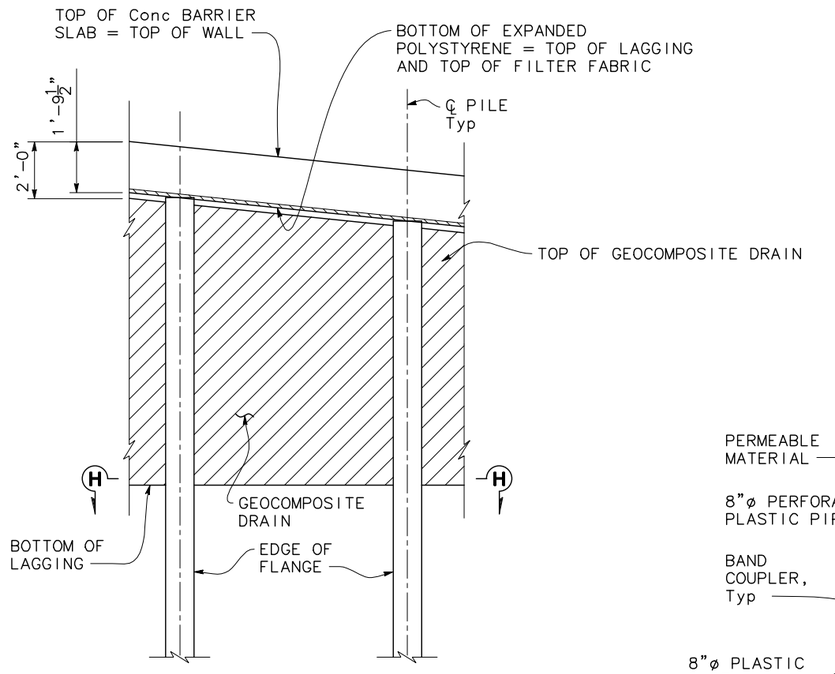
REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5782
EXP. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
	MILE POST: 7.60	DESIGNED BY: MM	
	PROJECT NO.: ER-32L0(234)	DRAWN BY: AM	DRAINAGE DETAILS
	CONTRACT NO.:	REVIEWED BY: TP	
	DATE: NOVEMBER 2019	APPROVED BY: JH	

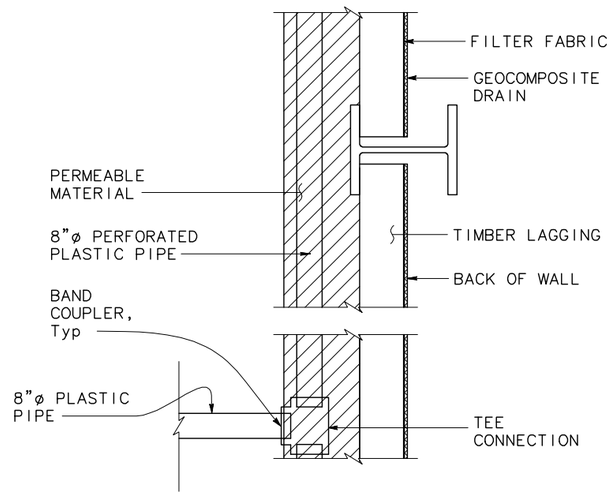
SHEET 20 OF 22



WALL DRAIN DETAIL
NO SCALE



PART ELEVATION DRAIN AT SOLDIER PILE WALL
NO SCALE

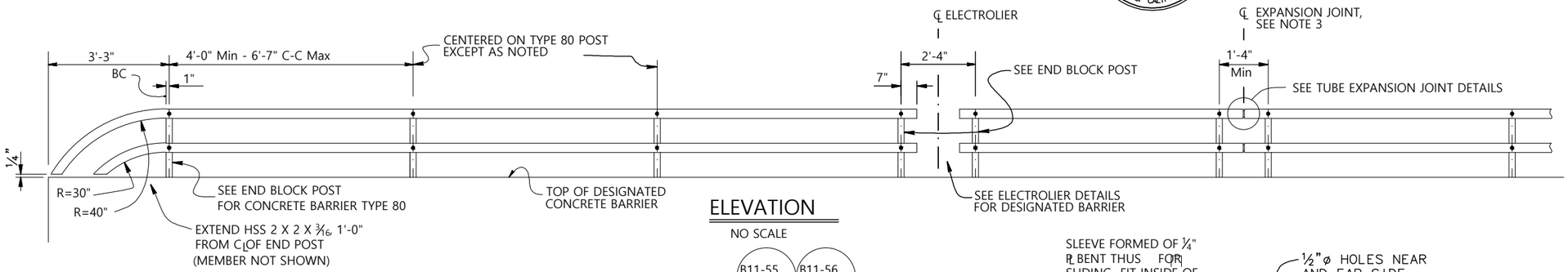


SECTION H-H
NO SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: SHELTER COVE ROAD	MARK THOMAS	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
	ROAD NO: C4A010		SHELTER COVE ROAD STORM DAMAGE PROJECT
	MILE POST: 7.60	DESIGNED BY: MM	
	PROJECT NO.: ER-32L0(234)	DRAWN BY: AM	TUBULAR BICYCLE RAILING DETAILS
	CONTRACT NO.:	REVIEWED BY: TP	
	DATE: NOVEMBER 2019	APPROVED BY: JH	

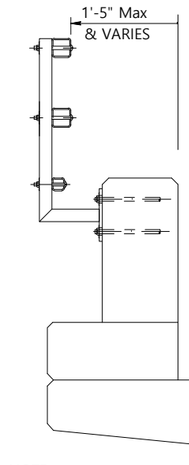
SHEET 21 OF 22

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5742
EXP. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA



ELEVATION

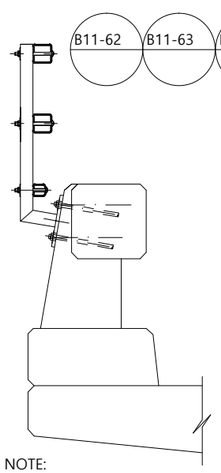
NO SCALE



NOTE:
For details not shown, see "TYPE 732 OR 736"

TYPE 80 END BLOCK POST

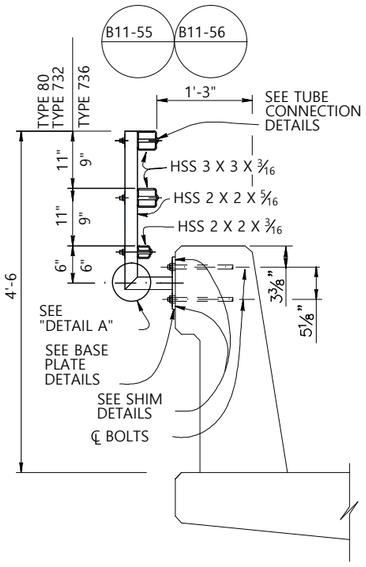
1" = 1'-0"



NOTE:
For details not shown, see "TYPE 732 OR 736"

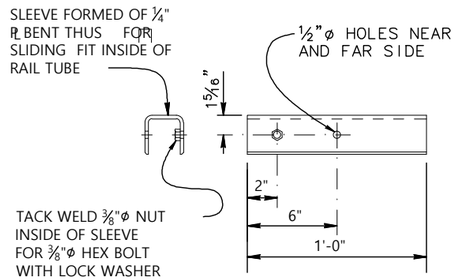
TYPE 80

1" = 1'-0"



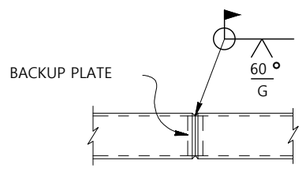
TYPE 732 OR 736

1" = 1'-0"



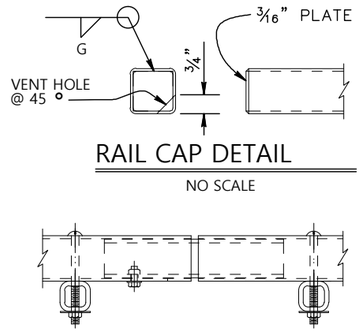
SLEEVE DETAIL

NO SCALE



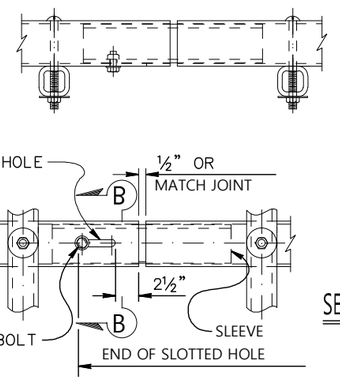
WELDED SPLICE DETAIL

NO SCALE



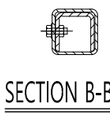
RAIL CAP DETAIL

NO SCALE



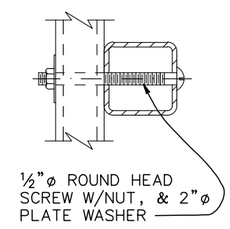
TUBE EXPANSION JOINT DETAILS

NO SCALE



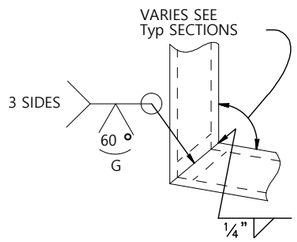
SECTION B-B

NO SCALE



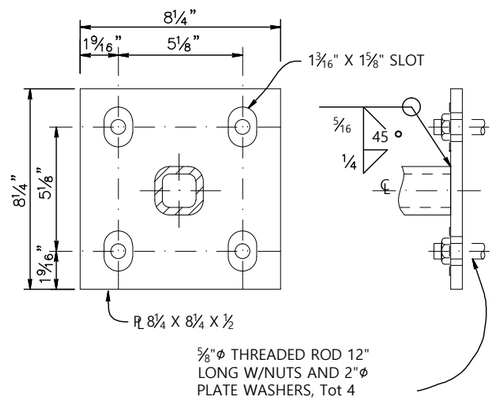
TUBE CONNECTION DETAIL

NO SCALE



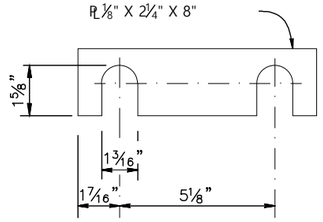
DETAIL A

NO SCALE



BASE PLATE DETAIL

NO SCALE

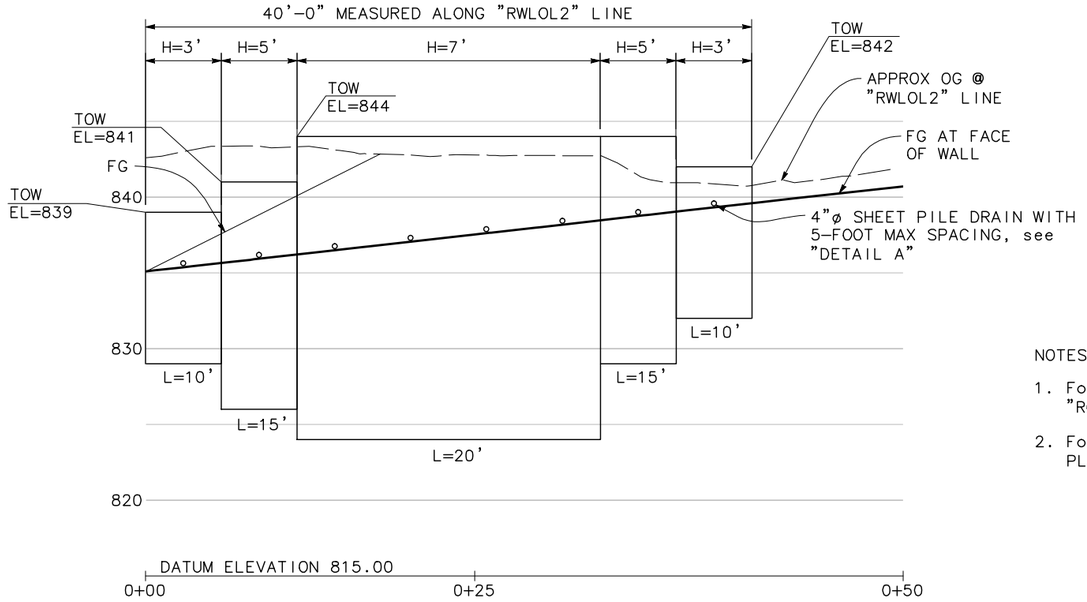


SHIM DETAILS

NO SCALE

NOTES:

1. Post must be normal to railing.
2. Rail tubes must be shop bent or fabricated to fit horizontal curve when radius is less than 950'.
3. Tube expansion joints must be located in the tubes spanning deck or wall joints. Increase joint width in tubes to match expansion joint width and increase sleeve length correspondingly.
4. Top rail tube must be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints, electroliers, or other rail discontinuities as noted.



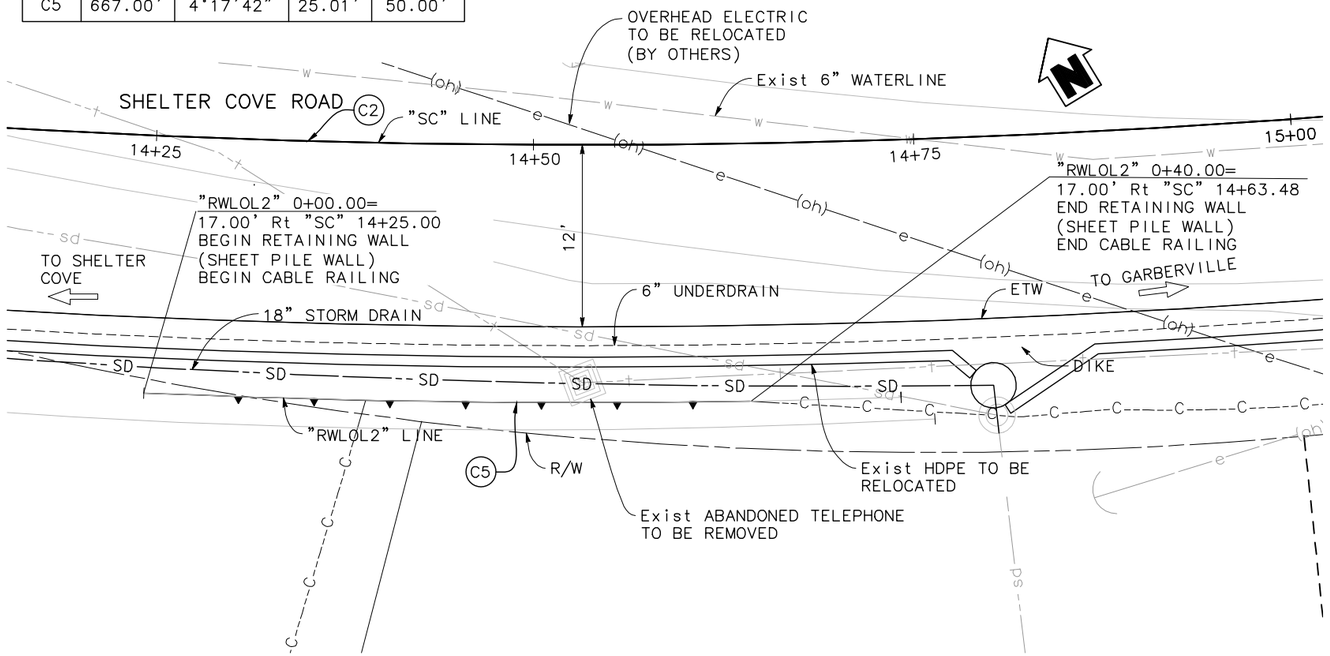
DEVELOPED ELEVATION

1" = 5'

NOTES:

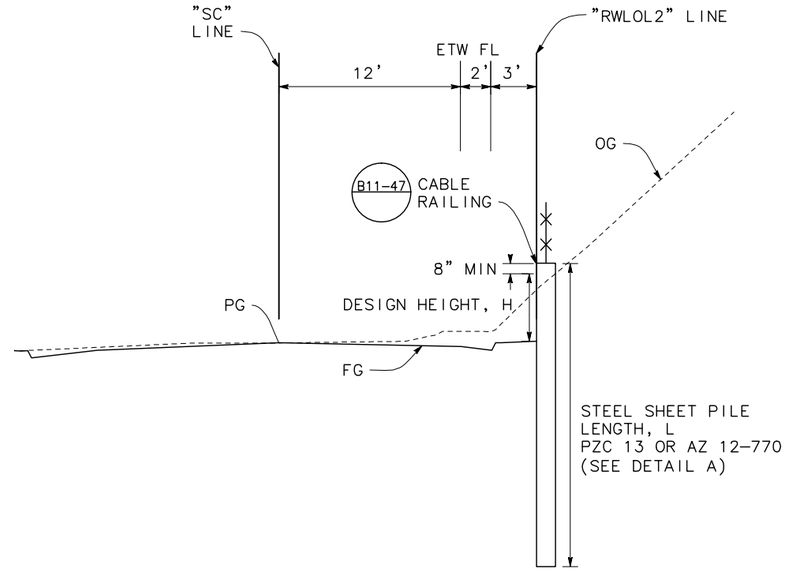
1. For STORM DRAIN AND UNDERDRAIN, see "ROADWAY PLANS"
2. For Utility Details, see "ROADWAY PLANS"

CURVE DATA				
No.	R	Δ	T	L
C2	650.00'	15°52'01"	90.58'	180.01'
C5	667.00'	4°17'42"	25.01'	50.00'



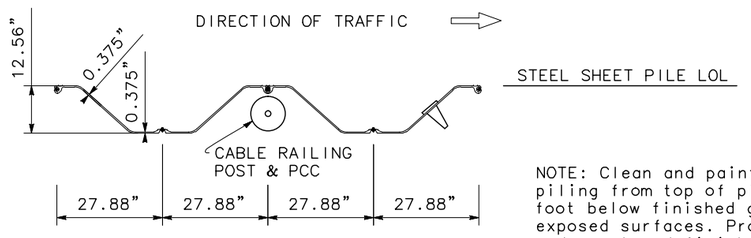
PLAN

1" = 5'



TYPICAL SECTION

1" = 5'

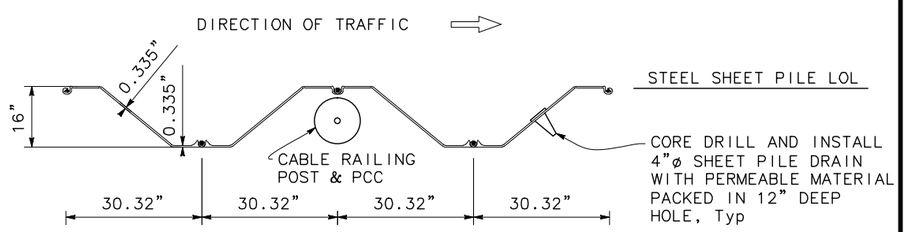


PZC 13

SHEET PILE WEIGHT	LB/FT²	21.7
WALL WEIGHT PER SECTION	LB/FT	50.4
Wx (SECTION MODULUS)	IN³/FT	24.2

NOTE: Clean and paint steel piling from top of pile to 1 foot below finished grade on exposed surfaces. Provide undercoat and finish coat.

OR



AZ 12-770

SHEET PILE WEIGHT	LB/FT²	19.3
WALL WEIGHT PER SECTION	LB/FT	48.8
Wx (SECTION MODULUS)	IN³/FT	23.0

DETAIL A

NTS

REGISTERED PROFESSIONAL ENGINEER
JASON BRADFORD HICKEY
No. S5712
EXP. 6/30/20
STRUCTURAL
STATE OF CALIFORNIA

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: SHELTER COVE ROAD	
ROAD NO: C4A010	
MILE POST: 7.60	
PROJECT NO.: ER-32L0(234)	
CONTRACT NO.:	
DATE: NOVEMBER 2019	

MARK THOMAS

DESIGNED BY:	MM
DRAWN BY:	AM
REVIEWED BY:	TP
APPROVED BY:	JH

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS

SHELTER COVE ROAD STORM DAMAGE PROJECT

GENERAL PLAN

SHEET 22 OF 22