

FUNDING SOURCE

THIS PROJECT IS FUNDED BY THE US DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION EMERGENCY RELIEF PROGRAM



NOTES

1. THE CONTRACTOR SHALL HAVE A CLASS "A" LICENSE FOR THIS PROJECT.
2. STANDARD PLAN LIST APPLICABLE TO THIS CONTRACT INCLUDED IN THE SPECIAL PROVISIONS.
3. GEOTECHNICAL REPORT: CRAWFORD & ASSOCIATES INC., APRIL 2022.
4. PROJECT LOCATION;
PM 11.73, LAT: 40.301687 LONG: -124.251273
PM 11.76, LAT: 40.301939 LONG: -124.251702

ABBREVIATIONS

(TO SUPPLEMENT CALTRANS STANDARD PLANS A3A, A3B & A3C)

APN	ASSESSORS PARCEL NUMBER
CL	CENTERLINE
CT	CALTRANS
(E)	EXISTING
EL	ELEVATION
K	K-VALUE
LT	LEFT
PVI	POINT OF VERTICAL INTERSECTION
RT	RIGHT
S	SLOPE



VICINITY MAP
NOT TO SCALE



COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR CONSTRUCTION OF
STORM DAMAGE REPAIRS
MATTOLE ROAD (F3C010) AT P.M. 11.73 - 11.76
PROJECT NO. ER-40A0(059)
CONTRACT NO. 219212

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION 2023 STANDARD PLANS, 2023 STANDARD SPECIFICATIONS, AND LATEST REVISED STANDARD PLANS AND SPECIFICATIONS.



Josh A. Wolf
JOSH A. WOLF
RCE 70358
CIVIL ENGINEER
GHD INC.

2/26/2025
DATE

APPROVED

Tony R. Seghetti
TONY R. SEGHETTI
RCE 63714
DEPUTY DIRECTOR OF ENGINEERING
COUNTY OF HUMBOLDT

2/26/2025
DATE



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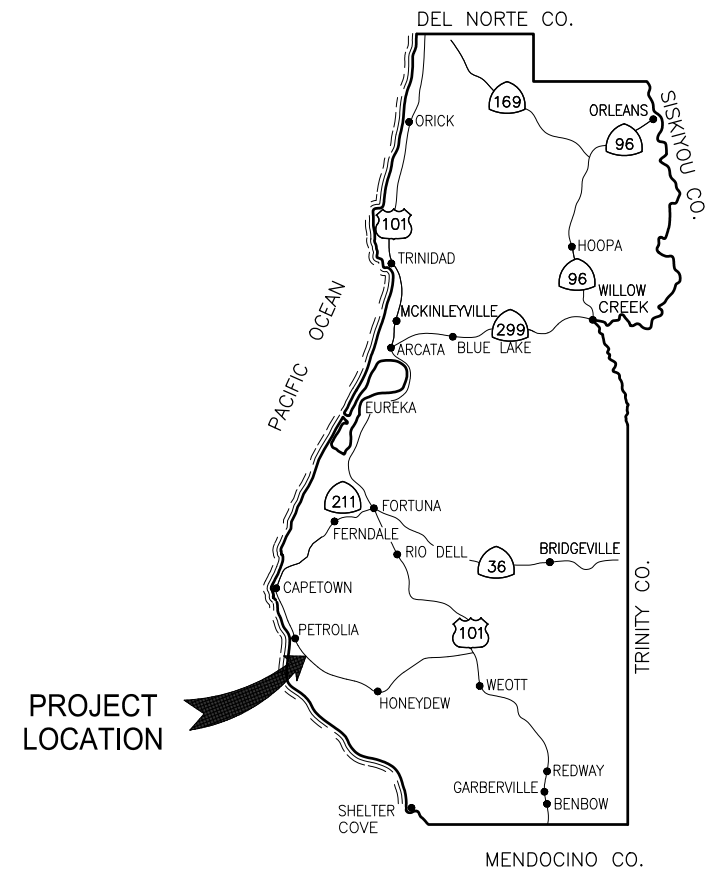
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ROAD NAME:	MATTOLE ROAD
ROAD NO:	F3C010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	C.PROVO
DRAWN BY:	C.PROVO
REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
TITLE SHEET

SHEET
1
OF
32



PROJECT LOCATION

SHEET LIST TABLE

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1	TITLE SHEET
2	STAGING/STOCKPILE LOCATIONS AND QUANTITIES
3	SURVEY CONTROL PLAN
4	TYPICAL SECTIONS - 1 OF 2
5	TYPICAL SECTIONS - 2 OF 2
6	LAYOUT - 1 OF 2
7	LAYOUT - 2 OF 2
8	ROADWAY PROFILE AND SUPERELEVATION - 1 OF 2
9	ROADWAY PROFILE AND SUPERELEVATION - 2 OF 2
10	DRAINAGE AND UTILITIES
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12	SIGNING AND STRIPING
13	CONSTRUCTION DETAILS
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15	CROSS SECTIONS - 2 OF 4
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19	STAGE CONSTRUCTION - STAGE 2
20	STAGE CONSTRUCTION - STAGE 3
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30	SOLDIER PILE WALL DETAILS NO. 2
31	SOLDIER PILE WALL DETAILS NO. 3
32	GROUND ANCHOR DETAILS

LOCATION MAP

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ROAD NO:	F3C010	ENGINEERING	DEPARTMENT OF PUBLIC WORKS
MILE POST:	11.73-11.76	DESIGNED BY: C.PROVO	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
PROJECT NO.:	ER-40A0(059)	DRAWN BY: C.PROVO	STAGING/STOCKPILE LOCATIONS AND QUANTITIES
CONTRACT NO.:	219212	REVIEWED BY: J.WOLF	
PLOT DATE:	2/26/2025	APPROVED BY: J.WOLF	

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGING/STOCKPILE LOCATIONS AND QUANTITIES

SHEET
2
OF
32

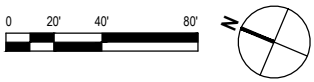
QUANTITIES

ITEM NO.	ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY
1	120090A	Construction Area Signs	EA	11
2	120100	Traffic Control System	LS	1
3	120206	Portable Signal System (EA)	EA	1
4	129000	Temporary Railing (Type K)	LF	240
5	129105	Temporary Crash Cushion TL-2	EA	1
6	130100	Job Site Management	LS	1
7	130201	Water Pollution Control Program	LS	1
8	130680	Temporary Silt Fence	LF	380
9	130900	Temporary Concrete Washout	LS	1
10	170103	Clearing and Grubbing (LS)	LS	1
11	190100	Construct Detours	LS	1
12	190101A	Roadway Excavation	CY	2930
13	192049	Structure Excavation (Soldier Pile Wall)	CY	278
14	193029	Structure Backfill (Soldier Pile Wall)	CY	226
15	193116	Concrete Backfill (Soldier Pile Wall)	CY	64
16	193119A	Lean Concrete Backfill (Soldier Pile Wall)	CY	44
17	198050	Embankment	CY	2200
18	198250A	Geosynthetic Reinforcement (Uniaxial Geogrid)	SQYD	2980
19	210212	Dry Seed (SQFT)	SQFT	11000
20	210280	Rolled Erosion Control Product (Blanket, Type B)	SQFT	2800
21	210350	Fiber Rolls	LF	970
22	210420	Straw	SQFT	8200
23	260203	Class 2 Aggregate Base (CY)	CY	495
24	390132	Hot Mix Asphalt (Type A)	TON	240
25	460210	Ground Anchor (Subhorizontal)	EA	18
26	490325A	Steel Soldier Piling (W14x61)	LF	914
27	490400	24" Drilled Hole Piles	LF	830
28	510060A	Structural Concrete, Retaining Wall (Waler)	CY	24
29	520103A	Bar Reinforcing Steel (Waler)	LB	11710
30	575004	Timber Lagging	MFBM	13.25
31	680902A	6" Perforated Plastic Pipe Underdrain (10 ft)	LF	184
32	680902B	6" Perforated Plastic Pipe Underdrain (4 ft)	LF	110
33	680903	6" Non-Perforated Plastic Pipe Underdrain	LF	322
34	682008	Permeable Material (Blanket)	CY	345
35	723096	Rock Slope Protection (Type A Rock, Method B) (CY)	CY	137
36	800002	Fence (Type BW, Wood Post)	LF	227
37	803020	Remove Fence	LF	226
38	810170	Delineator (Class 1)	EA	3
39	820110	Milepost Marker	EA	1
40	832070	Vegetation Control (Minor Concrete)	SQYD	30
41	832070A	Vegetation Control (Minor Concrete, 0.33 ft thick)	SQYD	44
42	832006	Midwest Guardrail System (Steel Post)	LF	112.5
43	839580	End Anchor Assembly (Type SFT-M)	EA	1
44	839584	Alternative In-Line Terminal System	EA	1
45	839521	Cable Railing	LF	112
46	840501	Thermoplastic Traffic Stripe	LF	932
47	999990	Mobilization	LS	1

STAGING AND STOCKPIILING IN ROAD PULLOUTS WITHIN COUNTY R/W ALLOWED SUBJECT TO COUNTY APPROVAL

POTENTIAL STAGING AREA IN ROAD TURNOUT (APPROX 2,150 SF)

LIMITS OF WORK (APPROX 29,000 SF)



LEGEND

- STAGING/STOCKPILE LIMITS
--- LIMITS OF WORK

STOCKPILE NOTES:

- MANAGE MATERIAL IN ACCORDANCE WITH SECTION 13-4.03C OF THE 2023 CALTRANS STANDARD SPECIFICATIONS.
- STOCKPILE SHALL BE COVERED WITH PLASTIC WHEN NOT IN USE AND BE WEIGHTED DOWN WITH SANDBAGS OR EQUIVALENT (AS PER STANDARD PLAN T53).
- IF STOCKPILE AREA IS IN A TURNOUT - THE TURNOUT SHALL BE REESTABLISHED TO PRE-CONSTRUCTION CONDITIONS.
- IF TEMPORARY CULVERTS ARE INSTALLED IN THE DITCH LINE - DITCH LINE SHALL BE RECONSTRUCTED AT END OF PROJECT.



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MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	C.PROVO
DRAWN BY:	C.PROVO
REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
SURVEY CONTROL PLAN

SHEET
3
OF
32

SURVEY CONTROL NOTES

- THE PURPOSE OF THIS SURVEY IS TO DETERMINE TOPOGRAPHY FOR THE STORM DAMAGE SITES AT MATTOLE RD. PM 11.73-11.76. THIS SURVEY WORK WAS PERFORMED BY POINTS WEST SURVEYING COMPANY AND REFLECTS CONDITIONS AT THE TIME OF SURVEY, COMPLETED ON FEBRUARY 3, 2020. ADDITIONAL SURVEY COVERAGE OF AREA OF PROPOSED STORM DRAIN OUTFALL WAS OBTAINED OCTOBER 12, 2020. THIS PORTION OF SITE INCLUDED ALL TREES, NOT JUST THOSE 12" AND LARGER, AS WERE LOCATED AND SHOWN IN OUR ORIGINAL SURVEY DATA. TREES SMALLER THAN 12" WERE NOT LOCATED IN OUR ORIGINAL SURVEY LIMIT AND ARE NOT SHOWN HEREON.
- COORDINATES FOR THIS SURVEY ARE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 1, NAD 83 (2011), EPOCH 2010.0 BASED ON A STATIC GPS CONTROL SURVEY USING THE NGS OPUS POST PROCESSING SOFTWARE. THE CONTROL POINT IDENTIFIED AS POINT 50 WAS HELD FOR HORIZONTAL POSITIONS SHOWN HEREON. THE MAPPING ANGLE IS 1 DEGREE 28 MINUTES 17 SECONDS; ROTATE BEARINGS HEREON COUNTERCLOCKWISE BY THIS ANGLE TO OBTAIN "TRUE" OR GEODETIC BEARINGS. GRID DISTANCES SHOWN SHOULD BE DIVIDED BY THE COMBINED SCALE FACTOR OF 0.99991561 TO OBTAIN GROUND DISTANCES. MAPPING ANGLE AND GRID SCALE FACTOR ARE TAKEN AT CONTROL POINT NUMBER 50, A 12 INCH SPIKE. ELEVATIONS ARE NAVD 88 DATUM BASED ON OPUS SOLUTION UTILIZING THE GEOID 12B MODEL: AN ELEVATION OF 566.81 FEET WAS MEASURED AT THE AFOREMENTIONED CONTROL POINT 50.
- CONTOURS AND SPOT ELEVATIONS WERE OBTAINED BY CONVENTIONAL SURVEY TECHNIQUES. IN GENERAL, ONLY TREES 12 INCH AND BIGGER WERE LOCATED; NUMEROUS OTHER SMALLER TREES EXIST WITHIN AREA SURVEYED AND ARE NOT SHOWN. TREE LOCATIONS ARE GENERALLY SHOWN AT BREAST HEIGHT AND ARE APPROXIMATE DUE TO THE FACT NOT ALL TREES ARE GROWING VERTICALLY.
- THE ONLY UNDERGROUND UTILITY OBSERVED ON THIS SITE IS THE STORM DRAIN SHOWN AND THE OVERHEAD TELEPHONE LINE. SEE UNDERGROUND UTILITY NOTE HEREON.
- THE RIGHT OF WAY SHOWN IS BASED ON THE PHYSICAL CENTERLINE OF MATTOLE ROAD ALIGNMENT. PER ROAD REGISTER NO. 1, PAGE 176, THE WIDTH OF THE RIGHT OF WAY IS 50 FEET. THIS DETERMINATION WAS MADE BY THE COUNTY RIGHT OF WAY DEPARTMENT.
- NO BOUNDARY SURVEYS WERE CONDUCTED. THE OWNERSHIPS SHOWN ARE BASED ON DEED DATA FROM HUMBOLDT COUNTY ASSESSOR. DEEDS IN SECTION 13 ON BOTH SIDES OF THE ROAD AT THIS SITE HAVE BOUNDARY LINE CALLS EXCEPTING AREAS EAST AND WEST OF THE COUNTY ROAD, I.E. THE CENTERLINE OF THE ROAD IS THE BOUNDARY LINE BETWEEN PROPERTIES IN SECTION 13. OWNERSHIP IN SECTION 12 SPANS ROAD. THE SECTION LINE LOCATION SHOWN IS APPROXIMATE ONLY; IT'S PRECISE LOCATION WILL REQUIRE ADDITIONAL SURVEY WORK TO CONFIRM SHOULD ADDITIONAL RIGHT OF WAY BE NEEDED IN IT'S VICINITY.

UNDERGROUND UTILITY NOTE

- UNDERGROUND UTILITIES ARE SHOWN BASED ON A COMBINATION OF VISIBLE PHYSICAL EVIDENCE AND RECORDS MADE AVAILABLE TO THE SURVEYOR.
- THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATIONS INDICATED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- CALL UNDERGROUND SERVICE ALERT (USA) 1-800-642-2444 A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY EXCAVATIONS.

GENERAL NOTES

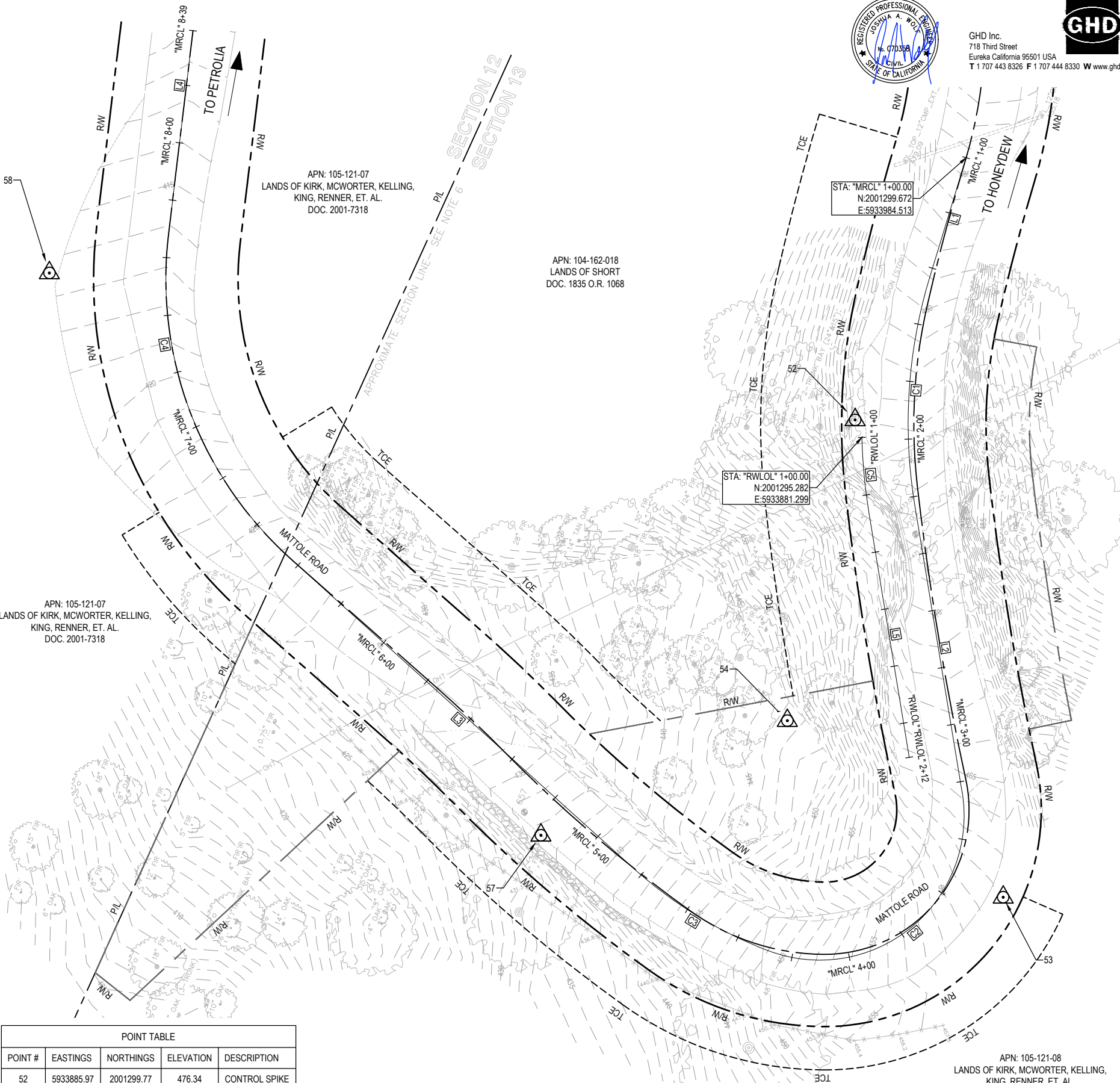
- CONTRACTOR MUST COMPLY WITH BUSINESS AND PROFESSIONS CODE SECTION 8771 (b) REGARDING REFERENCING, PRESERVING AND RECONSTRUCTING SURVEY MONUMENTS, WHETHER OR NOT SURVEY MONUMENTS ARE SHOWN IN THESE PLANS.
- IF SURVEY MONUMENT IS DAMAGED BY CONTRACTORS OPERATIONS, CONTRACTOR SHALL REPLACE SURVEY MONUMENT AT CONTRACTORS EXPENSE.

LEGEND

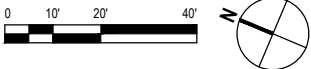
	TEMPORARY CONTROL POINT
	MATTOLE ROAD R/W
	DRAINAGE R/W
	TCE
	PROPERTY LINE
	ALIGNMENT LINE

MATTOLE ROAD CONSTRUCTION CENTERLINE GEOMETRY - "MRCL" ALIGNMENT						
Segment	Type	Length	Radius	Direction	Start Station	End Station
L1	LINE	42.77	-	S84° 04' 05.13"W	"MRCL" 1+00.00	"MRCL" 1+42.77
C1	CURVE	80.36	175.00		"MRCL" 1+42.77	"MRCL" 2+23.13
L2	LINE	100.54	-	S57° 45' 31.21"W	"MRCL" 2+23.13	"MRCL" 3+23.67
C2	CURVE	105.04	50.00		"MRCL" 3+23.67	"MRCL" 4+28.71
C3	CURVE	55.14	150.00		"MRCL" 4+28.71	"MRCL" 4+83.85
L3	LINE	158.49	-	N19° 11' 38.22"E	"MRCL" 4+83.85	"MRCL" 6+42.34
C4	CURVE	125.75	130.00		"MRCL" 6+42.34	"MRCL" 7+68.09
L4	LINE	71.00	-	N73° 57' 53.00"E	"MRCL" 7+68.09	"MRCL" 8+39.09

RETAINING WALL CONSTRUCTION CENTERLINE GEOMETRY - "RWLOL" ALIGNMENT						
Segment	Type	Length	Radius	Direction	Start Station	End Station
C5	CURVE	26.34	191.08		"RWLOL" 1+00.00	"RWLOL" 1+26.34
L5	LINE	85.66	-	S57° 45' 31.21"W	"RWLOL" 1+26.34	"RWLOL" 2+12.00



POINT TABLE				
POINT #	EASTINGS	NORTHINGS	ELEVATION	DESCRIPTION
52	5933885.97	2001299.77	476.34	CONTROL SPIKE
53	5933753.70	2001188.31	461.39	CONTROL SPIKE
54	5933780.95	2001280.91	446.47	CONTROL SPIKE
57	5933711.23	2001344.06	437.25	CONTROL SPIKE
58	5933824.36	2001576.51	416.41	CONTROL SPIKE





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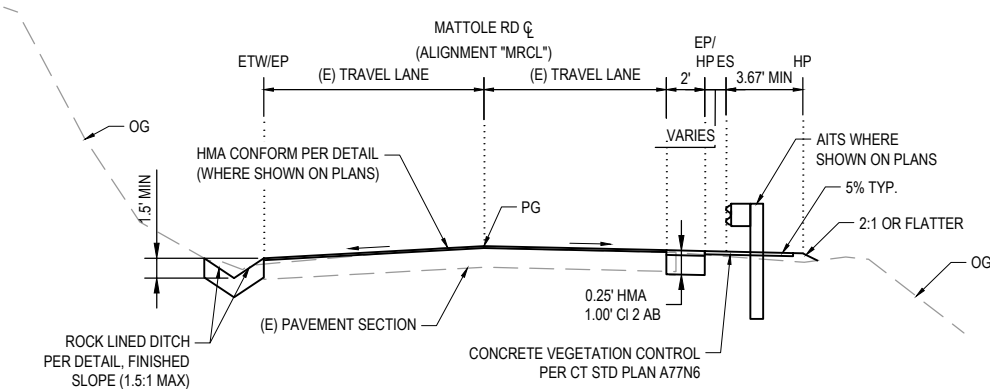


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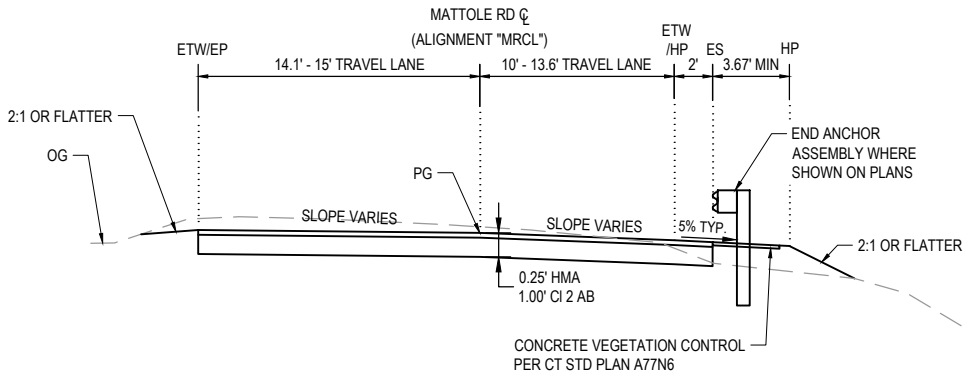
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ROAD NO: F3C010	DESIGNED BY: C.PROVO
MILE POST: 11.73-11.76	DRAWN BY: C.PROVO
PROJECT NO.: ER-40A0(059)	REVIEWED BY: J.WOLF
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
TYPICAL SECTIONS - 1 OF 2

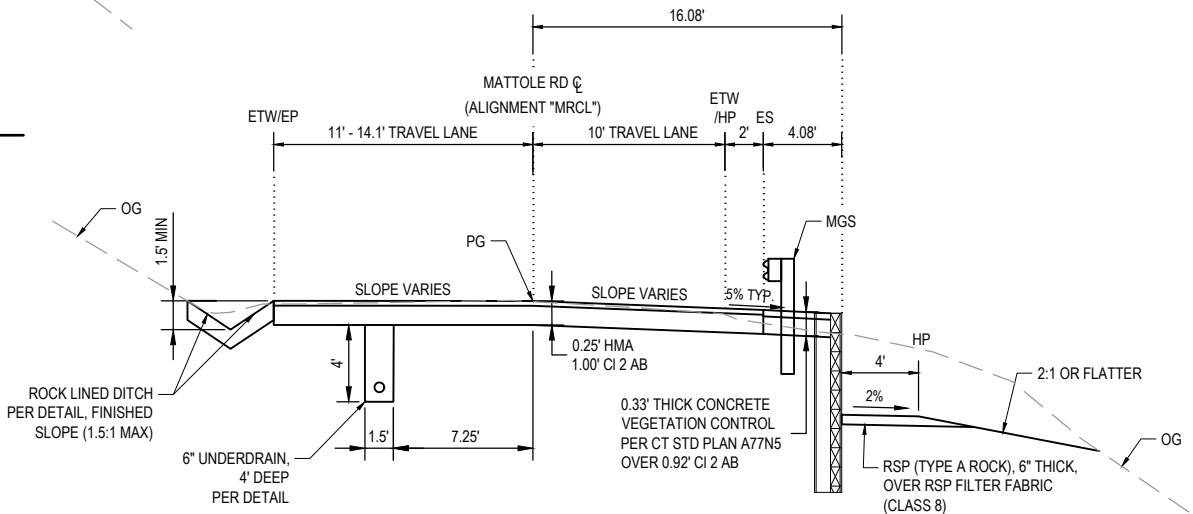
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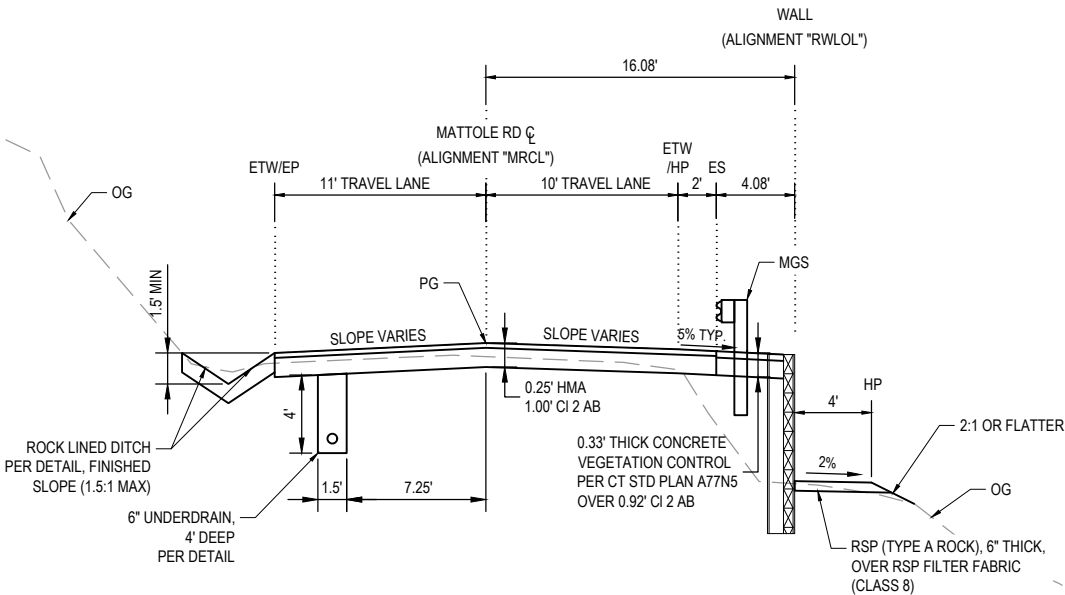
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NOT TO SCALE **STA "MRCL" 1+74 - STA "MRCL" 1+99**



TYPICAL SECTION - MATTOLE ROAD PM 11.73
NOT TO SCALE **STA "MRCL" 3+08.78 - STA "MRCL" 3+49**



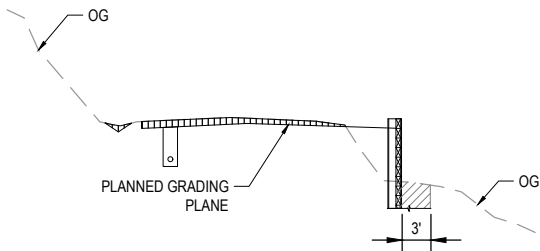
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TYPICAL SECTION - MATTOLE ROAD PM 11.73
NOT TO SCALE **STA "MRCL" 1+99 - STA "MRCL" 2+23.13**

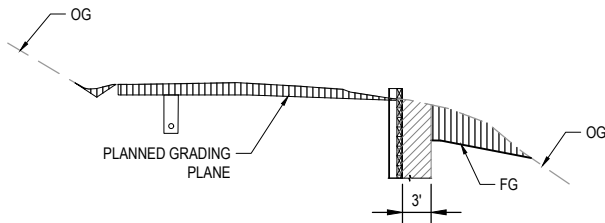
LEGEND

ROADWAY EXCAVATION	
STRUCTURE EXCAVATION	
EMBANKMENT	
STRUCTURE BACKFILL	



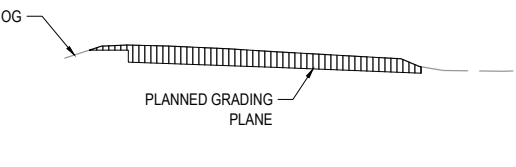
LIMITS OF PAYMENT (CASE 1) - CUT

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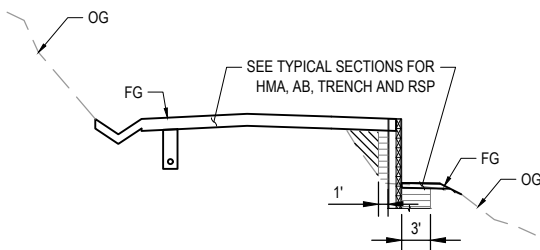
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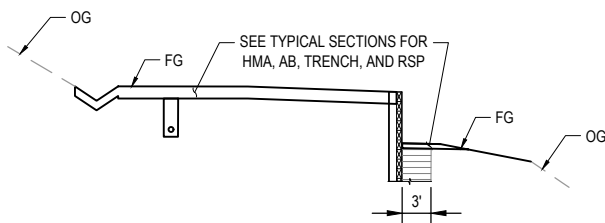
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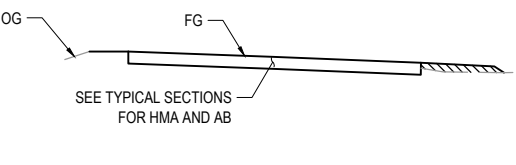
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LIMITS OF PAYMENT (CASE 2) - FILL

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LIMITS OF PAYMENT (CASE 3) - FILL

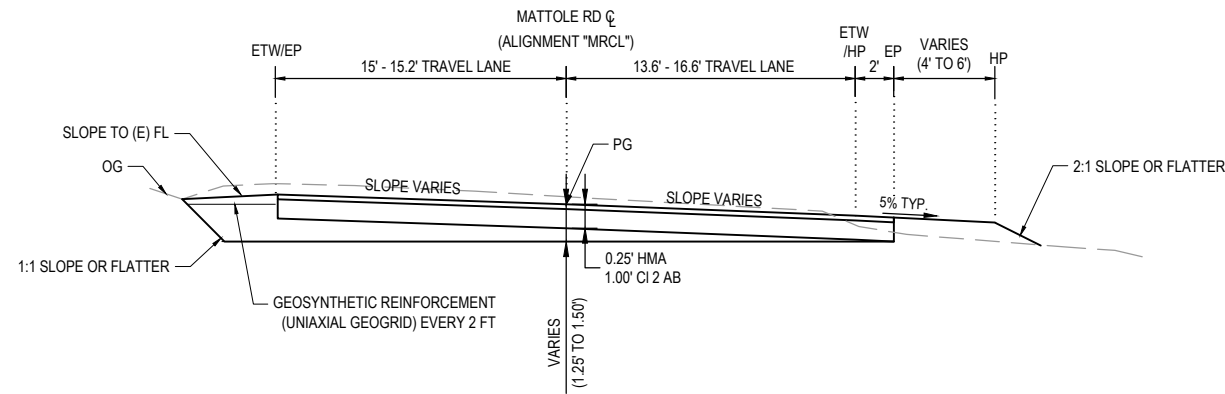
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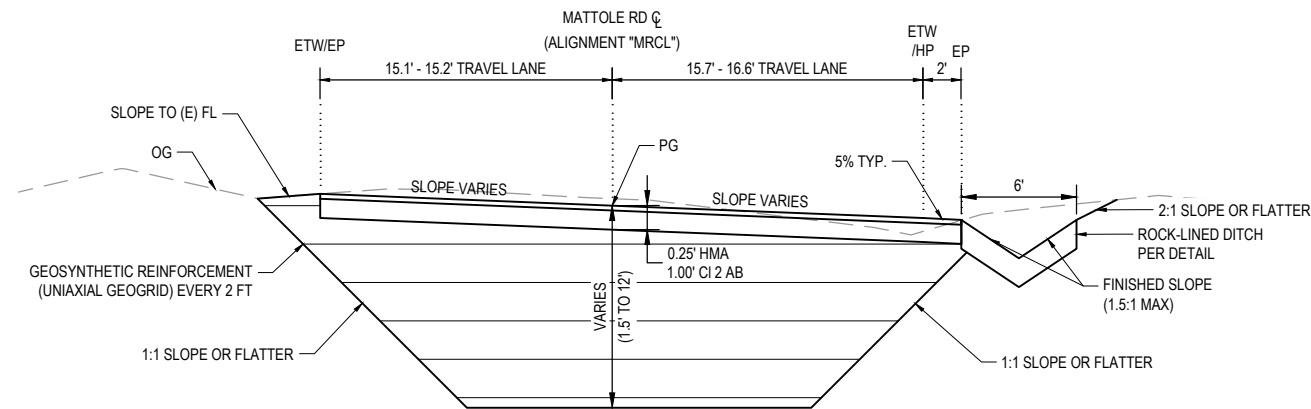
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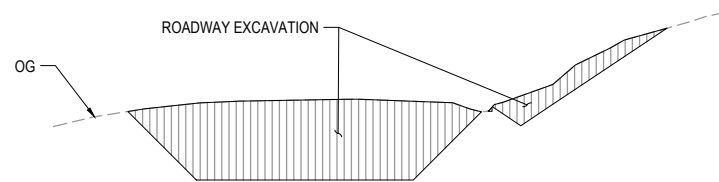
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TYPICAL SECTION - MATTOLE ROAD PM 11.76
NOT TO SCALE STA "MRCL" 3+49 - STA "MRCL" 3+90

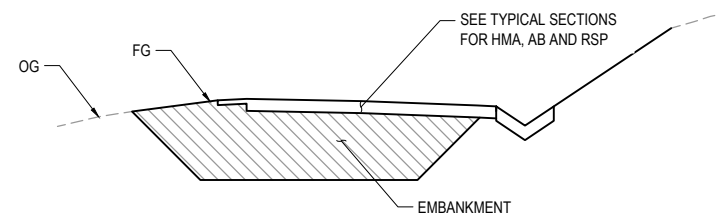


TYPICAL SECTION - MATTOLE ROAD PM 11.76
NOT TO SCALE STA "MRCL" 3+90 - STA "MRCL" 4+19



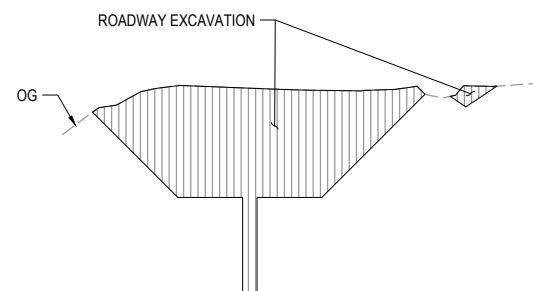
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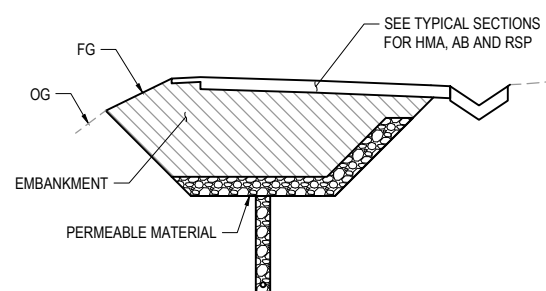
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LIMITS OF PAYMENT (CASE 2) - CUT

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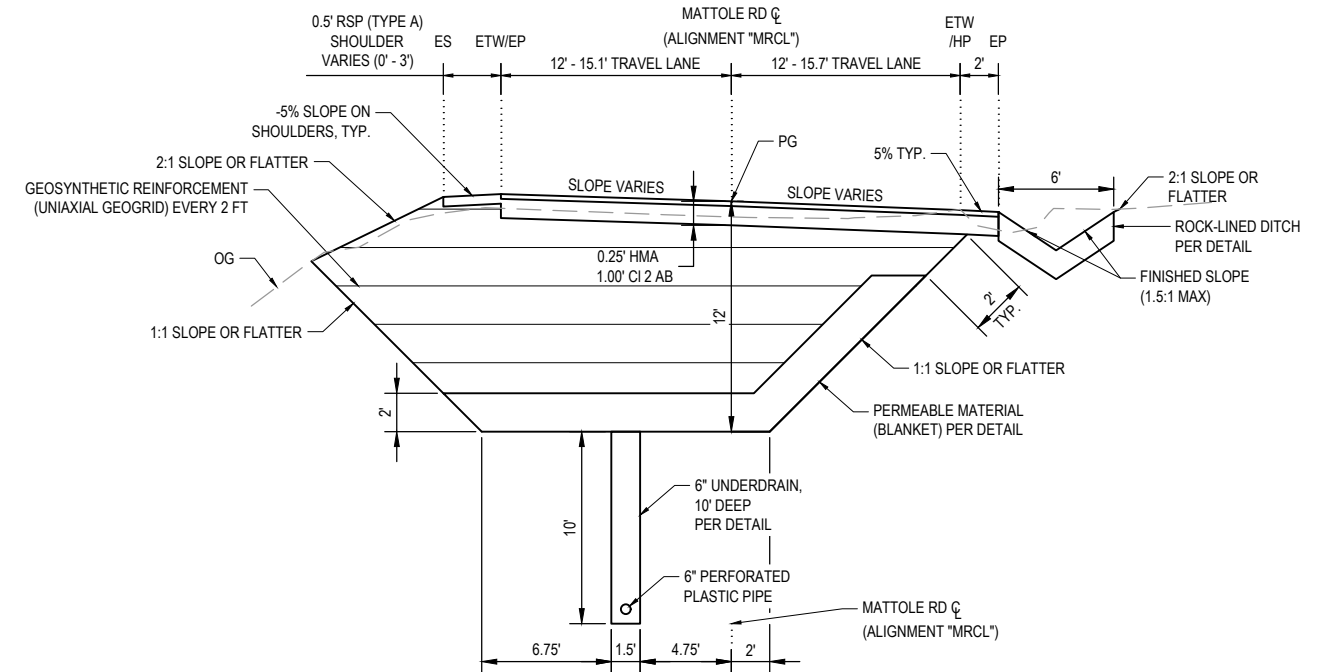


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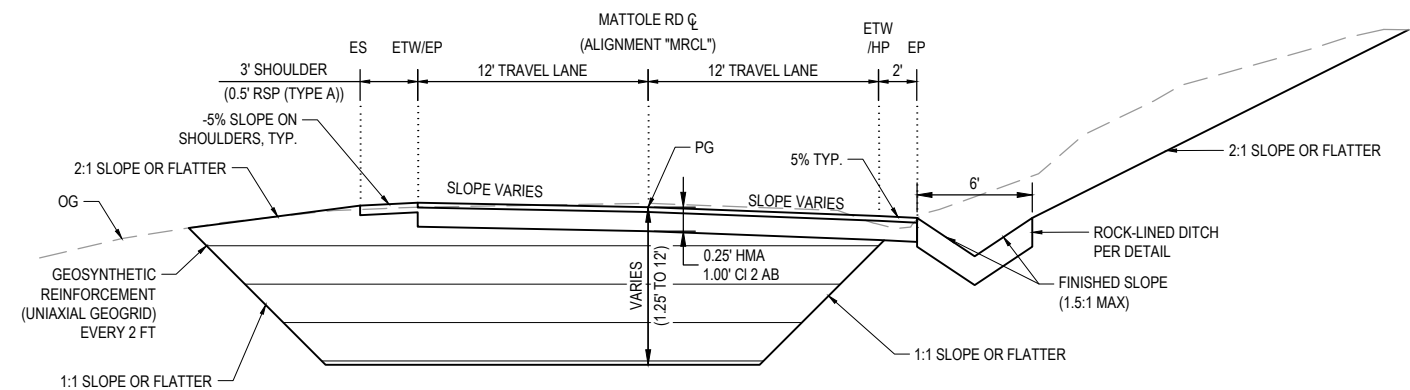
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LEGEND

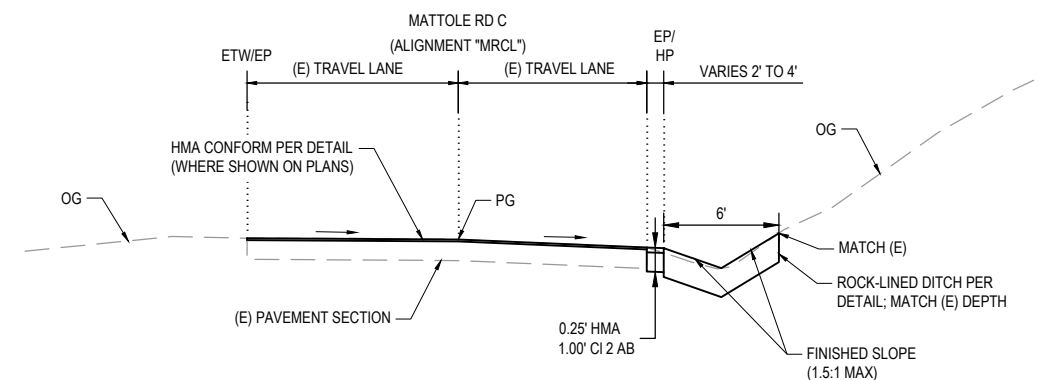
ROADWAY EXCAVATION	
EMBANKMENT	
PERMEABLE MATERIAL	



TYPICAL SECTION - MATTOLE ROAD PM 11.76
NOT TO SCALE STA "MRCL" 4+19 - STA "MRCL" 6+00



TYPICAL SECTION - MATTOLE ROAD PM 11.76
NOT TO SCALE STA "MRCL" 6+00 - STA "MRCL" 6+32



TYPICAL SECTION - MATTOLE ROAD PM 11.76
NOT TO SCALE STA "MRCL" 6+32 - STA "MRCL" 6+57



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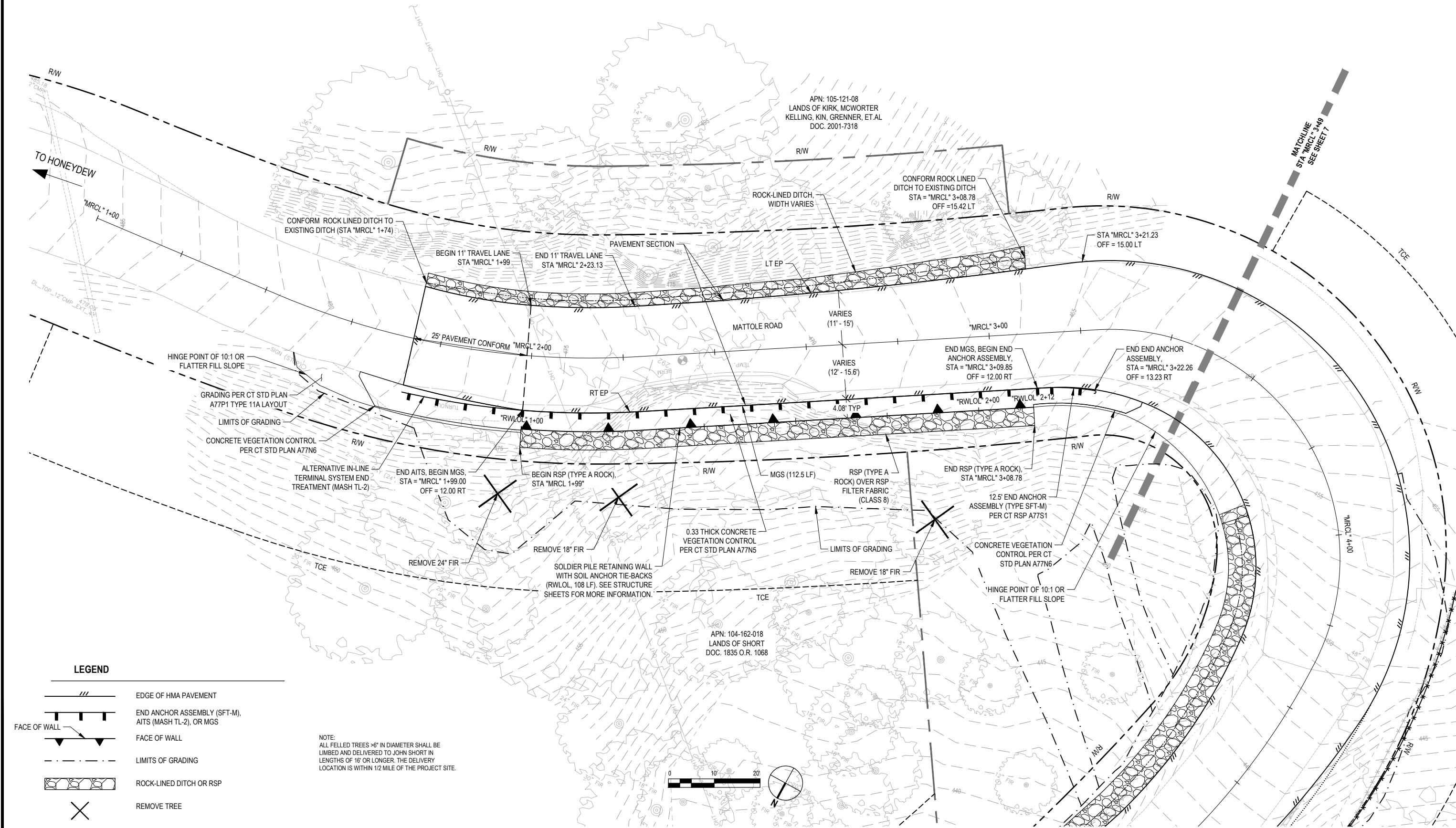
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

ROAD NAME:	MATTOLE ROAD
ROAD NO:	F3C010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	C.PROVO
DRAWN BY:	C.PROVO
REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

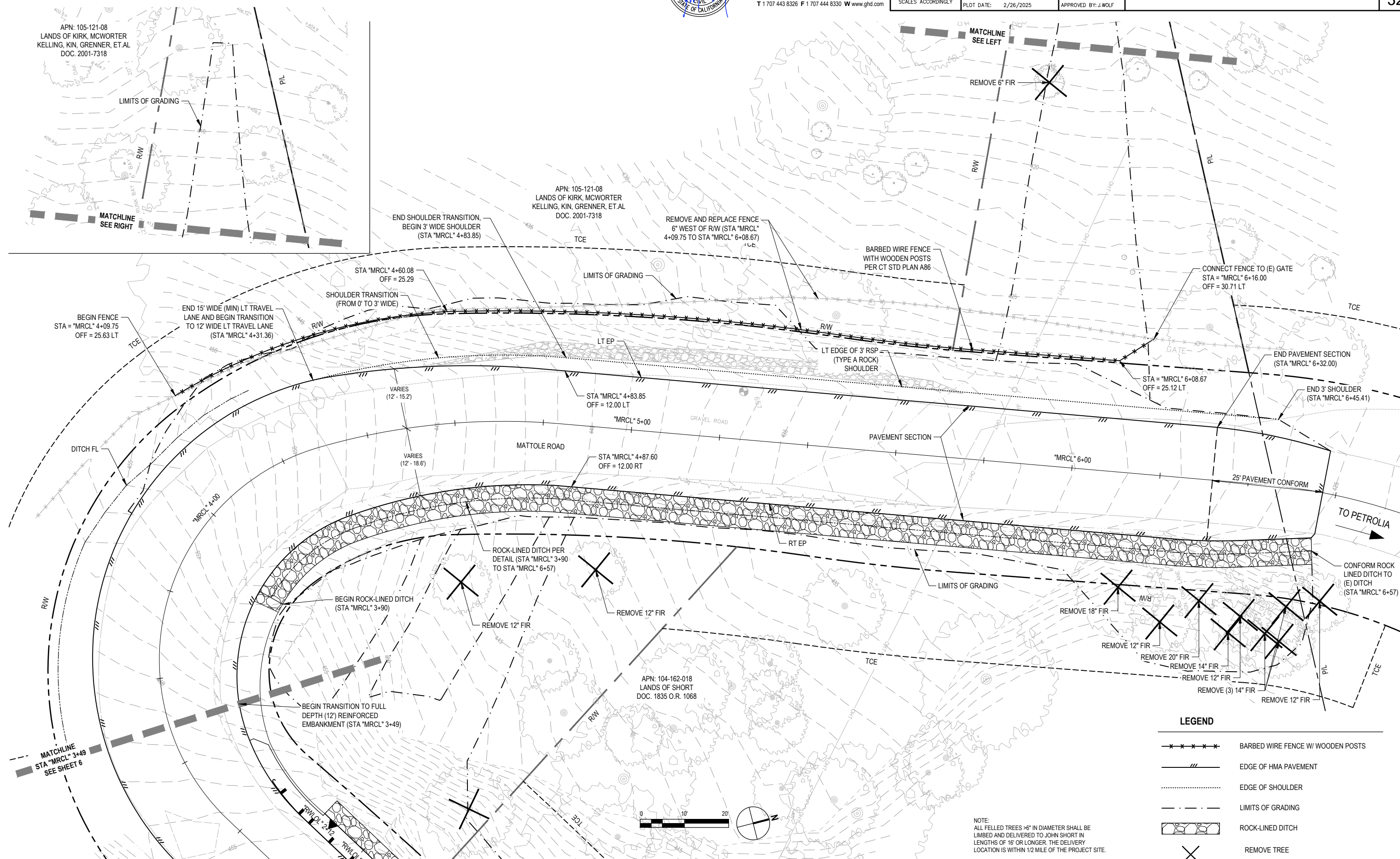
COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
LAYOUT - 1 OF 2

SHEET
6
OF
32





BAR IS ONE INCH ON ORIGINAL DRAWING <div></div>	ROAD NAME: MATTOLE ROAD	DESIGN SECTION	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 7 OF 32
	ROAD NO: F3C010	ENGINEERING		
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	MILE POST: 11.73-11.76	DESIGNED BY: C.PROVO	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76 LAYOUT - 2 OF 2	
	PROJECT NO.: ER-40A0(059)	DRAWN BY: C.PROVO		
	CONTRACT NO.: 219212	REVIEWED BY: J.WOLF		
	PLOT DATE: 2/26/2025	APPROVED BY: J.WOLF		



11206631_PM 11.76 Roadway Plan.dwg



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ROAD NAME:	MATTOLE ROAD	DESIGN SECTION	ENGINEERING
ROAD NO:	F3C010	DESIGNED BY:	C.PROVO
MILE POST:	11.73-11.76	DRAWN BY:	C.PROVO
PROJECT NO.:	ER-40A0(059)	REVIEWED BY:	J.WOLF
CONTRACT NO.:	219212	APPROVED BY:	J.WOLF
PLOT DATE:	2/26/2025		

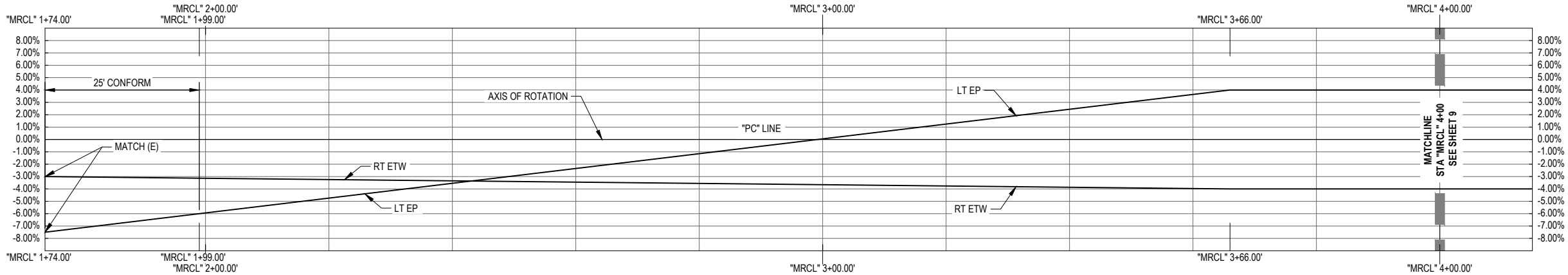
COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
ROADWAY PROFILE AND SUPERELEVATION - 1 OF 2

SHEET
8
OF
32

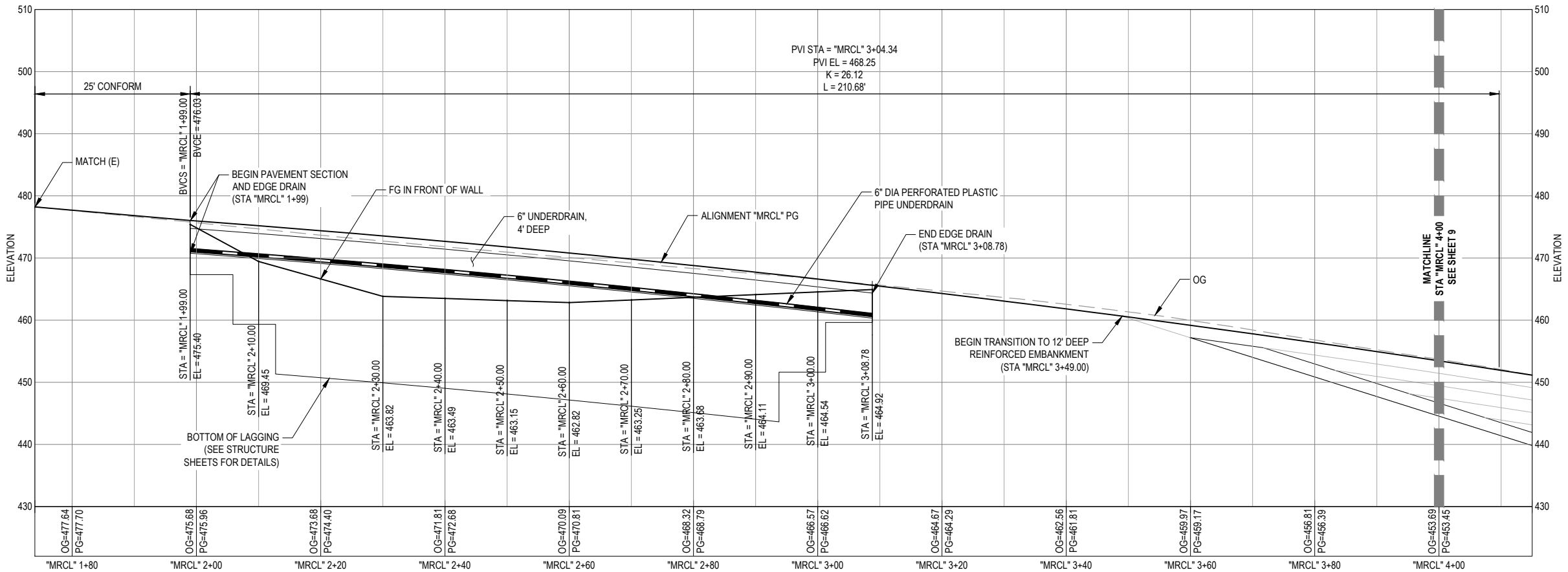
ROADWAY GEOMETRY - PM 11.73					
STATION	LT TRAVEL LANE CROSS SLOPE	LT EP ELEVATION	CROWN ELEVATION	RT ETW ELEVATION	RT TRAVEL LANE CROSS SLOPE
"MRCL" 1+74	-7.50%	477.35	478.22	477.91	-3.00%
"MRCL" 1+99	-6.00%	475.37	476.03	475.69	-3.13%
"MRCL" 3+66	4.00%	458.95	458.35	457.72	-4.00%
"MRCL" 4+00	4.00%	454.05	453.44	452.78	-4.00%

Note: Negative cross slopes indicate downwards sloping away from centerline

ROADWAY ELEVATIONS



MATTOLE ROAD PM 11.73 SUPERELEVATION



MATTOLE ROAD PM 11.73 PROFILE VIEW



ROADWAY GEOMETRY - PM 11.76					
STATION	LT TRAVEL LANE CROSS SLOPE	LEFT EP ELEVATION	CROWN ELEVATION	RIGHT EP ELEVATION	RT TRAVEL LANE CROSS SLOPE
"MRCL" 4+00	4.00%	454.05	453.44	452.78	-4.00%
"MRCL" 4+83.85	4.00%	442.09	441.61	441.13	-4.00%
"MRCL" 6+32	1.60%	427.67	427.48	427.03	-3.74%
"MRCL" 6+57	1.20%	425.20	425.08	424.73	-3.70%

Note: Negative cross slopes indicate downwards sloping away from centerline

ROADWAY ELEVATIONS



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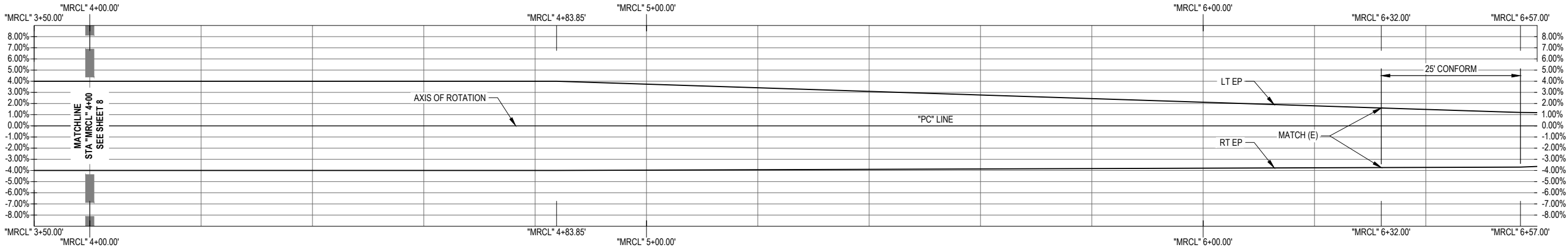
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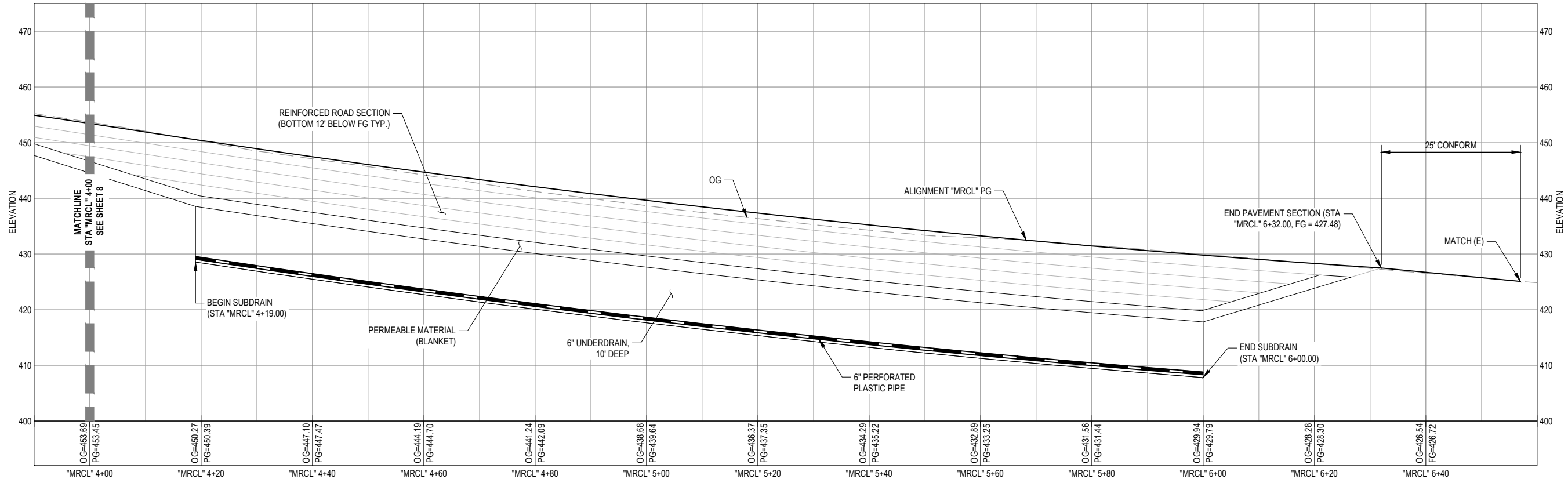
ROAD NAME:	MATTOLE ROAD	DESIGN SECTION	ENGINEERING
ROAD NO:	F3C010	DESIGNED BY:	C.PROVO
MILE POST:	11.73-11.76	DRAWN BY:	C.PROVO
PROJECT NO.:	ER-40A0(059)	REVIEWED BY:	J.WOLF
CONTRACT NO.:	219212	APPROVED BY:	J.WOLF
PLOT DATE:	2/26/2025		

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
ROADWAY PROFILE AND SUPERELEVATION - 2 OF 2

SHEET
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OF
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MATTOLE ROAD PM 11.76 SUPERELEVATION



MATTOLE ROAD PM 11.76 PROFILE VIEW



NOTE: THIS PLAN IS ACCURATE FOR DRAINAGE AND UTILITIES ONLY



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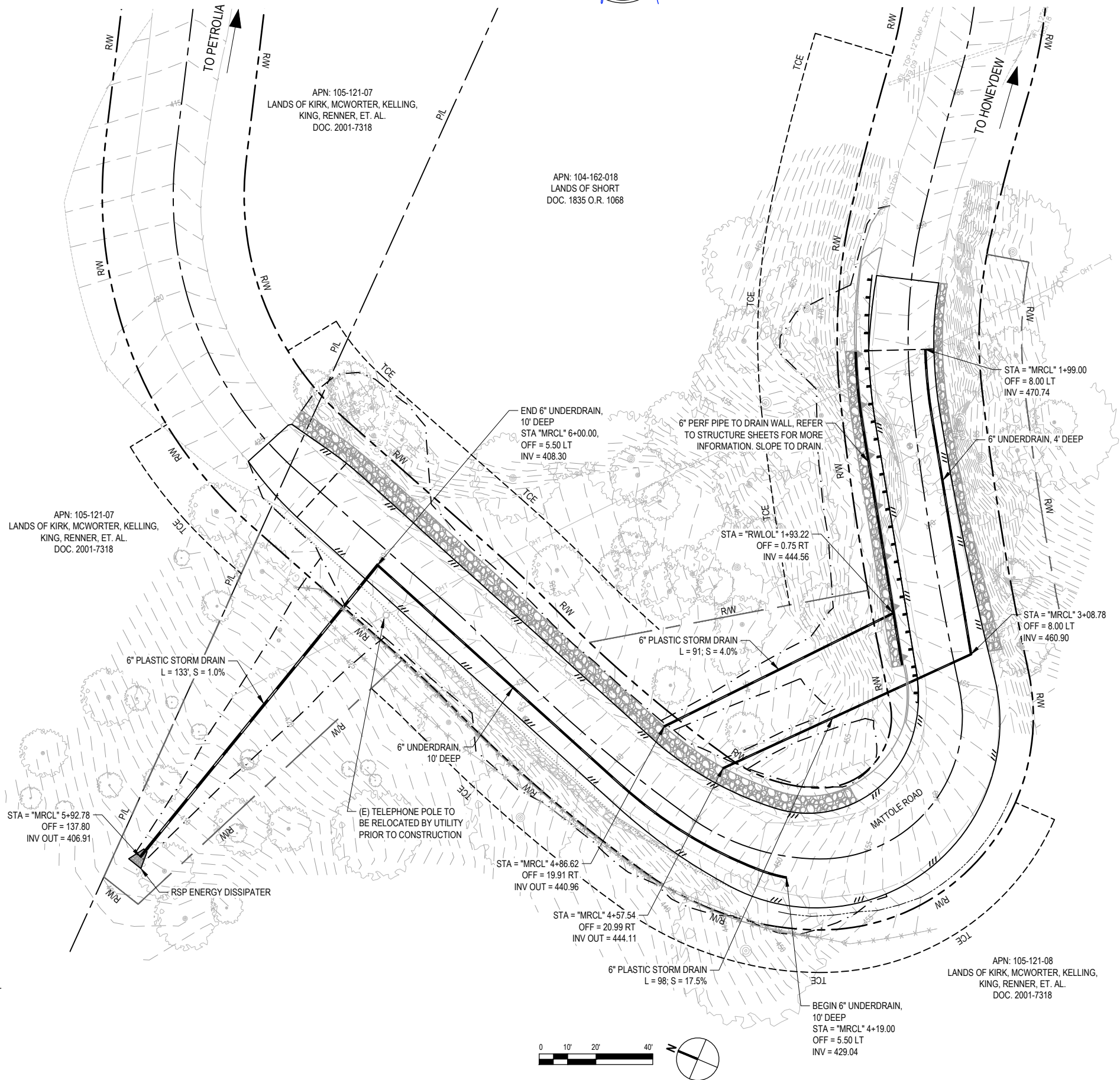


BAR IS ONE INCH ON ORIGINAL DRAWING
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ROAD NAME: MATTOLE ROAD	DESIGN SECTION
ROAD NO: F3C010	ENGINEERING
MILE POST: 11.73-11.76	DESIGNED BY: C.PROVO
PROJECT NO.: ER-40A0(059)	DRAWN BY: C.PROVO
CONTRACT NO.: 219212	REVIEWED BY: J.WOLF
PLOT DATE: 2/26/2025	APPROVED BY: J.WOLF

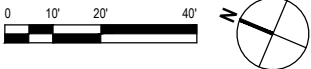
COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
DRAINAGE AND UTILITIES

SHEET
10
OF
32



LEGEND

- STORM DRAIN PIPE
- RSP ENERGY DISSIPATER





ROAD NAME:	MATTOLE ROAD
ROAD NO:	F3C010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
EROSION CONTROL PLAN

SHEET
11
OF
32



-

NOTE: THIS PLAN IS ACCURATE FOR
SIGNING AND STRIPING ONLY



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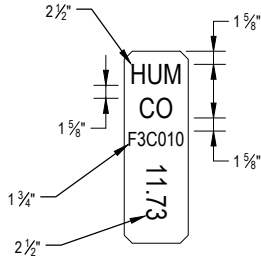
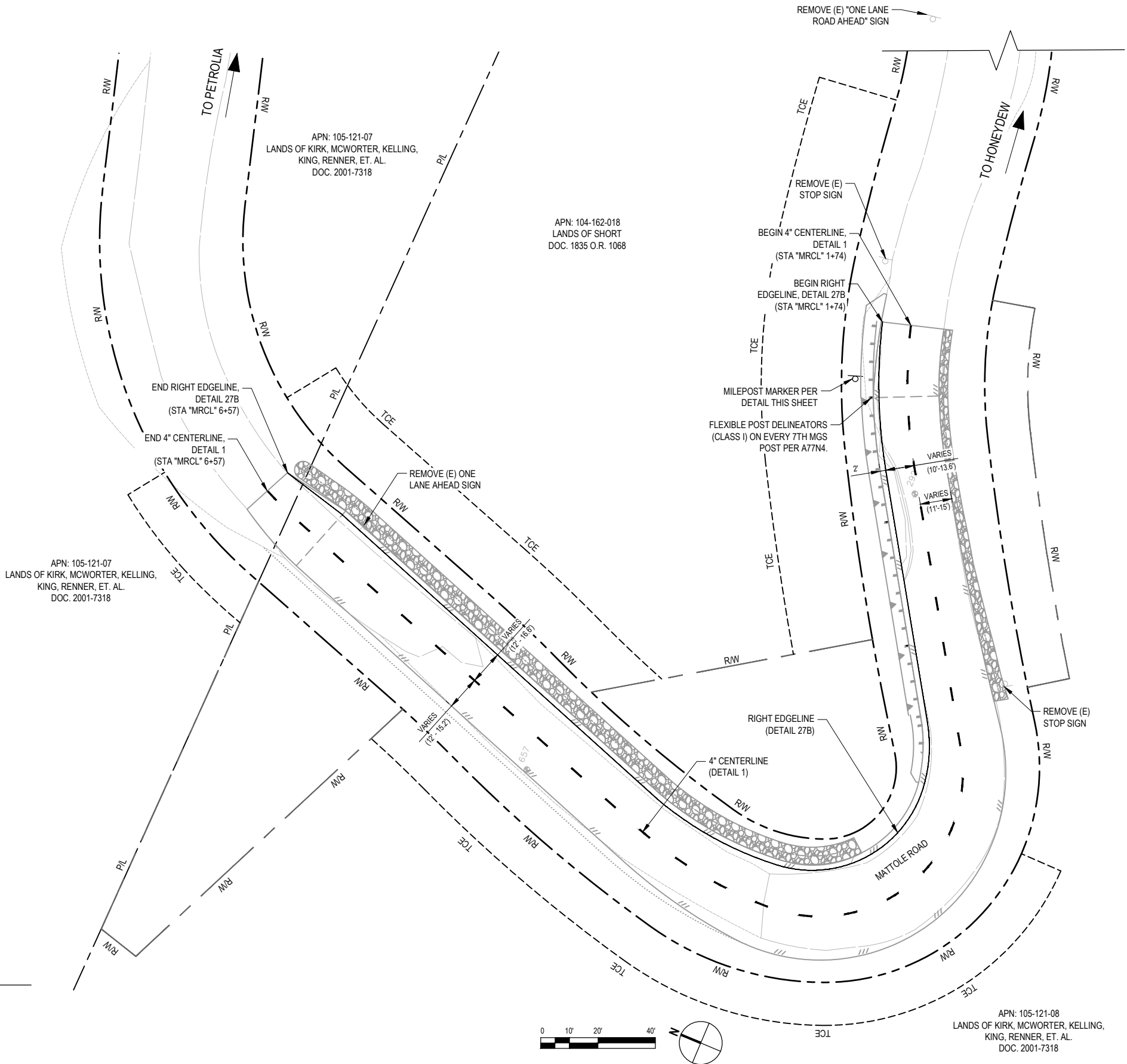
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ROAD NAME:	MATTOLE ROAD	DESIGN SECTION	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
ROAD NO:	F3C010	ENGINEERING	
MILE POST:	11.73-11.76	DESIGNED BY:	C.PROVO
PROJECT NO.:	ER-40A0(059)	DRAWN BY:	C.PROVO
CONTRACT NO.:	219212	REVIEWED BY:	J.WOLF
PLOT DATE:	2/26/2025	APPROVED BY:	J.WOLF

STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
SIGNING AND STRIPING

SHEET
12
OF
32



- NOTES:
- MILEPOST MARKER SIZE PER CALTRANS STD PLAN A73B.
 - METAL POST PER CALTRANS STD PLAN A73B.

**HIGHWAY MILEPOST
MARKER LETTERING DETAIL**

LEGEND

- 4" CENTERLINE, DETAIL 1
- RIGHT EDGELINE, DETAIL 27B
- (E) SIGN



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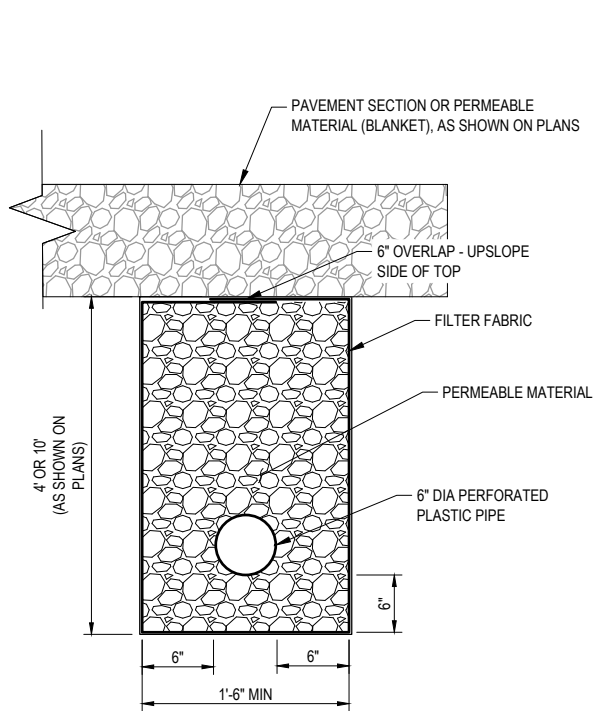
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

ROAD NAME: MATTOLE ROAD
ROAD NO: F3C010
MILE POST: 11.73-11.76
PROJECT NO.: ER-40AD(059)
CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

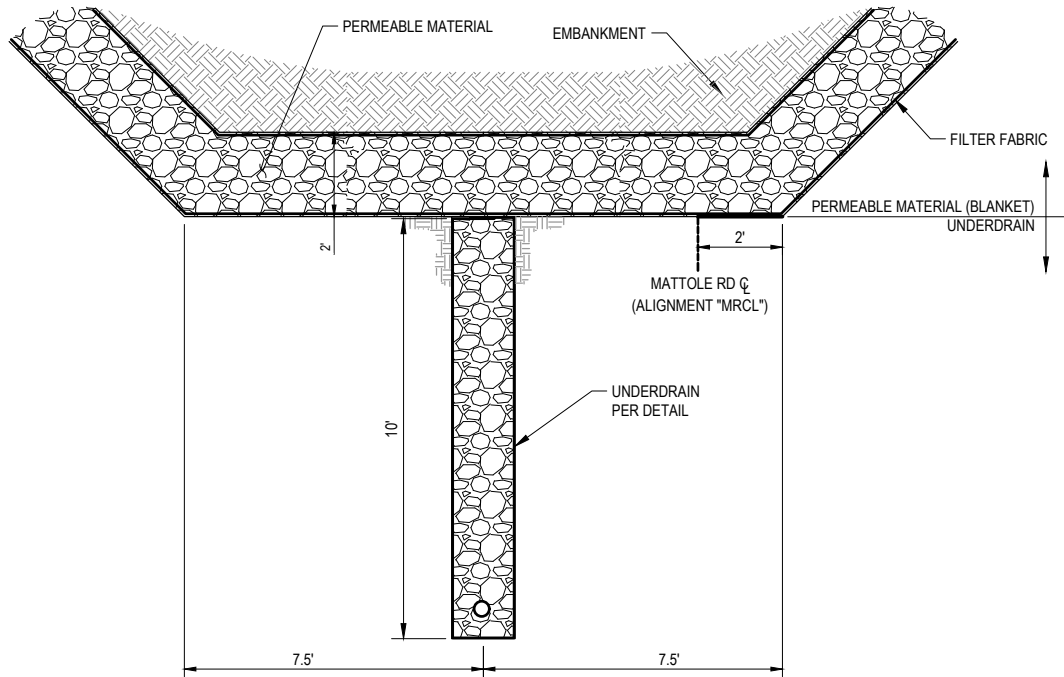
COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
CONSTRUCTION DETAILS

SHEET
13
OF
32



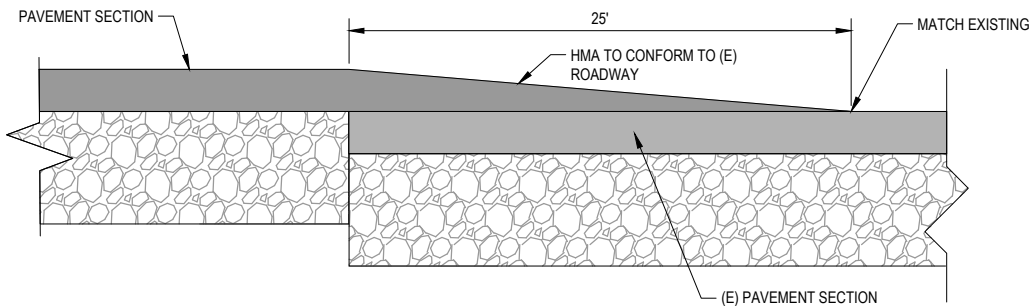
TYPICAL UNDERDRAIN

NOT TO SCALE



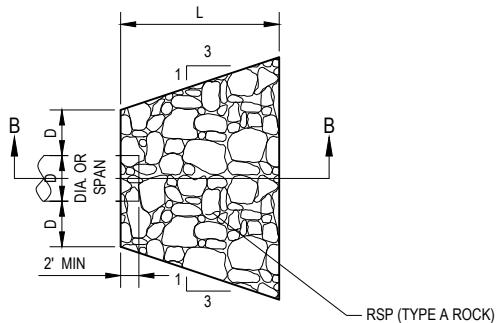
PERMEABLE MATERIAL (BLANKET) AND UNDERDRAIN

NOT TO SCALE

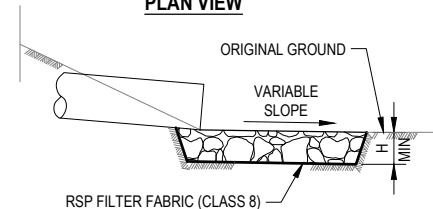


PAVEMENT CONFORM DETAIL

NOT TO SCALE



PLAN VIEW



SECTION B-B

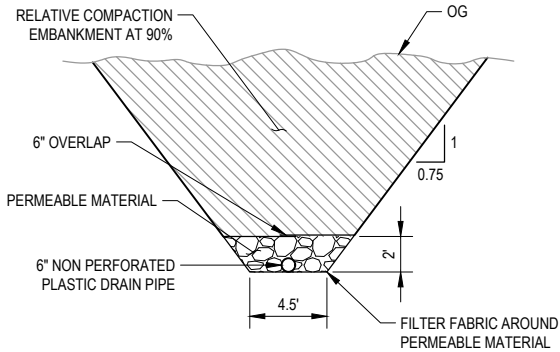
RSP ENERGY DISSIPATOR

NOT TO SCALE

CULVERT SIZE D (inches)	LENGTH OF APRON L (feet)	DEPTH OF APRON H (feet)
6	6	1.5

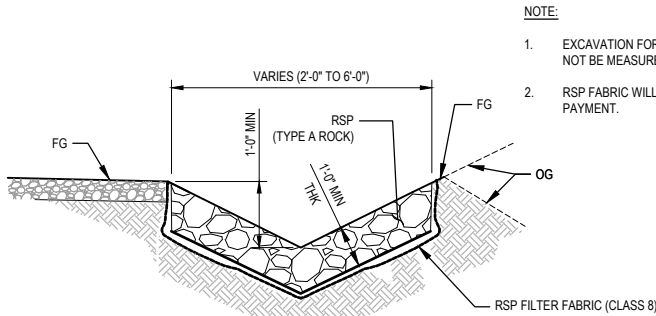
NOTE:

- EXCAVATION FOR PLACEMENT OF RSP WILL NOT BE MEASURED FOR PAYMENT.
- RSP FABRIC WILL NOT BE MEASURED FOR PAYMENT.



SUBDRAIN OUTLET DETAIL

NOT TO SCALE



TYPICAL ROCK-LINED DITCH DETAIL

NOT TO SCALE

NOTE:

- EXCAVATION FOR PLACEMENT OF RSP WILL NOT BE MEASURED FOR PAYMENT.
- RSP FABRIC WILL NOT BE MEASURED FOR PAYMENT.



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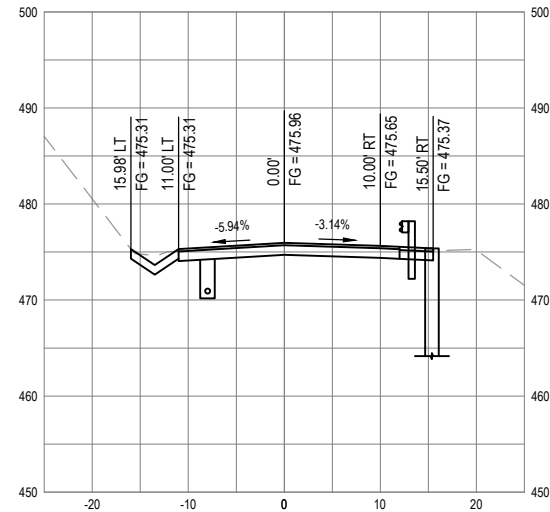
IF NOT ONE INCH ON
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SCALES ACCORDINGLY

ROAD NAME: MATTOLE ROAD
ROAD NO: F3C010
MILE POST: 11.73-11.76
PROJECT NO.: ER-40AD(059)
CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

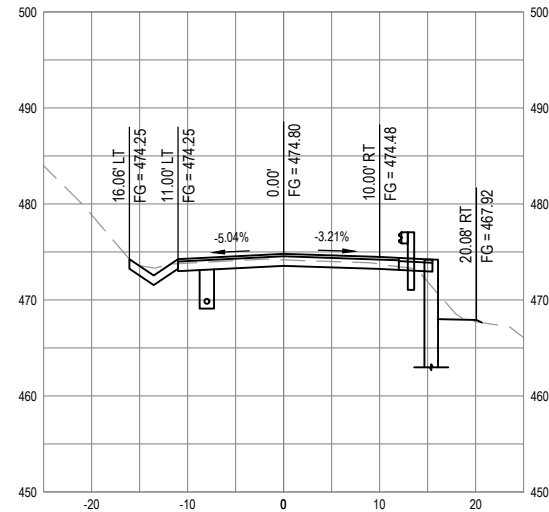
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
CROSS SECTIONS - 1 OF 4

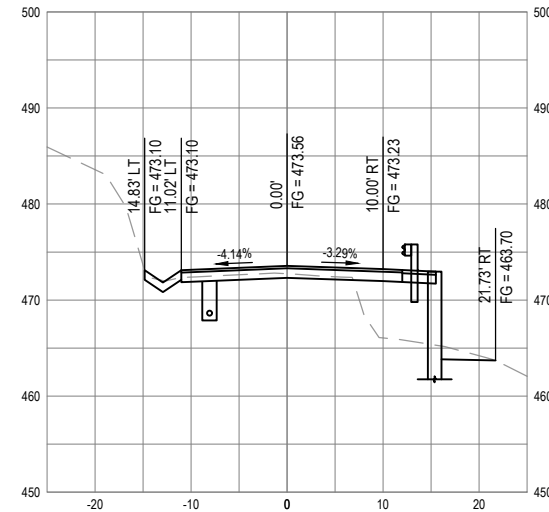
SHEET
14
OF
32



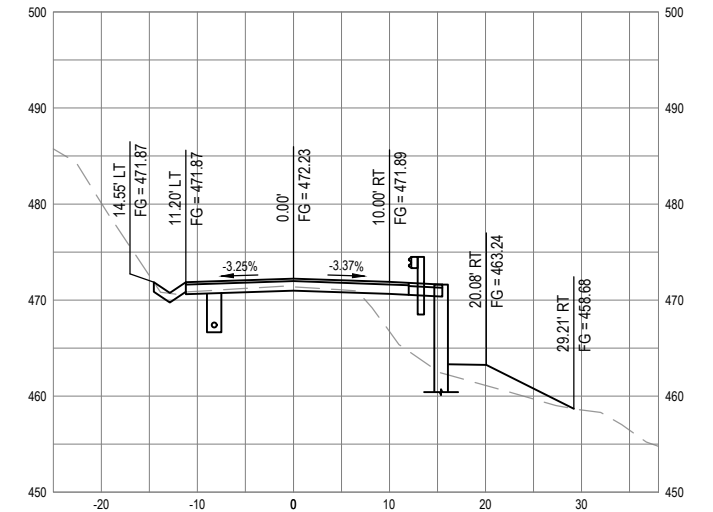
SECTION - STA "MRCL" 2+00



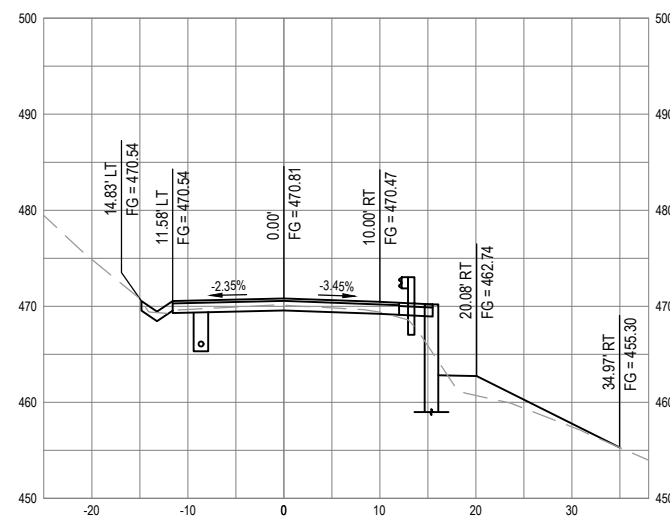
SECTION - STA "MRCL" 2+15



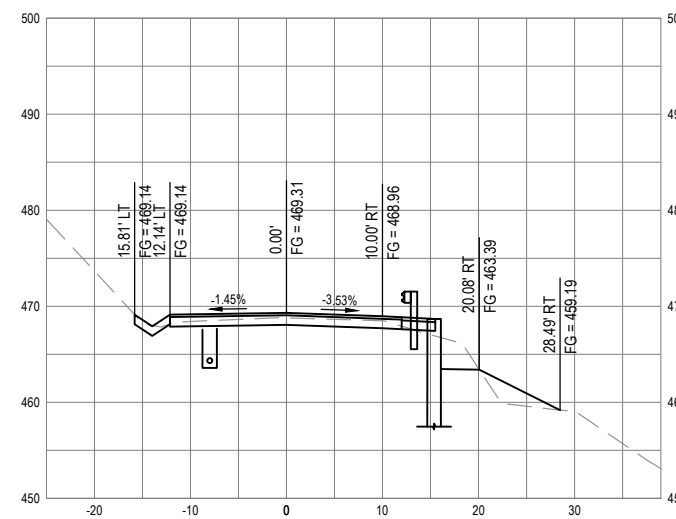
SECTION - STA "MRCL" 2+30



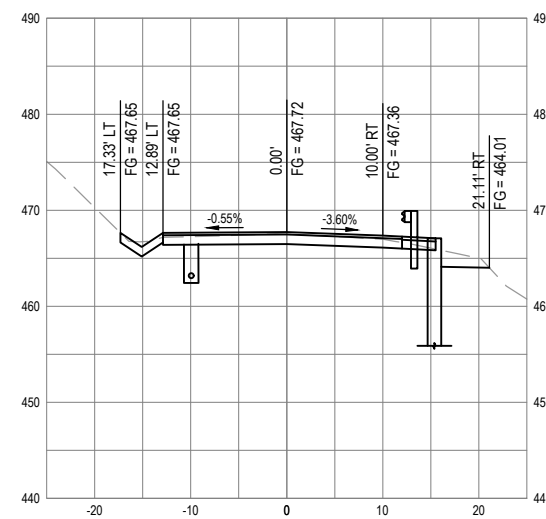
SECTION - STA "MRCL" 2+45



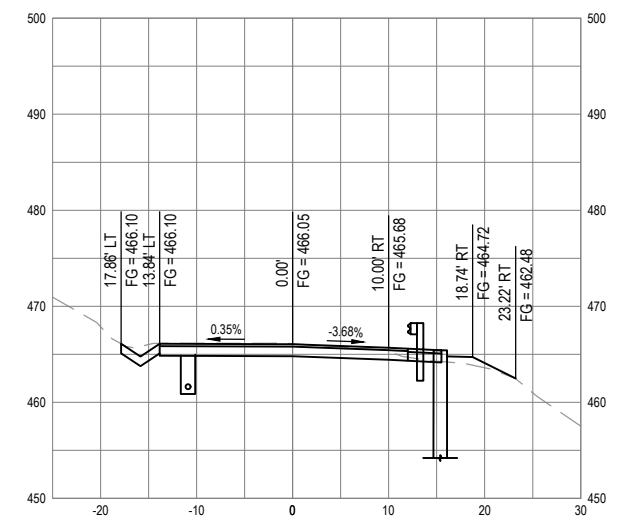
SECTION - STA "MRCL" 2+60



SECTION - STA "MRCL" 2+75



SECTION - STA "MRCL" 2+90



SECTION - STA "MRCL" 3+05



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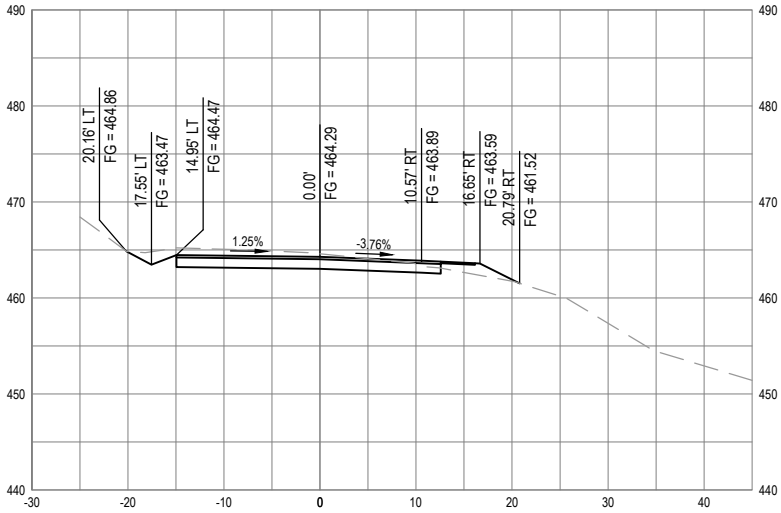
IF NOT ONE INCH ON
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SCALES ACCORDINGLY

ROAD NAME: MATTOLE ROAD
ROAD NO: F3C010
MILE POST: 11.73-11.76
PROJECT NO.: ER-40AD(059)
CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

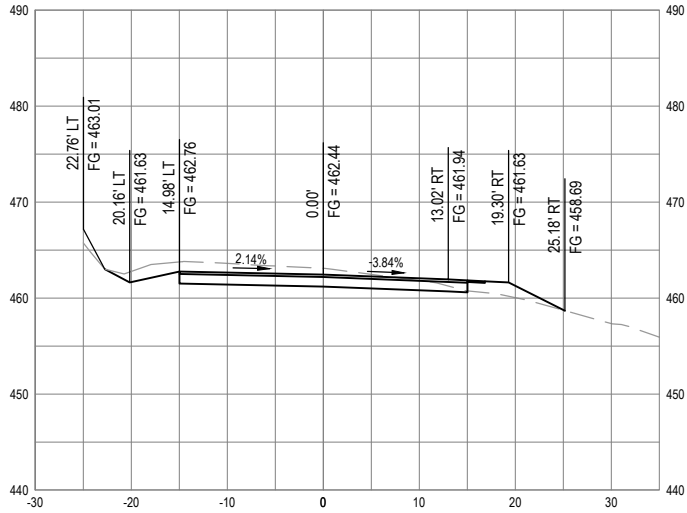
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
CROSS SECTIONS - 2 OF 4

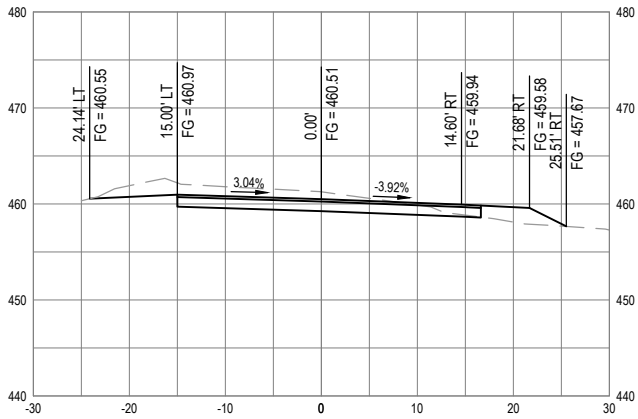
SHEET
15
OF
32



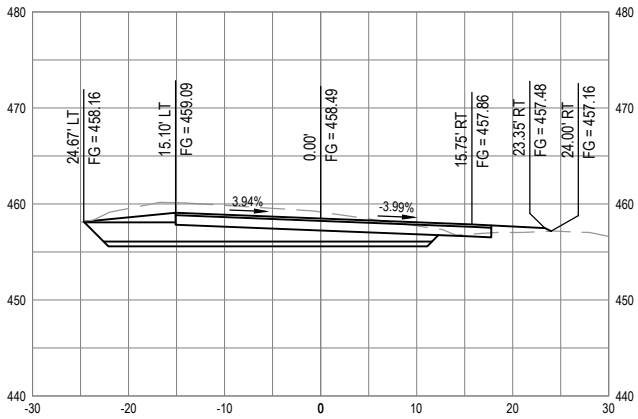
SECTION - STA "MRCL" 3+20



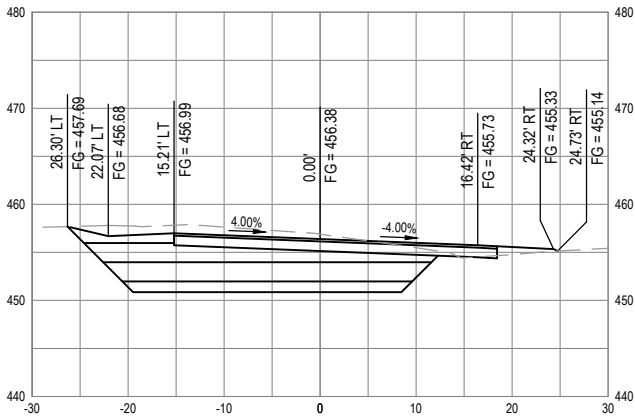
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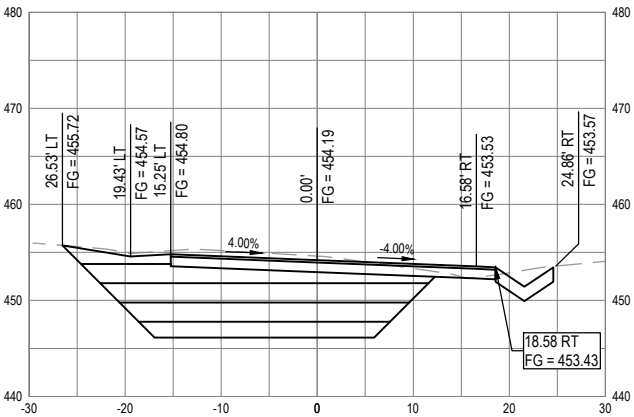
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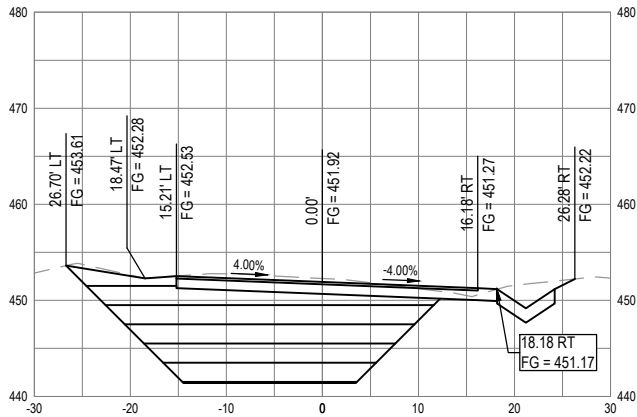
SECTION - STA "MRCL" 3+65



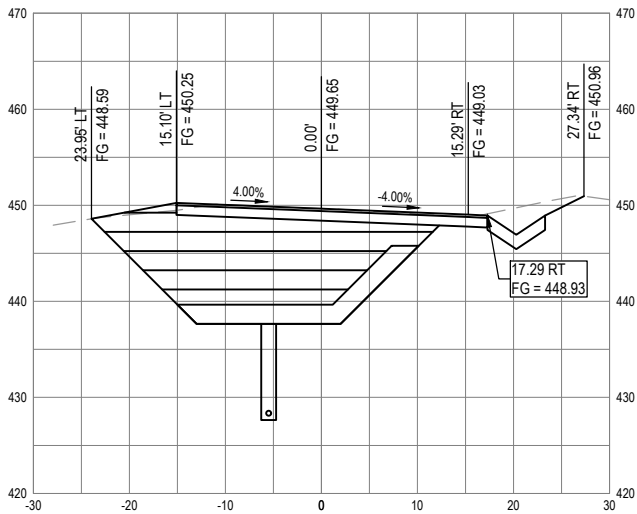
SECTION - STA "MRCL" 3+80



SECTION - STA "MRCL" 3+95



SECTION - STA "MRCL" 4+10



SECTION - STA "MRCL" 4+25



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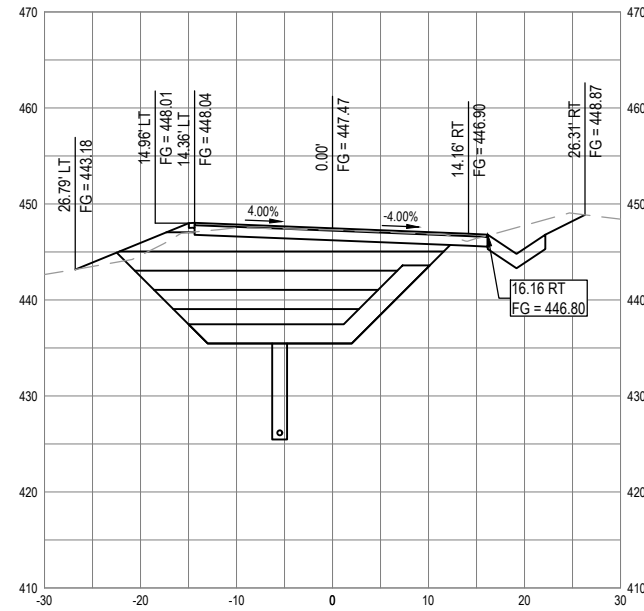
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SCALES ACCORDINGLY

ROAD NAME: MATTOLE ROAD
ROAD NO: F3C010
MILE POST: 11.73-11.76
PROJECT NO.: ER-40AD(059)
CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

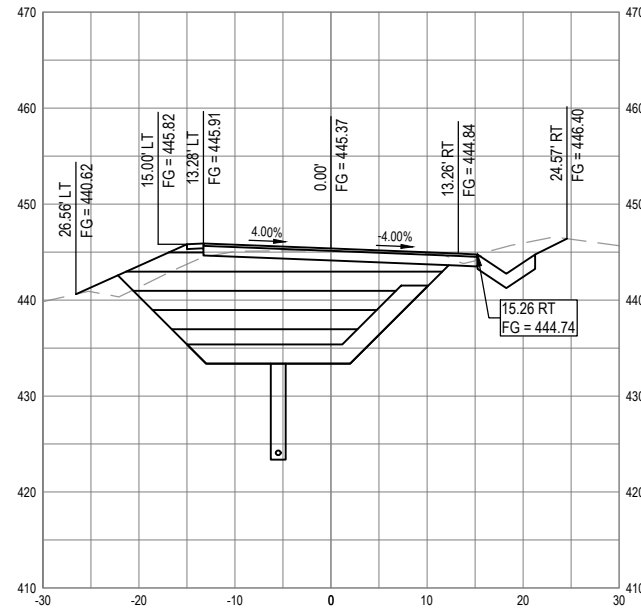
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
CROSS SECTIONS - 3 OF 4

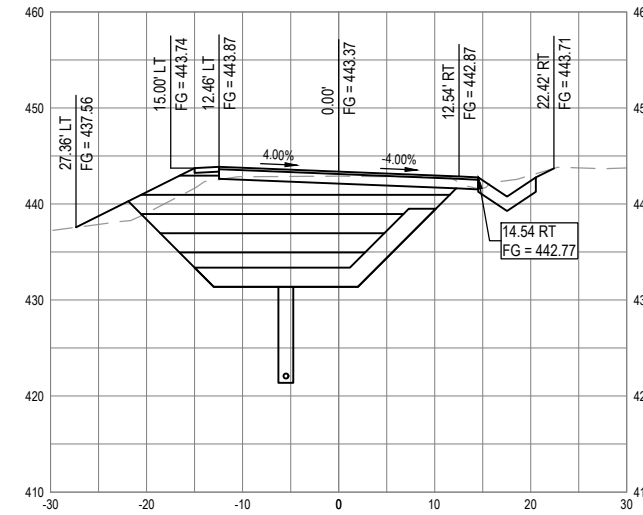
SHEET
16
OF
32



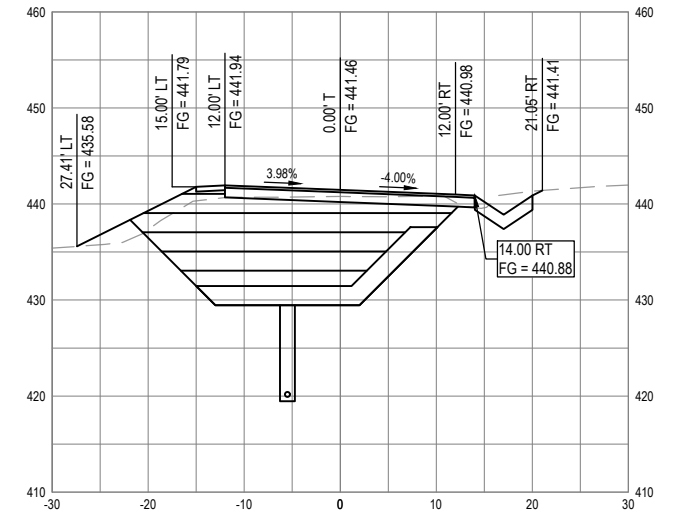
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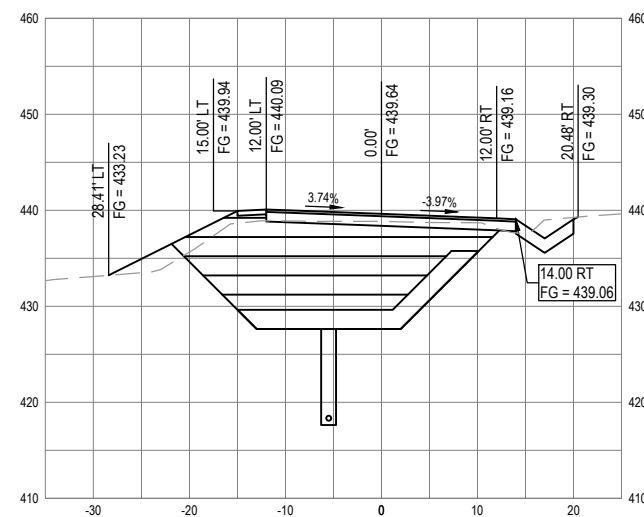
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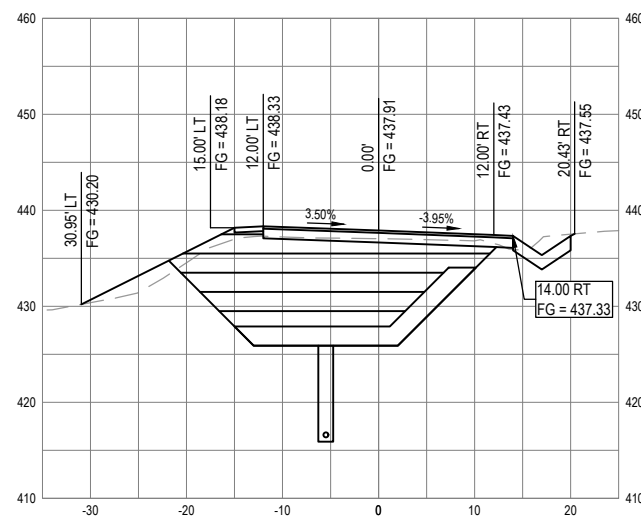
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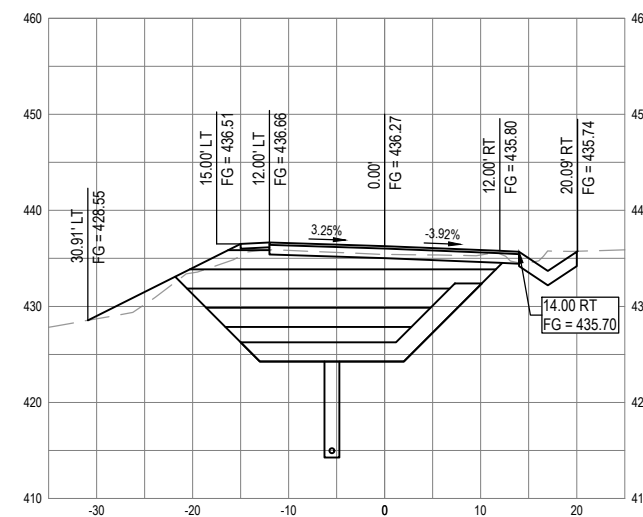
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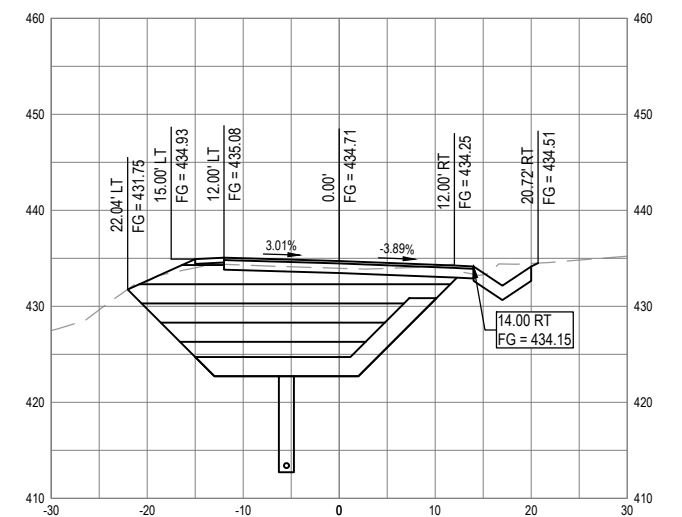
SECTION - STA "MRCL" 5+00



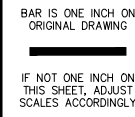
SECTION - STA "MRCL" 5+15



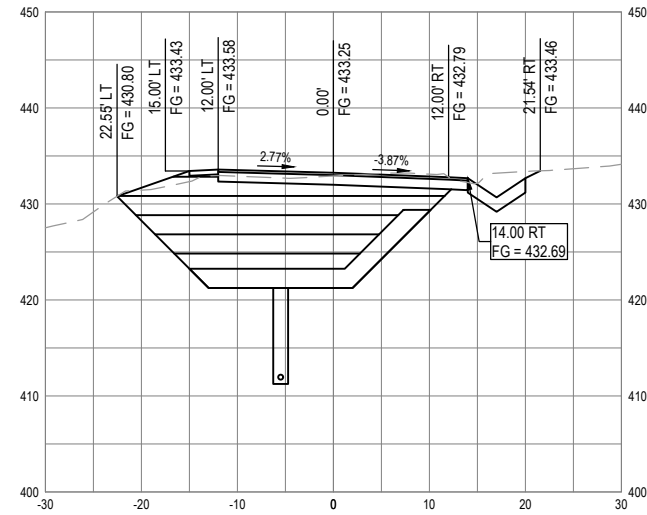
SECTION - STA "MRCL" 5+30



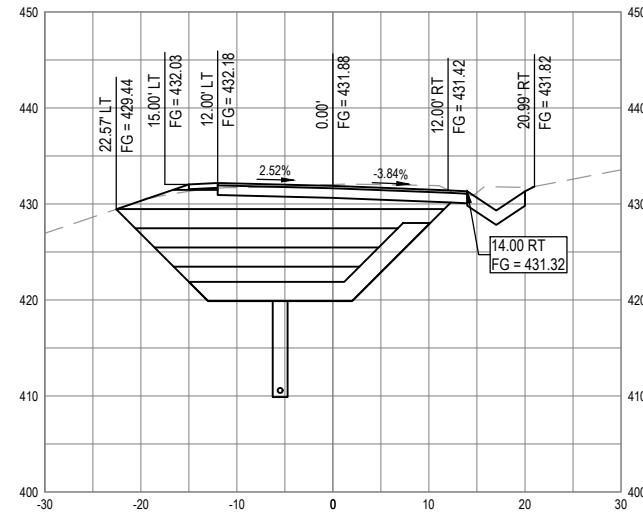
SECTION - STA "MRCL" 5+45



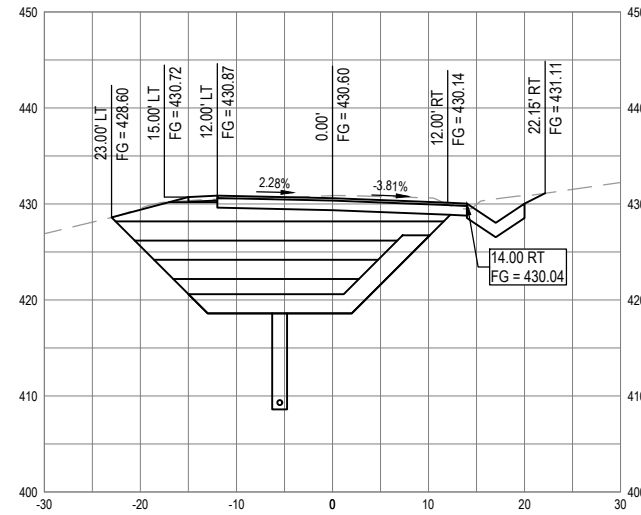
ROAD NAME: MATTOLE ROAD	DESIGN SECTION	COUNTY OF HUMBOLDT	SHEET 17 OF 32
ROAD NO: F3C010	ENGINEERING	DEPARTMENT OF PUBLIC WORKS	
MILE POST: 11.73-11.76	DESIGNED BY: C.PROVO	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76	
PROJECT NO.: ER-40A0(059)	DRAWN BY: C.PROVO		
CONTRACT NO.: 219212	REVIEWED BY: J.WOLF	CROSS SECTIONS - 4 OF 4	
PLOT DATE: 2/26/2025	APPROVED BY: J.WOLF		



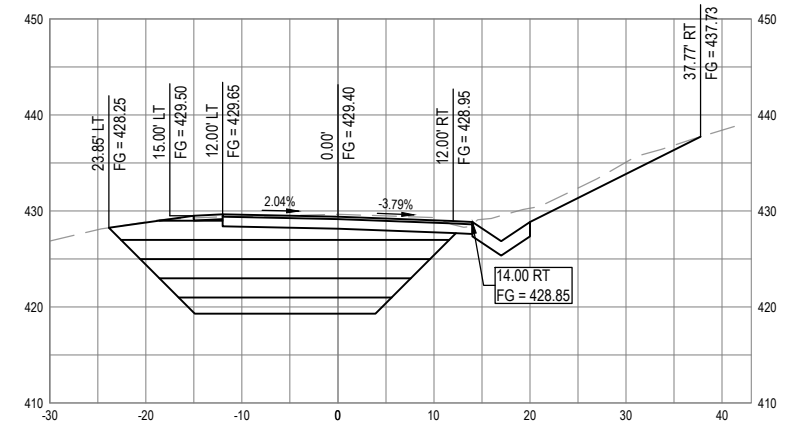
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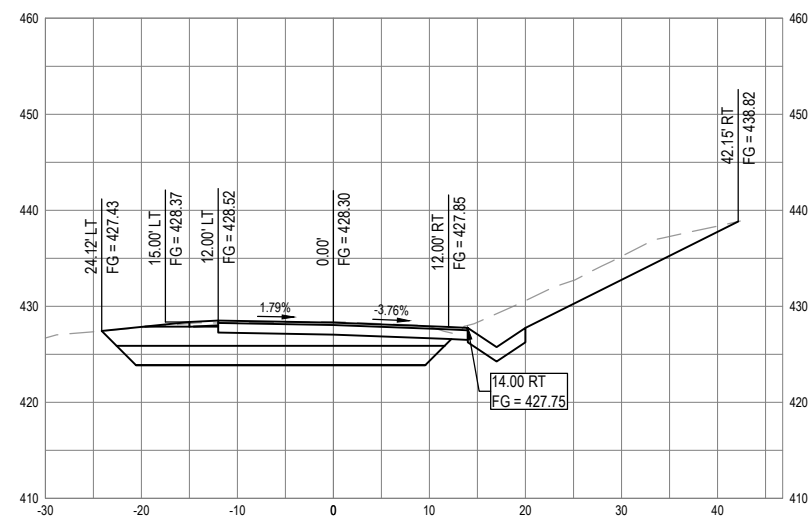
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SECTION - STA "MRCL" 5+90

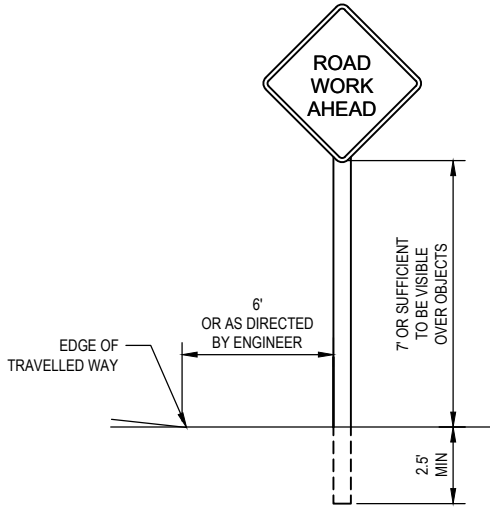


SECTION - STA "MRCL" 6+05

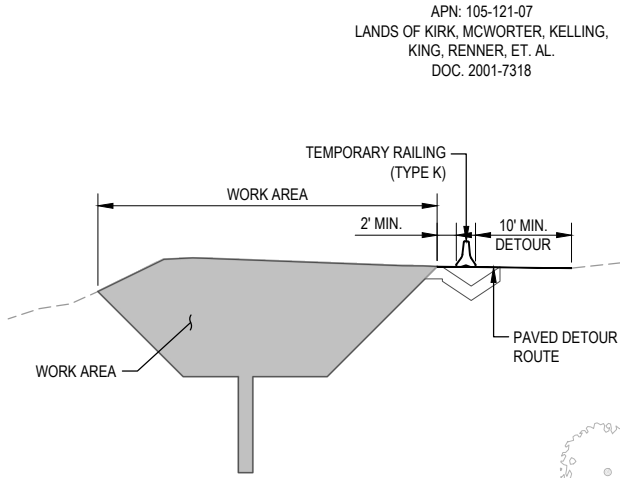


SECTION - STA "MRCL" 6+20

NOTE: THIS PLAN IS ACCURATE FOR
STAGE CONSTRUCTION ONLY



TYPICAL STATIONARY CONSTRUCTION AREA SIGNS



STAGE 1: PM 11.76 TYPICAL SECTION

SCALE: NTS

- LEGEND
- TEMPORARY 12" WHITE LIMIT LINE
 - CONSTRUCTION AREA SIGN
 - TEMPORARY TRAFFIC SIGNAL
 - TEMPORARY CHANNELIZER
 - TEMPORARY CRASH CUSHION (TL-2)
 - TEMPORARY RAILING (TYPE K)
 - WORK AREA
 - TRAVEL DIRECTION(S)



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SCALES ACCORDINGLY

ROAD NAME:	MATTOLE ROAD
ROAD NO:	F3C010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	C.PROVO
DRAWN BY:	C.PROVO
REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE CONSTRUCTION - STAGE 1

SHEET
18
OF
32

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN LETTER	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER & POST SIZE	NO. OF SIGNS
A	W20-1	36"x36"	ROAD WORK AHEAD	(1) 4"x4"	2
B	W20-4	36"x36"	ONE LANE ROAD AHEAD	(1) 4"x4"	2
C	W3-3	36"x36"	SIGNAL WARNING	(1) 4"x4"	2
D	R10-6	24"x36"	STOP HERE ON RED	(1) 4"x4"	2
E	G20-2	36"x18"	END ROAD WORK	(1) 4"x4"	2
F	W1-4	36"x36"	HORIZONTAL ALIGNMENT	(1) 4"x4"	1

TRAFFIC THIS STAGE:

TWO-WAY/ONE-LANE TRAFFIC WITH SIGNALS,
CHANNELIZERS, AND K-RAIL PER PLAN.

STAGE 1 NOTES:

- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROLS DEVICES (CAMUTCD) AND CALTRANS 2023 STANDARD PLANS.
- EXACT SIGN AND SIGNAL LOCATIONS AND POSITIONS TO BE APPROVED BY THE ENGINEER.
- ALL WORK AND TEMPORARY TRAFFIC ROUTES SHALL BE CONFINED TO THE COUNTY R/W AND TCE'S OBTAINED BY THE COUNTY FOR THE PROJECT.
- ALL WARNING SIGNS SHALL HAVE A BLACK LEGEND AND BORDER ON ORANGE BACKGROUND.
- ALTERNATIVE POST CONFIGURATION TO BE APPROVED BY COUNTY ENGINEER.
- REFER TO CAMUTCD FIGURE 6H-12 FOR LANE CLOSURE ON A TWO-LANE ROAD USING TRAFFIC CONTROL SIGNALS (TA-12).
- MAINTAIN ALL SIGNS THROUGHOUT DURATION OF CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN A MINIMUM OF ONE OPEN TRAFFIC LANE THROUGH OR AROUND THE WORK AREA AT ALL TIMES. TRAFFIC LANE SHALL BE AT LEAST 10 FEET WIDE, AND SHALL HAVE A SLOPE IN THE DIRECTION OF TRAVEL OF NO MORE THAN 18%. LANE SURFACE SHALL BE PAVED, FIRM AND SMOOTH, AND FREE OF HOLES AND RUTS SO AS NOT TO IMPEDE TRAFFIC.
- PROVIDE FLAGGERS AS REQUIRED TO ACCOMMODATE CONSTRUCTION.
- THE MINIMUM PAVED SECTION FOR DETOUR ROUTES SHALL BE 0.2' HMA OVER 0.5' C12AB.

STAGE 1 DETOUR ROUTE CONSTRUCTION CENTERLINE GEOMETRY - "DR1CL" ALIGNMENT						
Segment	Type	Length	Radius	Direction	Start Station	End Station
L6	LINE	96.34	-	S16° 15' 44.81"W	"MRCL" 1+00.00	"MRCL" 1+96.34
L7	LINE	139.38	-	S17° 45' 31.39"W	"MRCL" 1+96.34	"MRCL" 3+35.72
C6	CURVE	136.21	55.00		"MRCL" 3+35.72	"MRCL" 4+71.92
C7	CURVE	82.21	1103.00		"MRCL" 4+71.92	"MRCL" 5+54.13

STAGE CONSTRUCTION - STAGE 1

SCALE: NTS



APN: 105-121-08
LANDS OF KIRK, MCWORTER, KELLING,
KING, RENNER, ET. AL.
DOC. 2001-7318

NOTE: THIS PLAN IS ACCURATE FOR
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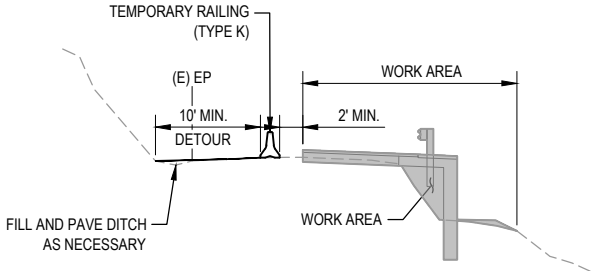
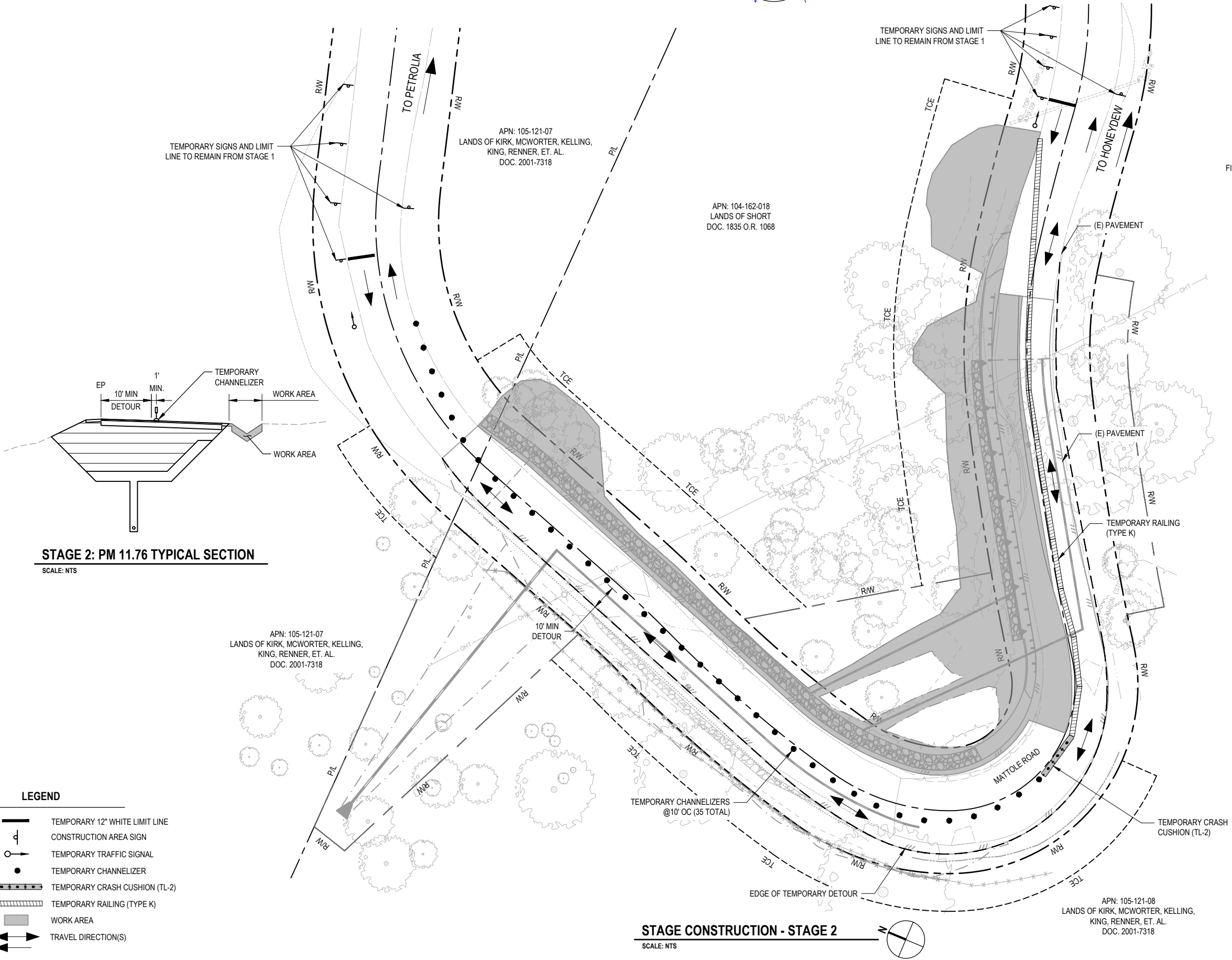
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SCALES ACCORDINGLY

ROAD NAME:	MATTOLE ROAD
ROAD NO:	F3C010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A0(059)
CONTRACT NO.:	219212
PLOT DATE:	2/26/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	C.PROVO
DRAWN BY:	C.PROVO
REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE CONSTRUCTION - STAGE 2

SHEET
19
OF
32



STAGE 2: PM 11.73 TYPICAL SECTION

SCALE: NTS

TRAFFIC THIS STAGE:

TWO-WAY/ONE-LANE TRAFFIC WITH SIGNALS,
CHANNELIZERS, AND K-RAILS PER PLAN.

STAGE 2 NOTES:

- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROLS DEVICES (CAMUTCD) AND CALTRANS 2023 STANDARD PLANS.
- EXACT SIGN AND SIGNAL LOCATIONS AND POSITIONS TO BE APPROVED BY THE ENGINEER.
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- PROVIDE FLAGGERS AS REQUIRED TO ACCOMMODATE CONSTRUCTION.
- THE MINIMUM PAVED SECTION FOR DETOUR ROUTES SHALL BE 0.2' HMA OVER 0.5' C2AB.

STAGE 2: PM 11.76 TYPICAL SECTION

SCALE: NTS

LEGEND

- TEMPORARY 12" WHITE LIMIT LINE
- CONSTRUCTION AREA SIGN
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CHANNELIZER
- TEMPORARY CRASH CUSHION (TL-2)
- TEMPORARY RAILING (TYPE K)
- WORK AREA
- TRAVEL DIRECTION(S)

STAGE CONSTRUCTION - STAGE 2

SCALE: NTS

NOTE: THIS PLAN IS ACCURATE FOR
STAGE CONSTRUCTION ONLY



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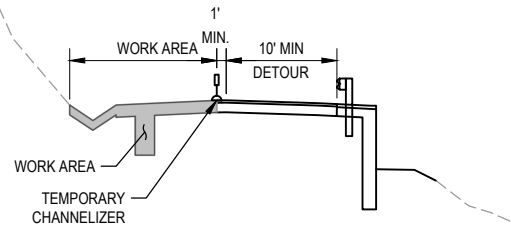
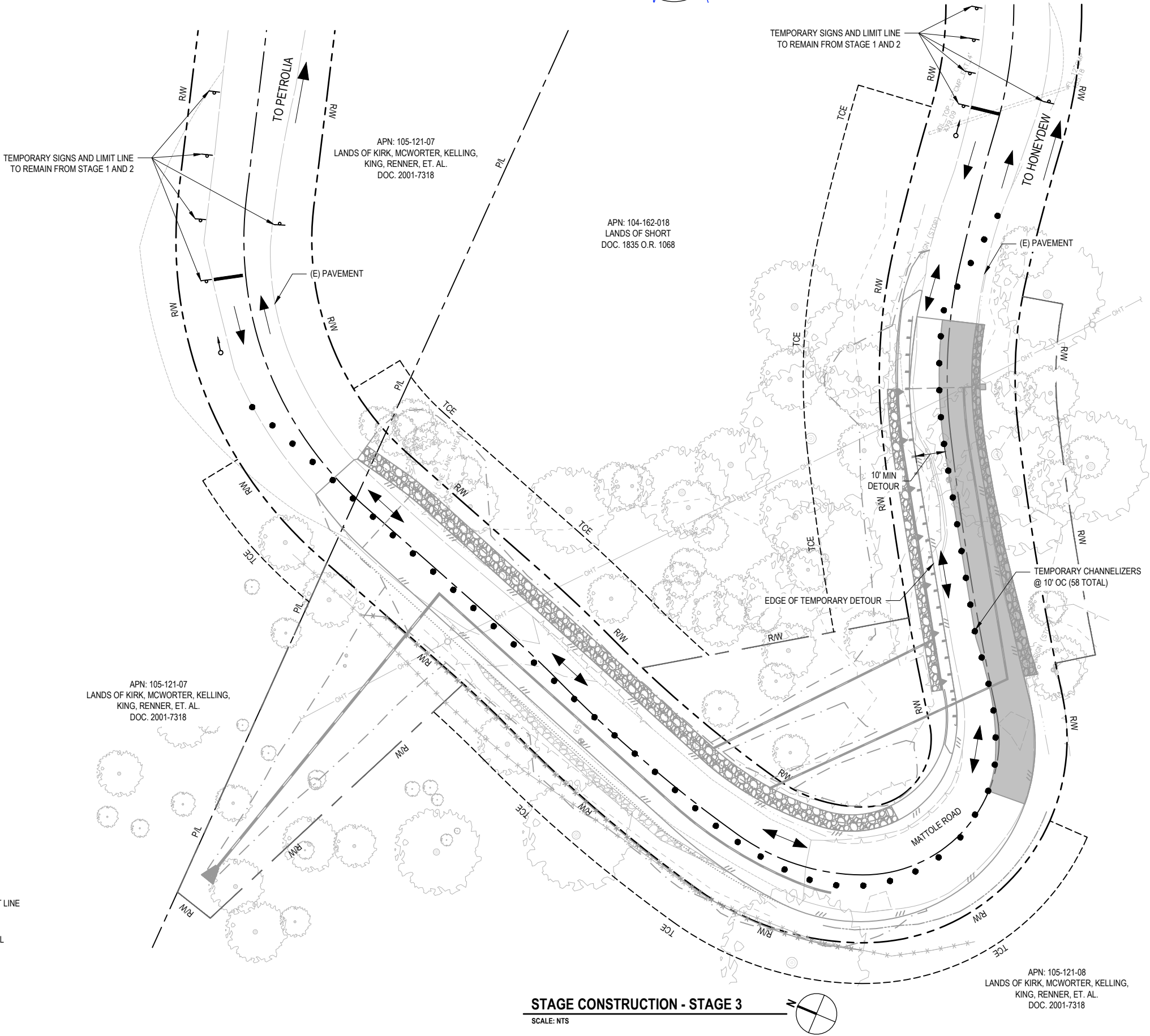
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CONTRACT NO.:	219212
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DESIGN SECTION	ENGINEERING
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REVIEWED BY:	J.WOLF
APPROVED BY:	J.WOLF

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE CONSTRUCTION - STAGE 3

SHEET
20
OF
32



STAGE 3: PM 11.73 TYPICAL SECTION
SCALE: NTS

TRAFFIC THIS STAGE:

TWO-WAY/ONE-LANE TRAFFIC WITH
SIGNALS AND CHANNELIZERS PER PLAN.

STAGE 3 NOTES:

- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROLS DEVICES (CAMUTCD) AND CALTRANS 2023 STANDARD PLANS.
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- PROVIDE FLAGGERS AS REQUIRED TO ACCOMMODATE CONSTRUCTION.

LEGEND

- TEMPORARY 12" WHITE LIMIT LINE
- CONSTRUCTION AREA SIGN
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY CHANNELIZER
- WORK AREA
- TRAVEL DIRECTION(S)

STAGE CONSTRUCTION - STAGE 3

SCALE: NTS



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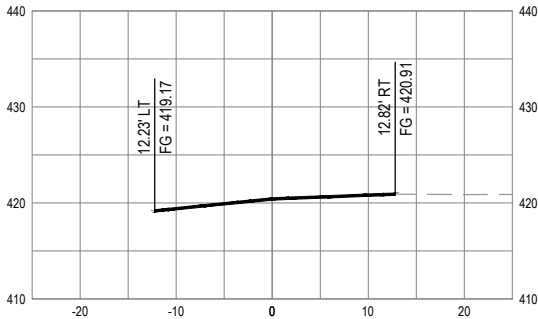
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PROJECT NO.: ER-40AD(059)
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PLOT DATE: 2/26/2025

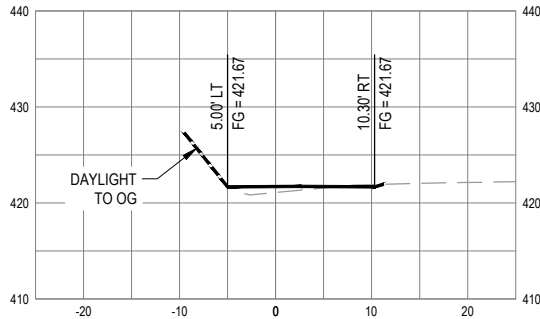
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE 1 CONSTRUCTION SECTIONS - 1 OF 4

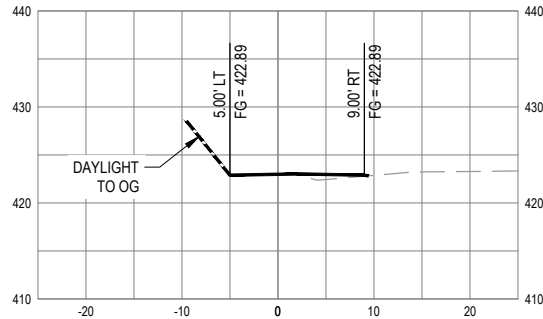
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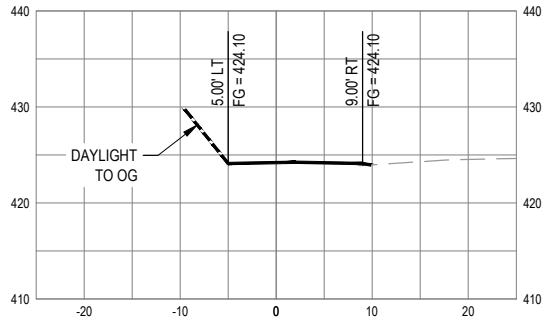
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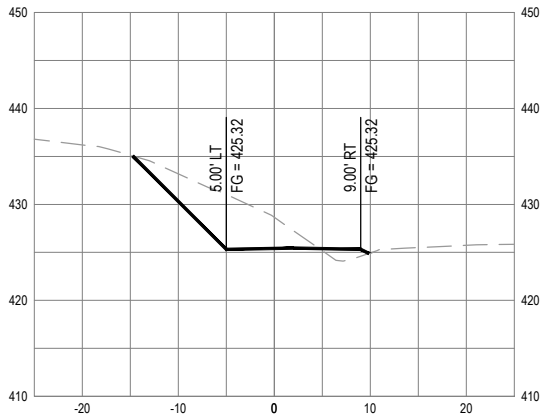
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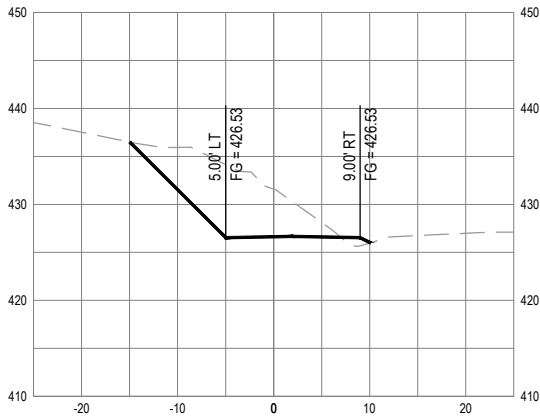
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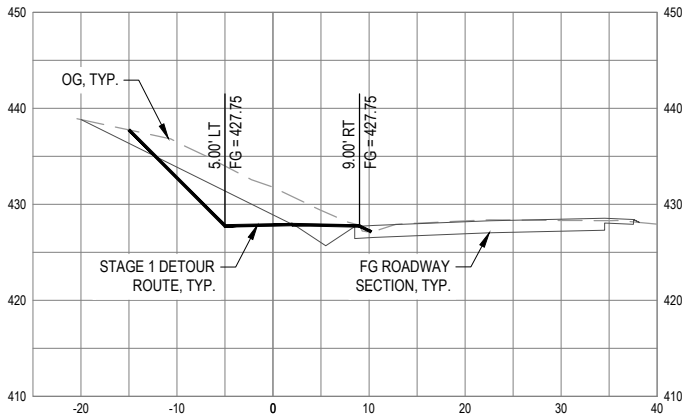
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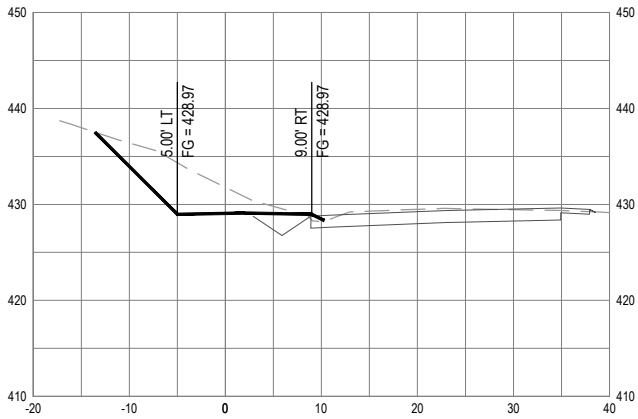
SECTION - STA "DR1CL" 1+65



SECTION - STA "DR1CL" 1+80



SECTION - STA "DR1CL" 1+95



SECTION - STA "DR1CL" 2+10



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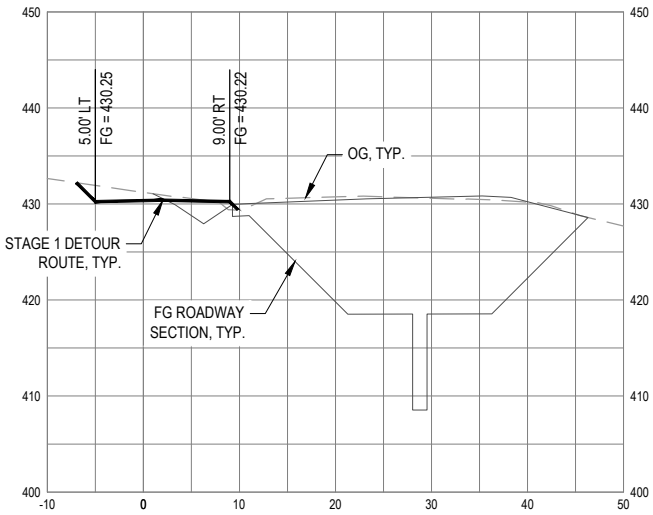
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ROAD NAME: MATTOLE ROAD
ROAD NO: F3C010
MILE POST: 11.73-11.76
PROJECT NO.: ER-40AD(059)
CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

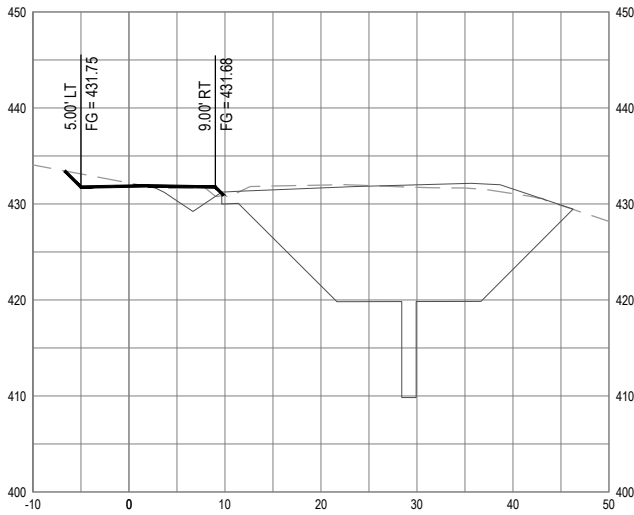
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
REVIEWED BY: J.WOLF
APPROVED BY: J.WOLF

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE 1 CONSTRUCTION SECTIONS - 2 OF 4

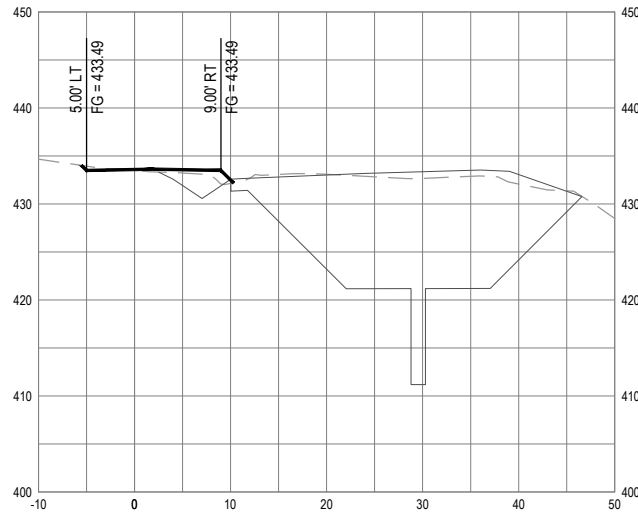
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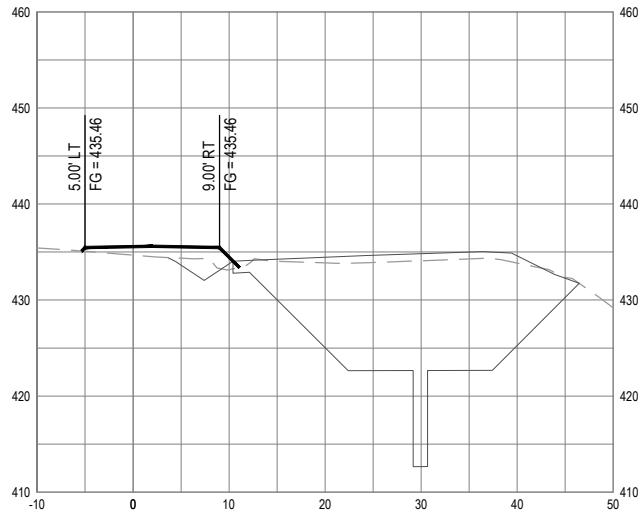
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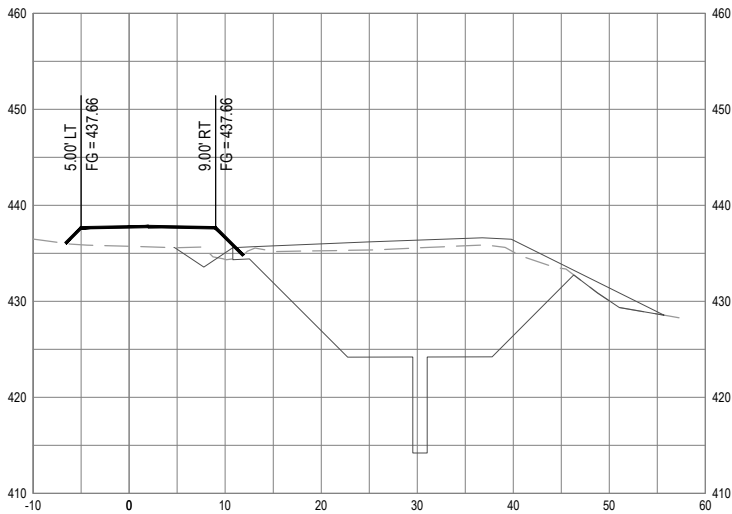
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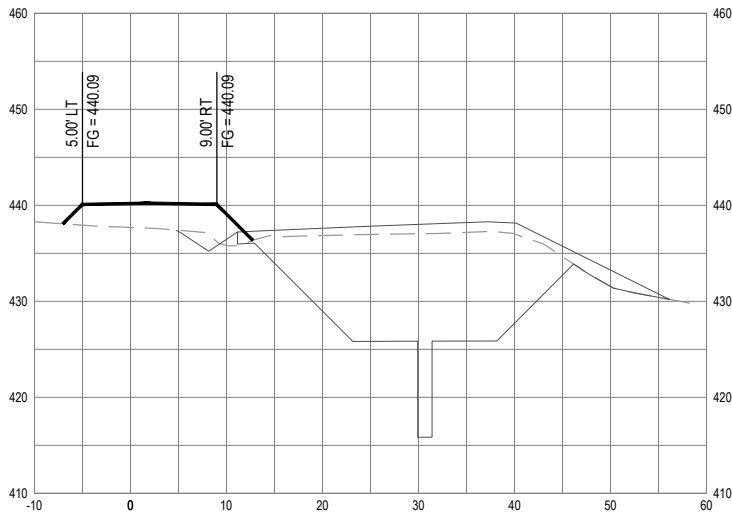
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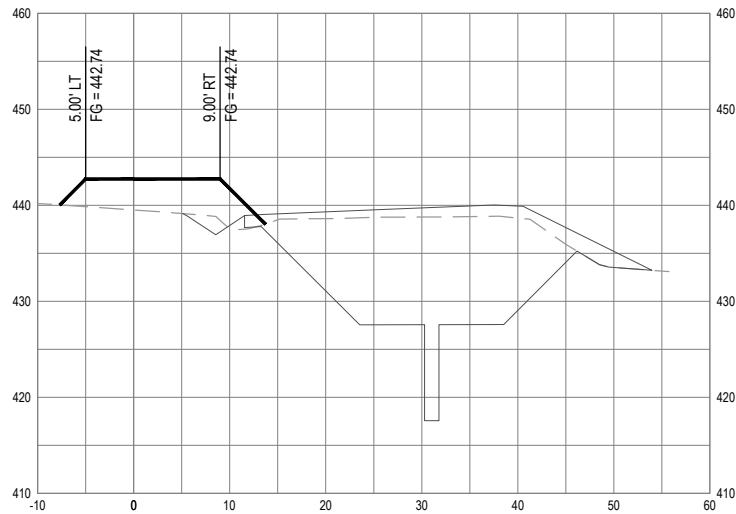
SECTION - STA "DR1CL" 2+70



SECTION - STA "DR1CL" 2+85



SECTION - STA "DR1CL" 3+00



SECTION - STA "DR1CL" 3+15



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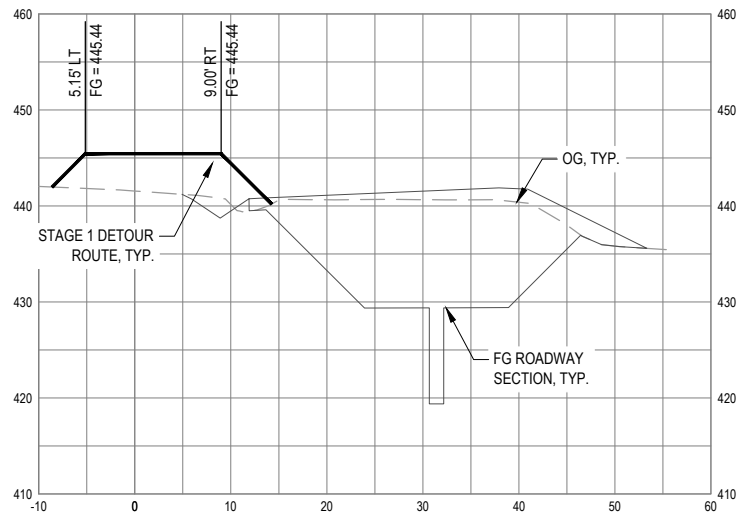
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ROAD NAME: MATTOLE ROAD
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CONTRACT NO.: 219212
PLOT DATE: 2/26/2025

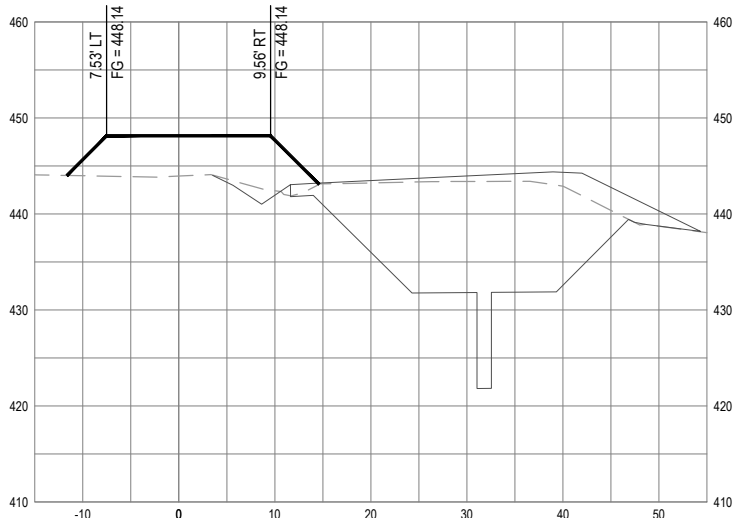
DESIGN SECTION
ENGINEERING
DESIGNED BY: C.PROVO
DRAWN BY: C.PROVO
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COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE 1 CONSTRUCTION SECTIONS - 3 OF 4

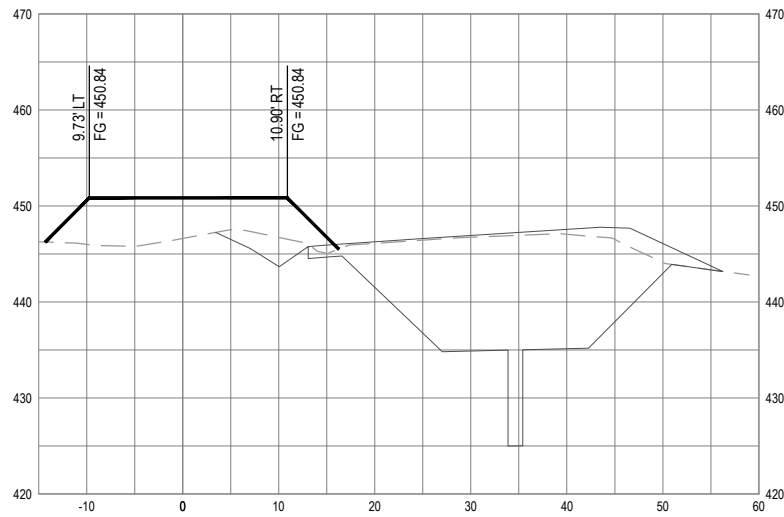
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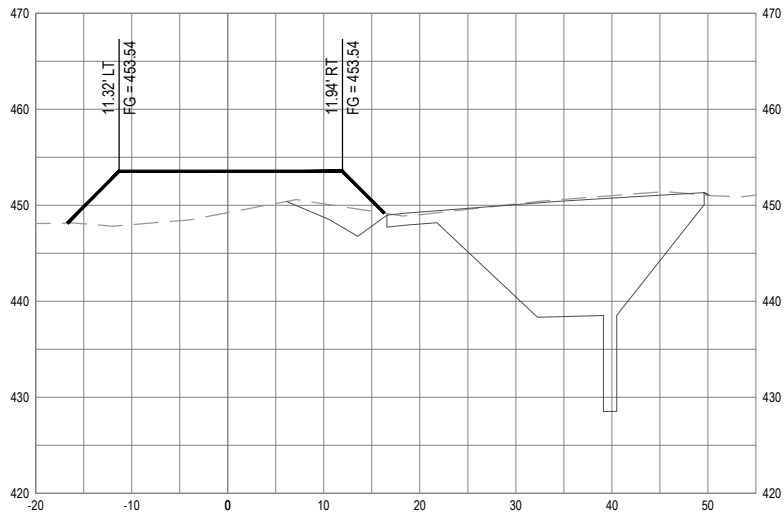
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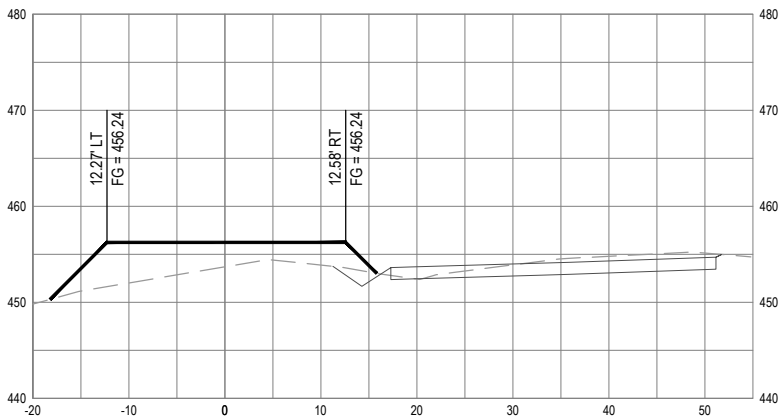
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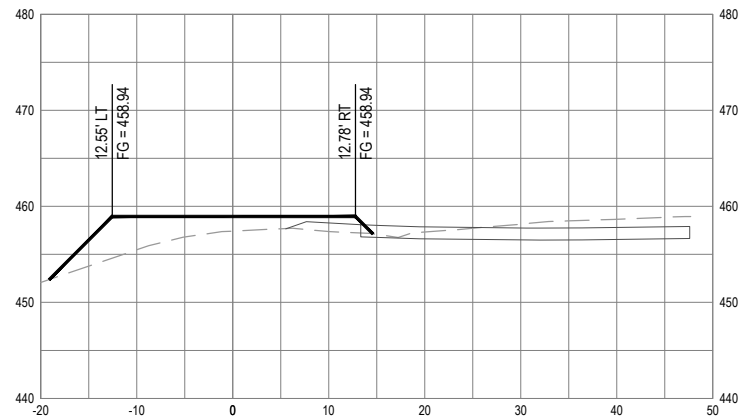
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SECTION - STA "DR1CL" 3+75



SECTION - STA "DR1CL" 3+90



SECTION - STA "DR1CL" 4+05



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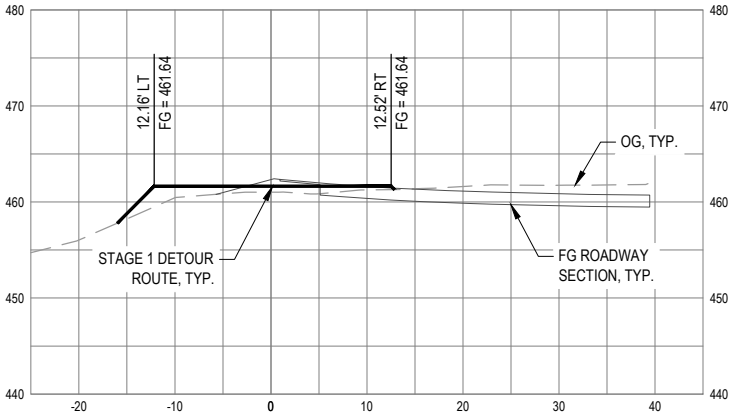
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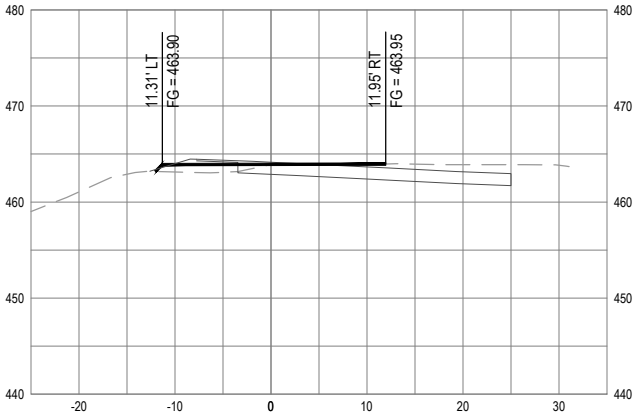
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
STAGE 1 CONSTRUCTION SECTIONS - 4 OF 4

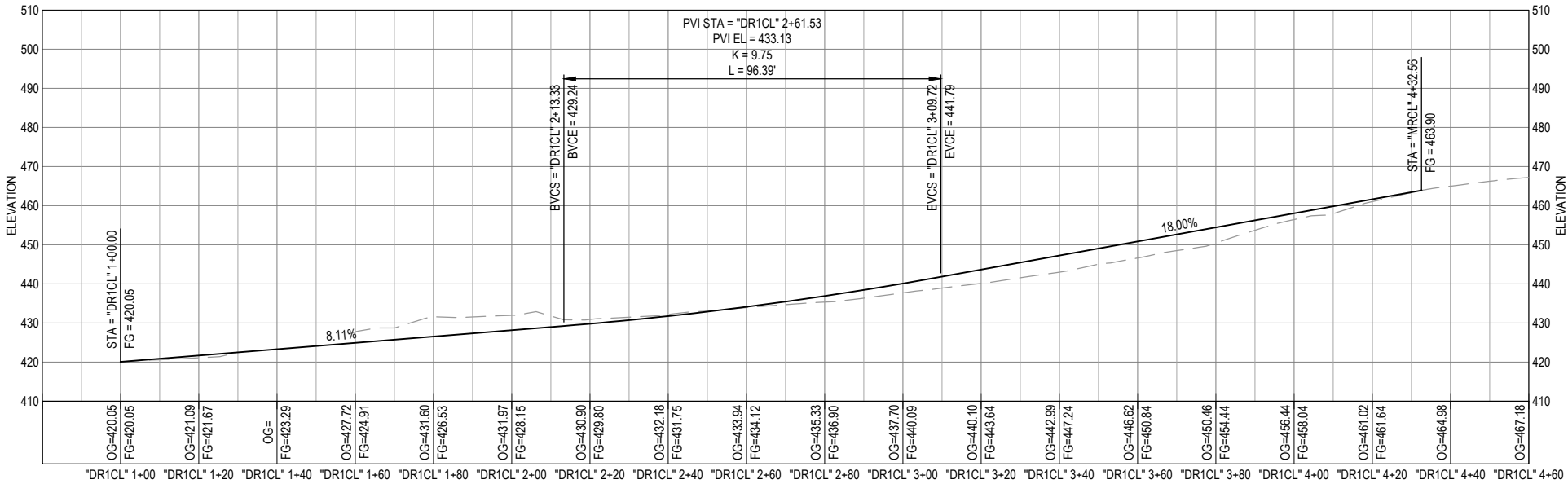
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SECTION - STA "DR1CL" 4+20



SECTION - STA "DR1CL" 4+32.56



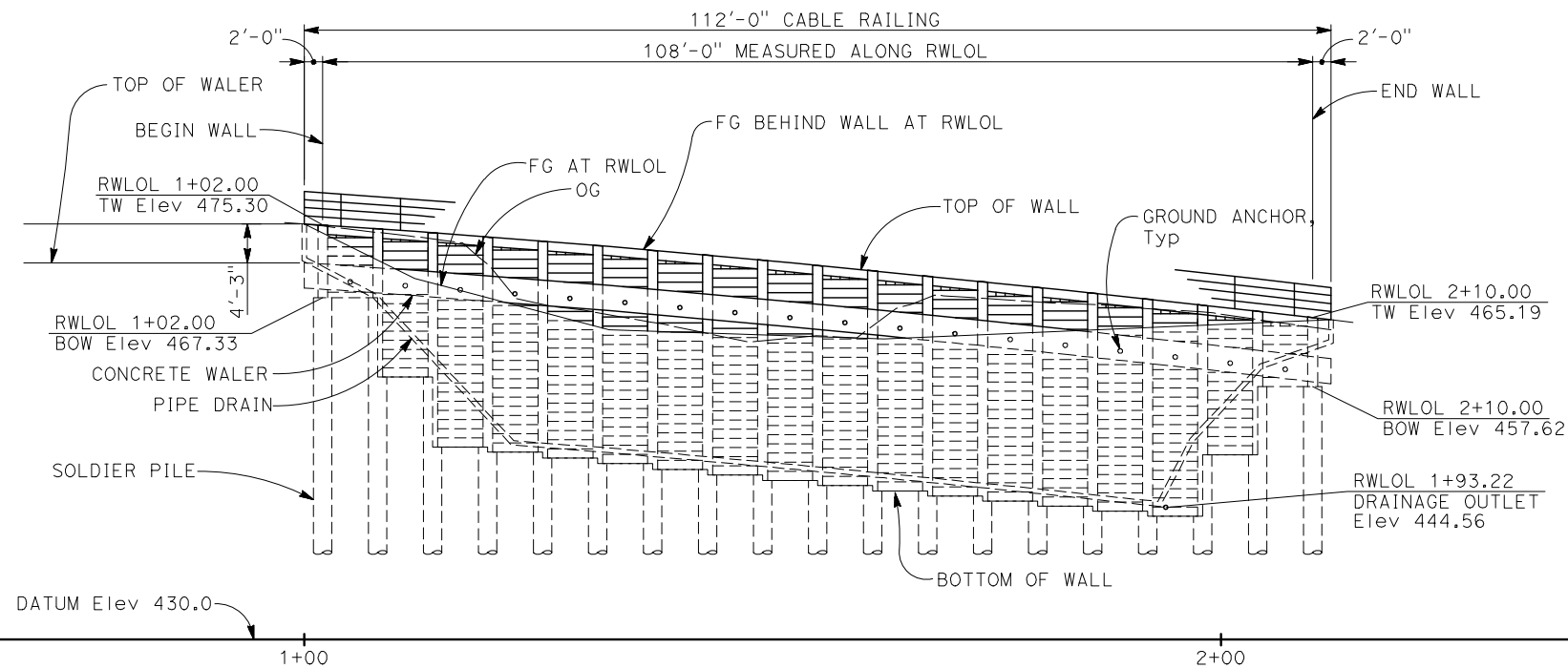
STAGE 1 DETOUR ROUTE PROFILE VIEW





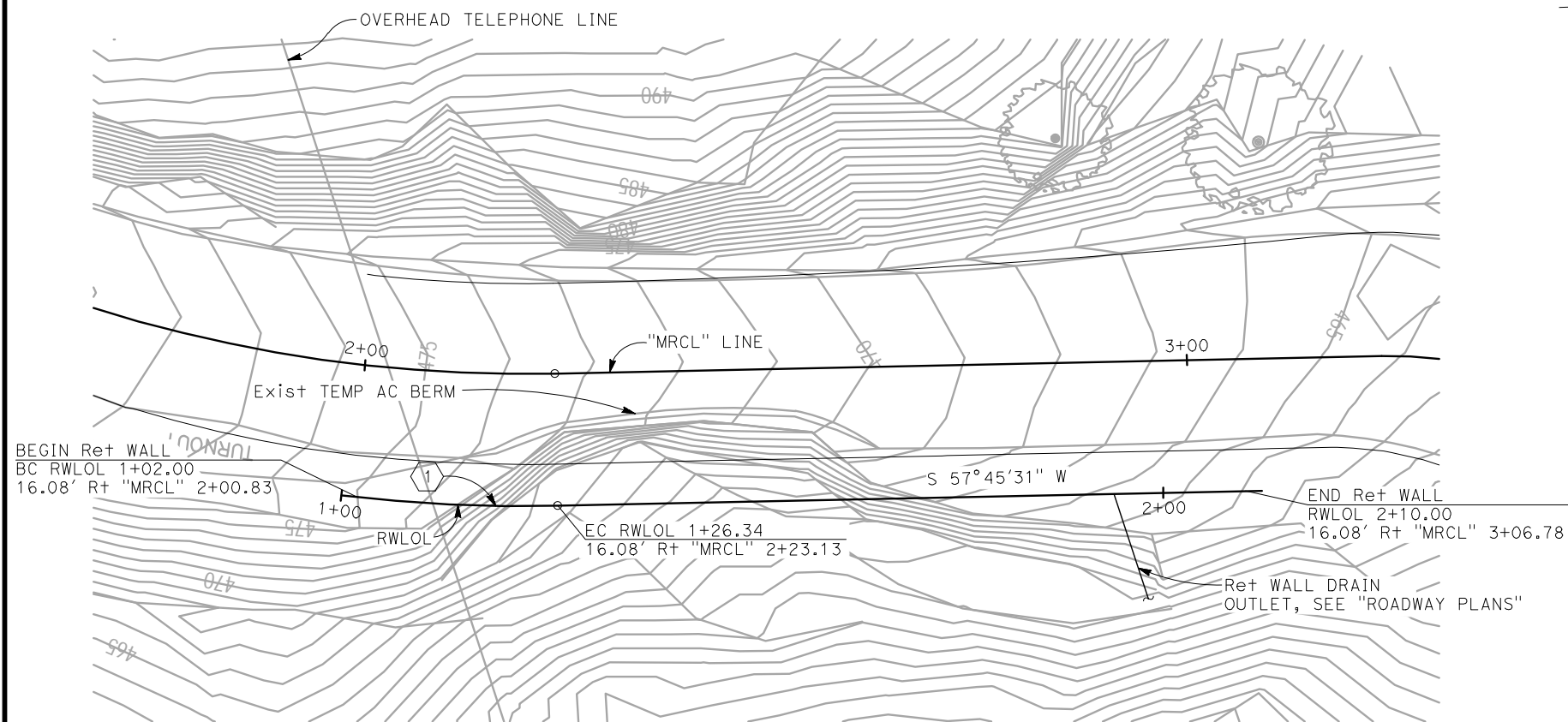
BIGGS CARDOSA ASSOCIATES INC
BCA
STRUCTURAL ENGINEERS
1111 Broadway, Ste. 1510
Oakland, California 94607
510-625-9900

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	ROAD NO: F3C010	DESIGNED BY: LEL	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76	
	MILE POST: 11.73-11.76	DRAWN BY: SMH		
	PROJECT NO.: ER-40A(059)	REVIEWED BY: GJT		
	CONTRACT NO.: 219212	APPROVED BY: AWR		
	PLOT DATE: 2/20/2025			



DEVELOPED ELEVATION

1" = 10'



PLAN

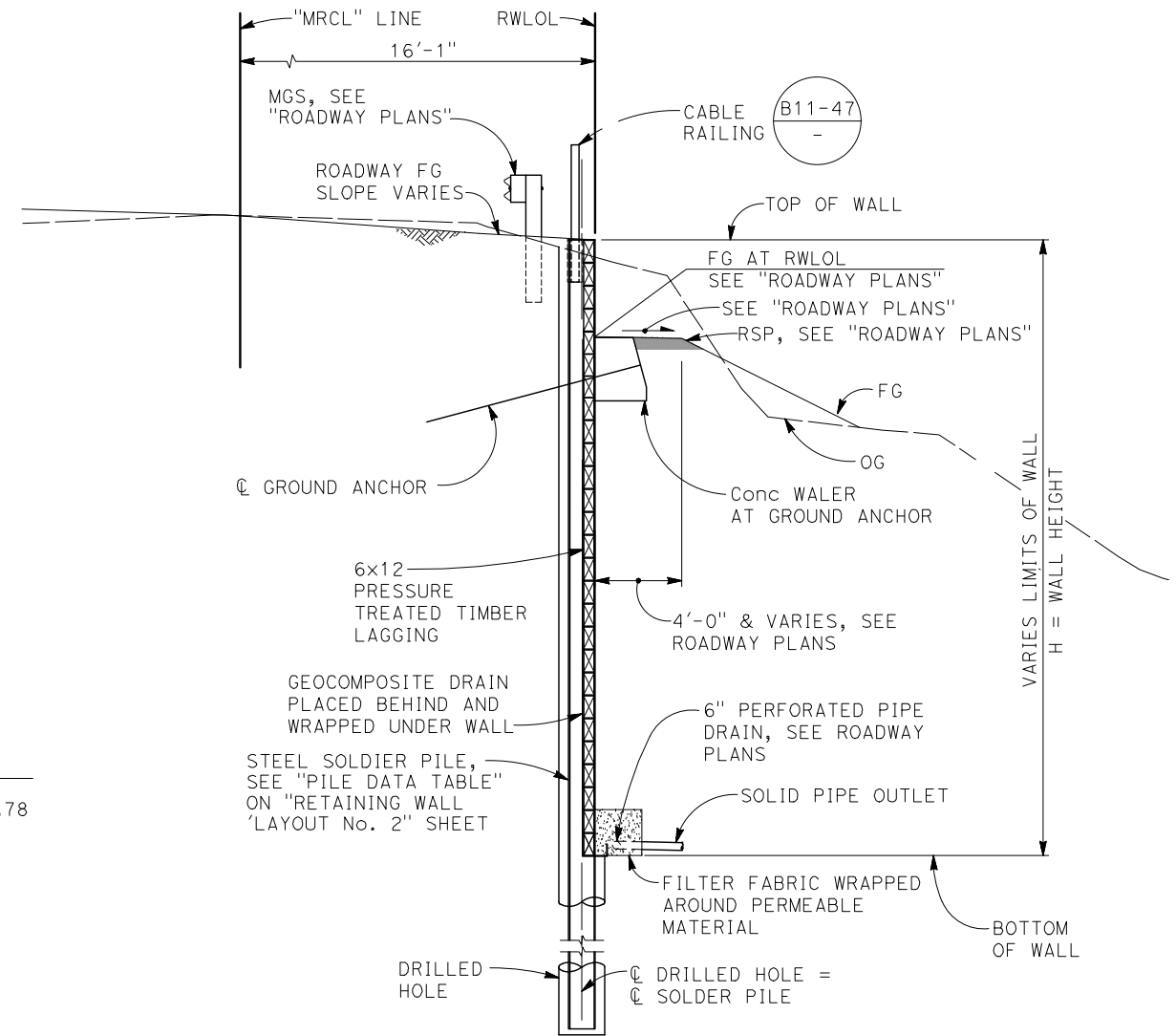
1" = 10'



NOTES:

- Top of wall elevations shown are based on "ROADWAY PLANS". Verify elevations with "ROADWAY PLANS" prior to construction.
- See "ROADWAY PLANS" for right-of-way, utility, drainage, roadway and layout information not noted.
- "MRCL" Line layout information shown is for informational purposes only, see "ROADWAY PLANS" for "MRCL" Line.
- 6" perforated drain pipe to be 3" CIR of RWLOL. Slope drain at Min 2%.
- Maximum distance between cable railing turnbuckles shall be 40'-0"±.

CURVE TABLE						
CURVE #	BC TANGENT BEARING	RADIUS	DELTA	TANGENT	LENGTH	EC TANGENT BEARING
1	S64°27'26" W	191.08'	6°41'55"	11.18'	22.34'	S 57°45'31" W



SOLDIER PILE WALL TYPICAL SECTION

1/4" = 1'-0"



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	ROAD NO.: F3C010			
	MILE POST: 11.73-11.76	DESIGNED BY: LEL	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76	
	PROJECT NO.: ER-40A0(059)	DRAWN BY: AR		
	CONTRACT NO.: 219212	REVIEWED BY: AWR	STRUCTURAL GENERAL NOTES & ABBREVIATIONS	
	PLOT DATE: 2/20/2025	APPROVED BY: GJT		

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: AASHTO LRFD Bridge Design Specifications 8th Edition with
Caltrans Amendments, preface dated September 2017

Geotechnical Report by Crawford & Associates, Inc., dated April 2022

REINFORCED CONCRETE & Reinf:	ASTM Designation:	A706	
	fy =	60,000 psi	
	f'c =	3,600 psi	
STRUCTURAL STEEL:	Steel Piles	ASTM Designation:	A572/A, A572M Grade 50 Min or A992/A992M GRADE 50
	Steel Plates	ASTM Designation:	ASTM A572/A572M Grade 50
	Welded Concrete Anchors	ASTM Designation:	A108, AASHTO/AWS D1.1
	Welding	AWS D1.1	

SOIL PARAMETERS:	UNIT WEIGHT (γ)	= 125 pcf
	Active Earth Pressure	= 39H pcf
	Passive Earth Pressure	= 230Z + 3900 "INTACT" Material
	Passive Arching Capability	= 3.0
	Seismic Earth Pressure	= 17H pcf
	Max Passive Pressure	= 10,000 psf

LIVE LOAD Live Load Surcharge = 250 psf

TIMBER LAGGING: PRESSURE TREATED DOUGLAS FIR No. 1, TIMBER TO BE FULL SAWN

PRESTRESSING STEEL:

Bars - ASTM Designation: A722 Type II (150 ksi)

Strand Tendons-ASTM Designation: A416
(270 Ksi Low Relaxation steel)

FDL = Factored Design Load on Ground Anchor (kips)

FTL = Factored Test Load per anchor (Kips) = 1.0 FDL

LL = Lock-off Load (Kips) = 0.55 FDL

fpu = Minimum tensile strength of prestressing steel

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

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

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

For FDL, see "GROUND ANCHOR DATA TABLE" on
"RETAINING WALL LAYOUT No. 2" sheet

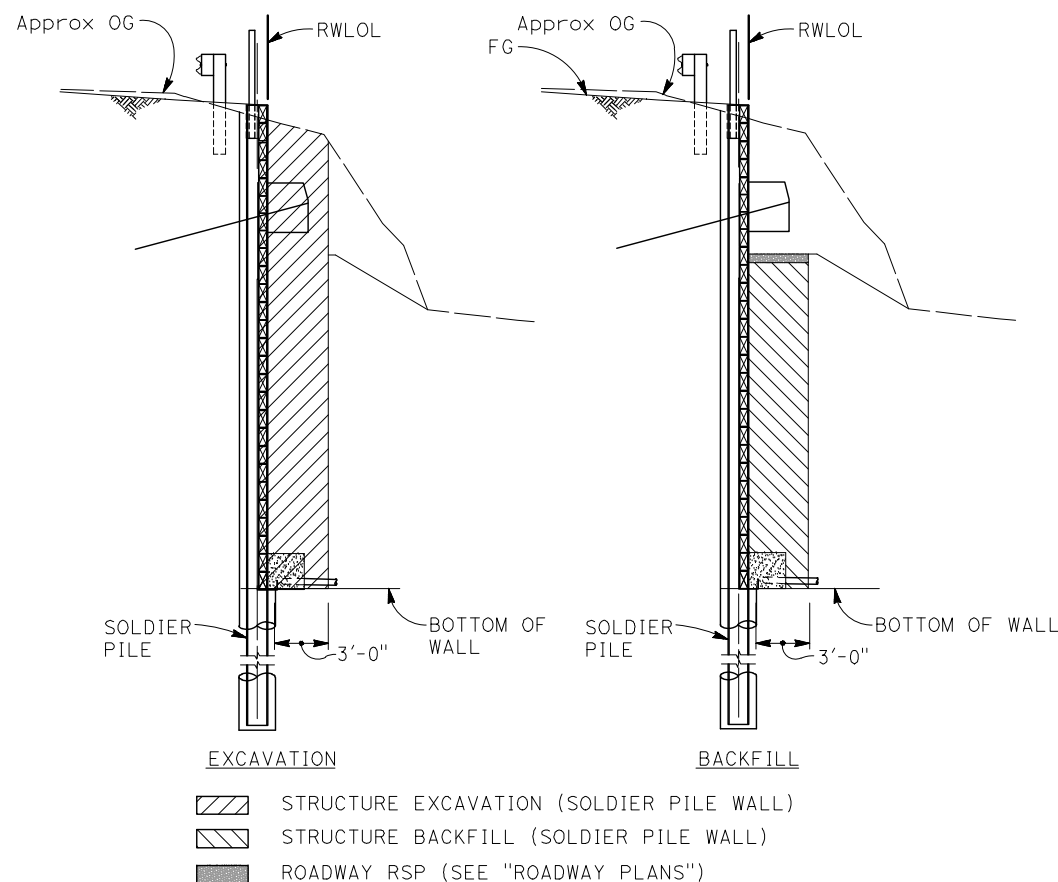
FINISH COAT ON ALL PILE SURFACES.
LIMITS OF FINISH COAT EXTENDS FROM
TOP OF PILE TO 5 FEET BELOW BOTTOM
OF LAGGING FOR SOLDIER PILE, TYP



UNDERCOAT ON ALL
PILE SURFACES, Typ

LIMITS OF CLEAN AND PAINT STEEL SOLDIER PILE

NO SCALE



LIMITS OF PAYMENT FOR STRUCTURE EXCAVATION AND BACKFILL (SOLDIER PILE WALL)

1/2" = 1'-0"

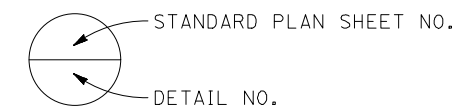
INDEX TO SOLDIER PILE WALL PLANS

SHEET NO.	TITLE
25	RETAINING WALL GENERAL PLAN
26	STRUCTURAL GENERAL NOTES & ABBREVIATIONS
27	RETAINING WALL LAYOUT No. 1
28	RETAINING WALL LAYOUT No. 2
29	SOLDIER PILE WALL DETAILS No. 1
30	SOLDIER PILE WALL DETAILS No. 2
31	SOLDIER PILE WALL DETAILS No. 3
32	GROUND ANCHOR DETAILS

2023 STANDARD PLANS

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)
B0-3	BRIDGE DETAILS
B11-47	CABLE RAILING
D102	UNDERDRAINS

LEGEND:



ABBREVIATIONS

CL	CENTER LINE
BOW	BOTTOM OF WALL
D/S	DOWN STATION
RWLOL	RETAINING WALL LAYOUT LINE
TOW	TOP OF WALL
U/S	UP STATION



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ORIGINAL DRAWING

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THIS SHEET, ADJUST
SCALES ACCORDINGLY

ROAD NAME:	MATTOLE ROAD
ROAD NO:	F30010
MILE POST:	11.73-11.76
PROJECT NO.:	ER-40A(059)
CONTRACT NO.:	219212
PLOT DATE:	2/20/2025

DESIGN SECTION	ENGINEERING
DESIGNED BY:	LEL
DRAWN BY:	SMH
REVIEWED BY:	AWR
APPROVED BY:	GJT

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
RETAINING WALL LAYOUT No. 1

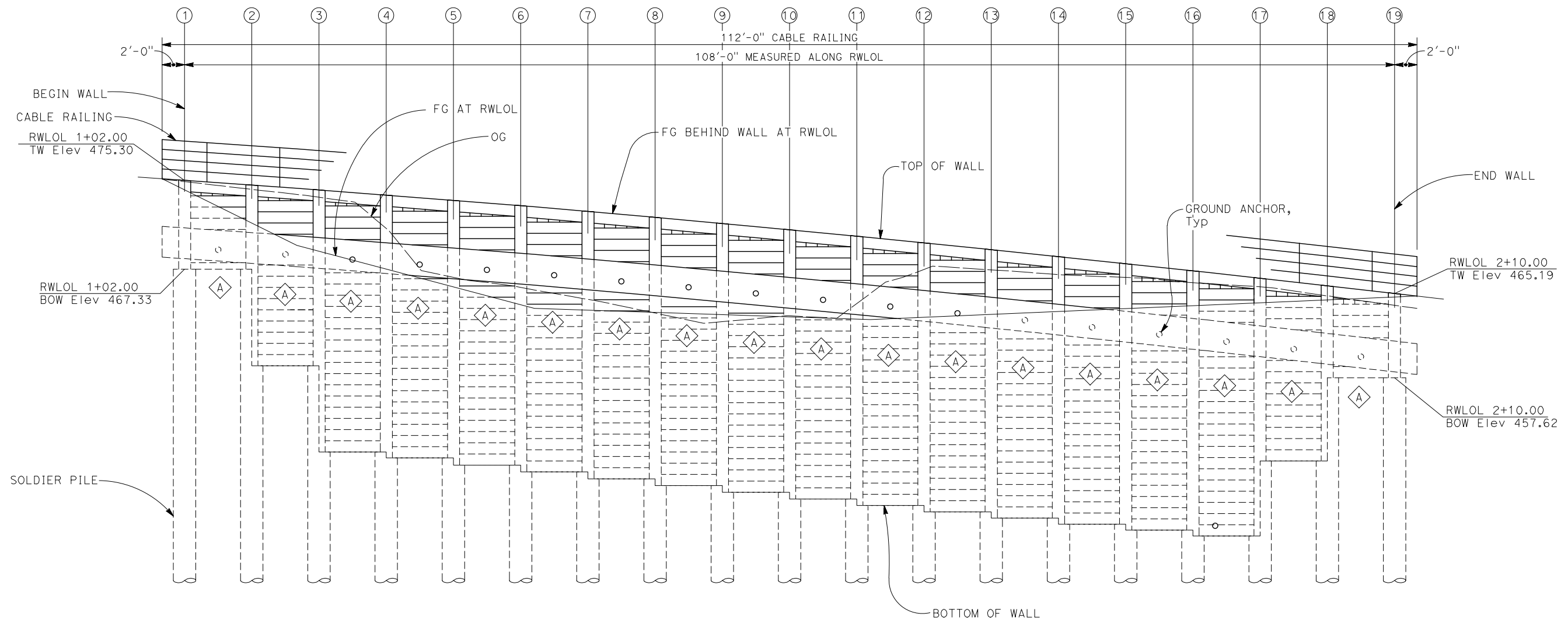
SHEET
27
OF
32

LEGEND:

- ① Indicates Soldier Pile No., see "PILE DATA TABLE" on "RETAINING WALL LAYOUT No. 2" sheet.
- ⬡ Indicates GROUND ANCHOR TYPE, SEE "GROUND ANCHOR DATA TABLE" on "RETAINING WALL LAYOUT No. 2" sheet.

NOTE:

1. Top of wall elevations shown are based on "ROADWAY PLANS", verify elevations with "ROADWAY PLANS" prior to construction.



DEVELOPED ELEVATION-PILE LAYOUT

1" = 5'



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ROAD NAME: MATTOLE ROAD	DESIGN SECTION ENGINEERING
ROAD NO: F3C010	DESIGNED BY: LEL
MILE POST: 11.73-11.76	DRAWN BY: SMH
PROJECT NO.: ER-40A(059)	REVIEWED BY: AWR
CONTRACT NO.: 219212	APPROVED BY: GJT
PLOT DATE: 2/20/2025	

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
RETAINING WALL LAYOUT No. 2

SHEET
28
OF
32

- NOTES:
- Top of Wall elevations shown are based on "ROADWAY PLANS", verify elevations with "ROADWAY PLANS" prior to construction. Notify Engineer if top of wall elevations are higher than shown on plans.
 - Per the Geotechnical report by Crawford & Associates, Inc., dated April 2022, the ground anchor unbonded length shall extend at least 5 feet or H/5, whichever is greater (H = wall Height) beyond the "intact" material.

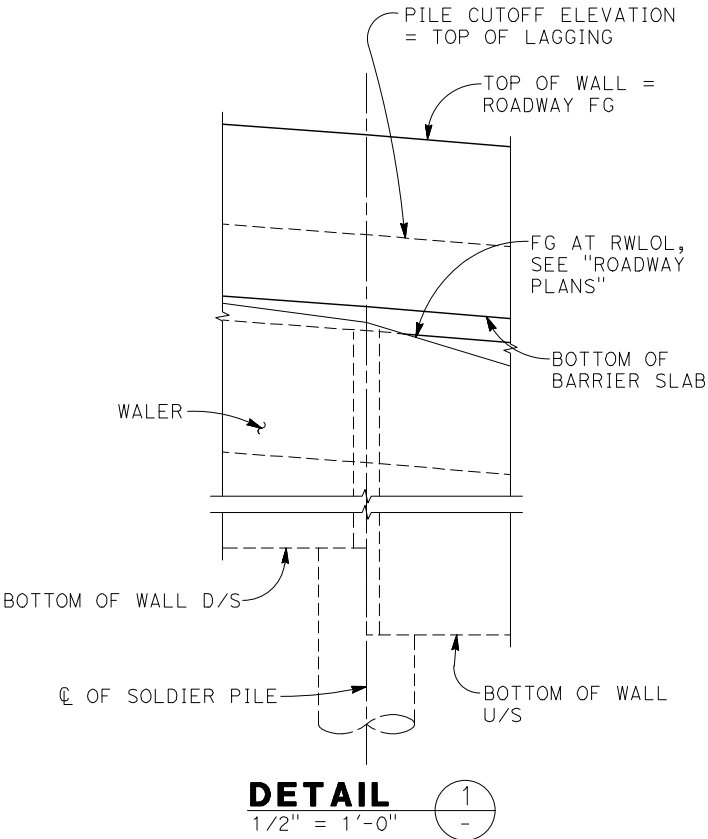
LEGEND:
① Indicates Soldier Pile No., see "PILE DATA TABLE"

PILE DATA TABLE

PILE #	RWLOL STATION (FT)	PILE SECTION (FT)	TOP OF WALL ELEVATION (FT), SEE NOTE 1	DRILLED HOLE SIZE (IN)	PILE CUTOFF ELEVATION (FT)	BOTTOM OF WALL ELEVATION (FT), SEE ①	BOTTOM OF WALL ELEVATION (FT), SEE ①	PILE LENGTH (FT)	PILE TIP ELEVATION (FT)
						D/S	U/S		
①	1+02.00	W14x61	475.30	24.00	475.30	-	467.33	48.08	427.22
②	1+08.00	W14x61	474.88	24.00	474.88	467.33	459.33	48.08	426.80
③	1+14.00	W14x61	474.45	24.00	474.45	459.33	451.33	48.08	426.37
④	1+20.00	W14x61	473.98	24.00	473.98	451.33	450.74	48.08	425.90
⑤	1+26.00	W14x61	473.51	24.00	473.51	450.74	450.14	48.08	425.43
⑥	1+32.00	W14x61	473.04	24.00	473.04	450.14	449.55	48.08	424.96
⑦	1+38.00	W14x61	472.54	24.00	472.54	449.55	448.96	48.08	424.46
⑧	1+44.00	W14x61	472.00	24.00	472.00	448.96	448.36	48.08	423.92
⑨	1+50.00	W14x61	471.44	24.00	471.44	448.36	447.77	48.08	423.36
⑩	1+56.00	W14x61	470.87	24.00	470.87	447.77	447.18	48.08	422.79
⑪	1+62.00	W14x61	470.30	24.00	470.30	447.18	446.59	48.08	422.22
⑫	1+68.00	W14x61	469.70	24.00	469.70	446.59	445.99	48.08	421.62
⑬	1+74.00	W14x61	469.10	24.00	469.10	445.99	445.40	48.08	421.02
⑭	1+80.00	W14x61	468.53	24.00	468.53	445.40	444.81	48.08	420.45
⑮	1+86.00	W14x61	467.85	24.00	467.85	444.81	444.21	48.08	419.77
⑯	1+92.00	W14x61	467.21	24.00	467.21	444.21	443.62	48.08	419.13
⑰	1+98.00	W14x61	466.56	24.00	466.56	443.62	451.62	48.08	418.48
⑱	2+04.00	W14x61	465.89	24.00	465.89	451.62	457.62	48.08	417.81
⑲	2+10.00	W14x61	465.19	24.00	465.19	457.62	-	48.08	417.11

GROUND ANCHOR DATA TABLE

GROUND ANCHOR TYPE	FACTORED DESIGN LOAD, FDL (kips)	MINIMUM UNBONDED LENGTH (FT) SEE NOTE 2
⬡	180	27'-6"



20190418.3 (20190418354)

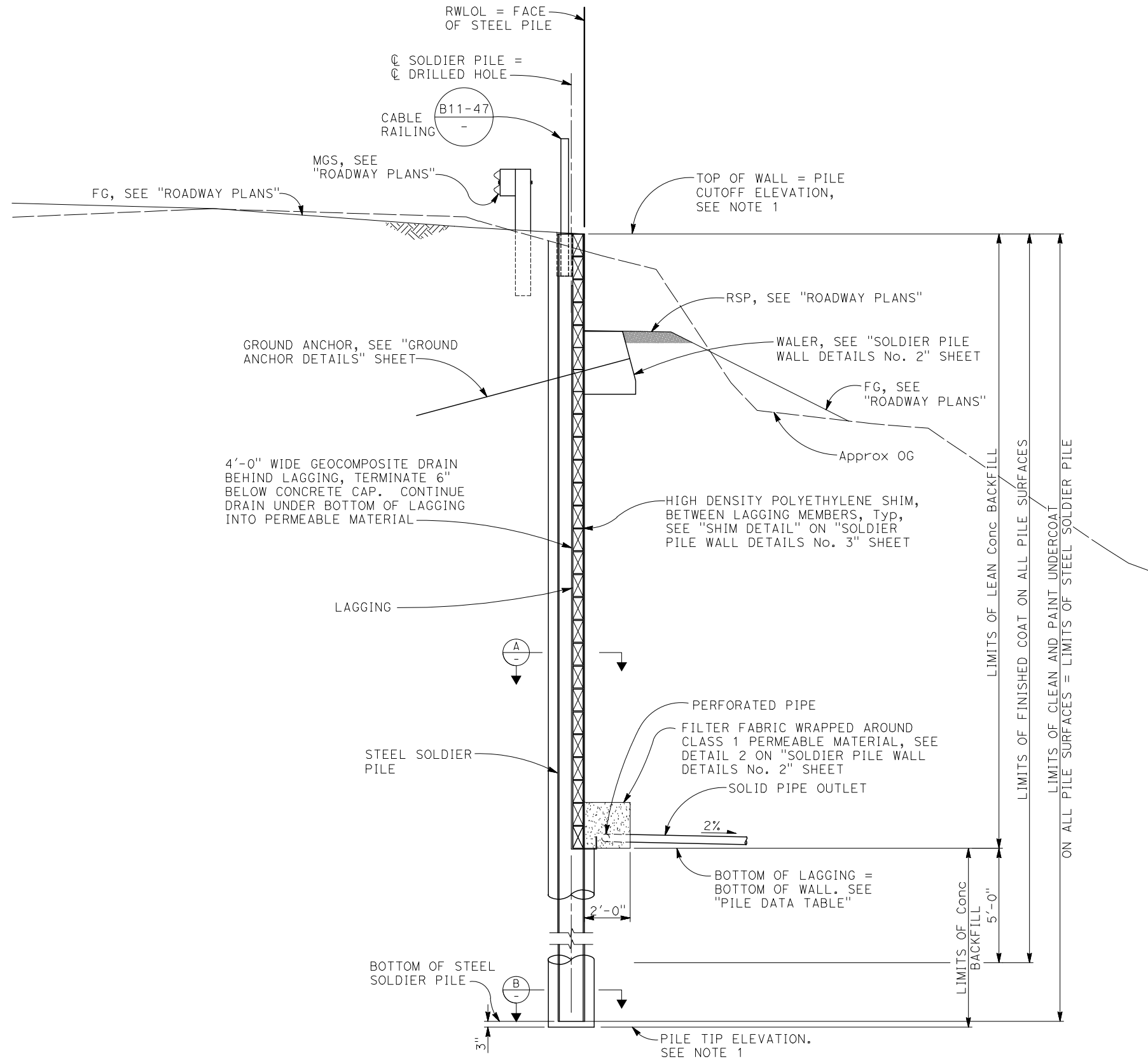


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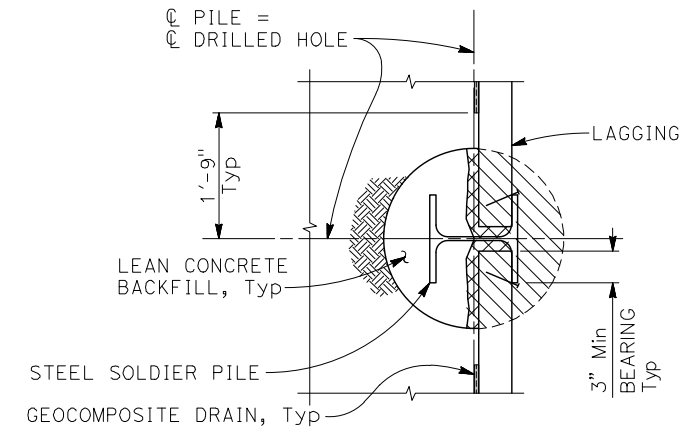
BAR IS ONE INCH ON ORIGINAL DRAWING <div></div> IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: MATTOLE ROAD	DESIGN SECTION	COUNTY OF HUMBOLDT	SHEET 29 OF 32
	ROAD NO: F3C010	ENGINEERING	DEPARTMENT OF PUBLIC WORKS	
	MILE POST: 11.73-11.76	DESIGNED BY: LEL	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76	
	PROJECT NO.: ER-40A(059)	DRAWN BY: SMH		
	CONTRACT NO.: 219212	REVIEWED BY: AWR	SOLDIER PILE WALL DETAILS No.1	
	PLOT DATE: 2/20/2025	APPROVED BY: GJT		

NOTES:

1. For "PILE DATA TABLE", see "RETAINING WALL LAYOUT No. 2" sheet.



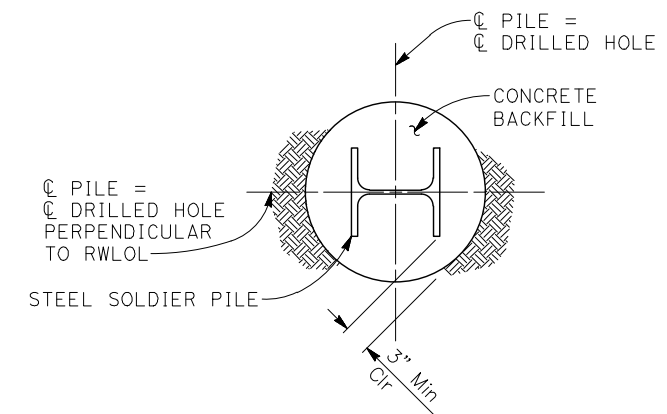
SOLDIER PILE WALL
TYPICAL SECTION
 $\frac{3}{8}" = 1'-0"$



SECTION AT LAGGING (A)

$\frac{3}{4}" = 1'-0"$

- LEAN CONCRETE TO BE CHIPPED AWAY AS REQUIRED FOR LAGGING INSTALLATION
- LIMITS OF FILL WITH STRUCTURAL BACKFILL AFTER LAGGING INSTALLATION



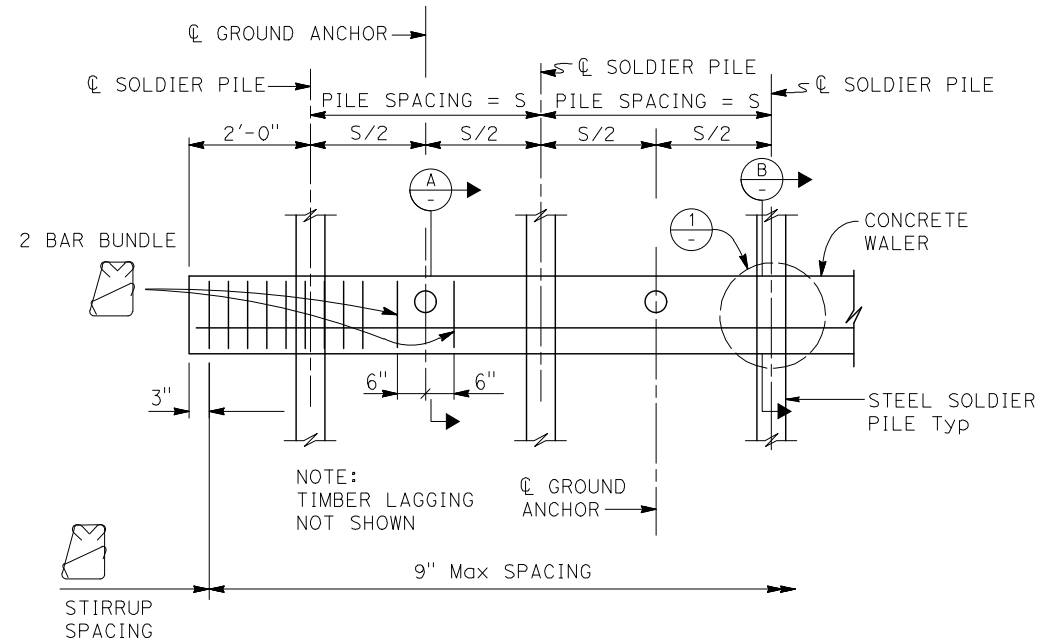
SECTION AT DRILLED HOLE (B)

$\frac{3}{4}" = 1'-0"$

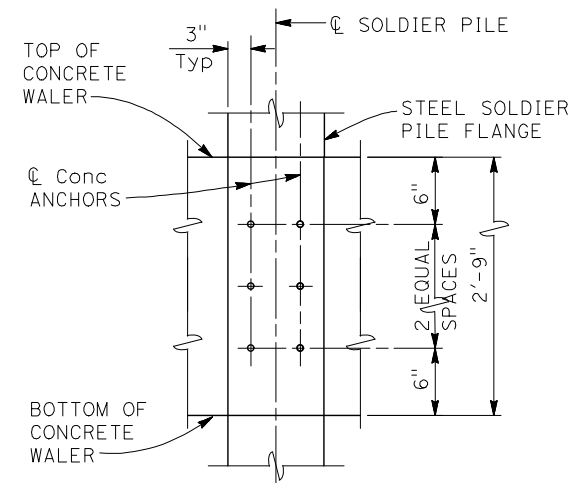


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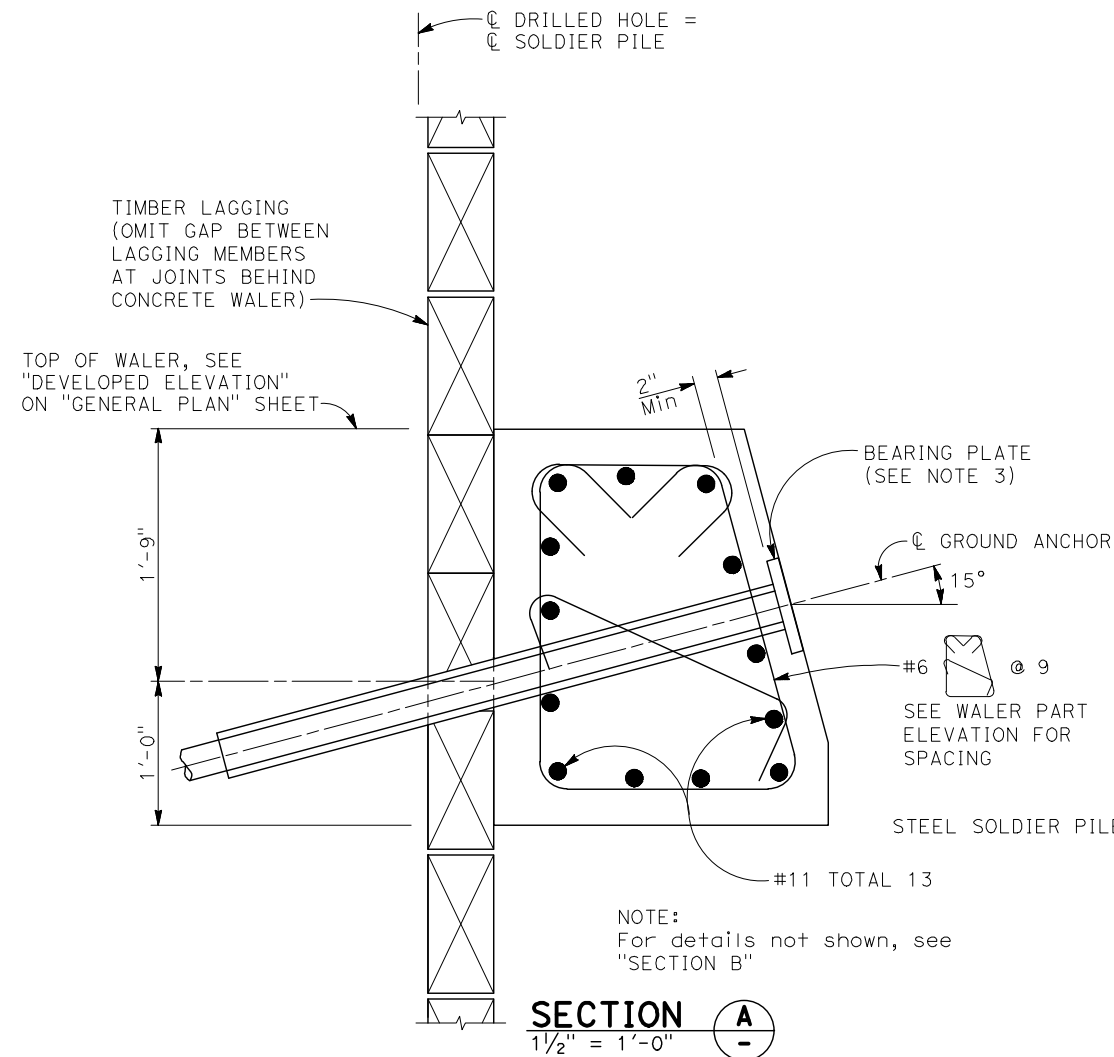
BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: MATTOLE ROAD	DESIGN SECTION	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 30 OF 32
	ROAD NO: F3C010	ENGINEERING		
	MILE POST: 11.73-11.76	DESIGNED BY: LEL	STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76	
	PROJECT NO.: ER-40A(059)	DRAWN BY: SMH		
	CONTRACT NO.: 219212	REVIEWED BY: AWR	SOLDIER PILE WALL DETAILS No. 2	
	PLOT DATE: 2/20/2025	APPROVED BY: GJT		



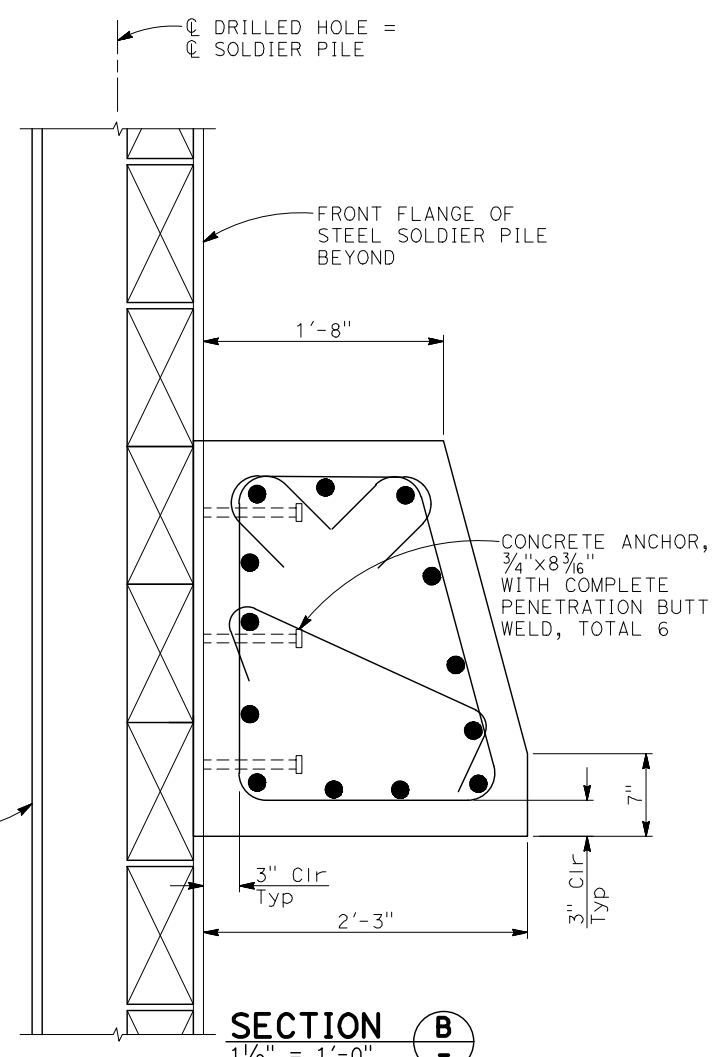
WALER PART ELEVATION
NO SCALE



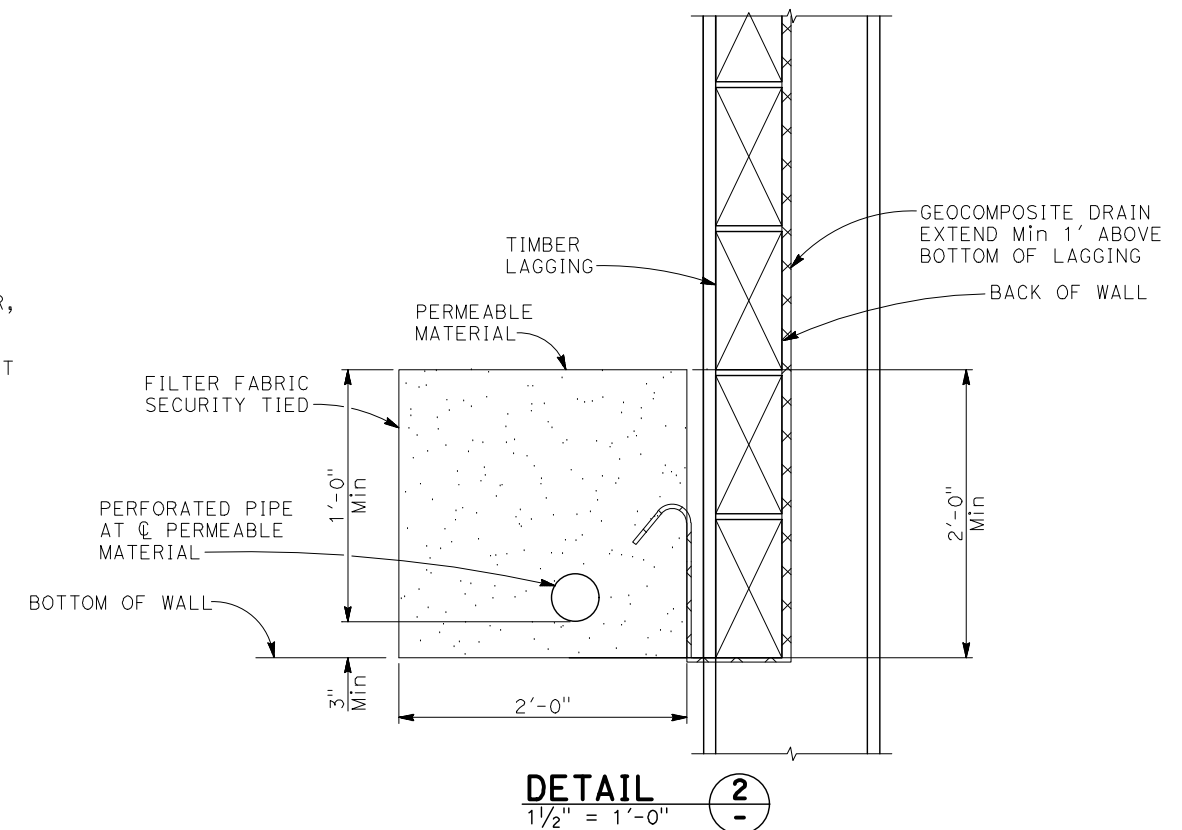
DETAIL 1
NO SCALE



SECTION A
1 1/2" = 1'-0"



SECTION B
1 1/2" = 1'-0"



DETAIL 2
1 1/2" = 1'-0"

- NOTES:
1. For concrete waler location, see "DEVELOPED ELEVATION" shown on "GENERAL PLAN" sheet.
 2. Concrete walers may be poured to face of lagging.
 3. Bearing plates may be recessed or on face of concrete waler.
 4. No clipping of timber lagging corners allowed.
 5. Use 40d Galv wire spikes for 6x12 lagging.
 6. Spikes shall not be bent.
 7. Place stirrups 1 1/2" clear of anchorage tube.



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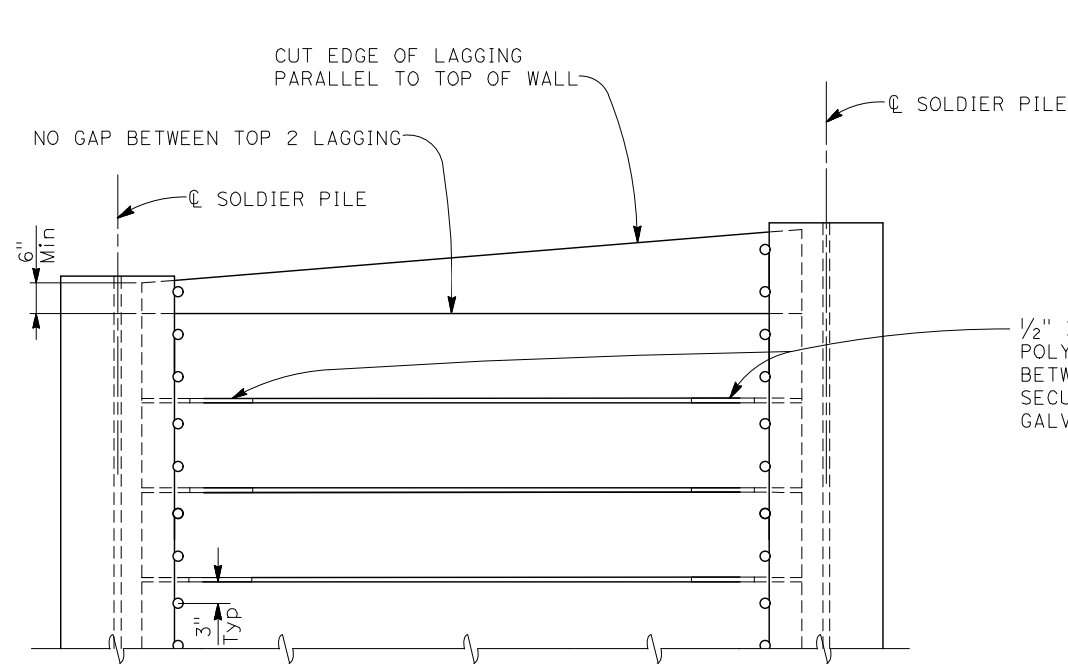
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ROAD NAME:	MATTOLE ROAD
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PLOT DATE:	2/20/2025

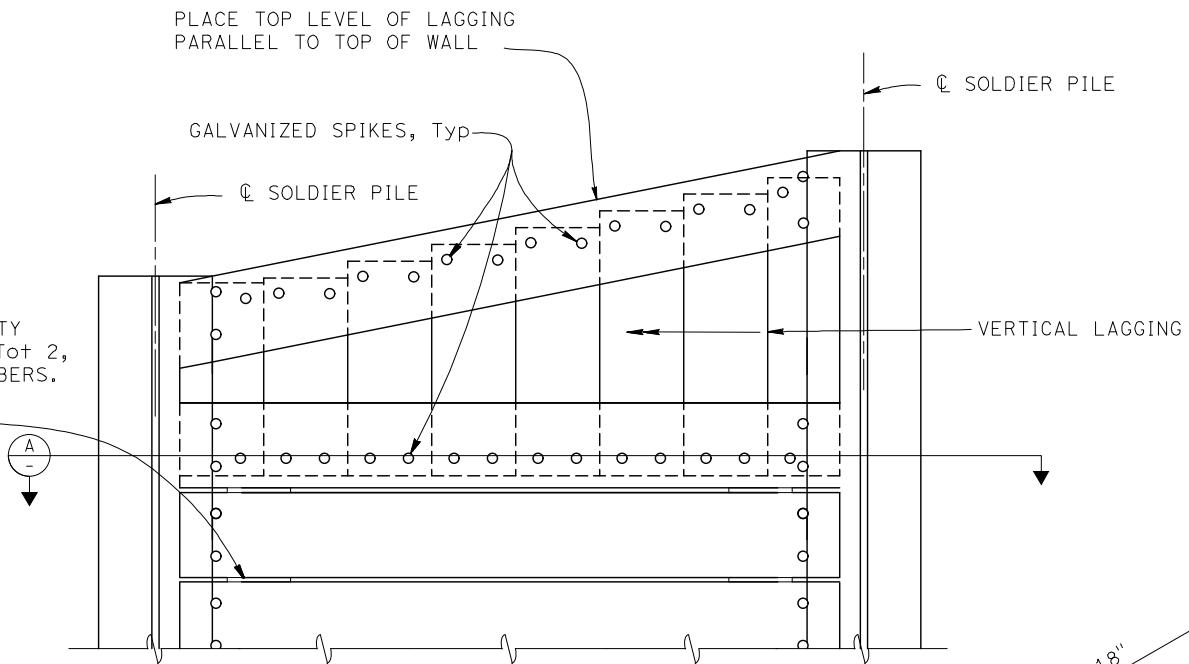
DESIGN SECTION	ENGINEERING
DESIGNED BY:	LEL
DRAWN BY:	SMH
REVIEWED BY:	AWR
APPROVED BY:	GJT

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS
STORM DAMAGE REPAIR MATTOLE ROAD PM 11.73-11.76
SOLDIER PILE WALL DETAILS No. 3

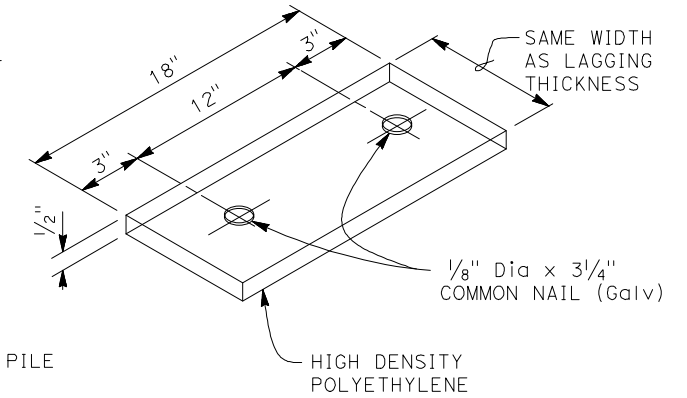
SHEET
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OF
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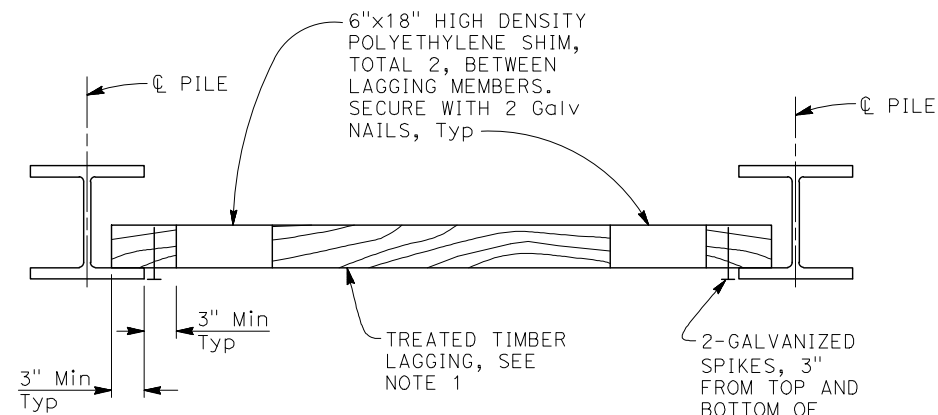
PART ELEVATION
LAGGING DETAILS (ALTERNATIVE 1)
NO SCALE



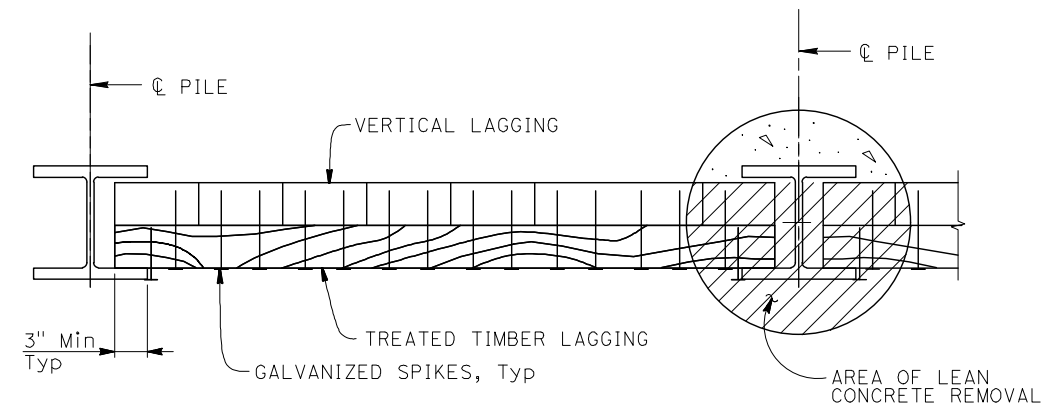
PART ELEVATION
LAGGING DETAILS (ALTERNATIVE 2)
NO SCALE



SHIM DETAIL
NO SCALE



PART PLAN
NO SCALE



SECTION A
NO SCALE

- NOTES:
1. No clipping of timber lagging corners allowed
 2. Use 16d Galv wire spikes for 4 x 12 lagging, and 40d Galv wire spikes for 6 x 12 lagging
 3. Spikes shall not be bent

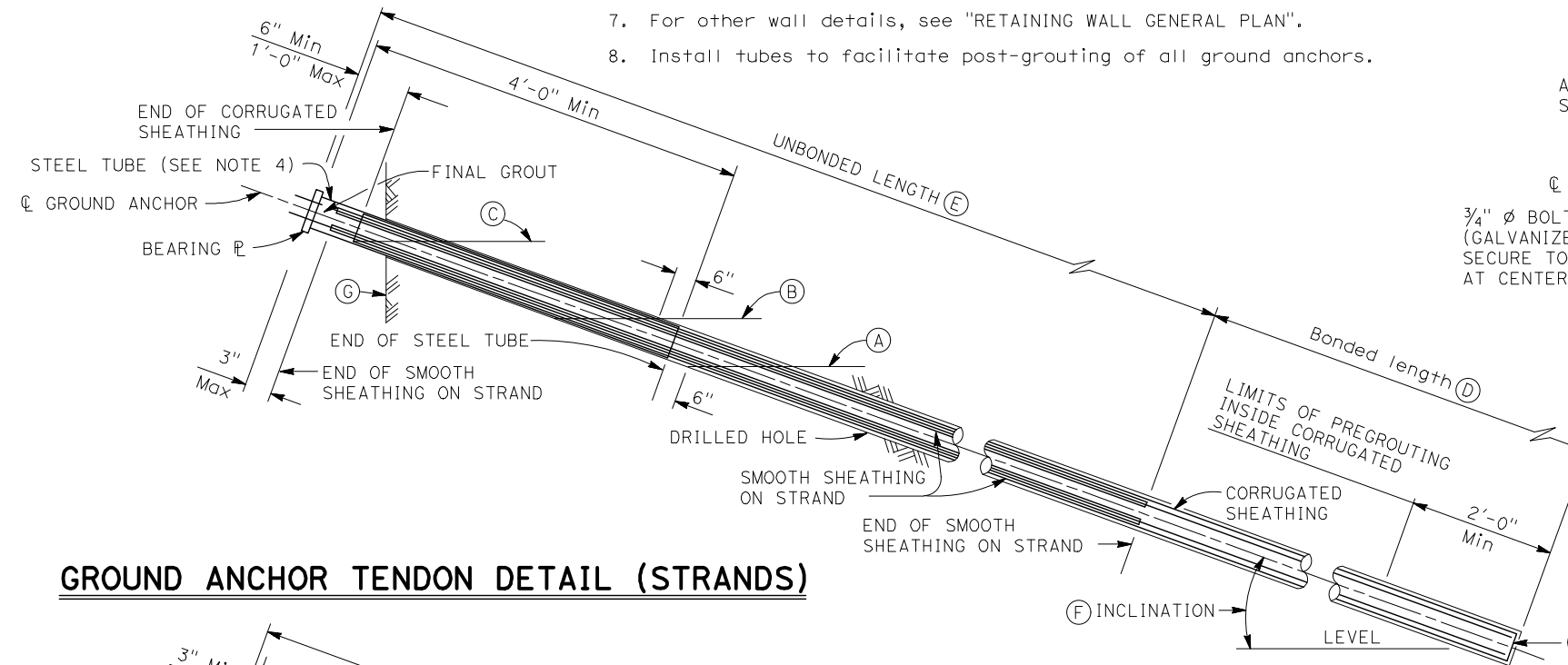
NOTE:
THE CONTRACTOR MUST VERIFY ALL
CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL

NOTES:

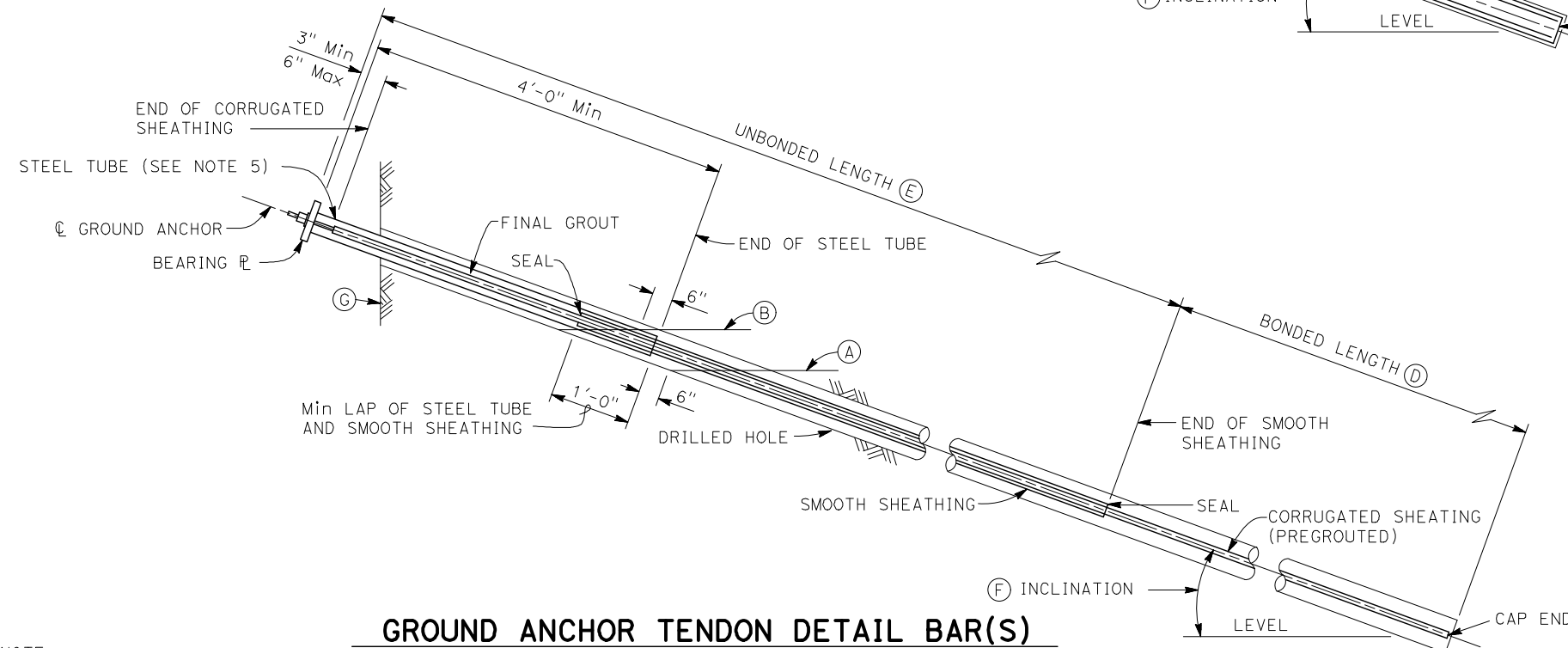
- (A) Level of initial grouting for drilled hole 6" in diameter or smaller
- (B) Level of secondary grouting
- (C) Level of initial grouting inside corrugated sheathing
- (D) Bonded length shall be determined by the contractor
- (E) For unbonded length, see "GROUND ANCHOR DATA TABLE" on "RETAINING WALL LAYOUT No. 2" sheet
- (F) For inclination, see (A) on "SOLDIER PILE WALL DETAILS No. 2" sheet
- (G) Face of Wall Excavation

NOTES:

1. Anchorage enclosure shall only be used when anchor head assembly is not enclosed in concrete.
2. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
3. Silicone sealant to cover full width of flange.
4. Steel tube (Min thickness = $\frac{1}{4}$ ") welded to bearing plate. Galvanize assembly after fabrication
5. Steel tube welded to bearing plate. Inside diameter of steel tube (Min thickness = $\frac{1}{4}$ ") to be 1" greater than outside diameter of smooth sheathing.
6. Galvanize assembly after fabrication.
7. For other wall details, see "RETAINING WALL GENERAL PLAN".
8. Install tubes to facilitate post-grouting of all ground anchors.

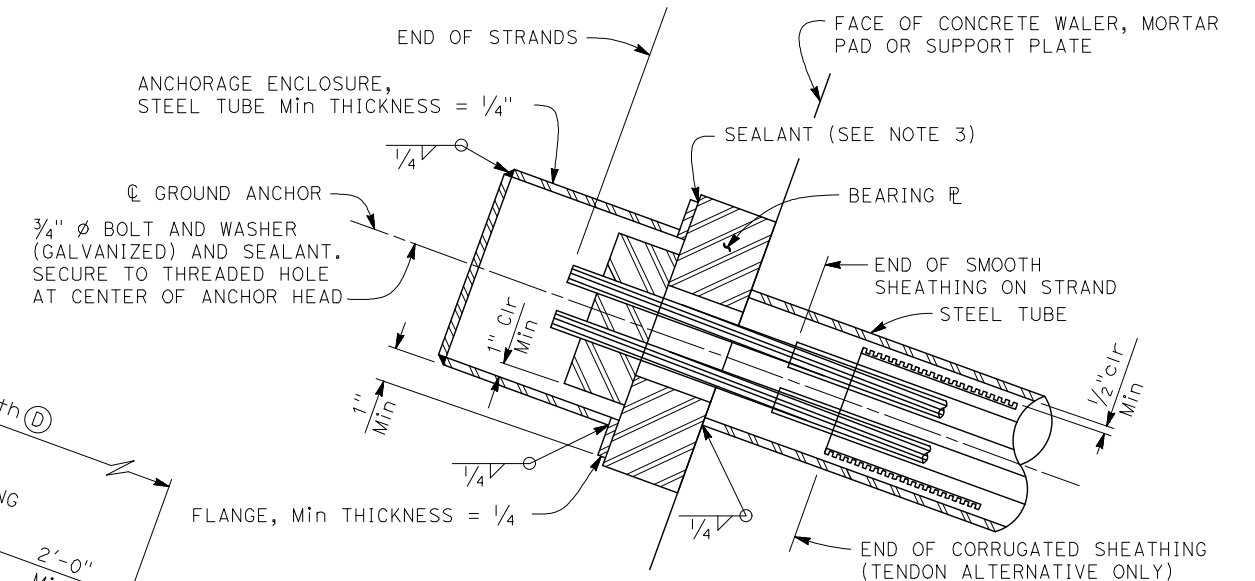


GROUND ANCHOR TENDON DETAIL (STRANDS)

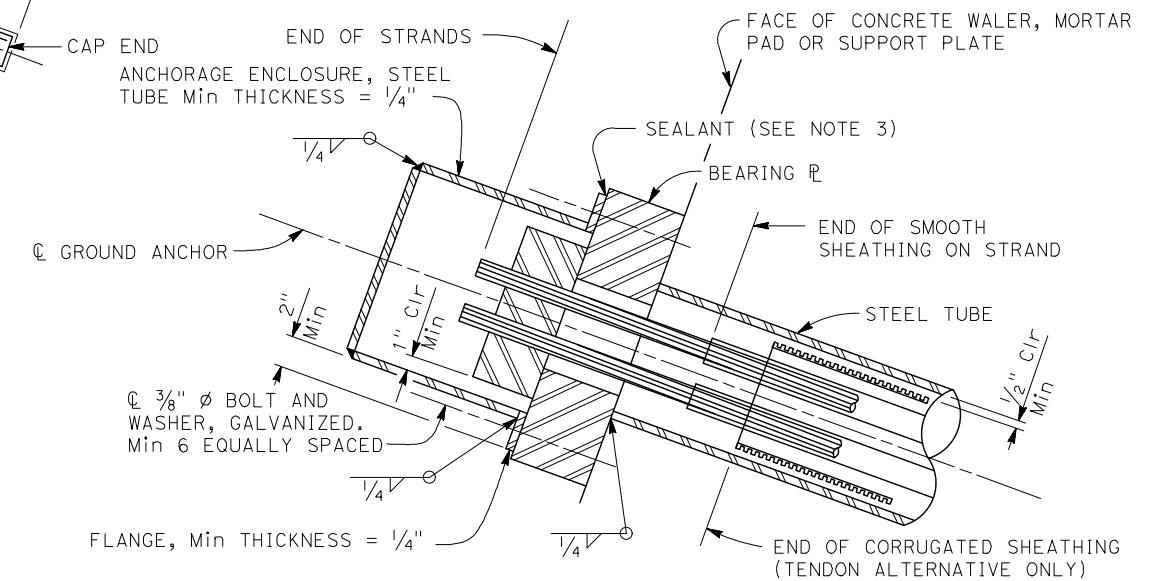


GROUND ANCHOR TENDON DETAIL BAR(S)

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



ALTERNATIVE X



ALTERNATIVE Y

ANCHORAGE ENCLOSURE DETAILS