

FUNDING SOURCES



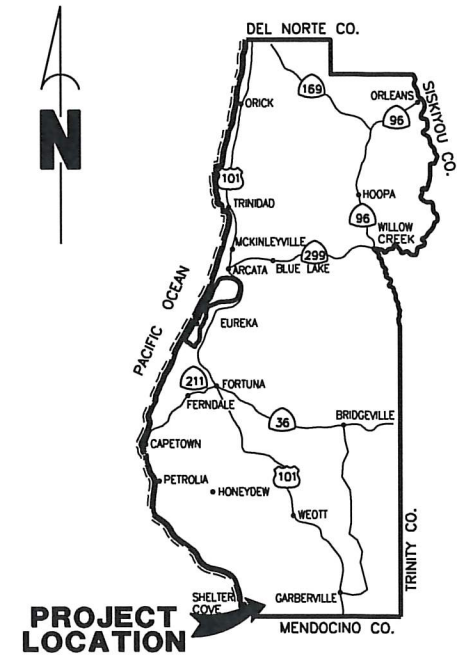
FEMA



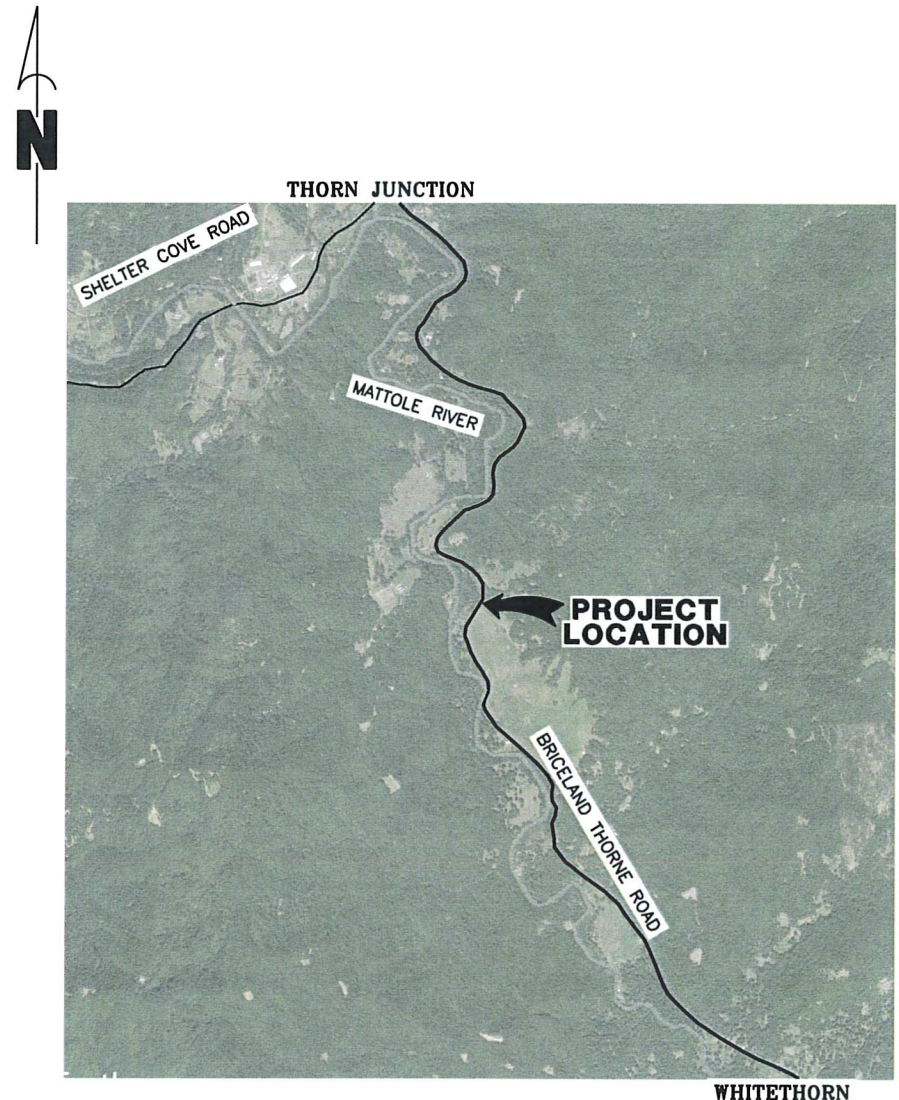
Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

ROAD NAME: BRICELAND THORNE ROAD	DESIGN SECTION: ENGINEERING	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 1 OF 9
ROAD NO: C5A010	MILE POST: 3.76	BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR	
FEMA PROJECT NO.: FEMA-4434-DR-CA PW#204	DESIGNED BY: MMS	COVER SHEET, SHEET INDEX AND MAPS	
CONTRACT NO.: 219206	DRAWN BY: MMS		
DRAWING FILE NAME: 219206 Design	REVIEWED BY: JAB		
PLOT DATE: 4/11/2022	APPROVED BY:		

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR CONSTRUCTION OF
STORM DAMAGE REPAIRS ON
BRICELAND THORNE ROAD (C5A010)
at P.M. 3.76
FEMA-4434-DR-CA PW-204
CONTRACT NO. 219206



LOCATION MAP
SCALE: 1"=10± MILE



VICINITY MAP
N.T.S.

INDEX OF SHEETS

- 1 COVER SHEET, SHEET INDEX, AND MAPS
- 2 CONSTRUCTION SIGNS & QUANTITIES
- 3 SURVEY & CONTROL
- 4 TYPICAL SECTION AND DETAILS
- 5 CULVERT PLAN AND PROFILE
- 6 ROAD PLAN AND PROFILE
- 7 EROSION CONTROL
- 8-9 SECTION VIEWS

NOTES

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

PROJECT PLANS AND SPECIAL PROVISIONS TO BE SUPPLEMENTED BY THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, STANDARD SPECIFICATIONS, AND THE LATEST REVISED 2018 STANDARD SPECIFICATIONS
(SEE APPLICABLE STAN PLAN LIST IN SPECIAL PROVISIONS)

RECOMMENDED

Jeffrey A. Ball 4-20-22
 JEFFREY A. BALL DATE
 RCE 70631, EXP. 6/30/2023



APPROVED

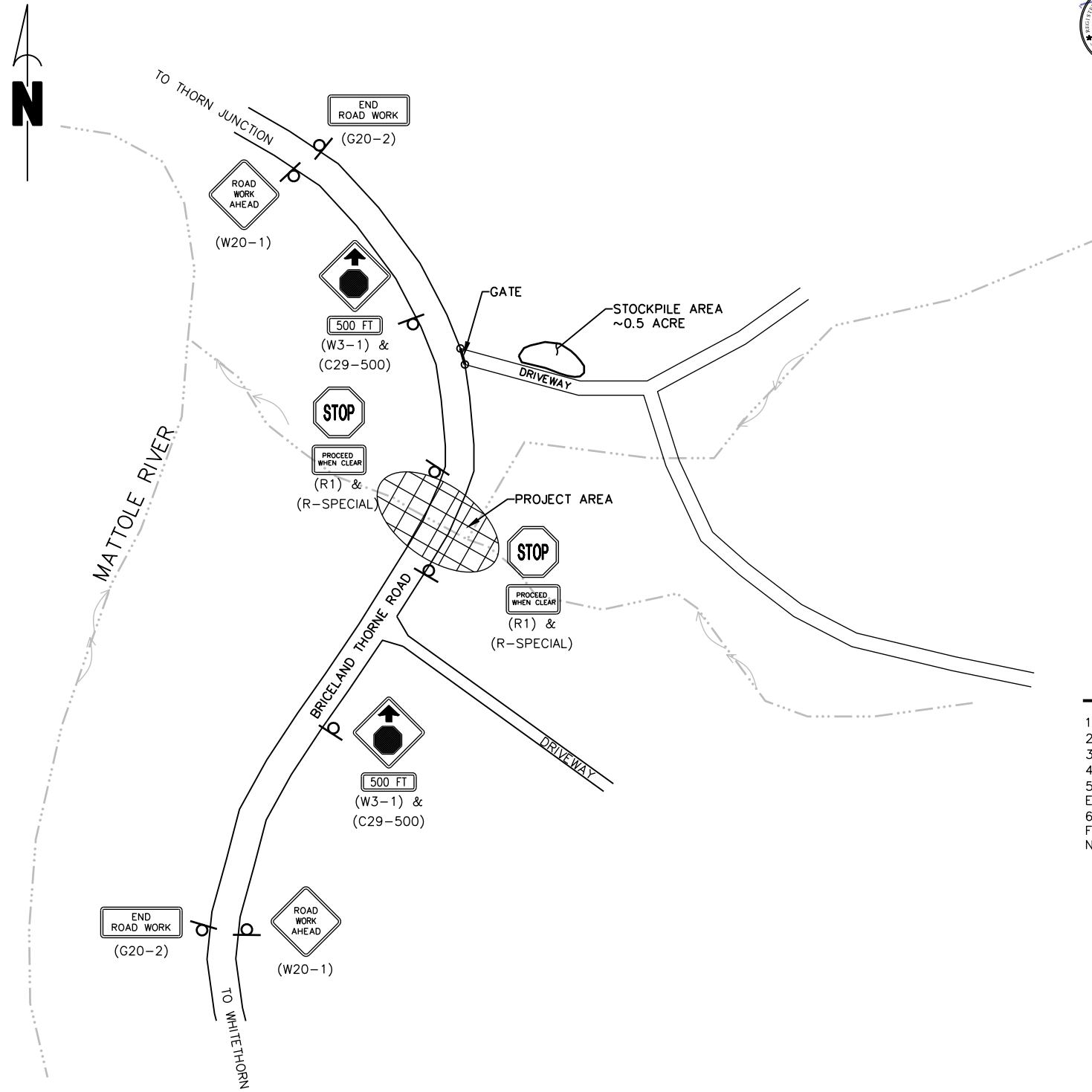
Tony R. Seghetti 4/20/22
 TONY R. SEGHETTI DATE
 RCE 63714, EXP. 9/30/2022



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



BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: BRICELAND THORNE ROAD	DESIGN SECTION: ENGINEERING	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR CONSTRUCTION SIGNS AND QUANTITIES	SHEET 2 OF 9
	ROAD NO.: C5A010	MILE POST: 3.76		
	FEMA PROJECT NO.: FEMA-4434-DR-CA PW#204	DESIGNED BY: MMS		
	CONTRACT NO.: 219206	DRAWN BY: MMS		
	DRAWING FILE NAME: 219206 Design	REVIEWED BY: JAB		
	PLOT DATE: 4/18/2022	APPROVED BY: TRS		



SIGN PLAN OVERVIEW
SCALE: 1"=300'

CONSTRUCTION AREA SIGN SUMMARY

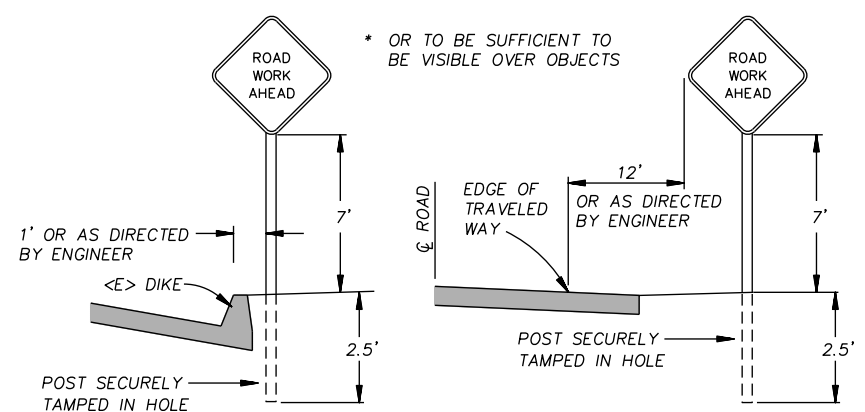
SIGN TYPE	QTY	DESCRIPTION	SIZE	REMARKS	POST SIZE	NUMBER
W20-1	2	ROAD WORK AHEAD	30" x 30"	VISIBLE AT ALL TIMES	4" x 4"	1
W3-1 & C29-500	2	STOP AHEAD	30" x 30" 20" x 7"	VISIBLE AT ALL TIMES	4 x 4	1
R1-1 R-SPECIAL	2	STOP PROCEED WHEN CLEAR	30" x 30" 30" x 15"	VISIBLE AT ALL TIMES LINE OF SIGHT	4 x 4	1
G20-2	2	END ROAD WORK	36" x 18"	VISIBLE AT ALL TIMES	4 x 4	1

QUANTITIES

ITEM NO.	ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY
1	120090	Construction Area Signs	EA	8
2	120100	Traffic Control system	LS	1
3	120089	Construct Detour (Railroad Flatcar Bridge)	LS	1
4	129000	Temporary Railing (Type K)	LF	100
5	129110	Temporary Crash Cushion (Absorb-M, MASH TL-2)	EA	4
6	130100	Job Site Management	LS	1
7	130200	Prepare Water Pollution Control Program	LS	1
8	130680	Temporary Silt Fence	LF	115
9	160102	Clearing and Grubbing	LS	1
10	192025	F Structure Excavation (Culvert & Channel)	CY	570
11	193004A	F Import Structure Backfill (Culvert)	CY	109
12	198050	Embankment	CY	271
13	210212	Dry Seed	SF	61
14	210420	Straw	SF	61
15	260301	Class 2 Aggregate Base	CY	51
16	390132	Hot Mix Asphalt (Type A)	TON	40
17	394073	Place Hot Mix Asphalt Dike (Type B)	LF	46
18	665067A	P 84" Corrugated Aluminized Steel Pipe (.168" Thick)	LF	64
19	710130	Remove Culvert	EA	1
20	723020	Rock Slope Protection (Class VIII, 1 Ton, Method A)	CY	43
21	723030	Rock Slope Protection (Class VII, 1/2 Ton, Method A)	CY	43
22	800052A	Reset Fence (Type WM, Wooden Post)	LF	50
23	840501	Thermoplastic Traffic Stripe	LF	80
24	999990	Mobilization	LS	1

NOTES

- 1) SIGNS SHALL BE PLACED AS SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
- 2) FINAL PLACEMENT OF SIGNS SHALL BE APPROVED BY RESIDENT ENGINEER.
- 3) ADDITIONAL PORTABLE SIGNS SHALL BE USED AS REQUIRED FOR OTHER ROADSIDE WORK.
- 4) SEE STANDARD PLAN T13 FOR TRAFFIC CONTROL SYSTEM.
- 5) IN ADDITION TO CONSTRUCTION AREA SIGNS AND WHEN DIRECTED BY THE RESIDENT ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGMEN AS NECESSARY TO DIRECT TRAFFIC.
- 6) KEEP A MINIMUM OF 1 TRAFFIC LANE AT LEAST 10' WIDE OPEN FOR TRAFFIC, EXCEPT THE FULL WIDTH OF THE TRAVELED WAY MUST BE OPEN WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVE OR AN APPROVED TRAFFIC CONTROL PLAN IS IN PLACE



RURAL CONSTRUCTION AREA SIGN
- NOT TO SCALE -

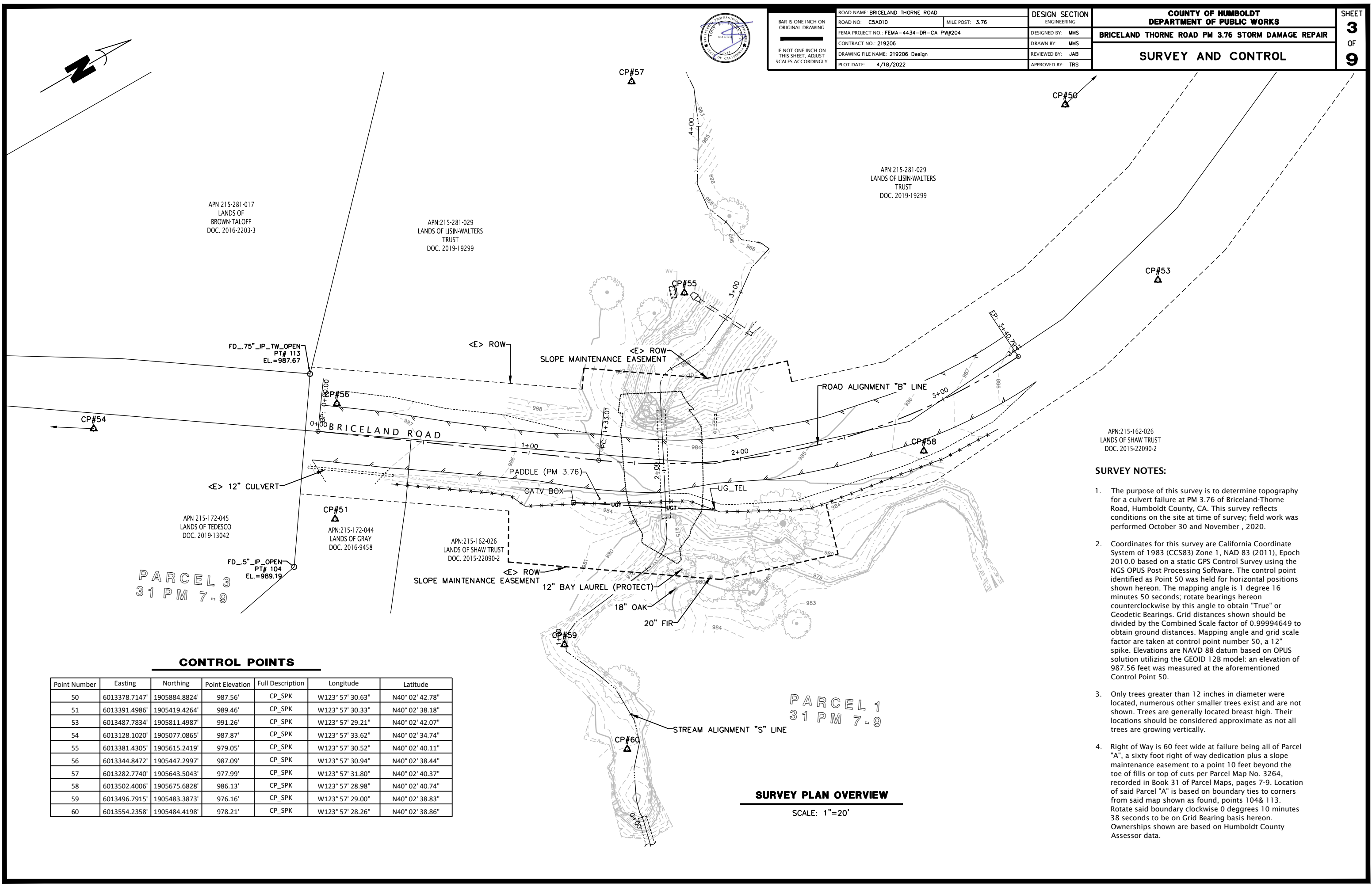
STOCKPILE NOTES

- 1) MANAGE MATERIAL PER SECTION 13-4.03C OF THE 2018 CALTRANS STANDARD SPECIFICATIONS
- 2) IF STOCKPILE AREA IS IN A TURNOUT, THE TURNOUT SHALL BE REESTABLISHED TO PRE-CONSTRUCTION CONDITIONS
- 3) STOCKPILE LOCATIONS HAVE BEEN APPROVED BY PUBLIC WORKS AS DETAILED IN THE ENVIRONMENTAL REPORT.



BAR IS ONE INCH ON ORIGINAL DRAWING	ROAD NAME: BRICELAND THORNE ROAD	DESIGN SECTION: ENGINEERING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NO.: C5A010 MILE POST: 3.76	DESIGNED BY: MMS
	FEMA PROJECT NO.: FEMA-4434-DR-CA PW#204	DRAWN BY: MMS
	CONTRACT NO.: 219206	REVIEWED BY: JAB
	DRAWING FILE NAME: 219206 Design	APPROVED BY: TRS
	PLOT DATE: 4/18/2022	

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR	SURVEY AND CONTROL	SHEET
		3
		OF
		9



APN 215-281-017
LANDS OF BROWN-TALOFF
DOC. 2016-2203-3

APN:215-281-029
LANDS OF LISIN-WALTERS TRUST
DOC. 2019-19299

APN:215-281-029
LANDS OF LISIN-WALTERS TRUST
DOC. 2019-19299

APN:215-162-026
LANDS OF SHAW TRUST
DOC. 2015-22090-2

APN 215-172-045
LANDS OF TEDESCO
DOC. 2019-13042

APN:215-172-044
LANDS OF GRAY
DOC. 2016-9458

APN:215-162-026
LANDS OF SHAW TRUST
DOC. 2015-22090-2

PARCEL 3
31 PM 7-9

PARCEL 1
31 PM 7-9

CONTROL POINTS

Point Number	Easting	Northing	Point Elevation	Full Description	Longitude	Latitude
50	6013378.7147'	1905884.8824'	987.56'	CP_SPK	W123° 57' 30.63"	N40° 02' 42.78"
51	6013391.4986'	1905419.4264'	989.46'	CP_SPK	W123° 57' 30.33"	N40° 02' 38.18"
53	6013487.7834'	1905811.4987'	991.26'	CP_SPK	W123° 57' 29.21"	N40° 02' 42.07"
54	6013128.1020'	1905077.0865'	987.87'	CP_SPK	W123° 57' 33.62"	N40° 02' 34.74"
55	6013381.4305'	1905615.2419'	979.05'	CP_SPK	W123° 57' 30.52"	N40° 02' 40.11"
56	6013344.8472'	1905447.2997'	987.09'	CP_SPK	W123° 57' 30.94"	N40° 02' 38.44"
57	6013282.7740'	1905643.5043'	977.99'	CP_SPK	W123° 57' 31.80"	N40° 02' 40.37"
58	6013502.4006'	1905675.6828'	986.13'	CP_SPK	W123° 57' 28.98"	N40° 02' 40.74"
59	6013496.7915'	1905483.3873'	976.16'	CP_SPK	W123° 57' 29.00"	N40° 02' 38.83"
60	6013554.2358'	1905484.4198'	978.21'	CP_SPK	W123° 57' 28.26"	N40° 02' 38.86"

SURVEY NOTES:

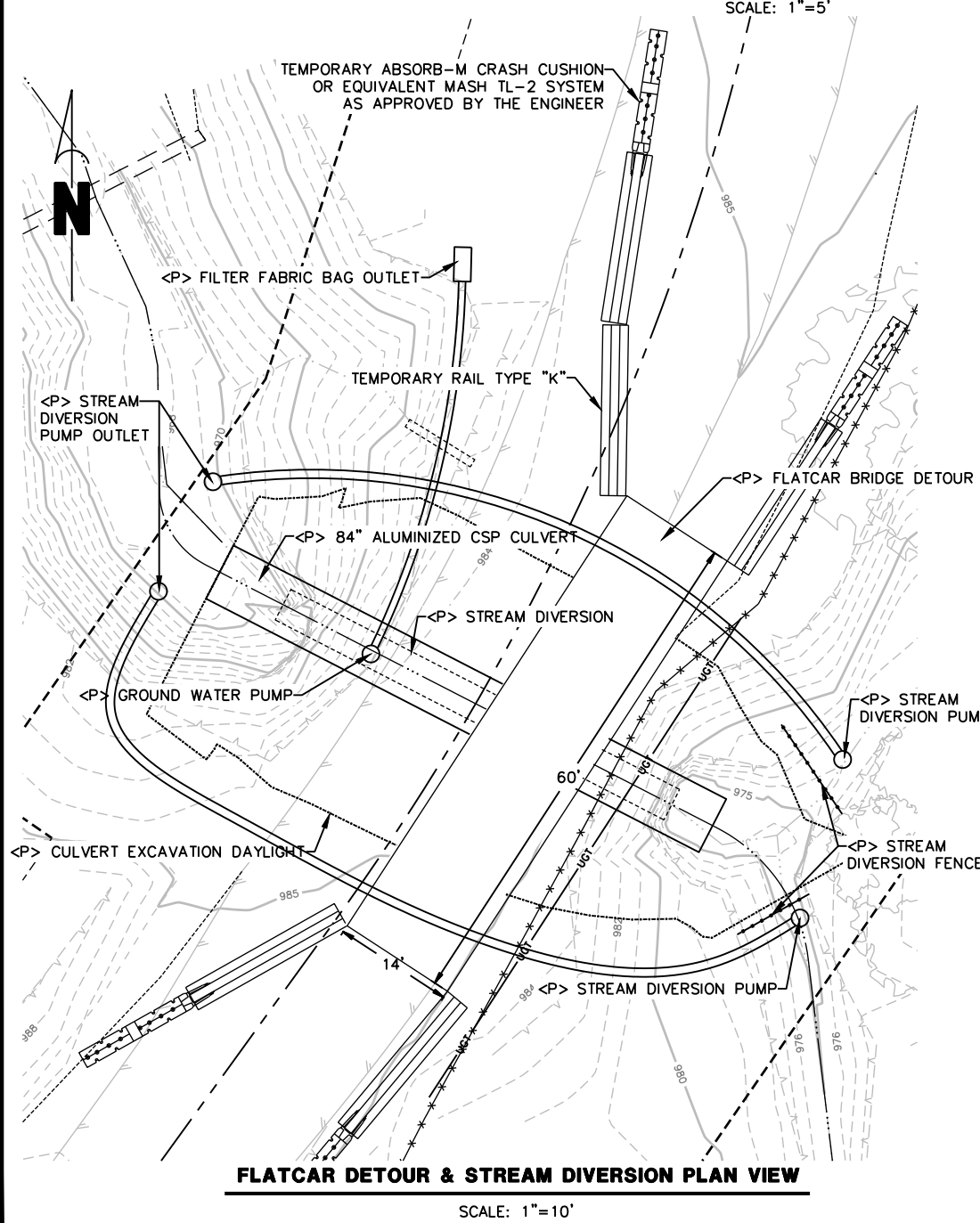
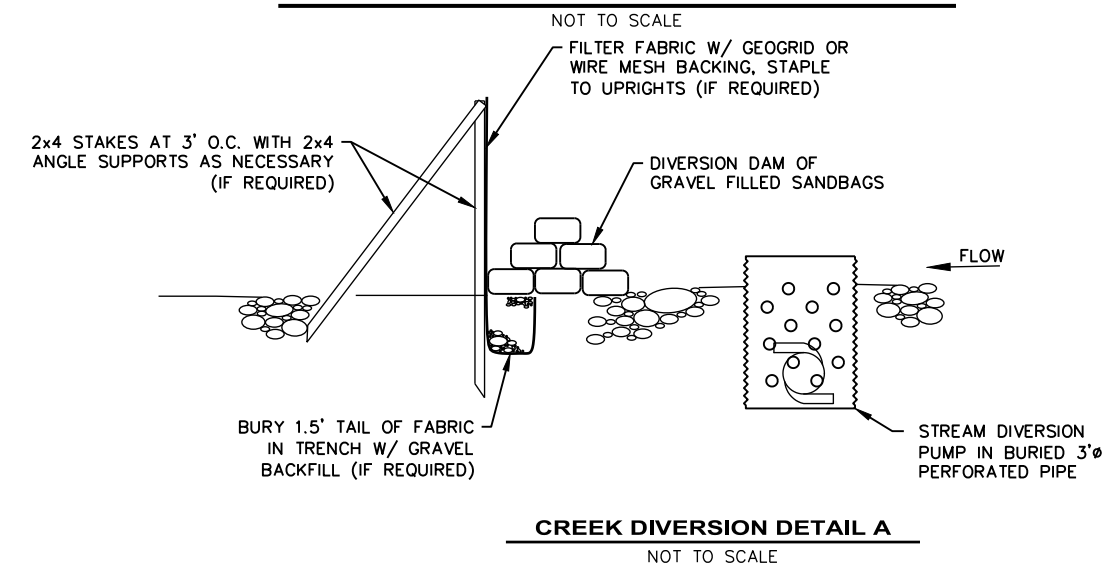
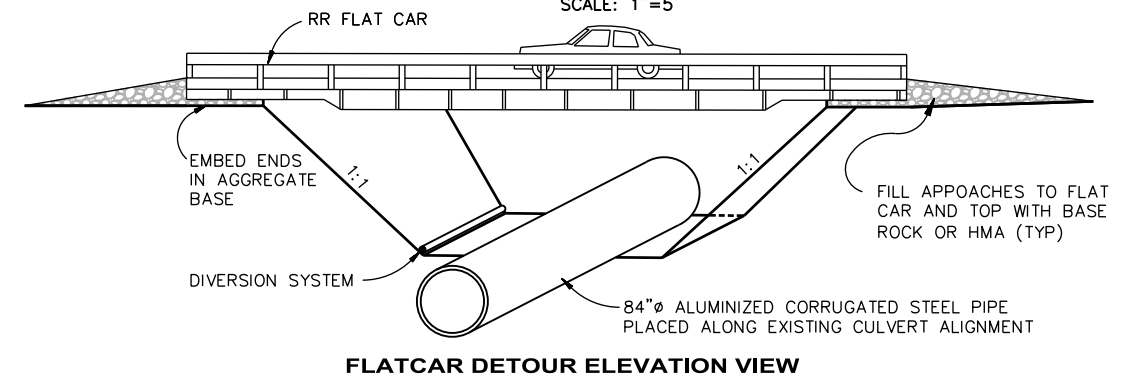
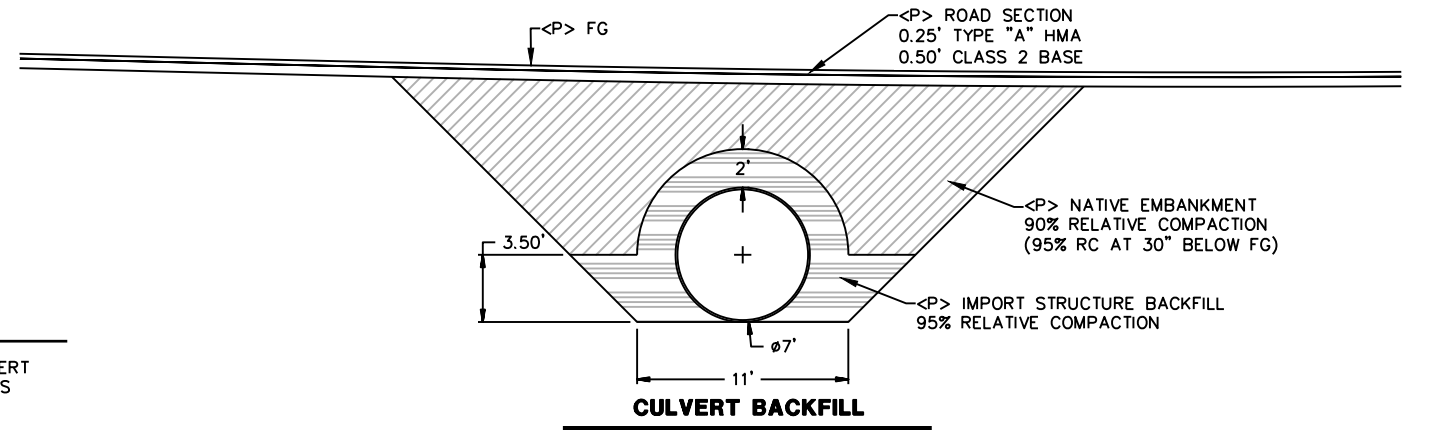
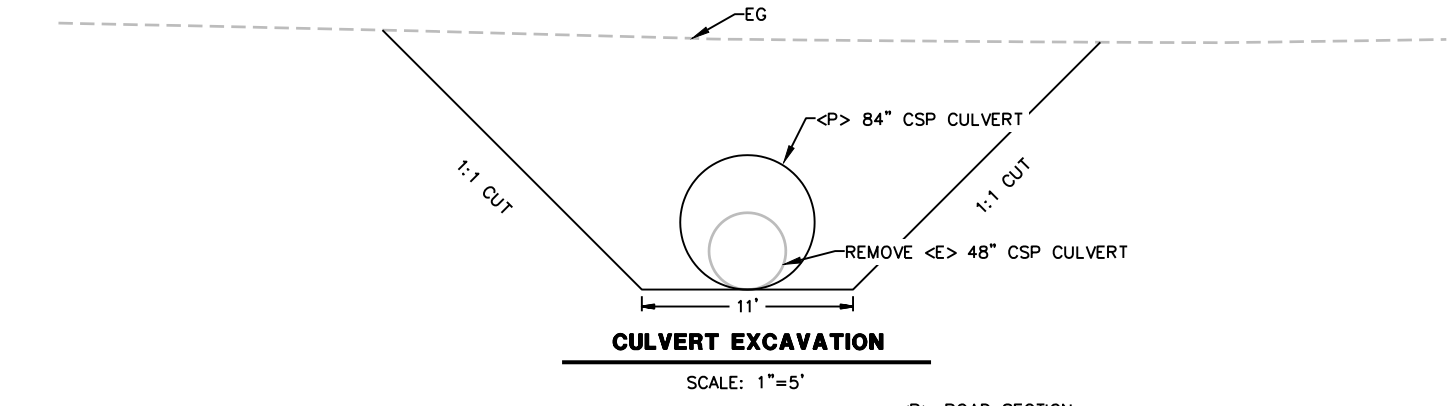
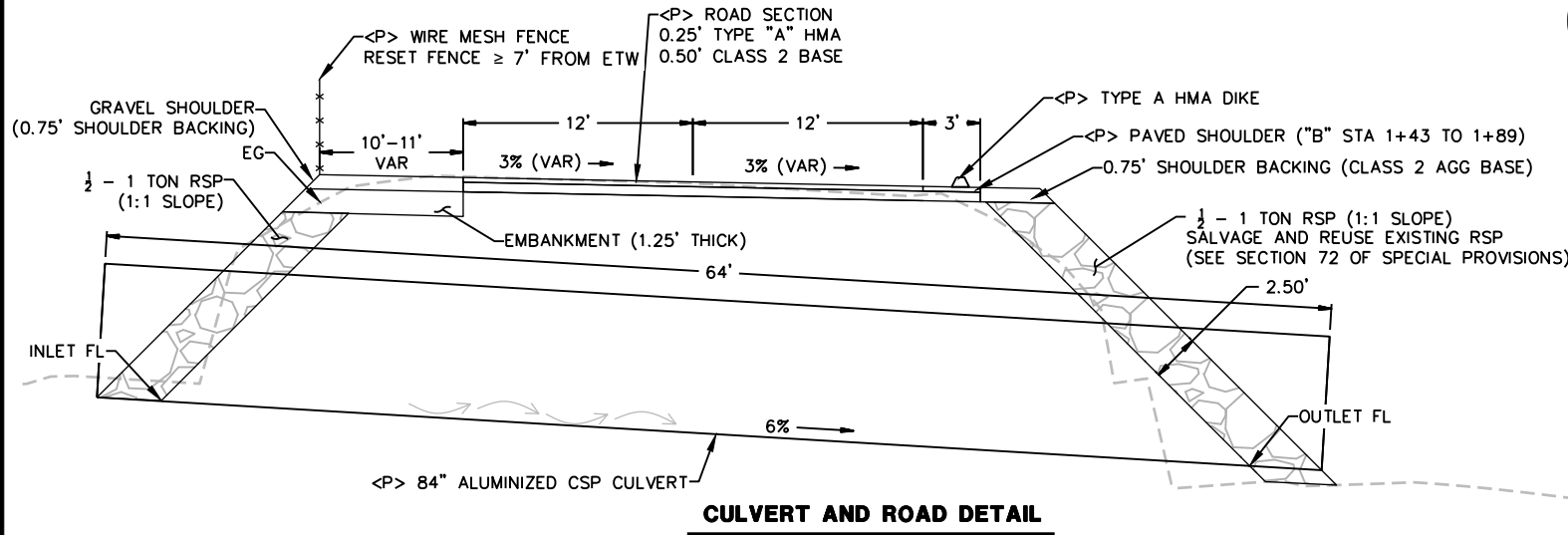
- The purpose of this survey is to determine topography for a culvert failure at PM 3.76 of Briceland-Thorne Road, Humboldt County, CA. This survey reflects conditions on the site at time of survey; field work was performed October 30 and November, 2020.
- Coordinates for this survey are California Coordinate 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 16 minutes 50 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 0.99994649 to obtain ground distances. Mapping angle and grid scale factor are taken at control point number 50, a 12" spike. Elevations are NAVD 88 datum based on OPUS solution utilizing the GEOID 12B model: an elevation of 987.56 feet was measured at the aforementioned Control Point 50.
- Only trees greater than 12 inches in diameter were located, numerous other smaller trees exist and are not shown. Trees are generally located breast high. Their locations should be considered approximate as not all trees are growing vertically.
- Right of Way is 60 feet wide at failure being all of Parcel "A", a sixty foot right of way dedication plus a slope maintenance easement to a point 10 feet beyond the toe of fills or top of cuts per Parcel Map No. 3264, recorded in Book 31 of Parcel Maps, pages 7-9. Location of said Parcel "A" is based on boundary ties to corners from said map shown as found, points 104 & 113. Rotate said boundary clockwise 0 degrees 10 minutes 38 seconds to be on Grid Bearing basis hereon. Ownerships shown are based on Humboldt County Assessor data.

SURVEY PLAN OVERVIEW

SCALE: 1"=20'



BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: BRICELAND THORNE ROAD	DESIGN SECTION: ENGINEERING	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR TYPICAL SECTIONS AND DETAILS	SHEET 4 OF 9	
	ROAD NO.: C5A010	MILE POST: 3.76			DESIGNED BY: MMS
	FEMA PROJECT NO.: FEMA-4434-DR-CA PW#204				DRAWN BY: MMS
	CONTRACT NO.: 219206				REVIEWED BY: JAB
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	PLOT DATE: 4/18/2022				



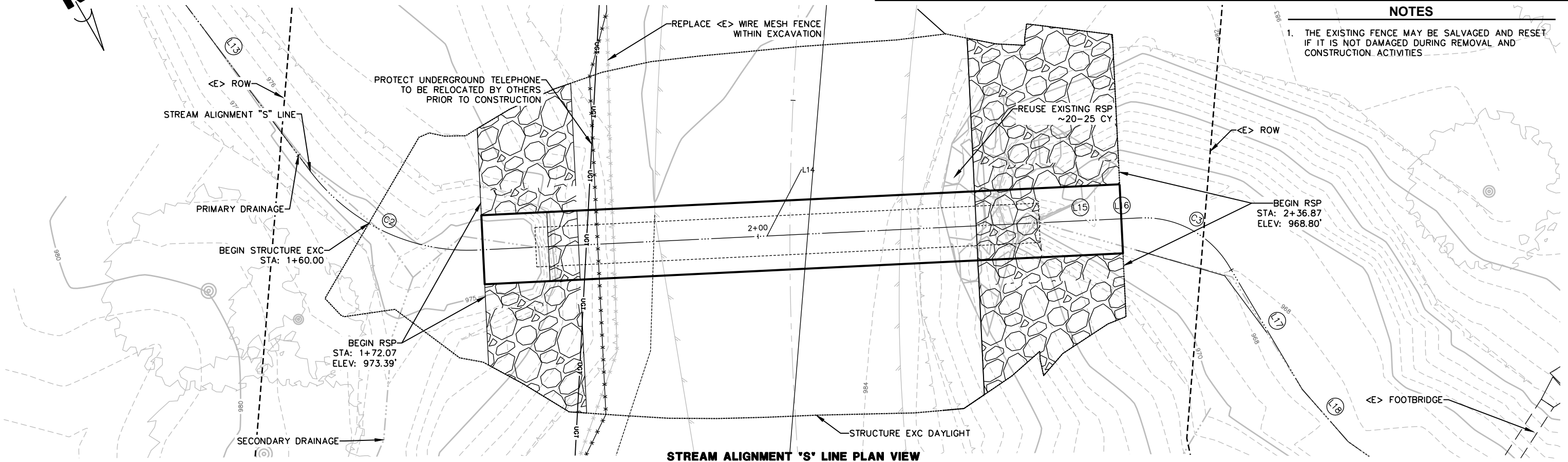
- STREAM DIVERSION NOTES**
1. THE PUMP WILL RUN 24/7 AS NEEDED TO DIVERT STREAM FLOW THROUGH THE SITE USING A GAS GENERATOR OR SIMILAR DEVICE.
 2. PLACE GENERATOR IN A CONTAINMENT STRUCTURE AND HAVE SECONDARY CONTAINMENT STRUCTURE FOR FUELING.
 3. PLACE STREAM DIVERSION INLET PUMP IN A 3' DIAMETER PERFORATED PIPE, 40 GALLON BUCKET, OR SIMILAR STRUCTURE WITH HOLES TO CAPTURE STREAM FLOW AND GROUND WATER. THIS WILL DIVERT SURFACE AND SUBSURFACE FLOW. A SAND-BAG COFFER DAM WILL BE BUILT AROUND STREAM INLET PUMP TO ENSURE ALL WATER IS ADEQUATELY PUMPED FROM ACTIVE WORK SITE.
 4. DISCHARGE THE STREAM DIVERSION OUTLET DOWNSTREAM OF EXCAVATION LIMITS INTO A DISSIPATION/FILTER SYSTEM THAT MINIMIZES EROSION OR SCOUR.
 5. THE WORK SITE GROUNDWATER PUMP MUST DISCHARGE ACCUMULATED GROUNDWATER AND WATERS THAT ARE TURBID DUE TO CONSTRUCTION ACTIVITIES IN AN AREA THAT IS HEAVILY VEGETATED EMBANKMENT, OR IN THE ROADSIDE DITCH THAT DRAINS BACK INTO CREEK, OR IN A FILTER FABRIC BAG.
 6. ADEQUATE FILTRATION AT THE SYSTEM OUTLETS MUST BE PROVIDED FOR TURBID WATER DUE TO CONSTRUCTION ACTIVITIES.
 7. ALTERNATE STREAM DIVERSION SYSTEMS, INCLUDING GRAVITY WILL BE CONSIDERED, BUT MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
 8. CONTRACTOR RESPONSIBLE FOR PIPE SIZING THAT IS ADEQUATE FOR STREAM FLOWS DURING CONSTRUCTION.
 9. PAYMENT FOR STREAM DIVERSION (IF NECESSARY) IS PART OF THE JOB SITE MANAGEMENT BID ITEM FOR DE-WATERING THE SITE



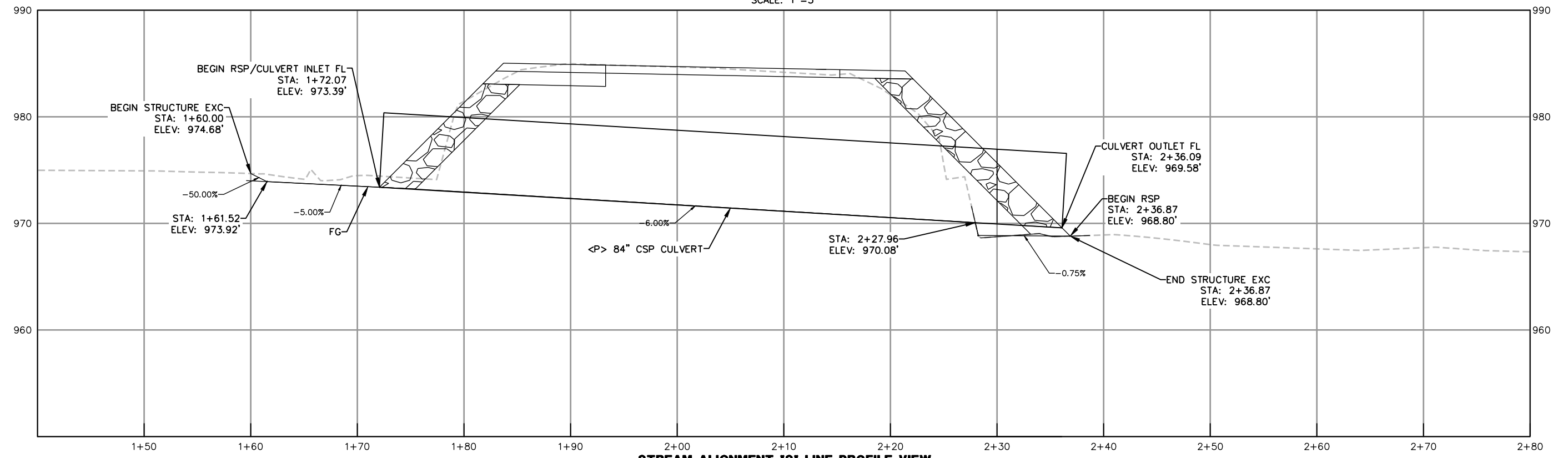
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR	SHEET 5 OF 9
	CULVERT PLAN AND PROFILE
	NOTES

- THE EXISTING FENCE MAY BE SALVAGED AND RESET IF IT IS NOT DAMAGED DURING REMOVAL AND CONSTRUCTION ACTIVITIES



SCALE: 1"=5'

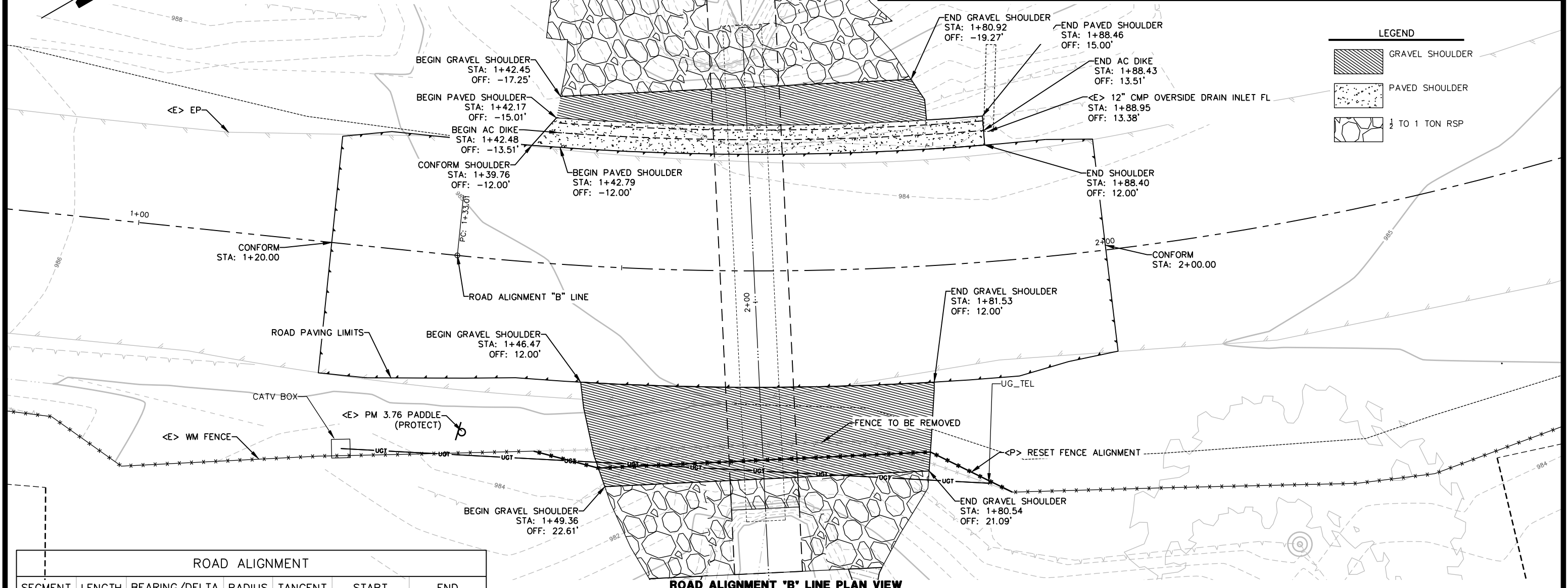


VERT: 1"=5'
HORI: 1"=5'



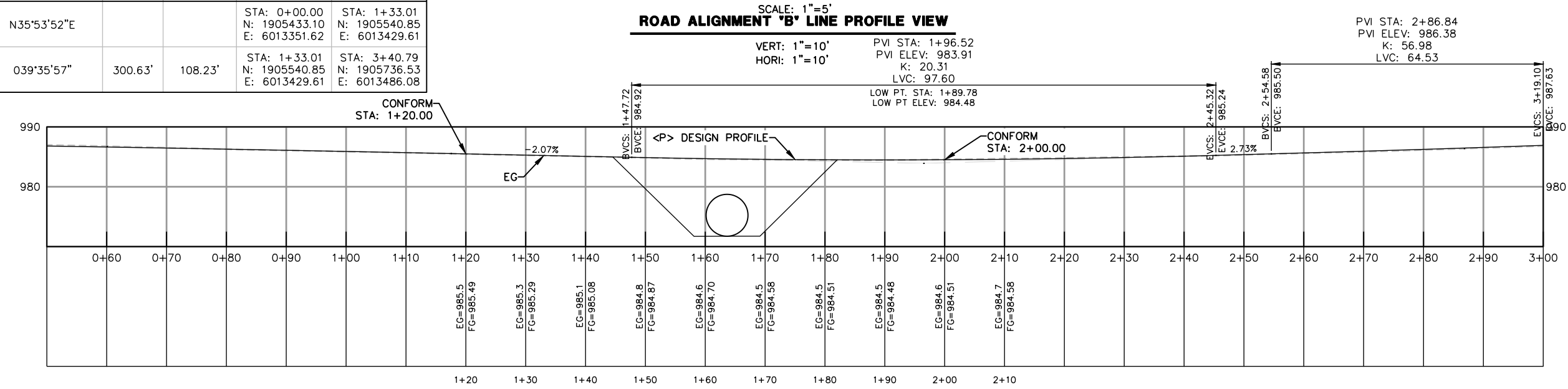
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR	SHEET 6 OF 9
ROAD PLAN AND PROFILE	



ROAD ALIGNMENT						
SEGMENT	LENGTH	BEARING/DELTA	RADIUS	TANGENT	START	END
L1	133.01'	N35°53'52"E			STA: 0+00.00 N: 1905433.10 E: 6013351.62	STA: 1+33.01 N: 1905540.85 E: 6013429.61
C1	207.78'	039°35'57"	300.63'	108.23'	STA: 1+33.01 N: 1905540.85 E: 6013429.61	STA: 3+40.79 N: 1905736.53 E: 6013486.08

ROAD ALIGNMENT 'B' LINE PROFILE VIEW
 SCALE: 1"=5'
 VERT: 1"=10'
 HORI: 1"=10'



PVI STA: 2+86.84
 PVI ELEV: 986.38
 K: 56.98
 LVC: 64.53

PVI STA: 1+96.52
 PVI ELEV: 983.91
 K: 20.31
 LVC: 97.60

LOW PT. STA: 1+89.78
 LOW PT ELEV: 984.48

BVCS: 1+47.72
BVCE: 984.92

BVCS: 2+45.32
BVCE: 985.24

BVCS: 2+54.58
BVCE: 985.50

BVCS: 3+19.10
BVCE: 987.63



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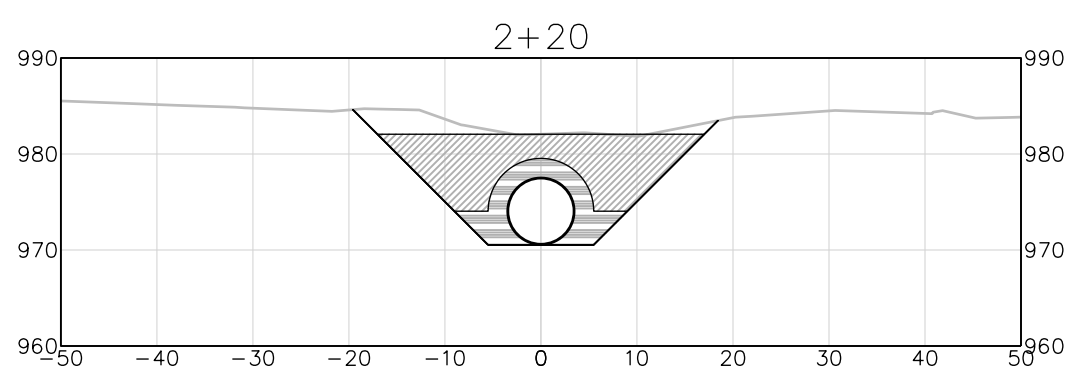
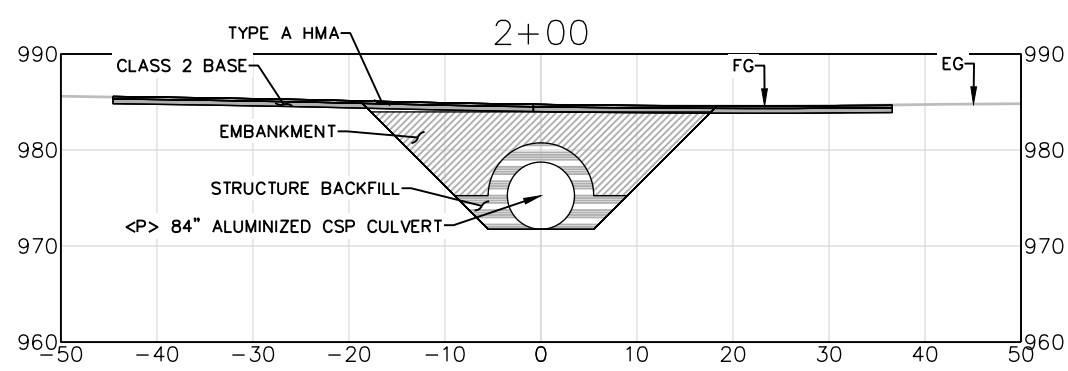
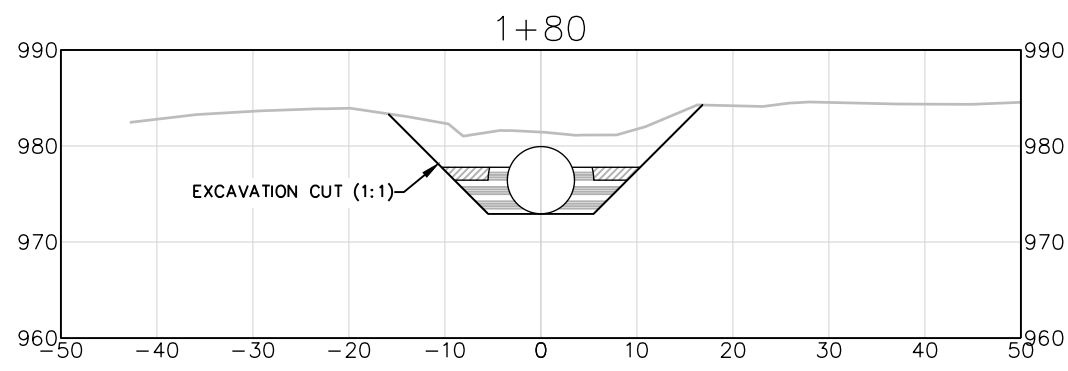
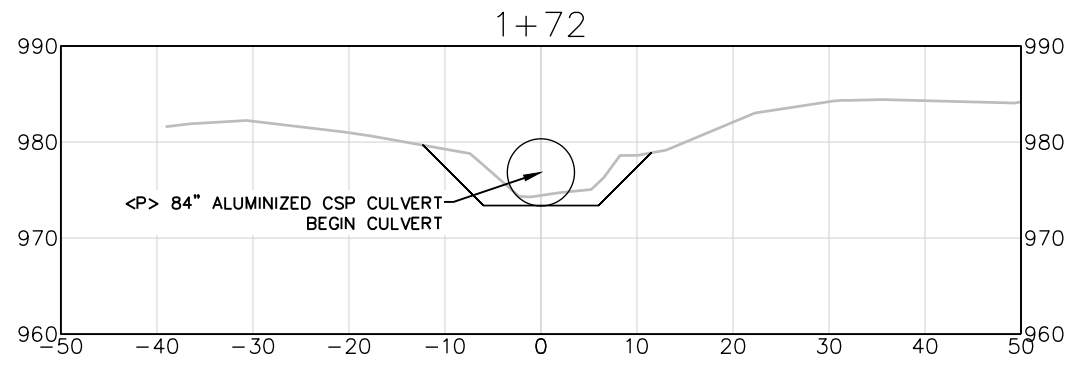
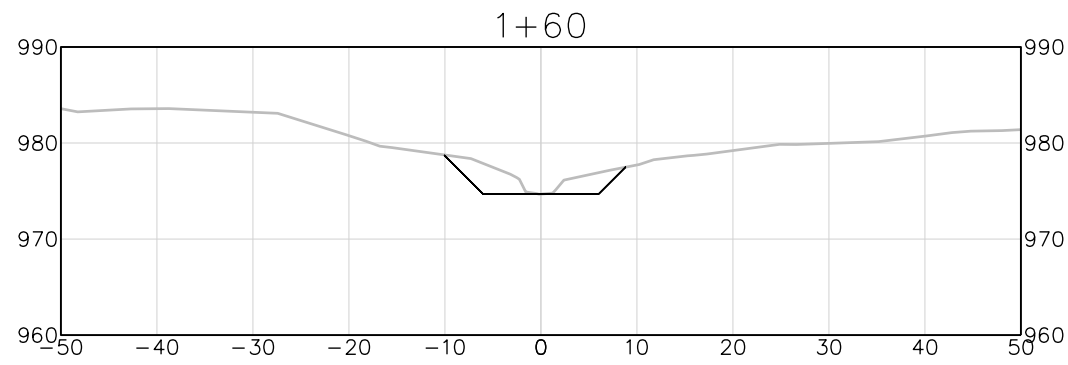
COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 7
BRICELAND THORNE ROAD PM 3.76 STORM DAMAGE REPAIR	OF 9
EROSION CONTROL	



EROSION CONTROL PLAN
SCALE: 1"=5'

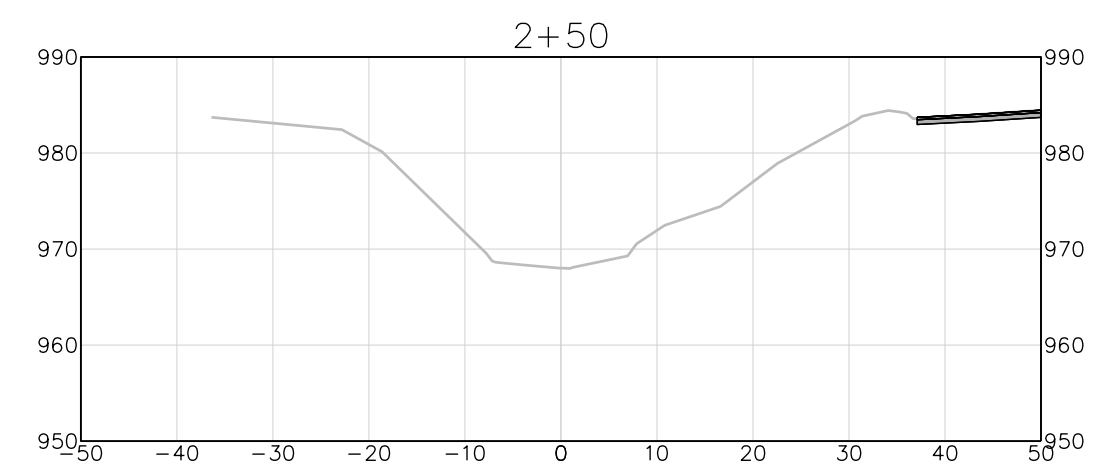
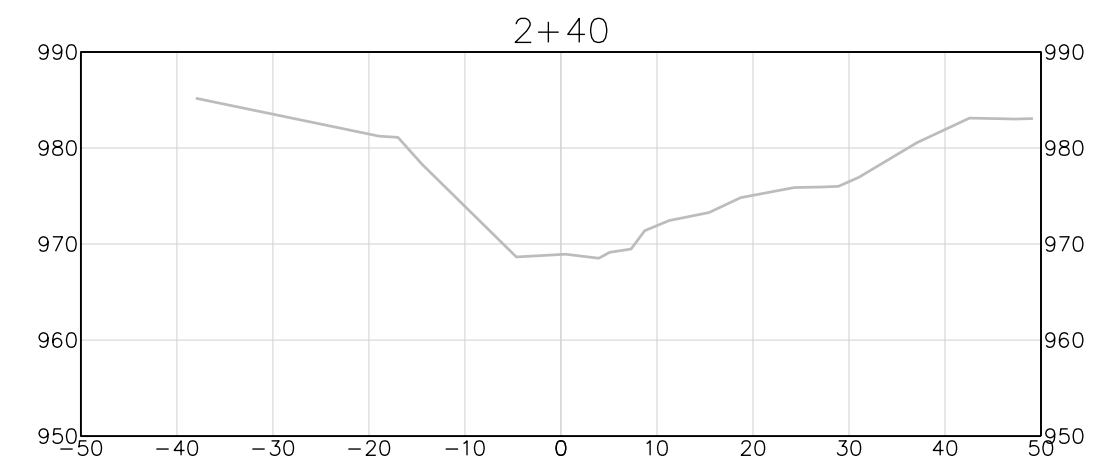
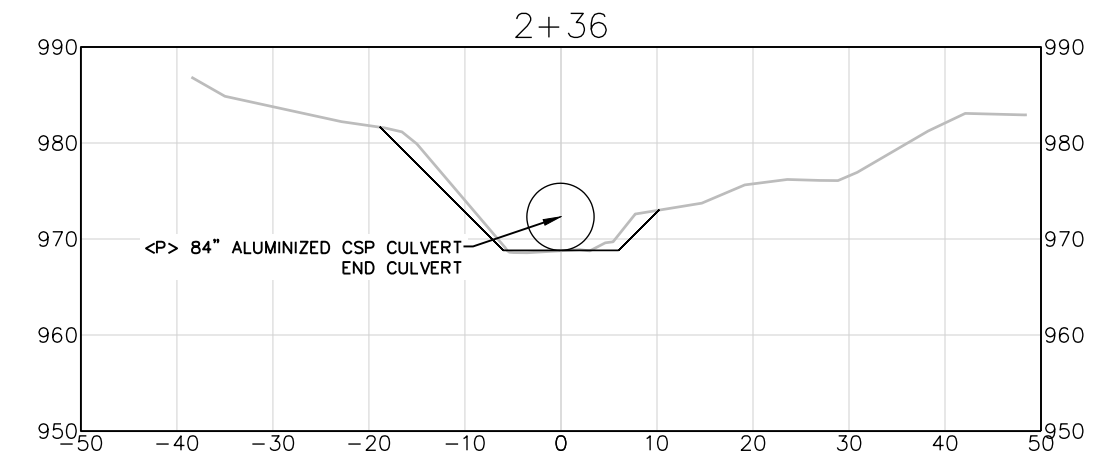


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	ROAD NO.: C5A010	MILE POST: 3.76			ENGINEERING
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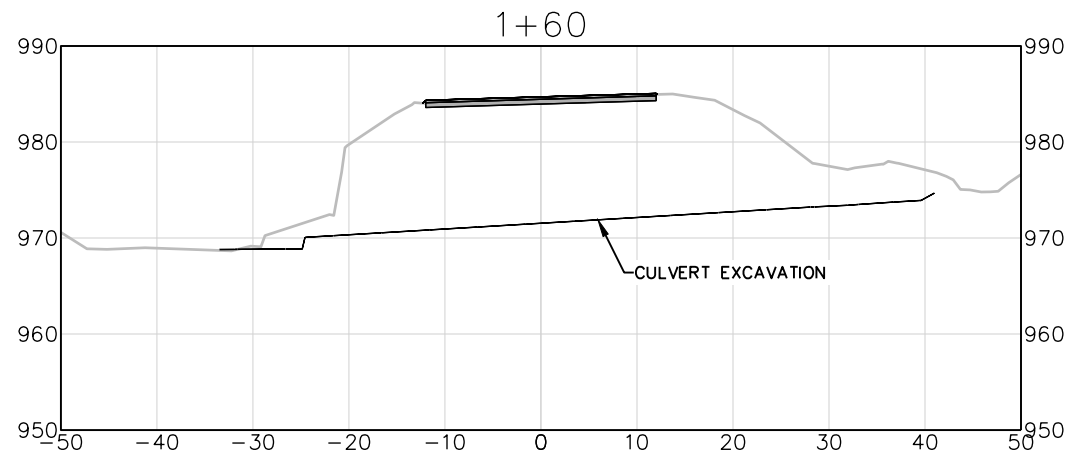
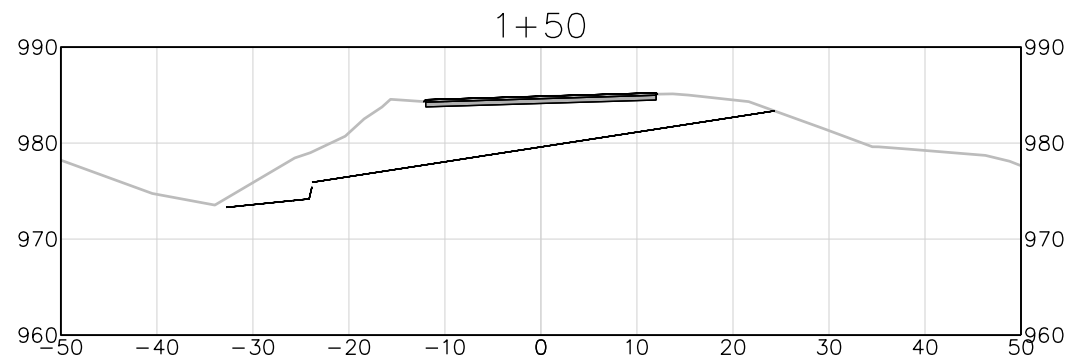
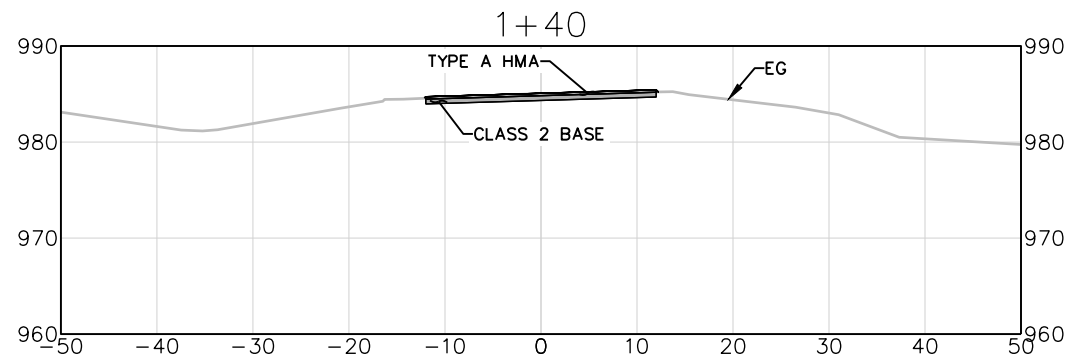
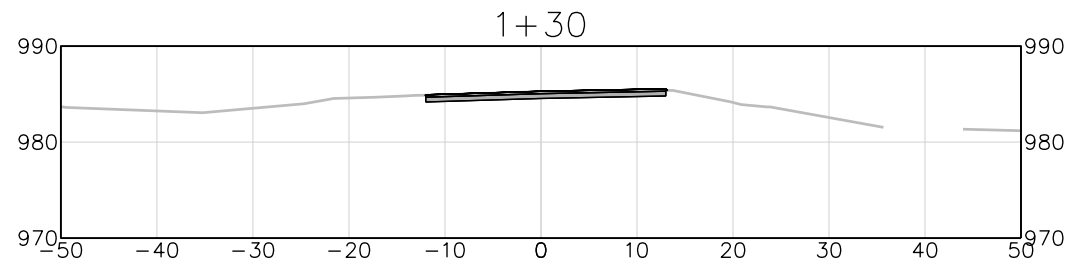
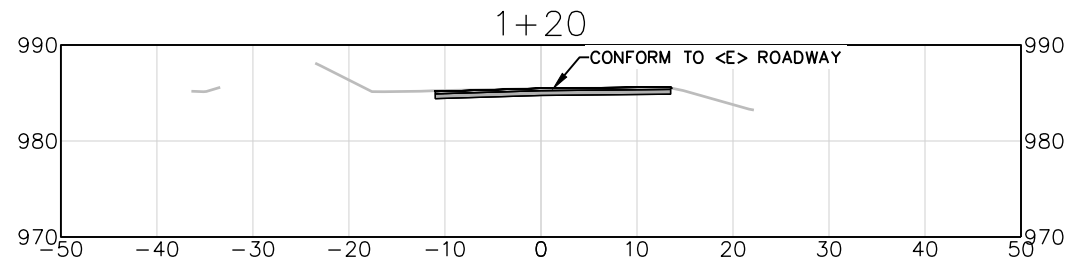
CULVERT CROSS SECTIONS

SCALE: 1"=10'





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ROAD CROSS SECTIONS

SCALE: 1"=10'

