



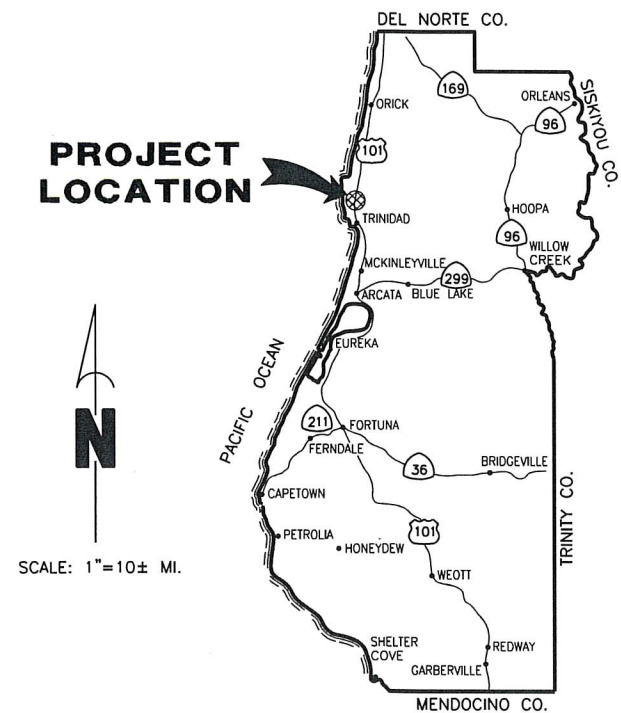
FEMA



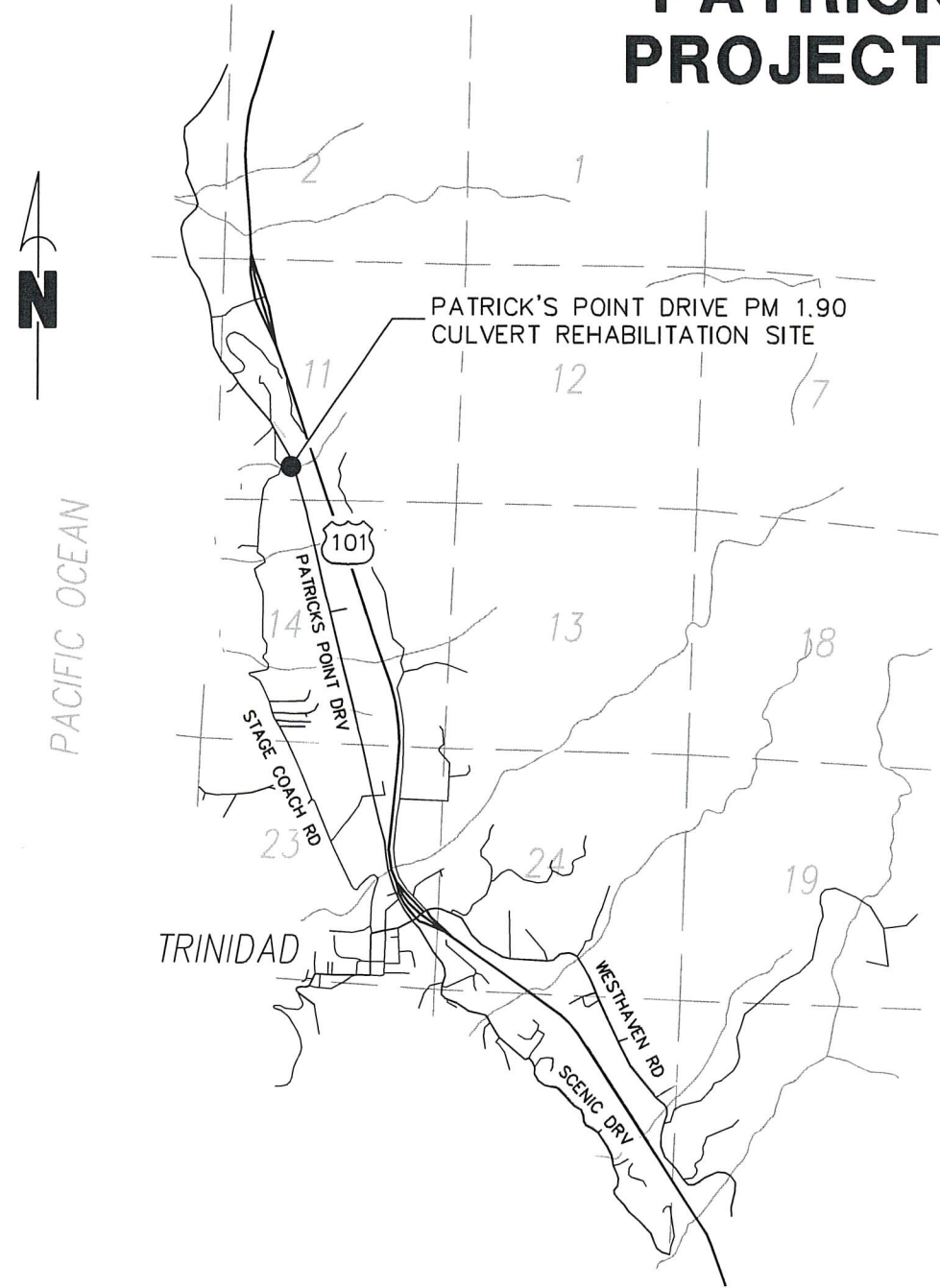
Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
PROJECT PLANS FOR CONSTRUCTION OF
STORM DAMAGE REPAIR TO
PATRICKS POINT DRIVE (3N010) PM 1.90
PROJECT NO. FEMA-4301-DR-CA PW-1044
CONTRACT NO. 217560

BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	ROAD NAME: PATRICKS POINT DRIVE	DESIGN SECTION: ENGINEERING	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 1 OF 7	
	ROAD NO.: 3N010	MILE POST: 1.90	DESIGNED BY: MMS/JAB		STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90
	PROJECT NO.: FEMA-4301-DR-CA PW-1044	CAL OES ID: 023-00000	DRAWN BY: RMD		COVER SHEET, SHEET INDEX AND MAPS
	CONTRACT NO.: 217560		REVIEWED BY: JAB		
	DRAWING FILE NAME: 217560 PPDr 1.90 DESIGN	APPROVED BY:			
	PLOT DATE: 05/25/2021	REVISION DATE:			



LOCATION MAP
SCALE: 1"=10± MILE



VICINITY MAP
SCALE: 1"=2000'



INDEX OF SHEETS

- 1 COVER SHEET, INDEX AND LOCATION MAP
- 2 CONSTRUCTION AREA SIGNS AND BID QUANTITIES
- 3 PROJECT SURVEY CONTROL PLAN
- 4 CREEK DIVERSION PLAN
- 5 CULVERT PLAN AND PROFILE
- 6 SITE ACCESS
- 7 EROSION CONTROL PLAN

NOTES

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

PROJECT PLANS AND SPECIAL PROVISIONS TO BE SUPPLEMENT BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, STANDARD SPECIFICATIONS AND THE LATEST REVISED 2018 STANDARD SPECIFICATIONS

(SEE APPLICABLE STANDARD PLAN LIST IN SPECIAL PROVISIONS)

GEOTECHNICAL MEMORANDUM BY CRAWFORD AND ASSOCIATES DATED 2021

RECOMMENDED

Jeffrey A. Ball 5-26-2021
 JEFFREY A. BALL DATE
 RCE 70631, EXP. 6/30/2021



APPROVED

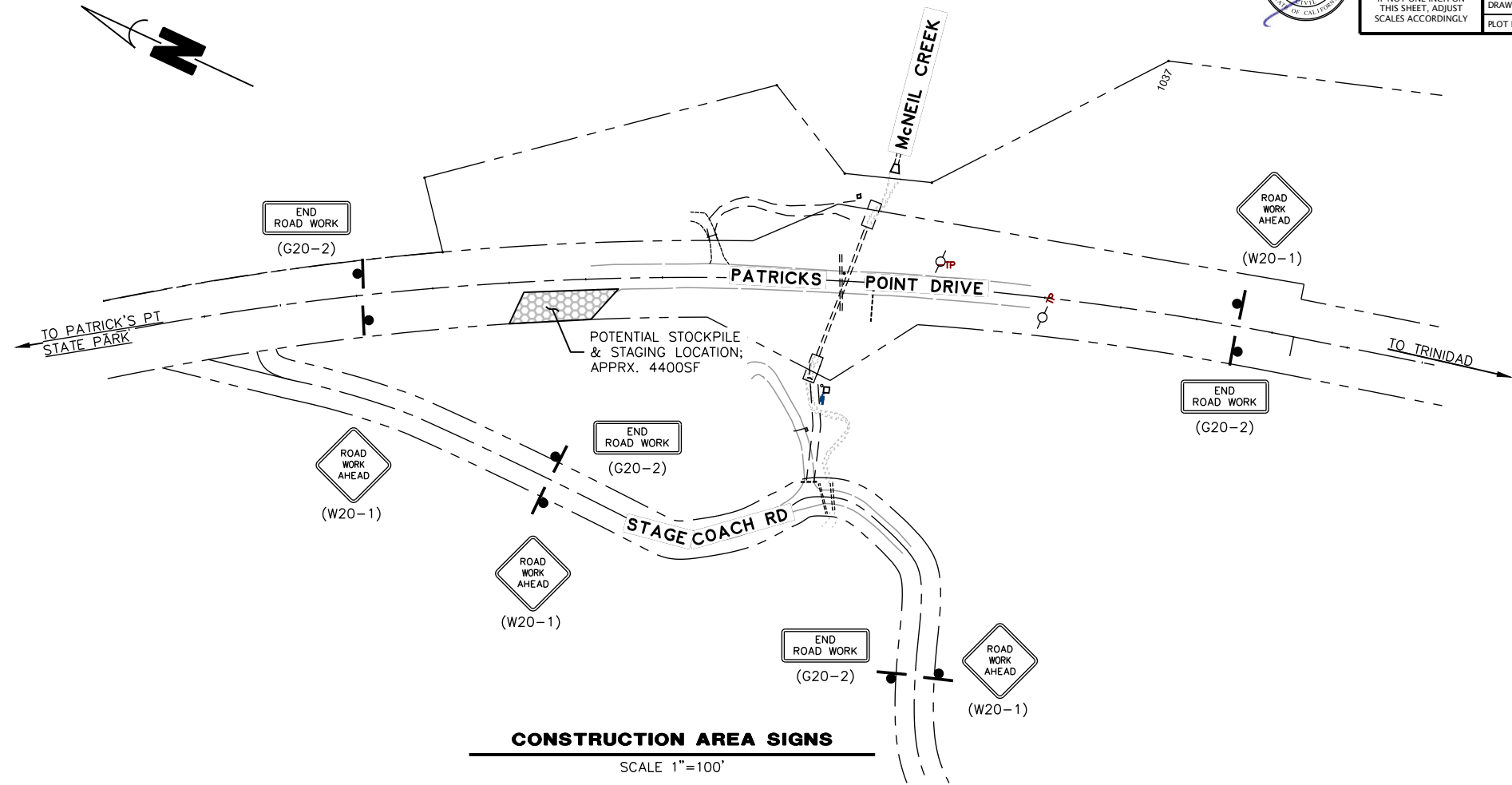
Tony R. Seghetti 5/26/21
 TONY R. SEGHETTI DATE
 RCE 63714, EXP. 9/30/2022



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



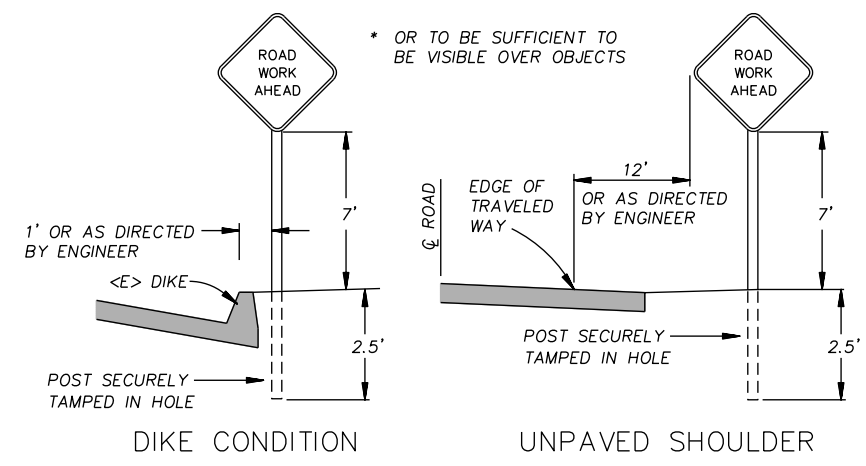
ROAD NAME: PATRICKS POINT DRIVE		DESIGN SECTION	COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 2 OF 7
ROAD NO.: 3N010	MILE POST: 1.90	ENGINEERING	STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90	
PROJECT NO.: FEMA-4301-DR-CA PW-1044	CAL OES ID: 023-00000	DESIGNED BY: MMS/JAB	CONSTRUCTION SIGNS, STAGING & STOCKPILE LOCATIONS AND QUANTITIES	
CONTRACT NO.: 217560		DRAWN BY: RMD		
DRAWING FILE NAME: 217560 PPDr 1.90 DESIGN		REVIEWED BY: JAB		
PLOT DATE: 05/25/2021		REVISION DATE:		
IF NOT ONE INCH ON ORIGINAL DRAWING				
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY				



QUANTITIES

ITEM NO.	ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY
1	100000	Site Access (Equipment Roads)	LS	1
2	100010	Temporary Relocate/Protect Existing Water Supply System	LS	1
3	120090	Construction Area Signs	EA	8
4	120100	Traffic Control System	LS	1
5	130100	Job Site Management	LS	1
6	130200	Perpare Water Pollution Control Program	LS	1
7	131201	Temporary Creek Diversion System	LS	1
8	170103	Clearing and Grubbing	LS	1
9	204008	Plant (Group H) (Willow Stakes)	EA	70
10	204015	Plant (Group S) (Alder)	EA	5
11	210212	Dry Seed	SF	5,800
12	210350	Fiber Rolls	LF	200
13	210420	Straw	SF	5,800
14	670600	60" Steel Pipe (1.00" Thick) (Trenchless Installation)	LF	180
15	721031	Rock Slope Protection (1/2 T, Method B)	TON	50
16	999990	Mobilization	LS	1

CONSTRUCTION AREA SIGNS
SCALE 1"=100'



RURAL CONSTRUCTION AREA SIGN
- NOT TO SCALE -

CONSTRUCTION AREA SIGN SUMMARY

SIGN CODE	QTY	SIGN MESSAGE	PANEL SIZE	NUMBER & POST SIZE
W20-1	4	ROAD WORK AHEAD	36" x 36"	(1) 4" x 4"
G20-2	4	END ROAD WORK	36" x 18"	(1) 4" x 4"

- CONSTRUCTION AREA SIGNS SHALL CONFORM TO SECTION 12-3.11 CALTRANS STANDARD SPECIFICATIONS
- MAINTAIN TRAFFIC ACCORDING TO SECTION 12-4 OF CALTRANS STANDARD SPECIFICATIONS

STOCKPILE NOTES

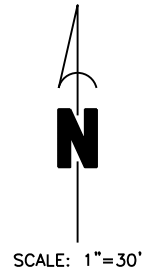
- MANAGE MATERIAL STOCKPILES UNDER SECTION 13-4.03C(3) OF THE CALTRANS STANDARD SPECIFICATIONS
- IF STOCKPILE AREA IS IN A TURNOUT, THE TURNOUT SHALL BE REESTABLISHED TO PRE-CONSTRUCTION CONDITIONS.
- STOCKPILE LOCATION SHOWN HAS BEEN APPROVED BY PUBLIC WORKS AS DETAILED IN THE ENVIRONMENTAL REPORT. ALTERNATIVE SITES MAY BE APPROVED THROUGH PUBLIC WORKS IN WRITING.



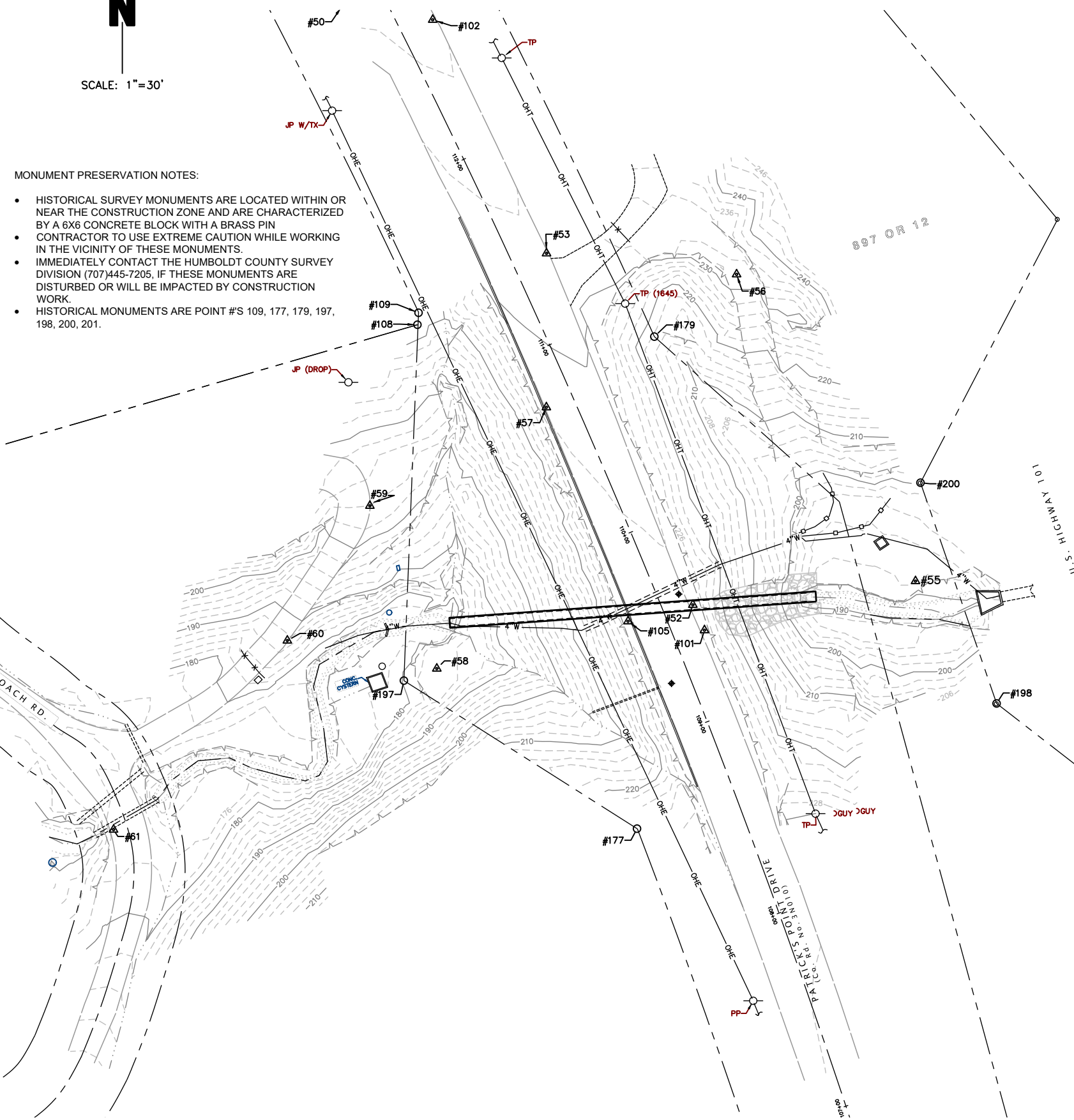
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ROAD NO.: 3N010	MILE POST: 1.90	ENGINEERING
PROJECT NO.: FEMA-4301-DR-CA PW-1044	CAL OES ID: 023-00000	DESIGNED BY: MMS/JAB
CONTRACT NO.: 217560		DRAWN BY: RMD
DRAWING FILE NAME: 217560 PPDr 1.90 DESIGN		REVIEWED BY: JAB
PLT DATE: 05/25/2021	REVISION DATE:	APPROVED BY:

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS		SHEET 3 OF 7
STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90		
PROJECT SURVEY CONTROL		

CONTROL POINTS				
Point #	Northing	Easting	Elevation	Description
50	2287507.78	5968842.09	234.44	CP_MAG
51	2287889.03	5968593.19	238.97	CP_SPK
52	2287214.92	5969013.89	226.79	CP_SPK
53	2287386.96	5968942.28	230.97	CP_MAG
54	2286494.94	5969231.52	236.27	CP_MAG
55	2287226.54	5969122.86	192.03	CP_SPK
56	2287376.67	5969035.30	230.89	CP_SPK
57	2287311.60	5968942.19	228.21	CP_MAG
58	2287183.73	5968888.59	182.67	CP_SPK
59	2287263.42	5968855.82	203.77	CP_MAG
60	2287197.45	5968815.43	187.16	CP_MAG
61	2287104.91	5968730.39	176.27	CP_MAG
62	2287621.38	5968762.93	240.26	CP_MAG
63	2287720.21	5968702.80	240.00	CP_SPK
64	2288303.83	5968353.98	237.96	CP_MAG
65	2288547.31	5968114.77	234.96	CP_MAG
101	2287202.51	5969019.58	226.45	HUMCO_CP_1
102	2287501.26	5968886.59	234.42	HUMCO_PK-NAIL-2
105	2287206.87	5968982.18	226.35	HUMCO_CP_5
108	2287352.02	5968879.12	222.52	FD_75IP_PP_JLLG
109	2287357.88	5968879.64	224.46	FD_6X6_CONC_MON_TIED_BRS_NL_BSE
177	2287105.41	5968986.58	227.76	FD_6X6_CONC_MON_W_BRSPIN_TDBSE
179	2287346.20	5968995.05	217.55	FD_6X6_CONC_MON_W_BRSPIN
197	2287177.85	5968872.48	180.19	FD_6X6_CONC_MON_TIED_BRS_NL_BSE
198	2287166.69	5969162.55	207.23	FD_1*IP_PP_CALIF_DOT_TIED_NAIL
200	2287274.72	5969125.30	200.48	FD_1*IP_CA_DOT_TIEDTACK
201	2287706.84	5968810.74	254.86	FD_1*IP_CA_DOT_TIEDTACK



- MONUMENT PRESERVATION NOTES:
- HISTORICAL SURVEY MONUMENTS ARE LOCATED WITHIN OR NEAR THE CONSTRUCTION ZONE AND ARE CHARACTERIZED BY A 6X6 CONCRETE BLOCK WITH A BRASS PIN
 - CONTRACTOR TO USE EXTREME CAUTION WHILE WORKING IN THE VICINITY OF THESE MONUMENTS.
 - IMMEDIATELY CONTACT THE HUMBOLDT COUNTY SURVEY DIVISION (707)445-7205, IF THESE MONUMENTS ARE DISTURBED OR WILL BE IMPACTED BY CONSTRUCTION WORK.
 - HISTORICAL MONUMENTS ARE POINT #S 109, 177, 179, 197, 198, 200, 201.



LEGEND	
○	RECORD SURVEY MONUMENT (HISTORICAL)
△	SURVEY CONTROL POINT
---	RIGHT OF WAY CENTERLINE
---	PROPERTY LINES
---	EDGES OF PAVEMENT
---	EDGE OF TRAVELED WAY (DIRT ROAD)
---	EXISTING GROUND CONTOURS (TWO FOOT INTERVALS)
---	TOP OF SLOPE
---	TOE OF SLOPE / GRADE BREAK
---	DRAINAGE FLOW LINE
---	STORM DRAIN CULVERT
---	SILT FENCE
---	OVERHEAD TELEPHONE LINE
○	TELEPHONE POLE

- SURVEY NOTES:
1. The purpose of this survey is to determine topography for the culvert replacement project on Patrick's Point Drive PM 1.90. This survey reflects conditions at the time of survey; field work commenced March 5 and concluded April 7, 2020.
 2. 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 62 was held for horizontal positions shown hereon. The mapping angle is 1 degree 29 minutes 24 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 0.99989772 to obtain ground distances. Mapping angle and grid scale factor are taken at said control point number 62, a magnetic nail set in asphalt. Elevations are NAVD 88 datum based on OPUS solution utilizing the GEOID 12B model: an elevation of 240.26 feet was measured at the aforementioned Control Point 62.
 3. Contours and spot elevations were obtained by conventional survey techniques. 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.
 4. The Right of Way for Patrick's Point Dr. is based on old right of way Map (formerly Highway 101) 1-HUM-1-J as recorded in Book 3 of Highway Maps, page 125. The existing right of way for Highway 101, as it now exists, is based on the Record of Survey by R.E.Y. Engineers for Caltrans. See Book 67 of Surveys pages 32 and 33 (pages 6 & 7 of 14). Right of way lines were held for both maps at found iron pipe shown on said Record of Survey as point 1047, our control point number 201. Adjacent property lines are approximate only.
 5. A 4 inch waterline runs through the 60 inch culvert under current Highway 101 and snakes through project area as indicated- it is routed through a 36 inch CMP pipe under Patrick's Point Drive. Numerous waterline "T"s were observed and located off this 4 inch line; their points are frozen for clarity. The feeder lines off it were not located as they disappear under the ground surface and were untraceable- the westerly terminus of the line is marked hereon as "Waterline Daylight" where the line is buried west of that point. No plans for this water system exists to our knowledge. See Underground Utility Note below.

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 48 hours prior to any excavations.

NOTES

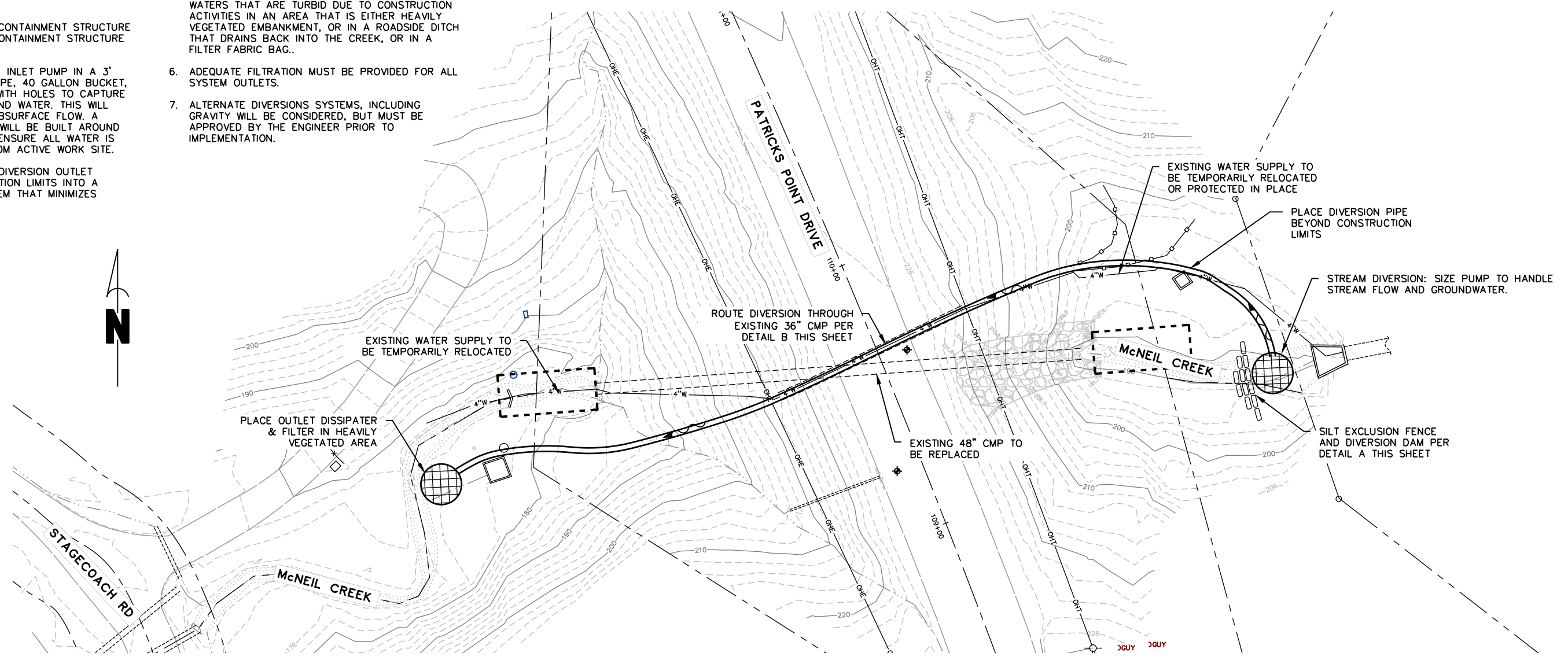
1. PUMP SHALL OPERATE 24/7 TO DIVERT STREAM FLOW THROUGH THE SITE USING A GAS GENERATOR OR SIMILAR DEVICE.
2. PLACE GENERATOR IN A CONTAINMENT STRUCTURE AND HAVE SECONDARY CONTAINMENT STRUCTURE FOR FUELING.
3. PLACE STREAM DIVERSION INLET PUMP IN A 3' DIAMETER PERFORATED PIPE, 40 GALLON BUCKET, OR SIMILAR 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 EITHER HEAVILY VEGETATED EMBANKMENT, OR IN A ROADSIDE DITCH THAT DRAINS BACK INTO THE CREEK, OR IN A FILTER FABRIC BAG.
6. ADEQUATE FILTRATION MUST BE PROVIDED FOR ALL SYSTEM OUTLETS.
7. ALTERNATE DIVERSIONS SYSTEMS, INCLUDING GRAVITY WILL BE CONSIDERED, BUT MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.



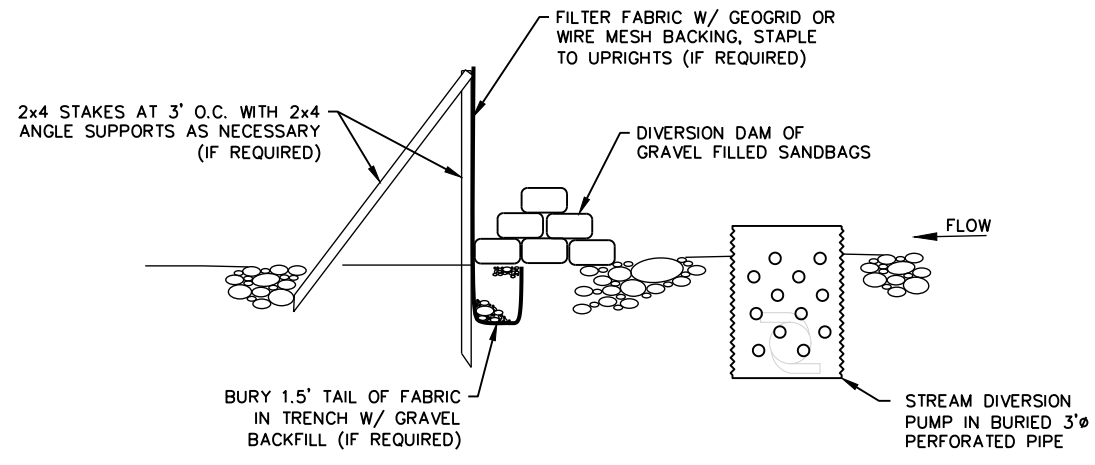
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	REVISION DATE:	APPROVED BY:

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 4 OF 7
STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90	
CREEK DIVERSION PLAN	

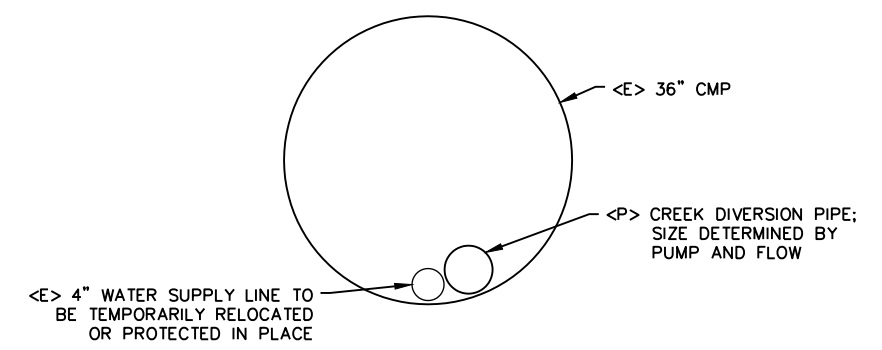


TEMPORARY CREEK DIVERSION PLAN

SCALE: 1"=20'



CREEK DIVERSION DETAIL A
NOT TO SCALE



CREEK DIVERSION DETAIL B
NOT TO SCALE

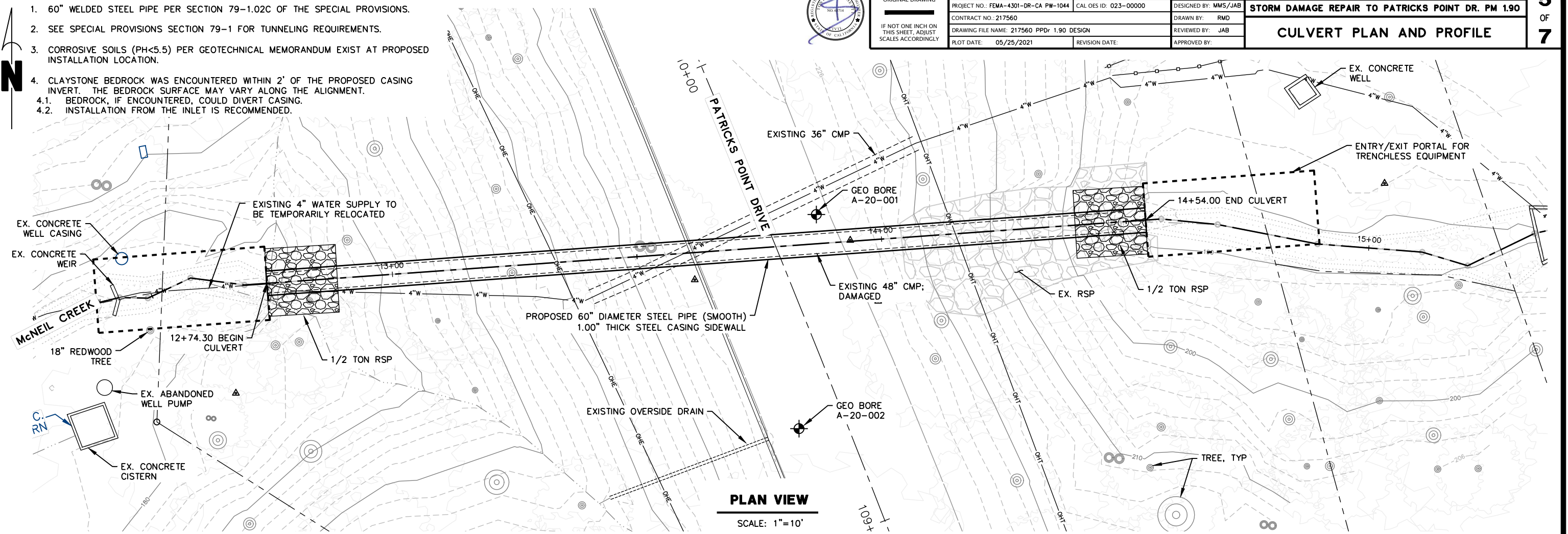
NOTES

- 60" WELDED STEEL PIPE PER SECTION 79-1.02C OF THE SPECIAL PROVISIONS.
- SEE SPECIAL PROVISIONS SECTION 79-1 FOR TUNNELING REQUIREMENTS.
- CORROSIVE SOILS (PH<5.5) PER GEOTECHNICAL MEMORANDUM EXIST AT PROPOSED INSTALLATION LOCATION.
- CLAYSTONE BEDROCK WAS ENCOUNTERED WITHIN 2' OF THE PROPOSED CASING INVERT. THE BEDROCK SURFACE MAY VARY ALONG THE ALIGNMENT.
 - BEDROCK, IF ENCOUNTERED, COULD DIVERT CASING.
 - INSTALLATION FROM THE INLET IS RECOMMENDED.



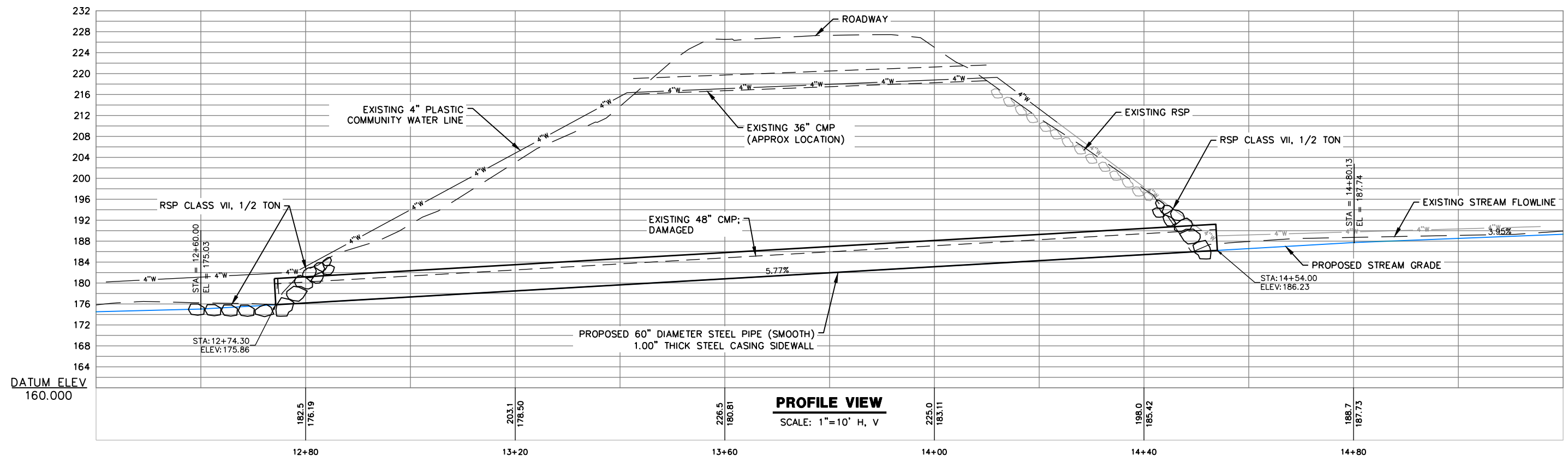
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 5 OF 7
STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90	
CULVERT PLAN AND PROFILE	



PLAN VIEW

SCALE: 1"=10'



PROFILE VIEW

SCALE: 1"=10' H, V

DATUM ELEV
160.000



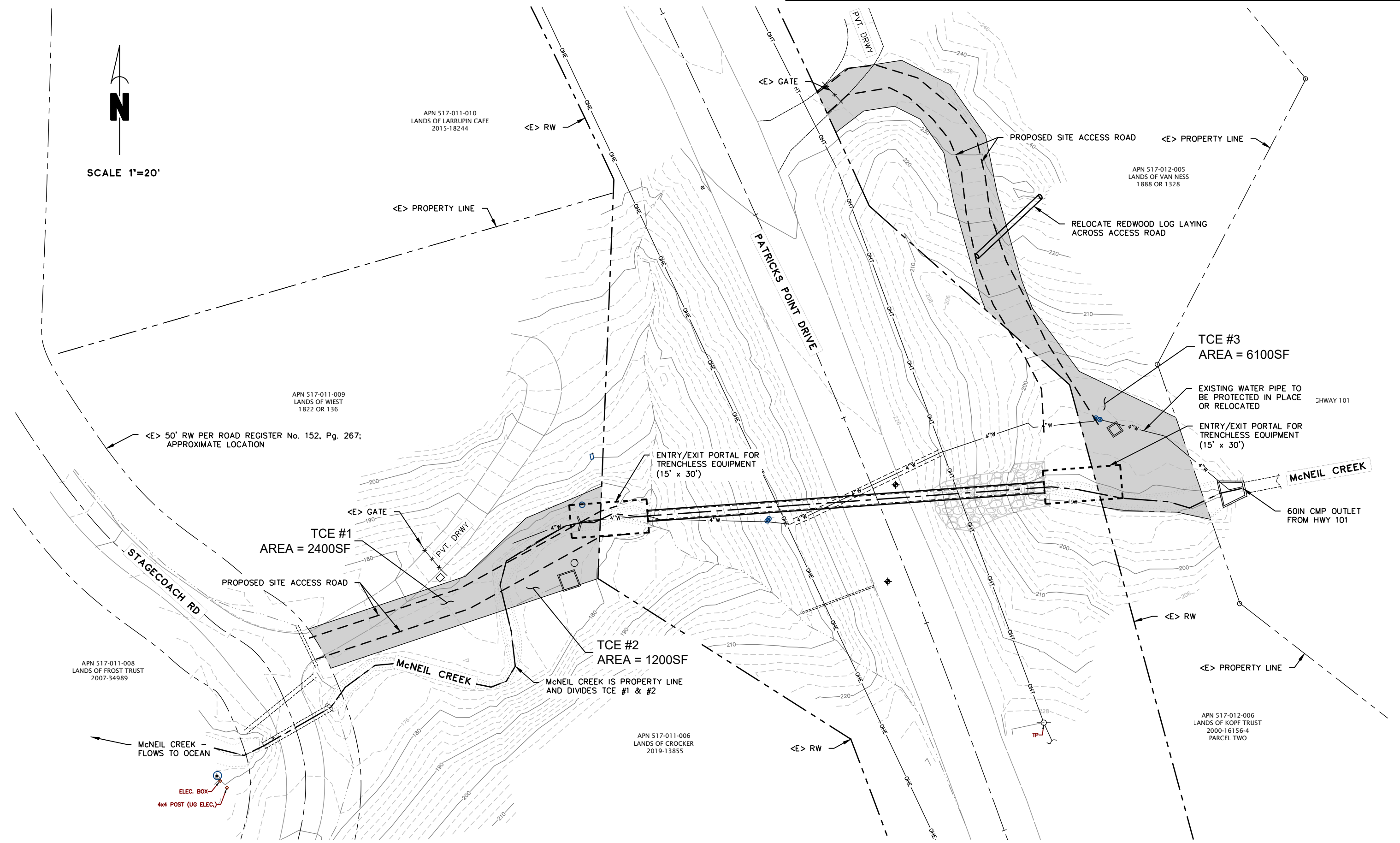
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90
SITE ACCESS

SHEET
6
OF
7



SCALE 1"=20'



APN 517-011-010
LANDS OF LARRUPIN CAFE
2015-18244

APN 517-012-005
LANDS OF VAN NESS
1888 OR 1328

APN 517-011-009
LANDS OF WIEST
1822 OR 136

<E> 50' RW PER ROAD REGISTER No. 152, Pg. 267;
APPROXIMATE LOCATION

ENTRY/EXIT PORTAL FOR
TRENCHLESS EQUIPMENT
(15' x 30')

TCE #3
AREA = 6100SF

EXISTING WATER PIPE TO
BE PROTECTED IN PLACE
OR RELOCATED

ENTRY/EXIT PORTAL FOR
TRENCHLESS EQUIPMENT
(15' x 30')

McNEIL CREEK

60IN CMP OUTLET
FROM HWY 101

TCE #1
AREA = 2400SF

TCE #2
AREA = 1200SF

McNEIL CREEK IS PROPERTY LINE
AND DIVIDES TCE #1 & #2

APN 517-011-008
LANDS OF FROST TRUST
2007-34989

McNEIL CREEK -
FLOWS TO OCEAN

ELEC. BOX
4x4 POST (UG ELEC.)

APN 517-011-006
LANDS OF CROCKER
2019-13855

APN 517-012-006
LANDS OF KOPF TRUST
2000-16156-4
PARCEL TWO




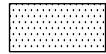
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COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS	SHEET 7 OF 7
STORM DAMAGE REPAIR TO PATRICKS POINT DR. PM 1.90	
EROSION CONTROL AND REVEGETATION PLAN	



SCALE: 1"=15'

LEGEND

	WILLOW STAKE SWATH
	STRAW & DRY SEED
— FR —	FIBER ROLL

REVEGETATION PLAN

PLANT	QTY	LOCATION	NOTES
WILLOW	70	ALONG CREEK BANKS	12"-18" MIN HT, 3'-6' SWATH, 4'-6' SPACING
ALDER	5	WEST SIDE ACCESS	4'-6" MIN HT, SPACED 6' APART MIN LOCATION TBD

REVEGETATION NOTES

- HARVEST PLANTING STAKES FROM ON-SITE OR NEARBY SOURCES.
- SOAK STAKES FOR 5-7 DAYS PRIOR TO INSTALLATION.
- PRE-DRIVE HOLES FOR STAKES USING AUGER OR EXCAVATOR MOUNTED STINGER. HOLE MUST EXTEND AT LEAST 6" BELOW TOP OF WATER TABLE.
- PLACE STAKE IN PREPARED HOLE WITH 2-5 BRANCH/BUD SCARS ABOVE THE GROUND.
- WATER PLANTING AREA THOROUGHLY AFTER INSTALLING STAKES AND ENSURE THERE ARE NO AIR POCKETS IN HOLE AROUND WILLOW STAKES.
- PLACE WILLOW STAKES 6 FT ON CENTER MAXIMUM. STAGGER WILLOW STAKE ROWS BY 5FT PARALLEL TO THE ROAD.
- REPLACE ALDER TREES AT 6 FT ON CENTER. TREES SHALL HAVE A MINIMUM HEIGHT OF 4 FT.

