PLANS FOR CONSTRUCTION

BRIDGE PREVENTIVE MAINTENANCE PROGRAM

SCOUR MITIGATION AT VARIOUS LOCATIONS

FEDERAL PROJECT NO: BPMP-5942(240)

PROJECT LOCATIONS

- A LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD (BR NO. 42C0459), 11.31 MILES WEST OF S. DERRICK BOULEVARD
- B LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD (BR NO. 42C0458), 11.14 MILES WEST OF S. DERRICK BOULEVARD
- C LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD (BR NO. 42C0455), 5.53 MILES WEST OF S. DERRICK BOULEVARD
- D FRESNO SLOUGH BRIDGE AT EXCELSIOR AVENUE (BR NO. 42C0104)
- E FRESNO SLOUGH OVERFLOW BRIDGE AT EXCELSIOR AVENUE (BR NO. 42C0367)
- F TRAVERS CREEK CULVERT AT ALTA AVENUE (BR NO. 42C0179)

A B C BASIS OF BEARINGS:
THE CALCULATED GRID BEARING BETWEEN NGS CORS STATIONS "P566" AND "P304", BEING N65°01'48"E, WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.

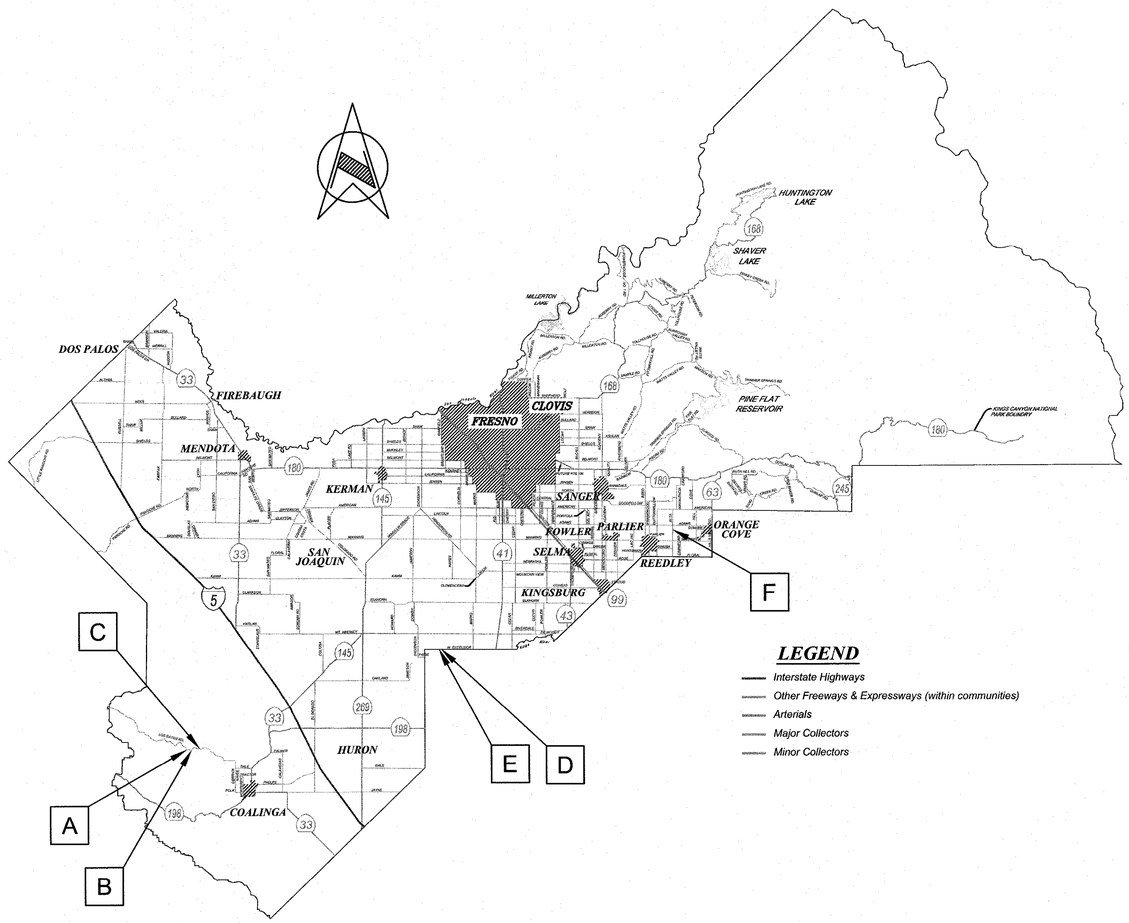
BENCH MARK:
THE HORIZONTAL DATUM FOR THIS SURVEY IS NAD83 (EPOCH DATE 2010.0), AS ESTABLISHED BY NGS CORS. ELEVATIONS SHOWN ARE BASED ON THE CITY OF FRESNO (NGVD29) VERTICAL DATUM. THE MAP PROJECTION FOR THIS SURVEY IS CALIFORNIA STATE PLANE ZONE 4, US SURVEY FEET.

D E BASIS OF BEARINGS:
THE NORTH LINE OF SECTION 5, TOWNSHIP 18 SOUTH, RANGE 19 EAST, M.D.B.& M. BEARS N88°44'57"E, PER MAP RECORDED IN BOOK 23, OF RECORD OF SURVEYS, AT PAGE 59, FRESNO COUNTY RECORDS.

BENCH MARK:
FRESNO COUNTY BENCHMARK OJ17, A FRESNO COUNTY BRASS CAP MONUMENT ON THE SOUTHEAST CORNER OF FRESNO SLOUGH BRIDGE DECK HAS AN NGVD29 ELEVATION OF 209.385 FEET PER FRESNO COUNTY BENCHMARK RECORDS.

F BASIS OF BEARINGS:
THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 17, TOWNSHIP 15 SOUTH, RANGE 24 EAST, M.D.B.& M., HAS AN ASSUMED BEARING OF N0°00'01"E.

BENCH MARK:
FRESNO COUNTY BRASS CAP MONUMENT STAMPED LO 70, LOCATED ON THE SOUTHEAST CORNER OF ALTA AVENUE AND SUMNER ALIGNMENT, 48.8' SOUTHEAST OF THE SECTION CORNER, 2.0' SOUTH OF A POWER POLE, HAS AN NGVD29 ELEVATION OF 369.643' PER COUNTY OF FRESNO BENCHMARK RECORDS.



LEGEND

- *Interstate Highways*
- *Other Freeways & Expressways (within communities)*
- *Arterials*
- *Major Collectors*
- *Minor Collectors*

INDEX OF SHEETS

CONTRACTOR'S LICENSING REQUIREMENT					
CLASS A, GENERAL ENGINEERING					
C-12, EARTHWORK AND PAVING					
Drawing No.	Road No.	Bridge No.	Fiscal Yr.	Sheet No.	Total
11259	N/A	SEE PROJECT LOCATIONS	25/26	1	28
CONTRACT NO 25-17-M					

RECORD DRAWING		
CONTRACTOR		
NAME		
ADDRESS		
CITY	STATE	ZIP
PHONE		
DATE AWARDED		
DATE STARTED		
DATE COMPLETED		
RESIDENT ENGINEER		
NAME	SIGNATURE	
NAME	SIGNATURE	

Paul Nerland
County Adminstration Officer

APPROVED _____

Steven White, Director
Department of Public Works and Planning

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

ABBREVIATIONS:

AB	AGGREGATE BASE
ABUT	ABUTMENT(S)
AC	ASPHALTIC CONCRETE
ALIGN	ALIGNMENT
AP	ANGLE POINT
APPROX	APPROXIMATE
AS	AGGREGATE SUBBASE
BB	BEGINNING OF BRIDGE
BC	BEGIN HORIZONTAL CURVE
BCM	BRASS CAP MONUMENT
BCR	BEGIN CURB RETURN
BD	BEGIN DITCH
BIT	BITUMINOUS
BKF	BACKFILL
BM	BENCH MARK
BR	BRIDGE
BVC	BEGIN VERTICAL CURVE
BW	BARBED WIRE
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
C&G	CURB AND GUTTER
CIP	CAST IRON PIPE
C/L, ℄	CENTER LINE
CL	CHAIN LINK
CLR	CLEAR
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
COL	COLUMN
CONC	CONCRETE
CS	COTTON SPINDLE
CSP	CONCRETE SLOPE PROTECTION
CATV	CABLE TELEVISION
CULV	CULVERT
CY	CUBIC YARD(S)
DI	DRAINAGE INLET
DO	DRAINAGE OUTLET
DRWY	DRIVEWAY
EASE	EASEMENT
EB	END OF BRIDGE
EBL	EAST BOUND LANE
EC	END HORIZONTAL CURVE
ECR	END OF CURB RETURN
ED	END DITCH
ELEV	ELEVATION
EMB	EMBANKMENT
EP	EDGE OF PAVEMENT
EPS	EDGE OF PAVED SHOULDER
ETL	EDGE OF TRAVELED LANE
EVC	END VERTICAL CURVE
EXC	EXCAVATION
(E)	EXISTING
EXP	EXPANSION JOINT
FCBCM	FRESNO COUNTY BCM
FCBM	FRESNO COUNTY BM
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GALV	GALVANIZED
GP	GRADING PLANE
GR	GUARD RAILING
GW	GUY WIRE
HMA	HOT MIXED ASPHALT
HP	HINGE POINT
HS	HIGH STRENGTH
HW	HEAD WALL
HWM	HIGH WATER MARK
IB	IMPORTED BORROW
IP	IRON PIPE
IRR	IRRIGATION
IV	IRRIGATION VALVE
JP	JOINT POLE
JT	JOINT
LF	LINEAR FEET
LOC	LOCATION
LOL	LAYOUT LINE
LP	LIMIT OF PAYMENT
MAX	MAXIMUM
MIN	MINIMUM
MB	METAL BEAM
MBGR	METAL BEAM GUARD RAILING
MH	MANHOLE
MP	MILE POST
MTL	MATERIAL
NBL	NORTHBOUND LANE
NS	NATIVE SOIL
OC	ON CENTER
OG	ORIGINAL GROUND
PB	PULL BOX
PBS	PULVERIZED BITUMINOUS SURFACE
PE	POLYETHYLENE
PCC	PORTLAND CEMENT CONCRETE
PERM	PERMEABLE
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PL, ℄	PLATE
P/L	PROPERTY LINE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PP	POWER POLE
PPP	PERFORATED PLASTIC PIPE
PRF	PAVEMENT REINFORCING FABRIC
PT	PEDESTAL TELEPHONE
PNT	POINT
PULV	PULVERIZED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
REINF	REINFORCEMENT
R&D	REMOVE AND DISPOSE
REL	RELOCATE
RES	RESIDENTIAL
RET	RETAINING
RG	RUBBER GASKET
RLG	ROCK LINED GUTTER
RMS	ROAD MIX SURFACE
R&S	REMOVE AND SALVAGE
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
RTE	ROUTE
R/W	RIGHT OF WAY
RW	RETAINING WALL
SL	SLOPE
SBL	SOUTHBOUND LANE
SEC	SECTION
SR	STATE ROUTE
SHR	SHOULDER
S/L	SECTION LINE
SP	STANDPIPE
STA	STATION
STD	STANDARD
STR	STRUCTURE
SURF	SURFACING
SDWK	SIDEWALK
SWR	SEWER
TAN	TANGENT
TAN OFF	TANGENT OFFSET
TBM	TEMPORARY BENCHMARK
TBR	TO BE REMOVED
TC	TOP OF CURVE
TD	TOP OF DIKE
TOB	TOP OF BANK
TCB	TRAFFIC CONTROL BOX
TRANS	TRANSITION
TS	TRAFFIC SIGNAL
TYP	TYPICAL
UC	UNDERCROSSING
UG	UNDERGROUND
UD	UNDERDRAIN
UDR	UNDERDRAIN RISER
UP	UNDERPASS
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VG	VALLEY GUTTER
VP	VENTPIPE
WBL	WESTBOUND LANE
WP	WEAKENED PLANE
WV	WATER VALVE
WW	WINGWALL
XING	CROSSING
X SEC	CROSS SECTION

APPLICABLE 2015 STATE OF CALIFORNIA CALTRANS STANDARD PLANS:

RSP	A20A	PAVEMENT MARKERS AND TRAFFIC LINES – TYPICAL DETAILS
	A86	BARBED WIRE AND WIRE MESH FENCES
	A86A	BARBED WIRE AND WIRE MESH FENCE DETAIL ON SHARP BREAK IN GRADE
	A86B	BARBED WIRE AND WIRE MESH FENCE DETAILS
	A86D	BARBED WIRE AND WIRE MESH FENCE – MISCELLANEOUS DETAILS
RSP	A87B	HOT MIX ASPHALT DIKES
RSP	T13	TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS
	B6–21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

GENERAL DESIGN NOTES

DESIGN:

DESIGN OF ROCK SLOPE PROTECTION IS PER THE FEDERAL HIGHWAY ADMINISTRATION HYDRAULIC ENGINEERING CIRCULAR 23 "BRIDGE SCOUR AND STREAM INSTABILITY COUNTERMEASURES EXPERIENCE, SELECTION, AND DESIGN GUIDANCE", THIRD EDITION, DATED SEPTEMBER 2009 AND THE CALTRANS "CALIFORNIA BANK AND SHORE ROCK SLOPE PROTECTION DESIGN – PRACTITIONER'S GUIDE AND FIELD EVALUATIONS OF RIPRAP METHODS", THIRD EDITION, DATED OCTOBER 2000.

UTILITY NOTES:

LOCATIONS FOR EXISTING UNDERGROUND FACILITIES ARE APPROXIMATE. EXACT DEPTH AND LOCATIONS ARE UNKNOWN. FIELD LOCATE PRIOR TO THE START OF CONSTRUCTION.

**CALL UNDERGROUND SERVICE ALERT (USA) 811

GENERAL NOTES:

1. DIMENSIONS SHOWN ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LINETYPE LEGEND

LINETYPE EXAMPLE	LINETYPE DESCRIPTION
x — x — x -	BARBED WIRE FENCE
o — o — o -	CHAIN LINK FENCE
— [ ] — [ ] — [ ] —	WOODEN FENCE
[ ] — [ ] — [ ]	METAL FENCE
LNDSCP — LNDSCP	EDGE OF LANDSCAPED AREA
– | – | – | – | – | – | – | –	RAILROAD TRACKS
	SECTION LINES
ALIGN–E	EXISTING ALIGNMENT
	AC CENTERLINE – EXISTING
	AC CROWN – EXISTING
YS	EXISTING YELLOW STRIPED LINES
WS	EXISTING WHITE STRIPED LINE
~ — ~ — ~ –	AC GRADE BREAK – EXISTING
	AC EDGE OF PAVEMENT – EXISTING
TOE	TOE OF THE SLOPE
AC–DRV — AC–DRV	AC – EDGE OF DRIVEWAY
DRT–DRV	DIRT – EDGE OF DRIVEWAY
GRV–DRV	GRAVEL – EDGE OF DRIVEWAY
CONC–DRV — CONC–DRV	CONCRETE – EDGE OF DRIVEWAY
CMP	CORRUGATED METAL PIPE
HDPE	HIGH DENSITY POLYETHYLENE
STP	STEEL PIPE
PVC	POLYVINYL CHLORIDE
P–R/W	PRESCRIPTIVE RIGHT OF WAY
P/L	PROPERTY LINE
R/W	RIGHT OF WAY
R/W–P	RIGHT OF WAY – PROPOSED
W	WATER LINES
IRR	IRRIGATION LINE
SD	STORM DRAIN
S	SEWER LINE
FL	MISC FLOW LINE
GFL	GUTTER FLOW LINE
CONC	EDGE OF CONCRETE STRUCTURES
TFC	TOP FACE OF CURB
SDWK	EDGE OF CONCRETE SIDEWALK
E	UNDERGROUND ELECTRIC
T	UNDERGROUND TELEPHONE
FO	FIBER OPTIC
G	GAS LINE
OHCATV — OHCATV	OVERHEAD CABLE TELEVISION
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
CATV	UNDERGROUND CABLE TELEVISION
	PROFILE STYLE – EXISTING GROUND
D	PROFILE STYLE – DESIGN
	DESIGN ALIGNMENT
ETL	EDGE OF THE TRAVELED LANE
EP–D	EDGE OF PAVEMENT – DESIGN
HP	HINGE POINT LINE
DYLT	DAYLIGHTING LINE
	EXISTING STRUCTURE

SYMBOL LEGEND

SYMBOL	BLOCK DESCRIPTION
	SECTION CORNER
	BENCHMARK
	SURVEY CONTROL POINT
	PROPERTY CORNER OR RW MONUMENT
	FLIGHT TARGET AT SECTION CORNER
	FLIGHT TARGET AT P LINE STATION
	FLIGHT TARGET AT P LINE ANGLE POINT
	MISCELLANEOUS PALM TREE
	MISCELLANEOUS TREE
	MISCELLANEOUS TREE
	MISCELLANEOUS BUSH
	MISCELANEOUS BUSH
	MISCELANEOUS VINE
	MISCELANEOUS STUMP
	STEEL IRRIGATION SCREWGATE
	STEEL IRRIGATION INLET SCREEN
	ELECTRIC TRANSMISSION TOWER

SYMBOL	BLOCK DESCRIPTION (EXISTING)
	WATER MANHOLE
	FIRE HYDRANT
	WATER METER
	WATER VALVE
	WATER VAULT
	WATER WELL PAD
	BUTTERFLY OR GATE VALVE
	ELECTRIC MOTOR WATER WELL PAD
	DIESEL MOTOR WATER WELL PAD
	CONCRETE IRRIGATION TURNOUT BOX
	CONCRETE IRRIGATION STANDPIPE
	STEEL OR PVC IRRIGATION VENTPIPE
	SPRINKLER VALVES / CONTROL BOXES
	STORM DRAIN MANHOLE
	STORM DRAIN INLET
	SEWER MANHOLE
	SEWER VAULT
	ELECTRIC TRANSFORMER PAD
	ELECTRIC VAULT
	ELECTRIC MANHOLE
	UNDERGROUND ELECTRIC WARNING POST
	POWER POLE
	JOINT POLE
	ELECTRIC METER
	JOINT TRANSFORMER POLE
	GUY POLE
	GUY WIRE
	SERVICE POLE
	TRANSFORMER POLE
	GAS METER
	GAS VAULT
	GAS VALVE
	GAS MANHOLE
	UNDERGROUND GAS WARNING POST
	FIBER OPTIC MANHOLE
	TELEPHONE PEDESTAL
	UNDERGROUND FIBER OPTIC WARNING POST
	FIBER OPTIC VAULT
	TELEPHONE VAULT
	TELEPHONE MANHOLE
	UNDERGROUND TELEPHONE WARNING POST
	TELEPHONE POLE
	VARIOUS PULL BOXES
	STREET LIGHT POLE
	TRAFFIC LIGHT POLE
	MISC TRAFFIC SIGNS
	STOP SIGN
	RAILROAD CROSSING AHEAD SIGN
	TURN SIGNAL LOOP DETECTOR
	RAILROAD CROSSING ARM
	SIGNAL CONTROL BOX PAD

SYMBOL	BLOCK DESCRIPTION (INSTALL NEW)
	WATER MANHOLE
	FIRE HYDRANT
	WATER METER
	WATER VALVE
	WATER VAULT
	WATER WELL PAD
	BUTTERFLY OR GATE VALVE
	ELECTRIC MOTOR WATER WELL PAD
	DIESEL MOTOR WATER WELL PAD
	CONCRETE IRRIGATION TURNOUT BOX
	CONCRETE IRRIGATION STANDPIPE
	STEEL OR PVC IRRIGATION VENTPIPE
	SPRINKLER VALVES / CONTROL BOXES
	STORM DRAIN MANHOLE
	STORM DRAIN INLET
	SEWER MANHOLE
	SEWER VAULT
	ELECTRIC TRANSFORMER PAD
	ELECTRIC VAULT
	ELECTRIC MANHOLE
	UNDERGROUND ELECTRIC WARNING POST
	POWER POLE
	JOINT POLE
	ELECTRIC METER
	JOINT TRANSFORMER POLE
	GUY POLE
	GUY WIRE
	SERVICE POLE
	TRANSFORMER POLE
	GAS METER
	GAS VAULT
	GAS VALVE
	GAS MANHOLE
	UNDERGROUND GAS WARNING POST
	FIBER OPTIC MANHOLE
	TELEPHONE PEDESTAL
	UNDERGROUND FIBER OPTIC WARNING POST
	FIBER OPTIC VAULT
	TELEPHONE VAULT
	TELEPHONE MANHOLE
	UNDERGROUND TELEPHONE WARNING POST
	TELEPHONE POLE
	VARIOUS PULL BOXES
	STREET LIGHT POLE
	TRAFFIC LIGHT POLE
	MISC TRAFFIC SIGNS
	STOP SIGN
	RAILROAD CROSSING AHEAD SIGN
	TURN SIGNAL LOOP DETECTOR
	RAILROAD CROSSING ARM
	SIGNAL CONTROL BOX PAD

HATCHING LEGEND

HATCH	HATCH DESCRIPTION
	RSP (1/4 TON, CLASS V, METHOD B) OR RSP (150 Lb, CLASS III, METHOD B)
	RSP (20 Lb, CLASS I, METHOD B)
	REMOVE SLOPE PAVING
	REMOVE AND REPLACE HMA
	3" HMA OVER COMPACTED NATIVE SOIL
	COLD PLANE AND PLACE HMA OVERLAY
	RE–GRADED DRIVEWAY

CALLOUTS AND MISC SYMBOLS

CALTRANS STANDARD SHEET NUMBER
DETAIL NUMBER
(STATE STANDARD PLANS)

SECTION CUT

DESIGNED:	K. NEGORO	DATE 11–30–17
DRAWN:	O. BATCHULUUN	07–29–24
CHECKED:	M. CHRISTENSEN	09–10–24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09–10–24
DATE:

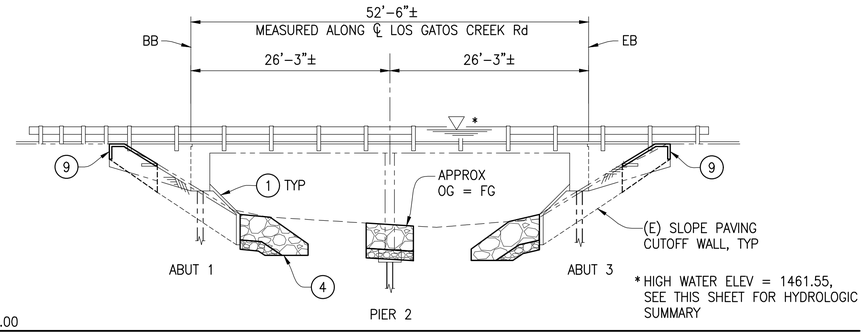
REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS
ROAD NO. BRIDGE NO.

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
GENERAL LEGEND AND GENERAL NOTES
DRAWING NO. 11259 SHEET NO. 2 TOTAL 28

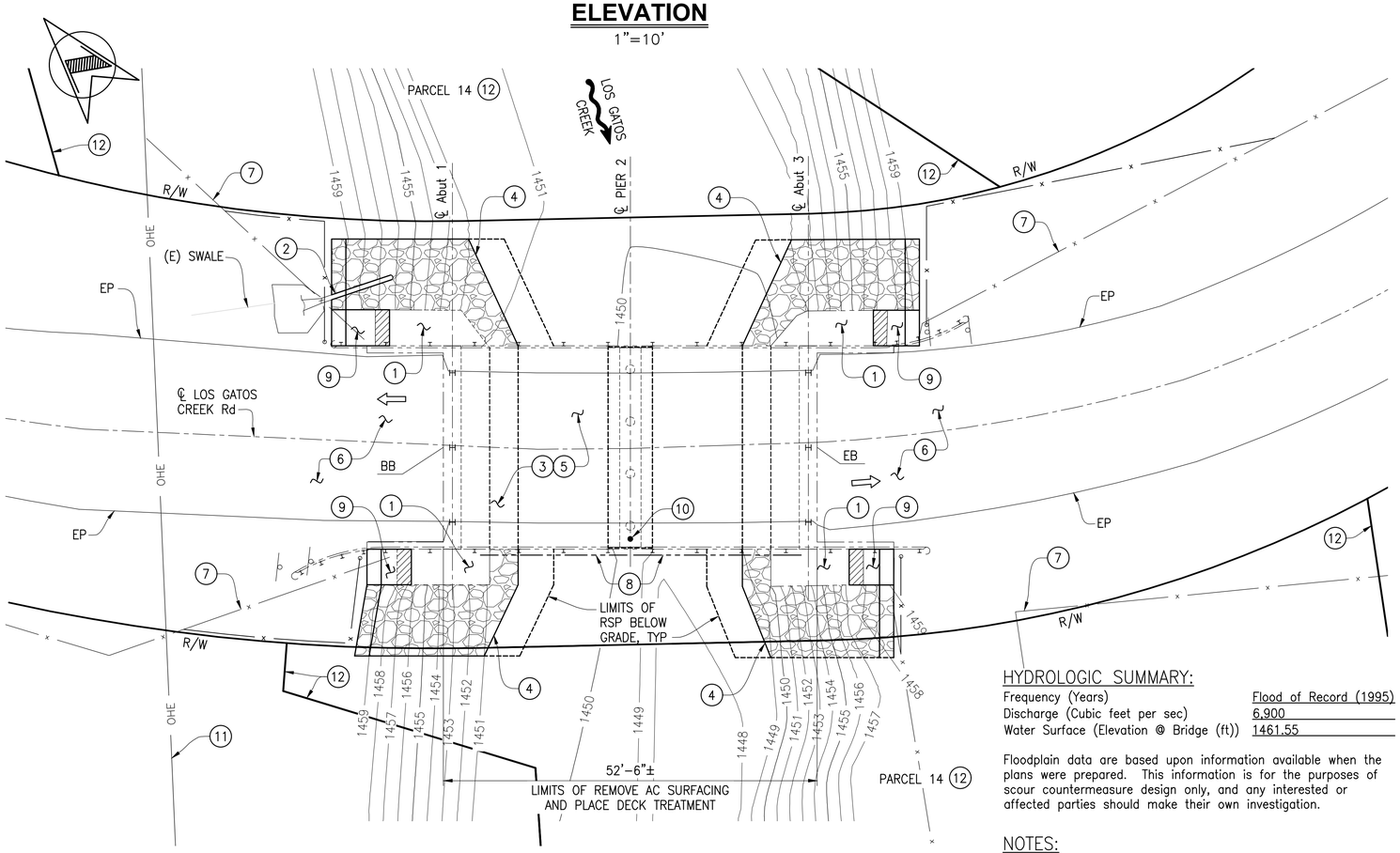
Drawing name: H:\21544 BPMP Fresno County\GENERAL LEGEND.dwg Layout Tab: LG1 Sep 11,2024 - 9:39am OBatchuluun



ELEVATION LOOKING SOUTH

ELEVATION

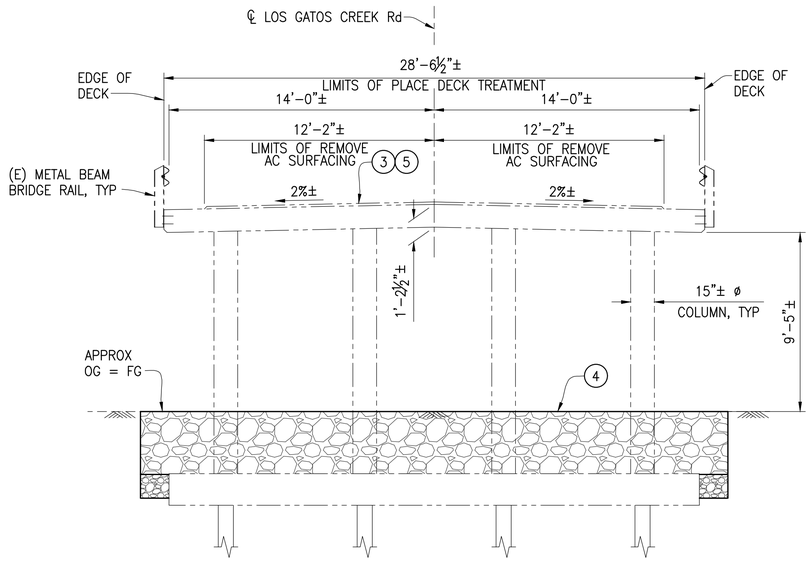
1"=10'



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

PLAN

1"=10'



TYPICAL SECTION

1/4"=1'-0"

HYDROLOGIC SUMMARY:

Frequency (Years)	Flood of Record (1995)
Discharge (Cubic feet per sec)	6,900
Water Surface (Elevation @ Bridge (ft))	1461.55

Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

NOTES:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

LEGEND:

- ⇨ Indicates Direction of Traffic
- - - - Indicates Existing Structure
- (1) Existing Concrete Slope Protection to remain
- (2) Reconstruct Downdrain Flume, see "ROAD DETAILS" sheet
- (3) Remove 3"± thick AC surfacing from bridge deck
- (4) Rock Slope Protection
- (5) Place Deck Treatment
- (6) Remove and Place HMA to match bridge deck, see "ROAD DETAILS" sheet
- (7) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet
- (8) Remove Livestock Guard
- (9) Concrete (Slope Protection) Extension
- (10) Stream Gage to be protected in place
- (11) Existing PG&E overhead electrical to remain
- (12) Right of Way Acquisition

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	02-27-20
CHECKED: M. CHRISTENSEN	09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0459

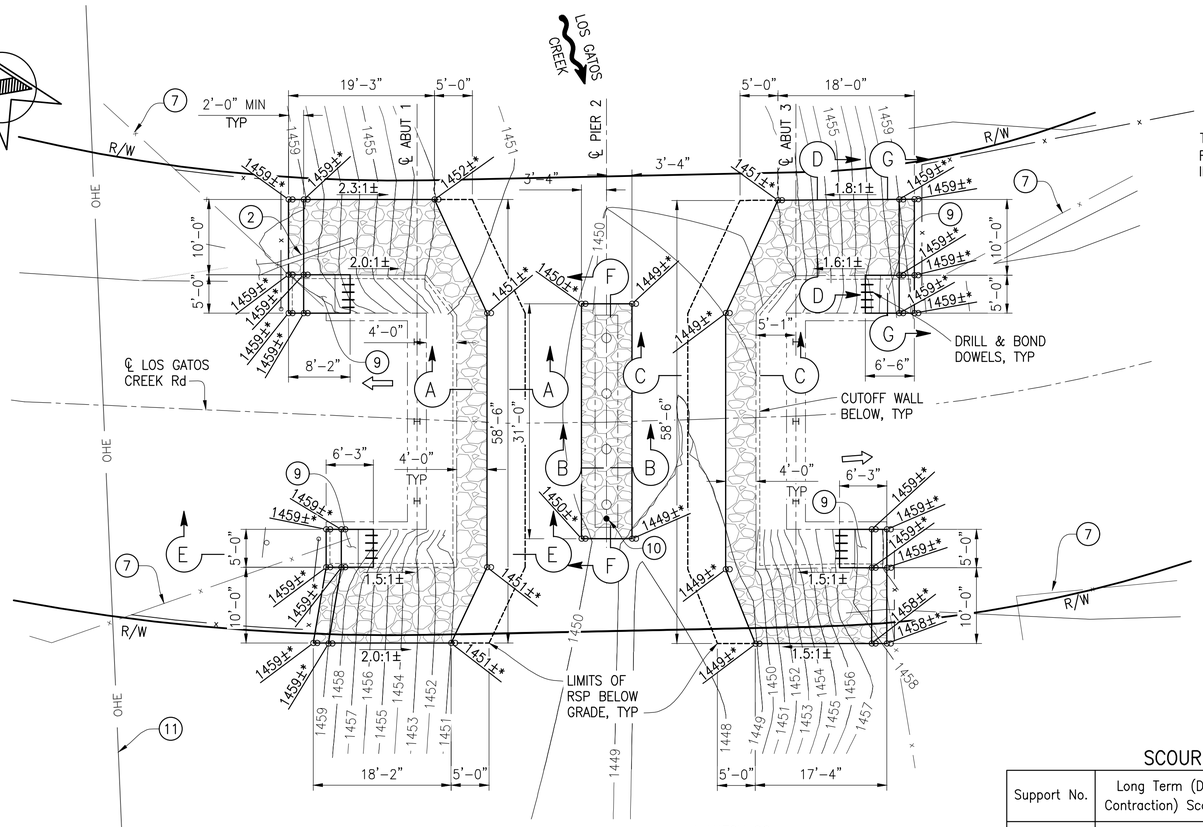
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

GENERAL PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.31 MILES WEST OF S. DERRICK BLVD)

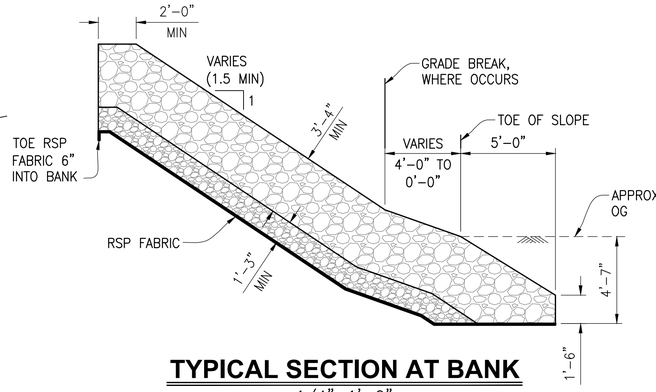
DRAWING NO. 11259 SHEET NO. 3 TOTAL 28

Drawing name: H:\213544 BPMP Fresno County\001-42C0459 - LOS GATOS CREEK\42C0459_GP.dwg Layout Tab: Standards Sep 11,2024 - 9:42am DBotchulaun

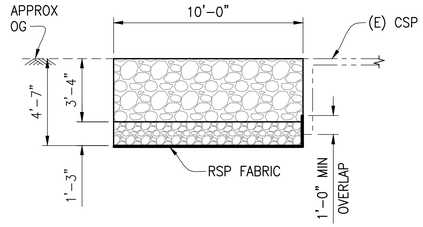


PLAN
1"=10'

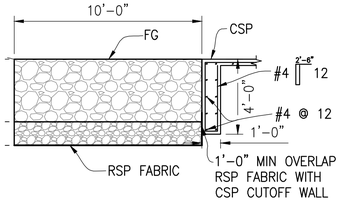
* MATCH OG



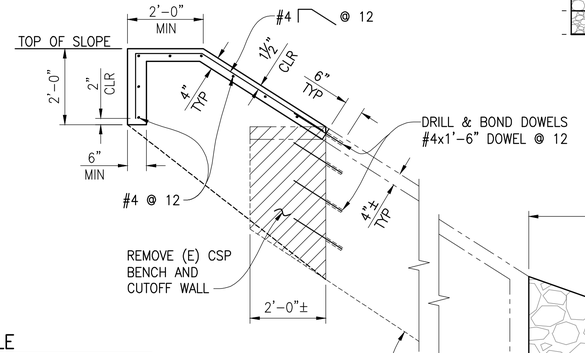
TYPICAL SECTION AT BANK
1/4"=1'-0"

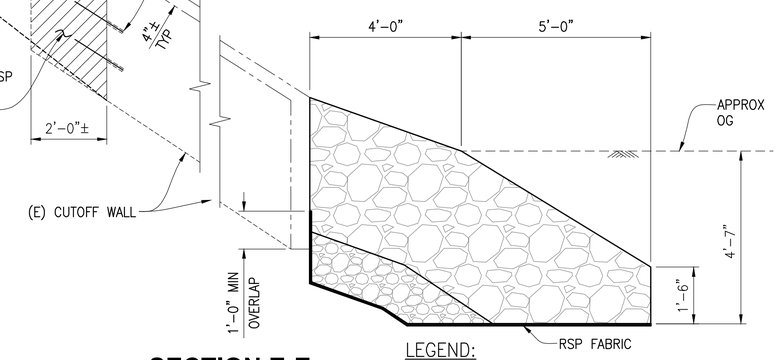


SECTION D-D
1/4"=1'-0"



SECTION G-G
1/4"=1'-0"

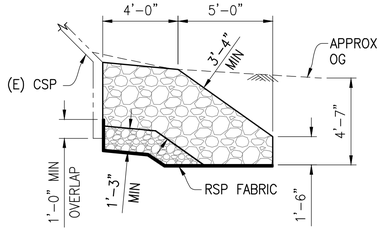




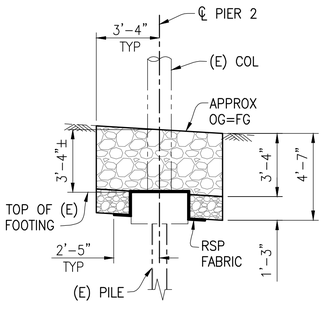
SECTION E-E
1/2"=1'-0"

SCOUR DATA TABLE

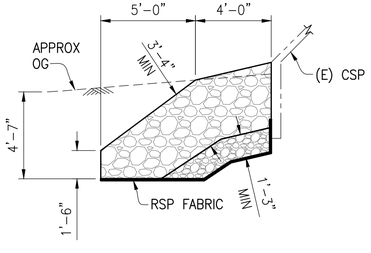
Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	1449.1'	N/A
Pier 2	1448.7'	3.0'
Abut 3	1449.1'	N/A



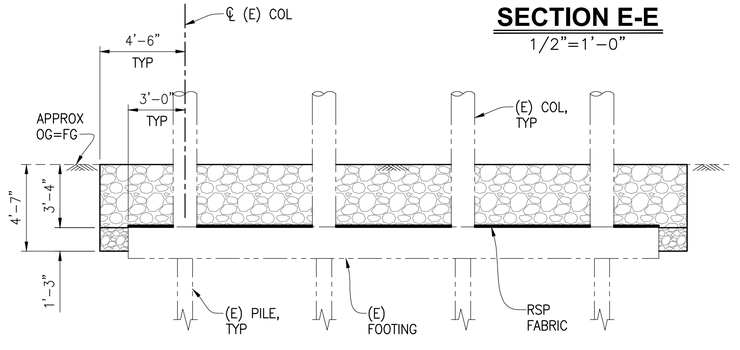
SECTION A-A
1/4"=1'-0"



SECTION B-B
1/4"=1'-0"



SECTION C-C
1/4"=1'-0"



SECTION F-F
1/4"=1'-0"

LEGEND:

- Indicates RSP (1/4 TON, CLASS V, METHOD B)
- Indicates RSP (20 Lb, CLASS I, METHOD B)
- Remove Slope Paving
- Indicates Existing Structure
- —1450— Indicates APPROX OG Contour
- XXXX Indicates FG Elevation
- (2) Reconstruct Downdrain Flume, see "ROAD DETAILS" sheet
- (7) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet
- (9) Concrete (Slope Protection) Extension
- (10) Stream Gage to be protected in place
- (11) Existing PG&E overhead electrical to remain

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

BENCH MARK:
THE HORIZONTAL DATUM FOR THIS SURVEY IS NAD83 (EPOCH DATE 2010.0), AS ESTABLISHED BY NGS CORS. ELEVATIONS SHOWN ARE BASED ON THE CITY OF FRESNO (NGVD29) VERTICAL DATUM. THE MAP PROJECTION FOR THIS SURVEY IS CALIFORNIA STATE PLANE ZONE 4, US SURVEY FEET.

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: A. CARDOZA	11-30-17
CHECKED: M. CHRISTENSEN	09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS
ROAD NO. BRIDGE NO. 42C0459

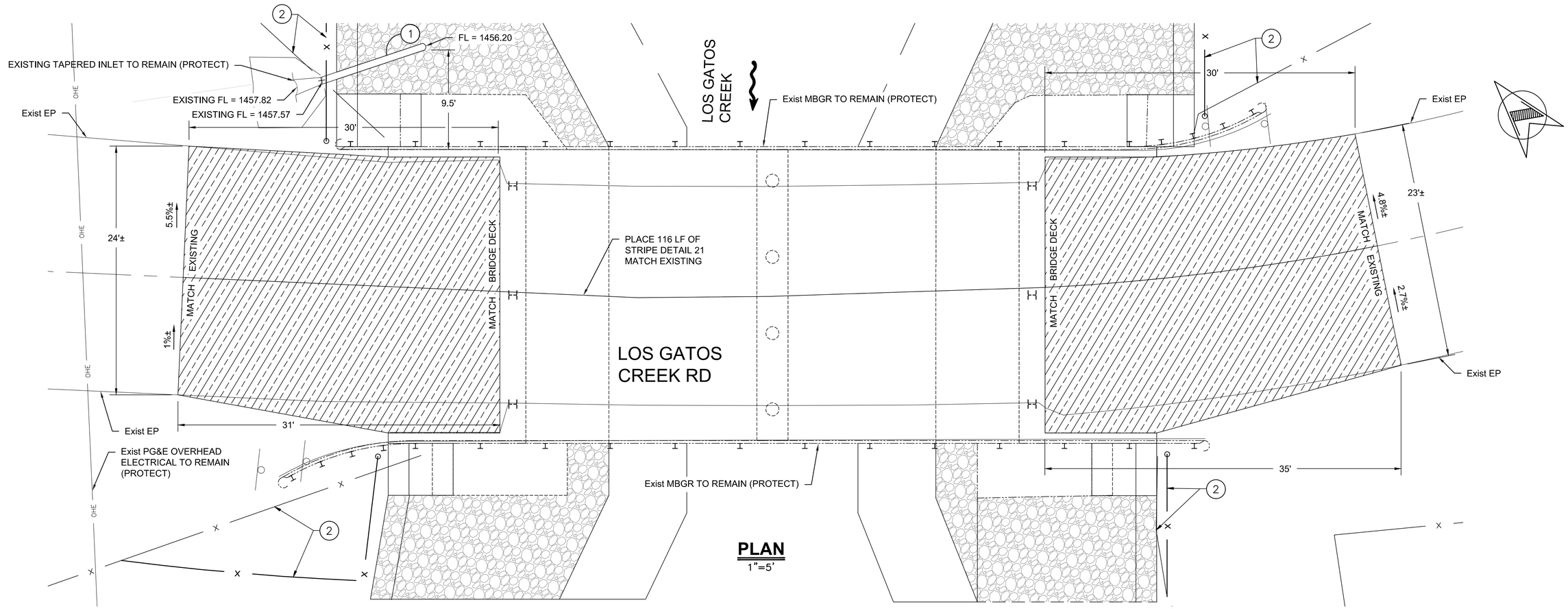
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

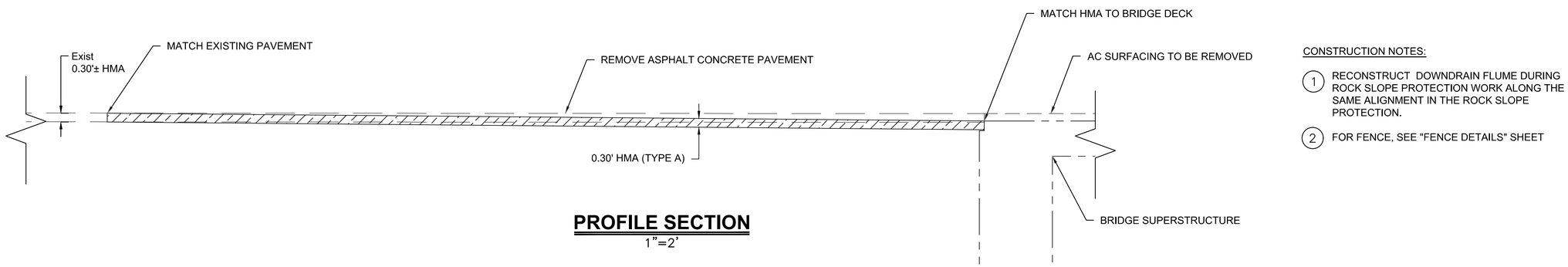
FOUNDATION PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.31 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 4 TOTAL 28

Drawing name: H:\21544 BPMP Fresno County\001-42C0459 - LOS GATOS CREEK\42C0459_FP.dwg Layout Tab: Standards Sep 11,2024 - 3:43pm DBatchuluun



PLAN
1"=5'



PROFILE SECTION
1"=2'

CONSTRUCTION NOTES:

1. RECONSTRUCT DOWNDRAIN FLUME DURING ROCK SLOPE PROTECTION WORK ALONG THE SAME ALIGNMENT IN THE ROCK SLOPE PROTECTION.
2. FOR FENCE, SEE "FENCE DETAILS" SHEET

LEGEND

- REMOVE ASPHALT CONCRETE PAVEMENT PLACE 0.30' HMA (TYPE A)
- RSP (1/4 TON, CLASS V, METHOD B) SEE BRIDGE PLANS

LOS GATOS CREEK BRIDGE (42C0459) HMA APPROACH REPAIR
TYPICAL DETAIL AT BOTH ENDS OF BRIDGE

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

PLAN 0 5' 10' HZ

0 PROFILE 2' 4' VT

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI — SUPERVISING ENGINEER:
09-10-24 — DATE:

REGISTERED PROFESSIONAL ENGINEER — JUSTINA CONKLIN — No. C 93183 — Exp. 06-30-25 — CIVIL — STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. — BRIDGE NO. 42C0459

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

ROAD DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.31 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 — SHEET NO. 5 — TOTAL 28

END REMOVE FENCE
END FENCE (TYPE BW, METAL POST)
CONNECT TO Exist

FENCE (TYPE BW, METAL POST)

R/W

14.0'

REMOVE FENCE
(26.7 LF)

17.0'

BEGIN REMOVE FENCE

BEGIN FENCE (TYPE BW, METAL POST)

LOS GATOS
CREEK

49.8'

END REMOVE FENCE
END FENCE (TYPE BW, METAL POST)
CONNECT TO Exist

FENCE (TYPE BW, METAL POST)

REMOVE FENCE
(56.0 LF)

16.7'

BEGIN REMOVE FENCE

BEGIN FENCE (TYPE BW, METAL POST)

LOS GATOS
CREEK RD

BEGIN FENCE (TYPE BW, WOOD POST)

REMOVE FENCE
(30.0 LF)

BEGIN REMOVE FENCE

END REMOVE FENCE
END FENCE (TYPE BW, WOOD POST)
CONNECT TO Exist

12.0'

R/W

23.4'

BEGIN REMOVE FENCE

BEGIN FENCE (TYPE BW, WOOD POST)

13.7'

REMOVE FENCE
(13.5 LF)

END REMOVE FENCE
END FENCE (TYPE BW, WOOD POST)
CONNECT TO Exist

1.0' Min, Typ.

R/W

PLAN
1"=5'

CONSTRUCTION NOTES:

1. PLACE ROUND METAL END POST PER CALTRANS STANDARD PLAN A86 AND A86B, ENGINEER TO VERIFY LOCATION.
2. FENCE TO BE OFFSET 0.50' MIN FROM RIGHT OF WAY BOUNDARY

Drawing name: H:\21544 BPMP Fresno County\001-4200459 - LOS GATOS CREEK\Sheets\Los Gatos Creek_4200459_FENCE DETAILS.dwg Layout Tab: 4200459 PP Sep 11,2024 - 2:25pm OBatchuluun

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
PLAN 0 5' 10' HZ
PROFILE 0 2' 4' VT

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA CONKLIN
No. C053183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

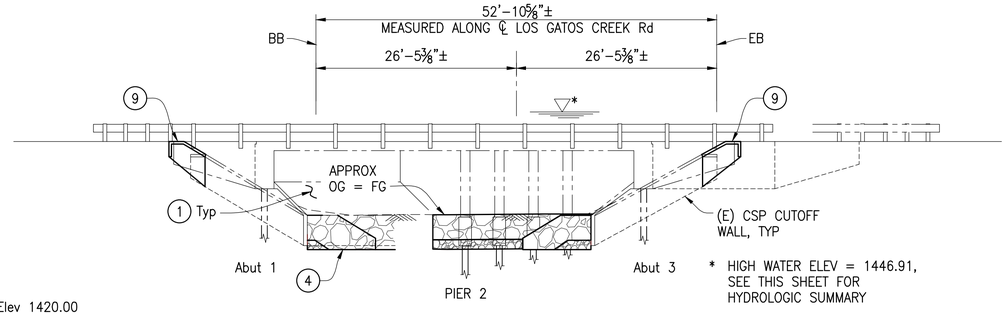
ROAD NO. BRIDGE NO. 42C0459

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

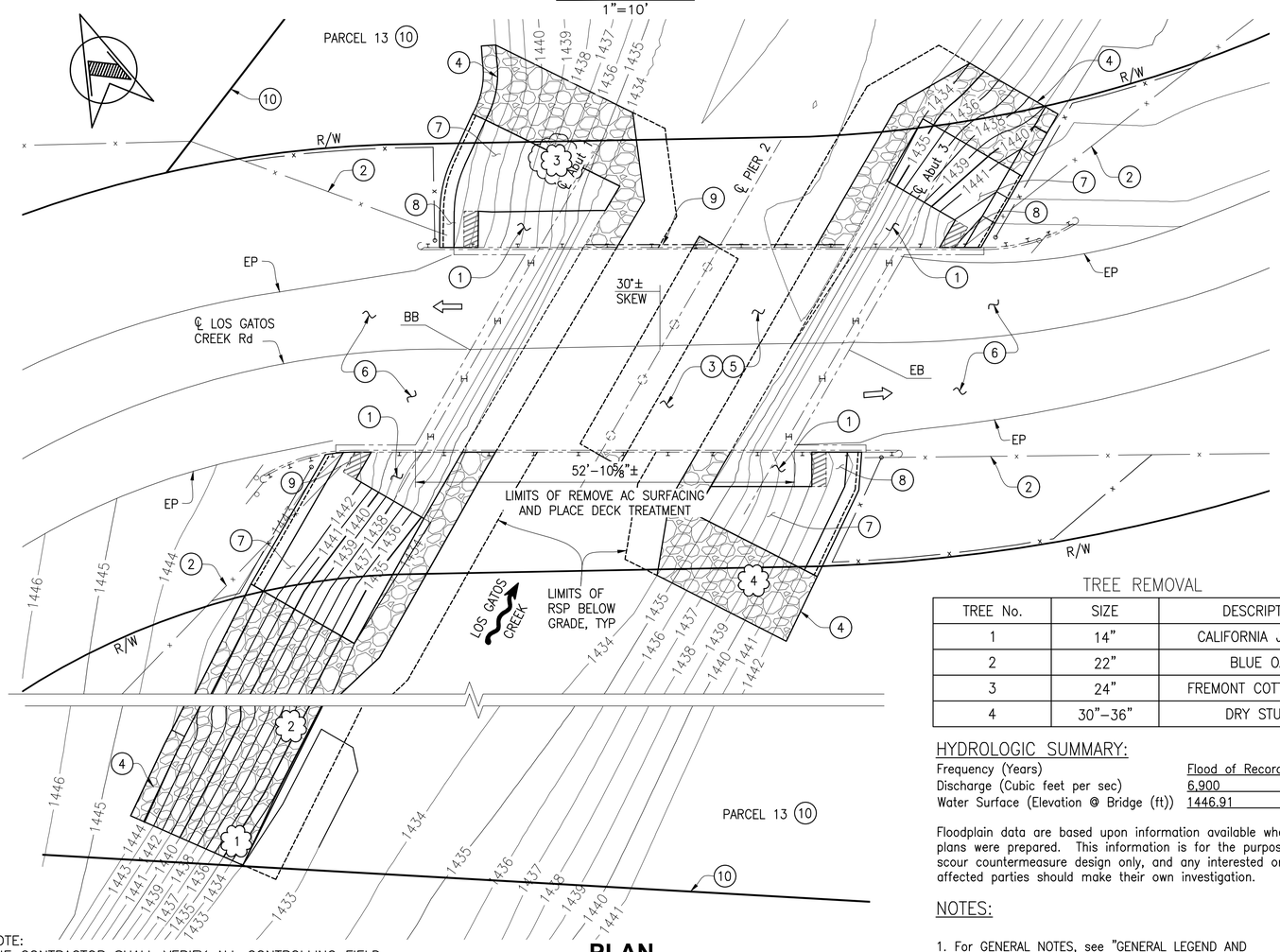
FENCE DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.31 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 6 TOTAL 28



ELEVATION

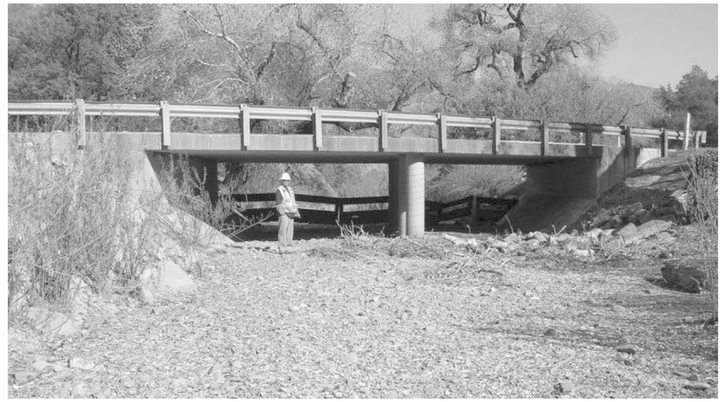
1"=10'



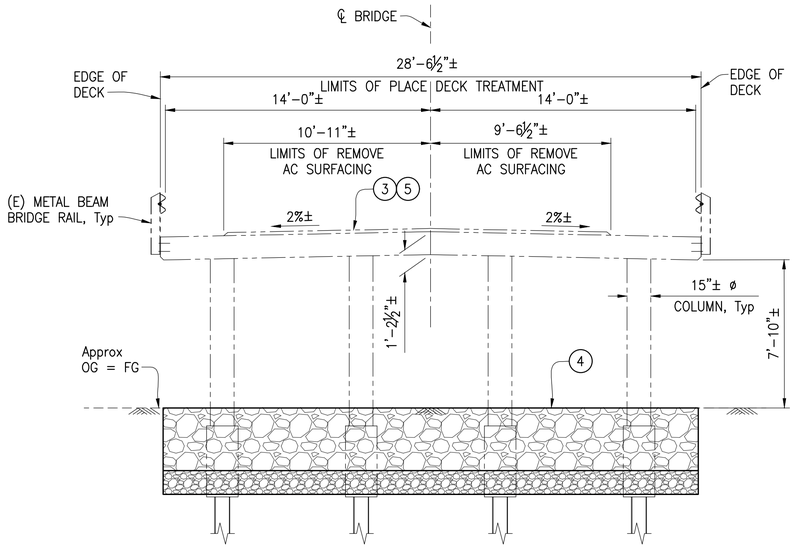
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PLAN

1"=10'



ELEVATION LOOKING NORTHEAST/DOWNSTREAM



TYPICAL SECTION

1/4"=1'-0"

TREE REMOVAL

TREE No.	SIZE	DESCRIPTION
1	14"	CALIFORNIA JUNIPER
2	22"	BLUE OAK
3	24"	FREMONT COTTONWOOD
4	30"–36"	DRY STUMP

HYDROLOGIC SUMMARY:

Frequency (Years)	Flood of Record (1995)
Discharge (Cubic feet per sec)	6,900
Water Surface (Elevation @ Bridge (ft))	1446.91

Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

NOTES:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

LEGEND:

- ⇨ Indicates Direction of Traffic
- - - - Indicates Existing Structure
- —1440— Indicates FG Contour
- (X) Remove Tree
- (1) Existing Slope Protection to remain
- (2) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet
- (3) Remove 3"± thick AC surfacing from bridge deck
- (4) Rock Slope Protection
- (5) Place Deck Treatment
- (6) Remove and Place HMA to match bridge deck, see "ROAD DETAILS" sheet.
- (7) Concrete (Slope Protection) & Cutoff Wall
- (8) Concrete (Slope Protection) Extension
- (9) Remove Livestock Guard
- (10) Right of Way Acquisition

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	02-27-20
CHECKED: M. CHRISTENSEN	09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0458

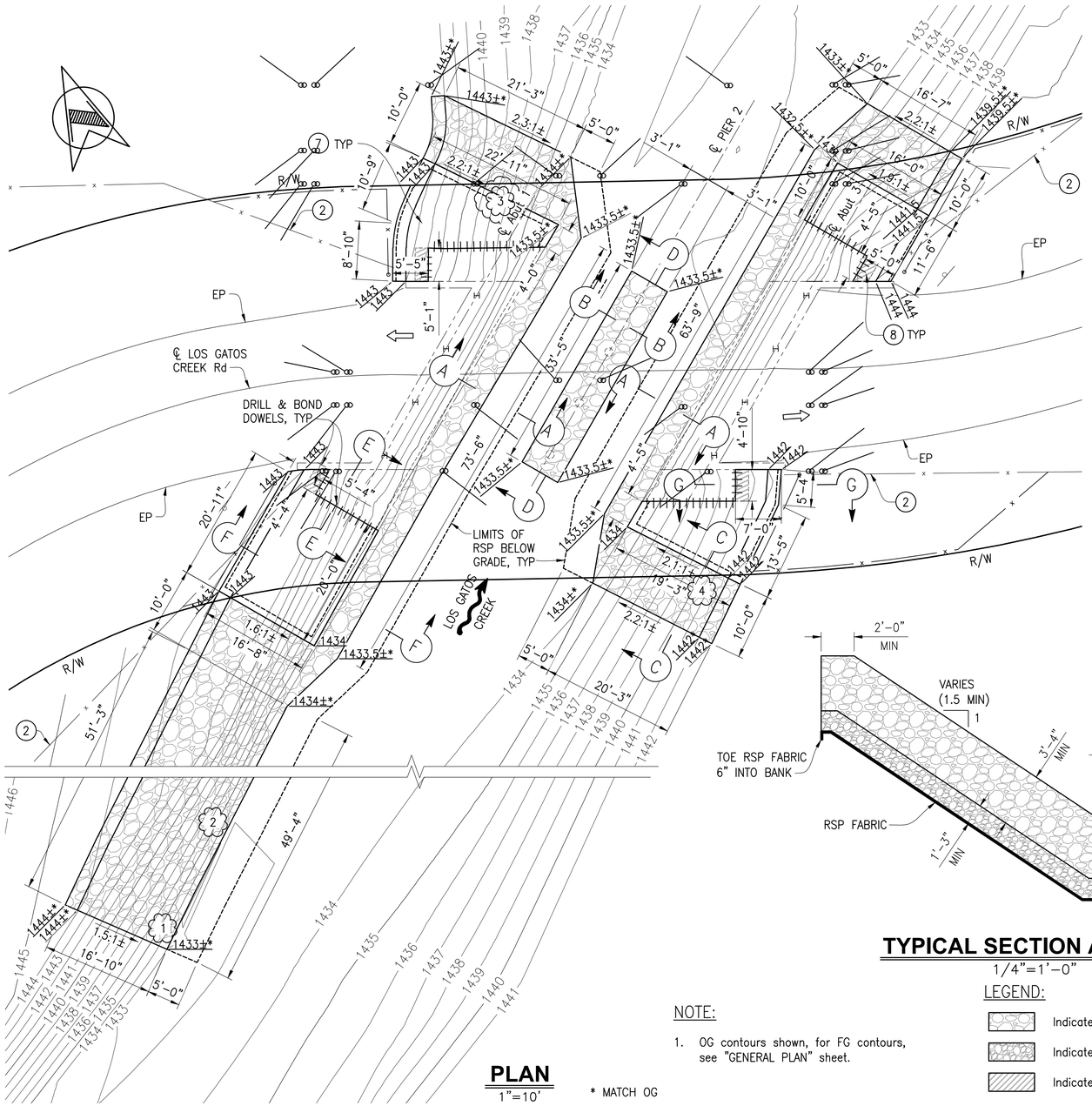
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

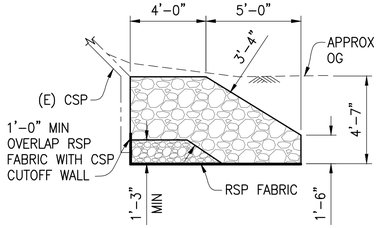
GENERAL PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.14 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 7 TOTAL 28

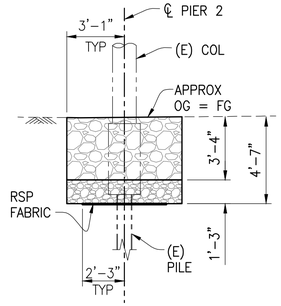
Drawing name: H:\21544 BPMP Fresno County\002-4200458 - LOS GATOS CREEK\4200458_GP.dwg Layout Tab: Standards Sep 11,2024 - 2:45pm OBotchuluun



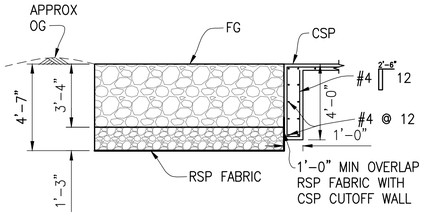
PLAN
1"=10'



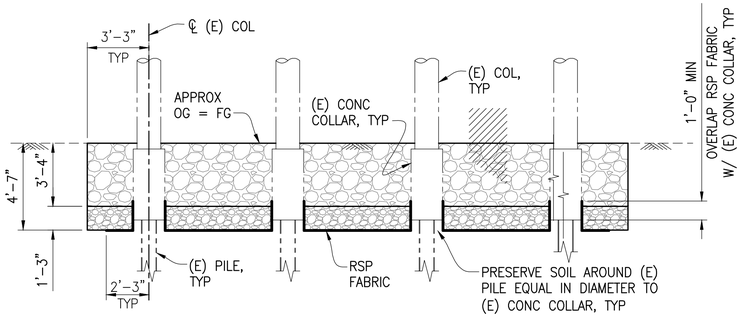
SECTION A-A
1/4"=1'-0"



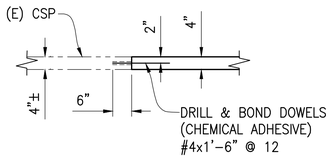
SECTION B-B
1/4"=1'-0"



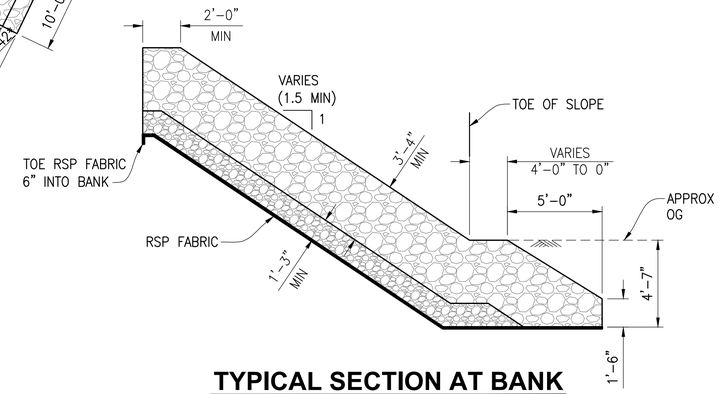
SECTION C-C
1/4"=1'-0"



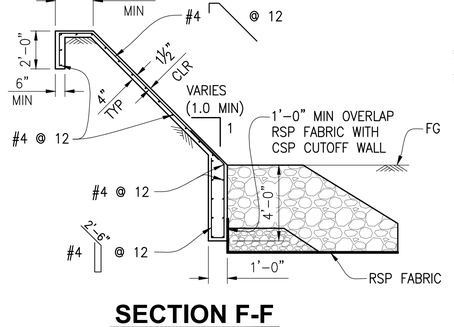
SECTION D-D
1/4"=1'-0"



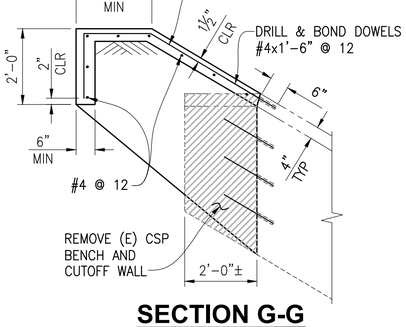
SECTION E-E
1/4"=1'-0"



TYPICAL SECTION AT BANK
1/4"=1'-0"



SECTION F-F
1/4"=1'-0"



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

NOTE:

1. OG contours shown, for FG contours, see "GENERAL PLAN" sheet.

LEGEND:

- Indicates RSP (1/4 TON, CLASS V, METHOD B)
- Indicates RSP (20 Lb, CLASS I, METHOD B)
- Indicates Remove Slope Paving
- Indicates Existing Structure
- —1450— Indicates APPROX OG Contour
- XXXX Indicates FG Elevation
- (2) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet
- (7) Concrete (Slope Protection) & Cutoff Wall
- (8) Concrete (Slope Protection) Extension
- (X) Remove Tree

SCOUR DATA TABLE

Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	1435.0'	N/A
Pier 2	1431.9'	3.0'
Abut 3	1436.1'	N/A

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

BENCH MARK:
THE HORIZONTAL DATUM FOR THIS SURVEY IS NAD83 (EPOCH DATE 2010.0), AS ESTABLISHED BY NGS CORS. ELEVATIONS SHOWN ARE BASED ON THE CITY OF FRESNO (NGVD29) VERTICAL DATUM. THE MAP PROJECTION FOR THIS SURVEY IS CALIFORNIA STATE PLANE ZONE 4, US SURVEY FEET.

DESIGNED: K. NEGORO 11-30-17
DRAWN: A. CARDOZA 07-29-24
CHECKED: M. CHRISTENSEN 09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711
MARK IMBRIANI
SUPERVISING ENGINEER:
09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS
ROAD NO. BRIDGE NO. 42C0458

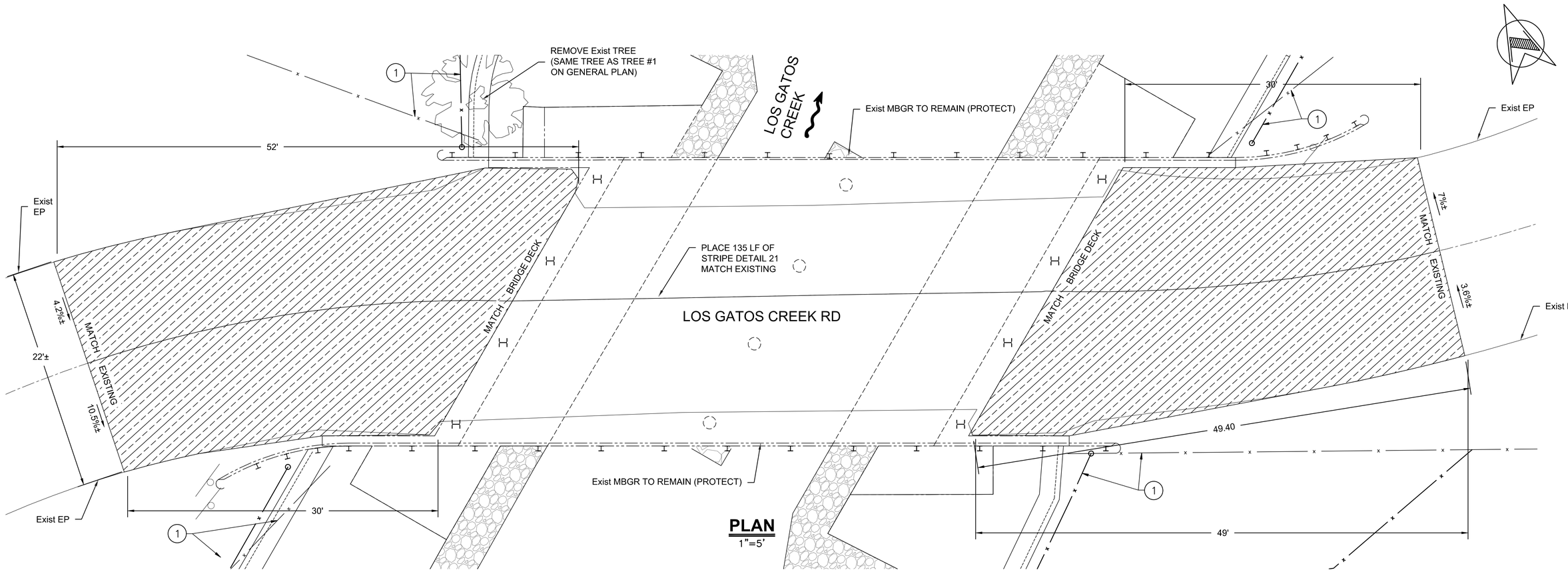
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

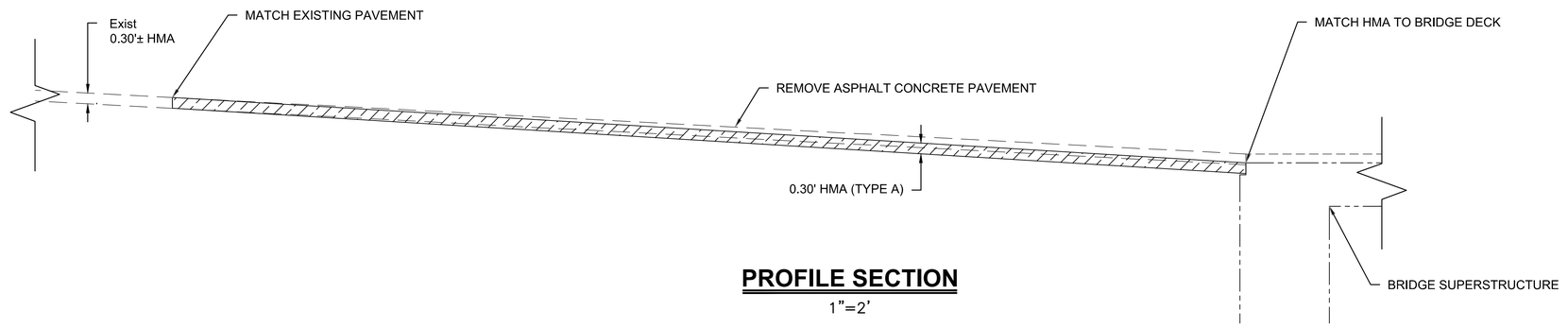
FOUNDATION PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.14 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 8 TOTAL 28

Drawing name: H:\21344 BPMP Fresno County\002-42C0458 - LOS GATOS CREEK\42C0458_FP.dwg Layout Tab: Standards Sep 11,2024 - 4:01pm dbdchuluun



PLAN
1"=5'



PROFILE SECTION
1"=2'

LEGEND

REMOVE ASPHALT CONCRETE PAVEMENT
PLACE 0.30' HMA (TYPE A)

RSP (1/4 TON, CLASS V, METHOD B)
SEE BRIDGE PLANS

CONSTRUCTION NOTES:

(1) FOR FENCE, SEE "FENCE DETAILS" SHEET

LOS GATOS CREEK BRIDGE (42C0458) HMA APPROACH REPAIR
TYPICAL DETAIL AT BOTH ENDS OF BRIDGE

DESIGNED: A. BEDAL 06-07-24
DRAWN: A. BEDAL 06-10-24
CHECKED: J. CONKLIN 09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
PLAN 0 10' 20' HZ
PROFILE 0 2' 4' VT

REVISION — FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA CONKLIN
No. C-63183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

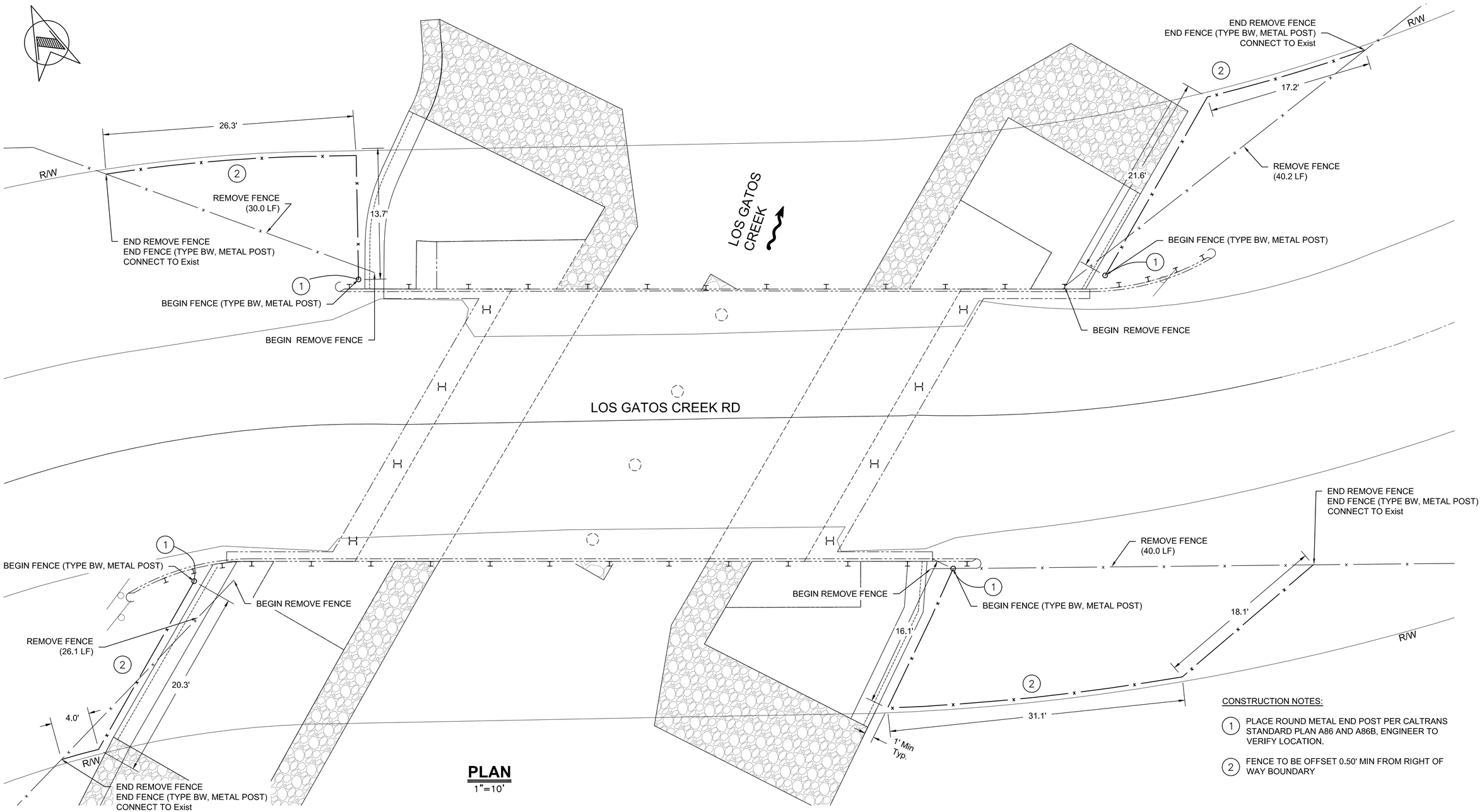
PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0458

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
ROAD DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.14 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 9 TOTAL 28



PLAN
1"=10'

CONSTRUCTION NOTES:

1. PLACE ROUND METAL END POST PER CALTRANS STANDARD PLAN A86 AND A86B, ENGINEER TO VERIFY LOCATION.
2. FENCE TO BE OFFSET 0.50' MIN FROM RIGHT OF WAY BOUNDARY

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
PLAN 0 10' 20' HZ
PROFILE 0 2' 4' VT

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI — SUPERVISING ENGINEER: — 09-10-24 — DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA (JT) CONKLIN
No. C-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. — BRIDGE NO. 42C0458

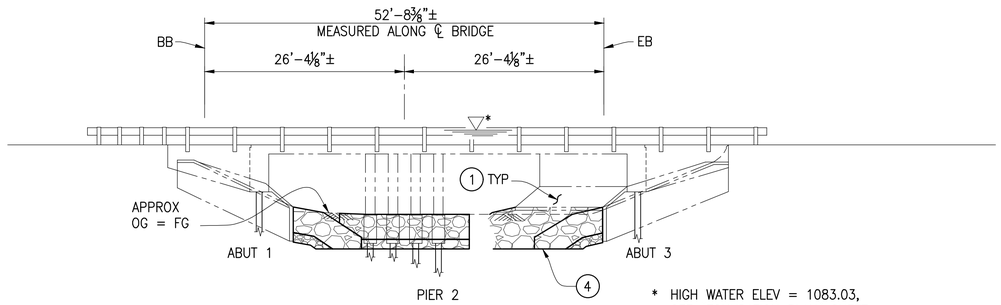
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

FENCE DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(11.14 MILES WEST OF S. DERRICK BLVD)

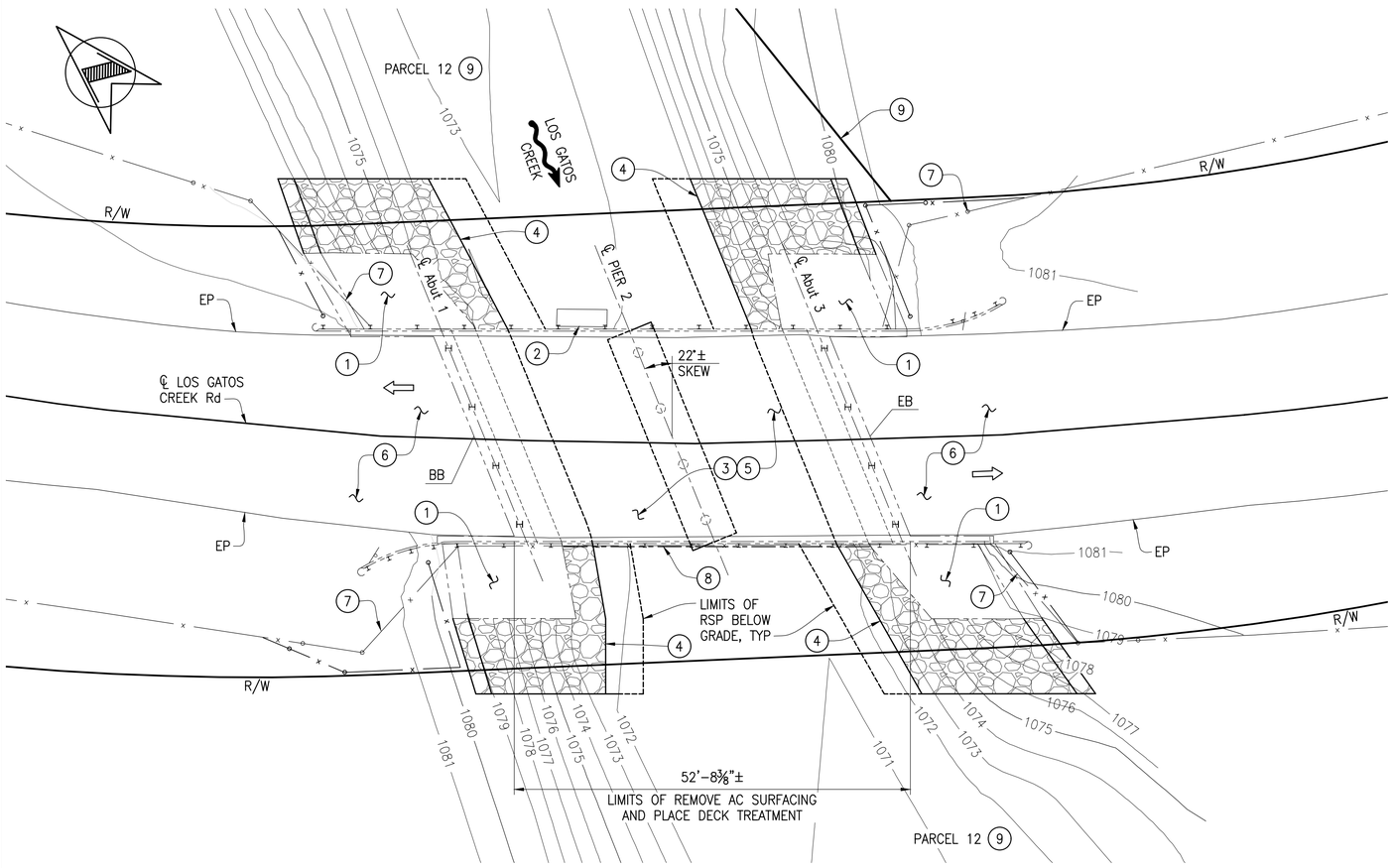
DRAWING NO. 11259 — SHEET NO. 10 — TOTAL 28

Drawing name: H:\213544 BPMP Fresno County\002-4200458 - LOS GATOS CREEK\Sheets\Los Gatos Creek_4200458_Fence Details.dwg Layout Tab: 4200458 PP Sep 11,2024 - 2:54pm OBatchuluun



ELEVATION

1"=10'

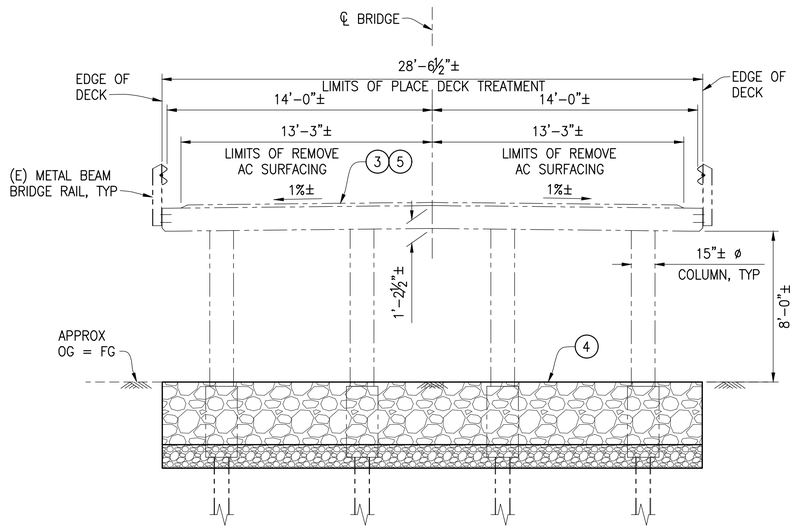


PLAN

1"=10'

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

ELEVATION LOOKING NORTHEAST



TYPICAL SECTION

1/4"=1'-0"

LEGEND:

- ⇨ Indicates Direction of Traffic
- Indicates Existing Structure
- (1) Existing Concrete Slope Protection to remain
- (2) Existing Catwalk and Equipment to be protected in place
- (3) Remove 3"± thick AC surfacing from bridge deck
- (4) Rock Slope Protection
- (5) Place Deck Treatment
- (6) Remove and Place HMA to match bridge deck, see "ROAD DETAILS" sheet
- (7) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet
- (8) Remove Livestock Guard
- (9) Right of Way Acquisition

NOTES:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

		DATE
DESIGNED:	K. NEGORO	11-30-17
DRAWN:	G. IMBSEN	02-27-20
CHECKED:	M. CHRISTENSEN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0455

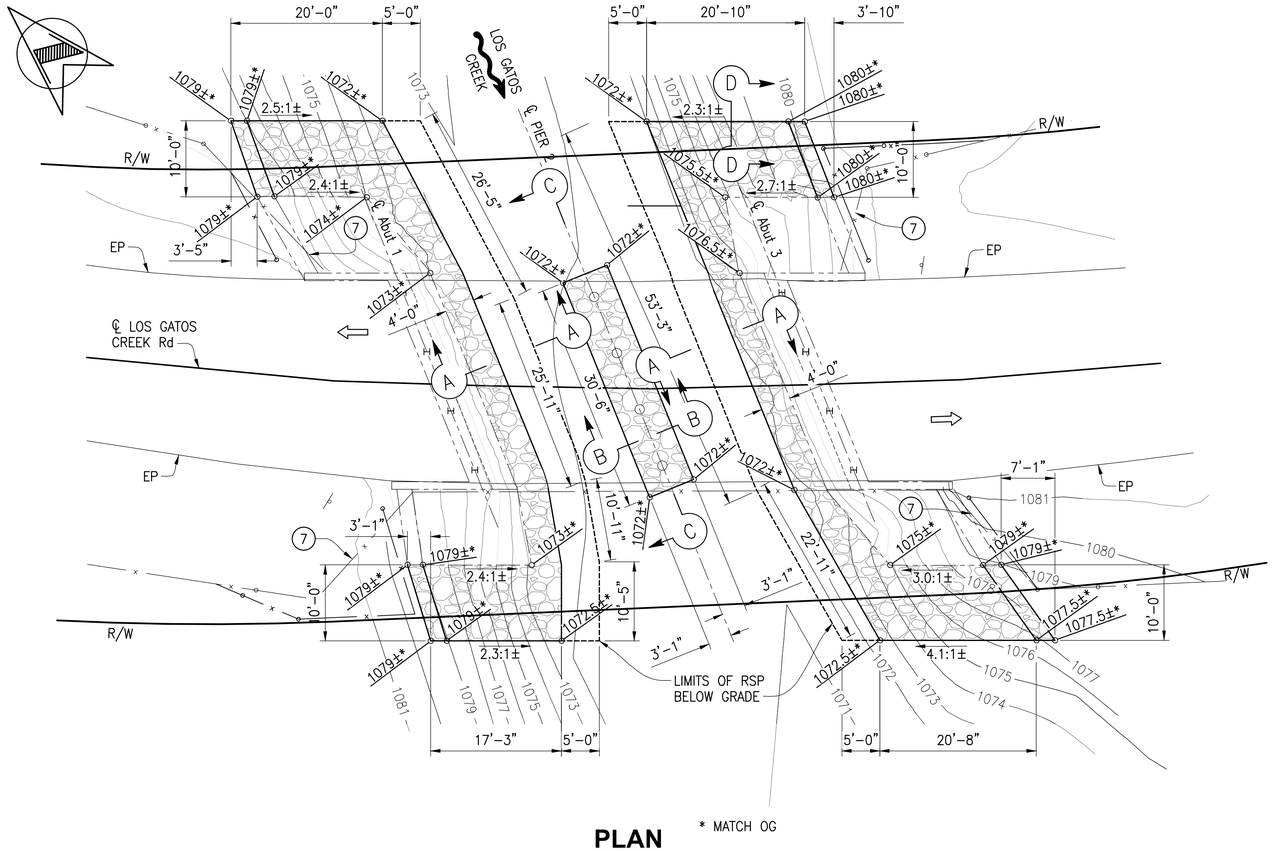
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

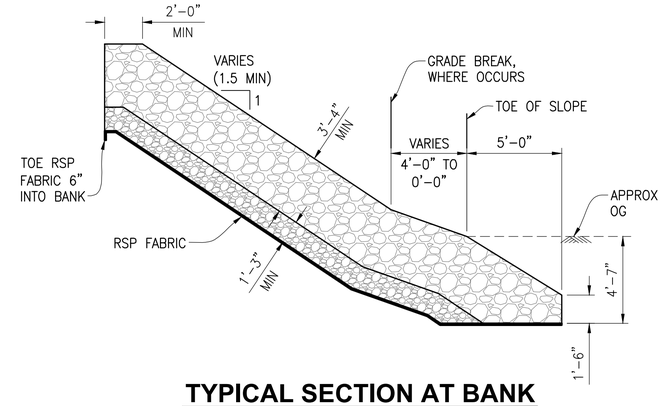
GENERAL PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(5.53 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 11 TOTAL 28

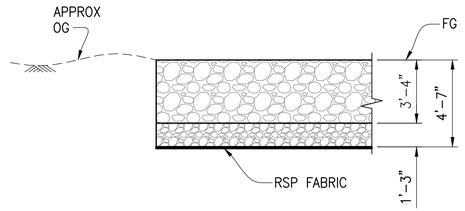
Drawing name: H:\21344 BPMP Fresno County\003-4220455 - LOS GATOS CREEK\42C0455_GP.dwg Layout Tab: Standards Sep 11,2024 - 2:56pm GBotchuluun



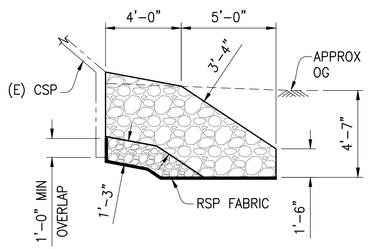
PLAN
1"=10'



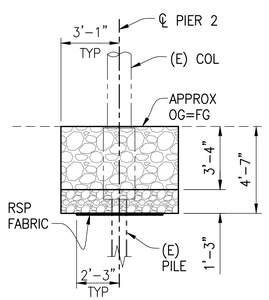
TYPICAL SECTION AT BANK
1/4"=1'-0"



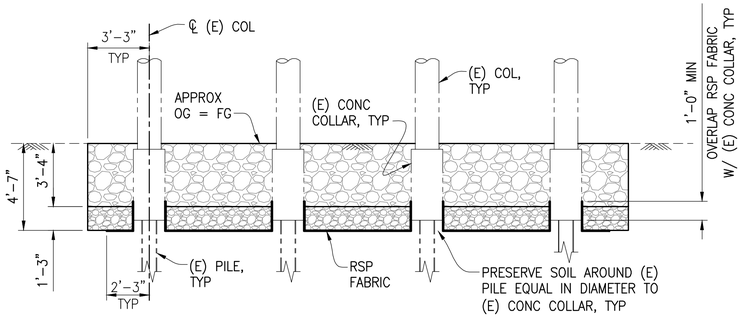
SECTION D-D
1/4"=1'-0"



SECTION A-A
1/4"=1'-0"



SECTION B-B
1/4"=1'-0"



SECTION C-C
1/4"=1'-0"

SCOUR DATA TABLE

Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	1069.6'	N/A
Pier 2	1069.6'	3.0'
Abut 3	1072.9'	N/A

HYDROLOGIC SUMMARY:

Frequency (Years)	Flood of Record (1995)
Discharge (Cubic feet per sec)	6,900
Water Surface (Elevation @ Bridge (ft))	1083.03

Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

LEGEND:

- Indicates RSP (1/4 TON, CLASS V, Method B)
- Indicates RSP (20 Lb, CLASS I, Method B)
- Indicates Existing Structure
- —1075— Indicates APPROX OG Contour
- Indicates FG Elevation
- (7) Remove Barbed Wire Fence to gain access to channel, see "FENCE DETAILS" sheet

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

BENCH MARK:
THE HORIZONTAL DATUM FOR THIS SURVEY IS NAD83 (EPOCH DATE 2010.0), AS ESTABLISHED BY NGS CORS. ELEVATIONS SHOWN ARE BASED ON THE CITY OF FRESNO (NGVD29) VERTICAL DATUM. THE MAP PROJECTION FOR THIS SURVEY IS CALIFORNIA STATE PLANE ZONE 4, US SURVEY FEET.

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: A. CARDOZA	07-29-24
CHECKED: M. CHRISTENSEN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0455

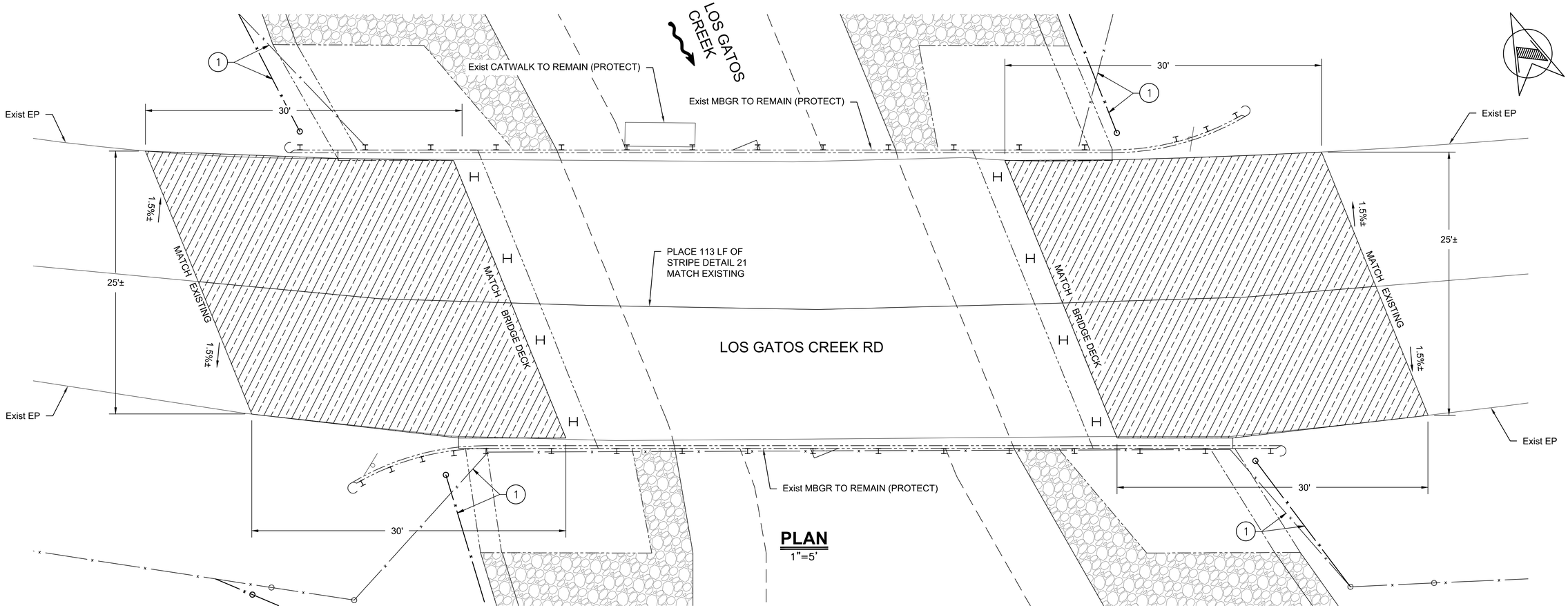
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

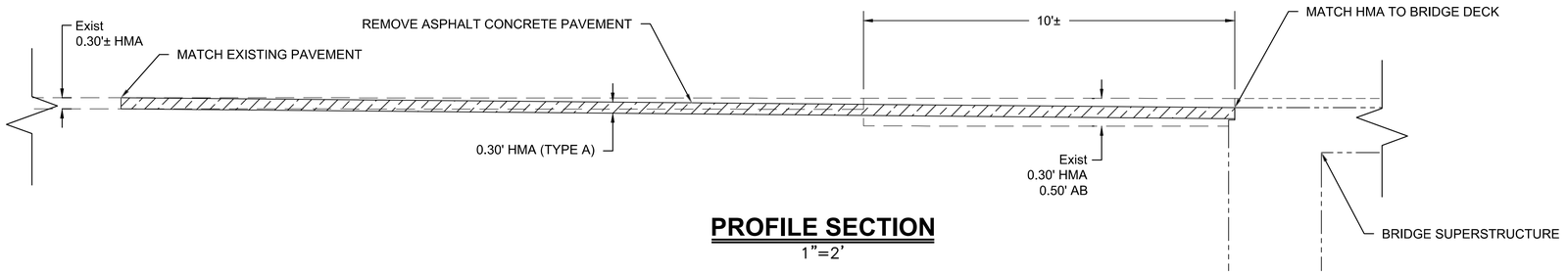
FOUNDATION PLAN
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(5.53 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 12 TOTAL 28

Drawing name: H:\21544 BPMP Fresno County\003-4200455 - LOS GATOS CREEK\4200455_FP.dwg Layout Tab: Standards Sep 11,2024 - 2:58pm OBatchuluun



PLAN
1"=5'



PROFILE SECTION
1"=2'

LEGEND

REMOVE ASPHALT CONCRETE PAVEMENT
PLACE 0.30' HMA (TYPE A)

RSP (1/4 TON, CLASS V, METHOD B)
SEE BRIDGE PLANS

LOS GATOS CREEK BRIDGE (42C0455) HMA APPROACH REPAIR
TYPICAL DETAIL AT BOTH ENDS OF BRIDGE

CONSTRUCTION NOTES:

1. FOR FENCE, SEE "FENCE DETAILS" SHEET

DESIGNED: A. BEDAL 06-07-24
DRAWN: A. BEDAL 06-10-24
CHECKED: J. CONKLIN 09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
PLAN 0 5' 10' HZ
PROFILE 0 2' 4' VT

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA J. CONKLIN
No. C 43183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

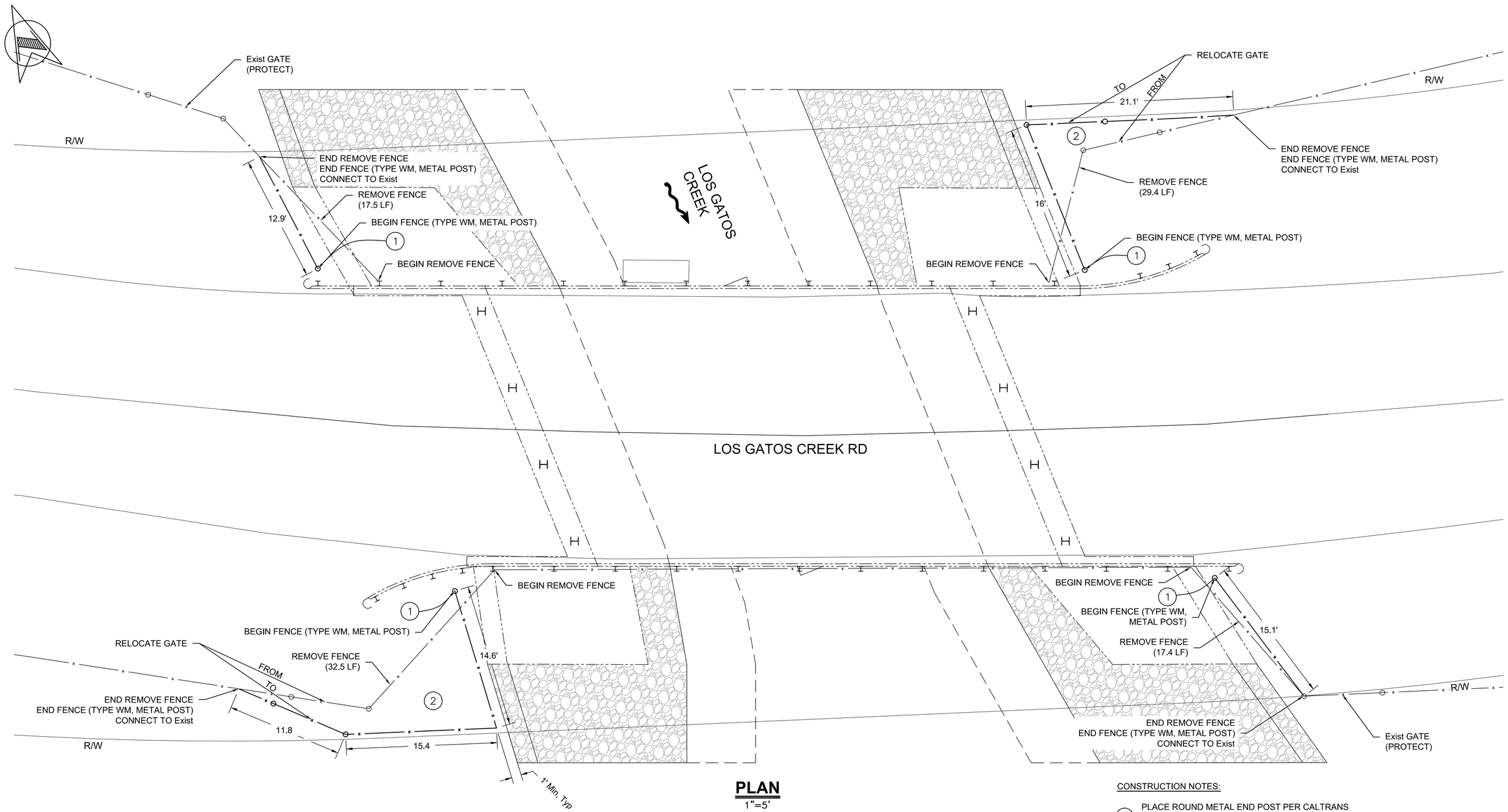
ROAD NO. BRIDGE NO. 42C0455

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
ROAD DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(5.53 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 13 TOTAL 28

Drawing name: H:\21344 BPMP Fresno County\003--4220455 -- LOS GATOS CREEK\Sheets\Los Gatos Creek_4220455_Road Details.dwg Layout Tab: 4220455 PP Sep 11,2024 - 12:58pm OBotchuluun



PLAN
1"=5'

CONSTRUCTION NOTES:

1. PLACE ROUND METAL END POST PER CALTRANS STANDARD PLAN A86 AND A86B, ENGINEER TO VERIFY LOCATION.
2. FENCE TO BE OFFSET 0.50' MIN FROM RIGHT OF WAY BOUNDARY

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

PLAN 0 5' 10' HZ

0 PROFILE 2' 4' VT

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA CONKLIN
No. C-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0455

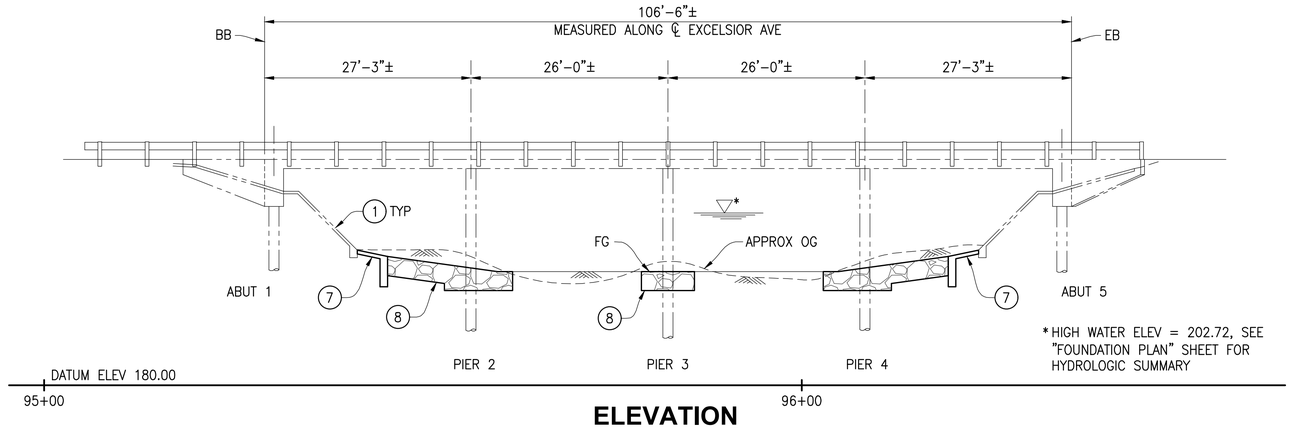
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

FENCE DETAILS
LOS GATOS CREEK BRIDGE AT LOS GATOS CREEK ROAD
(5.53 MILES WEST OF S. DERRICK BLVD)

DRAWING NO. 11259 SHEET NO. 14 TOTAL 28

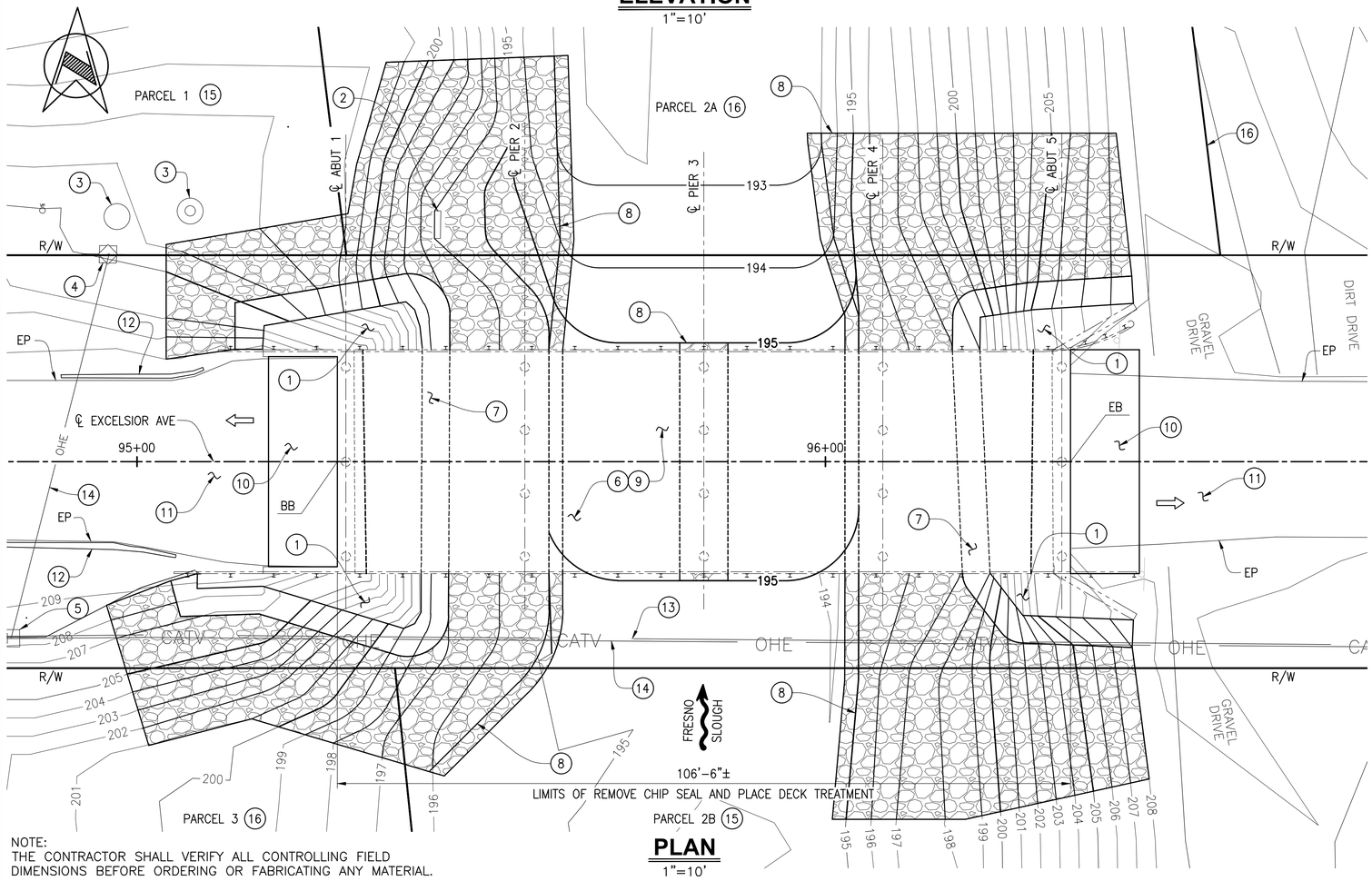
Drawing name: H:\21544 BPMP Fresno County\003--4203455 -- LOS GATOS CREEK\Sheets\Los Gatos Creek_4203455_Fence Details.dwg Layout Tab: 4203455 PP Sep 11,2024 -- 12:59pm OBatchuluun



ELEVATION

1"=10'

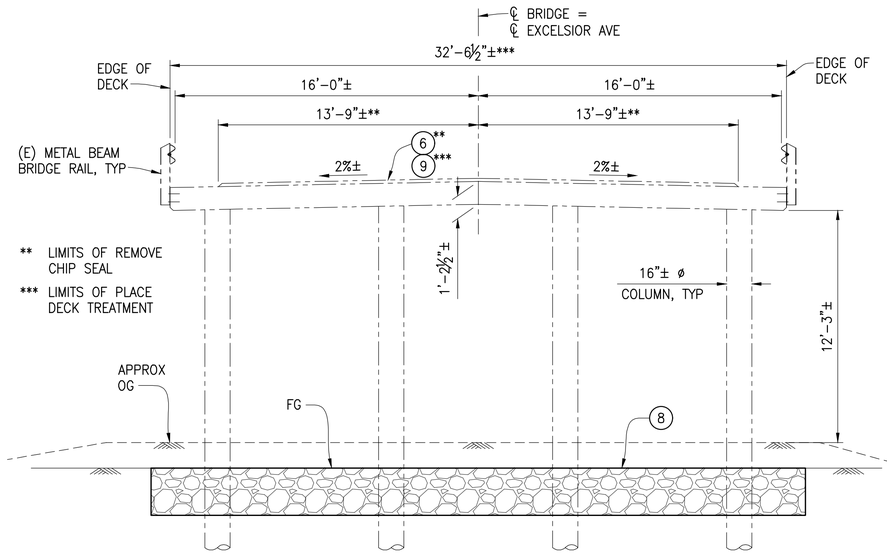
ELEVATION LOOKING SOUTHEAST



PLAN

1"=10'

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



TYPICAL SECTION

1/4"=1'-0"

LEGEND:

- ⇨ Indicates Direction of Traffic
- Indicates Existing Structure
- —195— Indicates FG Contour
- (1) Existing Concrete Slope Protection to remain
- (2) Existing Irrigation Structure to remain
- (3) Existing Irrigation Facilities to remain
- (4) Existing PG&E Power Pole to remain
- (5) Existing PG&E Power Pole
- (6) Remove Chip Seal from bridge deck
- (7) Concrete (Slope Protection) & Cutoff Wall
- (8) Rock Slope Protection
- (9) Place Deck Treatment
- (10) Approach Slab Type R
- (11) Cold Plane and place HMA Overlay, see "ROAD DETAILS" sheet.
- (12) AC Dike, see "ROAD DETAILS" sheet.
- (13) Existing AT&T overhead cable to remain
- (14) Existing PG&E overhead electrical to remain
- (15) Temporary Construction Easement
- (16) Right of Way Acquisition

NOTES:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	02-27-20
CHECKED: M. CHRISTENSEN	09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0104

THE COUNTY OF FRESNO 1856

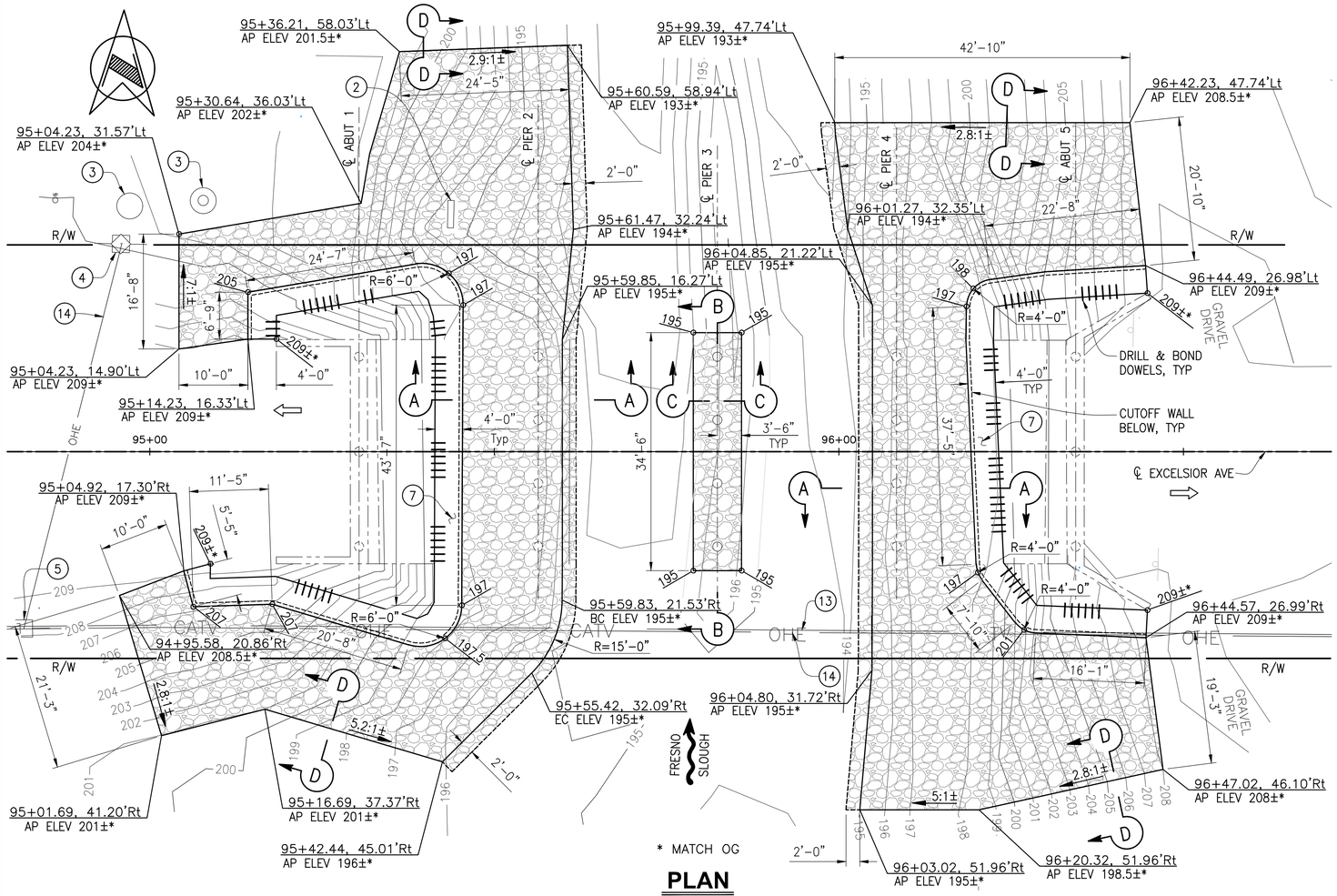
DEPARTMENT OF PUBLIC WORKS AND PLANNING

GENERAL PLAN

FRESNO SLOUGH BRIDGE AT EXCELSIOR AVENUE

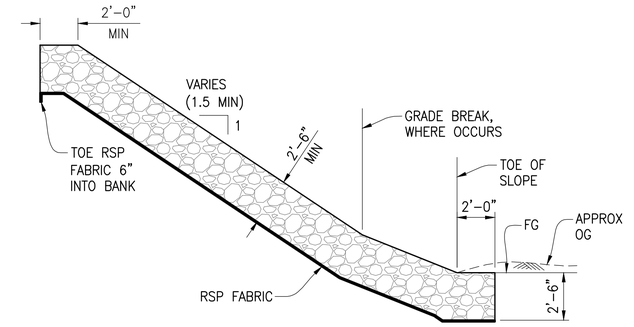
DRAWING NO. 11259 SHEET NO. 15 TOTAL 28

Drawing name: H:\21544 BPMP Fresno County\005-42c0104 - FRESNO SLOUGH\42c0104_GP.dwg Layout Tab: Standards Sep 11,2024 - 3:01pm GBatchelulian

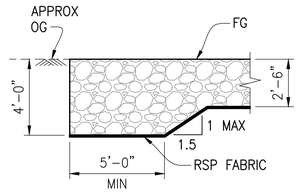


* MATCH OG

PLAN
1"=10'



TYPICAL SECTION AT BANK
1/4"=1'-0"



SECTION D-D
1/4"=1'-0"

SCOUR DATA TABLE

Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
ABUT 1	198.8'	N/A
Pier 2	192.4'	3.0'
Pier 3	192.4'	3.0'
Pier 4	192.4'	3.0'
ABUT 5	198.8'	N/A

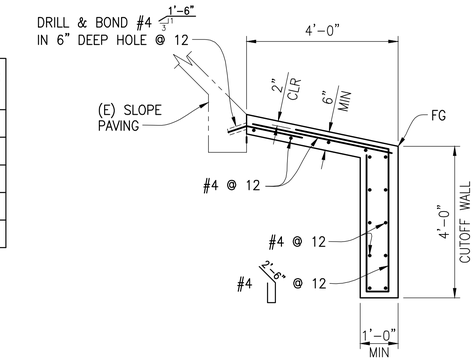
HYDROLOGIC SUMMARY:

Frequency (Years)	100
Discharge (Cubic feet per sec)	4,750
Water Surface (Elevation @ Bridge (ft))	202.72

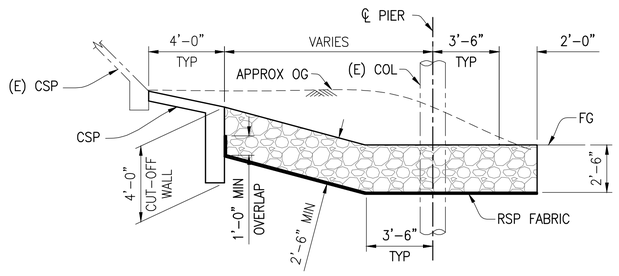
Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

NOTE:

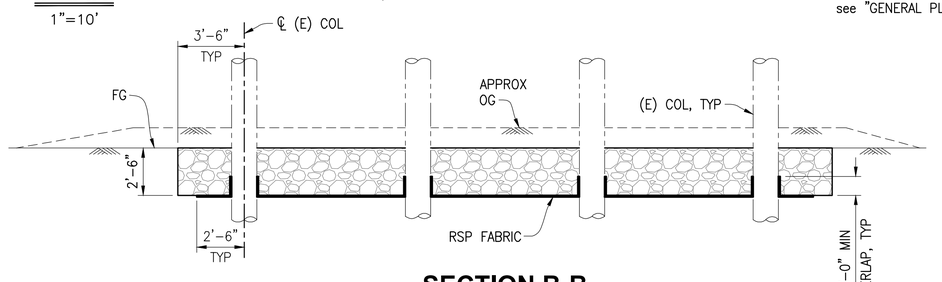
1. OG contours shown, for FG contours, see "GENERAL PLAN" sheet



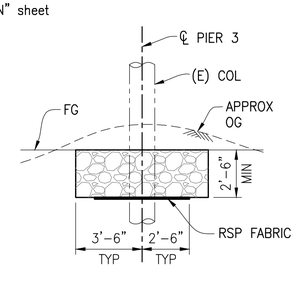
SLOPE PAVING/CUTOFF WALL DETAIL
1/2"=1'-0"



SECTION A-A
1/4"=1'-0"



SECTION B-B
1/4"=1'-0"



SECTION C-C
1/4"=1'-0"

LEGEND:

- Indicates RSP (150 Lb, Class III, Method B)
- Indicates Existing Structure
- —1450— Indicates APPROX OG Contour
- XXX Indicates FG Elevation
- (2) Existing Irrigation Structure to remain
- (3) Existing Irrigation Facilities to remain
- (4) Existing PG&E Power Pole to remain
- (5) Existing PG&E Power Pole
- (7) Construct Concrete Slope Paving & Cutoff Wall
- (13) Existing AT&T overhead cable to remain
- (14) Existing PG&E overhead electrical to remain

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: A. CARDOZA	07-29-24
CHECKED: M. CHRISTENSEN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

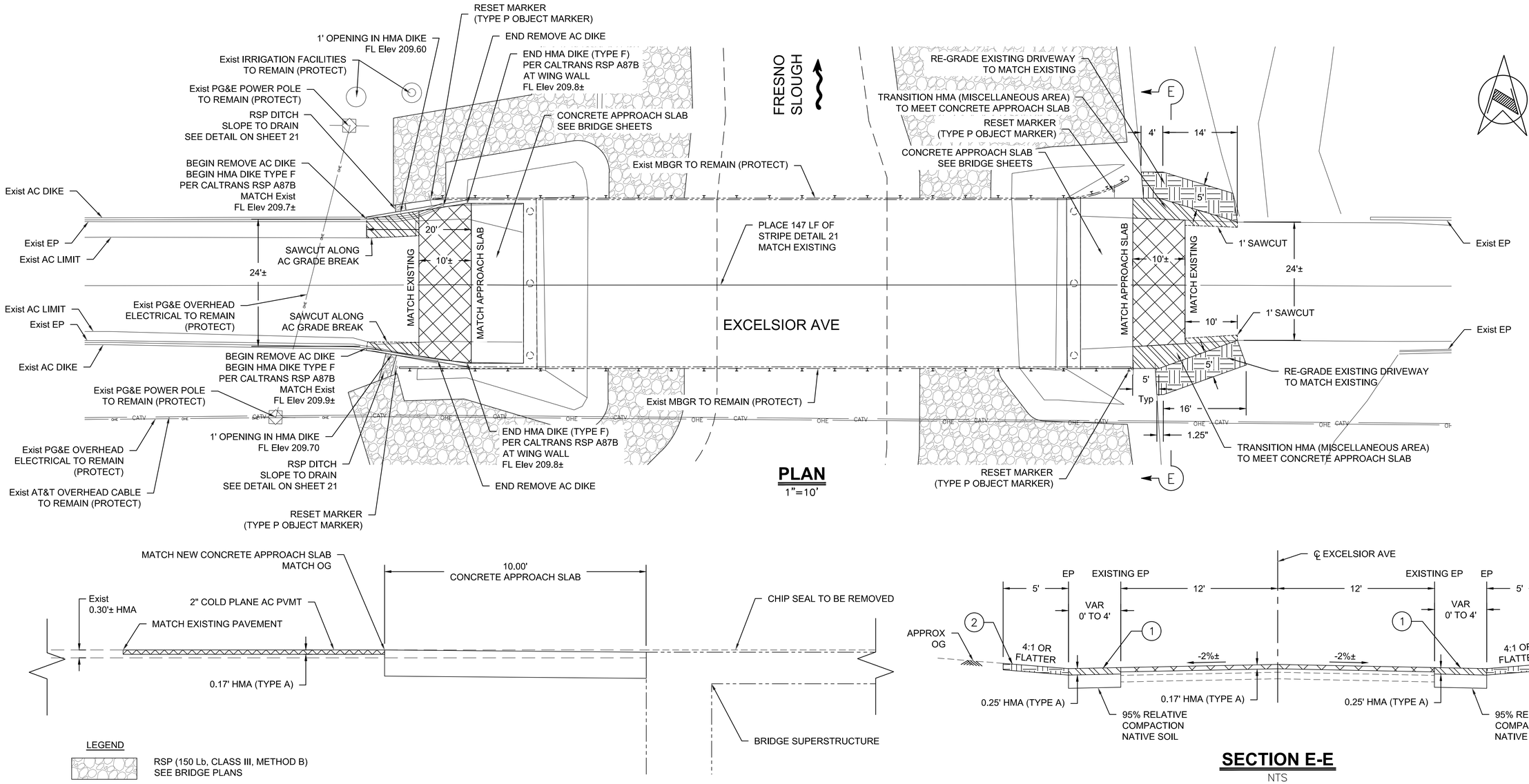
ROAD NO. BRIDGE NO. 42C0104

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
FOUNDATION PLAN
FRESNO SLOUGH BRIDGE AT EXCELSIOR AVENUE

DRAWING NO. 11259 SHEET NO. 16 TOTAL 28

Drawing name: H:\213544 BPMP Fresno County\005-42c0104 - FRESNO SLOUGH\42C0104_FP.dwg Layout Tab: Standards Sep 11,2024 - 1:04pm OBatchuluun

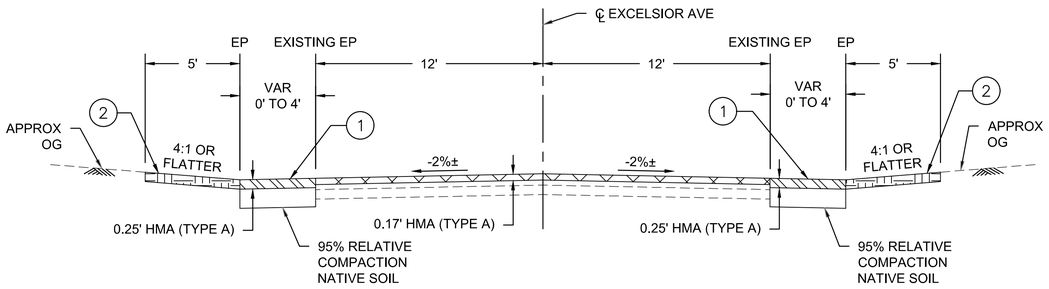


PLAN
1"=10'

PROFILE SECTION
1"=2'

LEGEND

- RSP (150 Lb, CLASS III, METHOD B) SEE BRIDGE PLANS
- RSP (20 Lb, CLASS I, METHOD B)
- HMA (MISCELLANEOUS AREA) — 3" HMA (TYPE A) OVER 6" COMPACTED NATIVE SOIL
- RE-GRADED DRIVEWAY
- COLD PLANE AC PVMT (0.17' DEPTH) & HMA OVERLAY (0.17' DEPTH)



SECTION E-E
NTS

CONSTRUCTION NOTES:

1. WIDEN HMA (TYPE A) PAVEMENT AT EXISTING CROSS SLOPE.
2. RE-GRADE DRIVEWAY TO MATCH EXISTING WITHIN 5'.

FRESNO SLOUGH AT EXCELSIOR BRIDGE (42C0104) HMA APPROACH REPAIR
TYPICAL DETAIL AT BOTH ENDS OF BRIDGE

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

PLAN 0 10' 20' HZ

PROFILE 0 2' 4' VT

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI — SUPERVISING ENGINEER: — 09-10-24 — DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA (JT) CONKLIN
No. C-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. — BRIDGE NO. 42C0104

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

ROAD DETAILS

FRESNO SLOUGH BRIDGE AT EXCELSIOR AVENUE

DRAWING NO. 11259 — SHEET NO. 17 — TOTAL 28

Drawing name: H:\213544 BPMP Fresno County\005-42c0104 - FRESNO SLOUGH\Sheets\Fresno Slough_42C0104_Road Details.dwg Layout Tab: 42C0104 PP Sep 11,2024 - 3:49pm OBatchuluun

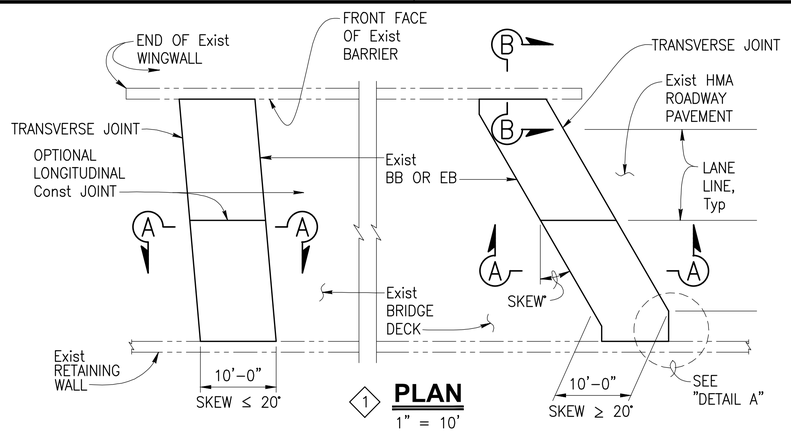
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre				

REGISTERED CIVIL ENGINEER DATE

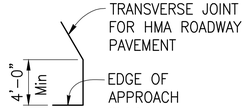
PLANS APPROVAL DATE

ROBIN E. YATES No. 76631 Exp. 12-31-16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

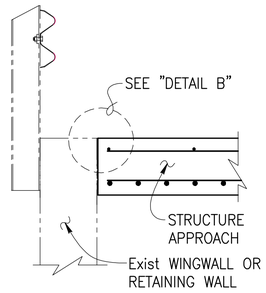
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



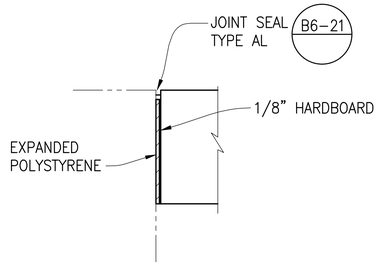
1 **PLAN**
1" = 10'



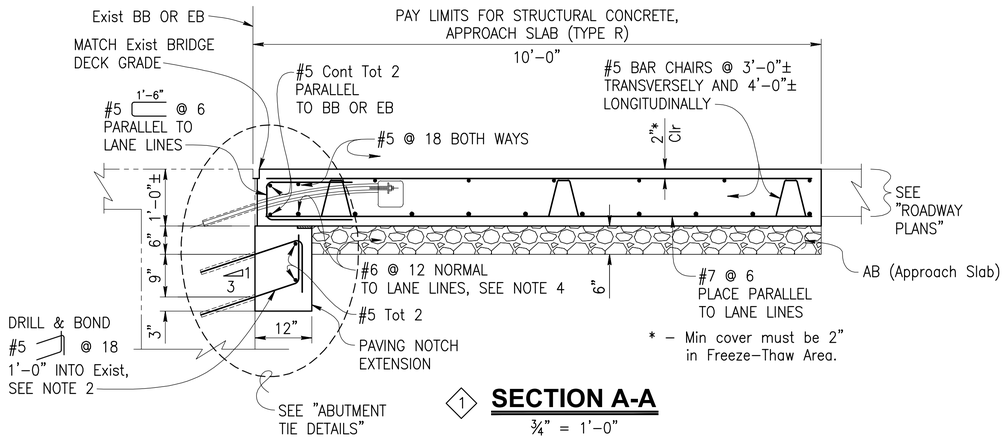
DETAIL A
NO SCALE



1 **SECTION B-B**
¾" = 1'-0"

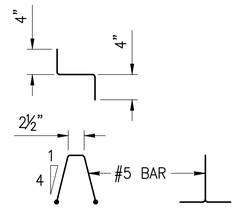


1 **DETAIL B**
NO SCALE

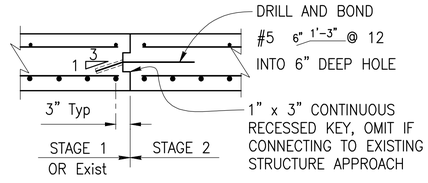


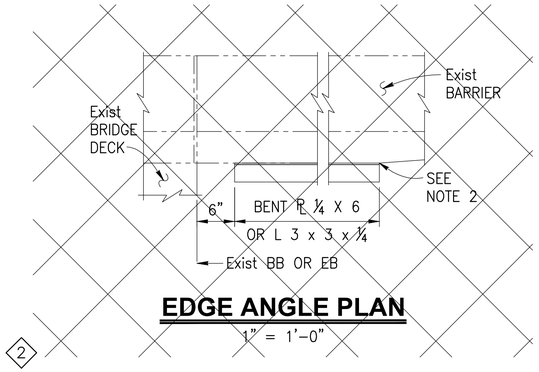
1 **SECTION A-A**
¾" = 1'-0"

* – Min cover must be 2" in Freeze–Thaw Area.

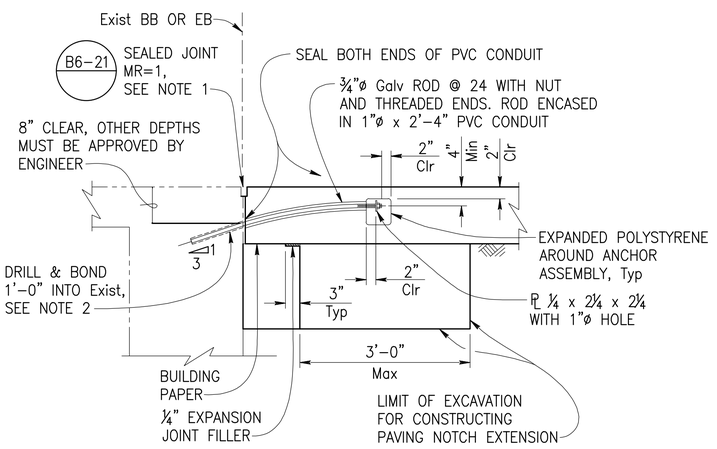


BAR CHAIR DETAIL
1" = 1'-0"



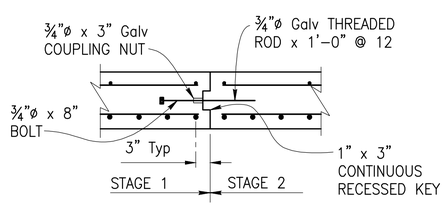


2 **EDGE ANGLE PLAN**
1" = 1'-0"



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

1 **ABUTMENT TIE DETAILS**
¾" = 1'-0"



NOTE A:
Min lap splice for bottom Reinf must be 3'–6" in Freeze–Thaw Area.

LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
¾" = 1'-0"

DESIGN NOTES

DESIGN:	AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014
LIMIT STATES:	Service I, Strength I & II, Extreme II and Fatigue I (γ_{FAT} = 1.0)
DEAD LOAD:	Includes 35 psf for future wearing surface
LIVE LOAD:	HL93 and permit design load Equivalent strip width method: W_1 = 12 ft Slab span: L_1 = 7.83 ft
REINFORCED CONCRETE:	f_y = 60 ksi f'_c = 3.6 ksi n = 8

NOTES:

1. For joint protection details and other details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
2. Space reinforcement to avoid existing prestress anchorages and other abutment reinforcement.
2. 3. End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
4. At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along ℄ roadway.

– – – – Indicates Existing Structure

SPECIAL DETAILS

REVISED STANDARD DRAWING		1 Revised Detail 2 Does Not Apply	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 42C0104 POST MILE	BPMP SCOUR MITIGATION FRESNO SLOUGH BRIDGE AT EXCELSIOR AVENUE STRUCTURE APPROACH TYPE R (10D)
FILE NO. xs3-170	APPROVAL DATE January 2015					

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (10-01-14)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: PROJECT NUMBER & PHASE: CONTRACT NO.:

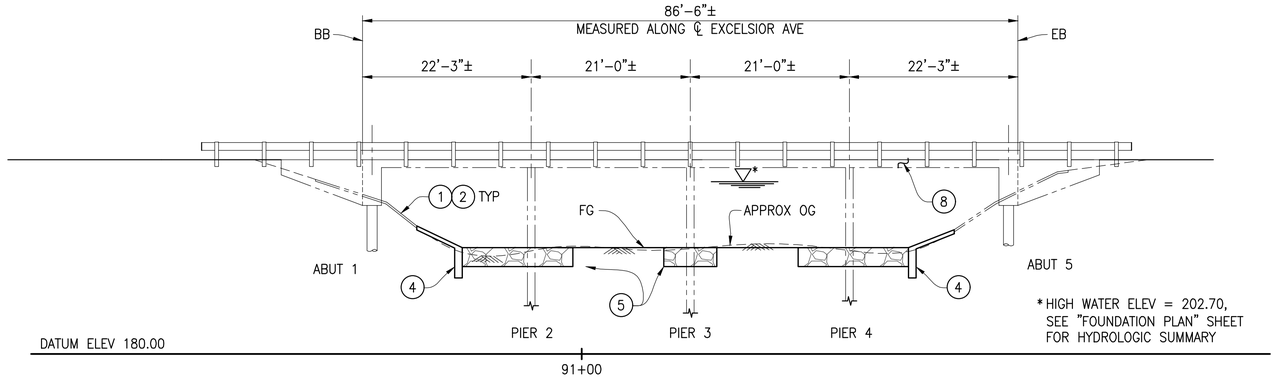
DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
11-25-15				18	28

FILE => $REQUEST

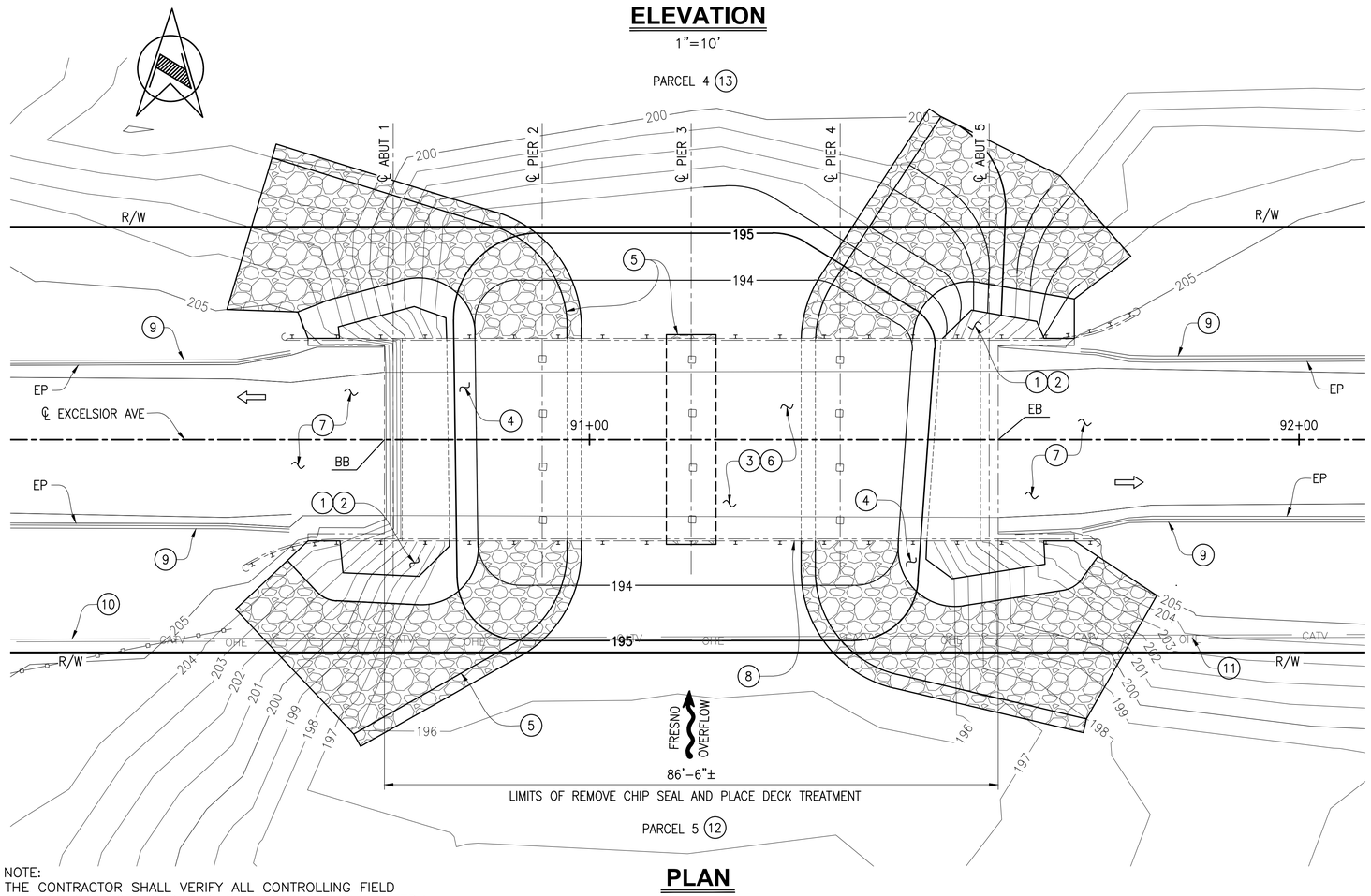
DATE PLOTTED => $DATE TIME PLOTTED => $TIME USERNAME => $USER

Drawing name: H:\213544 BPMP Fresno County\xs3-180.dwg Layout Tab: Layout1 Sep 11,2024 - 1:20pm dbatchuluun



ELEVATION

1"=10'

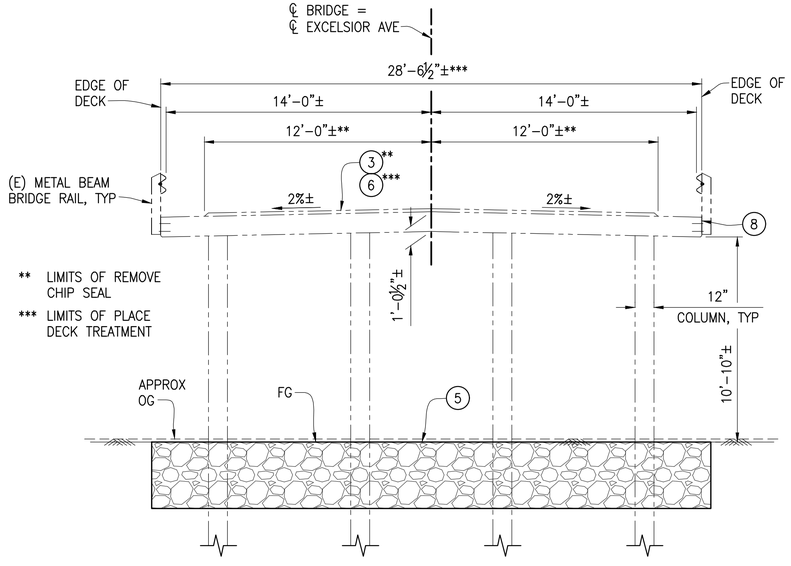


NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PLAN

1"=10'

ELEVATION LOOKING NORTH



TYPICAL SECTION

1/4"=1'-0"

LEGEND:

- ⇨ Indicates Direction of Traffic
- Indicates Existing Structure
- —195— Indicates FG Contour
- (1) Existing Concrete Slope Protection to remain
- (2) Seal or Inject cracks in existing concrete slope protection
- (3) Remove Chip Seal from bridge deck
- (4) Concrete (Slope Protection) & Cutoff Wall
- (5) Rock Slope Protection
- (6) Place Deck Treatment
- (7) Cold Plane and place HMA Overlay, see "ROAD DETAILS" sheet.
- (8) Repair Spalled Surface Area, see "MISCELLANEOUS DETAILS" sheet.
- (9) AC Dike, see "ROAD DETAILS" sheet.
- (10) Existing AT&T overhead cable to remain
- (11) Existing PG&E overhead electrical to remain
- (12) Right of Way Acquisition
- (13) Temporary Construction Easement

NOTES:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	02-27-20
CHECKED: M. CHRISTENSEN	09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0367

THE COUNTY OF FRESNO 1856

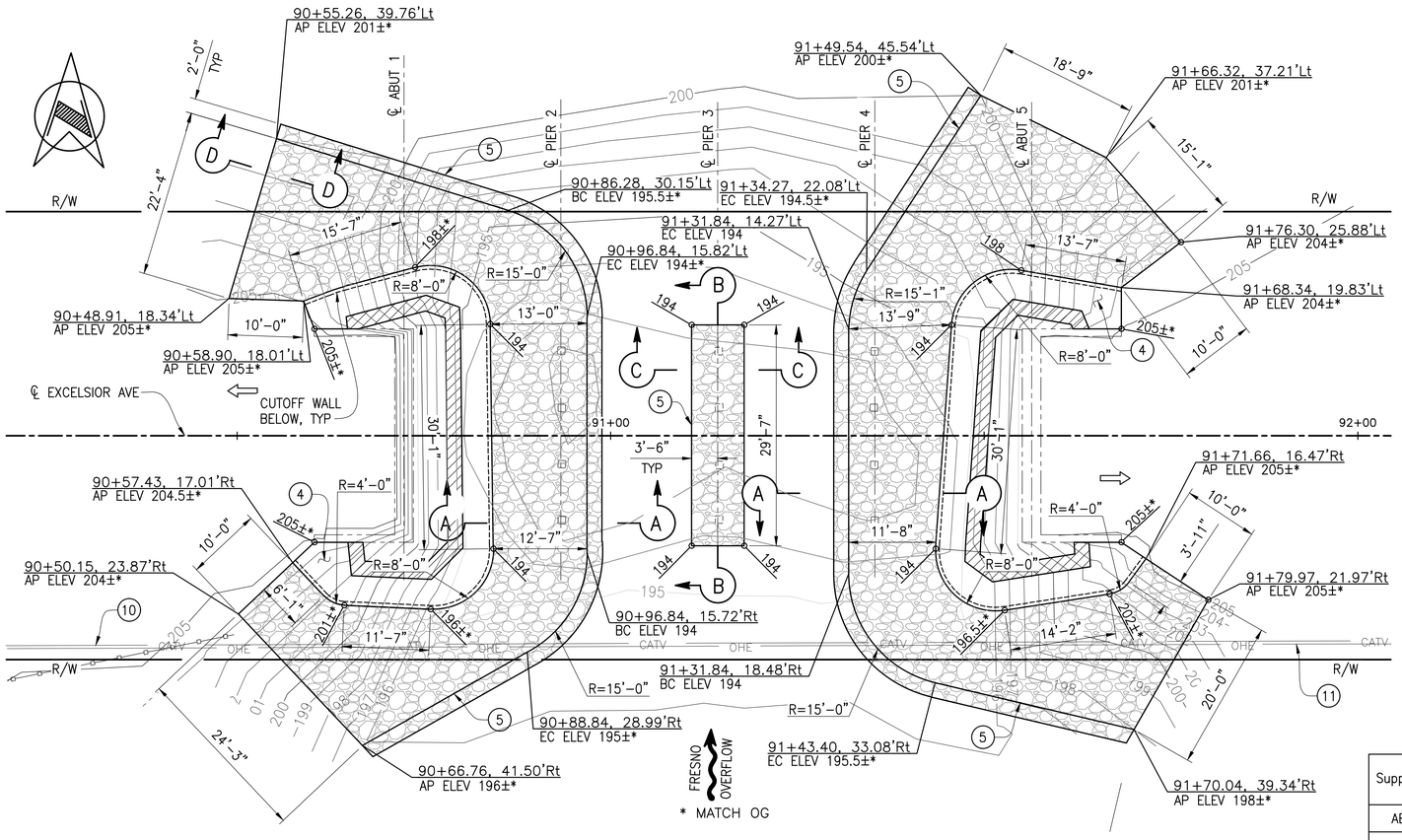
DEPARTMENT OF PUBLIC WORKS AND PLANNING

GENERAL PLAN

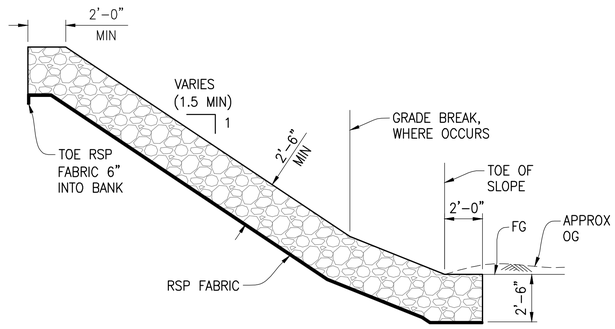
FRESNO SLOUGH OVERFLOW BRIDGE AT EXCELSIOR Ave

DRAWING NO. 11259 SHEET NO. 19 TOTAL 28

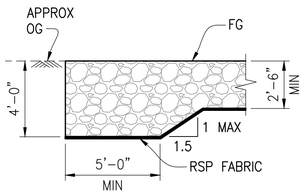
Drawing name: H:\21544 BPMP Fresno County\006-42C0367 - FRESNO SLOUGH OVERFLOW\42C0367_GP.dwg Layout Tab: Standards Sep 11,2024 - 1:42pm GBatchuluun



PLAN
1"=10'



TYPICAL SECTION AT BANK
1/4"=1'-0"



SECTION D-D
1/4"=1'-0"

HYDROLOGIC SUMMARY:

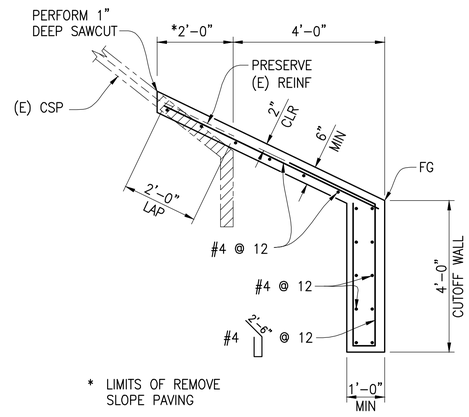
Frequency (Years)	100
Discharge (Cubic feet per sec)	4,750
Water Surface (Elevation @ Bridge (ft))	202.70

Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

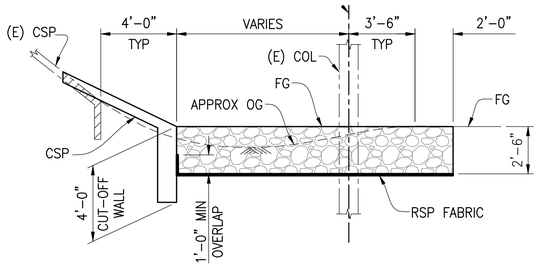
NOTE:
1. OG contours shown, for FG contours, see "GENERAL PLAN" sheet

SCOUR DATA TABLE

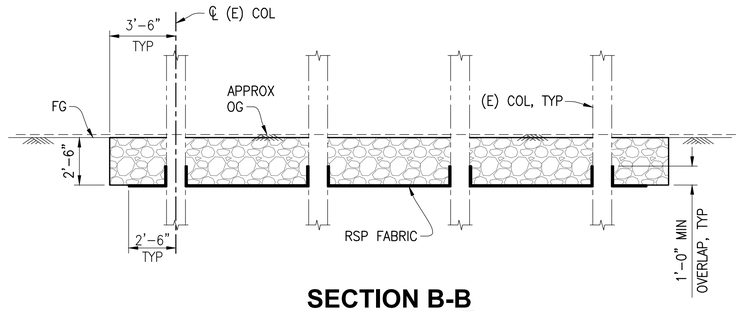
Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
ABUT 1	201.4'	N/A
Pier 2	193.4'	3.0'
Pier 3	193.4'	3.0'
Pier 4	193.4'	3.0'
ABUT 5	204.1'	N/A



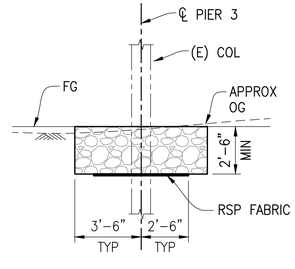
SLOPE PAVING/CUTOFF WALL DETAIL
1/2"=1'-0"



SECTION A-A
1/4"=1'-0"



SECTION B-B
1/4"=1'-0"



SECTION C-C
1/4"=1'-0"

LEGEND:
- Indicates RSP (150 Lb, CLASS III, Method B)
- Remove Slope Paving
- Indicates Existing Structure
- 195 — Indicates APPROX OG Contour
- XXX — Indicates FG Elevation
- (4) Concrete (Slope Protection) & Cutoff Wall
- (5) Rock Slope Protection
- (10) Existing AT&T overhead cable to remain
- (11) Existing PG&E overhead electrical to remain

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

BENCH MARK:
FRESNO COUNTY BENCHMARK OJ17, A FRESNO COUNTY BRASS CAP MONUMENT ON THE SOUTHEAST CORNER OF FRESNO SLOUGH BRIDGE DECK HAS AN NGVD29 ELEVATION OF 209.385 FEET PER FRESNO COUNTY BENCHMARK RECORDS.

DESIGNED: K. NEGORO — DATE: 11-30-17
DRAWN: A. CARDOZA — 07-29-24
CHECKED: M. CHRISTENSEN — 09-10-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 1 2

REVISION — FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI — SUPERVISING ENGINEER
09-10-24 — DATE

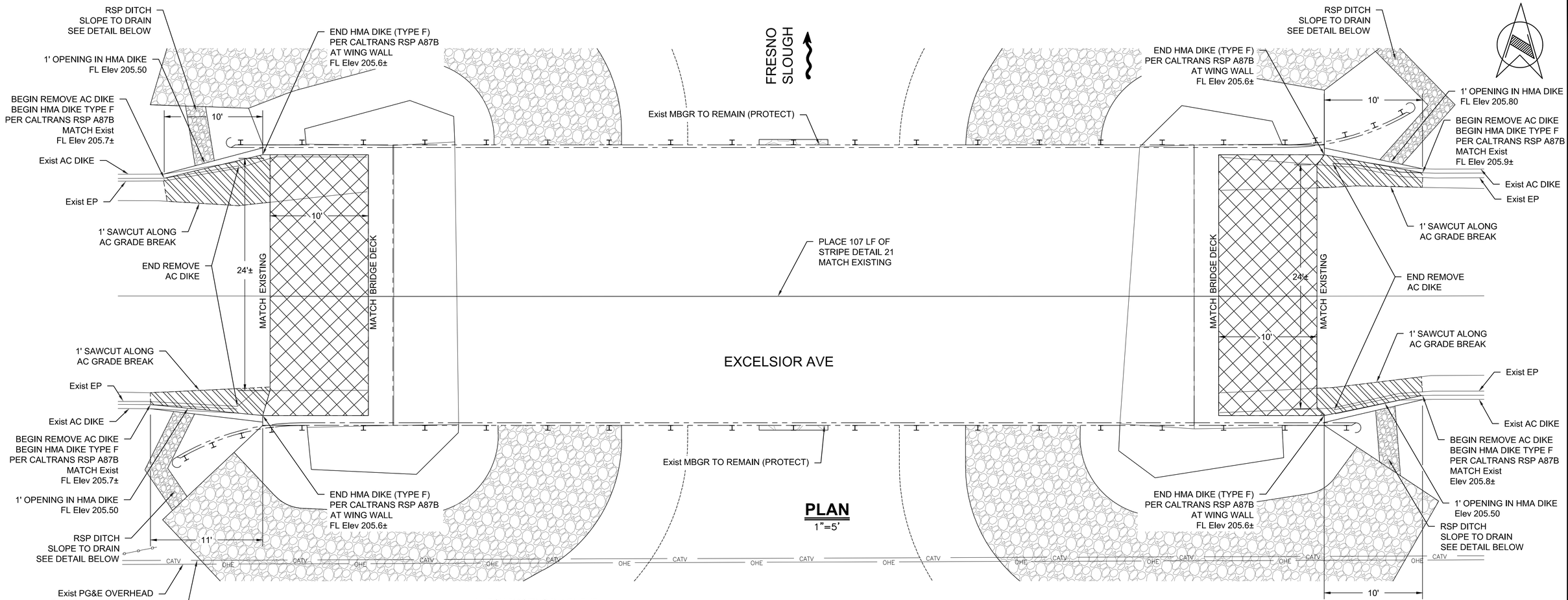
REGISTERED PROFESSIONAL ENGINEER — KIANA NEGORO — No. C 88362 — Exp. 03/31/26 — CIVIL — STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS
ROAD NO. — BRIDGE NO. 42C0367

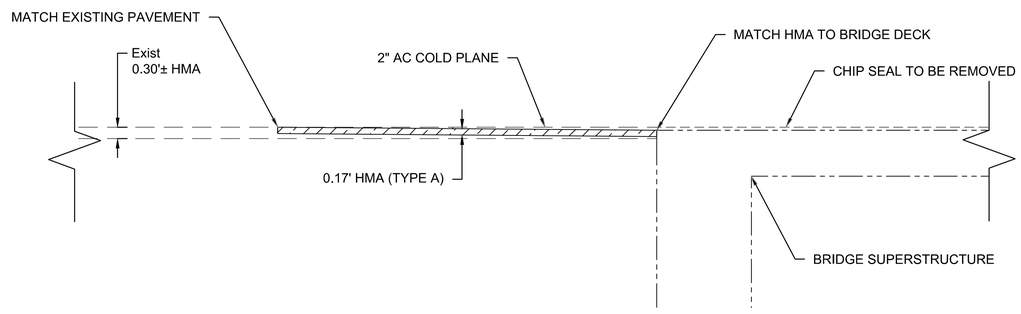
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
FOUNDATION PLAN
FRESNO SLOUGH OVERFLOW BRIDGE AT EXCELSIOR Ave
DRAWING NO. 11259 — SHEET NO. 20 — TOTAL 28

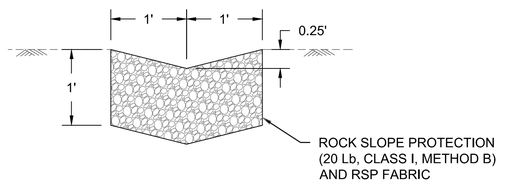
Drawing name: H:\21544 BPMP Fresno County\006--42C0367 - FRESNO SLOUGH OVERFLOW\42C0367_FP.dwg Layout Tab: Standards Sep 11,2024 - 1:31pm OBatchuluun



PLAN
1"=5'



PROFILE SECTION
1"=2'



RSP DITCH DETAIL
1"=1'

LEGEND

- RSP (150 Lb, CLASS III, METHOD B) SEE BRIDGE PLANS
- RSP (20 Lb, CLASS I, METHOD B)
- HMA (MISCELLANEOUS AREA) — 3" HMA (TYPE A) OVER 6" COMPACTED NATIVE SOIL
- COLD PLANE AC PVMT (0.17' DEPTH) & HMA OVERPLAY (0.17' DEPTH)

FRESNO SLOUGH OVERFLOW AT EXCELSIOR BRIDGE (42C0367) HMA APPROACH REPAIR
TYPICAL DETAIL AT BOTH ENDS OF BRIDGE

	DATE
DESIGNED: A. BEDAL	06-07-24
DRAWN: O. BATCHULUUN	06-10-24
CHECKED: J. CONKLIN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

PLAN 0 5' 10' HZ

PROFILE 0 2' 4' VT

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA (J.) CONKLIN
No. C-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0367

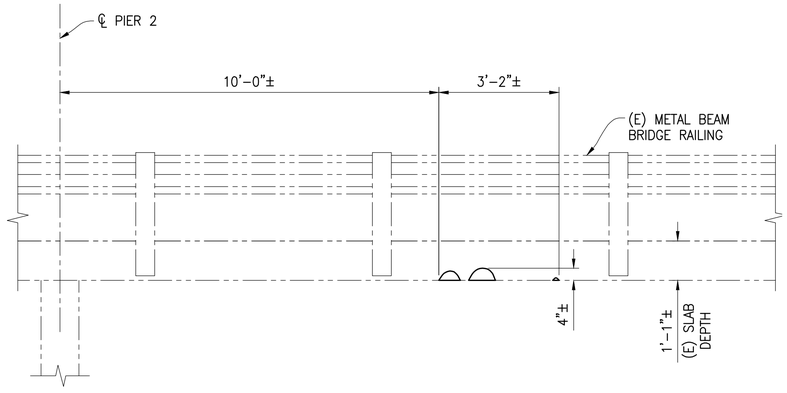
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING
ROAD DETAILS
FRESNO SLOUGH OVERFLOW BRIDGE AT EXCELSIOR Ave

DRAWING NO. 11259 SHEET NO. 21 TOTAL 28

Drawing name: H:\21354 BPMP Fresno County\006-42C0367 - FRESNO SLOUGH OVERFLOW\Sheets\Fresno Slough Overflow_42C0367_Road Details.dwg Layout Tab: 42C0367 PP Sep 11,2024 - 3:59pm OBatchuluun

SPALLS ALONG SOUTH EDGE OF DECK



PATCH SPALLS ALONG SOUTH EDGE OF DECK

1/2"=1'-0"

LEGEND:

——— Indicates Proposed Improvements

— - - — Indicates Existing Structure

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

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: K. NEGORO	07-29-24
CHECKED: M. CHRISTENSEN	08-30-24

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-03-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0367

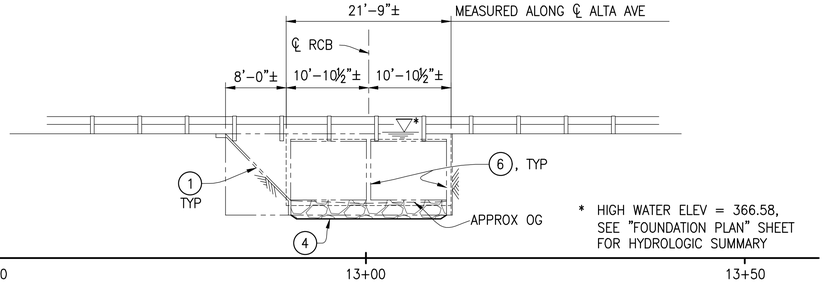
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

MISCELLANEOUS DETAILS

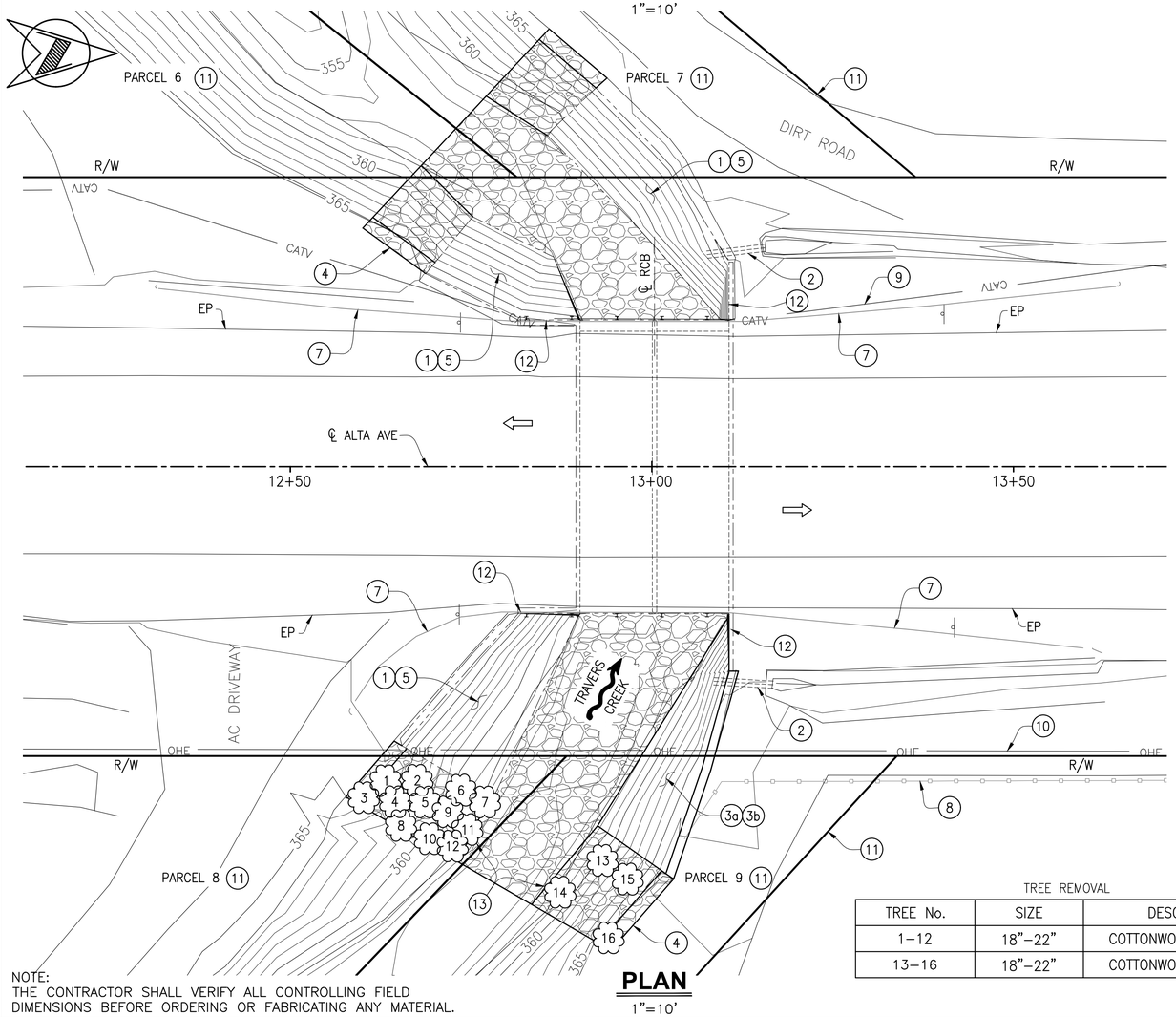
FRESNO SLOUGH OVERFLOW BRIDGE AT EXCELSIOR Ave

DRAWING NO. 11259 SHEET NO. 22 TOTAL 28



ELEVATION

1"=10'



PLAN

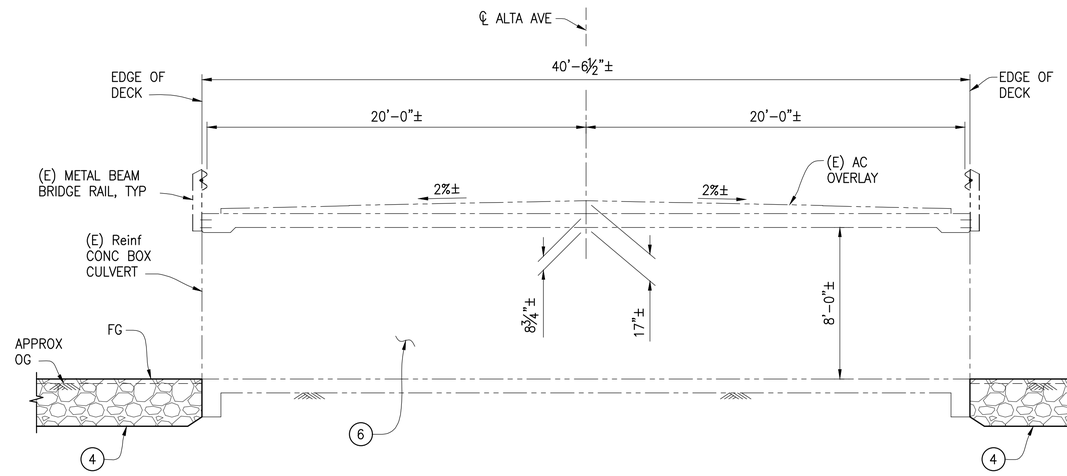
1"=10'

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

TREE REMOVAL

TREE No.	SIZE	DESCRIPTION
1–12	18"–22"	COTTONWOOD & WILLOW
13–16	18"–22"	COTTONWOOD & WILLOW

ELEVATION LOOKING NORTHEAST



TYPICAL SECTION

1/4"=1'-0"

LEGEND:

- ⇨ Indicates Direction of Traffic
- Indicates Existing Structure
- (X) Remove Tree
- (1) Existing Concrete Slope Protection to remain
- (2) Existing 12" CMP to remain
- (3a) Remove Concrete Slope Paving
- (3b) Concrete (Slope Protection)
- (4) Rock Slope Protection
- (5) Seal or Inject cracks in existing Concrete Slope Protection
- (6) Repair Abraded Surface Area
- (7) Existing MBGR to remain
- (8) Existing fence to remain
- (9) Existing Verizon communication to remain
- (10) Existing PG&E overhead electrical to remain
- (11) Right of Way Acquisition
- (12) Seal gaps between Concrete Slope Protection and Culvert Wingwalls (Seal >1/4" Crack)

NOTE:

1. For GENERAL NOTES, see "GENERAL LEGEND AND GENERAL NOTES" sheet.

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	07-29-24
CHECKED: M. CHRISTENSEN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0179

THE COUNTY OF FRESNO 1856

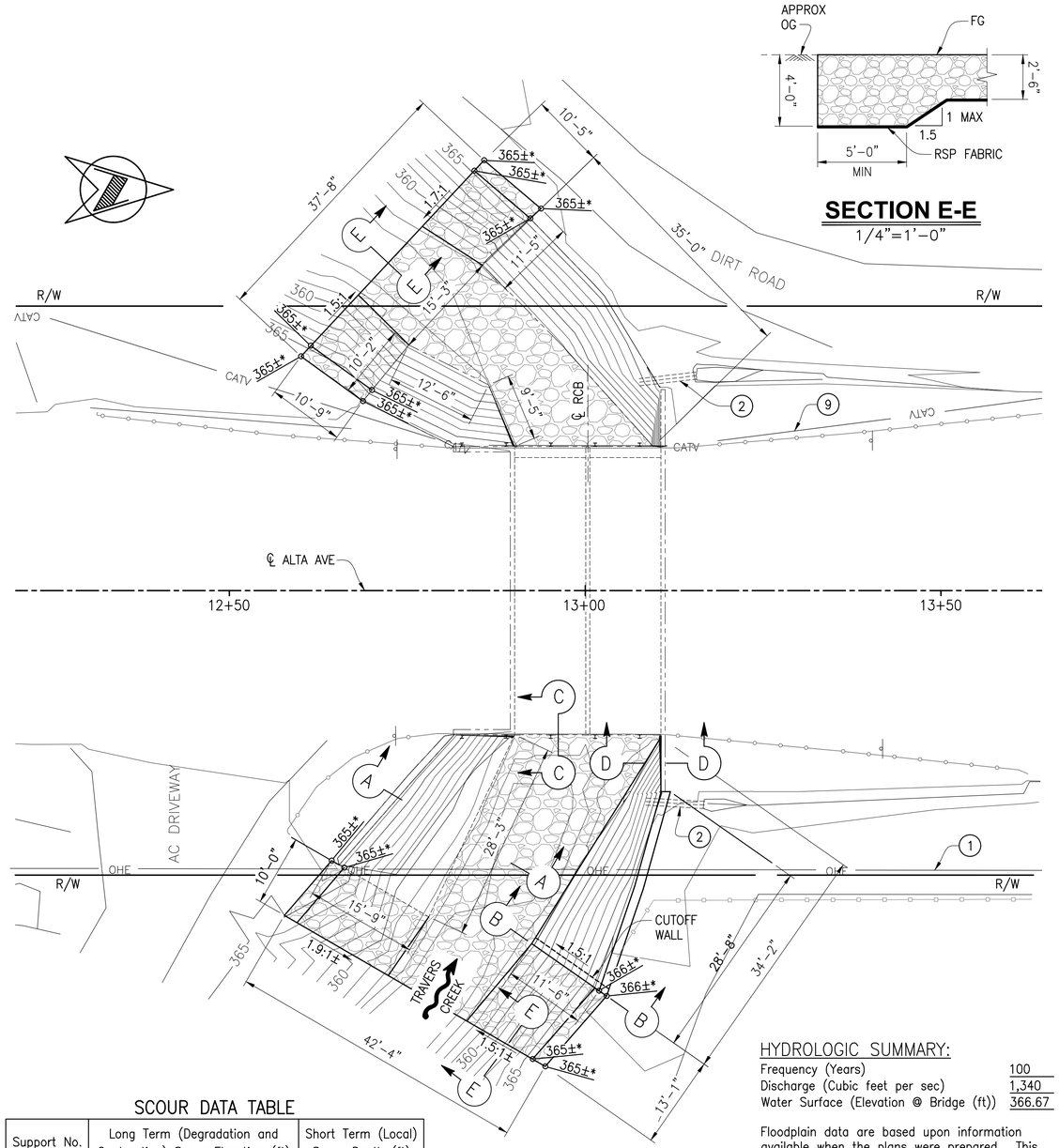
DEPARTMENT OF PUBLIC WORKS AND PLANNING

GENERAL PLAN

TRAVERS CREEK CULVERT AT ALTA AVENUE

DRAWING NO. 11259 SHEET NO. 23 TOTAL 28

Drawing name: H:\21344 BPMP Fresno County\009-42C0179 - TRAVERS CREEK\42C0179_GP.dwg Layout Tab: Standards Sep 11,2024 - 3:05pm dBatchuluun



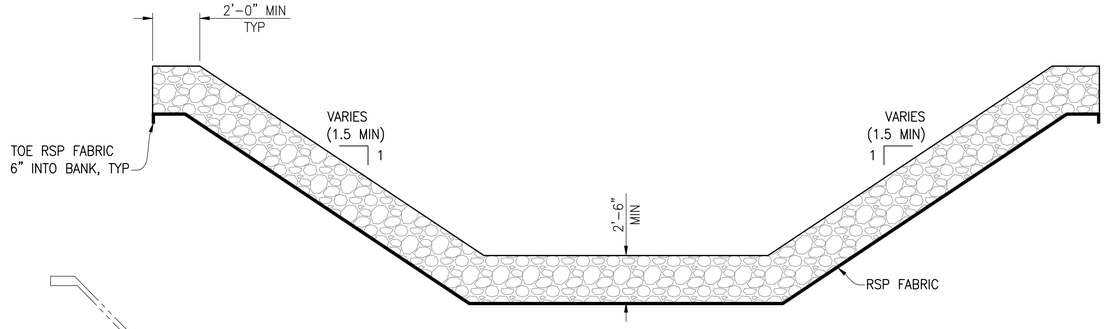
PLAN
1"=10'

* MATCH OG

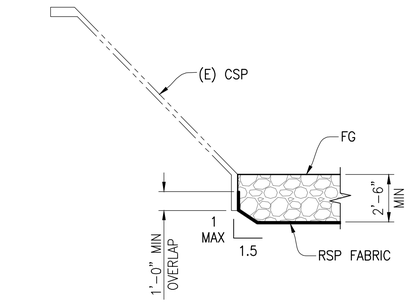
SCOUR DATA TABLE

Support No.	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
RCB	355.2'	N/A

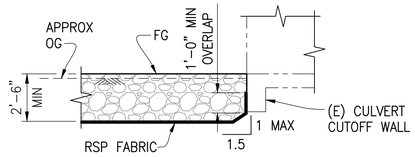
SECTION E-E
1/4"=1'-0"



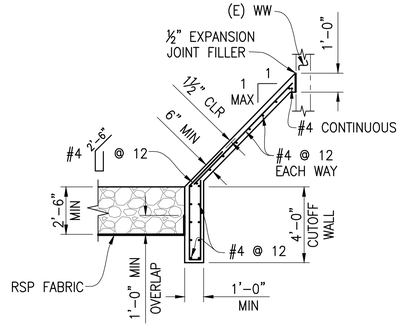
FULL RSP SECTION
1/4"=1'-0"



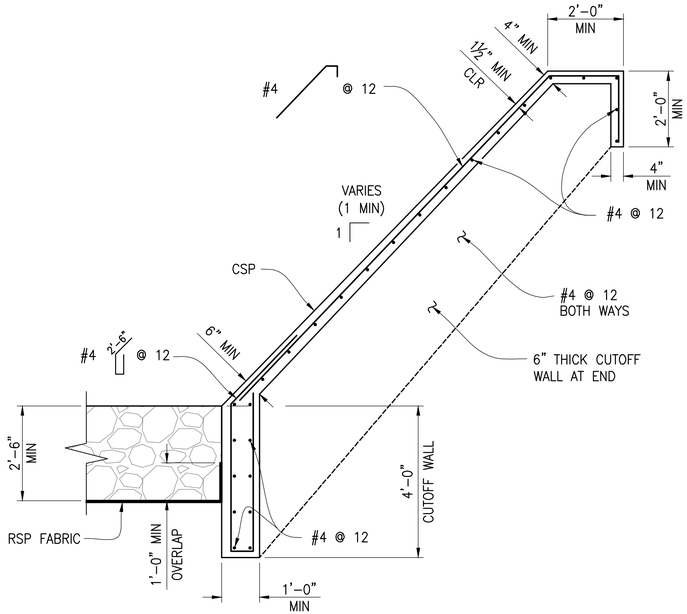
SECTION A-A
1/4"=1'-0"



SECTION C-C
1/4"=1'-0"



SECTION D-D
1/4"=1'-0"



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

HYDROLOGIC SUMMARY:

Frequency (Years)	100
Discharge (Cubic feet per sec)	1,340
Water Surface (Elevation @ Bridge (ft))	366.67

Floodplain data are based upon information available when the plans were prepared. This information is for the purposes of scour countermeasure design only, and any interested or affected parties should make their own investigation.

LEGEND:

- Indicates RSP (150 Lb, CLASS III, METHOD B)
- Indicates Existing Structure
- (2) Existing 12" CMP to remain
- (9) Existing Verizon communication to remain
- (10) Existing PG&E overhead electrical to remain

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

BENCH MARK:
FRESNO COUNTY BRASS CAP MONUMENT STAMPED LO 70, LOCATED ON THE SOUTHEAST CORNER OF ALTA AVENUE AND SUMNER ALIGNMENT, 48.8' SOUTHEAST OF THE SECTION CORNER, 2.0' SOUTH OF A POWER POLE, HAS AN NGVD29 ELEVATION OF 369.643' PER COUNTY OF FRESNO BENCHMARK RECORDS.

Drawing name: H:\21544 BPMP Fresno County\009-4Z0179 - TRAVERS CREEK\4Z0179_FP.dwg Layout Tab: Standards Sep 11,2024 - 1:43pm OBatchuluun

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: G. IMBSEN	07-29-24
CHECKED: M. CHRISTENSEN	09-10-24

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER — KIANA NEGORO — No. C 88162 — Exp. 03/31/26 — CIVIL — STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0179

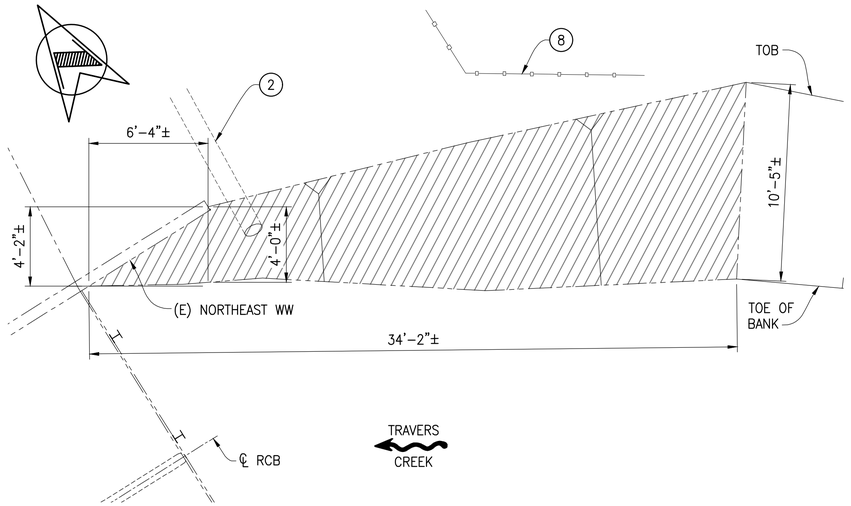
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

FOUNDATION PLAN

TRAVERS CREEK CULVERT AT ALTA AVENUE

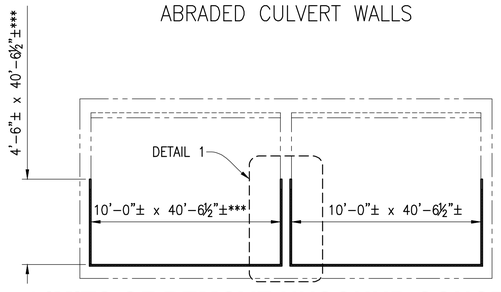
DRAWING NO. 11259 SHEET NO. 24 TOTAL 28



LIMITS OF NORTHEAST SLOPE PAVING REMOVAL

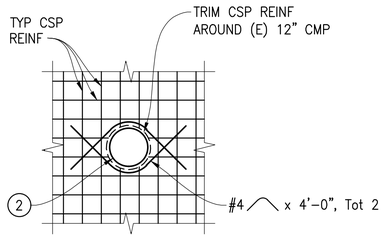
1/4"=1'-0"

ABRADED CULVERT WALLS



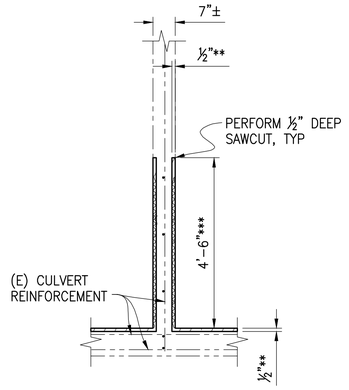
LIMITS OF REMOVE UNSOUND CONCRETE AND REPAIR ABRADED SURFACE AREA

1/4"=1'-0"



UTILITY OPENING - NORTHEAST SLOPE PAVING

1/2"=1'-0"



** LIMITS OF REMOVE UNSOUND CONCRETE, TYP

*** LIMITS OF REMOVE UNSOUND CONCRETE AND REPAIR ABRADED SURFACE AREA, TYP

DETAIL 1

1/2"=1'-0"

LEGEND:

- Indicates Proposed Improvements
- Indicates Existing Structure
- Indicates Concrete Removal
- (2) Existing 12" CMP to remain
- (8) Existing fence to remain

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

	DATE
DESIGNED: K. NEGORO	11-30-17
DRAWN: K. NEGORO	07-29-24
CHECKED: M. CHRISTENSEN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
KIANA NEGORO
No. C 88362
Exp. 03/31/26
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO. 42C0179

THE COUNTY OF FRESNO 1856

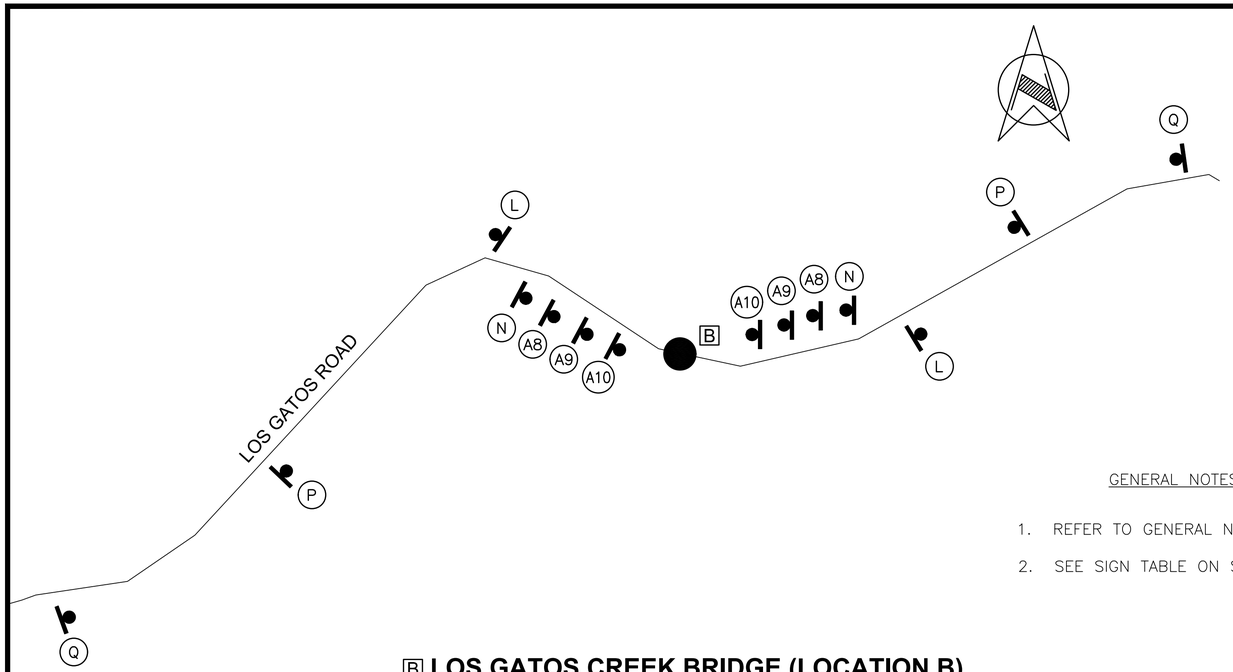
DEPARTMENT OF PUBLIC WORKS AND PLANNING

MISCELLANEOUS DETAILS

TRAVERS CREEK CULVERT AT ALTA AVENUE

DRAWING NO. 11259 SHEET NO. 25 TOTAL 28

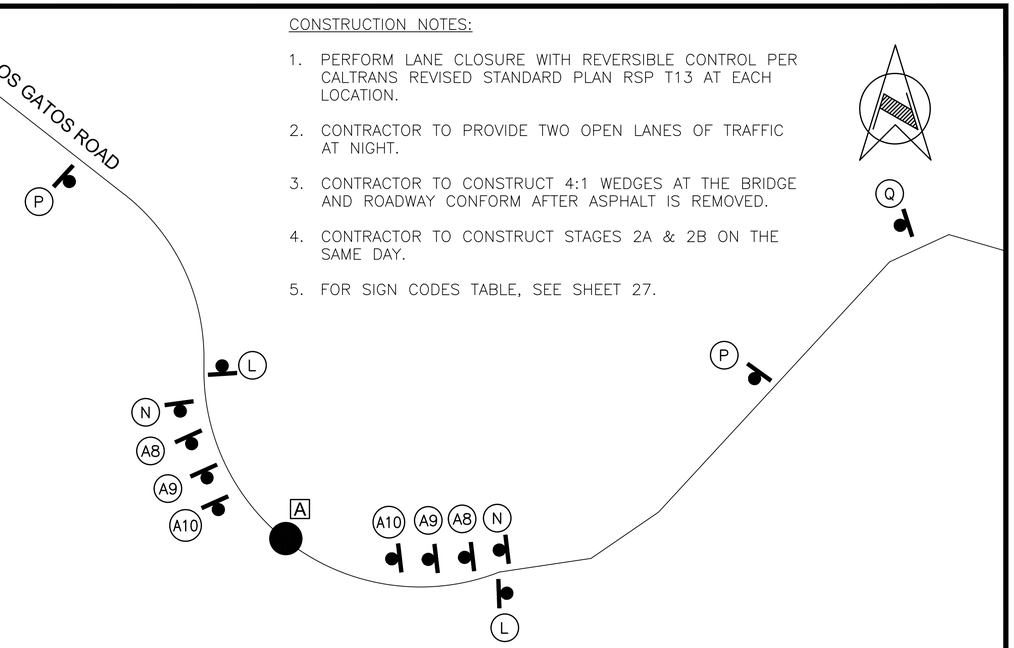
Drawing name: H:\21544 BPMP Fresno County\009-42C0179 - TRAVERS CREEK\42C0179_Misc Details.dwg Layout Tab: Standards Sep 11,2024 - 4:15pm DBatchuluun



B LOS GATOS CREEK BRIDGE (LOCATION B)

GENERAL NOTES:

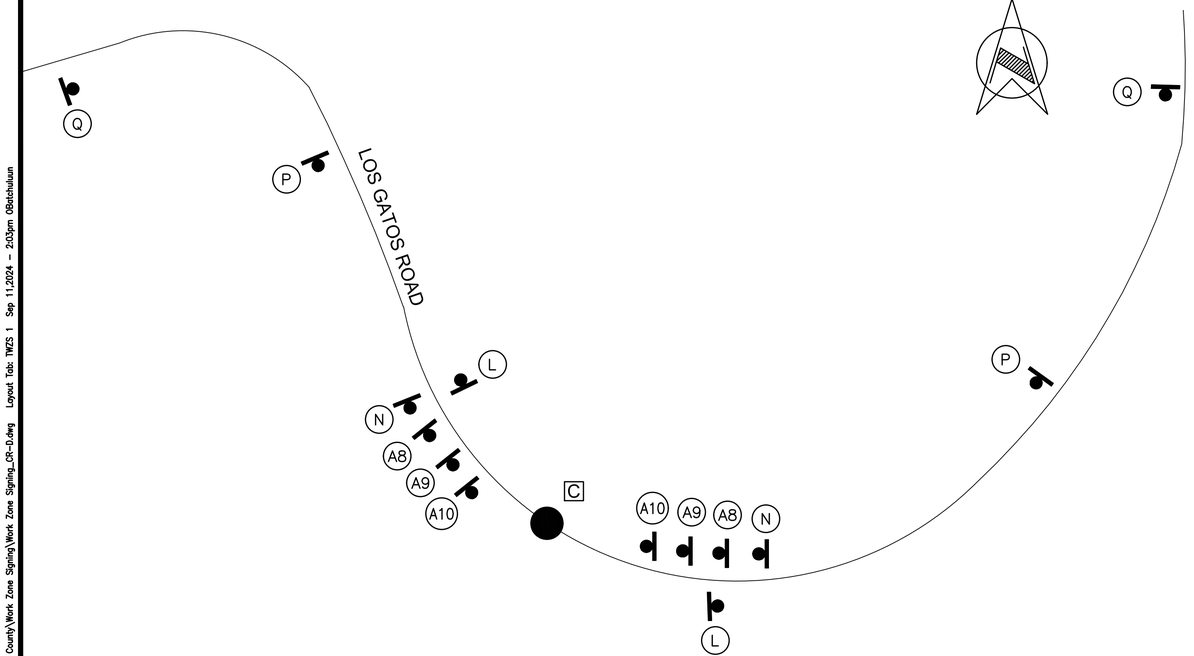
1. REFER TO GENERAL NOTES ON SHEET 27.
2. SEE SIGN TABLE ON SHEET 27.



A LOS GATOS CREEK BRIDGE (LOCATION A)

CONSTRUCTION NOTES:

1. PERFORM LANE CLOSURE WITH REVERSIBLE CONTROL PER CALTRANS REVISED STANDARD PLAN RSP T13 AT EACH LOCATION.
2. CONTRACTOR TO PROVIDE TWO OPEN LANES OF TRAFFIC AT NIGHT.
3. CONTRACTOR TO CONSTRUCT 4:1 WEDGES AT THE BRIDGE AND ROADWAY CONFORM AFTER ASPHALT IS REMOVED.
4. CONTRACTOR TO CONSTRUCT STAGES 2A & 2B ON THE SAME DAY.
5. FOR SIGN CODES TABLE, SEE SHEET 27.



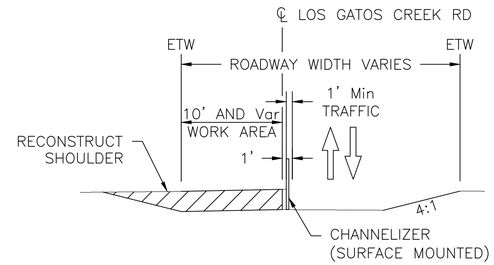
C LOS GATOS CREEK BRIDGE (LOCATION C)

STAGING NOTES:

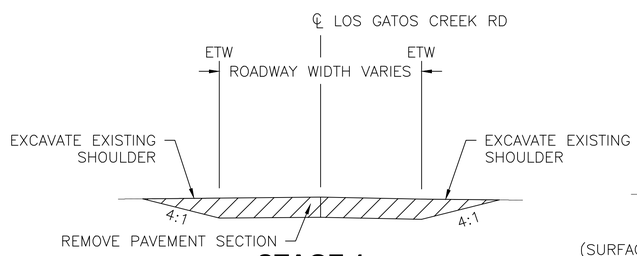
STAGE 1 – CONTRACTOR TO REMOVE EXISTING ASPHALT FOR BOTH LANES OF TRAFFIC.

STAGE 2A – PLACE PAVEMENT ON HALF OF THE ROAD WHILE PROVIDING A LANE CLOSURE WITH REVERSIBLE TRAFFIC.

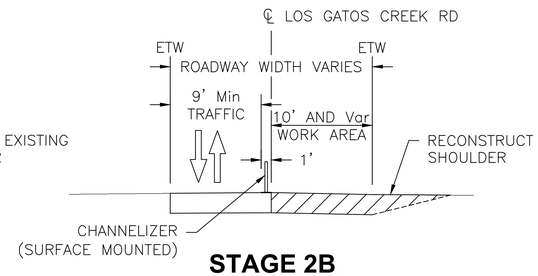
STAGE 2B – PLACE PAVEMENT ON REMAINING HALF OF THE ROAD WHILE PROVIDING A LANE CLOSURE WITH REVERSIBLE TRAFFIC.



STAGE 2A
NTS



STAGE 1
NTS



STAGE 2B
NTS

	DATE
DESIGNED: A. BEDAL	06-03-24
DRAWN: A. BEDAL	06-03-24
CHECKED: J. CONKLIN	09-10-24

REVISION

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

NO SCALE

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTIN J. CONKLIN
No. P-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO.

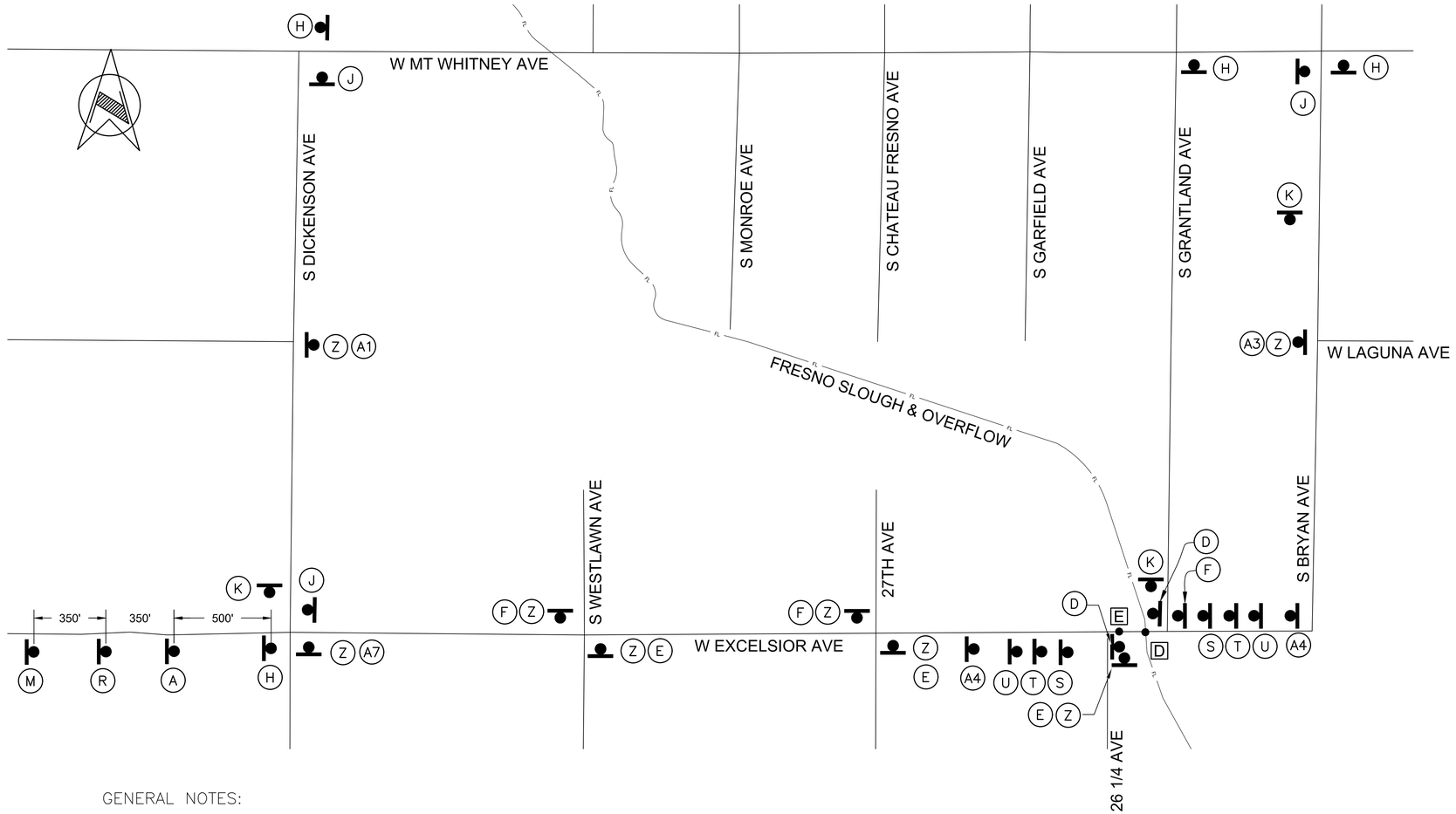
THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

TEMPORARY WORK ZONE SIGNING
LOS GATOS CREEK ROAD

DRAWING NO. 11259 SHEET NO. 26 TOTAL 28

Drawing name: H:\21544 BPMP Fresno County\Work Zone Signing\Work Zone Signing_GR-D.dwg Layout Tab: TWZS 1 Sep 11,2024 - 2:03pm OBatchaluan



TEMPORARY WORK ZONE SIGNS:

	SIGN	CA MUTCD CODE	PANEL SIZE (INCHES)	DESCRIPTION	POST LENGTH (FEET)
■	A	W20-2	36 X 36	DETOUR AHEAD	12
		W16-2aP	24 X 12	500 FT	
□	B	W20-2	36 X 36	DETOUR AHEAD	12
		W16-2aP	24 X 12	1000 FT	
□	C	W20-2	36 X 36	DETOUR AHEAD	12
		W16-2aP	24 X 12	1500 FT	
■	D	R11-2	48 X 30	ROAD CLOSED	TYPE III BARRICADE
■	E	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	12
		M4-10L	48 X 18	DETOUR LEFT	12
■	F	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	12
		M4-10R	48 X 18	DETOUR RIGHT	12
□	G	R1-1	36 X 36	STOP	12
■	H	M4-10L	48 X 18	DETOUR LEFT	12
■	J	M4-10R	48 X 18	DETOUR RIGHT	12
■	K	M4-8a	24 X 18	END DETOUR	12
■	L	G20-2	36 X 18	END ROAD WORK	12
■	M	W20-1	36 X 36	ROAD WORK AHEAD	12
■	N	W20-1	36 X 36	ROAD WORK AHEAD	12
		W16-2aP	24 X 12	500 FT	
■	P	W20-1	36 X 36	ROAD WORK AHEAD	12
		W16-2aP	24 X 12	1000 FT	
■	Q	W20-1	36 X 36	ROAD WORK AHEAD	12
		W16-2aP	24 X 12	1500 FT	
■	R	W20-3	36 X 36	ROAD CLOSED AHEAD	12
■	S	W20-3	36 X 36	ROAD CLOSED AHEAD	12
		W16-2aP	24 X 12	500 FT	
■	T	W20-3	36 X 36	ROAD CLOSED AHEAD	12
		W16-2aP	24 X 12	1000 FT	
■	U	W20-3	36 X 36	ROAD CLOSED AHEAD	12
		W16-2aP	24 X 12	1500 FT	
□	V	C9A (CA)	36 X 36	FLAGGER AHEAD	12
□	W	C30 (CA)	30 X 30	LANE CLOSED	12
□	X	W3-4	36 X 36	PREPARE TO STOP	12
■	Y	SC3 (CA)	48 X 18	DETOUR STRAIGHT	12
■	Z	G7-1 (CA)	VAR X 18	STREET NAME	
□	A1	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	TYPE III BARRICADE
		M4-10L	48 X 18	DETOUR LEFT	TYPE III BARRICADE
□	A2	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	TYPE III BARRICADE
		M4-10R	48 X 18	DETOUR RIGHT	TYPE III BARRICADE
■	A3	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	12
		M4-10R	48 X 18	DETOUR RIGHT	12
■	A4	W21-1A	36 X 36	WORKERS SYMBOL	12
□	A5	R1-2	36 X 36	YIELD	12
□	A6	R1-2aP	24 X 18	TO ONCOMING TRAFFIC	12
■	A7	R11-4	60 X 30	ROAD CLOSED TO THRU TRAFFIC	12
		SC3 (CA)	48 X 18	DETOUR STRAIGHT	12
■	A8	W3-5 (15 MPH)	36 X 36	REDUCED SPEED LIMIT AHEAD	12
■	A9	R2-1 (15 MPH)	24 X 30	SPEED LIMIT	12
		G20-5aP	24 X 18	WORK ZONE	12
■	A10	C46 (CA)	36 X 36	UNEVEN PAVEMENT	12

GENERAL NOTES:

1. THIS PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE A TRAFFIC CONTROL SYSTEM PLAN AS REQUIRED IN THE SPECIFICATIONS.

2. ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE REQUIRED AS PART OF THE TRAFFIC CONTROL SYSTEM PLAN AS DETERMINED BY THE ENGINEER.

3. LOCATIONS OF CONSTRUCTION AREA SIGNS AND TYPE III BARRICADES ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY ENGINEER.

4. SIGNS ERECTED ON THE SIDE OF THE ROAD SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 7 FEET MEASURED FROM THE BOTTOM OF THE SIGN PLATE TO THE TOP ELEVATION OF THE NEAREST EDGE OF THE PAVEMENT, EXCEPT FOR SIGNS PLACED ON BARRICADES.

5. SIGNS THAT WILL BE IN PLACE MORE THAN FIVE CALENDAR DAYS SHALL BE INSTALLED ON METAL OR WOOD POSTS.

6. ALL EXISTING STOP SIGNS AND STOP AHEAD SIGNS ARE TO REMAIN IN PLACE DURING CONSTRUCTION.

7. ALL SIGNS, EXCEPT R11-2 AND R11-4 SHALL BE BLACK LETTERS ON ORANGE BACKGROUND.

8. ■ —INDICATES APPLICABLE SIGN.

9. CONTRACTOR TO PROVIDE TWO PORTABLE CHANGEABLE MESSAGE SIGNS AT EACH PROJECT LOCATION. CONTRACTOR TO COORDINATE LOCATION AND MESSAGE WITH THE ENGINEER.

[D] FRESNO SLOUGH AT EXCELSIOR BRIDGE (LOCATION D)

[E] FRESNO SLOUGH OVERFLOW AT EXCELSIOR BRIDGE (LOCATION E)

Drawing name: H:\213544 BPMP Fresno County\Work Zone Signing\Work Zone Signing_CR-D.dwg Layout Tab: TWZS 2 Sep 11,2024 - 3:09pm dBatchuluun

	DATE
DESIGNED: A. BEDAL	06-03-24
DRAWN: A. BEDAL	06-03-24
CHECKED: J. CONKLIN	09-10-24

REVISION | FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

NO SCALE

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA CONKLIN
No. C-53183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT

BPMP SCOUR MITIGATION
AT VARIOUS LOCATIONS

ROAD NO. | BRIDGE NO.

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

TEMPORARY WORK ZONE SIGNING
EXCELSIOR AVE

DRAWING NO. 11259 | SHEET NO. 27 | TOTAL 28

SUMMARY OF QUANTITIES

ITEM DESCRIPTION	UNIT	BRIDGE NUMBER						TOTALS
		42C0459	42C0458	42C0455	42C0104	42C0367	42C0179	
		Location A	Location B	Location C	Location D	Location E	Location F	
Construction Project Information Sign	EA	1	-	1	1	1	2	6
Traffic Control System	LS	1	1	1	-	-	-	1
Temporary High-Visibility Fence	LF	875	500	490	1040	1035	810	4750
Remove Tree	EA	-	4	-	-	-	16	20
Structure Excavation (Rock Slope Protection)	CY	329	633	391	692	425	205	2675
Hot Mix Asphalt (Type A)	TON	36	43	38	11	10	-	138
Place Hot Mix Asphalt Dike (Type F)	LF	-	-	-	39	43	-	82
Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	-	-	-	7	5	-	12
Remove Asphalt Concrete Pavement (SQFT)	SQFT	1596	1915	1561	-	-	-	5072
Remove Asphalt Concrete Dike	LF	-	-	-	29	35	-	64
Cold Plane Asphalt Concrete Pavement	SQYD	-	-	-	60	60	-	120
Aggregate Base (Approach Slab)	CY	-	-	-	12	-	-	12
Structural Concrete, Approach Slab (Type R)	CY	-	-	-	25	-	-	25
Paving Notch Extension	CF	-	-	-	4	-	-	4
Inject Crack (Epoxy)	LF	-	-	-	-	60	115	175
Seal Crack (>250 mils wide)	LF	-	-	-	-	-	55	55
Repair Spalled Surface Area	SQFT	-	-	-	-	1.25	-	1.25
Repair Abraded Surface Area	SQFT	-	-	-	-	-	1541	1541
Remove Asphalt Concrete Surfacing	SQFT	1278	1082	1397	-	-	-	3757
Remove Unsound Concrete	CF	-	-	-	-	-	25	25
Prepare Concrete Bridge Deck Surface	SQFT	1499	1510	1505	3466	2469	-	10449
Furnish Polyester Concrete Overlay	CF	-	-	126	-	-	-	126
Place Polyester Concrete Overlay	SQFT	-	-	1505	-	-	-	1505
Treat Bridge Deck	SQFT	1499	1510	-	3466	2469	-	8944
Furnish Bridge Deck Treatment Material	GAL	20	20	-	40	30	-	110
Remove Chip Seal	SQFT	-	-	-	2929	2076	-	5005
Reconstruct Downdrain Flume	LS	1	-	-	-	-	-	1
Remove Slope Paving (SQYD)	SQYD	8	8	-	-	52	50	118
Concrete (Slope Protection)	CY	7	32	-	46	38	14	137
Rock Slope Protection (1/4 Ton, Class V, Method B) (CY)	CY	258	491	304	-	-	-	1053
Rock Slope Protection (150 Lb, Class III, Method B) (CY)	CY	-	-	-	691	424	205	1320
Rock Slope Protection (20 Lb, Class I, Method B) (CY)	CY	71	142	87	1	1	-	302
Rock Slope Protection Fabric (Class 8)	SQYD	256	478	297	725	464	225	2445
Fence (Type WM and BW)	LF	147	169	107	-	-	-	423
Remove Fence	LF	128	137	97	-	-	-	362
Relocate Gate	EA	-	-	2	-	-	-	2
Reset Marker	EA	-	-	-	4	-	-	4
Thermoplastic Traffic Stripe	LF	232	270	226	294	214	-	1236

Drawing name: H:\21544 BPMP Fresno County\Summary of Quantities.dwg Layout Tab: Q1 Sep 11,2024 - 4:31pm OBatchuluun

DESIGNED: A. BEDAL 06-07-24
DRAWN: O. BATCHULUUN 06-10-24
CHECKED: J. CONKLIN 09-10-24
DATE

REVISION

FOR R/W DATA AND ACCURATE ACCESS DETERMINATION SEE R/W RECORDS AT PUBLIC WORKS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
PLAN 0 5' 10' HZ
PROFILE 0 2' 4' VT

TRC
8050 North Palm Ave., Suite 300
Fresno, California 93711

MARK IMBRIANI
SUPERVISING ENGINEER:

09-10-24
DATE:

REGISTERED PROFESSIONAL ENGINEER
JUSTINA (JT) CONKLIN
No. C 63183
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA

PROJECT
BPMP SCOUR MITIGATION AT VARIOUS LOCATIONS

ROAD NO. BRIDGE NO.

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

SUMMARY OF QUANTITIES

DRAWING NO. 11259 SHEET NO. 28 TOTAL 28