

WARNING: ALL INDIVIDUALS INTERESTED IN BIDDING ON THIS PROJECT MUST OBTAIN THE FINAL PLANS AND SPECIFICATIONS FROM THE DEPARTMENT MANAGING THE PROJECT OR AS OTHERWISE STATED IN THE ADVERTISEMENT FOR BIDS FOR THE PROJECT. DO NOT USE THE PLANS AND SPECIFICATIONS POSTED ON THE CLERK OF THE BOARD'S WEBSITE FOR BIDDING ON THIS PROJECT.

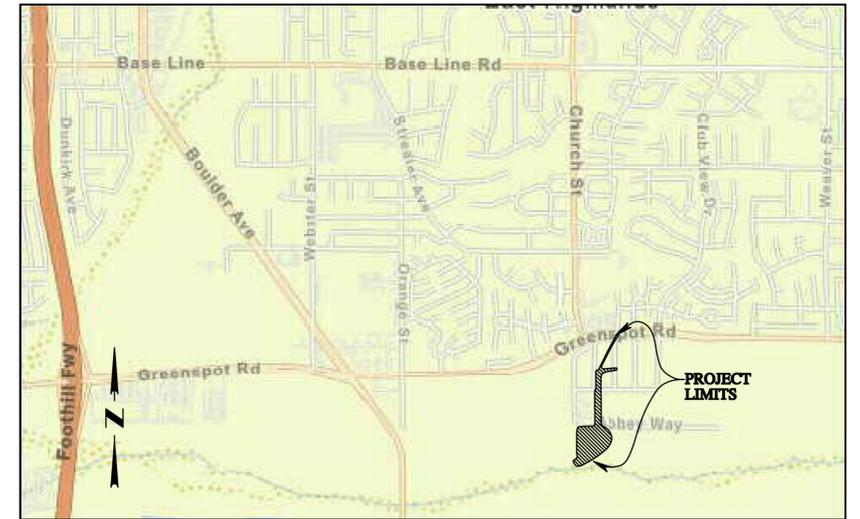
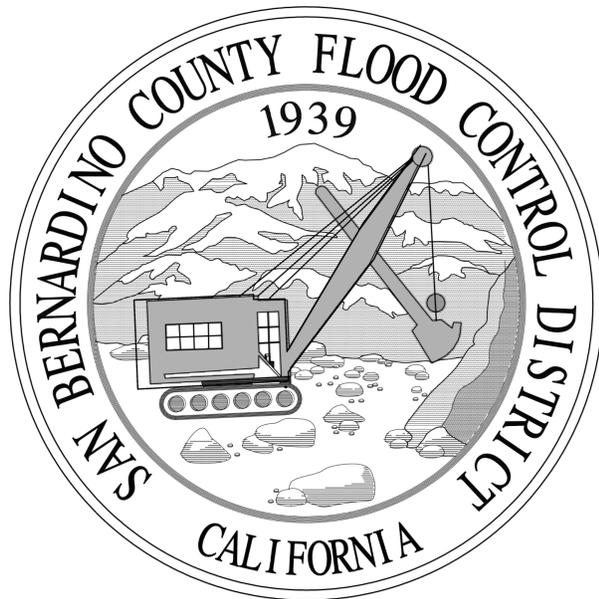
SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

PLANS FOR CONSTRUCTION OF ELDER CREEK CHANNEL

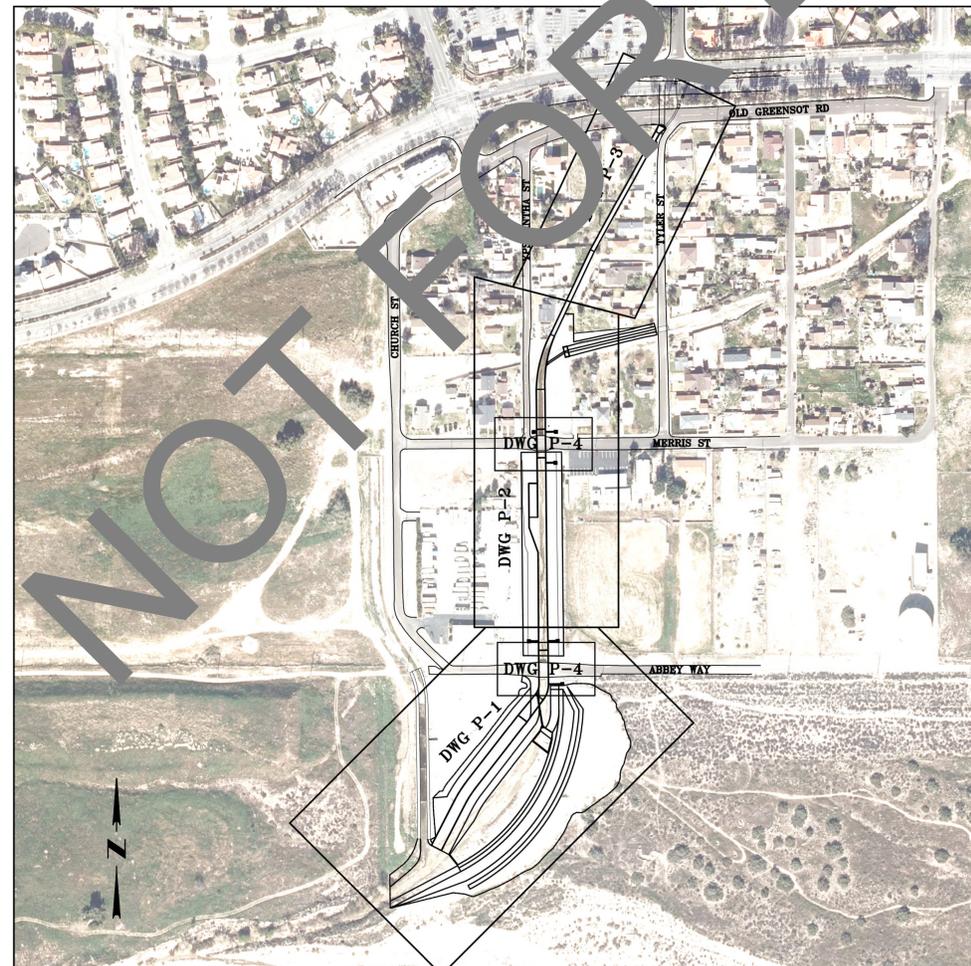
LOCATED IN THE CITY OF HIGHLAND
COUNTY OF SAN BERNARDINO

WORK ORDER NO.: F01911

SYSTEM NO.: 3-205-1C



LOCATION MAP
NOT TO SCALE



INDEX MAP
NOT TO SCALE

NOTICE TO CONTRACTOR:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

REFERENCES:

BASIS OF BEARING

ELDER/PLUNGE CREEK REHAB
WO# F01911 JL# 11443

COORDINATES & BEARINGS ARE GROUND. COMBINATION FACTOR = .9999248843

BASIS OF BEARINGS:
THE CENTERLINE OF MERRIS AVE FROM CHURCH STREET TO 1311.15' EAST
ALONG MERRIS AVE PER RS 154/09 BEING N89°41'27"E.

GRID PROJECT WAS TRANSLATED AT POINT #3:
N 1862575.556932 N 20000
from E 6811770.814437 to E 20000
CONTROL WAS THEN ROTATED AT POINT #3 TO THE RECORD BASIS-OF-BEARINGS
(+0°00'30.18734"), THEN PROJECT WAS SCALED AT POINT #3 (1.0000751213428)
TO OBTAIN GROUND COORDINATES.

BENCH MARK

FD MWDCS BRASS DISK STAMPED "IVF 32 1993" ON 1 FOOT CENTER MERIDIAN
PLANTER WALL AT ENTRANCE TO SAND & GRAVEL COMPANY, 88' EAST OF ORANGE
STREET CL PER NGS DATASHEET EV9337 NAVD-88 Elevation = 1291.90'

SHT. NO.	DWG. NO.	DESCRIPTION
1	I-1	TITLE SHEET, LOCATION MAP AND INDEX MAP
2	I-2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
3	D-1	DEMOLITION PLAN
4	P-1	PLAN AND PROFILE STA 9+22.75 TO STA 17+00 AND SECTIONS
5	P-2	PLAN AND PROFILE STA 17+00 TO STA 25+00 AND TYPICALS
6	P-3	PLAN AND PROFILE STA 25+00 TO STA 33+00 AND TYPICALS
7	P-4	STREET IMPROVEMENT PLANS, PROFILES AND TYPICALS ABBEY WAY/MERRIS STREET
8	P-5	CONCRETE CHANNEL ACCESS RAMP PLAN, PROFILE AND SECTIONS
9	P-6	STEEL PIPE INLETS LATERAL "A", LATERAL "B", LATERAL "C" AND LATERAL "D"
10	P-7	STEEL PIPE INLETS LATERAL "E", LATERAL "F" AND LATERAL "G"
11	P-8	2.0' x 2.0' RCB PLAN, PROFILE AND DEPRESSION DETAIL
12	C-1	GRADING PLAN SOUTH OF ABBEY WAY DETAILS AND SECTIONS
13	C-2	EAST HIGHLAND STORM DRAIN PLAN, PROFILE AND DETAILS
14	W-1	WATER RELOCATION ABBEY WAY AND MERRIS ST
15	S-1	STRUCTURAL DETAILS
16	S-2	STRUCTURAL DETAILS
17	S-3	STRUCTURAL PLANS AND DETAILS
18	S-4	STRUCTURAL PLANS AND DETAILS
19	S-5	STRUCTURAL PLANS AND DETAILS
20	S-6	STRUCTURAL PLANS AND DETAILS
21	S-7	STRUCTURAL PLANS AND DETAILS
22	F-1	FENCE PLAN STA 10+75 TO STA 16+00
23	F-2	FENCE PLAN STA 16+00 TO STA 24+65
24	F-3	FENCE PLAN STA 24+65 TO STA 29+75 AND EAST HIGHLAND STORM DRAIN
25	WPCP-1	TEMPORARY WATER POLLUTION CONTROL PLAN STA 9+25 TO STA 17+00
26	WPCP-2	TEMPORARY WATER POLLUTION CONTROL PLAN STA 17+00 TO STA 24+50
27	WPCP-3	TEMPORARY WATER POLLUTION CONTROL PLAN STA 24+50 TO STA 29+75
28	FCD-1	SPECIAL DRAWING I 6' CHAIN LINK RIGHT OF WAY FENCE
29	FCD-2	SPECIAL DRAWING II 6' CHAIN LINK CHANNEL FENCE

APPROVED BY:


NOEL CASTILLO, P.E., DIRECTOR OF PUBLIC WORKS R.C.E. C78044 DATE 3/25/24

CITY OF HIGHLAND
CITY JURISDICTION ONLY
APPROVED BY:


CARLOS ZAMANO, P.E., DIRECTOR OF PUBLIC WORKS/CITY ENGINEER DATE 03/12/2024

FILE NO.
3-205-1C
DRAWING NO.
I-1
SHEET NO.
1 OF 29

GENERAL NOTES:

- 1 SEE "SPECIAL PROVISIONS" FOR ADDITIONAL CONSTRUCTION INFORMATION & DETAILS.
2 IN GENERAL, ALL MATERIALS & CONSTRUCTION METHODS SHALL CONFORM TO THE 2018 EDITION STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS" UNLESS OTHERWISE SPECIFIED.
3 THESE PLANS DEPICT ALL ACTIVE UTILITIES KNOWN BY THE DISTRICT TO EXIST AT THIS TIME. LOCATIONS ARE APPROXIMATE & SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION. OPERATORS OF OVERHEAD UTILITIES SHALL BE NOTIFIED PRIOR TO START OF CONSTRUCTION.
4 THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT", 811 AT LEAST TWO DAYS IN ADVANCE OF ANY WORK WITHIN THE PROJECT AREA TO ALLOW UTILITY OPERATORS TO CHECK & MARK LOCATIONS OF EXISTING FACILITIES.
5 THE CONTRACTOR(S) SHALL COORDINATE CONSTRUCTION WITH ALL UTILITIES AND OTHER IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO GAS, TELEPHONE, ELECTRICAL, DOMESTIC WATER, STORM DRAINAGE, FLOOD CONTROL SYSTEMS, ETC.
6 CONTRACTOR SHALL PROTECT ALL UTILITIES, POLES, SIGNS, AND EXISTING IMPROVEMENTS IN PLACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS NOTED ON THE PLANS.
7 NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAS BEEN PLACED, INSPECTED AND APPROVED BY THE FLOOD CONTROL DISTRICT.
8 THE WALLS AND FACES OF ALL EXCAVATIONS, GREATER THAN FIVE (5) FEET IN DEPTH SHALL BE EFFECTIVELY GUARDED BY A SHORING SYSTEM. SLOPING OF THE GROUND OR OTHER EQUIVALENT MEANS. TRENCHES LESS THAN FIVE (5) FEET IN DEPTH SHALL ALSO BE GUARDED WHEN EXAMINATION INDICATES HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
9 NO STRUCTURE BACKFILL SHALL TAKE PLACE WITHOUT PRIOR APPROVAL OF THE FLOOD CONTROL DISTRICT.
10 ALL MATERIALS TESTING SHALL BE PROVIDED BY OTHERS IN ACCORDANCE WITH THE NUMBER, LOCATION, AND FREQUENCY REQUIRED BY THE FLOOD CONTROL DISTRICT, AND THE SPECIFICATIONS.
11 ALL EXCAVATION SHALL MEET THE REQUIREMENTS OF OSHA 29, CFR PART 1926, SUB-PART P, EXCAVATIONS.
12 ALL EXCAVATIONS OVER TWENTY (20) FEET IN DEPTH SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, (OSHA SUB-PART P, APPENDIX TABLE B-1).
13 RECORD DRAWINGS SHALL BE PROVIDED TO THE FLOOD CONTROL DISTRICT BY THE CONTRACTOR.
14 CONTRACTOR TO OBTAIN PERMITS FROM THE CITY OF HIGHLAND FOR ALL WORK WITHIN THE CITY OF HIGHLAND RIGHT OF WAY.

GENERAL CONSTRUCTION NOTES:

- 1 THE CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL WORK AS INDICATED ON THE CONSTRUCTION DOCUMENTS.
2 THE CONTRACTOR SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR REVIEWING CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND FOR CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION.
3 ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE DISTRICT ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
4 THE CONTRACTOR SHALL RECEIVE IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK.
5 THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
6 ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
7 THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
8 THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
9 DETAILS ARE INTENDED TO DEPICT FINAL RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO MEET SITE CONDITIONS AND DIMENSIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
10 THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAY, DRAINAGE WAYS, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED ON THE CONSTRUCTION DOCUMENTS.
11 THE CONTRACTOR SHALL KEEP THE JOB SITE AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. AT COMPLETION OF PROJECT, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.
12 PER LOS ANGELES COUNTY FLOOD CONTROL DISTRICT "DESIGN MANUAL", SPACING OF TRANSVERSE JOINTS SHALL NOT EXCEED 50 FEET OR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE PLAN AND PROFILE SHEETS. SPACING MAY BE DECREASED TO AVOID PROXIMITY TO INLETS.

MISC. IRON & STEEL NOTES:

- DESIGN:
1 MISCELLANEOUS METALWORK, EXCEPT BAR REINFORCING STEEL, (INCLUDING BARS, PLATES, ANGLES, PIPE, TUBE, GRATING, STEPS, BOLTS, WASHERS, NUTS, INSERTS, ANCHORS AND OTHER EMBEDDED ITEMS) USED IN CONJUNCTION WITH THE PLANNED STRUCTURES SHALL CONFORM TO THE PROVISIONS IN SECTION 75 "MISCELLANEOUS METAL" OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS DATED 2018.
WELDING:
2 ALL MATERIAL SHALL BE FABRICATED STRAIGHT, TRUE AND FREE FROM ALL TWISTS AND WARPS.
3 WELDING DESIGN BASED UPON AWS STRUCTURAL WELDING CODE D1.1-80.
4 ALL WELDS SHALL CONFORM TO THE REQUIREMENTS OF AWS STANDARDS, LATEST EDITION, AND AS MODIFIED IN THE AWS MANUAL OF STEEL CONSTRUCTION, 9TH EDITION, ALLOWABLE STRESS DESIGN.
PROTECTION:
5 ALL EXPOSED AND EMBEDDED METALWORK SHALL BE GALVANIZED.

GRADING NOTES:

- 1 UNLESS OTHERWISE DIRECTED BY THE DISTRICT ENGINEER, NO GRADING WILL BE ALLOWED OUTSIDE OF THE PROJECT LIMITS.
2 ALL PROPERTY CORNERS SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR GRADING.
3 DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHALL BE PROVIDED BY THE CONTRACTOR TO PREVENT PONDING OF WATER AND DAMAGE TO ADJACENT PROPERTIES.
4 CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPMENT, APPROVAL BY DISTRICT, AND CONTINUOUS MAINTENANCE OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). APPROVED BMP'S SHALL BE IN PLACE PRIOR TO START OF ANY GRADING OR CONSTRUCTION OPERATIONS. CONTRACTOR'S "QSD" & "QSP" SHALL BE RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, INSPECTION AND REPORTING, UPLOADING OF SWPPP AND ANY REVISIONS ASSOCIATED WITH THE SWPPP.
5 DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
6 CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING MEASURES NECESSARY TO PROTECT THE PROJECT AGAINST THE INTRUSION OF WATER, INCLUDING BUT NOT LIMITED TO STORM WATER, GROUND WATER, MIU, AND ANY FLOWS CARRYING DELETERIOUS MATTER. PRIOR TO START OF WORK CONTRACTOR SHALL SUBMIT A PLAN SHOWING PROPOSED METHODS OF DE-WATERING TO THE DISTRICT ENGINEER FOR DISTRICT APPROVAL.
7 NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED AND GRUBBED AND IS FREE OF WEEDS, BUSHES TREES, ROOTS DEBRIS, TOP SOIL, AND OTHER DELETERIOUS MATERIAL.
8 MAXIMUM GRADIENT FOR TEMPORARY CUT SLOPES SHALL BE 1.5:1.
9 CONTRACTOR SHALL PROVIDE TEMPORARY BROW DITCH TO CONTROL DRAINAGE ALONG TOPS OF TEMPORARY CUT SLOPES.
10 MINIMUM BROW DITCH SLOPE SHALL BE 1% FOR SLOPES LESS THAN 10- FEET AND 2% FOR SLOPES GREATER THAN 10- FEET. MINIMUM DEPTH OF BROW DITCHES SHALL BE 2- FEET AND OFFSET 3- FEET FROM TOP OF SLOPES.
11 ALL EXISTING DRAINAGE COURSES AND CULVERTS ON THE PROJECT, ENTERING OR EXITING THE PROJECT MUST CONTINUE TO FUNCTION FOR THE DURATION OF PROJECT CONSTRUCTION, ESPECIALLY DURING STORM EVENTS. PROTECTIVE MEASURES AND TEMPORARY PROVISIONS SHALL BE IMPLEMENTED BY THE CONTRACTOR TO PROTECT ADJOINING PROPERTIES FROM FLOODING DURING CONSTRUCTION OF THE PROJECT.

GENERAL REINFORCEMENT NOTES:

- DESIGN:
1 REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A615, DEFORMED BARS WITH A SPECIFIED MINIMUM YIELD STRENGTH OF 60,000 PSI.
2 REINFORCING DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 350-06. SPLICE AND EMBEDMENT LENGTHS NOT SHOWN ON THE PLAN SHALL BE ASSUMED TO BE IN TENSION AND SHALL CONFORM TO THE ABOVE REQUIREMENTS.
SYMBOLS & DIMENSIONS:
3 THE SYMBOL _____ INDICATES A LAPPED SPLICE, NOT A BEND IN THE BAR.
4 SPACING OF BARS ARE GIVEN IN INCHES AND ARE MEASURED TO THE CENTERLINE OF THE BARS.
5 CLEAR COVER DIMENSIONS ARE MARKED "CLR."
COVER:
6 REINFORCEMENT SHALL BE PLACED SO THAT THE CLEAR DISTANCE BETWEEN THE FACE OF THE CONCRETE AND THE NEAREST REINFORCEMENT IS AS SHOWN ON THE PLANS. ALL JURISDICTIONAL STRUCTURES SHALL HAVE A CLEAR DISTANCE OF 3 INCHES.
BENDS, HOOKS & SPLICES:
7 BAR BENDS, HOOKS, LAP SPLICES AND DEVELOPMENT LENGTHS SHALL CONFORM TO THE REQUIREMENTS OF ACI 350-06.
8 WHEN BARS ARE BENT DUO TO OFFSET LESS THAN 3-INCHES AND RECESSES ARE LESS THAN 3-INCHES DEEP, THE SLOPE OF THE INCLUDED PORTION SHALL NOT EXCEED 6:1 (H TO V).
9 ALL SPLICES SHALL BE CLASS "B" WITH APPROPRIATE ALLOWANCE FOR BAR SPACING AND DEPTH OF CONCRETE CAST BELOW THE REINFORCEMENT, UNLESS OTHERWISE NOTED.
10 SPLICES SHALL BE LOCATED WHERE SHOWN ON THE PLAN OR AS AUTHORIZED BY THE DISTRICT ENGINEER.
11 NON-CONTACT LAP SPLICES SHALL NOT BE SPACED GREATER THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP OR 6-INCHES.
12 WHEN REINFORCING BARS OF DIFFERENT DIAMETER ARE TO BE SPLICED, THE LENGTH OF THE LAP SHALL BE GOVERNED BY THE DEVELOPMENT LENGTH OF THE LARGER DIAMETER BAR.
13 NO SPLICES WILL BE ALLOWED WITHIN THE BAR DEVELOPMENT LENGTH OR END OF FOOTING, WALL, INVERT OR SOFFIT.
PLACEMENT:
14 THE FIRST AND LAST BARS IN WALLS AND SLABS ARE TO START AND END AT A MINIMUM OF ONE-HALF THE ADJACENT BAR SPACING.
15 REINFORCEMENT MAY BE ADJUSTED LATERALLY TO MAINTAIN A CLEAR DISTANCE OF AT LEAST 1-INCH BETWEEN THE REINFORCEMENT AND WATERSTOPS, CONDUITS, ANCHOR BOLTS, AND OTHER EMBEDDED MATERIAL.
16 REINFORCEMENT SHALL BE SHIFTED AS APPROVED TO CLEAR RECESSES AND EMBEDDED PIPES, SEALS, AND METALWORK. A MINIMUM CLEARANCE OF 1-INCH SHALL BE PROVIDED BETWEEN REINFORCEMENT AND EMBEDDED ITEMS.
17 REINFORCEMENT AT SMALL OPENINGS (1"-6" MAX.) IN WALLS AND SLABS MAY NOT BE SPREAD APART MORE THAN 1-1/2 TIMES THE BAR SPACING.
18 REINFORCEMENT PARALLEL TO ANCHOR BOLTS OR OTHER EMBEDDED MATERIAL SHALL BE PLACED TO MAINTAIN A CLEAR DISTANCE OF AT LEAST 1-1/3 TIMES THE MAXIMUM AGGREGATE SIZE.

CONSTRUCTION NOTES:

- 1 PROTECT IN PLACE
2 CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
3 CONSTRUCT REINFORCED CONCRETE BOX PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
4 CONSTRUCT 48" RCP TO CHANNEL WALL CONNECTION PER SPPWC STD 333-2

CONSTRUCTION NOTES CONT:

- 5 CONSTRUCT MODIFIED 2.0' x 2.0' REINFORCED CONCRETE BOX PER 2018 CALTRANS STD D80 CAST-IN-PLACE SINGLE BOX CULVERT
6 CONSTRUCT 4.0' REINFORCED CONCRETE CUT-OFF WALL PER DETAILS ON DWG S-6
7 CONSTRUCT REINFORCED CONCRETE PARAPET WALL PER DETAILS ON DWG S-6
8 CONSTRUCT EARTHEN TRAPEZOIDAL CHANNEL PER DWG C-2
9 CONSTRUCT CONCRETE ROCK SLOPE PROTECTION (1/4 TON, METHOD A) PER PLAN AND PROFILE ON DWG P-1 AND PER DETAIL ON DWG C-1
10 CONSTRUCT REINFORCED CONCRETE INVERT DEPRESSION PER DETAIL ON DWG P-8
11 INSTALL 6.0' CHAIN LINK FENCE PER SBCFCD SPECIAL DRAWING II ON DWG FCD-2
12 INSTALL 6.0' CHAIN LINK FENCE PER SBCFCD SPECIAL DRAWING I ON DWG FCD-1
13 INSTALL 20.0' WIDE DOUBLE DRIVE GATE PER SBCFCD SPECIAL DRAWING I ON DWG FCD-1
14 3" THICK 1" CRUSHED AGGREGATE BASE OVER NATIVE @ 85% COMPACTION
15 REMOVE AND REINSTALL EXISTING PIPE GATE
16 CONSTRUCT REINFORCED CONCRETE RETAINING WALL TYPE 1 (CASE 1) PER 2018 CALTRANS REVISED STANDARD PLAN (RSP) B3-1A AND DETAIL ON DWG P-5
17 INSTALL EROSION CONTROL BLANKET PER CALTRANS STD PLAN H52
18 REMOVE AND DISPOSE OF DRAIN AND PIPE
19 INSTALL TEMPORARY SITE BLOCK/WIND SCREEN
20 INSTALL TEMPORARY NOISE BARRIER
21 DEMOLISH AND DISPOSE EXISTING REINFORCED CONCRETE BOX CULVERT
22 CONSTRUCT REINFORCED CONCRETE TRANSITIONAL BOX PER DIMENSIONS SHOWN SEE DETAILS ON DWG S-6 AND DWG S-7
23 DEMOLISH AND DISPOSE EXISTING REINFORCED CONCRETE CHANNEL
24 DEMOLISH AND DISPOSE EXISTING CONCRETE TRANSITION STRUCTURE HIGHLAND CHANNEL AND TEMPORARY PROVISIONS SHALL BE IMPLEMENTED BY THE CONTRACTOR TO PROTECT ADJOINING PROPERTIES FROM FLOODING DURING CONSTRUCTION OF THE PROJECT.
25 DEMOLISH AND DISPOSE REINFORCED CONCRETE BOX CULVERT, ACCESS TUNNELS, MANHOLE AND UNDERLYING TRAPEZOIDAL CHANNEL
26 CONSTRUCT REINFORCED CONCRETE ACCESS RAMP PER DETAILS ON DWG P-5 AND DWG S-1
27 INSTALL TEMPORARY FENCE
28 REMOVE AND DISPOSE EXISTING FENCE, GATE, POST AND SIGNINGS
29 INSTALL 20.0' x 50.0' 1-1/2" GRAVEL ROCK PAD 6" THICK
30 SAWCUT, REMOVE AND DISPOSE EXISTING ASPHALT CONCRETE PAVEMENT AND BASE MATERIAL
31 CONSTRUCT 0.29' TYPE A 1/2" AGGREGATE GRADATION PG 64-10 HOTMIX ASPHALT OVER 0.50' CLASS 2 BASE
32 CONSTRUCT 12.0' WIDE AC DRIVEWAY
33 COLD PLANE (0.20' THICK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (0.20' THICK) ASPHALT CONCRETE OVERLAY, 2.0' W/ MINIMUM
34 REMOVE AND DISPOSE EXISTING CUL AND WIRE REVEALEMENT
35 EXISTING K-RAIL TO BE REMOVED BY SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT CONTRACTOR TO COORDINATE
36 INSTALL 48" RCP TO CHANNEL WALL CONNECTION PER SPPWC STD 333-2
37 CONSTRUCT HEADWALL PER CALTRANS STD D89 (MODIFIED) SEE DETAILS ON DWG C-2 AND DWG S-1
38 CONSTRUCT 6" THICK REINFORCED CONCRETE APRON PER PLAN ON DWG C-2
39 CONSTRUCT 6.0' REINFORCED CONCRETE CUT-OFF WALL PER DETAILS ON DWG C-2 AND DWG S-1
40 CUT, REMOVE AND DISPOSE EXISTING 12" DIP
41 INSTALL 12" DIP
42 INSTALL 12" DIP 45' BEND MJ
43 INSTALL BLOW-OFF PER EWVD STD DWG W-103B
44 INSTALL 12" LEX COUPLING
45 INSTALL GUARD POSTS PER EWVD STD DWG W-111
46 CUT APPROXIMATELY 6' OF EXISTING 12" DIP FLUSHING LINE FLUSH WITH RCB WALL
47 INSTALL 4" BLOW-OFF PER EWVD STD DWG W-103A
48 INSTALL 8" DIP 45' BEND MJ
49 INSTALL 8" DIP
50 INSTALL 8" LONG BARREL COUPLING
51 CONSTRUCT THRUST BLOCK PER EWVD STD DWG W-108
52 INSTALL 16" STEEL CASING PER EWVD STD DWG W-120
53 INSTALL 20" STEEL CASING PER EWVD STD DWG W-120
54 INSTALL 12" FLAP GATE
55 INSTALL 1" AIRVAC PER EWVD STD DWG W-105A
56 INSTALL 2" AIRVAC PER EWVD STD DWG W-105B
57 CONSTRUCT MODIFIED MANHOLE, MANHOLE SHAFT AND MANHOLE FRAME PER SPPWC STD 323-2, STD 324-2 AND STD 630-4
58 INSTALL 24" RCP D-1350 METHOD III PLACEMENT
59 CONSTRUCT 24" RCP TO RCB WALL CONNECTION PER SPPWC STD 333-2, PLAN AND PROFILE ON DWG P-8
60 INSTALL STEEL PIPE INLETS TYPE GMP PER CALTRANS STD D75A, PLAN AND PROFILE ON DWG P-6 WITH TRAFFIC AND BICYCLE RATED GRATE

CONSTRUCTION NOTES CONT:

- 61 CONSTRUCT 1/4 TON CONCRETE ROCK SLOPE PROTECTION (FULL PENETRATION) PER PLAN AND PROFILE ON DWG C-2
62 CONSTRUCT ROCK SLOPE PROTECTION (LIGHT, METHOD B) PER DETAIL ON DWG C-1
63 CONSTRUCT SOIL CEMENT PER LIMITS SHOWN AND SPECIAL PROVISIONS
64 CONSTRUCT CONCRETE SEDIMENTATION BASIN PER DETAIL ON DWG C-1
65 CONSTRUCT HEADWALL AND WINGWALL PER CALTRANS STD D84 TYPE A
66 INSTALL 8" MEGALUG RESTRAINT JOINT
67 CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
68 INSTALL PRECAST REINFORCED CONCRETE 10.0'W x 12.0'H BOX PER CALTRANS DB3A OR APPROVED EQUAL SEE DETAILS ON DWG S-2 AND S-6
69 INSTALL JENSEN'S PRECAST REINFORCED CONCRETE BOX 10' SPAN x 14' HEIGHT PER LATEST EDITION OF AASHTO LRFD BRIDGE DESIGN OR APPROVED EQUAL FOR HIGHWAY LOADING USING H20 PER ASHTO
70 INSTALL 20" STEEL CASING PER EWVD STD DWG S-113
71 INSTALL 30" STEEL CASING PER EWVD STD DWG S-113
72 INSTALL 20" CAP
73 INSTALL 30" CAP
74 CONSTRUCT CONCRETE COLLAR PER SPPWC STD 380-4
75 CONSTRUCT REINFORCED CONCRETE APRON PER DETAILS ON DWG P-6
76 CONSTRUCT REINFORCED CONCRETE APRON AND CUT-OFF WALL PER DETAIL ON DWG P-8
77 INSTALL 12" MEGALUG RESTRAINT JOINT
78 CONSTRUCT ASPHALT CONCRETE DIKE PER SBCRD 117 AND DETAILS ON DWG P-3
79 INSTALL GRAVEL SIMILAR IN SIZE AND COLOR OF EXISTING GRAVEL 4" THICK PER DETAILS ON DWG P-3
80 CONSTRUCT DEEP LIFT TYPE A 1/2" AGGREGATE GRADATION PG 64-10 HOTMIX ASPHALT

LEGEND OF MAP SYMBOLS FOR PLANS:

Table with 2 columns: Symbol and Description. Includes symbols for ROCK/COBBLE, CONCRETE, NATIVE SOIL, CONCRETED ROCK/CONCRETED ROCK SLOPE PROTECTION, ROCK SLOPE PROTECTION LIGHT CLASS ROCK, EXCAVATION, STRUCTURAL BACKFILL, COMPACTED SOIL (95% COMPACTION), ASPHALT CONCRETE PAVEMENT, FCD R/W-STREET R/W, CENTERLINE/ALIGNMENT, CHAIN LINK FENCE, NOISE BARRIER FENCE, MINOR CONTOUR LINES, MAJOR CONTOUR LINES, GAUGE, GRADE BREAK, GALVANIZED METAL PIPE, GRADE, HEIGHT, HIGH DENSITY POLYETHYLENE PIPE, INVERT, LENGTH, LATERAL, LONGITUDINAL, LEFT OF (PERPENDICULAR ALIGNMENT OFFSET), MAXIMUM, MANHOLE, MINIMUM, NORTH, NORTHING, NORTHEAST, NORTHWEST, ON CENTER, ORIGINAL GRADE, POURED CONCRETE, POWER POLE, POLYVINYL CHLORIDE PIPE, PROPOSED, PROTECT IN PLACE, RADIUS, REINFORCED CONCRETE, REINFORCED CONCRETE BOX CULVERT, REINFORCED CONCRETE PIPE, RIGHT OF (PERPENDICULAR ALIGNMENT OFFSET), RIGHT OF WAY, ROCK SLOPE PROTECTION, SLOPE, SOUTHEAST, SHEET, SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT, SPECIFICATION, STANDARD PLAN, STATION, SOUTHWEST, TANGENT, TEMPORARY CONSTRUCTION EASEMENT, TOP OF FOOTING, TOP OF PARAPET WALL, TRANSITION, TOP OF WALL, TYPICAL, UPSTREAM, VARIES, VERTICAL POINT OF INTERSECTION, WIDTH, WEST, WITH, WESTERLY, WATER SURFACE, WATER VALVE, YEAR.

STANDARD PLANS:

Table with 2 columns: STD. NO. and DESCRIPTION. Lists standard specifications such as SBCFCD SP 220, SBCRD 117, CALTRANS (2018) D75A, D80, D84, D89, H52, BO-3, RSP B3-1A (MODIFIED), SPPWC (2021) 323-2, 324-2, 333-2, 630-4, EAST VALLEY WATER DISTRICT S-113, W-103A, W-103B, W-105A, W-105B, W-108, W-111, W-120.

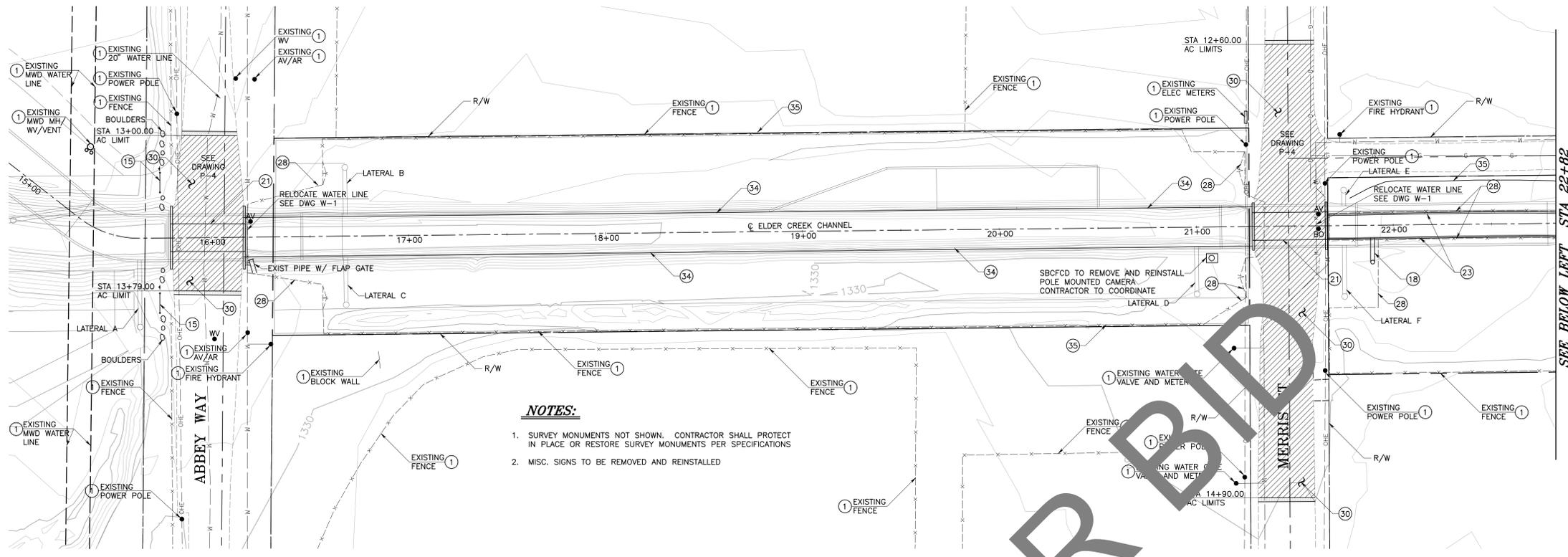
STANDARD PLANS CONT:

SPECIAL DRAWINGS
SBCFD SPEC. DWG. 1 6' CHAIN LINK BOUNDARY FENCE & GATE
SBCFD SPEC. DWG. 2 6' CHAIN LINK CHANNEL FENCE & GATE

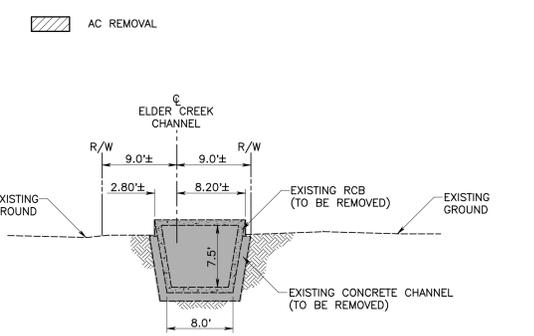
ABBREVIATIONS:

Table with 2 columns: Abbreviation and Full Name. Includes AB (AGGREGATE BASE), AC (ASPHALT CONCRETE), APPROX (APPROXIMATE), AV/AR (AIR VAC/AIR RELEASE AVENUE), BC (BEGIN CURVE), BO (BLOW OFF), BVC (BEGIN VERTICAL CURVE), CRSP (CONCRETED ROCK SLOPE PROTECTION), CMP (CORRUGATED METAL PIPE), CHAN (CHANNEL), CONC (CONCRETE), CL (CENTERLINE/CONTROL LINE), COW (CUT-OFF WALL), DDC (20') (DOUBLE DRIVE GATE (20' CLEAR OPENING)), DIA (DIAMETER), DIP (DUCTILE IRON PIPE), DS (DOWNSTREAM), DWG (DRAWING), E (EAST, EASTING), EC (END CURVE), EL, ELEV (ELEVATION), EASTERLY (EASTERLY), EM (ELECTRICAL METER), EP (EDGE OF PAVEMENT), EVC (END VERTICAL CURVE), EWVD (EAST VALLEY WATER DISTRICT), EX, EXIST (EXISTING), FB (FREEBOARD), FG (FINISH GRADE), FH (FIRE HYDRANT), FL (FLOW LINE), GA (GAUGE), GB (GRADE BREAK), GMP (GALVANIZED METAL PIPE), GR (GRADE), H (HEIGHT), HDPE PIPE (HIGH DENSITY POLYETHYLENE PIPE), INV (INVERT), L (LENGTH), LAT (LATERAL), LONG (LONGITUDINAL), LT (LEFT OF (PERPENDICULAR ALIGNMENT OFFSET)), MAX (MAXIMUM), MH (MANHOLE), MIN (MINIMUM), N (NORTH, NORTHING), NE (NORTHEAST), NW (NORTHWEST), OC (ON CENTER), OG (ORIGINAL GRADE), PCC (POURED CONCRETE), PP (POWER POLE), PVC (POLYVINYL CHLORIDE PIPE), PROP (PROPOSED), PIP (PROTECT IN PLACE), R (RADIUS), RC (REINFORCED CONCRETE), RCB (REINFORCED CONCRETE BOX CULVERT), RCP (REINFORCED CONCRETE PIPE), RT (RIGHT OF (PERPENDICULAR ALIGNMENT OFFSET)), ROW, R/W (RIGHT OF WAY), RSP (ROCK SLOPE PROTECTION), S (SLOPE), SE (SOUTHEAST), SHEET (SHEET), SBCFCD (SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT), SPEC (SPECIFICATION), SP (STANDARD PLAN), STA (STATION), SW (SOUTHWEST), T (TANGENT), TCE (TEMPORARY CONSTRUCTION EASEMENT), TOP (TOP OF FOOTING), TP (TOP OF PARAPET WALL), TRANS (TRANSITION), TW (TOP OF WALL), TYP (TYPICAL), US (UPSTREAM), VAR (VARIES), VPI (VERTICAL POINT OF INTERSECTION), W (WIDTH), W (WEST), W/W (WITH), W/WLY (WESTERLY), WS (WATER SURFACE), WV (WATER VALVE), YR (YEAR).

Professional Engineer Seal for David L. Drake, No. C 64193, Exp. 06-30-2023. San Bernardino County Flood Control District logo. REVISIONS table. SUBMITTED BY: Eloy Ruvalcaba, 3/13/2024. RECOMMENDED BY: David L. Drake, 3/13/24. APPROVED BY: Mervyn Mikhael, P.E., Deputy Director, 3/21/24. SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT. PLUNGE CREEK SYSTEM. ELDER CREEK CHANNEL. GENERAL NOTES, LEGEND AND ABBREVIATIONS. DATE: MAR 2024. SCALE: AS SHOWN. FILE NO.: 3-205-1C. DRAWING NO.: 1-2. SHEET NO.: 2 OF 29.



- CONSTRUCTION NOTES CONT:**
- 1 PROTECT IN PLACE
 - 15 REMOVE AND REINSTALL EXISTING PIPE GATE
 - 18 REMOVE AND DISPOSE OF DRAIN AND PIPE
 - 21 DEMOLISH AND DISPOSE EXISTING REINFORCED CONCRETE BOX CULVERT
 - 23 DEMOLISH AND DISPOSE EXISTING REINFORCED CONCRETE CHANNEL
 - 24 DEMOLISH AND DISPOSE TRANSITION STRUCTURE HIGHLAND CHANNEL
 - 25 DEMOLISH AND DISPOSE REINFORCED CONCRETE BOX CULVERT, ACCESS PANELS, MANHOLES AND UNDERLYING TRAP CHANNEL
 - 28 REMOVE AND DISPOSE EXISTING FENCE, GATE, POST AND FOOTINGS
 - 30 SAWCUT, REMOVE AND DISPOSE EXISTING ASPHALT CONCRETE PAVEMENT AND BASE MATERIAL
 - 34 REMOVE AND DISPOSE EXISTING RAIL AND WIRE REVETMENT
 - 35 EXISTING K-RAIL TO BE REMOVED BY SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT CONTRACTOR TO COORDINATE

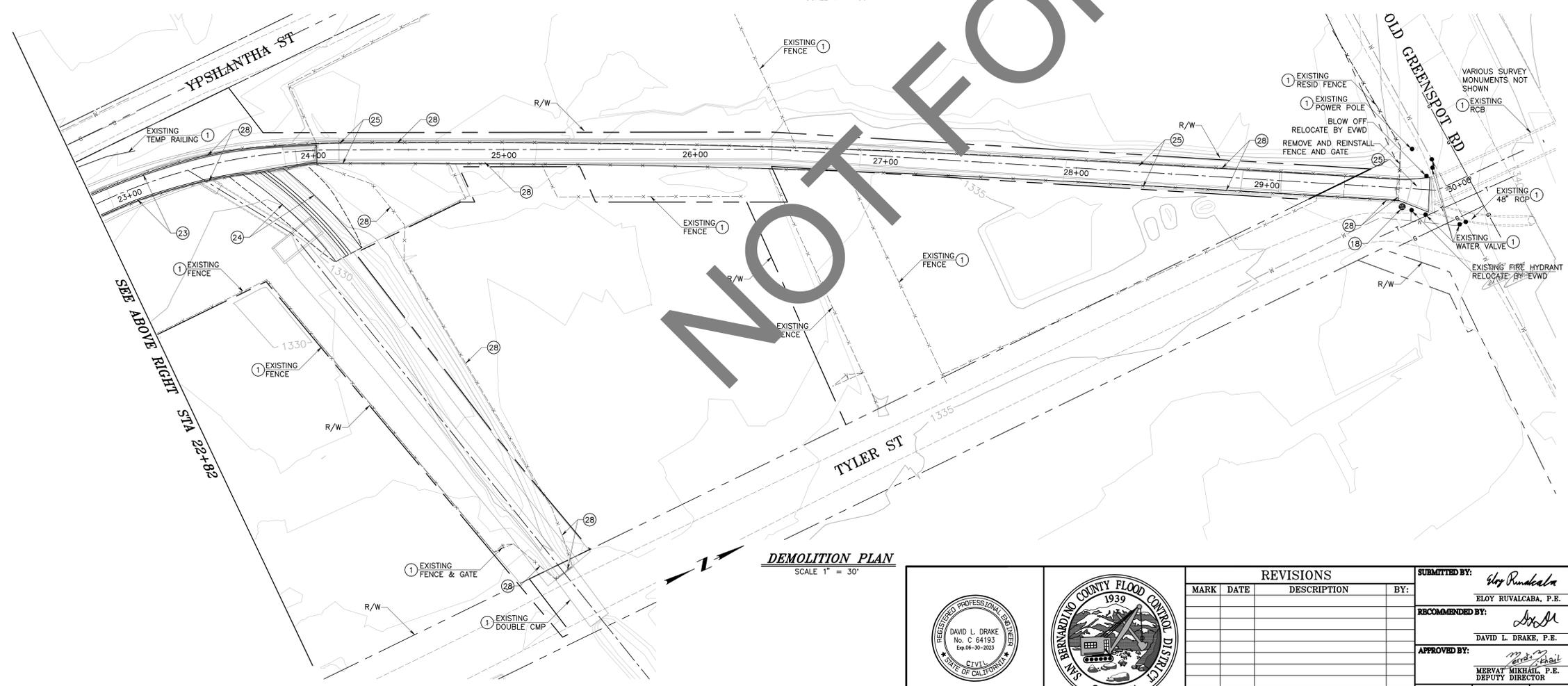


STA 24+02± TO STA 29+68±
**EXISTING TRAPEZOIDAL RCB
 AND CONCRETE CHANNEL**
 SCALE 1" = 10'

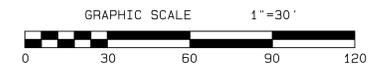
NOTES:

- SURVEY MONUMENTS NOT SHOWN. CONTRACTOR SHALL PROTECT IN PLACE OR RESTORE SURVEY MONUMENTS PER SPECIFICATIONS
- MISC. SIGNS TO BE REMOVED AND REINSTALLED

DEMOLITION PLAN
 SCALE 1" = 30'



DEMOLITION PLAN
 SCALE 1" = 30'

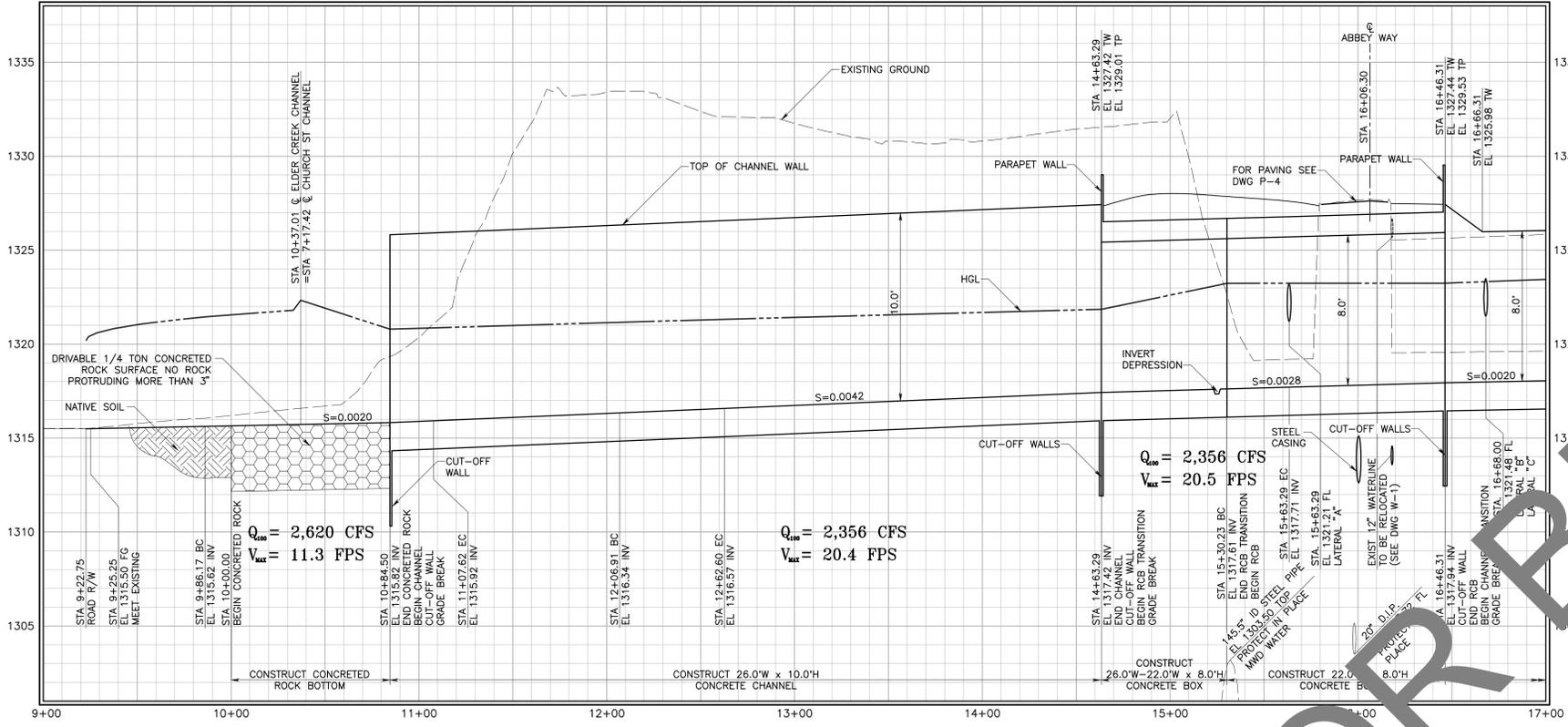


REVISIONS		
MARK	DATE	DESCRIPTION

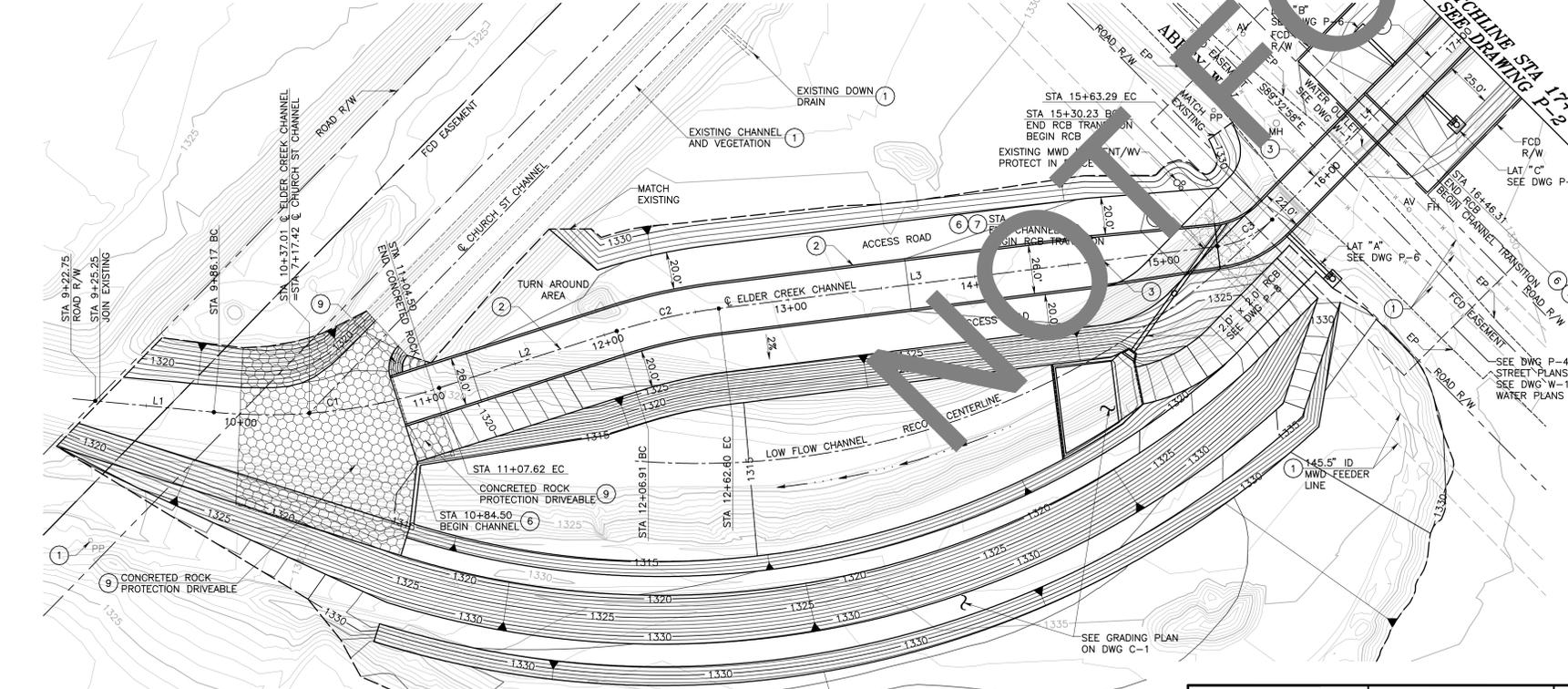
SUBMITTED BY: <i>Eloy Ruvalcaba</i> ELOY RUVALCABA, P.E. DATE: 3/13/2024	RECOMMENDED BY: <i>David L. Drake</i> DAVID L. DRAKE, P.E. DATE: 3/13/24
APPROVED BY: <i>Mervat Mikhal</i> MERVAT MIKHAL, P.E. DEPUTY DIRECTOR DATE: 3/21/24	PROJ. ENGR. D.D.
DESIGNED BY: E.R./D.B.	REV'D BY: D.D.
DRAWN BY: D.B.	

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT PLUNGE CREEK SYSTEM ELDER CREEK CHANNEL DEMOLITION PLAN	DATE MAR 2024 SCALE 1" = 30' FILE NO. 3-205-1C DRAWING NO. D-1 SHEET NO. 3 OF 29
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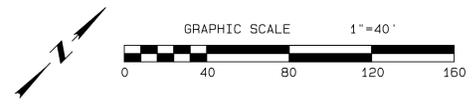


ELDER CREEK CHANNEL PROFILE
 HORIZONTAL SCALE 1" = 40'
 VERTICAL SCALE 1" = 4'



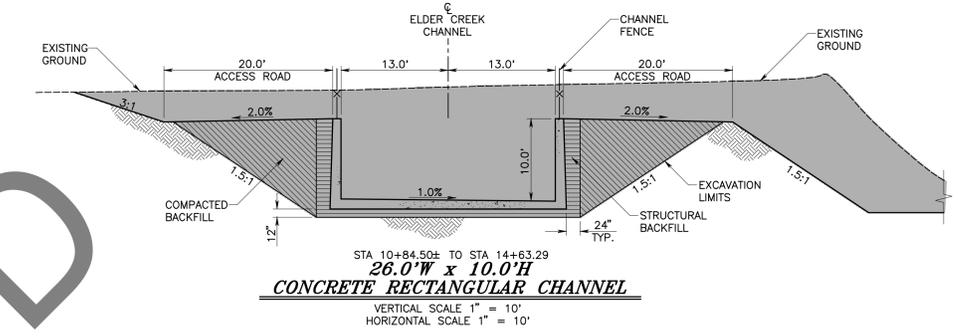
ELDER CREEK CHANNEL PLAN
 HORIZONTAL SCALE 1" = 40'

ELDER CREEK CHANNEL LINE/CURVE DATA					
LINE	DELTA	RADIUS	TANGENT	LENGTH	BEARING
L1				63.41'	N50°27'03"E
C1	23°11'44"	300.00'	61.57'	121.45'	
L2				99.29'	N27°15'19"E
C2	10°38'13"	300.00'	27.93'	55.69'	
L3				267.62'	N37°53'32"E
C3	37°53'32"	50.00'	17.16'	33.07'	
L4				717.08'	N00°36'21"W

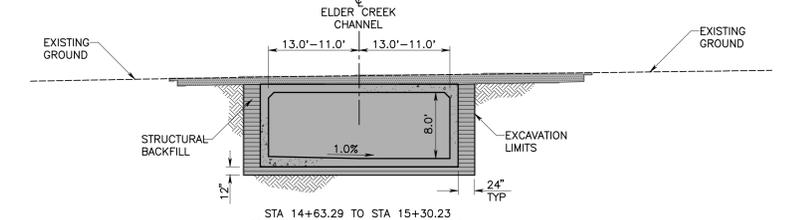


CONSTRUCTION NOTES:

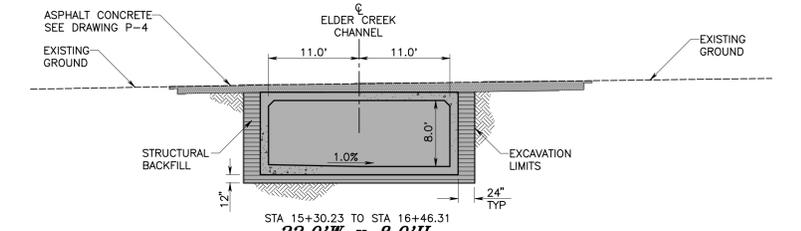
- PROTECT IN PLACE
- CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
- CONSTRUCT REINFORCED CONCRETE BOX PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
- CONSTRUCT 4.0' REINFORCED CONCRETE CUT-OFF WALL PER DETAILS ON DWG S-6
- CONSTRUCT REINFORCED CONCRETE PARAPET WALL PER DETAILS ON DWG S-6
- CONSTRUCT CONCRETE ROCK SLOPE PROTECTION (1/4 TON, METHOD A) PER PLAN AND PROFILE ON THIS DRAWING AND PER DETAIL ON DWG C-1
- CONSTRUCT REINFORCED CONCRETE INVERT DEPRESSION PER DETAIL ON DWG P-8



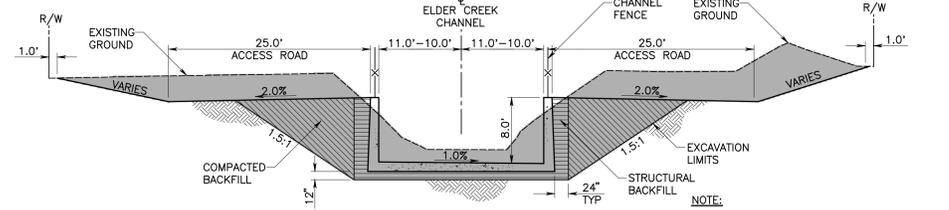
**26.0'W x 10.0'H
 CONCRETE RECTANGULAR CHANNEL**
 VERTICAL SCALE 1" = 10'
 HORIZONTAL SCALE 1" = 10'



**26.0'W-22.0'W x 8.0'H
 REINFORCED CONCRETE BOX**
 VERTICAL SCALE 1" = 10'
 HORIZONTAL SCALE 1" = 10'



**22.0'W x 8.0'H
 REINFORCED CONCRETE BOX**
 VERTICAL SCALE 1" = 10'
 HORIZONTAL SCALE 1" = 10'

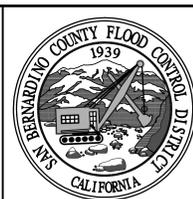
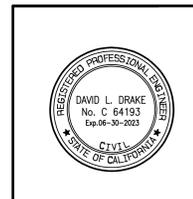


**22.0'W-20.0'W x 8.0'H
 CONCRETE RECTANGULAR CHANNEL**
 SCALE 1" = 10'

- NATIVE SOIL
- COMPACTED BACKFILL
- STRUCTURAL BACKFILL
- FOUNDATION EXCAVATION
- 1/4 TON GROUTED ROCK

NOTES:

- SURVEY MONUMENTS NOT SHOWN. CONTRACTOR SHALL PROTECT IN PLACE OR RESTORE SURVEY MONUMENTS PER SPECIFICATIONS
- MISC. SIGNS TO BE REMOVED AND REINSTALLED
- CONTRACTOR TO COORDINATE WITH DISTRICT TO REMOVE AND REINSTALL CAMERA



REVISIONS		
MARK	DATE	DESCRIPTION

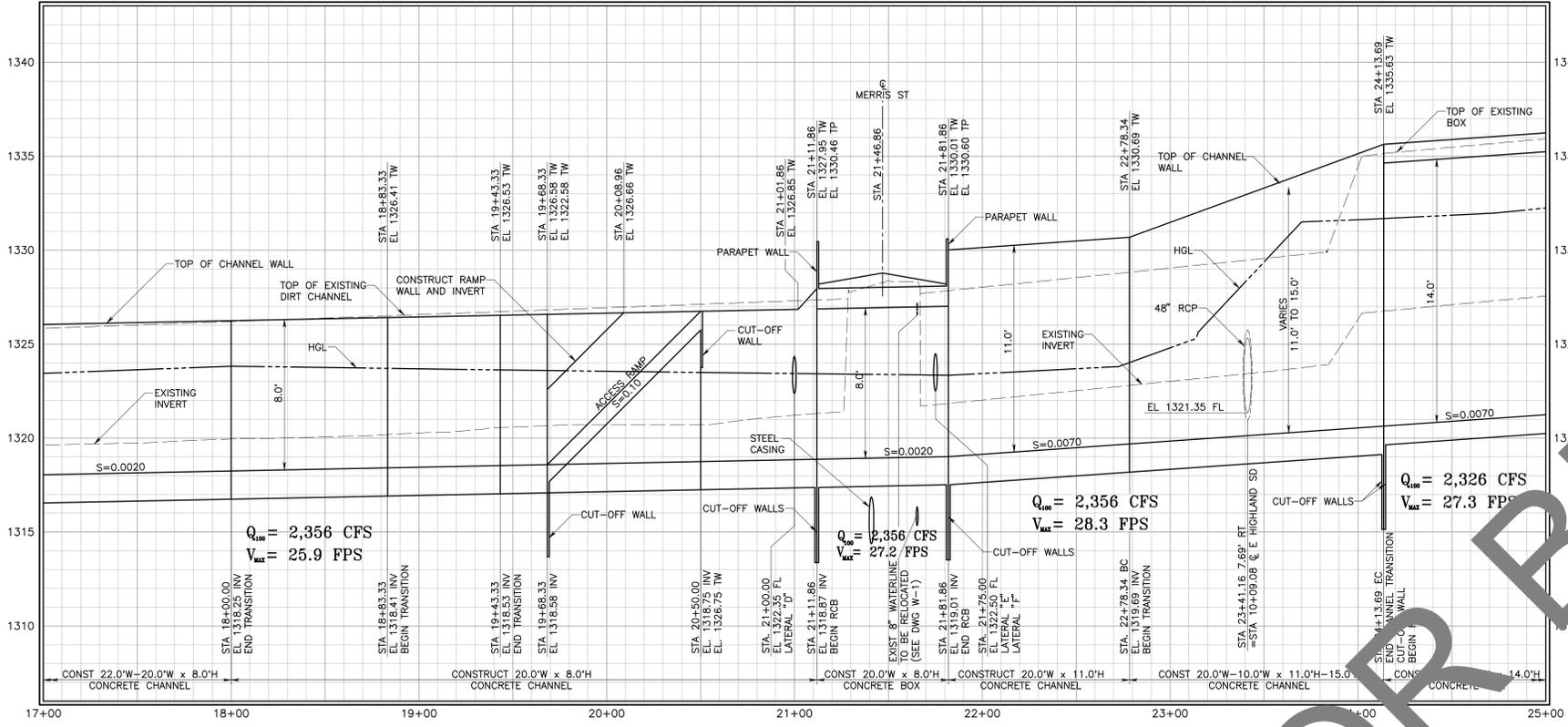
SUBMITTED BY:	<i>Eloy Ruvalcaba</i>	3/13/2024
	ELOY RUVALCABA, P.E.	DATE
RECOMMENDED BY:	<i>David L. Drake</i>	3/13/24
	DAVID L. DRAKE, P.E.	DATE
APPROVED BY:	<i>Mervat Mikhal</i>	3/21/24
	MERVAT MIKHAL, P.E. DEPUTY DIRECTOR	DATE
PROJ. ENGR.	D.D.	
DESIGNED BY:	E.R./D.B.	
REV'D BY:	D.D.	
DRAWN BY:	D.B.	

**SAN BERNARDINO COUNTY
 FLOOD CONTROL DISTRICT**

**PLUNGE CREEK SYSTEM
 ELDER CREEK CHANNEL**

**PLAN AND PROFILE
 STA 9+22.75 TO STA 17+00
 AND SECTIONS**

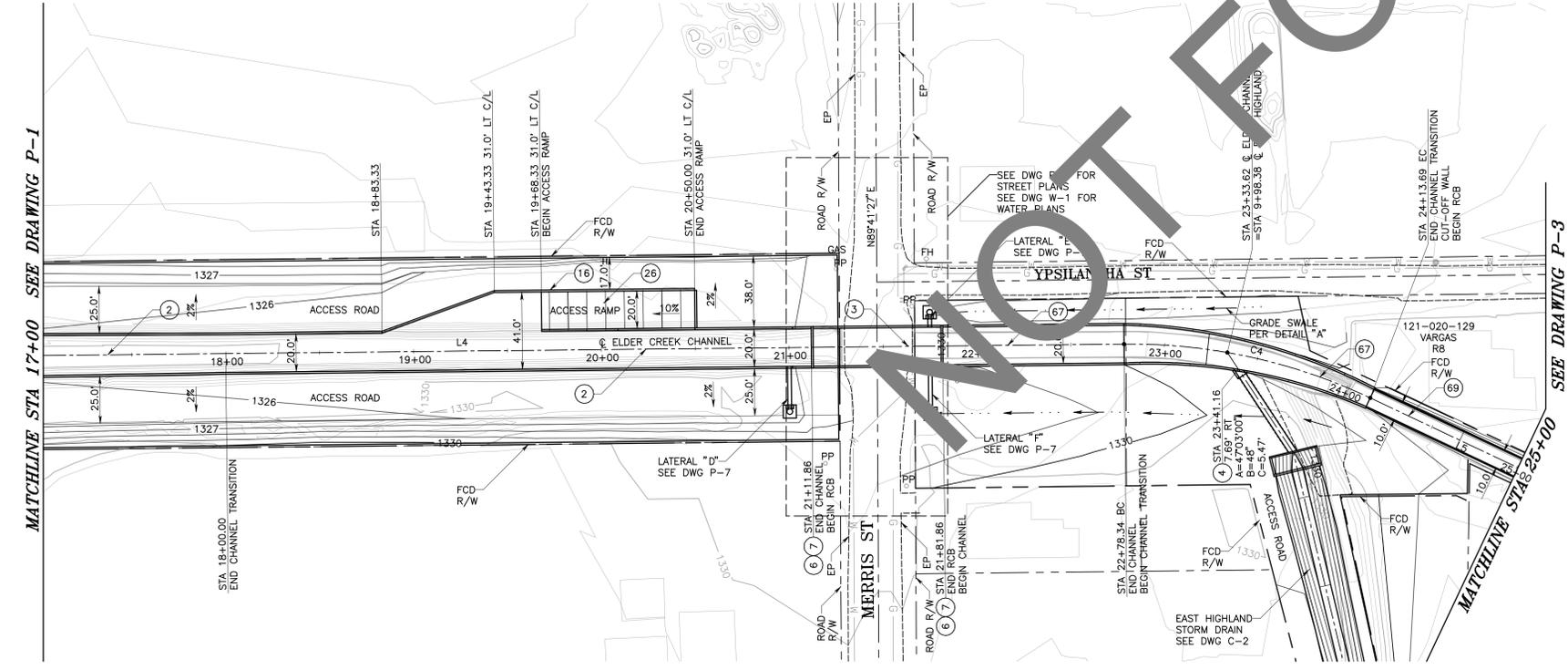
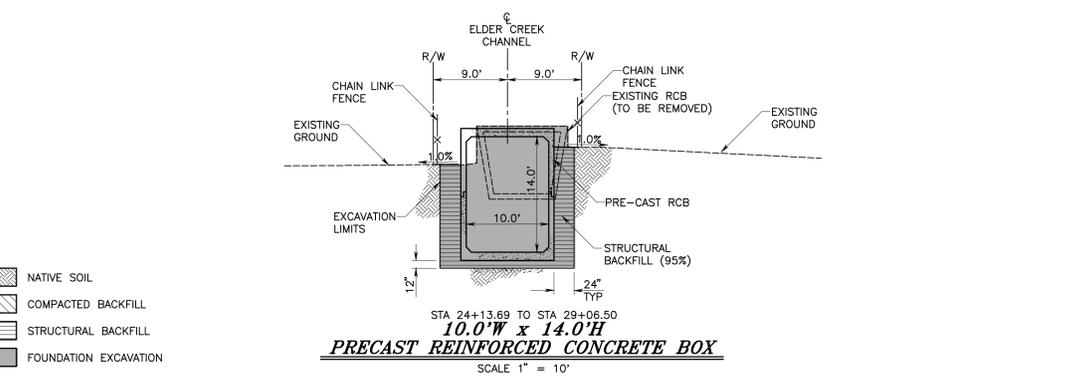
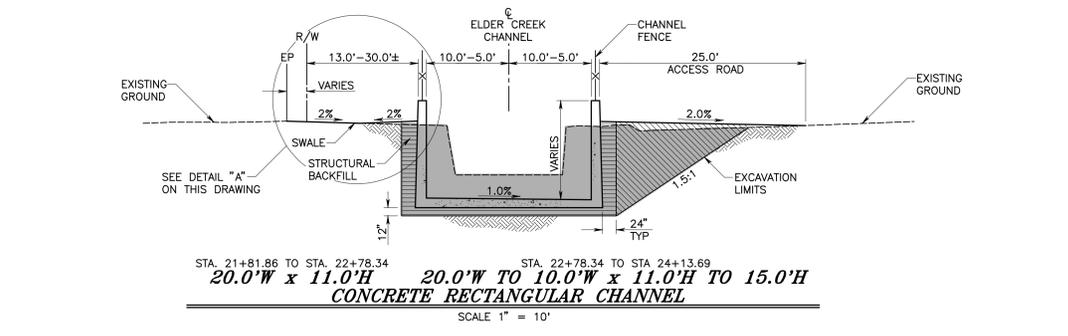
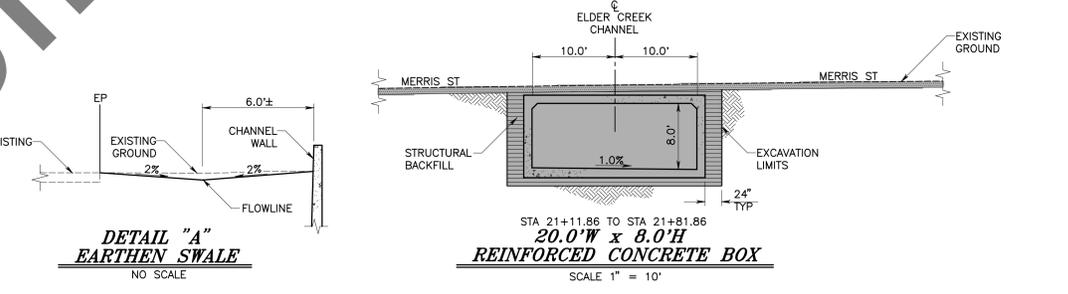
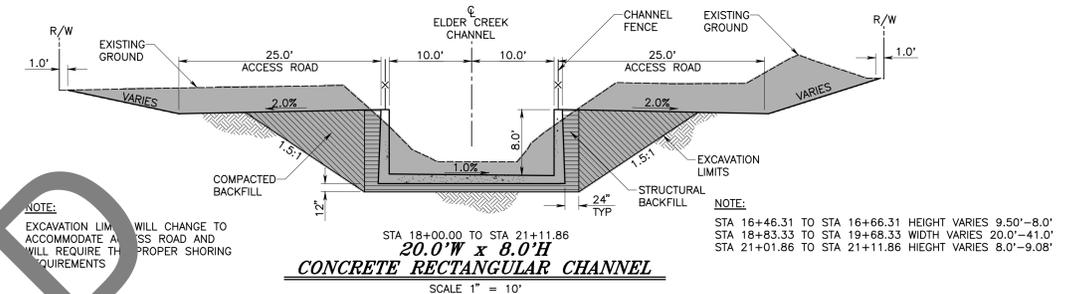
DATE: MAR 2024
 SCALE: 1" = 40'
 FILE NO.: 3-205-1C
 DRAWING NO.: P-1
 SHEET NO.: 4 OF 29



ELDER CREEK CHANNEL PROFILE
 HORIZONTAL SCALE 1" = 40'
 VERTICAL SCALE 1" = 4'

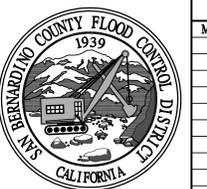
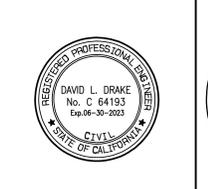
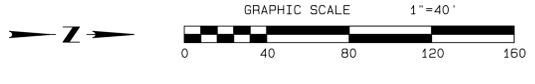
CONSTRUCTION NOTES:

- ② CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
- ③ CONSTRUCT REINFORCED CONCRETE BOX PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
- ④ CONSTRUCT 48" RCP TO CHANNEL WALL CONNECTION PER SPPWC STD 333-2
- ⑤ CONSTRUCT 4.0' REINFORCED CONCRETE CUT-OFF WALL PER DETAILS ON DWG S-6
- ⑥ CONSTRUCT REINFORCED CONCRETE PARAPET WALL PER DETAILS ON DWG S-6
- ⑦ CONSTRUCT RETAINING WALL TYPE 1 (CASE 1) RSP B3-1A PER 2018 CALTRANS REVISED STD PLANS AND DETAIL ON DWG P-5
- ⑧ CONSTRUCT ACCESS RAMP. SEE DETAILS ON DWG P-5 AND DWG S-1
- ⑨ CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN. SEE DETAILS ON DWGS S-4, S-5, S-6 AND S-7
- ⑩ INSTALL JENSEN'S PRECAST REINFORCED CONCRETE BOX 10' SPAN x 14' HEIGHT PER LATEST EDITION OF ASHTO LRFD BRIDGE DESIGN OR APPROVED EQUAL FOR HIGHWAY LOADING USING H20 PER ASHTO



ELDER CREEK CHANNEL PLAN
 HORIZONTAL SCALE 1" = 40'

ELDER CREEK CHANNEL LINE/CURVE DATA					
LINE	DELTA	RADIUS	TANGENT	LENGTH	BEARING
L4				715.05'	N00°36'21"W
C4	25°50'57"	300.00'	68.84'	135.35'	
L5				226.67'	N25°14'36"E
L6				348.63'	N28°50'06"E
L7				366.39'	N00°38'26"E



REVISIONS		
MARK	DATE	DESCRIPTION

SUBMITTED BY:	<i>Eloy Ruvalcaba</i>	3/13/2024
	ELOY RUVALCABA, P.E.	DATE
RECOMMENDED BY:	<i>David L. Drake</i>	3/13/24
	DAVID L. DRAKE, P.E.	DATE
APPROVED BY:	<i>Mervat Mikhael</i>	3/21/24
	MERVAT MIKHAEL, P.E. DEPUTY DIRECTOR	DATE
PROJ. ENGR.	D.D.	
DESIGNED BY	E.R./D.B.	
REV'D BY	D.D.	
DRAWN BY	D.B.	

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

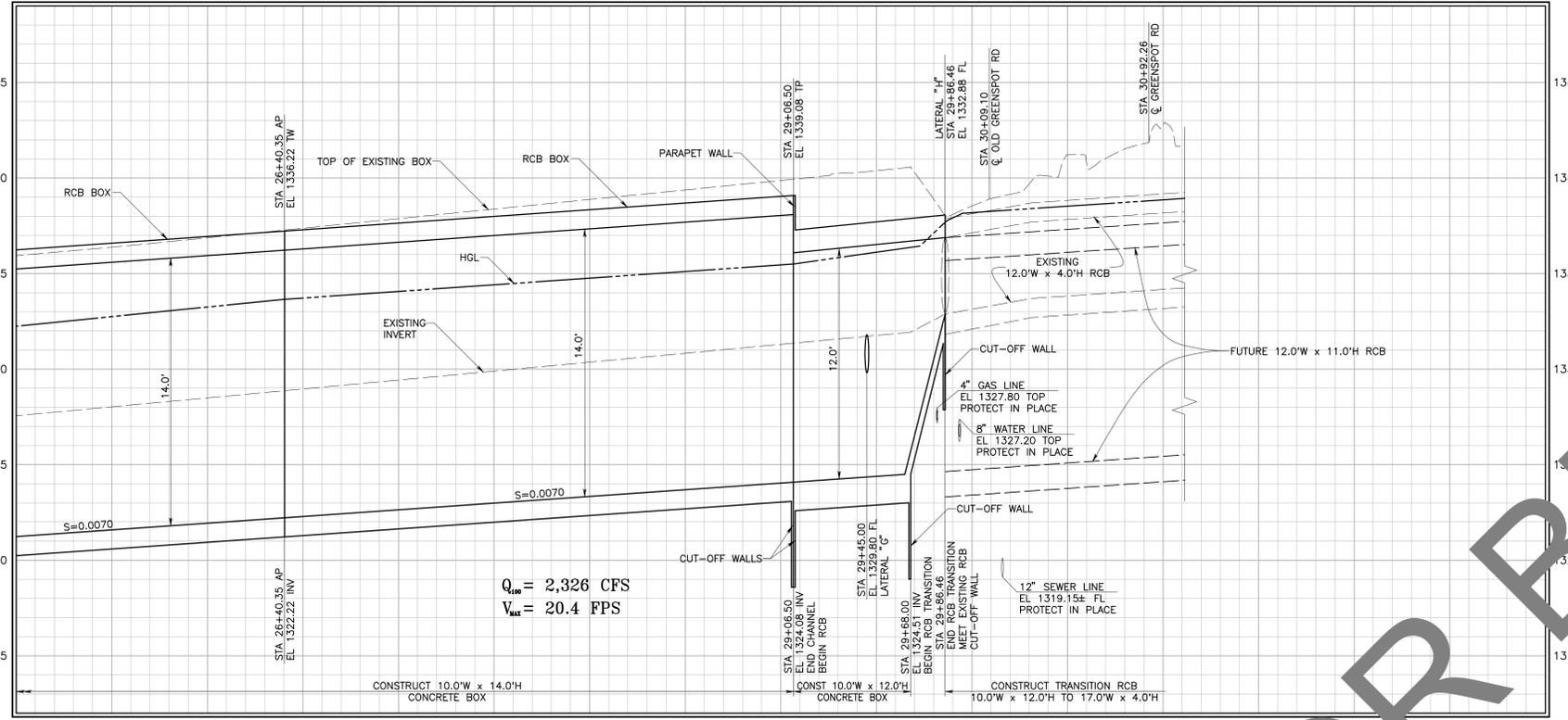
PLUNGE CREEK SYSTEM

ELDER CREEK CHANNEL

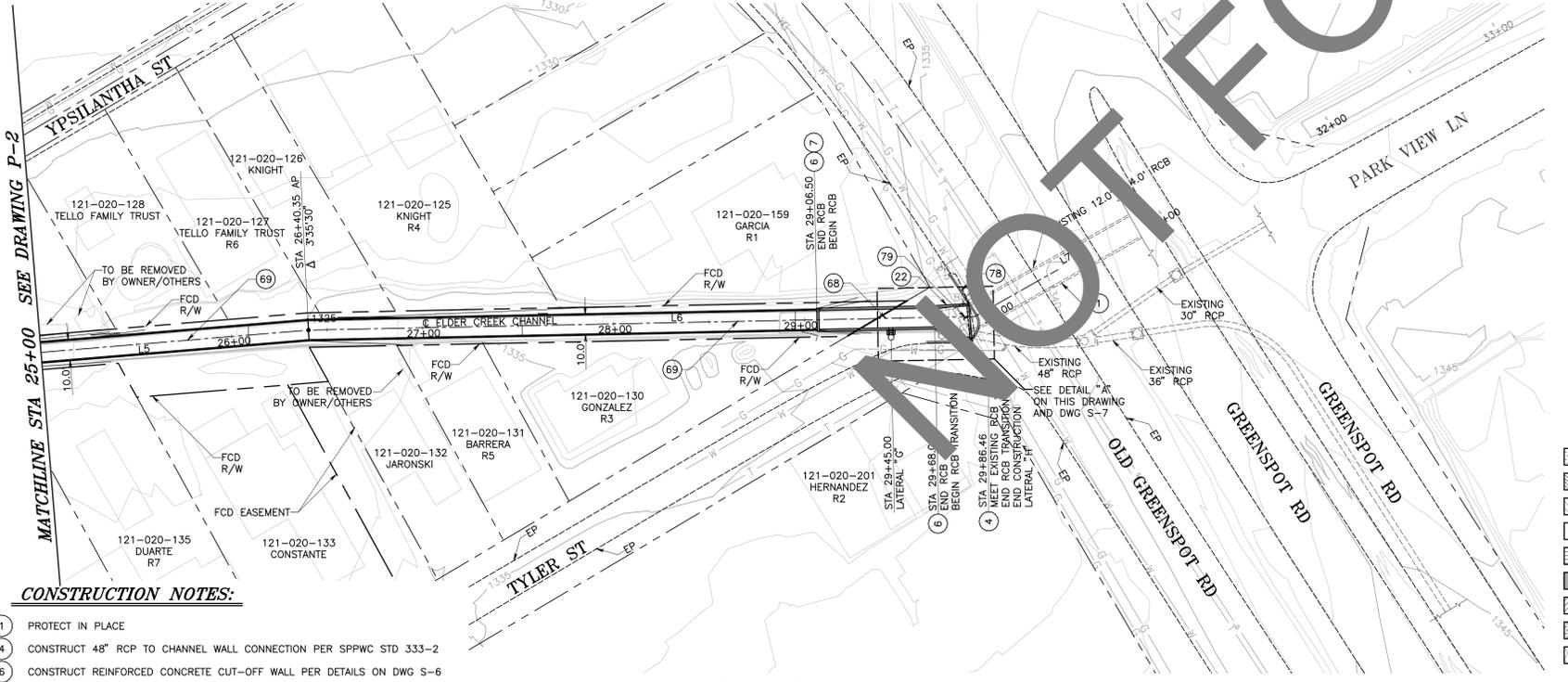
PLAN AND PROFILE
 STA 17+00 TO STA 25+00
 AND TYPICALS

DATE: MAR 2024
 SCALE: 1" = 40'
 FILE NO.: 3-205-1C
 DRAWING NO.: P-2
 SHEET NO.: 5 OF 29

S:\V01911 - Elder Creek\Active\Terra\model\Elder_Creek_Design.dwg



ELDER CREEK CHANNEL PROFILE
 HORIZONTAL SCALE 1" = 40'
 VERTICAL SCALE 1" = 4'

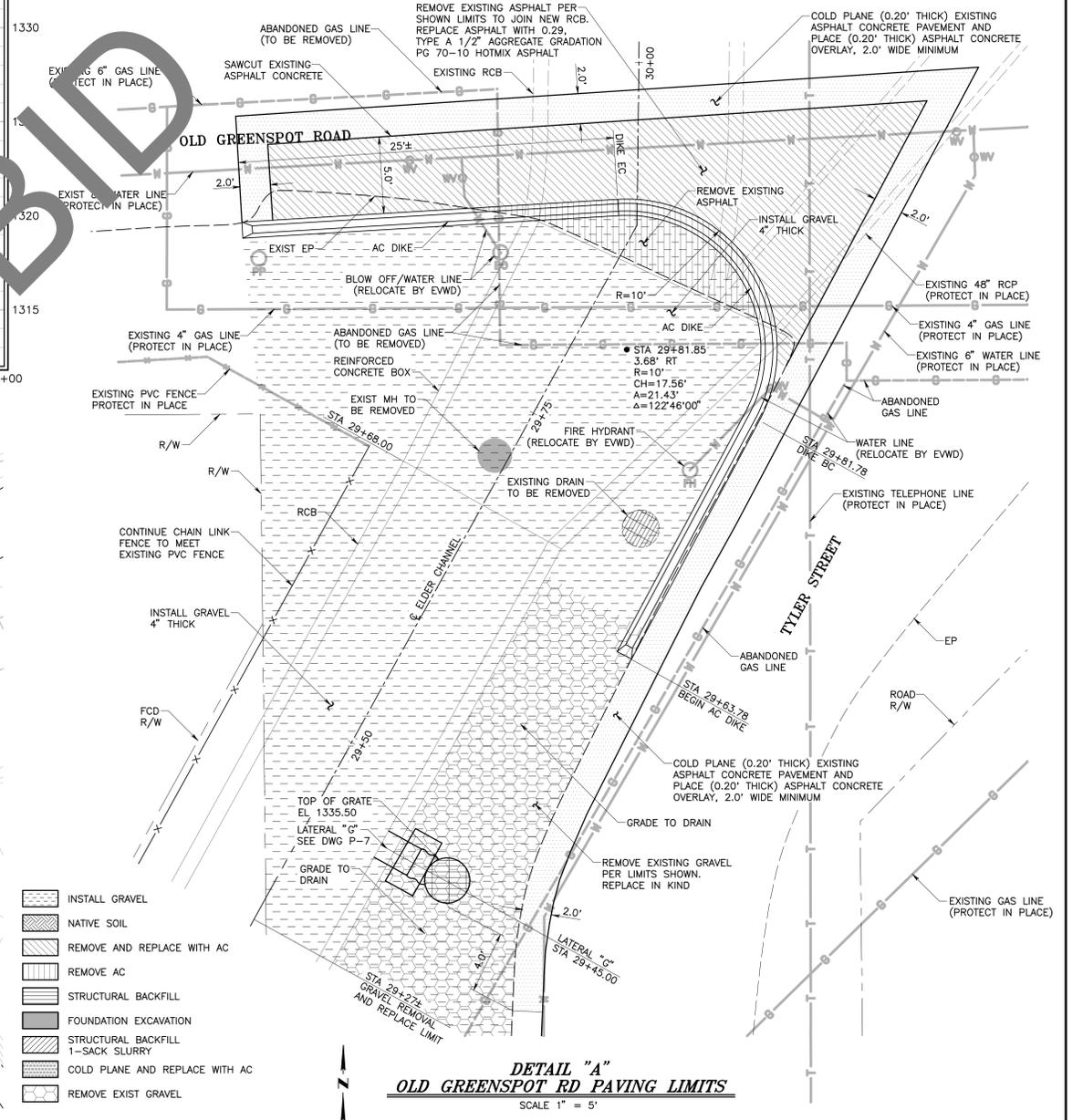
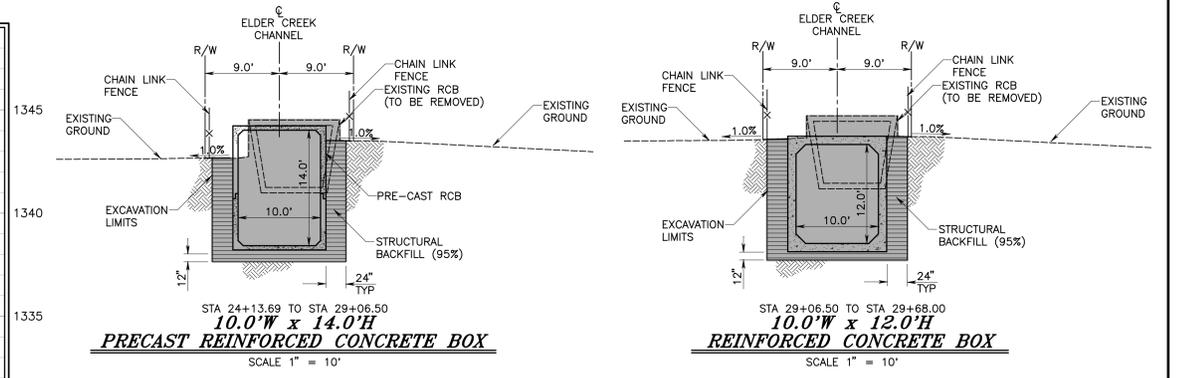
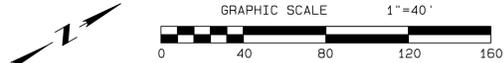


ELDER CREEK CHANNEL PLAN
 HORIZONTAL SCALE 1" = 40'

- CONSTRUCTION NOTES:**
- 1 PROTECT IN PLACE
 - 4 CONSTRUCT 48" RCP TO CHANNEL WALL CONNECTION PER SPPWC STD 333-2
 - 6 CONSTRUCT REINFORCED CONCRETE CUT-OFF WALL PER DETAILS ON DWG S-6
 - 7 CONSTRUCT REINFORCED CONCRETE PARAPET WALL PER DETAILS ON DWG S-6
 - 22 CONSTRUCT REINFORCED CONCRETE TRANSITIONAL BOX PER DIMENSIONS SHOWN. SEE DETAILS ON DWG S-6 & DWG S-7
 - 68 INSTALL PRECAST REINFORCED CONCRETE 10.0'W x 12.0'H BOX PER CALTRANS DB3A OR APPROVED EQUAL SEE DETAILS ON DWG S-2 AND S-6
 - 69 INSTALL JENSEN'S PRECAST REINFORCED CONCRETE BOX 10' SPAN x 14' HEIGHT PER LATEST EDITION OF AASHTO LRFD BRIDGE DESIGN OR APPROVED EQUAL FOR HIGHWAY LOADING USING H20 PER ASHTO
 - 78 CONSTRUCT ASPHALT CONCRETE DIKE PER SBDCD 117 AND DETAILS ON THIS DRAWING
 - 79 INSTALL GRAVEL SIMILAR IN SIZE AND COLOR OF EXISTING GRAVEL 4" THICK PER DETAILS ON THIS DRAWING

ELDER CREEK CHANNEL LINE/CURVE DATA

LINE	DELTA	RADIUS	TANGENT	LENGTH	BEARING
L5			226.67'		N25°14'36"E
L6			348.63'		N28°50'06"E
L7			366.39'		N00°38'26"E



- INSTALL GRAVEL
- NATIVE SOIL
- REMOVE AND REPLACE WITH AC
- REMOVE AC
- STRUCTURAL BACKFILL
- FOUNDATION EXCAVATION
- STRUCTURAL BACKFILL 1-SACK SLURRY
- COLD PLANE AND REPLACE WITH AC
- REMOVE EXIST GRAVEL

DETAIL "A"
OLD GREENSPOT RD PAVING LIMITS
 SCALE 1" = 5'



REVISIONS

MARK	DATE	DESCRIPTION	BY:

SUBMITTED BY: ELOY RUVALCABA, P.E. 3/13/2024

RECOMMENDED BY: DAVID L. DRAKE, P.E. 3/13/24

APPROVED BY: MERVAT MUGHAL, P.E. DEPUTY DIRECTOR 3/21/24

PROJ. ENGR.: D.D. **DESIGNED BY:** E.R./D.B. **REV'D BY:** D.D. **DRAWN BY:** D.B.

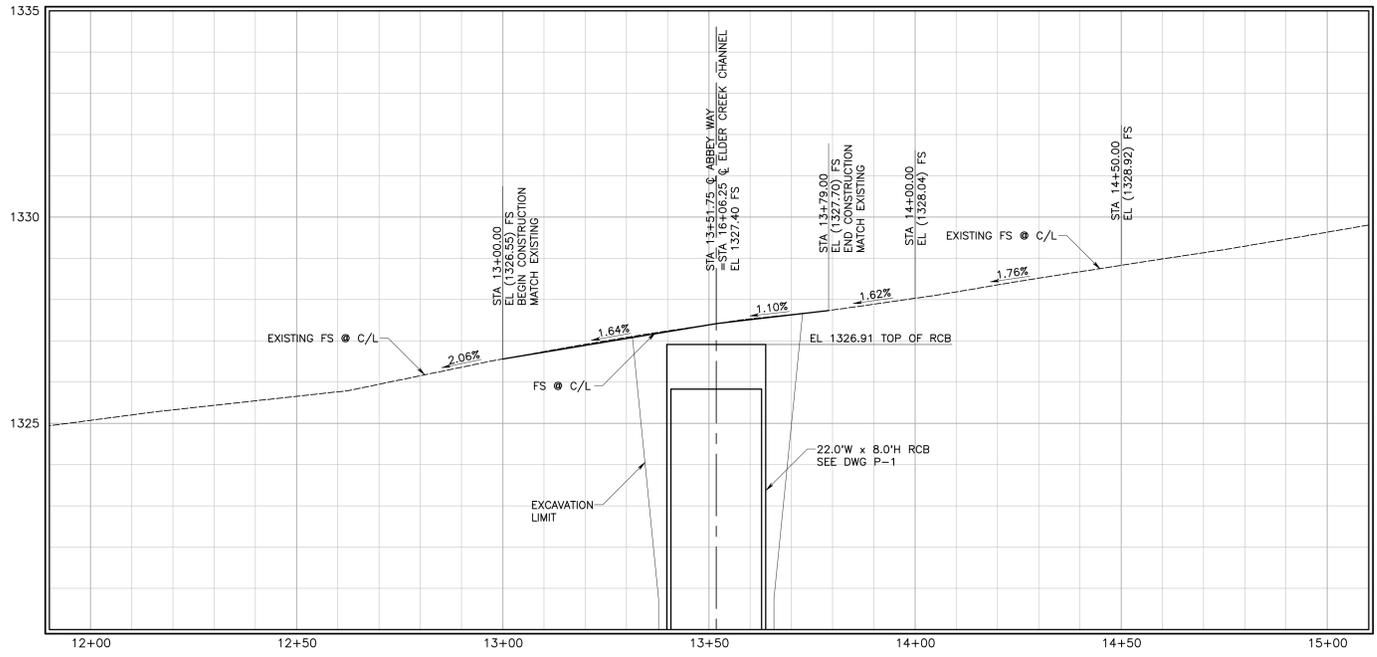
SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

PLUNGE CREEK SYSTEM

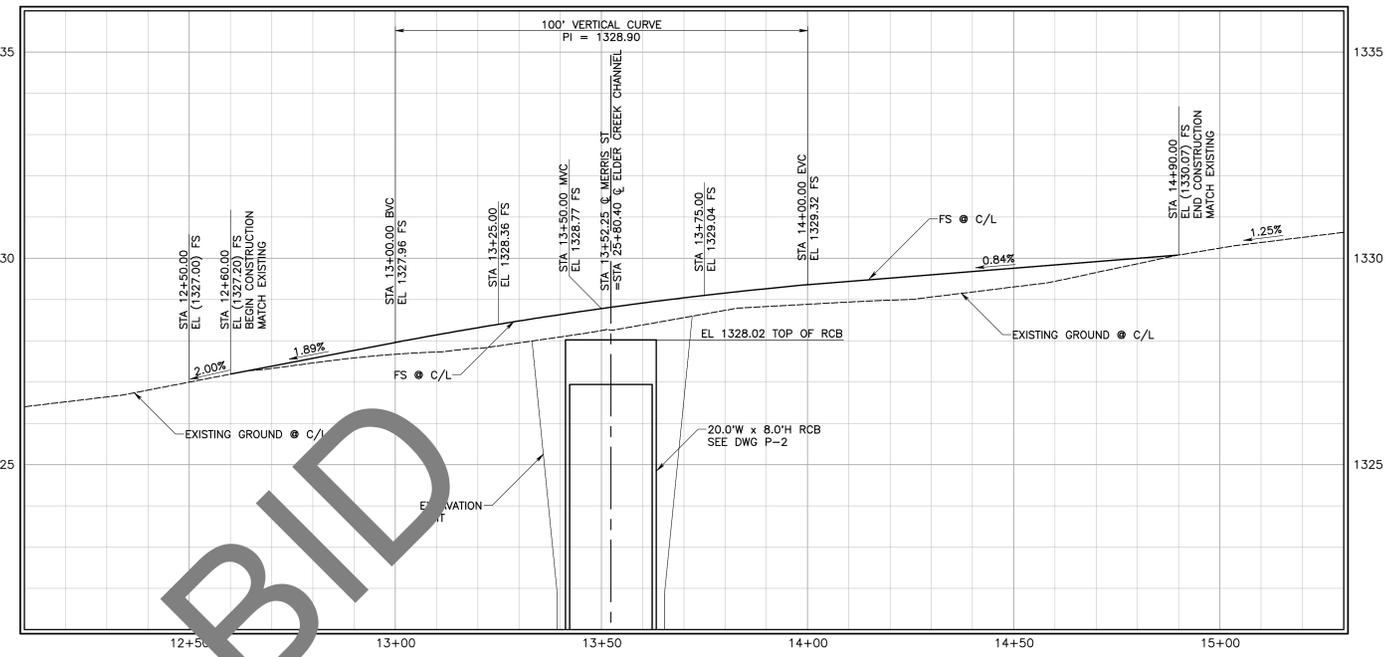
ELDER CREEK CHANNEL

PLAN AND PROFILE
 STA 25+00 TO STA 33+00
 AND TYPICALS

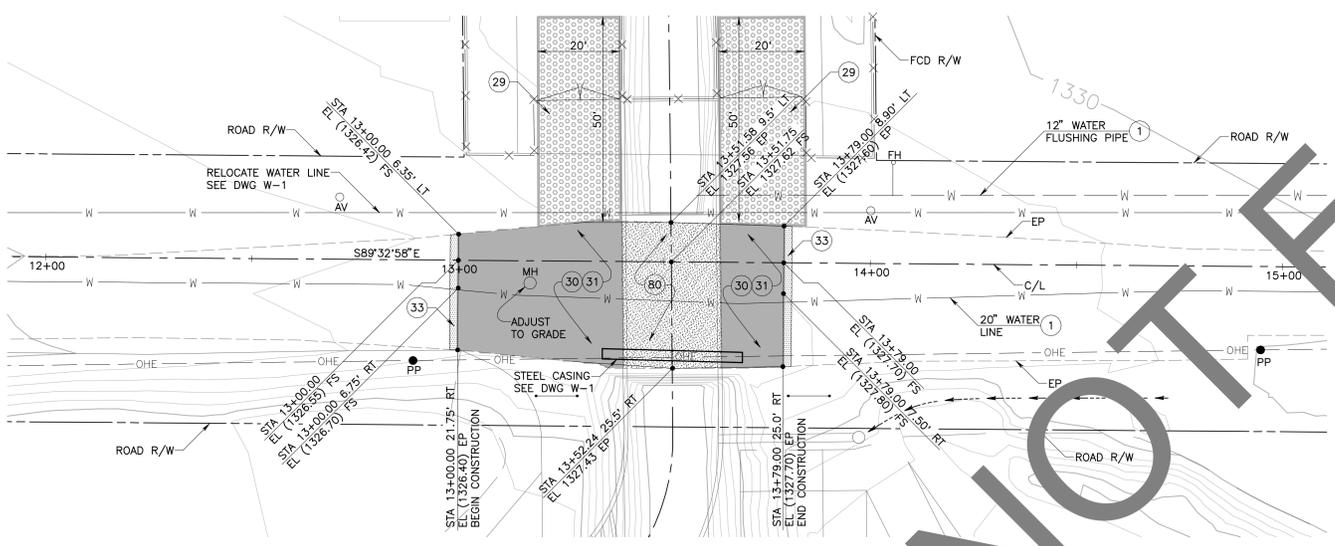
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 DRAWING NO.: P-3
 SHEET NO.: 6 OF 29



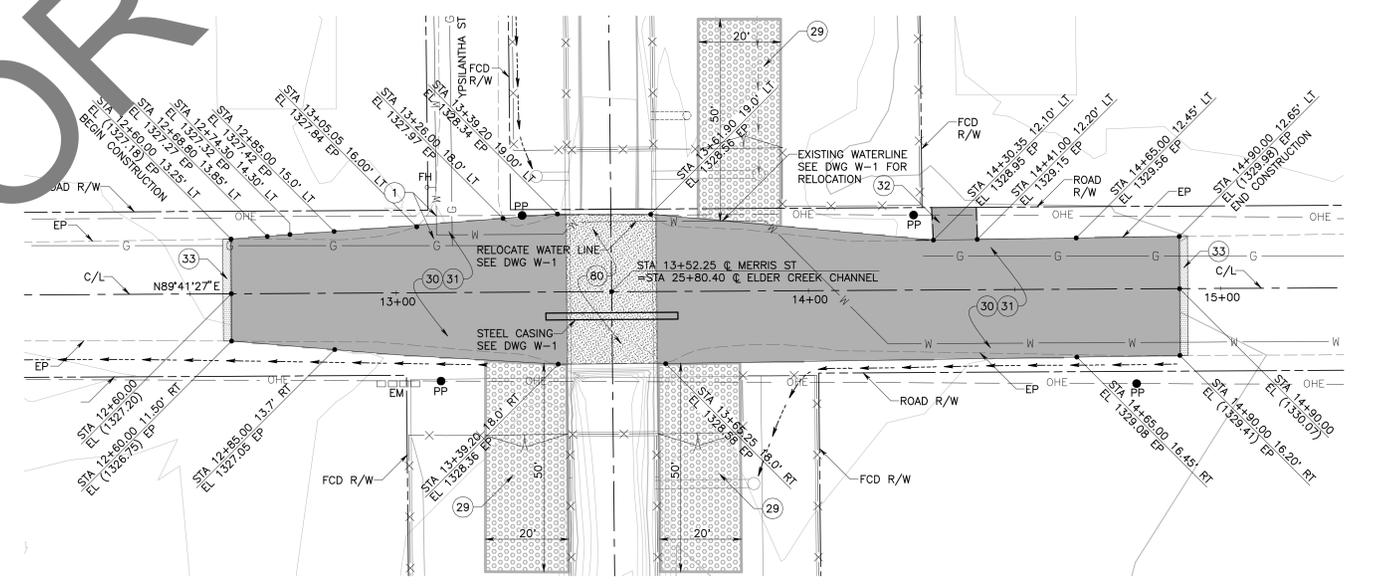
ABBAY WAY PROFILE
 HORIZONTAL SCALE 1" = 20'
 VERTICAL SCALE 1" = 2'



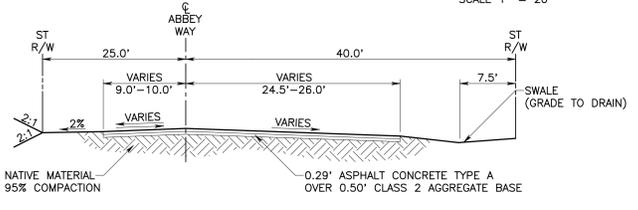
MERRIS ST PROFILE
 HORIZONTAL SCALE 1" = 20'
 VERTICAL SCALE 1" = 2'



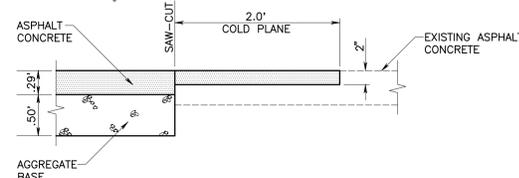
ABBAY WAY PLAN
 SCALE 1" = 20'



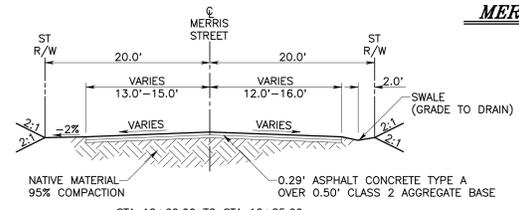
MERRIS ST PLAN
 SCALE 1" = 20'



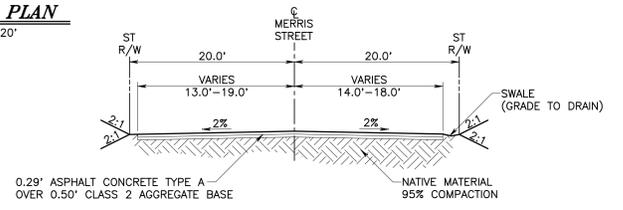
ABBAY WAY TYPICAL SECTION
 SCALE 1" = 10'



COLD PLANE DETAIL
 NOT TO SCALE



MERRIS ST TYPICAL SECTION
 SCALE 1" = 10'



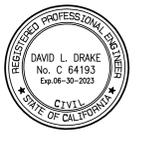
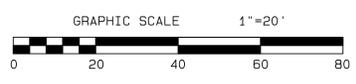
MERRIS ST TYPICAL SECTION
 SCALE 1" = 10'

NOTES:

1. SURVEY MONUMENTS NOT SHOWN. CONTRACTOR SHALL PROTECT IN PLACE OR RESTORE SURVEY MONUMENTS PER SPECIFICATIONS
2. MISC. SIGNS TO BE REMOVED AND REINSTALLED
3. CONTRACTOR TO COORDINATE WITH DISTRICT TO REMOVE AND REINSTALL CAMERA

CONSTRUCTION NOTES:

1. PROTECT IN PLACE
29. INSTALL 20.0' x 50.0' 1-1/2" GRAVEL ROCK PAD 6" THICK
30. SAWCUT, REMOVE AND DISPOSE EXISTING ASPHALT CONCRETE PAVEMENT AND BASE MATERIAL
31. CONSTRUCT 0.29", TYPE A 1/2" AGGREGATE GRADATION PG 64-10 HOTMIX ASPHALT OVER 0.50" CLASS 2 BASE
32. CONSTRUCT 12.0' WIDE AC DRIVEWAY AND GRADE TO DRAIN
33. COLD PLANE (2" THICK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (2" THICK) ASPHALT CONCRETE OVERLAY, 2.0' WIDE MIN.
80. CONSTRUCT DEEP LIFT TYPE A 1/2" AGGREGATE GRADATION PG 64-10 HOTMIX ASPHALT

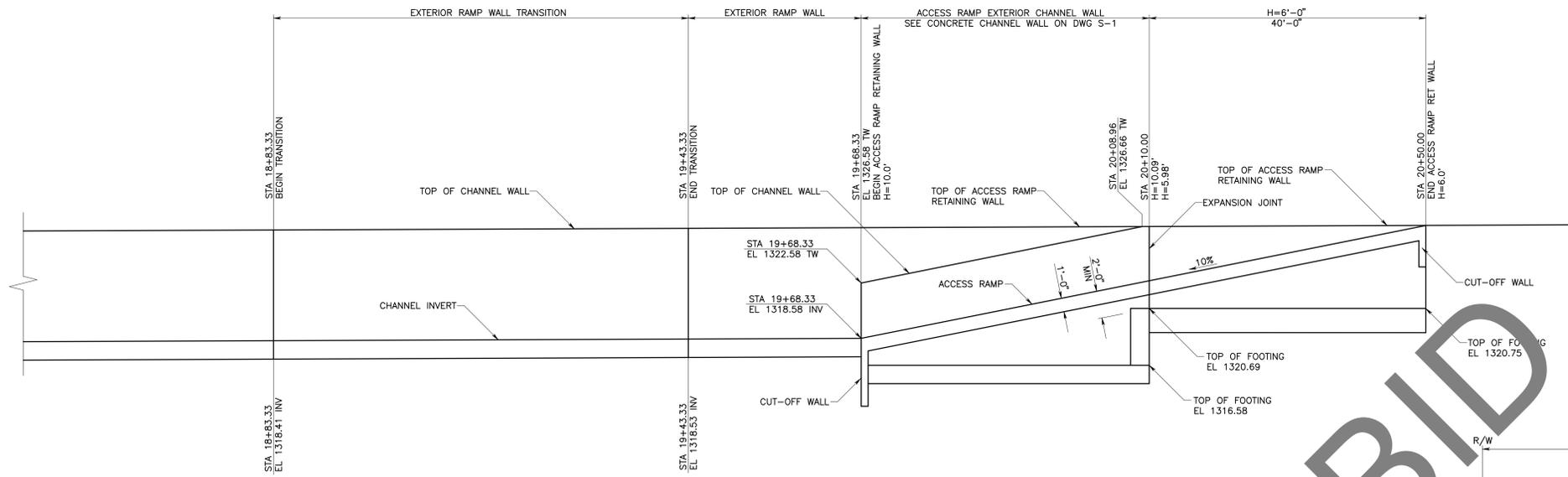


REVISIONS		
MARK	DATE	DESCRIPTION

SUBMITTED BY:	<i>Eloy Ruvalcaba</i>	3/13/2024
	ELOY RUVALCABA, P.E.	DATE
RECOMMENDED BY:	<i>David L. Drake</i>	3/13/24
	DAVID L. DRAKE, P.E.	DATE
APPROVED BY:	<i>Mervat Mehall</i>	3/21/24
	MERVAT MEHALL, P.E. DEPUTY DIRECTOR	DATE
PROJ. ENGR.	D.D.	
DESIGNED BY:	E.R./D.B.	
REV'D BY:	D.D.	
DRAWN BY:	D.B.	

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT
PLUNGE CREEK SYSTEM
ELDER CREEK CHANNEL
STREET IMPROVEMENT PLANS, PROFILES AND TYPICALS
ABBAY WAY/MERRIS STREET

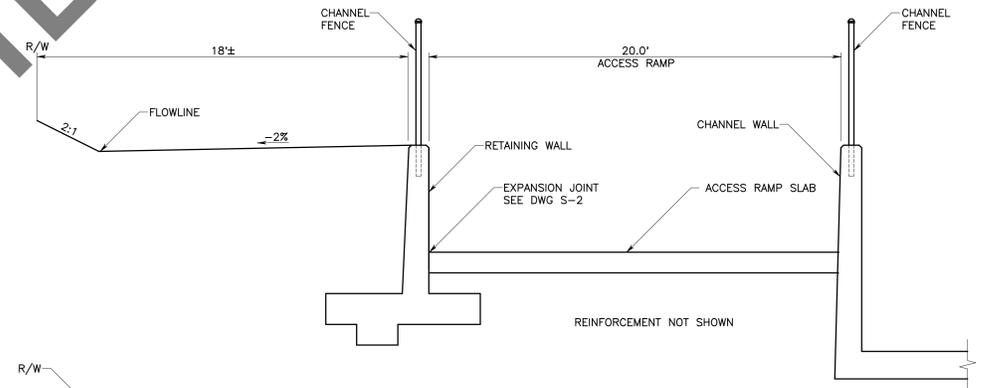
DATE: MAR 2024
 SCALE: 1" = 20'
 FILE NO.: 3-205-1C
 DRAWING NO.: P-4
 SHEET NO.: 7 OF 29



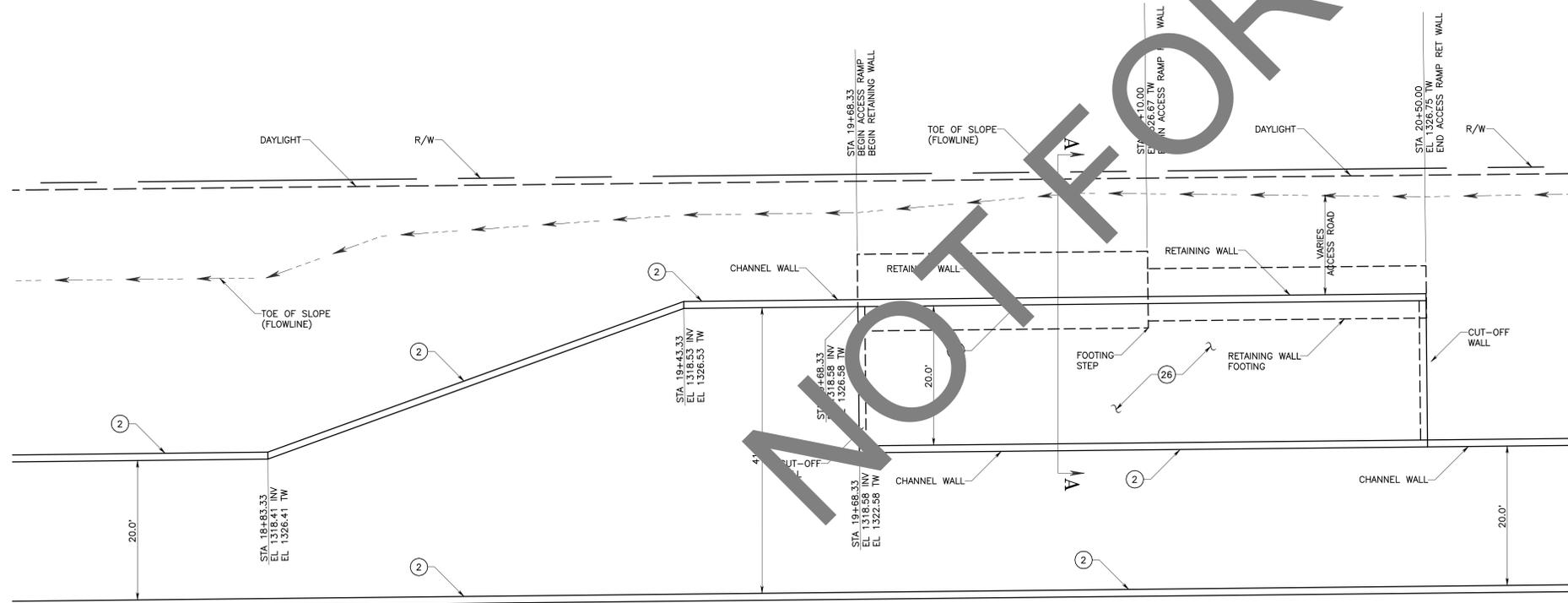
CONCRETE CHANNEL ACCESS RAMP PROFILE
 HORIZONTAL SCALE 1" = 10'
 VERTICAL SCALE 1" = 5'

CONSTRUCTION NOTES:

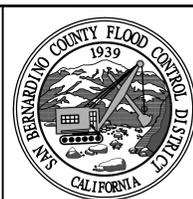
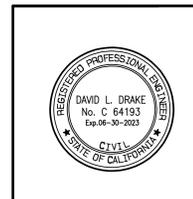
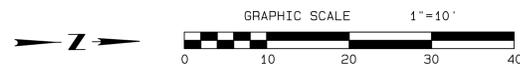
- 2 CONSTRUCT REINFORCED CONCRETE CHANNEL PER DIMENSIONS SHOWN. SEE DETAILS ON DWG S-6
- 16 CONSTRUCT REINFORCED CONCRETE RETAINING WALL TYPE 1 (CASE 1) PER 2018 CALTRANS REVISED STANDARD PLAN (RSP) B3-1A AND DETAIL ON THIS DRAWING
- 26 CONSTRUCT REINFORCED CONCRETE ACCESS RAMP PER DETAILS ON DWG P-5 AND DWG S-1



SECTION "A-A"
CHANNEL ACCESS RAMP
 SCALE 1" = 4'



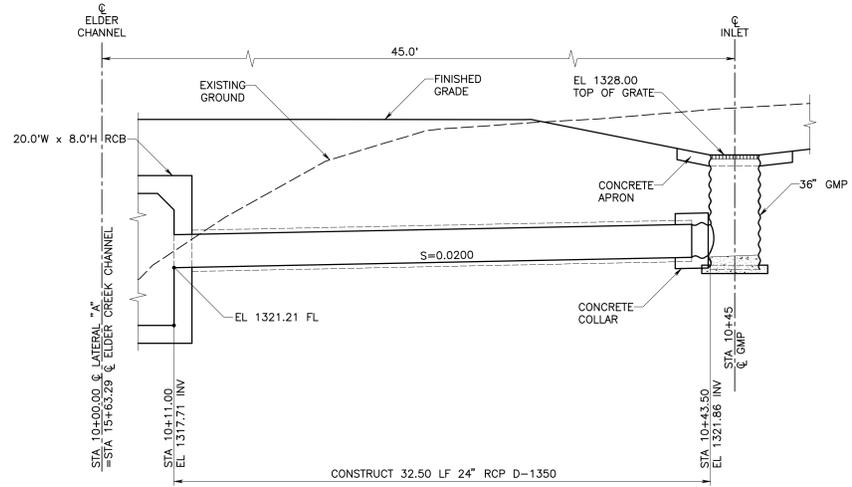
CONCRETE CHANNEL ACCESS RAMP PLAN
 SCALE 1" = 10'



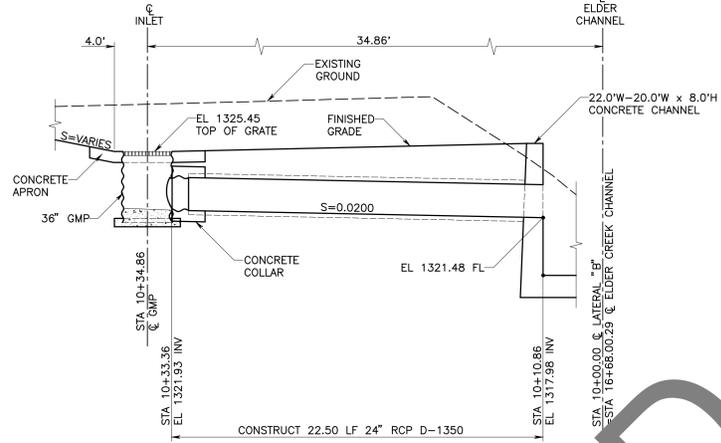
REVISIONS			
MARK	DATE	DESCRIPTION	BY:

SUBMITTED BY: <i>Eloy Ruvalcaba</i> 3/13/2024			
	ELOY RUVALCABA, P.E.		DATE
RECOMMENDED BY: <i>David L. Drake</i> 3/13/24			
	DAVID L. DRAKE, P.E.		DATE
APPROVED BY: <i>Bervat Mikhal</i> 3/2/24			
	BERVAT MIKHAL, P.E.		DATE
PROJ. ENGR.	DESIGNED BY	REV'D BY	DRAWN BY
D.D.	E.R./D.B.	D.D.	D.B.

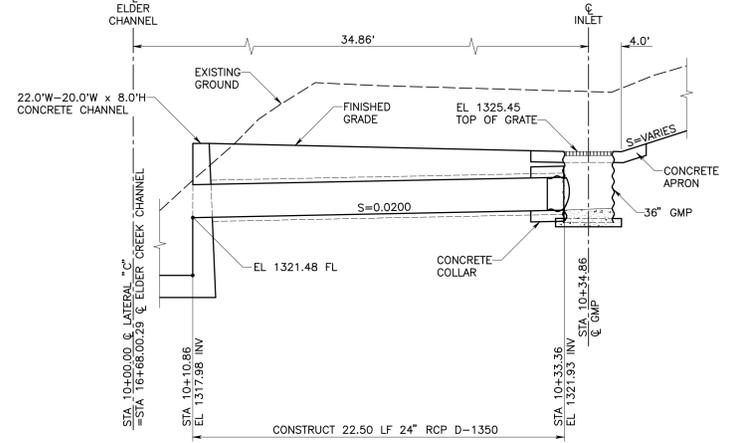
SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT		DATE MAR 2024
PLUNGE CREEK SYSTEM ELDER CREEK CHANNEL		SCALE
CONCRETE CHANNEL ACCESS RAMP PLAN, PROFILE AND SECTIONS		AS SHOWN
		FILE NO. 3-205-1C
		DRAWING NO. P-5
		SHEET NO. 8 OF 29



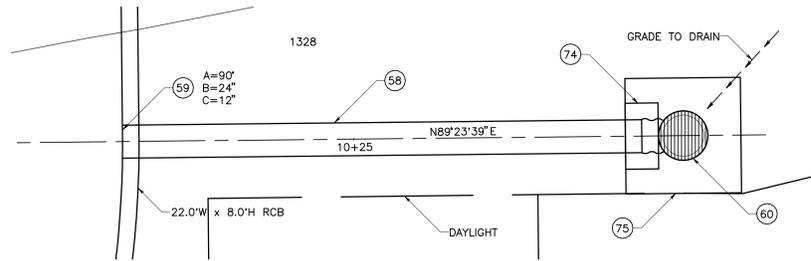
PROFILE VIEW
LATERAL "A" STA 15+63.29
SCALE 1" = 5'



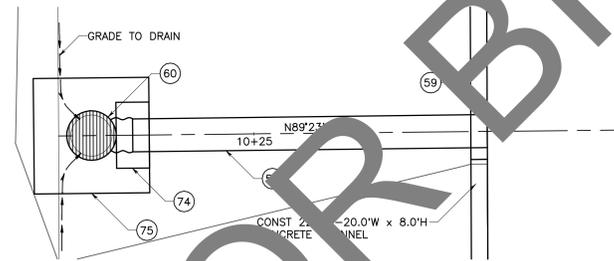
PROFILE VIEW
LATERAL "B" STA 16+68.00
SCALE 1" = 5'



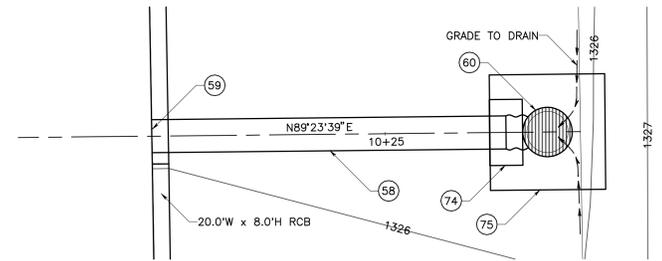
PROFILE VIEW
LATERAL "C" STA 16+68.00
SCALE 1" = 5'



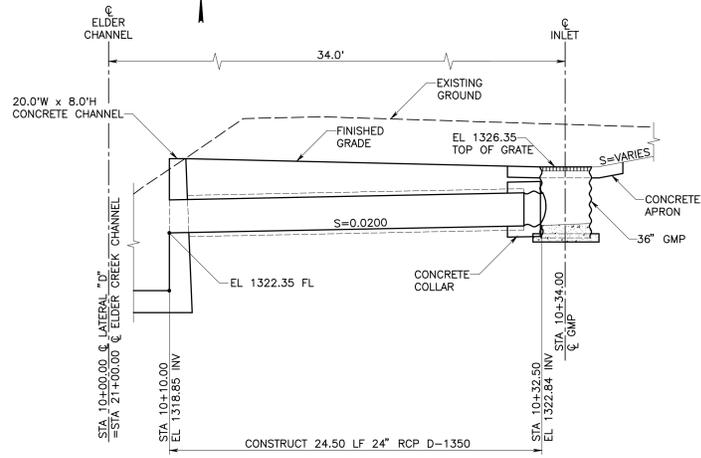
PLAN VIEW
LATERAL "A" STA 15+63.29
SCALE 1" = 5'



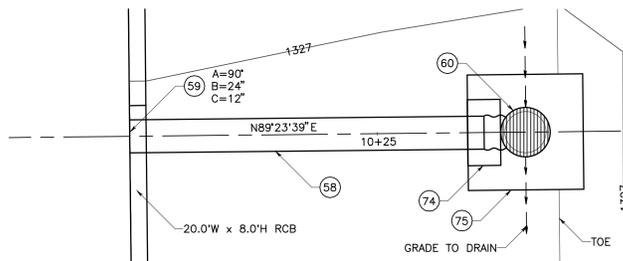
PLAN VIEW
LATERAL "B" STA 16+68.00
SCALE 1" = 5'



PLAN VIEW
LATERAL "C" STA 16+68.00
SCALE 1" = 5'



PROFILE VIEW
LATERAL "D" STA 21+00.00
SCALE 1" = 5'

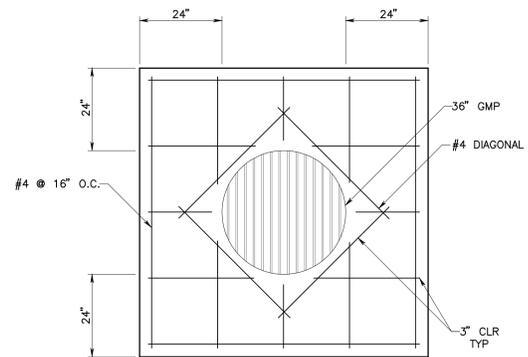


PLAN VIEW
LATERAL "D" STA 21+00.00
SCALE 1" = 5'

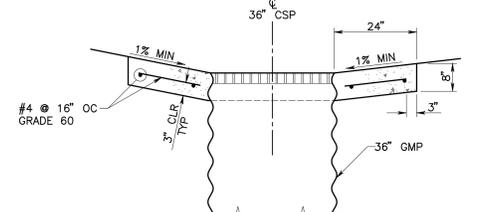
NOT FOR BID

CONSTRUCTION NOTES:

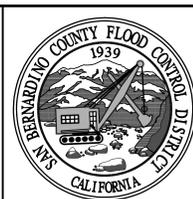
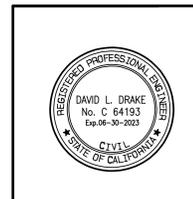
- (58) INSTALL 24" RCP D-1350 METHOD III PLACEMENT
- (59) CONSTRUCT 24" RCP TO RCB WALL CONNECTION PER SPPWC STD 333-2, PLAN AND PROFILE ON THIS DRAWING
- (60) INSTALL STEEL PIPE INLET TYPE GMP PER CALTRANS STD D75A, PLAN AND PROFILE ON THIS DRAWING WITH TRAFFIC AND BICYCLE RATED GRATE
- (74) CONSTRUCT CONCRETE COLLAR PER SPPWC STD 380-4
- (75) CONSTRUCT REINFORCED CONCRETE APRON PER DETAILS ON THIS DRAWING



REINFORCED CONCRETE APRON DETAIL
SCALE 1" = 2'



REINFORCED CONCRETE APRON DETAIL
SCALE 1" = 2'



REVISIONS		
MARK	DATE	DESCRIPTION

SUBMITTED BY:	<i>Eloy Ruvalcaba</i>	3/13/2024
	ELOY RUVALCABA, P.E.	DATE
RECOMMENDED BY:	<i>David L. Drake</i>	3/13/24
	DAVID L. DRAKE, P.E.	DATE
APPROVED BY:	<i>Mehmet Mirzadeh</i>	3/21/24
	MEHMET MIRZADEH, P.E.	DATE
PROJ. ENGR.	D.D.	
DESIGNED BY:	E.R./D.B.	
REV'D BY:	D.D.	
DRAWN BY:	D.B.	

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT

PLUNGE CREEK SYSTEM

ELDER CREEK CHANNEL

STEEL PIPE INLETS
LATERAL "A", LATERAL "B",
LATERAL "C" AND LATERAL "D"

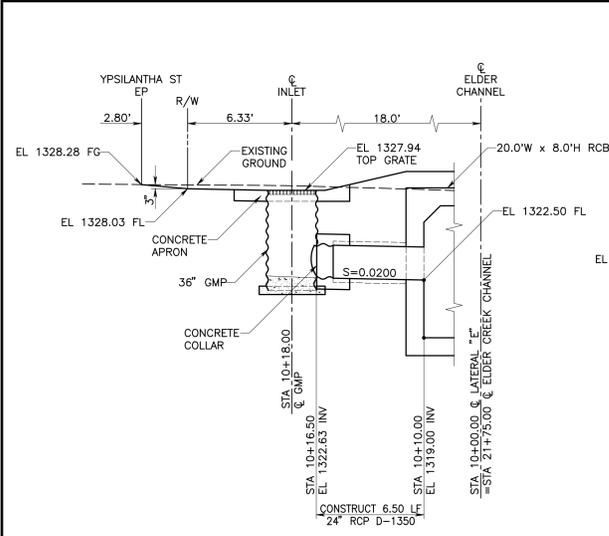
DATE
MAR 2024

SCALE
1" = 5'

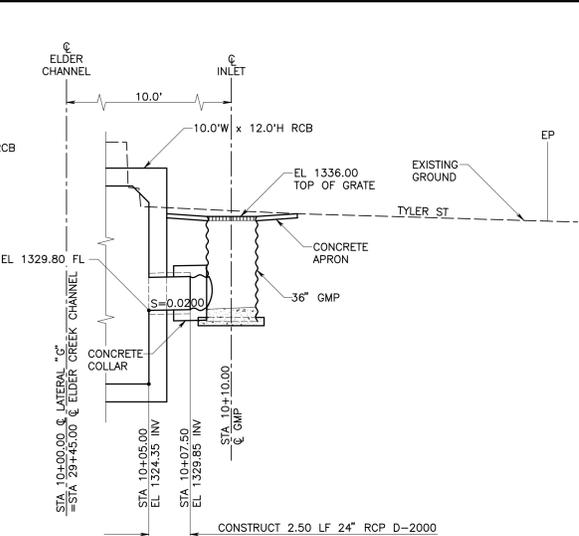
FILE NO.
3-205-1C

DRAWING NO.
P-6

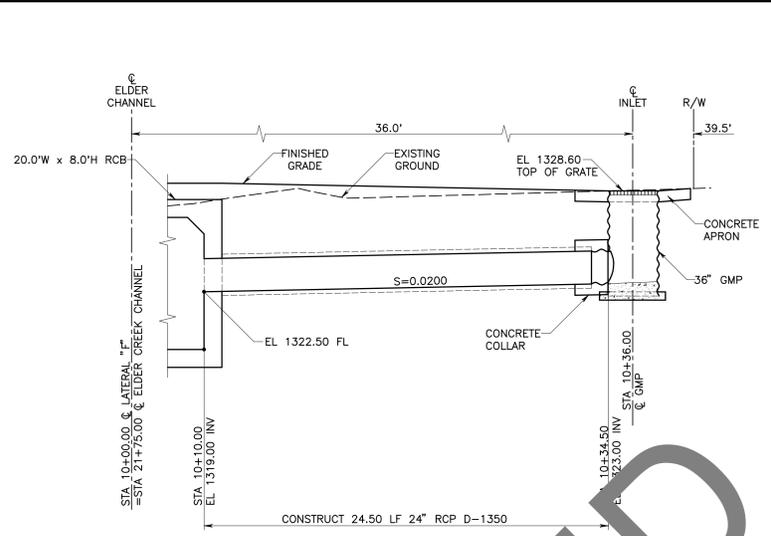
SHEET NO.
9 OF 29



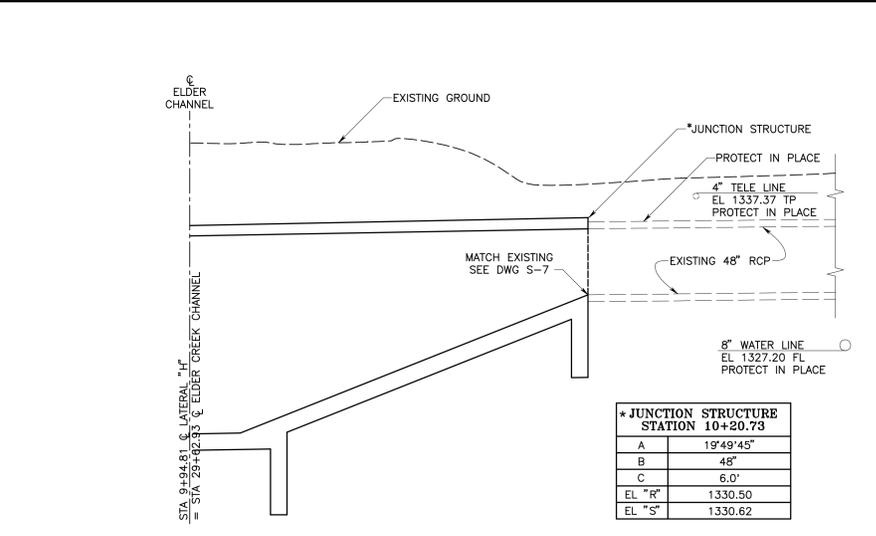
PROFILE VIEW
LATERAL "E" STA 21+75.00
SCALE 1" = 5'



PROFILE VIEW
LATERAL "G" STA 29+45.00
SCALE 1" = 5'



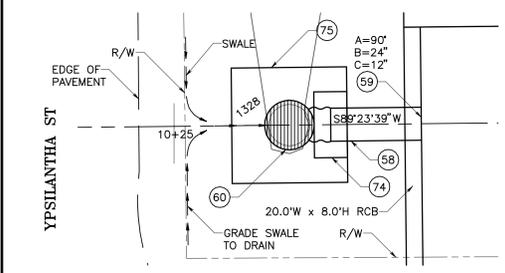
PROFILE VIEW
LATERAL "F" STA 21+75.00
SCALE 1" = 5'



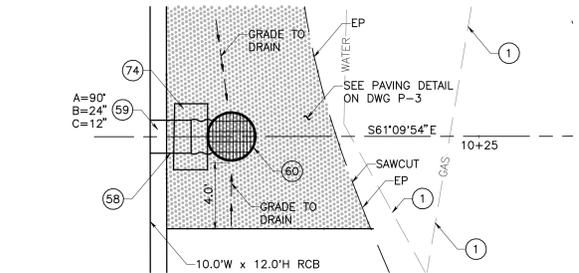
PROFILE VIEW LATERAL "H"
SCALE 1" = 5'

* JUNCTION STRUCTURE STATION 10+20.73	
A	19'49"45"
B	48"
C	6.0'
EL "R"	1330.50
EL "S"	1330.62

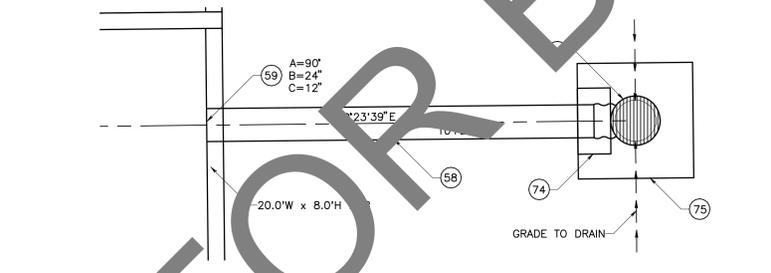
* REFER TO SPPWC 333-2 JUNCTION STRUCTURE - PIPE TO RCB



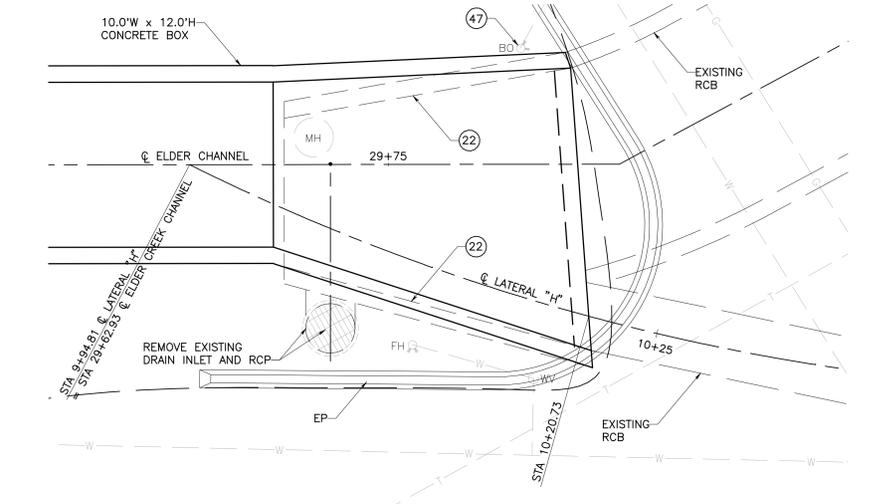
PLAN VIEW
LATERAL "E" STA 21+75.00
SCALE 1" = 5'



PLAN VIEW
LATERAL "G" STA 29+45.00
SCALE 1" = 5'



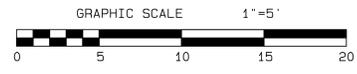
PLAN VIEW
LATERAL "F" STA 21+75.00
SCALE 1" = 5'



PLAN VIEW
LATERAL "H" STA 10+20.73
SCALE 1" = 5'

CONSTRUCTION NOTES:

- 1 PROTECT IN PLACE
- 22 CONSTRUCT REINFORCED CONCRETE TRANSITIONAL BOX PER DIMENSIONS SHOWN. SEE DETAILS ON DWG S-7
- 47 RELOCATE EXISTING 4" BLOW-OFF PER EWD STD DWG W-103A OR AS DIRECTED BY THE ENGINEER
- 58 INSTALL 24" RCP D-1350 METHOD III PLACEMENT
- 59 CONSTRUCT RCP TO RCB WALL CONNECTION PER SPPWC STD 333-2, PLAN AND PROFILE ON THIS DRAWING
- 60 INSTALL STEEL PIPE INLETS TYPE GMP PER CALTRANS STD D75A, PLAN AND PROFILE ON THIS DRAWING WITH TRAFFIC AND BICYCLE RATED GRATE
- 74 CONSTRUCT CONCRETE COLLAR PER SPPWC STD 380-4
- 75 CONSTRUCT REINFORCED CONCRETE APRON PER DETAILS ON DWG P-6



		REVISIONS MARK DATE DESCRIPTION BY:				SUBMITTED BY: <i>Eloy Ruvalcaba</i> 3/13/2024 ELOY RUVALCABA, P.E. DATE	SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT PLUNGE CREEK SYSTEM ELDER CREEK CHANNEL STEEL PIPE INLETS LATERAL "E", LATERAL "F" AND LATERAL "G"	DATE MAR 2024
		RECOMMENDED BY: <i>David L. Drake</i> DAVID L. DRAKE, P.E. 3/13/24 DATE				APPROVED BY: <i>Mehmet Mirmiral</i> MEHMET MIRMEHAL, P.E. 3/21/24 DATE DEPUTY DIRECTOR		SCALE 1" = 2' FILE NO. 3-205-1C DRAWING NO. P-7 SHEET NO. 10 OF 29
GRAPHIC SCALE 1" = 5' 0 5 10 15 20		PROJ. ENGR. D.D. DESIGNED BY E.R./D.B. REV'D BY D.D. DRAWN BY D.B.						