

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	1	67

IMPROVEMENT PLANS FOR CONSTRUCTION OF EBBETTS PASS WATER SYSTEM REACH 1 PIPELINE REPLACEMENT PROJECT CCWD CIP NO.11085

CALAVERAS COUNTY WATER DISTRICT CALAVERAS COUNTY, CALIFORNIA

NO.	REVISIONS DESCRIPTION	DATE	BY

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LEGEND

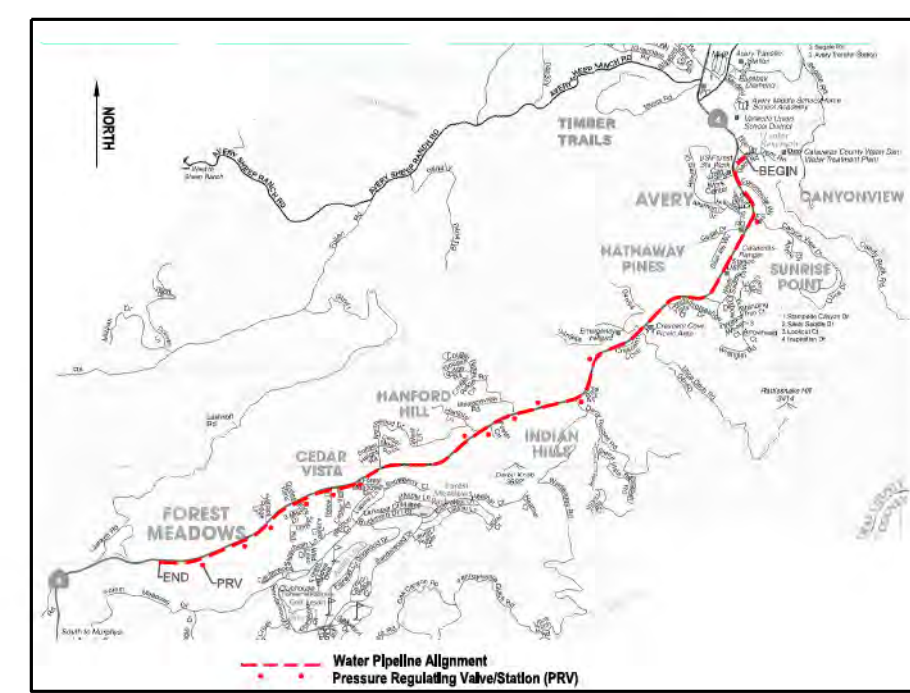
PROPERTY LINE	
WATER MAIN (SIZE)	
WATER SERVICE/METER BOX	
WATER VALVE & BOX	
FIRE HYDRANT	
AIR RELEASE/VACUUM VALVE	
(E) WATER MAIN	
(E) WATER SERVICE/METER BOX	
(E) WATER VALVE & BOX	
(E) FIRE HYDRANT	
(E) AIR RELEASE/VACUUM VALVE	
(E) EDGE OF PAVEMENT	
(E) STORM DRAIN	
(E) DRIVEWAY CULVERT	
(E) SEWER MAIN	
(E) SEWER SERVICE	
(E) GAS MAIN	
(E) GAS SERVICE	
(E) STREET LIGHT	
(E) UNDERGROUND AT&T	
(E) UNDERGROUND UTILITY	
(E) OVERHEAD UTILITY	
(E) UTILITY POLE	
(E) GUY WIRE & ANCHOR	
(E) MANHOLE	
(E) SSCO	
REMOVE (E) TREE	
(E) FENCE	
BYPASS AND REMOVE EXISTING WATER LINE PLACE TEMPORARY BYPASS PIPELINE	
TEMPORARY FENCE	
SILT FENCE	
TEMPORARY & SILT FENCE	
TEMPORARY BYPASS PIPING	

ABBREVIATIONS

APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE/VACUUM VALVE
BC	BEGIN CURVE
CAV	COMBINATION AIR VALVE
CL	CLASS
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DR	DIAMETER (TO THICKNESS) RATIO
EX	EXISTING
E(OH)	ELECTRICAL LINE (OVERHEAD)
EC	END CURVE
EP	EDGE OF PAVEMENT
FH	FIRE HYDRANT
FL	FLANGED
JP	JOINT POLE
MH	MANHOLE
MJ	MECHANICAL JOINT
OD	OUTER DIAMETER
PVC	POLYVINYL CHLORIDE
RMJ	RESTRAINED MECHANICAL JOINT
RW	RESILIENT WEDGE
R/W	RIGHT OF WAY
SQ. FT.	SQUARE FEET
SD	STORM DRAIN
SS	SANITARY SEWER/SERVICE
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
STL	STEEL
TYP	TYPICAL
WM	WATER METER
W	WATER MAIN
WS	WATER SERVICE
WV	WATER VALVE

TREE ABBREVIATIONS

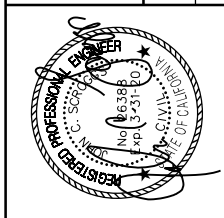
AS	AMERICAN SWEETGUM
BKO	BLACK OAK
BLO	BLUE OAK
BM	BIGLEAF MAPLE
CB	CALIFORNIA BUCKEYE
CBW	CALIFORNIA BLACK WALNUT
CLO	CANYON LIVE OAK
DC	DEODAR CEDAR
FC	FREMONT COTTONWOOD
FP	FOOTHILL PINE
IC	INCENSE CEDAR
MS	MULTI-STEM
NT	NOT TAGGED
PP	PONDEROSA PINE
PW	PACIFIC WILLOW
RB	REDBUD
SM	SILVER MAPLE
SP	SUGAR PINE
TH	TREE OF HEAVEN
TO	TAN OAK
VO	VALLEY OAK
WF	WHITE FIR



BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
**EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO.11085**
CALAVERAS COUNTY, CALIFORNIA

TITLE SHEET

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FILE: S:\1330-24 Ebbetts Pass Reach \Plans\01-TITLE.dgn
DATE: 10/17/2018

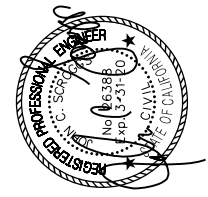

GENERAL CONSTRUCTION NOTES

DIS+ COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10 CAL	4	32.2/37.0	2	67

- THRUST RESTRAINT:** ALL NEW WATER LINES FITTINGS, VALVES AND APPURTENANCES ARE TO BE FULLY MECHANICALLY RESTRAINED; THRUST BLOCKS ARE REQUIRED AS SHOWN ON CCWD STD DWG W01 AND WHERE MAKING TIE-IN CONNECTIONS TO EXISTING PIPING.
- TRAFFIC CONTROL:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND FURNISH, INSTALL AND MAINTAIN TEMPORARY SIGNS, BARRICADES, FLAGMEN, AND OTHER FACILITIES TO ADEQUATELY SAFEGUARD THE GENERAL PUBLIC AND WORK, AND TO PROVIDE FOR THE PROPER ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC. A TRAFFIC CONTROL PLAN MUST BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CALAVERAS COUNTY WATER DISTRICT AND CALTRANS DISTRICT 10 FOR REVIEW AT LEAST 15 DAYS PRIOR TO COMMENCEMENT OF ANY WORK. AN APPROVED TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CALAVERAS COUNTY WATER DISTRICT, (CCWD OR DISTRICT) AND CALTRANS DISTRICT 10 PRIOR TO ANY WORK COMMENCING WITHIN THE LIMITS OF WORK. SAMPLE CALTRANS STANDARD TRAFFIC CONTROL PLANS FOR TYPICAL LANE CLOSURES AND SHOULDER CLOSURES ARE INCLUDED ON SHEET 71 OF THESE PLANS.
- UTILITY LOCATING:** THE LOCATION, PIPE DIAMETER, AND MATERIAL INDICATED AND/OR ELEVATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS ARE BASED ON RECORD DRAWINGS, GROUND PENETRATING RADAR, LIMITED POTHOLE INVESTIGATIONS AND SURFACE EVIDENCE AND ARE APPROXIMATE ONLY. WHERE NO ELEVATIONS ARE SHOWN, NO SUCH INFORMATION WAS AVAILABLE DURING DESIGN, AND THE CONTRACTOR SHALL EXPOSE THESE UTILITIES FOR FIELD VERIFICATION PRIOR TO THE START OF CONSTRUCTION. NEITHER THE DISTRICT NOR KASL CONSULTING ENGINEERS (ENGINEER) ASSUMES RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS, AND TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. PRIOR TO SUBMITTAL OF PIPE SHOP DRAWINGS THE CONTRACTOR SHALL VERIFY THE INVERT ELEVATION, OUTSIDE DIAMETER, LOCATION, AND MATERIAL OF ALL EXISTING PIPELINES TO WHICH NEW PIPELINES WILL BE CONNECTED. CONTRACTOR SHALL MARK ALL EXCAVATIONS AND NOTIFY UNDERGROUND SERVICE ALERT/USA NORTH (PHONE 1-800-227-2600) NOT LESS THAN 48-HRS AND TWO FULL BUSINESS DAYS BEFORE DIGGING AND FOLLOW ALL OTHER PROVISIONS OF CALIFORNIA GOVERNMENT CODE SECTIONS 4216 THROUGH 4216.9. CONTRACTOR SHALL MAINTAIN AN ACTIVE USA NORTH TICKET NUMBER FOR THE ENTIRE DURATION OF THE EXCAVATION.
- TOLERANCE ZONE:** LOCATE MARKINGS ARE APPROXIMATE LOCATIONS DEFINED BY CALIFORNIA GOVERNMENT CODE 4216(A) WITH TOLERANCE ZONE OF 24-INCHES TO EACH SIDE PLUS ADDING UTILITY WIDTH/DIAMETER; WITHIN THIS ZONE CONTRACTOR SHALL POTHOLE UTILITY BY HAND TOOLS TO DETERMINE EXACT LOCATION OF UTILITIES IN CONFLICT WITH EXCAVATION BEFORE USING ANY POWER-OPERATED OR POWER-DRIVEN EXCAVATING OR BORING EQUIPMENT.
- CASTINGS/COVERS:** LIDS FOR WATER FACILITIES SHALL BE MARKED "WATER". ALL CASTINGS, COVERS, HATCHES AND CONCRETE COLLARS IN ROADWAY SHALL BE DEPRESSED 1/4-INCH BELOW FINISHED LEVEL OF PAVEMENT SURFACE TO ALLOW FOR SNOW PLOWING EQUIPMENT. ALL CASTINGS, COVERS, HATCHES AND CONCRETE COLLARS OUTSIDE OF ROADWAY SHALL BE ADJUSTED TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
- WATER/SEWER SERVICES:** CONTRACTOR SHALL VERIFY LOCATION OF WATER AND SEWER SERVICES TO PRIVATE PROPERTY PRIOR TO TRENCHING; NEW WATER SERVICES AND/OR OTHER FACILITIES SHALL NOT BE INSTALLED WITHIN OR IN FRONT OF DRIVEWAYS OR OTHER PROPERTY ENTRANCES OR OTHERWISE WHERE IT MAY BE READILY HIT OR BE DAMAGED BY VEHICLES, SERVICES AND OTHER APPURTENANCES SHALL BE PLACED AT THE PROPERTY LINE OR AS FAR AS PRACTICAL AND POSSIBLE TOWARD THE FARTHEST EDGE OF THE PUBLIC RIGHT-OF WAY.
- TIE-IN CONNECTIONS:** OPERATION OF ANY EXISTING WATER SYSTEM VALVES OR OTHER EXISTING FACILITIES SHALL ONLY OCCUR UNDER THE DIRECT OBSERVATION AND PRIOR APPROVAL OF CCWD PERSONNEL. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AT LEAST TWO (2) WEEKS IN ADVANCE OF ANY NECESSARY SHUTDOWN AND/OR TIE-IN CONNECTION AND EACH INDIVIDUAL EVENT SHALL BE IDENTIFIED ON CONTRACTOR'S THREE (3) WEEK LOOK AHEAD SCHEDULE AS SUBMITTED WEEKLY TO THE DISTRICT. SHUTDOWNS AND TIE-INS SHALL NOT BE SCHEDULED ON FRIDAYS, WEEKENDS OR HOLIDAYS, EXCEPT FOR SCHOOLS IN WHICH CASE WORK MUST BE PERFORMED WHEN THE SCHOOL IS OUT OF SESSION OR OTHERWISE UNOCCUPIED. CONTRACTOR SHALL COMPLETE TIE-INS IN THE SHORTEST POSSIBLE TIME AND IN NO CASE SHALL ANY CUSTOMER BE WITHOUT WATER SERVICE FOR MORE THAN 8-HR PERIOD. ONCE SHUTDOWN OCCURS AND WORK ON THE TIE-IN BEGINS, THE CONTRACTOR SHALL NOT STOP WORK UNTIL TIE-IN COMPLETED AND WATER SERVICE IS RESTORED TO ALL/EVERY CUSTOMER. ALL PREPARATORY WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE DISTRICT PRIOR TO INITIATING SHUTDOWN AND STARTING WORK ON THE TIE-IN. CONTRACTOR SHALL POTHOLE TO VERIFY CONNECTION POINT AND PIPE MATERIAL IN ADVANCE AND HAVE ALL PIPE, FITTINGS, VALVES, HARDWARE, GASKETS AND OTHER MATERIALS READY ON-SITE INCLUDING NSF-60 SODIUM HYPOCHLORITE FOR DISINFECTION. PIPING SHALL BE PRE-ASSEMBLED ABOVE GROUND TO EXTENT FEASIBLE.
- VERTICAL & HORIZONTAL SEPARATION:** UNLESS OTHERWISE NOTED ON PLANS AND/OR APPROVED BY CCWD, CONTRACTOR SHALL MAINTAIN VERTICAL AND HORIZONTAL SEPARATIONS FROM PARALLEL SEWERS AND STORM DRAINS IN ACCORDANCE WITH CALIFORNIA WATERWORKS STANDARDS: MINIMUM 1-FT ABOVE AND 10-FT HORIZONTAL FROM SEWERS, 1-FT ABOVE AND 4-FT HORIZONTAL FROM STORM DRAINS. WATER MAINS SHALL CROSS AT LEAST 1-FT ABOVE AND AT LEAST A 45 DEGREE ANGLE TO SEWERS AND STORM DRAINS WITH NO JOINTS PLACED WITHIN 8-FT HORIZONTAL DISTANCE. FOR LOCATIONS NOT MEETING THESE STANDARDS, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED INCLUDING STEEL CASINGS, CONCRETE ENCASEMENT, SLURRY BACKFILL AND CONTROLLED PLACEMENT OF JOINTS AS NOTED ON THE DRAWING OR OTHERWISE DIRECTED BY THE DISTRICT ENGINEER. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING CONDUIT(S) AT CROSSINGS. METHOD OF SUPPORT SHALL BE SUBMITTED TO THE DISTRICT AND CONDUIT OWNER FOR APPROVAL. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO THE PIPE ALIGNMENT (VERTICAL AND HORIZONTAL) TO AVOID EXISTING UTILITIES. METHOD OF ADJUSTMENT SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LINE AND GRADE OF ALL PIPING WITHIN THE PROJECT LIMITS OF WORK. ALL DISTANCES SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS.
- SHUTDOWNS:** CONTRACTOR SHALL NOT CAUSE ANY SERVICE INTERRUPTIONS (SEWER, ELECTRICAL TELEPHONE, CABLE, ETC.) AND SHALL MAKE EVERY EFFORT TO MINIMIZE LENGTH OF ANY NECESSARY WATER SERVICE INTERRUPTIONS. ANY/EACH SHUTDOWN OF EXISTING WATER SYSTEM SHALL BE INDIVIDUALLY PLANNED AND SCHEDULED AT LEAST TWO (2) WEEKS IN ADVANCE OF WORK. CONTRACTOR SHALL PERFORM EACH SHUTDOWN DURING TIME AND DAY (EITHER DAY, NIGHT OR WEEKEND) WHEN IT CAUSES LEAST INCONVENIENCE AND INTERRUPTION TO THE EFFECTED RESIDENTS, BUSINESSES, SCHOOLS AND OTHER CUSTOMERS. ALL WATER SYSTEM SHUT-DOWNS SHALL BE MADE BY CALAVERAS COUNTY WATER DISTRICT (CCWD OR DISTRICT) PERSONNEL ONLY. UNDER NO CIRCUMSTANCES SHALL ANYONE OTHER THAN A DISTRICT REPRESENTATIVE OPEN OR CLOSE ANY VALVE IN A DISTRICT SYSTEM. THE DISTRICT WILL ADVISE THE CONTRACTOR OF THE HOURS DURING WHICH SHUT-DOWNS MAY BE MADE.
- TAKING PRV STATIONS OUT-OF-SERVICE:** CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE THE TIME BETWEEN REMOVING AN EXISTING PRESSURE REGULATING (PRV) STATION FROM SERVICE, COMPLETING REPLACEMENT AND RETURNING IT TO SERVICE. TRENCH AND PIPELINE CONSTRUCTION SHALL NOT ADVANCE BEYOND THE POINT OF EACH PRV STATION UNTIL THE NEW STATION IS FULLY COMPLETED, TESTED AND READY FOR SERVICE PENDING BACTERIOLOGICAL TEST RESULTS. TIME ALLOWED FOR EACH PRV STATION REMOVAL AND REPLACEMENT IS LISTED IN THE SEQUENCE OF WORK, EXCEPT FOR SCHEDULED SHUTDOWNS LASTING A FEW HOURS. WATER SERVICE SHALL OTHERWISE BE MAINTAINED CONTINUOUSLY AS NOTED IN THE SEQUENCE OF WORK BY PROVIDING TEMPORARY PRV'S AND BYPASS PIPING TO SUPPLY CONSUMPTIVE USES.
- FIRE DEPARTMENT NOTIFICATION:** PRESSURE AND FLOW TO FIRE HYDRANTS AND FIRE SUPPRESSION SYSTEMS MAY BE DECREASED WHEN PRV STATIONS ARE REMOVED FROM SERVICE AND DURING SHUTDOWNS. THE LOCAL FIRE DEPARTMENT SHALL BE REGULARLY NOTIFIED AT LEAST TWO (2) WEEKS IN ADVANCE INFORMING THEM OF THE TIME, DATE, LOCATION AND DURATION OF EACH EVENT. FIRE HYDRANTS THAT ARE NON-OPERATIONAL, TEMPORARILY OUT OF SERVICE, OR ABANDONED SHALL BE COVERED WITH CANVAS BAGS AND MARKED OUT OF SERVICE

- IMPACTS TO COMMUNITY:** CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE CONSTRUCTION IMPACTS TO COMMUNITY. RESIDENCES, BUSINESSES AND SCHOOLS SHALL BE NOTIFIED BY MAIL AND OTHER MEANS AT LEAST TWO (2) WEEKS IN ADVANCE OF LOCALIZED CONSTRUCTION ACTIVITIES, TRAFFIC IMPACTS, ROAD CLOSURES, WATER SYSTEM SHUTDOWNS OR CHANGED CONDITIONS; NOTIFICATIONS SHALL PROVIDE LOCATIONS WORK IS SCHEDULE TO OCCUR INCLUDING SPECIFIC DATES AND STREET NAMES; UPDATED NOTIFICATIONS MADE AS SCHEDULE CHANGES. ALL ROADS SHALL BE OPEN DURING OVERNIGHT HOURS, WEEKENDS AND HOLIDAYS AND TRAFFIC CONTROLS AND DETOURS THROUGH AND AROUND THE CONSTRUCTION ZONE. PROVIDE ACCESS TO RESIDENCES, BUSINESSES, PARKS, SCHOOLS AND OTHER OCCUPIED PROPERTIES; DO NOT WORK IN SCHOOL ZONES WHEN CHILDREN ARE ARRIVING/PRESENT IN RIGHT-OF-WAY. CREW TRUCKS, HAULING TRUCKS AND PERSONNEL VEHICLES SHALL DRIVE NOT MORE THAN 25-MPH WITHIN CONSTRUCTION ZONES AND OTHERWISE OBSERVE POSTED SPEED LIMITS.
 - CONDITION OF RIGHT OF WAY:** PUBLIC RIGHT-OF-WAY, PRIVATE PROPERTY, EASEMENTS AND OTHER WORK AREAS SHALL BE KEPT IN A CLEAN AND NEAT CONDITION BY THE CLOSE OF EACH WORK DAY. FUGITIVE DUST SHALL BE MINIMIZED TO THE GREATEST EXTENT PRACTICABLE DURING EARTH MOVING OPERATIONS BY SPRAYING AND APPLYING WATER DURING TRENCHING AND LOADING/UNLOADING ACTIVITIES. MUD TRACKING ONTO STREETS SHALL BE REMOVED BY END OF EACH WORK DAY. STREETS AND HIGHWAYS WITHIN THE CONSTRUCTION ZONE SHALL BE SWEEP DAILY AND AT LEAST TWICE WEEKLY WITH A REGENERATIVE AIR SWEEPER TRUCK. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL SURPLUS EXCAVATION MATERIAL AND DEBRIS PROMPTLY FROM THE LIMITS OF WORK.
 - SHEETING, SHORING & BRACING:** IN ACCORDANCE WITH CALIFORNIA LABOR CODE AND DEPARTMENT OF INDUSTRIAL RELATIONS REQUIREMENTS, THIS ITEM REQUIRES THE CONTRACTOR TO FURNISH AND INSTALL SHEETING, SHORING AND BRACING OF ALL EXCAVATIONS AND TRENCHES FIVE (5) FEET OR DEEPER AND INTO WHICH A PERSON IS REQUIRED TO DESCEND. SAFETY PLAN(S) SHALL MEET MINIMUM REQUIREMENTS OF THE CONSTRUCTION SAFETY ORDERS, SECTIONS 1539 TO 1543. REFER TO GEOTECHNICAL REPORT FOR DIFFERENT SOIL TYPES.
 - COMPACTION TESTS:** THE DISTRICT WILL RETAIN A QUALIFIED SOILS LAB TO PERFORM MATERIALS TESTING AND SOIL COMPACTION DENSITY TESTS AS PART OF THE DISTRICT'S INSPECTION EFFORT; CONTRACTOR SHALL NOTIFY DISTRICT'S INSPECTOR AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF TIME AND DATE THAT CONTRACTOR WILL BE READY FOR THE COMPACTION TESTS. IF EXCESSIVE NUMBER OF FAILED TESTS CONTINUE TO OCCUR WITHOUT CONTRACTOR PROMPTLY MODIFYING METHODS AND MATERIALS TO RESOLVE AN ON-GOING PROBLEM, THEN CONTRACTOR SHALL REIMBURSE DISTRICT FOR ALL FAILING TESTS.
 - CLEARING TREES AND VEGETATION:** NOT ALL TREES ARE SURVEYED AND SHOWN ON THE DRAWINGS. PRIOR TO SUBMITTING A BID, CONTRACTOR SHALL FIELD INSPECT PIPELINE ROUTE AND OTHER AREAS OF PROJECT TO ASSESS CLEARING OF TREES, SAPLINGS, BRUSH AND OTHER VEGETATION. PLANS SHOW SPECIFIC TREES IN CONFLICT WITH PROPOSED WORK THAT ARE TO BE REMOVED (WITH STUMPS AND ROOTS) BUT DOES NOT CONSIDER CLEARING FOR HEAVY EQUIPMENT ACCESS. CONTRACTOR SHALL REMOVE TREES, SAPLINGS, BRUSH AND OTHER VEGETATION NOMINAL 6-INCH AND SMALLER AND CAREFULLY TRIM AND REMOVE LOWER BRANCHES FROM LARGER TREES. BEFORE CUTTING DOWN AND REMOVING TREES 6-INCH AND LARGER, EACH TREE SHALL FIRST BE INDIVIDUALLY MARKED TWO (2) WEEKS IN ADVANCE AND APPROVAL OBTAINED FROM DISTRICT ENGINEER. UNLESS OTHERWISE MARKED ON THE PLANS, TREES 12-INCH DIAMETER AND LARGER ARE NOT TO BE REMOVED AND EVERY EFFORT SHALL BE MADE TO PROTECT AND MINIMIZE DAMAGE TO MAIN BRANCHES AND ROOT SYSTEMS. ALL WASTE VEGETATION FROM CLEARING AND GRUBBING SHALL BE REMOVED AND DISPOSED OF AT APPROVED WASTE FACILITY. BURNING SHALL NOT BE ALLOWED UNLESS BY PERMIT FROM EBBETTS PASS FIRE DEPARTMENT OR CAL-FIRE. BRANCHES, BARK OR MAIN ROOTS ON TREES TO REMAIN SHALL NOT BE DAMAGED BY CARELESS USE OF HEAVY EQUIPMENT. PRIOR TO GRADING, TRENCHING, CUTTING AND/OR FILLING WITHIN THE DRIP LINE OF TREES NOT IDENTIFIED TO BE REMOVED, THE CONTRACTOR SHALL COORDINATE WITH DISTRICT.
 - SALVAGING OF EXISTING PRV STATION VALVES:** DURING DEMOLITION OF OLD PRESSURE REDUCING STATIONS, CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING PRESSURE REDUCING VALVES (ONLY SALVAGE CONTROL VALVES 4-INCH AND LARGER) WITHOUT CAUSING UNNECESSARY DAMAGE AND DELIVER TO CCWD'S MAINTENANCE BARN/FACILITY IN WHITE PINS; CONTRACTOR SHALL OTHERWISE REMOVE AND DISPOSE AND/OR RECYCLE ALL OTHER DAMAGED, CORRODED AND NON-USABLE VALVES AND WASTE PIPING MATERIALS. NO SALVAGED ITEMS SHALL BE RE-INCORPORATED INTO THE NEW WORK UNLESS SO DIRECTED BY THE DISTRICT.
 - STAGING AREAS:** THE DISTRICT CAN PROVIDE LIMITED STAGING AND STORAGE AREAS AT HUNTER DAM WATER TREATMENT PLANT AND AT CCWD FOREST MEADOWS LIFT STATION. CONTRACTOR SHALL NOT STAGE MATERIALS OR EQUIPMENT OR VEHICLES IN THE RIGHT-OF-WAY EXCEPT AS USED DAILY FOR CONSTRUCTION. NO EQUIPMENT OR MATERIALS SHALL BE TEMPORARILY STAGED OR STORED OVERNIGHT WITHIN THE HIGHWAY RIGHT-OF-WAY. THE CONTRACTOR SHALL NOT STAGE ANY EQUIPMENT OR MATERIALS OR PARK VEHICLES WHERE IT VIOLATES ANY ORDINANCE, BLOCKS DRIVEWAYS, ENTRANCES OR OTHERWISE PREVENTS NORMAL ACCESS TO PROPERTY, OR INTERFERES WITH TRAFFIC EMERGENCY VEHICLES, PEDESTRIANS, PUBLIC SAFETY OR NORMAL USE OF THE RIGHT-OF-WAY. ADDITIONAL STAGING AREAS ARE TO BE OBTAINED AND SECURED AT CONTRACTOR'S COST. ALL STAGING AREAS ARE SUBJECT TO REVIEW AND CONDITIONAL APPROVAL BY THE DISTRICT RELATING TO ENVIRONMENTAL ISSUES INCLUDING BIOLOGICAL, CULTURAL RESOURCES, JURISDICTIONAL WATERS AND STORM WATER BEST MANAGEMENT PRACTICES (BMP'S). BEFORE STAGING MATERIALS OR EQUIPMENT OR PARKING VEHICLES ON PRIVATE PROPERTY, CONTRACTOR SHALL OBTAIN PERMISSION FROM THE PROPERTY OWNER. THE CONTRACTOR SHALL SECURE THE SITE WHEN NOT PRESENT TO AVOID THEFT AND ELIMINATE SITE HAZARDS AND MAINTAIN PUBLIC SAFETY. CONTRACTOR SHALL STEEL PLATE OPEN EXCAVATIONS AND PROVIDE TEMPORARY SECURITY FENCING AROUND WORK AREAS AND SAFETY HAZARDS. THE CONTRACTOR SHALL SECURE THE CONSTRUCTION AREA STAGING AND STORAGE AREAS, WORK MATERIALS AND EQUIPMENT AGAINST ATTRACTIVE NUISANCE, THEFT AND/OR VANDALISM.
 - SANITARY FACILITIES:** THE CONTRACTOR IS REQUIRED TO FURNISH AND REGULARLY MAINTAIN AT LEAST ONE TEMPORARY SANITARY FACILITY FOR WORKERS USE IN THE PROJECT AREA.
- CONSTRUCTION WATER:** CCWD SHALL FURNISH CONSTRUCTION WATER FOR USE ON THE PROJECT. ALL CONSTRUCTION WATER SHALL BE METERED THROUGH HYDRANT METERS FOR CCWD'S RECORD KEEPING PURPOSES AS TO NOT CONTRIBUTE TO UNACCOUNTED WATER IN THE SYSTEM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NEEDED TO TRANSPORT AND CONVEY THE WATER FOR USE IN CONSTRUCTION. DIRECT CONNECTIONS SHALL NOT BE ALLOWED BETWEEN THE EXISTING SYSTEM AND NEW CONSTRUCTION UNTIL IT HAS BEEN TESTED, DISINFECTED AND PASSES BACTERIOLOGICAL TESTS; AN APPROPRIATELY SIZED AND CERTIFIED REDUCED PRESSURE BACKFLOW DEVICE SHALL BE USED FOR ANY CONNECTIONS NEEDED FOR FILLING AND FLUSHING THE PIPELINE. DAILY WATER USE SHOULD NOT EXCEED 100,000 GPD WHEN FLUSHING THE WATER MAINS AND WATER SHOULD NOT BE DISCHARGE UNATTENDED DURING OVERNIGHT HOURS. WATER DISCHARGED FROM PIPELINES FROM FLUSHING MUST BE DECHLORINATED AND DISCHARGED UNDER A GENERAL LOW THREAT DISCHARGE PERMIT ISSUED BY THE REGIONAL WATER QUALITY CONTROL BOARD.
- PRESERVATION OF PROPERTY:** PRIVATE AND PUBLIC PROPERTY, INCLUDING BUT NOT LIMITED TO TREES, SHRUBS, WALLS, LANDSCAPING, PAVING, ROADS, DRIVEWAYS, SIDEWALKS, MAIL BOXES, POLES, FENCES, SIGNS, SURVEY MONUMENTS, BUILDINGS, STRUCTURES, VEHICLES, DRAINS, CULVERTS, CONDUITS, UTILITIES AND OTHER SUCH ITEMS SHALL BE PROTECTED DURING CONSTRUCTION AND, IF DAMAGED OR INJURED, SHALL BE REPLACED AND/OR RESTORED BY CONTRACTOR TO CONDITION AS GOOD, OR BETTER, AS WHEN ENTERING UPON THE WORK TO THE SATISFACTION OF THE DISTRICT ENGINEER. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SURFACE FEATURES AND REPORT ANY DISCREPANCIES TO THE DISTRICT 5 DAYS IN ADVANCE OF CONSTRUCTION IN THAT AREA. EXISTING VEGETATION OUTSIDE OF APPROVED/VERIFIED CLEARING LIMITS SHALL BE PROTECTED FROM DAMAGE. MECHANICAL EQUIPMENT USED ON THIS PROJECT SHALL BE SELECTED TO MINIMIZE DAMAGE TO THE EXISTING PAVEMENT ALONG THE PROJECT SITE AND TO ALL ROADS USED AS TRUCK ROUTES TO BRING MATERIAL AND EQUIPMENT TO THE PROJECT. THE CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, REPLACE DAMAGED AC PAVEMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

- ACCESS TO WORKING AREAS:** THE NEW TRANSMISSION MAIN AND ALL CONSTRUCTED FACILITIES SHALL BE LOCATED AND CONSTRUCTED WITHIN PUBLIC RIGHT-OF-WAY, PUBLIC UTILITY EASEMENTS, AND/OR DEDICATED EASEMENTS. UNLESS OTHERWISE APPROVED, CONTRACTOR'S OPERATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH CALTRANS OR CALAVERAS COUNTY ENCROACHMENT PERMIT, WITHIN UTILITY EASEMENTS AND/OR TEMPORARY CONSTRUCTION EASEMENTS. CONTRACTOR SHALL ACCESS WORK AREAS THROUGH PUBLIC RIGHT-OF-WAY OR DESIGNATED ACCESS POINTS CAUSING LEAST DAMAGE, DISRUPTION AND INTERFERENCE WITH NORMAL USE AND BUSINESS OF THE PROPERTY. CONTRACTOR SHALL NOT ARBITRARILY OR NEEDLESSLY ENTER OR ENCROACH INTO UNAUTHORIZED AREAS OF PRIVATE PROPERTY WITHOUT FIRST NOTIFYING THE DISTRICT AND OBTAINING THE OWNER'S PERMISSION. THE CONTRACTOR SHALL MAINTAIN VEHICLE ACCESS TO ALL PROPERTIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION. DRIVEWAY CLOSURES TO RESIDENCES SHALL BE LIMITED TO BETWEEN THE HOURS OF 8:30 A.M. TO 4:30 P.M. FOR ALL PROPERTIES WHERE THE DRIVEWAY IS THE SINGLE POINT OF ACCESS. ALTERNATIVELY, THE CONTRACTOR MAY MAINTAIN STEEL TRENCH PLATES FOR USE IN PLACING ACROSS THE CONSTRUCTION TRENCH TO ALLOW ACCESS UPON DEMAND. ONE ACCESS ROUTE TO ALL BUSINESSES ADJACENT TO THE WORK SHALL BE PROVIDED AT ALL TIMES. ALL EXCAVATIONS WILL BE PLATED OR BACKFILLED AT THE END OF EACH WORKDAY.
- ENCROACHMENT PERMITS:** CONTRACTOR SHALL PREPARE AND FILE ALL PAPERWORK TO COMPLETE ENCROACHMENT PERMITS. CONTRACTOR SHALL PERFORM ALL WORK AND COORDINATION NECESSARY TO SECURE AND COMPLY WITH PERMIT CONDITIONS AS ISSUED BY CALTRANS AND CALAVERAS COUNTY PUBLIC WORKS FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAYS. CCWD WILL SUBMIT PRELIMINARY PERMIT APPLICATIONS TO RESPECTIVE AGENCIES AS "OWNER" AND PAY PERMIT AND INSPECTION FEES DIRECTLY INVOICED BY CALTRANS AND COUNTY. COUNTY OF CALAVERAS SHALL BE LISTED AS A CO-OBLIGEE ON PERFORMANCE BOND OR ADDED VIA A DUAL OBLIGEE RIDER. CONTRACTOR SHALL PREPARE AND SUBMIT SPECIFIC TRAFFIC CONTROL PLANS, MEETING REQUIREMENTS AND APPROVAL OF AGENCIES, AND FULLY SUPPORT AND IMPLEMENT TRAFFIC CONTROL PLANS INCLUDING ALL NECESSARY SIGNAGE, FLAGGERS, BARRICADES, K-RAIL, SAFETY DEVICES, ETC. TRAFFIC CONTROL PLANS SHALL BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 EDITION AND, AS APPLICABLE, THE STATE STANDARD PLANS. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING CALTRANS AND COUNTY OF CALAVERAS OF ALL HIGHWAY AND ROAD LANE CLOSURES AND OTHER ENCROACHMENTS WITHIN RIGHT-OF-WAY. FOR PERMITTED ACTIVITIES WITHIN HIGHWAY, CONTRACTOR SHALL NOTIFY CALTRANS AND CALAVERAS COUNTY PERMIT OFFICER TWO WEEKS IN ADVANCE OF WORK TO OBTAIN CLOSURE NUMBERS AND THEN REPORT DAILY STATUS VIA TRANSPORTATION MANAGEMENT CENTER (TMC) AT (209) 948-7556 BOTH AT BEGINNING OF TRAFFIC CONTROL AND AGAIN WHEN DONE AT END OF DAY; IF LANE CLOSURE IS SCHEDULED BUT NOT USED, CONTRACTOR IS OBLIGATED TO CALL INTO THE TMC AND CANCEL IT FOR EACH DAY.
- CONSTRUCTION STAKING:** CCWD WILL PROVIDE ONE (1) SET OF CONSTRUCTION STAKES AND MARKS TO ESTABLISH LINE AND GRADE FOR THE PROJECT; THE OVERALL LENGTH OF THE PROJECT SHALL BE SPLIT INTO FOUR (4) SEPARATE REQUESTS TO BE COORDINATED AS WORK PROGRESSES ALONG THE ALIGNMENT; EACH DETAILED REQUEST SHALL BE SUBMITTED TO DISTRICT AT LEAST THREE (3) WEEKS IN ADVANCE OF WORK; CONTRACTOR SHALL PAY FOR SURVEYOR IF NECESSARY TO RESET STAKES THAT ARE CARELESSLY OR INADVERTENTLY DESTROYED, DAMAGED OR LOST.
- RECORD DRAWINGS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS FOR ALL UNDERGROUND WORK THROUGHOUT THE COURSE OF CONSTRUCTION. SUCH DRAWINGS SHALL RECORD THE LOCATION AND GRADE OF ALL UNDERGROUND IMPROVEMENTS CONSTRUCTED AND SHALL BE DELIVERED TO THE DISTRICT PRIOR TO, AND IN CONSIDERATION OF THE DISTRICT'S ACCEPTANCE OF WORK.
- STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND BEST MANAGEMENT PRACTICES (BMP'S):** THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS TO COMPLY WITH THE REQUIREMENTS OF THE SWPPP AND BMP'S PREPARED FOR THIS PROJECT.
- ENVIRONMENTAL MITIGATION MEASURES:** CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS TO COMPLY WITH THE REQUIREMENTS OF THE MITIGATION MONITORING AND REPORTING PLAN PREPARED FOR THIS PROJECT.

DATE									
REVISIONS	DESCRIPTION	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
BID SET									
SCALE: AS SHOWN									
JOB NO. 1330-24									
RELEASE 10 OCT 2018									
									
IMPROVEMENT PLANS FOR CONSTRUCTION OF EBBETTS PASS WATER SYSTEM REACH 1 PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085 CALAVERAS COUNTY, CALIFORNIA									
NOTES									
									
7777 Greenback Lane Suite 104 Citrus Heights, CA 95610 Tel. (916) 722-1800 Fax (916) 722-4595									
CIVIL - WATER RESOURCES - SURVEYING									
SHEET 02 OF 67									

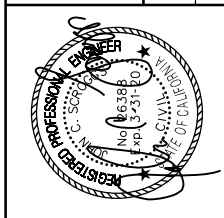
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	3	67

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

KEY MAP

KASL CONSULTING ENGINEERS
 7777 Greenback Lane
 Suite 104
 Citrus Heights, CA 95610
 Tel. (916) 722-1800
 Fax (916) 722-4595
 CIVIL - WATER RESOURCES - SURVEYING



LEGEND

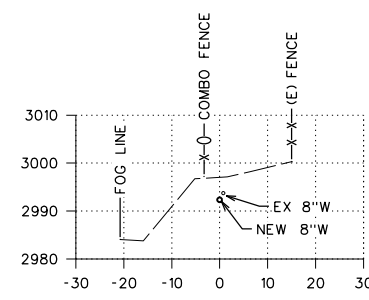
45 ——— PROPOSED WATER MAIN & STATION

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\03-KEY MAP.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	4	67

NOTES

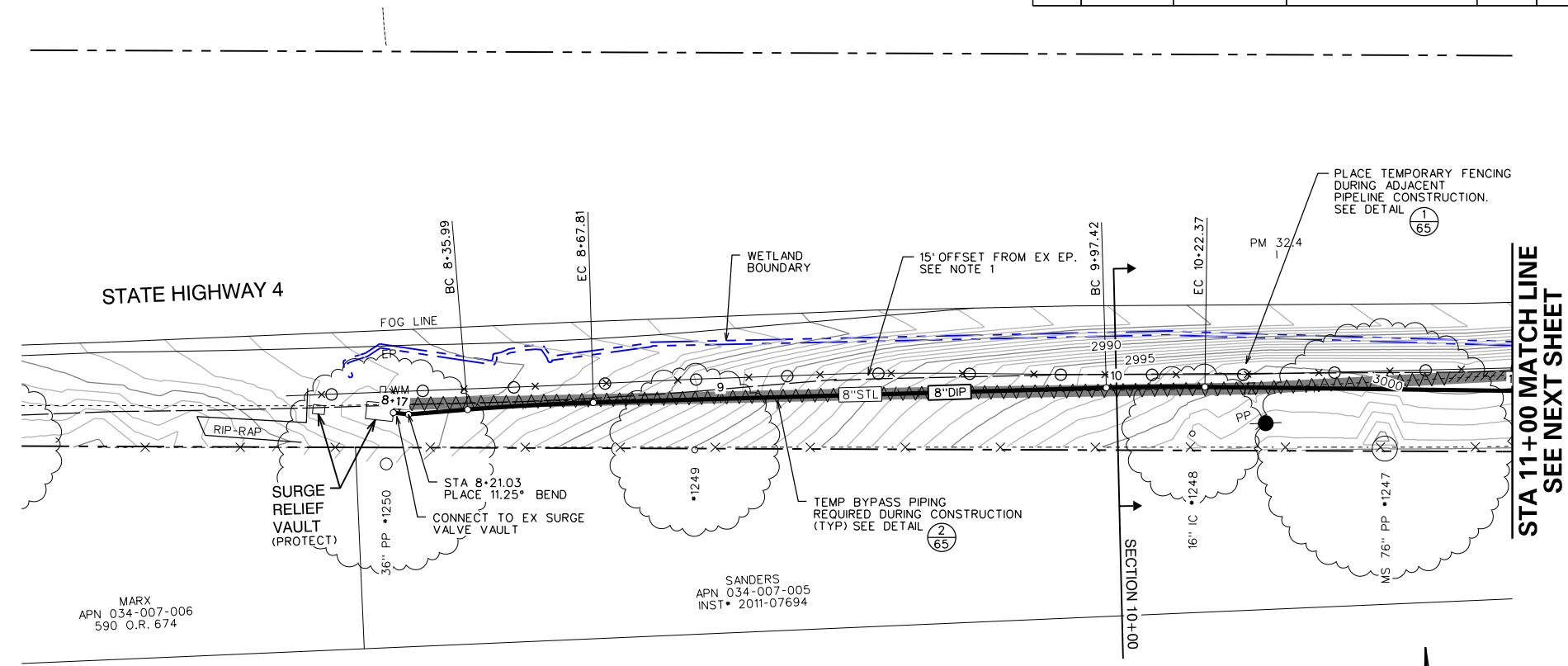
1. MIN COVER OVER NEW MAIN SHALL BE 4.0' WHERE NEW MAIN IS PLACED WITHIN 15 FT OF EX EP, OR AS SHOWN IN PROFILE. MIN COVER SHALL BE MEASURED FROM TOP OF PIPE TO EX EP GRADE.



SECTION 10+00

CURVE TABLE

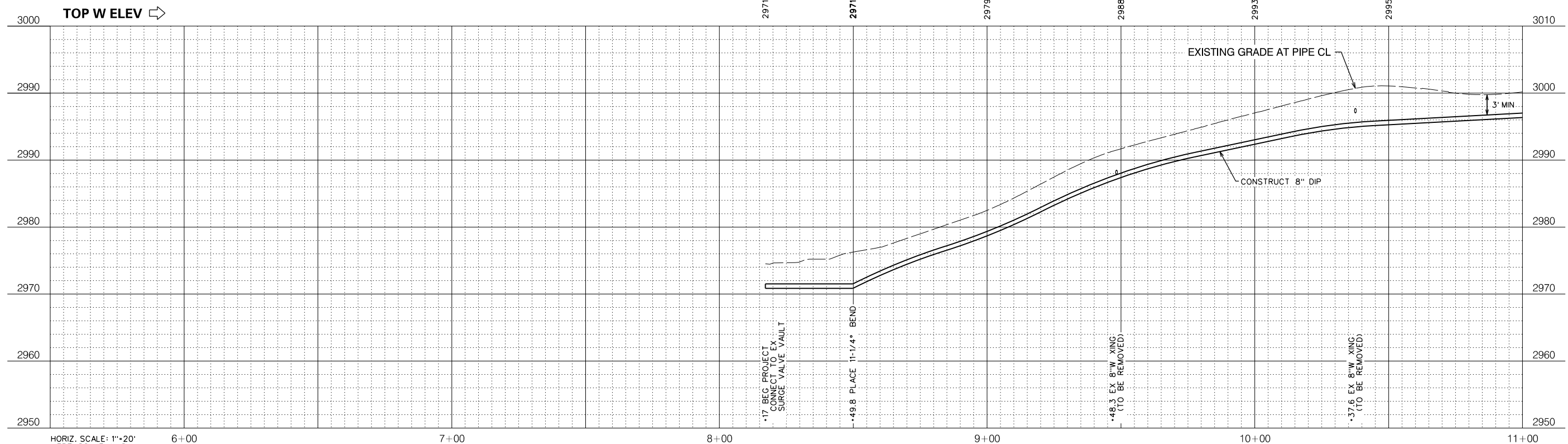
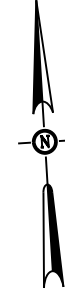
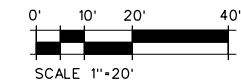
BC	EC	L	R	D	T
8+35.99	8+67.81	31.82	600.00	3° 02' 19" RT	15.91
9+97.42	10+22.37	24.95	600.00	2° 22' 57" RT	12.48



STA 11+00 MATCH LINE
SEE NEXT SHEET

MARX
APN 034-007-006
590 O.R. 674

SANDERS
APN 034-007-005
INST 2011-07694



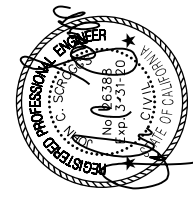
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VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



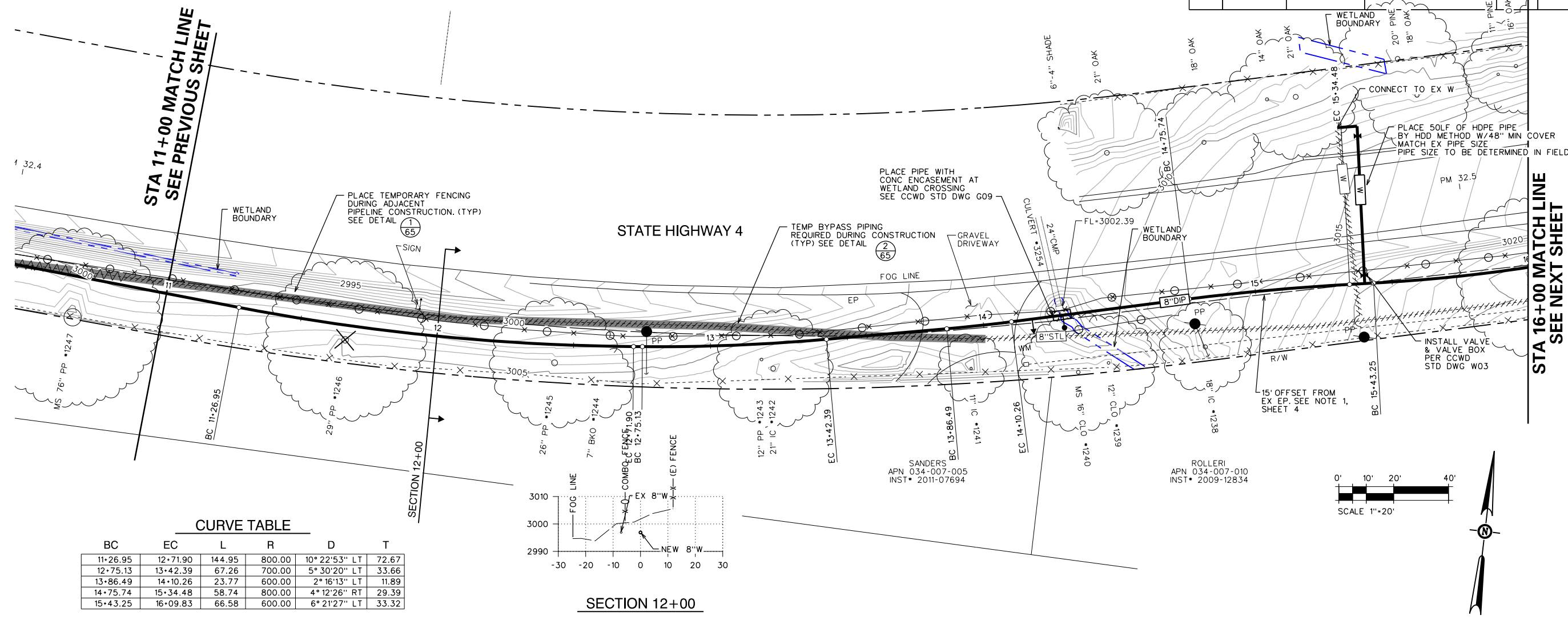
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 1



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\04-PP 1A.dgn
DATE: 10/12/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	5	67

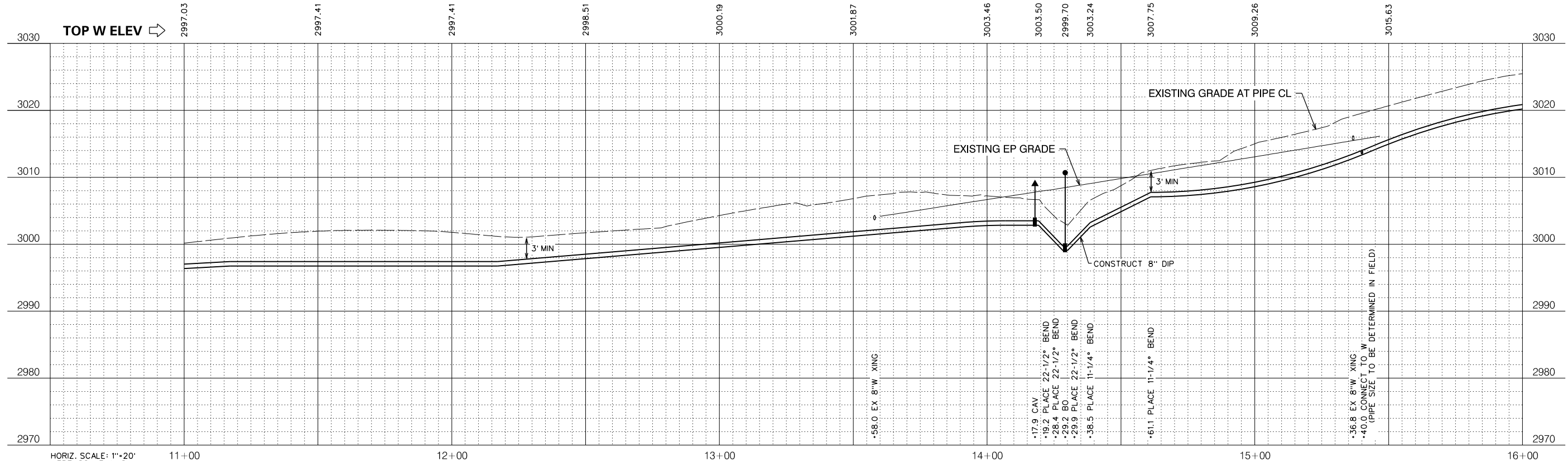
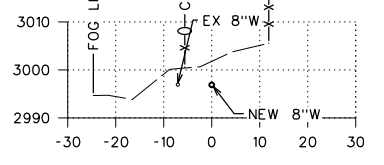


STA 11+00 MATCH LINE
SEE PREVIOUS SHEET

STA 16+00 MATCH LINE
SEE NEXT SHEET

CURVE TABLE

BC	EC	L	R	D	T
11+26.95	12+71.90	144.95	800.00	10° 22' 53" LT	72.67
12+75.13	13+42.39	67.26	700.00	5° 30' 20" LT	33.66
13+86.49	14+10.26	23.77	600.00	2° 16' 13" LT	11.89
14+75.74	15+34.48	58.74	800.00	4° 12' 26" RT	29.39
15+43.25	16+09.83	66.58	600.00	6° 21' 27" LT	33.32



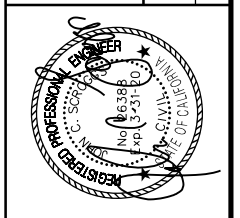
NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN

JOB NO. 1330-24

RELEASE 10
OCT 2018

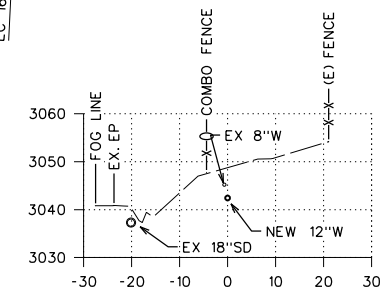
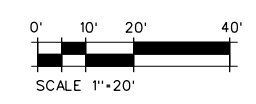
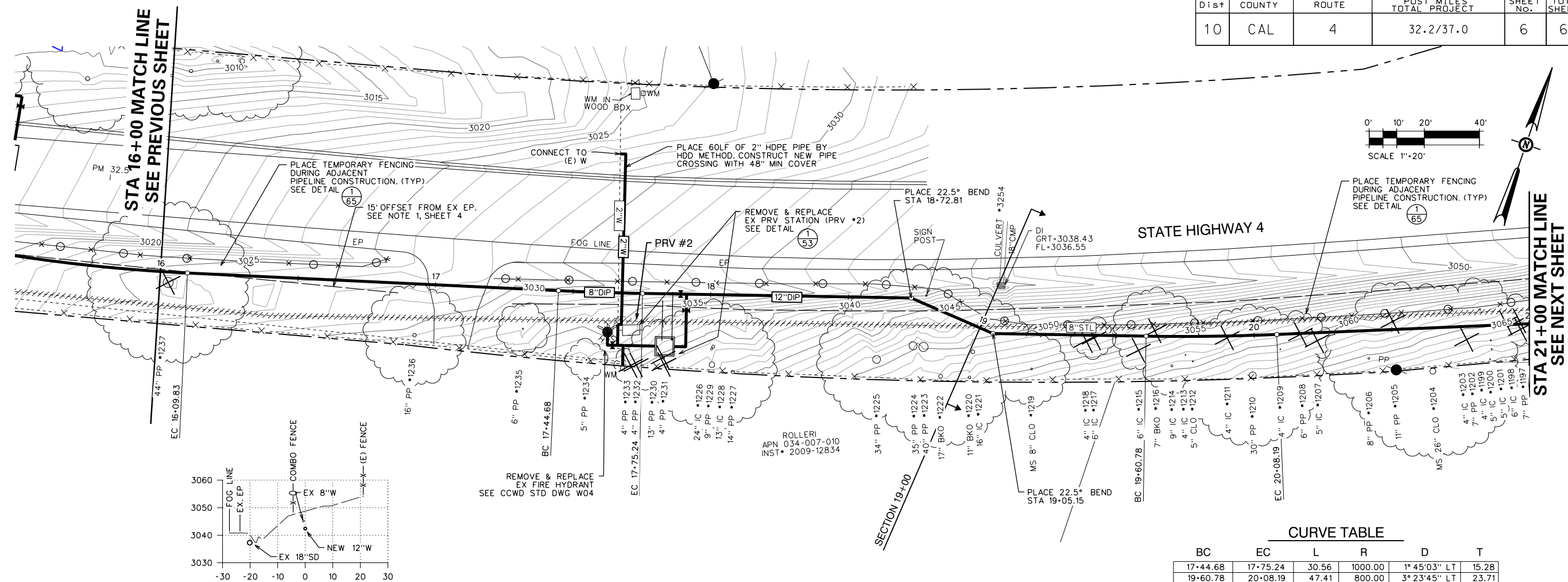


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 2

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\05-PP 1A.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	6	67

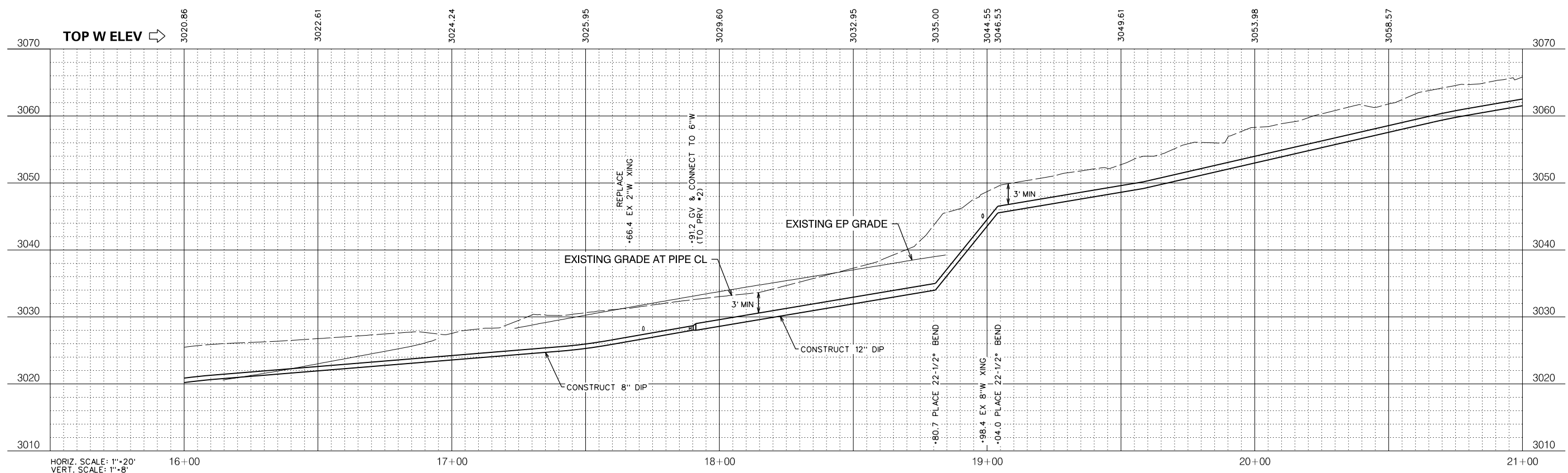


SECTION 19+00

STATE HIGHWAY 4

CURVE TABLE

BC	EC	L	R	D	T
17+44.68	17+75.24	30.56	1000.00	1° 45' 03" LT	15.28
19+60.78	20+08.19	47.41	800.00	3° 23' 45" LT	23.71



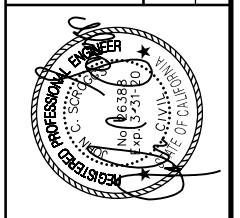
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

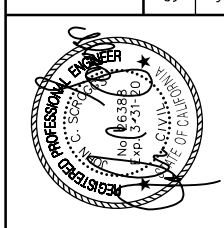
WATER MAIN PLAN AND PROFILE 3

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\06-PP 1A.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	7	67

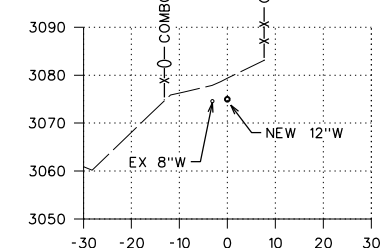
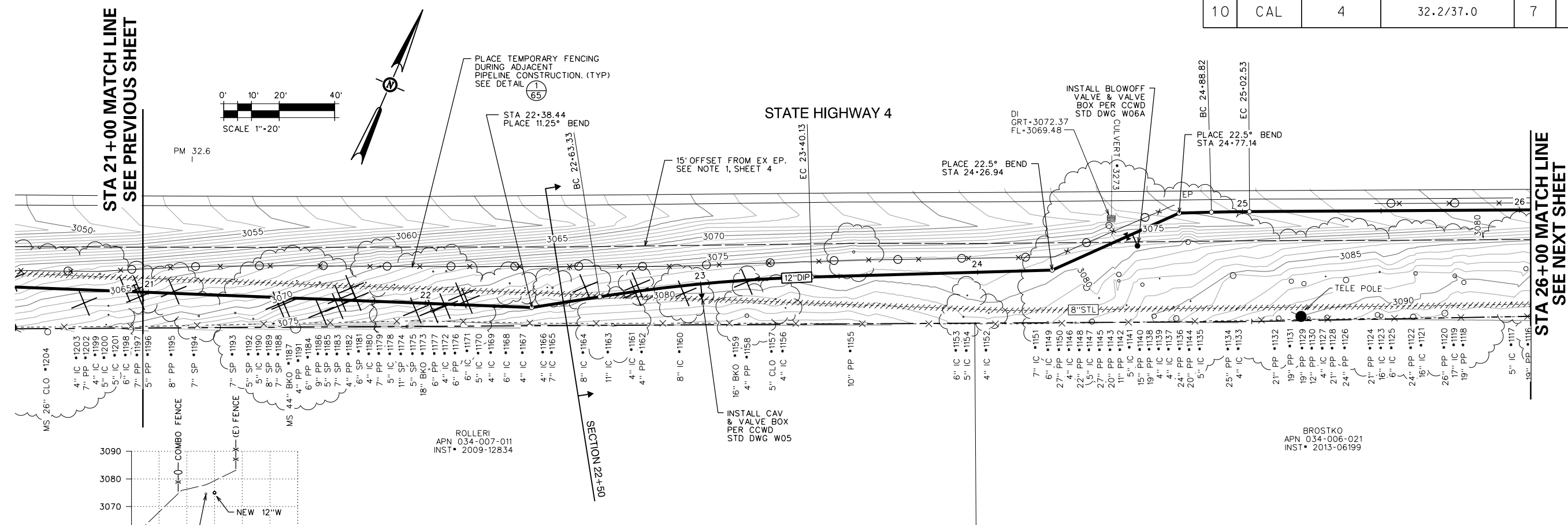
NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET		RELEASE 10
SCALE: AS SHOWN	JOB NO. 1330-24	OCT 2018



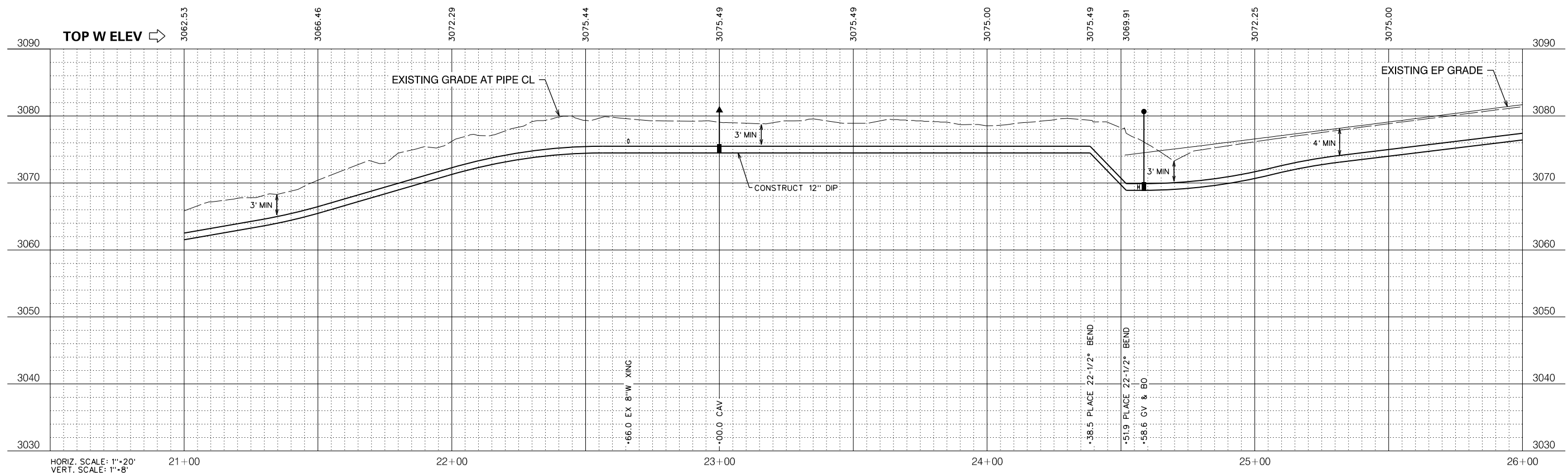
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 4



CURVE TABLE

BC	EC	L	R	D	T
22+63.33	23+40.13	76.80	600.00	7° 20' 02" RT	38.45
24+88.82	25+02.53	13.71	600.00	1° 18' 31" RT	6.85

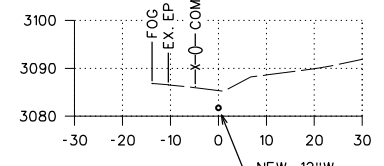
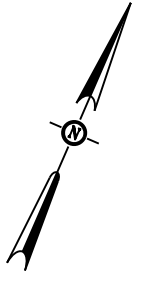
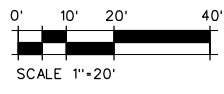
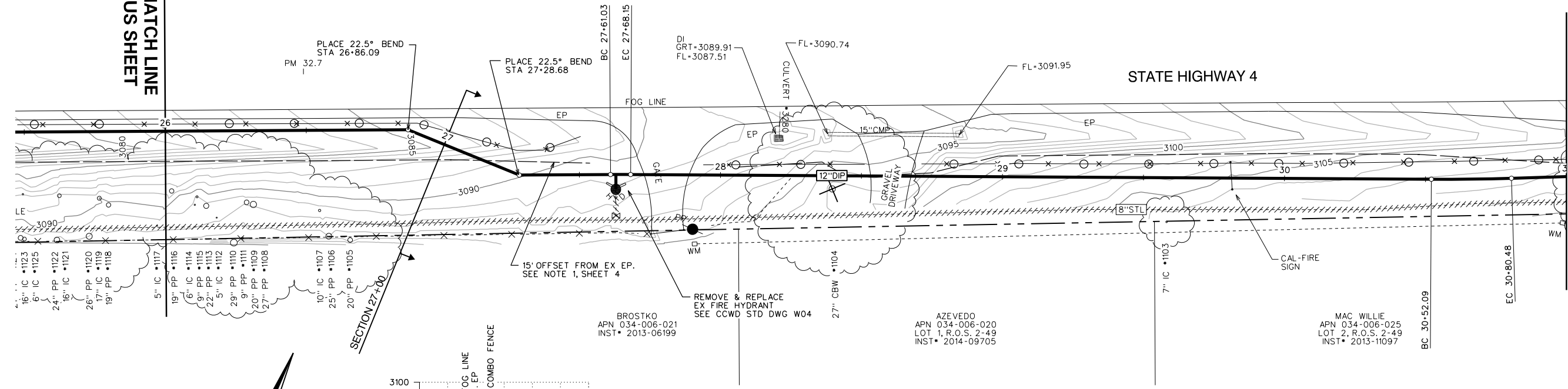


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	8	67

NO.	REVISIONS DESCRIPTION	DATE	BY

STA 26+00 MATCH LINE
SEE PREVIOUS SHEET

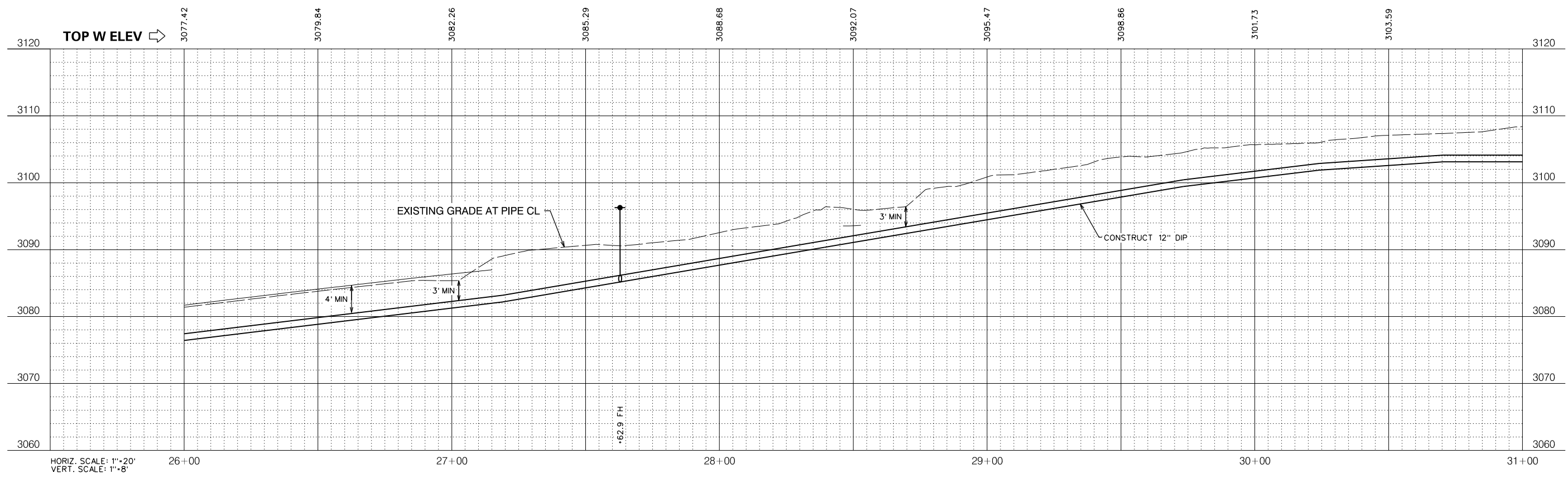
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SEE NEXT SHEET



SECTION 27+00

CURVE TABLE

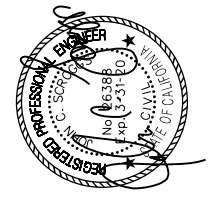
BC	EC	L	R	D	T
27-61.03	27-68.15	7.12	600.00	0° 40' 49" RT	3.56
30-52.09	30-80.48	28.40	800.00	2° 02' 02" LT	14.20



HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24
RELEASE 10
OCT 2018

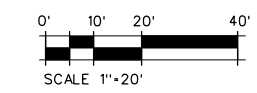
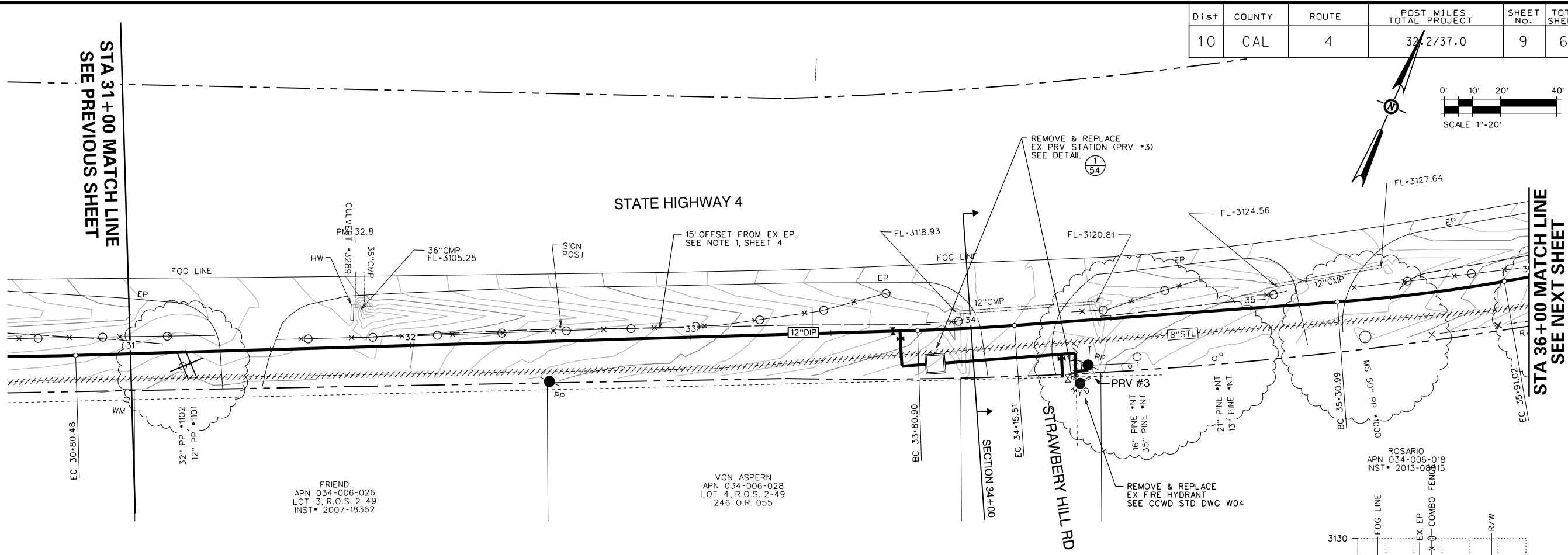


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
WATER MAIN PLAN AND PROFILE 5



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\08-PP 1A-28.dgn
DATE: 10/12/08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	9	67



STA 31+00 MATCH LINE
SEE PREVIOUS SHEET

STA 36+00 MATCH LINE
SEE NEXT SHEET

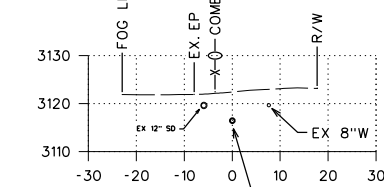
CURVE TABLE

BC	EC	L	R	D	T
33+80.90	34+15.51	34.61	800.00	2° 28' 45" LT	17.31
35+30.99	35+91.02	60.03	600.00	5° 43' 58" LT	30.04

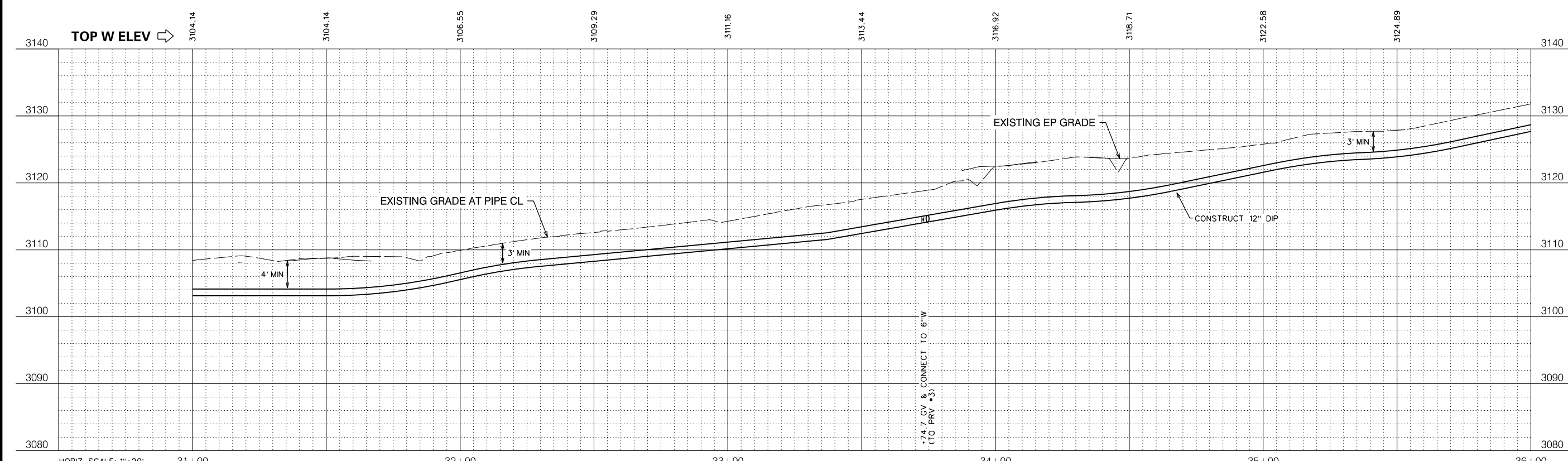
FRIEND
APN 034-006-026
LOT 3, R.O.S. 2-49
INST. 2007-18362

VON ASPERN
APN 034-006-028
LOT 4, R.O.S. 2-49
246 O.R. 055

ROSARIO
APN 034-006-018
INST. 2013-08015



SECTION 34+00



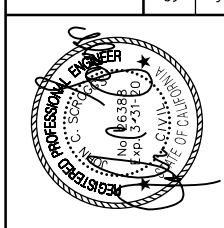
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VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

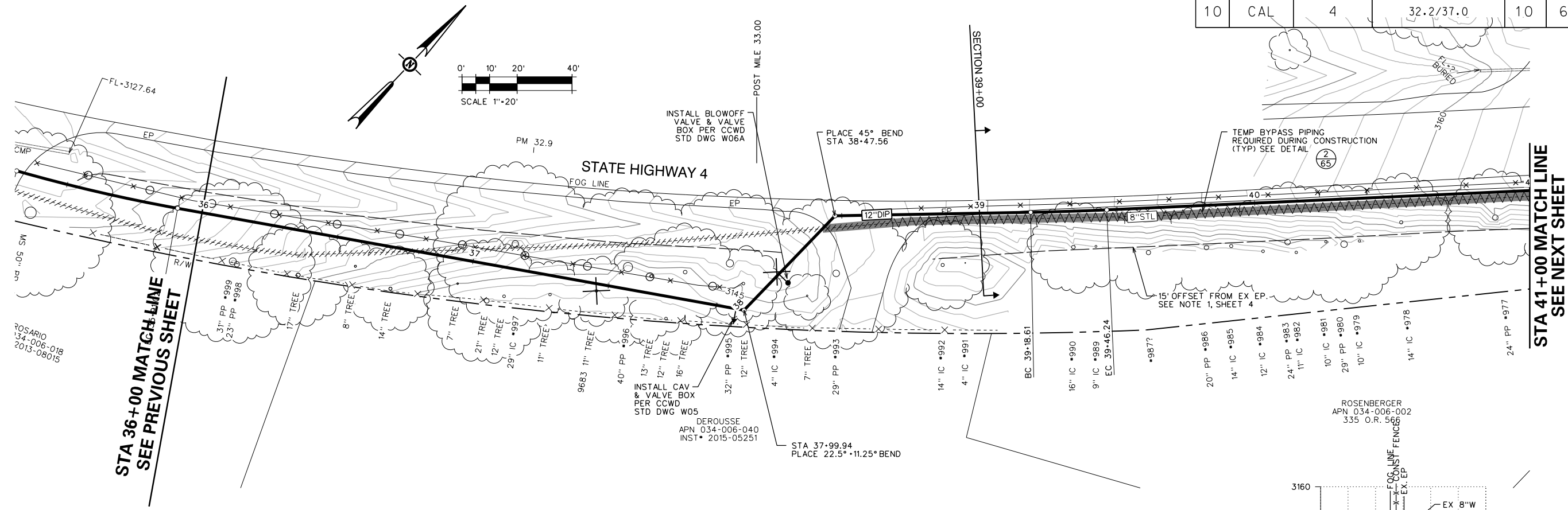
WATER MAIN PLAN AND PROFILE 6



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\09-PP 1A.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	10	67

NO.	REVISIONS DESCRIPTION	DATE	BY

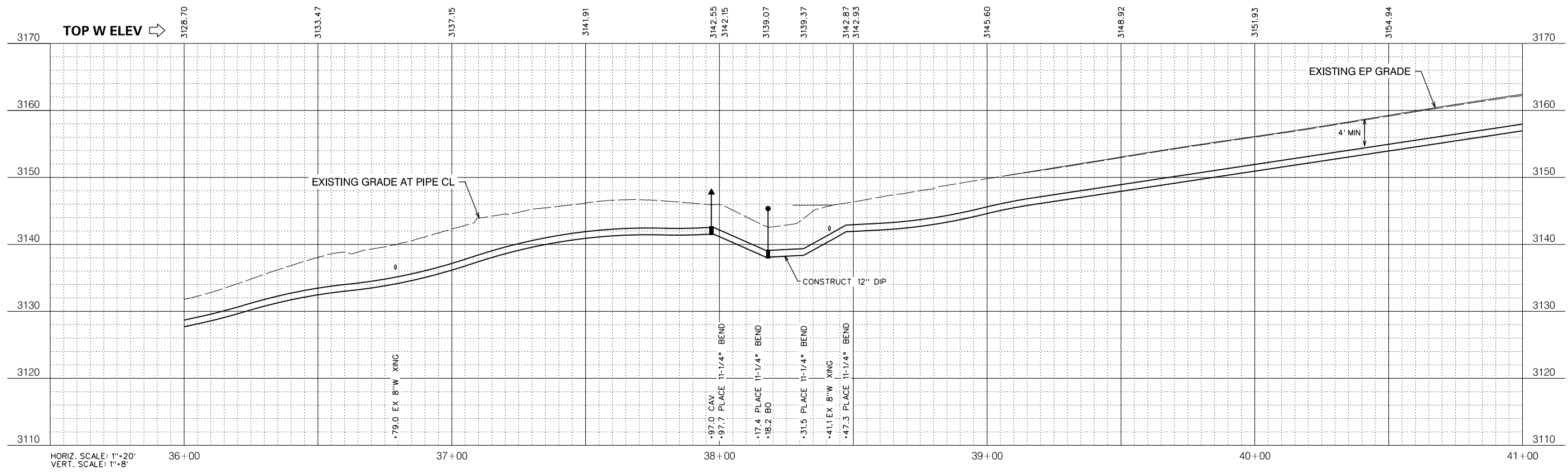
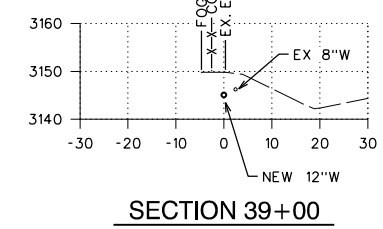


STA 36+00 MATCH LINE
SEE PREVIOUS SHEET

STA 41+00 MATCH LINE
SEE NEXT SHEET

CURVE TABLE

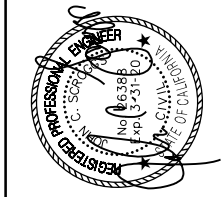
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39+18.61	39+46.24	27.63	1000.00	1° 35'00" LT	13.82



HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24
RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
WATER MAIN PLAN AND PROFILE 7



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\10-PP 1A.dgn
DATE: 10/17/2018

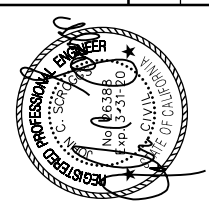
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	12	67

NO.	REVISIONS DESCRIPTION

BID SET

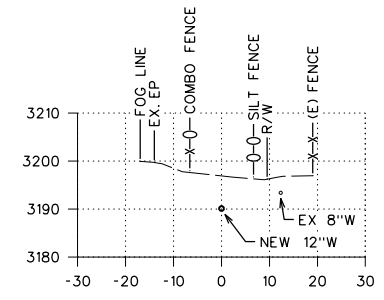
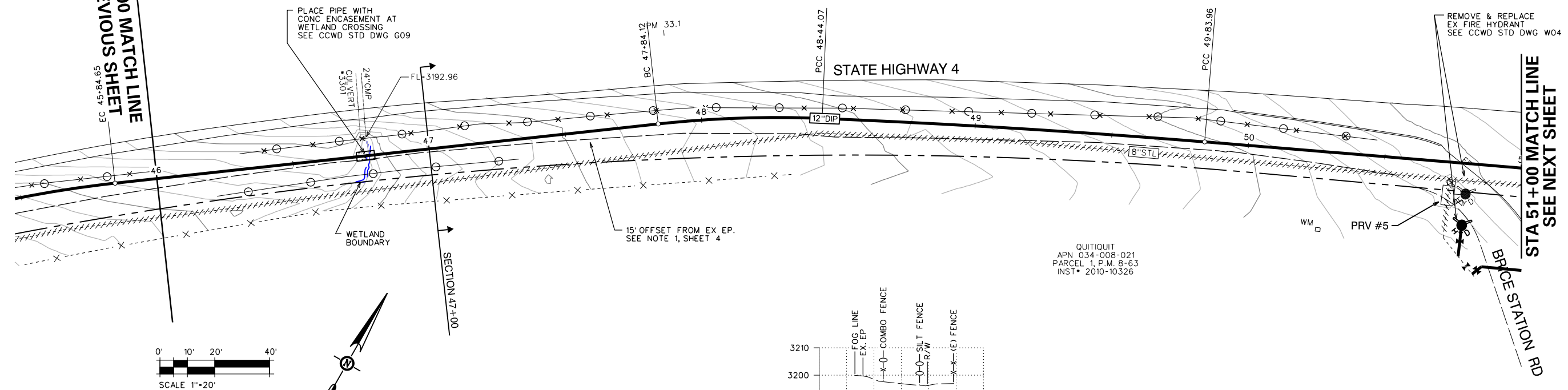
SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



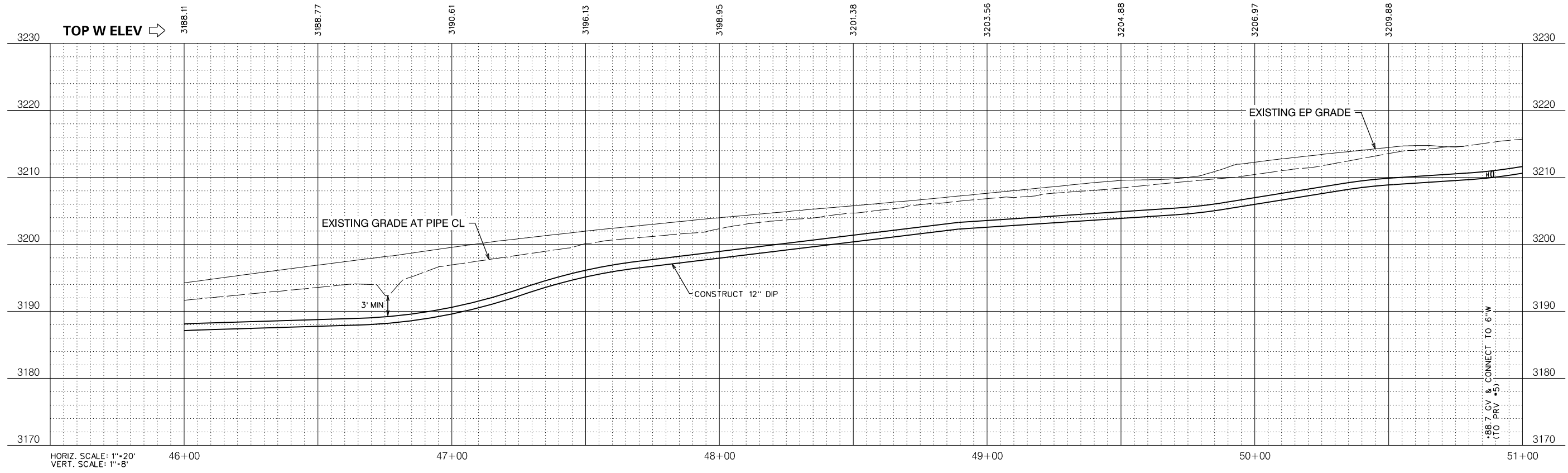
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 9



CURVE TABLE

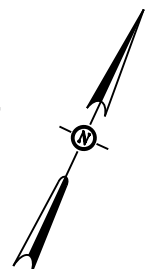
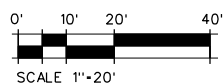
BC	EC	L	R	D	T
47+84.12	48+44.07	59.94	400.00	8° 35' 10" RT	30.03
48+44.07	49+83.96	139.89	3515.24	2° 16' 48" RT	69.95
49+83.96	51+04.04	120.09	42625.93	0° 09' 41" RT	60.04



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\12-PP 1A.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	13	67

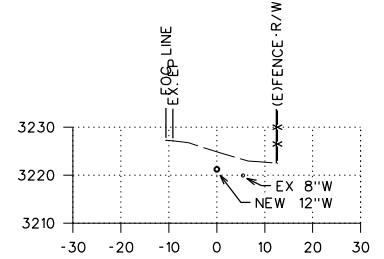
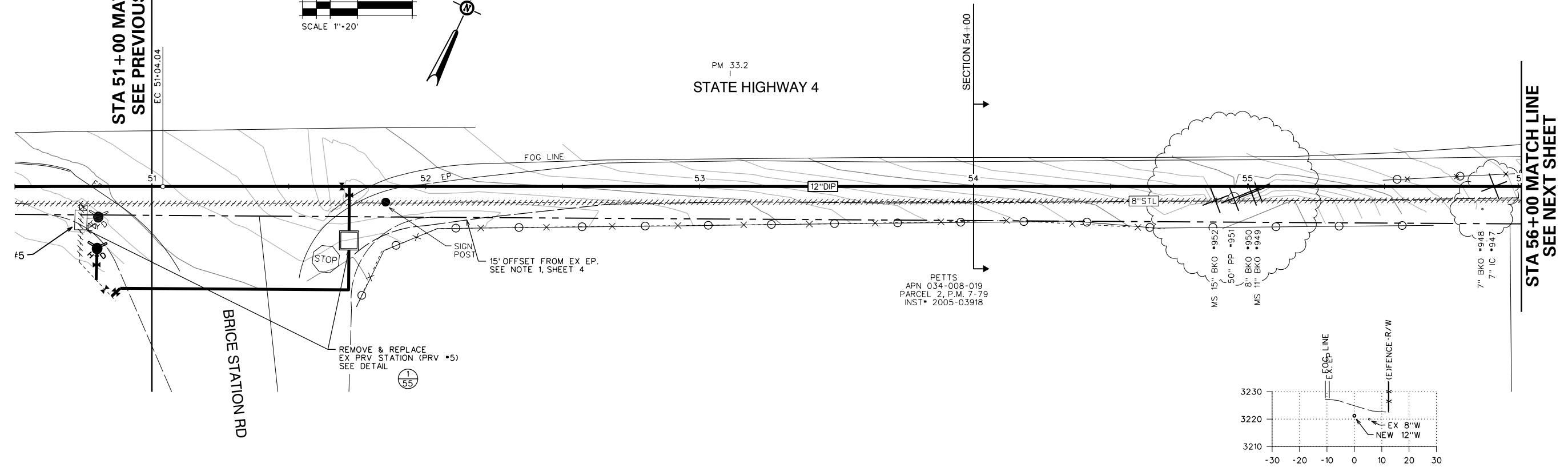
STA 51+00 MATCH LINE
SEE PREVIOUS SHEET



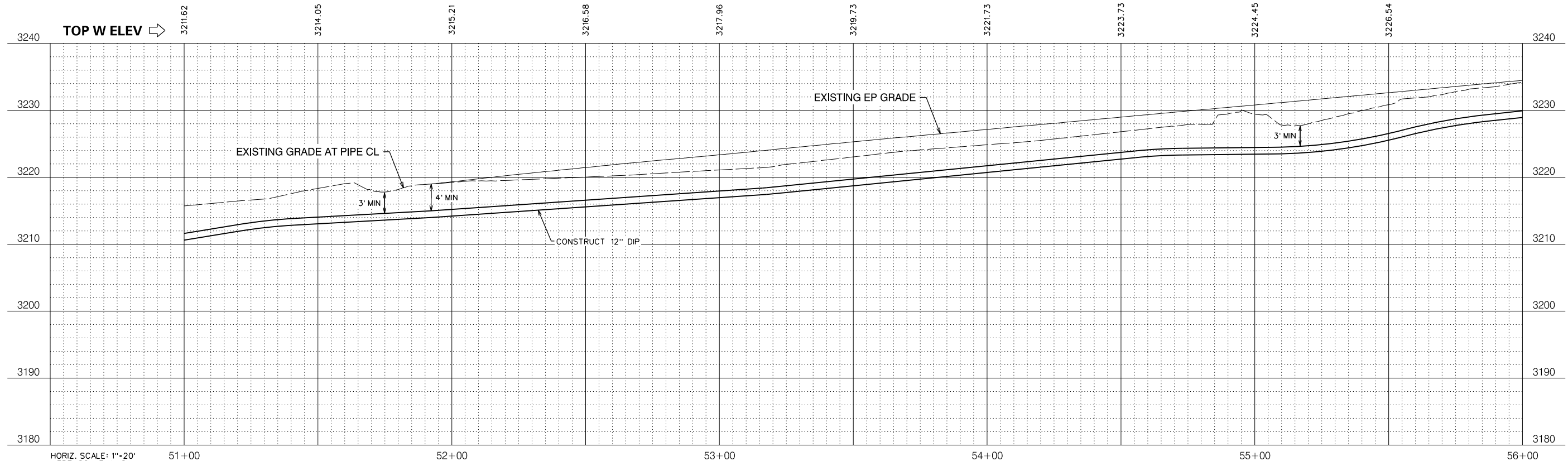
PM 33.2
STATE HIGHWAY 4

SECTION 54+00

STA 56+00 MATCH LINE
SEE NEXT SHEET



SECTION 54+00

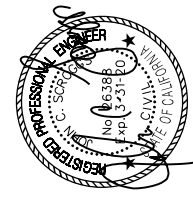


HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24
RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
WATER MAIN PLAN AND PROFILE 10

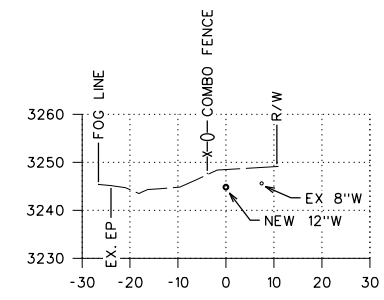
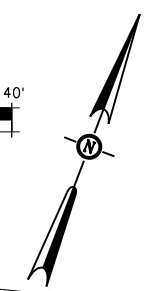
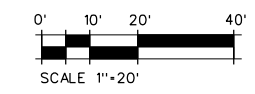
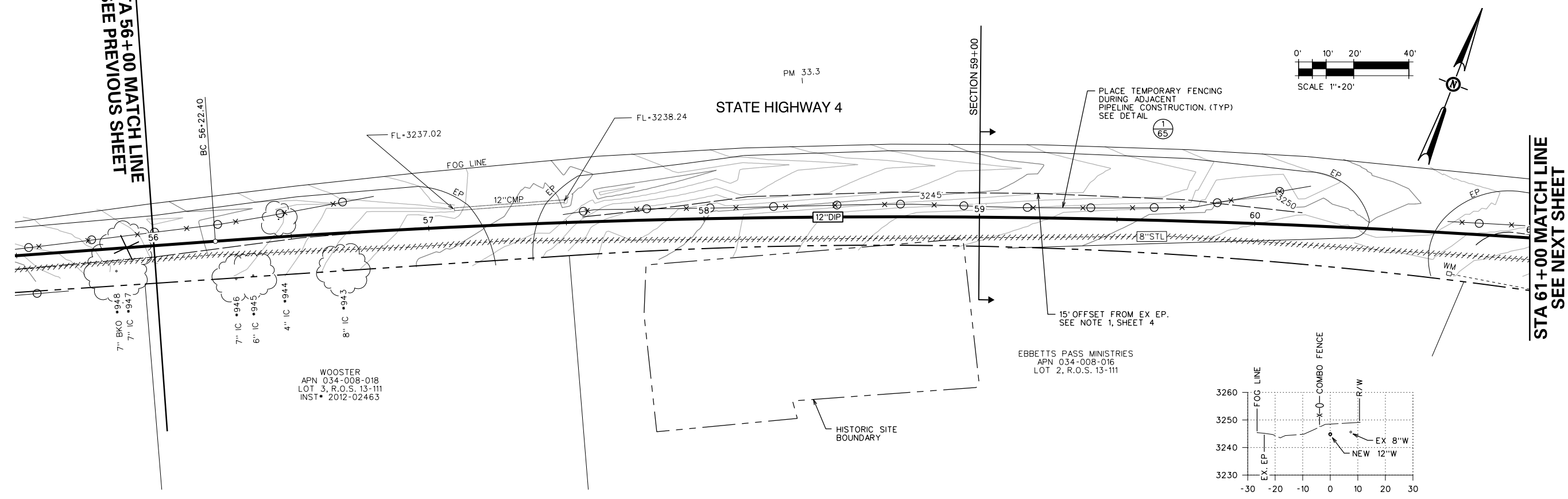


FILE: S:\1330-24 Ebbetts Pass Reach \Plans\13-PP 1A.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	14	67

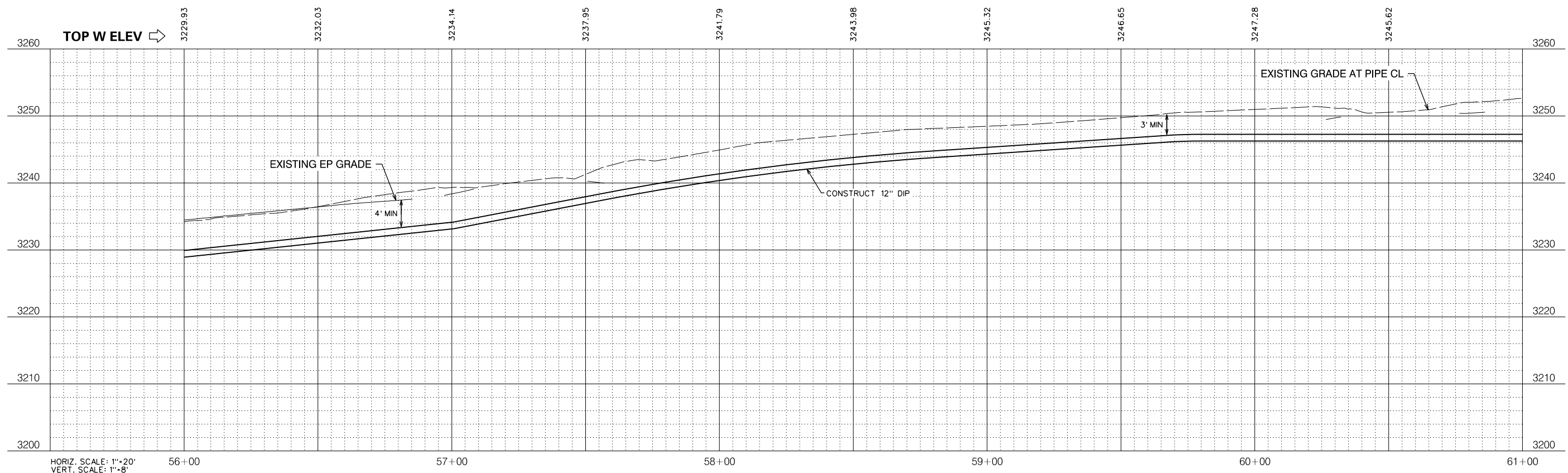
STA 56+00 MATCH LINE
SEE PREVIOUS SHEET

STA 61+00 MATCH LINE
SEE NEXT SHEET



CURVE TABLE

BC	EC	L	R	D	T
56+22.40	61+45.01	522.62	3443.74	8° 41'42" RT	261.81

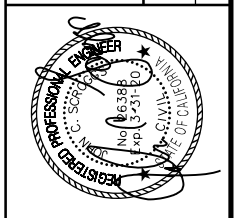


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



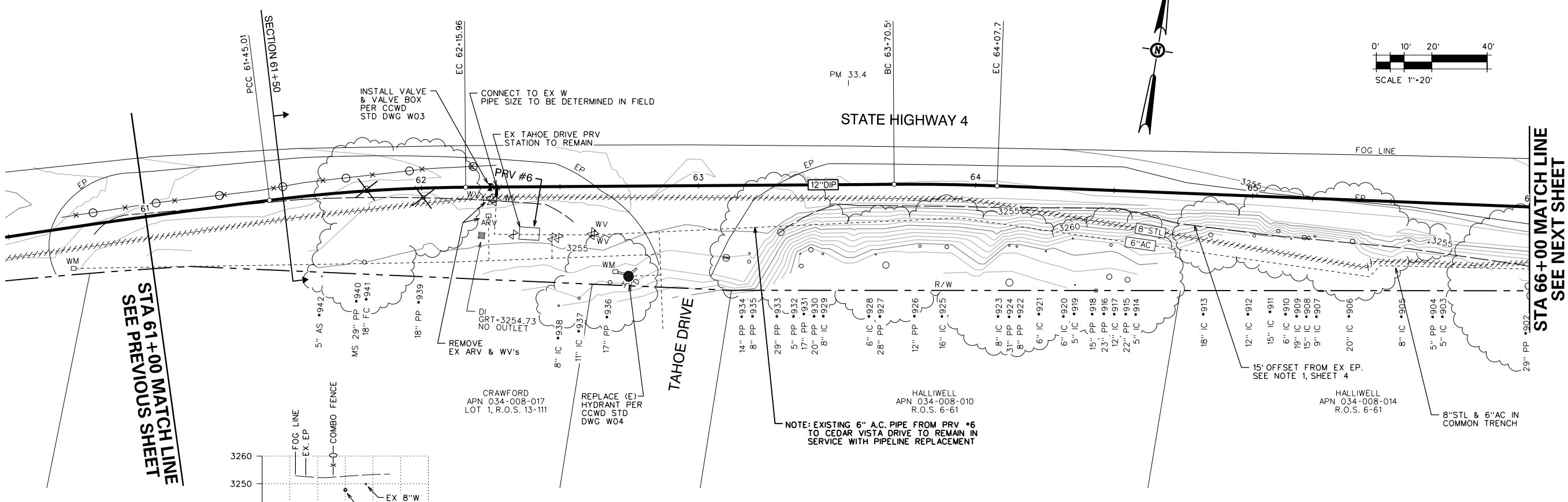
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 11



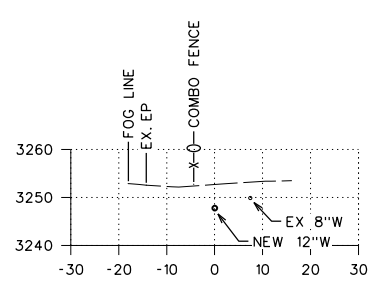
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DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	15	67



STA 61+00 MATCH LINE
SEE PREVIOUS SHEET

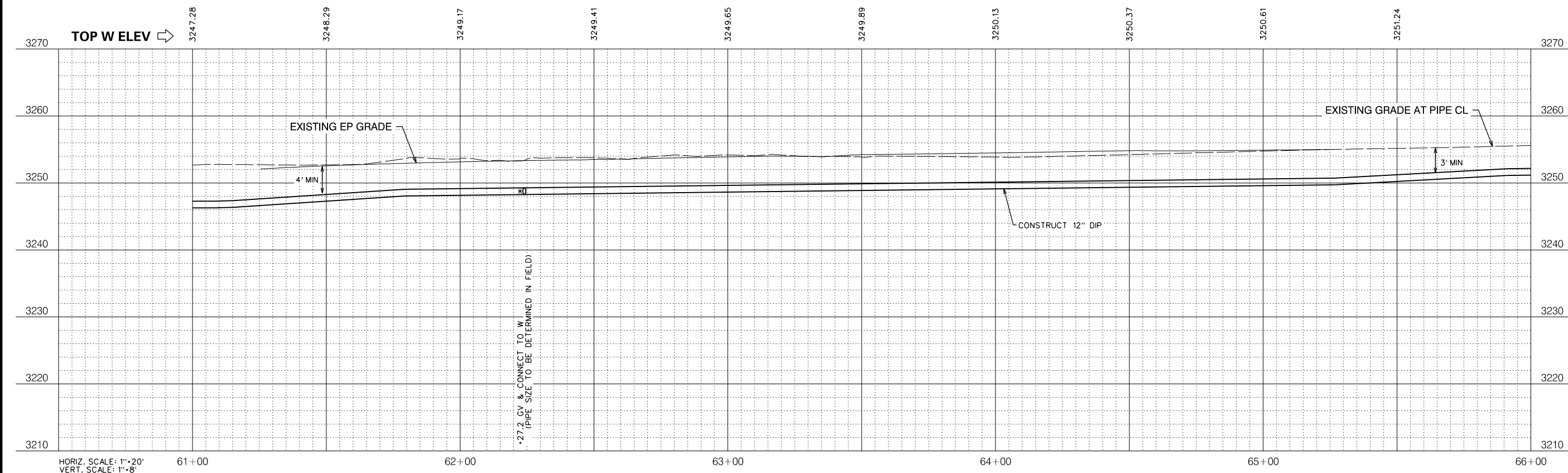
STA 66+00 MATCH LINE
SEE NEXT SHEET



SECTION 61+50

CURVE TABLE

BC	EC	L	R	D	T
61+45.01	62+15.96	70.95	600.00	6° 46' 31" RT	35.52
63+70.59	64+07.71	37.12	800.00	2° 39' 31" RT	18.56



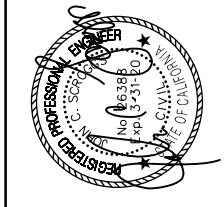
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 12

7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595

KASL
ENGINEERS
CIVIL - WATER RESOURCES - SURVEYING

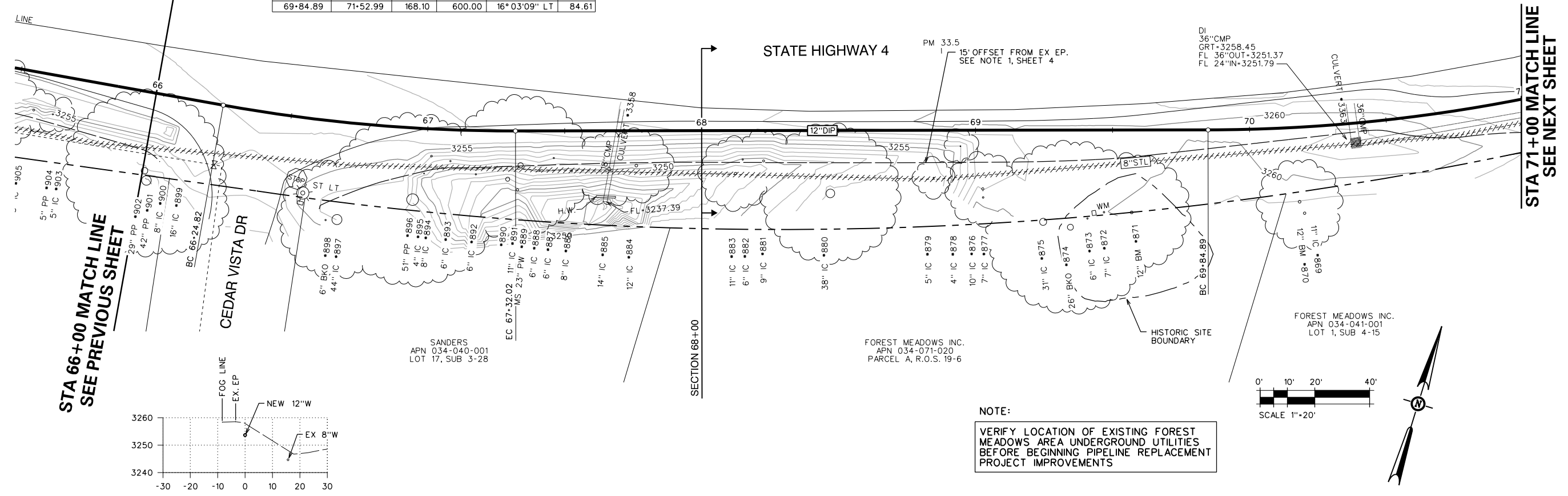
SHEET 15 OF 67

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\15-PP 1A.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	16	67

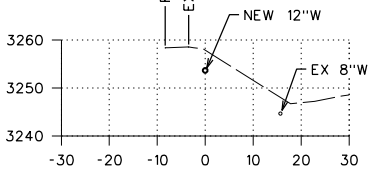
CURVE TABLE

BC	EC	L	R	D	T
66+24.82	67+32.02	107.20	600.00	10° 14' 14" LT	53.75
69+84.89	71+52.99	168.10	600.00	16° 03' 09" LT	84.61

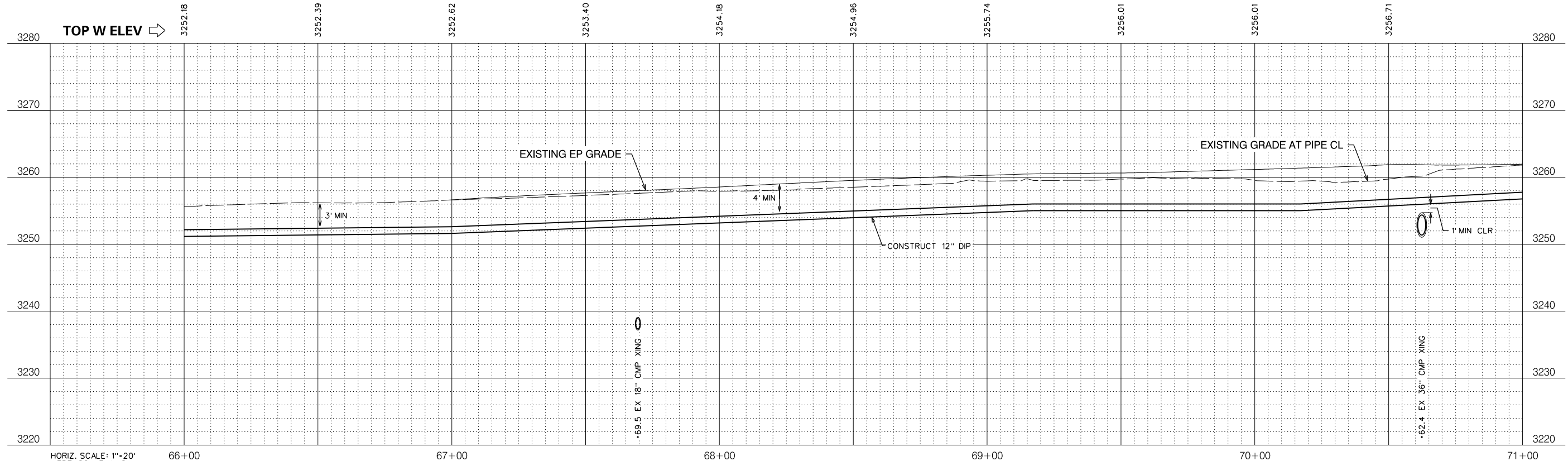
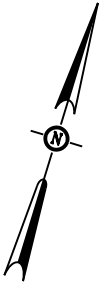
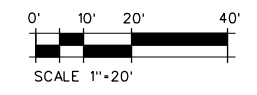


**STA 66+00 MATCH LINE
SEE PREVIOUS SHEET**

**STA 71+00 MATCH LINE
SEE NEXT SHEET**



NOTE:
VERIFY LOCATION OF EXISTING FOREST MEADOWS AREA UNDERGROUND UTILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS



NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

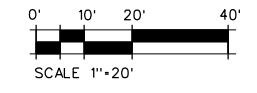
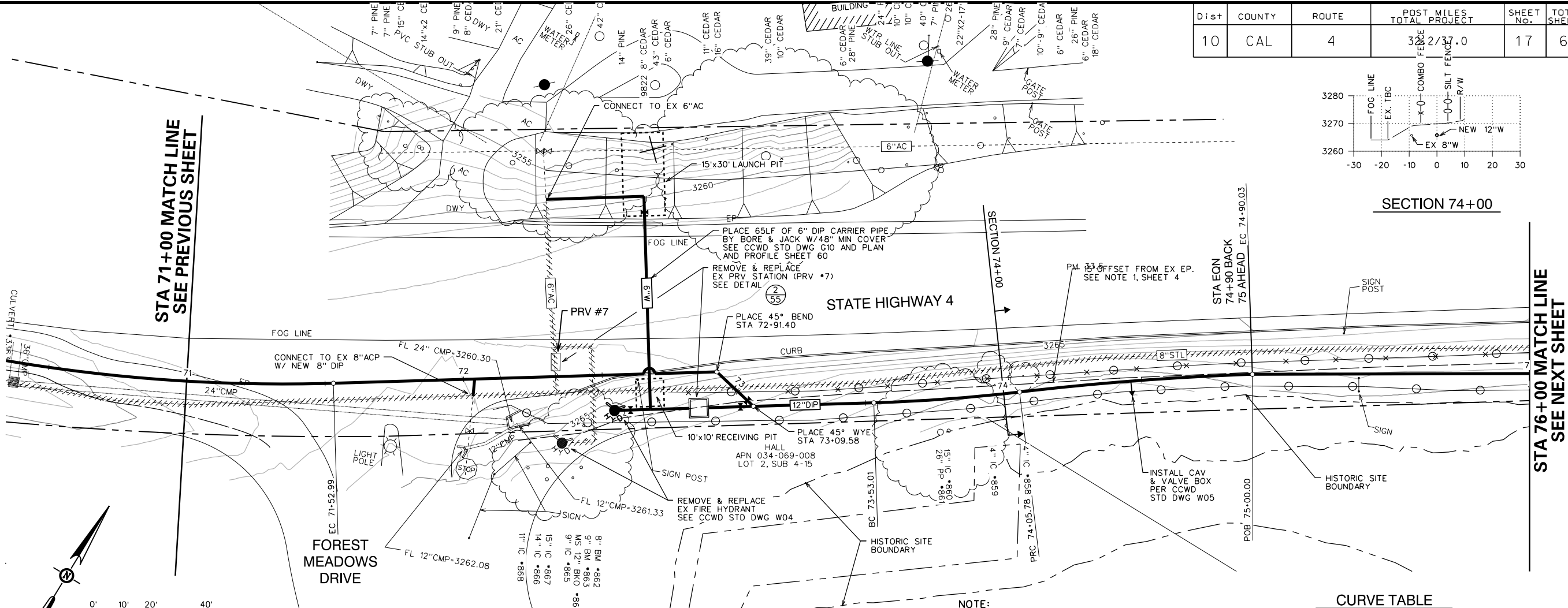
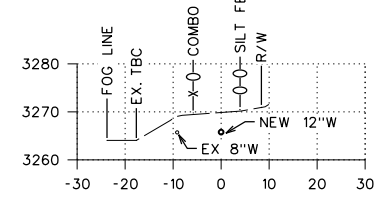
RELEASE 10
OCT 2018

IMPROVEMENT PLANS FOR CONSTRUCTION OF
**EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085**
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 13

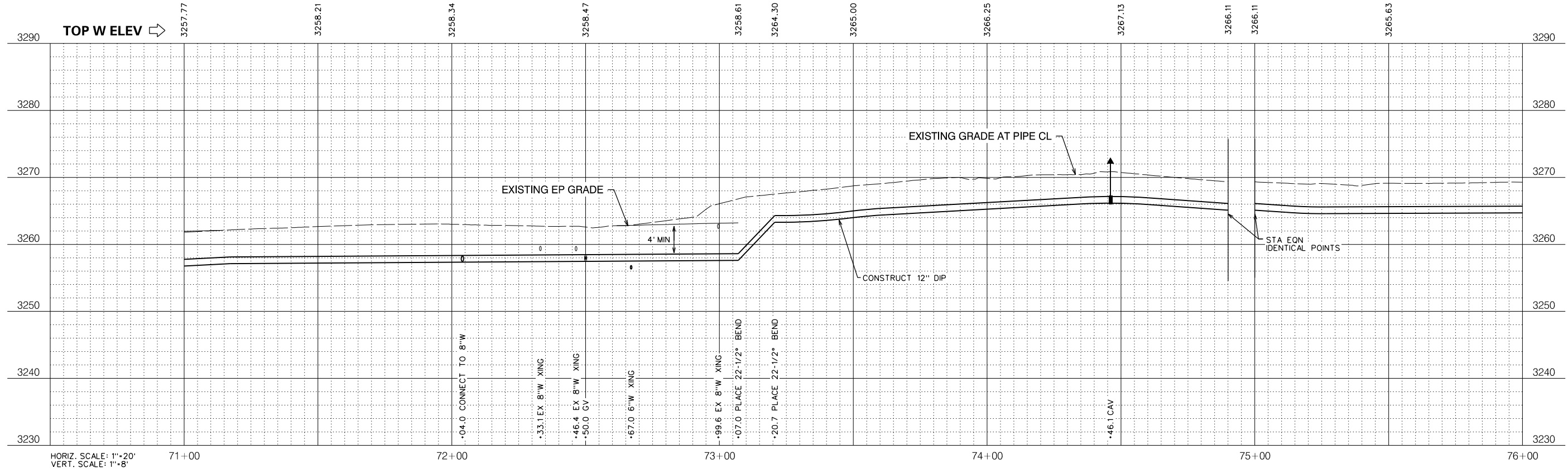
FILE: S:\1330-24 Ebbetts Pass Reach \Plans\16-PP 1A.dgn
DATE: 10/17/2018

Dis+	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	302/37.0	17	67



NOTE:
 VERIFY LOCATION OF EXISTING FOREST MEADOWS AREA UNDERGROUND UTILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

BC	EC	L	R	D	T
73+53.01	74+05.78	52.77	600.00	5° 02' 22" LT	26.40
74+05.78	74+90.03	84.25	1000.00	4° 49' 38" RT	42.15



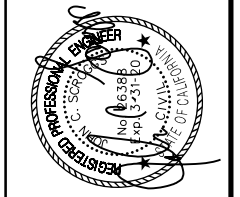
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 DATE: 10/17/2018

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
 JOB NO.: 1330-24

RELEASE 10
 OCT 2018



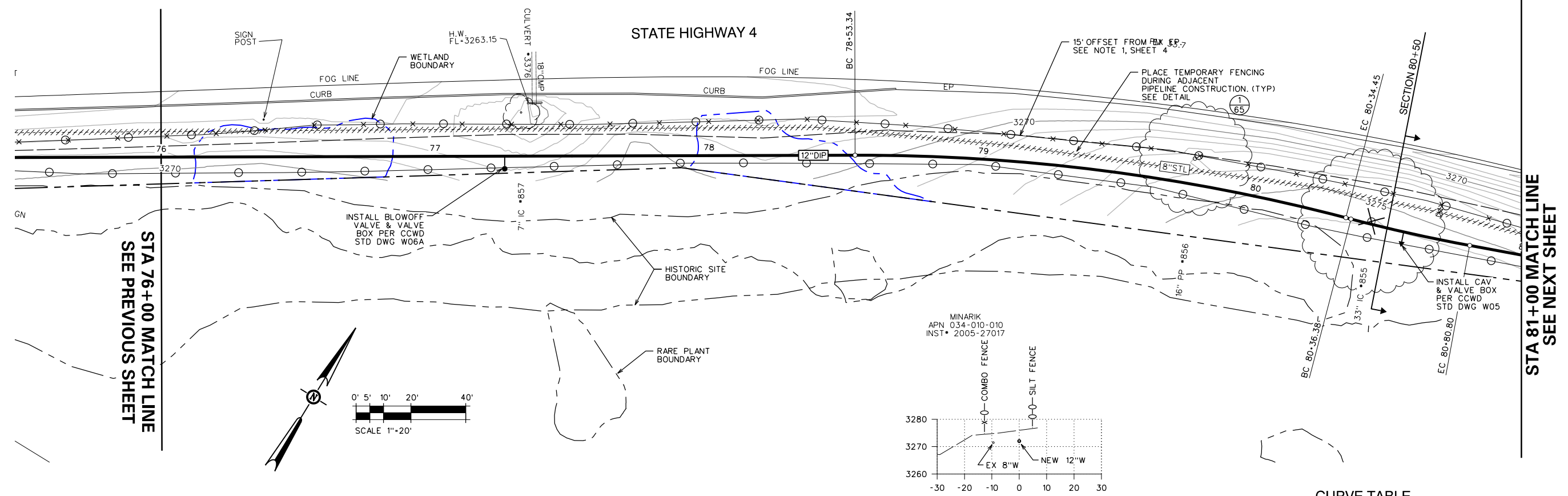
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 14



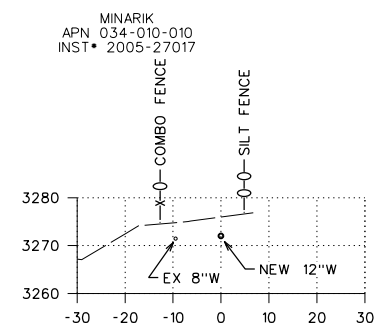
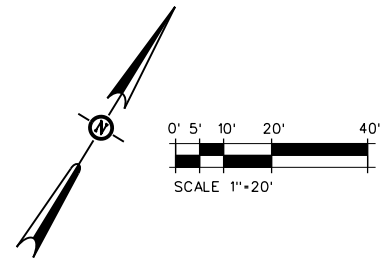
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	18	67

NO.	REVISIONS DESCRIPTION	DATE	BY



STA 76+00 MATCH LINE
SEE PREVIOUS SHEET

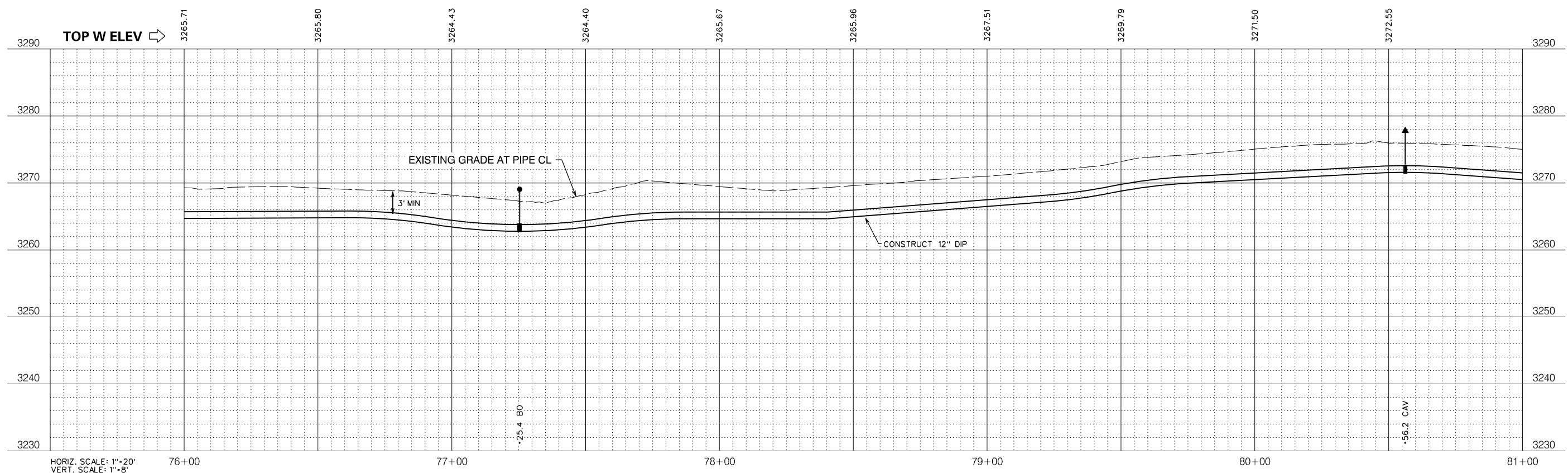
STA 81+00 MATCH LINE
SEE NEXT SHEET



SECTION 80+50

CURVE TABLE

BC	EC	L	R	D	T
78+53.34	80+34.45	181.11	700.00	14° 49' 26" RT	91.06
80+36.38	80+80.80	44.42	600.00	4° 14' 31" LT	22.22

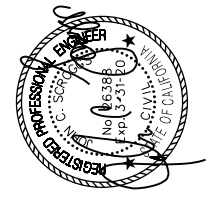


HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



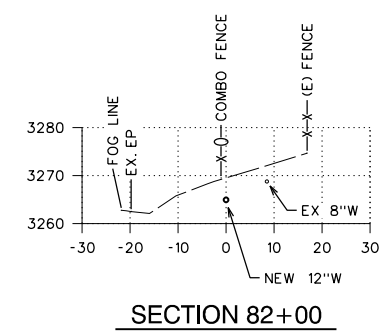
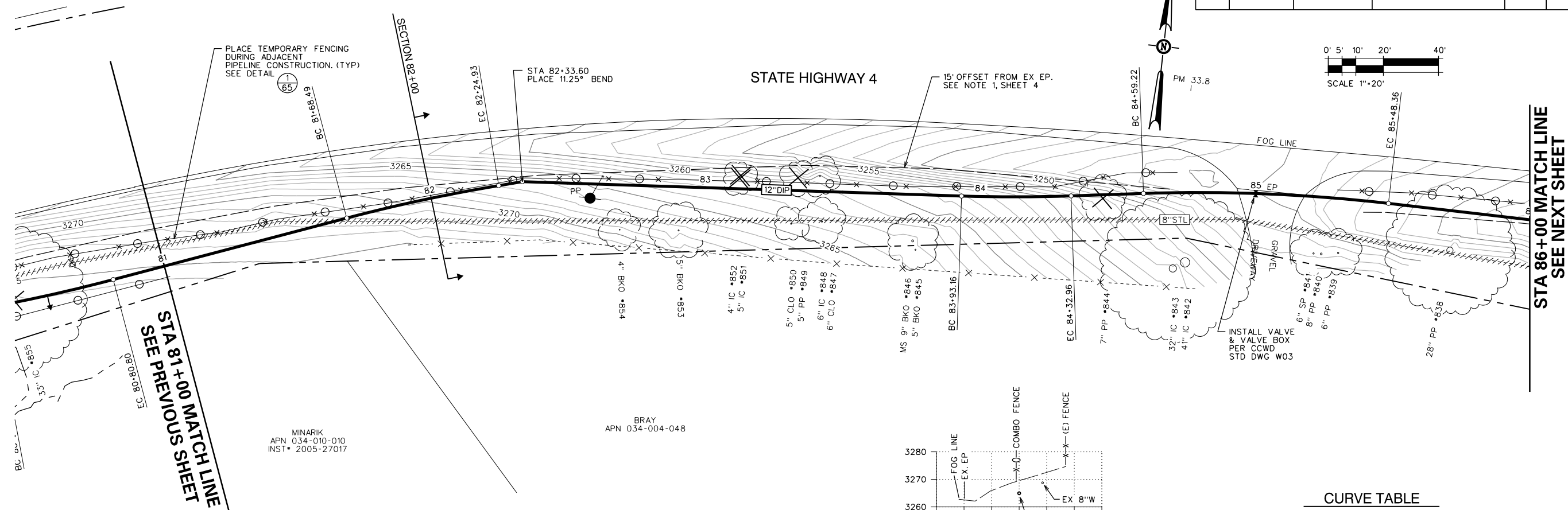
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 15

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\15-PP 1B.dgn
DATE: 10/17/2018

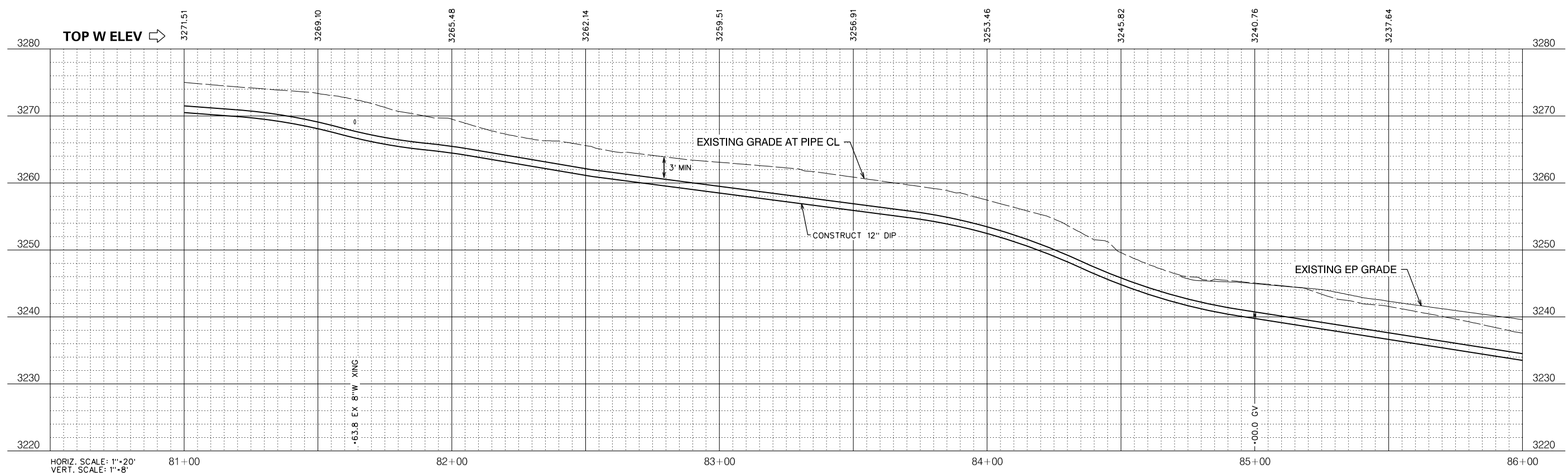
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	19	67

NO.	REVISIONS	DATE	BY



CURVE TABLE

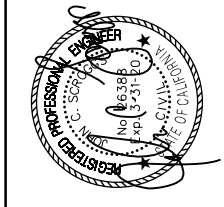
BC	EC	L	R	D	T
81+68.49	82+24.93	56.44	600.00	5° 23' 21" RT	28.24
83+93.16	84+32.96	39.81	600.00	3° 48' 04" LT	19.91
84+59.22	85+48.36	89.14	600.00	8° 30' 44" RT	44.65



BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



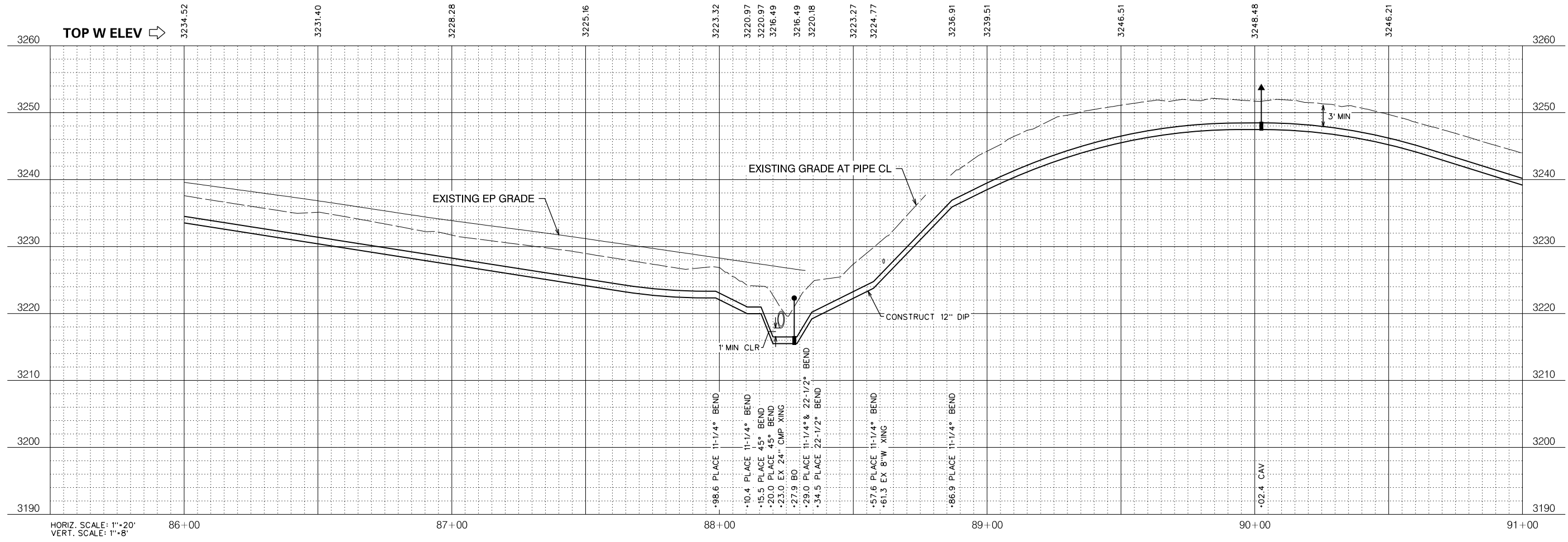
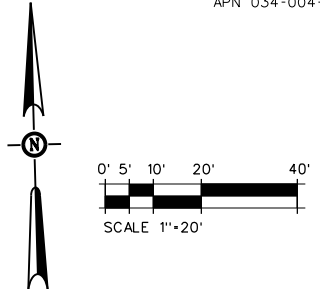
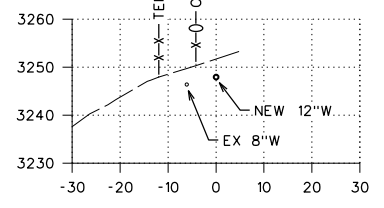
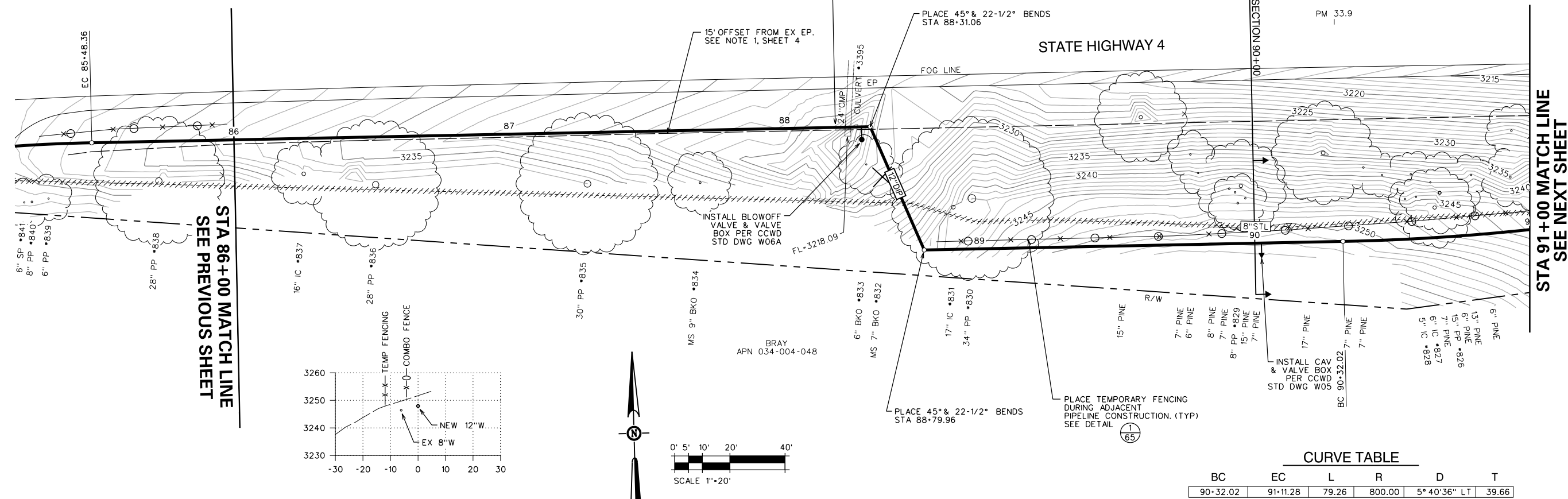
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 16

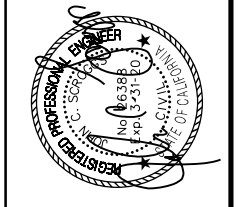
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DATE: 10/17/2018



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	20	67



NO.	REVISIONS DESCRIPTION	DATE	BY



BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018

IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 17

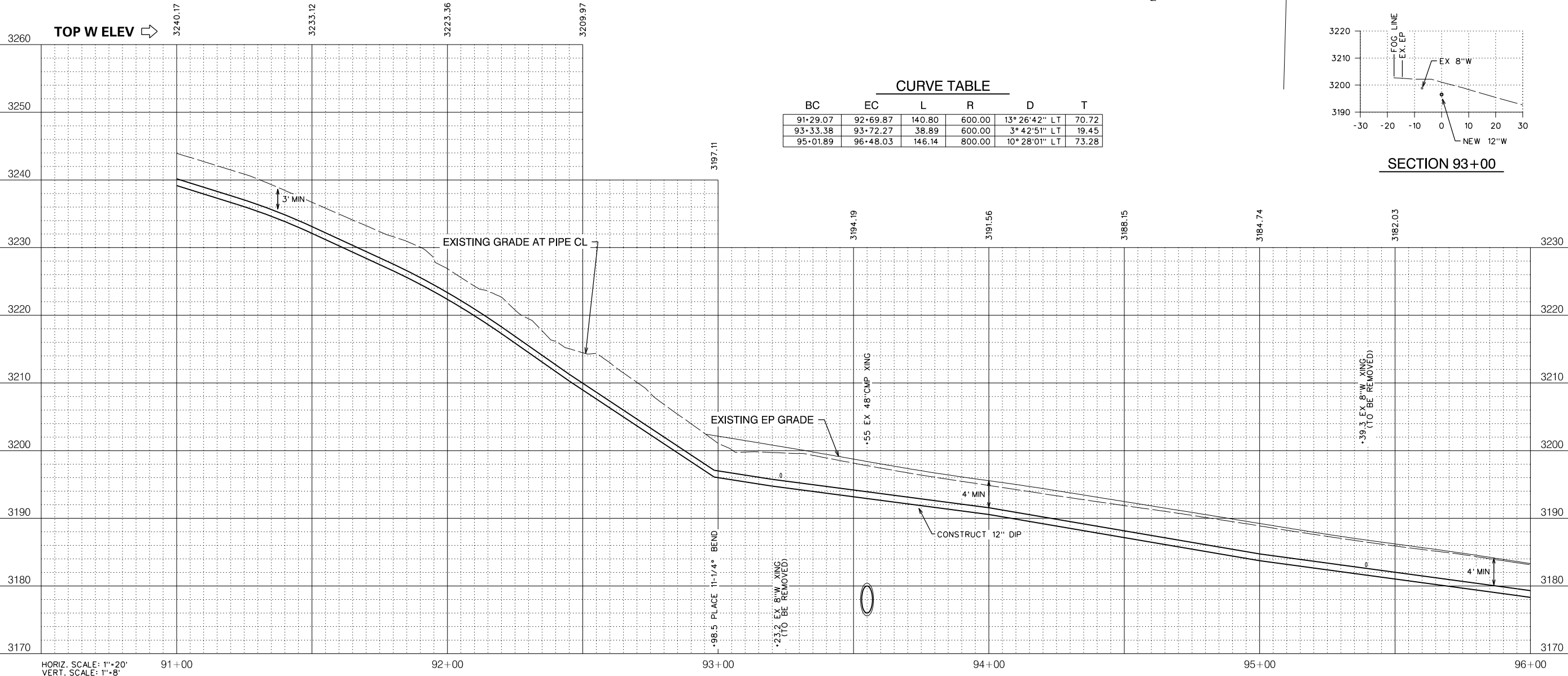
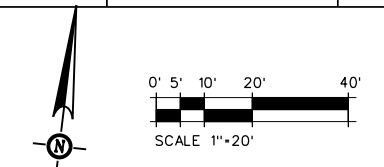
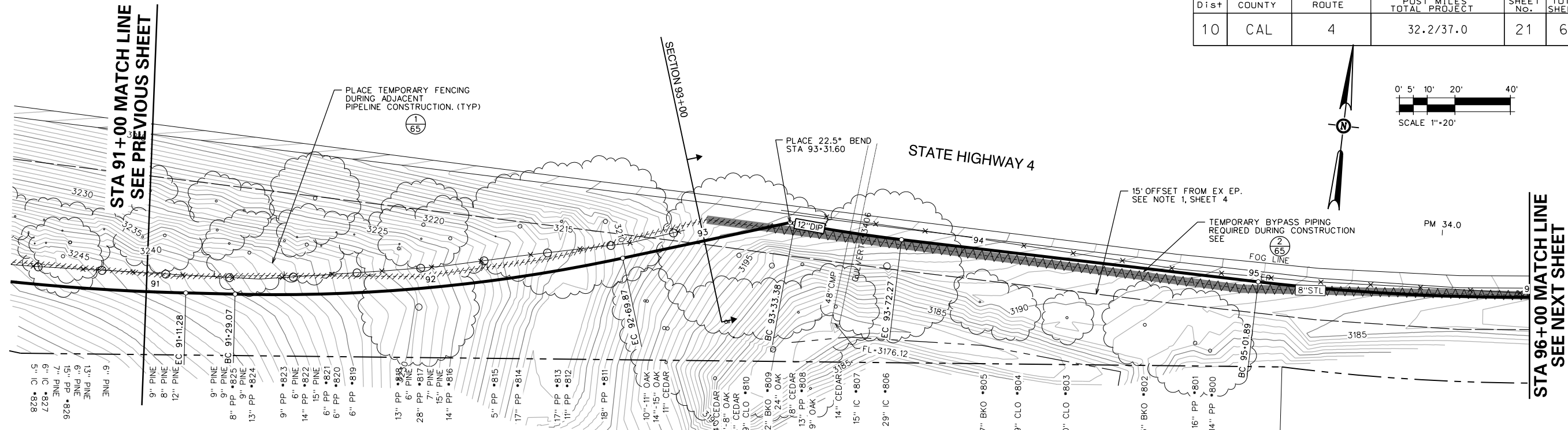
SHEET 20 OF 67

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\20-PP 1B.dgn
DATE: 10/17/2018

KASL CONSULTING ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	21	67

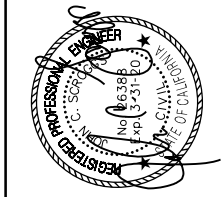
NO.	REVISIONS DESCRIPTION	DATE	BY



BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



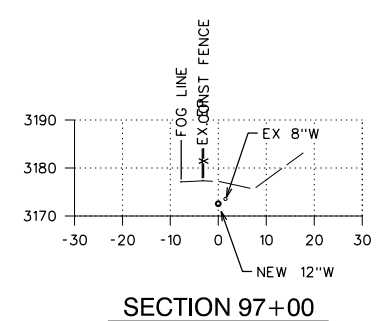
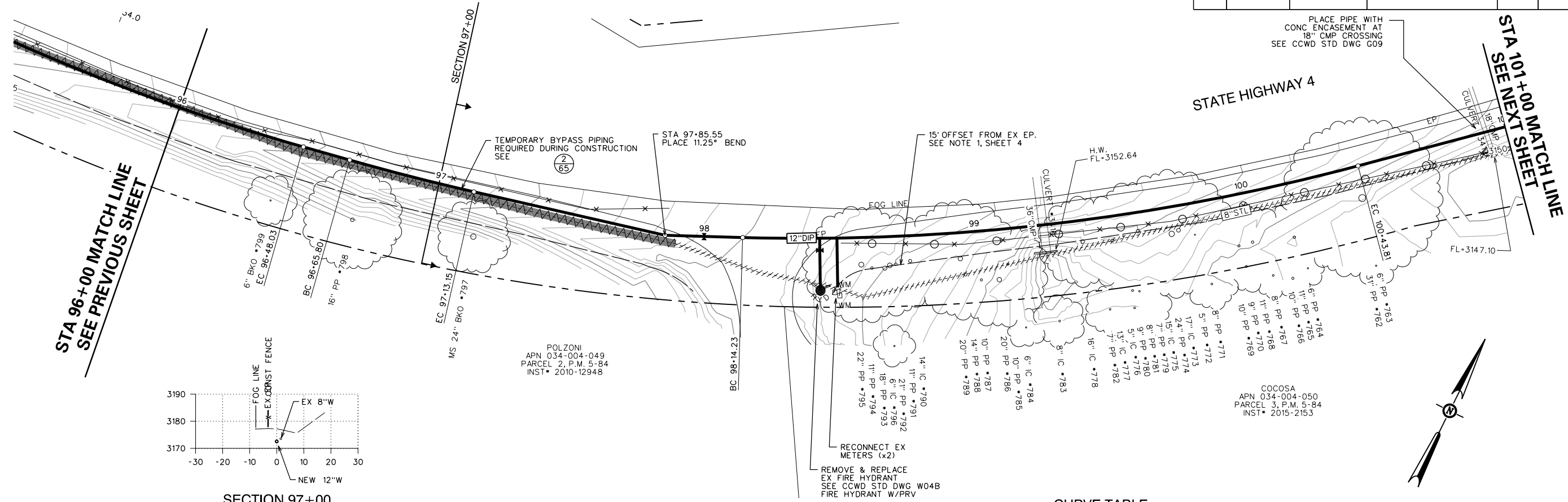
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 18



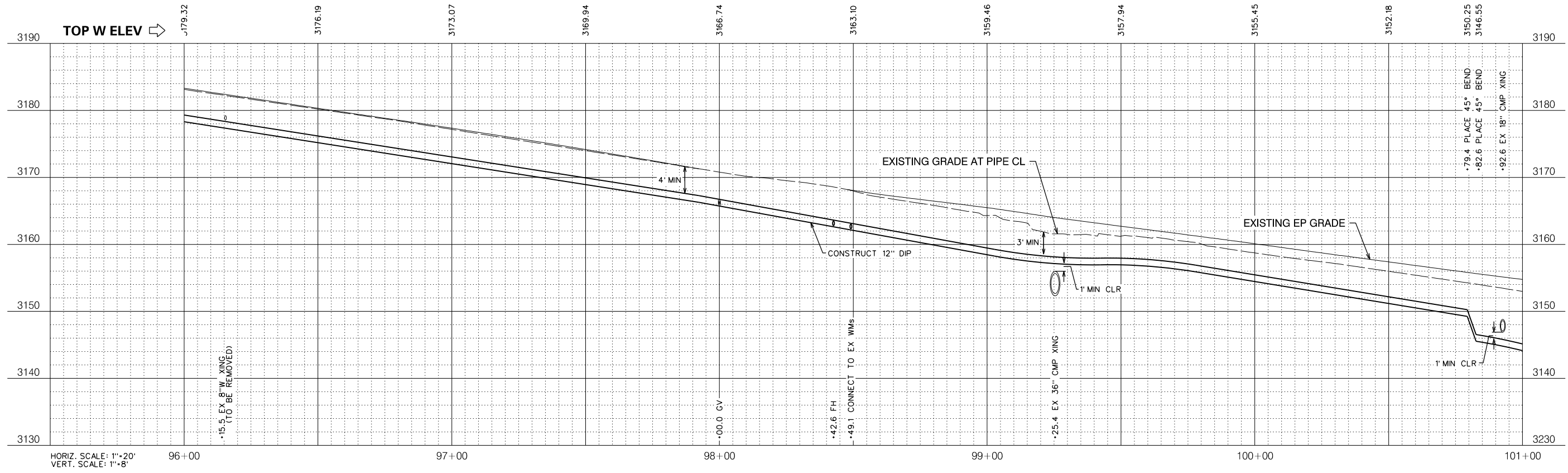
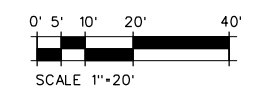
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	22	67



CURVE TABLE

BC	EC	L	R	D	T
96-65.80	97-13.15	47.35	900.00	3° 00' 53" LT	23.68
98-14.23	100+43.81	229.58	800.00	16° 26' 33" LT	115.58



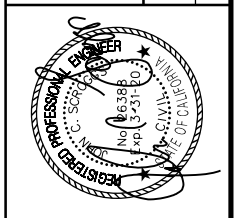
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 19

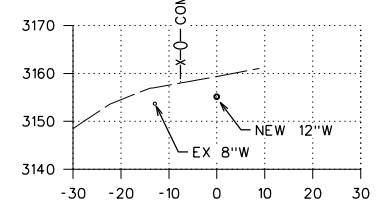
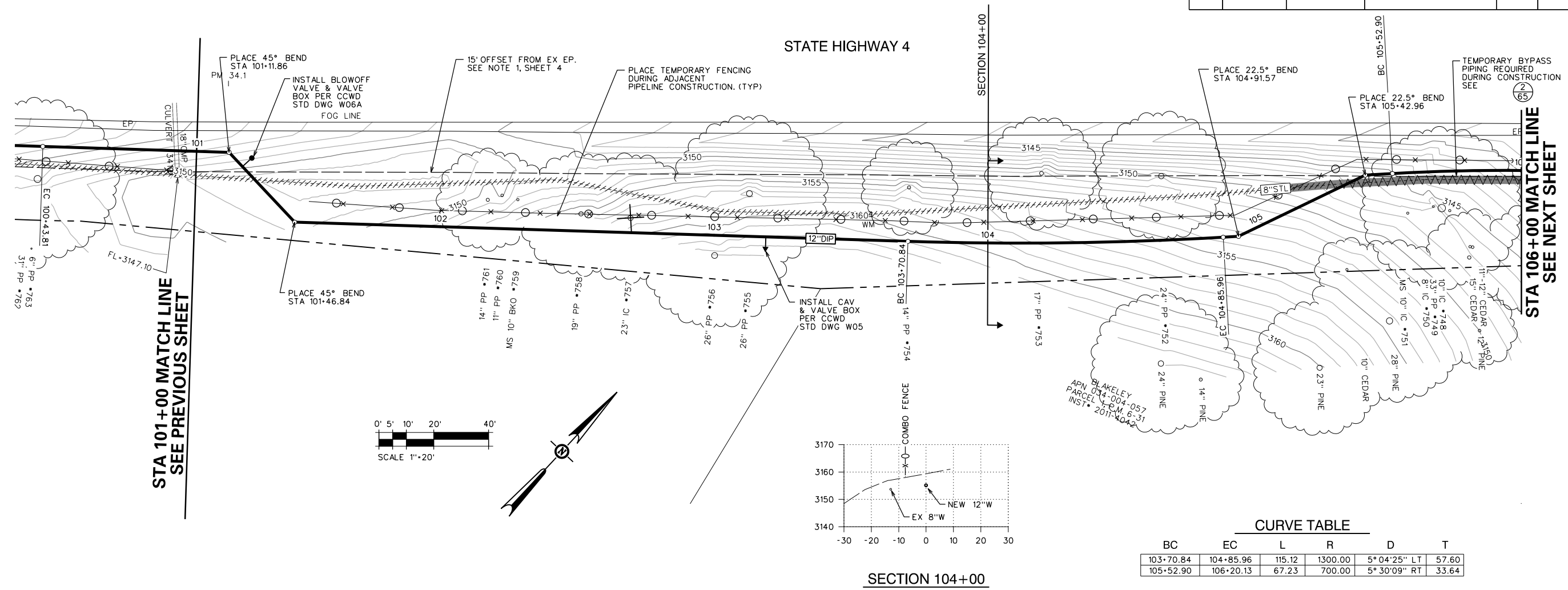
CONSULTING
KASL
ENGINEERS
CIVIL - WATER RESOURCES - SURVEYING

7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595

SHEET **22** OF **67**

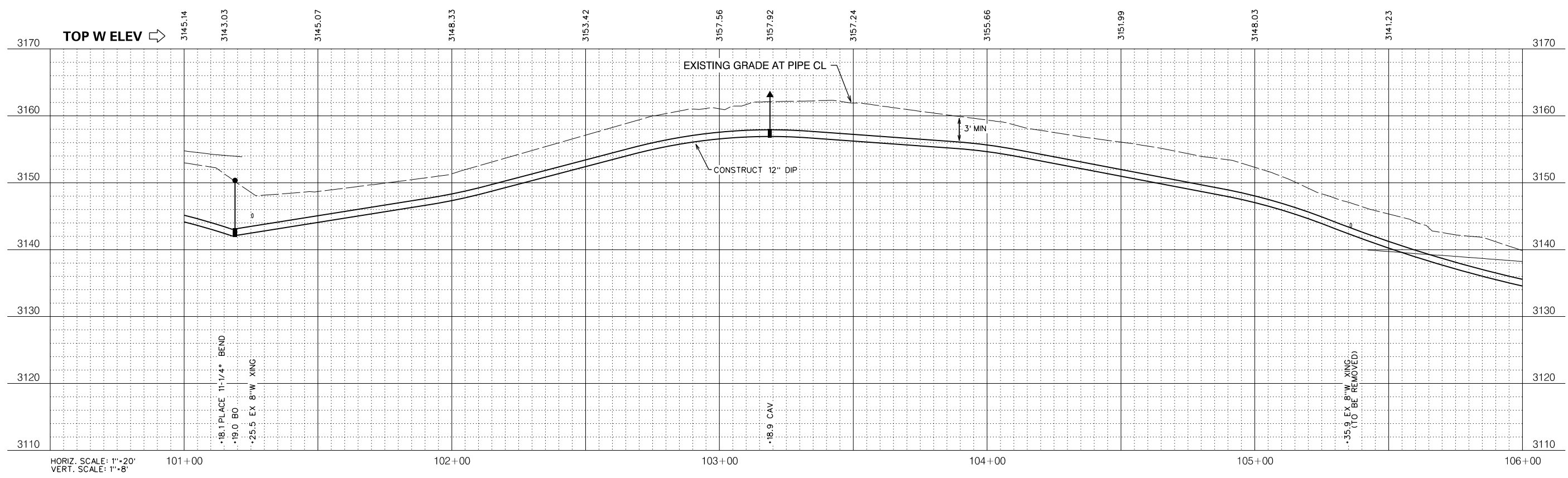
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DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	23	67



CURVE TABLE

BC	EC	L	R	D	T
103+70.84	104+85.96	115.12	1300.00	5° 04' 25" LT	57.60
105+52.90	106+20.13	67.23	700.00	5° 30' 09" RT	33.64



BY	DATE	
	REVISIONS	
NO.	DESCRIPTION	
	BID SET	
SCALE: AS SHOWN		RELEASE 10
JOB NO. 1330-24		OCT 2018

IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 20

7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595

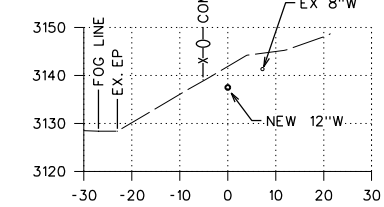
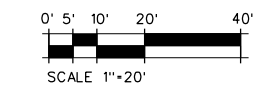
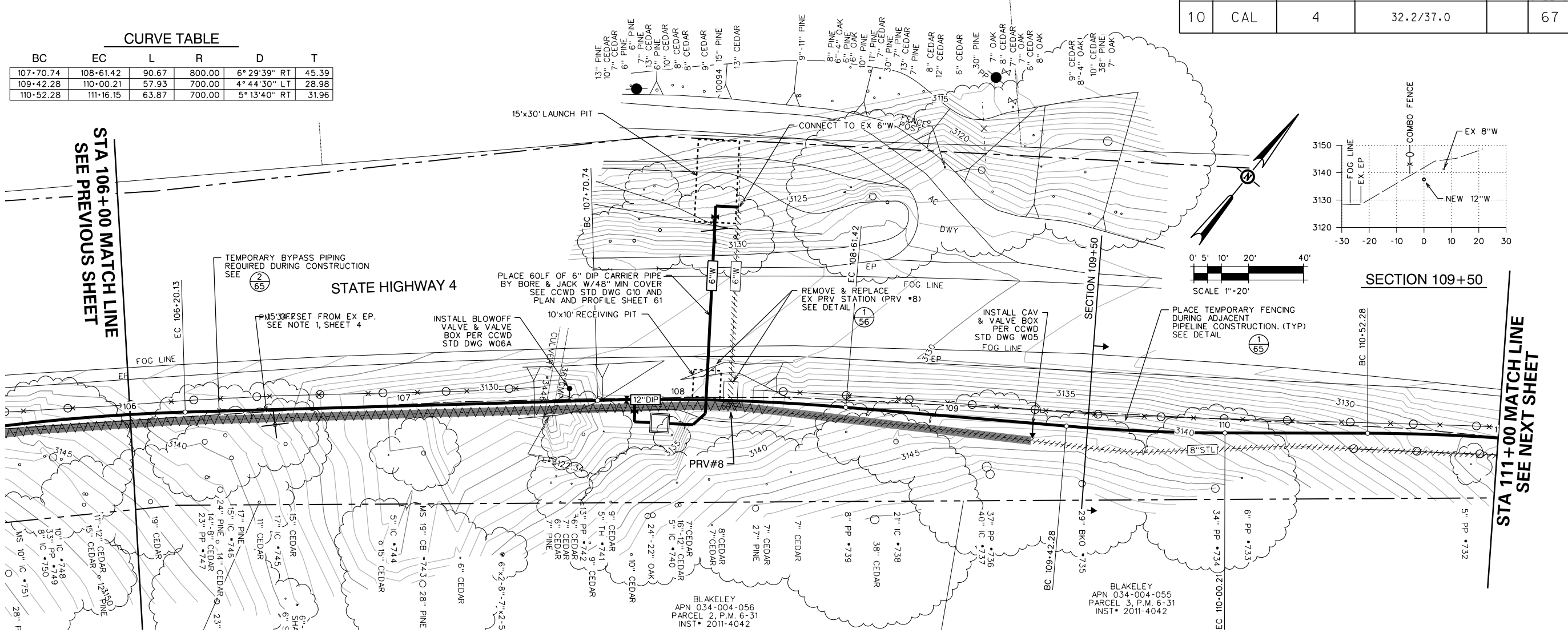
SHEET **23** OF **67**

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\23-PP 1B.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0		67

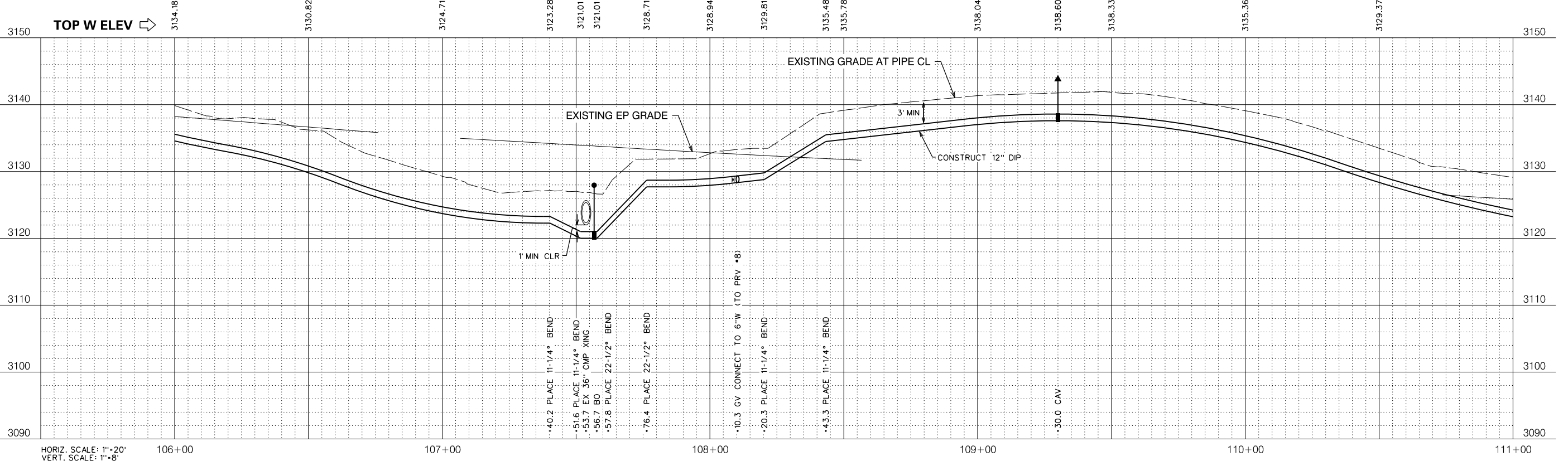
BC	EC	L	R	D	T
107+70.74	108+61.42	90.67	800.00	6° 29' 39" RT	45.39
109+42.28	110+00.21	57.93	700.00	4° 44' 30" LT	28.98
110+52.28	111+16.15	63.87	700.00	5° 13' 40" RT	31.96

STA 106+00 MATCH LINE
SEE PREVIOUS SHEET



SECTION 109+50

STA 111+00 MATCH LINE
SEE NEXT SHEET



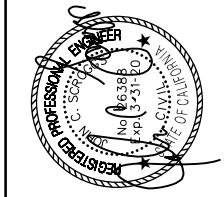
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VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 21

CONSULTING
KASL
ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595

SHEET 24 OF 67

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\24-PP 1B.dgn
DATE: 10/17/2018

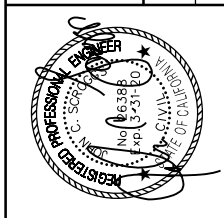
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	25	67

NO.	REVISIONS DESCRIPTION

BID SET

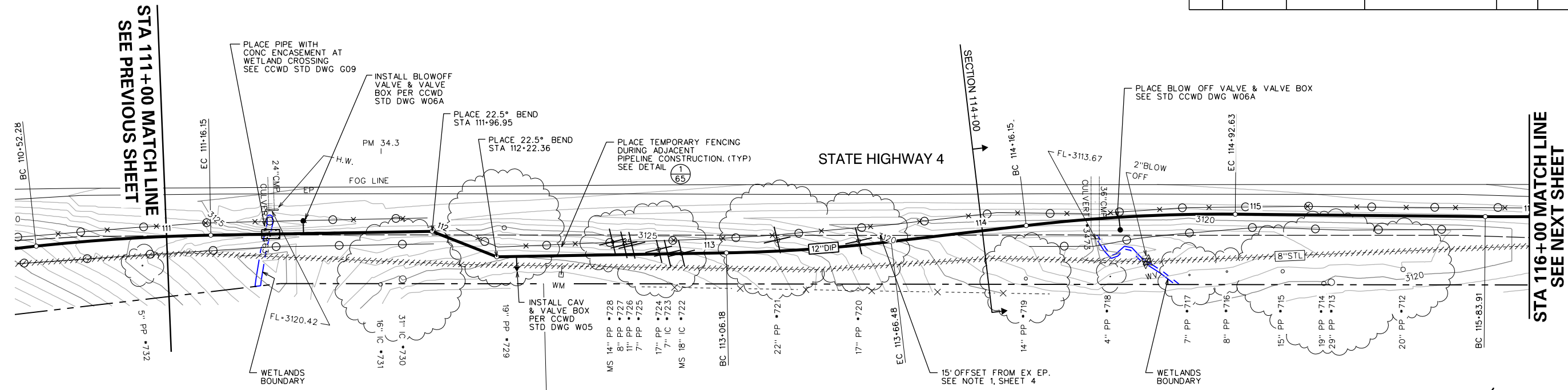
SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



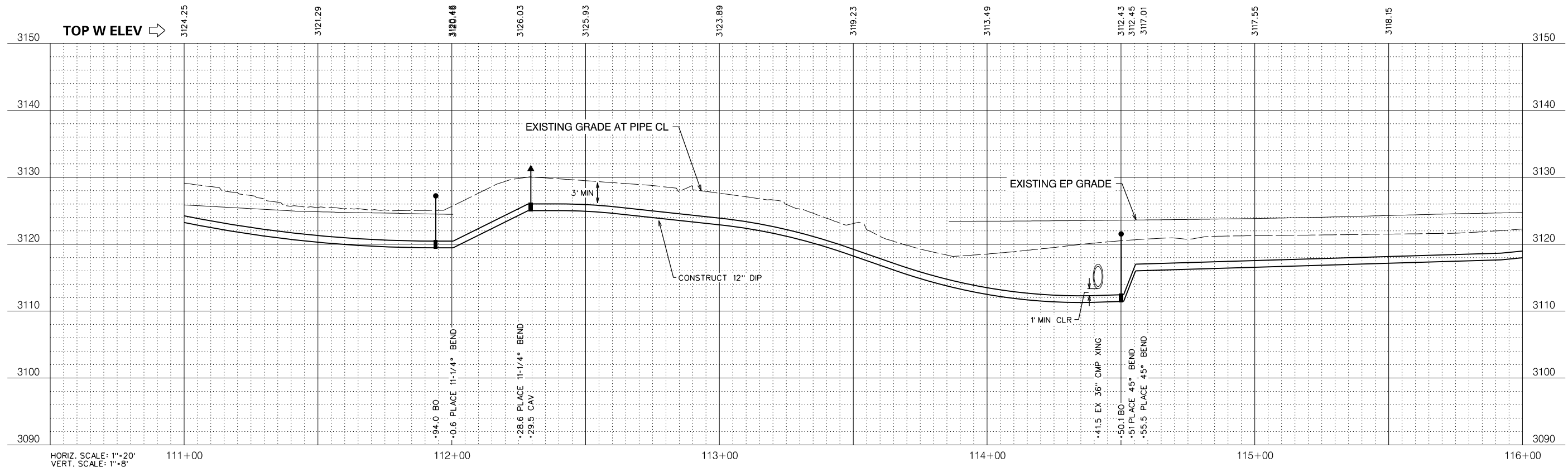
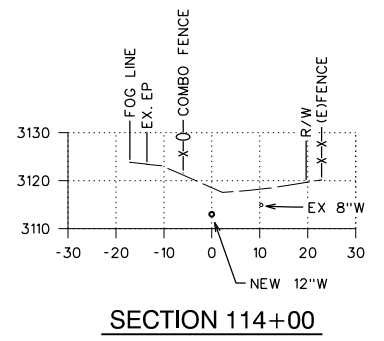
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 22



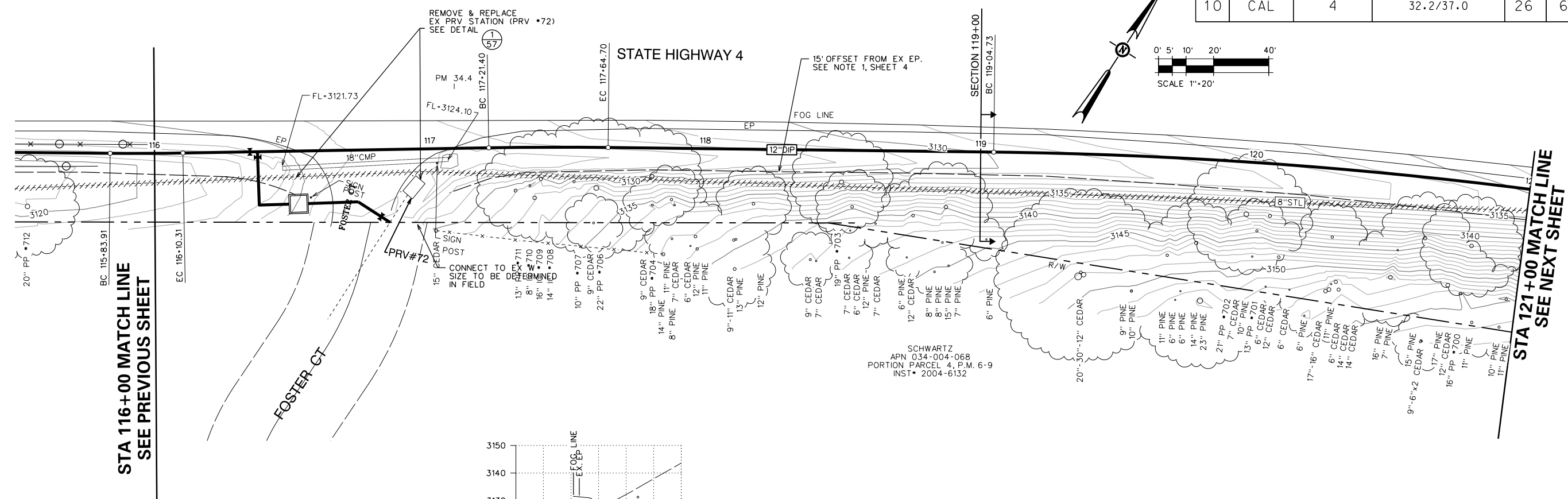
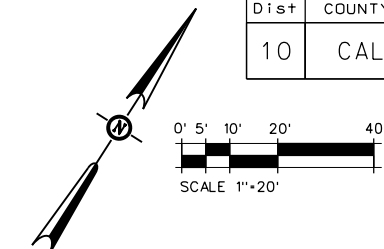
CURVE TABLE

BC	EC	L	R	D	T
113+06.18	113+66.48	60.31	600.00	5° 45' 32" LT	30.18
114+16.15	114+92.63	76.48	600.00	7° 18' 11" RT	38.29
115+83.91	116+10.31	26.40	1000.00	1° 30' 46" LT	13.20



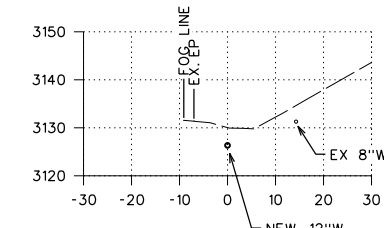
FILE: S:\1330-24 Ebbetts Pass Reach \Plans\25-PP 1B.dgn
DATE: 10/17/2018

Dis	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	26	67



STA 116+00 MATCH LINE
SEE PREVIOUS SHEET

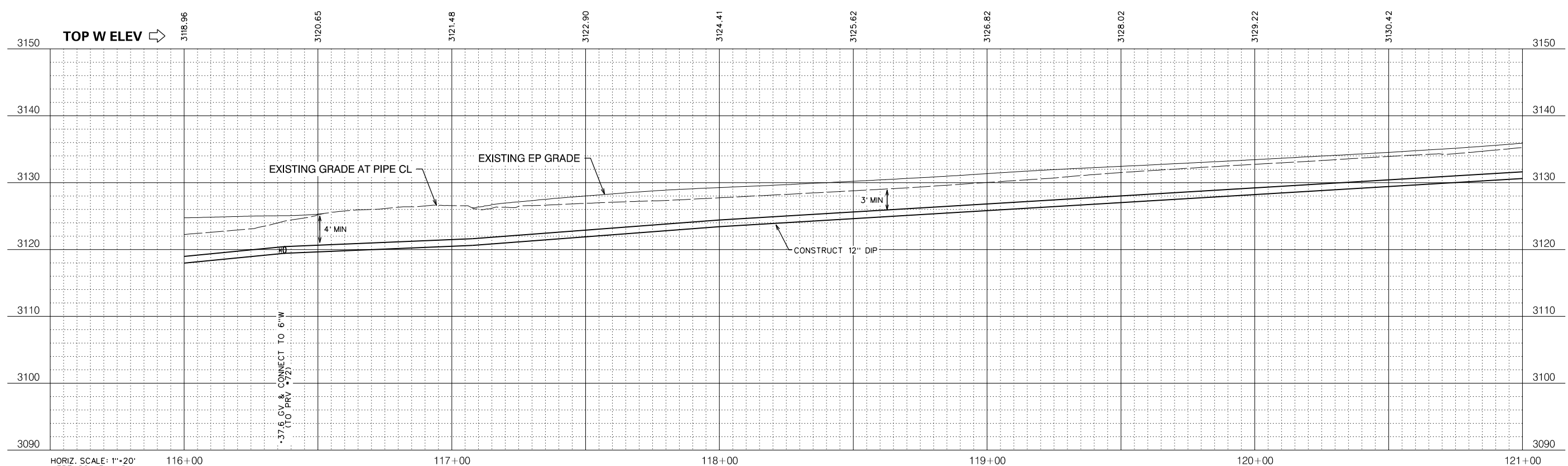
STA 121+00 MATCH LINE
SEE NEXT SHEET



SECTION 119+00

CURVE TABLE

BC	EC	L	R	D	T
117+21.40	117+64.70	43.30	1500.00	1° 39' 14" RT	21.65
119+04.73	122+02.38	297.65	1700.00	10° 01' 55" RT	149.21



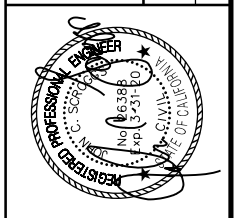
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 23

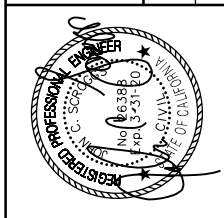


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DATE: 10/17/2018

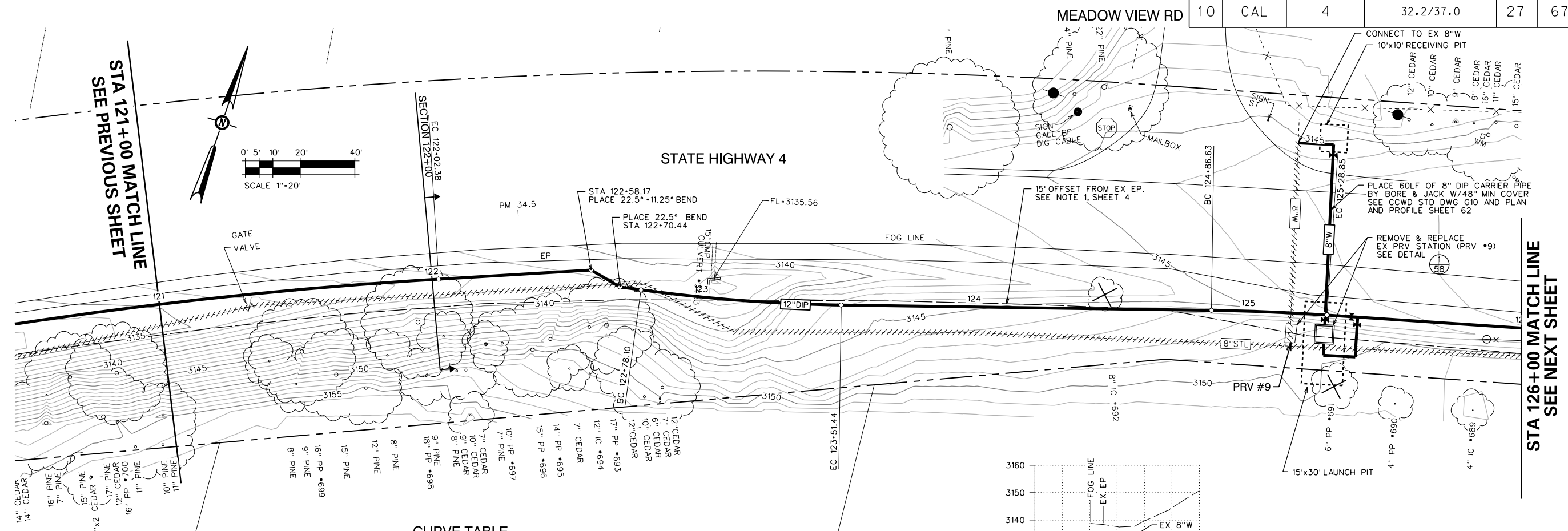
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	27	67

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET		SCALE: AS SHOWN	RELEASE 10
		JOB NO. 1330-24	OCT 2018

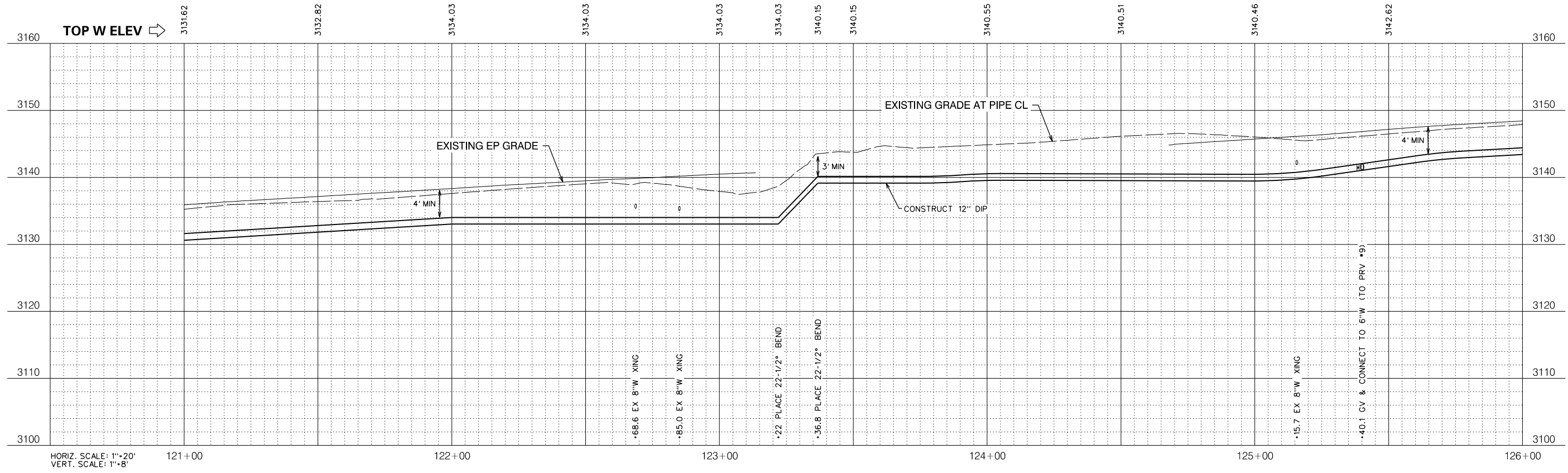
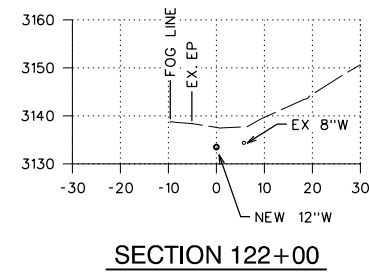


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA



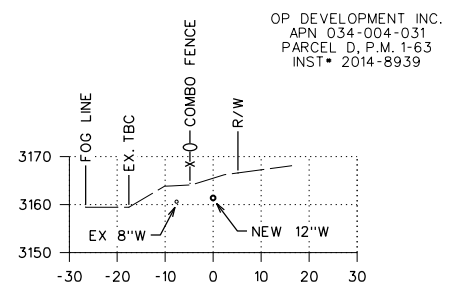
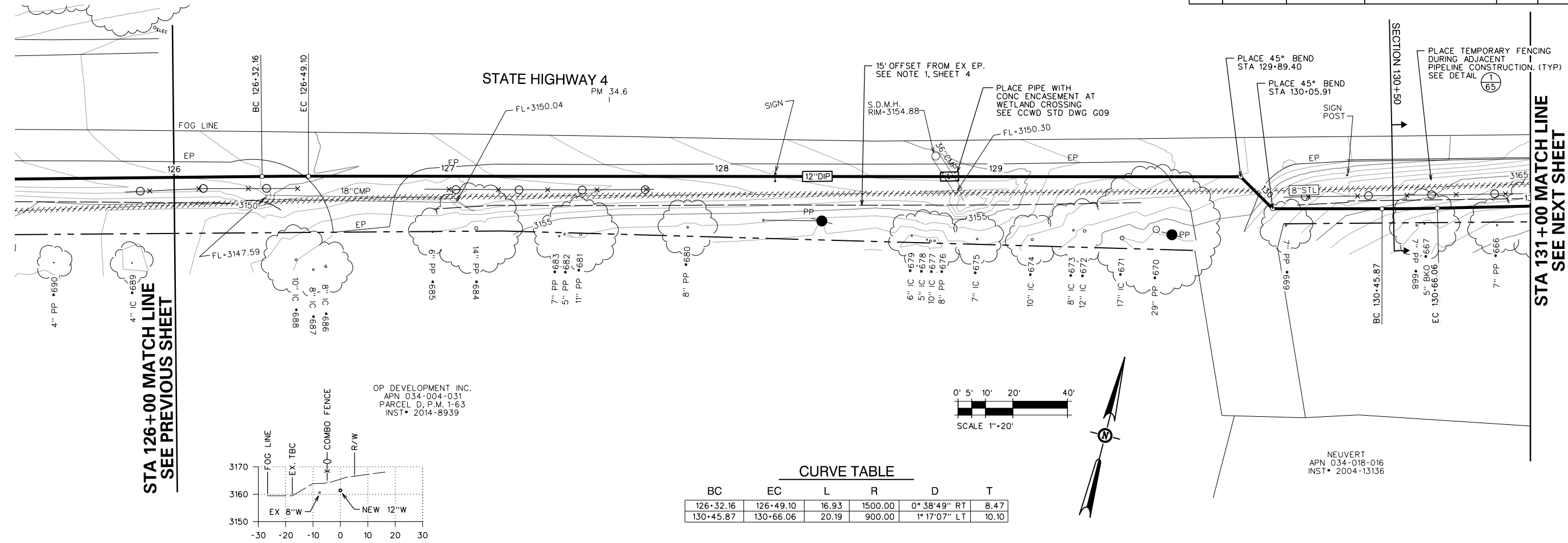
CURVE TABLE

BC	EC	L	R	D	T
122+78.10	123+51.44	73.34	600.00	7° 00' 11" LT	36.71
124+86.63	125+28.85	42.22	800.00	3° 01' 26" RT	21.12



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\27-PP 1B.dgn
 DATE: 10/17/2018

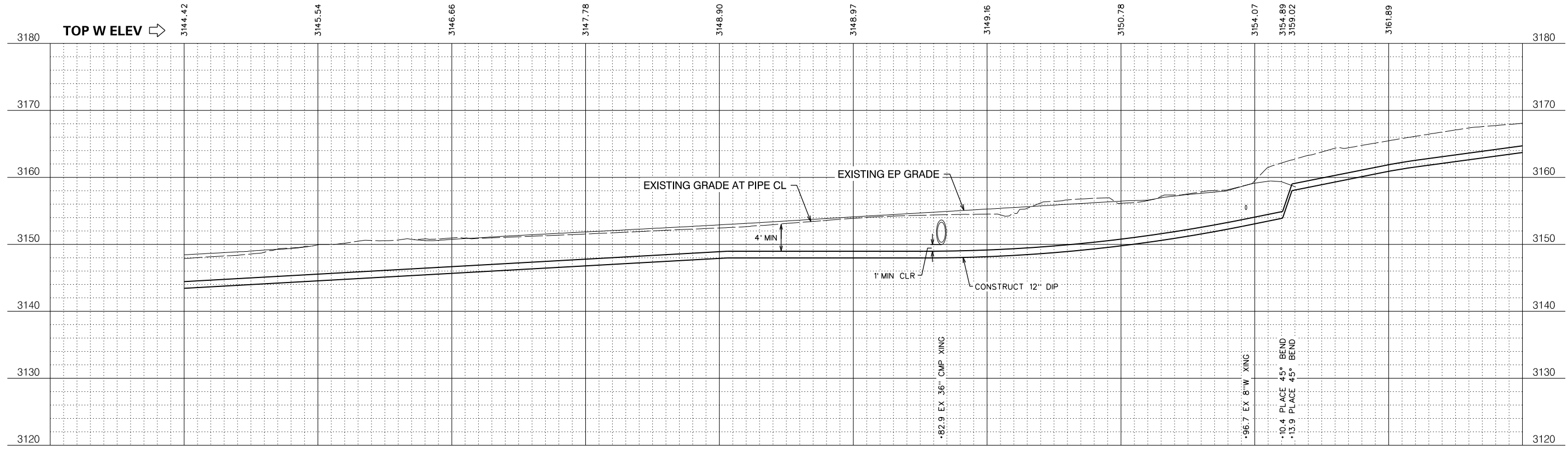
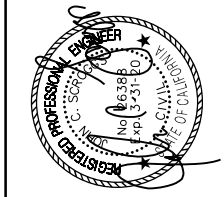
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	28	67



CURVE TABLE

BC	EC	L	R	D	T
126+32.16	126+49.10	16.93	1500.00	0° 38' 49" RT	8.47
130+45.87	130+66.06	20.19	900.00	1° 17' 07" LT	10.10

NO.	REVISIONS	DATE	BY
	DESCRIPTION		
BID SET		RELEASE 10 OCT 2018	
		SCALE: AS SHOWN	JOB NO. 1330-24



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 25

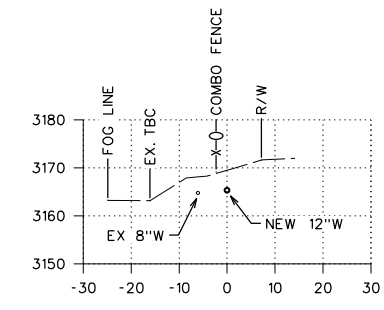
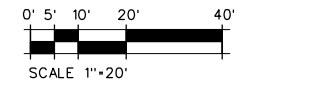
KASL ENGINEERS
 CONSULTING
 7777 Greenback Lane
 Suite 104
 Citrus Heights, CA 95610
 Tel. (916) 722-1800
 Fax (916) 722-4595

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\28-PP 1B-12B.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	29	67

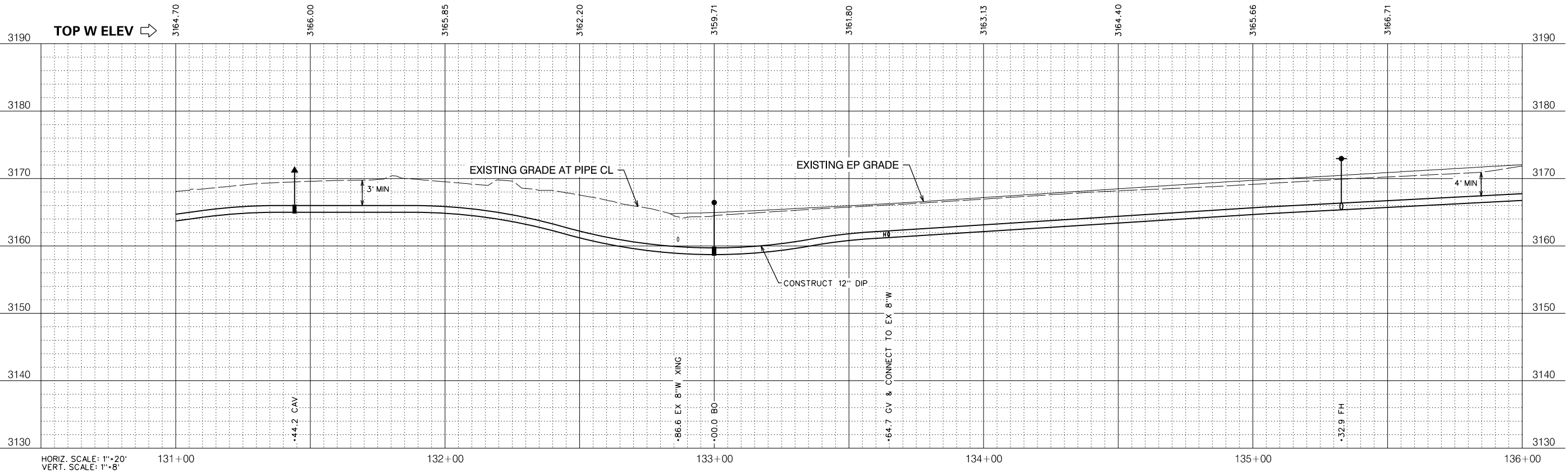
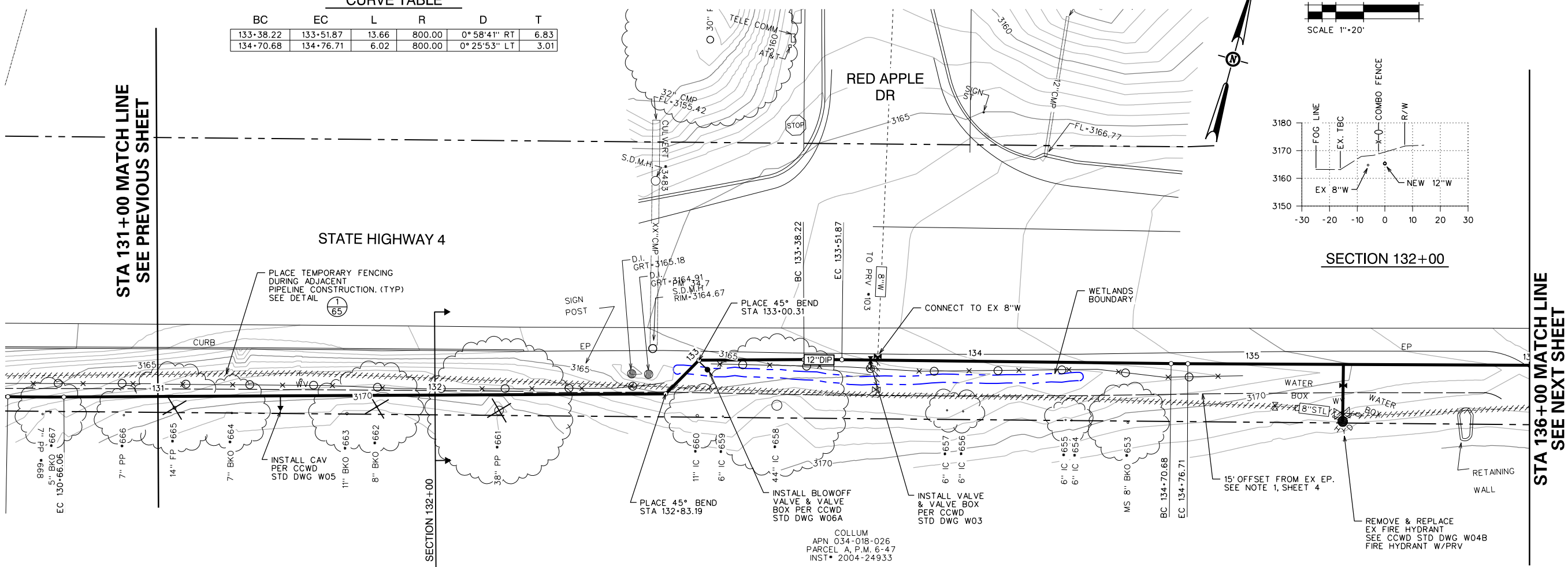
CURVE TABLE

BC	EC	L	R	D	T
133+38.22	133+51.87	13.66	800.00	0°58'41" RT	6.83
134+70.68	134+76.71	6.02	800.00	0°25'53" LT	3.01



STA 131+00 MATCH LINE
SEE PREVIOUS SHEET

STA 136+00 MATCH LINE
SEE NEXT SHEET



NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018

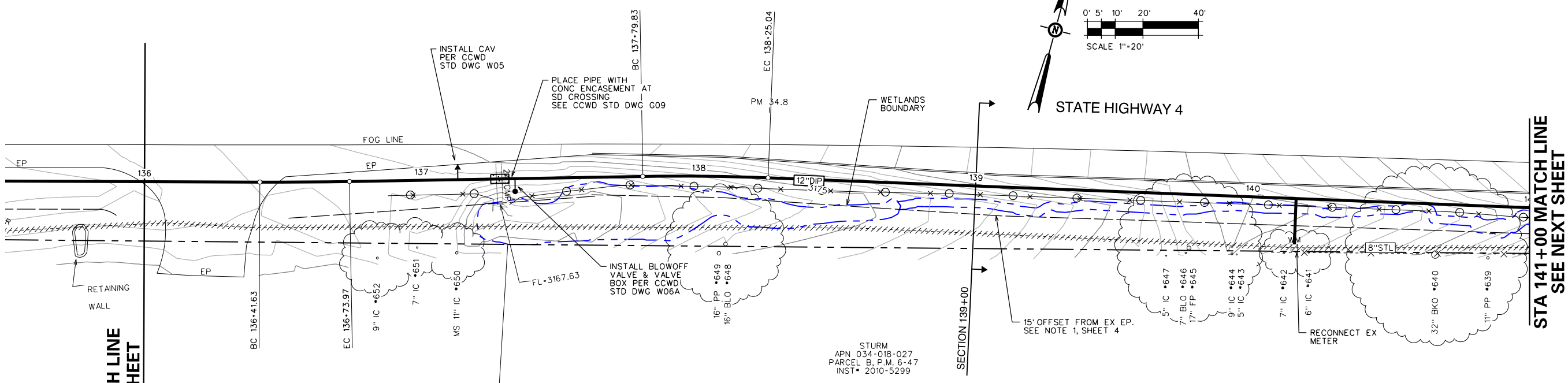
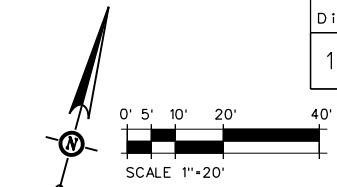
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 26

SHEET **29** OF **67**

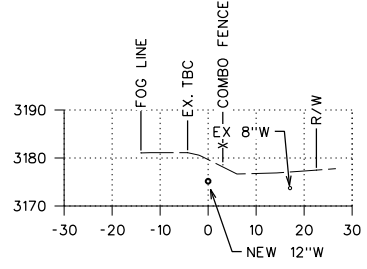
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DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	30	67



STA 136+00 MATCH LINE
SEE PREVIOUS SHEET

STA 141+00 MATCH LINE
SEE NEXT SHEET



SECTION 139+00

CURVE TABLE

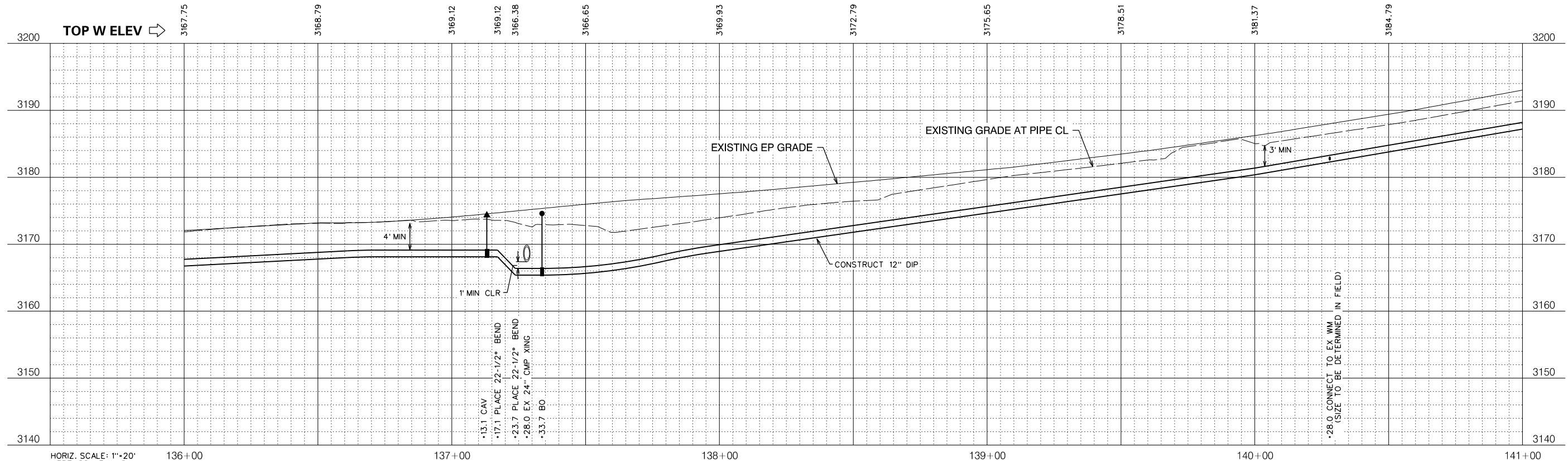
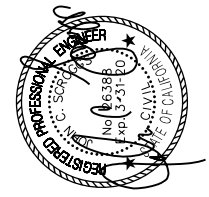
BC	EC	L	R	D	T
136+41.63	136+73.97	32.33	1500.00	1° 14' 06" LT	16.17
137+79.83	138+25.04	45.20	800.00	3° 14' 15" RT	22.61

STURM
APN 034-018-027
PARCEL B, P.M. 6-47
INST* 2010-5299

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24
RELEASE 10
OCT 2018



HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

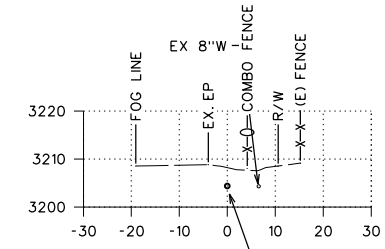
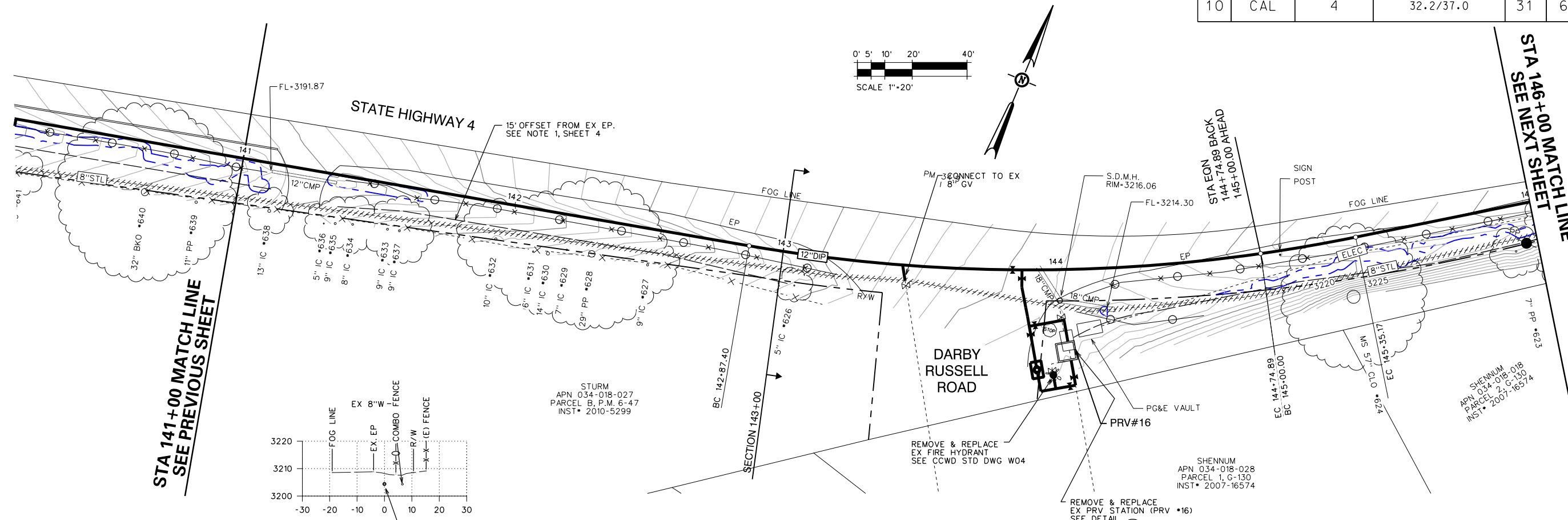
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
WATER MAIN PLAN AND PROFILE 27



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\30-PP 1B.dgn
DATE: 10/17/2018

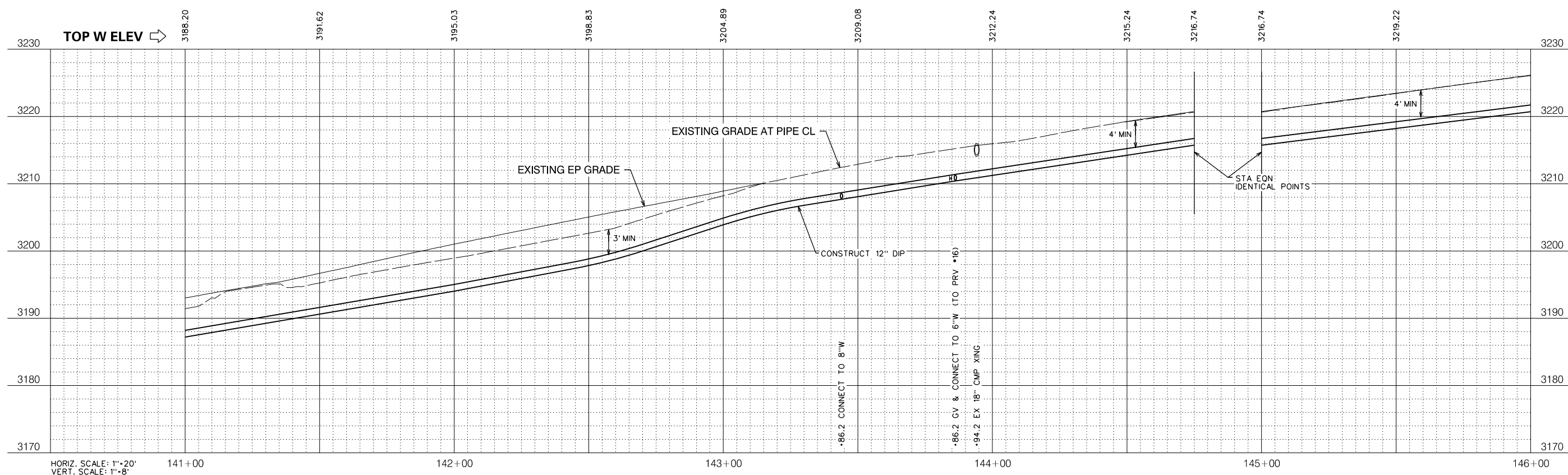
Dis+	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	31	67

NO.	REVISIONS	DATE	BY



CURVE TABLE

BC	EC	L	R	D	T
142+87.40	144+74.89	187.49	600.00	17° 54' 14" LT	94.51
145+00.00	145+35.17	35.17	600.00	3° 21' 31" LT	17.59



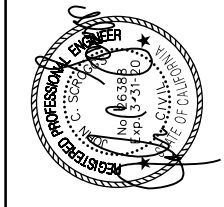
BID SET

SCALE: AS SHOWN

JOB NO. 1330-24

RELEASE 10

OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF

EBBETTS PASS WATER SYSTEM REACH 1

PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085

CALAVERAS COUNTY, CALIFORNIA

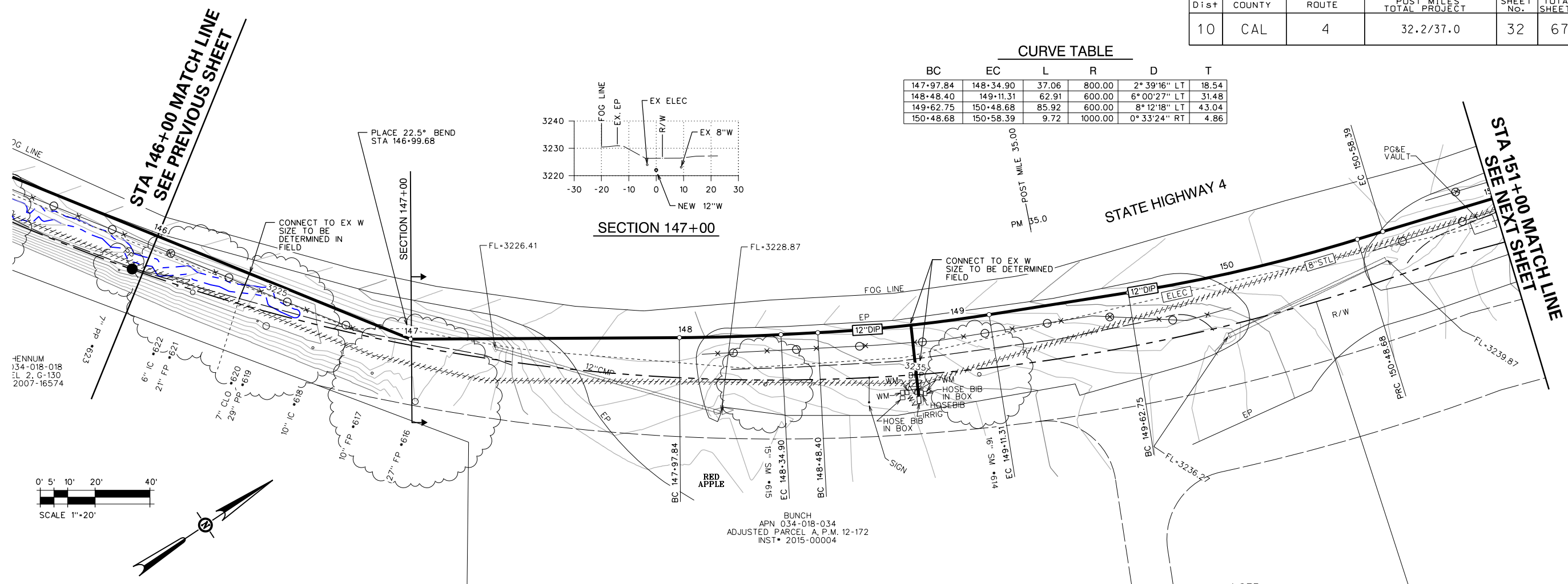
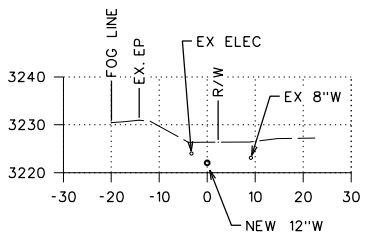
WATER MAIN PLAN AND PROFILE 28

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\31-PP 1B.dgn
DATE: 10/17/2018

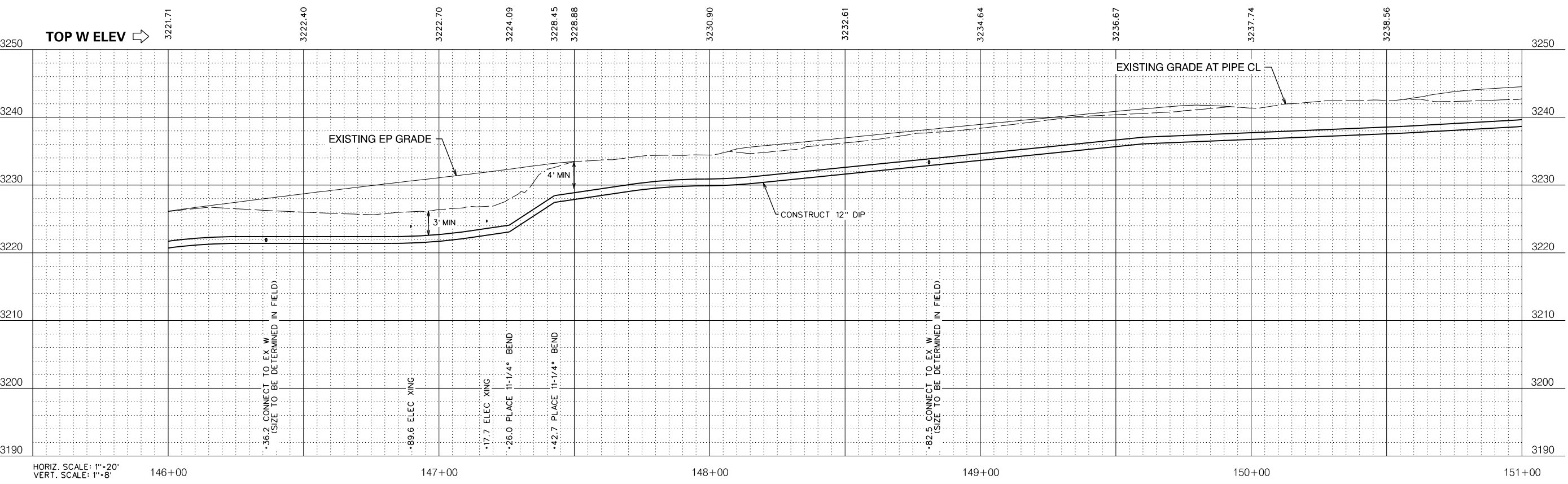
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	32	67

CURVE TABLE

BC	EC	L	R	D	T
147+97.84	148+34.90	37.06	800.00	2° 39' 16" LT	18.54
148+48.40	149+11.31	62.91	600.00	6° 00' 27" LT	31.48
149+62.75	150+48.68	85.92	600.00	8° 12' 18" LT	43.04
150+48.68	150+58.39	9.72	1000.00	0° 33' 24" RT	4.86



NOTE:
 VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

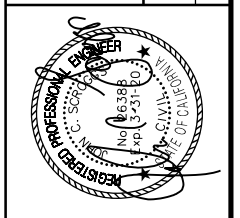


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
 JOB NO. 1330-24

RELEASE 10
 OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 29

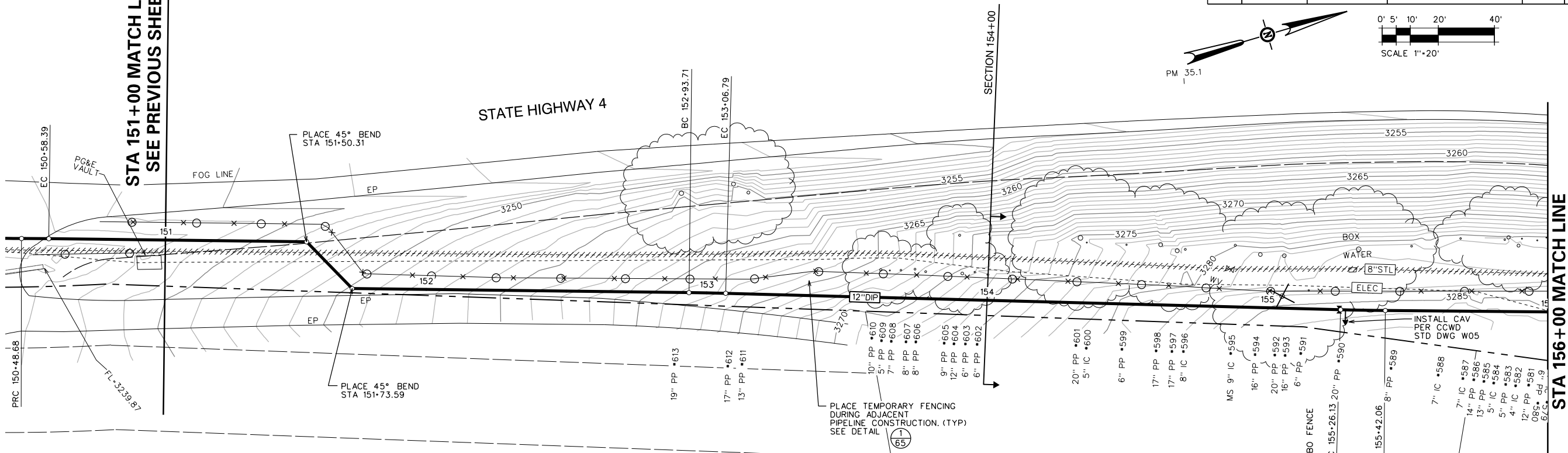
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 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	33	67



STA 151+00 MATCH LINE
SEE PREVIOUS SHEET

STA 156+00 MATCH LINE
SEE NEXT SHEET

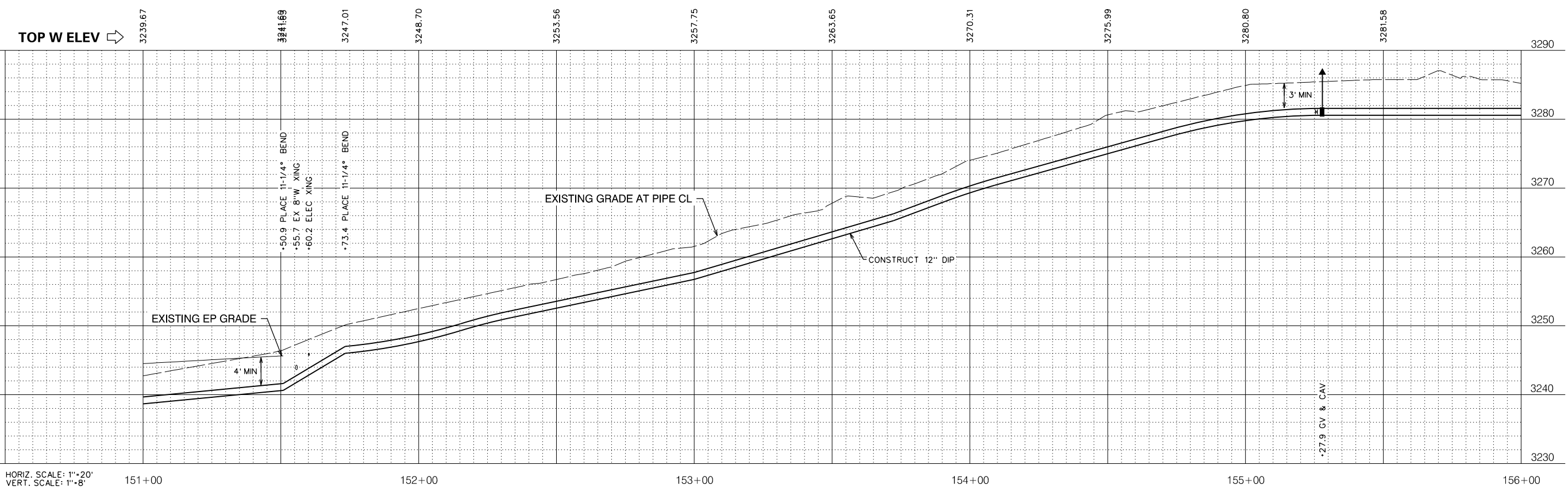
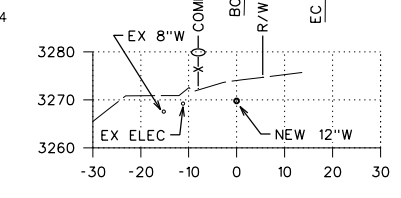


CURVE TABLE

BC	EC	L	R	D	T
152+93.71	153+06.79	13.08	900.00	0° 49' 57" RT	6.54
155+26.13	155+42.06	15.93	900.00	1° 00' 51" LT	7.97

NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

BUNCH
APN 034-018-032
PARCEL 2, P.M. 9-96
INST. 2015-00004

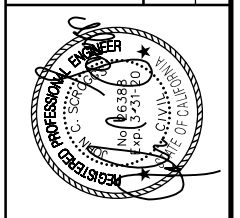


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 30

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\33-PP 1C.dgn
DATE: 10/17/2018

Dis+	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	35	67

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

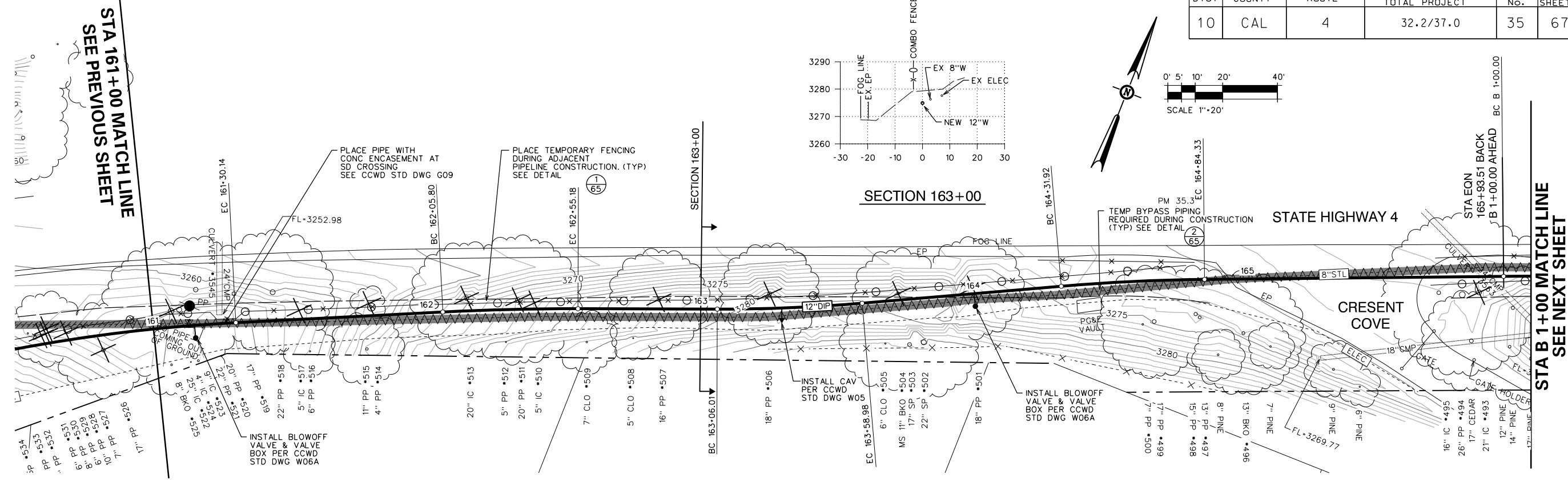
RELEASE 10
OCT 2018

IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 32

STA 161+00 MATCH LINE
SEE PREVIOUS SHEET

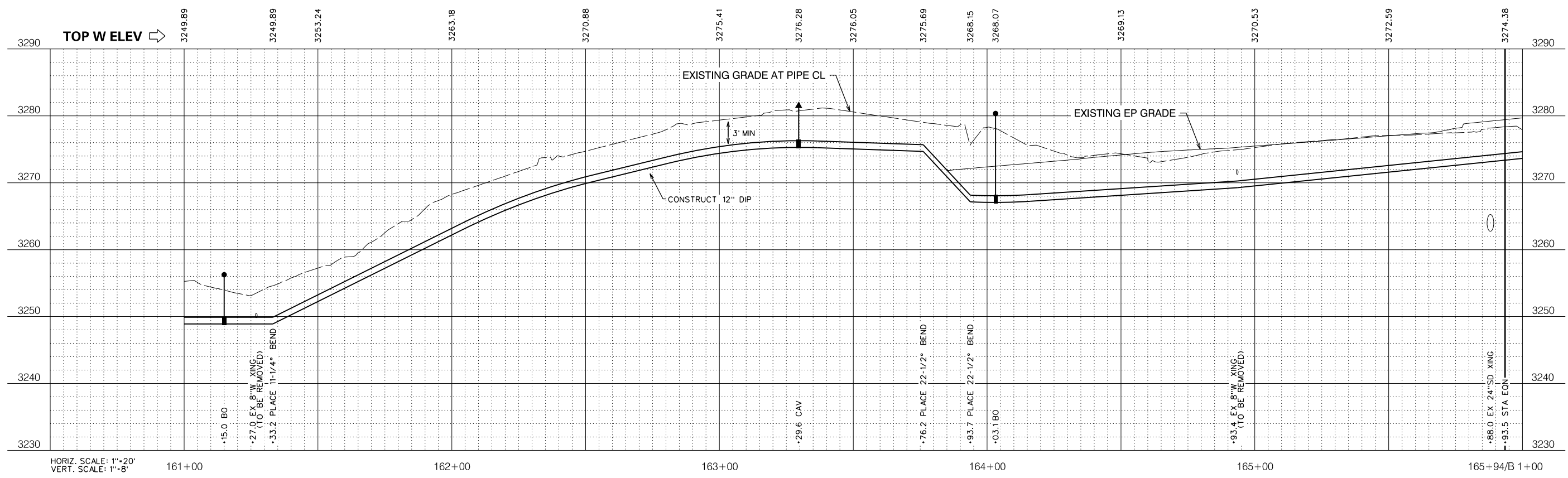
STA B 1+00 MATCH LINE
SEE NEXT SHEET



CURVE TABLE

BC	EC	L	R	D	T
162-05.80	162-55.18	49.37	900.00	3° 08' 36" RT	24.69
163-06.01	163-58.98	52.97	600.00	5° 03' 28" LT	26.50
164-31.92	164-84.33	52.41	700.00	4° 17' 22" RT	26.21

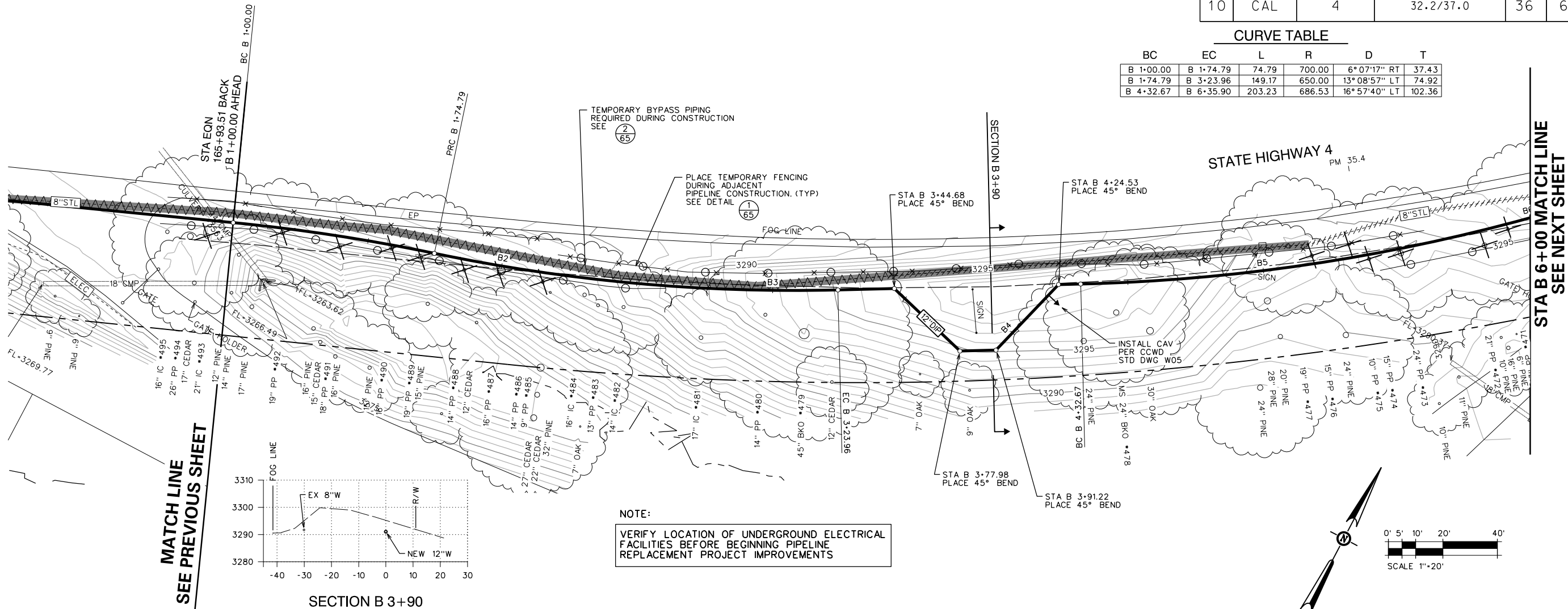
NOTE:
 VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\35-PP 1C.dgn
 DATE: 10/17/2018

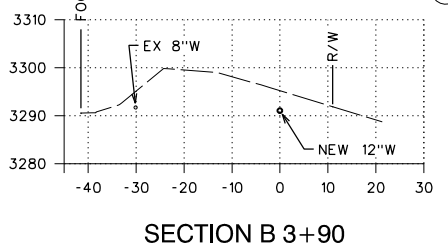
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	36	67

BC	EC	L	R	D	T
B 1+00.00	B 1+74.79	74.79	700.00	6°07'17" RT	37.43
B 1+74.79	B 3+23.96	149.17	650.00	13°08'57" LT	74.92
B 4+32.67	B 6+35.90	203.23	686.53	16°57'40" LT	102.36

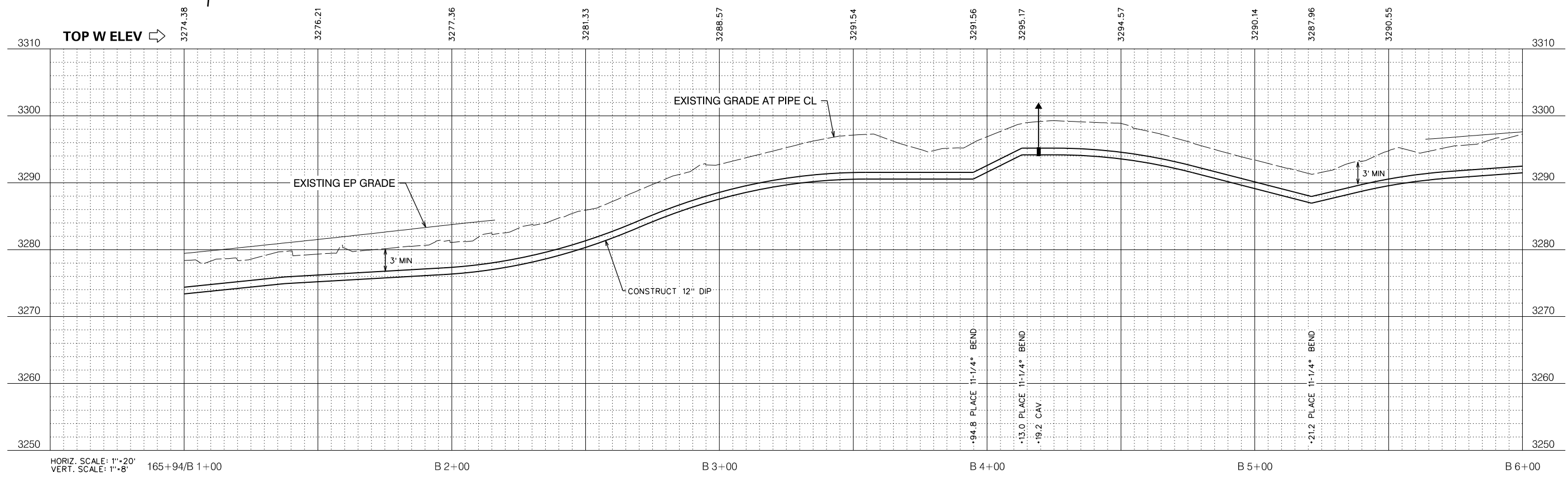
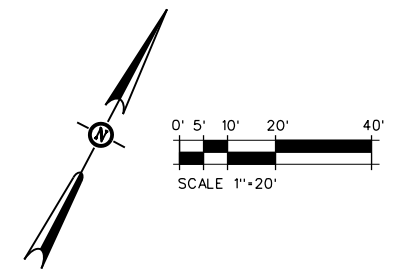


MATCH LINE SEE PREVIOUS SHEET

STA B 6+00 MATCH LINE SEE NEXT SHEET



NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

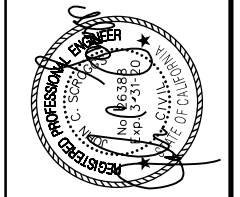


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

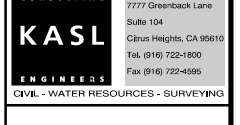
SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



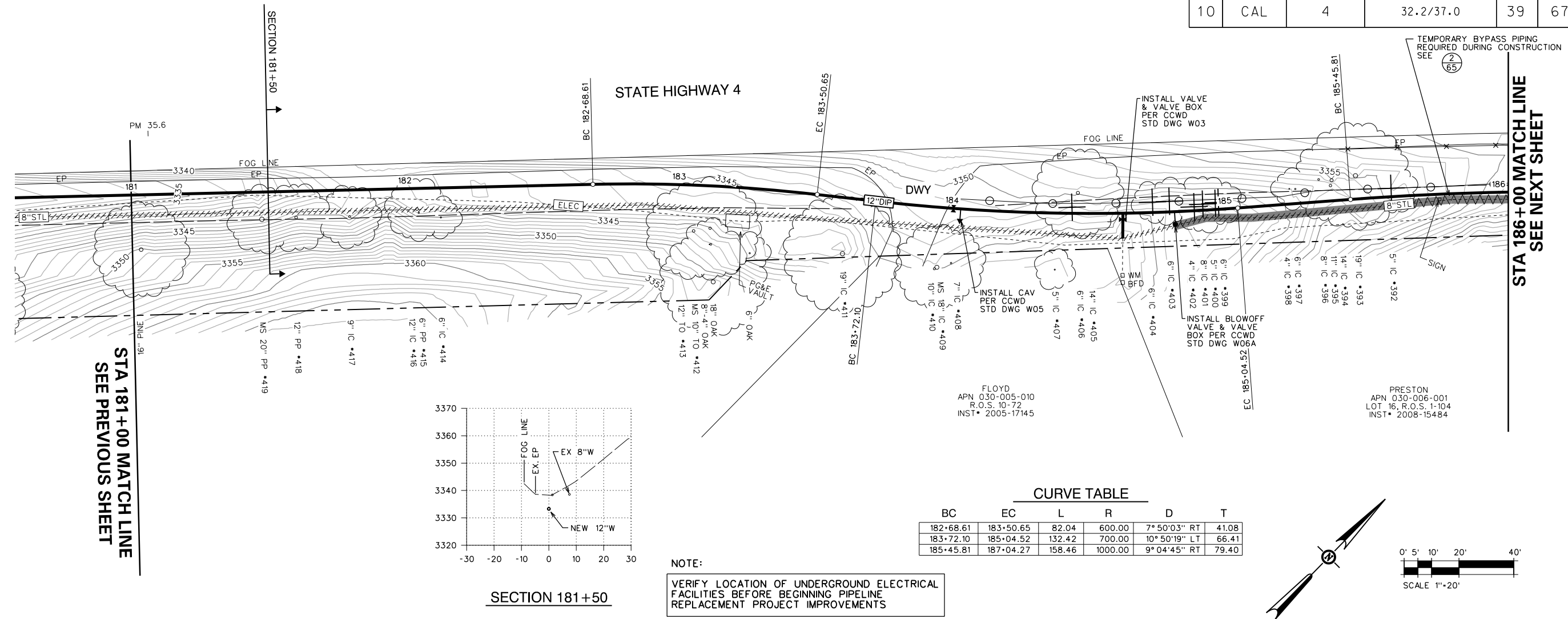
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 33



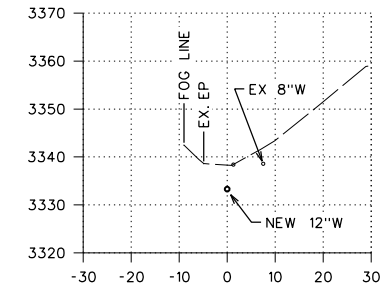
FILE: S:\1330-24 Ebbetts Pass Reach \Plans\36-PP IC.dgn DATE: 10/12/08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	39	67



STA 181+00 MATCH LINE
SEE PREVIOUS SHEET

STA 186+00 MATCH LINE
SEE NEXT SHEET



CURVE TABLE

BC	EC	L	R	D	T
182+68.61	183+50.65	82.04	600.00	7° 50'03" RT	41.08
183+72.10	185+04.52	132.42	700.00	10° 50'19" LT	66.41
185+45.81	187+04.27	158.46	1000.00	9° 04'45" RT	79.40

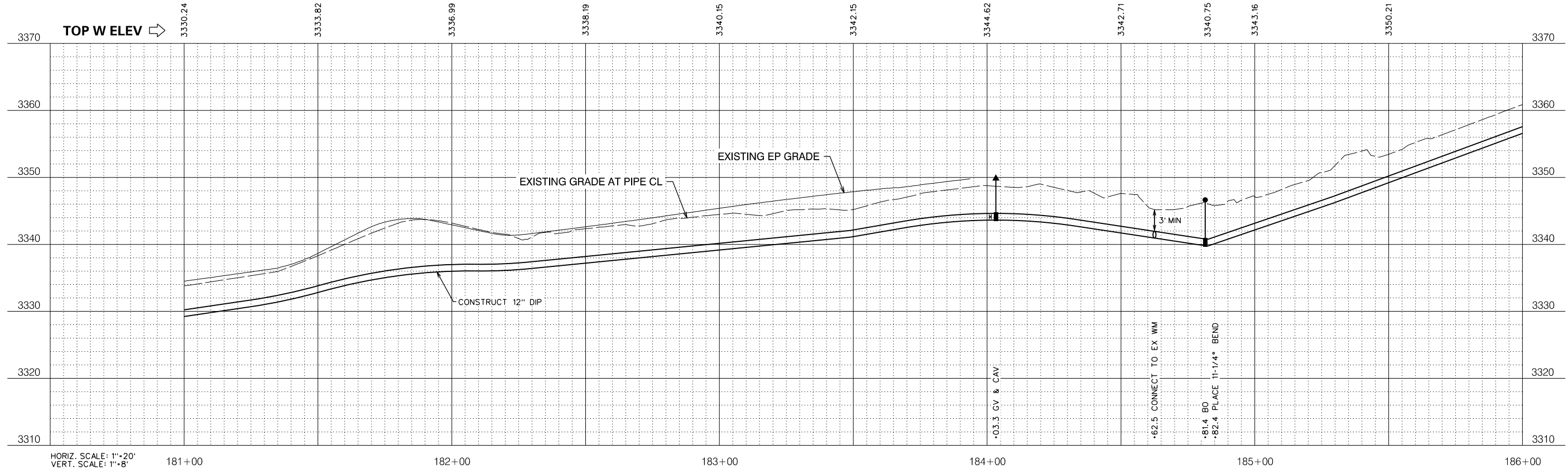
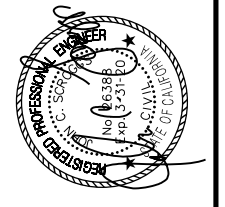
NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018

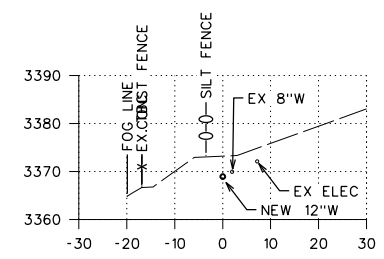


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 36

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\39-PP 1C.dgn
DATE: 10/17/2018

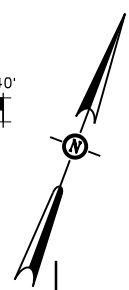
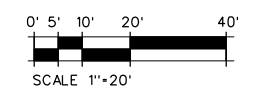
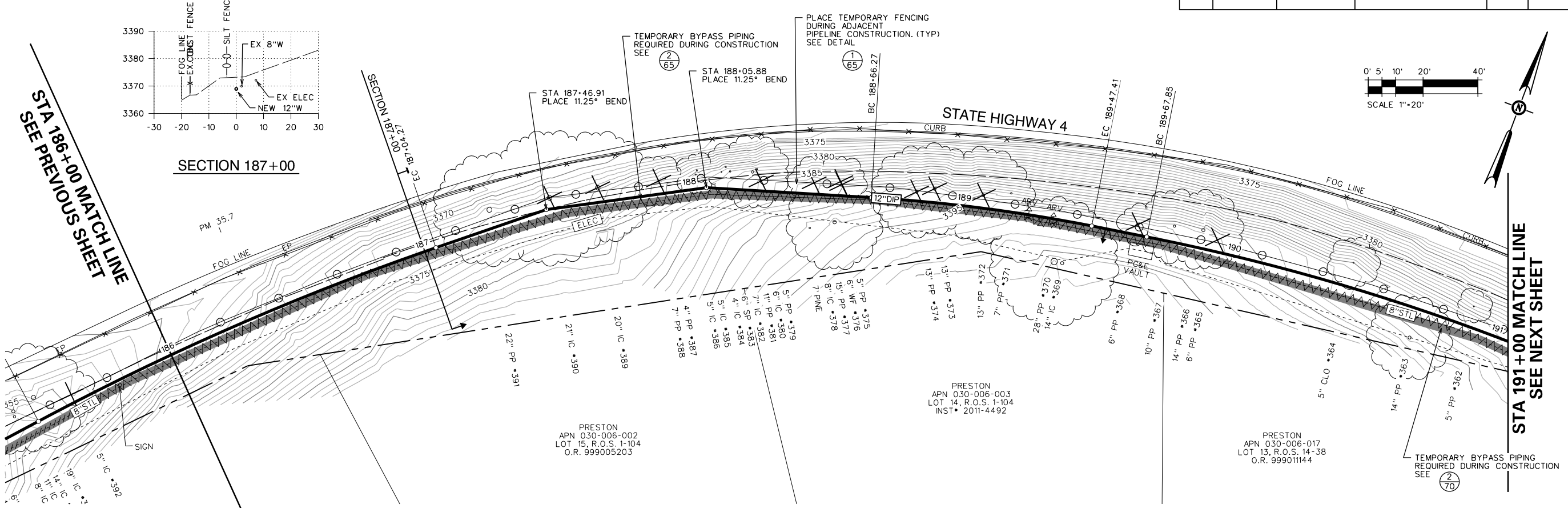
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	40	67



SECTION 187+00

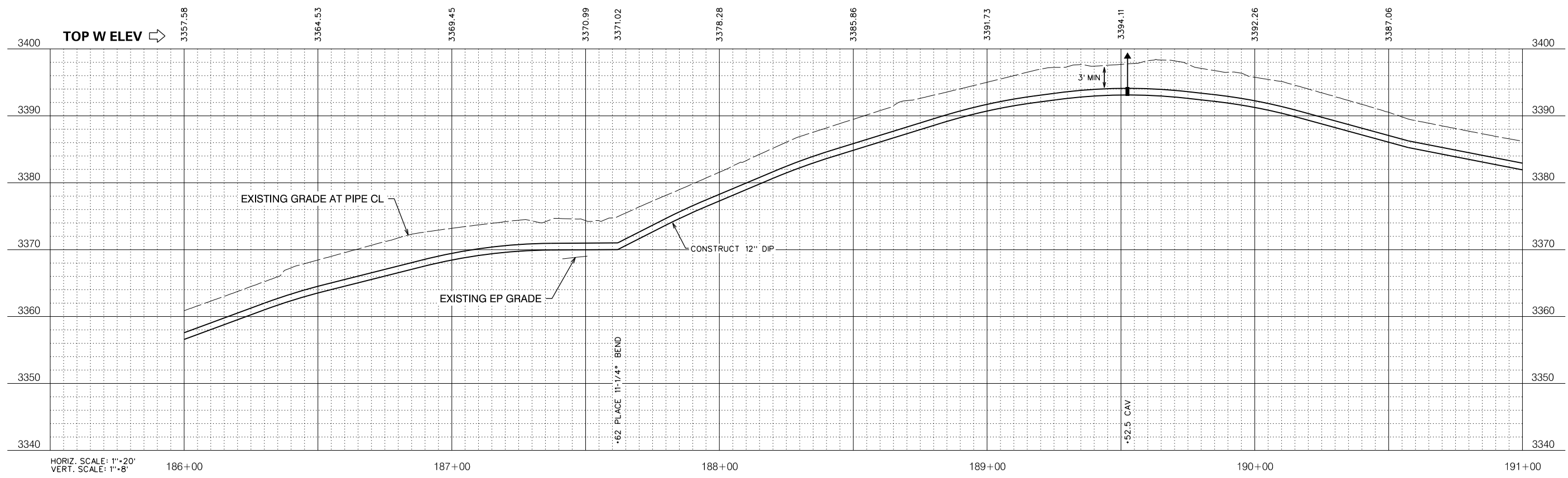
STA 186+00 MATCH LINE
SEE PREVIOUS SHEET

STA 191+00 MATCH LINE
SEE NEXT SHEET



NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

BC	EC	L	R	D	T
188+66.27	189+47.41	81.15	600.00	7° 44' 56" RT	40.64
189+67.85	191+62.66	194.81	800.00	13° 57' 08" RT	97.89



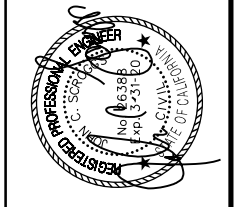
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



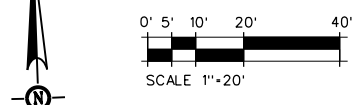
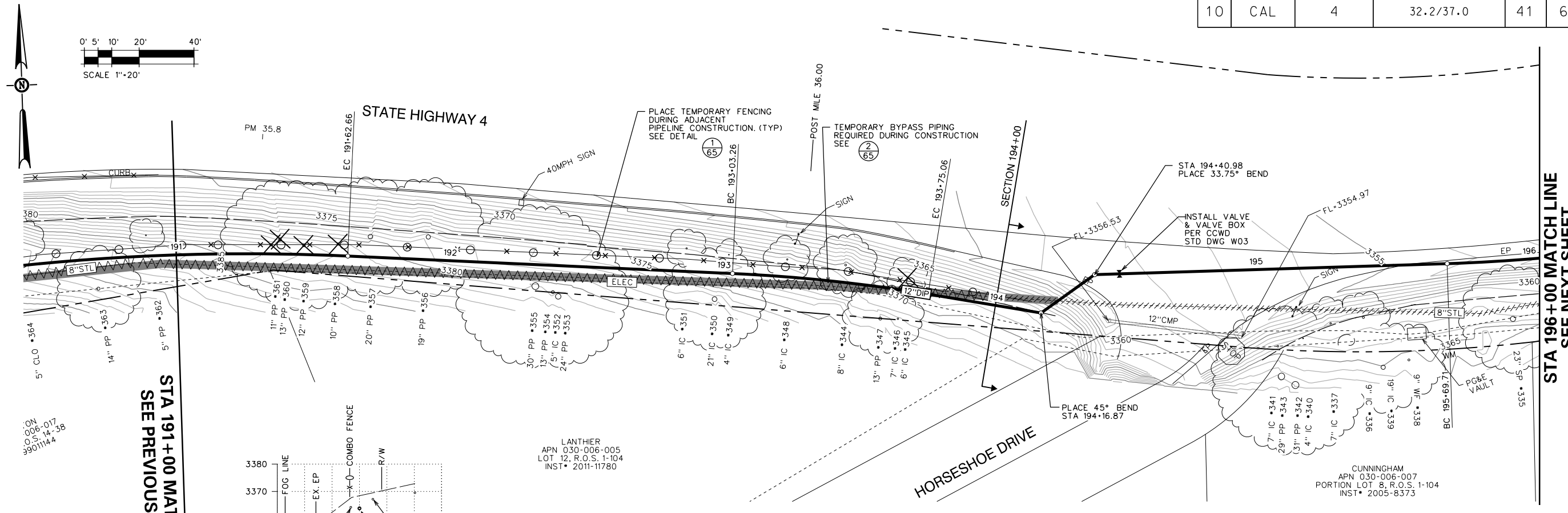
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 37

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\40-PP IC.dgn
DATE: 10/17/2018

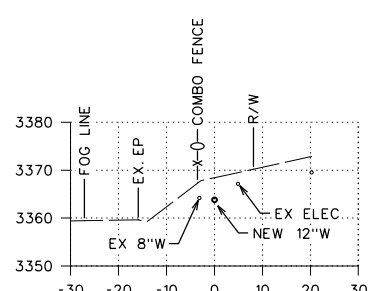
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	41	67

NO.	REVISIONS	DATE	BY



STA 191+00 MATCH LINE
SEE PREVIOUS SHEET

STA 196+00 MATCH LINE
SEE NEXT SHEET



LANTHIER
APN 030-006-005
LOT 12, R.O.S. 1-104
INST. 2011-11780

CURVE TABLE

BC	EC	L	R	D	T
193+03.26	193+75.06	71.80	600.00	6° 51'23" RT	35.94
195+69.71	196+11.30	41.59	600.00	3° 58'17" LT	20.80

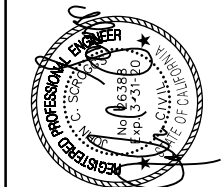
NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

BID SET

SCALE: AS SHOWN

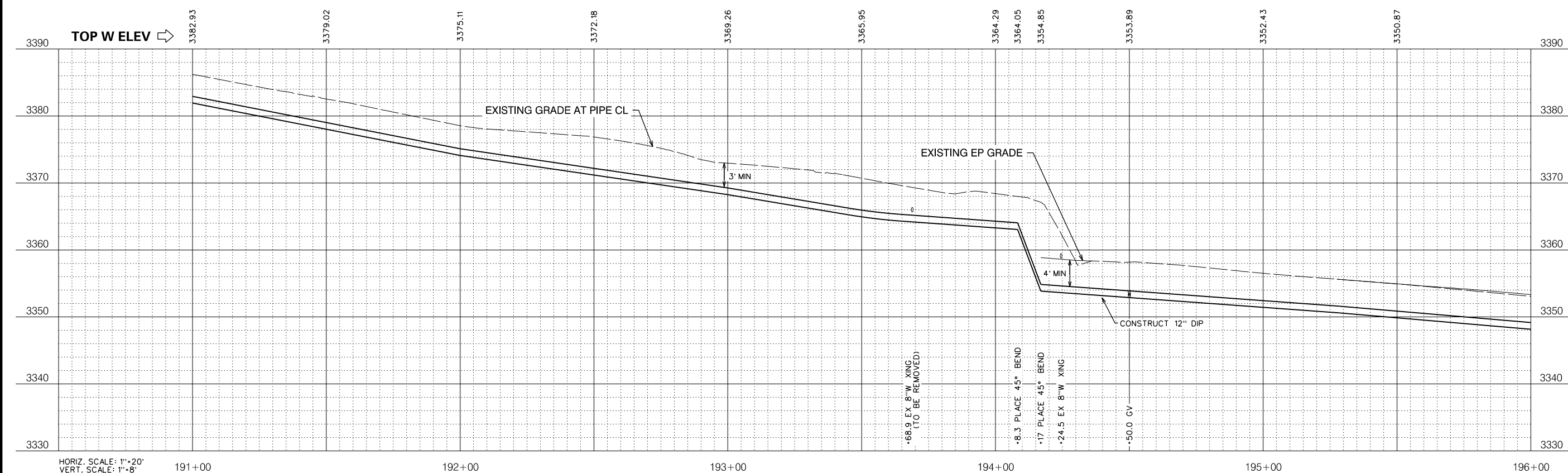
RELEASE 10
OCT 2018

JOB NO. 1330-24



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

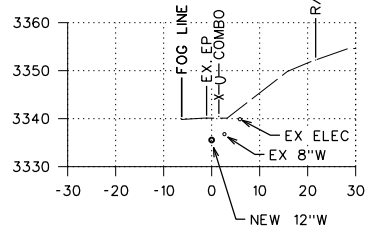
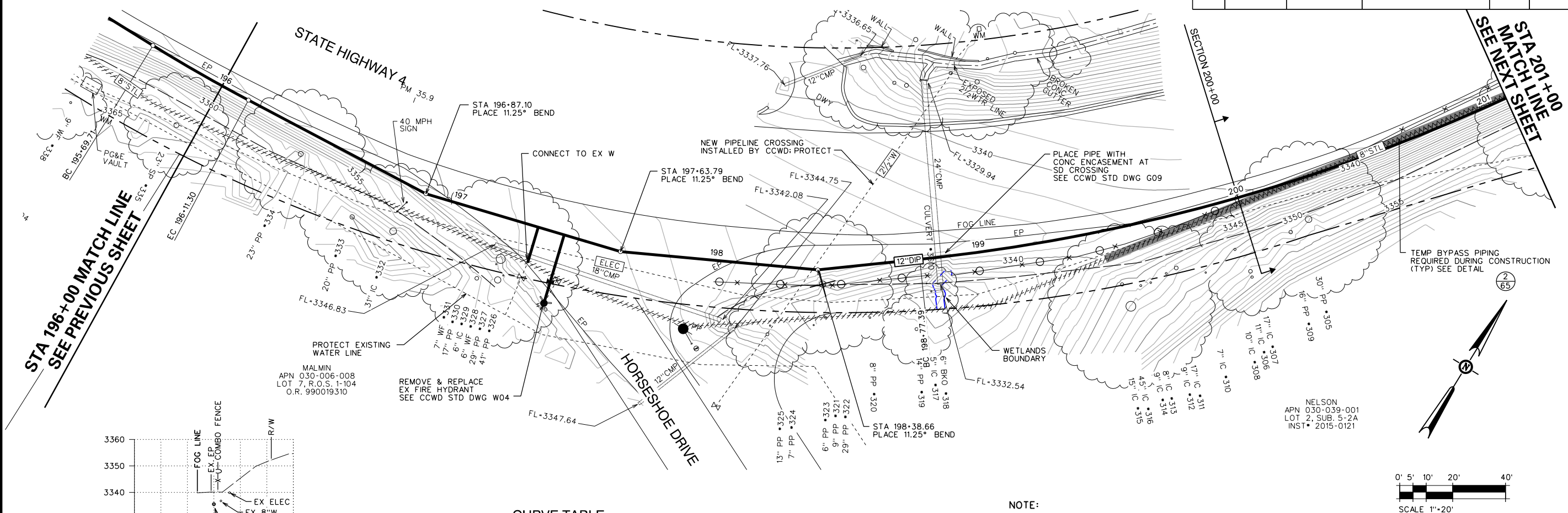
WATER MAIN PLAN AND PROFILE 38



HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\41-PP 1C.dgn
DATE: 10/17/2018

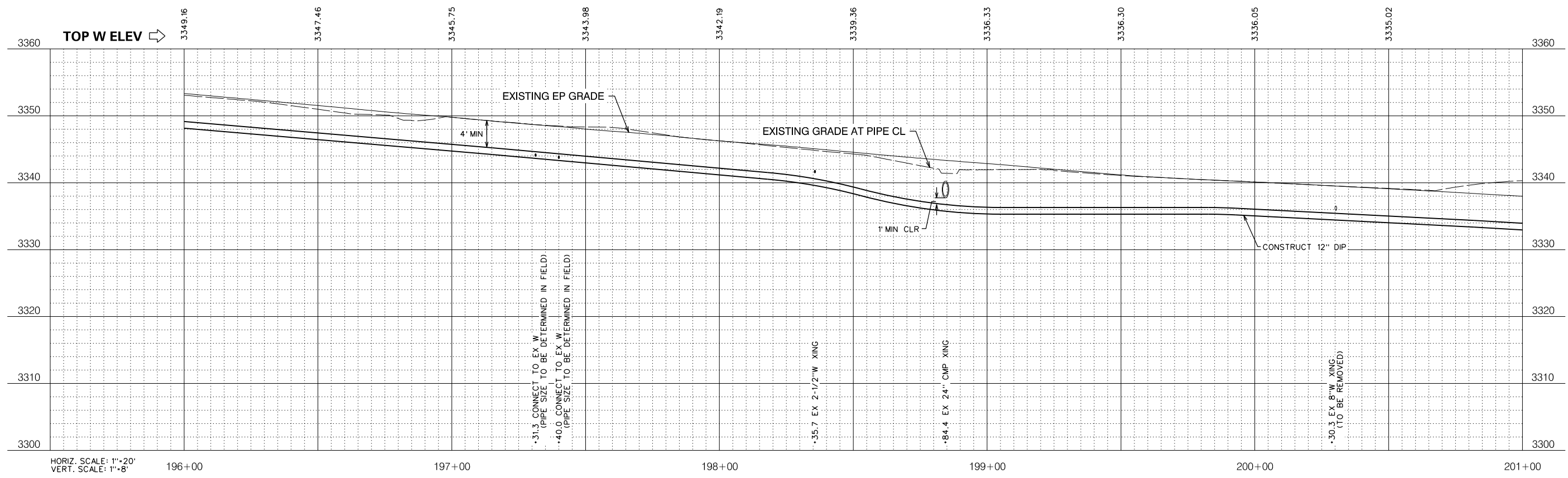
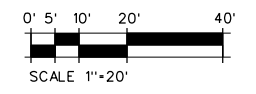
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	42	67



CURVE TABLE

BC	EC	L	R	D	T
198+77.39	201+64.21	286.82	700.00	23° 28' 35\"/>	

NOTE:
 VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS



•31.3 CONNECT TO EX W (PIPE SIZE TO BE DETERMINED IN FIELD)
 •40.0 CONNECT TO EX W (PIPE SIZE TO BE DETERMINED IN FIELD)

•35.7 EX 2-1/2\"/>

•84.4 EX 24\"/>

•30.3 EX 8\"/>

HORIZ. SCALE: 1\"/>

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
 JOB NO. 1330-24

RELEASE 10
 OCT 2018

IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 39

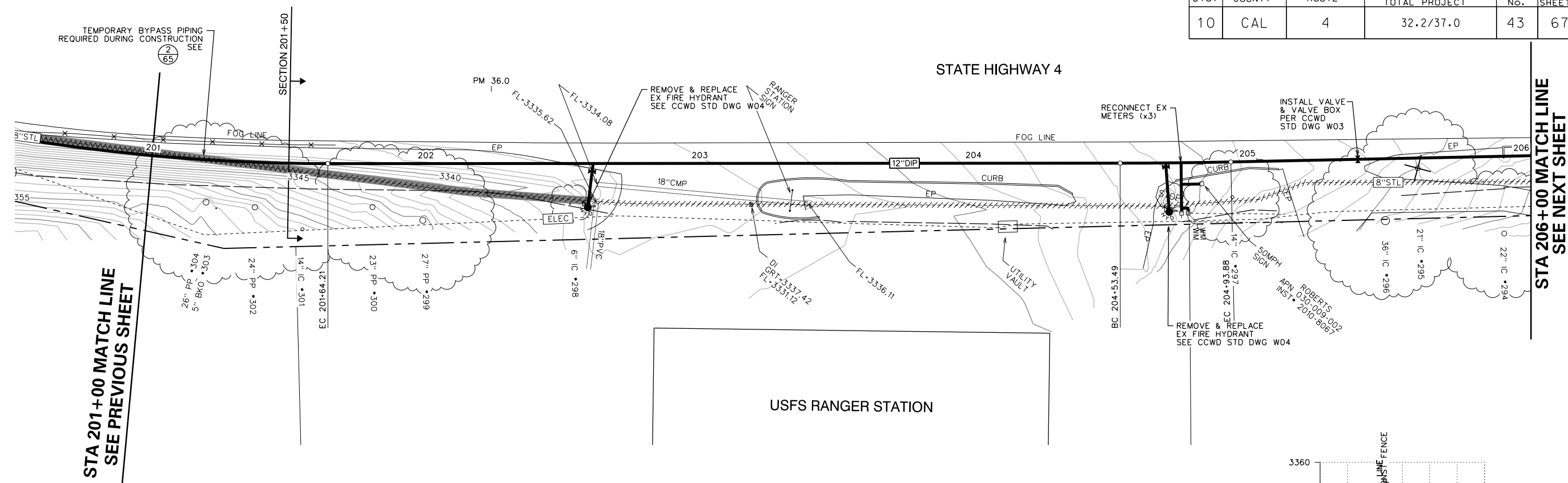
CONSULTING
KASL
 ENGINEERS
 CIVIL - WATER RESOURCES - SURVEYING

7777 Greenback Lane
 Suite 104
 Citrus Heights, CA 95610
 Tel. (916) 722-1800
 Fax (916) 722-4595

SHEET 42 OF 67

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\12-PP 1C.dgn
 DATE: 10/17/2018

Dis	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	43	67



STA 201+00 MATCH LINE
SEE PREVIOUS SHEET

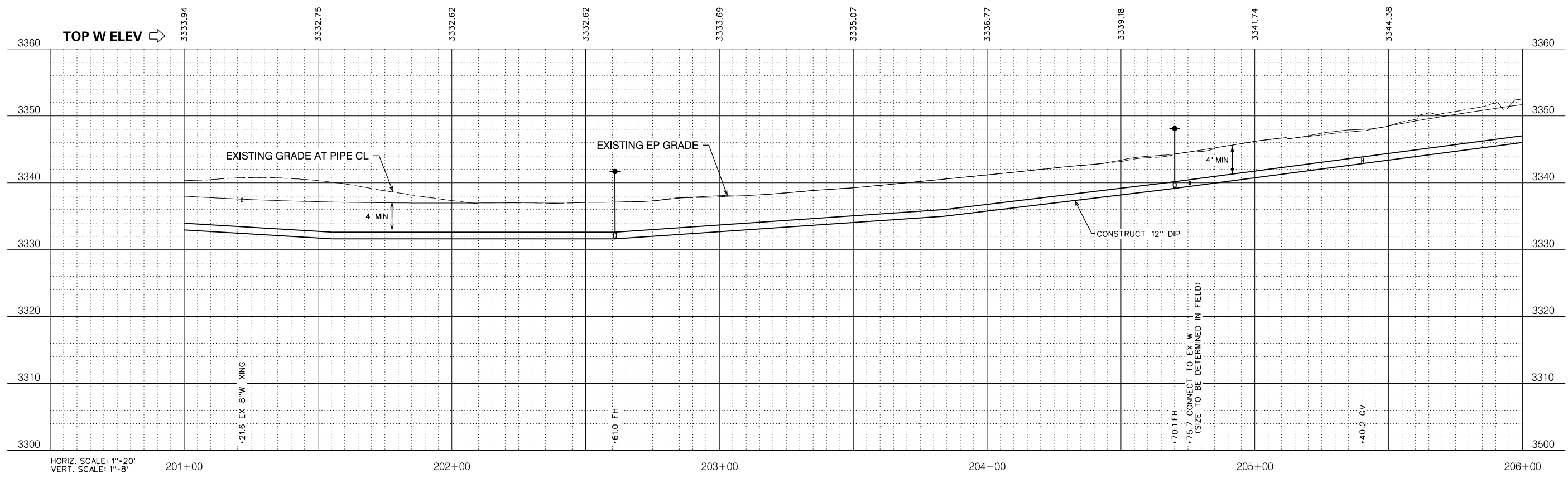
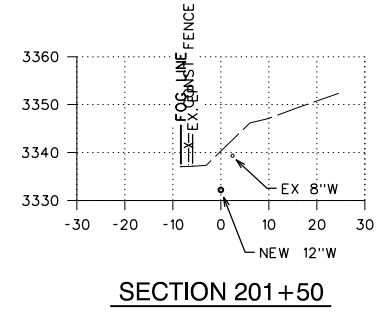
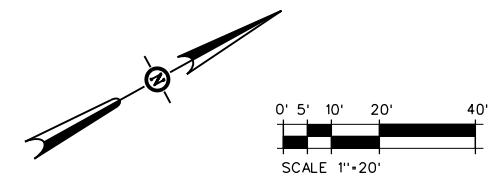
STA 206+00 MATCH LINE
SEE NEXT SHEET

TEMPORARY BYPASS PIPING
REQUIRED DURING CONSTRUCTION
SEE (2) 65

CURVE TABLE

BC	EC	L	R	D	T
204+53.49	204+93.88	40.40	2000.00	1°09'26" LT	20.20

NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS



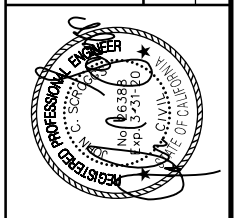
NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN

RELEASE 10
OCT 2018

JOB NO. 1330-24



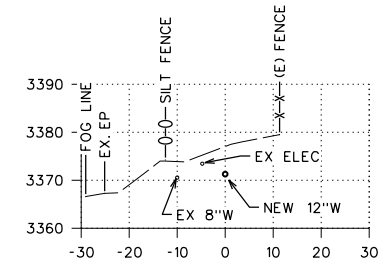
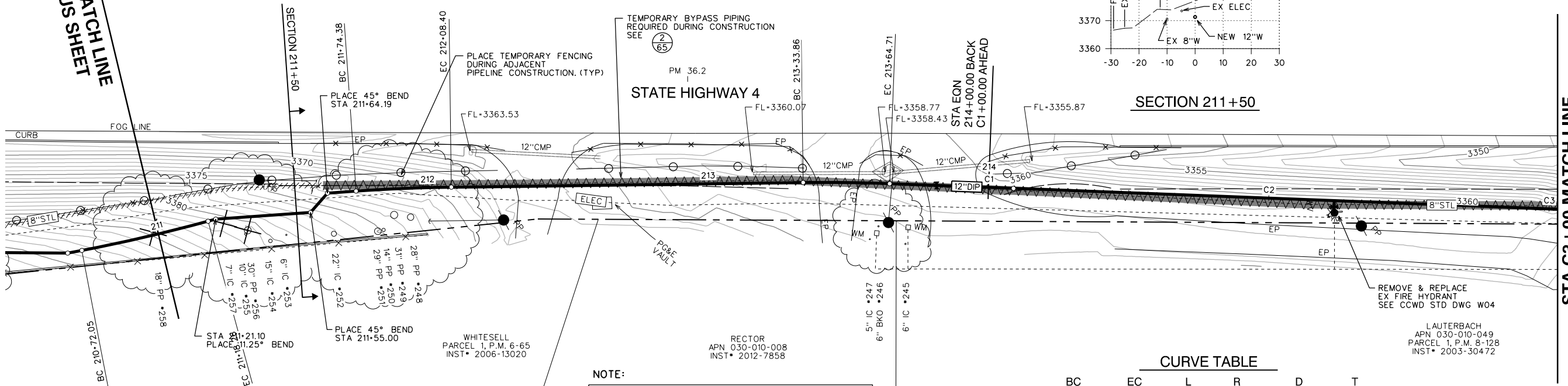
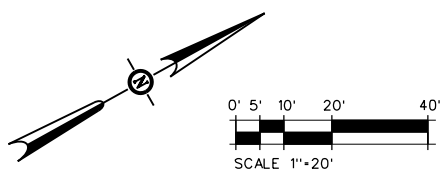
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 40

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\13-PP 1C.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	45	67

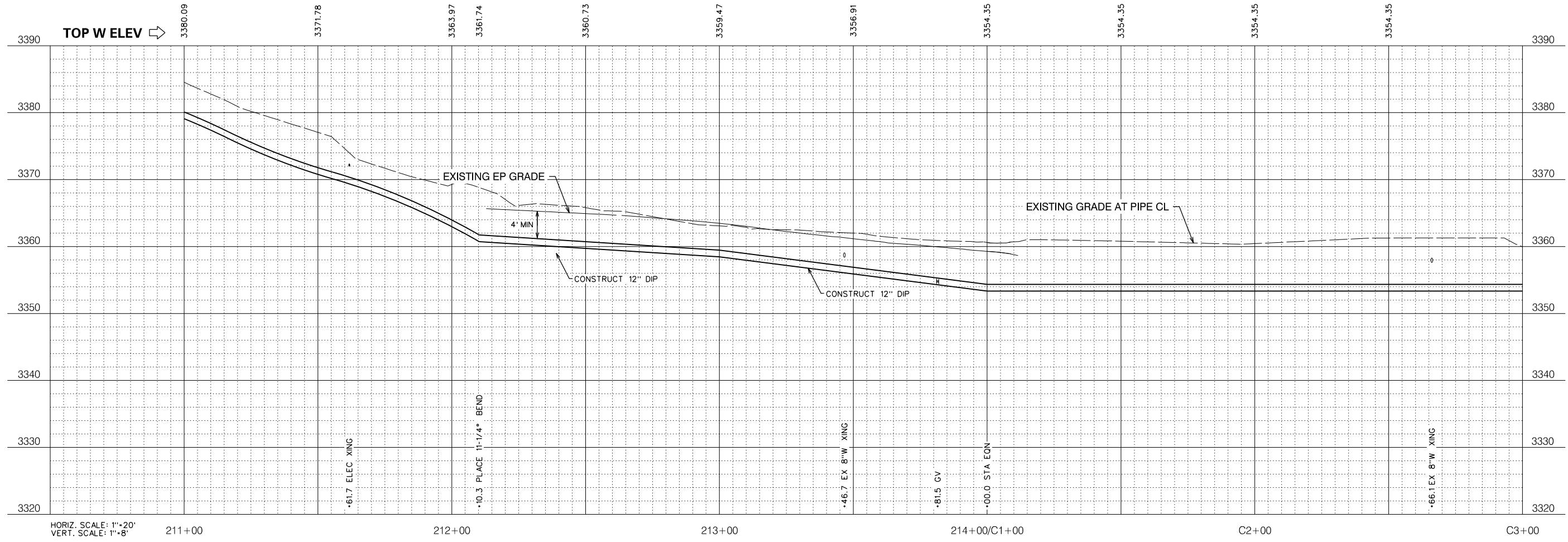
STA 211+00 MATCH LINE
SEE PREVIOUS SHEET



CURVE TABLE

BC	EC	L	R	D	T
211+74.38	212+08.40	34.02	600.00	3° 14' 54" RT	17.01
213+33.86	213+64.71	30.86	600.00	2° 56' 47" RT	15.43

NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS



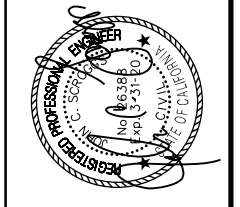
HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

STA C3+00 MATCH LINE
SEE NEXT SHEET

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

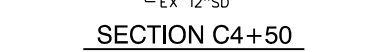
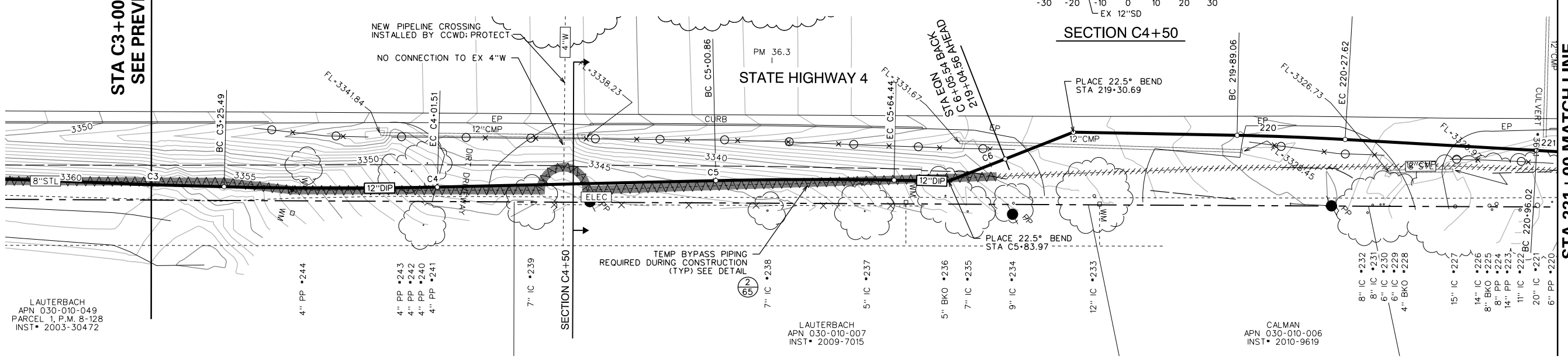
WATER MAIN PLAN AND PROFILE 42

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\45-PP 1C.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	46	67

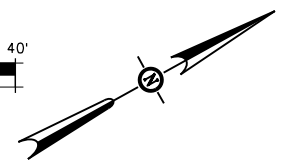
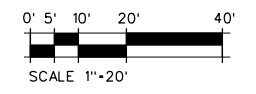
STA C3+00 MATCH LINE
SEE PREVIOUS SHEET

STA 221+00 MATCH LINE
SEE NEXT SHEET

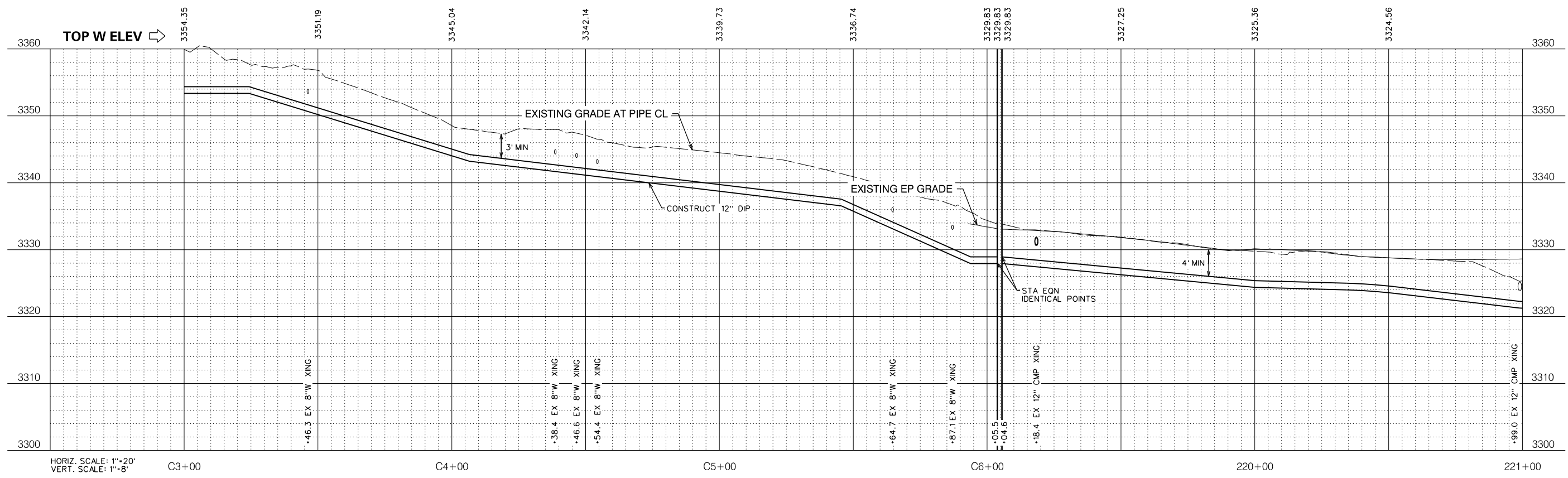


CURVE TABLE

BC	EC	L	R	D	T
C3+25.49	C4+01.51	76.02	1500.00	2° 54'14" RT	38.02
C5+00.86	C5+64.44	63.58	1500.00	2° 25'43" RT	31.79
219+89.06	220+27.62	38.56	1000.00	2° 12'33" RT	19.28
220+96.02	221+33.40	37.38	1000.00	2° 08'30" LT	18.69



NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

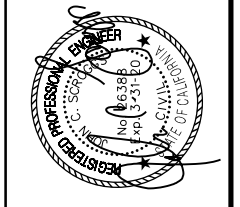


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018

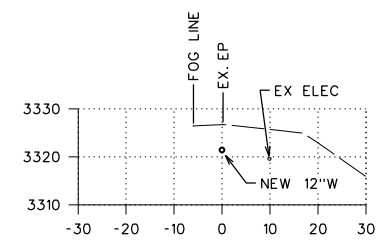
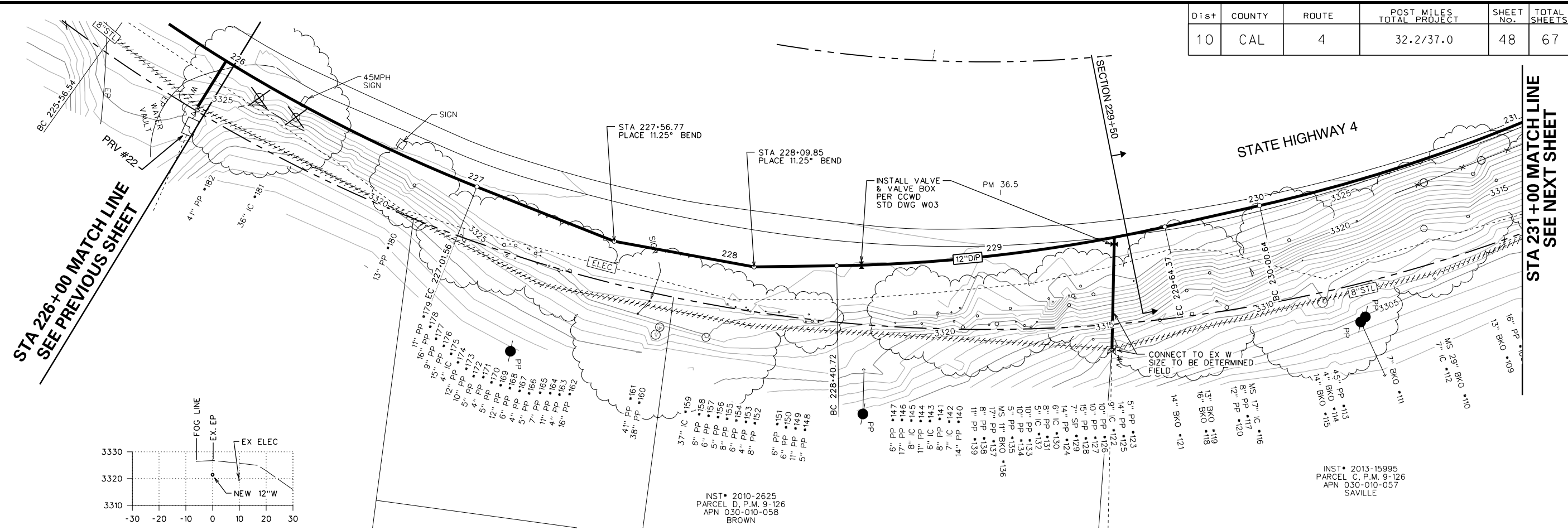


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 43

FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\46-PP 1C.dgn
DATE: 10/12/08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	48	67

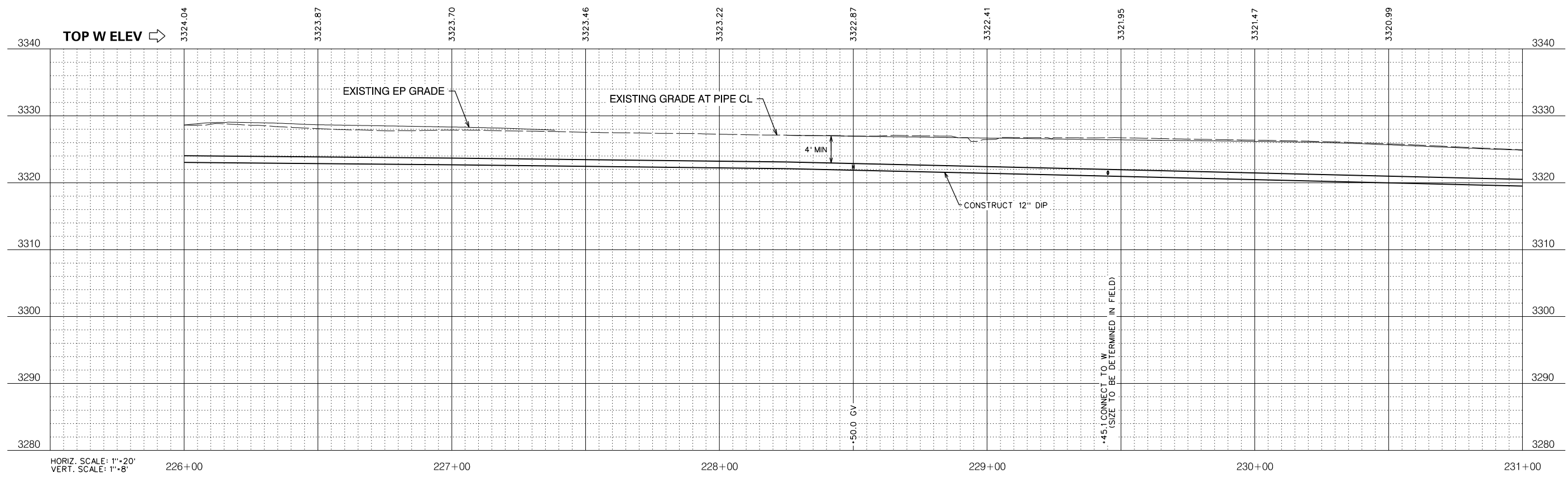


SECTION 229+50

NOTE:
 VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

CURVE TABLE

BC	EC	L	R	D	T
228+40.72	229+64.37	123.65	600.00	11° 48' 29" LT	62.05
230+00.64	231+26.87	126.24	600.00	12° 03' 17" LT	63.35

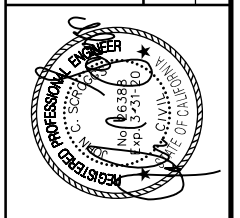


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
 JOB NO. 1330-24

RELEASE 10
 OCT 2018



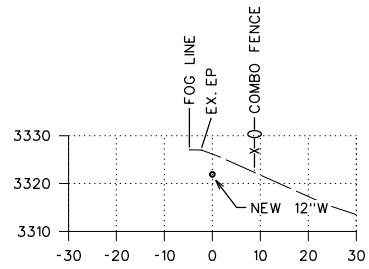
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 45

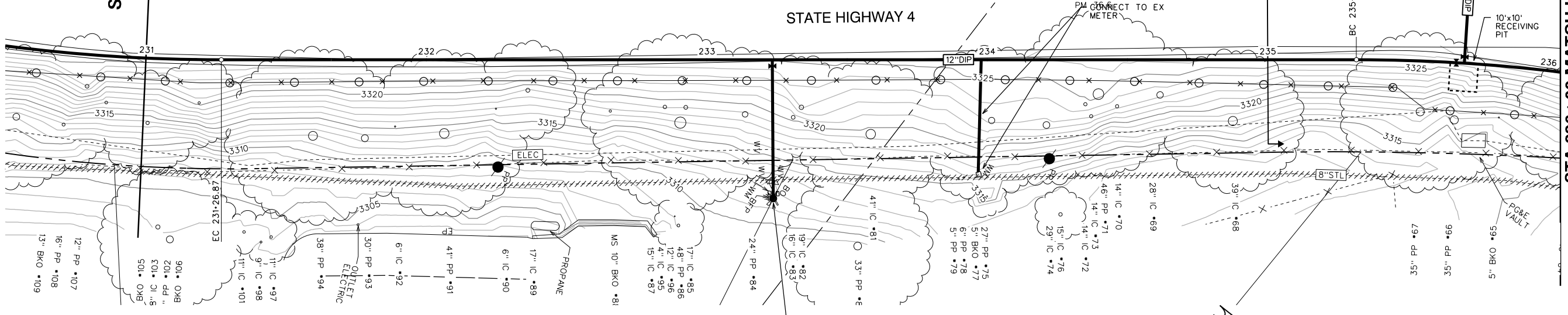
FILE: S:\1330-24 Ebbetts Pass Reach \Plans\48-PP IC.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	49	67

STA 231+00 MATCH LINE
SEE PREVIOUS SHEET



SECTION 235+00



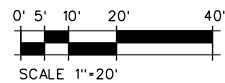
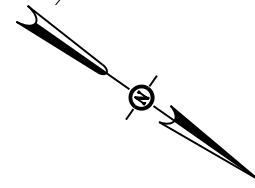
CURVE TABLE

BC	EC	L	R	D	T
235+31.61	236+19.30	87.69	600.00	8° 22' 27" RT	43.93

NOTE:
VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

REMOVE & REPLACE EX FIRE HYDRANT SEE CCWD STD DWG W04 RECONNECT EX WM & BFD REMOVE EX BO

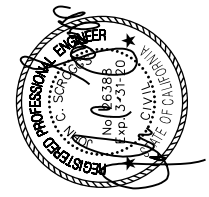
PLACE 45LF OF 8" DIP CARRIER PIPE BY BORE & JACK W/48" MIN COVER SEE CCWD STD DWG G10 AND PLAN AND PROFILE SHEET 64



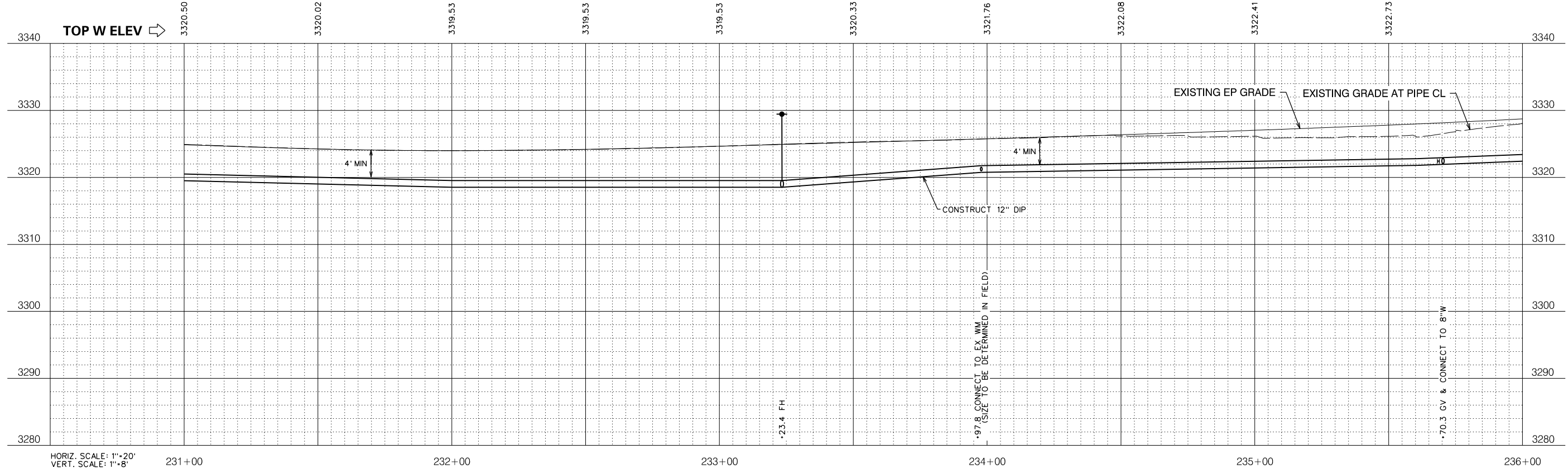
NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24
RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
WATER MAIN PLAN AND PROFILE 46

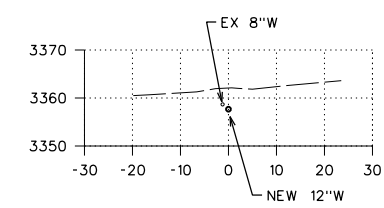
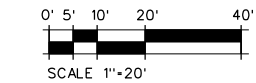
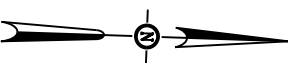
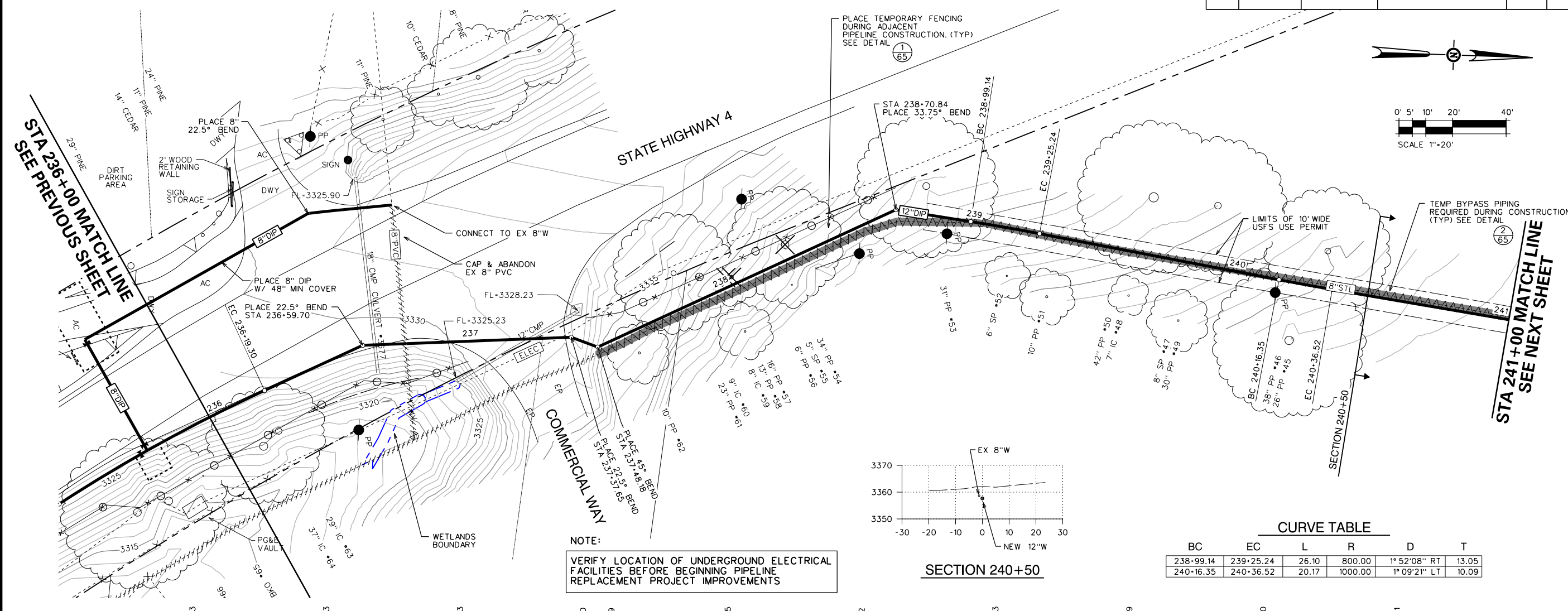


HORIZ. SCALE: 1"=20'
VERT. SCALE: 1"=8'

KASL CONSULTING ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595
CIVIL - WATER RESOURCES - SURVEYING

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\49-PP 1C.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	50	67



CURVE TABLE

BC	EC	L	R	D	T
238+99.14	239+25.24	26.10	800.00	1° 52' 08" RT	13.05
240+16.35	240+36.52	20.17	1000.00	1° 09' 21" LT	10.09

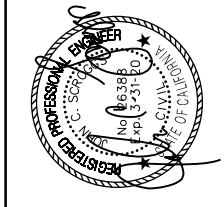
NOTE:
 VERIFY LOCATION OF UNDERGROUND ELECTRICAL FACILITIES BEFORE BEGINNING PIPELINE REPLACEMENT PROJECT IMPROVEMENTS

BY					
DATE					
REVISIONS					
DESCRIPTION					
NO.					

BID SET

SCALE: AS SHOWN
 JOB NO. 1330-24

RELEASE 10
 OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

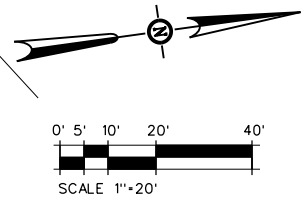
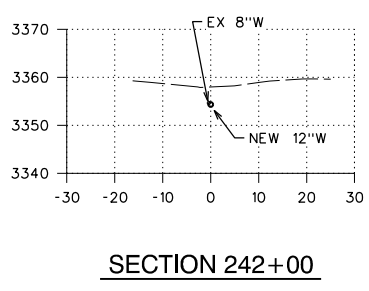
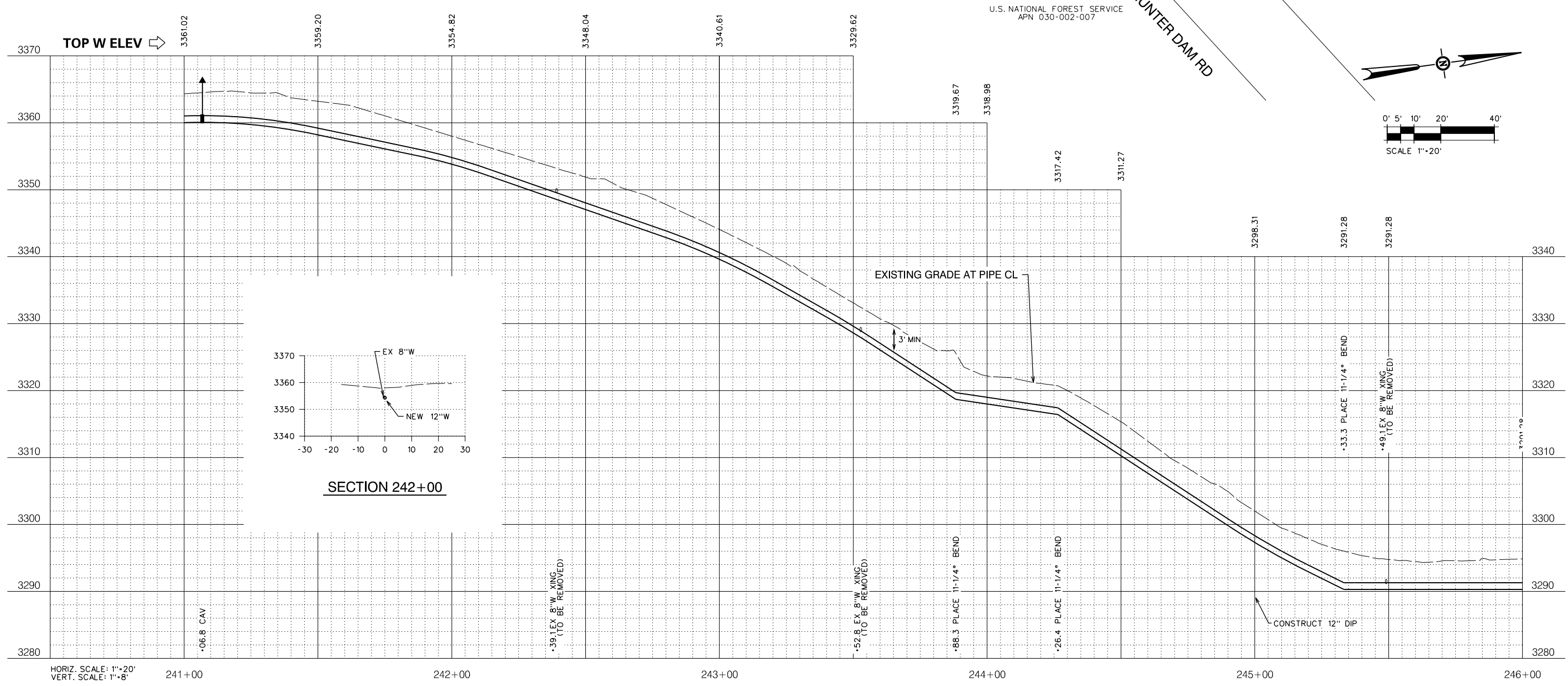
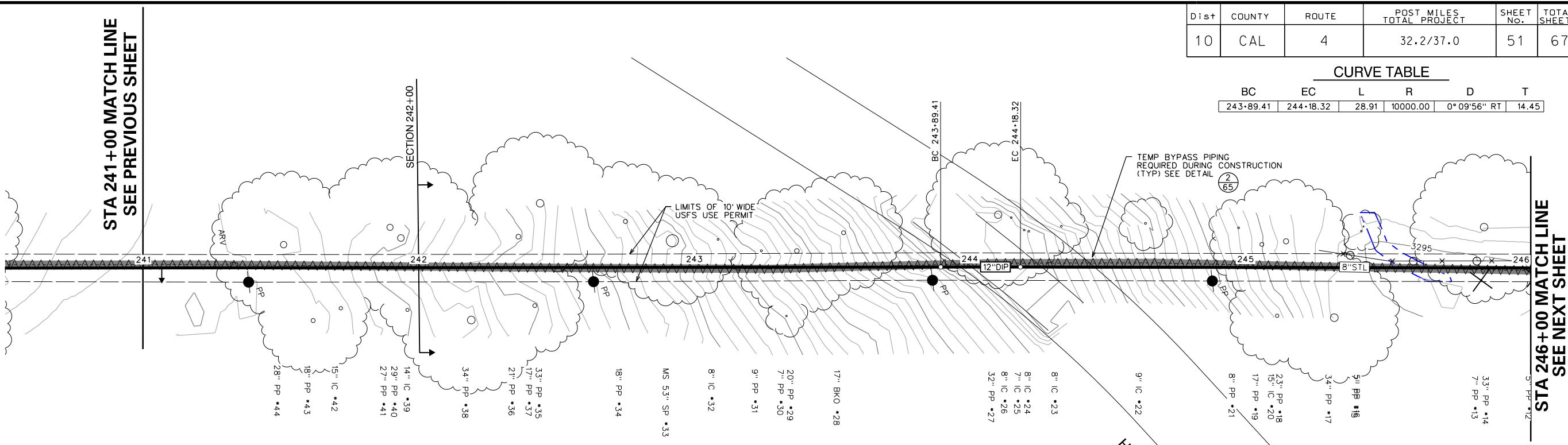
WATER MAIN PLAN AND PROFILE 47



FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\50-PP 1C-238.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	51	67

CURVE TABLE						
BC	EC	L	R	D	T	
243+89.41	244+18.32	28.91	10000.00	0°09'56" RT	14.45	



NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018

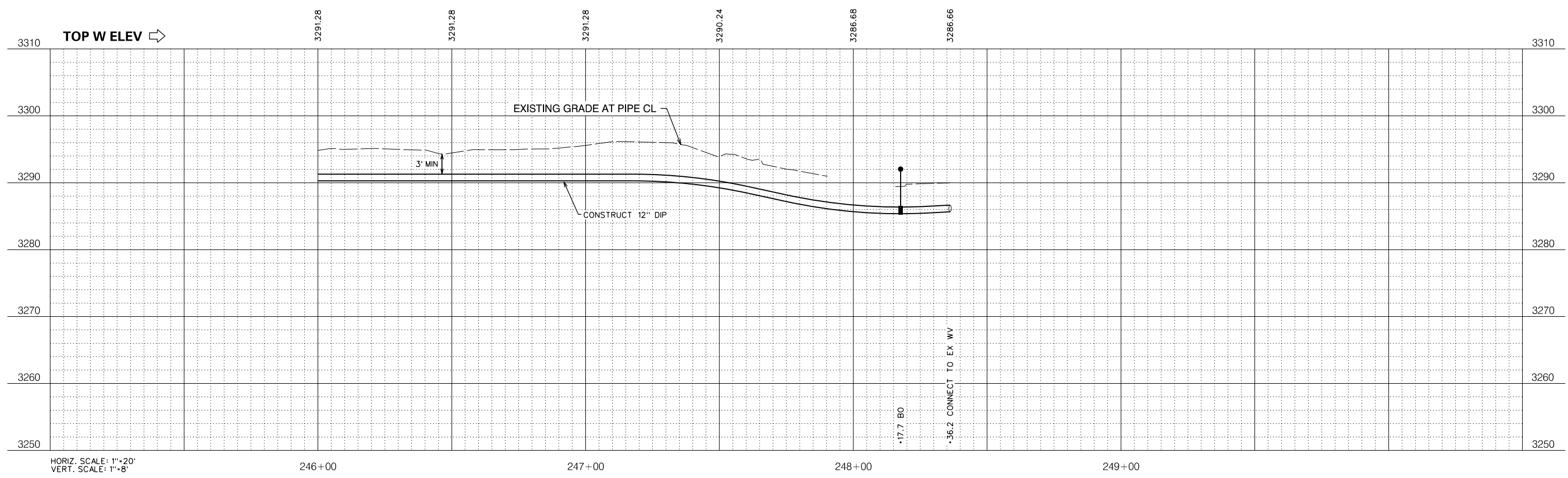
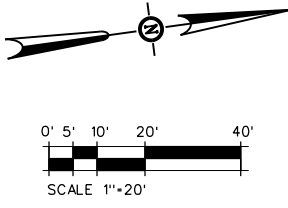
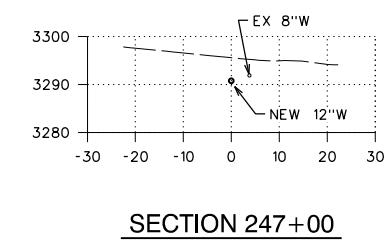
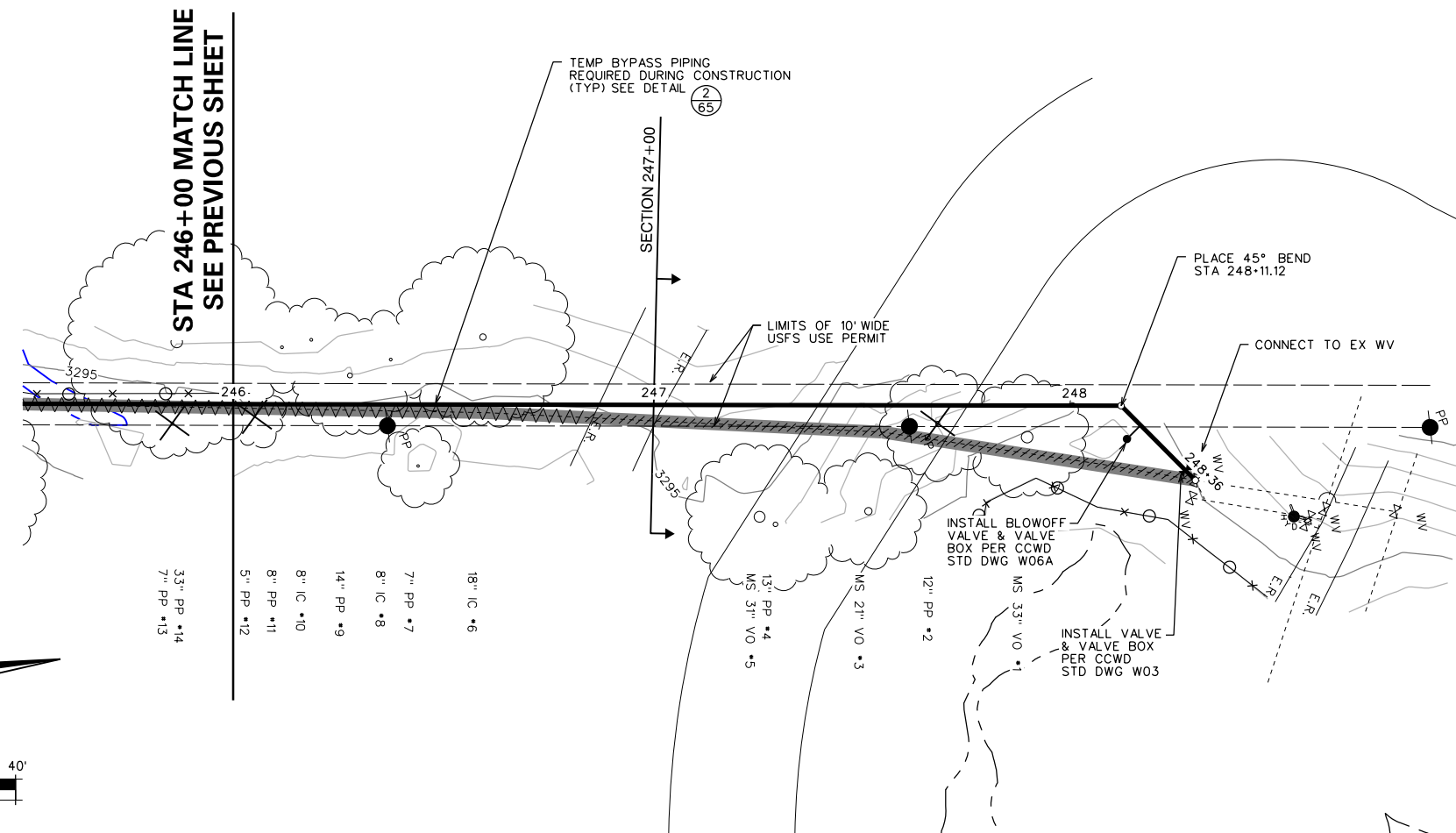
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 48

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\51-PP 10.dgn DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	52	67

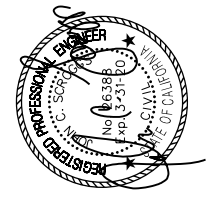
NO.	REVISIONS DESCRIPTION	DATE	BY



BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

WATER MAIN PLAN AND PROFILE 49

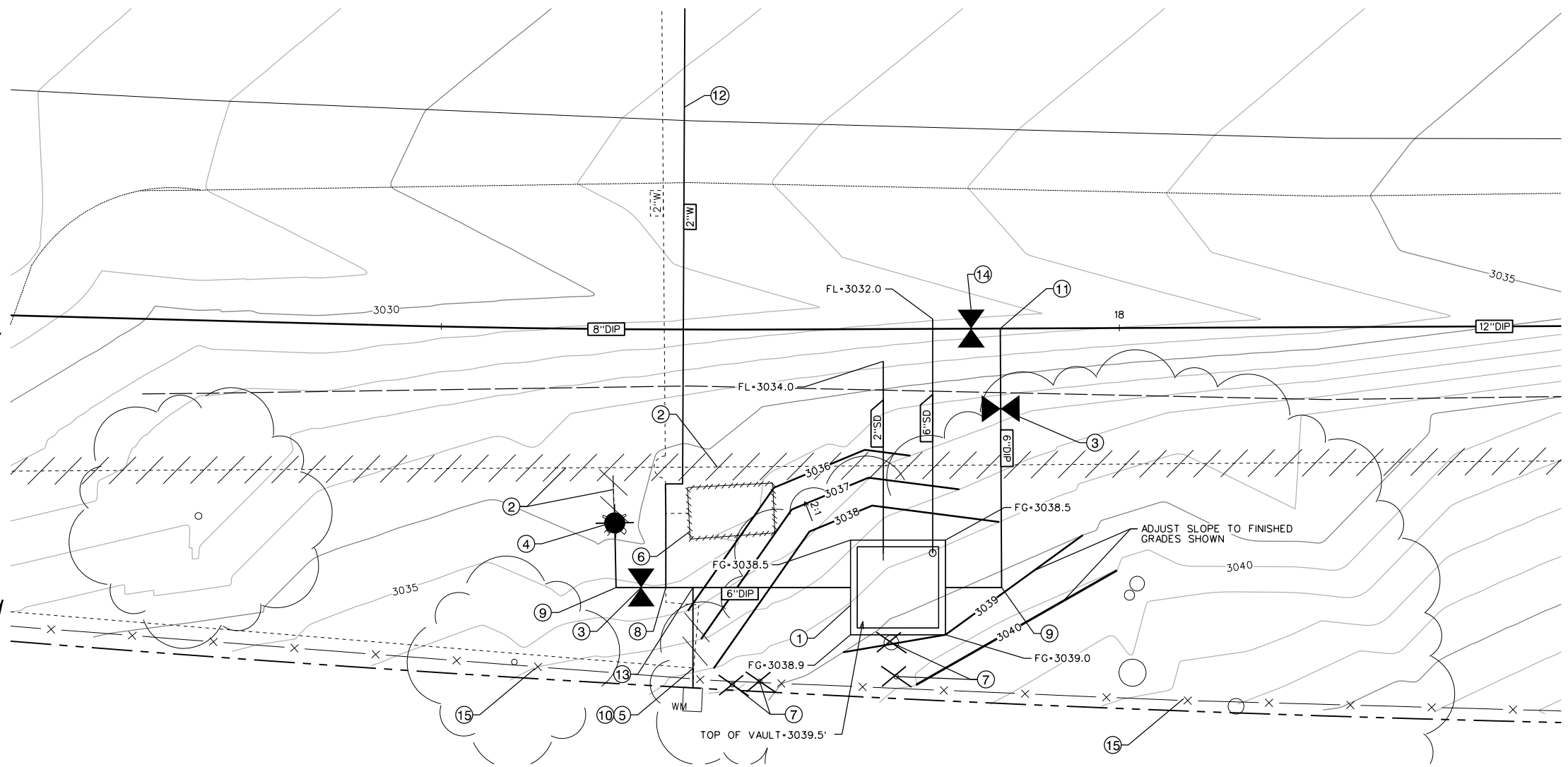


FILE: S:\1330-24 Ebbetts Pass Reach \Plans\52-PP 1C.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	53	67

NO.	REVISIONS DESCRIPTION	DATE	BY

- NOTES**
- ① PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - ② REMOVE OR ABANDON EXISTING LINE AS NEEDED TO CONSTRUCT IMPROVEMENTS
 - ③ 6" GATE VALVE PER CCWD STD DWG W03
 - ④ REMOVE AND REPLACE EXISTING FIRE HYDRANT SEE CCWD STD DWG W04
 - ⑤ CONNECT TO EXISTING WATER LINE (VERIFY SIZE IN FIELD)
 - ⑥ EXISTING PRV TO BE REMOVED
 - ⑦ REMOVE EXISTING TREES(4" PP *1231,1232,1233, AND 13" PP *1230)
 - ⑧ 6" X 2" FL TEE
 - ⑨ 6" X 90° BEND FL EL
 - ⑩ 6" X X" TEE. CONNECT TO EXISTING (VERIFY SIZE IN FIELD)
 - ⑪ 12" X 8" FL TEE W/12"X8" REDUCER WEST
 - ⑫ PLACE 2" HDDE PIPE BY HDD METHOD 48" MIN COVER SEE SHEET 6
 - ⑬ 6" FL TEE
 - ⑭ 8" GATE VALVE PER CCWD STD DWG W03
 - ⑮ PROTECT EXISTING FENCE



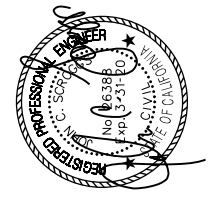
PRV #2 DETAIL STA 17+91
SCALE: 1"=5'

1
-

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



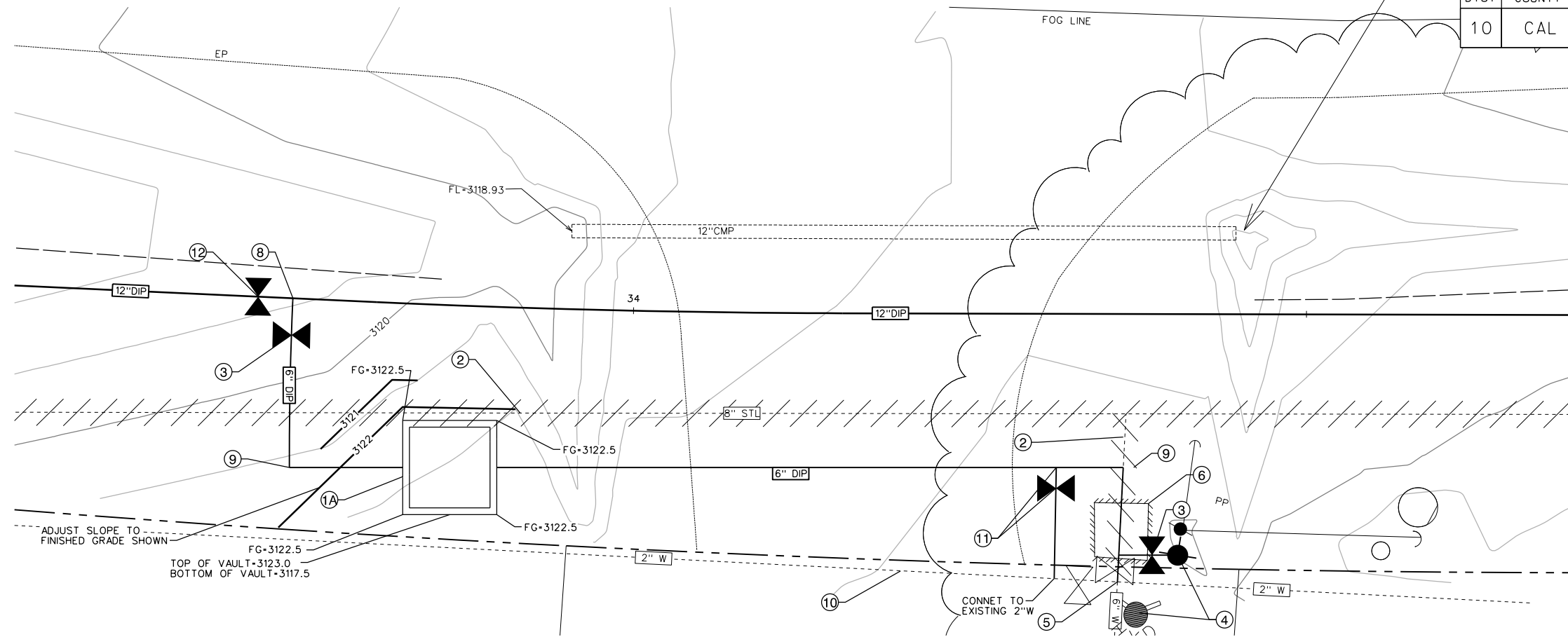
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

PRV VAULT GRADING 1



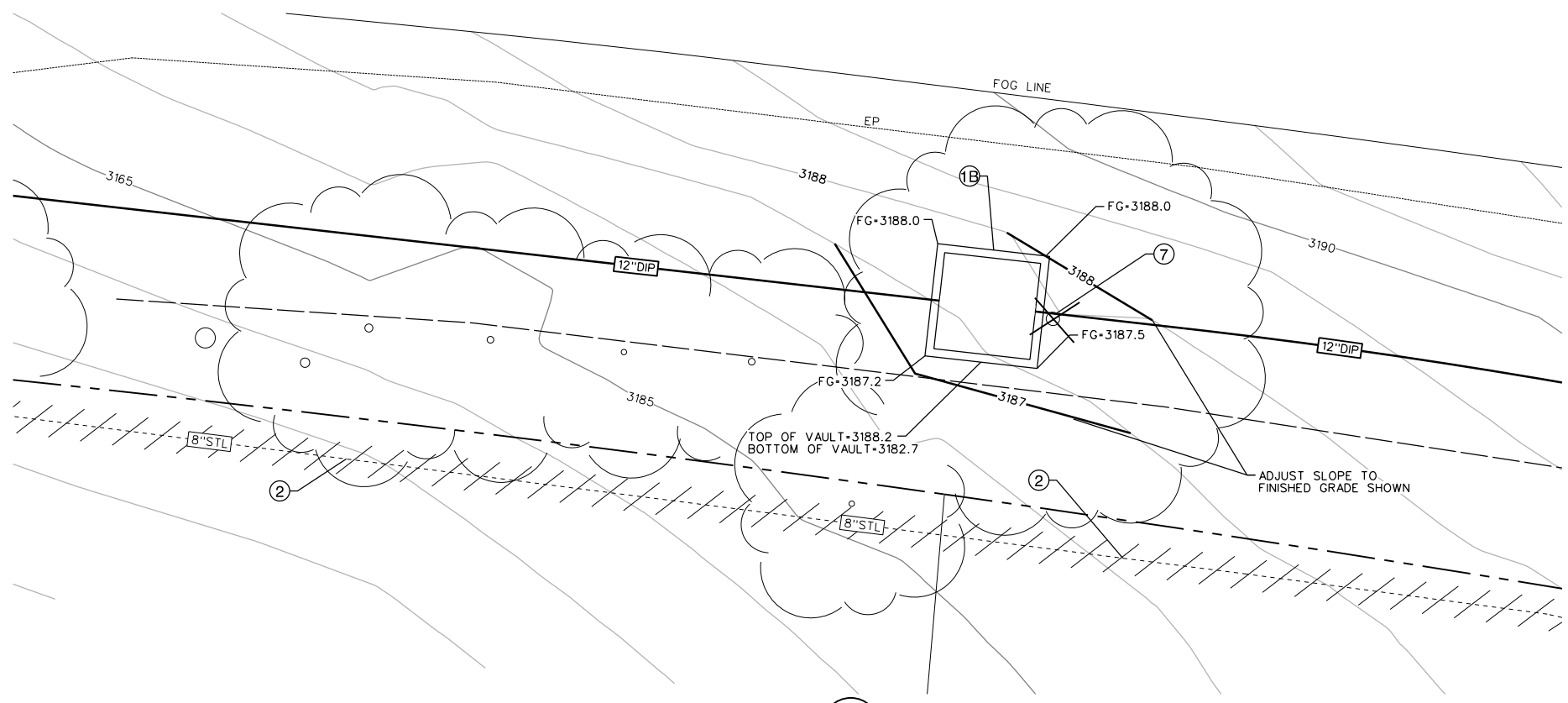
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DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	54	67



PRV #3 DETAIL STA 33+75
SCALE: 1"=5'

- NOTES**
- 1A PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - 1B PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - 2 REMOVE OR ABANDON EXISTING LINE AS NEEDED TO CONSTRUCT IMPROVEMENTS
 - 3 6" GATE VALVE PER CCWD STD DWG W03
 - 4 REMOVE AND REPLACE EXISTING FIRE HYDRANT SEE CCWD STD DWG W04
 - 5 CONNECT TO EXISTING 6" WATER LINE.
 - 6 EXISTING PRV TO BE REMOVED
 - 7 REMOVE EXISTING TREE (10" PP #953)
 - 8 12"X6" FL TEE
 - 9 6" X 90° BEND FL EL
 - 10 PROTECT EXISTING WATER LINE
 - 11 6"X2" FLXFL TEE AND 2" FLXJM GV (SOUTH)
 - 12 12" GATE VALVE PER CCWD STD DWG W03



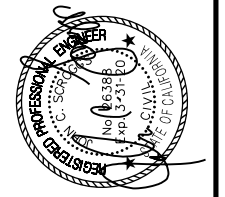
PRV #4 DETAIL STA 45+25
SCALE: 1"=5'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



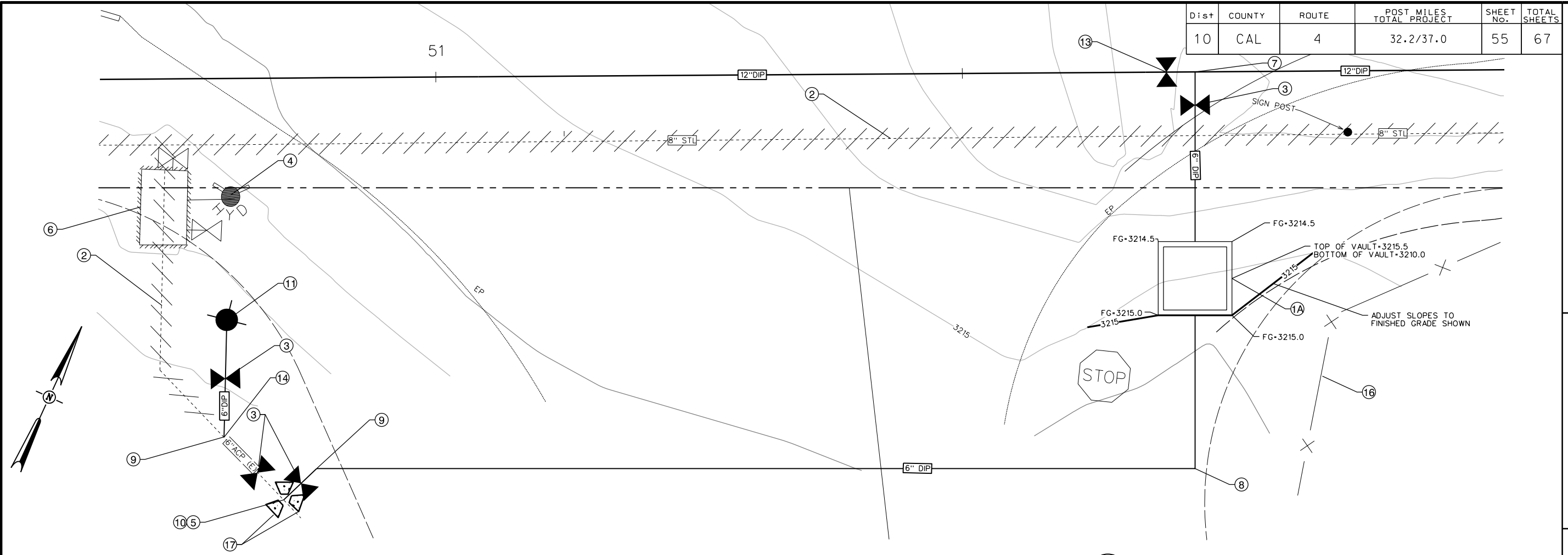
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

PRV VAULT GRADING 2



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\54-PRV VAULT GRADING 2.dgn
DATE: 10/17/2018

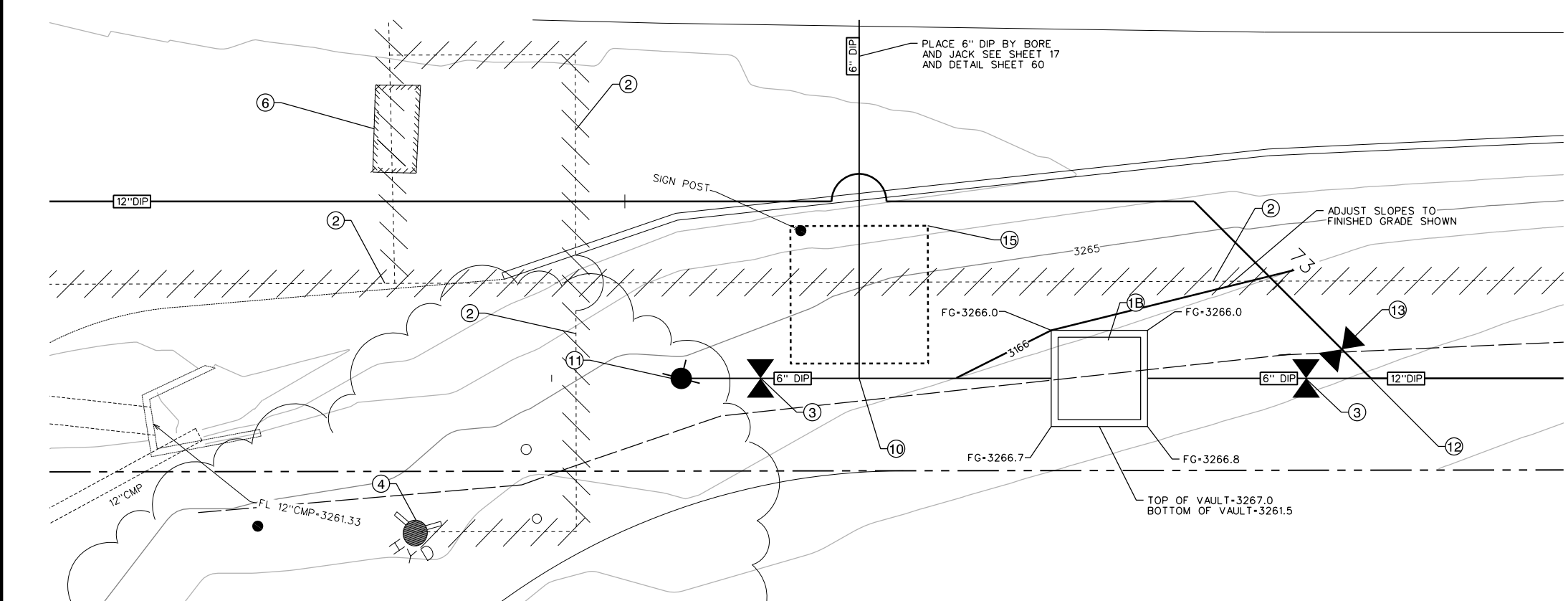
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	55	67



PRV #5 DETAIL STA 50+89

SCALE: 1"=5'

1



PRV #7 DETAIL STA 72+72

SCALE: 1"=5'

2

NOTES

- (1A) PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
- (1B) PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
- (2) REMOVE OR ABANDON EXISTING LINE AS NEEDED TO CONSTRUCT IMPROVEMENTS
- (3) 6" GATE VALVE, SEE CCWD STD DWG W03
- (4) REMOVE EXISTING FIRE HYDRANT
- (5) CONNECT TO EXISTING WATER LINE
- (6) EXISTING PRV TO BE REMOVED
- (7) 12"X6" FL TEE
- (8) 6" X 90° BEND FL EL
- (9) 6" X 45° BEND FL EL
- (10) 6" FL TEE
- (11) INSTALL FIRE HYDRANT PER CCWD STD DWG W04
- (12) 12" Y TEE WITH 6" REDUCER (WEST)
- (13) 12" GATE VALVE, SEE CCWD STD DWG W03
- (14) 6" FCA, DIP TO ACP
- (15) BORE AND JACK RECEIVING PIT
- (16) PROTECT EXISTING FENCE
- (17) INSTALL CONCRETE THRUST BLOCKS PER CCWD STD DWG W01

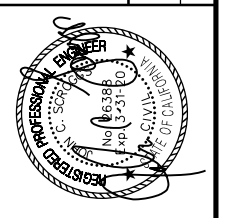
NO.	REVISIONS	DATE	BY
	DESCRIPTION		

BID SET

SCALE: AS SHOWN

JOB NO. 1330-24

RELEASE 10 OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

PRV VAULT GRADING 3

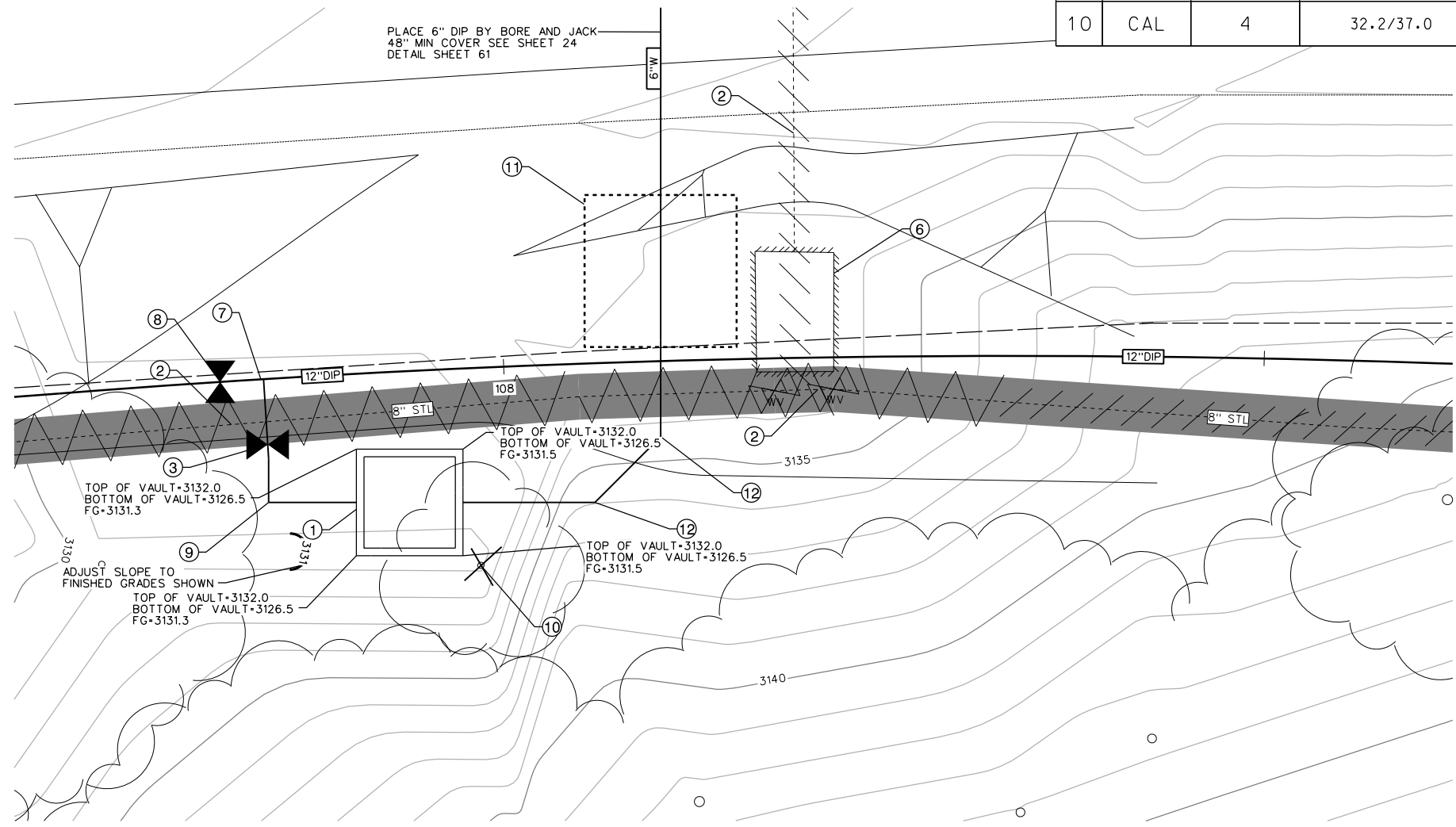
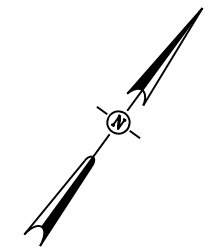


FILE: S:\1330-24 Ebbetts Pass Reach \Plans\35-PRV VAULT GRADING 3.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	56	67

NOTES

- ① PROPOSED PRV ASSEMBLY AND VAULT
SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
- ② REMOVE OR ABANDON EXISTING LINE AS NEEDED TO
CONSTRUCT IMPROVEMENTS
- ③ 6" GATE VALVE, SEE CCWD STD DWG W03
- ⑥ EXISTING PRV TO BE REMOVED
- ⑦ 12"X6" FL TEE
- ⑧ 12" GATE VALVE, SEE CCWD STD DWG W03
- ⑨ 6" X 90° BEND FL EL
- ⑩ REMOVE TREE (5" IC #740)
- ⑪ BORE AND JACK RECEIVING PIT
- ⑫ 6" X 45° BEND FL EL



PRV #8 DETAIL 108+10
SCALE: 1"=5'

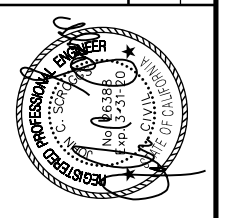


NO.	REVISIONS DESCRIPTION	DATE	BY

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SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



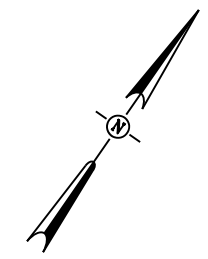
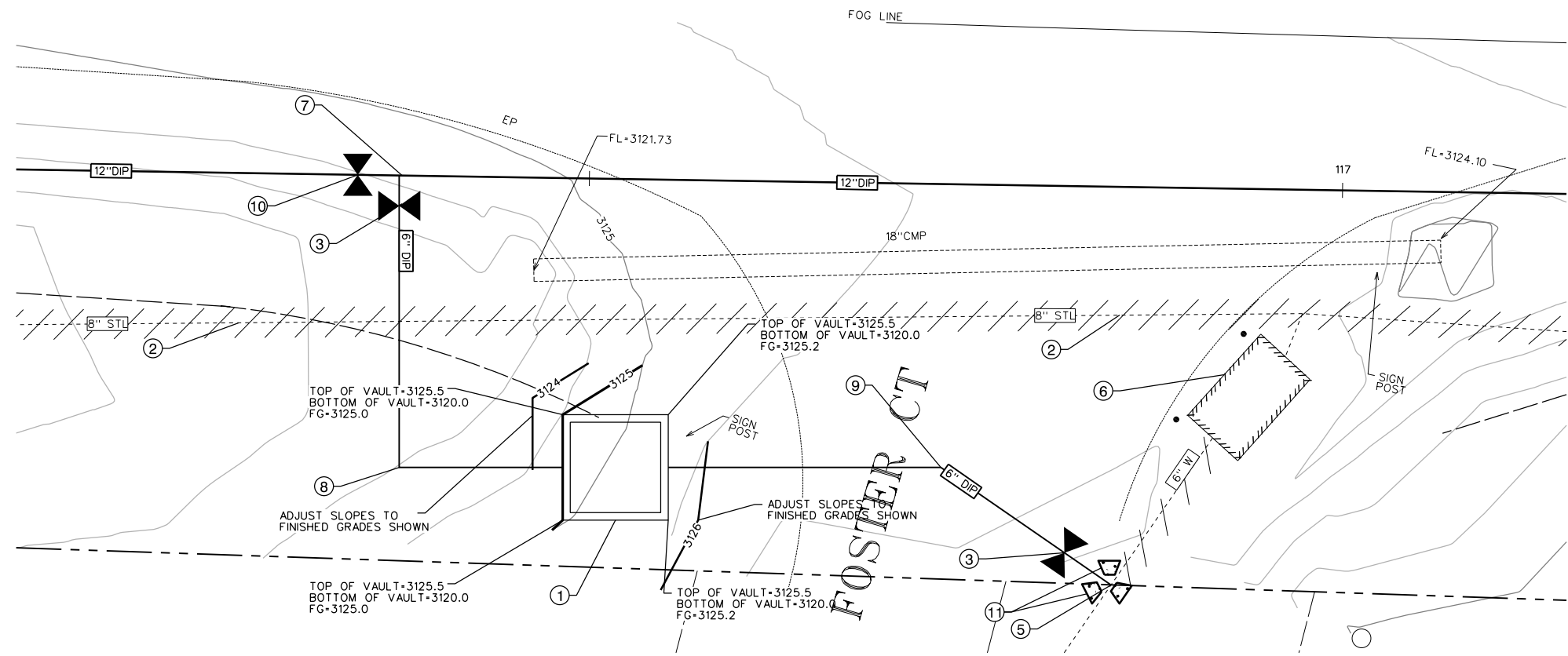
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

PRV VAULT GRADING 4



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\36-PRV VAULT GRADING 4.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	57	67



NOTES

- ① PROPOSED PRV ASSEMBLY AND VAULT
SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
- ② REMOVE OR ABANDON EXISTING LINE AS NEEDED TO
CONSTRUCT IMPROVEMENTS
- ③ 6" GATE VALVE, SEE CCWD STD DWG W03
- ⑤ CONNECT TO EXISTING WATER LINE. 6" X 90° ELBOW
- ⑥ EXISTING PRV TO BE REMOVED
- ⑦ 12"X6" FL TEE
- ⑧ 6" X 90° BEND FL EL
- ⑨ 6" X 11.25° FL X FL AND 6" X 22.5° FL X FL BEND
- ⑩ 12" GATE VALVE, SEE CCWD STD DWG W03
- ⑪ INSTALL CONCRETE THRUST BLOCKS
PER CCWD STD DWG W01

PRV #72 DETAIL STA 116+57

SCALE: 1"=5'

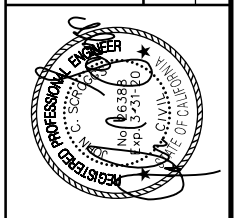
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NO.	REVISIONS DESCRIPTION	DATE	BY

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SCALE: AS SHOWN JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

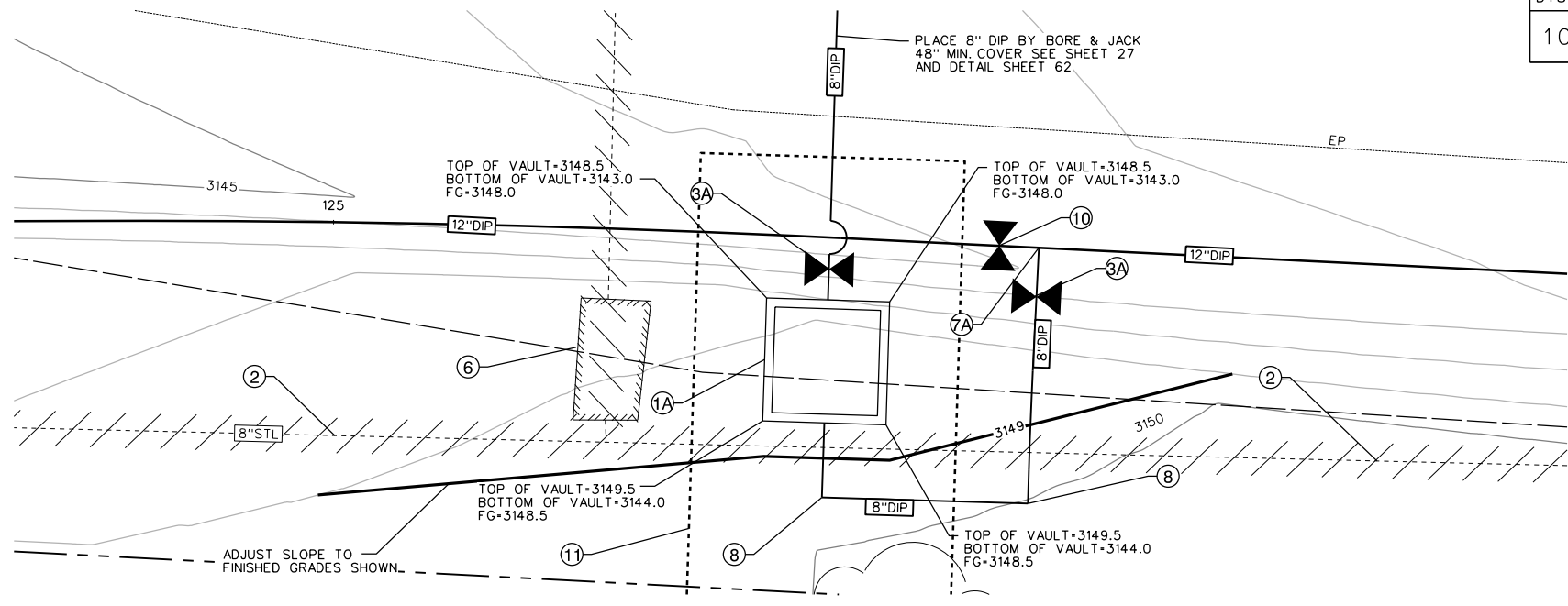
PRV VAULT GRADING 5

KASL CONSULTING ENGINEERS
 7777 Greenback Lane
 Suite 104
 Citrus Heights, CA 95610
 Tel. (916) 722-1800
 Fax (916) 722-4595

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\57-PRV VAULT GRADING 5.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	58	67

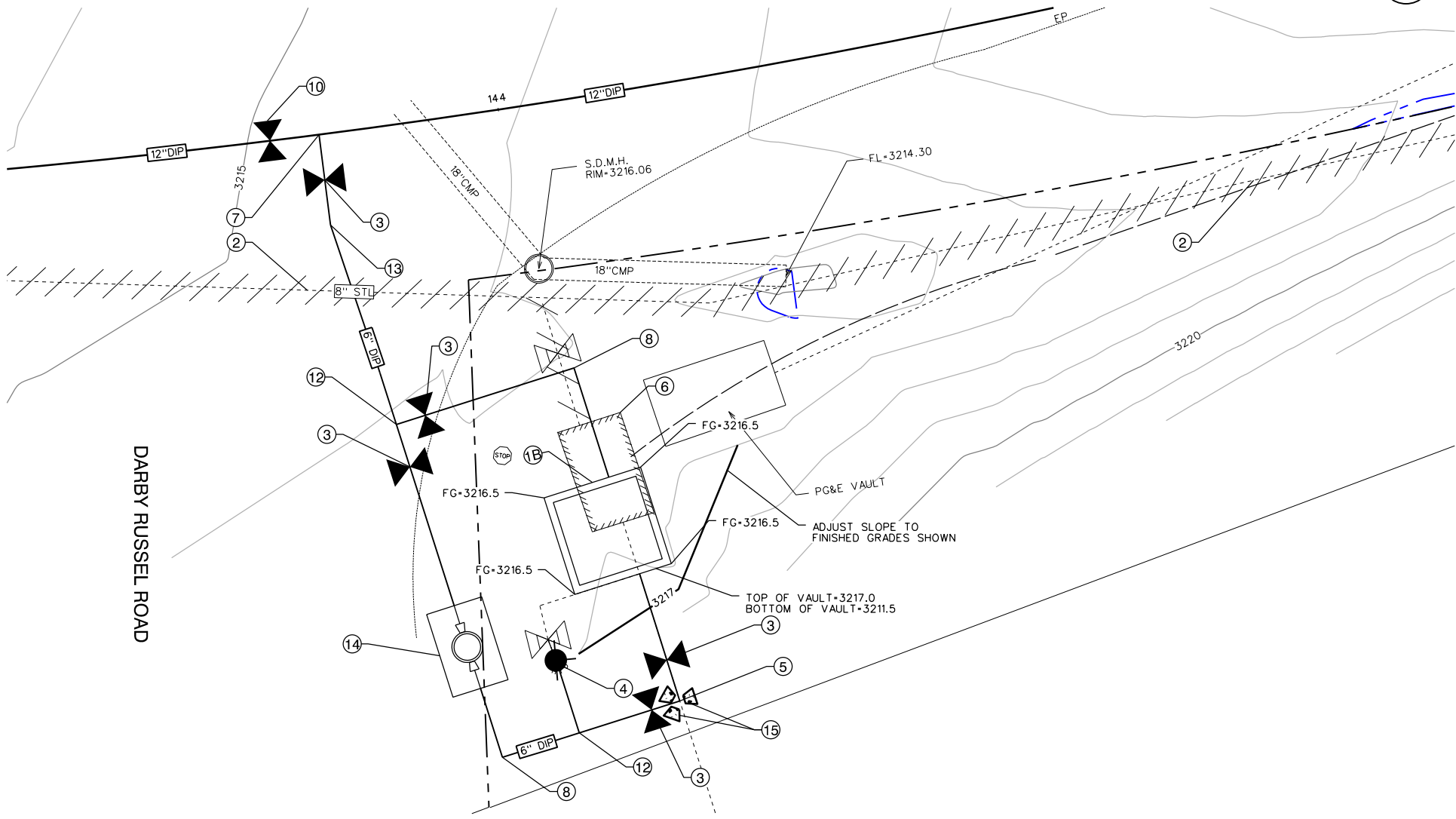
- NOTES**
- 1A PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - 1B PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - 2 REMOVE OR ABANDON EXISTING LINE AS NEEDED TO CONSTRUCT IMPROVEMENTS
 - 3 6" GATE VALVE, SEE CCWD STD DWG W03
 - 3A 8" GATE VALVE, SEE CCWD STD DWG W03
 - 4 REMOVE AND REPLACE EXISTING FIRE HYDRANT SEE CCWD STD DWG W04
 - 5 CONNECT TO EXISTING WATER LINE. 6" FL TEE
 - 6 EXISTING PRV TO BE REMOVED
 - 7 12"X6" FL TEE
 - 7A 12"X8" FL TEE
 - 8 6" X 90° BEND FL EL
 - 9 6" X 90° FL X FL AND 6" X 11.25° FL XL FL BEND
 - 10 12" GATE VALVE SEE CCWD STD DWG W03
 - 11 BORE AND JACK LAUNCHING PIT
 - 12 6" FL TEE
 - 13 6" X 11.25° BEND FL EL
 - 14 TEMPORARY 4" PRV WITH 6"X4" REDUCERS EACH SIDE; INSTALL DURING CONSTRUCTION.(PRV PROVIDED BY CCWD); REMOVE AND SALVAGE TO CCWD AFTER NEW PRV ASSEMBLY IS INSTALLED
 - 15 INSTALL CONCRETE THRUST BLOCK PER CCWD STD DWG W01



PRV #9 DETAIL STA 125+41

SCALE: 1"=5'

1
-



PRV #16 DETAIL STA 143+86

SCALE: 1"=5'

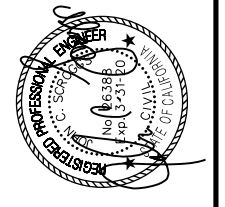
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NO.	REVISIONS DESCRIPTION	DATE	BY

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JOB NO. 1330-24



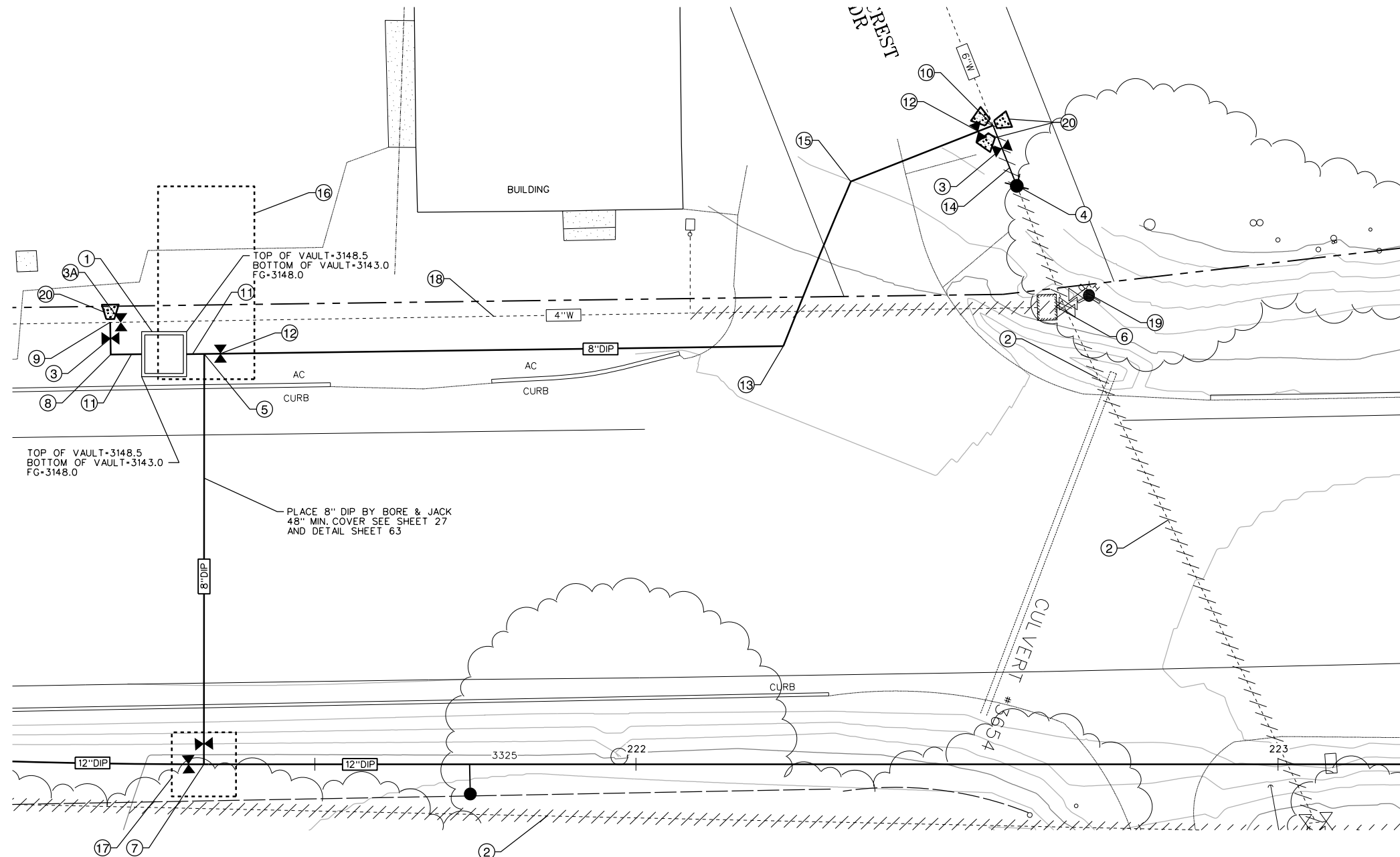
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

PRV VAULT GRADING 6



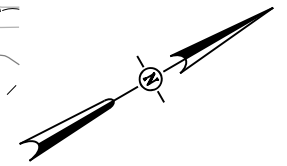
FILE: S:\1330-24 Ebbetts Pass Reach \Plans\58-PRV VAULT GRADING 6.dgn
 DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	59	67



- NOTES**
- ① PROPOSED PRV ASSEMBLY AND VAULT SEE CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL, SHEET 67
 - ② ABANDON WATER LINE
 - ③ 6" GATE VALVE, SEE CCWD STD DWG W03
 - ③A 4" GATE VALVE, SEE CCWD STD DWG W03
 - ④ INSTALL NEW FIRE HYDRANT SEE CCWD STD DWG W04
 - ⑤ 8" FL TEE
 - ⑥ REMOVE EXISTING PRV
 - ⑦ 12"x8" FL TEE STA.
 - ⑧ 6" X 90° X BEND FL EL
 - ⑨ CONNECT TO EXISTING WATER LINE. 4"x6" FL TEE
 - ⑩ 8" FL TEE W/ 8"x6" REDUCER (EAST), 8" X 6" REDUCER (WEST).
 - ⑪ 8"x6" REDUCERS ON BOTH SIDES OF PRV
 - ⑫ 8" GATE VALVE, SEE CCWD STD DWG W03
 - ⑬ 8" X 22.5° FL X FL AND 8" X 45° FL X FL BEND
 - ⑭ 6" DIP HYDRANT LEAD
 - ⑮ 45° FL X FL BEND
 - ⑯ BORE AND JACK LAUNCHING PIT
 - ⑰ BORE AND JACK RECIEVING PIT
 - ⑱ PROTECT EXISTING WATER LINE
 - ⑲ REMOVE EXISTING FIRE HYDRANT
 - ⑳ INSTALL CONCRETE THUST BLOCK PER CCWD STD DWG W01

PRV #20 DETAIL STA 221+32
SCALE: 1"=10'

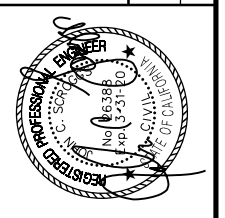


NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

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OCT 2018

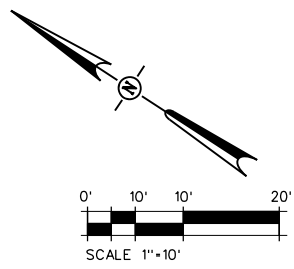


IMPROVEMENT PLANS FOR CONSTRUCTION OF
**EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085**
CALAVERAS COUNTY, CALIFORNIA

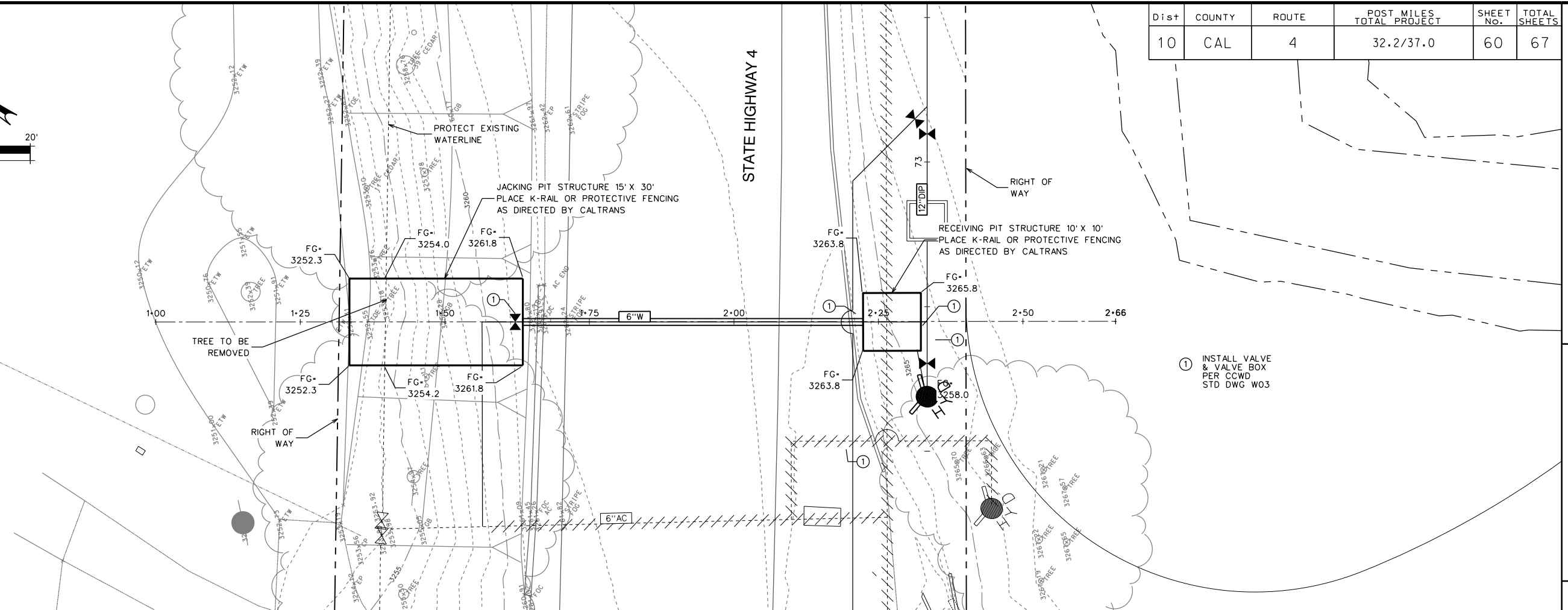
PRV VAULT GRADING 7

KASL
CONSULTING ENGINEERS
7777 Greenback Lane
Suite 104
Citrus Heights, CA 95610
Tel. (916) 722-1800
Fax (916) 722-4595

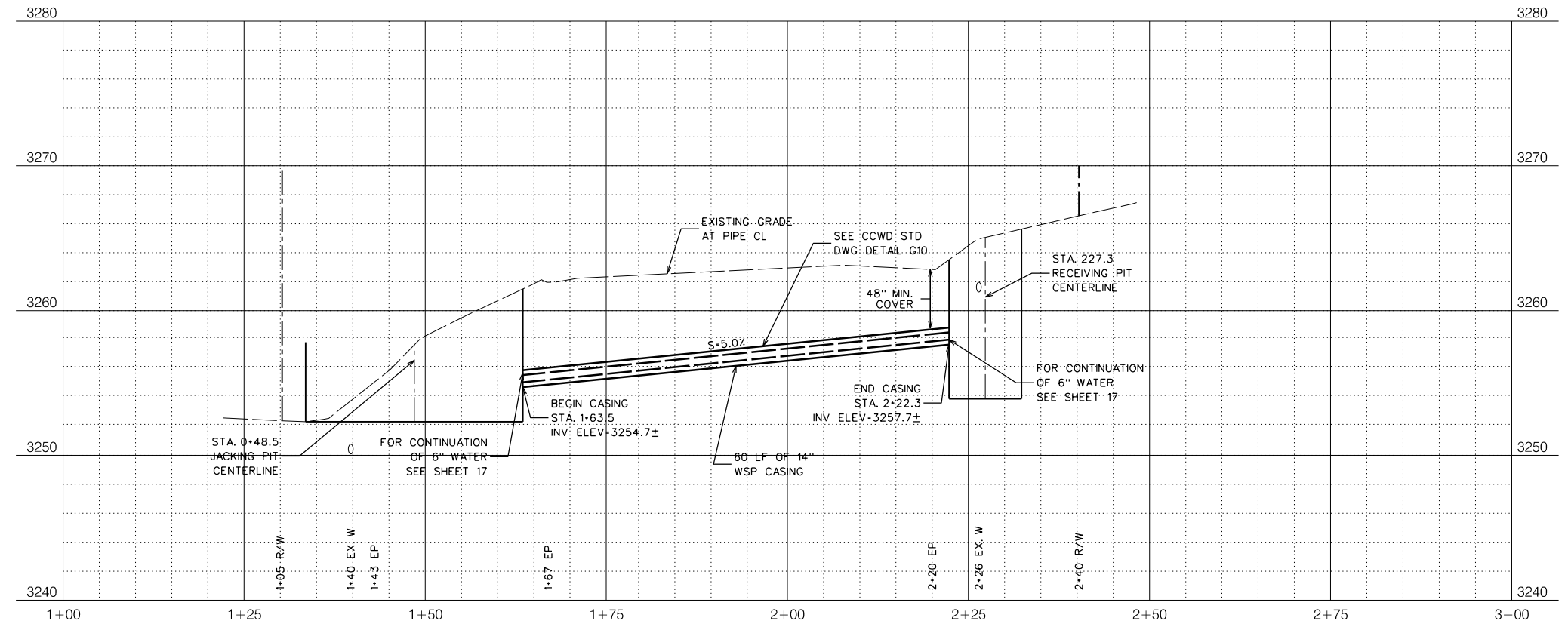
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DATE: 10/17/2018



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	60	67



BORE AND JACK PLAN STA. 72+72



BORE AND JACK PROFILE STA. 72+72

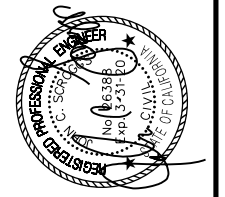
HORIZ. SCALE: 1"=10'
VERT. SCALE: 1"=5'

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

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OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

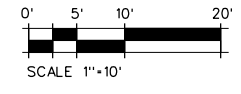
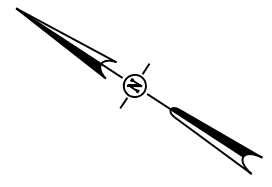
BORE AND JACK PLAN AND PROFILE 1



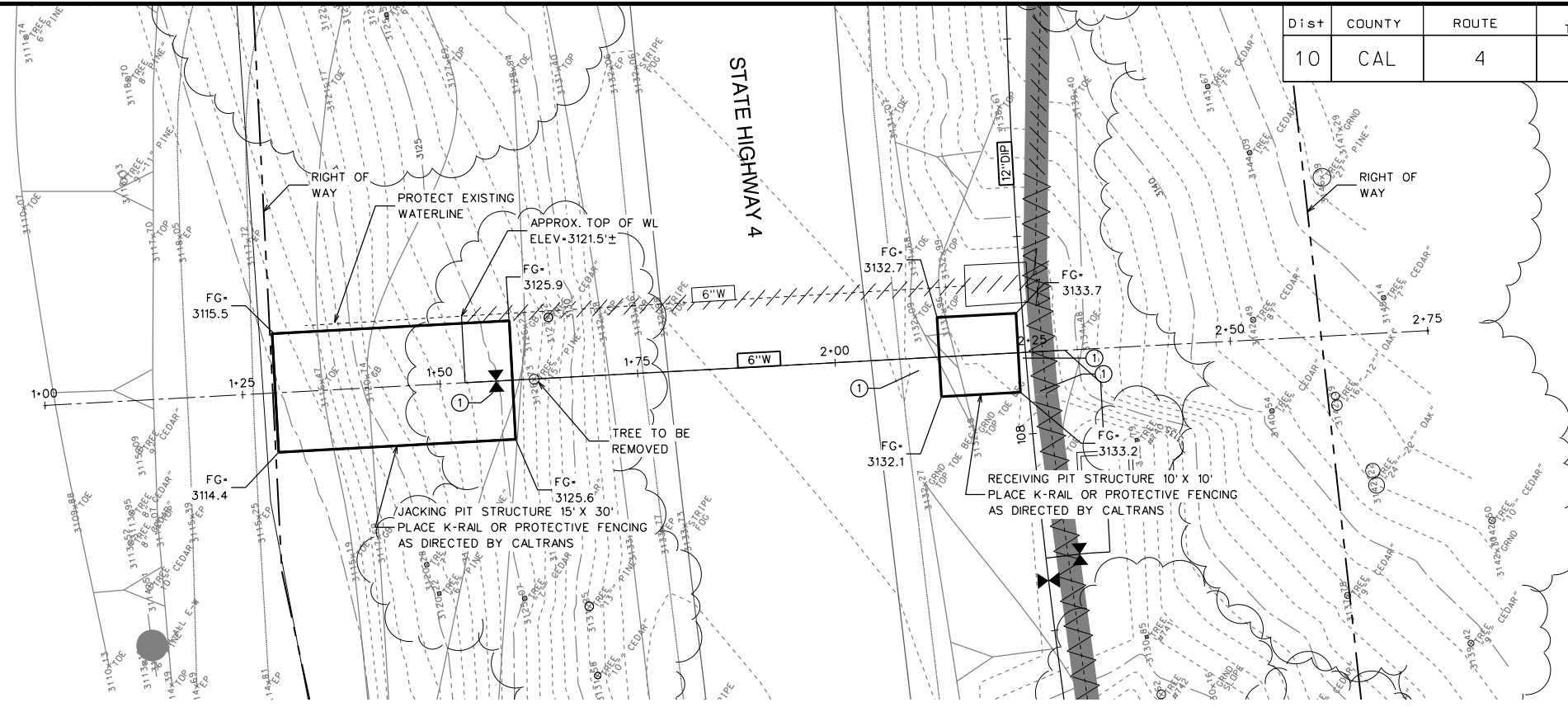
FILE: S:\1330-24 Ebbetts Pass Reach 1\Plans\60-BORE AND JACK PLAN AND PROFILE 1.dgn DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	61	67

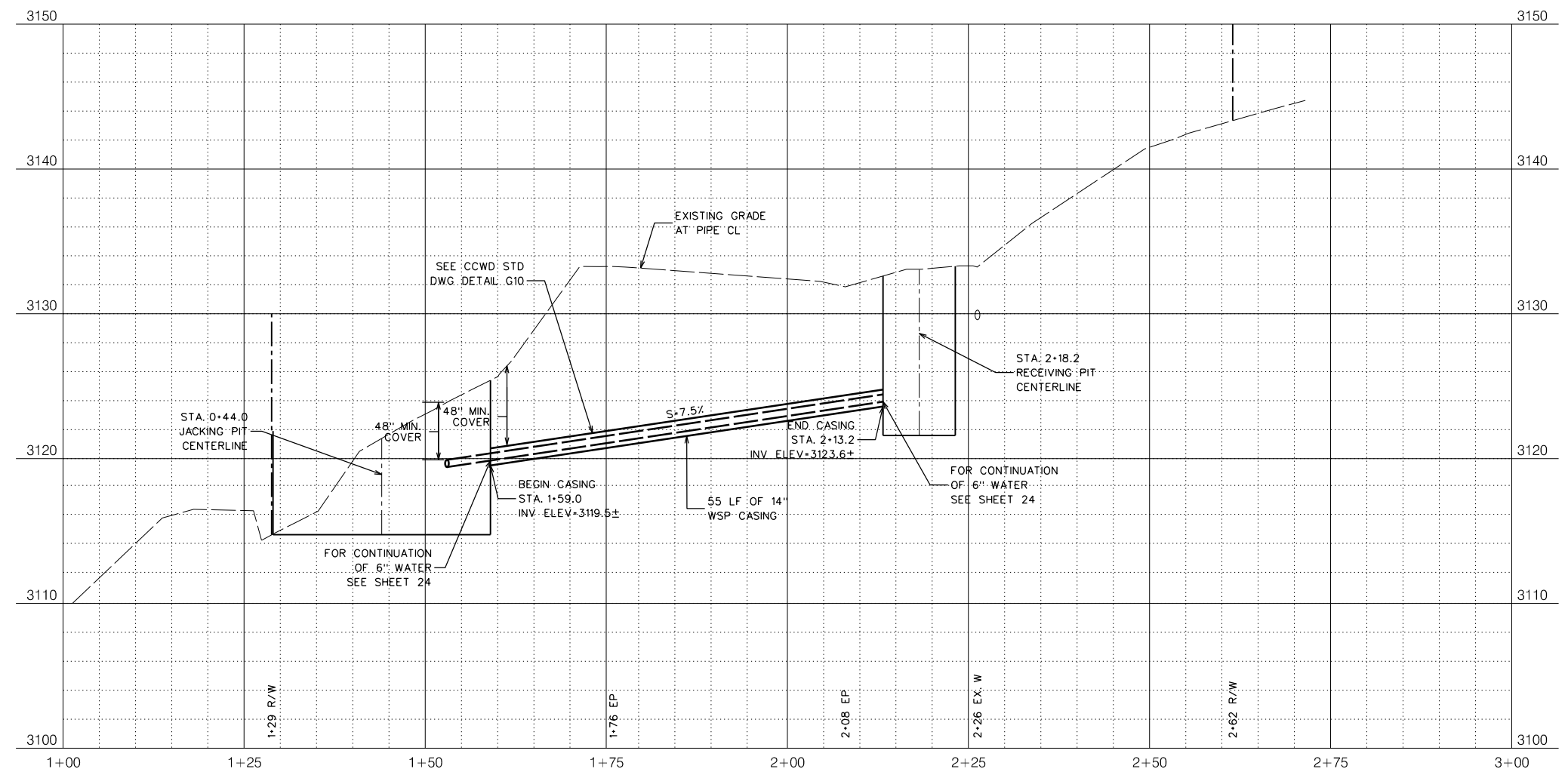
NO.	REVISIONS DESCRIPTION	DATE	BY



① INSTALL VALVE & VALVE BOX PER CCWD STD DWG W03



BORE AND JACK PLAN STA. 108+10



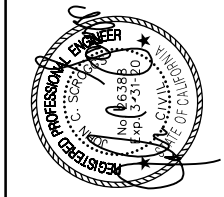
BORE AND JACK PROFILE STA. 108+10

HORIZ. SCALE: 1"=10'
VERT. SCALE: 1"=5'

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

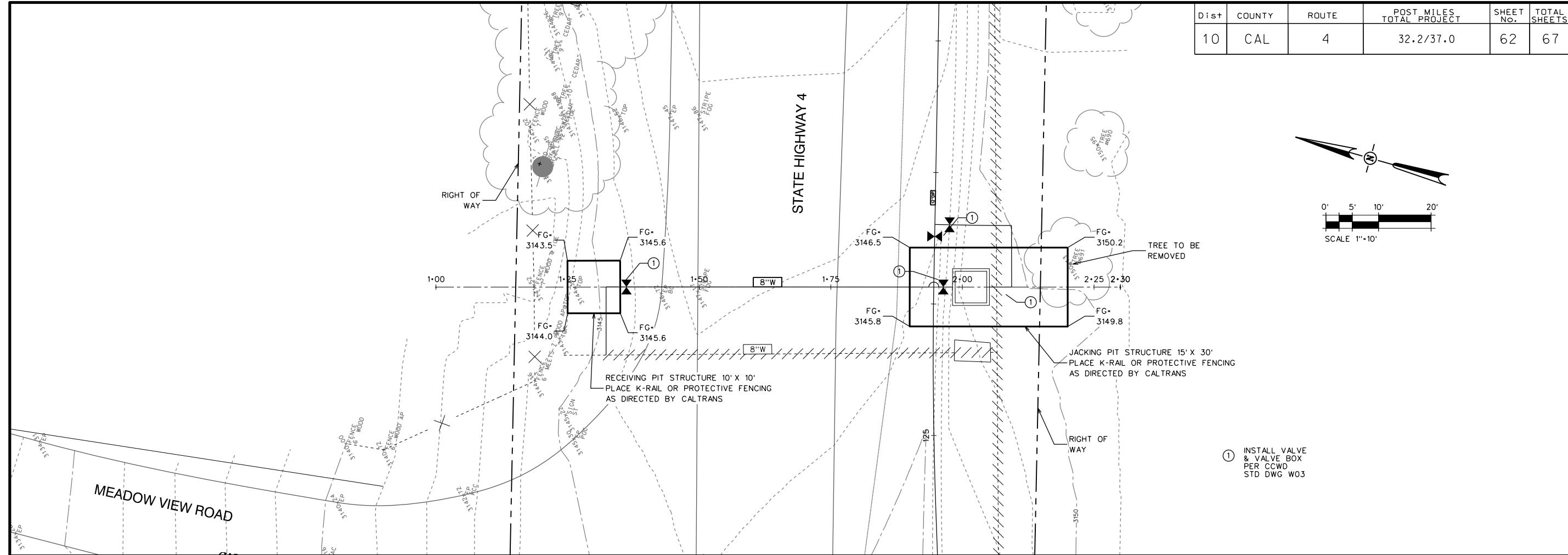
BORE AND JACK PLAN AND PROFILE 2



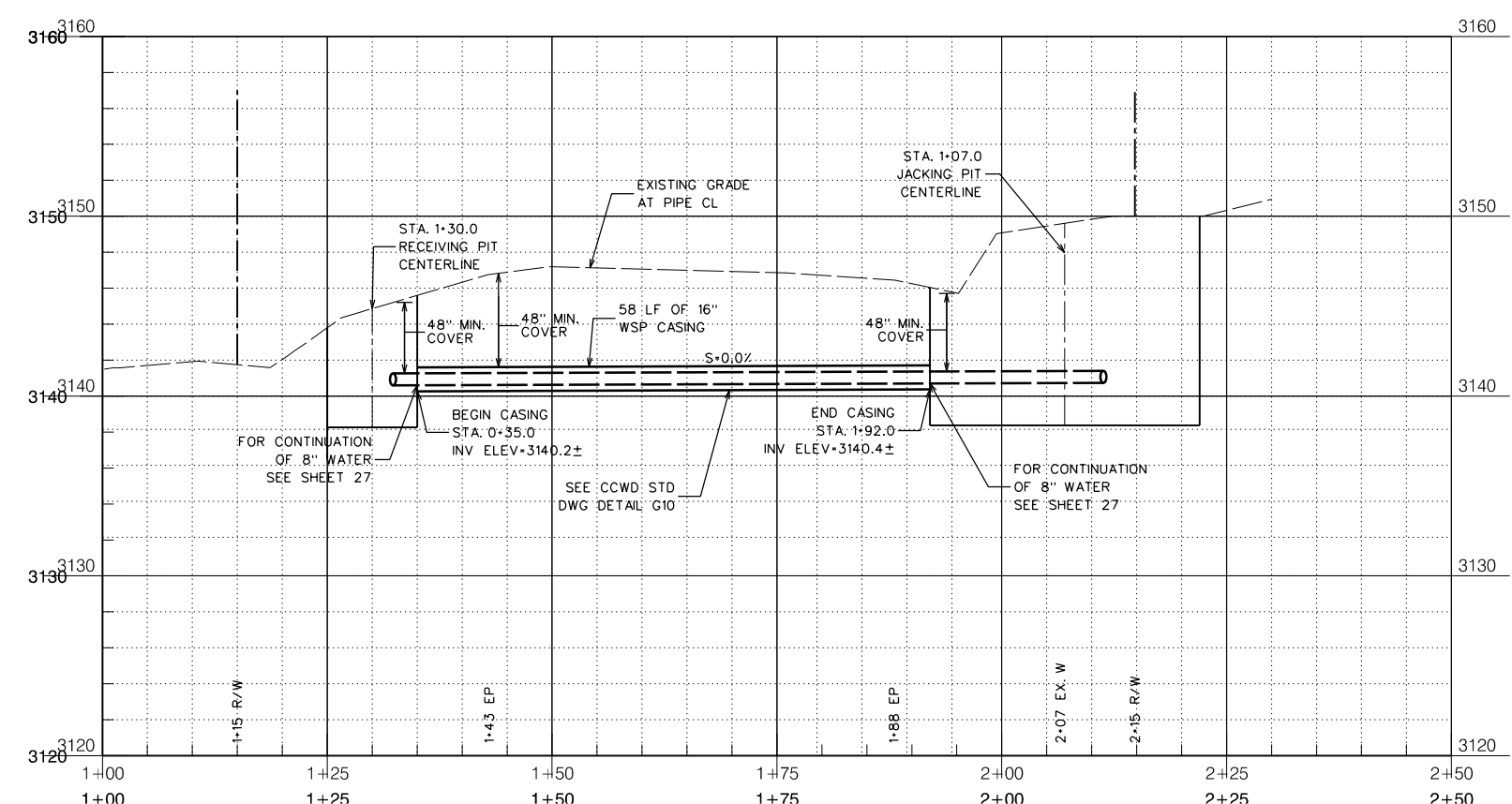
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DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	62	67

NO.	REVISIONS DESCRIPTION	DATE	BY



BORE AND JACK PLAN STA. 125+53

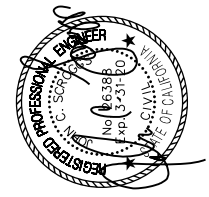


BORE AND JACK PROFILE STA. 125+53

BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



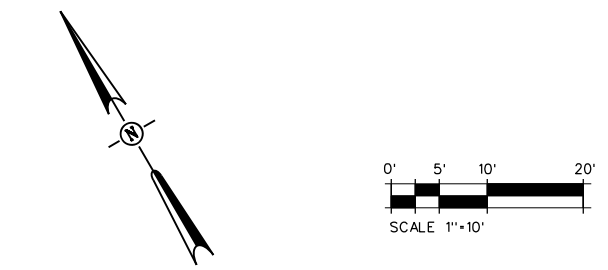
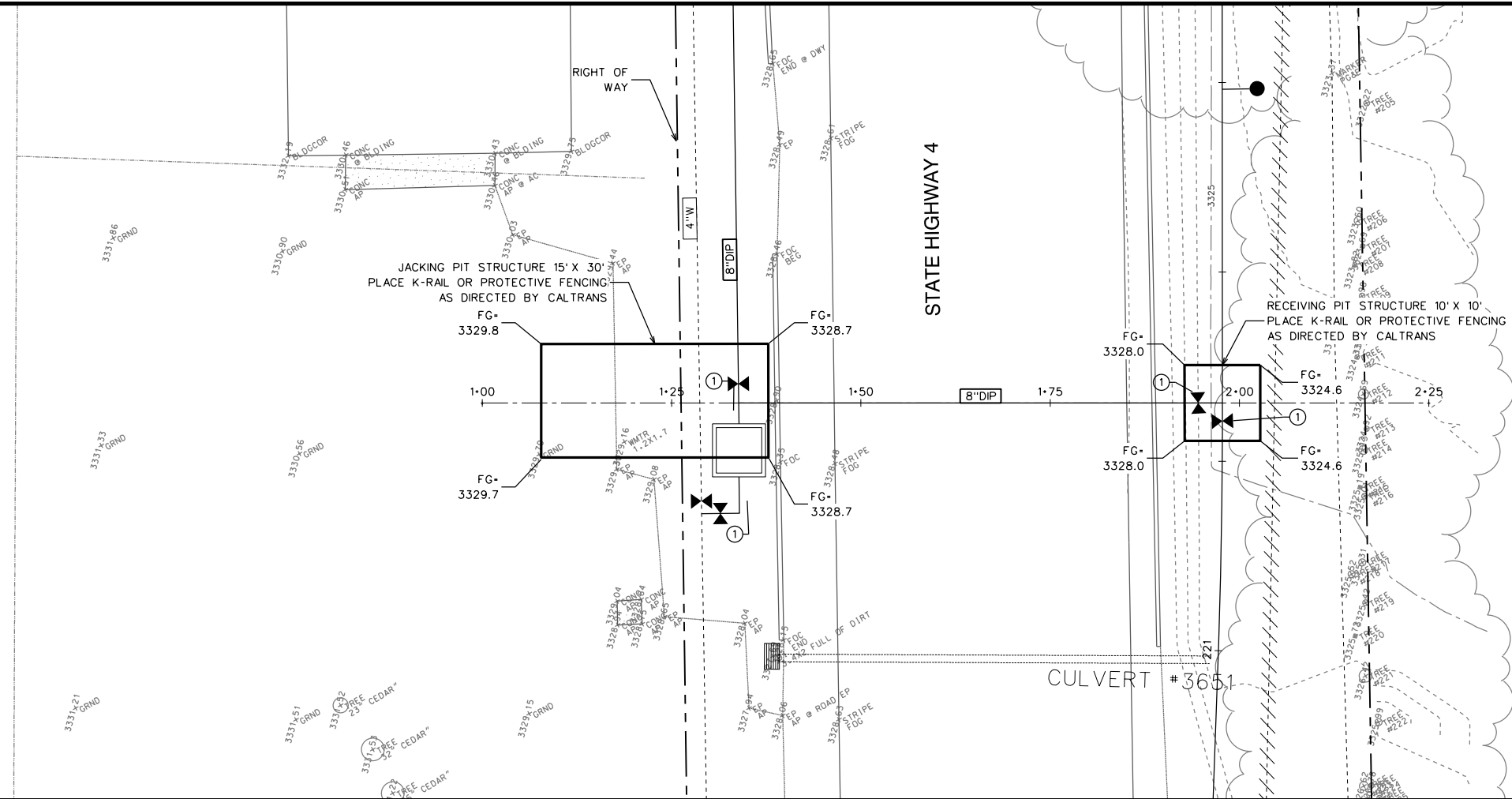
IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

BORE AND JACK PLAN AND PROFILE 3



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\02-BORE AND JACK PLAN AND PROFILE 3.dgn
DATE: 10/17/2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	63	67



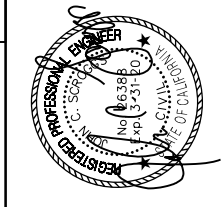
① INSTALL VALVE & VALVE BOX PER CCWD STD DWG W03

NO.	REVISIONS DESCRIPTION	DATE	BY

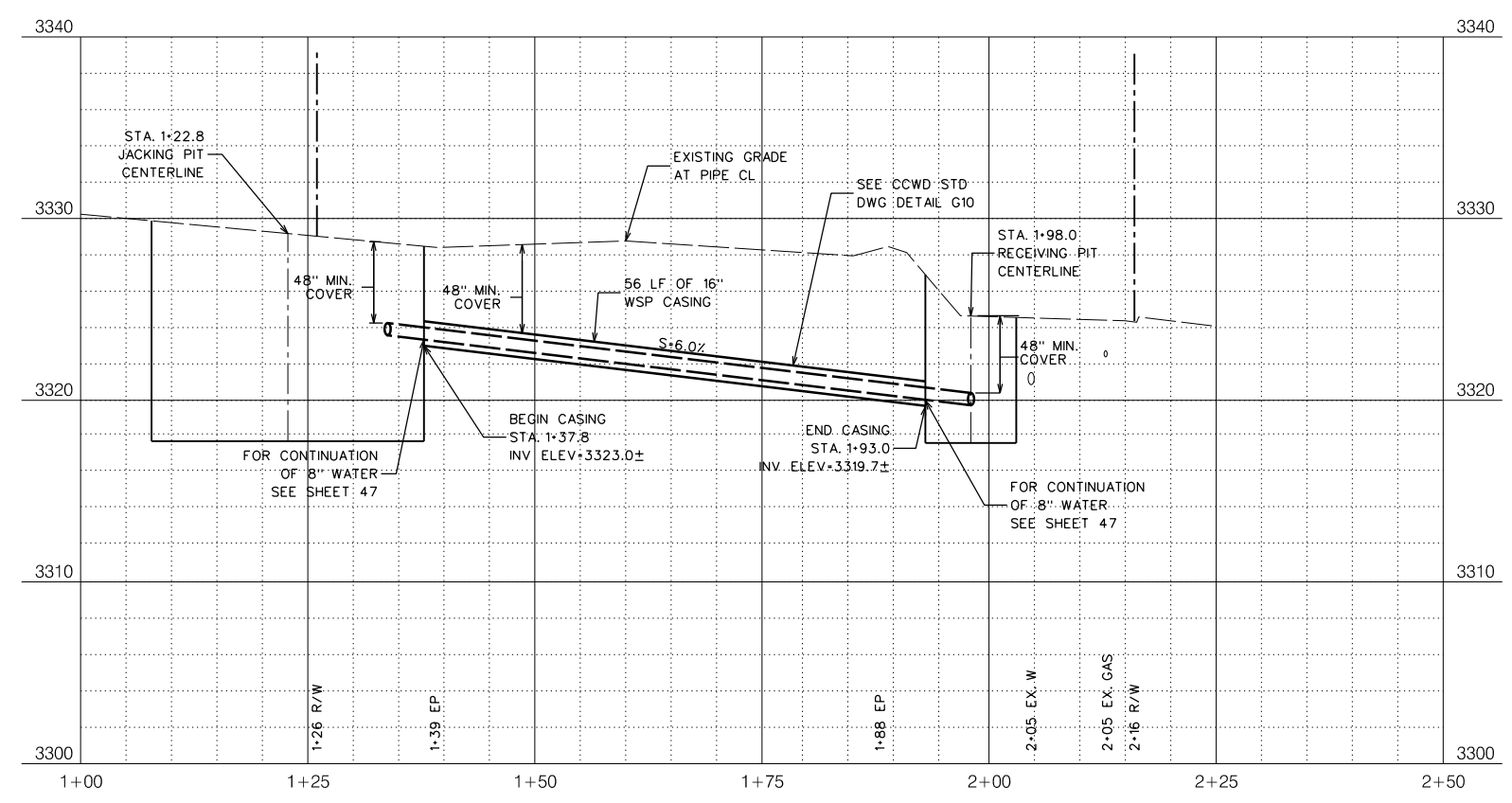
BID SET

SCALE: AS SHOWN
JOB NO. 1330-24

RELEASE 10
OCT 2018



BORE AND JACK PLAN STA. 221+32



BORE AND JACK PROFILE STA. 221+32

IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

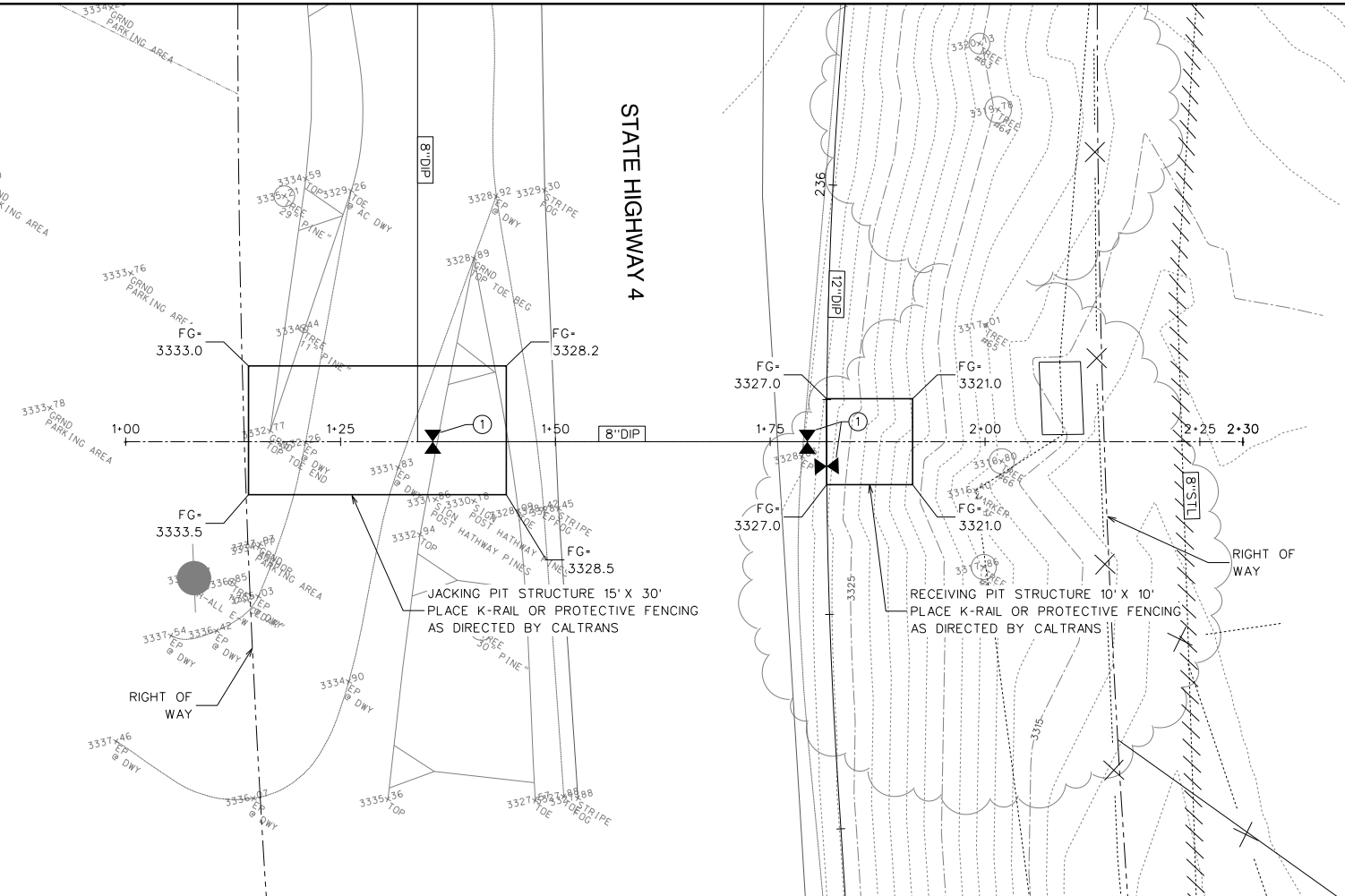
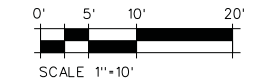
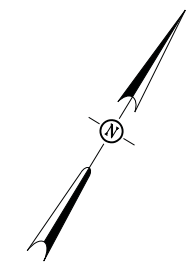
BORE AND JACK PLAN AND PROFILE 4



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\03-BORE AND JACK PLAN AND PROFILE 4.dgn
DATE: 10/17/2018

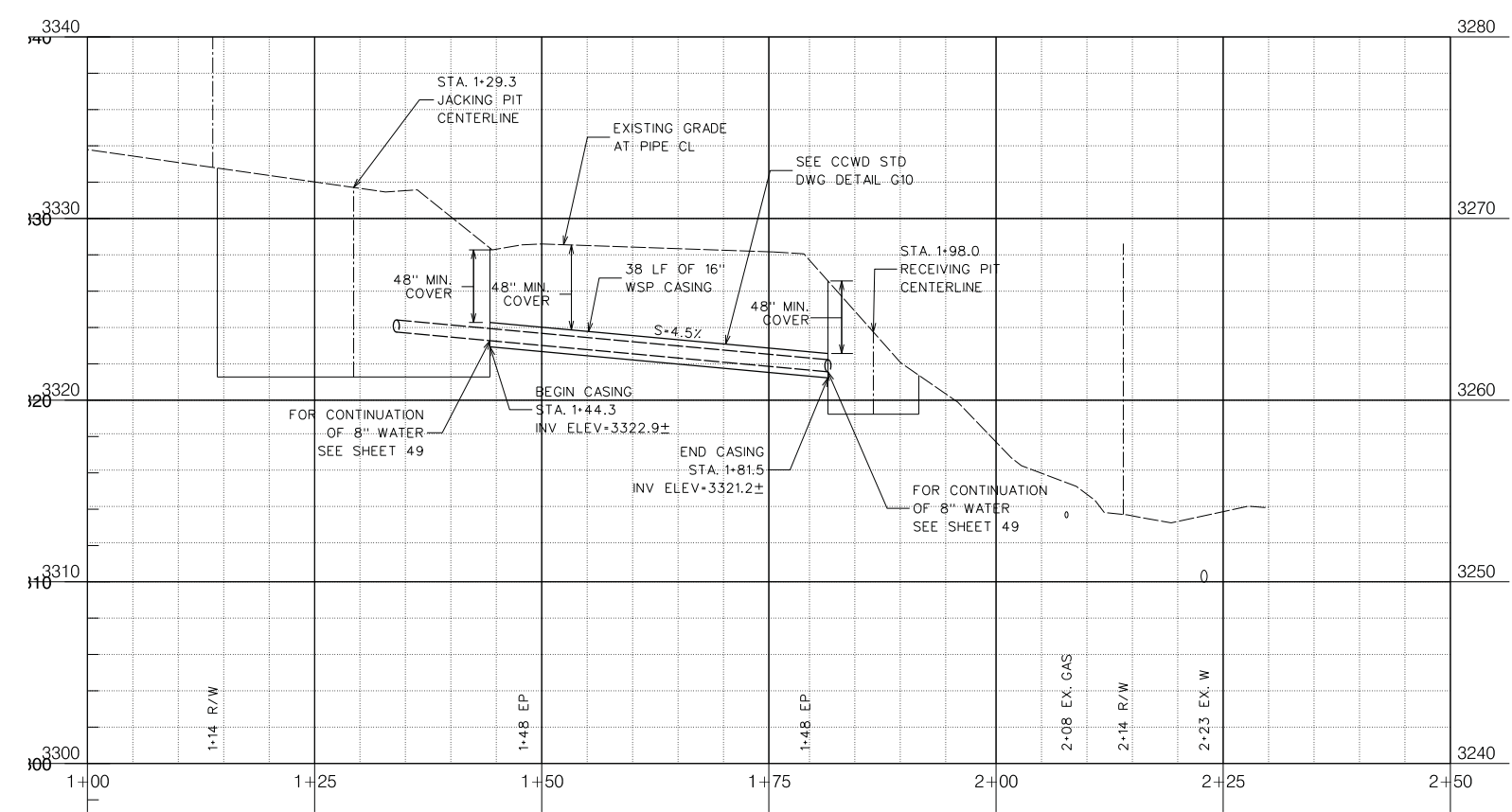
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	64	67

NO.	REVISIONS DESCRIPTION	DATE	BY

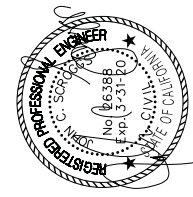


① INSTALL VALVE & VALVE BOX PER CCWD STD DWG W03

BORE AND JACK PLAN STA. 235+70



BORE AND JACK PROFILE STA. 235+70



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
 CALAVERAS COUNTY, CALIFORNIA

BORE AND JACK PLAN AND PROFILE 5



FILE: S:\1330-24 Ebbetts Pass Reach \Plans\4-BORE AND JACK PLAN AND PROFILE 5.dgn
 DATE: 10/17/2008

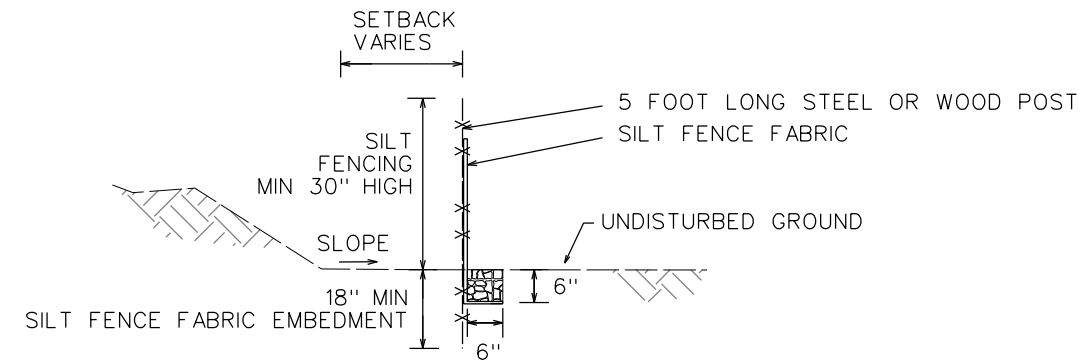
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	CAL	4	32.2/37.0	65	67

SILT FENCE DETAIL NOTES:

- DO NOT USE IN STREAMS, CHANNELS, DRAIN INLETS, OR ANYWHERE FLOW IS CONCENTRATED. DO NOT USE TO DIVERT FLOW.
- THE MAXIMUM LENGTH OF SLOPE DRAINING TO ANY POINT ALONG THE SILT FENCE SHALL BE 200'.
- SILT FENCE FABRIC SHALL BE WOVEN POLYPROPYLENE; WIDTH = 36" MIN, TENSILE STRENGTH = 100 LB MIN.
- THE FOLLOWING CRITERIA IS RECOMMENDED FOR SELECTION OF THE FABRIC EQUIVALENT OPENING SIZE (EOS):
 - IF 50% OR LESS OF THE SOIL, BY WEIGHT, WILL PASS THE U.S. STANDARD SIEVE NO. 200, SELECT THE EOS TO RETAIN 85% OF THE SOIL. THE EOS SHALL NOT BE FINER THAN EOS70.
 - FOR ALL OTHER SOIL TYPES, THE EOS SHALL BE NO LARGER THAN THE OPENINGS IN THE U.S. STANDARD SIEVE NO. 70 EXCEPT WHERE DIRECT DISCHARGE TO A STREAM, LAKE, OR WETLAND WILL OCCUR, THEN THE EOS SHALL BE NO LARGER THAN STANDARD SIEVE NO. 100.
- CONNECTION/JOINING OF SILT FENCES SHALL BE COMPLETED BY TIGHTLY OVERLAPPING THE ENDS OF THE ROLLS A MINIMUM OF 12" OR BY OVERLAPPING THE END POSTS AND SECURING THE TWO POSTS TOGETHER TIGHTLY WITH PLASTIC WIRE TIES AND/OR STEEL BAILING WIRE (9 GAUGE OR HEAVIER).
- STAKES SHALL BE SPACED AT 8'-0" MAX AND SHALL BE POSITIONED ON DOWNSLOPE SIDE OF FENCE.
- STAPLES USED TO FASTEN THE FENCE FABRIC TO THE STAKES SHALL BE NOT LESS THAN 1.25" LONG AND SHALL BE FABRICATED FROM 15 GAUGE OR HEAVIER WIRE. PLASTIC WIRE TIES AND/OR STEEL BAILING WIRE (9 GAUGE OR HEAVIER) MAY BE SUBSTITUTED. NOT LESS THAN 4 STAPLES/TIES SHALL BE USED ON EACH STAKE.
- THE LAST 8' OF FENCE SHALL BE TURNED UPSLOPE.
- SILT FENCES SHALL BE LEFT IN PLACE, REGULARLY INSPECTED, AND MAINTAINED UNTIL THE UPSLOPE AREA IS PERMANENTLY STABILIZED.
- SEDIMENT SHALL BE REMOVED BEFORE THE SEDIMENT ACCUMULATION REACHES ONE-THIRD OF THE BARRIER HEIGHT.

NOTES BYPASS DETAIL:

- BYPASS PIPING MUST BE DISINFECTED BY CONTRACTOR, INSPECTED AND ACCEPTED BY DISTRICT BEFORE BYPASS PIPING IS PLACED INTO TEMPORARY SERVICE
- CASE 1 AND CASE 2 TO BE INSTALLED AT EACH END OF SECTION TO BE BYPASSED.
 - BYPASS 12"X12"X8" TEE AND GATE VALVE ON NEW 12" WATER MAIN TO REMAIN UPON FINISHING CONSTRUCTION; BUT OTHERWISE REMOVE TEMP 8" BYPASS LINE



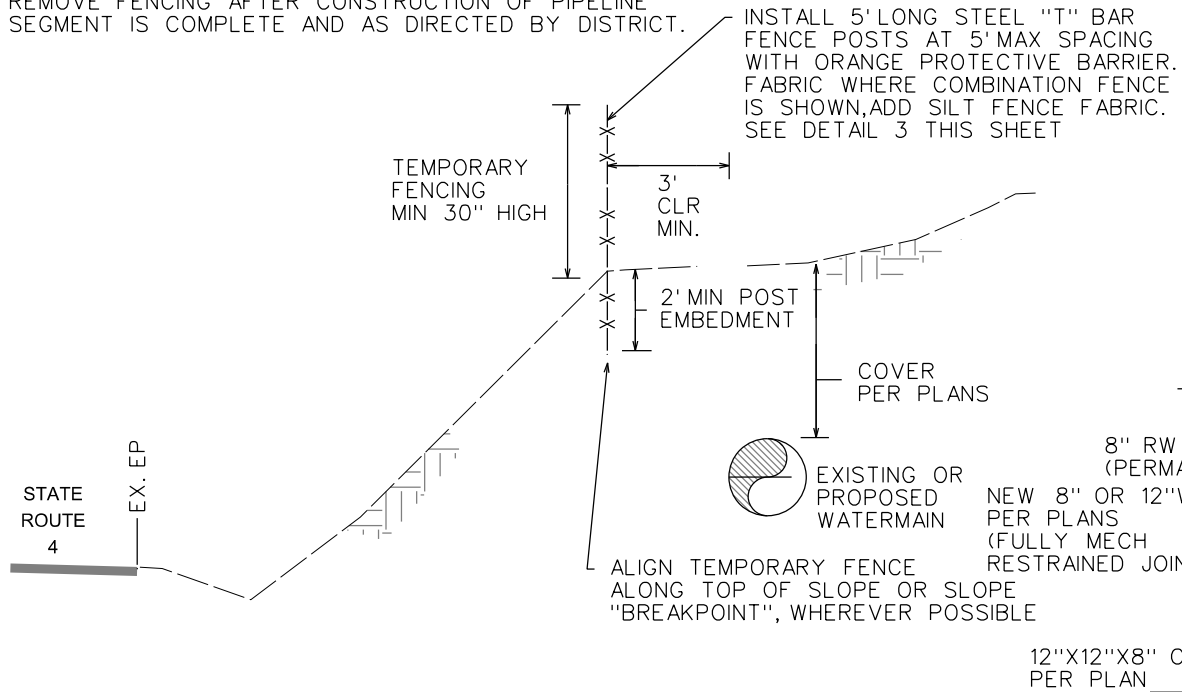
SILT FENCE DETAIL

NO SCALE

3
65

STATION LIMIT BYPASS PIPING		
START STA	STOP STA	FOOTAGE
8+21	14+30	609'
38+19	42+20	401'
93+00	98+00	500'
105+00	109+30	430'
160+38	B5+21	977'
184+81	194+25	944'
199+50	202+61	311'
211+50	219+00	750'
237+40	248+18	1078'

NOTE:
AT LOCATIONS INDICATED ON THE PLANS INSTALL TEMPORARY FENCING TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING STATE ROUTE 4 ROADWAY. REMOVE FENCING AFTER CONSTRUCTION OF PIPELINE SEGMENT IS COMPLETE AND AS DIRECTED BY DISTRICT.

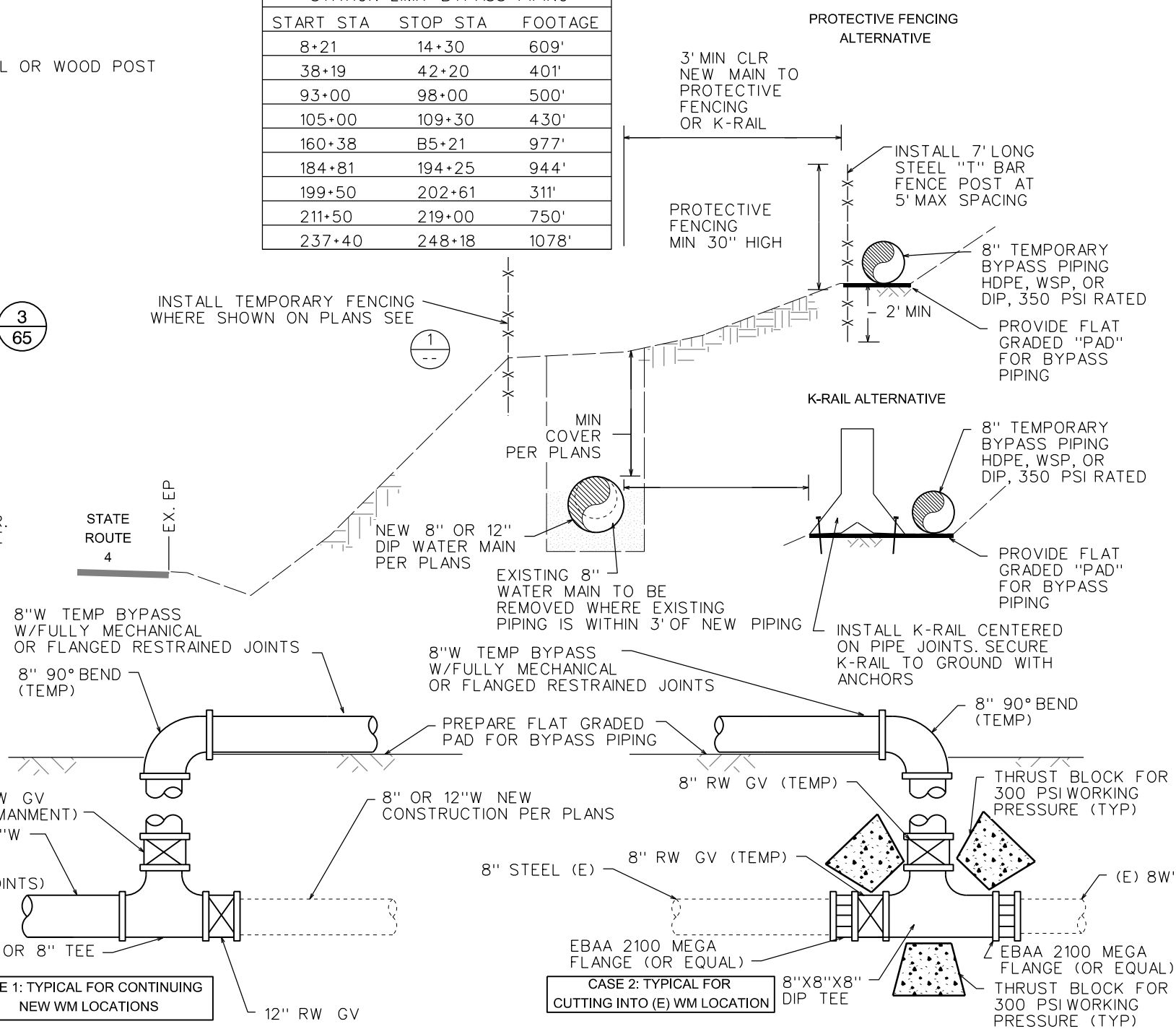


TEMPORARY FENCING DETAIL

NO SCALE

1
65

INSTALL TEMPORARY FENCING WHERE SHOWN ON PLANS SEE 1



CASE 1, CASE 2 BYPASS PIPING TYPICAL SECTIONS

NO SCALE

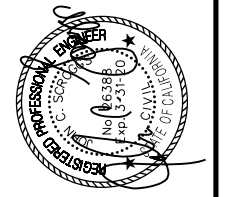
2
65

NO.	REVISIONS DESCRIPTION	DATE	BY

BID SET

RELEASE 10
OCT 2018

SCALE: AS SHOWN
JOB NO. 1330-24

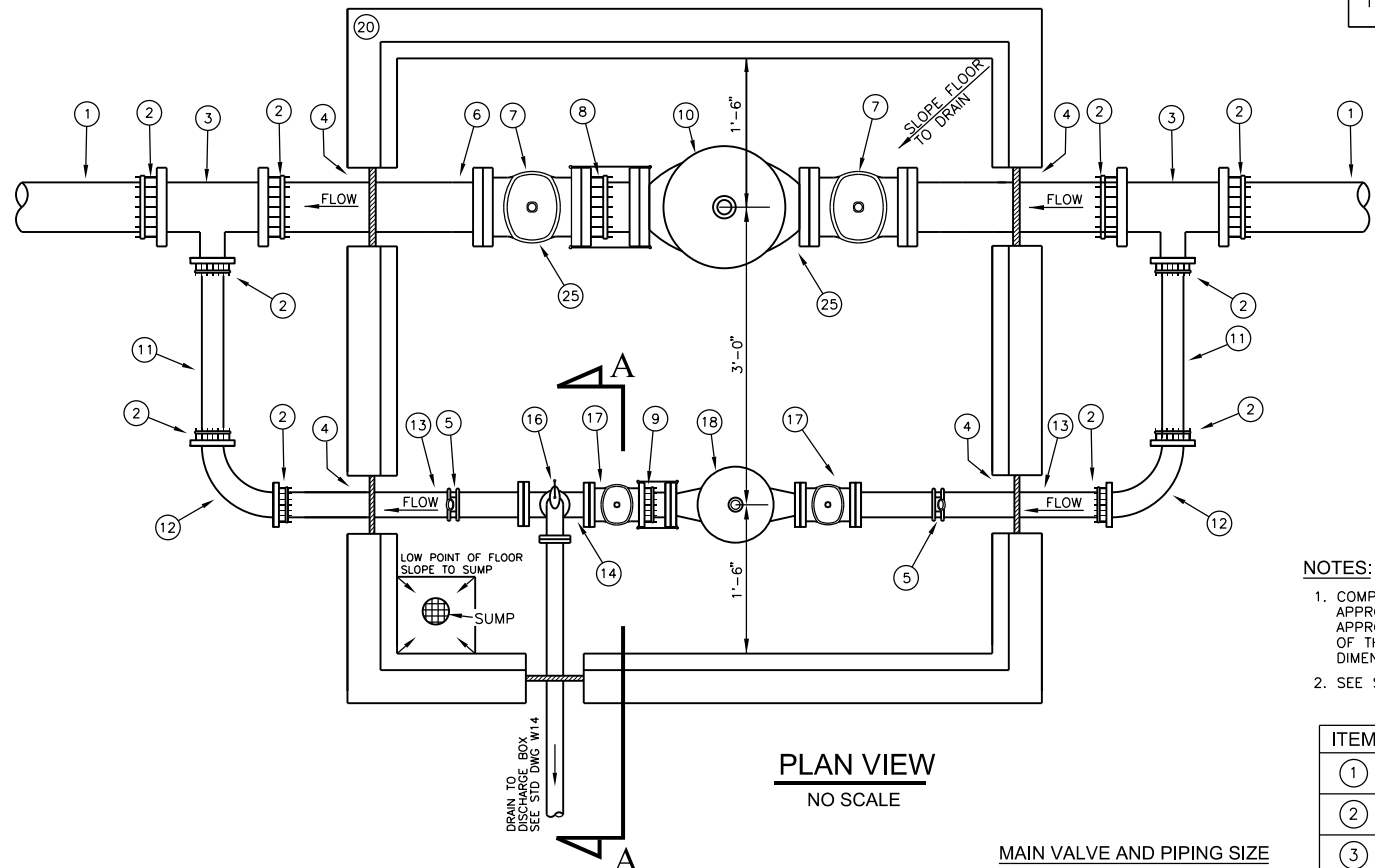


IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA

BYPASS AND FENCING DETAILS

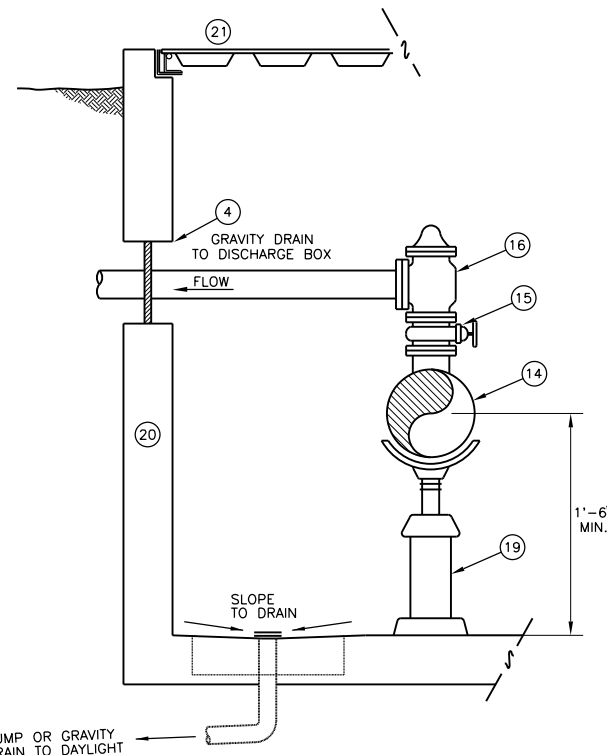


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	CAL	4	32.2/37.0	67	67



PLAN VIEW
NO SCALE

MAIN VALVE AND PIPING SIZE
NEW PRV STATION #4: X=8"
ALL OTHER PRV STATIONS: X=6"



SECTION A-A
NO SCALE

PRESSURE GAGE
NO SCALE

NOTES:

- COMPONENTS, FITTINGS AND OTHER DETAILS SHOWN HEREON, HAVE BEEN DRAWN TO APPROXIMATE DIMENSIONS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF THE INSTALLATION INCLUDING SIZE, LOCATION, MANUFACTURERS NAME, MODEL AND DIMENSIONAL AND ENGINEERING DATA OF ALL COMPONENTS.
- SEE SITE PLAN FOR LOCATION OF ALIGNMENTS AND OUTLETS.

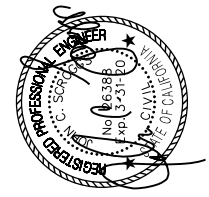
ITEM	DESCRIPTION
①	X" DIP WATER MAIN
②	MECHANICAL RESTRAINT GLAND
③	X" x X" x 3" DUCTILE IRON TEE, MJ X MJ X MJ
④	CORE DRILL OR FORMED HOLES; FILL ANNULAR VOID WITH NON-SHRINK CONSTRUCTION GROUT, SAKRETE, SIKAGROUT, FIVE STAR, OR EUQAL
⑤	SADDLE, CORP STOP, PRESSURE GAGE ASSEMBLY (SEE DETAIL THIS SHEET)
⑥	X" D.I.P. SPOOL, FLANGE X PLAIN END
⑦	X" AWWA C515 GATE VALVE, FL X FL, AWWA NUT OPERATORS
⑧	X" ROMAC DJ400 DISMANTLING JOINT
⑨	3" ROMAC DJ400 DISMANTLING JOINT
⑩	X" PRESSURE REDUCING VALVE, FL X FL, SEE SPECIFICATIONS
⑪	3" D.I.P. SPOOL, PLAIN ENDS
⑫	3" 90-DEGREE BEND, MJ X MJ
⑬	3" D.I.P. SPOOL, FLANGE X PLAIN ENDS
⑭	3" x 3" x 2" DUCTILE IRON TEE
⑮	2" AWWA C515, GATE VALVE
⑯	2" PRESSURE RELIEF VALVE, SEE SPECIFICATIONS
⑰	3" AWWA C515 GATE VALVE, FL X FL, AWWA NUT OPERATOR
⑱	3" PRESSURE REDUCING VALVE, FL X FL, SEE SPECIFICATIONS
⑲	PIPE SUPPORT, HOT DIP GALVANIZED, PLACER WATERWORKS (PW/PS) WITH STANDARD (PW/SDL-S) SADDLES
⑳	PRECAST CONCRETE VAULT, MINIMUM 6'-0" I.D. X 6'-0" I.D., SEE SPECIFICATIONS
㉑	MIN 72" X 72" DOUBLE LEAF HATCH, HOT DIPPED GALVANIZED, 1/4" STEEL Z-BAR FRAME, 1/4" STEEL DIAMOND PLATE, STAINLESS STEEL HARDWARE AND SAFETY ARMS, TORSION ASSIST, FOUR 1/2" SECURITY BOLTS, H20 TRAFFIC RATED
㉒	SERVICE SADDLE (MUELLER DR2A, NYLON DUCTILE IRON, DOUBLE STRAP)
㉓	3/4" CORP. STOP BALL VALVE
㉔	3/4" THREADED PIPE NIPPLE (RED BRASS ASTM B43, SCHEDULE 40)
㉕	3/4" 45-DEGREE BRASS COUPLING, LEAD FREE
㉖	BRASS REDUCER BUSHING, 3/4" MALE TO 1/4" FEMALE NPT REDUCING BUSHINGS (SWAGELOK 12-RB-4 OR EQUAL)
㉗	BOURDON TUBE PRES. GAGES (WIKA TYPE 213.53DW, LIQUID FILLED)

CCWD STANDARD PRV ASSEMBLY AND VAULT DETAIL

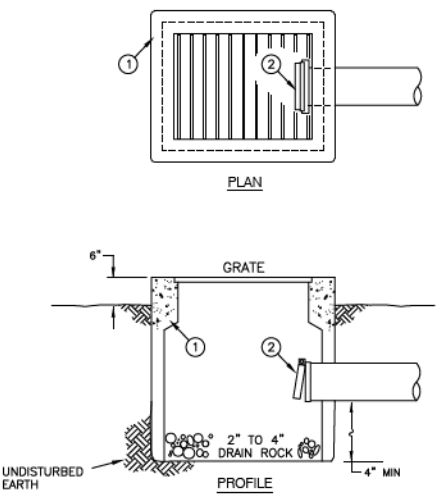
NO SCALE

NO.	REVISIONS	DATE	BY

BID SET
RELEASE 10 OCT 2018
SCALE: AS SHOWN
JOB NO. 1330-24



IMPROVEMENT PLANS FOR CONSTRUCTION OF
EBBETTS PASS WATER SYSTEM REACH 1
PIPELINE REPLACEMENT PROJECT CCWD CIP NO. 11085
CALAVERAS COUNTY, CALIFORNIA
CCWD STANDARD PRV DETAIL



ITEM #	DESCRIPTION
①	2"x2" DRAINAGE INLET BOX W/ FRAME AND GRATE
②	FLAP VALVE

CALAVERAS COUNTY WATER DISTRICT

WATER DETAILS DISCHARGE BOX

DRAWN BY: CCWD STAFF
APPROVED: S. HUTCHINGS
SCALE: NONE
DATE: DEC 2008
CCWD STANDARD DRAWING NO. W14

FILE: S:\1330-24 Ebbetts Pass Reach \Plans\07-PRV STD DETAIL.dgn
DATE: 10/17/2008