

# CITY OF UKIAH THE GREAT REDWOOD TRAIL PHASE 4

SPECIFICATION NO. 21-02  
SEPTEMBER 30, 2022



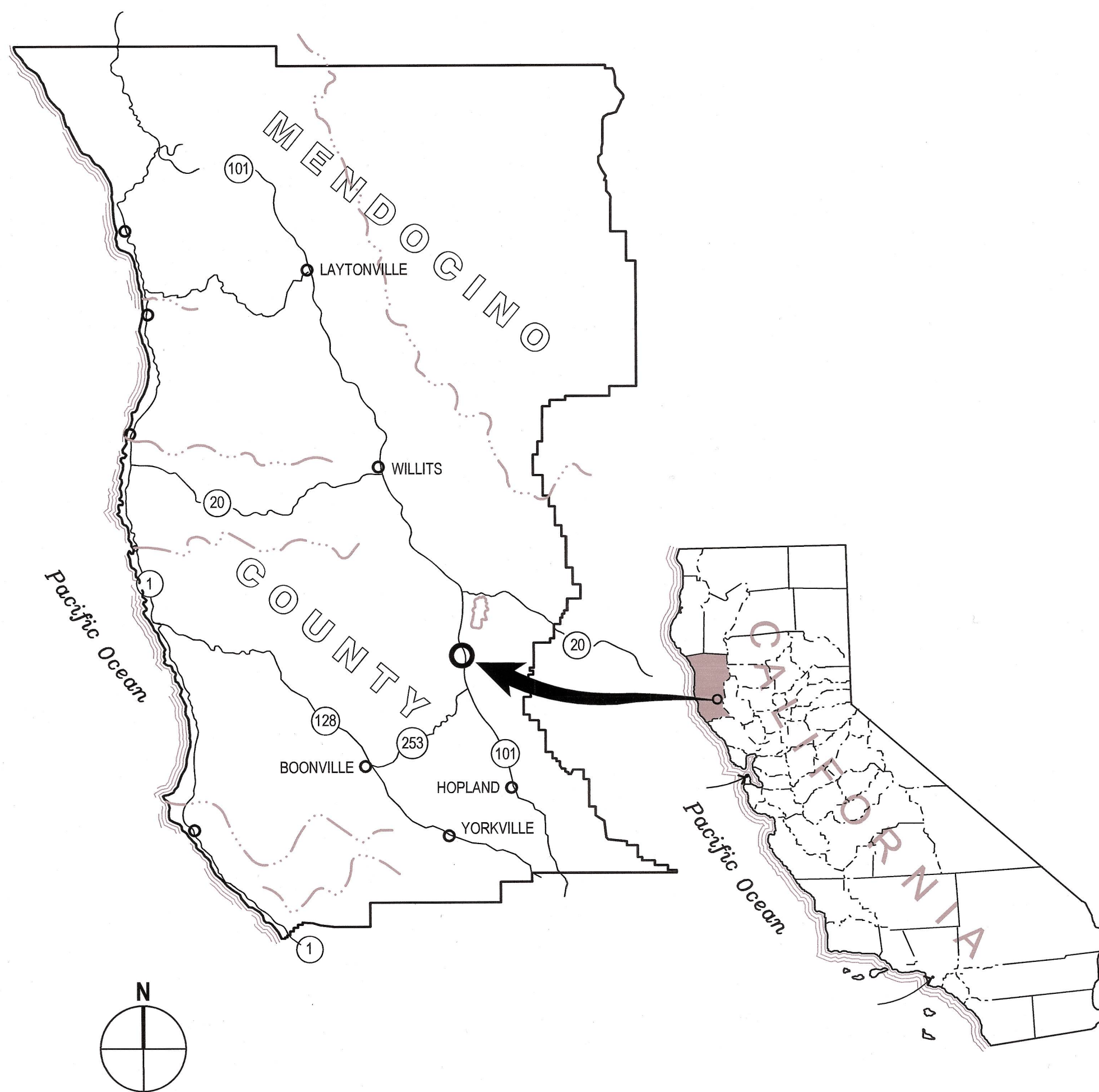
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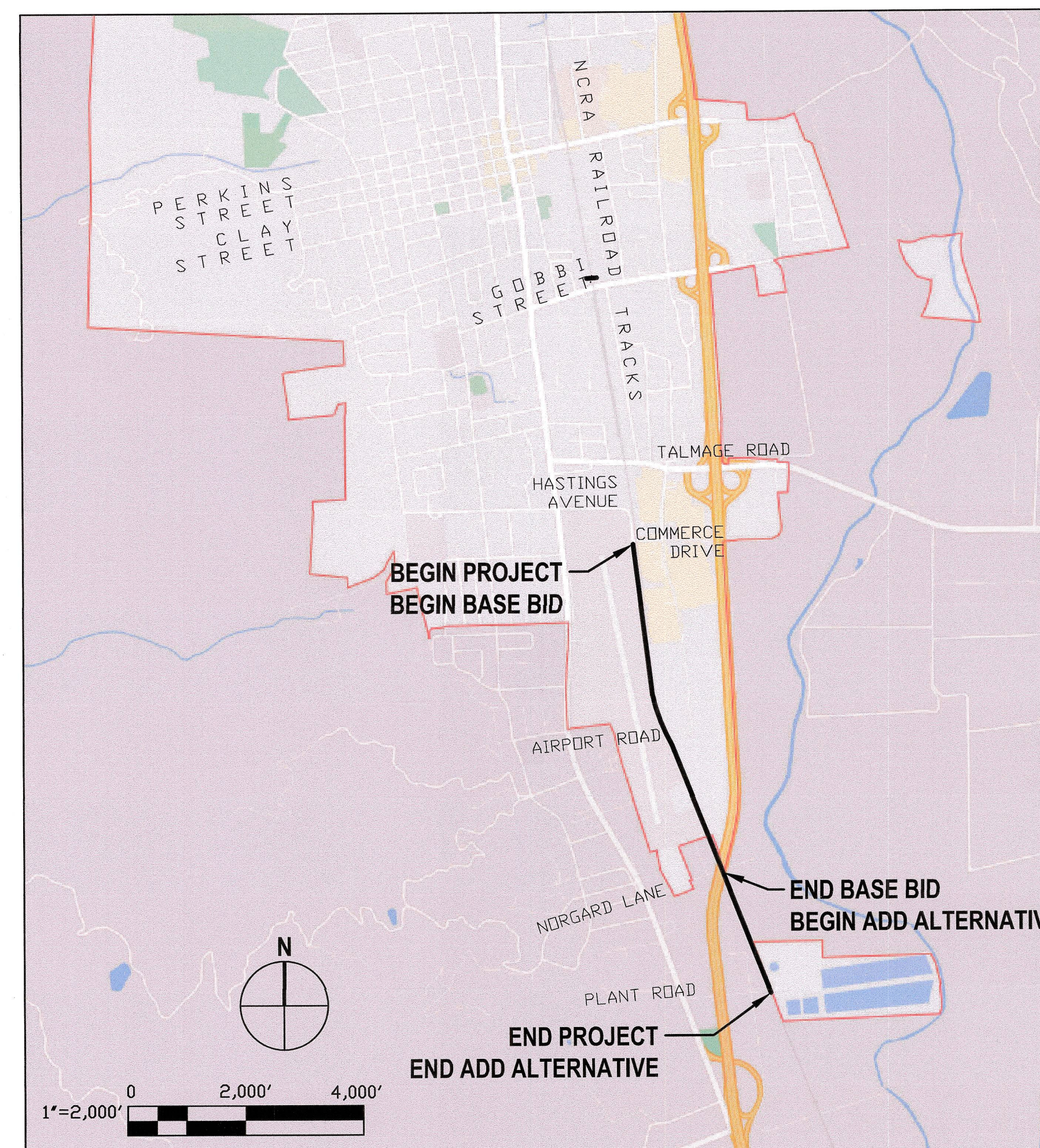
PREPARED BY



## AREA MAP



## LOCATION MAP



## APPROVALS

CITY OF UKIAH

DIRECTOR OF PUBLIC WORKS/CITY ENGINEER  
TIM ERIKSEN, PE



APPROVAL

*[Signature]*  
SIGNED

1/3/2023  
DATE

CITY PROJECT MANAGER  
ANDREW STRICKLIN

APPROVAL

*[Signature]*  
SIGNED

1/3/2023  
DATE

ENGINEER: GHD Inc:  
ERIK FANSELAU, PE

APPROVAL

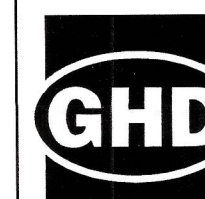
*[Signature]*  
SIGNED

12/21/22  
DATE

Bar is one inch on  
original size sheet  
0 2,000' 4,000'



12/21/2022



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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title COVER SHEET

Size  
ANSI D

Project No.  
12557341

Date  
SEP 30, 2022

Scale  
NO SCALE

Sheet No.  
G-001

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1 of 96



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SHEET LIST TABLE		
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No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **NONE**

Title **SHEET INDEX**

Size **ANSI D**

Sheet No. **G-002**  
Sheet **2 of 96**



**LEGEND**

**GENERAL:**

— — — — —	CENTERLINE		INDICATES DIRECTION OR FLOW
∅	DIAMETER		LETTER INDICATES SECTION, NUMBER INDICATES DETAIL
±	APPROXIMATE		SHEET WHERE SECTION OR DETAIL OCCURS
Δ	DELTA		

**PROFILE LEGEND:**

—————	FG AT DESIGN CL
- - - - -	EG AT DESIGN CL

**TOPOGRAPHIC:**

EXISTING	NEW	
		SURVEY - FOUND MONUMENT
		SURVEY CONTROL POINT - SET
		SURVEY CONTROL POINT - FOUND
		PROPERTY LINE (APPROXIMATE)
		RIGHT OF WAY (APPROXIMATE)
		LIMITS OF CONSTRUCTION IN GRTA ROW, MINIMUM SETBACK FROM CL
		DRAINAGE SWALE, CREEK, OR DITCH
		CONTOUR LINE
		LIMITS OF EARTHWORK CUT
		LIMITS OF EARTHWORK FILL
		STORM DRAIN/CULVERT
		FENCE
		RAILROAD TRACKS
		BUILDING OUTLINE
		PLANTER
		TREE / VEGETATION
		TREE TO REMAIN, TO BE PROTECTED
		TREE TO BE REMOVED
		POLE (UTILITY)
		POST
		SIGN (SINGLE POST)
		FLOW DIRECTION

**TOPOGRAPHIC (CONTINUED):**

EXISTING	NEW	
		ASPHALT CONCRETE
		DRIVEWAY
		CONCRETE SLAB
		DETECTABLE WARNING SURFACE
		AGGREGATE BASE SHOULDER
		ROCK SLOPE PROTECTION
		RIPARIAN HABITAT
		WETLAND
		WATERS
		ORDINARY HIGH WATER LINE, APPROXIMATE
		SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
		PLACE FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
		STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
		JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
		TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
		ESA WETLAND PROTECTION FENCING
		RETAINING WALL (TRIANGLES ON RETAINED SIDE)
		CABLE RAILING AT WALLS

**UTILITY:**

EXISTING	NEW	
		SANITARY SEWER
		WATER
		GAS
		OVERHEAD ELECTRICAL
		UNDERGROUND ELECTRICAL CONDUIT
		UNDERGROUND FIBER OPTIC CABLE
		STORM DRAIN MANHOLE
		SANITARY SEWER MANHOLE
		TELECOM MANHOLE
		ELECTRICAL METER
		FIRE HYDRANT
		WATER VALVE
		WATER METER
		GAS METER
		GAS VALVE

**UTILITY (CONTINUED):**

EXISTING	NEW	
		STORM DRAINAGE INLET /CATCH BASIN
		UTILITY POLE
		GUY
		PEDESTRIAN LEVEL LIGHT
		LED COBRA HEAD LIGHT
		UTILITY VAULT / CABINET
		UTILITY BOX / PULL BOX
		TELEPHONE PEDESTAL
		FIBER OPTIC MARKER
		RAILROAD SWITCH
		RAILROAD CROSSING ARM
		RAILROAD CROSSING POST
		PEDESTRIAN BEACON

**ABBREVIATIONS**

AB	ANCHOR BOLT	G	GAS LINE	(R)	RIGHT
AB	AGGREGATE BASE	GAL	GALLON	R, RAD	RADIUS
AC	ASPHALT CONCRETE	GALV	GALVANIZED	RC	RELATIVE COMPACTION
AGG	AGGREGATE	GB	GRADE BREAK	RCP	REINFORCED CONCRETE PIPE
AP	ANGLE POINT	GR	GRADE	RD	ROAD
ARI	AGENCY RETAINED ITEMS	GRD	GROUND	RDWD	REDWOOD
ARV	AIR-VACUUM RELEASE VALVE	GRTA	GREAT REDWOOD TRAIL AGENCY	REQ'D	REQUIRED
ASSY.	ASSEMBLY	GUT	GUTTER	REQT	REQUIREMENT
AVE	AVENUE	GV	GATE VALVE	ROW	RIGHT OF WAY
AWWA	AMERICAN WATER WORKS ASSOCIATION			RPP	REDUCED PRESSURE PRINCIPAL
@	AT	HB	HOSE BIBB	RR	RAILROAD
B-	BORING	HDPE	HIGH DENSITY POLYETHYLENE PIPE	RRSPK	RAILROAD SPIKE
BC	BOTTOM OF CURB, BEGIN CURVE	HMA	HOT MIX ASPHALT	RSP	ROCK SLOPE PROTECTION
BCR	BEGIN CURB RETURN	HMA-CO	" " (COLORIZED)	RT	RIGHT
BFP	BACK FLOW PREVENTER		" " (OPEN GRADED-WMA)	RW, or RW	RIGHT-OF-WAY
BM	BENCH MARK	HORZ	HORIZONTAL	S	SLOPE
BMP	BEST MANAGEMENT PRACTICE	HWY	HIGHWAY	SAT	SATURATED
BLDG	BUILDING	HPGN	HIGH PRECISION GEODETIC NETWORK	SB	SETBACK
BLVD	BOULEVARD	HYD	HYDRANT	SCH,	SCHEDULE
BO	BLOW OFF	IE	INVERT ELEVATION	SCHED	SCHEDULE
BOT	BOTTOM	IP	IRON PIPE	SD	STORM DRAIN
BVC	BEGIN VERTICAL CURVE	INV	INVERT	SDJB	STORM DRAIN JUNCTION BOX
C	CONDUIT	JCT	JUNCTION	SDMH	STORM DRAIN MANHOLE
CI	CAST IRON	JP	JUNCTION UTILITY POLE	SF	SQUARE FEET
C.I.P.	CAST IN PLACE			SHT	SHEET
CIL	CENTRAL INSTRUMENT HOUSE LOCATION	(L)	LEFT	SIM	SIMILAR
CL	CENTERLINE	L	LENGTH	SO	SOUTH
CL.R	CLEAR, CLEARANCE	LAT	LATERAL	SQ	SQUARE
CMP	CORRUGATED METAL PIPE	LF	LINEAL FEET	SS	SANITARY SEWER
CMU	CONCRETE MASONRY UNIT	LS	LIFT STATION	S STL	STAINLESS STEEL
CO	CLEANOUT	LT	LEFT	ST	START
CONC	CONCRETE			STA	STATION
CONT	CONTINUOUS	MAX	MAXIMUM	STD	STANDARD
CONT'D	CONTINUED	M	METER	STL	STEEL
COORD	COORDINATE	MFR	MANUFACTURER	T	TANGENT
COR	CORNER	MH	MAN HOLE	T&G	TONGUE AND GROOVE
CU	CUBIC	MIN	MINIMUM	TC	TOP OF CONCRETE
CV	CHECK VALVE	MISC	MISCELLANEOUS	TOC	TOP OF CURB
d	PENNY (NAIL SIZE)	MG	MILLION GALLON	T, TEL	TELEPHONE
DBH	DIAMETER AT BREAST HEIGHT	MPH	MILES PER HOUR	THK	THICK
DEMO	DEMOLISH	MSE	MECHANICALLY STABILIZED EARTH	TP	TEST PIT
DIA, ∅	DIAMETER	(N)	NEW	TR	TRASH RECEPTACLE
DTL	DETAIL	N	NORTH	TS	TOP OF SLAB
DI	DROP (DRAINAGE) INLET	NIC	NOT IN CONTRACT	TW	TOP OF WALK
DF	DOUGLAS FIR	NO	NUMBER	TW	TOP OF WALK
DR	DRIVE	NTS	NOT TO SCALE	TWLT	TWO WAY LEFT TURN LANE
DW	DOMESTIC WATER LINE	NS	NON SHRINK	TYP	TYPICAL
DWG	DRAWING	NWP Co	NORTHWESTERN PACIFIC RAILROAD COMPANY	UBC	UNIFORM BUILDING CODE
(E)	EXISTING	O.C.	ON CENTER	UNO	UNLESS OTHERWISE NOTED
E	EAST	OG	ORIGINAL GROUND	V	VOLT(S)
EA	EACH	OHE	OVERHEAD ELECTRICAL	VAR	VARIES
EC	END CURVE	OPNG	ORDINARY HIGH WATER OPENING	VERT	VERTICAL
ECR	END CURB RETURN	PC	POINT OF CURVE	W/	WITH
EF	EACH FACE	PCC	PORTLAND CONCRETE CEMENT	W	WATER
EG	EXISTING GRADE	PE	POLYETHYLENE	WD	WIDE
EP	EQUAL PAVING	PL	PLATE	WMA	WARM MIX ASPHALT
EQ	EQUAL	PL, R	PROPERTY LINE	WQDB	WATER QUALITY DETENTION BASIN
ER	EDGE ROAD	PLCS	PLACES	XING	CROSSING
EL/ELEV	ELEVATION	PLWD	PLYWOOD	X-WALK	CROSSWALK
ELEC	ELECTRIC	PLTR	PLANTER	YD	YARD
ENGR	ENGINEER	POC	POINT OF CONNECTION		
ES	EDGE OF SHOULDER	PP	POWER POLE		
ETW	EDGE OF TRAVELED WAY	PRV	PRESSURE REDUCING VALVE		
EVC	END VERTICAL CURVE	PSI	POUNDS PER SQUARE INCH		
EW	EACH WAY	PT	PRESSURE TREATED, OR POINT OF TANGENT BEGINNING		
FIN	FINISH	PVC	POLYVINYL CHLORIDE		
FF	FINISH FLOOR				
FG	FINISH GRADE				
FH	FIRE HYDRANT				
FL, R	FLOW LINE				
FLR	FLOOR				
FND	FOUND				
FP	FIRE PROTECTION				
FS	FINISHED SURFACE				
FT	FOOT OR FEET				
FTG	FOOTING				

NOTE:  
CONTACT ENGINEER FOR ABBREVIATIONS NOT LISTED.



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No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **LEGEND & ABBREVIATIONS**

Project No. **12557341** Date **SEP 30, 2022** Scale **NO SCALE**

Size **ANSI D**

Sheet No. **G-003** Sheet **3 of 96**



**GENERAL NOTES:**

- THE CONTRACTOR SHALL READ AND MAKE CAREFUL EXAMINATION OF THE PLANS, SPECIFICATIONS, QUANTITIES AND MATERIAL ESTIMATES AND VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO BECOME FAMILIAR WITH THE SITE CONDITIONS AND LIMITATIONS BEFORE MAKING A BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ERRORS RESULTING FROM THE FAILURE TO MAKE SUCH AN EXAMINATION. ANY INFORMATION DERIVED FROM THE MAPS, PLANS, SPECIFICATIONS, PROFILES, DRAWINGS OR FROM THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR FROM ANY RISK OR FROM FULFILLING THE TERMS OF THE CONTRACT.
- ALL CONSTRUCTION SHALL CONFORM TO THE CALIFORNIA DEPARTMENT OF TRANSPORTATION 2018 STANDARD SPECIFICATIONS, CITY OF UKIAH STANDARD DRAWINGS, THE PROJECT PLANS, AND THE PROJECT SPECIAL PROVISIONS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE, PROCURE AND PAY FOR ALL PERMITS REQUIRED TO CARRY ON AND COMPLETE THE WORK. THESE INCLUDE, BUT ARE NOT LIMITED TO, A CITY OF UKIAH ENCROACHMENT PERMIT (WAIVED), COUNTY OF MENDOCINO ENCROACHMENT PERMIT, RIGHT OF ENTRY PERMIT BY GRTA, CURRENT BUSINESS LICENSE, VALID AND PROPER CONTRACTOR'S LICENSE. ENCROACHMENT PERMITS MUST BE LOCATED ON THE JOB SITE DURING WHICH TIME CONTRACTOR IS WORKING THERE.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) NORTH A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION. DIAL (TOLL FREE) 1-800-642-2444 OR 811.
- CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE NEW AND OF A QUALITY EQUAL TO THAT SPECIFIED OR APPROVED. WORK SHALL BE DONE AND COMPLETED IN A THOROUGH AND WORKMANLIKE MANNER.
- WHENEVER ANY MATERIAL OR EQUIPMENT IS INDICATED OR SPECIFIED BY PATENT OR PROPRIETARY NAME OR BY THE NAME OF THE MANUFACTURER, SUCH SPECIFICATION SHALL BE CONSIDERED AS USED FOR DESCRIBING THE MATERIAL OR EQUIPMENT DESIRED AND SHALL BE CONSIDERED AS FOLLOWED BY THE WORDS "OR APPROVED EQUAL". THE CONTRACTOR MAY OFFER ANY MATERIAL OR EQUIPMENT WHICH SHALL BE EQUAL IN EVERY RESPECT TO THAT SPECIFIED; PROVIDED THAT WRITTEN APPROVAL FIRST IS OBTAINED FROM THE CITY ENGINEER.
- MATERIALS SHALL BE SO STORED TO ENSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE WORK. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR (UNLESS OTHERWISE NOTED). THEY SHALL BE SO LOCATED AND DISPOSED THAT PROMPT AND PROPER INSPECTION THEREOF MAY BE MADE.
- THE CITY SHALL HAVE THE RIGHT TO TAKE POSSESSION OF AND USE ANY COMPLETED OR PARTIALLY COMPLETED PORTIONS OF THE WORK, NOT WITHSTANDING THE TIME FOR COMPLETING THE ENTIRE WORK OR SUCH PORTIONS WHICH MAY NOT HAVE EXPIRED, BUT SUCH TAKING OF POSSESSION AND USE SHALL NOT BE DEEMED AN ACCEPTANCE OF ANY WORK NOT COMPLETED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF SUCH PRIOR USE INCREASES THE COST OF OR DELAYS THE WORK, THE CONTRACTOR SHALL BE ENTITLED TO SUCH COMPENSATION, OR EXTENSION OF TIME OR BOTH, AS THE ENGINEER MAY DETERMINE.
- PROJECT REQUIRES A CLASS A GENERAL ENGINEERING CONTRACTOR'S LICENSE IN THE STATE OF CALIFORNIA.
- QUANTITIES OF ITEMS, LENGTH OF PROJECT, AND SITE CONDITIONS SHOWN IN THE PLANS ARE APPROXIMATE.
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, GHD INC., THE GRTA, AND THEIR REPRESENTATIVES HARMLESS FROM ANY AND ALL LIABILITY, REAL AND/OR ALLEGED, IN CONJUNCTION WITH THE PERFORMANCE OF THIS PROJECT.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING STRUCTURES, ROADS, AND UTILITIES DURING CONSTRUCTION REGARDLESS WHETHER IN CITY, PRIVATE, OR GRTA PROPERTY. ALL DAMAGE SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS, DISTANCES, AND FEATURES THAT MAY AFFECT THE WORK. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED, OR IF IT APPEARS THAT THESE PLANS, STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS DO NOT ADEQUATELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE ON HIS BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- A SET OF APPROVED CONSTRUCTION DRAWINGS AND SPECIAL PROVISIONS SHALL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER WHEN THE WORK TO BE DONE IS COMPLETED.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT TEMPORARY BARRIERS TO PROVIDE FOR THE SAFETY OF THE PUBLIC TO THE SATISFACTION OF THE ENGINEER.
- SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND CONTACT 911 (OR THE APPROPRIATE AGENCY) AND CITY FOR FURTHER INSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS IN ADVANCE OF COMMENCEMENT OF ANY PART OF THE WORK AND SHALL COORDINATE CONSTRUCTION SCHEDULE WITH CITY OF UKIAH AND GRTA REPRESENTATIVE TO MINIMIZE IMPACT TO RESIDENTS AND ADJACENT LANDOWNERS.
- UNSUITABLE EXCAVATED MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A MANNER CONSISTENT WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND EXPENSE FOR PROPER DISPOSAL OF UNSUITABLE MATERIALS TAKEN FROM SITE AND PROVIDE WRITTEN DOCUMENTATION OF PERMISSION AND ENVIRONMENTAL DOCUMENTATION FOR USE OF ANY DISPOSAL SITE AS REQUESTED BY THE ENGINEER.
- THE DESIGN FEATURES INCLUDING HORIZONTAL AND VERTICAL ALIGNMENTS, TYPICAL SECTIONS, APPROACHES, AND OTHER DESIGN DETAILS SHOWN ON THESE DESIGN PLANS SHALL NOT BE ALTERED OR MODIFIED IN ANY WAY DURING CONSTRUCTION WITHOUT THE EXPRESSED, WRITTEN DIRECTION AND APPROVAL OF THE ENGINEER AND/OR CONTRACTING OFFICER.
- NO WORK SHALL BE PERFORMED OUTSIDE OF THE DESIGNATED CONSTRUCTION LIMITS WITHOUT THE APPROVAL OF THE CITY.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPROVED STAGING AREAS WITH THE CITY OF UKIAH CITY ENGINEER AND THE GRTA.
- NEW STRIPING AND MARKINGS SHALL BE THERMOPLASTIC PER SECTION 84 OF THE 2018 CALTRANS STANDARD SPECIFICATIONS.
- ALL WORK WITHIN GRTA ROW SHALL CONFORM TO GRTA BMP'S AND GRTA'S RIGHT OF ENTRY PERMIT. NO HEAVY EQUIPMENT SHALL BE OPERATED WITHIN 8 FEET OF THE TRACK END OF TIES.

**UTILITY NOTES:**

- THE LOCATION OF UTILITIES SHOWN IN THE PLANS IS APPROXIMATE AND IS ONLY SHOWN TO ASSIST THE CONTRACTOR IN COMPLETING THE WORK. THE CONTRACTOR SHALL VERIFY ALL UTILITIES WITH OWNERS PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- IF ANY WORK IS IN CLOSE PROXIMITY TO EXISTING UTILITIES AND COORDINATION IS REQUESTED BY THE UTILITY COMPANY, THE CONTRACTOR SHALL COORDINATE UTILITY WORK WITH THE RESPONSIBLE UTILITY COMPANY (UTILITY OWNER).
- THE ACTUAL LOCATION OF EXISTING UTILITIES MAY VARY FROM THAT SHOWN ON THE PLANS. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL POT-HOLE AND LOCATE ALL EXISTING UTILITIES VARIATIONS IN LOCATION AND DEPTH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND CITY IMMEDIATELY SO THAT THE LOCATION OF UTILITIES MAY BE CHECKED WITH THE PROPOSED DESIGN. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) NORTH A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION. DIAL (TOLL FREE) 1-800-642-2444 OR 811. ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.
- ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.
- CONSTRUCTION ACTIVITY WILL TAKE PLACE IN THE VICINITY OF OVERHEAD ELECTRIC TRANSMISSION LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF, AND OBSERVE, THE MINIMUM CLEARANCES FOR WORKERS AND EQUIPMENT OPERATING NEAR HIGH VOLTAGE ELECTRIC LINES AS SET OUT IN THE HIGH VOLTAGE SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AS WELL AS OTHER APPLICABLE SAFETY REGULATIONS.

**GRADING NOTES:**

- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING RIGHT-OF-WAY LINES, SLOPE EASEMENTS, AND ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING BY A CALIFORNIA LICENSED SURVEYOR. STAKING WILL BE REVIEWED BY ENGINEER FOR CONFORMANCE TO DESIGN PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION. ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION.
- ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH AND RETURNED TO ORIGINAL EXISTING CONDITIONS.

**TRAFFIC CONTROL NOTES:**

- ALL PERMANENT AND TEMPORARY ROADSIDE SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). CONTRACTOR SHALL USE THE CA MUTCD FOR TRAFFIC CONTROL. SEE SPECIAL PROVISIONS FOR OTHER TRAFFIC CONTROL REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE PROJECT PLANS, THE CONTRACTOR'S SEQUENCING PLAN, CA MUTCD, AND THE PROJECT SPECIAL PROVISIONS.
- CONTRACTOR TO COORDINATE TEMPORARY TRAFFIC CONTROL WITH THE CITY.
- CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN ACCESS DURING CONSTRUCTION.

**TEMPORARY PEDESTRIAN ACCESS NOTES:**

- THE CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) 2018 STANDARD PLANS AND /OR CITY OF UKIAH STANDARD PLANS TO THE MAXIMUM EXTENT FEASIBLE.
- SIDEWALK THICKNESS SHALL BE 4" MINIMUM. RAMP THICKNESS SHALL BE 4" MINIMUM OVER 3" AGGREGATE BASE.
- TRANSITIONS FROM RAMPS AND LANDINGS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES NOT EXCEEDING 1/4" VERTICAL.
- MAXIMUM SLOPES OF ADJOINING GUTTERS, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP OR ACCESSIBLE ROUTE SHALL NOT EXCEED 5% WITHIN 4'-0" OF THE TOP AND BOTTOM OF THE CURB RAMP.
- CONTRACTOR TO PROVIDE 0.3' AC EDGE PATCH AROUND CURB AND/OR CURB AND GUTTER LINE, AS REQUIRED IN FIELD
- A 6" HIGH WARNING CURB IS REQUIRED PER CBC 11338.8.1 WHENEVER THERE IS AN ABRUPT CHANGE IN GRADE ELEVATION OFF THE EDGE OF A WALKING SURFACE THAT EXCEEDS 4" VERTICAL.
- CONTRACTOR SHALL PROVIDE CONTINUOUS PATH OF TRAVEL AT ALL TIMES. A CONTINUOUS PATH OF TRAVEL SHALL BE 48 INCHES MINIMUM UNOBSTRUCTED WIDTH WITH RIGID SURFACE MATERIALS AT CROSS SLOPES OF 2% MAXIMUM AND A RUNNING SLOPE OF 5% MAXIMUM IN THE DIRECTION OF TRAVEL OR 8.33% MAXIMUM FOR RAMP. PLASTIC MESH FENCING SHALL BE INSTALLED ADJACENT TO THE TEMPORARY PEDESTRIAN RAMP TO PROVIDE VISUAL WARNING AND CONTROL FOR PEDESTRIANS. THE PLASTIC MESH SHALL BE 4 FOOT HIGH MINIMUM IN SAFETY ORANGE COLOR AND SECURELY WIRE TIED TO TYPE II BARRICADES OR EQUAL BARRICADES SHALL BE PROPERLY SPACED AND ADEQUATELY WEIGHTED WITH SAND BAGS OR APPROVED EQUAL TO ENSURE MESH REMAINS VERTICAL AND AT PROPER HEIGHT AT ALL TIMES.

- WHEN AN EXISTING PATH OF TRAVEL IS TO BE BLOCKED OR REMOVED, THE CONTRACTOR SHALL SUBMIT AN ACCESS PLAN FOR CITY APPROVAL. NO WORK SHALL COMMENCE UNTIL AN APPROVED ACCESS PLAN HAS BEEN OBTAINED FROM THE CITY. THE ACCESS PLAN SHALL CONSIST OF TEMPORARY RAMPS OR AN APPROVED EQUAL.
- IF THE CONSTRUCTION WORK AREA IS WITHIN AN EXISTING FACILITY (E.G. BUS STOPS, CROSSWALKS, ETC.), CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE TO OWNERS OF THE FACILITY INDICATING THE AFFECTED LOCATION AND DURATION OF WORK. NO TWO FACILITIES OR PROGRAMS IN SEQUENCE SHALL BE BLOCKED OR CLOSED FOR PUBLIC USE.
- PAYMENT FOR PROVIDING A CONTINUOUS PATH OF TRAVEL SHALL BE CONSIDERED AS INCLUDED IN VARIOUS ITEMS OF WORK AND NO SEPARATE PAYMENT SHALL BE MADE. PROVISIONS FOR CONTINUOUS PATH OF TRAVEL SHALL INCLUDE INSTALLATION AND MAINTENANCE OF TEMPORARY RAMPS, POT-HOLING OF UTILITIES, RESTORATION OF EXISTING STREET IMPROVEMENTS, COORDINATION OF WORK, TRAFFIC CONTROLS AND ALL ASSOCIATED WORK NEEDED TO COMPLETE THIS REQUIREMENT. HOWEVER, THE CONTRACTOR WILL BE ENTITLED FOR ADDITIONAL WORKING DAYS TO THE CONTRACT PERIOD FOR RIGHT-OF-WAY DELAYS AT NO FAULT BY THE CONTRACTOR.

**PROJECT SCOPE:**

- CONSTRUCT AN ACCESSIBLE CALTRANS CLASS I MULTI-USE PATH WITHIN THE RAILROAD RIGHT OF WAY.
- THE PATH EXTENDS FROM COMMERCE DRIVE SOUTH TO PLANT ROAD, ALONG THE EAST SIDE OF THE EXISTING RAIL ROAD TRACKS.
- ACCESSIBILITY IMPROVEMENTS INCLUDE NEW ACCESSIBLE RAMPS AT EACH STREET CROSSING, WITH THE APPROPRIATE CROSSWALK MARKINGS.

**GOVERNING AGENCIES:**

CITY OF UKIAH  
300 SEMINARY AVE  
UKIAH, CA 95482  
(707) 463-6200

MENDOCINO COUNTY  
860 NORTH BUSH STREET  
UKIAH, CA 95482  
(707) 234-6650

CALTRANS  
DIVISION OF LOCAL ASSISTANCE, DISTRICT 1  
PO BOX 3700  
EUREKA, CA 95502  
(707) 441-3977

NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD  
5550 SKYLANE BLVD SUITE A  
SANTA ROSA CA 95403-1072  
(707) 576-2220

CALIFORNIA DEPT. OF FISH AND WILDLIFE  
NORTHERN REGION  
619 SECOND STREET  
EUREKA, CA 95501  
(707) 445-6493

**APPLICABLE CODES:**

CITY OF UKIAH STANDARD PLANS

2018 STANDARD SPECIFICATIONS AND STANDARD PLANS  
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

2014 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL (CA MUTCD LATEST EDITION)

2018 POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS MANUAL

2018 CALIFORNIA BUILDING CODE (CBC)  
CALIFORNIA CODE OF REGULATIONS  
(CCR) TITLE 24, PART 2

2018 CALIFORNIA ELECTRICAL CODE (CEC)  
CALIFORNIA CODE OF REGULATIONS  
(CCR) TITLE 24, PART 3

2010 AMERICANS WITH DISABILITIES ACT (ADA)  
STANDARDS FOR ACCESSIBLE DESIGN (ADAS)

GEOTECHNICAL REPORT, GREAT REDWOOD TRAIL PHASE 4, CRAWFORD & ASSOCIATES, INC. SEPTEMBER 2022



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to excavation

No.	Issue	Checked	Approved	Date	
Author	<b>H. DAAS</b>	Drafting Check	<b>E. FANSELAU</b>	Project Manager	<b>E. FANSELAU</b>
Designer	<b>H. DAAS</b>	Design Check	<b>E. FANSELAU</b>	Project Director	<b>M. KENNEDY</b>

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12/21/2022



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Client	<b>CITY OF UKIAH</b>	Title	<b>CONSTRUCTION NOTES</b>	Size	<b>ANSI D</b>
Project	<b>THE GREAT REDWOOD TRAIL PHASE 4</b>	Project No.	<b>12557341</b>	Sheet No.	<b>G-004</b>
Date	<b>SEP 30, 2022</b>	Scale	<b>NO SCALE</b>	Sheet	<b>4 of 96</b>



**BASIS OF BEARINGS:**

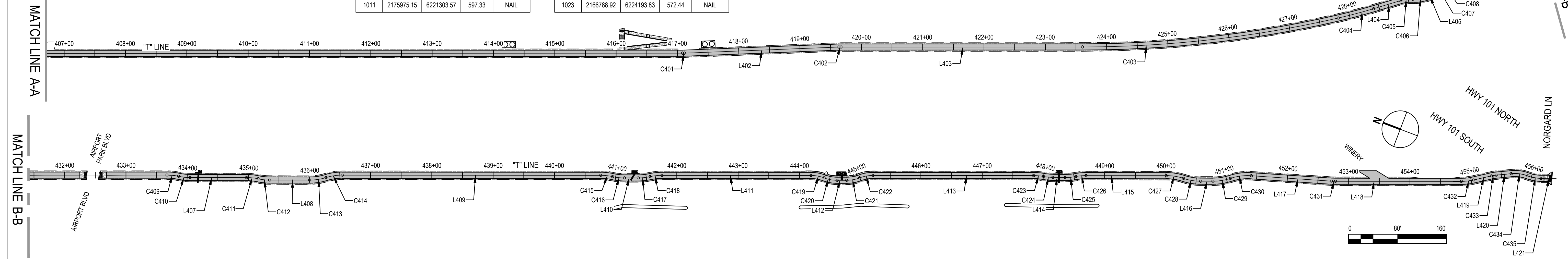
THE BASIS OF BEARINGS FOR THIS SURVEY IS CGS ZONE 2, NAD 83 (EPOCH 2010.00) AS DETERMINED BY GPS FAST-STATIC TIES TO CORS STATIONS, DN9089(P334), DK6396(P206), DM7530(P059), DN7378(P319), DN7390(P335), DO7031(CASR), DM6171(P188), DN7384(P329), AND DN5651(P339). ALL DISTANCES ARE GROUND DISTANCES; MULTIPLY BY 0.9999996 TO CONVERT TO GRID DISTANCES.

**BENCHMARK:**

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD 88, DETERMINED BY GPS FAST-STATIC TIES TO THE ABOVE CORS STATIONS. PROJECT BENCH MARK IS A BRASS DISK IN STANDARD WELL MONUMENT AT THE INTERSECTION OF THE CENTER LINES OF FORD STREET AND MYRON STREET. ELEVATION = 610.92 (NAVD88).

CONTROL POINT TABLE with columns: Point #, Eastings, Northings, Elevation, Description. Contains 11 points from 1001 to 1011.

CONTROL POINT TABLE with columns: Point #, Eastings, Northings, Elevation, Description. Contains 12 points from 1012 to 1023.



LINE AND CURVE TABLE 'T' LINE. Table with columns: NUMBER, STATION, NORTHING, EASTING, RADII, BEARING, TANGENT, DEF ANGLE, ARC LENGTH. Contains data for curves L400 through C407.

LINE AND CURVE TABLE 'T' LINE. Table with columns: NUMBER, STATION, NORTHING, EASTING, RADII, BEARING, TANGENT, DEF ANGLE, ARC LENGTH. Contains data for curves C408 through L410.

LINE AND CURVE TABLE 'T' LINE. Table with columns: NUMBER, STATION, NORTHING, EASTING, RADII, BEARING, TANGENT, DEF ANGLE, ARC LENGTH. Contains data for curves C417 through C426.

SEE G-006 TABLES FOR MORE SEGMENTS

Revision table with columns: No., Issue, Checked, Approved, Date. Includes entries for H. DAAS, R. MADDOCK, E. FANSELAU, M. KENNEDY.

Project information table with fields: Author, Drafting Check, Project Manager, Designer, Design Check, Project Director.

Scale bar (1 inch = original size), Professional Engineer seal for E. FANSELAU, and date 12/21/2022.

GHD logo and contact information: 2235 Mercury Way Suite 150, Santa Rosa California 95407 USA. Includes Conditions of Use text.

Client: CITY OF UKIAH. Project: THE GREAT REDWOOD TRAIL PHASE 4. Project No: 12557341. Date: SEP 30, 2022. Scale: AS SHOWN.

Title: SURVEY CONTROL AND ALIGNMENT DATA. Sheet No: G-005. Sheet 5 of 96.

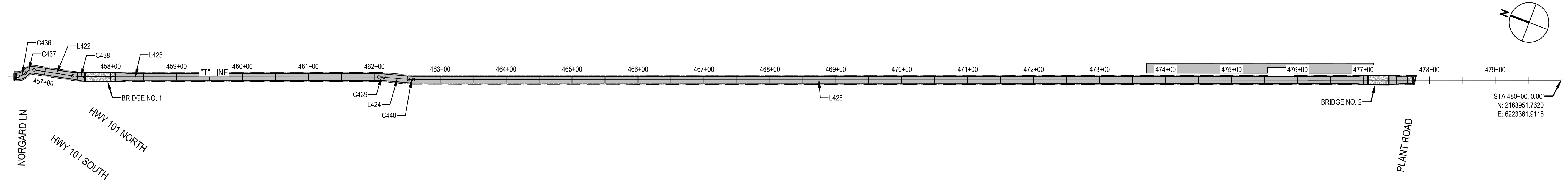


**BASIS OF BEARINGS:**

THE BASIS OF BEARINGS FOR THIS SURVEY IS CCS ZONE 2, NAD 83 (EPOCH 2010.00) AS DETERMINED BY GPS FAST-STATIC TIES TO CORS STATIONS, DN9089(P334), DK6396(P206), DM7530(P059), DN7378(P319), DN7390(P335), DO7031(CASR), DM6171(P188), DN7384(P329), AND DN5651(P339). ALL DISTANCES ARE GROUND DISTANCES; MULTIPLY BY 0.99999086 TO CONVERT TO GRID DISTANCES.

**BENCHMARK:**

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD 88, DETERMINED BY GPS FAST-STATIC TIES TO THE ABOVE CORS STATIONS. PROJECT BENCH MARK IS A BRASS DISK IN STANDARD WELL MONUMENT AT THE INTERSECTION OF THE CENTER LINES OF FORD STREET AND MYRON STREET. ELEVATION = 610.92 (NAVD88).

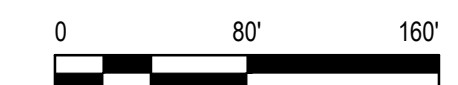


CONTROL POINT TABLE				
Point #	Eastings	Northings	Elevation	Description
1001	2176598.91	6221293.14	604.46	NAIL
1002	2176617.13	6221112.65	606.80	NAIL
1003	2175896.41	6221202.32	605.24	NAIL
1004	2175389.86	6221249.68	604.98	NAIL
1005	2174889.01	6221297.40	603.54	NAIL
1006	2174337.60	6221348.68	600.25	NAIL
1007	2173822.60	6221432.96	594.54	NAIL
1008	2173376.51	6221644.32	595.17	NAIL
1009	2172736.94	6221796.69	592.08	NAIL
1010	2172118.10	6222072.16	586.15	NAIL
1011	2175975.15	6221303.57	597.33	NAIL

CONTROL POINT TABLE				
Point #	Eastings	Northings	Elevation	Description
1012	2174800.80	6221434.42	592.64	NAIL
1013	2173835.02	6221563.76	590.74	NAIL
1014	2172649.07	6222013.86	584.18	NAIL
1015	2171450.18	6222444.64	584.40	NAIL
1016	2171110.93	6222386.82	587.24	NAIL
1017	2170969.32	6222603.62	585.35	NAIL
1019	2169143.54	6223321.33	579.42	NAIL
1020	2169139.43	6223192.45	581.14	NAIL
1021	2168593.13	6223529.52	576.52	NAIL
1022	2166769.50	6224153.98	574.12	NAIL
1023	2166788.92	6224193.83	572.44	NAIL

LINE AND CURVE TABLE "T" LINE									
NUMBER		STATION	NORTHING	EASTING	RADII	BEARING	TANGENT	DEF ANGLE	ARC LENGTH
L415	ST END	448+69.48 450+00.33	2171873.704 2171751.385	6222260.914 6222307.391	-	S20°48'20"E STRAIGHT	-	-	-
C427	BC MP EC	450+00.33 450+14.74 450+28.91	2171751.385 2171737.914 2171723.517	6222307.391 6222312.510 6222313.167	90.00	S20°48'20"E ARC S2°36'38"E ARC	28.46	18°11'42"	28.58
C428	BC MP EC	450+28.91 450+43.32 450+57.49	2171723.517 2171709.120 2171695.649	6222313.167 6222313.823 6222318.942	90.00	S2°36'38"E ARC S20°48'20"E ARC	28.46	18°11'42"	28.58
L416	ST END	450+57.49 450+77.49	2171695.649 2171676.953	6222318.942 6222326.046	-	S20°48'20"E STRAIGHT	-	-	-
C429	BC MP EC	450+77.49 450+92.02 451+06.29	2171676.953 2171663.377 2171652.113	6222326.046 6222331.205 6222340.371	90.00	S20°48'20"E ARC S39°08'18"E ARC	28.67	18°19'59"	28.80
C430	BC MP EC	451+06.29 451+23.91 451+41.09	2171652.113 2171638.447 2171621.597	6222340.371 6222351.492 6222356.639	90.00	S39°08'18"E ARC S16°59'08"E ARC	34.58	22°09'11"	34.80
L417	ST END	451+41.09 452+71.79	2171621.597 2171496.593	6222356.639 6222394.822	-	S16°59'08"E STRAIGHT	-	-	-
C431	BC MP EC	452+71.79 452+75.13 452+78.46	2171496.593 2171493.405 2171490.289	6222394.822 6222395.796 6222396.900	100.00	S16°59'08"E ARC S20°48'14"E ARC	6.66	3°49'06"	6.66
L418	ST END	452+78.46 454+83.74	2171490.289 2171298.390	6222396.900 6222469.891	-	S20°48'14"E STRAIGHT	-	-	-
C432	BC MP EC	454+83.74 454+93.97 455+04.11	2171298.390 2171288.827 2171280.323	6222469.891 6222473.524 6222479.211	90.00	S20°48'14"E ARC S33°46'25"E ARC	20.33	12°58'11"	20.37
L419	ST END	455+04.11 455+33.72	2171280.323 2171255.714	6222479.211 6222495.669	-	S33°46'25"E STRAIGHT	-	-	-
C433	BC MP EC	455+33.72 455+37.64 455+41.55	2171255.714 2171252.456 2171248.943	6222495.669 6222497.847 6222499.584	60.00	S33°46'25"E ARC S26°17'56"E ARC	7.82	7°28'29"	7.83
L420	ST END	455+41.55 455+66.30	2171248.943 2171226.751	6222499.584 6222510.551	-	S26°17'56"E STRAIGHT	-	-	-
C434	BC MP EC	455+66.30 455+80.33 455+93.86	2171226.751 2171214.174 2171200.146	6222510.551 6222516.767 6222516.761	60.00	S26°17'56"E ARC S0°01'17"W ARC	27.32	26°19'13"	27.56

LINE AND CURVE TABLE "T" LINE									
NUMBER		STATION	NORTHING	EASTING	RADI	BEARING	TANGENT	DEF ANGLE	ARC LENGTH
C435	BC MP EC	455+93.86 456+04.93 456+15.76	2171200.146 2171189.074 2171178.730	6222516.761 6222516.757 6222520.705	60.00	S0°01'17"W ARC S20°53'18"E ARC	-	-	21.90
L421	ST END	456+15.76 456+56.14	2171178.730 2171141.004	6222520.705 6222535.102	-	S20°53'18"E STRAIGHT	-	-	-
C436	BC MP EC	456+56.14 456+62.73 456+68.57	2171141.004 2171134.843 2171132.410	6222535.102 6222537.454 6222543.583	15.00	S20°53'18"E ARC S68°21'13"E ARC	12.07	47°27'55"	12.43
C437	BC MP EC	456+68.57 456+76.59 456+83.30	2171132.410 2171129.450 2171121.602	6222543.583 6222551.042 6222552.719	15.00	S68°21'13"E ARC S12°03'42"E ARC	14.15	56°17'31"	14.74
L422	ST END	456+83.30 457+42.46	2171121.602 2171063.747	6222552.719 6222565.081	-	S12°03'42"E STRAIGHT	-	-	-
C438	BC MP EC	457+42.46 457+51.63 457+60.75	2171063.747 2171054.788 2171046.223	6222565.081 6222566.996 6222570.248	120.00	S12°03'42"E ARC S20°47'37"E ARC	18.27	8°43'55"	18.29
L423	ST END	457+60.75 462+06.78	2171046.223 2170629.249	6222570.248 6222728.588	-	S20°47'37"E STRAIGHT	-	-	-
C439	BC MP EC	462+06.78 462+10.79 462+14.79	2170629.249 2170625.500 2170621.638	6222728.588 6222730.012 6222731.096	90.00	S20°47'37"E ARC S15°41'26"E ARC	8.01	5°06'11"	8.02
L424	ST END	462+14.79 462+51.56	2170621.638 2170586.245	6222731.096 6222741.038	-	S15°41'26"E STRAIGHT	-	-	-
C440	BC MP EC	462+51.56 462+55.58 462+59.60	2170586.245 2170582.371 2170578.608	6222741.038 6222742.127 6222743.557	90.00	S15°41'26"E ARC S20°48'41"E ARC	8.04	5°07'16"	8.04
L425	ST END	462+59.60 480+00.00	2170578.608 2168951.762	6222743.557 6223361.912	-	S20°48'41"E STRAIGHT	-	-	-



No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	R. MADDOCK	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client	CITY OF UKIAH		
Project	THE GREAT REDWOOD TRAIL PHASE 4		
Project No.	12557341	Date	SEP 30, 2022
Scale	AS SHOWN		

Title	SURVEY CONTROL AND ALIGNMENT DATA ADD ALTERNATIVE		
Sheet No.	G-006	Sheet	6 of 96



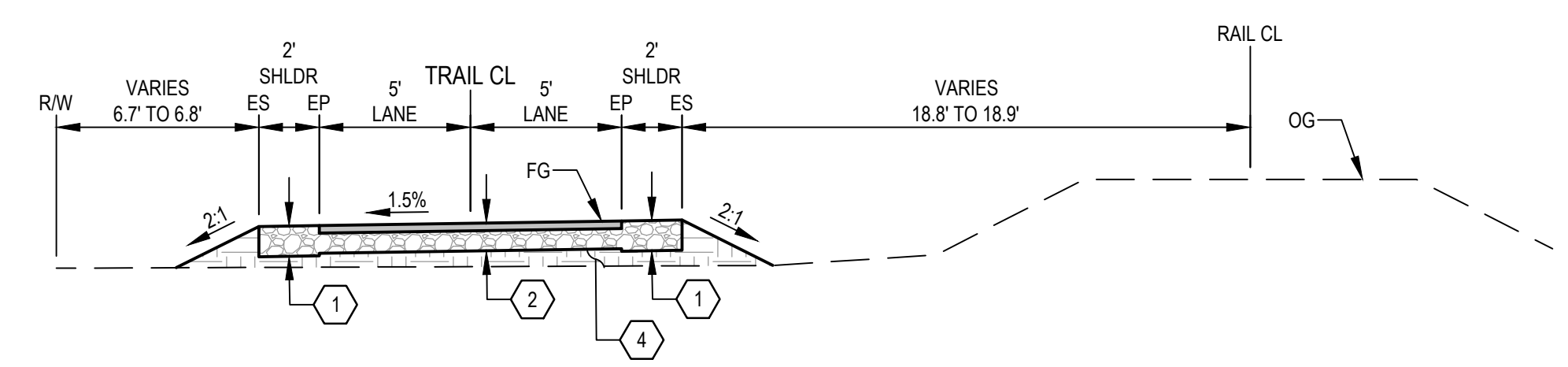
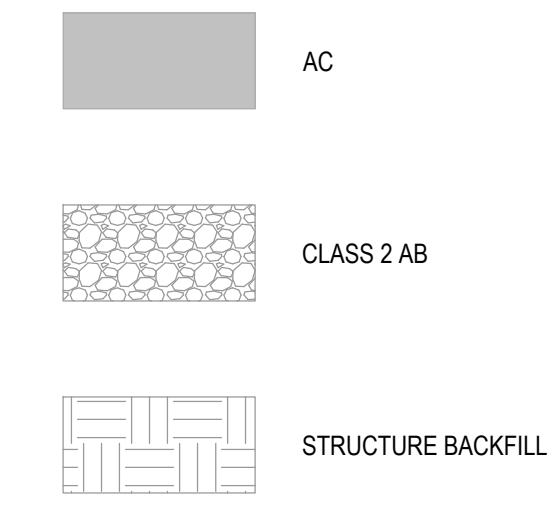
**SHEET GENERAL NOTES**

1. PROTECT EXISTING RAIL AT ALL TIMES.
2. COMPACT AGGREGATE BASE TO 95% RELATIVE COMPACTION.
3. SCARIFY & RECOMPACT UPPER 8" OF SUBGRADE TO 95% RELATIVE COMPACTION.
4. SIDE SLOPE ARE 2:1 (H:V) MAX.

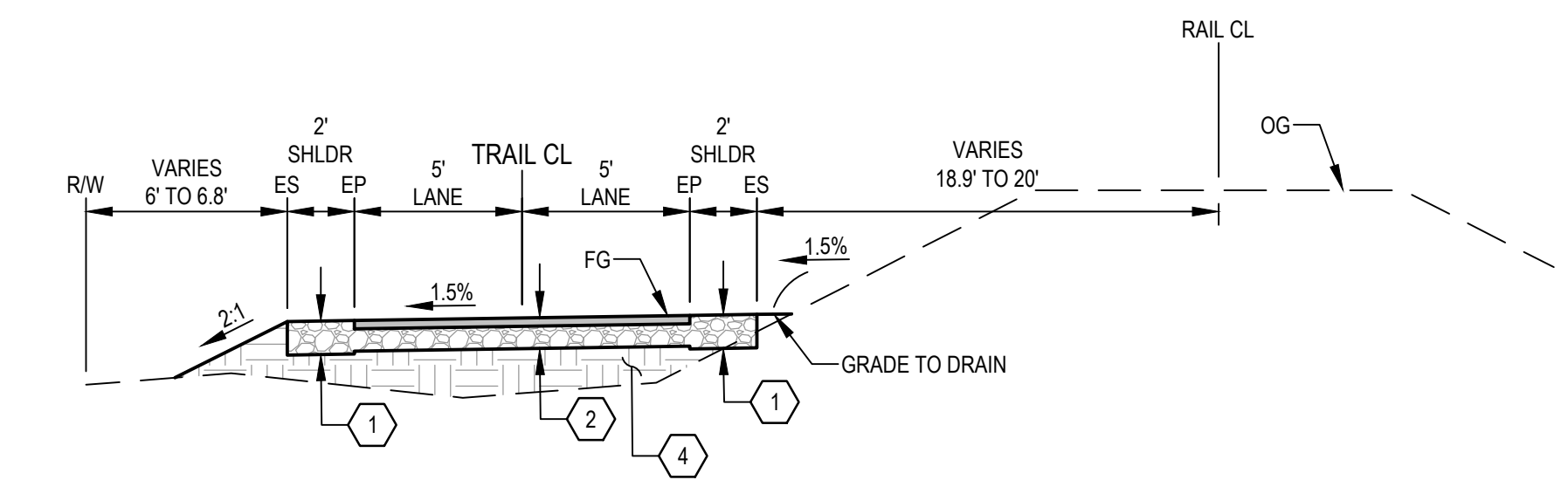
**SHEET KEYNOTES**

1. SHOULDER SECTION:  
1.00' CLASS 2 AB
2. TRAIL SECTION:  
0.25' AC  
0.67' CLASS 2 AB
3. PARKING LOT SECTION (ADD ALTERNATIVE):  
0.33' AC  
0.67' CLASS 2 AB
4. STRUCTURE FILL

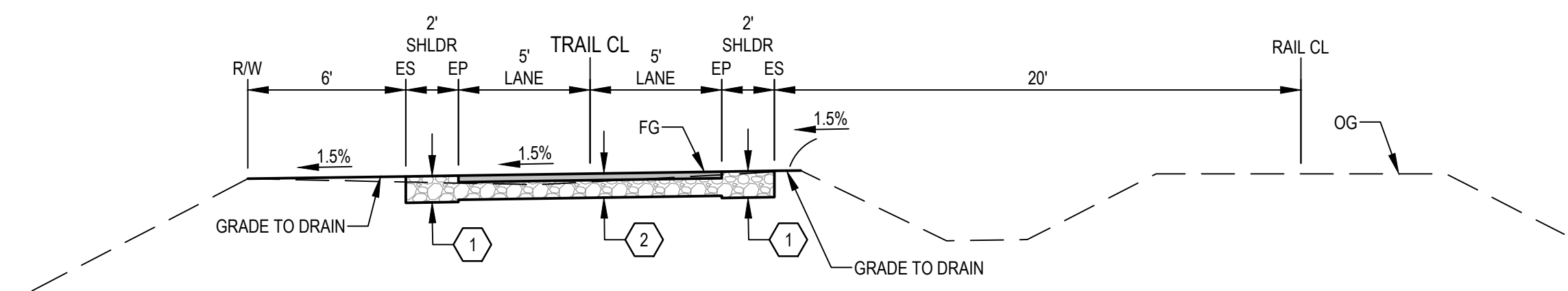
**LEGEND**



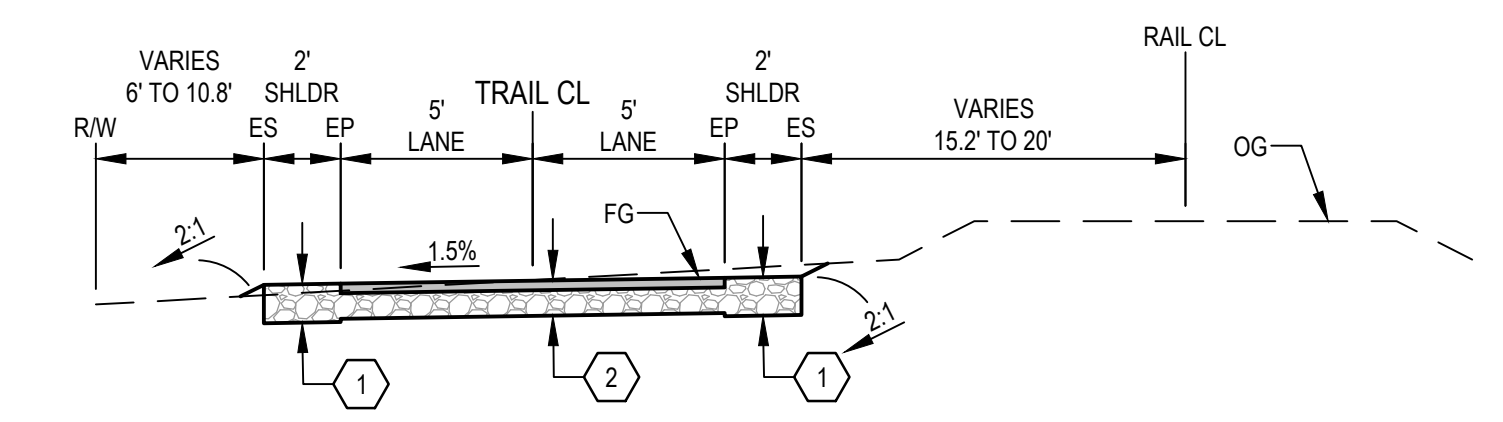
**4 TYPICAL SECTION**  
NO SCALE  
STA 431+50 TO STA 429+70.45



**3 TYPICAL SECTION**  
NO SCALE  
STA 427+80 TO STA 431+50

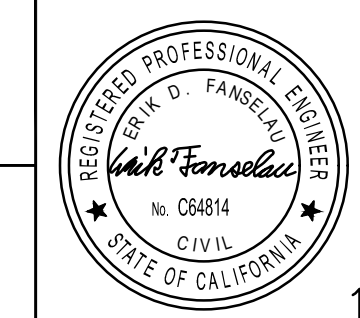


**2 TYPICAL SECTION**  
NO SCALE  
STA 423+70 TO STA 427+80



**1 TYPICAL SECTION**  
NO SCALE  
STA 400+31.10 TO STA 423+70

Bar is one inch on original size sheet  
0 1"



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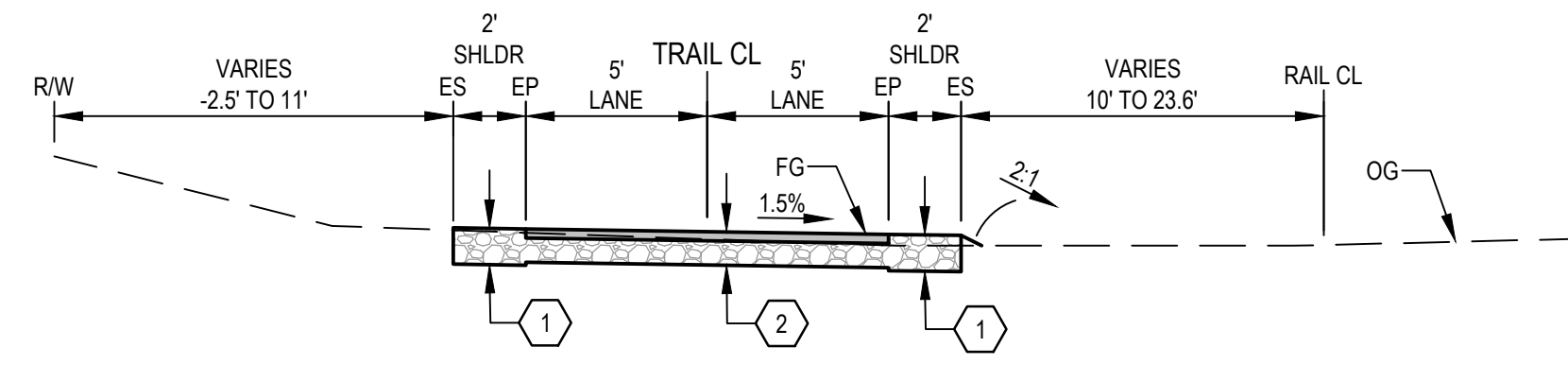
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TYPICAL SECTIONS - COMMERCE DR TO AIRPORT RD**

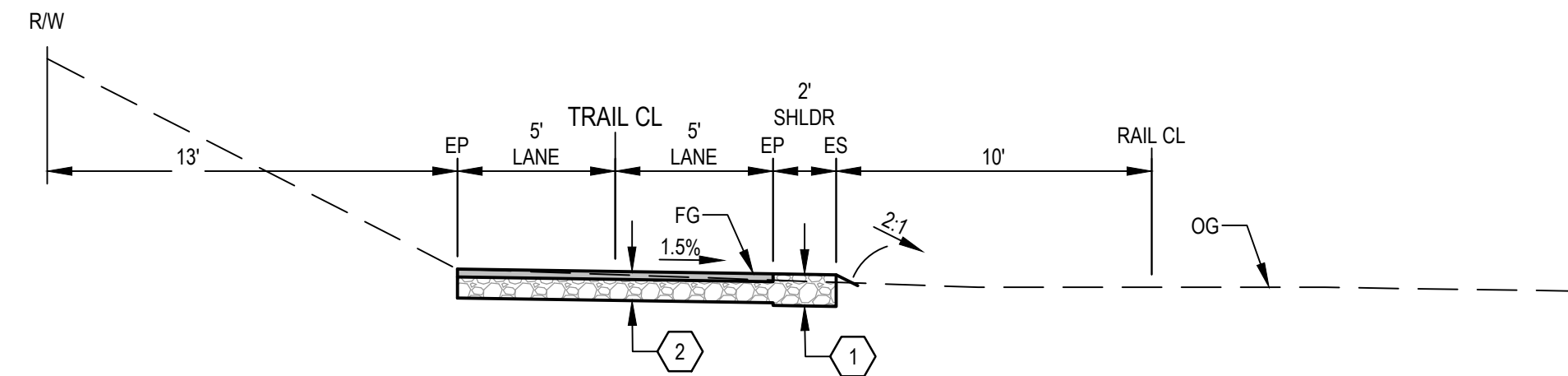
Project No. **12557341** Date **SEP 30, 2022** Scale **NO SCALE**

Sheet No. **C-001** Sheet **7 of 96**

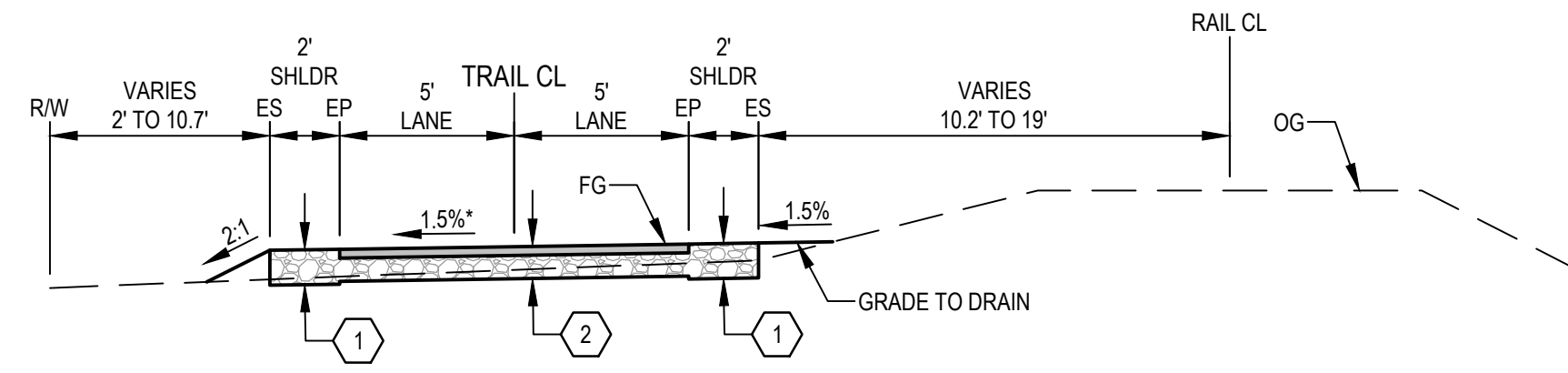




**5 TYPICAL SECTION**  
NO SCALE  
STA 454+65.48 TO STA 456+20.76

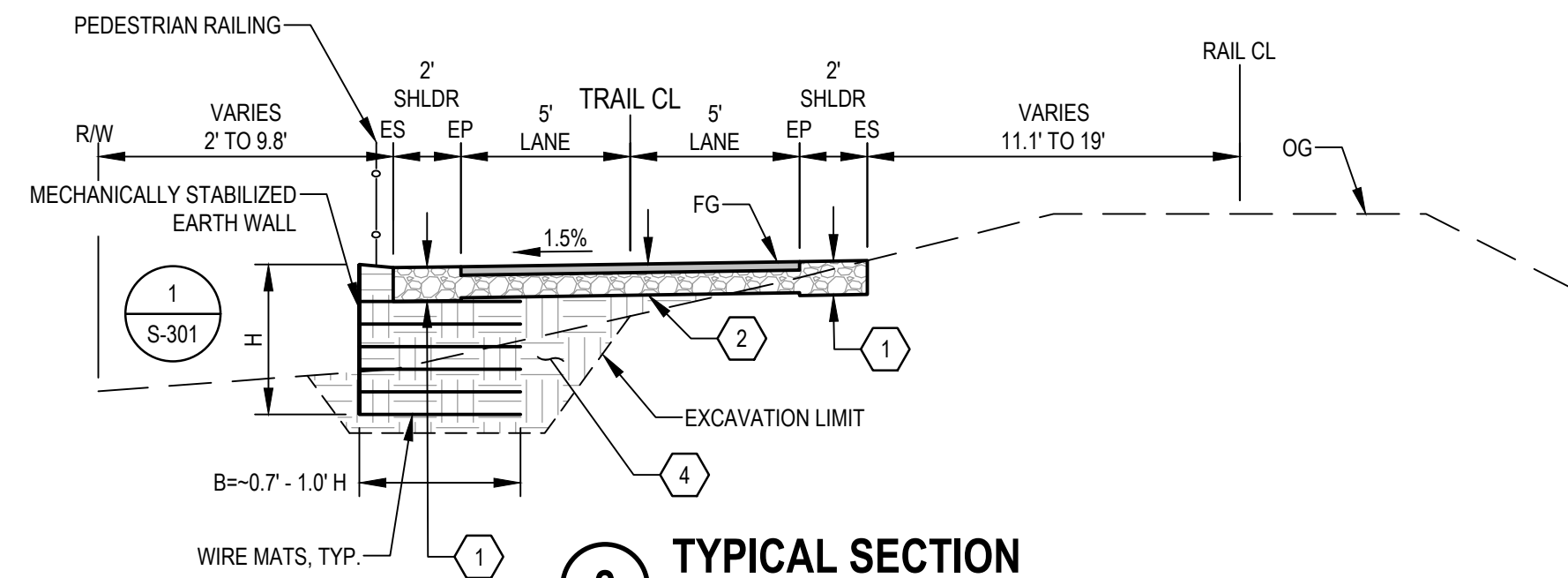


**4 TYPICAL SECTION**  
NO SCALE  
STA 454+20.48 TO STA 454+65.48

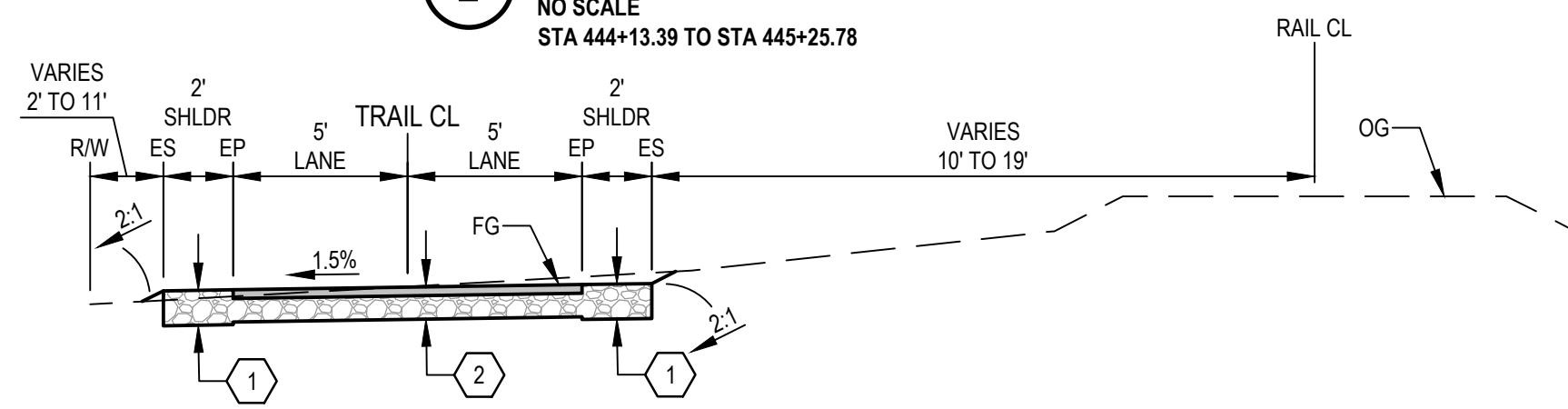


**3 TYPICAL SECTION**  
NO SCALE  
STA 451+50 TO STA 454+20.48

\* NOTE:  
SLOPE TRANSITIONS FROM 1.5% LEFT TO 1.5% RIGHT.  
TRANSITION STARTS AT STA 453+50 AND ENDS AT STA 454+00



**2 TYPICAL SECTION**  
NO SCALE  
STA 444+13.39 TO STA 445+25.78



**1 TYPICAL SECTION**  
NO SCALE  
STA 432+68 TO STA 444+13.39  
STA 445+25.78 TO STA 451+50

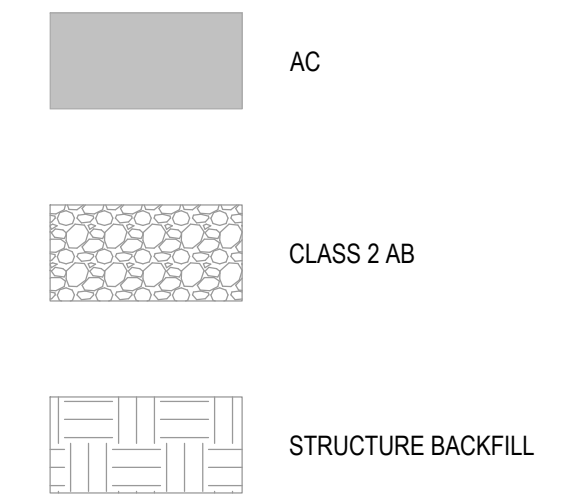
**SHEET GENERAL NOTES**

1. PROTECT EXISTING RAIL AT ALL TIMES.
2. COMPACT AGGREGATE BASE TO 95% RELATIVE COMPACTION.
3. SCARIFY & RECOMPACT UPPER 8" OF SUBGRADE TO 95% RELATIVE COMPACTION.
4. SIDE SLOPE ARE 2:1 (H:V) MAX.

**SHEET KEYNOTES**

1. SHOULDER SECTION:  
1.00' CLASS 2 AB
2. TRAIL SECTION:  
0.25' AC  
0.67' CLASS 2 AB
3. PARKING LOT SECTION (ADD ALTERNATIVE):  
0.33' AC  
0.67' CLASS 2 AB
4. STRUCTURE FILL

**LEGEND**



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0 1"



2/7/2023



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

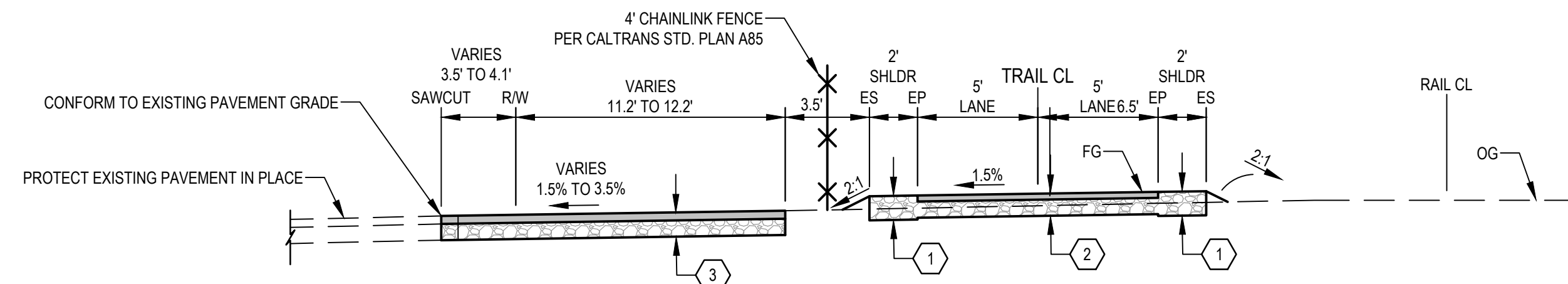
Title **TYPICAL SECTIONS - AIRPORT RD TO NORGARD LN**

Project No. **12557341** Date **SEP 30, 2022** Scale **NO SCALE**

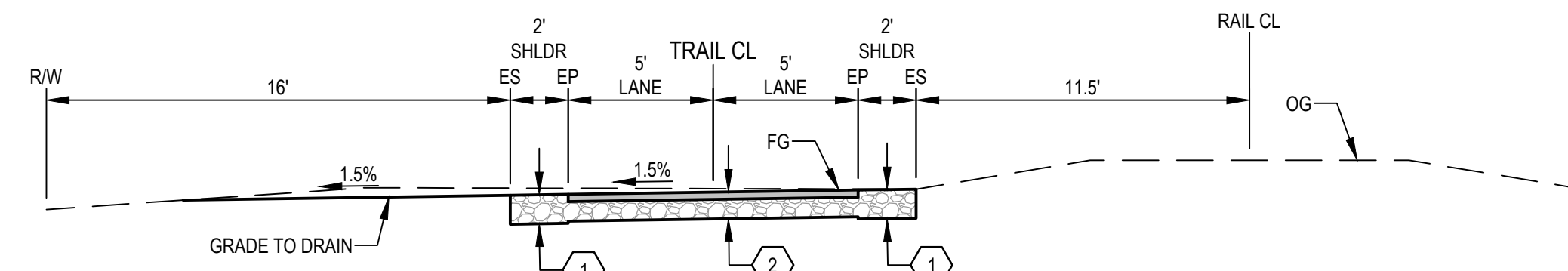
Sheet No. **C-002** Sheet **8** of **96**

No.	Issue	Author	Checked	Approved	Date
1	PEDESTRIAN RAILING	H. DAAS	E. FANSELAU	E. FANSELAU	2023-02-07
		H. DAAS	E. FANSELAU	M. KENNEDY	

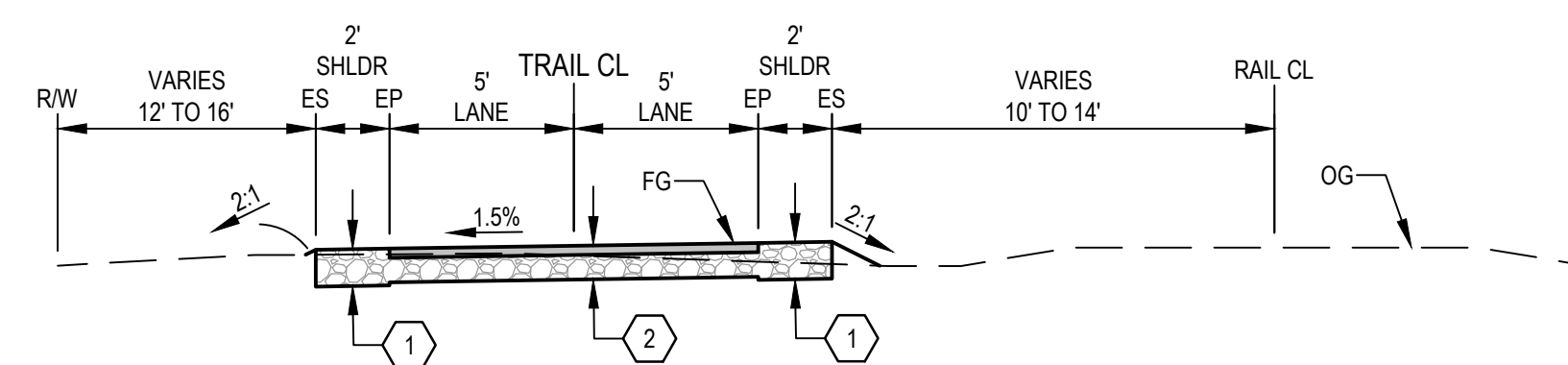




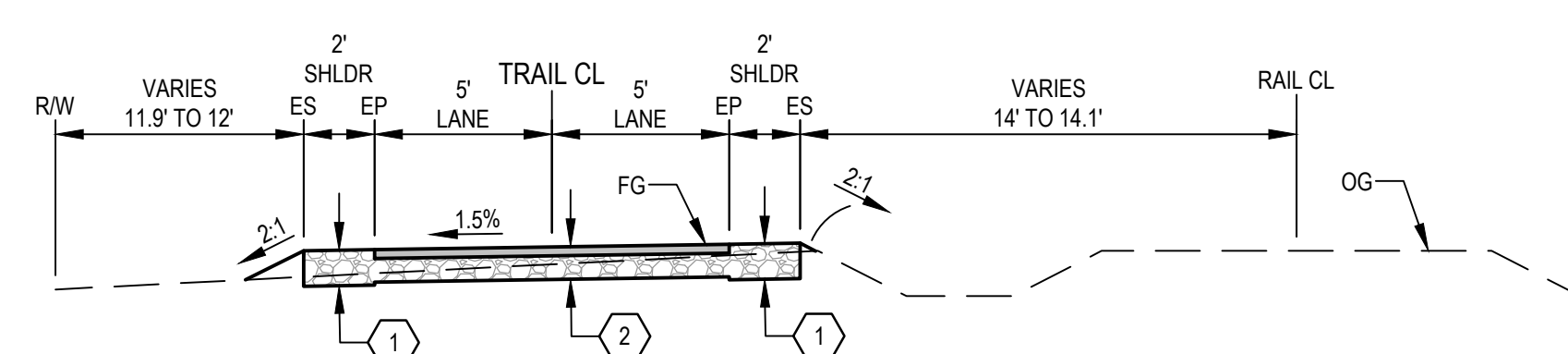
**5 TYPICAL SECTION**  
 NO SCALE  
 STA 473+70.81 TO STA 477+07.87  
 STA 477+37.87 TO STA 477+66.74



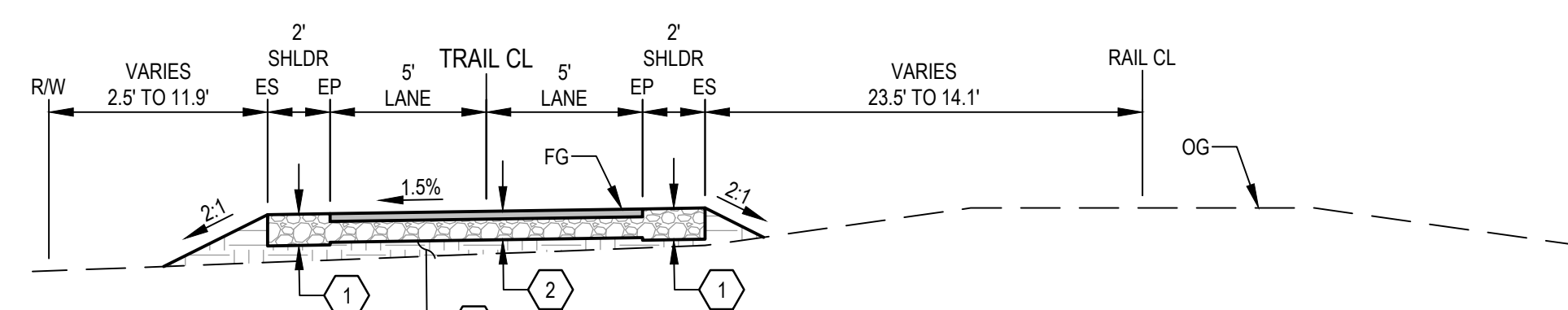
**4 TYPICAL SECTION**  
 NO SCALE  
 STA 466+82 TO STA 467+32



**3 TYPICAL SECTION**  
 NO SCALE  
 STA 461+98 TO STA 466+82  
 STA 467+32 TO STA 473+70.81



**2 TYPICAL SECTION**  
 NO SCALE  
 STA 458+06.83 TO STA 461+98



**1 TYPICAL SECTION**  
 NO SCALE  
 STA 456+56.14 TO STA 457+61.83

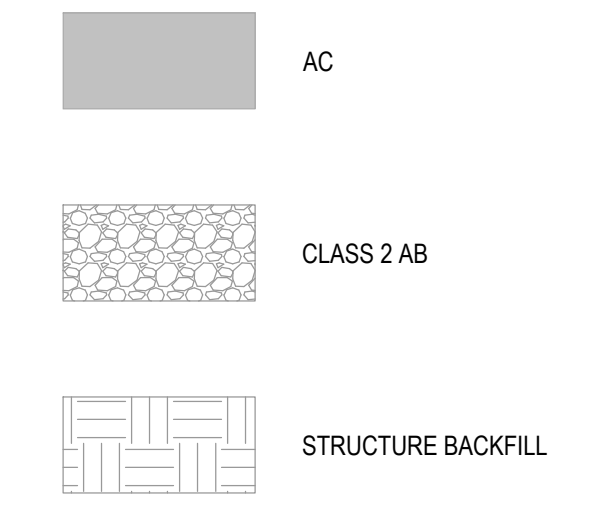
**SHEET GENERAL NOTES**

1. PROTECT EXISTING RAIL AT ALL TIMES.
2. COMPACT AGGREGATE BASE TO 96% RELATIVE COMPACTION.
3. SCARIFY & RECOMPACT UPPER 8" OF SUBGRADE TO 95% RELATIVE COMPACTION.
4. SIDE SLOPE ARE 2:1 (H:V) MAX.

**SHEET KEYNOTES**

1. SHOULDER SECTION:  
1.00' CLASS 2 AB
2. TRAIL SECTION:  
0.25' AC  
0.67' CLASS 2 AB
3. PARKING LOT SECTION (ADD ALTERNATIVE):  
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0.67' CLASS 2 AB
4. STRUCTURE FILL

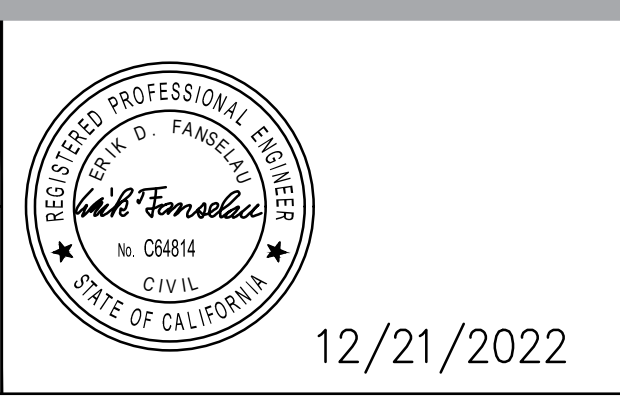
**LEGEND**



No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
 0 ————— 1"

12/21/2022



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Client **CITY OF UKIAH**  
 Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TYPICAL SECTIONS - NORGARD LN TO PLANT RD ADD ALTERNATIVE**

Project No. **12557341** Date **SEP 30, 2022** Scale **NO SCALE**

Sheet No. **C-003** Sheet **9 of 96**

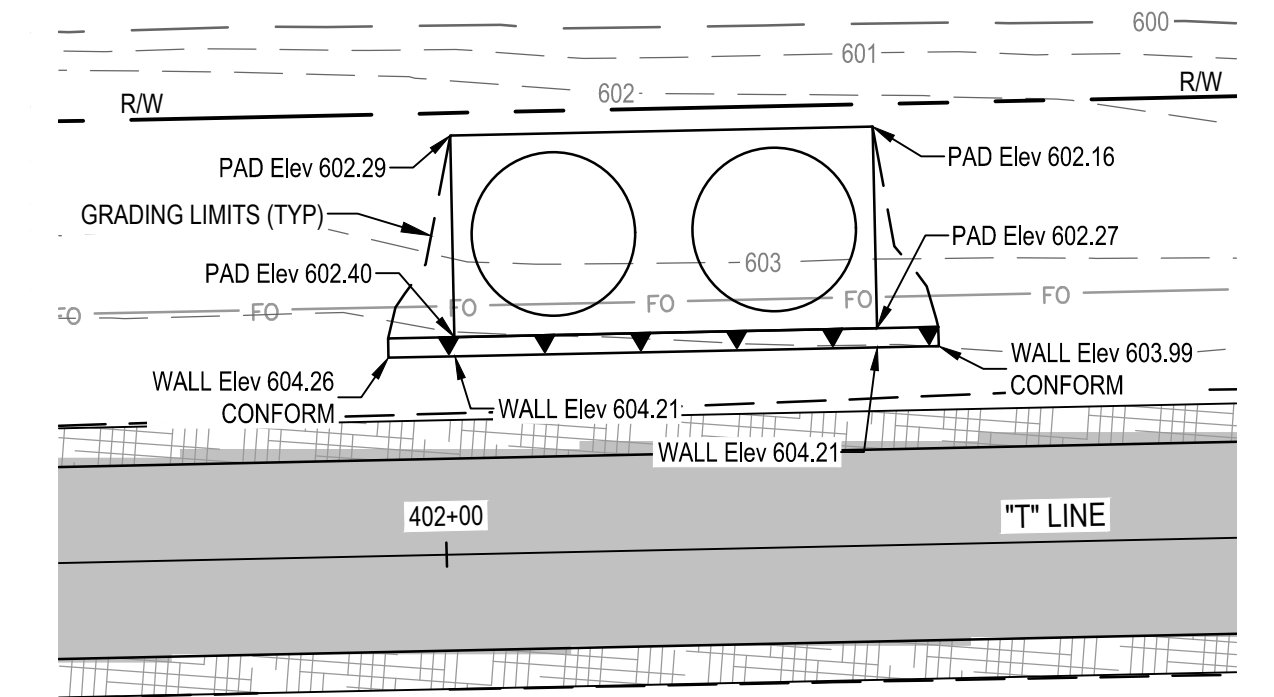
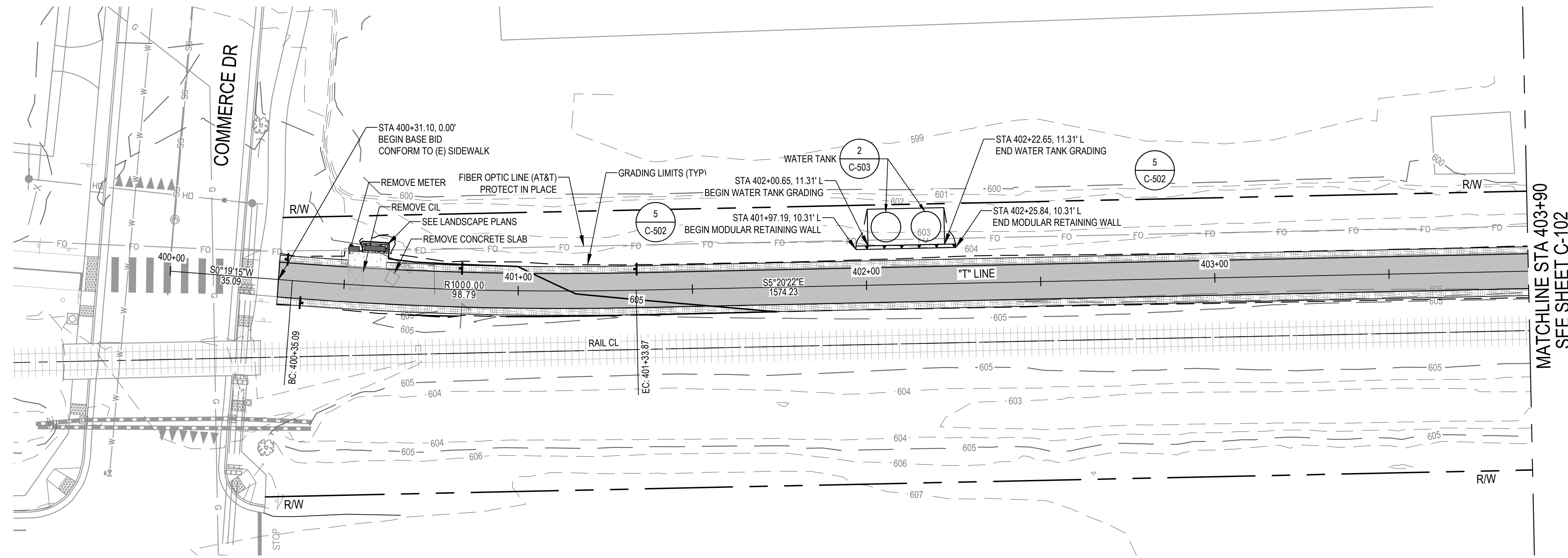


**SHEET GENERAL NOTES**

- FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-401.
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

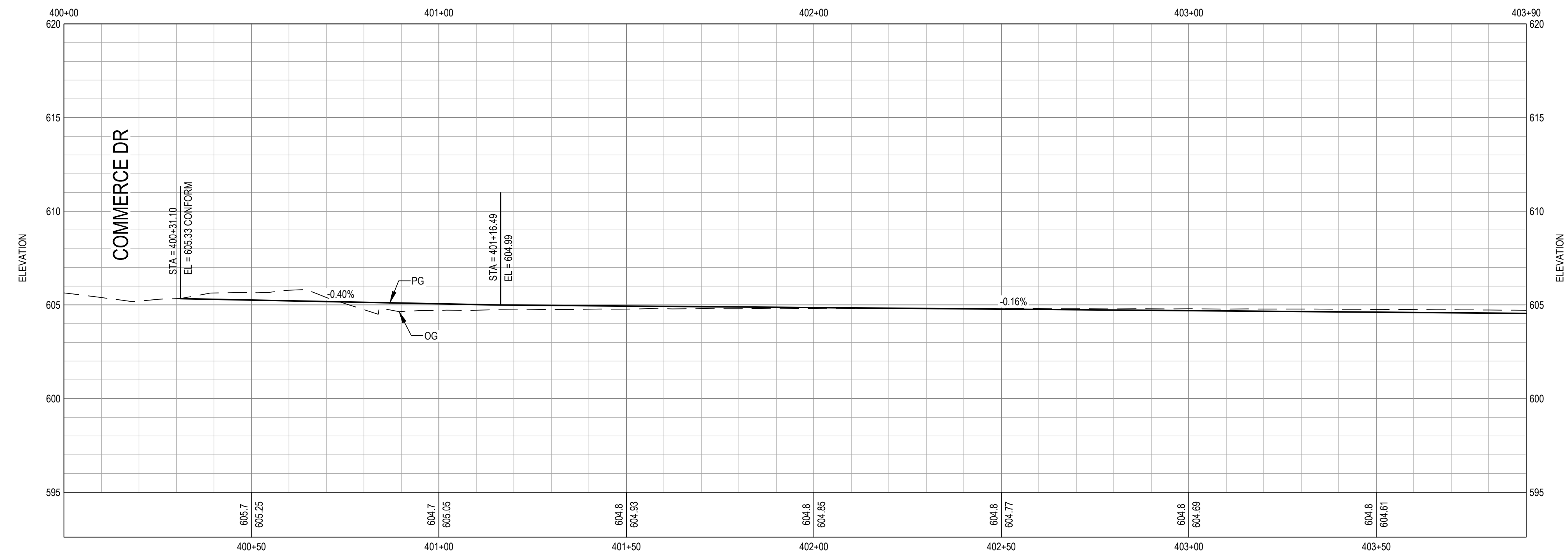
**Note by City of Ukiah:**  
Contractor to pay special attention to preservation of existing trees on site. No tree will be removed or damaged without the approval of the City Engineer or designated appointee.

Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



**TRAIL PLAN**

**WATER TANK**



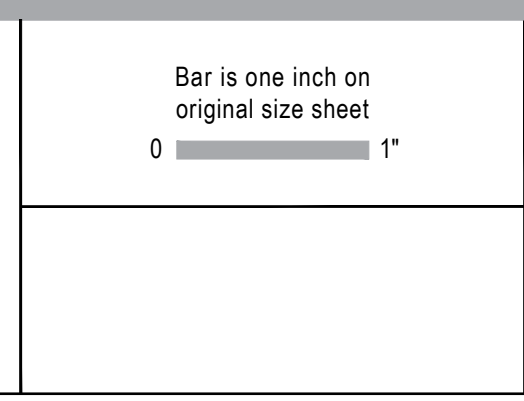
**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)

0 10' 20' 40'

**811**  
Know what's below.  
Call before you dig.  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

1 WATER TANK		EF	EF	2022-12-13
No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director
			M. KENNEDY	

Bar is one inch on original size sheet	
0	1"



12/21/2022

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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 400+00 TO STA 403+90
Sheet No.	C-101
Sheet	10 of 96

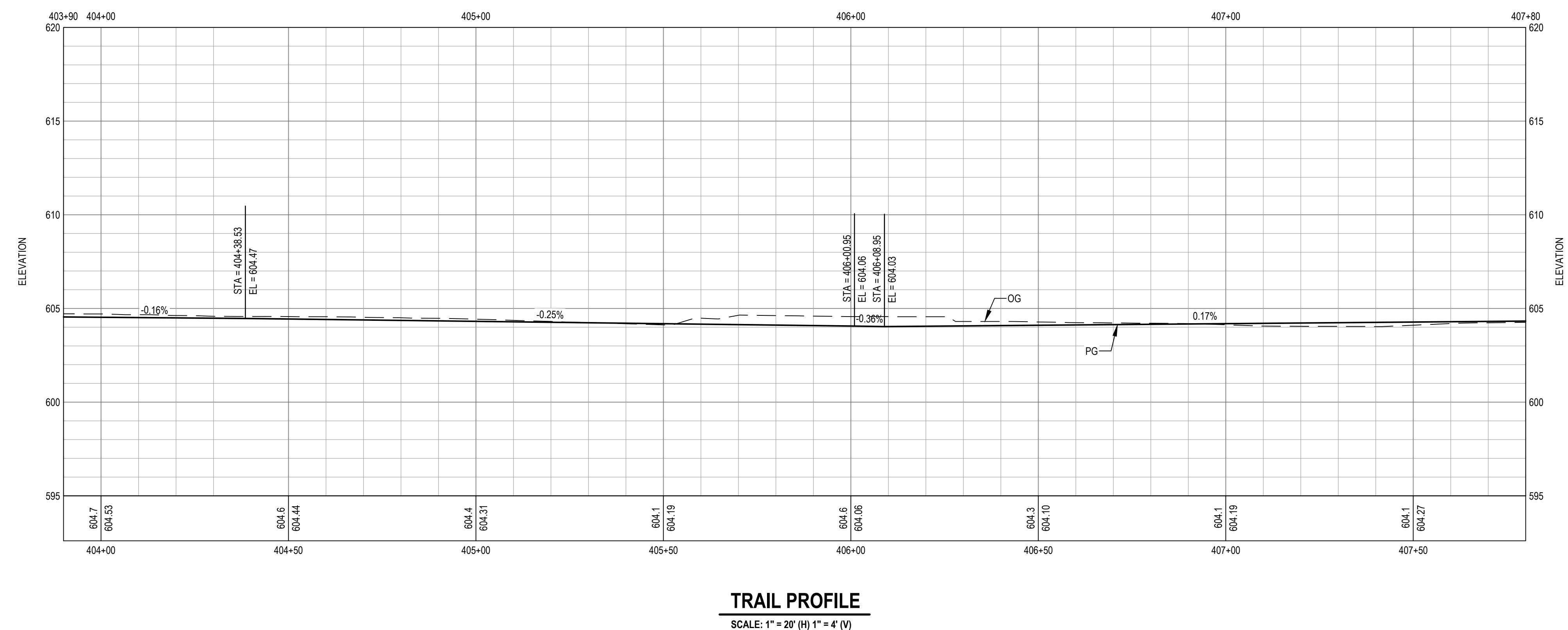
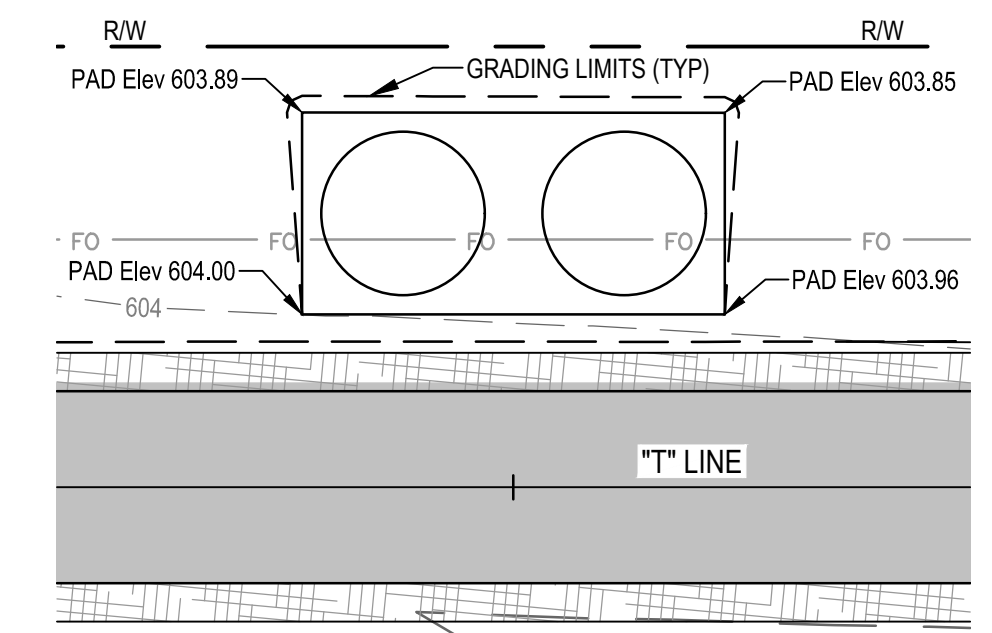
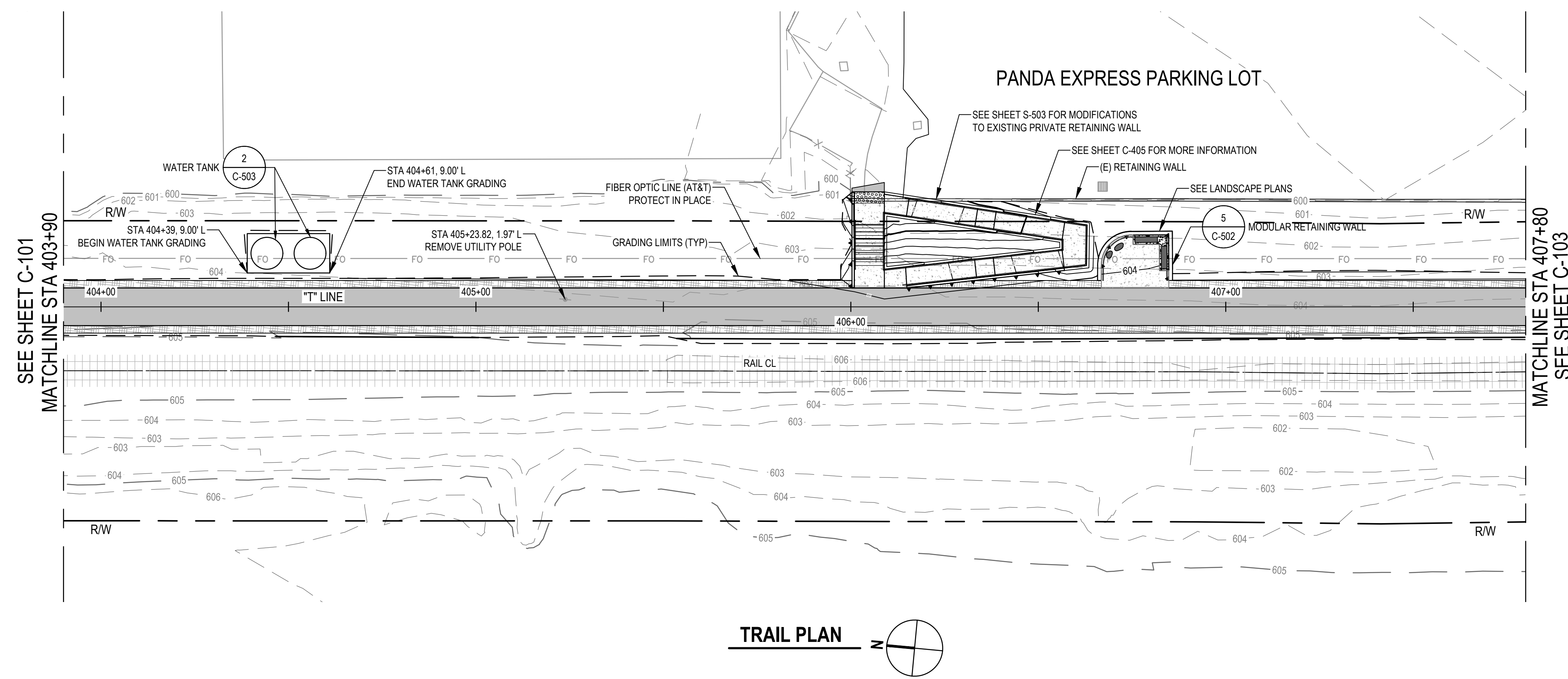


**SHEET GENERAL NOTES**

- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

**Note by City of Ukiah:**  
Contractor to pay special attention to preservation of existing trees on site. No tree will be removed or damaged without the approval of the City Engineer or designated appointee.

Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



**811**

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1 WATER TANK		EF	EF	2022-12-13
No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director
			M. KENNEDY	

Bar is one inch on original size sheet	
0	1"

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER

STATE OF CALIFORNIA

12/21/2022

**GHD**

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**

**STA 403+90 TO STA 407+80**

Sheet No. **C-102**

Sheet **11 of 96**

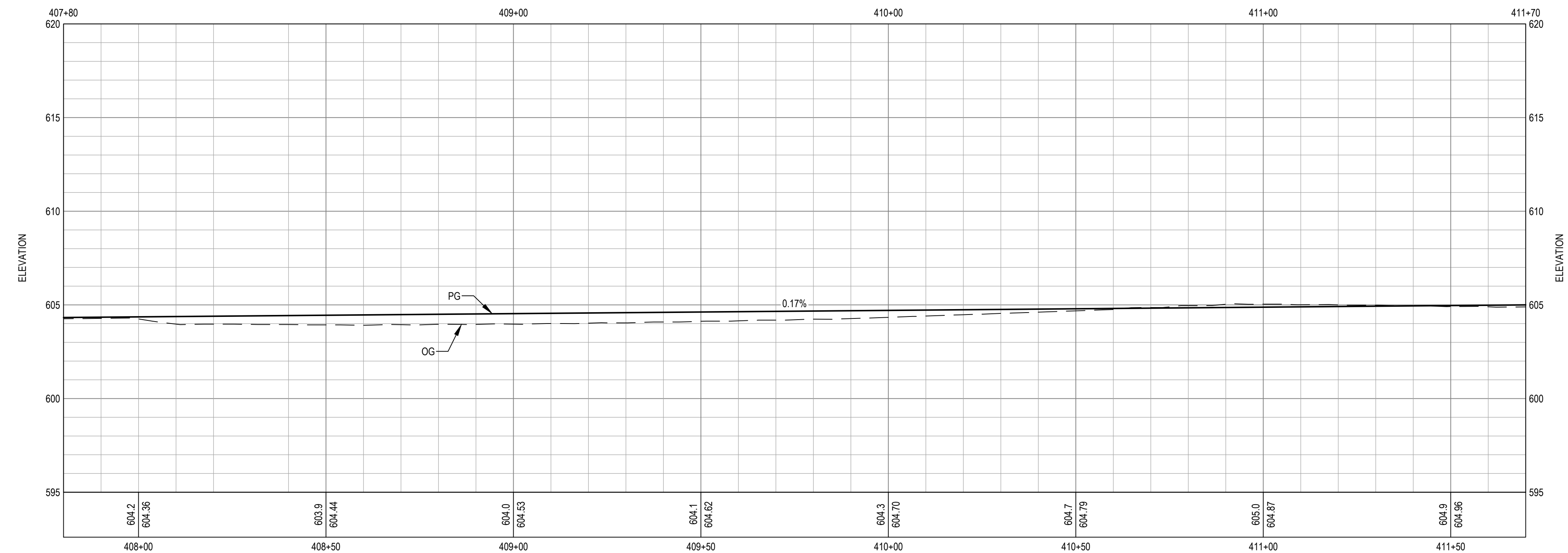
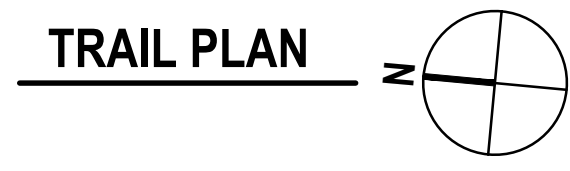
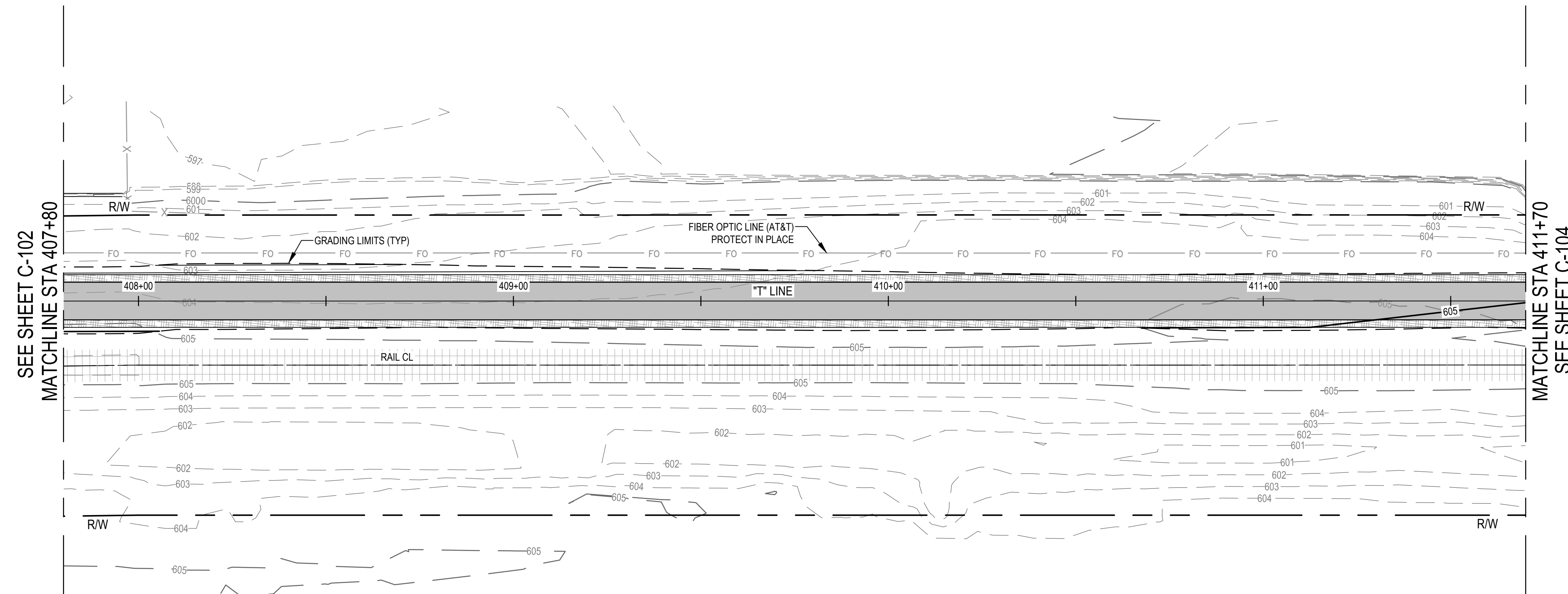


**SHEET GENERAL NOTES**

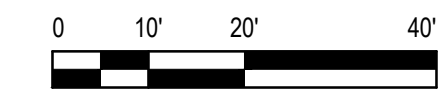
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

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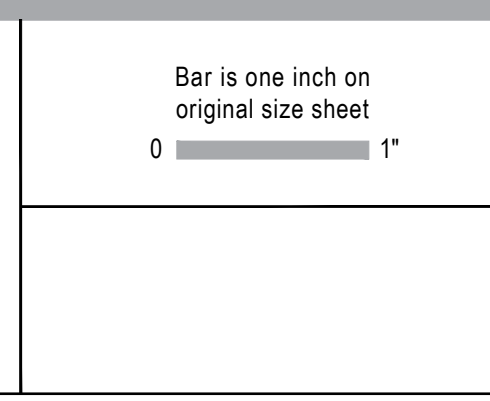
**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet	0	1"
----------------------------------------	---	----



12/21/2022

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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 407+80 TO STA 411+70
Sheet No.	C-103
Sheet	12 of 96

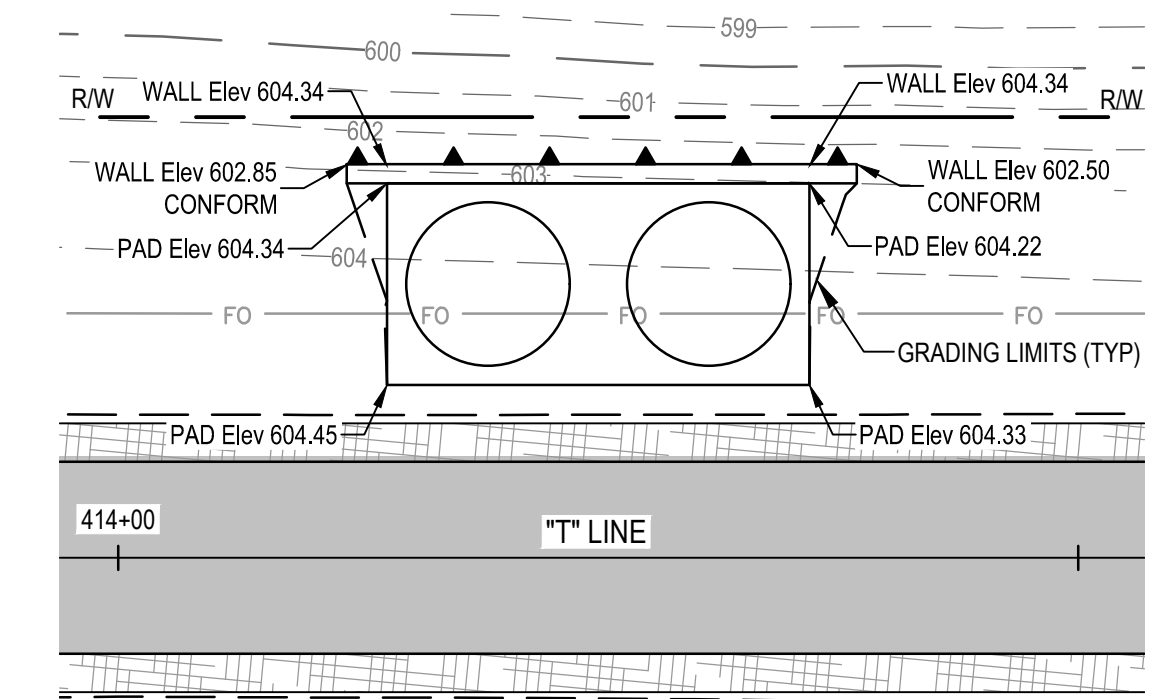
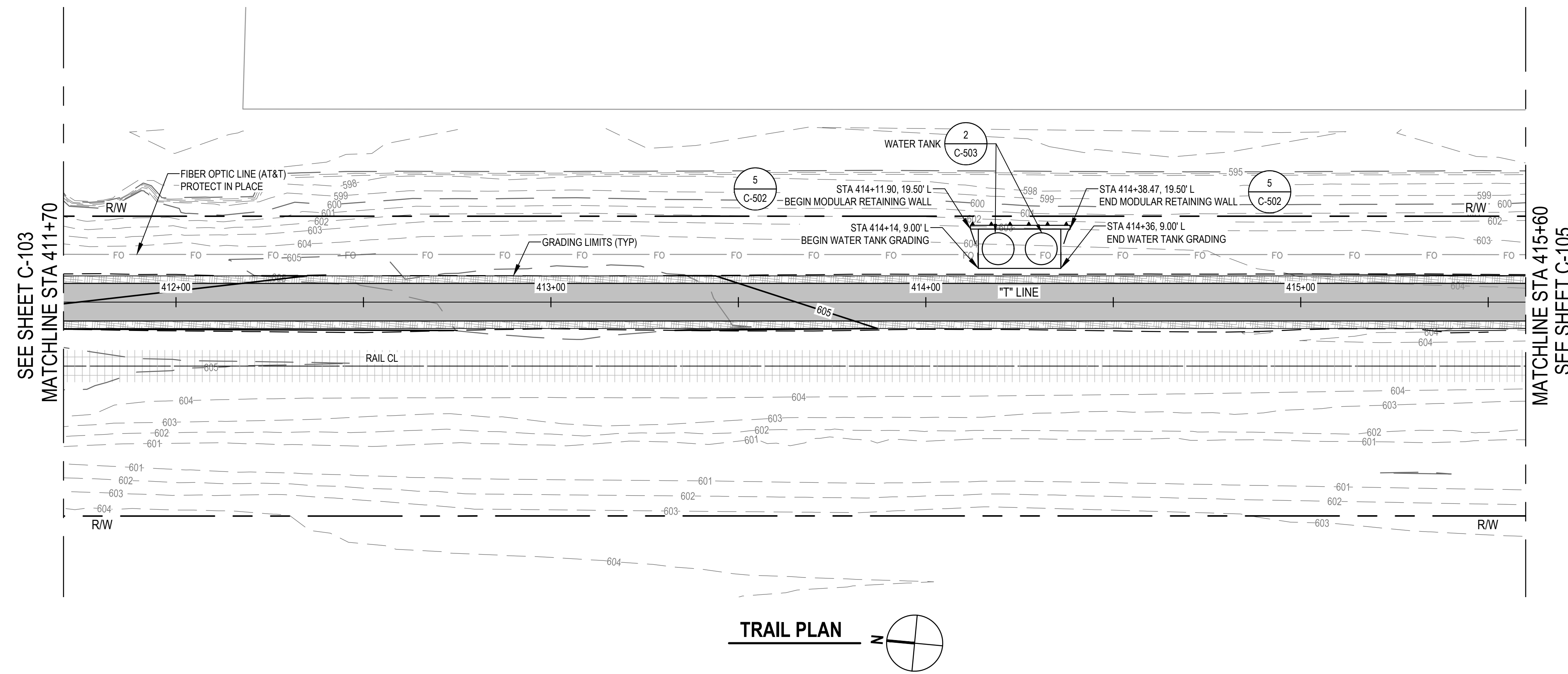


**SHEET GENERAL NOTES**

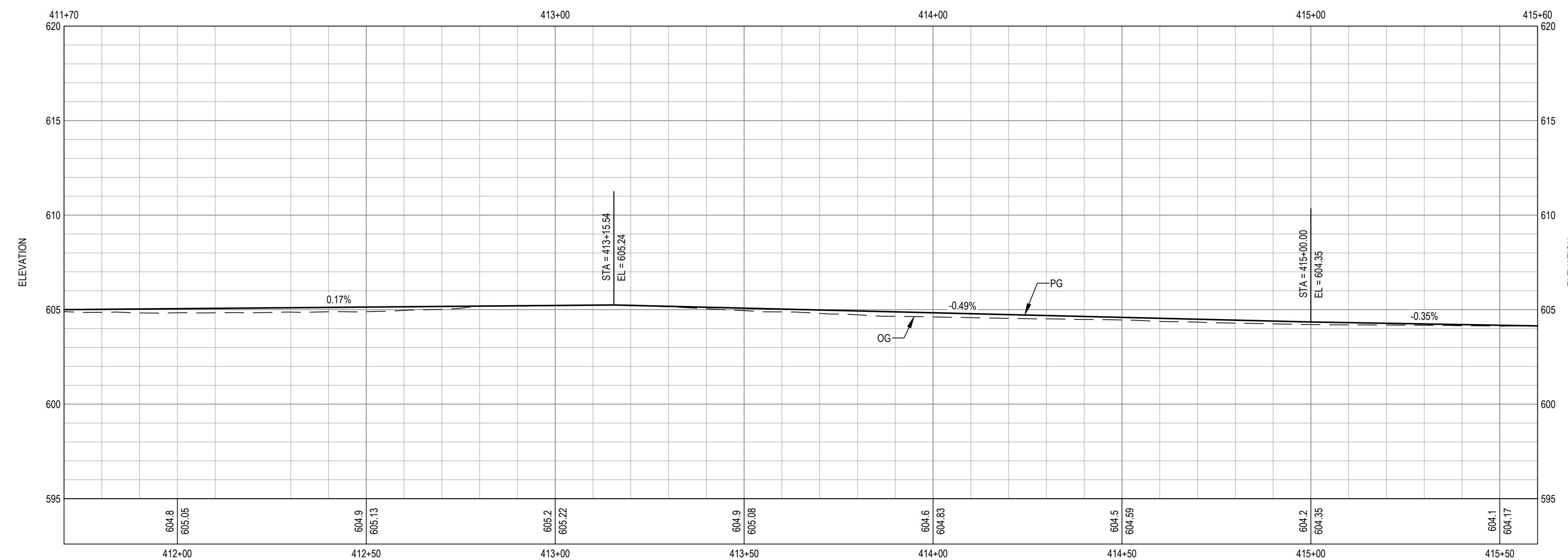
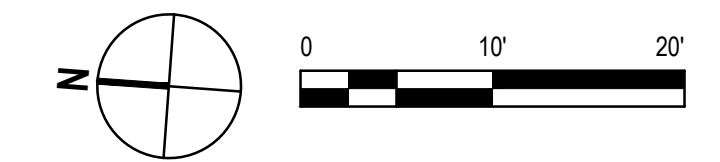
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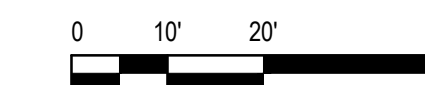


**WATER TANK**



**TRAIL PROFILE**

SCALE: 1" = 20' (H) 1" = 4' (V)



**Know what's below. Call before you dig.**

Contractor shall call Underground Service Alert at 811 two working days prior to excavation

1 WATER TANK		EF	EF	2022-12-13
No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director
			M. KENNEDY	

Bar is one inch on original size sheet  
0 1"



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Client	CITY OF UKIAH	
Project	THE GREAT REDWOOD TRAIL PHASE 4	
Project No.	Date	Scale
12557341	SEP 30, 2022	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 411+70 TO STA 415+60	
Sheet No.	C-104	
Size	ANSI D	
Sheet	13 of 96	

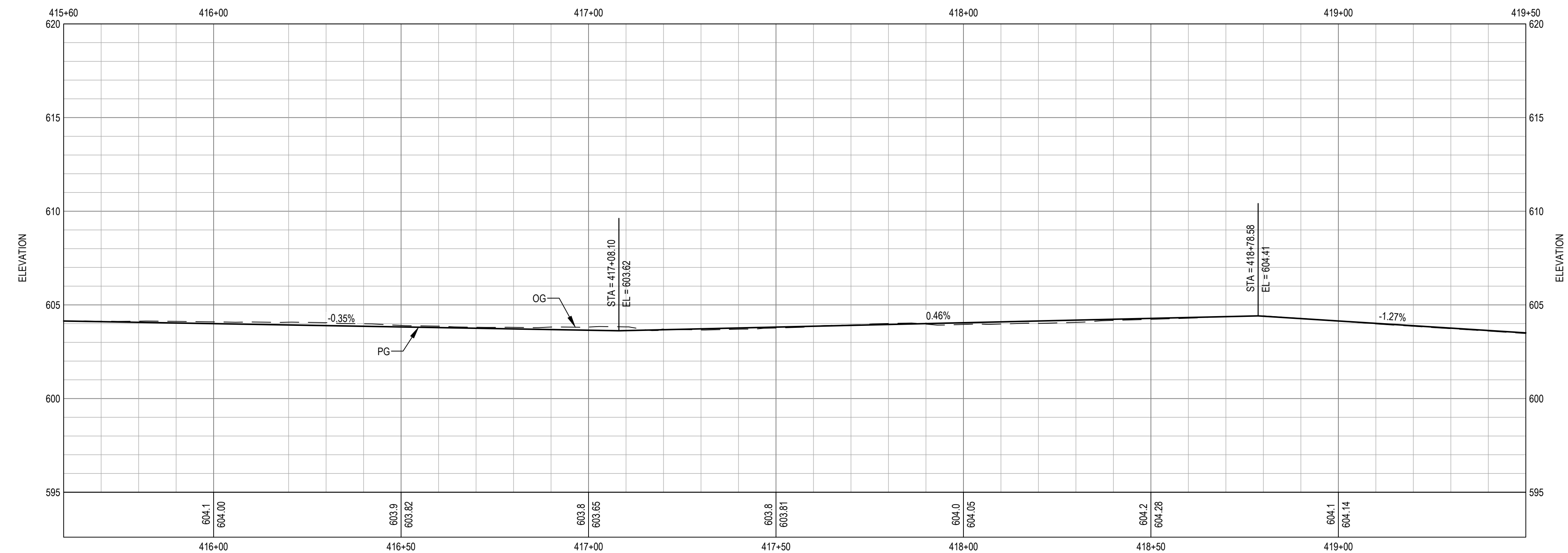
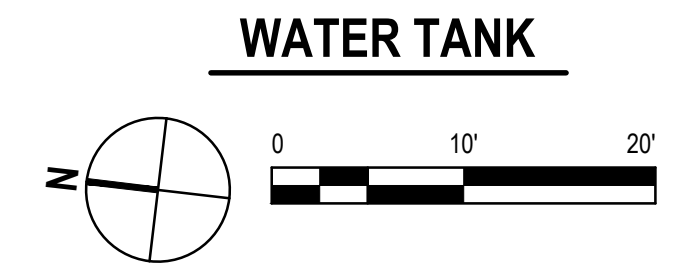
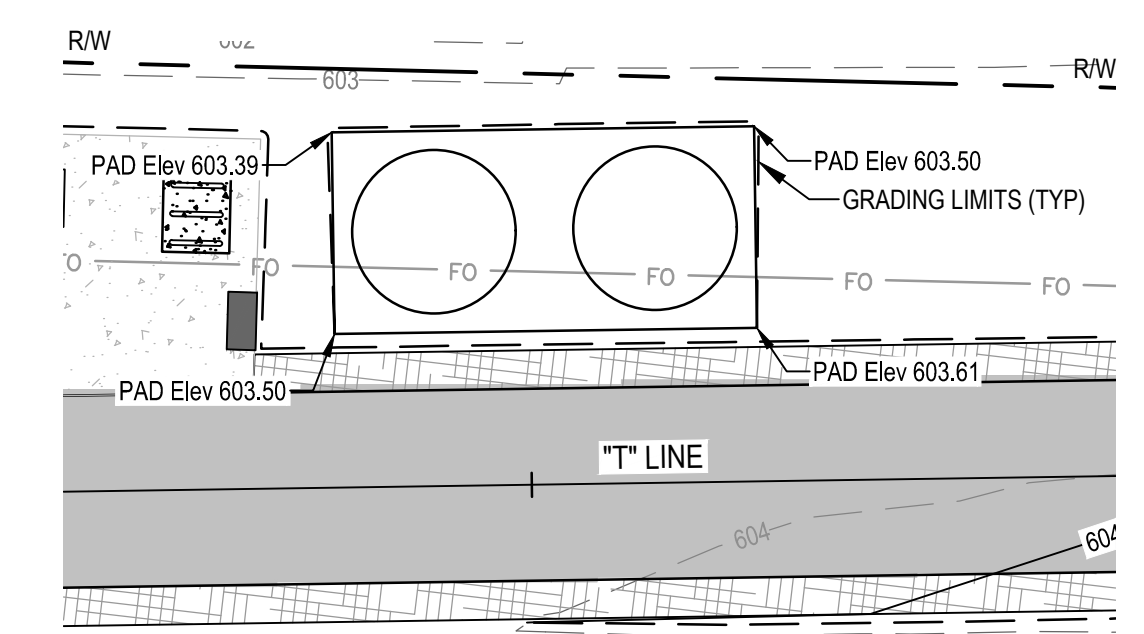
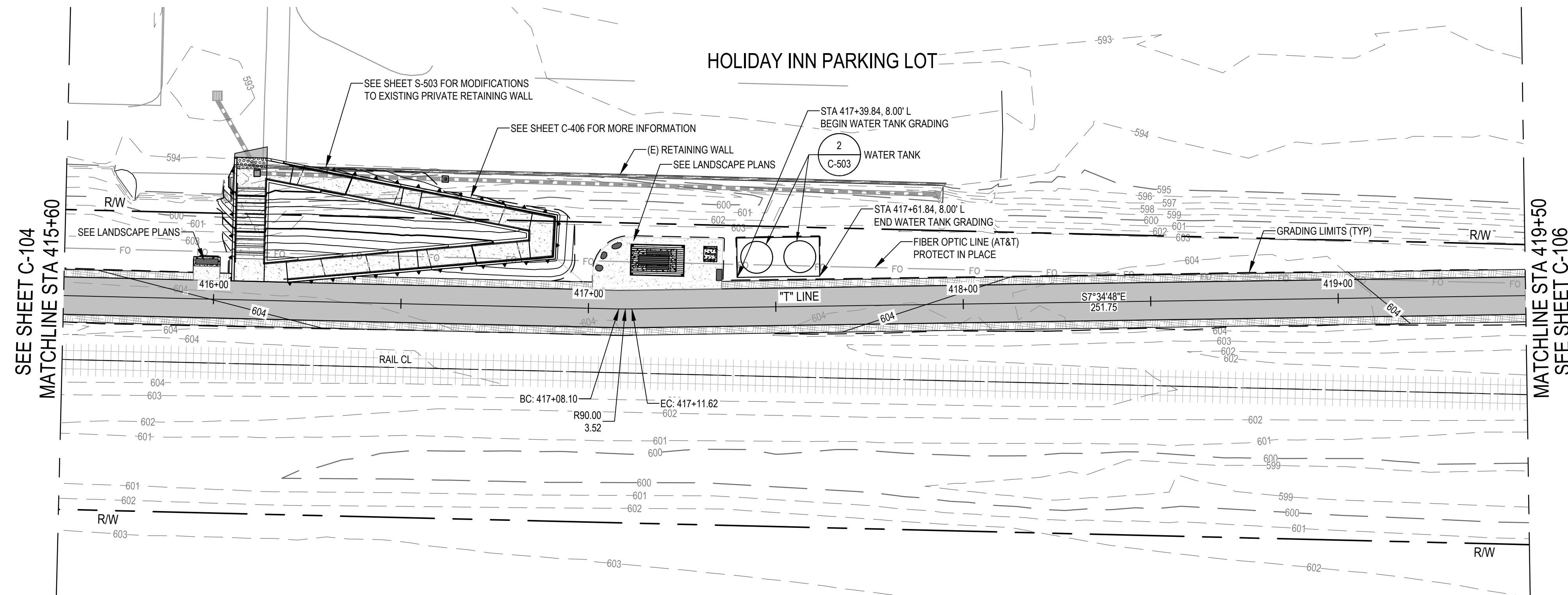


**SHEET GENERAL NOTES**

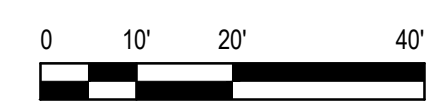
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**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



**811**  
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Call before you dig.  
Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

1 WATER TANK		EF	EF	2022-12-13
No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director
			M. KENNEDY	

Bar is one inch on original size sheet  
0 1"



12/21/2022

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2235 Mercury Way Suite 150  
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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE  
STA 415+60 TO STA 419+50**

Sheet No. **C-105**

Sheet **14 of 96**

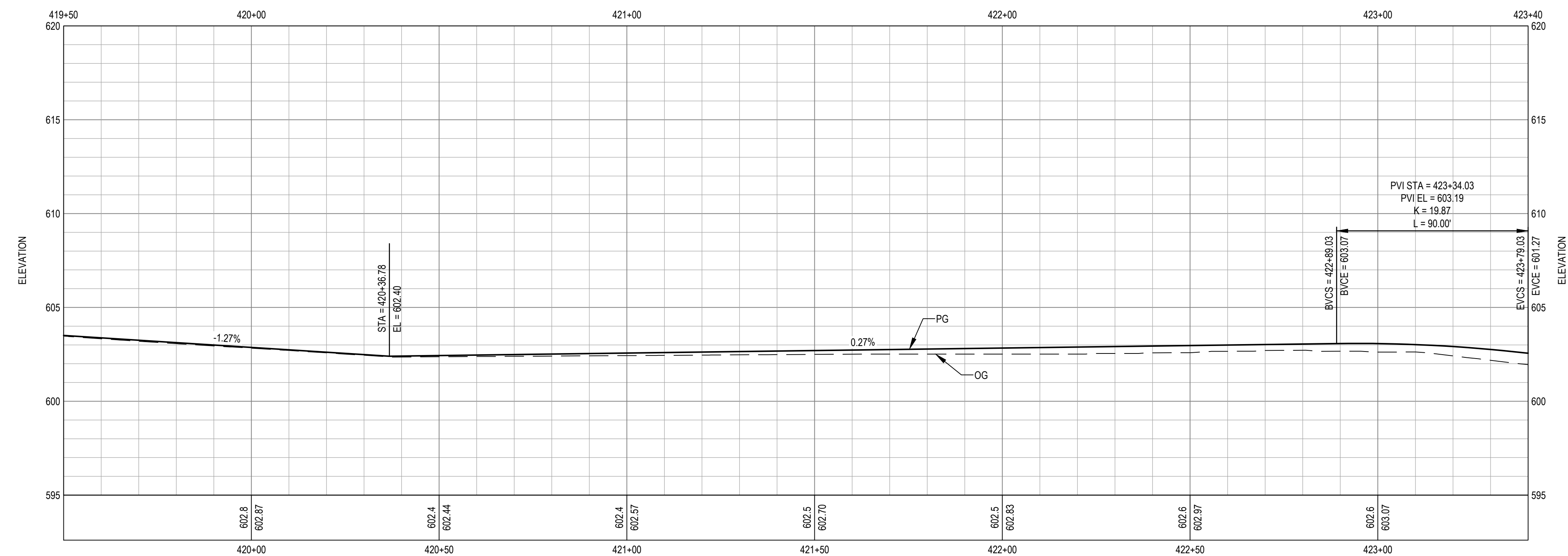
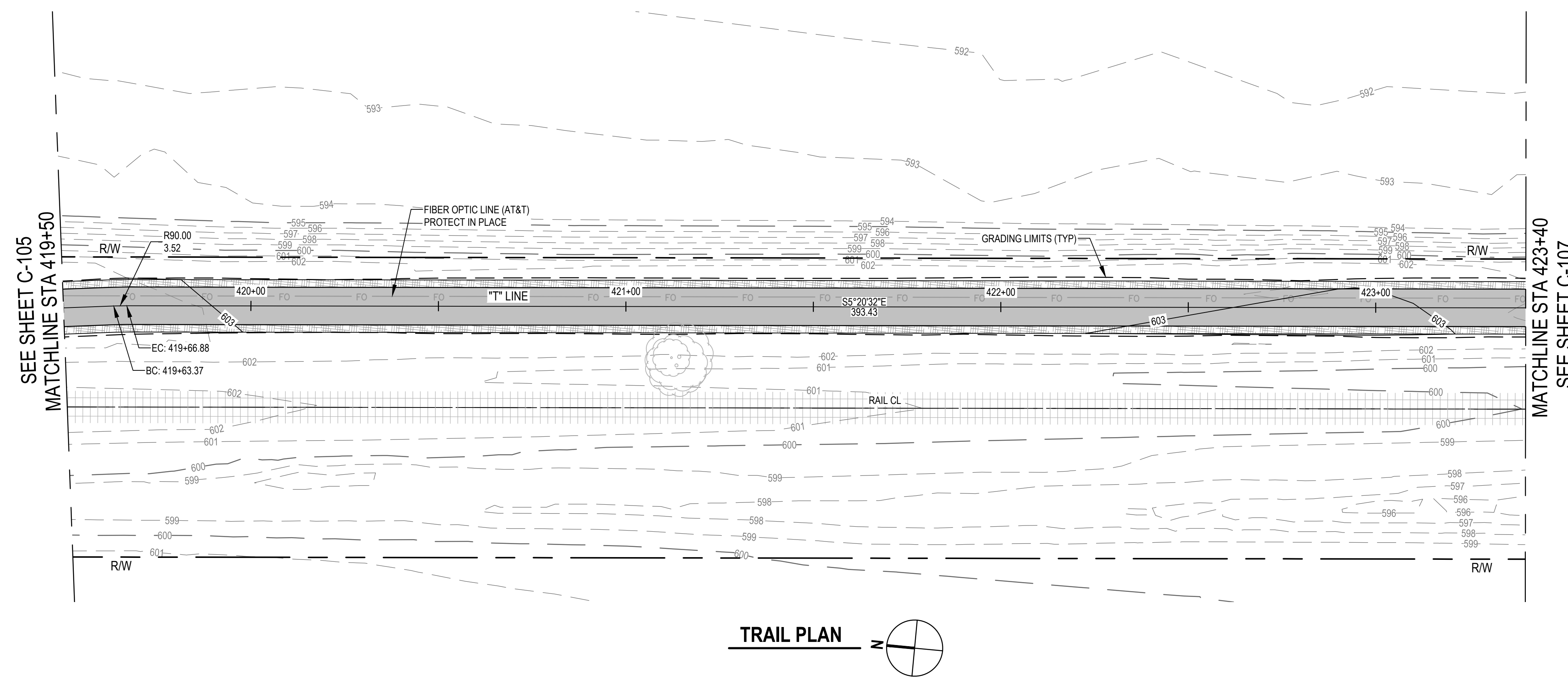


**SHEET GENERAL NOTES**

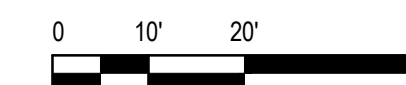
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

**Note by City of Ukiah:**  
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Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



TRAIL PROFILE  
SCALE: 1" = 20' (H) 1" = 4' (V)



Know what's below.  
Call before you dig.

Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet



12/21/2022

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 419+50 TO STA 423+40**

Size **ANSI D**

Sheet No. **C-106** Sheet **15 of 96**

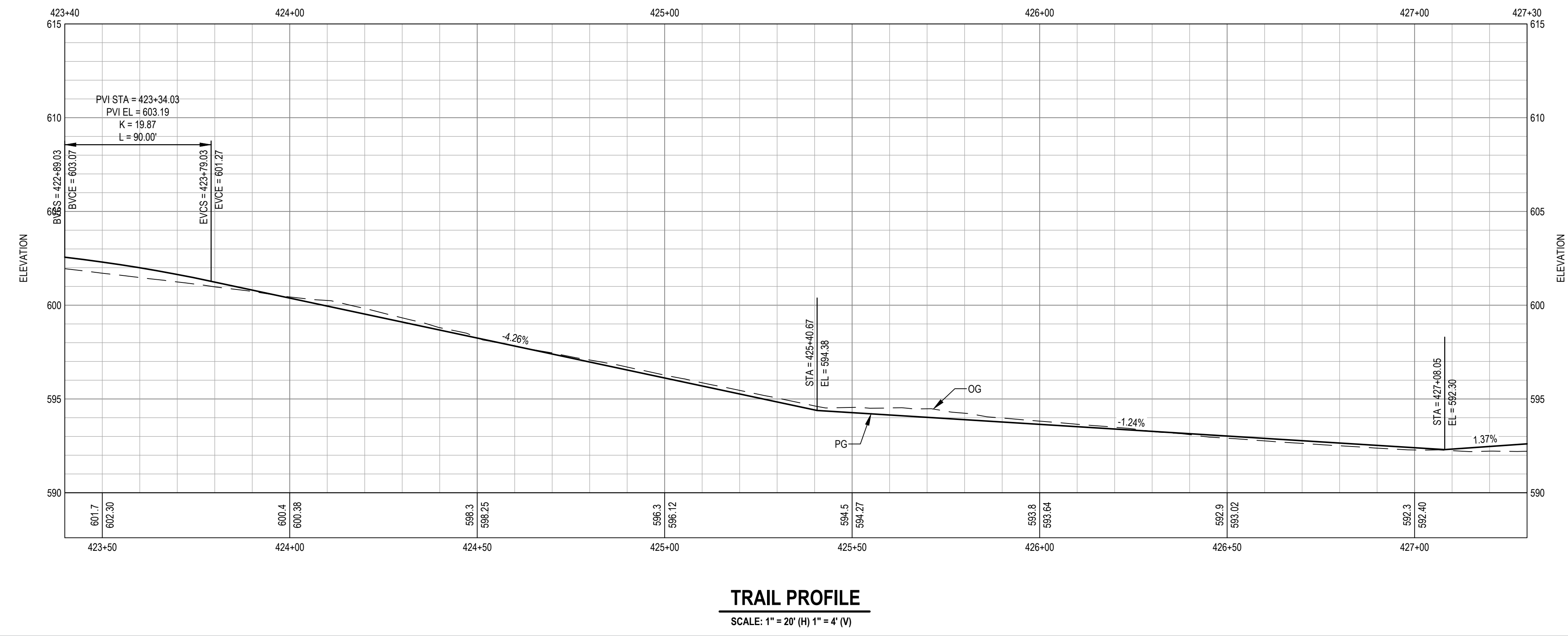
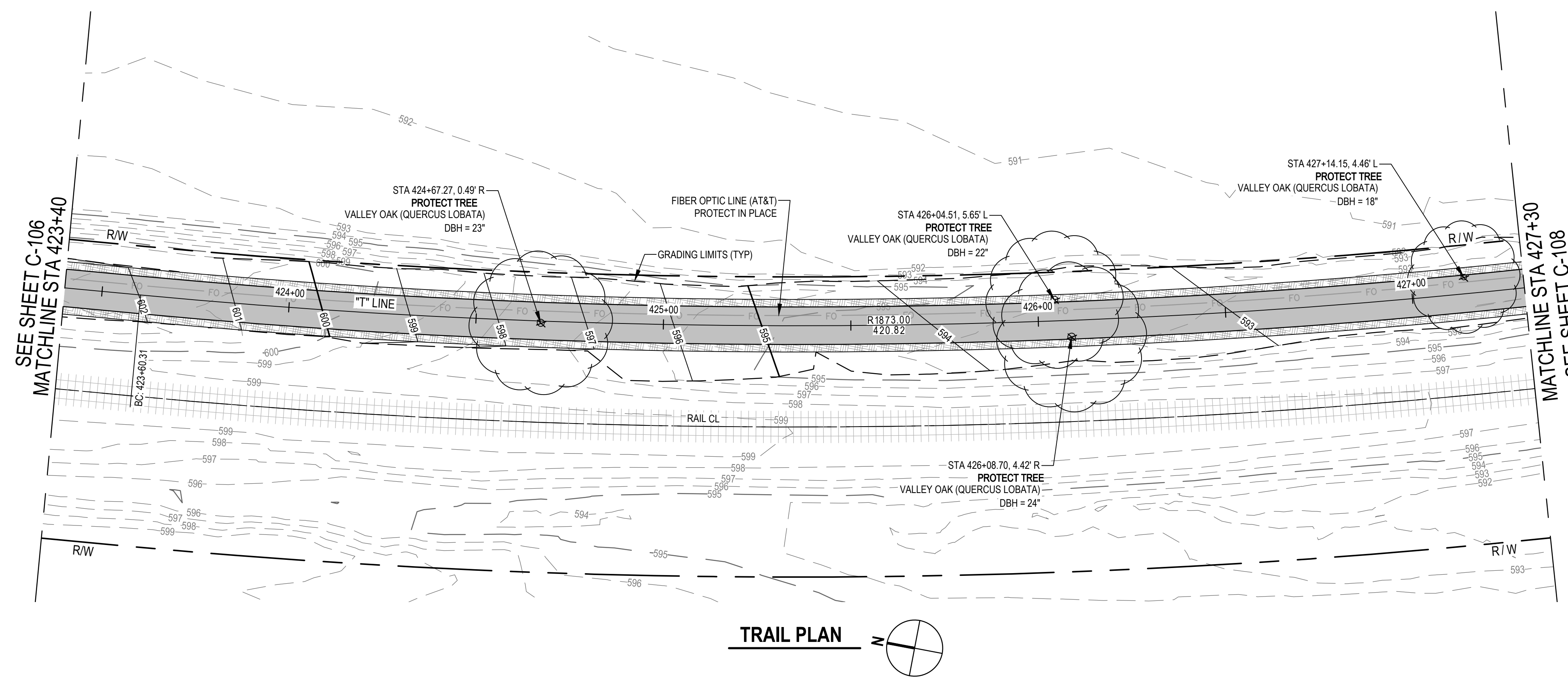


**SHEET GENERAL NOTES**

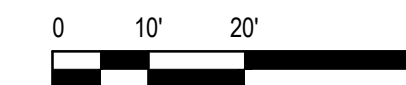
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**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



Contractor shall call 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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0 1"



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 423+40 TO STA 427+30**  
Sheet No. **C-107**  
Sheet **16 of 96**

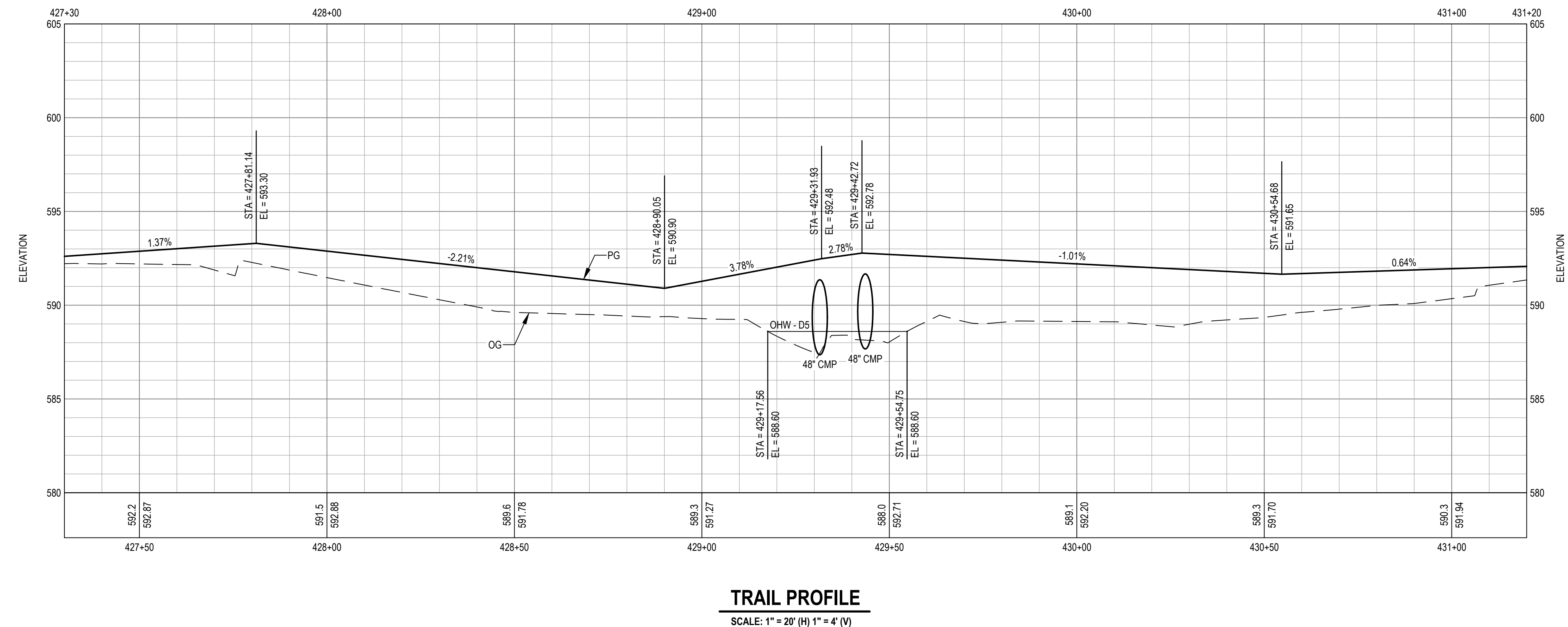
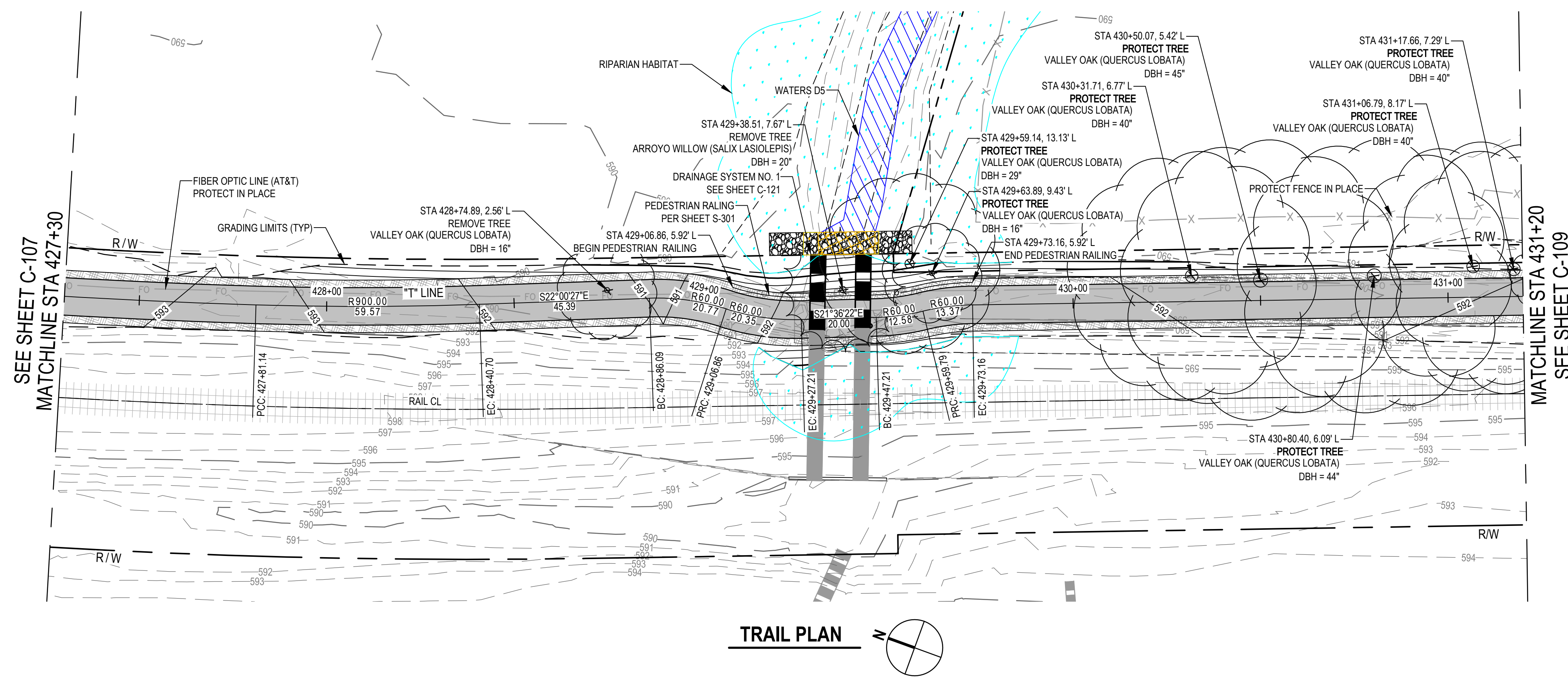


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**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

1 PEDESTRIAN RAILING		EF	EF	2023-02-07	
No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



2/7/2023



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TRAIL PLAN AND PROFILE**  
**STA 427+30 TO STA 431+20**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**

Size **ANSI D**  
Sheet No. **C-108** Sheet **17 of 96**

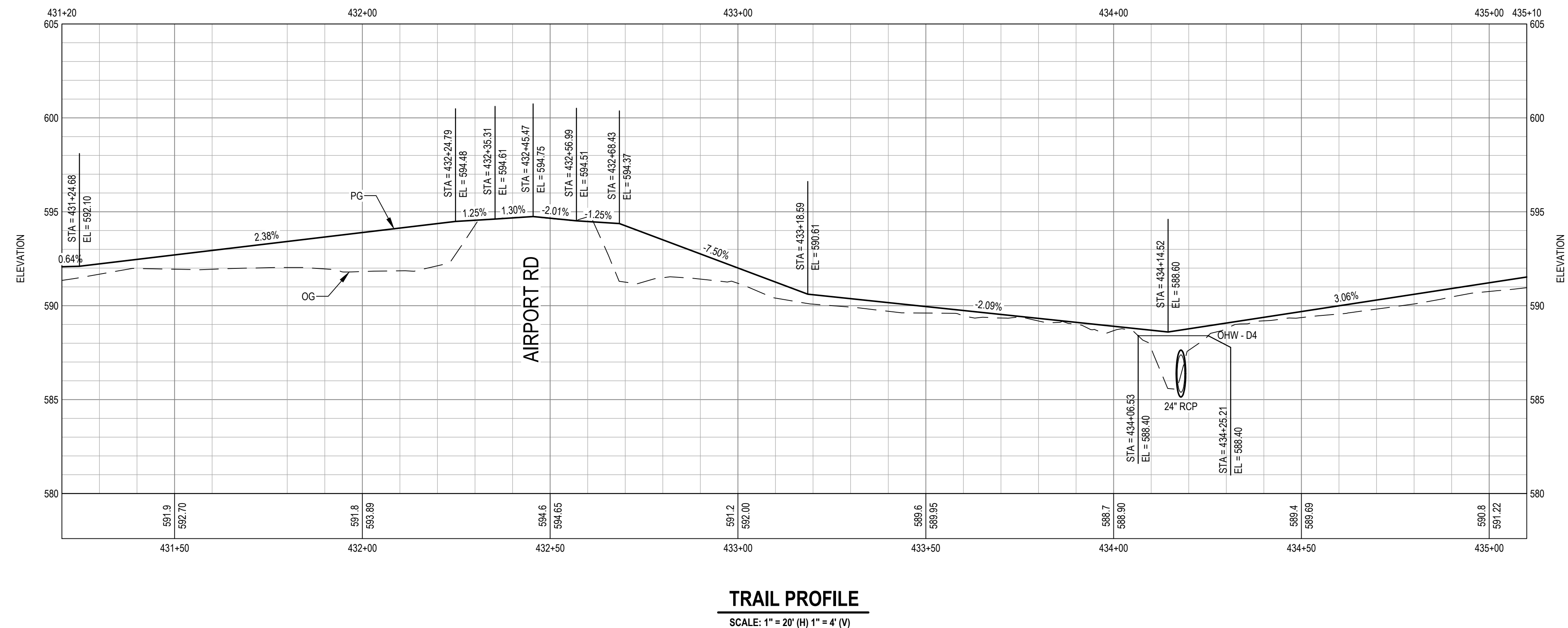
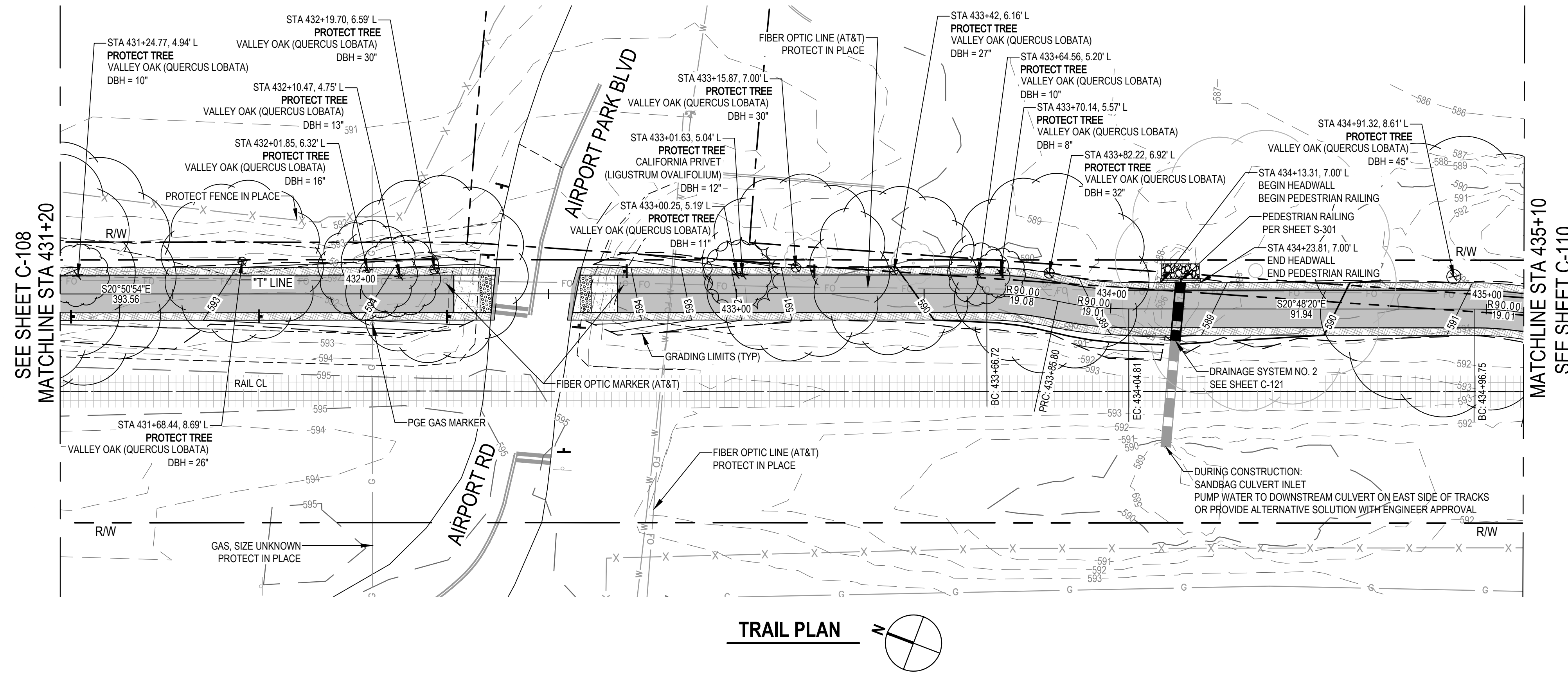


**SHEET GENERAL NOTES**

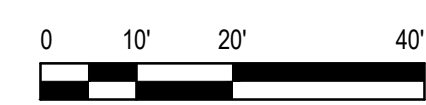
- FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-402.
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

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No.	Issue	Checked	Approved	Date
2	PEDESTRIAN RAILING	EF	EF	2023-02-07
1	CONSTRUCTION NOTES	EF	EF	2022-12-13
Author H. DAAS    Drafting Check E. FANSELAU    Project Manager E. FANSELAU				
Designer H. DAAS    Design Check E. FANSELAU    Project Director M. KENNEDY				

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0	1"

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**    Date **SEP 30, 2022**    Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 431+20 TO STA 435+10**

Size **ANSI D**

Sheet No. **C-109**    Sheet **18 of 96**

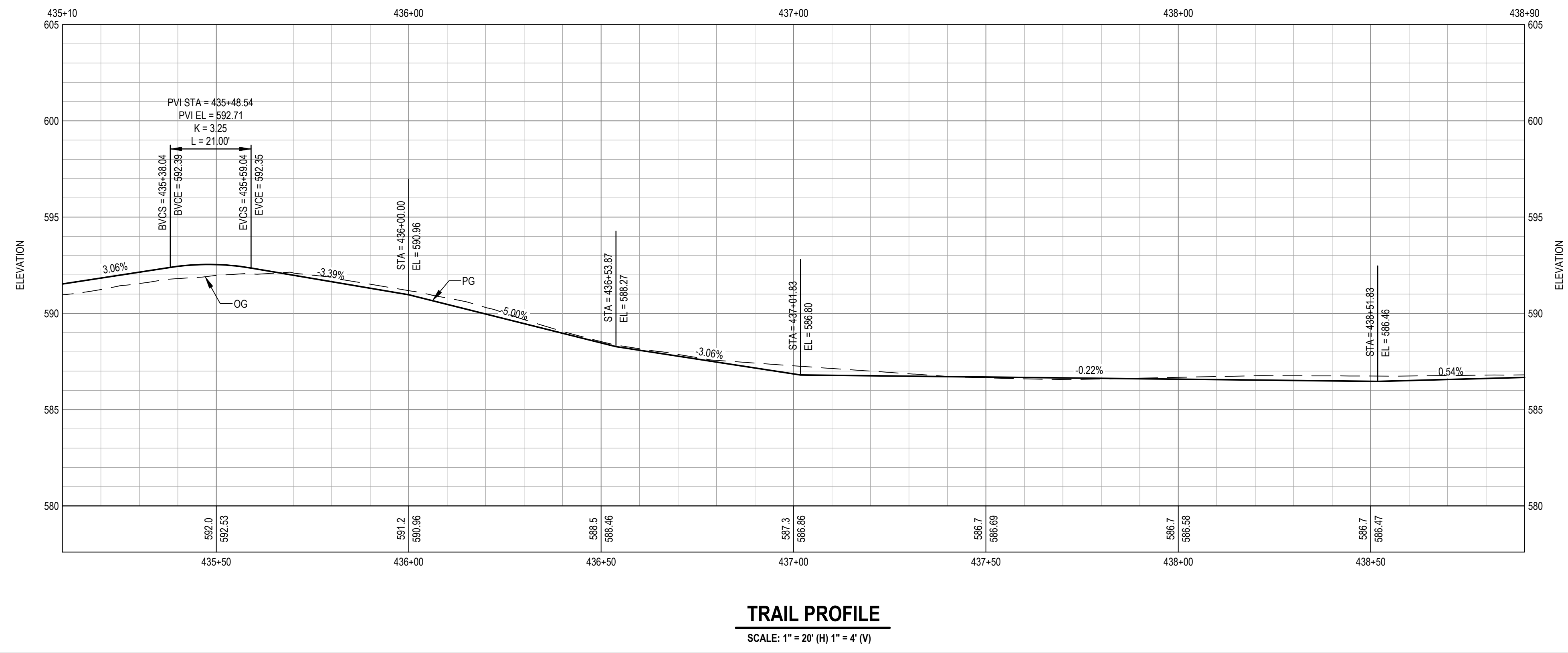
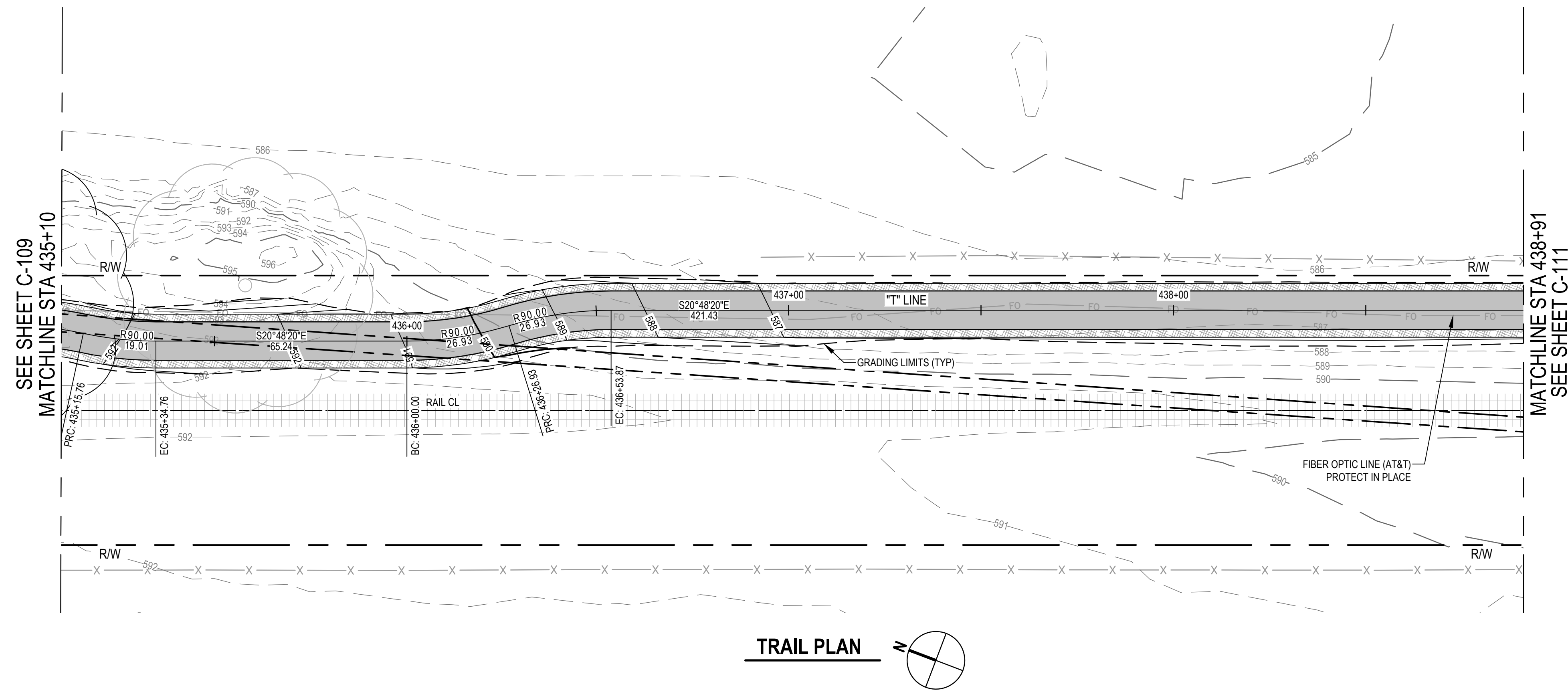


**SHEET GENERAL NOTES**

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No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY


Bar is one inch on original size sheet  
 0 ————— 1"

REGISTERED PROFESSIONAL ENGINEER  
 E. FANSELAU  
 No. 064814  
 CIVIL  
 STATE OF CALIFORNIA  
 12/21/2022

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Client **CITY OF UKIAH**  
 Project **THE GREAT REDWOOD TRAIL PHASE 4**  
 Project No. **12557341**  
 Date **SEP 30, 2022**  
 Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 435+10 TO STA 438+91**  
 Size **ANSI D**  
 Sheet No. **C-110**  
 Sheet **19 of 96**

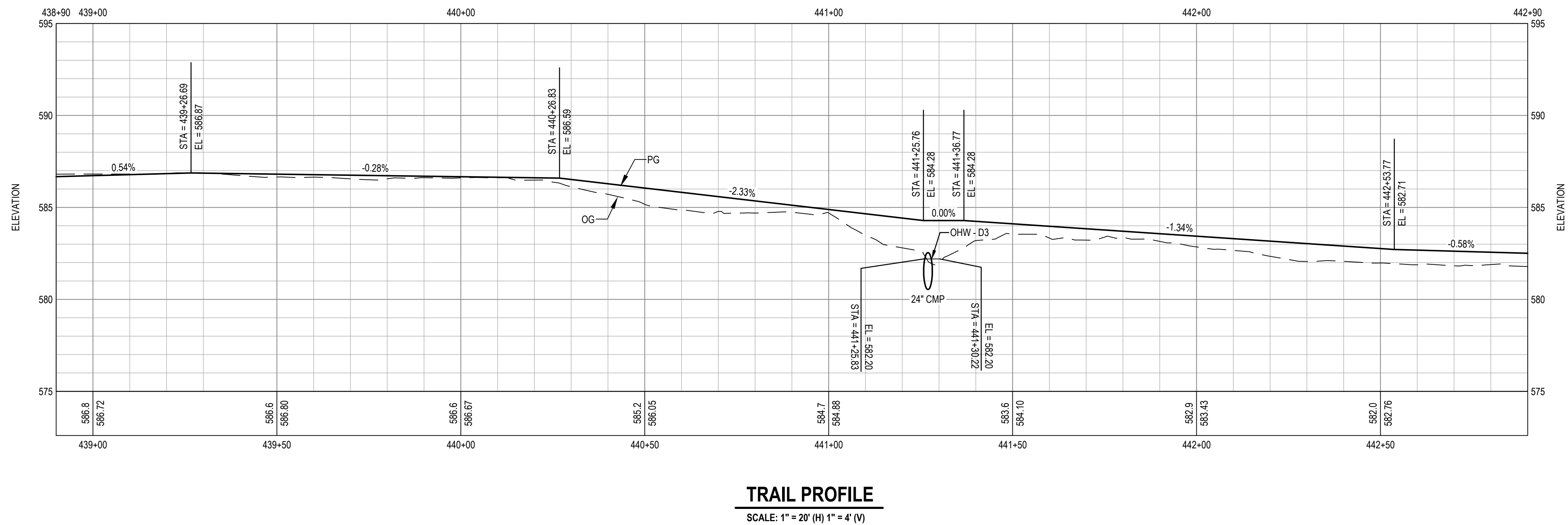
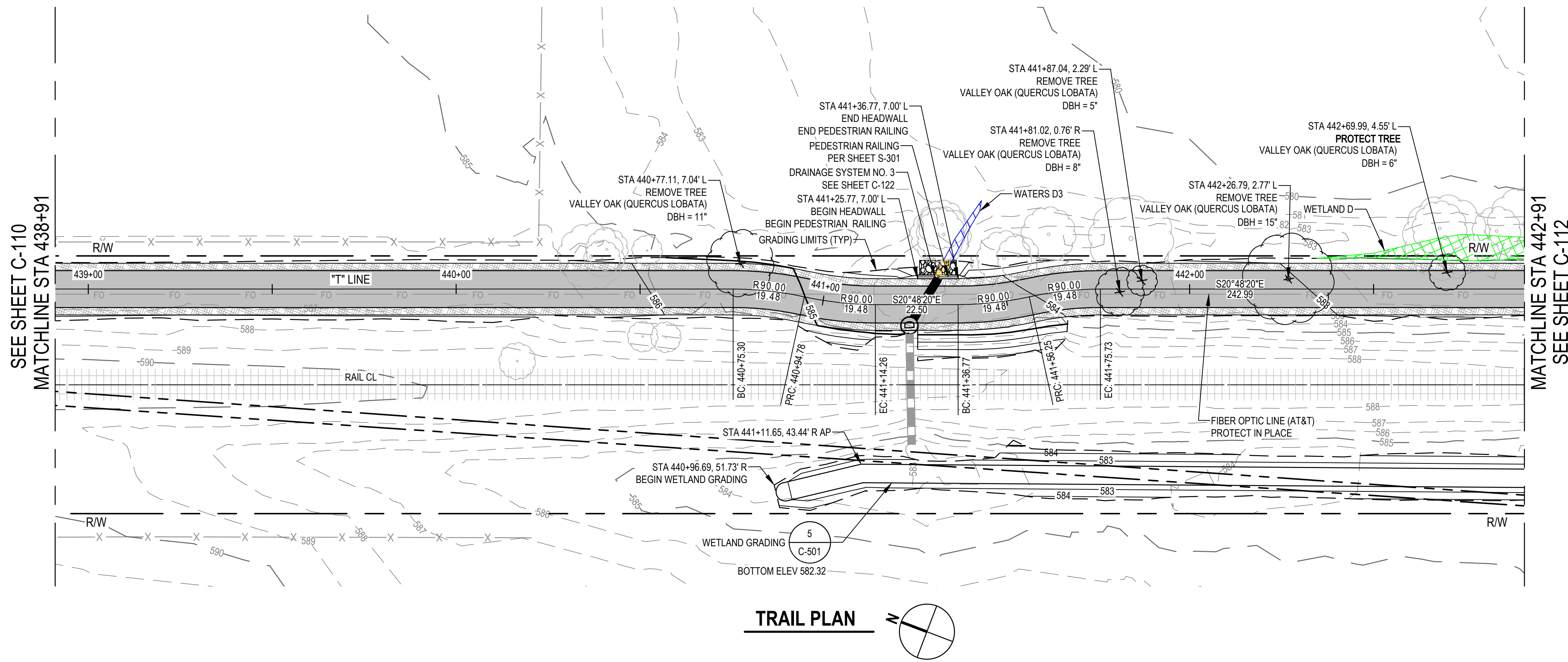


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No.	Issue	Checked	Approved	Date	
2	PEDESTRIAN RAILING	EF	EF	2023-02-07	
1	WETLAND MITIGATION REVISIONS	KG	KG	2023-02-03	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"

**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)

REGISTERED PROFESSIONAL ENGINEER  
**E. FANSELAU**  
No. 064814  
CIVIL  
STATE OF CALIFORNIA  
2/7/2023

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 438+91 TO STA 442+91**  
Size **ANSI D**  
Sheet No. **C-111**  
Sheet **20 of 96**

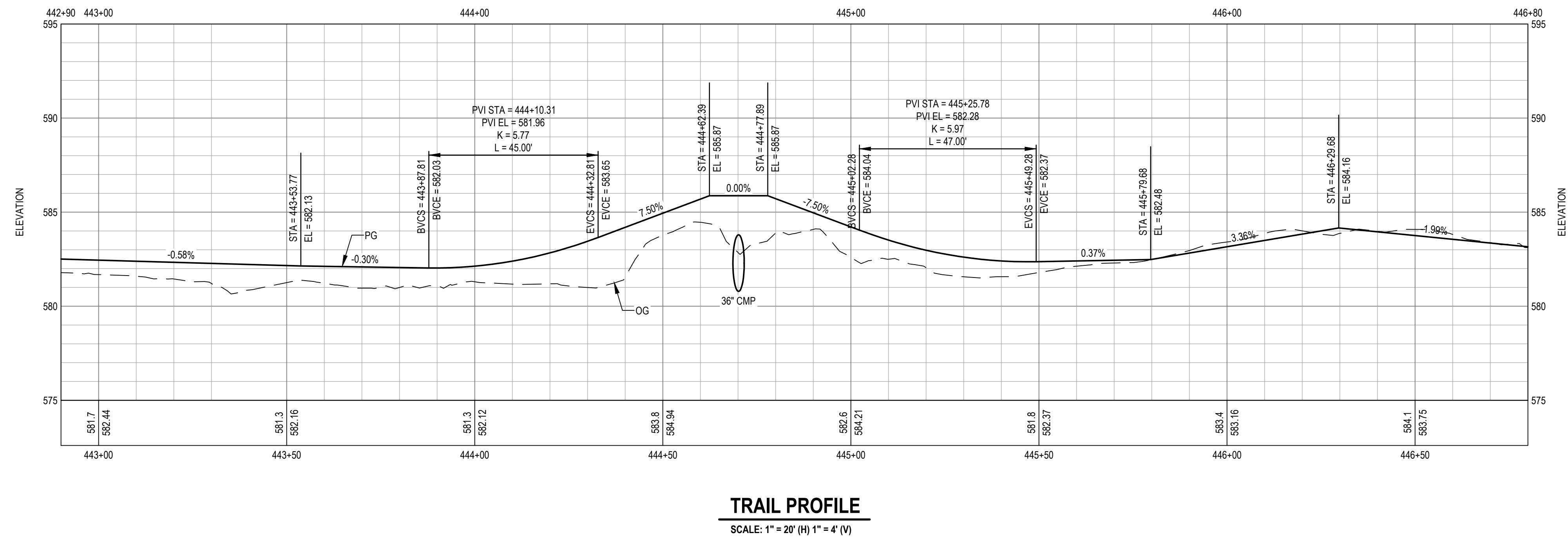
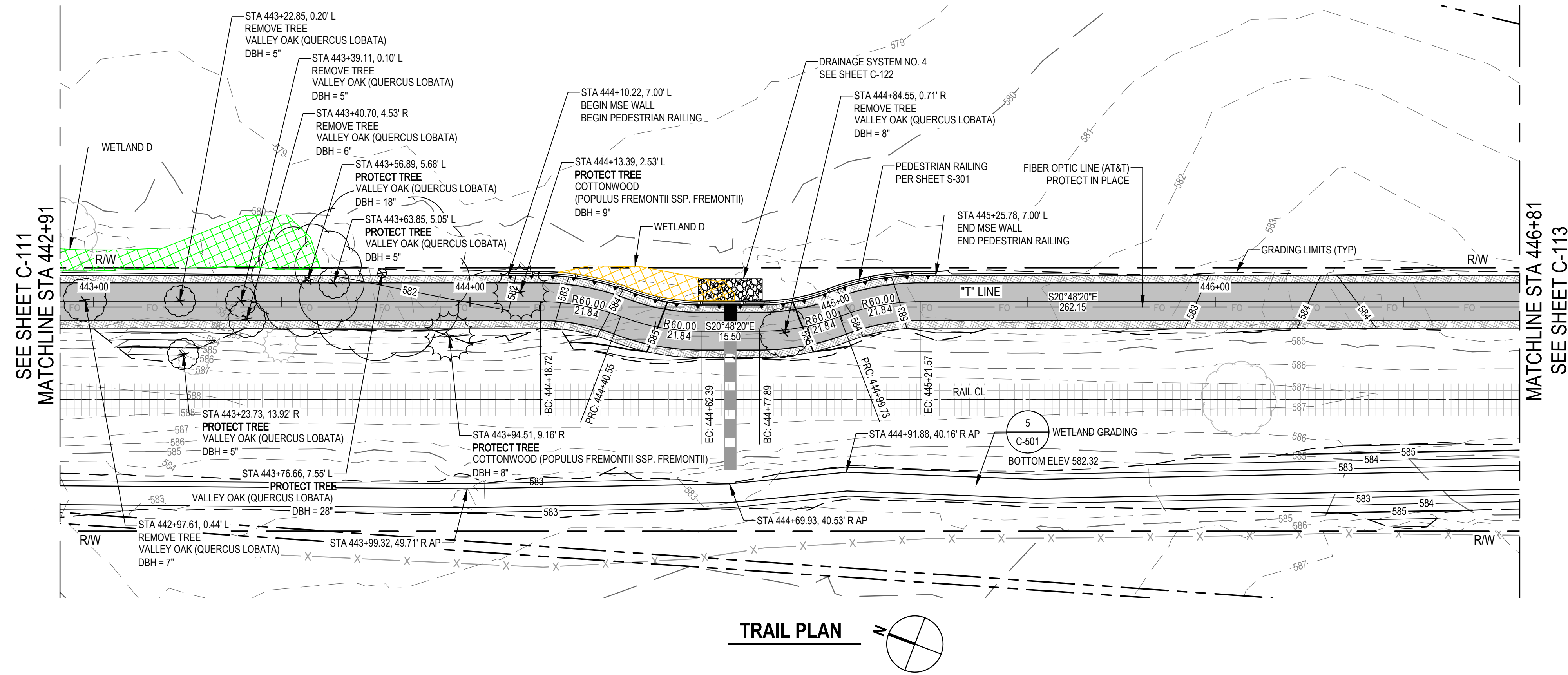


**SHEET GENERAL NOTES**

- SEE SHEET S-103 FOR WALL PROFILE AND DETAIL.
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

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No.	Issue	Author	Checked	Approved	Date
2	PEDESTRIAN RAILING	H. DAAS	E. FANSELAU	E. FANSELAU	2023-02-07
1	WETLAND MITIGATION REVISIONS	H. DAAS	E. FANSELAU	M. KENNEDY	2023-02-03

Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 442+91 TO STA 446+81
Size	ANSI D
Sheet No.	C-112
Sheet	21 of 96

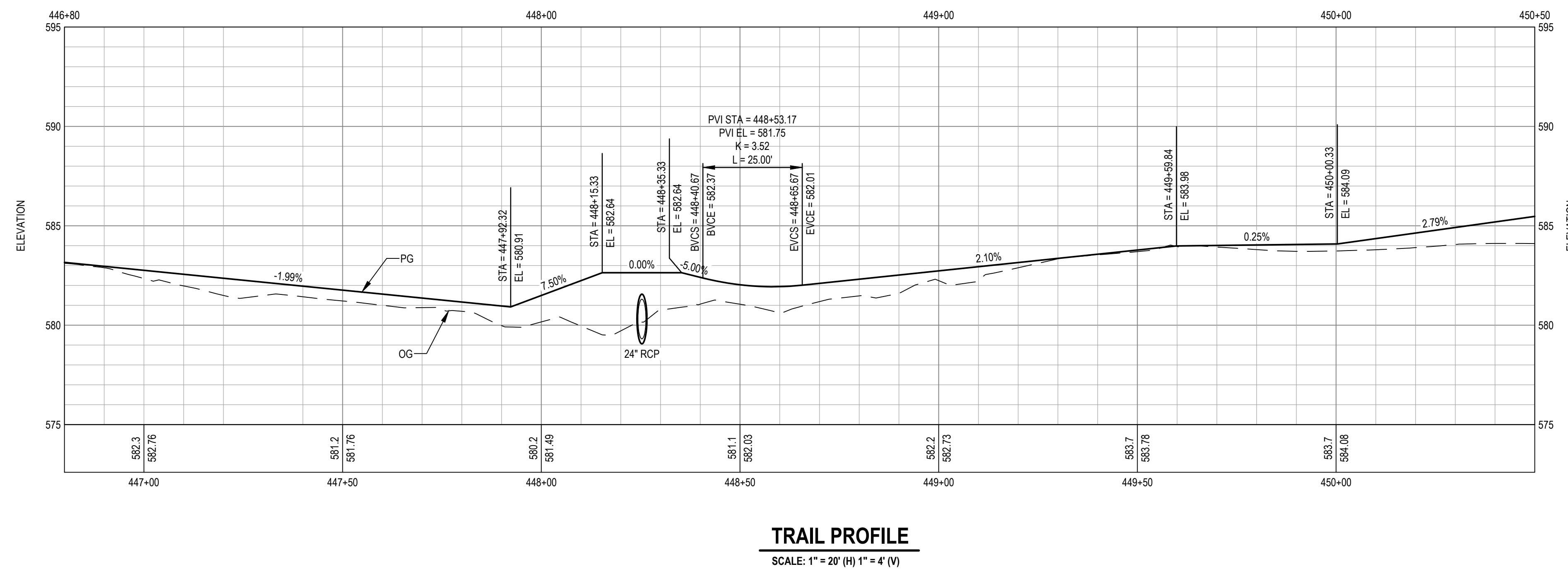
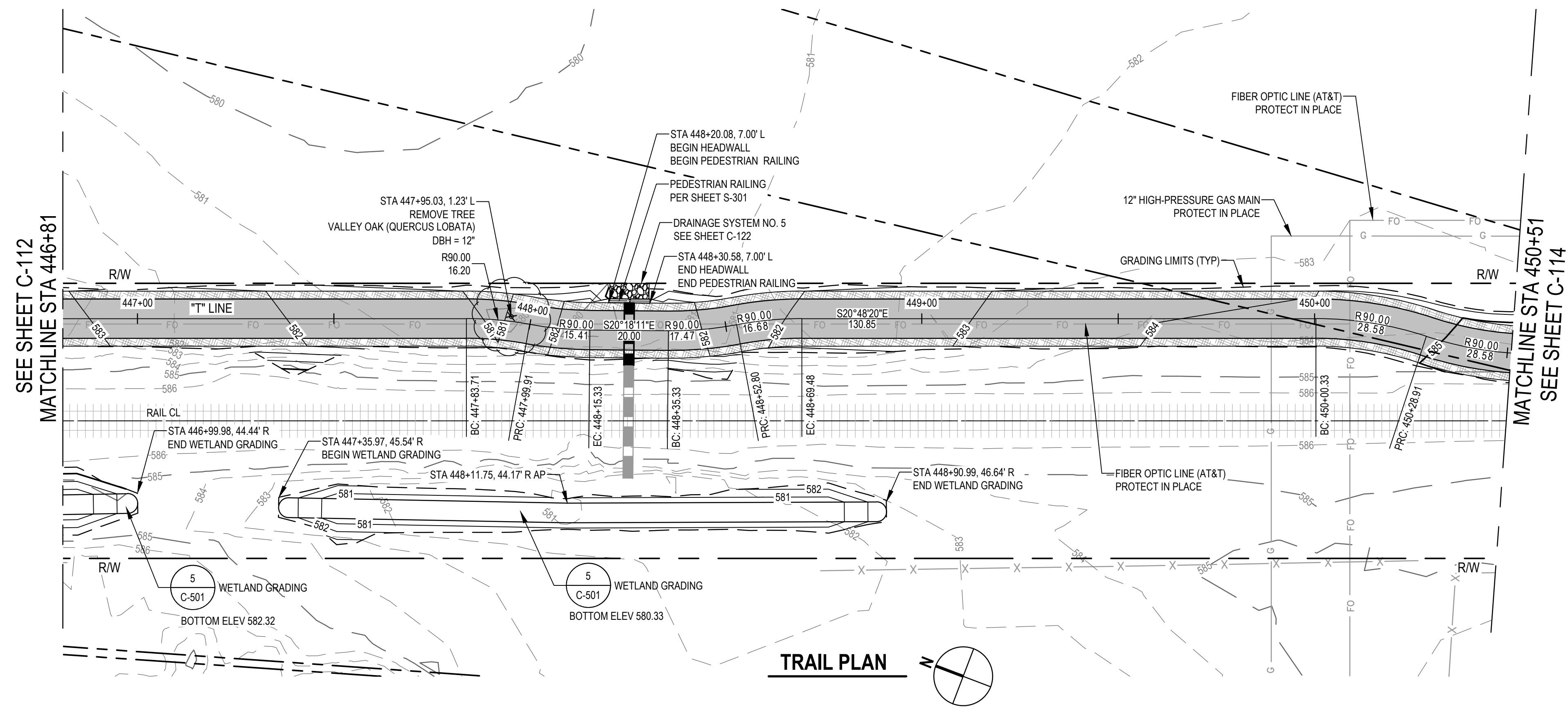


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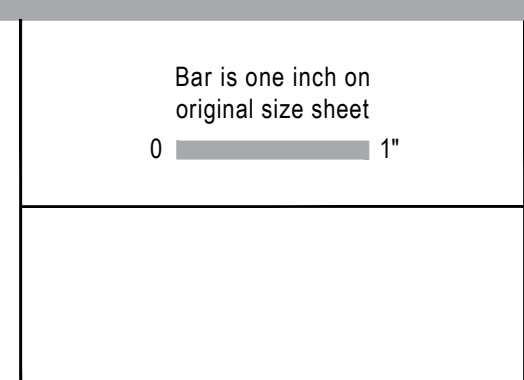
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Underground Service Alert at  
811 two working days prior  
to excavation

No.	Issue	Checked	Approved	Date
3	PEDESTRIAN RAILING	EF	EF	2023-02-07
2	WETLAND MITIGATION REVISIONS	KG	KG	2023-02-03
1	WETLAND C MODIFICATIONS	KG	KG	2022-12-19
Author H. DAAS    Drafting Check E. FANSELAU    Project Manager E. FANSELAU				
Designer H. DAAS    Design Check E. FANSELAU    Project Director M. KENNEDY				

Bar is one inch on original size sheet
0 1"



2/7/2023

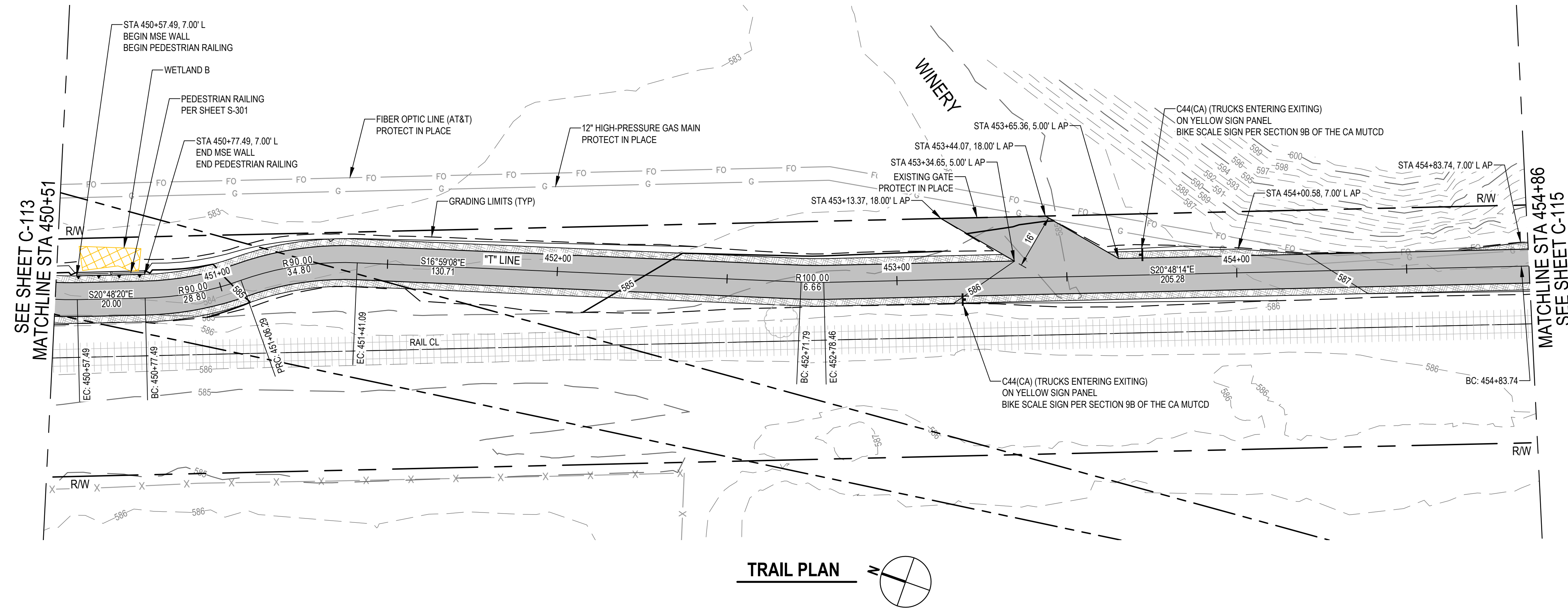
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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 446+81 TO STA 450+51
Sheet No.	C-113
Sheet	22 of 96





No.	Issue	Author	Checked	Approved	Date
1	PEDESTRIAN RAILING	H. DAAS	E. FANSELAU	E. FANSELAU	2023-02-07
		H. DAAS	E. FANSELAU	M. KENNEDY	

Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	TRAIL PLAN AND PROFILE STA 450+51 TO STA 454+86
Sheet No.	C-114
Sheet	23 of 96

**SHEET GENERAL NOTES**

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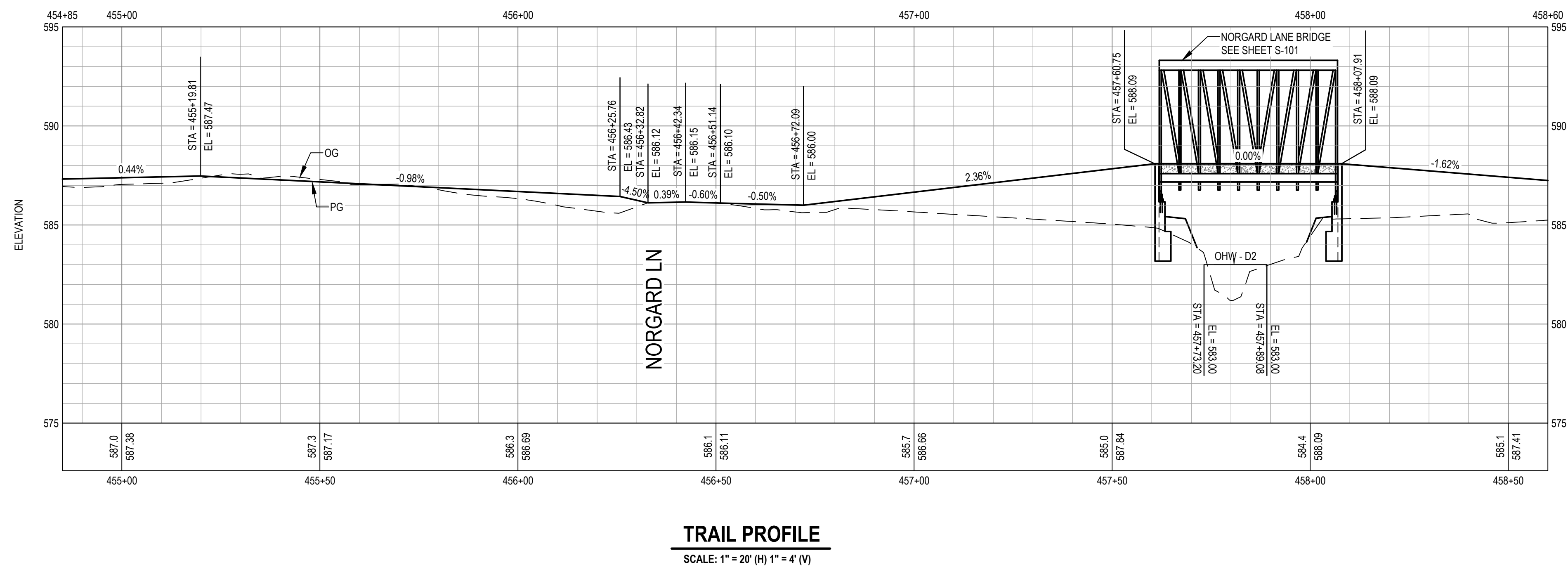
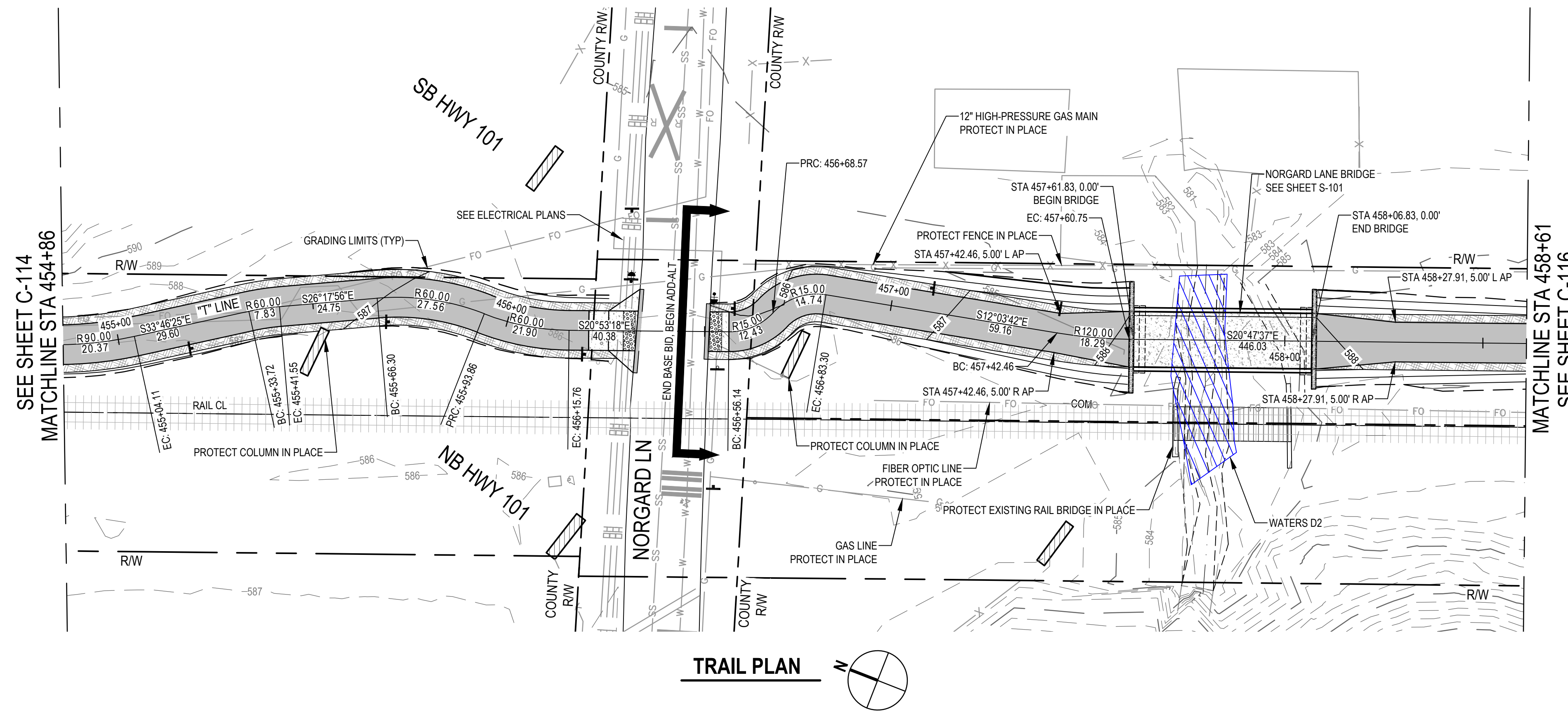


**SHEET GENERAL NOTES**

- FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-403.
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- HYDRAULIC CALCULATIONS FOR STREAM IMPACTS MUST BE COMPLETED PRIOR TO CONSTRUCTION.

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811 two working days prior  
to excavation

No.	Issue	Author	Checked	Approved	Date
1	UPDATED NOTES	H. DAAS	E. FANSELAU	E. FANSELAU	2022-12-20
		Designer	Design Check	Project Director	
		H. DAAS	E. FANSELAU	M. KENNEDY	

No.	Issue	Author	Checked	Approved	Date
1	UPDATED NOTES	H. DAAS	E. FANSELAU	E. FANSELAU	2022-12-20
		Designer	Design Check	Project Director	
		H. DAAS	E. FANSELAU	M. KENNEDY	

Bar is one inch on original size sheet  
0 1"

REGISTERED PROFESSIONAL ENGINEER  
E. FANSELAU  
No. 064814  
CIVIL  
STATE OF CALIFORNIA  
12/21/2022

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 454+86 TO STA 458+61**  
**BASE BID AND ADD ALTERNATIVE**  
Sheet No. **C-115**  
Sheet **24 of 96**

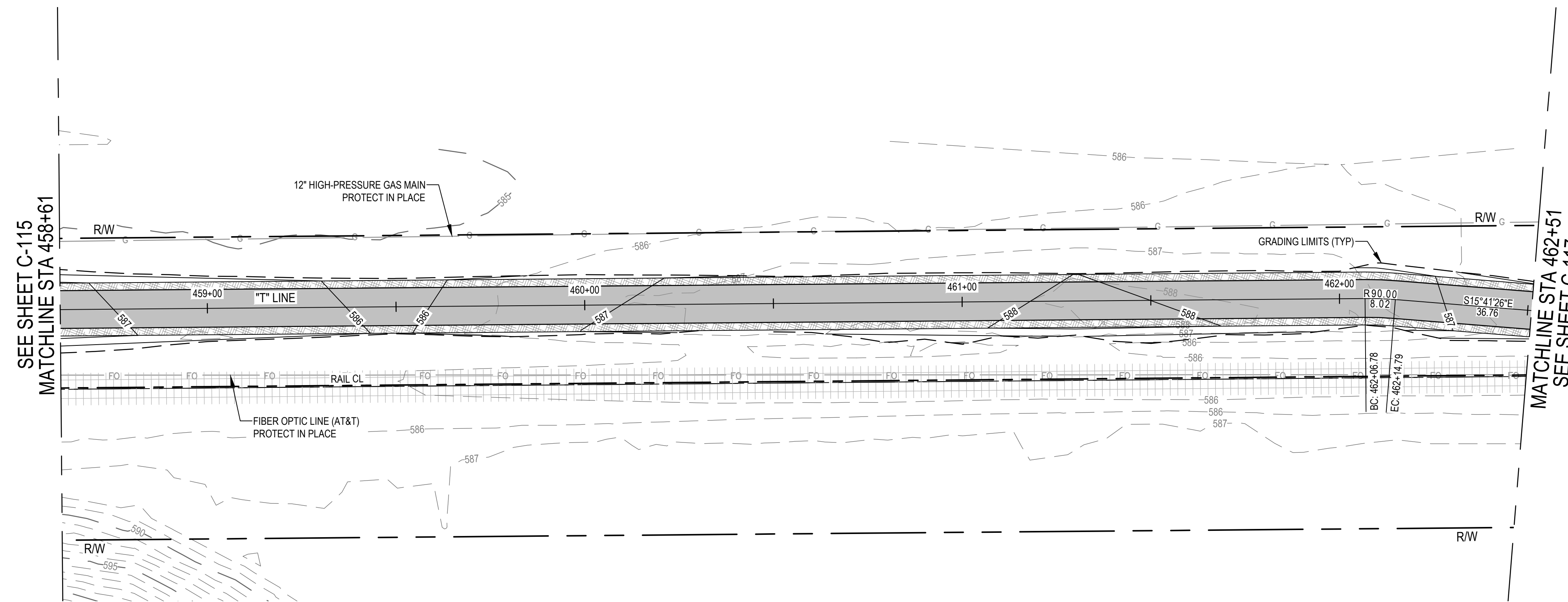


**SHEET GENERAL NOTES**

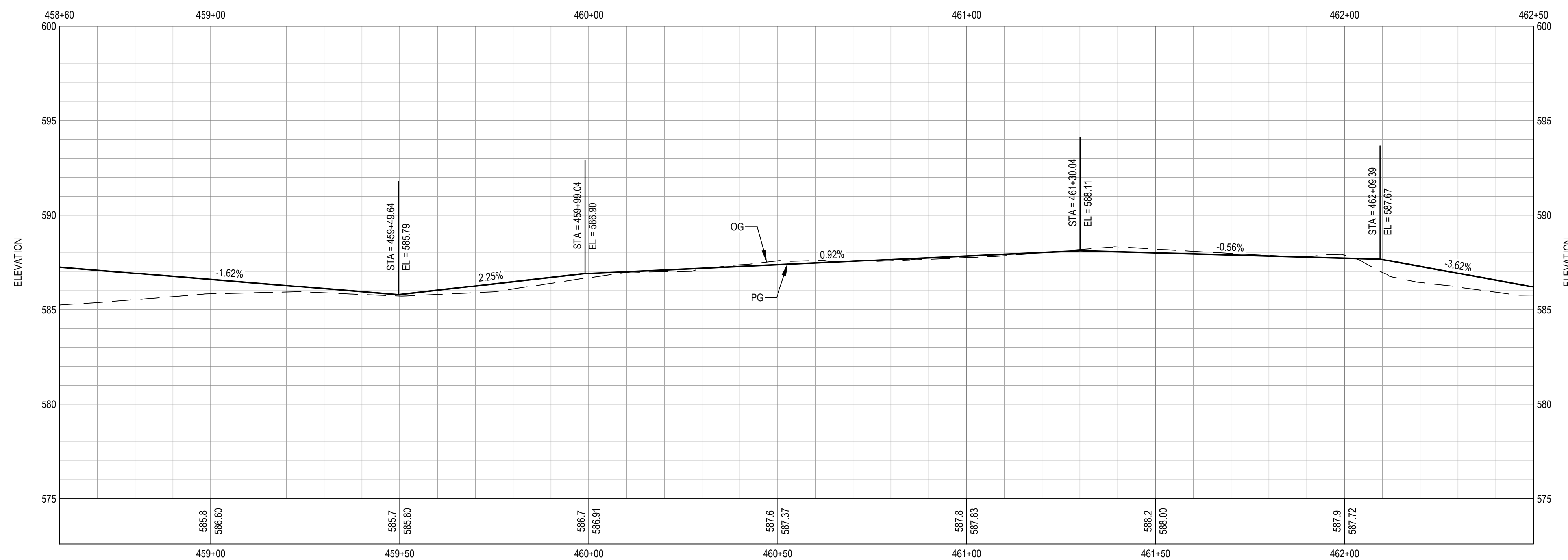
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

**Note by City of Ukiah:**  
Contractor to pay special attention to preservation of existing trees on site. No tree will be removed or damaged without the approval of the City Engineer or designated appointee.

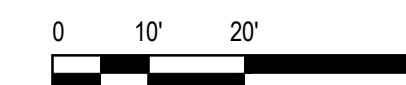
Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



**TRAIL PLAN**



**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



**Know what's below.  
Call before you dig.**

Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet



12/21/2022

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Client	CITY OF UKIAH		
Project	THE GREAT REDWOOD TRAIL PHASE 4		
Project No.	12557341	Date	SEP 30, 2022
Scale	1" = 20'		

Title	TRAIL PLAN AND PROFILE STA 458+61 TO STA 462+51 ADD ALTERNATIVE		
Sheet No.	C-116	Sheet	25 of 96

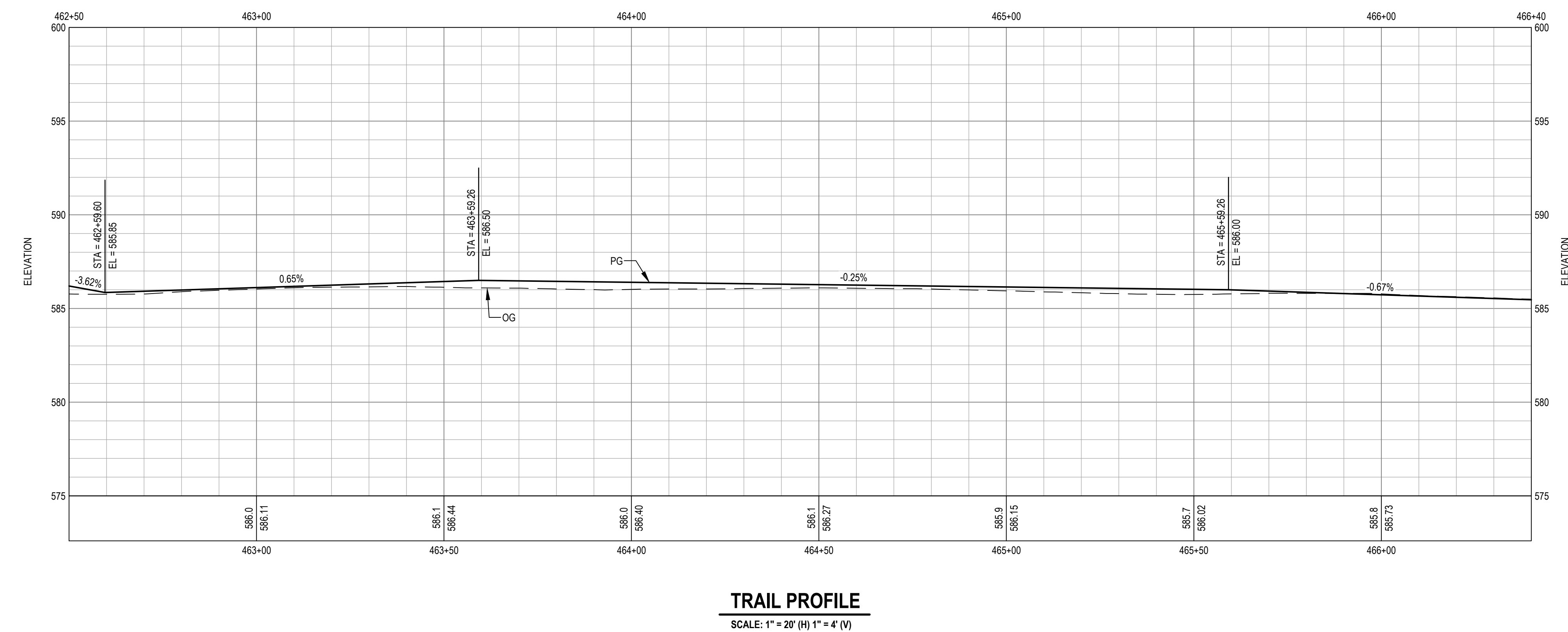
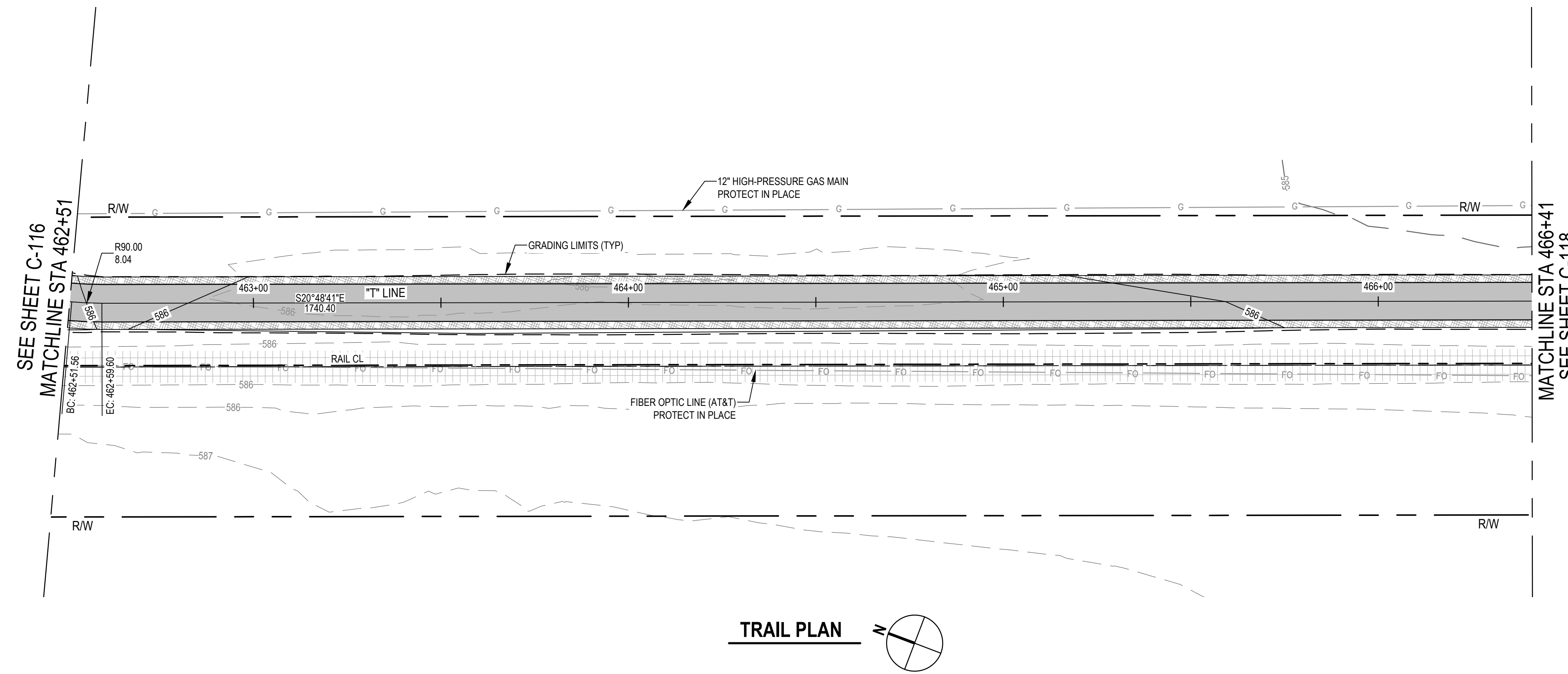


**SHEET GENERAL NOTES**

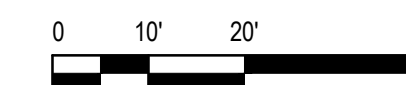
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**Note by City of Ukiah:**  
Contractor to pay special attention to preservation of existing trees on site. No tree will be removed or damaged without the approval of the City Engineer or designated appointee.

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**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 462+51 TO STA 466+41**  
**ADD ALTERNATIVE**

Size **ANSI D**

Sheet No. **C-117**  
Sheet **26 of 96**

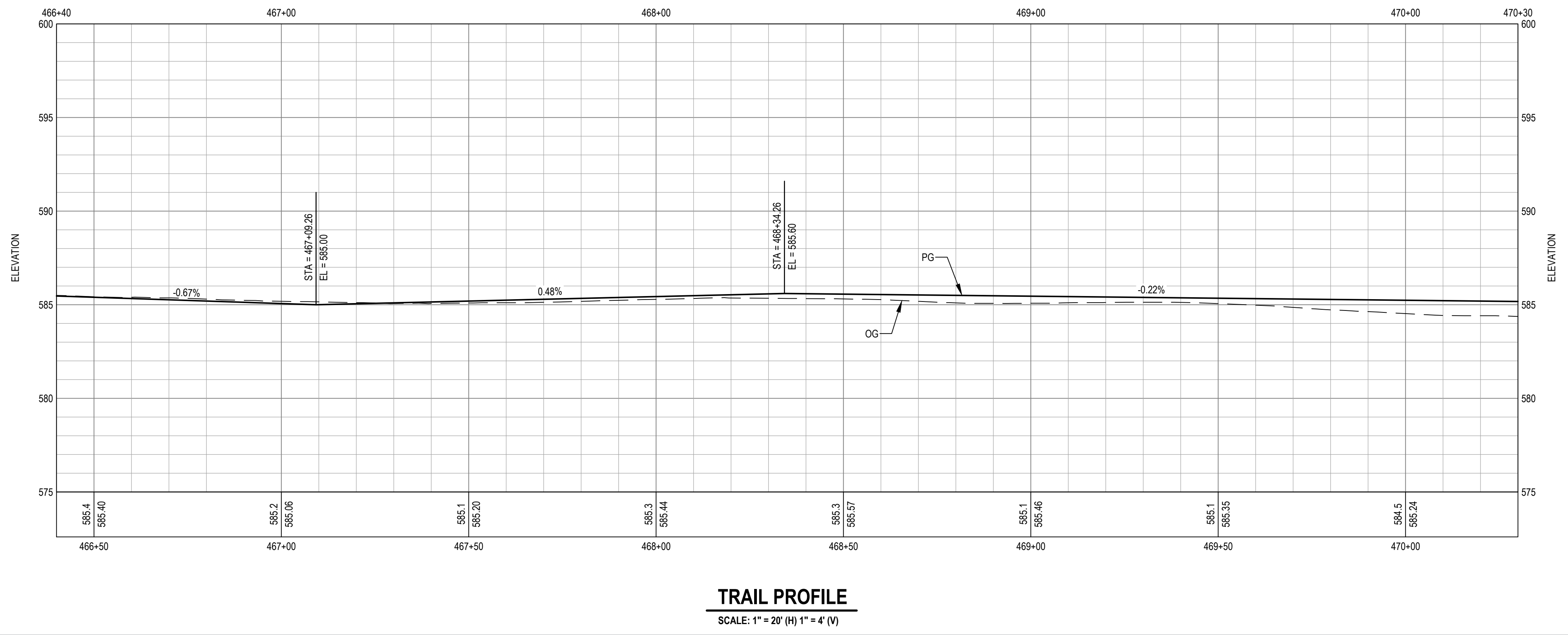
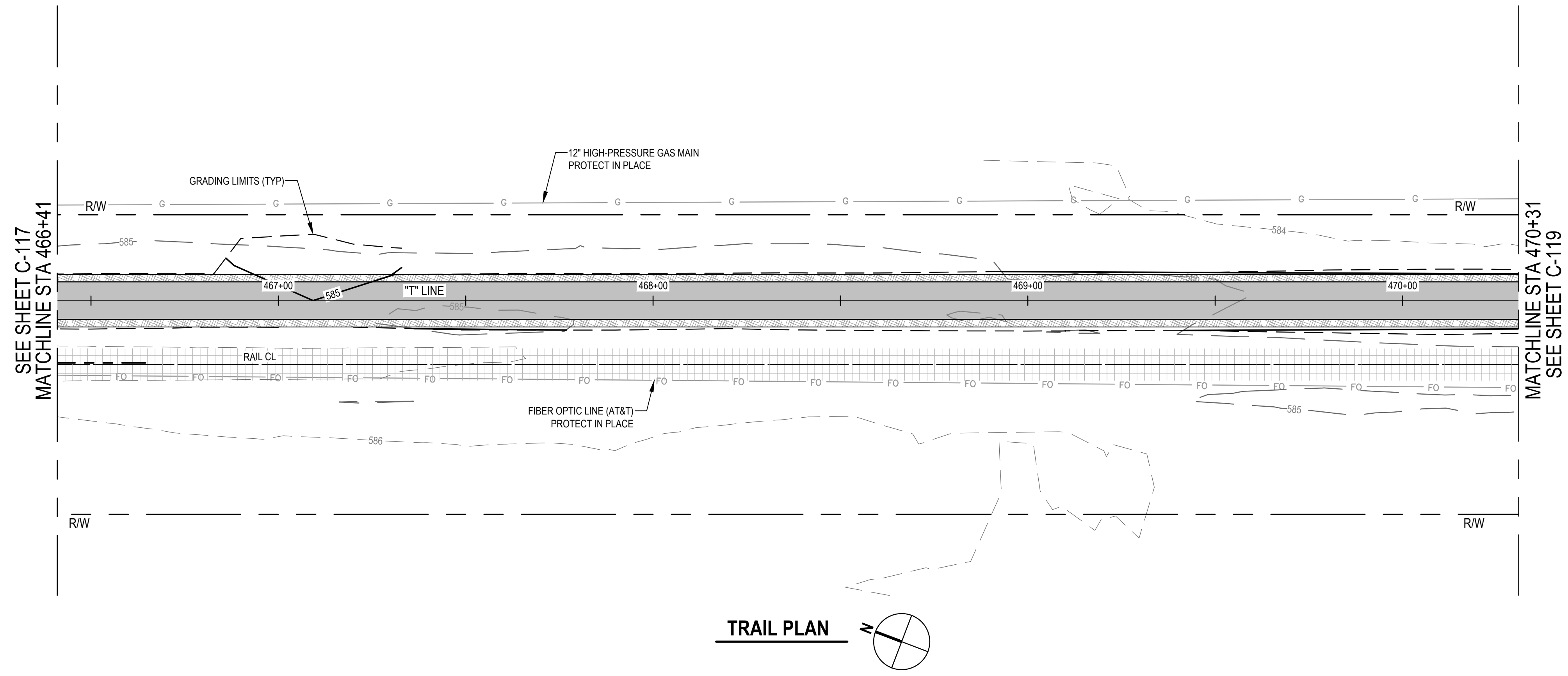


**SHEET GENERAL NOTES**

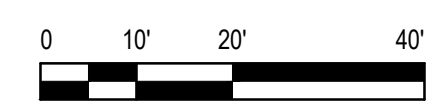
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**Note by City of Ukiah:**  
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Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



Contractor shall call Underground Service Alert at 811 two working days prior to excavation



No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet	0	1"
----------------------------------------	---	----

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE  
STA 466+41 TO STA 470+31  
ADD ALTERNATIVE**

Size **ANSI D**

Sheet No. **C-118**

Sheet **27 of 96**

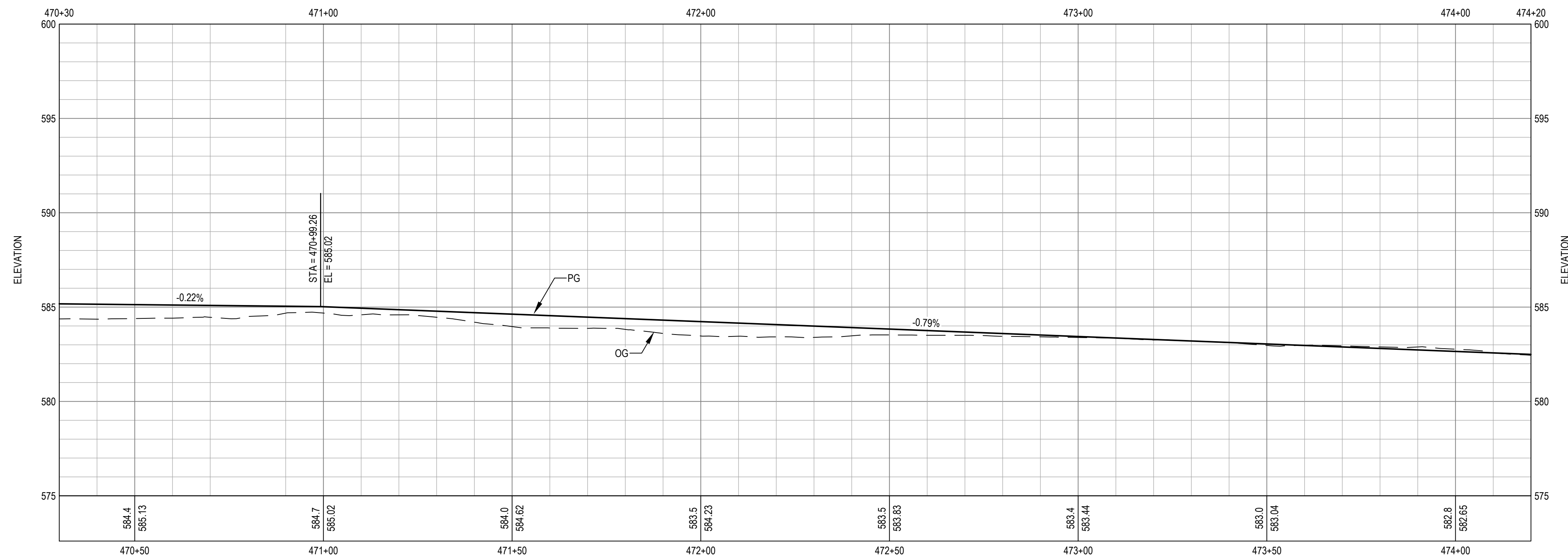
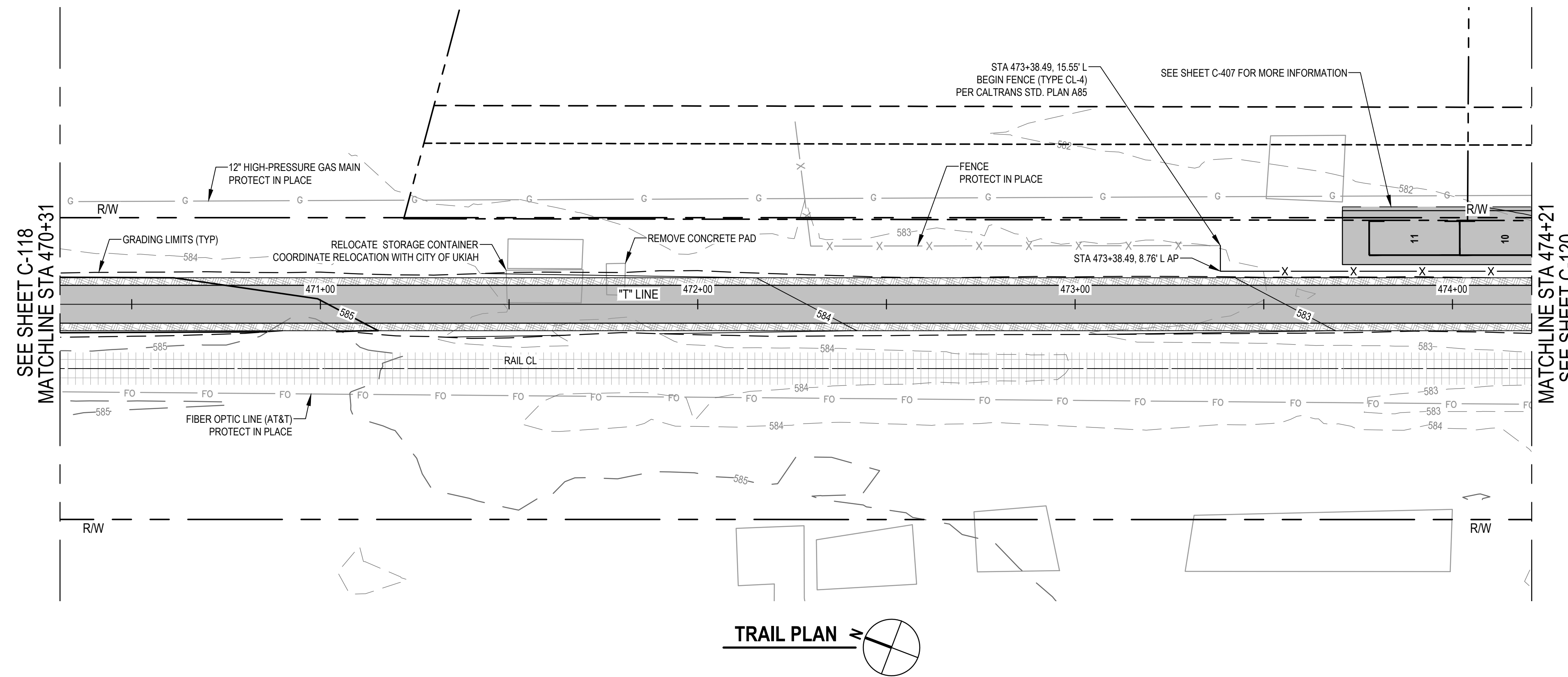


**SHEET GENERAL NOTES**

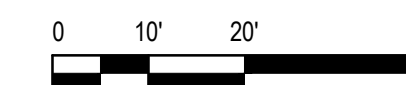
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**Note by City of Ukiah:**  
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**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



**Know what's below. Call before you dig.**  
Contractor shall call 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**

Title **TRAIL PLAN AND PROFILE**  
**STA 470+31 TO STA 474+21**  
**ADD ALTERNATIVE**

Sheet No. **C-119** Sheet **28 of 96**

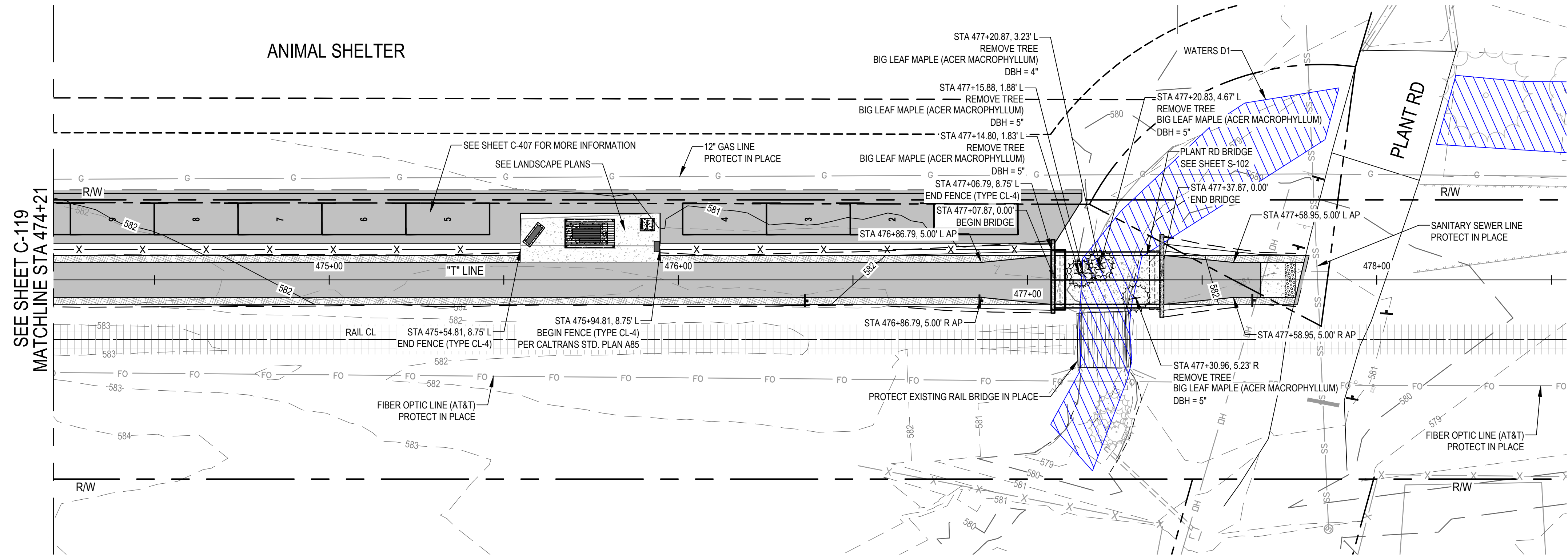


**SHEET GENERAL NOTES**

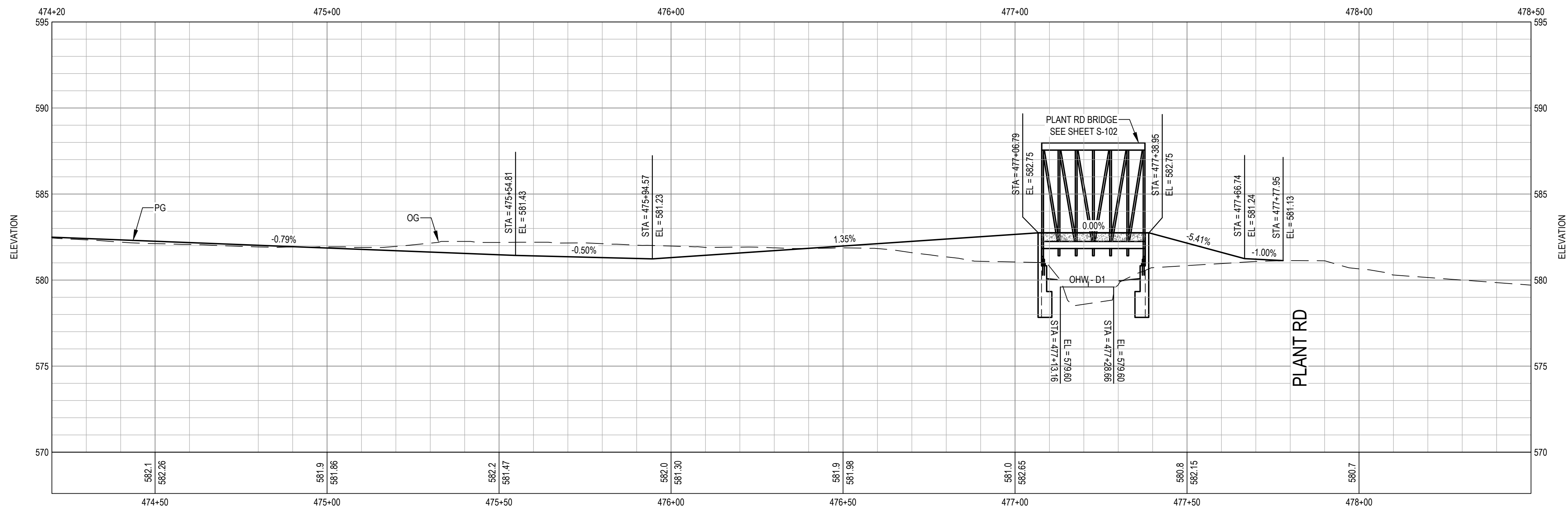
- FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-404.
- ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.
- HYDRAULIC CALCULATIONS FOR STREAM IMPACTS MUST BE COMPLETED PRIOR TO CONSTRUCTION.

**Note by City of Ukiah:**  
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Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.



**TRAIL PLAN**  
N



**TRAIL PROFILE**  
SCALE: 1" = 20' (H) 1" = 4' (V)



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Author	Checked	Approved	Date
1	UPDATED NOTES	H. DAAS	E. FANSELAU	E. FANSELAU	2022-12-20
		Designer	Design Check	Project Manager	Director
		H. DAAS	E. FANSELAU	M. KENNEDY	

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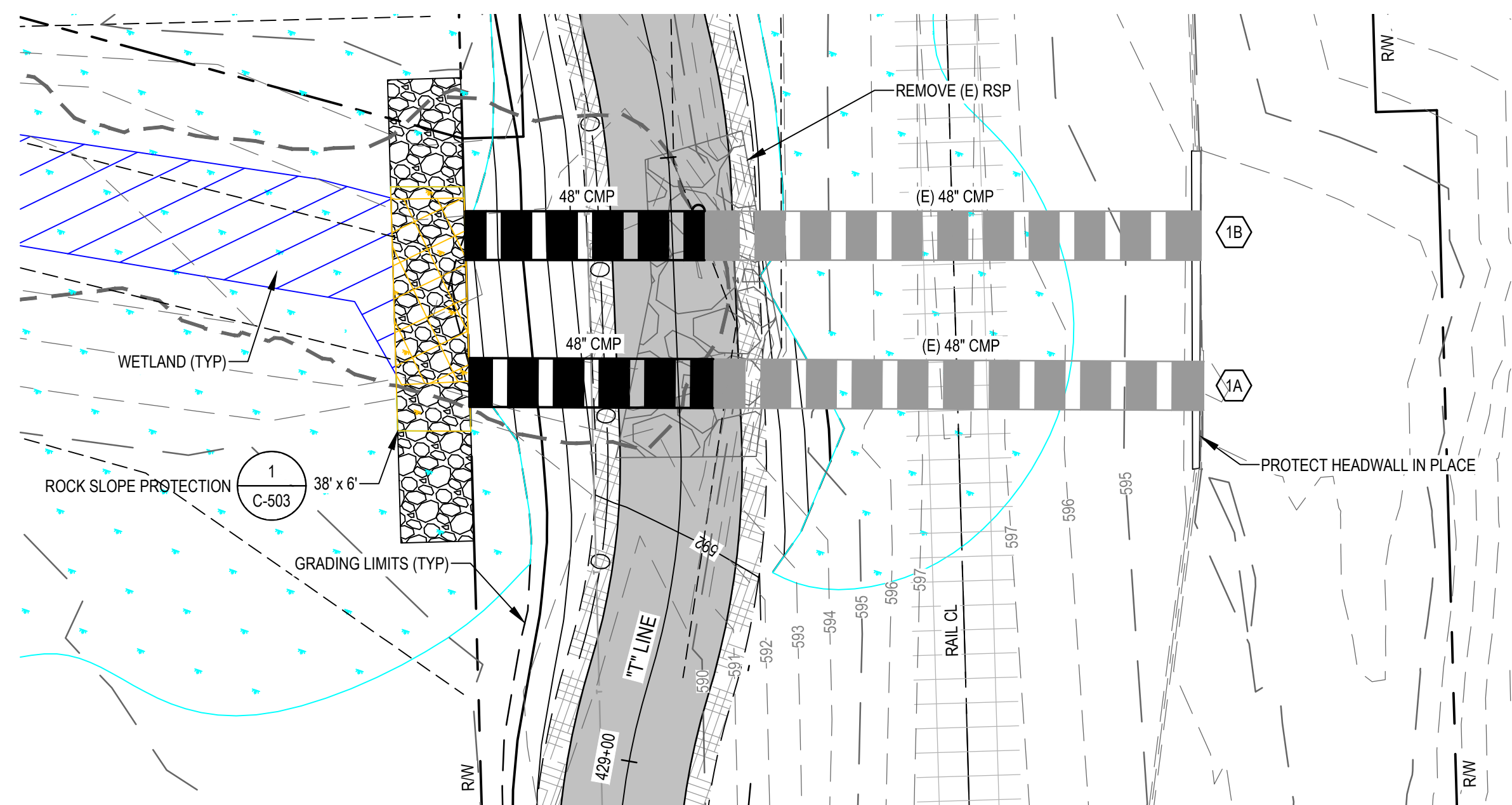
Client	<b>CITY OF UKIAH</b>
Project	<b>THE GREAT REDWOOD TRAIL PHASE 4</b>
Project No.	<b>12557341</b>
Date	<b>SEP 30, 2022</b>
Scale	<b>1" = 20'</b>

Title	<b>TRAIL PLAN AND PROFILE STA 474+21 TO STA 478+50 ADD ALTERNATIVE</b>
Sheet No.	<b>C-120</b>
Sheet	<b>29 of 96</b>

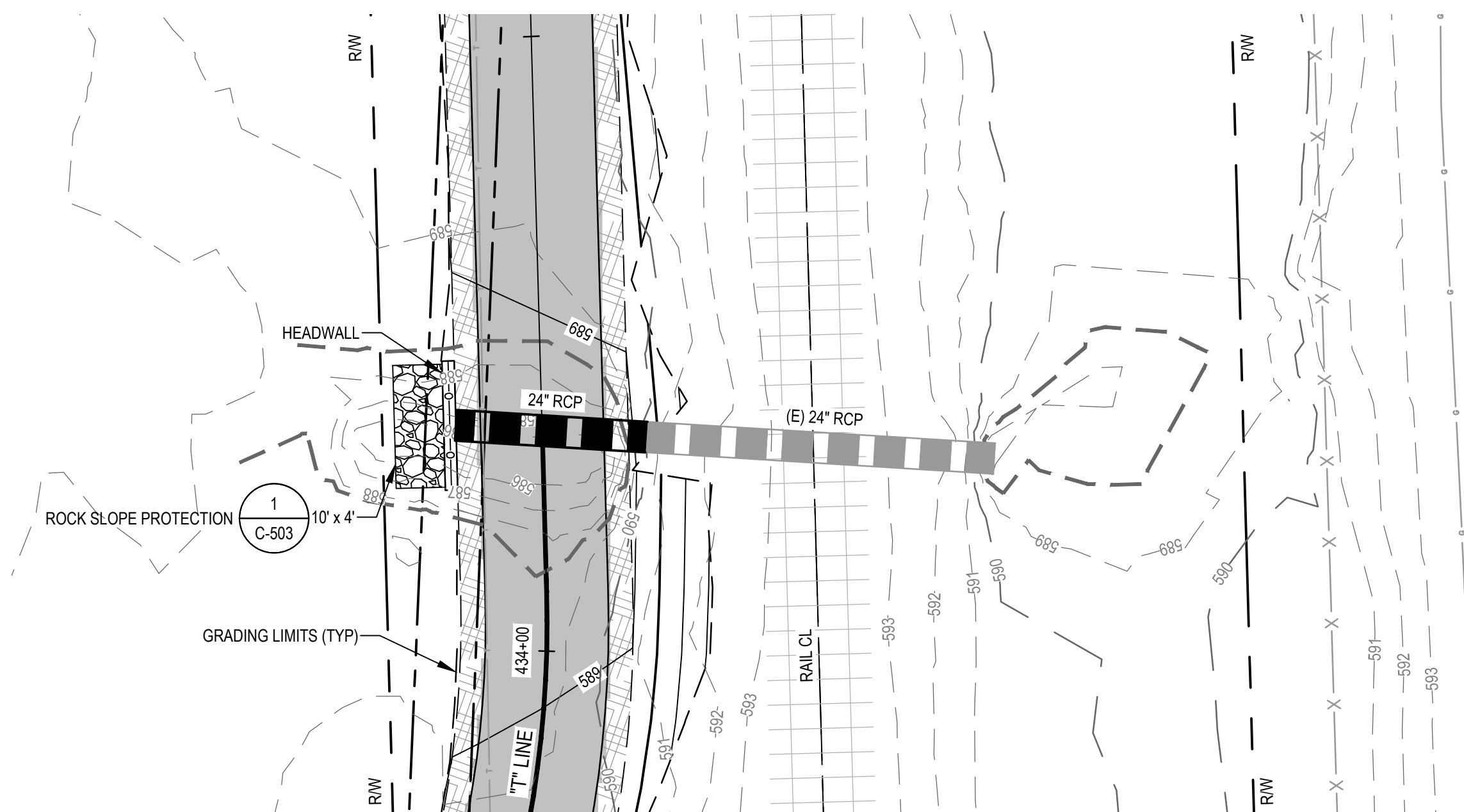
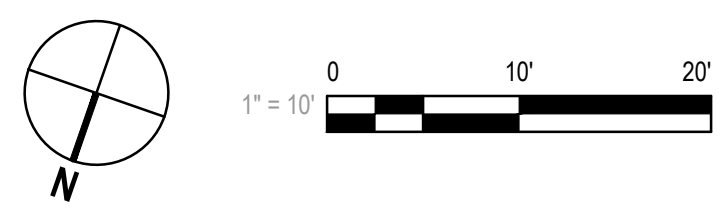


**SHEET GENERAL NOTES**

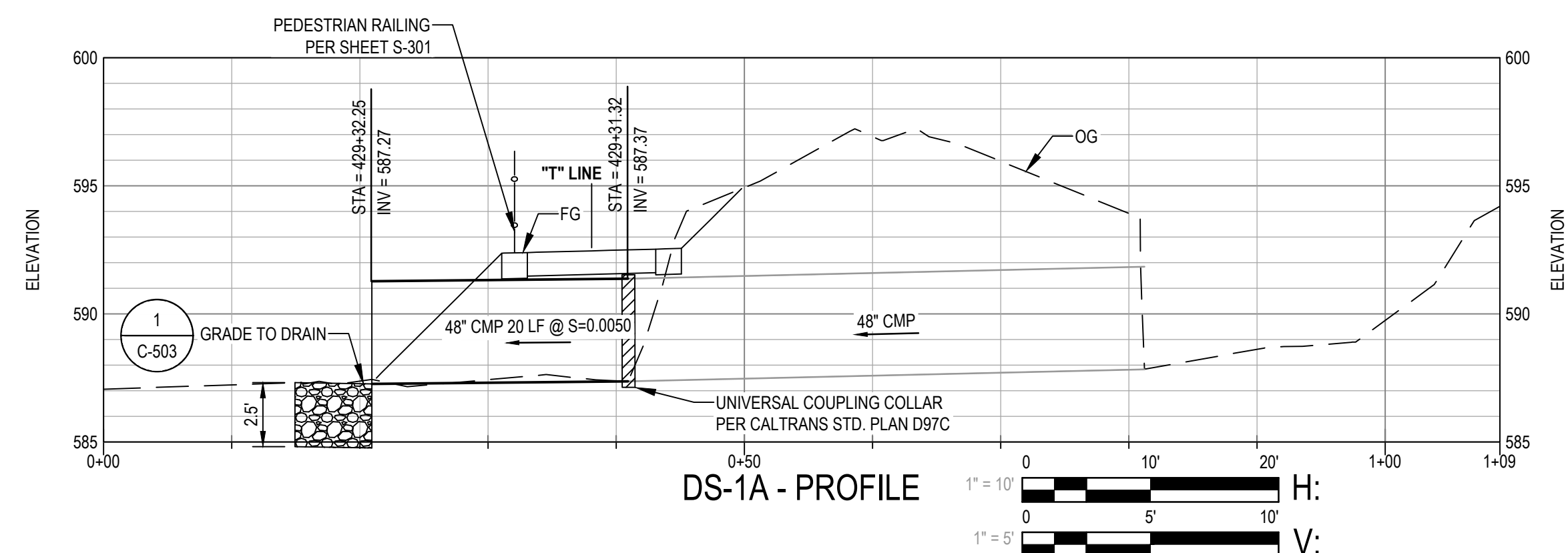
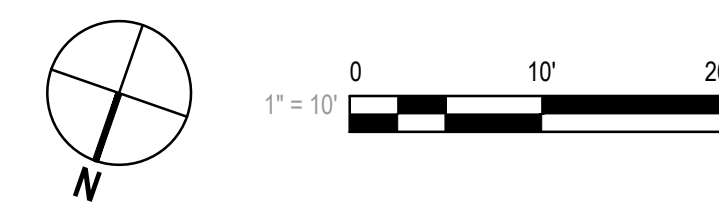
- ROCK SLOPE PROTECTION: MINIMUM ROCK SLOPE PROTECTION AT STANDARD CMP OR RCP OUTLET SHALL BE FACING CLASS, PLACEMENT METHOD B. MINIMUM THICKNESS SHALL BE 1.8 FEET AND MINIMUM STONE WEIGHT SHALL BE 7 POUNDS.



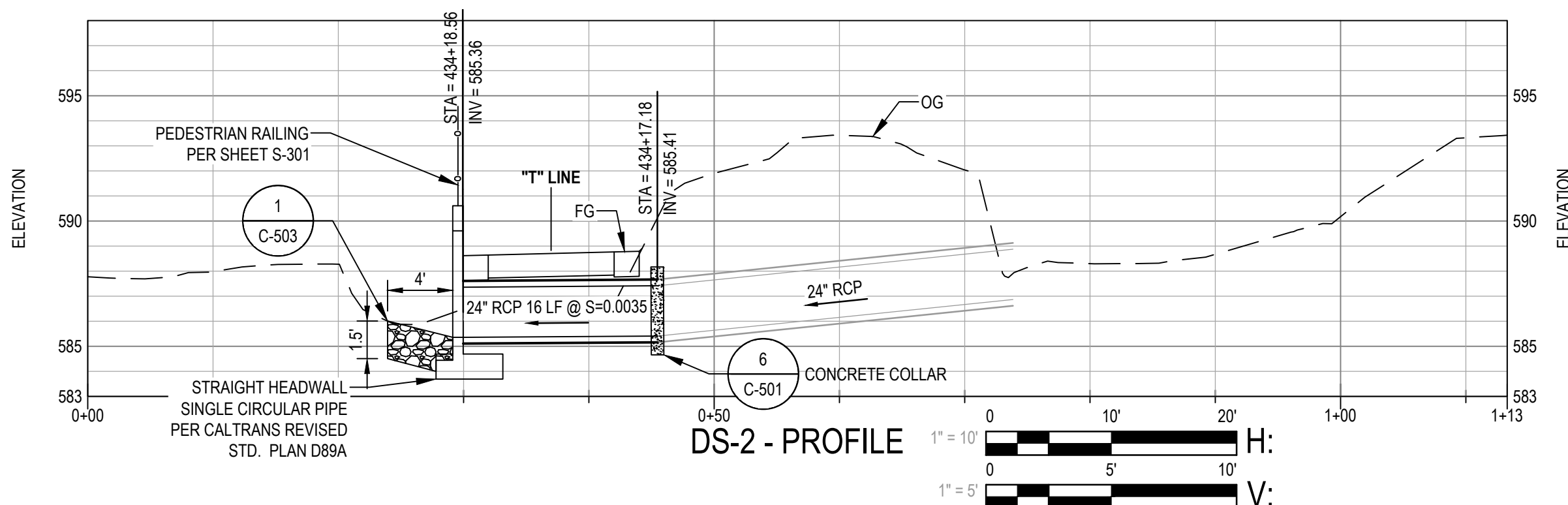
**1 DRAINAGE SYSTEM 1 - PLAN**  
SCALE: 1" = 10'



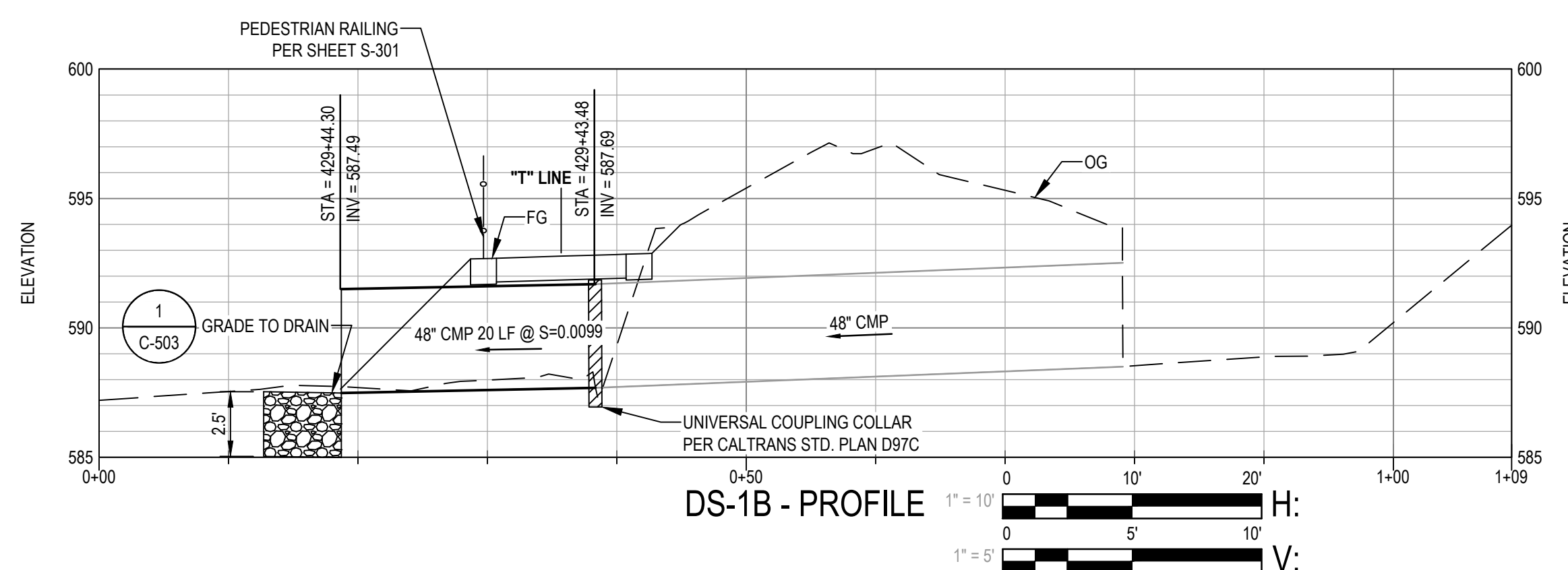
**2 DRAINAGE SYSTEM 2 - PLAN**  
SCALE: 1" = 10'



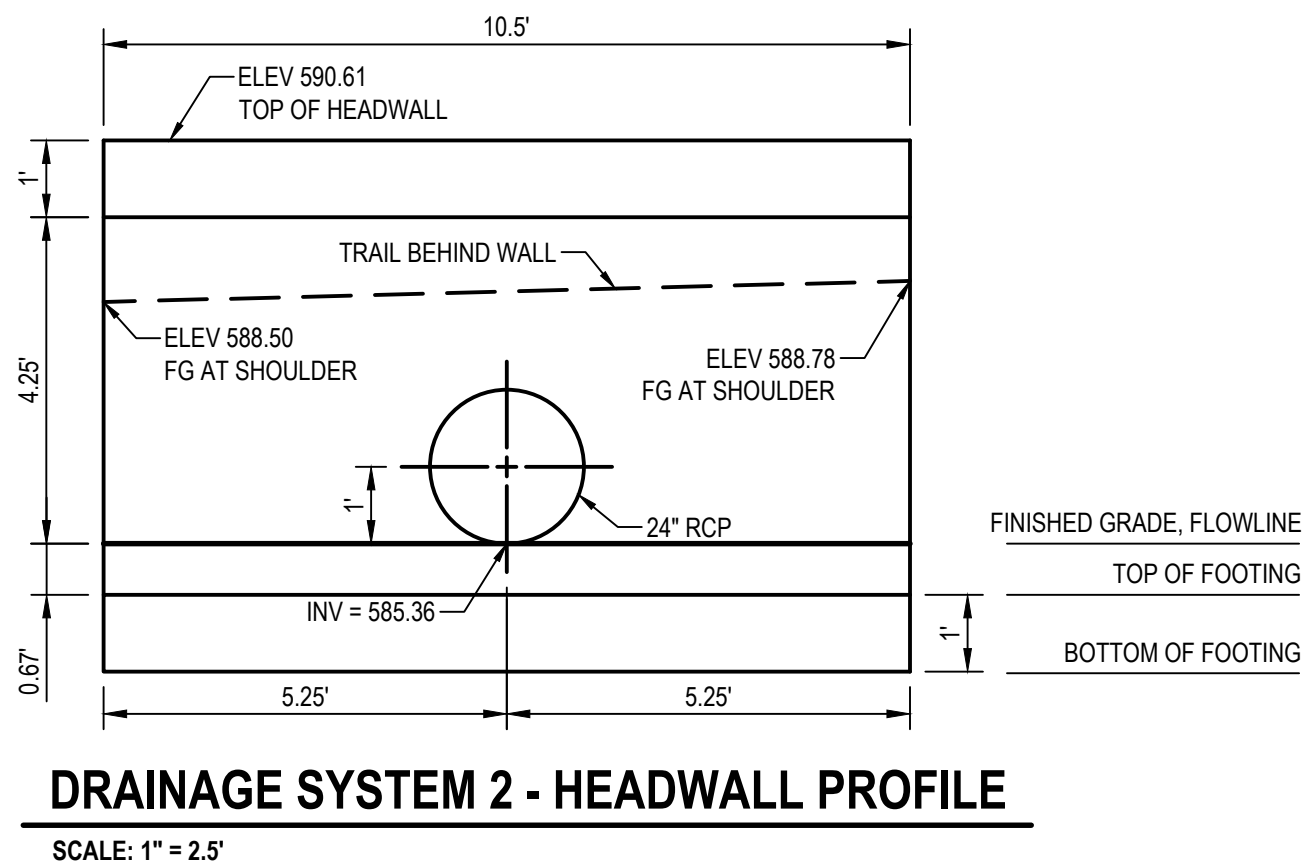
**DS-1A - PROFILE**  
H: 1" = 10'  
V: 1" = 5'



**DS-2 - PROFILE**  
H: 1" = 10'  
V: 1" = 5'



**DS-1B - PROFILE**  
H: 1" = 10'  
V: 1" = 5'



**DRAINAGE SYSTEM 2 - HEADWALL PROFILE**  
SCALE: 1" = 2.5'



**Know what's below. Call before you dig.**  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Author	Designer	Drafting Check	Design Check	Project Manager	Project Director	Checked	Approved	Date
1	PEDESTRIAN RAILING	H. DAAS	H. DAAS	E. FANSELAU	E. FANSELAU	E. FANSELAU	M. KENNEDY	EF	EF	2023-02-07

Bar is one inch on original size sheet  
0 1"



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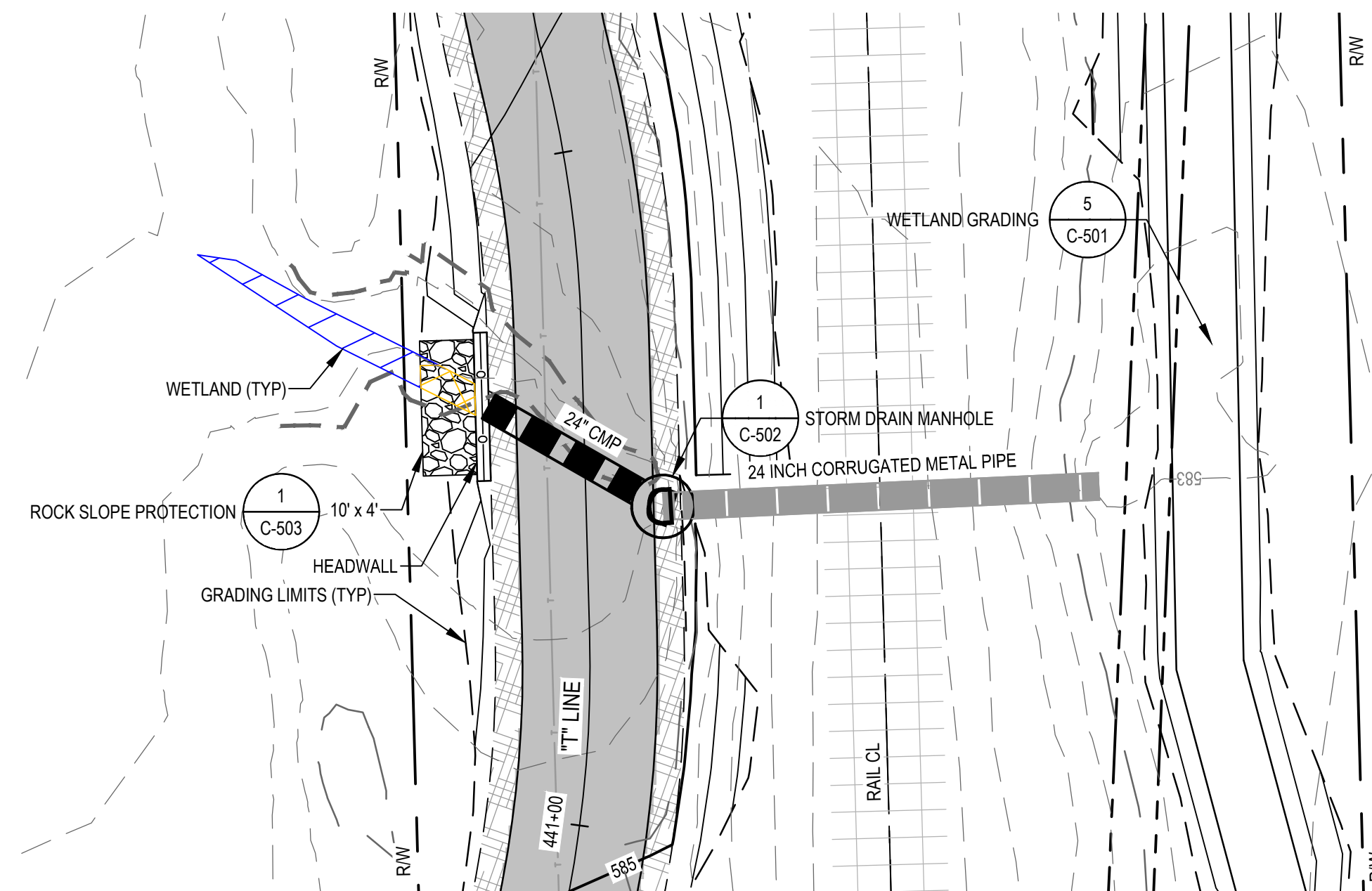
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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **AS NOTED**

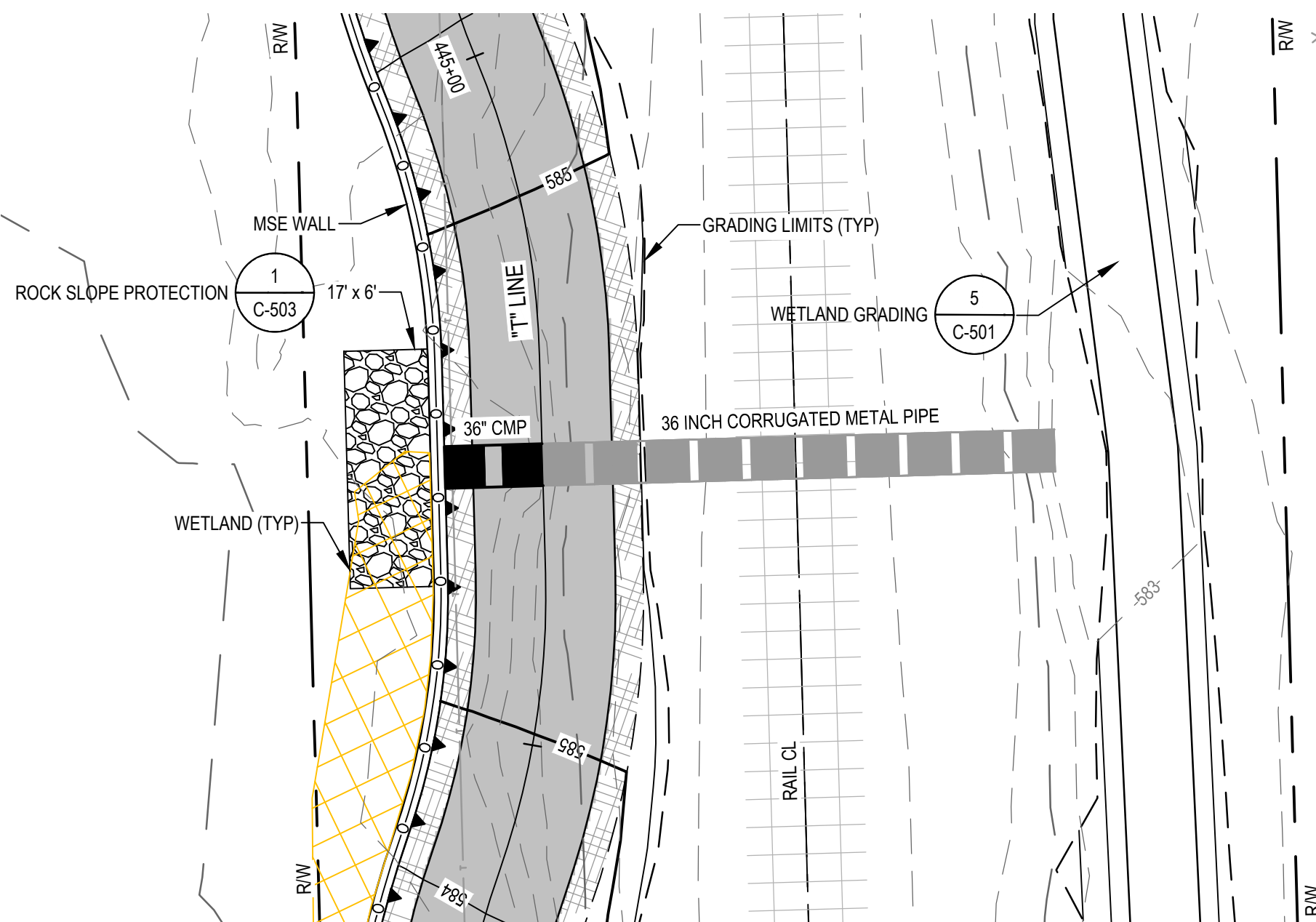
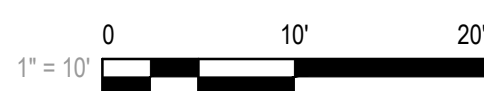
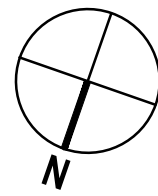
Title **DRAINAGE PLAN 1**  
Size **ANSI D**  
Sheet No. **C-121**  
Sheet **30 of 96**





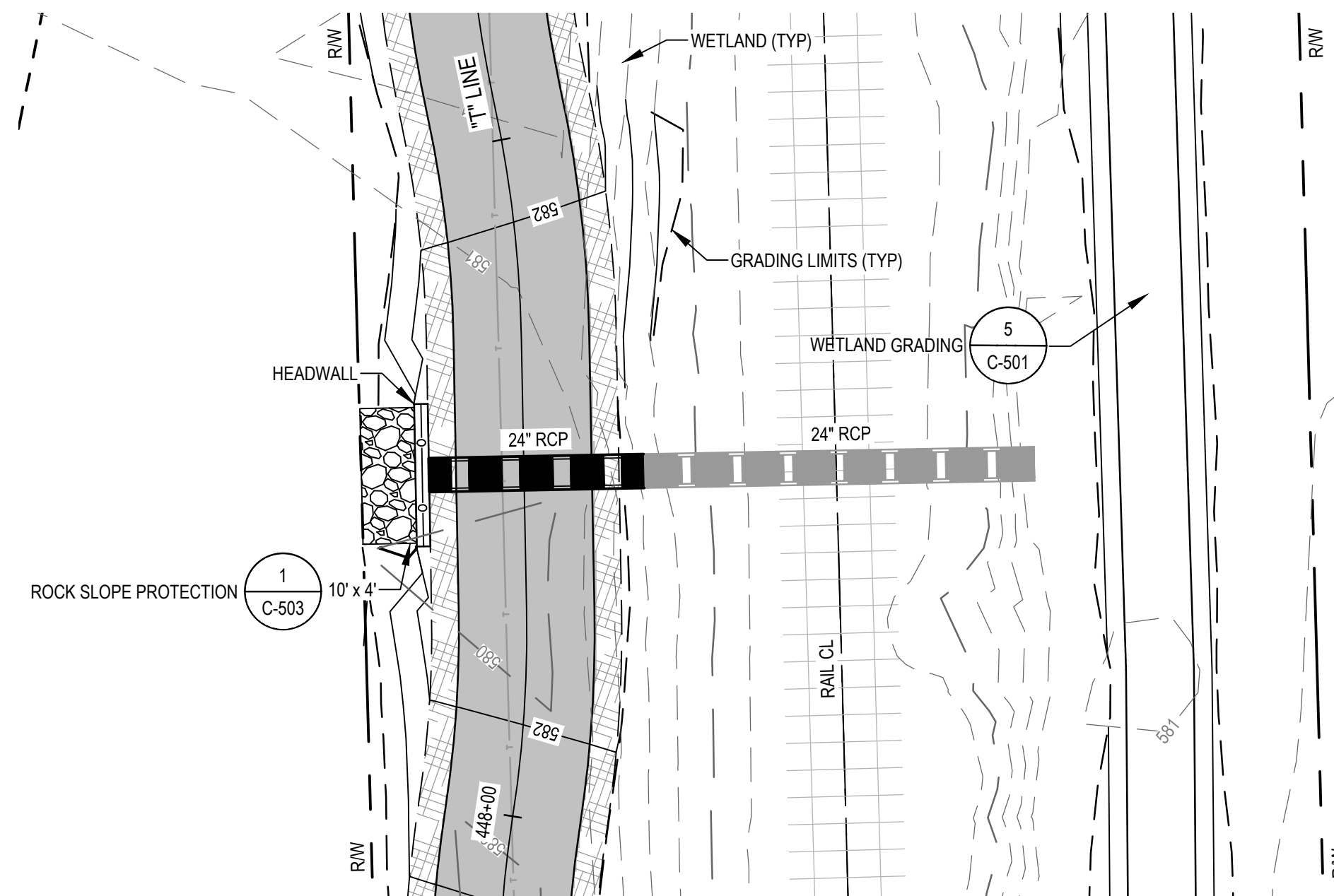
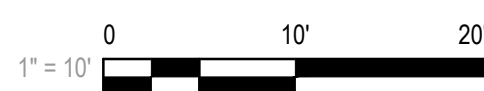
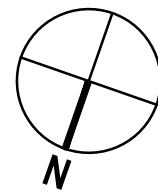
**3 DRAINAGE SYSTEM 3 - PLAN**

SCALE: 1" = 10'



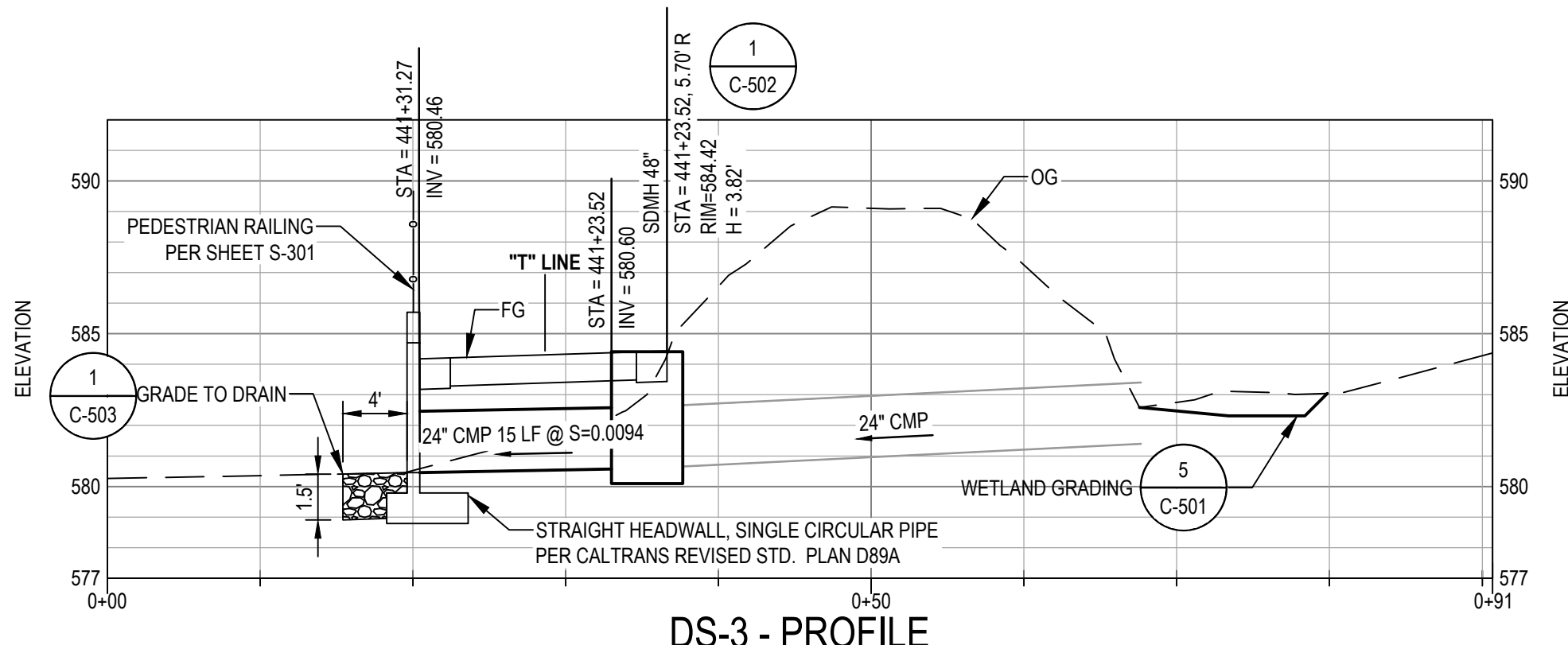
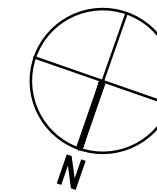
**4 DRAINAGE SYSTEM 4 - PLAN**

SCALE: 1" = 10'

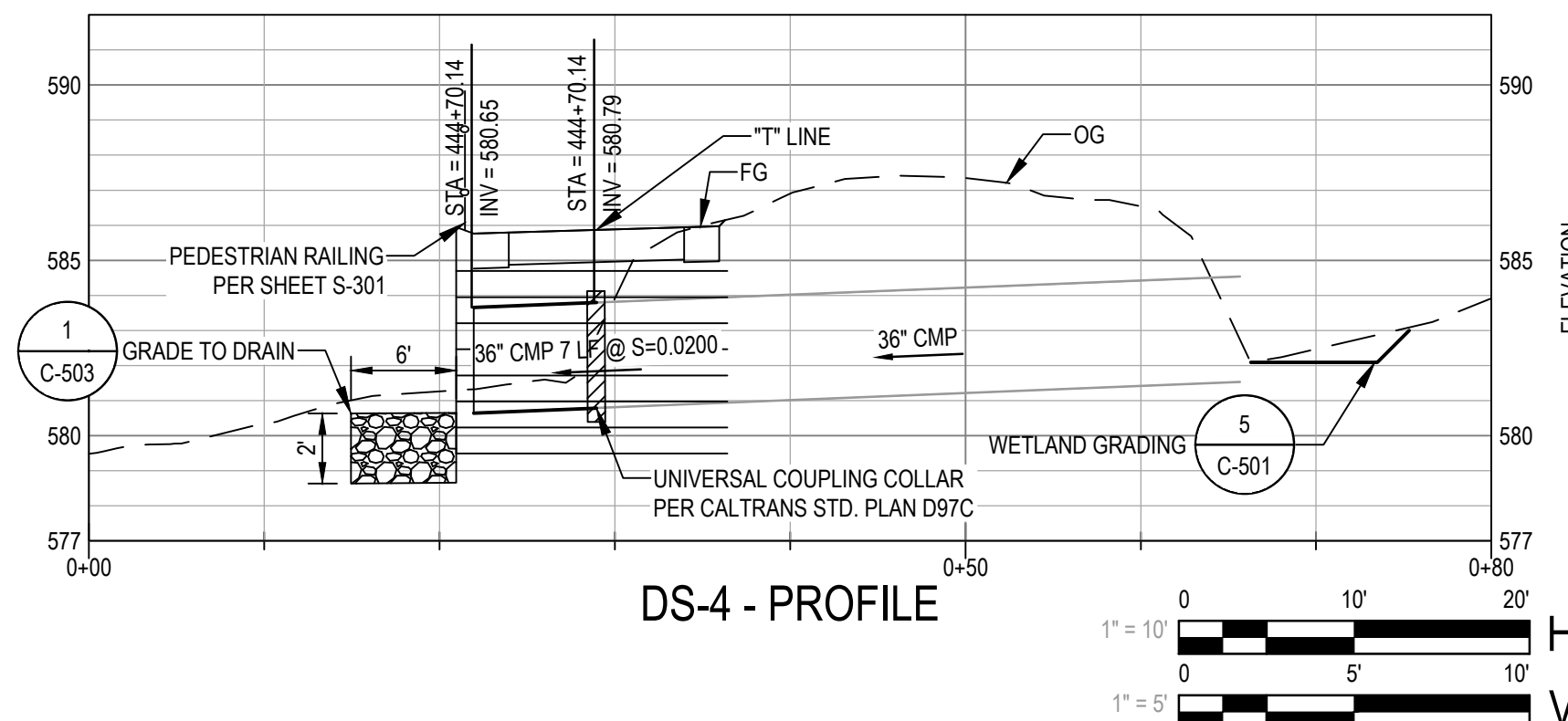
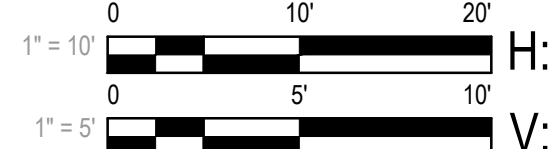


**5 DRAINAGE SYSTEM 5 - PLAN**

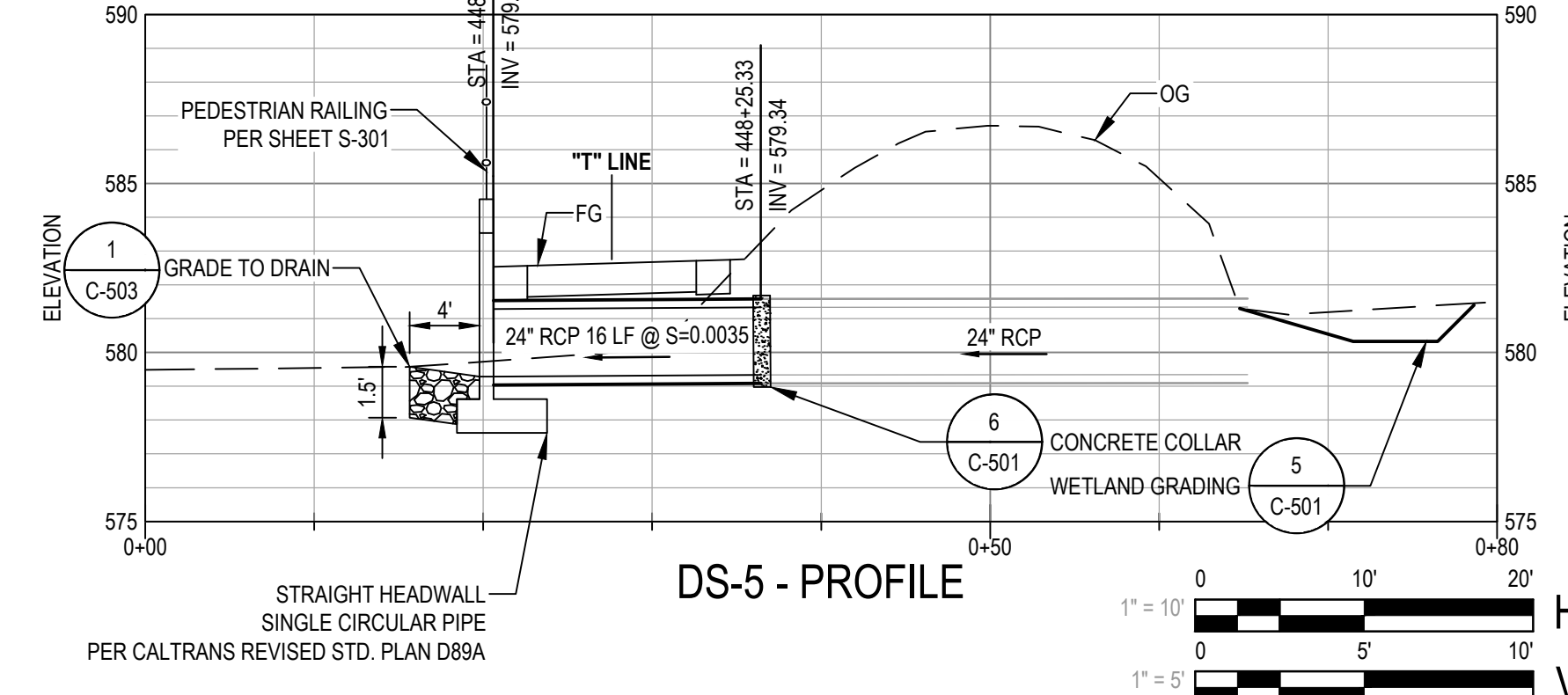
SCALE: 1" = 10'



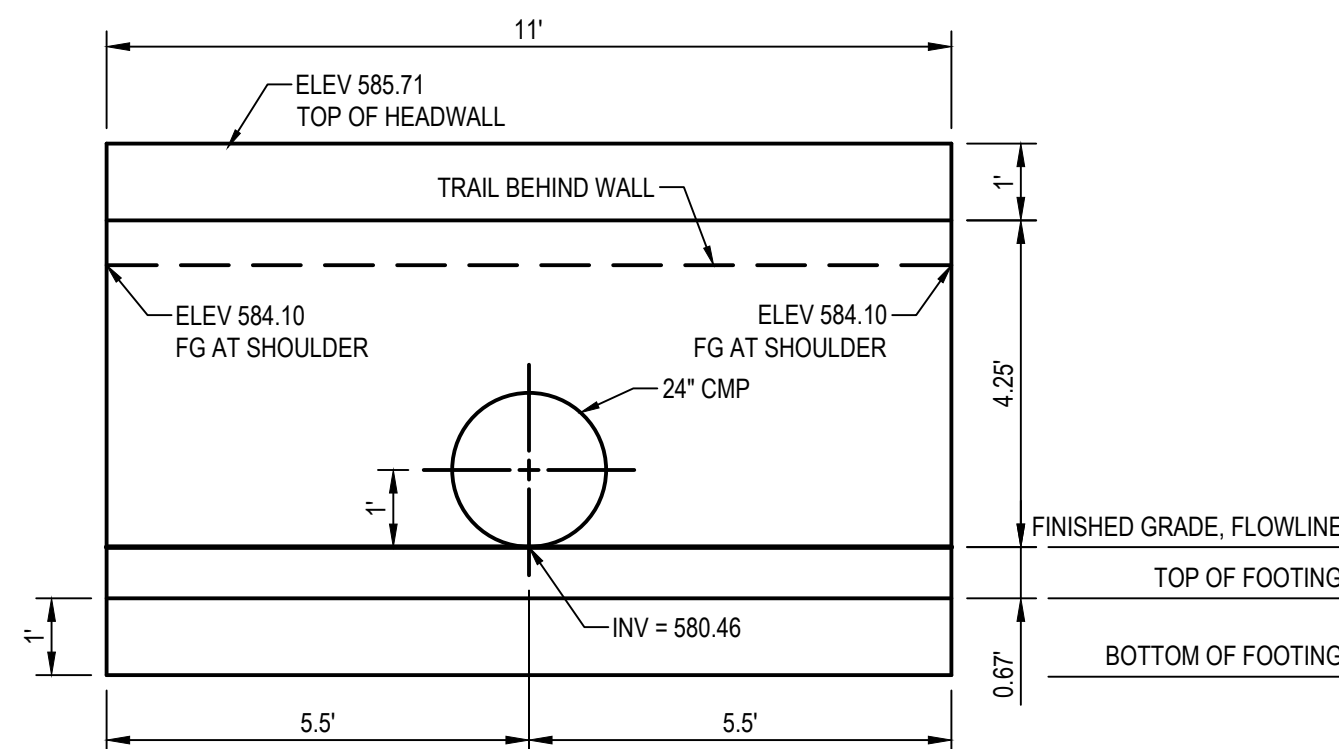
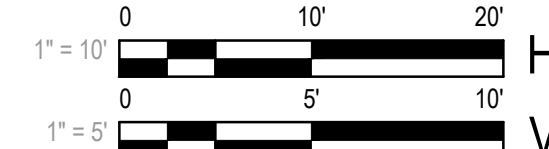
**DS-3 - PROFILE**



**DS-4 - PROFILE**



**DS-5 - PROFILE**



**DRAINAGE SYSTEM 3 - HEADWALL PROFILE**

SCALE: 1" = 2.5'

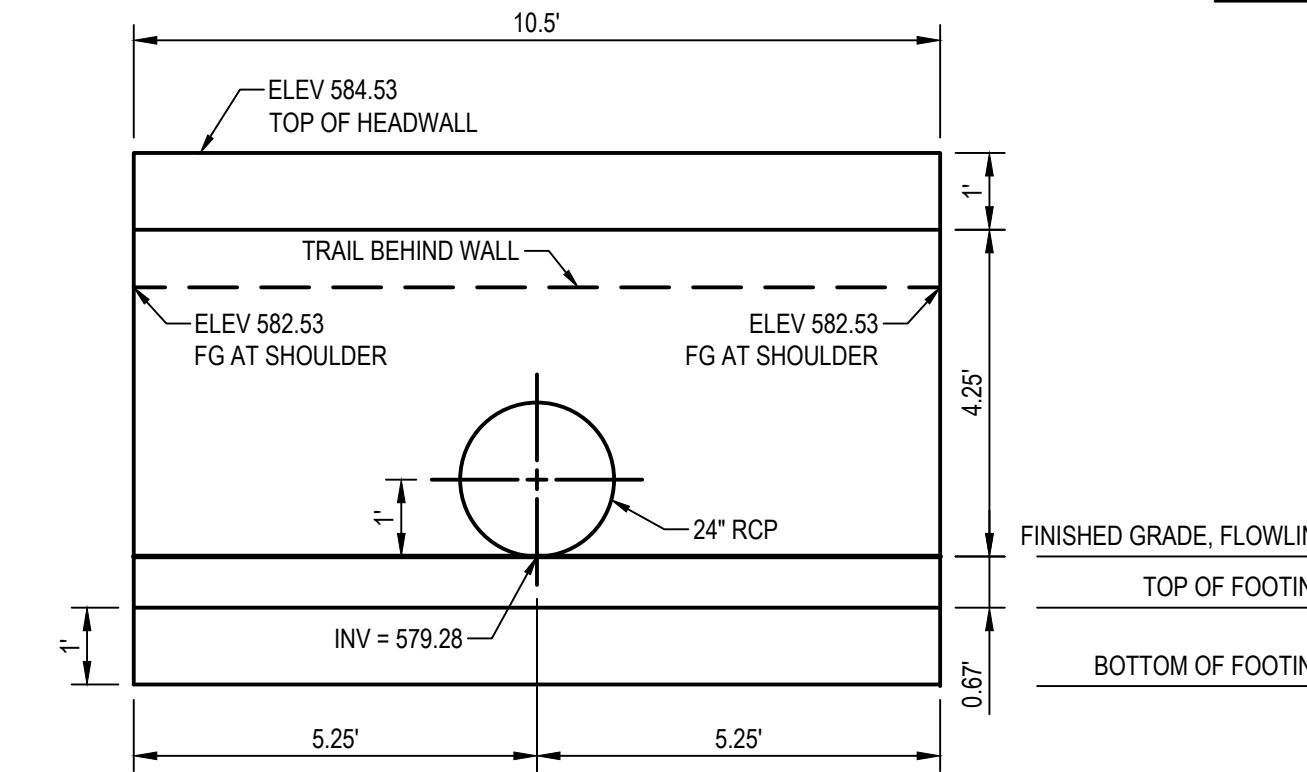
FOR MSE WALL PROFILE SEE SHEET S-103

**DRAINAGE SYSTEM 4 - MSE WALL PROFILE**

SCALE: 1" = 2.5'

**SHEET GENERAL NOTES**

- ROCK SLOPE PROTECTION: MINIMUM ROCK SLOPE PROTECTION AT STANDARD CMP OR RCP OUTLET SHALL BE FACING CLASS, PLACEMENT METHOD B. MINIMUM THICKNESS SHALL BE 1.8 FEET AND MINIMUM STONE WEIGHT SHALL BE 7 POUNDS.



**DRAINAGE SYSTEM 5 - HEADWALL PROFILE**

SCALE: 1" = 2.5'



**Know what's below. Call before you dig.**  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

1	PEDESTRIAN RAILING	EF	EF	2023-02-07
No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director
			M. KENNEDY	

Bar is one inch on original size sheet



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

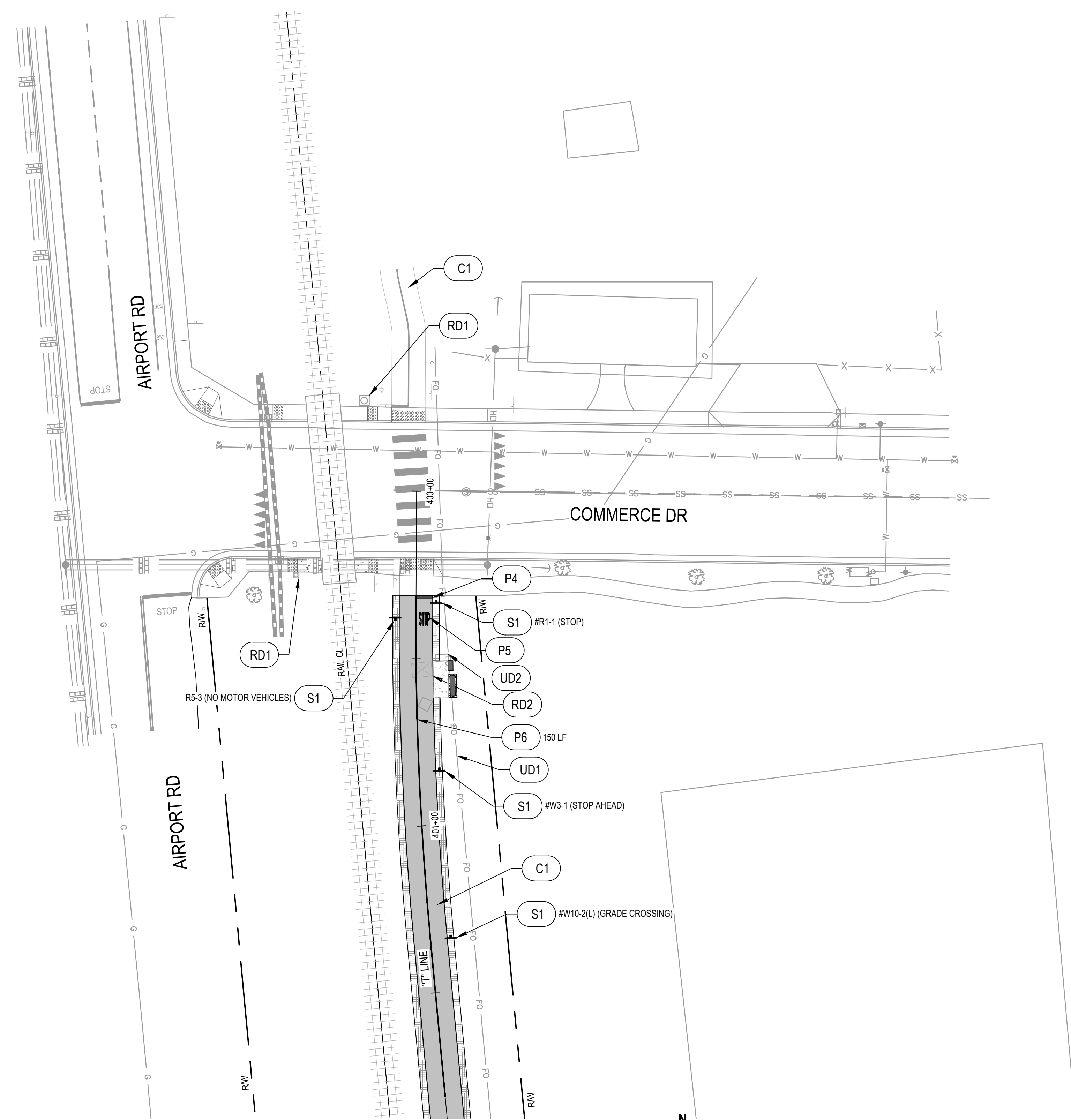
Title **DRAINAGE PLAN 2**

Project No. **12557341** Date **SEP 30, 2022** Scale **AS NOTED**

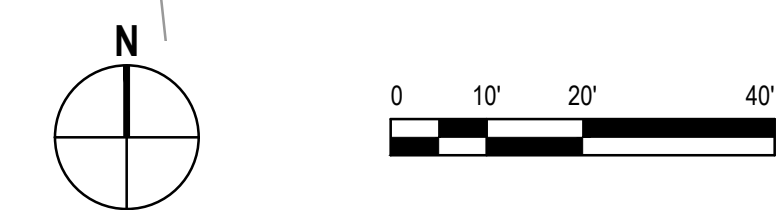
Size **ANSI D**

Sheet No. **C-122** Sheet **31 of 96**





**GRADE CROSSING PLAN - COMMERCE DIVE**  
SCALE: 1" = 20'



**GENERAL NOTES**

1. CONTOURS AND VEGETATION ARE NOT SHOWN FOR CLARITY. SEE PLAN AND PROFILE PLANS.
4. CONTRACTOR TO FIELD FIT GATES AND FENCES.
5. ALL EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED STRIPING (WITHIN 25' OF THE TRACK) IS TO BE REMOVED BY GRINDING, UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO VERIFY WITH ENGINEER ALL STRIPE TO BE REMOVED PRIOR TO REMOVAL.
7. # SIGN: BIKE SCALE SIGN PER SECTION 96 OF THE CA MUTCD.
8. SIGNS ARE PER CALIFORNIA MUTCD STD. UNLESS STATED OTHERWISE.
9. ALL EXISTING STREET SIGNS WITHIN RAIL RIGHT OF WAY ARE TO REMAIN UNLESS FOUND IN CONFLICT WITH CROSSING IMPROVEMENTS. IN THIS CASE, THESE SIGNS ARE EITHER REMOVED, RELOCATED, OR REPLACED PER DIRECTION OF THE FIELD ENGINEER WITH APPROVAL OF CITY OR COUNTY PUBLIC WORKS DEPARTMENT.
10. CONTRACTOR TO MARK PLACEMENT OF ALL SIGNS, PAVEMENT MARKINGS, AND STRIPING IN THE FIELD FOR VERIFICATION AND APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
11. PATHWAY SIGNS AT GRADE CROSSINGS ARE SET 50' O.C. AS MEASURED FROM SIGN R1-1.
12. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (U.S.A.) (800) 277-2600 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR TO VERIFY ACTUAL SITE CONDITIONS PRIOR TO PERFORMING WORK.

**KEY NOTES**

**CONSTRUCTION NOTES**

- CD1 PROTECT EXISTING DRIVEWAY.
- CD2 SAWCUT WITH 1" HMA (TYPE A) BACKFILL.
- CD3 REMOVE FENCE.

- C1 NON-MOTORIZED PATHWAY.
- C2 CURB RAMP PER CALTRANS STD. PLAN A88A AND A88B.
- C3 4' CHAIN LINK FENCE PER CALTRANS STD. PLAN A85.

**PAVEMENT DELINEATION NOTES**

- PD1 REMOVE STRIPE OR MARKING.
- P1 24" x LANE WIDTH WHITE THERMOPLASTIC MARKING.
- P2 RAILROAD CROSSING WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24B.
- P3 10' WHITE THERMOPLASTIC CONTINENTAL CROSSWALK PER CALTRANS STD. PLAN A24F.
- P4 12" x LANE WIDTH WHITE PAINT MARKING.
- P5 'STOP' WHITE PAINT MARKING PER CALTRANS STD. PLAN A24D (1/2 SCALE).
- P6 4" YELLOW PAINT STRIPE.
- P7 'STOP' WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24D.
- P8 THERMOPLASTIC WHITE YIELD LINE PAVEMENT MARKING PER CALTRANS STD. PLAN A24E.

**SIGNING NOTES**

- SD1 REMOVE SIGN.
- SD2 RELOCATE SIGN.
- SD3 PROTECT SIGN IN PLACE.
- S1 ROADSIDE SIGN PER CITY OF UKIAH STD. PLAN 120.
- S2 RECTANGULAR RAPID FLASHING BEACON, SEE ELECTRICAL PLANS.

**UTILITY NOTES**

- UD1 PROTECT UTILITY IN PLACE.
- UD2 REMOVE METER.
- UD3 RELOCATE UTILITY MARKER.

**RAIL NOTES**

- RD1 PROTECT EXISTING EQUIPMENT IN PLACE.
- RD2 REMOVE CIL.



**Know what's below. Call before you dig.**  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

Bar is one inch on original size sheet  
0 1"



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

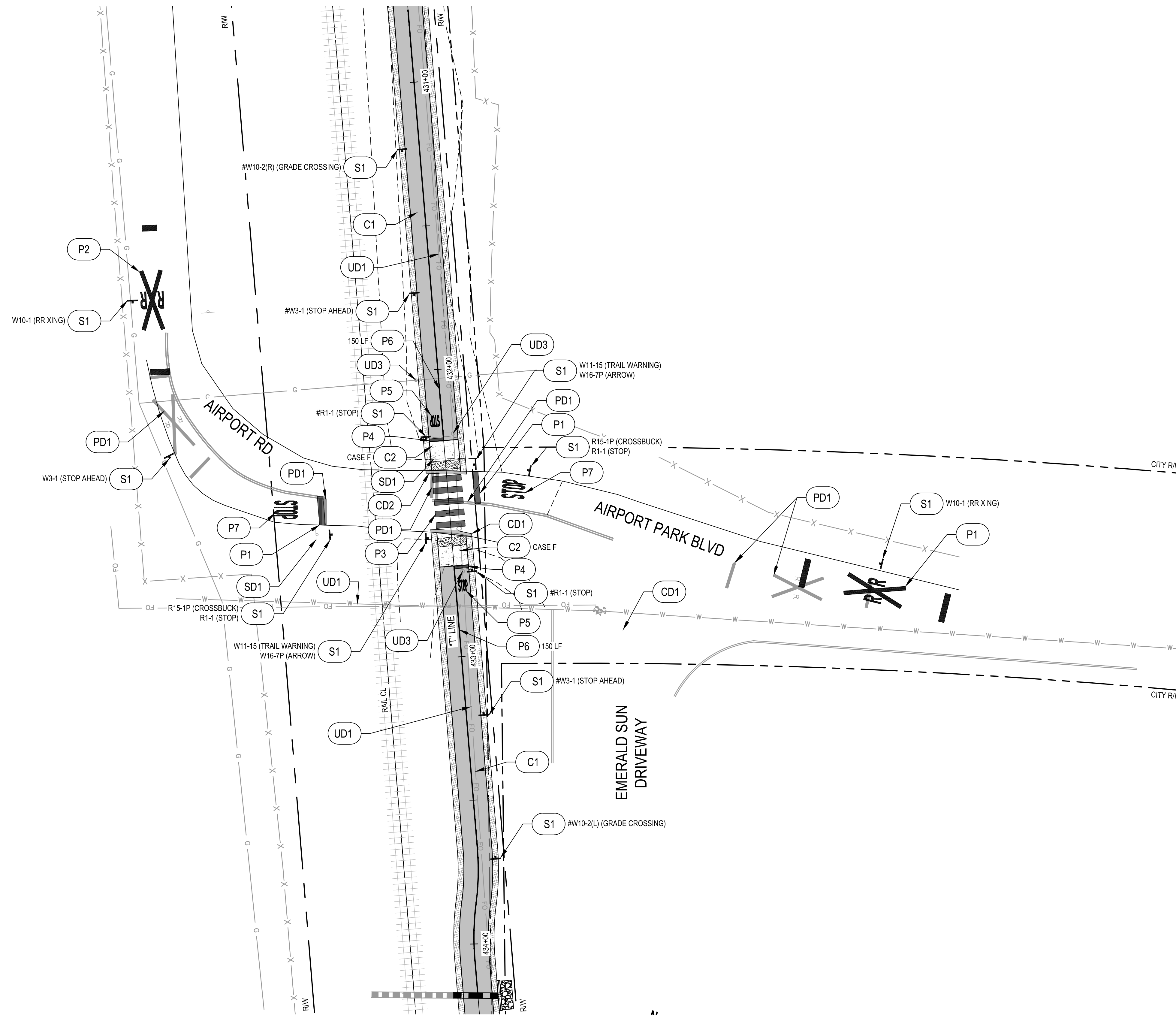
Title **GRADE CROSSING PLAN - COMMERCE DIVE**

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**

Sheet No. **C-401** Sheet **32 of 96**





**GRADE CROSSING PLAN - AIRPORT RD / AIRPORT PARK BLVD**

SCALE: 1" = 20'

**GENERAL NOTES**

1. CONTOURS AND VEGETATION ARE NOT SHOWN FOR CLARITY. SEE PLAN AND PROFILE PLANS.
4. CONTRACTOR TO FIELD FIT GATES AND FENCES.
5. ALL EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED STRIPING (WITHIN 25' OF THE TRACK) IS TO BE REMOVED BY GRINDING, UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO VERIFY WITH ENGINEER ALL STRIPE TO BE REMOVED PRIOR TO REMOVAL.
7. # SIGN: BIKE SCALE SIGN PER SECTION 9B OF THE CA MUTCD.
8. SIGNS ARE PER CALIFORNIA MUTCD STD. UNLESS STATED OTHERWISE.
9. ALL EXISTING STREET SIGNS WITHIN RAIL RIGHT OF WAY ARE TO REMAIN UNLESS FOUND IN CONFLICT WITH CROSSING IMPROVEMENTS. IN THIS CASE, THESE SIGNS ARE EITHER REMOVED, RELOCATED, OR REPLACED PER DIRECTION OF THE FIELD ENGINEER WITH APPROVAL OF CITY OR COUNTY PUBLIC WORKS DEPARTMENT.
10. CONTRACTOR TO MARK PLACEMENT OF ALL SIGNS, PAVEMENT MARKINGS, AND STRIPING IN THE FIELD FOR VERIFICATION AND APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
11. PATHWAY SIGNS AT GRADE CROSSINGS ARE SET 50' O.C. AS MEASURED FROM SIGN R1-1.
12. LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT (U.S.A.) (800) 277-2600 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR TO VERIFY ACTUAL SITE CONDITIONS PRIOR TO PERFORMING WORK.

**KEY NOTES**

**CONSTRUCTION NOTES**

- CD1 PROTECT EXISTING DRIVEWAY.
- CD2 SAWCUT WITH 1" HMA (TYPE A) BACKFILL.
- CD3 REMOVE FENCE.

- C1 NON-MOTORIZED PATHWAY.
- C2 CURB RAMP PER CALTRANS STD. PLAN A88A AND A88B.
- C3 4' CHAIN LINK FENCE PER CALTRANS STD. PLAN A85.

**PAVEMENT DELINEATION NOTES**

- PD1 REMOVE STRIPE OR MARKING.
- P1 24" x LANE WIDTH WHITE THERMOPLASTIC MARKING.
- P2 RAILROAD CROSSING WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24B.
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- P4 12" x LANE WIDTH WHITE PAINT MARKING.
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- P7 'STOP' WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24D.
- P8 THERMOPLASTIC WHITE YIELD LINE PAVEMENT MARKING PER CALTRANS STD. PLAN A24E.

**SIGNING NOTES**

- SD1 REMOVE SIGN.
- SD2 RELOCATE SIGN.
- SD3 PROTECT SIGN IN PLACE.
- S1 ROADSIDE SIGN PER CITY OF UKIAH STD. PLAN 120.
- S2 RECTANGULAR RAPID FLASHING BEACON, SEE ELECTRICAL PLANS.

**UTILITY NOTES**

- UD1 PROTECT UTILITY IN PLACE.
- UD2 REMOVE METER.
- UD3 RELOCATE UTILITY MARKER.

**RAIL NOTES**

- RD1 PROTECT EXISTING EQUIPMENT IN PLACE.
- RD2 REMOVE CIL.



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **GRADE CROSSING PLAN - AIRPORT RD / AIRPORT PARK BLVD**

No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**

Sheet No. **C-402** Sheet **33 of 96**



**GENERAL NOTES**

1. CONTOURS AND VEGETATION ARE NOT SHOWN FOR CLARITY. SEE PLAN AND PROFILE PLANS.
2. CONTRACTOR TO FIELD FIT GATES AND FENCES.
3. ALL EXISTING STRIPING THAT CONFLICTS WITH THE PROPOSED STRIPING (WITHIN 25' OF THE TRACK) IS TO BE REMOVED BY GRINDING, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO VERIFY WITH ENGINEER ALL STRIPE TO BE REMOVED PRIOR TO REMOVAL.
5. # SIGN: BIKE SCALE SIGN PER SECTION 96 OF THE CA MUTCD.
6. SIGNS ARE PER CALIFORNIA MUTCD STD. UNLESS STATED OTHERWISE.
7. ALL EXISTING STREET SIGNS WITHIN RAIL RIGHT OF WAY ARE TO REMAIN UNLESS FOUND IN CONFLICT WITH CROSSING IMPROVEMENTS. IN THIS CASE, THESE SIGNS ARE EITHER REMOVED, RELOCATED, OR REPLACED PER DIRECTION OF THE FIELD ENGINEER WITH APPROVAL OF CITY OR COUNTY PUBLIC WORKS DEPARTMENT.
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**KEY NOTES**

**CONSTRUCTION NOTES**

- CD1 PROTECT EXISTING DRIVEWAY.
- CD2 SAWCUT WITH 1" HMA (TYPE A) BACKFILL.
- CD3 REMOVE FENCE.
- C1 NON-MOTORIZED PATHWAY.
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- C3 4' CHAIN LINK FENCE PER CALTRANS STD. PLAN A85.

**PAVEMENT DELINEATION NOTES**

- PD1 REMOVE STRIPE OR MARKING.
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- P2 RAILROAD CROSSING WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24B.
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**SIGNING NOTES**

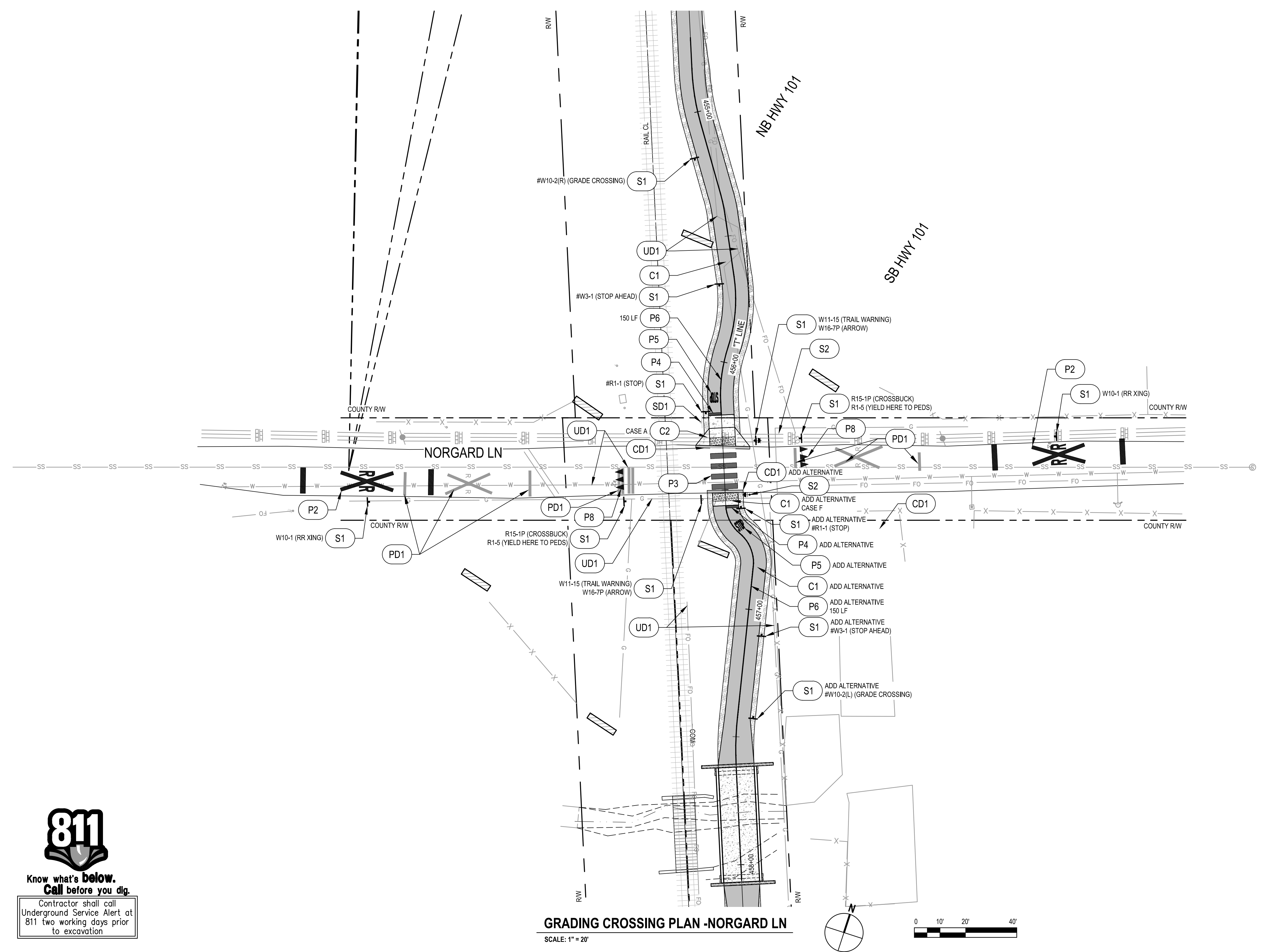
- SD1 REMOVE SIGN.
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- SD3 PROTECT SIGN IN PLACE.
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**UTILITY NOTES**

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**RAIL NOTES**

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No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY


Bar is one inch on original size sheet  
0 1"

REGISTERED PROFESSIONAL ENGINEER  
E. FANSELAU  
No. 064814  
CIVIL  
STATE OF CALIFORNIA  
12/21/2022

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **GRADING CROSSING PLAN -NORGARD LN**  
Sheet No. **C-403**  
Sheet **34 of 96**



**NOTE (THIS SHEET ONLY):**

ALL WORK SHOWN ON THIS SHEET IS PART OF THE ADD ALTERNATIVE.

**GENERAL NOTES**

1. CONTOURS AND VEGETATION ARE NOT SHOWN FOR CLARITY. SEE PLAN AND PROFILE PLANS.
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**CONSTRUCTION NOTES**

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**SIGNING NOTES**

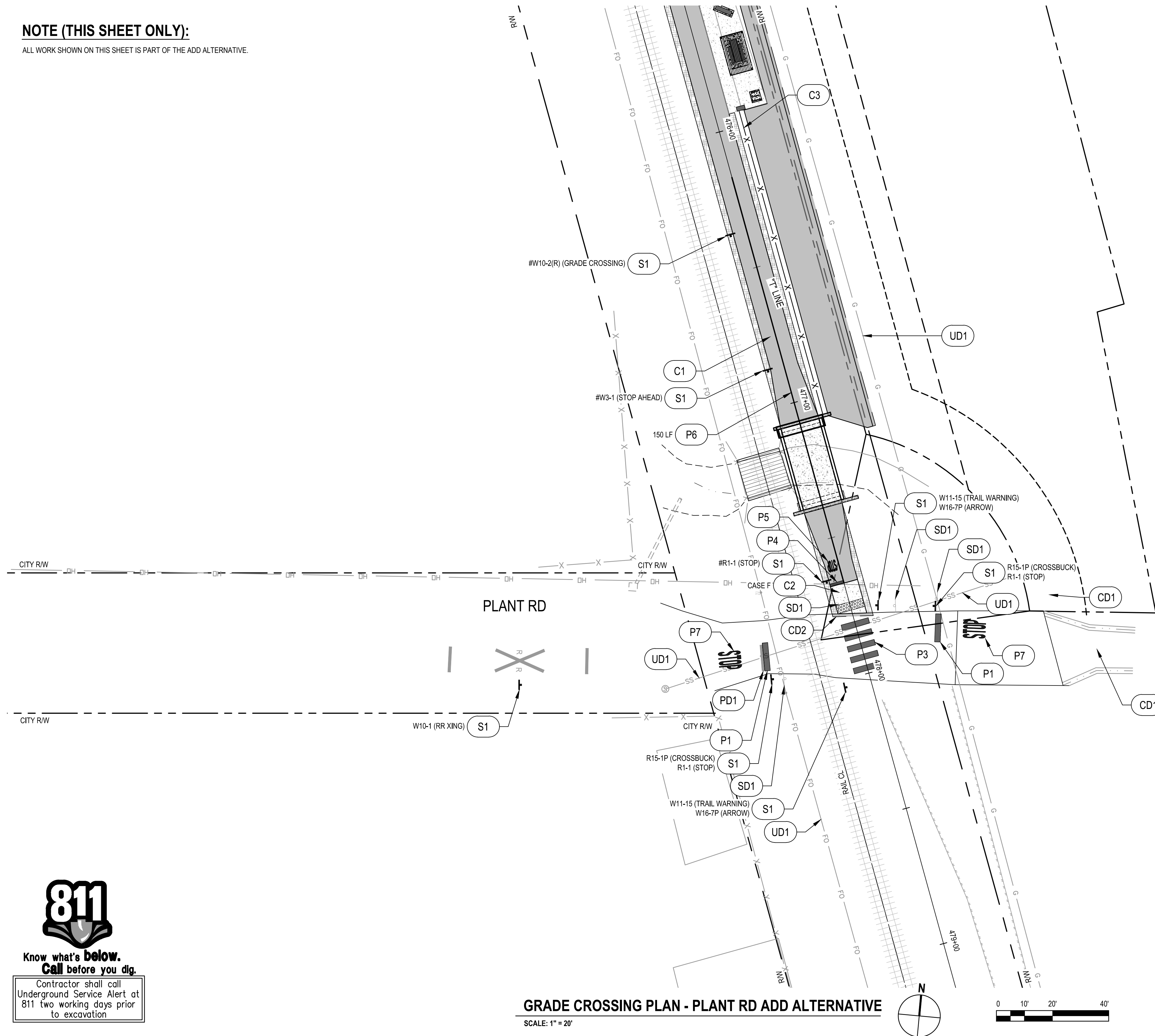
- SD1 REMOVE SIGN.
- SD2 RELOCATE SIGN.
- SD3 PROTECT SIGN IN PLACE.
- S1 ROADSIDE SIGN PER CITY OF UKIAH STD. PLAN 120.
- S2 RECTANGULAR RAPID FLASHING BEACON, SEE ELECTRICAL PLANS.

**UTILITY NOTES**

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- UD2 REMOVE METER.
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**RAIL NOTES**

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- RD2 REMOVE CIL.



**GRADE CROSSING PLAN - PLANT RD ADD ALTERNATIVE**

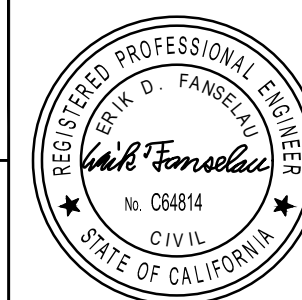
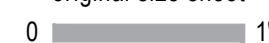
SCALE: 1" = 20'



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811 two working days prior  
to excavation

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original size sheet



12/21/2022



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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No.  
**12557341**

Date  
**SEP 30, 2022**

Scale  
**1" = 20'**

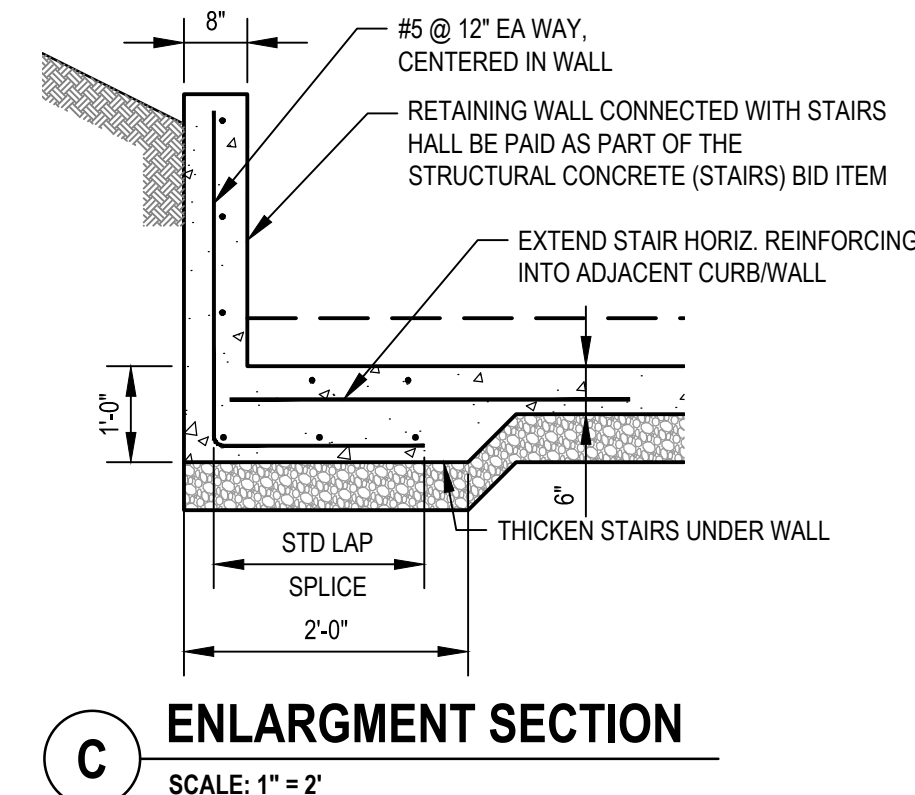
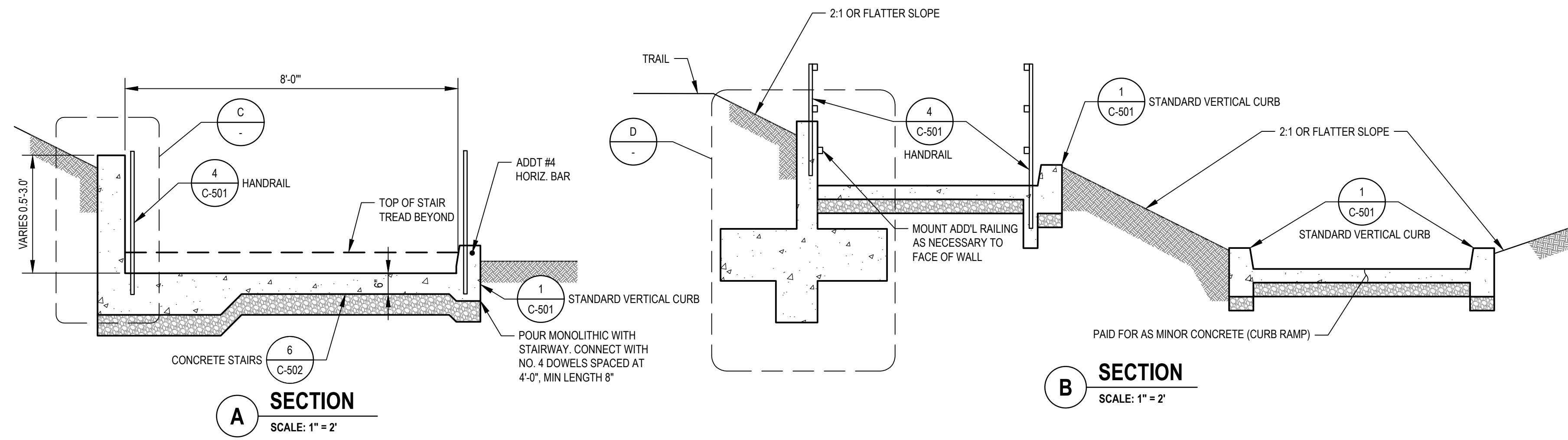
Title **GRADE CROSSING PLAN - PLANT RD ADD ALTERNATIVE**

Size  
**ANSI D**

Sheet No.  
**C-404**

Sheet  
**35 of 96**





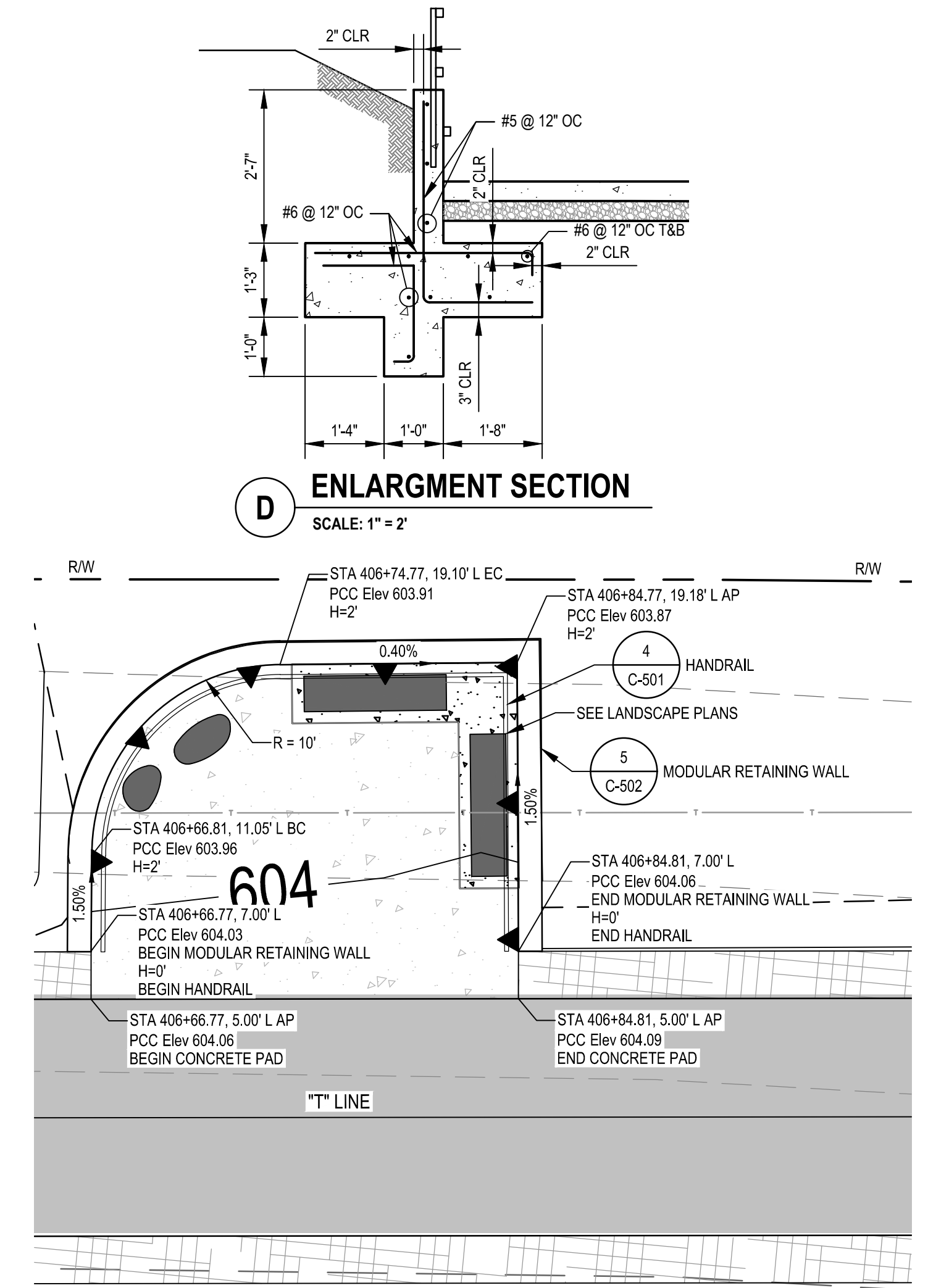
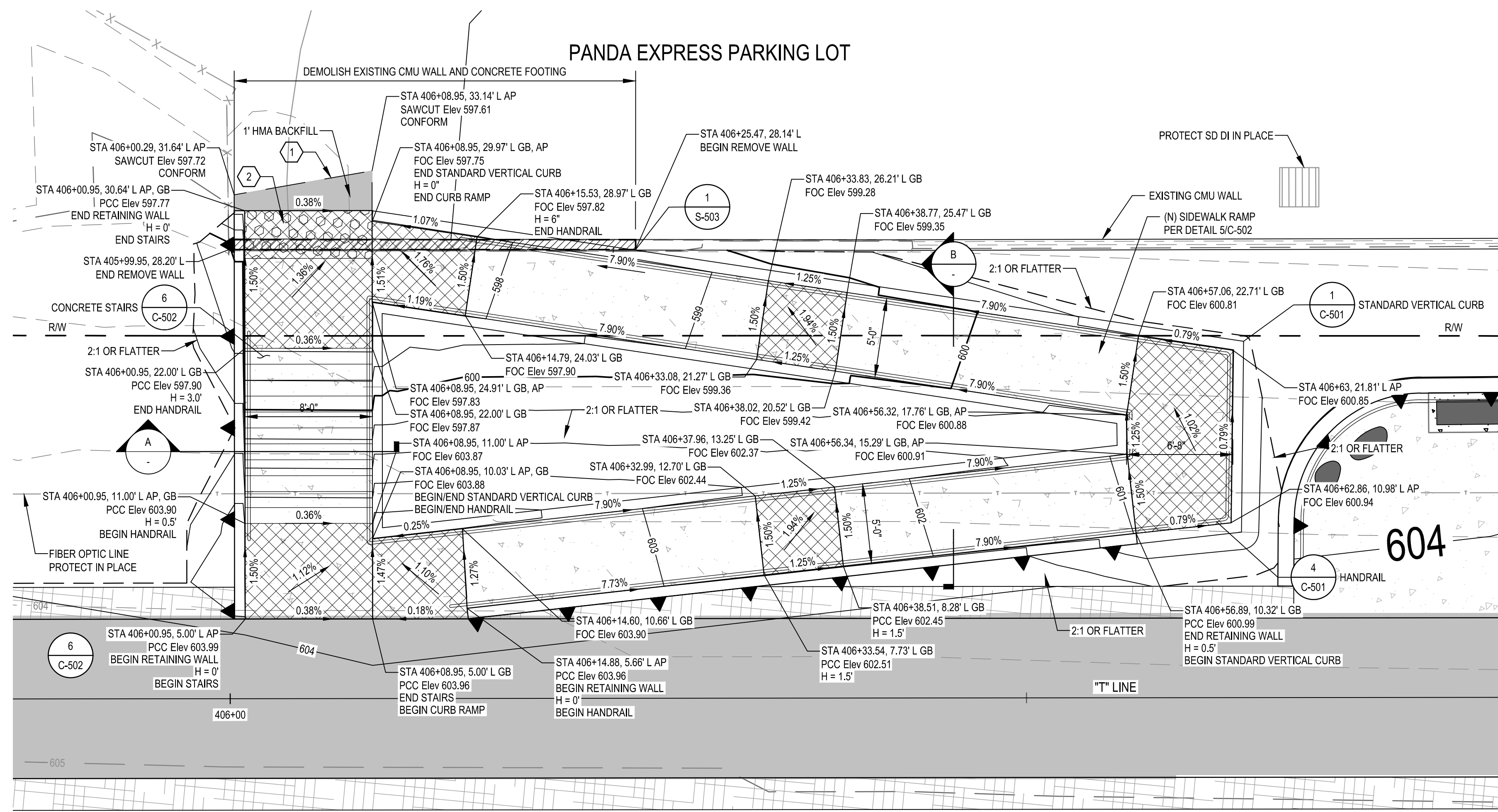
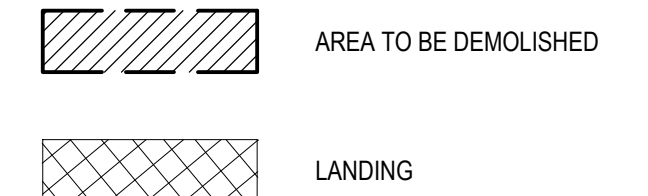
**SHEET GENERAL NOTES**

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**SHEET KEYNOTES**

1. SAWCUT EXISTING SIDEWALK OR ASPHALT PAVEMENT.
2. (N) DETECTABLE WARNING PER CALTRANS STANDARD DRAWING A88A.

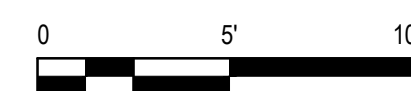
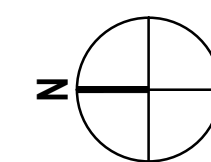
**LEGEND**



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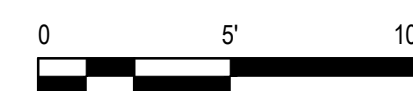
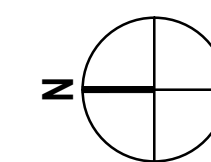
**PEDESTRIAN TRAIL CONNECTION 1**

SCALE: 1" = 5'



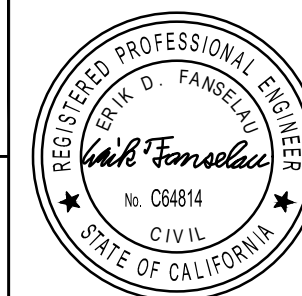
**CONCRETE PAD GRADING**

SCALE: 1" = 5'



No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet



12/21/2022



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 5'**

Title **PEDESTRIAN TRAIL CONNECTION**  
**1**

Sheet No. **C-405**  
Sheet **36 of 96**



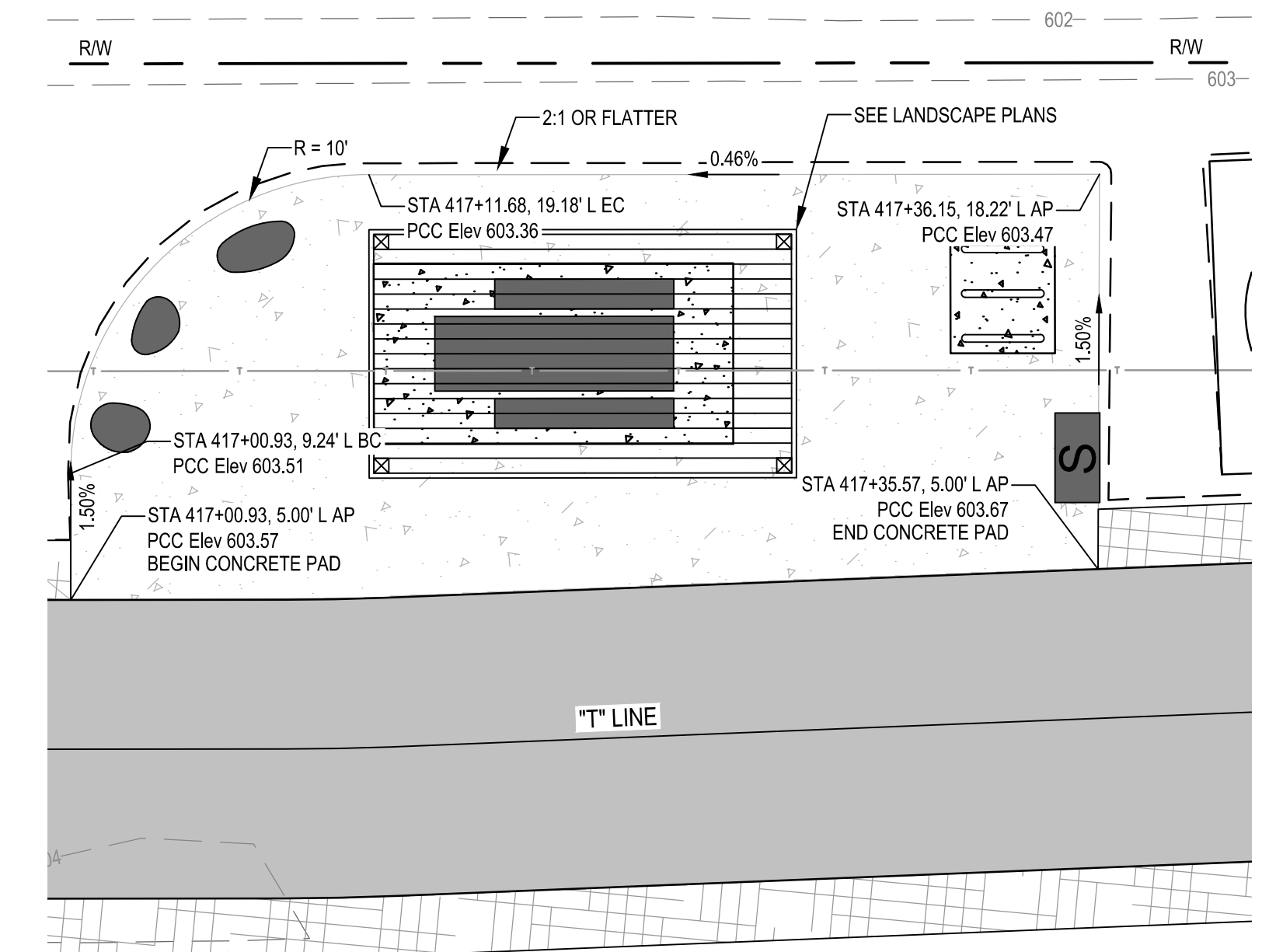
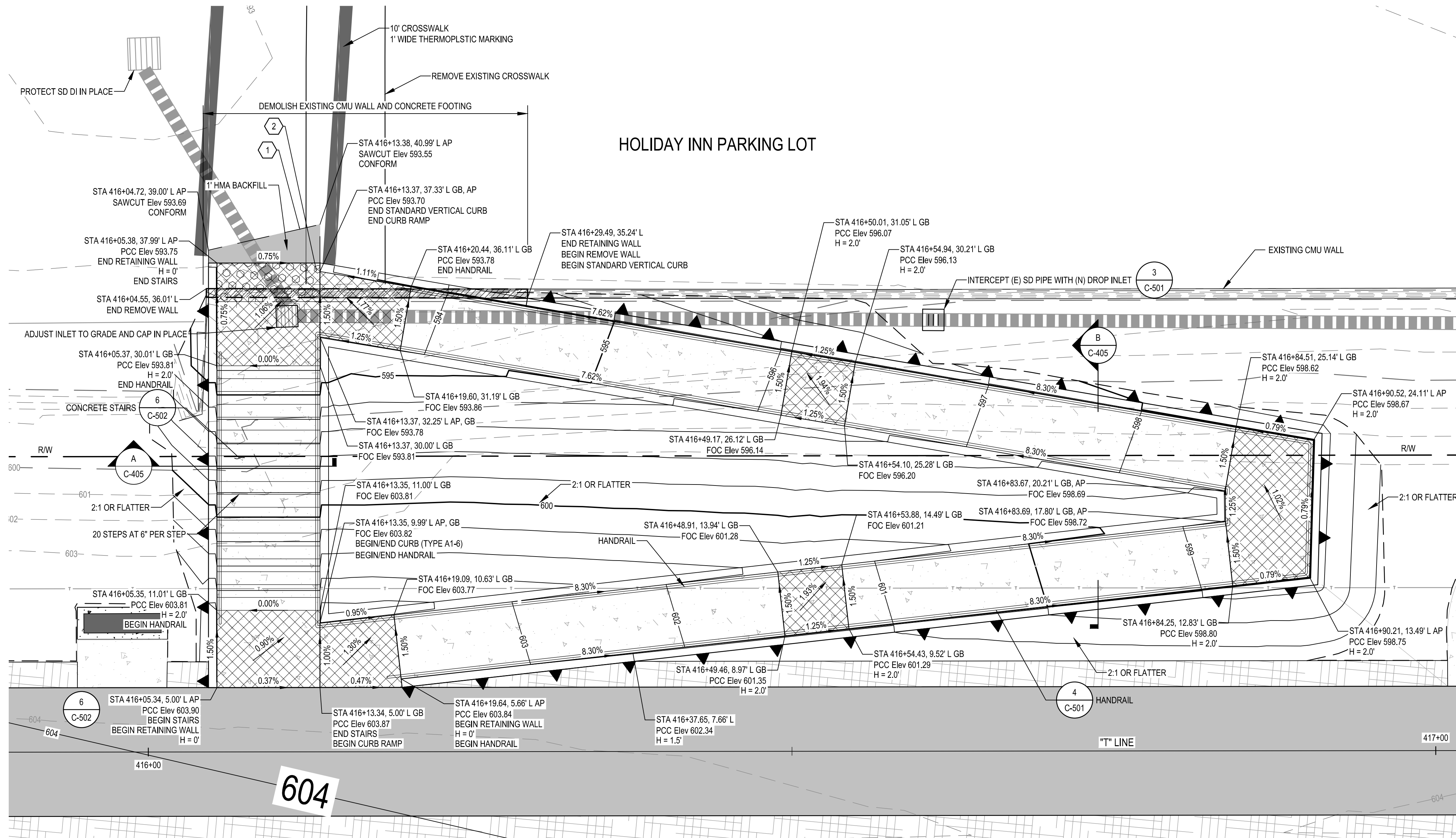
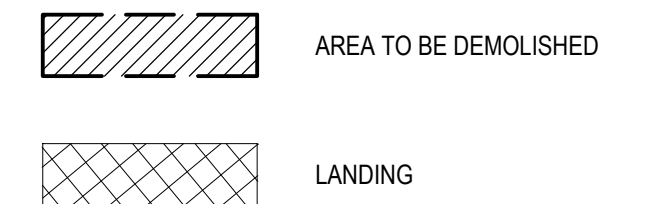
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**LEGEND**



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

**PEDESTRIAN TRAIL CONNECTION 2**  
SCALE: 1" = 5'



**CONCRETE PAD GRADING**  
SCALE: 1" = 5'



No.	Issue	Checked	Approved	Date	
Author	H. DAAS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	H. DAAS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 5'**

Title **PEDESTRIAN TRAIL CONNECTION 2**  
Sheet No. **C-406**  
Sheet **37 of 96**





- SHEET GENERAL NOTES**
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  2. CONTRACTOR MUST COORDINATE WITH ANIMAL SHELTER TO MAINTAIN ACCESS TO FACILITY DURING CONSTRUCTION.

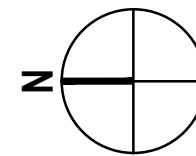


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to excavation

**PARKING LOT AT UKIAH ANIMAL SHELTER ADD ALTERNATIVE**

SCALE: 1" = 20'



No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	H. DAAS	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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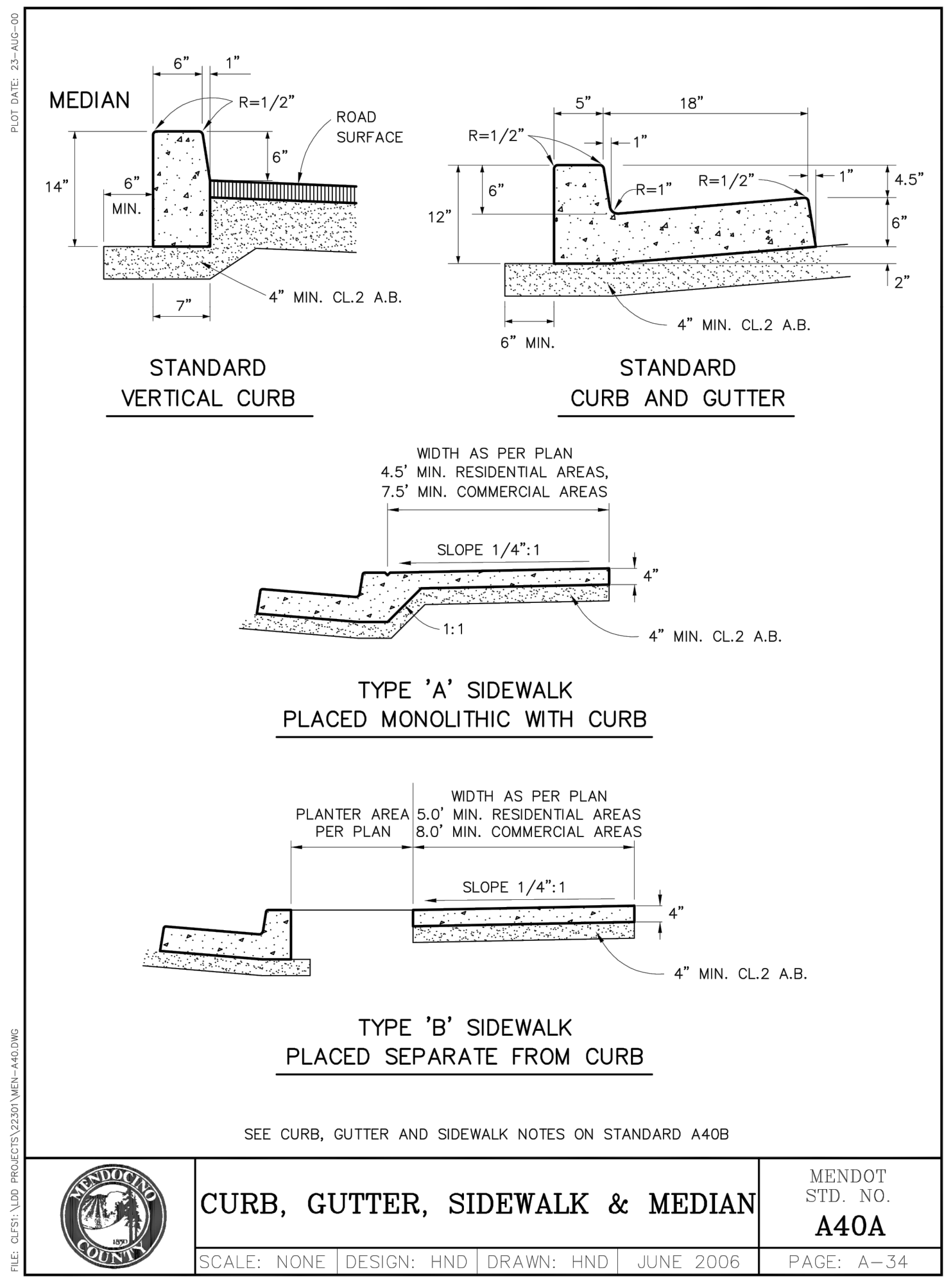
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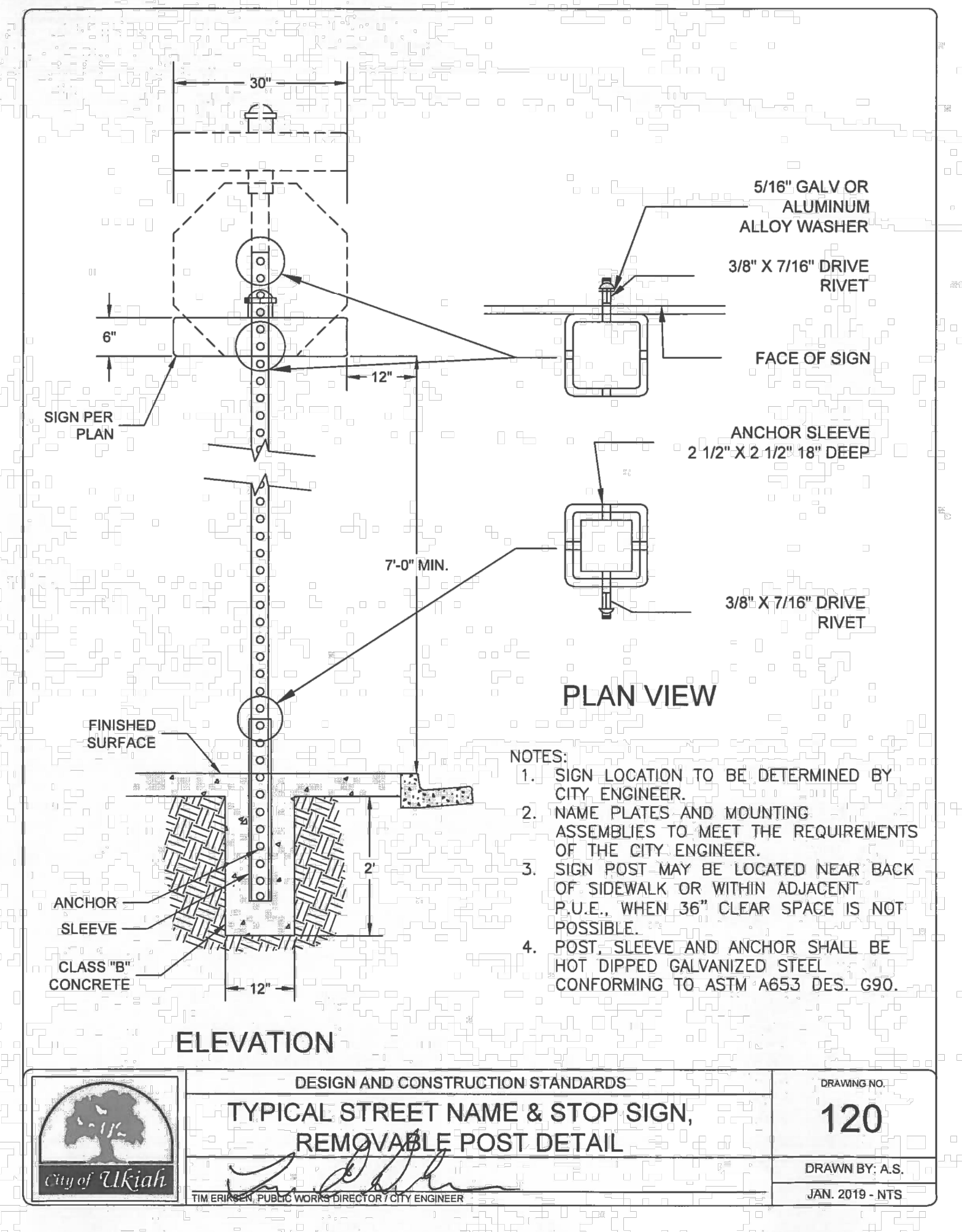
Client	CITY OF UKIAH		
Project	THE GREAT REDWOOD TRAIL PHASE 4		
Project No.	Date	Scale	
12557341	SEP 30, 2022	1" = 20'	

Title	PARKING LOT AT UKIAH ANIMAL SHELTER ADD ALTERNATIVE
Sheet No.	C-407
Sheet	38 of 96

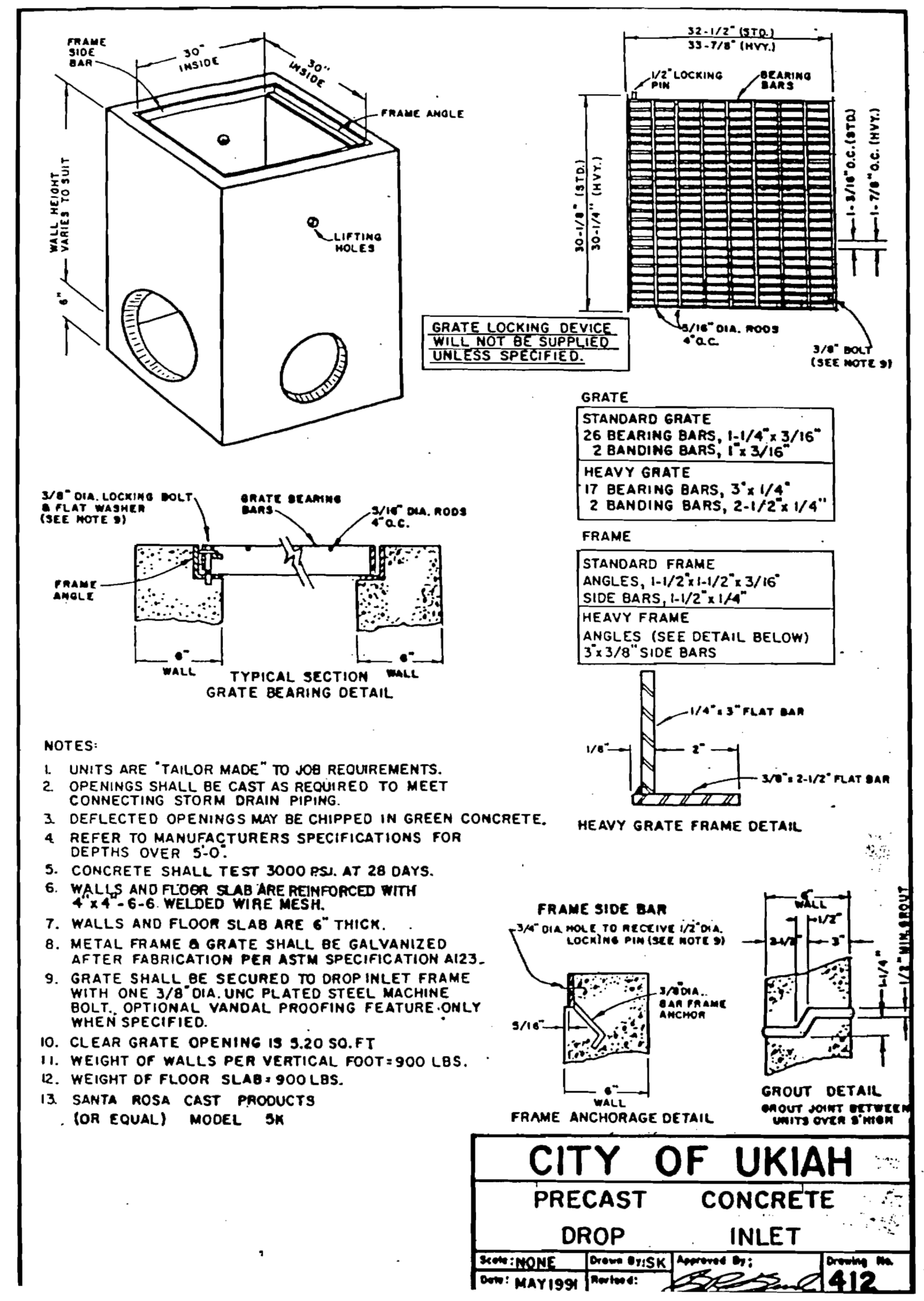




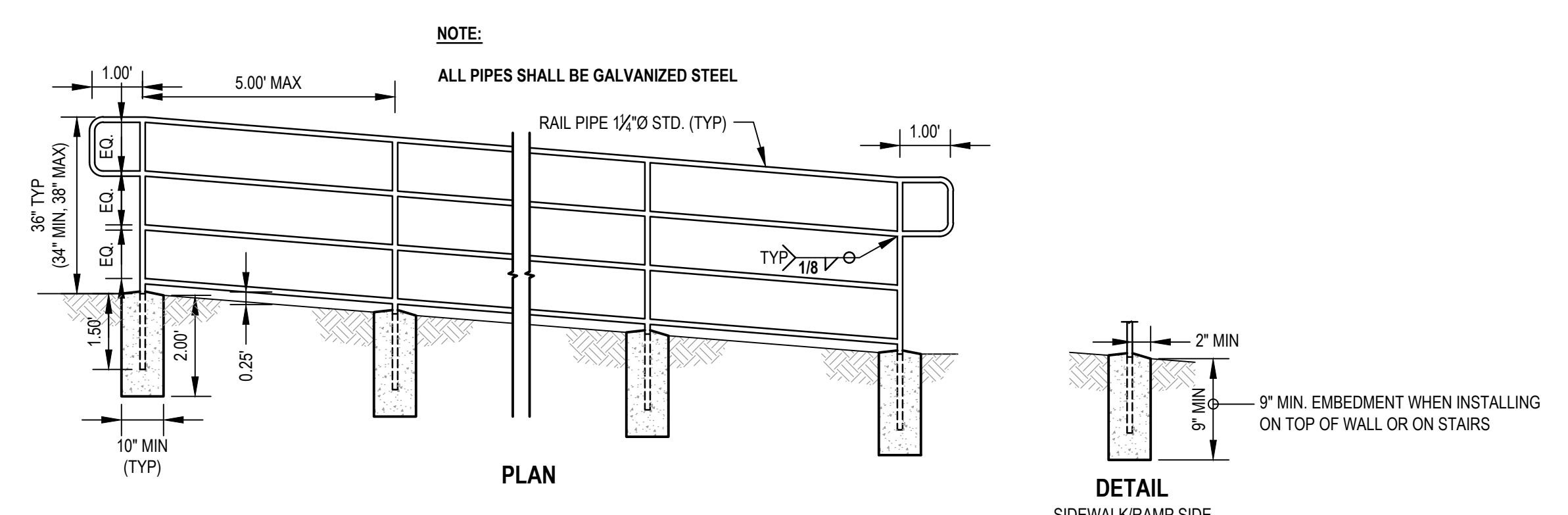
**1 STANDARD VERTICAL CURB**  
SCALE: NTS



**2 SIGN STANDARD**  
SCALE: NTS



**3 DROP INLET**  
SCALE: NTS



**4 HANDRAIL**  
SCALE: NTS

**SEASONAL WETLAND SEED MIX**

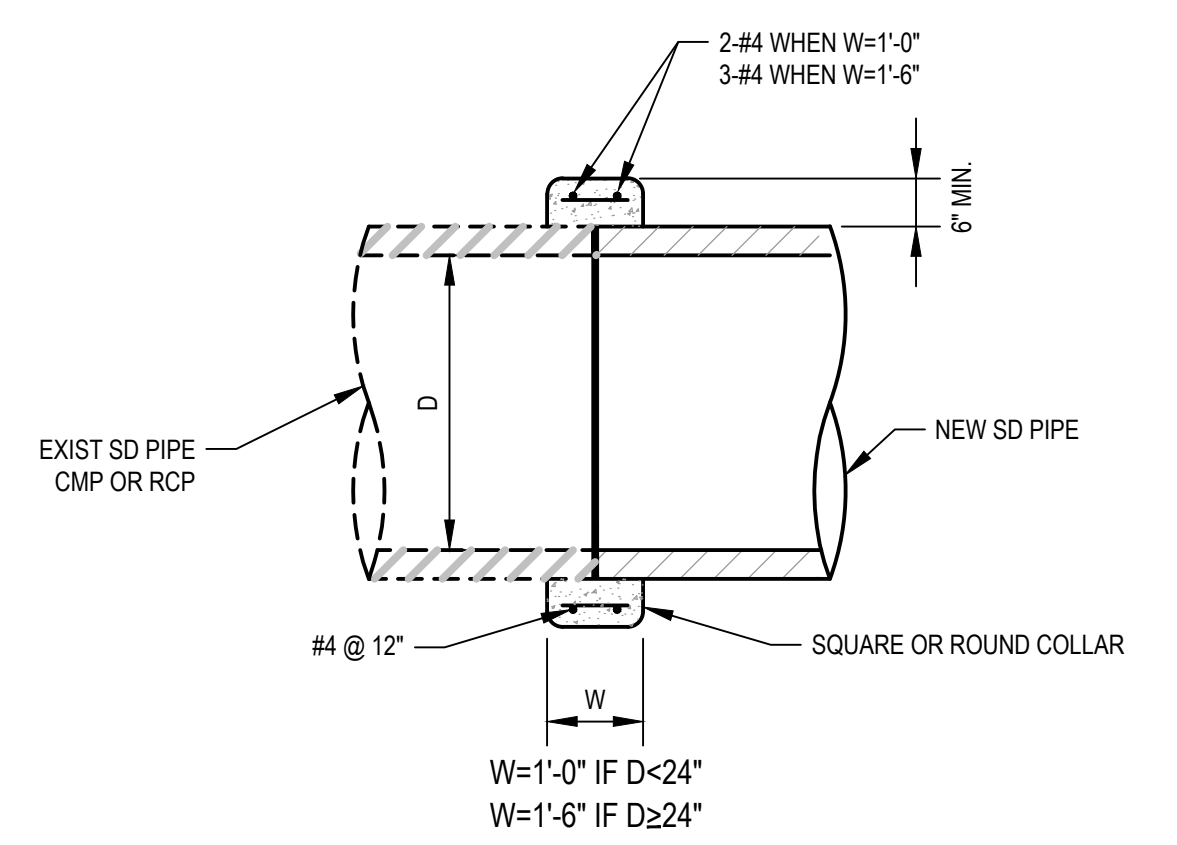
HERB STRATUM

SCIENTIFIC NAME	COMMON NAME	LIFEFORM	LB PER ACRE
AGROSTIS EXARATA	SPIKE BENTGRASS	PERENNIAL GRASS	2
DESCHAMPSIA CAESPITOSA	TUFTED HAIR GRASS	PERENNIAL GRASS	2
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	PERENNIAL GRASS	2
JUNCUS EFFUSUS SSP. PACIFICUS	BOG RUSH	PERENNIAL RUSH	2
JUNCUS PATENS	COMMON RUSH	PERENNIAL RUSH	2
OENANTHE SARMENTOSA	WATER PARSLEY	PERENNIAL HERB	2
POTENTILLA ANSERINA	SILVERWEED	PERENNIAL HERB	2

SEED PER SEED MIX: 2:1 OR FLATTER (TYP)

DO NOT COMPACT EXCAVATED AREA

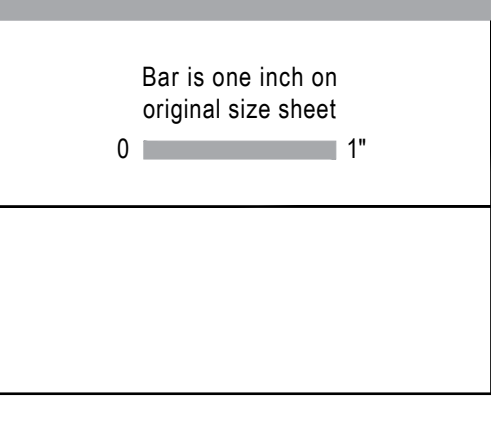
**5 WETLAND GRADING**  
SCALE: NTS



**6 CONCRETE COLLAR**  
SCALE: NTS

No.	Issue	Checked	Approved	Date
Author	H. DAAS	Drafting Check	E. FANSELAU	
Designer	H. DAAS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet	
0	1"



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Client: **CITY OF UKIAH**

Project: **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. 12557341

Date: SEP 30, 2022

Scale: AS SHOWN

Title: **CIVIL DETAILS 1**

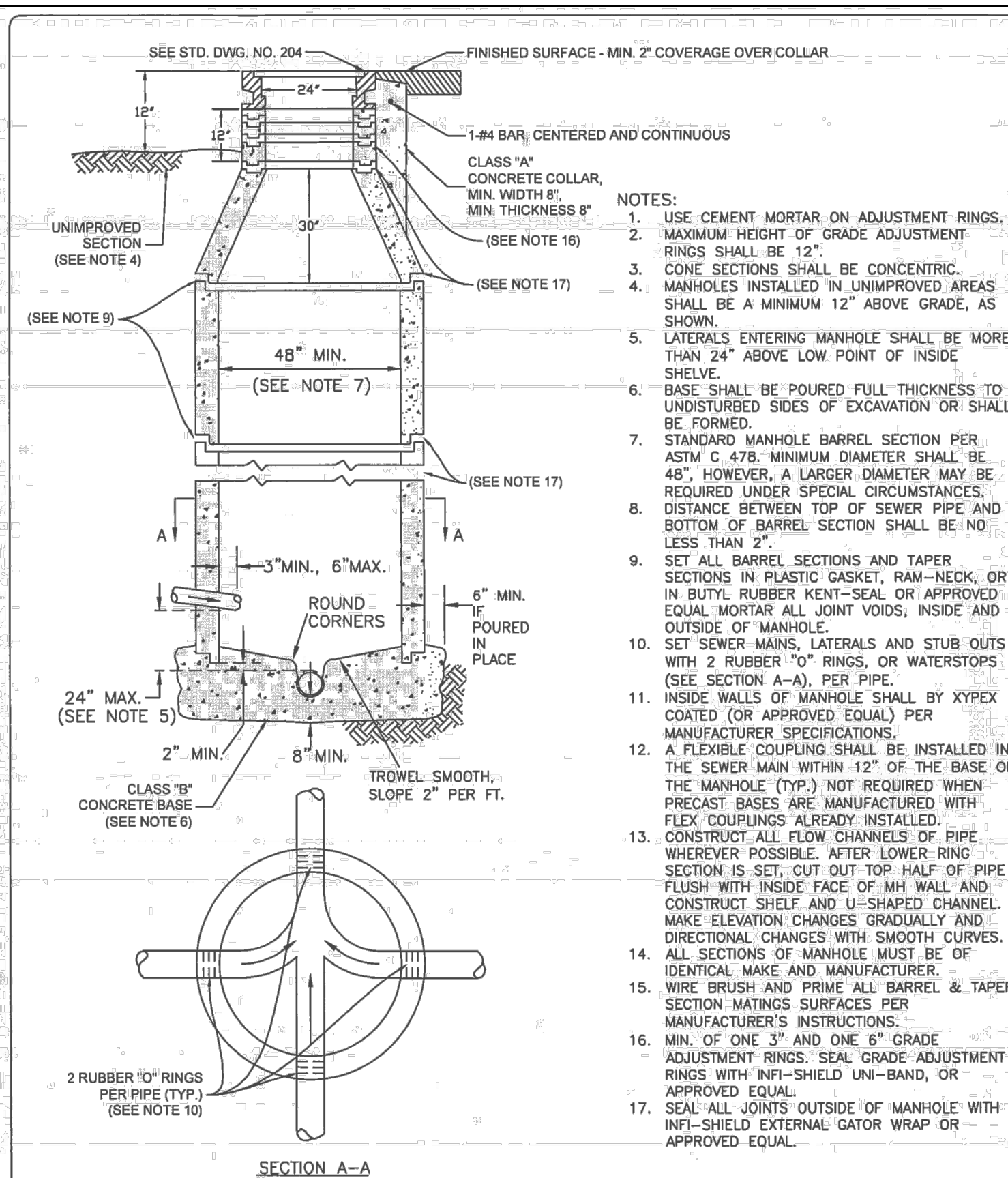
ANSI D

Status Code

Sheet No. C-501

Sheet 39 of 96





DESIGN AND CONSTRUCTION STANDARDS

**STANDARD SEWER MANHOLE**

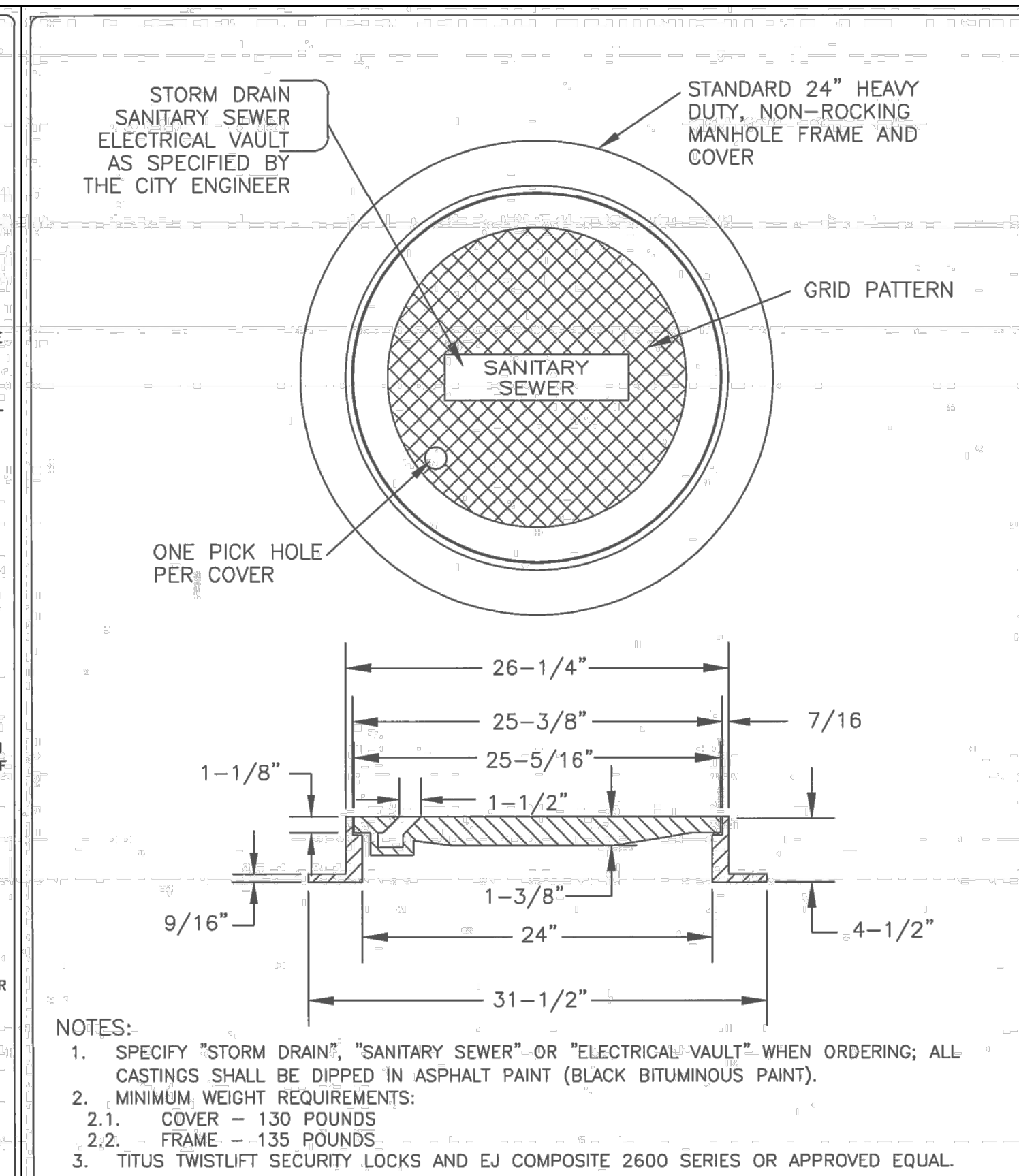
DRAWING NO. **201**

DRAWN BY: A.S.

DEC. 2019 - NTS

**1 STORM DRAIN MANHOLE**

SCALE: NTS



DESIGN AND CONSTRUCTION STANDARDS

**MANHOLE FRAME AND COVER DETAIL**

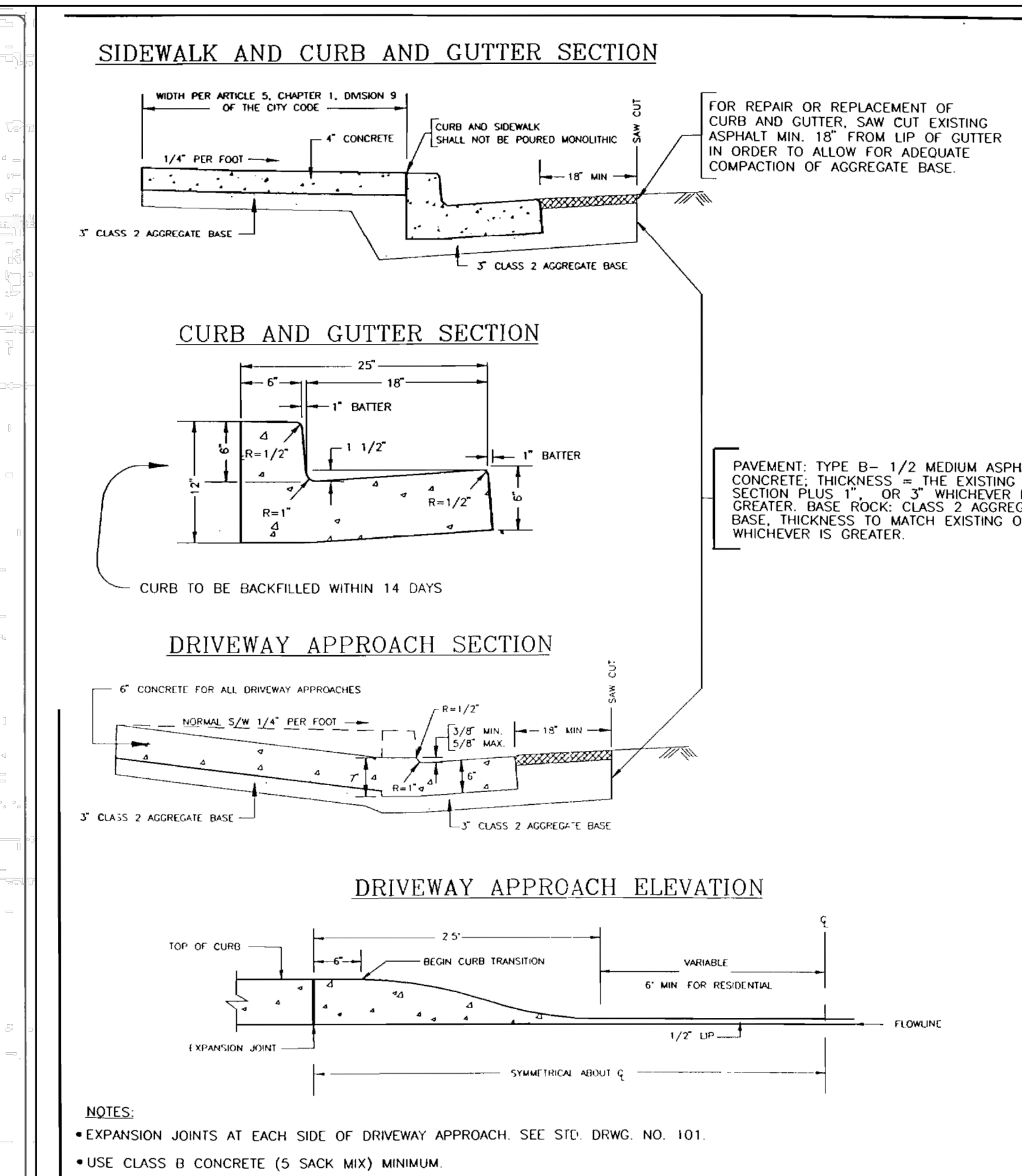
DRAWING NO. **204**

DRAWN BY: A.S.

DEC. 2019 - NTS

**2 STORM DRAIN MANHOLE FRAME AND COVER**

SCALE: NTS



CITY OF UKIAH

**SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APPROACH DETAILS**

SCALE: NONE

DRAWN BY: PJA

DATE: 1/98

PERIOD: LW

APPROVED BY: [Signature]

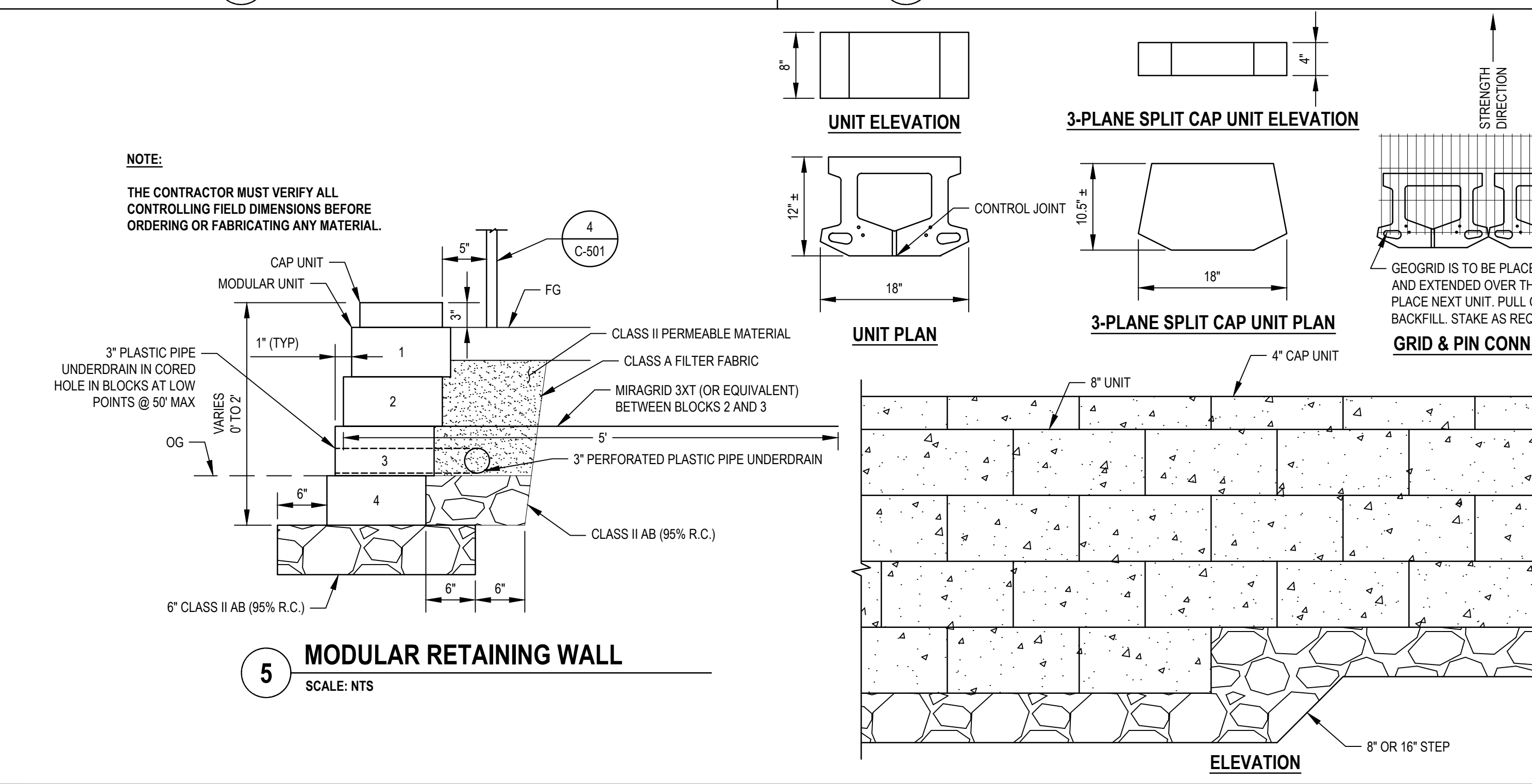
DRAWING NO. 102

**4 SCORE MARK DETAILS FOR SIDEWALKS**

SCALE: NTS

NOTES:

1. Weakened Plane - 1/8" Wide x 1" Deep in sidewalk, 1/8" Wide x 1-1/2" Deep in curb and gutter. (10' on center)
2. Expansion Joints - Material to be 1/2" thick premolded joint filler, full thickness of concrete. Approved mechanical joints may be used in walks in lieu of expansion joints. Expansion joints shall be placed in the sidewalk at the same location as those in the curb and gutter, when the sidewalk is adjacent to the curb and gutter, unless otherwise directed by the Engineer. Distance between joints 60 feet. Expansion joints shall be installed in the curb & gutter at all curb returns, and also at all driveways.
3. Score Marks - In sidewalk 5' on center. In sidewalk 6' or more in width, longitudinal score marks along center of walk. In areas with existing sidewalk, score marks to match existing, or shall meet the approval of the City Engineer.
4. Class "B" concrete shall be used.
5. Relative compaction for aggregate base material 90%
6. Weakened Plane shall be made at both sides of vaults and catch basins from back of curb to back of sidewalk.



**5 MODULAR RETAINING WALL**

SCALE: NTS

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

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER

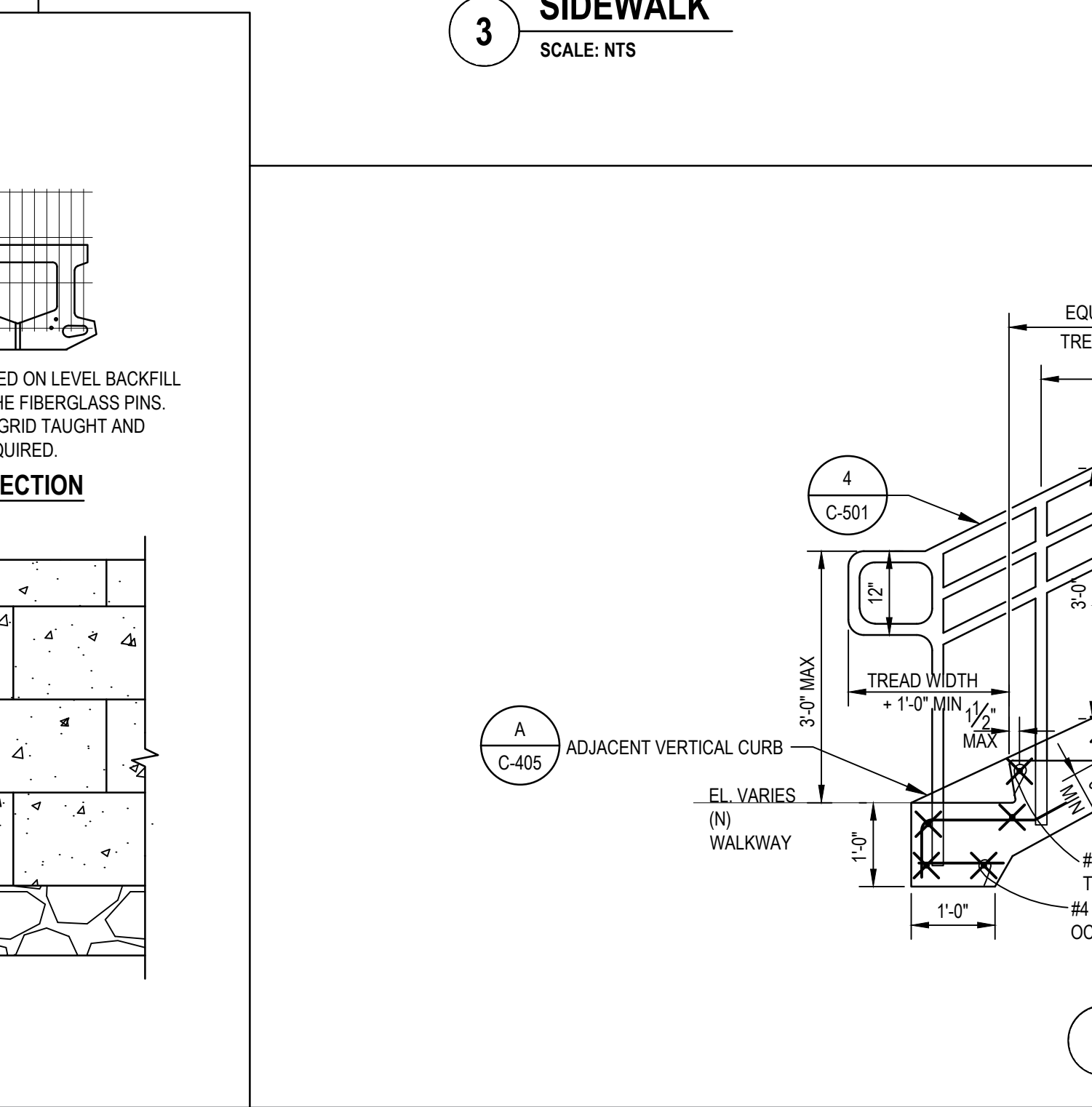
**E. FANSELAU**

No. 064814

CIVIL

STATE OF CALIFORNIA

12/21/2022



**6 CONCRETE STAIRS**

SCALE: NTS

NOTES:

1. CONCRETE SHALL BE A LIGHT BROOM FINISH.
2. RISERS SHALL BE NO LESS THAN 4" TALL AND NO GREATER THAN 7" TALL.
3. ALL EXTERIOR STAIR TREADS SHALL HAVE 2" WIDE MIN. WARNING STRIPES PER CBC 11338.4.4
4. CONCRETE TO BE 2,500 PSI MIN.
5. POUR CONCRETE OVER COMPACTED SUBGRADE.
6. STAIR RISE & TREAD TO BE DETERMINED FOR SITE CONDITIONS BASED ON REQUIREMENTS.
7. BASE OF CONCRETE TO BE 6" MIN BELOW FINISHED GRADE
8. SUBGRADE FOR STAIRS SHALL CONSIST OF 6" MINIMUM CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION.

CITY OF UKIAH

**SCORE MARK DETAILS FOR SIDEWALK, CURB & GUTTER**

SCALE: NONE

DRAWN BY: ML

DATE: 8-13-20

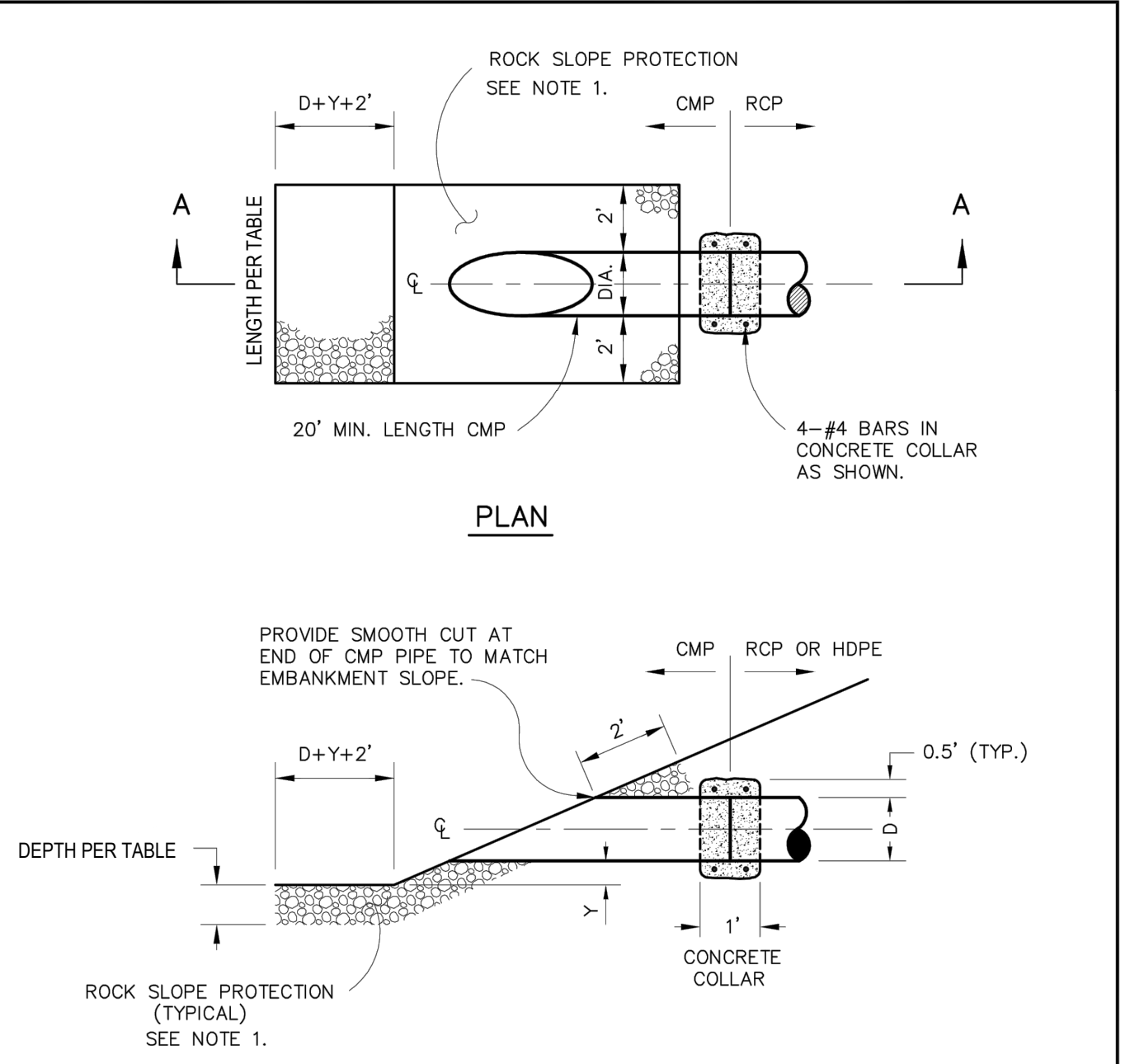
PERIOD: B-9C

APPROVED BY: [Signature]

DRAWING NO. 101



PLOT DATE: 16-AUG-2022  
FILE: C:\FS1\ALDO\_PROJECTS\232301\UKIAH-D60.DWG



- NOTES:**
- PLACE ROCK SLOPE PROTECTION PER TABLE.
  - THE USE OF BIOLOGICAL METHODS (E.G. CUTTINGS, BRUSH MATTRESSES) TO PROTECT SLOPES IS ENCOURAGED.
  - DIAMETER OF PIPE SHALL BE DESIGNATED 'D'. HEIGHT ABOVE CREED BED SHALL BE DESIGNATED 'Y'. WHERE D IS LESS THAN 24", MINIMUM Y SHALL BE 2 FEET. WHERE D IS GREATER THAN OR EQUAL TO 24", MINIMUM Y SHALL BE 1 FOOT.
  - ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME AND THE REGIONAL WATER QUALITY CONTROL BOARD REGARDING STREAMBED ALTERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ANY AND ALL PERMIT CONDITIONS.

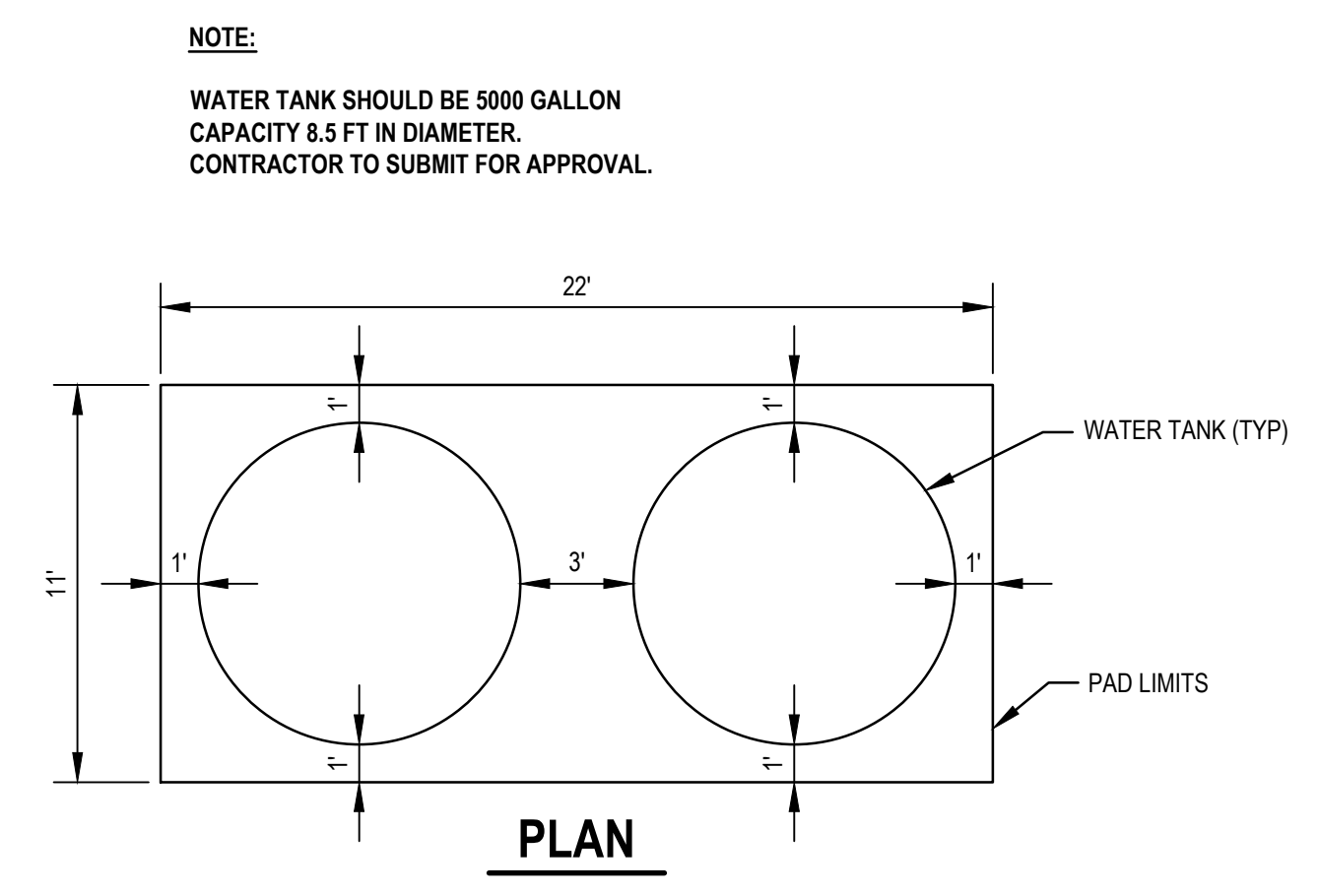
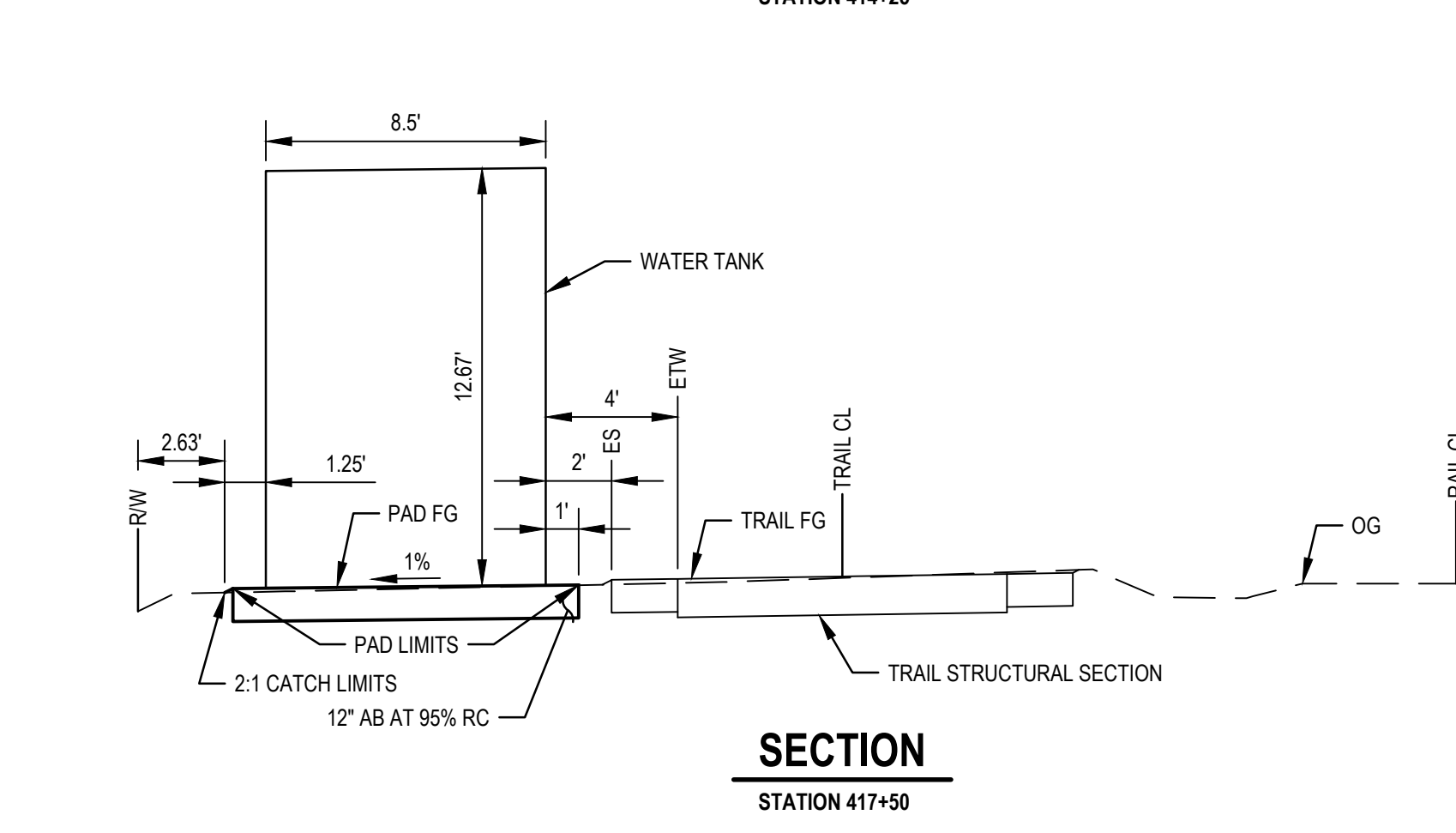
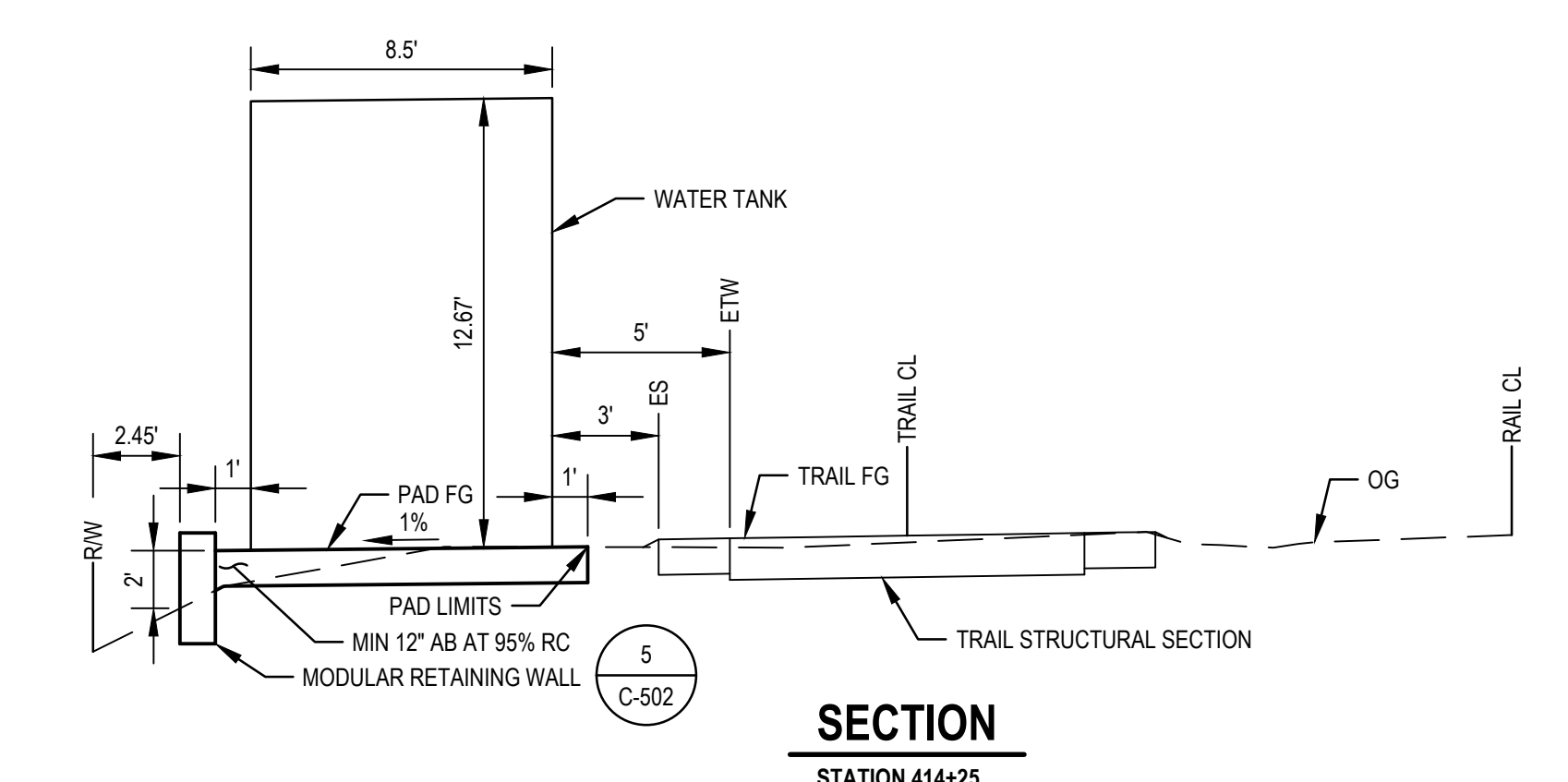
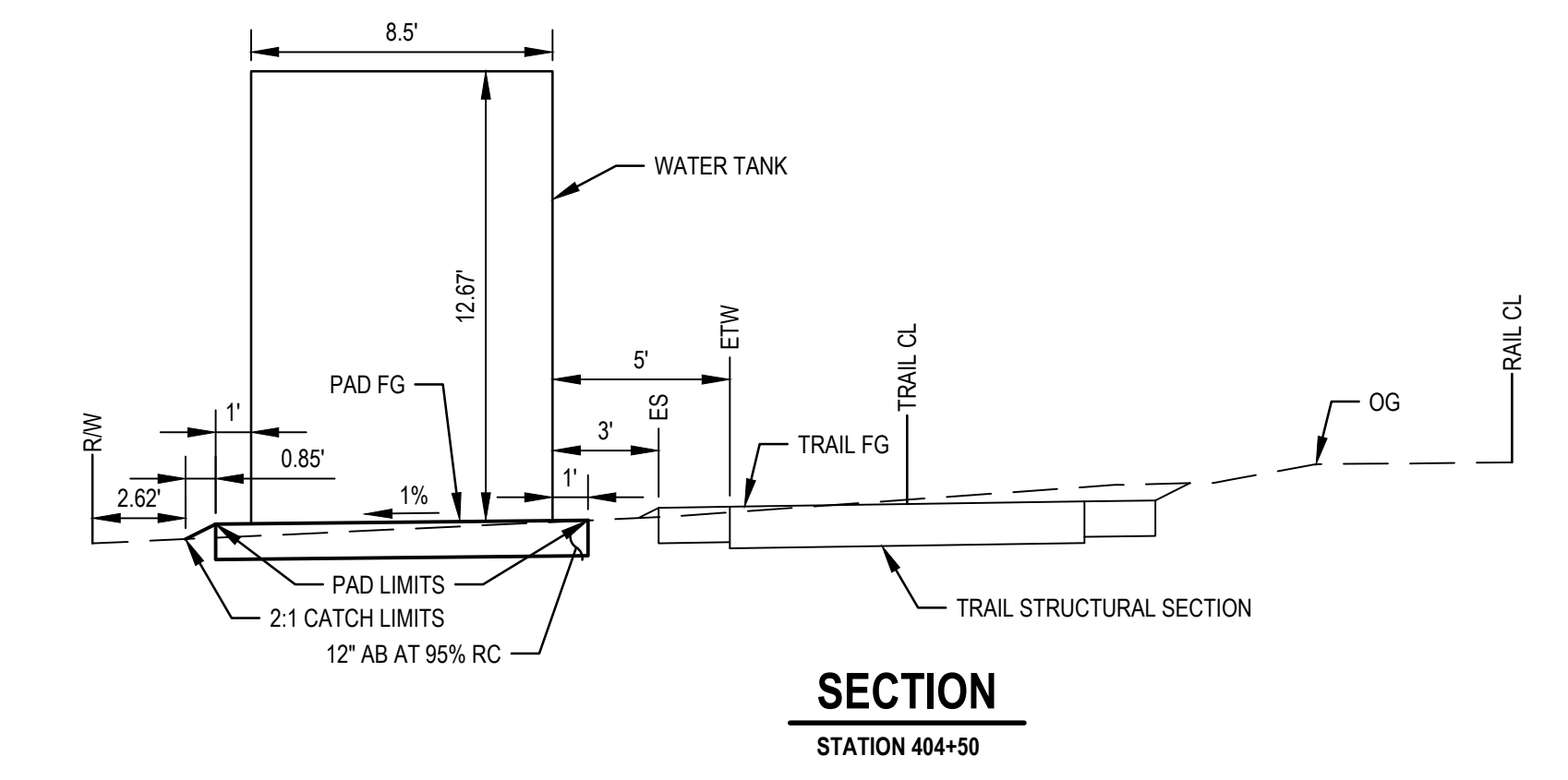
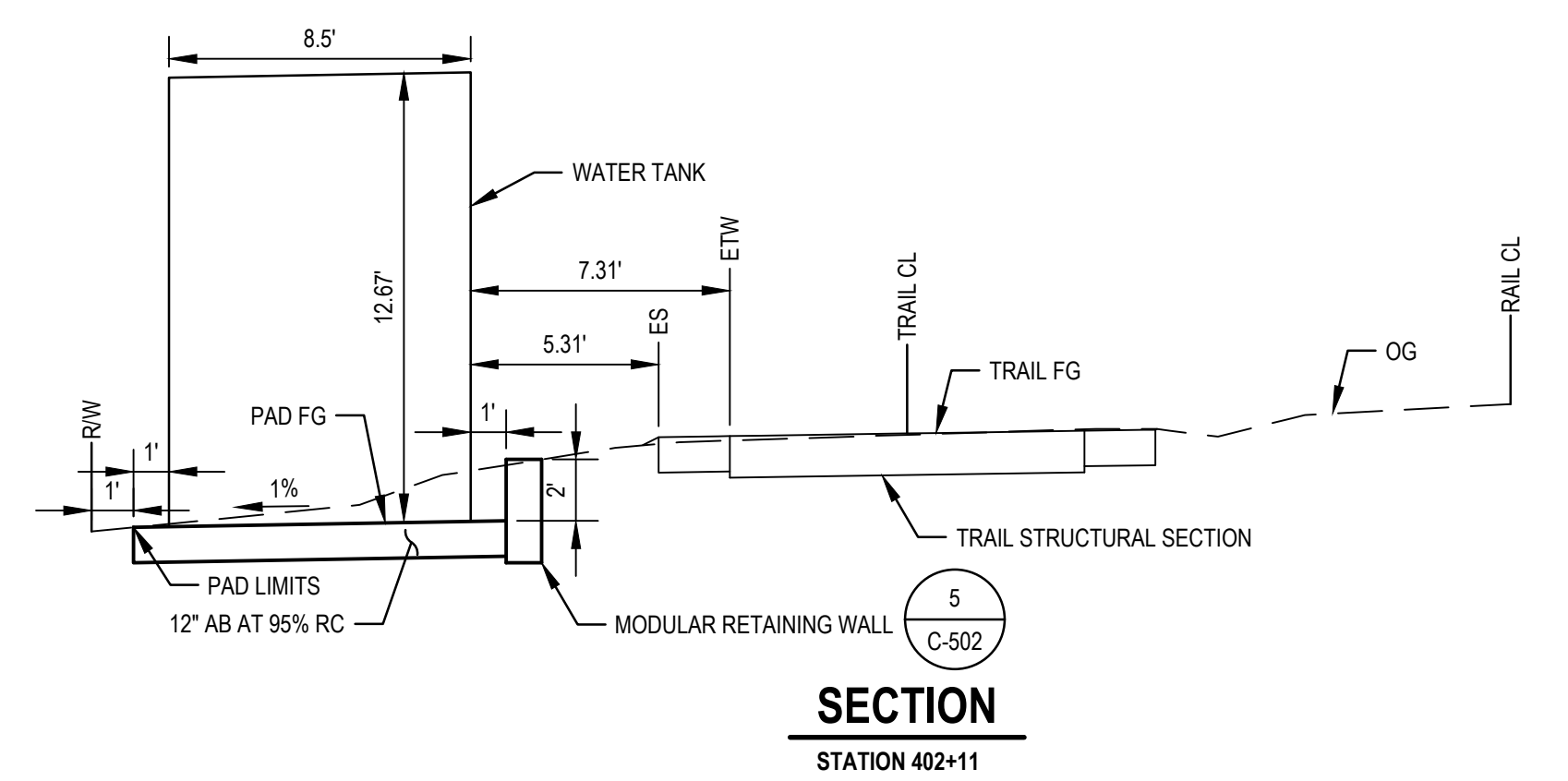
**CORRUGATED METAL  
PIPE OUTLET**

MENDOT  
STD. NO.  
**D60**

SCALE: NONE | DESIGN: RCW | DRAWN: LMM | OCT. 2000 | PAGE: A-72

**1 ROCK SLOPE PROTECTION**  
SCALE: NTS

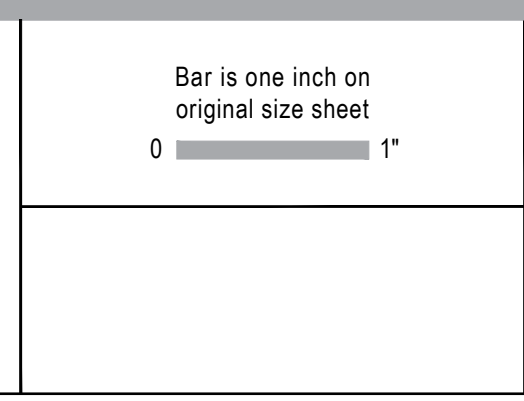
ROCK SLOPE DIMENSIONS			
CULVERT SIZE D (INCHES)	RIPRAP CLASS	LENGTH OF APRON L (FEET)	DEPTH OF APRON H (FEET)
12	2	6	1.5
18	2	8	1.5
24	2	10	1.5
30	3	14.5	2
36	3	17	2
42	4	23	2.5
48	4	26	2.5



**2 WATER TANK**  
SCALE: NTS

No.	Issue	Author	Checked	Approved	Date
1	WATER TANK	H. DAAS	E. FANSELAU	E. FANSELAU	2022-12-13
		Designer	Design Check	Project Director	
		H. DAAS	E. FANSELAU	M. KENNEDY	

Bar is one inch on original size sheet	0	1"
----------------------------------------	---	----



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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341** Date **SEP 30, 2022** Scale **AS NOTED**

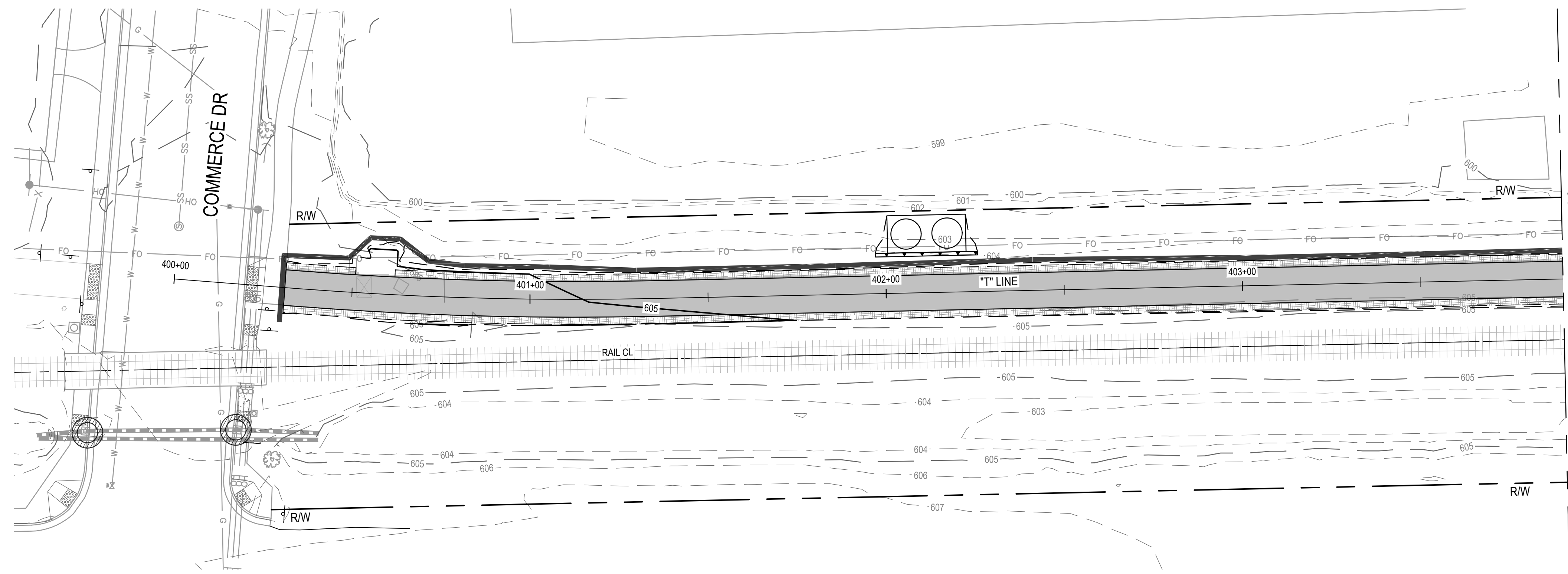
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Size **ANSI D**

Status Code

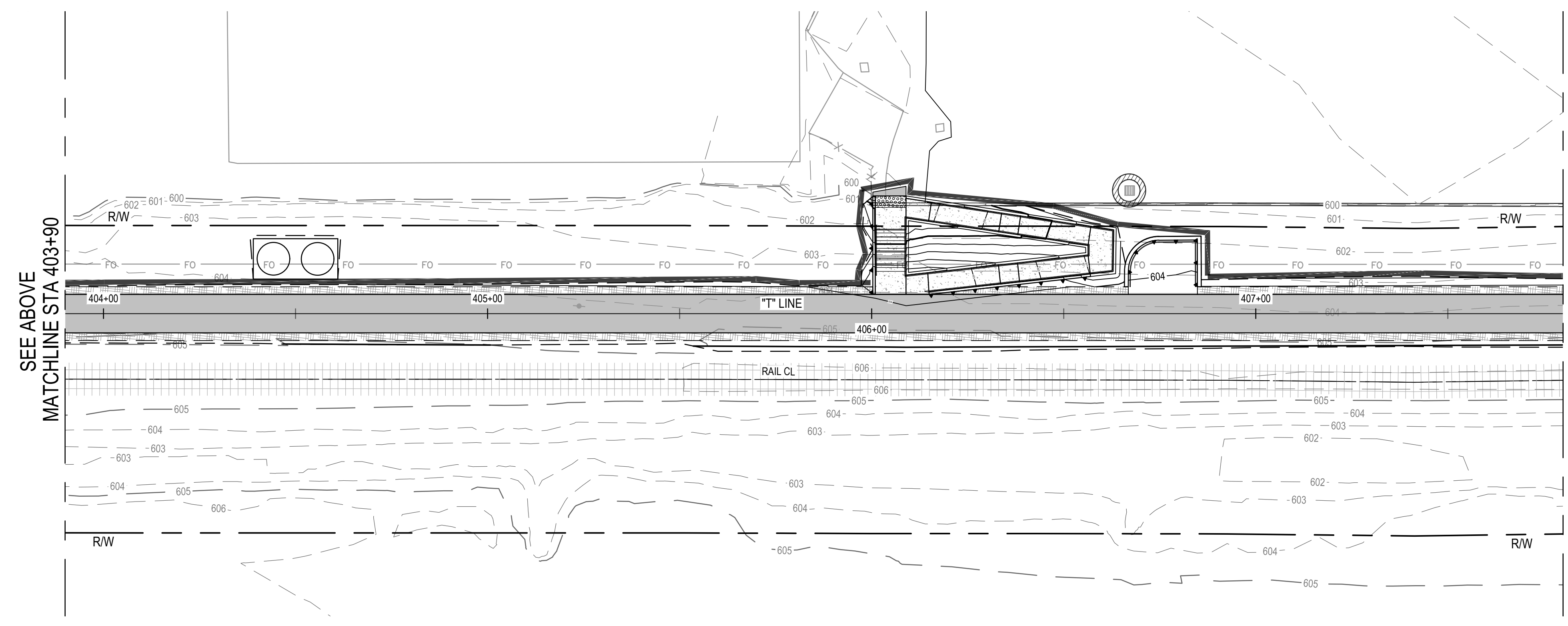
Sheet No. **C-503** Sheet **41 of 96**





MATCHLINE STA 403+90  
SEE BELOW

**EROSION CONTROL PLAN**



SEE ABOVE  
MATCHLINE STA 403+90

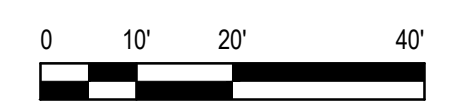
MATCHLINE STA 407+80  
SEE SHEET CE102

**EROSION CONTROL PLAN**

EROSION CONTROL LEGEND	
	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
	TEMPORARY ESA WETLAND PROTECTION FENCING
	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
	RIPARIAN AREA TO BE TEMPORARY IMPACT
	RIPARIAN AREA TO BE PERMANENT IMPACT
	WETLAND TO REMAIN, TO BE PROTECTED
	WETLAND OR WATERS TO BE TEMPORARY IMPACT
	WETLAND OR WATERS TO BE PERMANENT IMPACT
	WATERS TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO BE REMOVED



**Know what's below.  
Call before you dig.**  
Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
0 1"



12/21/2022

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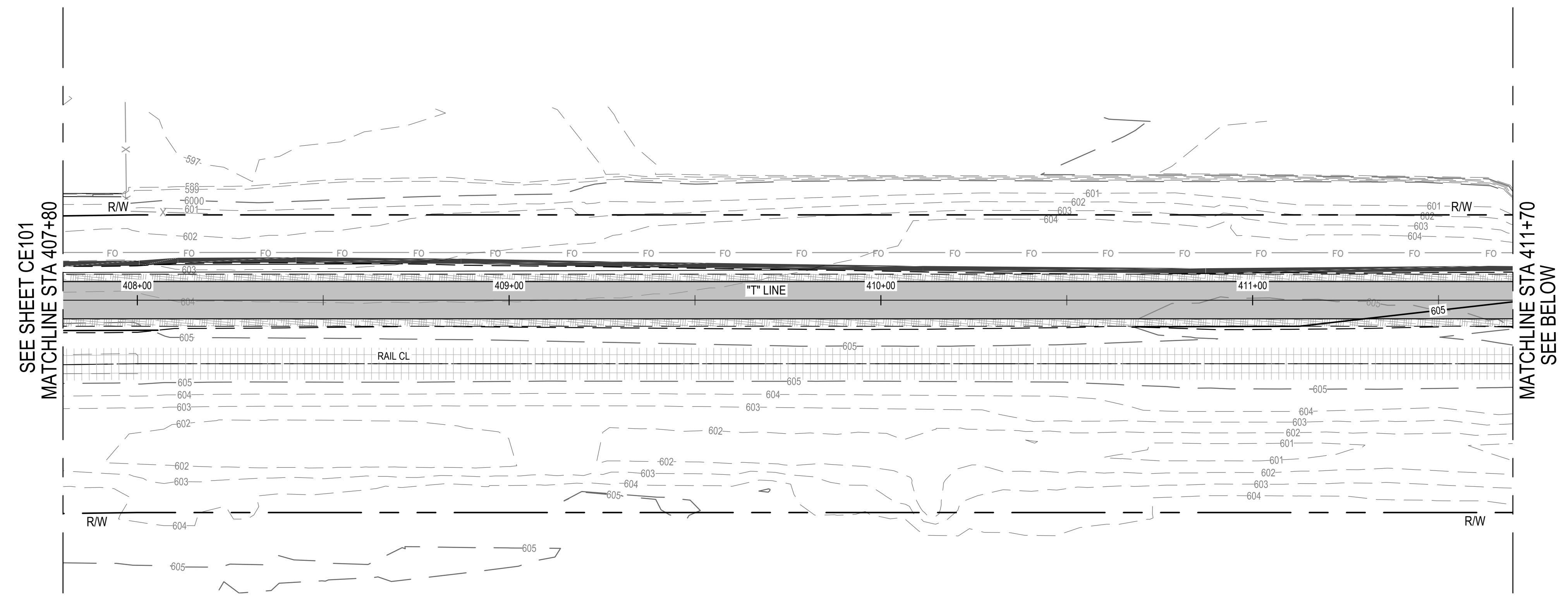
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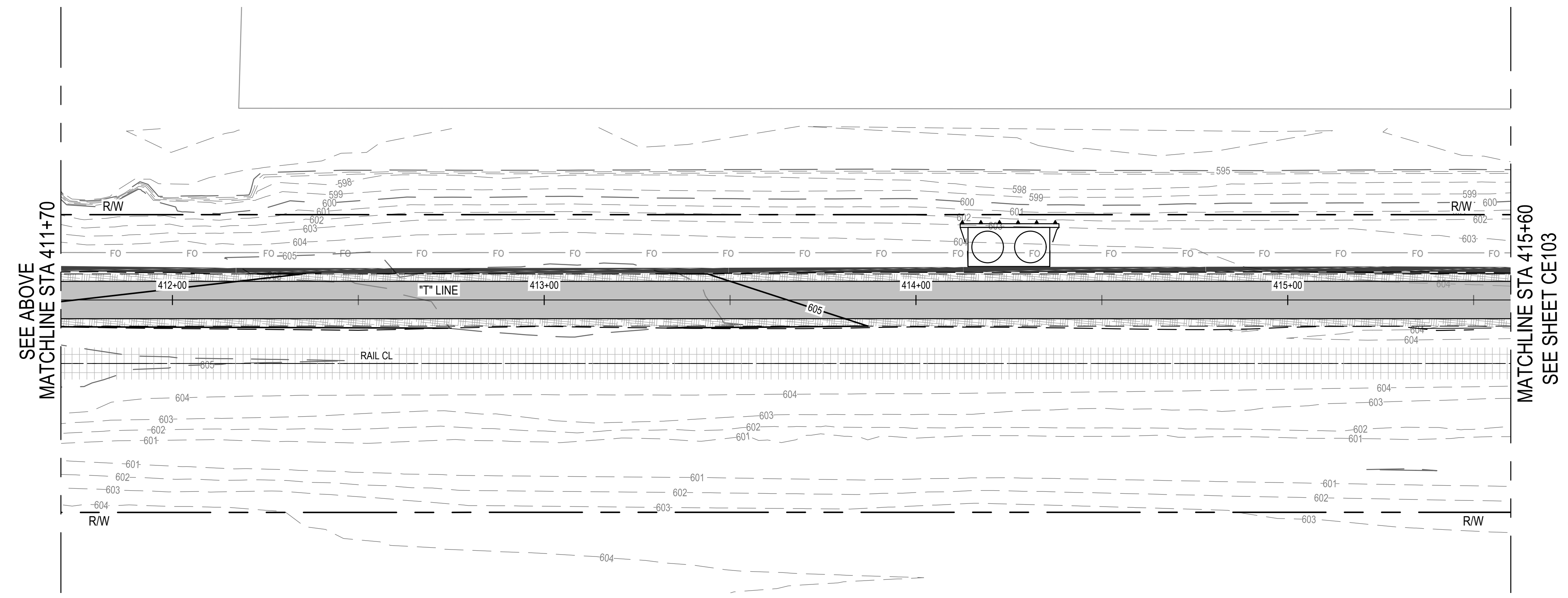
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **EROSION CONTROL PLAN  
STA 400+00 TO STA 407+80**  
Sheet No. **CE101**  
Sheet **42 of 96**

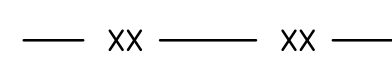
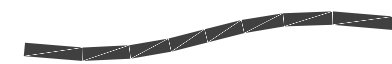






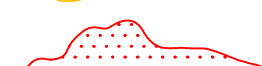
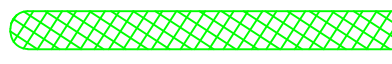




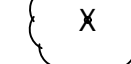


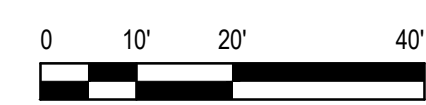


**EROSION CONTROL PLAN** 



**EROSION CONTROL PLAN** 

EROSION CONTROL LEGEND	
	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
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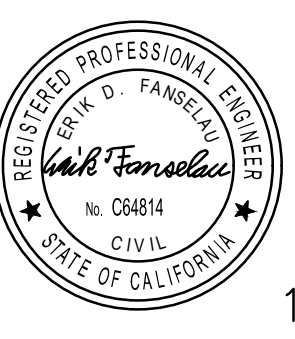


**811**  
Know what's below.  
Call before you dig.  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
0  1"

12/21/2022



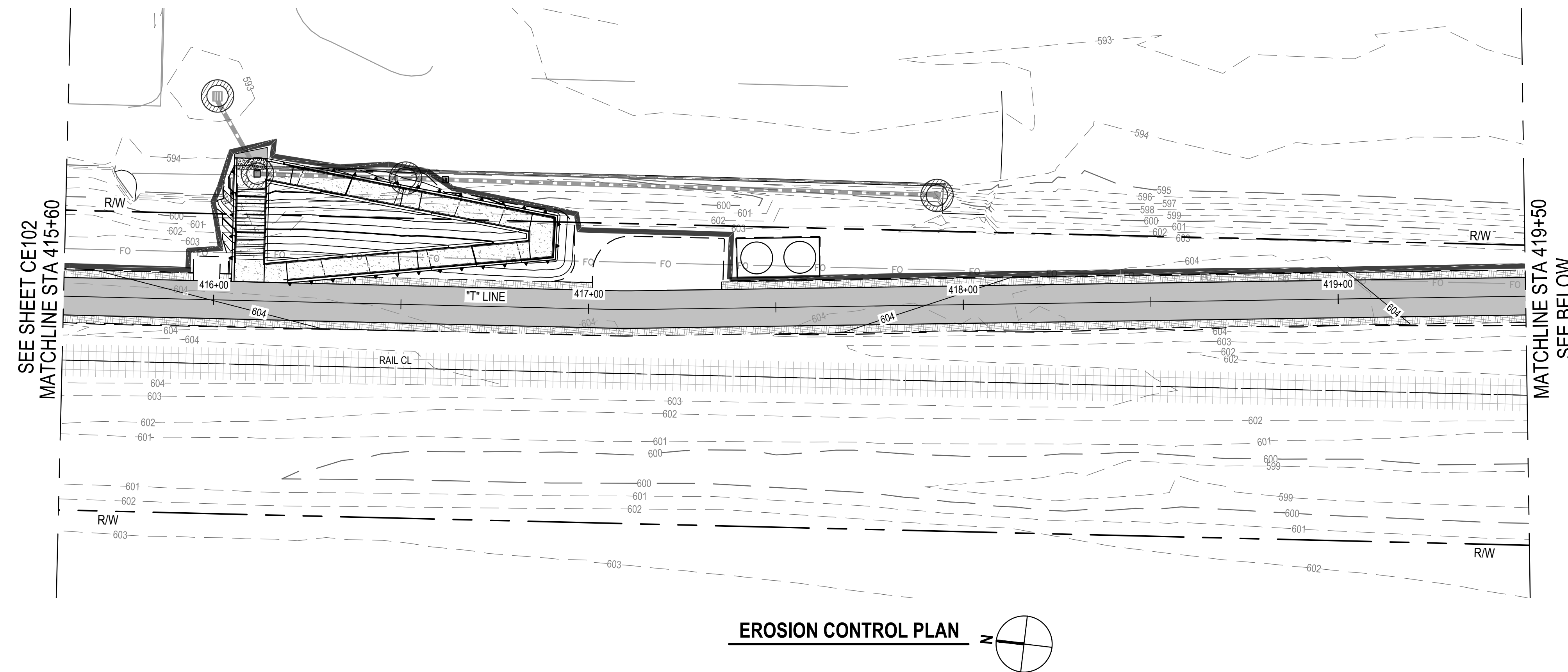
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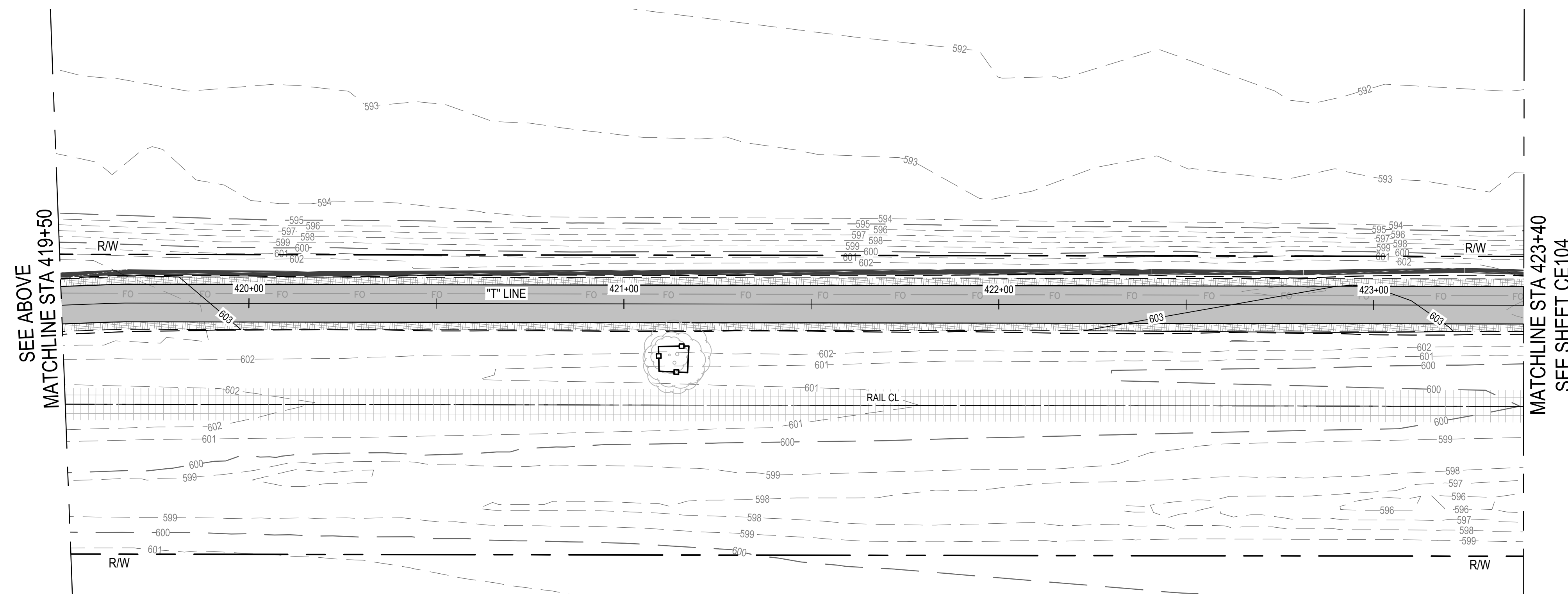
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **EROSION CONTROL PLAN**  
**STA 407+80 TO STA 415+60**  
Size **ANSI D**  
Sheet No. **CE102**  
Sheet **43 of 96**

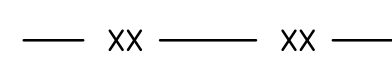
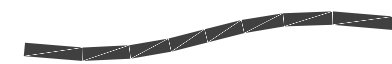






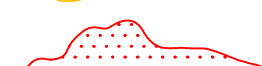
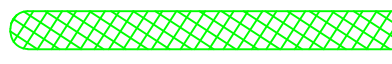







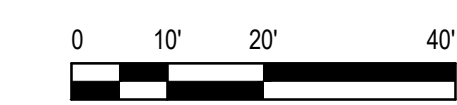


**EROSION CONTROL PLAN** 



**EROSION CONTROL PLAN** 

EROSION CONTROL LEGEND	
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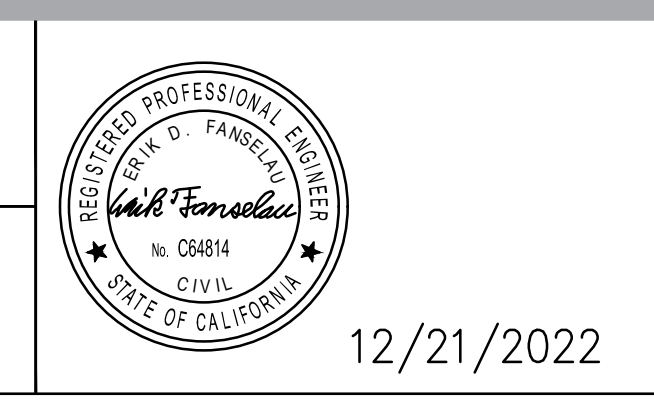


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No.	Issue	Checked	Approved	Date
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Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
 0 1"

12/21/2022



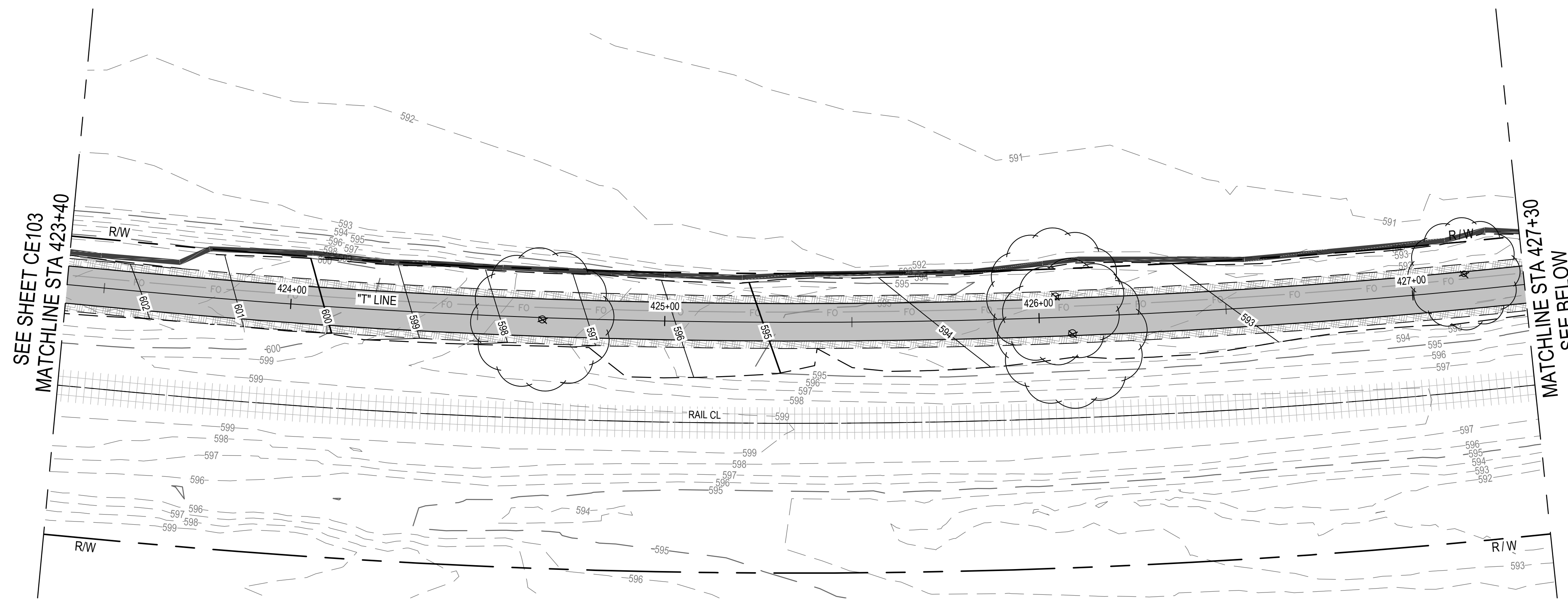
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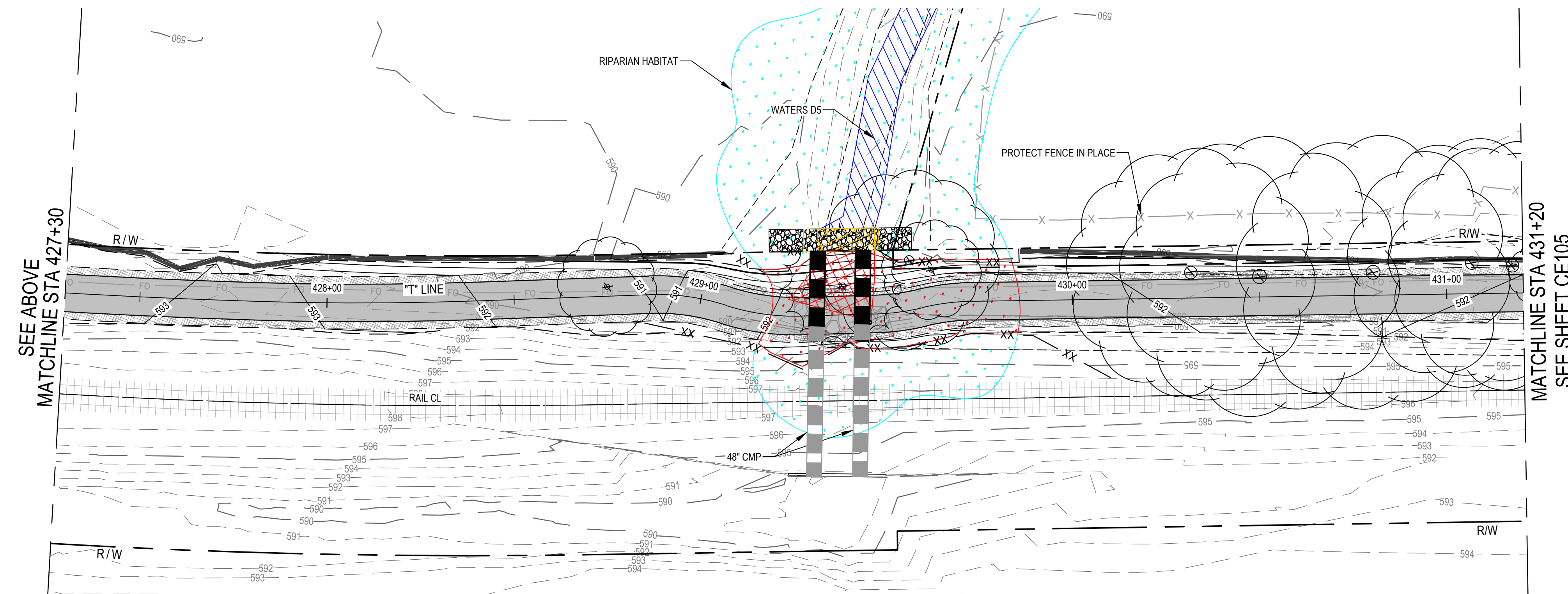
Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	EROSION CONTROL PLAN STA 415+60 TO STA 423+40
Sheet No.	CE103
Sheet	44 of 96

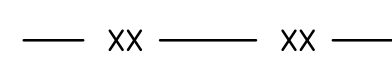
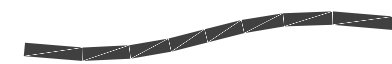






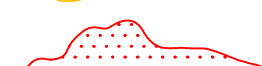
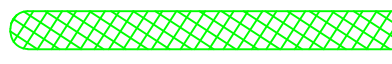







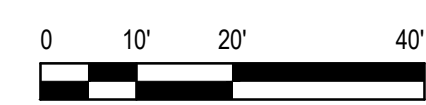


**EROSION CONTROL PLAN** 



**EROSION CONTROL PLAN** 

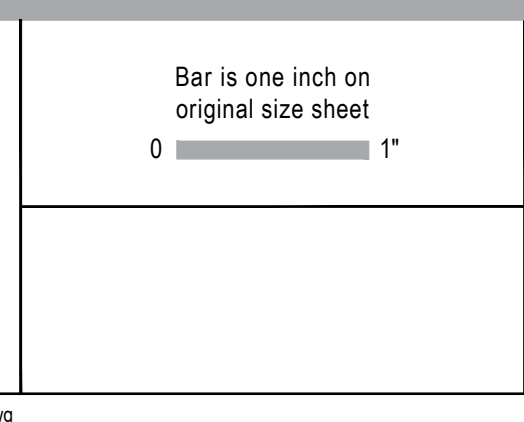
EROSION CONTROL LEGEND	
	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
	TEMPORARY ESA WETLAND PROTECTION FENCING
	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
	RIPARIAN AREA TO BE TEMPORARY IMPACT
	RIPARIAN AREA TO BE PERMANENT IMPACT
	WETLAND TO REMAIN, TO BE PROTECTED
	WETLAND OR WATERS TO BE TEMPORARY IMPACT
	WETLAND OR WATERS TO BE PERMANENT IMPACT
	WATERS TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO BE REMOVED



**811**  
 Know what's below.  
 Call before you dig.  
 Contractor shall call  
 Underground Service Alert at  
 811 two working days prior  
 to excavation

No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
 0 1"



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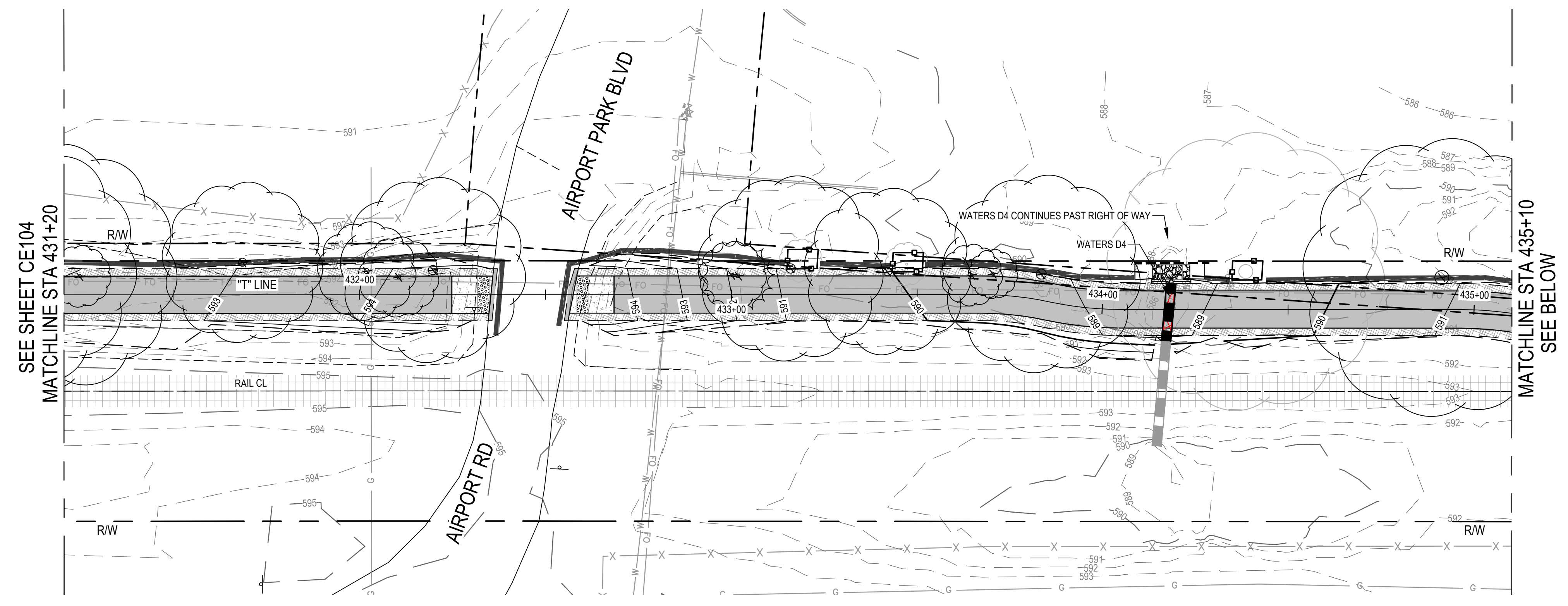
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Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

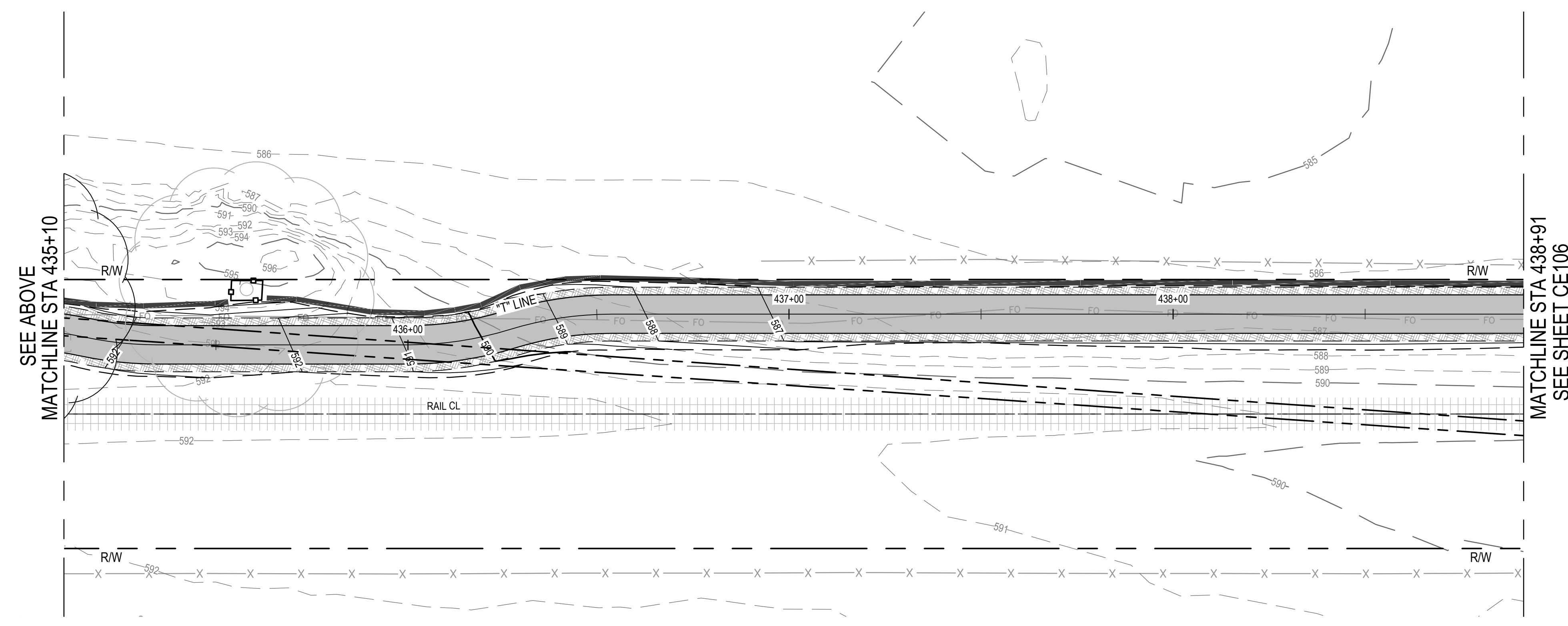
Title	EROSION CONTROL PLAN STA 423+40 TO STA 431+20
Sheet No.	CE104
Sheet	45 of 96



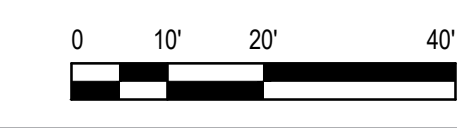


**EROSION CONTROL PLAN**

EROSION CONTROL LEGEND	
XX XX	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
—	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
○	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
▨	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
□	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
---	TEMPORARY ESA WETLAND PROTECTION FENCING
Blue hatched area	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
Yellow hatched area	RIPARIAN AREA TO BE TEMPORARY IMPACT
Red hatched area	RIPARIAN AREA TO BE PERMANENT IMPACT
Green hatched area	WETLAND TO REMAIN, TO BE PROTECTED
Orange hatched area	WETLAND OR WATERS TO BE TEMPORARY IMPACT
Red hatched area	WETLAND OR WATERS TO BE PERMANENT IMPACT
Blue hatched area	WATERS TO REMAIN, TO BE PROTECTED
○	EXISTING TREE TO REMAIN, TO BE PROTECTED
⊗	EXISTING TREE TO BE REMOVED



**EROSION CONTROL PLAN**



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No.	Issue	Author	Checked	Approved	Date
1	WATERS D4 MODIFICATIONS	C. PHELPS	E. FANSELAU	E. FANSELAU	2022-12-19

Author	Drafting Check	Checked	Approved
C. PHELPS	E. FANSELAU	E. FANSELAU	E. FANSELAU
Designer	Design Check	Project Manager	Project Director
C. PHELPS	E. FANSELAU	M. KENNEDY	M. KENNEDY

Bar is one inch on original size sheet  
0 1"

REGISTERED PROFESSIONAL ENGINEER  
E. FANSELAU  
No. 064814  
CIVIL  
STATE OF CALIFORNIA  
12/21/2022

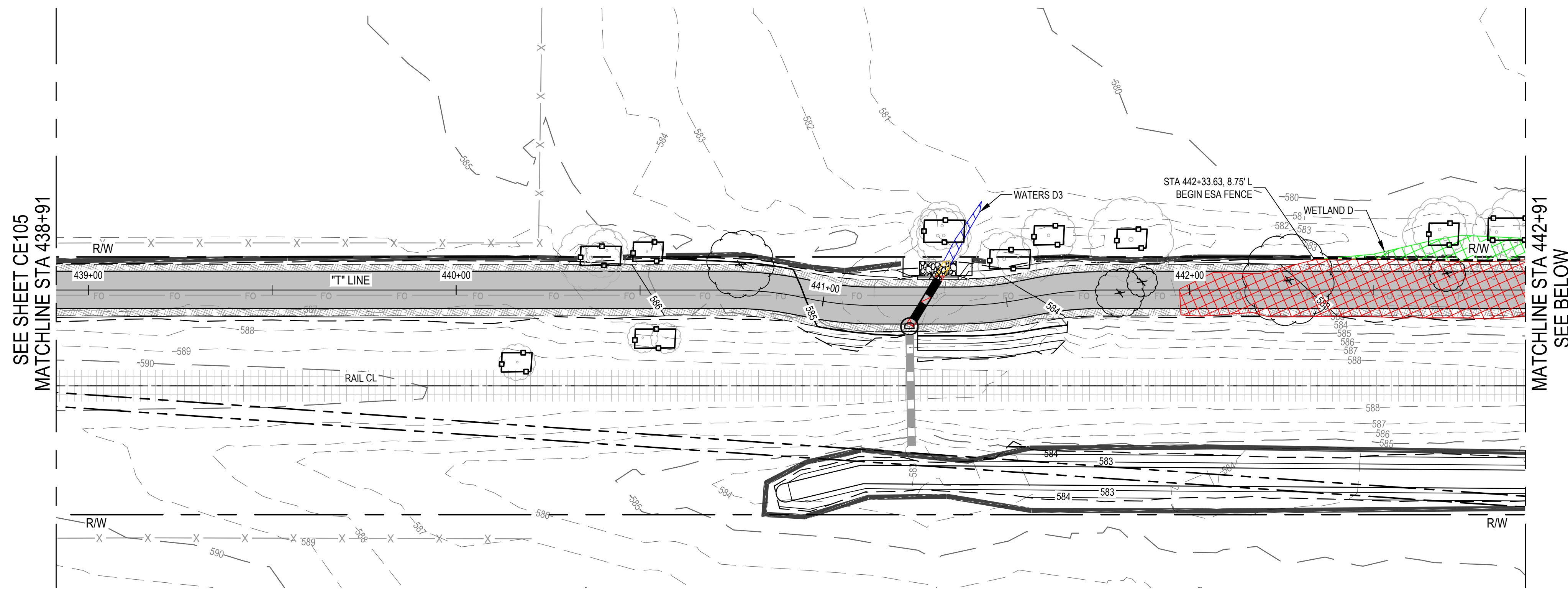
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Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

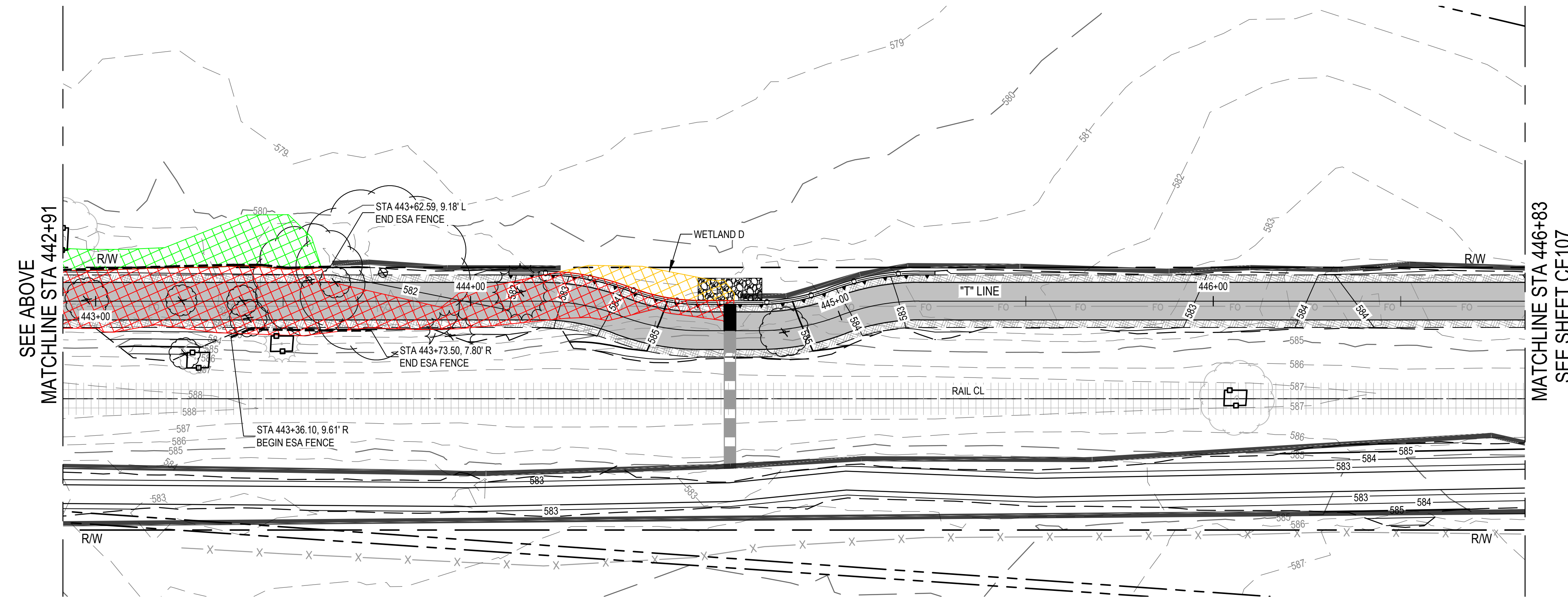
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Sheet No.	CE105
Sheet	46 of 96



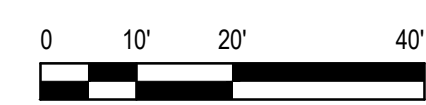


**EROSION CONTROL PLAN**

EROSION CONTROL LEGEND	
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	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
	TEMPORARY ESA WETLAND PROTECTION FENCING
	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
	RIPARIAN AREA TO BE TEMPORARY IMPACT
	RIPARIAN AREA TO BE PERMANENT IMPACT
	WETLAND TO REMAIN, TO BE PROTECTED
	WETLAND OR WATERS TO BE TEMPORARY IMPACT
	WETLAND OR WATERS TO BE PERMANENT IMPACT
	WATERS TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO BE REMOVED



**EROSION CONTROL PLAN**



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No.	Issue	Author	Checked	Approved	Date
1	WETLAND MITIGATION REVISIONS	C. PHELPS	E. FANSELAU	E. FANSELAU	2023-02-03
		Designer C. PHELPS	Design Check E. FANSELAU	Project Director M. KENNEDY	

KG	KG	2023-02-03
----	----	------------

Bar is one inch on original size sheet  
 0 1"

REGISTERED PROFESSIONAL ENGINEER  
 E. FANSELAU  
 No. 064814  
 CIVIL  
 STATE OF CALIFORNIA  
 2/3/2023

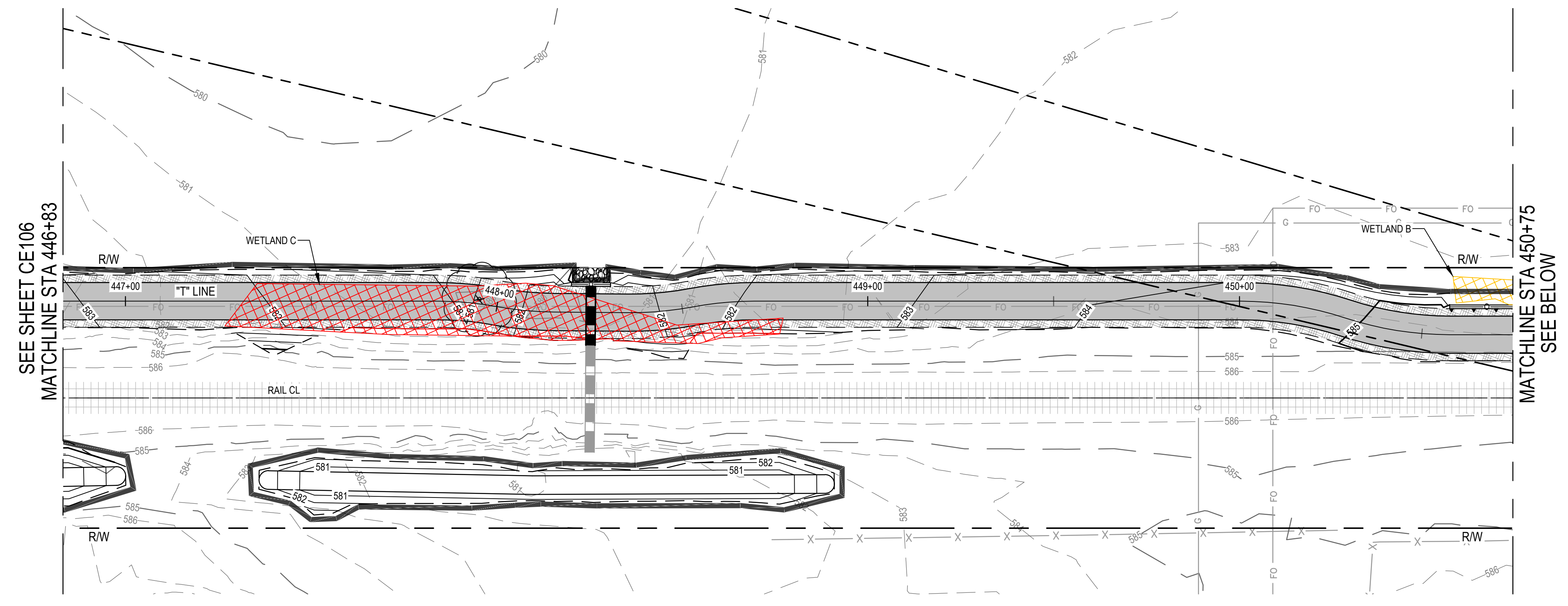
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Project No.	12557341
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Scale	1" = 20'

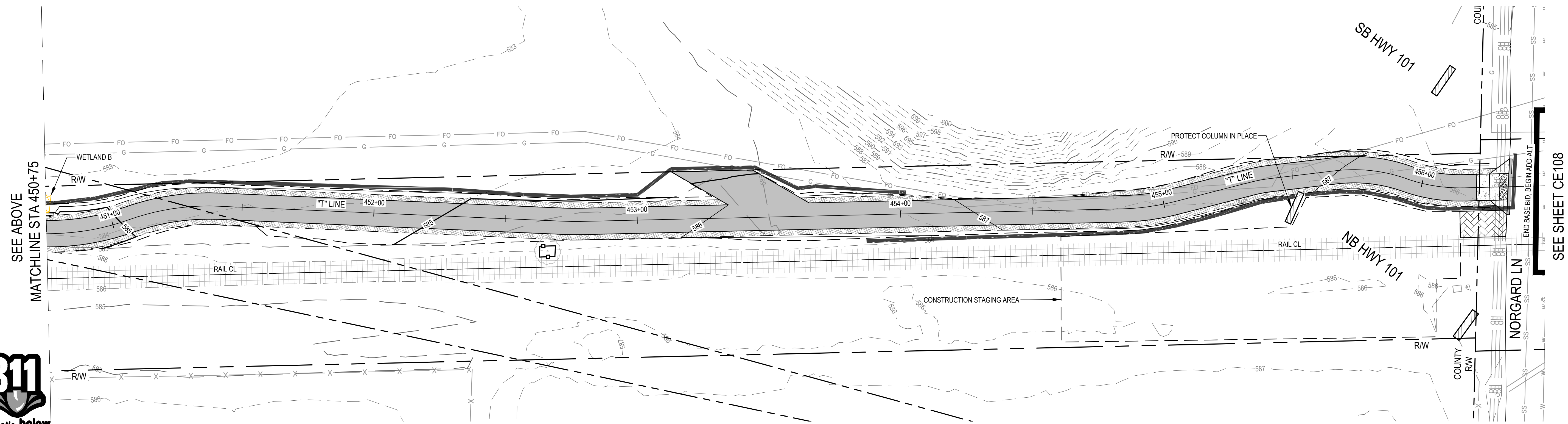
Title	EROSION CONTROL PLAN STA 438+91 TO STA 446+83
Sheet No.	CE106
Sheet	47 of 96



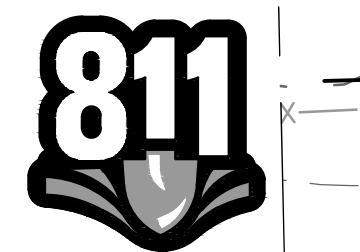


**EROSION CONTROL PLAN**

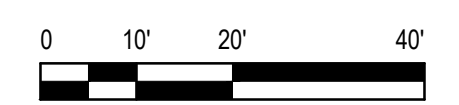
EROSION CONTROL LEGEND	
XX XX	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
—	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
○	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
▨	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
□	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
---	TEMPORARY ESA WETLAND PROTECTION FENCING
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Yellow hatched area	RIPARIAN AREA TO BE TEMPORARY IMPACT
Red hatched area	RIPARIAN AREA TO BE PERMANENT IMPACT
Green hatched area	WETLAND TO REMAIN, TO BE PROTECTED
Orange hatched area	WETLAND OR WATERS TO BE TEMPORARY IMPACT
Red hatched area	WETLAND OR WATERS TO BE PERMANENT IMPACT
Blue hatched area	WATERS TO REMAIN, TO BE PROTECTED
○	EXISTING TREE TO REMAIN, TO BE PROTECTED
⊗	EXISTING TREE TO BE REMOVED



**EROSION CONTROL PLAN**



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No.	Issue	Checked	Approved	Date
2	WETLAND MITIGATION REVISIONS	KG	KG	2023-02-03
1	WETLAND C REVISIONS	KG	KG	2022-12-19

Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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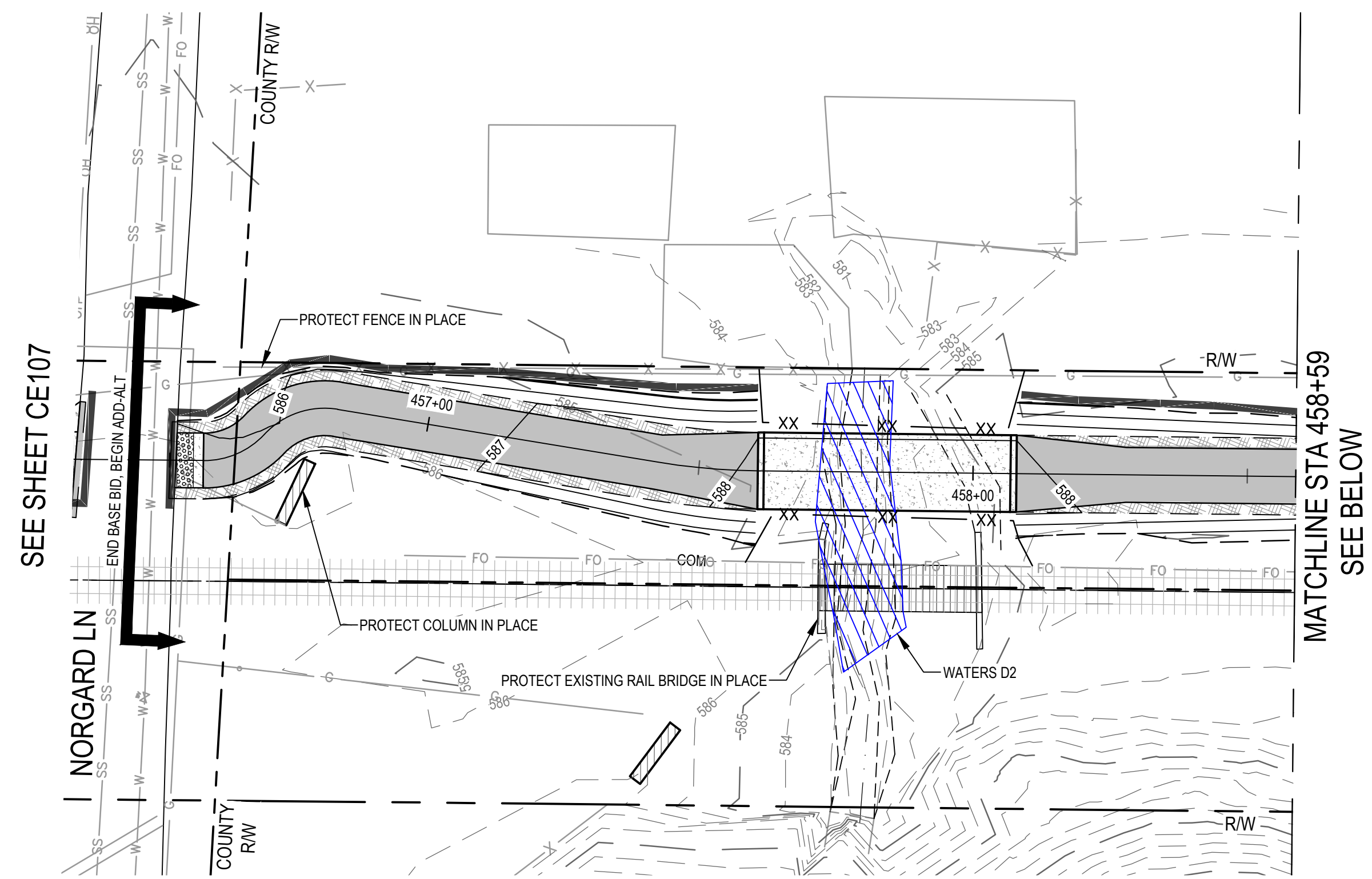


Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title **EROSION CONTROL PLAN**  
**STA 446+83 TO STA 456+33**

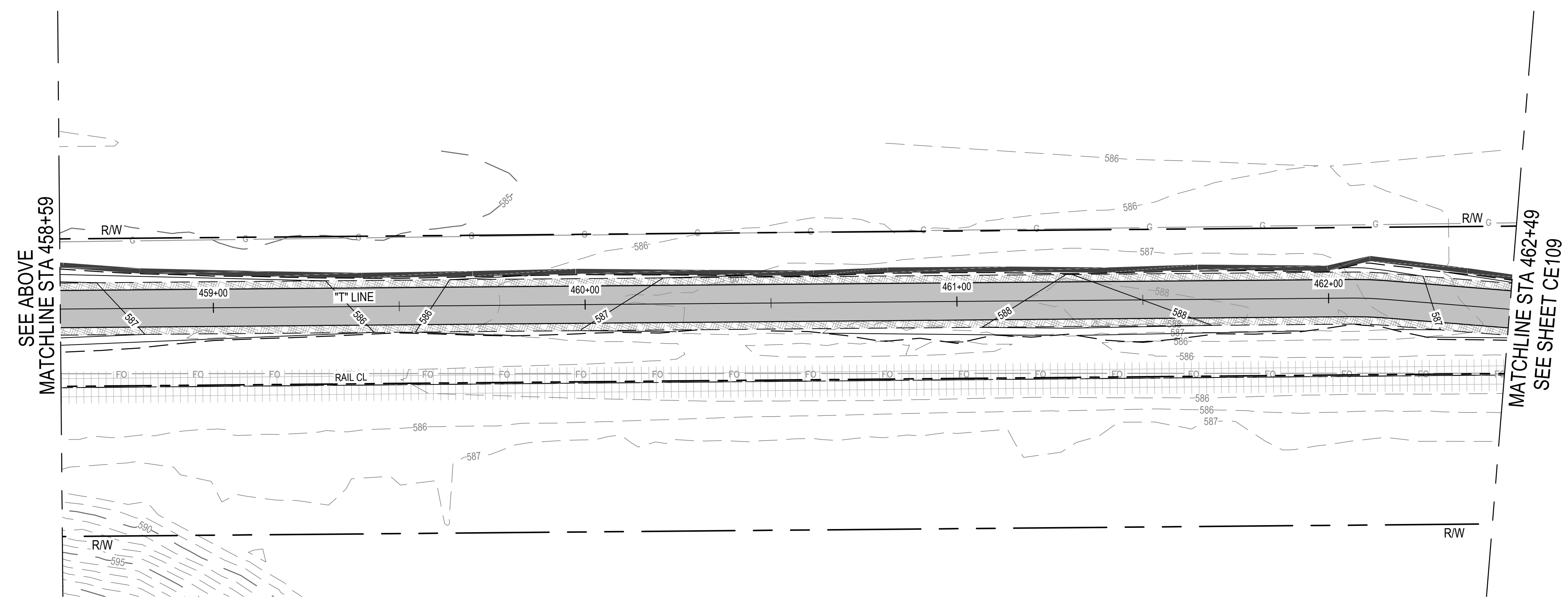
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 Sheet No. **CE107**  
 Sheet 48 of 96



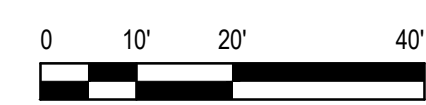


**EROSION CONTROL PLAN**

EROSION CONTROL LEGEND	
XX XX	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
	PLACE TEMPORARY FIBER ROLLS FOR SLOPE PROTECTION DURING CONSTRUCTION PER CALTRANS BMP FACT SHEET SC-5
	STORM DRAIN INLET PROTECTION PER CALTRANS FACT SHEET SC-6
	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
	TEMPORARY TREE PROTECTION FENCING, SEE LANDSCAPE PLAN FOR NOTES
	TEMPORARY ESA WETLAND PROTECTION FENCING
	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
	RIPARIAN AREA TO BE TEMPORARY IMPACT
	RIPARIAN AREA TO BE PERMANENT IMPACT
	WETLAND TO REMAIN, TO BE PROTECTED
	WETLAND OR WATERS TO BE TEMPORARY IMPACT
	WETLAND OR WATERS TO BE PERMANENT IMPACT
	WATERS TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO BE REMOVED



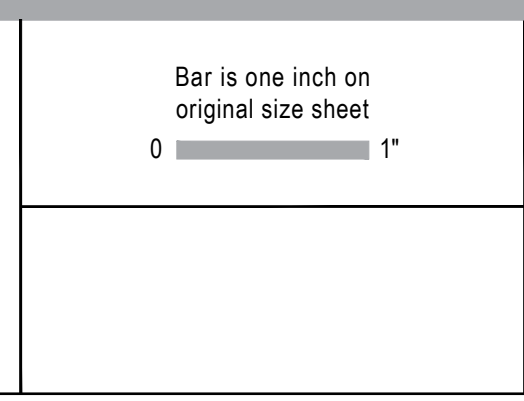
**EROSION CONTROL PLAN**



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Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



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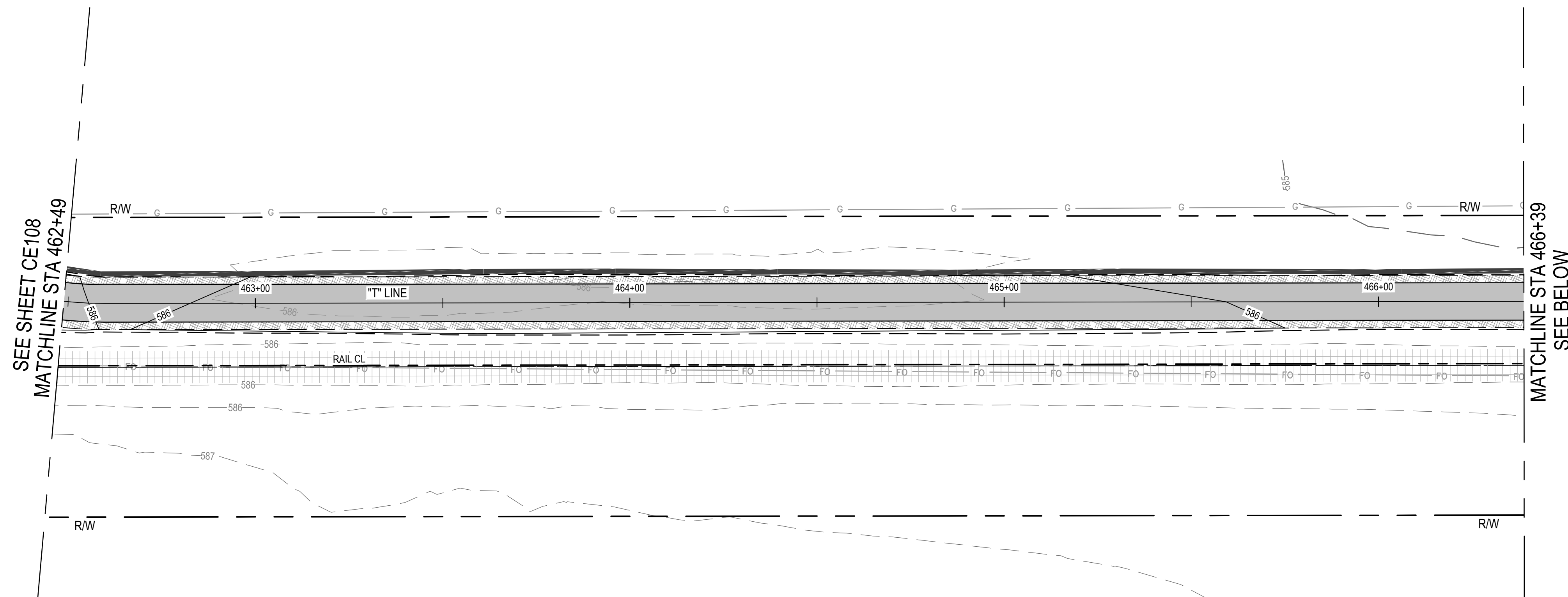
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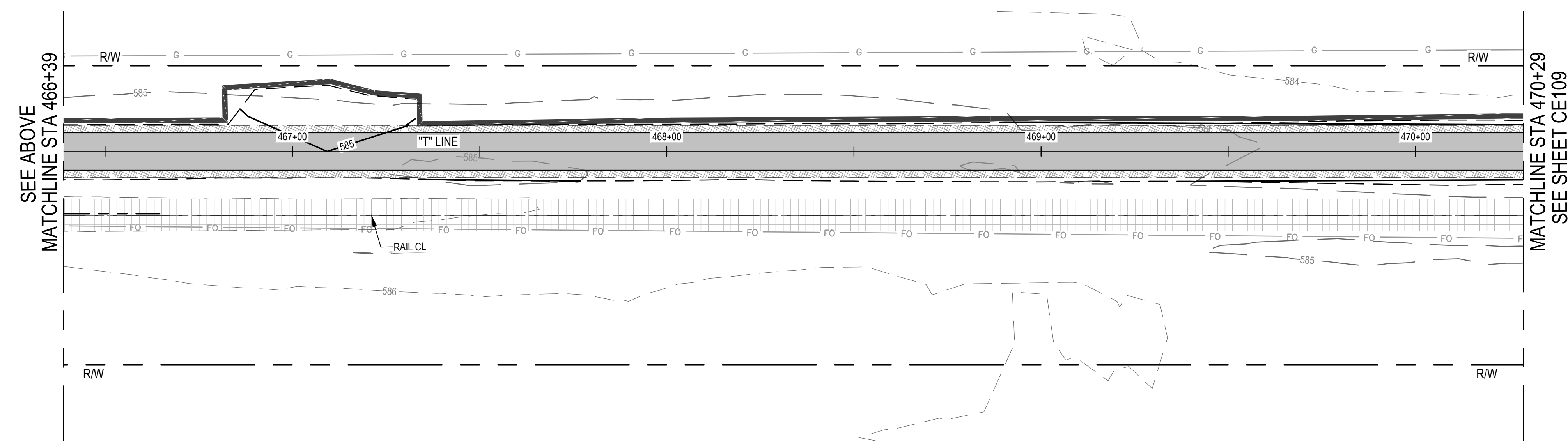
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 20'**

Title **EROSION CONTROL PLAN  
STA 456+50 TO STA 462+49  
ADD ALTERNATIVE**  
Sheet No. **CE108**  
Sheet **49 of 96**

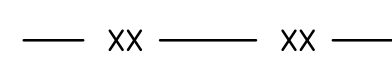
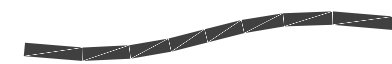






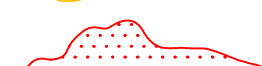
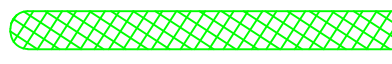







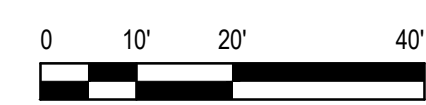


**EROSION CONTROL PLAN** 



**EROSION CONTROL PLAN** 

EROSION CONTROL LEGEND	
	TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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	JUTE BLANKET PER CALTRANS BMP FACT SHEET SS-7
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	TEMPORARY ESA WETLAND PROTECTION FENCING
	RIPARIAN AREA TO REMAIN, TO BE PROTECTED
	RIPARIAN AREA TO BE TEMPORARY IMPACT
	RIPARIAN AREA TO BE PERMANENT IMPACT
	WETLAND TO REMAIN, TO BE PROTECTED
	WETLAND OR WATERS TO BE TEMPORARY IMPACT
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	EXISTING TREE TO REMAIN, TO BE PROTECTED
	EXISTING TREE TO BE REMOVED

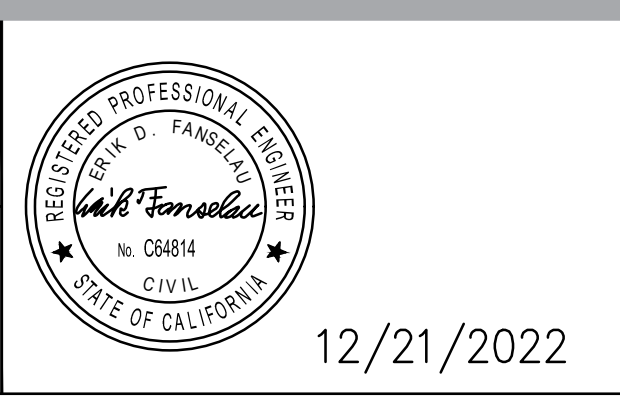


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Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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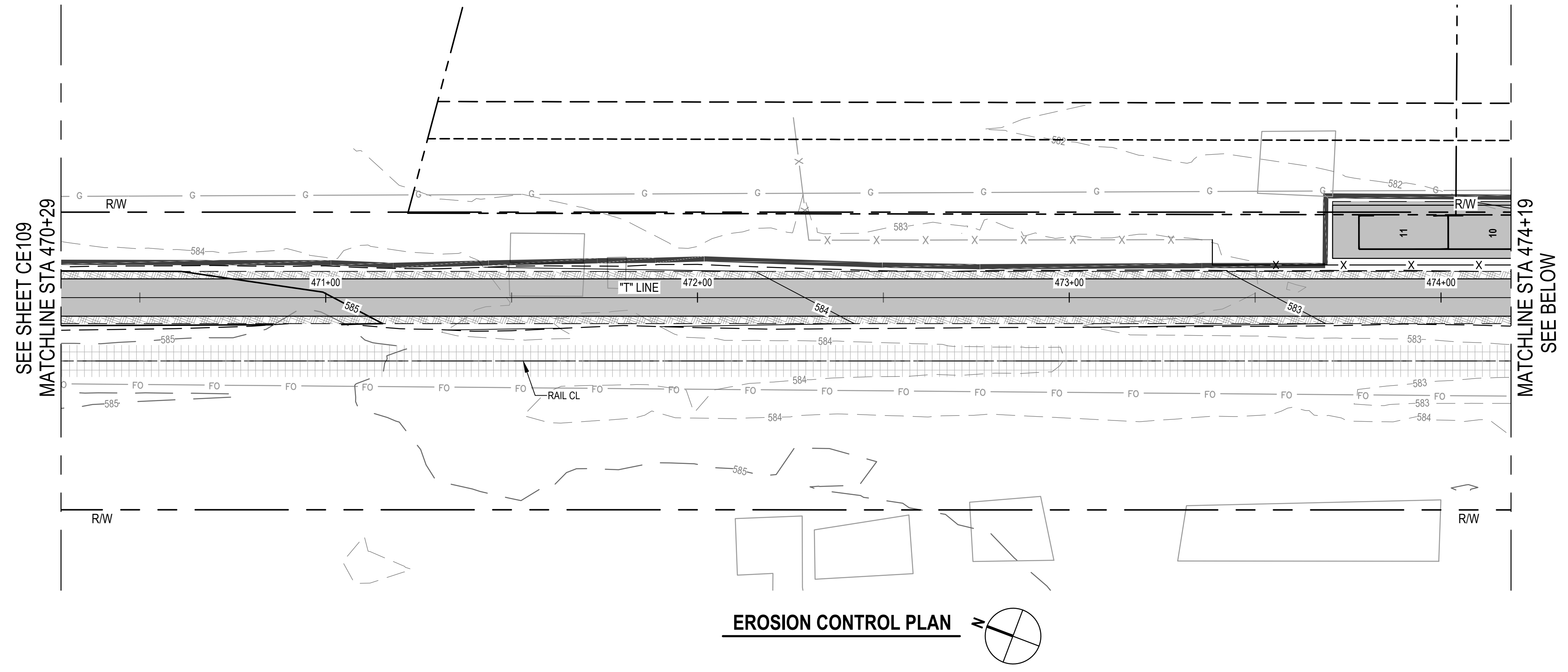
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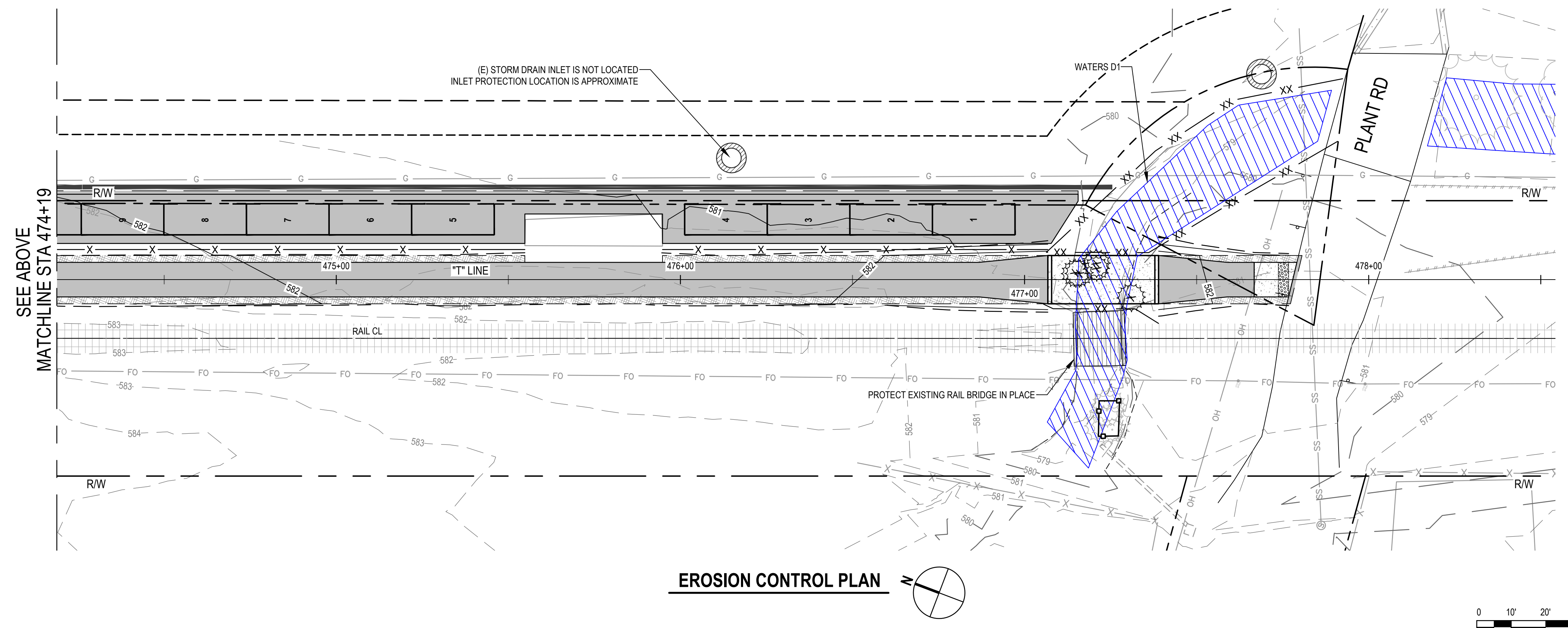
Title	EROSION CONTROL PLAN STA 462+49 TO STA 470+29 ADD ALTERNATIVE
Sheet No.	CE109
Sheet	50 of 96



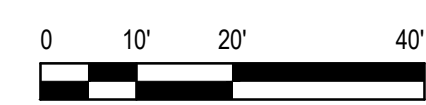


**EROSION CONTROL PLAN**

EROSION CONTROL LEGEND	
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**EROSION CONTROL PLAN**

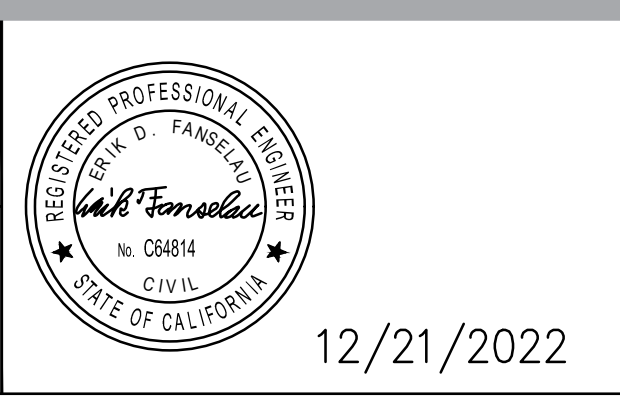


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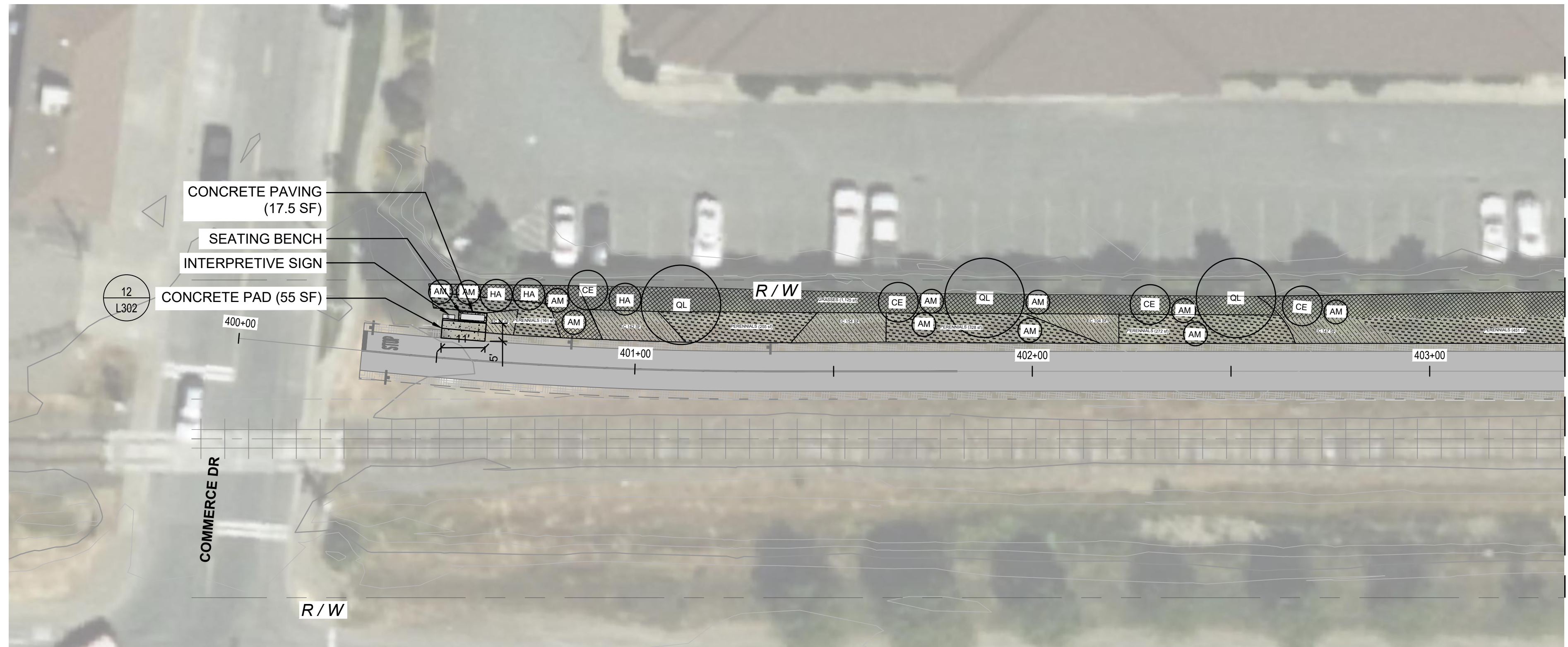
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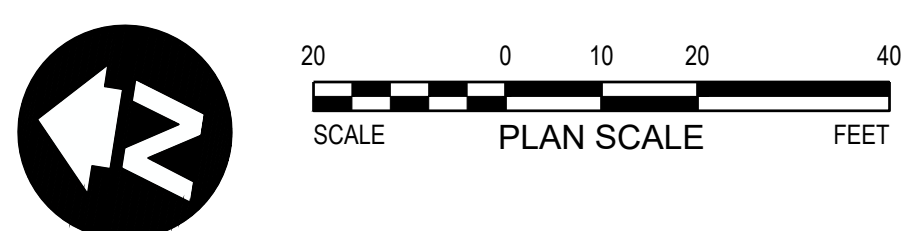
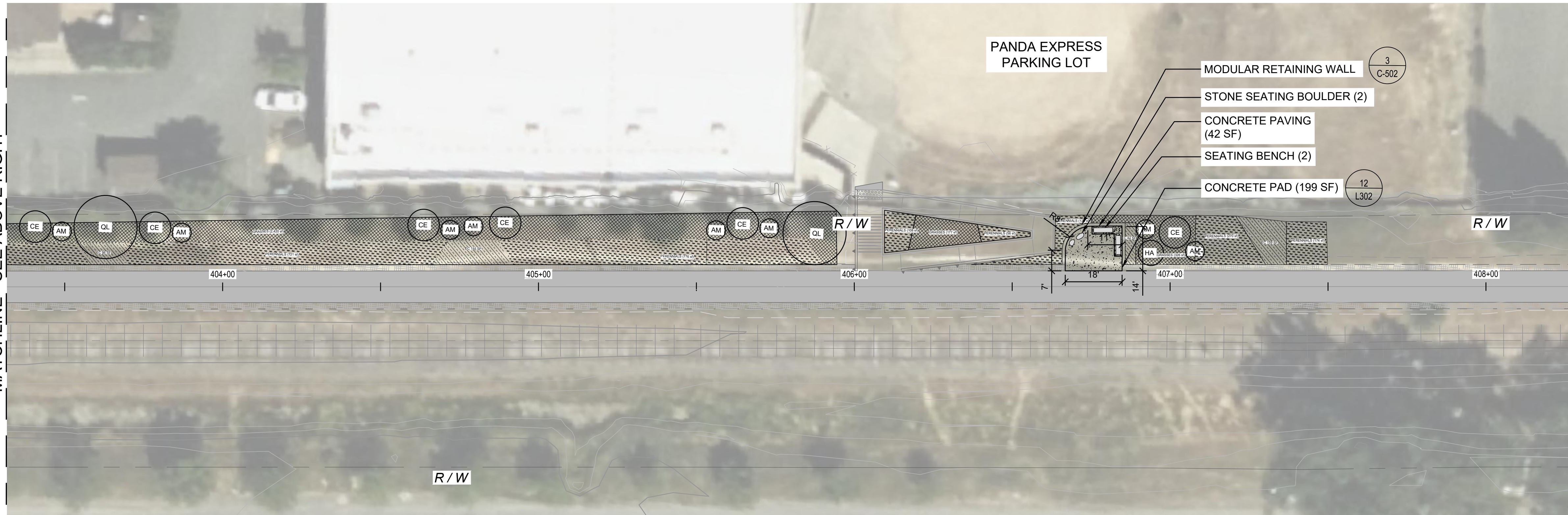
Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 20'

Title	EROSION CONTROL PLAN STA 470+29 TO STA 478+25 ADD ALTERNATIVE
Sheet No.	CE110
Sheet	51 of 96





- MATERIALS LEGEND**
- SEATING BENCH
  - PICNIC TABLE
  - BOULDERS
  - SHADE STRUCTURE
  - BIKE RACK
  - BIKE REPAIR STATION
  - INTERPRETIVE SIGN
  - CONCRETE PAVING 13  
L-301



**811**

Know what's below.  
Call before you dig.

Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

No.	Issue	Checked	Approved	Date	
Author	B. BURCHFIELD	Drafting Check	R. BOOTH	Project Manager	E. FANSELAU
Designer	R. BOOTH, C. SAMBO	Design Check	R. BOOTH	Project Director	M. KENNEDY



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Bar is one inch on original size sheet  
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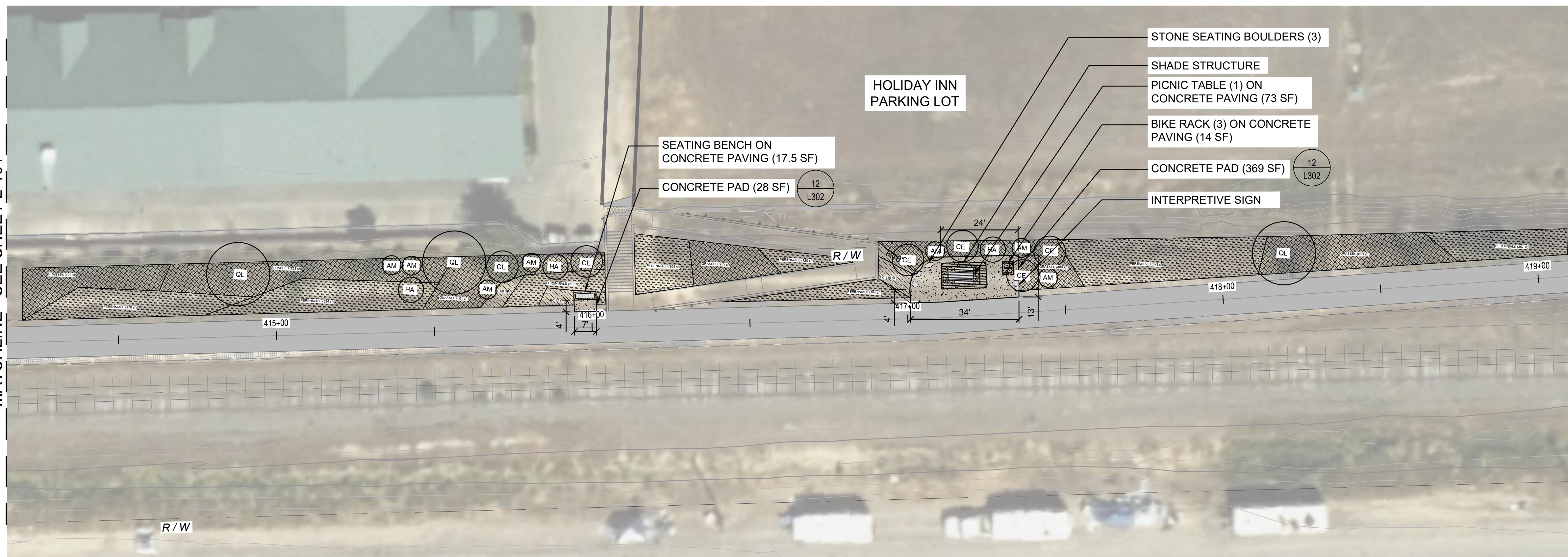
<b>Client</b>	CITY OF UKIAH
<b>Project</b>	THE GREAT REDWOOD TRAIL PHASE 4
<b>Project No.</b>	12557341
<b>Date</b>	2022-09-30
<b>Scale</b>	1"=20'

<b>Title</b>	LANDSCAPE AND SITE FURNISHINGS PLAN
<b>Size</b>	ANSI D
<b>Sheet No.</b>	L-101
<b>Sheet</b>	52 of 96

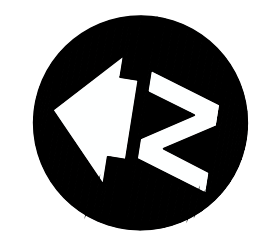


MATCHLINE - SEE SHEET L-101

MATCHLINE - SEE SHEET L-103



- MATERIALS LEGEND**
- SEATING BENCH
  - PICNIC TABLE
  - BOULDERS
  - SHADE STRUCTURE
  - BIKE RACK
  - BIKE REPAIR STATION
  - INTERPRETIVE SIGN
  - CONCRETE PAVING



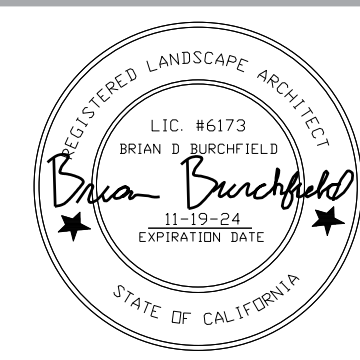
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Client	<b>CITY OF UKIAH</b>
Project	<b>THE GREAT REDWOOD TRAIL PHASE 4</b>
Project No.	<b>12557341</b>
Date	<b>2022-09-30</b>
Scale	<b>1"=20'</b>

Title	<b>LANDSCAPE AND SITE FURNISHINGS PLAN</b>
Sheet No.	<b>L-102</b>
Sheet	<b>53 of 96</b>



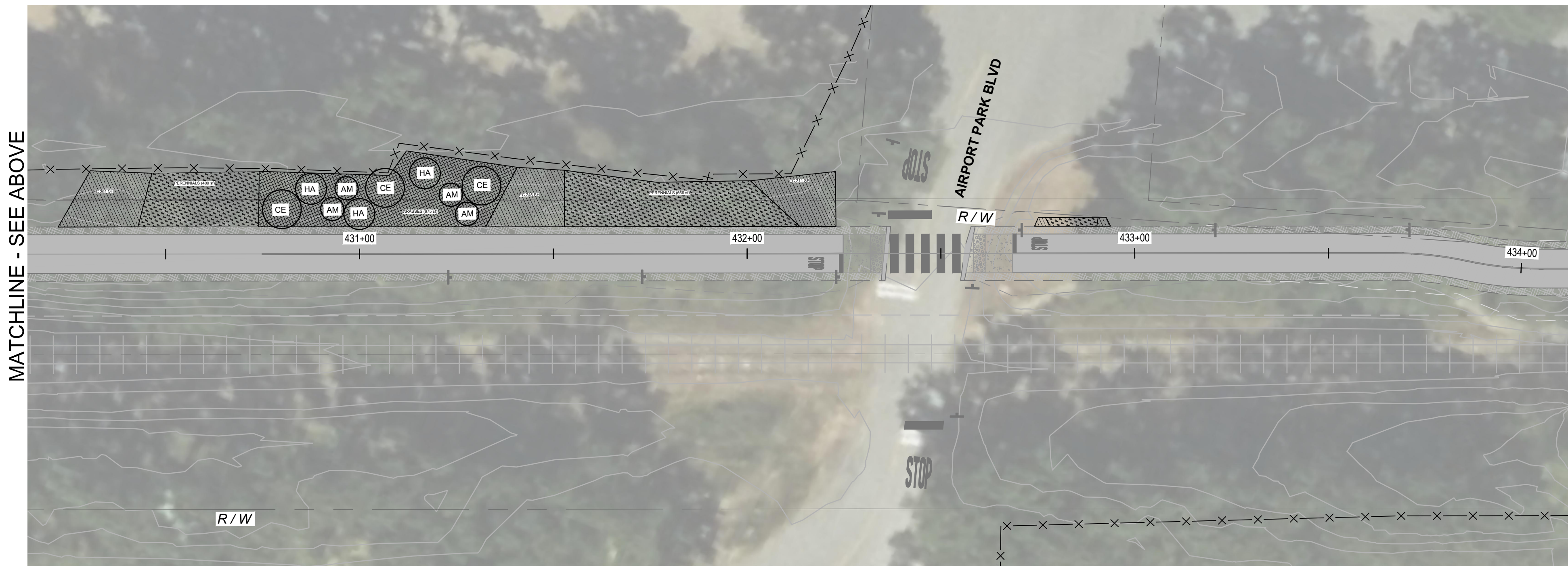
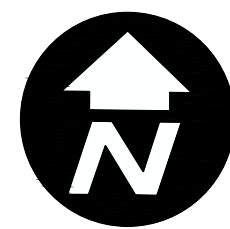
MATCHLINE - SEE SHEET L-102



MATCHLINE - SEE BELOW LEFT

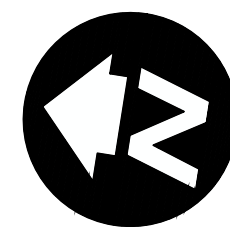
- MATERIALS LEGEND**
- SEATING BENCH
  - PICNIC TABLE
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  - SHADE STRUCTURE
  - BIKE RACK
  - BIKE REPAIR STATION
  - INTERPRETIVE SIGN
  - CONCRETE PAVING

13  
L-301



MATCHLINE - SEE ABOVE

MATCHLINE - SEE SHEET L-104



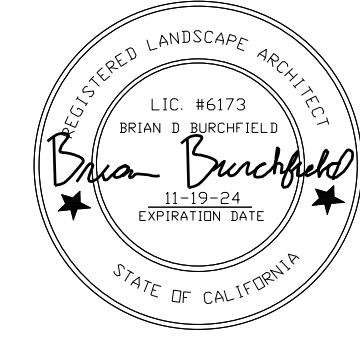
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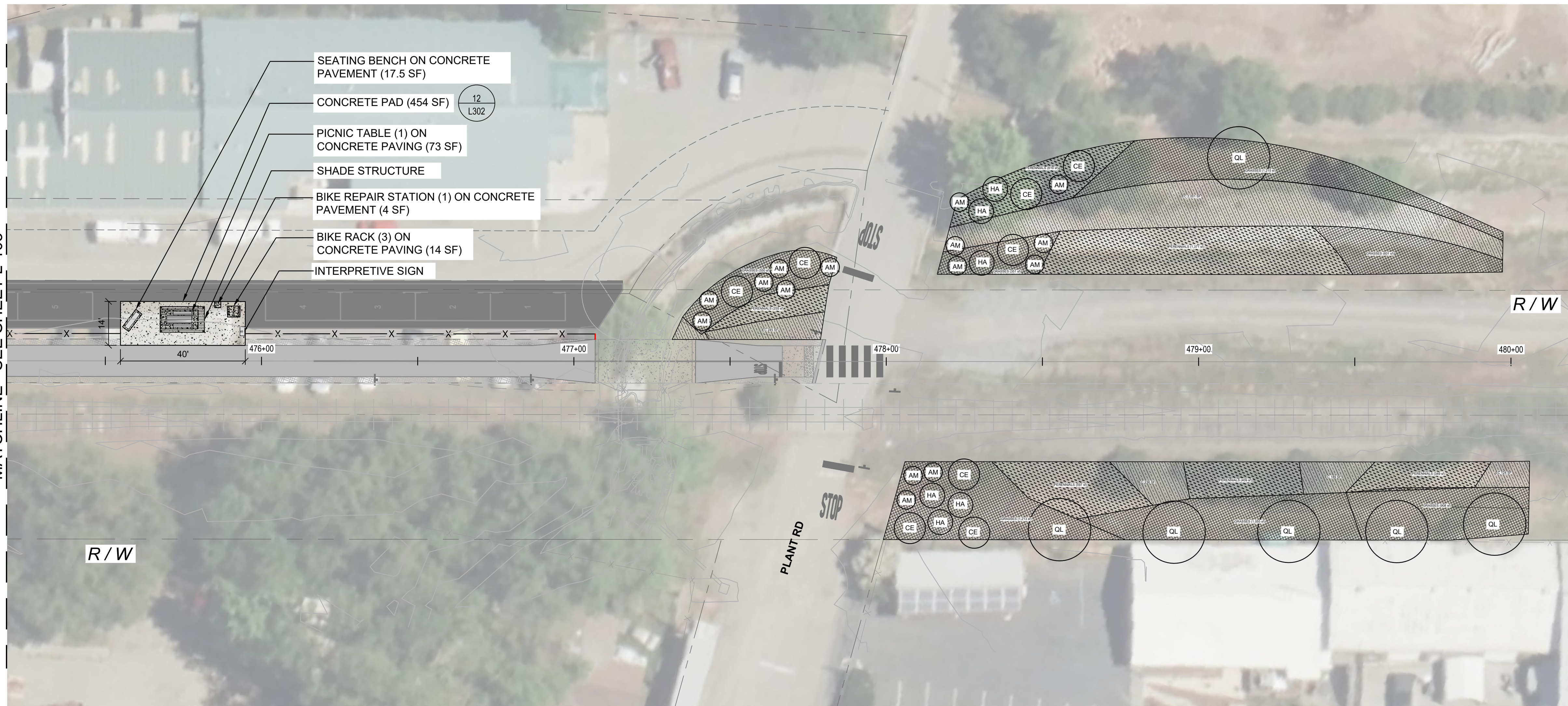


Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	2022-09-30
Scale	1"=20'

Title	LANDSCAPE AND SITE FURNISHINGS PLAN
Sheet No.	L-103
Sheet	54 of 96

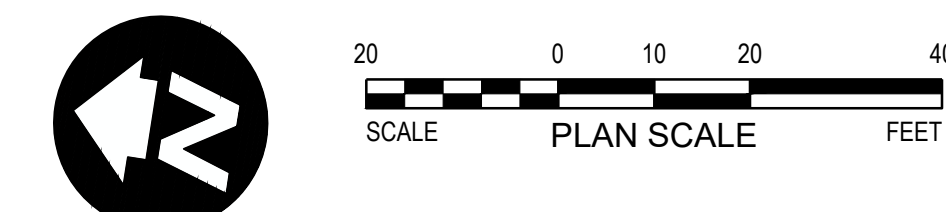


MATCHLINE - SEE SHEET L-103



**MATERIALS LEGEND**

- SEATING BENCH
- PICNIC TABLE
- BOULDERS
- SHADE STRUCTURE
- BIKE RACK
- BIKE REPAIR STATION
- INTERPRETIVE SIGN
- CONCRETE PAVING 13  
L-301



**PLANT SCHEDULE**

TREES	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
QL	Quercus lobata	Valley Oak	24" Box	17	

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
AM	Arctostaphylos manzanita	Common Manzanita	3 gal.	60	
CE	Ceanothus sp.	Ceanothus	3 gal.	31	
HA	Heteromeles arbutifolia	Toyon	3 gal.	25	

GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARKS
	PERENNIALS			13,332 sf	
	Asclepias sp.	Milkweed	1 gal.	739	
	Eriogonum fasciculatum	California Buckwheat	1 gal.	14,964	
	Eriophyllum lanatum	Oregon Sunshine	1 gal.	6,651	
	Grindelia sp.	Gumweed	1 gal.	1,663	
	Lupinus sp.	Lupine	1 gal.	451	
	Monardella villosa	Coyote Mint	1 gal.	451	
	Penstemon heterophyllus	Foothill Penstemon	1 gal.	73	
	Salvia clevelandii	Cleveland Sage	1 gal.	1,153	

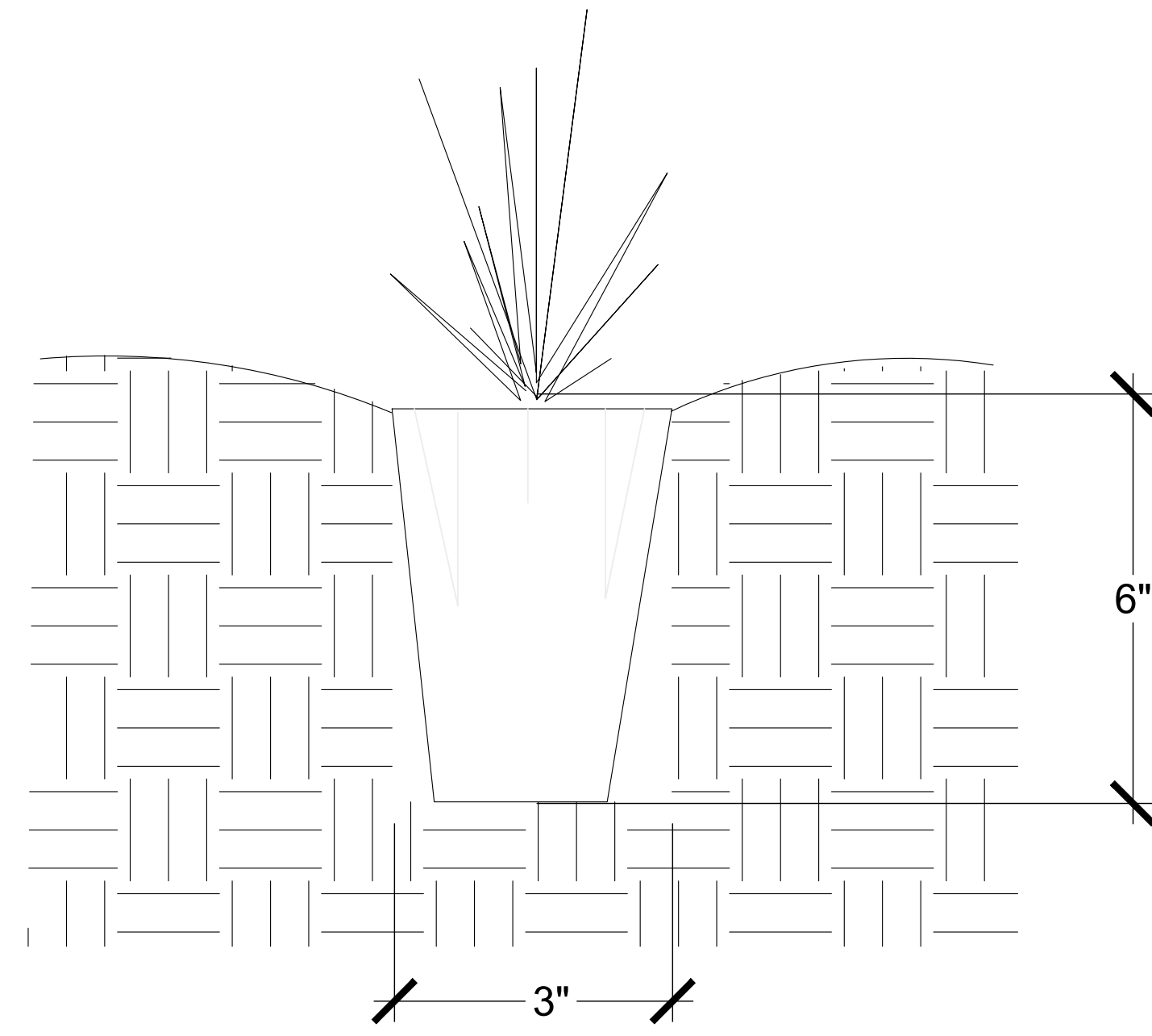
GRASSES	COMMON NAME	SIZE	QTY	REMARKS
Danthonia californica	California Oatgrass	1 gal.	1,053	
Festuca californica	California Fescue	Plug	1,053	
Muhlenbergia rigens	Deer Grass	1 gal.	169	
Stipa pulchra	Purple Needle Grass	Plug	1,516	

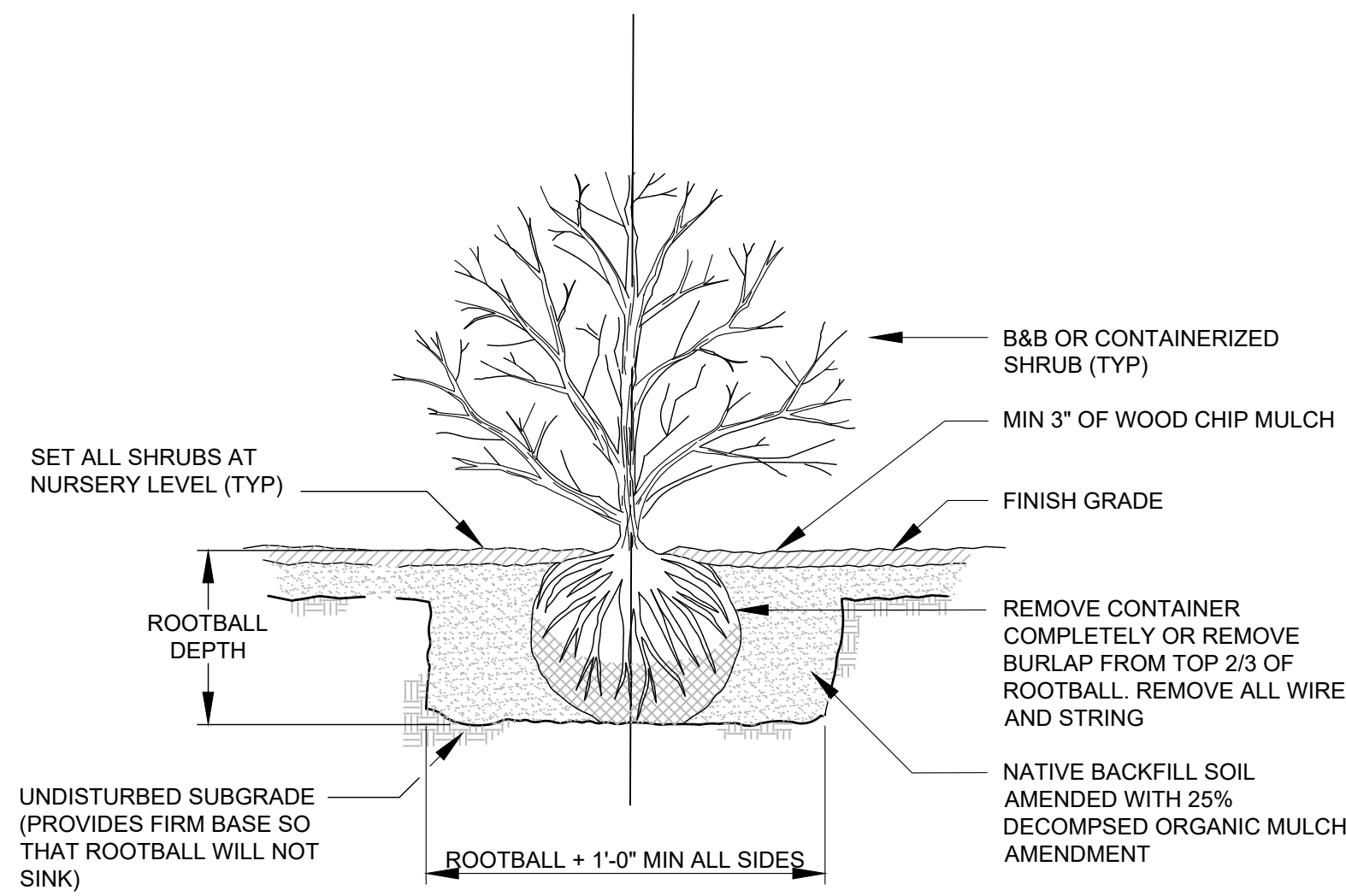
Eschscholzia californica	California Poppy	seed	5,498 sf	
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Issue</th> <th>Checked</th> <th>Approved</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Author</td> <td><b>B. BURCHFIELD</b></td> <td>Drafting Check</td> <td><b>R. BOOTH</b></td> <td>Project Manager</td> <td><b>E. FANSELAU</b></td> </tr> <tr> <td>Designer</td> <td><b>R. BOOTH, C. SAMBO</b></td> <td>Design Check</td> <td><b>R. BOOTH</b></td> <td>Project Director</td> <td><b>M. KENNEDY</b></td> </tr> </tbody> </table>	No.	Issue	Checked	Approved	Date	Author	<b>B. BURCHFIELD</b>	Drafting Check	<b>R. BOOTH</b>	Project Manager	<b>E. FANSELAU</b>	Designer	<b>R. BOOTH, C. SAMBO</b>	Design Check	<b>R. BOOTH</b>	Project Director	<b>M. KENNEDY</b>	<p>Plot Date: 30 September 2022 - 2:42 PM</p> <p>Plotted By: Carmela Sambo</p> <p>Filename: N:\Shared\PROJECTS\202100-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\L104.dwg</p>		<p>Project No. <b>12557341</b></p> <p>Date <b>2022-09-30</b></p>	<p>Client <b>CITY OF UKIAH</b></p> <p>Project <b>THE GREAT REDWOOD TRAIL PHASE 4</b></p>	<p>Title</p> <p><b>LANDSCAPE AND SITE FURNISHINGS PLAN</b></p>	<p>Scale</p> <p><b>1"=20'</b></p>	<p>Sheet No.</p> <p><b>L-104</b></p>	<p>Sheet</p> <p><b>55 of 96</b></p>
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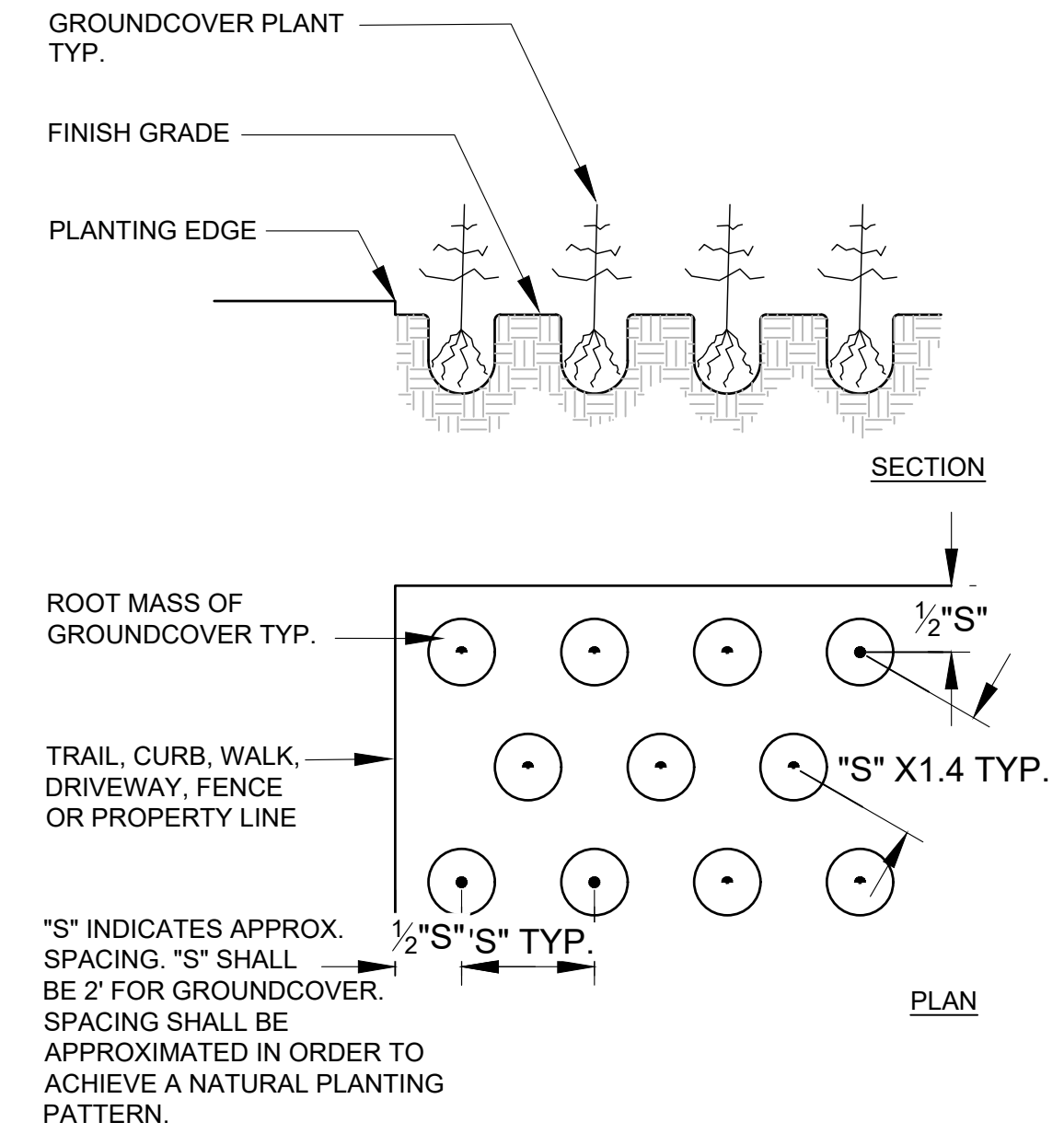




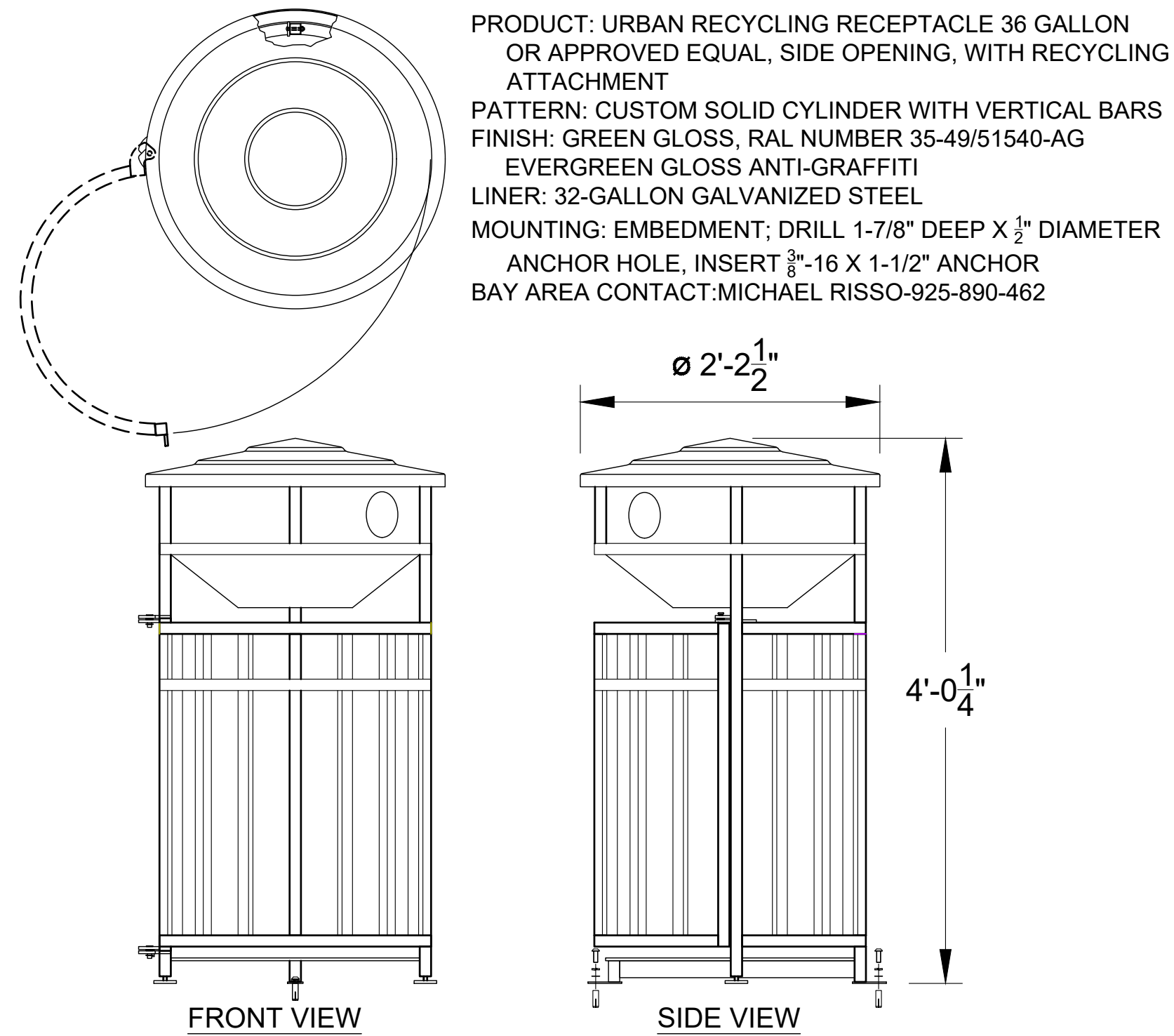
1 TYPICAL PLUG PLANTING



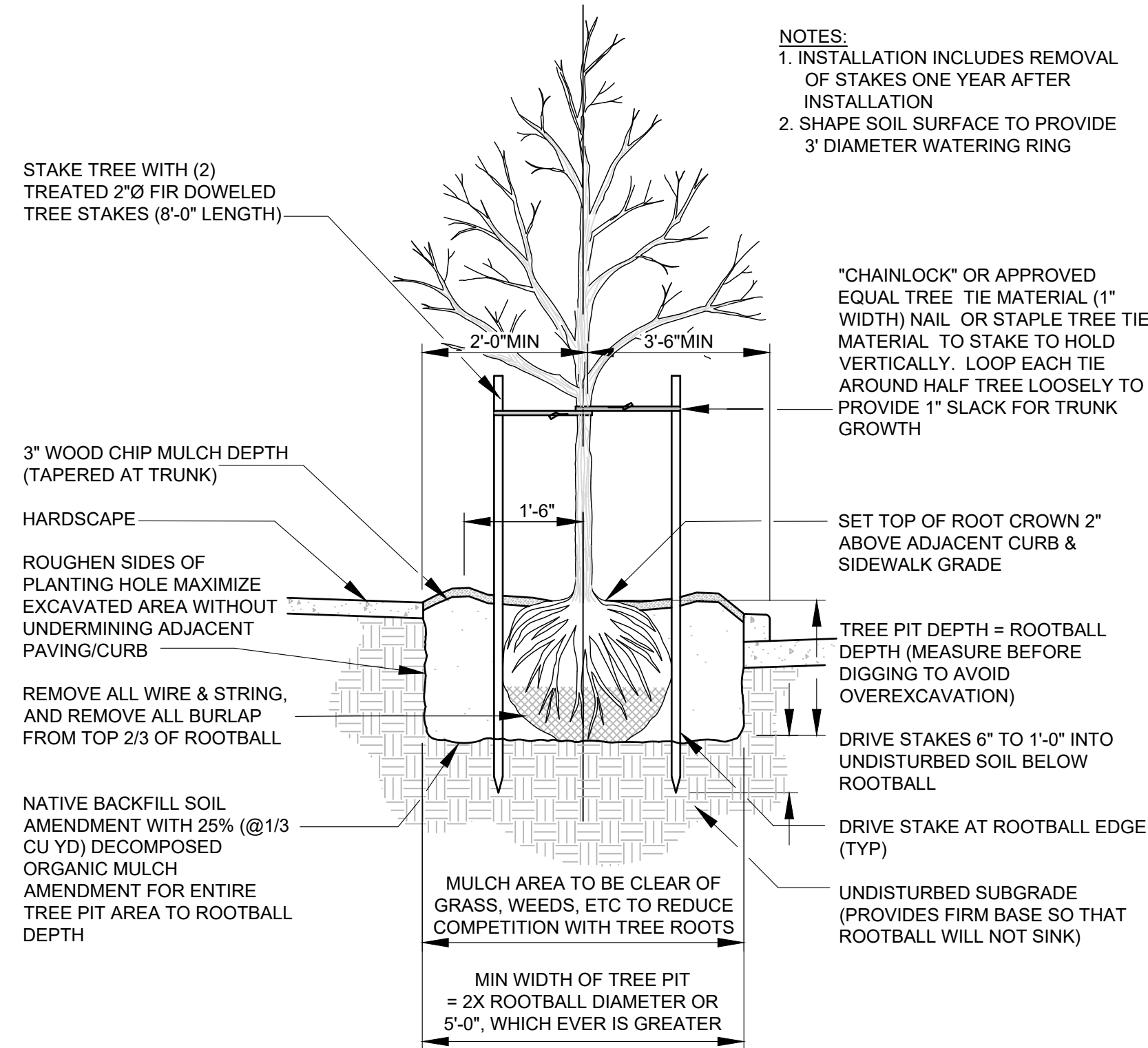
2 TYPICAL SHRUB PLANTING



3 GROUNDCOVER LAYOUT



4 TRASH/RECYCLING RECEPTACLE



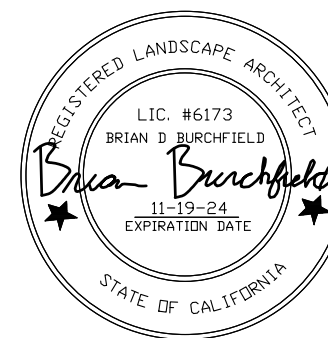
5 TREE STAKING

No.	Issue	Checked	Approved	Date
Author	B. BURCHFIELD	Drafting Check	R. BOOTH	Project Manager
Designer	R. BOOTH, C. SAMBO	Design Check	R. BOOTH	Project Director
			E. FANSELAU	
			M. KENNEDY	



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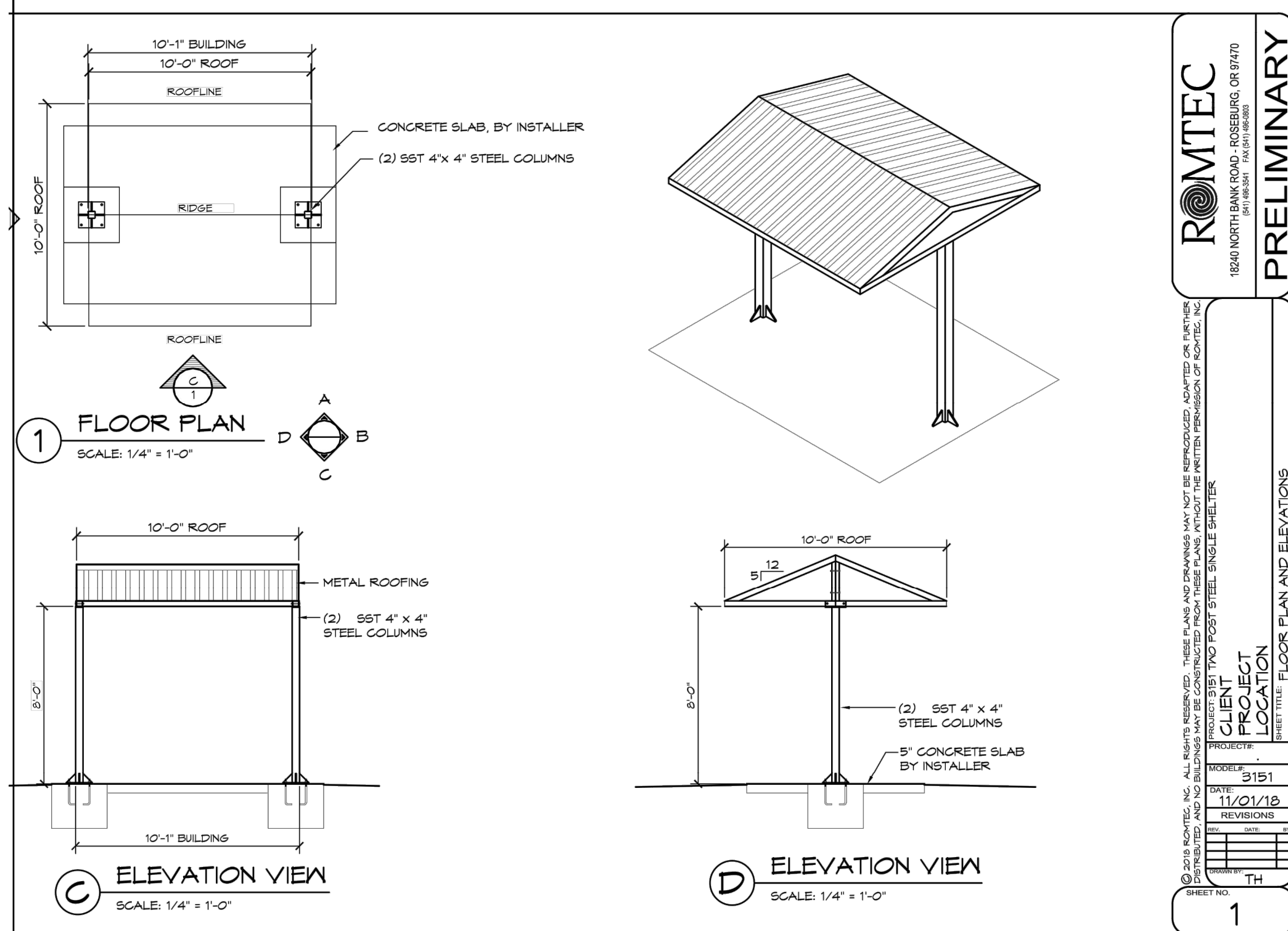
Client	CITY OF UKIAH	Title	
Project	THE GREAT REDWOOD TRAIL PHASE 4	Project No.	12557341
Date	2022-09-30	Scale	NTS

PLANTING DETAILS

Size ANSI D

Sheet No. L-201  
Sheet 56 of 96





**ROMTEC**  
1800 NORTH BANK ROAD - ROSEBURG, OR 97470

**PRELIMINARY**

PROJECT LOCATION: [REDACTED]

DATE: 11/01/18

REVISIONS:

1. [REDACTED]

2. [REDACTED]

3. [REDACTED]

4. [REDACTED]

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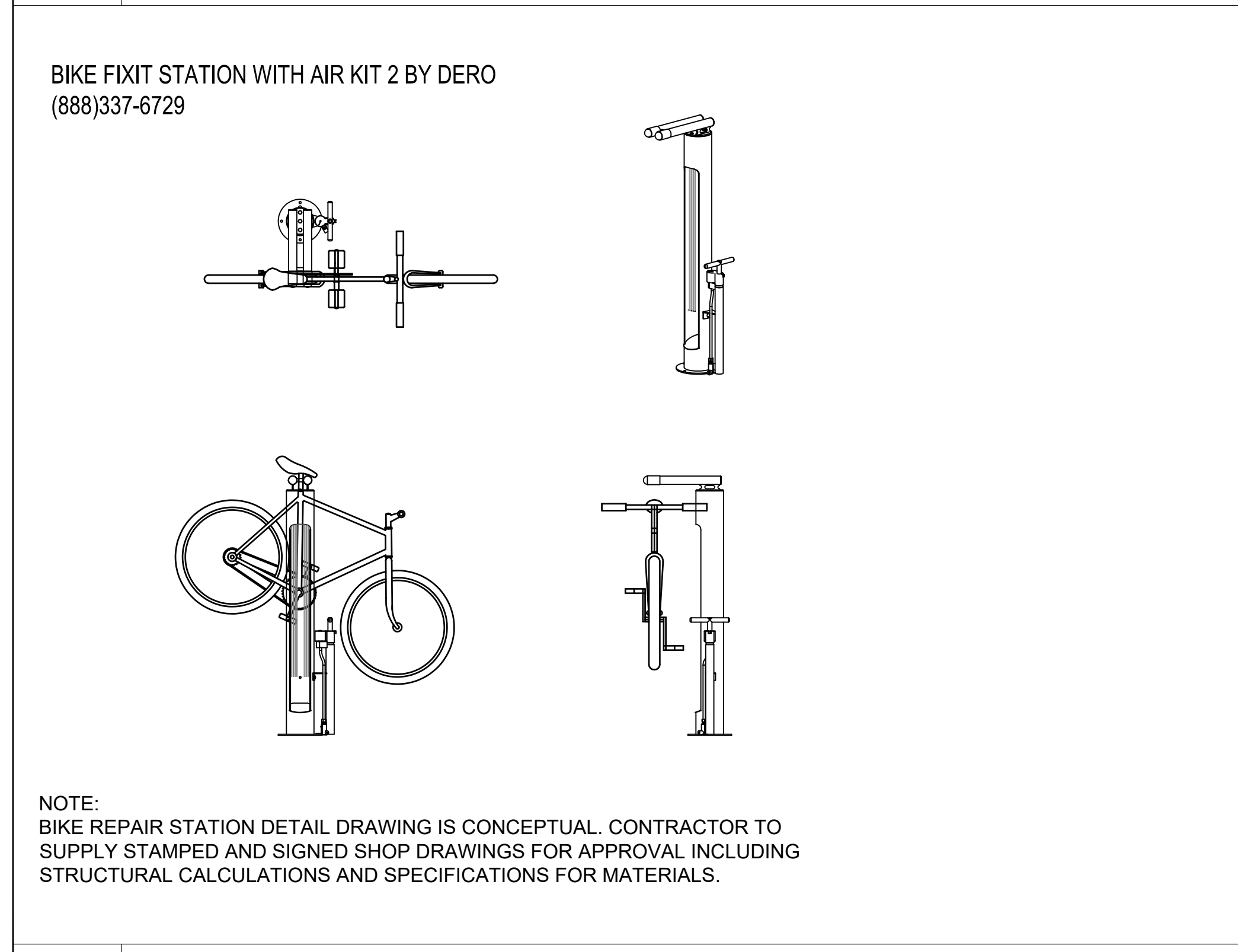
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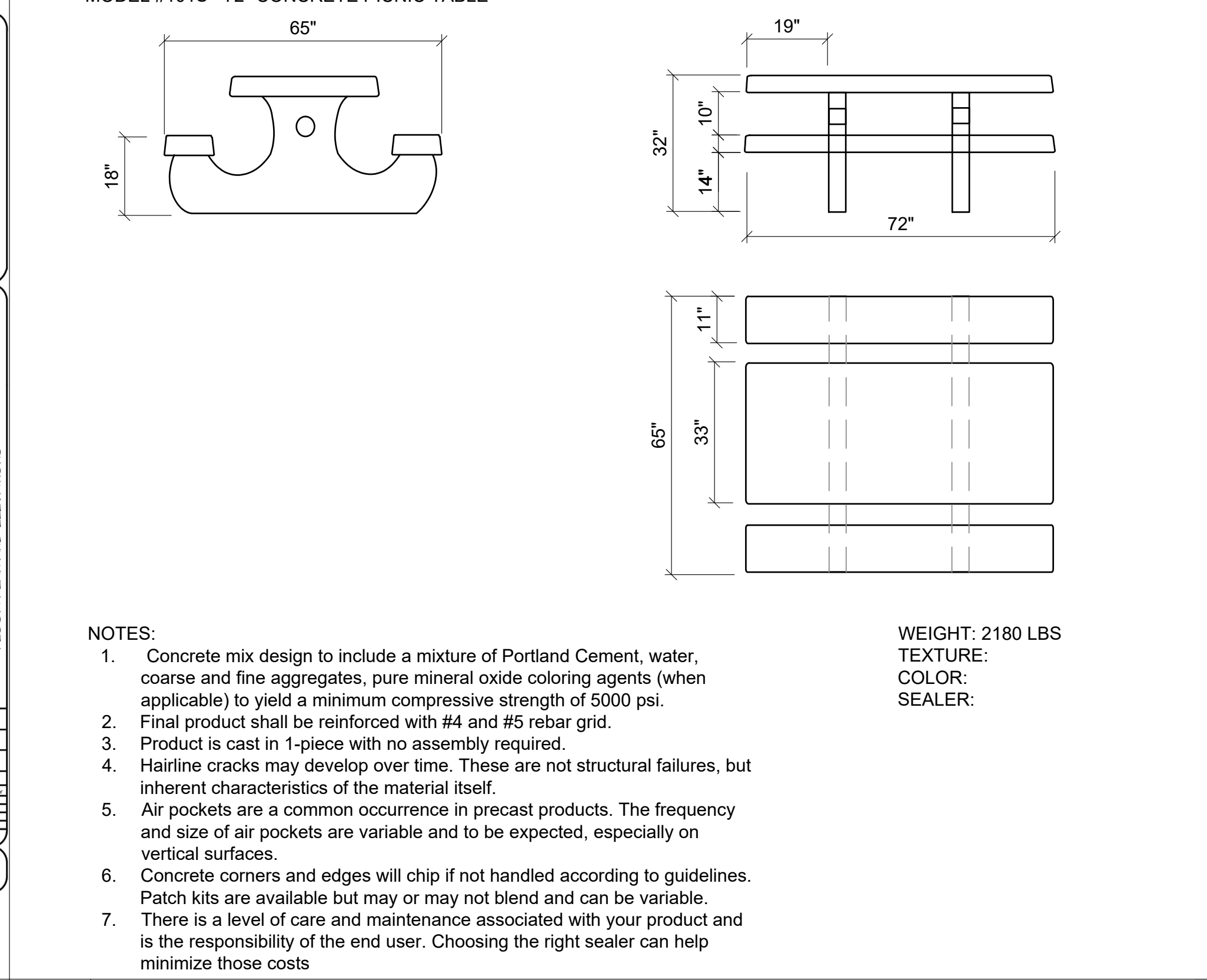
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CANOPY DETAIL DRAWING IS CONCEPTUAL. CONTRACTOR TO SUPPLY STAMPED AND SIGNED SHOP DRAWINGS FOR APPROVAL INCLUDING STRUCTURAL CALCULATIONS AND SPECIFICATIONS FOR MATERIALS.

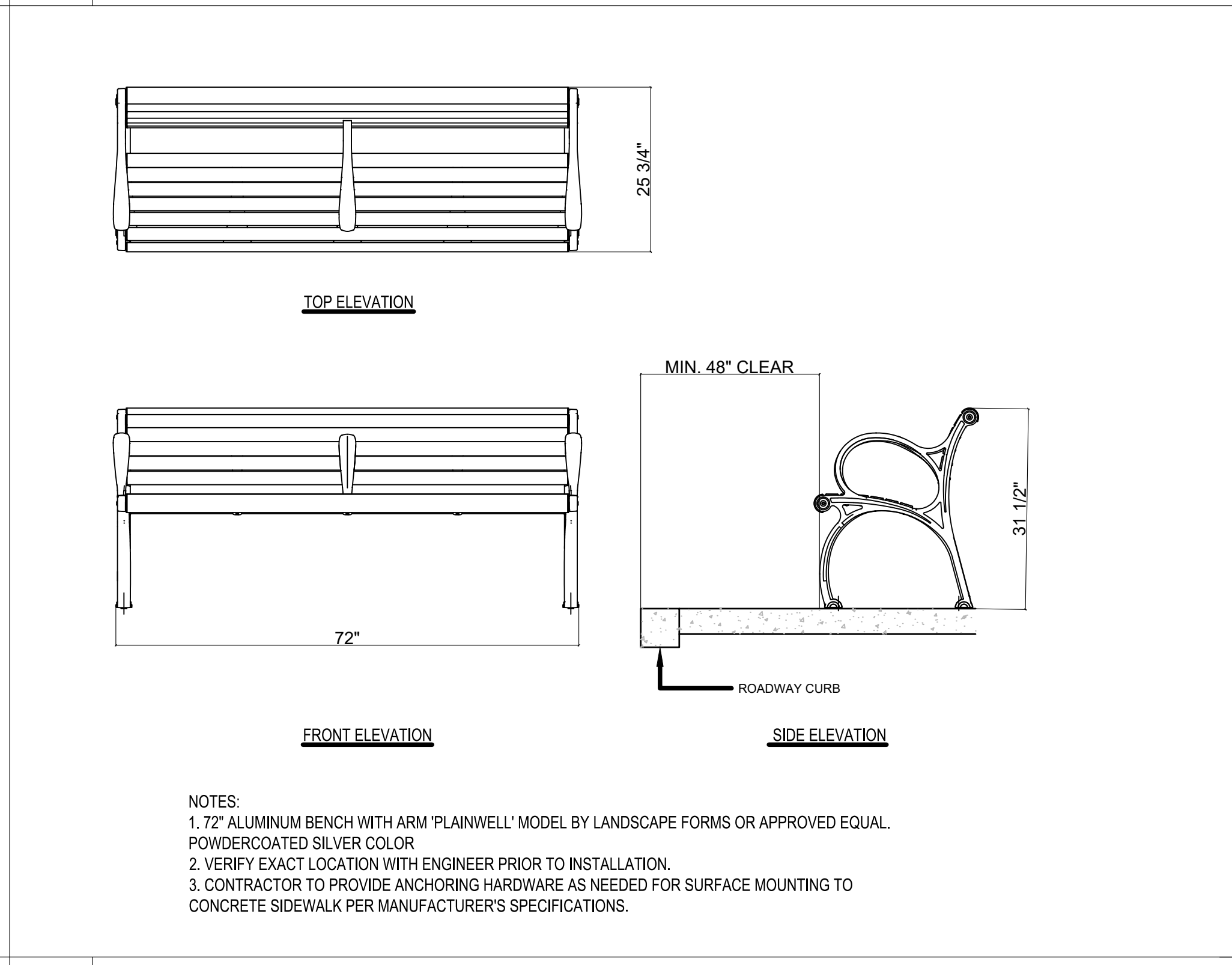
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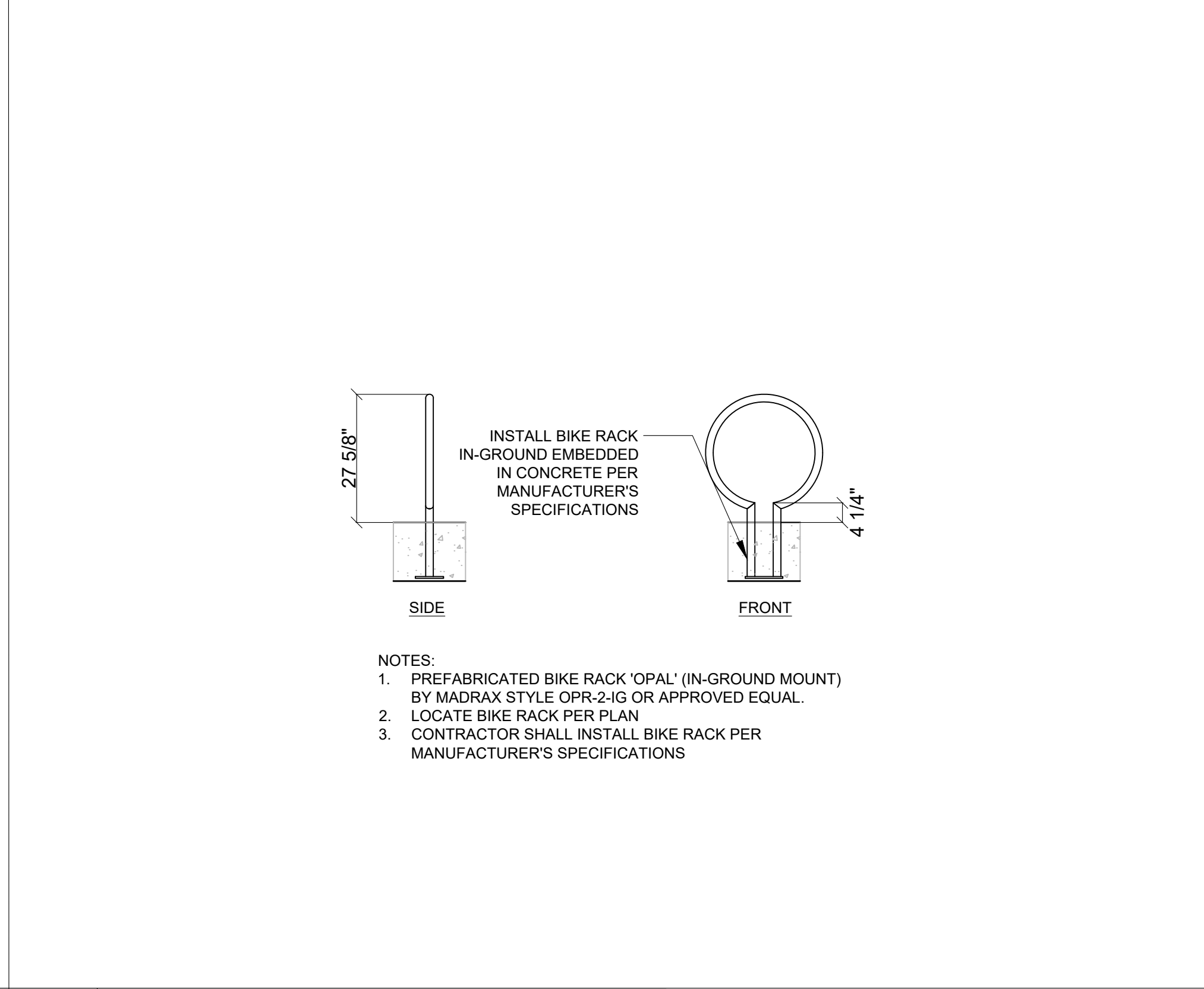
**10 BIKE REPAIR STATION**



**8 OUTDOOR CREATIONS INC. - CONCRETE PICNIC TABLE**



**11 BENCH**



**9 BIKE RACK**

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REGISTERED LANDSCAPE ARCHITECT

LIC. #6173

BRIAN S. BURCHFIELD

11-19-24 EXPIRES DATE

STATE OF CALIFORNIA

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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **2022-09-30**

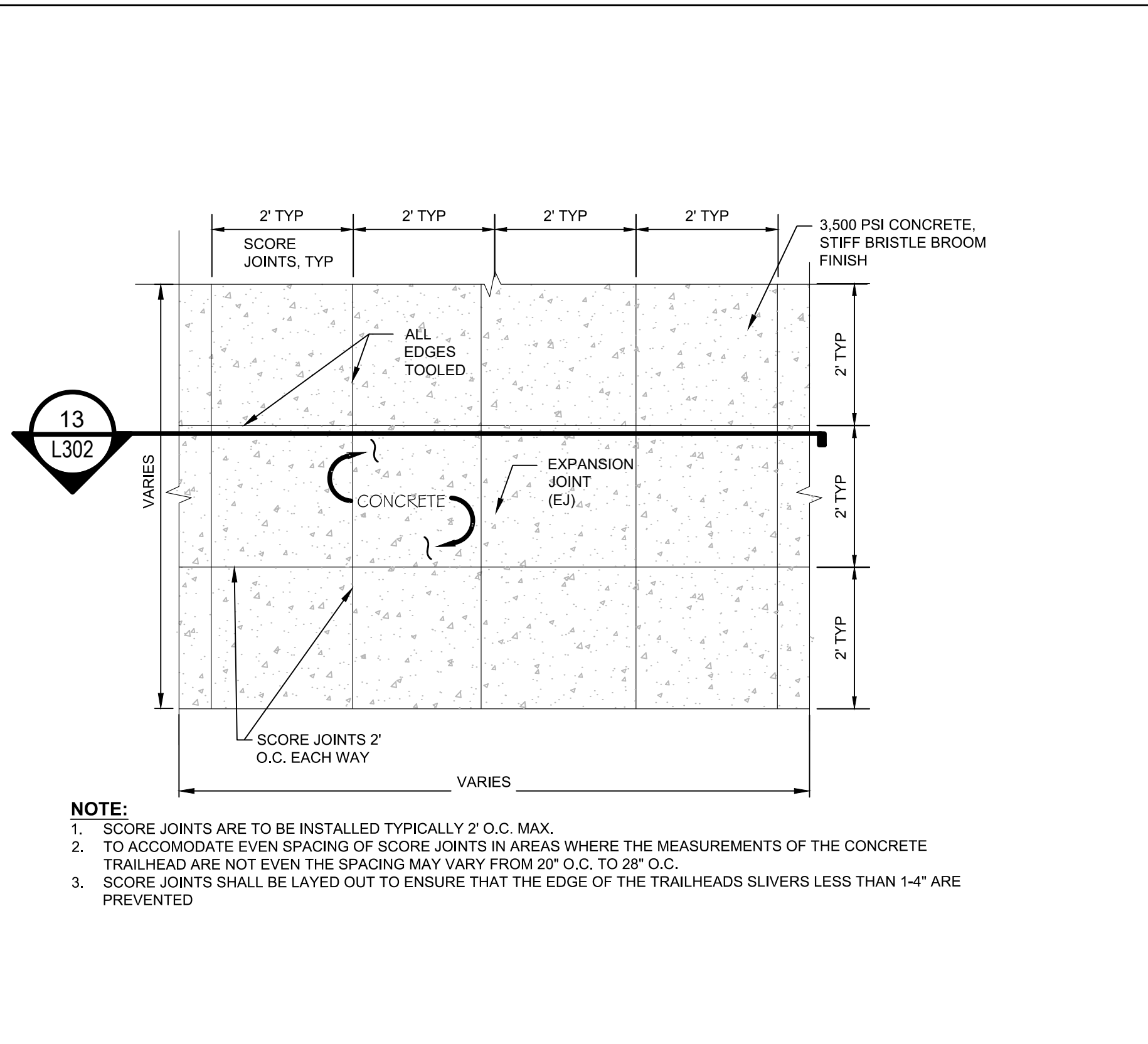
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Title **FURNISHING DETAILS**

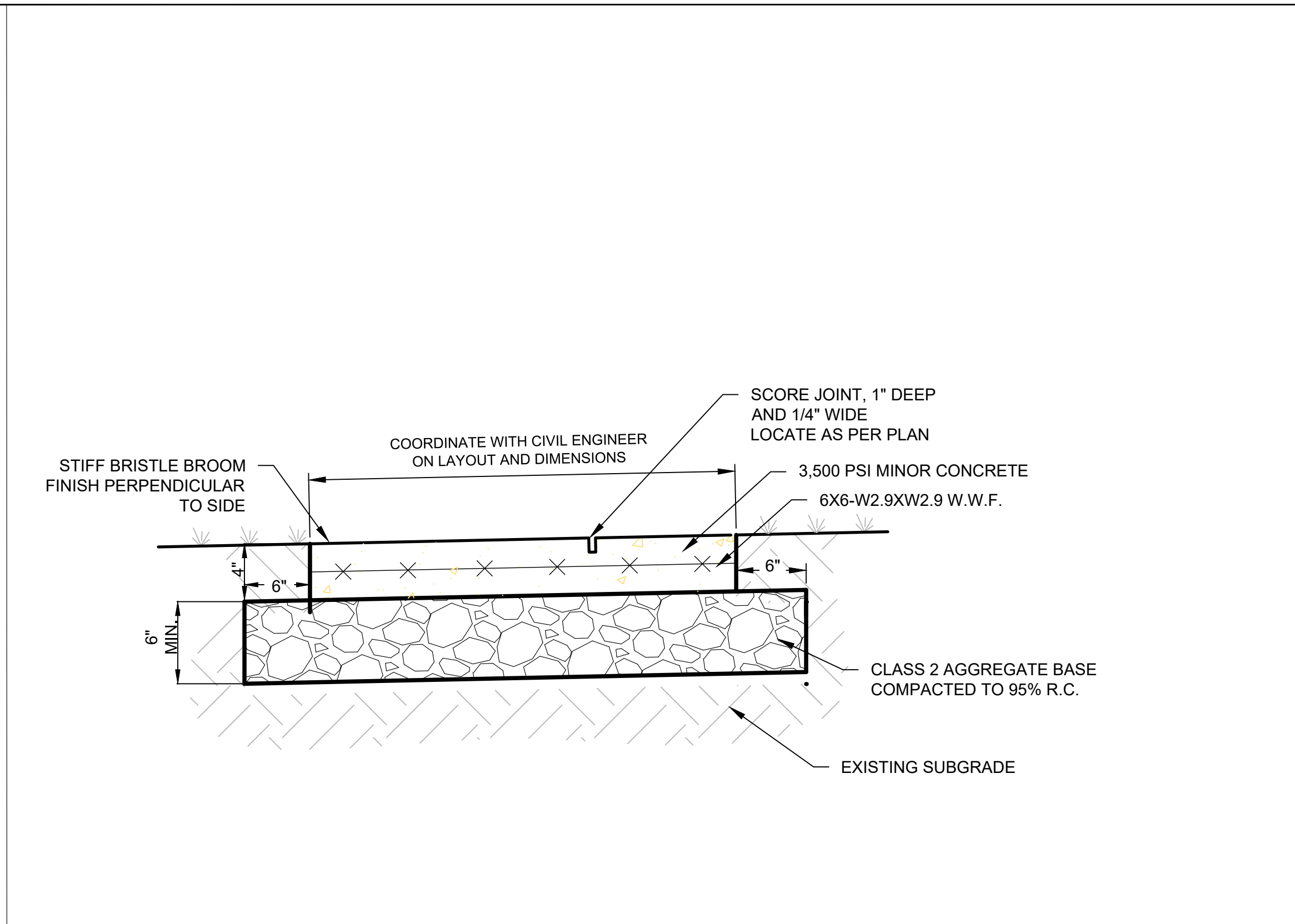
Sheet No. **L-301**

Sheet **57 of 96**

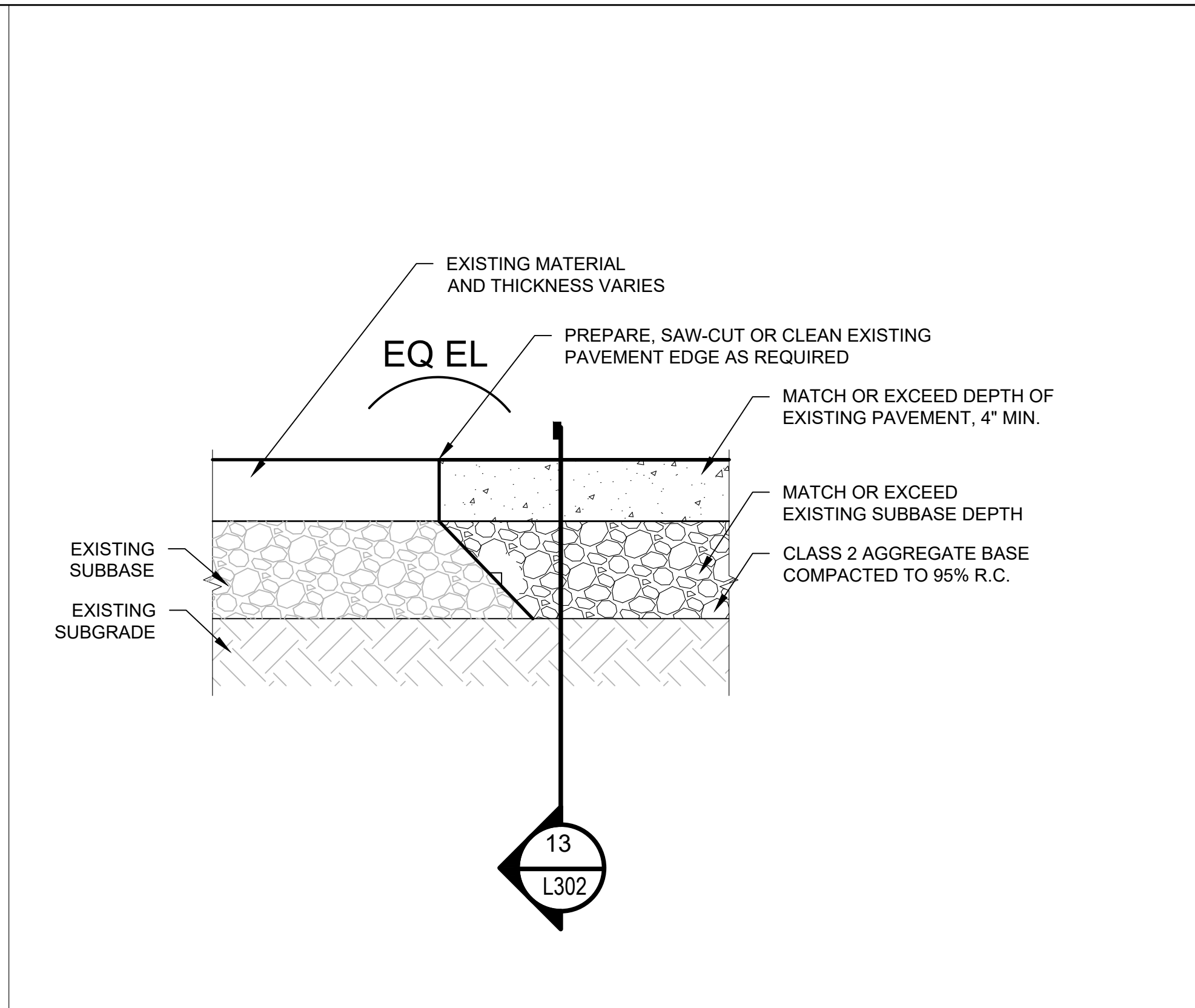




12 CONCRETE TRAILHEAD PLAN



13 CONCRETE PAVING SECTION



14 CONCRETE AT EXISTING TRAIL, SECTION

No.	Issue	Checked	Approved	Date	
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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **2022-09-30**

Scale **NTS**

Title **FURNISHING DETAILS**

Sheet No. **L-302**

Sheet **58 of 96**

Size **ANSI D**



**DESIGN BASIS**

- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE CALTRANS BRIDGE DESIGN SPECIFICATIONS AND AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, AND THE GEOTECHNICAL REPORT TITLED "GREAT REDWOOD TRAIL PHASE 4, UKIAH, CA" BY CRAWFORD INC. DATED SEPTEMBER 2022. REFER TO THIS REPORT FOR ALL GEOTECHNICAL INFORMATION AND RECOMMENDATIONS.
- STRUCTURE DESIGNED FOR SEISMIC LOADS BASED ON THE FOLLOWING PARAMETERS:  
NORGARD LANE BRIDGE AND PLANT ROAD BRIDGES  
 SITE CLASS = D  
 MAX 0.2 SEC. SPECTRAL RESPONSE ACCELERATION, SS = 1.868 g  
 MAX 1.0 SEC. SPECTRAL RESPONSE ACCELERATION, S1 = 0.713 g  
 Fa SITE COEFFICIENT = 1.2  
 Fv SITE COEFFICIENT = 1.7  
 SITE MODIFIED PEAK GROUND ACCELERATION, PGA<sub>w</sub> = 0.941 g  
 RESPONSE MODIFICATION FACTOR (FOR BRIDGE FOOTINGS) = 2.0  
  

<u>NORGARD LN. BRIDGE</u>	<u>PLANT RD. BRIDGE</u>
LAT. = 39.113°N	LAT. = 39.122°N
LONG. = -123.193°W	LONG. = -123.198°W
- DESIGN LIVE LOADS:  
 PEDESTRIAN LOAD = 90 PSF  
 VEHICLE LOAD = H10 DESIGN VEHICLE (20,000 LB)
- DEFLECTION LIMITS:  
 BRIDGES (GREATER THAN 20FT SPAN) = L/360

**GENERAL NOTES**

- ALL WORK TO CONFORM TO REQUIREMENTS OF ALL PUBLICATIONS AND NOTES LISTED UNDER "DESIGN BASIS."
- CIVIL DRAWINGS AND ALL OTHER DRAWINGS AS REQUIRED SHALL BE USED IN CONJUNCTION WITH STRUCTURAL DRAWINGS TO DEVELOP DETAILS AND DIMENSIONS FOR SHOP DRAWINGS, FABRICATION, ERECTION, AND CONSTRUCTION.
- THE CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS AND ALL DIMENSIONS IN FIELD PRIOR TO START OF CONSTRUCTION AND PROTECT AND MAINTAIN ALL EXISTING CONSTRUCTION AND ITS CONTENTS IN FULL.
- THE CONTRACTOR SHALL MAINTAIN A SET OF LATEST REVIEWED SHOP DRAWINGS ON JOB SITE.
- THE STRUCTURE HAS BEEN DESIGNED TO BE STABLE AND SELF SUPPORTING AFTER THE CONSTRUCTION HAS BEEN COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY FOR THE STRUCTURE'S STABILITY DURING CONSTRUCTION. THIS RESPONSIBILITY ALSO INCLUDES BUT IS NOT LIMITED TO METHOD AND SEQUENCE OF ERECTION, TEMPORARY SHORING, AND TEMPORARY BRACING.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- SHOULD ANY INFORMATION ON THE STRUCTURAL DRAWINGS CONFLICT WITH THE SPECIFICATIONS OR ANY OTHER PART OF THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND AN INTERPRETATION WILL BE GIVEN.
- ALL SECTIONS, DETAILS, NOTES, DIMENSIONS AND CONDITIONS ARE APPLICABLE AT ANY OTHER LOCATION WHERE CONDITIONS AND DETAILS ARE SIMILAR BUT ARE NOT SPECIFICALLY NOTED AS SUCH OR ARE NOT SHOWN.
- FOR QUALITY CONTROL INSPECTION AND TESTING REQUIREMENTS DURING CONSTRUCTION, SEE SPECIFICATIONS.

**FOUNDATIONS FOR PEDESTRIAN BRIDGES NOTES**

- ALLOWABLE BEARING CAPACITY (DEAD PLUS LIVE LOAD) VALUES USED IN PEDESTRIAN BRIDGE FOUNDATION DESIGN:  
  

NORGARD LANE BRIDGE	= 3,500 PSF
PLANT ROAD BRIDGE	= 2,500 PSF
- THE BRIDGE ABUTMENTS WERE DESIGNED TO RESIST LATERAL LOADING USING THE FOLLOWING PASSIVE EARTH PRESSURES AND BASE FRICTION VALUES:  
  

	<u>NORGARD LANE BRIDGE</u>	<u>PLANT ROAD BRIDGE</u>
PASSIVE EARTH PRESSURE	400 PCF	300 PCF
FRICTION COEFFICIENT	0.50	0.35
- EARTH PRESSURES USED IN THE DESIGN OF THE BRIDGE ABUTMENTS AND WINGWALLS ARE AS FOLLOWS:  
  

	<u>NORGARD LANE BRIDGE</u>	<u>PLANT ROAD BRIDGE</u>
STATIC SEISMIC	82 PCF ADD'L 45 PCF	85 PCF ADD'L 41 PCF
- ALL COMPACTED STRUCTURAL FILL SHALL CONFORM TO THE PROJECT SPECIAL PROVISIONS.
- CONCRETE FOOTINGS SHALL NOT BE PLACED UNTIL FILL AND SUBGRADE HAVE BEEN CHECKED IN PLACE AND APPROVED BY THE ENGINEER.

**CONCRETE AND REINFORCING NOTES**

- ALL WORK TO CONFORM TO THE REQUIREMENTS OF THE ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-LATEST EDITION) AND "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315-LATEST EDITION).
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS:  
  
 5,000 PSI (NORMAL WEIGHT) AT ALL CONCRETE ELEMENTS.  
  
 PRIOR TO PLACING CONCRETE, MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW.
- ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS. CONTRACTOR TO REVIEW FORMING, REINFORCING DETAILS AND ANY EMBEDDED ITEMS AND DETERMINE PRIOR TO FABRICATION OF ANY REINFORCING, PLACEMENT REQUIREMENTS AND CLEARANCES.
- ALL BAR REINFORCING FOR CONCRETE TO CONFORM TO ASTM A 615 GRADE 60 (DEFORMED).
- ALL REINFORCING SHALL TERMINATE WITH STANDARD HOOKS AS SHOWN ON PLANS. ALL STIRRUPS AND TIES TO BE CLOSED WITH 135° BENDS.
- IN WALL ELEMENTS, VERTICAL BARS SHALL BE LOCATED ON OUTERMOST LAYER UNLESS SPECIFICALLY NOTED OTHERWISE.
- UNLESS OTHERWISE SHOWN, LOCATE REINFORCING BARS WITH FOLLOWING CLEAR DIMENSION TO FACE OF CONCRETE:  
  
 CONCRETE ON GROUND: 3" CLEAR  
  
 SLABS ON GRADE: 1" CLEAR FROM TOP OF SLAB  
  
 ALL OTHER SURFACES: 2" CLEAR
- CONCRETE ACCESSORIES MUST BE ADEQUATE TO MAINTAIN REINFORCING ACCURATELY IN PLACE AND BE NON-CORROSIVE, NON-STAINING TYPE.
- BEGIN CONCRETE CURING AS SOON AS FINISHING OPERATIONS ARE COMPLETE (WITHIN TWO HOURS). KEEP CONCRETE MOIST OR APPLY A LIQUID MEMBRANE FORMING CURING COMPOUND (COMPLY WITH ASTM C 309, TYPE I, CLASS A)
- SHORE CONCRETE BEAMS, CANTILEVERS AND SUPPORTED SLABS DIRECTLY TO FIRM BEARING FOR AS LONG AS PRACTICAL (MINIMUM 28 DAYS) TO MINIMIZE CREEP AND DEFLECTION.
- THE BRIDGE SHALL NOT BE PLACED ON THE CONCRETE FOOTINGS UNTIL THE ENGINEER HAS CONFIRMED THAT THE CONCRETE STRENGTH HAS REACHED AT LEAST 2000 PSI.
- EPOXY ANCHORS SHALL BE ONE OF THE FOLLOWING, UNO:  
  
 HILTI HIT-HY 200  
 HILTI HIT-RE 500  
 SIMPSON SET-3G
- NON-SHRINK GROUT SHALL HAS A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI AT 7 DAYS

**PRE-ENGINEERED BRIDGES**

- PROVIDE AND INSTALL FULLY FUNCTIONAL PRE-ENGINEERED SINGLE SPAN BRIDGE AS SHOWN ON THE STRUCTURAL AND CIVIL DRAWINGS AND SPECIFICATIONS.
- STRUCTURES TO BE DESIGNED BY A REGISTERED CALIFORNIA PROFESSIONAL ENGINEER AND CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND TO SUPPORT OWN WEIGHT, IMPOSED LIVE, WIND, AND SEISMIC LOADS. SEE "STRUCTURAL DESIGN BASIS" IN STRUCTURAL GENERAL NOTES FOR STRUCTURAL CRITERIA.
- PROVIDE ALL FASTENERS AND OTHER APPURTENANCES NECESSARY TO INSTALL PRE-ENGINEERED BRIDGE TO THE CONCRETE FOOTINGS PER MANUFACTURER.
- CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS AND CALCULATIONS. DESIGNER SHALL RESPOND TO ALL COMMENTS FROM THE ENGINEER AND MAKE REVISIONS AS REQUIRED. SUBMIT DESIGN FOR REVIEW PRIOR TO FABRICATION. CONTRACTOR TO INCLUDE MULTIPLE STRUCTURAL REVIEWS IN PROJECT SCHEDULE.
- PRE-ENGINEERED FOUNDATION DESIGN IS BASED ON ASSUMED REACTIONS INDICATED BY THE BRIDGE MANUFACTURER. CONTRACTOR SHALL SUBMIT ACTUAL FOUNDATION REACTIONS AND OBTAIN APPROVAL FROM ENGINEER PRIOR TO CONSTRUCTION OF FOUNDATIONS OR REVIEW OF CONCRETE SHOP DRAWINGS. CONCRETE SHOP DRAWINGS WILL NOT BE REVIEWED WITHOUT FINAL PEB REACTIONS AND FINAL PEB SHOP DRAWINGS.
- PREMANUFACTURED BRIDGE SHALL BE IN ACCORDANCE WITH:  
  
 STRUCTURAL MEMBERS: ASTM A606 OR ASTM A847 (Fy = 50 KSI)  
 SECONDARY MEMBERS: ASTM A242 OR ASTM A588. WELDING  
 WELDING: AWS D1.1  
 BOLTS: ASTM A325 TYPE 3  
 DECKING: CONCRETE OVER METAL DECK
- ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554, GRADE 105, HOT DIPPED GALVANIZED.

**MASONRY NOTES**

- MASONRY UNITS TO CONFORM TO ASTM C90 SPECIFIED COMPRESSIVE STRENGTH OF MASONRY: fm = 2,000 PSI.
- UNLESS OTHERWISE INDICATED, REINFORCEMENT SHALL CONFORM TO ASTM A615 OR ASTM A706 GRADE 60.
- GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI.
- ALL MASONRY CELLS SHALL BE FULLY GROUTED.
- ALL MORTAR SHALL CONFORM TO ASTM C270, TYPE S, WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 1800 PSI.
- UNLESS OTHERWISE SHOWN, ALL MASONRY SHALL BE LAID IN RUNNING BOND.
- PROVIDE DOWELS FROM FOUNDATIONS TO MATCH VERTICAL WALL REINFORCING SIZE AND SPACING, UNO.
- UNLESS OTHERWISE NOTES, THE MINIMUM LAP SHALL BE 48 BAR DIAMETERS.
- PLACEMENT, TESTS, AND INSPECTIONS OF MASONRY UNITS, GROUT, AND REINFORCING PER CODE REQUIREMENTS.

**WELDED WIRE WALL NOTES**

- FOUNDATION DESIGN IS BASED ON CRITERIA AND RECOMMENDATIONS PRESENTED IN THE GEOTECHNICAL REPORT "GREAT REDWOOD TRAIL PHASE 4" PREPARED BY CRAWFORD AND ASSOCIATES DATED SEPTEMBER 2022.
- DESIGN WALLS FOR 75-YEAR LIFE.
- WIRE MATS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH THE FOLLOWING PARAMETERS:

MSE WALL PARAMETERS				
CASE	FRICTION ANGLE, Φ (°)	C (PSF)	UNIT WEIGHT, γ (PCF)	PGA (g)
FOUNDATION	28	100	120	0.94
REINFORCED FILL	32	0	125	
RETAINED FILL	28	100	120	

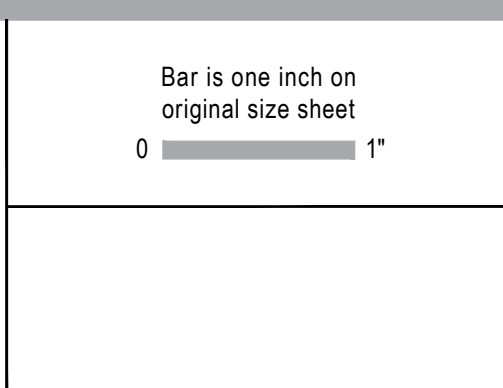


**Know what's below. Call before you dig.**

Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date
Author	<b>S. GOULD</b>	Drafting Check	<b>E. FANSELAU</b>	Project Manager
Designer	<b>S. GOULD</b>	Design Check	<b>B. CROWELL</b>	Project Director
			<b>M. KENNEDY</b>	

Bar is one inch on original size sheet	
0	1"



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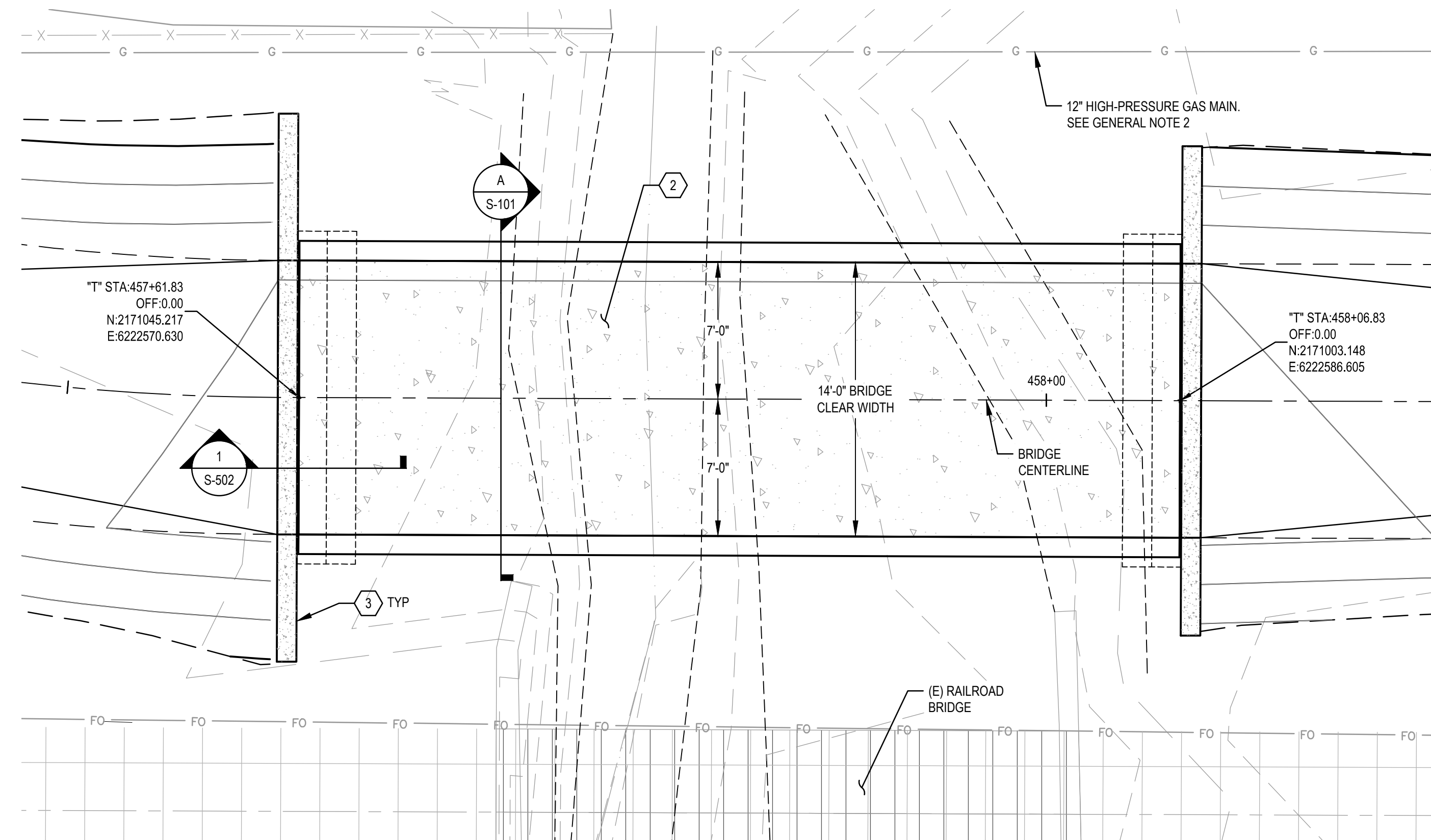
Client	<b>CITY OF UKIAH</b>
Project	<b>THE GREAT REDWOOD TRAIL PHASE 4</b>
Project No.	<b>12557341</b>
Date	<b>SEP 30, 2022</b>
Scale	<b>NO SCALE</b>

Title	<b>STRUCTURAL GENERAL NOTES</b>
Sheet No.	<b>S-001</b>
Sheet	59 of 96



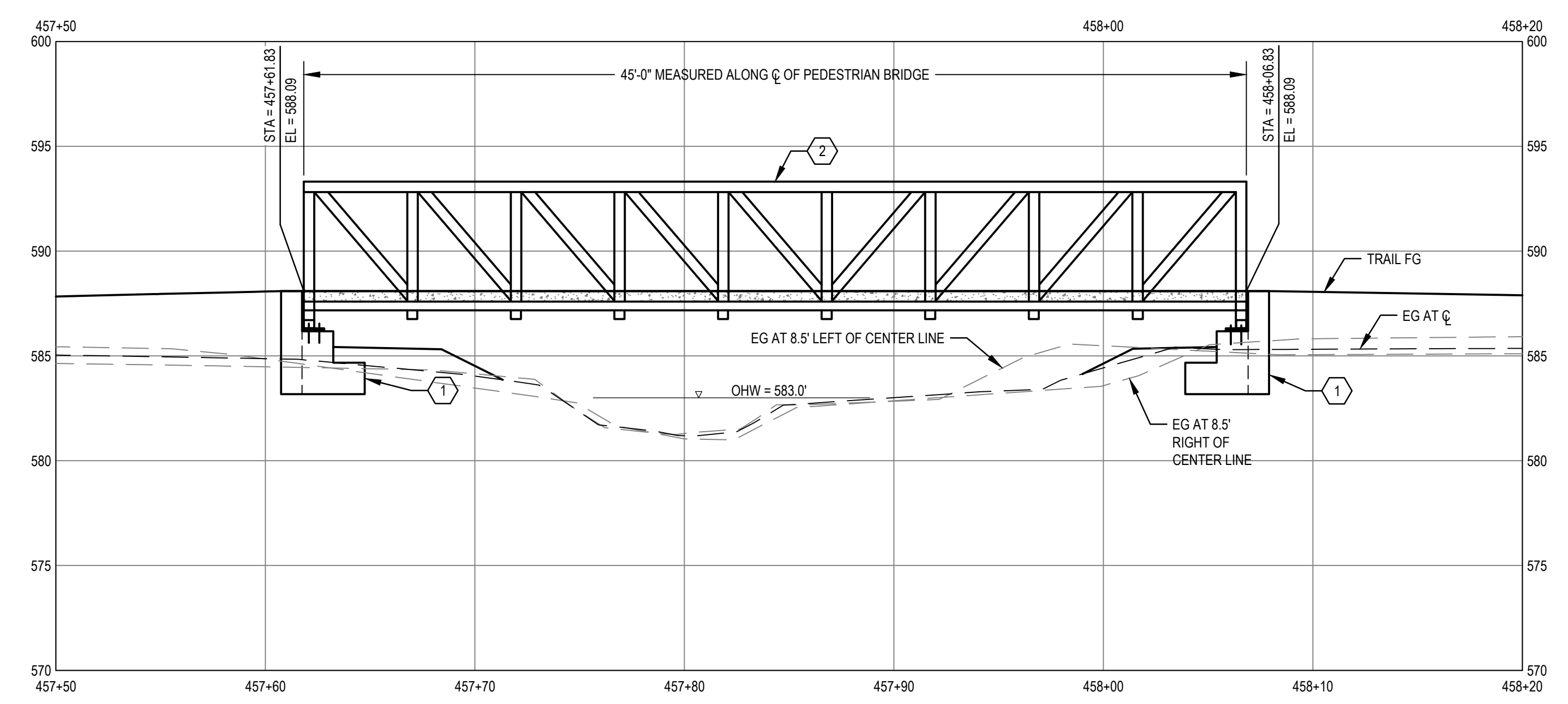






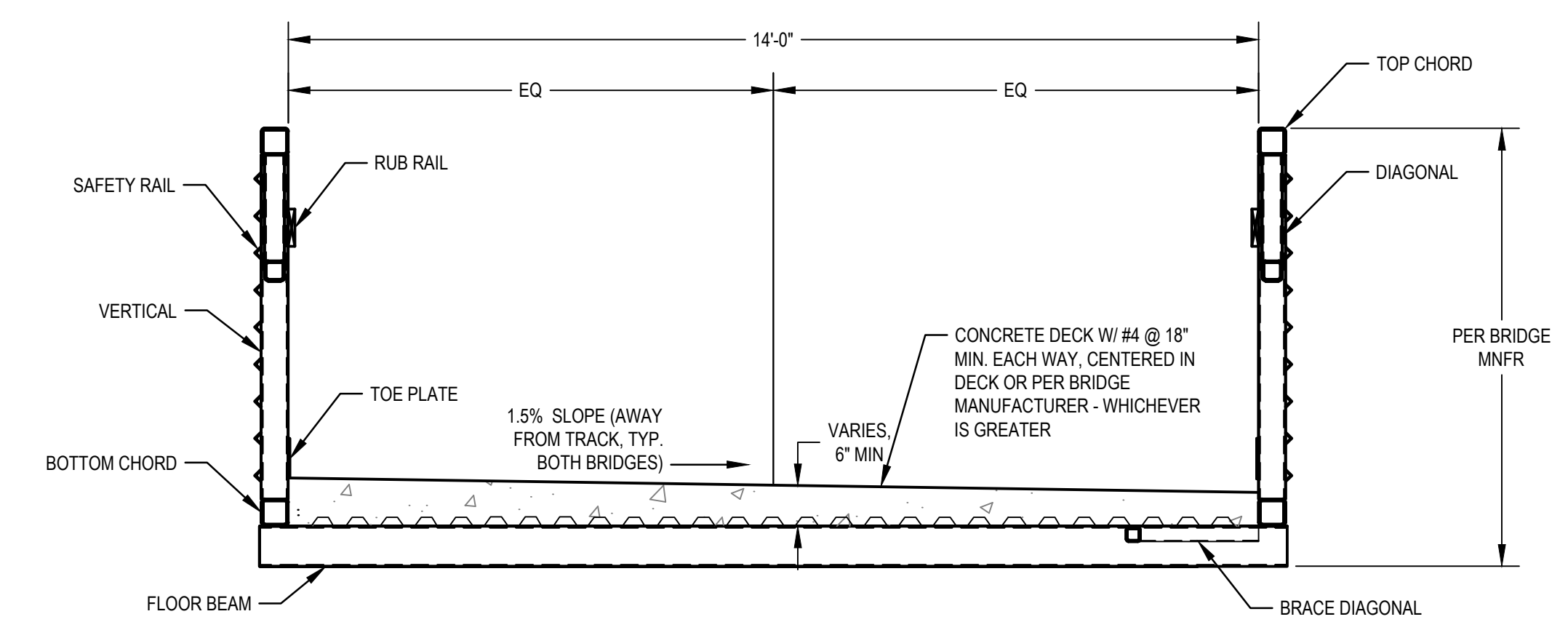
**NORGARD LANE BRIDGE - PLAN**

SCALE: 1"=5'  
0 5 10'



**NORGARD LANE BRIDGE - PROFILE**  
STATION 457+61.83 TO 458+06.83

SCALE: 1"=5'  
0 5 10'



**A BRIDGE TYPICAL SECTION**  
NOT TO SCALE

**SHEET GENERAL NOTES**

- DIMENSIONS SHOWN ARE TYPICAL. FOOTINGS ARE SYMMETRICAL ABOUT CENTERLINE OF TRAIL.
- ALL EXCAVATION WORK NEAR PG&E HIGH-PRESSURE GAS MAINS MUST BE PERFORMED UNDER PG&E STAND-BY OBSERVATION. CONTRACTOR SHALL NOTIFY PG&E STANDBY GOVERNANCE TEAM AT (800) 875-7915 A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION WORK NEAR PG&E HIGH-PRESSURE GAS MAINS.

**SHEET KEYNOTES**

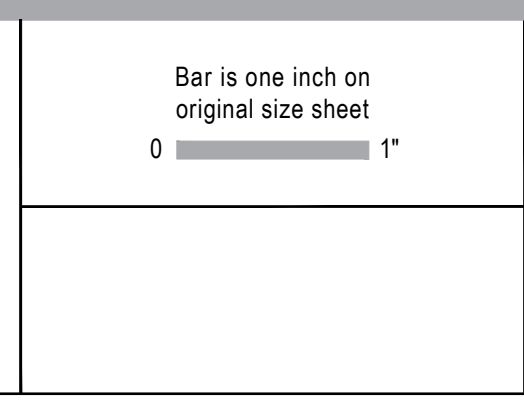
- (N) CAST-IN-PLACE CONCRETE RETAINING FOOTING PER DETAIL **1** S-502
- (N) PRE-MANUFACTURED PEDESTRIAN BRIDGE. SPAN AND WIDTH AS SHOWN THIS SHEET. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- (N) CAST-IN-PLACE WING WALL PER DETAIL **3** S-502



**Know what's below. Call before you dig.**  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	A. PRATT	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	E. FANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1'



2/7/2023

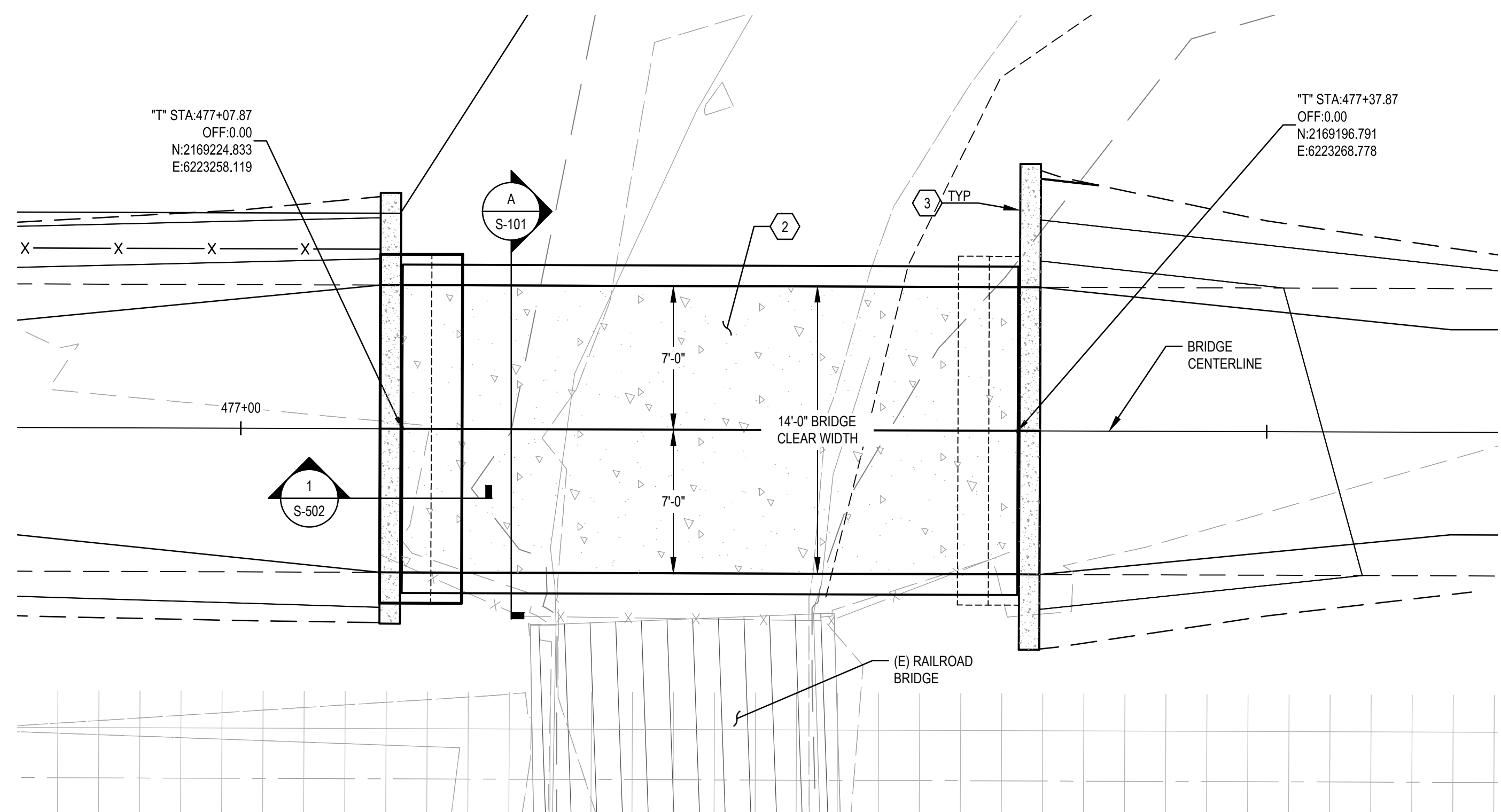
**GHD** GHD Inc.  
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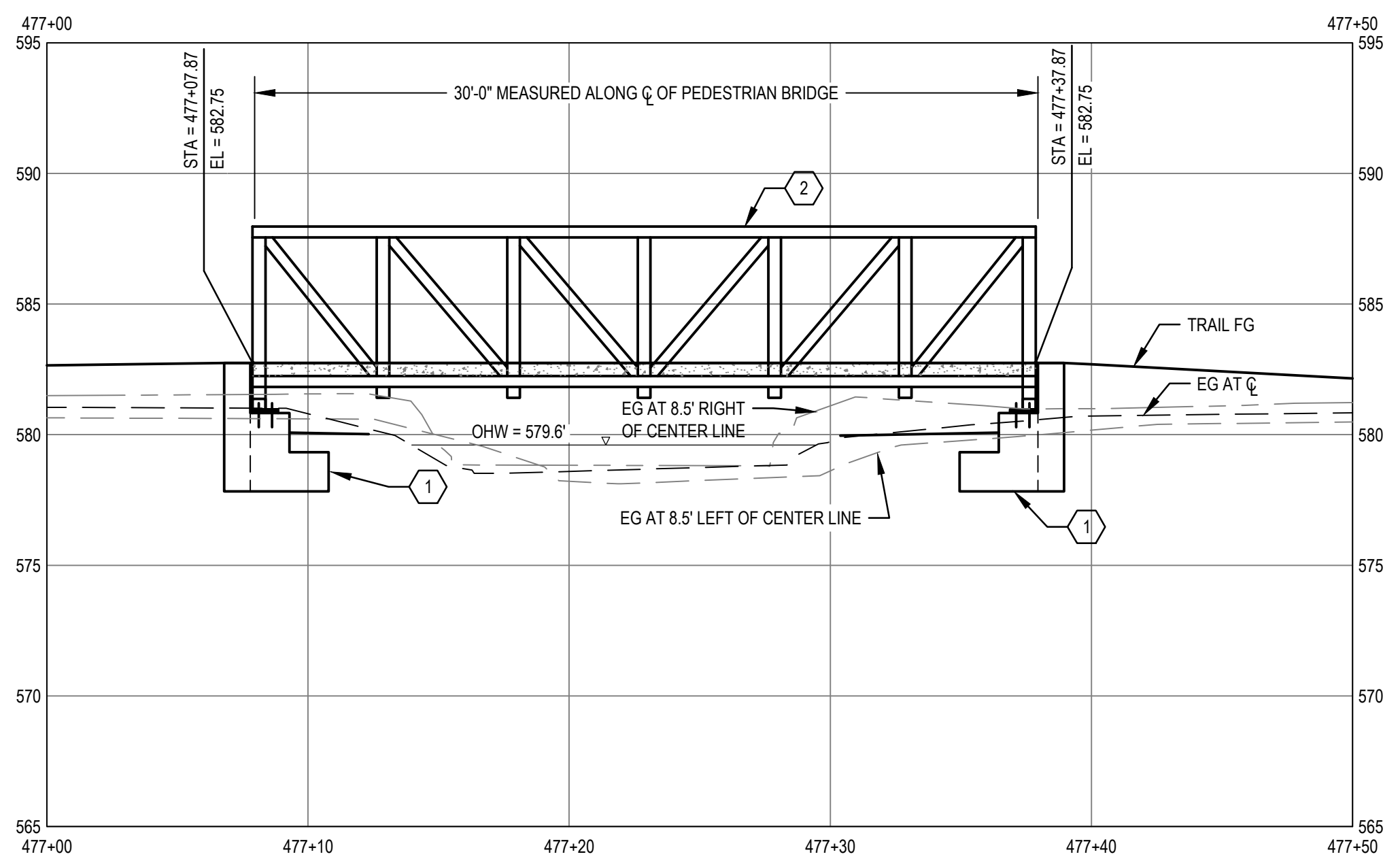
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **AS SHOWN**

Title **NORGARD LANE BRIDGE PLAN AND PROFILE - ADD ALTERNATIVE**  
Size **ANSI D**  
Sheet No. **S-101**  
Sheet **61 of 96**





**PLANT ROAD BRIDGE - PLAN**  
SCALE: 1"=5'



**PLANT ROAD BRIDGE - PROFILE**  
**STATION 477+07.87 TO 477+37.87**  
SCALE: 1"=5'

**SHEET GENERAL NOTES**

- DIMENSIONS SHOWN ARE TYPICAL. FOOTINGS ARE SYMMETRICAL ABOUT CENTERLINE OF TRAIL.

**SHEET KEYNOTES**

- 1 (N) CAST-IN-PLACE CONCRETE RETAINING FOOTING PER DETAIL 1  
S-502
- 2 (N) PRE-MANUFACTURED PEDESTRIAN BRIDGE. SPAN AND WIDTH AS SHOWN THIS SHEET. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- 3 (N) CAST-IN-PLACE WING WALL PER DETAIL 3  
S-502



**Know what's below.  
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Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

No.	Issue	Checked	Approved	Date	
Author	A. PRATT	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	B. CROWELL	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



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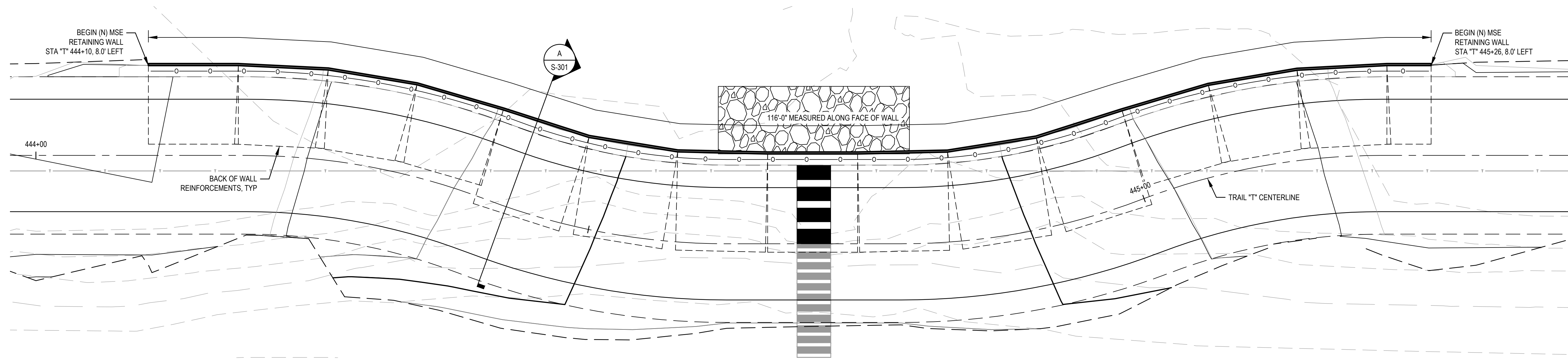
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **AS SHOWN**

Title **PLANT ROAD BRIDGE PLAN AND PROFILE - ADD ALTERNATIVE**  
Sheet No. **S-102**  
Size **ANSI D**  
62 of 96



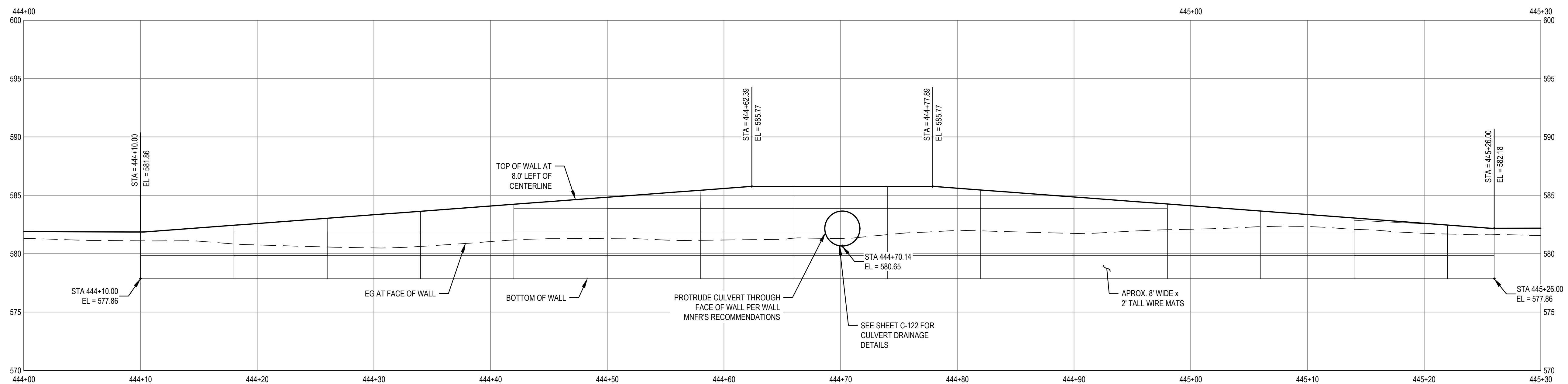
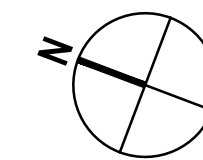
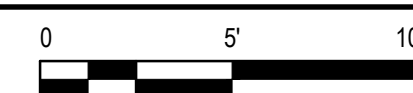
**SHEET GENERAL NOTES**

- REFER TO SHEET S-001 FOR WALL DESIGN PARAMETERS.



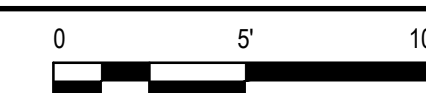
**MSE RETAINING WALL LOCATION - PLAN**

SCALE: 1"=5'



**MSE RETAINING WALL - PROFILE  
STATION 444+10 TO 445+26**

SCALE: 1"=5'

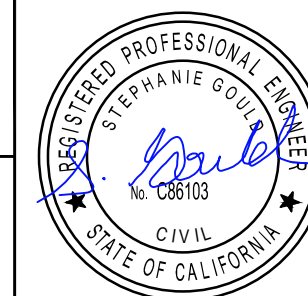
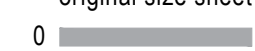


**811**  
Know what's below.  
Call before you dig.

Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

No.	Issue	Checked	Approved	Date	
Author	A. PRATT	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

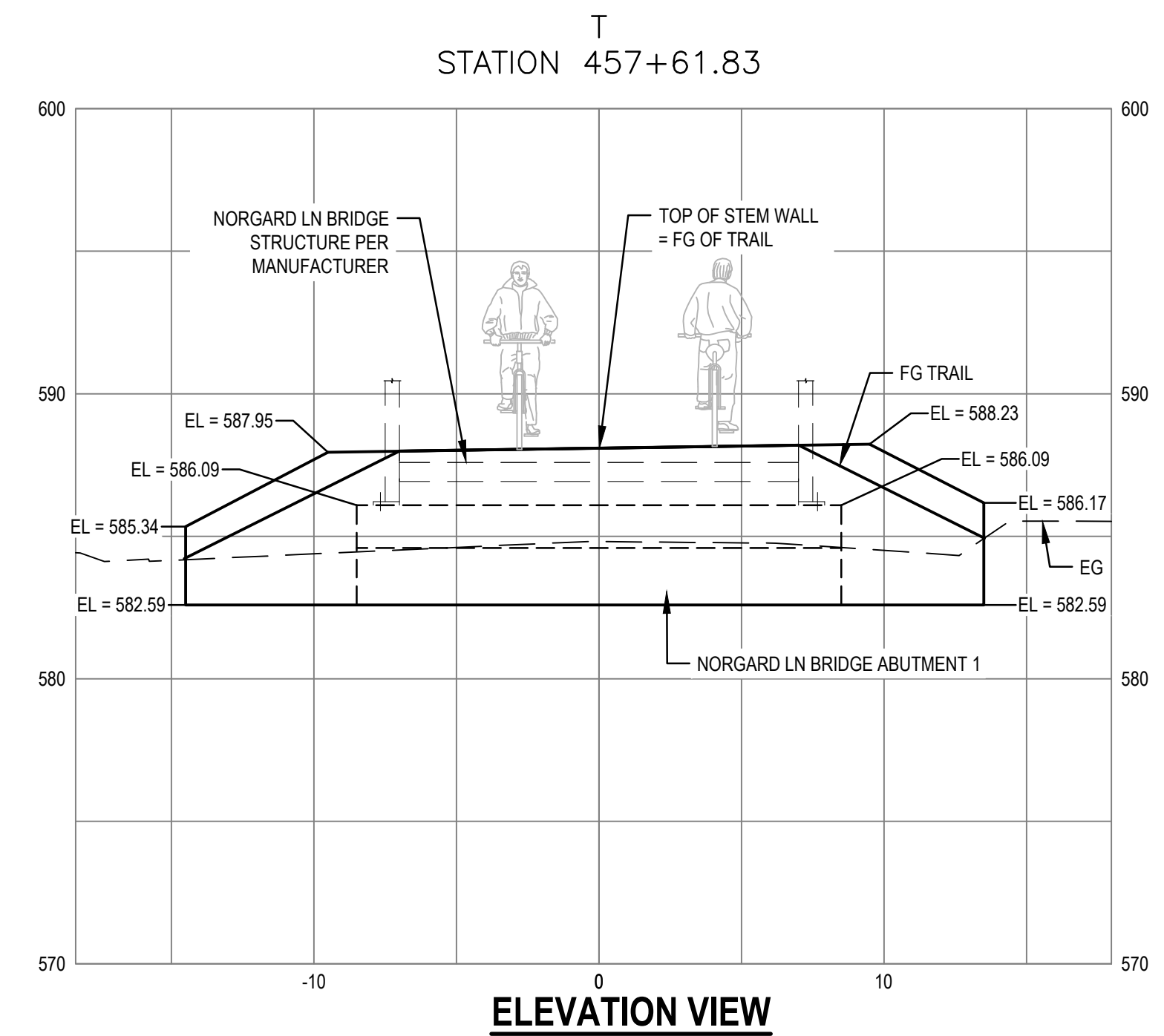
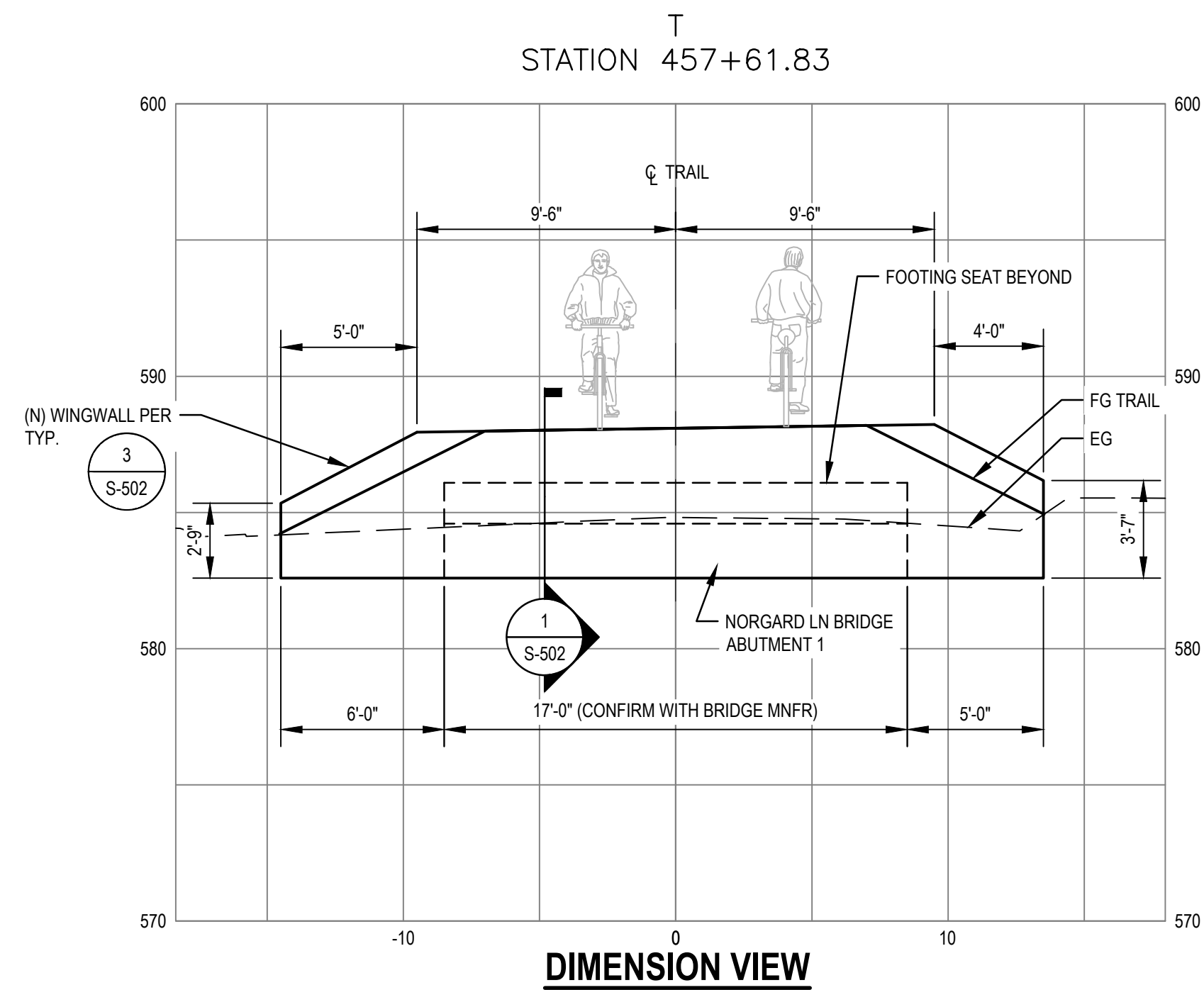
Project No. **12557341** Date **SEP 30, 2022** Scale **AS SHOWN**

Title **RETAINING WALL PLAN, PROFILE , AND SECTION**

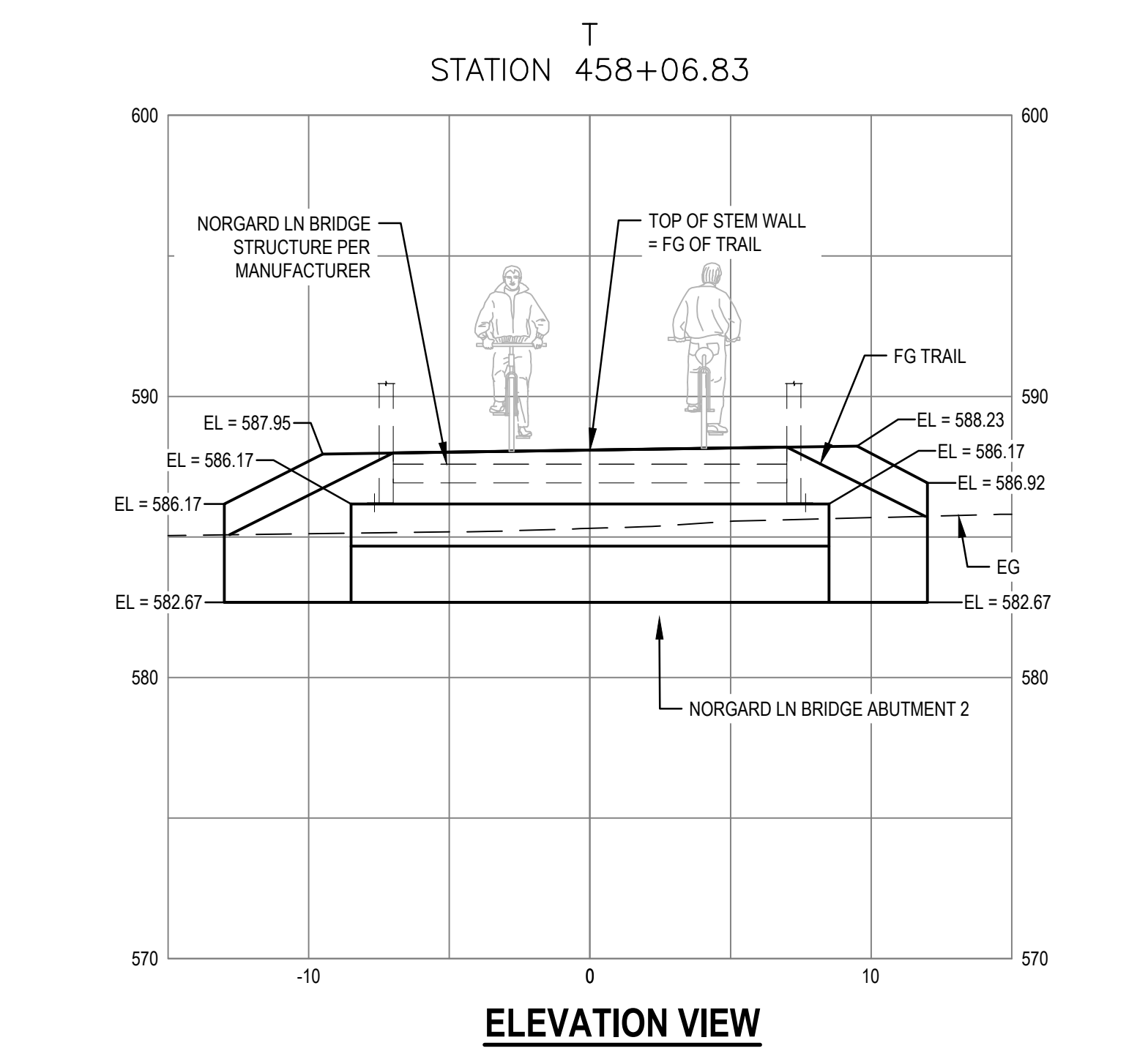
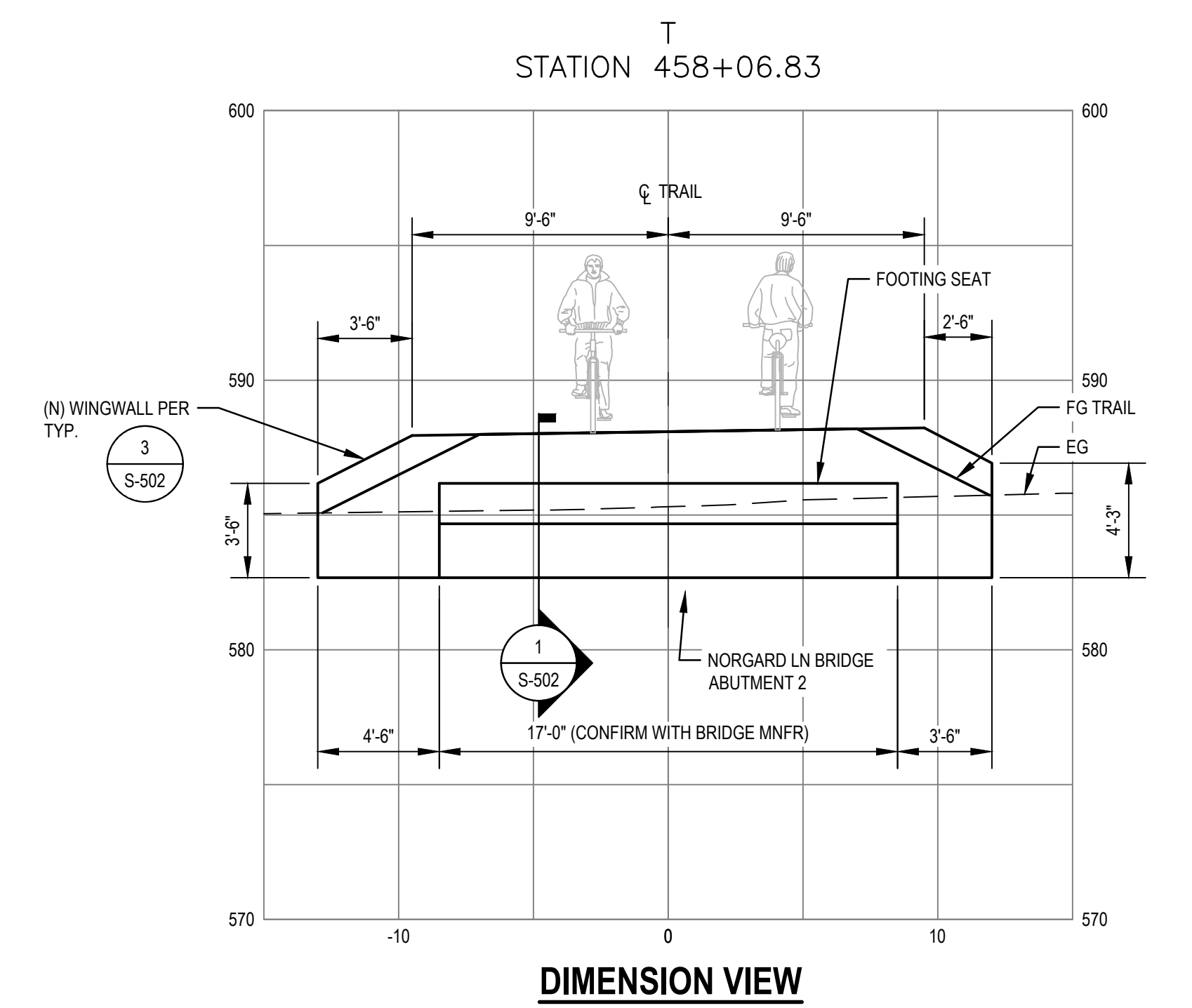
Size **ANSI D**

Sheet No. **S-103** Sheet **63 of 96**





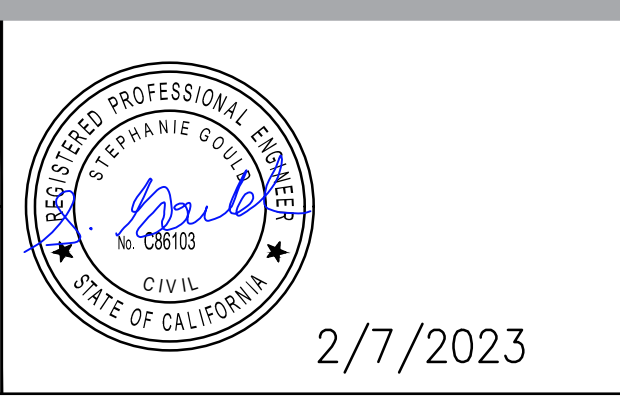
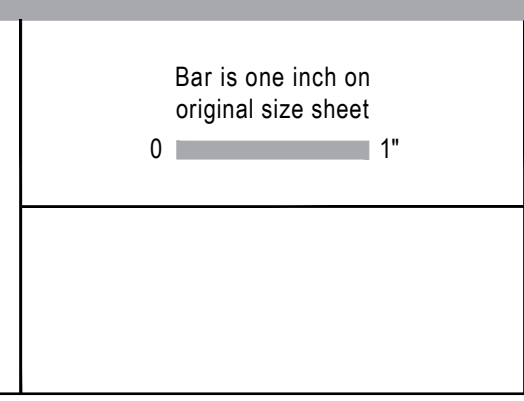
**N1 NORGARD LANE BRIDGE ABUTMENT 1 - SECTION LOOKING AT ABUTMENT**  
 SCALE: 1" = 5' (H) 1" = 5' (V) LOOKING DOWN STATION AT BACK OF WING WALL, LEFT TO RIGHT



**N2 NORGARD LANE BRIDGE ABUTMENT 2 - SECTION LOOKING AT ABUTMENT**  
 SCALE: 1" = 5' (H) 1" = 5' (V) LOOKING DOWN STATION AT FACE OF WING WALL, LEFT TO RIGHT

No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	B. CROWELL	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
 0 ——— 1"

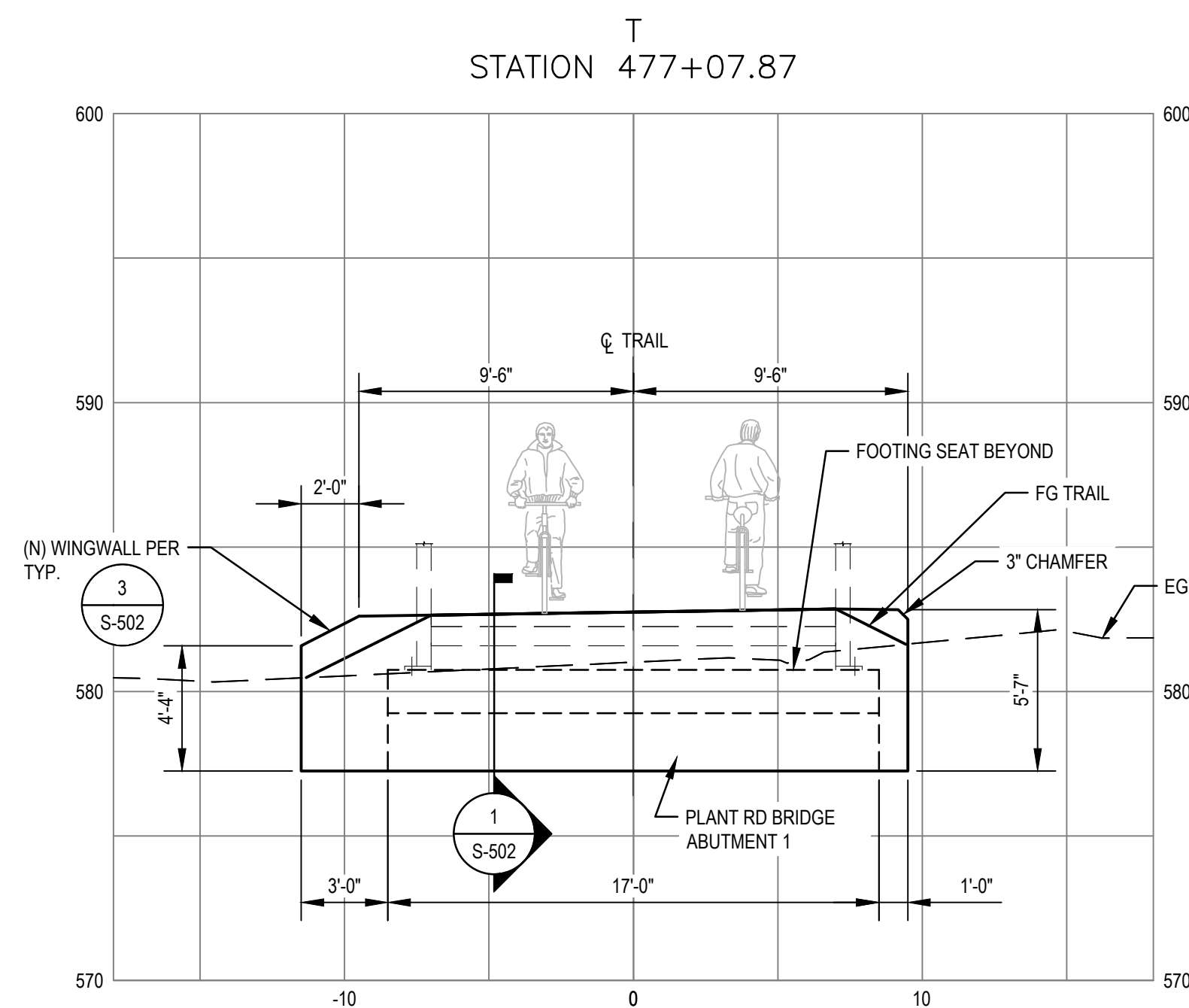


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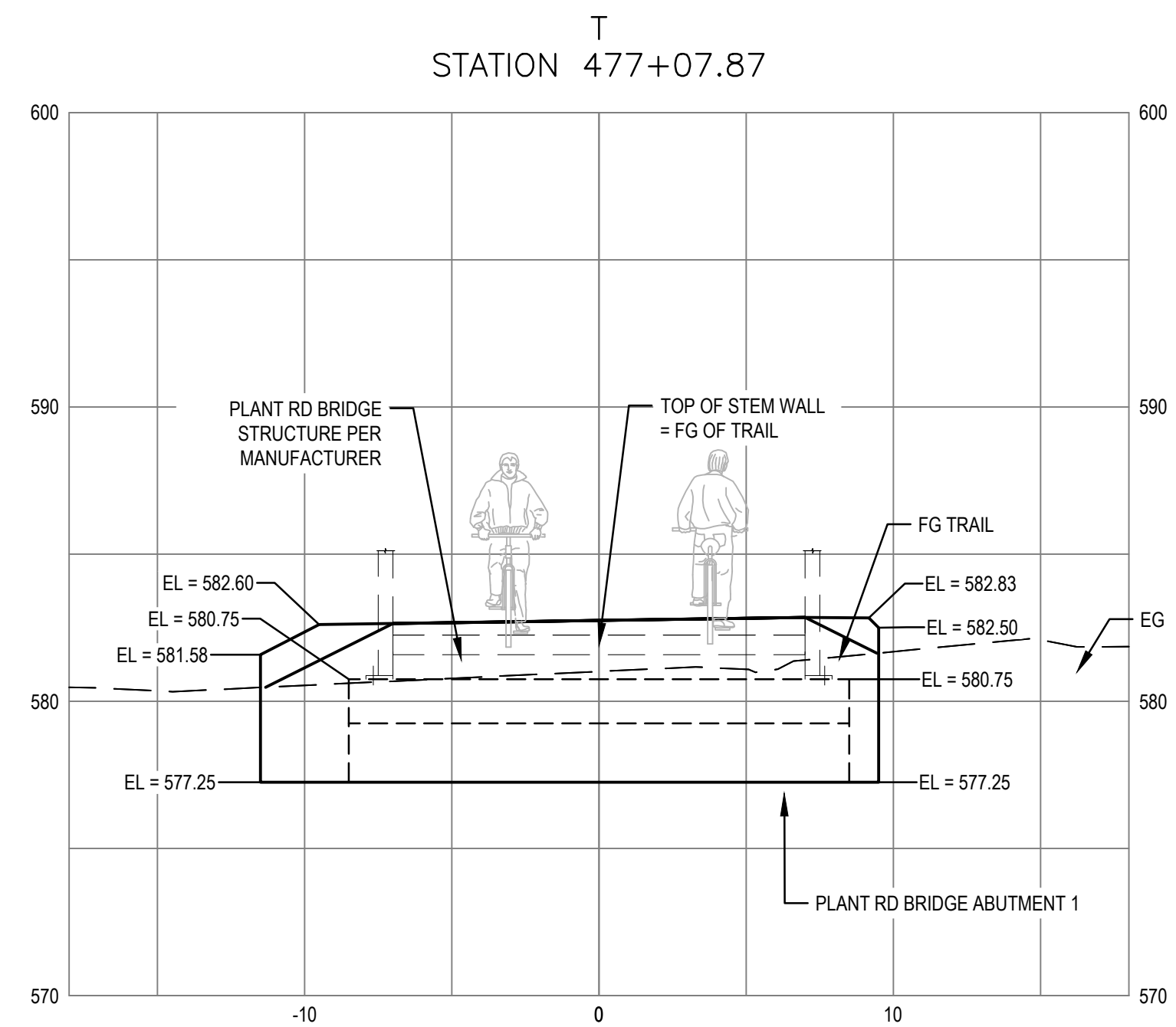
Client: CITY OF UKIAH  
 Project: THE GREAT REDWOOD TRAIL PHASE 4  
 Project No.: 12557341  
 Date: SEP 30, 2022  
 Scale: 1" = 5'

Title: NORGARD LANE BRIDGE ABUTMENT ELEVATIONS - ADD ALTERNATIVE  
 Sheet No.: S-201  
 Sheet: 64 of 96



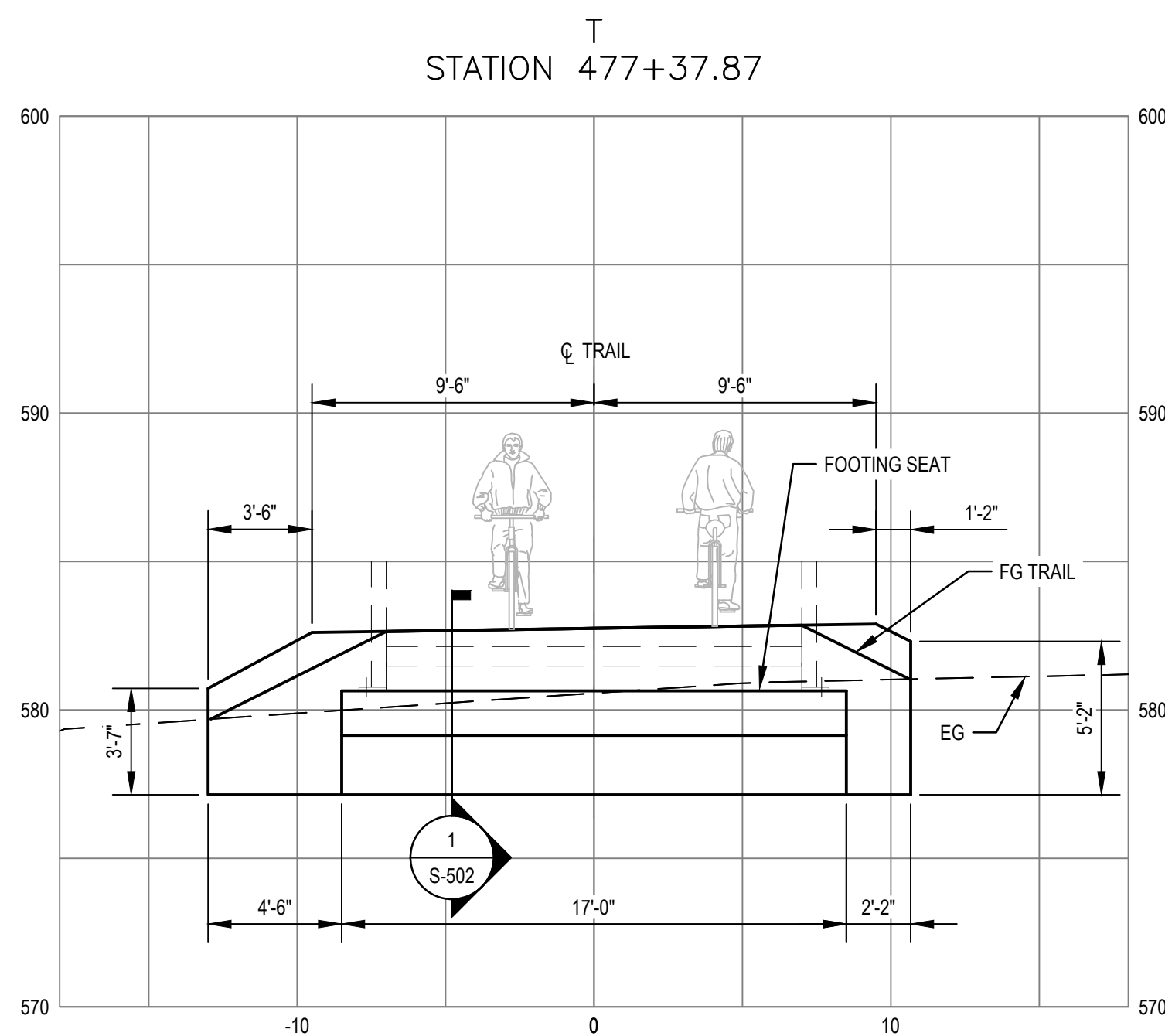
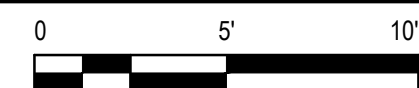


**DIMENSION VIEW**

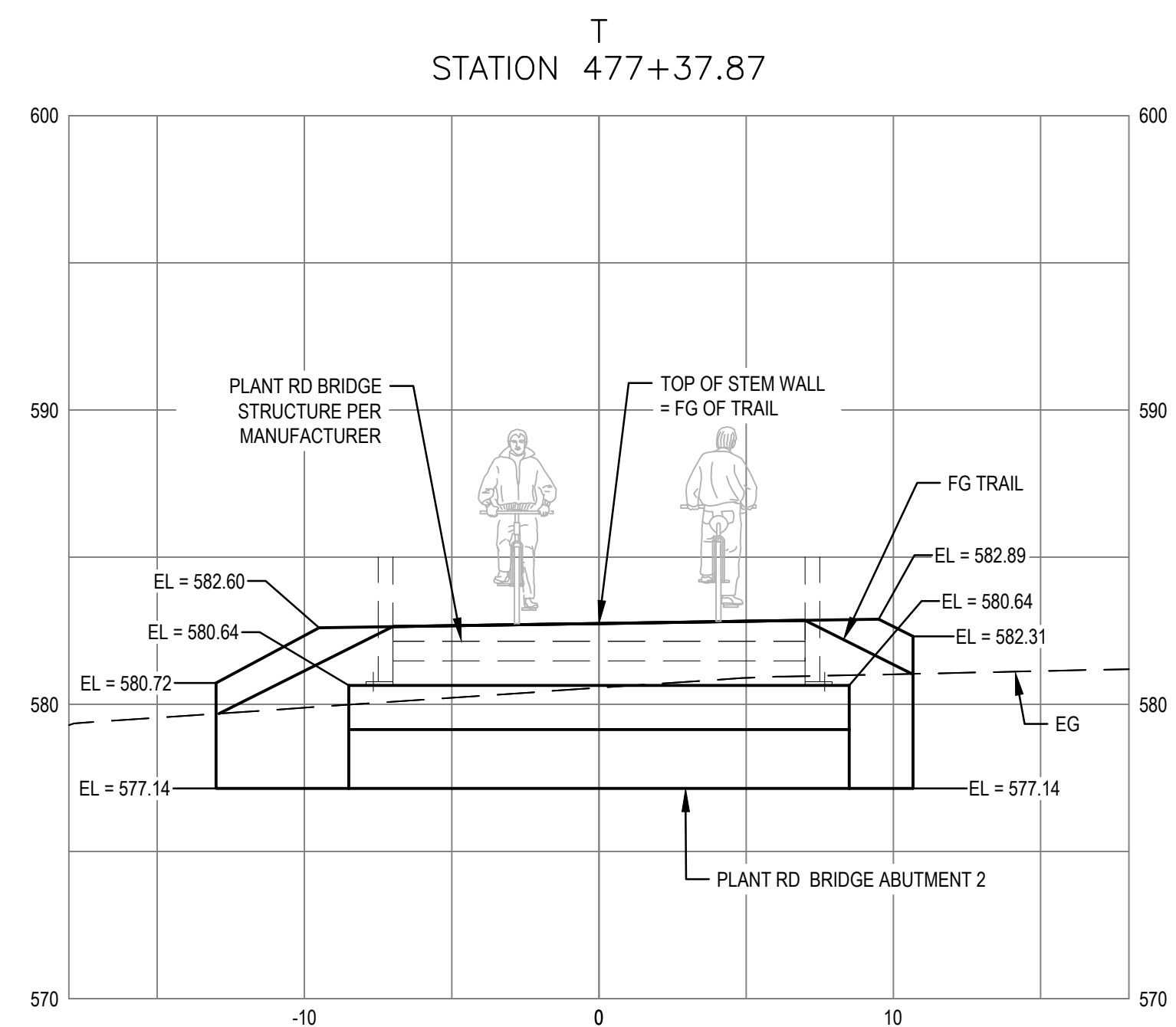


**ELEVATION VIEW**

**P1 PLANT ROAD BRIDGE ABUTMENT 1 - SECTION LOOKING AT ABUTMENT**  
 SCALE: 1" = 5' (H) 1" = 5' (V) LOOKING DOWN STATION AT BACK OF WING WALL, LEFT TO RIGHT

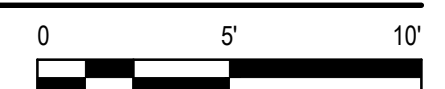


**DIMENSION VIEW**



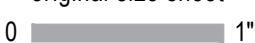
**ELEVATION VIEW**

**P2 PLANT ROAD BRIDGE ABUTMENT 2 - SECTION LOOKING AT ABUTMENT**  
 SCALE: 1" = 5' (H) 1" = 5' (V) LOOKING DOWN STATION AT FACE OF WING WALL, LEFT TO RIGHT



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager
Designer	S. GOULD	Design Check	B. CROWELL	Project Director
			M. KENNEDY	

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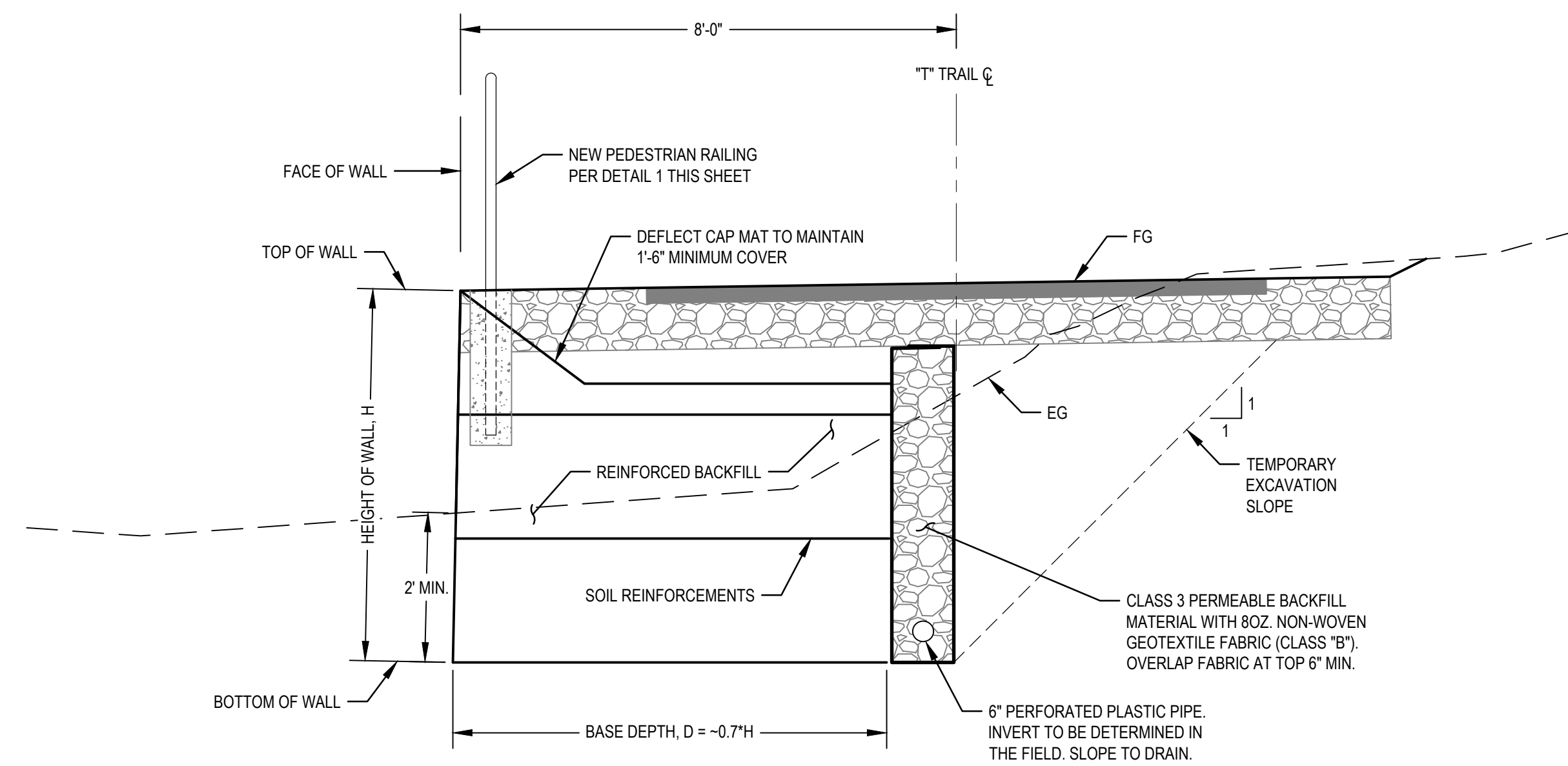


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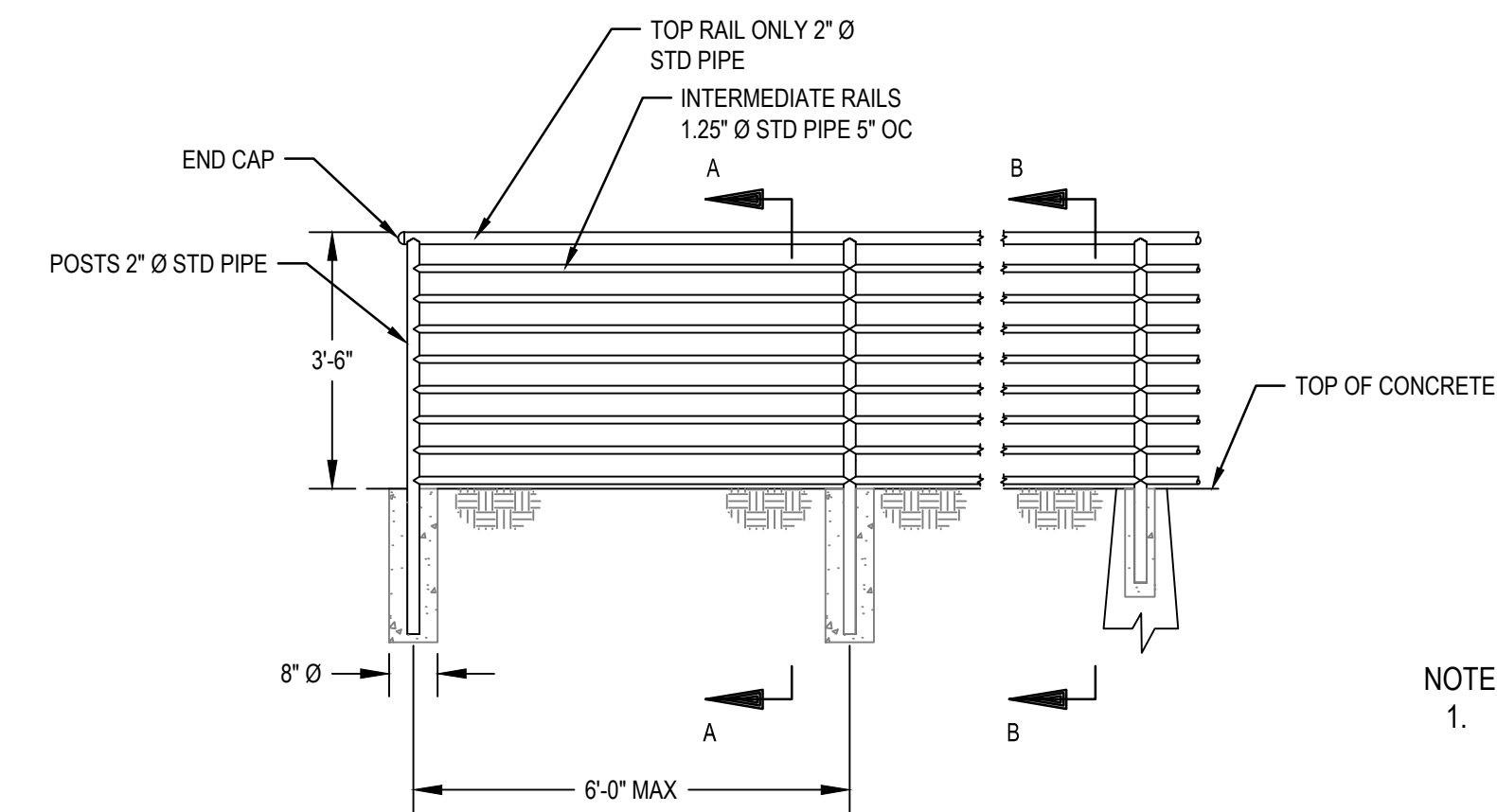
Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 5'

Title	PLANT ROAD BRIDGE ABUTMENT ELEVATIONS - ADD ALTERNATIVE
Sheet No.	S-202
Sheet	65 of 96

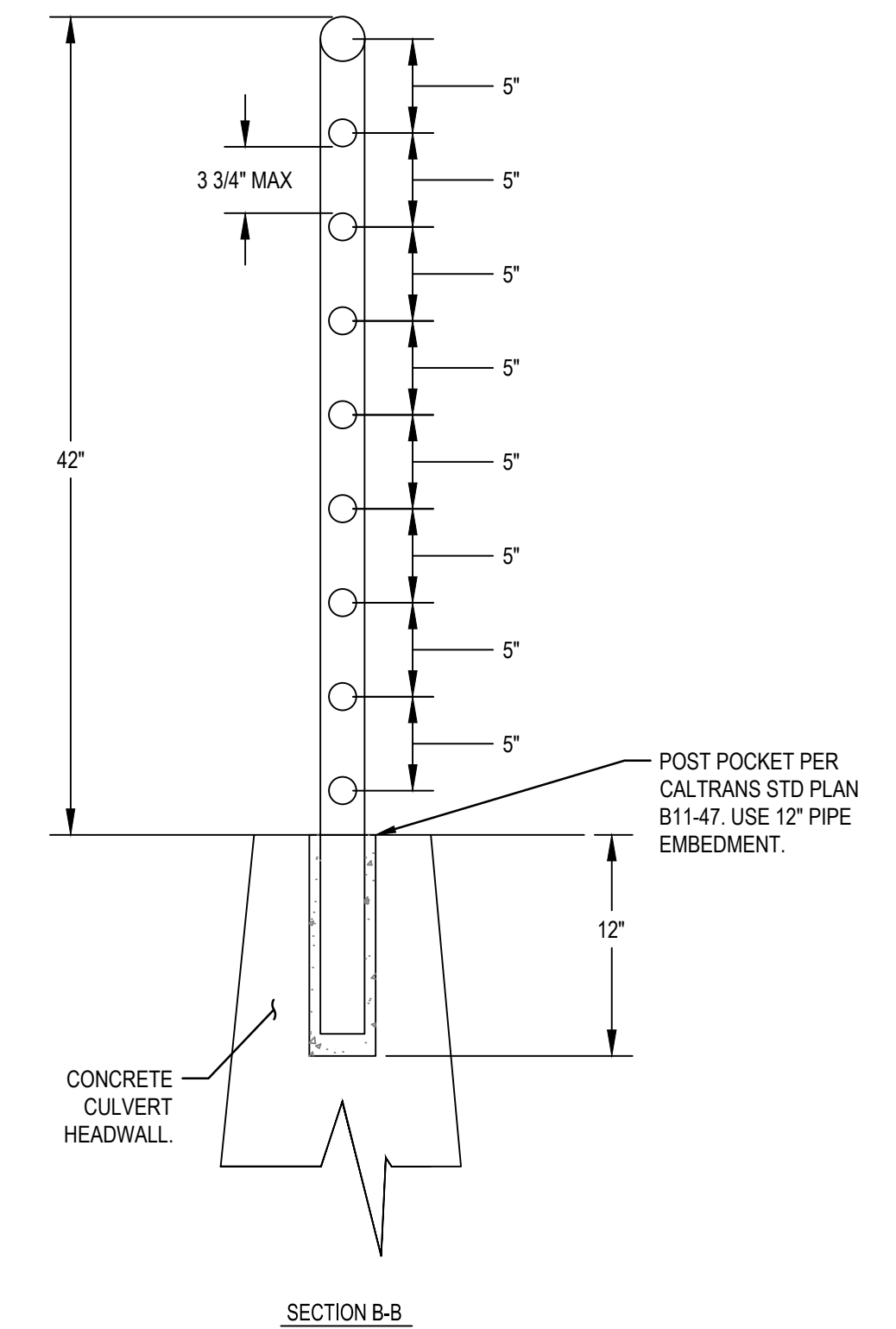
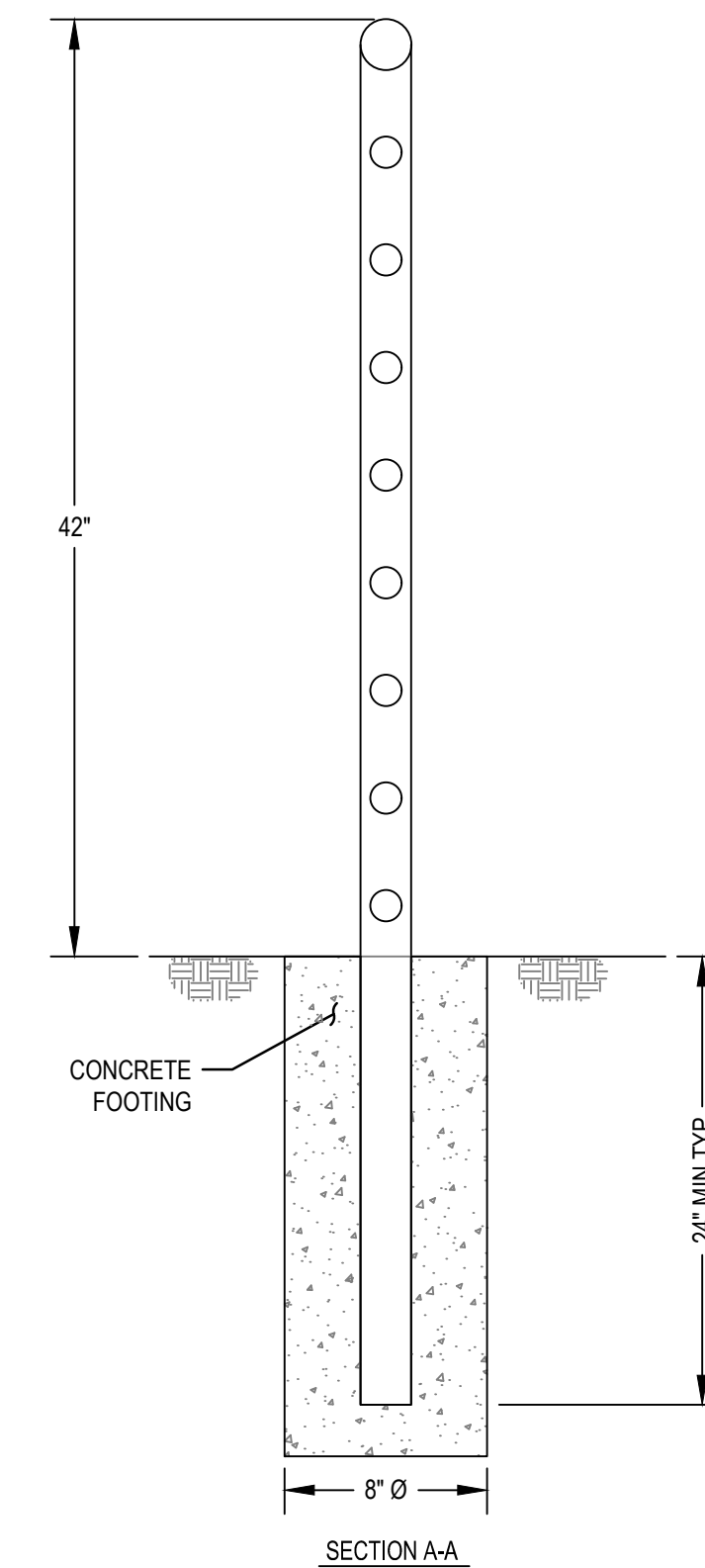




**RETAINING WALL TYPICAL SECTION**  
 SCALE: 1" = 2'-0"  
 0 2' 4'



- NOTES:
1. USE SECTION B-B WHERE RAILING ON CONCRETE CULVERT HEADWALL.
  2. USE SECTION A-A WHERE RAILING ON MSE WALL.



**1 PEDESTRIAN RAILING DETAIL**  
 SCALE: NTS

No.	Issue	Checked	Approved	Date
1	PEDESTRIAN RAILING	EF	EF	2023-02-07
Author	S. GOULD	Drafting Check	E. FANSELAU	Project Manager
Designer	S. GOULD	Design Check	B. CROWELL	Project Director
			E. FANSELAU	M. KENNEDY

Bar is one inch on original size sheet  
 0 1"



2/7/2023



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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	1" = 2'

Title **RETAINING WALL TYPICAL SECTION**

Size **ANSI D**  
 Sheet No. **S-301**  
 Sheet 66 of 96

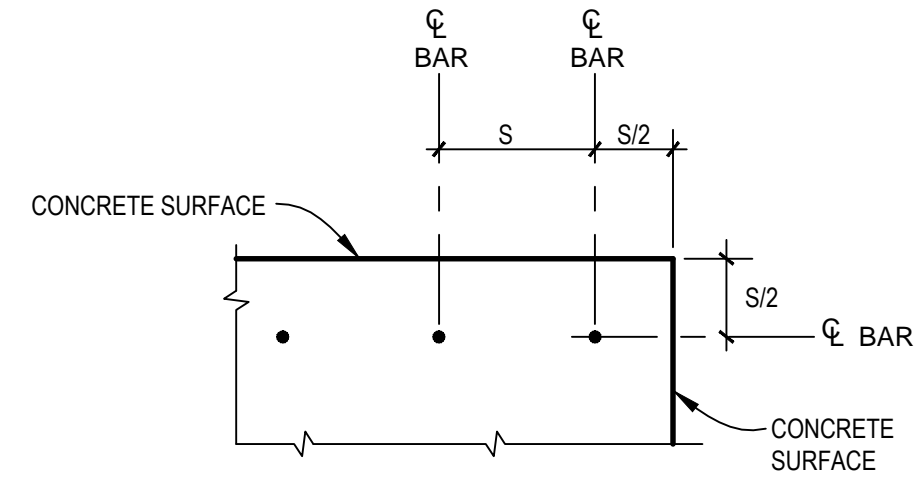


BAR SIZE	DEVELOPMENT LENGTH ( $l_d$ )											
	3000 PSI CONC (f <sub>c</sub> )				4000 PSI CONC (f <sub>c</sub> )				5000 PSI CONC (f <sub>c</sub> )			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$
#3	13	22	12	17	12	19	12	15	12	17	12	13
#4	18	29	14	22	15	25	12	19	14	23	12	17
#5	22	36	17	28	19	31	15	24	17	28	13	22
#6	26	43	20	33	23	37	18	29	20	34	16	26
#7	38	63	29	48	33	54	25	42	29	49	23	38
#8	43	72	33	55	37	62	29	48	34	56	26	43
#9	49	81	37	62	42	70	33	54	38	63	29	48
#10	56	89	43	69	49	78	38	60	44	69	34	54
#11	68	98	52	76	59	85	45	68	53	76	41	59

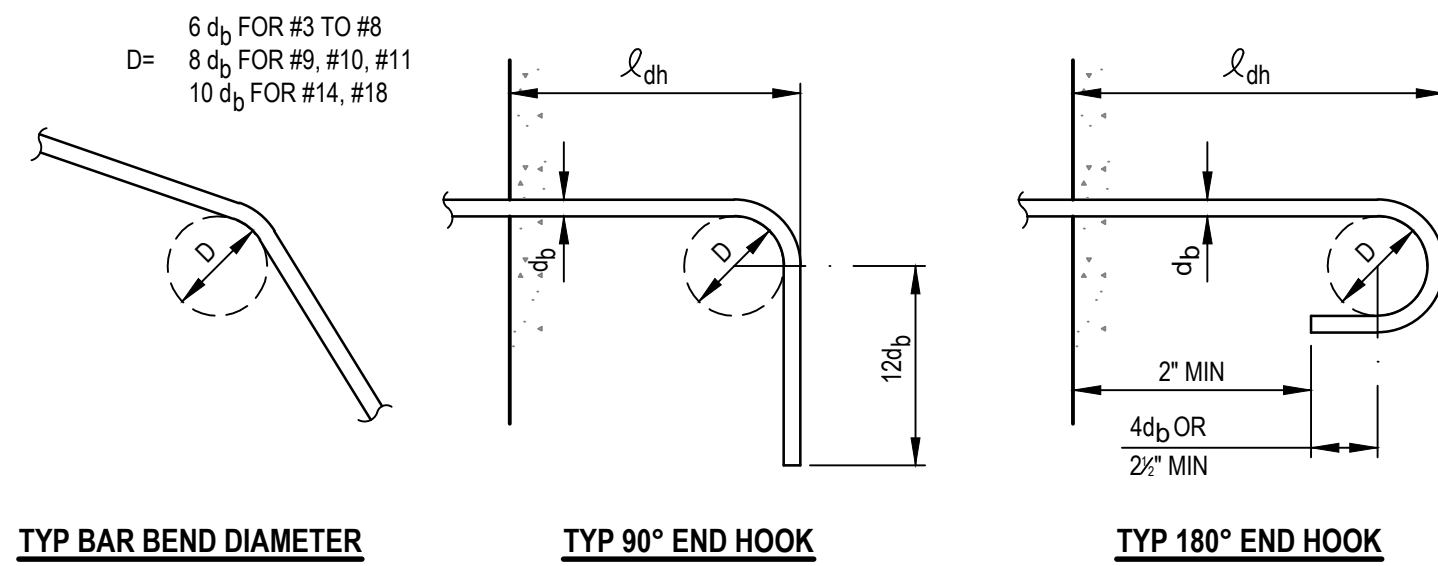
  

BAR SIZE	TENSION LAP SPLICE LENGTH (CLASS 'B' SPLICE)											
	3000 PSI CONC (f <sub>c</sub> )				4000 PSI CONC (f <sub>c</sub> )				5000 PSI CONC (f <sub>c</sub> )			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$	$s \geq 6"$	$s < 6"$
#3	17	28	16	22	16	25	16	19	16	22	16	17
#4	23	38	18	29	20	33	16	25	18	29	16	23
#5	28	47	22	36	25	41	19	31	22	36	17	28
#6	34	56	26	43	29	49	23	38	26	44	20	34
#7	49	82	38	63	43	71	33	55	38	63	30	49
#8	56	93	43	72	49	81	38	62	44	72	34	56
#9	63	105	49	81	55	91	42	70	49	81	38	63
#10	73	116	56	90	63	101	49	78	57	90	44	70
#11	88	128	68	99	76	111	59	85	68	99	53	76

- NOTES:
- LENGTHS SHOWN ARE FOR GRADE 60 UNCOATED BARS.
  - LENGTHS SHOWN ARE IN INCHES.
  - INCREASE LENGTHS 30% FOR LIGHT WEIGHT CONCRETE
  - TOP BARS: HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.
  - THE QUANTITY 's' IS DEFINED AS FOLLOWS:

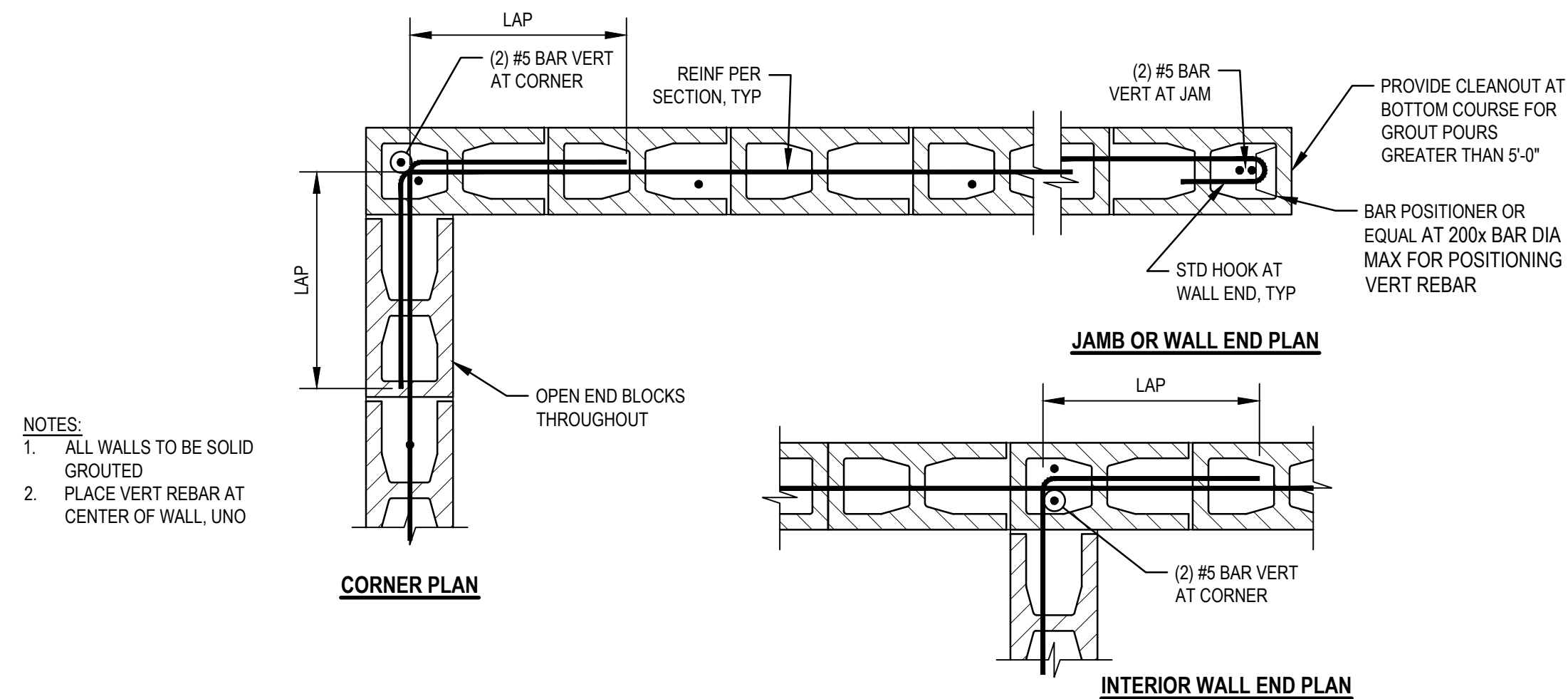


**1 CONCRETE DEVELOPMENT LENGTHS AND LAP SPLICE LENGTHS**  
SCALE: 1" = 1'-0"



BAR SIZE	MINIMUM TENSION EMBEDMENT LENGTHS $l_{dh}$ (IN.) FOR STANDARD END HOOKS ON REINFORCING BARS			
	NORMAL WEIGHT CONCRETE, f <sub>c</sub> , PSI			
	3000	4000	5000	6000
#3	6	6	6	6
#4	8	7	6	6
#5	10	9	8	7
#6	12	10	9	9
#7	14	12	11	10
#8	16	14	12	11
#9	18	15	14	13
#10	20	17	16	14
#11	22	19	17	16
#14	38	33	29	27
#18	50	43	39	35

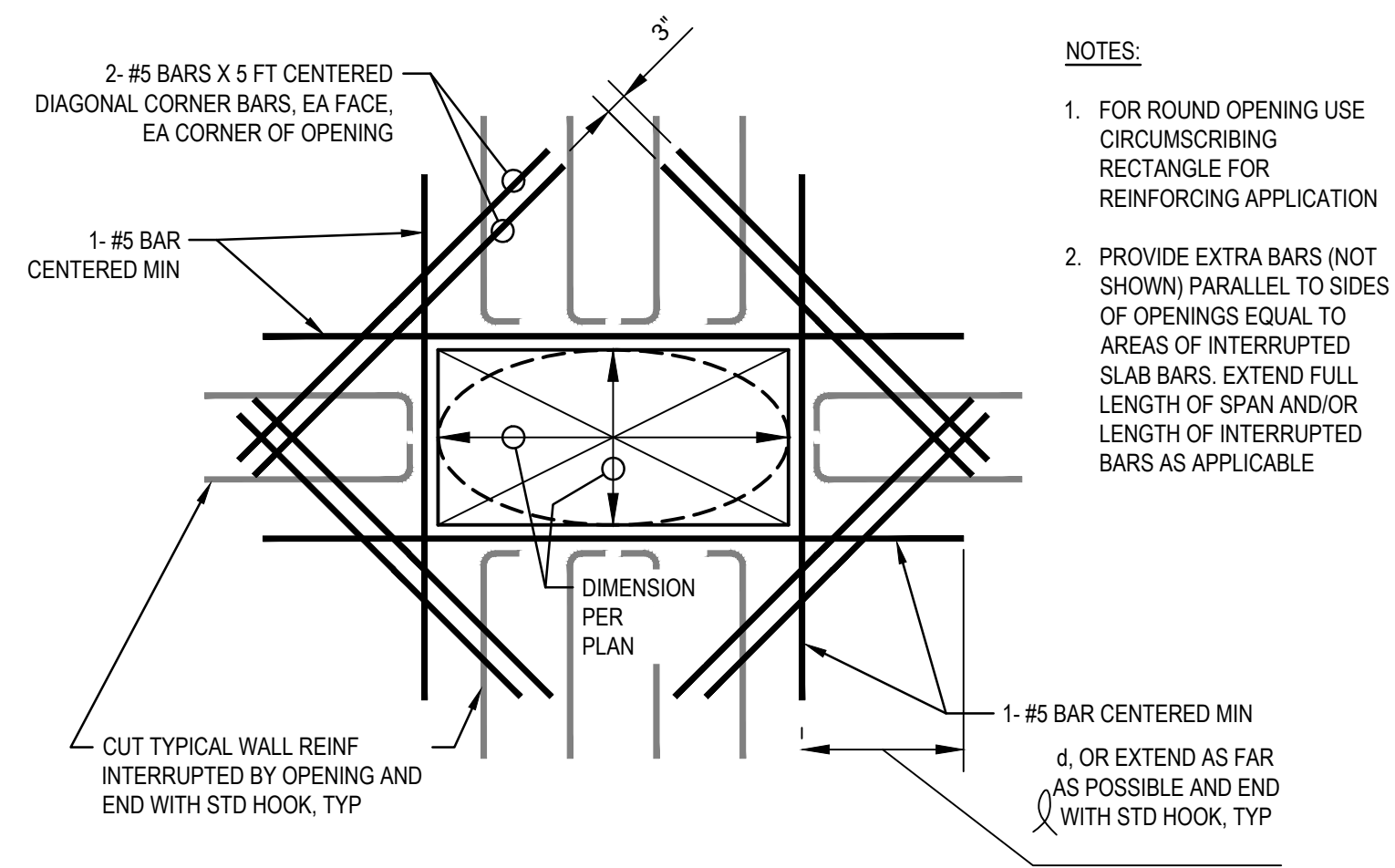
**4 REINFORCING BAR ENDS AND BAR HOOKS**  
SCALE: 1" = 1'-0"



- NOTES:
- ALL WALLS TO BE SOLID GROUTED
  - PLACE VERT REBAR AT CENTER OF WALL, UNO

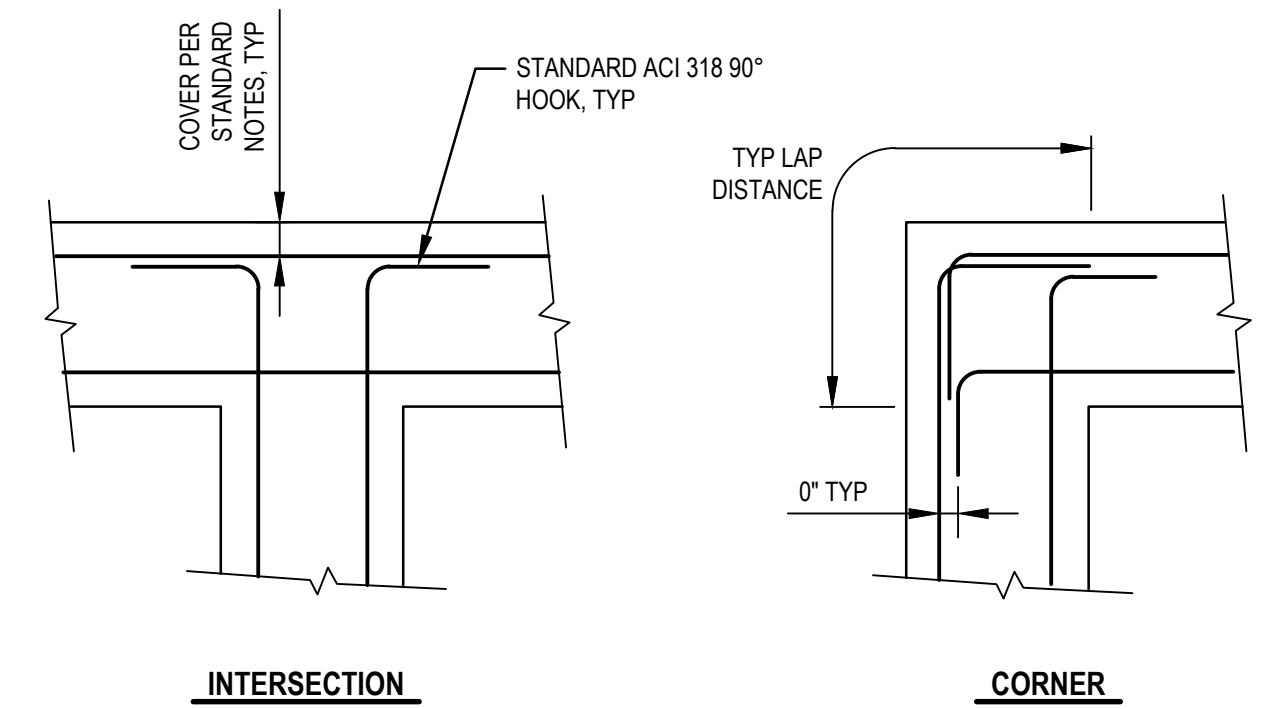
**7 TYP CMU WALL ENDS AND CORNERS**  
SCALE: 1" = 1'-0"

**2 TYP REINFORCEMENT AT WALL & SLAB OPENINGS**  
SCALE: 1" = 1'-0"

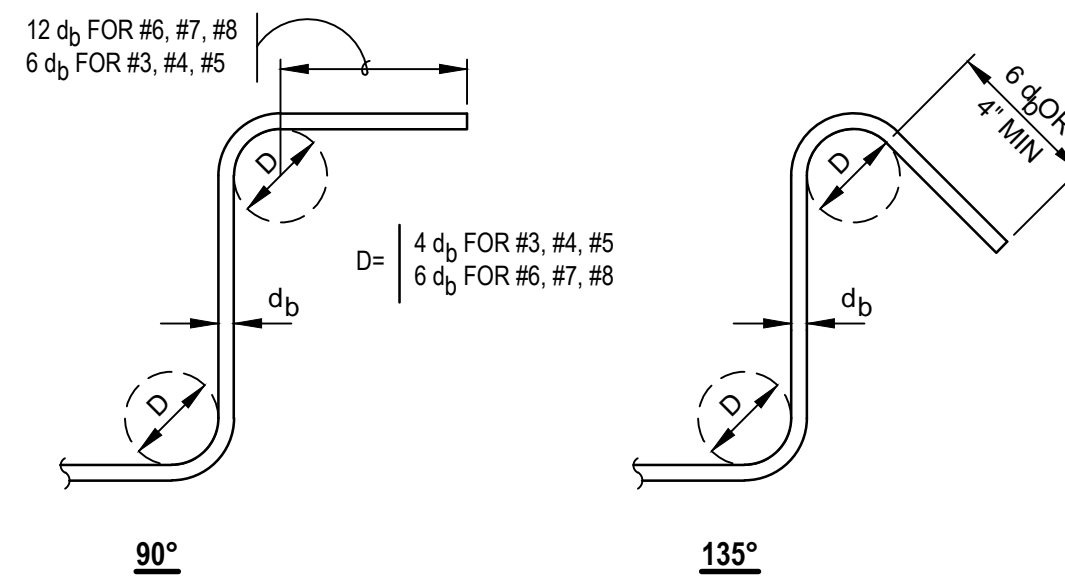


- NOTES:
- FOR ROUND OPENING USE CIRCUMSCRIBING RECTANGLE FOR REINFORCING APPLICATION
  - PROVIDE EXTRA BARS (NOT SHOWN) PARALLEL TO SIDES OF OPENINGS EQUAL TO AREAS OF INTERRUPTED SLAB BARS. EXTEND FULL LENGTH OF SPAN AND/OR LENGTH OF INTERRUPTED BARS AS APPLICABLE

**3 TYP REINFORCEMENT AT INTERSECTIONS AND CORNERS**  
SCALE: 1" = 1'-0"



**5 STIRRUP AND TIE HOOKS**  
SCALE: 1" = 1'-0"



**6 MASONRY DEVELOPMENT LENGTH AND LAP SPLICE**  
SCALE: 1" = 1'-0"

BAR SIZE	DEVELOPMENT AND LAP SPLICE LENGTH FOR MASONRY					
	COVER		BAR CENTERED IN			
	1-1/2 (IN)	2 (IN)	6 IN CMU	8 IN CMU	10 IN CMU	12 IN CMU
#3	17	17	16	16	16	16
#4	30	30	21	21	21	21
#5	46	46	32	26	26	26
#6	86	86	54	43	40	40
#7	86	86	NP	60	46	46
#8	86	86	NP	72	71	61



Know what's below.  
Call before you dig.  
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	S. GOULD	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	B. CROWELL	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"



2/7/2023

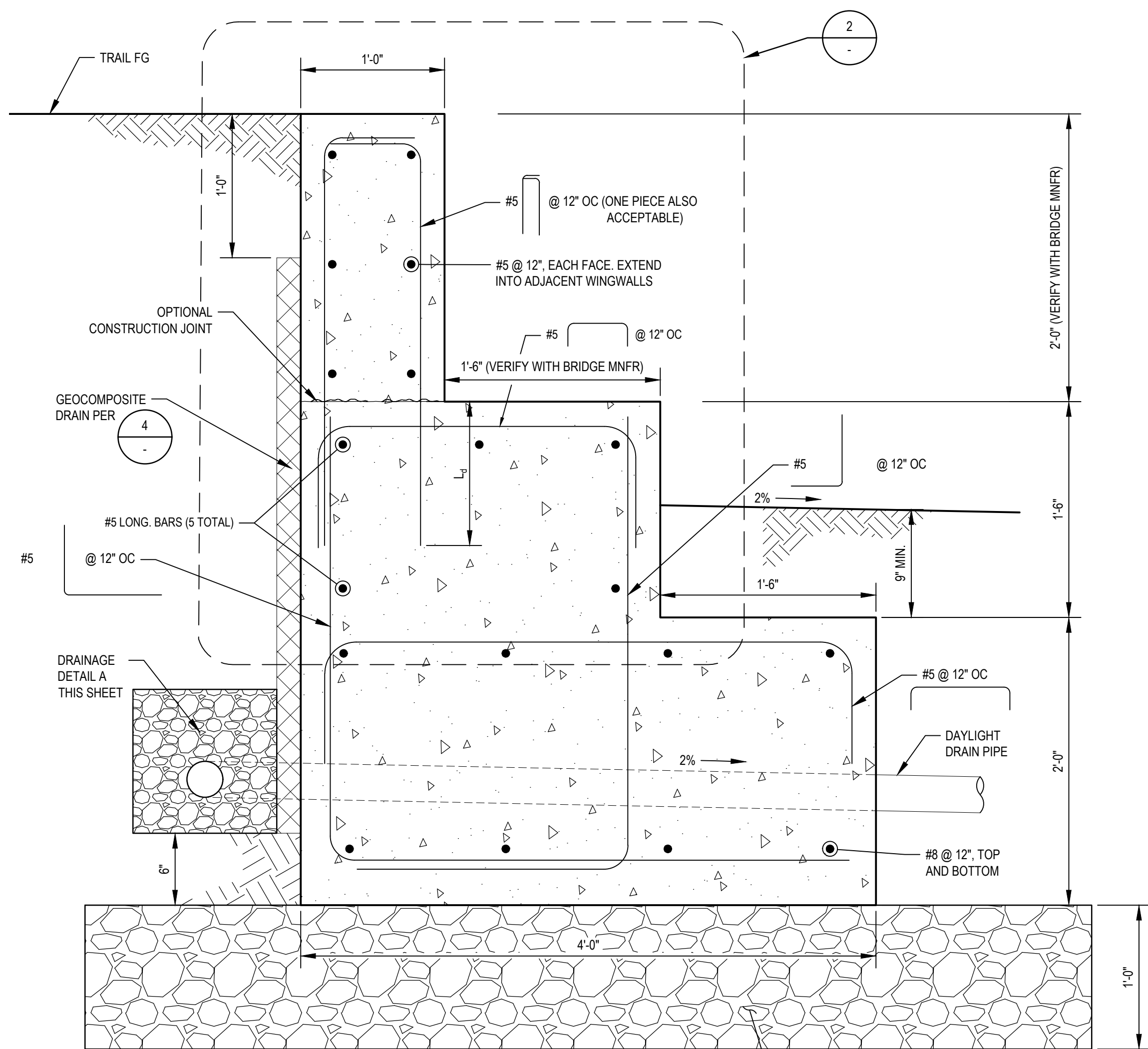
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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **AS NOTED**

Title **TYPICAL STRUCTURAL DETAILS**  
Sheet No. **S-501**  
Sheet **67 of 96**

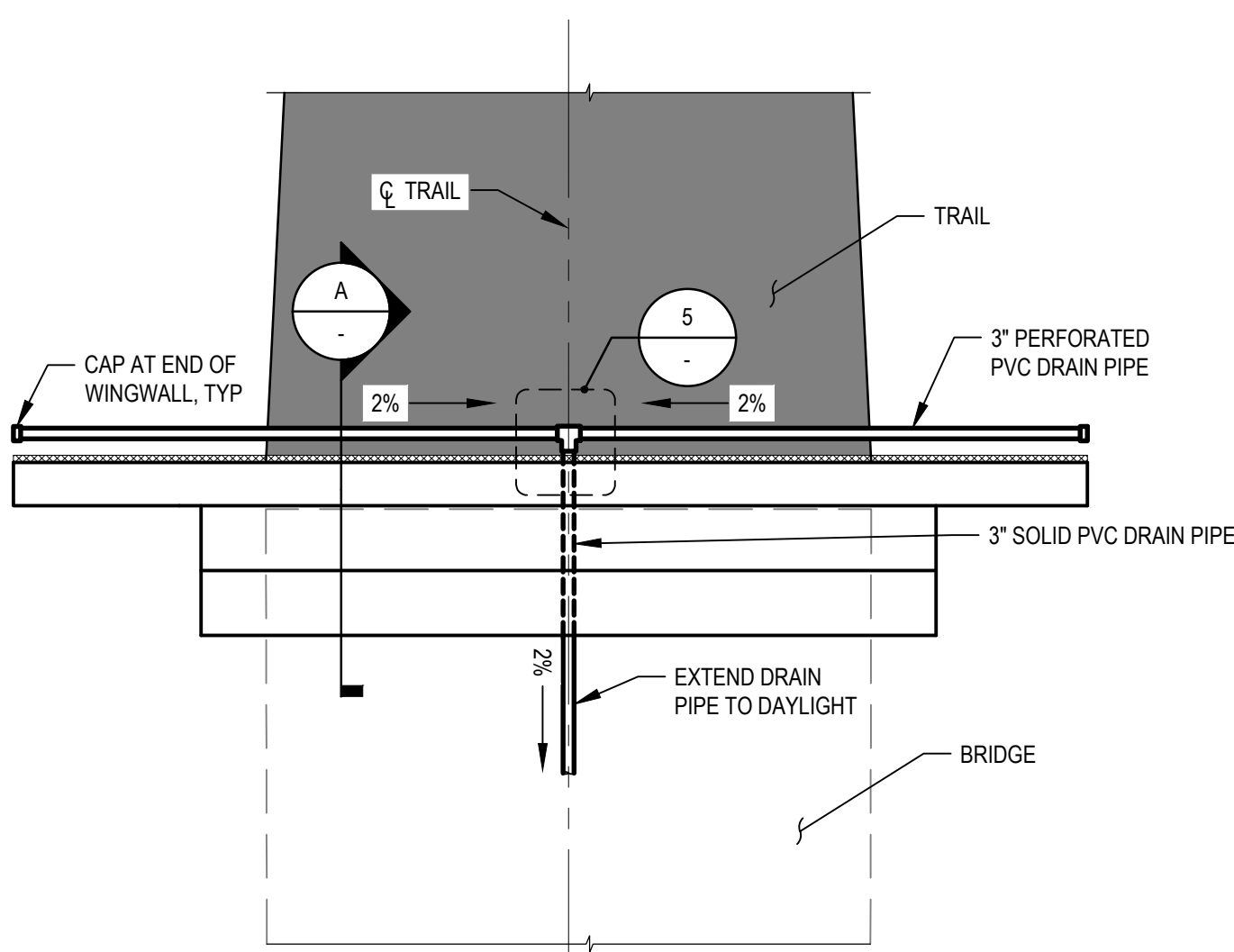




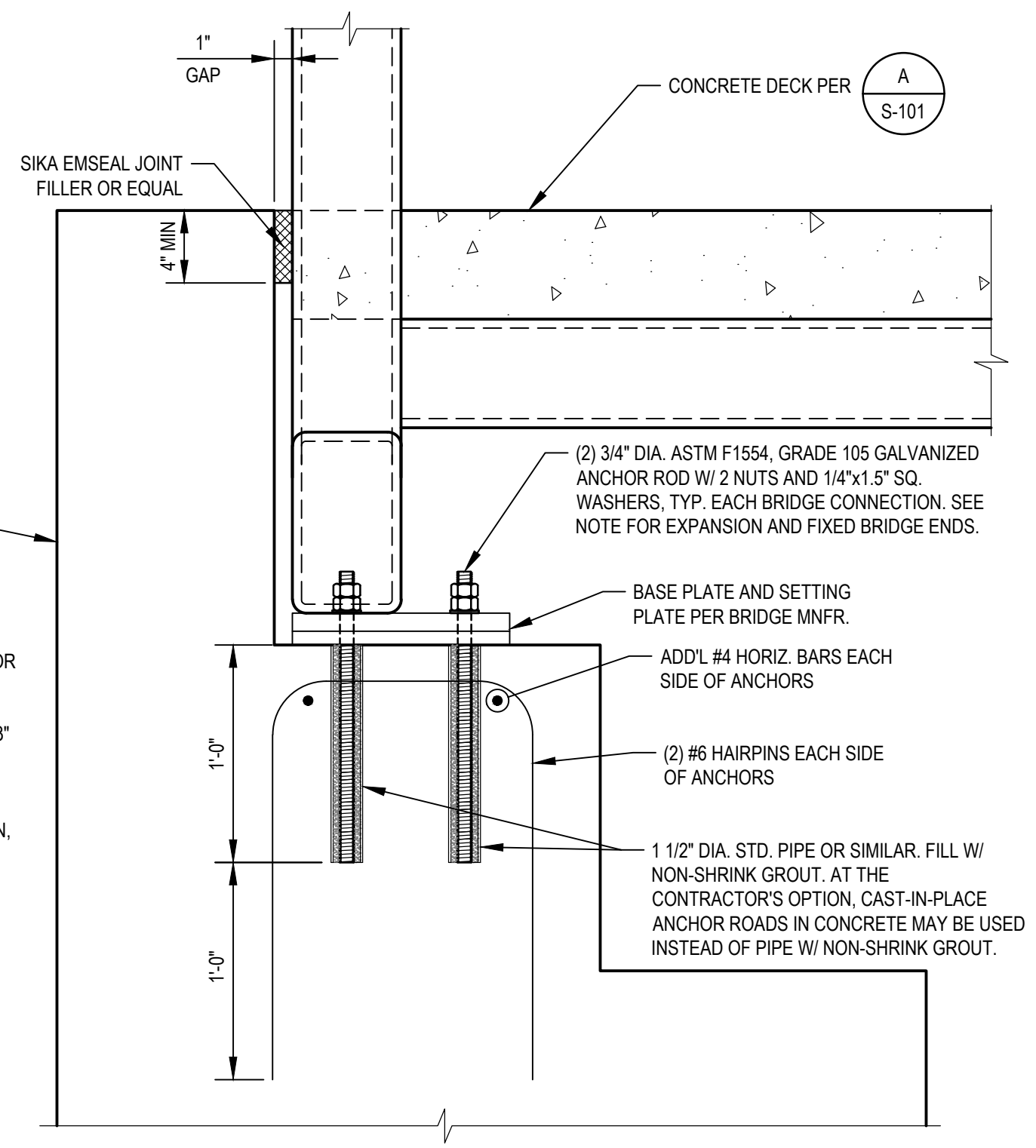
**1 TYP BRIDGE ABUTMENT SECTION**  
SCALE: 1 1/2" = 1'-0"  
0 1/2' 1' 1 1/2'

- BRIDGE NOTES:**
- ONE END OF BRIDGE SHALL BE "FIXED BEARING". FIXED END SHALL HAVE (2) 7/8" HOLES FOR ANCHOR RODS.
  - ONE END OF BRIDGE SHALL BE "EXPANSION BEARING". EXPANSION END SHALL HAVE (2) 7/8" x 3" SLOTTED HOLES FOR ANCHOR RODS.
  - HOLE LOCATION TO BE DETERMINED BY BRIDGE MANUFACTURER.
  - AT EXPANSION BEARING, BACK-OUT NUT 1/2" TURN, TIGHT AGAINST SECOND NUT AND PEEN BOLT THREADS.
  - VERIFY ALL BRIDGE DIMENSIONS, AND BEARING CONFIGURATION WITH BRIDGE MANUFACTURER.

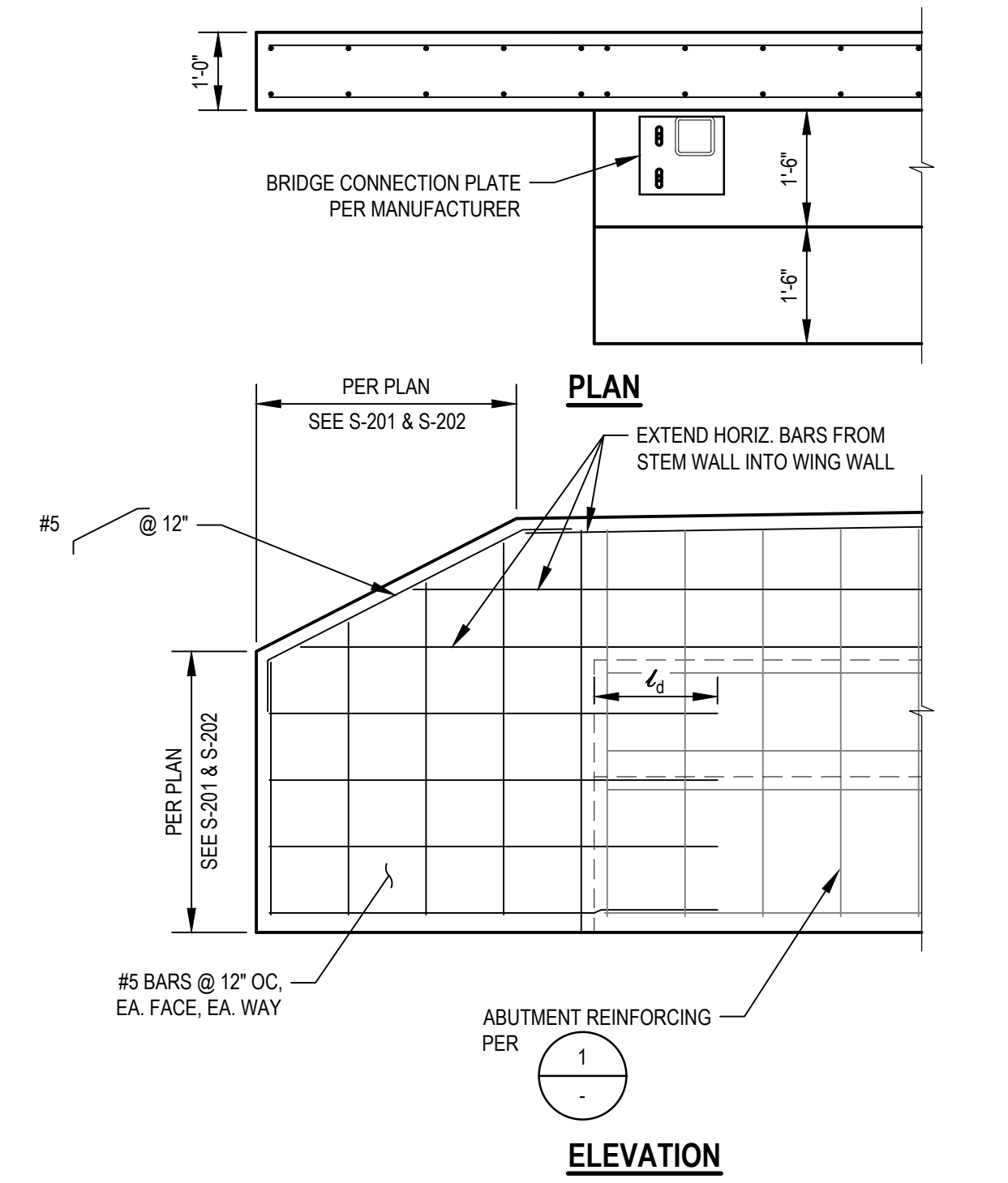
**2 BRIDGE CONNECTION DETAIL**  
SCALE: 1 1/2" = 1'-0"  
0 1/2' 1' 1 1/2'



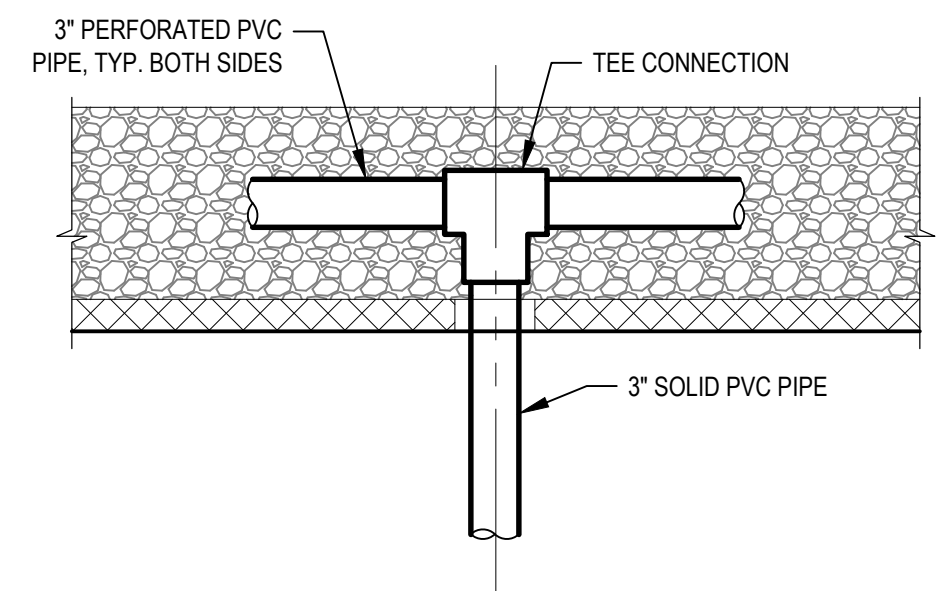
**4 ABUTMENT DRAINAGE DETAIL**  
SCALE: 1/4" = 1'-0"  
0 2' 4' 8'



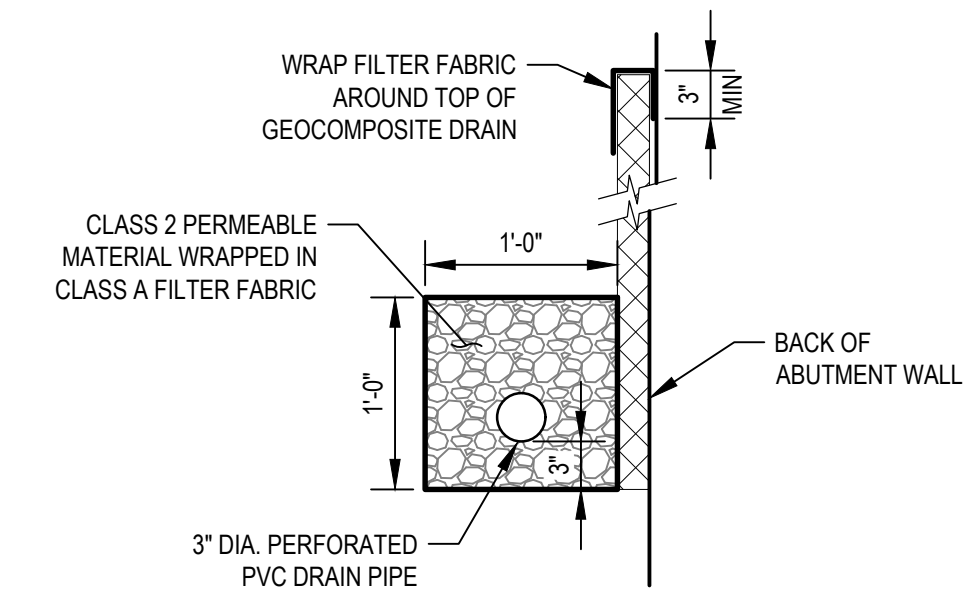
**3 WINGWALL TYPICAL DETAIL**  
SCALE: 1/2" = 1'-0"  
0 1' 2' 4'



**5 DRAINAGE ENLARGEMENT**  
SCALE: 1" = 1'-0"  
0 1/2' 1' 2'



**A DRAINAGE SECTION**  
SCALE: 1" = 1'-0"  
0 1/2' 1' 2'



**811**  
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No.	Issue	Checked	Approved	Date
Author	S. GOULD	Drafting Check	E. FANSELAU	
Designer	S. GOULD	Design Check	B. CROWELL	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
0 1'



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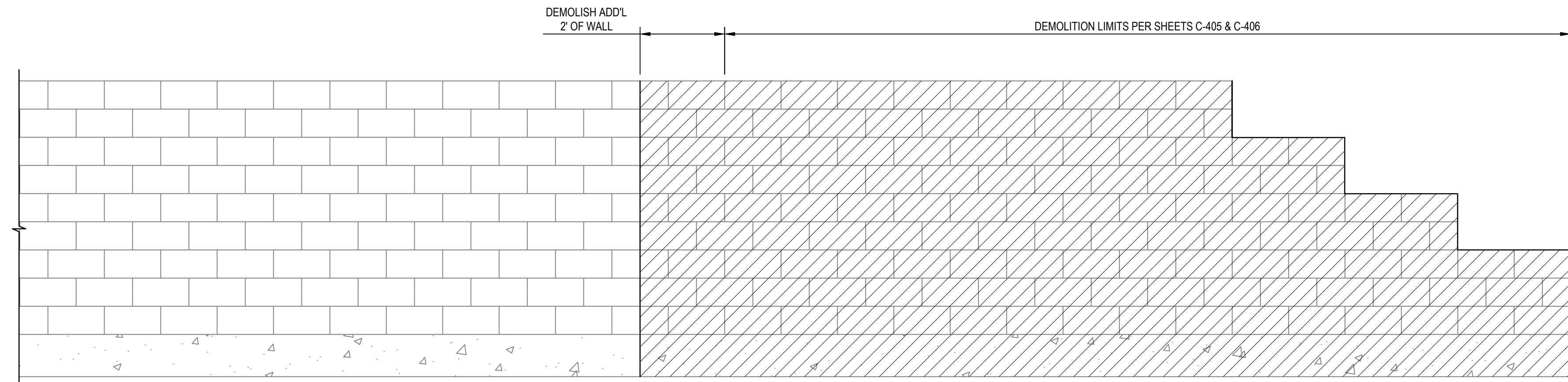
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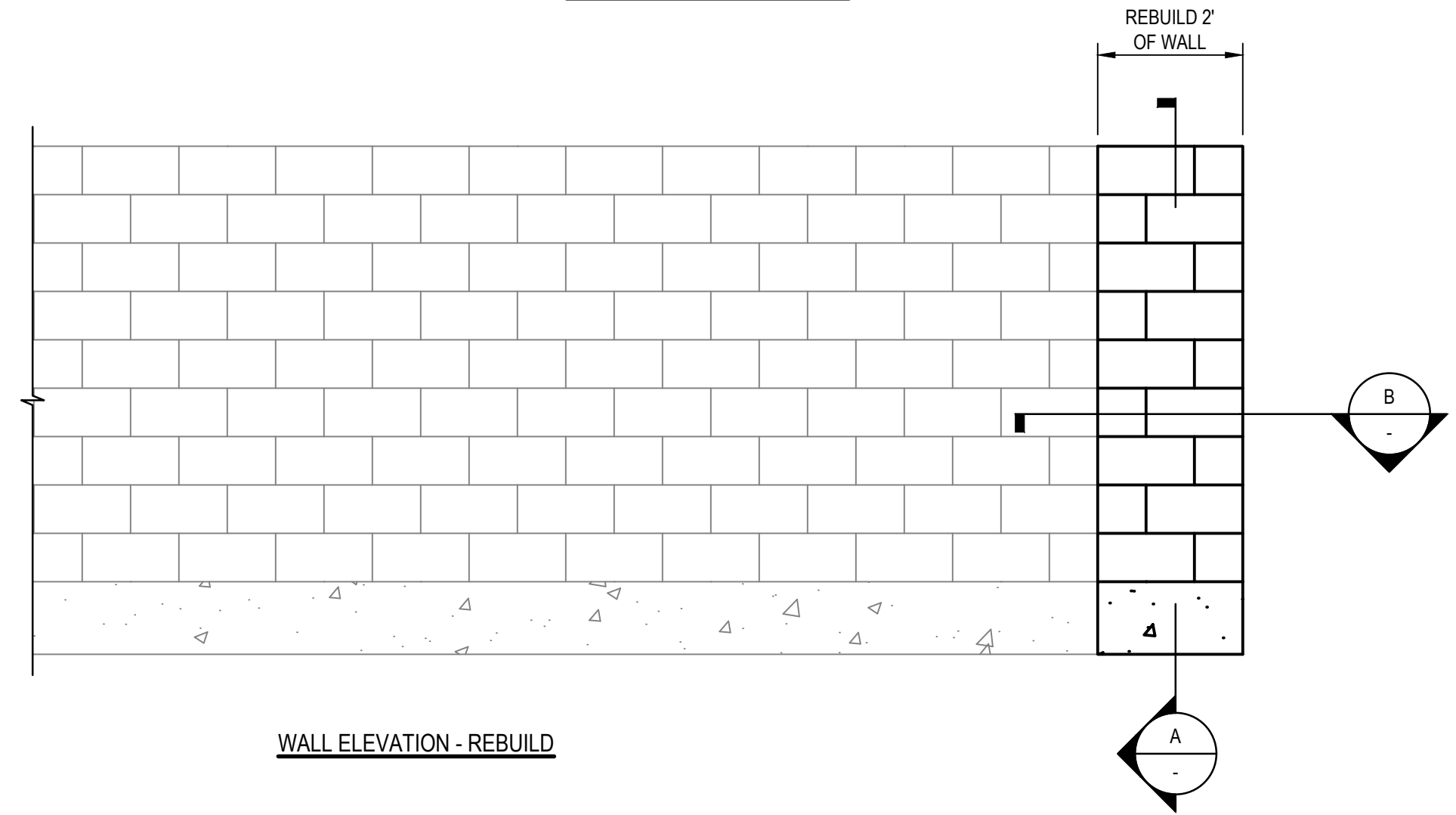
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **AS NOTED**

Title **STRUCTURAL BRIDGE DETAILS - ADD ALTERNATIVE**  
Size **ANSI D**  
Status Code  
Sheet No. **S-502**  
Sheet **68 of 96**



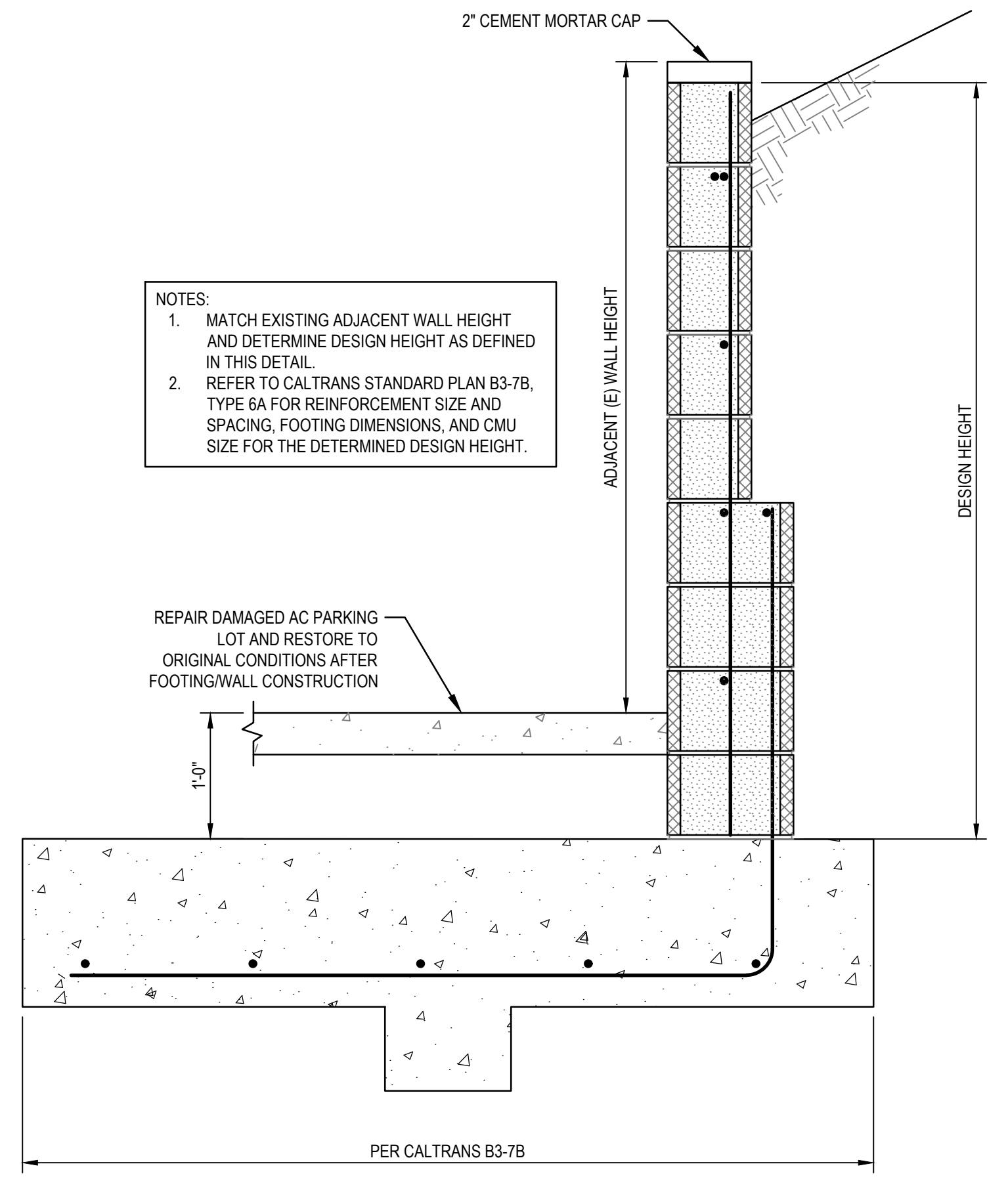


WALL ELEVATION - EXISTING



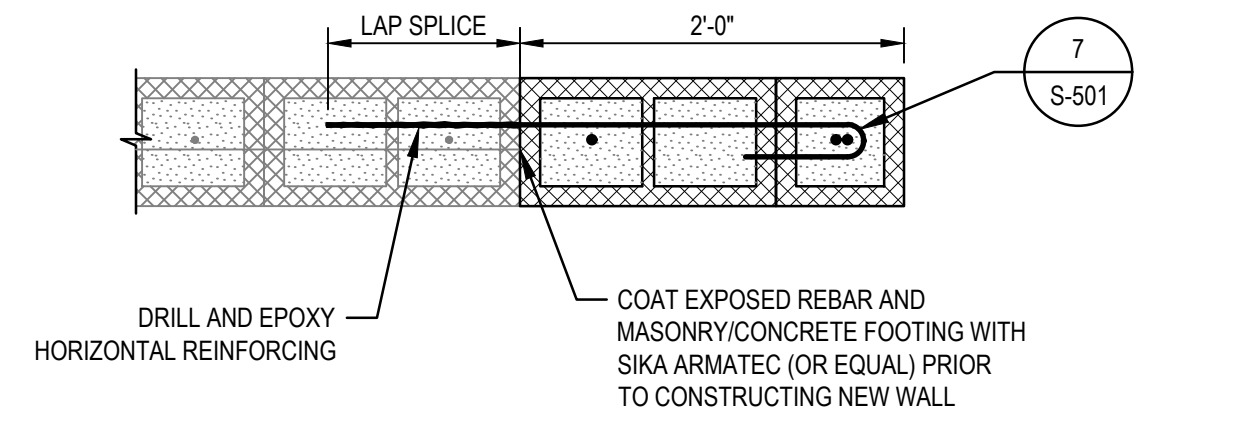
WALL ELEVATION - REBUILD

**1** CMU WALL DEMOLITION DETAIL  
SCALE: 1" = 2'-0"



- NOTES:
1. MATCH EXISTING ADJACENT WALL HEIGHT AND DETERMINE DESIGN HEIGHT AS DEFINED IN THIS DETAIL.
  2. REFER TO CALTRANS STANDARD PLAN B3-7B, TYPE 6A FOR REINFORCEMENT SIZE AND SPACING, FOOTING DIMENSIONS, AND CMU SIZE FOR THE DETERMINED DESIGN HEIGHT.

**A** CMU WALL SECTION  
SCALE: 1" = 1'-0"



**B** CMU CONNECTION SECTION  
SCALE: 1" = 1'-0"

Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	S. GOULD	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	B. CROWELL	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 1"

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **AS SHOWN**

Title **CMU WALL DEMOLITION DETAILS**

Size **ANSI D**

Status Code

Sheet No. **S-503**

Sheet **69** of **96**



**ABBREVIATIONS**

(D)	DEMOLISH
(E)	EXISTING
(F)	FUTURE
(N)	NEW
A	AMPERES
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAT	BATTERY
BFG	BELOW FINISH GRADE
C	CONDUIT
CB	CIRCUIT BREAKER
CO	CONDUIT ONLY
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
EGU	ENGINE GENERATOR UNIT
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EP	EXPLOSION PROOF
FC	FOOT CANDLE
FU	FUSE
GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
HID	HIGH INTENSITY DISCHARGE
HOA	"HAND-OFF-AUTO" SWITCH
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
IG	ISOLATED GROUND
JB	JUNCTION BOX
KAIC	KILO-AMPS INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT-AMP
KW	KILOWATT
KWH	KILOWATT-HOUR
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MLO	MAIN LUGS ONLY
MV	MEDIUM VOLTAGE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PB	PULL BOX, ELECTRICAL
RCPT	RECEPTACLE, OUTLET
RGS	RIGID GALVANIZED STEEL (CONDUIT)
RVSS	REDUCED VOLTAGE SOFT START
RTU	REMOTE TERMINAL UNIT
TBD	TO BE DETERMINED
TVSS	TRANS. VOLT. SURGE SUPPRESSOR
UF	UNDER FLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT-AMP
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WPI	WEATHERPROOF IN USE
XFMR	TRANSFORMER

**ELECTRICAL SYMBOLS LEGEND**

**POWER**

	DUPLEX RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON ↑ DENOTES HEIGHT IN INCHES AFF (INTERIOR) AFG (EXTERIOR)
	SPECIAL PURPOSE RECEPTACLE AS DESIGNATED SEE 'SPECIAL SYMBOLS' ON EACH SHEET
	JUNCTION BOX, CODE SIZED UON
	POWER POLE: P=POWER, T=TELEPHONE, D=DATA, C=COMBINATION
	GROUND ROD
	GUY WIRE AND ANCHOR

**SWITCHING**

	DENOTES SWITCH CIRCUIT AND SWITCH DESIGNATION FOR LIGHTING FIXTURE
	DENOTES CIRCUIT
	DENOTES RELAY CIRCUIT AND RELAY DESIGNATION FOR LIGHTING FIXTURES (SEE CORRESPONDING LIGHTING CONTROL PANEL RELAY SCHEDULE)
	DENOTES CIRCUIT
	PHOTO CONTROL SWITCH

**LIGHTING**

	OUTDOOR SITE LIGHT, POLE MOUNTED LUMINAIRE ARROW INDICATES AIMING DIRECTION, IF APPLICABLE
	ENHANCED LED SIGN

**EQUIPMENT**

	N30 CONCRETE UNDERGROUND HAND HOLE (NUMBER DENOTES CHRISTY SIZE)
	TRANSFORMER

**CONDUIT**

	CONDUIT INSTALLED ABOVE GRADE
	CONDUIT INSTALLED UNDERGROUND OR UNDER SLAB
	CONDUIT STUB-OUT WITH CAP
	FLEXIBLE CONDUIT WHIP TO LIGHT FIXTURE OR EQUIPMENT
	INDICATES CIRCUIT BREAKER I.D.
	CONDUIT HOME RUN TO DESIGNATED PANEL, TERMINAL, OR CONTROL CABINET
	INDICATES BRANCH PANEL
	COMMA INDICATES MULTIPLE SINGLE POLE CIRCUITS
	SLASH INDICATES MULTI-POLE CIRCUIT
NOTE FOR CONDUIT: THE TIC MARKS INDICATE THE QUANTITY OF #12 AWG WIRES OR, IF INDICATED, THE QUANTITY OF OTHER SIZE WIRE OR CABLES.	
SEE THE SINGLE LINE DIAGRAM FOR FEEDER SIZES.	
EXAMPLES:  = (3) #12       = (2) #10	
= (1) TYPE F1 CABLE. SEE CABLE SCHEDULE.	

**OBJECT LINES**

	NEW OBJECTS (HEAVY CONTINUOUS LINES, UNDERGROUND CONDUIT HEAVY DASHED LINES)
	EXISTING OBJECTS TO REMAIN, MAY INCLUDE NEW CIRCUITING ETC. (FINE CONTINUOUS LINES, UNDERGROUND CONDUIT FINE DASHED LINES)
	EXISTING OBJECTS TO BE DEMOLISHED (EXTRA FINE DASHED LINES, SCREENED)

**ANNOTATION**

	KEYNOTE
	RACEWAY, FEEDER OR CIRCUIT DESIGNATION (SEE SCHEDULE)
	DENOTES TYPE LIGHTING FIXTURE TYPE DESIGNATION (SEE SCHEDULE) ↑ DENOTES WATTS
	DETAIL NUMBER DETAIL INDICATOR ↑ SHEET NUMBER ON WHICH DETAIL APPEARS
	MECHANICAL EQUIPMENT DESIGNATION (SEE SCHEDULE)
	SECTION LETTER SECTION INDICATOR ↑ SHEET NUMBER ON WHICH SECTION APPEARS

**GENERAL ELECTRICAL NOTES**

- ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRICAL CODE (CEC), AND ALL RECOGNIZED CODES OF THE AUTHORITY HAVING JURISDICTION.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.
- PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK. WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.
- ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
- ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS.
- CONTRACTOR RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION. DRAWINGS INDICATE THE REQUIRED EQUIPMENT, DEVICES, FIXTURES, ETC. AND THEIR RELATED CIRCUITING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE DEVICE LOCATIONS WITH ALL DISCIPLINES.
- UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT INDICATED SHALL BE CONSIDERED NEW AND PROVIDED BY THE CONTRACTOR COMPLETE, INSTALLED, TESTED AND FUNCTIONING.
- MAINTAIN AS BUILT CONDITIONS OF THE INSTALLATION DURING CONSTRUCTION AND SUBMIT THE FINAL CONSTRUCTED CONDITIONS TO THE OWNER/ARCHITECT FOR THEIR RECORDS.

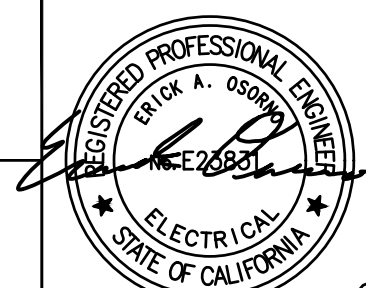


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No.	Issue	Checked	Approved	Date	
Author	A.YOUNG	Drafting Check	H.DAAS	Project Manager	E. FANSELAU
Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY

Bar is one inch on original size sheet  
0 ————— 1"



9/30/2022



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Santa Rosa California 95407 USA  
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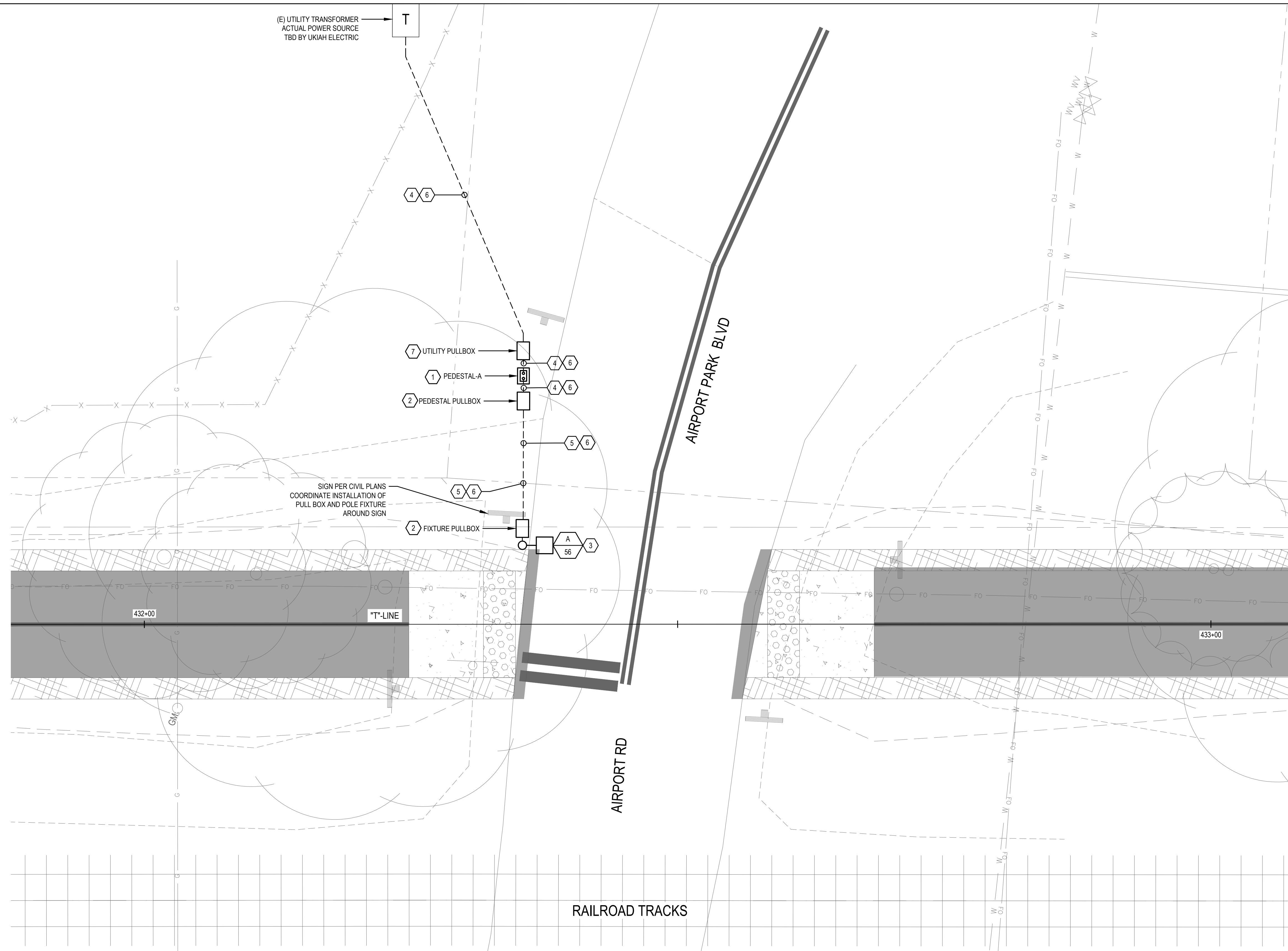


Client	<b>CITY OF UKIAH</b>
Project	<b>THE GREAT REDWOOD TRAIL PHASE 4</b>
Project No.	<b>12557341</b>
Date	<b>SEP 30, 2022</b>
Scale	<b>NO SCALE</b>

Title	<b>ELECTRICAL SYMBOLS LEGEND, ABBREVIATIONS, AND GENERAL NOTES</b>
Sheet No.	<b>E-001</b>
Sheet	<b>70 of 96</b>



(E) UTILITY TRANSFORMER  
ACTUAL POWER SOURCE  
TBD BY UKIAH ELECTRIC



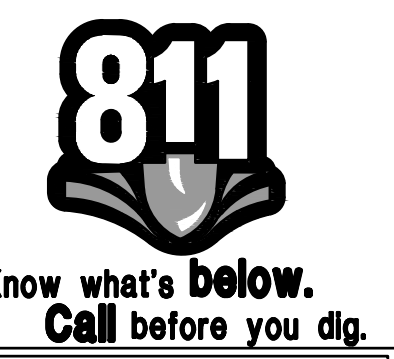
**SHEET GENERAL NOTES**

- COORDINATE PROVISIONS AND REQUIREMENTS FOR 100A POWER SERVICE WITH UKIAH ELECTRIC. POWER SOURCE FOR SERVICE TBD BY UKIAH ELECTRIC.
- REFER TO LIGHTING FIXTURE SCHEDULE ON SHEET E-601.

**SHEET KEYNOTES**

- PROVIDE SERVICE PEDESTAL COMPLETE WITH MAIN SERVICE BREAKER, BRANCH CIRCUIT BREAKERS, TIMECLOCK, AND CONCRETE BASE. SEE DETAIL 5 ON SHEET E-501.
- PROVIDE PULLBOX, CHRISTY B1017 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON SHEET E-501.
- PROVIDE LIGHT FIXTURE COMPLETE WITH POLE, CONCRETE POLE BASE, AND MOUNTING ACCESSORIES AS REQUIRED. SEE DETAIL 1 ON SHEET E-502.
- PROVIDE 3" CONDUIT IN TRENCH WITH PULLSTRING. POWER SOURCE FOR (N) SERVICE TO BE DETERMINED BY UKIAH ELECTRIC.
- PROVIDE LIGHTING POWER CIRCUIT CONSISTING OF (2) #10AWG, #10 GND IN 2" CONDUIT.
- PROVIDE CONDUIT IN TRENCH. SEE DETAIL 1 ON SHEET E-501.
- PROVIDE UTILITY PULLBOX, B2234 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON SHEET E-501.

**AIRPORT RD INTERSECTION LIGHTING PLAN**



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	A.YOUNG	Drafting Check	H.DAAS	Project Manager	E. FANSELAU
Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY

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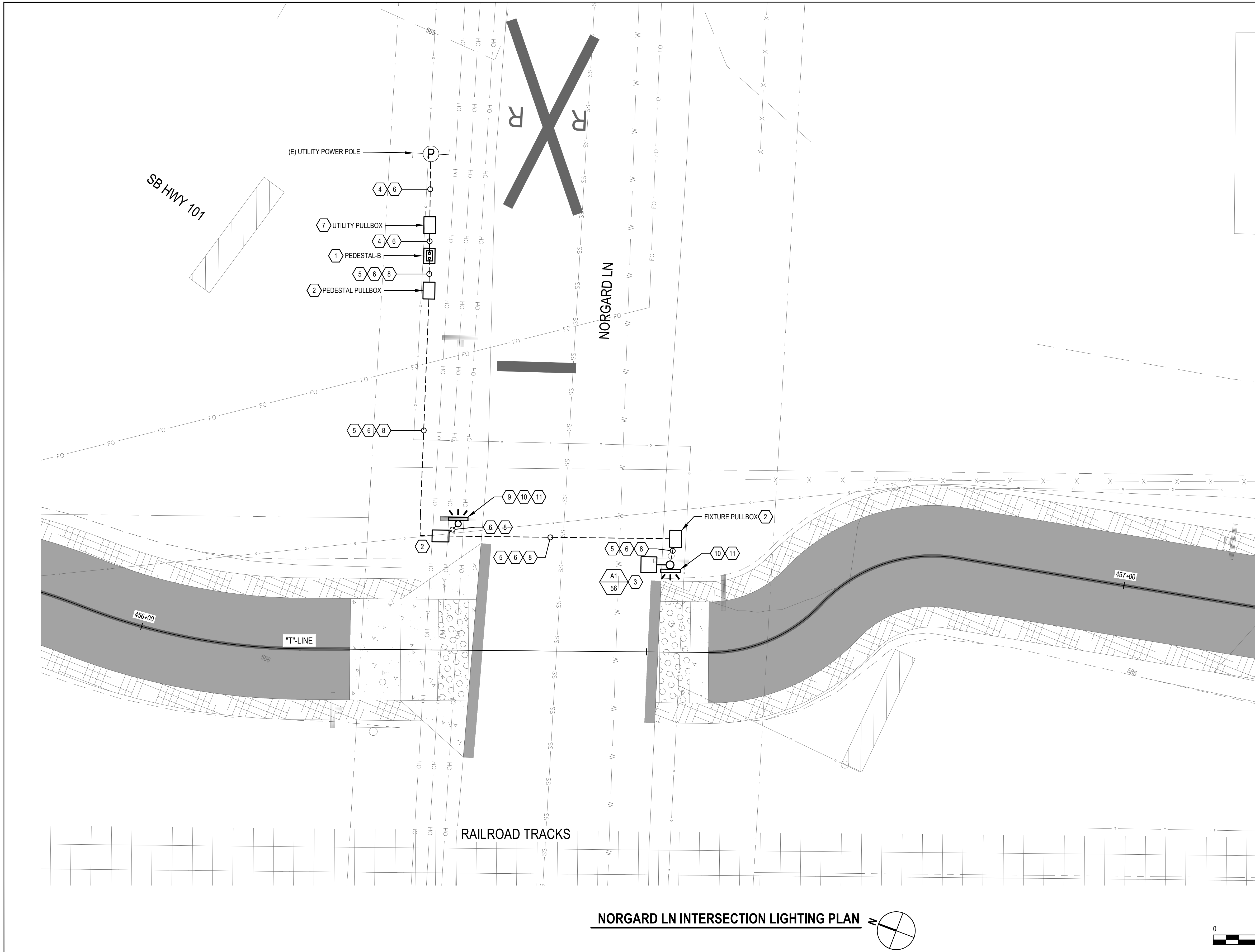
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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022

Title	TRAIL LIGHTING PLAN 1
Size	ANSI D
Sheet No.	E-101
Sheet	71 of 96





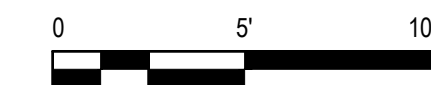
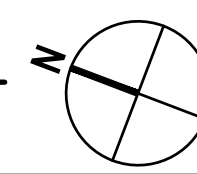
**SHEET GENERAL NOTES**

- COORDINATE PROVISIONS AND REQUIREMENTS FOR 100A POWER SERVICE WITH PG&E. POWER SOURCE FOR SERVICE TBD BY PG&E.
- REFER TO LIGHTING FIXTURE SCHEDULE ON SHEET E-601.

**SHEET KEYNOTES**

- PROVIDE SERVICE PEDESTAL COMPLETE WITH MAIN SERVICE BREAKER, BRANCH CIRCUIT BREAKERS, TIMECLOCK, AND CONCRETE BASE. SEE DETAIL 5 ON SHEET E-501.
- PROVIDE PULLBOX, CHRISTY B1017 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON SHEET E-501.
- PROVIDE LIGHT FIXTURE COMPLETE WITH 20' POLE, CONCRETE POLE BASE, AND MOUNTING ACCESSORIES AS REQUIRED. SEE DETAIL 1 ON SHEET E-502 FOR CONCRETE POLE FOUNDATION. PROVIDE ENHANCED TRAIL SIGN ON LIGHT FIXTURE POLE. SEE DETAIL 2 ON SHEET E-502 FOR SIGN DETAILS.
- PROVIDE 3" CONDUIT WITH PULSTRING IN TRENCH.
- PROVIDE LIGHTING POWER CIRCUIT CONSISTING OF (2) #10AWG, #10 GND IN 2" CONDUIT.
- PROVIDE CONDUIT IN TRENCH. SEE DETAIL 1 ON SHEET E-501.
- PROVIDE UTILITY PULLBOX, B2234 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON SHEET E-501.
- PROVIDE ENHANCED TRAIL SIGN FIELD WIRING. POWER CIRCUIT CONSISTING OF (2) #10 AWG, #10 GND IN 2" CONDUIT.
- PROVIDE TYPE 15 FBS STANDARD POLE, BASE AND ENHANCED TRAIL SIGN PER DETAIL 2 ON SHEET E-502.
- PROVIDE ENHANCED SIGN POWER CONTROL UNIT FOR FULL TIME OPERATION IN NEMA 3R CABINET ON POLE ABOVE SIGN.
- PROVIDE LED BORDER ENHANCED W11-15 TRAIL SIGN WITH W16-7P DOWN ARROW PLAQUE PER DETAIL 2 ON SHEET E-502.

**NORGARD LN INTERSECTION LIGHTING PLAN**

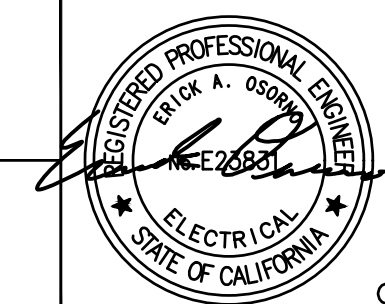
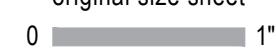


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Call before you dig.**

Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

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Author	A.YOUNG	Drafting Check	H.DAAS	Project Manager	E.FANSELAU
Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M.KENNEDY

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Client	CITY OF UKIAH		
Project	THE GREAT REDWOOD TRAIL PHASE 4		
Project No.	Date	Scale	
12557341	SEP 30, 2022	1" = 5'	

Title	TRAIL LIGHTING PLAN 2
Sheet No.	E-102
Sheet	72 of 96





**SHEET GENERAL NOTES**

- COORDINATE PROVISIONS AND REQUIREMENTS FOR 100A POWER SERVICE WITH PG&E. POWER SOURCE FOR SERVICE TBD BY PG&E.
- REFER TO LIGHTING FIXTURE SCHEDULE ON SHEET E-601.

**SHEET KEYNOTES**

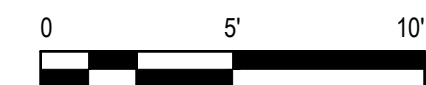
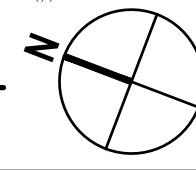
- PROVIDE SERVICE PEDESTAL COMPLETE WITH MAIN SERVICE BREAKER, BRANCH CIRCUIT BREAKERS, TIMECLOCK, AND CONCRETE BASE. SEE DETAIL 5 ON SHEET E-501.
- PROVIDE PULLBOX, CHRISTY B1017 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON SHEET E-501.
- PROVIDE LIGHT FIXTURE COMPLETE WITH POLE, CONCRETE POLE BASE, AND MOUNTING ACCESSORIES AS REQUIRED. SEE DETAIL 1 ON SHEET E-502.
- PROVIDE 3" CONDUIT IN TRENCH WITH PULLSTRING. POWER SOURCE FOR (N) SERVICE TO BE DETERMINED BY UTILITY COMPANY.
- PROVIDE LIGHTING POWER CIRCUIT CONSISTING OF (2) #10AWG, #10 GND IN 2" CONDUIT.
- PROVIDE CONDUIT IN TRENCH. SEE DETAIL 1 ON SHEET E-501.
- PROVIDE UTILITY PULLBOX, B2234 WITH BASE AND COVER OR EQUAL. SEE DETAIL 3 ON E-501.



**Know what's below.  
Call before you dig.**

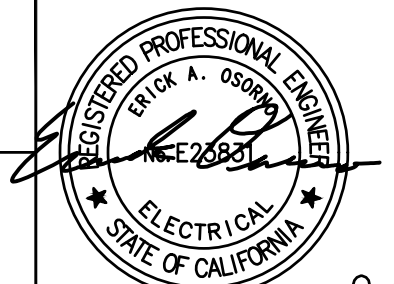
Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

**PLANT RD LIGHTING PLAN**



No.	Issue	Checked	Approved	Date	
Author	A.YOUNG	Drafting Check	H.DAAS	Project Manager	E. FANSELAU
Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

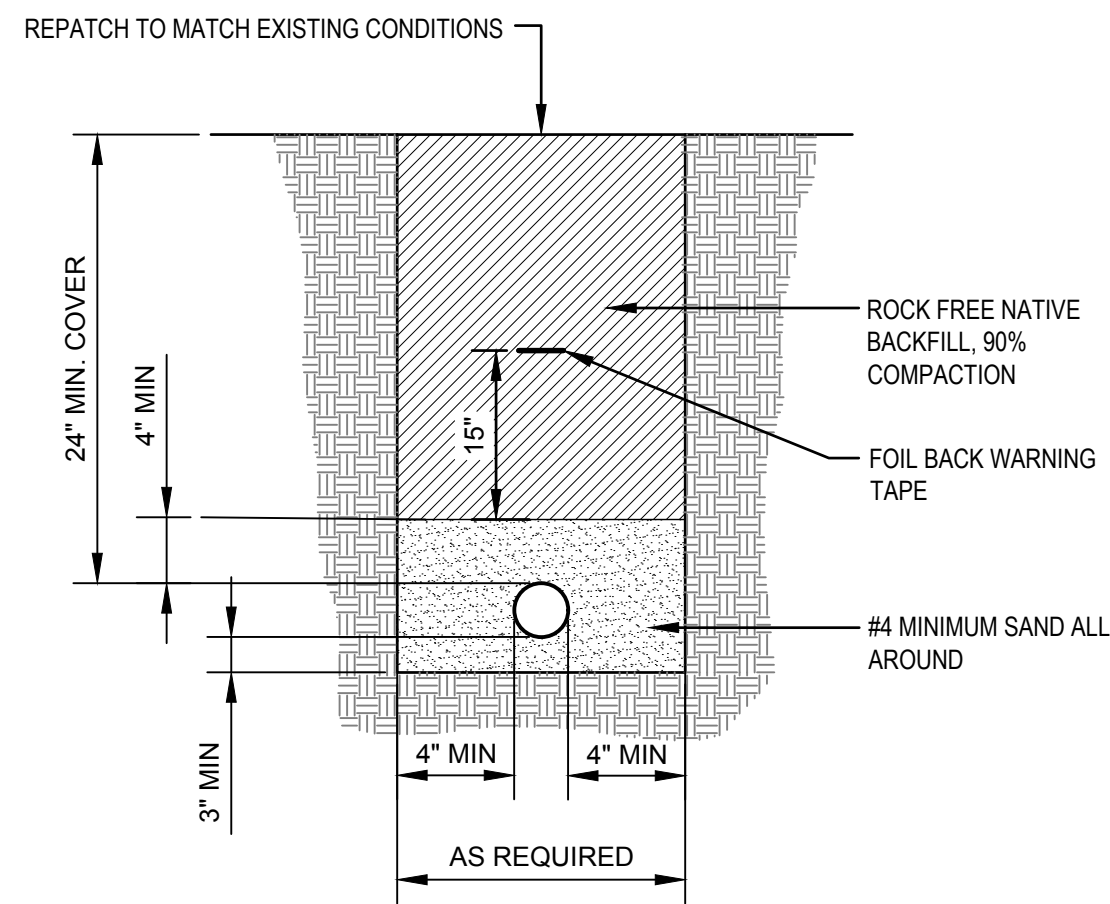
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

Title **TRAIL LIGHTING PLAN 3  
ADD ALTERNATIVE**

Size **ANSI D**

Sheet No. **E-103** Sheet **73 of 96**

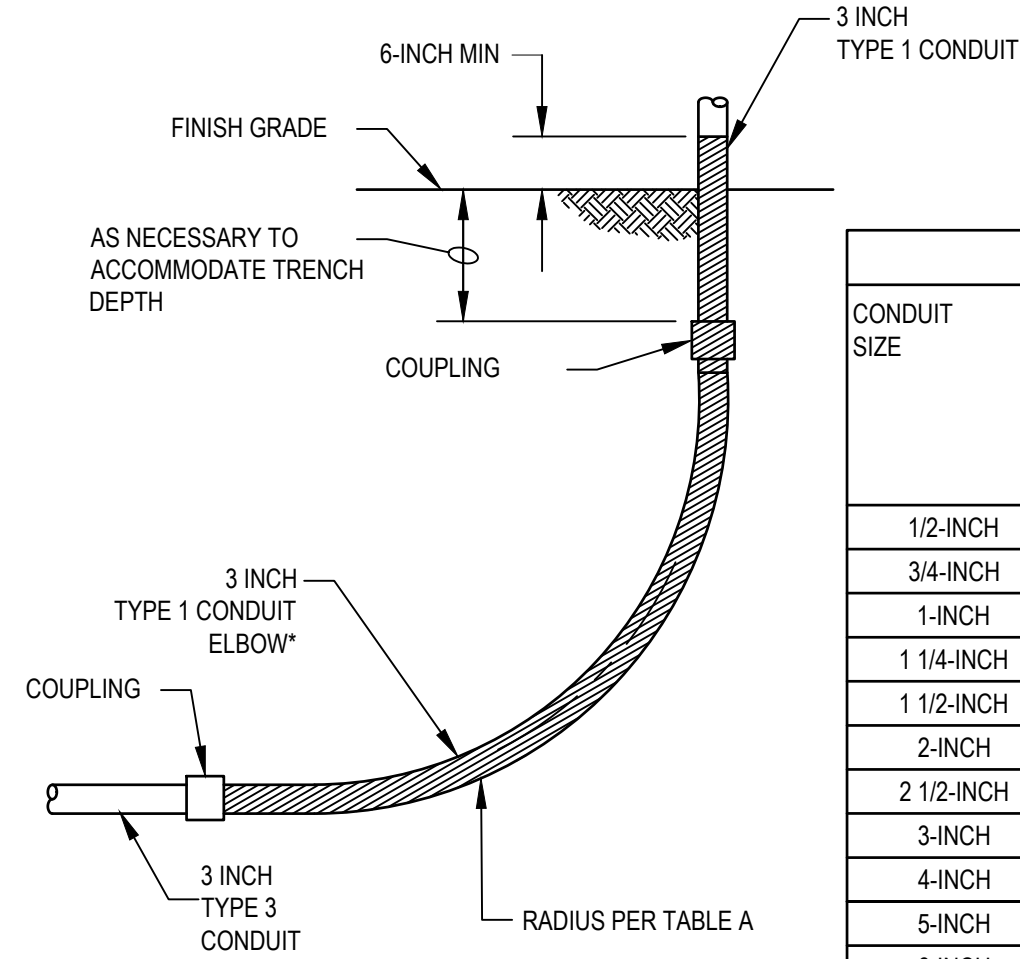




NOTE:

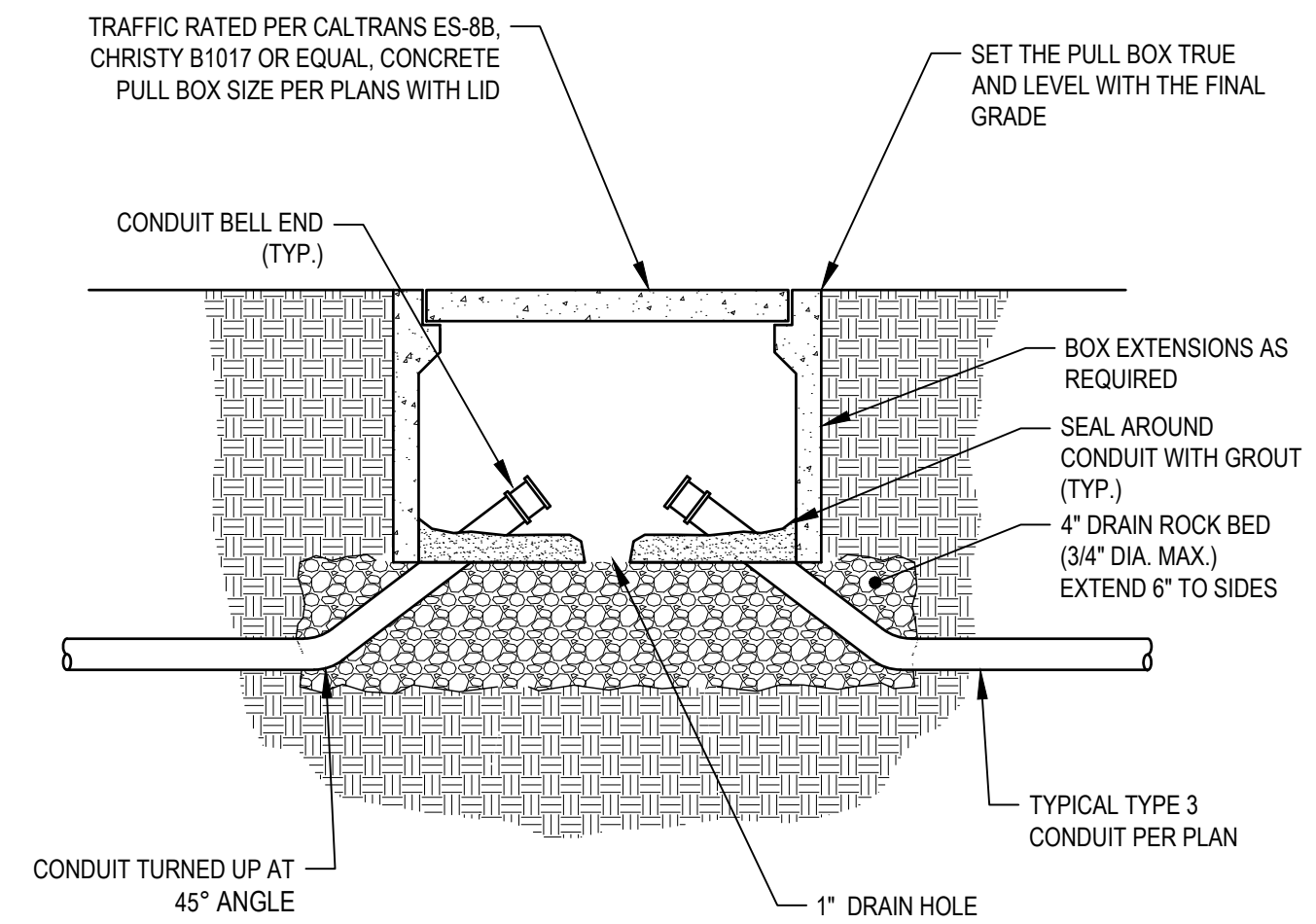
1. MAINTAIN A MINIMUM VERTICAL SEPARATION OF 12" WHEN CROSSING UTILITIES. ROUTE CONDUIT EITHER ABOVE OR BELOW OTHER UTILITIES AS NECESSARY TO ACHIEVE THIS SEPARATION WHILE MAINTAINING THE MINIMUM BACKFILL COVERAGE.

**1** TYPICAL ELECTRICAL TRENCH  
NO SCALE

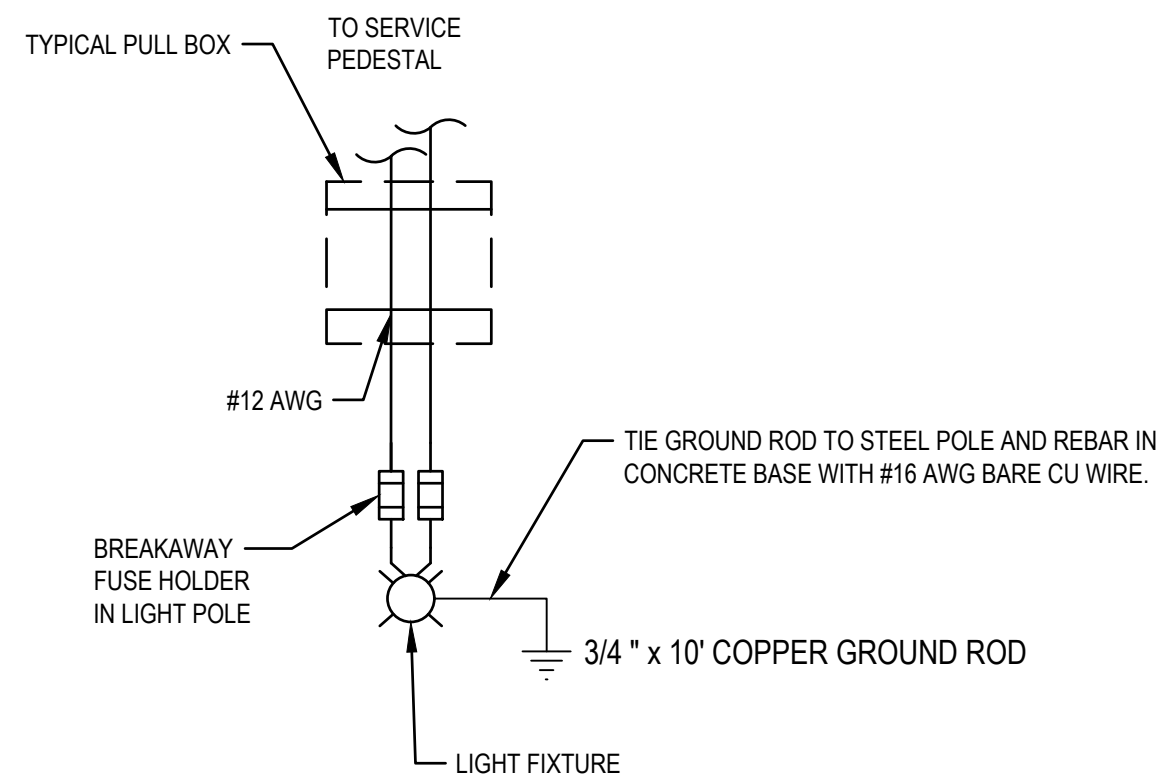


CONDUIT SIZE	MINIMUM ELBOW RADIUS REQUIREMENTS	
	RUNS 0-100 FEET	RUNS GREATER THAN 101 FEET
1/2-INCH	4-INCH	4-INCH
3/4-INCH	4 1/2-INCH	4 1/2-INCH
1-INCH	5 3/4-INCH	5 3/4-INCH
1 1/4-INCH	7 1/4-INCH	7 1/4-INCH
1 1/2-INCH	8 1/4-INCH	8 1/4-INCH
2-INCH	9 1/2-INCH	9 1/2-INCH
2 1/2-INCH	10 1/2-INCH	11 7/16-INCH
3-INCH	13-INCH	13 3/4-INCH
4-INCH	16-INCH	18 1/4-INCH
5-INCH	24-INCH	-
6-INCH	30-INCH	-

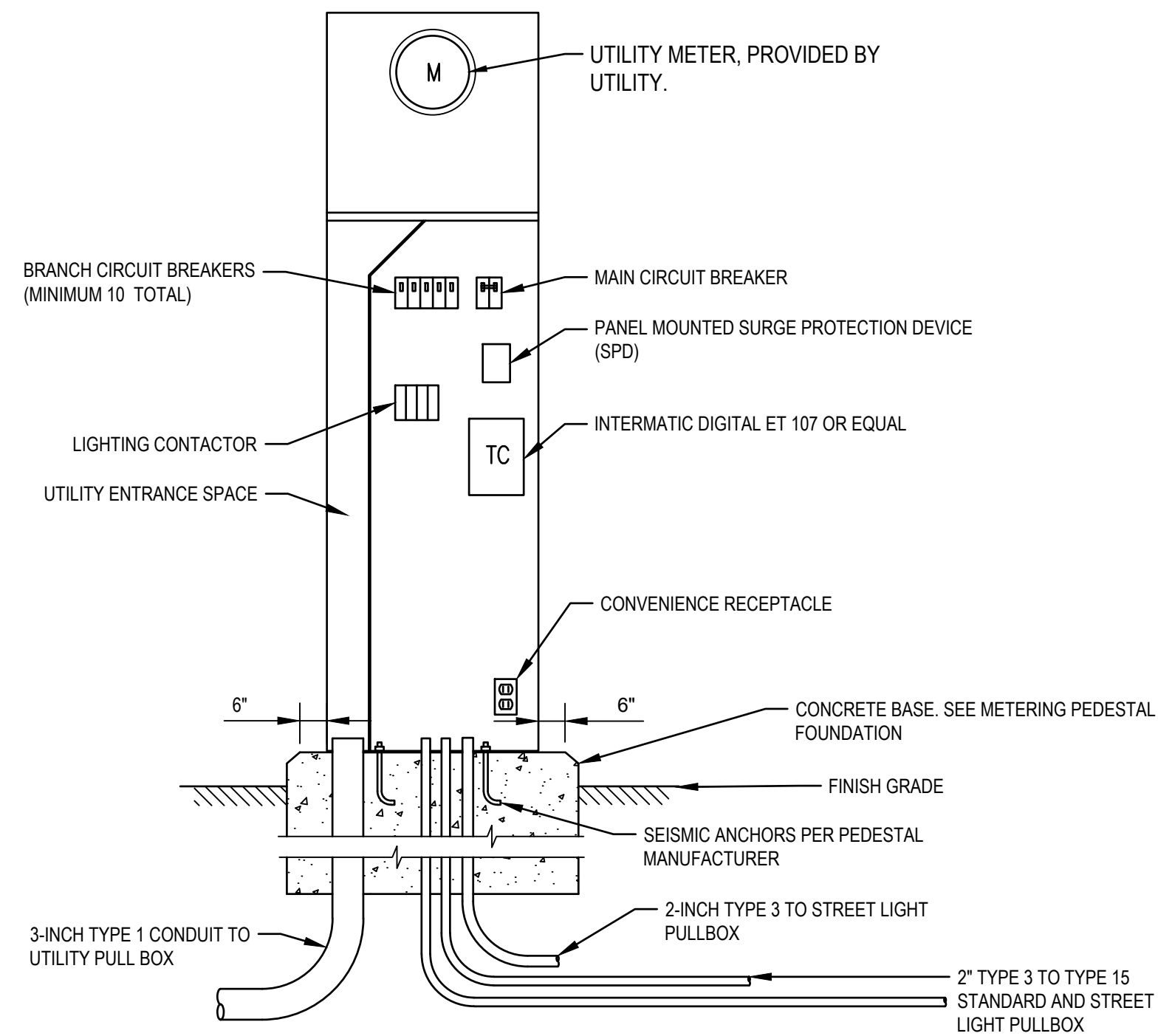
**2** TYPICAL CONDUIT STUB-UP  
NO SCALE



**3** TYPICAL PULL BOX  
NO SCALE



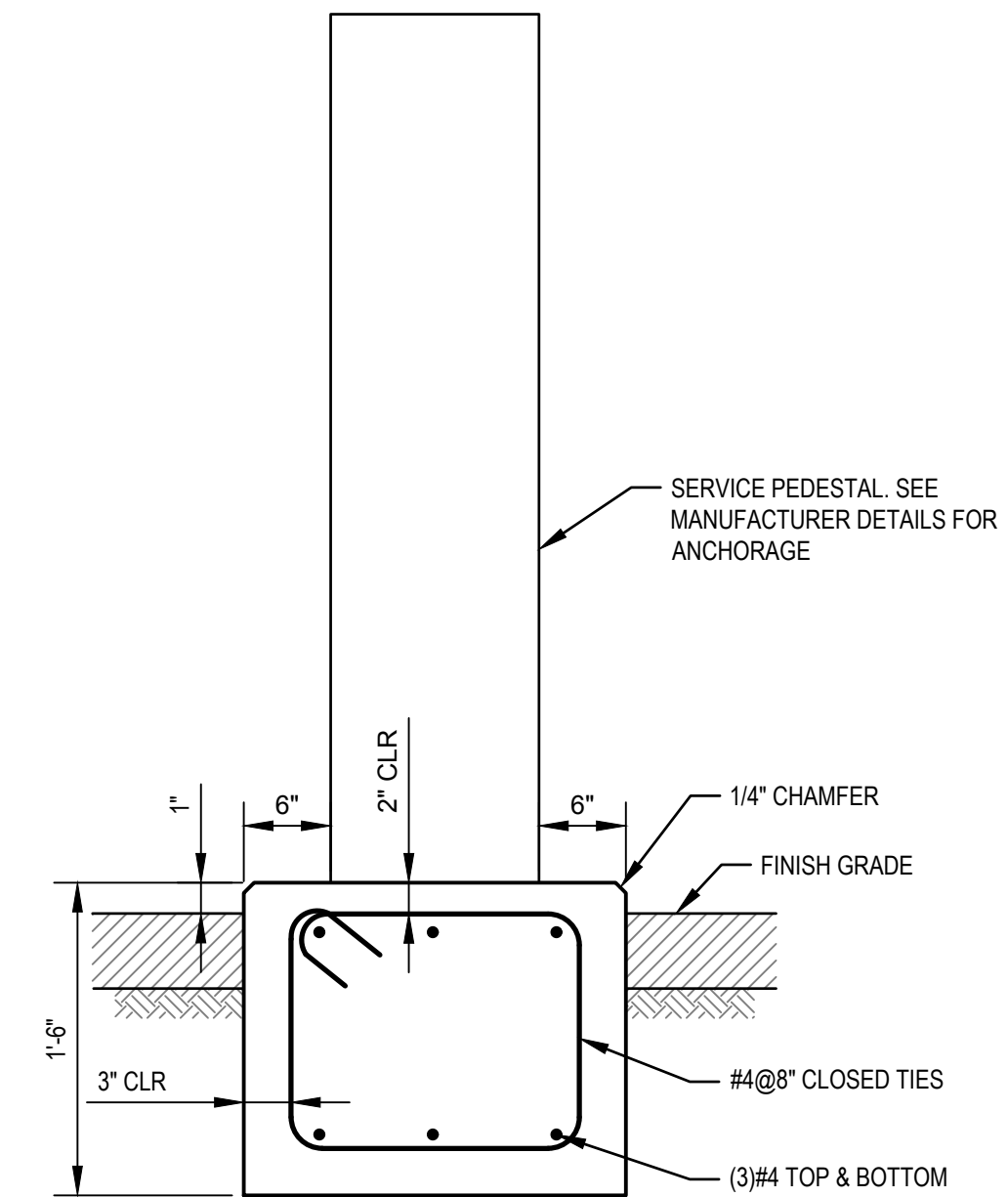
**4** STREET LIGHT WIRING DIAGRAM  
NO SCALE



NOTE:

1. EXTERIOR DOOR NOT SHOWN FOR CLARITY.

**5** METERING PEDESTAL ELEVATION  
NO SCALE



**6** METERING PEDESTAL FOUNDATION - SIDEVIEW  
NO SCALE

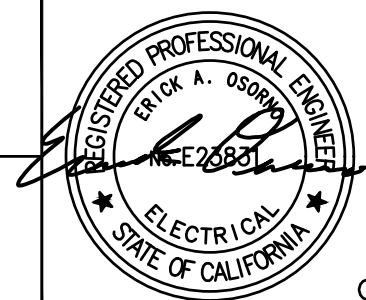


Know what's below.  
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Contractor shall call Underground Service Alert at 811 two working days prior to excavation

No.	Issue	Checked	Approved	Date	
Author	A.YOUNG	Drafting Check	H.DAAS	Project Manager	E. FANSELAU
Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY

Bar is one inch on original size sheet

0 1"



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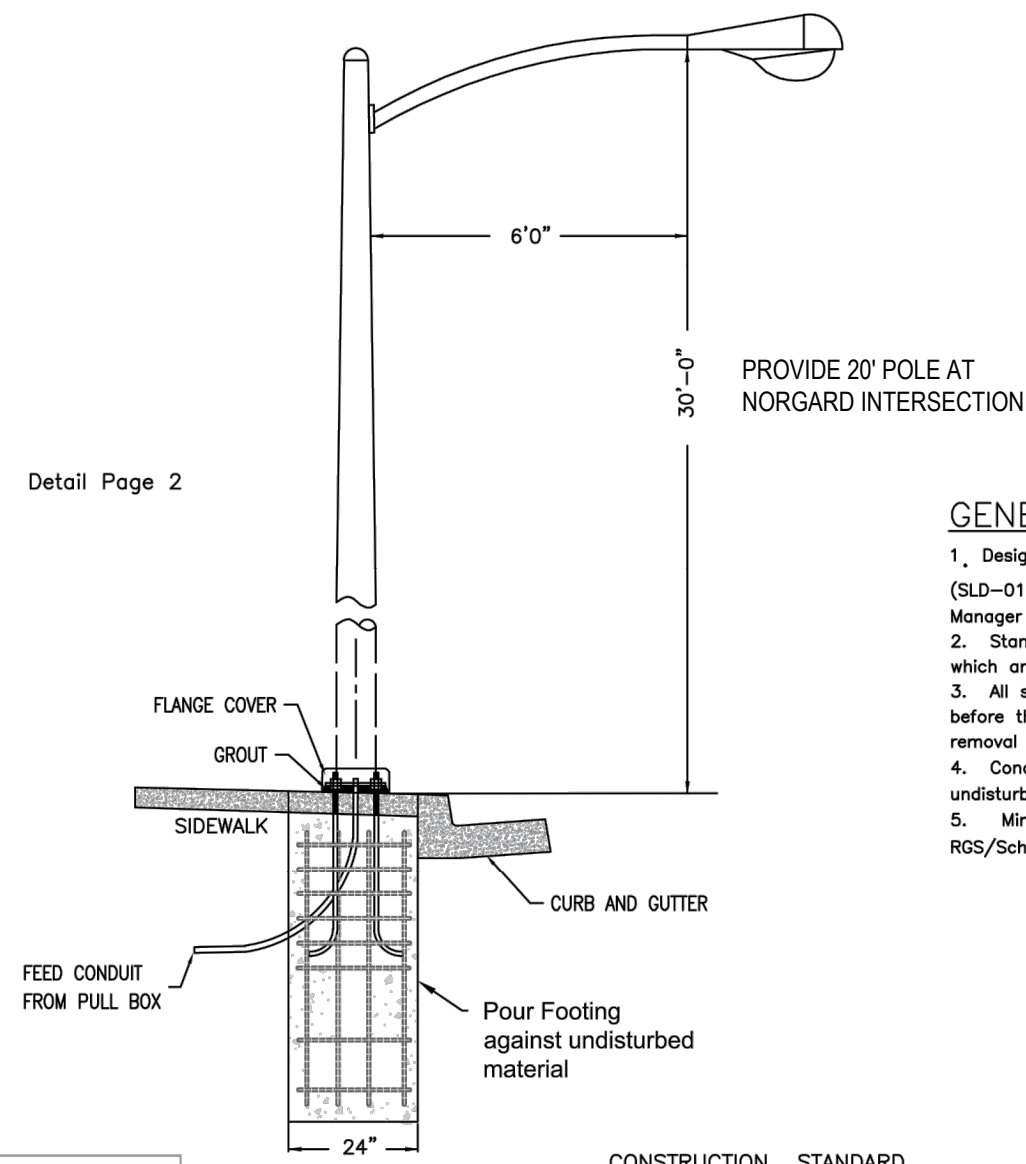
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Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	NO SCALE

Title	ELECTRICAL DETAILS 1
Size	ANSI D
Sheet No.	E-501
Sheet	74 of 96



Detail Page 2



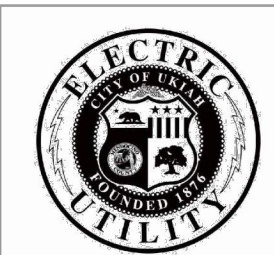
**GENERAL NOTES:**

1. Design shall conform to the requirements of this drawing (SLD-0510-01) except if otherwise approved by the City of Ukiah Project Manager or Inspector.
2. Standard foundation design is based on the following soil parameters, which are typical characteristic soil of the greater Ukiah area.
3. All streetlight foundations shall be approved by a City of Ukiah official before the foundation is poured; failure to have an approval can result in removal and reconstruction of said foundation.
4. Concrete shall be class "A" P.C.C. Footing shall be poured against undisturbed soil or subgrade compacted to 90% relative compaction.
5. Minimum 1" PVC Conduit - with Minimum 24" Radius Elbows - RGS/Schedule 80 PVC

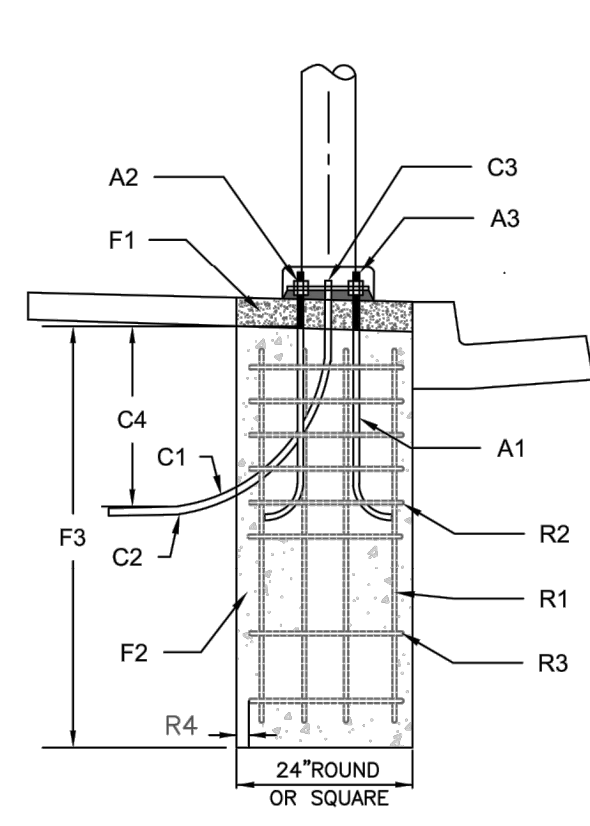
CONSTRUCTION STANDARD

STREET LIGHT  
LOCATION DETAIL, 400 AMP MAX.

CITY OF UKIAH



SCALE:	DATE:	REVISIONS:	ELECTRIC UTILITY DEPARTMENT		
10/7/2021 SB	SB		SHEET 2 OF 2	DRAWING NO.	
DATE	DRAWN	DESIGNED	CHECKED	APPROVAL	REVISION 0
					SLD-0510-01



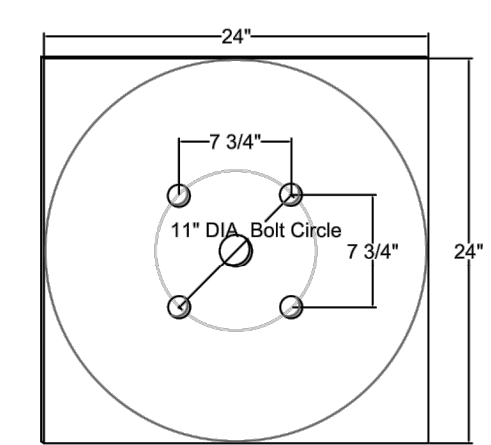
ELEVATION VIEW  
STANDARD STREET LIGHT FOUNDATION

**ANCHOR BOLTS**  
 A1. Anchor Bolts to be 36" in length, 1" in DIA., L-Hook  
 A2. Anchor Bolts shall have heads, or nuts with the threaded portion 4" above the finished surface.  
 A3. 4 - 3/8" x 1" DIA. Anchor Bolts to be provided by the City. Anchor Bolts shall not be cut off for any reasons. Extension couplers shall not be permitted.  
 A4. Bolt projection as recommended by the manufacturer.

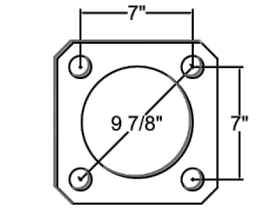
**CONDUIT**  
 C1. Conduit shall be RGS or SCHD 80 PVC in concrete with 6" Min Stub out.  
 C2. Service and feed conduits shall be RGS or SCHD 40 PVC, as required.  
 C3. Conduit shall be centered of bolt pattern should stub up to within 4" from handhole.  
 C4. Conduit shall be 24" deep Min.

**FOUNDATION**  
 F1. The Top 4" of round foundation shall be integrated into the sidewalk or poured as a square pad, large enough to fully support the pole, base plate and nut covers.  
 F2. The foundation shall cure a minimum of fourteen (14) days prior to the pole installation or torquing of the anchor bolts.  
 F3. Foundation depth:  
 54" Deep for Post-Top Pole  
 60" Deep for 30' Steel Standard Poles  
 72" Deep for 35' Steel Standard Poles

**REINFORCEMENT**  
 R1. Vertical rebar shall be 4-#6 equally spaced inside of hoops.  
 R2. Hoops shall be #4x18" O.D., Spaced 4" O/C from the top of the foundation to the end of the anchor bolts.  
 R3. Hoops shall be #4x18" O.D., Spaced 12" Min from the bottom of the anchor bolts to the bottom of the foundation.  
 R4. Cement shall be at minimum 3" away from farthest point of rebar at all locations.



Typ. 30' Steel Pole Bolt Pattern  
NOTE= 24" Round or Square with bolt pattern squared.



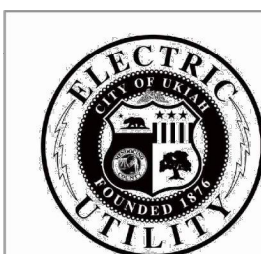
Typ. Post-Top Steel Pole Bolt Pattern

NOTE- Check and confirm manufacturers recommendations on any and all bolt patterns before pouring concrete.

CONSTRUCTION STANDARD

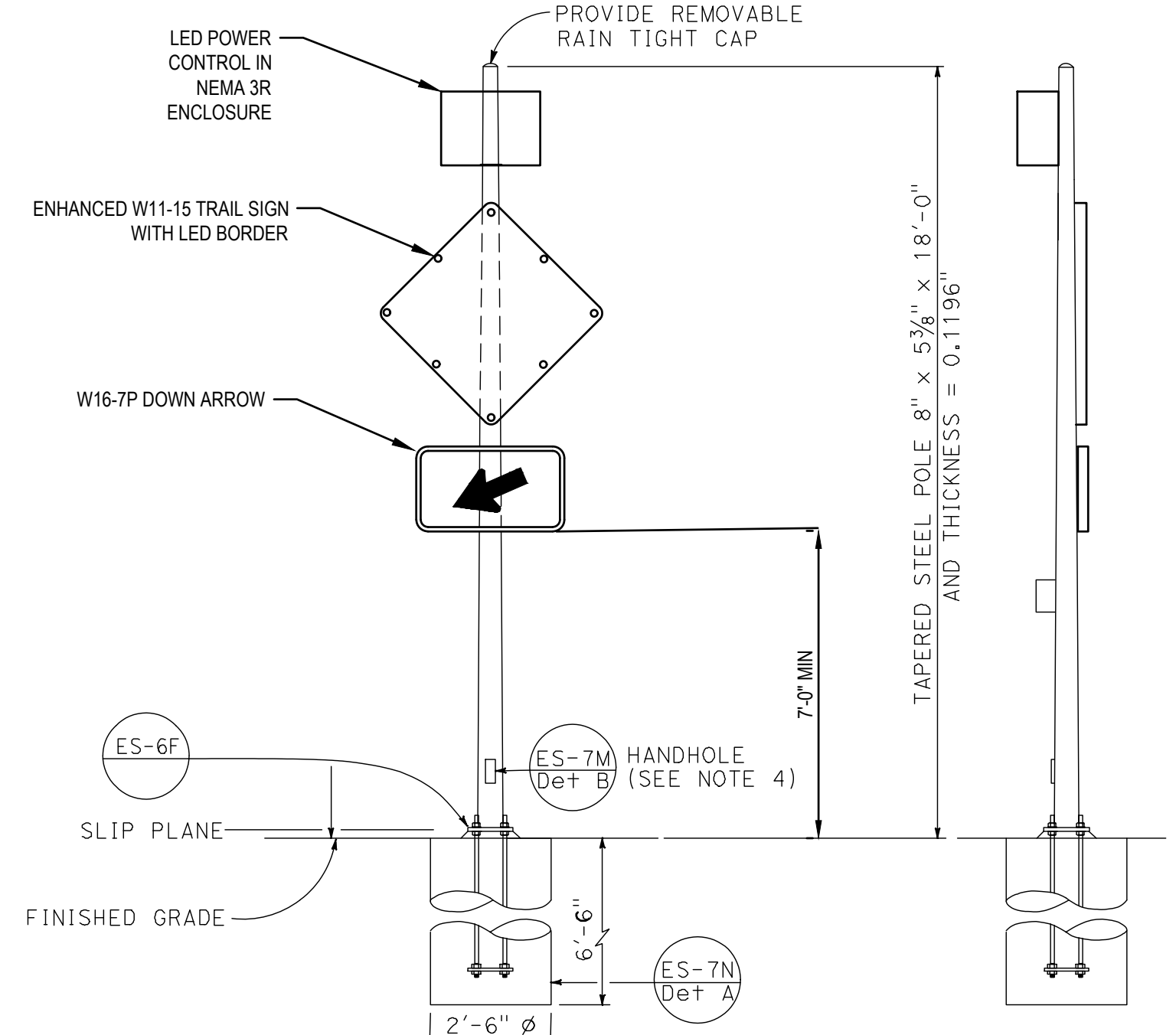
STREET LIGHT  
LOCATION DETAIL, 400 AMP MAX.

CITY OF UKIAH



SCALE:	DATE:	REVISIONS:	ELECTRIC UTILITY DEPARTMENT		
10/7/2021 SB	SB		SHEET 2 OF 2	DRAWING NO.	
DATE	DRAWN	DESIGNED	CHECKED	APPROVAL	REVISION 0
					SLD-0510-01

**1 CITY OF UKIAH STANDARD DETAIL**  
NO SCALE

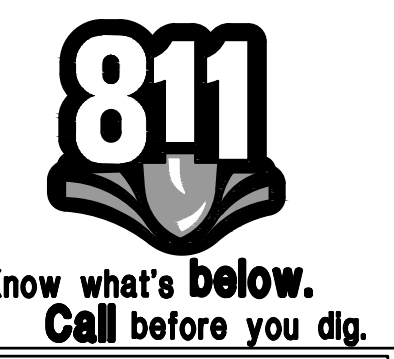


FRONT VIEW TYPE 15-FBS SIDE VIEW  
FLASHING BEACON WITH SLIP BASE INSTALLATION  
DETAIL A

\*REFER TO CALTRANS STANDARD PLANS FOR ADDITIONAL DETAILS.

- NOTES:**
1. NOT USED
  2. NOT USED
  3. For additional notes and details, see Standard Plans ES-7M and ES-7N.
  4. Handhole shall be located on the downstream side of traffic.
  5. See project plans for type of standard to be installed.

**2 MODIFIED CALTRANS STANDARD DETAIL ES-7J (LED BORDER ENHANCED TRAIL SIGN)**  
NO SCALE



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Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY

Bar is one inch on original size sheet	0	1"
----------------------------------------	---	----



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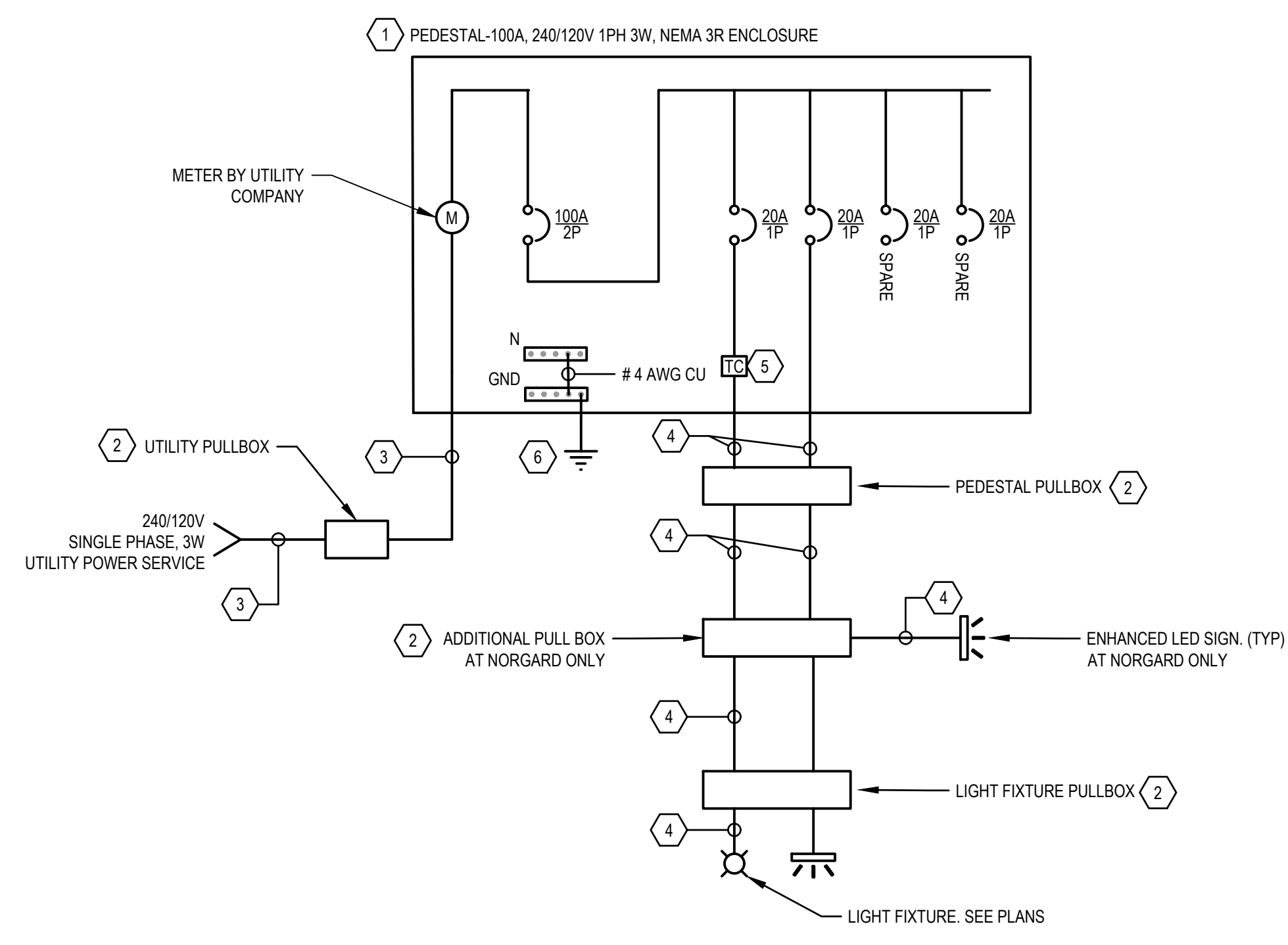
Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	NO SCALE

Title	ELECTRICAL DETAILS 2
Size	ANSI D
Sheet No.	E-502
Sheet	75 of 96



**SHEET KEYNOTES**

1. PROVIDE METER TYPE SERVICE PEDESTAL COMPLETE WITH 100A/2P MAIN CIRCUIT BREAKER AND 20A/1P BRANCH CIRCUIT BREAKERS. SEE PLANS FOR LOCATION AND DETAIL 5 ON SHEET E-501.
2. PROVIDE PULLBOX AS SHOWN ON PLANS.
3. PROVIDE 3" CONDUIT WITH PULLSTRING. CONDUCTORS PROVIDED BY UTILITY COMPANY.
4. PROVIDE CONDUIT AND LIGHTING CIRCUIT AS SHOWN ON PLANS.
5. PROVIDE ASTRONOMICAL TIME CLOCK IN PEDESTAL. ROUTE LIGHTING CIRCUIT VIA TIME CLOCK RELAY.
6. PROVIDE 3/4" X 10' GROUND ROD.



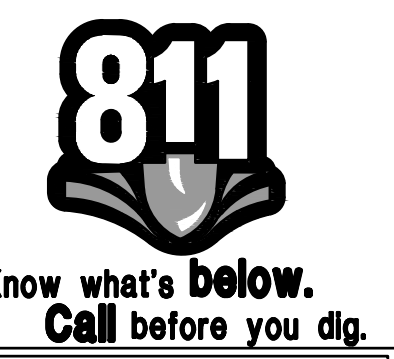
**1 TYPICAL METERING PEDESTAL**

LIGHTING FIXTURE SCHEDULE									
TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	LAMP TYPE	COLOR TEMP	LUMENS	FIXTURE INPUT WATTS	MOUNTING	NOTES
A	30 FT LED STREET LIGHT POLE MOUNT	E-LITESTAR	ESU-D-A01-3M-016-30-S-105	LED	3000k	6,278	56	POLE TOP	PROVIDE 30' TAPERED STEEL ROUND POLE WITH 6' ARM PER CITY OF UKIAH STANDARDS
A1	20 FT LED STREET LIGHT POLE MOUNT	E-LITESTAR	ESU-D-A01-3M-016-30-S-105	LED	3000k	6,278	56	POLE TOP	PROVIDE 20' TAPERED STEEL ROUND POLE WITH 6' ARM PER CITY OF UKIAH STANDARDS

PEDESTAL SCHEDULE							
PEDESTAL INFO				LOADS			
ID	DRAWING NO.	NEW/EXISTING	AMPS	VOLTAGE	DISCRPTION	*VD%	NOTES
PED-A	E-101	NEW	100	120/240	LIGHTING	0.05	NEW SERVICE BY UKIAH ELECTRIC
PED-B	E-102	NEW	100	120/240	LIGHTING	0.08	NEW SERVICE BY PG&E
PED-C	E-103	NEW	100	120/240	LIGHTING	0.05	NEW SERVICE BY PG&E

\* VOLTAGE DROP CALCULATION FOR LIGHTING LOADS.

**2 SCHEDULES**



Contractor shall call Underground Service Alert at 811 two working days prior to excavation

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Designer	E.OSORNO	Design Check	C.RICHARDS	Project Director	M. KENNEDY


Bar is one inch on original size sheet  
0 ————— 1"

Professional Engineer Seal for E. FANSELAU, State of California, License No. 22891, dated 9/30/2022.

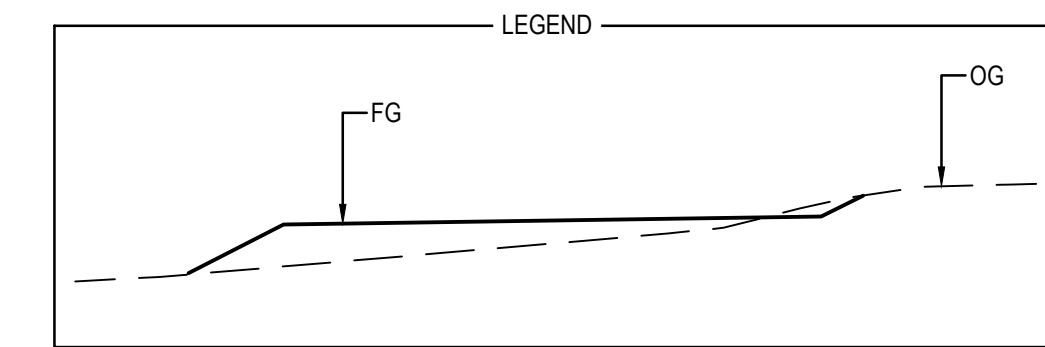
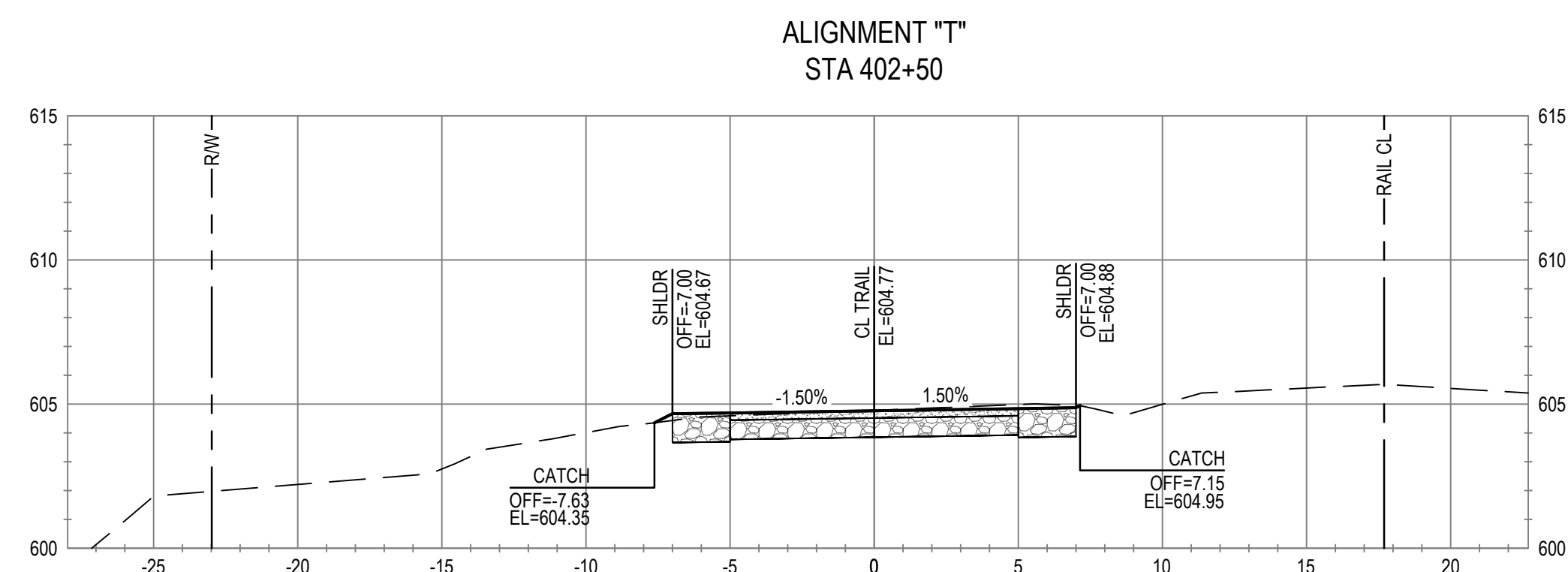
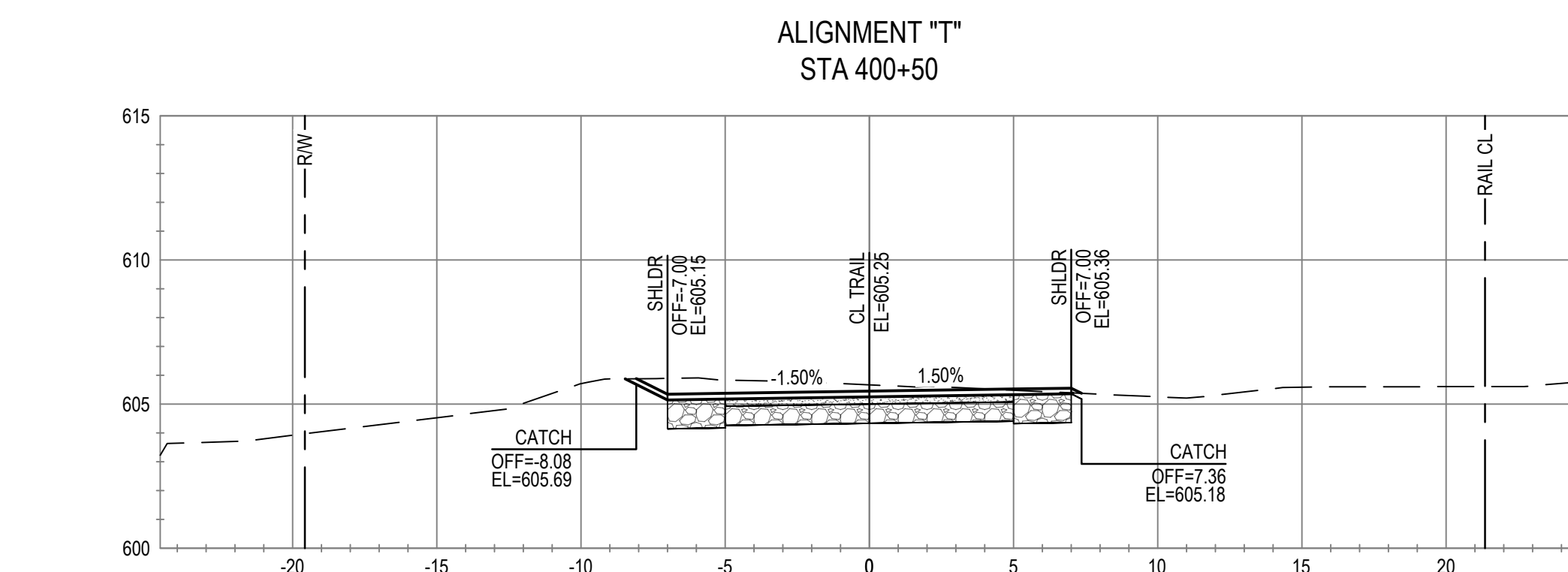
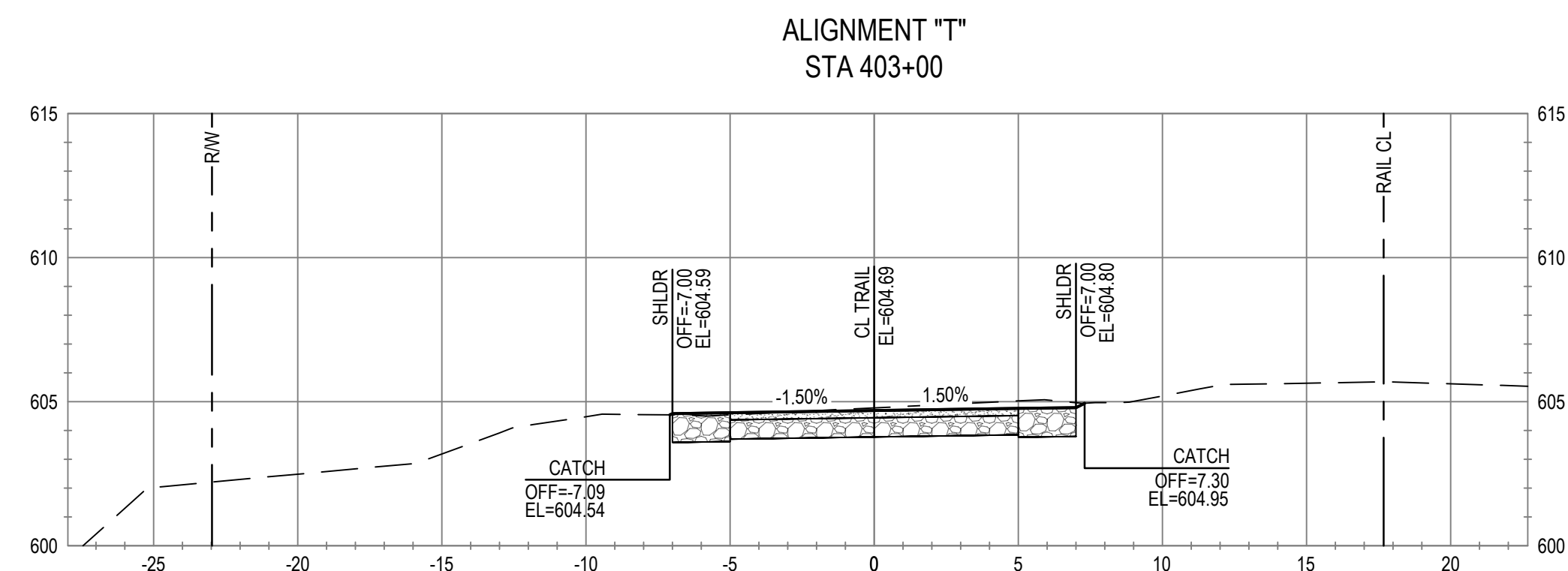
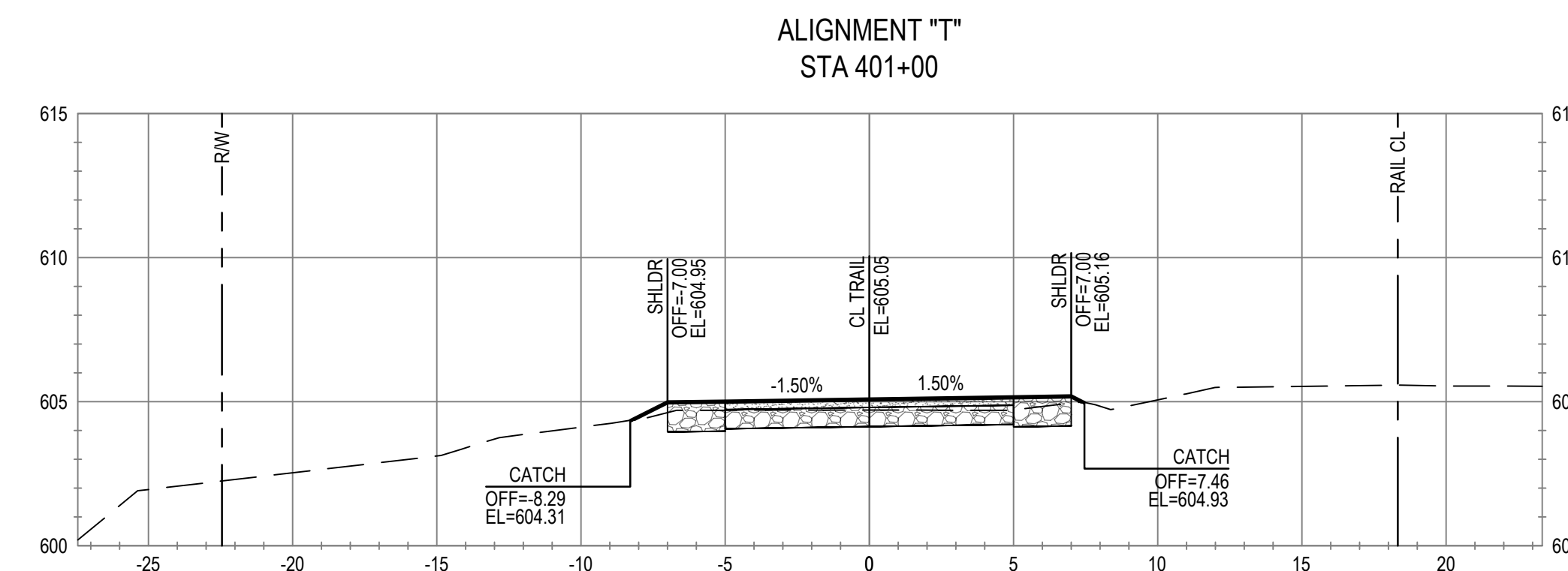
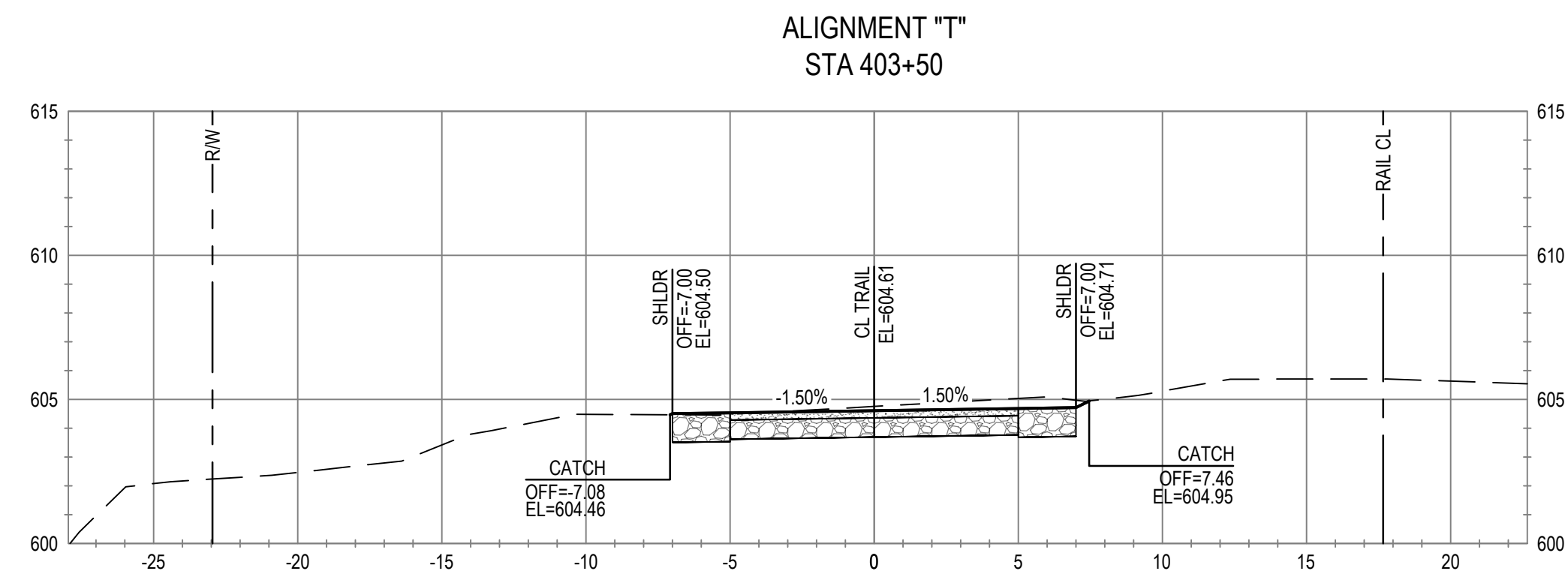
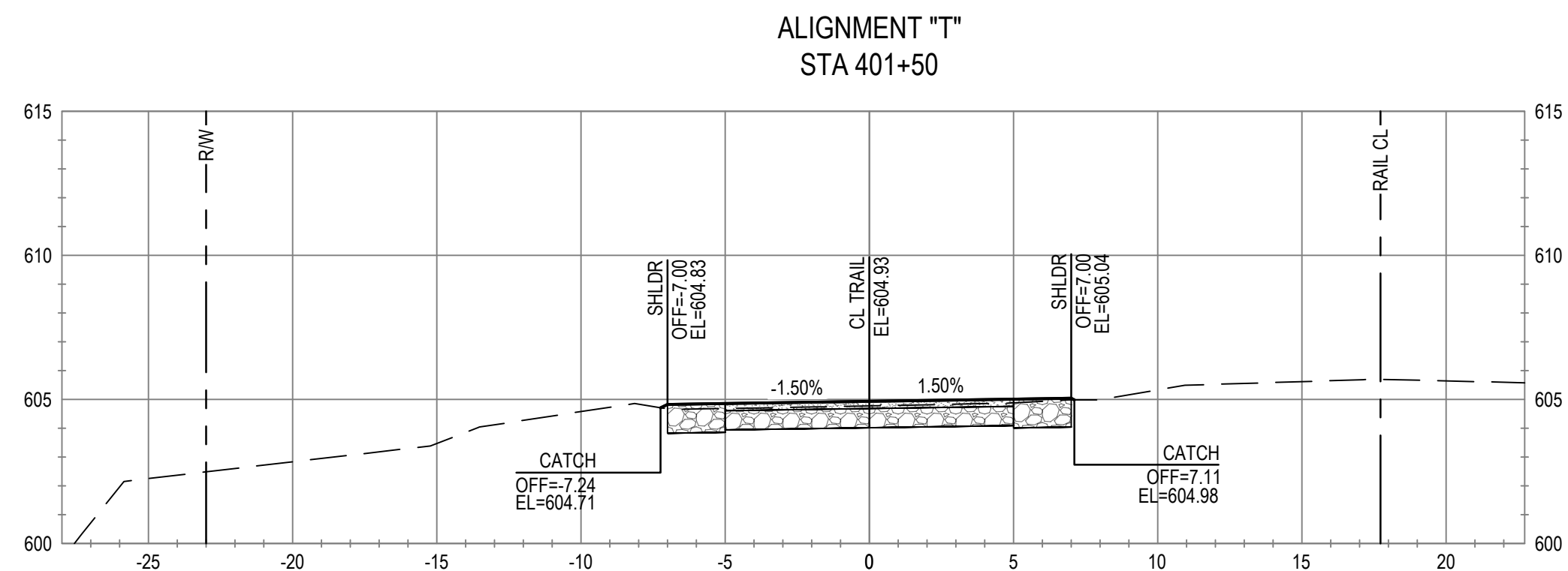
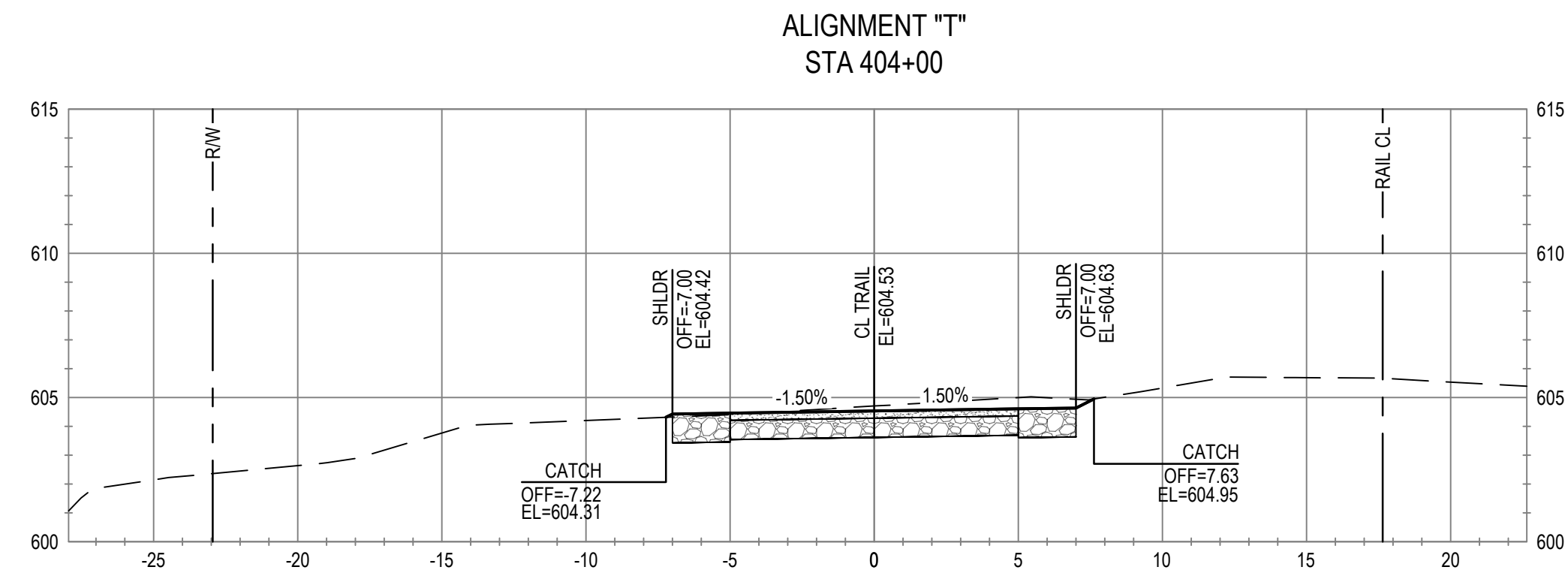
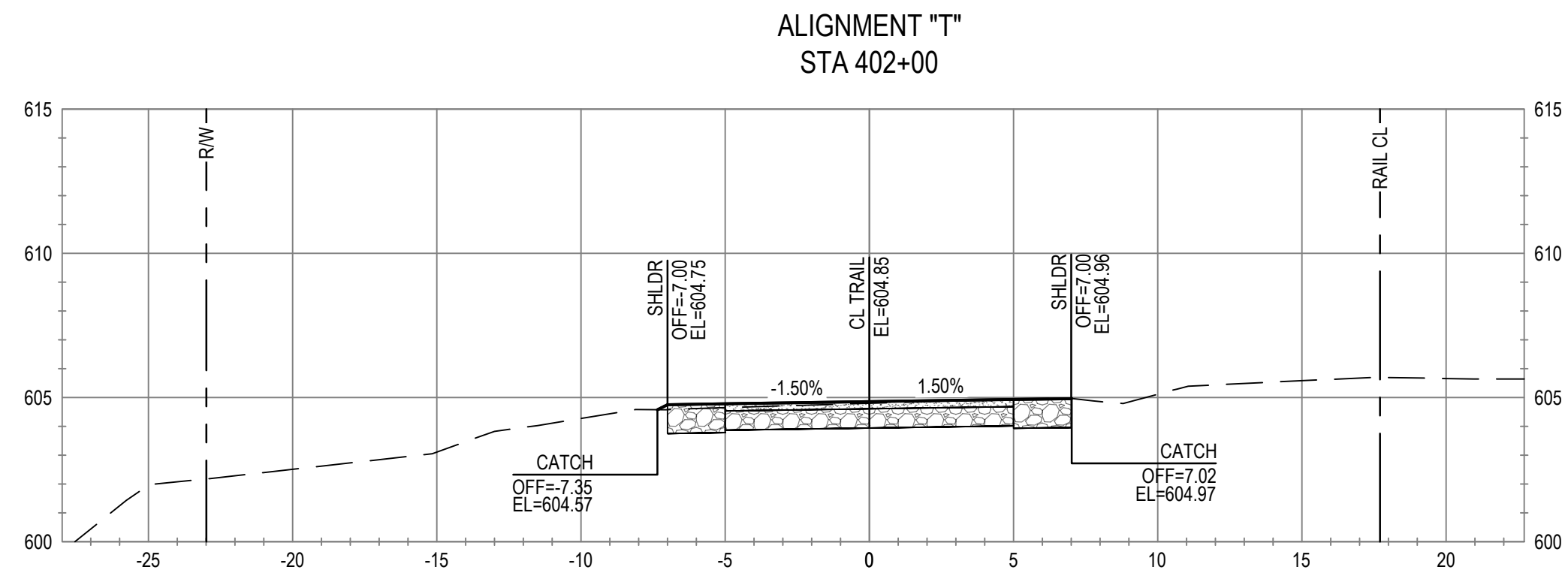
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Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022
Scale	NO SCALE

Title	ELECTRICAL SINGLE LINE DIAGRAM AND SCHEDULES
Size	ANSI D
Sheet No.	E-601
Sheet	76 of 96





No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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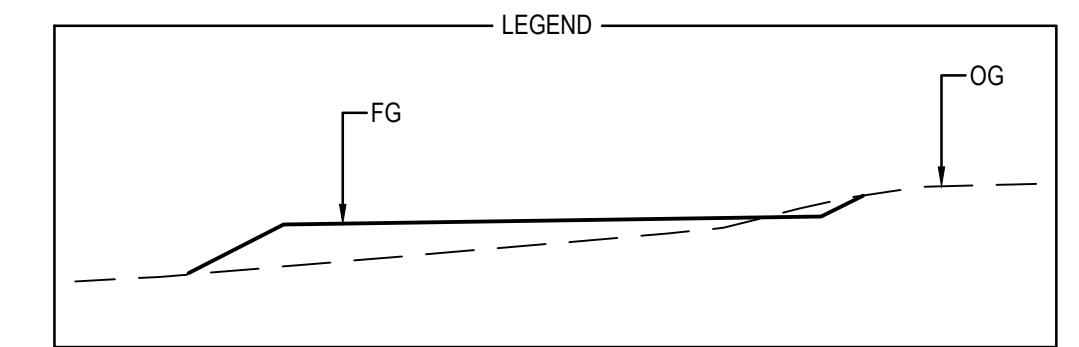
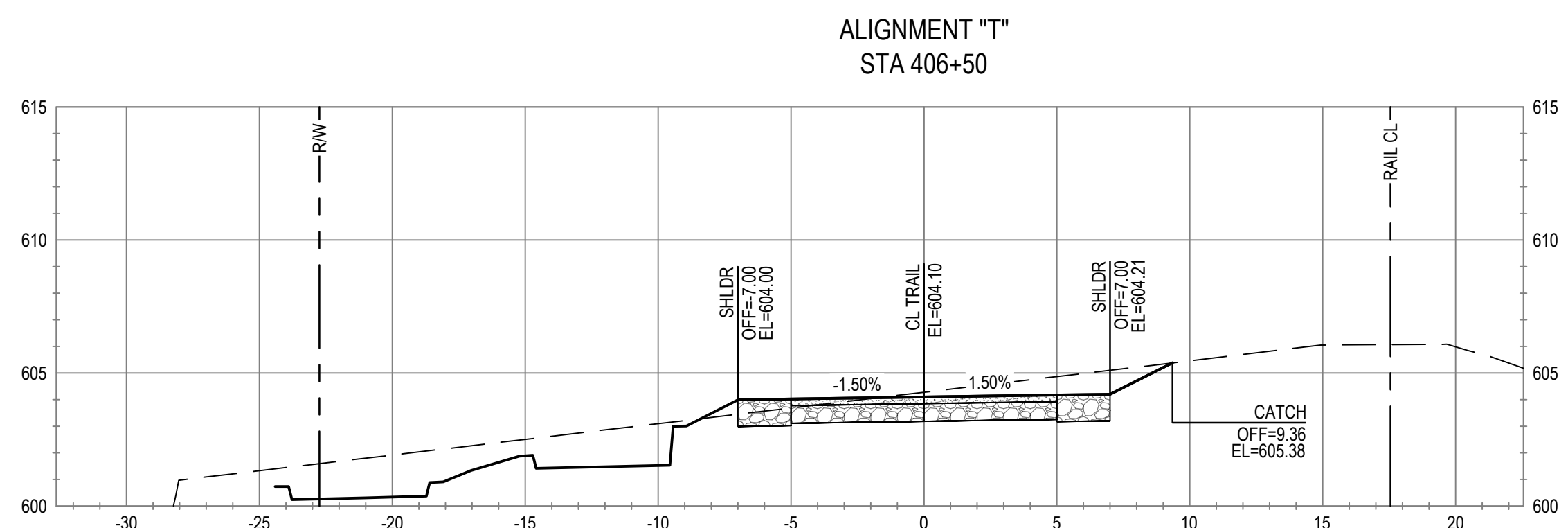
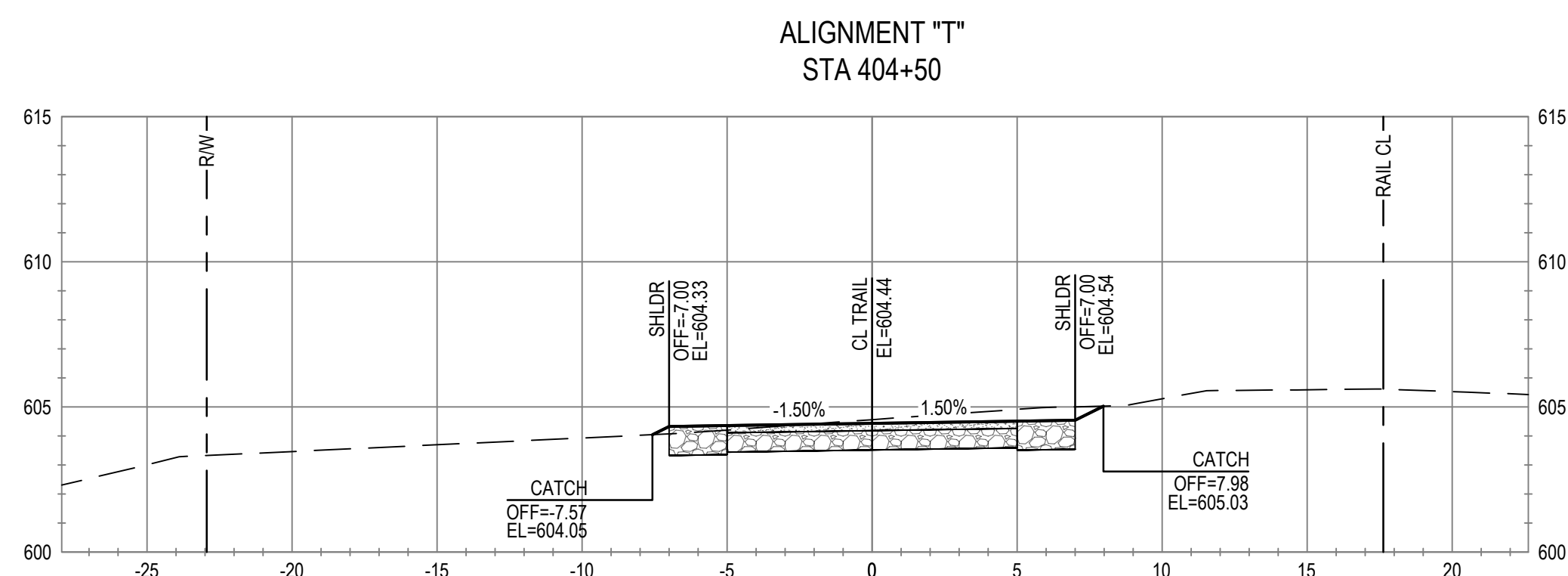
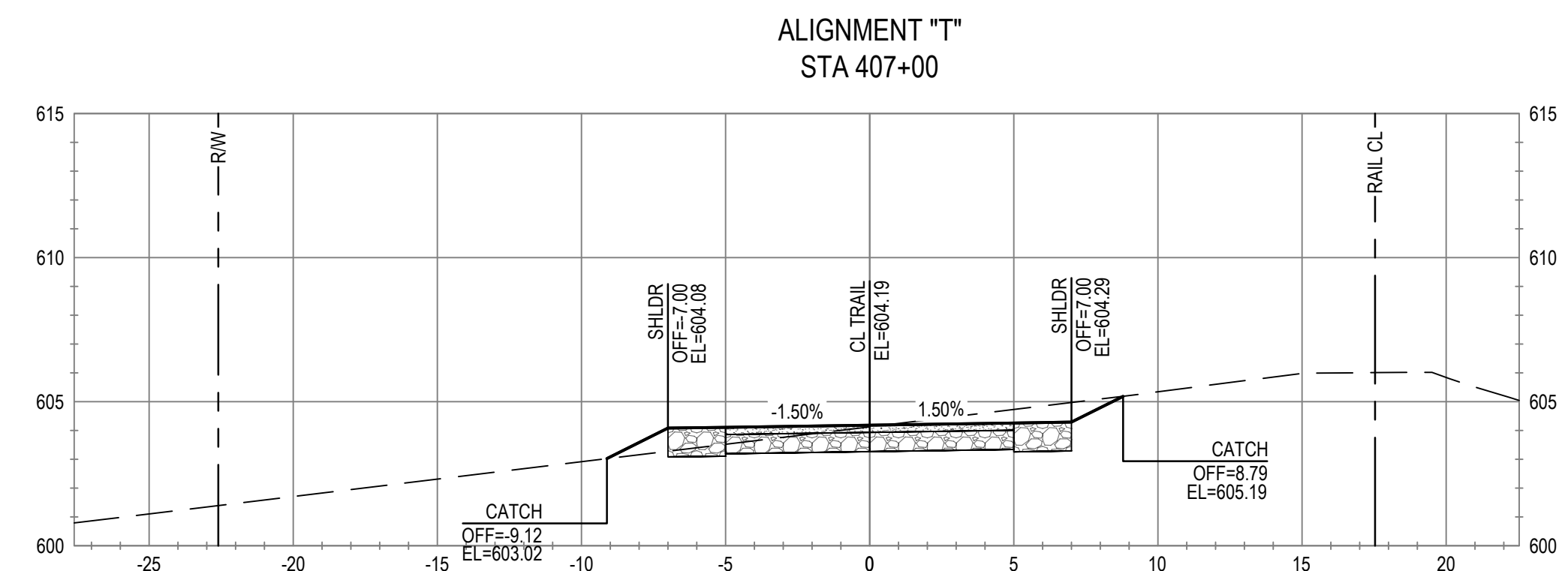
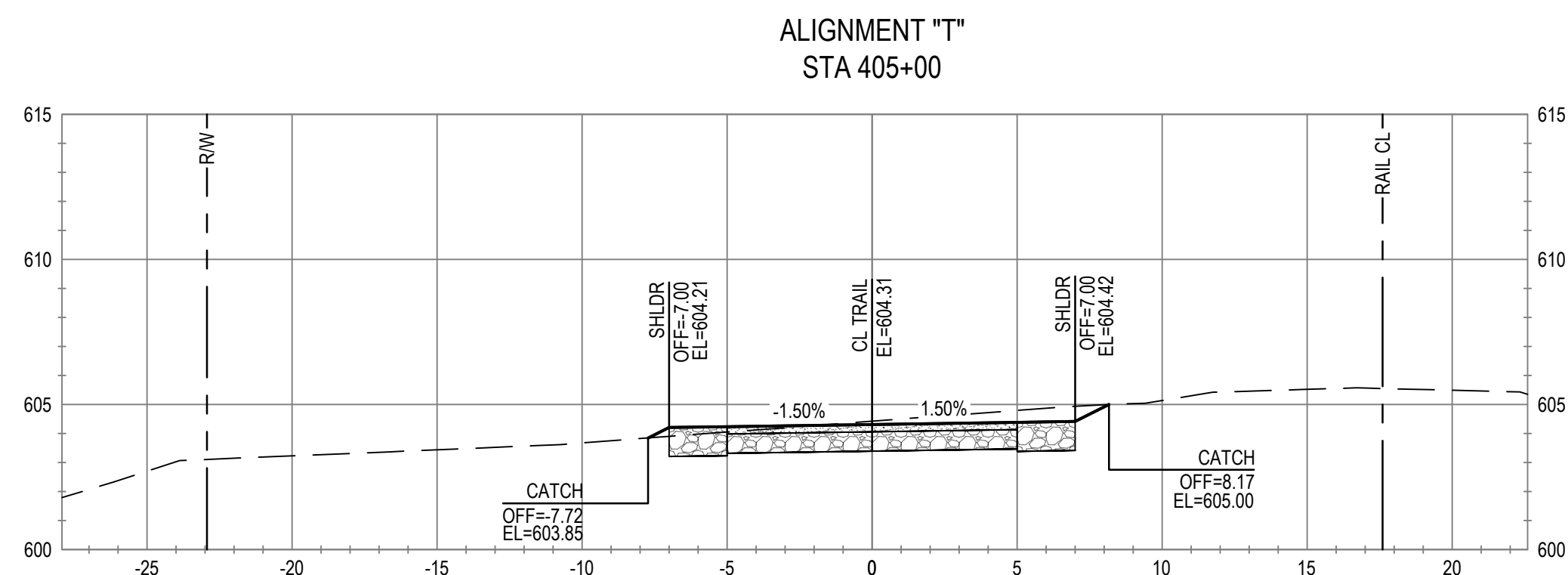
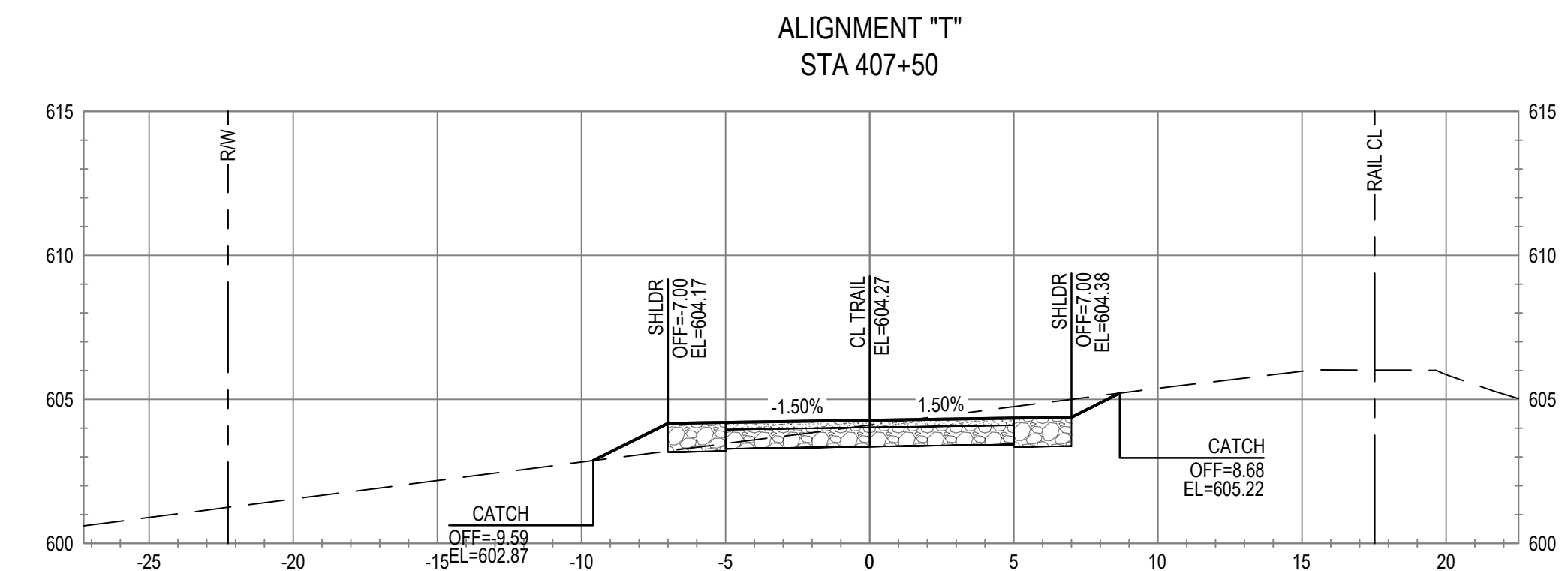
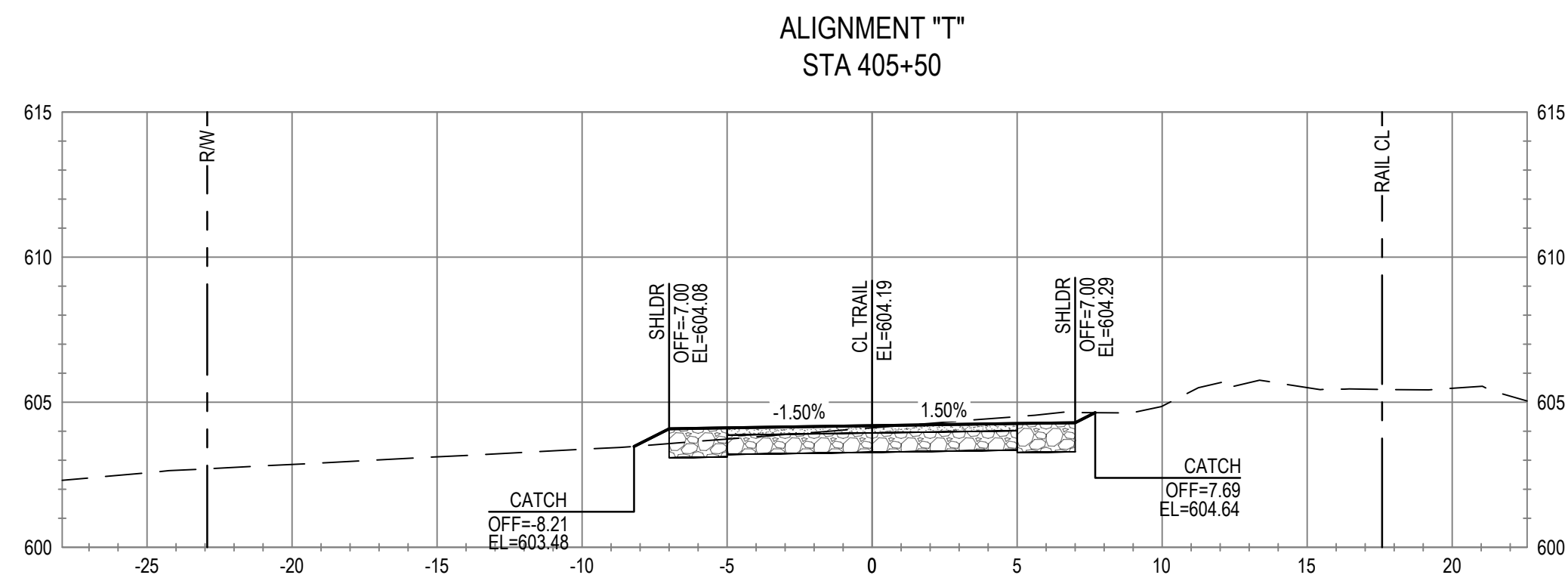
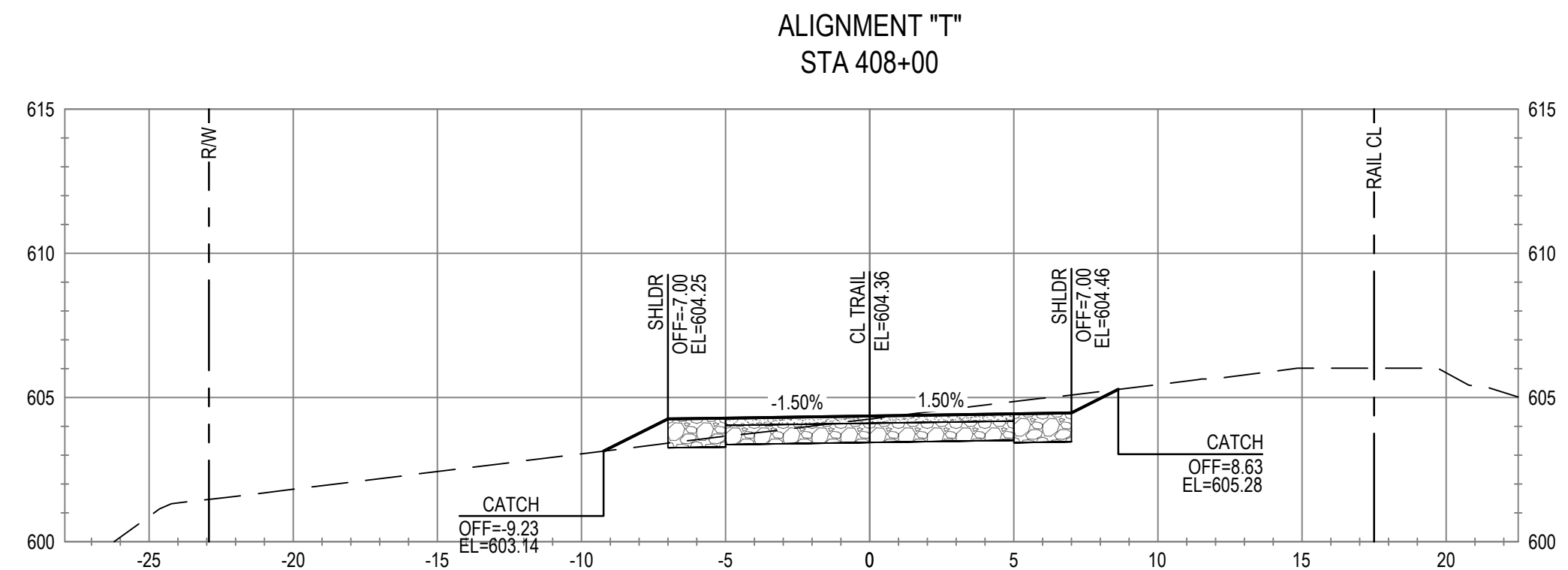
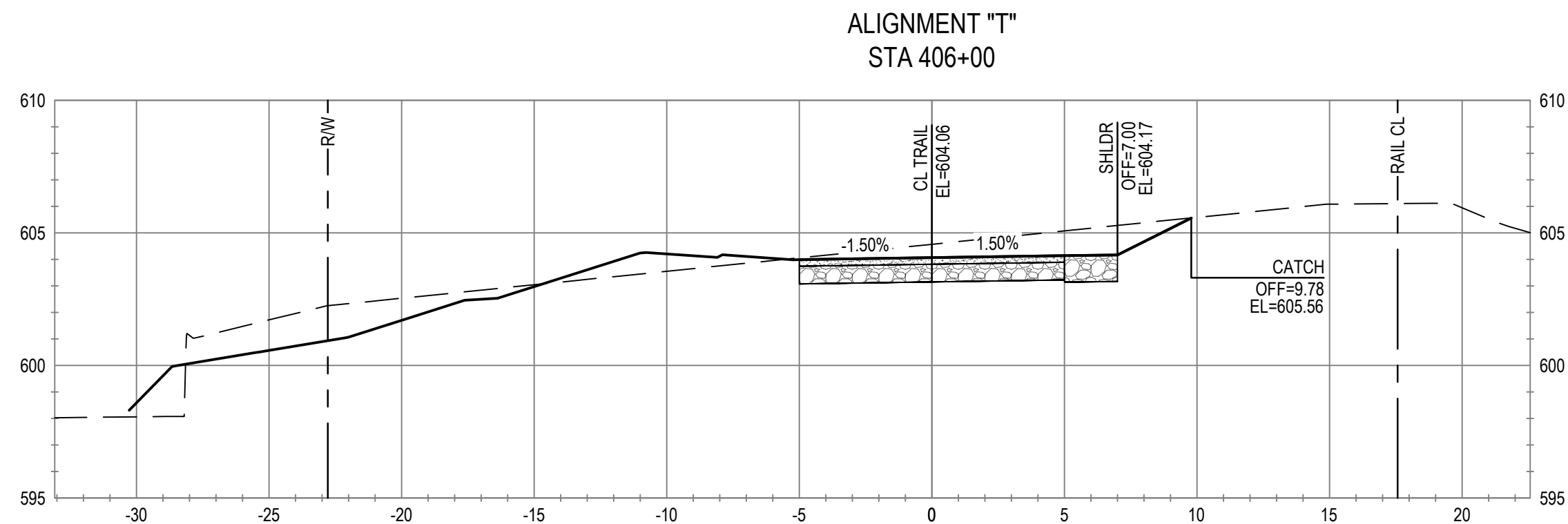
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Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 5'**

Title **CROSS SECTIONS**  
**STA 400+50 TO STA 404+00**  
Sheet No. **C-801**  
Sheet **77 of 98**





No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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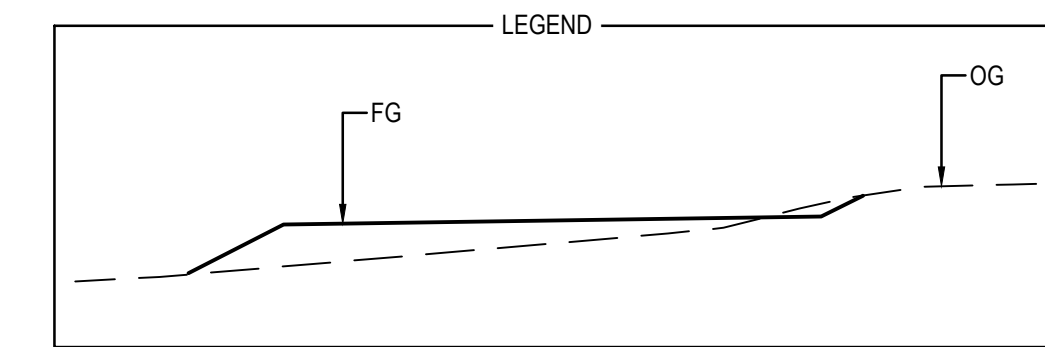
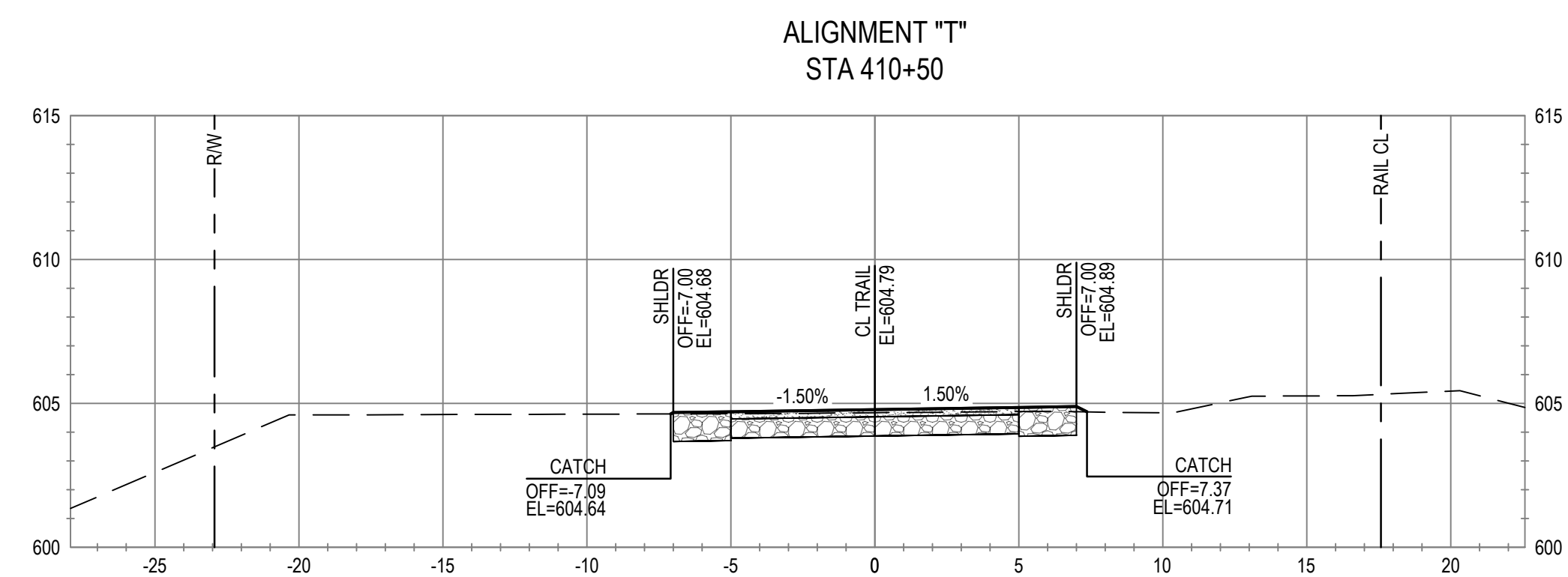
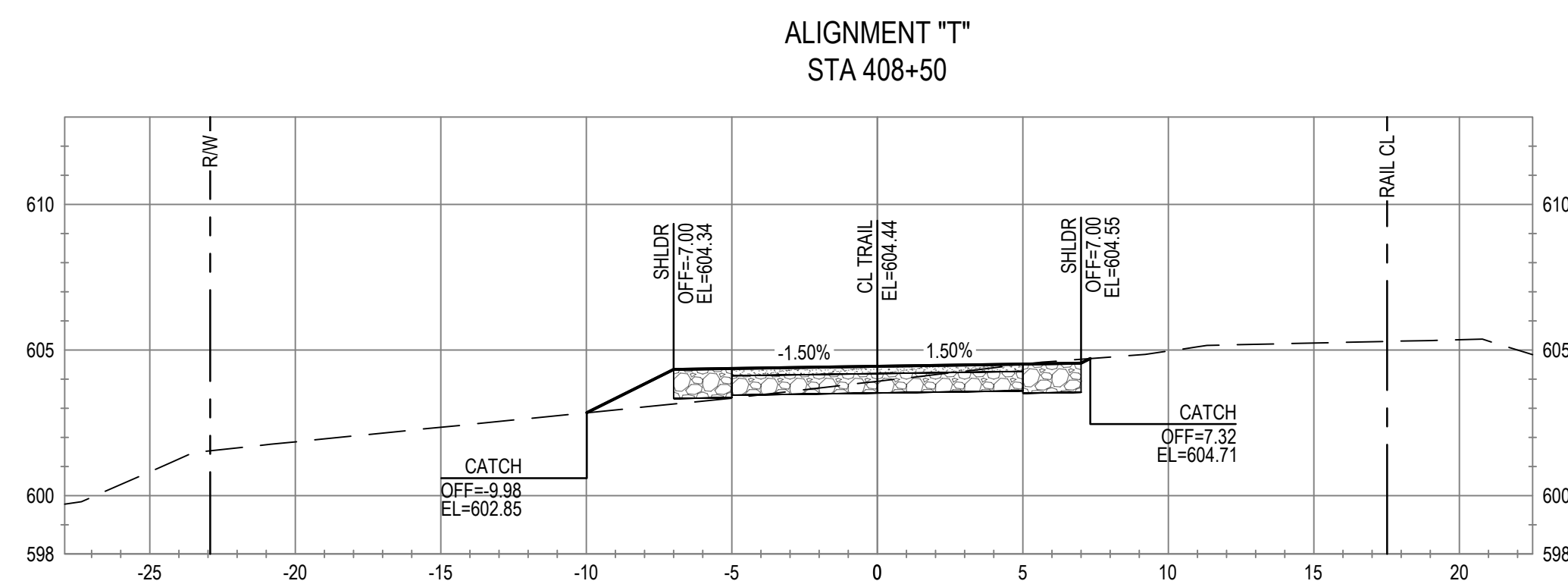
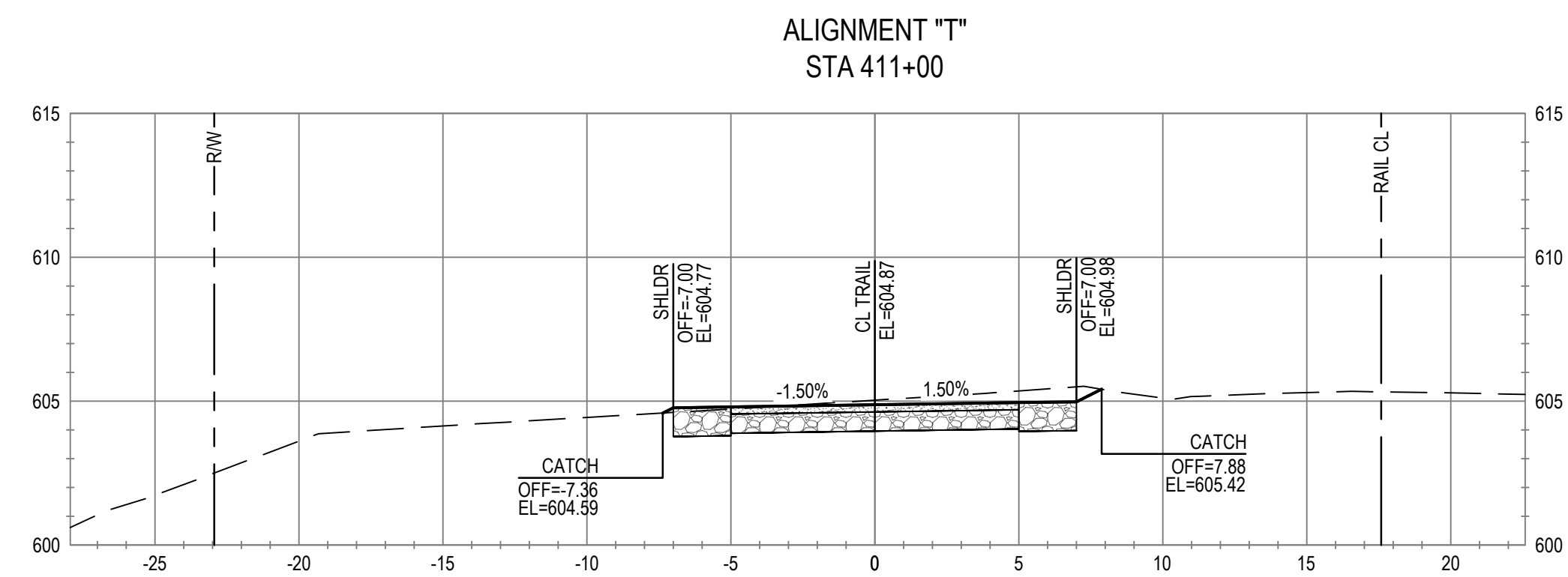
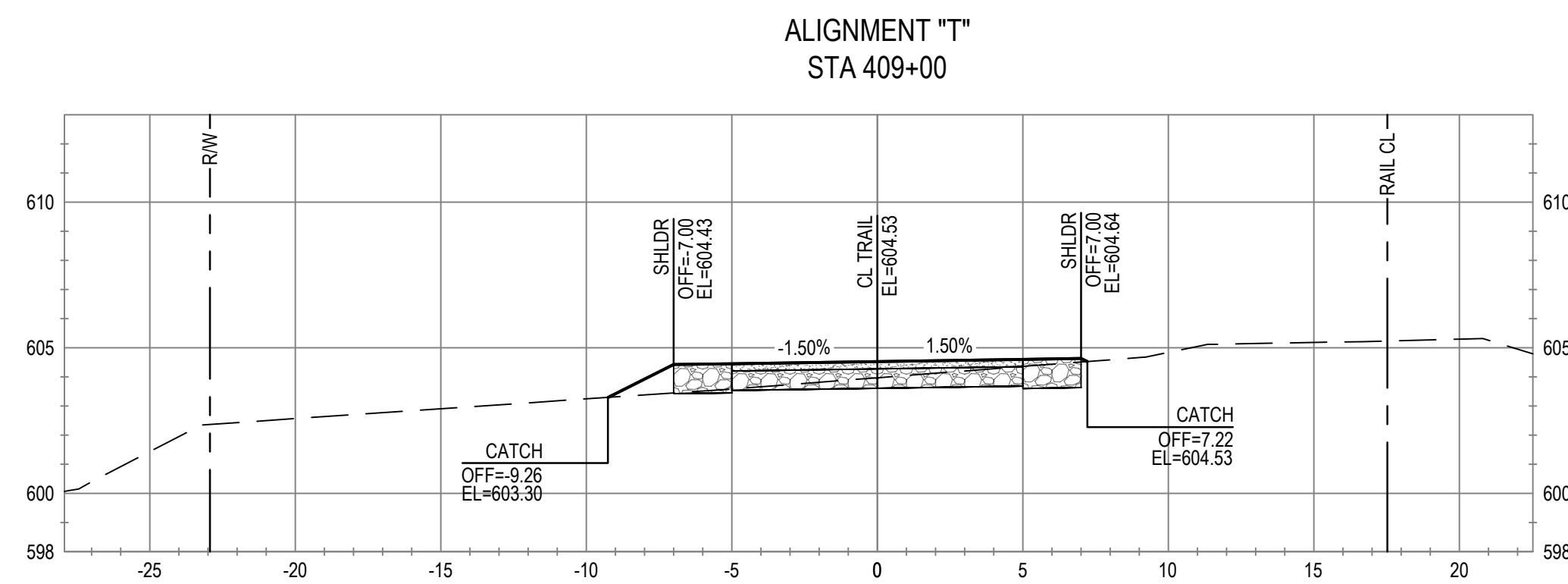
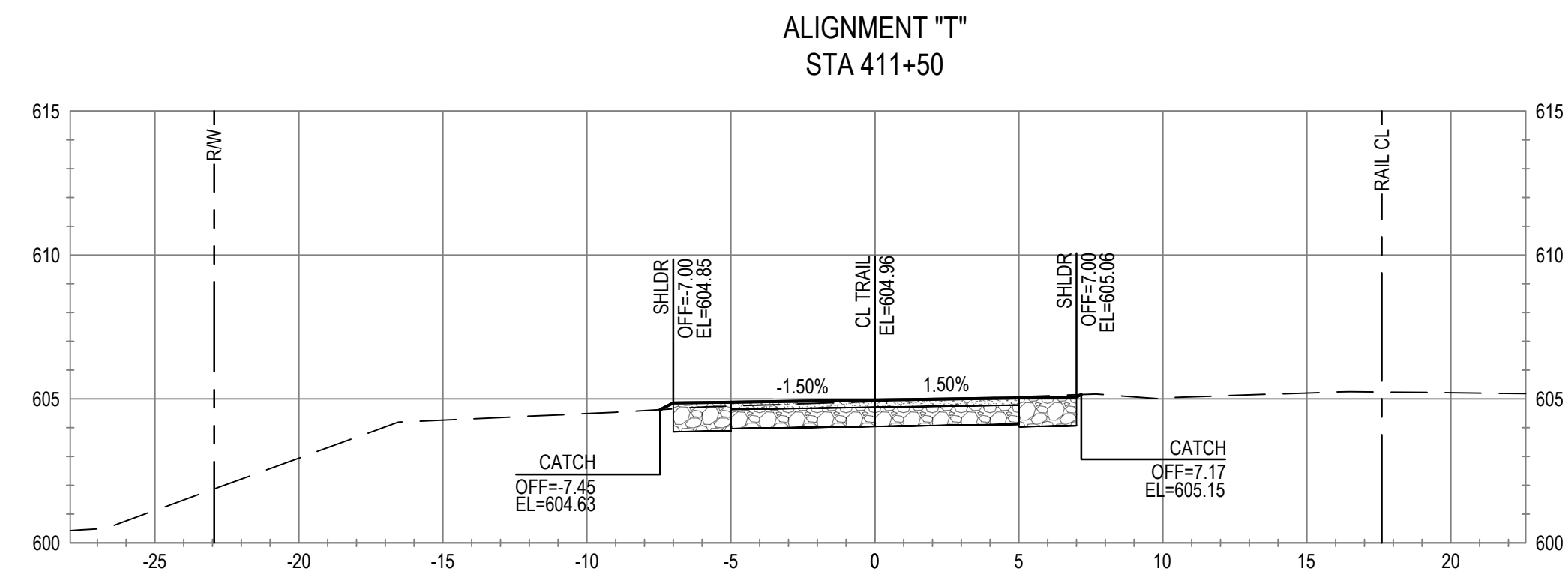
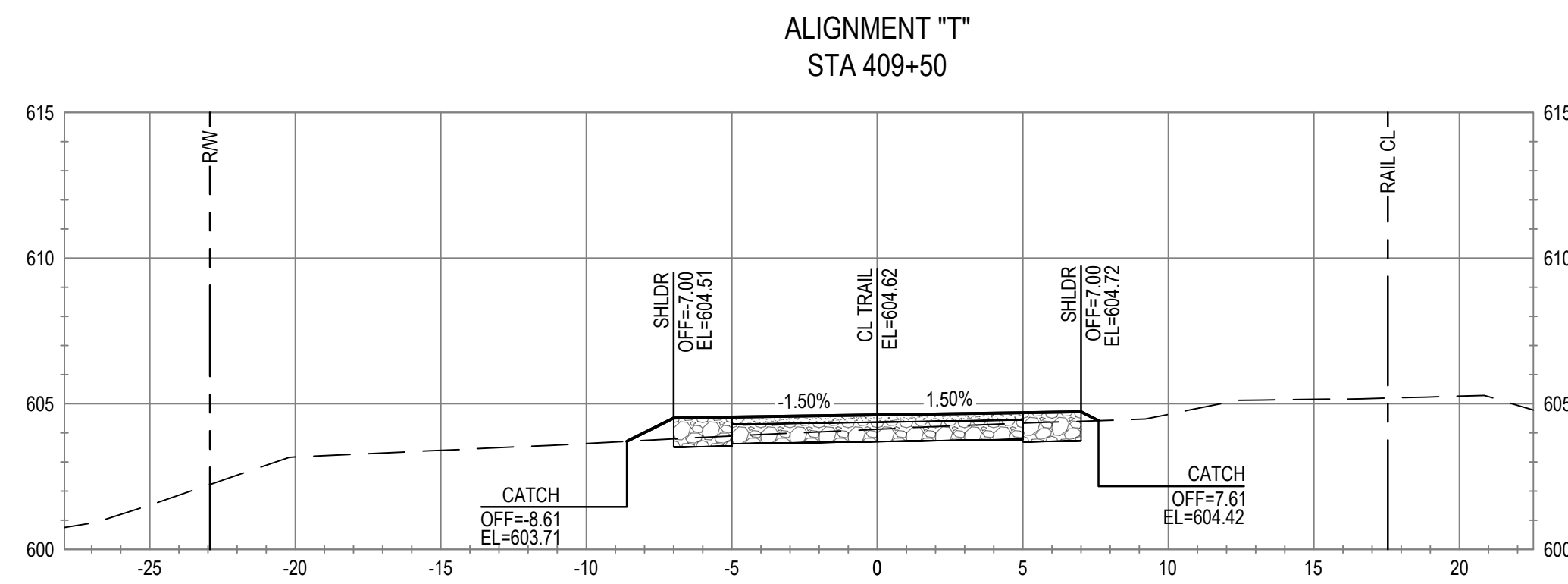
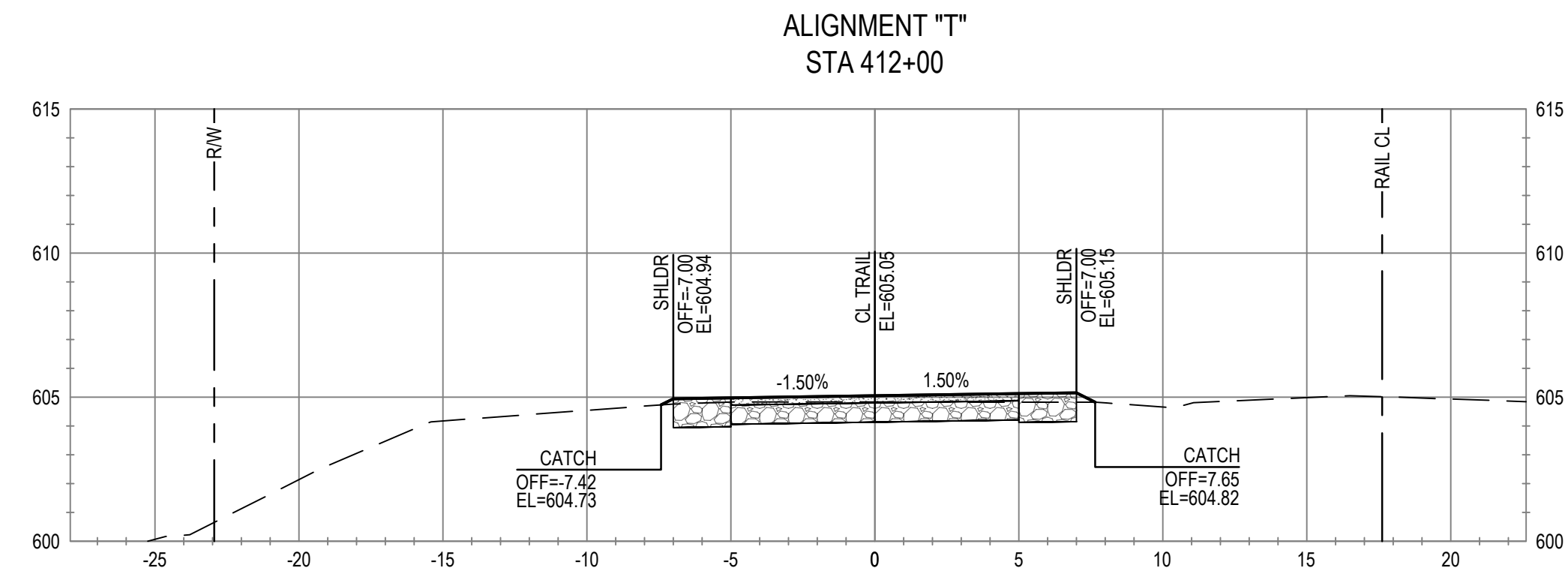
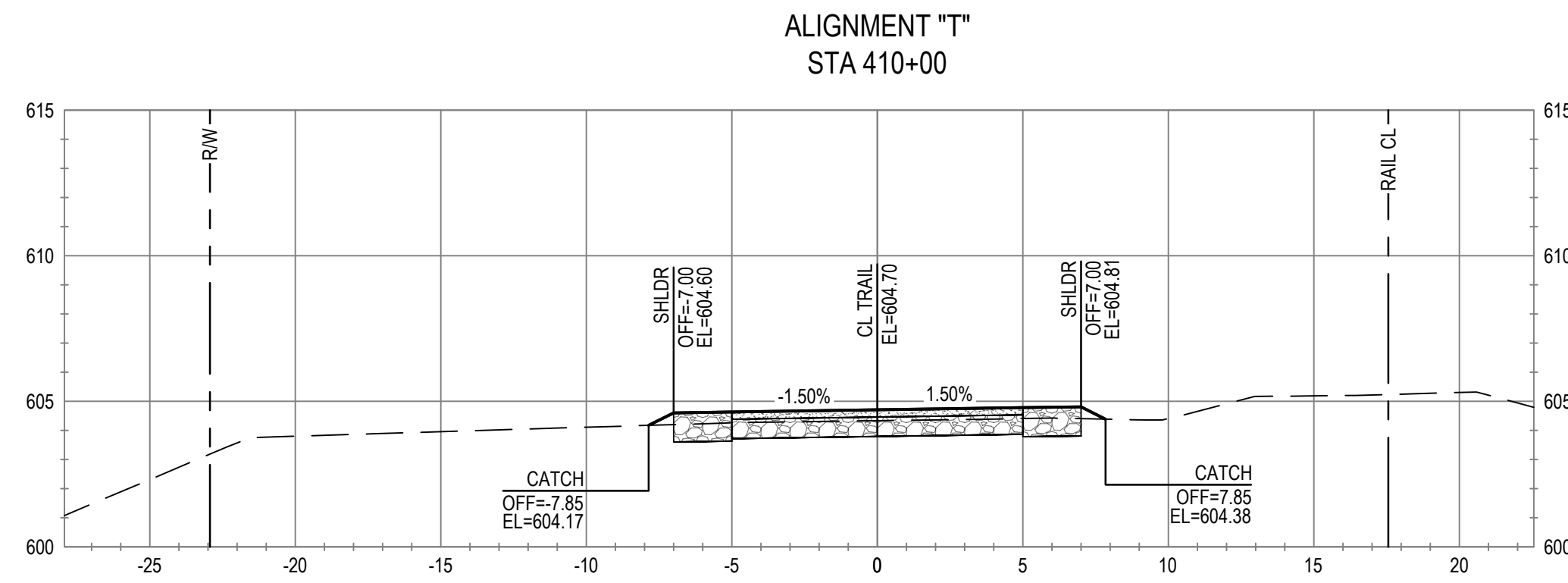
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

Title **CROSS SECTIONS**  
**STA 404+50 TO STA 408+00**

Size **ANSI D**  
Sheet No. **C-802** Sheet **78 of 96**





No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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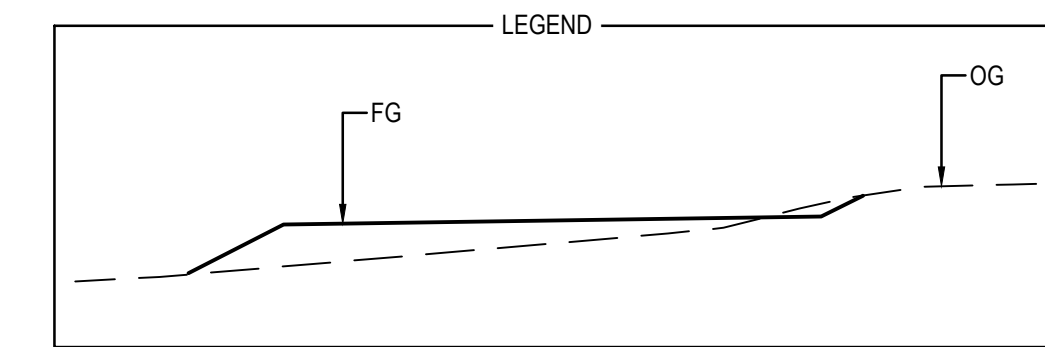
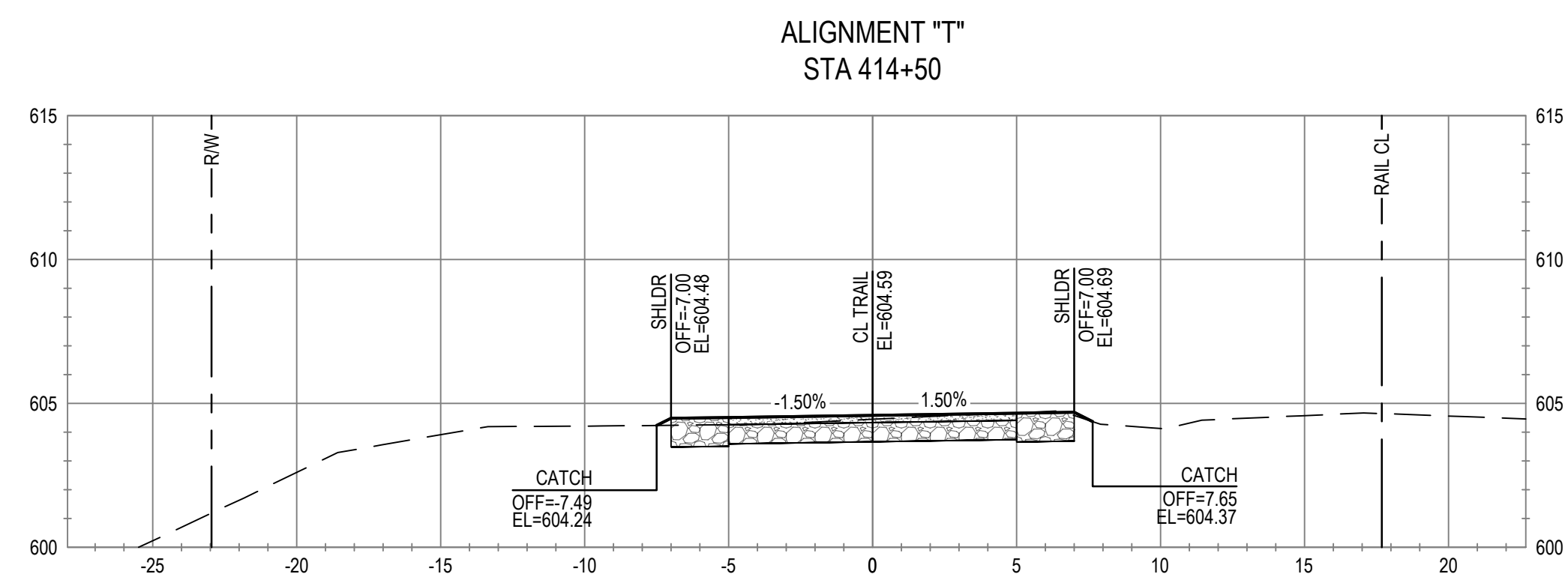
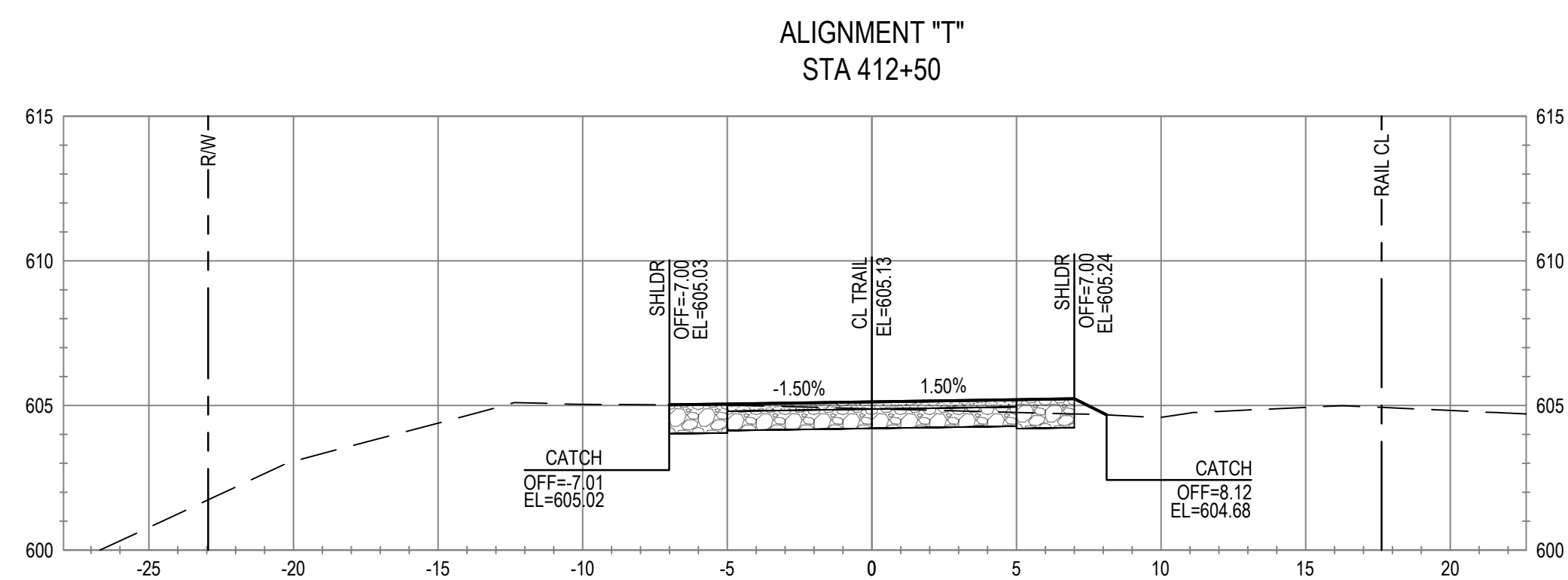
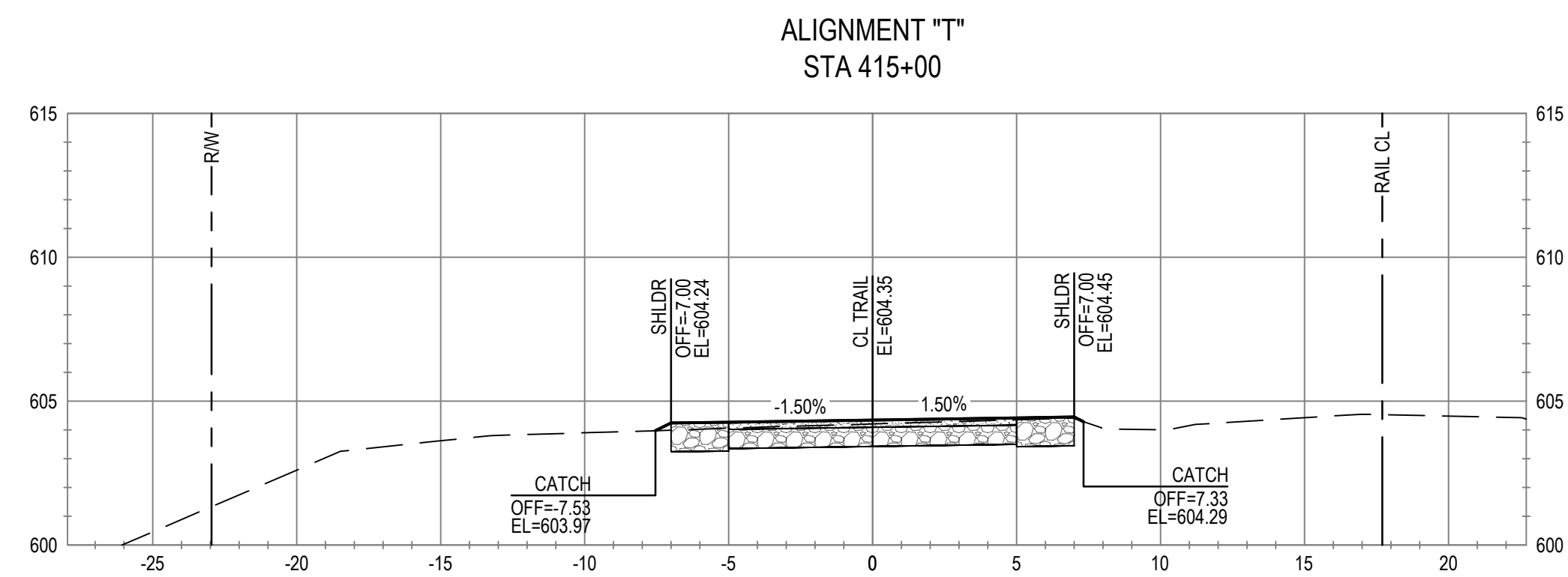
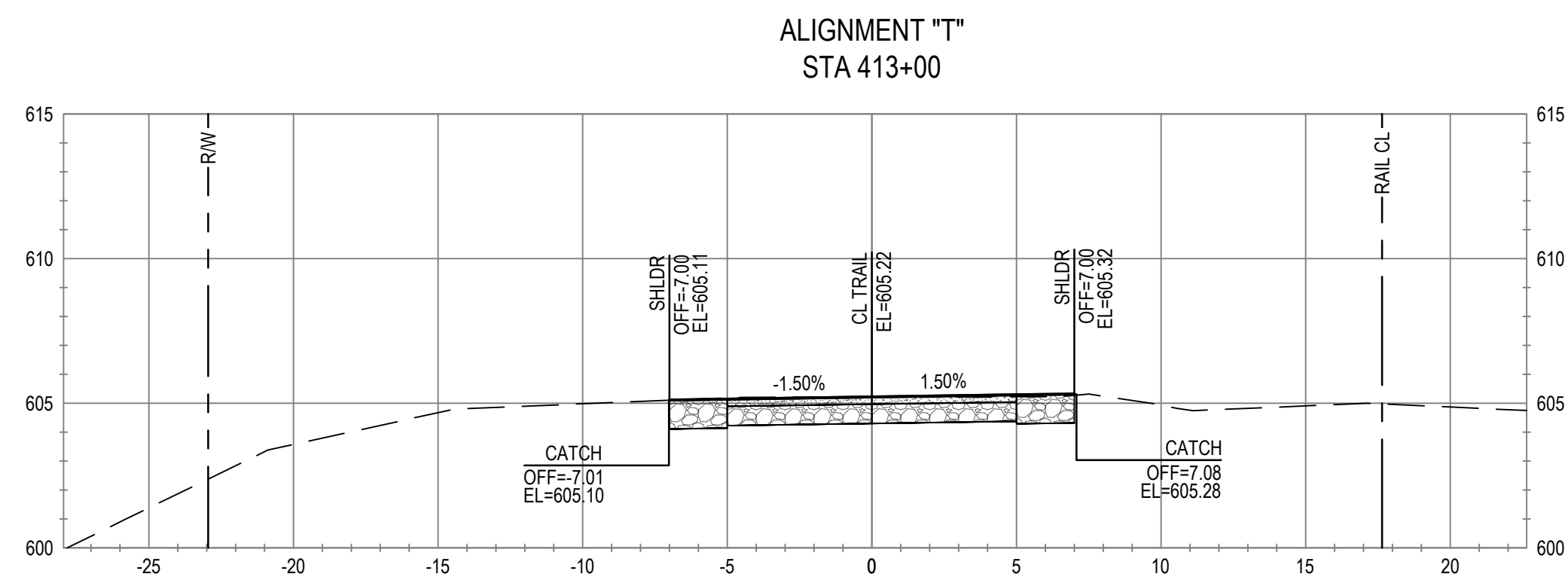
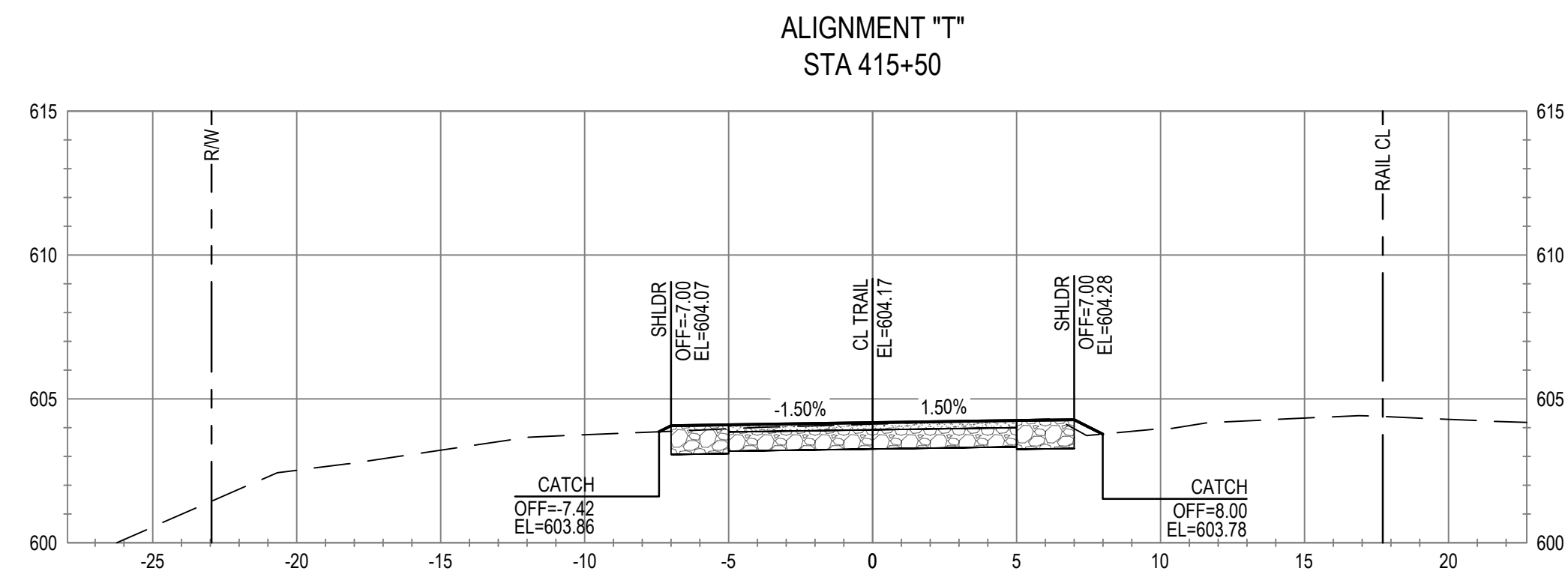
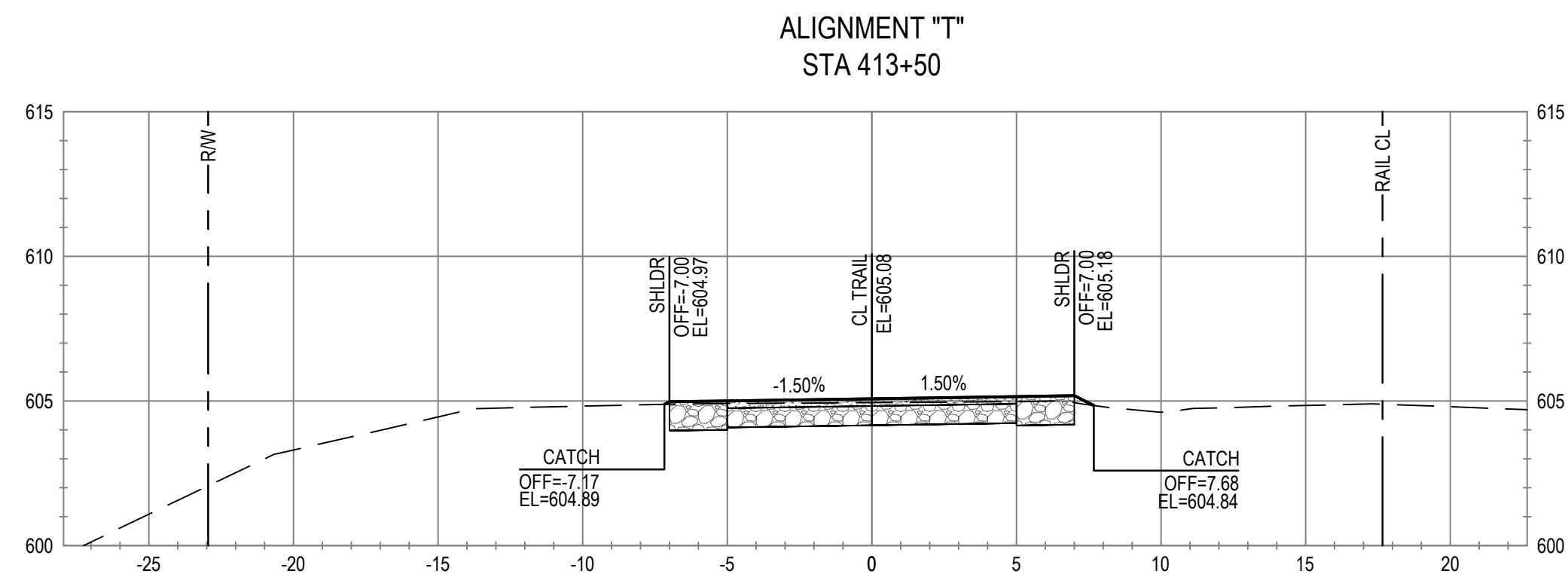
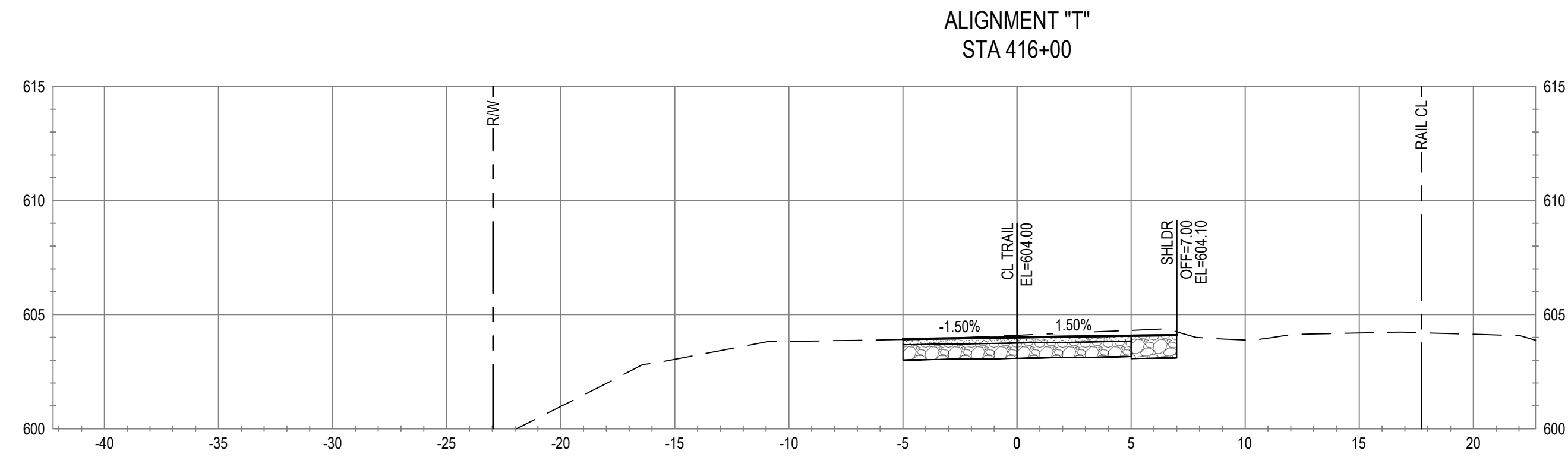
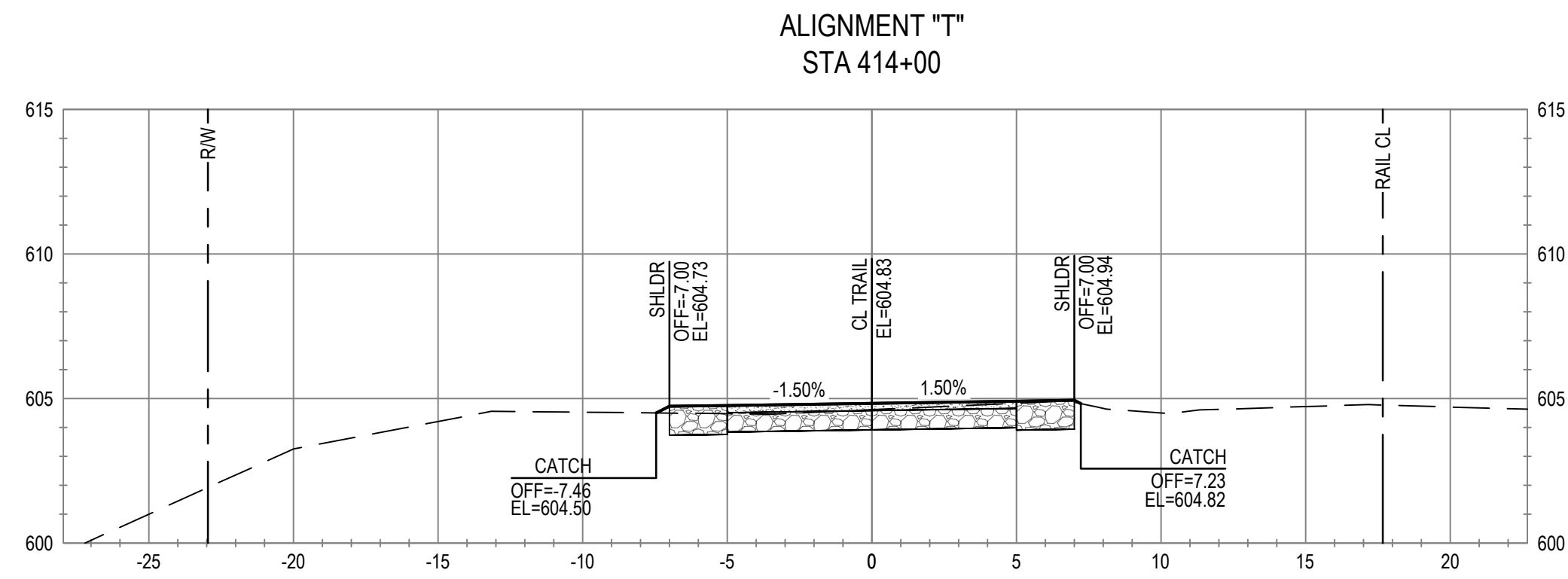


Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**

Title **CROSS SECTIONS  
STA 408+50 TO STA 412+00**  
Scale **1" = 5'**

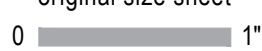
Size **ANSI D**  
Sheet No. **C-803**  
Sheet **79 of 96**





No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

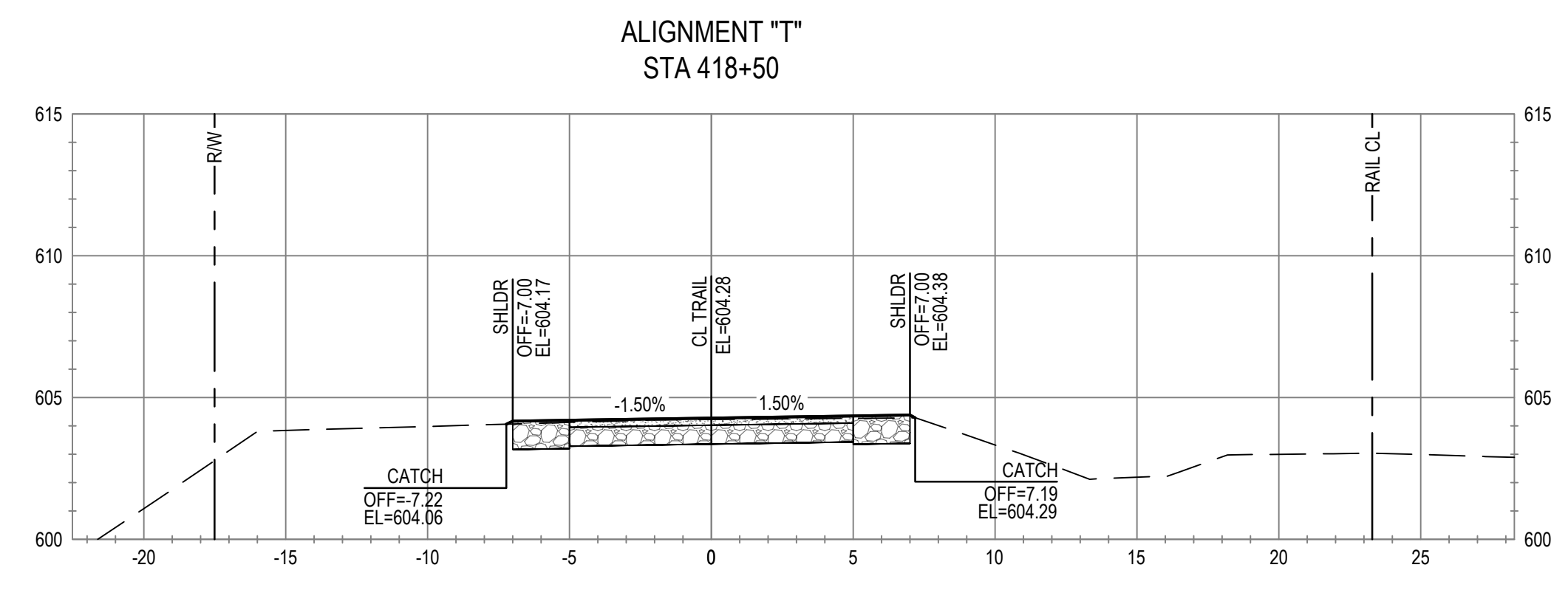
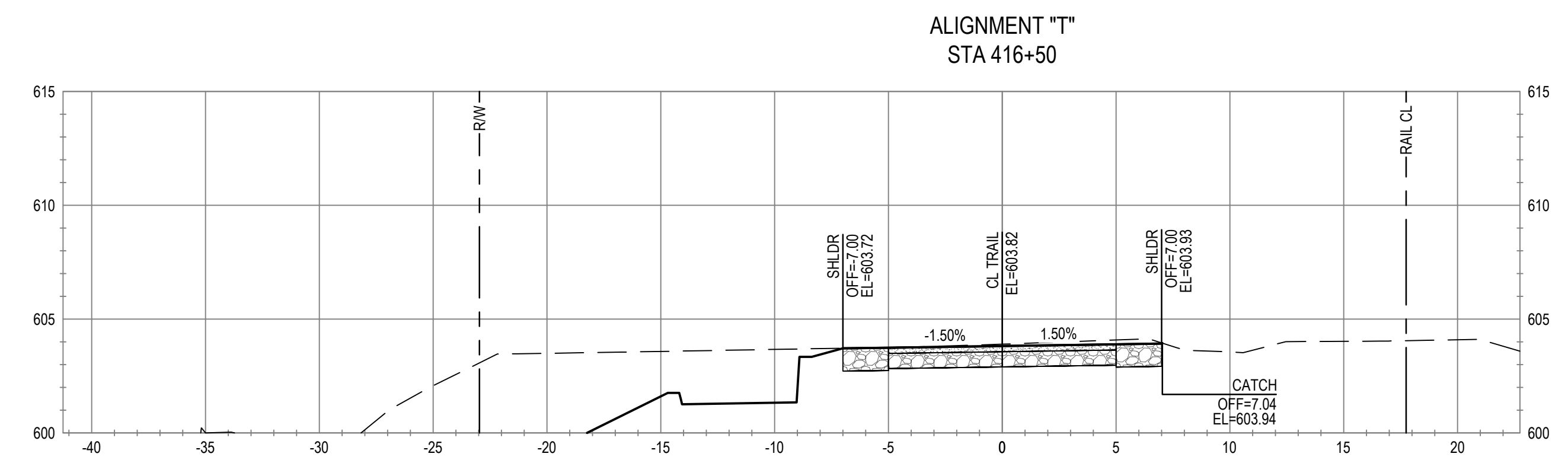
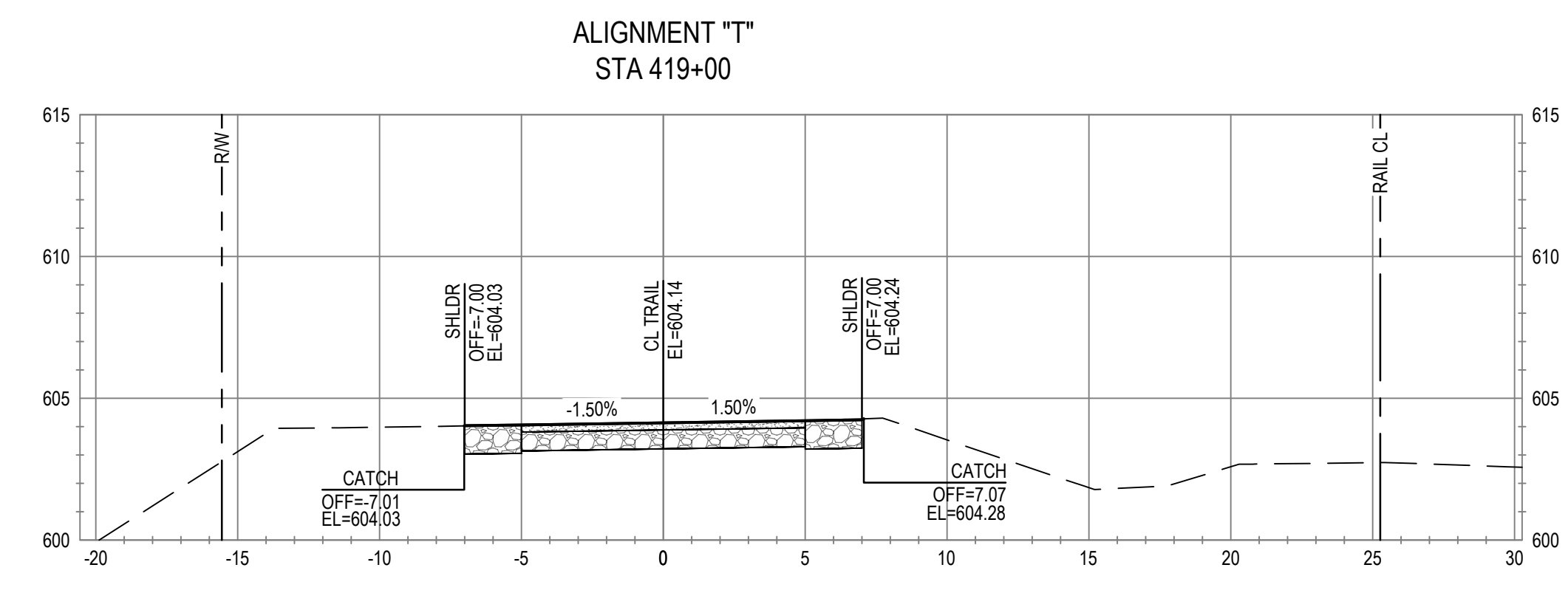
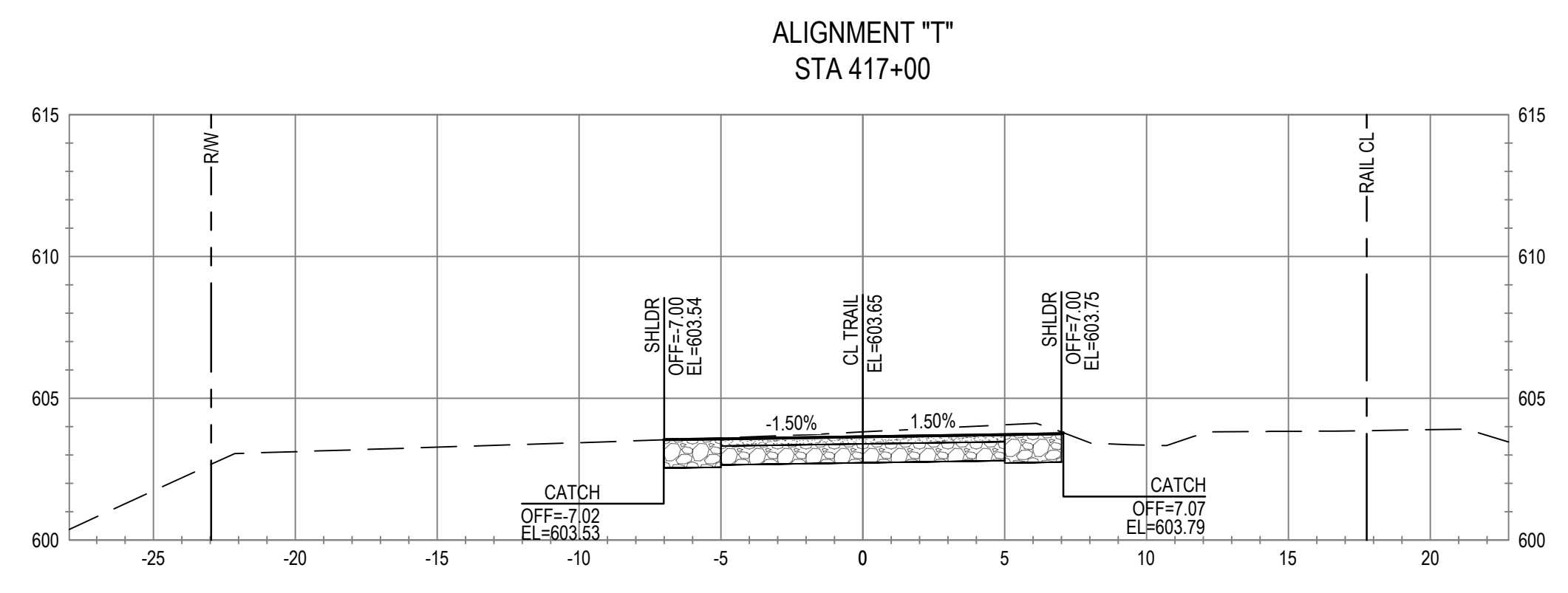
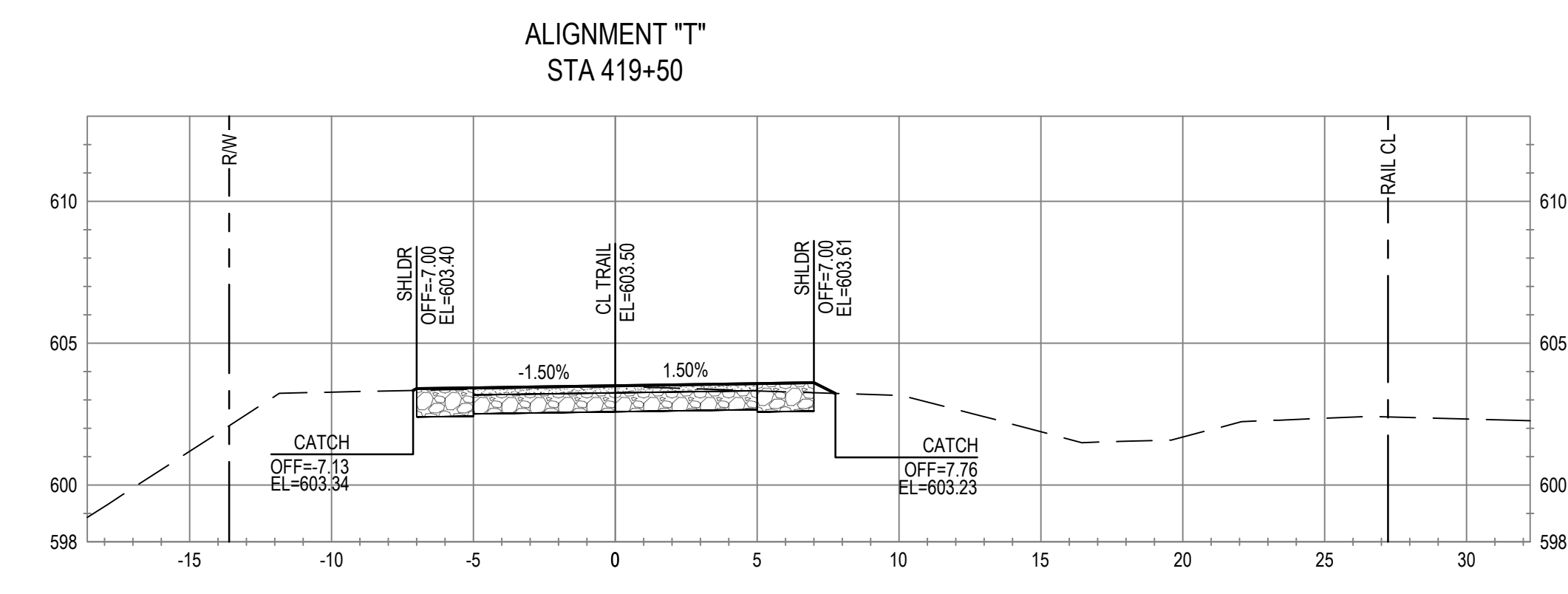
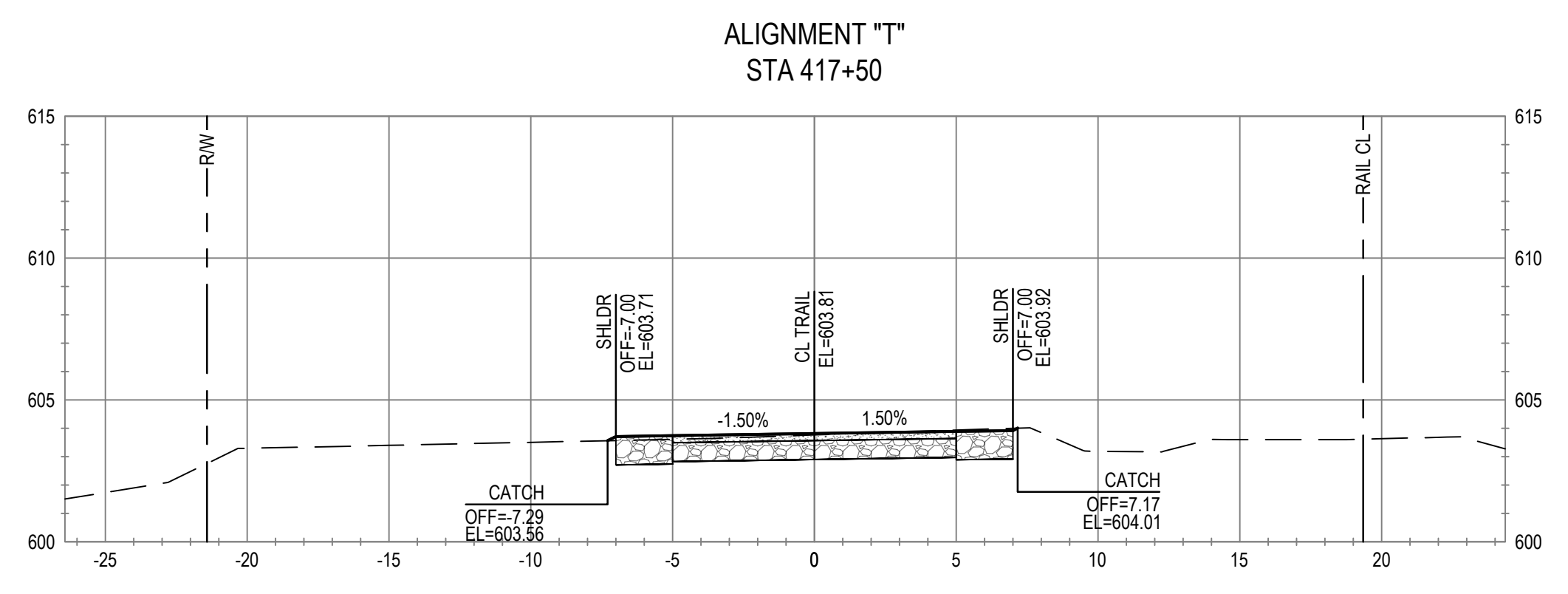
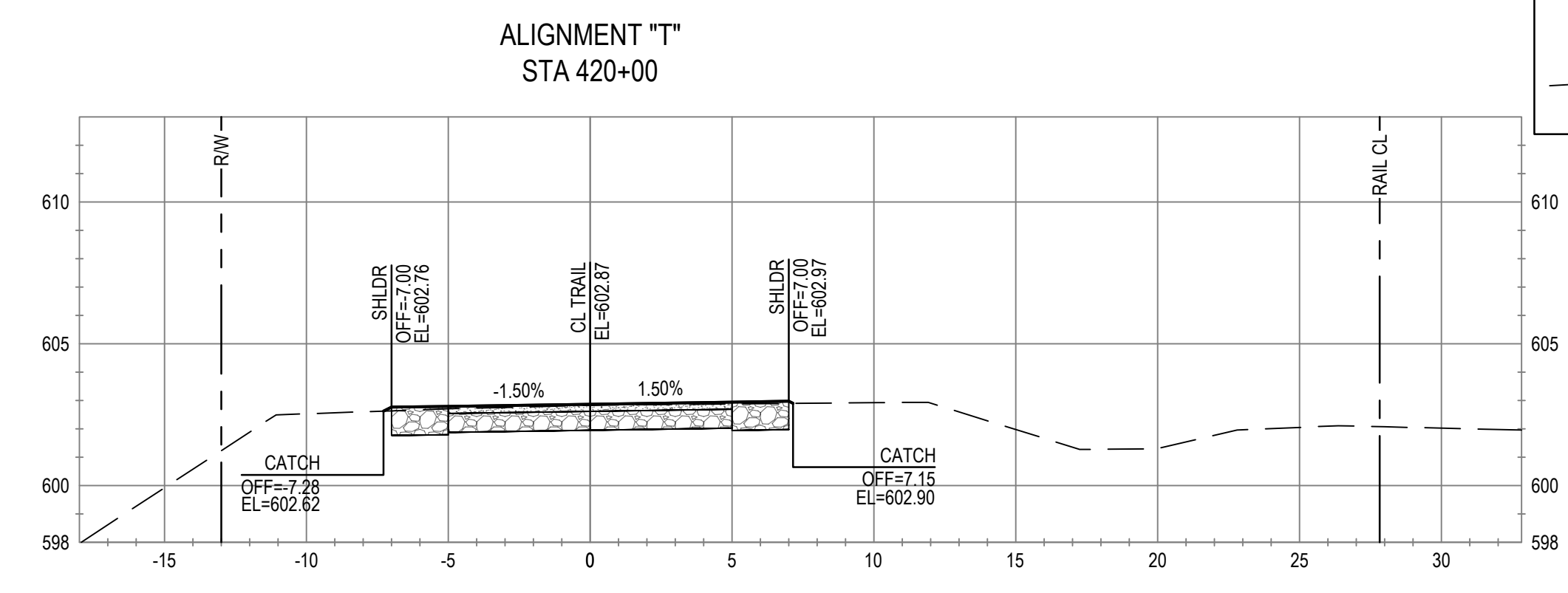
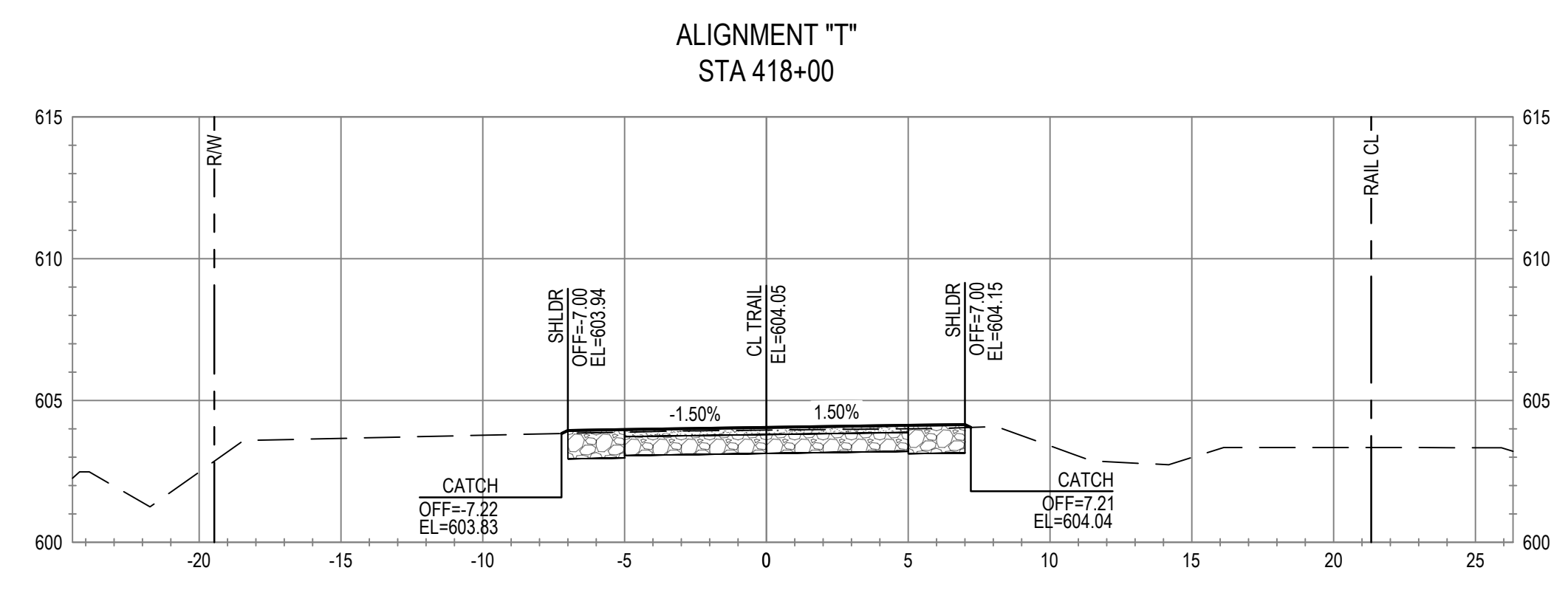
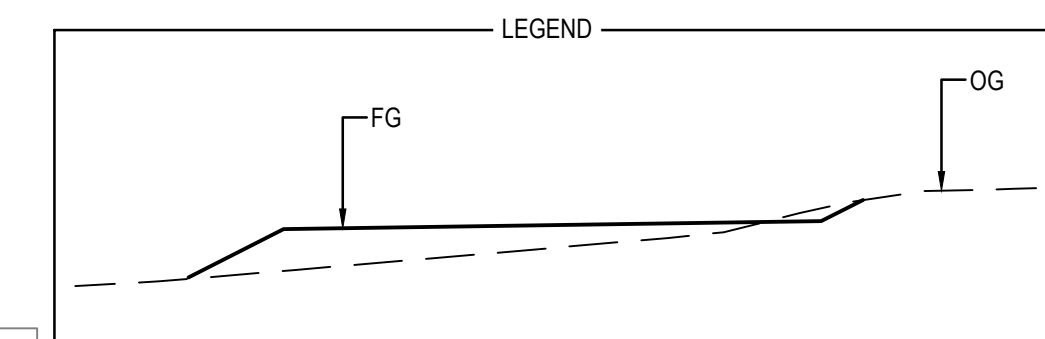
Date **SEP 30, 2022**

Scale **1" = 5'**

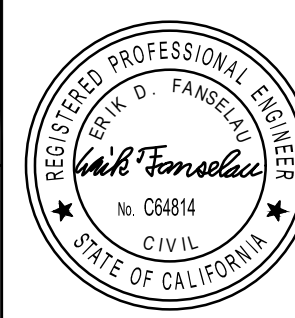
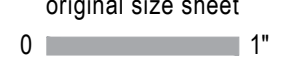
Title **CROSS SECTIONS  
STA 412+50 TO STA 416+00**

Size **ANSI D**  
Sheet No. **C-804**  
Sheet **80 of 96**





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Project **THE GREAT REDWOOD TRAIL PHASE 4**

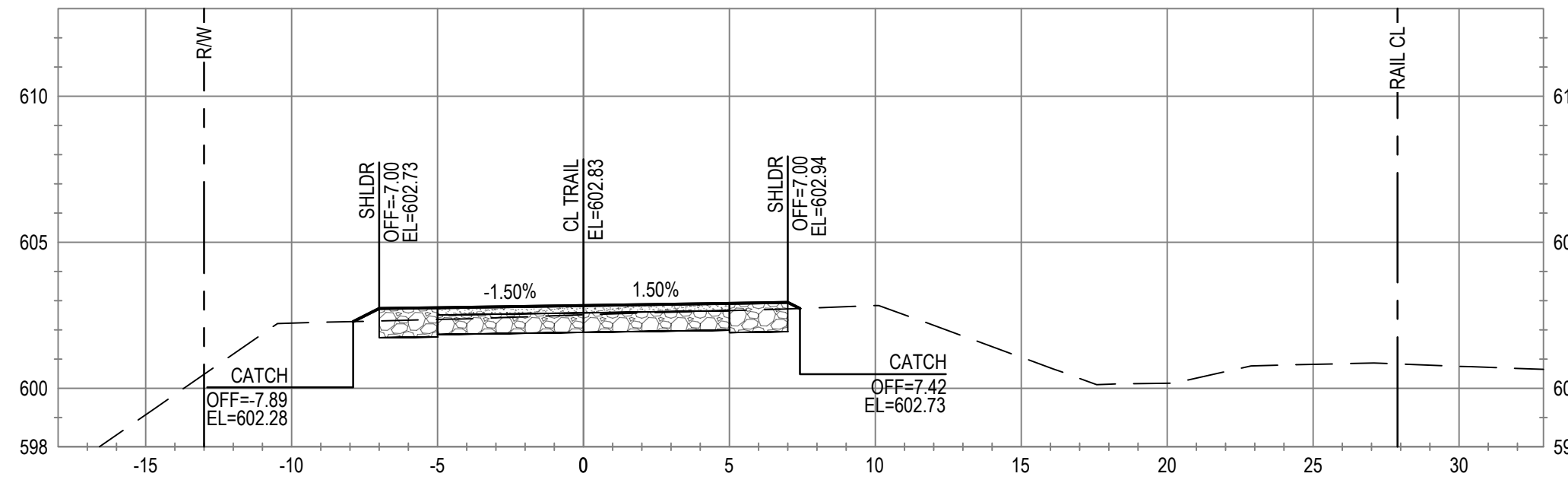
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

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STA 416+50 TO STA 420+00**

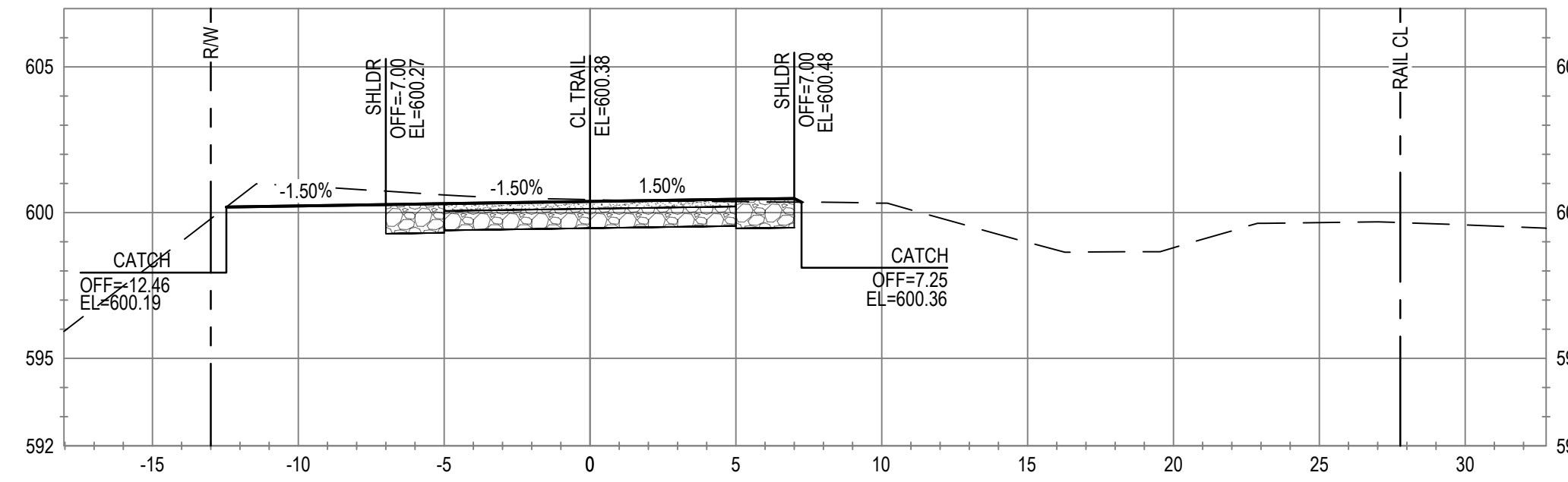
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Sheet No. **C-805** Sheet **81 of 96**



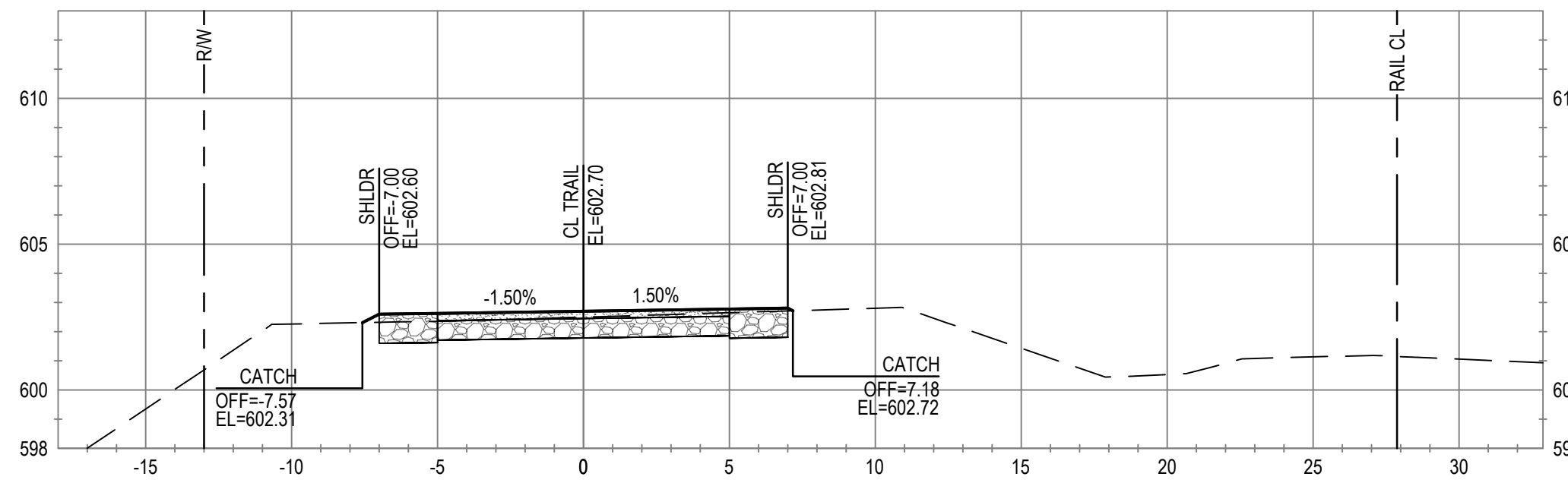
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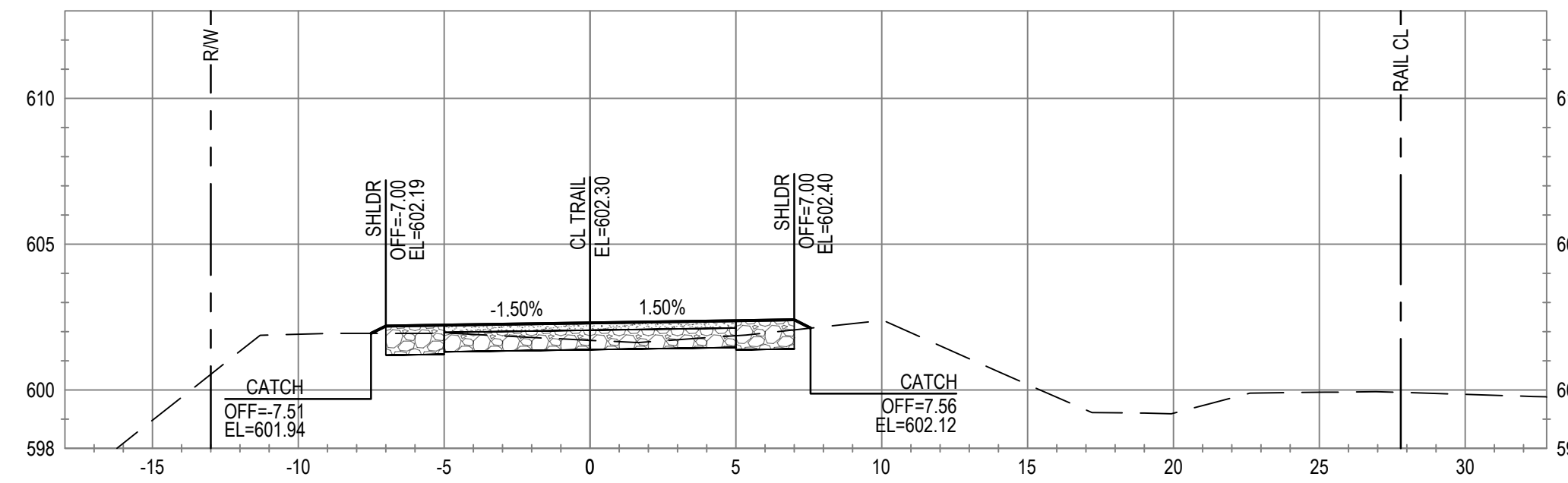
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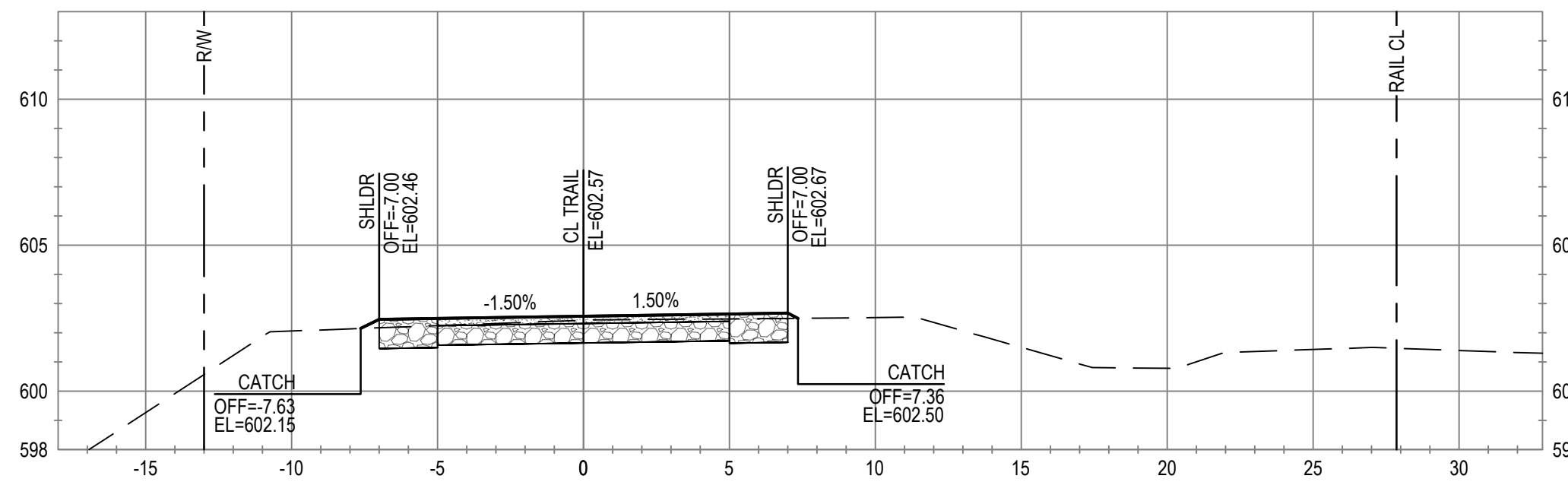
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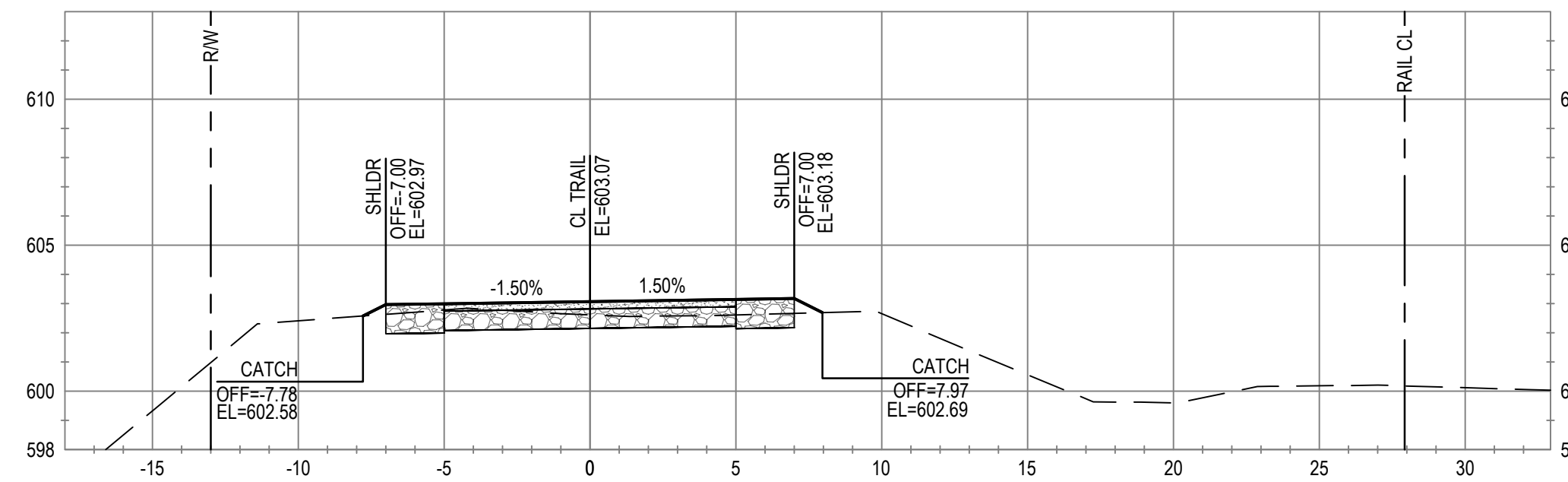
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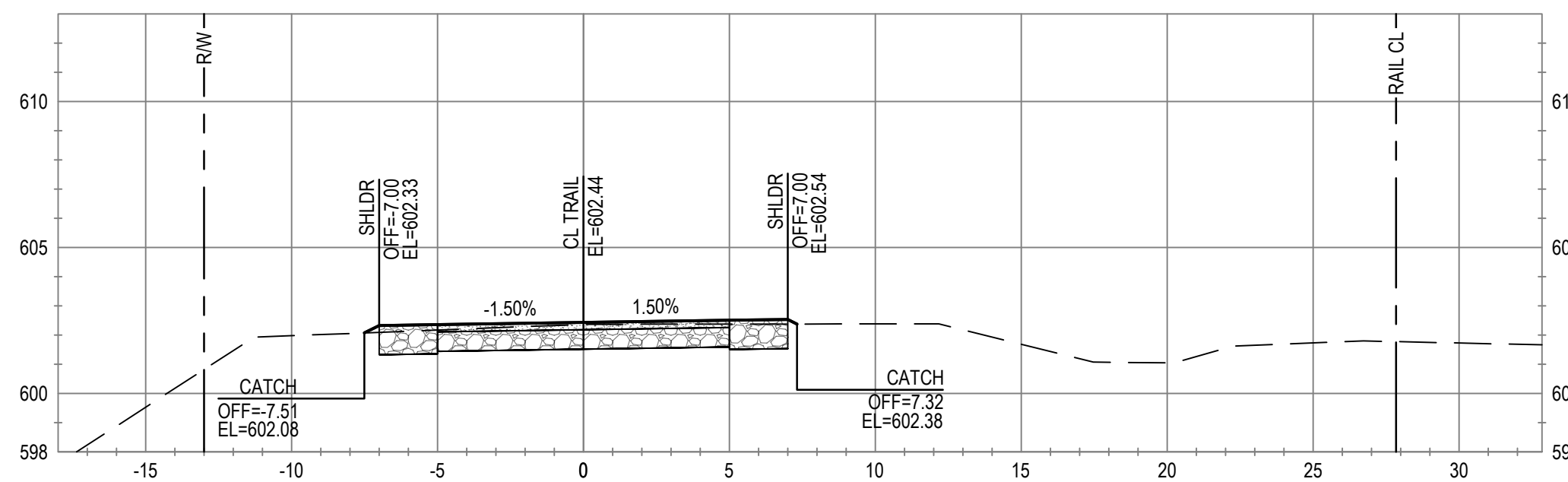
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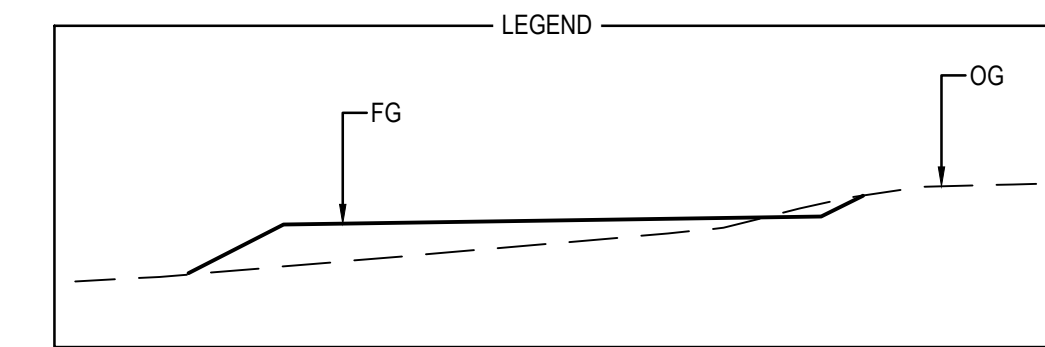
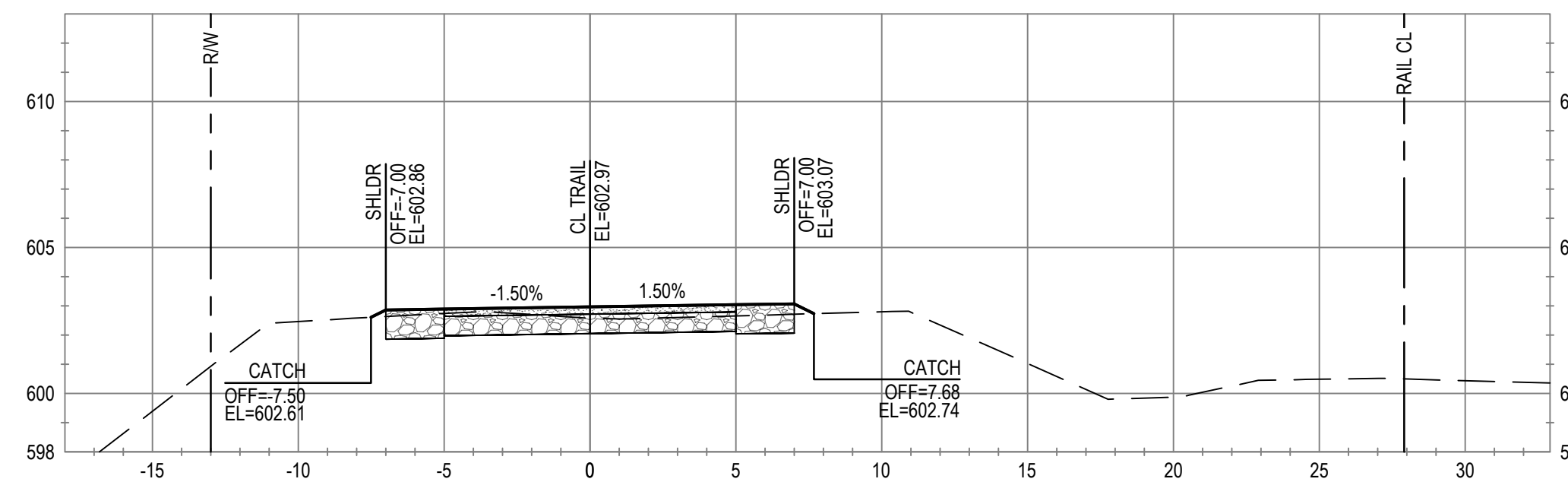
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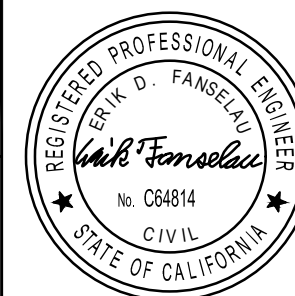


ALIGNMENT "T"  
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No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

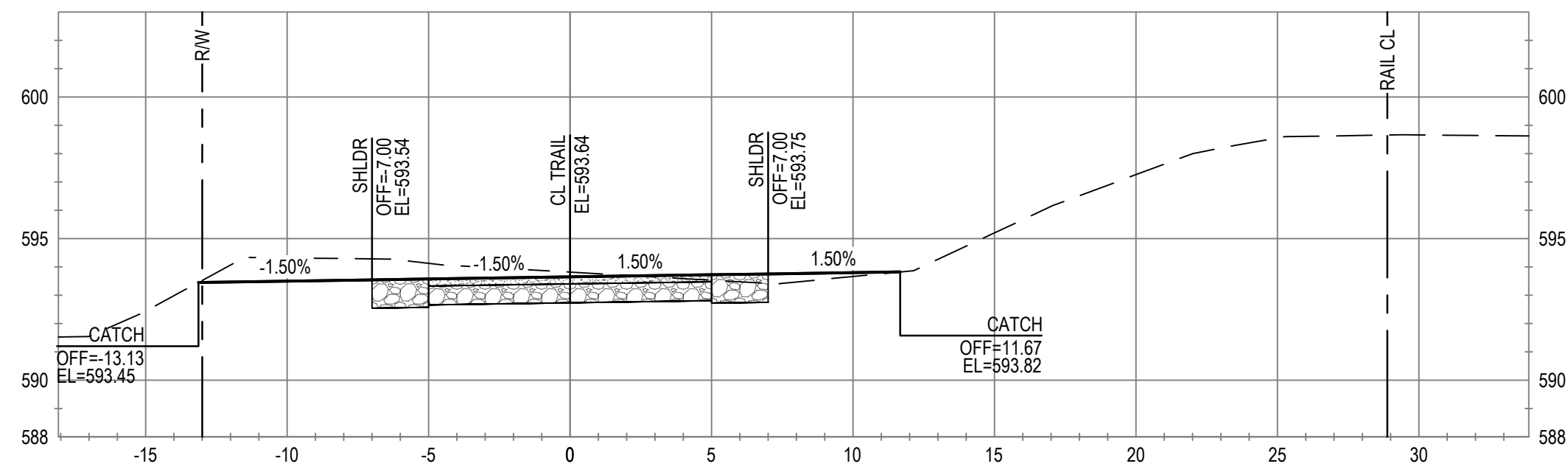
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Title **CROSS SECTIONS  
STA 420+50 TO STA 424+00**

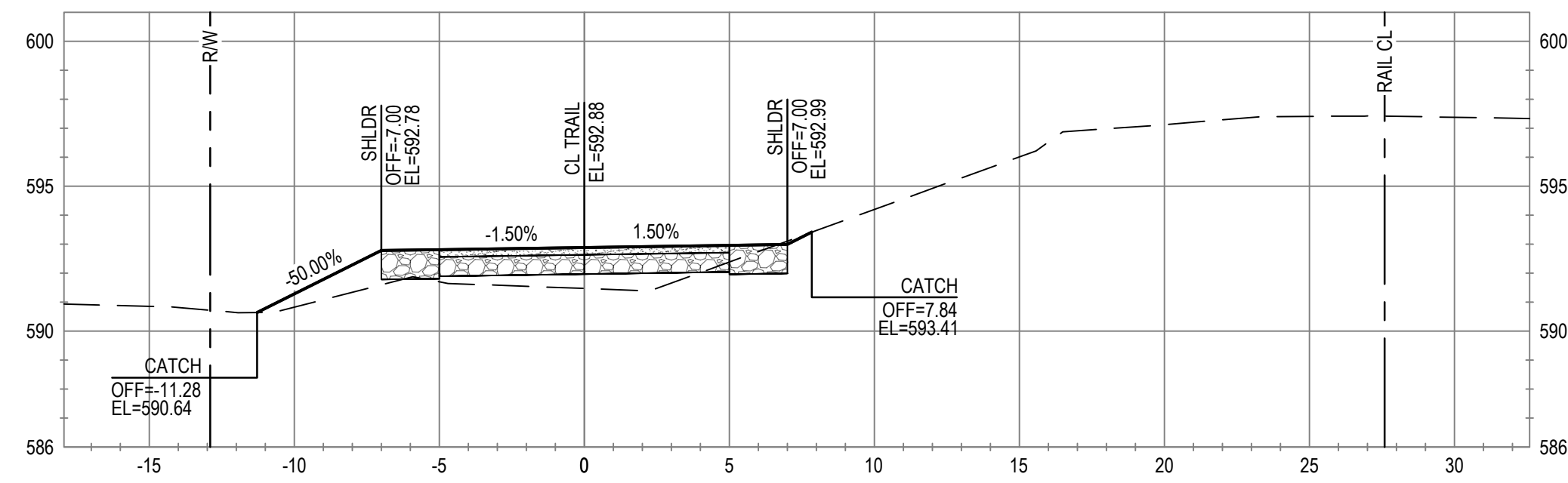
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Sheet No. **C-806**  
Sheet **82 of 96**



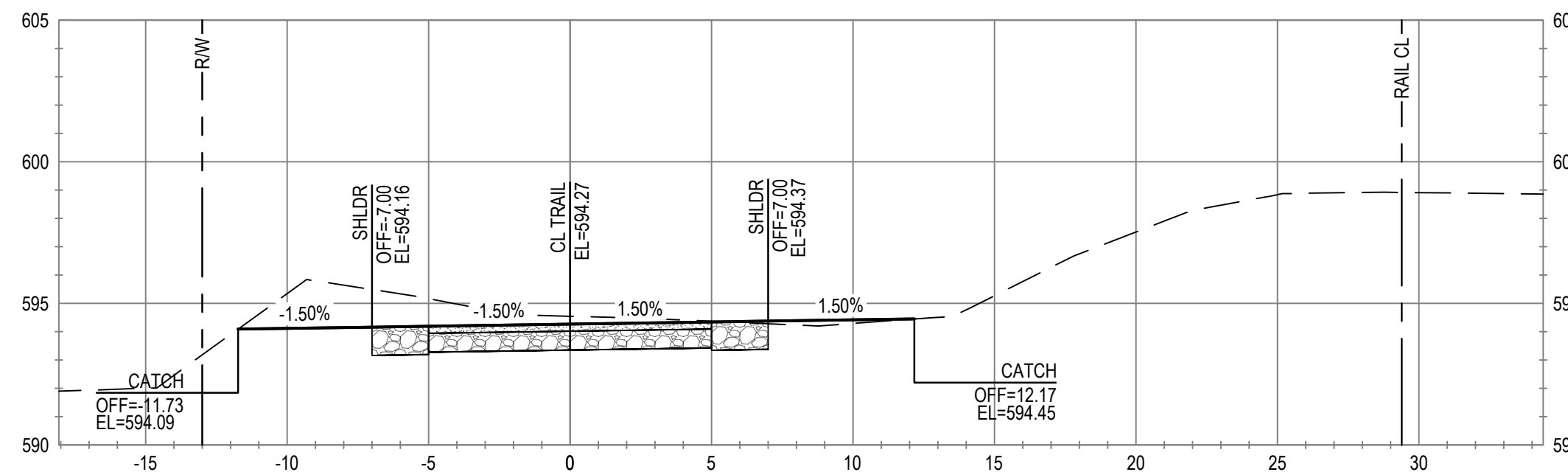
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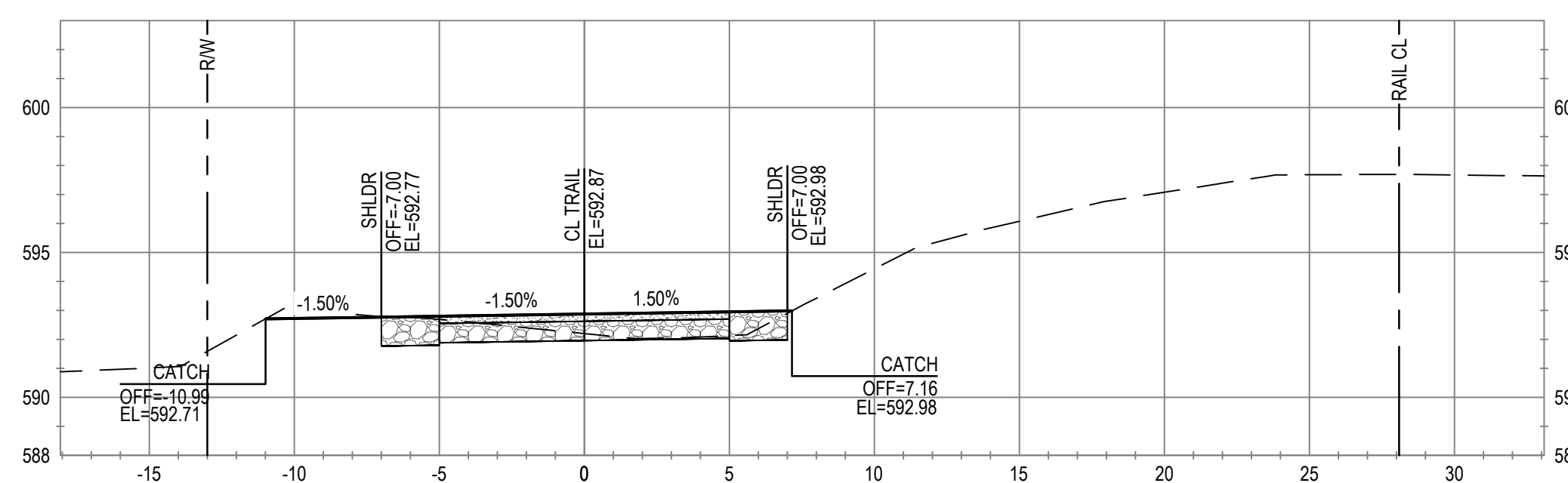
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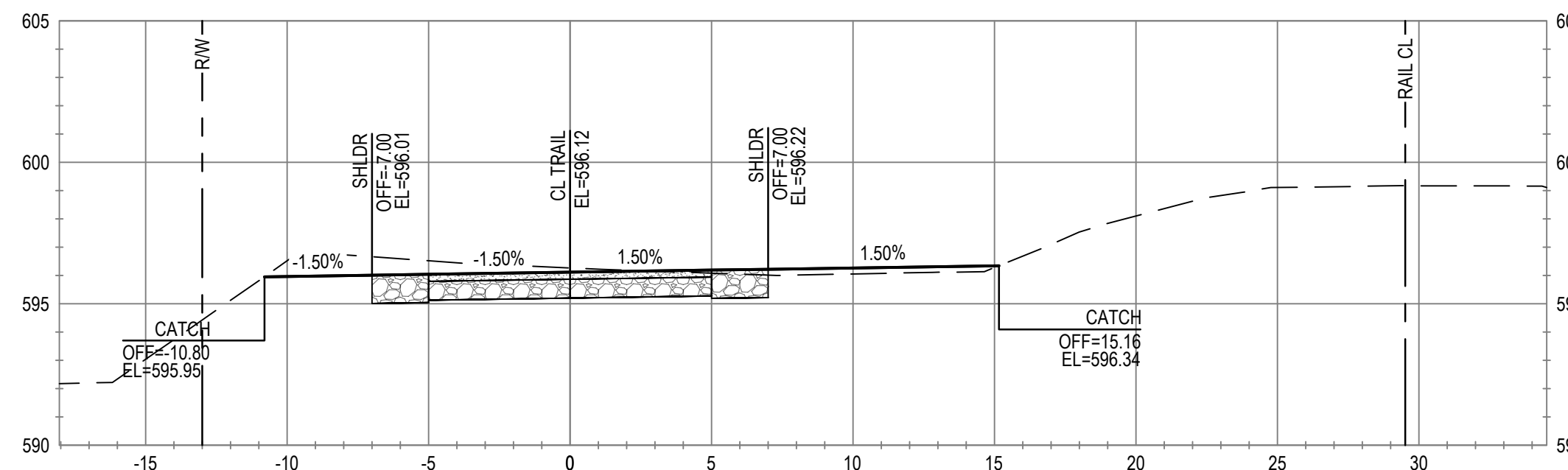
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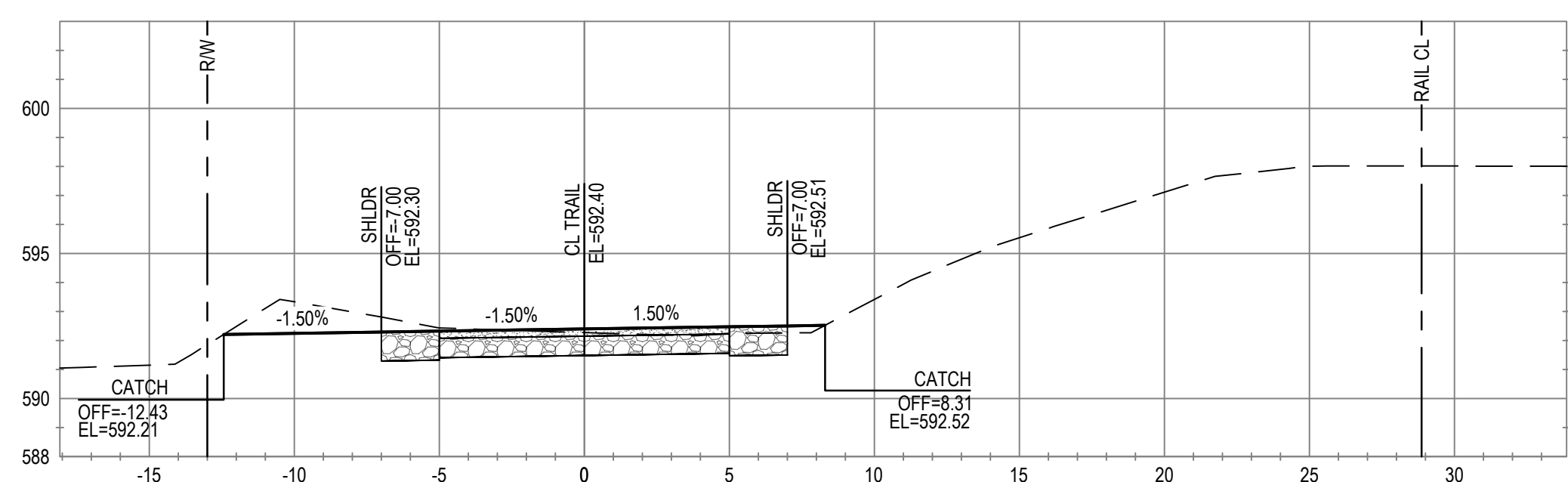
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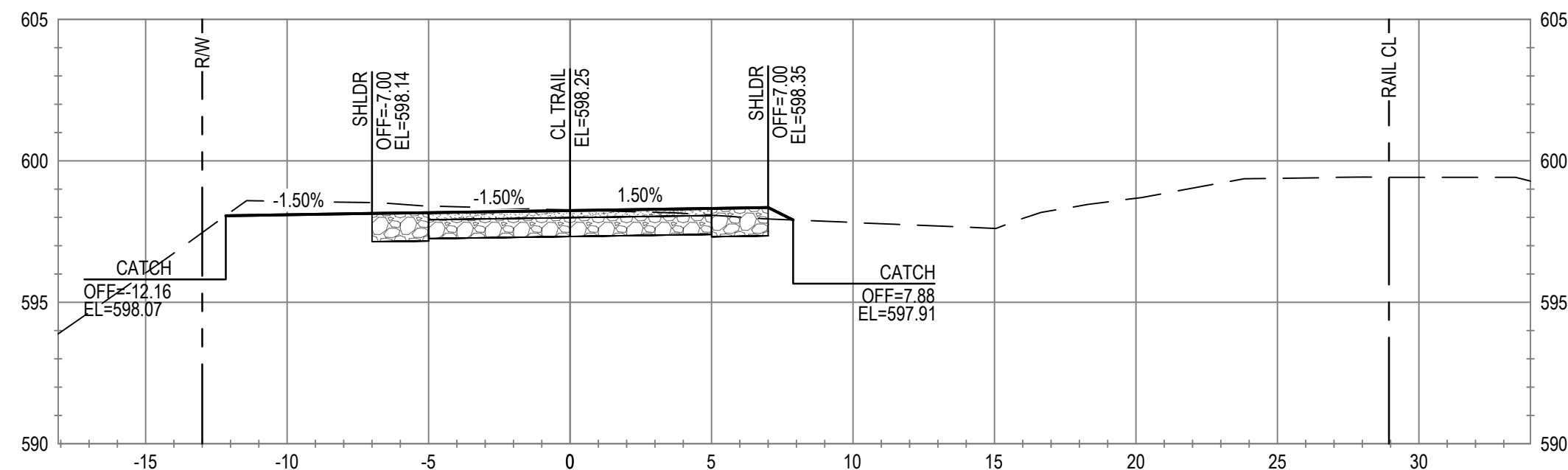
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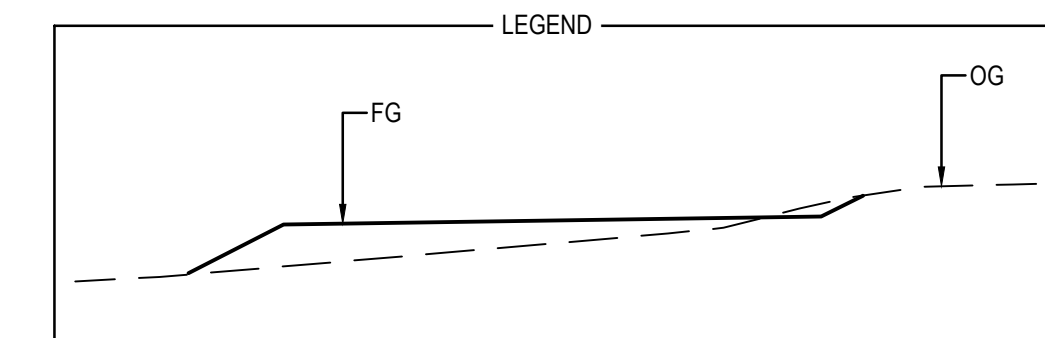
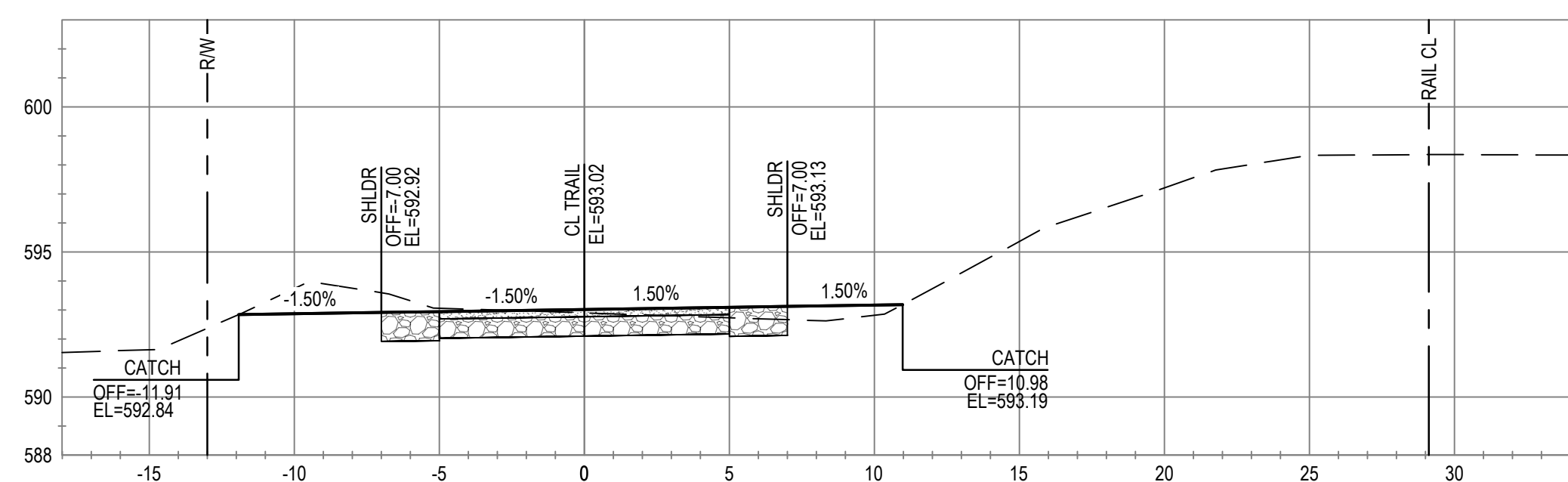
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STA 424+50



ALIGNMENT "T"  
STA 426+50



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
0 1"



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Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

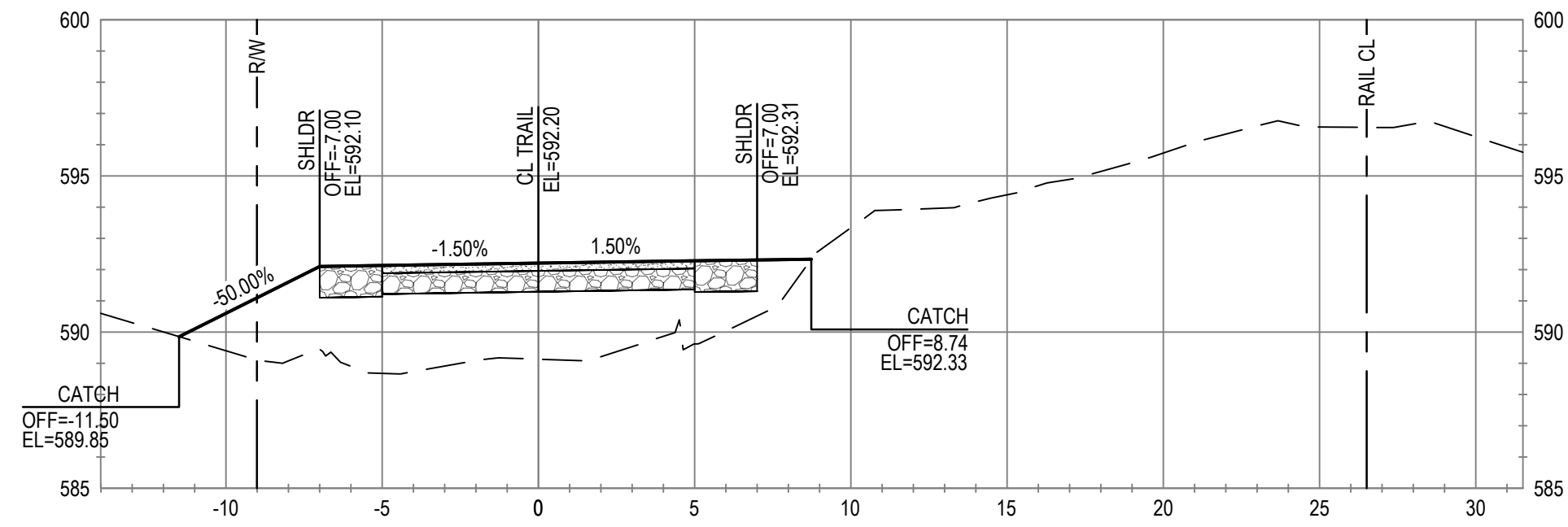
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 424+50 TO STA 428+00**

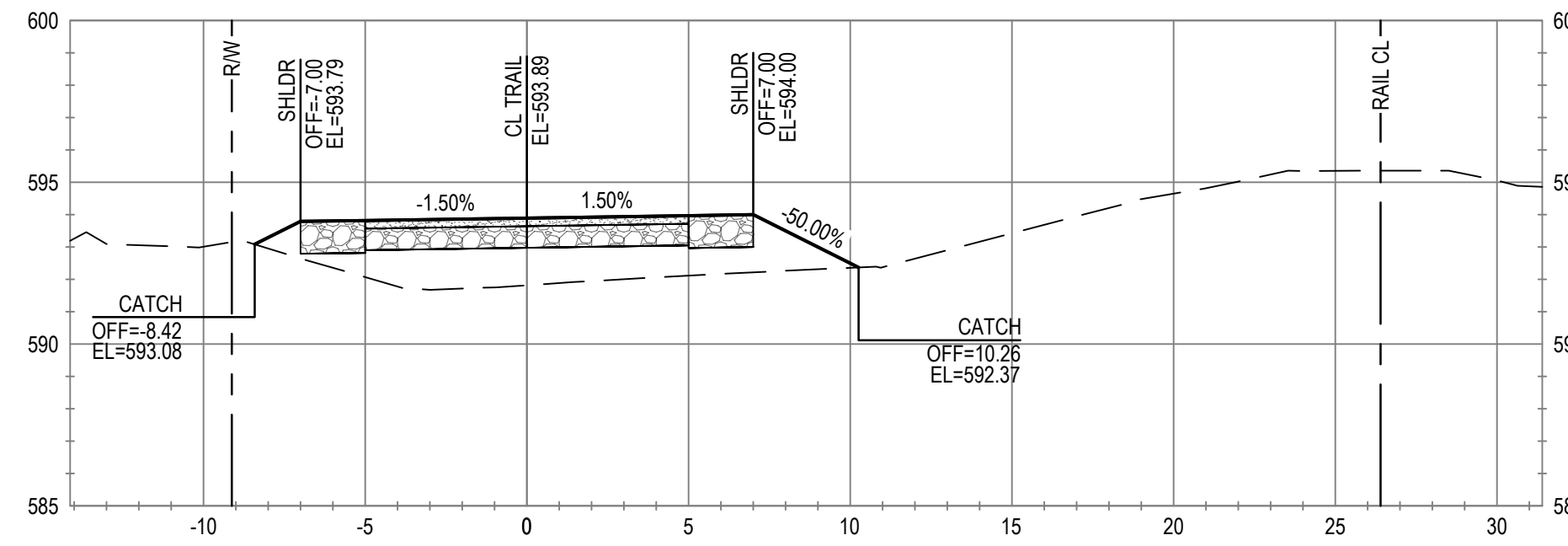
Size **ANSI D**  
Sheet No. **C-807** Sheet **83 of 96**



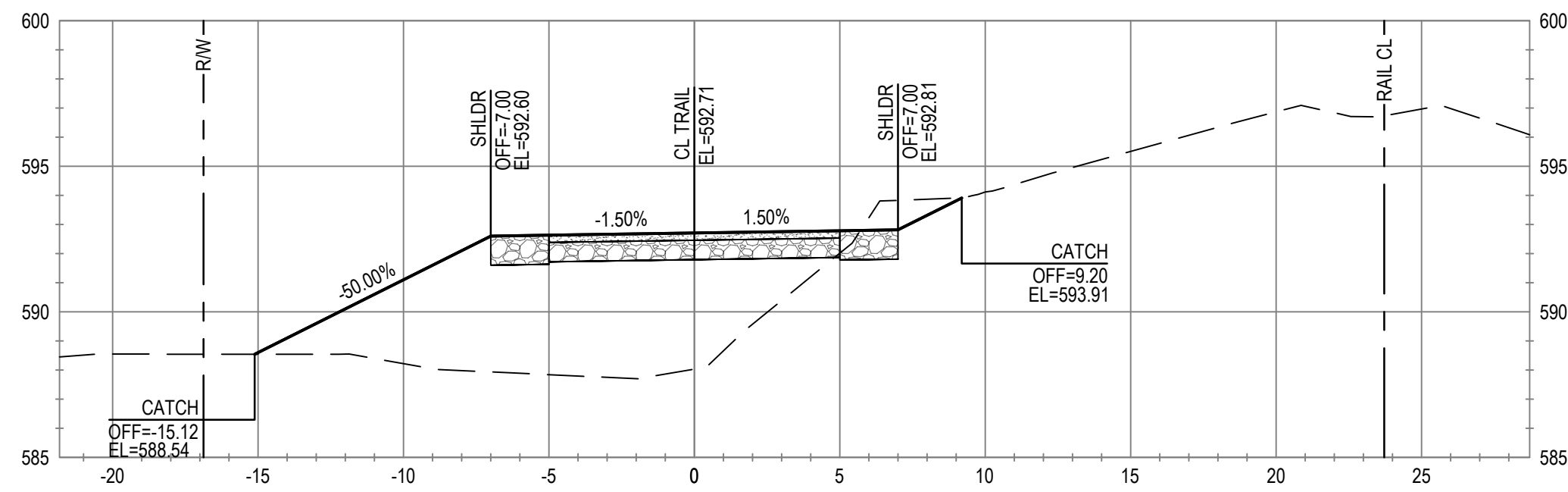
ALIGNMENT "T"  
STA 430+00



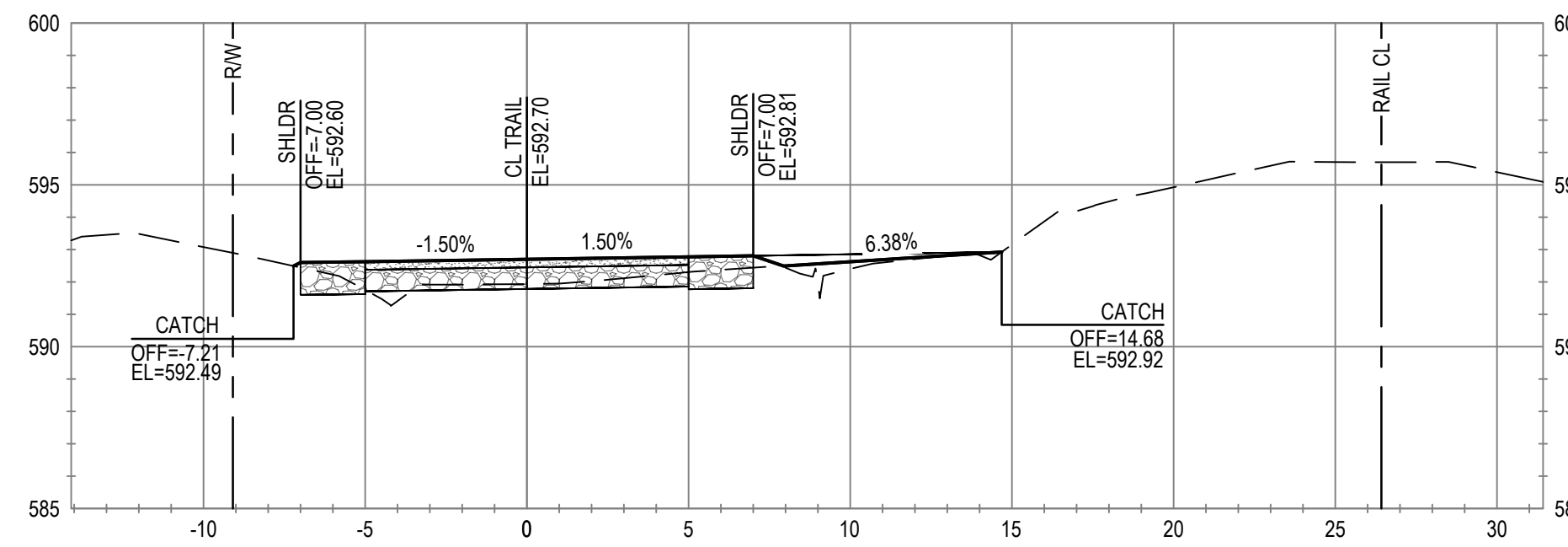
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STA 432+00



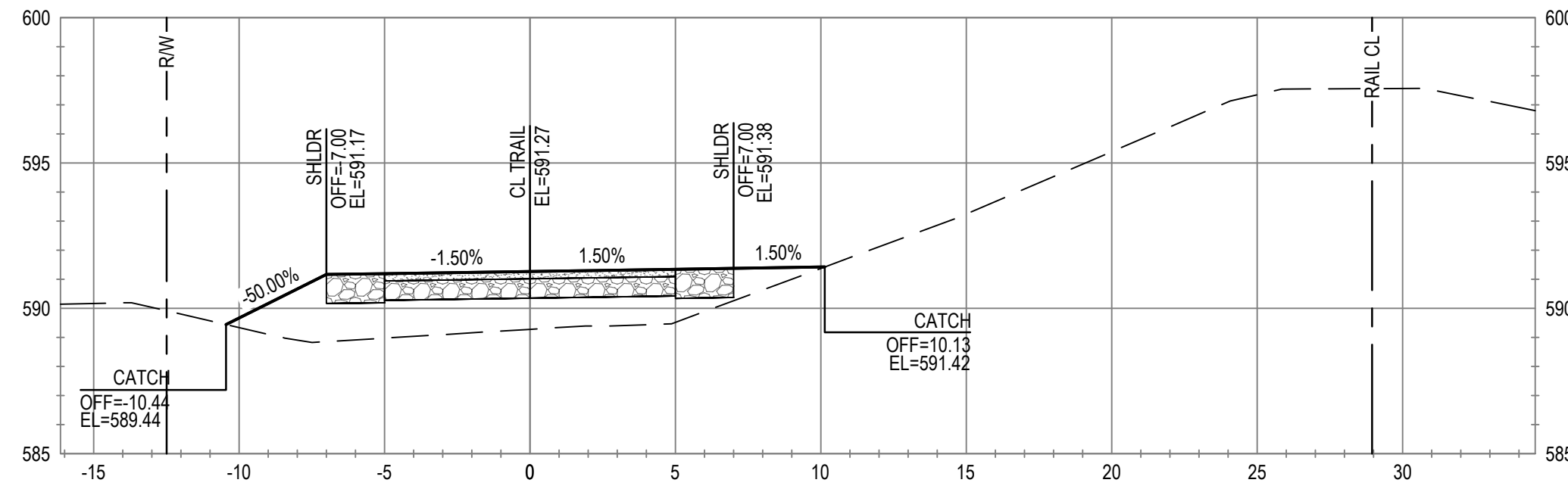
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STA 429+50



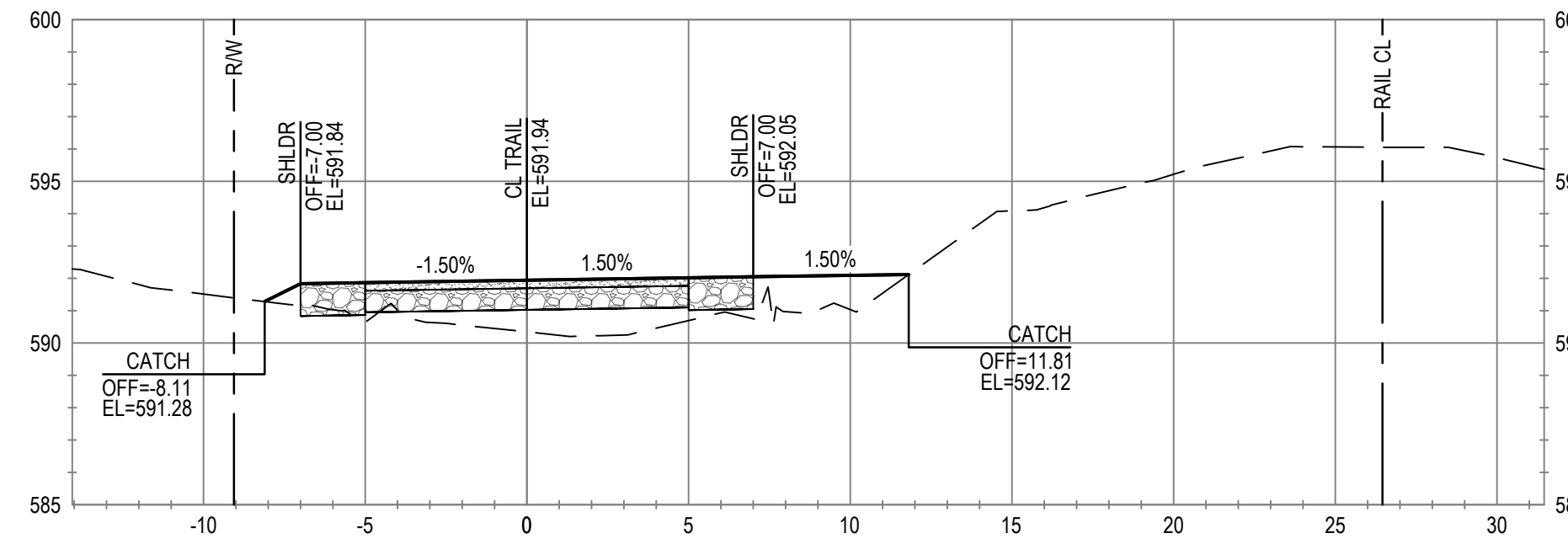
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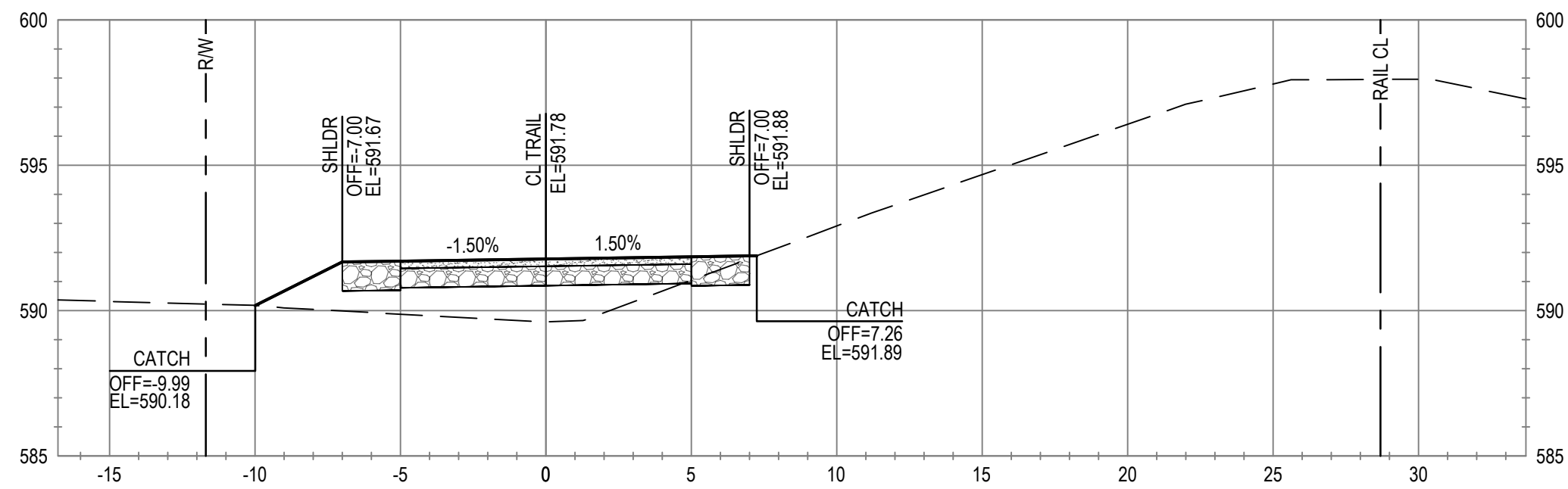
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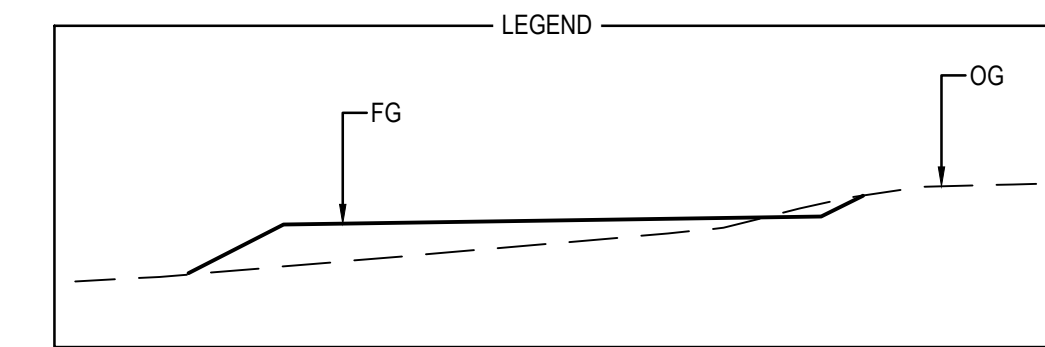
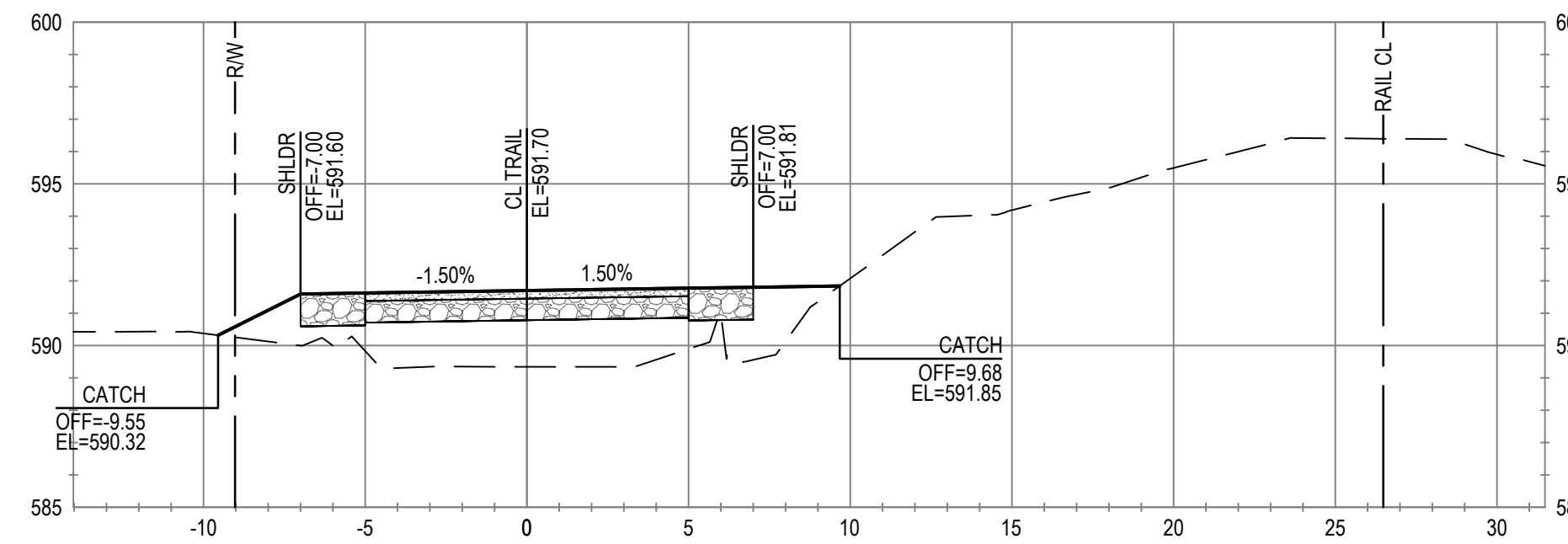
ALIGNMENT "T"  
STA 431+00



ALIGNMENT "T"  
STA 428+50



ALIGNMENT "T"  
STA 430+50



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 5'**

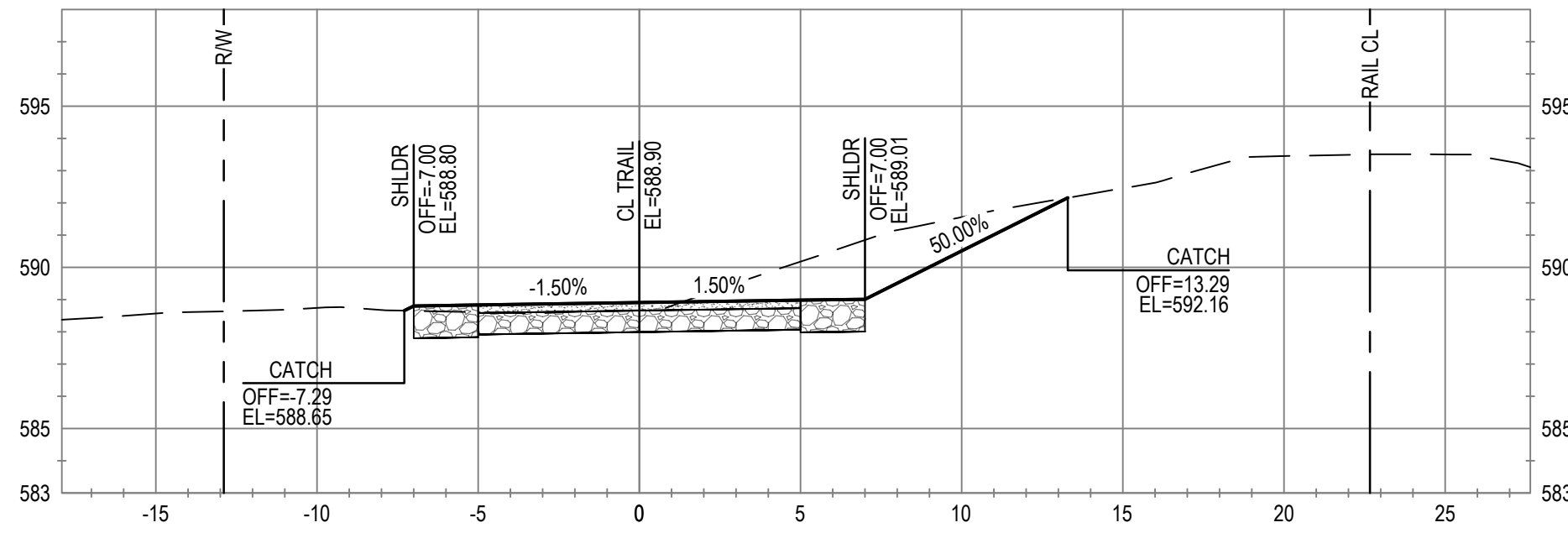
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STA 428+50 TO STA 432+00**

Size **ANSI D**

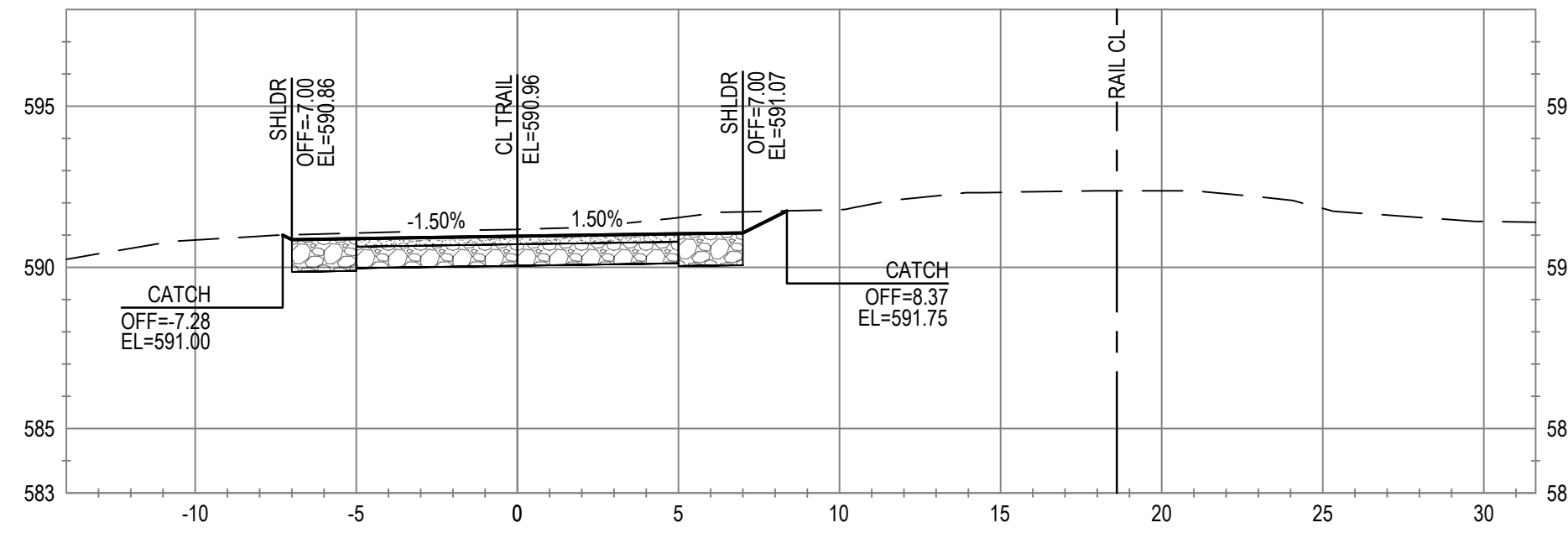
Sheet No. **C-808**  
Sheet **84 of 96**



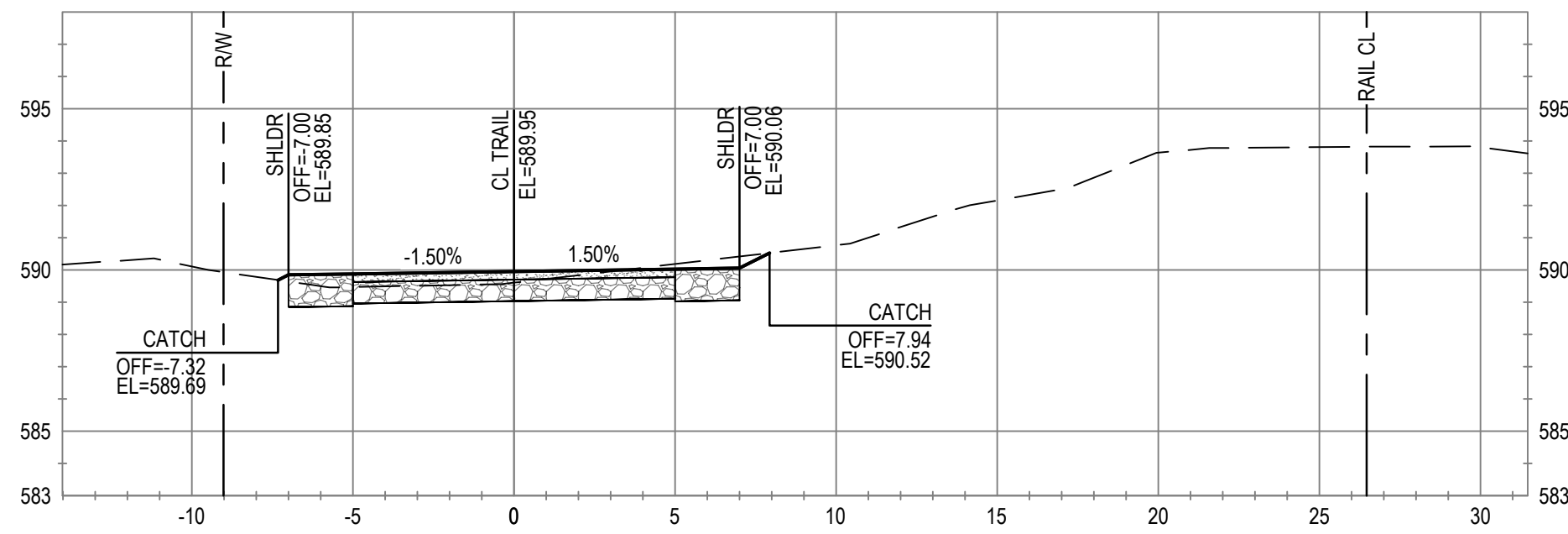
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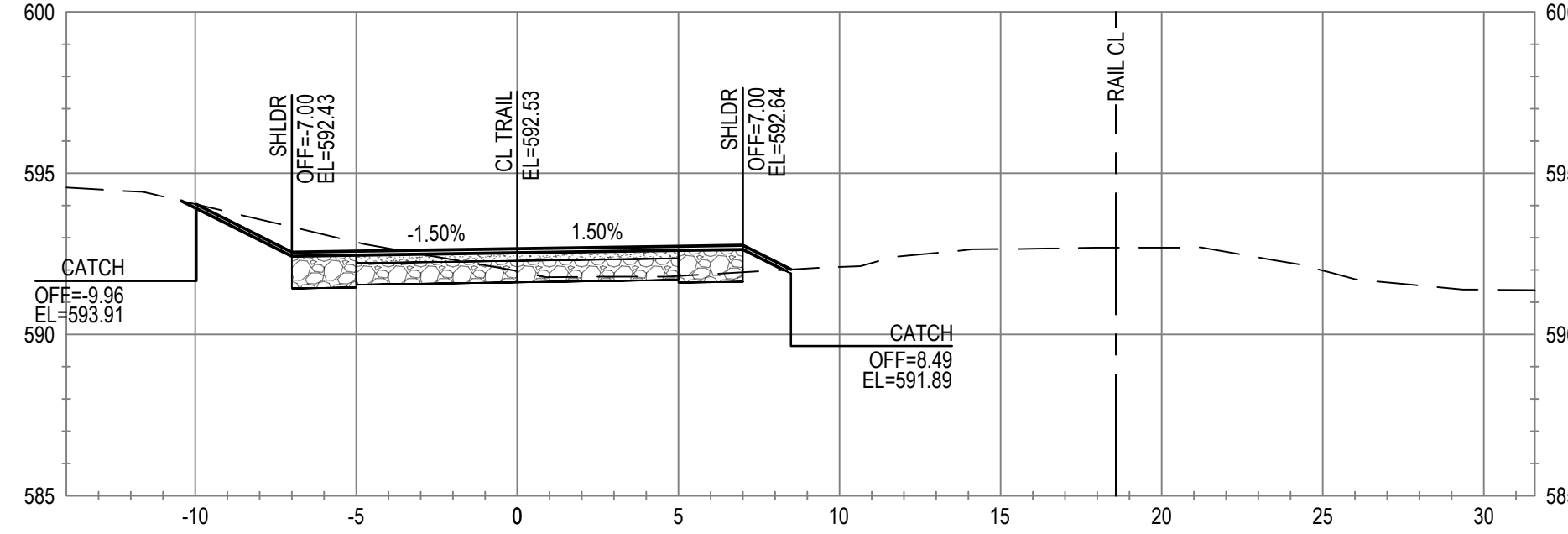
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STA 436+00



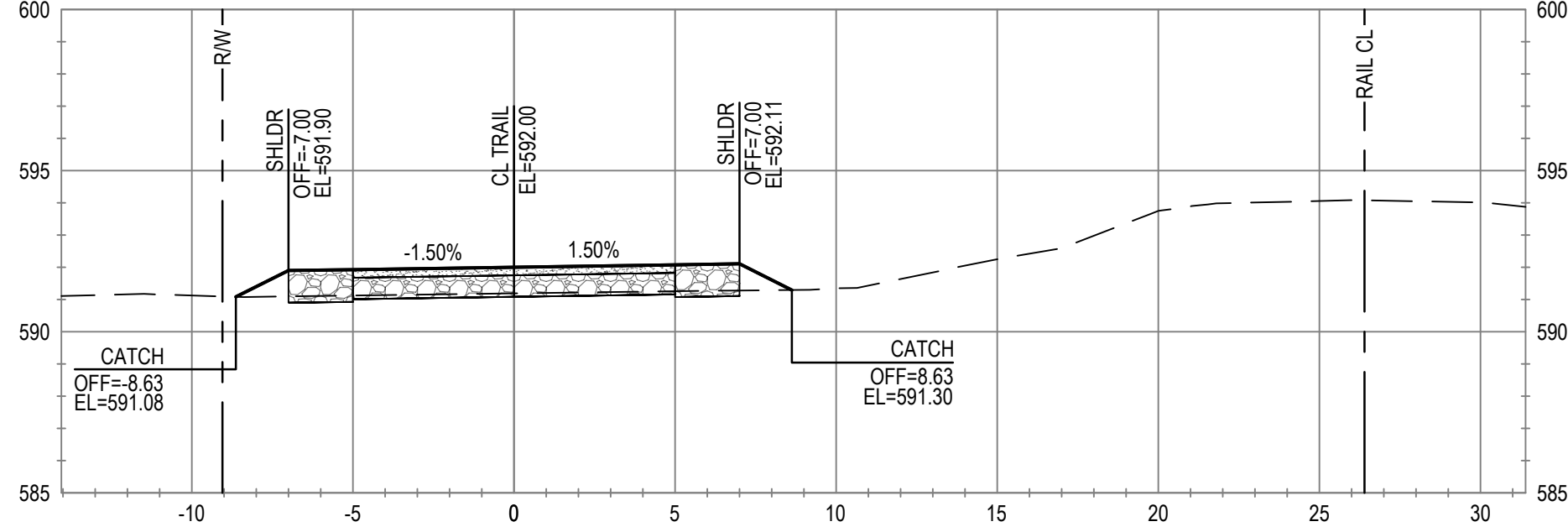
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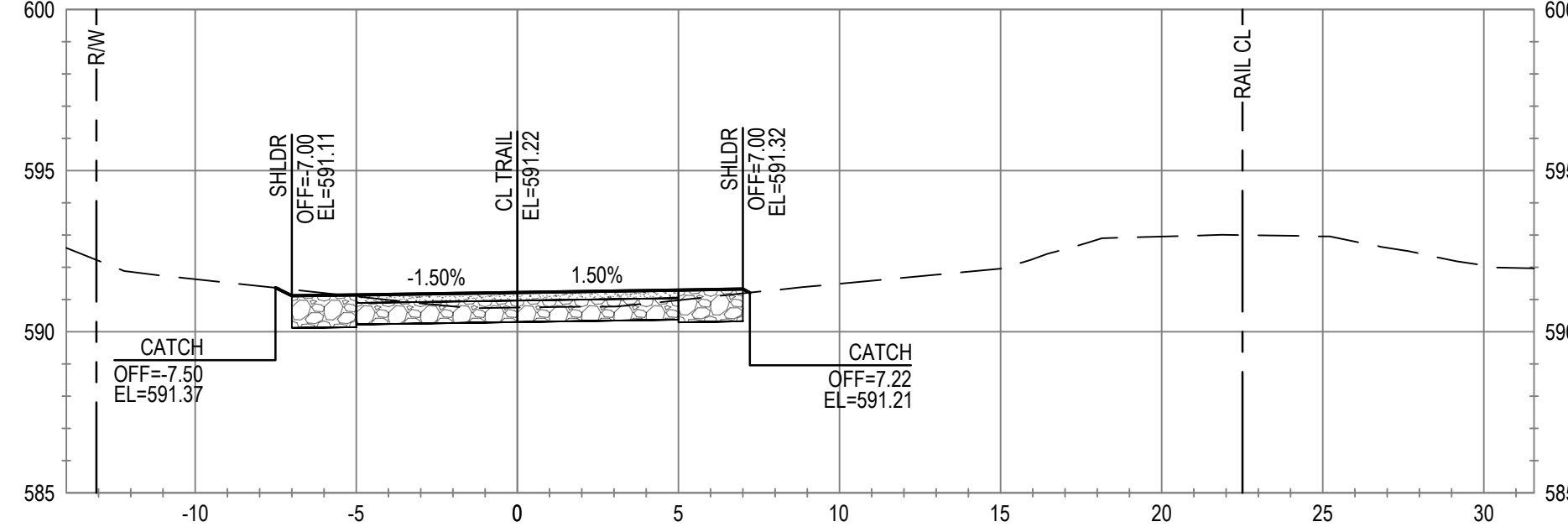
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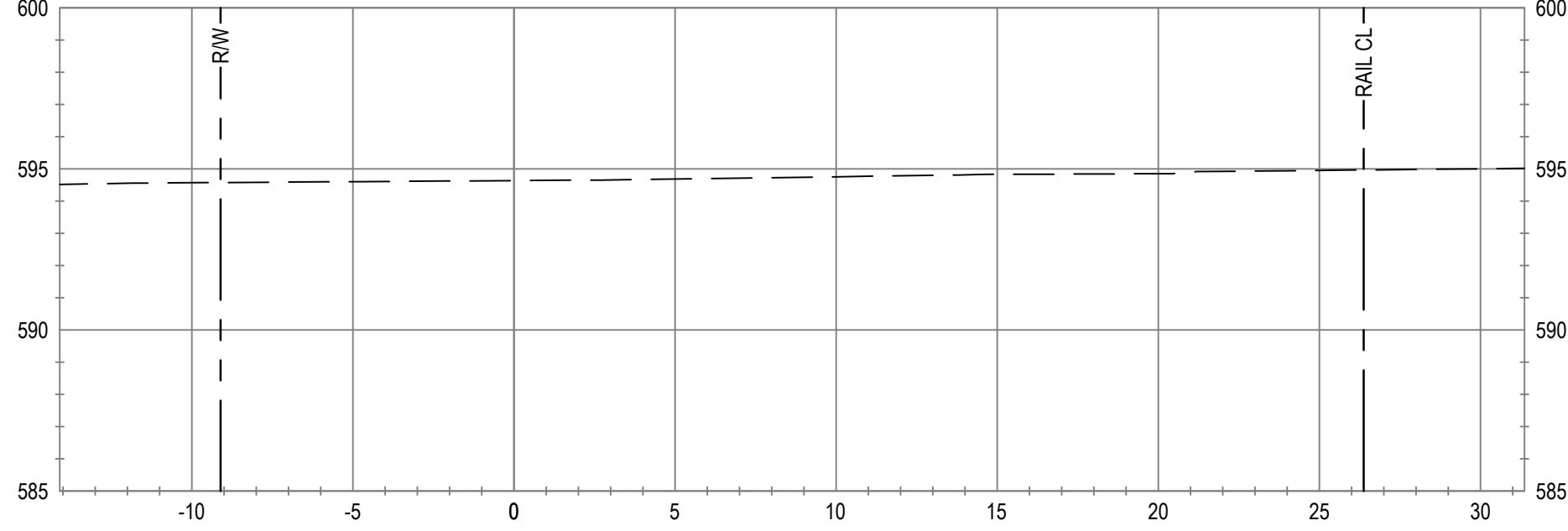
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STA 433+00



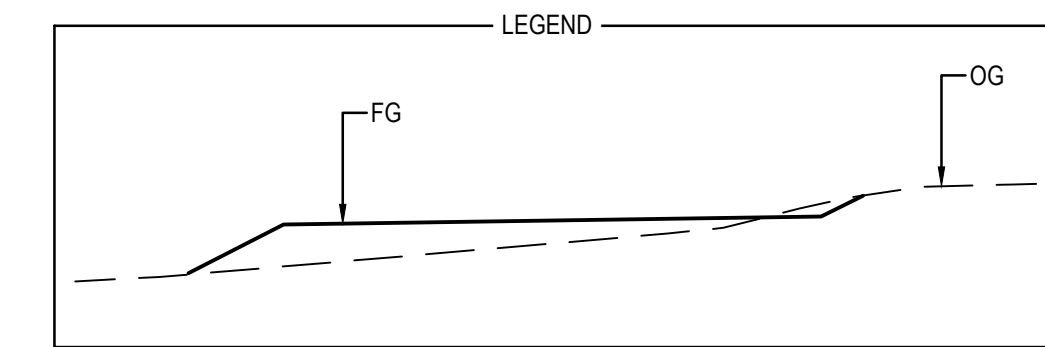
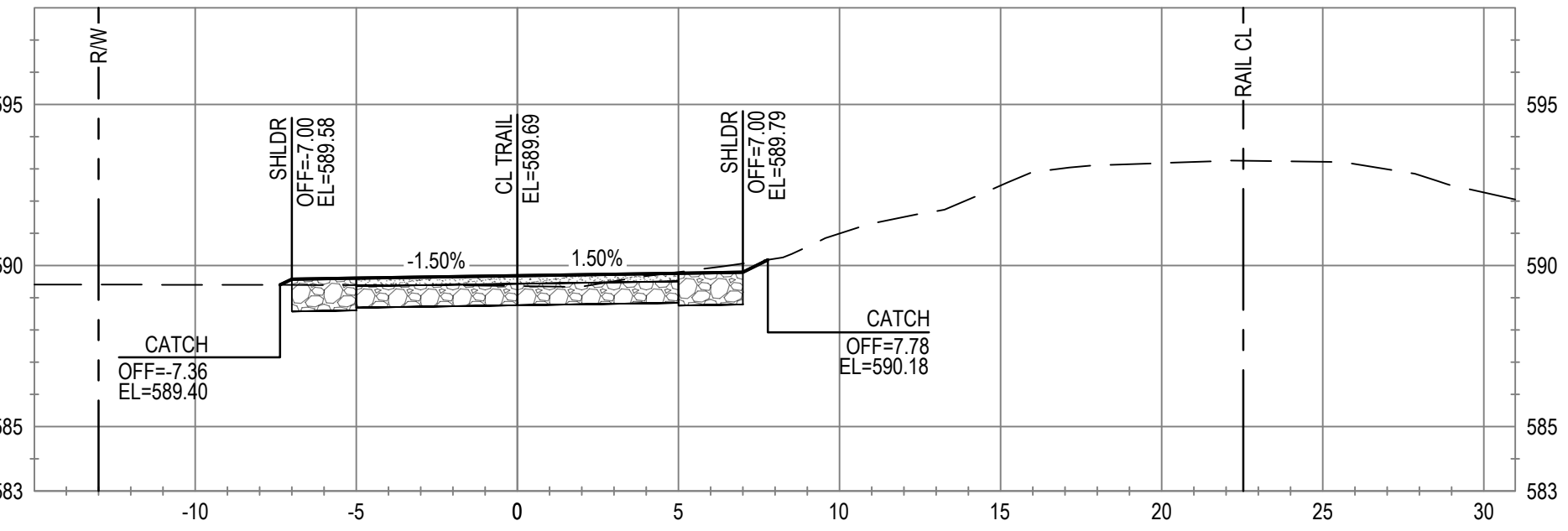
ALIGNMENT "T"  
STA 435+00



ALIGNMENT "T"  
STA 432+50



ALIGNMENT "T"  
STA 434+50



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

Scale **1" = 5'**

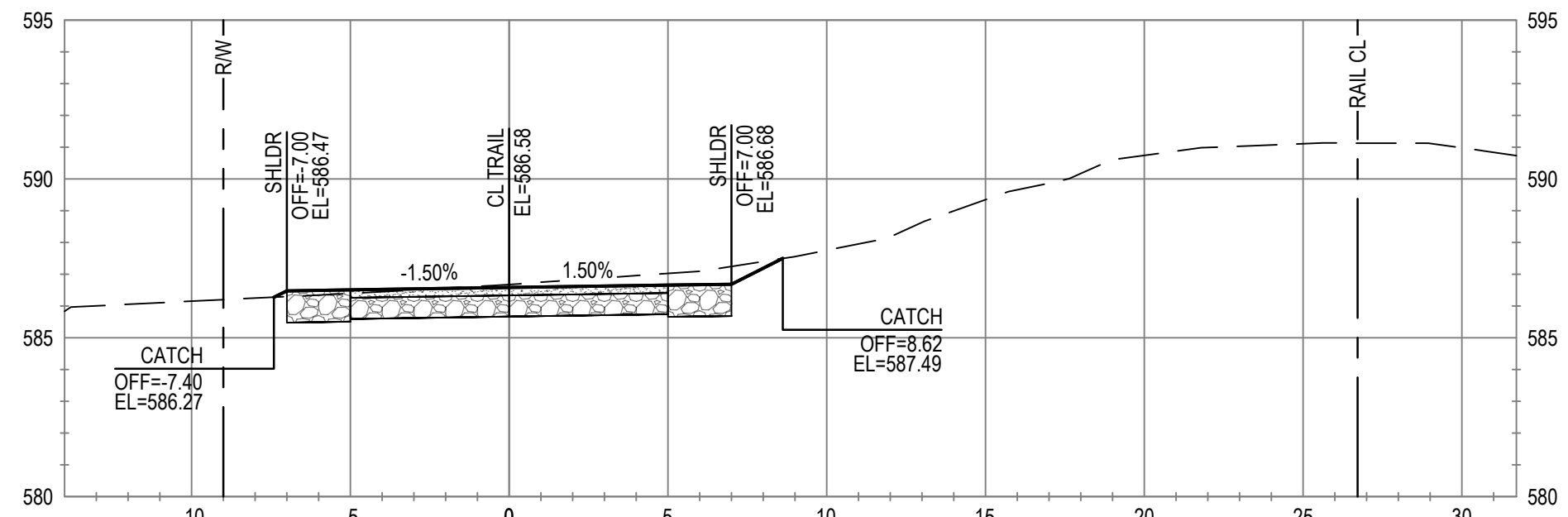
Title **CROSS SECTIONS  
STA 432+50 TO STA 436+00**

Size **ANSI D**

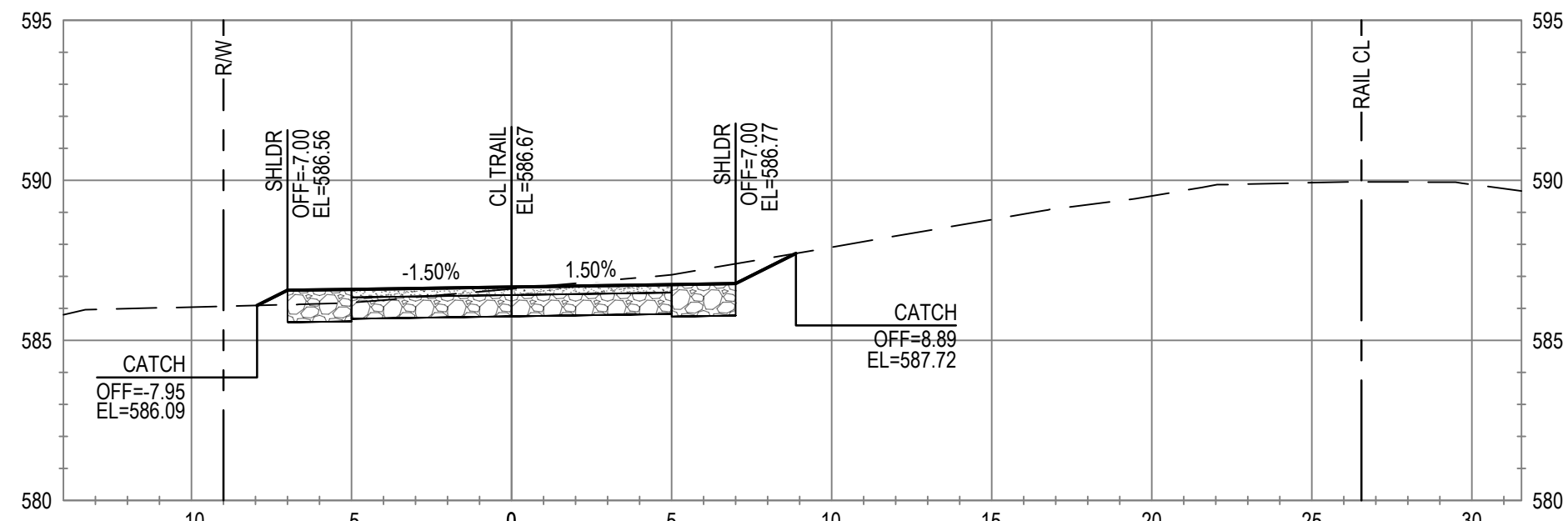
Sheet No. **C-809**  
Sheet **85 of 96**



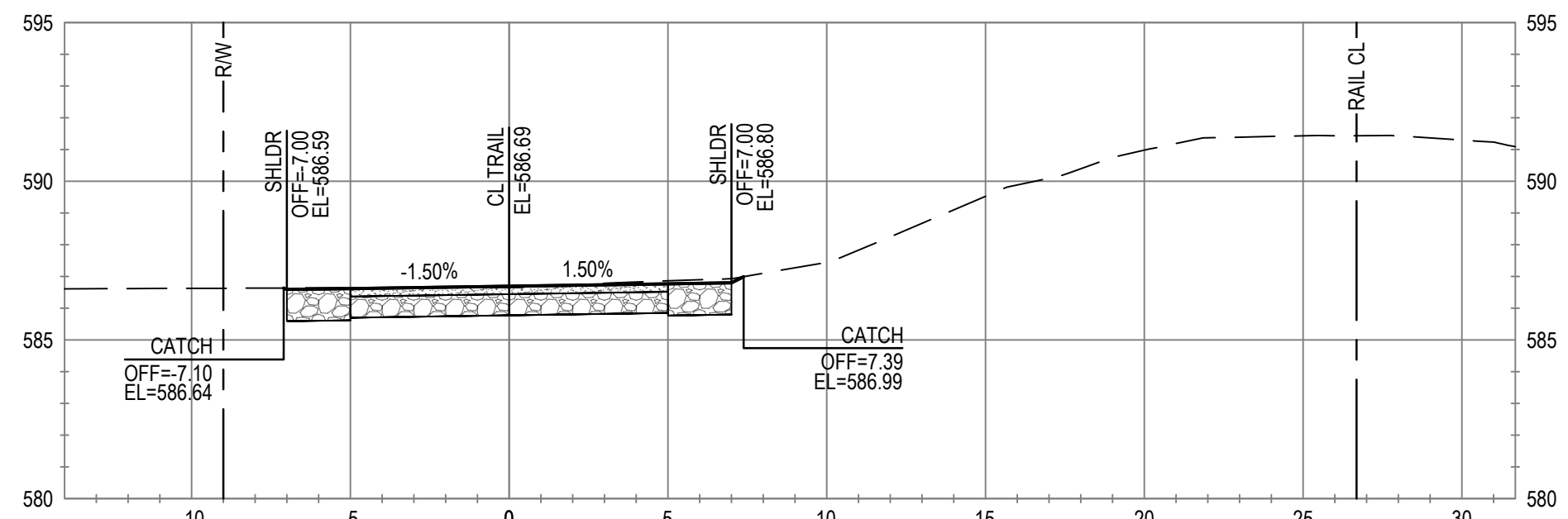
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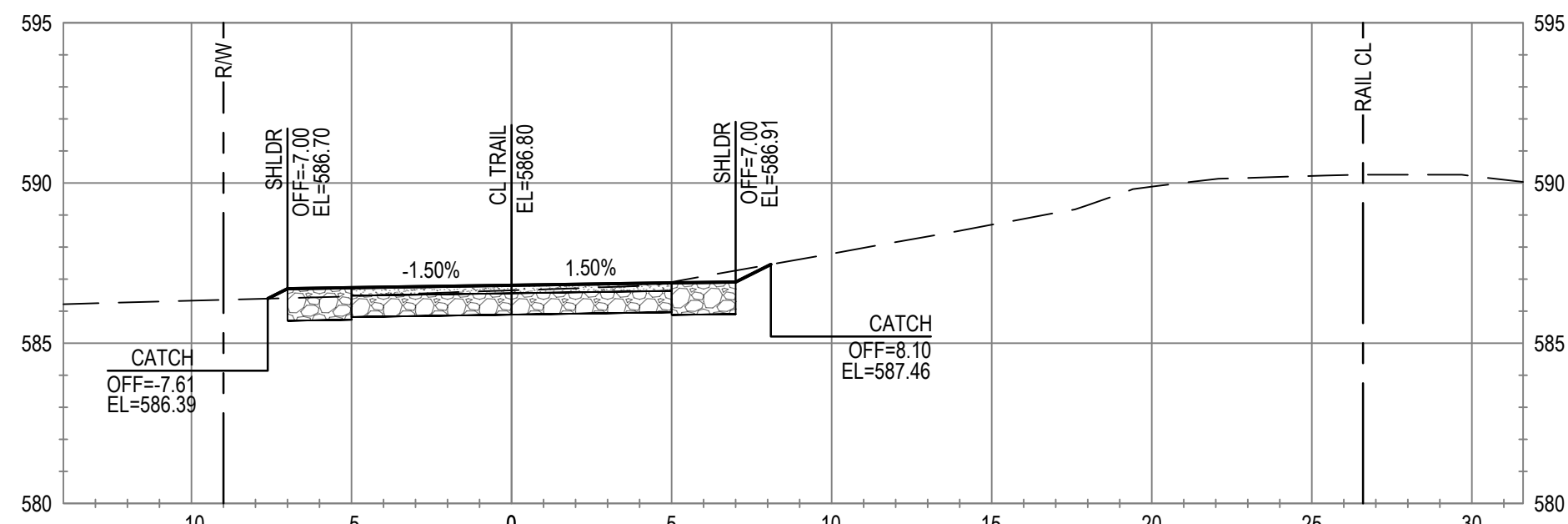
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STA 440+00



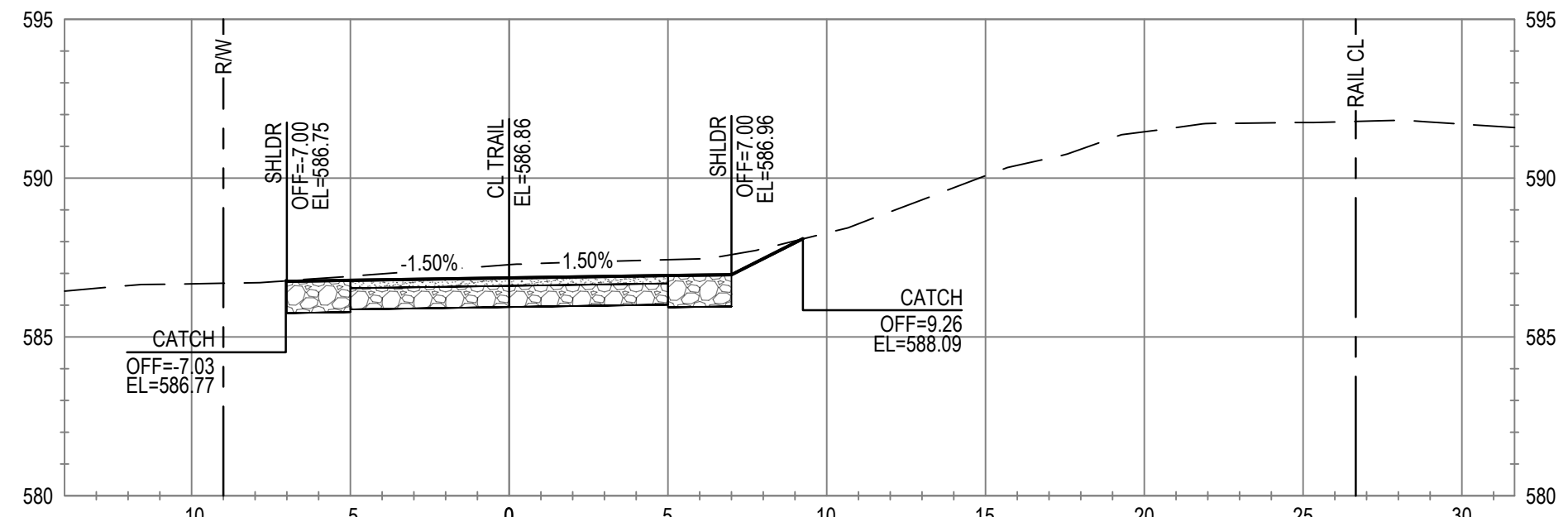
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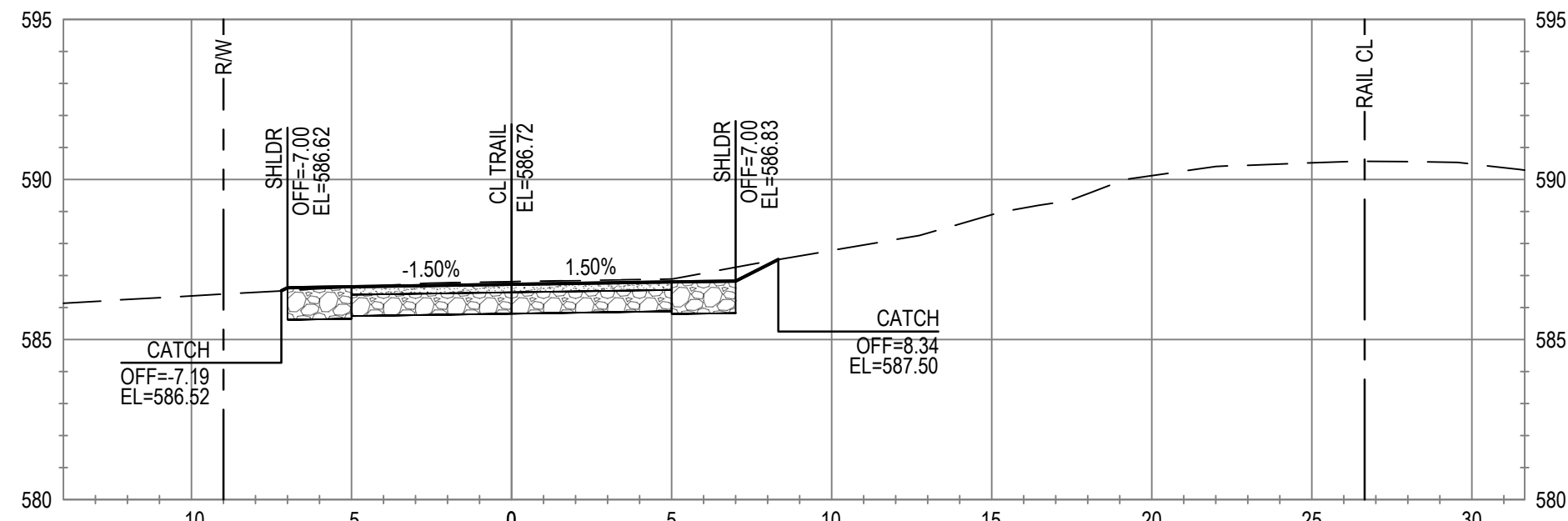
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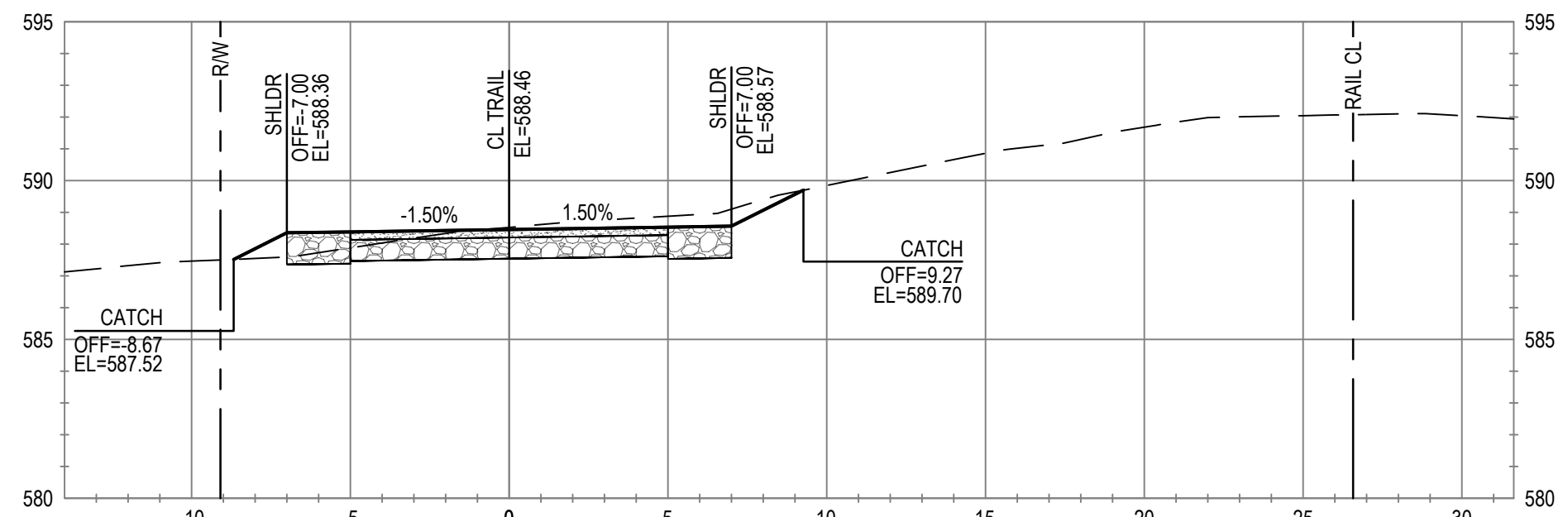
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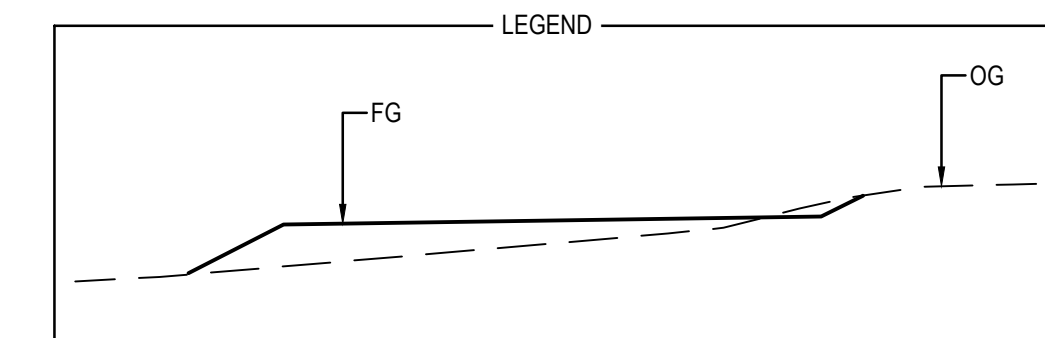
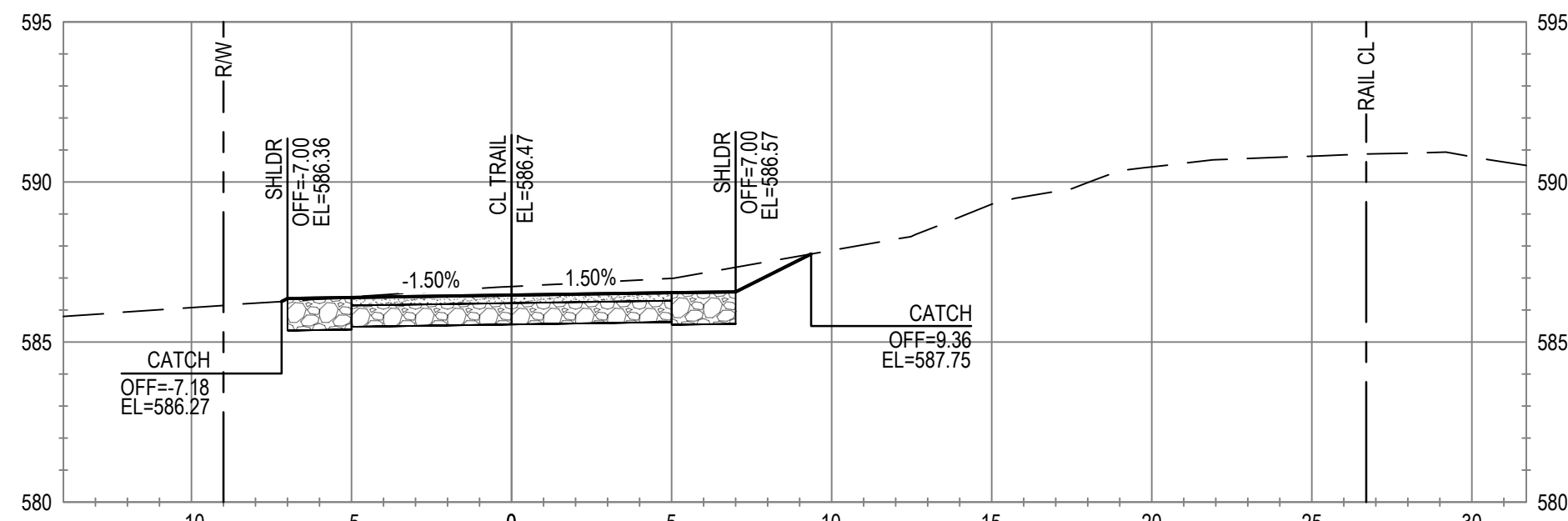
ALIGNMENT "T"  
STA 439+00



ALIGNMENT "T"  
STA 436+50



ALIGNMENT "T"  
STA 438+50



No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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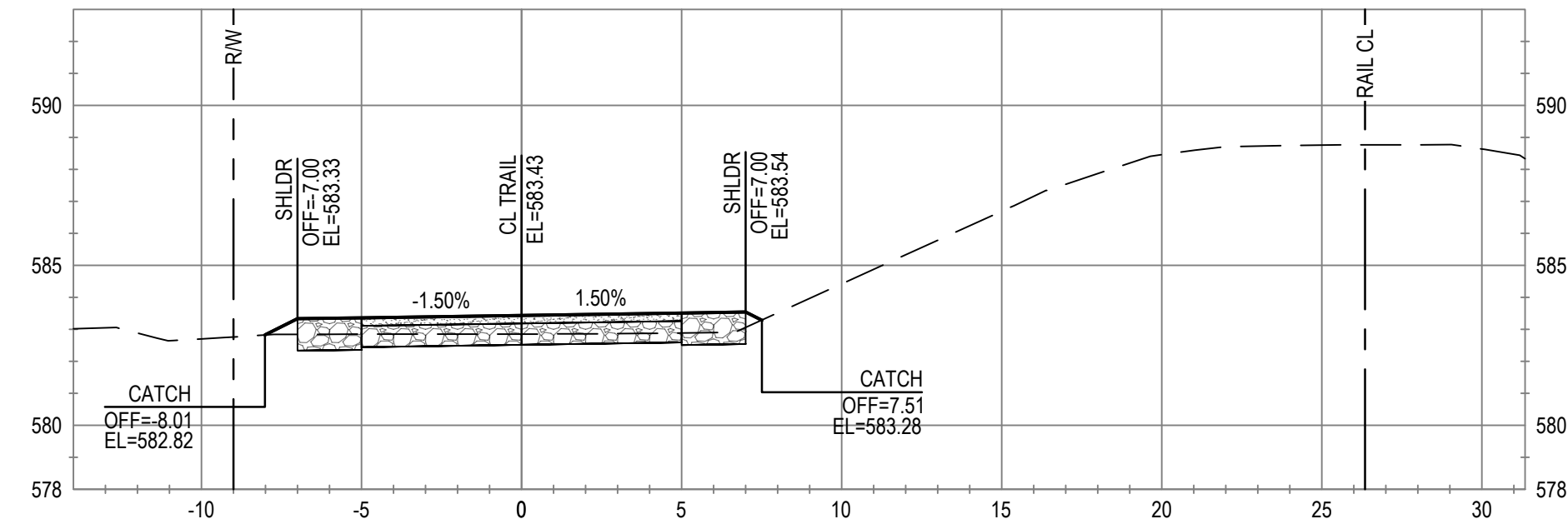
Title **CROSS SECTIONS  
STA 436+50 TO STA 440+00**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

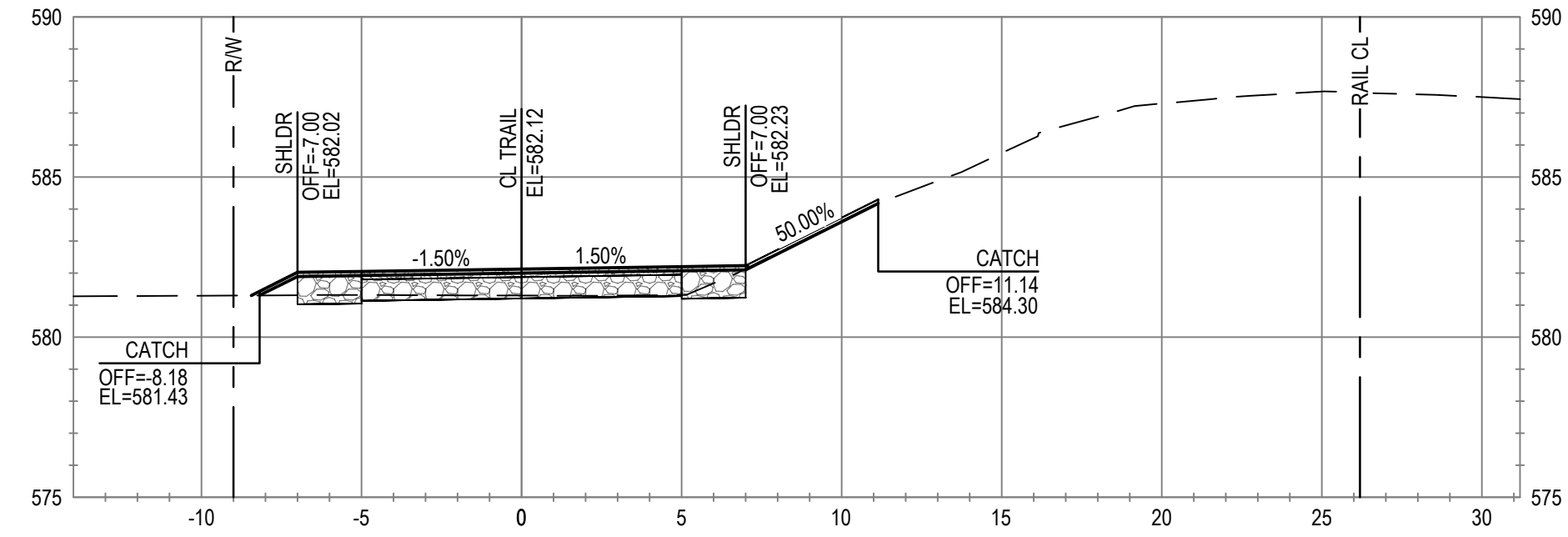
Size **ANSI D**  
Sheet No. **C-810** Sheet **86 of 96**



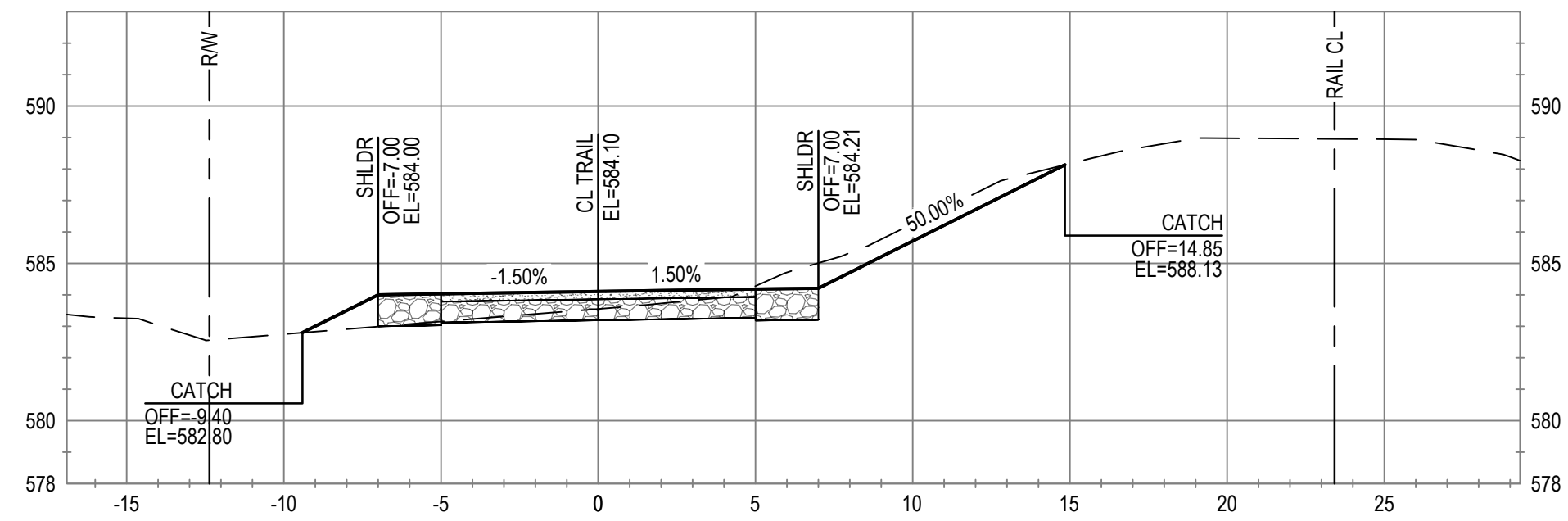
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STA 442+00



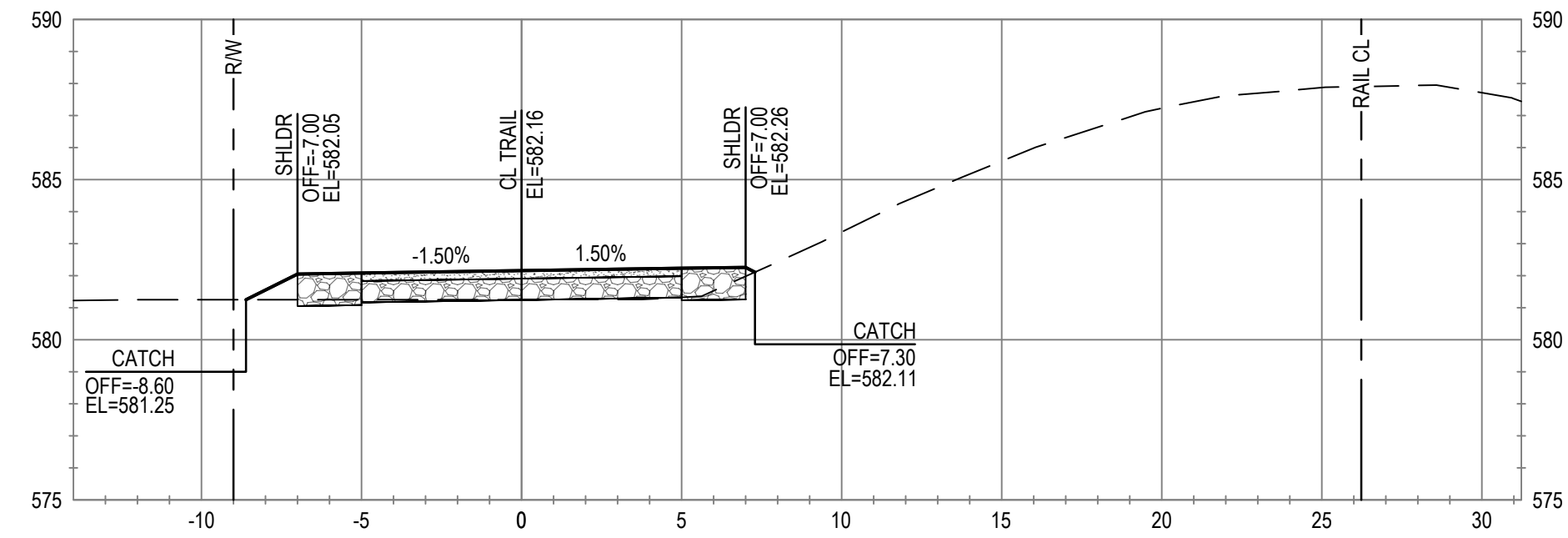
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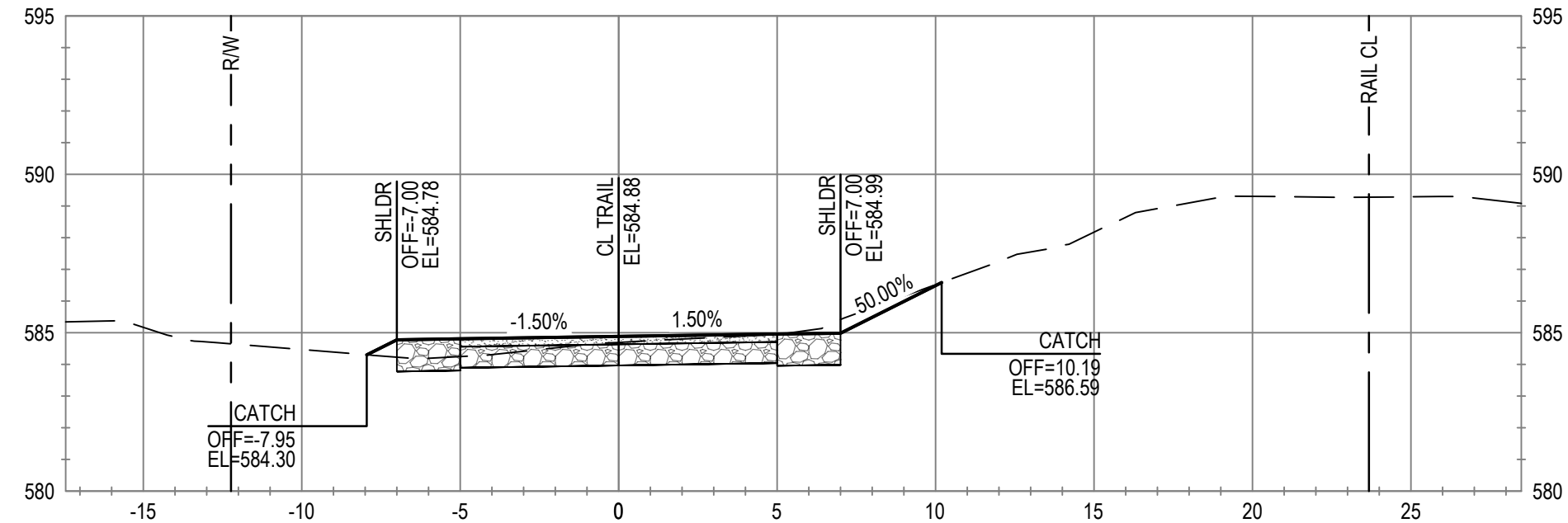
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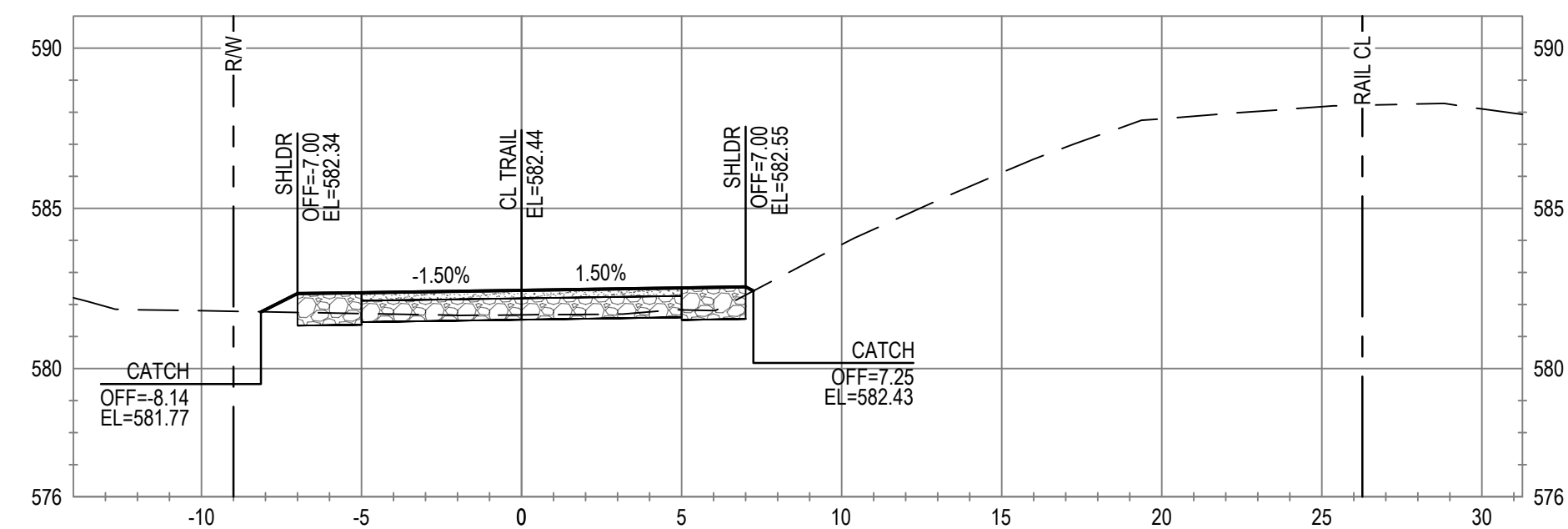
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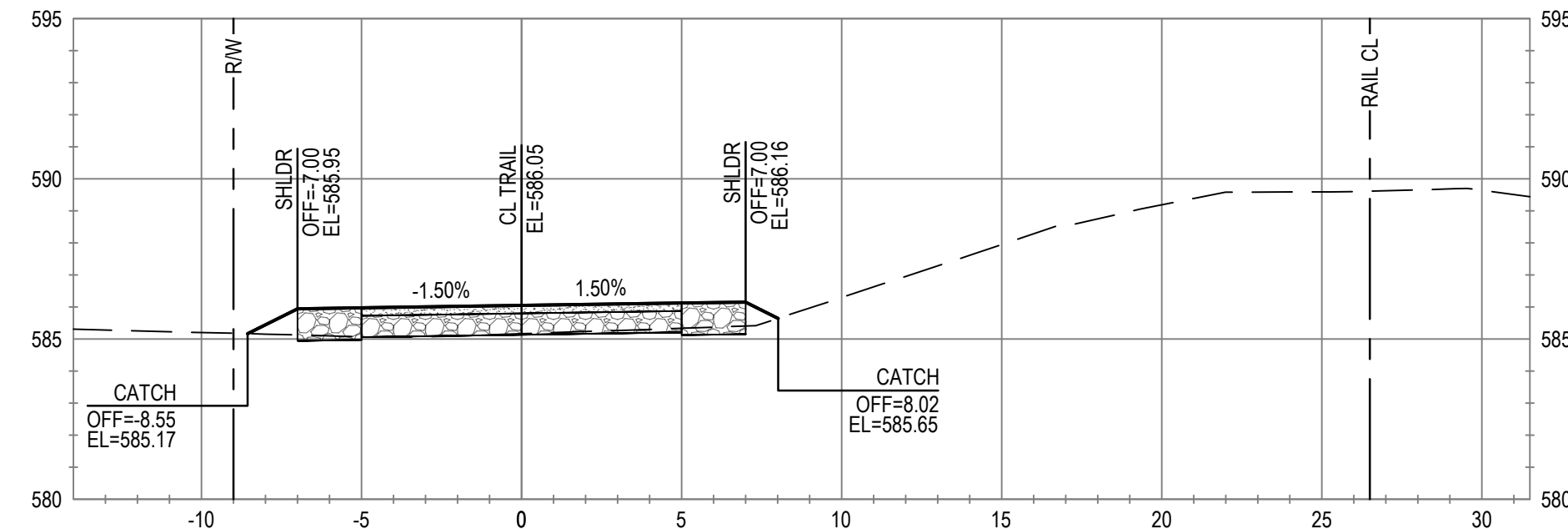
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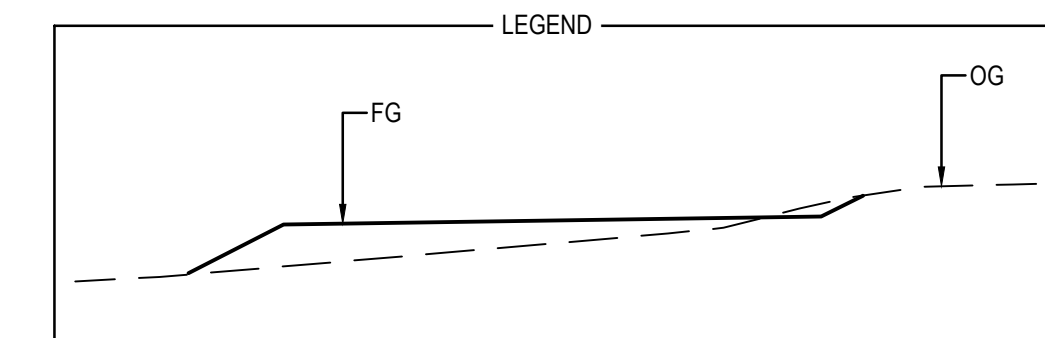
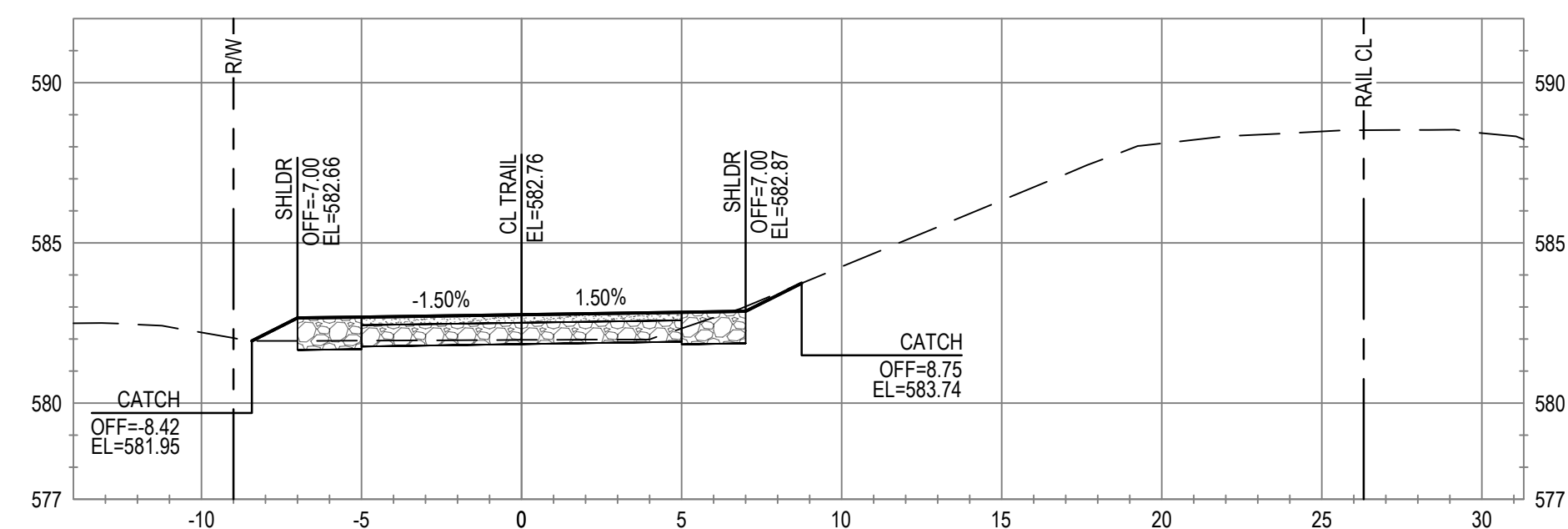
ALIGNMENT "T"  
STA 443+00



ALIGNMENT "T"  
STA 440+50



ALIGNMENT "T"  
STA 442+50



No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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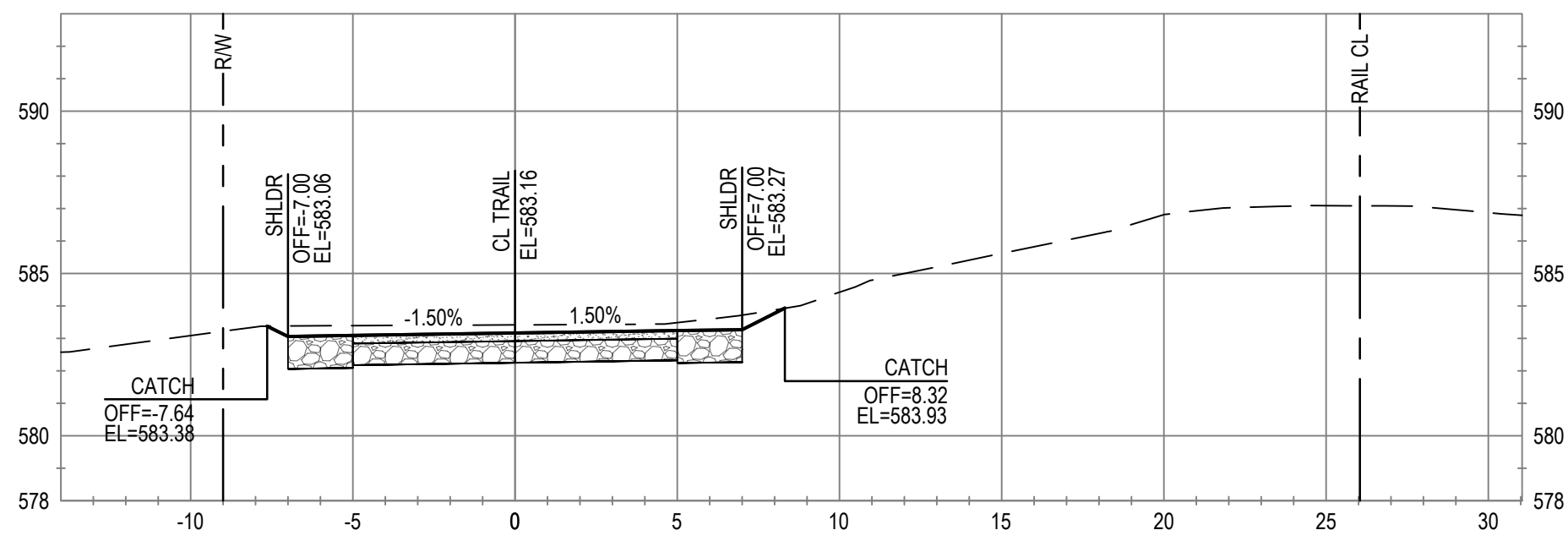
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 440+50 TO STA 444+00**

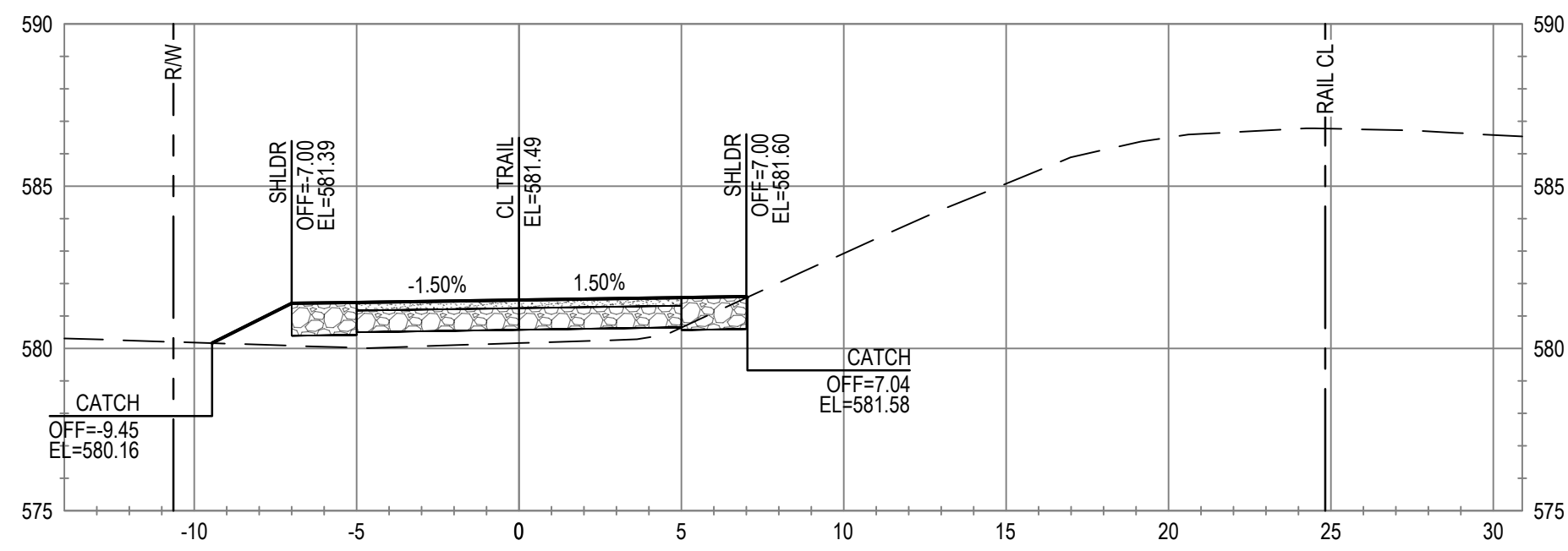
Size **ANSI D**  
Sheet No. **C-811** Sheet **87 of 96**



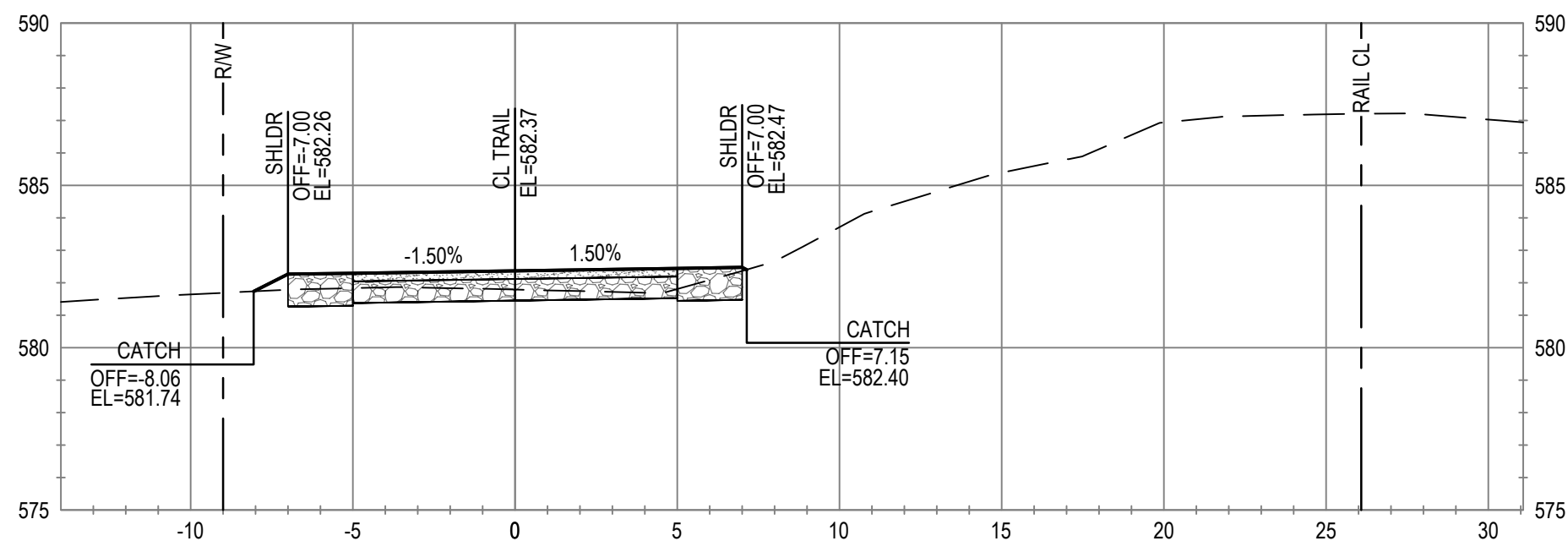
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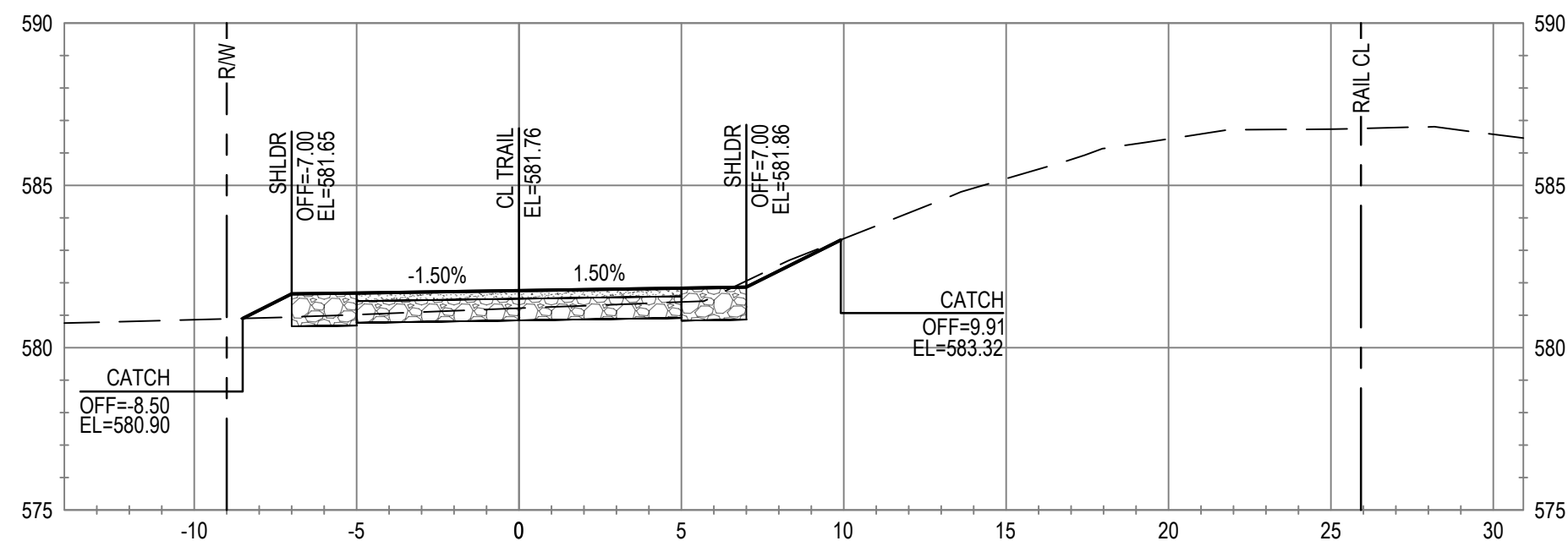
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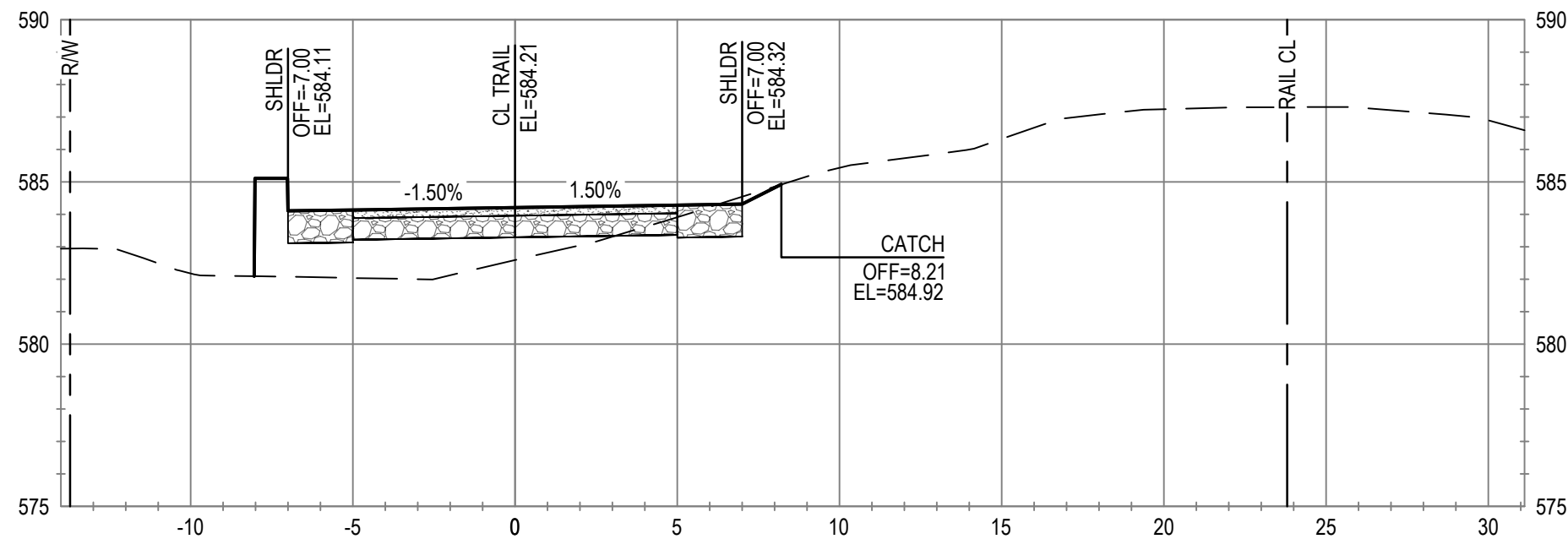
ALIGNMENT "T"  
STA 445+50



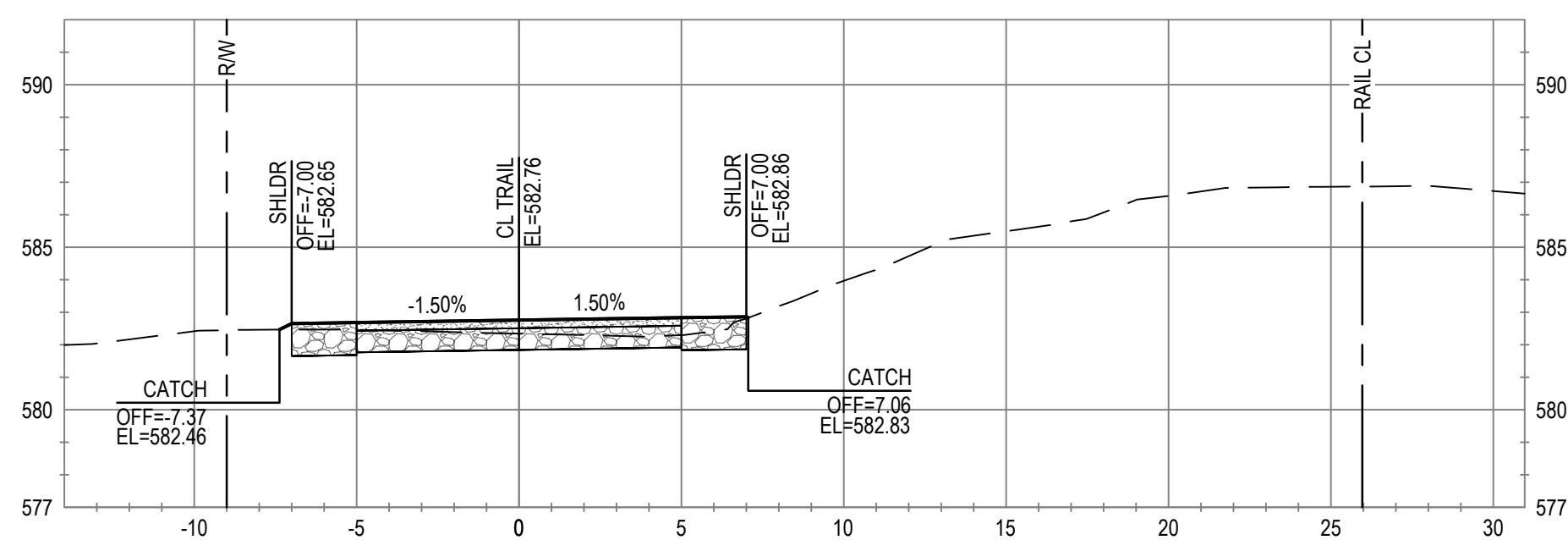
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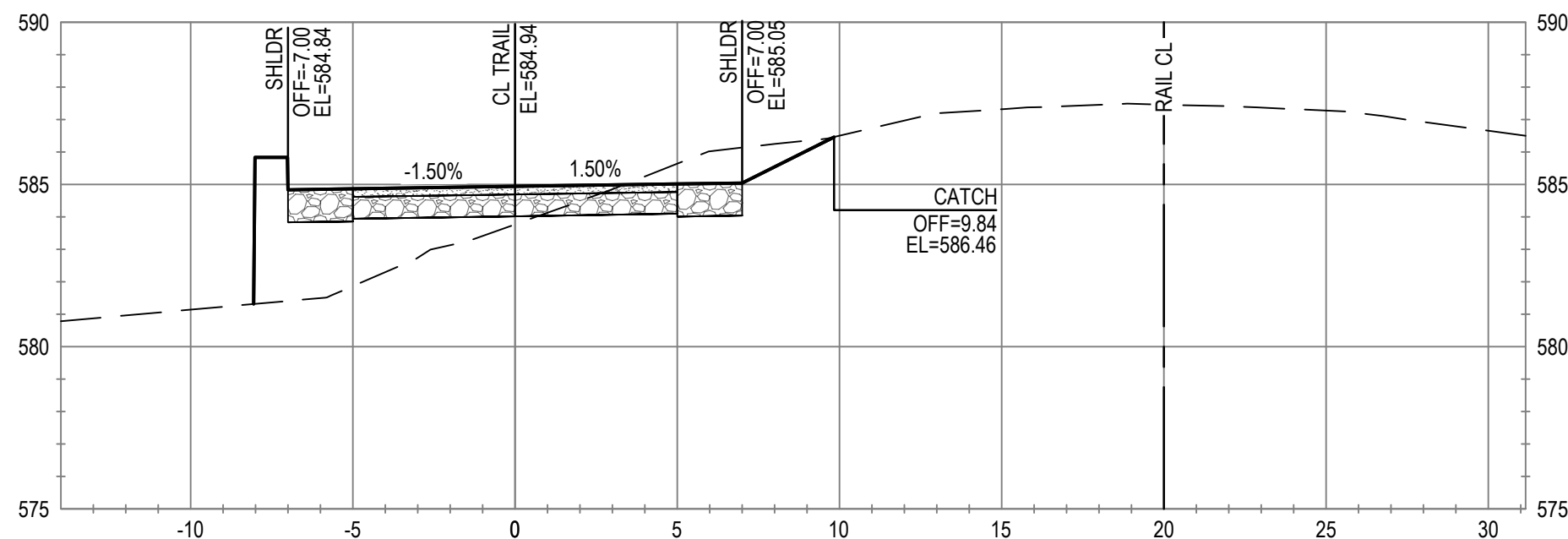
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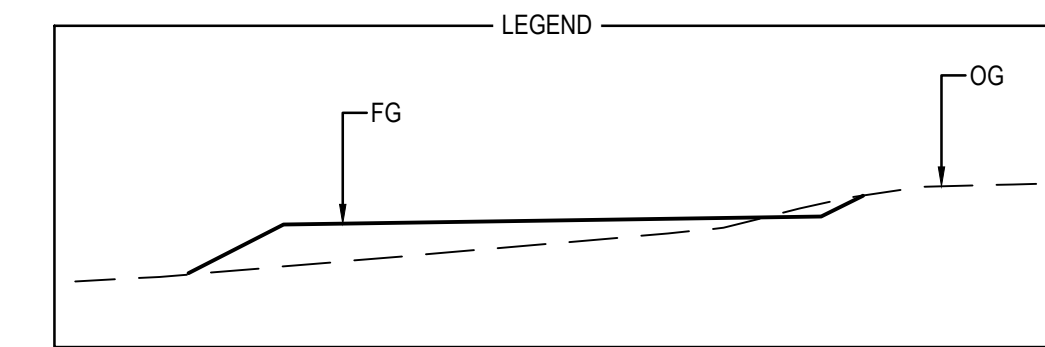
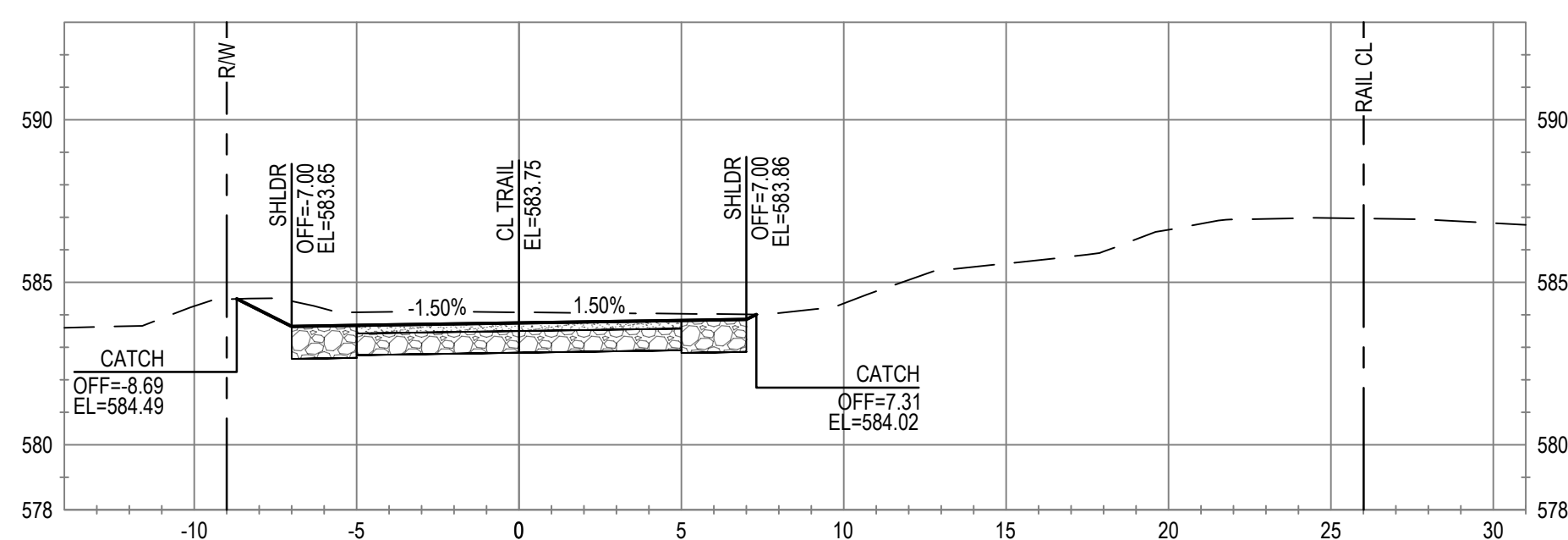
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ALIGNMENT "T"  
STA 444+50

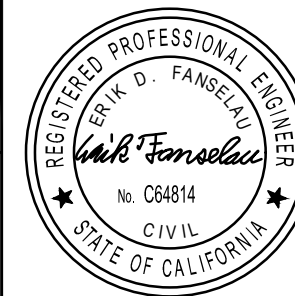


ALIGNMENT "T"  
STA 446+50



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Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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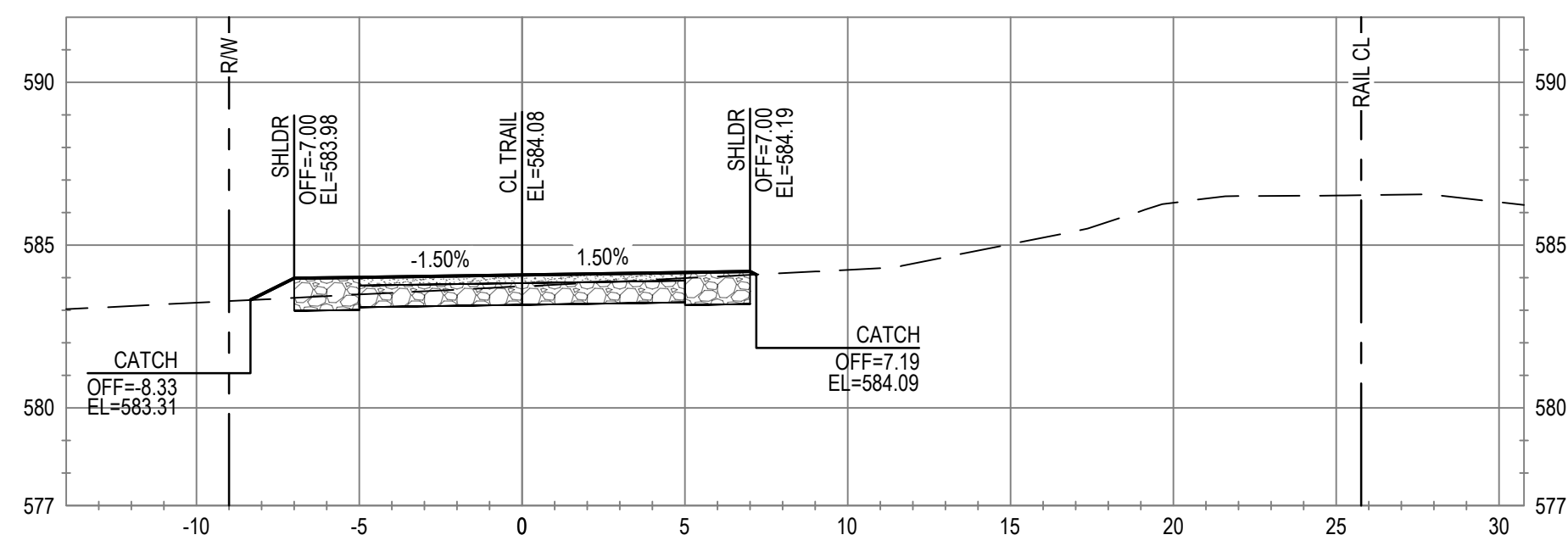


Client	CITY OF UKIAH
Project	THE GREAT REDWOOD TRAIL PHASE 4
Project No.	12557341
Date	SEP 30, 2022

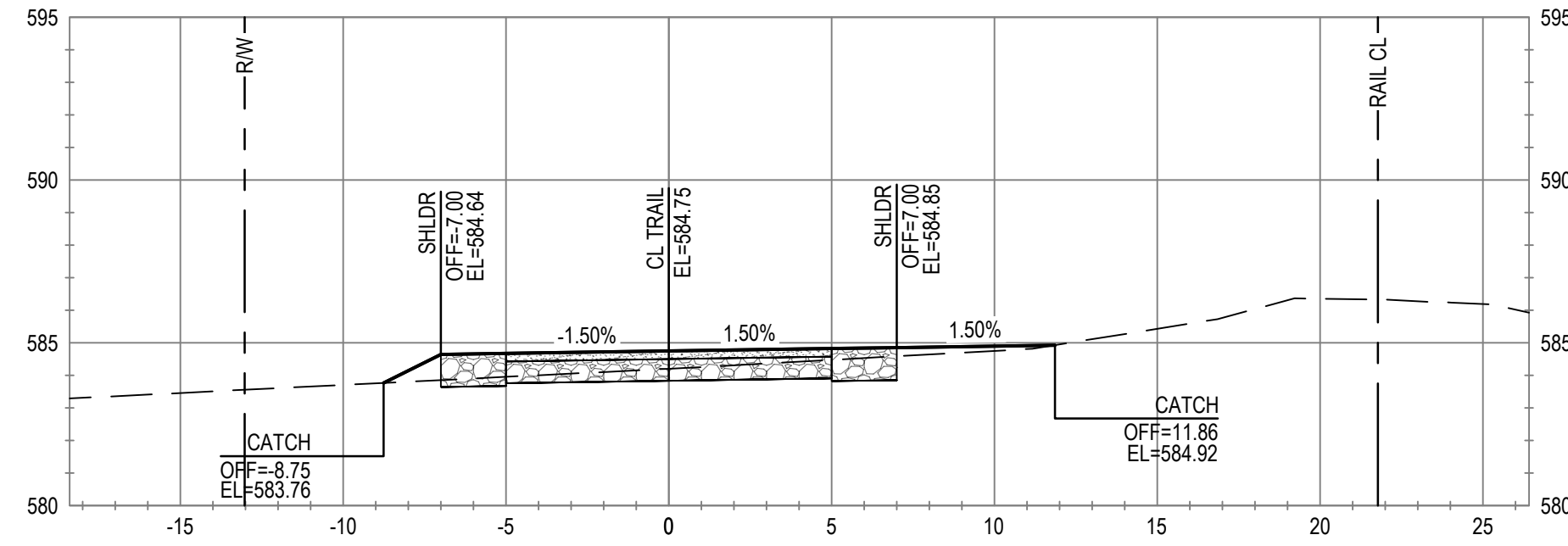
Title	CROSS SECTIONS STA 444+50 TO STA 448+00
Sheet No.	C-812
Sheet	88 of 96
Scale	1" = 5'



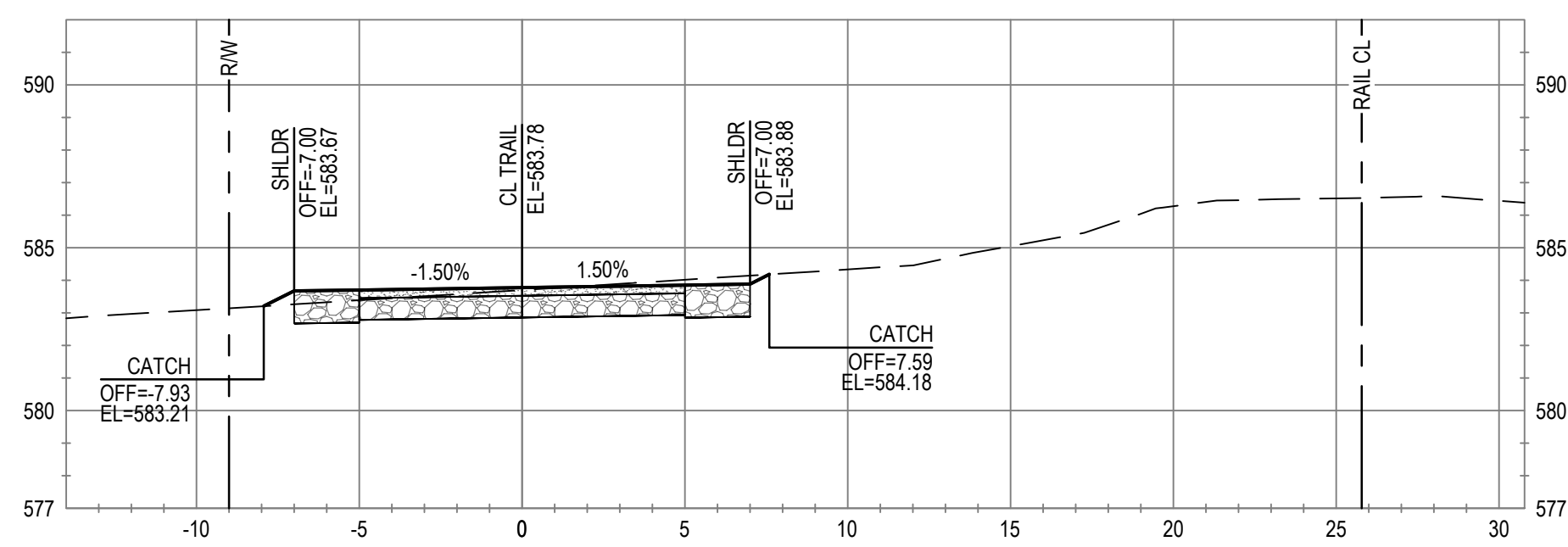
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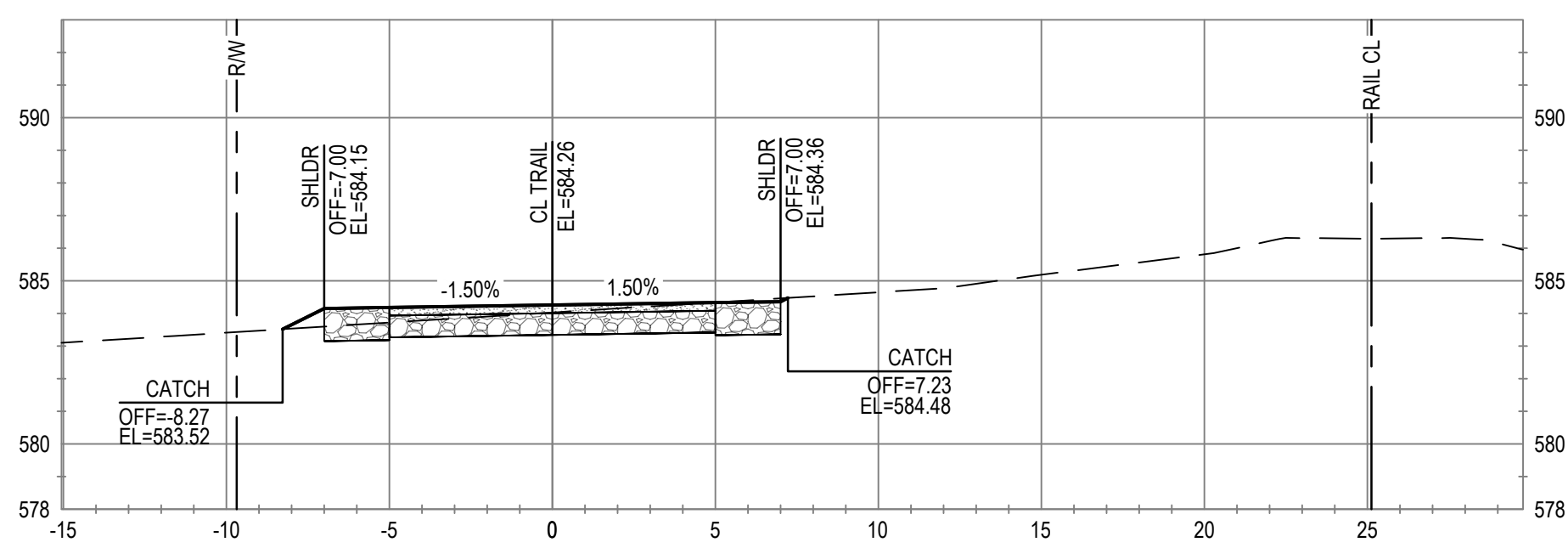
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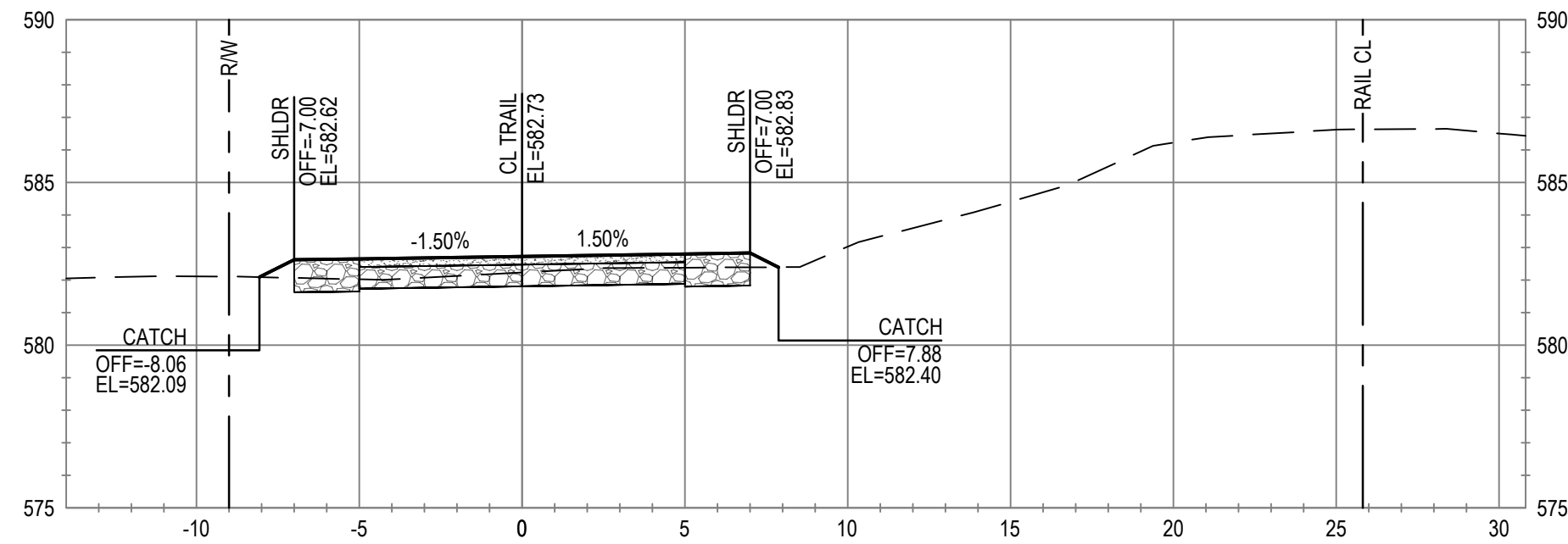
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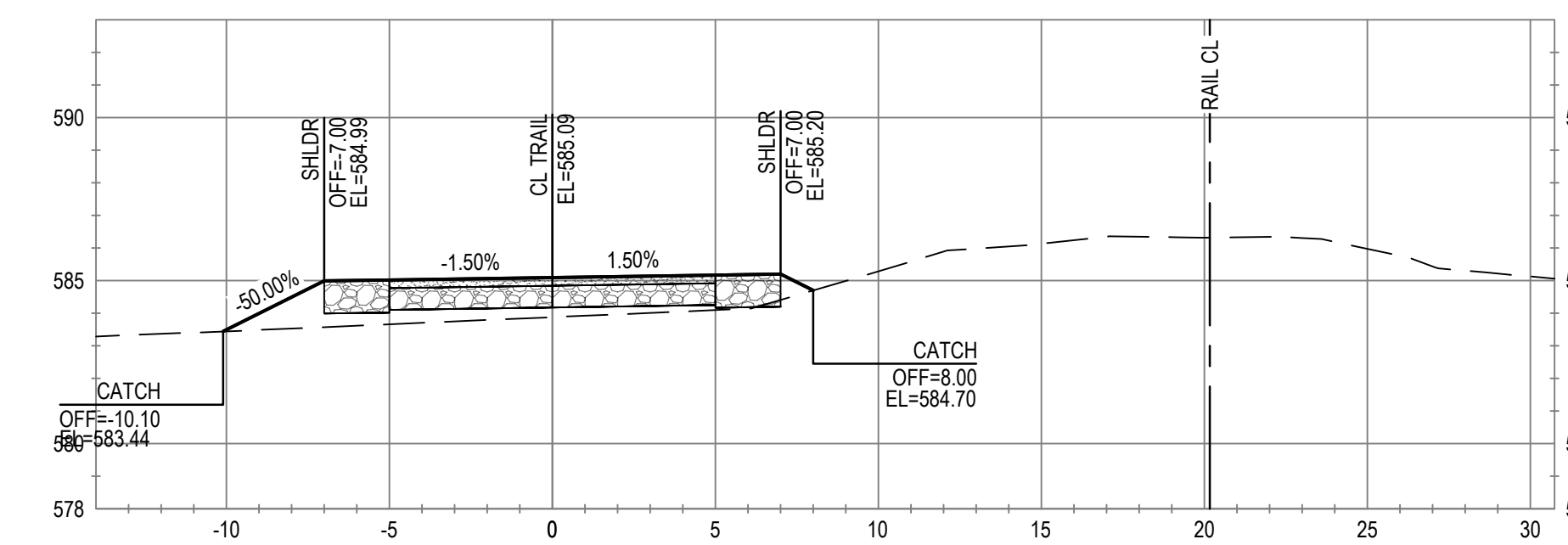
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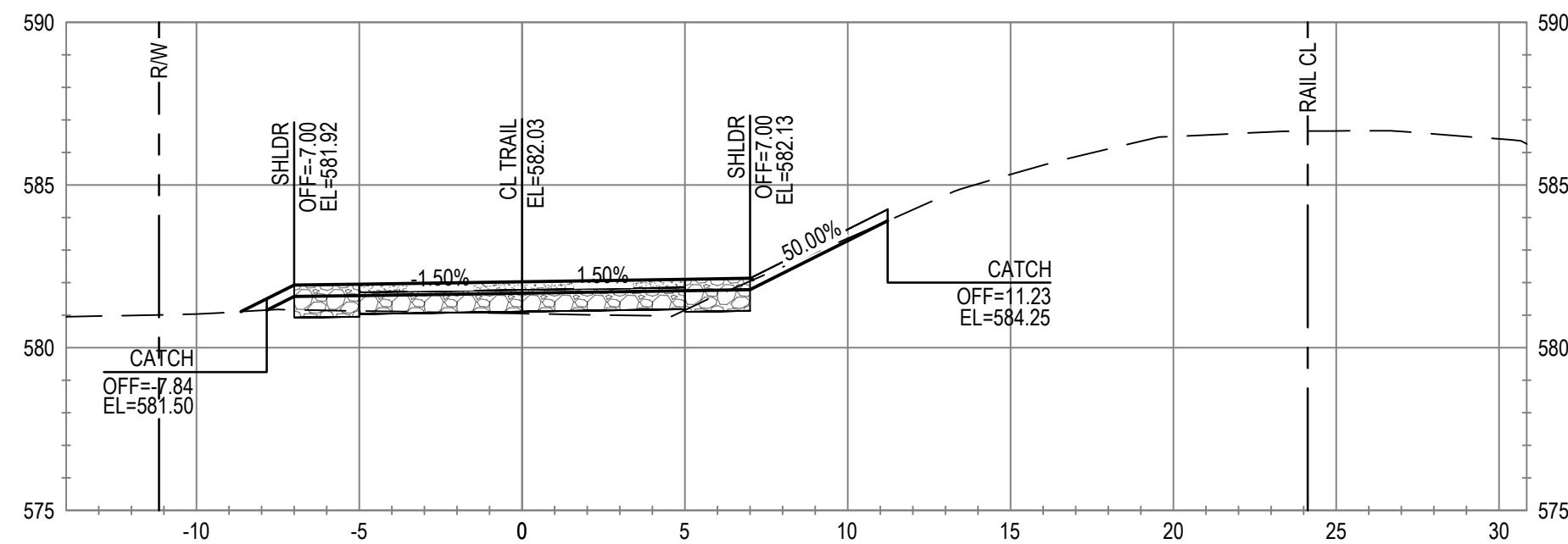
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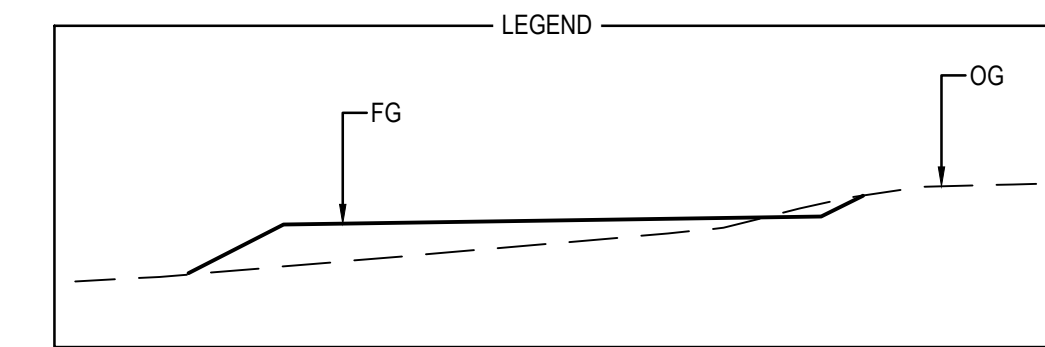
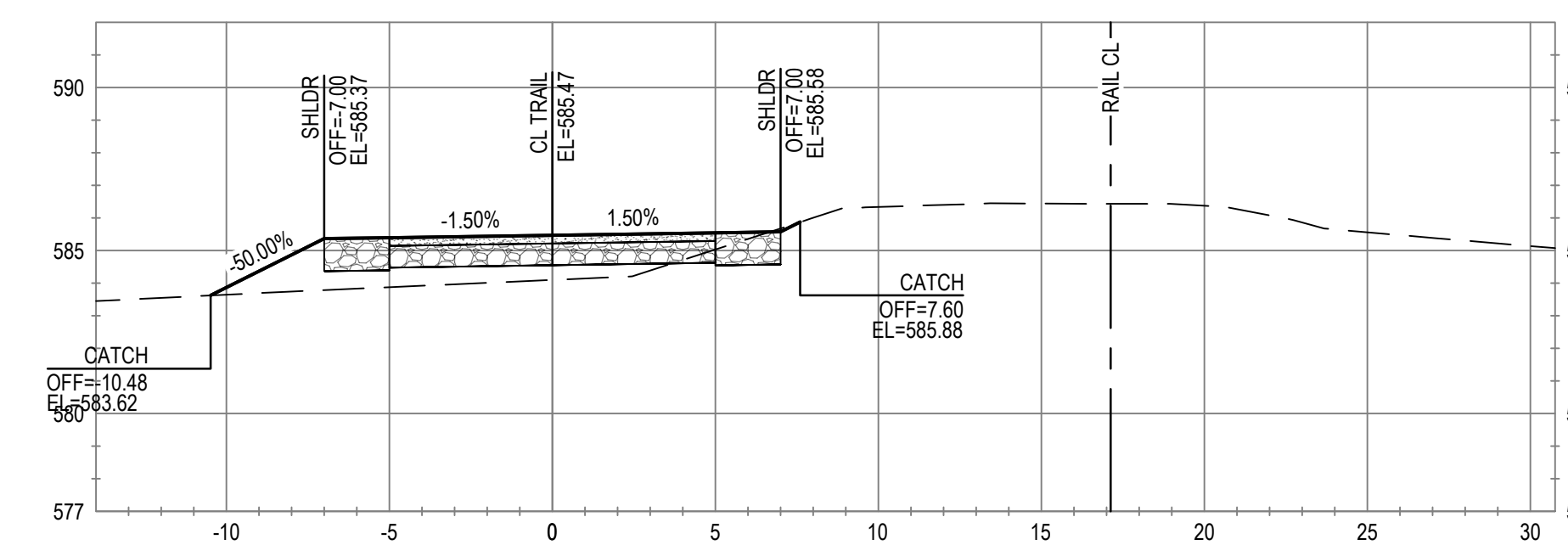
ALIGNMENT "T"  
STA 451+00



ALIGNMENT "T"  
STA 448+50



ALIGNMENT "T"  
STA 450+50



No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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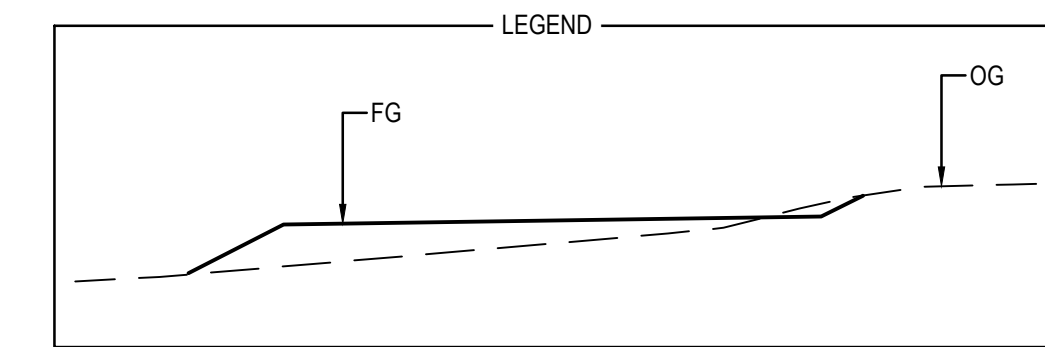
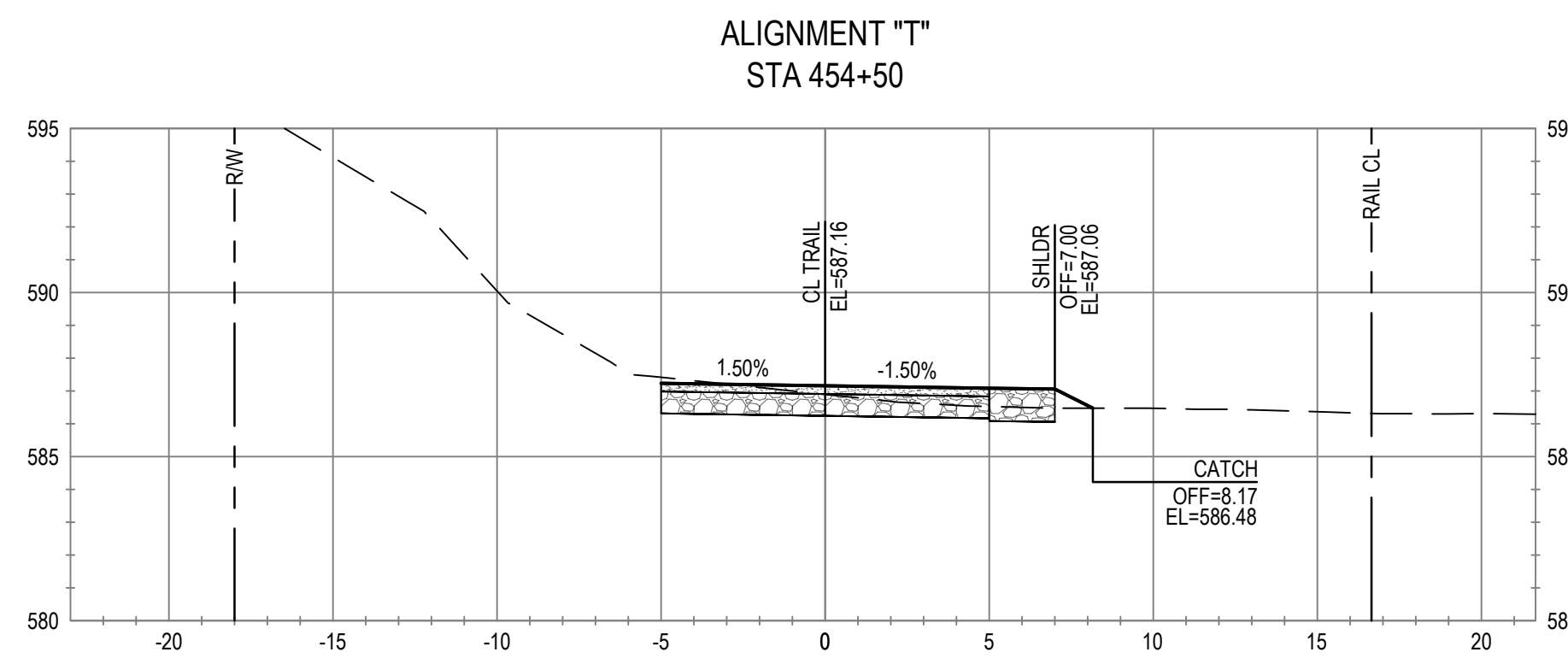
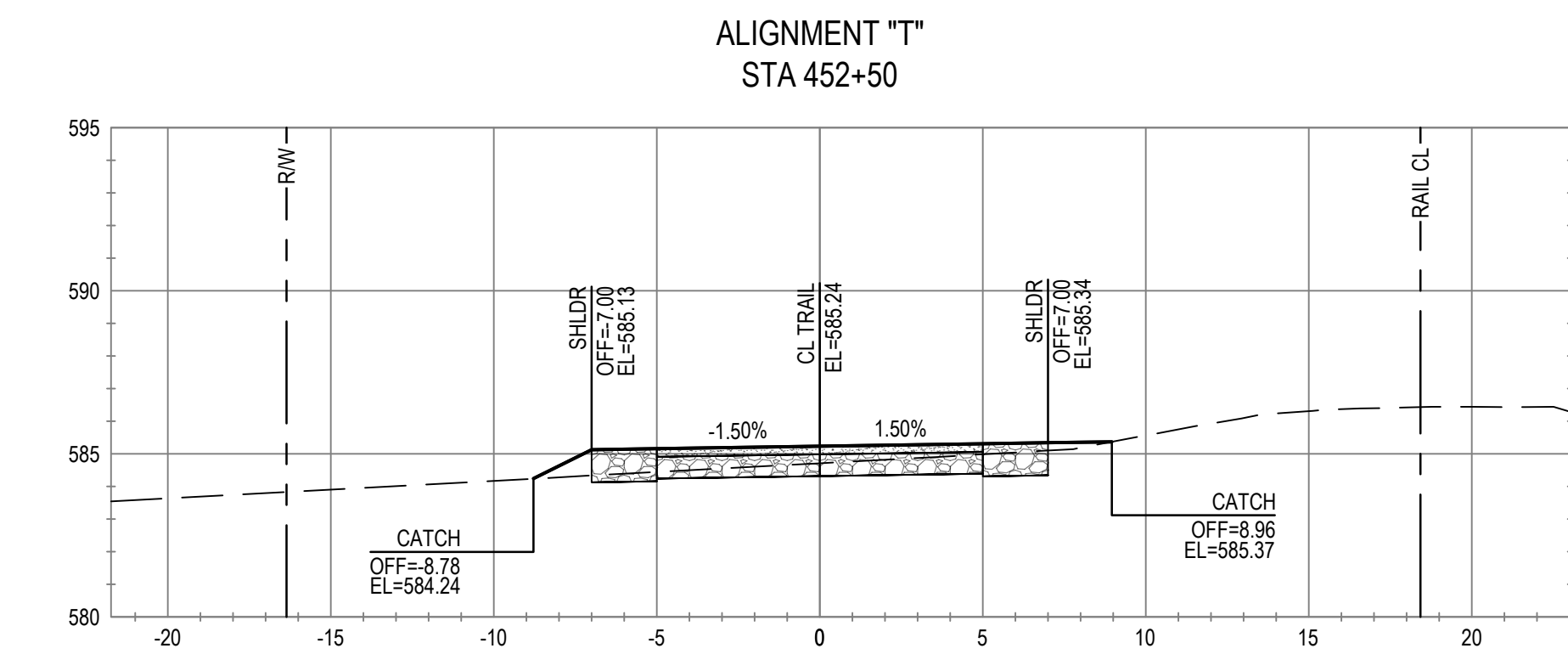
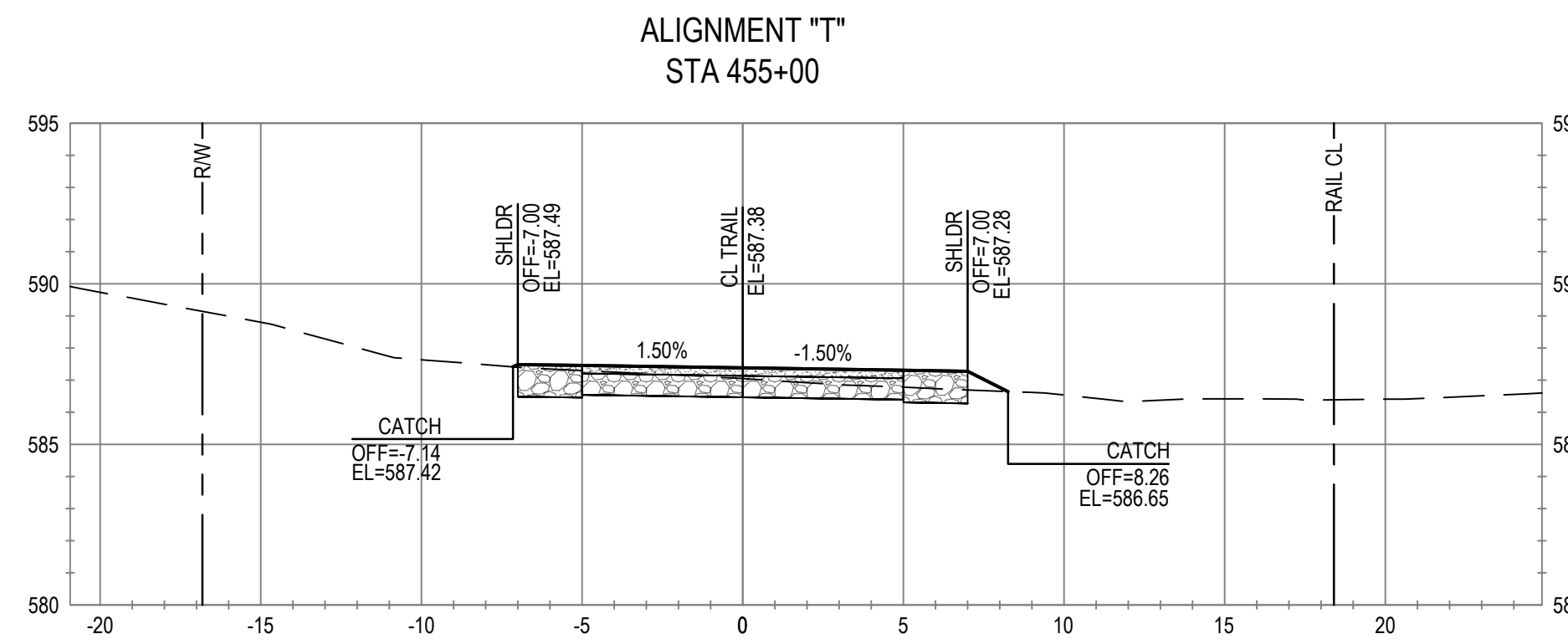
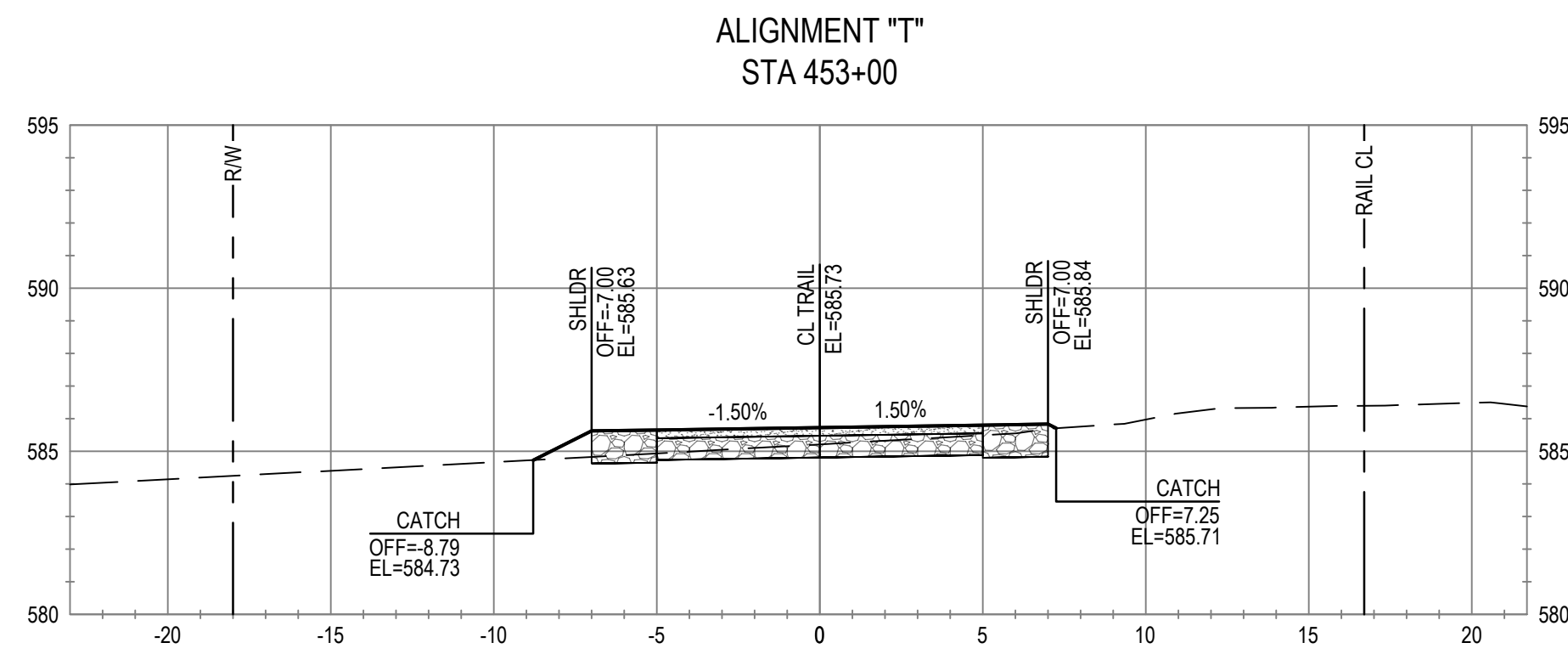
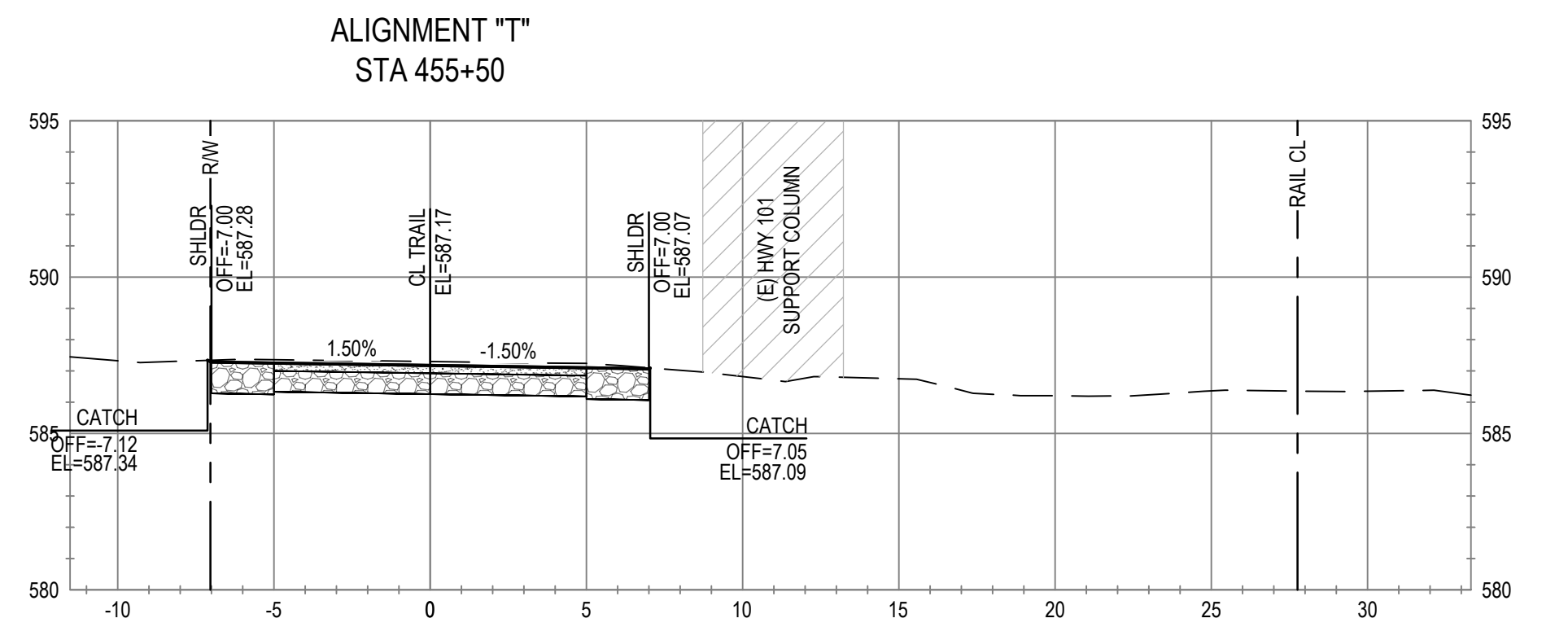
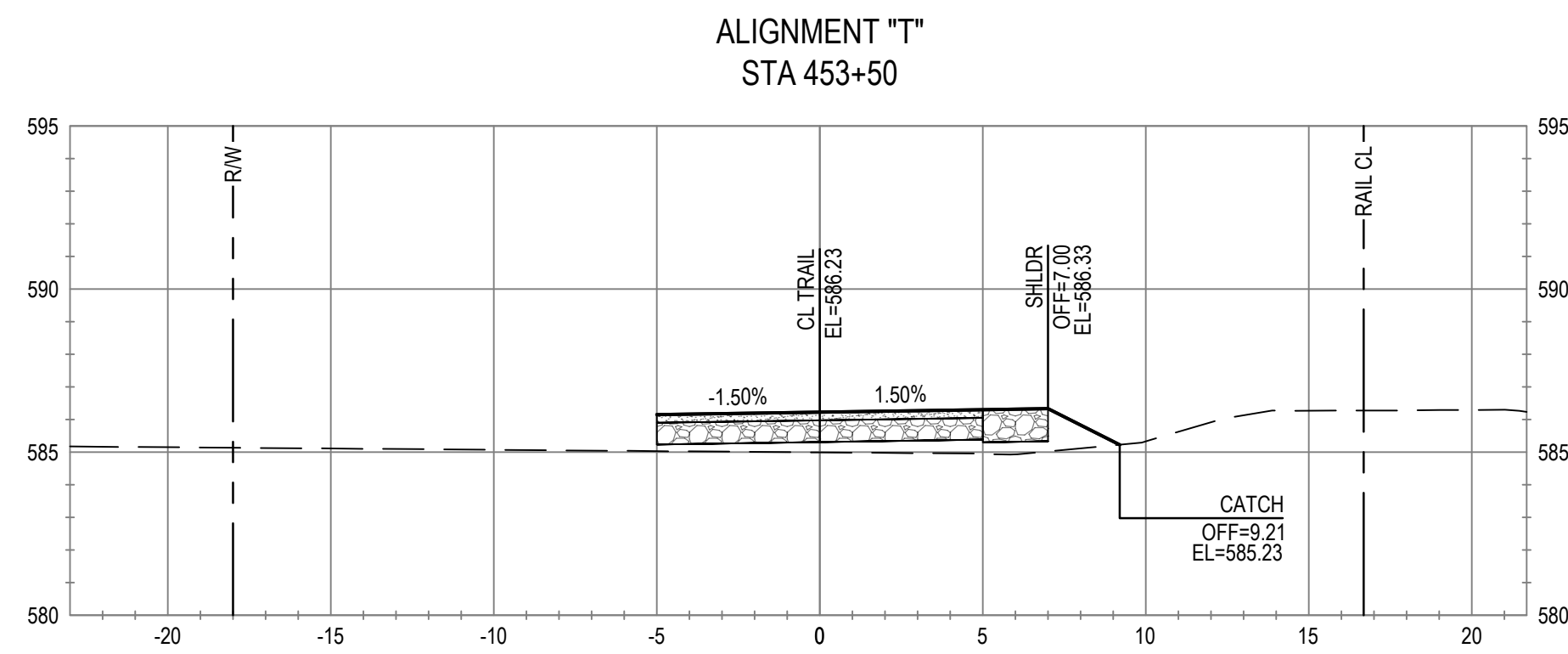
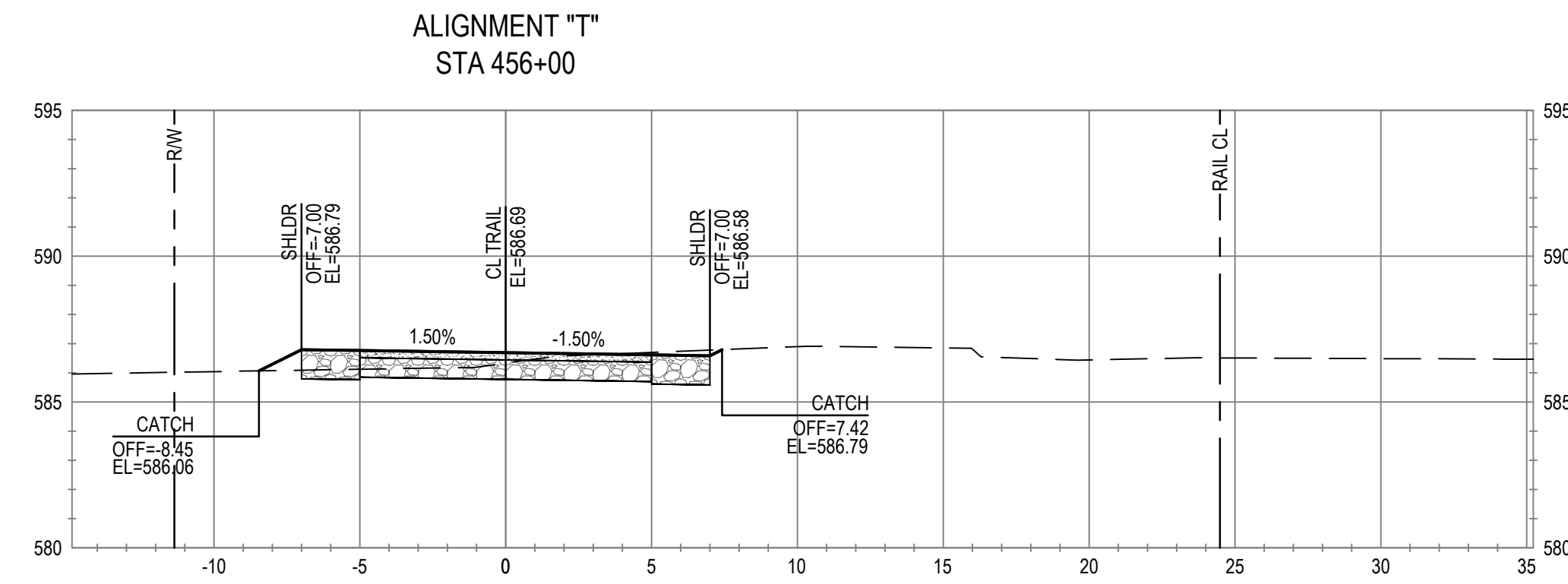
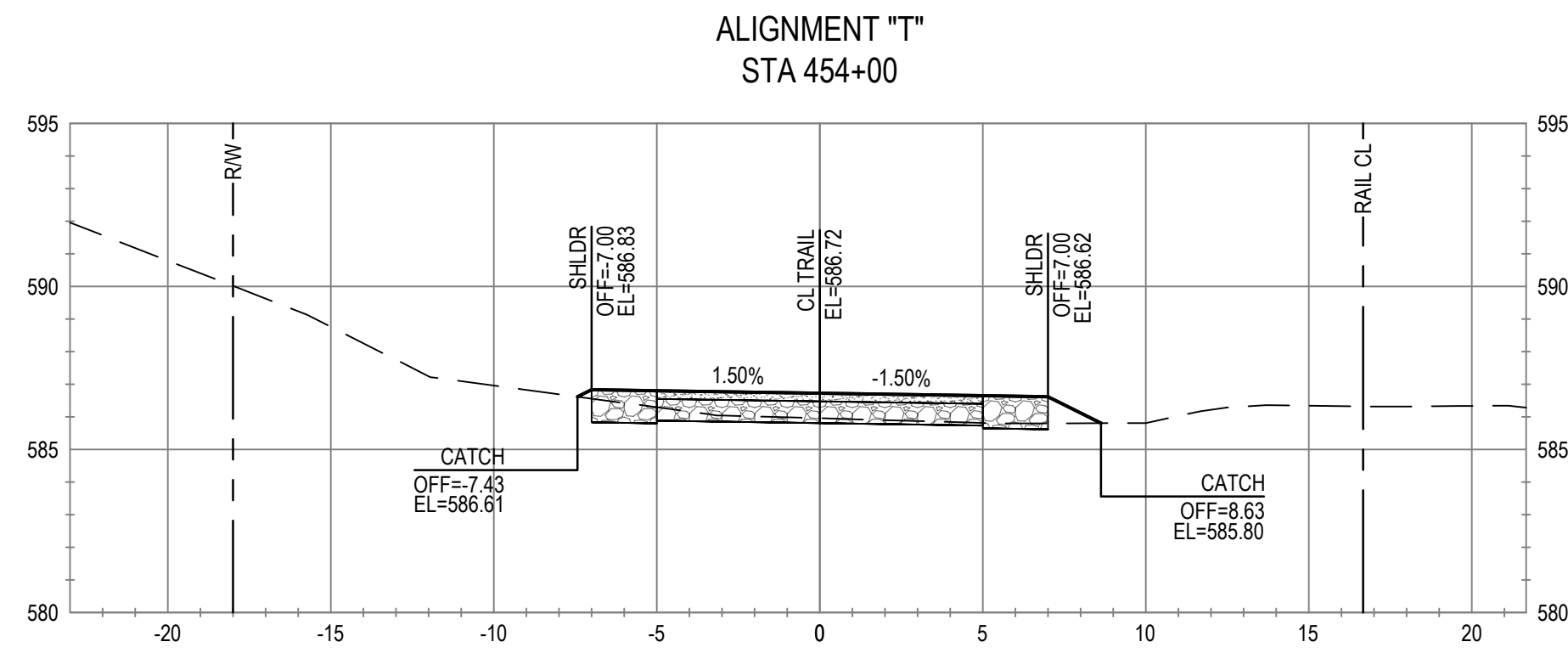


Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 448+50 TO STA 452+00**

Size **ANSI D**  
Sheet No. **C-813**  
Sheet **89 of 96**





No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

Bar is one inch on original size sheet  
0 1"



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Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341**

Date **SEP 30, 2022**

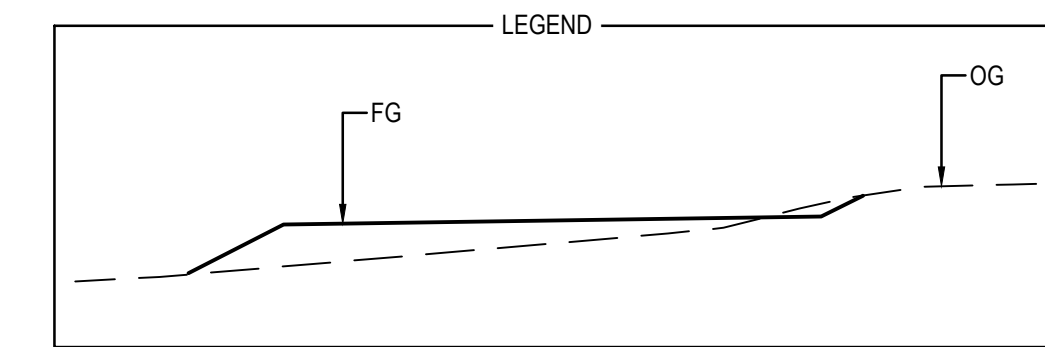
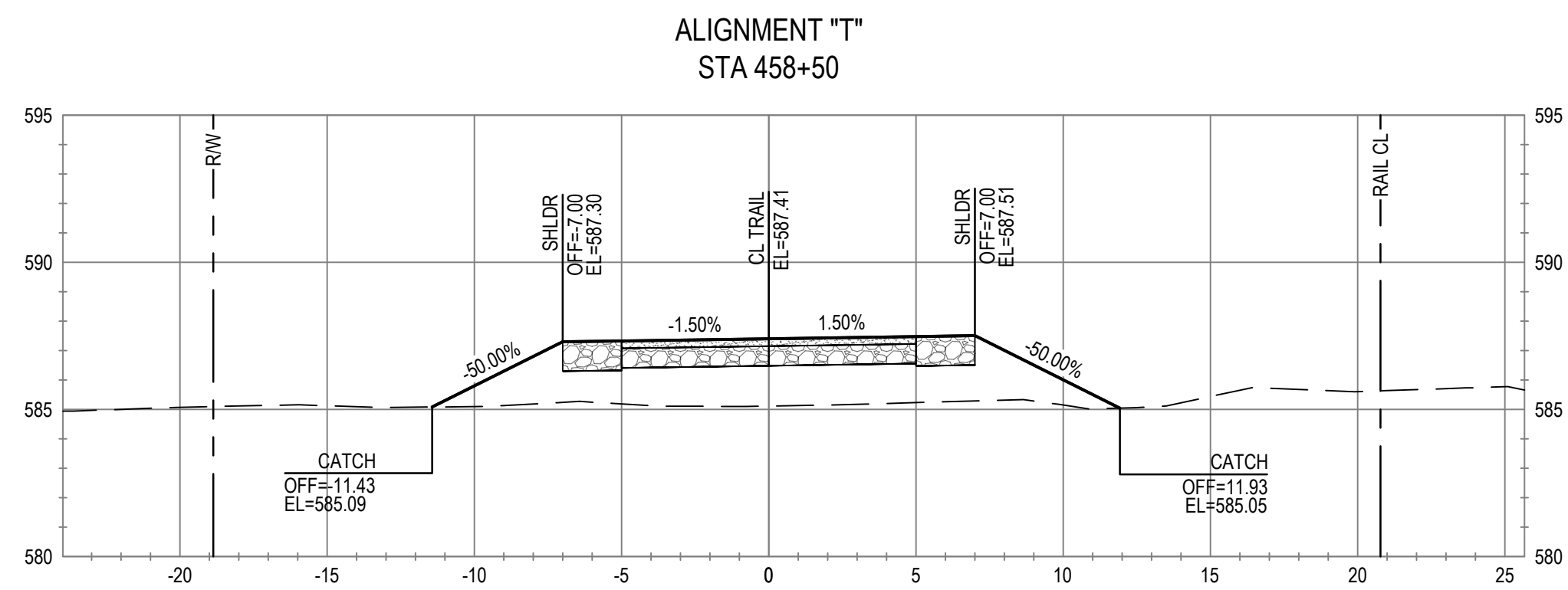
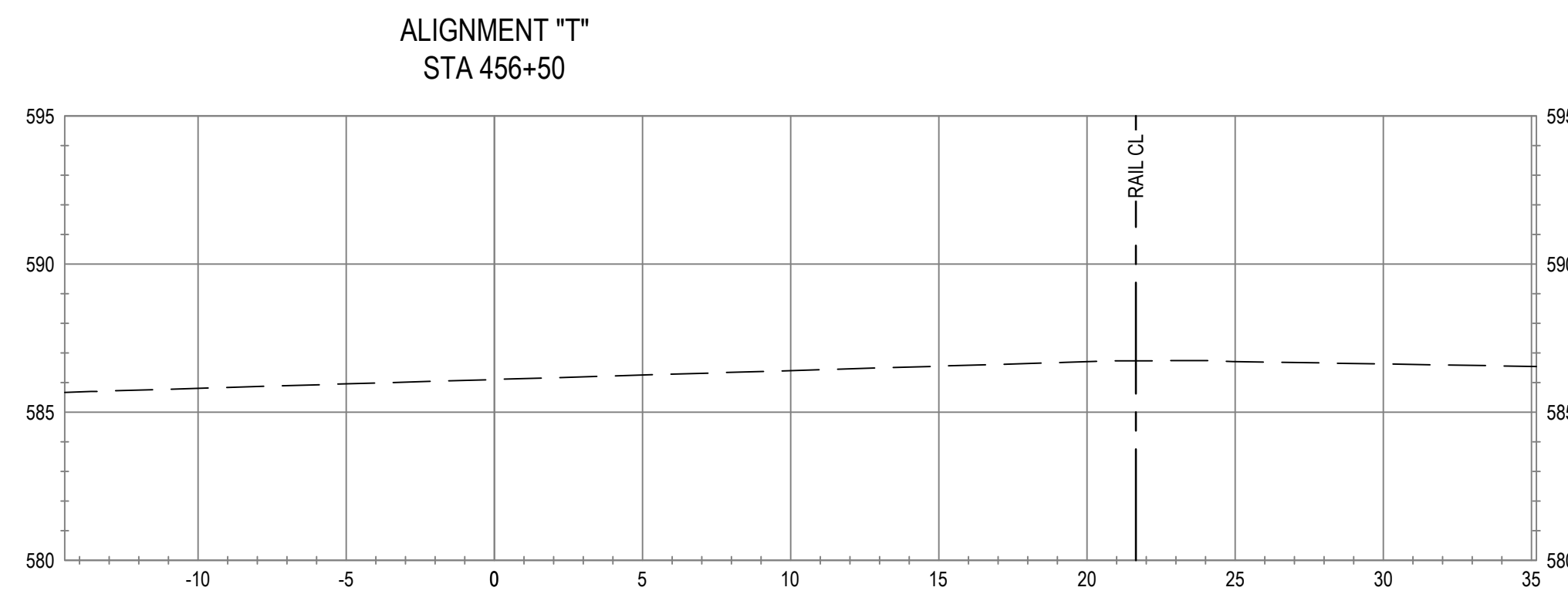
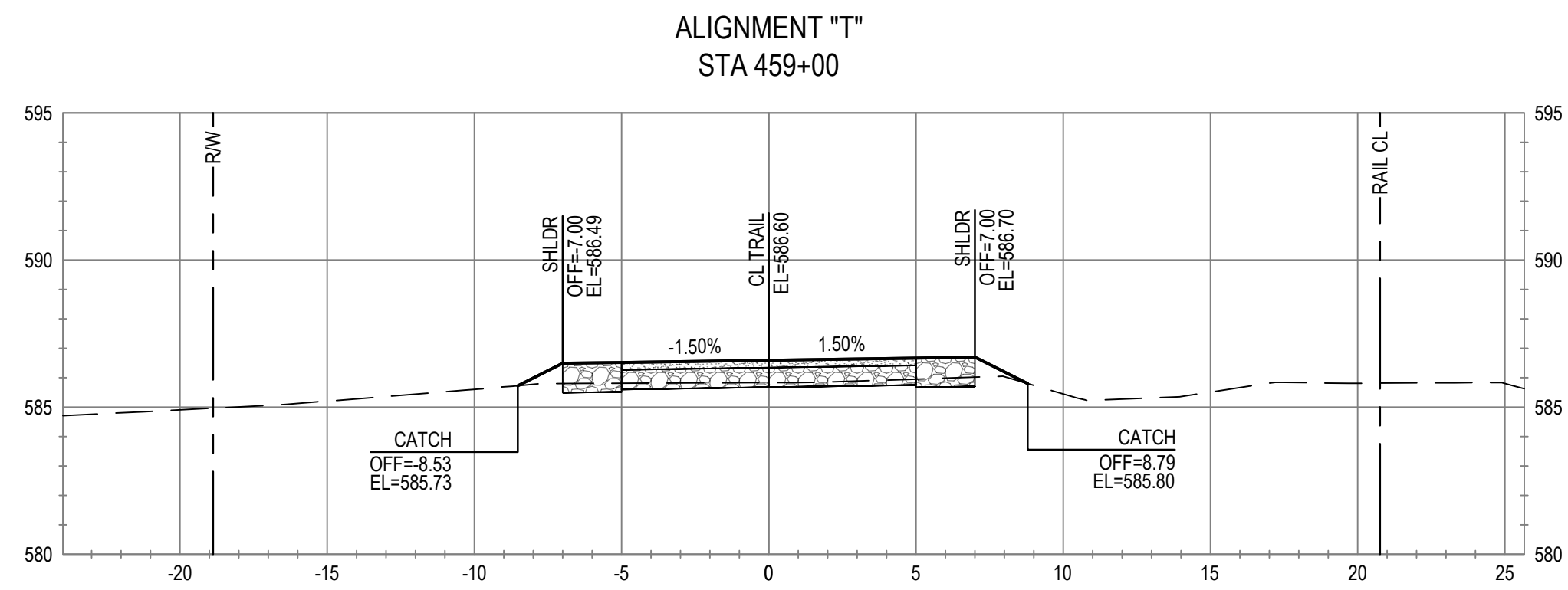
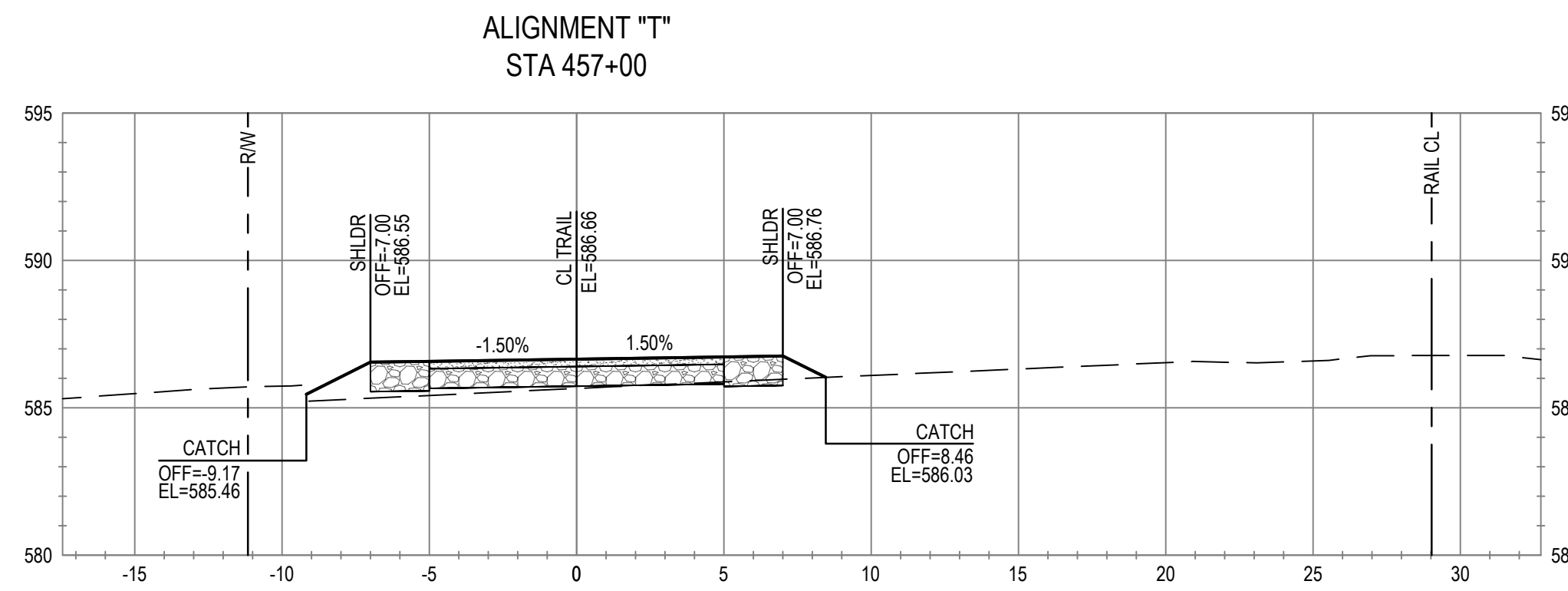
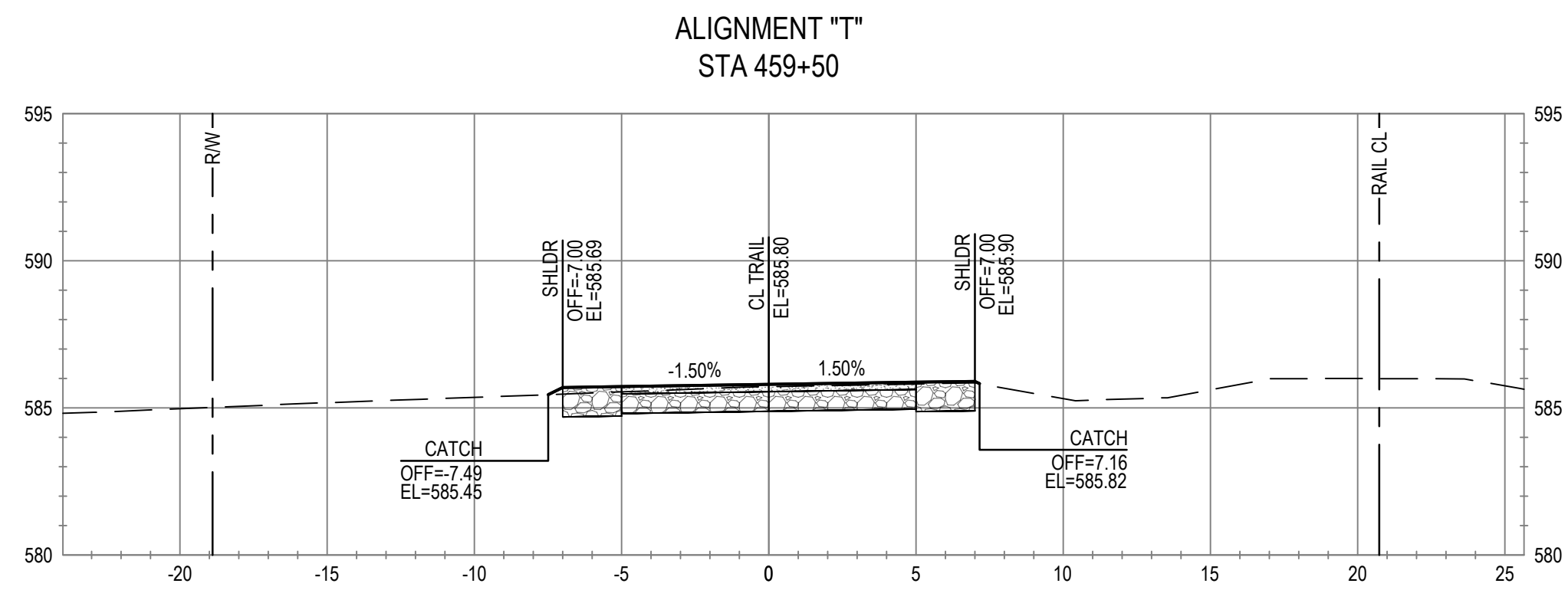
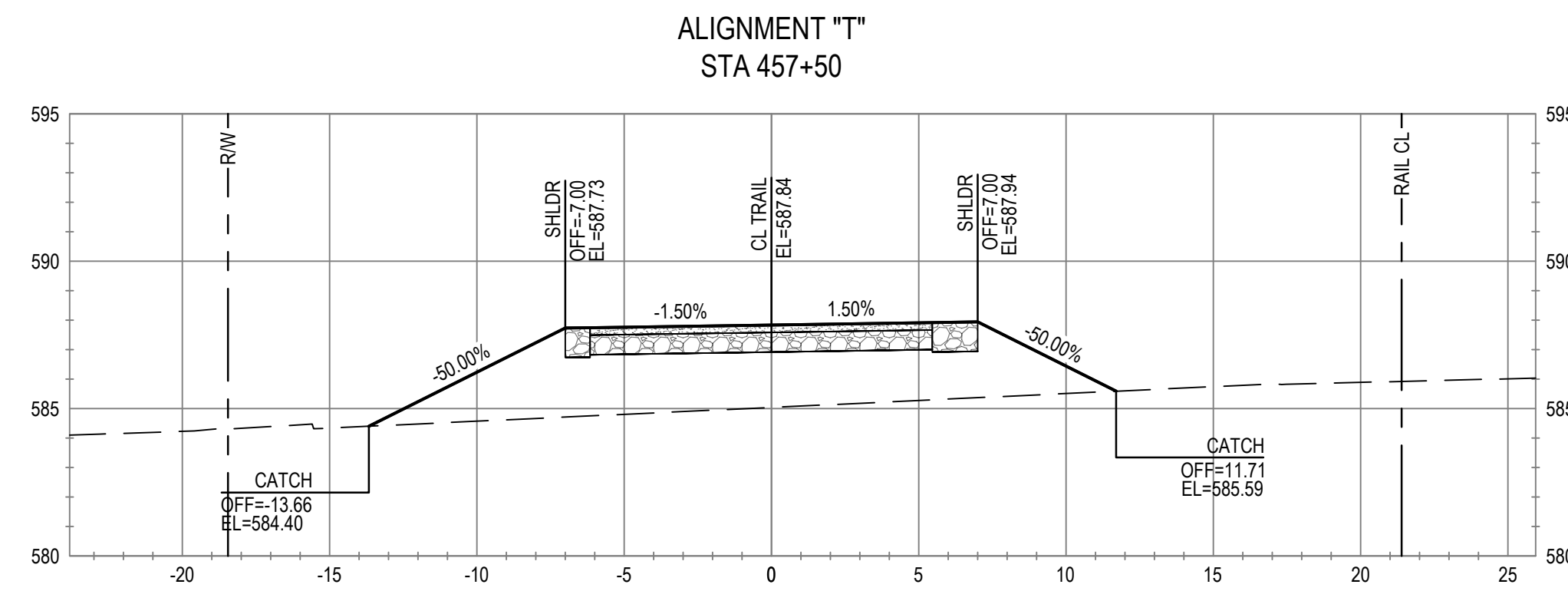
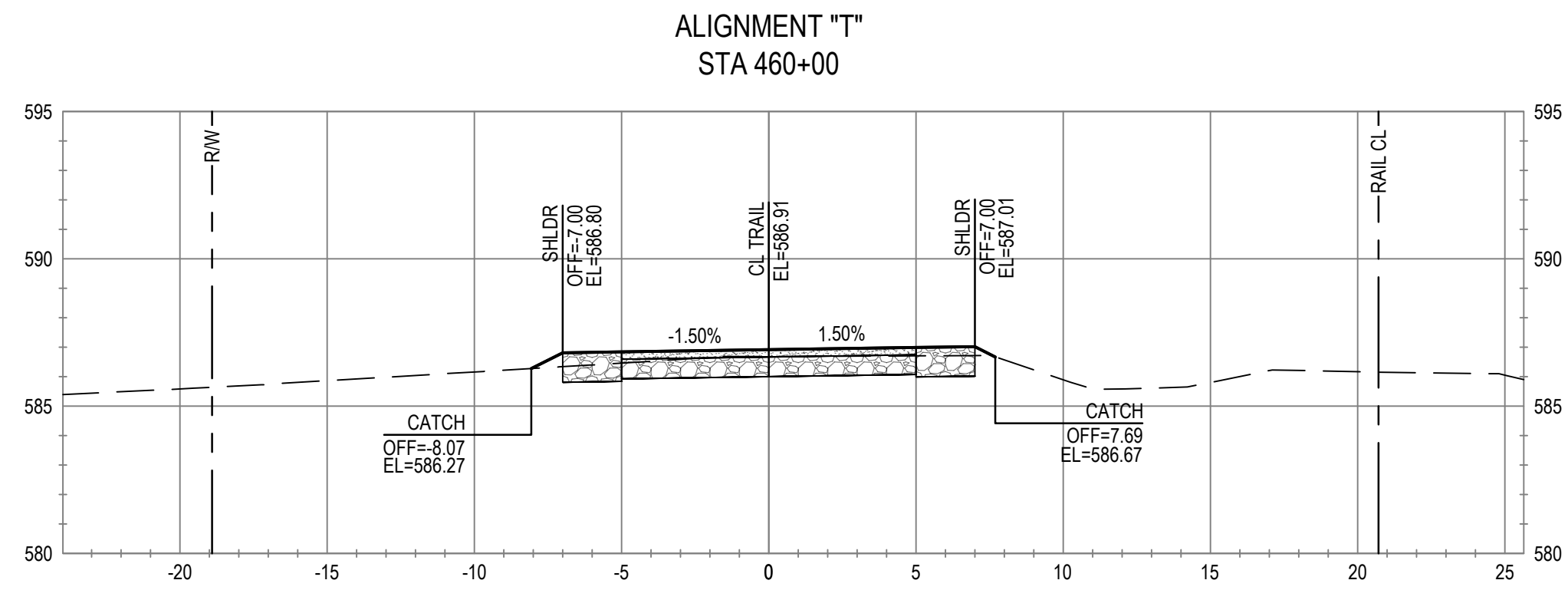
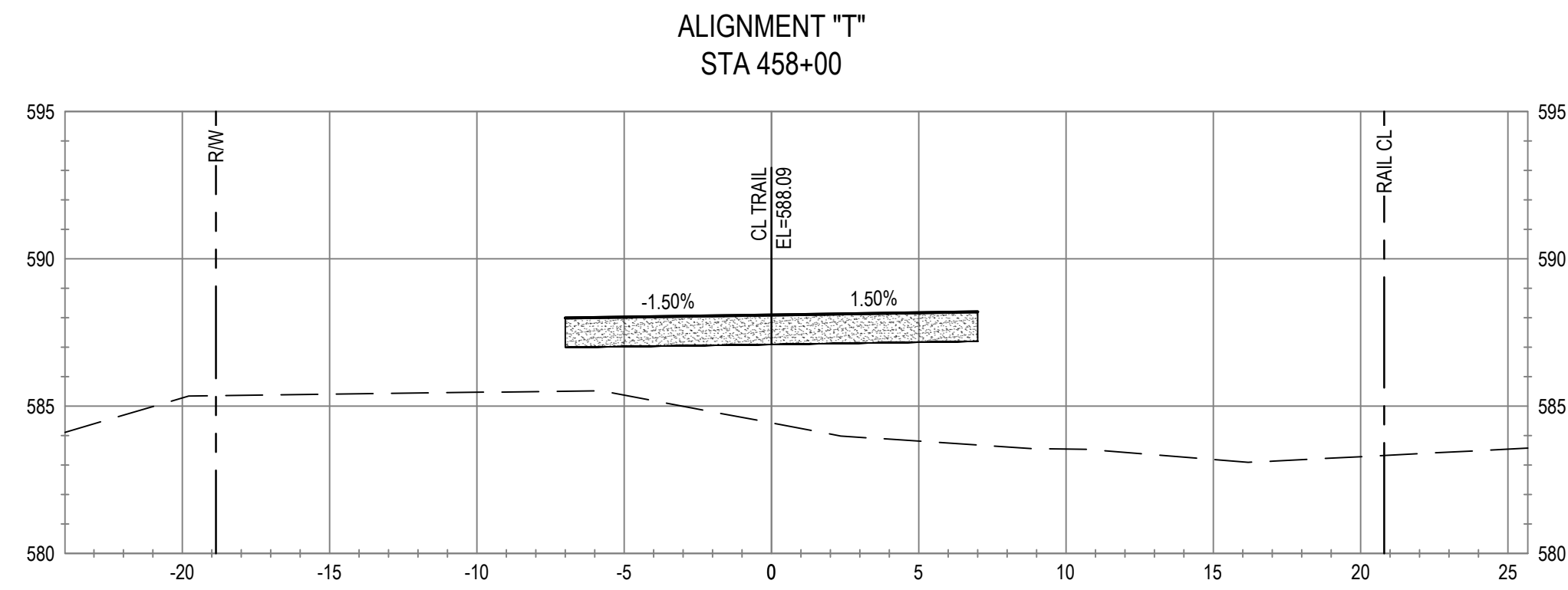
Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 452+50 TO STA 456+00**

Size **ANSI D**

Sheet No. **C-814**  
Sheet 90 of 96





No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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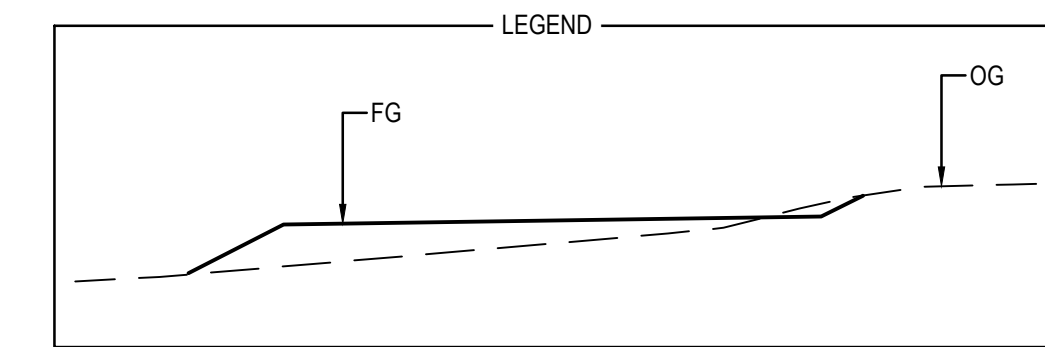
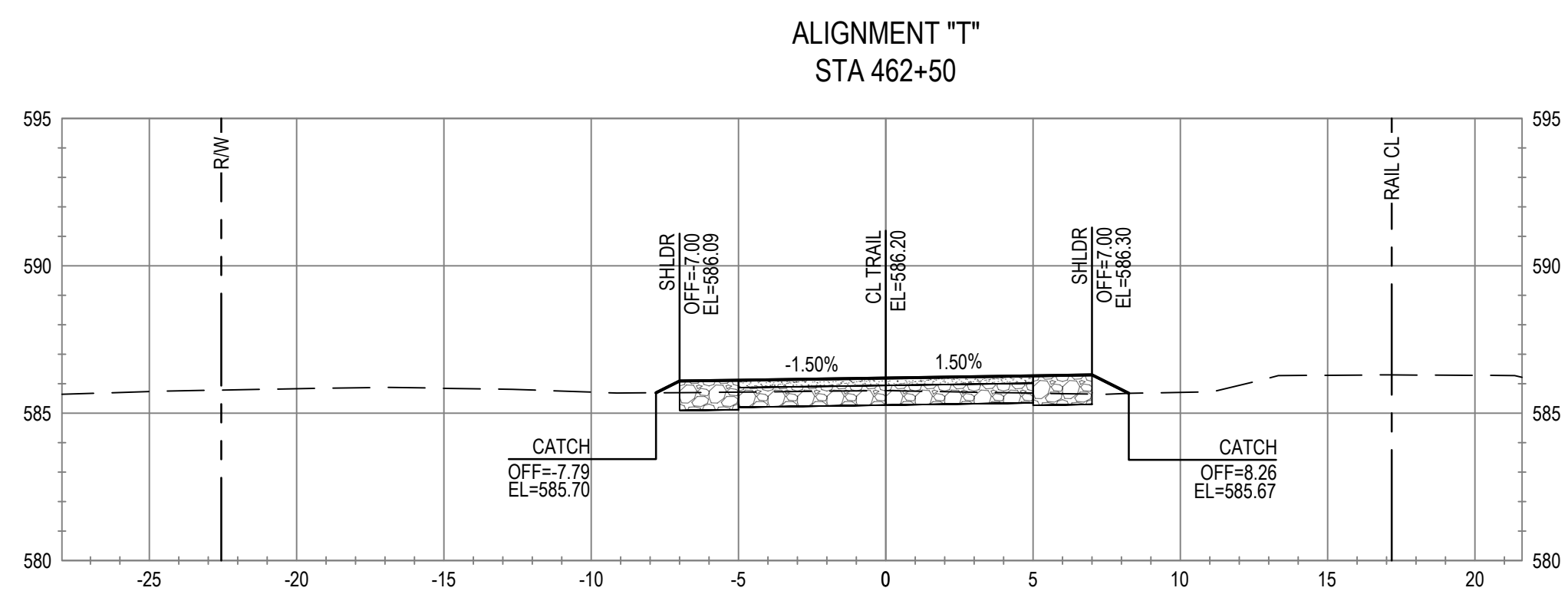
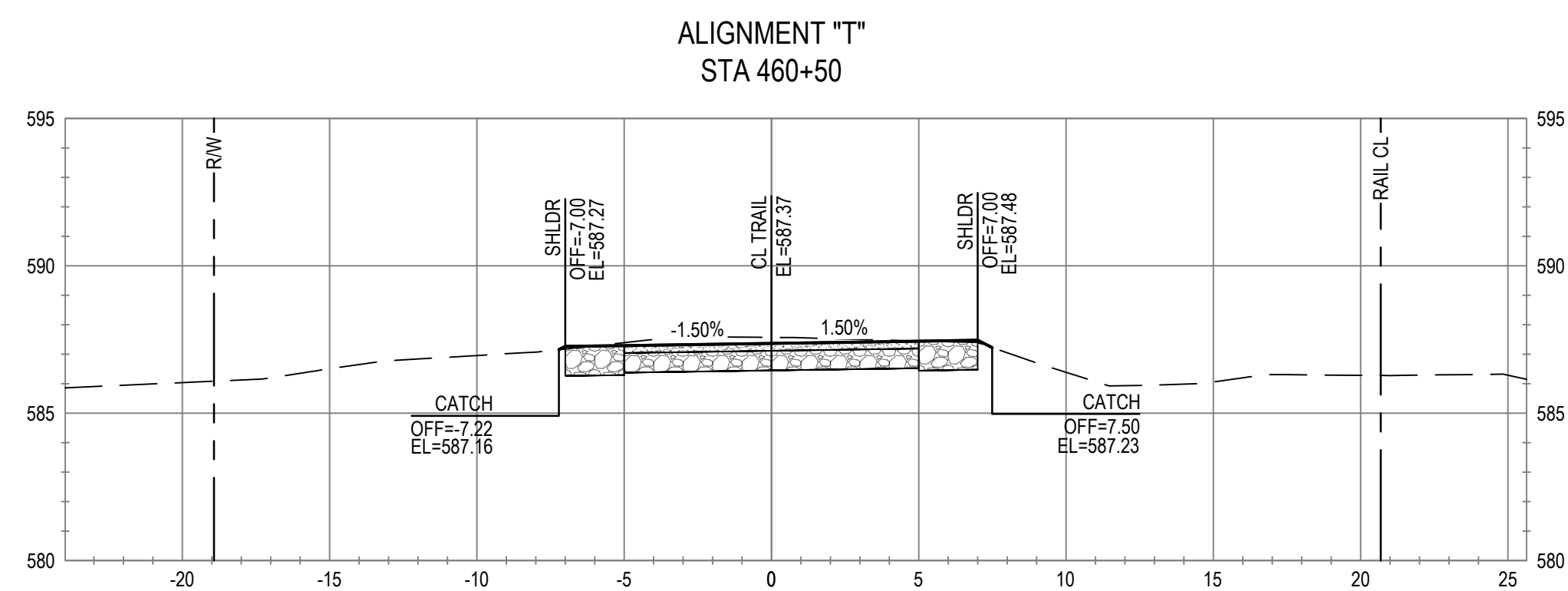
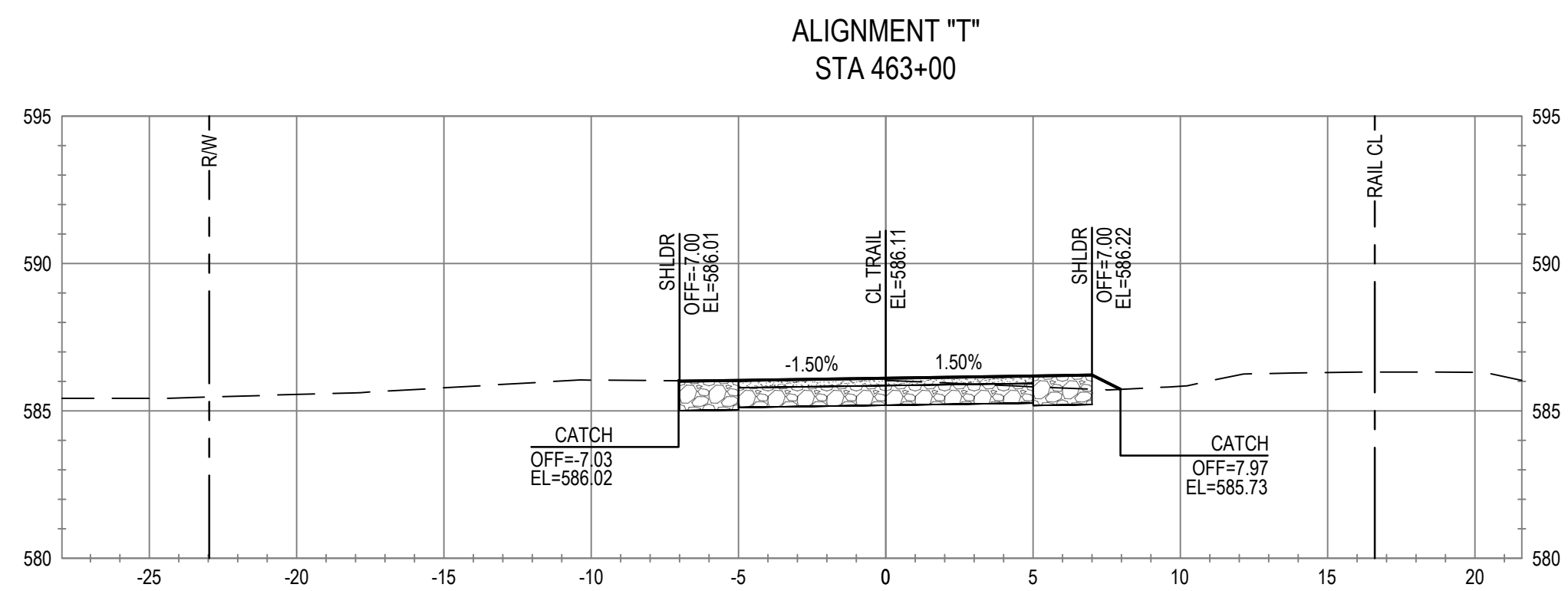
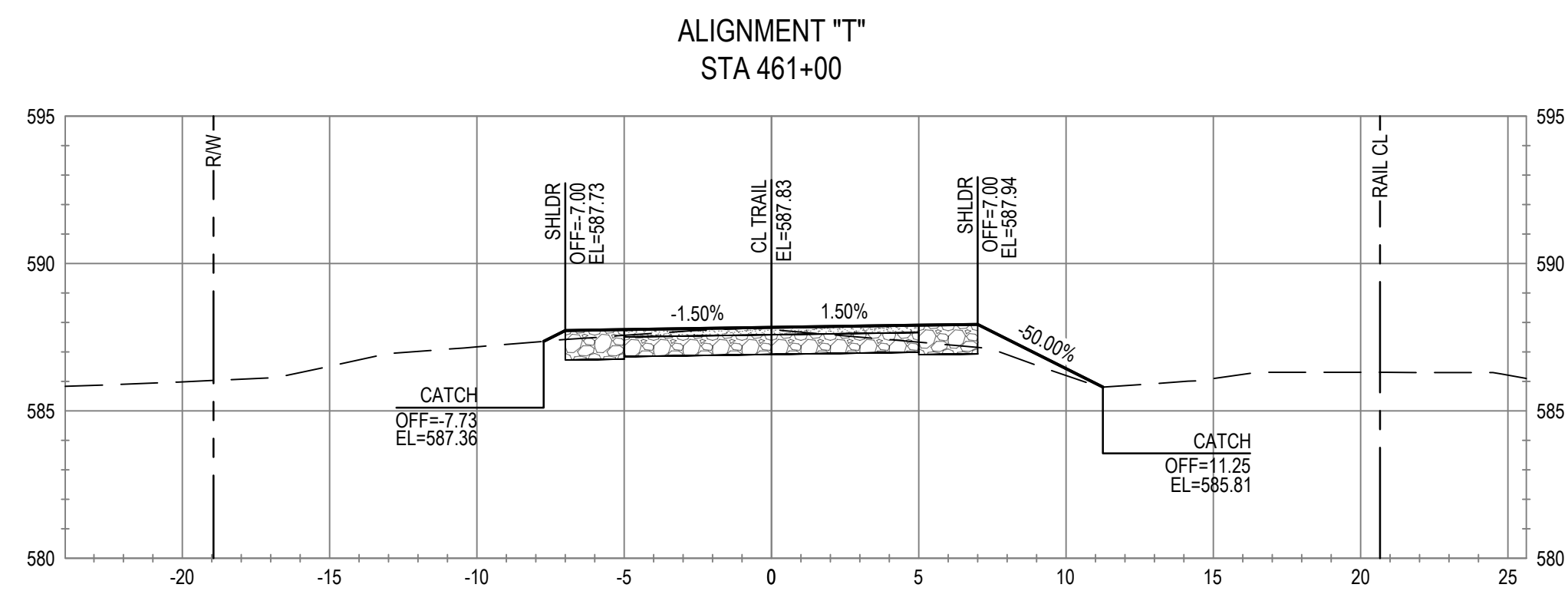
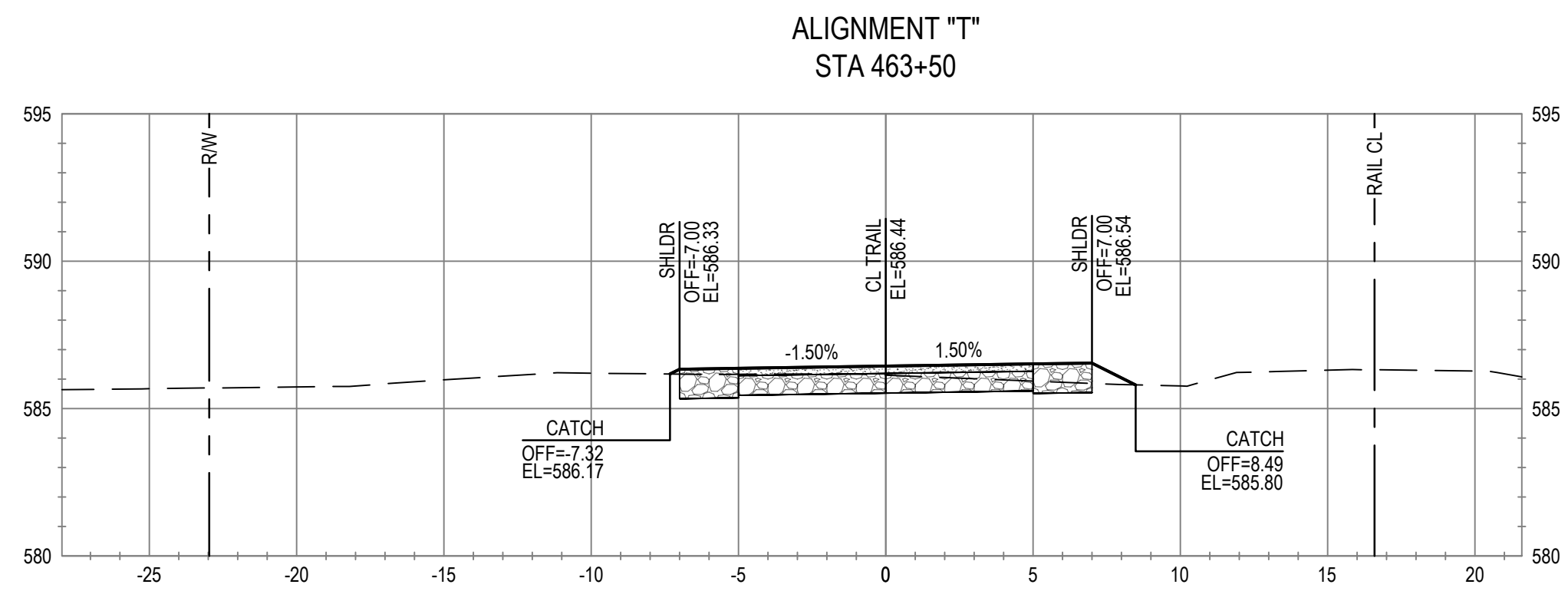
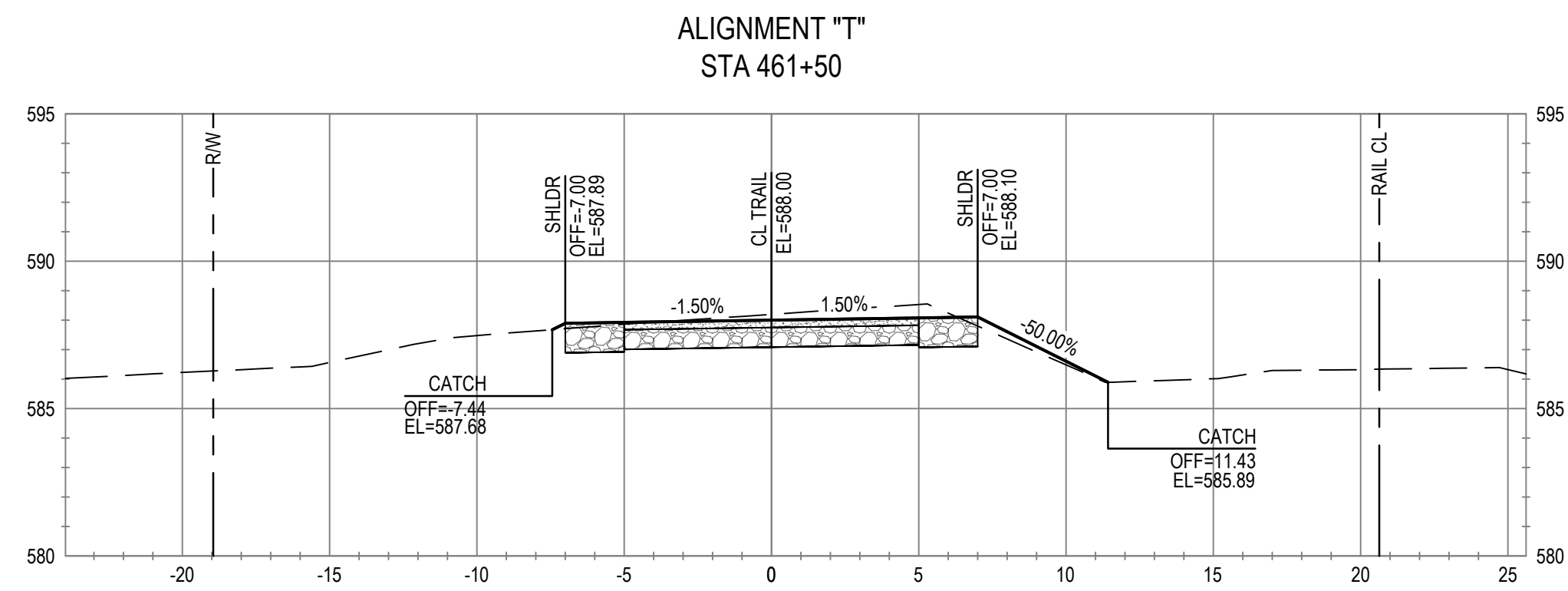
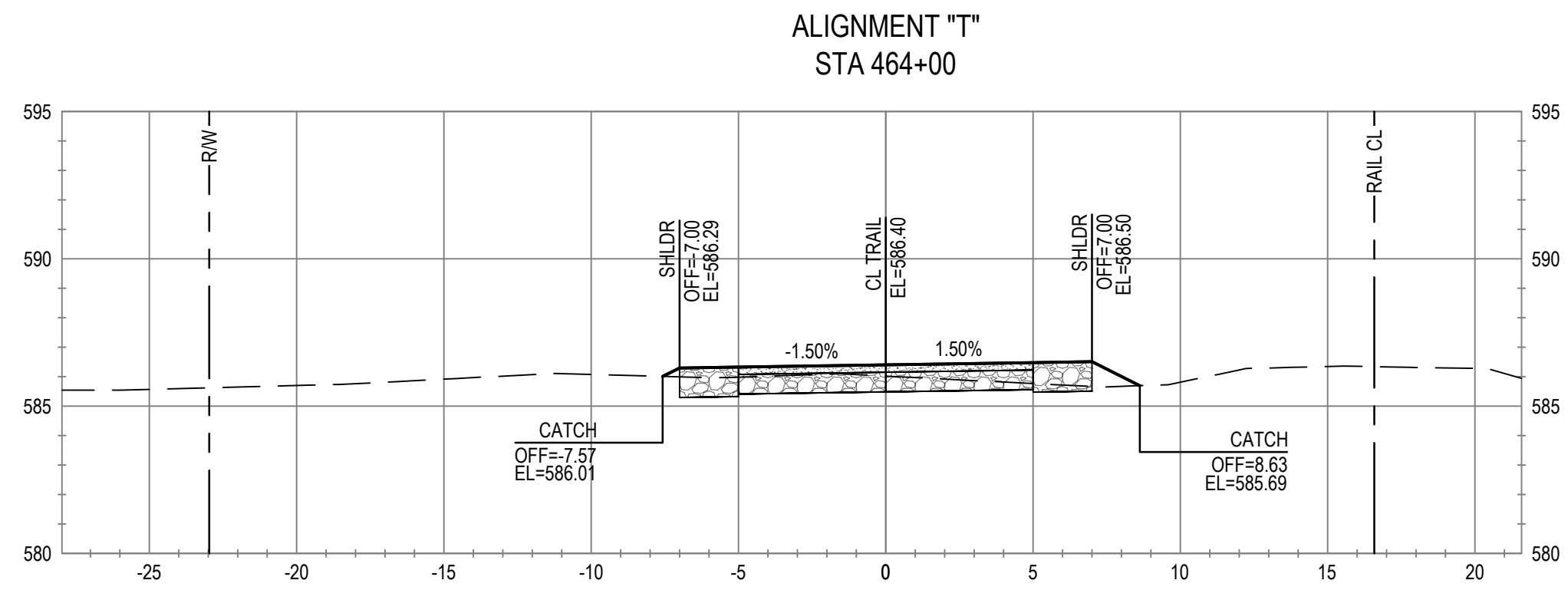
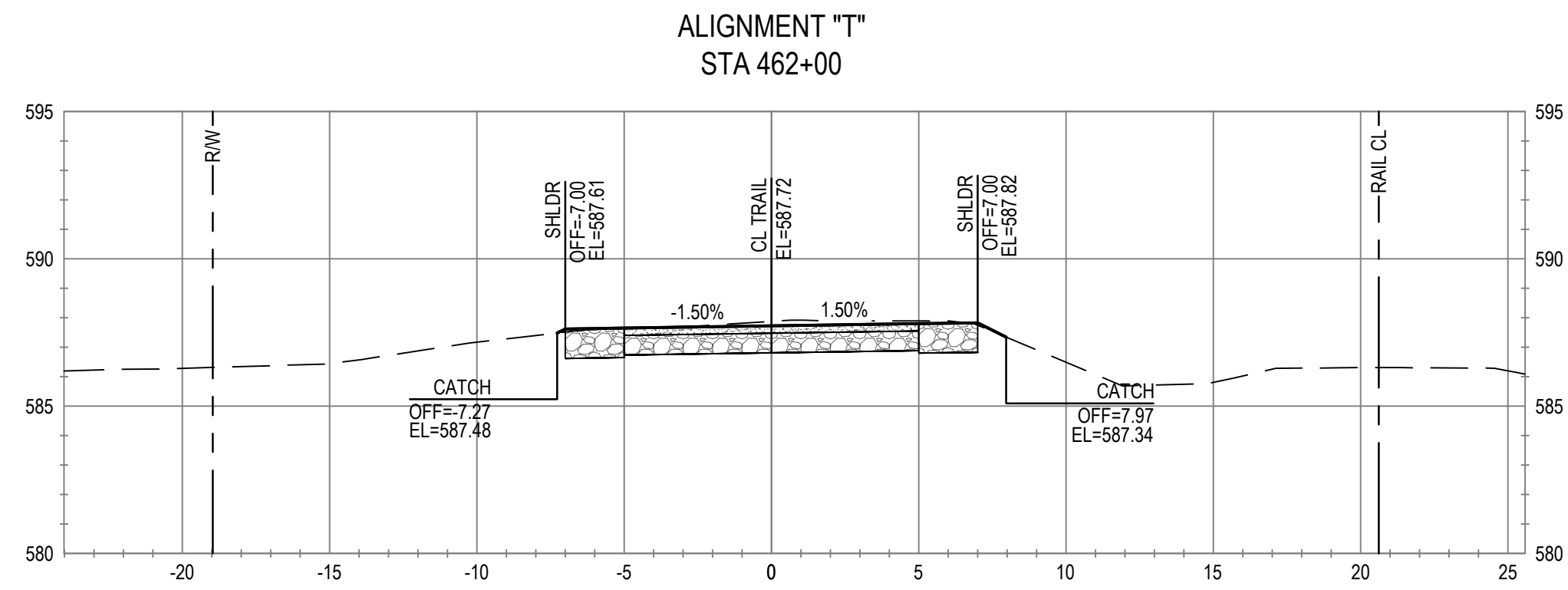


Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**  
Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 456+50 TO STA 460+00  
ADD ALTERNATIVE**

Size **ANSI D**  
Sheet No. **C-815**  
Sheet **91 of 96**





No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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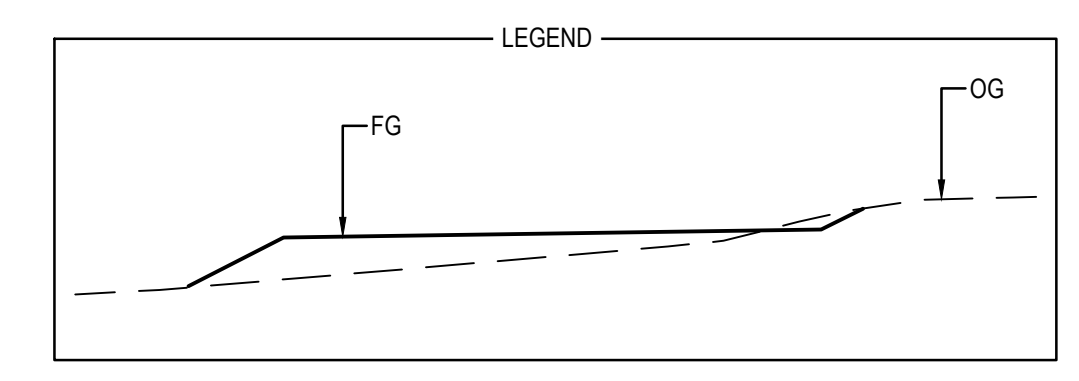
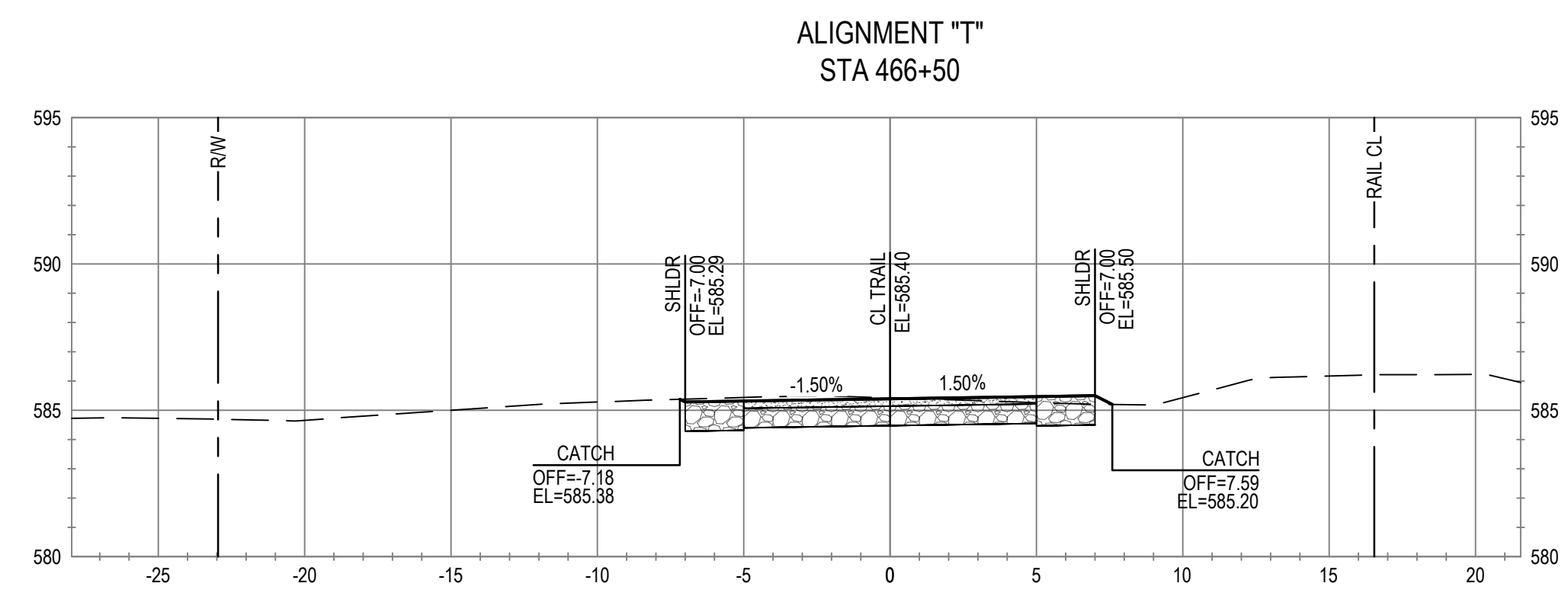
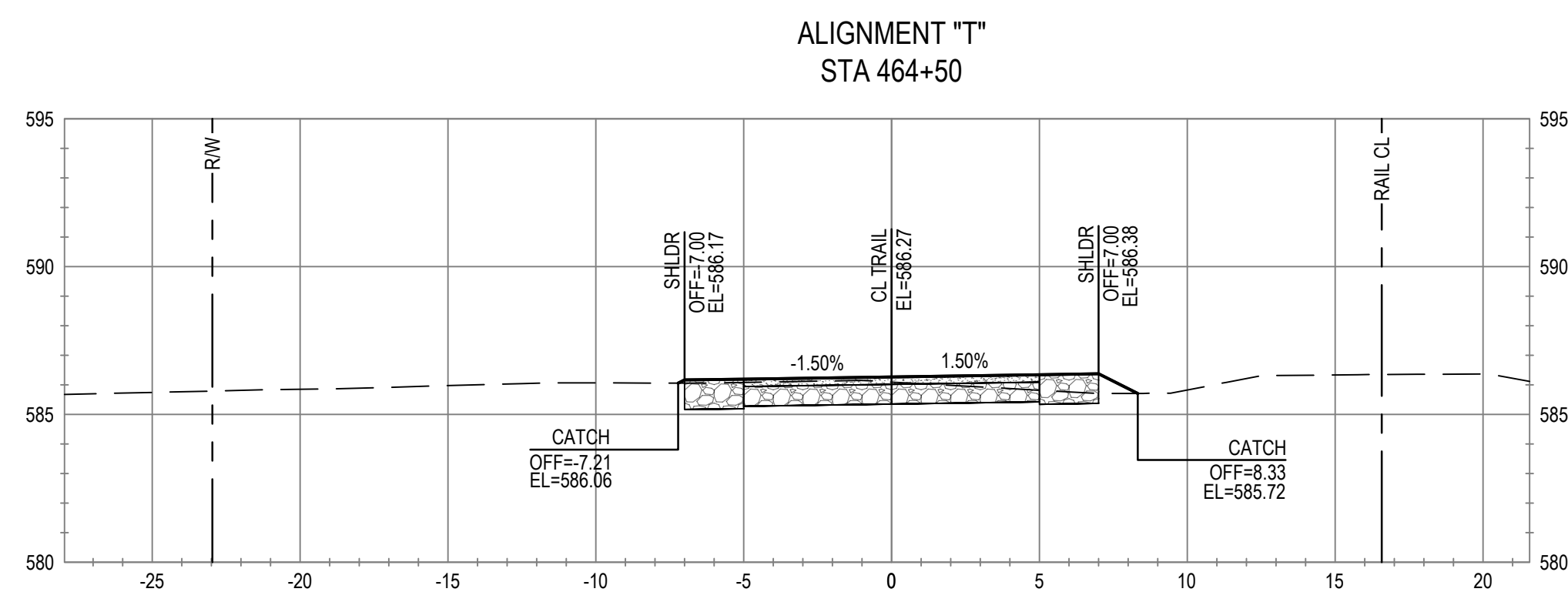
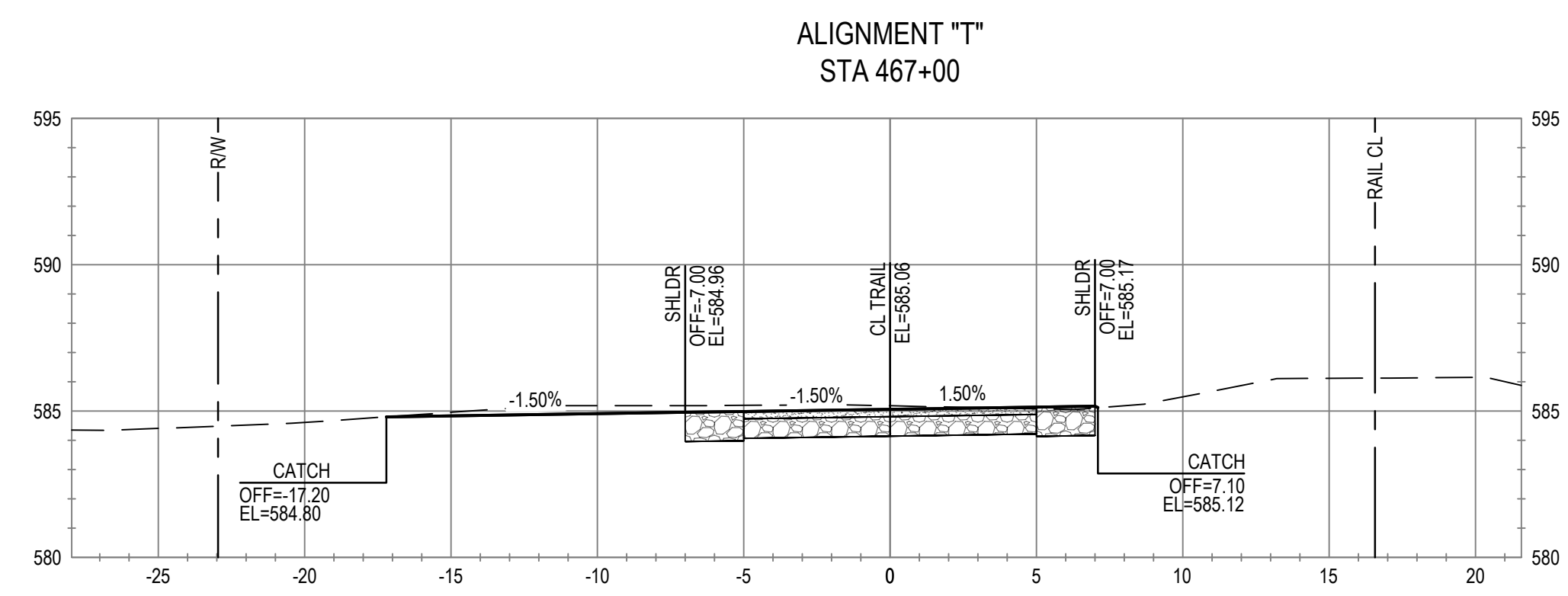
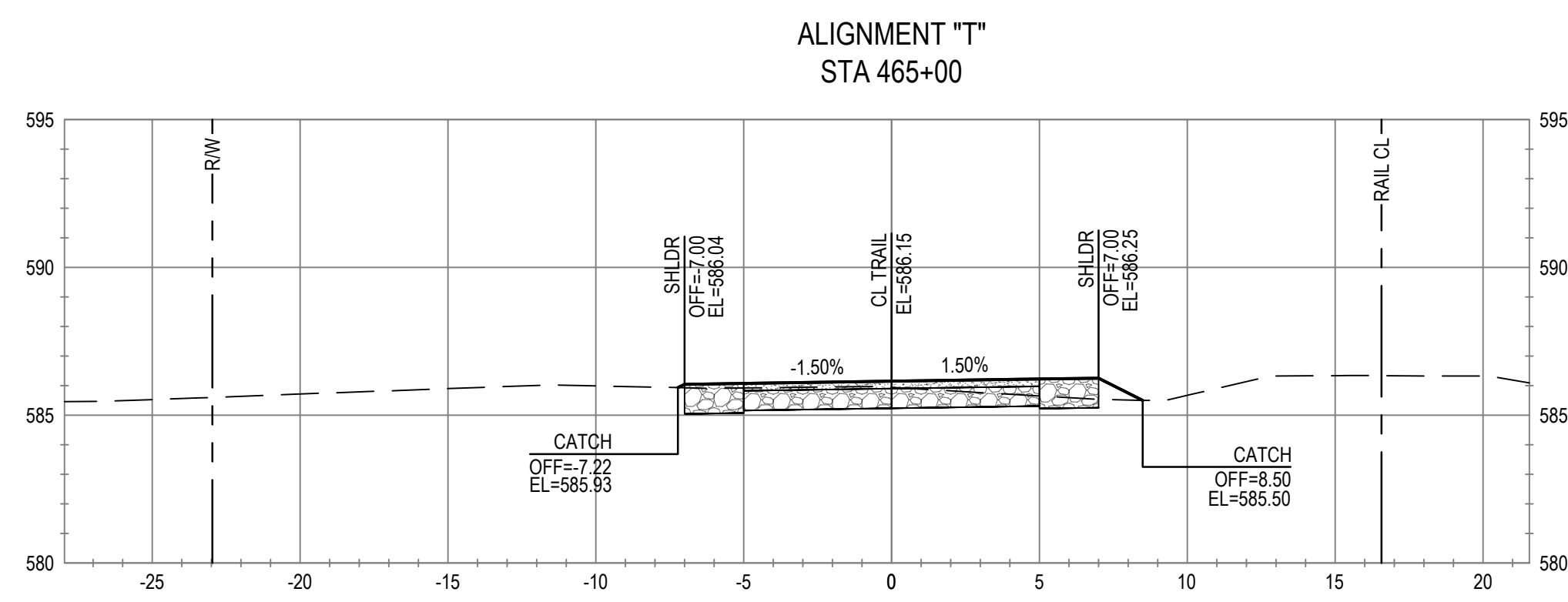
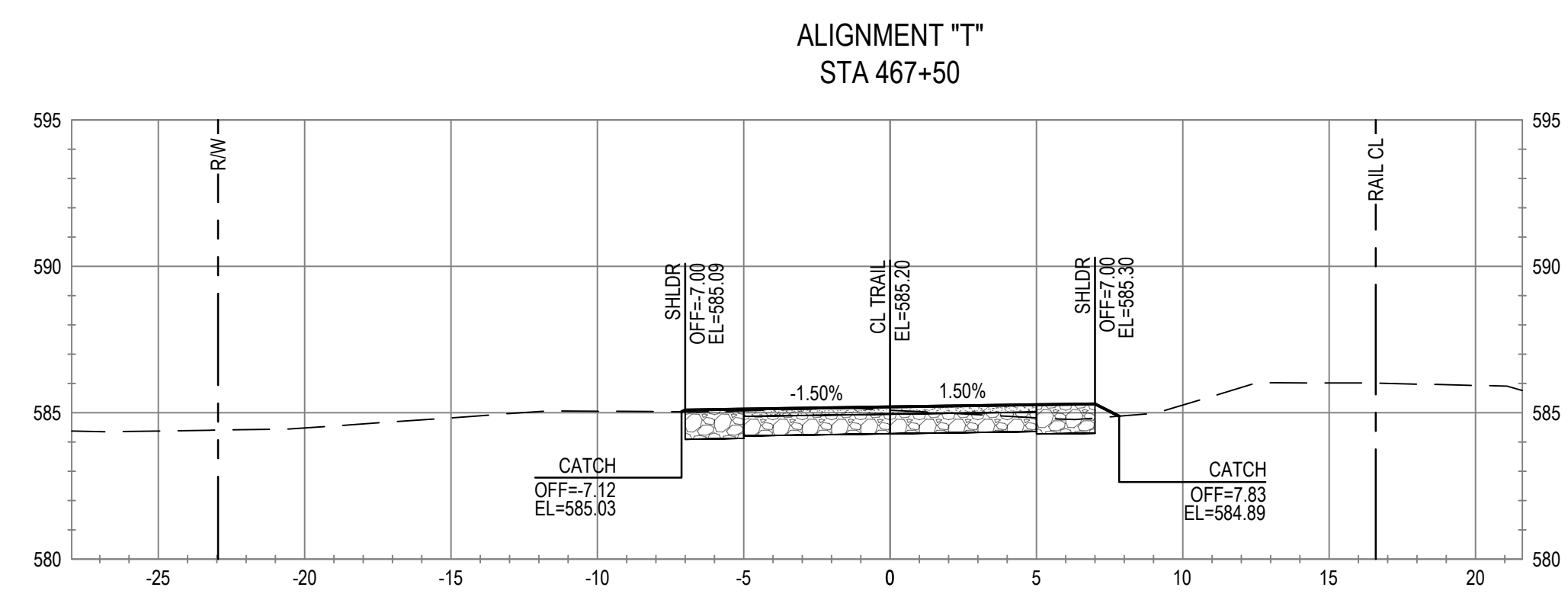
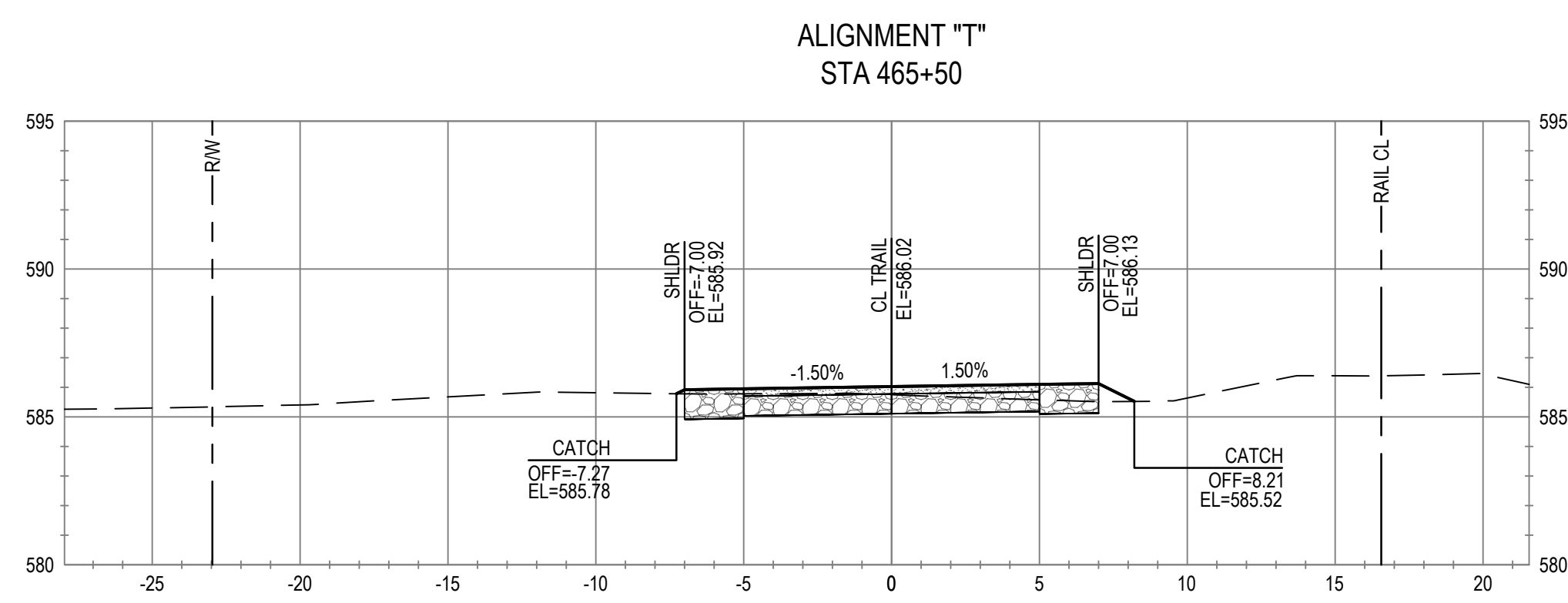
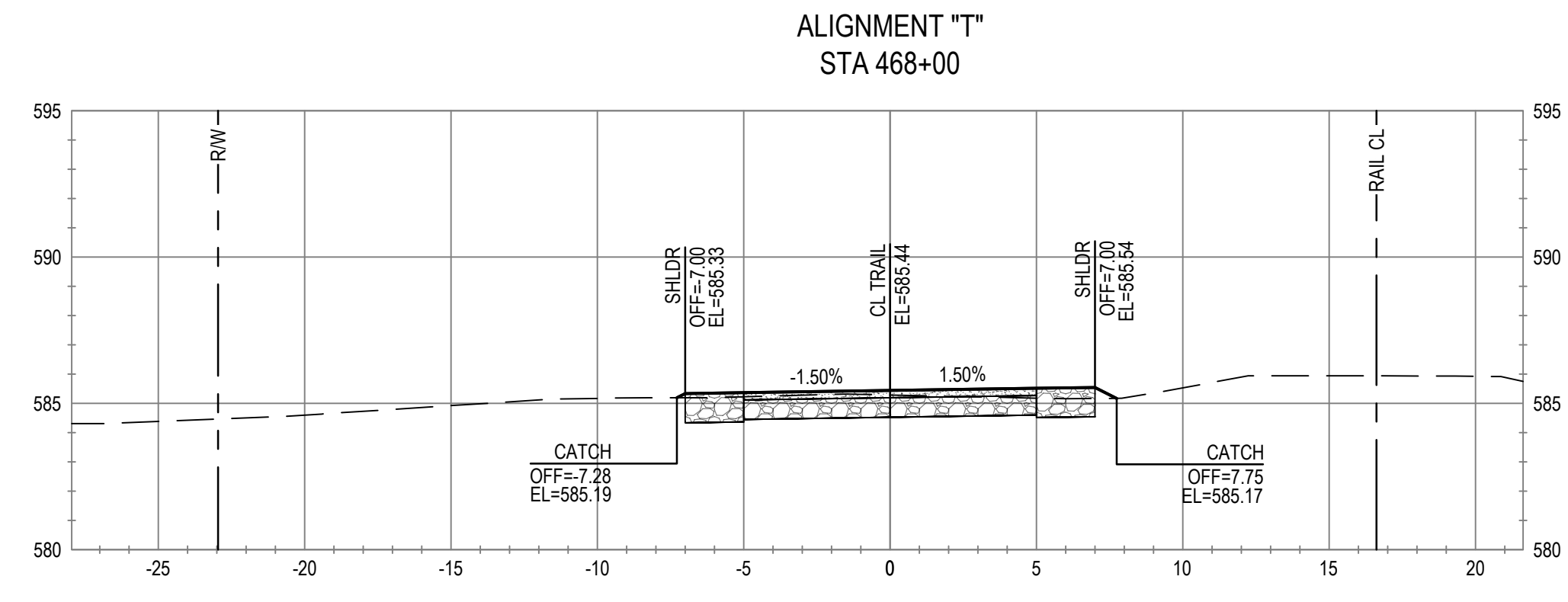
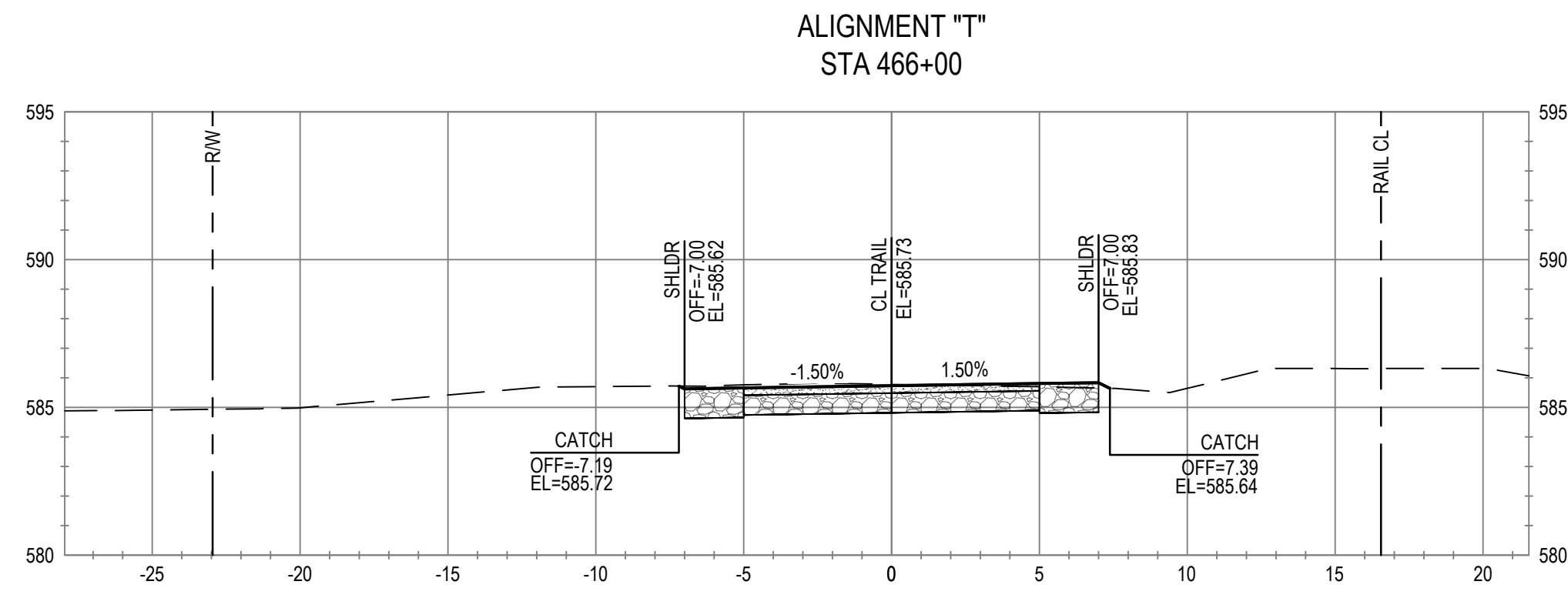
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 5'**

Title **CROSS SECTIONS  
STA 460+50 TO STA 464+00  
ADD ALTERNATIVE**

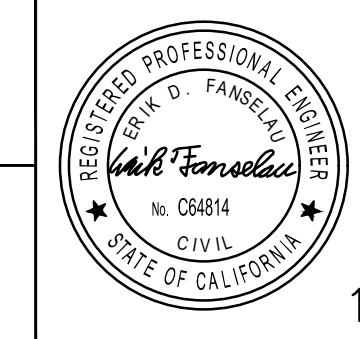
Size **ANSI D**  
Sheet No. **C-816** Sheet **92 of 96**





No.	Issue	Checked	Approved	Date
Author	C. PHELPS	Drafting Check	E. FANSELAU	
Designer	C. PHELPS	Design Check	E. FANSELAU	
		Project Manager	E. FANSELAU	
		Project Director	M. KENNEDY	

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0 1"



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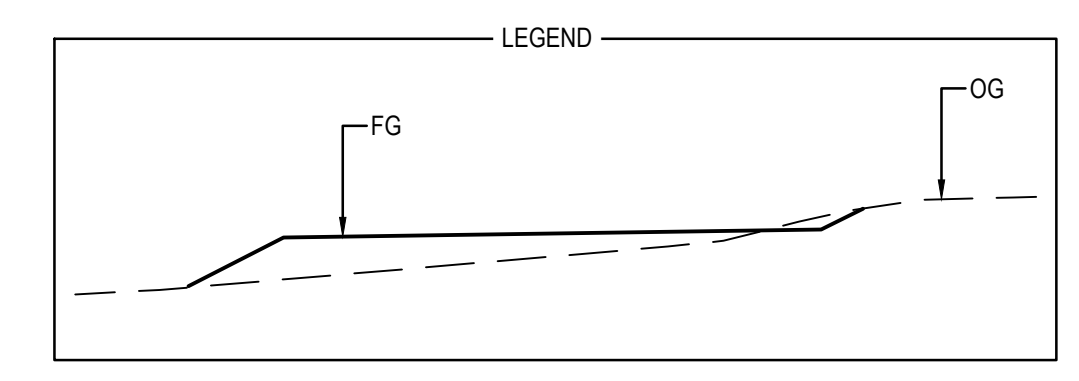
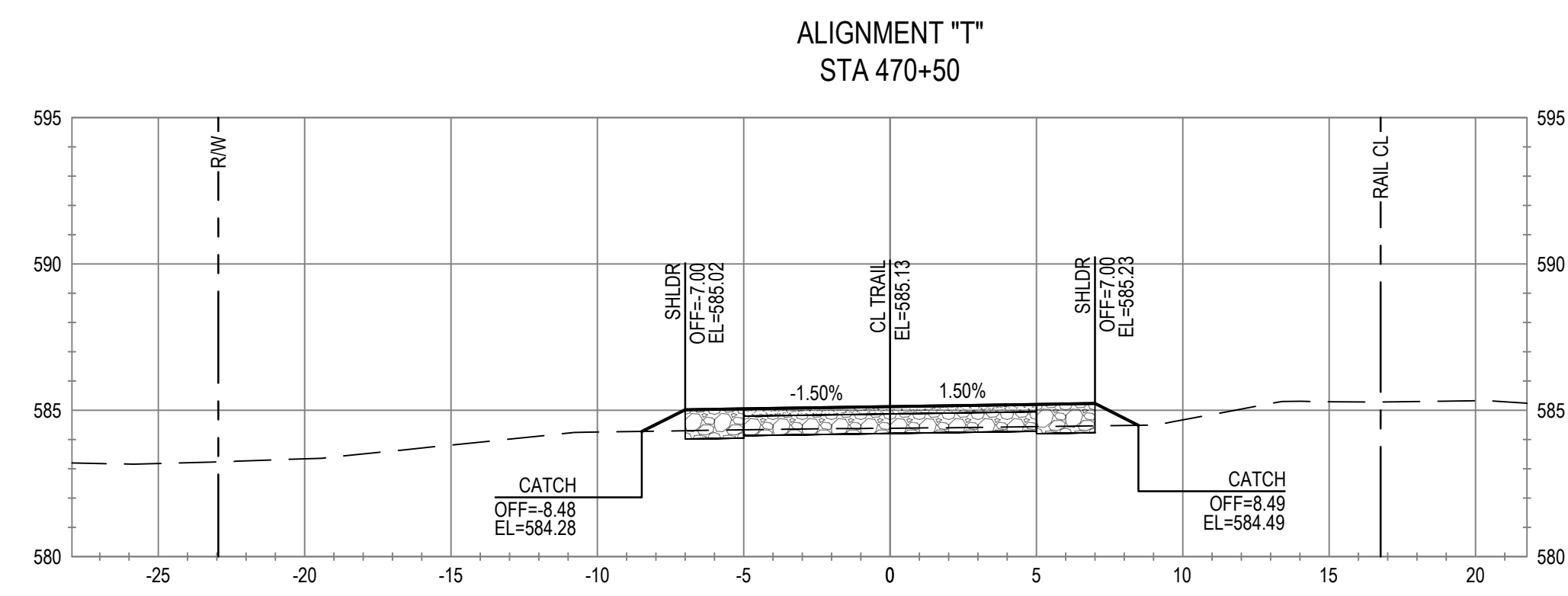
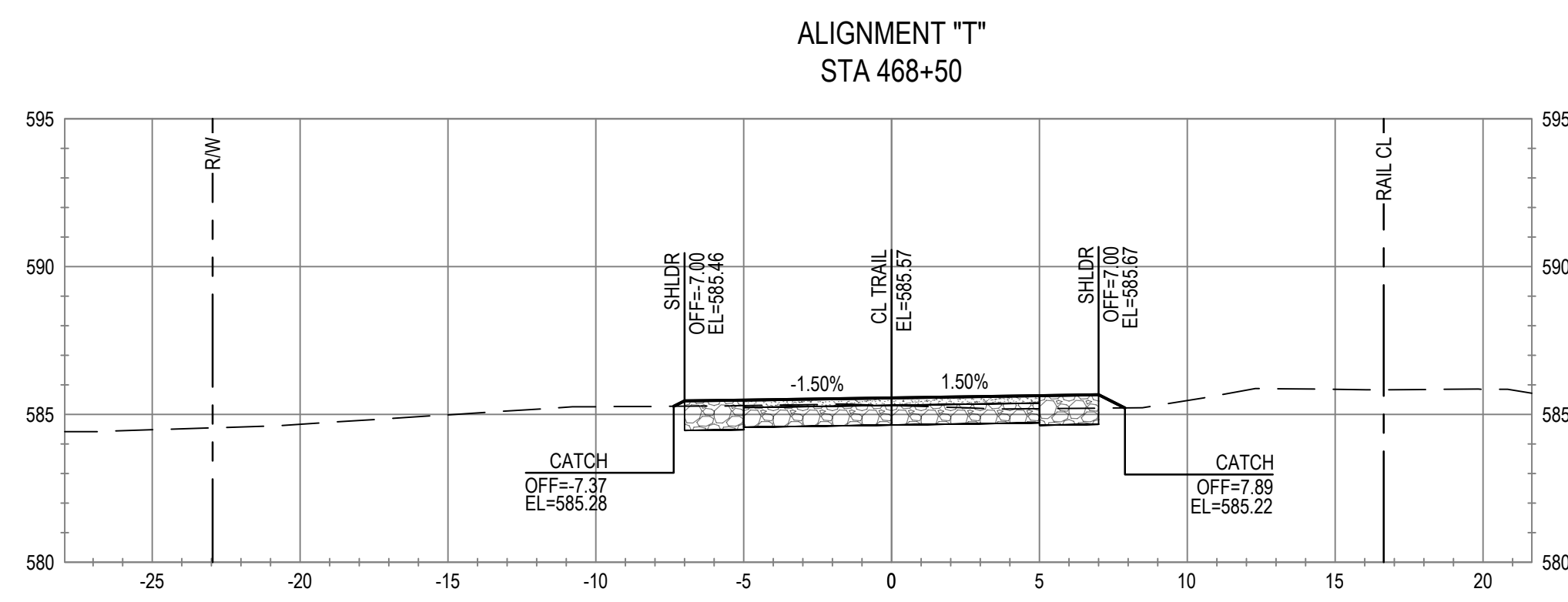
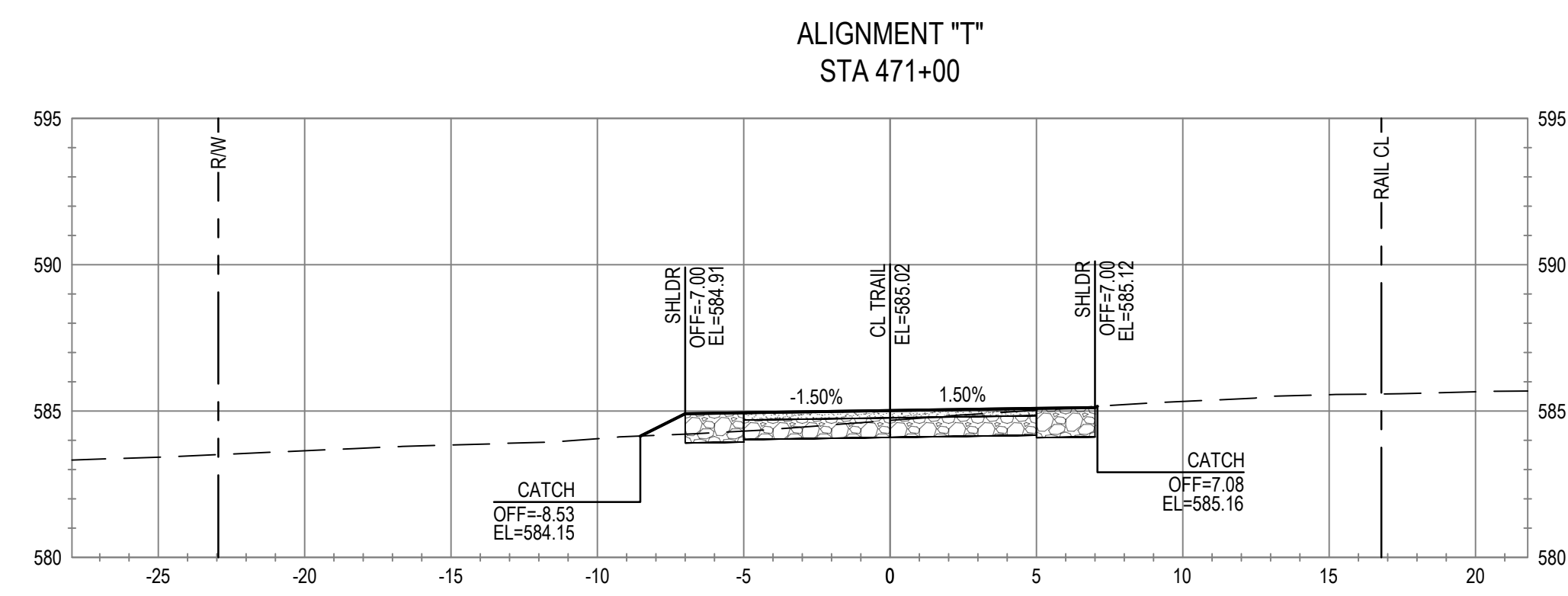
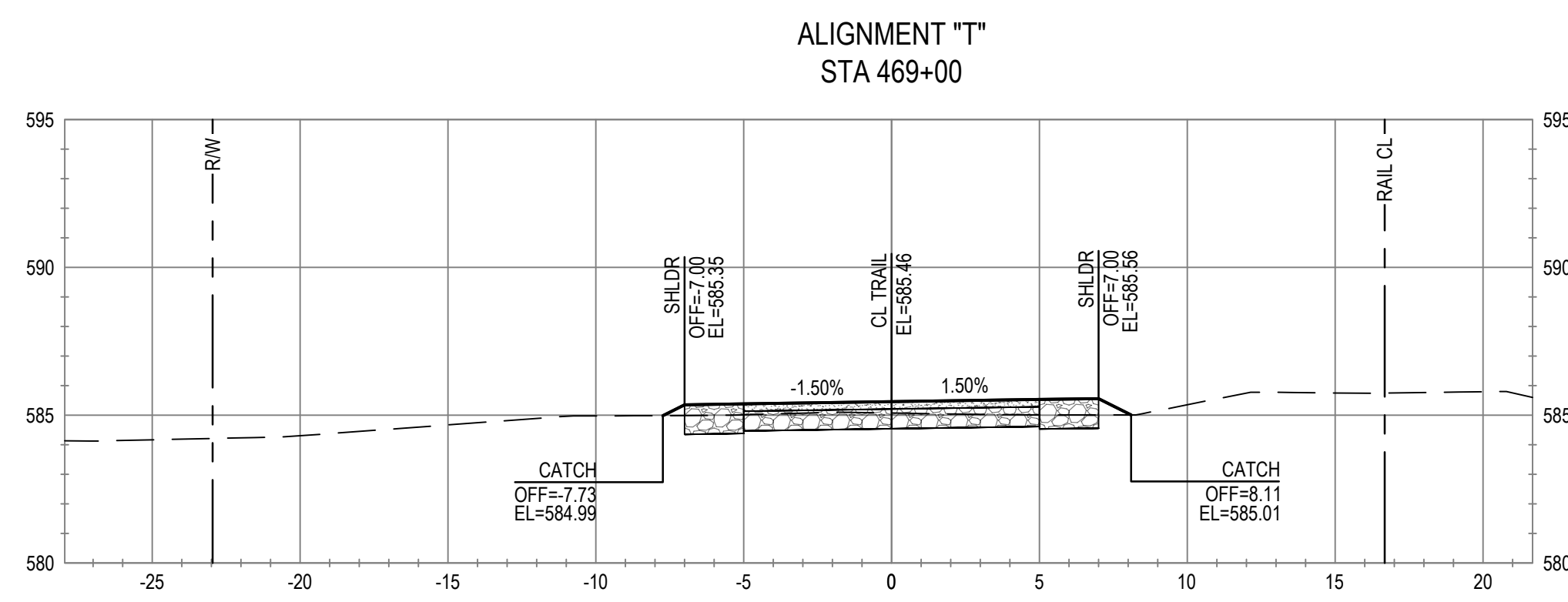
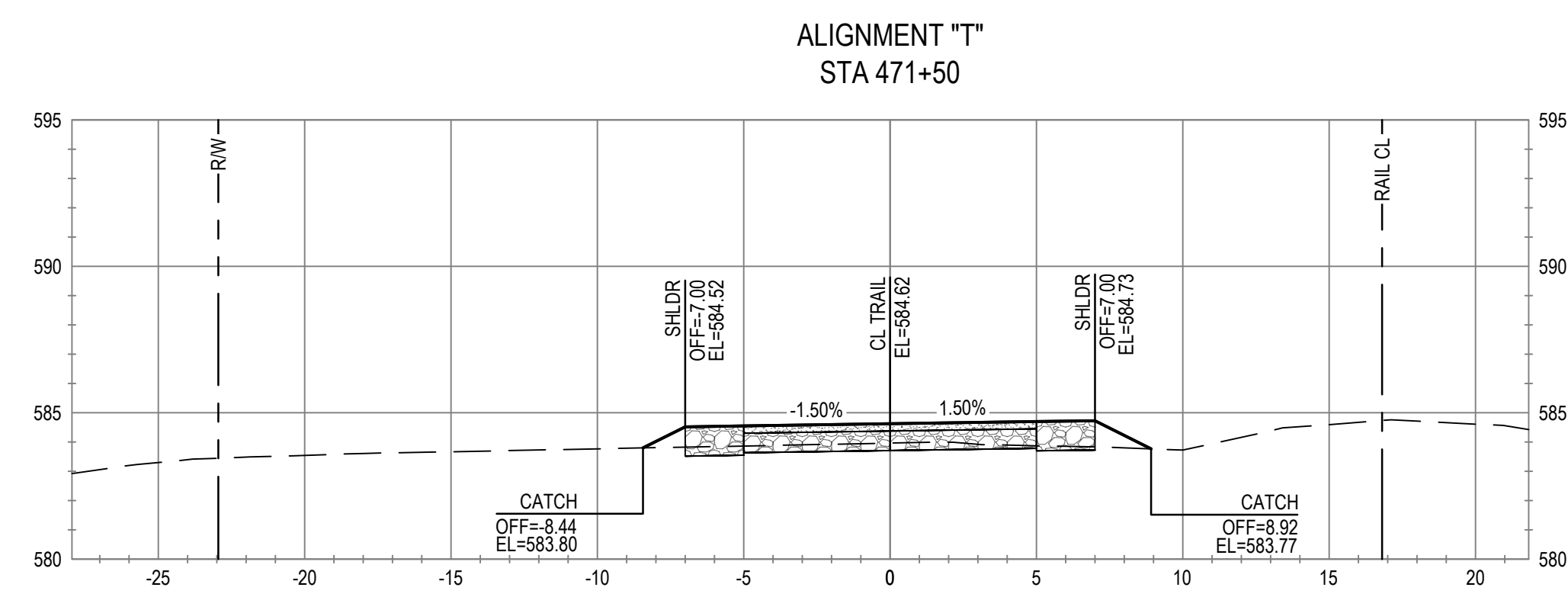
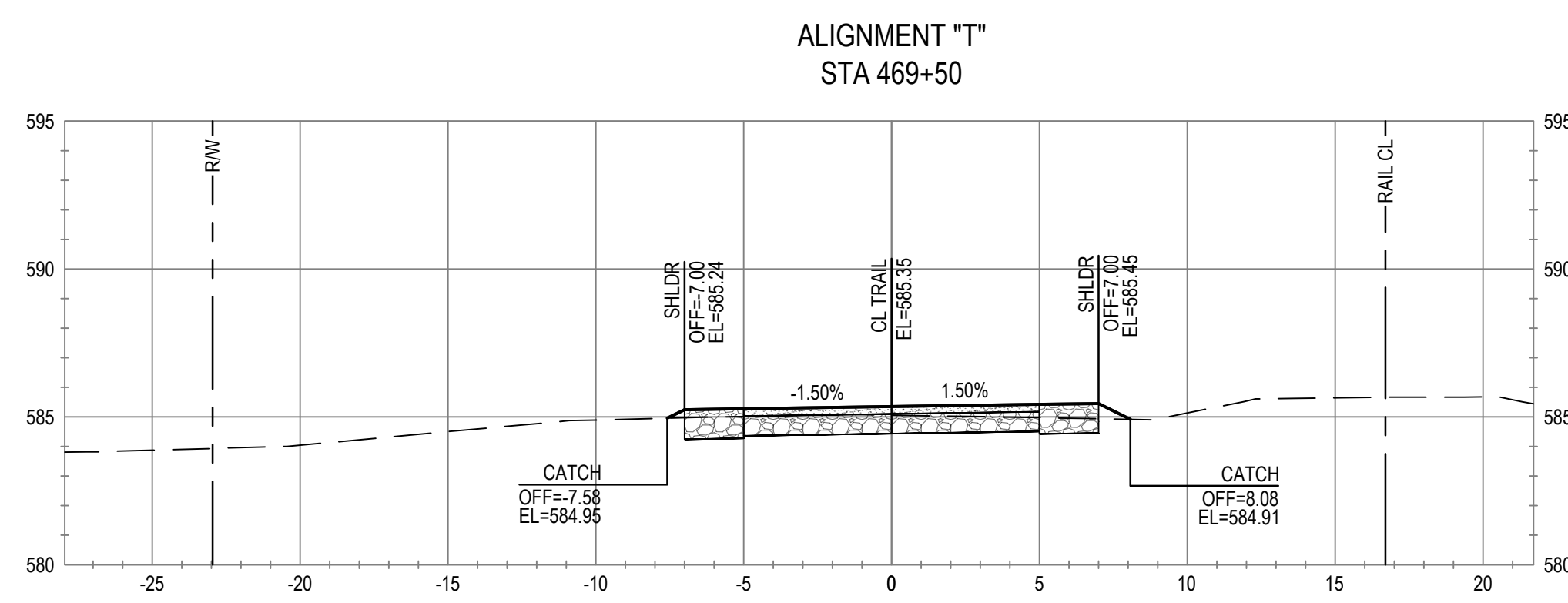
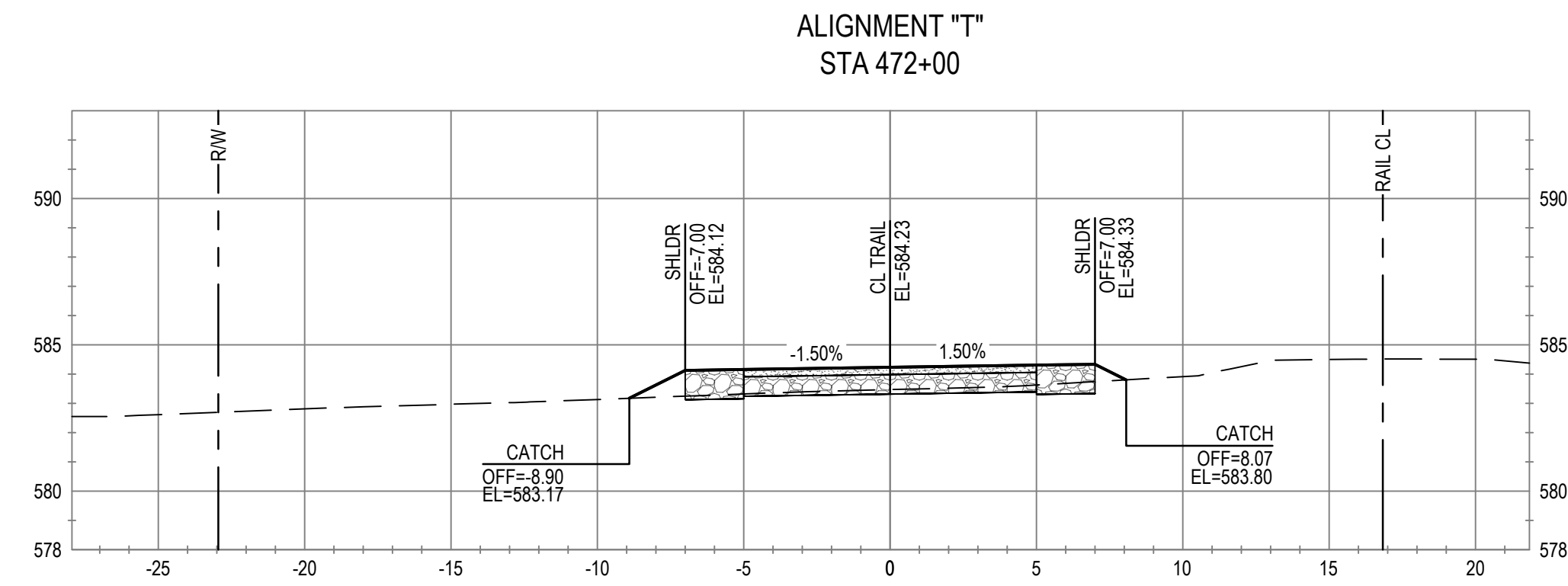
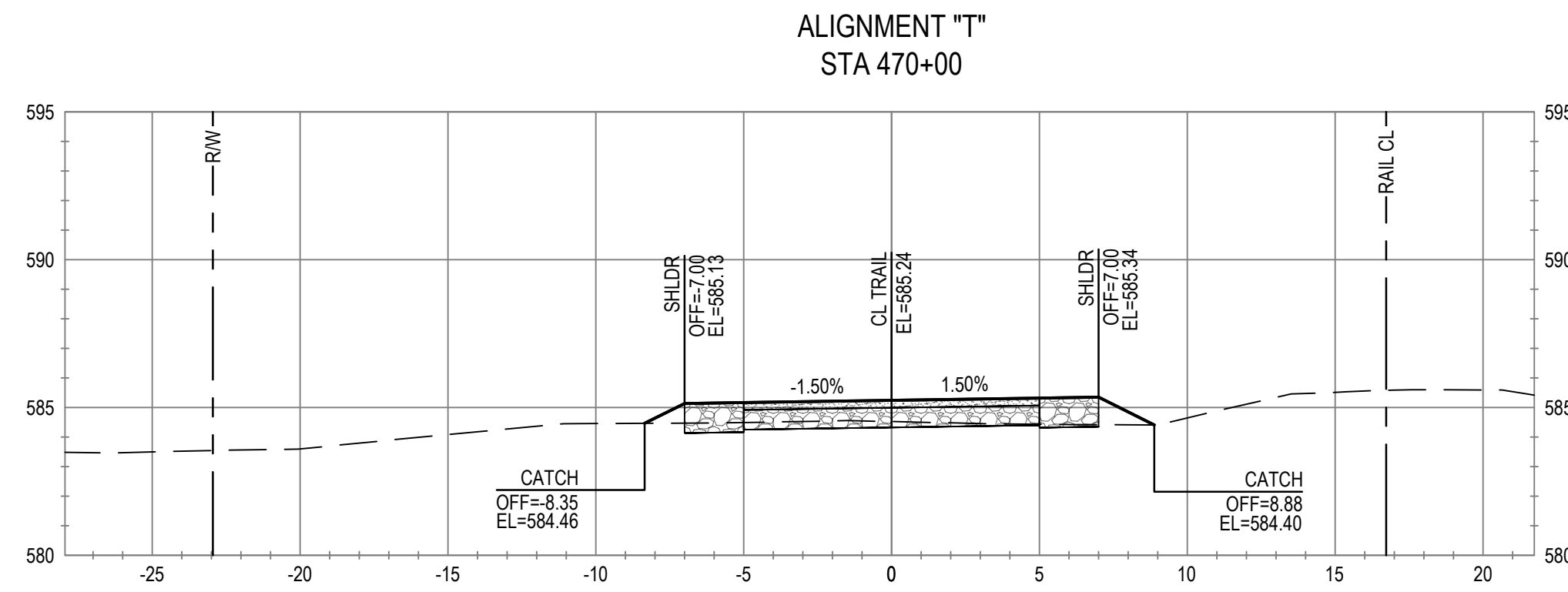
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Project No. **12557341**  
Date **SEP 30, 2022**

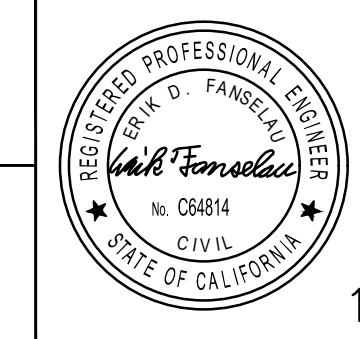
Title **CROSS SECTIONS  
STA 464+50 TO STA 468+00  
ADD ALTERNATIVE**  
Scale **1" = 5'**  
Sheet No. **C-817**  
Sheet **93 of 96**





No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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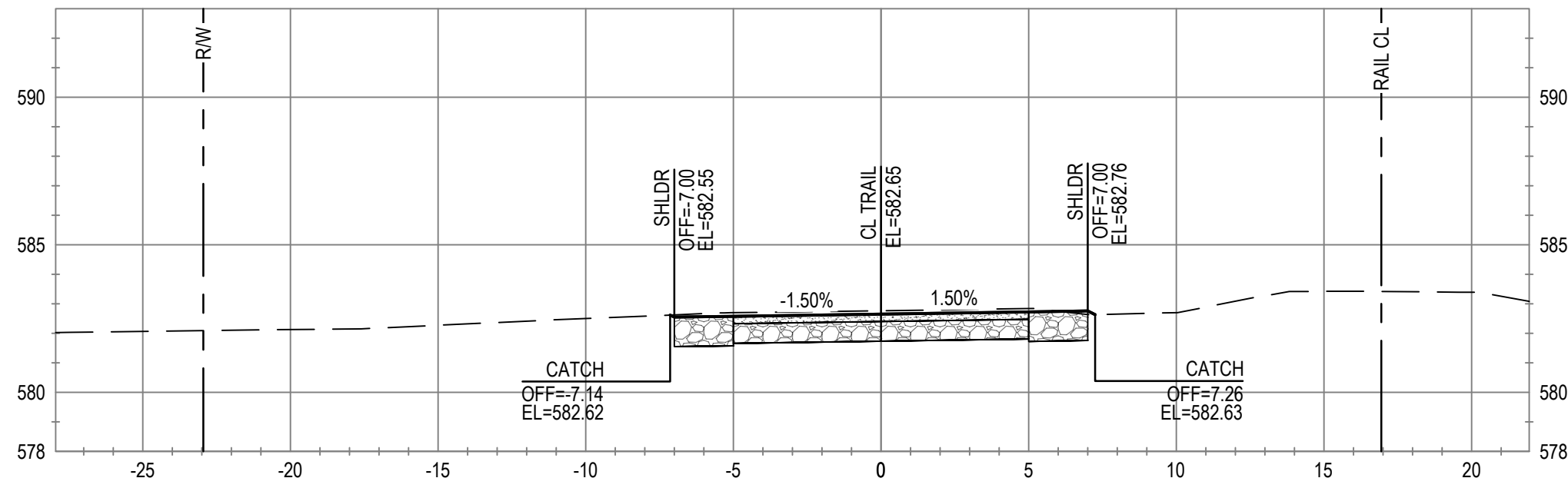
Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**

Title **CROSS SECTIONS  
STA 468+50 TO STA 472+00  
ADD ALTERNATIVE**

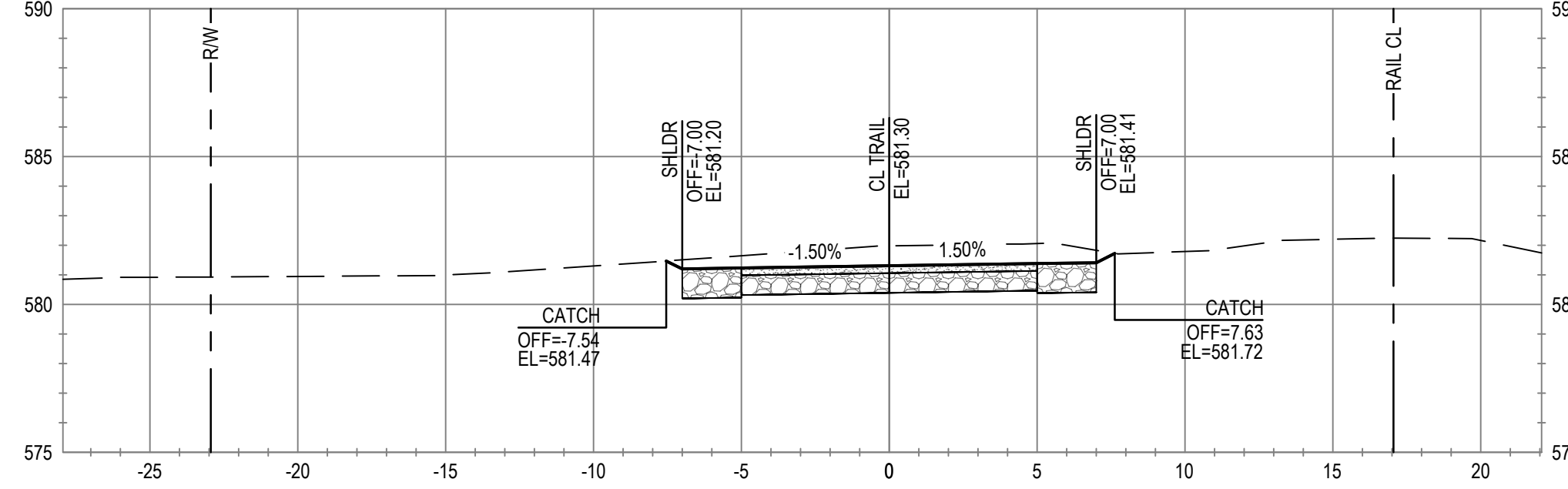
Size **ANSI D**  
Sheet No. **C-818**  
Sheet **94 of 96**



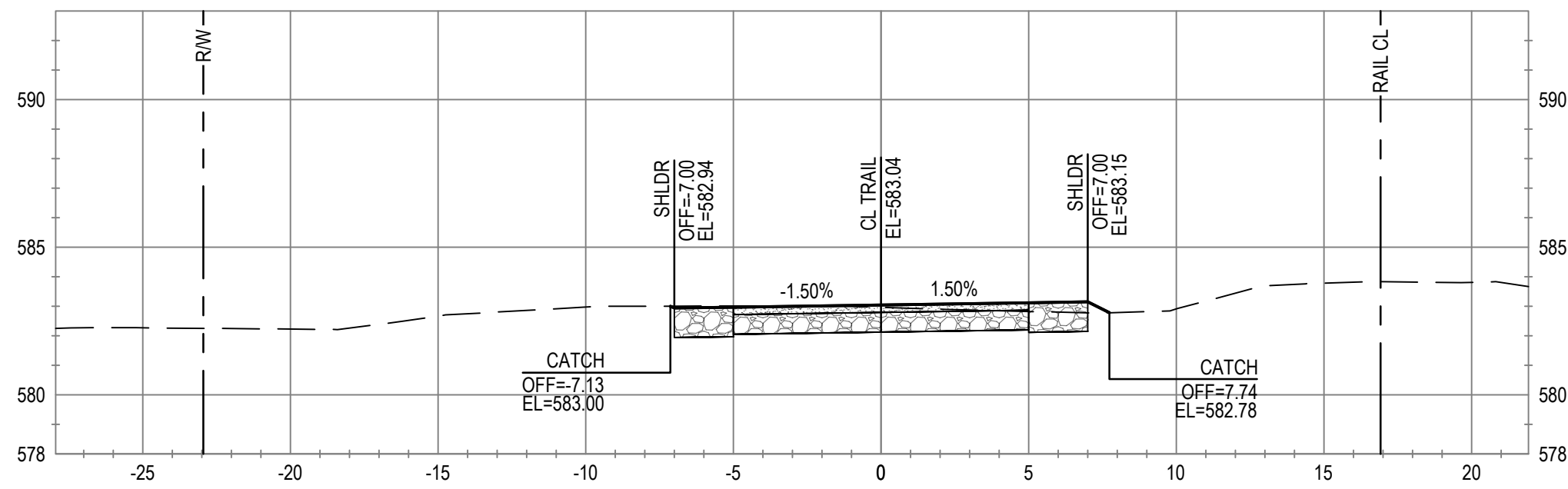
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STA 474+00



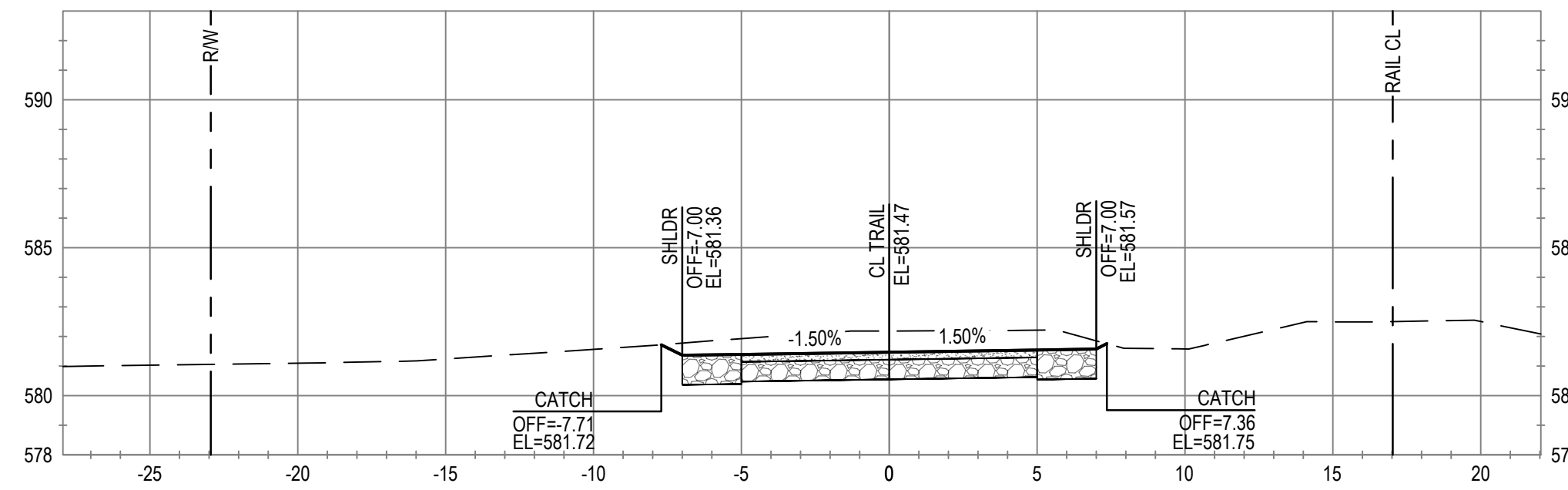
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STA 476+00



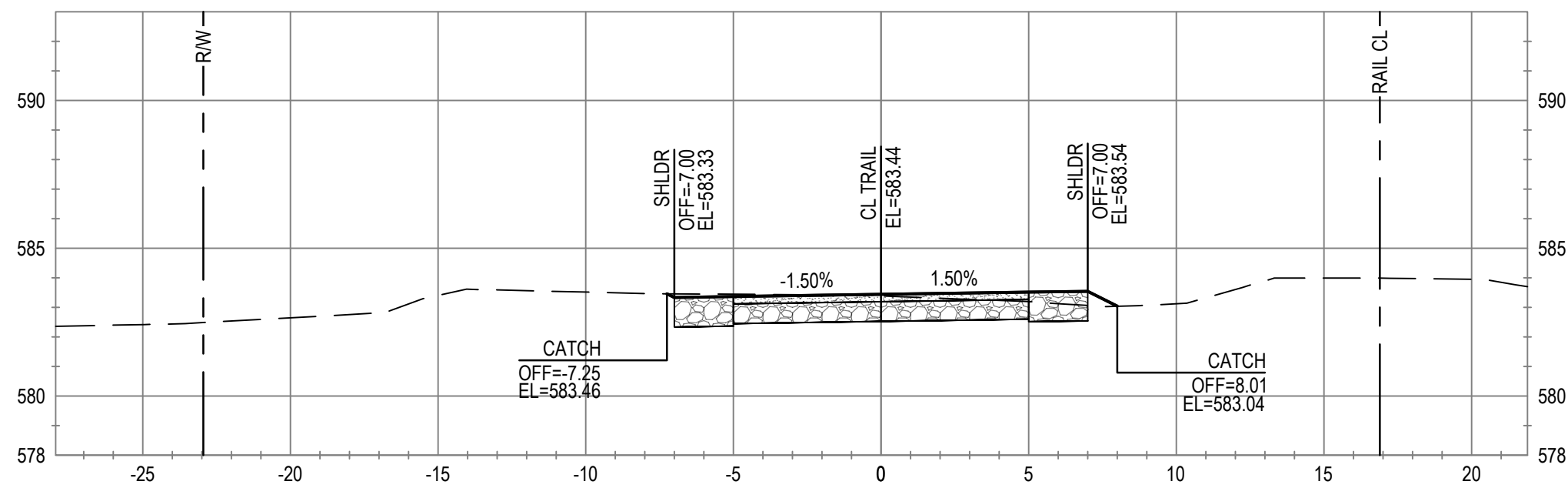
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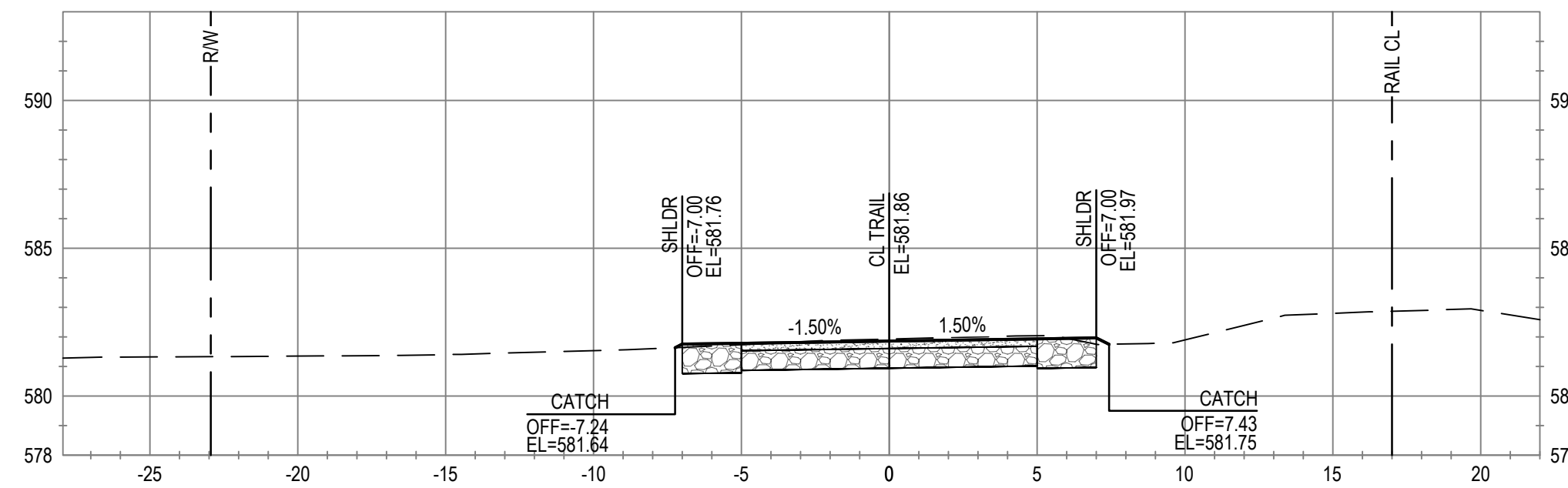
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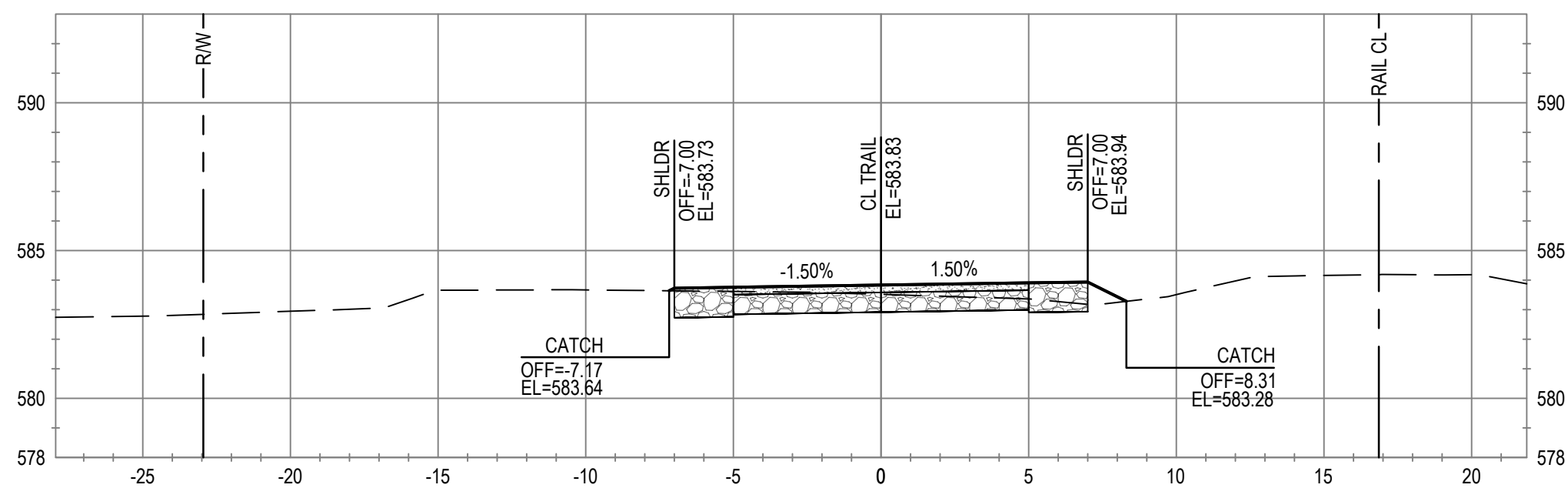
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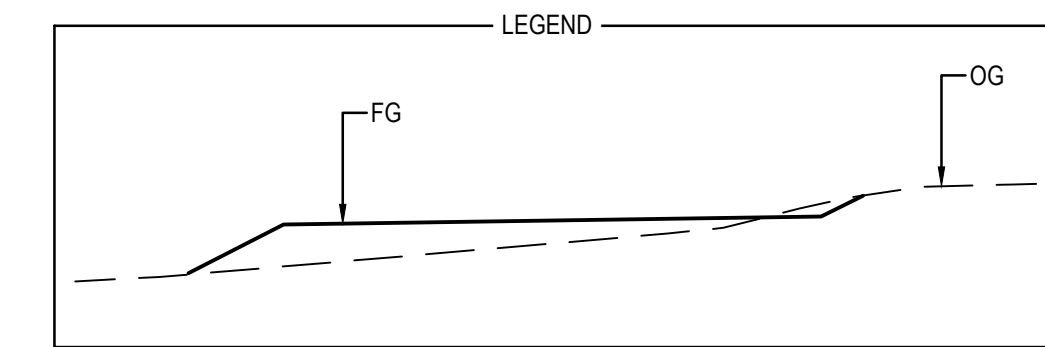
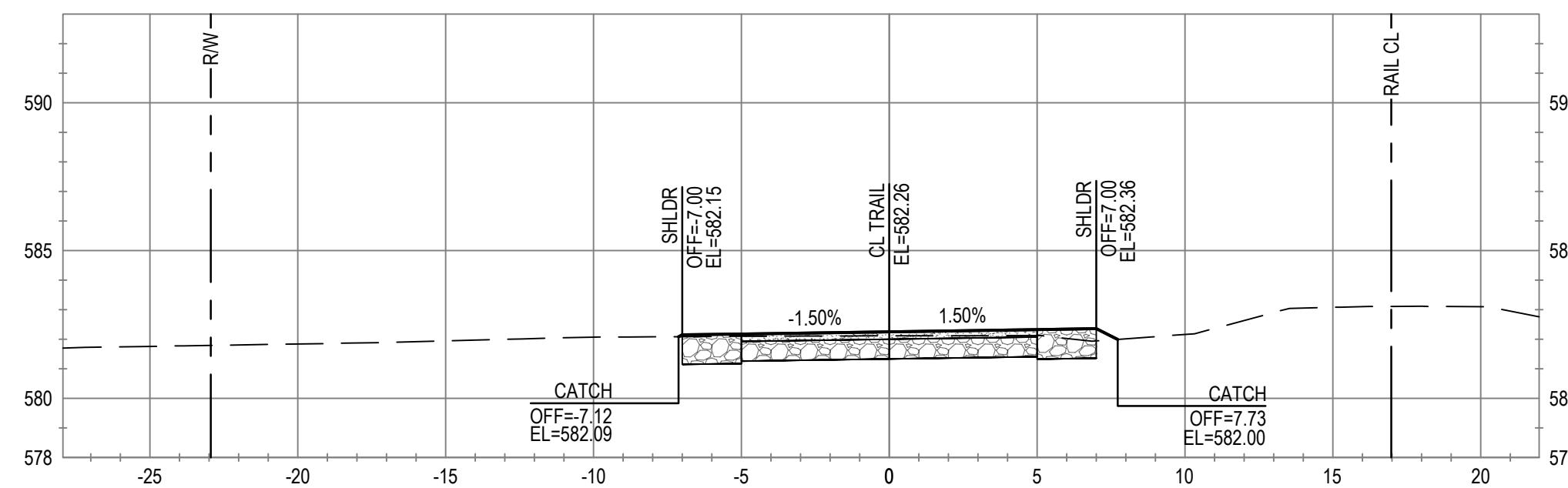
ALIGNMENT "T"  
STA 475+00



ALIGNMENT "T"  
STA 472+50



ALIGNMENT "T"  
STA 474+50



No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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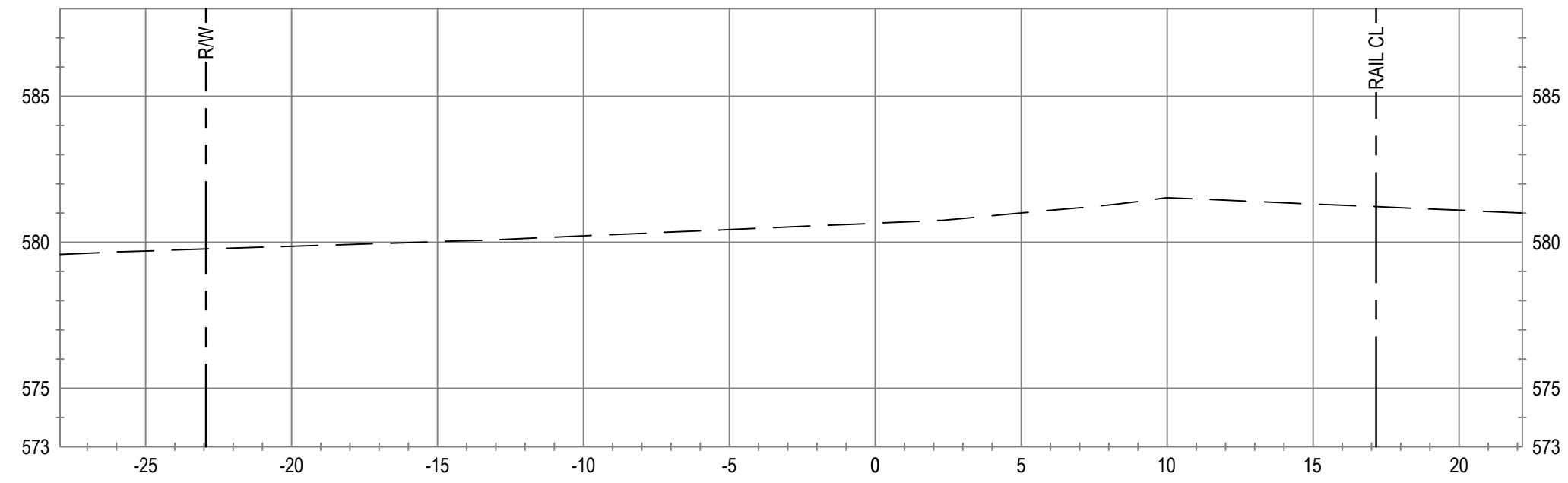


Client **CITY OF UKIAH**  
Project **THE GREAT REDWOOD TRAIL PHASE 4**  
Project No. **12557341**  
Date **SEP 30, 2022**

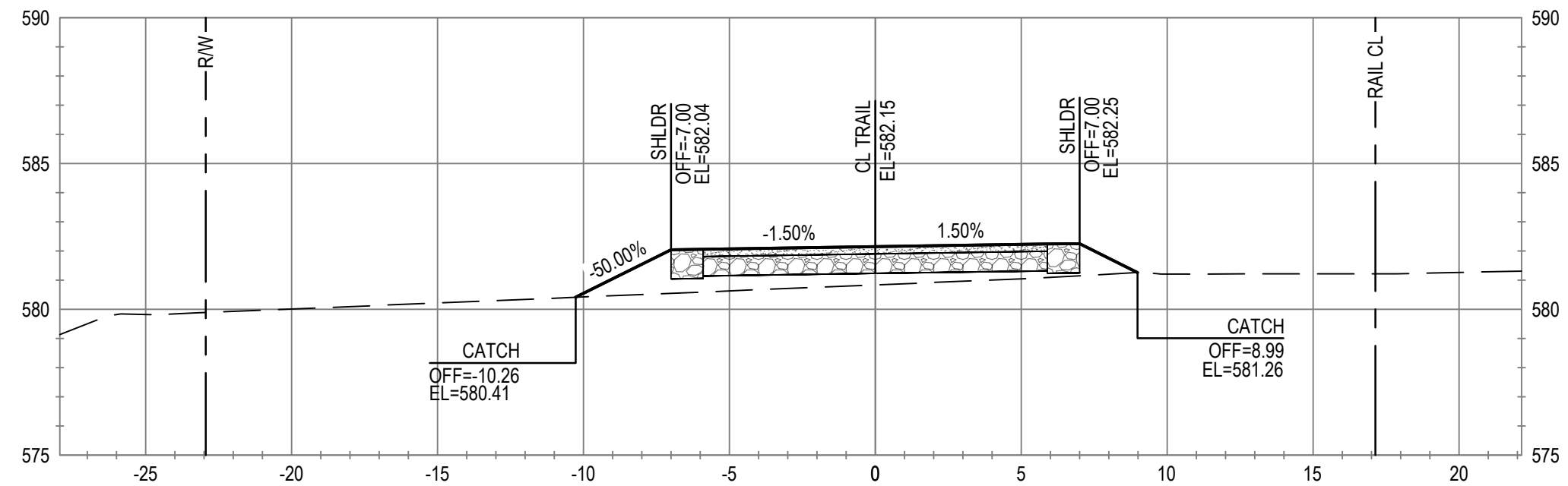
Title **CROSS SECTIONS  
STA 472+50 TO STA 476+00  
ADD ALTERNATIVE**  
Scale **1" = 5'**  
Sheet No. **C-819**  
Sheet **95 of 96**



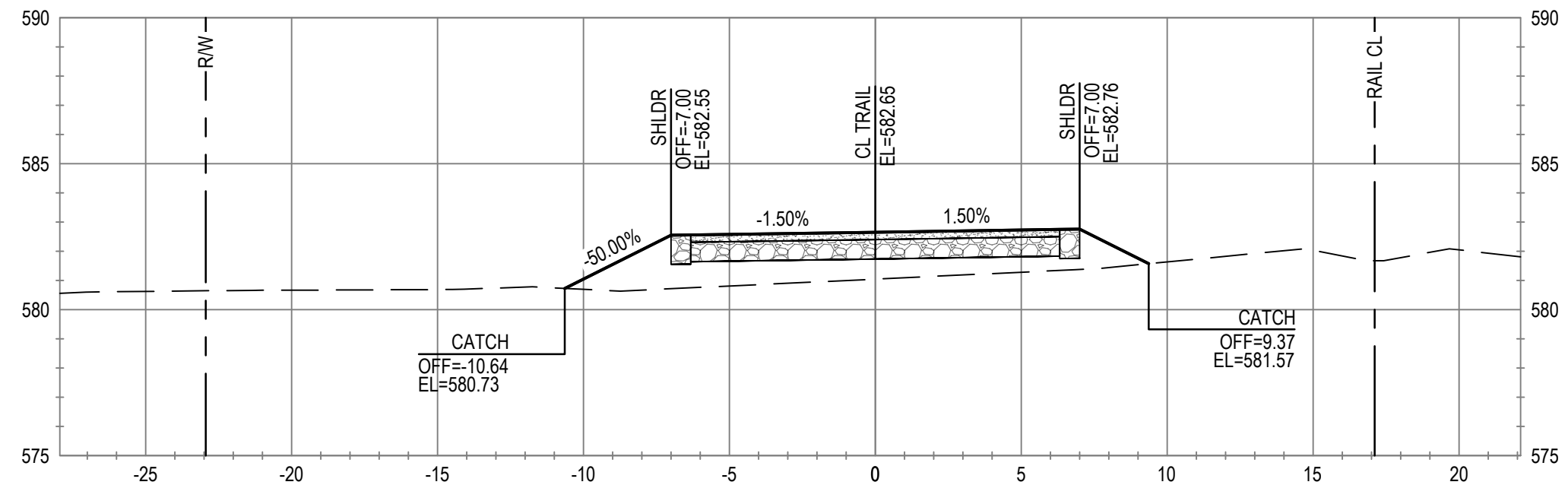
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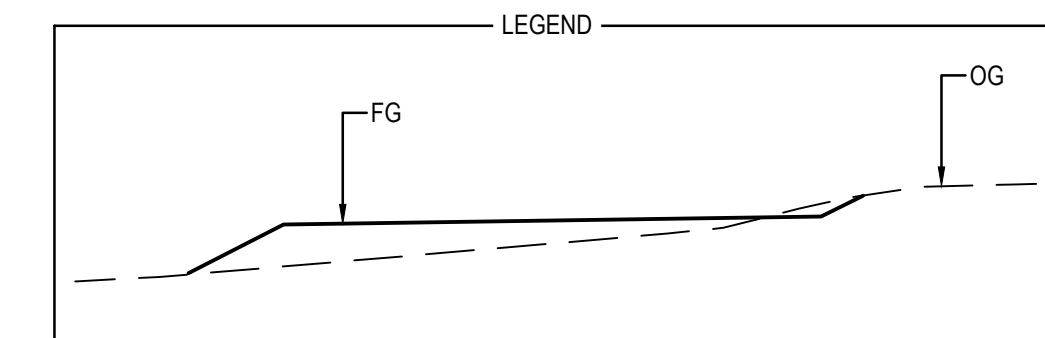
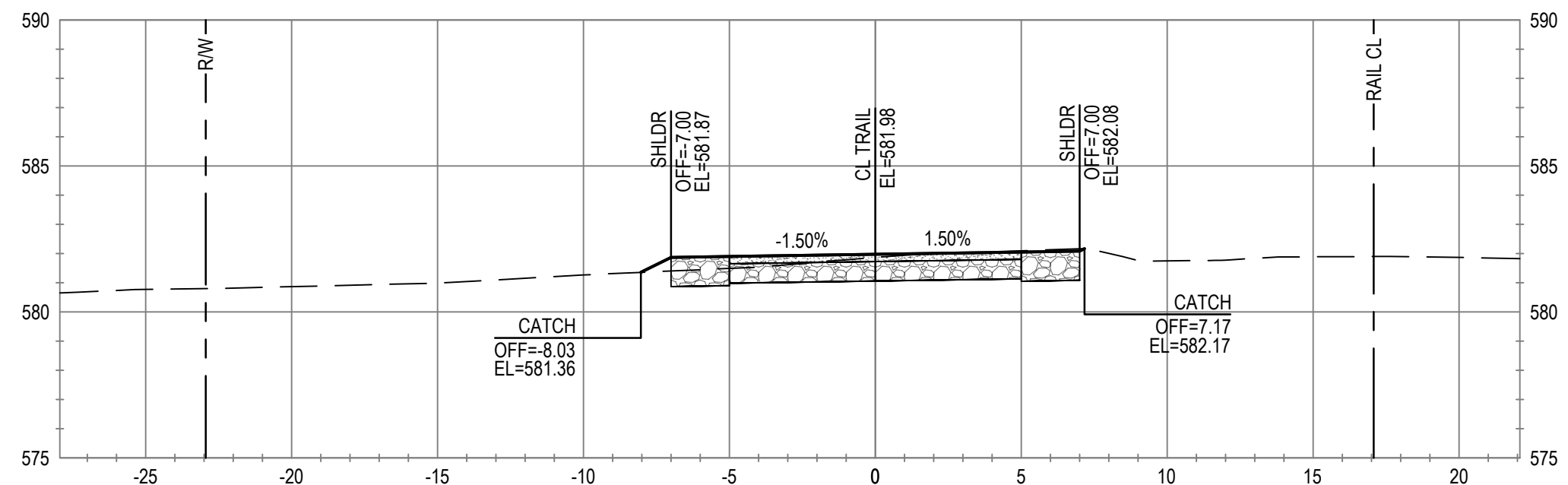
ALIGNMENT "T"  
STA 477+50



ALIGNMENT "T"  
STA 477+00



ALIGNMENT "T"  
STA 476+50



No.	Issue	Checked	Approved	Date	
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Project No. **12557341**  
Date **SEP 30, 2022**

Title **CROSS SECTIONS  
STA 476+50 TO STA 480+00  
ADD ALTERNATIVE**

Size **ANSI D**  
Sheet No. **C-820**  
Sheet **96 of 96**