CITY OF UKIAH

THE GREAT REDWOOD TRAIL

PHASE 4

SPECIFICATION NO. 21-02

SEPTEMBER 30, 2022

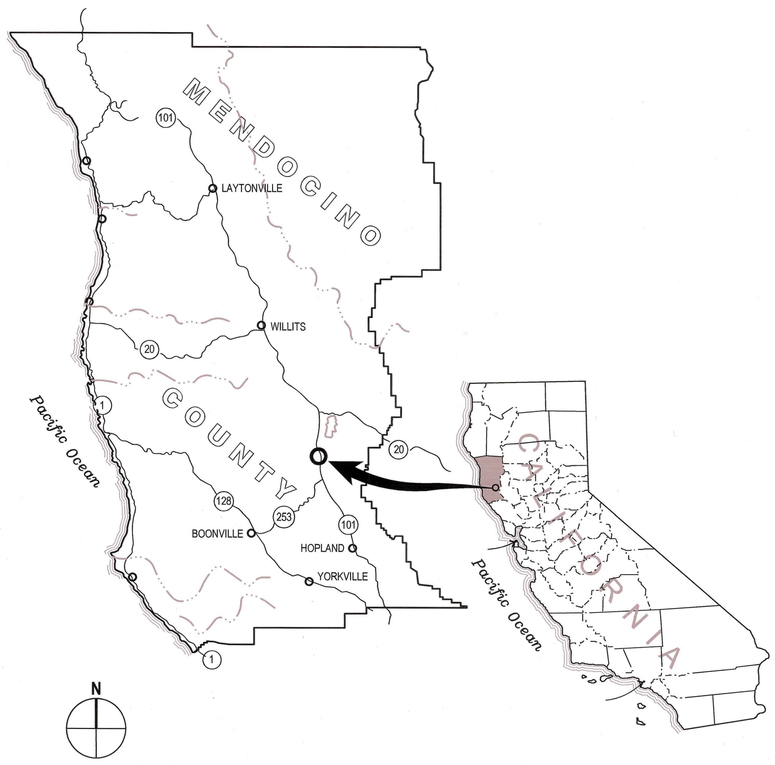
811 Know what's **below.** **Call** before you dig.

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

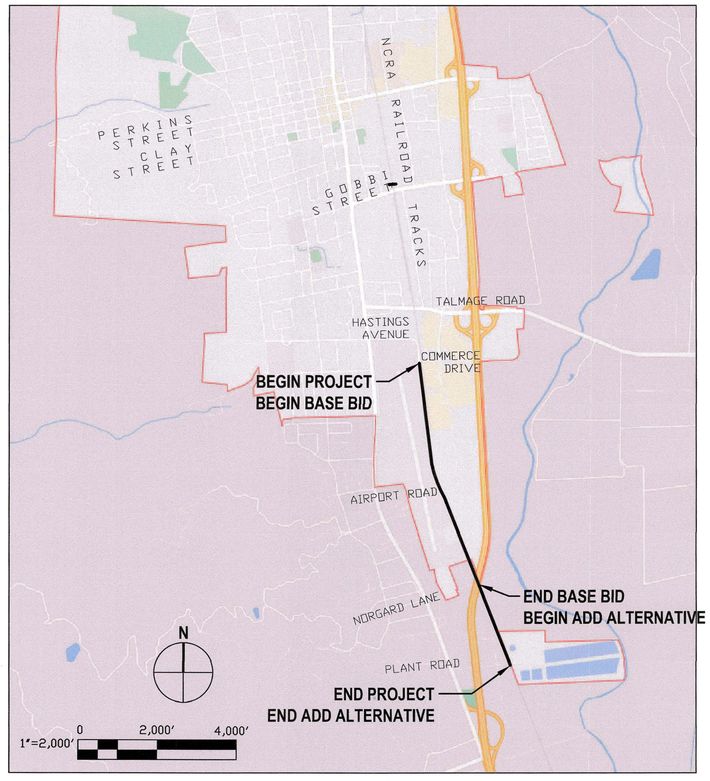
PREPARED BY

GHD

AREA MAP



LOCATION MAP



APPROVALS

CITY OF UKIAH

DIRECTOR OF PUBLIC WORKS/CITY ENGINEER
TIM ERIKSEN, PE

REGISTERED PROFESSIONAL ENGINEER TIMOTHY E. ERIKSEN C62230 CIVIL STATE OF CALIFORNIA

APPROVAL _____ 1/3/2023
SIGNED DATE

CITY PROJECT MANAGER
ANDREW STRICKLIN

APPROVAL _____ 1/3/2023
SIGNED DATE

ENGINEER: GHD Inc:
ERIK FANSELAU, PE

APPROVAL _____ 12/21/22
SIGNED DATE

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 ERIK D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **COVER SHEET**
Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	**SEP 30, 2022**	**NO SCALE**	**G-001**	1 of 96

Plot Date: 21 December 2022 - 6:10 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\5611\12557341\Digital_Design\GN\C3D\sheets\12557341-GHD-0000-TTL-GN-D001.dwg

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3	G-003	LEGEND & ABBREVIATIONS
4	G-004	CONSTRUCTION NOTES
SURVEY CONTROL		
5	G-005	SURVEY CONTROL AND ALIGNMENT DATA
6	G-006	SURVEY CONTROL AND ALIGNMENT DATA ADD ALTERNATIVE
TYPICAL SECTIONS		
7	C-001	TYPICAL SECTIONS - COMMERCE DR TO AIRPORT RD
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14	C-105	TRAIL PLAN AND PROFILE STA 415+60 TO 419+50
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16	C-107	TRAIL PLAN AND PROFILE STA 423+40 TO 427+30
17	C-108	TRAIL PLAN AND PROFILE STA 427+30 TO 431+20
18	C-109	TRAIL PLAN AND PROFILE STA 431+20 TO 435+10
19	C-110	TRAIL PLAN AND PROFILE STA 435+10 TO 438+91
20	C-111	TRAIL PLAN AND PROFILE STA 438+91 TO 442+91
21	C-112	TRAIL PLAN AND PROFILE STA 442+91 TO 446+81
22	C-113	TRAIL PLAN AND PROFILE STA 446+81 TO 450+51
23	C-114	TRAIL PLAN AND PROFILE STA 450+51 TO 454+86
24	C-115	TRAIL PLAN AND PROFILE STA 454+86 TO 458+61 BASE BID AND ADD ALTERNATIVE
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26	C-117	TRAIL PLAN AND PROFILE STA 462+51 TO 466+41 ADD ALTERNATIVE
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45	CE104	EROSION CONTROL PLAN STA 423+40 to 431+20
46	CE105	EROSION CONTROL PLAN STA 431+20 to 438+91
47	CE106	EROSION CONTROL PLAN STA 438+91 to 446+83
48	CE107	EROSION CONTROL PLAN STA 446+83 to 456+33
49	CE108	EROSION CONTROL PLAN STA 456+50 to 462+49 ADD ALTERNATIVE
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SHEET LIST TABLE

SEQUENCE NUMBER	SHEET NUMBER	SHEET TITLE
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89	C-813	CROSS SECTIONS STA 448+50 TO 452+00
90	C-814	CROSS SECTIONS STA 452+50 TO 456+00
91	C-815	CROSS SECTIONS STA 456+50 TO 460+00 ADD ALTERNATIVE
92	C-816	CROSS SECTIONS STA 460+50 TO 464+00 ADD ALTERNATIVE
93	C-817	CROSS SECTIONS STA 464+50 TO 468+00 ADD ALTERNATIVE
94	C-818	CROSS SECTIONS STA 468+50 TO 472+00 ADD ALTERNATIVE
95	C-819	CROSS SECTIONS STA 472+50 TO 476+00 ADD ALTERNATIVE
96	C-820	CROSS SECTIONS STA 476+50 TO 480+00 ADD ALTERNATIVE

811
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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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REGISTERED PROFESSIONAL ENGINEER
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **SHEET INDEX**
Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	NONE	G-002	2 of 96

Plot Date: 21 December 2022 - 6:10 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\GN\C3D\sheets\12557341-GHD-0000-IDX-GN-D002.dwg

LEGEND

GENERAL:

- CENTERLINE
- Ø DIAMETER
- ± APPROXIMATE
- △ DELTA
- INDICATES DIRECTION OR FLOW
- LETTER INDICATES SECTION, NUMBER INDICATES DETAIL
- SHEET WHERE SECTION OR DETAIL OCCURS

PROFILE LEGEND:

- FG AT DESIGN CL
- EG AT DESIGN CL

TOPOGRAPHIC:

EXISTING / NEW

- SURVEY - FOUND MONUMENT
- SURVEY CONTROL POINT - SET
- OR 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
- OR WATER METER
- GAS METER
- GAS VALVE

UTILITY (CONTINUED):

EXISTING / NEW

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

NOTE:
CONTACT ENGINEER FOR ABBREVIATIONS NOT LISTED.

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Title **LEGEND & ABBREVIATIONS**

Size **ANSI D**

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12557341	SEP 30, 2022	NO SCALE	G-003	3 of 96

Plot Date: 21 December 2022 - 6:11 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\GN\C3D\sheets\12557341-GHD-0000-NOT-GN-D003.dwg

GENERAL NOTES:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. PROJECT REQUIRES A CLASS A GENERAL ENGINEERING CONTRACTOR'S LICENSE IN THE STATE OF CALIFORNIA.
10. QUANTITIES OF ITEMS, LENGTH OF PROJECT, AND SITE CONDITIONS SHOWN IN THE PLANS ARE APPROXIMATE.
11. 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.
12. 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 SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
13. 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.
14. 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.
15. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT TEMPORARY BARRIERS TO PROVIDE FOR THE SAFETY OF THE PUBLIC TO THE SATISFACTION OF THE ENGINEER.
16. 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.
17. 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.
18. 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.
19. 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.
20. NO WORK SHALL BE PERFORMED OUTSIDE OF THE DESIGNATED CONSTRUCTION LIMITS WITHOUT THE APPROVAL OF THE CITY.
21. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPROVED STAGING AREAS WITH THE CITY OF UKIAH CITY ENGINEER AND THE GRTA.
22. NEW STRIPING AND MARKINGS SHALL BE THERMOPLASTIC PER SECTION 84 OF THE 2018 CALTRANS STANDARD SPECIFICATIONS.
23. 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:

1. 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.
2. 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).
3. THE ACTUAL LOCATION OF EXISTING UTILITIES MAY VARY FROM THAT SHOWN ON THE PLANS. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL POTHOLE 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.
4. ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.
5. 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:

1. 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.
2. 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.
3. 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.
4. 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:

1. 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.
2. 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.
3. CONTRACTOR TO COORDINATE TEMPORARY TRAFFIC CONTROL WITH THE CITY.
4. CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN ACCESS DURING CONSTRUCTION.

TEMPORARY PEDESTRIAN ACCESS NOTES:

1. 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.
2. SIDEWALK THICKNESS SHALL BE 4" MINIMUM, RAMP THICKNESS SHALL BE 4" MINIMUM OVER 3" AGGREGATE BASE.
3. TRANSITIONS FROM RAMPS AND LANDINGS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES NOT EXCEEDING 1/4" VERTICAL.
4. 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.
5. CONTRACTOR TO PROVIDE 0.3' AC EDGE PATCH AROUND CURB AND/OR CURB AND GUTTER LINE, AS REQUIRED IN FIELD
6. A 6" HIGH WARNING CURB IS REQUIRED PER CBC 1133B.8.1 WHENEVER THERE IS AN ABRUPT CHANGE IN GRADE ELEVATION OFF THE EDGE OF A WALKING SURFACE THAT EXCEEDS 4" VERTICAL.
7. 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.
8. 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.
9. 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.
10. 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, POTHOLING 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 ANGENCIES:

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

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	**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
ERIK D. FANSELAU
No. C84814
CIVIL
STATE OF CALIFORNIA
12/21/2022

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

Plot Date: 21 December 2022 - 6:11 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\GN\C3D\sheets\12557341-GHD-0000-NOT-GN-D003.dwg

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 0.99989086 TO CONVERT TO GRID DISTANCES.

BENCHMARK:

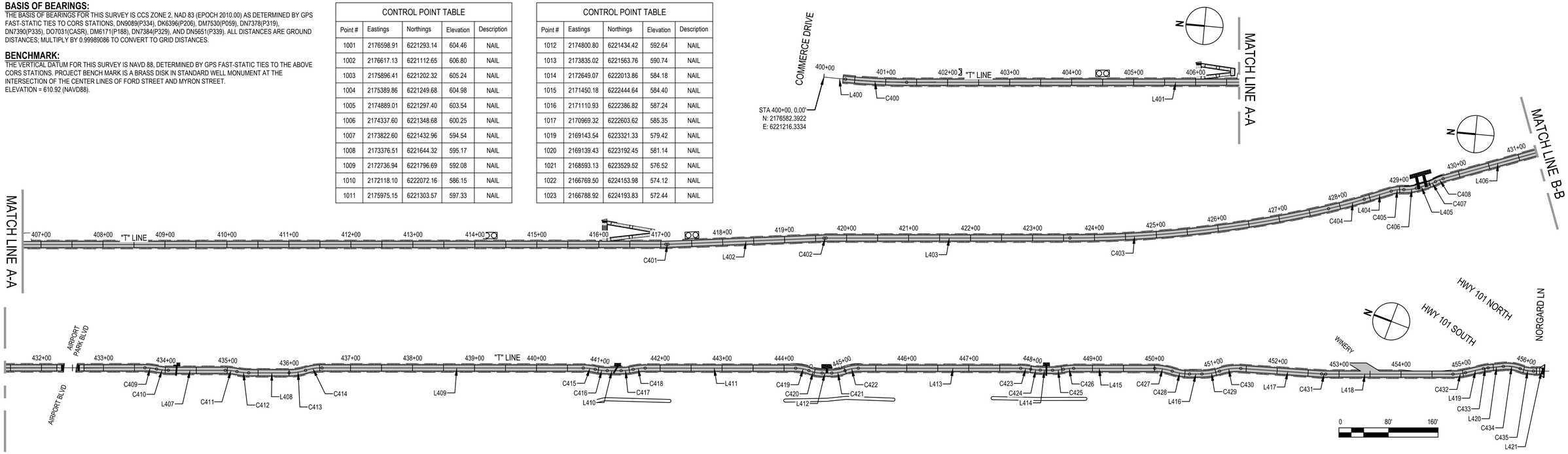
THE VERTICAL DATUM FOR THIS SURVEY IS NAVD 88, DETERMINED BY GPS FAST-STATIC TIES TO THE ABOVE CORS STATIONS. PROJECT BENCH MARK IS A BRASS DISK IN STANDARD WELL MONUMENT AT THE INTERSECTION OF THE CENTER LINES OF FORD STREET AND MYRON STREET.
ELEVATION = 610.92 (NAVD88).

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
L400	ST	400+00.00	2176582.392	6221216.333	-	S0°19'15"W STRAIGHT	-	-	-
	END	400+35.09	2176547.306	6221216.137	-		-	-	-
C400	BC	400+35.09	2176547.306	6221216.137	-	S0°19'15"W ARC	-	-	-
	MP	400+84.52	2176497.873	6221215.860	1000.00	S5°20'22"E ARC	98.75	5°39'36"	98.79
	EC	401+33.87	2176448.653	6221220.460	-		-	-	-
L401	ST	401+33.87	2176448.653	6221220.460	-	S5°20'22"E STRAIGHT	-	-	-
	END	417+08.10	2174881.255	6221366.951	-		-	-	-
C401	BC	417+08.10	2174881.255	6221366.951	-	S5°20'22"E ARC	-	-	-
	MP	417+09.86	2174879.503	6221367.115	90.00	S7°34'48"E ARC	3.52	2°14'26"	3.52
	EC	417+11.62	2174877.758	6221367.347	-		-	-	-
L402	ST	417+11.62	2174877.758	6221367.347	-	S7°34'48"E STRAIGHT	-	-	-
	END	419+63.37	2174628.211	6221400.555	-		-	-	-
C402	BC	419+63.37	2174628.211	6221400.555	-	S7°34'48"E ARC	-	-	-
	MP	419+65.13	2174626.469	6221400.787	90.00	S5°20'32"E ARC	3.51	2°14'16"	3.52
	EC	419+66.88	2174624.719	6221400.951	-		-	-	-
L403	ST	419+66.88	2174624.719	6221400.951	-	S5°20'32"E STRAIGHT	-	-	-
	END	423+60.31	2174232.999	6221437.581	-		-	-	-
C403	BC	423+60.31	2174232.999	6221437.581	-	S5°20'32"E ARC	-	-	-
	MP	425+71.62	2174022.615	6221457.255	1873.00	S18°12'56"E ARC	419.94	12°52'23"	420.82
	EC	427+81.14	2173821.902	6221523.306	-		-	-	-
L404	ST	427+81.14	2173821.902	6221523.306	-	S18°12'56"E STRAIGHT	-	-	-
	END	428+10.93	2173793.601	6221532.619	-		59.55	3°47'31"	59.57
C404	BC	428+10.93	2173793.601	6221532.619	900.00	S18°12'56"E ARC	-	-	-
	MP	428+40.70	2173765.979	6221543.784	-	S22°00'27"E ARC	-	-	-
	EC	428+40.70	2173765.979	6221543.784	-		-	-	-
L405	ST	428+40.70	2173765.979	6221543.784	-	S22°00'27"E STRAIGHT	-	-	-
	END	428+86.09	2173723.898	6221560.792	-		-	-	-
C405	BC	428+86.09	2173723.898	6221560.792	-	S22°00'27"E ARC	-	-	-
	MP	428+96.58	2173714.172	6221564.723	60.00	S2°10'23"E ARC	20.67	19°50'04"	20.77
	EC	429+06.86	2173703.690	6221565.120	-		-	-	-
L406	BC	429+06.86	2173703.690	6221565.120	-	S2°10'23"E ARC	-	-	-
	MP	429+17.14	2173693.423	6221565.510	60.00	S21°36'22"E ARC	20.25	19°25'58"	20.35
	EC	429+27.21	2173683.871	6221569.293	-		-	-	-
L405	ST	429+27.21	2173683.871	6221569.293	-	S21°36'22"E STRAIGHT	-	-	-
	END	429+47.21	2173665.277	6221576.657	-		-	-	-
C407	BC	429+47.21	2173665.277	6221576.657	-	S21°36'22"E ARC	-	-	-
	MP	429+53.52	2173659.408	6221578.982	60.00	S33°37'01"E ARC	12.55	12°00'39"	12.58
	EC	429+59.79	2173654.152	6221582.476	-		-	-	-

LINE AND CURVE TABLE "T" LINE

NUMBER		STATION	NORTHING	EASTING	RADII	BEARING	TANGENT	DEF ANGLE	ARC LENGTH
C408	BC	429+59.79	2173654.152	6221582.476	-	S33°37'01"E ARC	-	-	-
	MP	429+66.50	2173648.561	6221586.193	60.00	S20°50'54"E ARC	13.34	12°46'07"	13.37
	EC	429+73.16	2173642.287	6221588.582	-		-	-	-
L406	ST	429+73.16	2173642.287	6221588.582	-	S20°50'54"E STRAIGHT	-	-	-
	END	433+66.72	2173274.492	6221728.649	-		-	-	-
C409	BC	433+66.72	2173274.492	6221728.649	-	S20°50'54"E ARC	-	-	-
	MP	433+76.30	2173265.545	6221732.057	90.00	S8°42'15"E ARC	19.04	12°08'39"	19.08
	EC	433+85.80	2173256.081	6221733.505	-		-	-	-
C410	BC	433+85.80	2173256.081	6221733.505	-	S8°42'15"E ARC	-	-	-
	MP	433+95.34	2173246.651	6221734.949	90.00	S20°48'20"E ARC	18.97	12°06'05"	19.01
	EC	434+04.81	2173237.733	6221738.338	-		-	-	-
L407	ST	434+04.81	2173237.733	6221738.338	-	S20°48'20"E STRAIGHT	-	-	-
	END	434+96.75	2173151.791	6221770.994	-		-	-	-
C411	BC	434+96.75	2173151.791	6221770.994	-	S20°48'20"E ARC	-	-	-
	MP	435+06.29	2173142.873	6221774.382	90.00	S8°42'15"E ARC	18.97	12°06'05"	19.01
	EC	435+15.76	2173133.443	6221775.826	-		-	-	-
C412	BC	435+15.76	2173133.443	6221775.826	-	S8°42'15"E ARC	-	-	-
	MP	435+25.30	2173124.013	6221777.269	90.00	S20°48'20"E ARC	18.97	12°06'05"	19.01
	EC	435+34.76	2173115.095	6221780.658	-		-	-	-
L408	ST	435+34.76	2173115.095	6221780.658	-	S20°48'20"E STRAIGHT	-	-	-
	END	436+00.00	2173054.113	6221803.830	-		-	-	-
C413	BC	436+00.00	2173054.113	6221803.830	-	S20°48'20"E ARC	-	-	-
	MP	436+13.57	2173041.430	6221808.649	90.00	S37°57'06"E ARC	26.83	17°08'46"	26.93
	EC	436+26.93	2173030.731	6221816.993	-		-	-	-
C414	BC	436+26.93	2173030.731	6221816.993	-	S37°57'06"E ARC	-	-	-
	MP	436+40.50	2173020.032	6221825.338	90.00	S20°48'20"E ARC	26.83	17°08'46"	26.93
	EC	436+53.87	2173007.349	6221830.157	-		-	-	-
L409	ST	436+53.87	2173007.349	6221830.157	-	S20°48'20"E STRAIGHT	-	-	-
	END	440+75.30	2172613.396	6221979.849	-		-	-	-
C415	BC	440+75.30	2172613.396	6221979.849	-	S20°48'20"E ARC	-	-	-
	MP	440+85.08	2172604.255	6221983.322	90.00	S8°24'15"E ARC	19.44	12°24'05"	19.48
	EC	440+94.78	2172594.582	6221984.752	-		-	-	-
C416	BC	440+94.78	2172594.582	6221984.752	-	S8°24'15"E ARC	-	-	-
	MP	441+04.56	2172584.908	6221986.181	90.00	S20°48'20"E ARC	19.44	12°24'05"	19.48
	EC	441+14.26	2172575.768	6221989.654	-		-	-	-
L410	ST	441+14.26	2172575.768	6221989.654	-	S20°48'20"E STRAIGHT	-	-	-
	END	441+36.77	2172554.731	6221997.647	-		-	-	-

LINE AND CURVE TABLE "T" LINE

NUMBER		STATION	NORTHING	EASTING	RADII	BEARING	TANGENT	DEF ANGLE	ARC LENGTH
C417	BC	441+36.77	2172554.731	6221997.647	-	S20°48'20"E ARC	-	-	-
	MP	441+46.54	2172545.590	6222001.120	90.00	S33°12'25"E ARC	19.44	12°24'05"	19.48
	EC	441+56.25	2172537.409	6222006.476	-		-	-	-
C418	BC	441+56.25	2172537.409	6222006.476	-	S33°12'25"E ARC	-	-	-
	MP	441+66.02	2172529.228	6222011.831	90.00	S20°48'20"E ARC	19.44	12°24'05"	19.48
	EC	441+75.73	2172520.087	6222015.304	-		-	-	-
L411	ST	441+75.73	2172520.087	6222015.304	-	S20°48'20"E STRAIGHT	-	-	-
	END	444+18.72	2172292.942	6222101.614	-		-	-	-
C419	BC	444+18.72	2172292.942	6222101.614	-	S20°48'20"E ARC	-	-	-
	MP	444+29.76	2172282.621	6222105.535	60.00	S0°02'53"W ARC	21.72	20°51'13"	21.84
	EC	444+40.55	2172271.580	6222105.526	-		-	-	-
C420	BC	444+40.55	2172271.580	6222105.526	-	S0°02'53"W ARC	-	-	-
	MP	444+51.59	2172260.539	6222105.517	60.00	S20°48'20"E ARC	21.72	20°51'13"	21.84
	EC	444+62.39	2172250.218	6222109.439	-		-	-	-
L412	ST	444+62.39	2172250.218	6222109.439	-	S20°48'20"E STRAIGHT	-	-	-
	END	444+77.89	2172235.728	6222114.944	-		-	-	-
C421	BC	444+77.89	2172235.728	6222114.944	-	S20°48'20"E ARC	-	-	-
	MP	444+88.93	2172225.407	6222118.866	60.00	S41°39'33"E ARC	21.72	20°51'13"	21.84
	EC	444+99.73	2172217.158	6222126.205	-		-	-	-
C422	BC	444+99.73	2172217.158	6222126.205	-	S41°39'33"E ARC	-	-	-
	MP	445+10.77	2172208.909	6222133.544	60.00	S20°48'20"E ARC	21.72	20°51'13"	21.84
	EC	445+21.57	2172198.588	6222137.466	-		-	-	-
L413	ST	445+21.57	2172198.588	6222137.466	-	S20°48'20"E STRAIGHT	-	-	-
	END	447+83.71	2171953.536	6222230.579	-		-	-	-
C423	BC	447+83.71	2171953.536	6222230.579	-	S20°48'20"E ARC	-	-	-
	MP	447+91.84	2171945.943	6222233.464	90.00	S10°29'31"E ARC	16.18	10°18'49"	16.20
	EC	447+99.91	2171937.957	6222234.943	-		-	-	-
C424	BC	447+99.91	2171937.957	6222234.943	-	S10°29'31"E ARC	-	-	-
	MP	448+07.64	2171930.362	6222236.350	90.00	S20°18'11"E ARC	15.39	9°48'40"	15.41
	EC	448+15.33	2171923.117	6222239.030	-		-	-	-
L414	ST	448+15.33	2171923.117	6222239.030	-	S20°18'11"E STRAIGHT	-	-	-
	END	448+35.33	2171904.360	6222245.970	-		-	-	-
C425	BC	448+35.33	2171904.360	6222245.970	-	S20°18'11"E ARC	-	-	-
	MP	448+44.09	2171896.140	6222249.011	90.00	S31°25'35"E ARC	17.44	11°07'24"	17.47
	EC	448+52.80	2171888.662	6222253.580	-		-	-	-
C426	BC	448+52.80	2171888.662	6222253.580	-	S31°25'35"E ARC	-	-	-
	MP	448+61.16	2171881.524	6222257.942	90.00	S20°48'20"E ARC	16.66	10°37'15"	16.68
	EC	448+69.48	2171873.704	6222260.914	-		-	-	-

SEE G-006 TABLES FOR MORE SEGMENTS

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**

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER — ERIK D. FANSELAU — No. C64814 — CIVIL — STATE OF CALIFORNIA

12/21/2022

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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **SURVEY CONTROL AND ALIGNMENT DATA**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **AS SHOWN**
Sheet No. **G-005** Sheet **5 of 96**

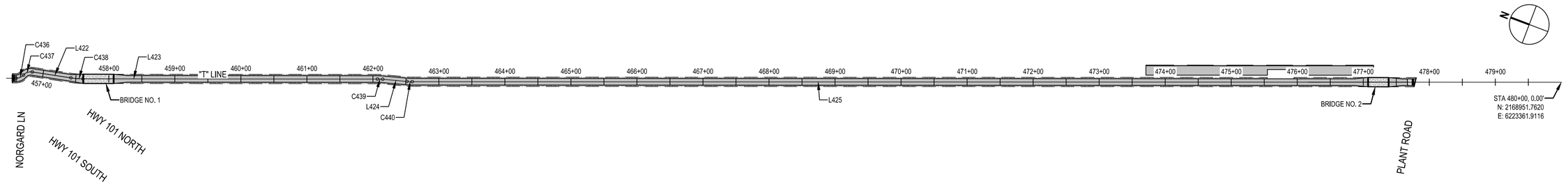
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BASIS OF BEARINGS:

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 0.99989086 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	448+69.48	2171873.704	6222260.914	-	S20°48'20"E STRAIGHT	-	-	-
	END	450+00.33	2171751.385	6222307.391	-		-	-	-
C427	BC	450+00.33	2171751.385	6222307.391	-	S20°48'20"E ARC	-	-	-
	MP	450+14.74	2171737.914	6222312.510	90.00	S2°36'38"E ARC	28.46	18°11'42"	28.58
	EC	450+28.91	2171723.517	6222313.167	-		-	-	-
C428	BC	450+28.91	2171723.517	6222313.167	-	S2°36'38"E ARC	-	-	-
	MP	450+43.32	2171709.120	6222313.823	90.00	S20°48'20"E ARC	28.46	18°11'42"	28.58
	EC	450+57.49	2171695.649	6222318.942	-		-	-	-
L416	ST	450+57.49	2171695.649	6222318.942	-	S20°48'20"E STRAIGHT	-	-	-
	END	450+77.49	2171676.953	6222326.046	-		-	-	-
C429	BC	450+77.49	2171676.953	6222326.046	-	S20°48'20"E ARC	-	-	-
	MP	450+92.02	2171663.377	6222331.205	90.00	S39°08'18"E ARC	28.67	18°19'59"	28.80
	EC	451+06.29	2171652.113	6222340.371	-		-	-	-
C430	BC	451+06.29	2171652.113	6222340.371	-	S39°08'18"E ARC	-	-	-
	MP	451+23.91	2171638.447	6222351.492	90.00	S16°59'08"E ARC	34.58	22°09'11"	34.80
	EC	451+41.09	2171621.597	6222356.639	-		-	-	-
L417	ST	451+41.09	2171621.597	6222356.639	-	S16°59'08"E STRAIGHT	-	-	-
	END	452+71.79	2171496.593	6222394.822	-		-	-	-
C431	BC	452+71.79	2171496.593	6222394.822	-	S16°59'08"E ARC	-	-	-
	MP	452+75.13	2171493.405	6222395.796	100.00	S20°48'14"E ARC	6.66	3°49'06"	6.66
	EC	452+78.46	2171490.289	6222396.980	-		-	-	-
L418	ST	452+78.46	2171490.289	6222396.980	-	S20°48'14"E STRAIGHT	-	-	-
	END	454+83.74	2171298.390	6222469.891	-		-	-	-
C432	BC	454+83.74	2171298.390	6222469.891	-	S20°48'14"E ARC	-	-	-
	MP	454+93.97	2171288.827	6222473.524	90.00	S33°46'25"E ARC	20.33	12°58'11"	20.37
	EC	455+04.11	2171280.323	6222479.211	-		-	-	-
L419	ST	455+04.11	2171280.323	6222479.211	-	S33°46'25"E STRAIGHT	-	-	-
	END	455+33.72	2171255.714	6222495.669	-		-	-	-
C433	BC	455+33.72	2171255.714	6222495.669	-	S33°46'25"E ARC	-	-	-
	MP	455+37.64	2171252.456	6222497.847	60.00	S26°17'56"E ARC	7.82	7°28'29"	7.83
	EC	455+41.55	2171248.943	6222499.584	-		-	-	-
L420	ST	455+41.55	2171248.943	6222499.584	-	S26°17'56"E STRAIGHT	-	-	-
	END	455+66.30	2171226.751	6222510.551	-		-	-	-
C434	BC	455+66.30	2171226.751	6222510.551	-	S26°17'56"E ARC	-	-	-
	MP	455+80.33	2171214.174	6222516.767	60.00	S0°01'17"W ARC	27.32	26°19'13"	27.56
	EC	455+93.86	2171200.146	6222516.761	-		-	-	-

LINE AND CURVE TABLE "T" LINE

NUMBER		STATION	NORTHING	EASTING	RADII	BEARING	TANGENT	DEF ANGLE	ARC LENGTH
C435	BC	455+93.86	2171200.146	6222516.761	-	S0°01'17"W ARC	-	-	-
	MP	456+04.93	2171189.074	6222516.757	60.00	S20°53'18"E ARC	21.78	20°54'35"	21.90
	EC	456+15.76	2171178.730	6222520.705	-		-	-	-
L421	ST	456+15.76	2171178.730	6222520.705	-	S20°53'18"E STRAIGHT	-	-	-
	END	456+56.14	2171141.004	6222535.102	-		-	-	-
C436	BC	456+56.14	2171141.004	6222535.102	-	S20°53'18"E ARC	-	-	-
	MP	456+62.73	2171134.843	6222537.454	15.00	S68°21'13"E ARC	12.07	47°27'55"	12.43
	EC	456+68.57	2171132.410	6222543.583	-		-	-	-
C437	BC	456+68.57	2171132.410	6222543.583	-	S68°21'13"E ARC	-	-	-
	MP	456+76.59	2171129.450	6222551.042	15.00	S12°03'42"E ARC	14.15	56°17'31"	14.74
	EC	456+83.30	2171121.602	6222552.719	-		-	-	-
L422	ST	456+83.30	2171121.602	6222552.719	-	S12°03'42"E STRAIGHT	-	-	-
	END	457+42.46	2171063.747	6222565.081	-		-	-	-
C438	BC	457+42.46	2171063.747	6222565.081	-	S12°03'42"E ARC	-	-	-
	MP	457+51.63	2171054.788	6222566.996	120.00	S20°47'37"E ARC	18.27	8°43'55"	18.29
	EC	457+60.75	2171046.223	6222570.248	-		-	-	-
L423	ST	457+60.75	2171046.223	6222570.248	-	S20°47'37"E STRAIGHT	-	-	-
	END	462+06.78	2170629.249	6222728.588	-		-	-	-
C439	BC	462+06.78	2170629.249	6222728.588	-	S20°47'37"E ARC	-	-	-
	MP	462+10.79	2170625.500	6222730.012	90.00	S15°41'26"E ARC	8.01	5°06'11"	8.02
	EC	462+14.79	2170621.638	6222731.096	-		-	-	-
L424	ST	462+14.79	2170621.638	6222731.096	-	S15°41'26"E STRAIGHT	-	-	-
	END	462+51.56	2170586.245	6222741.038	-		-	-	-
C440	BC	462+51.56	2170586.245	6222741.038	-	S15°41'26"E ARC	-	-	-
	MP	462+55.58	2170582.371	6222742.127	90.00	S20°48'41"E ARC	8.04	5°07'16"	8.04
	EC	462+59.60	2170578.608	6222743.557	-		-	-	-
L425	ST	462+59.60	2170578.608	6222743.557	-	S20°48'41"E STRAIGHT	-	-	-
	END	480+00.00	2168951.762	6223361.912	-		-	-	-

0 80' 160'

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

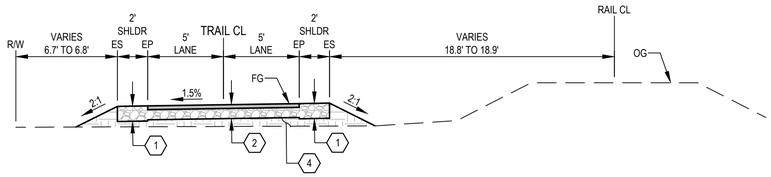
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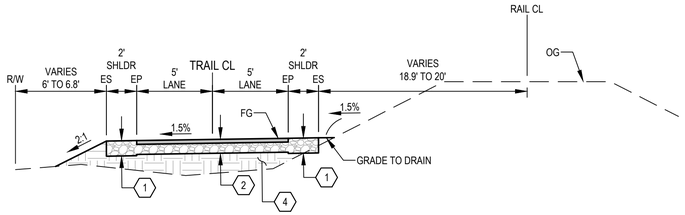
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title SURVEY CONTROL AND ALIGNMENT DATA ADD ALTERNATIVE
Size ANSI D
Project No. 12557341
Date SEP 30, 2022
Scale AS SHOWN
Sheet No. G-006
Sheet 6 of 96



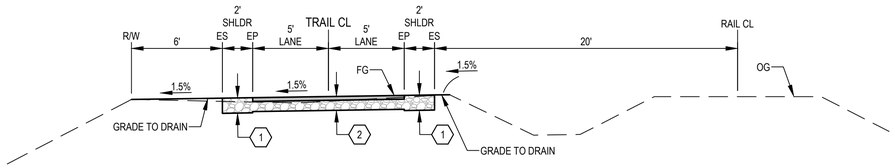
4 TYPICAL SECTION

NO SCALE
STA 431+50 TO STA 429+70.45



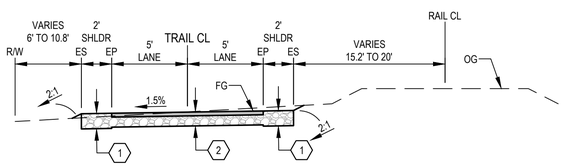
3 TYPICAL SECTION

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

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

AC

CLASS 2 AB

STRUCTURE BACKFILL

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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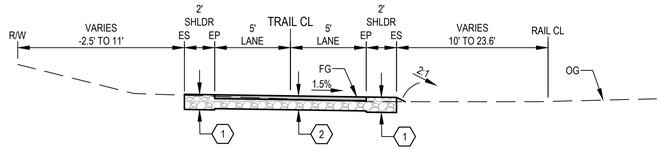
Project **THE GREAT REDWOOD TRAIL PHASE 4**

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

Size **ANSI D**

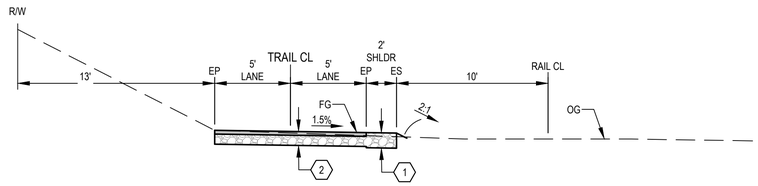
Project No. **12557341**
Date **SEP 30, 2022**
Scale **NO SCALE**
Sheet No. **C-001**
Sheet **7 of 96**

Plot Date: 21 December 2022 - 6:13 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D001.dwg



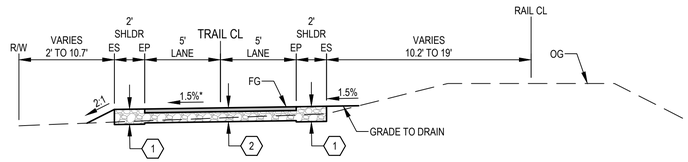
5 TYPICAL SECTION

NO SCALE
STA 454+65.48 TO STA 456+20.76



4 TYPICAL SECTION

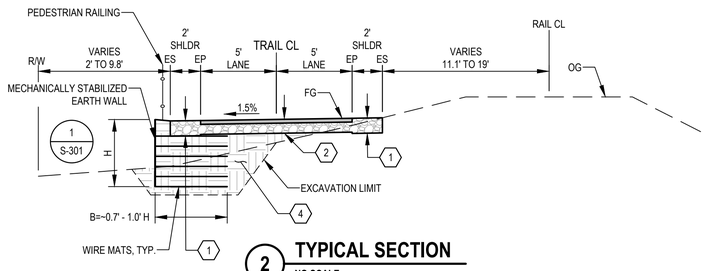
NO SCALE
STA 454+20.48 TO STA 454+65.48



3 TYPICAL SECTION

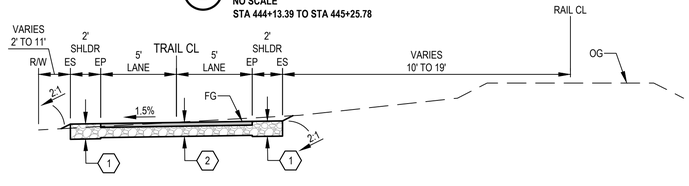
NO SCALE
STA 451+50 TO STA 454+20.48

* 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

AC

CLASS 2 AB

STRUCTURE BACKFILL

No.	Issue	Checked	Approved	Date
1	PEDESTRIAN RAILING	EF	EF	2023-02-07

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"

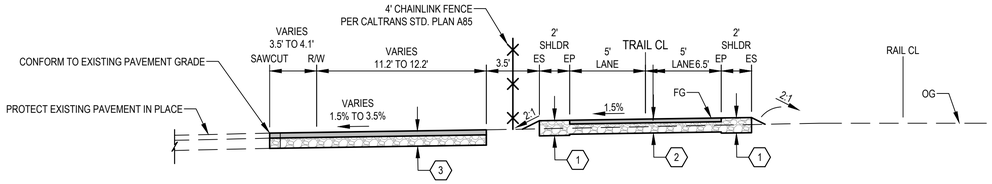
REGISTERED PROFESSIONAL ENGINEER
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2/7/2023

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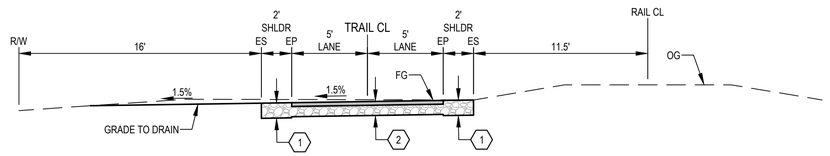
Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TYPICAL SECTIONS - AIRPORT RD TO NORGARD LN**
Size **ANSI D**
Project No. **12557341**
Date **SEP 30, 2022**
Scale **NO SCALE**
Sheet No. **C-002**
Sheet **8 of 96**

Plot Date: 7 February 2023 - 9:43 AM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D001.dwg



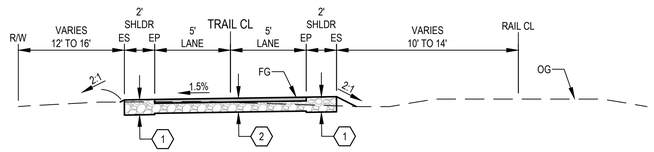
5 TYPICAL SECTION

NO SCALE
STA 473+70.81 TO STA 477+07.87
STA 477+37.87 TO STA 477+66.74



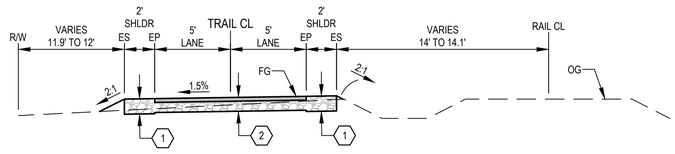
4 TYPICAL SECTION

NO SCALE
STA 466+82 TO STA 467+32



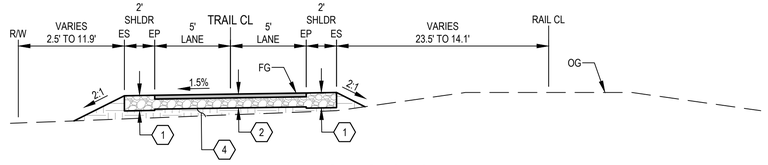
3 TYPICAL SECTION

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

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2. COMPACT AGGREGATE BASE TO 95% RELATIVE COMPACTION.
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4. SIDE SLOPE ARE 2:1 (H:V) MAX.

SHEET KEYNOTES

1. SHOULDER SECTION:
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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

AC

CLASS 2 AB

STRUCTURE BACKFILL

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
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No. C64814
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STATE OF CALIFORNIA
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**

Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	**SEP 30, 2022**	**NO SCALE**	**C-003**	**9 of 96**

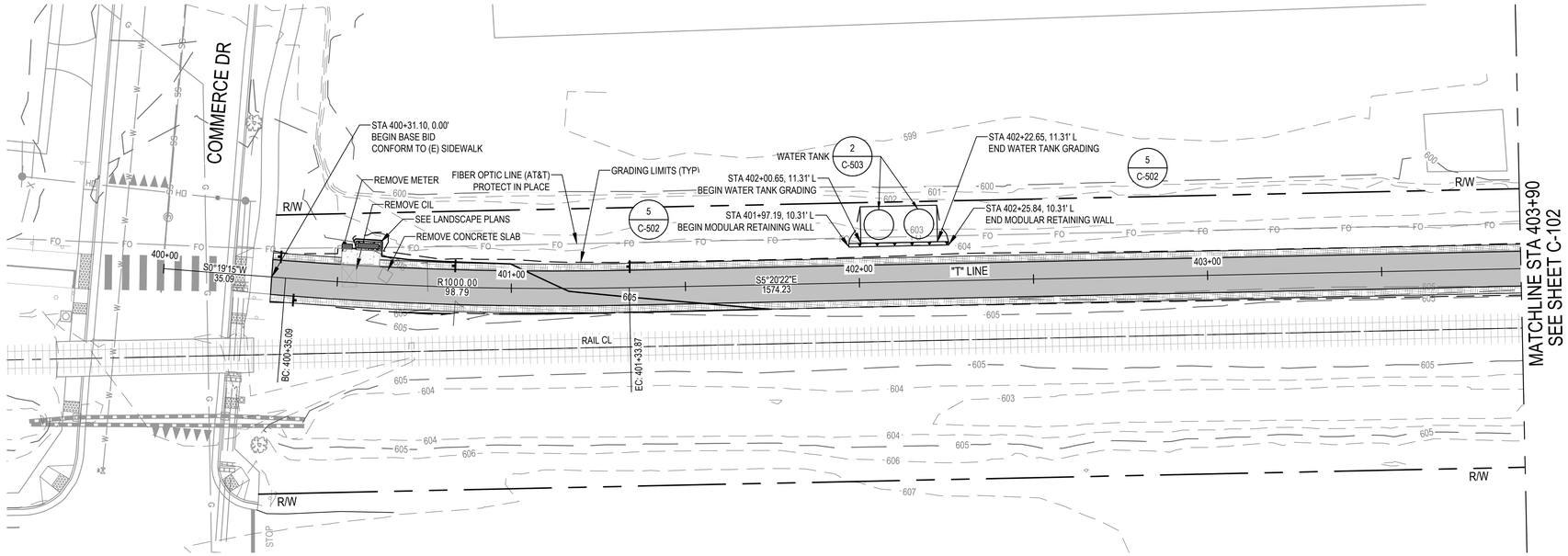
Plot Date: 21 December 2022 - 6:13 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D001.dwg

SHEET GENERAL NOTES

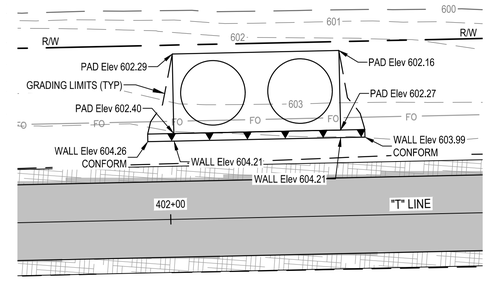
1. FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-401.
2. ALL WORK WITHIN 5 FEET HORIZONTAL OF ANY PG&E GAS MAIN AND AT&T FIBER OPTIC LINE SHALL BE PERFORMED UNDER INSPECTION BY THE UTILITY OWNER. CONTRACTOR SHALL NOTIFY UTILITY OWNER A MINIMUM OF 5 WORKING DAYS IN ADVANCE OF PLANNED EXCAVATION.

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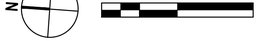
Portions of the trail may require slight shift and/or narrowing in locations determined necessary to protect existing trees by the City Engineer.

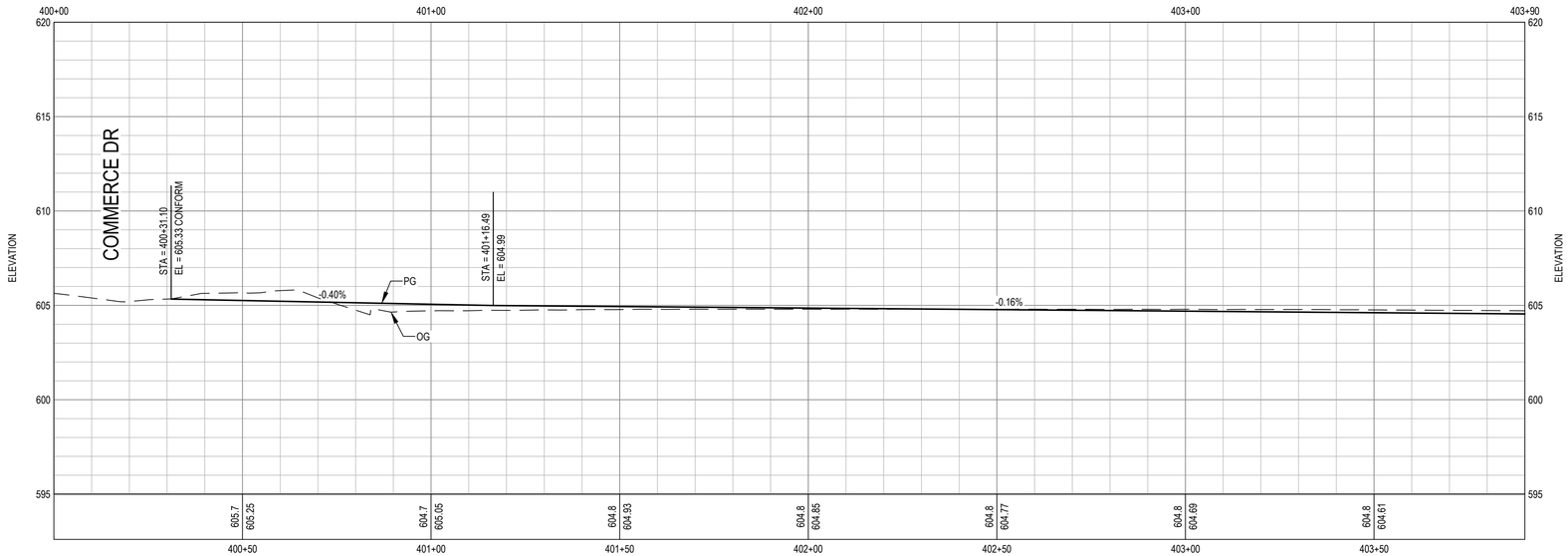


TRAIL PLAN



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

No.	Issue	Checked	Approved	Date
1	WATER TANK	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**	

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER
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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TRAIL PLAN AND PROFILE STA 400+00 TO STA 403+90**

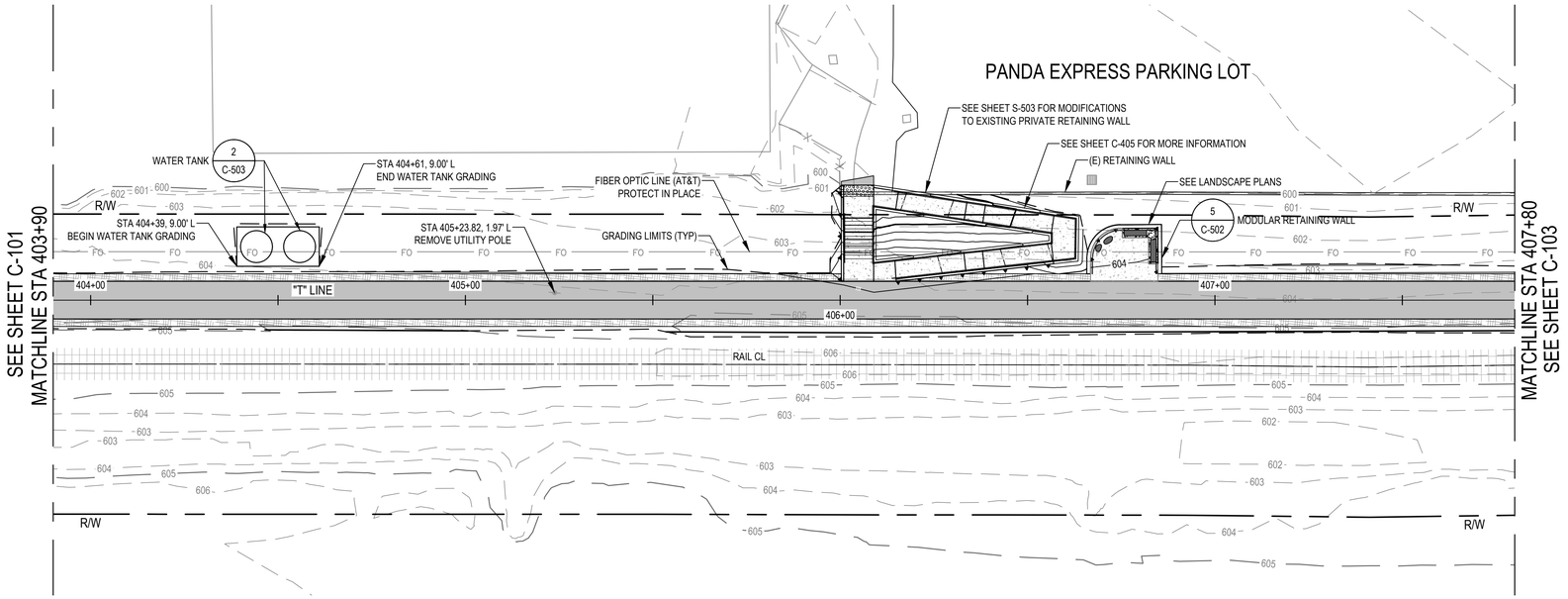
Size **ANSI D**

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

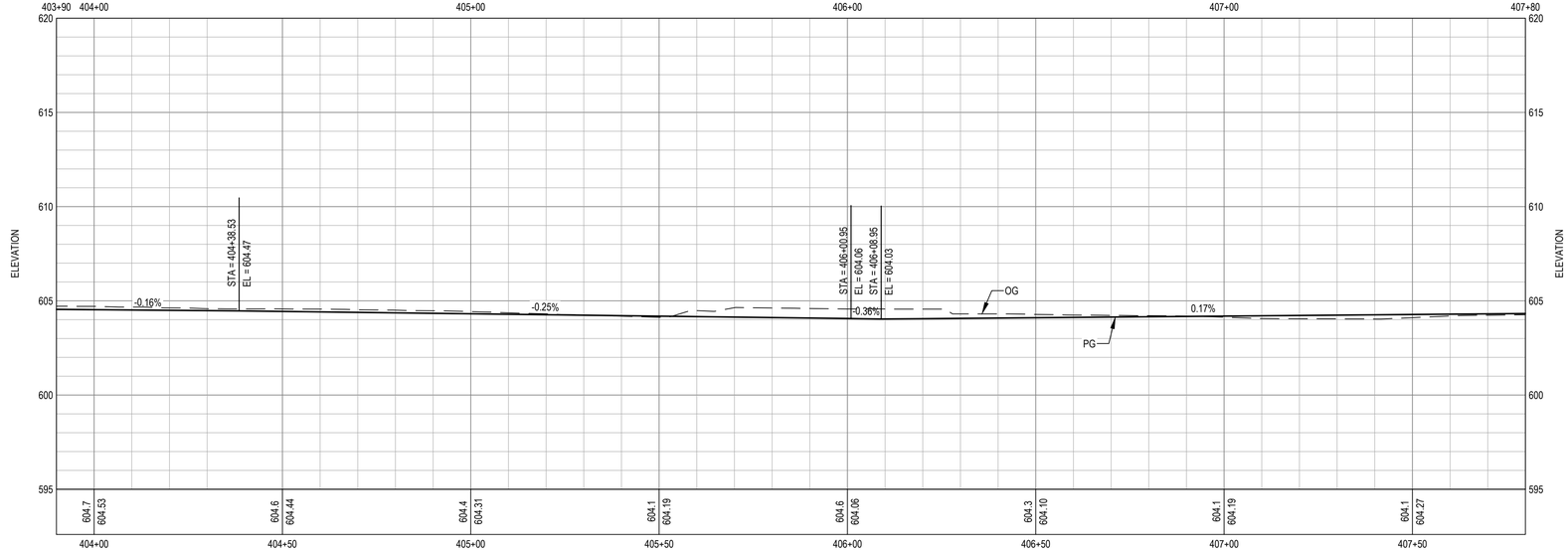
Sheet No **C-101**

Sheet **10** of **96**

Plot Date: 21 December 2022 - 6:16 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

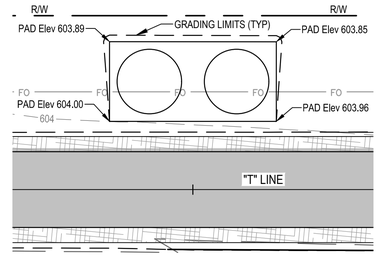
0 10' 20' 40'

SHEET GENERAL NOTES

1. 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.

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WATER TANK

N

0 10' 20'

Know what's **below.**
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No.	Issue	Checked	Approved	Date
1	WATER TANK	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**

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 403+90 TO STA 407+80**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-102** Sheet **11 of 96**

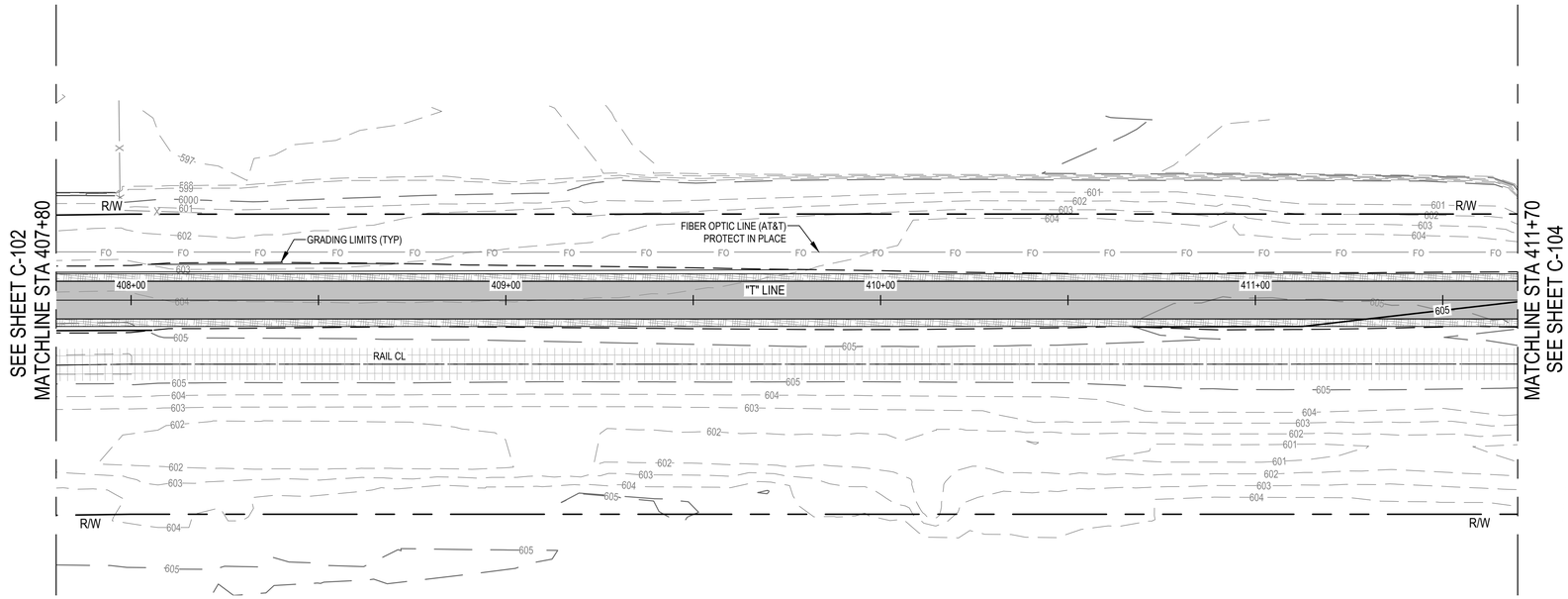
Plot Date: 21 December 2022 - 6:16 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

SHEET GENERAL NOTES

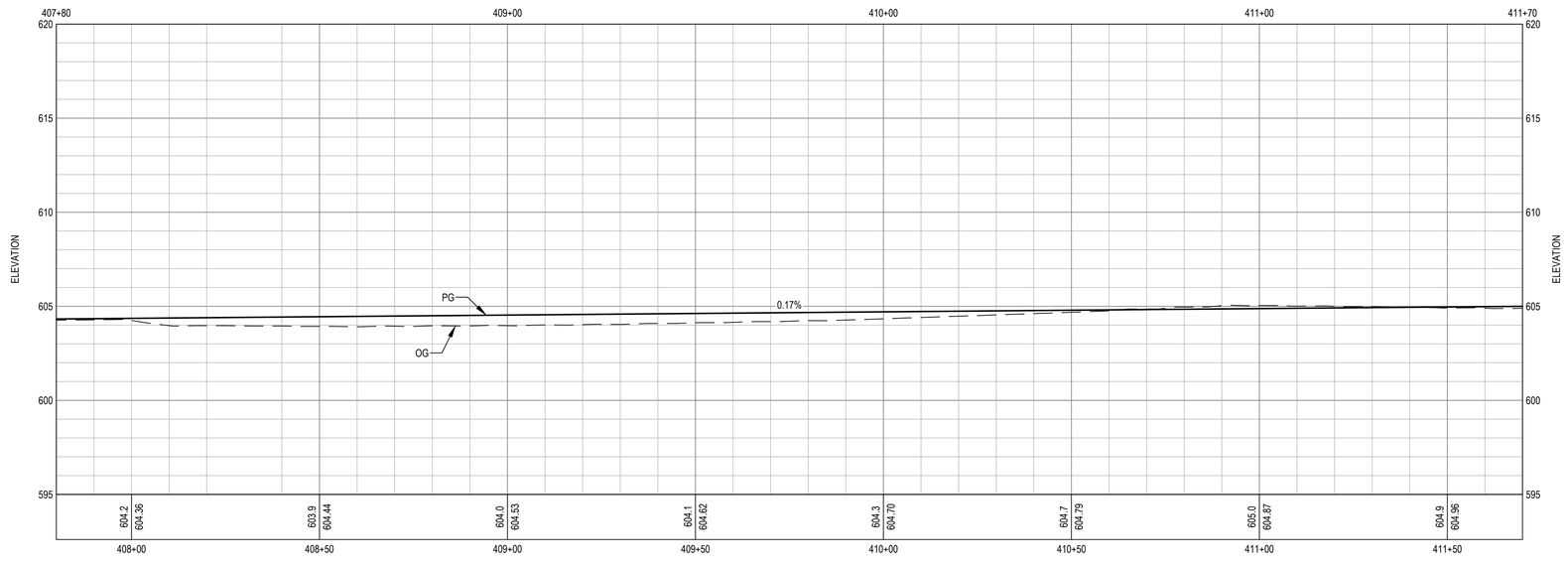
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TRAIL PLAN



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

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 ERIN D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
12/21/2022

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

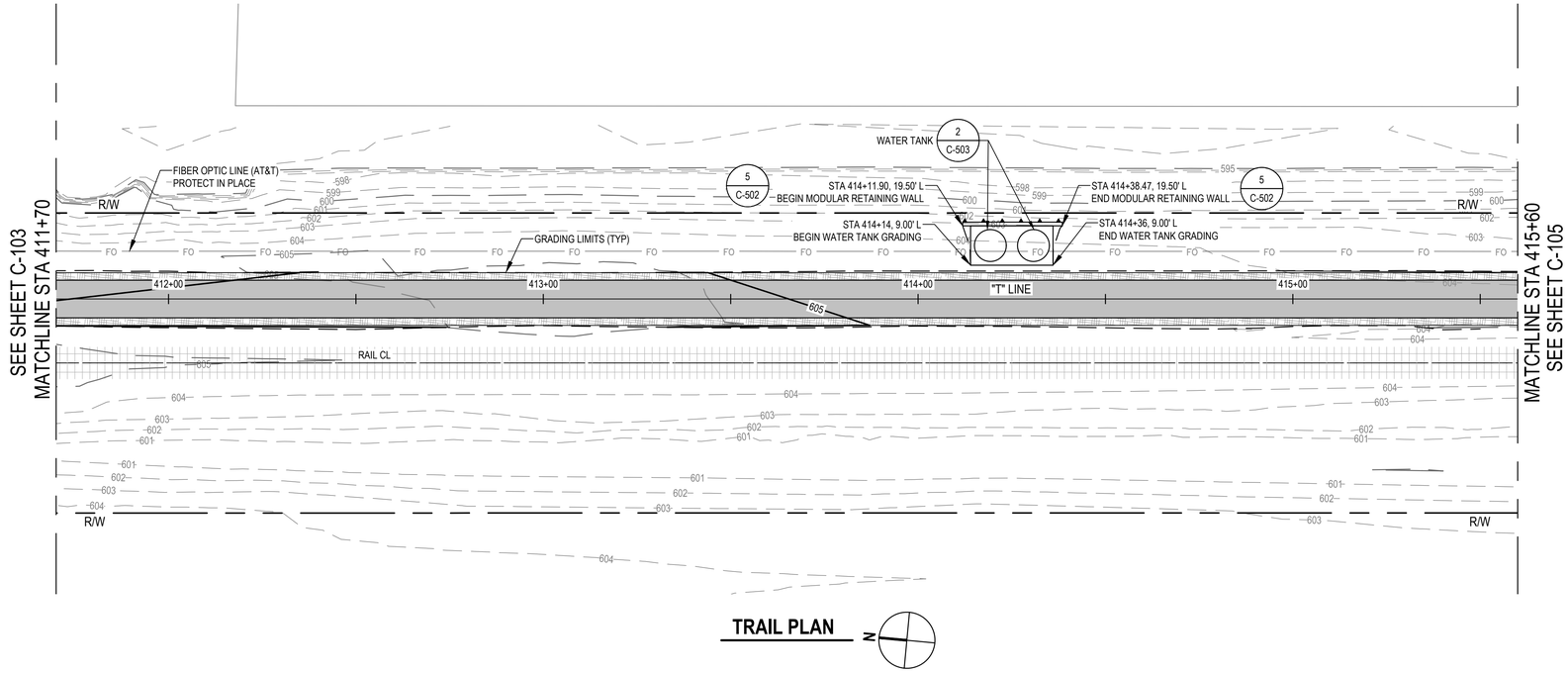
Title **TRAIL PLAN AND PROFILE STA 407+80 TO STA 411+70**

Size **ANSI D**

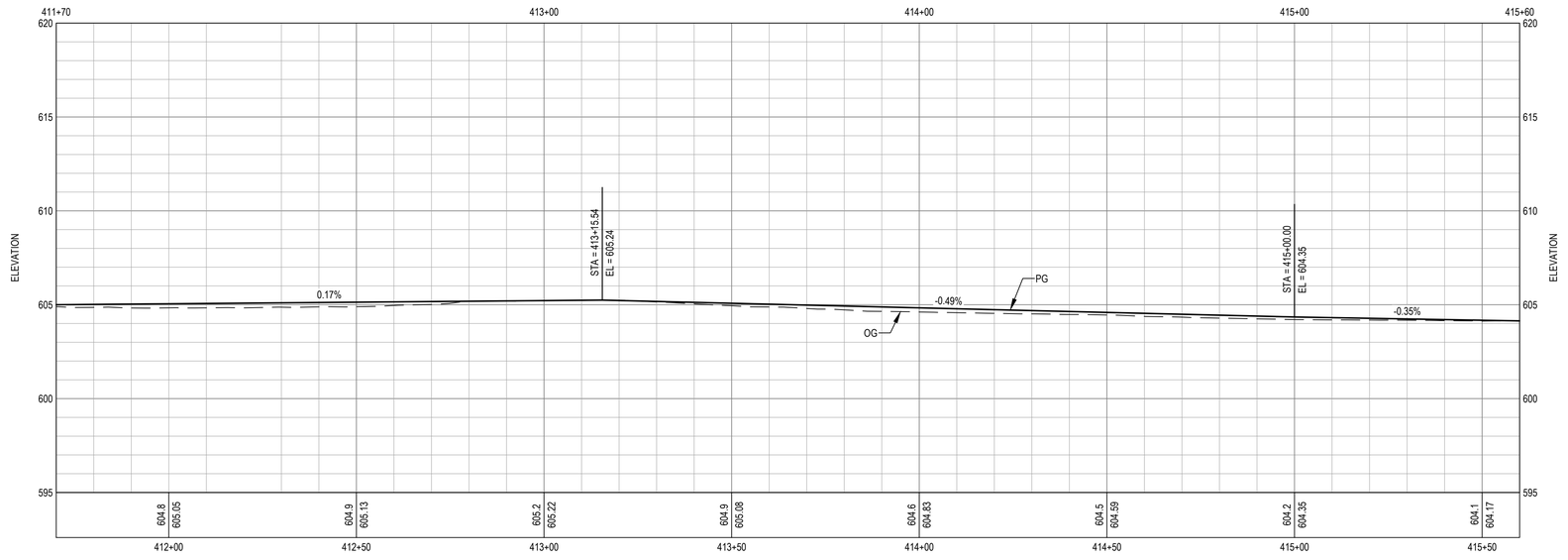
Project No. **12557341** | Date **SEP 30, 2022** | Scale **1" = 20'**

Sheet No. **C-103** | Sheet **12 of 96**

Plot Date: 21 December 2022 - 6:16 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

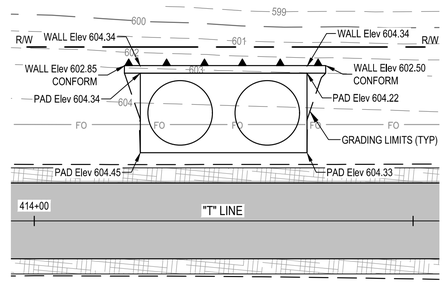


TRAIL PLAN



TRAIL PROFILE

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



WATER TANK

0 10' 20' 40'

SHEET GENERAL NOTES

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No.	Issue		Checked	Approved	Date
1	WATER TANK		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

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
12/21/2022

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TRAIL PLAN AND PROFILE STA 411+70 TO STA 415+60**

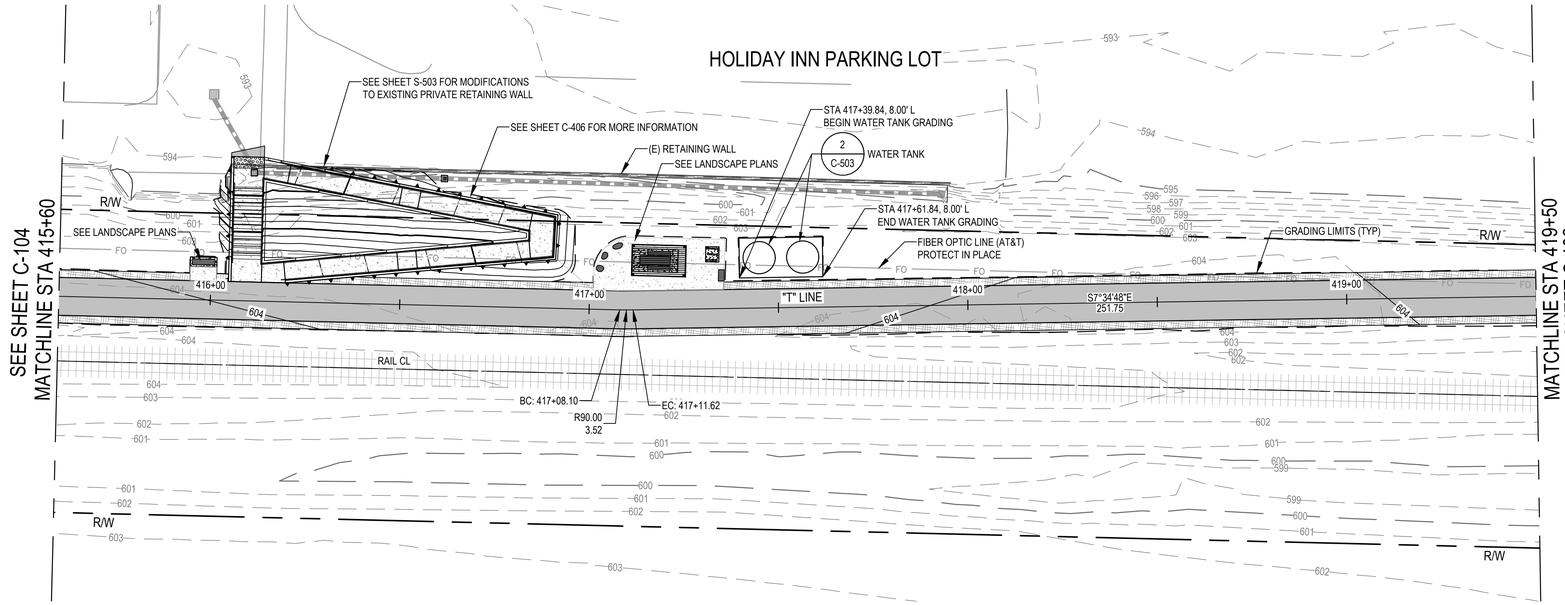
Size **ANSI D**

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

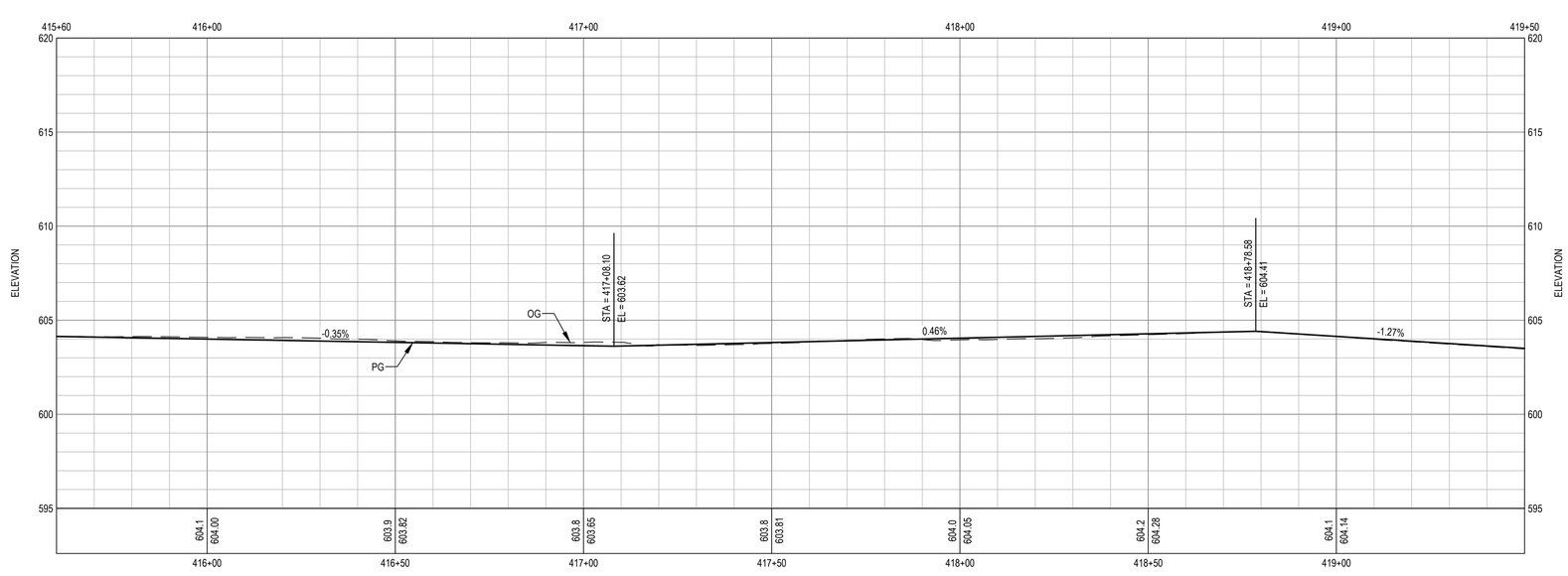
Sheet No. **C-104**

Sheet 13 of 96

Plot Date: 21 December 2022 - 6:17 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

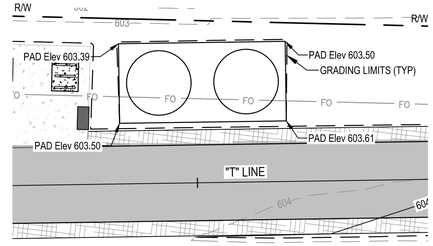


TRAIL PLAN



TRAIL PROFILE

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



WATER TANK

0 10' 20' 40'

SHEET GENERAL NOTES

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No.	Issue	Checked	Approved	Date
1	WATER TANK	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**

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIN D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
12/21/2022

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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 415+60 TO STA 419+50**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-105** Sheet **14 of 96**

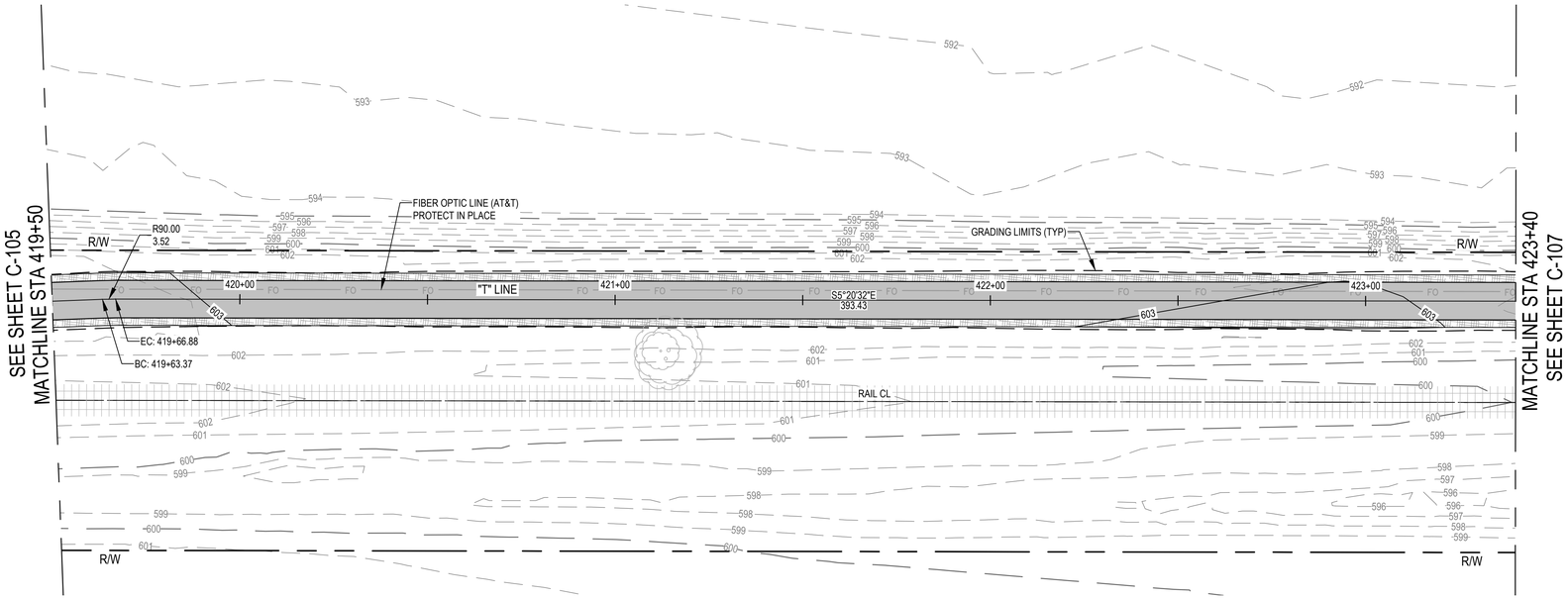
Plot Date: 21 December 2022 - 6:17 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

SHEET GENERAL NOTES

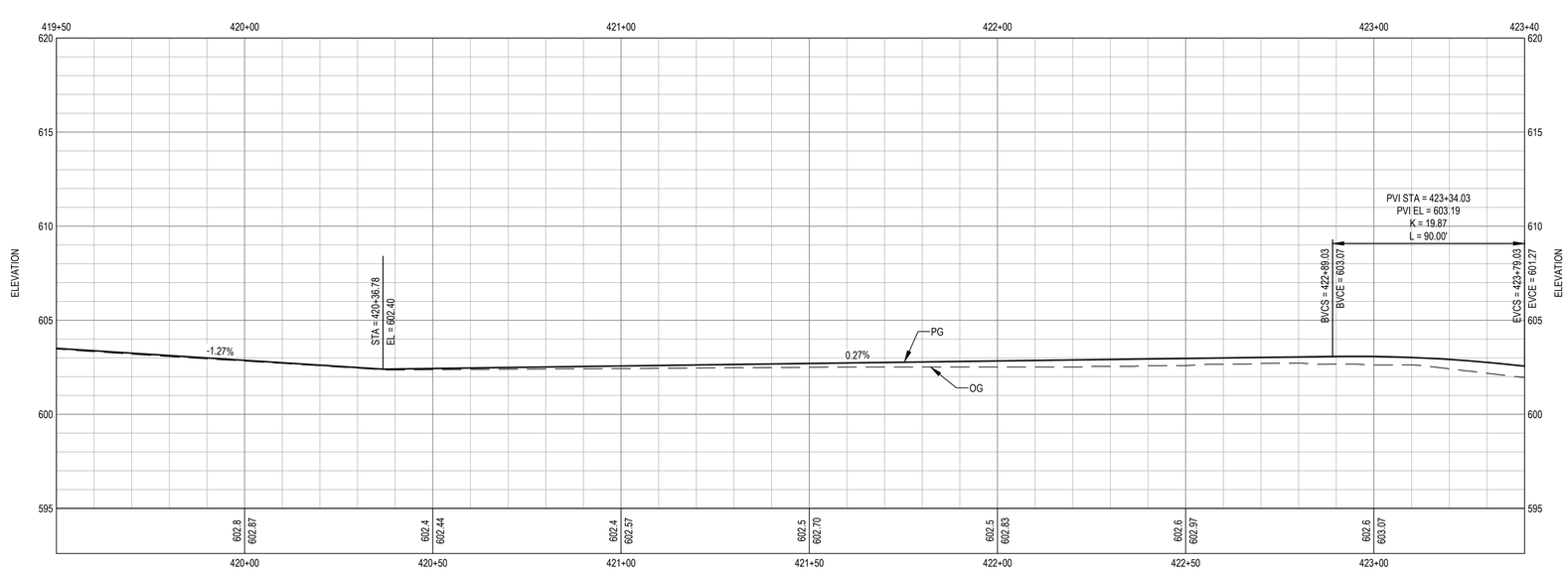
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TRAIL PLAN



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

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"

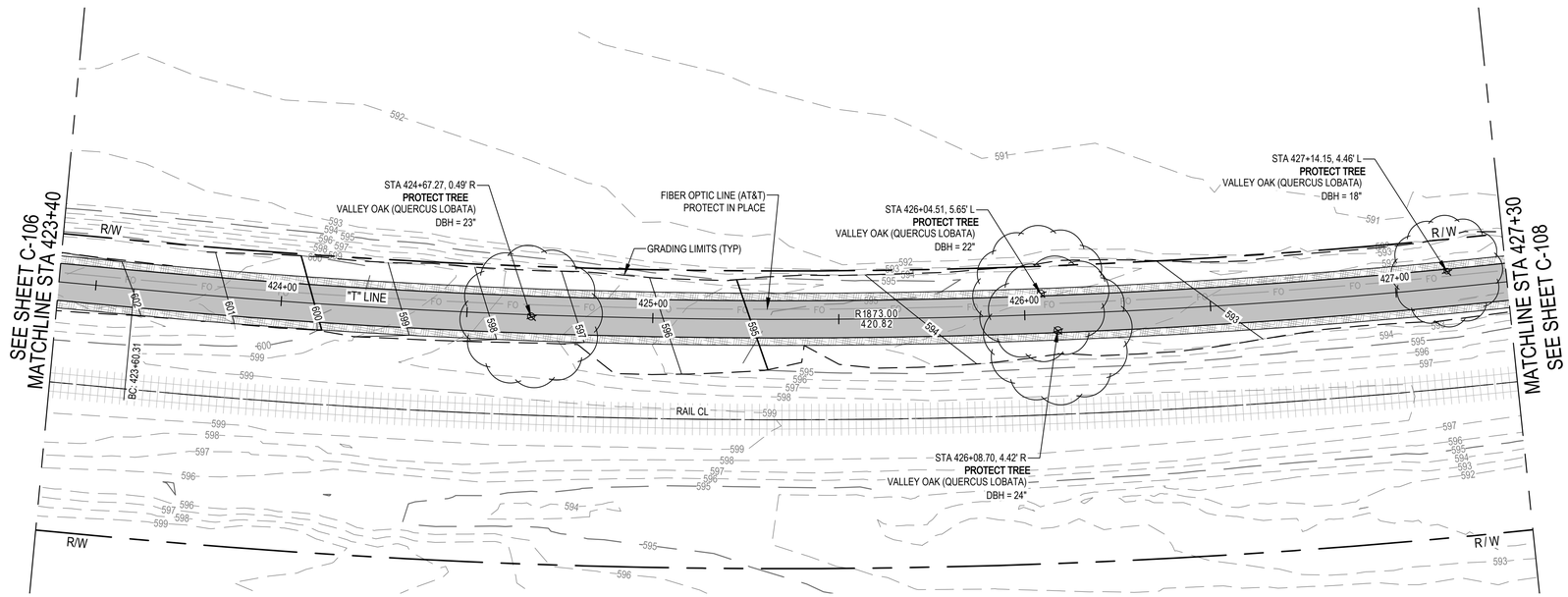
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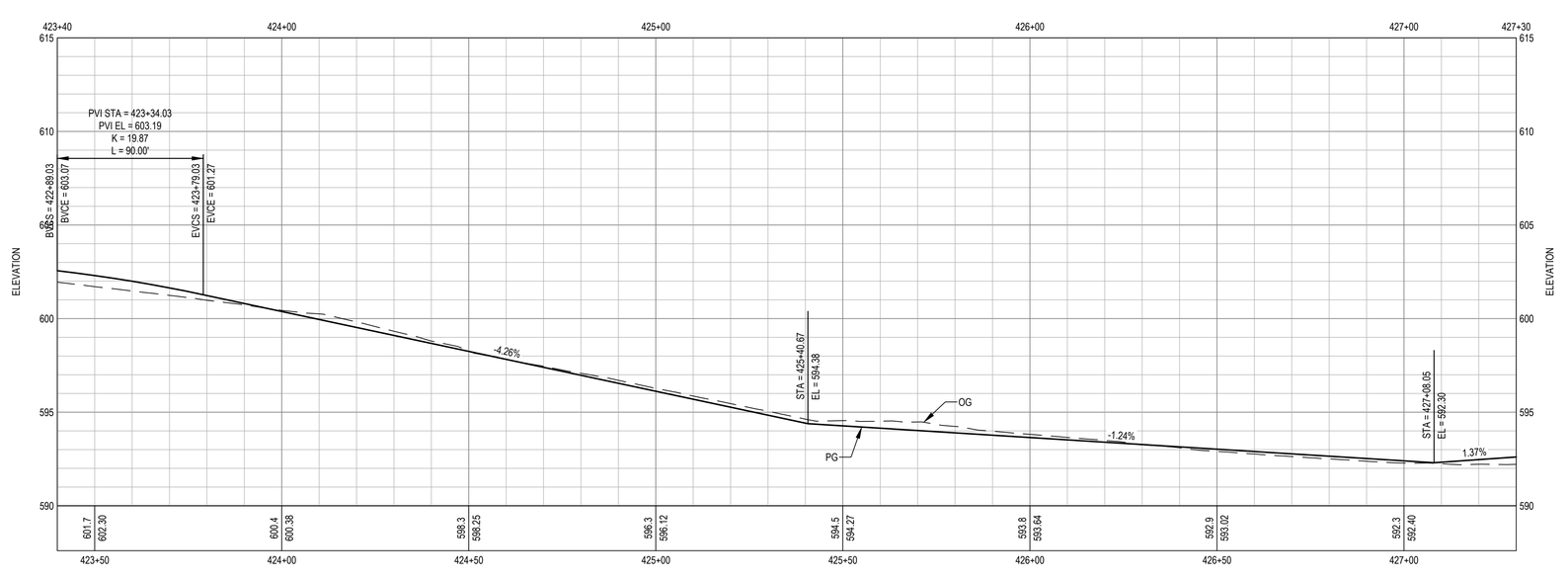
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 419+50 TO STA 423+40**
Size **ANSI D**
Project No. **12557341**
Date **SEP 30, 2022**
Scale **1" = 20'**
Sheet No. **C-106**
Sheet **15 of 96**

Plot Date: 21 December 2022 - 6:17 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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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

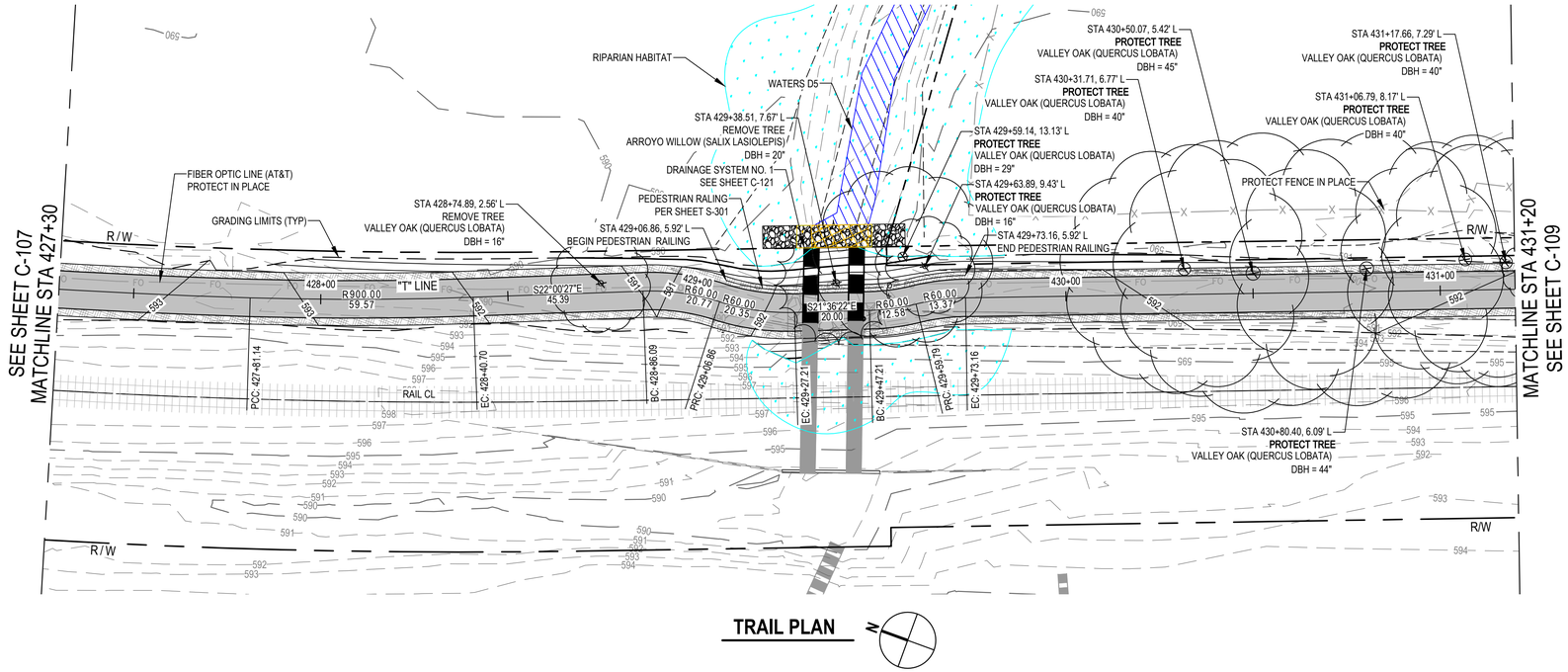
Title TRAIL PLAN AND PROFILE STA 423+40 TO STA 427+30

Size ANSI D

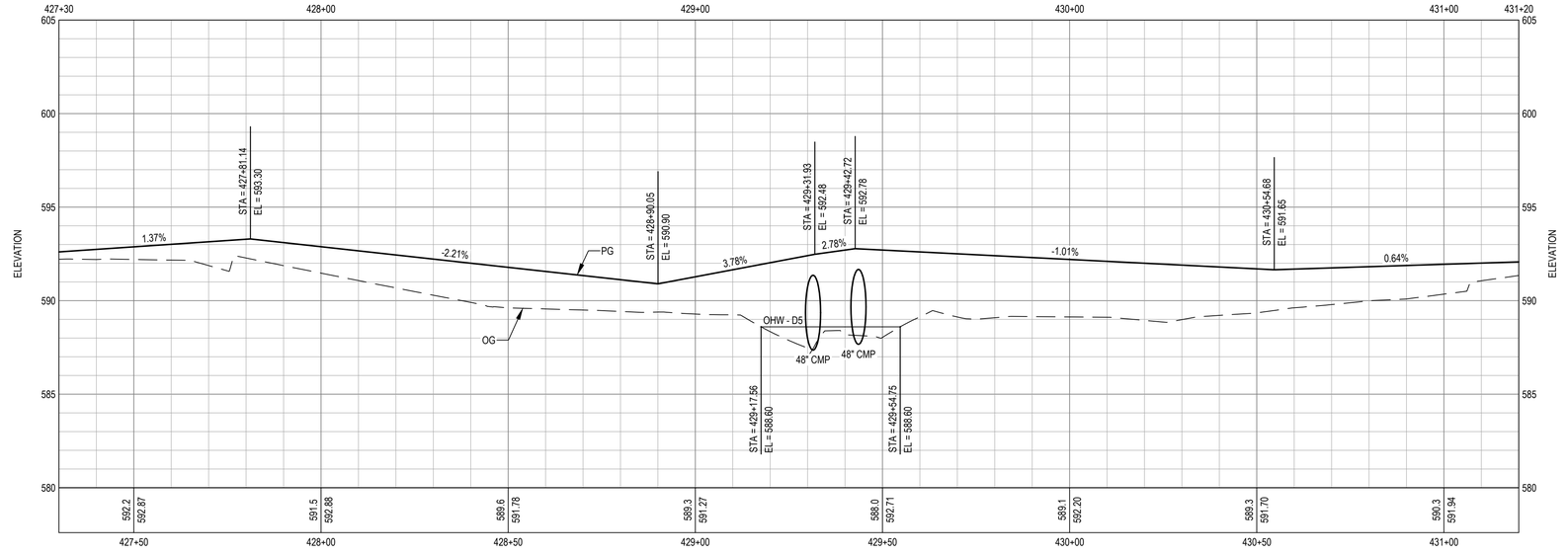
Project No. 12557341 | Date SEP 30, 2022 | Scale 1" = 20'

Sheet No. C-107 | Sheet 16 of 96

Plot Date: 21 December 2022 - 6:17 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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No.	Issue	Checked	Approved	Date
1	PEDESTRIAN RAILING	EF	EF	2023-02-07

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"

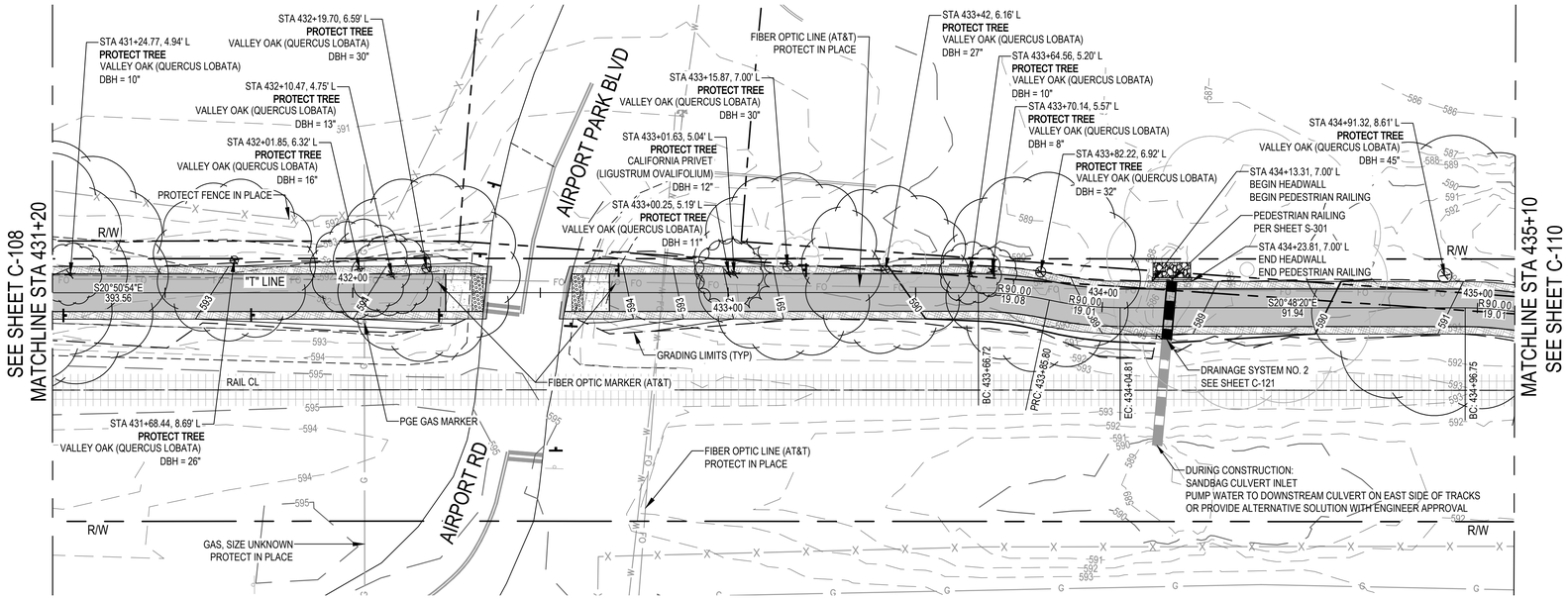
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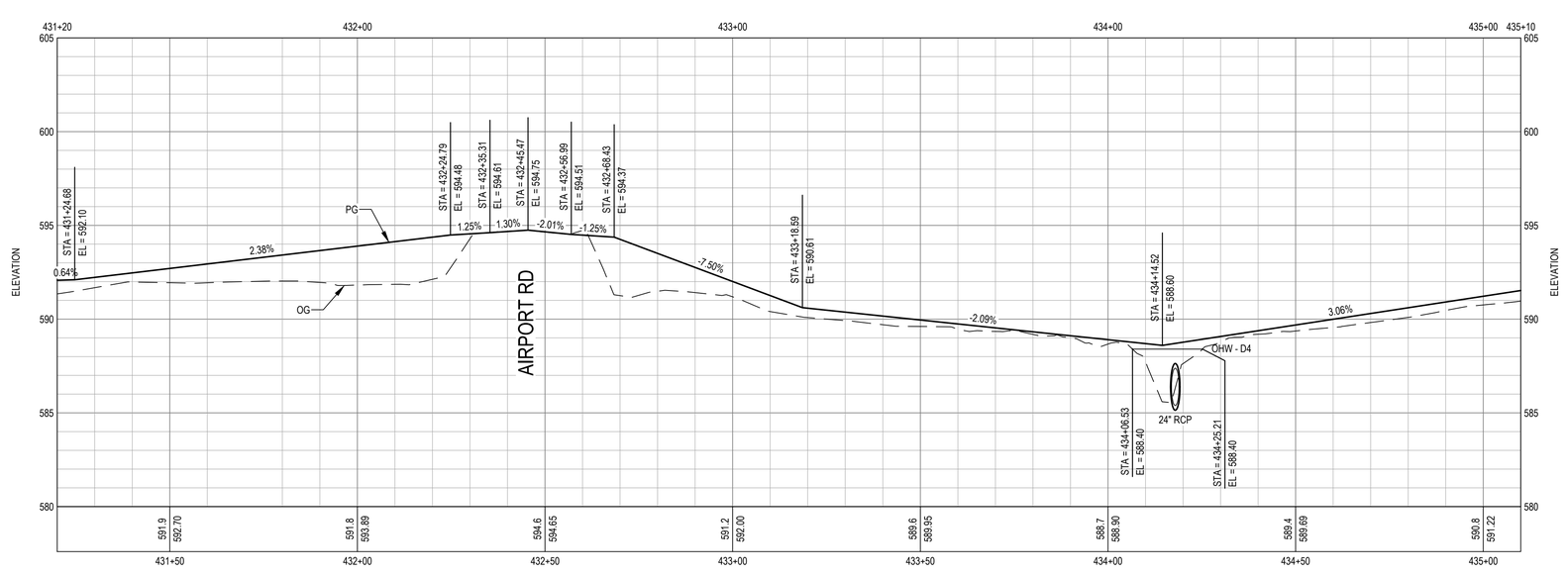
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 427+30 TO STA 431+20**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-108** Sheet **17 of 96**

Plot Date: 7 February 2023 - 9:39 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

SHEET GENERAL NOTES

1. FOR SIGNING AND STRIPING INFORMATION AND LAYOUT, SEE SHEET C-402.
2. 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**

Bar is one inch on original size sheet
0 1"

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2/7/2023

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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 431+20 TO STA 435+10**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-109** Sheet **18 of 96**

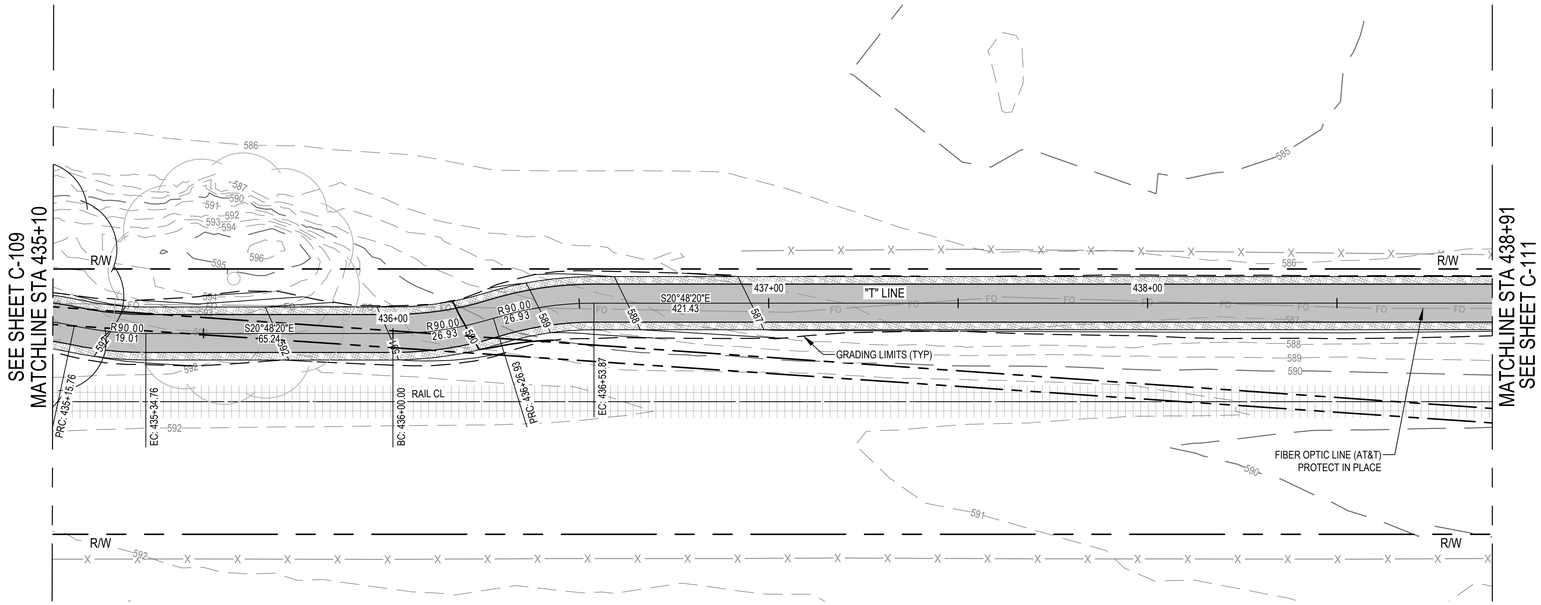
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SHEET GENERAL NOTES

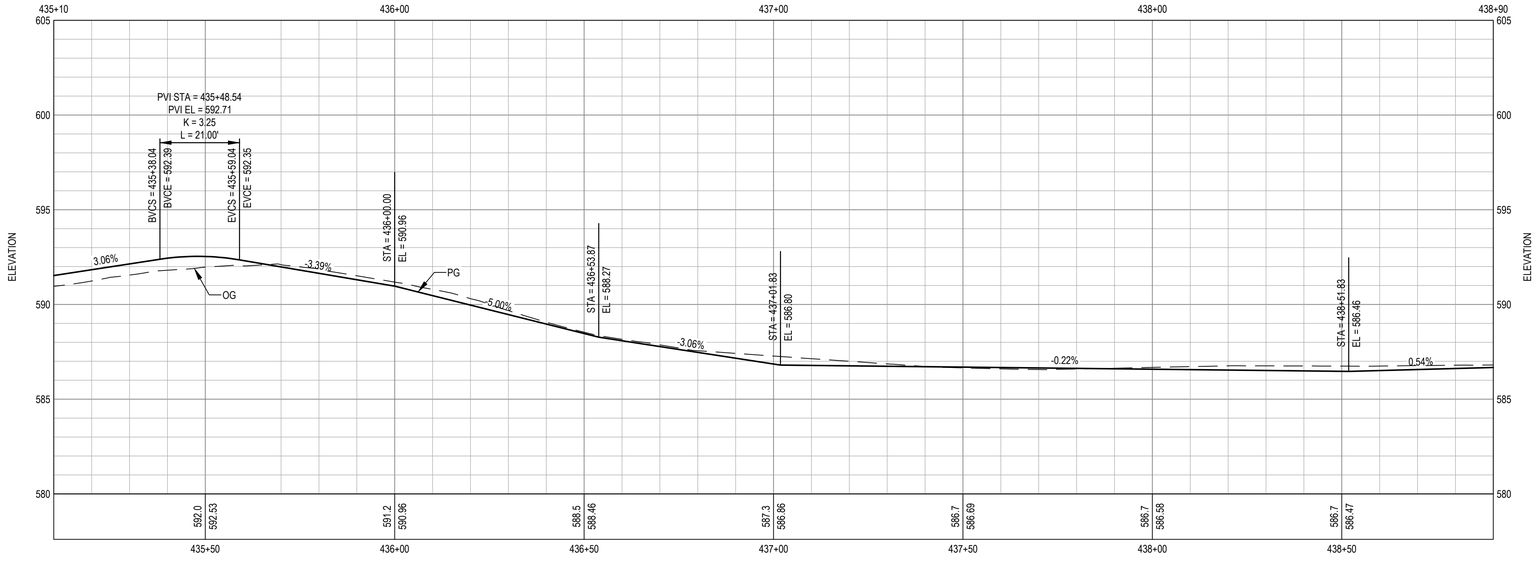
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TRAIL PLAN



TRAIL PROFILE

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0 10' 20' 40'

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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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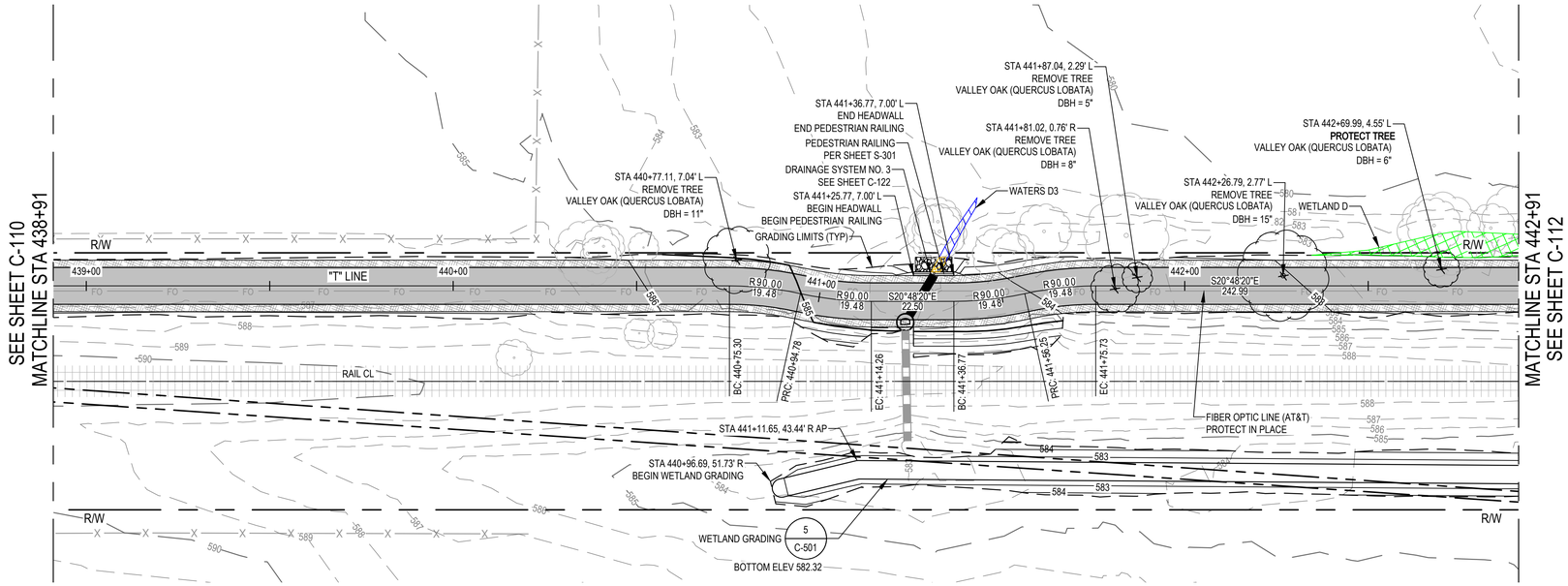
REGISTERED PROFESSIONAL ENGINEER
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No. C64814
CIVIL
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12/21/2022

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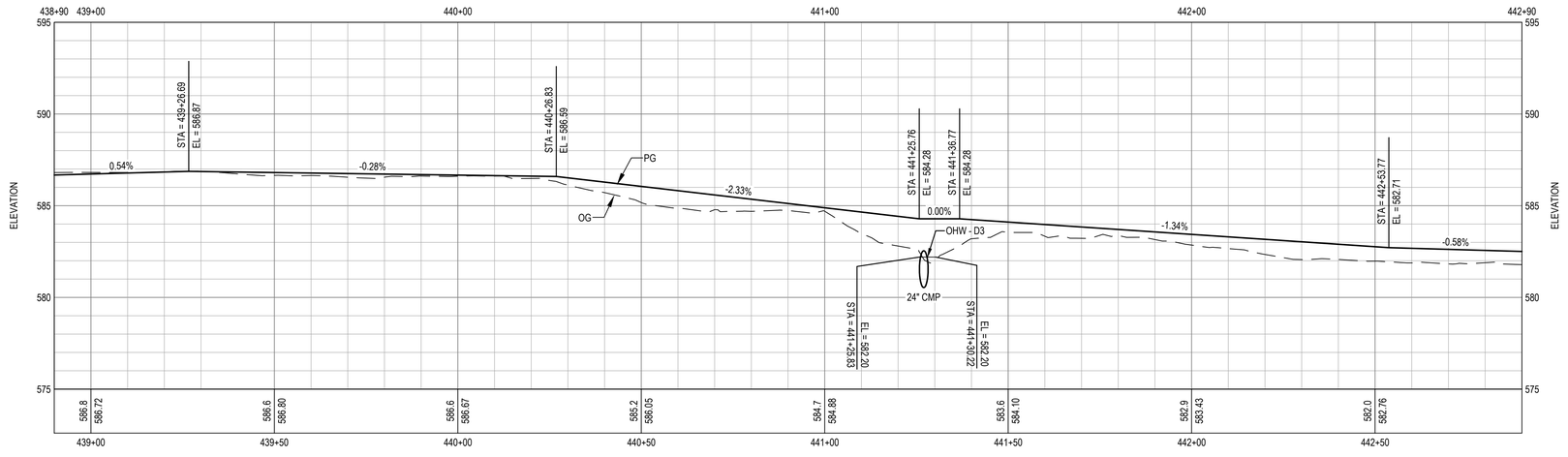
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 435+10 TO STA 438+91**
Size **ANSI D**
Project No. **12557341**
Date **SEP 30, 2022**
Scale **1" = 20'**
Sheet No. **C-110**
Sheet **19 of 96**

Plot Date: 21 December 2022 - 6:18 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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0 10' 20' 40'

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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

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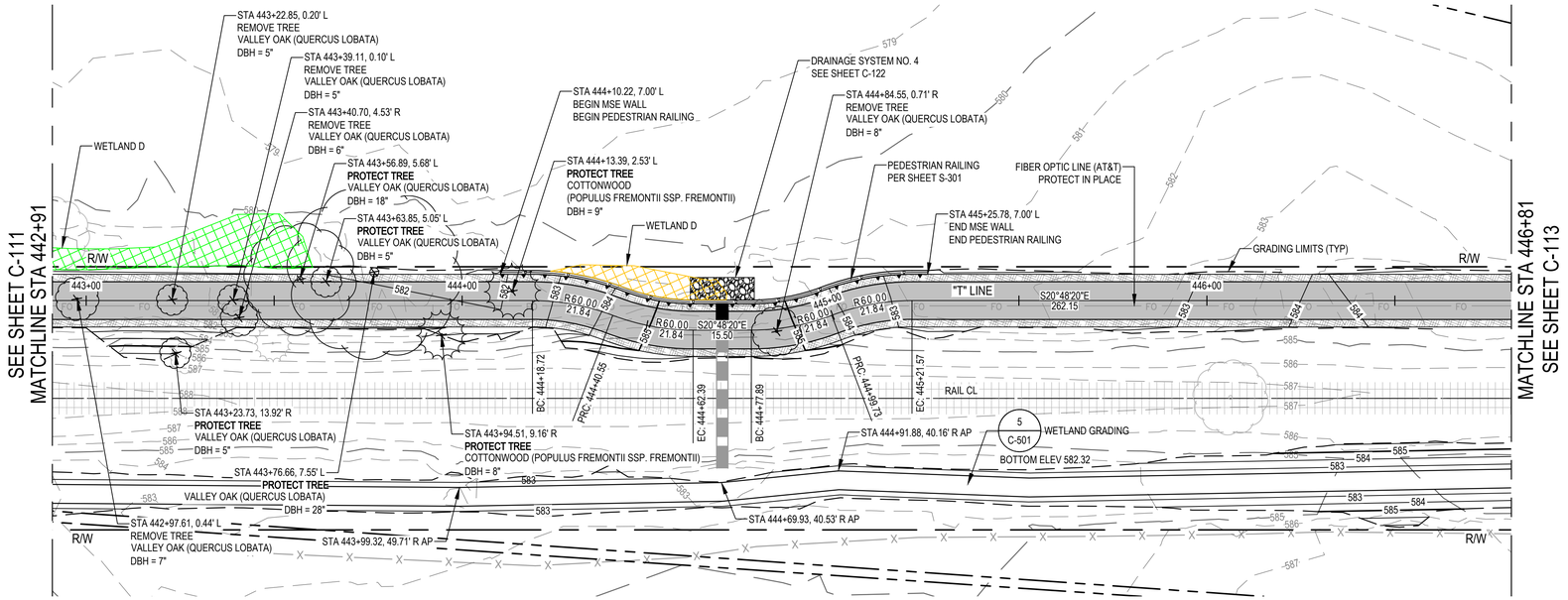
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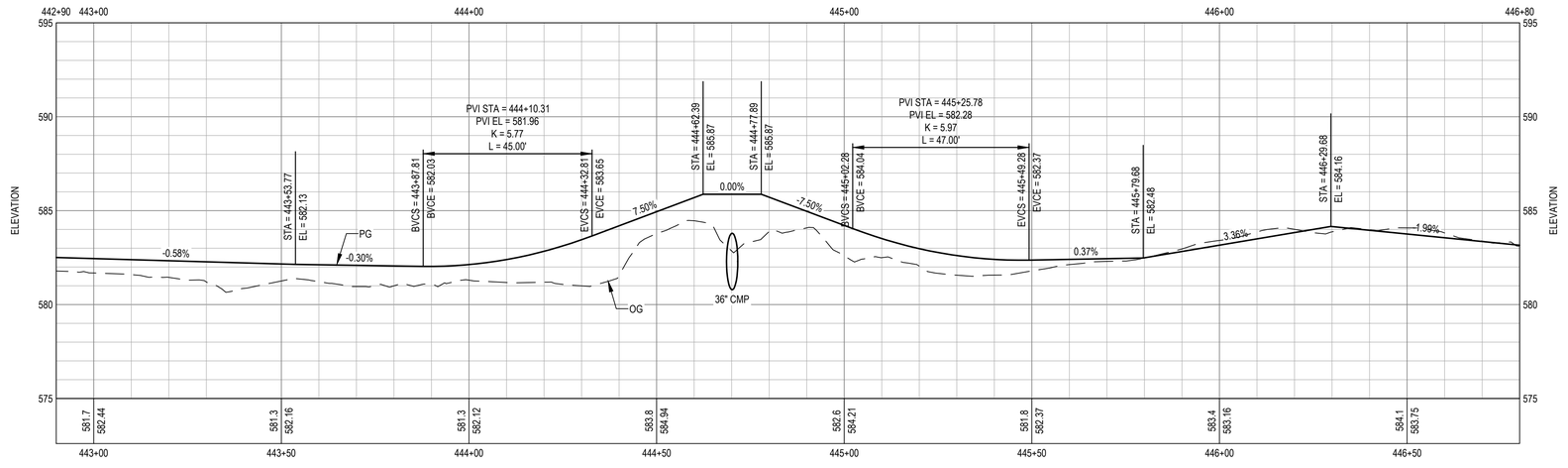
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title TRAIL PLAN AND PROFILE STA 438+91 TO STA 442+91
Size ANSI D
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 20'
Sheet No. C-111
Sheet 20 of 96

Plot Date: 7 February 2023 - 9:46 AM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

SHEET GENERAL NOTES

1. SEE SHEET S-103 FOR WALL PROFILE AND DETAIL.
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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**

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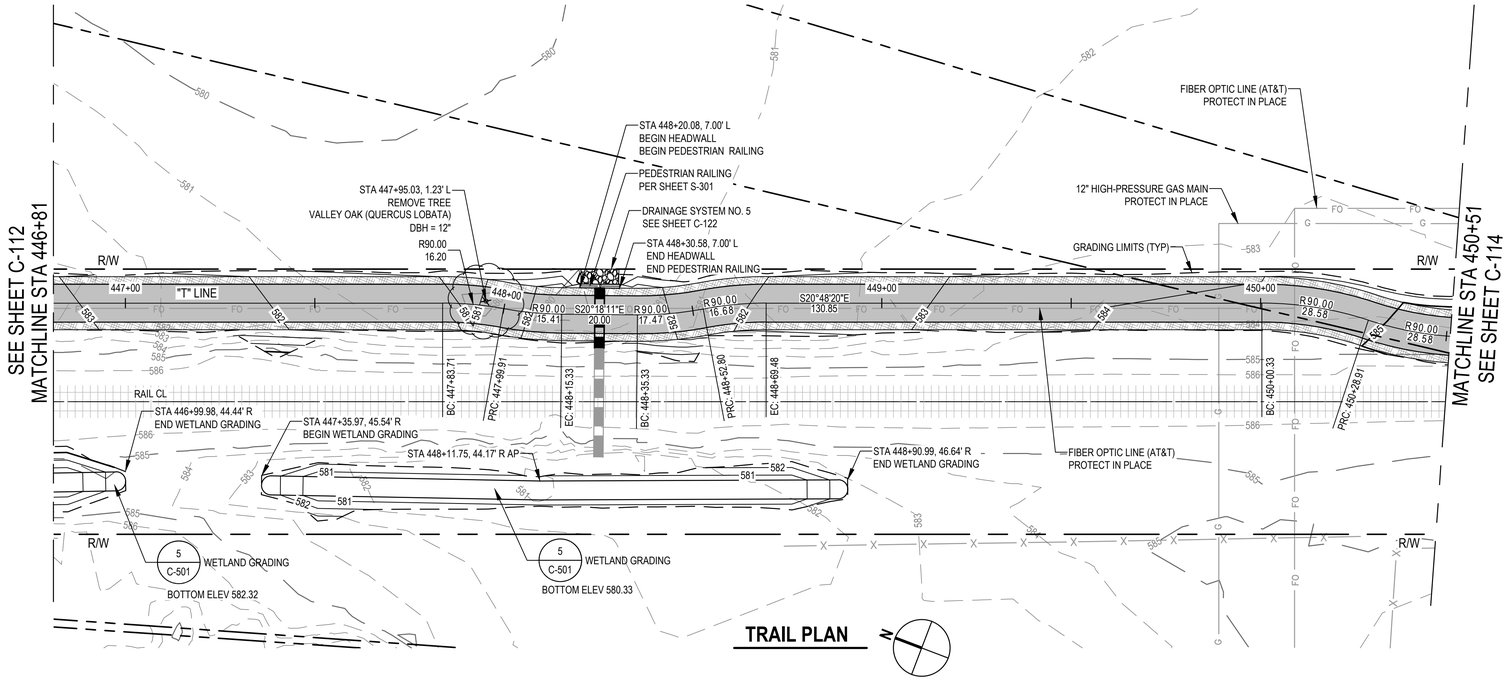
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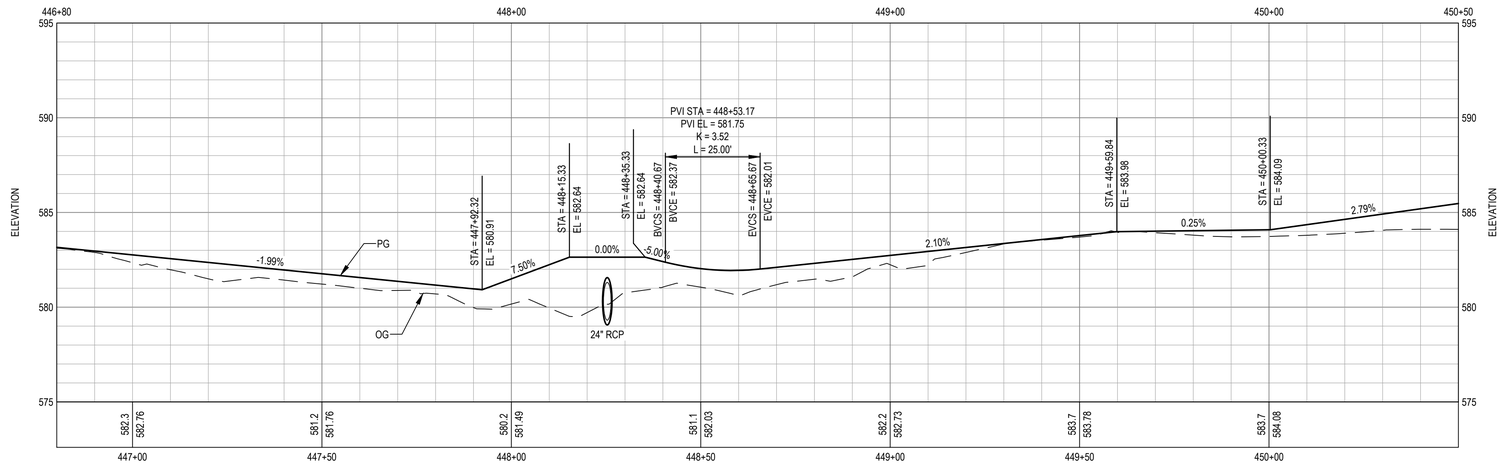
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 442+91 TO STA 446+81**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-112** Sheet **21 of 96**

Plot Date: 7 February 2023 - 9:48 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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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**

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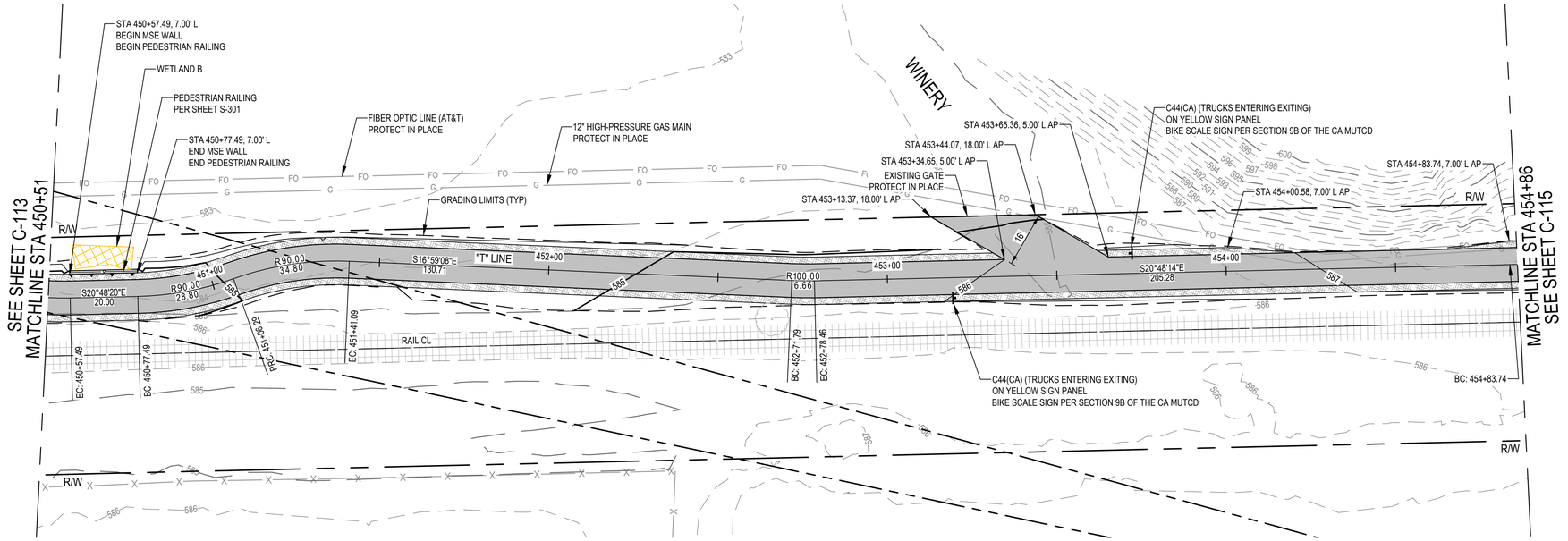
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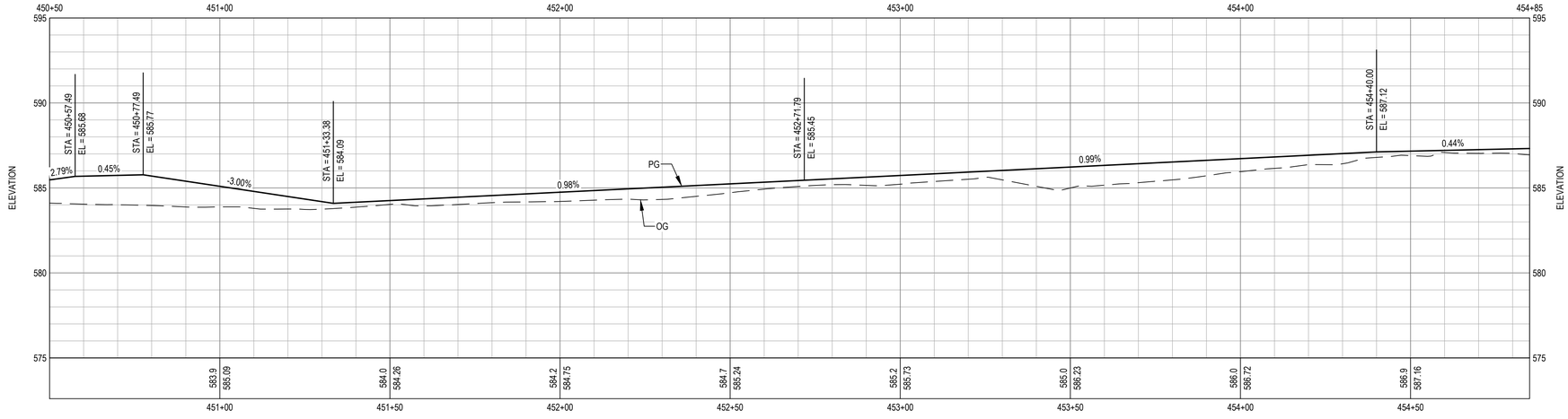
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 446+81 TO STA 450+51**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-113** Sheet **22 of 96**

Plot Date: 7 February 2023 - 10:56 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

SHEET GENERAL NOTES

1. 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
1	PEDESTRIAN RAILING	EF	EF	2023-02-07

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"

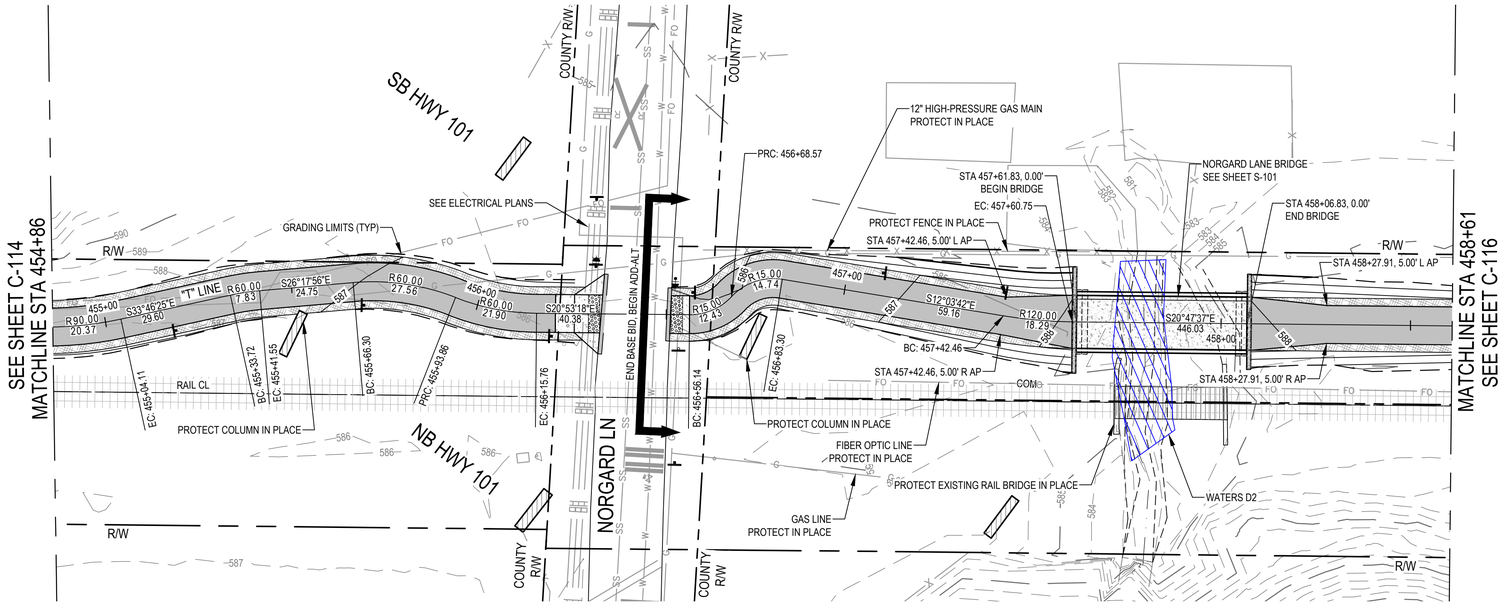
REGISTERED PROFESSIONAL ENGINEER ERIN D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
2/7/2023

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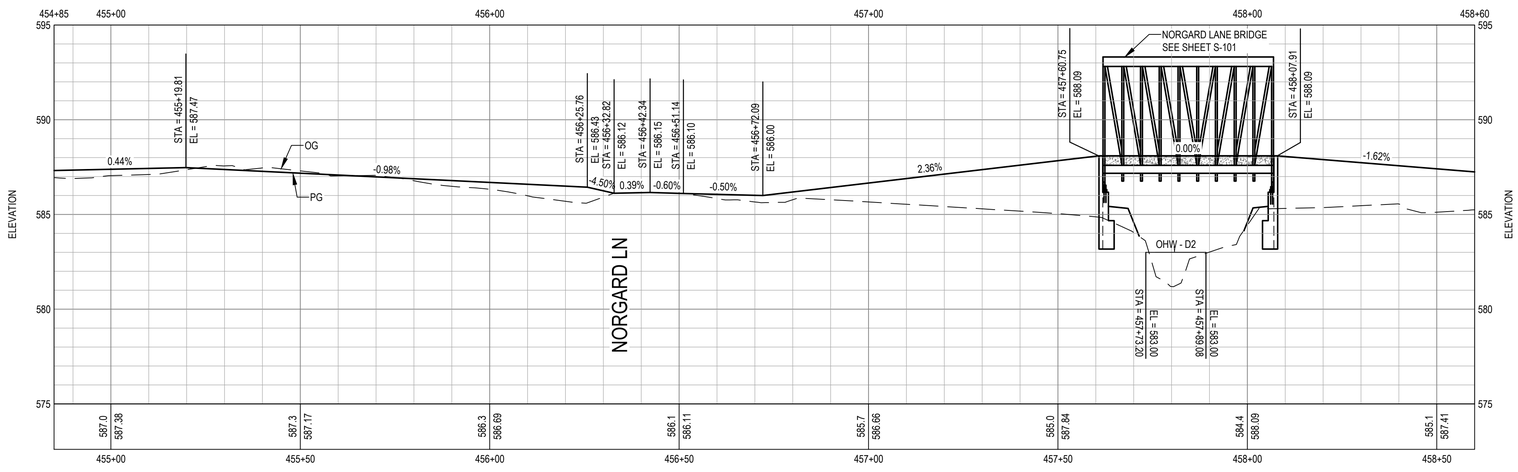
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 450+51 TO STA 454+86**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-114** Sheet **23 of 96**

Plot Date: 7 February 2023 - 10:57 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

SHEET GENERAL NOTES

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No.	Issue	Checked	Approved	Date
1	UPDATED NOTES	EF	EF	2022-12-20

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"

REGISTERED PROFESSIONAL ENGINEER ERIN D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
12/21/2022

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

Title **TRAIL PLAN AND PROFILE**
STA 454+86 TO STA 458+61
BASE BID AND ADD ALTERNATIVE

Size **ANSI D**

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

Sheet No. **C-115** Sheet **24 of 96**

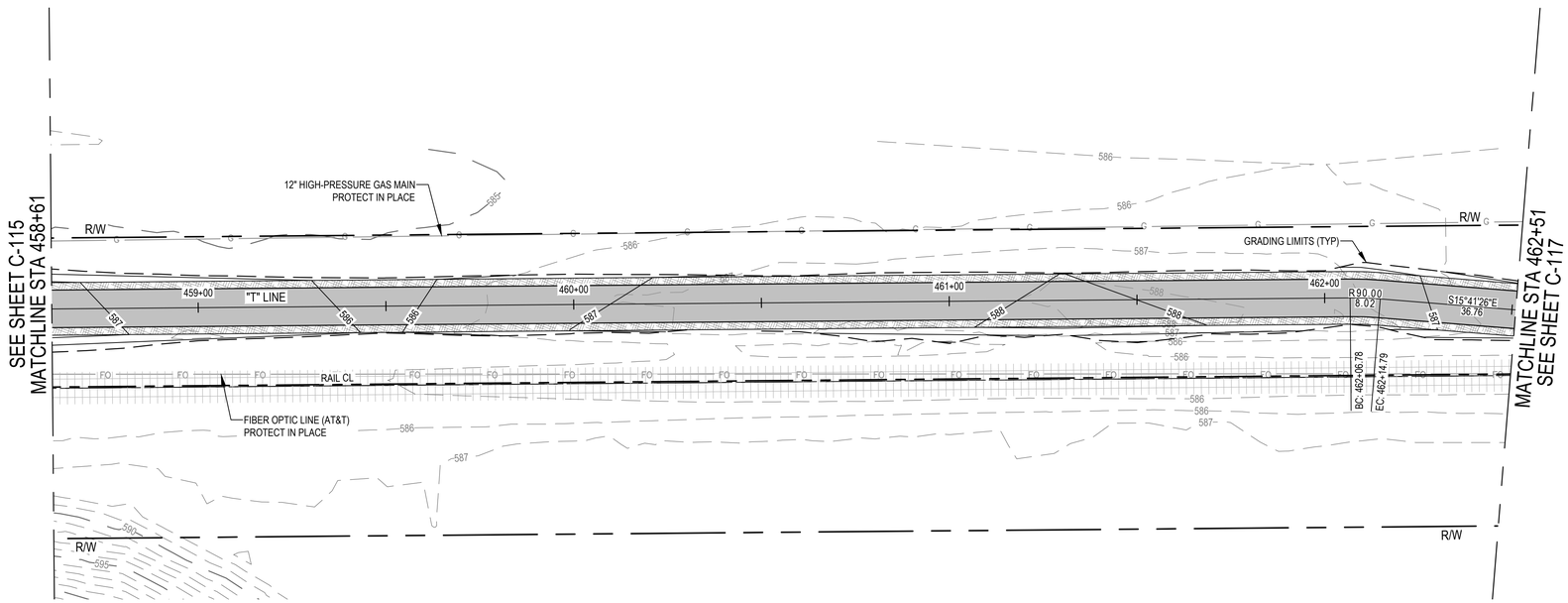
Plot Date: 21 December 2022 - 6:19 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

SHEET GENERAL NOTES

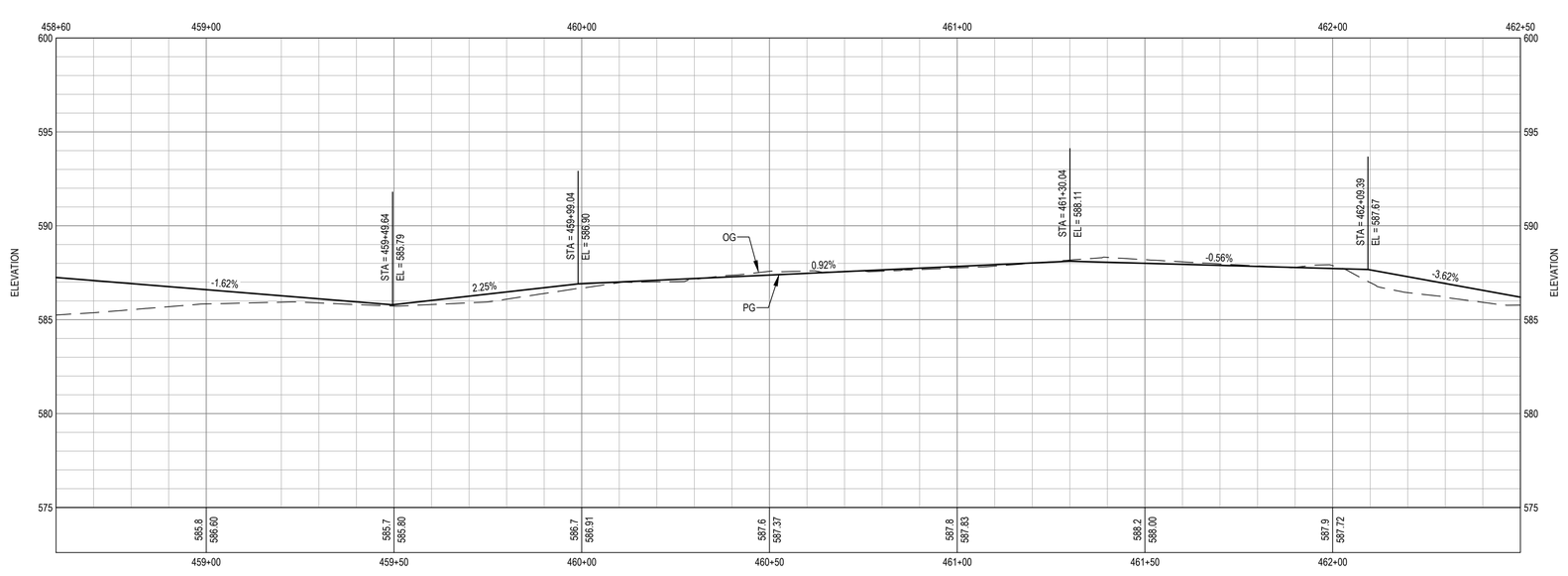
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TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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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
0 1"

REGISTERED PROFESSIONAL ENGINEER
ERIN D. FANSELAU
No. C64814
CIVIL
STATE OF CALIFORNIA
12/21/2022

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

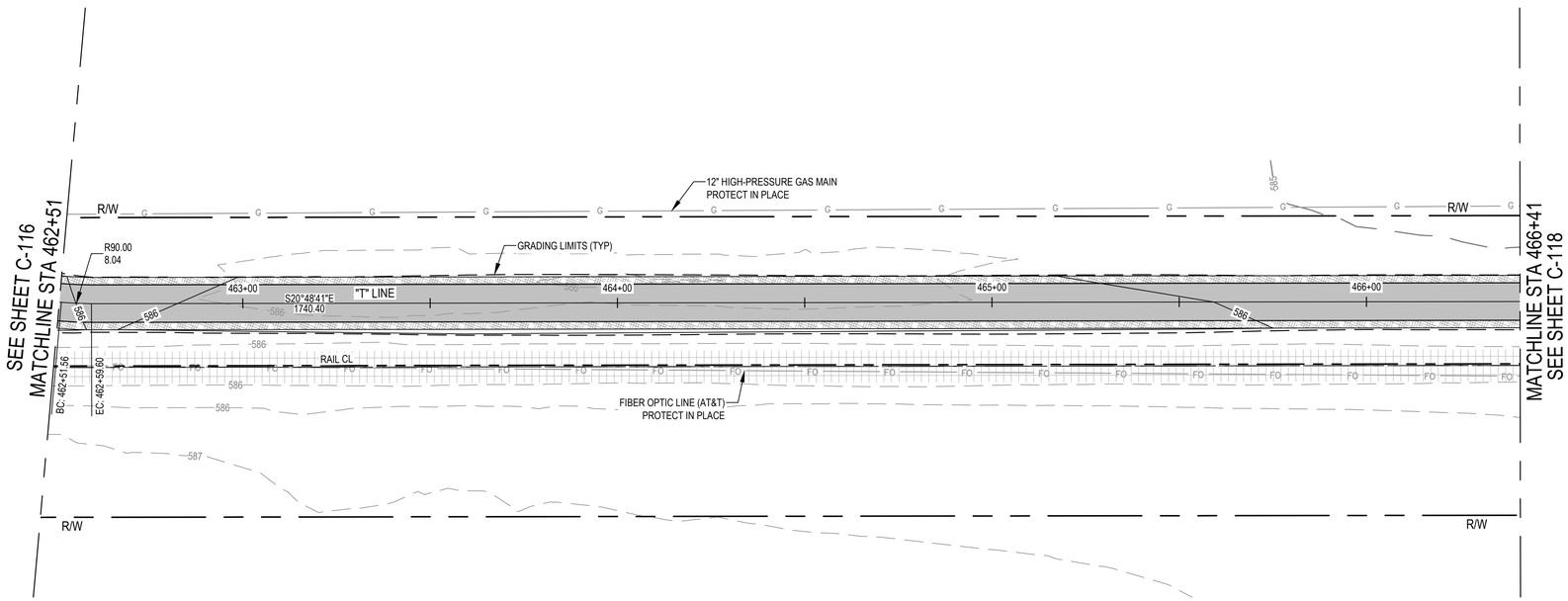
Title **TRAIL PLAN AND PROFILE STA 458+61 TO STA 462+51 ADD ALTERNATIVE**

Size **ANSI D**

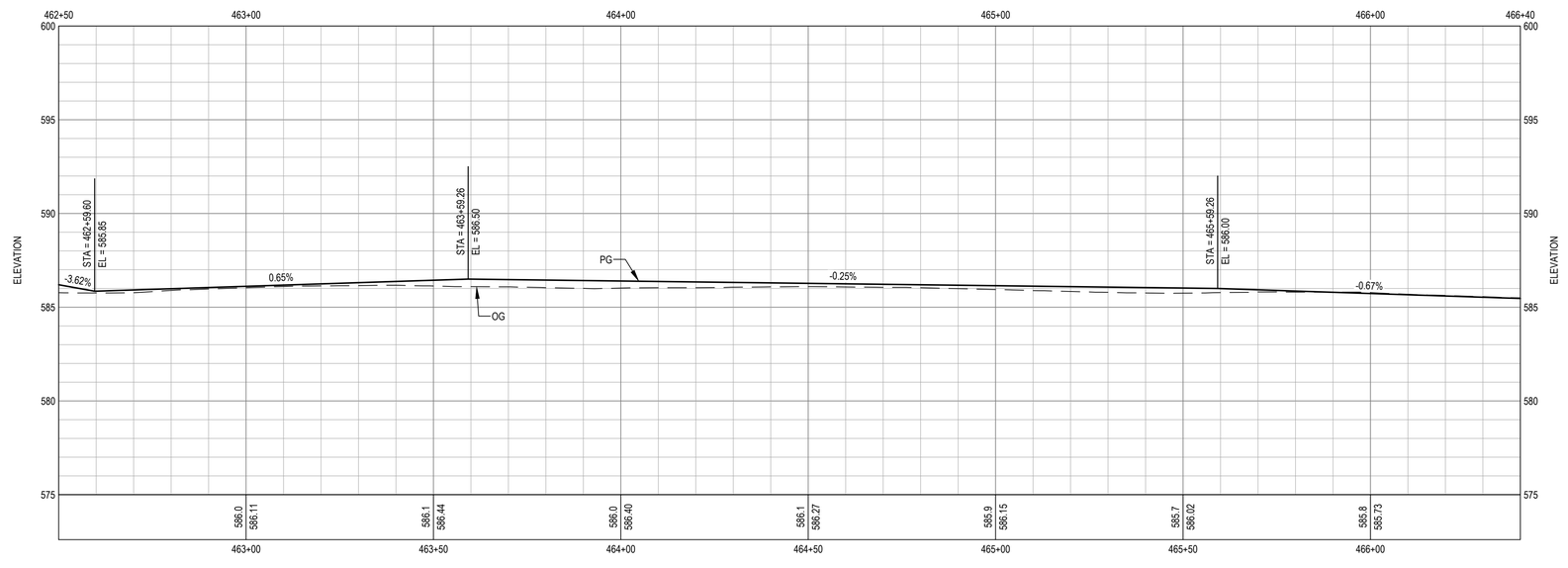
Project No. **12557341**
Date **SEP 30, 2022**
Scale **1" = 20'**

Sheet No. **C-116**
Sheet **25 of 96**

Plot Date: 21 December 2022 - 6:19 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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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"

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12/21/2022

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Client CITY OF UKIAH

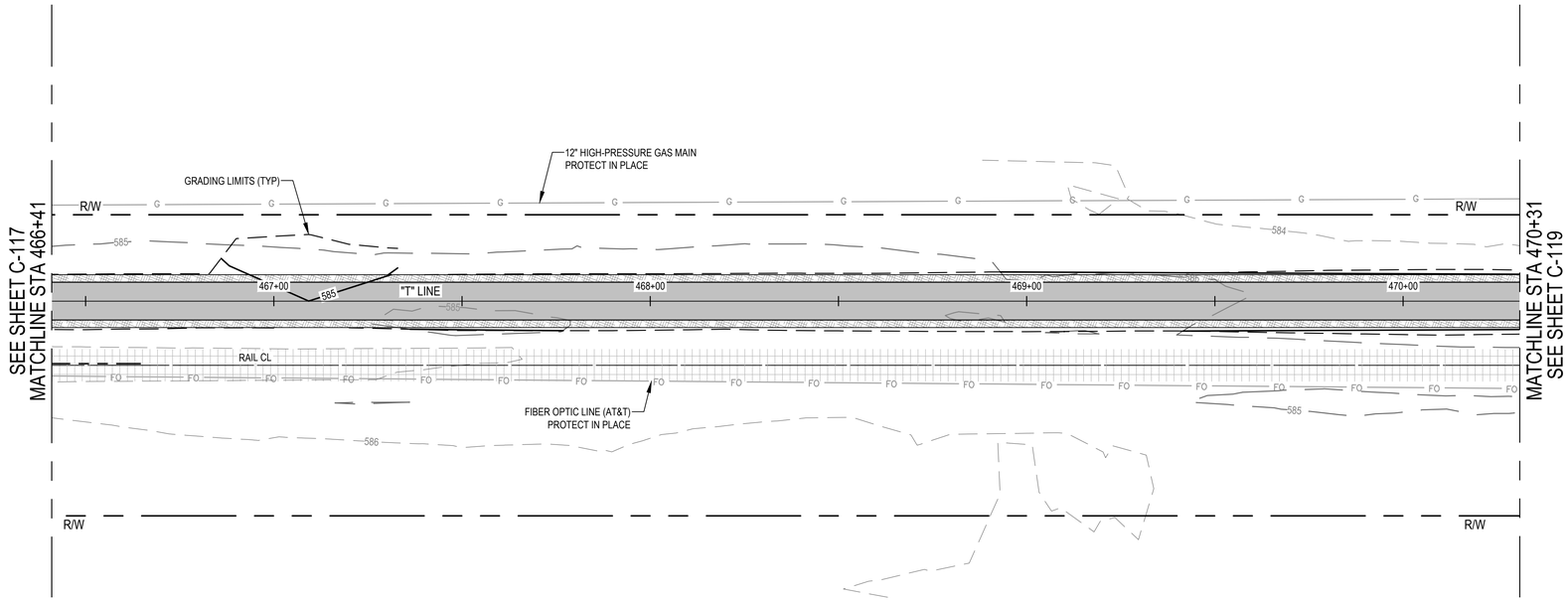
Project THE GREAT REDWOOD TRAIL PHASE 4

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

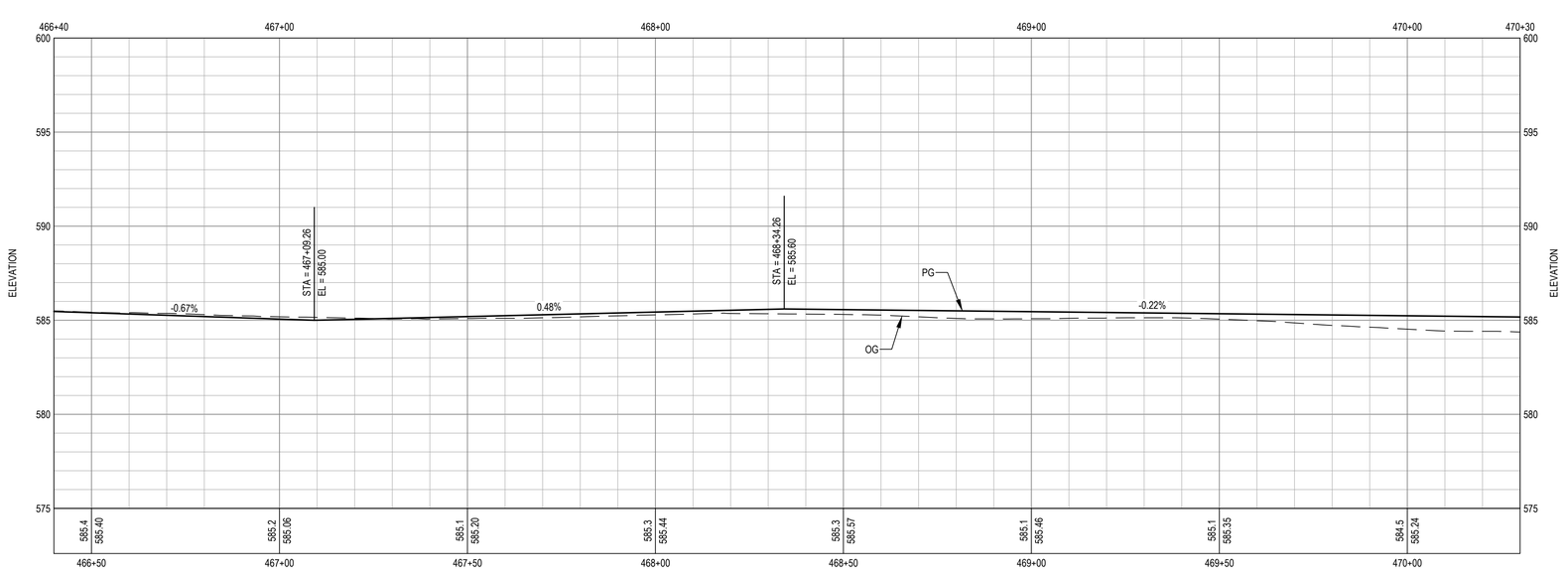
Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	C-117	26 of 96

Plot Date: 21 December 2022 - 6:19 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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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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12/21/2022

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

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

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	C-118	27 of 96

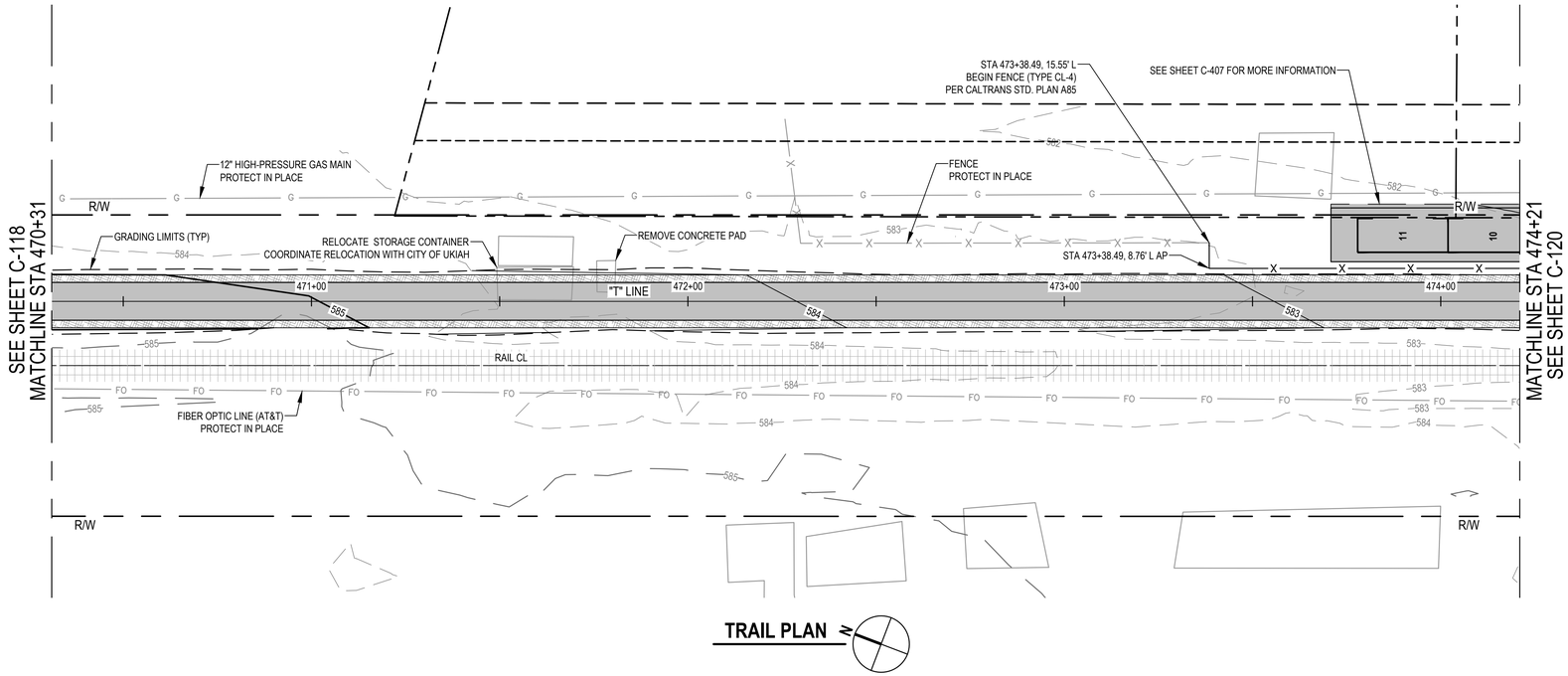
Plot Date: 21 December 2022 - 6:19 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

SHEET GENERAL NOTES

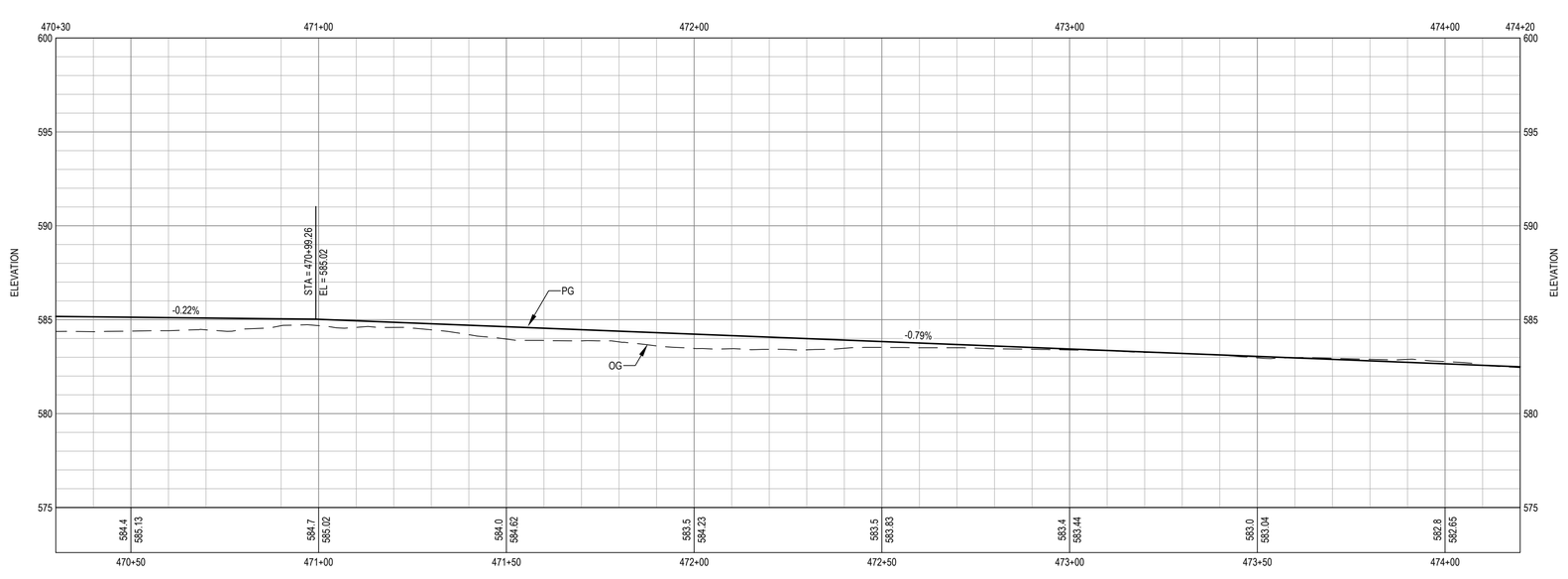
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TRAIL PLAN



TRAIL PROFILE

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0 10' 20' 40'

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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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0 1"

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

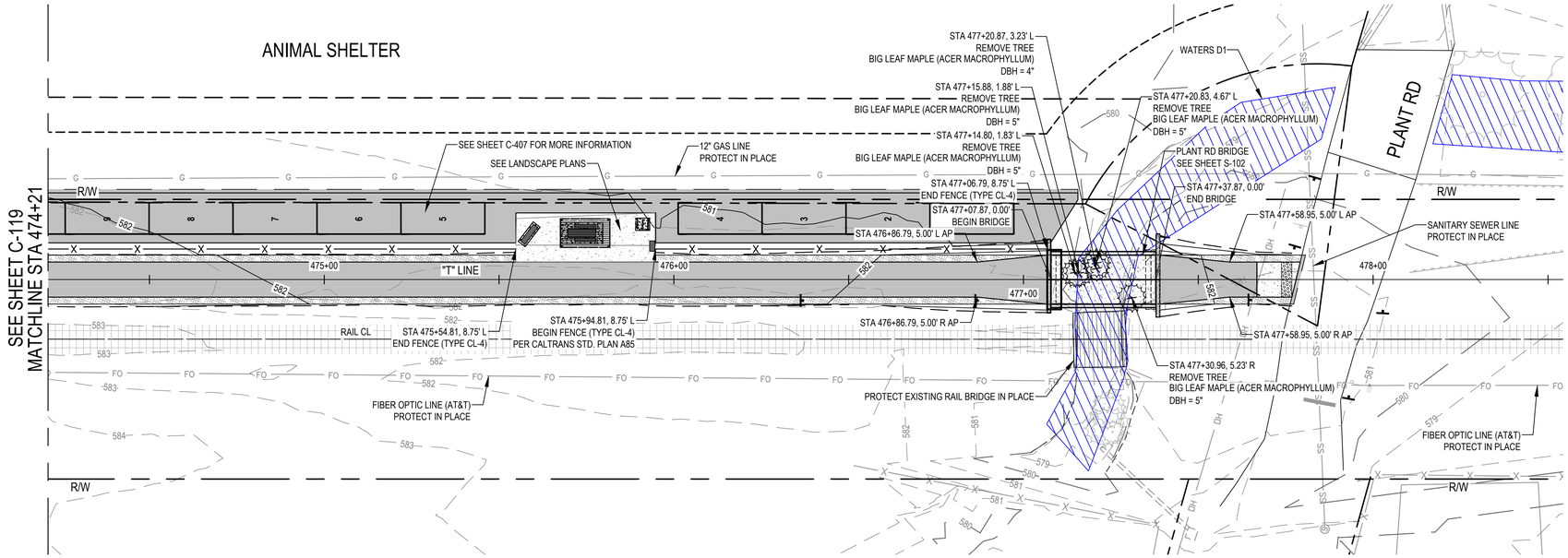
Title **TRAIL PLAN AND PROFILE STA 470+31 TO STA 474+21 ADD ALTERNATIVE**

Size **ANSI D**

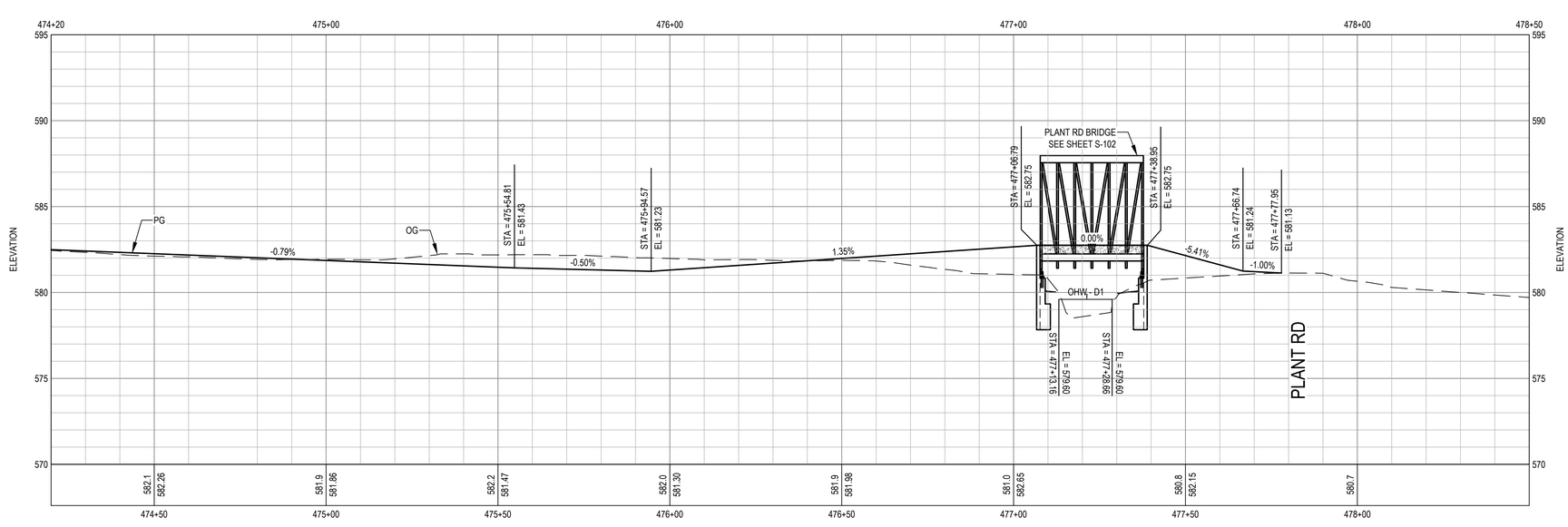
Project No.	Date	Scale
12557341	**SEP 30, 2022**	**1" = 20'**

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

Plot Date: 21 December 2022 - 6:19 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg



TRAIL PLAN



TRAIL PROFILE

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

0 10' 20' 40'

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No.	Issue	Checked	Approved	Date
1	UPDATED NOTES	EF	EF	2022-12-20

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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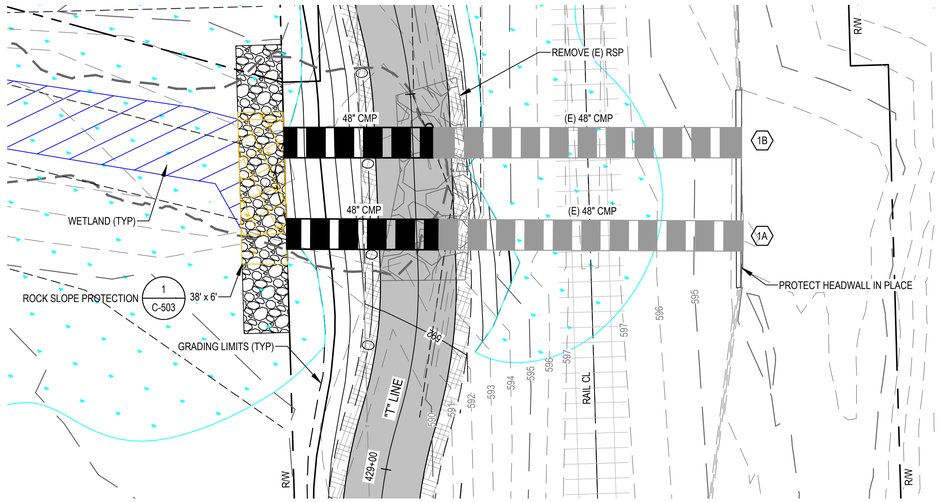
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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **TRAIL PLAN AND PROFILE STA 474+21 TO STA 478+50 ADD ALTERNATIVE**
Size **ANSI D**
Project No. **12557341** Date **SEP 30, 2022** Scale **1" = 20'**
Sheet No. **C-120** Sheet **29 of 96**

Plot Date: 21 December 2022 - 6:20 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D101.dwg

SHEET GENERAL NOTES

1. 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.

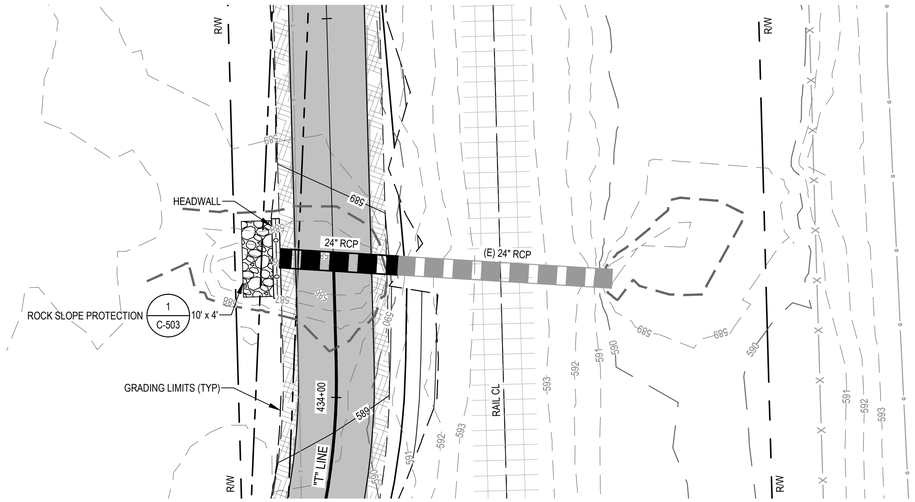


1 DRAINAGE SYSTEM 1 - PLAN

SCALE: 1" = 10'

1" = 10' 0 10' 20'

N

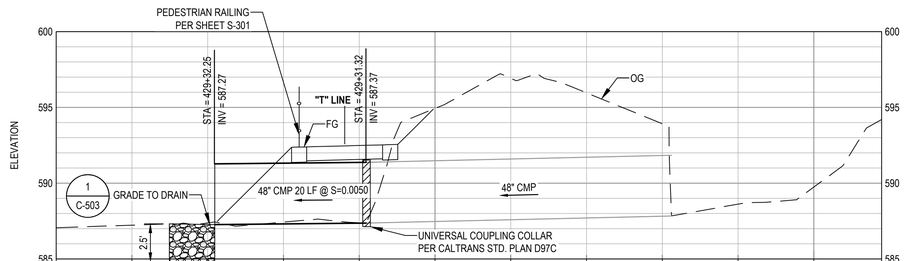


2 DRAINAGE SYSTEM 2 - PLAN

SCALE: 1" = 10'

1" = 10' 0 10' 20'

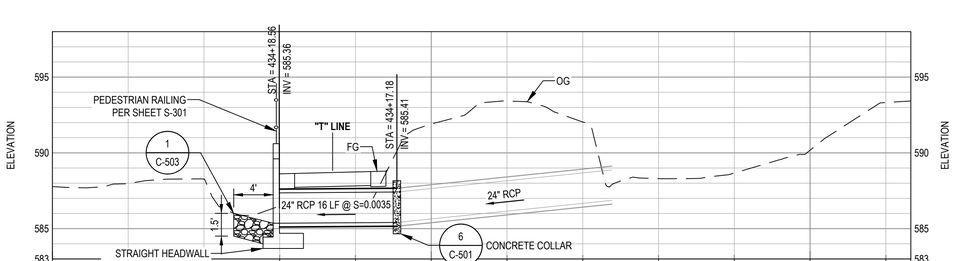
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DS-1A - PROFILE

1" = 10' 0 10' 20' H:

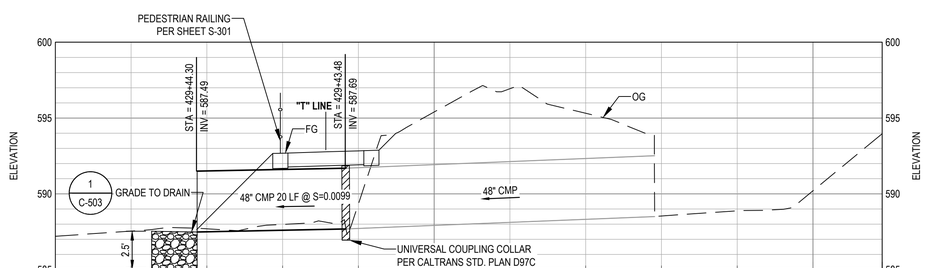
1" = 5' 0 5' 10' V:



DS-2 - PROFILE

1" = 10' 0 10' 20' H:

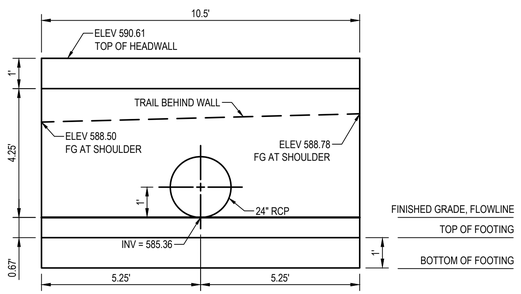
1" = 5' 0 5' 10' V:



DS-1B - PROFILE

1" = 10' 0 10' 20' H:

1" = 5' 0 5' 10' V:



DRAINAGE SYSTEM 2 - HEADWALL PROFILE

SCALE: 1" = 2.5'

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No.	Issue	Checked	Approved	Date
1	PEDESTRIAN RAILING	EF	EF	2023-02-07

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 ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA

2/7/2023

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

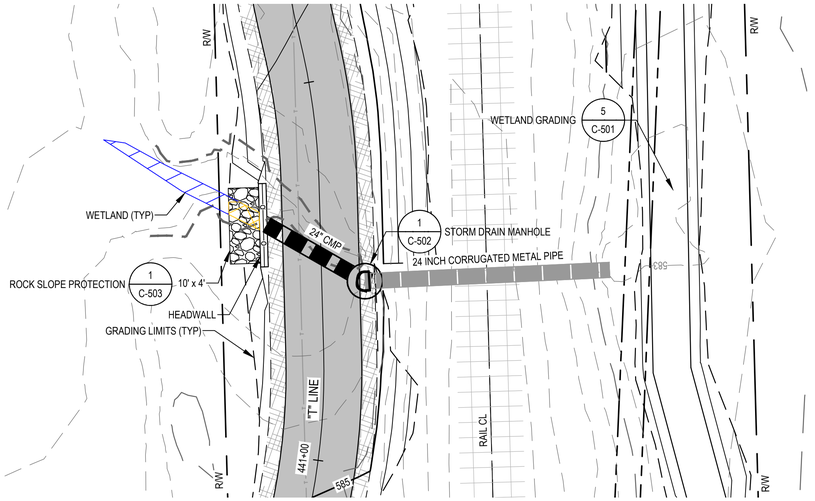
Title **DRAINAGE PLAN 1**

Size **ANSI D**

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

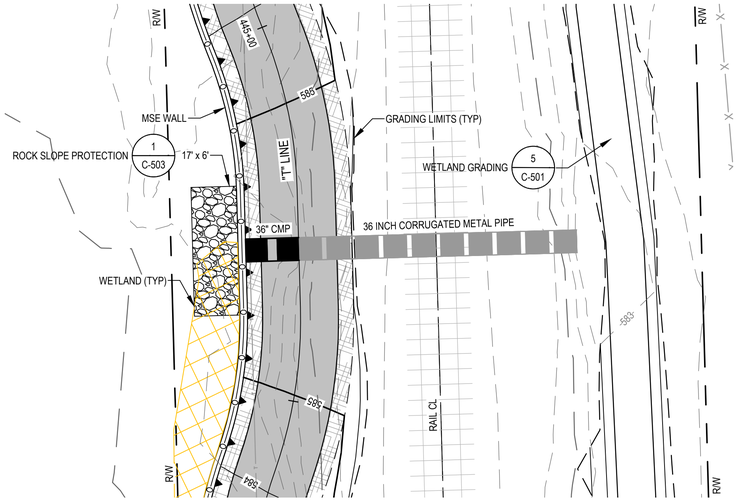
Sheet No. **C-121** Sheet **30** of **96**

Plot Date: 7 February 2023 - 11:08 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-DRN-RD-D121.dwg



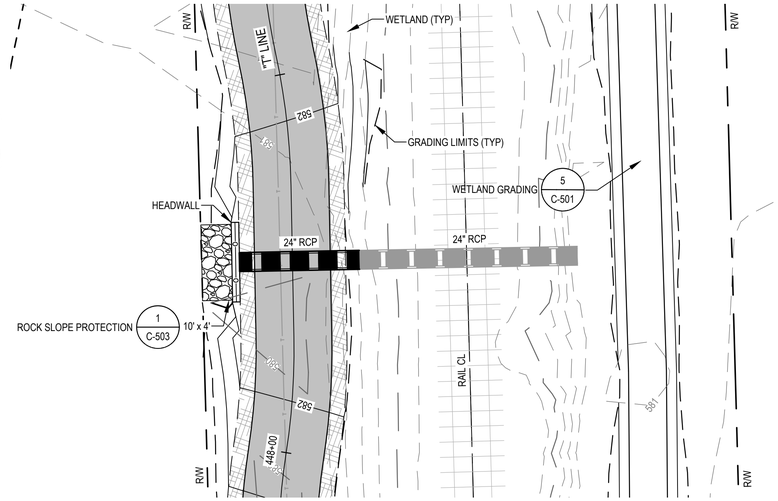
3 DRAINAGE SYSTEM 3 - PLAN

SCALE: 1" = 10'



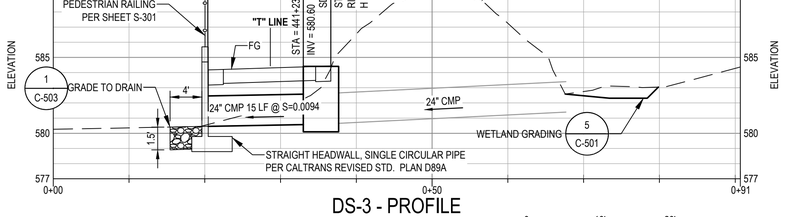
4 DRAINAGE SYSTEM 4 - PLAN

SCALE: 1" = 10'



5 DRAINAGE SYSTEM 5 - PLAN

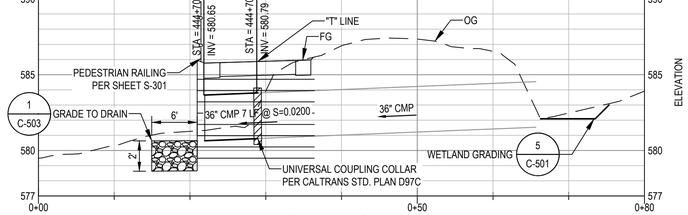
SCALE: 1" = 10'



DS-3 - PROFILE

1" = 10' 0 10' 20' H:

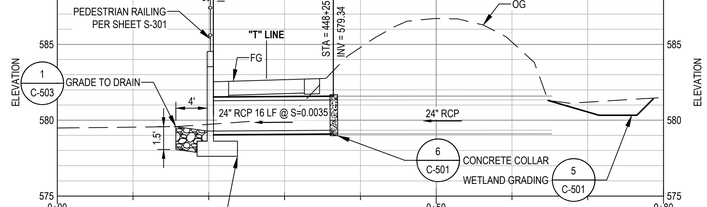
1" = 5' 0 5' 10' V:



DS-4 - PROFILE

1" = 10' 0 10' 20' H:

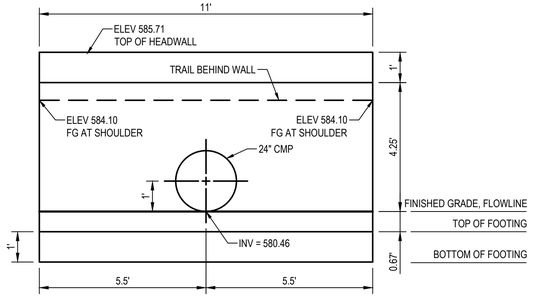
1" = 5' 0 5' 10' V:



DS-5 - PROFILE

1" = 10' 0 10' 20' H:

1" = 5' 0 5' 10' V:



DRAINAGE SYSTEM 3 - HEADWALL PROFILE

SCALE: 1" = 2.5'

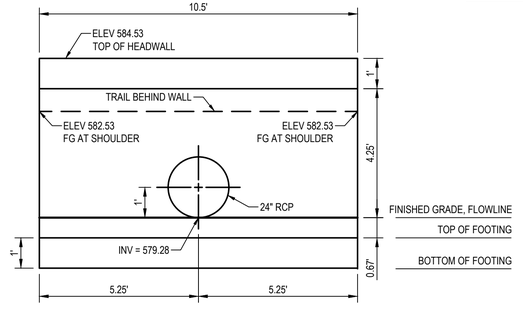
FOR MSE WALL PROFILE SEE SHEET S-103

DRAINAGE SYSTEM 4 - MSE WALL PROFILE

SCALE: 1" = 2.5'

SHEET GENERAL NOTES

1. 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'

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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 ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA

2/7/2023

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

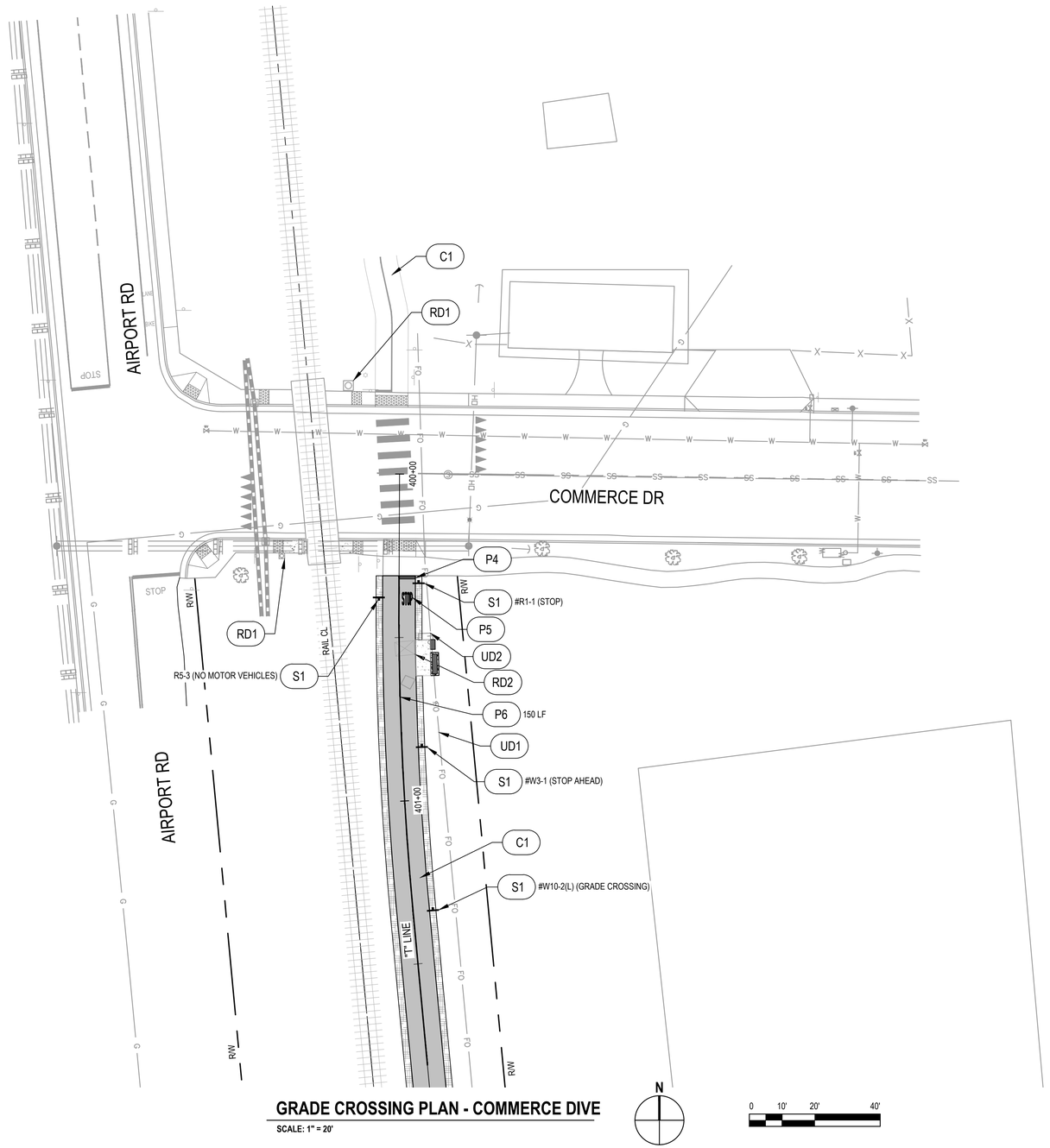
Title **DRAINAGE PLAN 2**

Size **ANSI D**

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

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

Plot Date: 7 February 2023 - 11:10 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-DRN-RD-D121.dwg



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 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.
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 YEILD 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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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"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA

12/21/2022

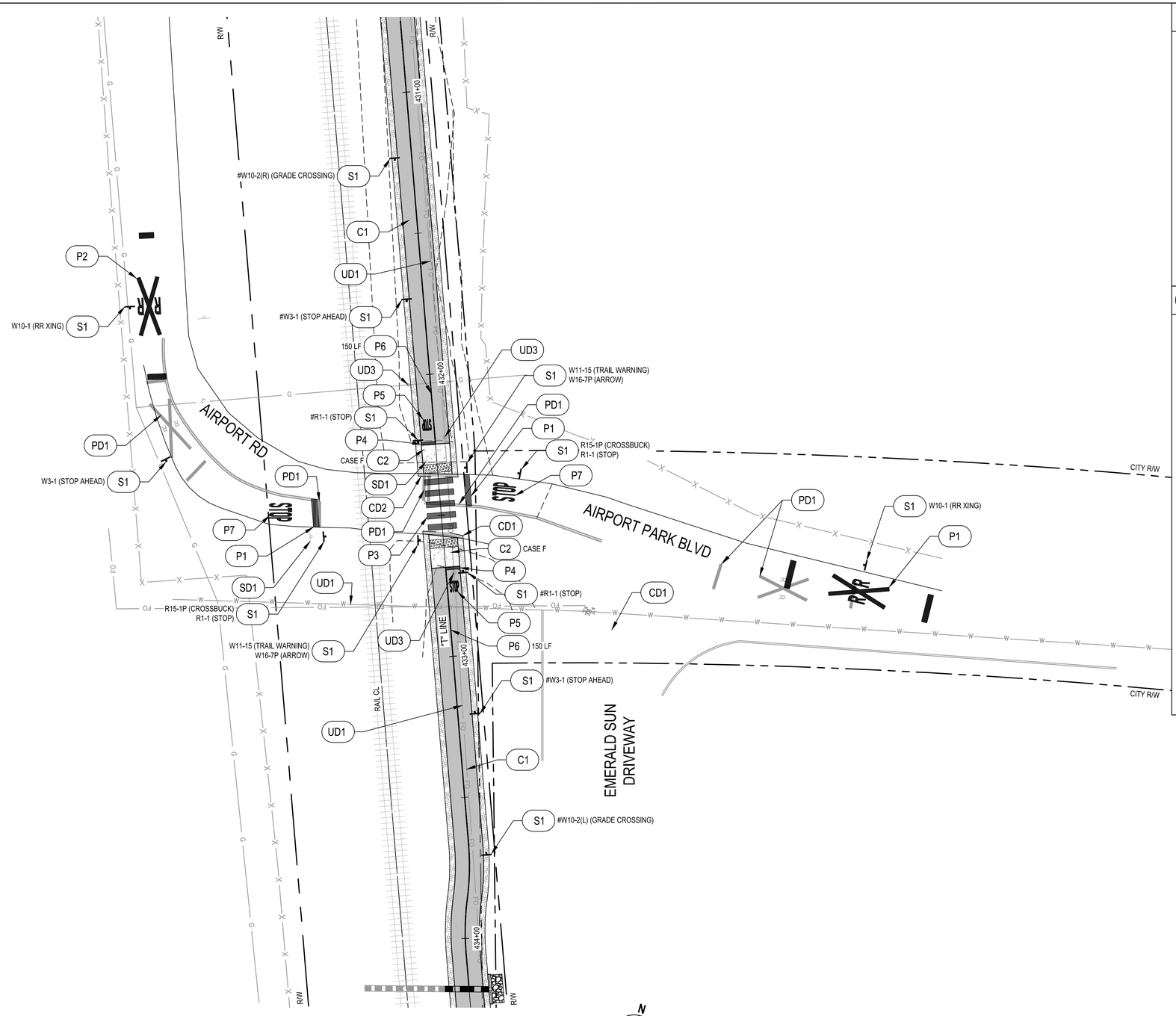
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title GRADE CROSSING PLAN - COMMERCE DIVE
Size ANSI D

Project No. 12557341
Date SEP 30, 2022
Scale 1" = 20'
Sheet No. C-401
Sheet 32 of 96

Plot Date: 21 December 2022 - 6:25 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D401.dwg



GRADE CROSSING PLAN - AIRPORT RD / AIRPORT PARK BLVD

SCALE: 1" = 20'

0 10' 20' 40'

GENERAL NOTES

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KEY NOTES

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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

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P6 4" YELLOW PAINT STRIPE.
P7 'STOP' WHITE THERMOPLASTIC MARKING PER CALTRANS STD. PLAN A24D.
P8 THERMOPLASTIC WHITE YEILD 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

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UD2 REMOVE METER.
UD3 RELOCATE UTILITY MARKER.

RAIL NOTES

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RD2 REMOVE CIL.

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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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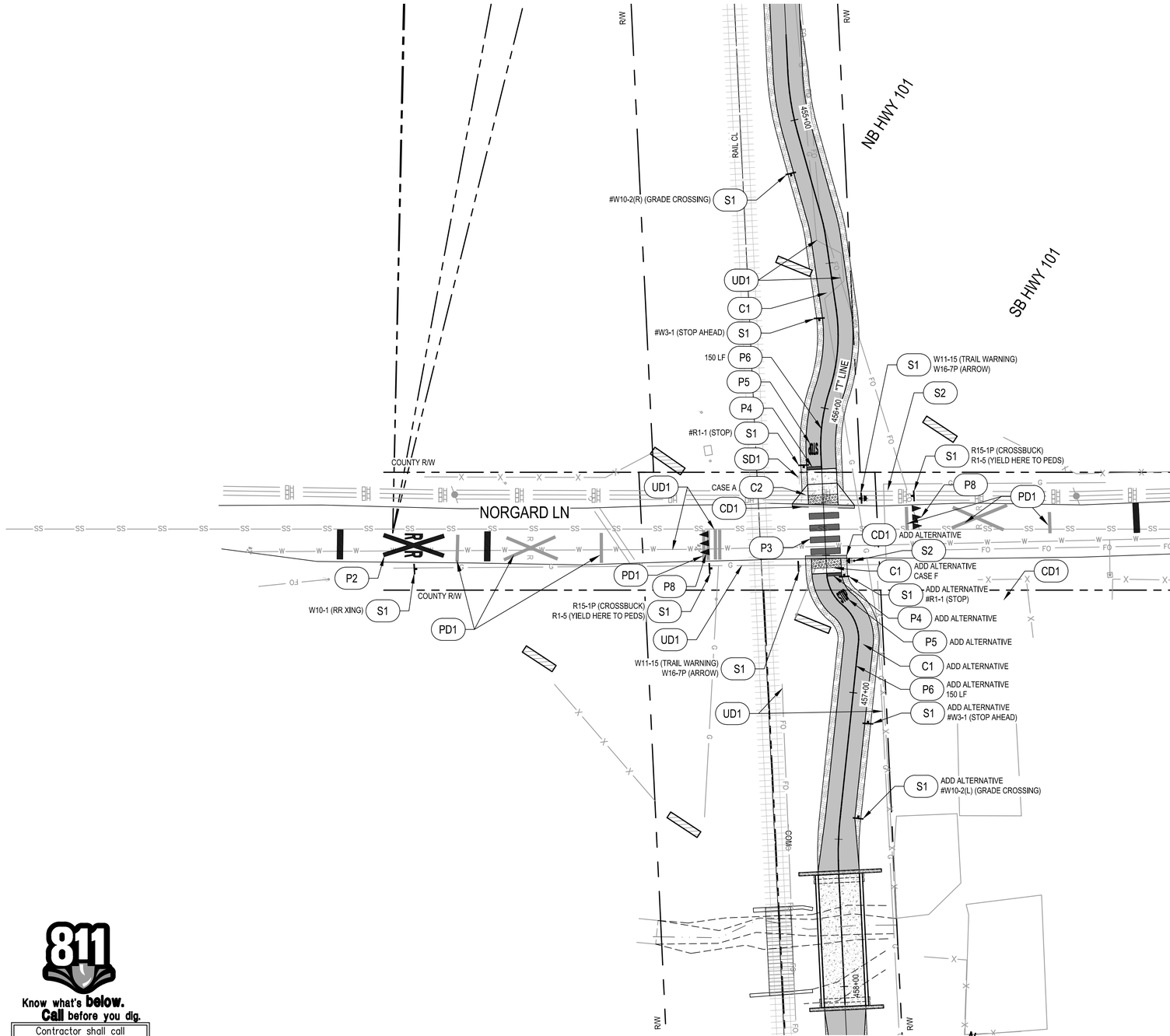
REGISTERED PROFESSIONAL ENGINEER ERIK D. FANGEL No. C64814 CIVIL STATE OF CALIFORNIA
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title GRADE CROSSING PLAN - AIRPORT RD / AIRPORT PARK BLVD
Size ANSI D
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 20'
Sheet No C-402
Sheet 33 of 96

Plot Date: 21 December 2022 - 6:25 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D401.dwg



GRADING CROSSING PLAN -NORGARD LN

SCALE: 1" = 20'

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CD3 REMOVE FENCE.

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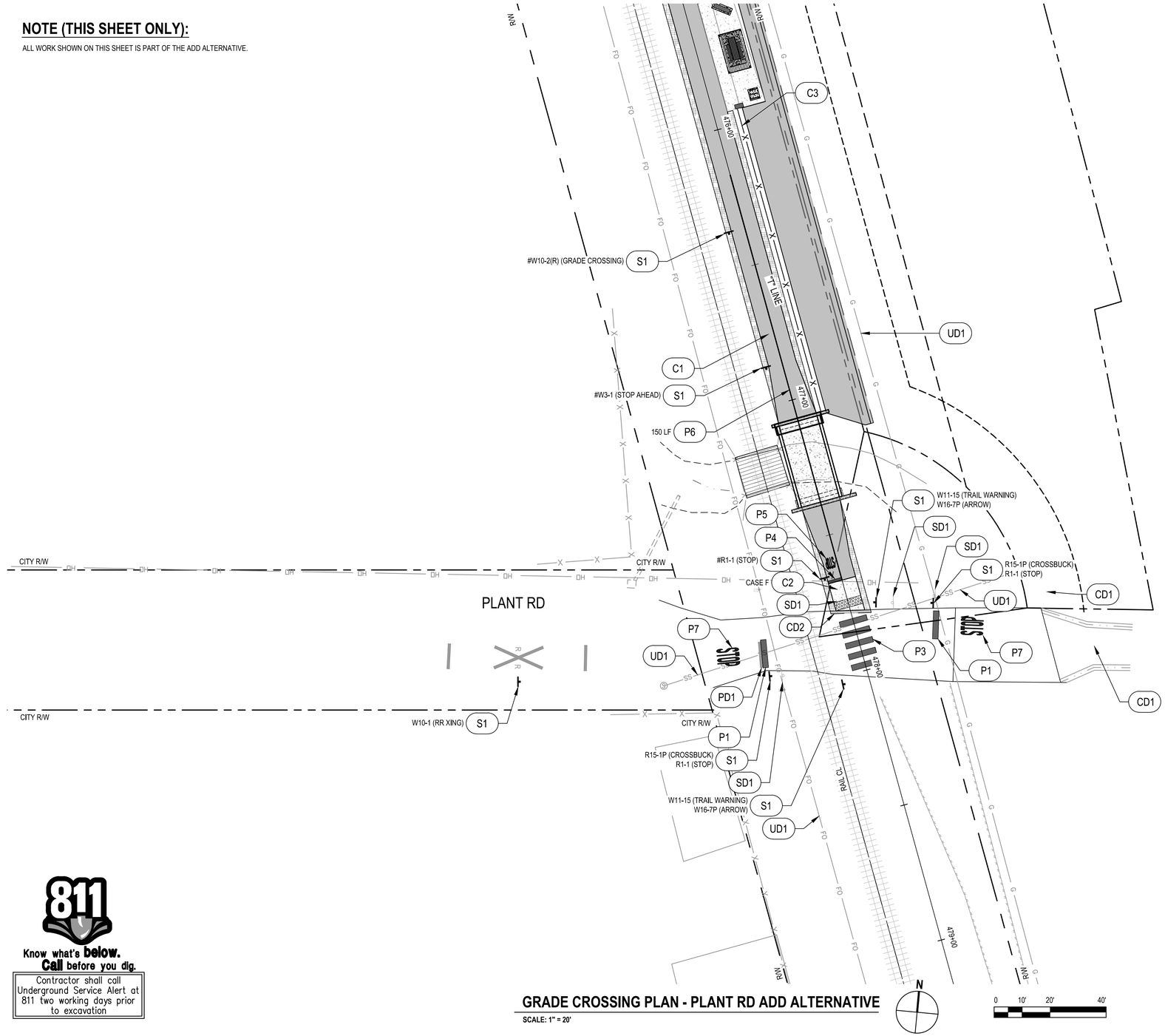
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Project THE GREAT REDWOOD TRAIL PHASE 4
Title GRADING CROSSING PLAN -NORGARD LN
Size ANSI D
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 20'
Sheet No. C-403
Sheet 34 of 96

Plot Date: 21 December 2022 - 6:25 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D401.dwg

NOTE (THIS SHEET ONLY):

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



GRADE CROSSING PLAN - PLANT RD ADD ALTERNATIVE

SCALE: 1" = 20'

811

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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 YEILD 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.

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 — ERIK D. FANSELAU — No. C84814 — CIVIL — STATE OF CALIFORNIA

12/21/2022

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

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

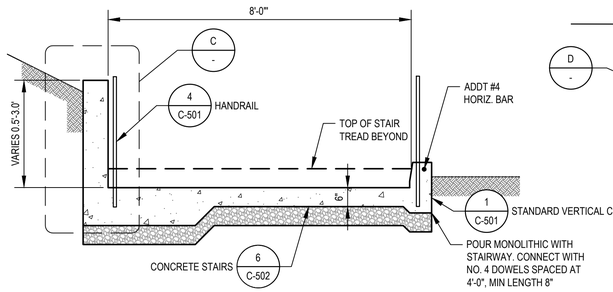
Size **ANSI D**

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

Sheet No **C-404**

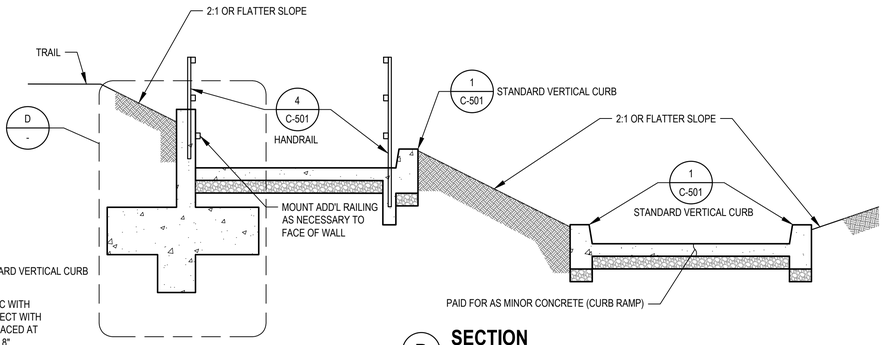
Sheet **35 of 96**

Plot Date: 21 December 2022 - 6:25 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D401.dwg



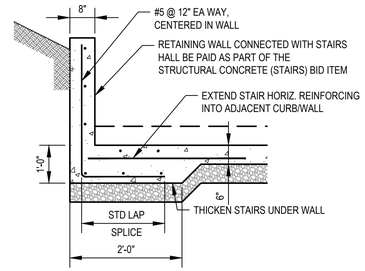
A SECTION

SCALE: 1" = 2'



B SECTION

SCALE: 1" = 2'



C ENLARGMENT SECTION

SCALE: 1" = 2'

SHEET GENERAL NOTES

1. 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.

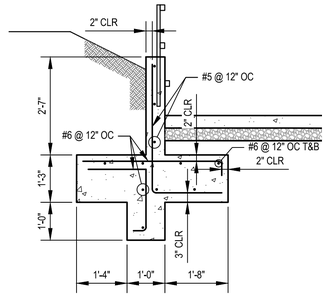
SHEET KEYNOTES

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

LEGEND

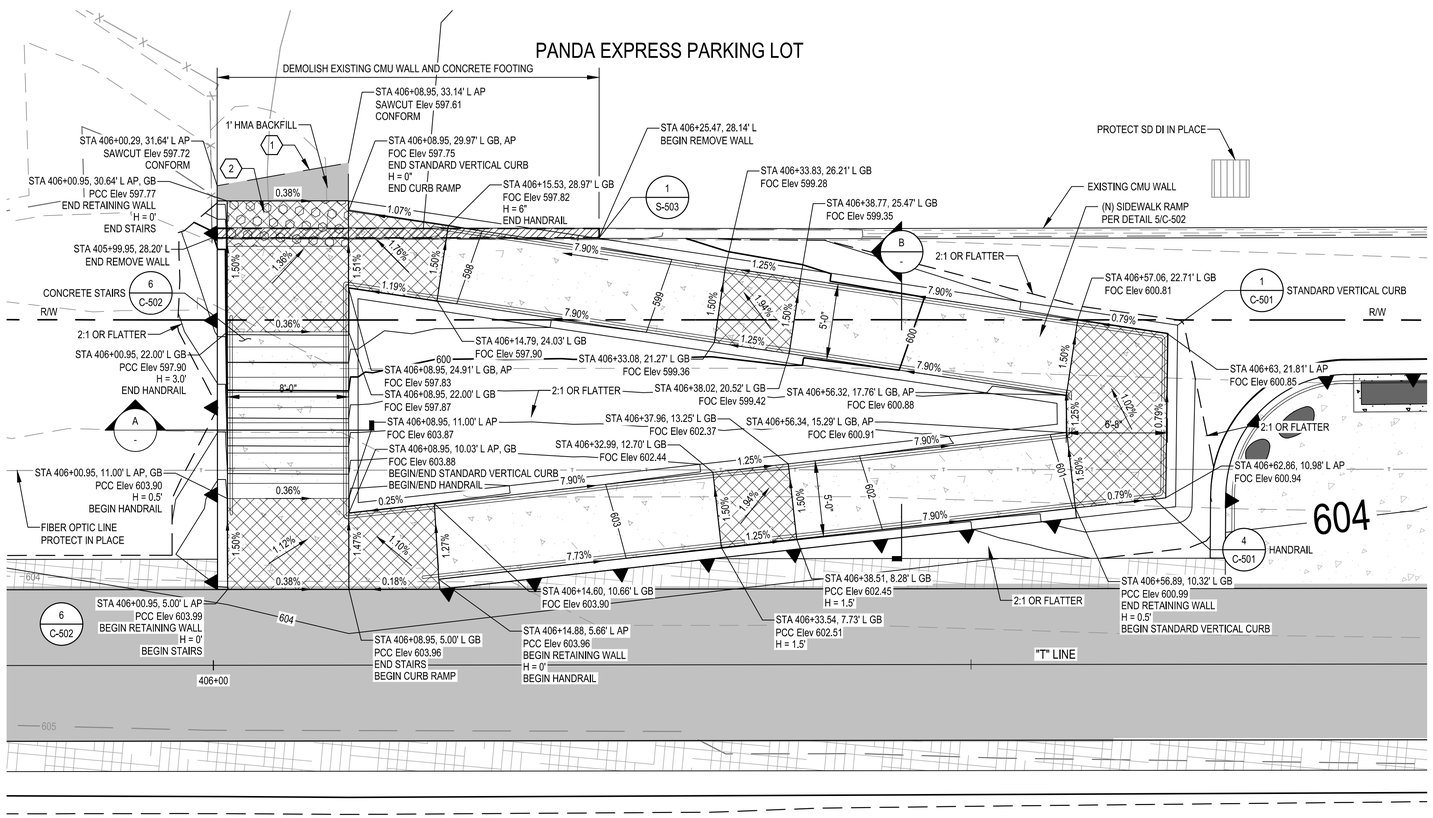
AREA TO BE DEMOLISHED

LANDING



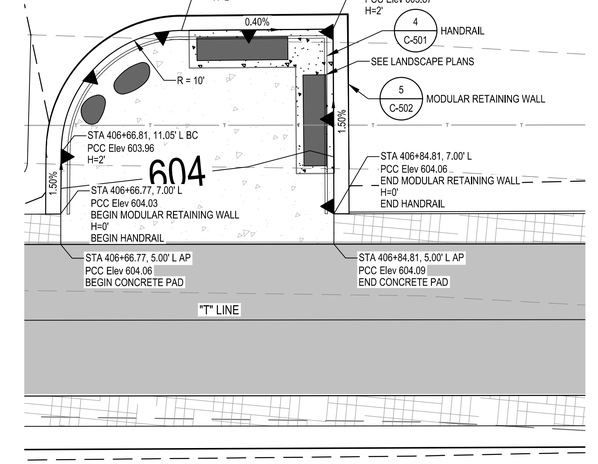
D ENLARGMENT SECTION

SCALE: 1" = 2'



PEDESTRIAN TRAIL CONNECTION 1

SCALE: 1" = 5'



CONCRETE PAD GRADING

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	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"

REGISTERED PROFESSIONAL ENGINEER
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No. C64814
CIVIL
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12/21/2022

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title PEDESTRIAN TRAIL CONNECTION 1

Size ANSI D

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

Sheet No. C-405

Sheet 36 of 96

Plot Date: 21 December 2022 - 6:27 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D405.dwg

SHEET GENERAL NOTES

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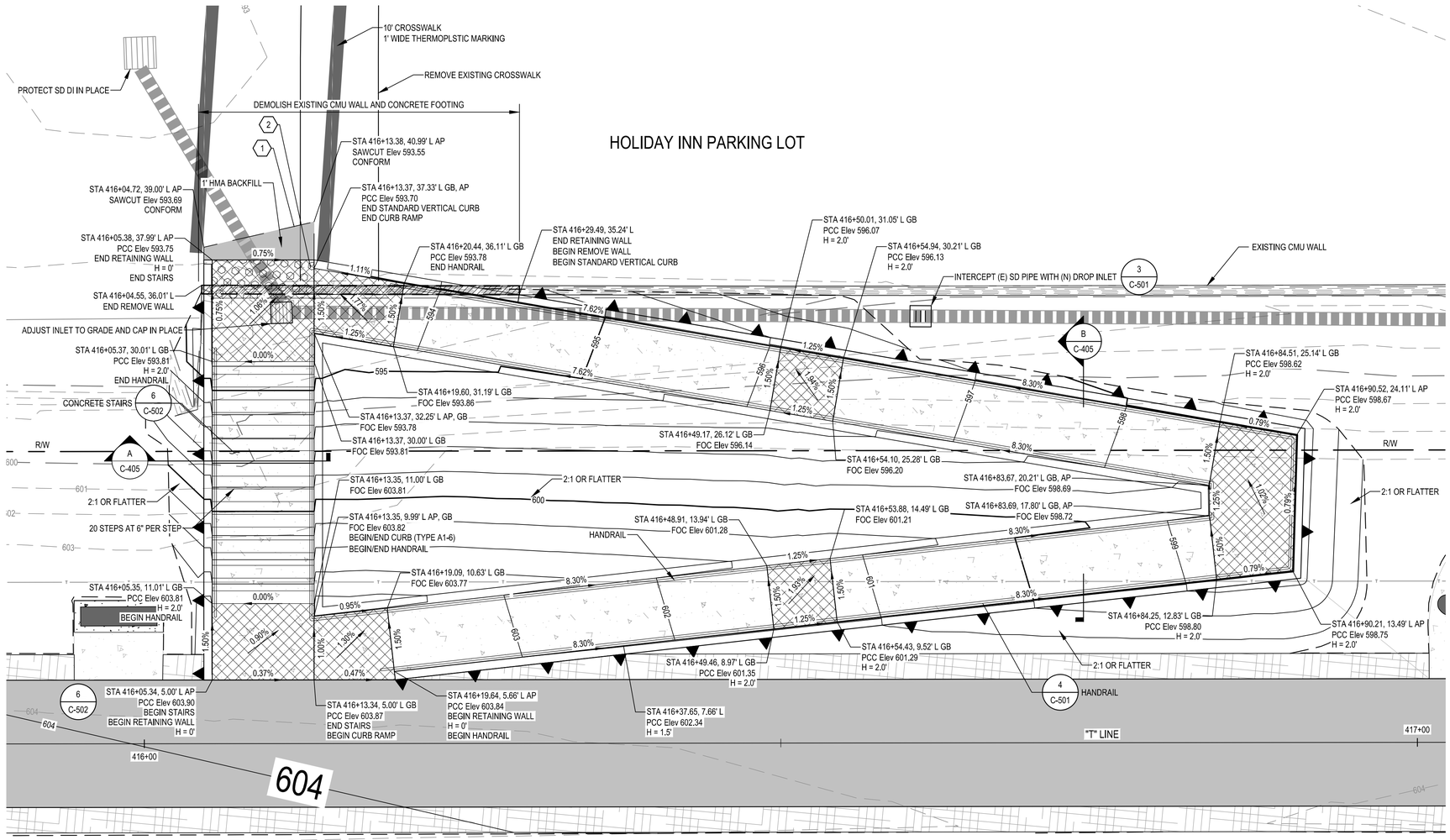
SHEET KEYNOTES

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

LEGEND

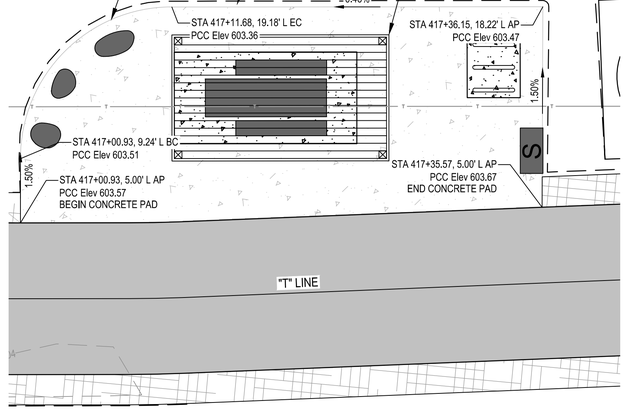
AREA TO BE DEMOLISHED

LANDING



PEDESTRIAN TRAIL CONNECTION 2

SCALE: 1" = 5'



CONCRETE PAD GRADING

SCALE: 1" = 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	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
Title PEDESTRIAN TRAIL CONNECTION 2
Size ANSI D
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 5'
Sheet No. C-406
Sheet 37 of 96

Plot Date: 21 December 2022 - 6:28 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D405.dwg

SHEET GENERAL NOTES

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2. CONTRACTOR MUST COORDINATE WITH ANIMAL SHELTER TO MAINTAIN ACCESS TO FACILITY DURING CONSTRUCTION.



PARKING LOT AT UKIAH ANIMAL SHELTER ADD ALTERNATIVE

SCALE: 1" = 20'

N

1" = 5' 0 5' 10'

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	H. DAAS	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"

REGISTERED PROFESSIONAL ENGINEER — ERIK D. FANSELAU — No. C64814 — CIVIL — STATE OF CALIFORNIA

12/21/2022

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

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

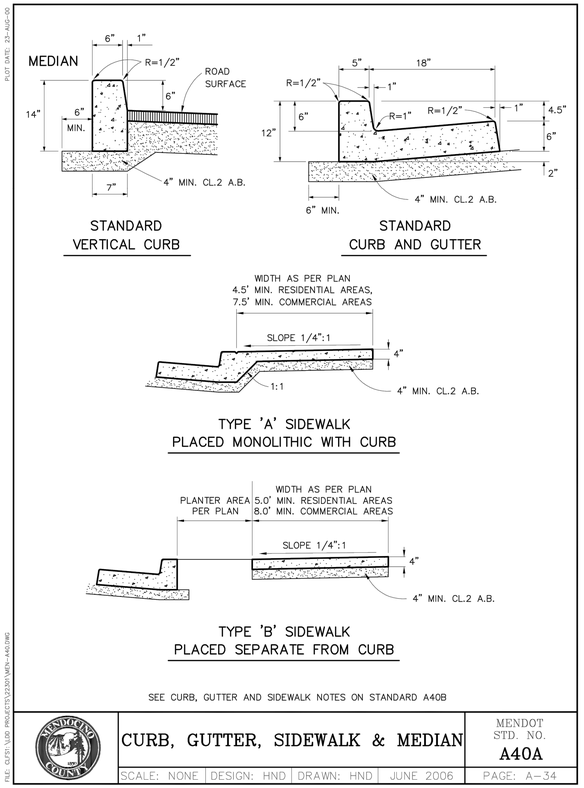
Size **ANSI D**

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

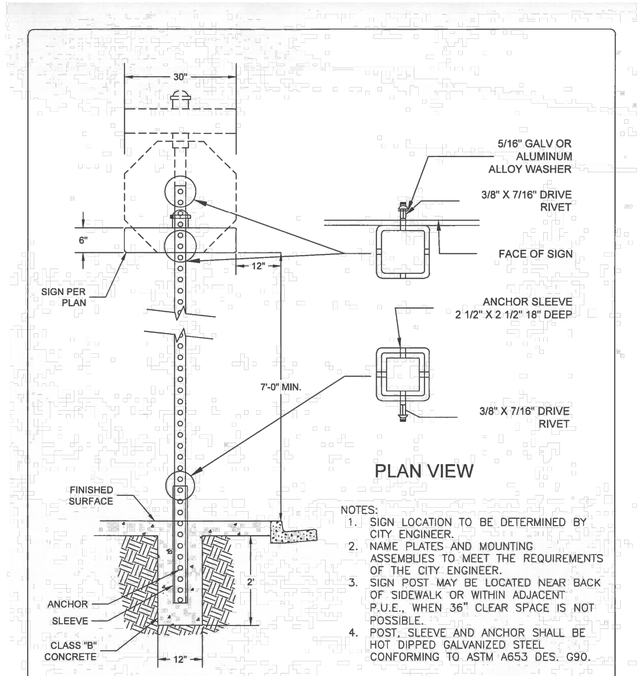
Sheet No. **C-407**

Sheet **38 of 96**

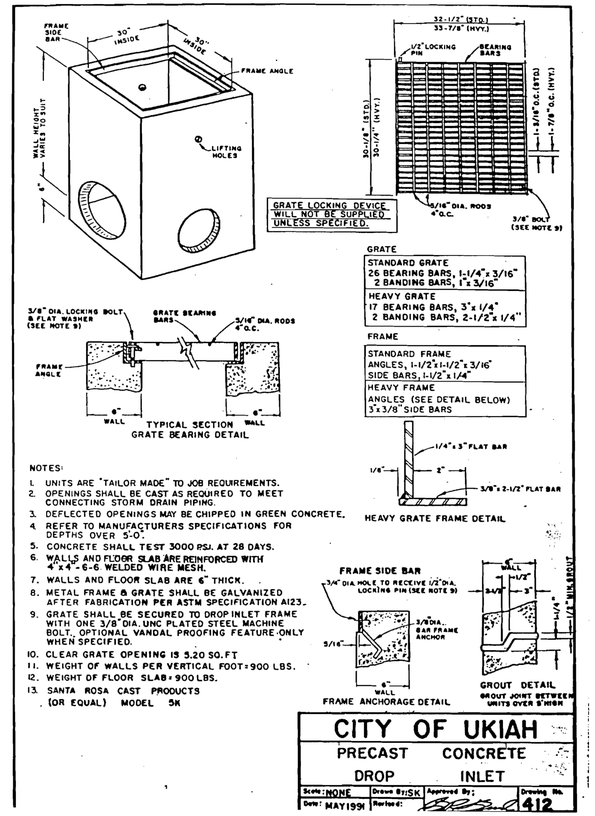
Plot Date: 21 December 2022 - 6:29 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-INT-RD-D407.dwg



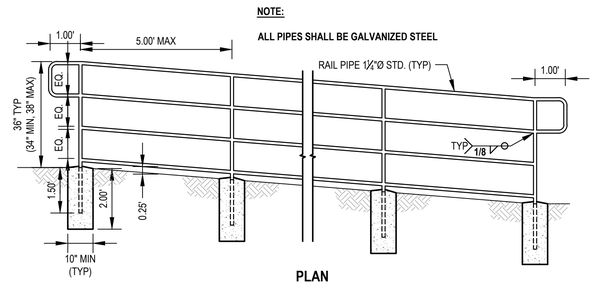
1 **STANDARD VERTICAL CURB**
SCALE: NTS



2 **SIGN STANDARD**
SCALE: NTS

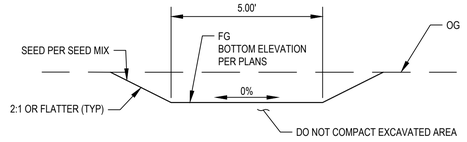


3 **DROP INLET**
SCALE: NTS

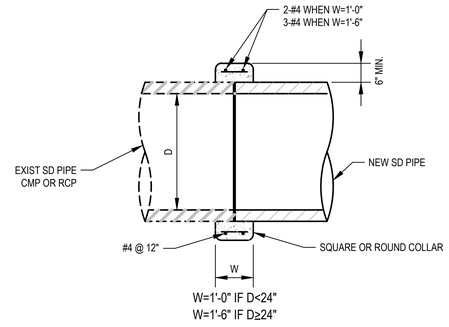


4 **HANDRAIL**
SCALE: NTS

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



5 **WETLAND GRADING**
SCALE: NTS



6 **CONCRETE COLLAR**
SCALE: NTS

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

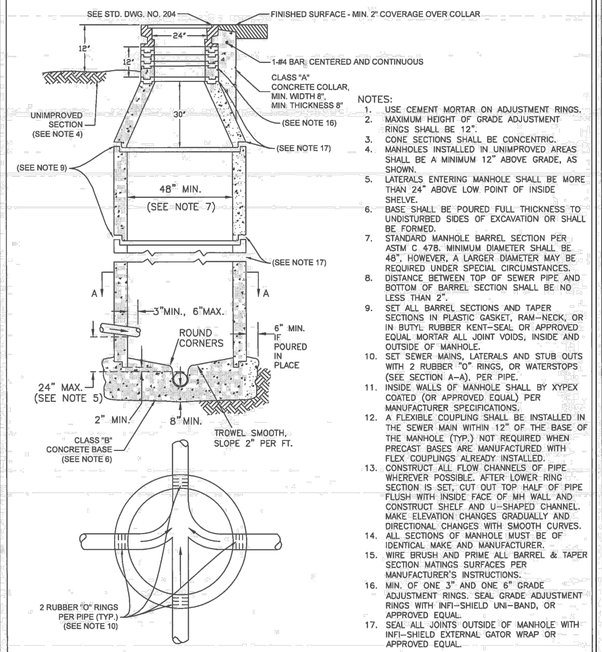
Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIKA D. FANSELAU No. C56814 CIVIL STATE OF CALIFORNIA
12/21/2022

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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title CIVIL DETAILS 1
Size ANSI D
Status Code
Project No. 12557341
Date SEP 30, 2022
Scale AS SHOWN
Sheet No. C-501
Sheet 39 of 96



SECTION A–A

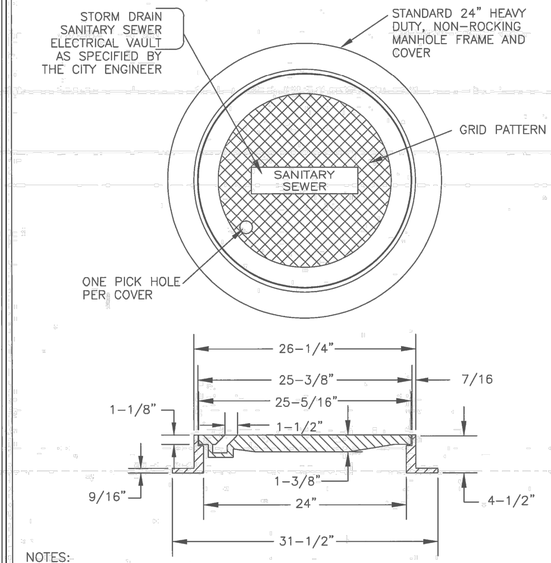
NOTES:

1. USE CEMENT MORTAR ON ADJUSTMENT RINGS.
2. MAXIMUM HEIGHT OF GRADE ADJUSTMENT RINGS SHALL BE 12".
3. CONE SECTIONS SHALL BE CONCENTRIC.
4. MANHOLES INSTALLED IN UNIMPROVED AREAS SHALL BE A MINIMUM 12" ABOVE GRADE, AS SHOWN.
5. LATERALS ENTERING MANHOLE SHALL BE MORE THAN 24" ABOVE LOW POINT OF INSIDE SHELVE.
6. BASE SHALL BE POURED FULL THICKNESS TO UNDISTURBED SIDES OF EXCAVATION OR SHALL BE FORMED.
7. STANDARD MANHOLE BARREL SECTION PER ASTM C 478. MINIMUM DIAMETER SHALL BE 48", HOWEVER, A LARGER DIAMETER MAY BE REQUIRED UNDER SPECIAL CIRCUMSTANCES.
8. DISTANCE BETWEEN TOP OF SEWER PIPE AND BOTTOM OF BARREL SECTION SHALL BE NO LESS THAN 2".
9. SET ALL BARREL SECTIONS AND TAPER SECTIONS IN PLASTIC GASKET, RAM–NECK, OR IN BUTYL RUBBER KENT–SEAL OR APPROVED EQUAL MORTAR ALL JOINT VOIDS, INSIDE AND OUTSIDE OF MANHOLE.
10. SET SEWER MAINS, LATERALS AND STUB OUTS WITH 2 RUBBER "O" RINGS, OR WATERSTOPS (SEE SECTION A–A), PER PIPE.
11. INSIDE WALLS OF MANHOLE SHALL BY XYPEX COATED (OR APPROVED EQUAL) PER MANUFACTURER SPECIFICATIONS.
12. A FLEXIBLE COUPLING SHALL BE INSTALLED IN THE SEWER MAIN WITHIN 12" OF THE BASE OF THE MANHOLE (TYP.) NOT REQUIRED WHEN PRECAST BASES ARE MANUFACTURED WITH FLEX COUPLINGS ALREADY INSTALLED.
13. CONSTRUCT ALL FLOW CHANNELS OF PIPE WHEREVER POSSIBLE. AFTER LOWER RING SECTION IS SET, CUT OUT TOP HALF OF PIPE FLUSH WITH INSIDE FACE OF MH WALL AND CONSTRUCT SHELF AND U–SHAPED CHANNEL. MAKE ELEVATION CHANGES GRADUALLY AND DIRECTIONAL CHANGES WITH SMOOTH CURVES.
14. ALL SECTIONS OF MANHOLE MUST BE OF IDENTICAL MAKE AND MANUFACTURER.
15. WIRE BRUSH AND PRIME ALL BARREL & TAPER SECTION MATINGS SURFACES PER MANUFACTURER'S INSTRUCTIONS.
16. MIN. OF ONE 3" AND ONE 6" GRADE ADJUSTMENT RINGS. SEAL GRADE ADJUSTMENT RINGS WITH INFI–SHIELD UN–BAND, OR APPROVED EQUAL.
17. SEAL ALL JOINTS OUTSIDE OF MANHOLE WITH INFI–SHIELD EXTERNAL GATOR WRAP OR APPROVED EQUAL.

DESIGN AND CONSTRUCTION STANDARDS	DRAWING NO.
STANDARD SEWER MANHOLE	201
TIM ERIKSEN, PUBLIC WORKS DIRECTOR / CITY ENGINEER	DRAWN BY: A.S.
	DEC. 2019 - NTS

1 STORM DRAIN MANHOLE

SCALE: NTS



NOTES:

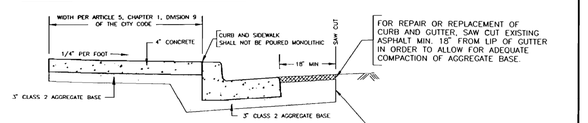
1. SPECIFY "STORM DRAIN", "SANITARY SEWER" OR "ELECTRICAL VAULT" WHEN ORDERING; ALL CASTINGS SHALL BE DIPPED IN ASPHALT PAINT (BLACK BITUMINOUS PAINT).
2. MINIMUM WEIGHT REQUIREMENTS:
   - 2.1. COVER – 130 POUNDS
   - 2.2. FRAME – 135 POUNDS
3. TITUS TWISTLIFT SECURITY LOCKS AND EJ COMPOSITE 2600 SERIES OR APPROVED EQUAL.

DESIGN AND CONSTRUCTION STANDARDS	DRAWING NO.
MANHOLE FRAME AND COVER DETAIL	204
TIM ERIKSEN, PUBLIC WORKS DIRECTOR / CITY ENGINEER	DRAWN BY: A.S.
	DEC. 2019 - NTS

2 STORM DRAIN MANHOLE FRAME AND COVER

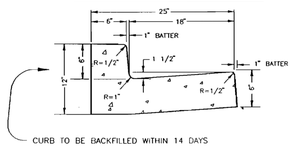
SCALE: NTS

SIDEWALK AND CURB AND GUTTER SECTION



FOR REPAIR OR REPLACEMENT OF CURB AND GUTTER, SAW CUT EXISTING ASPHALT MIN. 18" FROM LIP OF GUTTER IN ORDER TO ALLOW FOR ADEQUATE COMPACTION OF AGGREGATE BASE.

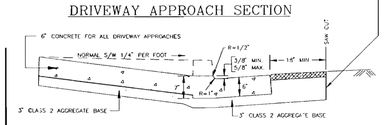
CURB AND GUTTER SECTION



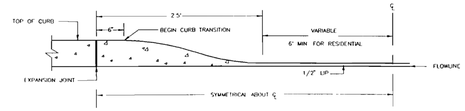
CURB TO BE BACKFILLED WITHIN 14 DAYS

PAVEMENT: TYPE B– 1/2 MEDIUM ASPHALT CONCRETE; THICKNESS = THE EXISTING AC SECTION PLUS 1" OR 3" WHICHEVER IS GREATER. BASE ROCK: CLASS 2 AGGREGATE BASE, THICKNESS TO MATCH EXISTING OR 6" WHICHEVER IS GREATER

DRIVEWAY APPROACH SECTION



DRIVEWAY APPROACH ELEVATION



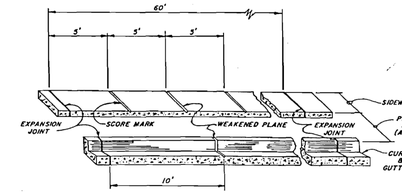
NOTES:

- EXPANSION JOINTS AT EACH SIDE OF DRIVEWAY APPROACH. SEE STD. DRWG. NO. 101.
- USE CLASS B CONCRETE (5 SACK MIX) MINIMUM.
- CURB AND GUTTER SHALL NOT BE POURED MONOLITHIC WITH SIDEWALK.
- FOR DRIVEWAY APPROACH OR CURB AND GUTTER CONSTRUCTION ADJACENT TO STREET AREAS WITH EXISTING ASPHALT, CONTRACTOR SHALL SAW CUT EXISTING A.C. 18" FROM LIP OF GUTTER.
- DRIVEWAY APPROACH AND GUTTER SECTION MAY BE POURED MONOLITHIC.
- AGGREGATE BASE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.

CITY OF UKIAH	
SIDEWALK, CURB AND GUTTER, AND DRIVEWAY APPROACH DETAILS	
SCALE: NONE	DRAWN BY: PJA
DATE: 1/98	REVISED: LAW
APPROVED: 2/25/99	DRAWING NO.: 102

3 SIDEWALK

SCALE: NTS



NOTES (See STD. DRG. NO. 102.)

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.

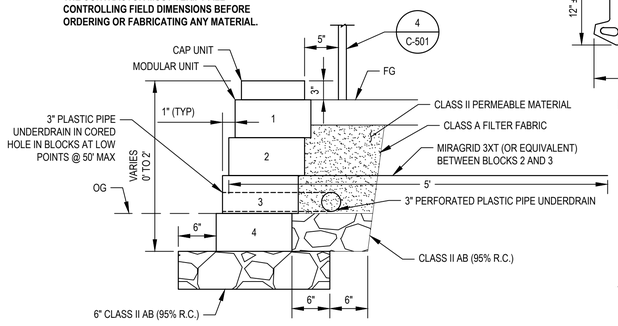
CITY OF UKIAH	
SCORE MARK DETAILS FOR SIDEWALK, CURB, CURB & GUTTER	
Scale: NONE	Drawn By: ML
Date: 6-13-95	Revised: 8-96
Approved By:	Drawing No. 101

4 SCORE MARK DETAILS FOR SIDEWALKS

SCALE: NTS

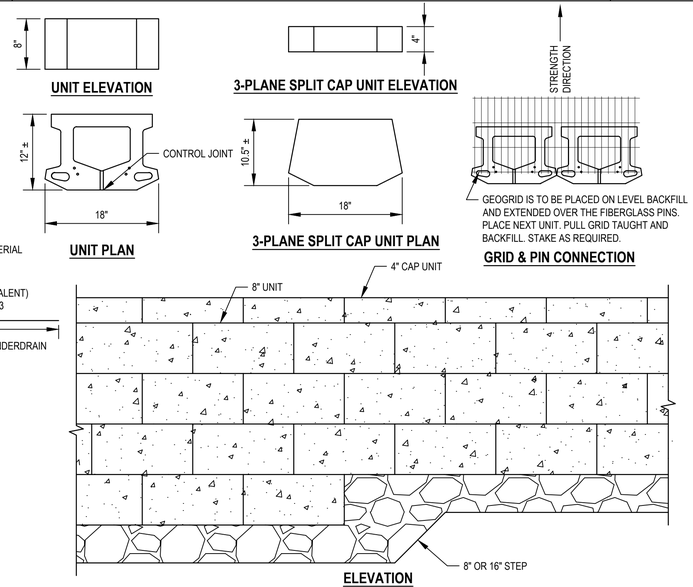
NOTE:

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

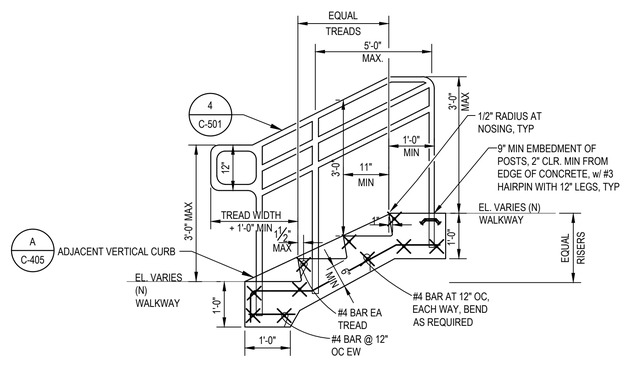


5 MODULAR RETAINING WALL

SCALE: NTS



ELEVATION



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 THREADS SHALL HAVE 2" WIDE MIN. WARNING STRIPES PER CBC 1133B.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.

6 CONCRETE STAIRS

SCALE: NTS

No.	Issue	Checked	Approved	Date
1	MODULAR RETAINING WALL REVISIONS	SG	SG	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

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER — ERIK D. FANSELAU — No. C64814 — CIVIL — STATE OF CALIFORNIA

12/21/2022

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Client: CITY OF UKIAH

Project: THE GREAT REDWOOD TRAIL PHASE 4

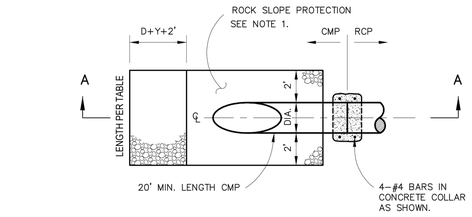
Title: CIVIL DETAILS 2

Size: ANSI D

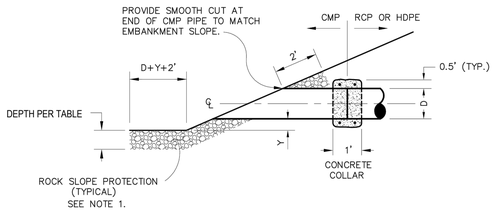
Status Code

Project No.	Date	Scale	Sheet No	Sheet
12557341	SEP 30, 2022	AS SHOWN	C-502	40 of 96

Plot Date: 21 December 2022 - 6:30 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-DTL-RD-D501.dwg



PLAN



SECTION A–A

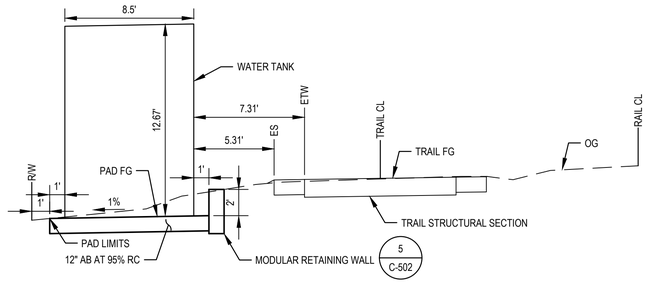
NOTES:
1. PLACE ROCK SLOPE PROTECTION PER TABLE.
2. THE USE OF BILOGICAL METHODS (E.G. CUTTINGS, BRUSH MATTRESSES) TO PROTECT SLOPES IS ENCOURAGED.
3. DIAMETER OF PIPE SHALL BE DESIGNATED 'D'. HEIGHT ABOVE CREED BED SHALL BE DESIGNATED "Y". WHERE D IS LESS THAN 24", MINIMUM Y SHALL BE 2 FEET. WHERE D IS GREATER THAN OR EQUAL TO 24", MINIMUM Y SHALL BE 1 FOOT.
4. ATTENTION IS DIRECTOED 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

MENDOCINO COUNTY	CORRUGATED METAL PIPE OUTLET	MENDOT STD. NO. D60
	SCALE: NONE | DESIGN: RCW | DRAWN: LMM | OCT. 2000	PAGE: A–72

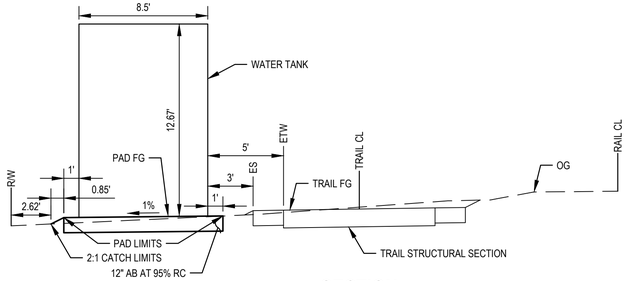
PLOT DATE: 19-AUG-00
FILE: GLEN \ UDD PROJECTS \ D2300 \ MISC \ D60.DWG

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

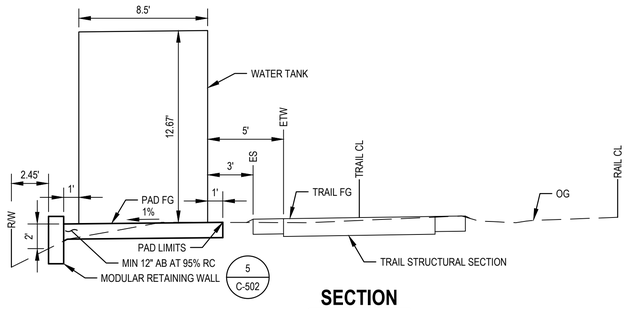
1 ROCK SLOPE PROTECTION
SCALE: NTS



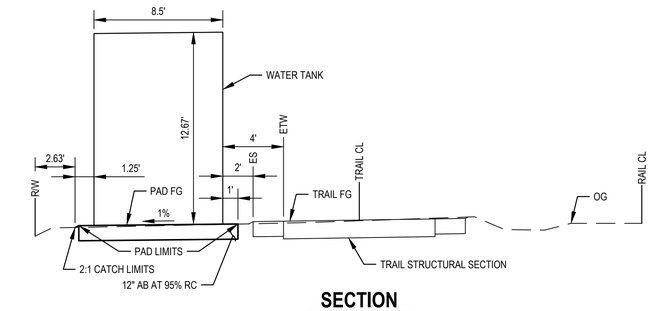
SECTION
STATION 402+11



SECTION
STATION 404+50



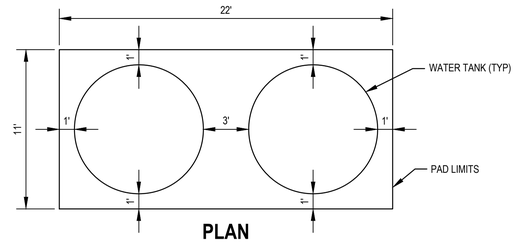
SECTION
STATION 414+25



SECTION
STATION 417+50

NOTE:

WATER TANK SHOULD BE 5000 GALLON CAPACITY 8.5 FT IN DIAMETER. CONTRACTOR TO SUBMIT FOR APPROVAL.



PLAN

2 WATER TANK
SCALE: NTS

No.	Issue		Checked	Approved	Date
1	WATER TANK		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

Bar is one inch on original size sheet
0 1"

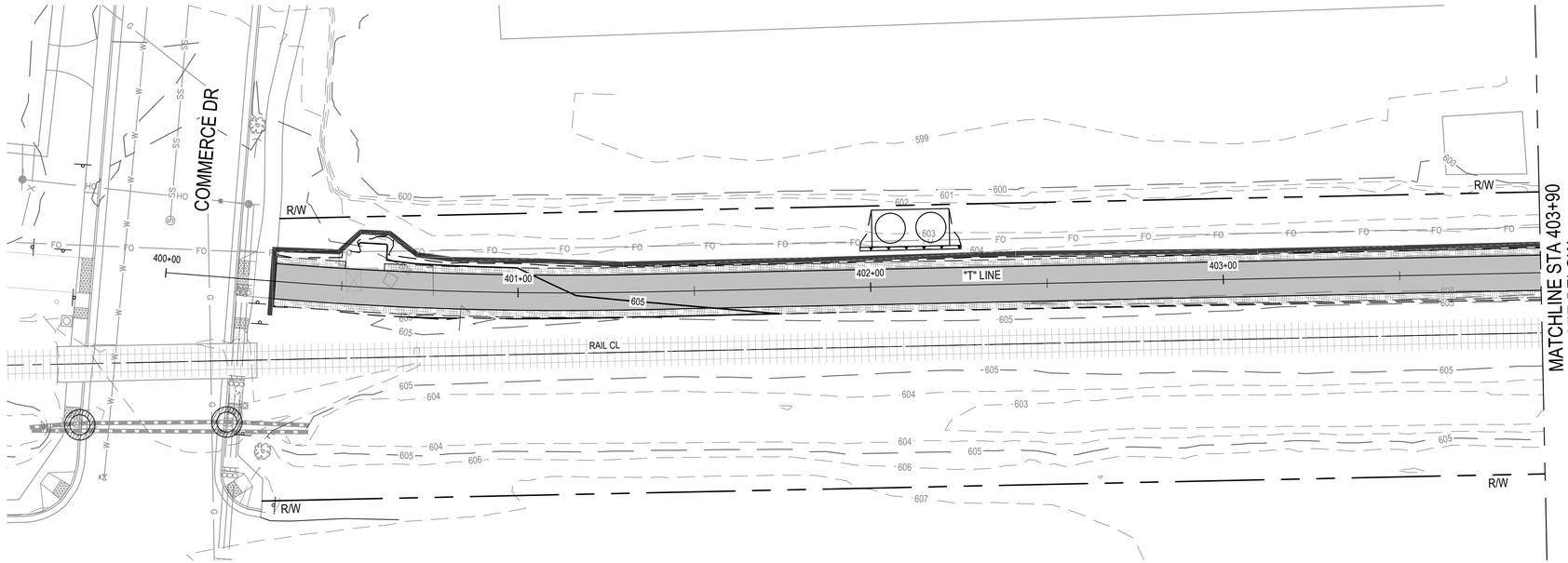
REGISTERED PROFESSIONAL ENGINEER
ERIK D. FANSELAU
No. C54814
CIVIL
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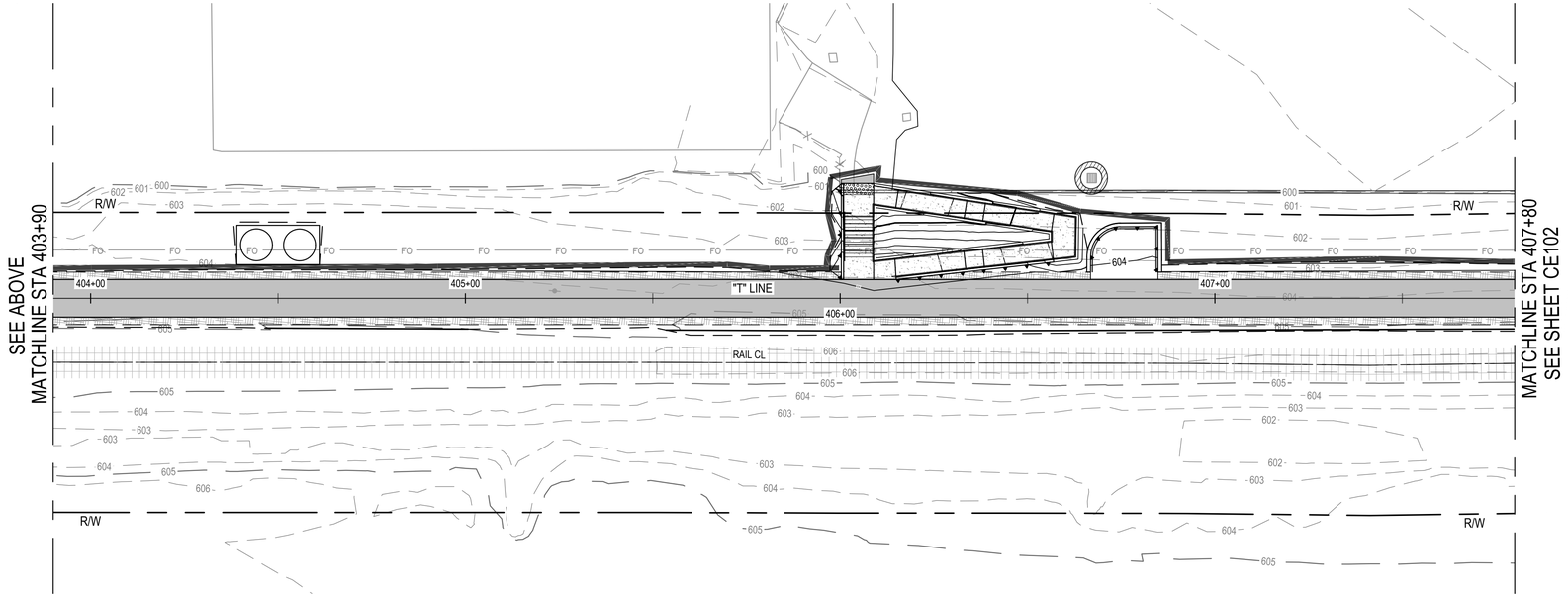
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Title CIVIL DETAILS 3
Size ANSI D
Status Code
Project No. 12557341
Date SEP 30, 2022
Scale AS NOTED
Sheet No. C-503
Sheet 41 of 96

Plot Date: 21 December 2022 - 6:30 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-DTL-RD-D501.dwg



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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- 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

0 10' 20' 40'

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

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA

12/21/2022

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

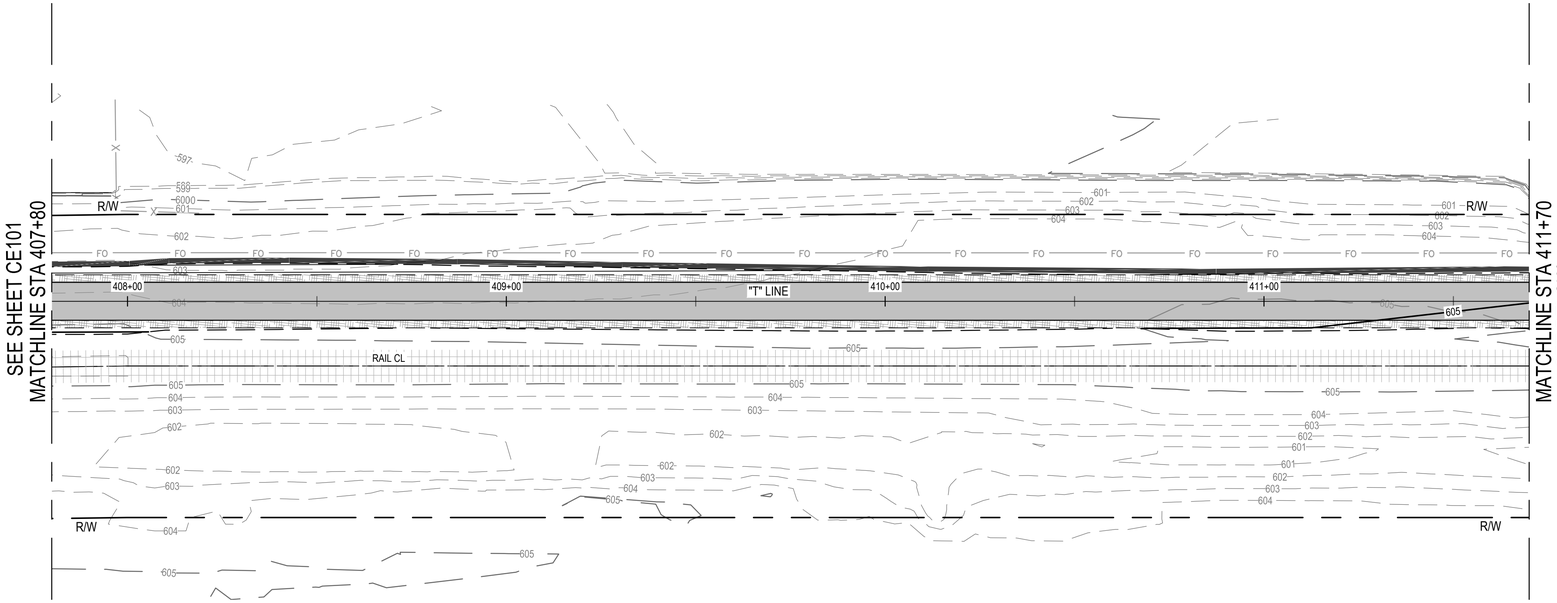
Title EROSION CONTROL PLAN STA 400+00 TO STA 407+80

Size ANSI D

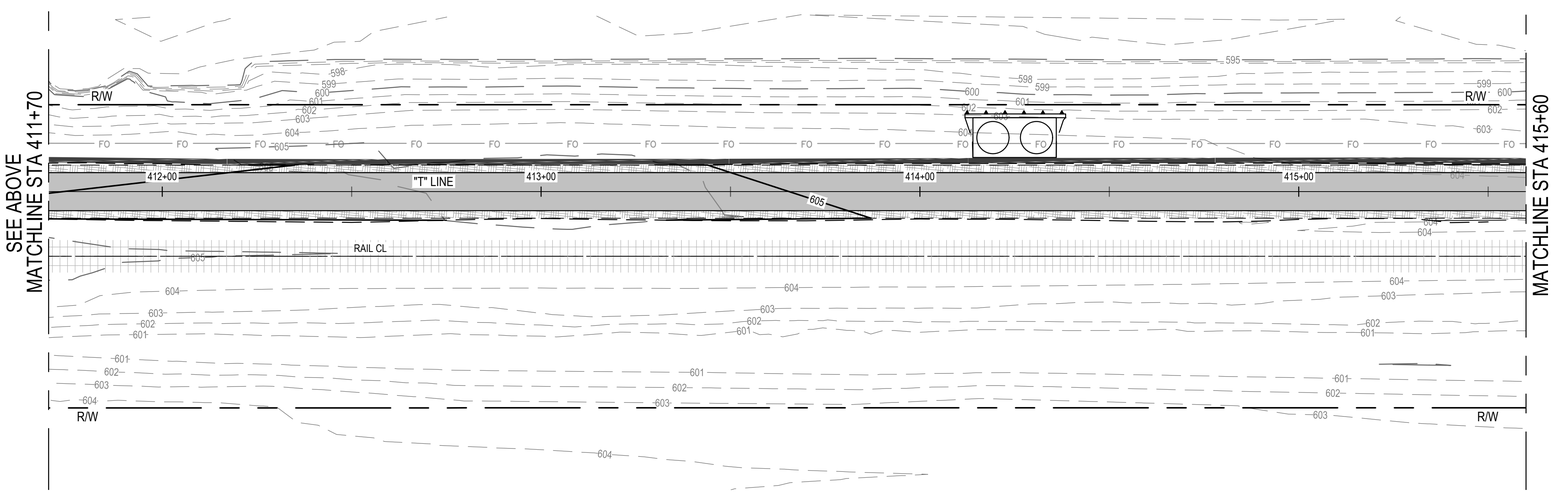
Project No. 12557341 | Date SEP 30, 2022 | Scale 1" = 20'

Sheet No. CE101 | Sheet 42 of 96

Plot Date: 21 December 2022 - 6:32 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\EN\C3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN



EROSION CONTROL PLAN

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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- EXISTING TREE TO REMAIN, TO BE PROTECTED
- EXISTING TREE TO BE REMOVED

0 10' 20' 40'

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

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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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0 1"

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **EROSION CONTROL PLAN STA 407+80 TO STA 415+60**

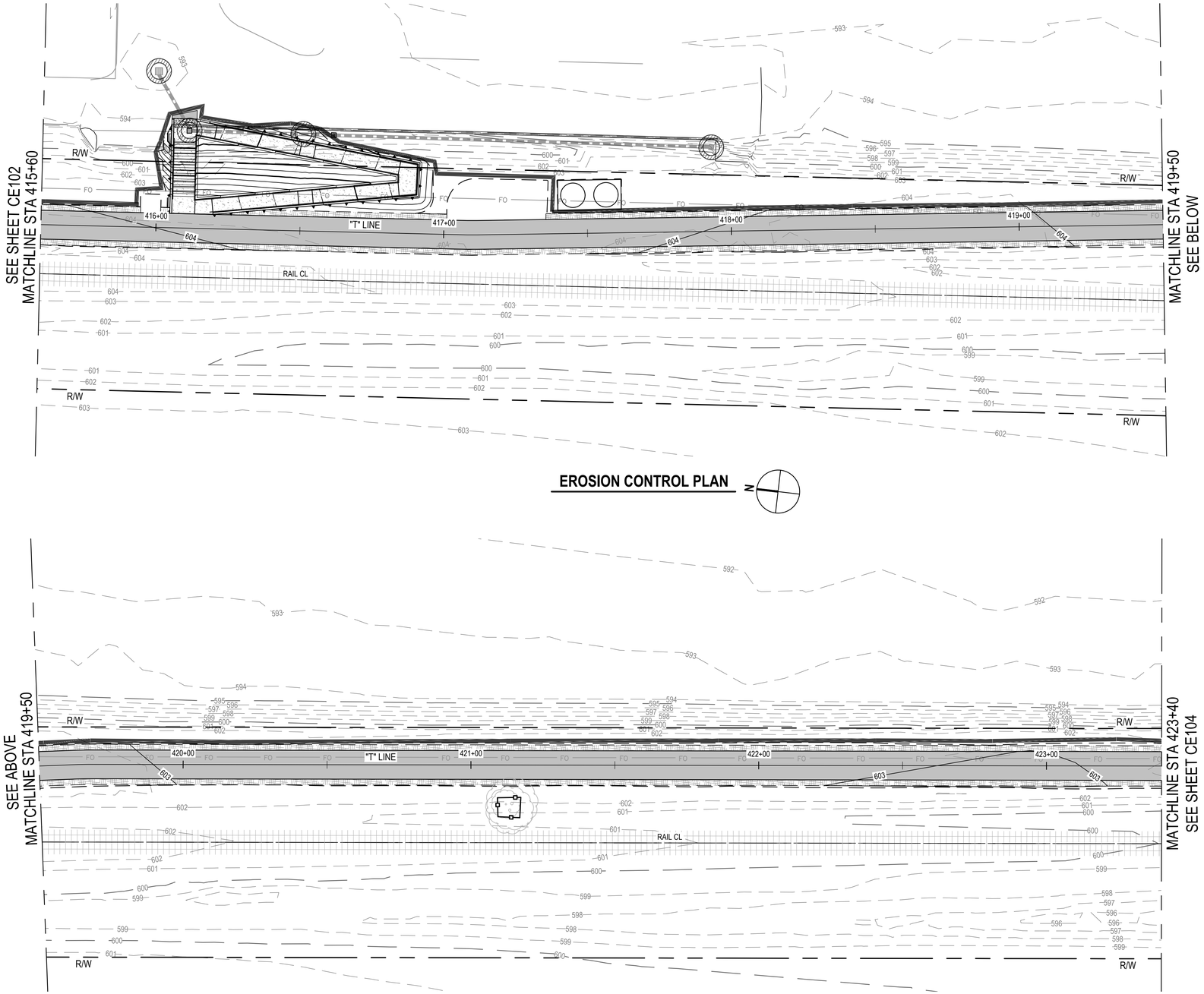
Size **ANSI D**

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

Sheet No. **CE102**

Sheet **43** of **96**

Plot Date: 21 December 2022 - 6:32 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\EN\C3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN

EROSION CONTROL PLAN

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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0 10' 20' 40'

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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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Client CITY OF UKIAH

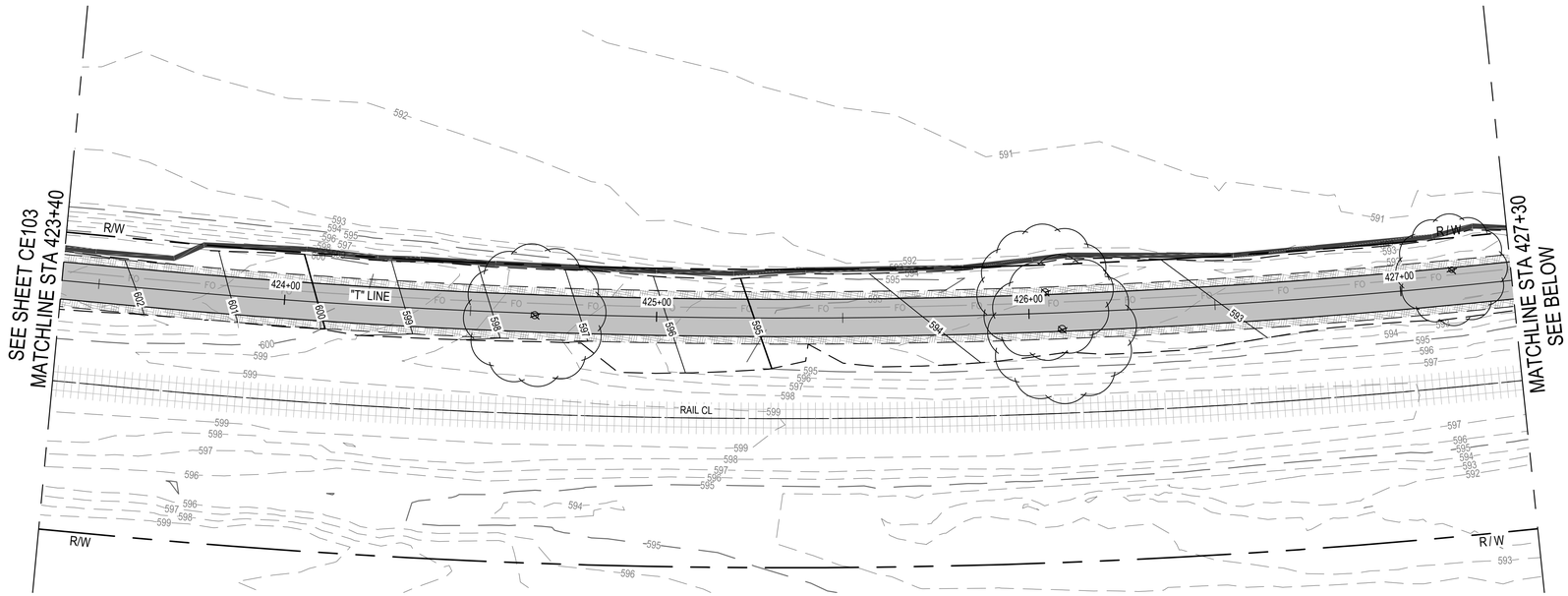
Project THE GREAT REDWOOD TRAIL PHASE 4

Title EROSION CONTROL PLAN
STA 415+60 TO STA 423+40

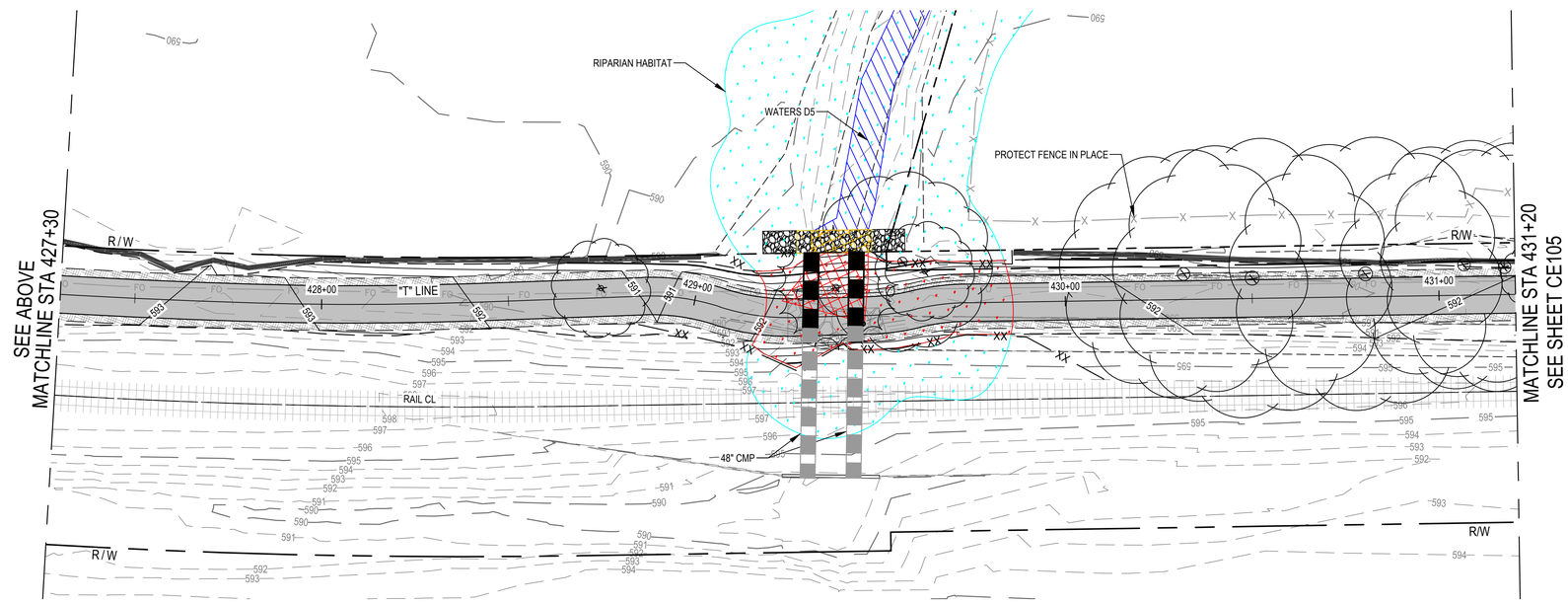
Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	CE103	44 of 96

Plot Date: 21 December 2022 - 6:32 PM
Plotted By: Haytham Daas
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EROSION CONTROL PLAN



EROSION CONTROL PLAN

EROSION CONTROL LEGEND

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0 10' 20' 40'

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

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER
ERIK D. FANSELAU
No. C84814
CIVIL
STATE OF CALIFORNIA
12/21/2022

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Client **CITY OF UKIAH**

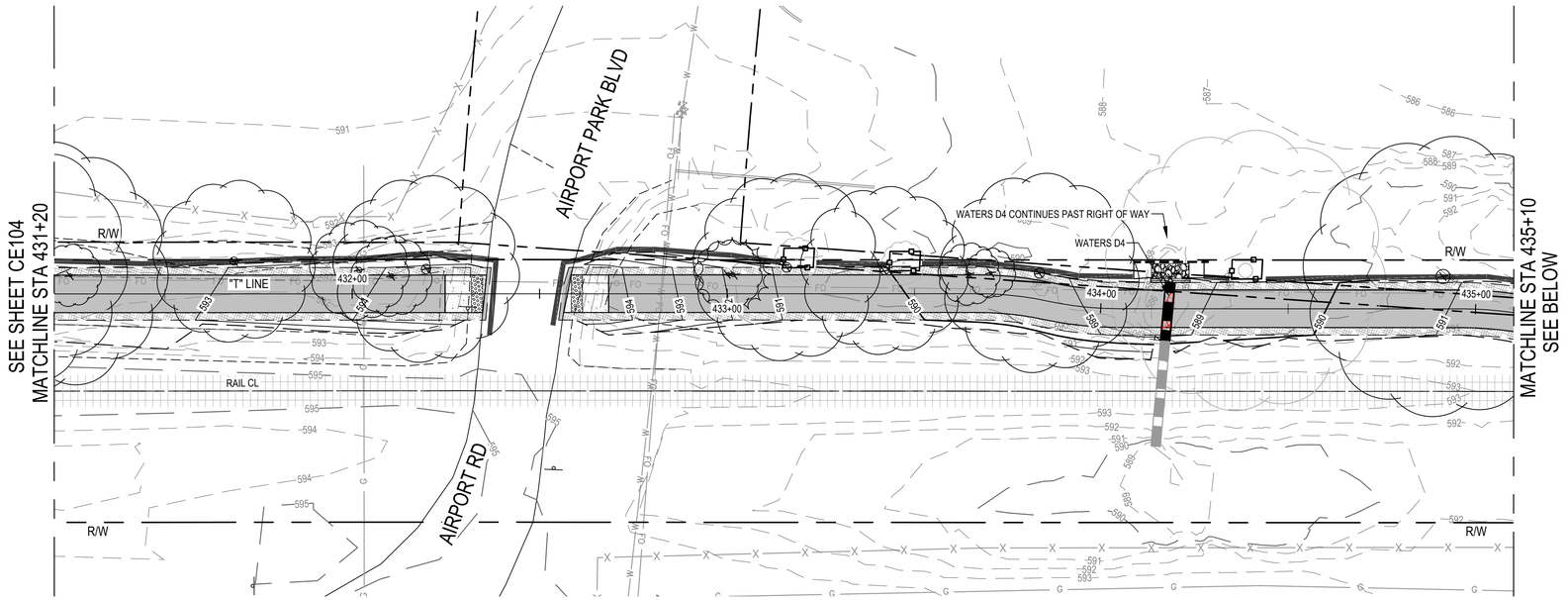
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **EROSION CONTROL PLAN STA 423+40 TO STA 431+20**

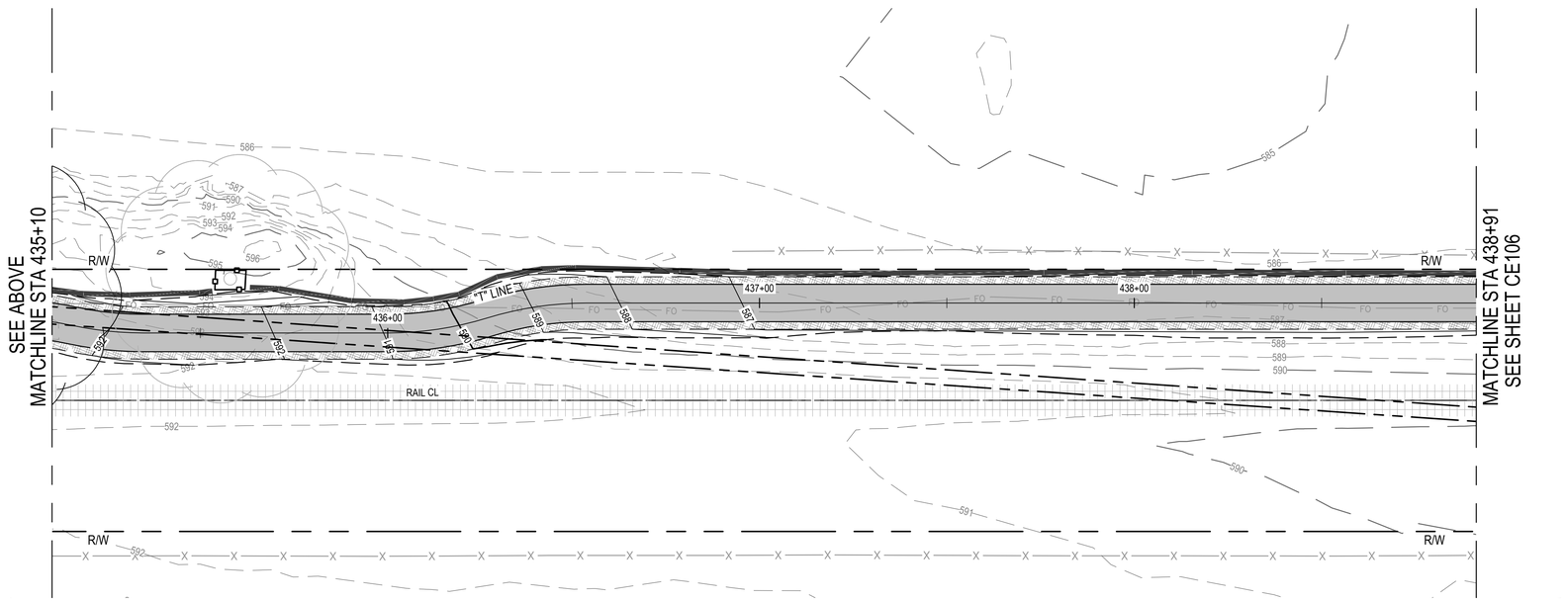
Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	CE104	45 of 96

Plot Date: 21 December 2022 - 6:32 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ENC3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN



EROSION CONTROL PLAN

EROSION CONTROL LEGEND

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- 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

0 10' 20' 40'

No.	Issue		Checked	Approved	Date
1	WATERS D4 MODIFICATIONS		KG	KG	2022-12-19
Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FLANSELAU	Project Director	M. KENNEDY

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA
12/21/2022

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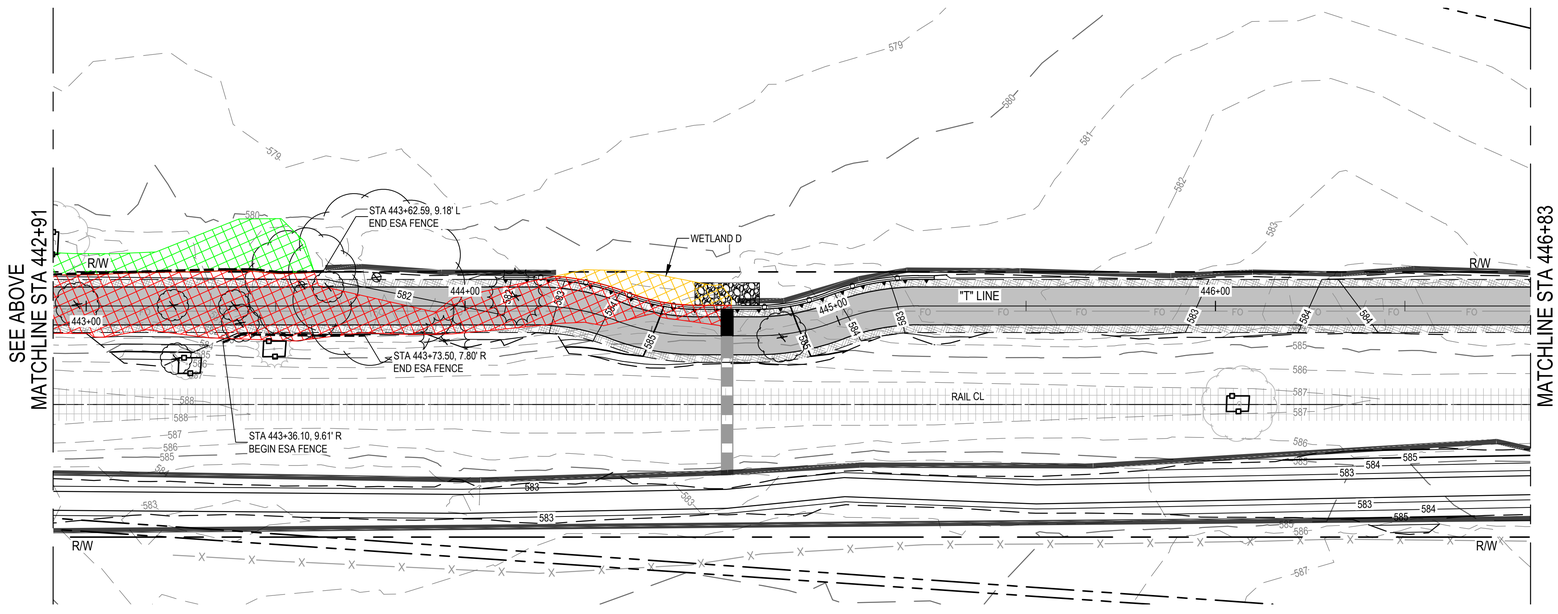
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 20'

Title EROSION CONTROL PLAN STA 431+20 TO STA 438+91
Size ANSI D
Sheet No CE105
Sheet 46 of 96

Plot Date: 21 December 2022 - 6:32 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ENC\3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



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

0 10' 20' 40'

Know what's **below.**
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No.	Issue	Checked	Approved	Date
1	WETLAND MITIGATION REVISIONS	KG	KG	2023-02-03

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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0 1"

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2/3/2023

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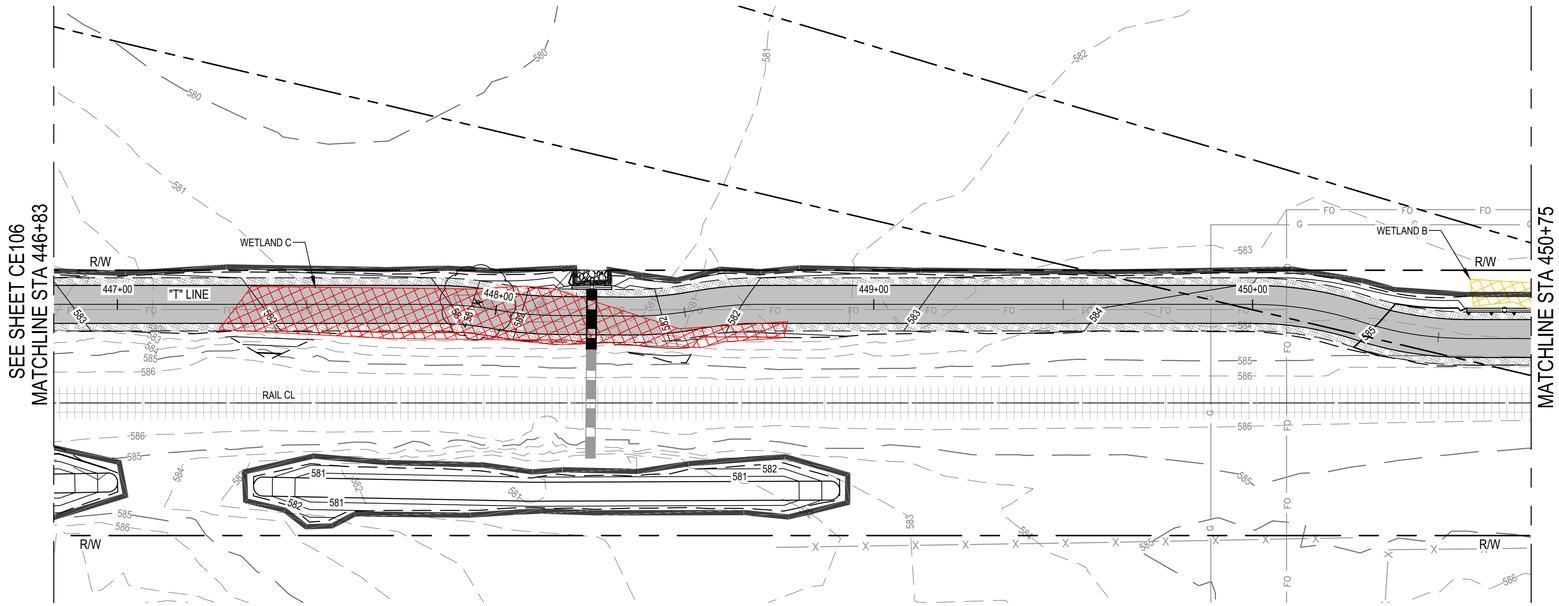
Client: CITY OF UKIAH
Project: THE GREAT REDWOOD TRAIL PHASE 4

Title: EROSION CONTROL PLAN
STA 438+91 TO STA 446+83

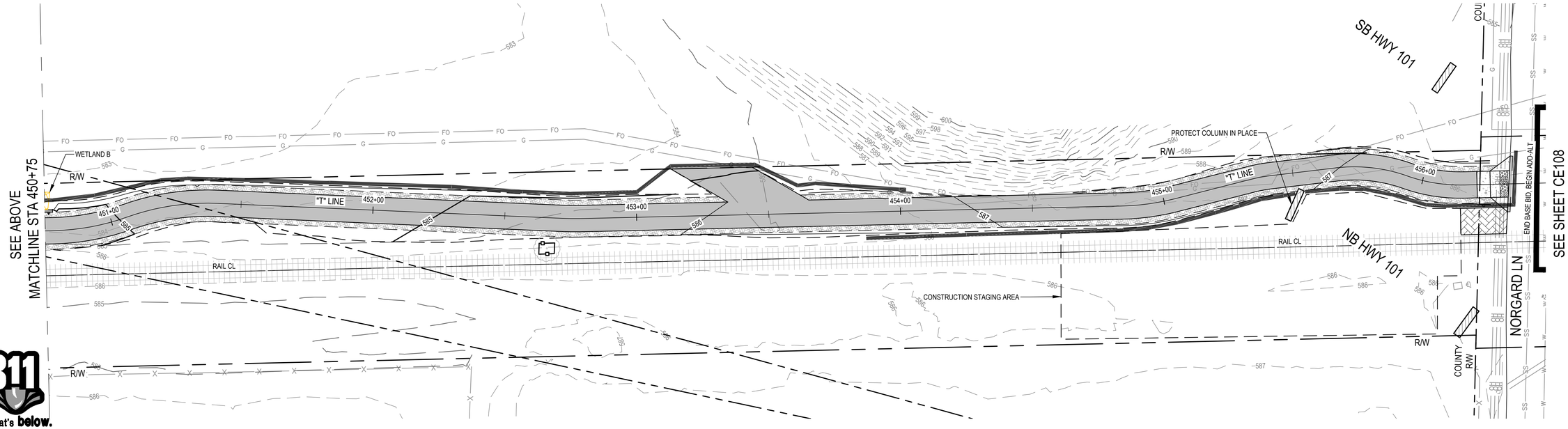
Size: ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	CE106	47 of 96

Plot Date: 3 February 2023 - 9:05 AM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ENIC3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN



EROSION CONTROL PLAN

0 10' 20' 40'

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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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
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"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C56814 CIVIL STATE OF CALIFORNIA
2/3/2023

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

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

Size **ANSI D**

Project No. **12557341**

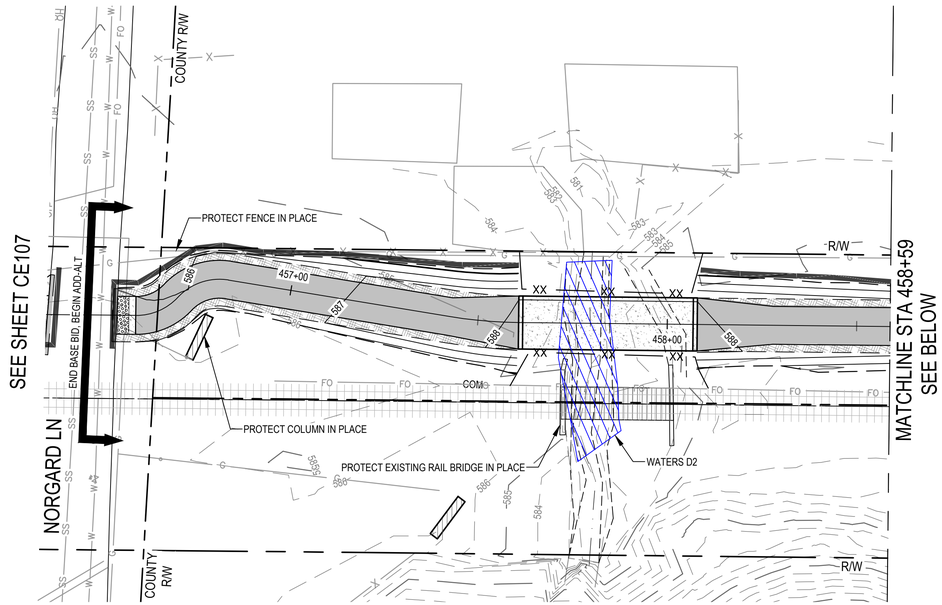
Date **SEP 30, 2022**

Scale **1" = 20'**

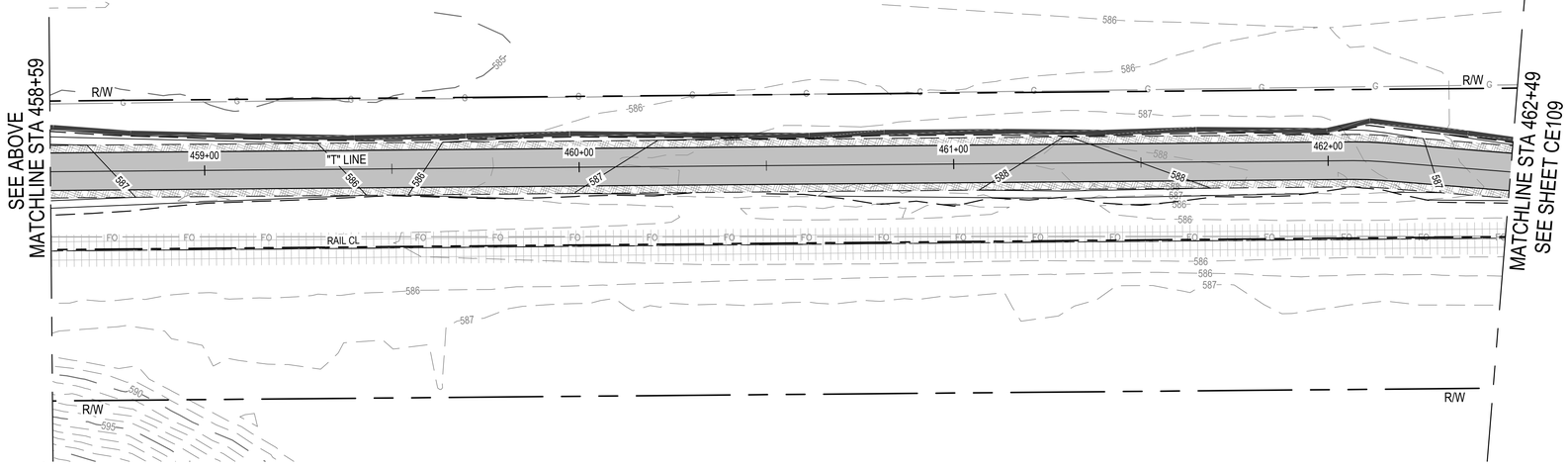
Sheet No. **CE107**

Sheet **48 of 96**

Plot Date: 3 February 2023 - 9:04 AM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\EN\C3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN



EROSION CONTROL PLAN

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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0 10' 20' 40'

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

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA

12/21/2022

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title EROSION CONTROL PLAN
STA 456+50 TO STA 462+49
ADD ALTERNATIVE

Size ANSI D

Project No. 12557341

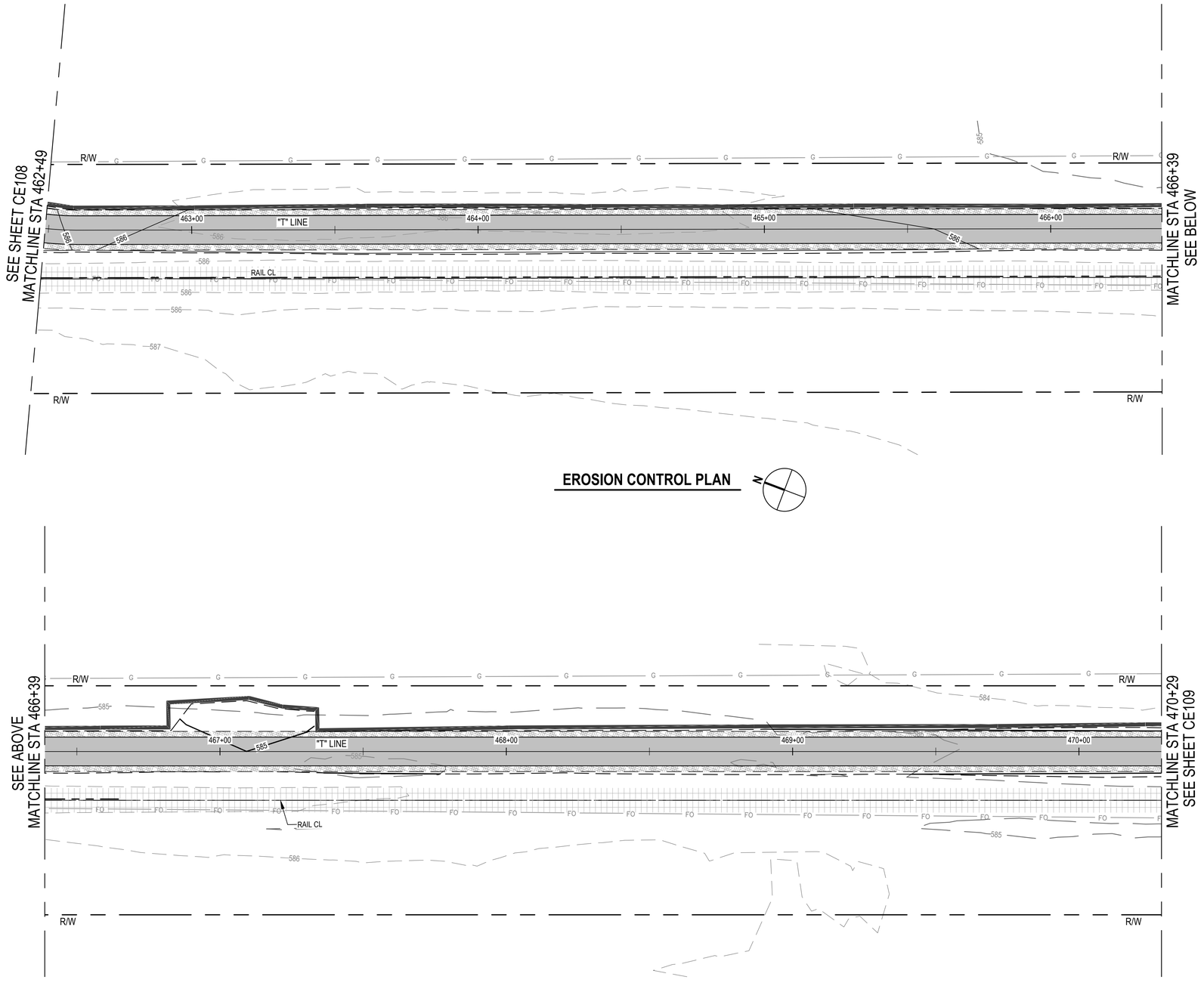
Date SEP 30, 2022

Scale 1" = 20'

Sheet No CE108

Sheet 49 of 96

Plot Date: 21 December 2022 - 6:32 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ENC3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN

EROSION CONTROL PLAN

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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0 10' 20' 40'

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

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C64814 CIVIL STATE OF CALIFORNIA
12/21/2022

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Client **CITY OF UKIAH**

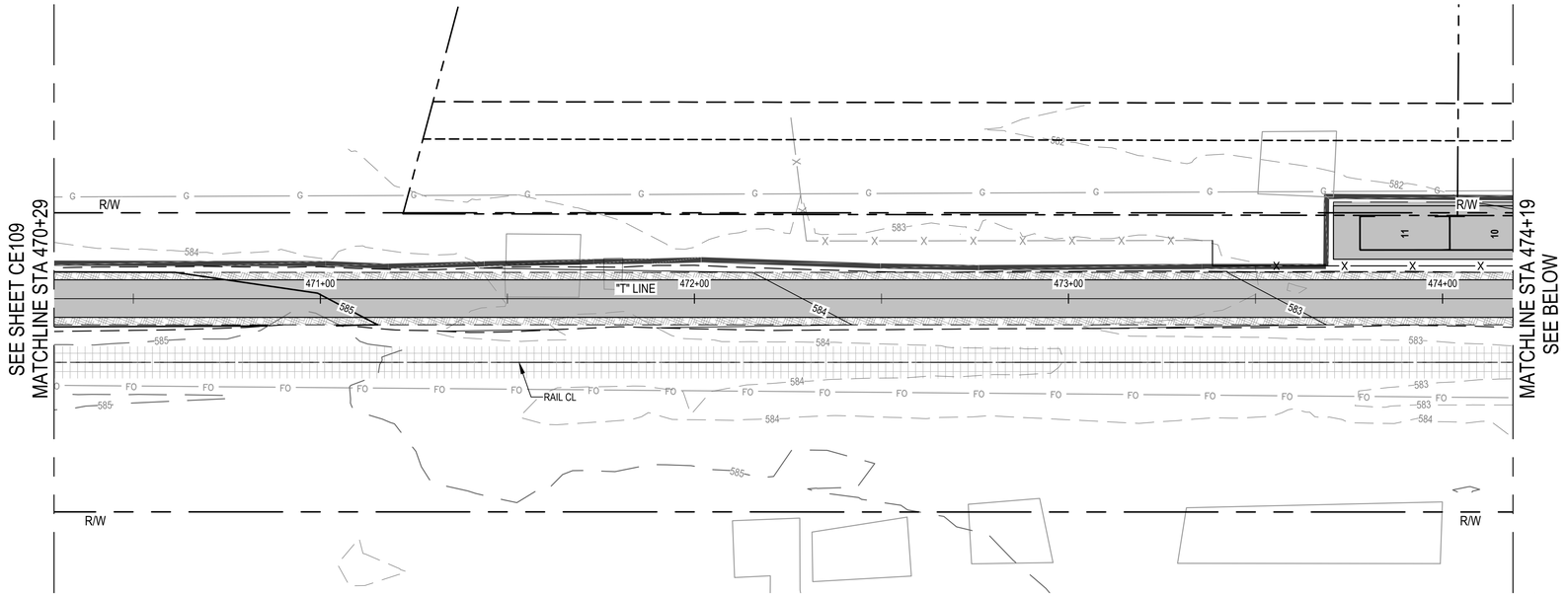
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **EROSION CONTROL PLAN STA 462+49 TO STA 470+29 ADD ALTERNATIVE**

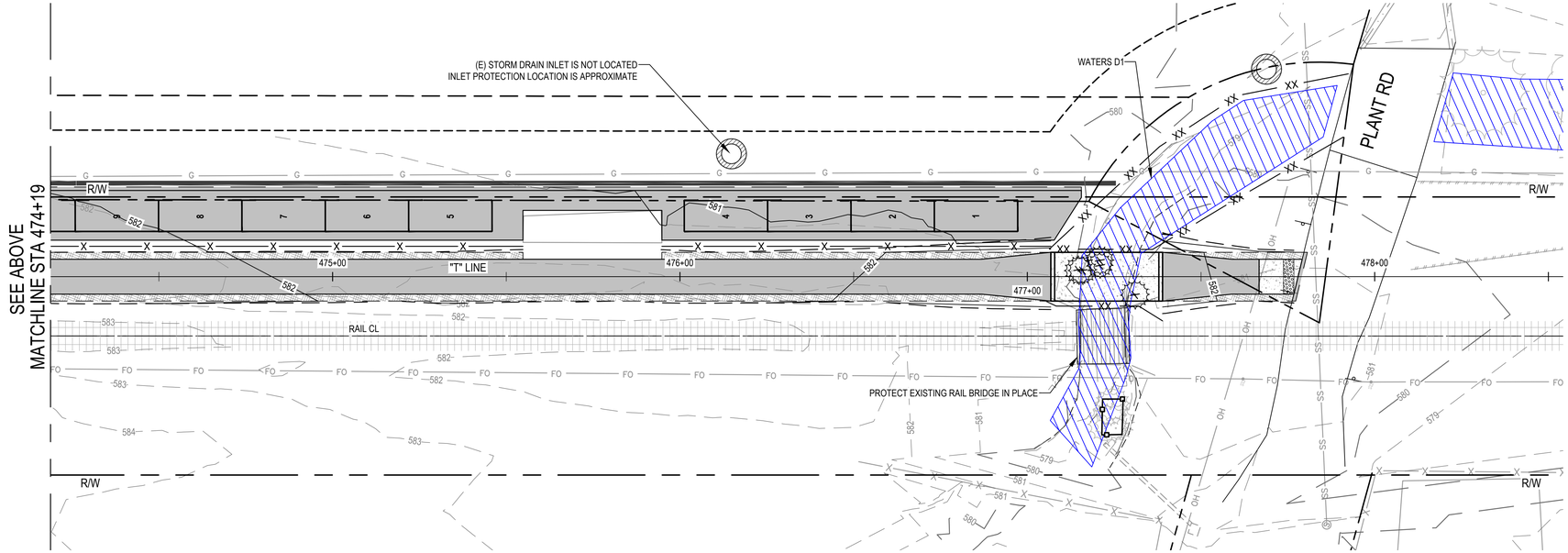
Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 20'	CE109	50 of 96

Plot Date: 21 December 2022 - 6:32 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ENC3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg



EROSION CONTROL PLAN



EROSION CONTROL PLAN

EROSION CONTROL LEGEND

- TEMPORARY SILT FENCE PER CALTRANS BMP FACT SHEET SC-1
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- EXISTING TREE TO BE REMOVED

0 10' 20' 40'

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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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0 1"

REGISTERED PROFESSIONAL ENGINEER ERIK D. FANSELAU No. C84814 CIVIL STATE OF CALIFORNIA
12/21/2022

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **EROSION CONTROL PLAN STA 470+29 TO STA 478+25 ADD ALTERNATIVE**

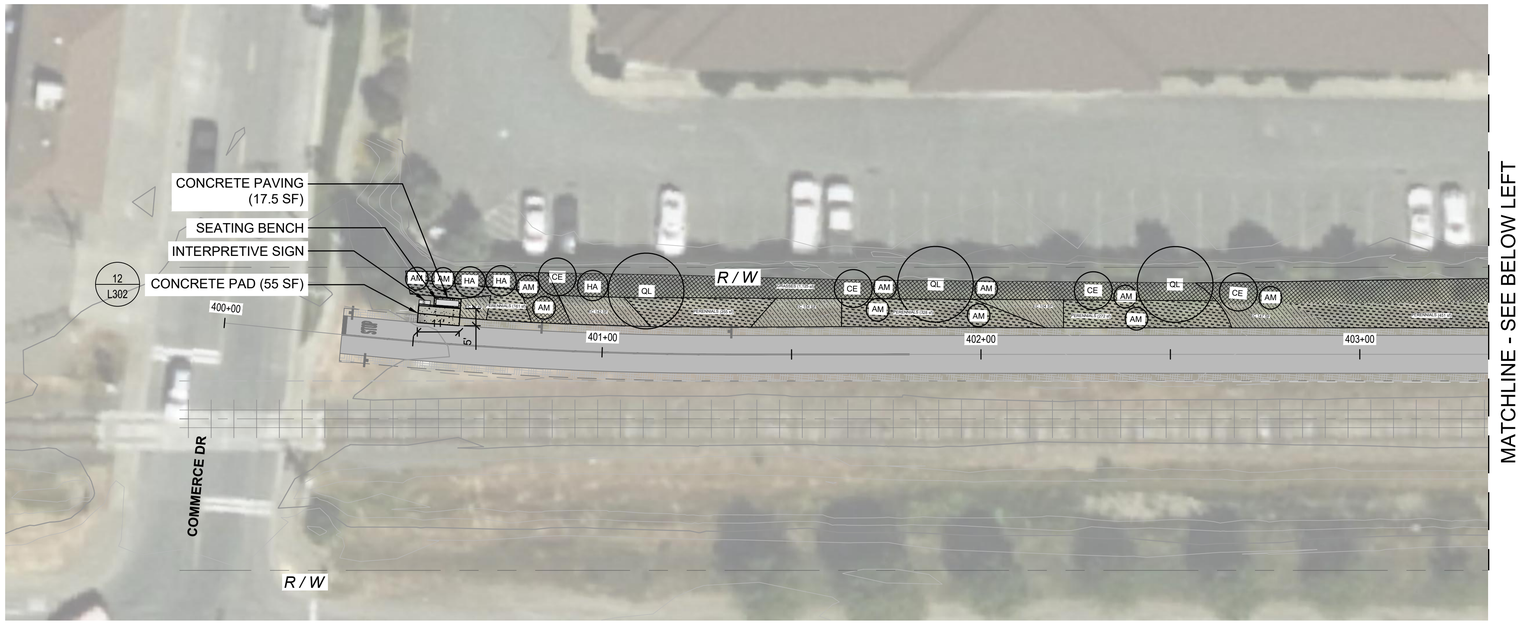
Size **ANSI D**

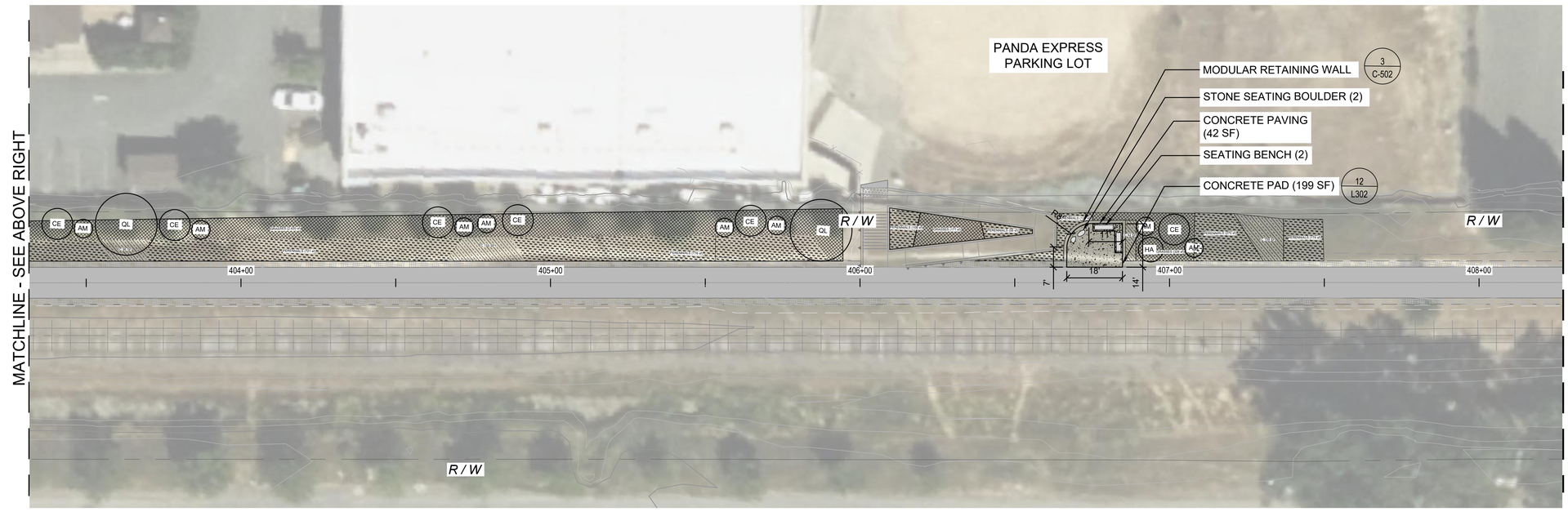
Project No.	Date	Scale
12557341	SEP 30, 2022	1" = 20'

Sheet No. **CE110**

Sheet 51 of 96

Plot Date: 21 December 2022 - 6:33 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\EN\C3D\sheets\12557341-GHD-0000-ERO-EN-D101.dwg





MATERIALS LEGEND

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

20 0 10 20 40
SCALE PLAN SCALE FEET

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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304 12th Street, Suite 2A | Oakland, CA 94607
510-540-5008 | altago.com

Bar is one inch on original size sheet
0 1"

REGISTERED LANDSCAPE ARCHITECT
LIC. #6173
BRIAN D BURCHFIELD
11-19-24
EXPIRATION DATE
STATE OF CALIFORNIA

GHD Inc.
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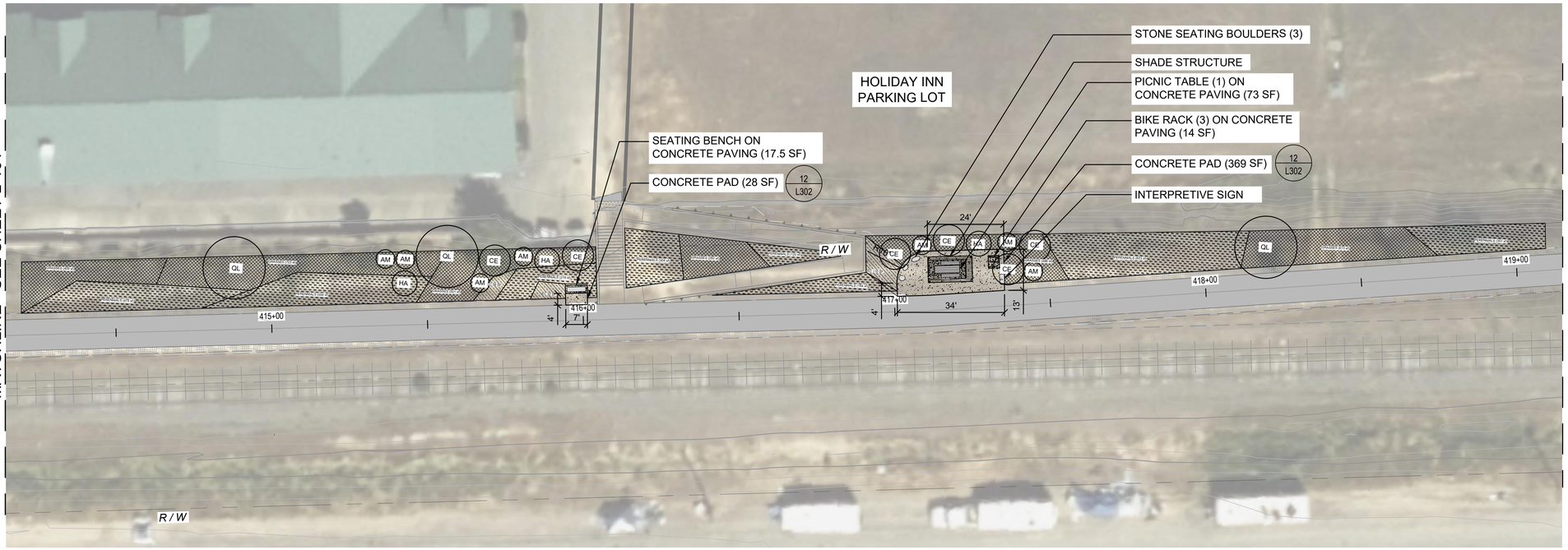
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

Title
LANDSCAPE AND SITE FURNISHINGS PLAN

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	2022-09-30	1"=20'	L-101	52 of 96

Plot Date: 30 September 2022 - 11:59 AM Plotted By: Carmela Sambo Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\L101.dwg



MATERIALS LEGEND

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

SCALE 20 0 10 20 40 FEET — PLAN SCALE

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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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510-540-5008 | altago.com

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0 1"

REGISTERED LANDSCAPE ARCHITECT
LIC. #6173
BRIAN D BURCHFIELD
11-19-24
EXPIRATION DATE
STATE OF CALIFORNIA

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title LANDSCAPE AND SITE FURNISHINGS PLAN

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	2022-09-30	1"=20'	L-102	53 of 96

Plot Date: 30 September 2022 - 12:00 PM Plotted By: Carmela Sambo Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\L102.dwg

MATCHLINE - SEE SHEET L-102

MATCHLINE - SEE BELOW LEFT

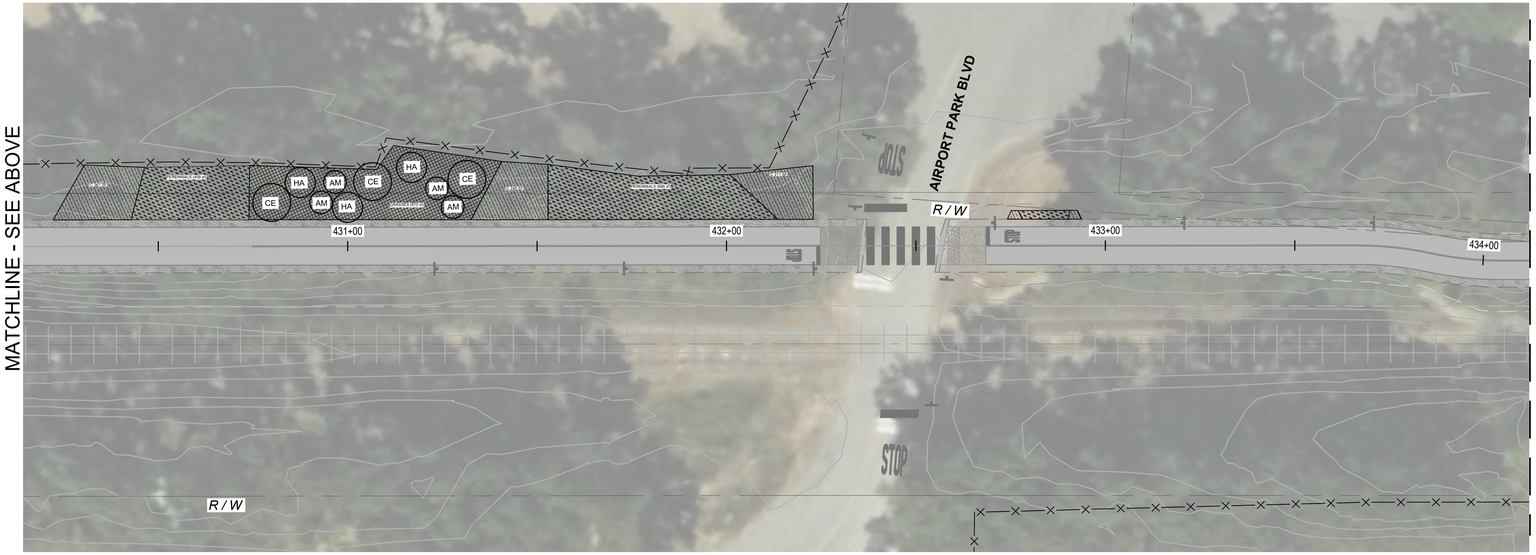


MATERIALS LEGEND

- SEATING BENCH
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- BOULDERS
- SHADE STRUCTURE
- BIKE RACK
- BIKE REPAIR STATION
- INTERPRETIVE SIGN
- CONCRETE PAVING (13 / L-301)

20 0 10 20 40
SCALE PLAN SCALE FEET

MATCHLINE - SEE ABOVE



MATCHLINE - SEE SHEET L-104

20 0 10 20 40
SCALE PLAN SCALE FEET

811
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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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BRIAN D. BURCHFIELD
11-30-24
EXPIRATION DATE
STATE OF CALIFORNIA

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Client CITY OF UKIAH

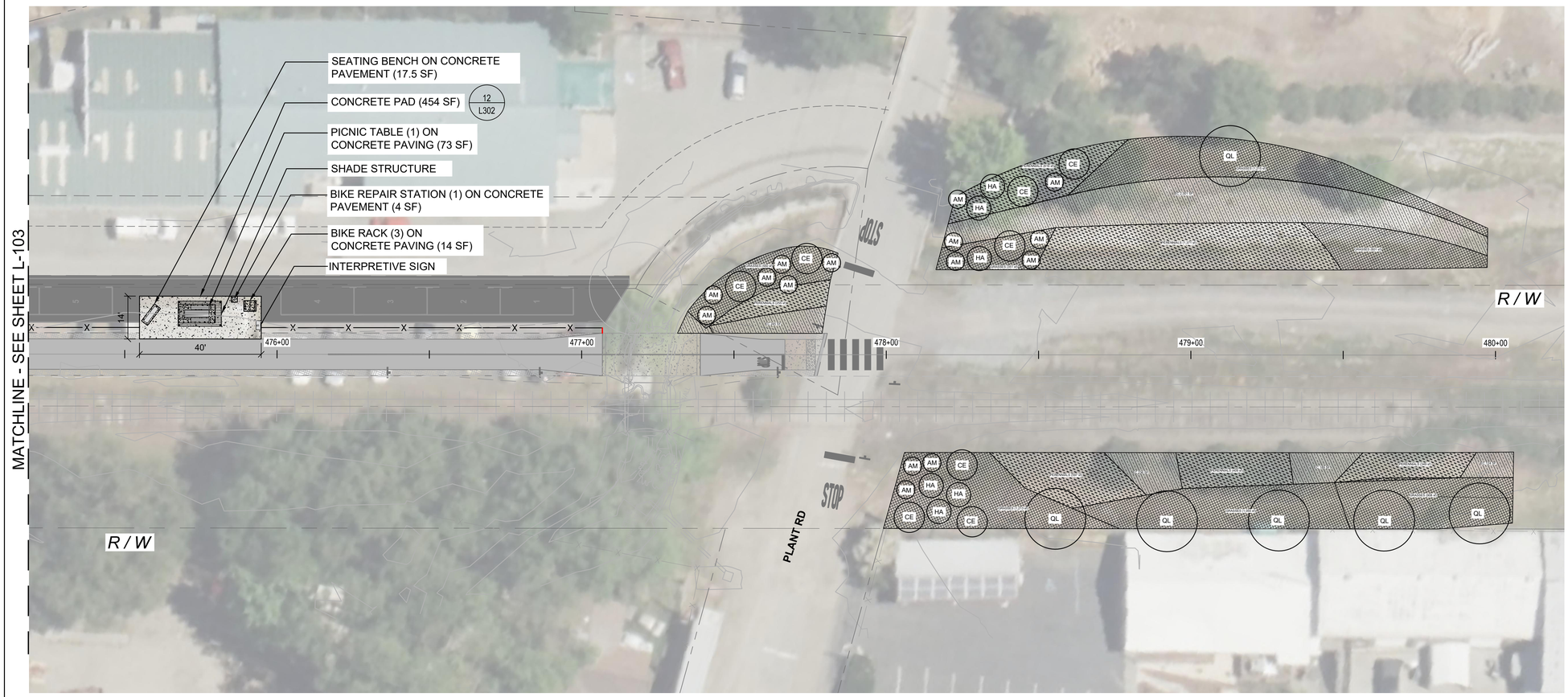
Project THE GREAT REDWOOD TRAIL PHASE 4

Title LANDSCAPE AND SITE FURNISHINGS PLAN

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	2022-09-30	1"=20'	L-103	54 of 96

Plot Date: 30 September 2022 - 12:00 PM Plotted By: Carmela Sambo Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\L103.dwg



MATERIALS LEGEND

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

20 0 10 20 40
SCALE PLAN SCALE FEET

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			16,205 sf
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

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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REGISTERED LANDSCAPE ARCHITECT LIC. #6173 BRIAN D BURCHFIELD 11-19-24 EXPIRATION DATE STATE OF CALIFORNIA

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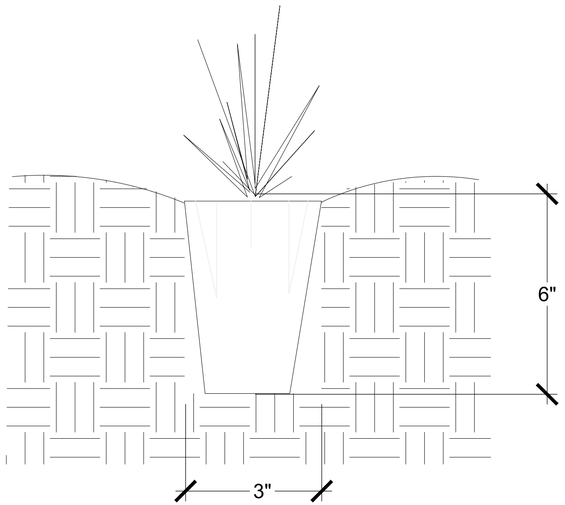
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

Title LANDSCAPE AND SITE FURNISHINGS PLAN

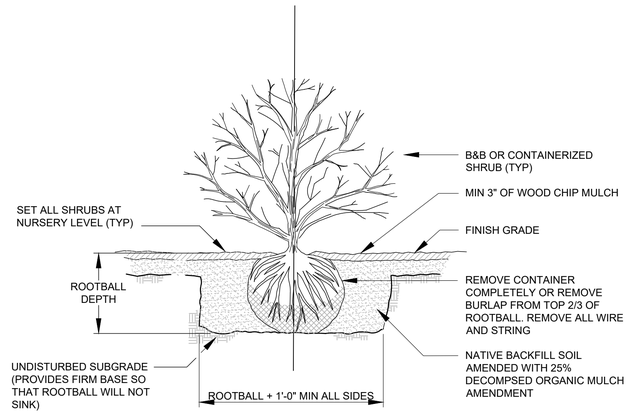
Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
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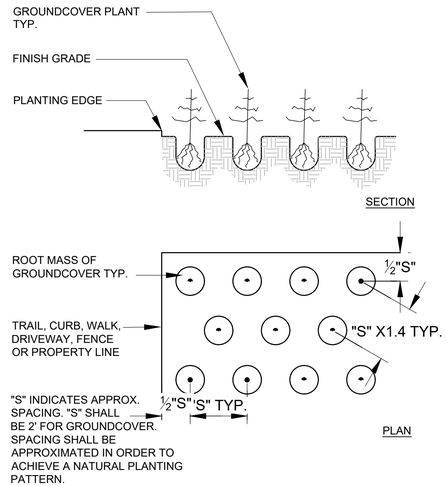
Plot Date: 30 September 2022 - 2:42 PM Plotted By: Carmela Sambo Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\L104.dwg



1 TYPICAL PLUG PLANTING

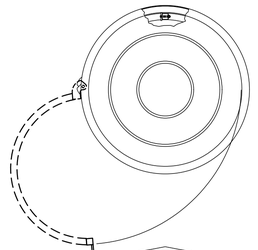


2 TYPICAL SHRUB PLANTING

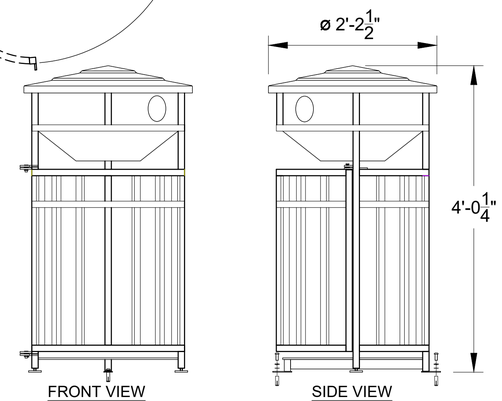


NOTE: PLANTINGS SHALL BE TAGGED FOR DORMANT SEASON IDENTIFICATION AND SHALL REMAIN ON PLANT MATERIAL AFTER PLANTING FOR MONITORING PURPOSES.

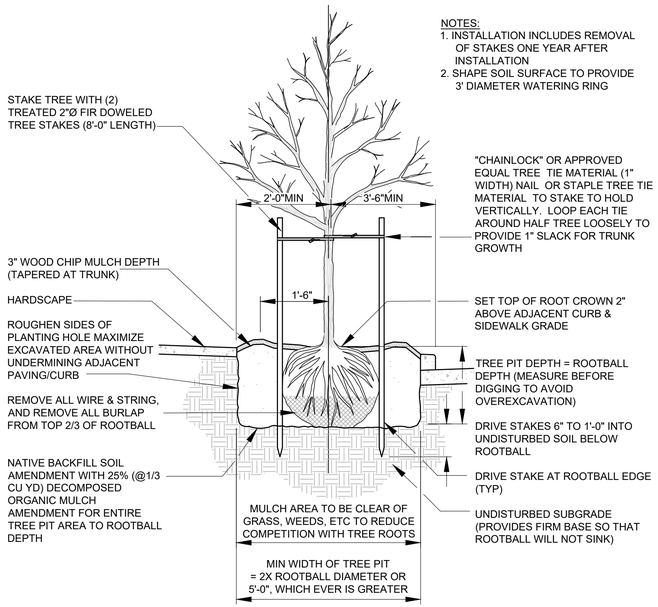
3 GROUNDCOVER LAYOUT



PRODUCT: URBAN RECYCLING RECEPTACLE 36 GALLON OR APPROVED EQUAL, SIDE OPENING, WITH RECYCLING ATTACHMENT
PATTERN: CUSTOM SOLID CYLINDER WITH VERTICAL BARS
FINISH: GREEN GLOSS, RAL NUMBER 35-49/51540-AG EVERGREEN GLOSS ANTI-GRAFFITI
LINER: 32-GALLON GALVANIZED STEEL
MOUNTING: EMBEDMENT; DRILL 1-7/8" DEEP X ½" DIAMETER ANCHOR HOLE, INSERT ⅜"-16 X 1-1/2" ANCHOR
BAY AREA CONTACT:MICHAEL RISSO-925-890-462



4 TRASH/RECYCLING RECEPTACLE



5 TREE STAKING

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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BRIAN D. BURCHFIELD
11-19-24
EXPIRATION DATE
STATE OF CALIFORNIA

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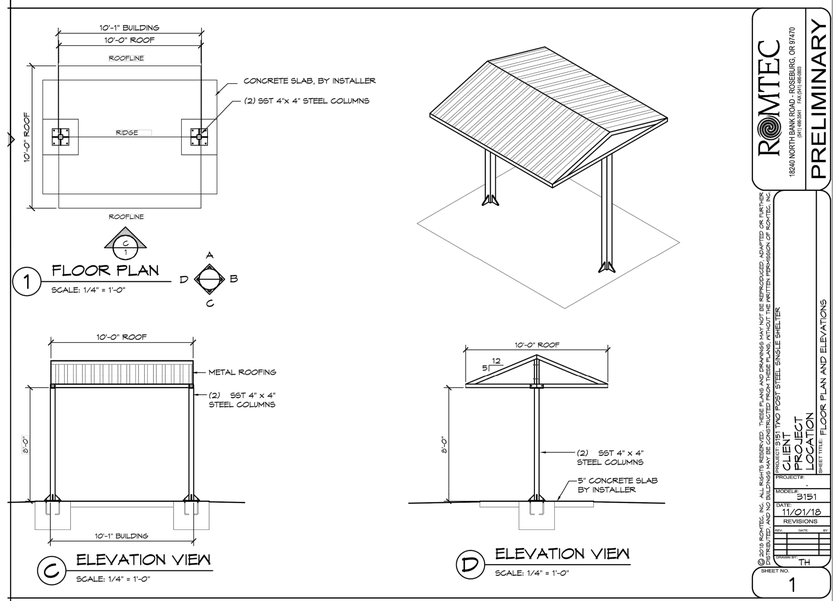
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

Title PLANTING DETAILS

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	2022-09-30	NTS	L-201	56 of 96

Plot Date: 30 September 2022 - 12:01 PM
Plotted By: Carmela Sambo
Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\03_References\21_230_DETAILS.dwg



ROMTEC
18345 NORTH BANK ROAD - ROSEBURG, OR 97470
(541) 496-3541 FX (541) 440-6626

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CLIENT
PROJECT
LOCATION
SHEET TITLE: FLOOR PLAN AND ELEVATIONS

PROJECT# -
MODEL # 3151
DATE: 11/01/18
REVISIONS

NO.	DESCRIPTION	BY

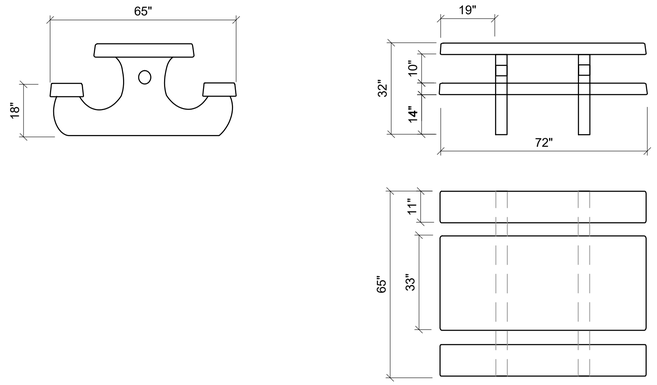
DRAWN BY: TH

SHEET NO. 1

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

7 ROMTEC - 2-POST STEEL SHELTER

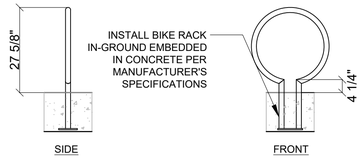
MODEL #101S - 72" CONCRETE PICNIC TABLE



NOTES:
1. Concrete mix design to include a mixture of Portland Cement, water, coarse and fine aggregates, pure mineral oxide coloring agents (when applicable) to yield a minimum compressive strength of 5000 psi.
2. Final product shall be reinforced with #4 and #5 rebar grid.
3. Product is cast in 1-piece with no assembly required.
4. Hairline cracks may develop over time. These are not structural failures, but inherent characteristics of the material itself.
5. Air pockets are a common occurrence in precast products. The frequency and size of air pockets are variable and to be expected, especially on vertical surfaces.
6. Concrete corners and edges will chip if not handled according to guidelines. Patch kits are available but may or may not blend and can be variable.
7. There is a level of care and maintenance associated with your product and is the responsibility of the end user. Choosing the right sealer can help minimize those costs

WEIGHT: 2180 LBS
TEXTURE:
COLOR:
SEALER:

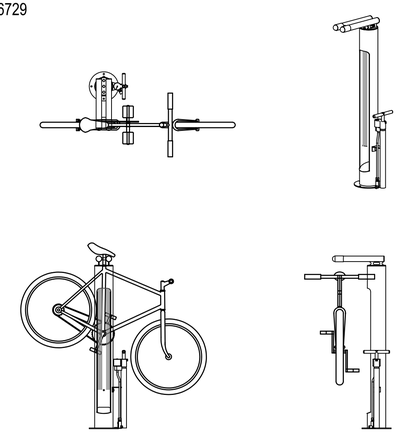
8 OUTDOOR CREATIONS INC. - CONCRETE PICNIC TABLE



NOTES:
1. PREFABRICATED BIKE RACK 'OPAL' (IN-GROUND MOUNT) BY MADRAX STYLE OPR-2-IG OR APPROVED EQUAL.
2. LOCATE BIKE RACK PER PLAN
3. CONTRACTOR SHALL INSTALL BIKE RACK PER MANUFACTURER'S SPECIFICATIONS

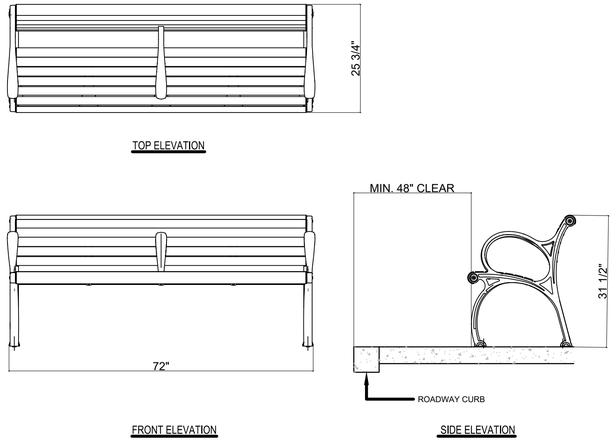
9 BIKE RACK

BIKE FIXIT STATION WITH AIR KIT 2 BY DERO
(888)337-6729



NOTE:
BIKE REPAIR STATION DETAIL DRAWING IS CONCEPTUAL. CONTRACTOR TO SUPPLY STAMPED AND SIGNED SHOP DRAWINGS FOR APPROVAL INCLUDING STRUCTURAL CALCULATIONS AND SPECIFICATIONS FOR MATERIALS.

10 BIKE REPAIR STATION



NOTES:
1. 72" ALUMINUM BENCH WITH ARM 'PLAINWELL' MODEL BY LANDSCAPE FORMS OR APPROVED EQUAL. POWDERCOATED SILVER COLOR
2. VERIFY EXACT LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
3. CONTRACTOR TO PROVIDE ANCHORING HARDWARE AS NEEDED FOR SURFACE MOUNTING TO CONCRETE SIDEWALK PER MANUFACTURER'S SPECIFICATIONS.

11 BENCH

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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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

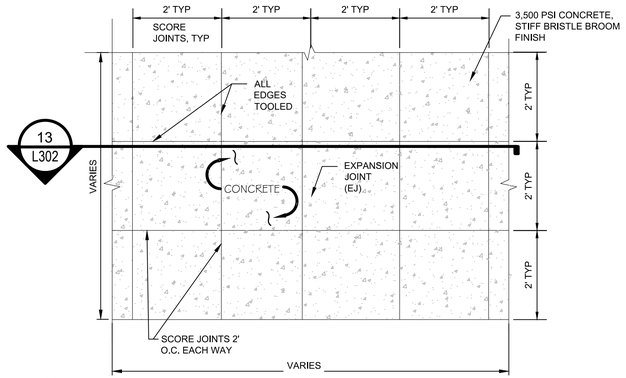
Title FURNISHING DETAILS

Size ANSI D

Project No. 12557341
Date 2022-09-30
Scale NTS

Sheet No L-301
Sheet 57 of 96

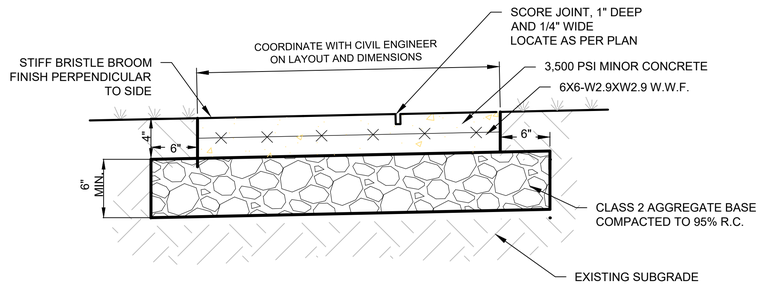
Plot Date: 30 September 2022 - 12:01 PM
Plotted By: Carmela Sambo
Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\03_References\21_230_DETAILS.dwg



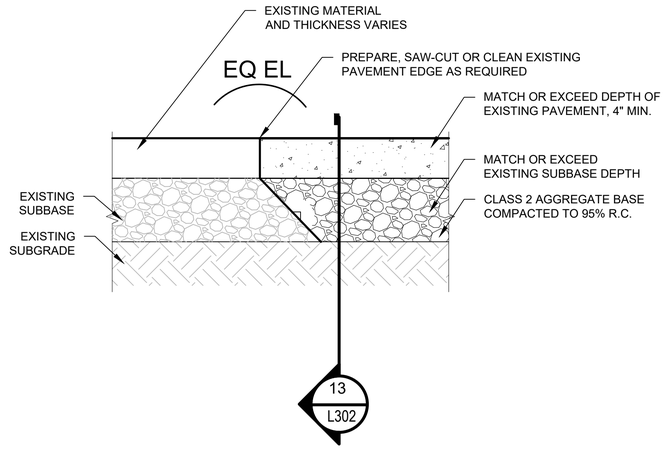
NOTE:

1. SCORE JOINTS ARE TO BE INSTALLED TYPICALLY 2' O.C. MAX.
2. TO ACCOMODATE EVEN SPACING OF SCORE JOINTS IN AREAS WHERE THE MEASUREMENTS OF THE CONCRETE TRAILHEAD ARE NOT EVEN THE SPACING MAY VARY FROM 20" O.C. TO 28" O.C.
3. SCORE JOINTS SHALL BE LAYED OUT TO ENSURE THAT THE EDGE OF THE TRAILHEADS SLIVERS LESS THAN 1-4" ARE PREVENTED

12 CONCRETE TRAILHEAD PLAN



13 CONCRETE PAVING SECTION



14 CONCRETE AT EXISTING TRAIL, SECTION

No.	Issue	Checked	Approved	Date
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Designer	R. BOOTH, C. SAMBO	Design Check	R. BOOTH	Project Director M. KENNEDY

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title FURNISHING DETAILS

Size ANSI D

Project No. 12557341 | Date 2022-09-30 | Scale NTS

Sheet No. L-302 | Sheet 58 of 96

Plot Date: 30 September 2022 - 12:01 PM | Plotted By: Carmela Sambo | Filename: N:\Shared\PROJECTS\2021\00-2021-230 Ukiah, CA Great Redwood Trail Phase 4\CAD\03_References\21_230_DETAILS.dwg

DESIGN BASIS

1. 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.

2. 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_M = 0.941 g
   RESPONSE MODIFICATION FACTOR (FOR BRIDGE FOOTINGS) = 2.0

NORGARD LN. BRIDGE	PLANT RD. BRIDGE
LAT. = 39.113°N	LAT. = 39.122°N
LONG. = -123.193°W	LONG.= -123.198°W

3. DESIGN LIVE LOADS:
   PEDESTRIAN LOAD = 90 PSF
   VEHICLE LOAD = H10 DESIGN VEHICLE (20,000 LB)

4. DEFLECTION LIMITS:
   BRIDGES (GREATER THAN 20FT SPAN) = L/360

GENERAL NOTES

1. ALL WORK TO CONFORM TO REQUIREMENTS OF ALL PUBLICATIONS AND NOTES LISTED UNDER "DESIGN BASIS."
2. 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.
3. 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.
4. THE CONTRACTOR SHALL MAINTAIN A SET OF LATEST REVIEWED SHOP DRAWINGS ON JOB SITE.
5. 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.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
7. 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.
8. 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.
9. FOR QUALITY CONTROL INSPECTION AND TESTING REQUIREMENTS DURING CONSTRUCTION, SEE SPECIFICATIONS.

FOUNDATIONS FOR PEDESTRIAN BRIDGES NOTES

1. 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

2. THE BRIDGE ABUTMENTS WERE DESIGNED TO RESIST LATERAL LOADING USING THE FOLLOWING PASSIVE EARTH PRESSURES AND BASE FRICTION VALUES:

	NORGARD LANE BRIDGE	PLANT ROAD BRIDGE
PASSIVE EARTH PRESSURE	400 PCF	300 PCF
FRICTION COEFFICIENT	0.50	0.35

3. EARTH PRESSURES USED IN THE DESIGN OF THE BRIDGE ABUTMENTS AND WINGWALLS ARE AS FOLLOWS:

	NORGARD LANE BRIDGE	PLANT ROAD BRIDGE
STATIC	82 PCF	85 PCF
SEISMIC	ADD'L 45 PCF	ADD'L 41 PCF

4. ALL COMPACTED STRUCTURAL FILL SHALL CONFORM TO THE PROJECT SPECIAL PROVISIONS .
5. CONCRETE FOOTINGS SHALL NOT BE PLACED UNTIL FILL AND SUBGRADE HAVE BEEN CHECKED IN PLACE AND APPROVED BY THE ENGINEER.

CONCRETE AND REINFORCING NOTES

1. 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).
2. 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.

3. ALL CONCRETE DIMENSIONS SOHWN 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.
4. ALL BAR REINFORCING FOR CONCRETE TO CONFORM TO ASTM A 615 GRADE 60 (DEFORMED).
5. ALL REINFORCING SHALL TERMINATE WITH STANDARD HOOKS AS SHOWN ON PLANS. ALL STIRRUPS AND TIES TO BE CLOSED WITH 135° BENDS.
6. IN WALL ELEMENTS, VERTICAL BARS SHALL BE LOCATED ON OUTERMOST LAYER UNLESS SPECIFICALLY NOTED OTHERWISE.
7. 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

8. CONCRETE ACCESSORIES MUST BE ADEQUATE TO MAINTAIN REINFORCING ACCURATELY IN PLACE AND BE NON-CORROSIVE, NON-STAINING TYPE.
9. 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)
10. SHORE CONCRETE BEAMS, CANTILEVERS AND SUPPORTED SLABS DIRECTLY TO FIRM BEARING FOR AS LONG AS PRACTICAL (MINIMUM 28 DAYS) TO MINIMIZE CREEP AND DEFLECTION.
11. 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.
12. EPOXY ANCHORS SHALL BE ONE OF THE FOLLOWING, UNO:

    HILTI HIT-HY 200
    HILTI HIT-RE 500
    SIMPSON SET-3G

13. NON-SHRINK GROUT SHALL HAS A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI AT 7 DAYS

PRE-ENGINEERED BRIDGES

1. PROVIDE AND INSTALL FULLY FUNCTIONAL PRE-ENGINEERED SINGLE SPAN BRIDGE AS SHOWN ON THE STRUCTURAL AND CIVIL DRAWINGS AND SPECIFICATIONS.
2. 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.
3. PROVIDE ALL FASTENERS AND OTHER APPURTENANCES NECESSARY TO INSTALL PRE-ENGINEERED BRIDGE TO THE CONCRETE FOOTINGS PER MANUFACTURER.
4. 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.
5. 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.
6. 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

7. ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554, GRADE 105, HOT DIPPED GALVANIZED.

MASONRY NOTES

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

WELDED WIRE WALL NOTES

1. 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.
2. DESIGN WALLS FOR 75-YEAR LIFE.
3. WIRE MATS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
4. 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	

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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

Title STRUCTURAL GENERAL NOTES

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	NO SCALE	S-001	59 of 96

Plot Date: 8 February 2023 - 8:42 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D001.dwg

STRUCTURAL ABBREVIATIONS LEGEND

SEE UNITED STATES NATIONAL CAD STANDARD FOR ANY ABBREVIATION NOT LISTED BELOW

&	AND
@	AT
Ø	DIAMETER
(E)	EXISTING
'	FOOT, FEET
"	INCH, INCHES
#	NUMBER, POUND
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
A/E	ARCHITECT / ENGINEER
AB	ANCHOR BOLT
ABUT	ABUTMENT
ABV	ABOVE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECT
ARS	ACCELERATION RESPONSE SPECTRUM
ATR	ALL THREAD ROD
AWS	AMERICAN WELDING SOCIETY
BB	BEGINNING OF BRIDGE
BFF	BELOW FINISH FLOOR
BKG	BACKING
BLDG	BUILDING
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BMU	BRICK MASONRY UNIT
BN	BOUNDARY NAIL
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BTWN	BETWEEN
BVC	BEGIN VERTICAL CURVE
C	CAMBER, CHANNEL
CB	CARRIAGE BOLT
CBC	CALIFORNIA BUILDING CODE
CFSF	COLD-FORMED STEEL FRAMING
CG	CENTER OF GRAVITY
CIDH	CAST-IN-DRILLED-HOLE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONT	CONTINUE, CONTINUOUS
CRS	COLD ROLLED STEEL
CSK	COUNTER SUNK
CTR	CENTER
D	PENNY (NAIL), DEEP, DEPTH
DBL	DOUBLE
DCW	DEMAND CRITICAL WELD
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DJ	DOWEL JOINT
DL	DEAD LOAD
DO	DITTO, DO OVER
DOUG	FIR DOUGLAS FIR
DWG	DRAWING
DWL	DOWEL
EA	EACH
EB	END OF BRIDGE
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EN	EDGE NAIL
EOS	EDGE OF SLAB
EQ	EQUAL, EQUALLY
ES	EACH SIDE
EVC	END VERTICAL CURVE
EW	EACH WAY
EXT	EXTERIOR
F/F	FACE TO FACE
FA	FRAMING ANGLE
FB	FLAT BAR
FDTN	FOUNDATION
FIN	FINISH
FLG	FLANGE
FLR	FLOOR
FN	FIELD NAIL
FOC	FACE OF CONCRETE/CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FRMG	FRAMING
FRTW	FIRE RETARDANT TREATED WOOD
FS	FAR SIDE
FT	FEET, FOOT
FTG	FOOTING
FURG	FURRING
g OR G	ACCELERATION DUE TO GRAVITY
GA	GAGE
GALV	GALVANIZED
GLB	GLUED LAMINATED BEAM
GR	GRADE
H	HIGH, HEIGHT
HDR	HEADER
HGR	HANGER
HLDN	HOLDDOWN
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IJ	ISOLATION JOINT
INFO	INFORMATION
INT	INTERIOR
IR	INSIDE RADIUS
JH	JOIST HANGER
JT	JOINT
L	ANGLE, LONG, LENGTH
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LS	LAG SCREW
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MISCELLANEOUS CHANNEL
MCJ	MASONRY CONTROL JOINT
MDJ	MASONRY DOWEL JOINT
MECH	MECHANICAL
MEJ	MASONRY EXPANSION JOINT
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MKJ	MASONRY KEY JOINT
MRJ	MASONRY RAKE JOINT
NA	NOT APPLICABLE
NF	NEAR FACE
NIC	NOT IN CONTRACT
NPS	NOMINAL PIPE SIZE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
O/	OVER
OAE	OR APPROVED EQUAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OR	OUTSIDE RADIUS
PAF	POWER ACTUATED FASTENER
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PJP	PARTIAL JOINT PENETRATION
PL	PLATE, PROPERTY LINE
PLF	POUNDS PER LINEAR FOOT
PREFAB	PREFABRICATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTW	PRESERVATIVE TREATED WOOD
QTY	QUANTITY
R	RADIUS, RISER
RC	RELATIVE COMPACTION
REBAR	REINFORCING STEEL BAR
REINF	REINFORCE, REINFORCING
REQ	REQUIRE, REQUIRED
RND	ROUND
RO	ROUGH OPENING
RS	ROUGH SAWN
RWD	REDWOOD
RWLOL	RETAINING WALL LAYOUT LINE
S	SPACED, SPACING, SPLICE, STEP
SAD	SEE ARCHITECTURAL DRAWINGS
SCHED	SCHEDULE
SE	STRUCTURAL ENGINEER
SEC	SECOND
SECT	SECTION
SFRS	SEISMIC FORCE RESISTING SYSTEM
SIM	SIMILAR
SJ	SHRINKAGE JOINT
SL	SNOW LOAD
SP	STRUCTURAL PANEL
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
STAG	STAGGERED
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
T	TREAD, THICKNESS
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
THK	THICKNESS
THRU	THROUGH
TJ	TOOL JOINT
TN	TOE NAIL
TOB	TOP OF BEAM
TOC	TOP OF CURB/CONCRETE
TOF	TOP OF FRAMING/FOOTING/FLOOR
TOG	TOP OF GRATING
TOJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOSP	TOP OF STRUCTURAL PANEL
TOT	TOP OF TRUSS
TOW	TOP OF WALL
TPB	TREATED PERMEABLE BASE
TS	TUBE STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VR	VAPOR RETARDER
W	WIDE, WIDTH, WELD, W-SHAPE
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WHS	WELDED HEADED STUD
WL	WIND LOAD
WO	WHERE OCCURS
WP	WORKING POINT
WT	WEIGHT, W TEE-SHAPE
WTS	WELDED THREADED STUD
WWLOL	WINGWALL LAYOUT LINE
WWR	WELDED WIRE REINFORCEMENT
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

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No.	Issue	Checked	Approved	Date

Author	**A. PRATT**	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"

REGISTERED PROFESSIONAL ENGINEER — STEPHANIE GOULD — No. C28103 — CIVIL — STATE OF CALIFORNIA

2/7/2023

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

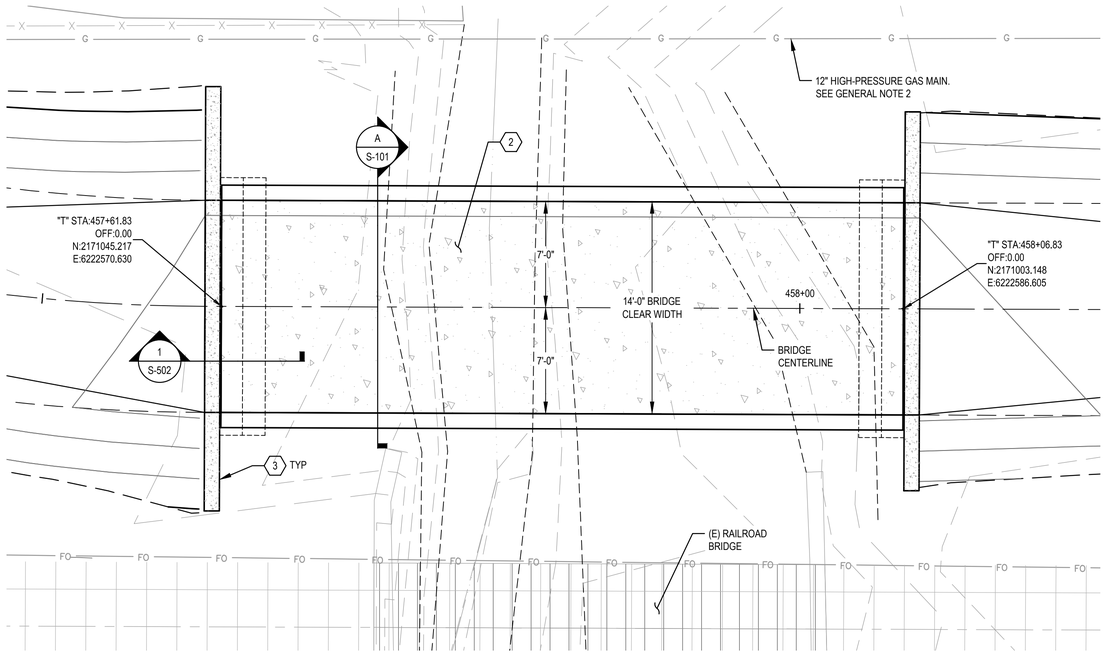
Title **STRUCTURAL ABBREVIATIONS AND SYMBOLS**

Size **ANSI D**

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

Sheet No. **S-002** Sheet **60 of 96**

Plot Date: 8 February 2023 - 8:43 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D002.dwg



NORGARD LANE BRIDGE - PLAN

SCALE: 1"=5'

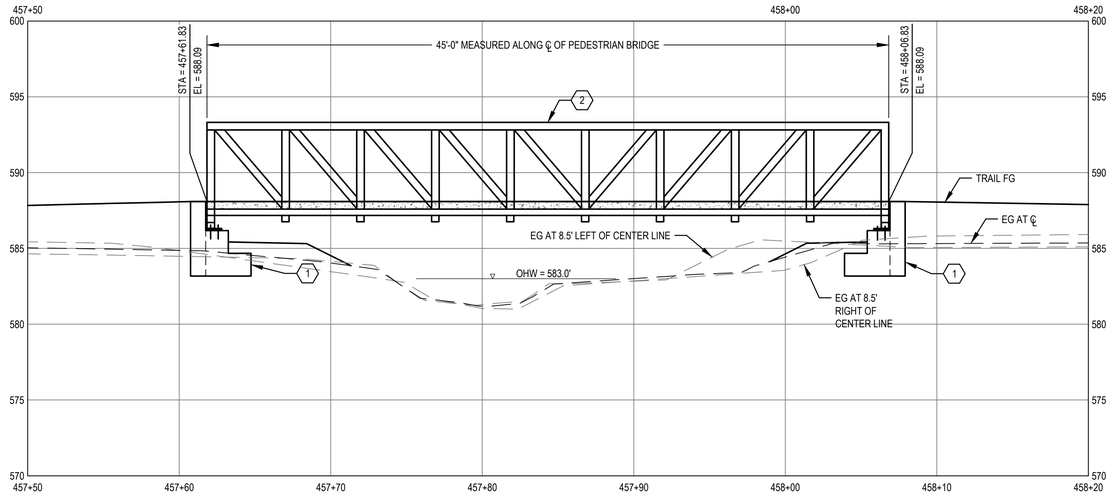
0 5' 10'

SHEET GENERAL NOTES

1. DIMENSIONS SHOWN ARE TYPICAL. FOOTINGS ARE SYMMETRICAL ABOUT CENTERLINE OF TRAIL.
2. 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 PG&E HIGH-PRESSURE GAS MAINS.

SHEET KEYNOTES

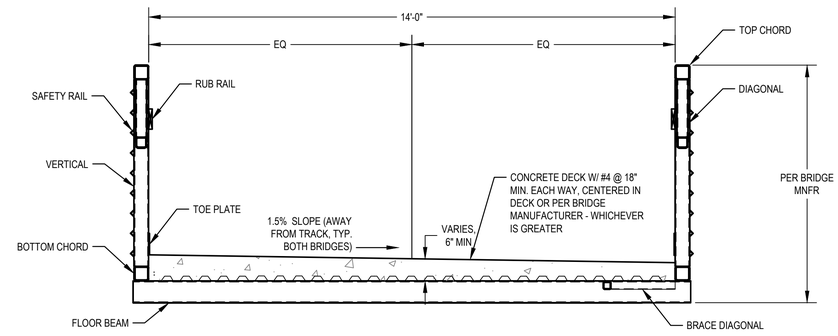
1. (N) CAST-IN-PLACE CONCRETE RETAINING FOOTING PER DETAIL 1/S-502
2. (N) PRE-MANUFACTURED PEDESTRIAN BRIDGE. SPAN AND WIDTH AS SHOWN THIS SHEET. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
3. (N) CAST-IN-PLACE WING WALL PER DETAIL 3/S-502



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

811

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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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0 1"

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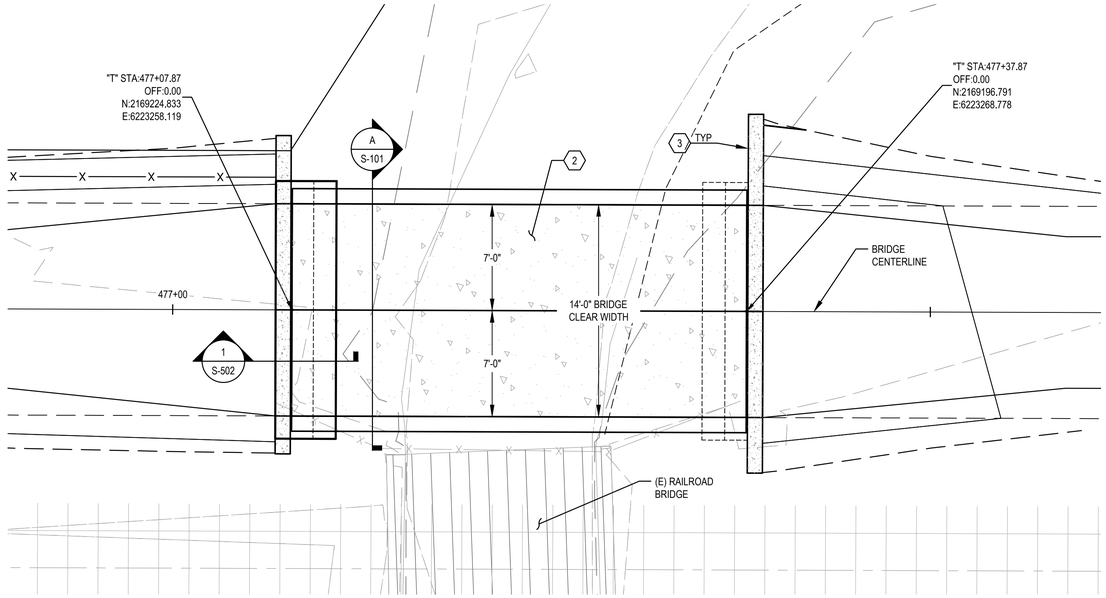
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **NORGARD LANE BRIDGE PLAN AND PROFILE - ADD ALTERNATIVE**

Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	AS SHOWN	S-101	61 of 96

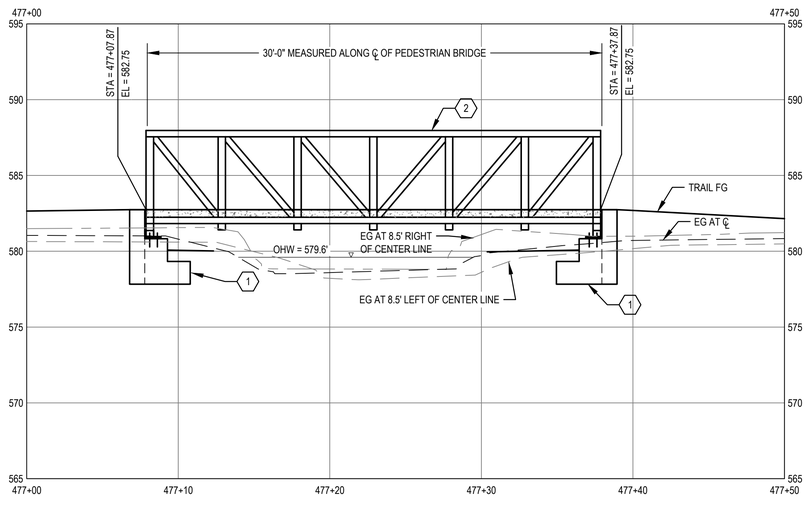
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PLANT ROAD BRIDGE - PLAN

SCALE: 1"=5'

0 5' 10'



PLANT ROAD BRIDGE - PROFILE
STATION 477+07.87 TO 477+37.87

SCALE: 1"=5'

0 5' 10'

SHEET GENERAL NOTES

1. 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

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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**

Title **PLANT ROAD BRIDGE PLAN AND PROFILE - ADD ALTERNATIVE**

Size **ANSI D**

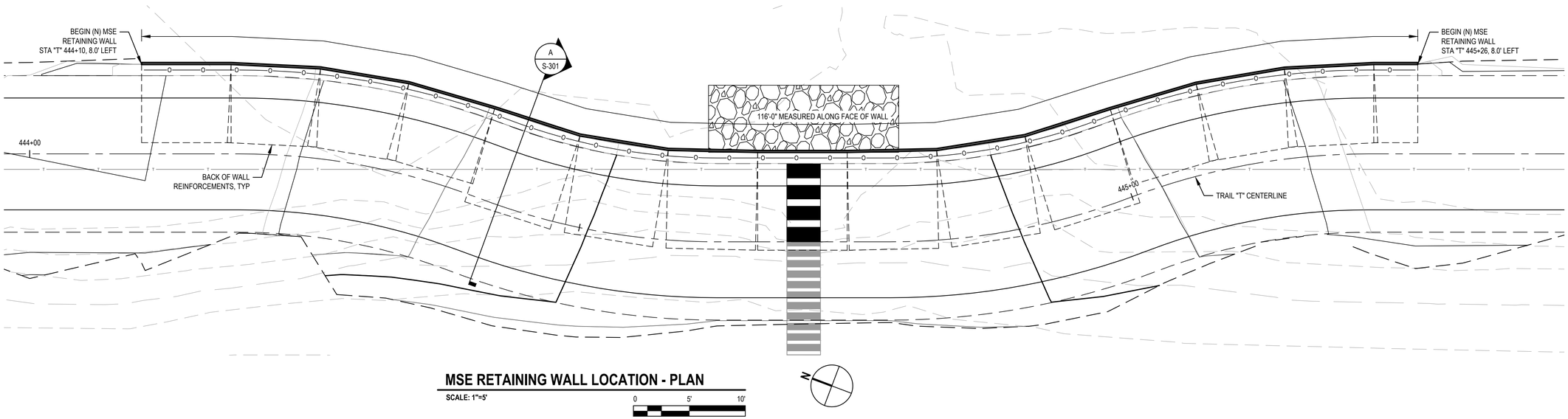
Project No.	Date	Scale
12557341	**SEP 30, 2022**	**AS SHOWN**

Sheet No. **S-102** Sheet **62** of **96**

Plot Date: 8 February 2023 - 8:46 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D102.dwg

SHEET GENERAL NOTES

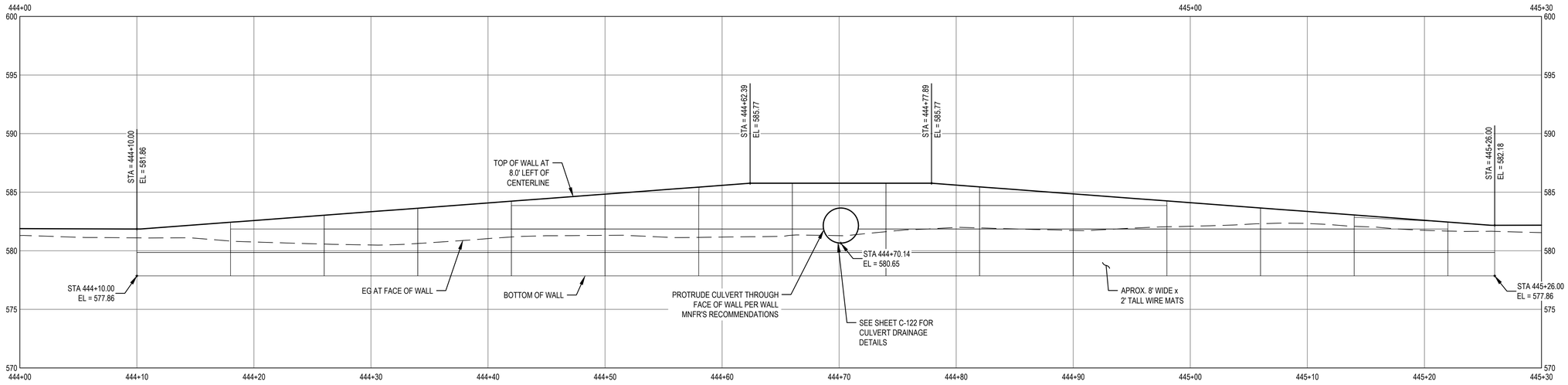
1. REFER TO SHEET S-001 FOR WALL DESIGN PARAMETERS.



MSE RETAINING WALL LOCATION - PLAN

SCALE: 1"=5'

0 5' 10'



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

SCALE: 1"=5'

0 5' 10'

811
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Designer	S. GOULD	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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Project **THE GREAT REDWOOD TRAIL PHASE 4**

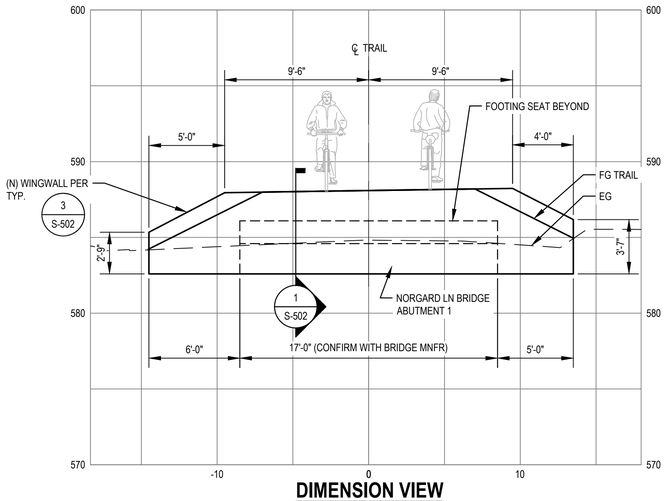
Title **RETAINING WALL PLAN, PROFILE , AND SECTION**

Size **ANSI D**

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	AS SHOWN	S-103	63 of 96

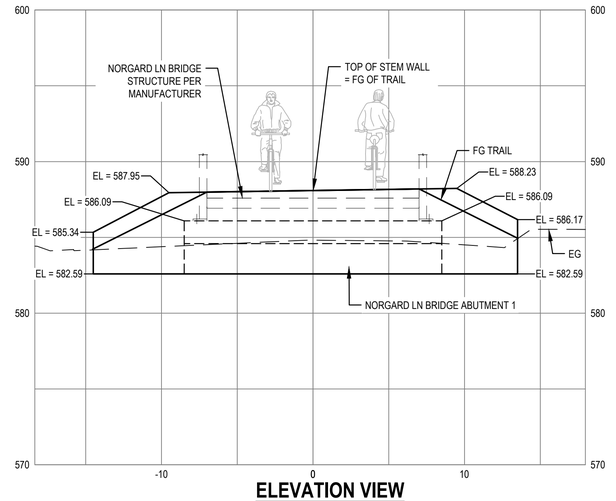
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T
STATION 457+61.83



DIMENSION VIEW

T
STATION 457+61.83



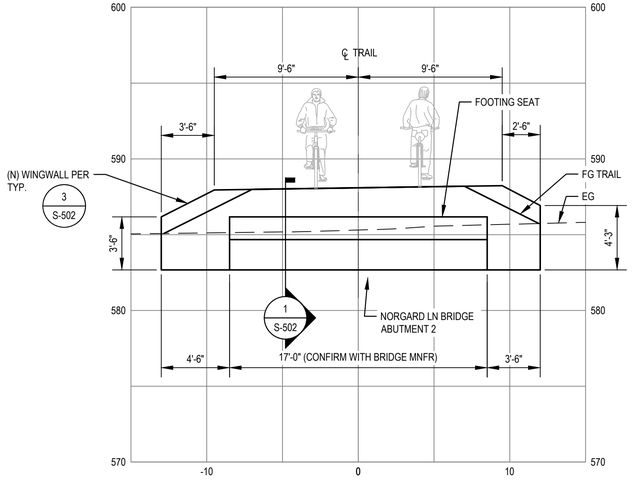
ELEVATION VIEW

N1 NORGARD LANE BRIDGE ABUTMENT 1 - SECTION LOOKING AT ABUTMENT

SCALE: 1" = 5' (H) 1" = 5' (V)

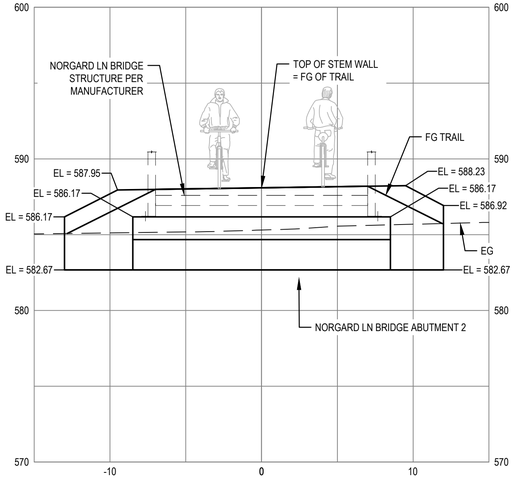
LOOKING DOWN STATION AT BACK OF WING WALL, LEFT TO RIGHT

T
STATION 458+06.83



DIMENSION VIEW

T
STATION 458+06.83



ELEVATION VIEW

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"

REGISTERED PROFESSIONAL ENGINEER
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No. C86103
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STATE OF CALIFORNIA
2/7/2023

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **NORGARD LANE BRIDGE ABUTMENT ELEVATIONS - ADD ALTERNATIVE**

Size **ANSI D**

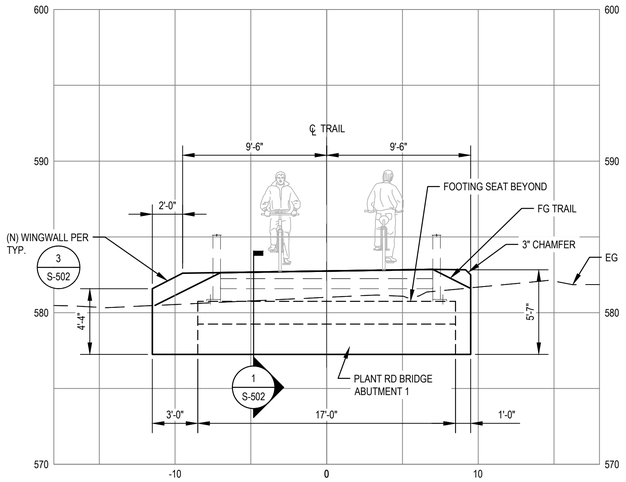
Project No.	Date	Scale
12557341	**SEP 30, 2022**	**1" = 5'**

Sheet No. **S-201**

Sheet **64 of 96**

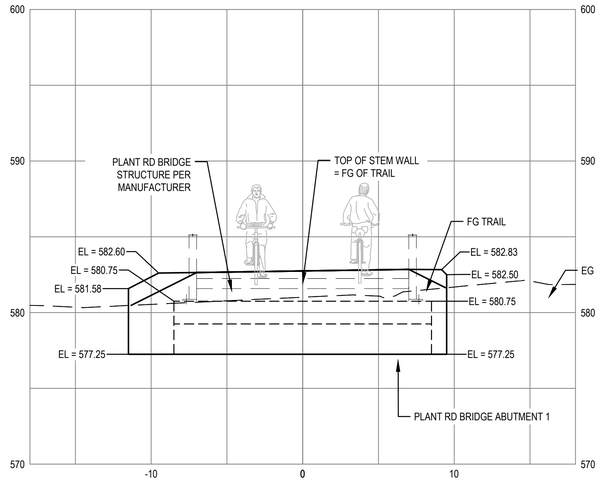
Plot Date: 8 February 2023 - 8:49 AM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D201.dwg

T
STATION 477+07.87



DIMENSION VIEW

T
STATION 477+07.87



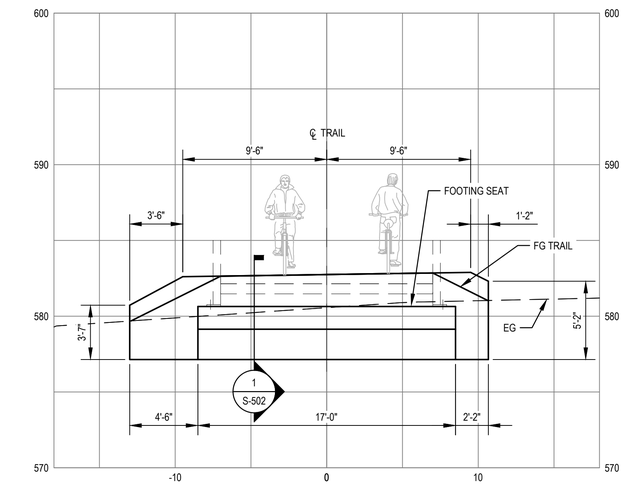
ELEVATION VIEW

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

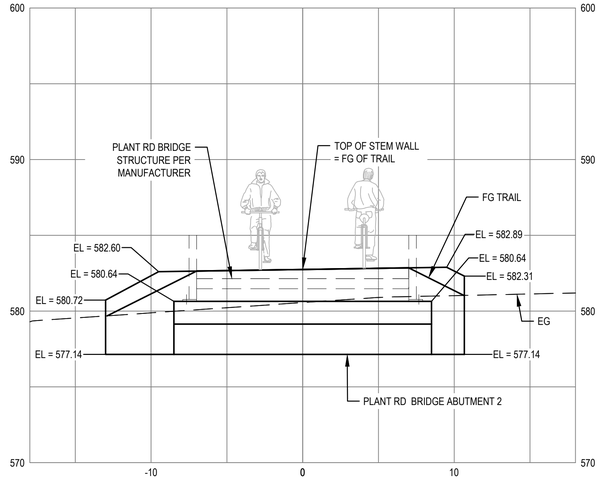
0 5' 10'

T
STATION 477+37.87



DIMENSION VIEW

T
STATION 477+37.87



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

0 5' 10'

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"

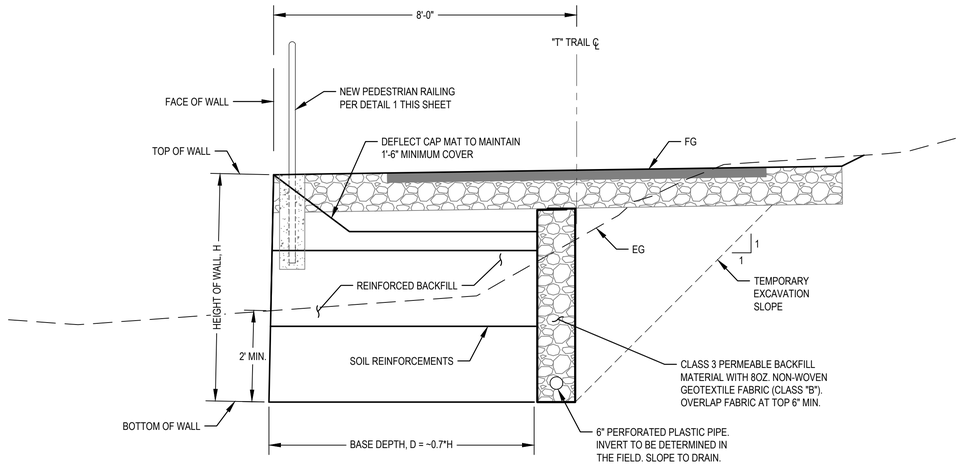
REGISTERED PROFESSIONAL ENGINEER STEPHANIE GOULD No. C28103 CIVIL STATE OF CALIFORNIA
2/7/2023

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Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**
Title **PLANT ROAD BRIDGE ABUTMENT ELEVATIONS - ADD ALTERNATIVE**
Size **ANSI D**
Project No. **12557341**
Date **SEP 30, 2022**
Scale **1" = 5'**
Sheet No. **S-202**
Sheet **65 of 96**

Plot Date: 8 February 2023 - 8:50 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D201.dwg

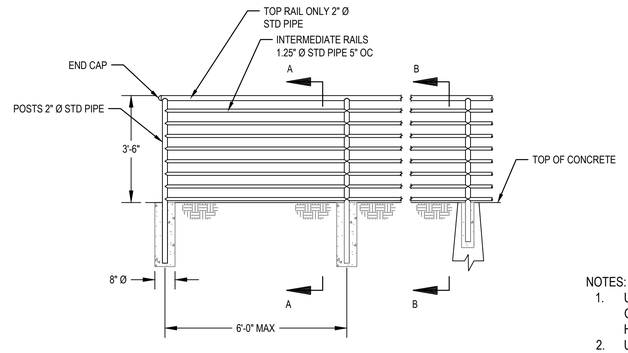


A RETAINING WALL TYPICAL SECTION

A / S-103

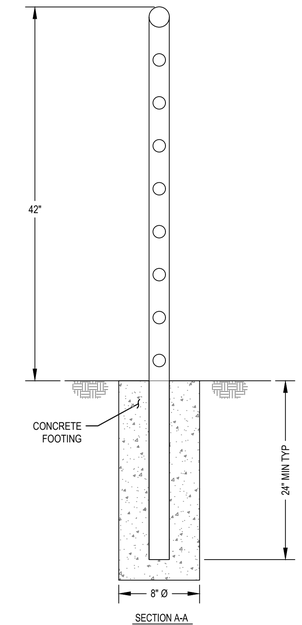
SCALE: 1" = 2'-0"

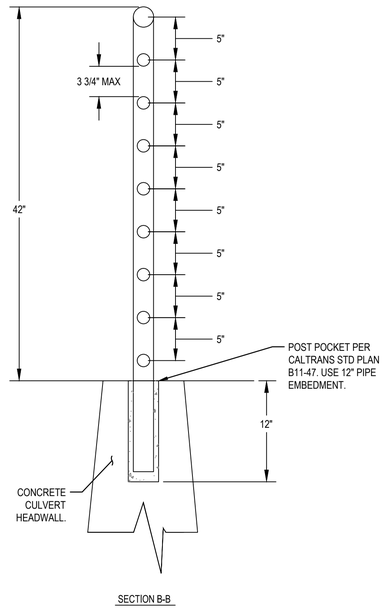
0 2' 4'



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	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

Title RETAINING WALL TYPICAL SECTION

Size ANSI D

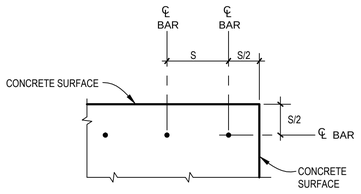
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 2'	S-301	66 of 96

Plot Date: 8 February 2023 - 9:37 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-RWA-ST-D301.dwg

BAR SIZE	DEVELOPMENT LENGTH (ℓ_d)											
	3000 PSI CONC (f'c)				4000 PSI CONC (f'c)				5000 PSI CONC (f'c)			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 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	66	53	76	41	59
TENSION LAP SPLICE LENGTH (CLASS 'B' SPLICE)												
BAR SIZE	3000 PSI CONC (f'c)				4000 PSI CONC (f'c)				5000 PSI CONC (f'c)			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 6"	s < 6"	s ≥ 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

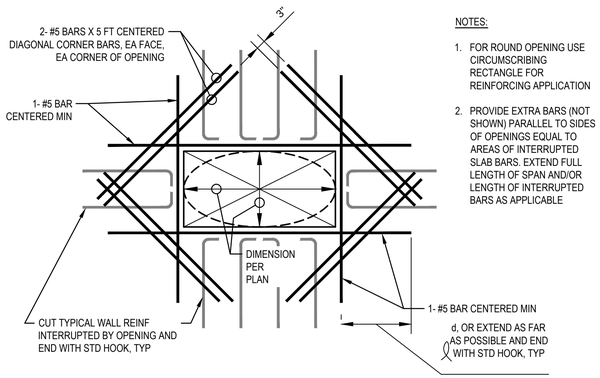
NOTES:

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



1 CONCRETE DEVELOPMENT LENGTHS AND LAP SPLICE LENGTHS

SCALE: 1' = 1'-0"

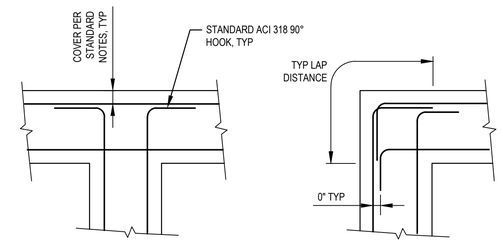


NOTES:

1. FOR ROUND OPENING USE CIRCUMSCRIBING RECTANGLE FOR REINFORCING APPLICATION
2. 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

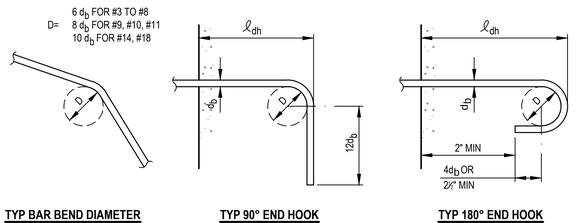
2 TYP REINFORCEMENT AT WALL & SLAB OPENINGS

SCALE: 1' = 1'-0"

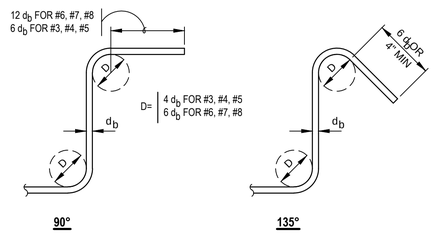


3 TYP REINFORCEMENT AT INTERSECTIONS AND CORNERS

SCALE: 1' = 1'-0"



MINIMUM TENSION EMBEDMENT LENGTHS ℓ_{dh} (IN.) FOR STANDARD END HOOKS ON REINFORCING BARS				
BAR SIZE	NORMAL WEIGHT CONCRETE, f'c, 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



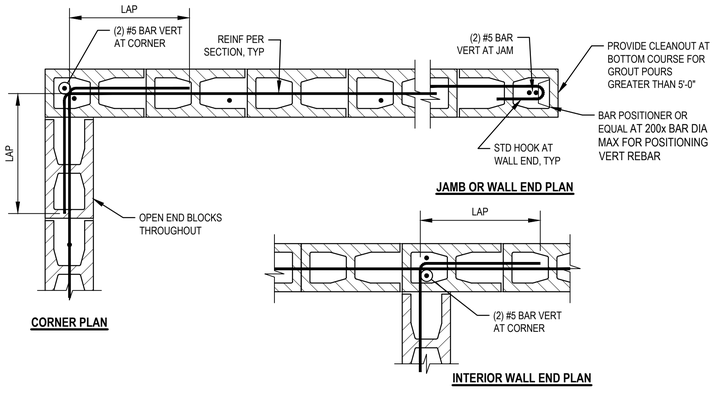
DEVELOPMENT AND LAP SPLICE LENGTH FOR MASONRY						
BAR SIZE	COVER		BAR CENTERED IN			
	1-1/2 (IN)	2 (IN)	6 IN CMU	8 IN CMU	10 IN CMU	12 IN CMU
	ℓ_d (IN)	ℓ_d (IN)	ℓ_d (IN)	ℓ_d (IN)	ℓ_d (IN)	ℓ_d (IN)
#3	17	17	16	16	16	16
#4	30	30	21	21	21	21
#5	46	46	32	26	26	26
#6	86	86	54	43	40	40
#7	86	86	NP	60	46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

4 REINFORCING BAR ENDS AND BAR HOOKS

SCALE: 1' = 1'-0"

NOTES:

1. ALL WALLS TO BE SOLID GROUTED
2. PLACE VERT REBAR AT CENTER OF WALL, UNO



5 STIRRUP AND TIE HOOKS

SCALE: 1' = 1'-0"

6 MASONRY DEVELOPMENT LENGTH AND LAP SPLICE

SCALE: 1' = 1'-0"

7 TYP CMU WALL ENDS AND CORNERS

SCALE: 1' = 1'-0"

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	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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2/7/2023

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

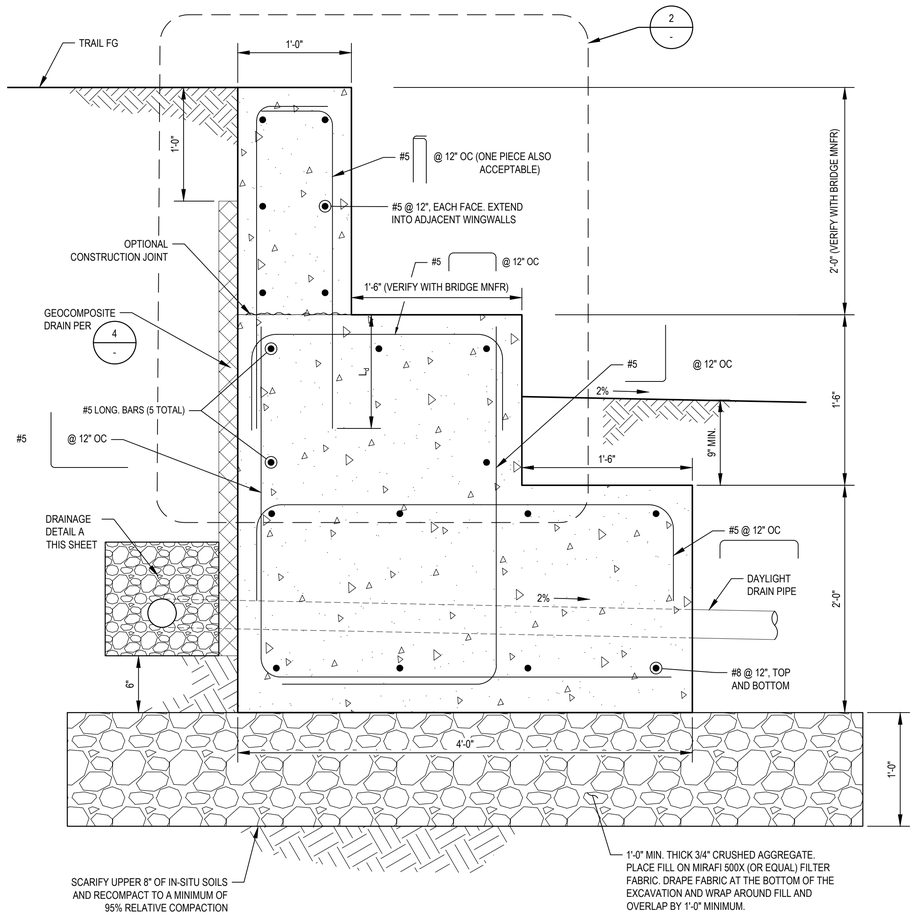
Title TYPICAL STRUCTURAL DETAILS

Size ANSI D

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

Sheet No. S-501 | Sheet 67 of 96

Plot Date: 8 February 2023 - 8:52 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D501.dwg



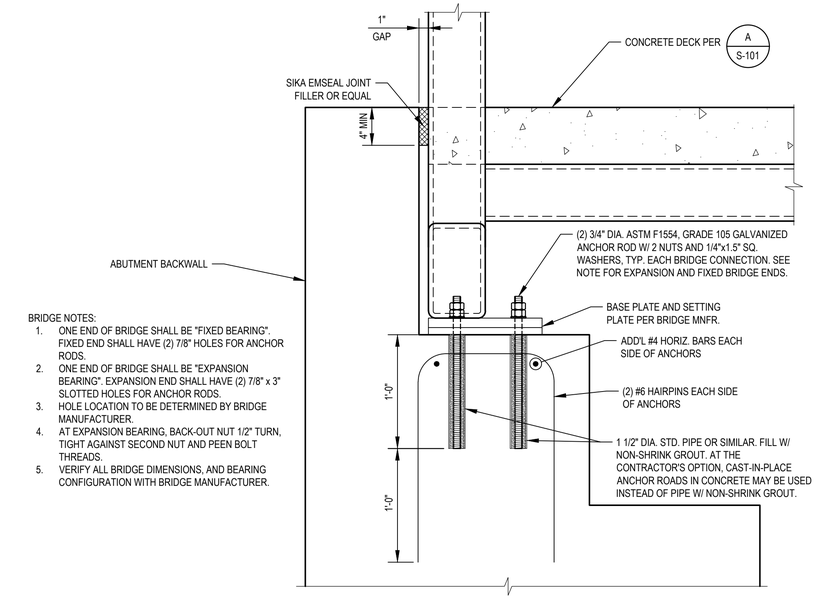
1 TYP BRIDGE ABUTMENT SECTION

SCALE: 1 1/2" = 1'-0"

0 1/2' 1' 1 1/2'

BRIDGE NOTES:

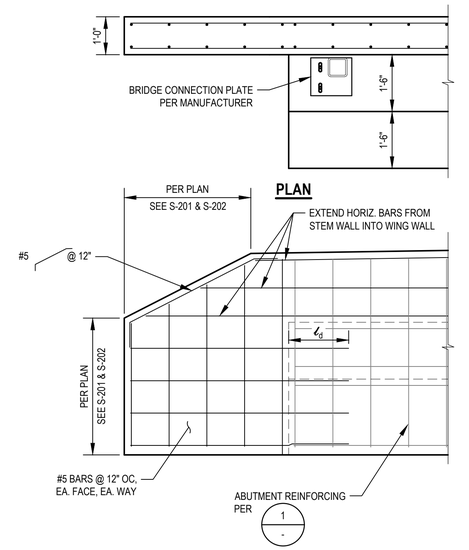
1. ONE END OF BRIDGE SHALL BE "FIXED BEARING". FIXED END SHALL HAVE (2) 7/8" HOLES FOR ANCHOR RODS.
2. ONE END OF BRIDGE SHALL BE "EXPANSION BEARING". EXPANSION END SHALL HAVE (2) 7/8" x 3" SLOTTED HOLES FOR ANCHOR RODS.
3. HOLE LOCATION TO BE DETERMINED BY BRIDGE MANUFACTURER.
4. AT EXPANSION BEARING,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



2 BRIDGE CONNECTION DETAIL

SCALE: 1 1/2" = 1'-0"

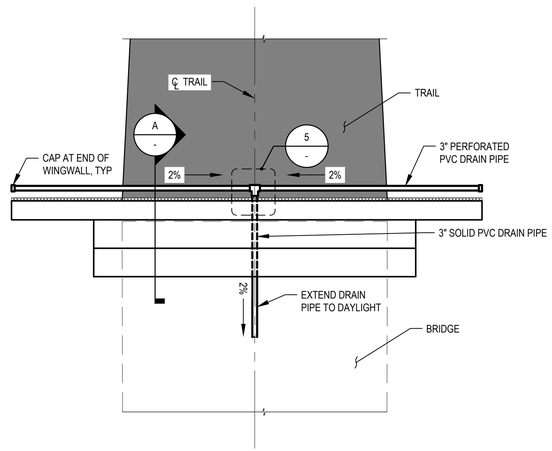
0 1/2' 1' 1 1/2'



3 WINGWALL TYPICAL DETAIL

SCALE: 1/2" = 1'-0"

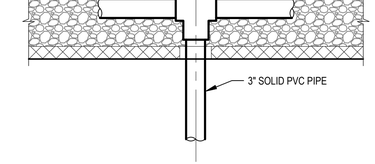
0 1' 2' 4'



4 ABUTMENT DRAINAGE DETAIL

SCALE: 1/4" = 1'-0"

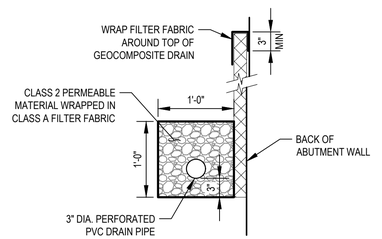
0 2' 4' 8'



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	Project Manager	E. FANSELAU
Designer	S. GOULD	Design Check	B. CROWELL	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

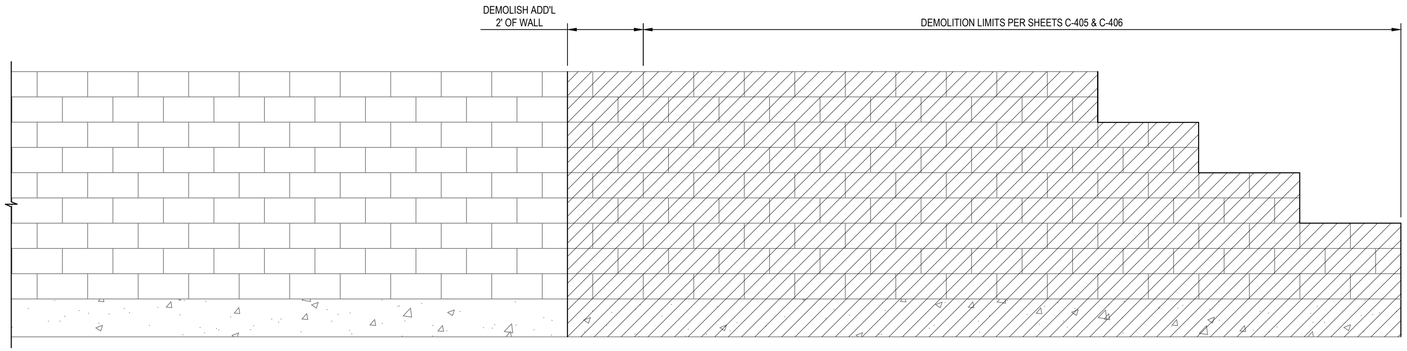
Title: STRUCTURAL BRIDGE DETAILS - ADD ALTERNATIVE

Size: ANSI D

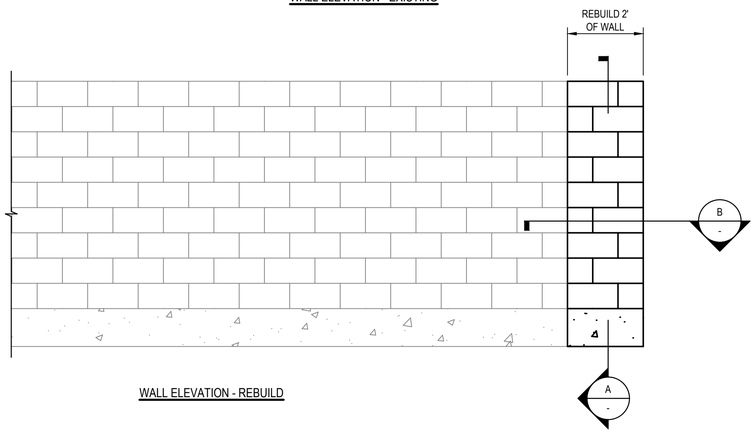
Status Code

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	AS NOTED	S-502	68 of 96

Plot Date: 8 February 2023 - 8:53 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-BRG-ST-D502.dwg



WALL ELEVATION - EXISTING

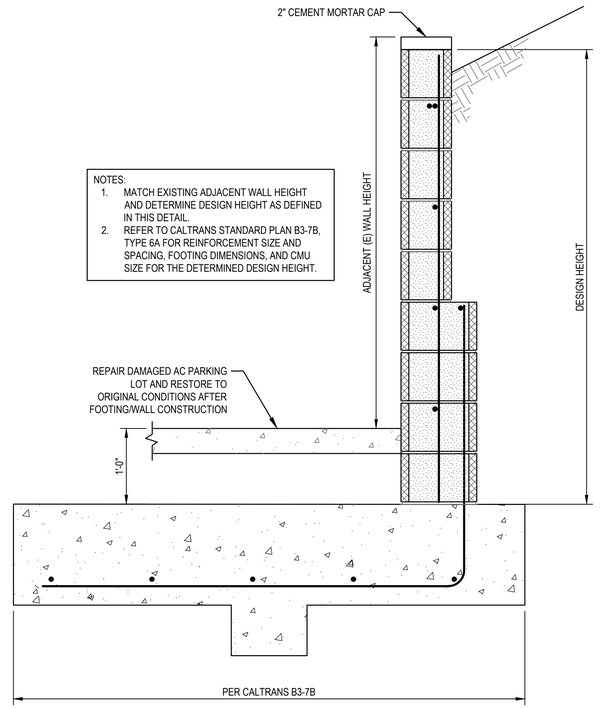


WALL ELEVATION - REBUILD

1 CMU WALL DEMOLITION DETAIL

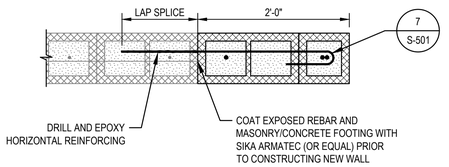
SCALE: 1" = 2'-0"

0 2' 4'



A CMU WALL SECTION

SCALE: 1" = 1'-0"



B CMU CONNECTION SECTION

SCALE: 1" = 1'-0"

0 1/2" 1' 2'

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Designer	S. GOULD	Design Check	B. CROWELL	Project Director	M. KENNEDY

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER STEPHANIE GOULD No. C86103 CIVIL STATE OF CALIFORNIA

2/7/2023

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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

Title CMU WALL DEMOLITION DETAILS

Size ANSI D

Status Code

Project No.	Date	Scale	Sheet No	Sheet
12557341	SEP 30, 2022	AS SHOWN	S-503	69 of 96

Plot Date: 8 February 2023 - 8:54 AM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ST\C3D\sheets\12557341-GHD-0000-RWA-ST-D503.dwg

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
RECPT	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
+48" — 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

1a — DENOTES SWITCH; DENOTES CIRCUIT
CIRCUIT AND SWITCH DESIGNATION FOR LIGHTING FIXTURE

6R5 — DENOTES RELAY; DENOTES CIRCUIT
CIRCUIT AND RELAY DESIGNATION FOR LIGHTING FIXTURES (SEE CORRESPONDING LIGHTING CONTROL PANEL RELAY SCHEDULE)

PC — 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)

T OR Δ — 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.
L1-4 — INDICATES BRANCH PANEL
CONDUIT HOME RUN TO DESIGNATED PANEL, TERMINAL, OR CONTROL CABINET
EXAMPLES:
L1-6,8 — COMMA INDICATES MULTIPLE SINGLE POLE CIRCUITS
L1-10/12 — 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 (#10)
= (1) TYPE F1 CABLE. SEE CABLE SCHEDULE. (F1)

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

1 — KEYNOTE

10 — RACEWAY, FEEDER OR CIRCUIT DESIGNATION (SEE SCHEDULE)

A / 180 — DENOTES TYPE: LIGHTING FIXTURE TYPE DESIGNATION (SEE SCHEDULE); DENOTES WATTS

1 / E-501 — DETAIL NUMBER; DETAIL INDICATOR; SHEET NUMBER ON WHICH DETAIL APPEARS

A / E-301 — SECTION LETTER; SECTION INDICATOR; SHEET NUMBER ON WHICH SECTION APPEARS

WH / 1 — MECHANICAL EQUIPMENT DESIGNATION (SEE SCHEDULE)

GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRICAL CODE (CEC), AND ALL RECOGNIZED CODES OF THE AUTHORITY HAVING JURISDICTION.
2. 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.
3. 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.
4. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
5. ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS.
6. 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.
7. UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT INDICATED SHALL BE CONSIDERED NEW AND PROVIDED BY THE CONTRACTOR COMPLETE, INSTALLED, TESTED AND FUNCTIONING.
8. MAINTAIN AS BUILT CONDITIONS OF THE INSTALLATION DURING CONSTRUCTION AND SUBMIT THE FINAL CONSTRUCTED CONDITIONS TO THE OWNER/ARCHITECT FOR THEIR RECORDS.

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

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0 — 1"

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9/30/2022

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Client: CITY OF UKIAH
Project: THE GREAT REDWOOD TRAIL PHASE 4
Title: ELECTRICAL SYMBOLS LEGEND, ABBREVIATIONS, AND GENERAL NOTES
Size: ANSI D
Project No.: 12557341
Date: SEP 30, 2022
Scale: NO SCALE
Sheet No.: E-001
Sheet: 70 of 96

Plot Date: 30 September 2022 - 5:21 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\EL\C3D\sheets\12557341-GHD-0000-LTG-EL-D001.dwg

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

T

4 6

7 UTILITY PULLBOX

4 6

1 PEDESTAL-A

4 6

2 PEDESTAL PULLBOX

5 6

SIGN PER CIVIL PLANS
COORDINATE INSTALLATION OF
PULL BOX AND POLE FIXTURE
AROUND SIGN

5 6

2 FIXTURE PULLBOX

A
56
3

AIRPORT PARK BLVD

AIRPORT RD

RAILROAD TRACKS

432+00

"T"-LINE

433+00

AIRPORT RD INTERSECTION LIGHTING PLAN

0 5' 10'

SHEET GENERAL NOTES

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

SHEET KEYNOTES

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

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No.	Issue	Checked	Approved	Date
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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

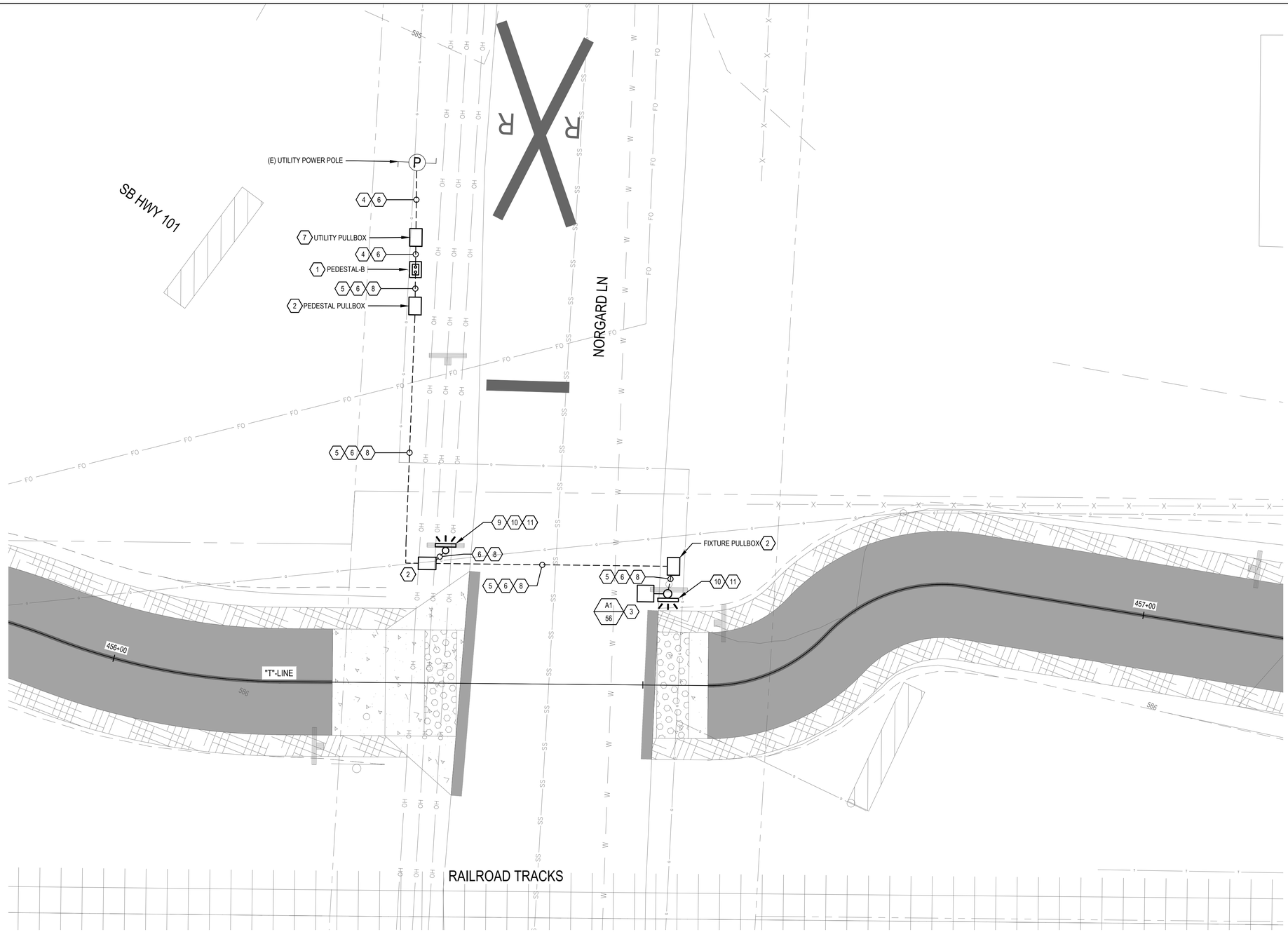
Project THE GREAT REDWOOD TRAIL PHASE 4

Title TRAIL LIGHTING PLAN 1

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	E-101	71 of 96

Plot Date: 30 September 2022 - 5:22 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ELI\C3D\sheets\12557341-GHD-0000-LTG-EL-D101.dwg



SHEET GENERAL NOTES

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

SHEET KEYNOTES

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

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NORGARD LN INTERSECTION LIGHTING PLAN

0 5' 10'

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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0 1"

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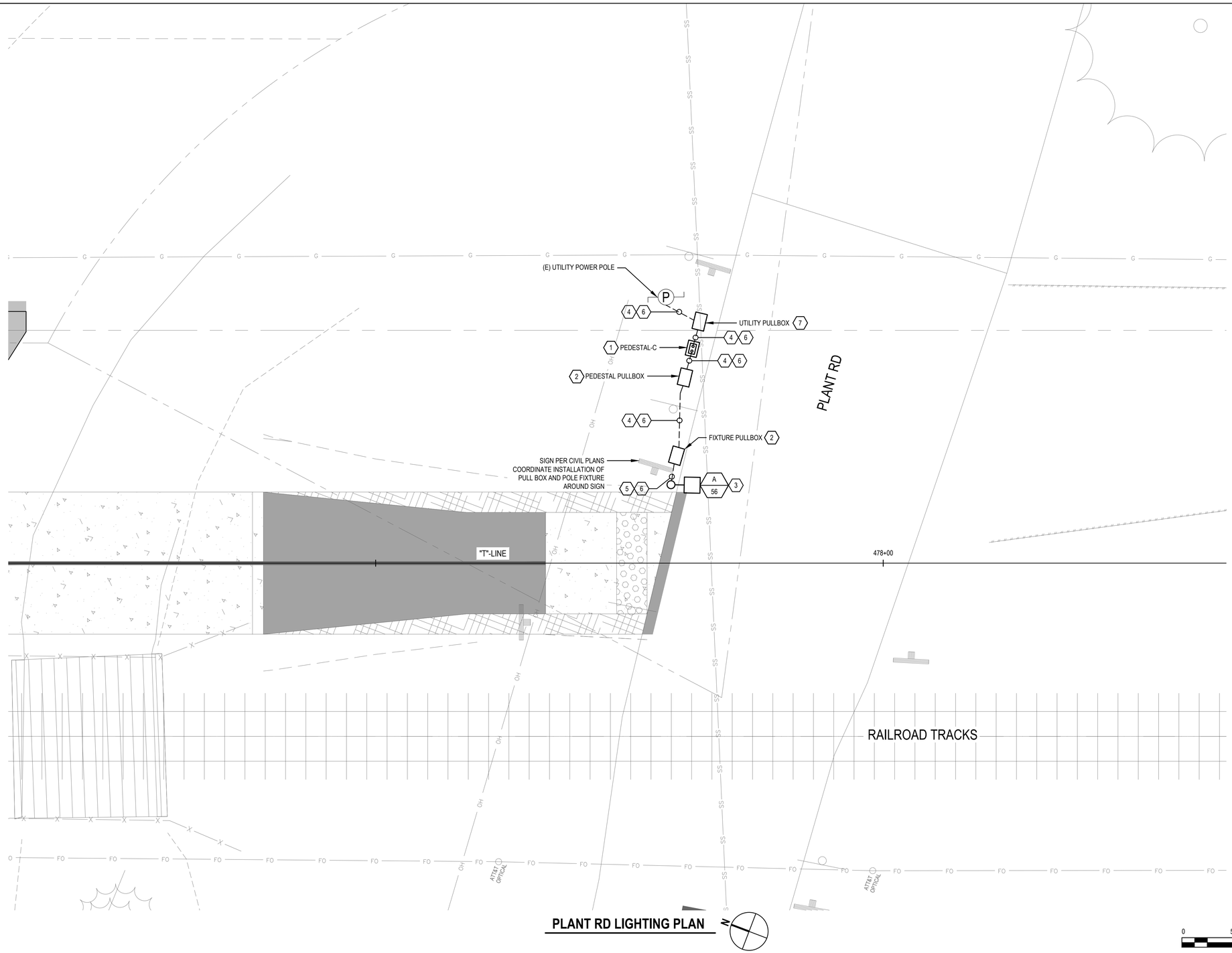
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **TRAIL LIGHTING PLAN 2**

Size **ANSI D**

Project No.	Date	Scale	Sheet No	Sheet
12557341	SEP 30, 2022	1" = 5'	E-102	72 of 96

Plot Date: 30 September 2022 - 5:24 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ELIC3D\sheets\12557341-GHD-0000-LTG-EL-D102.dwg



SHEET GENERAL NOTES

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

SHEET KEYNOTES

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

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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

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 **TRAIL LIGHTING PLAN 3 ADD ALTERNATIVE**

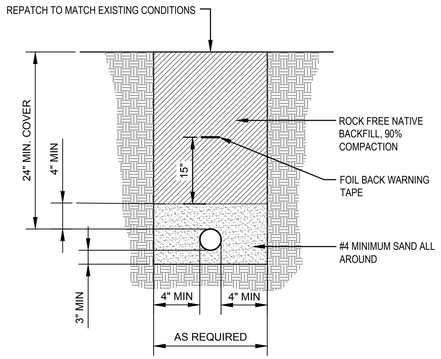
Size **ANSI D**

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

Sheet No **E-103**

Sheet 73 of 96

Plot Date: 30 September 2022 - 5:25 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ELIC3D\sheets\12557341-GHD-0000-LTG-EL-D103.dwg



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

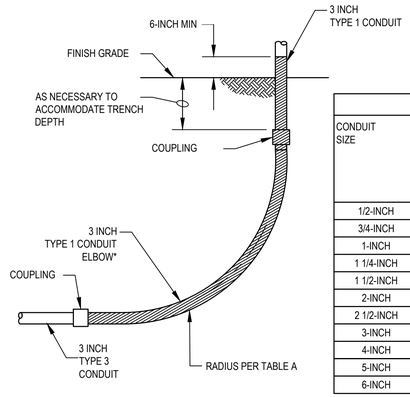
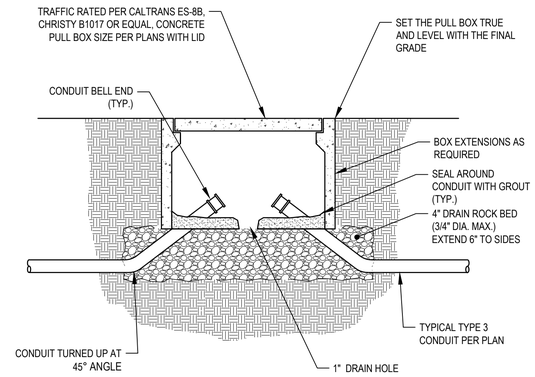


TABLE "A" - RGS		
CONDUIT SIZE	MINIMUM ELBOW RADIUS REQUIREMENTS	
	RUNS 0-100 FEET	RUNS GREATER THAN 101 FEET
1/2-INCH	4-INCH	4-INCH
3/4-INCH	4 1/2-INCH	4 1/2-INCH
1-INCH	5 3/4-INCH	5 3/4-INCH
1 1/4-INCH	7 1/4-INCH	7 1/4-INCH
1 1/2-INCH	8 1/4-INCH	8 1/4-INCH
2-INCH	9 1/2-INCH	9 1/2-INCH
2 1/2-INCH	10 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	-

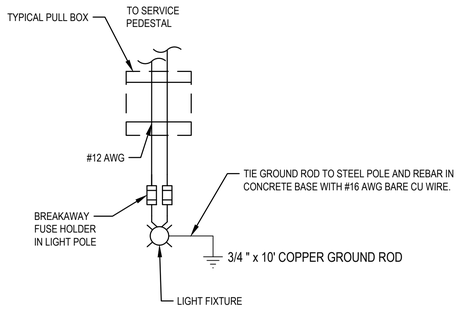
2 TYPICAL CONDUIT STUB-UP

NO SCALE



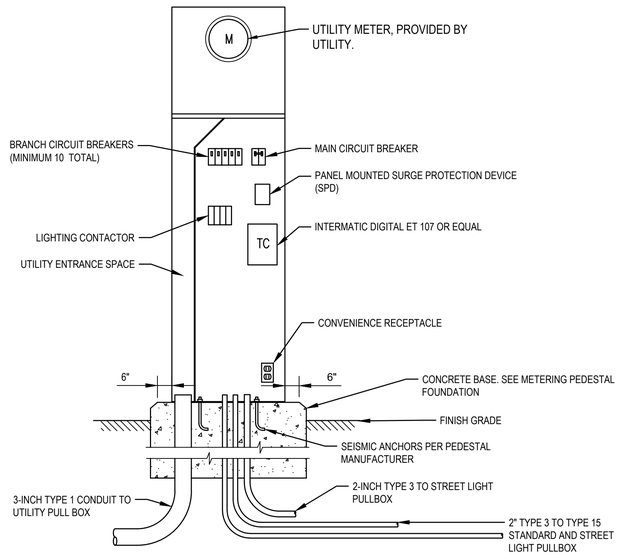
3 TYPICAL PULL BOX

NO SCALE



4 STREET LIGHT WIRING DIAGRAM

NO SCALE

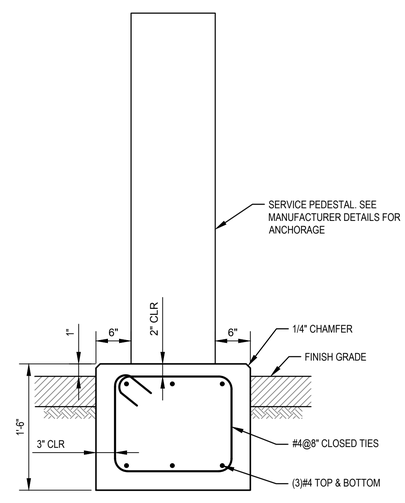


NOTE:

1. EXTERIOR DOOR NOT SHOWN FOR CLARITY.

5 METERING PEDESTAL ELEVATION

NO SCALE



6 METERING PEDESTAL FOUNDATION - SIDEVIEW

NO SCALE

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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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9/30/2022

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Client **CITY OF UKIAH**

Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **ELECTRICAL DETAILS 1**

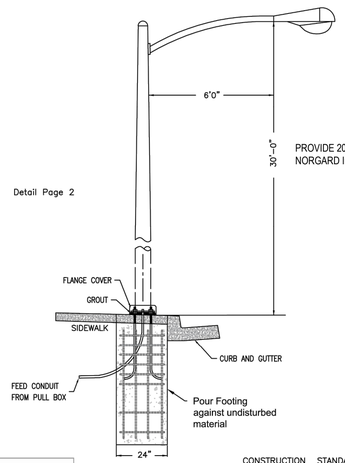
Size **ANSI D**

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

Sheet No. **E-501**

Sheet **74 of 96**

Plot Date: 30 September 2022 - 5:26 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\ELI\C3D\sheets\12557341-GHD-0000-DIA-EL-D501.dwg



Detail Page 2

GENERAL NOTES:

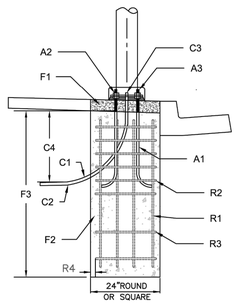
1. Design shall confrom to the requirements of this drawing (SLD-0150-01) except if otherwise approved by the City of Ukiah Project Manager or Inspector.
2. Standard foundation design is based on the following soil parameters, which are typical characteristic soil of the greater Ukiah area.
3. All streetlight 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
ELECTRIC UTILITY DEPARTMENT

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



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 threades portion 4 ½" above the finished surface.
A3. 4 – 36" 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

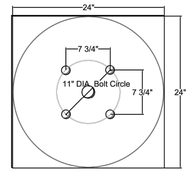
C1. Conduit shall be RGS or SCHD 80 PVC in concrete with 6" Min Stub out.
C2. Service and feed conduits shall be RGS or SCHD 40 PVC, as required.
C3. Conduit shall be centered of bolt pattern should stub up to within 4" from handhole.
C4. Conduit shall be 24" deep Min.

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. Doundation depth:
- 54" Deep for Post–Top Pole
- 60" Deep for 30' Steel Standard Poles
- 72" Deep for 35' Steel Standard Poles

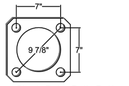
REINFORCEMENT

R1. Verticle 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 sqared.



Typ. Post–Top Steel Pole Bolt Pattern

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

CONSTRUCTION STANDARD

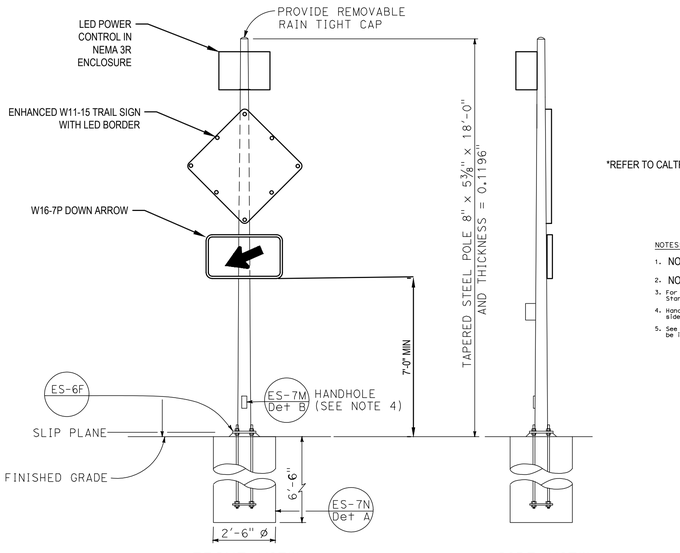
STREET LIGHT
LOCATION DETAIL, 400 AMP MAX.

CITY OF UKIAH
ELECTRIC UTILITY DEPARTMENT

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

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

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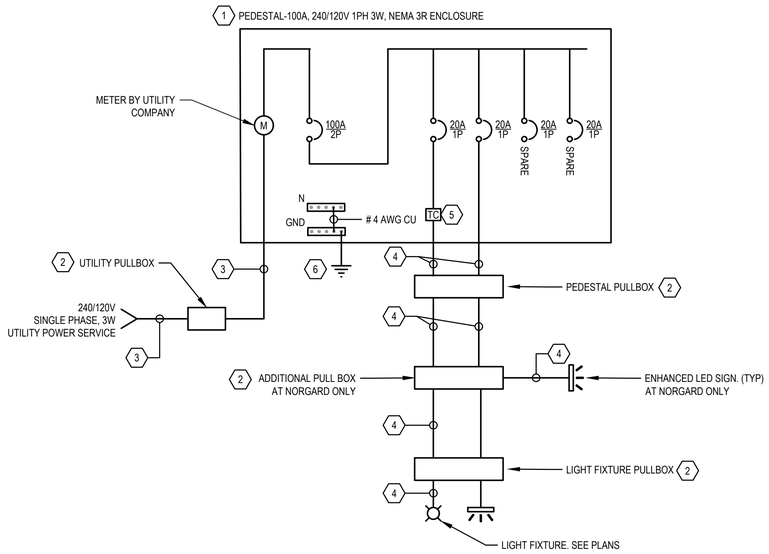
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

Title ELECTRICAL DETAILS 2

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	NO SCALE	E-502	75 of 96

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1 TYPICAL METERING PEDESTAL

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.

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	DISCRIPTION	*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

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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 SINGLE LINE DIAGRAM AND SCHEDULES

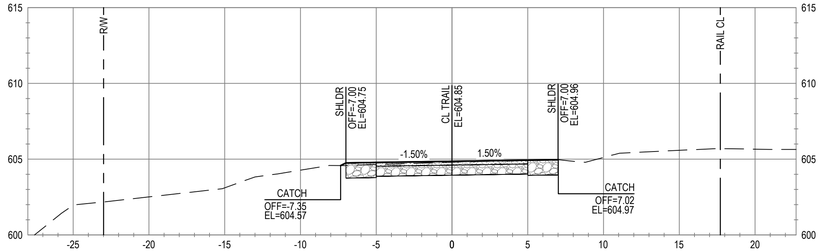
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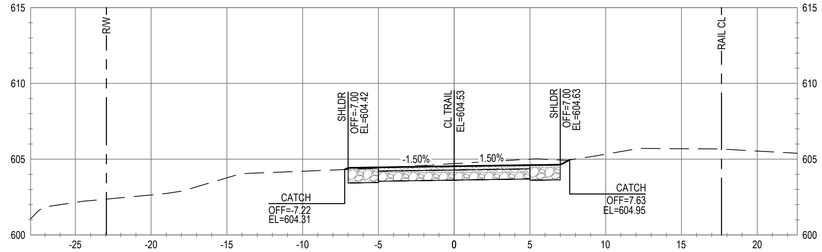
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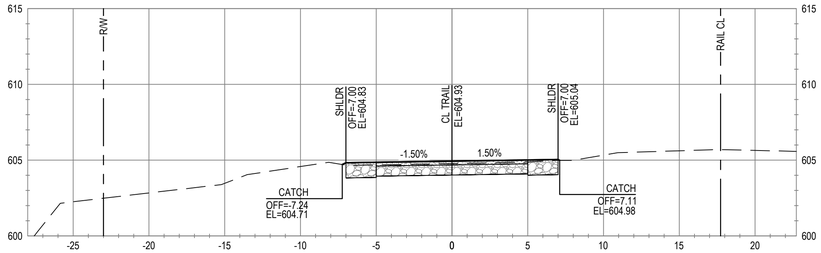
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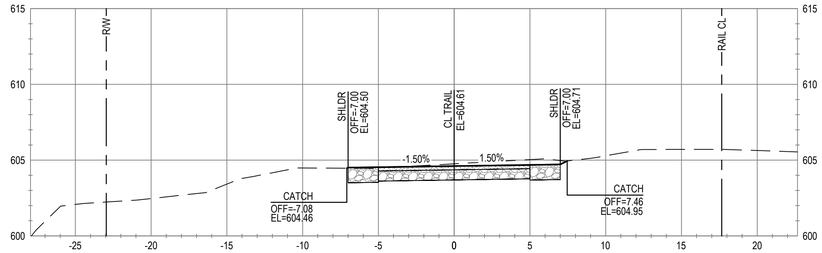
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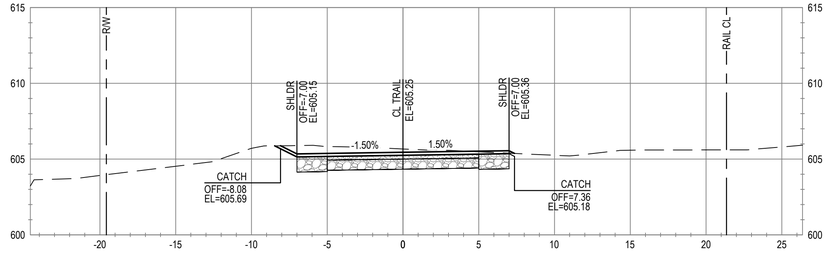
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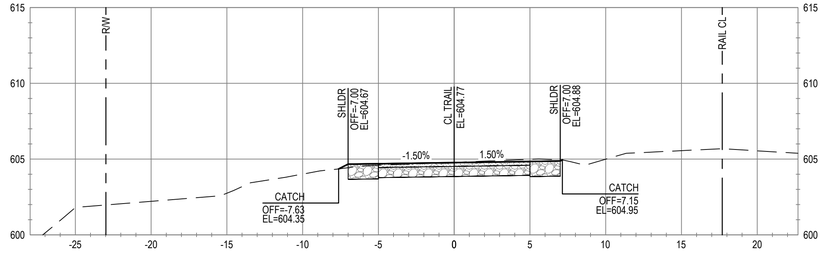
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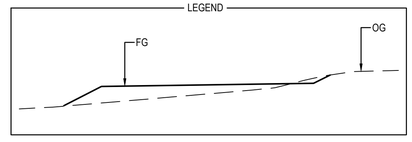
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Project THE GREAT REDWOOD TRAIL PHASE 4

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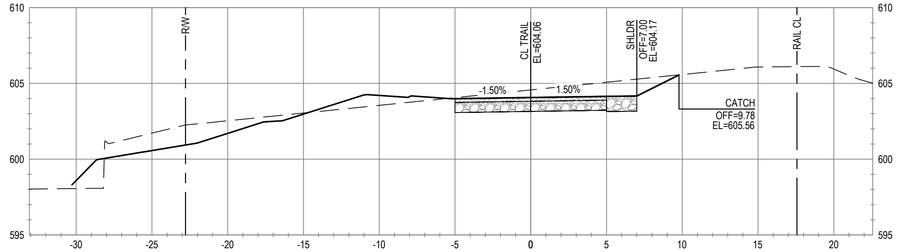
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Date SEP 30, 2022
Scale 1" = 5'

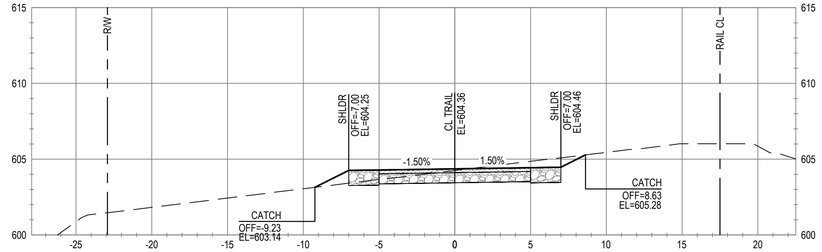
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Plot Date: 21 December 2022 - 6:35 PM
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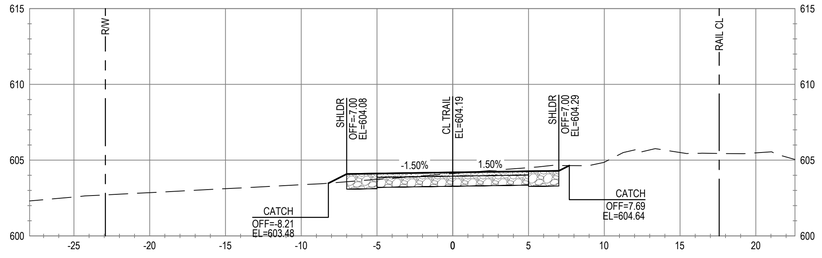
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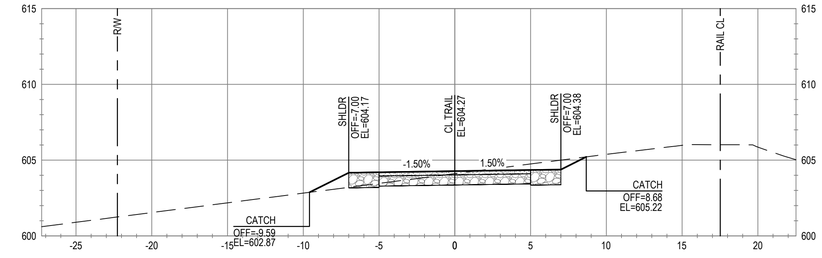
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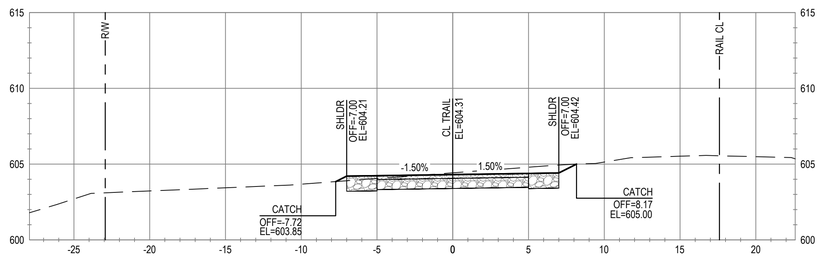
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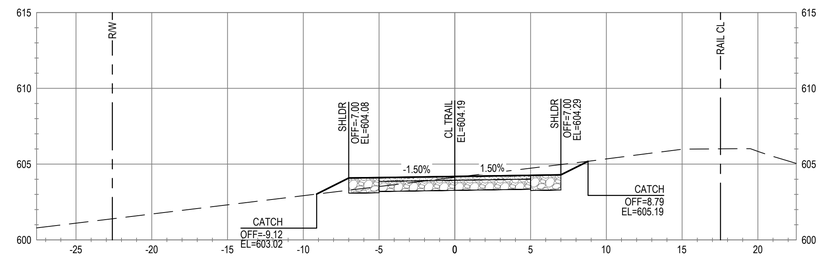
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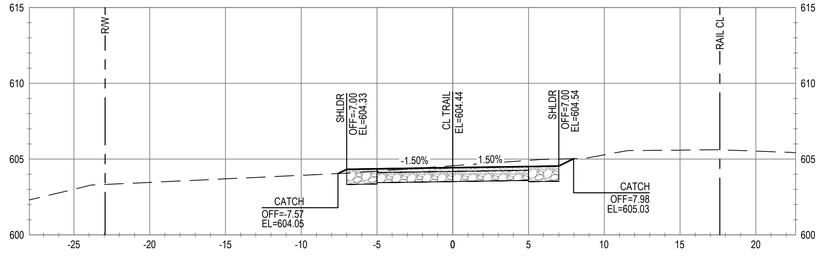
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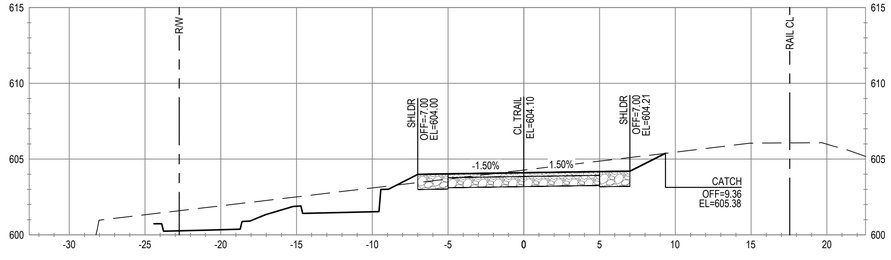
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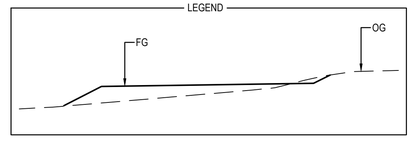


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Author	C. PHELPS	Drafting Check	E. FANSELAU	Project Manager	E. FANSELAU
Designer	C. PHELPS	Design Check	E. FANSELAU	Project Director	M. KENNEDY

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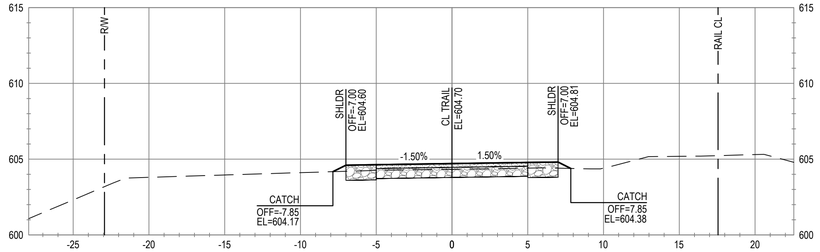
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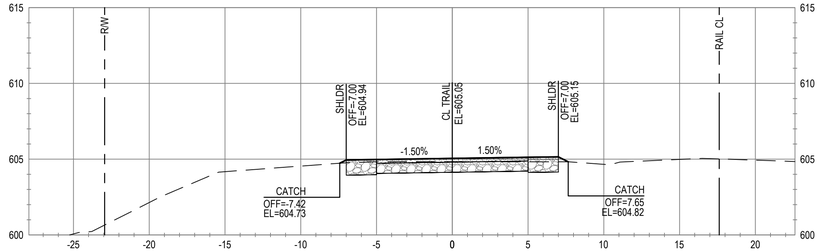
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Plotted By: Haytham Daas
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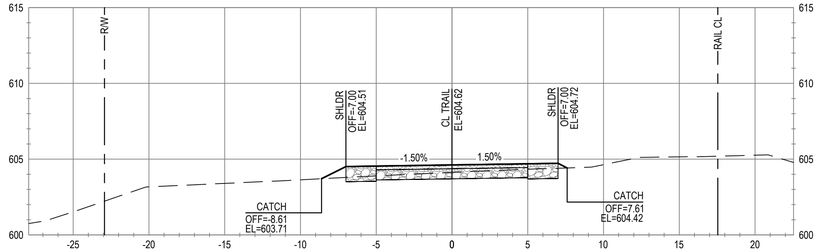
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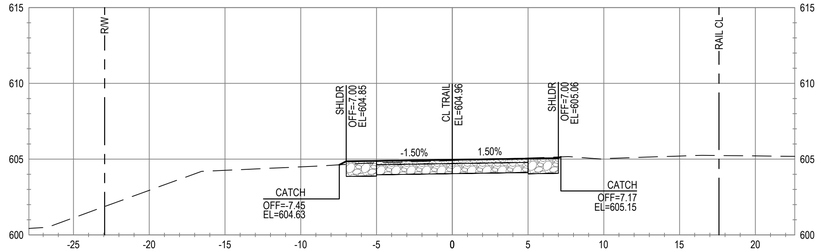
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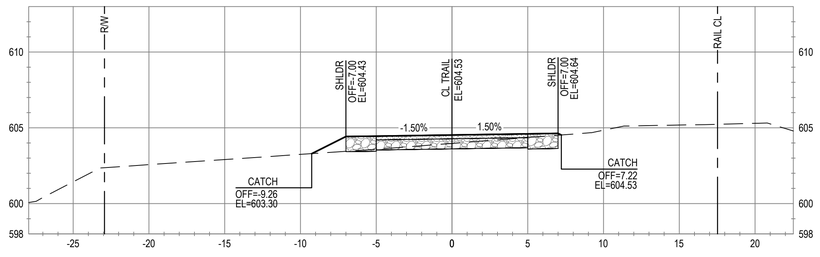
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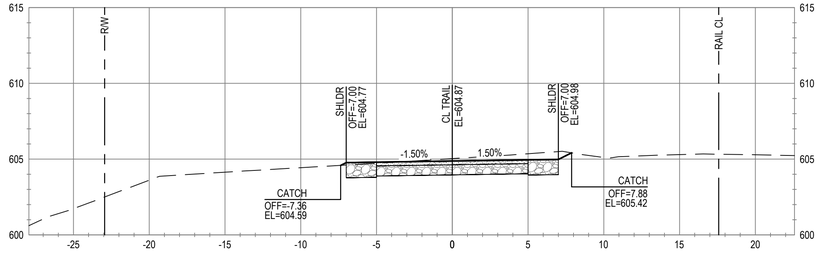
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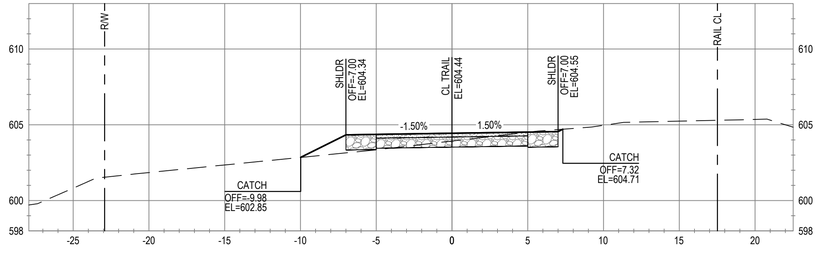
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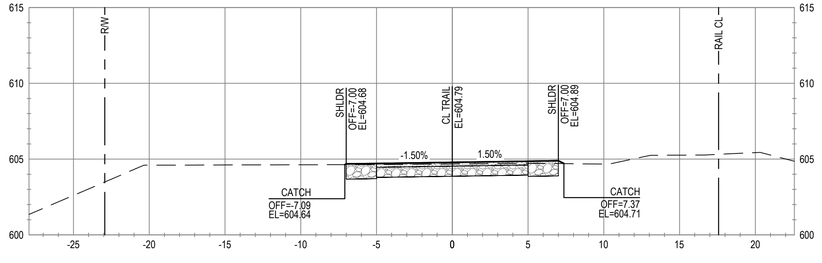
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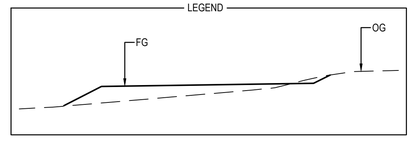


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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

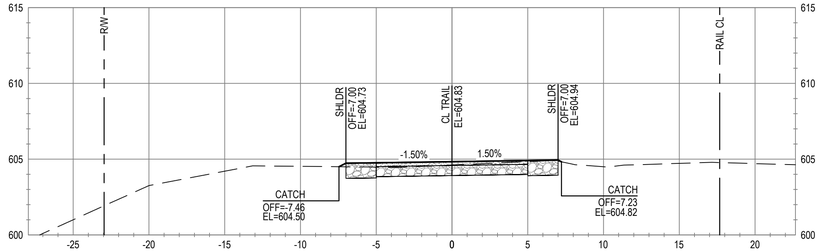
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Size ANSI D

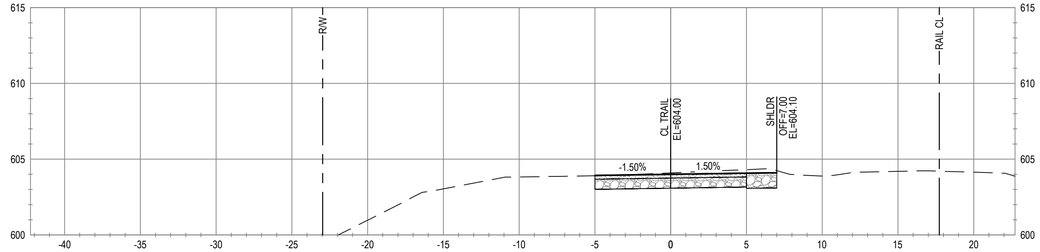
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-803	79 of 96

Plot Date: 21 December 2022 - 6:36 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

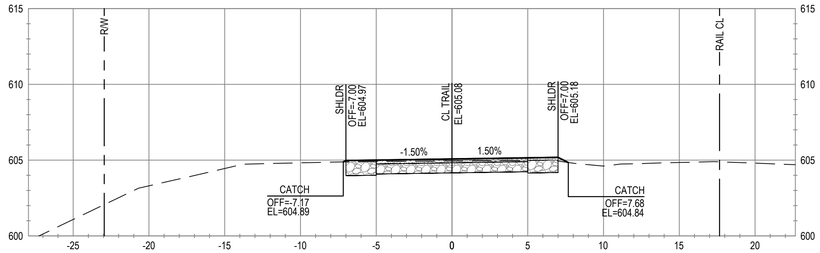
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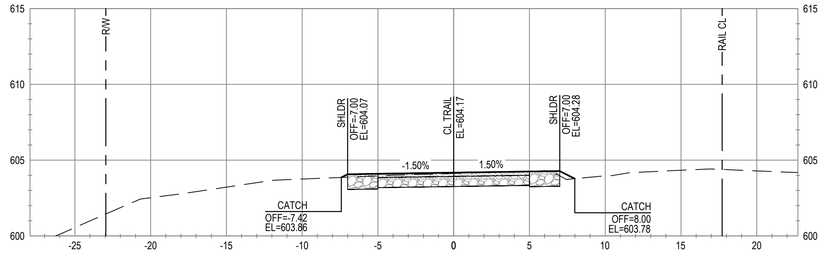
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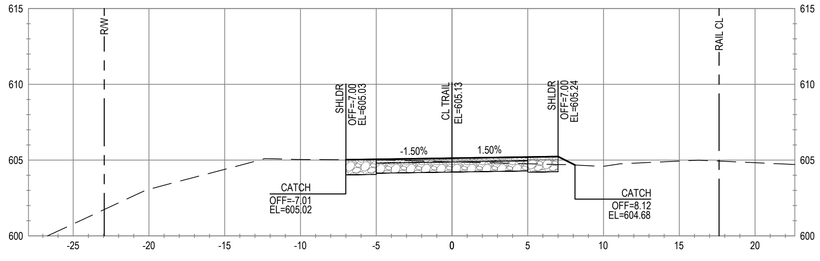
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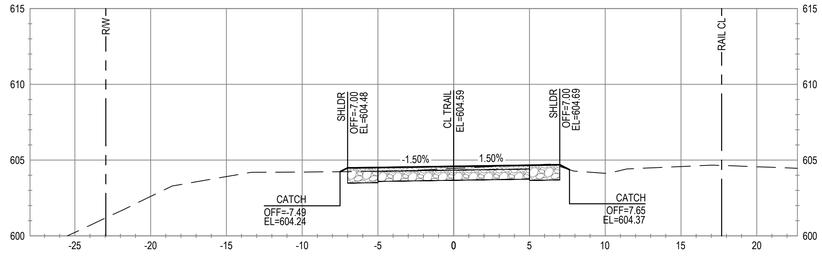
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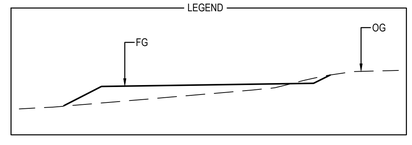
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STA 415+00

ALIGNMENT "T"
STA 412+50



ALIGNMENT "T"
STA 414+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

Bar is one inch on original size sheet
0 1"

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Client CITY OF UKIAH
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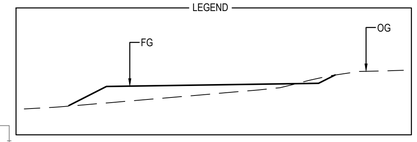
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STA 412+50 TO STA 416+00

Size ANSI D

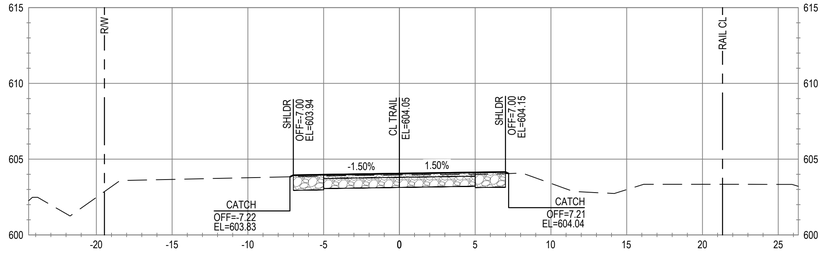
Project No. 12557341
Date SEP 30, 2022
Scale 1" = 5'

Sheet No. C-804
Sheet 80 of 96

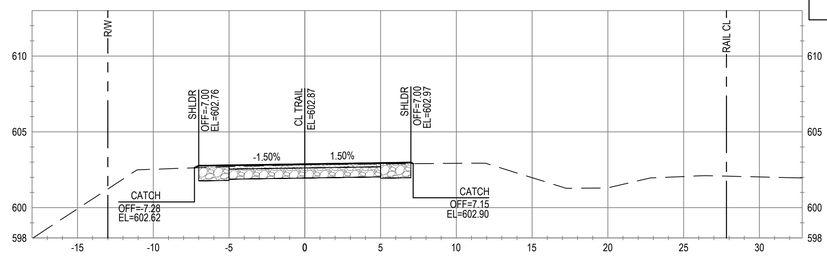
Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
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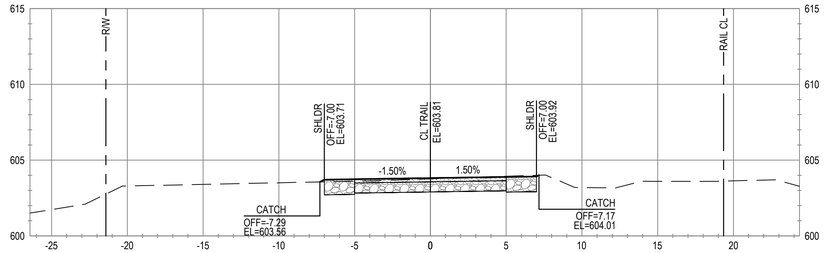
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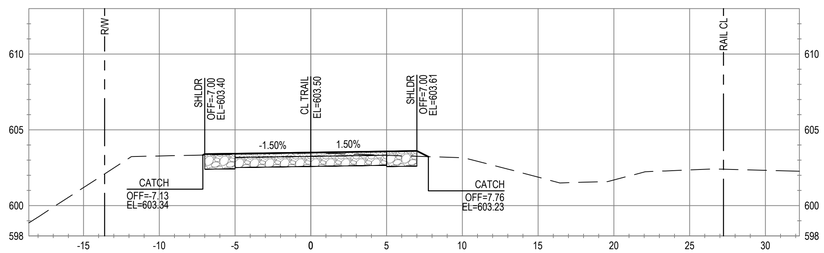
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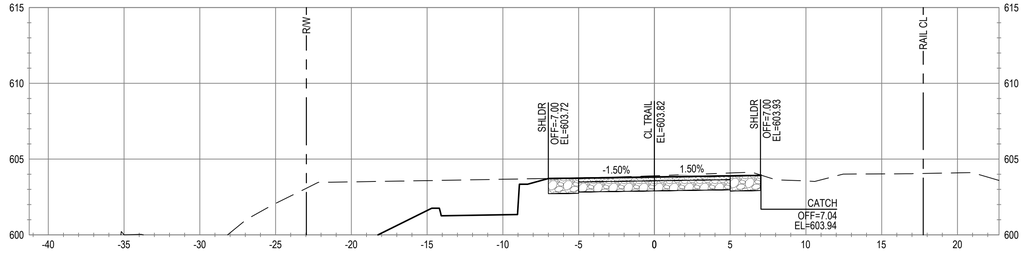
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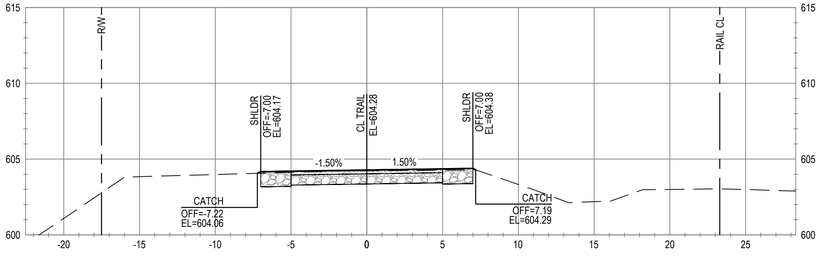
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ALIGNMENT "T"
STA 419+00

ALIGNMENT "T"
STA 416+50



ALIGNMENT "T"
STA 418+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**

Bar is one inch on original size sheet
0 1"

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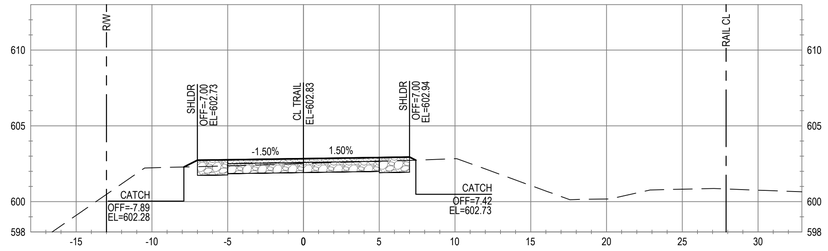
Client **CITY OF UKIAH**
Project **THE GREAT REDWOOD TRAIL PHASE 4**

Title **CROSS SECTIONS STA 416+50 TO STA 420+00**

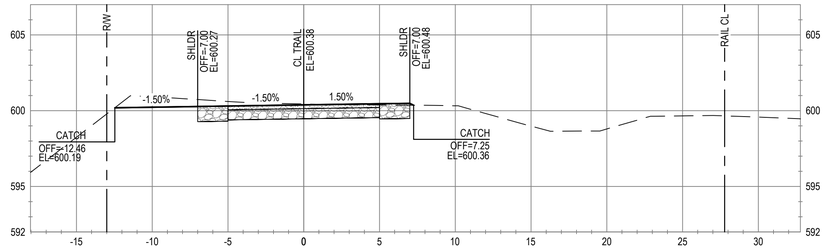
Size **ANSI D**

Project No. **12557341**
Date **SEP 30, 2022**
Scale **1" = 5'**
Sheet No. **C-805**
Sheet **81 of 96**

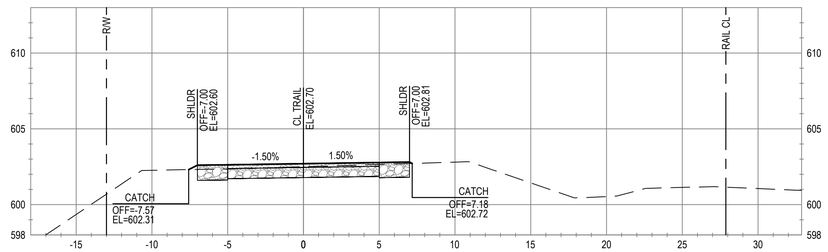
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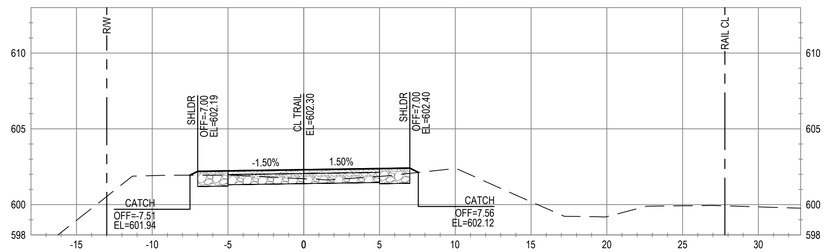
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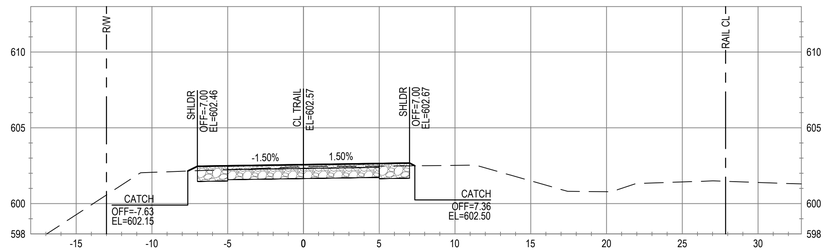
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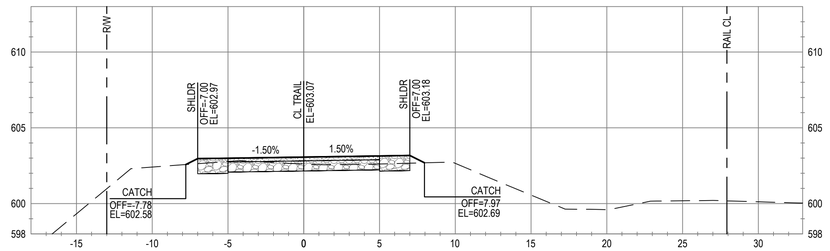
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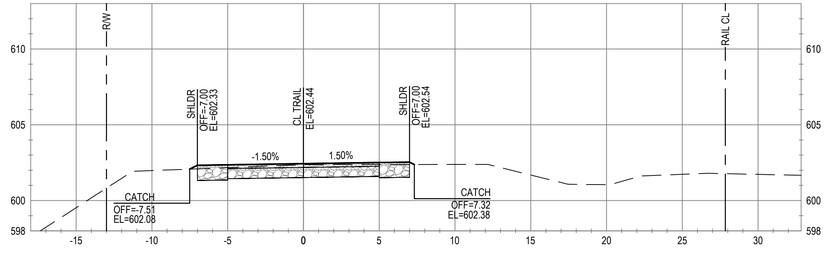
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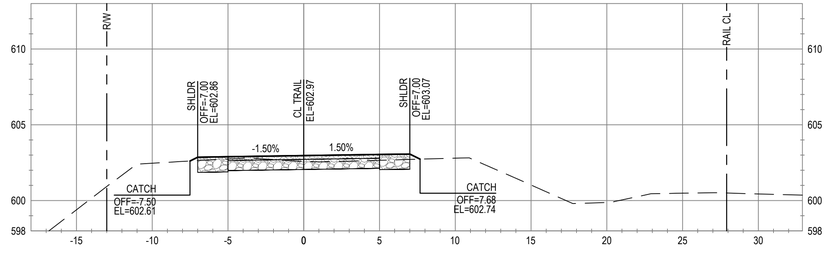
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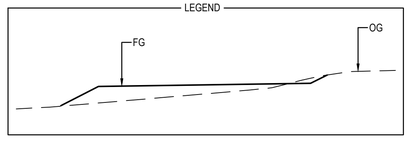


ALIGNMENT "T"
STA 420+50



ALIGNMENT "T"
STA 422+50





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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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Client CITY OF UKIAH

Project THE GREAT REDWOOD TRAIL PHASE 4

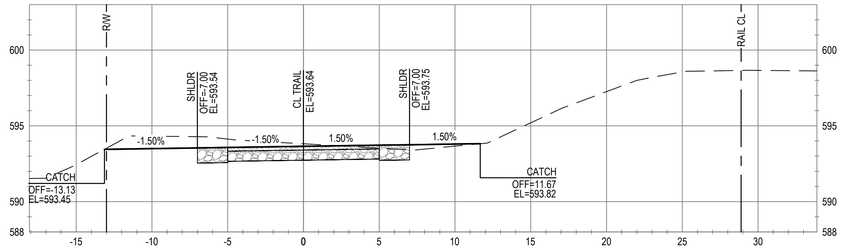
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Size ANSI D

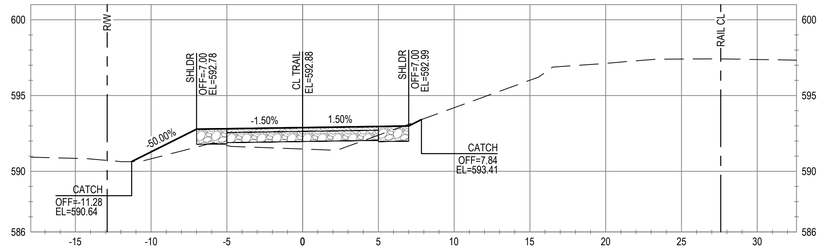
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-806	82 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

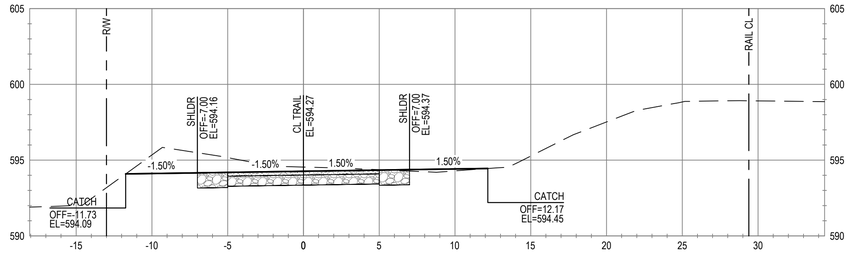
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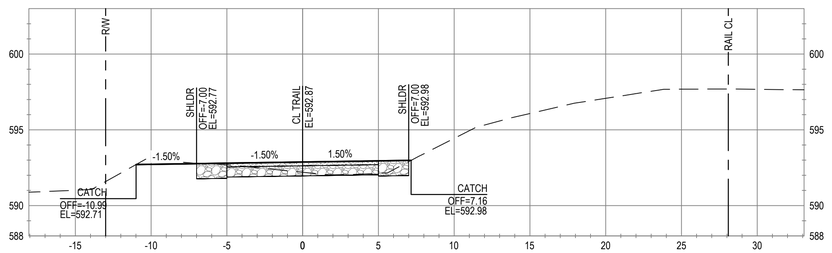
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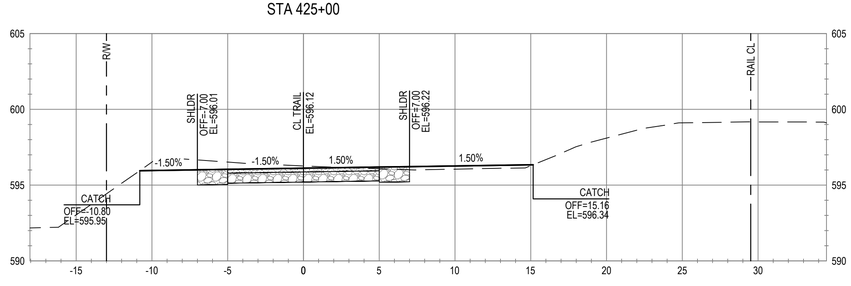
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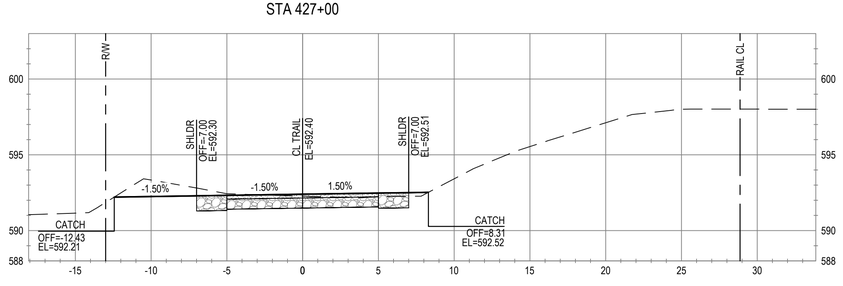
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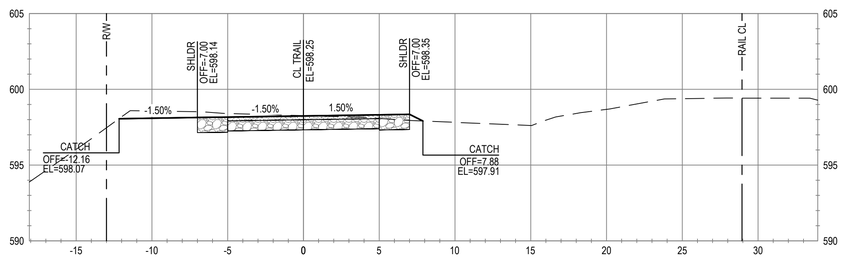
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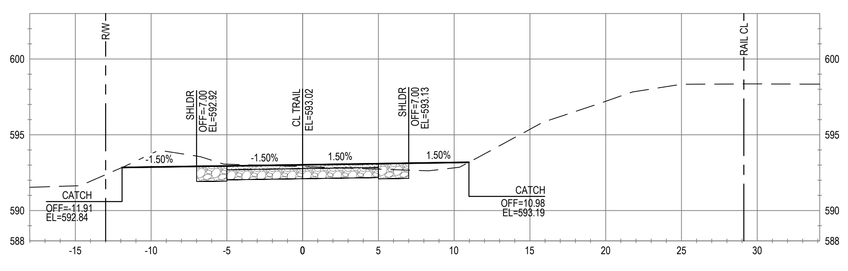
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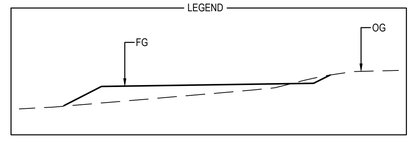


ALIGNMENT "T"
STA 424+50



ALIGNMENT "T"
STA 426+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

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

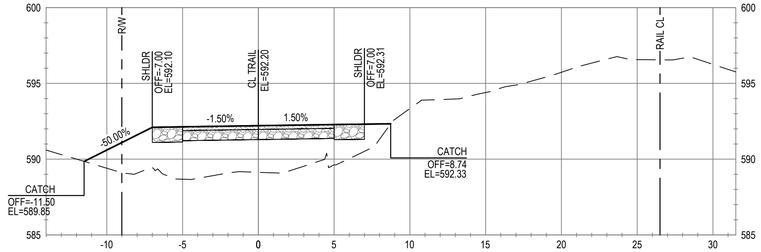
Size ANSI D

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

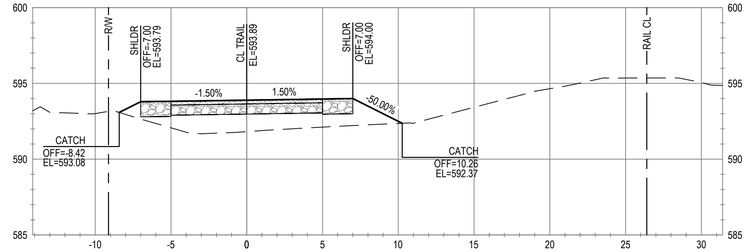
Sheet No. C-807
Sheet 83 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

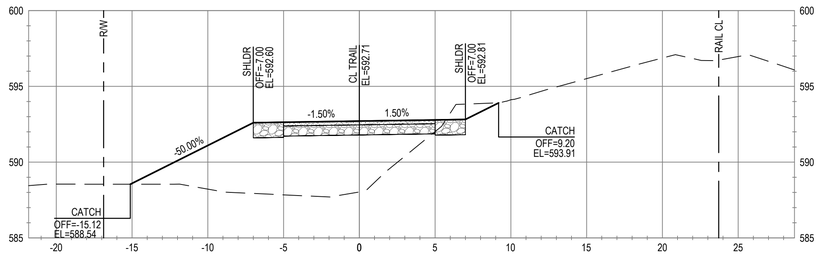
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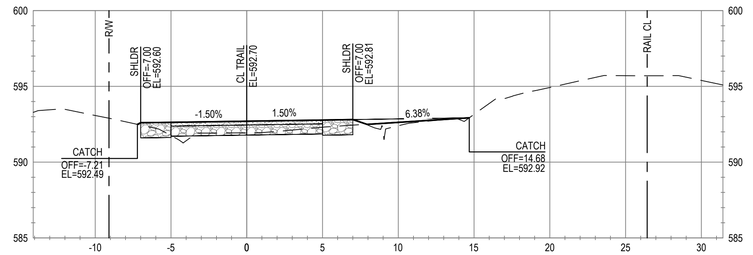
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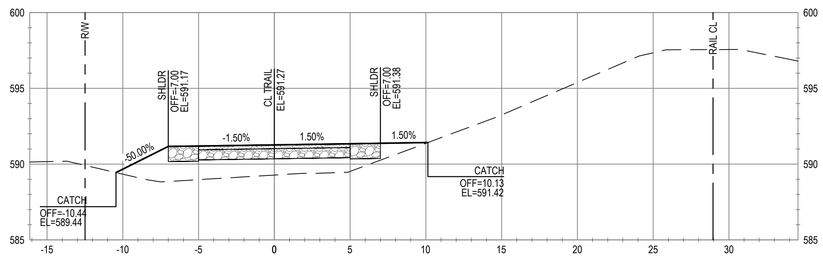
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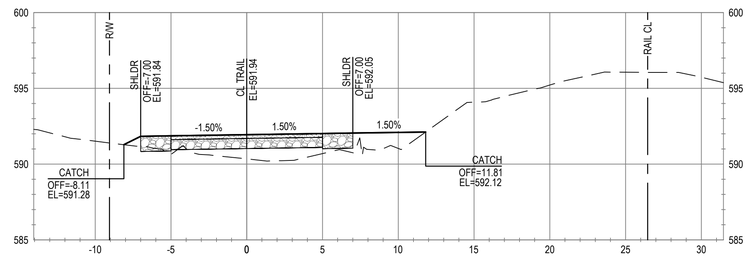
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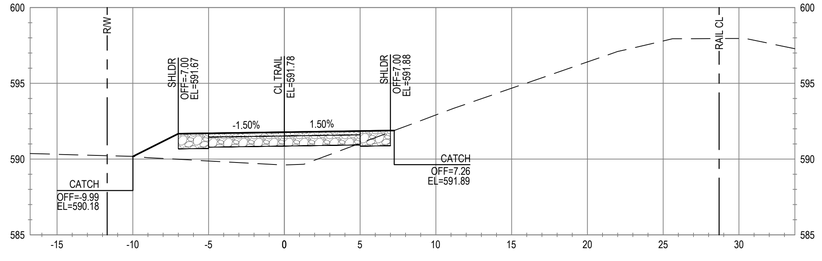
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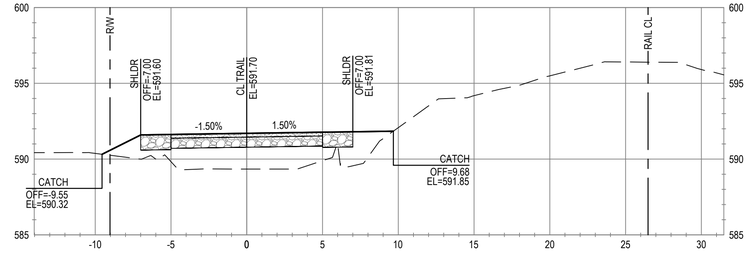
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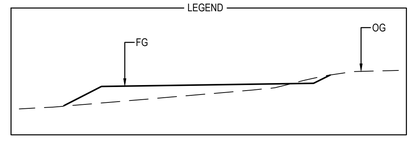


ALIGNMENT "T"
STA 428+50



ALIGNMENT "T"
STA 430+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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12/21/2022

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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

Title CROSS SECTIONS
STA 428+50 TO STA 432+00

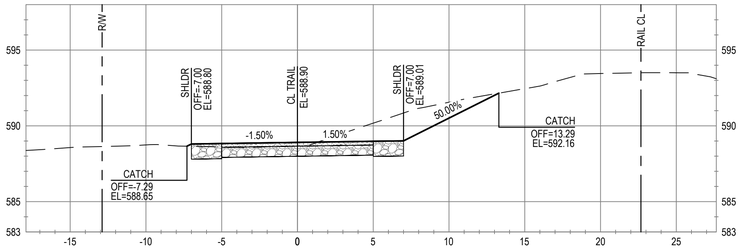
Size ANSI D

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

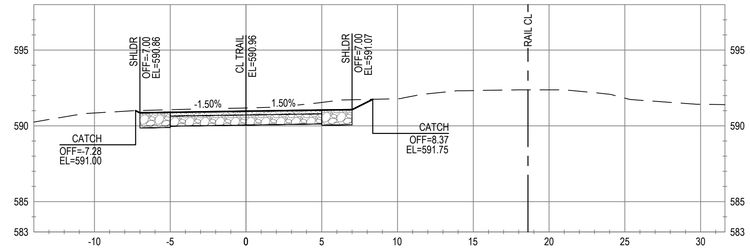
Sheet No. C-808
Sheet 84 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

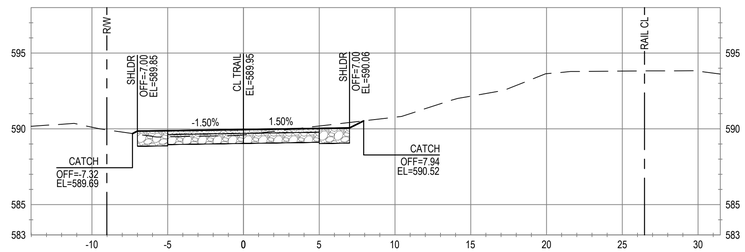
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STA 434+00



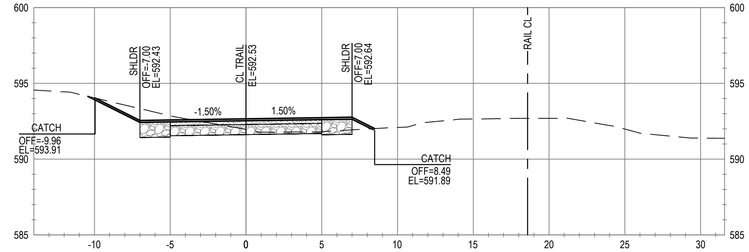
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STA 436+00



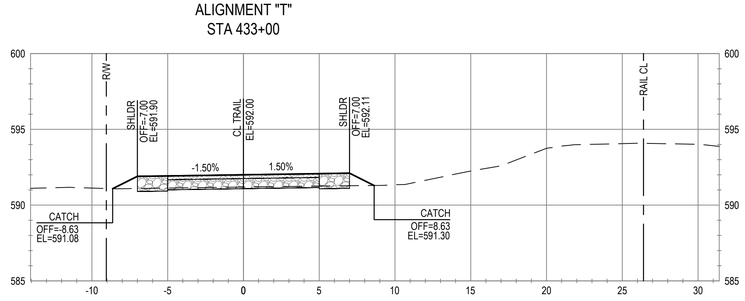
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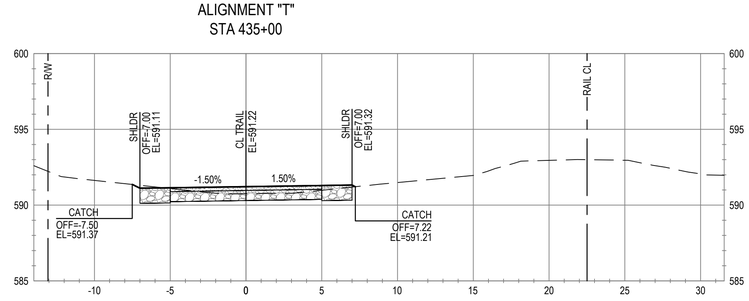
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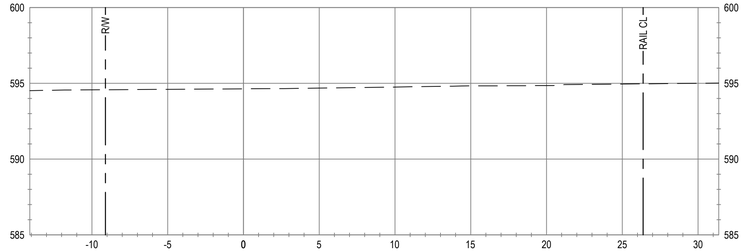
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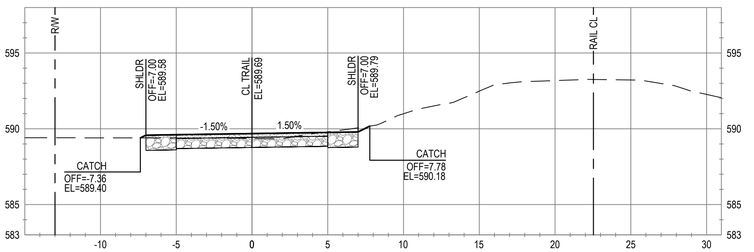
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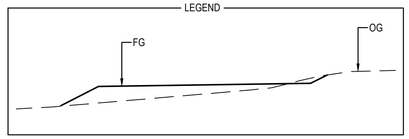


ALIGNMENT "T"
STA 432+50



ALIGNMENT "T"
STA 434+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

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 CROSS SECTIONS
STA 432+50 TO STA 436+00

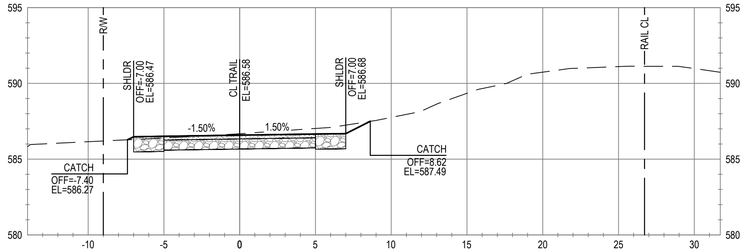
Size ANSI D

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

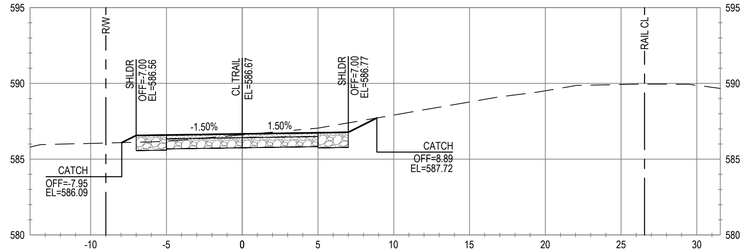
Sheet No. C-809
Sheet 85 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

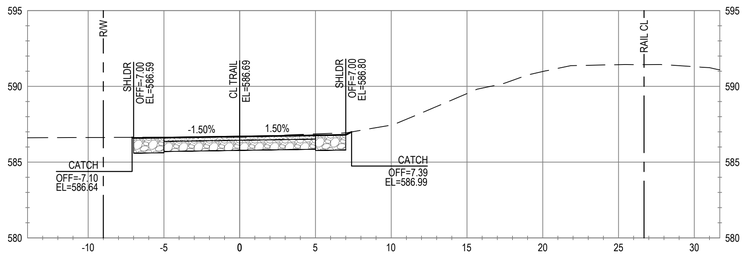
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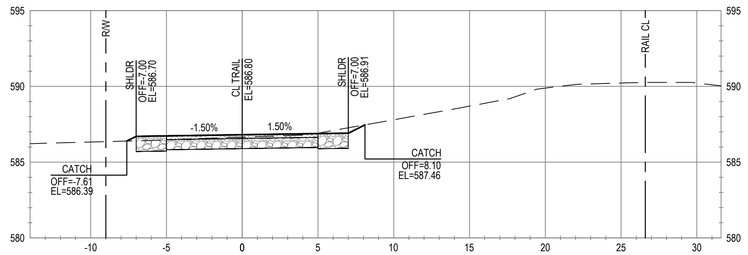
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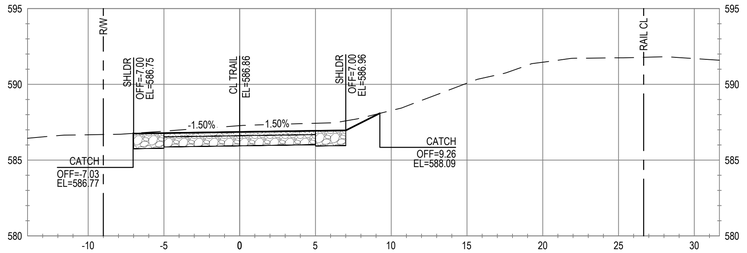
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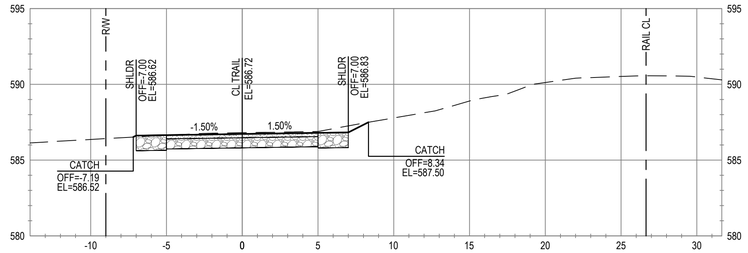
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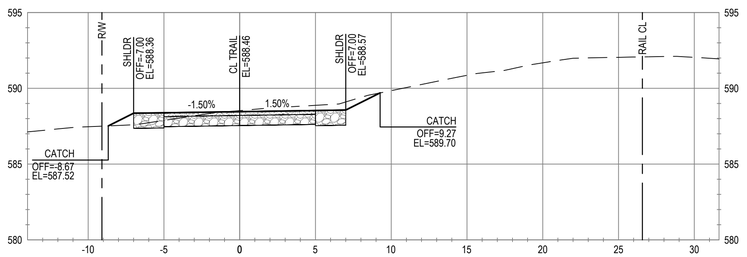
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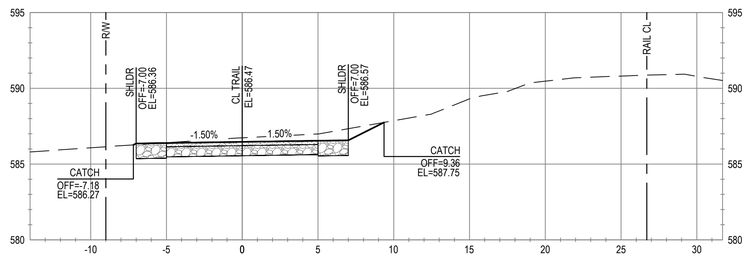
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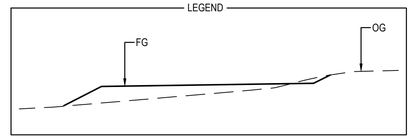


ALIGNMENT "T"
STA 436+50



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

Bar is one inch on original size sheet
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Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

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

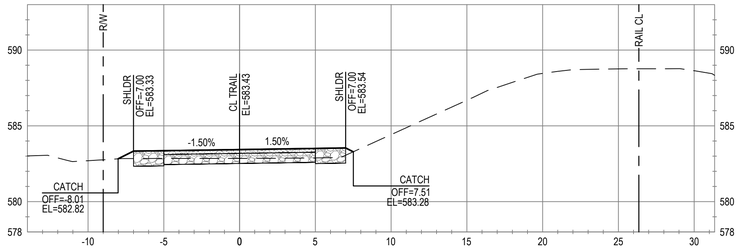
Size ANSI D

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

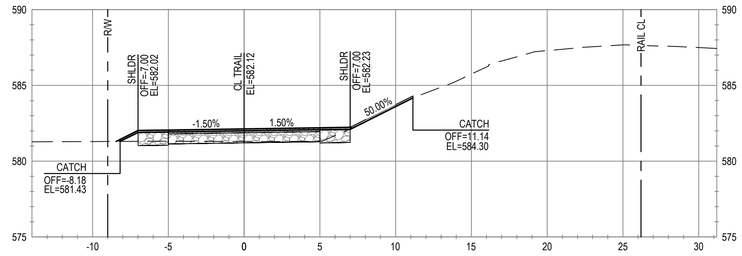
Sheet No. C-810
Sheet 86 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

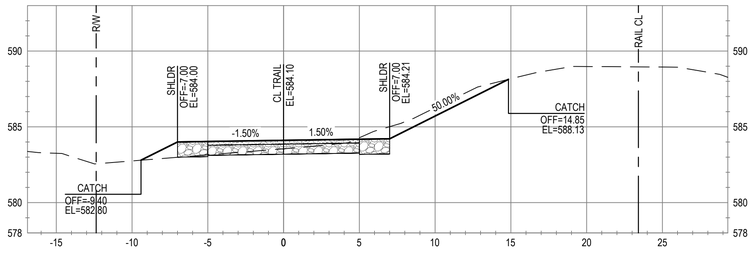
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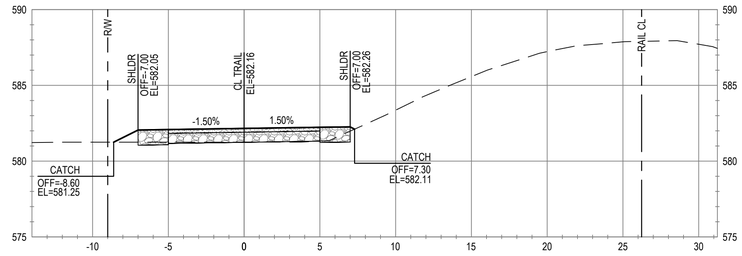
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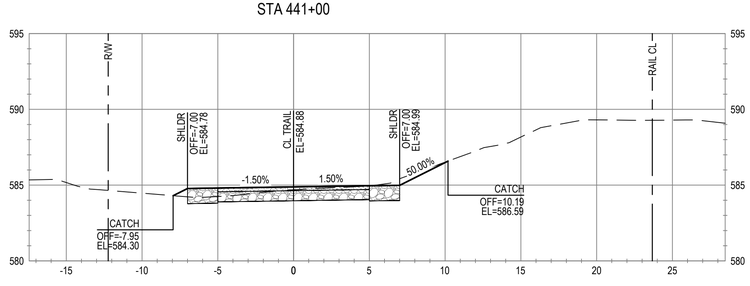
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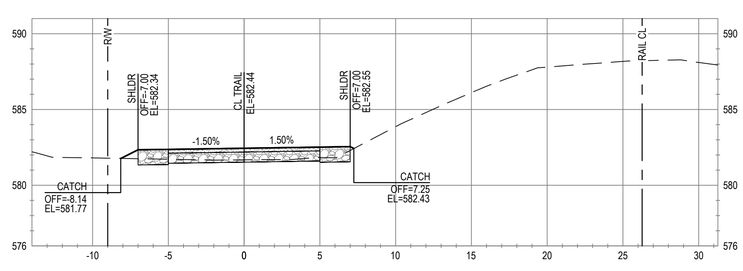
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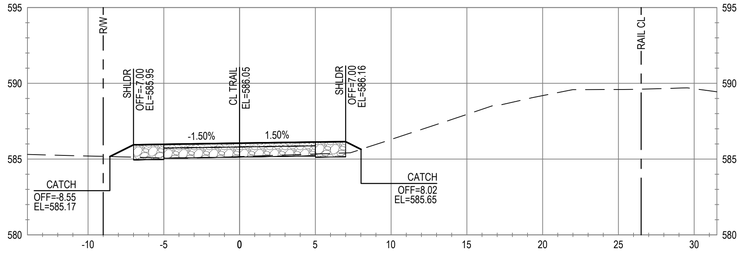
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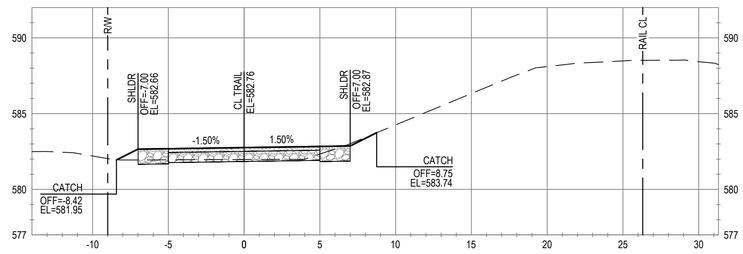
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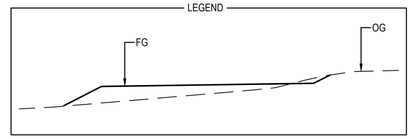


ALIGNMENT "T"
STA 440+50



ALIGNMENT "T"
STA 442+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

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

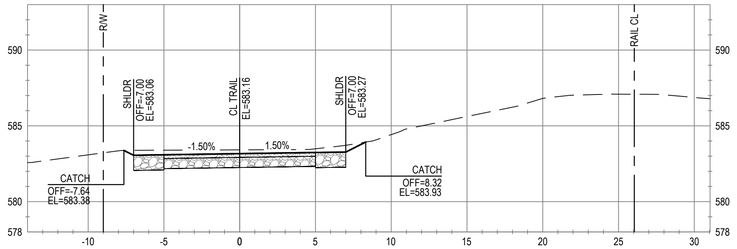
Size ANSI D

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

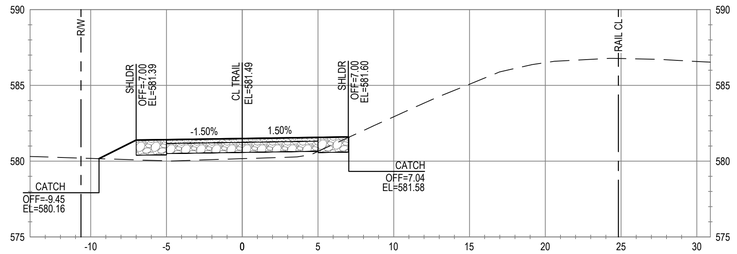
Sheet No. C-811
Sheet 87 of 96

Plot Date: 21 December 2022 - 6:36 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

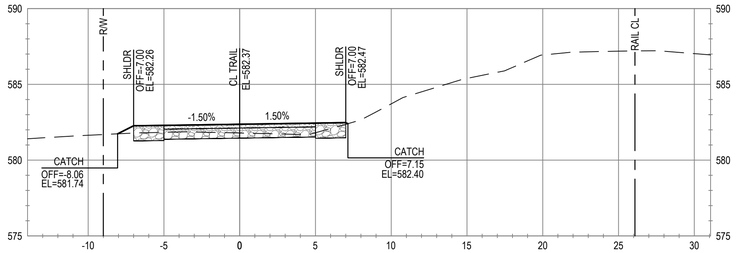
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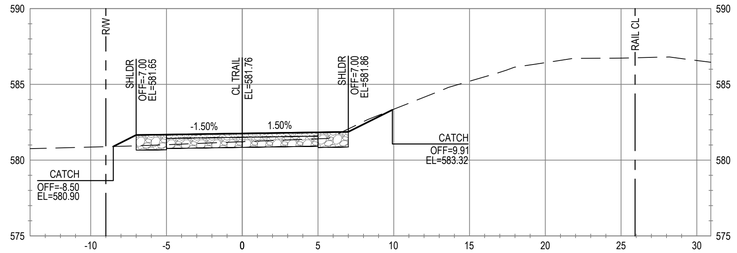
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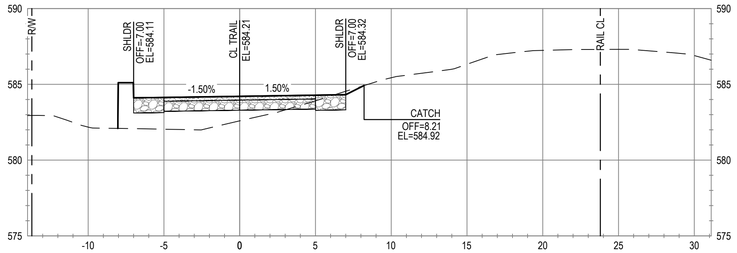
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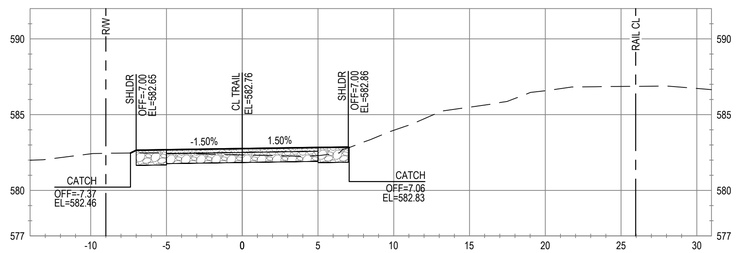
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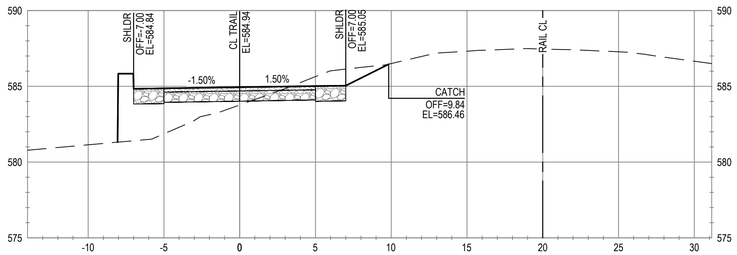
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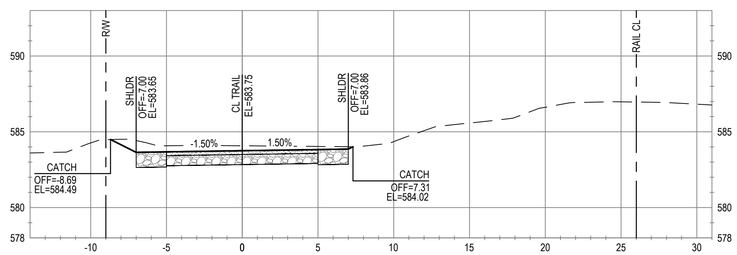
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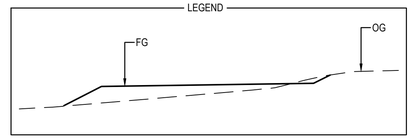


ALIGNMENT "T"
STA 444+50



ALIGNMENT "T"
STA 446+50





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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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Project THE GREAT REDWOOD TRAIL PHASE 4

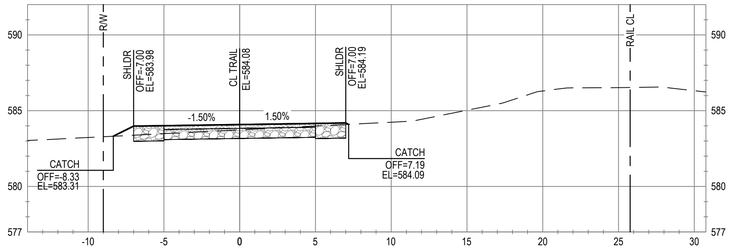
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Size ANSI D

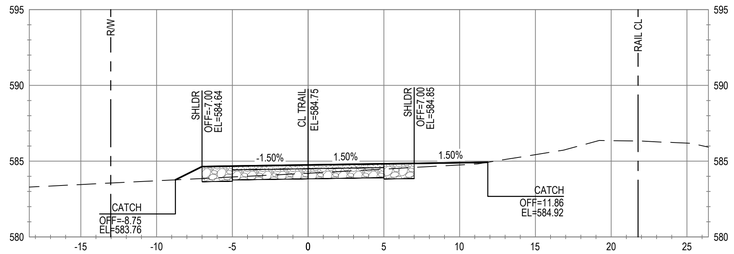
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-812	88 of 96

Plot Date: 21 December 2022 - 6:36 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

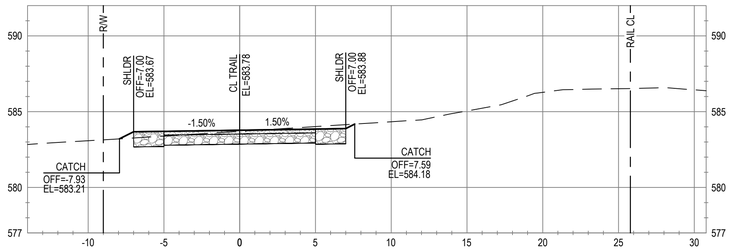
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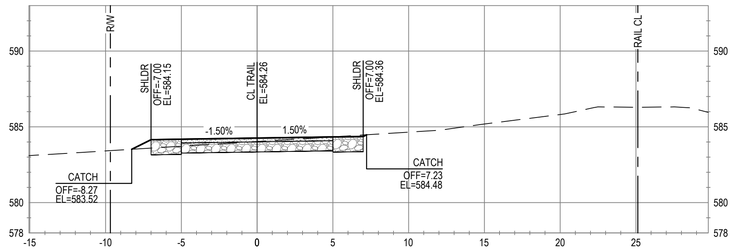
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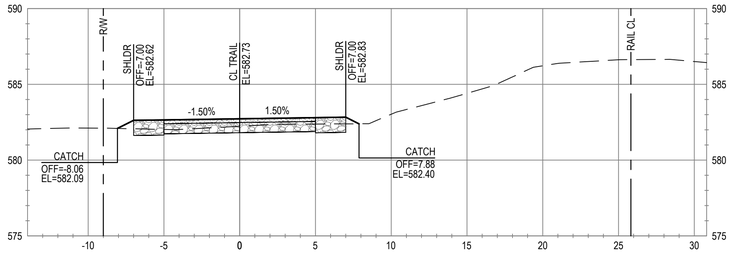
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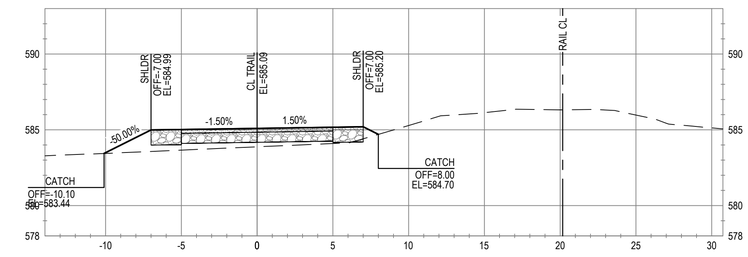
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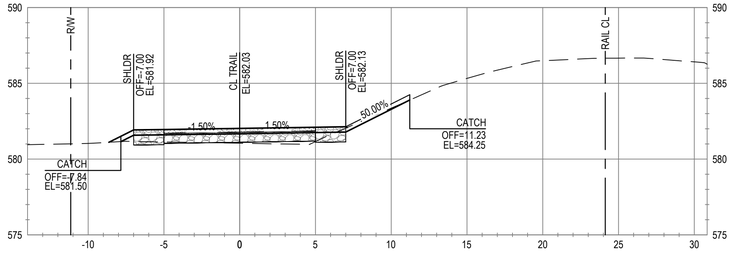
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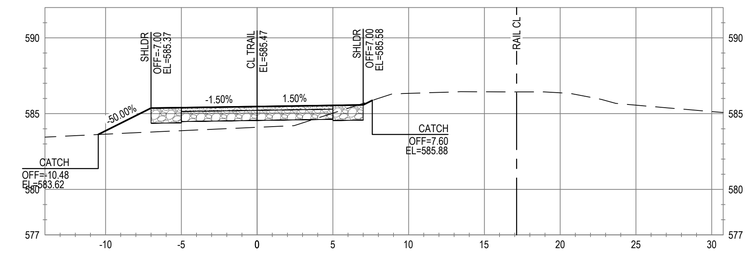
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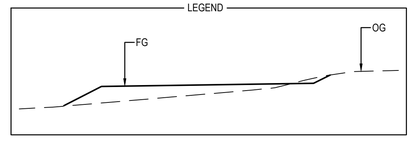


ALIGNMENT "T"
STA 448+50



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

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 CROSS SECTIONS
STA 448+50 TO STA 452+00

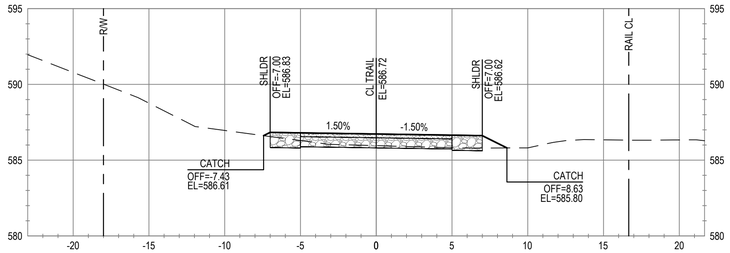
Size ANSI D

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

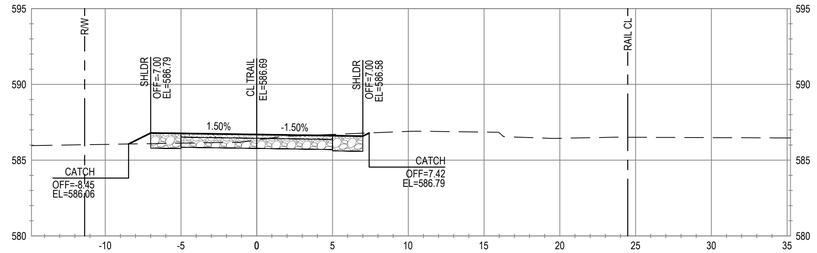
Sheet No. C-813
Sheet 89 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

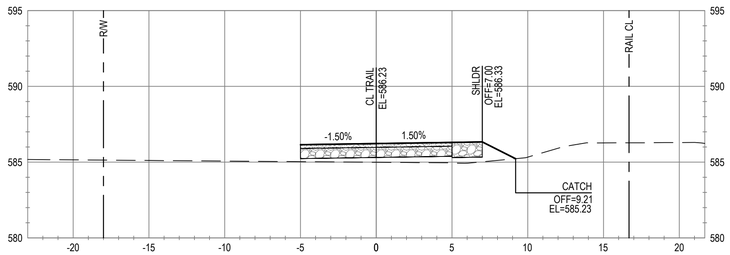
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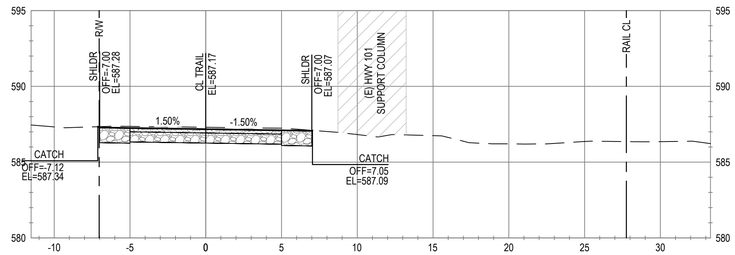
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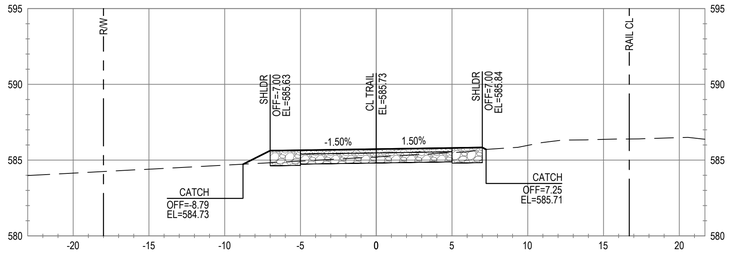
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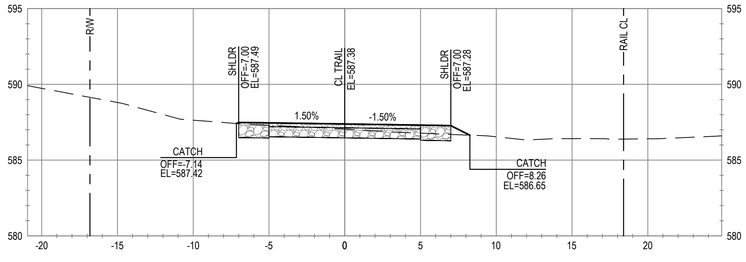
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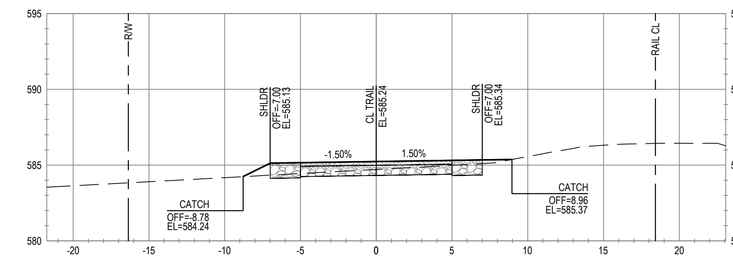
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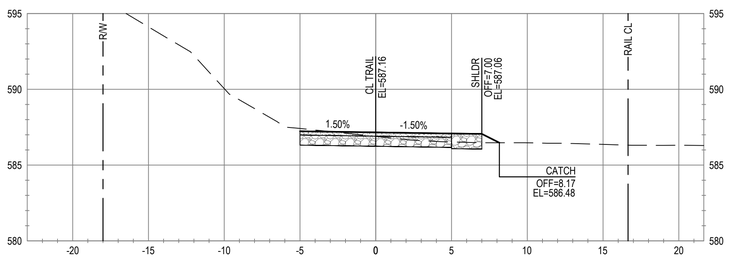
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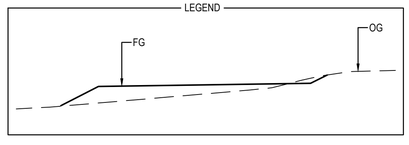


ALIGNMENT "T"
STA 452+50



ALIGNMENT "T"
STA 454+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

Bar is one inch on original size sheet
0 1"

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Project THE GREAT REDWOOD TRAIL PHASE 4

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

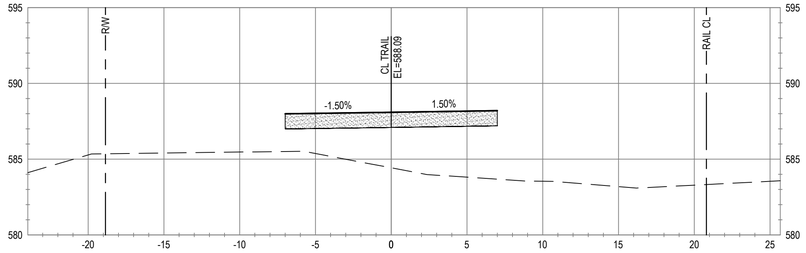
Size ANSI D

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

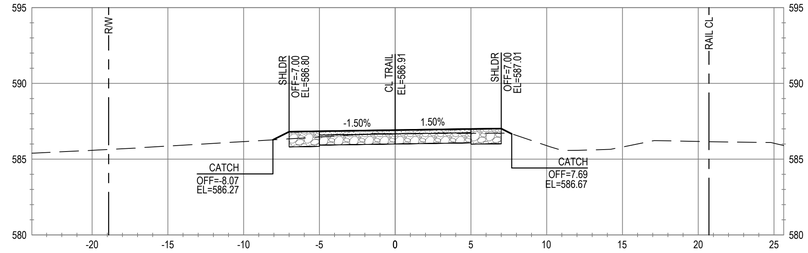
Sheet No. C-814
Sheet 90 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

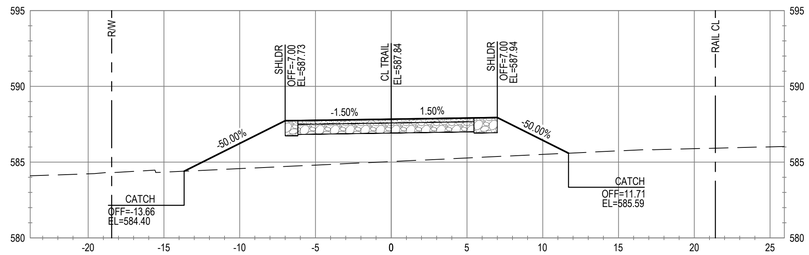
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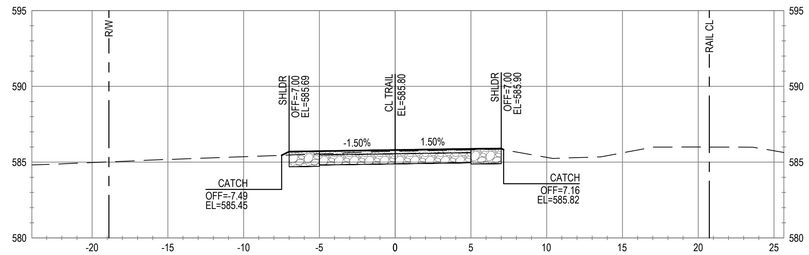
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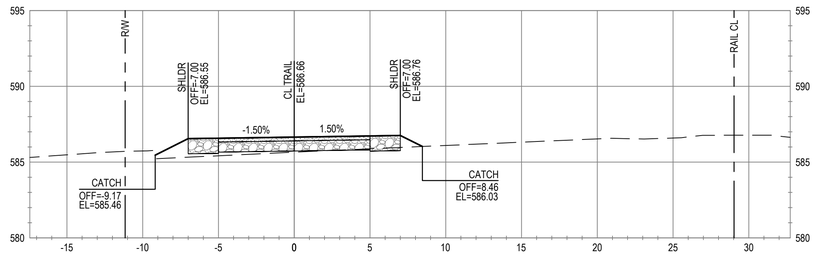
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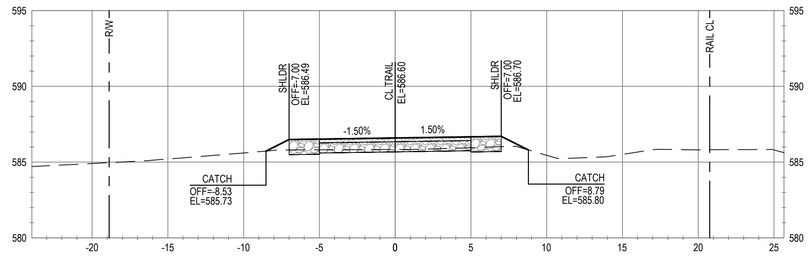
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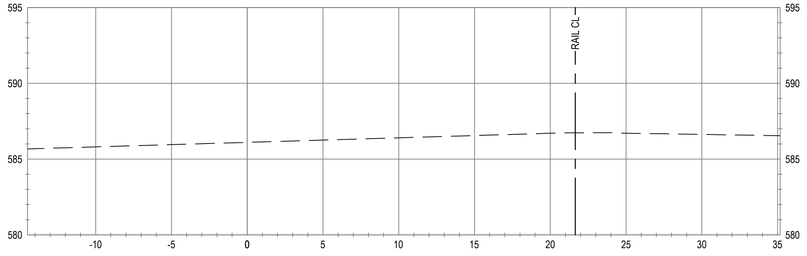
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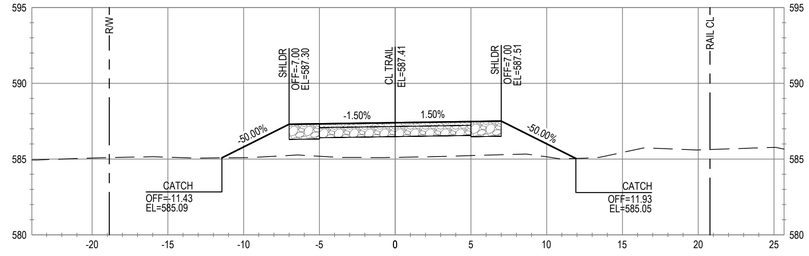
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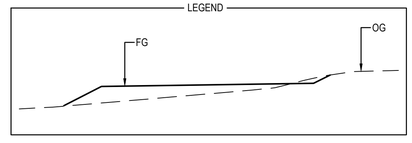


ALIGNMENT "T"
STA 456+50



ALIGNMENT "T"
STA 458+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

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

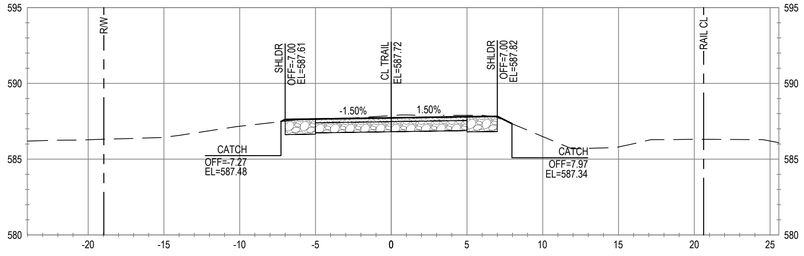
Size ANSI D

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

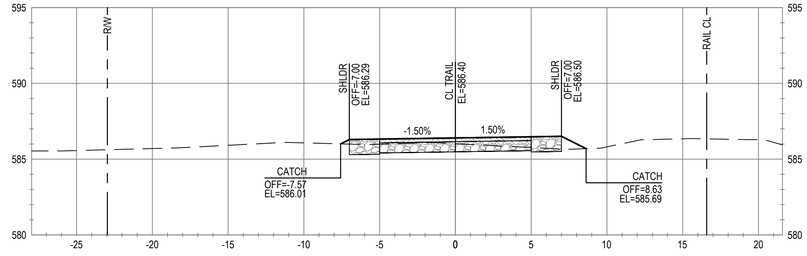
Sheet No. C-815
Sheet 91 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

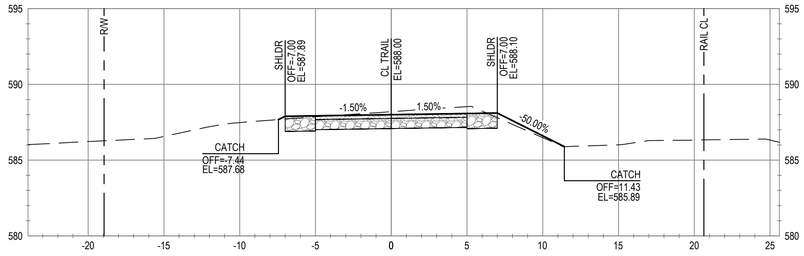
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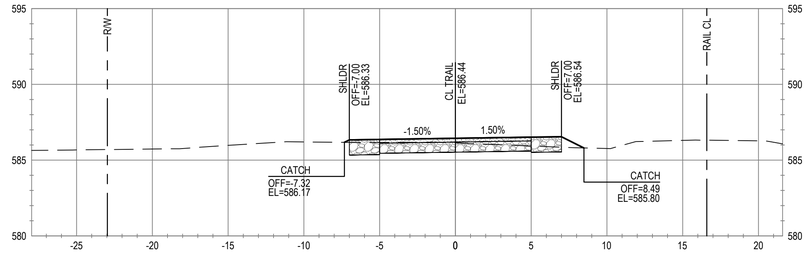
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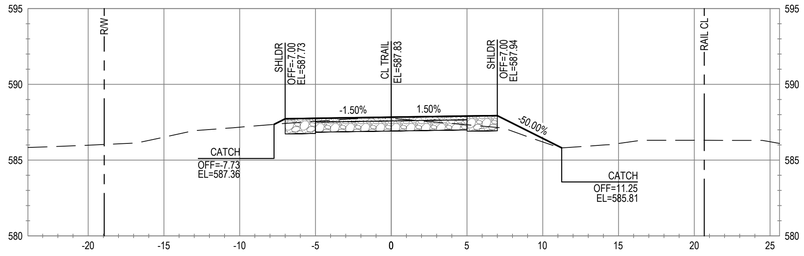
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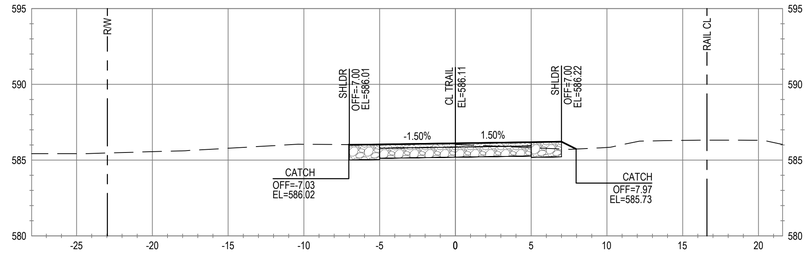
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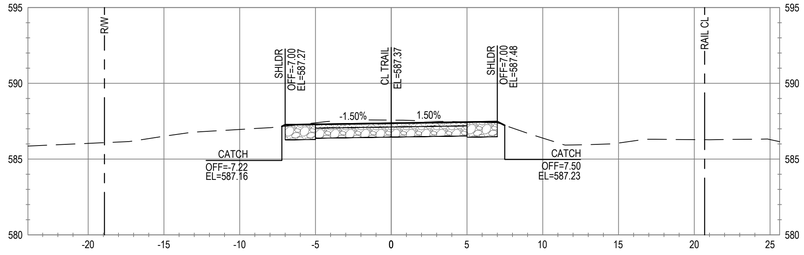
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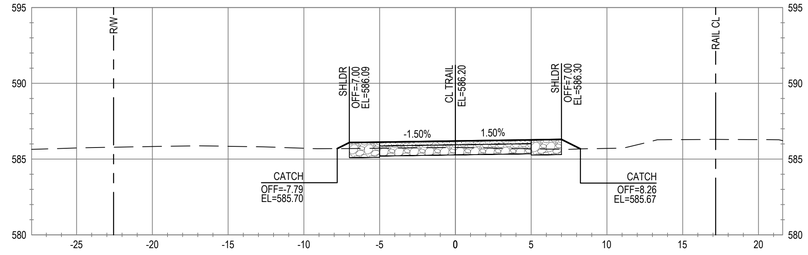
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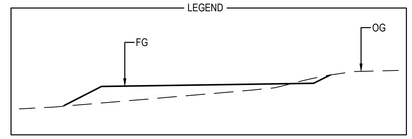


ALIGNMENT "T"
STA 460+50



ALIGNMENT "T"
STA 462+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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0 1"

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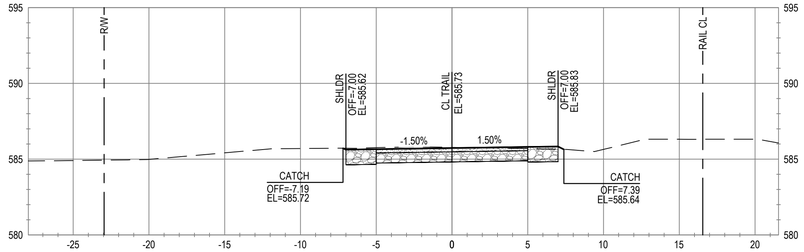
Client CITY OF UKIAH
Project THE GREAT REDWOOD TRAIL PHASE 4

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

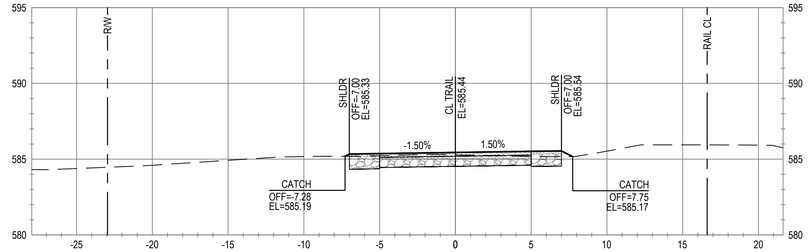
Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-816	92 of 96

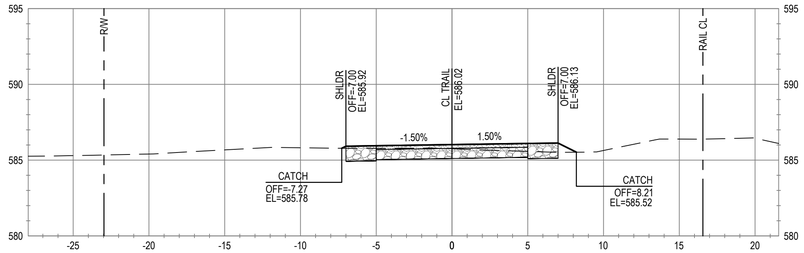
ALIGNMENT "T"
STA 466+00



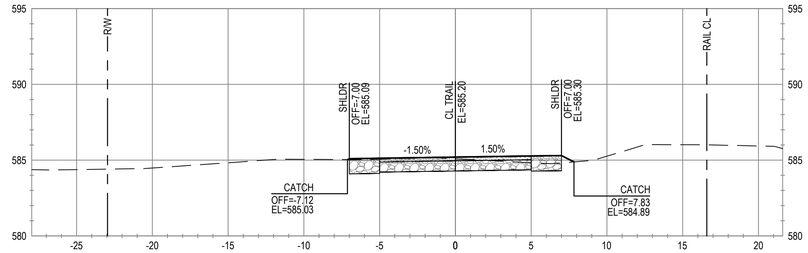
ALIGNMENT "T"
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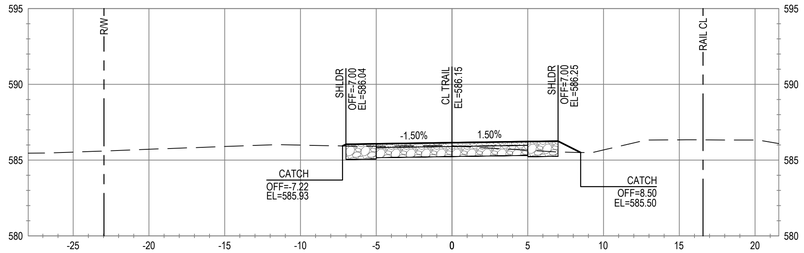
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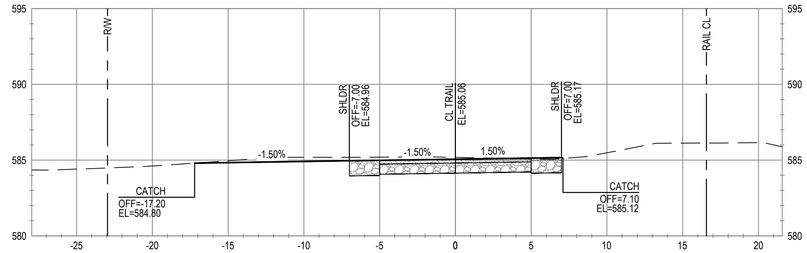
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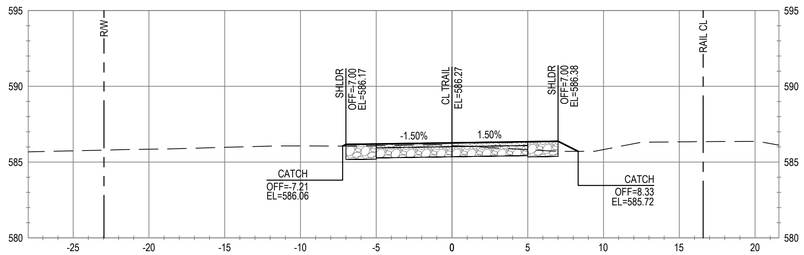
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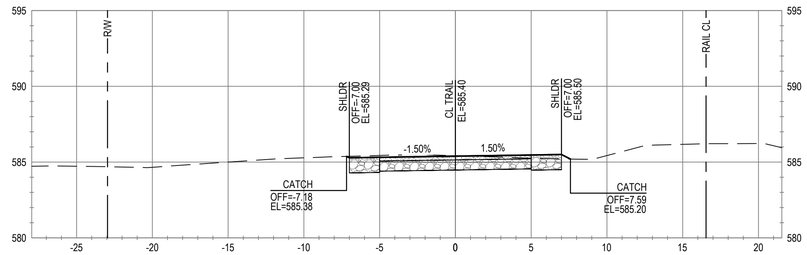
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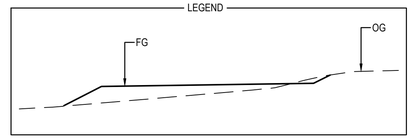


ALIGNMENT "T"
STA 464+50



ALIGNMENT "T"
STA 466+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

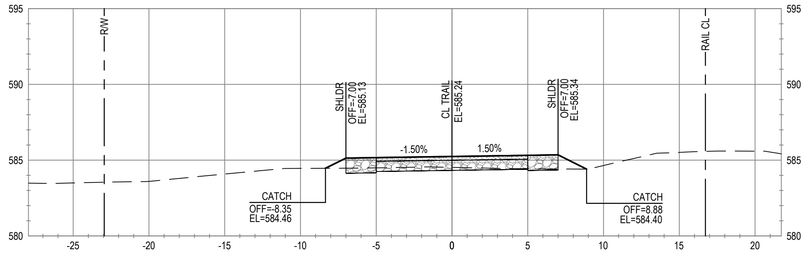
Title CROSS SECTIONS
STA 464+50 TO STA 468+00
ADD ALTERNATIVE

Size ANSI D

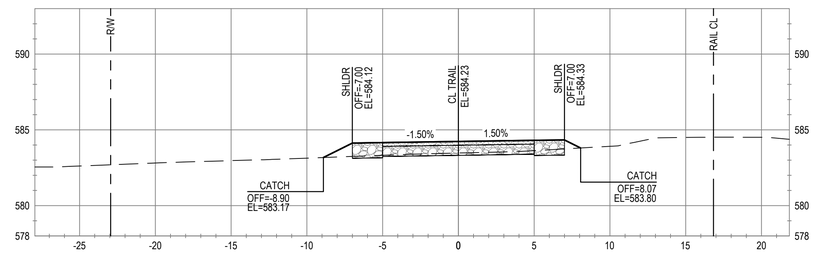
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-817	93 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
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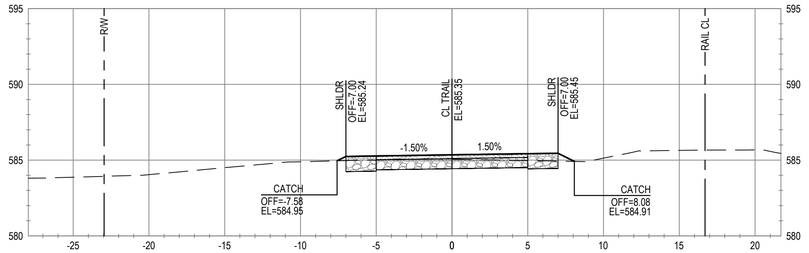
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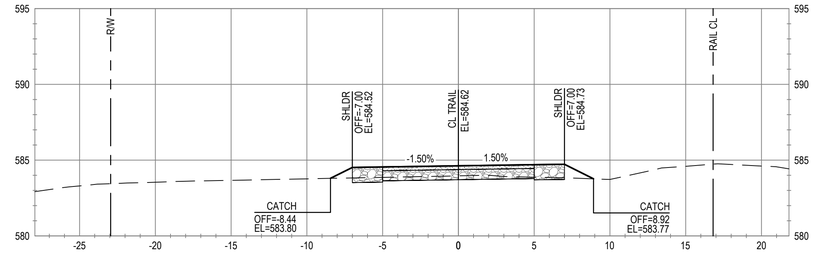
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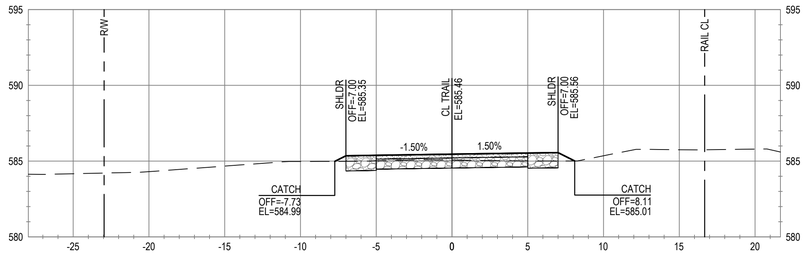
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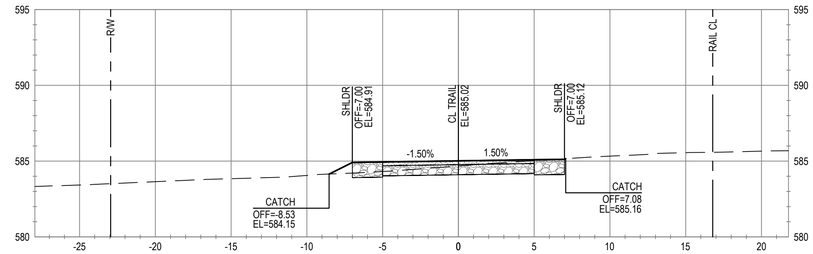
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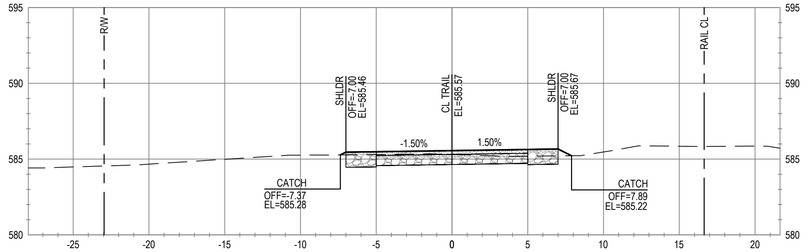
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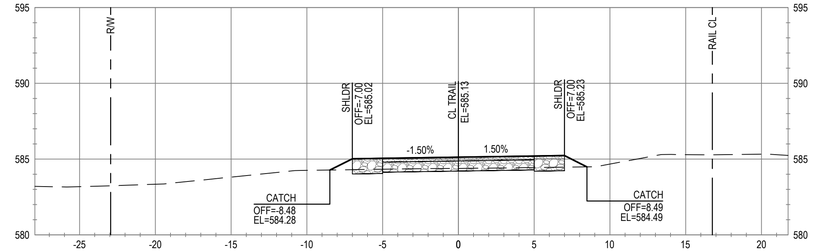
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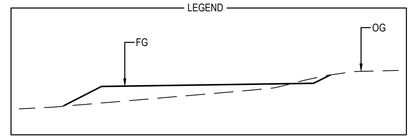


ALIGNMENT "T"
STA 468+50



ALIGNMENT "T"
STA 470+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

Bar is one inch on original size sheet
0 1"

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Project THE GREAT REDWOOD TRAIL PHASE 4

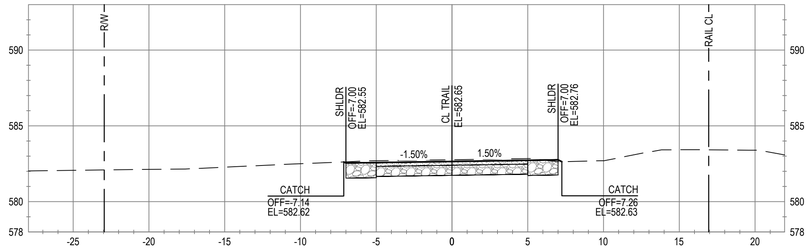
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ADD ALTERNATIVE

Size ANSI D

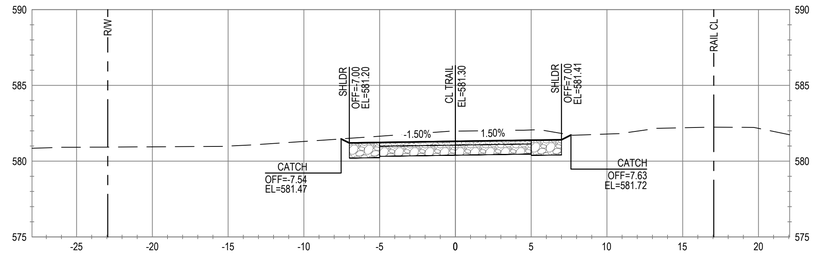
Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-818	94 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

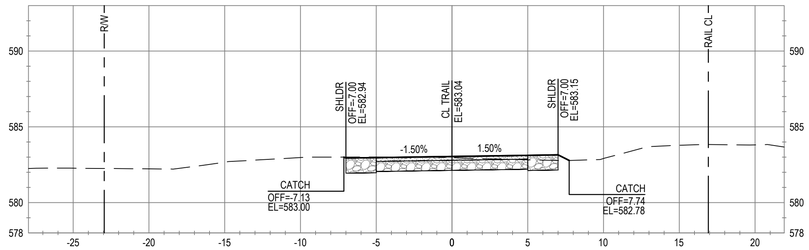
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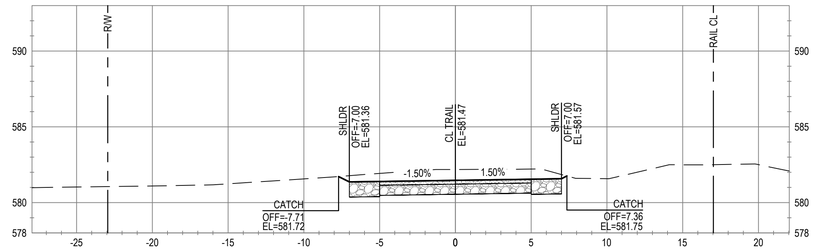
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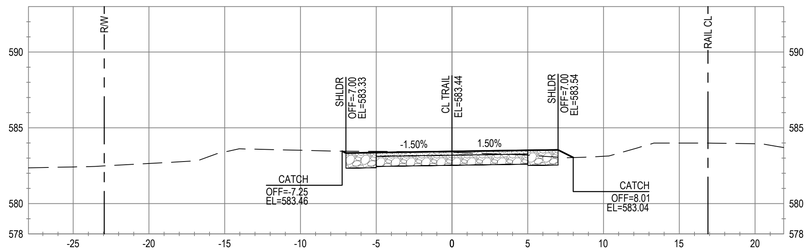
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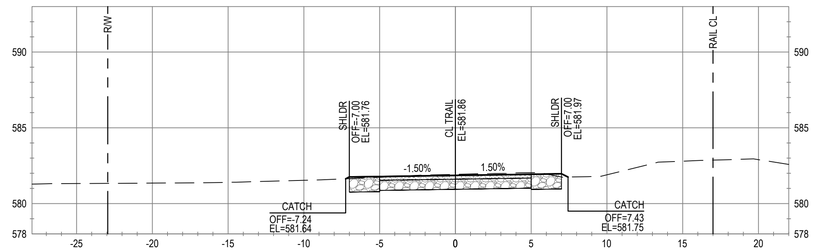
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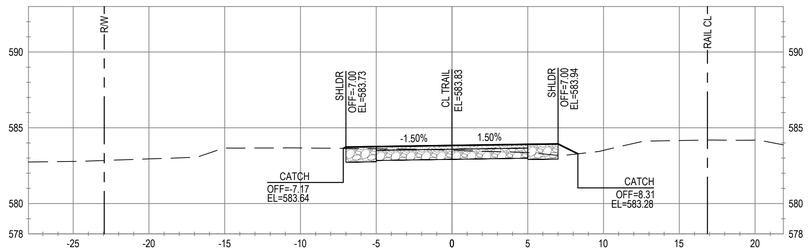
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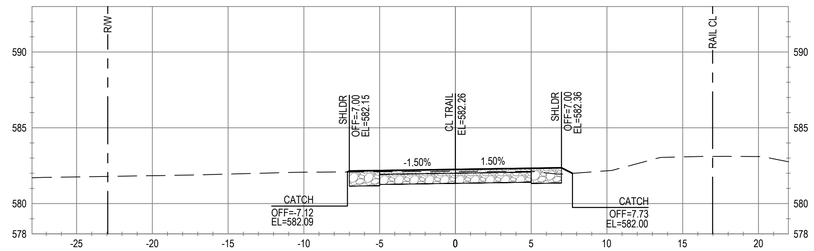
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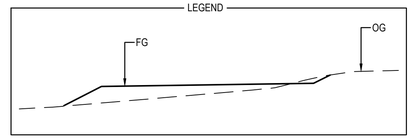


ALIGNMENT "T"
STA 472+50



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

Bar is one inch on original size sheet
0 1"

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Project THE GREAT REDWOOD TRAIL PHASE 4

Title CROSS SECTIONS
STA 472+50 TO STA 476+00
ADD ALTERNATIVE

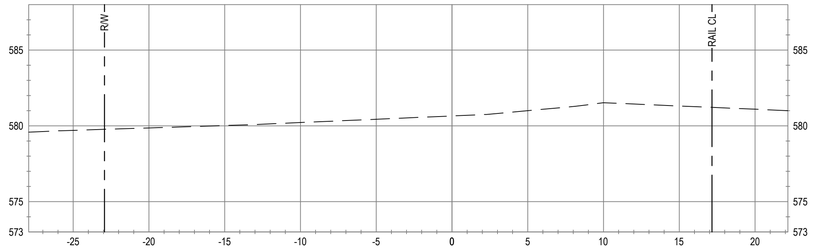
Size ANSI D

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

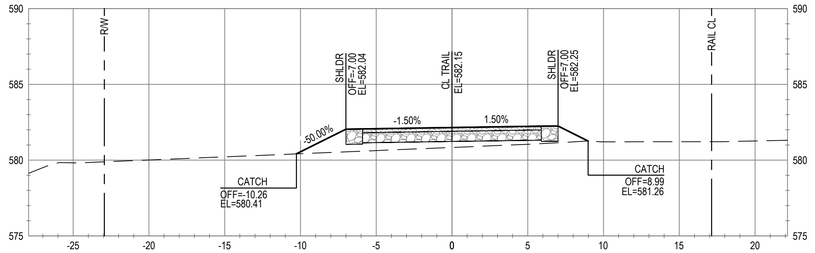
Sheet No. C-819
Sheet 95 of 96

Plot Date: 21 December 2022 - 6:37 PM
Plotted By: Haytham Daas
Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg

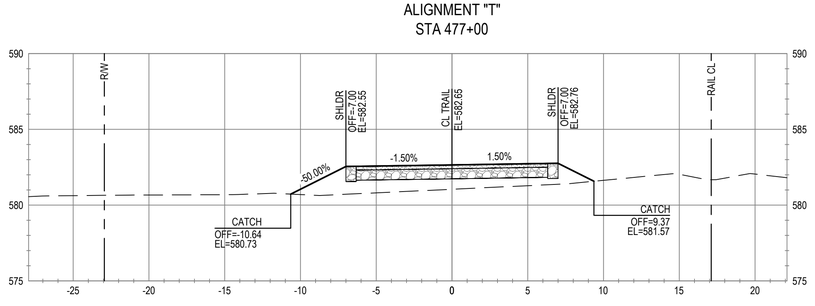
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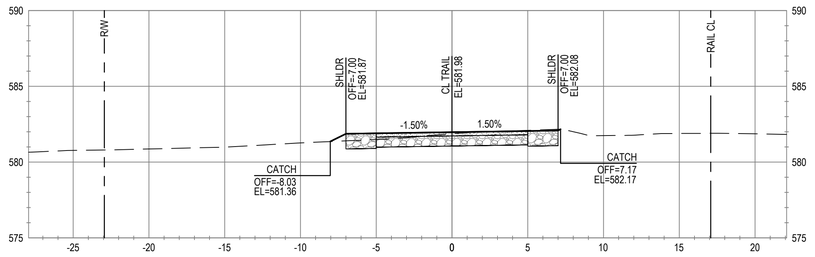
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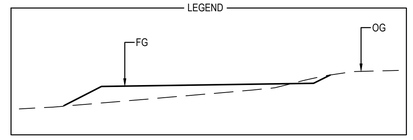


ALIGNMENT "T"
STA 477+00



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

Size ANSI D

Project No.	Date	Scale	Sheet No.	Sheet
12557341	SEP 30, 2022	1" = 5'	C-820	96 of 96

Plot Date: 21 December 2022 - 6:37 PM Plotted By: Haytham Daas Filename: N:\US\Santa Rosa\Projects\561\12557341\Digital_Design\RD\C3D\sheets\12557341-GHD-0000-TRL-RD-D801.dwg