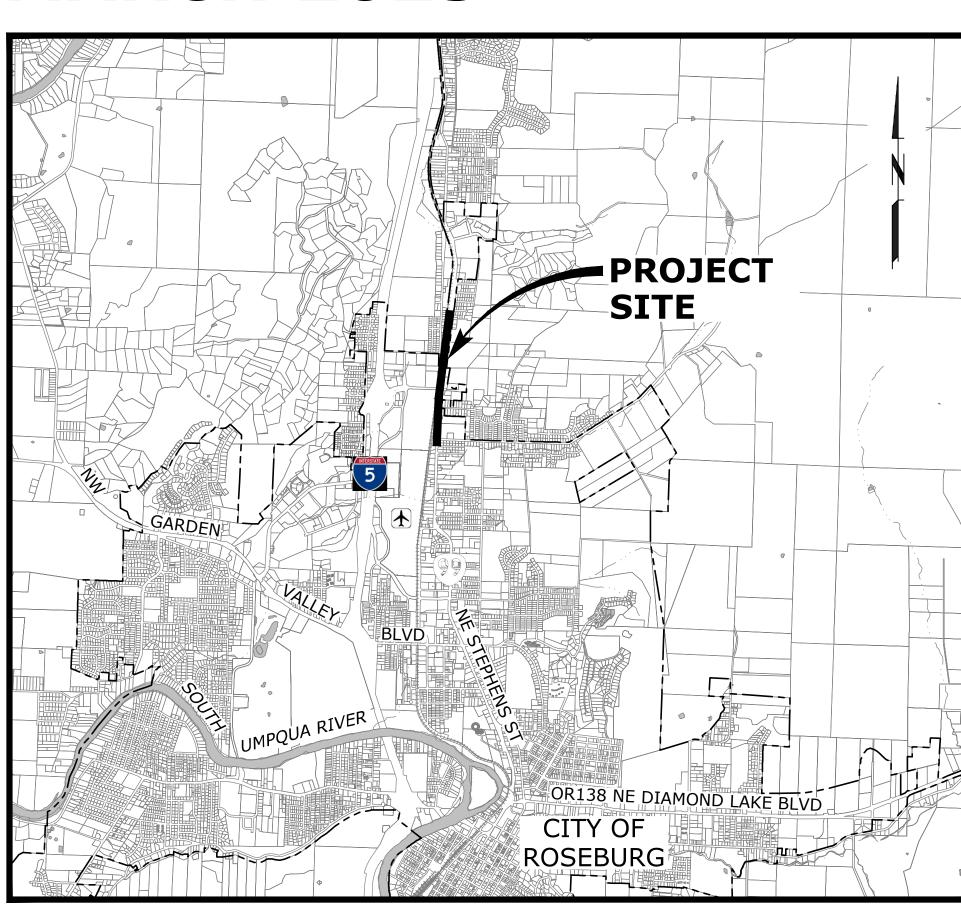
PROJECT #22WA11 24-INCH TRANSMISSION MAIN ISABELL AVENUE TO NEWTON CREEK ROAD CITY OF ROSEBURG, OREGON

VOLUME 2 OF 2 DRAWINGS MARCH 2023



VICINITY MAP SCALE: 1"=3,000'



INDEX OF DRAWINGS

GENERAL

COVER SHEET, VICINITY MAP, LOCATION MAP, AND INDEX OF DRAWINGS

GENERAL NOTES AND SURVEY CONTROL POINTS

SYMBOLS AND LEGEND

EROSION AND SEDIMENTATION CONTROL

EROSION AND SEDIMENT CONTROL COVER SHEET

EROSION AND SEDIMENT CONTROL DETAILS - 1

ESC-5 EROSION AND SEDIMENT CONTROL DETAILS - 2

SITE LAYOUT AND CONSTRUCTION SEQUENCING PLAN

TRANSMISSION MAIN PLAN AND PROFILE STA 1+00 TO STA 5+40

TRANSMISSION MAIN PLAN AND PROFILE STA 5+40 TO STA 11+00

TRANSMISSION MAIN PLAN AND PROFILE STA 11+00 TO STA 16+60 TRANSMISSION MAIN PLAN AND PROFILE STA 16+60 TO STA 22+20

TRANSMISSION MAIN PLAN AND PROFILE STA 22+20 TO STA 27+80 15 C-6

TRANSMISSION MAIN PLAN AND PROFILE STA 27+80 TO STA 33+40

TRANSMISSION MAIN PLAN AND PROFILE STA 33+40 TO STA 39+00

TRANSMISSION MAIN PLAN AND PROFILE STA 39+00 TO STA 42+78

EXISTING INTERTIE/RR CROSSING REHABILITATION AND ICCP LEAD WIRE CONNECTION

PLAN AND PROFILE STA D1+00 TO STA D2+86

DISTRIBUTION MAIN CONNECTION PROFILES ALIGNMENTS A, B, AND C

INTERTIE CONNECTION DETAIL 21 C-12

MISCELLANEOUS DETAILS - 1

MISCELLANEOUS DETAILS - 2

MISCELLANEOUS DETAILS - 3

MISCELLANEOUS DETAILS - 4

MISCELLANEOUS DETAILS - 5 SURFACE RESTORATION DETAILS

DUCTILE IRON PIPE CORROSION MONITORING DETAILS - 1

DUCTILE IRON PIPE CORROSION MONITORING DETAILS - 2

TRAFFIC CONTROL

OVERALL TRAFFIC CONTROL PLAN

TRAFFIC CONTROL PLAN STA 1+00 TO STA 16+50

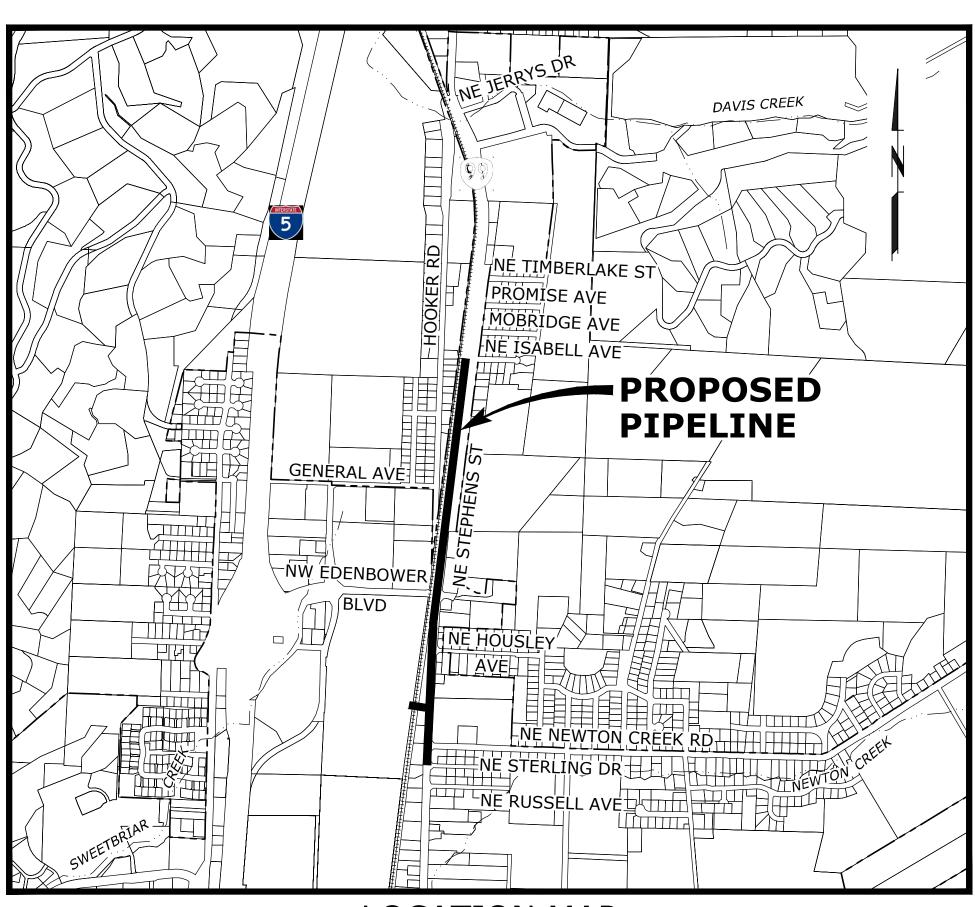
TRAFFIC CONTROL PLAN STA 16+50 TO STA 24+80 AND STA 25+80 TO STA 31+00

TRAFFIC CONTROL PLAN STA 24+80 TO STA 25+50

TRAFFIC CONTROL PLAN STA 25+50 TO STA 25+80

TRAFFIC CONTROL PLAN STA 31+00 TO STA 36+00

TRAFFIC CONTROL PLAN STA 36+00 TO STA 42+78



LOCATION MAP SCALE: 1"=1,000'

ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-246-6699.)



- 2. EXCEPT WHERE OTHERWISE ALLOWED, ALL PROPOSED PRESSURE PIPING SHALL BE RESTRAINED WITH AN APPROVED JOINT RESTRAINT SYSTEM. SEE SPECIFICATIONS FOR APPROVED TYPES OF PIPE RESTRAINT FOR PRESSURE PIPE.
- 3. SEE SPECIFICATION SECTIONS 01 10 00 SUMMARY OF WORK AND 01 12 16 WORK SEQUENCE AND SCHEDULE CONSTRAINTS FOR SPECIAL CONSTRUCTION SCHEDULING AND EXISTING TRANSMISSION MAIN SHUTDOWN REQUIREMENTS.
- 4. ALL CONCRETE SHALL BE A MINIMUM OF 3000 PSI STRENGTH.
- 5. LOCATIONS OF EXISTING UTILITIES ARE BASED ON INFORMATION SUPPLIED BY THE UTILITIES AND SHALL BE CONSIDERED AS APPROXIMATE ONLY. AS REQUIRED BY STATE LAW, THE CONTRACTOR SHALL OBTAIN UTILITY LOCATES PRIOR TO COMMENCING CONSTRUCTION.
- 6. ALL PRESSURE PIPING SHALL BE TESTED UNDER A HYDROSTATIC TEST PRESSURE OF 150 PERCENT THE DESIGN PRESSURE, BUT NOT LESS THAN 150 PSI (± 5 PSI), MEASURED FROM THE LOWEST POINT ALONG THE TEST SECTION OR AS SHOWN ON THE PLANS. SEE SPECIFICATIONS.
- 7. ALL EXISTING FEATURES INCLUDING BUT NOT LIMITED TO ROADWAYS, STRUCTURES, LOTS, CURBS, SIDEWALKS, FENCES, WALLS, PLANTING, DITCHES, MAILBOXES, SIGNS, PIPING AND UTILITIES DISTURBED DURING CONSTRUCTION SHALL BE REMOVED AND RESTORED TO AS GOOD OR BETTER THAN EXISTING CONDITION AS DETERMINED BY THE OWNER. CONTRACTOR SHALL REPAIR ALL UTILITY SERVICES DAMAGED DURING CONSTRUCTION AND SUCH REPAIR SHALL BE CONSIDERED INCIDENTAL UNLESS PROVIDED FOR OTHERWISE IN THE SPECIFICATIONS.
- 8. COMPLY WITH OAR CHAPTER 333 RULES FOR REQUIRED WATERLINE-SEWERLINE SEPARATION AND CROSSING REQUIREMENTS. IN SPECIFIC LOCATIONS WHERE WATER PIPELINE IS TO BE INSTALLED CROSSING UNDERNEATH EXISTING SANITARY SEWERS, CONTRACTOR TO EXPOSE EXISTING SEWERS TO NEAREST JOINTS TO EXAMINE CONDITION AND THEN CONCRETE ENCASE OR REPLACE SECTION OF SEWER PER THE REQUIREMENTS OF OAR 333-061-0050(9)(c)(C) IF IT IS FOUND TO BE LEAKING OR ITS CONDITION IS DETERMINED TO BE UNFAVORABLE BY THE CITY'S INSPECTOR. IF EXISTING SEWER'S CONDITION IS DETERMINED TO BE FAVORABLE, CENTER A FULL STICK OF WATER PIPING AT THE CROSSING, ASSURE THAT SEWER IS PROPERLY SUPPORTED DURING AND AFTER BACKFILLING, AND PREPARE A WRITTEN REPORT, ALL PER THE REQUIREMENT'S OF OAR 333. WITH THE CITY AND RUSA'S APPROVAL, THE CONTRACTOR MAY ALSO ELECT TO CUT AND REPLACE A FULL STICK OF SEWER LATERAL PIPING AT CROSSING REGARDLESS OF PIPING CONDITION TO FACILITATE SHORING PROGRESSION AND WATERLINE INSTALLATION. FOR ALL CONNECTIONS TO EXISTING SEWER PIPING, MAX ADAPTORS SHALL BE INSTALLED, PER RUSA'S REQUIREMENTS. CONTRACTOR SHALL PROVIDE SEWER BYPASS AS REQUIRED TO FACILITATE THE WORK.
- 9. WITH THE CITY'S APPROVAL, THE CONTRACTOR MAY ELECT TO CUT AND REPLACE A FULL STICK OF STORM DRAIN PIPING AT CROSSING REGARDLESS OF PIPING CONDITION TO FACILITATE SHORING PROGRESSION AND WATERLINE INSTALLATION. CONTRACTOR TO REPLACE ALL CUT PIPING MATERIAL IN-KIND, ALL JOINTS INCLUDED IN REPAIR SHALL BE WATER-TIGHT, COUPLINGS SHALL BE RIGID (ZIP TIE COUPLINGS FOR ADS PIPE WILL NOT BE ACCEPTABLE), CUTS INTO EXISTING PIPE SHALL EXTEND 5' PAST EDGE OF WATERLINE TRENCH ON BOTH SIDES, REPLACED PIPE SEGMENT SHALL BE CCTV'D PER REQUIREMENTS OF SECTION 33 41 10, AND ALL WORK SHALL BE APPROVED BY OWNER'S REPRESENTATIVE.
- 10. FINAL LOCATIONS OF ALL NEW FACILITIES SHALL BE FIELD VERIFIED WITH THE CITY'S INSPECTOR AND ENGINEER PRIOR TO CONSTRUCTION.
- 11. PROVIDE "AS CONSTRUCTED" DRAWINGS TO THE ENGINEER INDICATING ALL CHANGES IN GRADE, ALIGNMENT, FITTINGS AND MATERIALS INSTALLED AND ANY OTHER UTILITIES OR OBSTACLES NOT SO INDICATED ON THESE PLANS.
- 12. AT THE END OF EACH WORK DAY ALL OPEN TRENCHES SHALL BE BACKFILLED OR COVERED TO THE SATISFACTION OF THE ENGINEER.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CONSTRUCTION SURVEYS. PRIOR TO CONSTRUCTION, FIELD LAYOUT SHALL BE APPROVED BY ENGINEER. SEE CONTRACT DOCUMENTS FOR SURVEY REQUIREMENTS.
- 14. ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 1-800-332-2344).
- 15. CONTRACTOR SHALL PROVIDE ENGINEER WITH MINIMUM 24 HOURS NOTICE WHEN POTHOLING WILL BE COMPLETE. THE CITY'S INSPECTOR OR ENGINEER WILL BE ON SITE DURING POTHOLING TO COORDINATE WITH CONTRACTOR TO REVIEW UTILITY INVESTIGATIONS AND ASSIST CONTRACTOR

- IN MAKING APPROPRIATE ADJUSTMENTS FOR ANY ALIGNMENT CONFLICTS WHERE CONNECTING TO EXISTING UTILITIES.
- 16. CONTRACTOR SHALL SUPPORT AND PROTECT AS NECESSARY ANY PIPE OR CONDUIT EXPOSED AS PART OF THE NEW PIPE TRENCH EXCAVATION. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE AT ALL TIMES AND SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES TO MAINTAIN AND PROTECT SERVICES.
- 17. THE CONTRACTOR SHALL CONSTRUCT THE WATER MAIN TO THE MINIMUM DEPTHS OF COVER INDICATED ON THE DRAWINGS FOLLOWING THE EXISTING GROUND CONTOURS. WHERE PIPING INVERTS ARE SHOWN ON THE PIPELINE PROFILES, THE PIPELINE SHALL BE CONSTRUCTED TO THOSE INVERTS WITH A UNIFORM SLOPE BETWEEN INVERTS, UNLESS OTHERWISE SPECIFIED OR APPROVED BY ENGINEER.
- 18. CORROSION MONITORING FACILITIES SHALL BE INSTALLED ON ALL NEW DUCTILE IRON PIPE. JOINT BOND ALL DUCTILE IRON PIPE, VALVES AND FITTINGS BETWEEN ISOLATION JOINTS (INSULATED FLEXIBLE COUPLINGS OR INSULATED FLANGES) UNLESS NOTED OTHERWISE ON THE DRAWINGS. TEST ALL ISOLATION JOINTS AND JUMPER BONDS PRIOR TO BURYING. SEE SPECIFICATION SECTION 26 42 01 FOR DETAILED REQUIREMENTS. SEE SHEET G-3 FOR CORROSION MONITORING LEGEND AND ABBREVIATIONS AND SHEETS C-19 AND C-20 FOR CORROSION MONITORING SYSTEM DETAILS.
- 19. NO CONNECTION TO EXISTING MAIN LINES WILL BE ALLOWED, EXCEPT BY MEANS OF AN APPROVED BACKFLOW PREVENTION DEVICE, PRIOR TO SATISFACTORY FLUSHING, TESTING, DISINFECTION, AND RECEIPT OF SATISFACTORY BACTERIOLOGICAL TESTS. CONTRACTOR TO PROVIDE TEMPORARY BLOW-OFF ASSEMBLIES AT ALL CONNECTIONS TO EXISTING PIPING AS REQUIRED TO FACILITATE TESTING AND DISINFECTION OF NEW PIPELINES. SEE DETAIL 2, SHEET C-14.
- 20. V-BIO POLYETHYLENE ENCASEMENT SHALL BE INSTALLED ON ALL BURIED DUCTILE IRON PIPES PER THE REQUIREMENTS OF AWWA C105-18 SECTION 4.4.
- 21. INSTALL WAX TAPE COATING SYSTEM ON BURIED DUCTILE IRON PIPE FITTINGS AND VALVES, AND THEIR FASTENERS AND RESTRAINTS. INSTALL POLYETHYLENE ENCASEMENT OVER WAX TAPE AS NOTED ABOVE. SEE SPECIFICATIONS.
- 22. CONTRACTOR TO PROVIDE 3" THICK TEMPORARY HOT MIX TRENCH PATCH ASPHALT CONCRETE (AC) PAVEMENT AT END OF EACH WORK SHIFT AND PRIOR TO OPENING TO TRAFFIC. COLD MIX MAY BE USED AS REQUIRED WHERE APPROVED BY OWNER'S REPRESENTATIVE ON A CASE BY CASE BASIS, AND SHALL BE MAINTAINED BY CONTRACTOR UNTIL HOT MIX AC CAN BE PROVIDED TO REPLACE IT.
- 23. REMOVE AND REPLACE CURB AND GUTTER AND SIDEWALK TO EXISTING JOINTS WHERE SHOWN ON PLANS AND IF DAMAGED DURING CONSTRUCTION. SEE CURB AND GUTTER AND SIDEWALK DETAILS, INCLUDED AS DETAILS 1 AND 2 ON SHEET C-18.
- 24. INSTALL MARKER BALLS IN TRENCH BACKFILL AT ALL FITTINGS (BENDS BOTH HORIZONTAL AND VERTICAL), TEES, LONG SLEEVES, ETC.), BRANCH TAPS AND PER REQUIRED MAXIMUM SPACING ALONG STRAIGHT AND CURVED RUNS AS SPECIFIED IN SECTION 31 23 17 TRENCHING. CONTRACTOR TO DOCUMENT ASBUILT LOCATIONS OF BURIED MARKER BALLS DURING INSTALLATION PER GENERAL NOTE 11.
- 25. EXISTING 20" STL/DI PIPELINE TO BE ABANDONED IN PLACE AND FILLED WITH CLSM AFTER NEW 24" TRANSMISSION MAIN HAS BEEN TIED IN AND PLACED IN SERVICE. SEE RECOMMENDED CONSTRUCTION SEQUENCING INCLUDED ON SHEET C-1 FOR FURTHER INFO REGARDING PIPE ABANDONMENT SEQUENCING, AND SPECIFICATION SECTION 33 11 50 EXISTING PIPE ABANDONMENT, FOR REQUIREMENTS FOR FILLING PIPE WITH CLSM AND ABANDONING IN PLACE. LOCATIONS OF INTERMEDIATE CUT-INS TO EXISTING PIPELINE TO COMPLETELY FILL ABANDONED PIPING WITH CLSM NOT SHOWN ON PLANS AND PROPOSED LOCATIONS SHALL BE INCLUDED IN CONTRACTOR'S PIPE ABANDONMENT PLAN FOR REVIEW BY OWNER/ENGINEER. CONTRACTOR MAY ELECT TO UTILIZE EXISTING WATER MAIN APPURTENANCE LOCATIONS (ARV'S, ETC.) TO PLAN CUT-INS AS THESE EXISTING ITEMS ARE TO BE REMOVED AS PART OF ABANDONMENT WORK. SEE SPECIFICATIONS.
- 26. COAL TAR COATING WRAP ON EXISTING 20" STEEL PIPELINE CONTAINS ASBESTOS THAT MAY BECOME FRIABLE WHEN DISTURBED. ALL WORK THAT WILL DISTURB EXISTING PIPELINE OR RELATES TO ITS REMOVAL SHALL BE COMPLETED IN COORDINATION WITH A LICENSED ASBESTOS ABATEMENT CONTRACTOR ACCORDING TO DEQ REGULATIONS, OSHA REQUIREMENTS AND OREGON ADMINISTRATIVE RULES. SEE SPECIFICATIONS SECTION 33 11 50 EXISTING PIPE ABANDONMENT.
- 27. DAYTIME WORK HOURS FOR "DAY WORK" SHALL BE CONDUCTED BETWEEN 7 AM AND 7 PM. NIGHTTIME WORK HOURS FOR "NIGHT WORK" SHALL BE CONDUCTED BETWEEN 7 PM AND 7 AM. SEE TRAFFIC CONTROL SHEETS, TC-1 THRU TC-7, FOR LOCATIONS WHERE DAY WORK AND NIGHT WORK ARE REQUIRED. ALL WORK REQUIRING LANE CLOSURES ON NE STEPHENS ST SHALL BE COMPLETED AS NIGHT WORK.
- 28. REPLACE EXISTING TRAFFIC DETECTOR LOOPS TO J-BOXES. SEE DETAIL 3, SHEET C-18. COORDINATE WITH CITY OF ROSEBURG PUBLIC WORKS DEPT. PRIOR TO CUTTING EXISTING LOOPS. PROVIDE 48-HOURS ADVANCE NOTICE.

SURVEY CONTROL POINTS

NO.	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION
7	153953.612	159164.469	577.183	CP IR IE
8	153541.121	159120.061	581.952	CP IR IE
9	153142.221	159093.443	584.306	CP IR IE
10	152670.452	159038.322	584.415	CP IR IE
11	152101.17	158984.994	585.617	CP IR IE
12	151740.442	158961.16	582.116	CP IR IE
13	151294.029	158828.351	570.66	CP PK WASHER
14	150776.667	158805.281	558.853	CP IR IE
15	150142.51	158805.229	550.529	CP PK WASHER
16	149846.186	158886.42	544.66	CP PK WASHER
17	149625.912	158796.625	539.018	CP PK

^{*} SEE SHEET C-1 FOR APPROXIMATE LOCATIONS.

SURVEY CONTROL

BASIS OF BEARING:

BASIS: O.C.R.S. (OREGON COORDINATE REFERENCE SYSTEM)
METHOD: O.R.G.N. (OREGON REAL-TIME GNSS NETWORK)

ZONE: COTTAGE GROVE - CANYONVILLE

UNITS: INTERNATIONAL FEET DATUM: NAD 83 (2011)

EPOCH: 2010

VERTICAL DATUM:

NAVD 88

NOTICE

O ½ 1

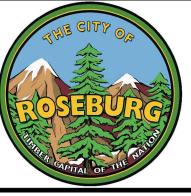
IF THIS BAR DOES NOT MEASURE 1"
THEN DRAWING IS NOT TO SCALE

NO. DATE BY REVISION

BRF03
DESIGNED
DKH
DRAWN
JRL
CHECKED







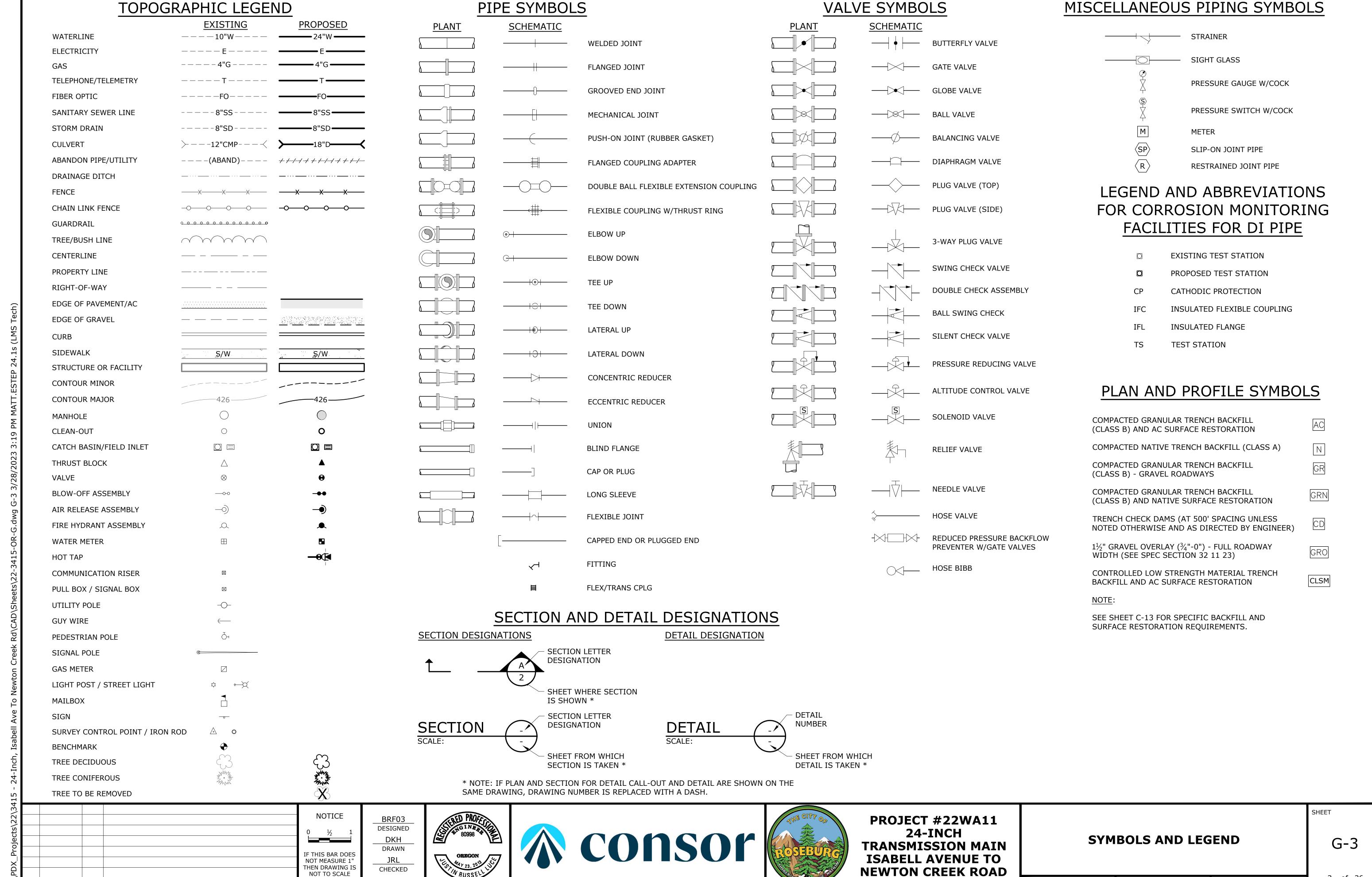
PROJECT #22WA11
24-INCH
TRANSMISSION MAIN
ISABELL AVENUE TO
NEWTON CREEK ROAD

GENERAL NOTES AND SURVEY CONTROL POINTS

G-2

SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023



DATE BY

REVISION

3 of 36

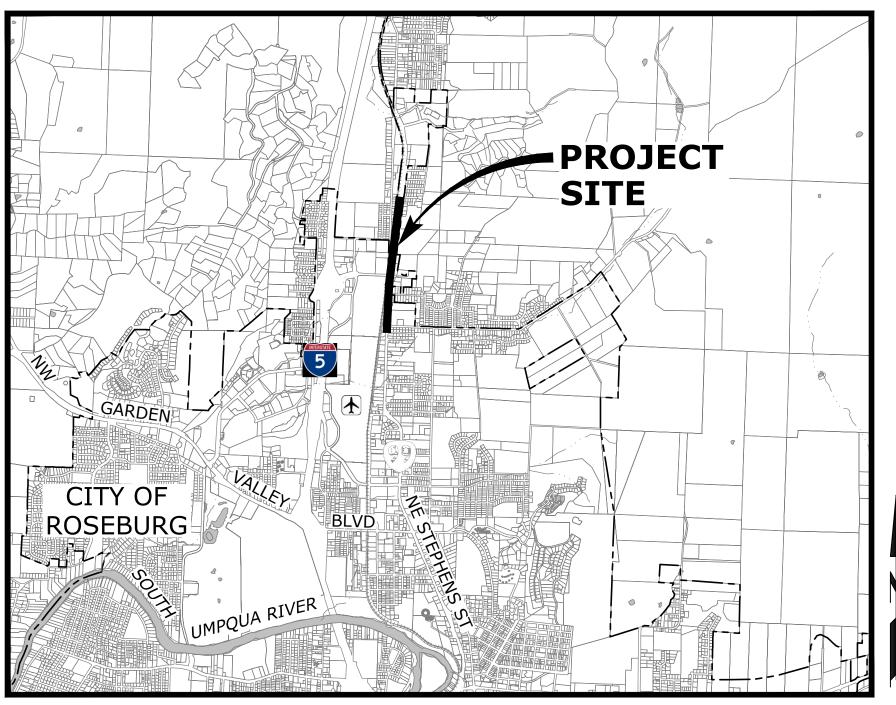
MARCH 2023

PROJECT NO.: N223415OR SCALE:

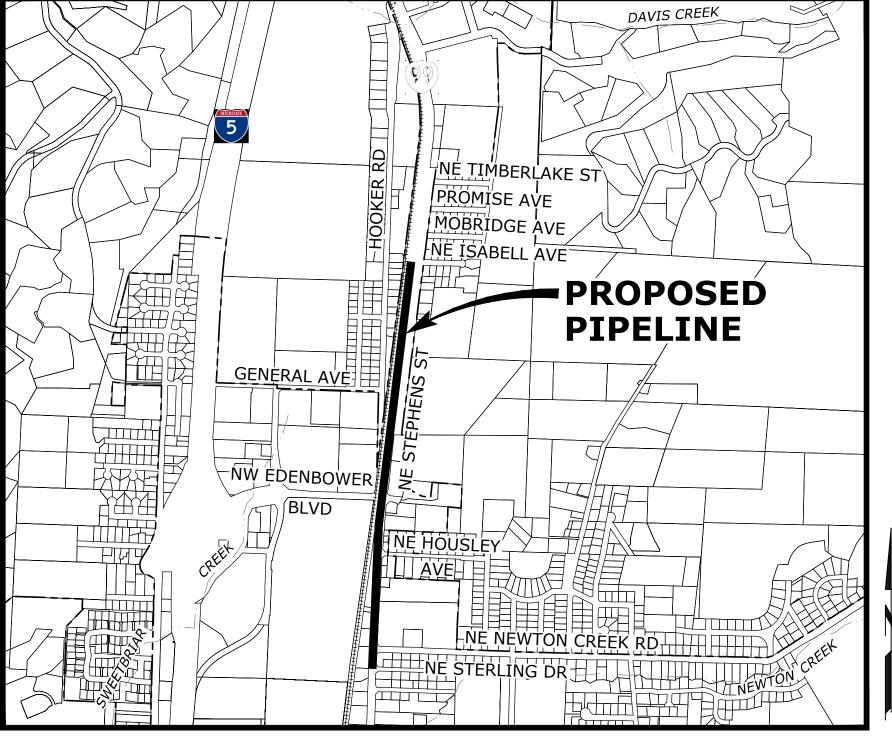
AS SHOWN DATE:

	@	AT	CLG	CEILING	FITG	FITTING	IPT	IRON PIPE THREAD	_	VERTICAL		SWGR SWITCH GEAR	
	AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	CLJ CLR	CONTROL JOINT CLEAR	FL FLEX	FLOOR LINE FLEXIBLE	IR IRRIG	IRON ROD IRRIGATION	PL OR P/L PLBG	L PROPERTY PLUMBING	LINE / PLATE / PLASTIC	SYMM SYMMETRICAL SYS SYSTEM	
	AB	ANCHOR BOLT	CLSM CMP	CONTROLLED LOW STRENGTH MATERIAL	FLG FLL	FLANGE	ITD	IDAHO TRANSPORTATION DEPARTMENT JOINT	PNL POC	PANEL			
	ABAN(D) ABS	ABANDON(ED) ACRYLONITRILE BUTADIENE STYRENE	CMU	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT	FLR	FLOW LINE FLOOR	JUNC	JUNCTION	POLY	POLYETHYL	CURVATURE LENE	T&B TOP & BOTTOM	
	ABV AC	ABOVE / ALCOHOL BY VOLUME ASPHALTIC CONCRETE	CND CO	CONDUIT CLEANOUT	FM FO	FORCE MAIN FIBER OPTIC	KPL	KICK PLATE	PP PRC	POWER PO	LE REVERSE CURVATURE	TAN TANGENCY TB THRUST BLOCK	
	ACP	ASPHALTIC CONCRETE PAVING	COL	COLUMN	FOC	FACE OF CONCRETE	KVA	KILOVOLT AMPERE	PRCST	PRECAST		TBD TO BE DETERMINED	
	ADJ ADJC	ADJUSTABLE ADJACENT	COMB CONC	COMBINATION CONCRETE	FOF FOM	FACE OF FINISH FACE OF MASONRY	KW KWY	KILOWATT KEYWAY	PREP PRESS	PREPARATI PRESSURE	ON	TBM TEMPORARY BENCHMANT TC TOP OF CONCRETE / TO	
	ADPTR	ADAPTOR	CONN	CONNECTION	FOS FPM	FACE OF STUDS FEET PER MINUTE	 	LENGTH	PRKG PROP	PARKING PROPERTY		TCE TEMPORARY CONSTRUC	CTION EASEMENT
	AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	CONST CONT	CONSTRUCTION CONTINUOUS / CONTINUATION	FPS	FEET PER SECOND	LAB	LABORATORY	PRV		REDUCING VALVE	TEMP TEMPERATURE / TEMPC	
	AHR AL	ANCHOR ALUMINUM	CONTR COORD	CONTRACT(OR) COORDINATE	FRP FT	FIBERGLASS REINFORCED PLASTIC FEET / FOOT	LAV I B	LAVATORY POUND	PS PSIG	PUMP STAT	TON ER SQUARE INCH GAUGE	T&G TONGUE & GROOVE THK THICK / THICKNESS	
	ALIGN	ALIGNMENT	COP	COPPER	FTG	FOOTING	LF	LINEAR FOOT	PSL	PIPE SLEE\	/E	THRD THREAD (ED)	
	ALT AMP	ALTERNATE AMPERE	CORP	CORPORATION/CENTRAL OREGON & PACIFIC RAILROAD	FUT FXTR	FUTURE FIXTURE	LIN	LINEAL LANE	PSPT PT	PIPE SUPPO		THRU THROUGH TP TEST PIT / TOP OF PAV	EMENT /
	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CORR	CORRUGATED CATHODIC PROTECTION	G	GAS	LOC LONG	LOCATION LONGITUDINAL	PTVC	POINT OF T	TANGENCY ON VERTICAL	TURNING POINT	,
	APPROX	APPROXIMATE	CP CPLG	COUPLING	GA	GAUGE	LP	LOW PRESSURE	PV	PLUG VALV		TRANS TRANSITION TSP TRI-SODIUM PHOSPHAT	ΓE
	APPVD APWA	APPROVED AMERICAN PUBLIC WORKS ASSOCIATION	CPT CPVC	CONTROL POINT CHLORINATED POLYVINYL CHLORIDE	GAL GALV	GALLON GALVANIZED	LPT LRG	LOW POINT LARGE	PVC PVMT	POLYVINYL PAVEMENT	. CHLORIDE	TST TOP OF STEEL TW TOP OF WALL	
	ARCH	ARCHITECTURAL	CR	CRUSHED ROCK	GC	GROOVED COUPLING	LS	LONG SLEEVE / LUMP SUM	PWR	POWER		TYP TYPICAL	
	ARV ASCE	AIR RELEASE VALVE AMERICAN SOCIETY OF CIVIL	CS CSP	COMBINED SEWER CONCRETE SEWER PIPE	GEN GFA	GENERAL GROOVED FLANGE ADAPTER	LVL	LEFT LEVEL	QTY	QUANTITY		UG UNDERGROUND	
	ASSN	ENGINEERS ASSOCIATION	CTP	COURT CENTER	GI GIP	GALVANIZED IRON GALVANIZED IRON PIPE	LWL	LOW WATER LINE	RAD	RADIUS		UH UNIT HEATER UN UNION	
	ASSY	ASSEMBLY	CU	CUBIC	GJ	GRIP JOINT	MAN	MANUAL	RC	REINFORCE	ED CONCRETE	UON UNLESS OTHERWISE NO	
	ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	CULV CV	CULVERT CONTROL VALVE	GL GLV	GLASS GLOBE VALVE	MAT MAX	MATERIAL MAXIMUM	RCP RD	REINFORCE ROAD / RO	ED CONCRETE PIPE OF DRAIN	USGS UNITED STATES GEOLO UTIL UTILITY	GIC SURVEY
	ATM AUTO	ATMOSPHERE AUTOMATIC	CW	CLOCKWISE / COLD WATER	GND GPD	GROUND GALLONS PER DAY	MCC MCP	MOTOR CONTROL CENTER MASTER CONTROL PANEL	RDCR REF	REDUĆER REFERENCI			
(h)	AUX	AUXILIARY	CY CYL	CUBIC YARDS CYLINDER LOCK	GPH	GALLONS PER HOUR	MECH	MECHANICAL	REINF	REINFORCE	E(D)(ING)(MENT)	V VENT / VOLT VAC VACUUM	
Tec	AVE AVG	AVENUE AVERAGE	D	DRAIN	GPM GPS	GALLONS PER MINUTE GALLONS PER SECOND	MET MFR	METAL MANUFACTURER	REQ'D RESTR	REQUIRED RESTRAINE		VB VACUUM BREAKER VBOX VALVE BOX	
ω L M	AWWA	AMERICAN WATER WORKS ASSOCIATION	DC	DIRECT CURRENT	GR	GRADE	MGD	MILLION GALLONS PER DAY MANHOLE	RFCA	RESTRAINE	ED FLANGE COUPLING	VC VERTICAL CURVE	
15 (B&S	BELL & SPIGOT	DEFL DEQ	DEFLECTION DEPARTMENT OF ENVIRONMENTAL QUALITY	GR LN GRTG	GRADE LINE GRATING	MIN	MINIMUM	RM	ADAPTER ROOM		VERT VERTICAL VFD VARIABLE FREQUENCY	DRIVE
24.	BC BD	BOLT CIRCLE BOARD	DET	DETAIL DUCTILE IRON	GV GRVL	GATE VALVE GRAVEL	MIPT MISC	MALE IRON PIPE THREAD MISCELLANEOUS	RND RO	ROUND ROUGH OP	ENING	VOL VOLUME VCP VITRIFIED CLAY PIPE	
TEP	BETW	BETWEEN	DIA	DIAMETER	GYP	GYPSUM	MJ	MECHANICAL JOINT	R/W	RIGHT-OF-	WAY	VTR VENT THROUGH ROOF	
<u>⊢</u>	BF BFD	BOTH FACE BACKFLOW PREVENTION DEVICE	DIM DIR	DIMENSION DIRECTION	НВ	HOSE BIBB	MON MOT	MONUMENT / MONOLITHIC MOTOR	RPBPD	REDUCED I PREVENTIC	PRESSURE BACKFLOW ON DEVICE	W WATER	
MAT	BFILL BFV	BACKFILL BUTTERFLY VALVE	DIST	DISTANCE	HC HDD	HOLLOW CORE HORIZONTAL DIRECTIONAL DRILL	MP MSL	MILEPOST MEAN SEAL LEVEL	RPM RR	REVOLUTIO	ONS PER MINUTE	W/ WITH	
PΜ	BHP	BRAKE HORSEPOWER	DN DR	DOWN DRIVE	HDPE	HIGH DENSITY POLYETHYLENE	MTD	MOUNTED	RST	RAILROAD REINFORCE		W/IN WITHIN W/O WITHOUT	
:19	BKGD BLDG	BACKGROUND BUILDING	DS DWG	DOWNSPOUT DRAWING	HDR HDWE	HEADER HARDWARE	NA	NOT APPLICABLE	RT	RIGHT		W/W WALL TO WALL WD WOOD	
23 3	BLK	BLOCK	DWL	DOWEL	HGR	HANGER	NB NAV/D	NORTHBOUND	SALV	SALVAGE		WF WIDE FLANGE	
/202	BLVD BM	BOULEVARD BENCHMARK / BEAM	DWV DWY	DRAIN WASTE AND VENT DRIVEWAY	HGT HH	HEIGHT HANDHOLD	NAVD NC	NORTH AMERICAN VERTICAL DATUM NORMALLY CLOSED	SAN SB	SANITARY SOUTHBOL	JND	WH WATER HEATER WI WROUGHT IRON	
3/28	BMP BO	BEST MANAGEMENT PRACTICES BLOW-OFF	E / ELEC	ELECTRICAL	HM HMAC	HOLLOW METAL HOT MIX ASPHALT CONCRETE	NF NIC	NEAR FACE NOT IN CONTRACT	SC SCHED	SOLID COR		WM WATER METER WP WORKING POINT / WAT	EDDDOOEING
4	BOC	BACK OF CURB	EA	EACH	HNDRL	HANDRAIL	NO / NO.	NORMALLY OPEN / NUMBER	SD	STORM DR		WS WATER SERVICE	ERPROOFING
vg G	BS BSMT	BOTH SIDES BASEMENT	ECC EF	ECCENTRIC EACH FACE	HOA HOR	HAND-OFF-AUTO HAND-OFF-REMOTE	NOM NORM	NOMINAL NORMAL	SDL SDR	SADDLE STANDARD	DIMENSION RATIO	WT WEIGHT WTP WATER TREATMENT PLA	ANT
G.dv	BTF BTU	BOTTOM FACE BRITISH THERMAL UNIT	EL ELB	ELEVATION ELBOW	HORIZ HP	HORIZONTAL HIGH PRESSURE / HORSEPOWER	NRS NTS	NON-RISING STEM NOT TO SCALE	SECT SHLDR	SECTION SHOULDER		WTRT WATERTIGHT WWF WELDED WIRE FABRIC	
OR-	BV	BALL VALVE	ENCL	ENCLOSURE	HPG	HIGH PRESSURE GAS			SHT	SHEET		WWTF WASTEWATER TREATMI	
115-	BW	BOTH WAYS	EOP EO	EDGE OF PAVEMENT EQUAL	HPT HR	HIGH POINT HOUR	O TO O OAR	OUT TO OUT OREGON ADMINISTRATIVE RULES	SIM SLP	SIMILAR SLOPE		WWTP WASTEWATER TREATMI	ENT PLANT
2-34	C C TO C	CELSIUS CENTER TO CENTER	EQL SP EQUIP	EQUALLY SPACED EQUIPMENT	HSB HV	HIGH STRENGTH BOLT HOSE VALVE	OC OD	ON CENTER OUTSIDE DIAMETER	SLV SOLN	SLEEVE SOLUTION		X SECT CROSS SECTION XFMR TRANSFORMER	
ts\2		S CALIFORNIA DEPARTMENT OF	ESMT	EASEMENT	HVAC	HEATING, VENTILATION, AIR	ODOT	OREGON DEPARTMENT OF	SP	SOIL PIPE	/ SEWER PIPE		
hee	CARV	TRANSPORTATION COMBINATION AIR RELEASE VALVE	EW EXC	EACH WAY EXCAVATE	HWL	CONDITIONING HIGH WATER LINE	OF	TRANSPORTATION OVERFLOW / OUTSIDE FACE	SPCL SPEC(S)	SPECIAL SPECIFICA	TION(S)	YD YARD DRAIN / YARD YH YARD HYDRANT	
\D\S	CATV CB	CABLE TELEVISION CATCH BASIN	EXIST EXP	EXISTING EXPANSION	HWY HYD	HIGHWAY HYDRANT	OPNG OPP	OPENING OPPOSITE	SPG	SPACING	` '	YR YEAR	
d/C/	CCP	CONCRETE CYLINDER PIPE	EXP BT	EXPANSION BOLT	HYDR	HYDRAULIC	ORIG	ORIGINAL	SPL SPRT	SPOOL SUPPORT		ZN ZINC	
X R	CCTV CCW	CLOSED-CIRCUIT TELEVISION COUNTER CLOCKWISE	EXP JT EXT	EXPANSION JOINT EXTERIOR	I&C	INSTRUMENTATION & CONTROL	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	SQ SQ FT	SQUARE SQUARE FO	DOT		
Creé	CDOT	COLORADO DEPARTMENT OF			IAW ICCP	IN ACCORDANCE WITH IMPRESSED CURRENT CATHODIC PROTECTION	OVHD	OVERHEAD	SQ IN	SQUARE IN	ICH		
ton	CFM	TRANSPORTATION CUBIC FEET PER MINUTE	F TO F	FAHRENHEIT FACE TO FACE	ID	INSIDE DIAMETER	P&ID	PROCESS & INSTRUMENTATION	SQ YD SS	SQUARE YA SANITARY			
Vew	CFS CHAN	CUBIC FEET PER SECOND CHANNEL	FAB FB	FABRICATE FLAT BAR	IE IF	INVERT ELEVATION INSIDE FACE	PC	DIAGRAM POINT OF CURVE	SST ST	STAINLESS STREET			
Tol	CHEM	CHEMICAL	FBC	FOUND BRASS CAP	IMPVT	IMPROVEMENT	PCC	POINT OF COMPOUND CURVE	STA	STATION			
Ave	CHFR CHKV	CHAMFER CHECK VALVE	FCA FCO	FLANGED COUPLING ADAPTER FLOOR CLEANOUT	IN INCC	INCH INCLUDE(D)(ING)	PCVC	POINT OF CURVATURE ON VERTICAL CURVE	STD STL	STANDARD STEEL			
pell	CI CIP	CAST IRON CAST IRON PIPE	FD FDN	FLOOR DRAIN FOUNDATION	INFL INJ	INFLUENT INJECTION	PE PERF	PLAIN END PERFORATED	STOR STR	STORAGE STRAIGHT			
Isa	CIPC	CAST IN PLACE CONCRETE	FEXT	FIRE EXTINGUISHER	INSTL	INSTALLATION / INSTALL	PERM	PERMANENT	STRUCT	STRUCTUR	E / STRUCTURAL		
nch,	CIPP CISP	CURED IN PLACE PIPELINE CAST IRON SOIL PIPE	FF FGL	FAR FACE FIBERGLASS	INSUL INTER	INSULATION INTERCEPTOR	PERP PG	PERPENDICULAR PRESSURE GAUGE	SUBMG SUCT	SUBMERGE SUCTION	:D		
24-II	CJ OR C/I	CONSTRUCTION JOINT	FH	FIRE HYDRANT	INTR INV	INTERIOR INVERT	PH pt	PIPE HANGER POINT OF INTERSECTION	SV	SOLENOID			
5 - 2	CL OR C/L CL2	CENTER LINE CHLORINE	FIN FIPT	FINISH(ED) FEMALE IRON PIPE THREAD	IP	IRON PIPE	PIVC	POINT OF INTERSECTION ON	S/W SWD	SIDEWALK SIDEWATE			
\341				NOTICE	' 		<u> </u>		1			<u> </u>	SHEET
s\22				NOTICE BRF03 DESIGNED DESIGNED				PROJECT		11			
) 				DKH 80998	*[图]		Or	TRANSMIS	INCH STON M	I MTAI	ABBREV	IATIONS	G-4
Prc				DRAWN IF THIS BAR DOES NOT MEASURE 1" DRAWN OREGON NOT MEASURE 1"		M Conso		ISABELL A					
PD.				NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE THEN DRAWING IS NOT TO SCALE THE INTRODUCTION TO SCALE THE INTRODUCTION TO SCALE				NEWTON C		OAD	_		4 of 36
G NO	O. DATE	BY REVISION		RENEWS 12-3	31-24			WHAL OF THE		F	PROJECT NO.: N223415OR SCALE:	AS SHOWN DATE: MARCH 2023	3 7 01 30

EROSION AND SEDIMENT CONTROL PLANS



VICINITY MAP SCALE: 1"=3,000'



LOCATION MAP SCALE: 1"=1,000'

PROJECT LOCATION: NE STEPHENS STREET @ LAT, LONG: 43°15'46"N, 123°21'10"W

PROPERTY DESCRIPTION: CITY OF ROSEBURG ROADWAYS AND RIGHTS-OF-WAY

NOTICE

DEVELOPER NAME

CONTACT: DARYN ANDERSON 900 SE DOUGLAS AVENUE ROSEBURG, OR 97470 PHONE: (541) 492-6730

PLANNING / ENGINEERING SURVEYING FIRM

CONTACT: JUSTIN LUCE, P.E. ONE SW COLUMBIA ST, SUITE 1700 PORTLAND, OR 97204 PHONE: (503) 225-9010

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

* CITY OF ROSEBURG ROADWAYS AND UNIMPROVED RIGHTS-OF-WAY

DEVELOPED CONDITIONS

* BURIED 24" DIAMETER DUCTILE IRON WATER PIPELINE APPROX. 4,200 FT LONG

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

* UTILITY INSTALLATION & FINAL RESTORATION (JUNE 2023 - AUGUST 2024)

TOTAL SITE AREA = 336,429.3 SF = 7.72 ACRES

TOTAL DISTURBED AREA = 14,272.6 SF = 0.32 ACRES

SITE SOIL CLASSIFICATION:

CURTIN CLAY

PHILOMATH-DIXONVILLE COMPLEX

RECEIVING WATER BODIES:

SOUTH UMPQUA RIVER

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 1-800-332-2344.

PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO**

BMP MATRIX FOR CONSTRUCTION **PHASES**

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMP'S

WET WEATHER (OCT. 1-MAY 31ST)	FINAL STABILIZATION	STREET CONSTRUCTION/ RESTORATION	UTILITY INSTALLATION	
				EROSION PREVENTION
X	Χ	Χ	Χ	PRESERVE NATURAL VEGETATION
X	Χ	Χ	Χ	GROUND COVER
				HYDRAULIC APPLICATIONS
X				PLASTIC SHEETING
X	Χ			MATTING
X	Χ	Χ	Χ	DUST CONTROL
X	Χ		Χ	TEMPORARY/ PERMANENT SEEDING
X	Χ		Χ	BUFFER ZONE
				OTHER:
				SEDIMENT CONTROL
X	Χ	Χ	Χ	SEDIMENT FENCE (PERIMETER)
X	Χ			SEDIMENT FENCE (INTERIOR)
X	Χ	Χ	Χ	BIO BAGS
X	Χ	Χ	Χ	STRAW WATTLES
X	Χ	Χ	Χ	FILTER BERM
X	Χ	Χ	Χ	INLET PROTECTION
	Χ	Χ	Χ	DEWATERING (GENERAL)
X			Χ	DEWATERING (BORE PITS)
				SEDIMENT TRAP
				OTHER:
				RUN-OFF CONTROL
X	Χ	Χ	Χ	CONSTRUCTION ENTRANCE
				PIPE SLOPE DRAIN
				OUTLET PROTECTION
	Χ			SURFACE ROUGHENING
X	Χ	Χ	Χ	CHECK DAMS
				DTHER:
X	Χ			
X	Χ			
X	Χ	Х	Х	
				UTHEK:
· · · · · · · · · · · · · · · · · · ·	X X X	X X X	X X X	CHECK DAMS

UNLESS OTHERWISE APPROVED.

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP'S WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

SHEET INDEX

EROSION AND SEDIMENT CONTROL PLANS

ESC-1 EROSION AND SEDIMENT CONTROL COVER SHEET ESC-2 EROSION AND SEDIMENT CONTROL NOTES AND LEGEND ESC-3 EROSION AND SEDIMENT CONTROL MEASURES

ESC-4 EROSION AND SEDIMENT CONTROL DETAILS-1

ESC-5 EROSION AND SEDIMENT CONTROL DETAILS-2

SHEET

EROSION AND SEDIMENT CONTROL COVER SHEET

ESC-1

SCALE: AS SHOWN ■ DATE: MARCH 2023

5 of 36

DESIGNED **M** Consor DKH DRAWN IF THIS BAR DOES NOT MEASURE 1 THEN DRAWING IS CHECKED **NEWTON CREEK ROAD** NOT TO SCALE PROJECT NO.: N223415OR DATE BY **REVISION**

SEDIMENTATION CONTROL NOTES:

- 1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- 2. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.
- 3. CONSTRUCTION ENTRANCES/ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, STREET SWEEPING, AND VACUUMING, MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- 4. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE: SLOPE DRAINS (WITH OUTLET PROTECTION), CHECK DAMS, SURFACE ROUGHENING, AND BANK STABILIZATION
- 5. LIMIT SPEED OF VEHICLES ON SITE AND MOISTEN HAUL ROADS AS NECESSARY TO CONTROL DUST.

GRADING, STREET AND UTILITY EROSION AND **SEDIMENT CONTROL NOTES:**

- 1. EFFECTIVE EROSION, DUST, SEDIMENTATION AND DRAINAGE CONTROL SHALL BE INSTALLED AND MAINTAINED BY CONTRACTOR PER REQUIREMENTS OF DOUGLAS COUNTY, CITY OF ROSEBURG, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ), AND ALL OTHER AGENCIES WITH JURISDICTION OVER THE PROJECT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTION OF ALL WORK, ADJACENT PROPERTIES AND DOWNSTREAM FACILITIES FROM EROSION AND SILTATION DURING THE COURSE OF THE WORK. ANY DAMAGE RESULTING FROM SUCH EROSION AND SILTATION SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR.
- 2. THESE PLANS DO NOT RELIEVE THE CONTRACTOR FROM ALL OTHER PERMITTING REQUIREMENTS. PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES, ALL OTHER NECESSARY APPROVALS SHALL BE OBTAINED.
- APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G.: SIZE AND LOCATION OF ROADS, PIPES, RESTRICTIONS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- 4. THE IMPLEMENTATION OF THESE EROSION/SEDIMENT CONTROL (ESC) PLANS AND THE CONSTRUCTION MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- 5. IN THE EVENT THE FACILITIES ARE NOT FUNCTIONING PROPERLY, THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY IMPLEMENTING CHANGES AS DIRECTED BY THE ENGINEER OR INSPECTOR. THE ENGINEER INSPECTOR OR THE CITY MAY STOP ALL CONSTRUCTION ACTIVITY ON SITE UNTIL THE EROSION PROBLEM IS CORRECTED AND ALL EROSION AND SEDIMENT CONTROL (ESC) FACILITIES ARE FUNCTIONING PROPERLY. IF THE CONTRACTOR DOES NOT IMMEDIATELY IMPLEMENT CHANGES TO THE EROSION AND SEDIMENT CONTROL (ESC) IDENTIFIED BY THE ENGINEER OR INSPECTOR, THE CITY MAY IMPLEMENT THE NECESSARY CHANGES AND REQUIRE PAYMENT FROM THE CONTRACTOR PRIOR TO PROJECT ACCEPTANCE BY THE CITY.
- 6. THE ESC FACILITIES SHOWN ON THESE PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL EARTHWORK ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT- LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS
- 7. THE ESC FACILITIES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE
- 8. THE EROSION AND SEDIMENT CONTROL MEASURES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED DAILY AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. MEASURES SHALL BE INSPECTED BY THE PERMIT HOLDER AND OR THE CONTRACTOR AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REOUIRED REPAIRS OR ADJUSTMENTS SHALL BE MADE IMMEDIATELY. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCTOBER I TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY I TO SEPTEMBER 30).
- 9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- 10. SLOPES AND DISTURBED AREAS TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.
- 11. LONG TERM SLOPE AND DISTURBED AREAS STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE. SEE SPECIFICATIONS.

GRADING, STREET AND UTILITY EROSION AND SEDIMENT CONTROL NOTES (CONTINUED):

- 12. TEMPORARY SLOPE AND DISTURBED AREAS STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED MEASURES.
- 13. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION. DURING "WET WEATHER" PERIODS, STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.
- 14. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES. SLOPES EXCEEDING 25% MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES.
- 15. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCHING, OR OTHER APPROVED MEASURES.
- 16. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
- 17. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.
- 18. NO HAZARDOUS SUBSTANCES, SUCH AS PAINTS, THINNERS, FUELS AND OTHER CHEMICALS SHALL BE RELEASED ONTO THE SITE, ADJACENT PROPERTIES, OR INTO WATER FEATURES, THE CITY'S STORM WATER SYSTEM, OR RELATED NATURAL RESOURCES.
- 19. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM, SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.
- 20. EXTRACTED GROUND WATER FROM EXCAVATED TRENCHES SHALL BE DISPOSED OF IN A SUITABLE MANNER WITHOUT DAMAGE TO ADJACENT PROPERTY, PUBLIC STORM WATER SYSTEM, WATER FEATURES, AND RELATED NATURAL RESOURCES.
- 21. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN-OFF INTO THE STORM WATER
- 22. USE BMPs SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.
- 23. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.
- 24. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.
- 25. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- 26. PAVEMENT SURFACES AND VEGETATION ARE TO BE PLACED AS RAPIDLY AS POSSIBLE.
- 27. SEEDING SHALL BE PERFORMED NO LATER THAN SEPTEMBER 1 FOR EACH PHASE OF CONSTRUCTION. SEE SPECIFICATIONS FOR SEED MIX REQUIREMENTS.
- 28. ESC MEASURES SHALL BE REMOVED BY THE CONTRACTOR WHEN VEGETATION IS FULLY ESTABLISHED.
- 29. NOTIFY ENGINEER 24 HOURS PRIOR TO ANY WORK ON SITE.

SEDIMENT FENCE NOTES:

- 1. CONTRACTOR SHALL PROVIDE SEDIMENT FENCING AS REQUIRED BY ACTUAL SITE CONDITIONS DURING CONSTRUCTION. SEDIMENT FENCES SHALL BE INSPECTED BY CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 2. EROSION, SEDIMENT AND POLLUTION CONTROL PLAN MEASURES SHALL BE REMOVED BY THE CONTRACTOR UPON SUBSTANTIAL COMPLETION. EROSION AND SEDIMENT CONTROLS MUST REMAIN IN-PLACE UNTIL GROUNDCOVERS HAVE MATURED ENOUGH TO PREVENT NORMAL EROSION FROM OCCURRING.
- 3. TRENCHED SLOPES SHALL BE SEEDED AND/OR PLANTED IMMEDIATELY AFTER EXCAVATION AND WATERLINE INSTALLATION. DISTURBED SLOPES GREATER THAN 20 PERCENT SHALL BE STABILIZED WITH A STAKED COCONUT MAT FOLLOWING EXCAVATION, BACKFILL, AND SEEDING WITH NATIVE MIX TO PREVENT SOIL RUNOFF.

SEDIMENT FENCE NOTES (CONTINUED):

- 4. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
- 5. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 18 INCHES.
- 6. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- 7. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 12 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- 8. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF THE ABOVE STANDARD NOTE FOR STANDARD STRENGTH FILTER FABRIC APPLYING.
- 9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 10. SEDIMENT FENCES SHALL BE INSPECTED BY CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 11. SEDIMENT FENCES SHALL BE INSTALLED AT THE TOE OF FILL SLOPES AND OTHER AREAS IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.

BIO-FILTER BAG NOTES:

- 1. BIO-FILTER BAGS SHOULD BE CLEAN 100% RECYCLED WOOD PRODUCT WASTE.
- 2. BIO-FILTER BAGS SHALL BE STANDARD SIZE 10" x 8" x 30", WEIGHING APPROXIMATELY 45 POUNDS WITH ½" PLASTIC NETTING.
- 3. USE 2 1" x 2" STAKES PER BAG, DRIVEN 12-INCHES INTO GROUND.
- 4. OVERLAP ENDS OF ADJACENT BAGS 6-INCHES TO PREVENT PIPING BETWEEN JOINTS.
- 5. ROUTINELY INSPECT BAGS. CHECK THAT STAKES ARE SECURE, ENDS OF BAGS ARE OVERLAPPED AND PLASTIC MESH BAGS HAVE NO TEARS.
- 6. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO $\frac{1}{3}$ HEIGHT OF BAG.

LEGEND EXISTING CONTOURS (1') EXISTING CONTOURS (5') INLET PROTECTION-TYPES 1, 2, 3 INLET PROTECTION-TYPE 4 DRAINAGE FLOW DIRECTION SEDIMENT BARRIER CHECK DAM

PROPOSED WATERLINE

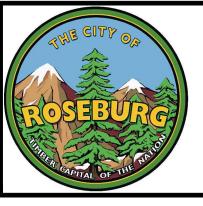
NOTICE IF THIS BAR DOES NOT MEASURE 1 THEN DRAWING I NOT TO SCALE DATE BY **REVISION**

BRF03 DESIGNED DKH DRAWN

CHECKED







PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

EROSION AND SEDIMENT CONTROL NOTES AND LEGEND

ESC-2

SHEET

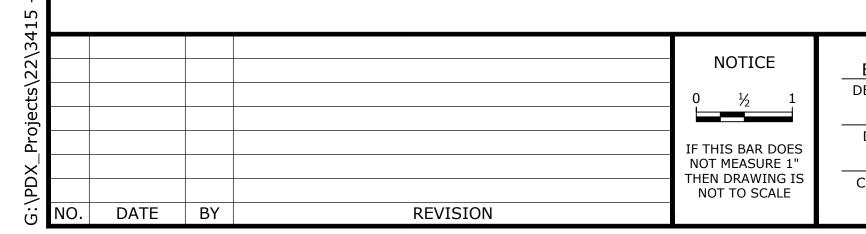
PROJECT NO.: N223415OR SCALE: AS SHOWN ■ DATE: MARCH 2023

TYPICAL EROSION CONTROL MEASURES WITH CURB AND GUTTER - NE STEPHENS STREET

ESC LEGEND

BIOFILTER BAG CHECK DAM INLET PROTECTION SEDIMENT FENCING —24"DI W— PROPOSED WATER MAIN

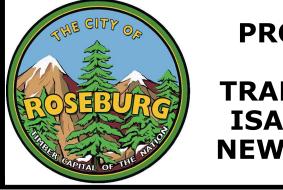
*NOTE:
THIS SHEET SHOWS TYPICAL EROSION CONTROL MEASURES. CONTRACTOR TO IMPLEMENT SIMILAR MEASURES ELSEWHERE WITHIN PROJECT DISTURBANCE LIMITS.



BRF03 DESIGNED DKH DRAWN JRL CHECKED







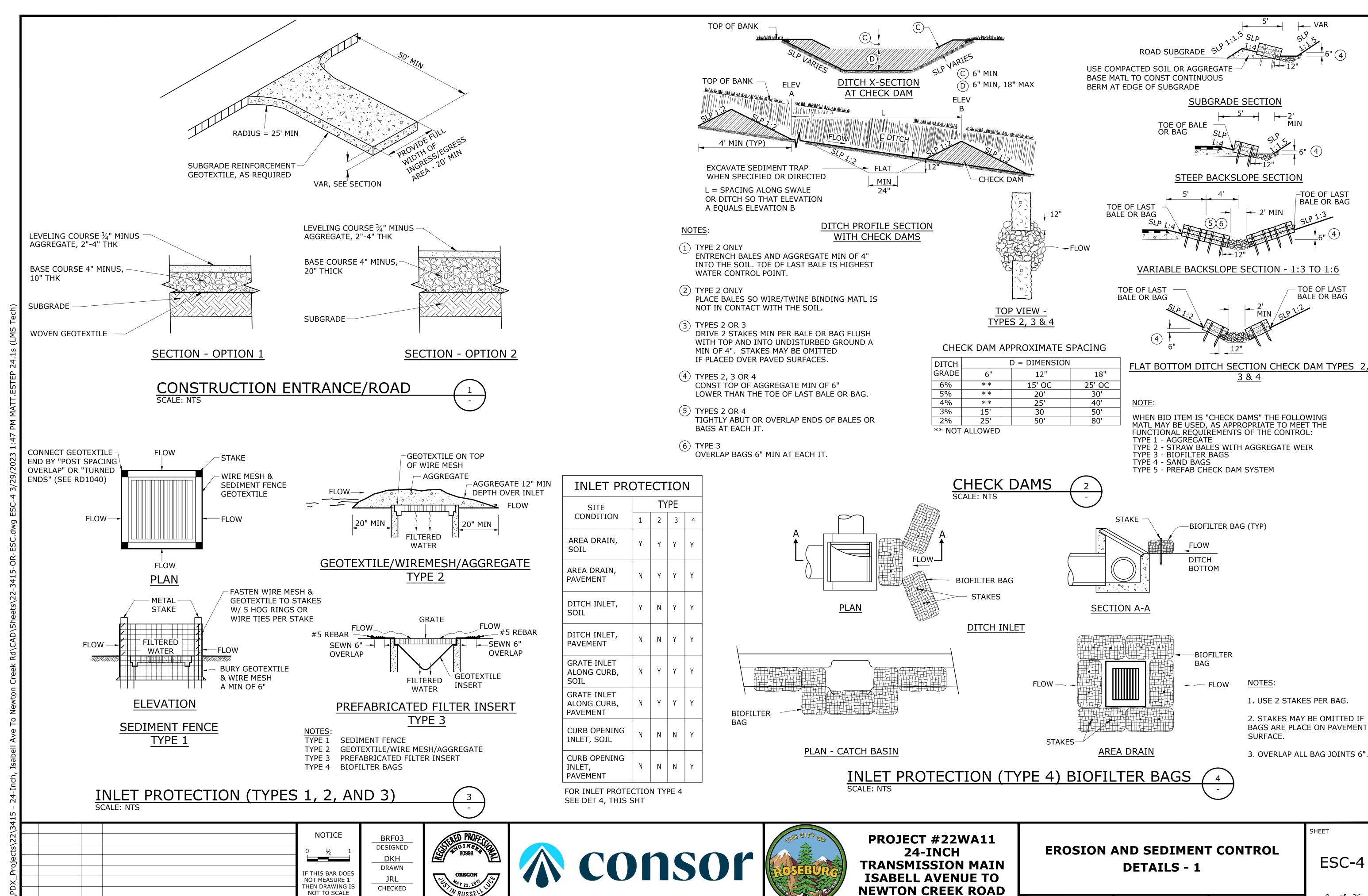
PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

EROSION AND SEDIMENT CONTROL MEASURES

ESC-3

SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023



DATE BY

REVISION

SHEET

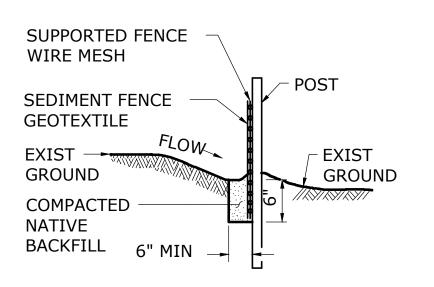
TOE OF LAST

TOE OF LAST BALE OR BAG

BALE OR BAG

ESC-4

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023



PAY LIMITS PAY LIMITS FOR SEDIMENT FENCE FOR SEDIMENT FENCE TYPE 1 CHECK DAM (RD1005) EXIST GROUND FOR CHECK DAM

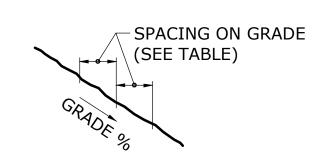


TABLE 1 SEDIMENT BARRIER SPACING FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS						
GRADE	MAX SPACING ON GRADE					
GRADE <10%	300'					
10% <u><</u> GRADE <15%	150'					
15% <u><</u> GRADE <20%	100'					
20% < GRADE < 30%	50'					
30% ≤ GRADE	25'					



ELEVATION VIEW AT DITCH SECTION OR LOW AREAS

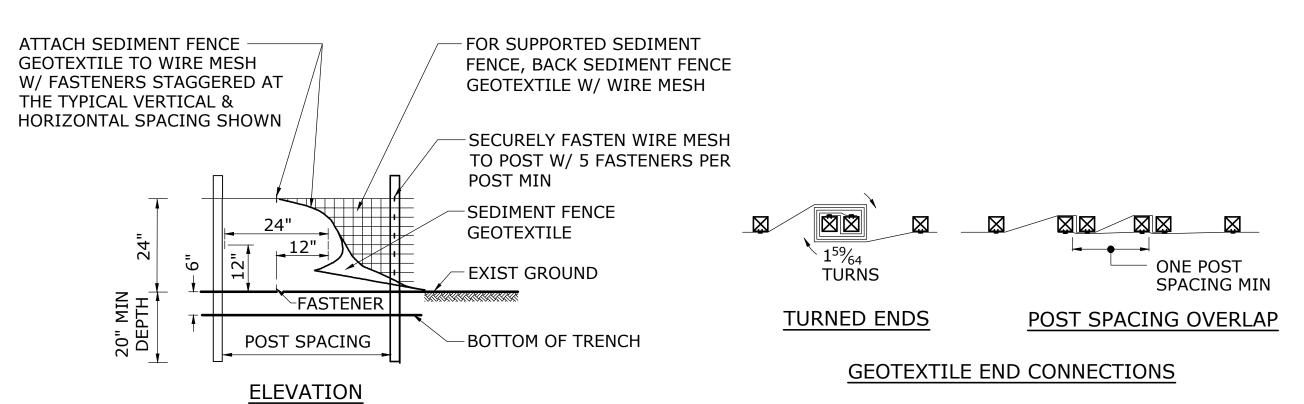


TABLE 2

	POST SPACING
4'	SUPPORTED SEDIMENT FENCE
6'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION

- *LESS THAN 50% 4' UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION *MORE THAN 50%
- * GEOTEXTILE GRAB ELONGATION VALUE AS DOCUMENTED BY "LEVEL B" MANUFACTURER'S DOCUMENTATION (SEE STANDARD SPECIFICATIONS).

SEDIMENT FENCE, SUPPORTED SEDIMENT FENCE, UNSUPPORTED SCALE: NTS

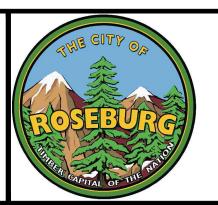


NOTICE IF THIS BAR DOES NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**

DESIGNED DKH DRAWN JRL CHECKED







PROJECT #22WA11 **24-INCH TRANSMISSION MAIN ISABELL AVENUE TO NEWTON CREEK ROAD**

EROSION AND SEDIMENT CONTROL DETAILS - 2

ESC-5

AS SHOWN DATE: MARCH 2023 PROJECT NO.: N223415OR

SHEET

COMPLETE UTILITY POTHOLING AND/OR EXPLORATORY EXCAVATIONS AS REQUIRED TO CONFIRM EXISTING UTILITY CONDITIONS AND PROPOSED PIPELINE CONFIGURATIONS, AND ORDER REQUIRED LONG-LEAD PIPING MATERIALS AS SOON AS ALLOWABLE. LEAD TIME FOR SOME DI PIPE AND FITTINGS REQUIRED FOR WORK IS CURRENTLY ESTIMATED TO BE APPROXIMATELY 8-MONTHS.

- 2. PLACE EXISTING 20" INTERTIE PIPING OUT OF SERVICE AND CCTV FOR CIPP -
- SHUTDOWN EXISTING 30" TRANSMISSION MAIN AND INSTALL 20" BUTTERFLY VALVE ONTO 30"X20" INTERTIE TEE TO PLACE EXISTING 20" INTERTIE PIPING OUT OF SERVICE. INSTALL TEMPORARY 2" WATER SERVICE TO SALVATION ARMY'S THRIFT STORE PRIOR TO SHUTTING DOWN EXISTING 20" INTERTIE PIPING. INSPECT AND CCTV EXISTING 20" INTERTIE PIPING CROSSING UNDERNEATH R&R AS REQUIRED TO ORDER CIPP LINER TO REHABILITATE CROSSING. LEAD TIME FOR CIPP LINER ESTIMATED TO BE APPROXIMATELY 2 TO 3-MONTHS. TEMPORARILY CAP END(S) OF 20" AND RESTORE SURFACES AS REQUIRED UNTIL CIPP LINER/FINAL TIE-INS ARE READY FOR INSTALL.
- 3. INSTALL 24" TRANSMISSION MAIN, DISTRIBUTION CONNECTION PIPING, AND APPURTENANCES INSTALL, PRESSURE TEST, AND DISINFECT ISOLATED 24" DI TRANSMISSION MAIN, APPURTENANCES, AND PROPOSED CONNECTION PIPING TO EXISTING DISTRIBUTION MAINS (ALIGNMENTS 'A', 'B', AND 'C') TO JUST SHORT OF THE TIE-IN LOCATIONS PRIOR TO COMPLETING FINAL TIE-INS TO EXISTING 24" DI AND 20" STEEL MAINS NEAR ISABELL AVENUE AND NEWTON CREEK ROAD, RESPECTIVELY. COORDINATE WITH UMPQUA PUBLIC TRANSPORTATION DISTRICT TO TEMPORARILY CLOSE AND/OR RELOCATE BUS STOP ADJACENT TO APPROXIMATE STA 38+90 AS REQUIRED.
- 4. TIE-IN NEW TRANSMISSION MAIN AT ISABELL AVENUE, AND TO EXISTING DISTRIBUTION MAINS ALONG STEPHENS COMPLETE TIE-IN TO EXISTING 24" GATE VALVE AT STA 1+00 AND PLACE NEW 24" TRANSMISSION MAIN INTO SERVICE. SWAB DISINFECT EACH PIECE OF TIE-IN PIPING PRIOR TO INSTALLATION AND KEEP PIPING CLEAN, AND EXCAVATION DEWATERED AND FREE OF STANDING GROUND WATER DURING WORK. ONCE NEW 24" MAIN HAS BEEN PLACED IN SERVICE, COORDINATE WITH CITY TO ISOLATE, SHUT DOWN AND DRAIN EXISTING DISTRIBUTION MAINS AS REQUIRED FOR ALIGNMENTS 'A', 'B', AND 'C', AND TIE-IN AND PLACE INTO SERVICE NEW DISTRIBUTION CONNECTIONS AS SHOWN ON DRAWINGS, ONE AT A TIME. ALSO, INSTALL NEW 2" WATER SERVICE OFF OF FIRE HYDRANT BRANCH FOR THE SALVATION ARMY THRIFT STORE AFTER 24" HAS BEEN PLACED IN SERVICE. REMOVE OR CAP AND ABANDON IN PLACE TEMPORARY 2" WATER SERVICE PREVIOUSLY INSTALLED AS REQUIRED. INSTALL WATER SERVICE TO 3791 NE STEPHENS STREET INSTALL 1" WATER SERVICE AND CONNECT TO PRIVATE SIDE WATER LINE FOR RESIDENCE AT 3791 NE STEPHENS STREET. CAP AND ABANDON EXISTING WATER SERVICE CROSSING STEPHENS IN PLACE. PROVIDE EXISTING WATER METER AND BOX TO THE CITY. THIS WORK MAY BE PERFORMED ANYTIME PRIOR TO SHUTTING DOWN AND ABANDONING EXISTING 20" TRANSMISSION MAIN ON THE NORTH END OF THE PROJECT. CONTRACTOR TO OBTAIN PLUMBING PERMIT FROM DOUGLAS COUNTY'S BUILDING DEPARTMENT FOR CONNECTION TO PRIVATE SIDE WATERLINE, AS REQUIRED.
- 5. TIE-IN NEW TRANSMISSION MAIN AT NEWTON CREEK ROAD -
- COORDINATE WITH CITY TO ISOLATE, SHUT DOWN AND DRAIN EXISTING 20" TRANSMISSION MAIN, AND TIE-IN NEW TRANSMISSION MAIN ON SOUTH END OF PROJECT VIA PERFORMING CONNECTION TO 20" MAIN AT STA 42+78. PLUG END OF EXISTING 20" MAIN ADJACENT TO TIE-IN LOCATION IN PREPARATION FOR FILLING AND ABANDONING 20" PIPING LOCATED BETWEEN ISABELL AVENUE AND NEWTON CREEK IN PLACE.

COORDINATE WITH CITY TO ISOLATE, SHUTDOWN, AND DRAIN AS REQUIRED EXISTING 24" TRANSMISSION MAIN TEE ASSEMBLY JUST NORTH OF GATE VALVE AT STA 1+00 TO REMOVE EXISTING 20" BUTTERFLY VALVE ON ADJACENT 24"X20" TEE AT STA 0+96, AND PERMANENTLY PLUG 20" BRANCH OUTLET ON TEE. DELIVER 20" BUTTERFLY VALVE REMOVED FROM TEE TO THE CITY'S YARD, OR WHERE DIRECTED BY CITY STAFF. PLUG END OF EXISTING 20" MAIN ADJACENT TO PERMANENTLY PLUGGED BRANCH IN TEE IN PREPARATION FOR FILLING AND ABANDONING 20" PIPING LOCATED BETWEEN ISABELL AVENUE AND NEWTON CREEK IN PLACE.

- 7. COMPLETE REHABILITATION OF EXISTING INTERTIE PIPING/RAILROAD CROSSING -
- PERFORM CIPP LINING OF EXISTING INTERTIE PIPING AND INSTALL CIPP END CONNECTIONS.
 HYDROSTATICALLY TEST AND DISINFECT ISOLATED CIPP LINED PIPELINE PRIOR TO PERFORMING FINAL
 TIE-INS TO EXISTING/PREVIOUSLY INSTALLED PIPING AT EITHER END. COMPLETE FINAL TIE-INS AND
 PERFORM VISUAL INSPECTIONS OF FINAL TIE-INS AT EITHER END PRIOR TO BACKFILLING. INSTALL NEW
 ICCP LEAD WIRES THROUGH EXISTING AND NEW CONDUIT FROM RECTIFIER TO NEWLY INSTALLED 24" DI IN
 STEPHENS AS SHOWN ON SHEET C-10. REMOVE EXISTING, RECENTLY ABANDONED 20" TRANSMISSION MAIN
 PIPING AS REQUIRED BEHIND BACK OF WALK TO COMPLETE TIE-IN TO PREVIOUSLY INSTALLED 20" DI PIPING
 LOCATED ADJACENT TO THE SALVATION ARMY THRIFT STORE AT APPROXIMATE STA D1+09. PLUG ENDS OF
 ABANDONED 20" PIPING IN PREPARATION FOR FILLING AND ABANDONING 20" PIPING LOCATED BETWEEN
- 8. <u>FILL AND ABANDON EXISTING 20" TRANSMISSION MAIN PIPING IN PLACE</u> REMOVE PIPE CAPS PREVIOUSLY INSTALLED, DRAIN REMAINING WATER FROM ABANDONED PIPING AS REQUIRED, AND FILL REMAINING BURIED OUT OF SERVICE 20" PIPING WITH CLSM PER THE REQUIREMENTS OF SPECIFICATION SECTION 33 11 50 EXISTING PIPE ABANDONMENT.
- 9. PERMANENT T-CUT TRENCH PATCH RESTORATION -

ISABELL AVENUE AND NEWTON CREEK ROAD IN PLACE.

COMPLETE FULL DEPTH T-CUT AND FINAL TRENCH PATCH PAVING ON NE STEPHENS. FINAL TRENCH PATCH PAVING MAY BE PERFORMED LATER IN SEQUENCING AS WEATHER AND OTHER WORK SCHEDULING ALLOWS. TEST TRACER WIRE AND MARKER BALLS INSTALLED PRIOR TO PERFORMING PERMANENT PAVING. CONFIRM CONTINUITY OF JUMPER BONDED TRANSMISSION MAIN, DIELECTRIC INSULATION AT ISOLATION JOINTS, AND CORRECT WIRING OF TEST STATIONS FOR BURIED CATHODIC PROTECTION ITEMS LOCATED WITHIN ROADWAY AND CONNECT ICCP LEAD WIRES TO NEW 24" DI TRANSMISSION MAIN PRIOR TO PERFORMING PERMANENT PAVING.

10. FINAL SURFACE RESTORATION -

COMPLETE FINAL SURFACE RESTORATION ITEMS, INCLUDING 2" COLD PLANE PAVEMENT REMOVAL AND ASPHALT INLAY OF FURTHEST WESTERN SOUTH BOUND LANE ON NE STEPHENS AND WHERE ELSE REQUIRED BY CITY WHEN WEATHER PERMITS. PERFORM FINAL CATHODIC PROTECTION TESTING PRIOR TO PERFORMING FINAL PAVEMENT RESTORATION.

- 1. ALL WORK ON NE STEPHENS STREET REQUIRING LANE CLOSURES SHALL BE PERFORMED AT NIGHT. SEE GENERAL NOTE 27 ON SHEET G-2, AND TRAFFIC CONTROL SHEETS (TC-1 THRU TC-7) FOR FURTHER DETAILS.
- 2. SEE SPECIFICATION SECTION 01 12 16 WORK SEQUENCE AND SCHEDULE CONSTRAINTS, FOR ADDITIONAL INFORMATION/REQUIREMENTS REGARDING CONSTRUCTION SEQUENCING AND WORK CONSTRAINTS.
- 3. RECOMMENDED CONSTRUCTION SEQUENCING INCLUDED HAS BEEN PROVIDED FOR THE CONTRACTOR'S BENEFIT AND TO DEMONSTRATE A POSSIBLE CONSTRUCTION SEQUENCE TO COMPLETE THE WORK WITHIN KNOWN PROJECT CONSTRAINTS FURTHER DEFINED IN SPECIFICATION SECTION 01 12 16. CONTRACTOR TO DEVELOP AND SUBMIT FOR REVIEW THEIR PROPOSED WORK SEQUENCING PLAN AS REQUIRED PER SECTION 01 12 16-1.4. CONTRACTOR'S WORK SEQUENCING PLAN SHALL INCLUDE A SIMILAR LEVEL OF DETAIL FOR WORK DESCRIPTIONS AND SEQUENCING AS HAS BEEN INCLUDED IN RECOMMENDED CONSTRUCTION SEQUENCING PROVIDED.
- 4. NO CONSTRUCTION SHALL BE PERFORMED BETWEEN NOVEMBER 1ST AND MARCH 4TH, UNLESS OTHERWISE APPROVED BY THE CITY.

NOTICE

O ½ 1

IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

NO. DATE BY REVISION

BRF03

DESIGNED

DKH

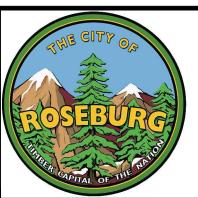
DRAWN

JRL

CHECKED







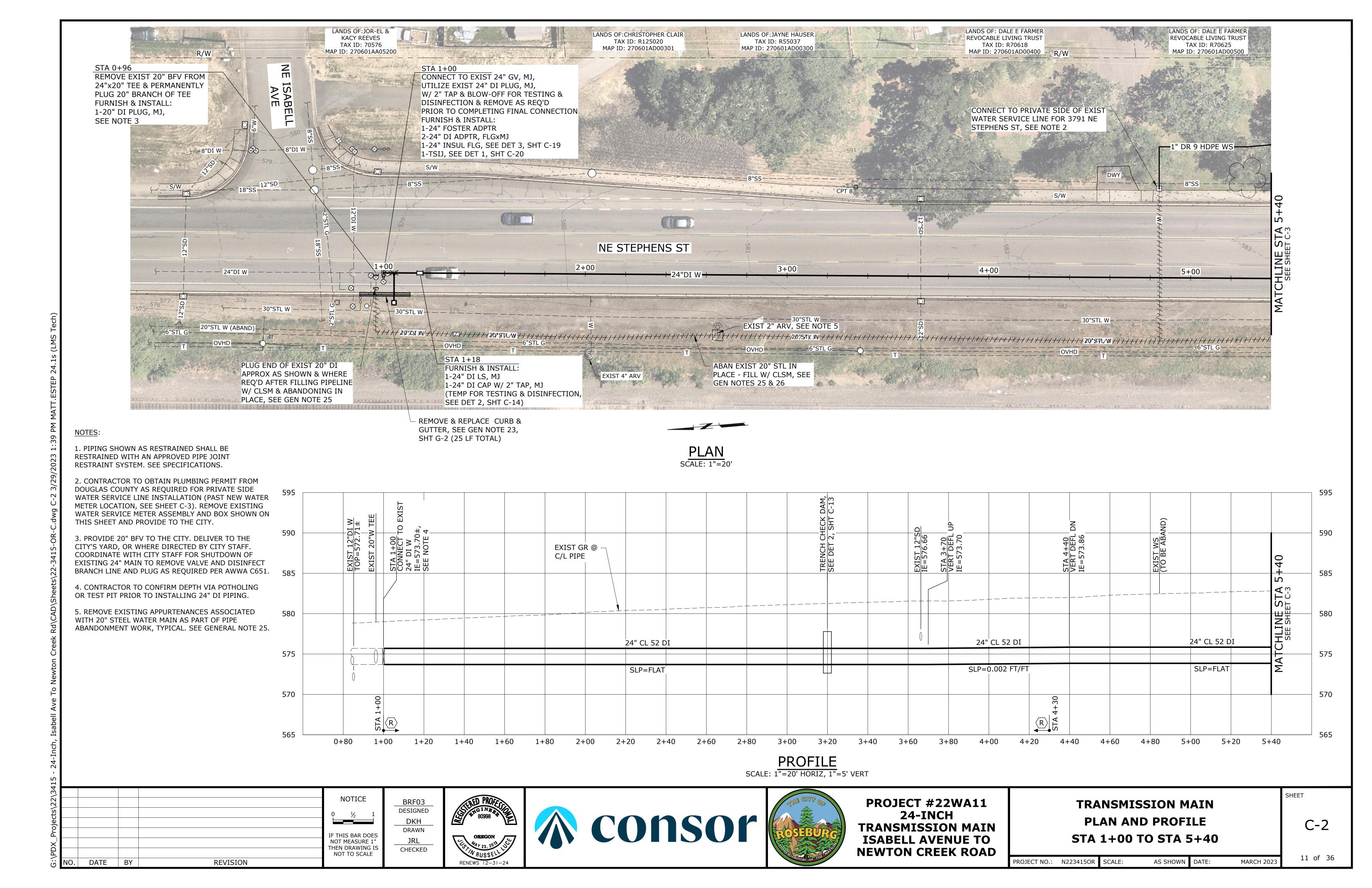
PROJECT #22WA11
24-INCH
TRANSMISSION MAIN
ISABELL AVENUE TO
NEWTON CREEK ROAD

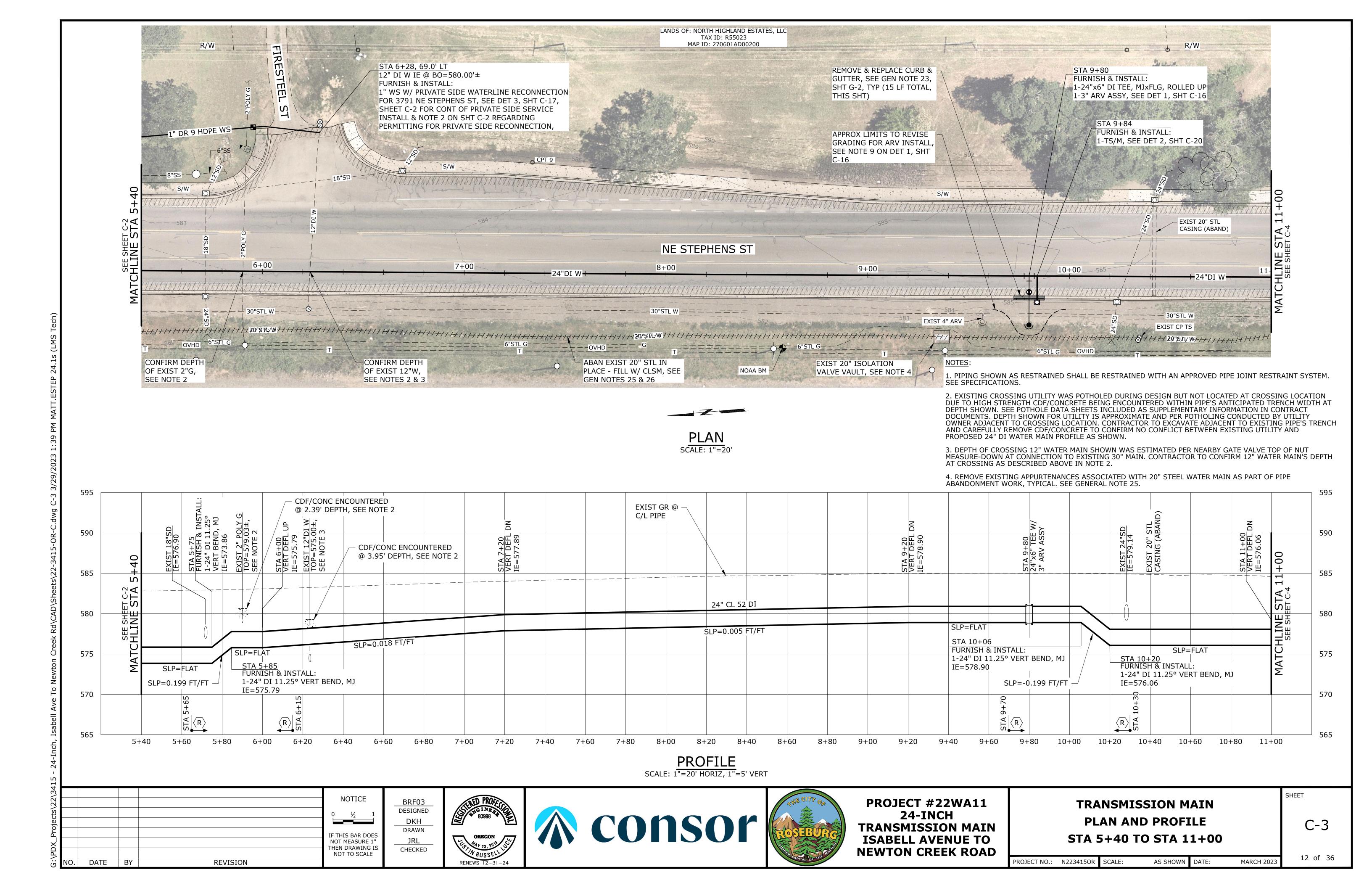
SITE LAYOUT AND CONSTRUCTION SEQUENCING PLAN

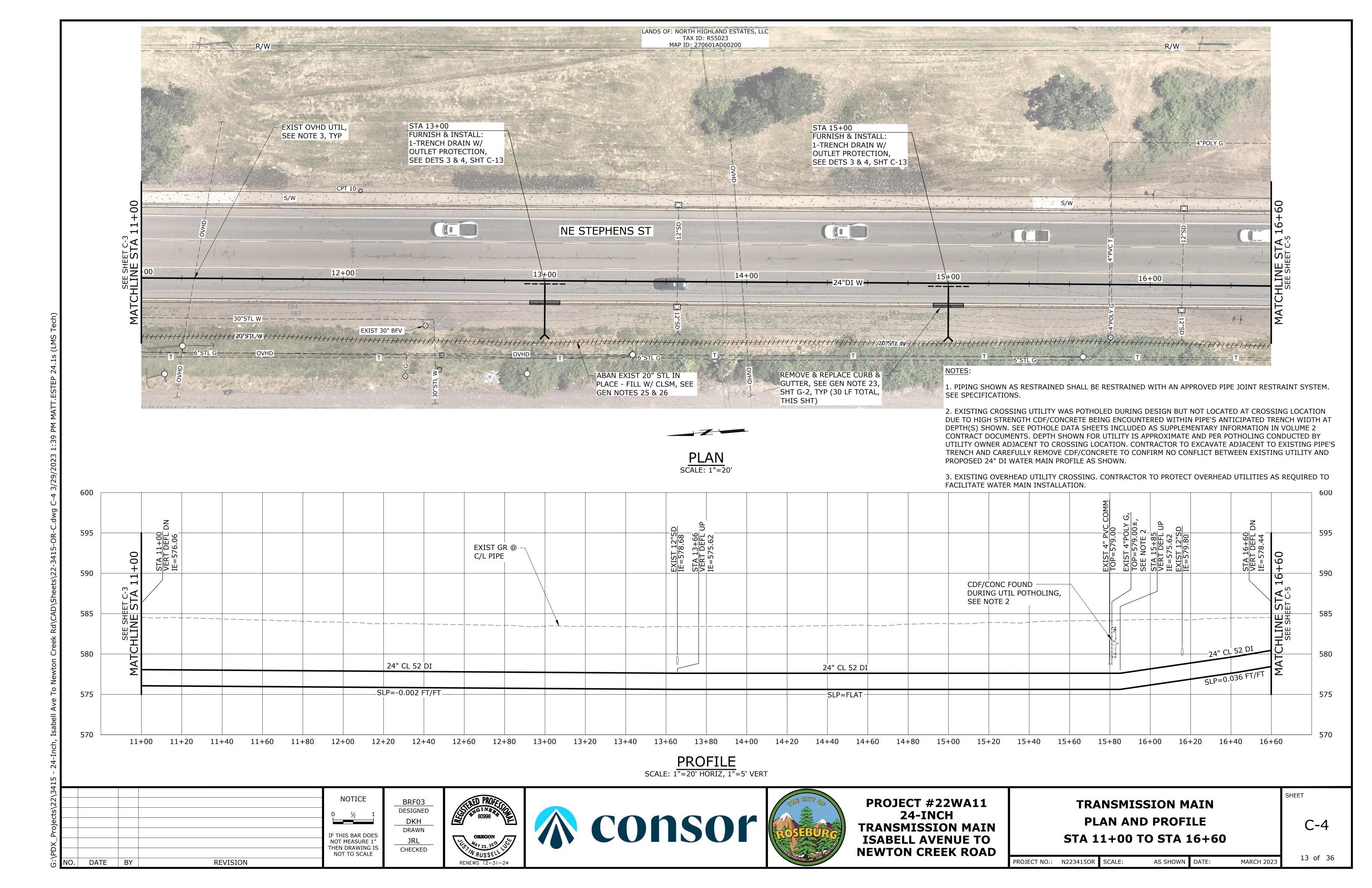
C-1

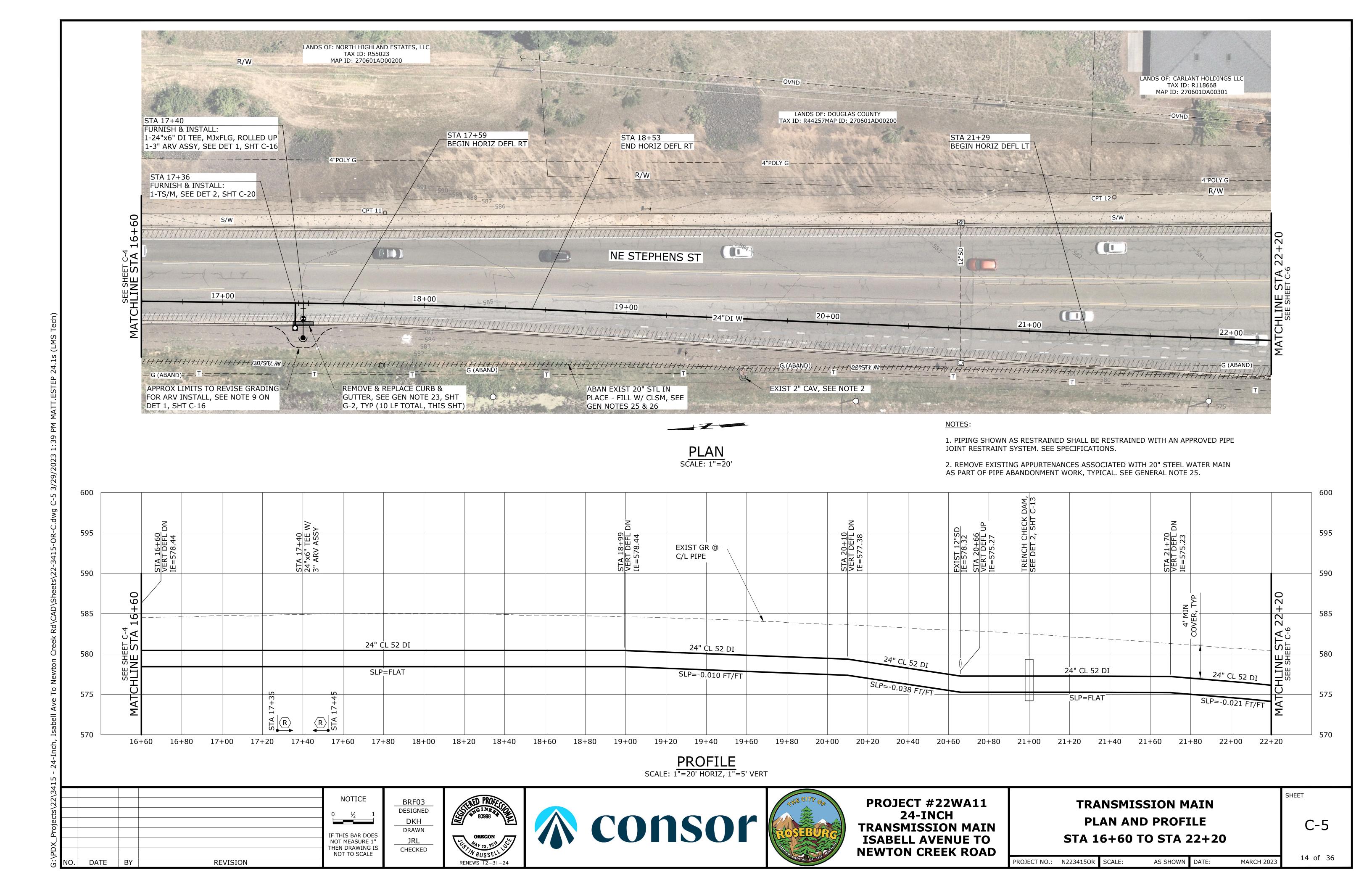
SHEET

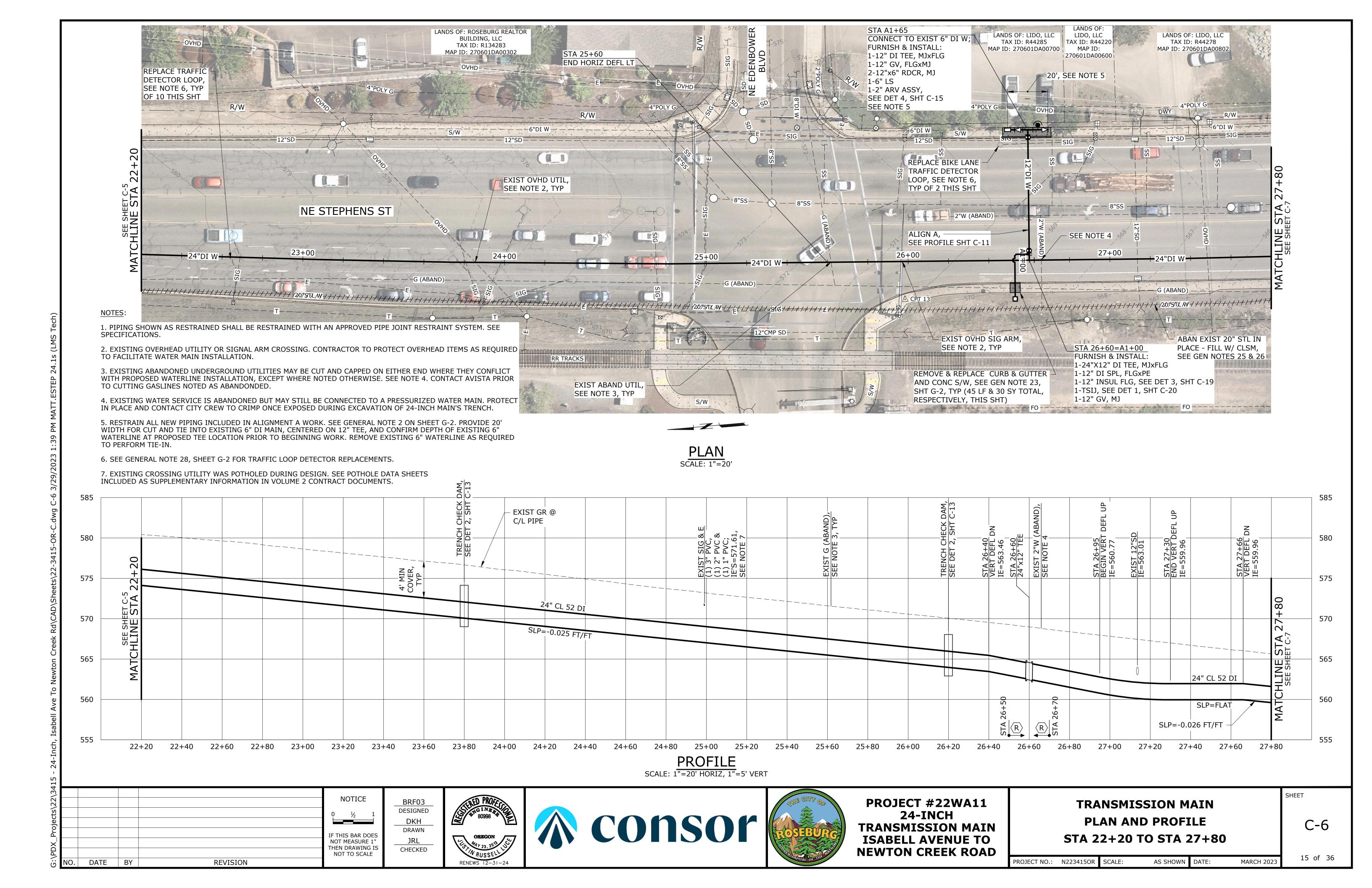
PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

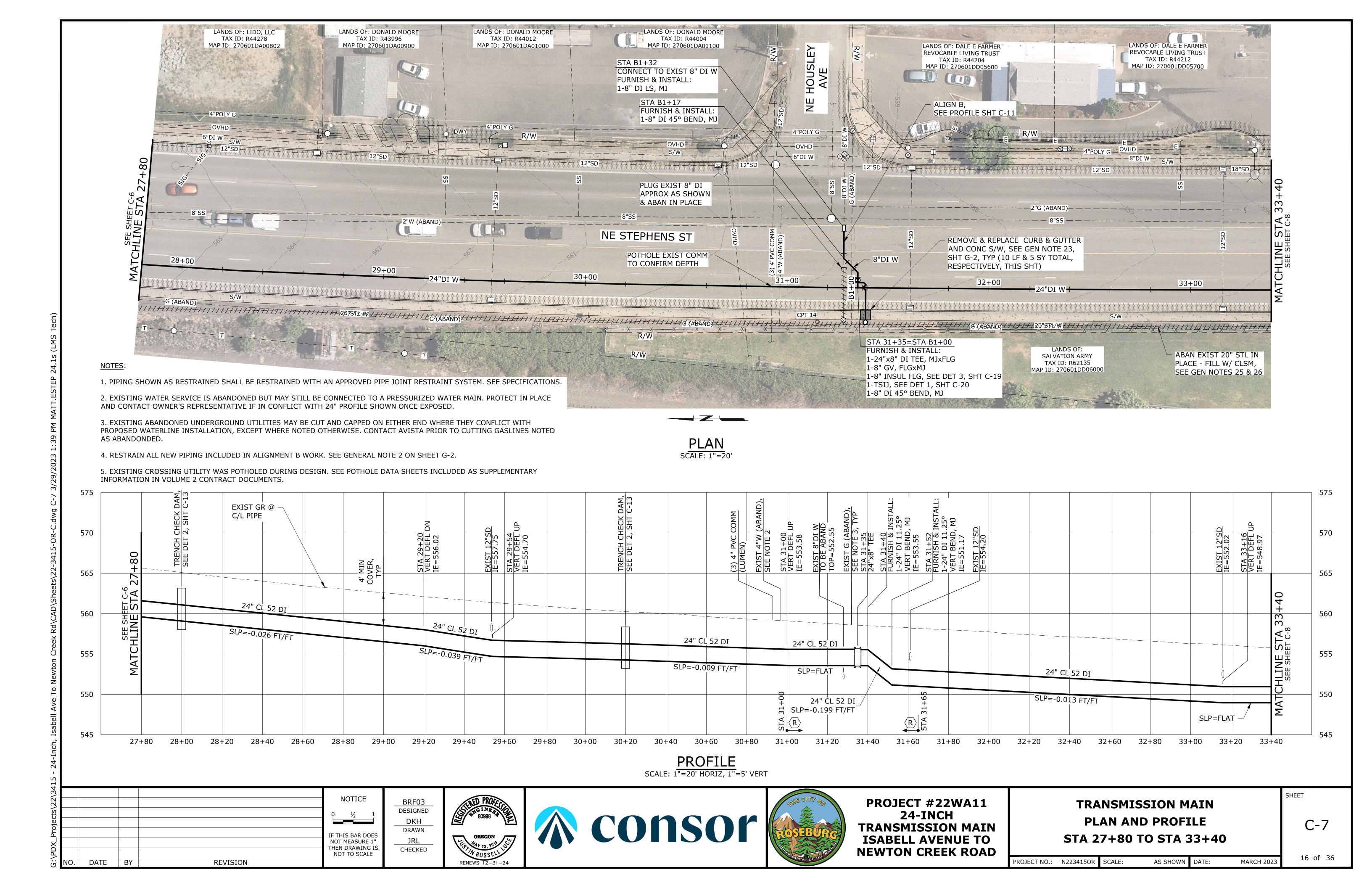


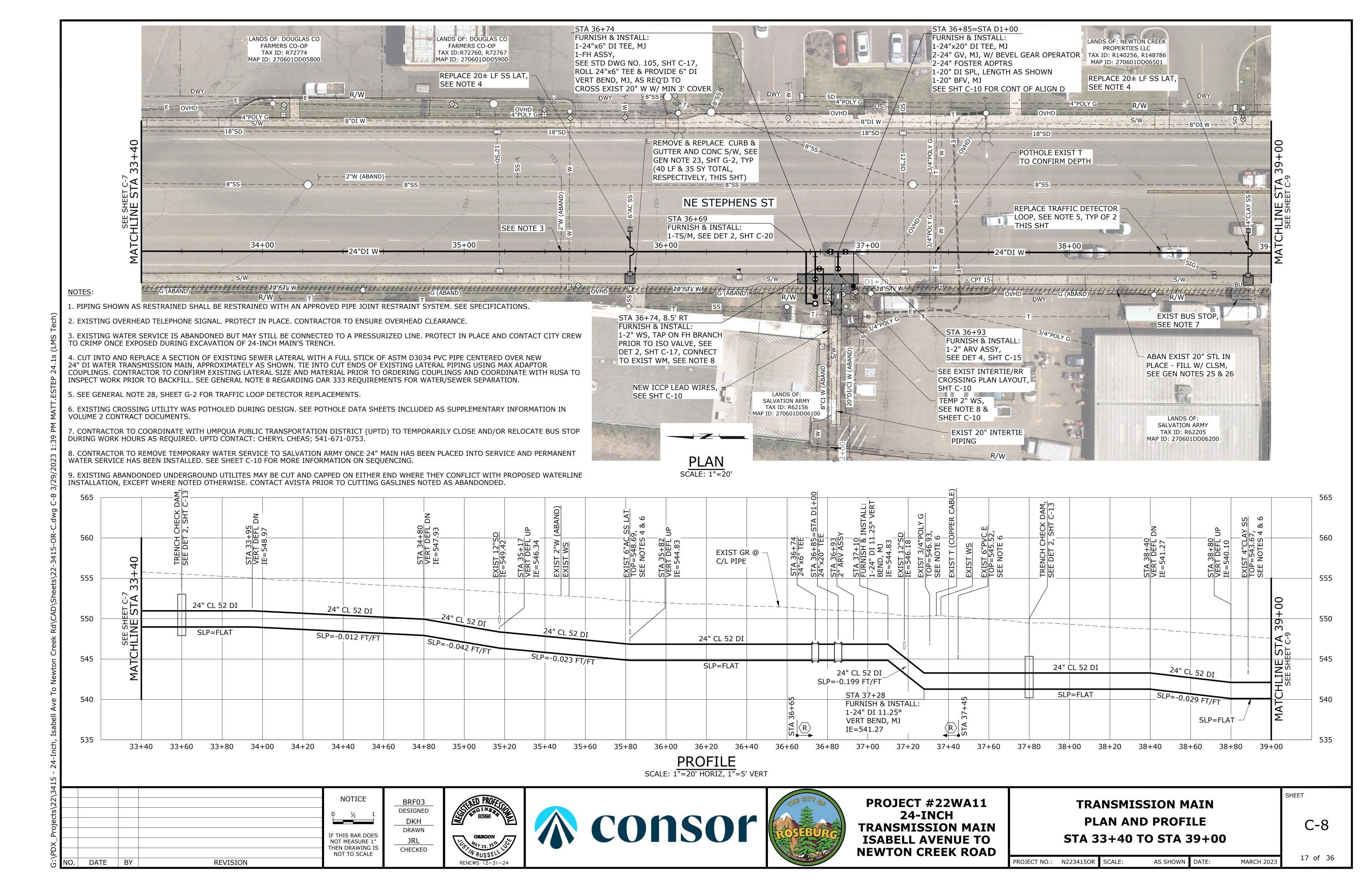


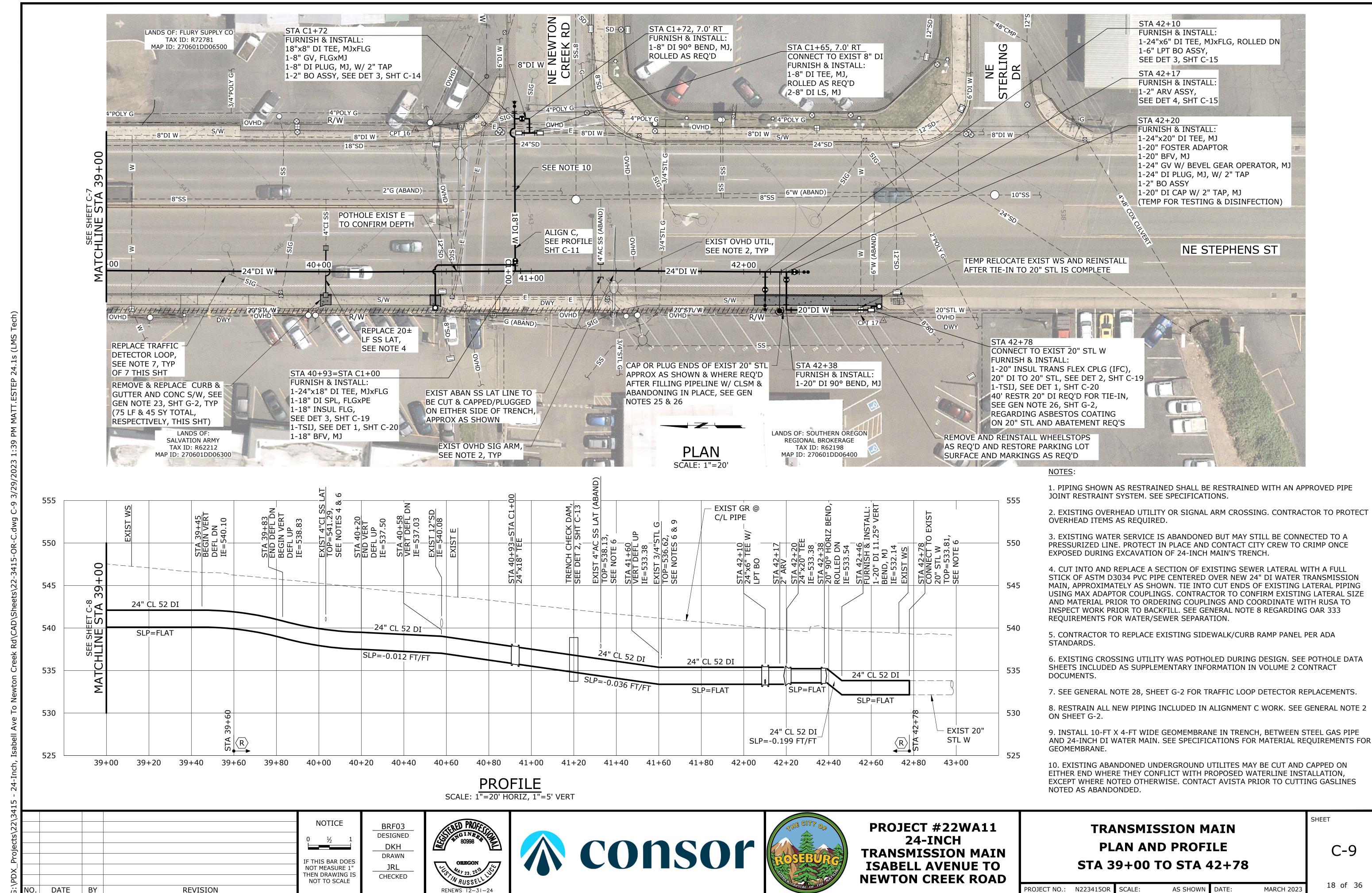


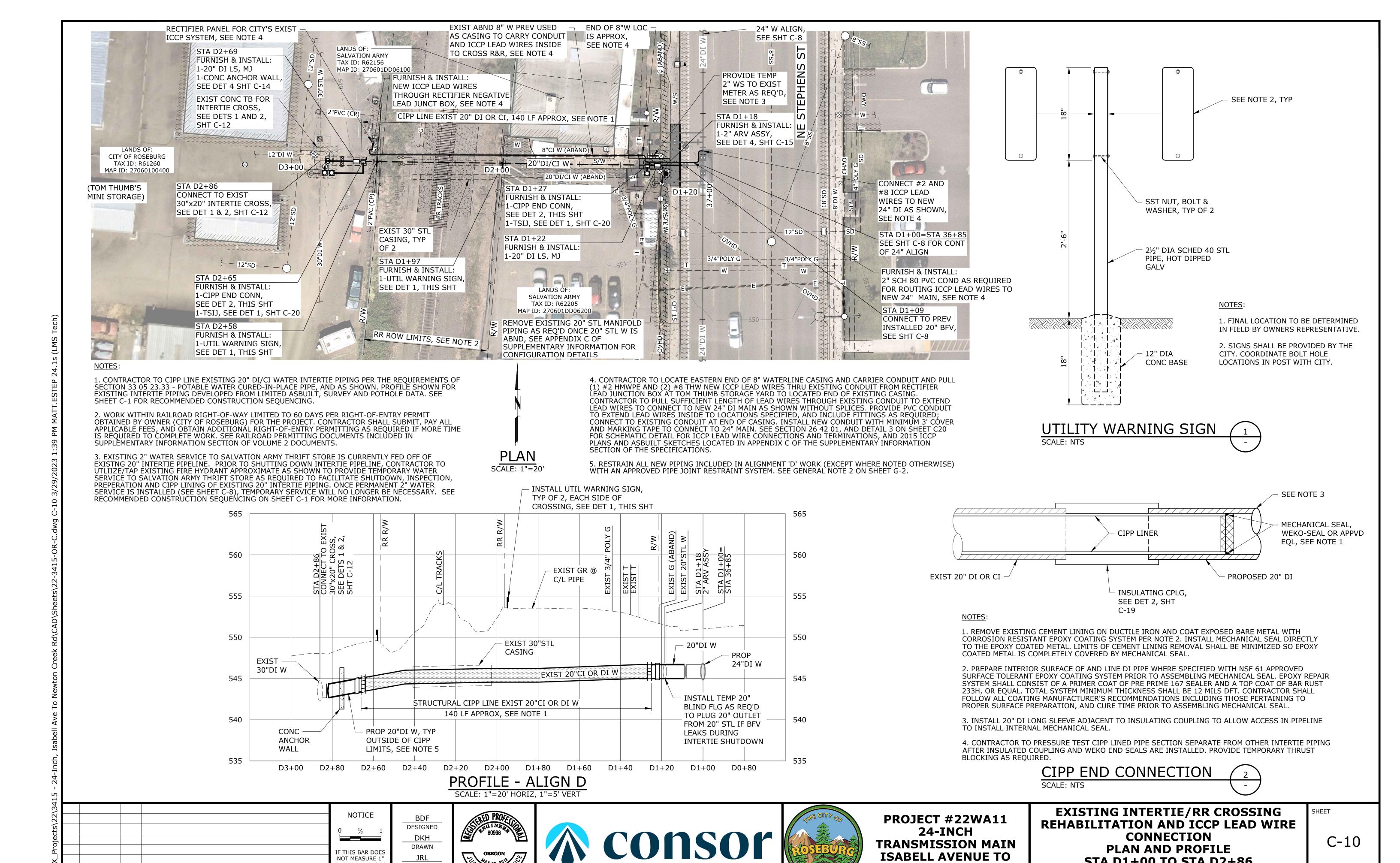












NOT MEASURE 1

THEN DRAWING I

NOT TO SCALE

DATE

BY

REVISION

CHECKED

19 of 36

MARCH 2023

STA D1+00 TO STA D2+86

AS SHOWN ■ DATE:

SCALE:

PROJECT NO.: N223415OR

NEWTON CREEK ROAD

SHEET C-6.

2. DEPTH SHOWN FOR TIE-IN TO EXISTING WATERLINE AT STA A1+80 IS BASED ON MEASURED DEPTH TO TOP OF NUT AT NEAREST EXISTING VALVE. CONTRACTOR TO POTHOLE EXIST 6" WATERLINE AT TIE-IN CONNECTION TO CONFIRM REQUIRED DEPTH FOR TIE-IN TEE. CONTRACTOR TO MAINTAIN FLAT TO POSITIVE SLOPE FOR CROSSING AS SHOWN AND COMPLY WITH REQUIREMENTS OF OAR 333 FOR WATER/SEWER CROSSING PER GENERAL NOTE ON SHEET G-2, IF POSSIBLE.

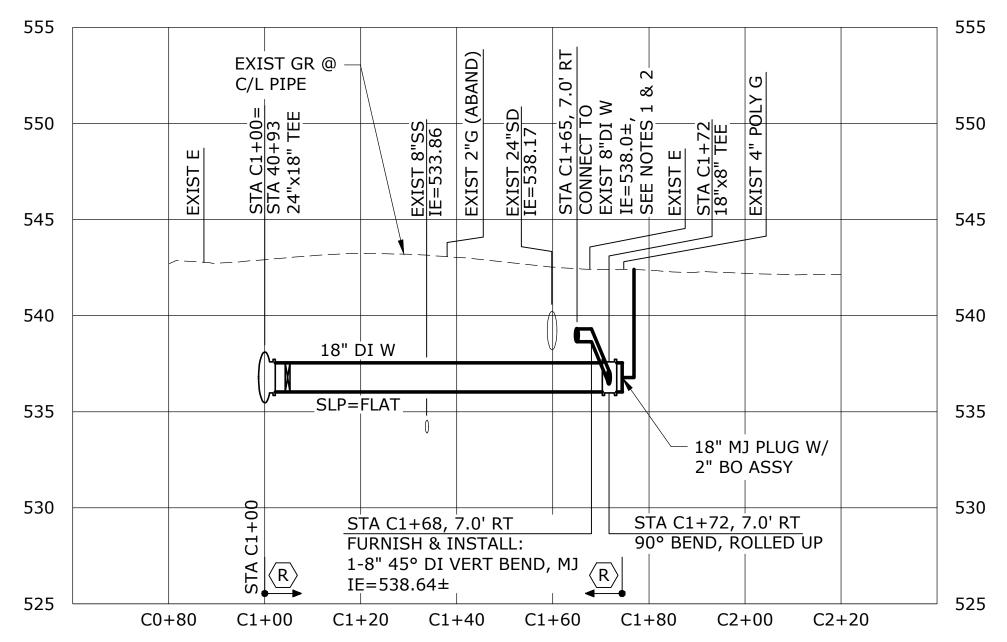
585 585 0 STA A1+13 FURNISH & I 1-12" DI 11... VERT BEND, IE=562.99 EXIST 2"W (/ EXIST 8"SS IE=563.67, SEE NOTE 2 EXIST 12"SE IE=562.91 STA A1+65 CONNECT TC 6" DI W W/ 3 580 580 575 EXIST GR @ C/L PIPE 570 12" DI W 565 SLP=FLAT \$LP=FLAT STA A1+25 FURNISH & INSTALL: 560 560 $\overline{}$ 1-12" DI 11.25° VERT BEND, M $\overline{}$ IE=565.44 12" DI W SLP=0.199 FT/FT 555 555 550 550 A0+60 A0+80 A1 + 00A1 + 20A1+60 A1+80 A2+00 A1+40

PROFILE - ALIGN A
SCALE: 1"=20' HORIZ, 1"=5' VERT

NOTES (ALIGN C):

1. PLAN VIEW FOR ALIGNMENT 'C' SHOWN ON SHEET C-9.

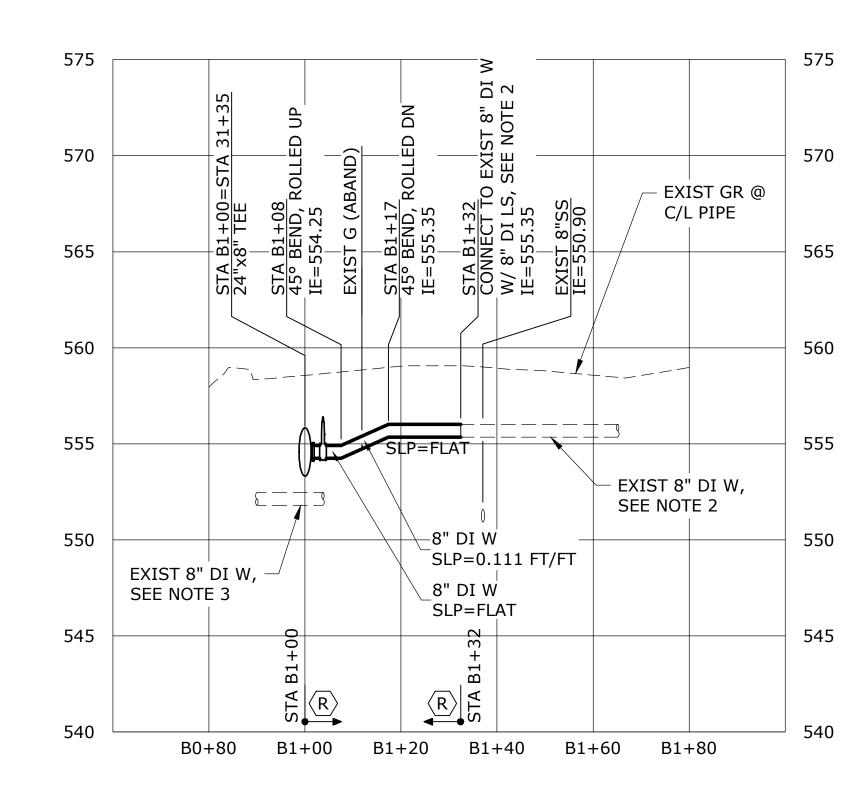
2. DEPTH SHOWN FOR TIE-IN TO EXISTING 8" WATERLINE AT STA C1+65, 7.0' RT IS BASED ON MEASURED DEPTH TO TOP OF NUT AT NEARBY EXISTING VALVE. CONTRACTOR TO POTHOLE EXIST 8" WATERLINE AT TIE-IN CONNECTION TO CONFIRM REQUIRED DEPTH FOR TIE-IN.



PROFILE - ALIGN C
SCALE: 1"=20' HORIZ, 1"=5' VERT

NOTES (ALIGN B):

- 1. PLAN VIEW FOR ALIGNMENT 'B' SHOWN ON SHEET C-7.
- 2. DEPTH SHOWN FOR TIE-IN TO EXISTING WATERLINE AT STA B1+32 IS BASED ON MEASURED DEPTH TO TOP OF NUT AT NEARBY EXISTING VALVE. CONTRACTOR TO POTHOLE EXIST 6" WATERLINE AT TIE-IN CONNECTION TO CONFIRM REQUIRED DEPTH FOR TIE-IN.
- 3. DEPTH SHOWN FOR 8" WATERLINE AT STA B1+00 PER POTHOLE COMPLETED DURING DESIGN. SEE POTHOLE DATA SHEETS INCLUDED AS SUPPLEMENTARY INFORMATION IN VOLUME 2 OF THE CONTRACT DOCUMENTS.



PROFILE - ALIGN B
SCALE: 1"=20' HORIZ, 1"=5' VERT

NOTICE

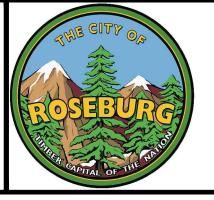
O ½ 1

IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE

BDF
DESIGNED
DKH
DRAWN
JRL
CHECKED







PROJECT #22WA11 24-INCH TRANSMISSION MAIN ISABELL AVENUE TO NEWTON CREEK ROAD

PROFILES ALIGNMENTS A, B, AND C

C-11

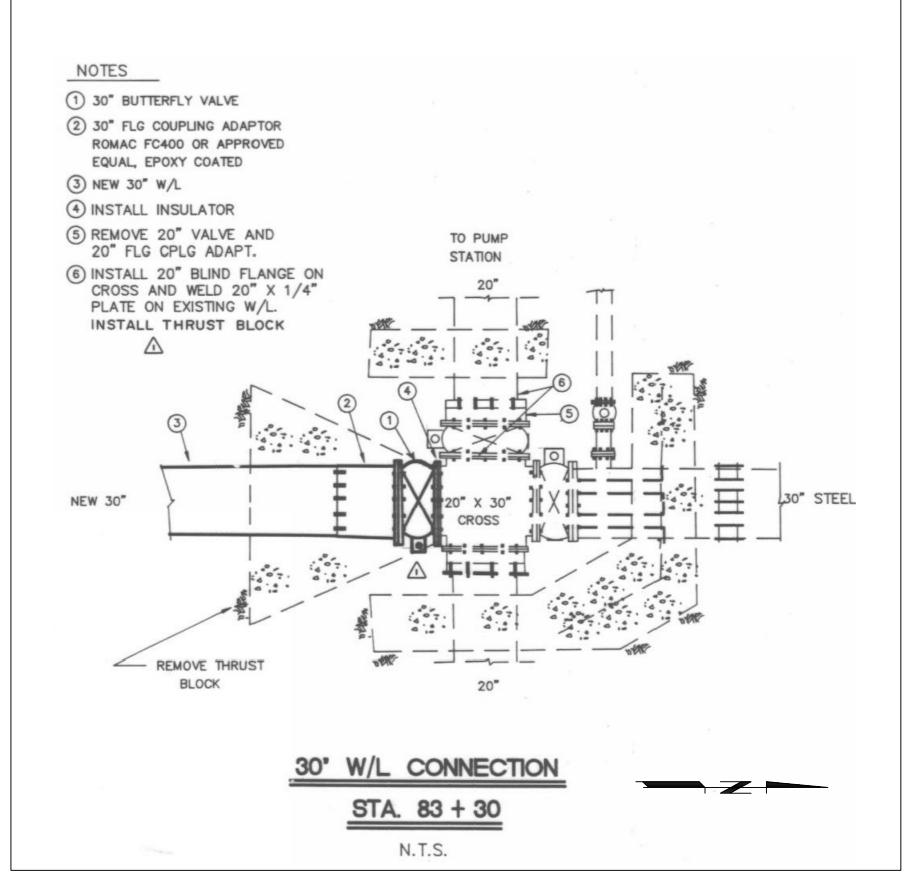
SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

20 of 36

IICII, ISADGII AVE TO NEWLOII CLEEN NA (CAD (STEELS (ZZ-3413-ON-C.UWY C-11 3/23)

1. DETAIL INCLUDED BELOW DEPICTS THE ANTICIPATED EXISTING CONDITIONS AT 30"X20" INTERTIE CROSS LOCATED AT TOM THUMB. NO PROPOSED WORK IS DESCRIBED IN THIS DETAIL (DETAIL 1). SEE DETAIL 2, THIS SHEET, FOR PROPOSED WORK TO CONNECT TO EXISTING CROSS.



EXISTING 30"x20" INTERTIE CROSS AT TOM THUMB

KEY NOTES

1 20" BFV, FLG, SEE NOTE 1

2 20" DI FLGxMJ ADPTR

3 | 20" CL52 DI SPL, LENGTH AS REQ'D, SEE SHT C-10

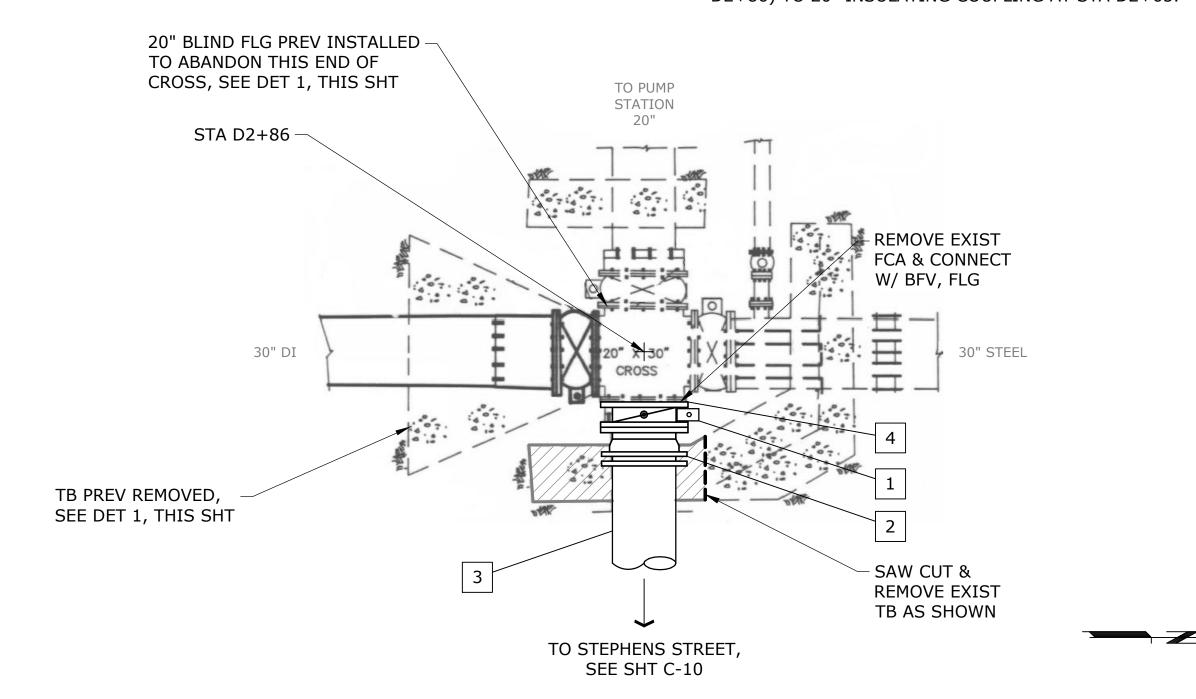
4 20" INSUL FLG AND TSIJ, SEE SHEET C-10 FOR APPROX INSTALL LOCATION FOR TSIJ

NOTES:

1. EXPOSE EXISTING INTERTIE CROSS PRIOR TO ORDERING BUTTERFLY VALVE TO CONFIRM FLANGE BOLT CONFIGURATION FOR CONNECTION. SEE SHEET C-1 FOR RECOMMENDED CONSTRUCTION SEQUENCING.

2. COORDINATE WITH CITY STAFF TO SHUTDOWN EXISTING 30" TRANSMISSION MAIN FOR INSTALLING 20" BUTTERFLY VALVE ON EXISTING INTERTIE CROSS. PIPING AT CONNECTION TO BE SWAB DISINFECTED AT TIE-IN LOCATION AND EXISTING 30" MAIN TO BE PLACED BACK INTO SERVICE SHORTLY THEREAFTER/WITHIN ALLOWED SHUTDOWN PERIOD LISTED IN SPECIFICATIONS. FINAL TIE-IN AND COMPLETION OF CONNECTION SHOWN TO BE PERFORMED POST CIPP LINING OF EXISTING 20" INTERTIE PIPING AND INSTALLATION OF OTHER WATER PIPING AND APPURTENANCES AS SHOWN ON SHEET C-10. PROVIDE TEMPORARY 20" DI MJ PLUG OR DI BLIND FLANGE IF CROSS ASSEMBLY AND INSTALLED BFV ARE TO BE BACKFILLED PRIOR TO COMPLETING FINAL TIE-IN. SEE SPECIFICATIONS SECTION 01 12 16 - WORK SEQUENCE AND SCHEDULE CONSTRAINTS AND SHEET C-1 FOR RECOMMENDED CONSTRUCTION SEQUENCING.

3. WAX TAPE COAT NEW BURIED FITTINGS AND VALVES AND EXISTING 20"x30" CROSS, AND POLYWRAP ALL BURIED METALLIC PIPING PER SPECIFICATIONS. JUMPER BOND NEW 20" DI PIPE AND FITTINGS BETWEEN INSULATING FLANGE JOINT CONNECTION TO 20"x30" CROSS (APPROX STA D2+86) TO 20" INSULATING COUPLING AT STA D2+65.



CONNECTION TO EXISTING 30"x20" INTERTIE CROSS AT TOM THUMB SCALE: NTS

C-10

NOTICE

O ½ 1

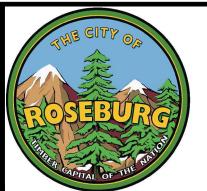
IF THIS BAR DOES NOT MEASURE 1"
THEN DRAWING IS NOT TO SCALE

NO. DATE BY REVISION

BRF03
DESIGNED
DKH
DRAWN
JRL
CHECKED







PROJECT #22WA11
24-INCH
TRANSMISSION MAIN
ISABELL AVENUE TO
NEWTON CREEK ROAD

INTERTIE CONNECTION DETAIL

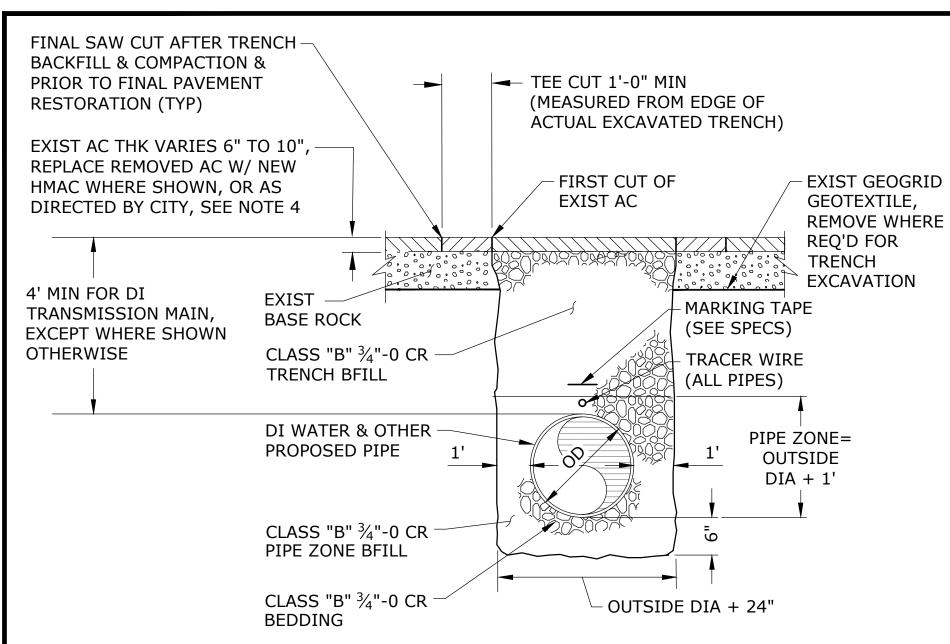
C-12

SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

21 of 36

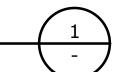
(C-10)

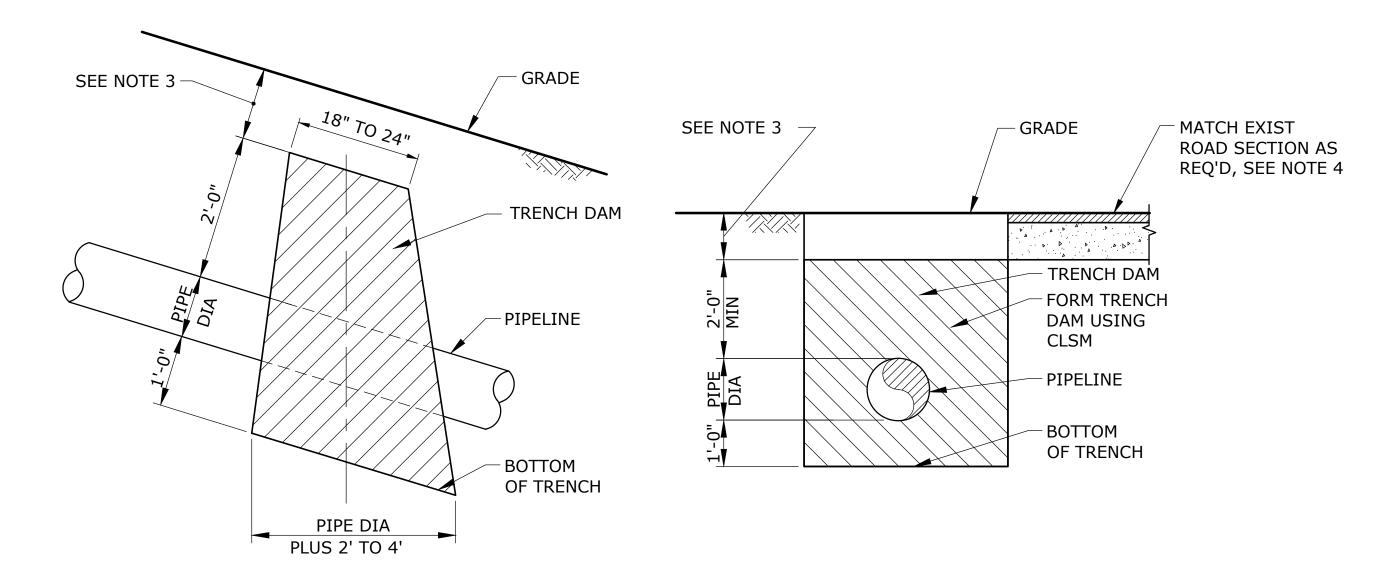


NOTES:

- 1. USE $\frac{3}{4}$ "-0" CRUSHED ROCK BEDDING AND PIPE ZONE BACKFILL AT ALL LOCATIONS. COMPACT TO ACHIEVE 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-99.
- 2. FURNISH AND INSTALL $\frac{3}{4}$ "-0" CR TRENCH BACKFILL TO PAVEMENT BASE OR EXISTING GRADE. COMPACT ALL $\frac{3}{4}$ "-0" BACKFILL IN LIFTS TO ACHIEVE 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-99.
- 3. REFER TO SPECIFICATIONS FOR OTHER BACKFILL/ BEDDING REQUIREMENTS.
- 4. REPLACE REMOVED ASPHALT WITH LEVEL 3, $\frac{1}{2}$ " DENSE HMAC. MATCH EXISTING AC THICKNESS OR 7", WHICHEVER IS THICKER. MAXIMUM AC BASE COURSE LIFTS SHALL BE 3"; MAX WEARING COURSE LIFT SHALL BE 2". FOR NON-AC (GRAVEL) SURFACES BRING 3/4"-0" BACKFILL TO GRADE.
- 5. AT THE END OF EACH WORKDAY, ALL OPEN TRENCHES SHALL BE BACKFILLED TO THE TOP OF THE TRENCH. PRIOR TO OPENING TO TRAFFIC ALL TRENCHES WITHIN THE ROADWAY SHALL BE TEMPORARILY OR PERMANENTLY PAVED TO MATCH THE ADJACENT PAVEMENT GRADE. PER GENERAL NOTE 22, SHEET G-2.
- 6. REPLACE EXISTING BASE ROCK DISTURBED BY THE TRENCHING OPERATIONS.
- 7. INSTALL MARKER BALLS IN TRENCH BACKFILL IN REQUIRED LOCATIONS. SEE GENERAL NOTE 24, SHEET G-2.

SINGLE PIPE TRENCH DETAIL - ROADWAYS AND DRIVEWAYS



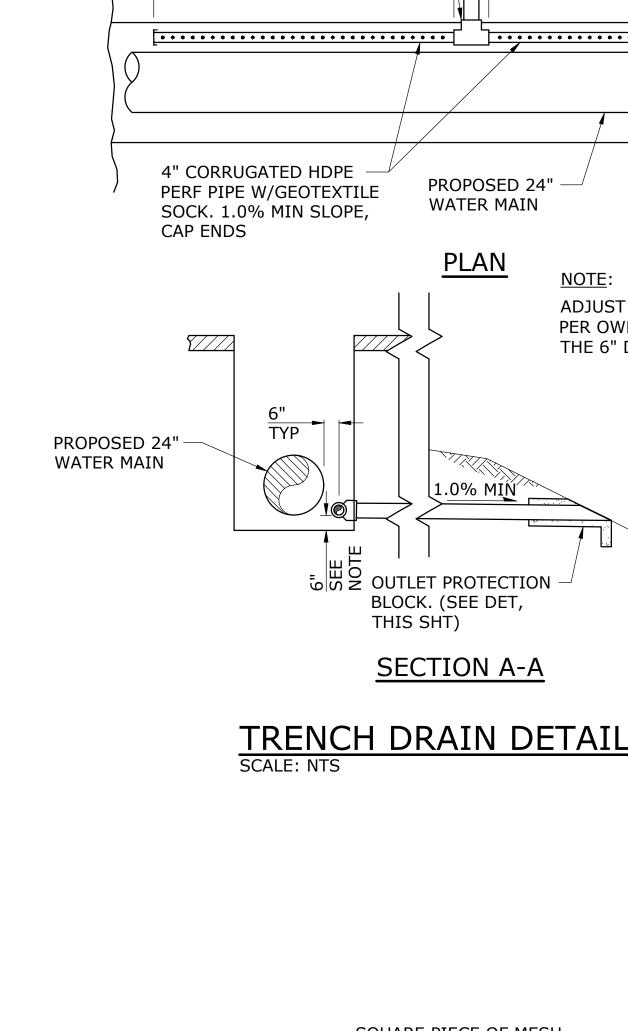


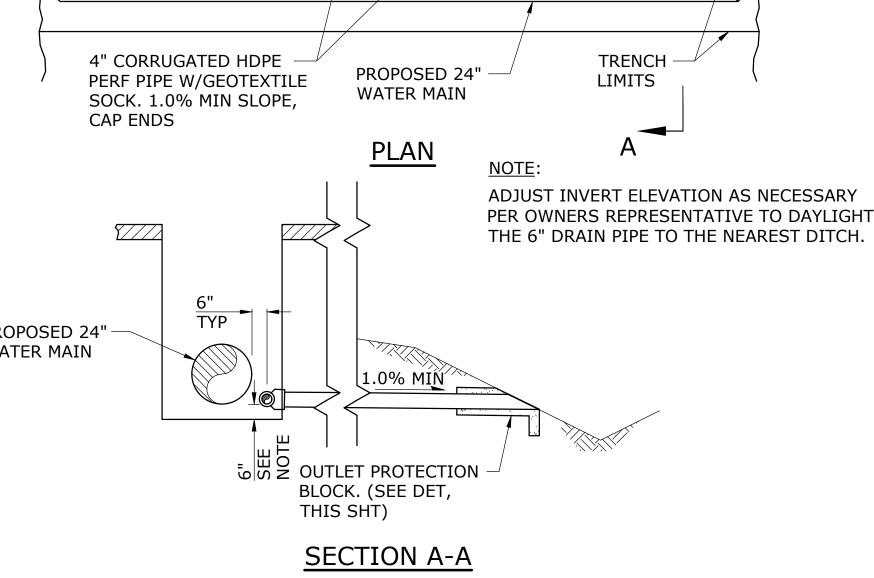
NOTES:

ELEVATION

- 1. CONSTRUCT TRENCH DAMS WITH CSLM.
- 2. APPROXIMATE LOCATION OF TRENCH DAMS ARE SHOWN ON PLAN SHEETS. COORDINATE EXACT LOCATION WITH FIELD ENGINEER.
- 3. FORM AND POUR CLSM UP TO BOTTOM OF EXIST ROAD BASE ELEVATION.
- 4. ALLOW CLSM TO CURE SUFFICIENTLY BEFORE RE-OPENING ROAD TO TRAFFIC. WHERE SUFFICIENT CURE TIME IS NOT POSSIBLE, PROVIDE STEEL SHEETING OVERNIGHT TO PLATE AFFECTED ROAD/TRENCH SECTION, AS APPROVED BY CITY INSPECTOR.







- 6" SOLID WALL HDPE

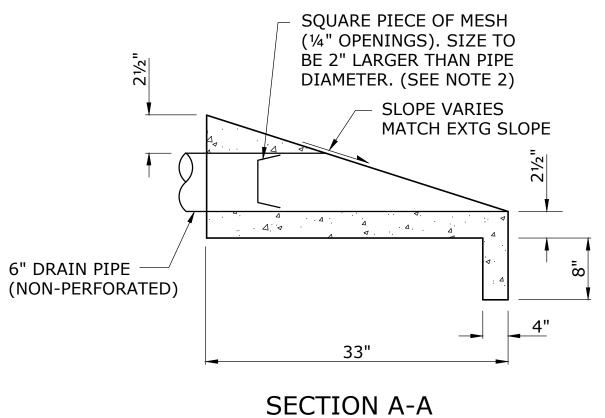
••••••

C-4

DRAIN PIPE

4" x 6" TEE

10'





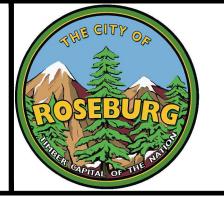
NOTICE IF THIS BAR DOES NOT MEASURE 1 THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**

BRF03 DESIGNED AVD DRAWN CHECKED



SECTION





PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

MISCELLANEOUS DETAILS - 1

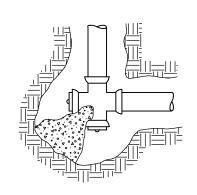
C-13

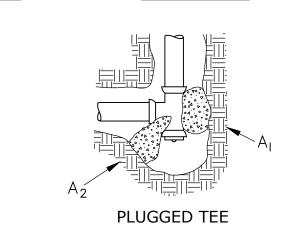
SHEET

PROJECT NO.: N223415OR SCALE: MARCH 2023 AS SHOWN ■ DATE:



<u>BEND</u>





	BEARING	AREA, 'A', OF	THRU	ST BLO	OCKS IN SQU	ARE FEET	*
FITTING	TEE, WYE, PLUG OR CAP	90°BEND, PLUGGED CROSS	PLUG	EE GGED RUN	45° BEND	22 ° BEND	11i BEN
SIZE	А	Α	A ₁	A ₂	А	А	Α
4	4 4	1.0	2.7	1.0	1.0		

PLUGGED CROSS

FITTING	CAP	CROSS		RUN	BEND	BEND	BEND
SIZE	Α	Α	A ₁	A ₂	Α	Α	Α
4	1.4	1.9	2.7	1.9	1.0	_	_
6	2.8	4.0	5.6	4.0	2.1	1.1	_
8	4.8	6.8	9.6	6.8	3.7	1.9	0.9
10	7.3	10.3	14.5	10.3	5.6	2.8	1.4
12	10.3	14.5	20.4	14.5	7.9	4.0	2.0
14	13.8	19.5	27.5	19.5	10.6	5.4	2.7
16	17.8	25.2	35.5	25.2	13.6	7.0	3.5
18	22.4	31.7	44.7	31.7	17.1	8.7	4.4
20	27.5	38.9	54.8	38.9	21.0	10.7	5.4

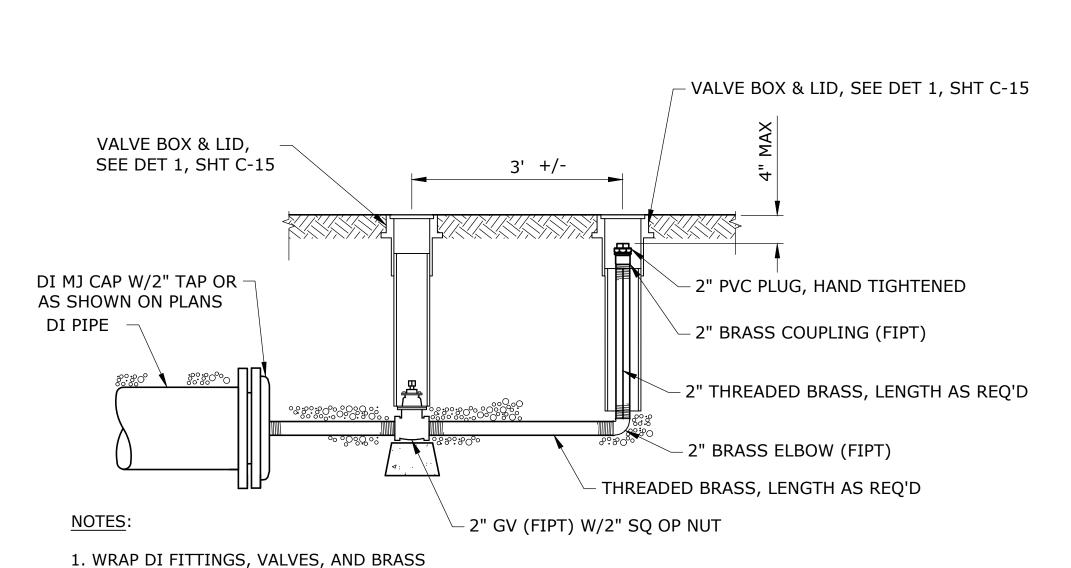
39.2 | 55.5 | 78.3 | 55.5 | 30.0 | 15.3

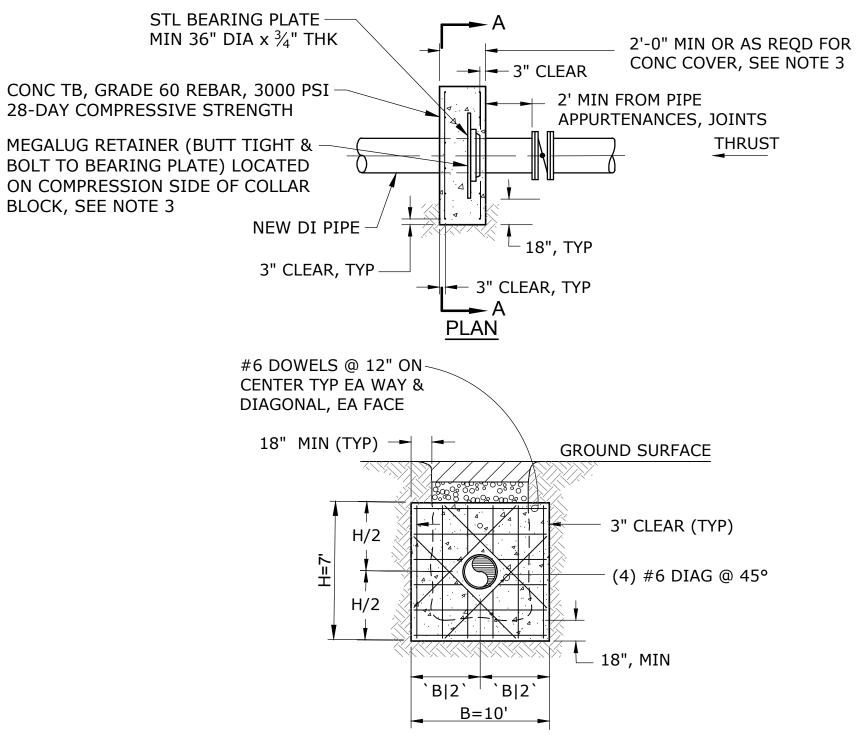
NOTES:

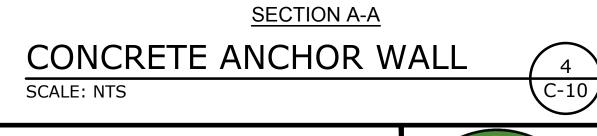
- 1. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- 2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES. INSTALL ISOLATION MATERIAL BETWEEN PIPE AND/OR FITTINGS BEFORE POURING BLOCKING.
- 3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLANS; e.g. 15 INDICATES 15 SQUARE FEET BEARING AREA REQUIRED
- 4. IF NOT SHOWN ON PLANS, REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED IN TABLE, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
- 5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS DETAIL.
- 6. CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH.
- 7. BEARING AREAS WHERE EXISTING PIPE WILL BE ABANDONED IN PLACE, AS SHOWN ON PLAN, SHALL INCLUDE ½" STEEL PLATE AT THE BASE OF THE THRUST BLOCK. THE MINIMUM BEARING AREA OF THE STEEL PLATE SHALL BE BASED ON DATA FROM THE TABLE.

*ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA=(TEST PRESSURE/150) X (2000/SOIL BEARING STRESS) X (TABLE VALUE).

STANDARD THRUST BLOCK DETAILS







2" ELB & HOSE FITG AS REQ'D 2" AWWA GV W/ 2" OPERATING NUT COLLAR TB W/ REINF & PIPE CLAMPS AS REQ'D, SEE NOTE 1 WATER MAIN - 2" GALV ELB EXIST WATER MAIN, PROVIDE - 2" GALV STL PIPE MJ CAP W/ 2" TAP W/ TEMP BLOWOFF MATL'S AS REQ'D, RETAINER GLAND SEE NOTE 5 4' MIN, FOR TIE-IN TO EXIST MAIN

NOTES:

SCALE: NTS

- 1. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINTS AS REQUIRED.
- 2. SEE SPECIFICATIONS REGARDING DISPOSAL/ DECHLORINATION FOR SUPERCHLORINATED WATER.
- 3. PROVIDE LARGER BLOWOFF PIPING MATERIAL AT CONTRACTOR OPTION.
- 4. WHERE BLOWOFF IS TO BE REMOVED, CONTRACTOR TO CONDUCT OPERATIONS SO AS TO PREVENT SUBSEQUENT CONTAMINATION OF APPROVED DISINFECTED WATER MAIN.
- 5. PROVIDE TEMPORARY BLOWOFF ON EXISTING WATER MAIN AS REQUIRED TO FACILITATE TESTING AND DISINFECTION OF NEW MAINS. CONTRACTOR TO PROVIDE BACKFLOW PREVENTION DEVICE FOR TEMPORARY CONNECTION TO EXISTING WATER SYSTEM PER GENERAL NOTE 19, SHEET G-2. CONTRACTOR TO DISINFECT EXISTING WATER MAIN PER REQUIREMENTS OF AWWA C651 DURING INSTALLATION OF TEMPORARY BLOWOFF ASSEMBLY.

TEMPORARY BLOWOFF ASSEMBLY

NOTES:

- 1. ALL CONCRETE SHALL BE COMMERCIAL GRADE CONCRETE, 3,000 PSI COMPRESSIVE STRENGTH OR GREATER.
- 2. CONCRETE BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH ON SIDES AND BOTTOM OR 95% COMPACTED GRANULAR BACKFILL.
- 3. PROVIDE POLYETHYLENE (PE) ENCASEMENT FOR ALL PIPING AND RESTRAINT DEVICES IN CONTACT WITH CONCRETE AND WITHIN 1 FOOT OF ANCHOR WALL. PROVIDE MINIMUM OF 3" CONCRETE COVER OVER RESTRAINT DEVICES WITHIN ANCHOR WALL.

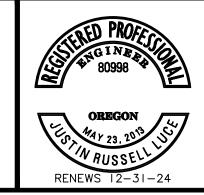
2" BLOWOFF ASSEMBLY C-6/9 SCALE: NTS

NOTICE IF THIS BAR DOES NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**

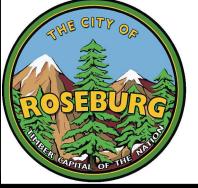
PIPING WITH WAX TAPE AND V-BIO

POLYWRAP.

BRF03 DESIGNED AVD DRAWN CHECKED







PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

MISCELLANEOUS DETAILS - 2

AS SHOWN DATE:

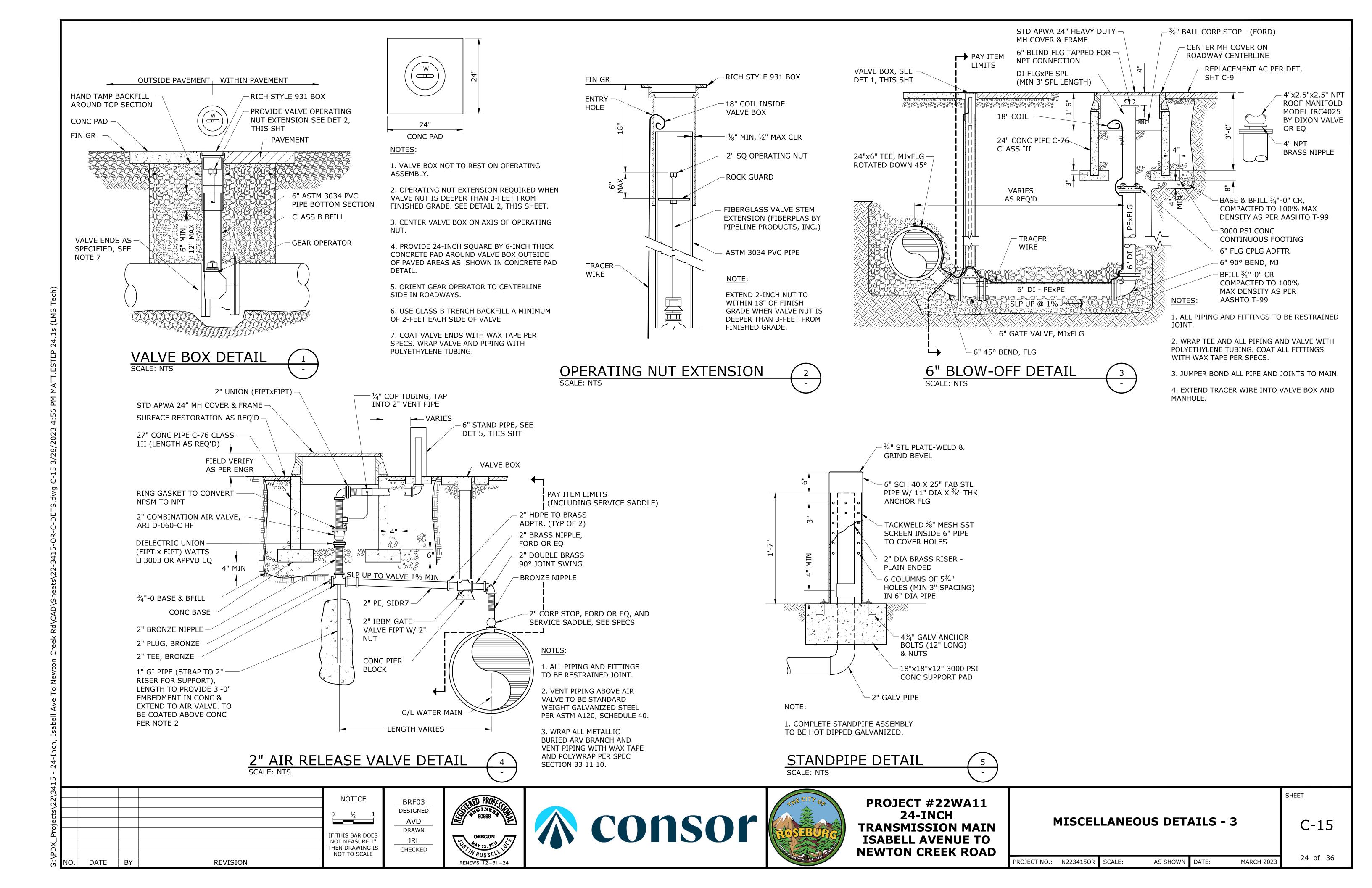
PROJECT NO.: N223415OR SCALE:

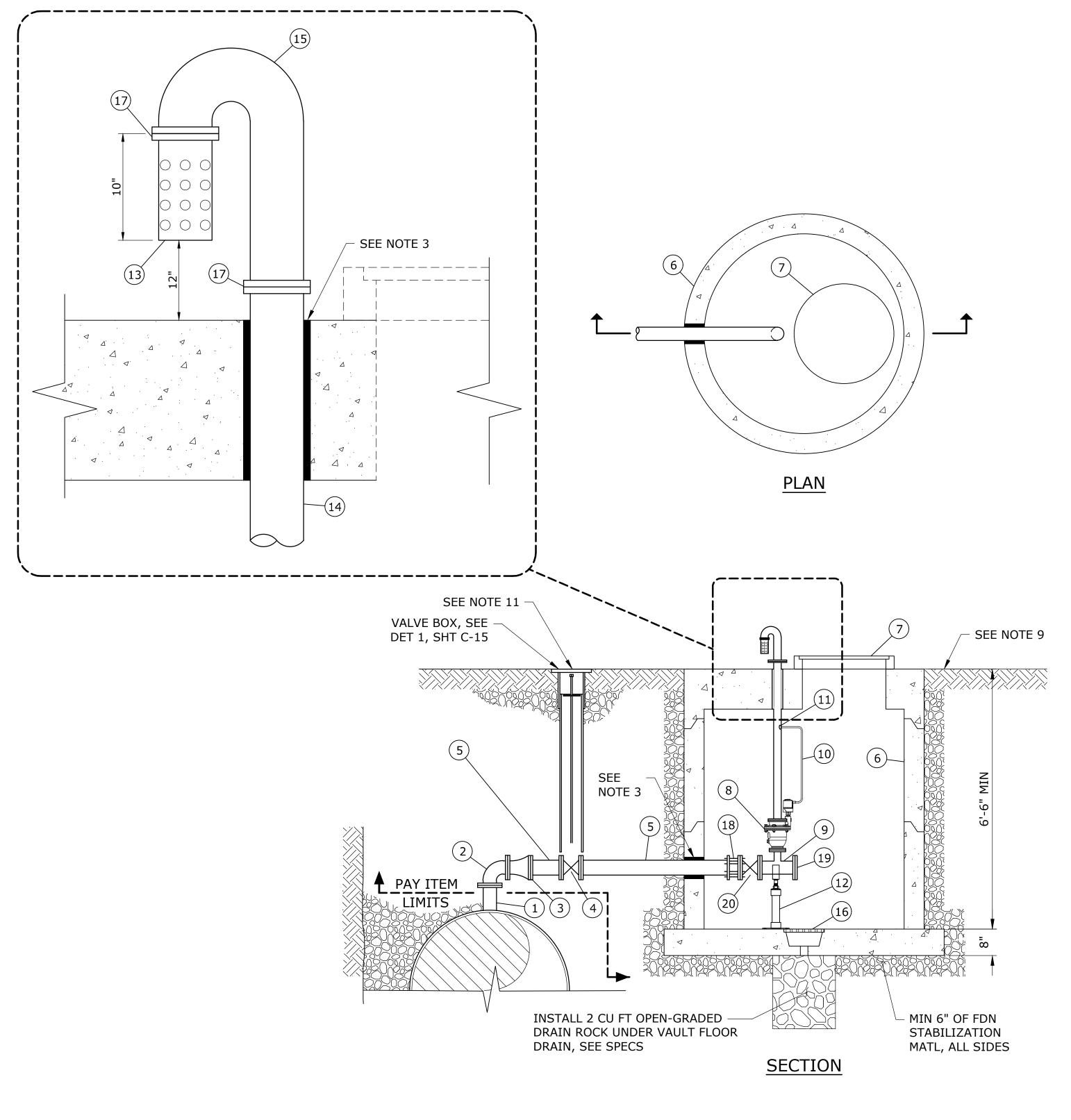
C-14

MARCH 2023

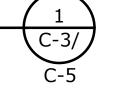
23 of 36

SHEET





3" AIR RELEASE VALVE DETAIL



MATERIAL LIST

- 1) 24"x6" DI TEE, FLG, SEE PLANS
- 2) 6" DI 90° BEND, FLG OR FLG X MJ AS REQ'D, SEE NOTE 10
- (3) 6" DI, FLGxMJ ADPTR, AS REQ'D SEE NOTE 10
- (4) 6" GV, MJ
- (5) 6" DI SPL, PE, LENGTH AS REQ'D
- (6) 60" STD MH W/ FLAT TOP
- 7) STD APWA 30" MH COVER & FRAME
- (8) 3" COMBINATION AIR VALVE ASSY ARI D-60-P16-03 SEE NOTE 8
- 9) 6"X3" DI TEE, FLG
- 10 1/4" COPPER TUBING, TAP INTO 3" VENT PIPE
- 11) THREAD-O-LET
- 12) PIPE SUPPORT, STANDON MODEL S92 OR APPVD EQ
- 3" SCHED 40 STL PIPE W/ ¼" THK END CAP (WELDED), VENT TO INCLUDE APPROX 36 1" DIA HOLES AT APPROX ¾" SPACING ON PIPE SECTION & END CAP, TACK WELD ½" 20 GAUGE GALV WIRE MESH INSIDE PERFORATED PIPE
- (14) 3" GALV SCHED 40 STL VENT PIPE, THRDxTHRD FLG, LENGTH AS REQ'D
- 3" GALV SCHED 40 STL VENT PIPE W/ 2 SHORT RADIUS 90° BENDS, WELDED
- (16) FLR DRAIN W/ GRATE
- (17) 3" STL FLG W/ GALV BOLTS & RED RUBBER GASKET
- (18) 6" RESTRAINED FCA (MEGAFLANGE, OR APPVD EQ)
- 19 6" DI BLIND FLG
- 20) 6" GV, FLG

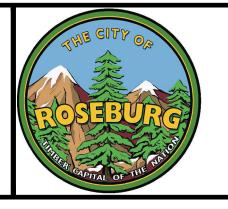
NOTES:

- 1. ALL PIPE AND FITTINGS SHALL BE RESTRAINED.
- 2. VERIFY LOCATION OF VAULT AND STAND PIPE WITH ENGINEER
- 3. ALL MANHOLE PENETRATIONS SHALL BE SEALED WITH WALL SEALS. USE LINK-SEAL IN HOLES AROUND PIPE.
- 4. HOT DIP GALVANIZE ALL STEEL PARTS AFTER FABRICATION.
- 5. JUMPER BOND BURIED AIR RELEASE VALVE PIPE AND JOINTS TO MAIN. SEE SHEETS C-19 AND C-20 FOR CORROSION MONITORING DETAILS.
- 6. WRAP ALL DUCTILE IRON PIPING AND VALVES UP TO AIR VALVE INLET FLANGE (BURIED AND IN VAULT) WITH POLYETHYLENE AND WAX TAPE PER SPECIFICATIONS.
- 7. PRECAST CONCRETE MANHOLE SHALL INCLUDE STEPS IN ACCORDANCE WITH THE SPECIFICATIONS.
- 8. PROVIDE RING GASKET TO CONVERT NPSM TO NPT FOR VENT OUTLET CONNECTION.
- 9. PROVIDE ADDITIONAL COMPACTED CLASS B FILL MATERIAL AND REVISE ADJACENT SURFACE GRADING AROUND FLAT TOP MANHOLE AS REQUIRED TO MATCH TOP OF MANHOLE TO ADJACENT SURFACE GRADE ELEVATIONS APPROXIMATELY AS SHOWN ON PLANS. SEE SHEETS C-3 AND C-5 FOR APPROX LIMITS OF ADDITIONAL GRADING.
- 10. IF 6" DI 90-DEGREE BEND FITTING (ITEM NO.2) CAN BE PROCURED IN FLG X MJ CONFIGURATION, 6" DI FLG X MJ ADAPTOR (ITEM NO. 3) WILL NOT BE REQUIRED. PROVIDE DI FLG X MJ ADAPTOR ONLY IF FLG X FLG CONFIGURATION FOR ELBOW IS ALL THAT IS AVAILABLE.
- 11. LOCATE 6" ISOLATION GATE VALVE IN CENTER OF BIKE LANE AS SHOWN ON PLANS. SEE SHEETS C-3 AND C-5.

BRF03
DESIGNED
AVD
DRAWN
JRL
CHECKED







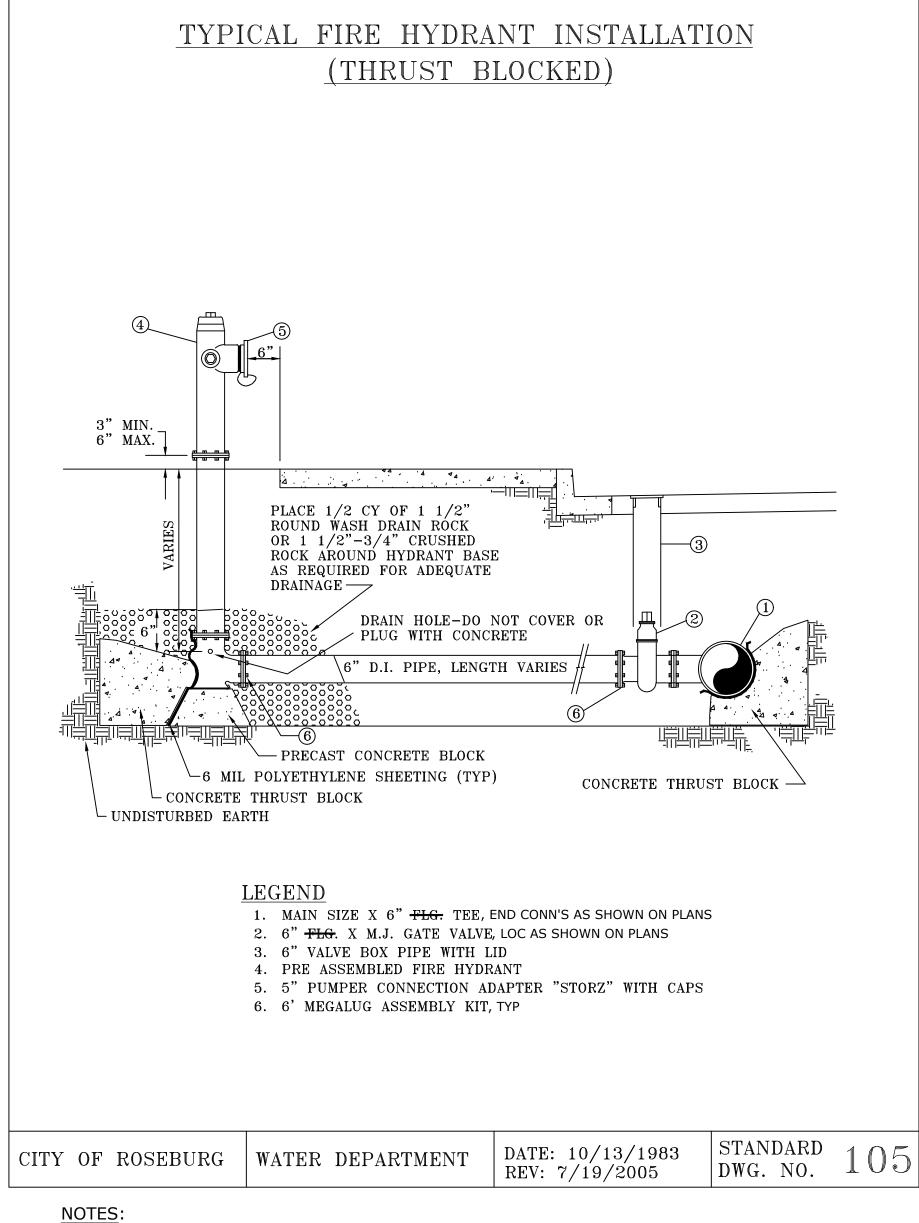
PROJECT #22WA11
24-INCH
TRANSMISSION MAIN
ISABELL AVENUE TO
NEWTON CREEK ROAD

MISCELLANEOUS DETAILS - 4

C-16

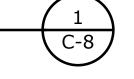
SHEET

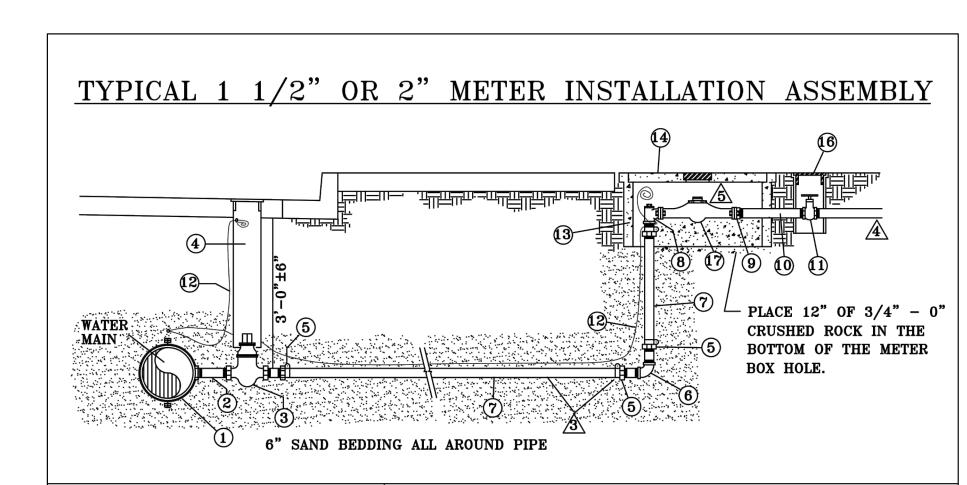
PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023



1. WAX TAPE COAT BURIED FITTINGS AND VALVES, AND POLYWRAP PIPING PER SPECIFICATIONS. JUMPER BOND ALL BURIED METALLIC PIPING TO THE MAIN.







ITEM	QTY.	DESCRIPTION 1
1	1	MAIN SIZE X 2" FIPT FORD FS202 SERVICE SADDLE. 🖄
2	1	2" DIAMETER X 4" BRASS NIPPLE.
3	1	2" FIPT IBBM GATE VALVE W/2" OPERATING NUT.
4	1	VALVE BOX AND LID (SEE STD. DWG. NO. 103).
5	3	FORD C86-77 (CL 200 PE) 2" MIPT X 2" PE PJ ADAPTER.
6	1	2" FIPT 90° ELL, RED BRASS.
7	AS REQ'D	2" 200 psi PE SIDR7 (PE 3408) PIPE, (OD TO FIT CL 200 FITTINGS).
8	1	FORD FV63-777W ANGLE METER VALVE (CL 200 psi).
9	1	FORD 6F (1 1/2" METER) OR 7F (2" METER) METER FLANGE.
10	1	1 1/2" (1 1/2" METER) OR 2" (2" METER) X 12" BRASS NIPPLE.
11	1	1 1/2" (1 1/2" METER) OR 2" (2" METER) BRASS GATE VALVE.
12	AS REQ'D	NO. 12 THHN STRANDED COPPER TONE WIRE, BLUE INSULATION.
13	1	DFW METER BOX 1730C-12
14	1	DFW METER BOX LID D1730C
15	_	
16	1	CUSTOMER VALVE BOX AND LID.
17	1	EXISTING METER OR AS SUPPLIED BY CITY

OR APPROVED EQUAL.

TYPE AS APPROVED BY MANUFACTURER FOR WATER MAIN TYPE AND SIZE.

FOR SETTINGS CLOSE TO MAIN, SUBSTITUTE BRASS PIPE FOR PE AND TWO ADAPTERS.

CONNECT TO EXISTING CUSTOMER SERVICE LINE PER STATE PLUMBING CODE REQUIREMENTS.

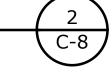
TOP OF METER SHALL BE 4" TO 6" BELOW BOTTOM OF LID AND CENTERED.

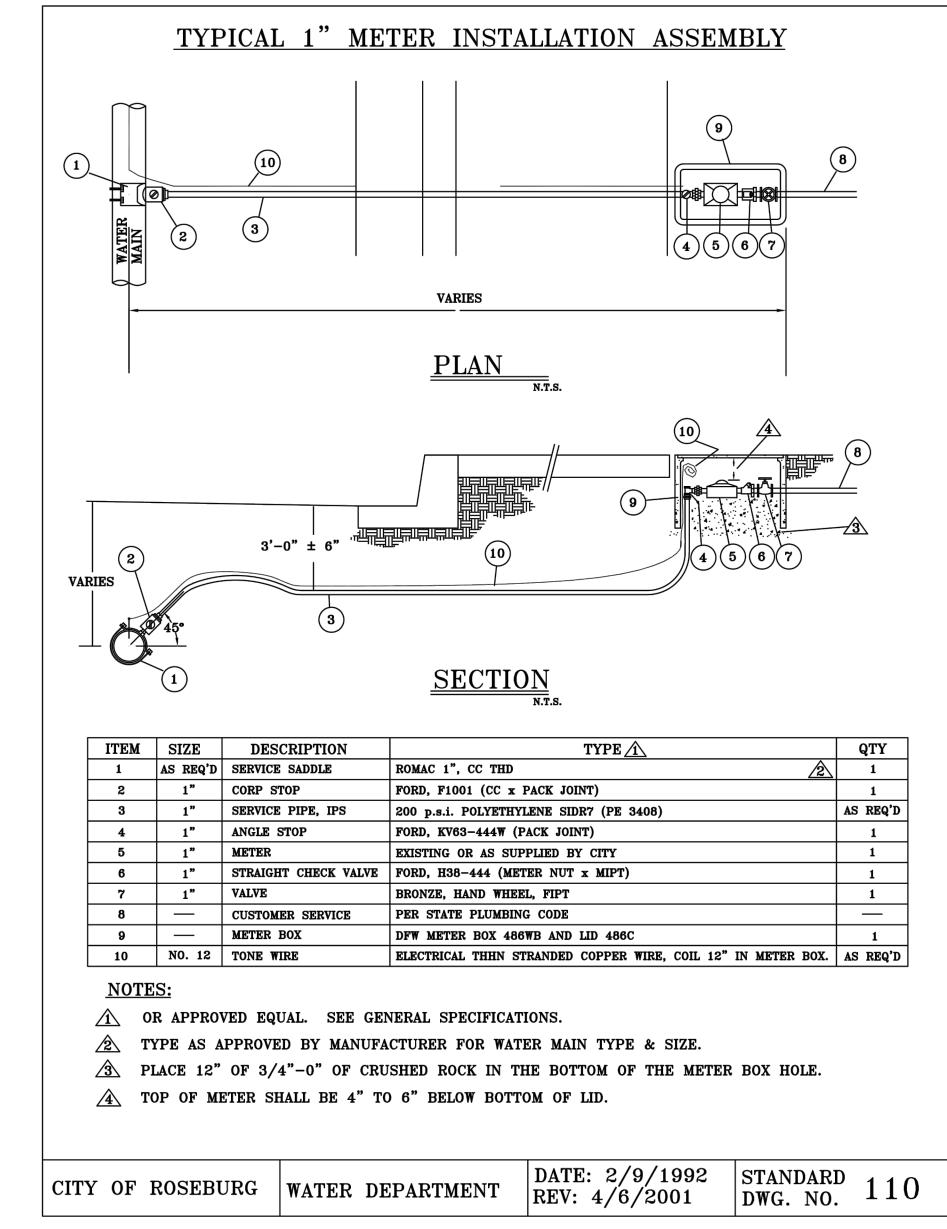
DATE: 10/13/1983 REV: 4/6/2001 DWG. NO. 111 WATER DEPARTMENT

NOTES:

1. WRAP ALL BURIED METALLIC PIPING WITH WAX TAPE AND POLYBAG PER SPECIFICATIONS.

2" WATER SERVICE





NOTES:

1. WRAP ALL BURIED METALLIC PIPING WITH WAX TAPE AND POLYBAG PER SPECIFICATIONS.

1" WATER SERVICE

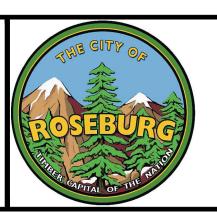


				NOTICE
				0 ½ 1
				IF THIS BAR DOES NOT MEASURE 1"
NO.	DATE	BY	REVISION	THEN DRAWING IS NOT TO SCALE

DESIGNED AVD DRAWN CHECKED







PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

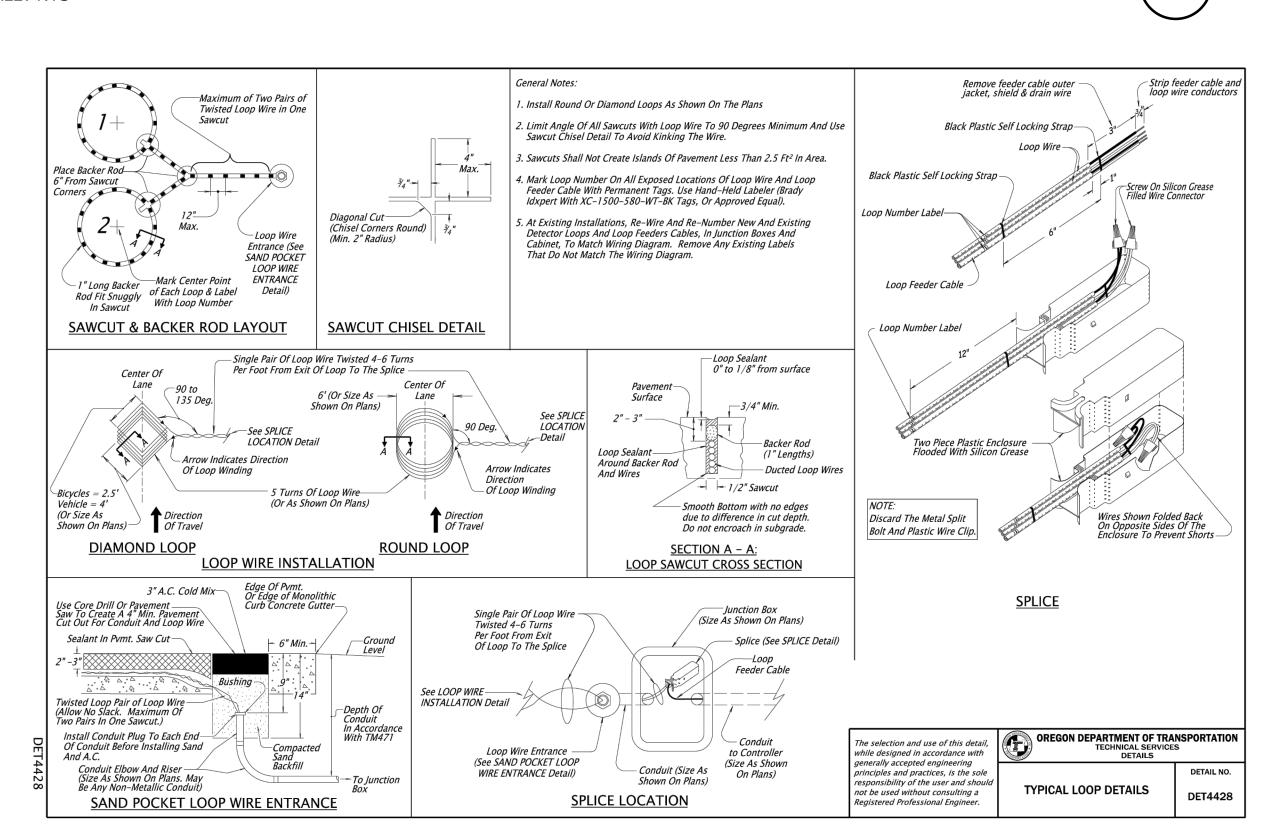
MISCELLANEOUS DETAILS - 5

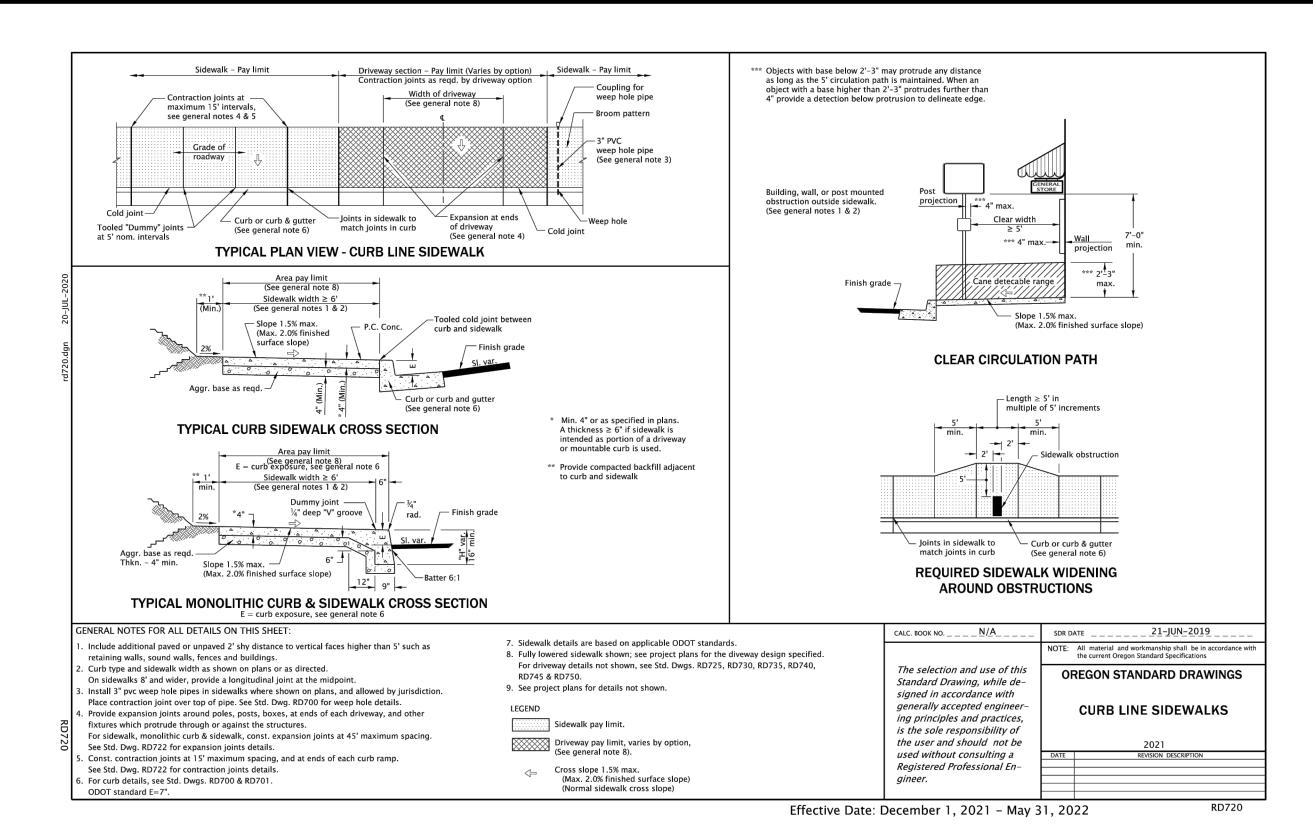
C-17

SHEET

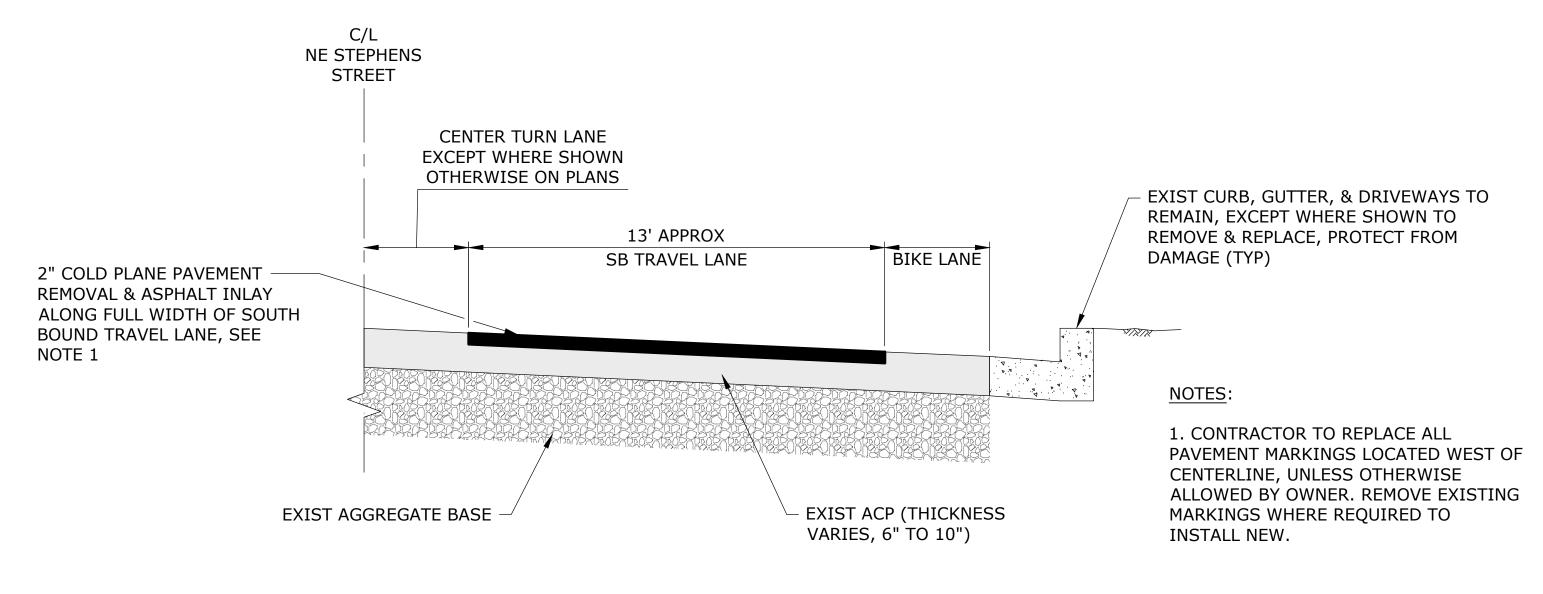
PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

TYPICAL CURB AND GUTTER



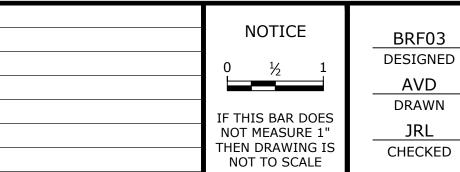


TYPICAL SIDEWALK



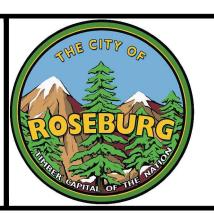
TYPICAL COLD PLANE PAVEMENT REMOVAL AND ASPHALT INLAY - SURFACE RESTORATION SCALE:NTS

TYPICAL ROADWAY TRAFFIC LOOP AND BIKE LANE TRAFFIC LOOP



REVISION





PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

SURFACE RESTORATION DETAILS

C-18

SCALE: PROJECT NO.: N223415OR AS SHOWN ■ DATE: MARCH 2023

27 of 36

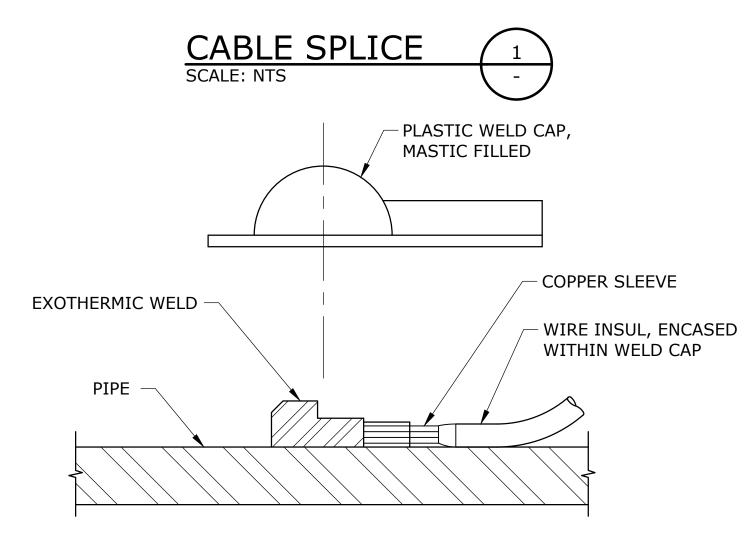
DATE

BY

SHEET

NOTES:

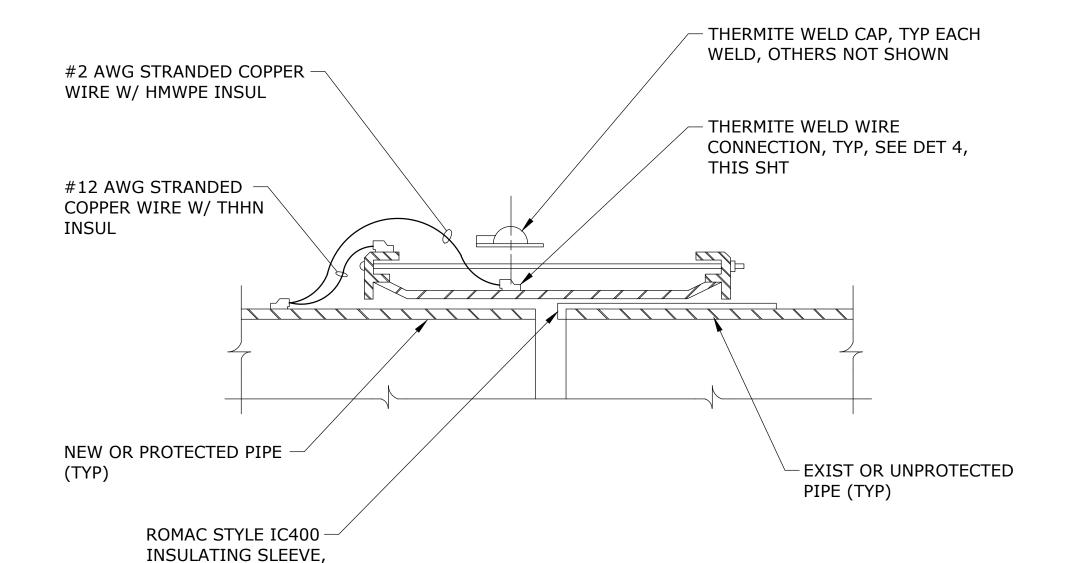
1. CABLE SPLICES ONLY ALLOWED WHERE APPROVED BY CITY INSPECTOR AND ENGINEER



NOTES:

- 1. GRIND PIPE TO BRIGHT METAL BEFORE EXOTHERMIC WELDING.
- 2. APPLY WELD CAP DIRECTLY TO PIPE NOT TO PIPE WRAP. USE PRIMER IF REQUIRED BY THE MANUFACTURER. COMPLETELY ENCIRCLE WIRE WITHIN MASTIC.
- 3. ON CONNECTIONS TO UNCOATED PIPE AND CASINGS, USE MASTIC FILLED PLASTIC WELD CAP ONLY; SECURE WITH PIPE TAPE.
- 4. EACH WELDED CONNECTION MUST FIRST PASS VISUAL INSPECTION, ENSURING THE COPPER SLEEVE IS NOT VISIBLE OR EXPOSED WITHIN THE WELD, AND THEN SHALL PASS THE A STRIKE TEST WITH A 2 LB HAMMER AS DESCRIBED IN THE SPECIFICATIONS.



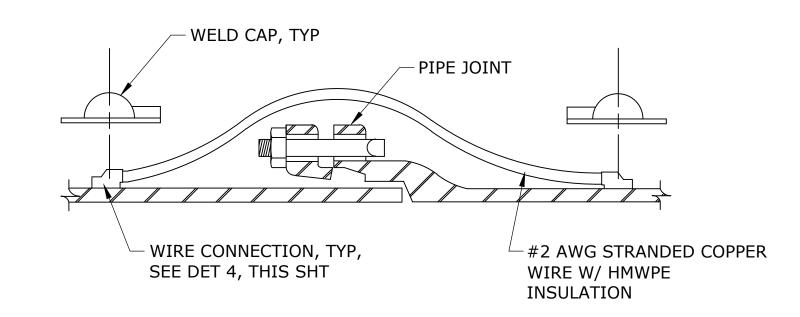


NOTES:

SEE SPECS

1. COUPLINGS SHALL BE COMPLETELY ENCASED WITH WAX TAPE PER SPECIFICATIONS.

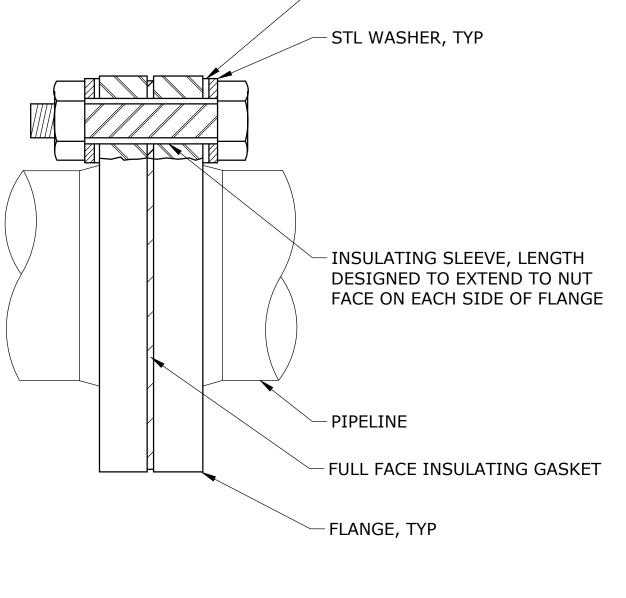




NOTES:

- 1. NUMBER OF JOINT BONDS AT EACH JOINT AS SPECIFIED
- 2. JUMPER BONDS FOR ELECTRICALLY CONNECTING NEW DI PIPING ACROSS BELL AND SPIGOT JOINTS SIMILAR TO THAT SHOWN.
- 3. FITTINGS SHALL BE COMPLETELY ENCASED WITH WAX TAPE PER SPECIFICATIONS.





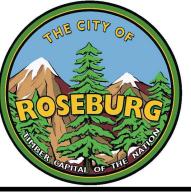
- INSULATING WASHER, TYP

NOTES:

- 1. ABOVE GRADE INSULATING FLANGE INSTALLATION SHOWN.
- 2. FOR BURIED OR SUBMERGED INSULATING FLANGE INSTALLATION INSTALL INSULATING WASHER ON ONE SIDE OF INSULATING FLANGE (NEW SIDE PREFERRED).
- 3. FOR BURIED OR SUBMERGED INSULATING FLANGES, COMPLETELY ENCASE WITH WAX TAPE PER SPECIFICATIONS.
- 4. TEST INSTALLATION FLANGE CONNECTION PER SPECIFICATIONS PRIOR TO BACKFILLING TRENCH.



M Consor



PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

DUCTILE IRON PIPE CORROSION MONITORING DETAILS - 1

C-19

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

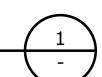
28 of 36

NOTICE JRL DESIGNED AVD DRAWN IF THIS BAR DOES NOT MEASURE 1' CHECKED THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**

SHEET

- 1. PROVIDE SUFFICIENT SLACK IN TEST WIRES TO ALLOW TERMINAL BLOCK TO EXTEND 18" OUT OF TEST STATION. COIL WIRES IN TEST STATION.
- 2. LOCATE TEST STATIONS OFF ROADWAY APPROXIMATELY WHERE SHOWN ON PLANS. CONFIRM FINAL LOCATIONS IN FIELD WITH OWNER'S REPRESENTATIVE.
- 3. PUT RED TAPE ON LEADS TO ONE OF THE CP MONITORING COUPONS.
- 4. BED COUPONS IN SAME BACKFILL AS PIPE AND LOCATE 6" FROM OUTER EDGE OF PIPE. COMPACT BACKFILL TO ONE FOOT MINIMUM ABOVE COUPON
- 5. COUPONS TO BE INSTALLED ON SAME SIDE OF PIPE AS AND 6" AWAY FROM REFERENCE ELECTRODE, CONTRARY TO HOW CURRENTLY SHOWN.
- 6. FOR TEST STATIONS LOCATED MORE THAN 5' HORIZONTALLY FROM PIPELINE, ROUTE TEST STATION WIRES IN 2" SCHEDULE 80 PVC CONDUIT (NOT SHOWN IN DETAIL FOR CLARITY).

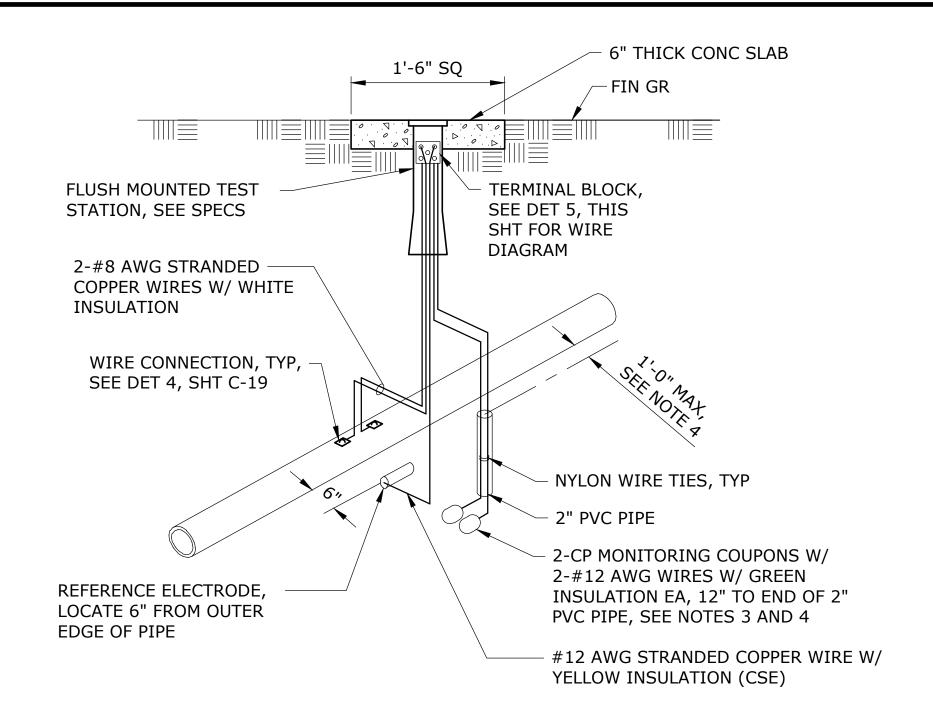
FLUSH MOUNTED TEST STATION FOR INSULATED JOINTS (TSIJ)



ITEM	CABLE AND NAME PLATE COLOR	CABLE	TERMINAL IDENTIFICATION ABBREVIATION
NEW PIPE	WHITE	#8 HMWPE AND #12 THWN	NP
EXISTING PIPE	BLUE	#8 HMWPE AND #12 THWN	EP
CSE REFERENCE CELL	YELLOW	#12 THWN	CSE
COUPON (NATIVE)	GREEN	#12 THHN	C-N
COUPON (CP)	GREEN (RED TAPE)	#12 THHN	C-CP
LINE CROSSING	BLUE (WHITE TAPE)	#8 HMWPE AND #12 THWN	C-CP

CORROSION CONTROL CABLE IDENTIFICATION TABLE

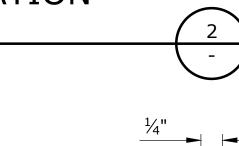
REVISION

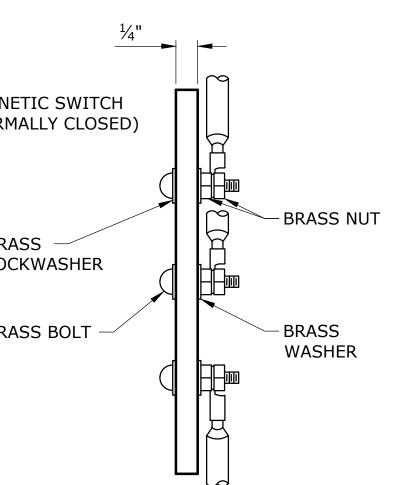


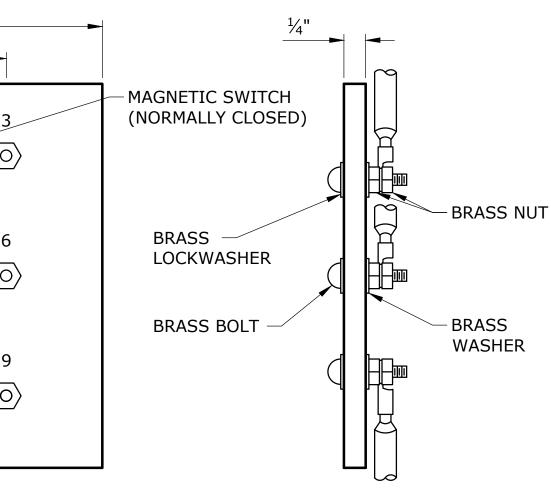
NOTES:

- 1. PROVIDE SUFFICIENT SLACK IN TEST WIRES TO ALLOW TERMINAL BLOCK TO EXTEND 18" OUT OF TEST STATION. COIL WIRES IN TEST STATION.
- 2. LOCATE TEST STATIONS OFF ROADWAY APPROXIMATELY WHERE SHOWN ON PLANS. CONFIRM FINAL LOCATIONS IN FIELD WITH OWNER'S REPRESENTATIVE.
- 3. PUT RED TAPE ON LEADS TO ONE OF THE CP MONITORING COUPONS.
- 4. BED COUPONS IN SAME BACKFILL AS PIPE AND LOCATE 6" FROM OUTER EDGE OF PIPE. COMPACT BACKFILL TO ONE FOOT MINIMUM ABOVE COUPON.
- 5. FOR TEST STATIONS LOCATED MORE THAN 5' HORIZONTALLY FROM PIPELINE, ROUTE TEST STATION WIRES IN 2" SCHEDULE 80 PVC CONDUIT (NOT SHOWN IN DETAIL FOR CLARITY).

FLUSH MOUNTED TEST STATION FOR MONITORING TS/M SCALE: NTS







TERMINAL BOARD FRONT VIEW

TYPICAL TERMINAL BOARD SECTION

ROUTE SCH 80 PVC CONDUIT WITH CP TEST LEADS IN COMMON TRENCH WITH PLACE COUPONS AND FIRE HYDRANT LATERAL REFERENCE ELECTRODE 6 INCHES AWAY FROM PIPE AT SPRING LINE. POSITION COUPONS AT LEAST 3 INCHES FROM EACH OTHER AND FROM THE REFERENCE ELECTRODE. INSTALL SCH 80 PVC CONDUIT REMOVE EXISTING CONDUCTORS FROM 8" WITH 3 CP NEGATIVE TEST ABANDONED PIPE TO RECTIFIER. PULL IN ONE #2 LEADS BETWEEN 8" CASING AWG STRANDED COPPER WIRE WITH HMWPE PIPE AND 24" MAIN INSULATION AND TWO #8 AWG STRANDED COPPER EXOTHERMIC WELDING PROCESS TO ATTACH ALL 8" DI WIRE CASING FROM RECTIFIER TEST LEAD WIRES TO THE NEW 24" DUCTILE IRON WITH LINING IC 20'' DI TWO #2 AWG JOINT BONDS WITH COPPER SLEEVES ARE REQUIRED ACROSS EACH ALL JOINT BOND CONDUCTORS SHALL BE ATTACHED USING THE EXOTHERMIC WELDING PROCESS. DO NOT INSTALL JOINT BOND WIRES ACROSS THE 20" INSULATING COUPLING.

SALVATION ARMY 24" X 20" LATERAL INTERTIE

CATHODIC PROTECTION WIRING DETAILS

NOTES:

1. DETAIL ALSO INCLUDED AT END OF SPECIFICATION SECTION 26 42 01.

ICCP LEAD WIRE CONNECTIONS AND TERMINATIONS

TEST STATION LOCATION AND TYPE

I STATION LOCATION AND TYPE								
NUMBER	PIPE STATION	TS TYPE						
1	1+00	TSIJ						
2	9+84	TS/M						
3	17+36	TS/M						
4	26+60= A1+00	TSIJ						
5	31+35= B1+00	TSIJ						
6	36+80	TS/M						
7	40+93= C1+00	TSIJ						
8	42+78	TSIJ						
9	D1+27	TSIJ						
10	D2+65	TSIJ						
11	D2+86	TSIJ						

TERMINAL IDENTIFICATION FOR TEST STATION

TERMINAL NUMBER	TS TYPE IJ	TS TYPE TS/M	CABLE				
1	NP	NONE	#12				
2	NP	NP	#8				
3	C-CP	C-CP	C-CP				
4	EP	NONE	#12				
5	EP	NP	#8				
6	C-CP	C-CP	#12				
7	C-N	C-N	#12				
8	C-N	C-N	#12				
9	CSE	CSE	CSE				
TEST STATION (TS) TYPES							

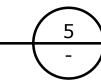
TEST STATION (TS) TYPES IJ = INSULATED JOINT

= MONITORING

CSE = CSE REFERENCE CELL

TERMINAL IDENTIFICATION FOR TEST STATION

TERMINAL BOARD WIRE DIAGRAM

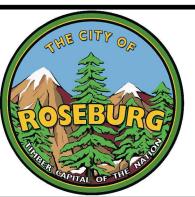


NOTICE

DESIGNED AVD DRAWN IF THIS BAR DOE: JRL CHECKED NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE







PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

DUCTILE IRON PIPE CORROSION MONITORING DETAILS - 2

SHEET

AS SHOWN DATE: PROJECT NO.: N223415OR SCALE: MARCH 2023 29 of 36

DATE BY

C-20

NOTES:

- 1. ANY WORK REQUIRING LANE CLOSURES WITHIN NE STEPHENS ST SHALL BE PEFORMED DURING NIGHTTIME HOURS. SEE GENERAL NOTE 27, SHEET G-2 FOR DAYTIME AND NIGHTTIME WORK HOURS.
- 2. PLACE TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AS FOLLOWS FOR DURATION OF PROJECT:
 - A. ON WEST SIDE OF NE STEPHENS ST, IN GRASSY RIGHT-OF-WAY, BEHIND CURB AND JUST SOUTH OF DRIVEWAY ENTRANCE TO CROSS RR INTO WILLAMETTE GRAYSTONE, FACING SB TRAFFIC. LOCATE SIGN SO AS NOT TO OBSTRUCT VIEW OF TRAFFIC EXITING DRIVEWAY ONTO NE STEPHENS ST.
 - B. ON EAST SIDE OF NE STEPHENS ST, BEHIND BACK OF SIDEWALK IN RIGHT-OF-WAY, APPROXIMATELY 100' SOUTH OF NE RUSSELL AVE, FACING NB TRAFFIC.
- 3. PROVIDE DRIVEWAY ACCESS AT ALL TIMES, EXCEPT WHERE DRIVEWAY CLOSURES ARE ALLOWED BY CITY OF ROSEBURG.
- 4. PROVIDE A 5' GAP BETWEEN TUBULAR MARKERS AT ALL PEDESTRIAN CROSSING LOCATIONS.
- 5. SEE TM800, TM821, TM822, TM841, TM842, TM843, TM844, TM850, TM851, TM852, AND TM853 FOR DETAILS NOT SHOWN ON PLANS.
- 6. PLACE CHANNELIZING DEVICES AROUND INTERSECTION RADII AND CONSTRUCTION ACCESSES AT 10' SPACING.
- 7. PERFORM GRIND AND INLAY UNDER SINGLE LANE CLOSURES WITH FLAGGERS AT NIGHT.
- 8. AREAS SHOWN AS "UNDER CONSTRUCTION" ON SHEETS TC-2 THRU TC-7 ARE APPROXIMATE. SEE SHEETS C-2 THRU C-9 FOR SPECIFIC LOCATIONS AND REQUIREMENTS FOR CONSTRUCTION WORK.
- 9. PROTECT EXISTING CONCRETE CURB AND GUTTER ALONG PROJECT CORRIDOR, EXCEPT WHERE SHOWN TO BE REMOVED AND REPLACED ON SHEETS C-2 THRU C-9. SEE GENERAL NOTE 23, SHEET G-2.

OVERALL TRAFFIC CONTROL PLAN SCALE: 1"=150'

NOTICE IF THIS BAR DOES NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE **REVISION** DATE BY

DESIGNED

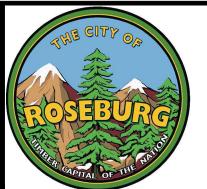
NEM

DRAWN

CSL

CHECKED





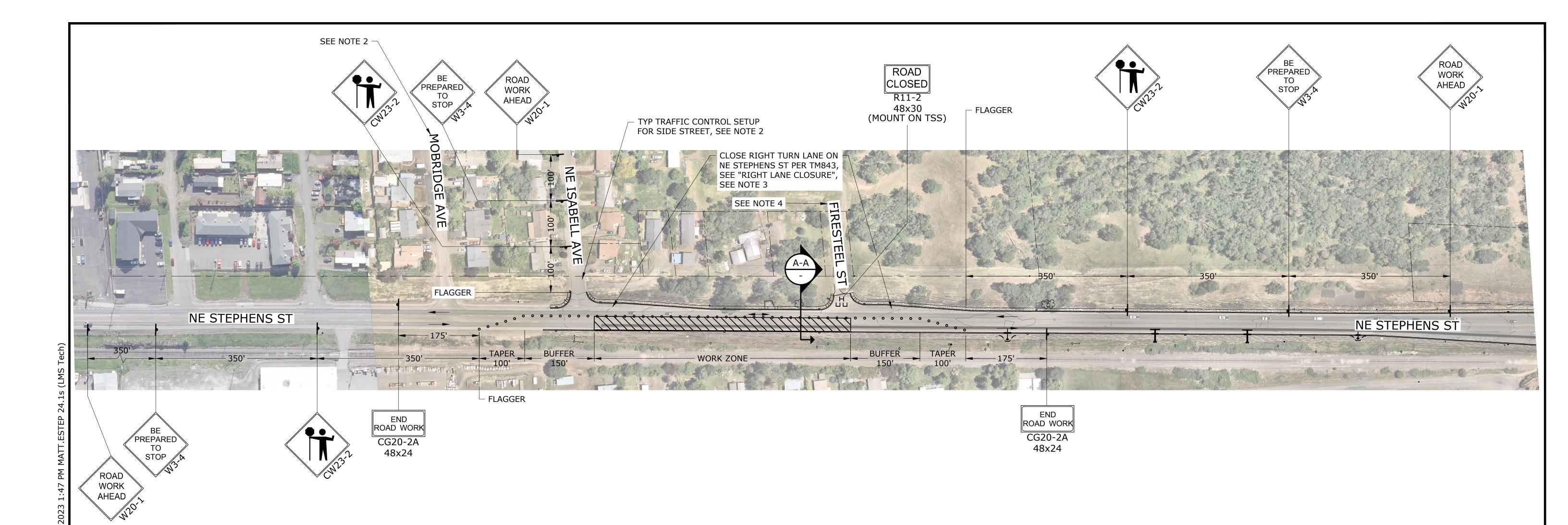
PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

OVERALL TRAFFIC CONTROL PLAN

SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

TC-1



TYPICAL TRAFFIC CONTROL PLAN (STA 01+00 TO STA 16+50) SCALE: 1"=100'

NOTES:

- 1. TYPICAL TRAFFIC CONTROL SETUP SHOWN. MOVE WORK ZONE AND TRAFFIC CONTROL SETUP AS REQUIRED TO COMPLETE WORK BETWEEN STATION 1+00 AND STATION 16+50.
- 2. PROVIDE FLAGGING ON MOBRIDGE AVE AND NE ISABELL AVE WHEN IMPACTED BY WORK ZONE.
- 3. CLOSE RIGHT TURN LANE ON NE STEPHENS ST AT NE ISABELL AVE AND FIRESTEEL ST WHEN IMPACTED BY WORK ZONE PER TM843, SEE "RIGHT LANE CLOSURE".
- 4. CLOSE FIRESTEEL ST WHEN IMPACTED BY WORK ZONE.

LEGEND

28" TUBULAR MARKERS ON 20' MAX SPACING

UNDER CONSTRUCTION TEMPORARY SIGN

TRAVEL LANE DIRECTION

TSS

BARRICADE TYPE III

NOTICE IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**



DESIGNED

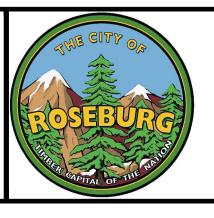
NEM

DRAWN

CSL

CHECKED





PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

TRAFFIC CONTROL PLAN STA 1+00 TO STA 16+50

SECTION A-A

SCALE: NTS

VARIES

WORK ZONE

TC-2

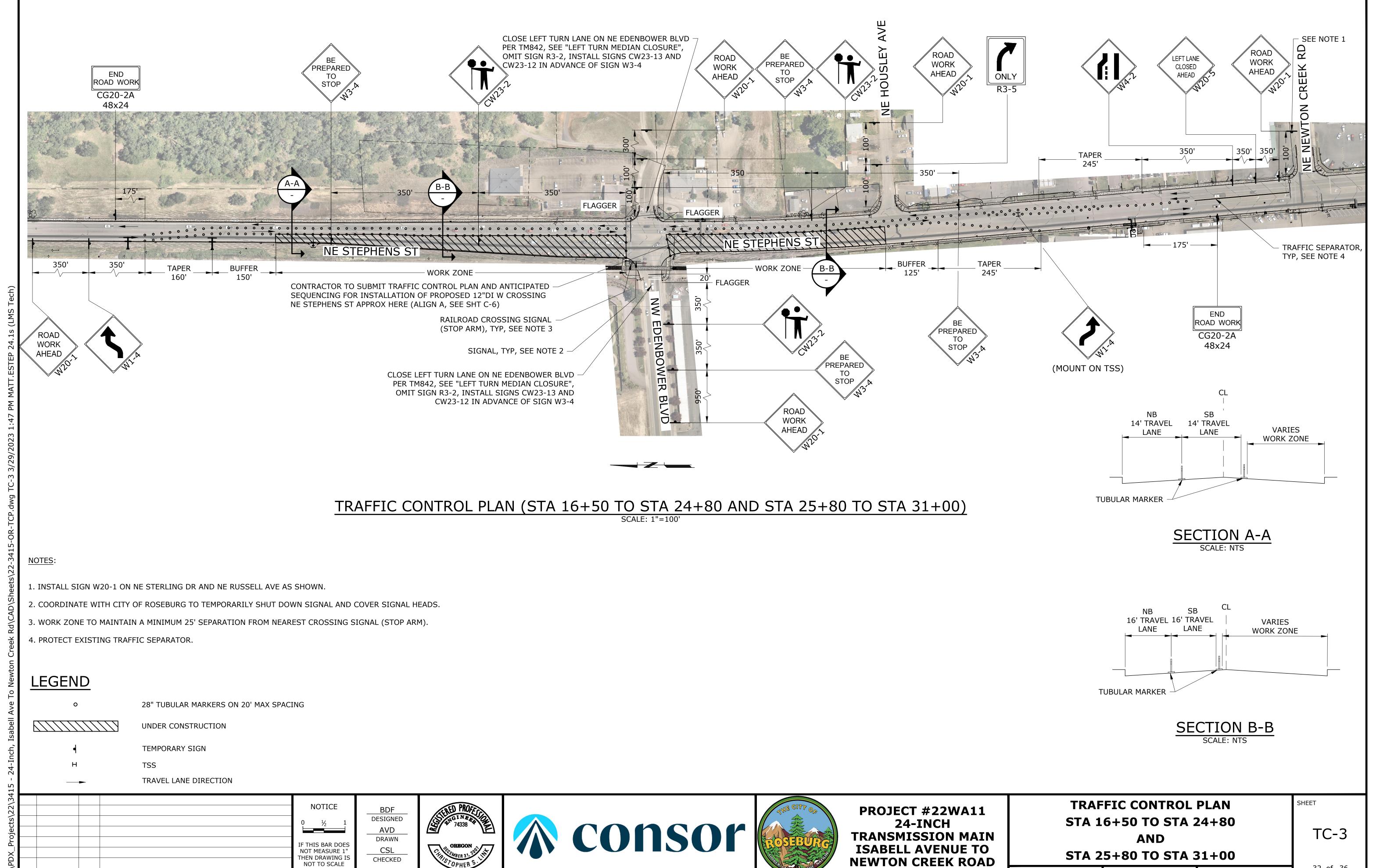
SHEET

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE: MARCH 2023

31 of 36

TRAVEL LANE

TUBULAR MARKER

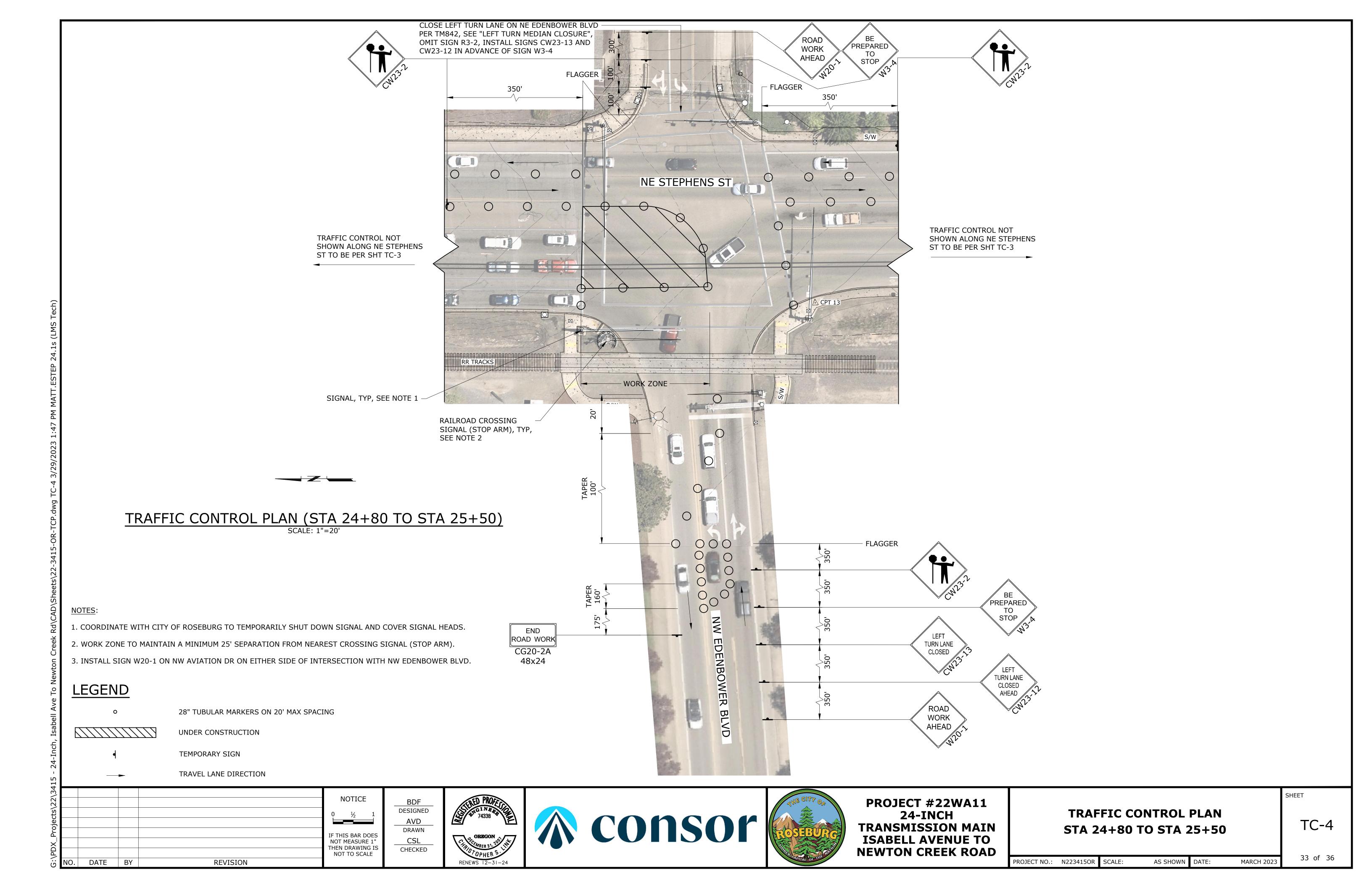


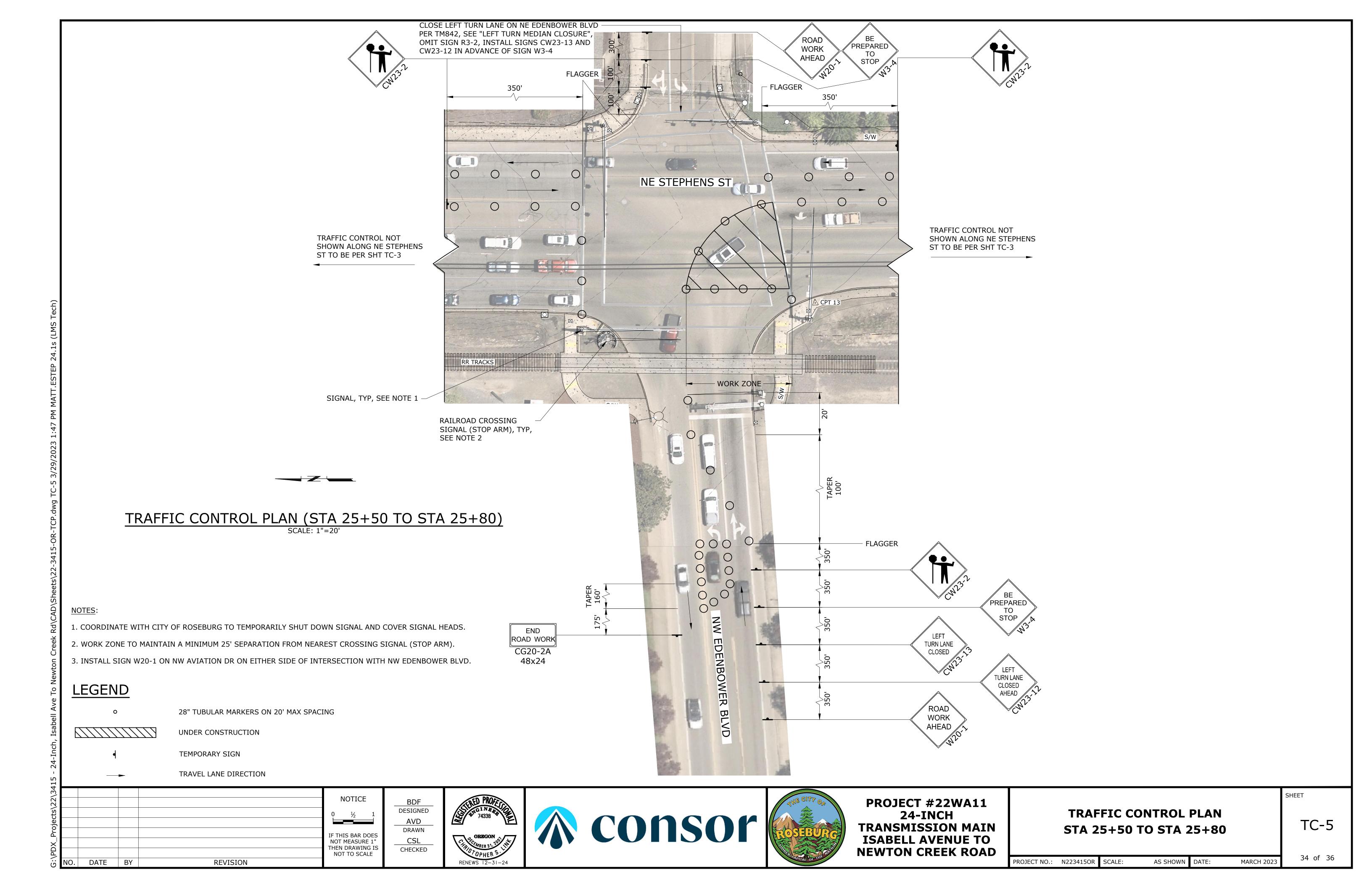
DATE BY

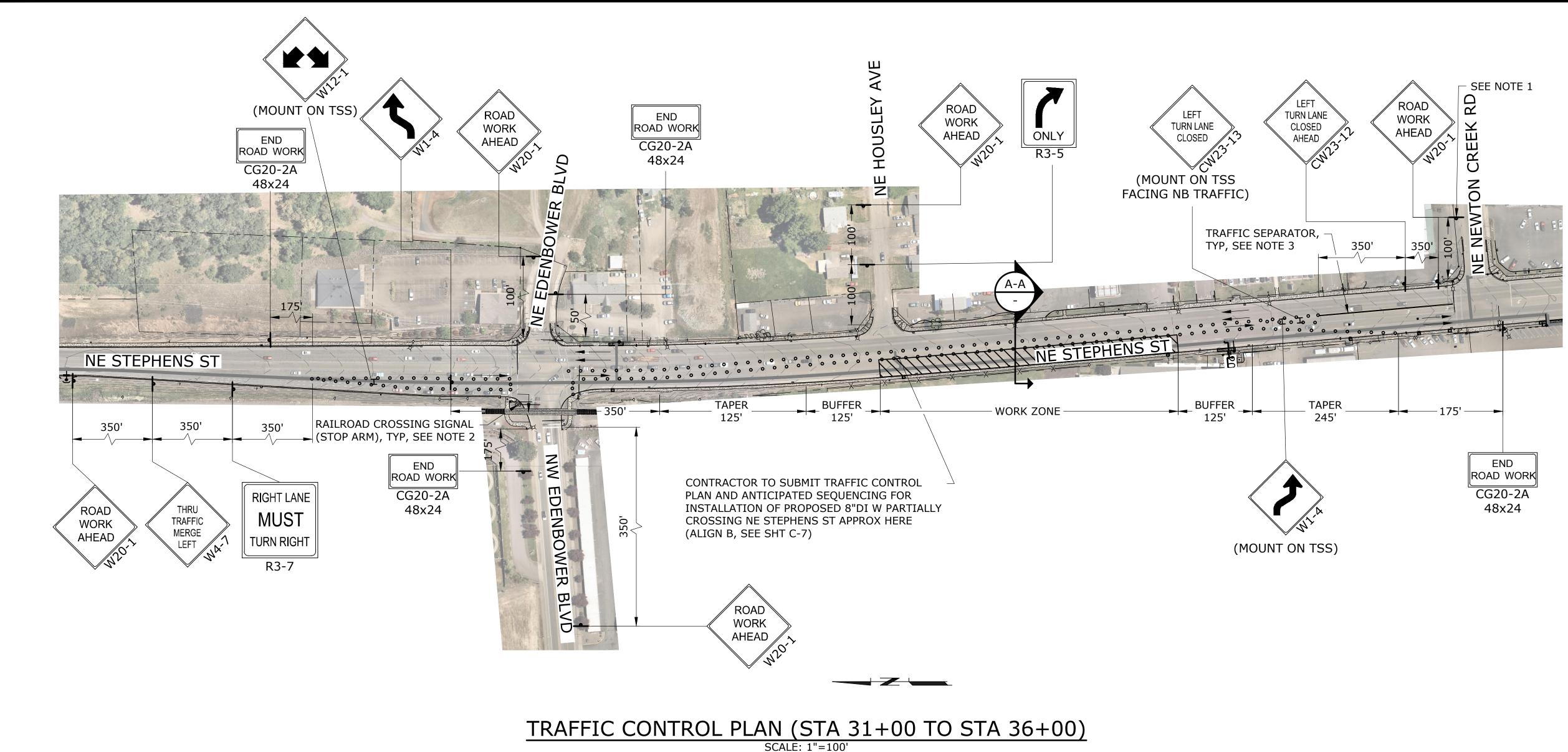
REVISION

AS SHOWN DATE:

PROJECT NO.: N223415OR SCALE:







1. INSTALL SIGN W20-1 ON NE STERLING DR AND NE RUSSELL AVE AS SHOWN.

2. WORK ZONE TO MAINTAIN A MINIMUM 25' SEPARATION FROM NEAREST CROSSING SIGNAL (STOP ARM).

3. PROTECT EXISTING TRAFFIC SEPARATOR.

4. SIGNALS TO REMAIN ON FOR TRAFFIC CONTROL SETUP SHOWN.

LEGEND

28" TUBULAR MARKERS ON 20' MAX SPACING

UNDER CONSTRUCTION TEMPORARY SIGN

TRAVEL LANE DIRECTION

NOTICE IF THIS BAR DOES NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE DATE BY **REVISION**



DESIGNED

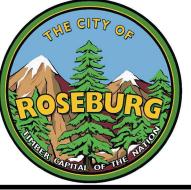
AVD

DRAWN

CSL

CHECKED





PROJECT #22WA11 **24-INCH** TRANSMISSION MAIN **ISABELL AVENUE TO NEWTON CREEK ROAD**

TRAFFIC CONTROL PLAN STA 31+00 TO STA 36+00

PROJECT NO.: N223415OR SCALE: AS SHOWN DATE:

TUBULAR MARKER

35 of 36

SHEET

TC-6

MARCH 2023

16' TRAVEL

SECTION A-A

WORK ZONE

NOTES:

