

APPLICATION FOR PERMIT FOR INSTALLATION OF UTILITIES OR PLACING OBSTRUCTIONS ON THE COUNTY HIGHWAY SYSTEM
ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL

APPLICANT NAME

Xcel Energy

CONTACT PERSON

George Wojcicki

ADDRESS

414 Nicollet Mall

CITY

Minneapolis, MN 55401

PHONE NUMBER

7736774574

EMAIL

george.r.wojcicki@xcelenergy.com

COMPANY OR INDIVIDUAL PERFORMING WORK

Xcel Energy

CONTACT PERSON

Zachary Franzoi (Project Manager)

EMAIL

zachary.a.franzoi@xcelenergy.com

PHONE NUMBER

952-460-0238

PERMIT WORK TO START

05/12/2025

SP 6281-53

PERMIT WORK TO BE COMPLETED

08/31/2025

DURATION OF JOB

3 months

ARE YOU BEING ASKED TO RELOCATE DUE TO A COUNTY PROJECT?

Yes

ANOKA COUNTY PROJECT NUMBER

SP 6281-53

WORK SITE ADDRESS

~6000 20th Ave S

CITY

Lino Lakes

METHOD OF INSTALLATION/CONSTRUCTION

Excavation

NATURE OF WORK Relocation of an existing regulator station on Ash St/Co Rd J, as well as installing a new stopple in the right of way of 20th Ave in order to accommodate a new set of roundabouts on Co Rd J.

SURFACE TO BE DISTURBED

☒ DITCH/BLVD


☐ GRAVEL

☐ BITUMINOUS

☐ CONCRETE

☐ NONE

SITE PLAN



IF THE ROADWAY IS ENCROACHED, YOU MUST ATTACH A TRAFFIC CONTROL PLAN AND/OR REFERENCE THE MOST CURRENT VERSION OF THE MN TEMPORARY TRAFFIC CONTROL FIELD MANUAL (3+ DAYS REQUIRES PLANS TO BE SIGNED BY A LICENSED PE).

TCP to be emailed in parts - file too large

IS SIGNING AND STRIPING REQUIRED?

Yes

DEPTH FROM SURFACE

6'

(60" minimum under county roads)

SIZE AND KIND OF PIPE/CABLE

16" steel distribution line

NUMBER OF EXCAVATIONS

1

SIZE OF EXCAVATIONS

20x20

(Length, width, and depth)

LOCATION OF EXCAVATIONS ALL EXCAVATIONS ARE TO BE PROTECTED AT ALL TIMES AND THEN BACKFILLED WHEN UNATTENDED AND/OR OVERNIGHT
Specific written descriptions of excavations - if shown on attached drawing, drawing shall be specific with depth and distance from centerline, curb, or other distinguishable location. Traffic control plans cannot be approved without specific excavation descriptions.

See plan sheet 2103



ANOKA COUNTY TRANSPORTATION DIVISION

1440 BUNKER LAKE BLVD NW

ANDOVER, MN 55304

PERMIT PHONE: 763-324-3176

highwaypermits@anokacountymn.gov

GENERAL INFORMATION

One permit must be approved for each county road on which work will be performed prior to any work within the right of way by any utility/contractor. Emergency conditions which threaten the safety of the public and require immediate repair are exceptions to this rule. Under those circumstances, the utility/contractor is permitted to begin and/or complete the necessary repairs. The Anoka County Transportation Division (ACTD) shall be notified of emergency repairs as soon as feasible and a written permit is to be completed within two business days of occurrence.

A license-permit bond is generally required of the contractor as part of the registration process, the amount of which will be determined by the nature of the utility work.

A sketch or drawing shall accompany each permit application which will show the location of the proposed work/utility with reference to the county highway center line and right of way line. A complete set of plans is required for all sewer/water projects.

It shall be the responsibility of the applicant to determine which of the special conditions apply to each permit.

ACTD reserves the right to revoke any utility permit and halt work, if, upon inspection of any job site, the special conditions are not met, and/or a hazard exists for the applicant or public safety is threatened. **The failure to comply with the terms and conditions of any applicable Federal, State, Regional, and local laws, rules and regulations, including any provision of Anoka County's Right-of-Way Ordinance shall be cause for immediate revocation of a permit.**

The applicant shall notify ACTD immediately upon completion of project so that the ACTD can inspect the site to determine if restoration has been satisfactorily completed.

The undersigned hereby accepts the terms and conditions of this permit and the regulations of Anoka County, and agrees to fully comply therewith to the satisfaction of the ACTD. The county of Anoka, its officials, employees, and agents, shall be held harmless, by the applicant/permittee, from any demands, claims, lawsuits, or damages relating to the work described in this permit.

APPLICANT'S SIGNATURE

DocuSigned by:

George Wojcik

935301823E8F486...

DATE 4/17/2025

AUTHORIZATION OF PERMIT

In consideration of the applicant's agreement to comply in all respects with the regulations of the ACTD covering such operations, permission is hereby granted for the work to be done as described in the above application. Said work to be done in accordance with the general conditions listed above and the special conditions required as hereby stated. It is expressly understood that this permit is conditioned upon replacement or restoration of the county highway and its right of way to their original or to a satisfactory condition. It is further understood that this permit is issued subject to the approval of local city or township authorities having joint supervision over said street or highway.

APPROVED BY:

DATE

TITLE: Traffic Technician

NOT VALID UNLESS SIGNED BY ANOKA COUNTY

THIS PERMIT COVERS THE RIGHT OF WAY IN ANOKA COUNTY ONLY
ACTD reserves the right to make changes to these special conditions.



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SPECIAL CONDITIONS

TRAFFIC CONTROL

- 1) Detours
 - a) Detailed detour layouts shall be submitted to the traffic engineer for approval.
 - b) No detours shall be permitted without prior approval of the Anoka county traffic engineer.
 - c) A ten day notice must be given prior to the installation of any detour.
 - d) It shall be the responsibility of the applicant to notify Anoka county central communications, local government bodies, and any affected bus companies ten days prior to any road closures/detours.
 - e) Immediately upon completion of work and/or detours, all posts, barricades, and signs shall be removed from the right of way.
- 2) Traffic control devices
 - a) All traffic control devices, barricades, flashers, etc., shall be furnished by the applicant and shall be in accordance with the most recent edition of the Minnesota manual on uniform traffic control devices and temporary traffic control zone layouts – field manual of the same manual.

CONSTRUCTION REQUIREMENTS

- 1) Open cutting of bituminous or concrete surfaced roads will be allowed only at the discretion of the county engineer.
- 2) Neither supplies nor excavation materials shall be placed on the bituminous or concrete surface at any time.
- 3) No trenches will be allowed to remain open overnight.
- 4) Materials removed from the trench shall be used as backfill insofar as they are suitable. All backfill material shall conform to MNDOT specifications for compaction. The use of heavy equipment on top of trench, slapping with backhoe bucket and/or back casting to achieve compaction is prohibited. Any additional material required to back fill to the original grade shall be furnished by the applicant at no expense to the ACTD. All the base and surface courses damaged during construction operations shall be restored to a condition equal to or better than before operations began. The applicant shall be responsible for and restore any settlement.
- 5) All culverts, ditches, shoulders, and backslopes shall be restored to their original condition unless otherwise directed by the ACTD. Shoulders which have been previously constructed or reconstructed with special materials shall be replaced in kind. Restoration of signs, guardrails, guard posts, etc., are the sole responsibility of the applicant and shall be restored to their original condition.
- 6) All roadway maintenance required within the limits of the utility project that is related to the applicant's activities shall be the sole responsibility of the applicant for one year after completion of the project. Upon completion of the restoration work, the applicant shall request a final inspection by the ACTD. The ACTD's approved completion date shall be the starting date of the applicant's one-year responsibility.

HORIZONTAL BORING AND JACKING

- 1) All hard surface roadways shall be jacked or bored.
- 2) All crossings of Anoka County maintained roadbeds, shall be made by boring inside a casing or carrier pipe, or by jacking unless otherwise directed by the Anoka County Engineer. The auger shall lead the casing or carrier pipe by at least six inches whenever possible and never lead the carrier pipe by more than one inch.
- 3) The use of pneumatic devices to facilitate the roadbed crossings will be allowed in most cases with prior approval. In the event approval is not granted and applicant uses a pneumatic device to cross a roadbed and encounters an obstruction and/or unstable subbase material which makes forward or reverse motion of pneumatic device impossible, said pneumatic device then becomes part of the roadway subbase and permission to excavate to retrieve device will not be granted.
- 4) If a pneumatic device is used for the work permitted herein, the installation must be kept to a minimum of four feet below the surface of the roadway if the pneumatic device is less than two inches in diameter, and a minimum of five feet below the surface of the roadway if the pneumatic device is two inches in diameter or larger.

BITUMINOUS RESTORATION

- 1) The locations and dimensions of all openings to be made in the bituminous surface shall be approved by the ACTD prior to any cutting or any surface opening operations.
- 2) All openings in bituminous surfaces shall be cut in a straight line with the sides smooth and vertical. No ragged edges will be permitted. Cutting shall be done with a concrete saw.
- 3) All necessary dust control operations shall be carried out by the applicant at no expense to Anoka County.
- 4) The minimum requirement for subgrade replacement shall be the upper twelve inches of material and shall meet MNDOT specifications for class five placed in six inch layers compacted to one hundred percent of optimum density.
- 5) All manhole casings, gate valves, and other utility structures shall be set one quarter inch below the top of the finished surface.
- 6) Bituminous tack coat materials and application thereof shall conform to MNDOT specification 2357.
- 7) All bituminous surfacing shall be replaced as soon as practicable after the base construction. All bituminous surfacing shall be machine laid. Any exceptions must be approved by the ACTD. Bituminous surfacing shall be replaced to original pavement depth or to a minimum of six inches of bituminous mixture (2360), whichever is greater. Bituminous mixtures must be placed in lifts not exceeding three inches in thickness for base and binder courses and not exceeding two inches for the wear course.
- 8) All surface restoration regardless of size shall conform to existing grades.
- 9) Any unnecessary or negligent damage to bituminous surface in conjunction with the installation and/or repair of a utility shall be cut out and replaced in kind as directed by the ACTD.



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<u>CONCRETE RESTORATION</u> 1) Curb and gutter, sidewalks, and driveways shall be restored in accordance with MNDOT specifications 2531 and 2521.
<u>UTILITY LINES</u> 1) There shall be only a single pole line on the county right of way on either side of the center line thereof. 2) Exact locations of longitudinal installations on county highways shall be located as directed by the ACTD.
<u>SECTION CORNER MONUMENTS</u> 1) Utility locations shall not interfere with the location of any section, quarter, witness, or right of way monuments. For assistance in locations, contact the Anoka County Surveyor’s Office. 2) The applicant shall be responsible for replacement of any existing property irons disturbed during construction. 3) The applicant shall notify the Anoka County Surveyor’s Office three working days in advance of any anticipated disturbance of any section, quarter, witness, or right of way monuments. 4) Any monument disturbed during the course of construction, shall be reset by the Anoka County Surveyor’s Office at the expense of the applicant.
<u>ATTACHING TO BRIDGES/STRUCTURES</u> 1) No utility is permitted to be hung from, or otherwise attached to, any bridge or structure without having detailed plans approved by the Anoka County Engineer. These plans are to show approaches to the structure, method of installation, type, and dimension of housing for the utility.
<u>ADDITIONAL PROVISIONS</u> 1) All subcontractors, installers, and crew shall possess a physical or electronic copy of all documents in relation to the approved permit prior to the commencement of work and be kept on site. This includes, but it not limited to the following: a) Approved permit b) Any/all traffic control plans and/or layouts 2) Shall notify Anoka County Permits at 763-324-3176 or highwaypermits@anokacountymn.gov a) At least 36 hours prior to the commencement of work b) With time frame of proposed of work c) Anticipated traffic control d) When work is complete - including restorations - to request a final inspection 3) No work during inclement weather or when plows are out in any capacity 4) All traffic control shall be in accordance with the most current version of the MnDOT Temporary Traffic Control Field Manual 5) For staking of right-of way or proposed infrastructure, contact Chris Osterhus at 763-324-3189 a minimum of 48 hours prior to the commencement of work.

INITIAL

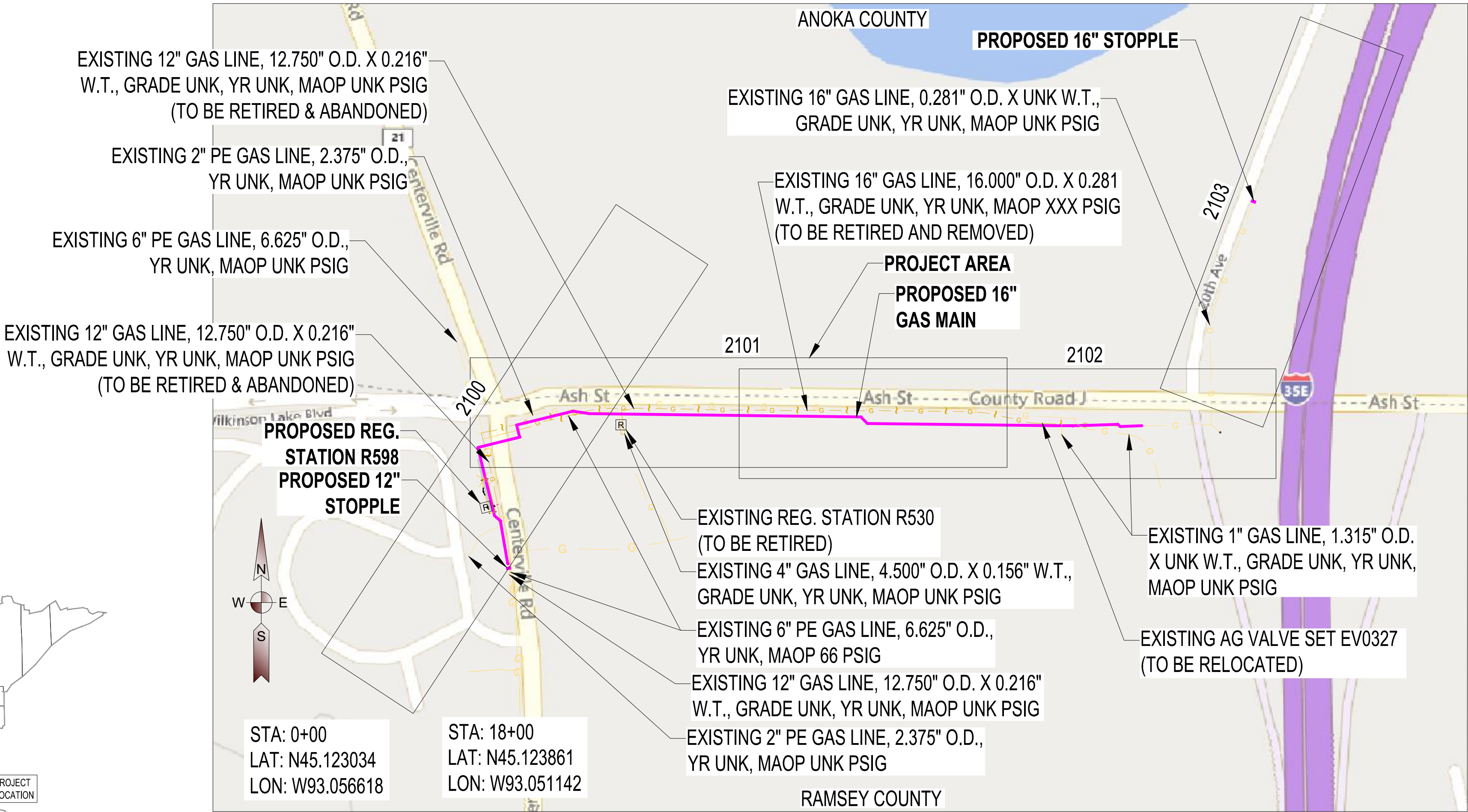
DS

GW

16" HUGO RELOCATION PROJECT

WHITE BEAR TOWNSHIP, MINNESOTA

PRE-ISSUED FOR CONSTRUCTION



SITE MAP (NTS)

WORK ORDER - INDEX

WORK ORDER	DESCRIPTION
111539486	16" STEEL MAINLINE
113583150	R598

FUNCTIONAL LOCATION - INDEX

FUNCTIONAL LOCATION	DESCRIPTION
GT-000000011018	16" STEEL MAINLINE
GT-000000011018-STA-RS0000R598	R598

DRAWING NUMBER SERIES - INDEX

NUMBER SERIES	DISCIPLINE
0000	COVER SHEETS
1000	P&ID
2000	PIPELINE
3000	PRESSURE TESTING & TIE-IN
4000	CIVIL & STRUCTURAL
6000	PIPING
10000	ENVIRONMENTAL

PROJECT CONTACTS

NAME	ROLE	PHONE #	EMAIL
ZACH FRANZOI	PROJECT MANAGER	(651) 229-2564	ZACHARY.A.FRANZOI@XCELENERGY.COM
DAVID MALEK	PROJECT ENGINEER	(651) 229-2263	DAVID.J.MALEK@XCELENERGY.COM
ISAAC KU	PROJECT MANAGER	(612) 256-8022	IKU@ENTRUSTSOL.COM
CODY SHELGREN	PROJECT ENGINEER	(612) 895-5381	CSHELGREN@ENTRUSTSOL.COM

DRAWING DISCLAIMER:

FACILITY LOCATIONS AND DEPTHS ARE GENERAL IN NATURE. XCEL ENERGY WILL NOT BE ACCOUNTABLE FOR ACCURACY OF THE INFORMATION PROVIDED ON THESE DRAWINGS.

NOTE:
1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_0000_16in_NSPM_Hugo_Relocation.dwg

PROJECT COORDINATE SYSTEM: RAMSEYMN-F



ENEngineering
2051 KILLEBREW DR, STE 311
BLOOMINGTON, MN, 55425
TEL: 630-353-4000
WWW.ENENGINEERING.COM

HISTORY

DRAWN BY: JW
DESIGNED BY: CS
CHECKED BY: IH
APPROVED BY: IK
IN SERVICE DATE:

DATE

03/21/25
03/21/25
03/21/25
03/21/25

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25

16 IN HUGO RELOCATION PROJECT COVER & TITLES WITH VICINITY MAP COVER SHEETS

SERVICE CENTER: WHITE BEAR LAKE SC	LOCATION: S35 T31N R22W, S4 T30N R22W
DIVISION: METRO	CITY/COUNTY: WHITE BEAR LAKE/RAMSEY
	TYPE: DISTRIBUTION

DRAWING

0000






DESCRIPTION - 16" OPEN TRENCH PIPE	CARRIER PIPE
METHOD OF INSTALLATION	OPEN TRENCH
PERMIT REQUIREMENTS	RAMSEY COUNTY/ANOKA COUNTY
AGENCY NOTIFICATION	RAMSEY/ANOKA/NORTH OAKS/WHITE BEAR/LINO LAKES
CONSTRUCTION TIMING	2025
CONTENTS TO BE HANDLED	NATURAL GAS
OUTSIDE DIAMETER	16.000"
PIPE MATERIAL	STEEL
SPECIFICATION & GRADE	API 5L, GRADE X52
WALL THICKNESS	0.375"
DESIGN PRESSURE	1219 PSIG
TYPE OF JOINT	WELDED
COATING	14 - 16 MILS FBE
BURY: DEPTH OF CARRIER PIPE UNDER CROSSING BOTTOM	0.4 - 10.2 FT.
CATHODIC PROTECTION (TYPE)	RECTIFIED
POST-INSTALLATION (8-HOUR) MIN./MAX TEST PRESSURE (PSIG)	753 - 853 PSIG
NON-DESTRUCTIVE TESTING	100% XRAY

NOTE:
1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.

CAD FILE NAME: D1_0000_16in_NSPM_Hugo_Relocation.dwg

% SMYS TABLE		
DESCRIPTION	PRESSURE	% SMYS 16.000" O.D. 0.375" WT X52
MOP	350	14.4%
MAOP	485	19.9%
MIN. TEST PRESSURE	753	30.9%

		 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL: 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT PIPELINE SPECIFICATIONS COVER SHEETS			DRAWING
			DRAWN BY: JW	03/21/25	NO.	DESCRIPTION	BY				DATE
			DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25			
			CHECKED BY: IH	03/21/25							
			APPROVED BY: IK	03/21/25							
FLOC: GT-000000011018			IN SERVICE DATE:					SERVICE CENTER: WHITE BEAR LAKE SC	LOCATION: S35 T31N R22W, S4 T30N R22W		
								DIVISION: METRO	CITY/COUNTY: WHITE BEAR LAKE/RAMSEY		TYPE: DISTRIBUTION

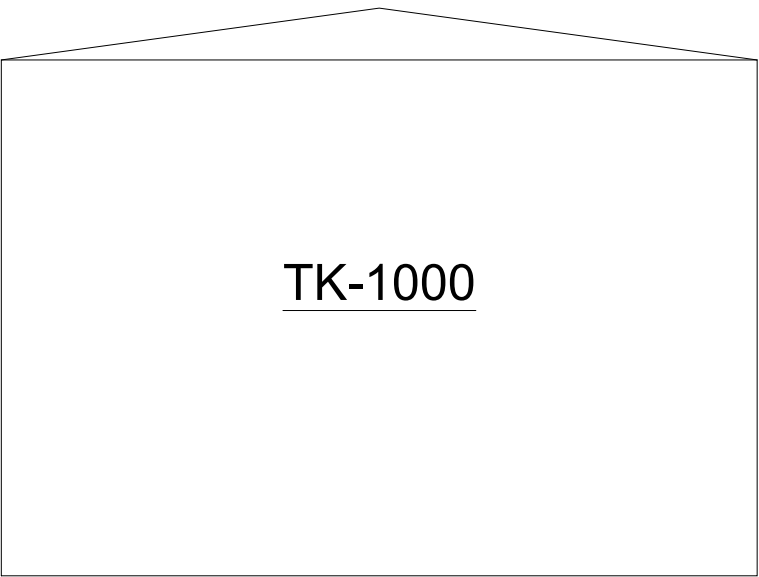
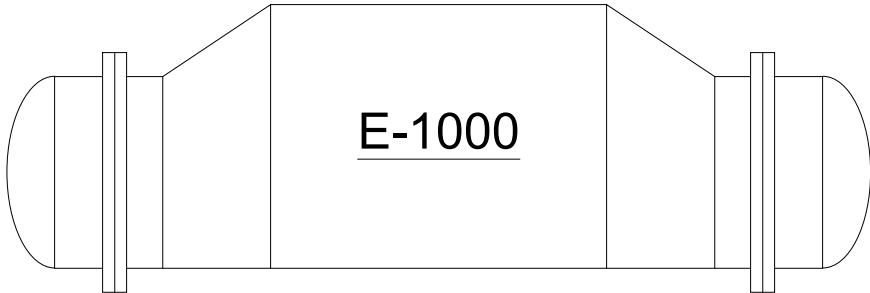
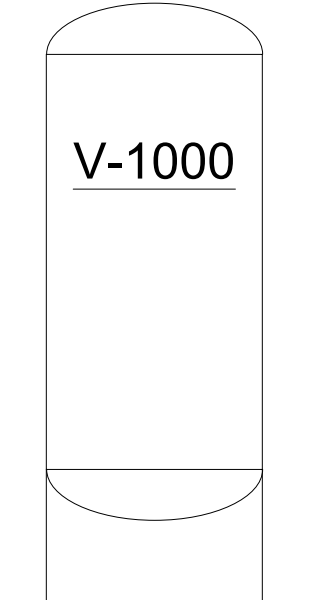
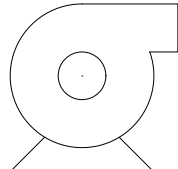
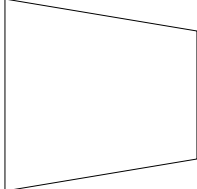
INSTRUMENT IDENTIFICATION TABLE																													
SYMBOL	FIRST LETTER	MEASURING DEVICES								CONTROLLING DEVICES							ALARMS*						SWITCHES*						MISC.
	MEASURED OR INITIAL VARIABLE	E	W	R	I	T	RT	IT	G	RC	IC	C	CV	V	Z	A	L	LL	H	HH	IS	S	SC	SO	Y	XSL	XSH	SAFETY DEVICE	
		ELEMENT PRIMARY	WELL	READOUT (RECORDING)	READOUT (INDICATING)	TRANSMITTER (BLIND)	TRANSMITTER (RECORDING)	TRANSMITTER (INDICATING)	OBSERVATION (LOCAL)	CONTROLLERS (RECORDING)	CONTROLLERS (INDICATING)	CONTROLLERS (BLIND)	CONTROL VALVE	S. CONTROLLED CONTROL VALVE	FINAL CONTROL ELEMENT	BLIND	LOW	LOW LOW	HIGH	HIGH HIGH	INDICATING	BLIND	CLOSED	OPEN	RELAY	SHUTDOWN LOW (XSL)	SHUTDOWN HIGH (XSH)		
A	ANALYZER	AE	AW	AR	AI	AT	ART	AIT		ARC	AIC	AC		AV		AA	AAL/AALL	AAH/AAHH	AIS	AS				AY	AXSL	AXSH			
B	BURNER, COMBUSTION	BE	BW	BR	BI	BT	BRT	BIT	BG	BRC	BIC	BC			BZ	BA	BAL/BALL	BAH/BAHH	BIS	BS				BY	BXSL	BXSH			
C	CONDUCTIVITY (ELECTRICAL)	CE		CR	CI	CT	CRT	CIT		CRC	CIC	CC			CZ	CA	CAL/CALL	CAH/CAHH	CIS	CS				CY	CXSL	CXSH			
D	DENSITY OR SPEC. GRAV.	DE		DR	DI	DT	DRT	DIT		DRC	DIC	DC				DA	DAL/DALL	DAH/DAHH	DIS	DS				DY	DXSL	DXSH			
E	VOLTAGE	EE		ER	EI	ET	ERT	EIT		ERC	EIC	EC			EZ	EA	EAL/EALL	EAH/EAHH	EIS	ES				EY	EXSL	EXSH			
F	FLOW	FE		FR	FI	FT	FRT	FIT	FG	FRC	FIC	FC	FCV	FV		FA	FAL/FALL	FAH/FAHH	FIS	FS				FY	FXSL	FXSH			
G	USER'S CHOICE																												
H	HAND INITIATED										HIC	HC	HCV	HV							HS				HY				
I	CURRENT (ELECTRICAL)	IE		IR	II	IT	IRT	IIT		IRC	IIC				IZ	IA	IAL/IALL	IAH/IAHH	IIS	IS				IY	IXSL	IXSH			
J	POWER	JE		JR	JI	JT	JRT	JIT		JRC	JIC				JZ	JA	JAL/JALL	JAH/JAAH	JIS	JS				JY	JXSL	JXSH			
K	TIME OR TIME SCHEDULE	KE		KR	KI	KT	KRT	KIT		KRC	KIC	KC	KCV		KZ	KA	KAL/KALL	KAH/KAHH	KIS	KS				KY	KXSL	KXSH			
L	LEVEL	LE	LW	LR	LI	LT	LRT	LIT	LG	LRC	LIC	LC	LCV	LV		LA	LAL/LALL	LAH/LAAH	LIS	LS				LY	LXSL	LXSH			
M	MOISTURE OR HUMIDITY	ME		MR	MI	MT	MRT	MIT		MRC	MIC	MC		MV		MA	MAL/MALL	MAH/MAHH	MIS	MS				MY	MXSL	MXSH			
N	USER'S CHOICE																												
O	USER'S CHOICE																												
P	PRESSURE OR VACUUM	PE		PR	PI	PT	PRT	PIT		PRC	PIC	PC	PCV	PV		PA	PAL/PALL	PAH/PAHH	PIS	PS				PY	PXSL	PXSH	PSV/PSE		
Q	QUANTITY OR EVENT	QE		QR	QI	QT	QRT	QIT		QRC	QIC				QZ	QA	QAL/QALL	QAH/QAAH	QIS	QS				QY	QXSL	QXSH			
R	RADIOACTIVITY	RE	RW	RR	RI	RT	RRT	RIT		RRC	RIC	RC			RZ	RA	RAL/RALL	RAH/RAHH	RIS	RS				RY	RXSL	RXSH			
S	SPEED OR FREQUENCY	SE		SR	SI	ST	SRT	SIT		SRC	SIC	SC	SCV	SV	SZ	SA	SAL/SALL	SAH/SAHH	SIS	SS				SY	SXSL	SXSH			
T	TEMPERATURE	TE	TW	TR	TI	TT	TRT	TIT		TRC	TIC	TC	TCV	TV		TA	TAL/TALL	TAH/TAHH	TIS	TS				TY	TXSL	TXSH	TSE		
U	MULTI-VARIABLE													UV		UA								UY		UU			
V	VIBRATION	VE		VR	VI	VT	VRT	VIT								VA		VAH/VAHH	VIS	VS				VY		VXSH			
W	WEIGHT OR FORCE	WE		WR	WI	WT	WRT	WIT		WRC	WIC	WC	WCV		WZ	WA	WAL/WALL	WAH/WAAH	WIS	WS				WY	WXSL	WXSH			
X	SHUTDOWN													XV		XA	XAL/XALL	XAH/XAAH	XS					XY					
Y	EVENT, STATE OR PRESENCE																												
Z	POSITION	ZE		ZR	ZI	ZT	ZRT	ZIT		ZRC	ZIC	ZC	ZCV	ZV		ZA	ZAL/CLOSE	ZAH/OPEN	ZIS	ZS	ZSC	ZSO	ZY						
THE FOLLOWING IS A GUIDE FOR ADDING ADDITIONAL INSTRUMENT ABBREVIATIONS (TYPICAL OR PREFERRED USAGE)																													
	1st POSITION	2nd POSITION			3rd POSITION			4th POSITION				1st POSITION	2nd POSITION			3rd POSITION			4th POSITION										
A	ANALYSIS	ALARM			ALARM BOARD			CONTROLLER				O	PRESSURE OR VACUUM			ORIFICE (RESTRICTION)			OPEN										
B	BURNER											P	QUANTITY OR EVENT			POINT (TEXT CONN.)													
C	CONDUCTIVITY (ELECTRICAL)	CONTROL, CONTROLLER			CONTROL, CONTROLLER							Q	RADIOACTIVITY			INTEGRATE (TOTALIZE)													
D	DENSITY OR SPECIFIC GRAVITY	DIFFERENTIAL ELEMENT			DIFFERENTIAL ELEMENT							R	SPEED OR FREQUENCY			RECORDER													
E	VOLTAGE (EMF) FLOW	FRACTION (RATIO) GLASS			FRACTION (RATIO) GLASS							S	TEMPERATURE			RECORDING													
F	HAND INITIATED											T	MULTIVARIABLE			SWITCH, SAFETY TRANSMITTER													
G	CURRENT (ELECTRICAL)	INDICATOR, INDICATING			HIGH INDICATOR			HIGH INDICATOR				U	VIBRATION, MECH, ANALYSIS			MULTIFUNCTION													
H	POWER	SCAN										V	WEIGHT OR FORCE			VALVE, DAMPER, LOUVER													
I	LEVEL	TIME RATE OF CHANGE			CONTROL STATION			CONTROL STATION				W	SHUTDOWN			MULTIFUNCTION VALVE, DAMPER, LOUVER													
J	MOISTURE OR HUMIDITY	LIGHT (PILOT) MOMENTARY			LOW MIDDLE			LOW MIDDLE				X	EVENT, STATE OR PRESENCE			RELAY DRIVE, FINAL CONTROL ELEMENT, Z AXIS													
K												Y	POSITION																
L												Z																	
M																													
N																													

STANDARD ANNOTATIONS																											
ABBREVIATIONS																					PIPE LINE NUMBERING STANDARD				DESIGN PRESSURE		
ATM = ATMOSPHERE AC = AIR TO CLOSE AFFF = AQUEOUS FILM FORMING FLUID AG = ABOVE GROUND / GRADE AO = AIR TO OPEN AS = AIR SUPPLY BD = BLOWDOWN BF = BLIND FLANGE BG = BELOW GROUND / GRADE CBD = CONTINUOUS BLOWDOWN CC = CHEMICAL CLEAN CD = CLOSED DRAIN CHO = CHAIN OPERATED CO = CLEAN OUT COMB = COMBUSTIBLE GAS CSC = CAR SEAL CLOSED CSO = CAR SEAL OPEN DC = DRAIN CONNECTION DCS = DISTRIBUTED CONTROL SYSTEM ESD = EMERGENCY SHUTDOWN ELEV = ELEVATION F/F = FLANGE TO FLANGE FC = FAIL CLOSED FL = FAIL LAST FO = FAIL OPEN FP = FULL PORT GPH = GALLONS PER HOUR							GPM = GALLONS PER MINUTE HC = HOSE CONNECTION HOA = HAND-OFF-AUTOMATIC HP = HIGH PRESSURE HSD = HAND SHUTDOWN HV = HAND VALVE IP = INJECTION POINT IU = INSULATING UNION LAT = LOW ATMOSPHERIC TIDE LC = LOCK CLOSED LD = LIQUID DRAINER LO = LOCK OPEN LOV = LOCALLY OPERATED VALVE LOR = LOCAL-OFF-REMOTE LP = LOW PRESSURE MW = MANWAY N2 = NITROGEN NC = NORMALLY CLOSED NLL = NORMAL LIQUID LEVEL NNF = NORMALLY NO FLOW NO = NORMALLY OPEN OD = OPEN DRAIN PB = PUSHBUTTON PC = PURGE CONNECTION PLC = PROGRAMMABLE LOGIC CONTROLLER PSD = PROCESS SHUTDOWN							QD = QUICK DISCONNECT RAV = REMOTE ACTUATED VALVE RCV = REMOTE CONTROL VALVE ROC = "RATE OF CHANGE" (dp/dt) ROV = REMOTE OPERATED VALVE RP = REDUCED PORT RTD = RESISTANCE TEMP. DETECTOR RTU = REMOTE TERMINAL UNIT S/S = SEAM TO SEAM SCFD = STD. CU. FT. PER DAY SCFH = STD. CU. FT. PER HOUR SCFM = STD. CU. FT. PER MINUTE SD = SHUTDOWN SO = STEAM OUT CONNECTION SP = SET POINT SR = STRESS RELIEF SS = SELECTOR SWITCH ST = STEAM TRAP T/T = TANGENT TO TANGENT TC = THERMOCOUPLE TS = TEMPORARY STRAINER TP = TIGHT SHUT OFF TYP = TYPICAL UG = UNDERGROUND VT = VENT (V) = VENDOR FURNISHED							PIPE SIZE TYPE OF SERVICE PROJECT SPECIFIC LINE IDENTIFIER DESIGN PRESSURE				DESIGN PRESSURE		
																					TYPE OF SERVICE DESIGNATIONS						
BP = BYPASS CW = COOLING WATER FA = FREE AIR FG = FUEL GAS GY = GLYCOL HO = HYDRAULIC OIL HPA = HIGH PRESSURE AIR HPG = HIGH PRESSURE GAS HPD = HIGH PRESSURE LIQUID DRAIN HWR = HOT WATER RETURN							HWS = HOT WATER SUPPLY IA = INSTRUMENT AIR IG = INSTRUMENT GAS LO = LUBE OIL LPD = LOW PRESSURE DRAIN LPG = LOW PRESSURE GAS ME = METHANOL MGV = MAIN GAS VENT MPG = MEDIUM PRESSURE GAS OD = ODORANT							PA = PLANT AIR PG = POWER GAS PW = PROCESS WATER SA = START AIR SG = START GAS UG = UTILITY GAS UGV = UTILITY GAS VENT WG = WASTE GAS WO = WASTE OIL													
																					PROJECT SPECIFIC LINE IDENTIFIER						
DISTRIBUTION: FLOC: GD-#####-XXXX-XXXXXXXXXXXX																					TRANSMISSION: FLOC: GT-#####-XXX-XXXXXXXXXX						
THE LAST 3-6 CHARACTERS OF THE FL4																					THE LAST 3-9 CHARACTERS OF THE FL4						

FLOW COMPONENTS																										
FLANGE							STRAINER / FILTER							SWAGE							INSULATION WITH ELEC. HEAT TRACE					
OPEN SPECTACLE BLIND							FLANGED TEE STRAINER							REDUCER							INSULATION					
CLOSED SPECTACLE BLIND							Y-STRAINER WITH DRAIN VALVE							ECCENTRIC REDUCER							SPEC BREAKS (UP & DOWN)					
UNION							BLEED RING							PILOT							CLOSURE					
ORIFICE							BLEED RING WITH VALVE							STOPPLE TEE							TRUCK CONNECTION W/ QUICK DISCONNECT					
ORIFICE WITH VALVES							DRESSER COUPLING							O-LET							PLUG (THREADED)					
																					CAP (WELDED)					
																					FLEXIBLE HOSE					
																					HOSE CONNECTION					
																					VENT TO ATMOSPHERE					
																					ROOTS METER					
																					ULTRASONIC METER					
																					MAG METER					
																					ORIFICE METER					
																					RAIN CAP					
																					VTA					




VALVES & ACTUATORS													INSTRUMENTATION														LINE SYMBOLS																												
GATE VALVE BALL VALVE GLOBE VALVE PLUG VALVE CHECK VALVE NEEDLE VALVE BUTTERFLY VALVE PINCH VALVE 3-WAY VALVE 4-WAY VALVE NORMALLY-CLOSED VALVES SHOWN BLACKED OUT NOTE: 1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS. CAD FILE NAME: <i>D1_1000_16IN_NSPM_HUGO_RELOCATION.dwg</i>													DIAPHRAGM / SPRING-OPPOSED PRESSURE TAPPED / PILOT-OPERATED REGULATOR DIRECT OPERATED REGULATORS PRESSURE SELF W/ HAND WHEEL ROTARY MOTOR SOLENOID SPRING ACTUATED (CAN BE SHOWN AS SINGLE-ACTING OR DOUBLE-ACTING) PROJECT-SPECIFIC SYMBOLS PRESSURE-REDUCING REGULATOR W/ PRESSURE INDICATOR REMOTE ACTUATED VALVE / EMERGENCY SHUT DOWN VALVE RELIEF VALVE ISOLATION VALVE (BOX AROUND TAG) 													DISCRETE FIELD MOUNTED LOCAL PANEL FRONT MOUNTED LOCAL PANEL BACK MOUNTED SECONDARY PANEL FRONT MOUNTED SECONDARY PANEL BACK MOUNTED SHARED - PRIMARY FIELD MOUNTED LOCAL PANEL FRONT MOUNTED LOCAL PANEL BACK MOUNTED SECONDARY PANEL FRONT MOUNTED SECONDARY PANEL BACK MOUNTED COMPUTER / SOFTWARE FIELD MOUNTED LOCAL PANEL FRONT MOUNTED LOCAL PANEL BACK MOUNTED SECONDARY PANEL FRONT MOUNTED SECONDARY PANEL BACK MOUNTED SHARED - ALTERNATE FIELD MOUNTED LOCAL PANEL FRONT MOUNTED LOCAL PANEL BACK MOUNTED SECONDARY PANEL FRONT MOUNTED SECONDARY PANEL BACK MOUNTED MISCELLANEOUS PILOT LIGHT HEAT TRACED INSTRUMENT INTERLOCK "AND" INTERLOCK "OR" INTERLOCK PURGE RESET														FUNCTION SYMBOLS MULTIPLY UNSPECIFIED PROPORTION DIVISION TIME FUNCTION ROOT EXTRACTION EXPONENTIAL SUMMATION SUMMATION HIGH SELECT LOW SELECT VELOCITY LIMITER CONVERSION PLUS/MINUS BIAS MINUS BIAS DIFFERENCE PROPORTIONAL DERIVATIVE PROPORTIONAL AVERAGE HIGH LIMIT LOW LIMIT PLUS BIAS INTEGRAL AVERAGE								INSTRUMENTATION LINES INSTRUMENT PNEUMATIC ELECTRICAL CAPILLARY HEAT TRACED SONIC GUIDED LOGIC SYSTEM LOGIC MECHANICAL BINARY PNEUMATIC BINARY ELECTRIC SONIC UNGUIDED HYDRAULIC							
PROCESS LINES MAJOR <u>PRIMARY</u> PROCESS MAJOR <u>SECONDARY</u> PROCESS MINOR <u>PRIMARY</u> PROCESS MINOR <u>SECONDARY</u> PROCESS													OFF-PAGE ARROWS TO / FROM DRAWING # PROCESS LINE GOING TO/FROM DRAWINGS WITHIN SAME DRAWING PACKAGE TO /FROM LINE LOOP PROCESS LINE GOING TO/FROM DRAWINGS AT A DIFFERENT SITE OR SERVICE GROUP TO / FROM RTU INSTRUMENT LINE GOING TO/FROM DRAWINGS AT A DIFFERENT SITE OR SERVICE GROUP																																										

			 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM			HISTORY DRAWN BY: <i>MW</i> DESIGNED BY: <i>CS</i> CHECKED BY: <i>IH</i> APPROVED BY: <i>IK</i> IN SERVICE DATE:		DATE <i>03/21/25</i> <i>03/21/25</i> <i>03/21/25</i> <i>03/21/25</i>		REVISIONS NO. DESCRIPTION BY DATE <i>0 ISSUED FOR PRE-CONSTRUCTION CS 03/21/25</i>				16 IN HUGO RELOCATION PROJECT PIPING & INSTRUMENTATION LEGEND						DRAWING <i>1001</i>			
FLOC: <i>GT-000000011018</i>										SERVICE CENTER: <i>WHITE BEAR LAKE SC</i>						LOCATION: <i>S35 T31N R22W, S4 T30N R22W</i>							
										DIVISION: <i>METRO</i>			CITY/COUNTY: <i>WHITE BEAR LAKE/RAMSEY</i>			TYPE: <i>DISTRIBUTION</i>							

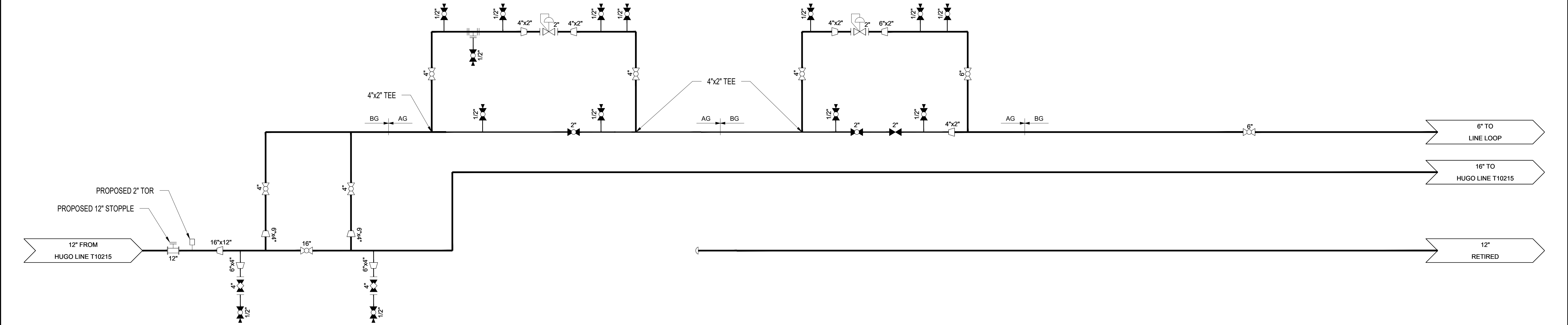
STANDARD ANNOTATIONS		EQUIPMENT EXAMPLES				
PLANT SYSTEM DESIGNATION NUMBERS						
<div>THE PLANT SYSTEM CAN BE IDENTIFIED BY THE FIRST DIGIT IN THE NUMBER. LISTED ARE THE NUMBERS 1 THROUGH 9 AND THEIR CORRESPONDING PLANT SYSTEMS:</div> <div><div>1. MAIN GAS</div><div>2. PROCESS: ANY PROCESS THAT AFFECTS THE QUALITY OF THE MAIN GAS. (AMINE, PROPANE, METHANOL, GLYCOL, HEAT MEDIUM, ETC.)</div><div>3. PRODUCT: ANY ITEM PRODUCED FROM THE MAIN GAS STREAM EXCEPT FOR NATURAL GAS. (PROPANE, HELIUM, CO2, ETC.)</div><div>4. DRAINS & VENTS</div><div>5. UTILITY GAS: (START, FUEL, INSTRUMENT, ETC.)</div><div>6. AIR: (MAIN, FREE, START, POWER, ETC.)</div><div>7. OIL: (LUBRICANT)</div><div>8. WATER: (COOLING, DOMESTIC, DRAINS, INJECTION, ETC.)</div><div>9. EXTERNAL SYSTEM: SYSTEMS THAT ARE NOT DIRECTLY RELATED TO THE PURPOSE OF THE PLANT BUT ARE NECESSARY FOR THE PLANT OPERATION. (HALON, ODORANT, GENERATOR, ETC.)</div></div>		<div><div><div>TK-1000</div><div>SERVICE: OD: LENGTH: MATERIAL:</div><div></div></div><div><div>E-1000</div><div>SERVICE: OD: LENGTH: MATERIAL:</div><div></div></div><div><div>V-1000</div><div>XXX"1ST STAGE SUCTION SCRUBBER" INTERNAL: XXX @ XXX EXTERNAL: XXX @ XXX XXX X XXX ASME SECTION VIII, DIV 1 C.A.: x/x" N.D.E. TESTING: RT-1</div><div></div></div><div><div>P-1000</div><div>SERVICE: CAPACITY: DISCHARGE: RPM: HP:</div><div></div></div><div><div>C-1000</div><div>SERVICE: MODEL: DISCHARGE: MAOP: HP:</div><div></div></div></div>				
EQUIPMENT DESIGNATIONS		EQUIPMENT NUMBERING STANDARD				
<div>A = CONTROL PANEL</div> <div>B = PULSATION BOTTLE</div> <div>C = COMPRESSOR</div> <div>D = DRIVER</div> <div>E = EXCHANGER (COOLER)</div> <div>F = FILTER</div> <div>G = GENERATOR</div> <div>H = HEATER (FIRED)</div> <div>FL = FLARE</div> <div>J = JOINT (EXPANSION)</div> <div>L = LUBRICATOR</div> <div>P = PUMP</div> <div>R = REBOILER</div> <div>S = SILENCER (MUFFLER)</div> <div>TK = TANK</div> <div>V = VESSEL</div> <div>Y = DRYER</div>		<div><div>XX-XXXX</div><div>EQUIPMENT DESIGNATION CODE</div><div>PLANT SYSTEM IDENTIFICATION</div><div>SEQUENTIAL NUMERICAL NUMBER</div></div>				

PROJECT-SPECIFIC EQUIPMENT									



NOTE:
1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_1000_16IN_NSPM_HUGO_RELOCATION.dwg

 FLOC: GT-000000011018	 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT PIPING & INSTRUMENTATION LEGEND			DRAWING 1002		
		DRAWN BY: MW	03/21/25	NO.	DESCRIPTION	BY					DATE	
		DESIGNED BY: CS	03/21/25	0	ISSUED FOR PRE-CONSTRUCTION	CS	03/21/25	SERVICE CENTER: WHITE BEAR LAKE SC			LOCATION: S35 T31N R22W, S4 T30N R22W	
		CHECKED BY: IH	03/21/25					DIVISION: METRO			CITY/COUNTY: WHITE BEAR LAKE/RAMSEY	TYPE: DISTRIBUTION
		APPROVED BY: IK	03/21/25									
		IN SERVICE DATE:										



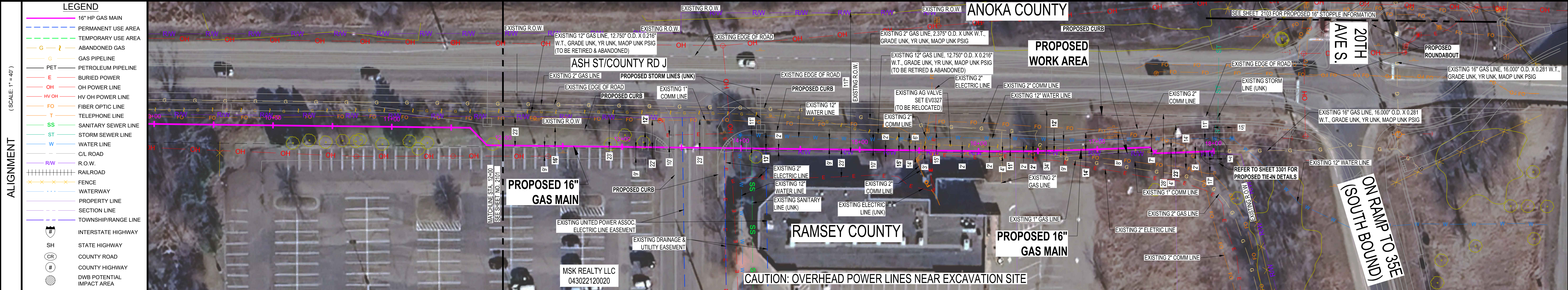


NOTE:
1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_1000_16IN_NSPM_HUGO_RELOCATION.dwg

<div></div> <div>FLOC: GT-000000011018</div>	<div><div>2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM</div></div>	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT PIPING & INSTRUMENTATION DIAGRAM PFD/P&ID			DRAWING	
		DRAWN BY: MW	03/21/25	NO.	DESCRIPTION	BY	DATE				1500
		DESIGNED BY: CS	03/21/25	0	ISSUED FOR PRE-CONSTRUCTION	CS	03/21/25				
		CHECKED BY: IH	03/21/25								
		APPROVED BY: IK	03/21/25								
		IN SERVICE DATE:					SERVICE CENTER: WHITE BEAR LAKE SC		LOCATION: S35 T31N R22W, S4 T30N R22W		
							DIVISION: METRO		CITY/COUNTY: WHITE BEAR LAKE/RAMSEY	TYPE: DISTRIBUTION	<div>0</div>


OWNERSHIP		12+00	NEW ASH ST/COUNTY RD J R.O.W. 161.0'	13+61	ASH ST/COUNTY RD J R.O.W. 439.0'	18+00
ENVIRONMENTAL		RAMSEY COUNTY				
JURISDICTION		753 (MIN.) PSIG - 853 (MAX.) PSIG				
TEST PRESSURE MIN/MAX		(1.5 X 485)+25 PSIG				
TEST PRESSURE FACTOR		3.0' (MIN.) - 8.9' (MAX.)				
DEPTH OF COVER		CLASS 3				
CLASS LOCATION						

STATIONING	
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OWNERSHIP	
ENVIRONMENTAL	
JURISDICTION	ANOKA COUNTY
TEST PRESSURE MIN/MAX	753 (MIN.) PSIG - 853 (MAX.) PSIG
TEST PRESSURE FACTOR	(1.5 X 485)+25 PSIG
DEPTH OF COVER	(MIN.) - (MAX.)
CLASS LOCATION	CLASS 3

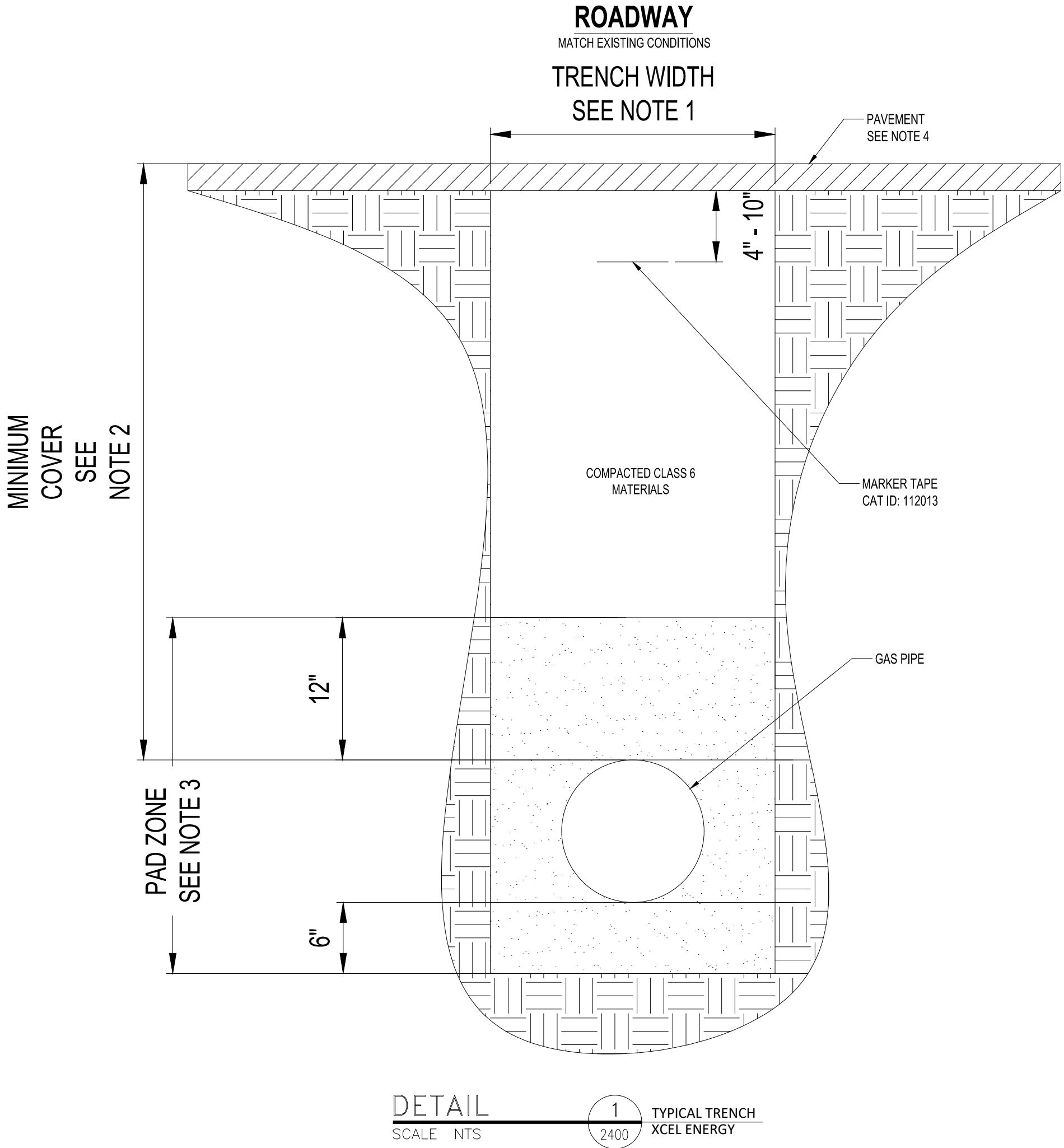
STATIONING	
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ALIGNMENT (SCALE: 1"=40')	<div><div><div>LEGEND</div><div><div><div>16" HP GAS MAIN</div><div>PERMANENT USE AREA</div><div>TEMPORARY USE AREA</div><div>ABANDONED GAS</div><div>GAS PIPELINE</div><div>PET</div><div>BURIED POWER</div><div>OH</div><div>HV OH</div><div>FO</div><div>T</div><div>SS</div><div>ST</div><div>W</div><div>C/L ROAD</div><div>R.O.W.</div><div>RAILROAD</div><div>FENCE</div><div>WATERWAY</div><div>PROPERTY LINE</div><div>SECTION LINE</div><div>TOWNSHIP/RANGE LINE</div><div>INTERSTATE HIGHWAY</div><div>SH</div><div>CR</div><div>COUNTY HIGHWAY</div><div>DWB POTENTIAL IMPACT AREA</div></div><div><div>16" HP GAS MAIN</div><div>PERMANENT USE AREA</div><div>TEMPORARY USE AREA</div><div>ABANDONED GAS</div><div>GAS PIPELINE</div><div>PET</div><div>BURIED POWER</div><div>OH</div><div>HV OH</div><div>FO</div><div>T</div><div>SS</div><div>ST</div><div>W</div><div>C/L ROAD</div><div>R.O.W.</div><div>RAILROAD</div><div>FENCE</div><div>WATERWAY</div><div>PROPERTY LINE</div><div>SECTION LINE</div><div>TOWNSHIP/RANGE LINE</div><div>INTERSTATE HIGHWAY</div><div>SH</div><div>CR</div><div>COUNTY HIGHWAY</div><div>DWB POTENTIAL IMPACT AREA</div></div></div></div><div></div></div>
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PIPELINE DATA	<div><div>PIPELINE SCHEMATIC</div><div><div><div>BORE PIPE</div><div>SEGMENTABLE FITTING</div><div>PIPELINE WEIGHTS</div><div>METER STATION</div><div>CATHODIC TEST STATION</div><div>MAINLINE VALVE</div><div>REG. STATION</div><div>ANODE</div></div></div></div>	
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PROFILE HORIZONTAL SCALE: 1"=40' VERTICAL SCALE: 1"=40'	
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		 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY		DATE		REVISIONS				16 IN HUGO RELOCATION PROJECT STOPPLE LOCATION PIPELINE				DRAWING				
FLOC: GT-000000011018			DRAWN BY: JW		03/21/25		NO.		DESCRIPTION						BY		DATE		2103
			DESIGNED BY: CS		03/21/25		0		PRE-ISSUED FOR CONSTRUCTION		CS		03/21/25						
			CHECKED BY: IH		03/21/25														
			APPROVED BY: IK		03/21/25														
			IN SERVICE DATE:																
														SERVICE CENTER: WHITE BEAR LAKE SC		LOCATION: S35 T31N R22W, S4 T30N R22W			
														DIVISION: METRO		CITY/COUNTY: LINO LAKES/ANOKA		TYPE: DISTRIBUTION	
																			



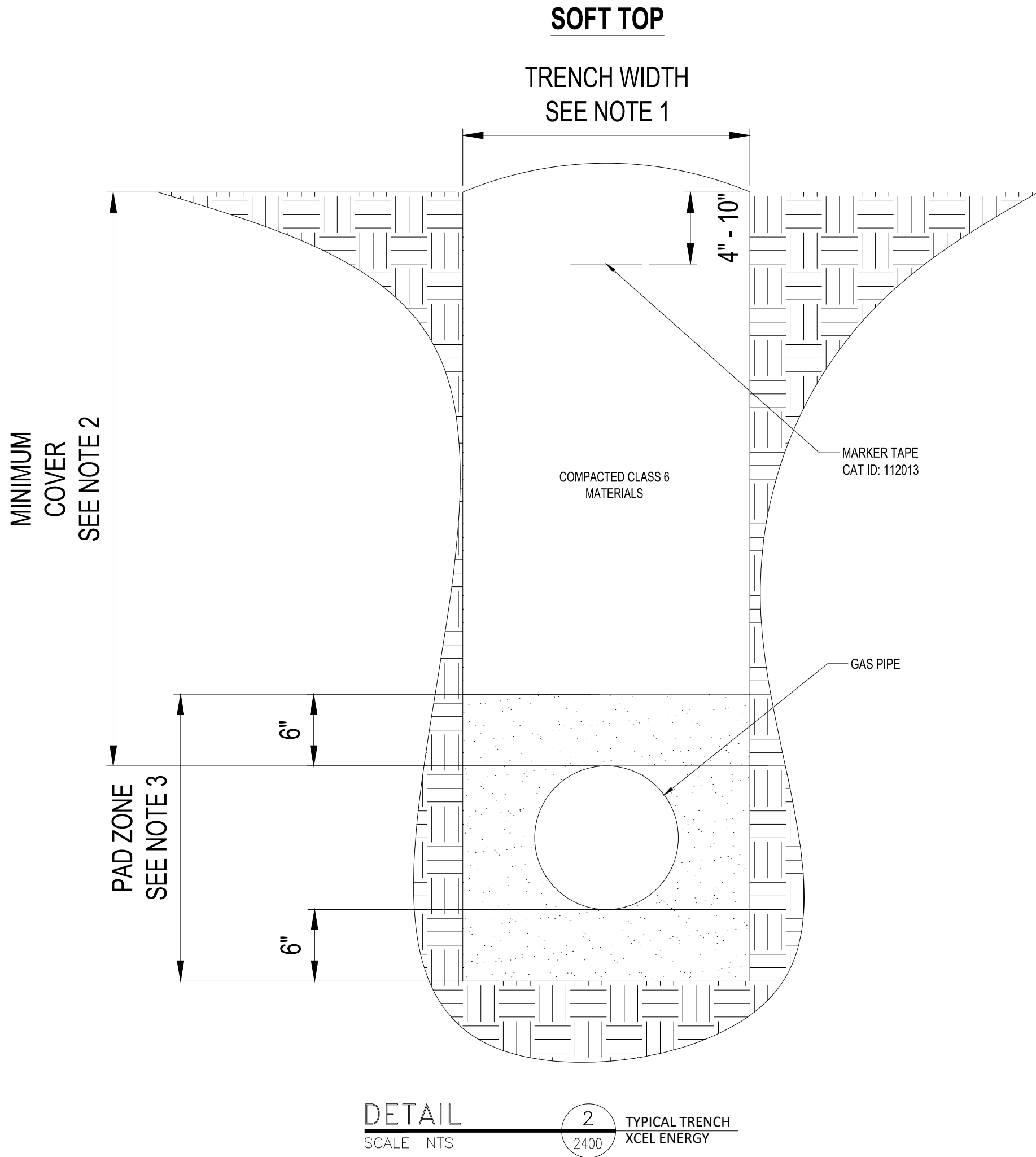
- NOTES:
- THE MINIMUM TRENCH WIDTH SHALL BE AS FOLLOWS:

PIPE SIZE	TRENCH WIDTH
3/4" - 2"	12"
3" - 24"	O.D. +12"

 - MINIMUM DEPTH OF COVER FROM FINAL GRADE TO TOP OF PIPE SHALL BE AS FOLLOWS:

	IN EARTH	IN ROCK
TRANSMISSION MAINS AND SERVICES	48"	24"
*OTHER DEPTHS MAY BE REQUIRED BY LOCAL GOVERNING AUTHORITIES		

 - SAND PADDING IS REQUIRED IN THE PIPE ZONE. SAND PADDING SHALL BE IMPORTED NATURAL OR MANUFACTURED CONCRETE SAND, CUSHION SAND, SCREENED BANK RUN, OR FINE AGGREGATE (SUCH AS ITEM 1, 1A, 1B, OR 1ST"). IT SHALL CONSIST OF HARD, STRONG DURABLE PARTICLES FREE FROM CLAY, LOAM, OR HARMFUL SUBSTANCES. THE MATERIALS SHALL BE SCREENED TO CONTAIN NO SHARP STONES OR STONES GREATER THAN 1/4" INCH IN DIAMETER. THE MATERIAL SHALL BE SIGNIFICANTLY DIFFERENT IN COLOR OR CONSISTENCY TO READILY DISTINGUISH IT FROM THE SOILS SURROUNDING THE TRENCH. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITY.
 - COMPACTED SELECT BACKFILL MAY BE ON-SITE MATERIAL PROVIDED IT CONTAINS NO ROCKS OR STONES OVER 6" IN DIAMETER, ROOTS, STUMPS, OR CONSTRUCTION DEBRIS. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITY.
 - THE BACKFILLED TRENCH SHALL BE CROWNED SLIGHTLY TO ALLOW FOR FUTURE SETTLEMENT.
 - REFER TO GAS COMPLIANCE AND STANDARDS MANUAL SECTION 7.1.2 - SAFETY PRECAUTIONS TO DETERMINE THE NEED FOR TRENCH SLOPING OR SHORING.
 - FOR MINIMUM CLEARANCES OF PIPE TO UNDERGROUND OBSTRUCTIONS, REFER TO COMPLIANCE AND STANDARDS MANUAL SECTION 7.4.3 - CLEARANCES OF GAS LINES FROM PERMANENT STRUCTURES.
 - IN STEEP TERRAIN, TRENCH BREAKERS AND EROSION CONTROL MAY BE REQUIRED. CONSULT WITH ENGINEERING REGARDING USE.
 - PAVEMENT DEPTH TO MATCH EXISTING DEPTH.



- NOTES:
- THE MINIMUM TRENCH WIDTH SHALL BE AS FOLLOWS:

PIPE SIZE	TRENCH WIDTH
3/4" - 2"	12"
3" - 24"	O.D. +12"



 - MINIMUM DEPTH OF COVER FROM FINAL GRADE TO TOP OF PIPE SHALL BE AS FOLLOWS:

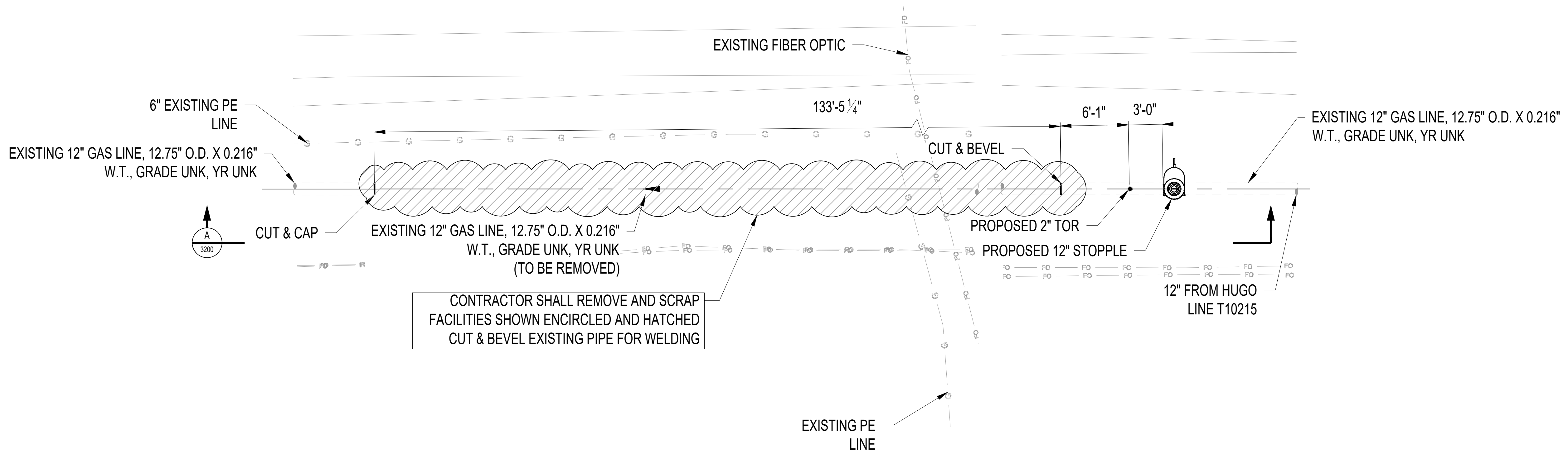
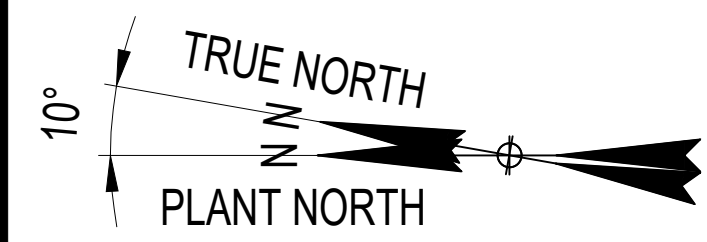
	IN EARTH	IN ROCK
TRANSMISSION MAINS AND SERVICES	48"	24"
*OTHER DEPTHS MAY BE REQUIRED BY LOCAL GOVERNING AUTHORITIES		

 - SAND PADDING IS REQUIRED IN THE PIPE ZONE. SAND PADDING SHALL BE IMPORTED NATURAL OR MANUFACTURED CONCRETE SAND, CUSHION SAND, SCREENED BANK RUN, OR FINE AGGREGATE (SUCH AS ITEM 1, 1A, 1B, OR 1ST"). IT SHALL CONSIST OF HARD, STRONG DURABLE PARTICLES FREE FROM CLAY, LOAM, OR HARMFUL SUBSTANCES. THE MATERIALS SHALL BE SCREENED TO CONTAIN NO SHARP STONES OR STONES GREATER THAN 1/4" INCH IN DIAMETER. THE MATERIAL SHALL BE SIGNIFICANTLY DIFFERENT IN COLOR OR CONSISTENCY TO READILY DISTINGUISH IT FROM THE THE SOILS SURROUNDING THE TRENCH. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITY.
 - COMPACTED SELECT BACKFILL MAY BE ON-SITE MATERIAL PROVIDED IT CONTAINS NO ROCKS OR STONES OVER 6" IN DIAMETER, ROOTS, STUMPS, OR CONSTRUCTION DEBRIS. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITY.
 - THE BACKFILLED TRENCH SHALL BE CROWNED SLIGHTLY TO ALLOW FOR FUTURE SETTLEMENT.
 - REFER TO GAS COMPLIANCE AND STANDARDS MANUAL SECTION 7.1.2 - SAFETY PRECAUTIONS TO DETERMINE THE NEED FOR TRENCH SLOPING OR SHORING.
 - FOR MINIMUM CLEARANCES OF PIPE TO UNDERGROUND OBSTRUCTIONS, REFER TO COMPLIANCE AND STANDARDS MANUAL SECTION 7.4.3 - CLEARANCES OF GAS LINES FROM PERMANENT STRUCTURES.
 - IN STEEP TERRAIN, TRENCH BREAKERS AND EROSION CONTROL MAY BE REQUIRED. CONSULT WITH ENGINEERING REGARDING USE.

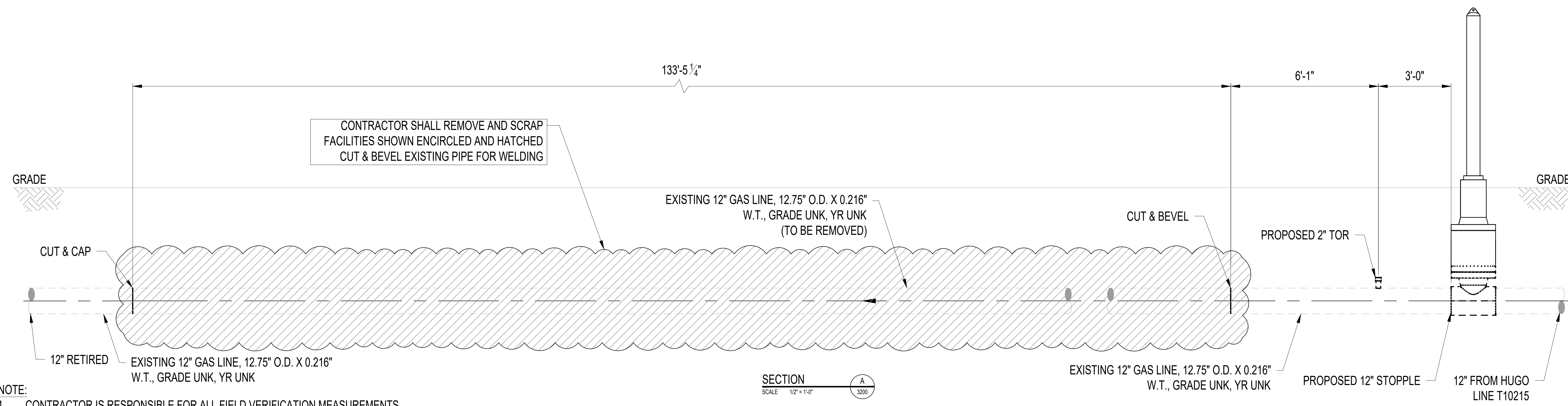
- NOTES:
- CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.

CAD FILE NAME: D1_2400_16in_NSPM_Hugo_Relocation.dwg

			HISTORY	DATE	REVISIONS				16 IN HUGO RELOCATION PROJECT TYPICAL TRENCH DETAILS PIPELINE				DRAWING
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			DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25					
			CHECKED BY: IH	03/21/25									
			APPROVED BY: IK	03/21/25									
FLOC: GT-000000011018	PE STAMP	VENDOR LOGO	IN SERVICE DATE:						SERVICE CENTER: WHITE BEAR LAKE SC	LOCATION: S35 T31N R22W, S4 T30N R22W			
									DIVISION: METRO	CITY/COUNTY : WHITE BEAR LAKE/RAMSEY	TYPE: DISTRIBUTION		






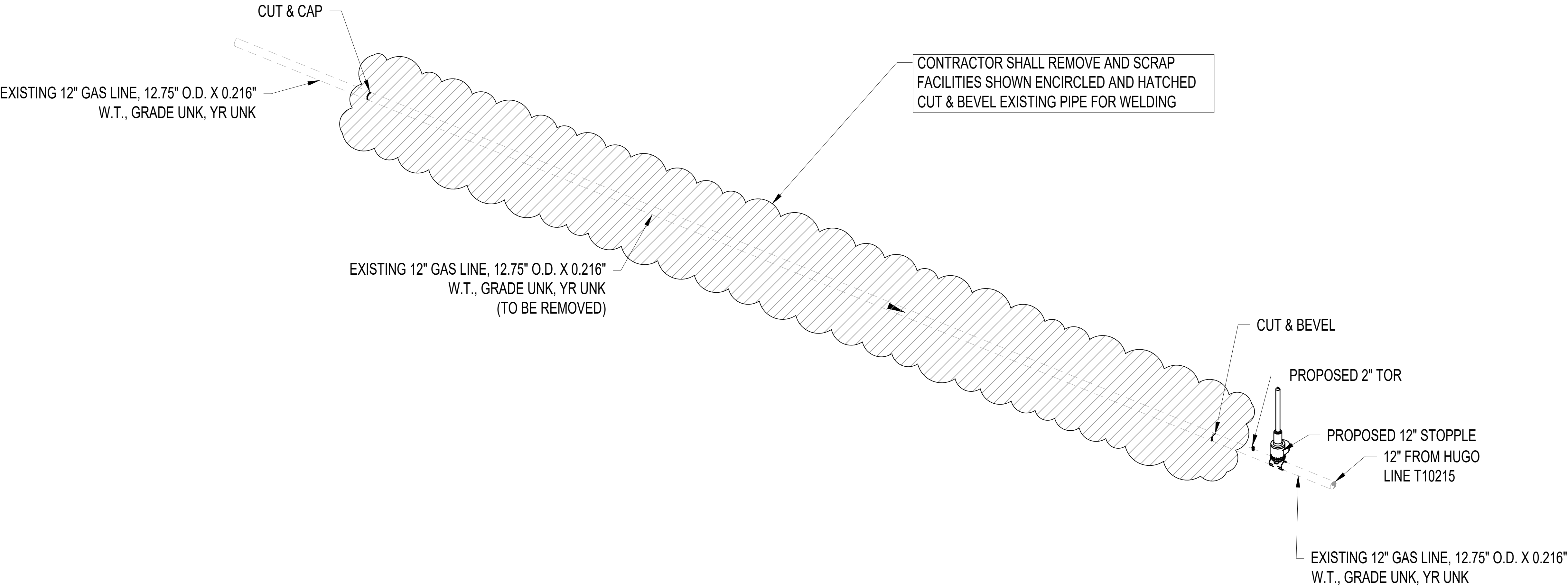
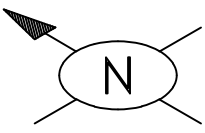
PLAN
SCALE 3/16" = 1'-0"



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




NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg

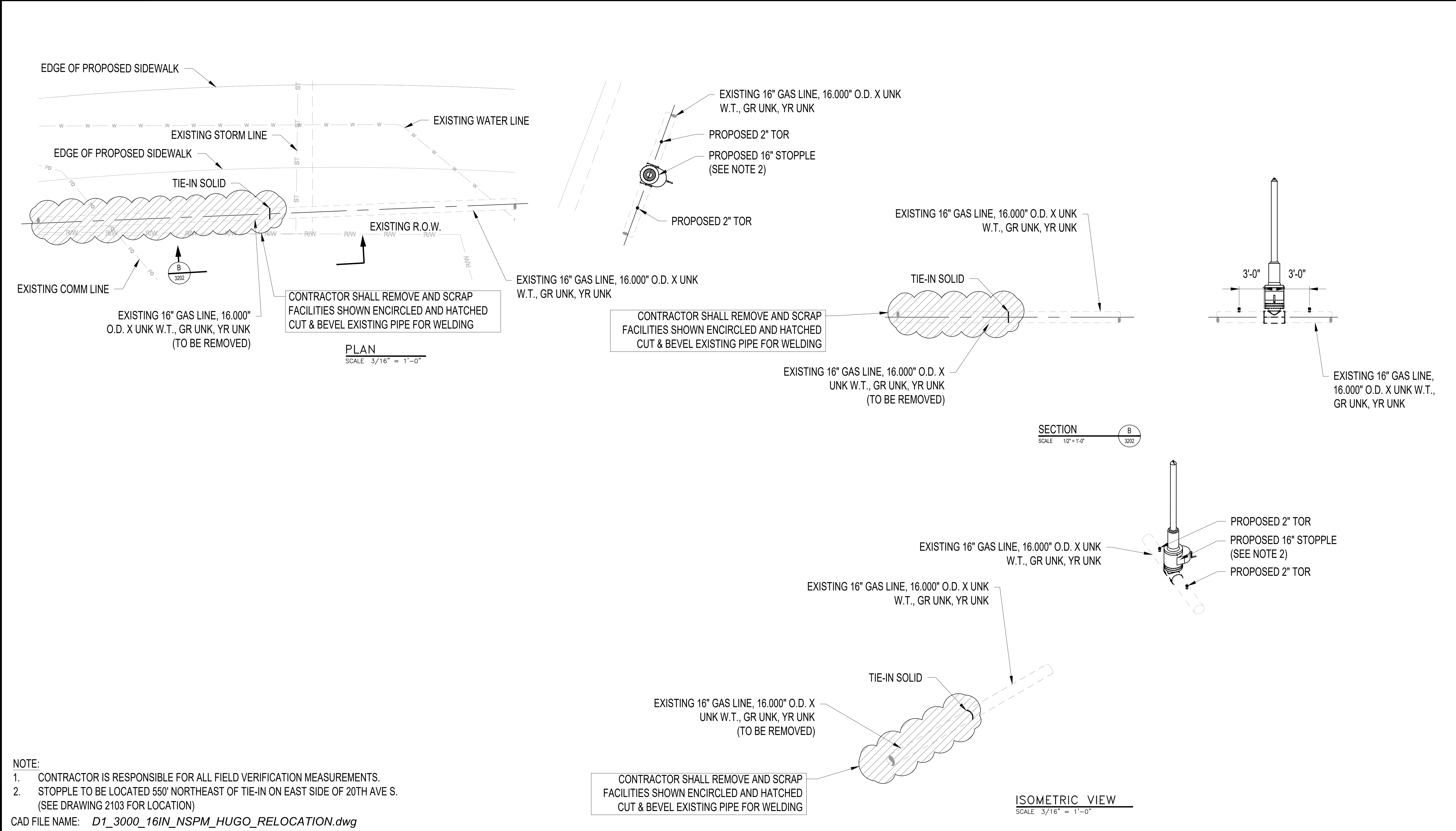
	 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT WESTERN TIE-IN DETAILS (RETIREMENT) PRESSURE TESTING & TIE-IN				DRAWING	
		DRAWN BY: <i>BI</i>	03/21/25	NO.	DESCRIPTION	BY					DATE	3200
		DESIGNED BY: <i>CS</i>	03/21/25	0	<i>PRE-ISSUED FOR CONSTRUCTION</i>	<i>CS</i>	03/21/25					
		CHECKED BY: <i>IH</i>	03/21/25									
		APPROVED BY: <i>IK</i>	03/21/25									
FLOC: <i>GT-000000011018</i>		IN SERVICE DATE:						SERVICE CENTER: <i>WHITE BEAR LAKE SC</i>		LOCATION: <i>S35 T31N R22W, S4 T30N R22W</i>		
								DIVISION: <i>METRO</i>	CITY/COUNTY: <i>WHITE BEAR LAKE/RAMSEY</i>	TYPE: <i>DISTRIBUTION</i>		



ISOMETRIC VIEW
SCALE 1/8" = 1'-0"

NOTE:
1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg




		 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS				16 IN HUGO RELOCATION PROJECT WESTERN TIE-IN DETAILS (RETIREMENT) PRESSURE TESTING & TIE-IN				DRAWING
			DRAWN BY: BI	03/21/25	NO.	DESCRIPTION	BY	DATE					3201
			DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25	SERVICE CENTER: WHITE BEAR LAKE SC			LOCATION: S35 T31N R22W, S4 T30N R22W	
			CHECKED BY: IH	03/21/25									
			APPROVED BY: IK	03/21/25									
			FLOC: GT-000000011018			IN SERVICE DATE:					DIVISION: METRO		CITY/COUNTY: WHITE BEAR LAKE/RAMSEY

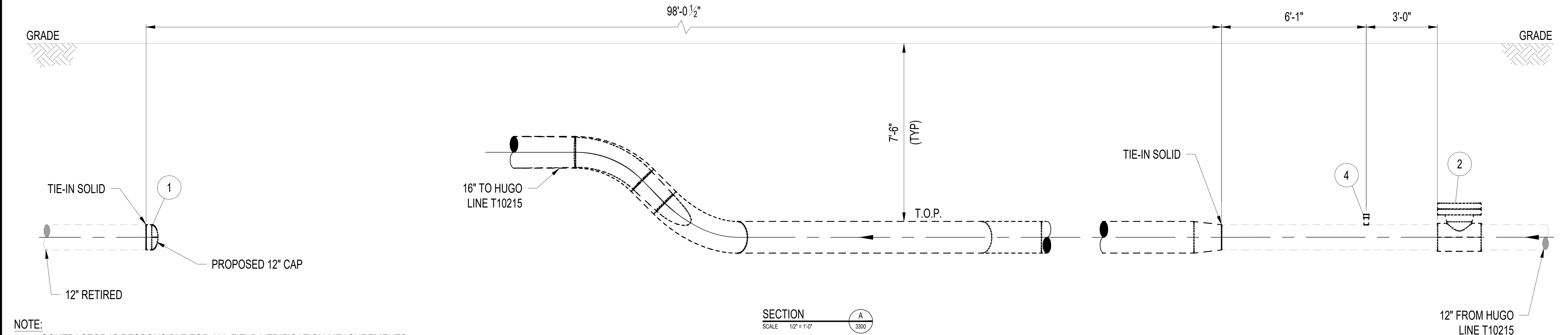
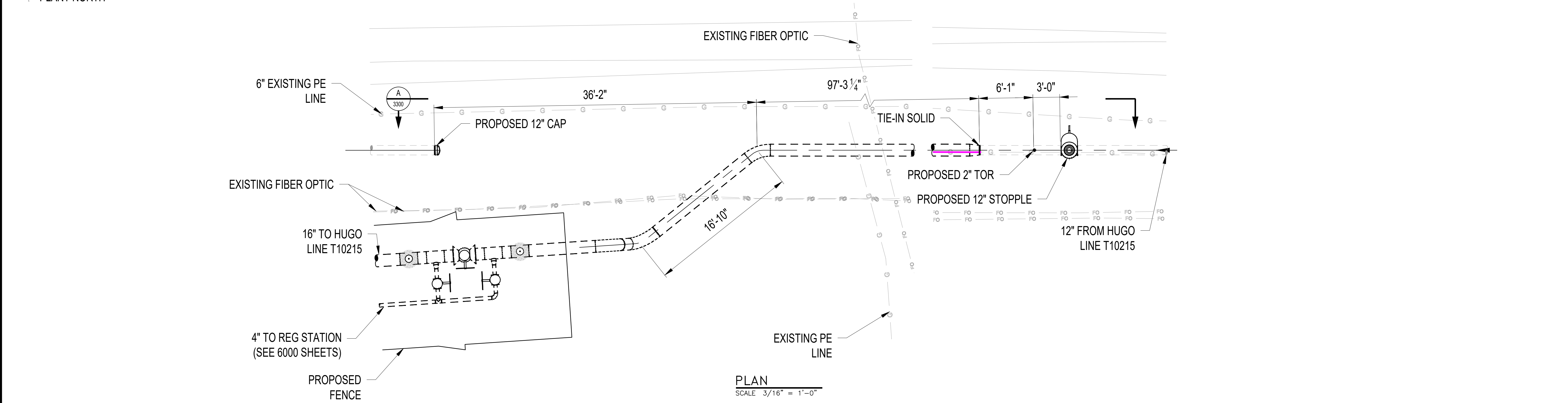
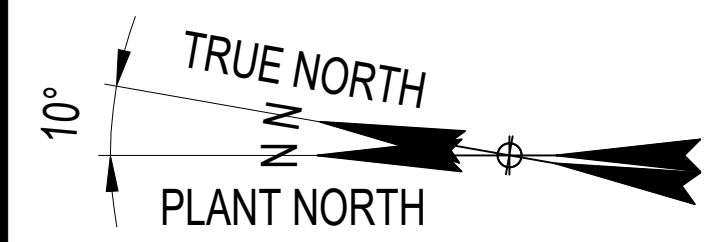


NOTE:




- 1. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
- 2. STOPPLE TO BE LOCATED 550' NORTHEAST OF TIE-IN ON EAST SIDE OF 20TH AVE S. (SEE DRAWING 2103 FOR LOCATION)

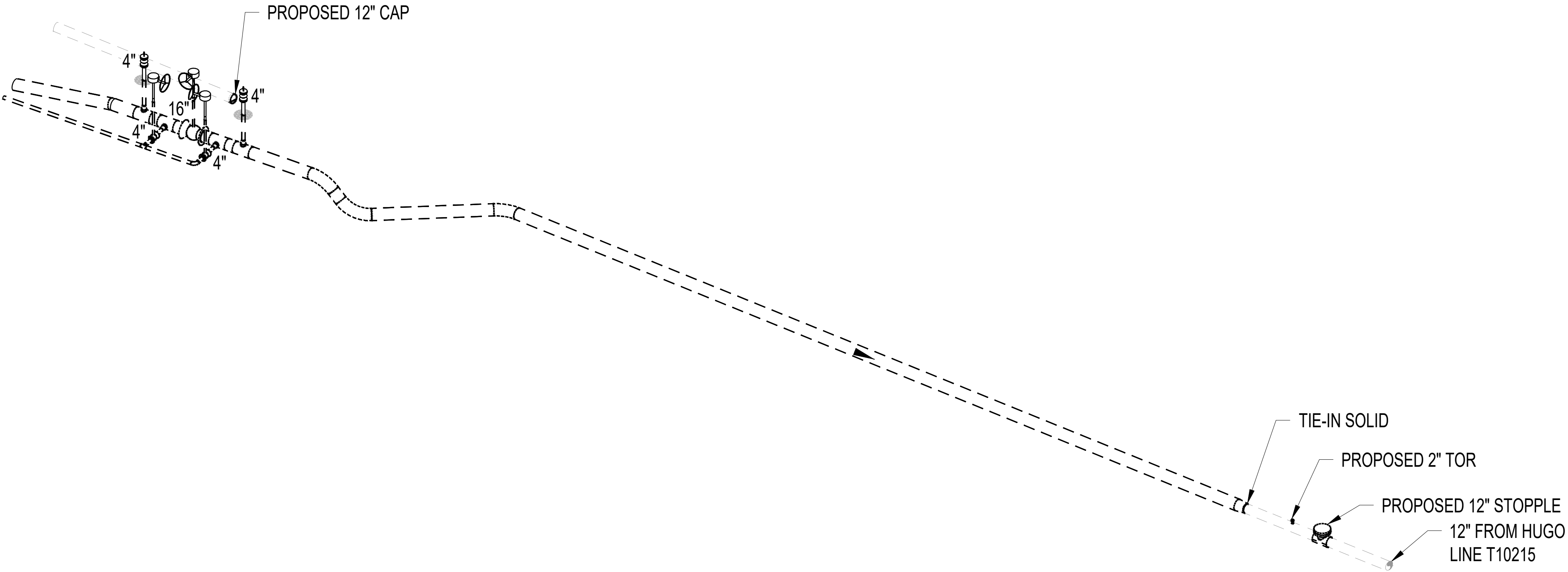
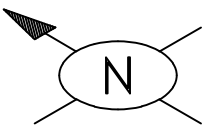
CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg

<div></div> <div>FLOC: GT-000000011018</div>	<div><div>2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL: 630-353-4000 WWW.ENENGINEERING.COM</div></div>	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT EASTERN TIE-IN DETAILS (RETIREMENT) PRESSURE TESTING & TIE-IN			DRAWING	
		DRAWN BY: BI	03/21/25	NO.	DESCRIPTION	BY	DATE				3202
		DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25				
		CHECKED BY: IH	03/21/25								
		APPROVED BY: IK	03/21/25								
		IN SERVICE DATE:									
						SERVICE CENTER: WHITE BEAR LAKE SC			LOCATION: S35 T31N R22W, S4 T30N R22W		
						DIVISION: METRO		CITY/COUNTY: LINO LAKES/ANOKA		TYPE: DISTRIBUTION	



NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg

 FLOC: GT-000000011018	 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS			16 IN HUGO RELOCATION PROJECT WESTERN TIE-IN DETAILS PLAN & SECTION VIEW PRESSURE TESTING & TIE-IN			DRAWING 3300	
		DRAWN BY: BI	03/21/25	NO.	DESCRIPTION	BY					DATE
		DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25	SERVICE CENTER: WHITE BEAR LAKE SC			LOCATION: S35 T31N R22W, S4 T30N R22W
		CHECKED BY: IH	03/21/25					DIVISION: METRO		CITY/COUNTY: WHITE BEAR LAKE/RAMSEY	TYPE: DISTRIBUTION
		APPROVED BY: IK	03/21/25								
		IN SERVICE DATE:									






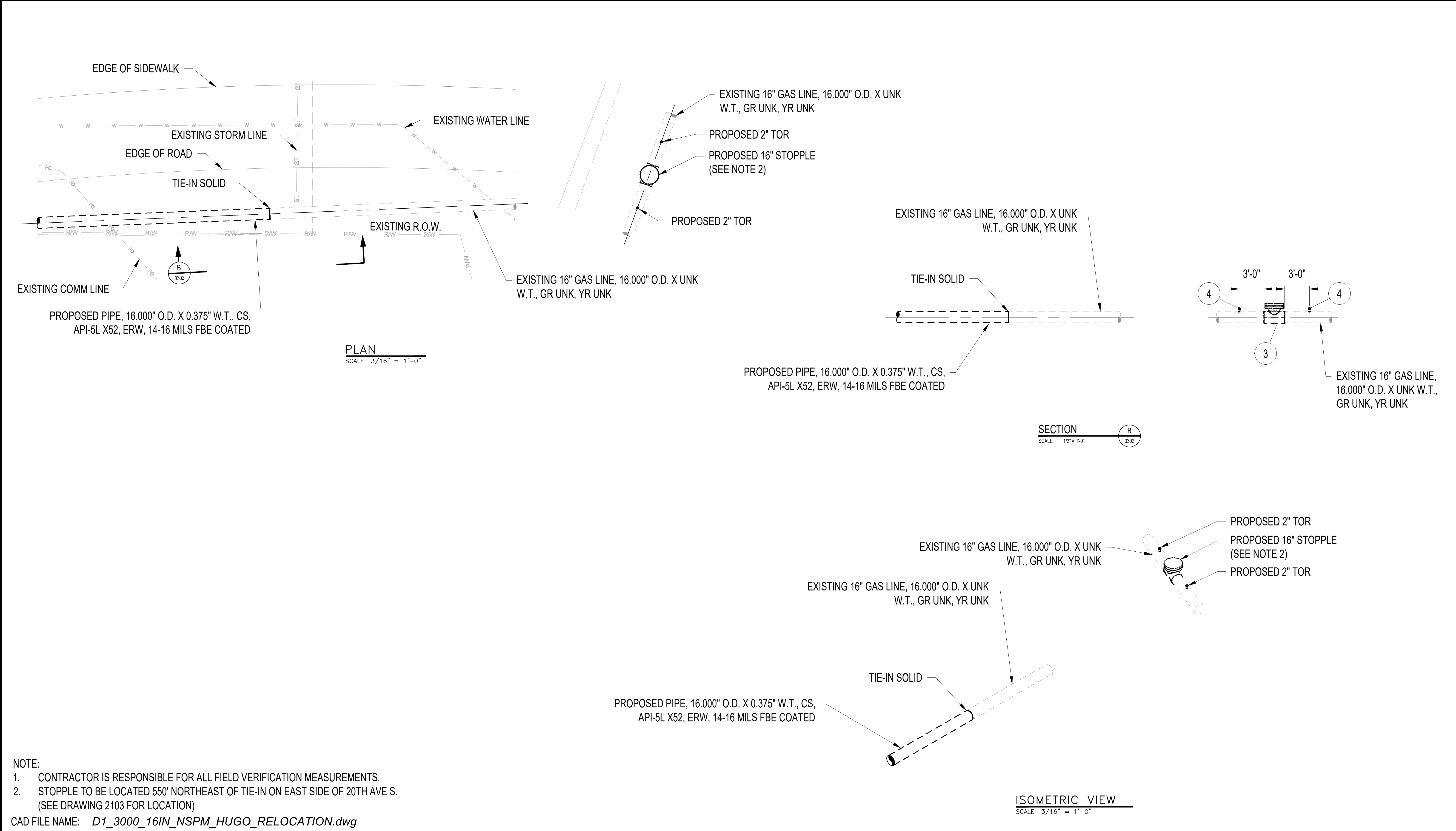
ISOMETRIC VIEW
SCALE 1/8" = 1'-0"

NOTE:

- 1) CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.

CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg




		 2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM	HISTORY	DATE	REVISIONS				16 IN HUGO RELOCATION PROJECT WESTERN TIE-IN DETAILS ISO VIEW PRESSURE TESTING & TIE-IN				DRAWING	
			DRAWN BY: BI	03/21/25	NO.	DESCRIPTION	BY	DATE					3301	
			DESIGNED BY: CS	03/21/25	0	PRE-ISSUED FOR CONSTRUCTION	CS	03/21/25						
			CHECKED BY: IH	03/21/25					SERVICE CENTER: WHITE BEAR LAKE SC					
			APPROVED BY: IK	03/21/25					LOCATION: S35 T31N R22W, S4 T30N R22W					
FLOC: GT-000000011018			IN SERVICE DATE:							DIVISION: METRO		CITY/COUNTY: WHITE BEAR LAKE/RAMSEY	TYPE: DISTRIBUTION	



NOTE:

- 1. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION MEASUREMENTS.
- 2. STOPPLE TO BE LOCATED 550' NORTHEAST OF TIE-IN ON EAST SIDE OF 20TH AVE S. (SEE DRAWING 2103 FOR LOCATION)

CAD FILE NAME: D1_3000_16IN_NSPM_HUGO_RELOCATION.dwg

<div></div> <div>FLOC: GT-000000011018</div>		<div><div>2051 KILLEBREW DR, STE 311 BLOOMINGTON, MN, 55425 TEL. 630-353-4000 WWW.ENENGINEERING.COM</div></div>	HISTORY		DATE	REVISIONS				16 IN HUGO RELOCATION PROJECT EASTERN TIE-IN DETAILS PLAN & SECTION VIEW PRESSURE TESTING & TIE-IN				DRAWING 3302		
			DRAWN BY: BI		03/21/25	NO.	DESCRIPTION		BY							DATE
			DESIGNED BY: CS		03/21/25	0	PRE-ISSUED FOR CONSTRUCTION		CS							03/21/25
			CHECKED BY: IH		03/21/25						SERVICE CENTER: WHITE BEAR LAKE SC		LOCATION: S35 T31N R22W, S4 T30N R22W			
			APPROVED BY: IK				03/21/25				DIVISION: METRO		CITY/COUNTY: LINO LAKES/ANOKA			TYPE: DISTRIBUTION
			IN SERVICE DATE:													

Certificate Of Completion

Envelope Id: 61C58DCA-9B2A-47D3-BDD2-7C9EC050A7D4

Status: Sent

Subject: George Wojcicki - ROW Permit Application

Source Envelope:

Document Pages: 19

Signatures: 1

Envelope Originator:

Certificate Pages: 4

Initials: 1

Highway Permits

AutoNav: Enabled

Anoka County Government Center

Envelopeld Stamping: Enabled

2100 3rd Avenue

Time Zone: (UTC-06:00) Central Time (US & Canada)

Anoka, MN 55303

highwaypermits@anokacountymn.gov

IP Address: 208.87.234.201

Record Tracking

Status: Original

Holder: Highway Permits

Location: DocuSign

4/17/2025 9:10:50 AM

highwaypermits@anokacountymn.gov

Security Appliance Status: Connected

Pool: StateLocal

Storage Appliance Status: Connected

Pool: Anoka County

Location: Docusign

Signer Events

George Wojcicki

george.r.wojcicki@xcelenergy.com

Security Level:

DocuSign.email

ID: 1

4/17/2025 9:10:52 AM

Signature

DocuSigned by:

George Wojcicki
935301823E8F486...

Signature Adoption: Pre-selected Style

Using IP Address: 208.87.234.201

Timestamp

Sent: 4/17/2025 9:10:51 AM

Viewed: 4/17/2025 9:11:04 AM

Signed: 4/17/2025 10:21:31 AM

Electronic Record and Signature Disclosure:

Accepted: 7/20/2023 1:50:43 PM

ID: 35166797-de64-41f0-8637-c4f60e7fc978

Susan Burgmeier

Susan.Burgmeier@anokacountymn.gov

Associate Traffic Technician

Anoka County

Signing Group: Highway Permits

Security Level: Email, Account Authentication
(Optional)

Sent: 4/17/2025 10:21:38 AM

Viewed: 4/17/2025 10:47:15 AM

Electronic Record and Signature Disclosure:

Accepted: 4/9/2025 2:41:17 PM

ID: 9d1d09c3-49e7-452c-bef8-b5d792eb44a0

In Person Signer Events

Signature

Timestamp

Editor Delivery Events

Status

Timestamp

Agent Delivery Events

Status

Timestamp

Intermediary Delivery Events

Status

Timestamp

Certified Delivery Events

Status

Timestamp

Carbon Copy Events

Status

Timestamp

George Wojcicki

george.r.wojcicki@xcelenergy.com

Security Level: Email, Account Authentication
(Optional)

Electronic Record and Signature Disclosure:

Carbon Copy Events	Status	Timestamp
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Not Offered via DocuSign

Witness Events	Signature	Timestamp
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Notary Events	Signature	Timestamp
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Envelope Summary Events	Status	Timestamps
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Envelope Sent	Hashed/Encrypted	4/17/2025 9:10:51 AM
Envelope Updated	Security Checked	4/17/2025 10:21:32 AM
Certified Delivered	Security Checked	4/17/2025 10:47:15 AM

Payment Events	Status	Timestamps
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Electronic Record and Signature Disclosure		
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Email: helpdesk@co.anoka.mn.us

Phone: (763)-324-4110

Address: Anoka County Government Center
Attn: Information Technology, #300
2100 3rd Avenue
Anoka, MN 55303

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- Until or unless you notify Anoka County as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Anoka County during the course of your relationship with Anoka County.