

Plan and Profile Drawings

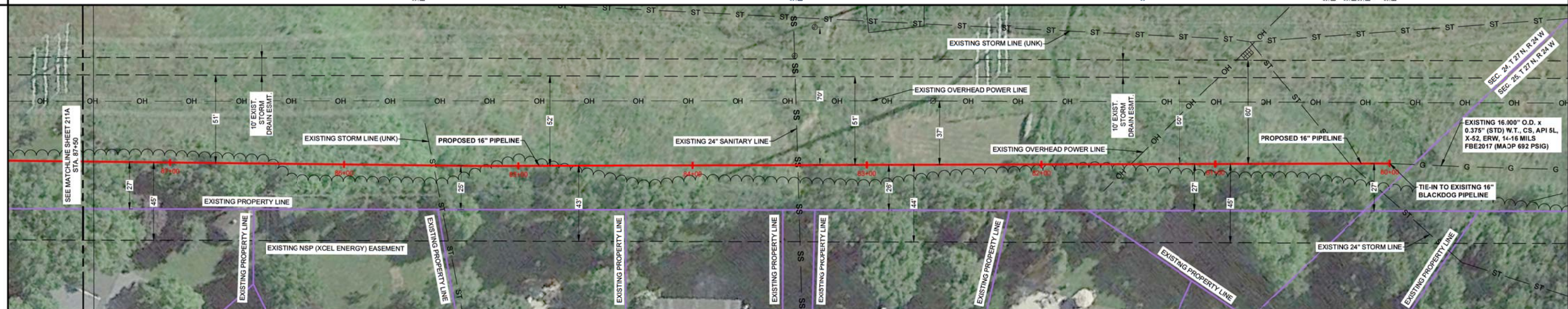
OWNERSHIP	87+50	NSP (XCEL ENERGY) EASEMENT 750.0'	80+00
SPECIAL PROVISIONS			
ENVIRONMENTAL			
MAOP	692 PSIG		
TEST PRESSURE MIN/MAX	1135 MIN - 1245 MAX PSIG (TEST MEDIUM: WATER) AT HIGH POINT OF TEST / 1241 MIN - 1351 MAX PSIG (TEST MEDIUM: WATER) AT LOW POINT OF TEST		
TEST PRESSURE FACTOR	1.5 x MAOP (740 PSIG) + 25 PSIG		
DEPTH OF COVER	4.0' (MIN.) - 9.3' (MAX.)		



LEGEND

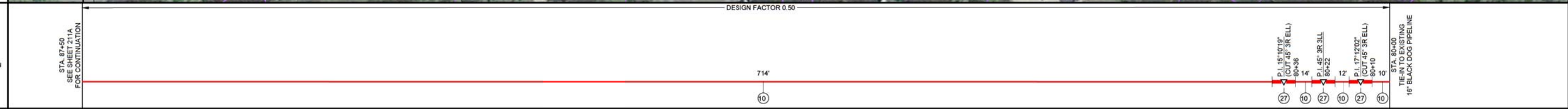
SCALE: 1" = 30'

- 16" HP PIPELINE
- PERMANENT USE AREA
- TEMPORARY USE AREA
- GAS PIPELINE
- PETROLEUM PIPELINE
- BURIED POWER
- OH POWER LINE
- HV OH POWER LINE
- COMM LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- TELEPHONE LINE
- WATER LINE
- CL ROAD
- R.O.W.
- RAILROAD
- FENCE
- WATERWAY
- PROPERTY LINE
- SECTION LINE
- TOWNSHIP/RANGE LINE
- INTERSTATE HIGHWAY
- STATE HIGHWAY
- COUNTY ROAD
- COUNTY HIGHWAY
- DW8 POTENTIAL IMPACT AREA



PIPELINE DATA

- BORE PIPE
- SEGMENTABLE FITTING
- PIPELINE WEIGHTS
- ME'ER STATION
- CATHODIC TEST STATION
- MAINLINE VALVE
- REG. STATION
- ANODE



WORKSPACE SCHEMATIC

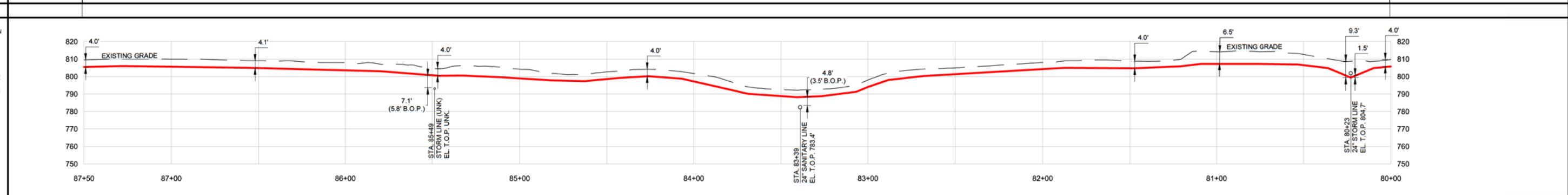
- EXISTING EASEMENT
- PROPOSED EASEMENT
- TEMPORARY USE AREA (T.U.A.)
- ADDITIONAL TEMPORARY USE AREA (A.T.U.A.)



PROFILE

SCALE: HORIZONTAL 1" = 30', VERTICAL 1" = 30'

NOTE: CAUTION: LOCATION OF EXISTING UTILITIES IS SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AS SUPPLIED BY THE UTILITY PROVIDERS INCLUDING TYPE, SIZE, LOCATION AND NUMBER OF UTILITIES. PRIOR TO DATE OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING UTILITIES WITH MINNESOTA STATE ONE CALL AND/OR UTILITY COMPANIES. FOR ADDITIONAL INFORMATION CONTACT: GOPHER STATE ONE CALL 1-800-252-1166. THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND FACILITIES PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES. ALL UTILITIES ON THIS DRAWING ARE CLASS 'B' VISUALLY AND/OR ELECTRONICALLY VERIFIED, OR CLASS 'C' VERIFIED FROM PRINTS. REFER TO THE LEGEND PAGE FOR MORE INFORMATION.



SUMMARY OF MATERIALS			REVISIONS			REFERENCE DRAWINGS		
NO.	QUANTITY MEASURED IN HORIZONTAL DISTANCE	QTY.	DATE	BY	DESCRIPTION	DWG. NO.	TITLE	
10	16,000' O.D. x 0.375" (STD) W.T., CS, API 5L, X-52, ERW, 14-16 MILS FBE	750 LF				211A	STA 87+50 TO STA. 95+50	
27	ELL. 45°, 3R SEGMENTABLE CS, FORGED STEEL, 0.375" WT, ASME B16, Y52 BW	3 EA						
TOTAL								

XCEL ENERGY
16" BLACK DOG PIPELINE PROJECT
STA. 80+00 TO STA. 87+50

W.O.	12320872	DATE	11/10/17
DRAWN	K. KRAMER	CHK. DR.	M. SUPPES
SCALE	1" = 30'	DATE	11/10/2017
FILE NO.	210A		

DAKOTA COUNTY SECS. 19, 23, 24 & 25 - T 27 N - R 23 & 24 W MINNESOTA

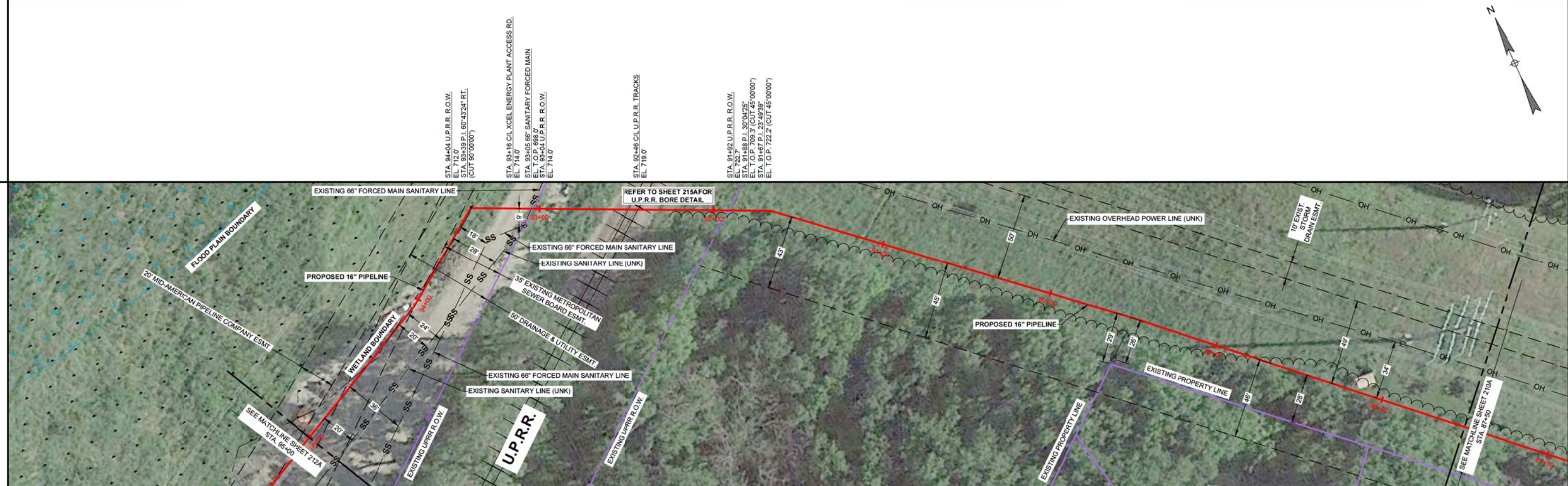
OWNERSHIP	85+00	XCEL ENERGY - BLACKDOG POWER PLANT PROPERTY 196.0'	93+04	U.P.R.R. ROW 112.0'	91+92	NSP (XCEL ENERGY) EASEMENT 442.0'	87+50
SPECIAL PROVISIONS							
ENVIRONMENTAL							
MAOP	692 PSIG						
TEST PRESSURE MIN/MAX	1135 MIN - 1245 MAX PSIG (TEST MEDIUM WATER) AT HIGH POINT OF TEST / 1241 MIN - 1351 MAX PSIG (TEST MEDIUM WATER) AT LOW POINT OF TEST						
TEST PRESSURE FACTOR	1.5 x MAOP (740 PSIG) + 25 PSIG						
DEPTH OF COVER	4.0' (MIN.) - 13.6' (MAX.)						

STATIONING

LEGEND

SCALE: 1" = 30'

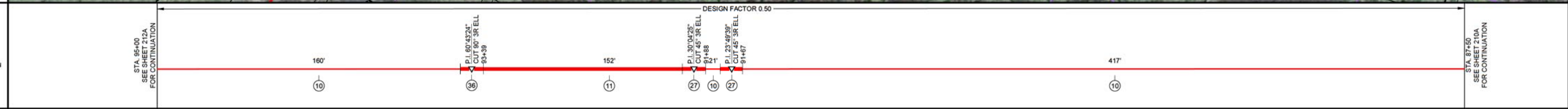
- 16" HP PIPELINE
- PERMANENT USE AREA
- TEMPORARY USE AREA
- GAS PIPELINE
- PETROLEUM PIPELINE
- BURIED POWER
- OH POWER LINE
- HV OH POWER LINE
- COMM LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- TELEPHONE LINE
- WATER LINE
- CL ROAD
- R.O.W.
- RAILROAD
- FENCE
- WATERWAY
- PROPERTY LINE
- SECTION LINE
- TOWNSHIP/RANGE LINE
- INTERSTATE HIGHWAY
- STATE HIGHWAY
- COUNTY ROAD
- COUNTY HIGHWAY
- DW8 POTENTIAL IMPACT AREA



PIPELINE DATA

SCALE: 1" = 30'

- BORE PIPE
- SEGMENTABLE FITTING
- PIPELINE WEIGHTS
- METER STATION
- CATHODIC TEST STATION
- MAINLINE VALVE
- REG. STATION
- ANODE



WORKSPACE SCHEMATIC

- EXISTING EASEMENT
- PROPOSED EASEMENT
- TEMPORARY USE AREA (T.U.A.)
- ADDITIONAL TEMPORARY USE AREA (A.T.U.A.)



HYDROTEST

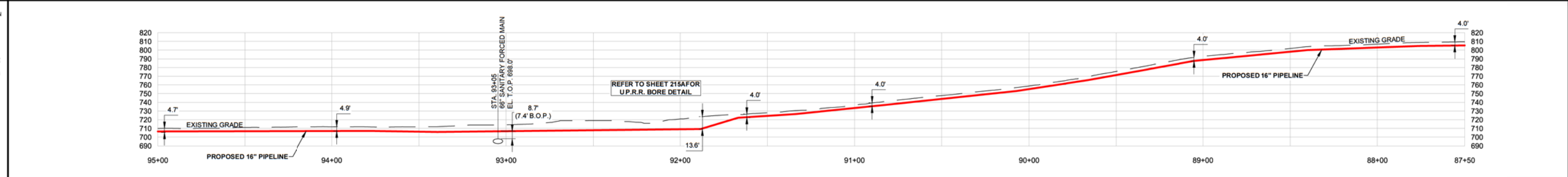
TEST SECTION A

PROFILE

VERTICAL SCALE: 1" = 60'

HORIZONTAL SCALE: 1" = 30'

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SUMMARY

NO.	QUANTITY MEASURED IN HORIZONTAL DISTANCE	QTY.
10	16.000" O.D. x 0.375" (STD) W.T., CS, API 5L, X-52, ERW, 14-16 MILS FBE	598 LF
11	16.000" O.D. x 0.375" (STD) W.T., CS, API 5L, X-52, ERW, 14-16 MILS FBE & 20-30 MILS ARO COA'ED	152 LF
27	ELL, 45°, 3R SEGMENTABLE CS, FORGED STEEL, 0.375" WT, ASME B16, Y52 BW	2 EA
36	ELL, 90°, 3R SEGMENTABLE CS, FORGED STEEL, 0.375" WT, ASME B16, Y52 BW	1 EA
TOTAL		

REVISIONS

NO.	DATE	BY	DESCRIPTION
A	11/10/17	KK	ISSUED FOR PERMIT

REFERENCE DRAWINGS

DWG. NO.	TITLE
210A	STA. 80+00 TO STA. 87+50
212A	STA. 95+00 TO STA. 102+00
215A	U.P.R.R. BORE DETAIL

APPROVALS

DATE	BY	ENGR.	DATE	BY	ENGR.

Xcel Energy

W.O. 12320872 DATE 11/10/17

PRELIMINARY APPROVED

9777 PYRAMID COURT, STE. 200
ENGLEWOOD, CO. 80112
TEL. 303-405-2799
WWW.ENGINEERING.COM

XCEL ENERGY

16" BLACK DOG PIPELINE PROJECT

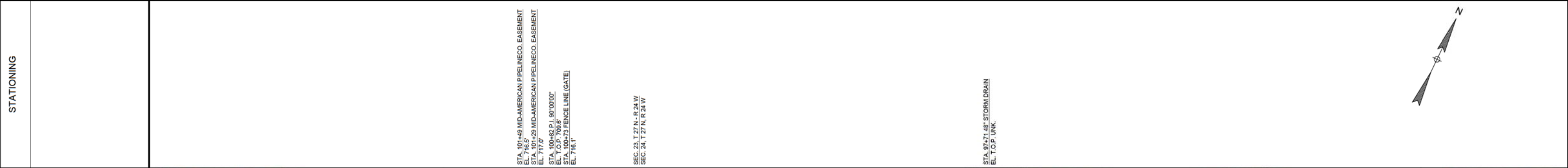
STA. 87+50 TO STA. 95+50

DAKOTA COUNTY SECS. 19, 23, 24 & 25 - T27 N - R23 & 24 W MINNESOTA

SCALE 1"=30' DATE 11/10/2017

FILE NO. 211A

OWNERSHIP	102+00	XCEL ENERGY - BLACK DOG POWER PLANT PROPERTY 700.0'	95+00
SPECIAL PROVISIONS			
ENVIRONMENTAL			
MAOP	692 PSIG		
TEST PRESSURE MIN/MAX	1135 MIN - 1245 MAX PSIG (TEST MEDIUM WATER) AT HIGH POINT OF TEST / 1241 MIN - 1351 MAX PSIG (TEST MEDIUM WATER) AT LOW POINT OF TEST		
TEST PRESSURE FACTOR	1.5 x MAOP (740 PSIG) + 25 PSIG		
DEPTH OF COVER	4.0' (MIN.) - 6.1' (MAX.)		



LEGEND

- 16" HP PIPELINE
- PERMANENT USE AREA
- TEMPORARY USE AREA
- GAS PIPELINE
- PETROLEUM PIPELINE
- BURIED POWER
- OH POWER LINE
- HV OH POWER LINE
- COMM LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- TELEPHONE LINE
- WATER LINE
- CL ROAD
- R.O.W.
- RAILROAD
- FENCE
- WATERWAY
- PROPERTY LINE
- SECTION LINE
- TOWNSHIP/RANGE LINE
- INTERSTATE HIGHWAY
- STATE HIGHWAY
- COUNTY ROAD
- COUNTY HIGHWAY
- DWB POTENTIAL IMPACT AREA

ALIGNMENT
SCALE: 1" = 30'



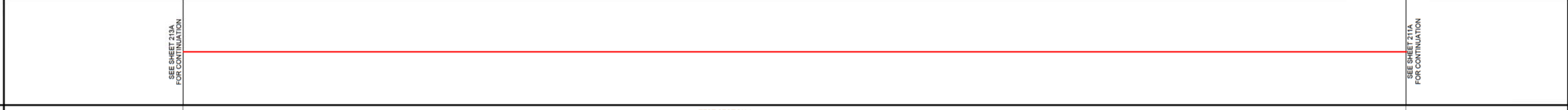
PIPELINE SCHEMATIC

- BORE PIPE
- SEGMENTABLE FITTING
- PIPELINE WEIGHTS
- METER STATION
- CATHODIC TEST STATION
- MAINLINE VALVE
- REG. STATION
- ANODE



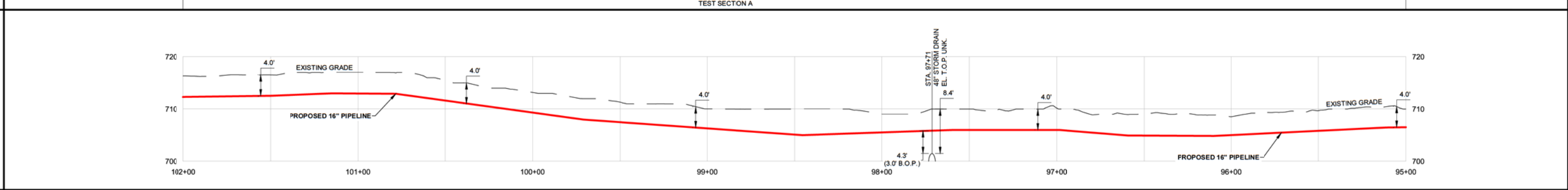
WORKSPACE SCHEMATIC

- EXISTING EASEMENT
- PROPOSED EASEMENT
- TEMPORARY USE AREA (T.U.A.)
- ADDITIONAL TEMPORARY USE AREA (A.T.U.A.)



PROFILE
SCALE: HORIZONTAL 1"=30' VERTICAL 1"=10'

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NO.	SUMMARY OF MATERIALS		QTY.	REVISIONS		REFERENCE DRAWINGS	
	QUANTITY MEASURED IN HORIZONTAL DISTANCE			DATE	BY	DWG. NO.	TITLE
10	16.000' O.D. x 0.375" (STD) W.T., CS, API 5L, X-52, ERW, 14-16 MILS FBE		700 LF			211A	STA. 87+50 TO STA. 95+00
36	ELL., 90°, 3R SEGMENTABLE CS, FORGED STEEL, 0.375" WT., ASME B16, Y52 BW		1 EA			213A	STA. 102+00 TC STA. 110+00

Xcel Energy

W.O. 12320872 DATE 11/10/17

PRELIMINARY

APPROVED

ENEngineering
9777 PYRAMID COURT, STE 200
ENGLEWOOD, CO. 80112
TEL. 303-405-2799
WWW.ENGINEERING.COM

XCEL ENERGY
16" BLACK DOG PIPELINE PROJECT
STA. 95+00 TO STA. 102+00

DAKOTA COUNTY SECS. 19, 23, 24 & 25 - T 27 N - R 23 & 24 W MINNESOTA

SCALE 1"=30' DATE 11/10/2017

FILE NO. **212A**

OWNERSHIP	XCEL ENERGY - BLACK DOG POWER PLANT PROPERTY 800.0'
SPECIAL PROVISIONS	
ENVIRONMENTAL	
MAOP	692 PSIG
TEST PRESSURE MIN/MAX	1135 MIN - 1245 MAX PSIG (TEST MEDIUM WATER) AT HIGH POINT OF TEST / 1241 MIN - 1351 MAX PSIG (TEST MEDIUM WATER) AT LOW POINT OF TEST
TEST PRESSURE FACTOR	1.5 x MAOP (740 PSIG) + 25 PSIG
DEPTH OF COVER	4.0' (MIN.) - 6.5' (MAX.)

STATIONING



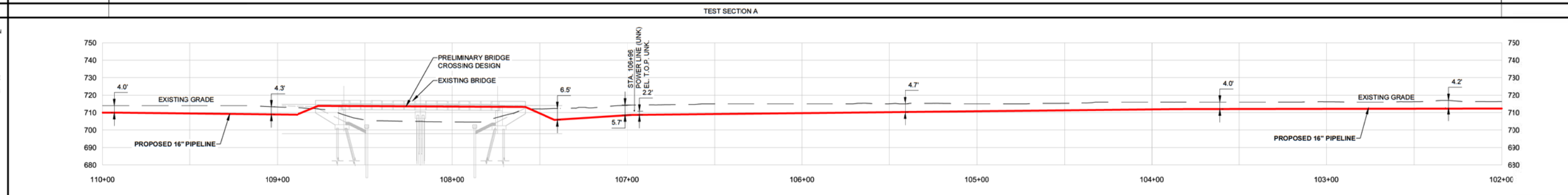
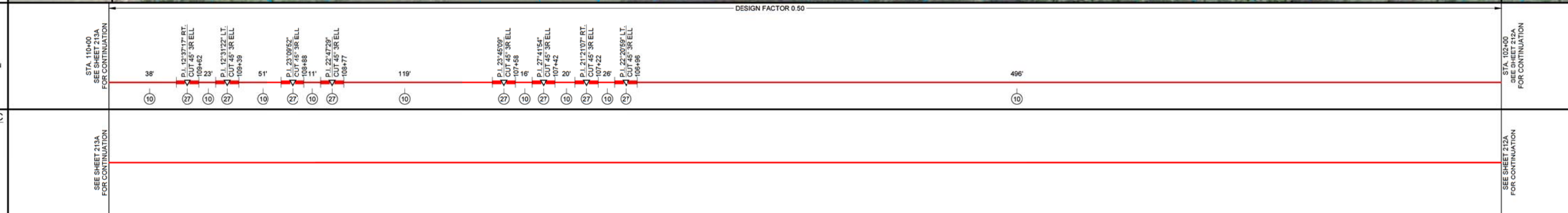
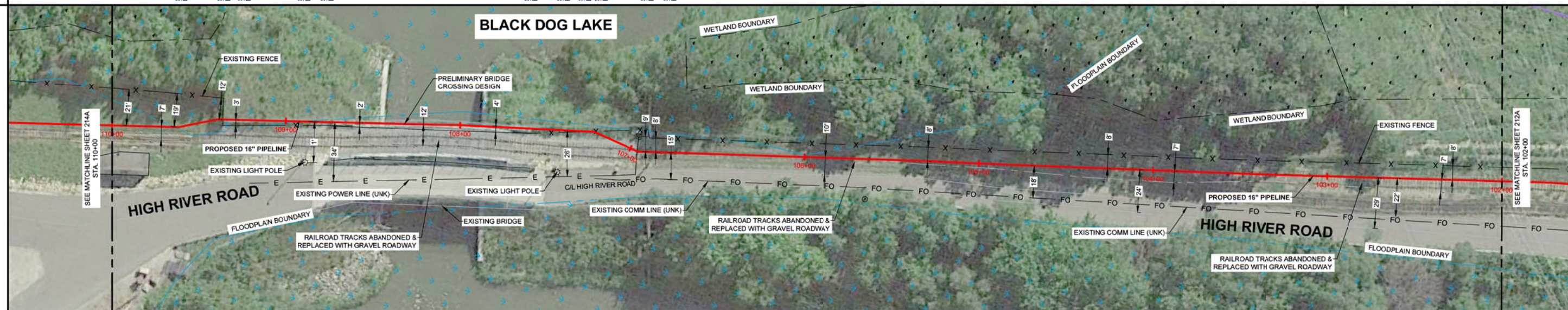
- LEGEND
- 16" HP PIPELINE
 - PERMANENT USE AREA
 - TEMPORARY USE AREA
 - G GAS PIPELINE
 - PET PETROLEUM PIPELINE
 - E BURIED POWER
 - OH OH POWER LINE
 - HV OH HV OH POWER LINE
 - FO COMM LINE
 - SS SANITARY SEWER LINE
 - ST STORM SEWER LINE
 - T TELEPHONE LINE
 - W WATER LINE
 - CL ROAD
 - R.O.W.
 - RAILROAD
 - FENCE
 - WATERWAY
 - PROPERTY LINE
 - SECTION LINE
 - TOWNSHIP/RANGE LINE
 - INTERSTATE HIGHWAY
 - SH STATE HIGHWAY
 - CR COUNTY ROAD
 - CH COUNTY HIGHWAY
 - DW6 POTENTIAL IMPACT AREA

- PIPELINE DATA
- BORE PIPE
 - SEGMENTABLE FITTING
 - PIPELINE WEIGHTS
 - METER STATION
 - CATHODIC TEST STATION
 - MAINLINE VALVE
 - REG. STATION
 - ANODE

- WORKSPACE SCHEMATIC
- EXISTING EASEMENT
 - PROPOSED EASEMENT
 - TEMPORARY USE AREA (T.U.A.)
 - ADDITIONAL TEMPORARY USE AREA (A.T.U.A.)

HYDROTEST

NOTE: CAUTION: LOCATION OF EXISTING UTILITIES IS SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AS SUPPLIED BY THE UTILITY PROVIDERS INCLUDING TYPE, SIZE, LOCATION AND NUMBER OF UTILITIES. PRIOR TO DATE OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING UTILITIES WITH MINNESOTA STATE ONE CALL AND/OR UTILITY COMPANIES. FOR ADDITIONAL INFORMATION CONTACT: GOPHER STATE ONE CALL 1-800-252-1166. THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND FACILITIES PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES. ALL UTILITIES ON THIS DRAWING ARE CLASS B VISUALLY AND/OR ELECTRONICALLY VERIFIED, OR CLASS C VERIFIED FROM PRINTS. REFER TO THE LEGEND PAGE FOR MORE INFORMATION.



SUMMARY

NO.	QUANTITY MEASURED IN HORIZONTAL DISTANCE	QTY.
10	16.000" O.D. x 0.375" (STD) W.T., CS, API 5L, X-52, ERW, 14-16 MILS FBE	800 LF
27	ELL, 45°, 3R SEGMENTABLE CS, FORGED STEEL, 0.375" WT, ASME B16, Y52 BW	8 EA
TOTAL		

REVISIONS				REFERENCE DRAWINGS			
NO.	DATE	BY	DESCRIPTION	DWG. NO.	TITLE	DATE	BY
A	11/10	KK	ISSUED FOR PERMIT	MS			
	DATE MADE	BY	DATE AS BUILT	ENGR.	DATE	BY	APPROVED

XCEL ENERGY
16" BLACK DOG PIPELINE PROJECT
STA. 102+00 TO STA. 110+00

W.O. 12320872	DATE 11/10/17	9777 PYRAMID COURT, STE. 200 ENGLEWOOD, CO. 80112 TEL. 303-405-2799 WWW.ENGINEERING.COM	DAKOTA COUNTY SECS. 19, 23, 24 & 25 - T 27 N - R 23 & 24 W MINNESOTA
CHK. DR. K. KRAMER	SCALE 1"=30'	FILE NO. 213A	DATE 11/10/2017
PM APPR. / XCEL APPR.			

