ENBRIDGE PIPELINES (ND)

AS CONSTRUCTED ALIGNMENT SHEET
TRENTON TO BEAVER LODGE

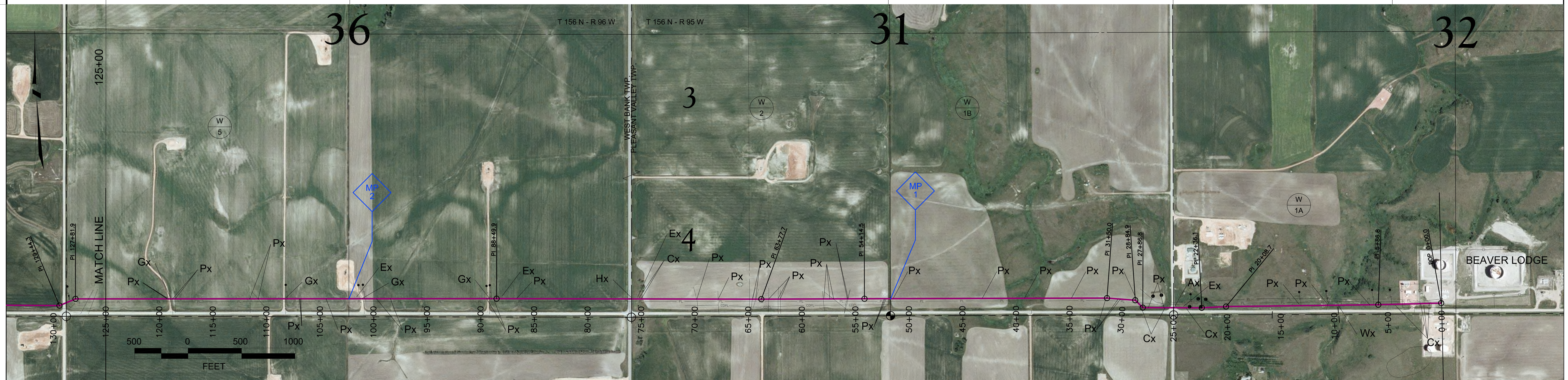
WILLIAMS — NORTH DAKOTA

SCALE	DRAWN	DATE	DRAWING NO.
AS SHN	CLF/GU	1/29/08	2424M0101

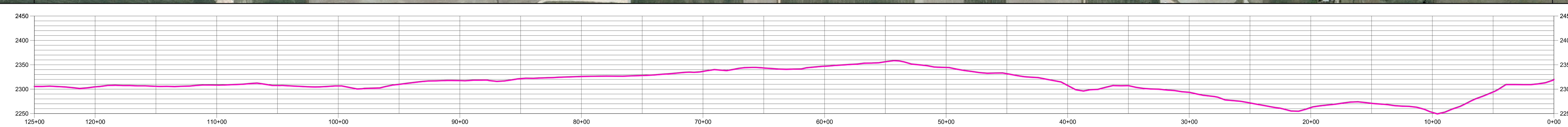
Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911

	125+00		102+29		51+72		24+99		4+63		0+00
TERRAIN	AGRICULTURE										
VEGETATION	CULTIVATED CROPS						NATURAL GRASS				
OWNERSHIP		FARGO NATIONAL BANK AND TRUST CO.		JAMES T. IVERSON ET AL		BRIAN D. BERGSTROM		HESS CORPORATION		ENBRIDGE	
R.O.W. No.		W-5		W-2		W-1B		W-1A			
RODDAGE		137.6		306.5		162.0		123.4		28.1	
ROW WIDTH		75'		75'		75'		75'			

Symbol	Legend
Ex	ELECTRICAL CROSSING
Ux	UNIMPROVED ROAD CROSSING (SEE STD-C031))
Gx	GRAVEL ROAD CROSSING (SEE STD-C030)
Ax	IMPROVED (ASPHALT) ROAD CROSSING (SEE STD-C032)
Hx	HIGHWAY CROSSING (SEE STD-032)
Rx	RAILROAD CROSSING (SEE DWG 2424A204)
Px	PIPELINE CROSSING
Cx	CABLE CROSSING
Wx	WATER CROSSING
05	AERIAL MARKER
BV	BLOCK VALVE
CP1	CP TEST LEAD (FOREIGN) (SEE DWG 2424-M-001)
CP2	CP TEST LEAD (SEE DWG 2424-M-001)
48	HOTBEND



PROFILE



PIPELINE STATIONING	PIPE DETAIL AND APPURTENANCES	PI	CROSSING LENGTH	PIPE SPECIFICATION
STA. 119+18	TESORO P/L			A
STA. 119+09	TESORO P/L			
STA. 118+93	CL LEASE ROAD			
STA. 118+77	AHC P/L			
STA. 118+52	AHC PROPOSED P/L			
STA. 111+48	AHC P/L			
STA. 110+77	AHC P/L			
STA. 108+17	CL LEASE ROAD			
STA. 108+03	CP2			
STA. 106+85	AHC P/L			
STA. 106+83	AHC P/L			
STA. 104+47	AHC P/L			
STA. 101+85	OVERHEAD POWER			
STA. 101+25	CP2			
STA. 101+01	CL GRAVEL ROAD			
STA. 100+83	CP2			
STA. 99+88	AHC P/L			
STA. 98+24	AHC P/L			
STA. 89+44	AHC P/L			
STA. 89+28	CP2			
STA. 89+13	CL LEASE ROAD			
STA. 88+98	CP2			
STA. 88+89	AHC P/L			
STA. 88+50		PI 0° LT		
STA. 88+21	OVERHEAD POWER			
STA. 86+56	AHC P/L			
STA. 79+92	CL CO. HWY 21 (BORE)		187'	B
STA. 75+31	OVERHEAD POWER			A
STA. 75+16	TELEPHONE CABLE			
STA. 74+95	TELEPHONE CABLE			
STA. 69+81	AHC P/L			
STA. 67+81	AHC P/L			
STA. 64+60	AHC P/L			
STA. 64+31	AHC P/L			
STA. 63+78		PI 0° RT		
STA. 63+10	AHC P/L			
STA. 62+19	AHC P/L			
STA. 62+01	AHC P/L			
STA. 57+98	TESORO P/L			
STA. 57+36	TESORO P/L			
STA. 57+04	TESORO P/L			
STA. 55+70	AHC P/L			
STA. 55+67	AHC P/L			
STA. 54+14		PI 0° LT		
STA. 52+20	AHC P/L			
STA. 52+18	AHC P/L			
STA. 52+18	AHC P/L			
STA. 51+47	AHC P/L			
STA. 43+07	AHC P/L			
STA. 39+11	AHC P/L			
STA. 34+89	AHC P/L			
STA. 31+57	AHC P/L			
STA. 31+50		PI 4° LT		
STA. 30+40	TESORO P/L			
STA. 30+23	AHC P/L			
STA. 28+85	40°	PI 40° LT		
STA. 28+52	ENBRIDGE P/L			
STA. 28+09	TELEPHONE CABLE			
STA. 27+87	44°	PI 44° RT		
STA. 27+21	AHC P/L			
STA. 25+73	AHC P/L			
STA. 25+72	FIBER OPTICS CABLE			
STA. 24+98	CL 104TH AVE NW (BORE)		312'	B
STA. 24+12	OVERHEAD POWER			A
STA. 23+90	TELEPHONE CABLE			
STA. 23+25	CP2			
STA. 22+36		PI 3° RT		
STA. 20+09		PI 2° LT		
STA. 13+14	AHC P/L			
STA. 13+09	CP2			
STA. 10+58	TESORO P/L			
STA. 10+57	CP2			
STA. 9+56	DRAINAGE			
STA. 6+38	AHC P/L			
STA. 6+29	CP2			
STA. 5+87		PI 1° RT		
STA. 4+67	TELEPHONE CABLE			
STA. 4+63	CP2			
STA. 3+99				
STA. 1+99	UNDERGROUND ELECTRIC		401'	B
STA. 1+77	UNDERGROUND ELECTRIC			
STA. 1+18	TELEPHONE CABLE			
STA. 0+05	30°			
STA. 0+00	TOP OF TEE (10x10); 30°	BOP		A

SEE DWG'S. (2424-P-010 2424-P-011 2424-P-015)

GENERAL NOTES

ITEM	TYPE	O.D.	W.T.	CODE	GRADE	COATING	
A	LINE PIPE	10.75"	.219"	API 5L	X-52	FBE	MANUFACTURER: USS, TRIPLE RANDOM, ERW
B	CROSSING PIPE	10.75"	.307"	API 5L	X-52	FBE w/ ARO	MANUFACTURER: USS, TRIPLE RANDOM, ERW
C	CROSSING PIPE	10.75"	.365"	API 5L	X-52	FBE w/ ARO	MANUFACTURER: LSS, DOUBLE RANDOM, ERW
D	CROSSING PIPE	10.75"	.307"	API 5L	X-65	FBE	MANUFACTURER: LSS, DOUBLE RANDOM, ERW

1. PIPELINE MINIMUM DEPTH OF COVER IS 4'. CROSSING COUNTY AND TOWNSHIP ROADS MINIMUM DEPTH OF COVER IS 6'.
2. MINIMUM HYDROSTATIC TEST PRESSURE IS 1900 PSIG.

LEGEND

PL	EXISTING PIPELINE (ENBRIDGE)
CDPL	EXISTING PIPELINE (UNKNOWN)
G	EXISTING NATURAL GAS PIPELINE (UNDERGROUND)
T	EXISTING TELEPHONE
E(O)	EXISTING ELECTRICAL (OVERHEAD)
E	EXISTING ELECTRICAL (UNDERGROUND)
FO	EXISTING FIBER OPTICS
X	EXISTING FENCE

SUMMARY

ITEM	DESCRIPTION	QUANTITY
PIPE A	10.75" X .219 WT. API 5L X-52 w/ FBE	11,600'
PIPE B	10.75" X .307 WT. API 5L X-52 w/ FBE w/ ARO	900'
HB	44° HOT BEND	1
HB	40° HOT BEND	1
CP2	CP TEST LEAD	10

REFERENCE DRAWINGS

NO.	REVISION	BY	DATE
1	AS CONSTRUCTED	CLF/GU	1/29/08