

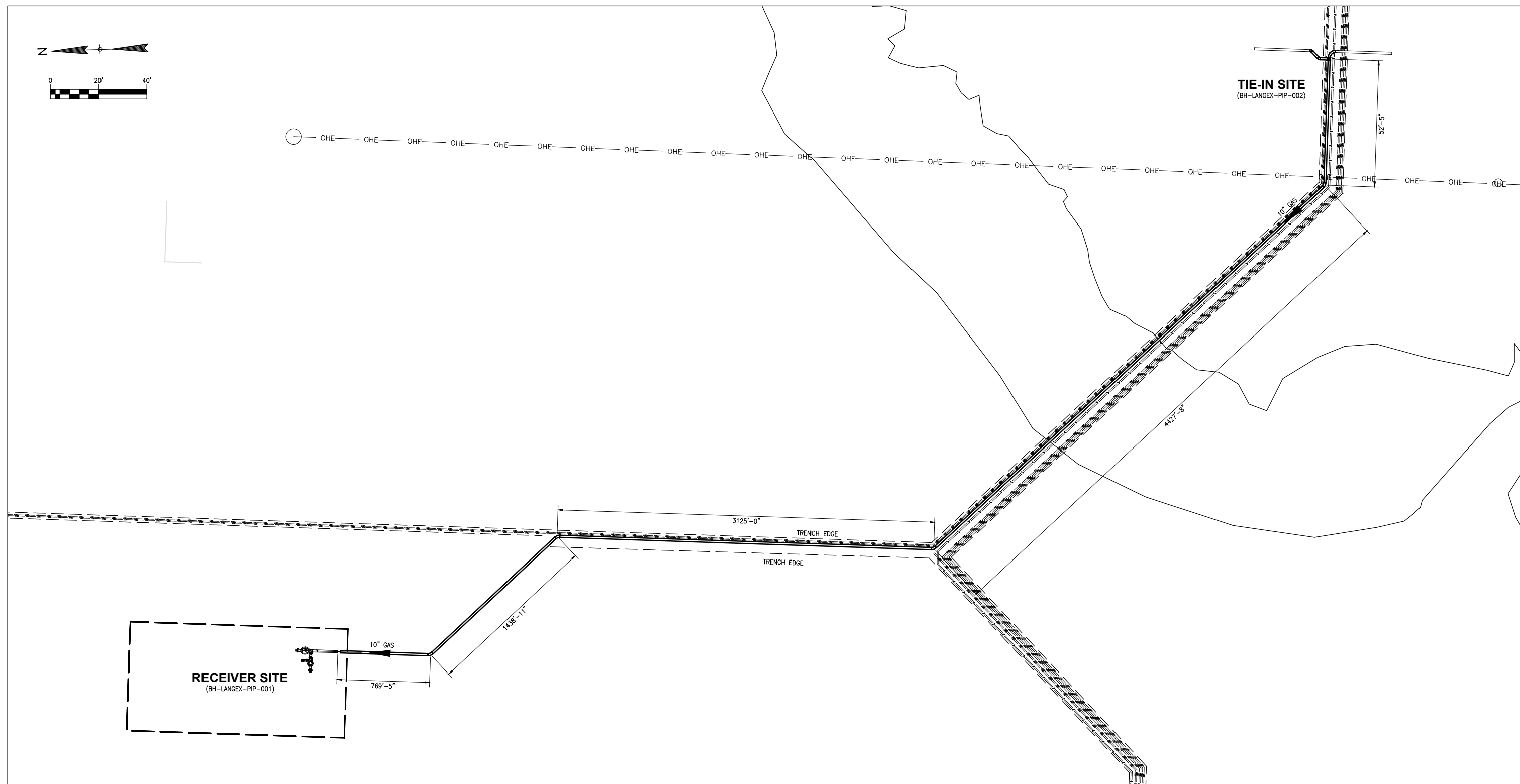


BLACK HILLS
LANGE PB2 EXTENSION – 10” GAS PIPELINE
DRAWING INDEX
07/02/2025

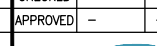
DRAWING NUMBER	DESCRIPTION	REVISION	DATE
BH-LANGEX-SP-001	LANGE PB2 – SITE PLAN	A	07/02/2025
BH-LANGEX-PIP-001	LANGE PB2 – RECEIVER SITE – PLOT PLAN	0	07/02/2025
BH-LANGEX-PIP-001A	LANGE PB2 – RECEIVER SITE – DETAILED PLAN, SECTION & DETAILS	0	07/02/2025
BH-LANGEX-PIP-001B	LANGE PB2 – RECEIVER SITE – ISOMETRIC & BOM	0	07/02/2025
BH-LANGEX-PIP-002	LANGE PB2 – TIE-IN SITE – DETAILED PLAN	0	07/02/2025
BH-LANGEX-PIP-002A	LANGE PB2 – TIE-IN SITE – SECTION	0	07/02/2025
BH-LANGEX-PIP-002B	LANGE PB2 – TIE-IN SITE – ISOMETRIC & BOM	0	07/02/2025



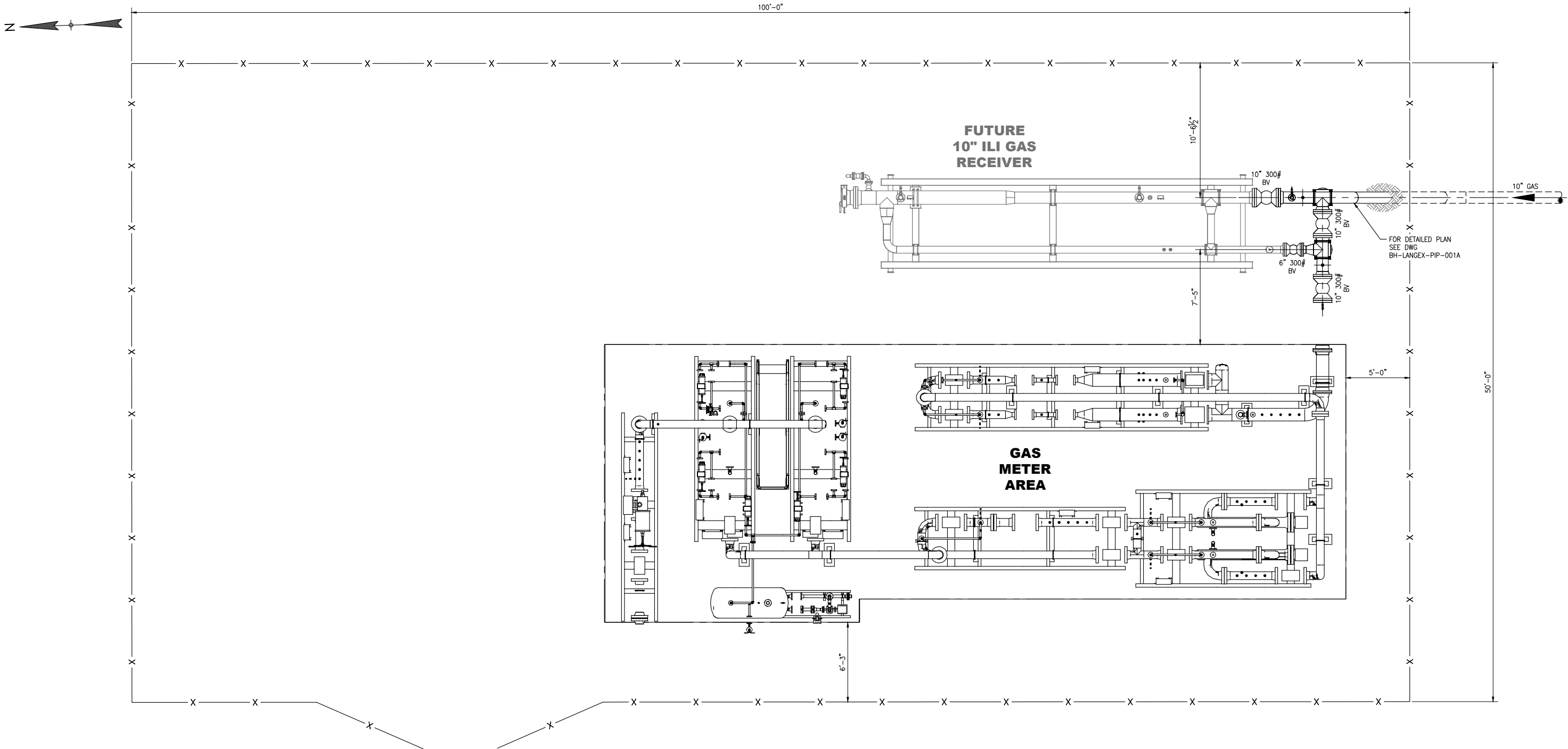
VICINITY MAP
NTS



SCALE: AS NOTED

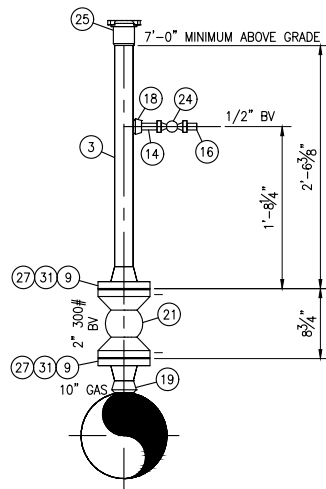
NOTES: 1. PLACE CATCH BASIN 2 SO IT DOES NOT INTERFERE WITH STEEL SKID.	REFERENCE DRAWINGS		REVISIONS								APPROVALS			 	BLACK HILLS ENERGY		
											SIGNATURE	DATE					
											DRAWN	-	-				
											CHECKED	-	-				
											APPROVED	-	-				
	BH-LANGEX-PIP-002	LANGE PB2 - TIE-IN SITE - DETAILED PLAN															
	BH-LANGEX-PIP-001	LANGE PB2 - RECEIVER SITE - PLOT PLAN	A	ISSUED FOR REVIEW	IEA	07-02-2025	DAN	07-02-2025	-	-							
DWG NO.	TITLE	REV	DESCRIPTION	BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE				SCALE:	DRAWING NO.	REV.		
													AS NOTED	BH-LANGEX-SP-001	A		

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FILE PATH: P:\CORROSION\BLACK HILLS CORPORATION\PROJECTS\2025 LANGE PB2\09 PROJECT DRAWINGS\09 PIPING\BH-LANGEX-PIP-001.DWG BY:MKNUSEN DATE:Jul 14, 2025 9:39am



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

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS					BLACK HILLS ENERGY			
													SIGNATURE	DATE		LANGE PB2 RECEIVER SITE PLOT PLAN			
													DRAWN	-					-
													CHECKED	-					-
													APPROVED	-					-
																			
		BH-LANGEX-PIP-001A	LANGE PB2 — RECEIVER SITE — DETAILED PLAN	0	ISSUED FOR CONSTRUCTION				MAK	07-02-2025	DAN	07-02-2025	-	-					
	DWG NO.	TITLE	REV	DESCRIPTION				BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE						
															SCALE:	DRAWING NO.	REV.		
														AS NOTED	BH-LANGEX-PIP-001	0			



1 THIS DWG

2 THIS DWG

6

8

11

14

16

20

24

26

29

300# BV

10"

1 1/2" BV

4

2

10" GAS

10'-0"

SECTION

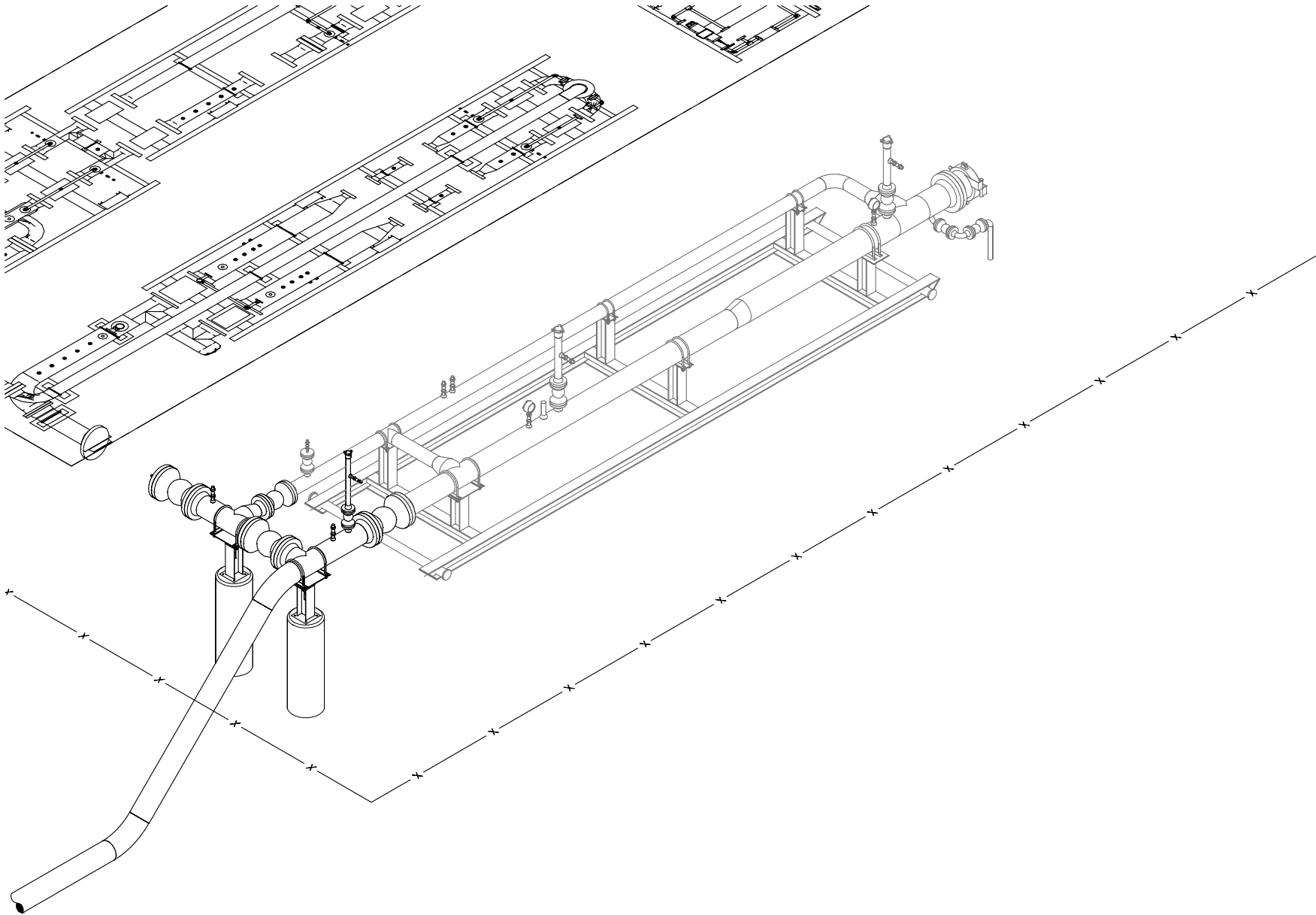
SCALE: 1/2" = 1'-0"

A

DETAIL 2
SCALE: 1" = 1'-0"
THIS DWG
(TYPICAL 2 PLACES)

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS			BLACK HILLS ENERGY			
											SIGNATURE	DATE					
											DRAWN	-		-			
											CHECKED	-		-			
											APPROVED	-		-			
																	
																	
	BH-LANGEX-PIP-002	LANGEX PB2 - RECEIVER SITE - PLOT PLAN	0	ISSUED FOR CONSTRUCTION	MAK	07-02-2025	DAN	07-02-2025	-	-				LANGEX PB2 RECEIVER SITE DETAILED PLAN, SECTION, & DETAILS			
DWG NO.		TITLE	REV	DESCRIPTION	BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE							SCALE: AS NOTED

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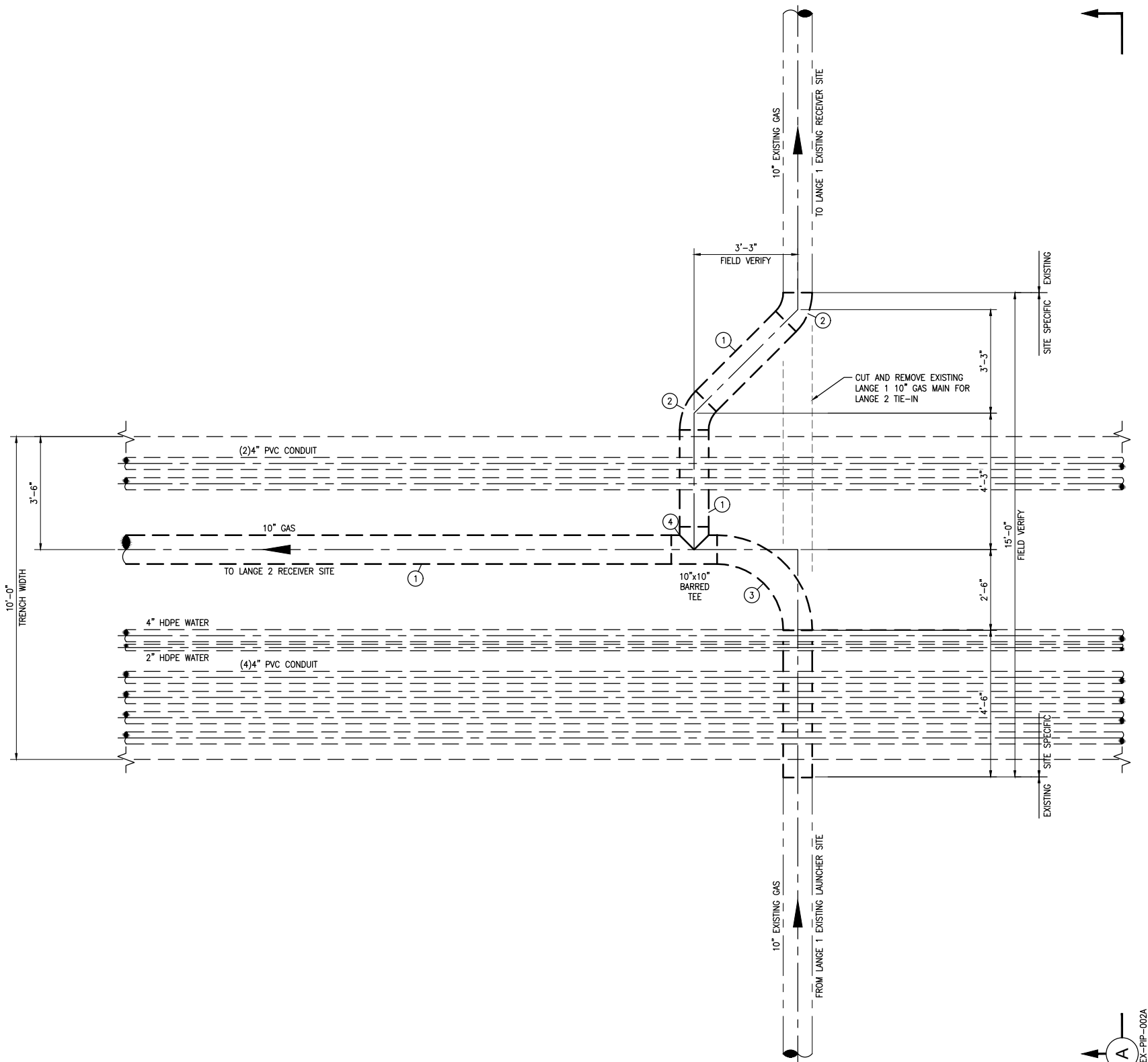


Bill of Material				
MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	1	10"	PIPE, 10.75" OD x STD (0.365), SMLS/ERW, CS, API 5L, PSL2-GR.X52, ASME B36.10M	3'-4 3/8"
2	1	10"	PIPE, 10.75" OD x STD (0.365), SMLS/ERW, CS, API 5L, PSL2-GR.X52, ASME B36.10M, W/ FBE	9'-10 1/2"
3	1	2"	PIPE, 2.375" OD x XS (0.218), SMLS, CS, ASTM A106/A53/API 5L-GR.B, ASME B36.10M	2'-3 5/8"
4	2	10"	ELBOW, 45° 3R, BW, SEGMENTABLE, SCH STD, CS, ASTM A234 WPB, ASME B16.9	-
5	1	10"	TEE, BW, STD (0.365), CS, WPHY-52, MSS SP-75	-
6	1	10"	TEE, BW, STD (0.365), CS, WPHY-52, MSS SP-75, (BARRED)	-
7	1	10"x6"	REDUCER, CONC, STD (0.365) x STD (0.280), CS, WPHY-52, MSS SP-75, I.T. M20F	-
8	4	10"	FLANGE, RFWN, CL 300, BORE TO MATCH STD (0.365), CS, ASTM A694-F52, MSS SP-44	-
9	2	2"	FLANGE, RFWN, CL 300, BORE TO MATCH XS (0.218), CS, ASTM A105, ASME B16.5	-
10	1	6"	FLANGE, RFWN, CL 300, BORE TO MATCH STD (0.280), CS, ASTM A105, ASME B16.5	-
11	2	10"x1/2"	FLANGE, BLIND, RFFE, CL 300, CS, ASTM A694-F52, MSS SP-44, W/ 1/2" NPT CENTER DRILL AND TAP	-
12	1	6"x1/2"	FLANGE, BLIND, RFFE, CL 300, CS, ASTM A105, ASME B16.5, W/ 1/2" NPT CENTER DRILL AND TAP	-
13	2	1"	NIPPLE, 1" x 3" LG., XS, SMLS, CS, ASTM A106-GR.B, POE x TOE	3"
14	4	1/2"	NIPPLE, 1/2" x 3" LG., XS, SMLS, CS, ASTM A106-GR.B, TBE	3"
15	2	1"	PLUG, THRD, HEX HEAD, CS, ASTM A105, ASME B16.11	-
16	4	1/2"	PLUG, THRD, HEX HEAD, CS, ASTM A105, ASME B16.11	-
17	2	10"x1"	SOCKOLET, SW, 10" STD x 1" XS, CS, ASTM A105, MSS SP-97	-
18	1	2"x1/2"	THREDOLET, THRD, 2" XS x 1/2" XS, CS, ASTM A105, MSS SP-97	-
19	1	10"x2"	WELDOLET, BW, 10" STD x 2" XS, CS, ASTM A694-F52, MSS SP-97	-
20	3	10"	VALVE, BALL, RFFE, CL 300, CS BODY W/ CS ENP BALL, PIGGABLE, GO, API 6D, BBRB	1'-10 3/8"
21	1	2"	VALVE, BALL, RFFE, CL 300, CS BODY W/ CS ENP BALL, NYLON SEAT, PIGGABLE, LO, API 6D, BBRA	8 1/2"
22	1	6"	VALVE, BALL, RFFE, CL 300, CS BODY W/ CS ENP BALL, PIGGABLE, LO, API 6D, BBRB	1'-3 7/8"
23	2	1"	VALVE, BALL, THRD, 750 WOG, CS BODY W/ SS TRIM, LO, ASME B16.34, BJTA	3 3/16"
24	4	1/2"	VALVE, BALL, THRD, 750 WOG, CS BODY W/ SS TRIM, LO, ASME B16.34, BJTA	2 11/16"
25	1	2"	CLOSURE, VERTICAL, QUICK OPENING, YALE, FIGURE 500, CL 600, ASTM A105	-
26	6	10"	GASKET, RFFE, CL 300, SPIRAL WOUND 304 SS, NON-ASBESTOS FILLER, 1/8" THICK, W/ INNER RING, FLEXITALLIC TYPE CGI, ASME B16.20	-
27	2	2"	GASKET, RFFE, CL 300, SPIRAL WOUND 304 SS, NON-ASBESTOS FILLER, 1/8" THICK, W/ INNER RING, FLEXITALLIC TYPE CGI, ASME B16.20	-
28	2	6"	GASKET, RFFE, CL 300, SPIRAL WOUND 304 SS, NON-ASBESTOS FILLER, 1/8" THICK, W/ INNER RING, FLEXITALLIC TYPE CGI, ASME B16.20	-
29	96	1"	STUD BOLTS, 1" DIA. x 6 1/2" LG., ASTM A193-GR.B7 W/ ASTM A194-GR.2H NUTS (FOR 10" CL 300 FLANGE)	6 1/2"
30	24	3/4"	STUD BOLTS, 0.75" DIA. x 5" LG., ASTM A193-GR.B7 W/ ASTM A194-GR.2H NUTS (FOR 6" CL 300 FLANGE)	5"
31	16	5/8"	STUD BOLTS, 0.625" DIA. x 3 3/4" LG., ASTM A193-GR.B7 W/ ASTM A194-GR.2H NUTS (FOR 2" CL 300 FLANGE)	3 3/4"

ISOMETRIC
SCALE: NTS

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS					BLACK HILLS ENERGY			
													SIGNATURE	DATE				LANGE PB2 RECEIVER SITE ISOMETRIC & BILL OF MATERIAL	
													DRAWN	-					-
													CHECKED	-					-
													APPROVED	-					-
	BH-LANGEX-PIP-002A	LANGE PB2 — RECEIVER SITE — DETAILED PLAN	0	ISSUED FOR CONSTRUCTION				MAK	07-02-2025	DAN	07-02-2025	-	-						
	DWG NO.	TITLE	REV	DESCRIPTION				BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE						

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

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS					BLACK HILLS ENERGY			
														SIGNATURE		DATE		LANGE PB2 TIE-IN SITE DETAILED PLAN & BOM	
	BH-LANGEX-PIP-002A	LANGE PB2 - TIE-IN SITE - SECTION	0	ISSUED FOR CONSTRUCTION				MAK	07-02-2025	DAN	07-02-2025	-	-						
DWG NO.	TITLE	REV	DESCRIPTION				BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE	SCALE:		DRAWING NO.	REV.			
													AS NOTED	BH-LANGEX-PIP-002	O				

10'-0" TRENCH WIDTH

GRADE

3'-6" MINIMUM

3" TYP.

7'-5" MINIMUM

5'-0" MINIMUM

3" MIN.

3'-6" MINIMUM

10" EXISTING GAS

EXISTING SITE SPECIFIC

10" EXISTING GAS

EXISTING SITE SPECIFIC

FROM LANGE 1 EXISTING LAUNCHER SITE

TO LANGE 1 EXISTING RECEIVER SITE

2" HDPE WATER

4" HDPE WATER

1'-6" MINIMUM

2'-8"

3'-6"

10"

8"

(4) 4" PVC CONDUIT

(2) 4" PVC CONDUIT

10'-0" TRENCH WIDTH

GRADE

3'-6" MINIMUM

3" TYP.

7'-5" MINIMUM

5'-0" MINIMUM

3" MIN.

3'-6" MINIMUM

10" EXISTING GAS

EXISTING SITE SPECIFIC

10" EXISTING GAS

EXISTING SITE SPECIFIC

FROM LANGE 1 EXISTING LAUNCHER SITE

TO LANGE 1 EXISTING RECEIVER SITE

2" HDPE WATER

4" HDPE WATER

1'-6" MINIMUM

2'-8"

3'-6"

10"

8"

(4) 4" PVC CONDUIT

(2) 4" PVC CONDUIT

SECTION A

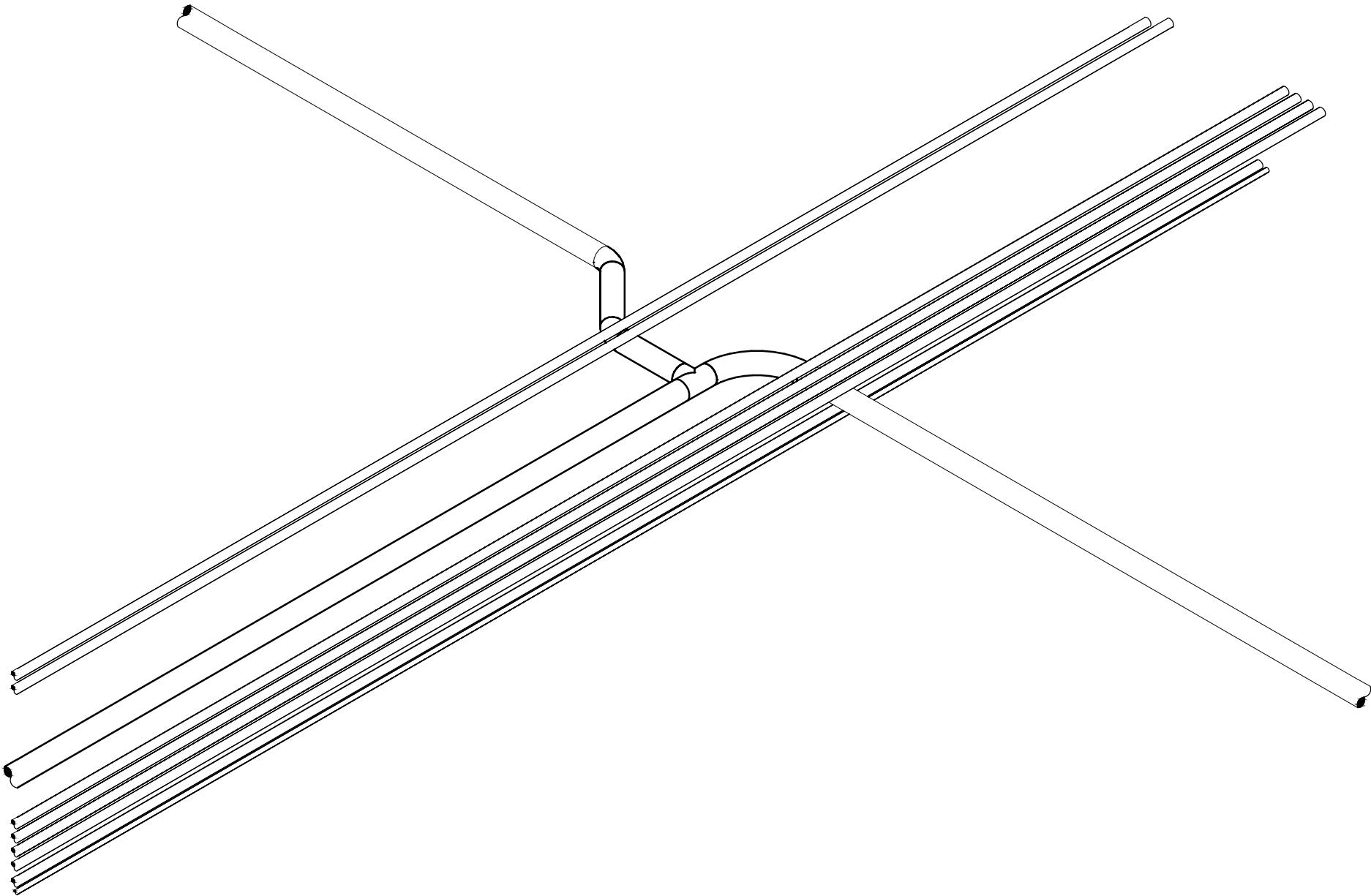
SCALE: 1" = 1'-0"

BH-LANGEX-PIP-002

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS					BLACK HILLS ENERGY		
												SIGNATURE	DATE			LANGE PB2 TIE-IN SITE SECTION		
BH-LANGEX-PIP-002	LANGE PB2 - TIE-IN SITE - DETAILED PLAN	0	ISSUED FOR CONSTRUCTION			MAK	07-02-2025	DAN	07-02-2025	-	-							
DWG NO.	TITLE	REV	DESCRIPTION			BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE							

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Bill of Material					
MARK	QTY	SIZE	DESCRIPTION	LENGTH	
1	1	10"	PIPE, 10.75" OD x STD (0.365), SMLS/ERW, CS, API 5L, PSL2-GR.X52, ASME B36.10M, W/ FBE	57'-3 7/8"	
2	2	10"	ELBOW, 45° LR, BW, SCH STD, CS, ASTM A234 WPB, ASME B16.9	-	
3	1	10"	ELBOW, 90° 3R, BW, SEGMENTABLE, SCH STD, CS, ASTM A234 WPB, ASME B16.9	-	
4	1	10"	TEE, BW, SCH STD, CS, ASTM A234 WPB, ASME B16.9	-	



ISOMETRIC
SCALE: NTS

NOTES:	REFERENCE DRAWINGS		REVISIONS								APPROVALS					BLACK HILLS ENERGY		
														SIGNATURE		DATE	LANGE PB2 TIE-IN SITE ISOMETRIC & BILL OF MATERIAL	
	BH-LANGEX-PIP-002	LANGE PB2 – TIE-IN SITE – DETAILED PLAN	0	ISSUED FOR CONSTRUCTION				MAK	07-02-2025	DAN	07-02-2025	-	-		SCALE:		DRAWING NO.	REV.
	DWG NO.	TITLE	REV	DESCRIPTION				BY	DATE	CHK BY	CHK DATE	APR BY	APR DATE		AS NOTED	BH-LANGEX-PIP-002B		0