

General Notes

Legend	
Symbol	Description
	Valves
	Fittings
	Propose Fence Line
	Existing Fence Line
	Easements
	Propose Above Grade Piping
	Proposed Below Grade Piping
	Existing Above Grade Piping
	Existing Below Grade Piping
	Existing Piping to be Removed/Retired

0	PRELIMINARY DESIGN	JKA	8/19/2020
-	-	-	-
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-	-	-	-
No.	Revision/Issue	Approval	Date

Prepared by:  
**JK Associates, Inc.**  
*Professional Engineering Services*

**PROJECT ROUTE PLAN**

Project Name:  
 EMW GAS ASSOCIATION'S  
 MORIARTY GAS EXTENSION PROJECT  
 4 INCH STEEL PIPELINE EXTENSION  
 Address:  
 ALONG ROOSEVELT AVE. & HAZEL ST.  
 MORIARTY, NM 87053  
 Legal Description:  
 T. 9 N., R. 8 E., SEC. 13, N.M.P.M.

Project Number: 2020-002-001	Sheet #: <b>1</b>
Creation Date: August 4th, 2020	
Scale: Not to Scale	

**ENGINEER'S CERTIFICATE**  
 I CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND THAT I AM LICENSED AS A PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO.



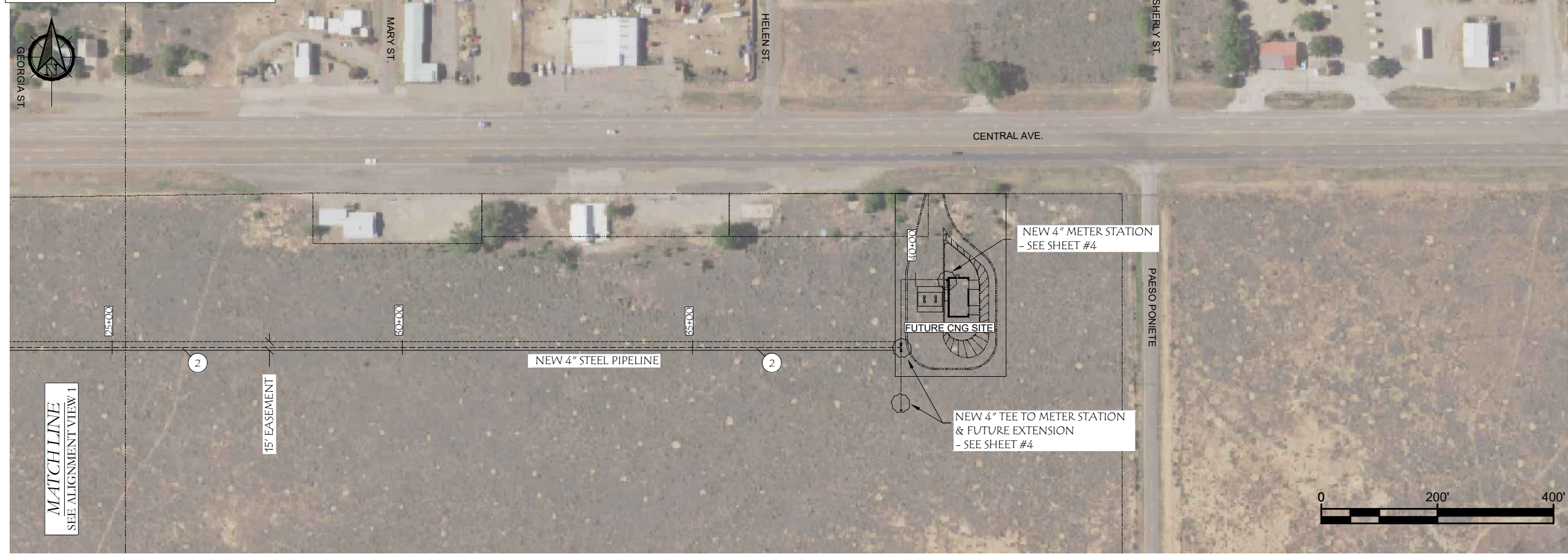
Jon W. Jones, P.E. #11616

Date:

**ALIGNMENT VIEW 1**



**ALIGNMENT VIEW 2**



General Notes

ENGINEER'S CERTIFICATE



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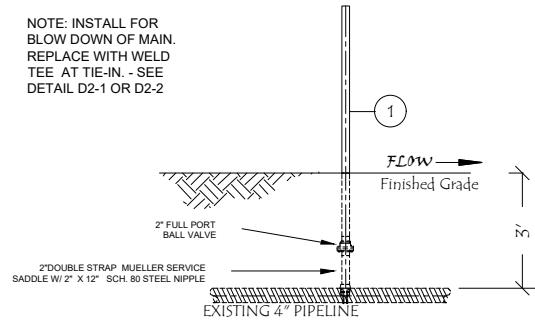
Prepared by:  
**JK Associates, Inc.**  
*Professional Engineering Services*

**ALIGNMENT SHEET**

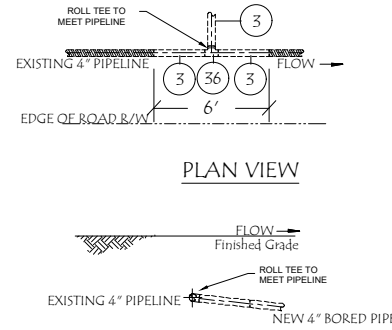
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Project Number: 2020-002-001	Sheet #: <b>2</b>
Creation Date: August 4th, 2020	
Scale: See Above	

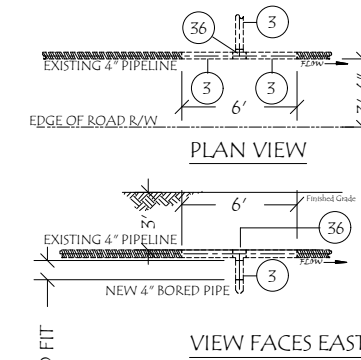
NOTE: INSTALL FOR BLOW DOWN OF MAIN. REPLACE WITH WELD TEE AT TIE-IN. SEE DETAIL D2-1 OR D2-2



D1 TEMPORARY BLOW DOWN TAP  
Scale: N.T.S.

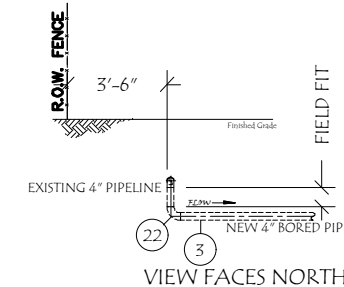


PLAN VIEW

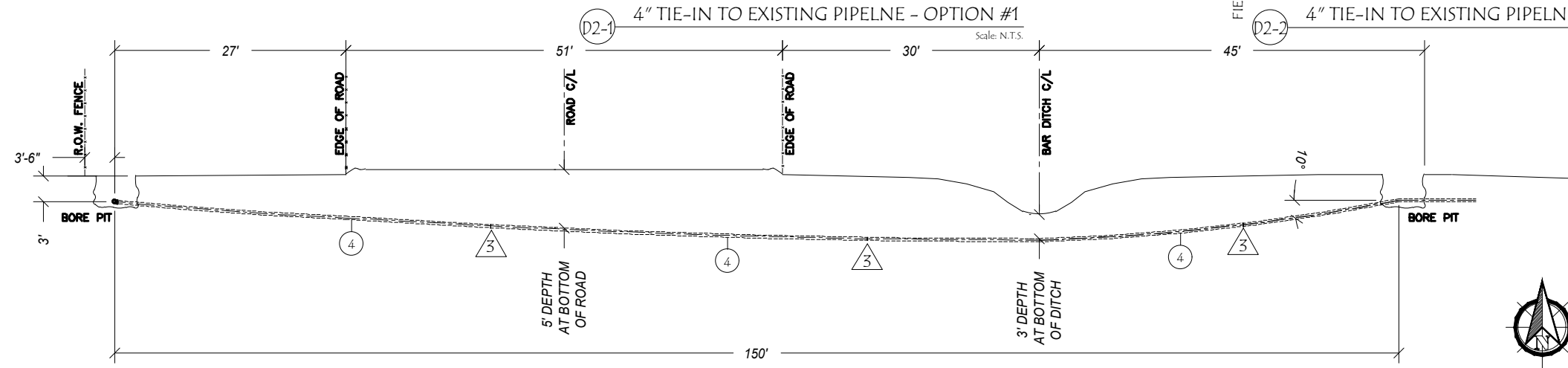


PLAN VIEW

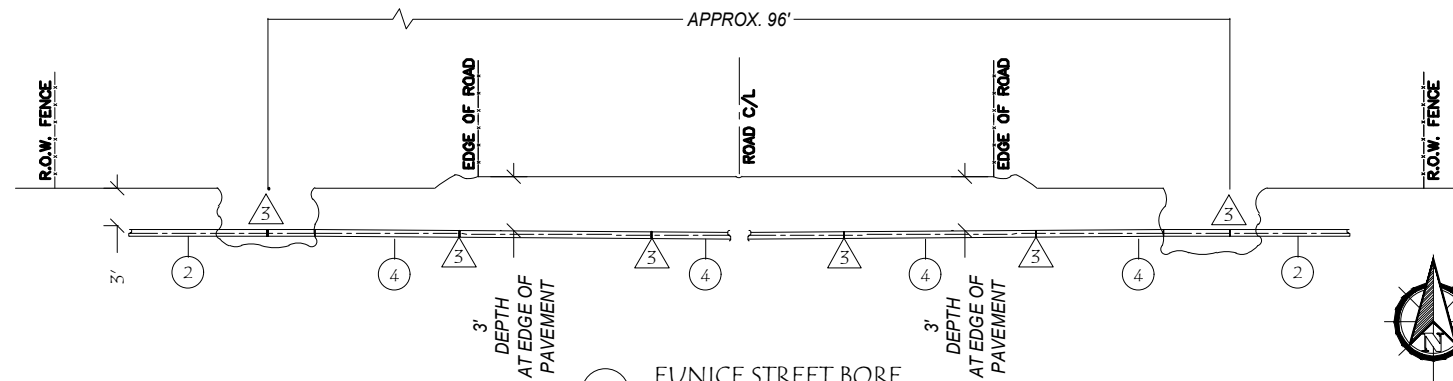
VIEW FACES EAST



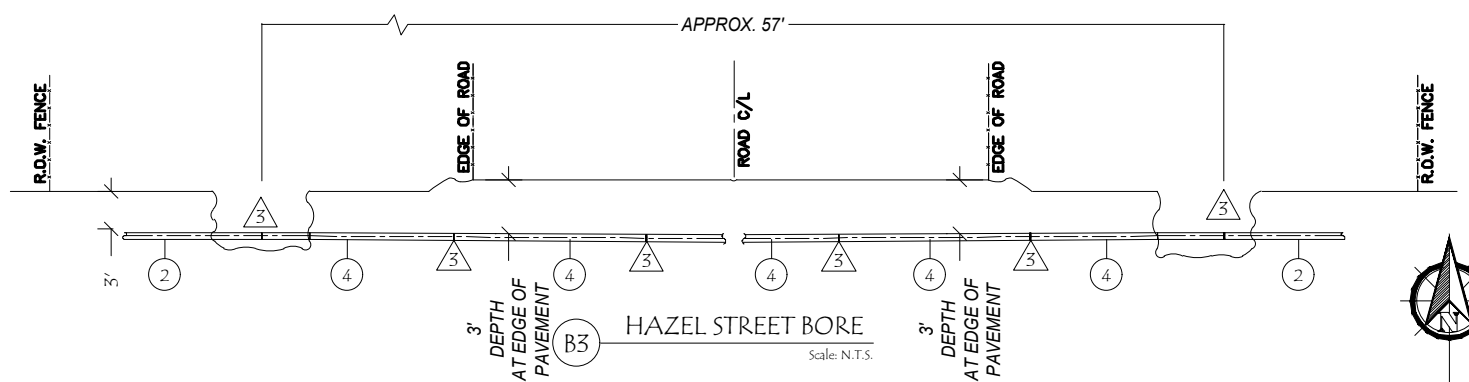
VIEW FACES NORTH



B1 NM STATE HIGHWAY 41 BORE  
Scale: N.T.S.



B2 EUNICE STREET BORE  
Scale: N.T.S.



B3 HAZEL STREET BORE  
Scale: N.T.S.

General Notes

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Legend

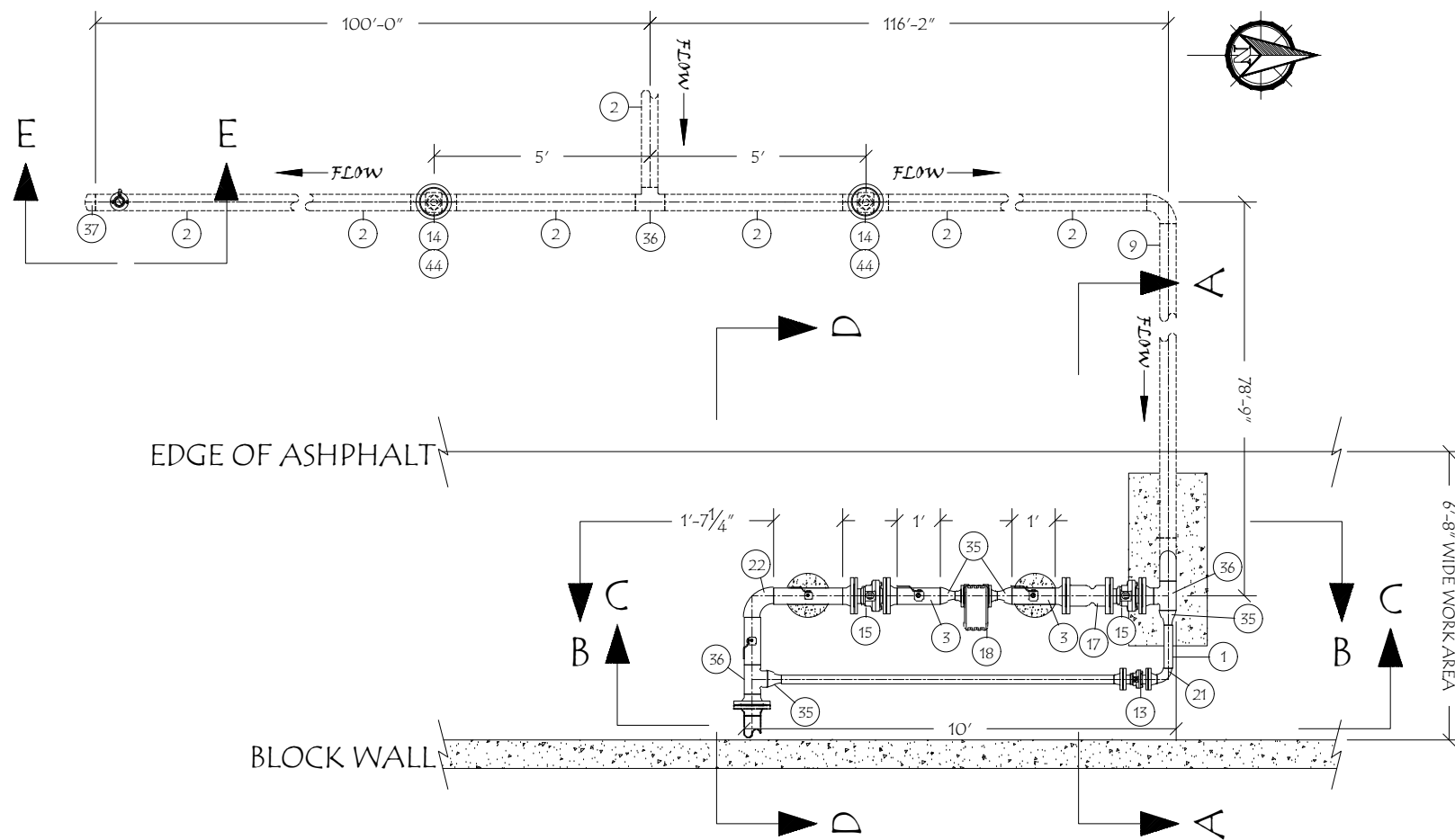
Symbol	Description
---	Centerlines
---	Propose Fence Line
---	Existing Fence Line
---	Propose Above Grade Piping
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**TIE-IN & ROAD CROSSING BORE DETAILS**

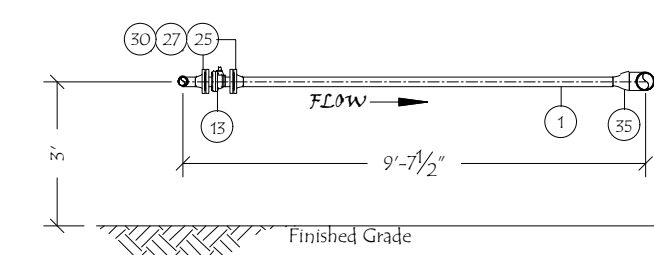
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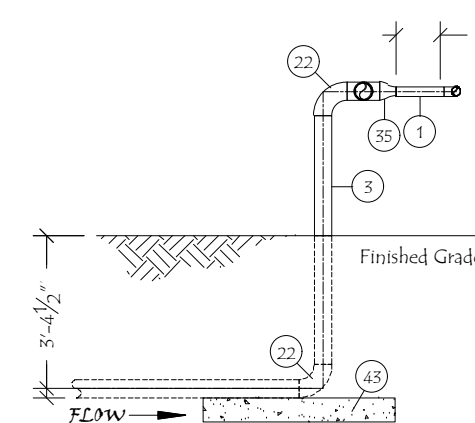


EDGE OF ASPHALT

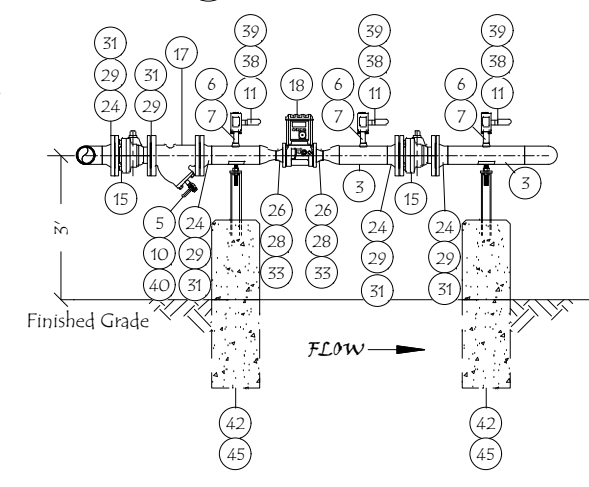
BLOCK WALL



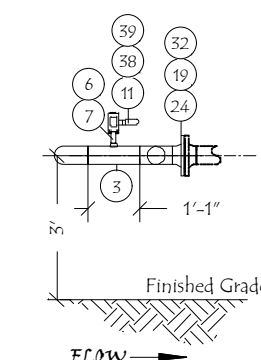
**C** 4" METER BY-PASS  
Scale: 1/4" = 1'



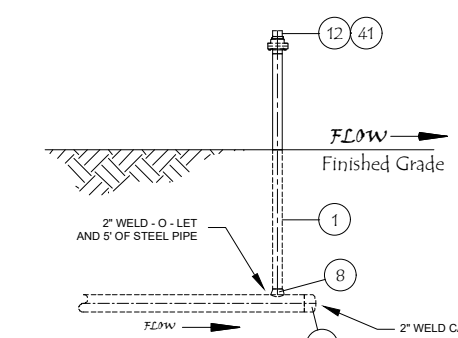
**A** 4" METER RISER  
Scale: 1/4" = 1'



**B** 4" METER RUN  
Scale: 1/4" = 1'



**D** 4" SERVICE TO CNG STATION  
Scale: 1/4" = 1'



**E** 2" PURGE STACK  
Scale: 1/4" = 1'

EMW 4-Inch Expansion - Bill of Materials				
Material Type	Item #	Quantity	Size	Description
Pipe & Tubing	1	20	2 Inch	Pipe, Bare C.S., 2.375" O.D. ERW, 0.154" W.T., Grade X-46 or greater, Single Random Joints
	2	3800	4 Inch	Pipe, C.S., 4.5" O.D., ERW, 0.156" W.T., Grade X-46 or greater, Fusion Bonded Epoxy Coated
	3	20	4 Inch	Pipe, Bare C.S., 4.5" O.D., ERW, 0.237" W.T., Grade X-46 or greater
	4	400	4 Inch	Pipe, C.S., 4.5" O.D., ERW, 0.237" W.T., Grade X-46 or greater, 12-14 mil initial FBE with Dual Layered Fusion Bonded Epoxy Coated w/ outer ARO Coating, double random
	5	1	1-1/2 Inch x 1 Inch	Pipe, Swage Nipple, TBE, SMLS, 1-1/2" x 1", SCH. 40, Straight
	6	4	1 Inch x 4 Inch	Pipe, Nipple, TBE, SMLS, 1" x 4", SCH. 80, Straight
	7	4	4 Inch x 1 Inch	Thread-O-Let, 4" x 1", CL 3000
	8	1	4 Inch x 2 Inch	Weld-O-Let, 4" x 2", CL 3000
	9	80	4 Inch	Pipe, C.S., 4.5" O.D., ERW, 0.237" W.T., Grade X-46 or greater, Fusion Bonded Epoxy Coated
Valves	10	1	1/2 Inch	Valve, Ball, 1/2" Nominal Size, Full Port, Stainless, Threaded, NPT, 3,000 psi, Balon, LM-05361, w/ locking handle
	11	4	1 Inch	Valve, Ball, 1" Nominal Size, Full Port, Stainless, Threaded, NPT, 2,000 psi, Balon, LM-10361, w/ locking handle
	12	1	2 Inch	Valve, Ball, 2" Nominal Size, Floating, C.S., Thread x Thread, 2500 psi, Balon, 2F-593-SE
	13	1	2 Inch	Valve, Ball, 2" Nominal Size, Floating, C.S., Flange x Flange, ANSI 150, Balon, 2F-F13-RF
	14	2	4 Inch	Valve, Ball, 4" Nominal Size, Floating, C.S., Weld x Weld, ANSI 150, 4F-JS13-BW
	15	2	4 Inch	Valve, Ball, 4" Nominal Size, Floating, C.S., Flange x Flange, ANSI 150, Balon, 4F-F13-RF
	16			
Filters & Strainers	17	1	4 Inch	Strainer, Y-Style, 4" Nominal Size, C.S., Flange x Flange, ANSI 150, Mueller, Model 781 - Furnished by EMW
Measurement Components	18	1	2 Inch	Meter, Ultrasonic, 2" Nominal Size, Flange x Flange, ANSI 150, SICK, FLOWSiCF5000 - Furnisher by EMW
	19	1	4 Inch	Insulation Kit, 4" Nominal Size, Flange, ANSI 150, PSI Line-Backer, Type F - Furnished by EMW
	20			
Elbows & Field Bands	21	1	2 Inch	Elbow, 2", Weld End, C.S., 90 Degree, Long Radius, STND. SCH., WPB
	22	4	4 Inch	Elbow, 4", Weld End, C.S., 90 Degree, Long Radius, STND. SCH., WPB
	23			
Flanges, Gaskets & Stud Bolts	24	5	4 Inch	Flange, Weld Neck, 4" Nominal Size, RF, STND Bore, WPB, ANSI 150
	25	2	2 Inch	Flange, Weld Neck, 2" Nominal Size, RF, STND Bore, WPB, ANSI 150
	26	2	2 Inch	Flange, Flat Faced, 2" Nominal Size, RF, STND Bore, WPB, ANSI 150
	27	2	2 Inch	Gasket, 2" Nominal Size, ANSI 150, Spiral-Wound, Flexitatic, CG
	28	2	2 Inch	Gasket, 2" Nominal Size, ANSI 150, Garlock - For SICK Meter - Furnished by EMW
	29	5	4 Inch	Gasket, 4" Nominal Size, ANSI 150, Spiral-Wound, Flexitatic, CG
	30	8	5/8 Inch x 3-1/4 Inch	Stud Bolts, 5/8" x 3-1/4" with B7, 2 Hex-Nuts for 2" ANSI 150 Flanges
	31	40	5/8 Inch x 3-1/2 Inch	Stud Bolts, 5/8" x 3-1/4" with B7, 2 Hex-Nuts for 4" ANSI 150 Flanges
	32	8	5/8 Inch x 4-1/2 Inch	Stud Bolts, 5/8" x 4-1/2" with B7, 2 Hex-Nuts for 4" ANSI 150 Flanges with Insulating Kit
	33	8	5/8 Inch x 2-1/2 Inch	SICK Machine Bolts, 5/8" x 2-1/2" for 2" SICK FS500 Ultrasonic meter - Furnished by EMW
	34			
Reducers	35	4	4 Inch x 2 Inch	Reducer, Weld End, C.S., 4" x 2", Standard SCH, Grade B
Tees & Branch Connections	36	4	4 Inch x 4 Inch x 4 Inch	Tee, Weld End, C.S., Straight, 4" x 4" x 4", Standard SCH, Grade B
	37	1	4 Inch	Cap, Weld End, C.S., Straight, 4", Standard SCH, Grade B
Caps & Plugs	38	4	1 Inch x 1/4 Inch	Bushing, Forged steel, 1" x 1/4", 2000 psi
	39	4	1/4 Inch	Plug, 1/4", Steel Solid steel, 2000 psi
	40	1	1/2 Inch	Plug, 1/2", Steel Solid steel, 2000 psi
	41	1	2 Inch	Plug, 2", Steel Solid steel, 2000 psi
Miscellaneous Components	42	2	12 Dia.	Pipe Supports, 2" to 4", E-Z Line, Figure A, 204A 4" PS D=60 Inches
	43	1	24 Inch x 48 Inch x 6 Inch	Sleeper Support, 24" x 48" x 6", Concrete
	44	2	4 Inch Dia.	Valve Box, 4" Nominal Size, Part #GHAT3ACD, Handley Industries
	45	2	12 Dia.	Supports, SonaTube, 12" Diameter 36" Long.

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**METER PLAN & ELEVATIONS**

Project Name:  
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4 INCH STEEL PIPELINE EXTENSION  
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