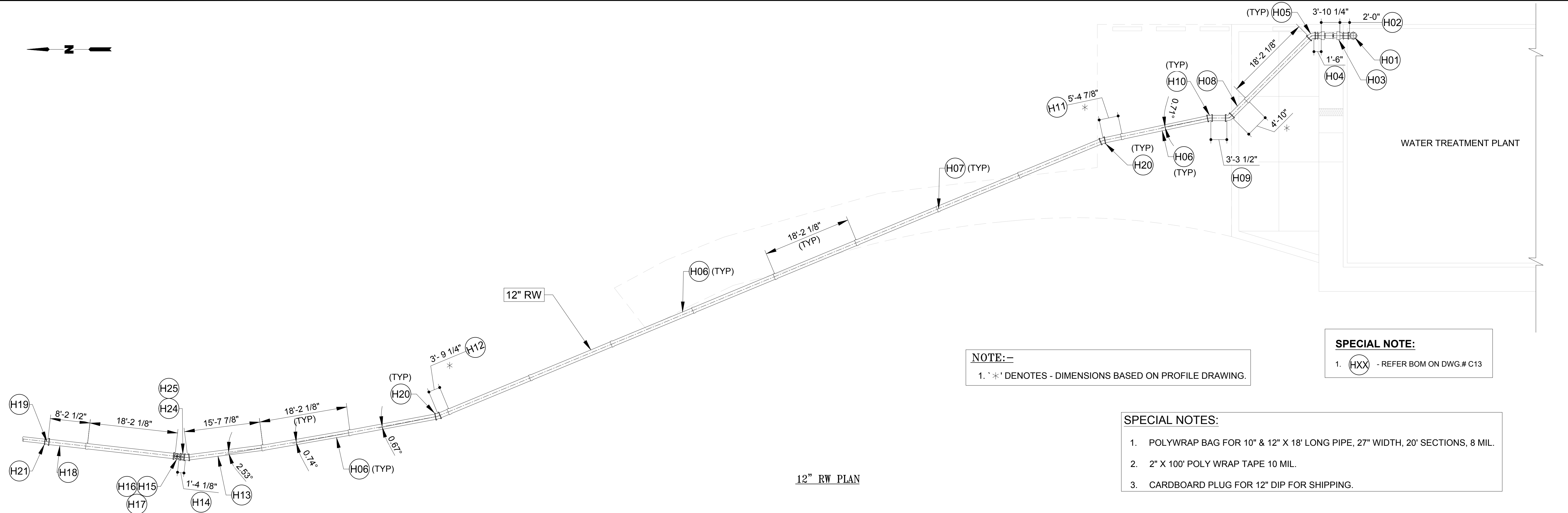


OWNER:-	ENGINEER:-	<p>DISCLAIMER RJ Barnes and Associates has prepared these layout drawings and material lists in accordance with our interpretation of the project drawings and specifications that were provided. Approval of these drawings and material lists constitute acceptance of our interpretation of material requirements for the subject job. Please check the drawings and material lists carefully to insure they are correct for your project.</p> <p>If corrections need to be made, please mark one set of the drawings in a contrasting color and return them to this office with your comments. No material shown in these drawings should be released for manufacture without written approval from the end customer.</p>				R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003
			△	DRAWING REVISED AS PER COMMENTS	ST	RJB 11/18/2024
			REV	PARTICULARS	BY	APP'D DATE



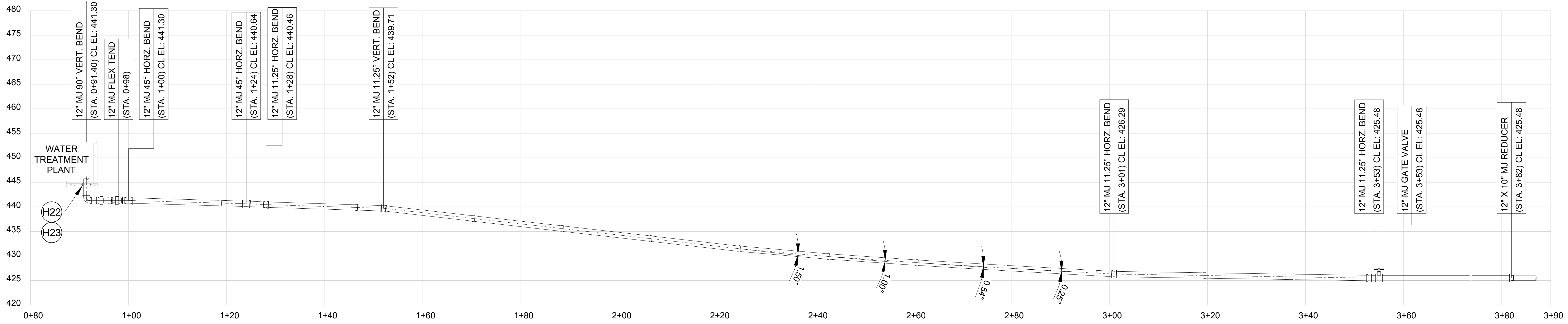
NOTE:-
1. '*' DENOTES - DIMENSIONS BASED ON PROFILE DRAWING.

SPECIAL NOTE:
1. (HXX) - REFER BOM ON DWG.# C13

SPECIAL NOTES:

1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
2. 2" X 100' POLY WRAP TAPE 10 MIL.
3. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

12" RW PLAN



12" RW PROFILE

OWNER:-

ENGINEER:-

DISCLAIMER
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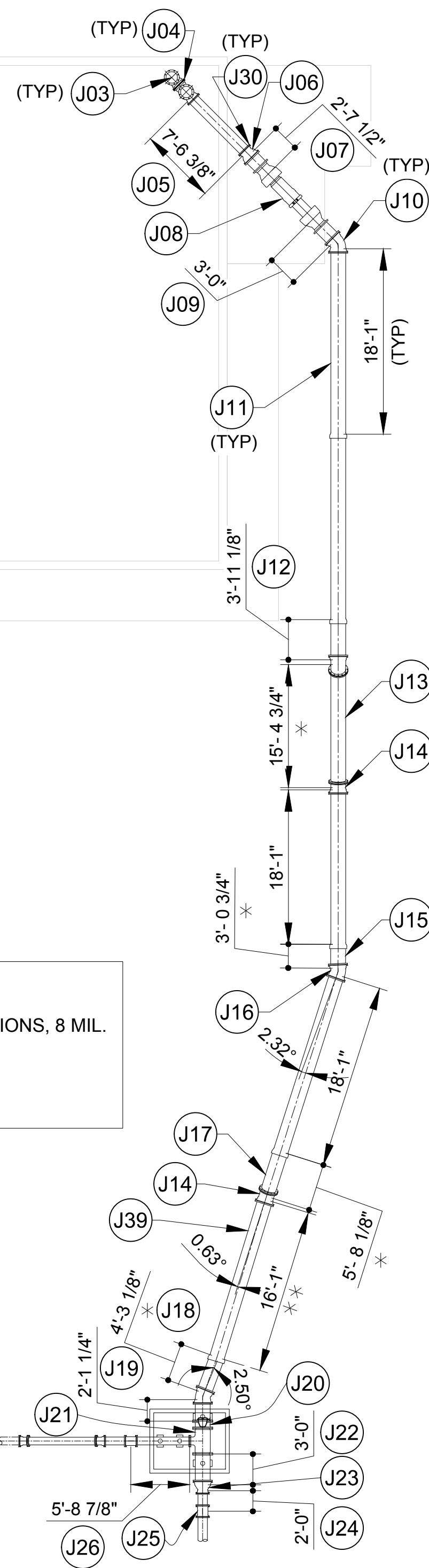
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REV	PARTICULARS	BY	APP'D	DATE

R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003



WATER TREATMENT PLANT



NOTES:-

- 1. '* *' DENOTES - DIMENSIONS BASED ON PROFILE DRAWING.
- 2. '* * *' DENOTES - 2'-TRIM.

SPECIAL NOTES:

- 1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
- 2. 2" X 100' POLY WRAP TAPE 10 MIL.
- 3. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

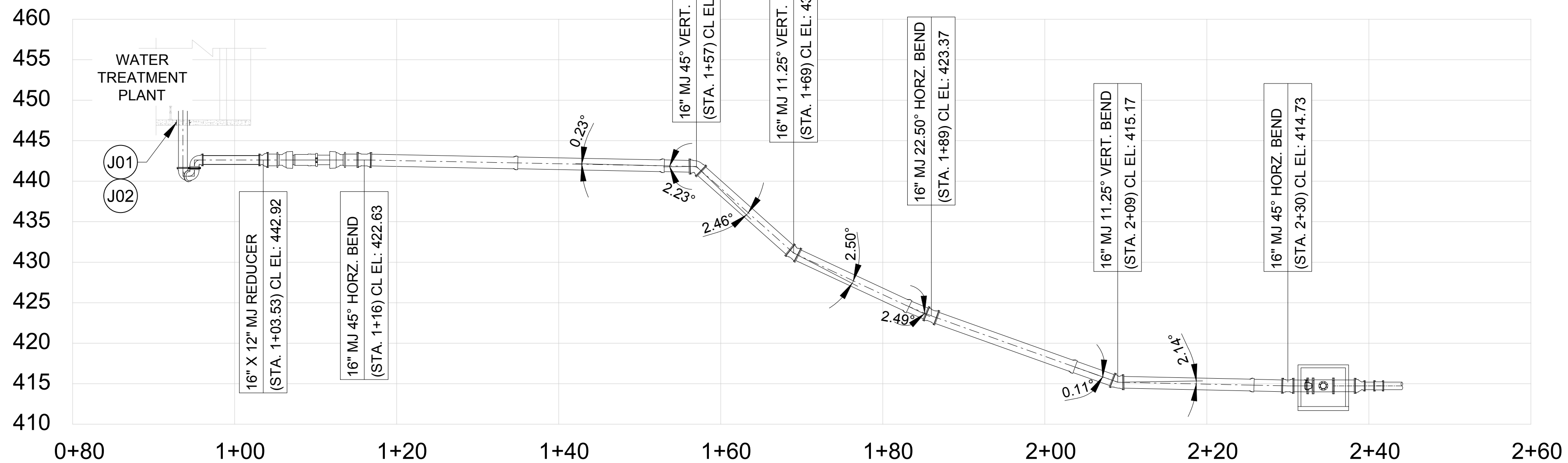
STD ABBREVIATIONS & NOTES LEGEND

01. COATING AND LINING.

LINING	COATING
CEMENT MORTAR LINING (CL)	TNEME-ZINC (TN # 90-97 PRIMER)

- 02. FLG = FLANGE JOINT
- 03. PE = PLAIN END
- 04. MJ = MECHANICAL JOINT
- 04. CL 52 / 53 = THICKNESS CLASS 52/ 53
- 05. LL = LAYING LENGTH

12" FW PLAN



12" FW PROFILE

BILL OF MATERIALS					
12" & 16" DIP FW LINE FROM WTP CONNECT TO SAMPLE VALVE VAULT (DWG # C7, C7-B & C14)					
TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
J01	1	18"	STD STL FLOOR SLEEVE ,W/ WALL RING ,HDG	LL = 8.00"	BID LINE # 56
J02	18	-	LINK-SEAL LS-475-S EPDM & 316SS FASTENERS	-	BID LINE # 57
J03	3	12"	MJ 90 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 60
J04	2	12"	FOSTER ADATER		
J05	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	7'-6 3/8"	BID LINE # 58
J06	1	16" X 12"	MJ REDUCER DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 62
J07	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'- 7 1/2"	
J08	1	16"	MJ X MJ FLEX-TEND, 8" EXTENSION		BID LINE # 69
J09	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'-0"	
J10	3	16"	MJ 45 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 70
J11	4	16"	HDSS RESTRAINED JOINT PIPE - CL52 / CL / SC	18'- 1"	BID LINE # 65
J12	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'- 11 1/8"	
J13	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	15'- 4 3/4"	
J14	2	16"	MJ 11.25 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 72
J15	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'- 0 3/4"	
J16	1	16"	MJ 22.50 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 71
J17	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	5'- 8 1/8"	
J18	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	4'-3 1/8"	
J19	1	16"	PE X FLG CL53 / CL / TN # 90-97 PRIMER	2'- 1 1/4"	BID LINE # 76
J20	1	16"	AWWA C504 FLG BUTTERFLY VALVE W/ GEAR OPERATOR & HAND WHEEL, FBE.	LL = 8.00"	BID LINE # 77

J21	1	16" X 8"	FLG TEE AWWA - C110 / CL / TN # 90-97 PRIMER		BID LINE # 78
J22	1	16"	FLG X PE CL53 / CL / TN # 90-97 PRIMER	3'-0"	BID LINE # 79
J23	1	16" X 10"	MJ REDUCER DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 80
J24	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'- 0"	
J25	1	10"	MJ SLEEVE LONG PATTERN DI, AAWA C153, LESS ACCESSORIES (68 LBS)		BID LINE # 81
J26	1	8"	FLG X PE CL53 / CL / TN # 90-97 PRIMER	5'-8 7/8"	BID LINE # 83
J27	1	8"	MJ SLEEVE LONG PATTERN DI, AAWA C153, LESS ACCESSORIES (68 LBS)		BID LINE # 84
J28	2	8"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 85
J29	3	10"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 82
J30	3	12"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 61
J31	14	16"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 63 & 73
J32	2	16"	SET 16" BLK A307B BOLTS, A563A HVY HEX NUT, 2 - ASTM F844 WASHER. (FOR FLG BFV)		BID LINE # 86
J33	1	16"	SET 16" BLK A307B BOLT, A563A HVY HEX NUT, 2 - ASTM F844 WASHER. AIS		BID LINE # 87
J34	3	16"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 88
J35	1	8"	SET 8" BLK A307B BOLT, A563 HVY HEX NUT, 2 - F844 WASHER. AIS		BID LINE # 89
J36	1	8"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 90
J37	2	16"	ADJ SADDLE SUPPORT ZINC PLATED SIZE FOR DIP #S92 STANDON		BID LINE # 91
J38	2	8"	STANDON S92 ZINC COATED PIPE SUPPORT		BID LINE # 92
J39	1	16"	HDSS RESTRAINED JOINT PIPE - CL52 / CL / SC	16'- 1"	BID LINE # 65
J40	2	8"	MJ 11.25 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		
J41	4	8"	MEGALUG TYPE RESTRAINT KIT FOR DIP		

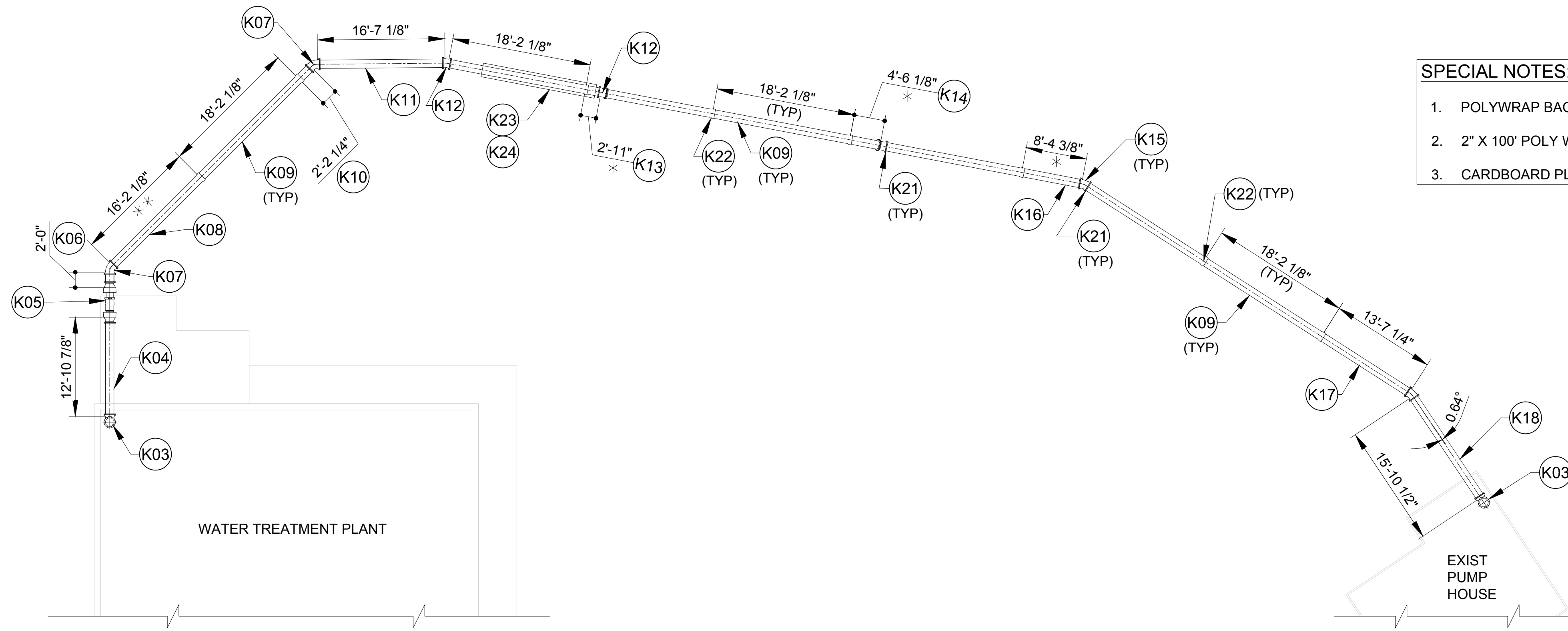
OWNER:- ENGINEER:-

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△	DRAWING REVISED AS PER COMMENTS	ST	RJB	11/18/2024
REV	PARTICULARS	BY	APP'D	DATE

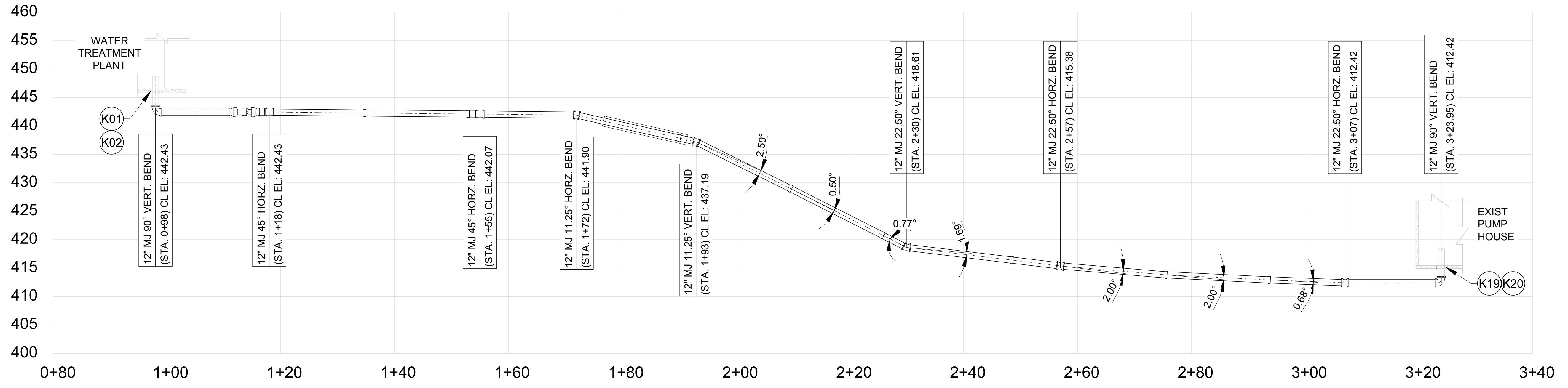


- SPECIAL NOTES:**
1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
 2. 2" X 100' POLY WRAP TAPE 10 MIL.
 3. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

- NOTES:-**
1. '*' DENOTES - DIMENSIONS BASED ON PROFILE DRAWING.
 2. '**' DENOTES - 2'-TRIM.

- SPECIAL NOTE:**
1. (KXX) - REFER BOM ON DWG.# C11

12" BWS PLAN



12" BWS PROFILE

OWNER:-

ENGINEER:-

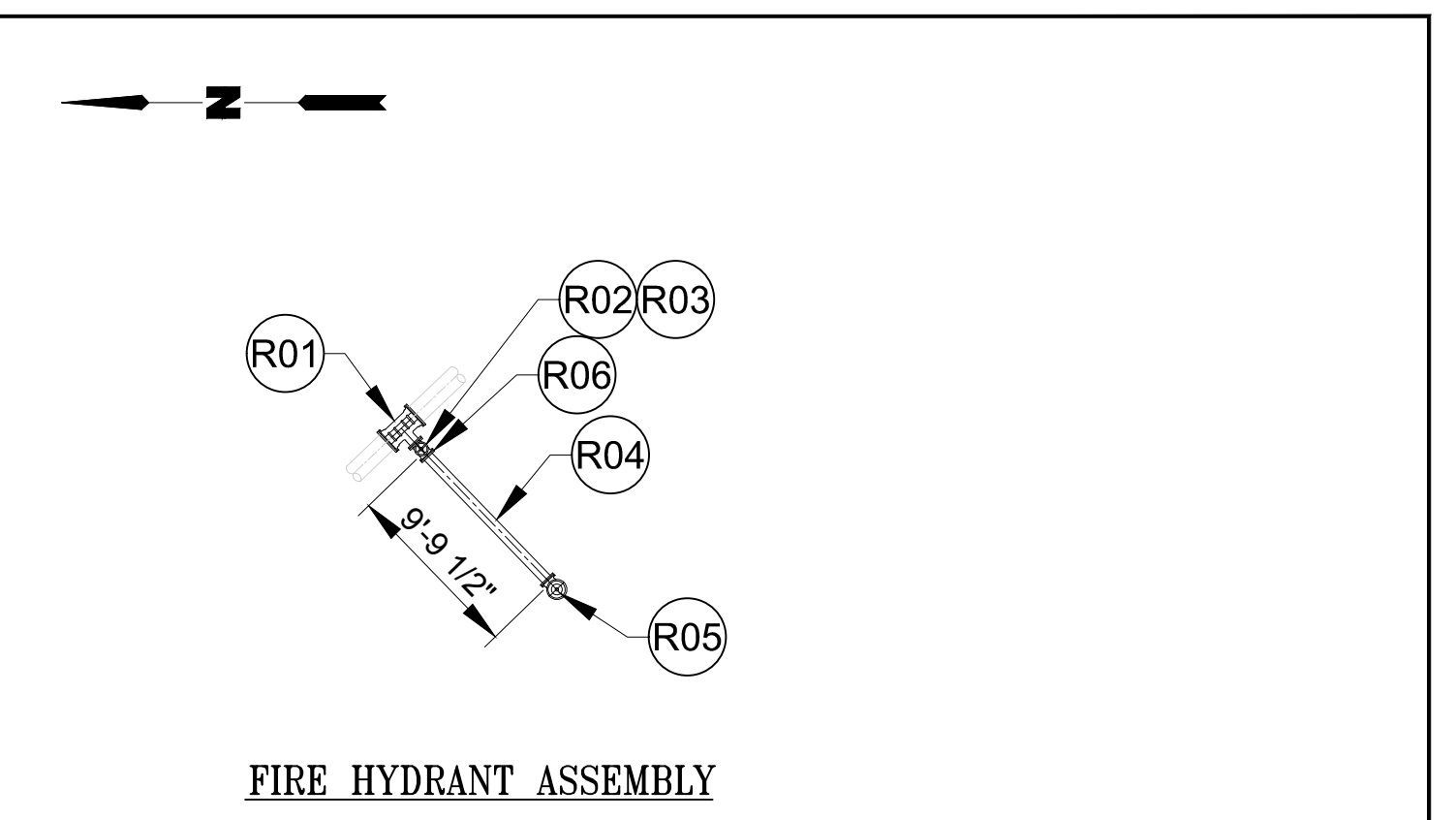
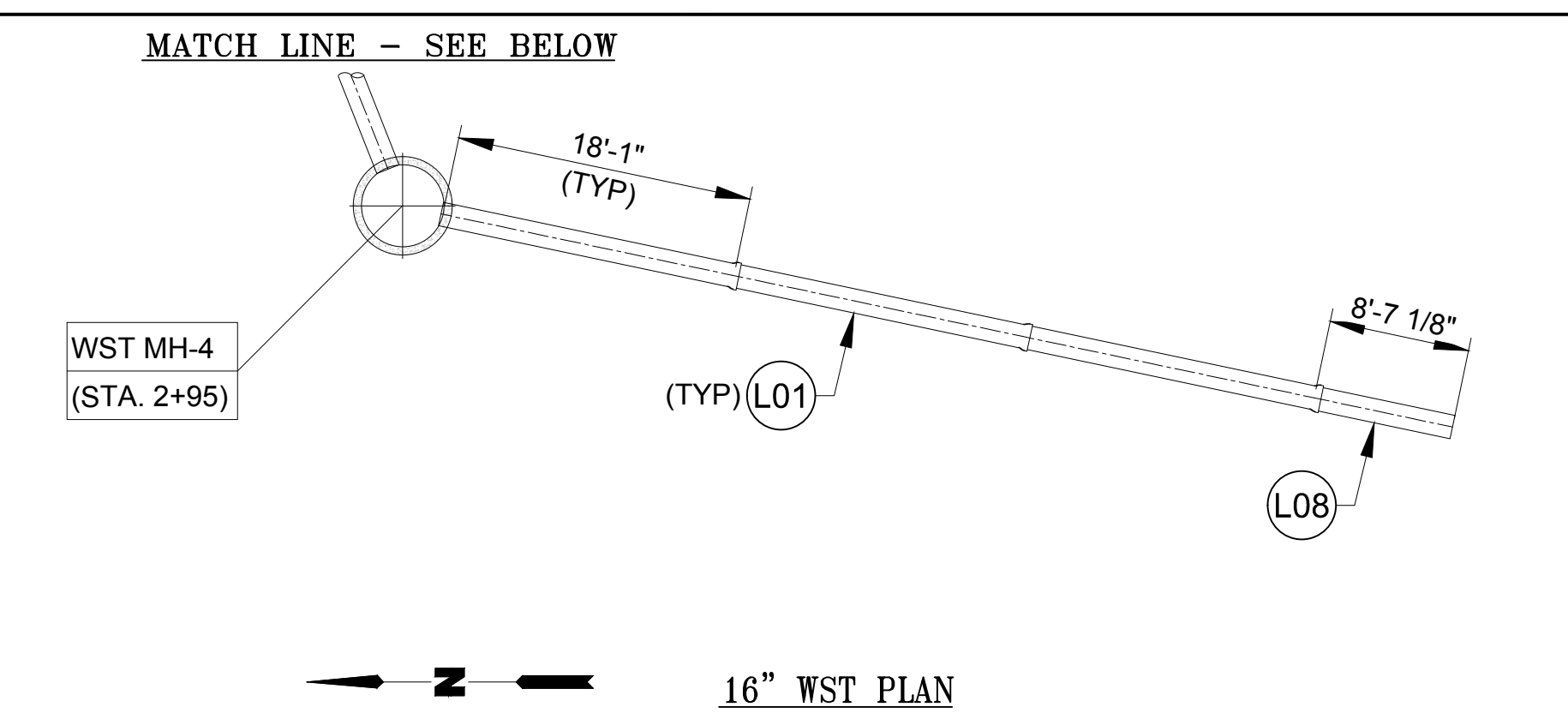
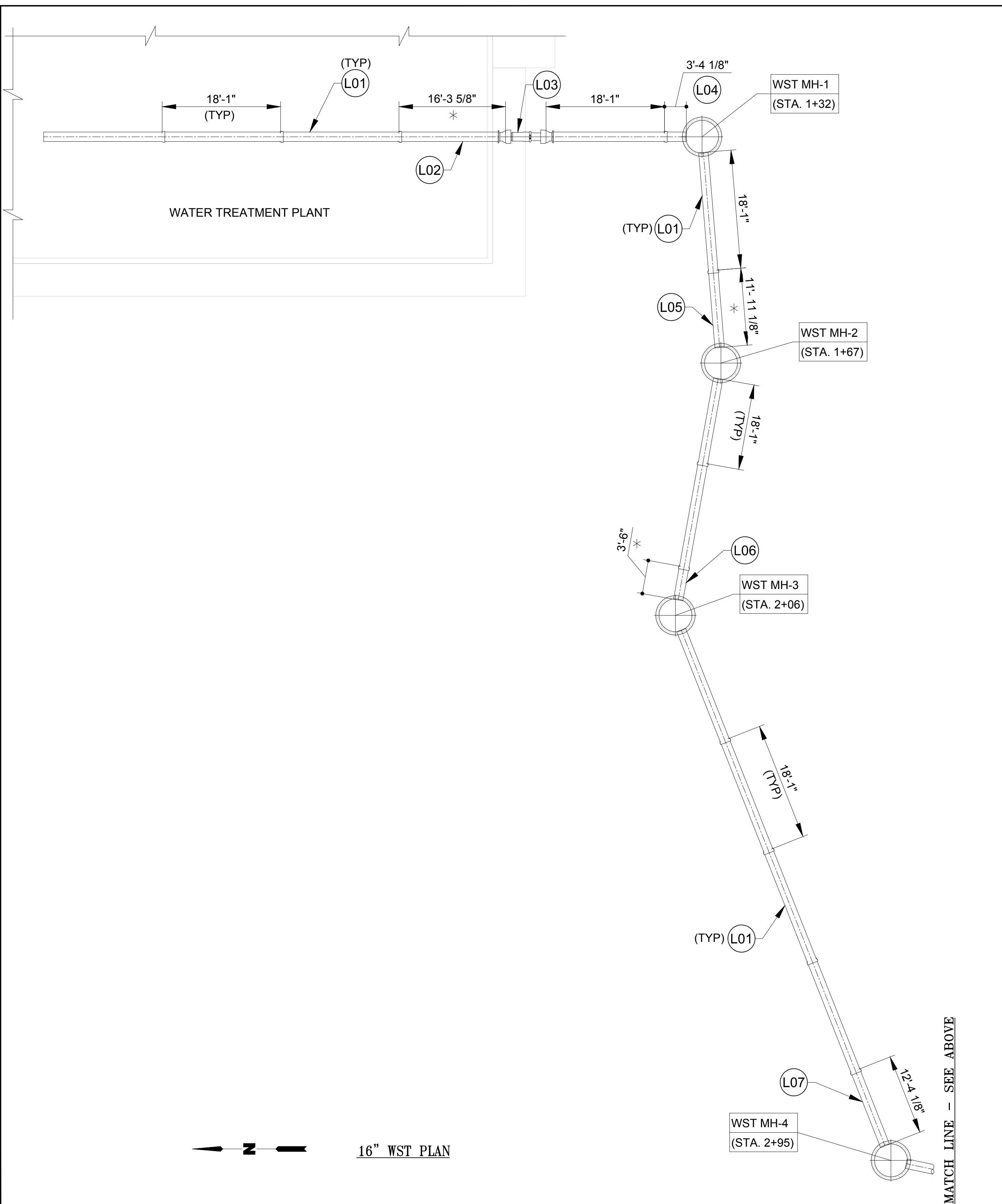
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R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003



BILL OF MATERIALS					
16" DIP WST LINE FROM WTP CONNECT TO EXISTING BACKWASH BASIN INLET (DWG #: C7, C7-D & C7-E)					
TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
L01	14	16"	HDSS RESTRAINED JOINT PIPE - CL52 / CL / SC	18'- 1"	BID LINE # 149
L02	1	16"	PE X PE CL53 / CL / TN # 90-97 PRIMER	16'-3 5/8"	
L03	1	16"	MJ X MJ FLEX-TEND, 16" EXTENSION		BID LINE # 152
L04	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'-4 1/8"	
L05	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	11'- 11 1/8"	
L06	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'- 6"	
L07	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	12'- 4 1/8"	
L08	1	16"	PE X PE CL52 / CL / TN # 90-97 PRIMER	8'- 7 1/8"	
6" DIP FIRE HYDRANT ASSEMBLY CONNECTING TO EXISTING MAIN. NO DETAIL FOR MAIN CONNECTION SHOWN. A TAPPING TEE IS OFFERED FOR BIDDING PURPOSES (DWG #: C7 & C7-D)					
R01	1	12" X 6"	STS420 TAPPING TEE, VALVE, AND TAP FOR CITY OF SULTAN AND PREVAILING WAG		BID LINE # 108
R02	1	-	LID FOR 045 VALVE BOX DOMESTIC #15-13-5010 OLYMPIC FOUNDRY		BID LINE # 110
R03	1	18"	VALVE BOX TOP 045 DOMESTIC		BID LINE # 111
R04	1	6"	PE X PE CL52 / CL / TN # 90-97 PRIMER	9'-9 1/2"	
R05	1	6"	M&H 129S FIRE HYDRANT, 6" FLANGE BASE, 4'0" BURY, 5-1/4" MVO, YELLOW, 1-1/4" PENT		BID LINE # 113
R06	2	6"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 114

STD ABBREVIATIONS & NOTES LEGEND

- 01. COATING AND LINING.
- | LINING | COATING |
|---------------------------|--------------------------------|
| CEMENT MORTAR LINING (CL) | TNEME-ZINC (TN # 90-97 PRIMER) |
- 02. FLG = FLANGE JOINT
 - 03. PE = PLAIN END
 - 04. MJ = MECHANICAL JOINT
 - 04. CL 52 / 53 = THICKNESS CLASS 52/ 53
 - 05. LL = LAYING LENGTH

SPECIAL NOTES:

1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
2. 2" X 100' POLY WRAP TAPE 10 MIL.
3. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

NOTE:-
1. '* *' DENOTES - DIMENSIONS BASED ON PROFILE DRAWING.

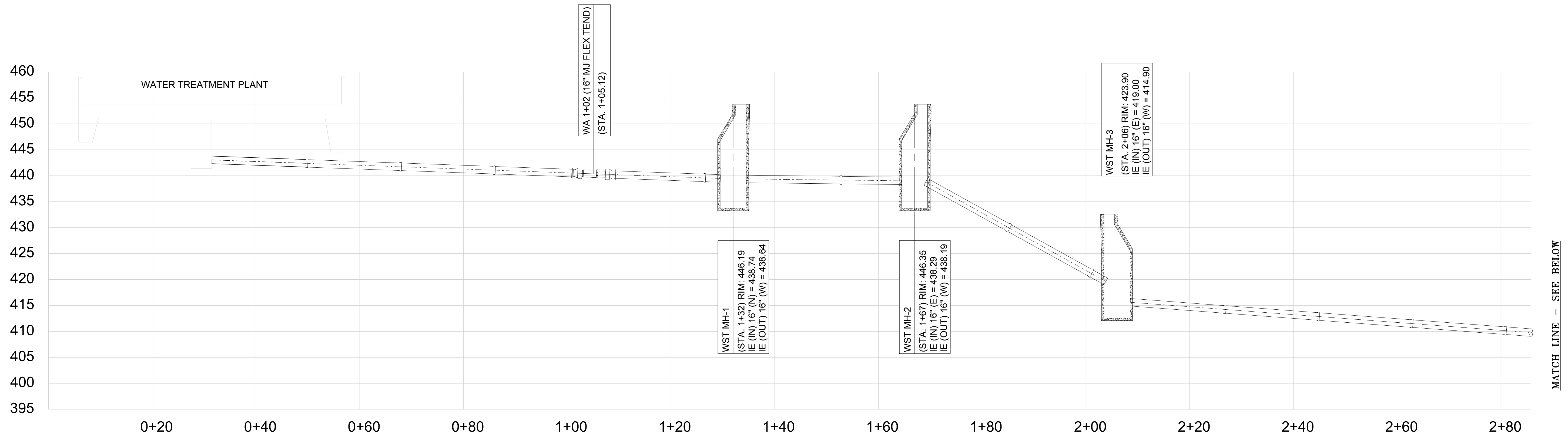
OWNER:-
ENGINEER:-

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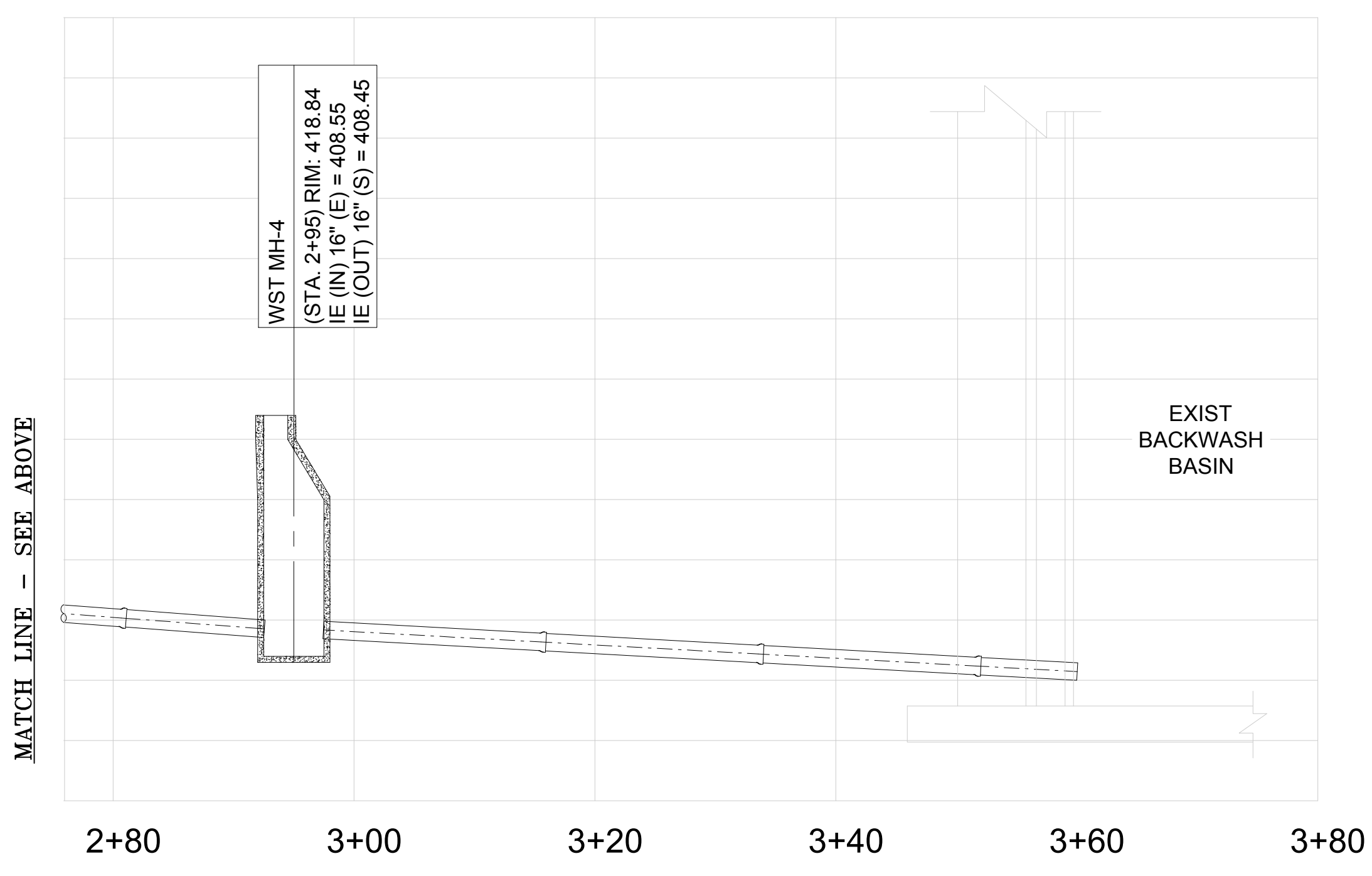
REV	PARTICULARS	BY	APP'D	DATE

R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003



16" WST PROFILE

MATCH LINE - SEE BELOW



16" WST PROFILE

MATCH LINE - SEE ABOVE

BILL OF MATERIALS					
12" & 16" DIP FW LINE FROM WTP CONNECT TO SAMPLE VALVE VAULT (DWG # : C7, C7-B & C14)					
TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
K01	1	18"	STD STL FLOOR SLEEVE ,W/ WALL RING ,HDG	LL = 8.00"	BID LINE # 8
K02	18	-	LINK-SEAL LS-475-S EPDM & 316SS FASTENERS	-	BID LINE # 9
K03	2	12"	MJ 90 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 14 & 33
K04	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	12'-10 7/8"	
K05	1	12"	MJ X MJ FLEX-TEND, 8" EXTENSION		BID LINE # 15
K06	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'-0"	
K07	2	12"	MJ 45 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 23
K08	1	12"	PE X TYTON PIPE - PC350 / CL / SC	16'- 2 1/8"	BID LINE # 18
K09	7	12"	PE X TYTON PIPE - PC350 / CL / SC	18'- 2 1/8"	BID LINE # 18
K10	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'-2 1/4"	
K11	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	16'-7 1/8"	
K12	2	12"	MJ 11.25 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 24
K13	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'-11"	
K14	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	4'-6 1/8"	

K15	3	12"	MJ 22.50 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 25
K16	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	8'-4 3/8"	
K17	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	13'- 7 1/4"	
K18	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	15'-10 1/2"	
K19	1	18"	STD STL FLOOR SLEEVE ,W/ WALL RING ,HDG	LL = 6.00"	BID LINE # 38
K20	18	-	LINK-SEAL LS-475-S EPDM & 316SS FASTENERS	-	BID LINE # 39
K21	18	12"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 16, 26 & 34
K22	8	12"	FIELDLOCK GASKET		BID LINE # 12 & 19
K23	2	20" X 12"	CASING END SEAL (FOR PLAIN END DIP)		BID LINE # 29
K24	2	-	CASING SPACER, FOR 12" DIP BARREL (13.20"OD IN A 20.57" ID DIP) 8" WIDE EPOXY COATED		BID LINE # 30

STD ABBREVIATIONS & NOTES LEGEND

01. COATING AND LINING.

LINING	COATING
CEMENT MORTAR LINING (CL)	TNEME-ZINC (TN # 90-97 PRIMER)

02. FLG = FLANGE JOINT.

03. PE = PLAIN END.

04. CL 53 = THICKNESS CLASS 53.

05. LL = LAYING LENGTH.

OWNER:- ENGINEER:-

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REV	PARTICULARS	BY	APP'D	DATE

R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003

1.0 MG RESERVOIR INLET & OUTLET PIPING PLAN

1.0 MG RESERVOIR INLET CHECK VALVE

STD ABBREVIATIONS & NOTES LEGEND

01. COATING AND LINING.

LINING	COATING
CEMENT MORTAR LINING (CL)	TNEME-ZINC (TN # 90-97 PRIMER)

- 02. FLG = FLANGE JOINT
- 03. PE = PLAIN END
- 04. MJ = MECHANICAL JOINT
- 05. CL53 = THICKNESS CLASS 53
- 06. LL = LAYING LENGTH

BILL OF MATERIALS

10" & 12" DIP RW LINE FROM WTP CONNECT TO EXISTING 10" LINE
(DWG #: C7 & C7-A)

TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
H01	1	12"	MJ 90 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 136
H02	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'-0"	
H03	1	12"	MJ X MJ FLEX-TEND, 8" EXTENSION		BID LINE # 130
H04	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	1'-6"	
H05	2	12"	MJ 45 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 128
H06	13	12"	PE X TYTON PIPE - PC350 / CL / SC	18'-2 1/8"	BID LINE # 116
H07	13	12"	FIELDLOCK GASKET		BID LINE # 117
H08	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	4'-10"	
H09	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'-3 1/2"	
H10	4	12"	MJ 11.25 ELBOW DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 129
H11	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	5'-4 7/8"	
H12	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'-9 1/4"	
H13	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	15'-7 7/8"	
H14	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	1'-4 1/8"	
H15	1	12"	MJ GATE VALVE AWWA C515 RESILIENT SEAT, LESS MJ ACCESSORIES	LL = 10.75"	BID LINE # 125
H16	1	-	LID FOR 045 VALVE BOX DOMESTIC #15-13-5010 OLYMPIC FOUNDRY		BID LINE # 126
H17	1	18"	VALVE BOX TOP 045 DOMESTIC		BID LINE # 127
H18	1	12"	PE X PE CL53 / CL / TN # 90-97 PRIMER	8'-2 1/2"	
H19	1	12" X 10"	MJ REDUCER DI, AAWA C153, CL, LESS ACCESSORIES		BID LINE # 121
H20	17	12"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 131 & 140
H21	1	10"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 132
H22	1	18"	STD STL FLOOR SLEEVE, W/ WALL RING, HDG	LL = 8.00"	BID LINE # 138
H23	18	-	LINK-SEAL LS-475-S EPDM & 316SS FASTENERS	-	BID LINE # 139
H24	1	12" X 2"	AWWA DOUBLE STRAP (SST) SADDLE FOR DIP	-	BID LINE # 142
H25	1	-	FB400-7-NL 2" CC X MIP BALLCORP CORP STOP NO-LEAD FORD	-	BID LINE # 143
1.0 MG RESERVOIR INLET CHECK VALVE (DWG #: C13)					
S01	1	10"	FLG X FLG CL53 / CL / TN # 90-97 PRIMER	3'-0"	BID LINE # 400
S02	1	10"	FLG 45 DEGREE BEND AWWA - C110 / 90-97 PRIMER		BID LINE # 401
S03	1	10"	10" TIDEFLEX CHECK (DUCK BILL) FLANGE INLET, NSF61, SERIES 35, 316SS RING (NO SPEC. SUBJECT TO APPROVAL) (VLV-682)		BID LINE # 402
S04	3	10"	SET 10" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHER, AIS		BID LINE # 404
S05	3	10"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 405

SPECIAL NOTES:

1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
2. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

BILL OF MATERIALS					
10" DIP LINE 1.0 MG RESERVOIR INLET & OUTLET (DWG #: C7 & C13)					
TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
M01	4	10"	RFCA-11.10 FLG ADAPTER, FBE		
M02	3	10"	AWWA C504 FLANGE BFV W/ BURIED GEAR OPERATOR & 2" NUT, FBE. (VLV-681, 685, & 686)	LL = 8.00"	BID LINE # 162
M03	3	-	LID FOR 045 VALVE BOX DOMESTIC #15-13-5010 OLYMPIC FOUNDRY		BID LINE # 163
M04	3	18"	VALVE BOX TOP 045 DOMESTIC		BID LINE # 164
M05	3	10"	FLEX-TEND, FLG X MJ, EXPANSION JOINT, 8" EXPANSION		BID LINE # 166
M06	1	10"	PE X FLG CL53 / CL / TN # 90-97 PRIMER	2'-8 1/8"	BID LINE # 167
M07	1	10" X 10"	FLG TEE AWWA - C110 / CL / TN # 90-97 PRIMER		
M07A	1	10" X 10"	FLG WYE AWWA - C110 / CL / TN # 90-97 PRIMER		
M08	1	10"	FLG 90 DEGREE BEND AWWA - C110 CL / TN # 90-97 PRIMER		
M08A	1	10"	FLG 45 DEGREE BEND AWWA - C110 CL / TN # 90-97 PRIMER		
M09	1	10"	RFCA-11.10 FLG ADAPTER, FBE		BID LINE # 170
M10	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	4'-9 1/4"	
M11	1	10"	FLG X PE CL53 / CL / TN # 90-97 PRIMER	4'-3 1/8"	
M12	1	10" X 10"	MJ TEE DI, AWWA C153, CL, LESS ACCESSORIES		
M12A	1	10" X 10"	MJ X FLG TEE DI, AWWA C153, CL, LESS ACCESSORIES		
M13	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	4'-6 1/8"	

M14	2	10" X 1/2"	DI SERVICE SADDLE, EPOXY COATED W/ DUAL SST STRAPS		
M15	3	10"	MJ SLEEVE LONG PATTERN DI, AWWA C153, LESS ACCESSORIES		BID LINE # 178
M16	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	8'-6 3/8"	
M17	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'-5 1/2"	
M18	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	11'-6 3/4"	
M19	1	10"	MJ 22.50 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 180
M20	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	1'-10 1/2"	
M21	1	10"	MJ 45 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 179
M22	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'-6 5/8"	
M23	1	10"	PE X PE CL52 / CL / TN # 90-97 PRIMER	1'-10 3/8"	
M24	1	10"	MJ X FLG GATE VALVE AWWA C515 RESILIENT SEAT, LESS MJ ACCESSORIES	LL = 11.75"	BID LINE # 182
M25	1	-	LID FOR 045 VALVE BOX DOMESTIC #15-13-5010 OLYMPIC FOUNDRY		BID LINE # 183
M26	1	18"	VALVE BOX TOP 045		BID LINE # 184
M27	1	10"	FILLER FLANGE		
M28	1	10"	MJ 90 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		
M29	18	10"	MEGALUG TYPE RESTRAINT KIT FOR DIP.		BID LINE # 181
M30	14	10"	SET 10" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHER, AIS		BID LINE # 186
M31	14	10"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 187
M32	1	10"	AWWA C504 FLANGE BUTTERFLY VALVE WITH 2" NUT VALVE, W/ REMOTE ACTUATED	LL = 8.00"	BID LINE # 188 & 189

OWNER:-

ENGINEER:-

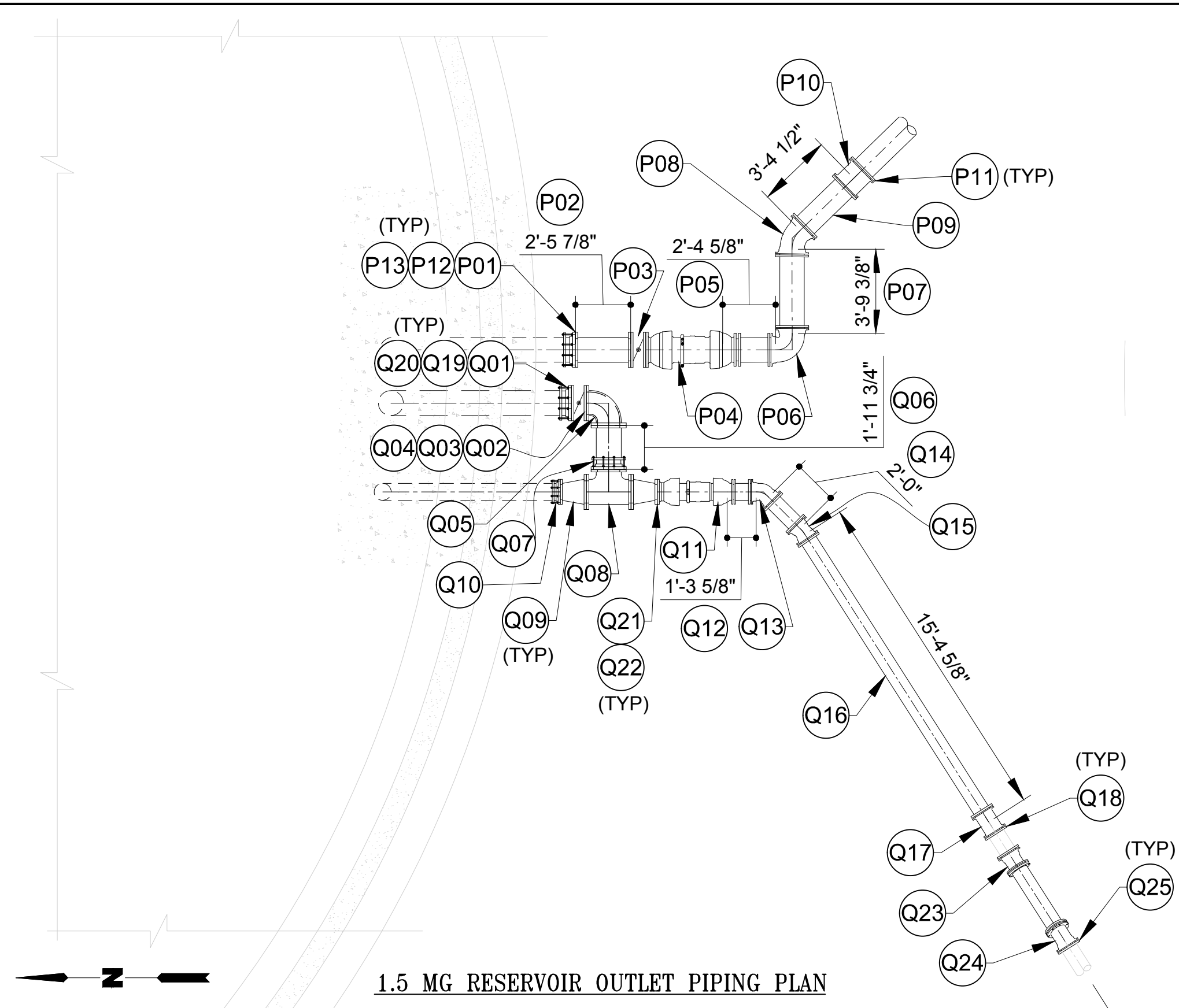
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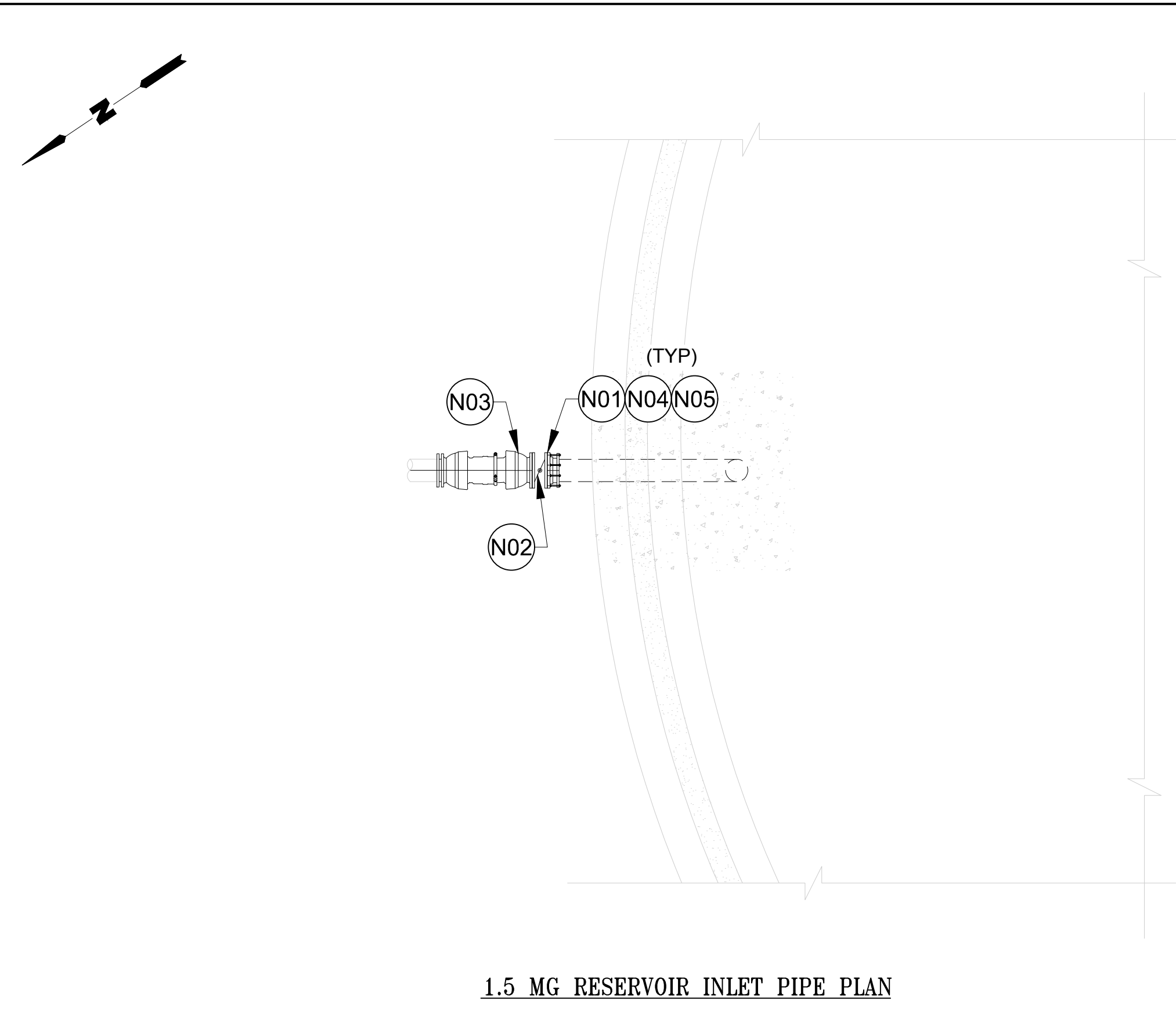
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△	DRAWING REVISED AS PER COMMENTS	ST	RJB	11/18/2024
REV	PARTICULARS	BY	APP'D	DATE

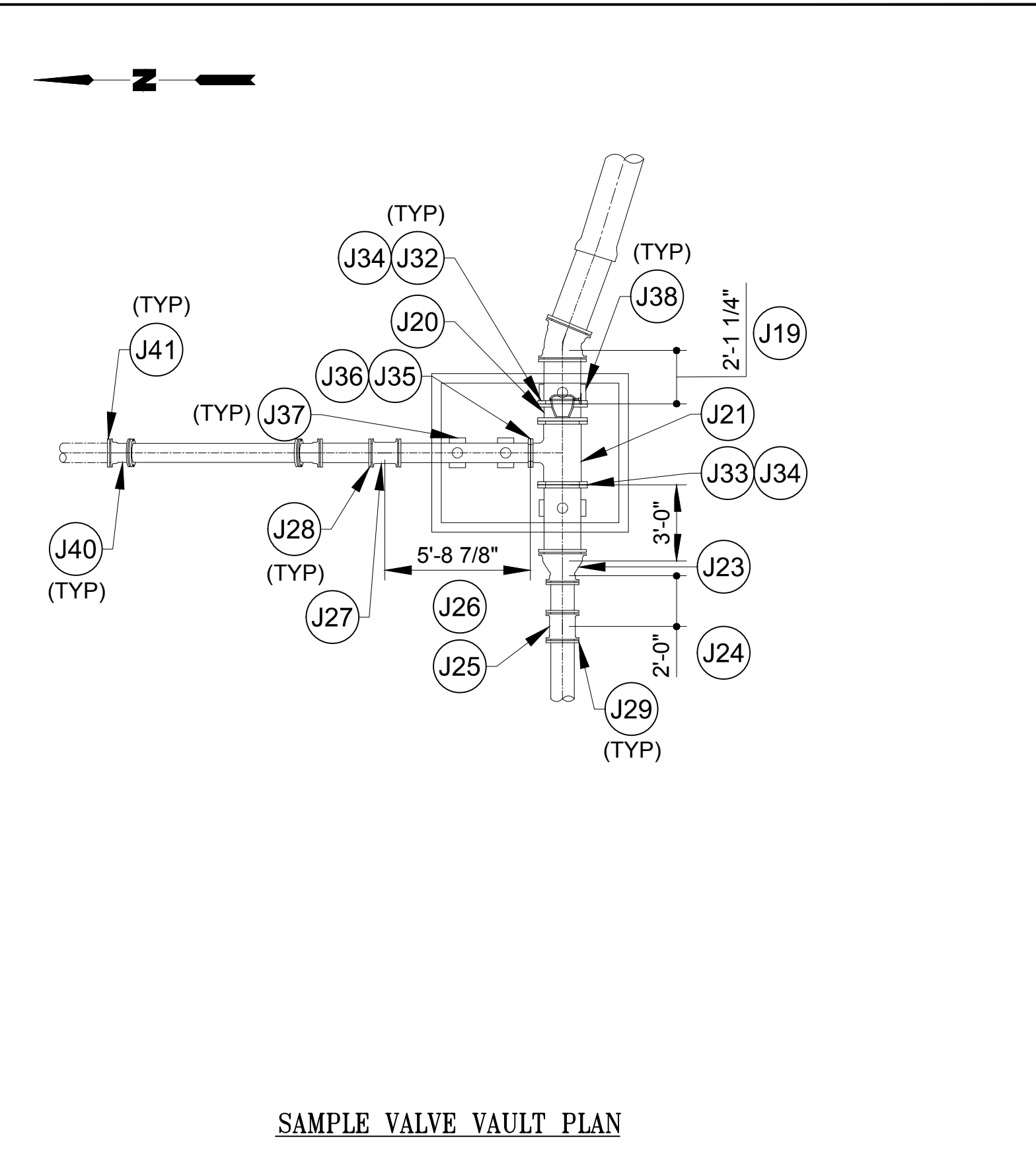
R. J. Barnes & Associates, 1442 S 500 E - STE 300, American Fork, UT 84003



1.5 MG RESERVOIR OUTLET PIPING PLAN



1.5 MG RESERVOIR INLET PIPE PLAN



SAMPLE VALVE VAULT PLAN

BILL OF MATERIALS

10" DIP LINE 1.5 MG RESERVOIR INLET PIPE (DWG # C7 & C14)

TAG #	QTY	SIZE	DESCRIPTION	ACTUAL LENGTH	NOTES
N01	1	12"	RFCA- 9.05 ADAPTER, FBE		
N02	1	12"	AWWA C504 FLANGE BFV W/ 2" NUT & REMOTE ACTUATED	LL = 8.00"	BID LINE # 198 & 199
N03	1	12"	FLEX-TEND, FLG X MJ , EXPANSION JOINT, 8" EXPANSION		BID LINE # 195
N04	2	12"	SET 12" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHERS		BID LINE # 196
N05	2	12"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 197

10" DIP LINE 1.5 MG RESERVOIR OUTLET PIPE (DWG # C7 & C14)

P01	1	12"	RFCA- 9.05 ADAPTER, FBE		
P02	1	12"	FLG X FLG CL53 / CL / TN # 90-97 PRIMER	2'- 5 7/8"	BID LINE # 203
P03	1	12"	AWWA C504 FLANGE BFV W/ 2" NUT & REMOTE ACTUATED	LL = 8.00"	BID LINE # 214 & 215
P04	1	12"	FLEX-TEND, FLG X MJ , EXPANSION JOINT, 8" EXPANSION		BID LINE # 204
P05	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'- 4 5/8"	
P06	1	12"	MJ 90 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 208
P07	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'- 9 3/8"	
P08	1	12"	MJ 45 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 209
P09	1	12"	PE X PE CL52 / CL / TN # 90-97 PRIMER	3'- 4 1/2"	

P10	1	12"	MJ SLEEVE LONG PATTERN DI, AWWA C153, LESS ACCESSORIES		BID LINE # 210
P11	6	12"	MEGALUG TYPE RESTRAINT KIT FOR DIP.		BID LINE # 211
P12	3	12"	SET 12" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHERS		BID LINE # 212
P13	3	12"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 213

10" DIP LINE 1.5 MG RESERVOIR EXISTING DRAIN & OVERFLOW LINES (DWG # C7 & C14)

Q01	1	12"	RFCA- 9.05 ADAPTER, FBE		
Q02	1	12"	AWWA C504 FLANGE BFV W/ BURIERD GO & 2" NUT (VLV-674)		BID LINE # 218
Q03	1	-	LID FOR 045 VALVE BOX DOMESTIC #15-13-5010 OLYMPIC FOUNDRY		BID LINE # 219
Q04	1	12"	18" VALVE BOX TOP 045 DOMESTIC		BID LINE # 220
Q05	1	12"	FLG 90 DEGREE BEND AWWA - C110 CL / TN # 90-97 PRIMER		BID LINE # 222
Q06	1	12"	FLG X PE CL53 / CL / TN # 90-97 PRIMER	1'-11 3/4"	BID LINE # 223
Q07	1	12"	RFCA- 13.20 ADAPTER, FBE		BID LINE # 224
Q08	1	12" X 12"	FLG TEE AWWA - C110 / CL / TN # 90-97 PRIMER		BID LINE # 225
Q09	2	12" X 8"	CONCENTRIC REDUCER DI, AWWA C110 / CL / TN # 90-97 PRIMER		BID LINE # 226
Q10	1	8"	RFCA- 9.05 ADAPTER, FBE		BID LINE # 227
Q11	1	8"	FLEX-TEND, FLG X MJ , EXPANSION JOIN, 8" EXPANSION		BID LINE # 228
Q12	1	8"	PE X PE CL52 / CL / TN # 90-97 PRIMER	1'- 3 5/8"	
Q13	1	8"	MJ 45 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		BID LINE # 232

Q14	1	8"	PE X PE CL52 / CL / TN # 90-97 PRIMER	2'- 0"	
Q15	1	8"	MJ 11.25 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		
Q16	1	8"	PE X PE CL52 / CL / TN # 90-97 PRIMER	15'-4 5/8"	
Q17	1	8"	MJ SLEEVE LONG PATTERN DI, AWWA C153, LESS ACCESSORIES		BID LINE # 233
Q18	6	8"	MEGALUG TYPE RESTRAINT KIT FOR DIP		BID LINE # 234
Q19	6	12"	SET 12" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHERS.		BID LINE # 236
Q20	6	12"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 237
Q21	2	8"	SET 8" BLK A307B BOLT, A563A HVY HEX NUT, 2 - F844 WASHER.		BID LINE # 238
Q22	2	8"	1/8" FF GARLOCK 3760-U FLG GASKET		BID LINE # 239
Q23	1	8"	MJ 11.25 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		
Q24	1	8"	MJ 22.50 ELBOW DI, AWWA C153, CL, LESS ACCESSORIES		
Q25	4	8"	MEGALUG TYPE RESTRAINT KIT FOR DIP		

STD ABBREVIATIONS & NOTES LEGEND

01. COATING AND LINING.

LINING	COATING
CEMENT MORTAR LINING (CL)	TNEME-ZINC (TN # 90-97 PRIMER)

- 02. FLG = FLANGE JOINT
- 03. PE = PLAIN END
- 04. MJ = MECHANICAL JOINT
- 04. CL 53 = THICKNESS CLASS 53
- 05. LL = LAYING LENGTH

SPECIAL NOTES:

1. POLYWRAP BAG FOR 10" & 12" X 18' LONG PIPE, 27" WIDTH, 20' SECTIONS, 8 MIL.
2. CARDBOARD PLUG FOR 12" DIP FOR SHIPPING.

OWNER:- ENGINEER:-

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