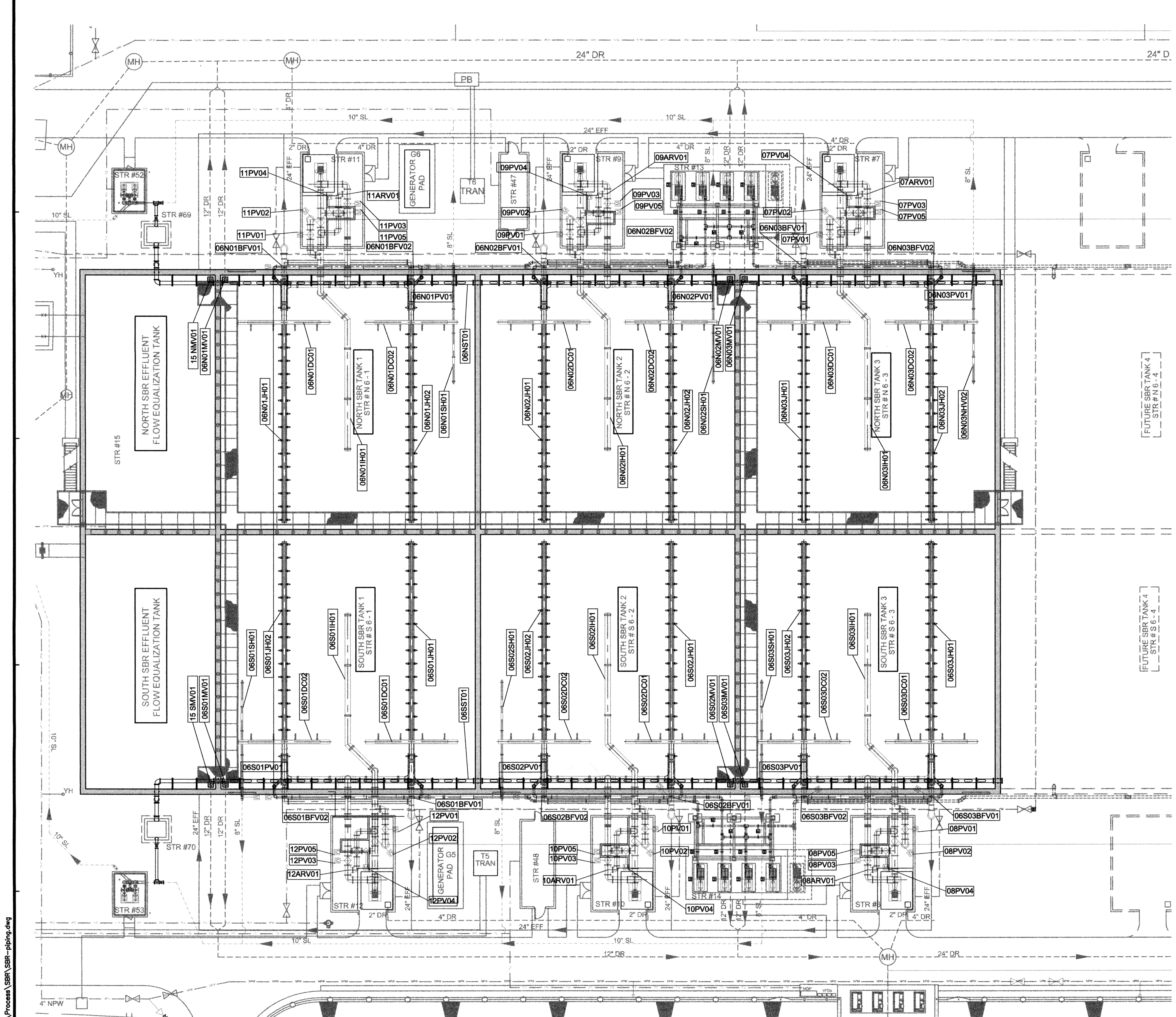

SBR VALVE LAYOUT
(SCALE: 1" = 20'-0")

PIPE VAULT, SBR, AND EQ BASIN VALVE SCHEDULE				
VALVE ID	VALVE TYPE	VALVE SIZE	MANUAL OR AUTOMATIC	COMMENT
07PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
07PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
07PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
07PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
07PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06NO3PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
07PV06	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
07ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06NO3BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO3BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO3MV01	MUD	12"	MANUAL	TANK DRAIN
08PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
08PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
08PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
08PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
08PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06SO3PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
08PV06	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
08ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06SO3BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO3BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO3MV01	MUD	12"	MANUAL	TANK DRAIN
09PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
09PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
09PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
09PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
09PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06NO2PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
09PV06	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
09ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06NO2BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO2BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO2MV01	MUD	12"	MANUAL	TANK DRAIN
10PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
10PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
10PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
10PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
10PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06SO2PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
10PV06	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
10ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06SO2BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO2BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO2MV01	MUD	12"	MANUAL	TANK DRAIN
11PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
11PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
11PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
11PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
11PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06NO1PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
11PV06	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
11ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06NO1BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO1BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06NO1MV01	MUD	12"	MANUAL	TANK DRAIN
12PV01	PLUG	24"	AUTOMATIC	INFLUENT CONTROL
12PV02	PLUG	24"	AUTOMATIC	MOTIVE PUMP SUCTION
12PV03	PLUG	24"	AUTOMATIC	MOTIVE PUMP DISCHARGE
12PV04	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
12PV05	PLUG	20"	AUTOMATIC	VACFLUSH HEADER CLEANING
06SO1PV01	PLUG	8"	AUTOMATIC	WASTE SLUDGE
12PV01	PLUG	12"	AUTOMATIC	SUPERNATANT CONTROL
12ARV01	AIR RELIEF	1"	-	RELEASE ANY TRAPPED AIR
06SO1BFV01	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO1BFV02	BUTTERFLY	18"	AUTOMATIC	EFFLUENT CONTROL
06SO1MV01	MUD	12"	MANUAL	TANK DRAIN
15SMV01	MUD VALVE	6"	MANUAL	TANK DRAIN
15NMV01	MUD VALVE	6"	MANUAL	TANK DRAIN

NOTE: 1. SUMP PUMP, SEAL WATER SYSTEM, AND ASSOCIATED VALVES ARE NOT SHOWN IN THE SCHEDULE AND SHALL BE PROVIDED AS SHOWN IN THE DRAWING AND AS NEEDED TO PROTECT EQUIPMENT.
2. 66 - 6" HYDROSTATIC PRESSURE RELIEF VALVES REQUIRED IN FLOOR OF BASINS. SEE STRUCTURAL DRAWINGS FOR LOCATIONS.

INDEX:
IH - INFLUENT HEADER
DC - DECANTER
SH - SLUDGE HEADER
JH - JET HEADER
PV - PLUG VALVE
BFV - BUTTERFLY VALVE
ARV - AIR RELIEF VALVE

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/26/2010	AS SHOWN	41 OF 95

REVISIONS:	DATE:

SEQUENTIAL BATCH REACTOR VALVES PLAN

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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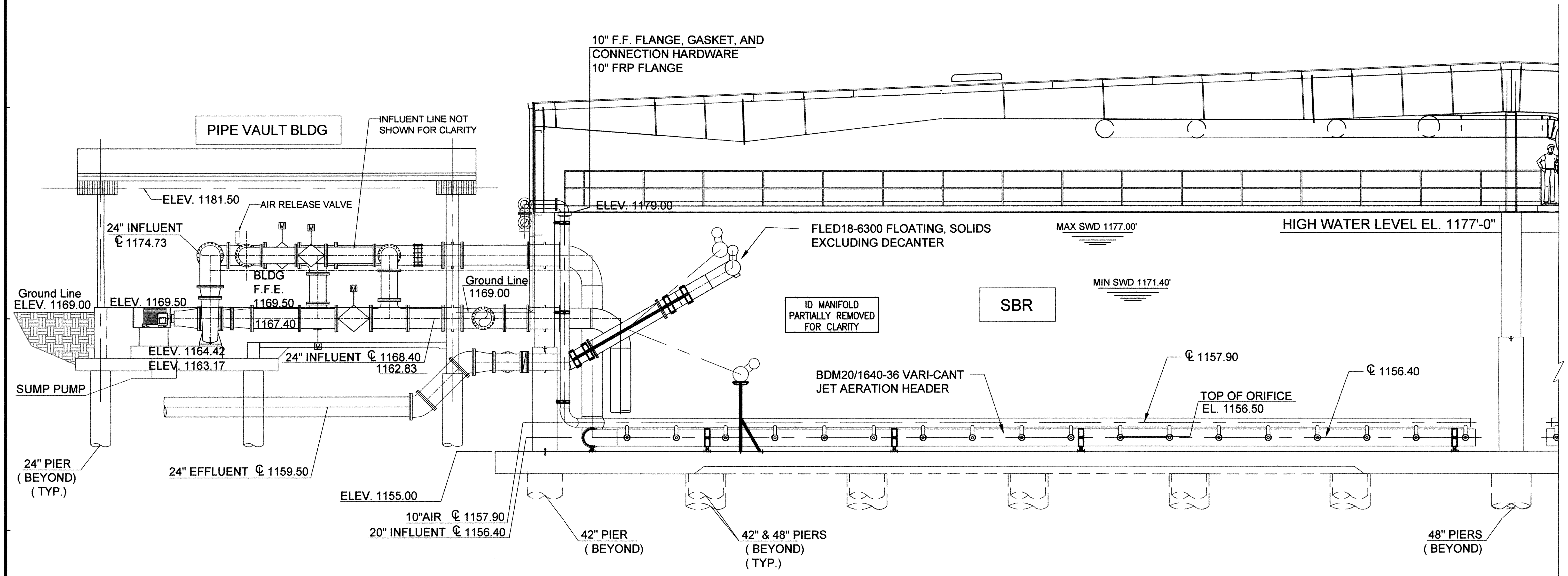
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SECTION AT AERATION HEADER

(SCALE: 1" = 5'-0")

GENERAL NOTES

1. ALL INTERIOR PIPING SHALL BE FRP. ALL EXTERIOR PIPING SHALL BE RESTRAINED DUCTILE IRON.
2. ALL FRP PIPE AND FITTINGS SHALL BE 75 PSI MIN PRESSURE RATING.
3. ALL FLANGES FURNISHED BY MANUFACTURER SHALL MEET OUTSIDE DIAMETER, BOLT CIRCLE DIAMETER, NUMBER AND SIZE OF HOLES PER ANSI B16.1 125 LB. CAST IRON, AND ANSI B16.5 150 LB. STEEL FLANGE SPECIFICATIONS.
4. GASKETS SUPPLIED BY MANUFACTURER SHALL BE 3/16" THICK, FULL FACE BUNA-N RUBBER, WITH A DUROMETER HARDNESS OF 40-50 ON THE SHORE-A SCALE.
5. ALL JETS SHALL BE HELD AT THE SAME DATUM LINE ELEVATION ± 1/4". THE TOP OF ORIFICE ELEVATION SHALL BE USED TO SET HEADER ELEVATION. THE BASIN FLOORS SHALL NOT BE USED FOR ESTABLISHING JET ELEVATION.
6. CONTRACTOR SHALL PROVIDE A 3/4" NIPPLE, 3/4" GLOBE VALVE AND A 3/4" WATER HOSE CONNECTION TO BE TAPPED INTO THE DECANTER SPOOL BETWEEN THE BASIN WALL AND THE EFFLUENT VALVE. THIS WILL BE USED TO FILL THE DECANTER PIPE WITH WATER IN ORDER TO SUBMERGE THE DECANTER.
7. SUPPORTS AND STEELWORK SHALL BE FABRICATED FROM STAINLESS STEEL.
8. ALL ANCHOR BOLTS SHALL BE TYPE 18-8 STAINLESS STEEL. ALL ANCHOR BOLTS SHALL BE SET TO FULL EMBEDMENT DEPTH OF 4-1/4" INTO STRUCTURAL CONCRETE, UNLESS OTHERWISE NOTED. USE A LOCKWASHER UNDER THE NUT. TIGHTEN THE NUT TO 30 FT. LBS. TORQUE FOR 1/2" BOLT SIZE.

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S.D.		S.D.	S.D.	5/13/2010	AS SHOWN	42 OF 95

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SBR SECTION AT AERATION HEADER

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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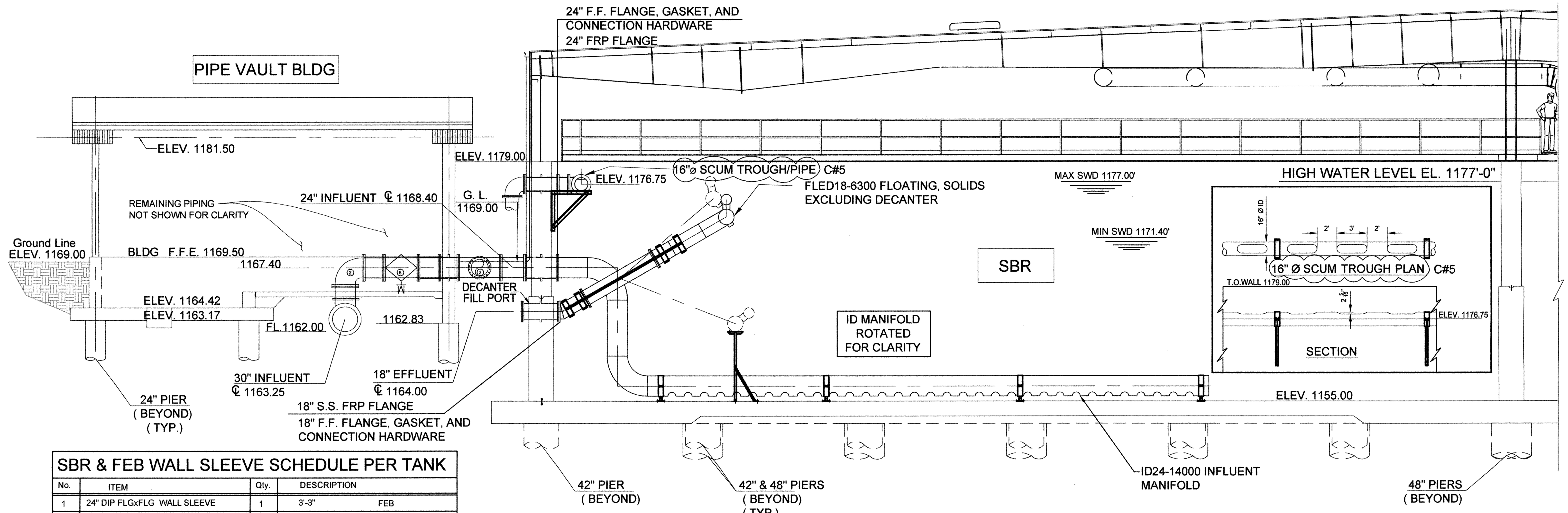
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

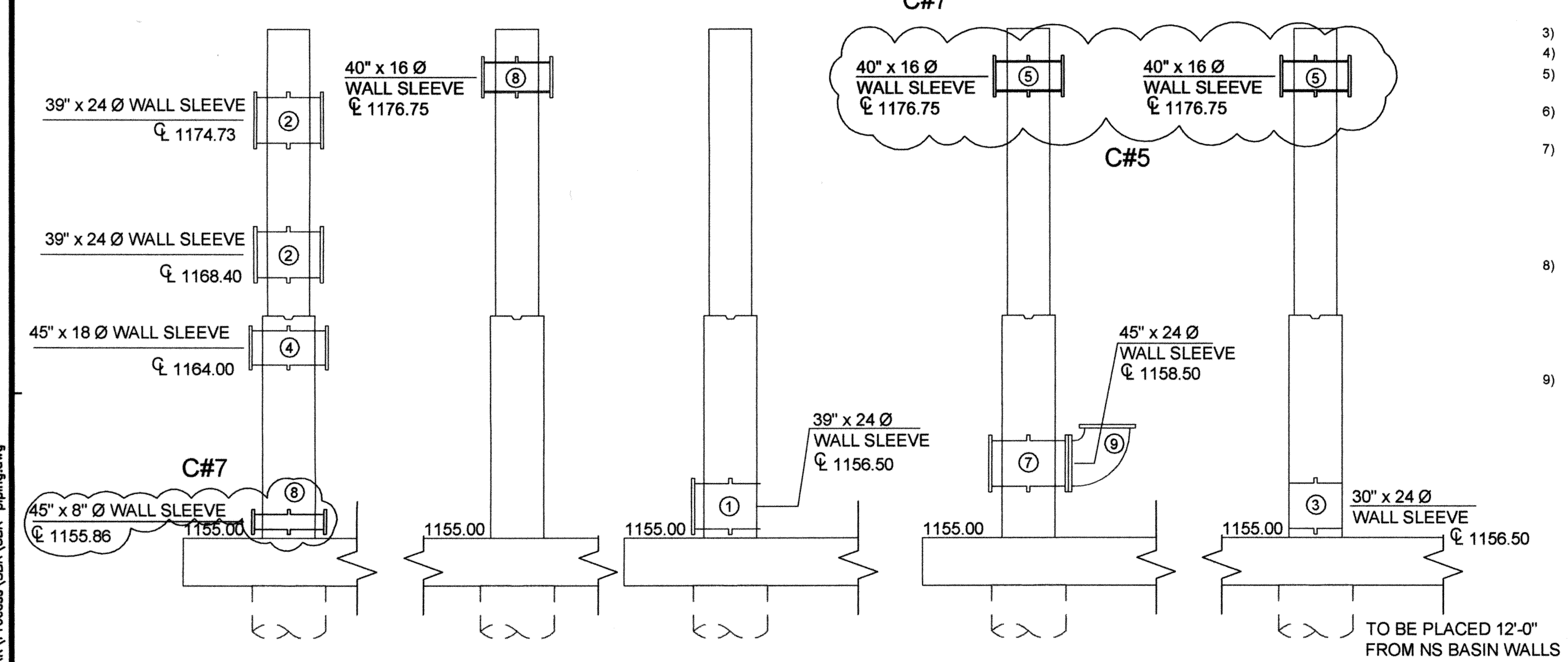


SECTION AT INFLUENT MANIFOLD

(SCALE: 1" = 5'-0")

SBR & FEB WALL SLEEVE SCHEDULE PER TANK				
No.	ITEM	Qty.	DESCRIPTION	
1	24" DIP FLGxFLG WALL SLEEVE	1	3'-3"	FEB
2	24" DIP FLGxFLG WALL SLEEVE	2	3'-3"	SBR
3	24" DIP PIPExPIPE WALL SLEEVE	2	2'-6"	FEB
4	18" DIP FLGxFLG WALL SLEEVE	2	3'-9" C#5	SBR
5	16" DIP FLGxFLG WALL SLEEVE	2	3'-4"	FEB
6	16" DIP FLGxFLG WALL SLEEVE	1	3'-4"	SBR C#5
7	24" DIP FLGxFLG WALL SLEEVE	1	3'-9"	FEB
8	8" DIP FLGxFLG WALL SLEEVE	1	3'-7½"	SBR
9	24" DIP FLGxFLG 90° BEND	1		FEB

C#7



C#7 NOTE: SEE SHEETS 47 & 50 FOR HORIZONTAL LOCATIONS OF PIPE PENETRATIONS.

GENERAL NOTES:

1) SOCKET JOINTS SHALL BE MADE WITH THE USE OF ADHESIVE KITS FURNISHED BY SIEMENS WATER TECHNOLOGIES. FIBERGLASS PROCESS PIPING FIELD JOINTS SHALL BE PROVIDED WITH EXTRA MATERIAL TO ALLOW FOR TOLERANCES AND EXACT FIELD ALIGNMENT. TRIMMING WILL BE REQUIRED.

2) BUTT-WRAP JOINTS SHALL BE A BUTT AND STRAP CONNECTION WITH A PRESSURE RATING OF 75 PSI. MATERIALS TO MAKE EACH CONNECTION SHALL BE FURNISHED BY SIEMENS WATER TECHNOLOGIES AND SHALL INCLUDE FIBERGLASS MAT AND RESIN. THE BROWN TOP-COAT RESIN SHOULD BE APPLIED AFTER COMPLETION OF DRY INSPECTION PROCEDURES. FIBERGLASS PROCESS PIPING FIELD JOINTS SHALL BE PROVIDED WITH EXTRA MATERIAL TO ALLOW FOR TOLERANCES AND EXACT FIELD ALIGNMENT (EXCLUDING HEADER & DECANTER JOINTS).

3) FRP PIPE AND FITTINGS SHALL BE 75 PSI MIN. PRESSURE RATING. PIPE TO BE P.E. X P.E.

4) SUPPORTS AND STEELWORK FURNISHED BY SIEMENS WATER TECHNOLOGIES SHALL BE TYPE 304 STAINLESS STEEL.

5) FLANGES FURNISHED BY SIEMENS WATER TECHNOLOGIES SHALL MEET OUTSIDE DIAMETER, BOLT CIRCLE DIAMETER, NUMBER AND SIZE OF HOLES PER ANSI B.16.1 125 LB. CAST IRON, AND ANSI B16.5 150 LB. STEEL FLANGE SPECIFICATIONS.

6) GASKETS SUPPLIED BY SIEMENS WATER TECHNOLOGIES SHALL BE 3/16" THICK, FULL FACE BUNA-N RUBBER, WITH A DUROMETER HARDNESS OF 40-50 ON THE SHORE-A SCALE.

7) SUPPORT AND CONNECTING HARDWARE FURNISHED BY SIEMENS WATER TECHNOLOGIES SHALL BE TYPE 18-8 STAINLESS STEEL. TORQUE (+0/-5%) ON STAINLESS STEEL BOLTS USED WITH METAL ASSEMBLIES SHALL BE:
20 FT. LBS. FOR 3/8" BOLTS
40 FT. LBS. FOR 1/2" BOLTS
125 FT. LBS. FOR 3/4" BOLTS
150 FT. LBS. FOR 7/8" AND LARGER BOLTS

8) ANCHOR BOLTS SHALL BE TYPE 18-8 STAINLESS STEEL. ANCHOR BOLTS SHALL BE SET TO FULL EMBEDMENT AS SHOWN IN THE ANCHOR BOLT DETAIL, DRAWING JTS-10002-S4, INTO STRUCTURAL CONCRETE, UNLESS OTHERWISE NOTED. USE A LOCK WASHER UNDER THE NUT. TORQUE ON STAINLESS STEEL ANCHOR BOLTS SHALL BE:
22-25 FT. LBS. FOR 1/2" BOLTS
55-80 FT. LBS. FOR 5/8" BOLTS
276-330 FT. LBS. FOR 1" BOLTS

9) FIBERGLASS AND PVC PIPE SHALL BE STORED WITH A MAXIMUM OF 8'-0" BETWEEN SUPPORTS.

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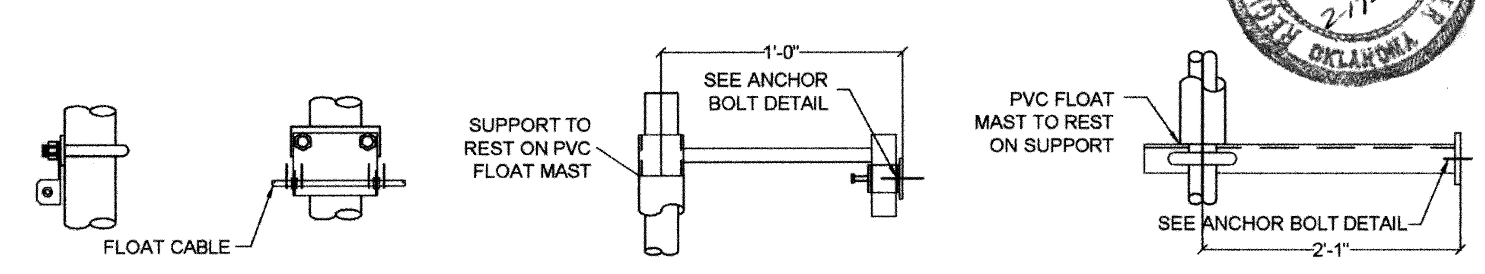
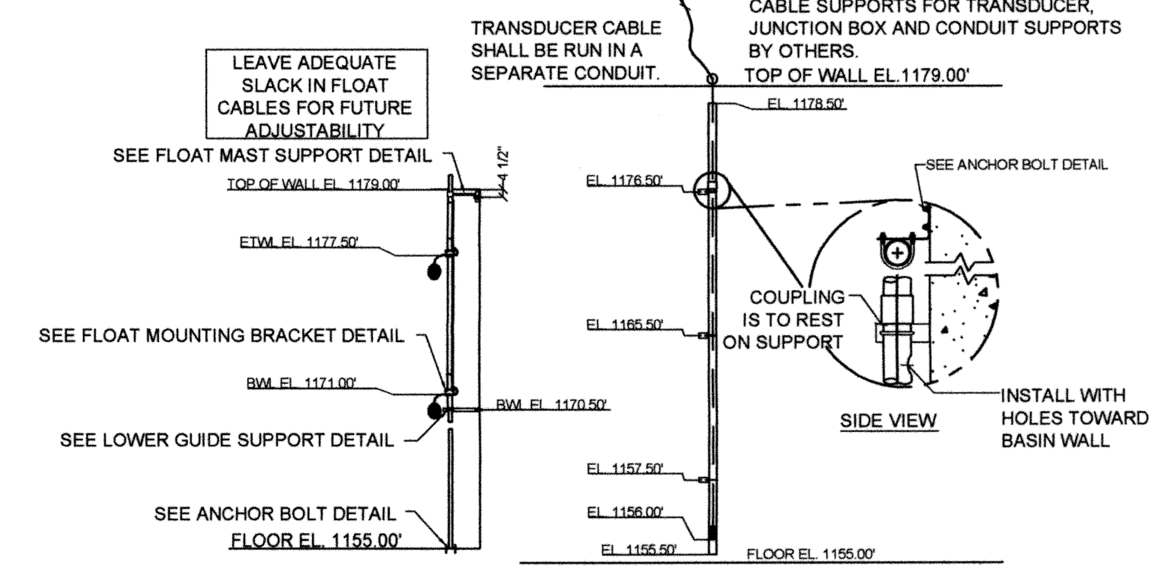


SIDE VIEW FRONT VIEW

FLOAT MOUNTING BRACKET
NO SCALE

FLOAT MAST SUPPORT
NO SCALE

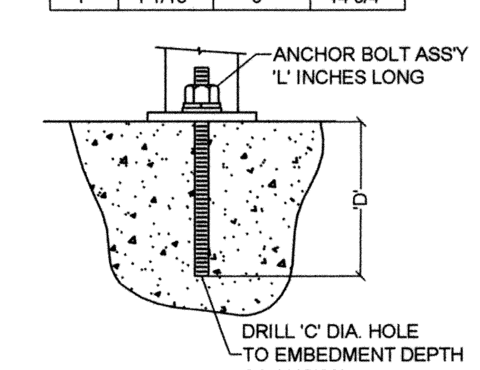
LOWER GUIDE SUPPORT
NO SCALE



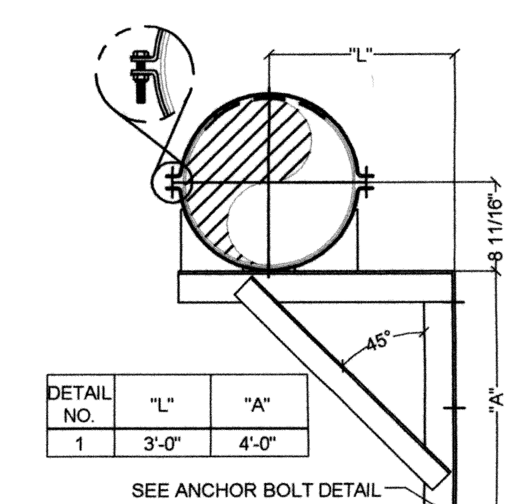
RETRIEVABLE FLOAT MAST
NO SCALE

STILLING WELL DETAIL
NO SCALE

BOLT SIZE	'C'	'D'	'L'
1"	1 1/16"	9"	14 3/4"



ANCHOR BOLT DETAIL
NO SCALE



DETAIL NO.	"L"	"A"
1	3'-0"	4'-0"

SCUM TROUGH SUPPORT
NO SCALE

C#5 NOTE: SEE SHEETS 47 & 50 FOR LOCATIONS OF SCUM TROUGH SUPPORTS.

REVISIONS:	DATE:
C#5 – CLARIFICATION NO. 5	12/30/10
C#7 – CLARIFICATION NO. 7	2/14/2011

SBR SECTION AT INFLUENT MANIFOLD

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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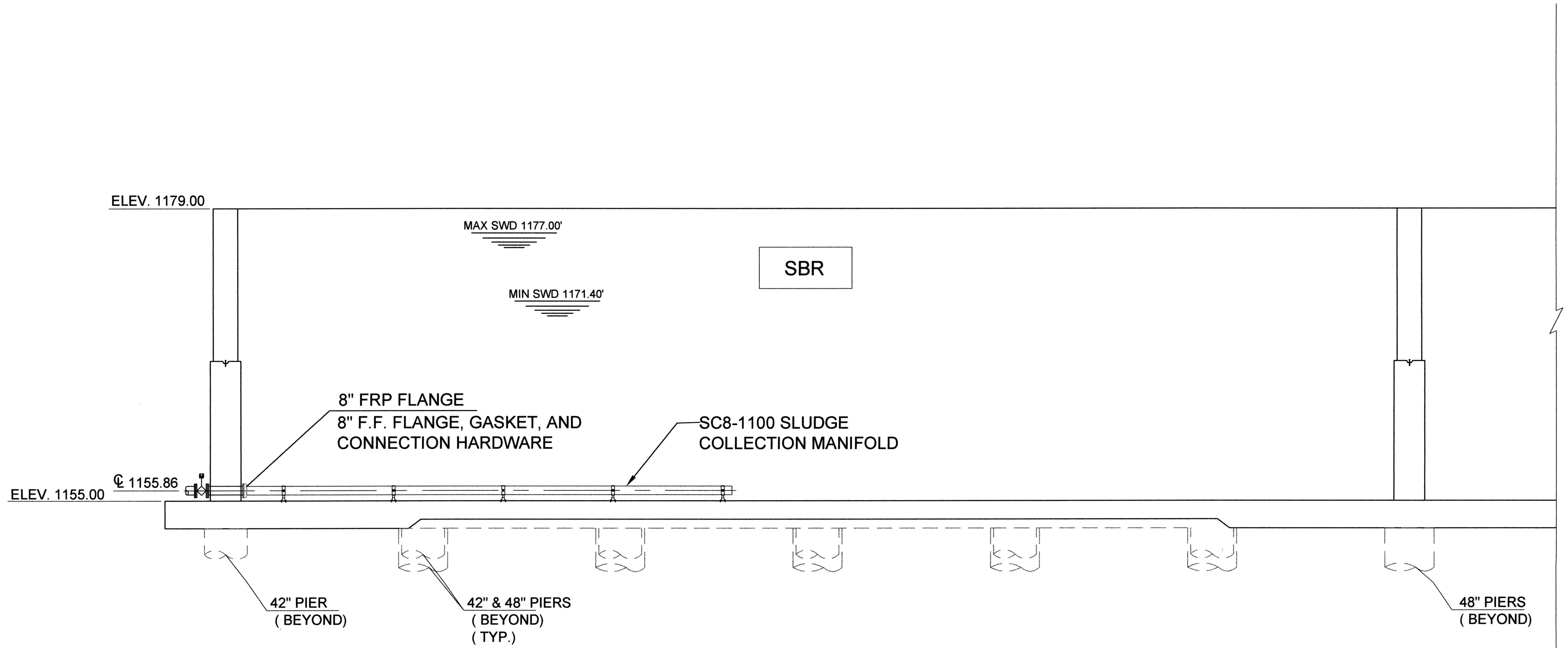
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SECTION AT SLUDGE MANIFOLD

(SCALE: 1" = 5'-0")

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SBR SECTION AT SLUDGE MANIFOLD

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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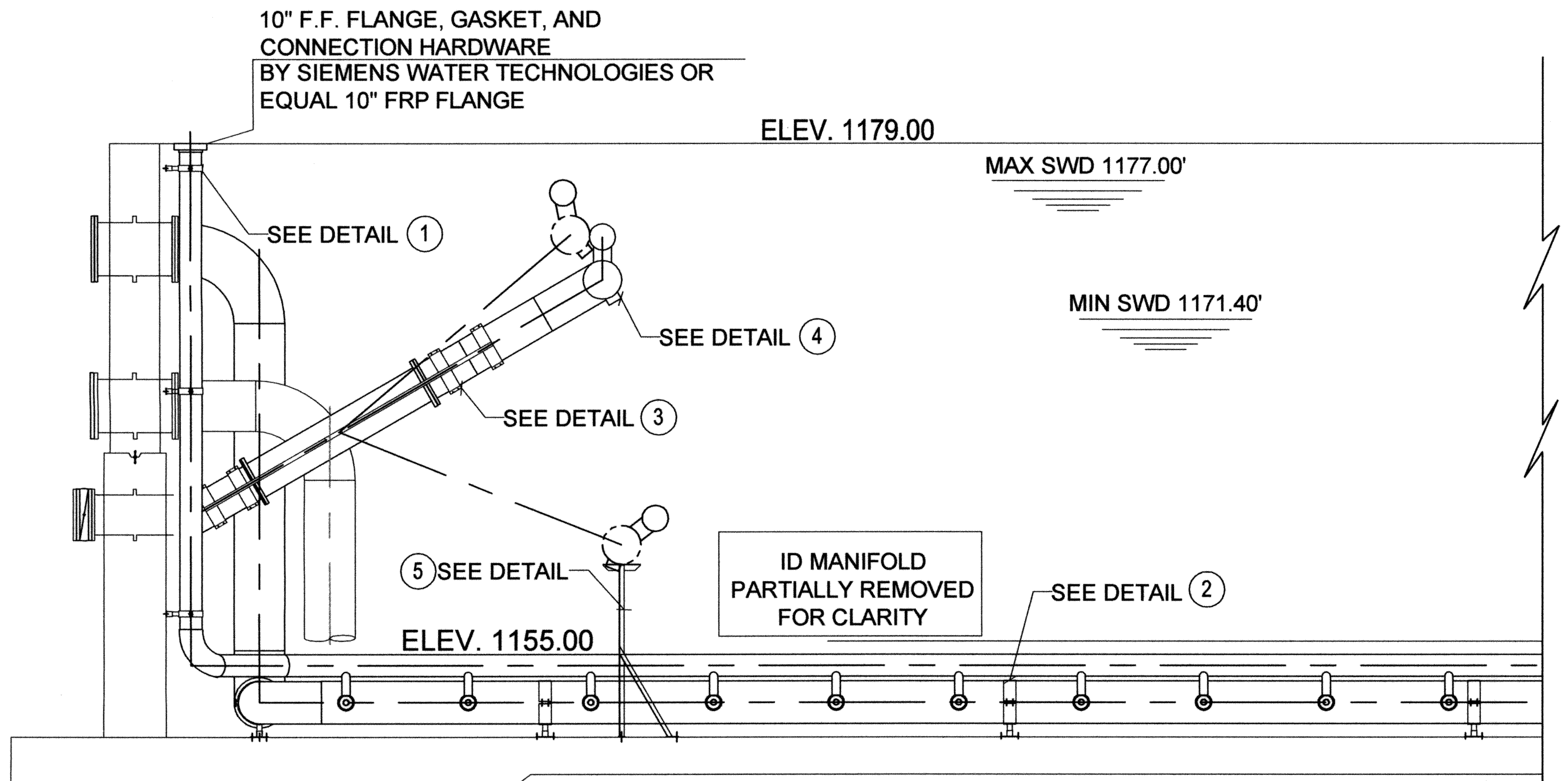
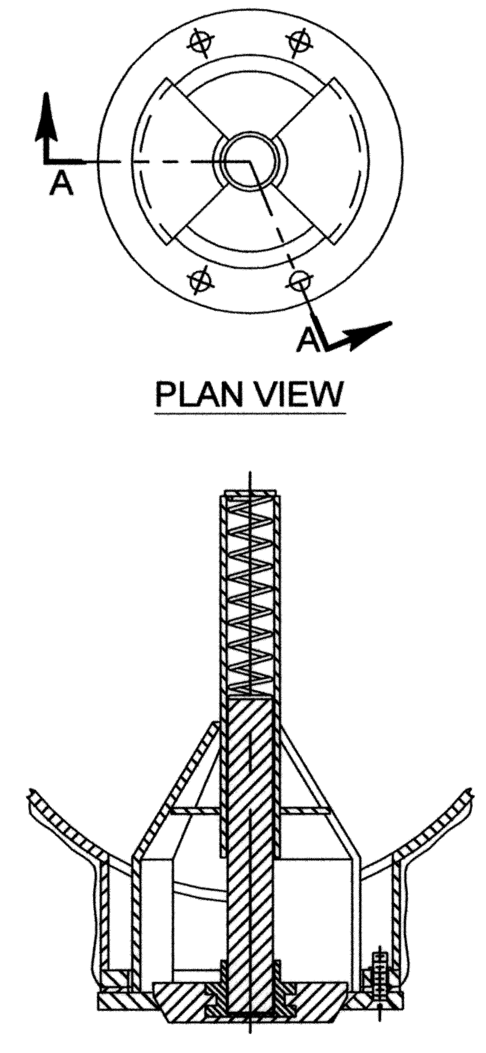


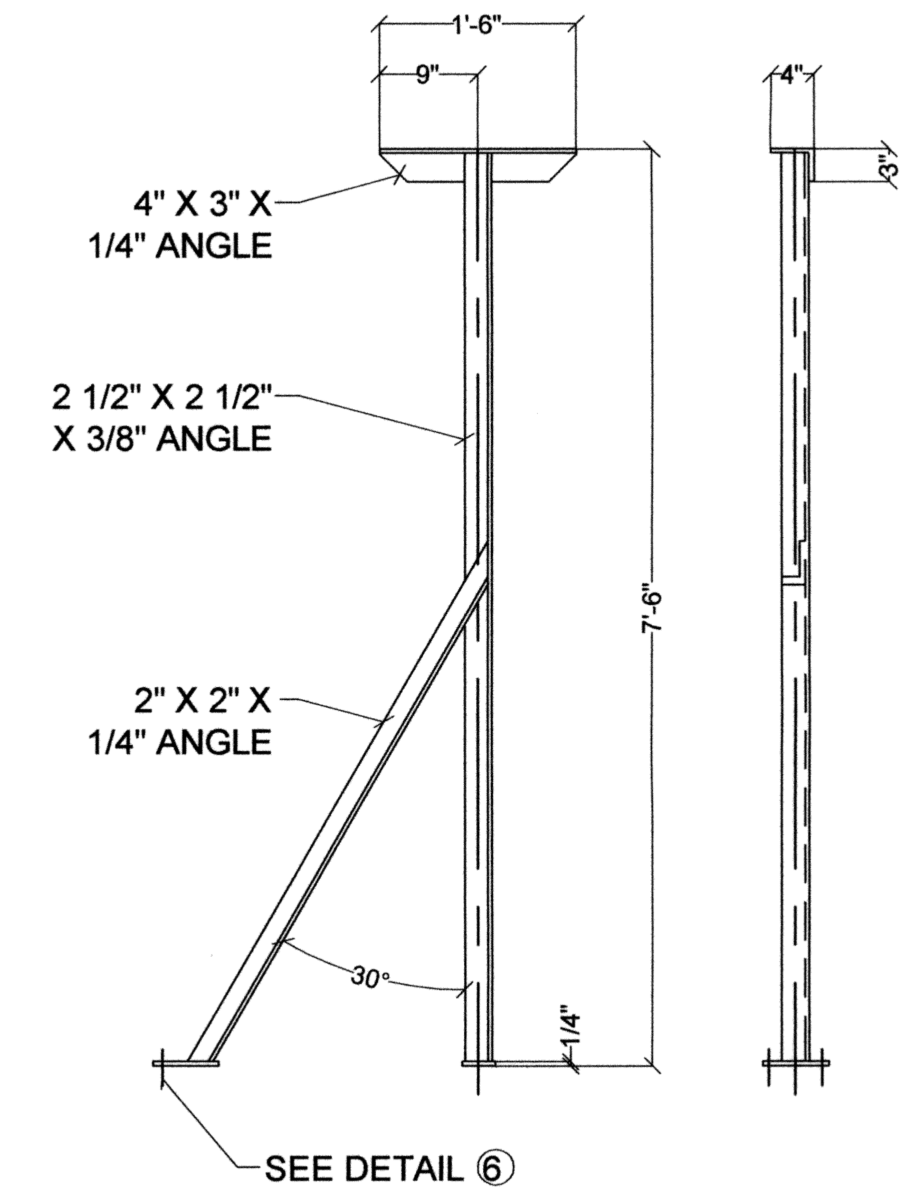
SECTION AT INFLUENT MANIFOLD

NOT TO SCALE



DECANTER VALVE DETAIL 4

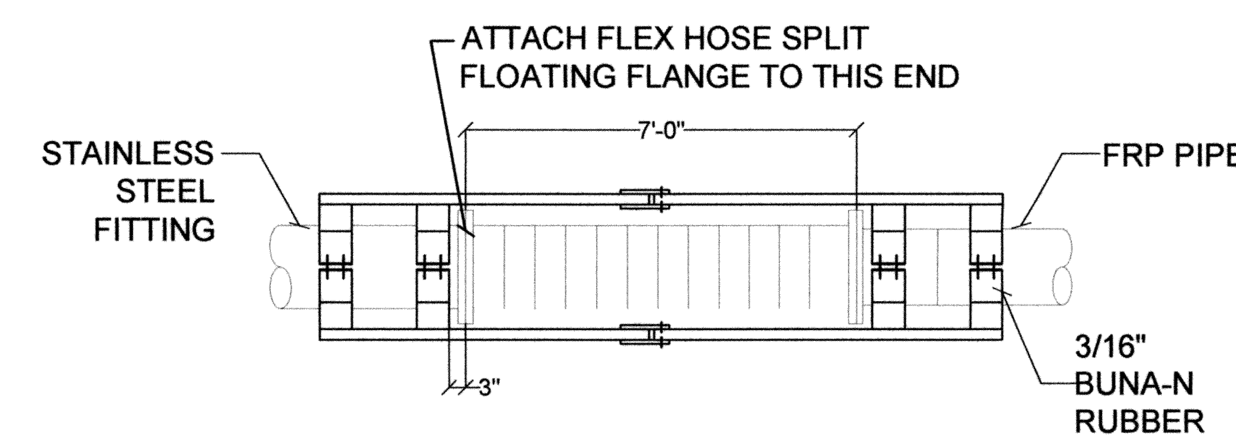
NOT TO SCALE



DECANTER REST DETAIL 5

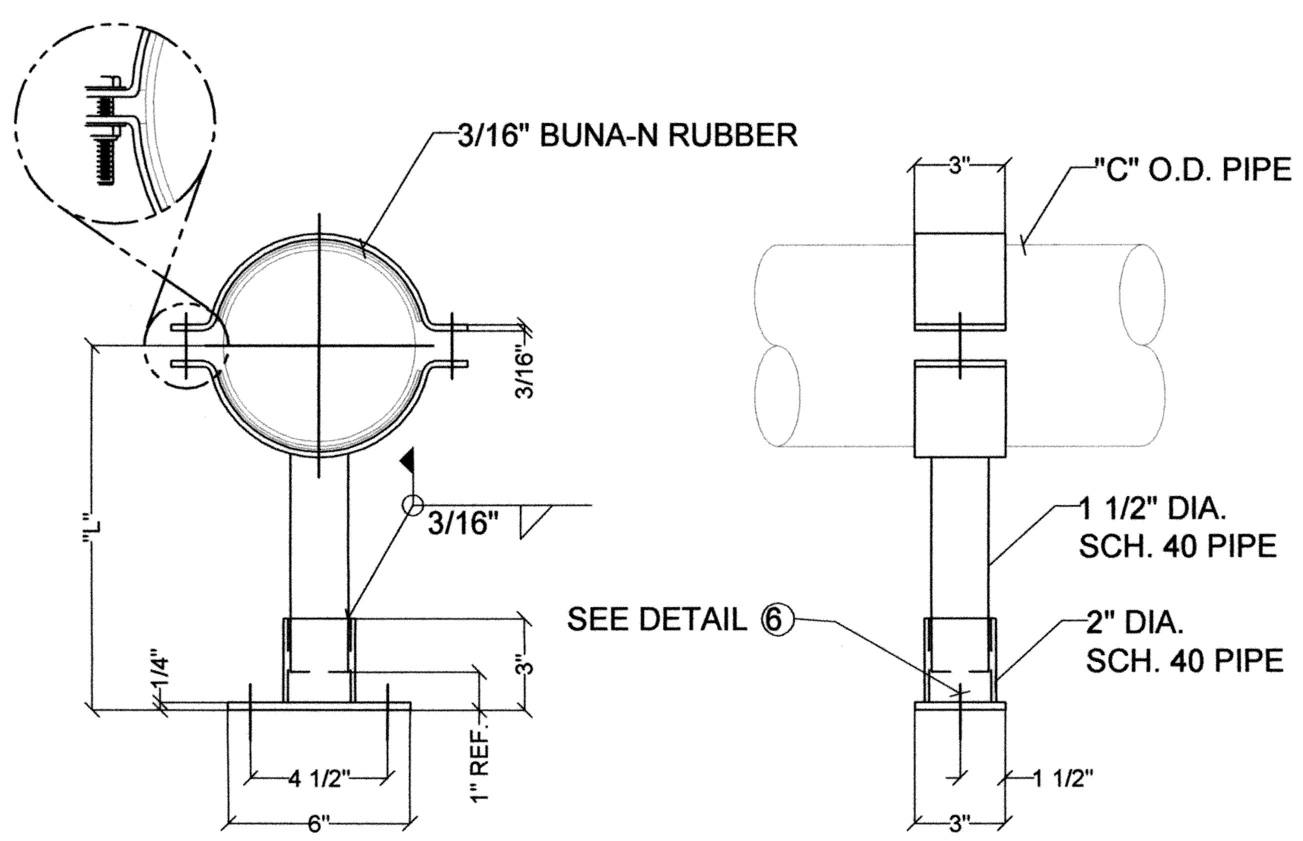
NOT TO SCALE

DETAIL	"C"	"L"
AIR PIPING	10 3/4"	1'-0"
SLUDGE MANIFOLD	8 5/8"	10 5/16"



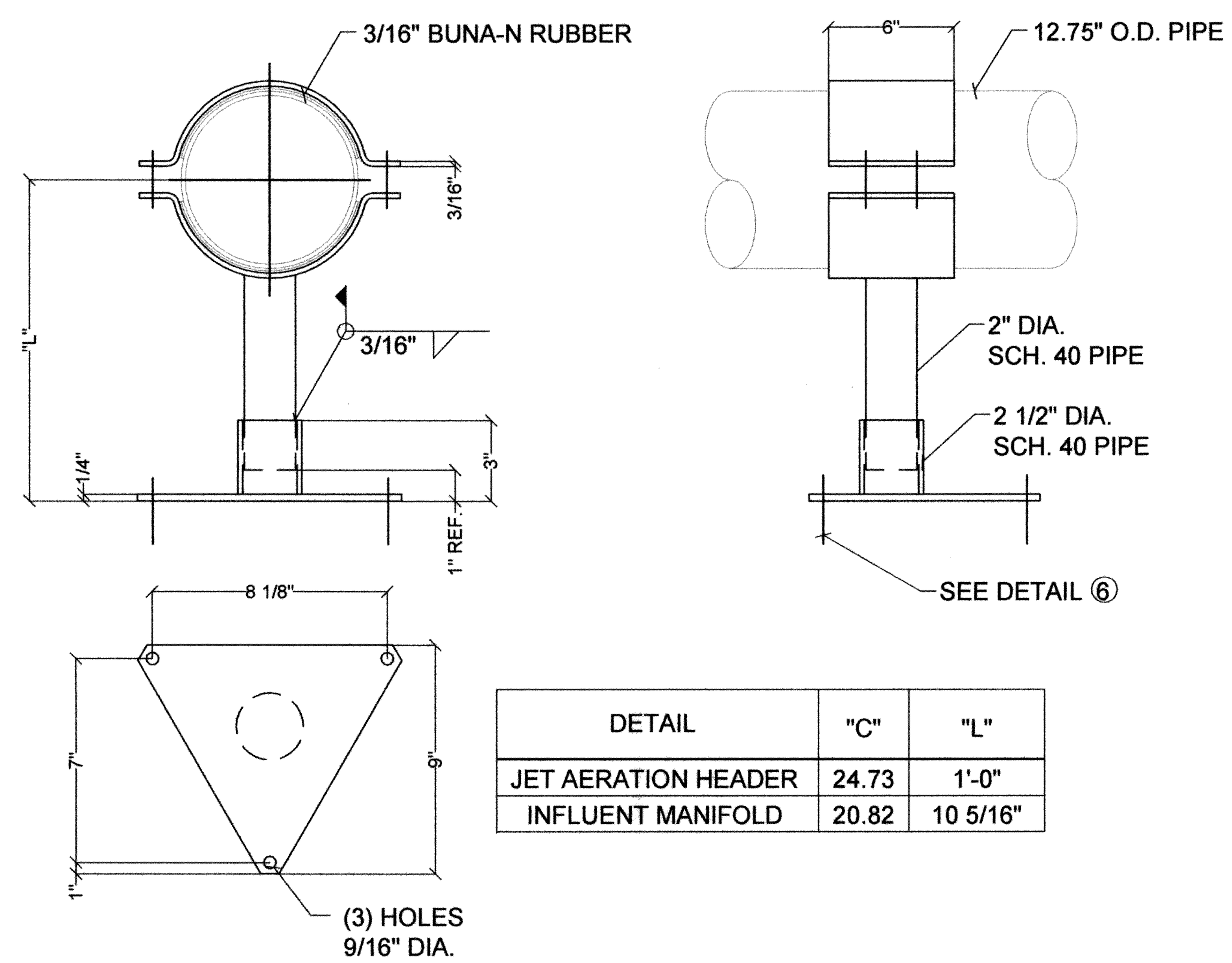
KNEE BRACE DETAIL 3

NOT TO SCALE



PIPE SUPPORT DETAIL 1

NOT TO SCALE

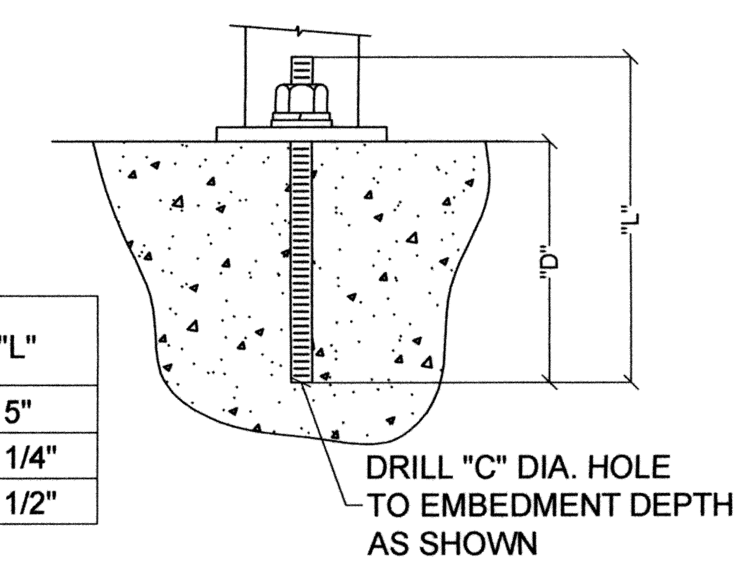


DETAIL	"C"	"L"
JET AERATION HEADER	24.73	1'-0"
INFLUENT MANIFOLD	20.82	10 5/16"

PIPE SUPPORT DETAIL 2

NOT TO SCALE

DETAIL NO.	BOLT SIZE	"C"	"D"	"L"
1	3/8"	7/16"	3 3/8"	5"
2	1/2"	9/16"	4 1/2"	6 1/4"
3	3/4"	13/16"	6 3/4"	9 1/2"



ANCHOR BOLT DETAIL 6

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER OKLAHOMA 11460

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SBR SECTION AND DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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CIVIL AND ENVIRONMENTAL ENGINEERS
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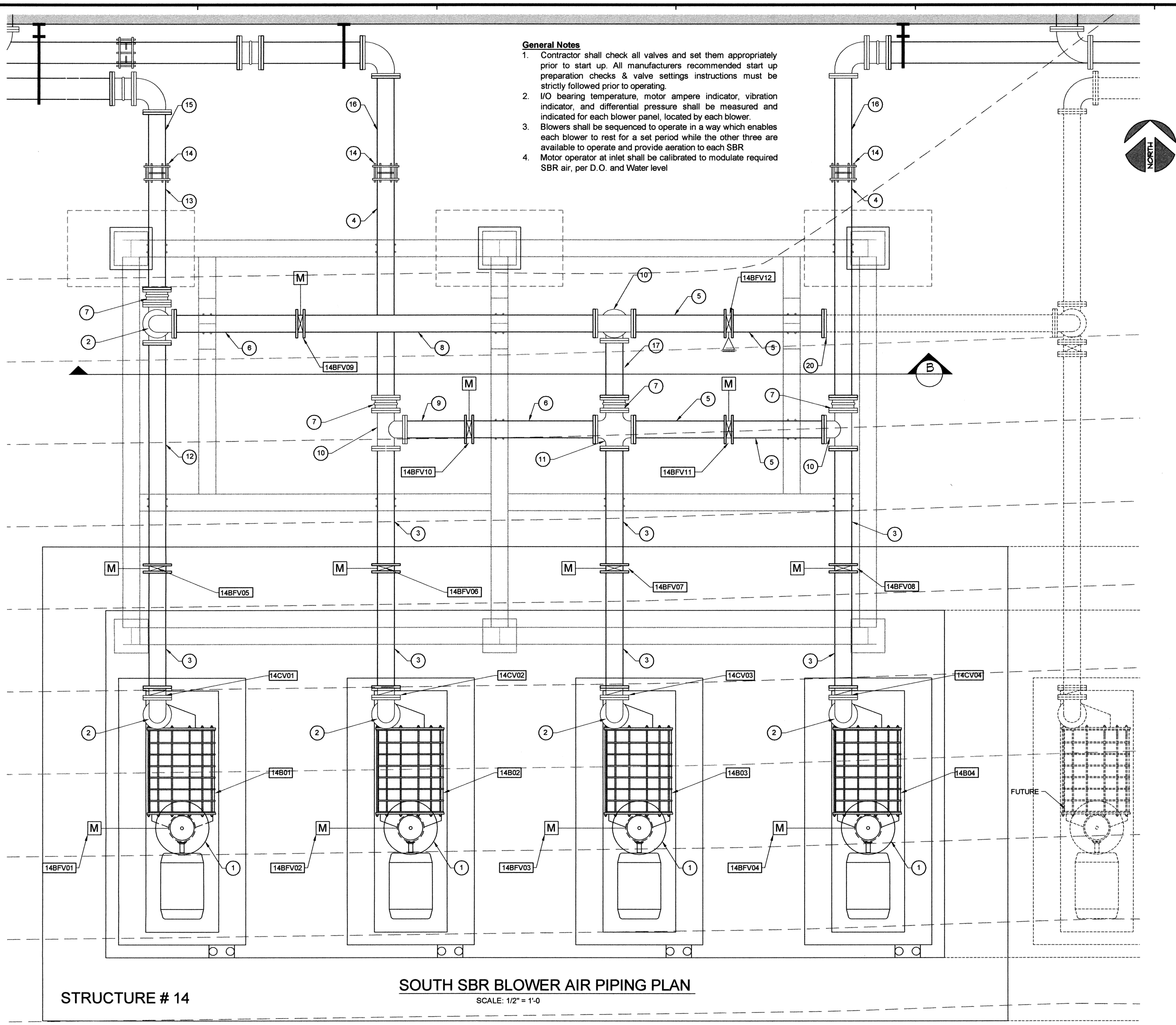
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



General Notes

1. Contractor shall check all valves and set them appropriately prior to start up. All manufacturers recommended start up preparation checks & valve settings instructions must be strictly followed prior to operating.
2. I/O bearing temperature, motor ampere indicator, vibration indicator, and differential pressure shall be measured and indicated for each blower panel, located by each blower.
3. Blowers shall be sequenced to operate in a way which enables each blower to rest for a set period while the other three are available to operate and provide aeration to each SBR
4. Motor operator at inlet shall be calibrated to modulate required SBR air, per D.O. and Water level

SOUTH SBR BLOWER AIR PIPING PLAN

SCALE: 1/2" = 1'-0

STRUCTURE # 14

SOUTH SBR SUCTION, DISCHARGE, & ISOLATION VALVE SCHEDULE

VALVE ID	LOCATION	TYPE	SIZE	ELECTRICALLY MOTORIZED OPERATOR	MANUAL OPERATOR TYPE
14BFVO1	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV02	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV03	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV04	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
14CV01	DISCHARGE	WAFER CHECK	8"	N/A	N/A
14CV02	DISCHARGE	WAFER CHECK	8"	N/A	N/A
14CV03	DISCHARGE	WAFER CHECK	8"	N/A	N/A
14CV04	DISCHARGE	WAFER CHECK	8"	N/A	N/A
14BFV05	DISCHARGE 14B01	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV06	DISCHARGE 143B02	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV07	DISCHARGE 14B03	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV08	DISCHARGE 14B04	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV09	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV10	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV11	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
14BFV12	ISOLATION	WAFER BUTTERFLY	8"	NO	CHAIN WHEEL

SOUTH SBR BLOWER SCHEDULE

BLOWER ID	14B01	14B02	14B03	14B04
HP	250			
TYPE	CENTRIFUGAL			

SOUTH SBR BLOWER PIPE SCHEDULE

NO.	ITEM	QTY	DESCRIPTION
1	SILENCER	4	P09RJ TRI VENT SERIES P09 BY BLOWER MANUFACTURER
2	8" x 90° BEND	6	4'- 7 3/8"
3	8" DIP FLG X FLG	6	8'-10 1/8"
4	8" DIP FLG X PE	2	3'-7 ¾"
5	8" DIP FLG X FLG	4	4'-10 ½ "
6	8" DIP FLG X FLG	2	BY BLOWER MANUFACTURER
7	8" FLANGED EXPANSION JOINT	12	11'– 6"
8	8" DIP FLG X FLG	1	2'- 5 3/8"
9	8" DIP FLG X FLG	1	
10	8" FLANGED TEE	4	
11	8" FLANGED CROSS	1	8'- 9 3/8"
12	8" DIP FLG X FLG	1	4'- 7"
13	8" DIP FLG X PE	1	PROVIDE AS NECESSARY FOR PIPING
14	8" DRESSER COUPLING	3	
15	8" DIP FLG X PE	1	2'- 4 5/8"
16	8" DIP FLG X PE	2	3'- 9 1/2 "
17	8" DIP FLG X FLG	1	2'- 2 7/8"
18	8" DIP FLG X FLG	4	2'-11"
19	8" DIP FLG X FLG	2	1'- 3 7/8"
20	8" BLIND FLANGE	1	

SATISH SHARATHY 11456 7-16-2010 OKLAHOMA

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REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

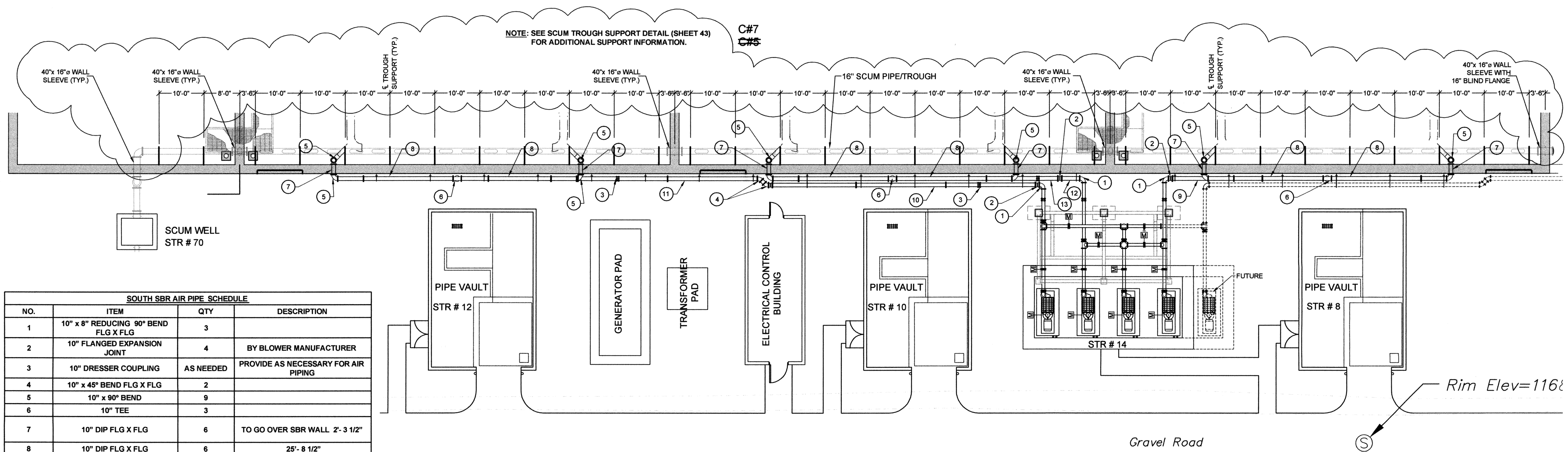
DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/11/2010	AS SHOWN	46 OF 95

SOUTH SBR BLOWER AIR PIPING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SOUTH SBR BLOWER AIR PIPING
(SCALE: 3/32" = 1'-0")

SOUTH SBR AIR PIPE SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	10" x 8" REDUCING 90° BEND FLG X FLG	3	
2	10" FLANGED EXPANSION JOINT	4	BY BLOWER MANUFACTURER
3	10" DRESSER COUPLING	AS NEEDED	PROVIDE AS NECESSARY FOR AIR PIPING
4	10" x 45° BEND FLG X FLG	2	
5	10" x 90° BEND	9	
6	10" TEE	3	
7	10" DIP FLG X FLG	6	TO GO OVER SBR WALL 2'- 3 1/2"
8	10" DIP FLG X FLG	6	25'- 8 1/2"
9	10" DIP FLG X FLG	1	33'- 8"
10	10" DIP FLG X FLG	1	58'- 7 1/2"
11	10" DIP FLG X FLG	1	66'- 0"
12	10" DIP FLG X FLG	1	4'- 0"
13	10" DIP FLG X FLG	1	35'-11 3/4"

NOTE: CONTRACTOR SHALL USE 20'-0" FLG X FLG PIPE ALONG WALL AND INSTALL ADJUSTMENT PIECE FOR THE REMAINING LENGTH.

ELEVATION @ SOUTH BLOWERS
(SCALE: 3/32" = 1'-0")

REVISIONS:	DATE:
C#5 – CLARIFICATION NO. 5	12/30/10
C#7 – CLARIFICATION NO. 7	2/14/2011

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/26/2010	AS SHOWN	47 OF 95

SOUTH SBR BLOWER AIR PIPING

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2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

SATISH DASHARATHY 11456

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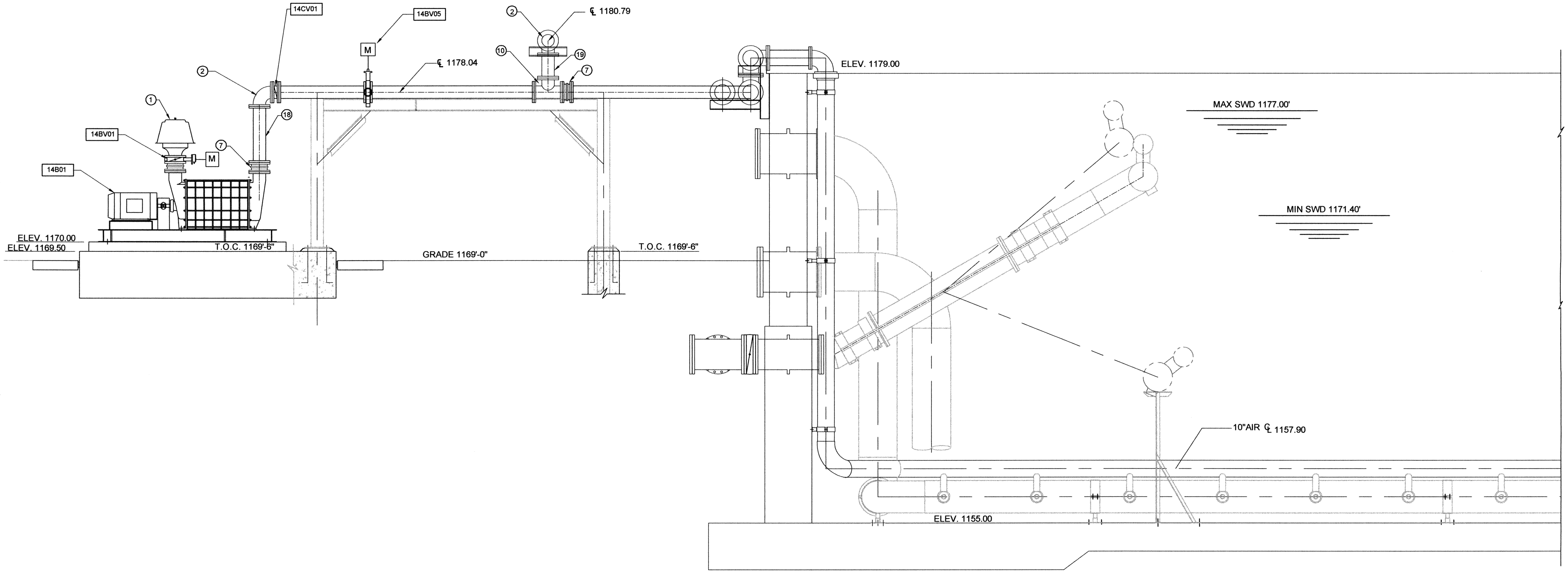
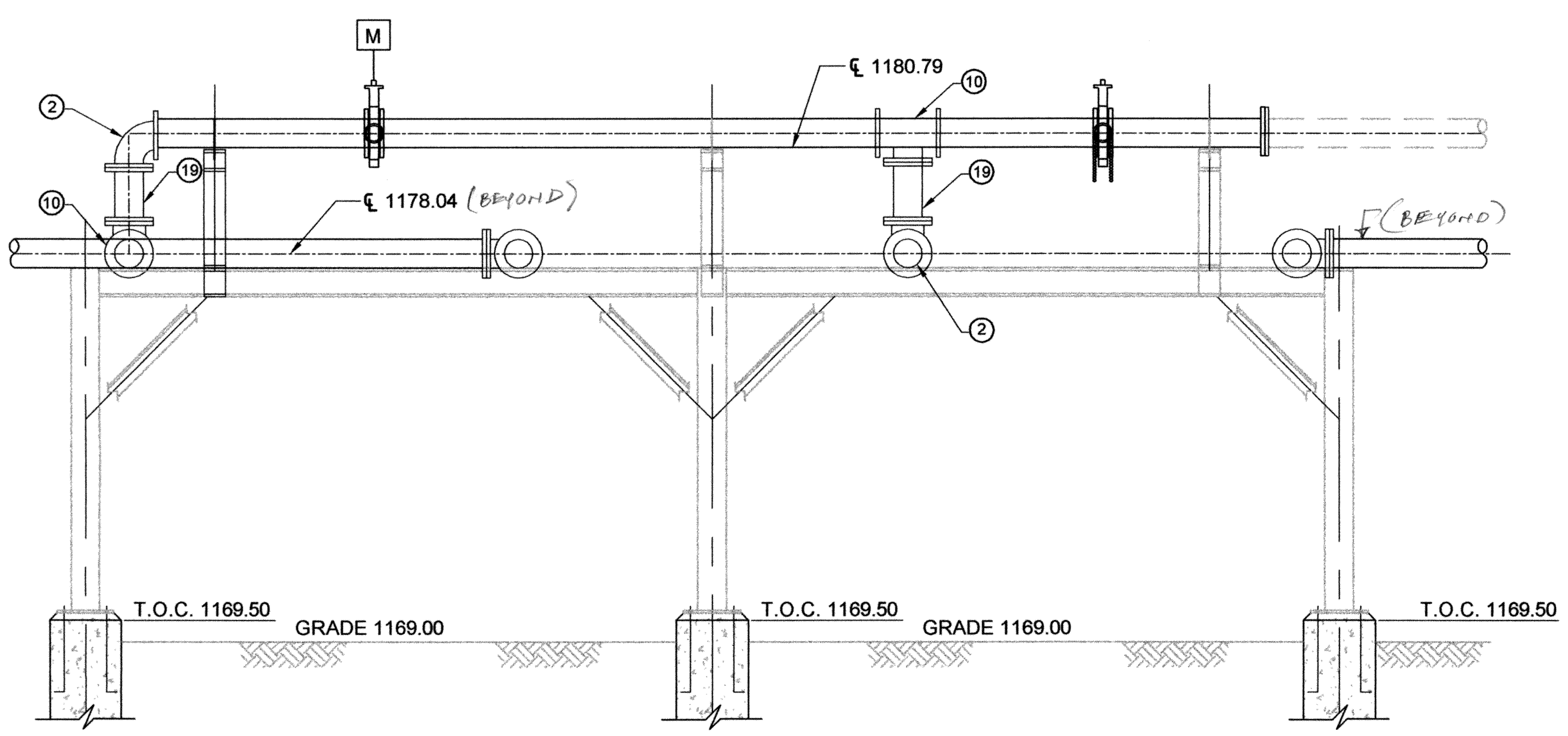
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SOUTH SBR SECTION A

SCALE: 3/8" = 1'-0



SOUTH SBR SECTION B

SCALE: 3/8" = 1'-0

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	12/19/2009	AS SHOWN	48 OF 95

REVISIONS:	DATE:

SOUTH SBR BLOWER
AIR PIPING DETAILS

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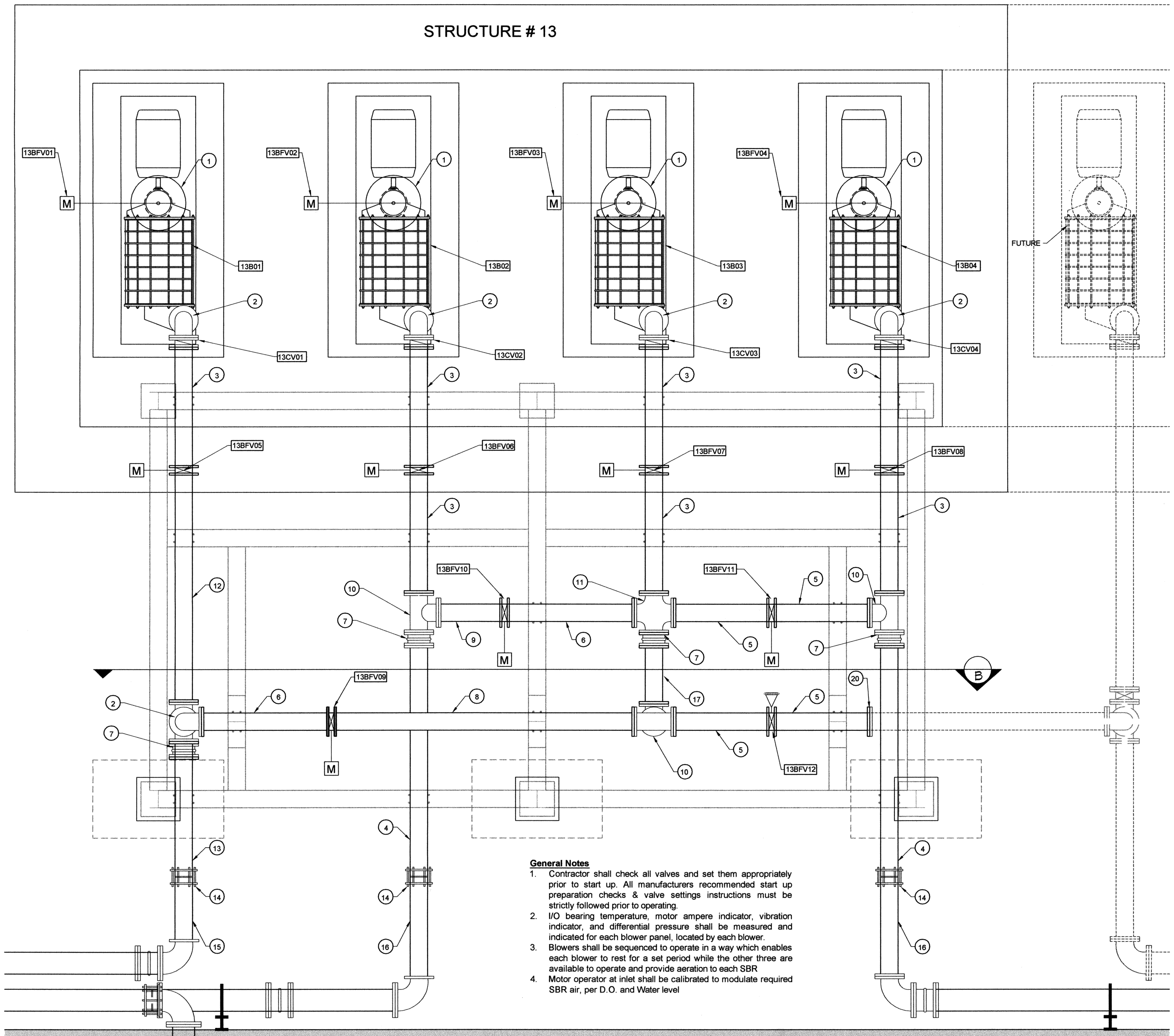
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



General Notes

1. Contractor shall check all valves and set them appropriately prior to start up. All manufacturers recommended start up preparation checks & valve settings instructions must be strictly followed prior to operating.
2. I/O bearing temperature, motor ampere indicator, vibration indicator, and differential pressure shall be measured and indicated for each blower panel, located by each blower.
3. Blowers shall be sequenced to operate in a way which enables each blower to rest for a set period while the other three are available to operate and provide aeration to each SBR
4. Motor operator at inlet shall be calibrated to modulate required SBR air, per D.O. and Water level

NORTH SBR SUCTION, DISCHARGE, & ISOLATION VALVE SCHEDULE					
VALVE ID	LOCATION	TYPE	SIZE	ELECTRICALLY MOTORIZED OPERATOR	MANUAL OPERATOR TYPE
13BFVO1	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV02	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV03	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV04	SUCTION	WAFER BUTTERFLY	8"	YES	WHEEL
13CV01	DISCHARGE	WAFER CHECK	8"	N/A	N/A
13CV02	DISCHARGE	WAFER CHECK	8"	N/A	N/A
13CV03	DISCHARGE	WAFER CHECK	8"	N/A	N/A
13CV04	DISCHARGE	WAFER CHECK	8"	N/A	N/A
13BFV05	DISCHARGE 13B01	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV06	DISCHARGE 13B02	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV07	DISCHARGE 13B03	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV08	DISCHARGE 13B04	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV09	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV10	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV11	ISOLATION	WAFER BUTTERFLY	8"	YES	WHEEL
13BFV12	ISOLATION	WAFER BUTTERFLY	8"	NO	CHAIN WHEEL

NORTH SBR BLOWER SCHEDULE				
BLOWER ID	13B01	13B02	13B03	13B04
HP	250			
TYPE	CENTRIFUGAL			

NORTH SBR BLOWER PIPE SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	SILENCER	4	P09RJ TRI VENT SERIES P09 BY BLOWER MANUFACTURER
2	8" x 90° BEND	6	4'- 7 3/8"
3	8" DIP FLG X FLG	7	8'-10 1/8"
4	8" DIP FLG X PE	2	3'- 7 ¾"
5	8" DIP FLG X FLG	4	4'-10 ½ "
6	8" DIP FLG X FLG	2	BY BLOWER MANUFACTURER
7	8" FLANGED EXPANSION JOINT	12	11'– 6"
8	8" DIP FLG X FLG	1	2'- 5 3/8"
9	8" DIP FLG X FLG	1	
10	8" FLANGED TEE	4	
11	8" FLANGED CROSS	1	8'- 9 3/8"
12	8" DIP FLG X FLG	1	4'-7"
13	8" DIP FLG X PE	1	PROVIDE AS NECESSARY FOR PIPING
14	8" DRESSER COUPLING	3	
15	8" DIP FLG X PE	1	2'- 4 5/8"
16	8" DIP FLG X PE	2	3'- 9 1/2 "
17	8" DIP FLG X FLG	1	2'- 2 7/8"
18	8" DIP FLG X FLG	4	
19	8" DIP FLG X FLG	2	1'- 3 7/8"
20	8" BLIND FLANGE	1	

SATISH DASHARATHY 11456 OKLAHOMA 7-16-2010

NORTH SBR BLOWER AIR PIPING PLAN

SCALE: 1/2" = 1'-0

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/11/2010	AS SHOWN	49 OF 95

NORTH SBR BLOWER AIR PIPING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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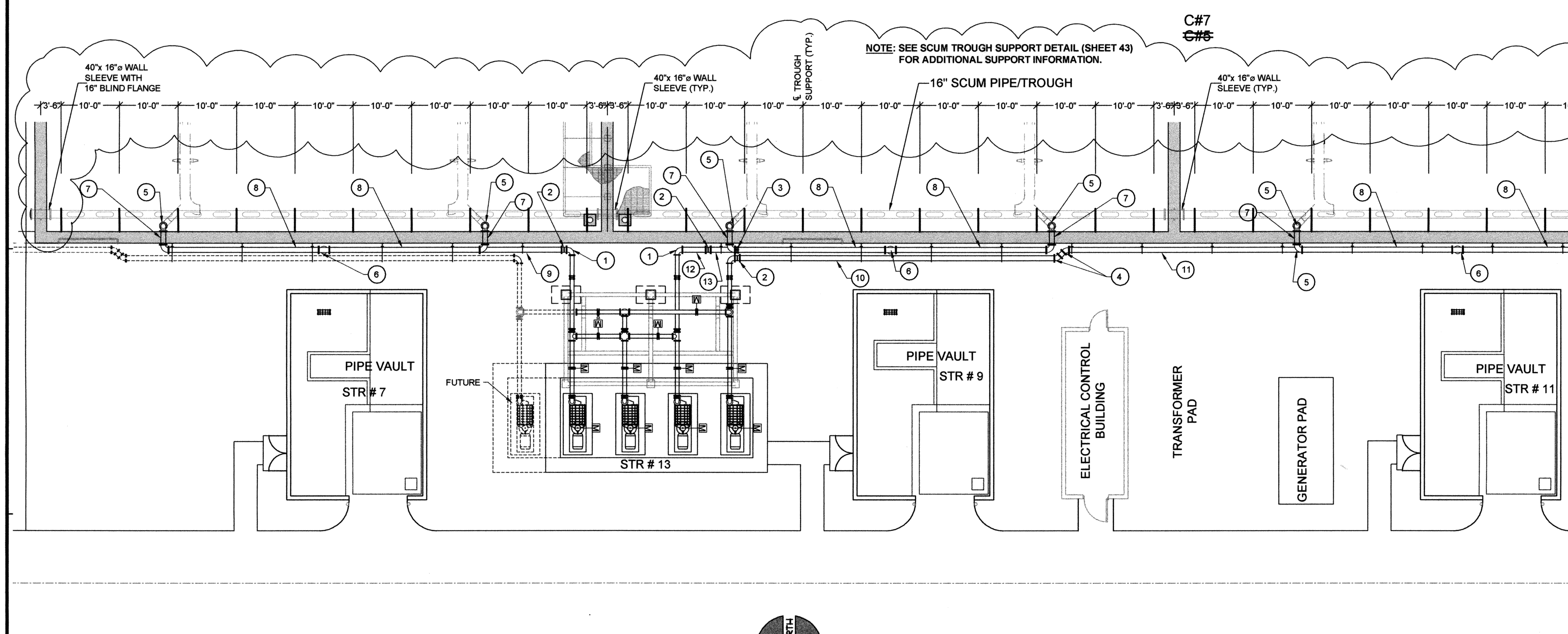

NORTH SBR BLOWER AIR PIPING
(SCALE: 3/32" = 1'-0")

NORTH SBR AIR PIPE SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	10" x 8" REDUCING 90° BEND FLG X FLG	3	
2	10" FLANGED EXPANSION JOINT	4	BY BLOWER MANUFACTURER
3	10" DRESSER COUPLING	AS NEEDED	PROVIDE AS NECESSARY FOR AIR PIPING
4	10" x 45° BEND FLG X FLG	2	
5	10" x 90° BEND	9	
6	10" TEE	3	
7	10" DIP FLG X FLG	6	TO GO OVER SBR WALL 2'-3 1/2"
8	10" DIP FLG X FLG	6	25'-8 1/2"
9	10" DIP FLG X FLG	1	39'-9 "
10	10" DIP FLG X FLG	1	53'-9 1/2"
11	10" DIP FLG X FLG	1	65' –67/8"
12	10" DIP FLG X FLG	1	4' –0"
13	10" DIP FLG X FLG	1	29' –10 1/2"

NOTE: CONTRACTOR SHALL USE 20'-0" FLG X FLG PIPE ALONG WALL AND INSTALL ADJUSTMENT PIECE FOR THE REMAINING LENGTH.

ELEVATION @ BLOWERS
(SCALE: 3/32" = 1'-0")

SATISH DASHARATHY 11456 2-17-

REVISIONS:	DATE:
C#5 – CLARIFICATION NO. 5	12/30/10
C#7 – CLARIFICATION NO. 7	2/14/2011

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/26/2010	AS SHOWN	50 OF 95

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NORTH SBR BLOWER AIR PIPING

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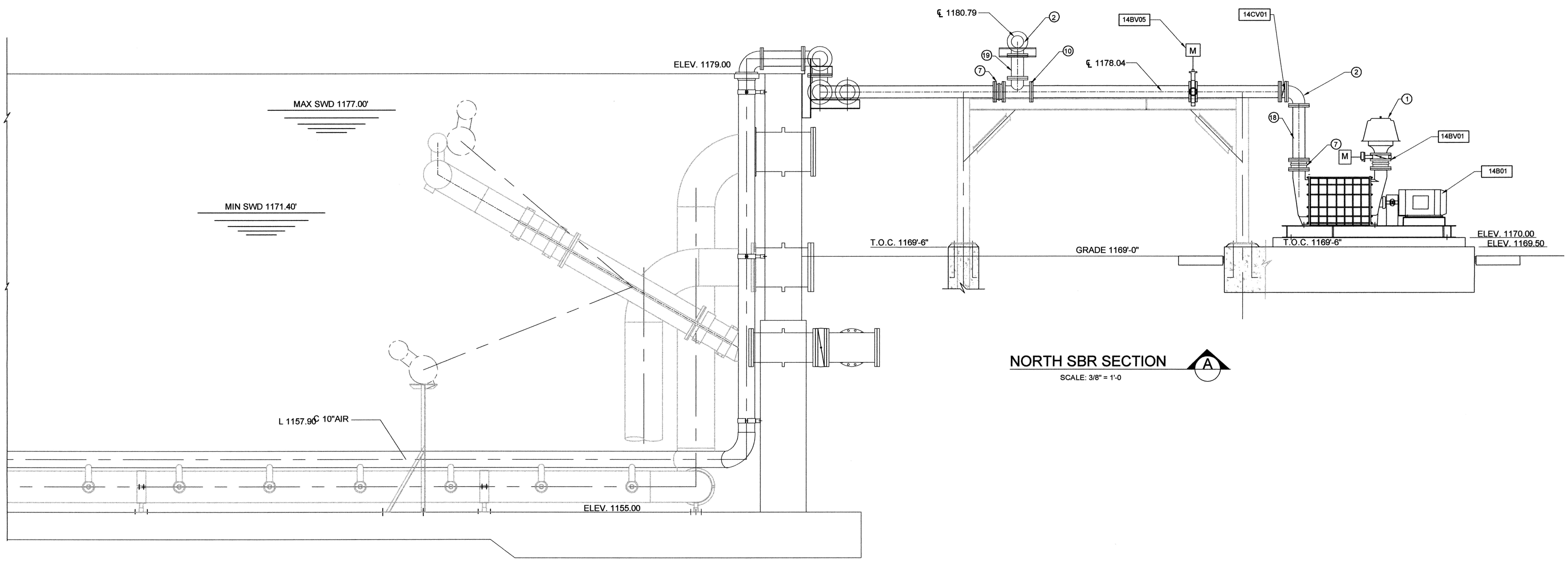
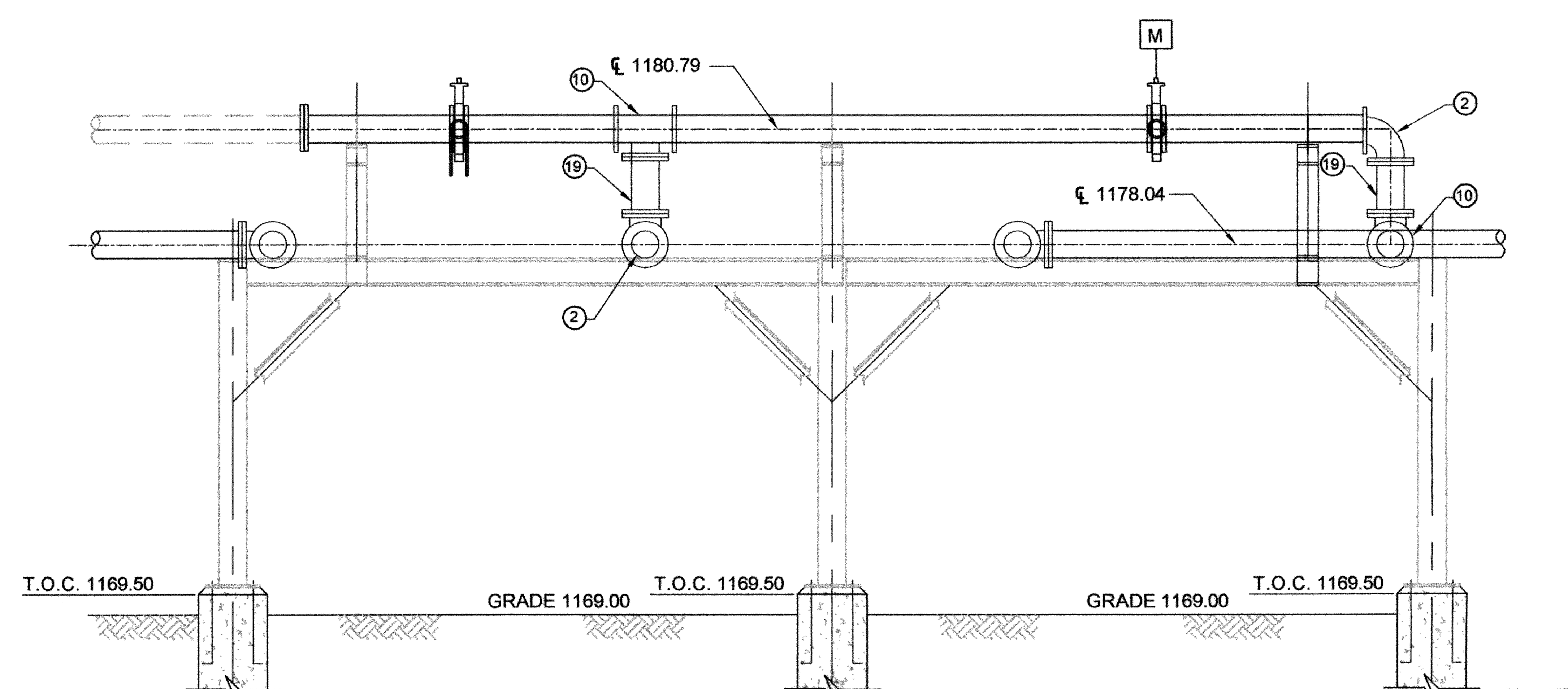
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



NORTH SBR SECTION A

SCALE: 3/8" = 1'-0



NORTH SBR SECTION B

SCALE: 3/8" = 1'-0

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	12/29/2009	AS SHOWN	51 OF 95

REVISIONS:	DATE:

NORTH SBR BLOWER AIR PIPING DETAILS

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FAX. (405) 844-3600

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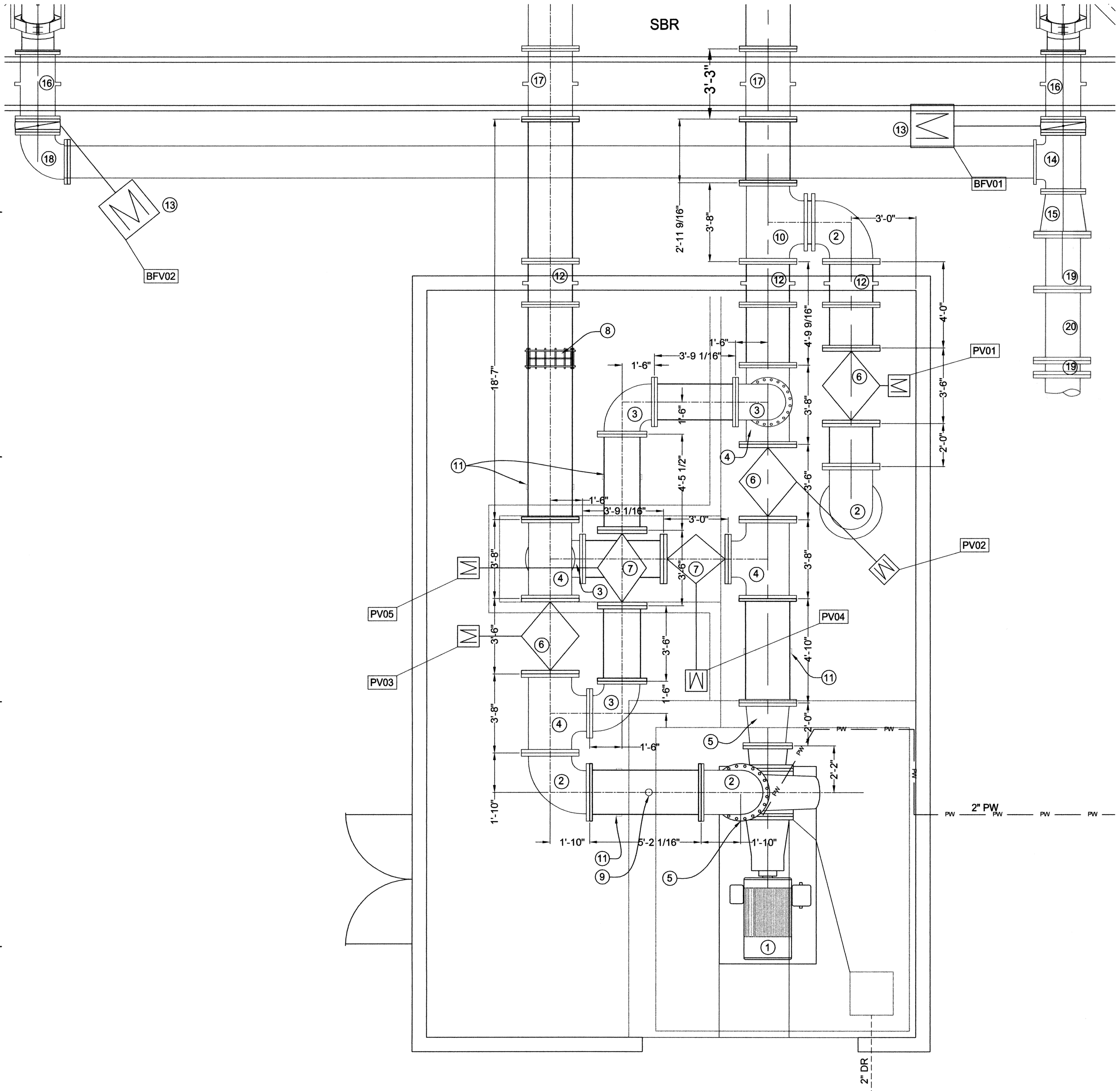
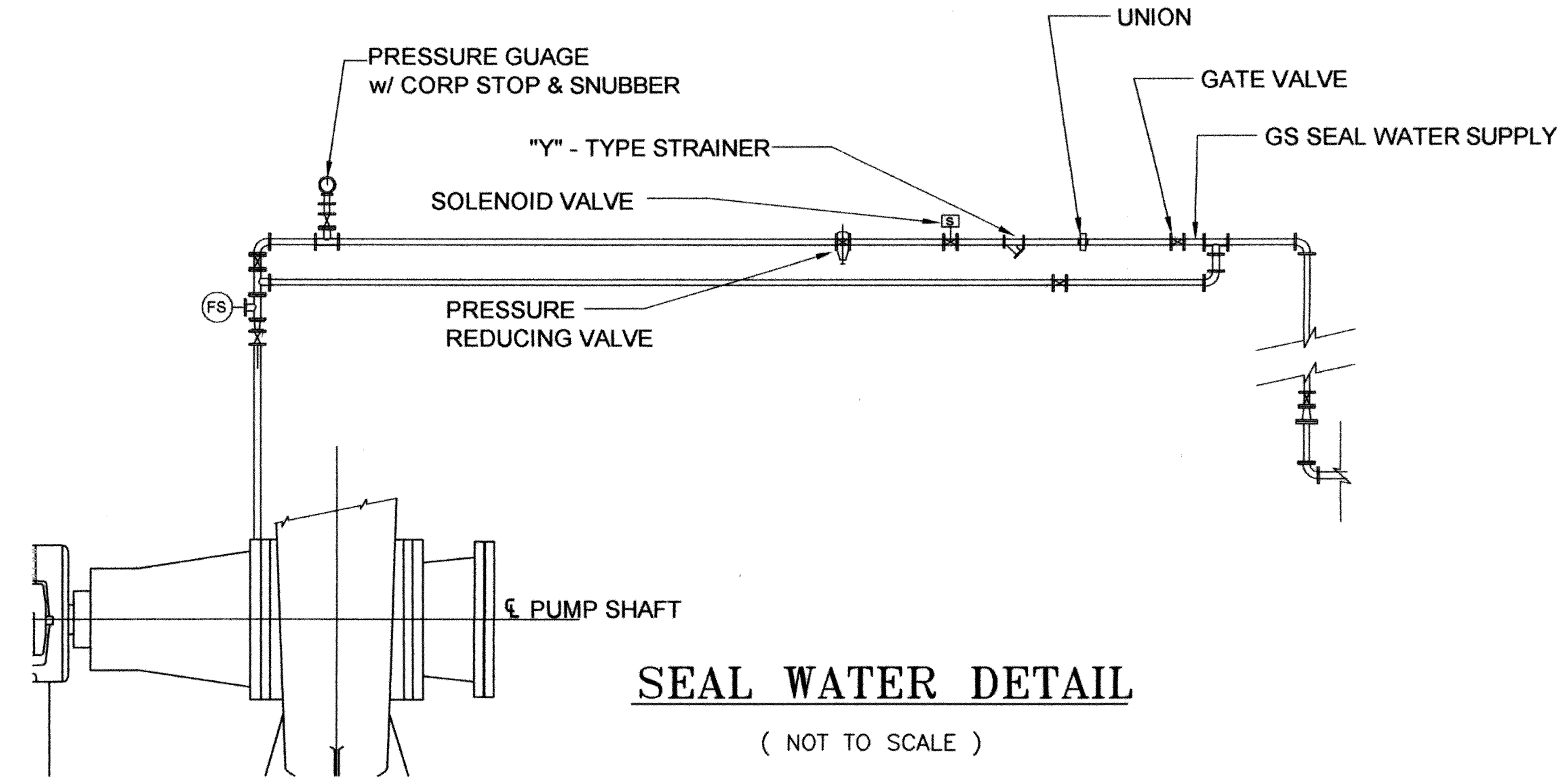
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



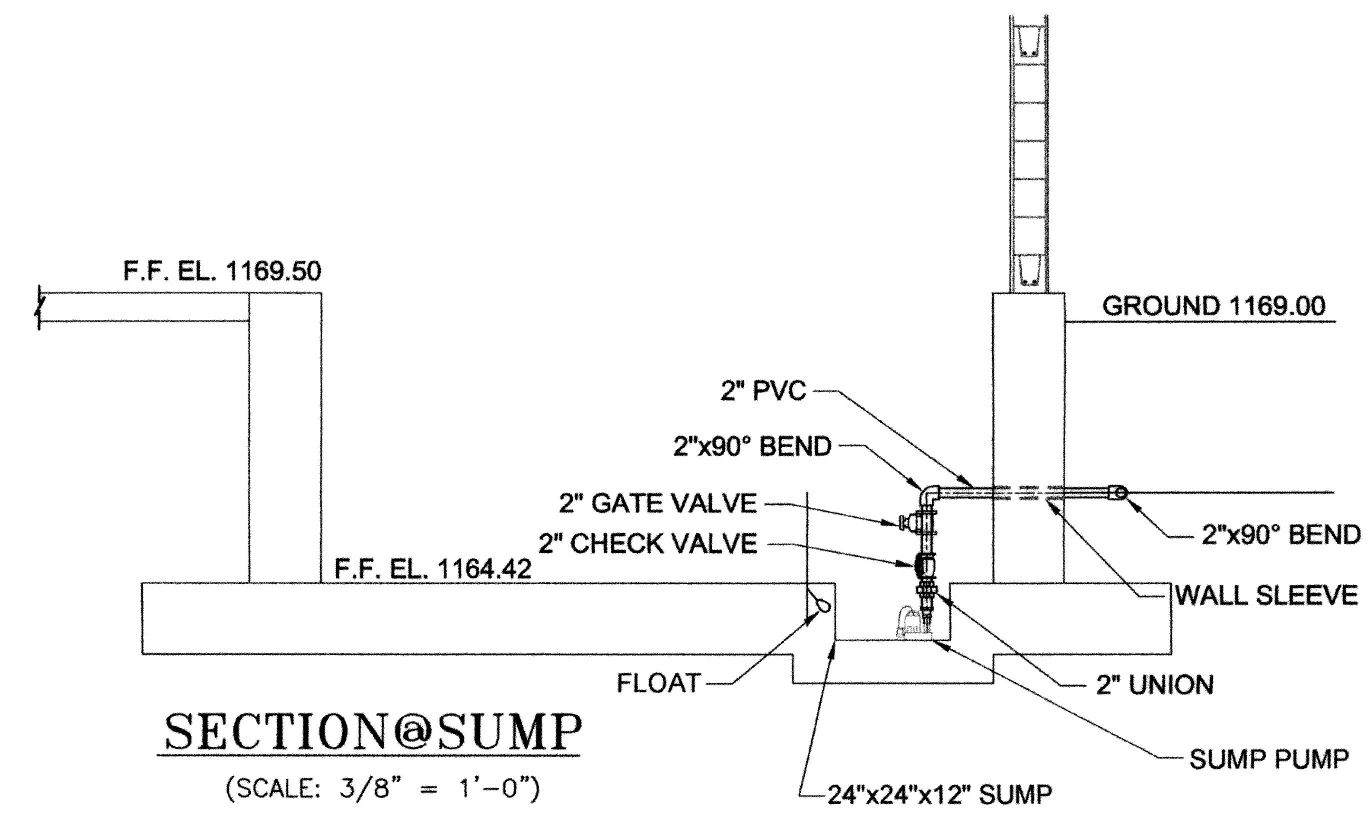
PLAN

(SCALE: 3/8" = 1'-0")



SEAL WATER DETAIL

(NOT TO SCALE)



SECTION@SUMP

(SCALE: 3/8" = 1'-0")

PIPING VAULT SCHEDULE (PER VAULT)

No.	ITEM	Qty.	DESCRIPTION
1	PUMP	1	
2	24"x90Ø BEND	4	
3	20"x90Ø BEND	4	
4	24"x20" REDUCING TEE	4	
5	24"x20" REDUCER	2	
6	24" AUTOMATIC PLUG VALVE	3	
7	20" AUTOMATIC PLUG VALVE	2	
8	24" DRESSER COUPLINGS		AS NEEDED
9	AIR RELEASE VALVE	1	
10	24"x24" TEE	1	
11	PIPE STANDS	4	
12	24" DIP FLGxFLG WALL SLEEVE	3	1'-11"
13	18" AUTOMATIC BUTTERFLY VALVE	2	
14	18"x18" TEE	1	
15	24"x18" REDUCER	1	
16	18" DIP FLGxFLG WALL SLEEVE	2	3'-9"
17	24" DIP FLGxFLG WALL SLEEVE	2	3'-3"
18	18"x90 Ø BEND	1	
19	24"x45 Ø BEND	2	
20	24" DIP FLGxFLG	1	3'-4"

REGISTERED PROFESSIONAL ENGINEER SATISH DHARATHY 11456 OKLAHOMA 5-19-10

REVISIONS:	DATE:

SBR PIPE VAULT PLAN

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2803 SOUTH BRYANT
EDMOND, OK. 73013
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S.D.		S.D.	S.D.	12/20/2009	AS SHOWN	52 OF 95

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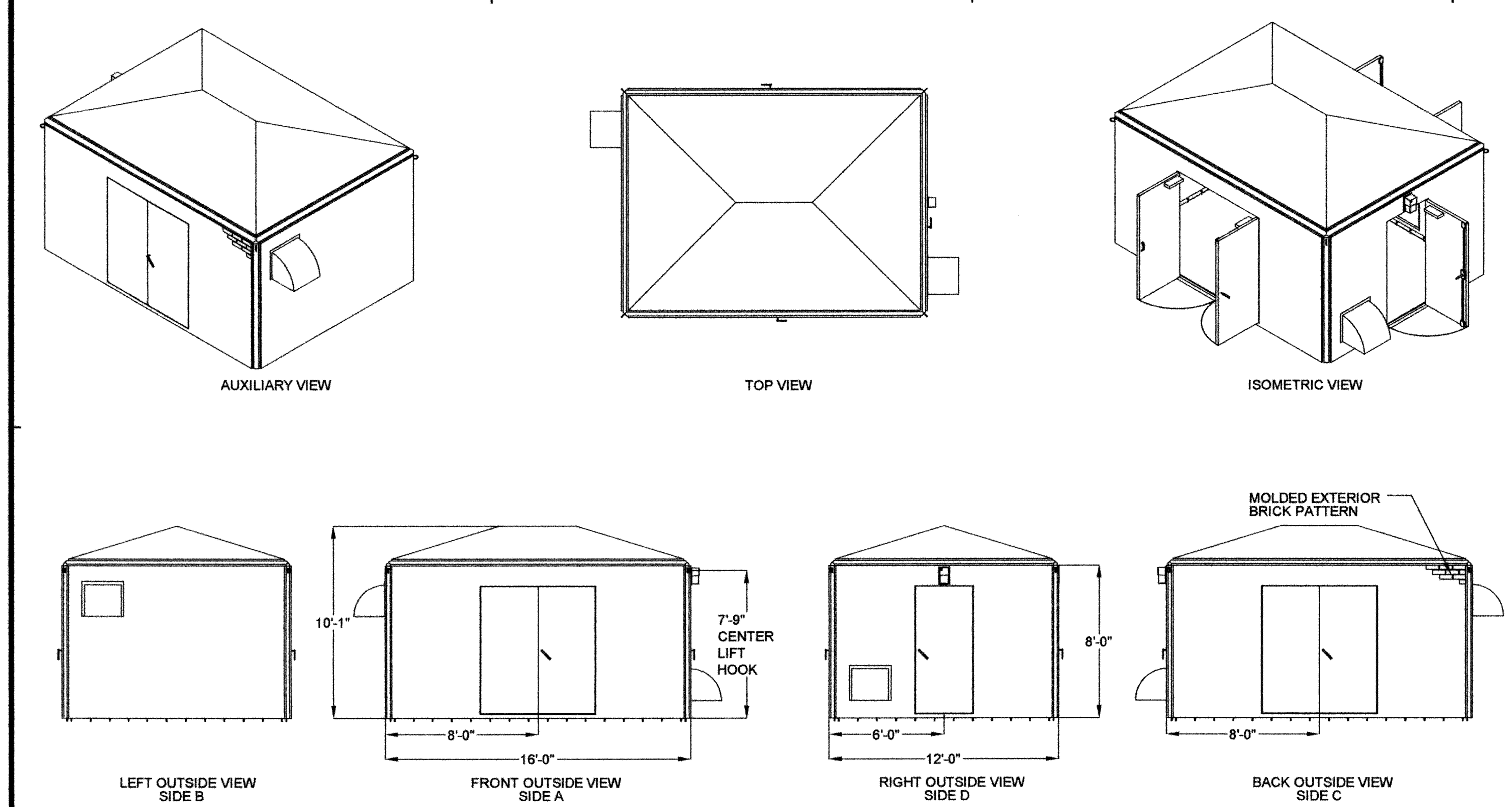
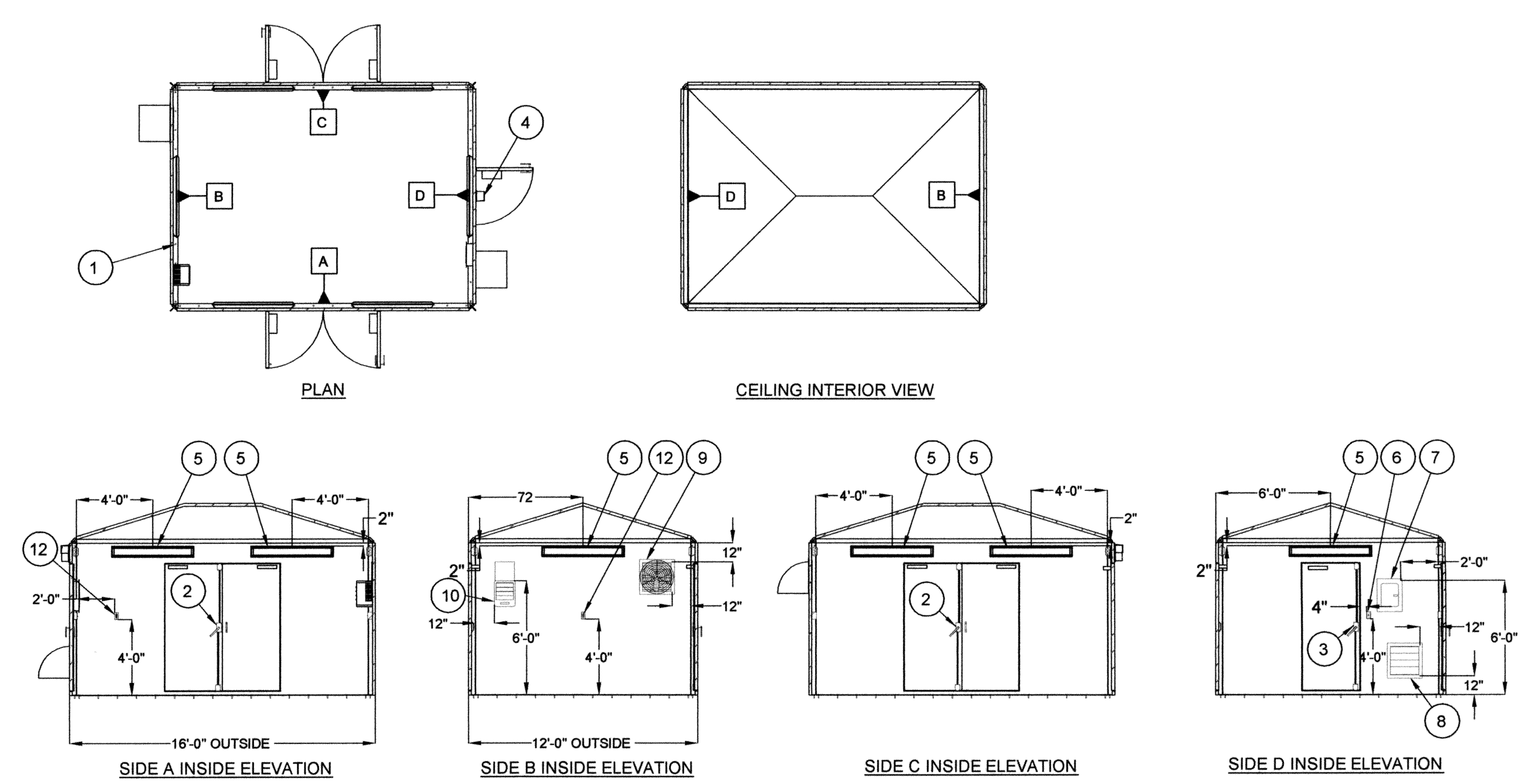
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



EXTERIOR VIEWS

SCALE: 3/16" = 1'-0"



INTERIOR & PLAN VIEWS

SCALE: 3/16" = 1'-0"

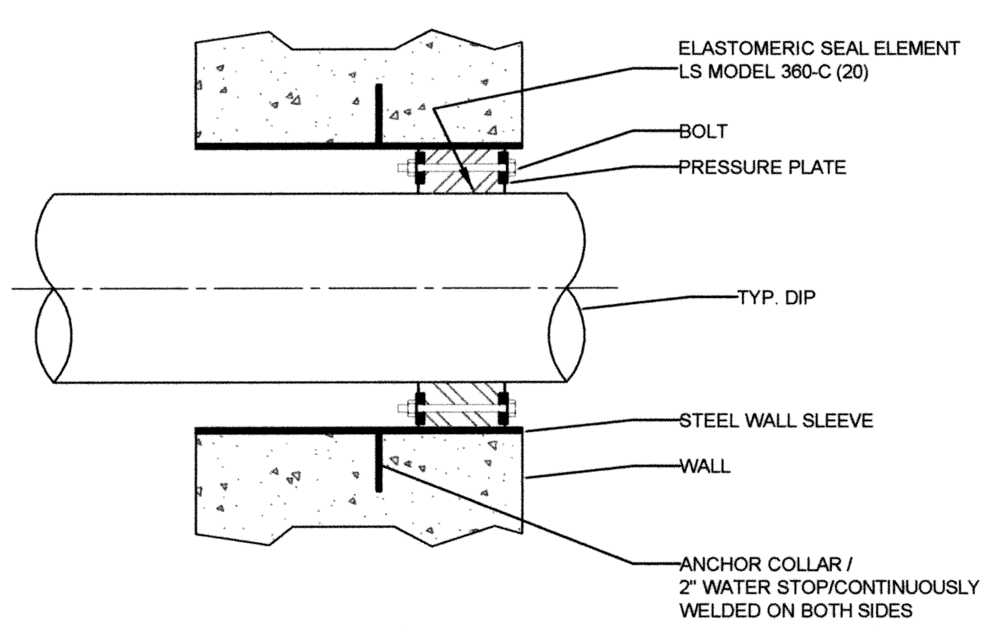
INTERIOR COLOR:	White	EXTERIOR COLOR:	BY OWNER

ITEMS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	NOTES
1	56	52082	3/8" STAINLESS EXPANSION ANCHOR	"REDHEAD" TYPE
2	2	6068-3P	6' X 6'-8" DOUBLE DOOR	3-POINT HARDWARE, (3) HINGES
3	1	3068-3P	3' X 6'-8" SINGLE DOOR, LEFT HAND	3-POINT HARDWARE, (3) HINGES
4	1	5MM59	EXTERIOR SECURITY LIGHT FIXTURE	70W, HPS W/ PHOTOCELL
5	6	SW376	FLUORESCENT LIGHT FIXTURE	4', 3 LAMP, WET LOCATION
6	1	1221-SW	WEATHER PROOF SINGLE POLE SWITCH	INTERIOR MOUNTED; INTERIOR LIGHTS
7	1	BR2020B100	MAIN BREAKER PANEL	100A, 1Ø, 120/240V, NEMA 1
8	1	1C744	18" GALVANIZED GRAVITY LOUVER	WITH RAIN HOOD AND SCREEN
9	1	1HLA4	18" SHUTTER-MOUNTED EXHAUST FAN	WITH RAIN HOOD; 1600 CFM
10	1	HVH 05-81-00	5 KW HEATER UNIT	208V/240V,1Ø, WITH INTEGRAL THERMOSTAT
12	2	7899-W	WEATHER PROOF GFCI RECEPTACLE	20A, 125V, NEMA CONFIG. 5-20R

NOTE:
ALL ELECTRICIAL COMPONENTS SHALL BE WIRED, USING #10 OR #12 TYPE THHN WIRE, IN SURFACE MOUNTED PVC CONDUIT AND TERMINATED AT MAIN BREAKER PANEL (ITEM #8). CONDUIT SHALL BE RUN AT THE TOP OF THE WALLS WITH CONDUIT DROPS TO INDIVIDUAL ELECTRICAL DEVICES. SHORT LENGTHS OF LIQUID-TIGHT, FLEXIBLE METAL CONDUIT SHALL BE PERMITTED WHEN NECESSARY.

LINK-SEAL® MODULAR SEALS WITH MODEL WS STEEL WALL SLEEVES

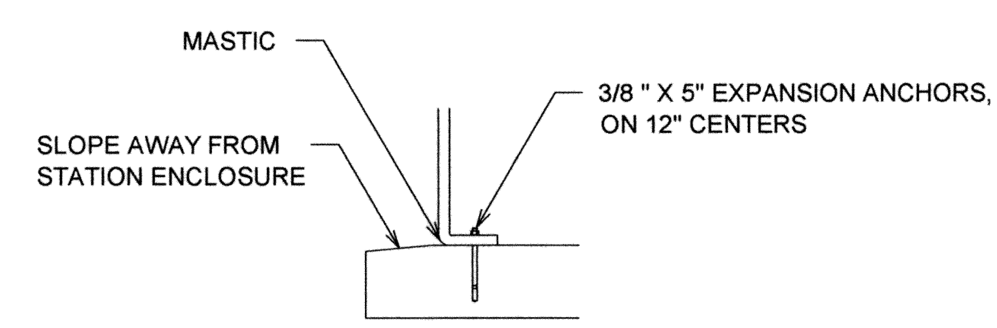


LS Model	Seal Element	Bolts/Nuts	Pressure Plate
C	EPDM (Black)	Zinc Dichromate/Organic Coated Carbon Steel Bolt	Reinforced Nylon Polymer

Sleeve Model	Description	Material
WS	Steel Wall Sleeve	Steel

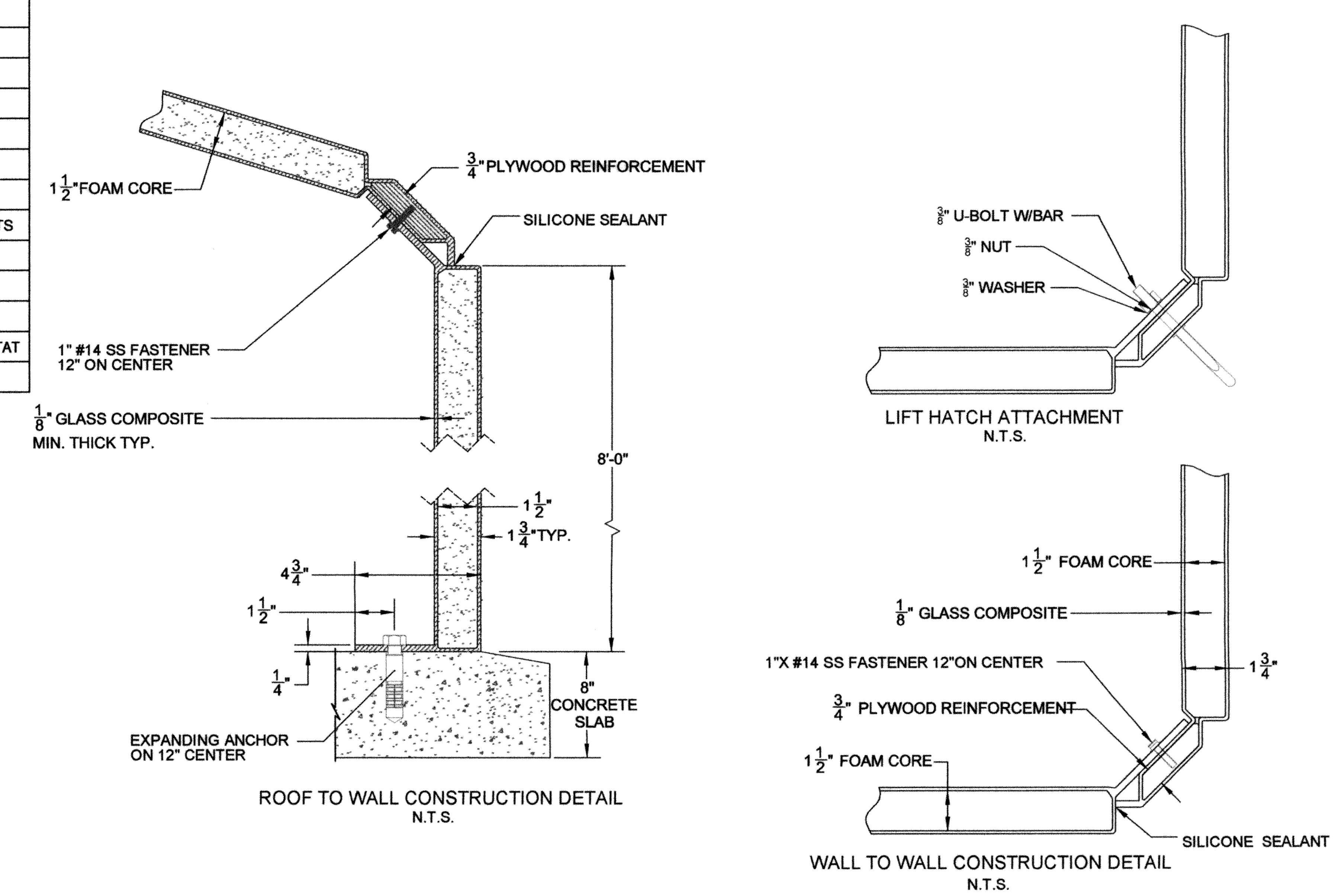
LINK SEAL DETAIL

NO SCALE



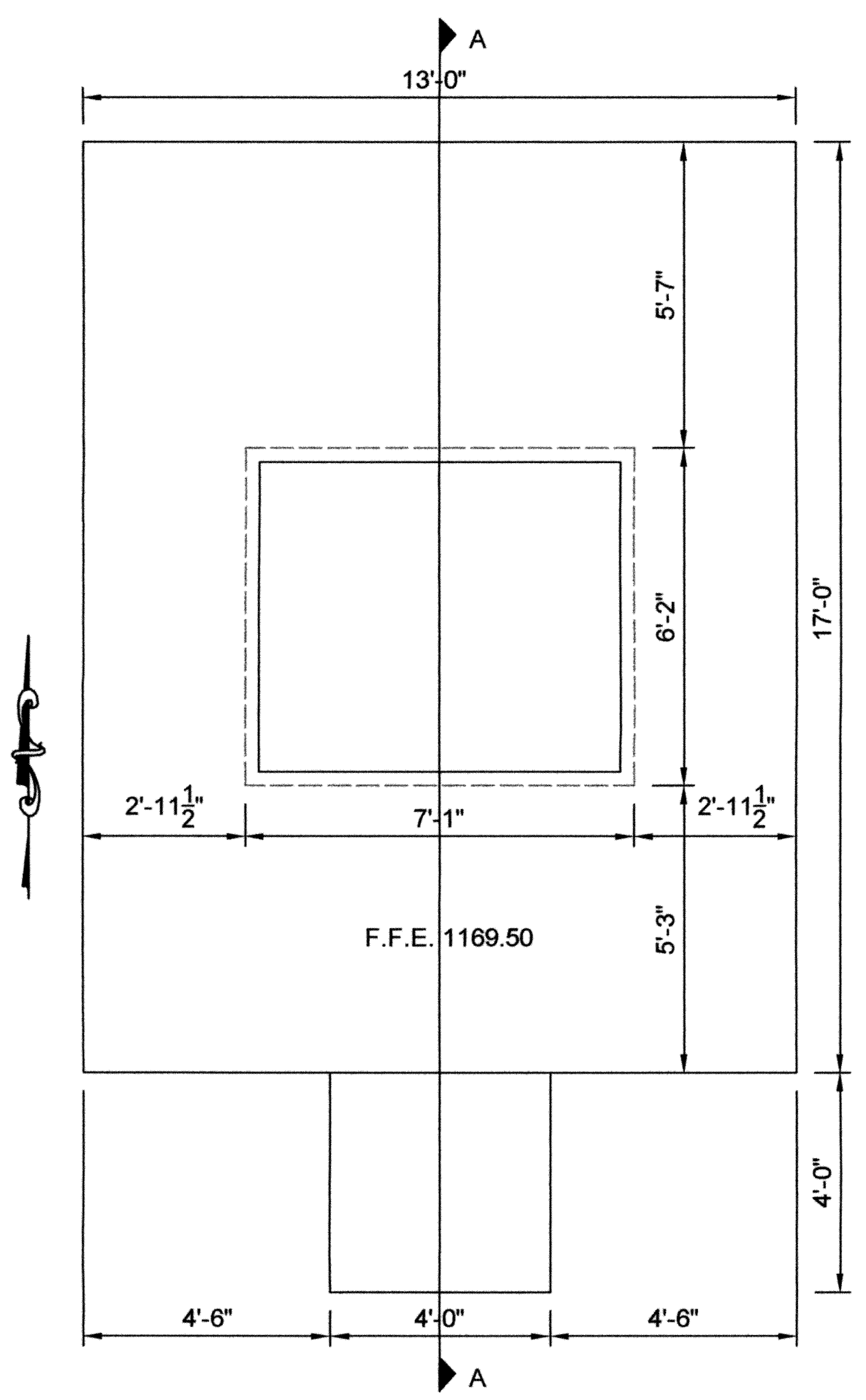
MOUNTING DETAIL

SCALE: NONE



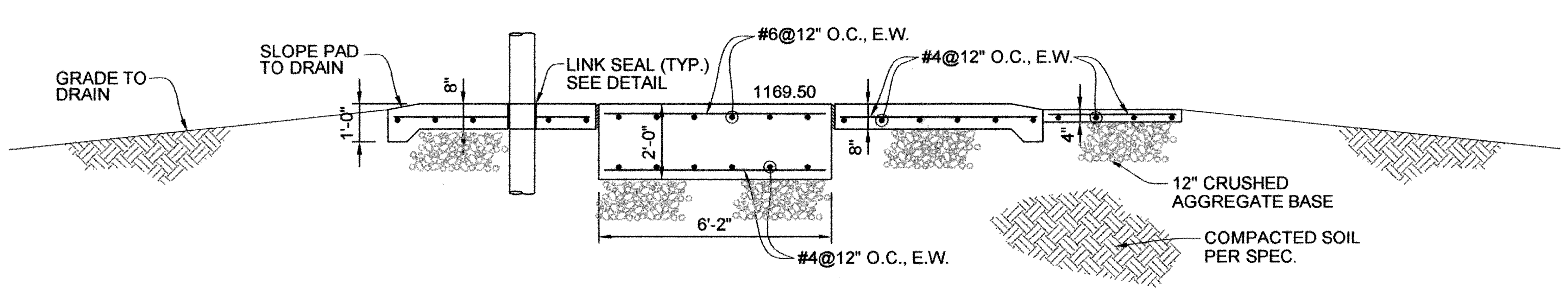
MISCELLANEOUS FRP DETAILS

NO SCALE



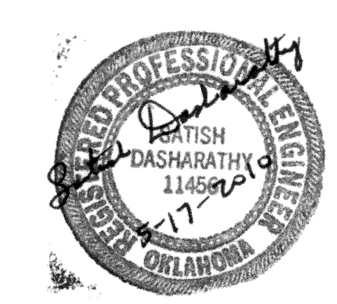
FOUNDATION PLAN

SCALE: 3/8" = 1'-0"



SECTION A–A

SCALE: 3/8" = 1'-0"



REVISIONS:	DATE:

WASTE SLUDGE PUMP STATION BUILDING DETAILS STRUCTURES #52 & #53

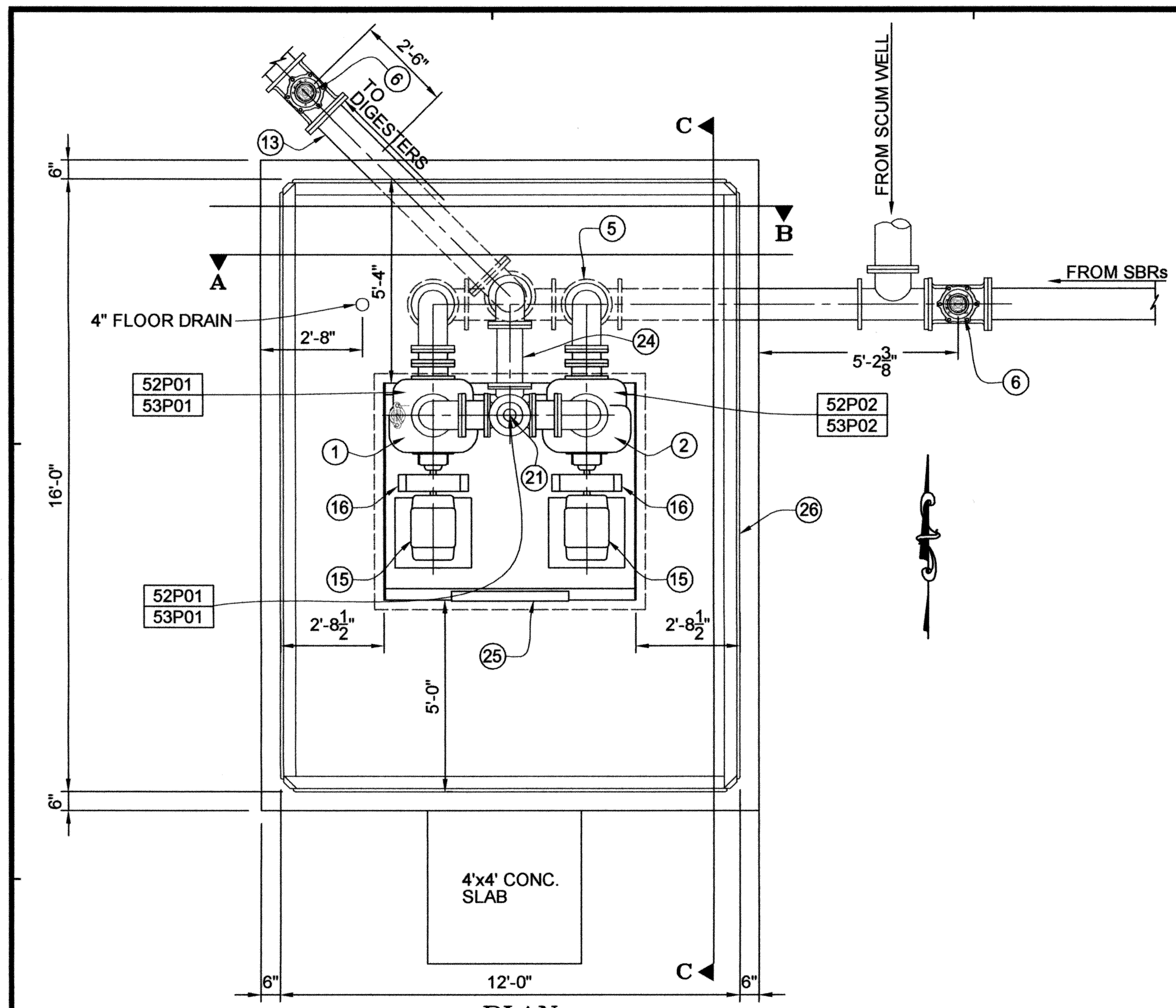
EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

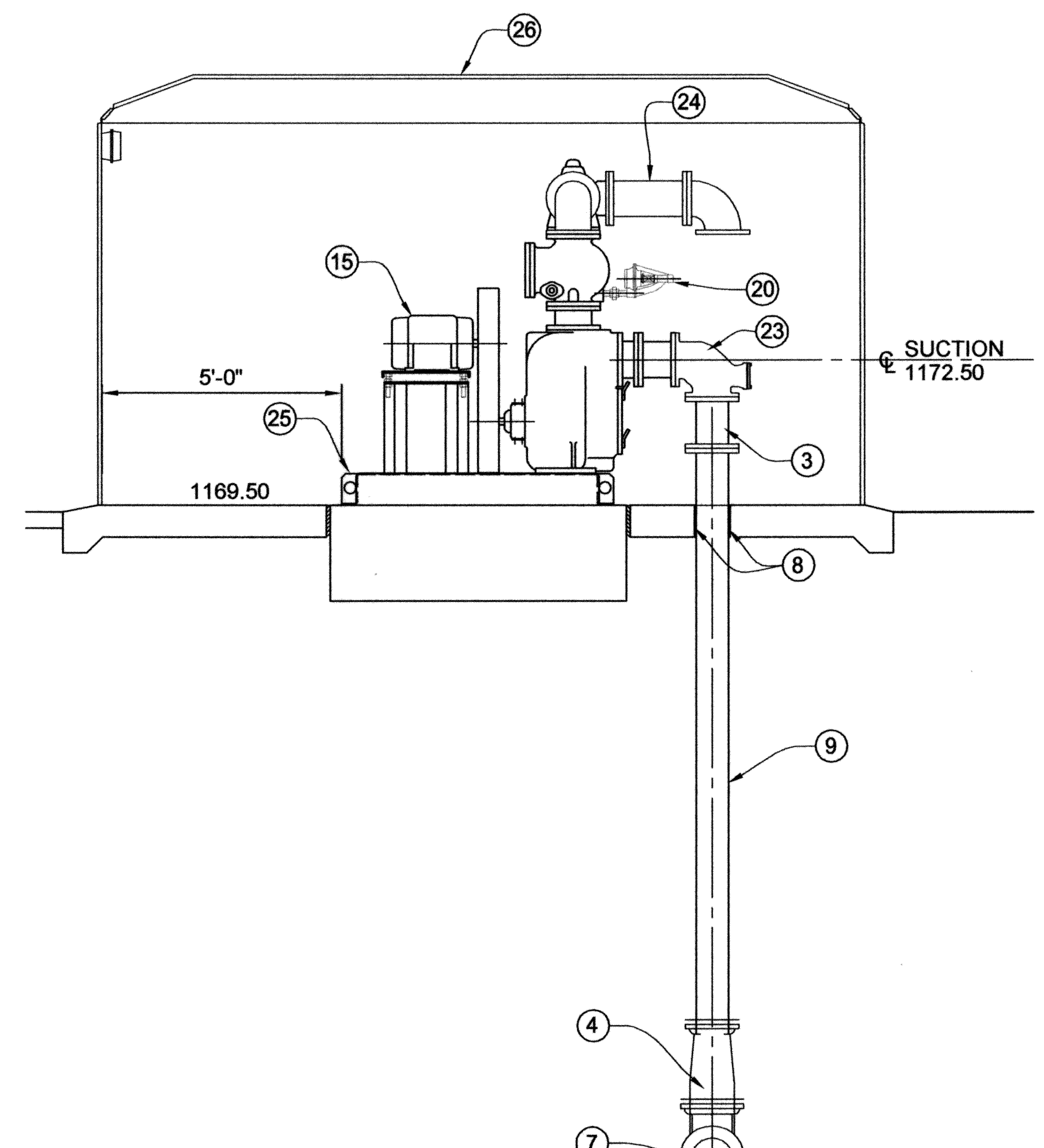
DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	12/19/2009	AS SHOWN	53 OF 95

C:\DRAWINGS\MOORE\WORK\Process\SBR\Sludge Bldg.dwg

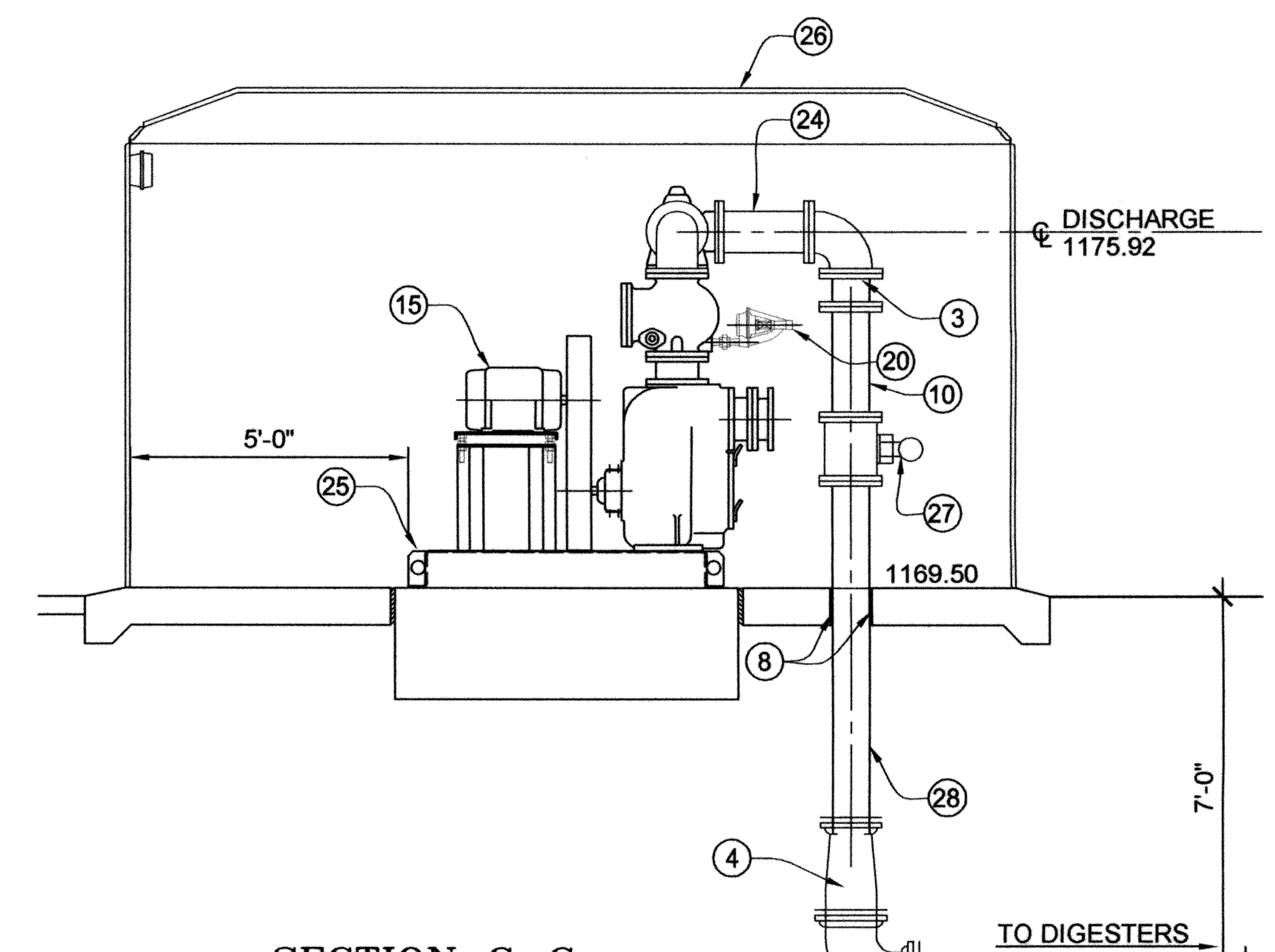
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



PLAN
SCALE: 3/8" = 1'-0"



SECTION C–C@SUCTION
SCALE: 3/8" = 1'-0"



SECTION C–C WITH DISCHARGE
SCALE: 3/8" = 1'-0"

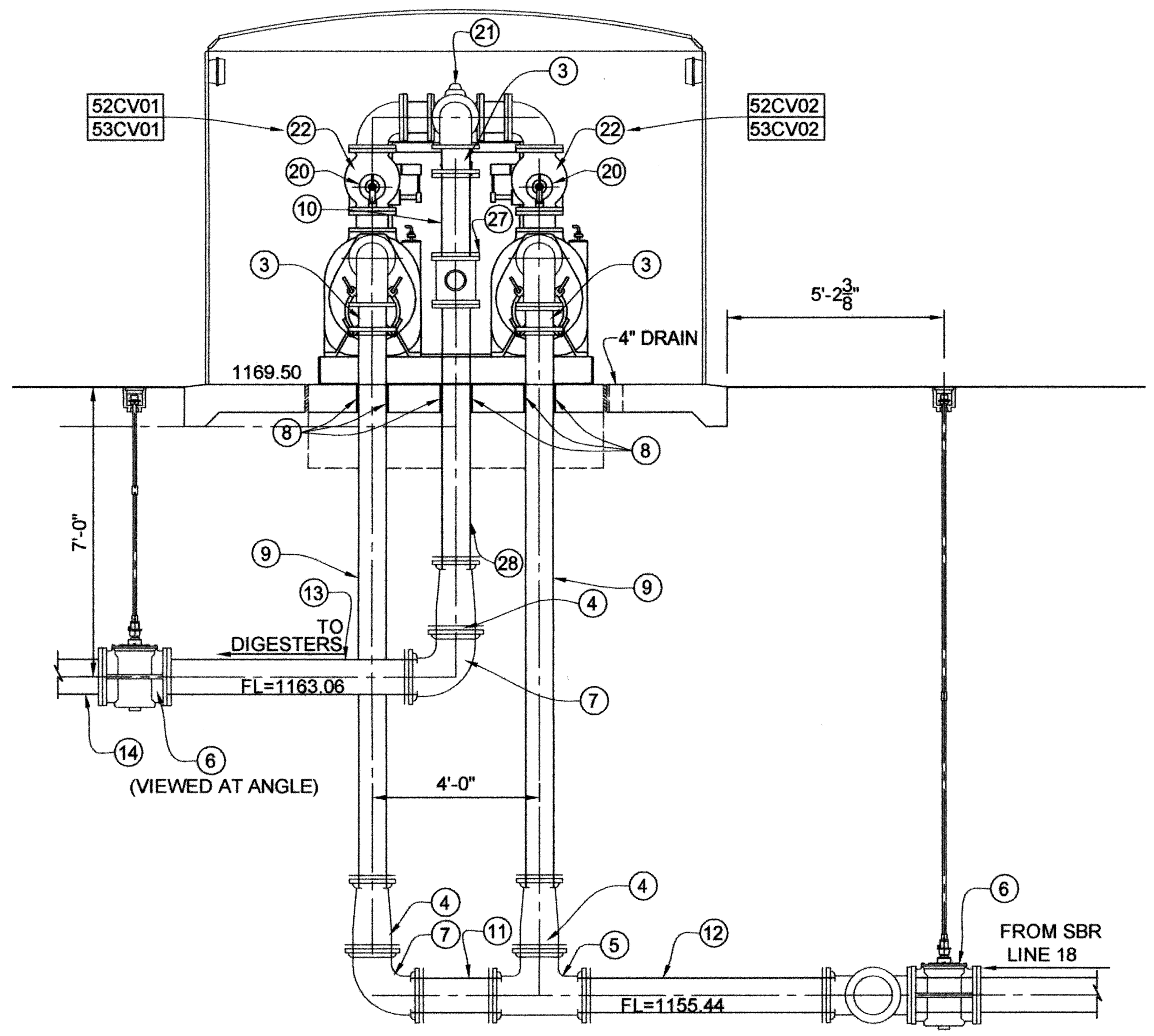
NOTES:
1. SLOPE FLOOR TO DRAIN.

2. ELECTRICAL AND CONTROL CONDUIT WILL BE UNDER THE CONCRETE SLAB. (NO ELECTRICAL EQUIPMENT WILL BE MOUNTED ON THE FIBERGLASS ENCLOSURE.)

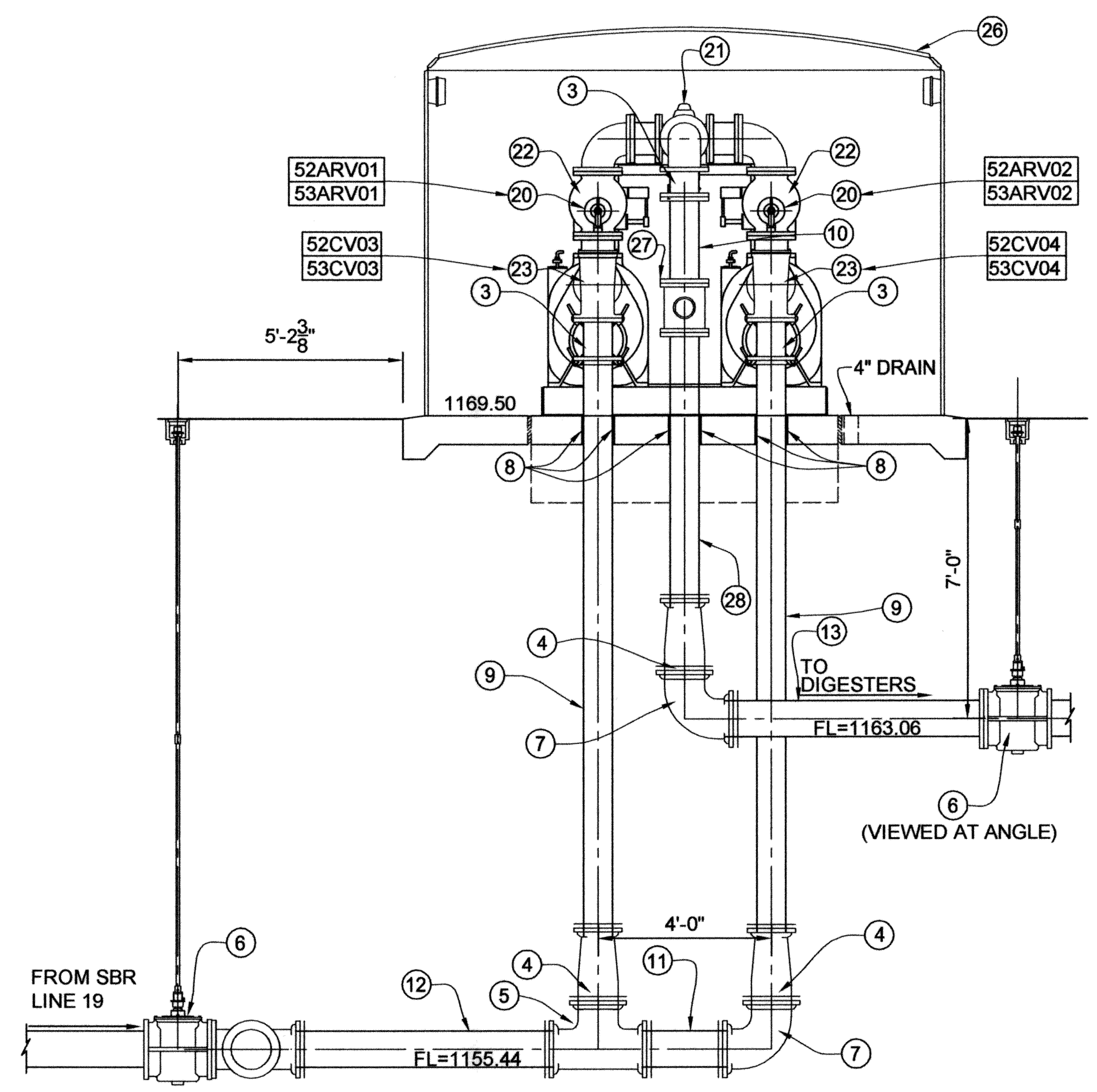
3. ALL FITTINGS FROM THE PLUG VALVES TO THE PUMPS WILL HAVE RESTRAINT GLANDS.

4. 90° BENDS, BOTH SUCTION AND DISCHARGE AT THE PUMPS, SHALL BE TAPPED FOR PRESSURE GAUGES.

5. SEE NEXT DRAWING SHEET FOR SLAB DETAILS.



ELEVATION B (STR. #52)
SCALE: 3/8" = 1'-0"



ELEVATION A (STR. #53)
SCALE: 3/8" = 1'-0"

WASTE SLUDGE PUMP BUILDING EQUIPMENT SCHEDULE

No.	ITEM	Qty. (p/bldg.)	DESCRIPTION	VALVE & PUMP ID
1	PUMP #1	1	T8A3-B; GORMAN-RUPP OR EQUAL	52 P01 & 53 P01
2	PUMP #2	1	T8A3-B; GORMAN-RUPP OR EQUAL	52 P02 & 53 P02
3	8" FLANGE COMPRESSION ADAPTOR	3		
4	10"x8" REDUCER	3	SMALL END MJ	
5	10" MJ TEE	1		
6	10" MJ PLUG VALVE	2	WITH VALVE BOX	
7	10"x90° MJ BEND	2		
8	LINK SEAL W/SLEEVE	3		
9	8" DIP FLGxPE (SUCTION)	2	13'-4"	
10	8" DIP PExPE (DISCHARGE)	1	2'-0"	
11	10" DIP PExPE	1	2'-2"	
12	10" DIP PExPE	1	6'-2"	
13	10" DIP FLGxPE	1	6'-0"	
14	10" DIP FLGxMJ	1	1'-0"	
15	MOTOR	2	CAST IRON	
16	BELT GUARD ASSY	2	STEEL	
17	LEFT BLANK	-	-	
18	LEFT BLANK	-	-	
19	LEFT BLANK	-	-	
20	AIR RELEASE VALVE	2	1" (SITE INSTALL)	52ARV01, 53ARV01, 52ARV02, 53ARV02
21	8" PLUG VALVE	1	3 WAY	52 PV01, 53 PV01
22	8" CHECK VALVE	2		52 CV01, 53 CV01, 52 CV02, 53 CV02
23	8" SWING CHECK VALVE	2	ANGLED BODY	52 CV03, 53 CV03, 52 CV04, 53 CV04
24	8" DIP FLGxFLG	1	1'-7 1/2"	
25	PUMP & MOTOR BASE ASSEMBLY	1	STEEL	
26	12'x16' FIBERGLASS ENCLOSURE	1		
27	8" MAGNETIC METER	1	DISCHARGE	52 FM01, 53 FM01
28	8" DIP FLGxPE (DISCHARGE)	1	6'-3"	

NOTE: THE ABOVE SCHEDULE IS FOR EACH WASTE SLUDGE BUILDING.

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

WASTE SLUDGE PUMP STATION
PIPING DETAILS
STRUCTURES #52 & #53

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CERTIFICATE OF AUTHORIZATION NO. CA2088

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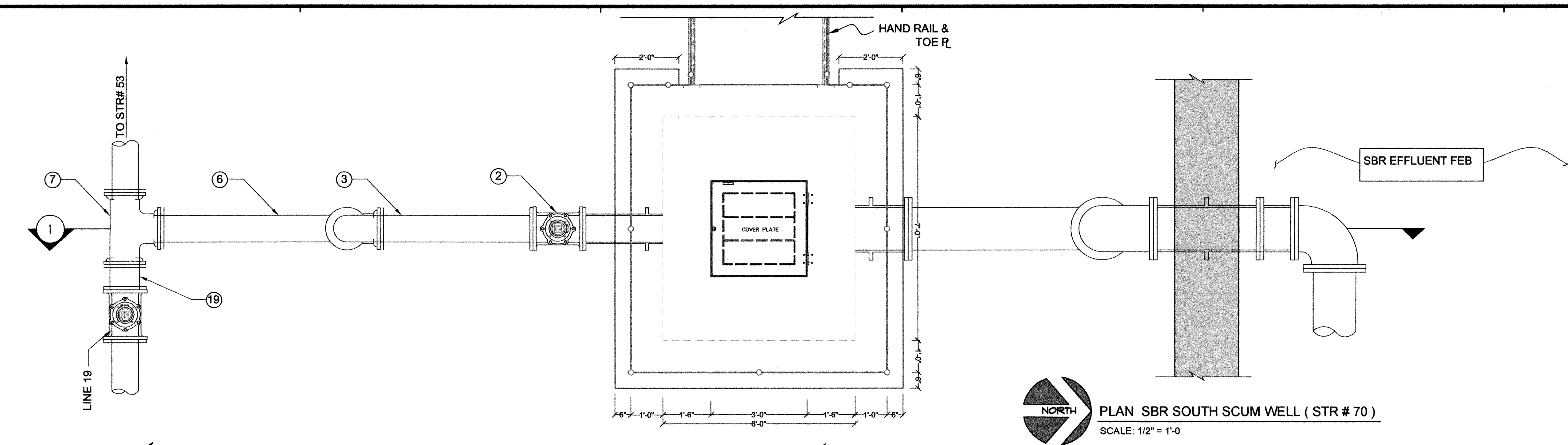
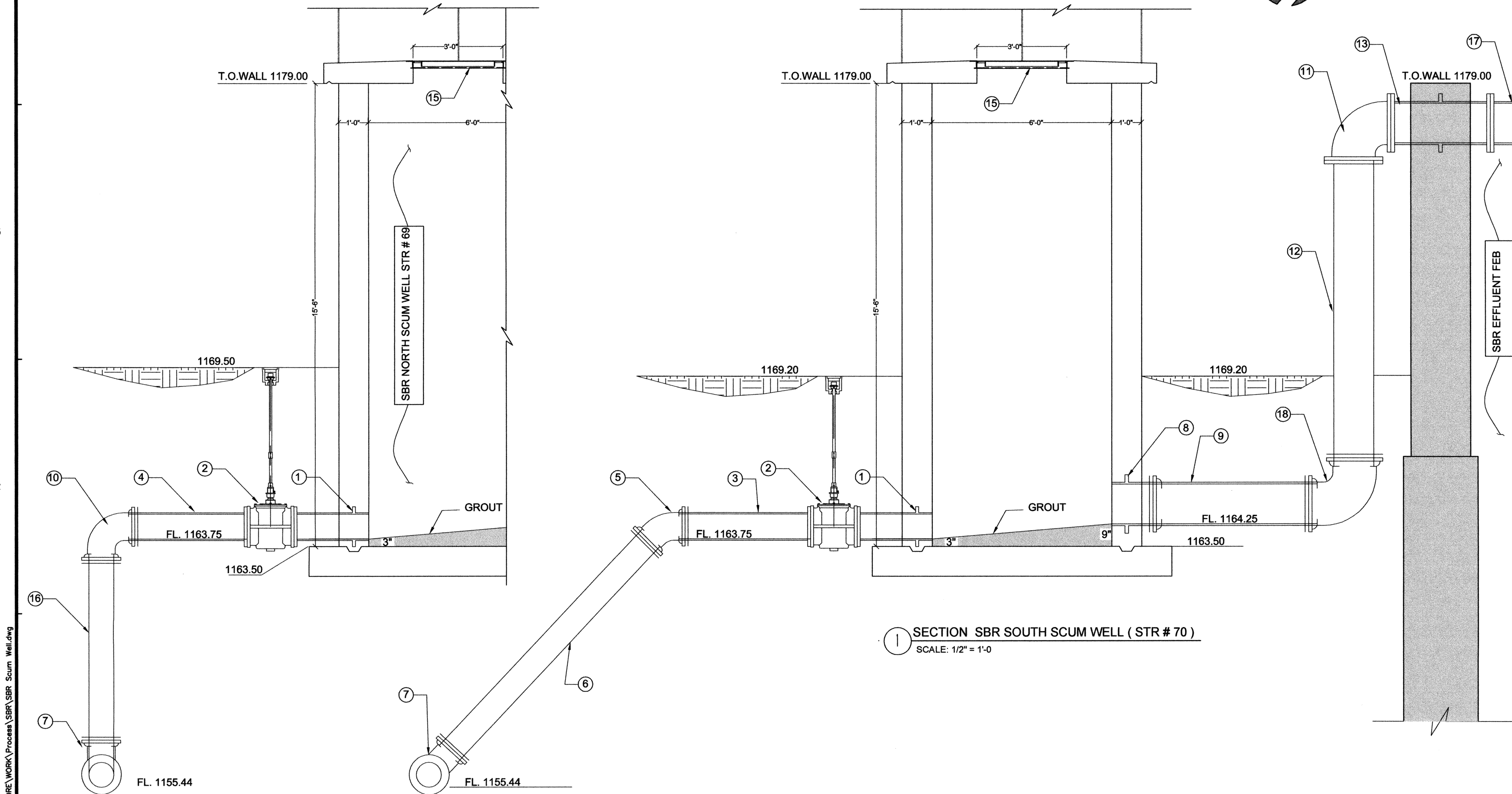
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



PLAN SBR SOUTH SCUM WELL (STR # 70)
SCALE: 1/2" = 1'-0



SECTION SBR NORTH SCUM WELL (STR # 69)
SCALE: 1/2" = 1'-0

SECTION SBR SOUTH SCUM WELL (STR # 70)
SCALE: 1/2" = 1'-0

SBR SCUM WELL SCHEDULE (STR # 69, 70)

No.	ITEM	Qty.	DESCRIPTION
1	10" DIP FLGxPIPE WALL SLEEVE	2	2'-6"
2	10" PLUG VALVE WITH VALVE BOX	2	69PV01, 70PV01
3	10" DIP FLGxPE	1	4'-5" - S. SCUM WELL-STR # 70
4	10" DIP FLGxPE	1	4'-0" - N. SCUM WELL-STR # 69
5	10" x 45° BEND MJ	1	
6	10" DIP PExPE	1	9'-11"
7	10" x TEE MJ	2	
8	16" DIP PExPIPE WALL SLEEVE	2	1'-6"
9	16" DIP MJ	2	5'-2.5"
10	10" x 90° BEND MJ	1	
11	16" x 90° BEND FLGxFLG	2	
12	16" DIP FLGxPE	2	10'-3"
13	16" DIP FLGxFLG WALL SLEEVE	2	3'-4"
14	16" x 90° BEND	2	
15	36"x36" ACCESS DOOR	2	HALLIDAY ACCESS DOOR S1R3636 OR EQUAL
16	16" DIP FLGxFLG	1	6'-5 3/4"
17	16" DIP FLGxFLG	2	1'-1"
18	16" x 90° BEND MJ	2	
19	10" FLGxPE	2	1'-0"

NOTE: 1. SBR SOUTH SCUM WELL STR # 70 AND SECTION OF NORTH SCUM WELL STR # 69 IS SHOWN IN THIS DRAWING.
2. SBR NORTH SCUM WELL (STR # 69) IS SIMILAR .

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SBR SCUM WELL
AT STR # 69, 70

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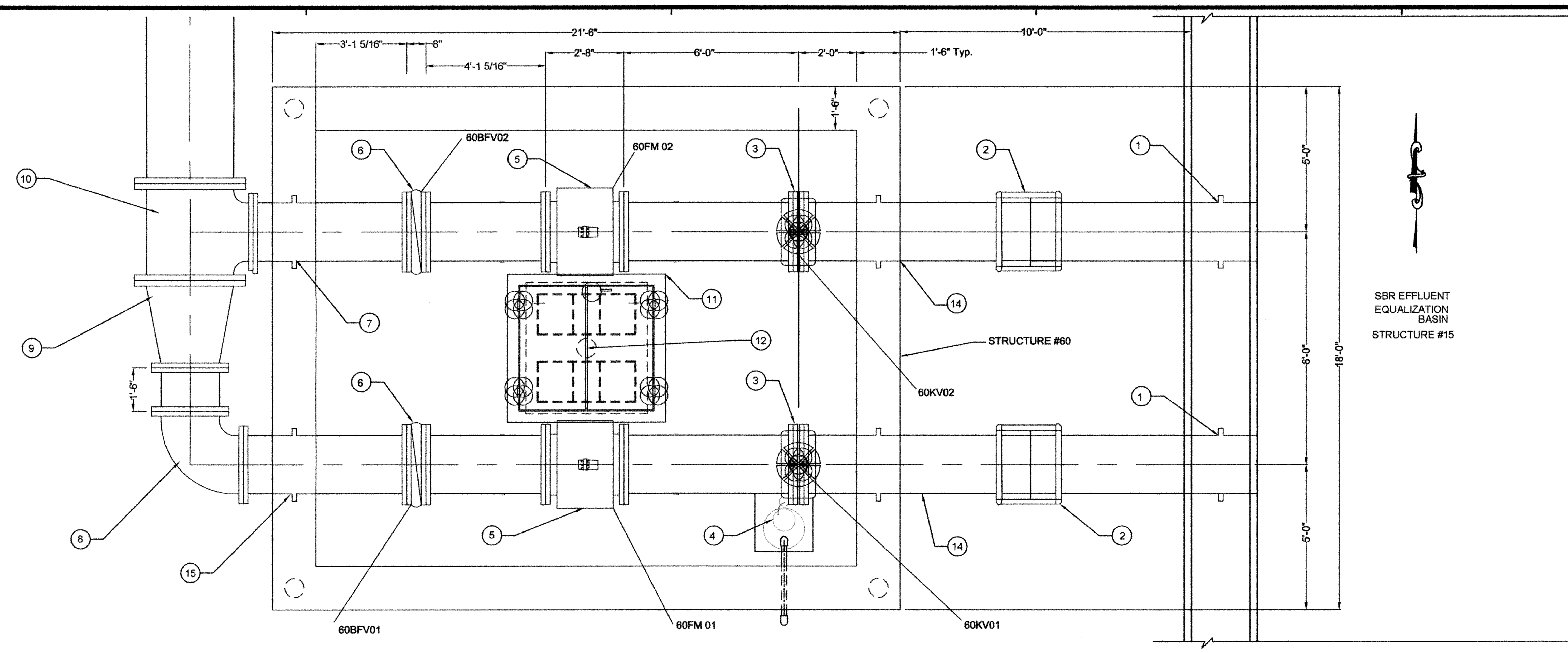
REGISTERED PROFESSIONAL ENGINEER
SARATHY
11456
OKLAHOMA
7-16-2010

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



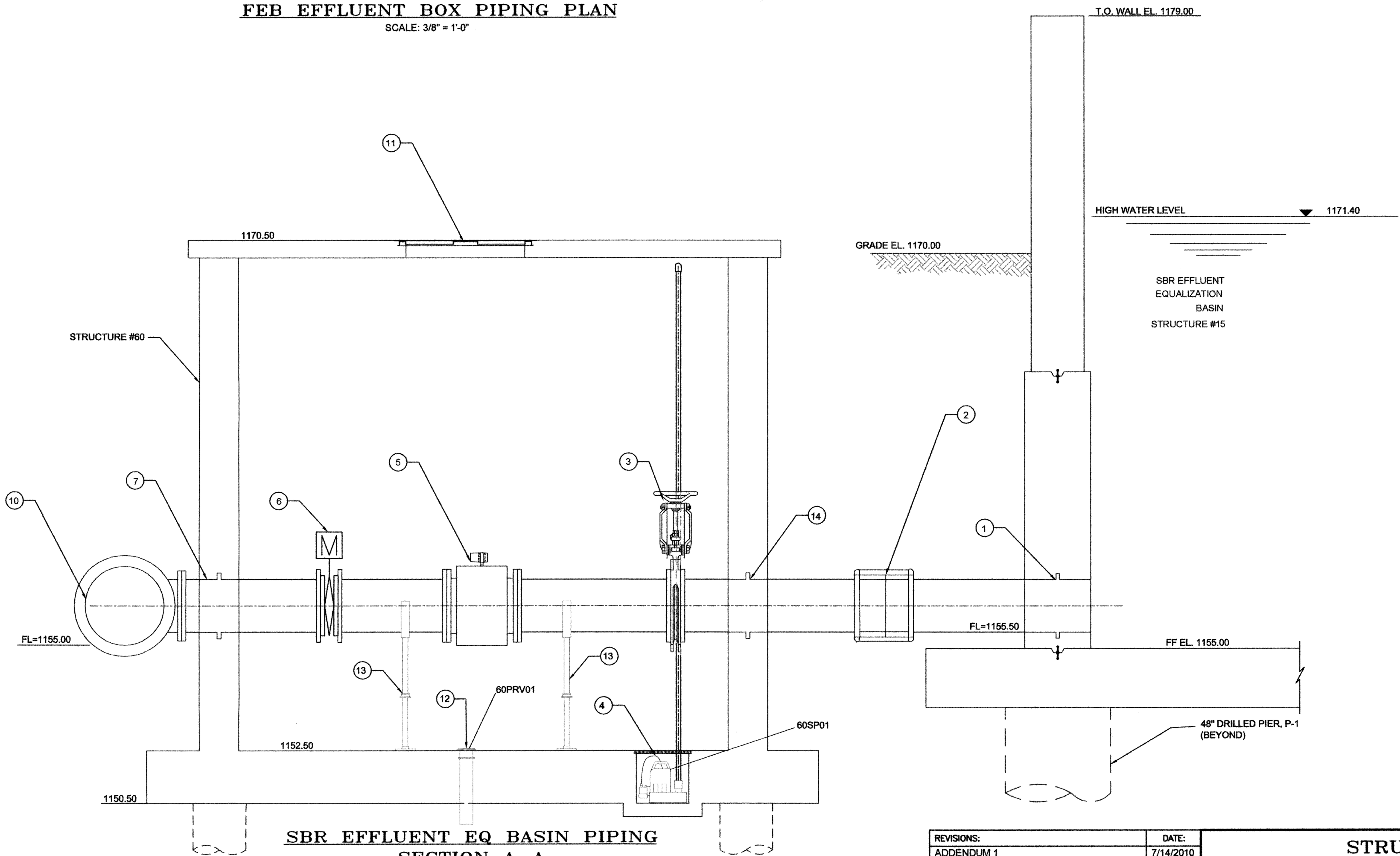
FEB EFFLUENT BOX PIPING PLAN

SCALE: 3/8" = 1'-0"

SBR FEB EFFLUENT BOX SCHEDULE			
No.	ITEM	Qty.	DESCRIPTION
1	24" DIP PExPE WALL SLEEVE	2	7'-9"
2	24" SOLID SLEEVE	2	2'-2"
3	24" GKU KNIFE VALVE W/ MANUAL	2	4.5"
4	SUMP PUMP	1	
5	24" MAG METER	2	2 -8"
6	24" MOTORIZED BUTTERFLY VALVE	2	8"
7	24" FLGxFLG WALL SLEEVE	1	5'-3"
8	24"x90° BEND - (FLGxFLG)	1	
9	36"x 24" REDUCER - (FLGxFLG)	1	
10	36"x 24" TEE - (FLGxFLGxFLG)	1	
11	HALLIDAY S2R5448 ACCESS COVER OR EQUAL	1	
12	PRESSURE RELIEF VALVE WATERMAN FLR MODEL PRF - 14 (6") (OR EQUAL)	1	
13	PIPE SUPPORTS	2	
14	24" DIP FLGxPE WALL SLEEVE	2	7'-9"
15	24" DIP FLGxFLG WALL SLEEVE	1	5'-7"

SBR FLOW EQUALIZATION EFFLUENT BOX VALVE SCHEDULE					
VALVE ID	60KV01	60KV02	60BFV01	60BFV02	60PRV01
TYPE	KNIFE	KNIFE	BUTTERFLY	BUTTERFLY	PRESSURE RELIEF
SIZE	24"	24"	24"	24"	6"
OPERATOR	MANUAL HANDWHEEL	MANUAL HANDWHEEL	AUTOMATIC	AUTOMATIC	-
INVERT ELEV.	1157.00	1157.00	1157.00	1157.00	1152.50

SBR FLOW EQUALIZATION EFFLUENT BOX EQUIPMENT SCHEDULE			
EQUIPMENT ID	60FM01	60FM02	60SP01
TYPE	MAG METER	MAG METER	SUMP PUMP
SIZE	24"	24"	MIN. 0.25 HP
ELEVATION	1157.00	1157.00	1150.50
MISCELLANEOUS	REMOTE READOUT	REMOTE READOUT	AUTO LEVEL CONTROL



SBR EFFLUENT EQ BASIN PIPING

SECTION A–A

SCALE: 3/8" = 1'-0"

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STRUCTURE #60

FEB EFFLUENT BOX PIPING

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SATISH DASHARATHY 11456 OKLAHOMA
7-16-2010

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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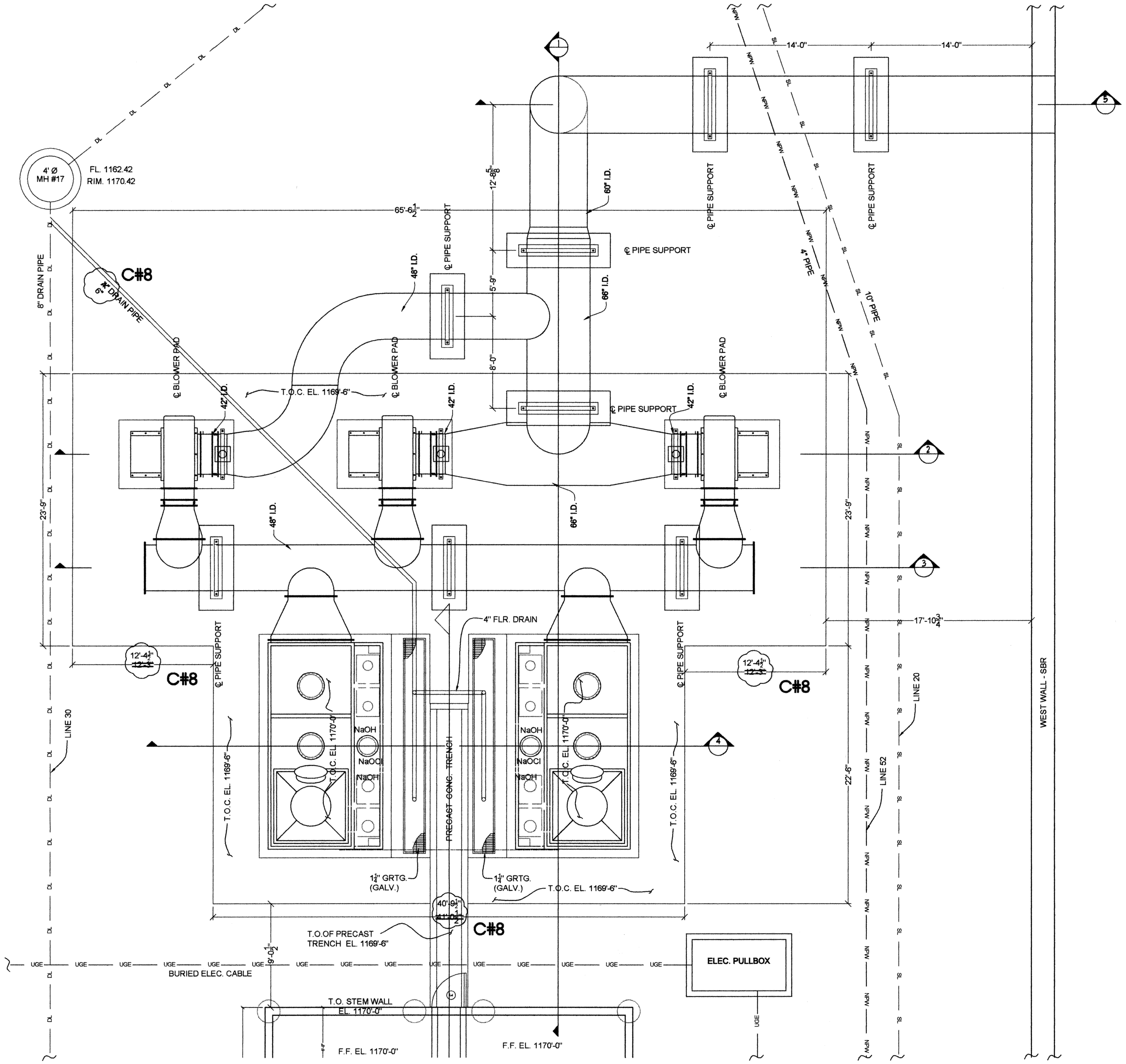

SBR ODOR CONTROL UNIT – PLAN VIEW

SCALE: 3/16" = 1'-0"

NORTH

REVISIONS:	DATE:
C#8 – CLARIFICATION NO. 8	2/25/2011

SBR ODOR CONTROL SITE PLAN

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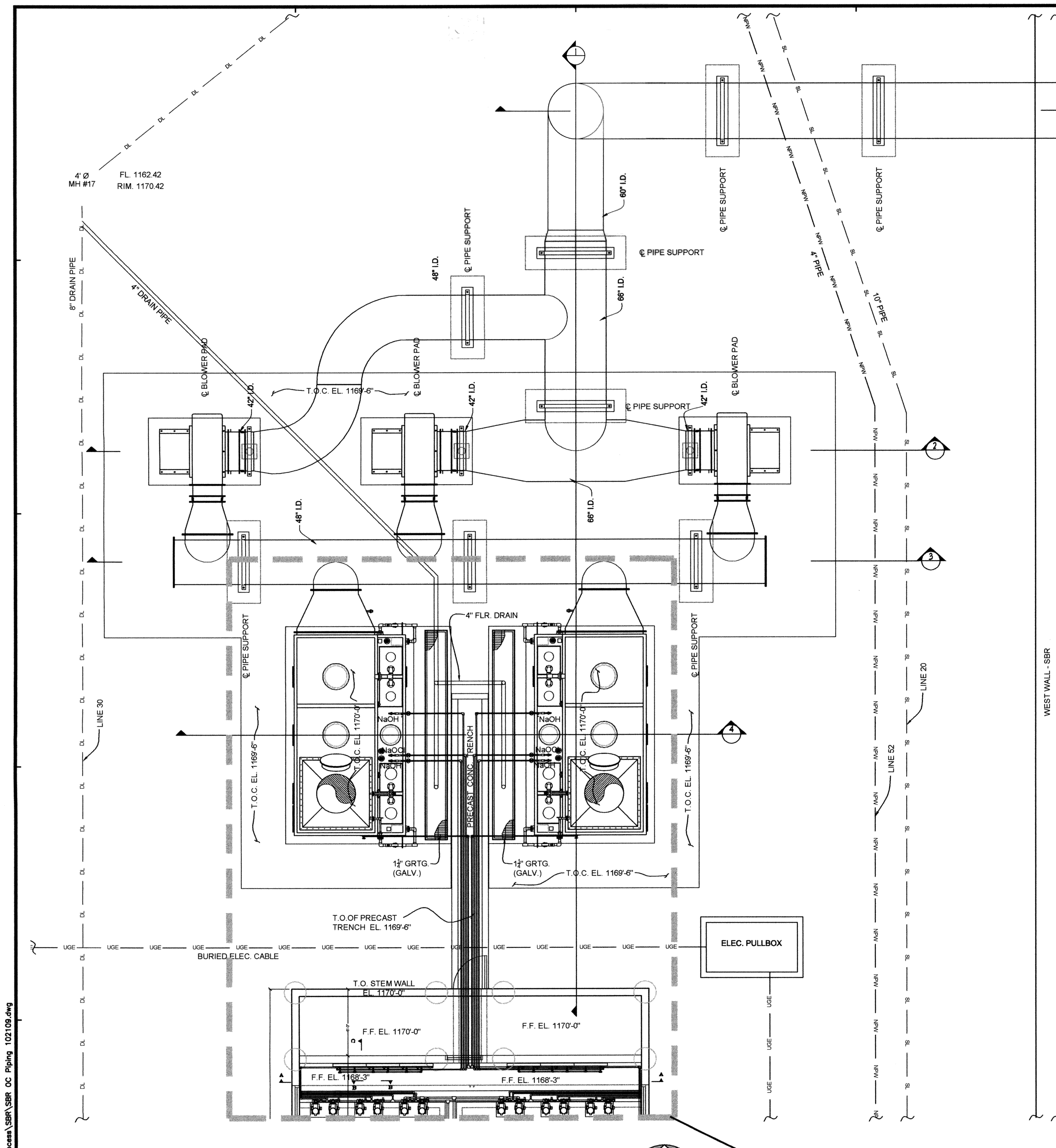
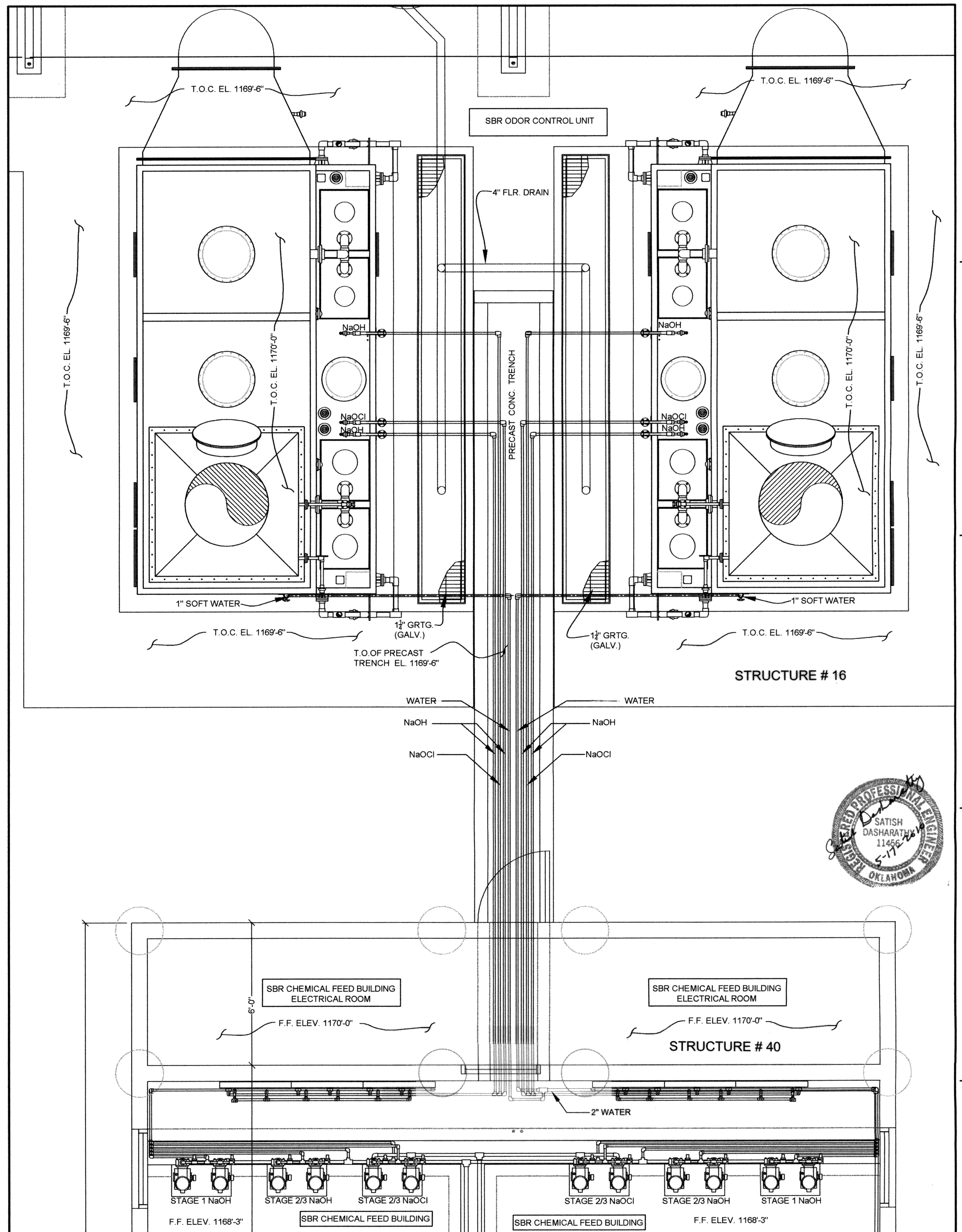
SATISH DASHARATHY 11466 2-27-11 OKLAHOMA

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SBR ODOR CONTROL UNIT – PLAN VIEW
SCALE: 3/16" = 1'-0"



SBR ODOR CONTROL UNIT – ENLARGED PLAN VIEW
SCALE: 3/16" = 1'-0"

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SBR ODOR CONTROL
SITE PLAN

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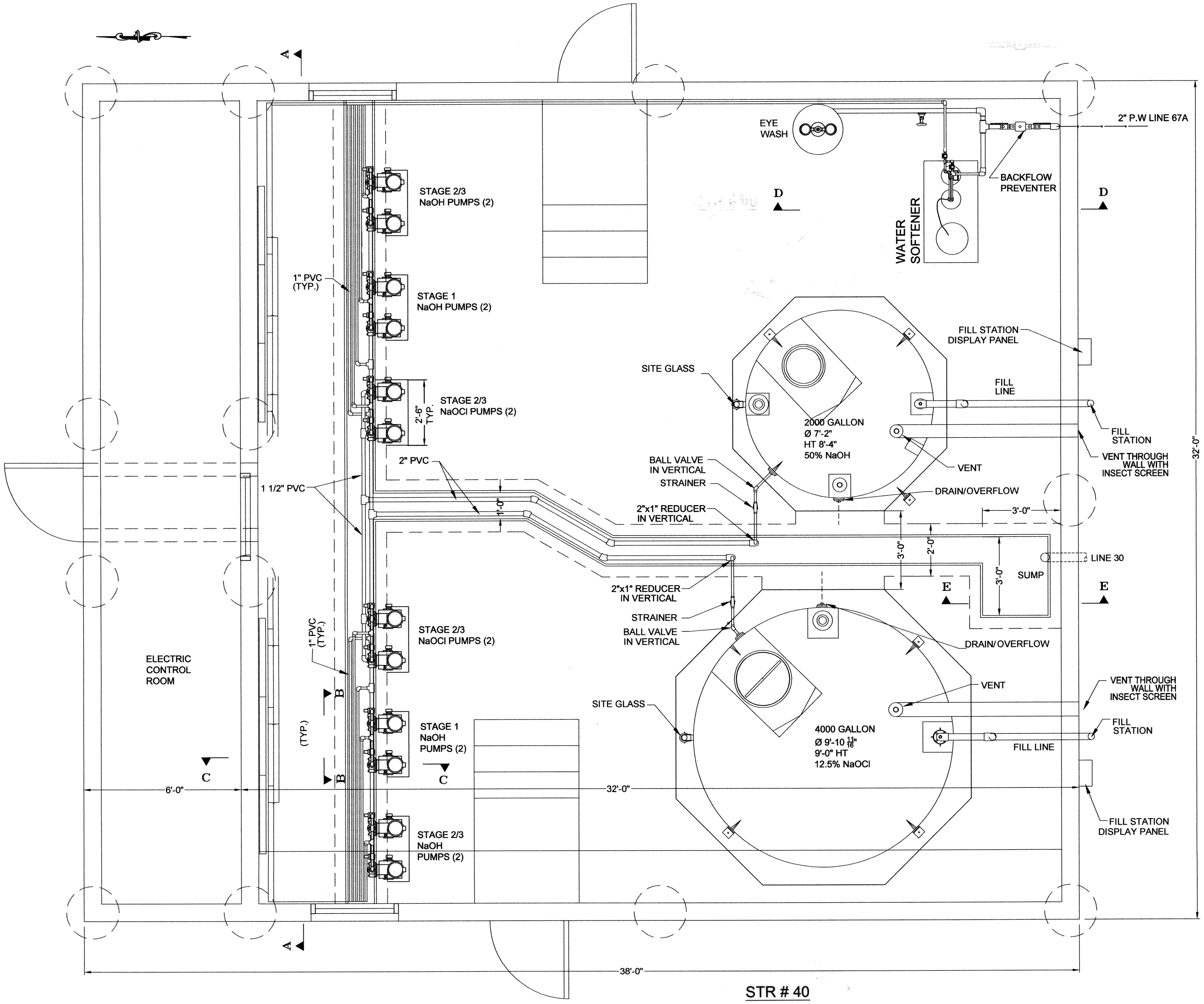
REGISTERED PROFESSIONAL ENGINEER SATISH DASHARATHY 11456 OKLAHOMA 5-17-2010

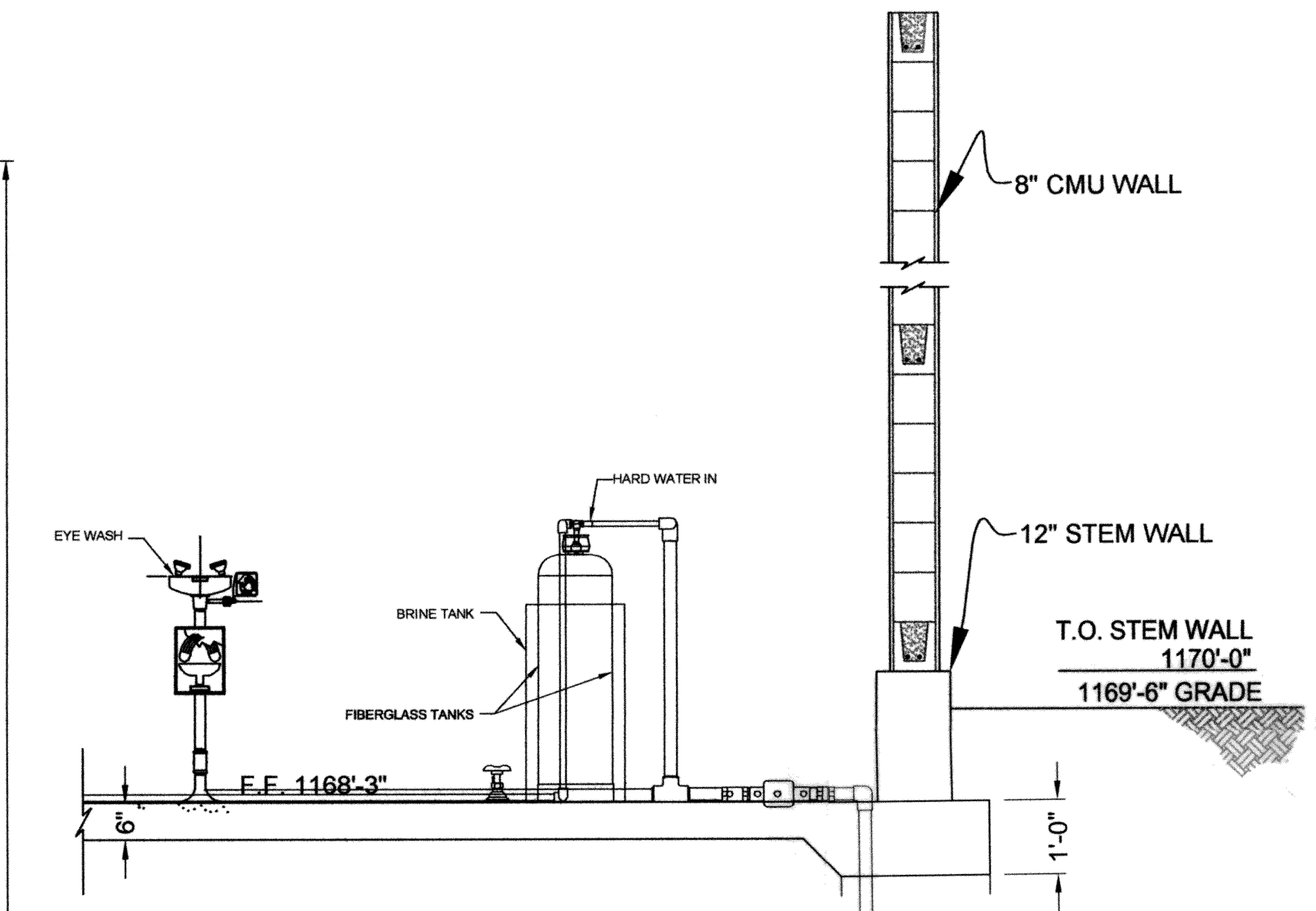
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



STR # 40

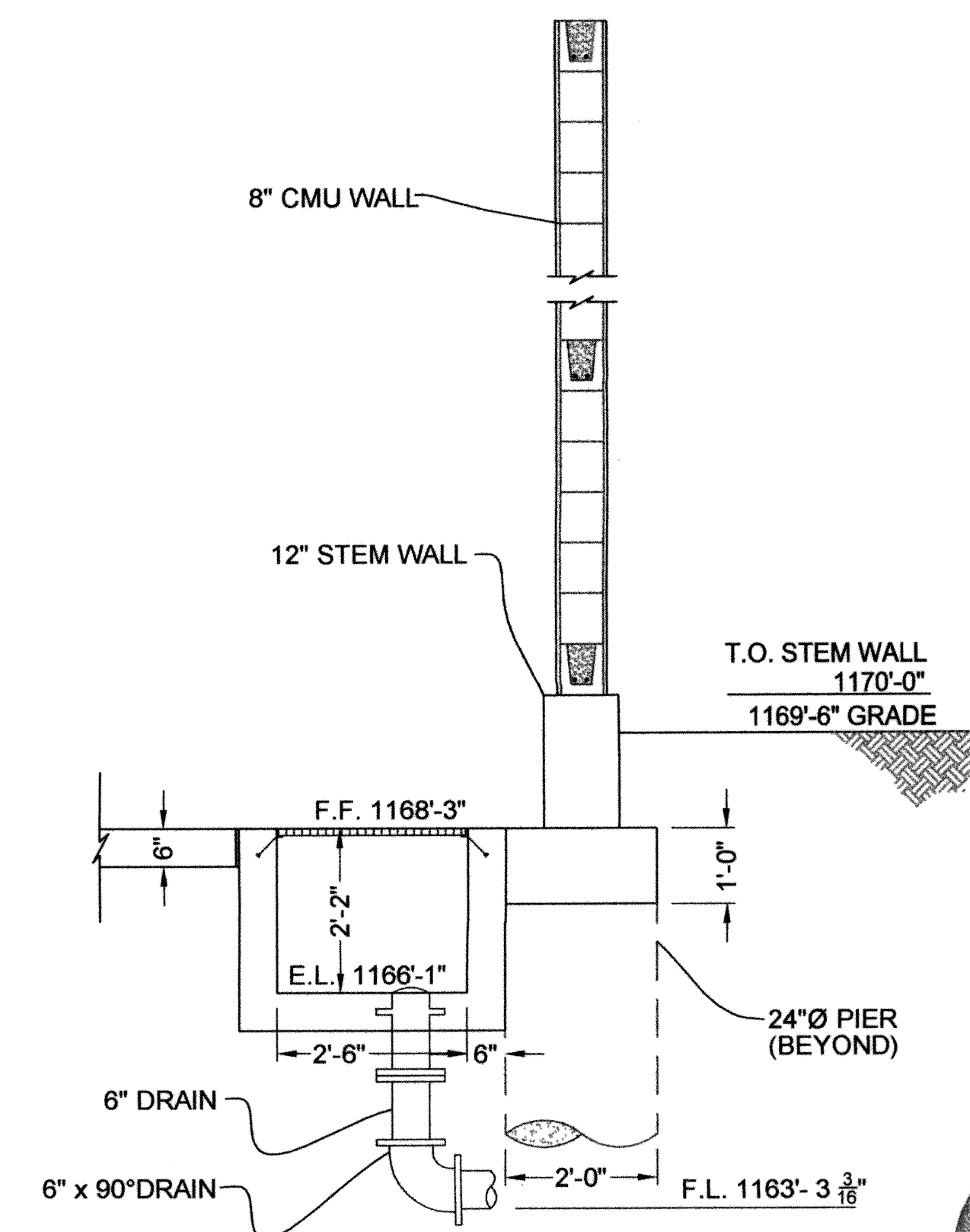
CHEMICAL FEED BUIDLING PLAN

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



SECTION DD

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



SECTION EE

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

SATISH DASHARATHY 11456 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER 5-17-2010

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SBR
CHEMICAL FEED BUILDING
DETAILS

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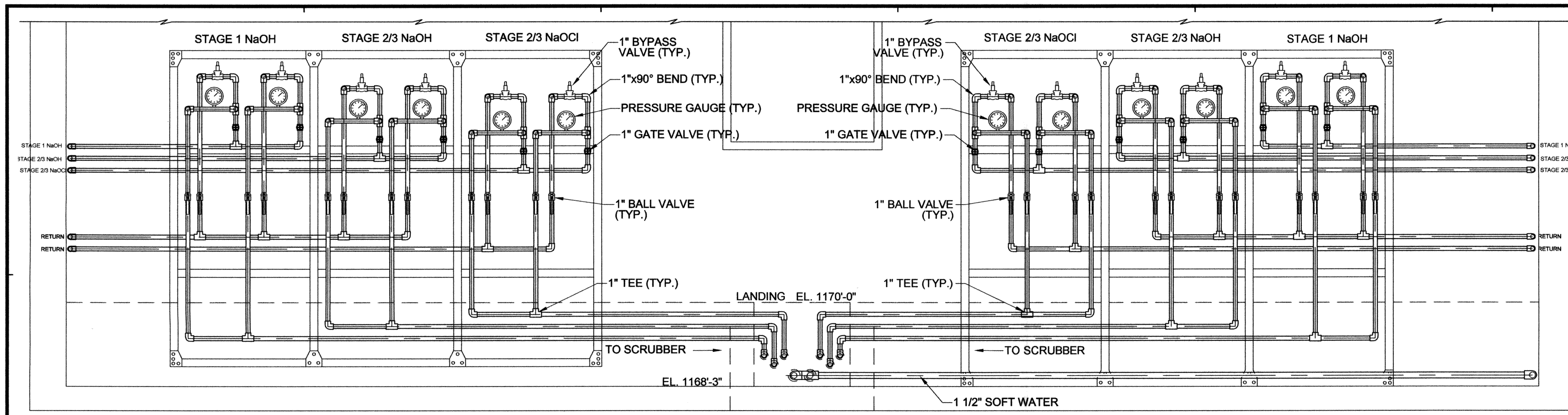
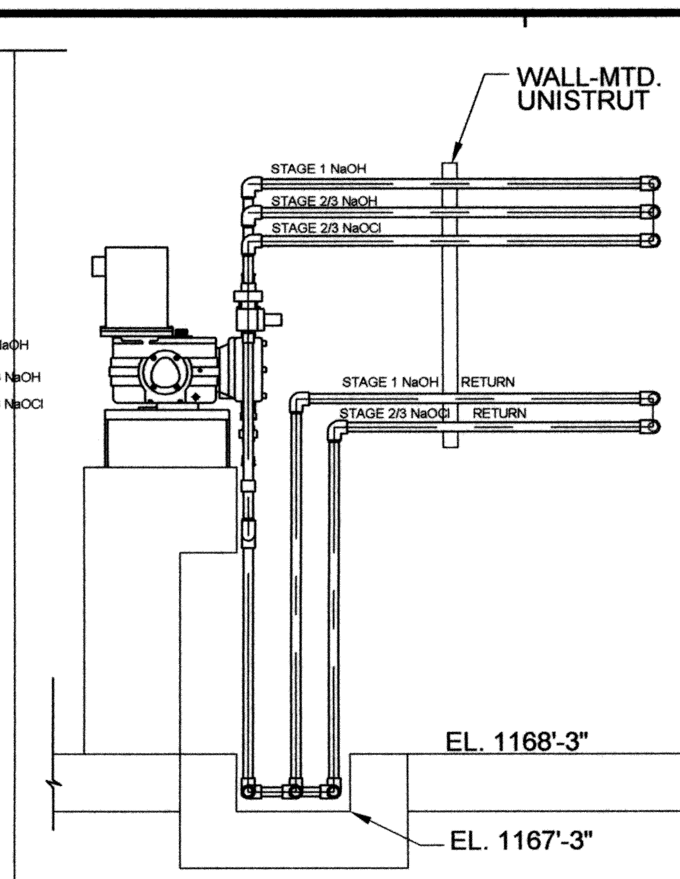
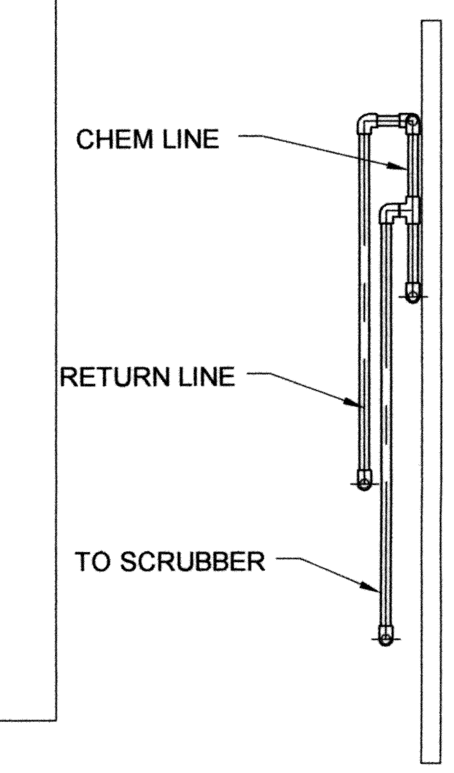
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



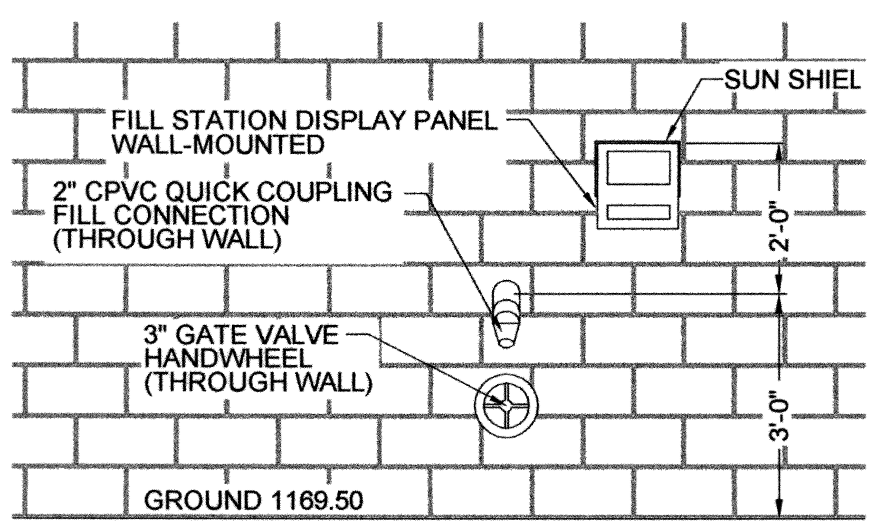
CHEMICAL FEED BUIDLING
ELEVATION A–A
SCALE: 3/4" = 1'-0"



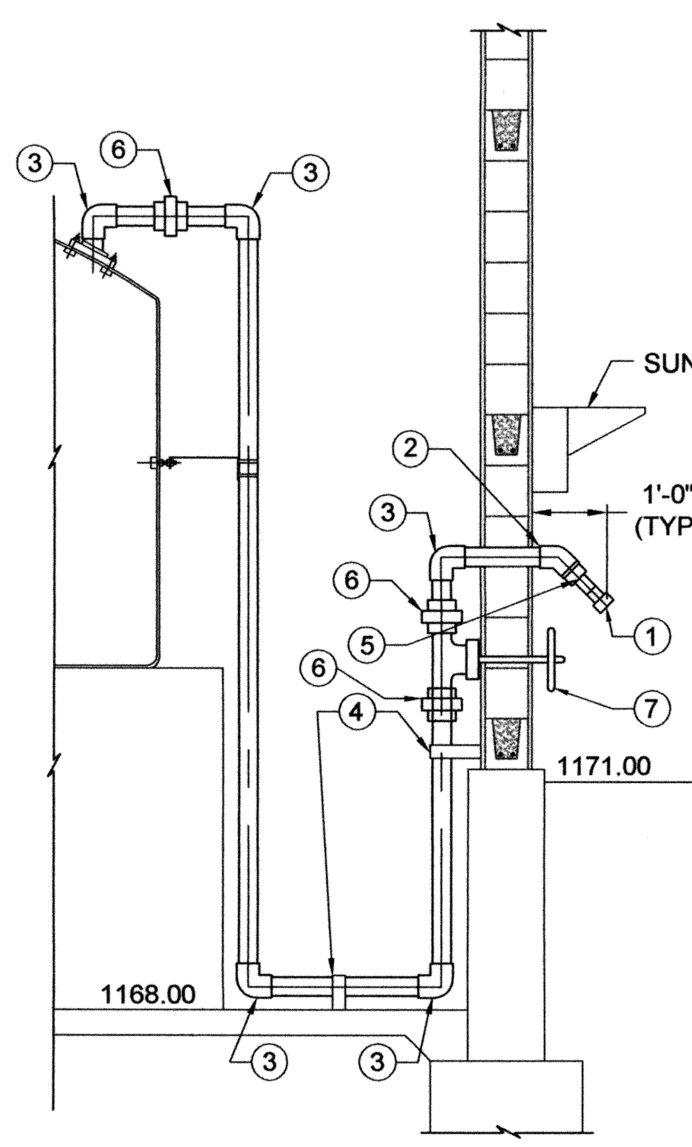
CHEMICAL FEED BUIDLING
ELEVATION C–C
SCALE: 3/4" = 1'-0"



SIDE VIEW
SCALE: 3/4" = 1'-0"

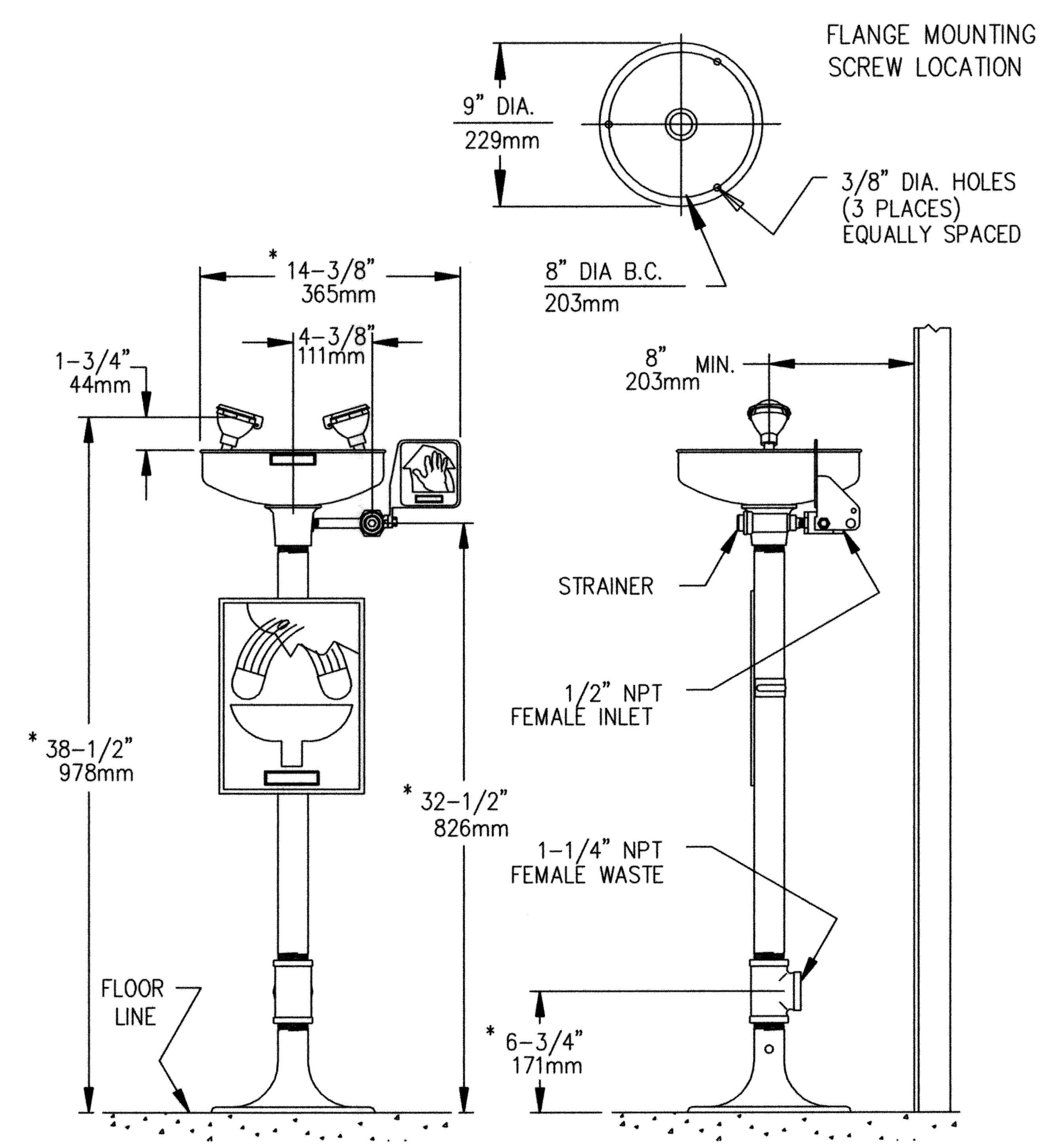


FILL STATION
ELEVATION
SCALE: 1/2" = 1'-0"



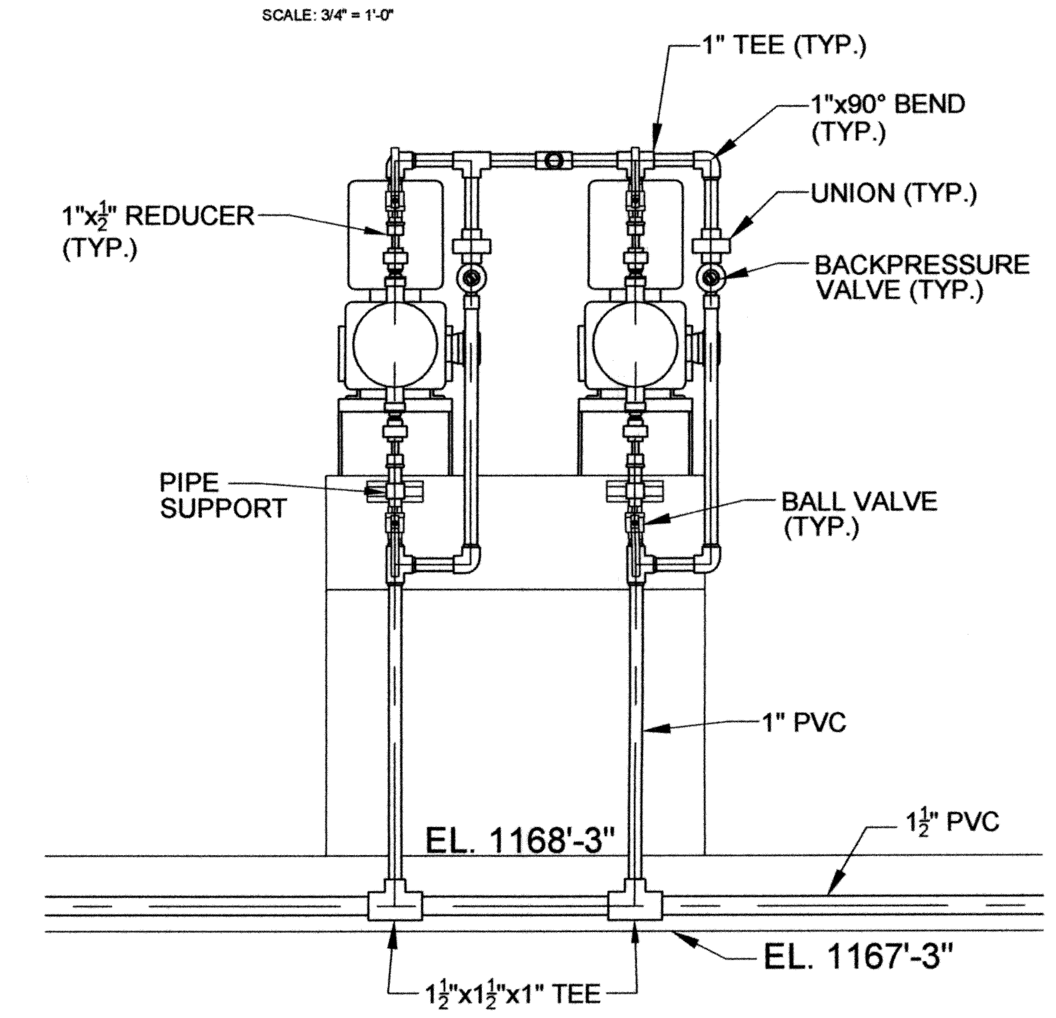
1. 2" QUICK DISCONNECT COUPLING FILL CONNECTION
2. 3" CPVC 45° BEND
3. 3" CPVC 90° BEND
4. PIPE SUPPORT
5. 3"x2" CPVC REDUCER
6. 3" CPVC UNION
7. 3" GATE VALVE

FILL ASSEMBLY
SECTION
SCALE: 1/2" = 1'-0"

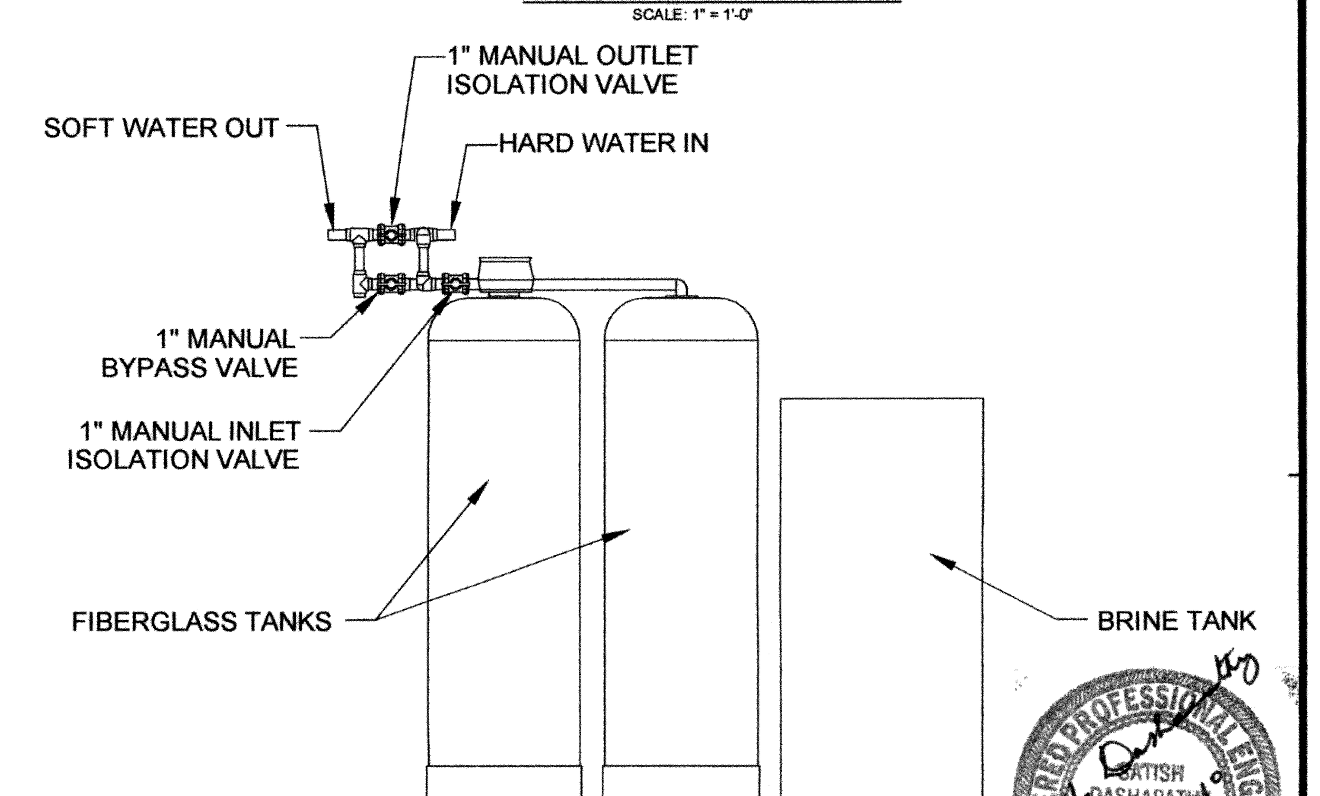


- FLOOR MOUNTED PEDESTAL EYE/FACE WASH
- STAINLESS STEEL RECEPTOR
- DUAL HIGH IMPACT ABS PLASTIC SPRAY HEADS IN HIGH VISIBILITY YELLOW
- INTEGRAL DUST COVERS FOR SPRAY HEADS THAT RELEASE WHEN VALVE IS ACTIVATED
- PUSH–TO–ACTIVATE BALL VALVE THAT STAYS OPEN UNTIL MANUALLY CLOSED
- HIGH VISIBILITY EMERGENCY SIGN (NOT SHOWN)
- MEETS ANSI STANDARD Z358.1
- FINISH: NO FINISH

EYE WASH DETAIL
NO SCALE



CHEMICAL FEED BUIDLING
ELEVATION B–B
SCALE: 1" = 1'-0"



WATER SOFTENER
DETAIL
NO SCALE

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SBR CHEMICAL FEED
BUILDING PIPING DETAILS

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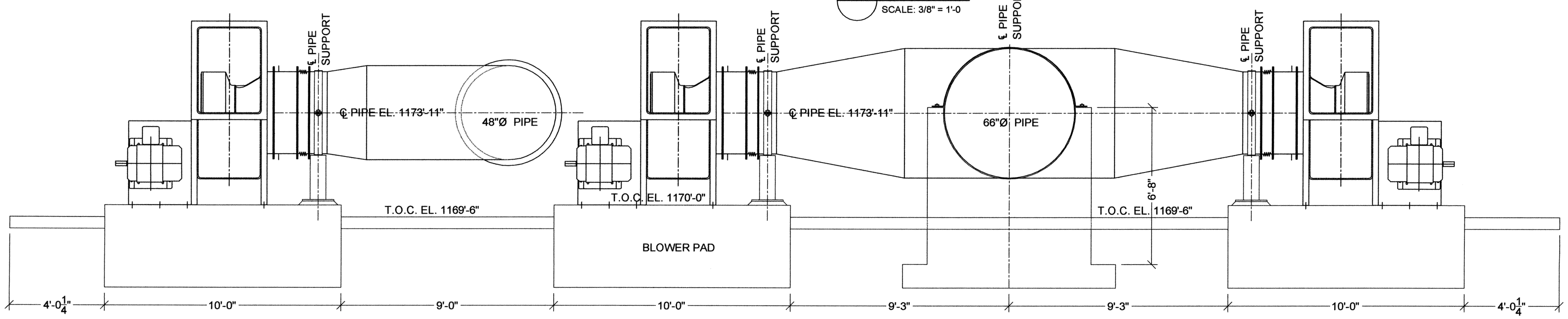
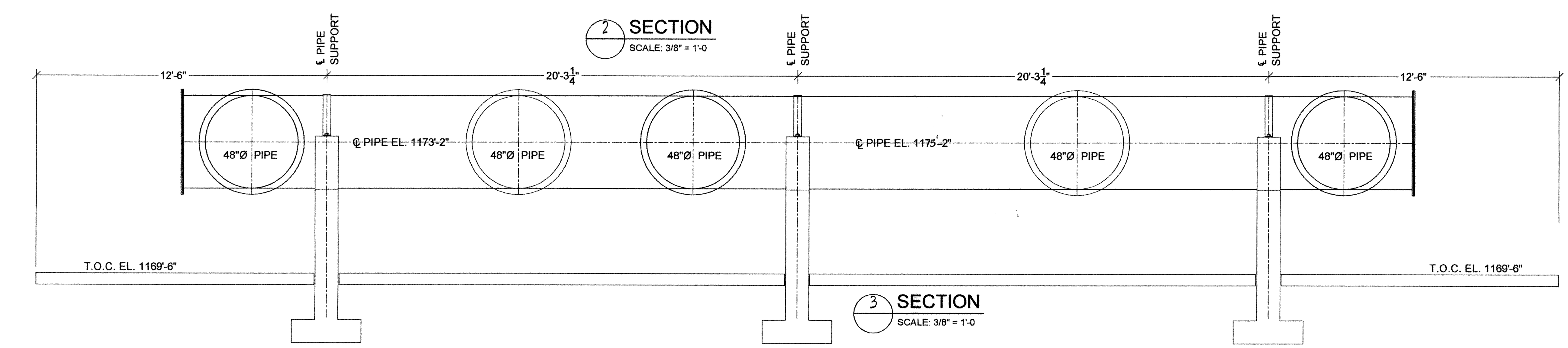
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

SECTION 1
SCALE: 3/8" = 1'-0



SECTION 2
SCALE: 3/8" = 1'-0



SECTION 3
SCALE: 3/8" = 1'-0

LEGEND

1. INLET TRANSITION
2. FAN OUTLET FLEXIBLE CONNECTOR
3. SYSTEM FRP INLET TRANSITION
4. INLET AIR SAMPLE
5. 18" DIA. SUMP ACCESS
6. STAGE 1 DRAIN/OVERFLOW
7. STAGE 1 pH PROBE
8. STAGE 1 SUMP LOW LEVEL SWITCH
9. STAGE 1 RECIRCULATION PUMP
10. STAGE 1 NaOH CONNECTION
11. GROUNDING CONNECTION
12. STAGE 2/3 DRAIN/OVERFLOW
13. STAGE 2/3 pH PROBE
14. STAGE 2/3 ORP PROBE
15. STAGE 2/3 SUMP LOW LEVEL SWITCH
16. STAGE 2/3 RECIRCULATION PUMP
17. STAGE 2/3 NaOH CONNECTION
18. STAGE 2/3 NaOCl CONNECTION
19. MAKEUP WATER CONNECTION
20. PRESSURE GAUGES
21. DIFFERENTIAL PRESSURE GAUGES
22. OUTLET AIR SAMPLE
23. (NOT USED)
24. 24" DIA ACCESS
25. SYSTEM MIST ELIMINATOR (INTERNAL)
26. M.E. WASHDOWN
27. 30" DIA NOZZLE M.E. ACCESS
28. EXHAUST STACK
29. 18" DIA ACCESS
30. ANCHOR LUGS (4)
31. (NOT USED)
32. VESSEL I.D. TAG
33. VESSEL CAUTION TAG
34. NFPA TAG
35. 42" DIA OUTLET

SATISH DASHARATH 11456 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER 5-19-10

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SBR ODOR CONTROL SECTIONS AT 1, 2 AND 3

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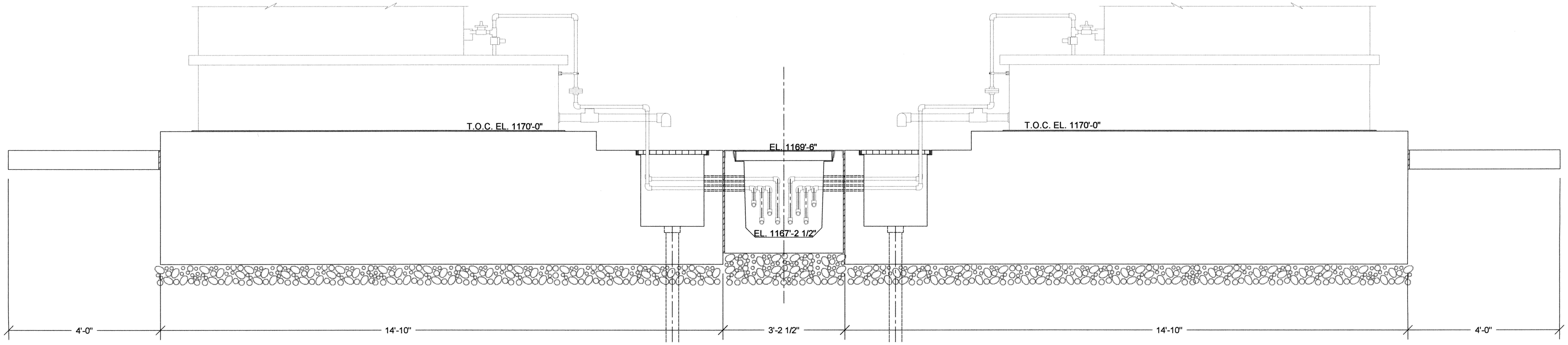
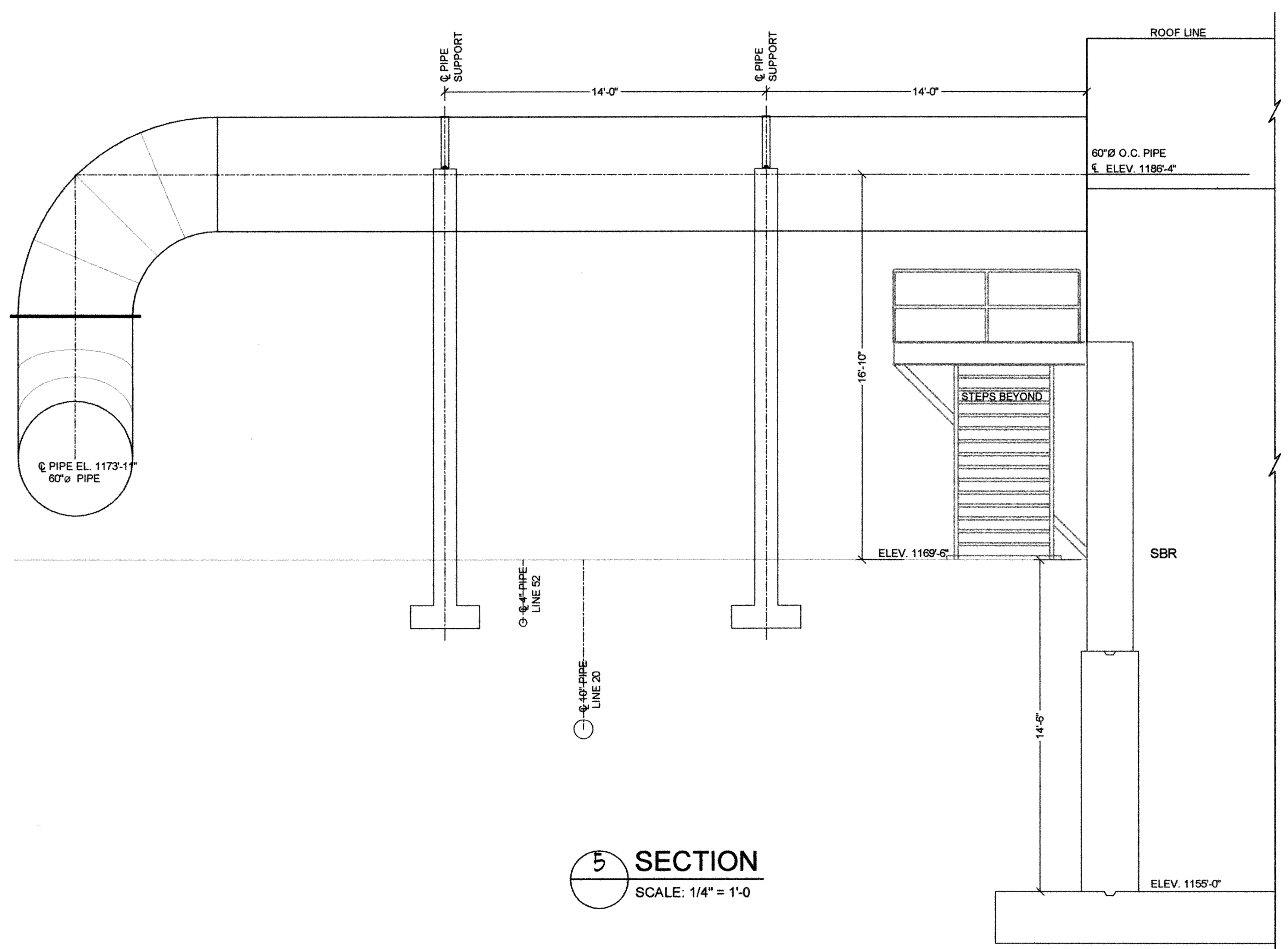
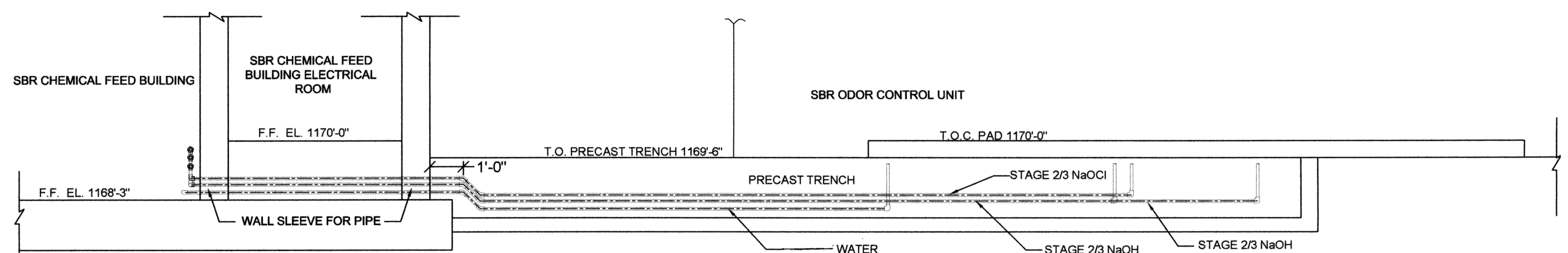
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



4 SECTION
SCALE: 3/4" = 1'-0



5 SECTION
SCALE: 1/4" = 1'-0



6 SECTION
SCALE: 3/8" = 1'-0

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SBR ODOR CONTROL
SECTIONS AT 4, 5, AND 6

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REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA
5-17-2010

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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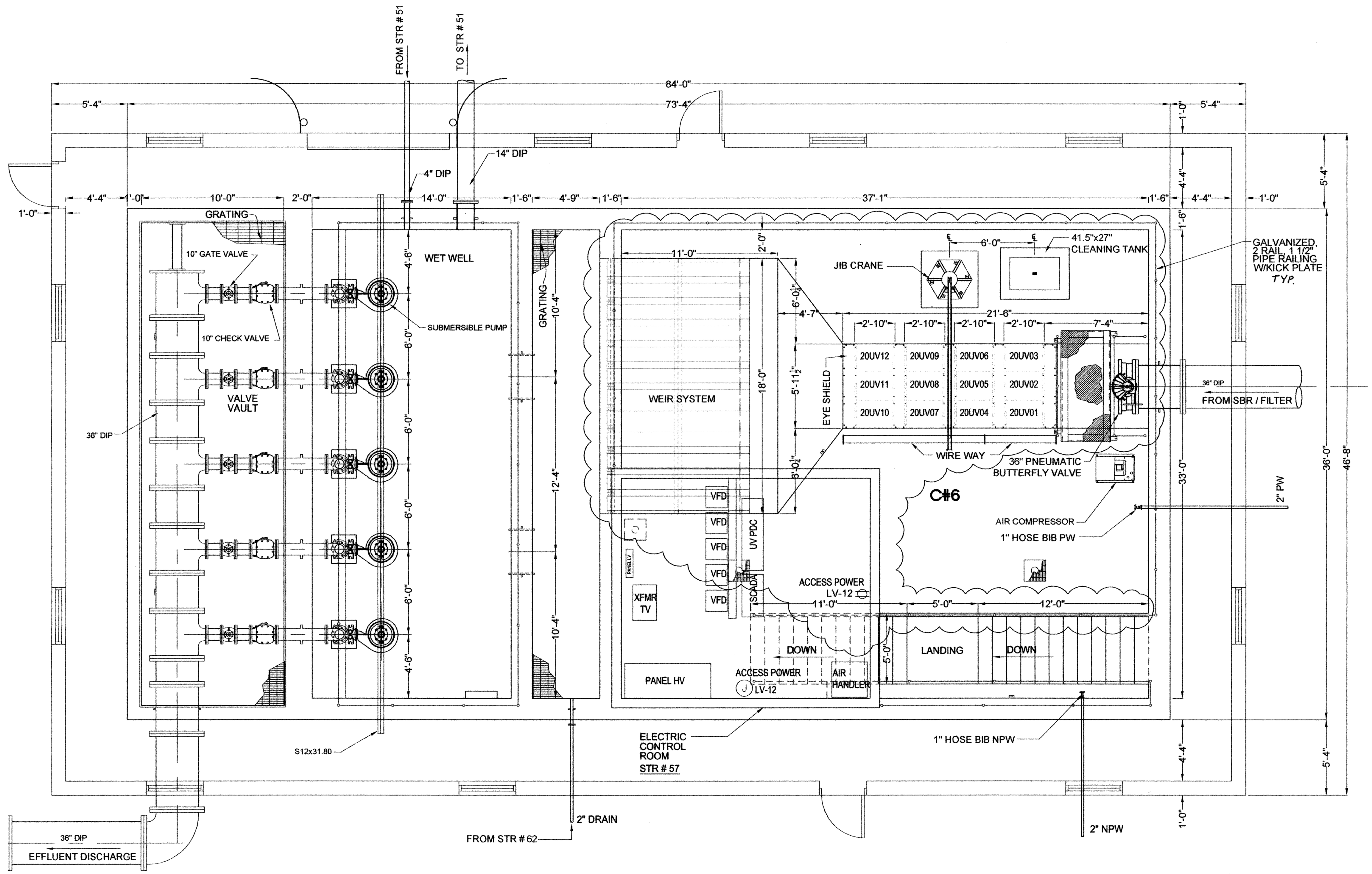

EFFLUENT PUMP STATION
STR # 56

UV
STR # 20

PLAN
UV & EFFLUENT PUMP STATION
SCALE: 1/4" = 1'-0"

SATISH PASHARATHY 11456 1-31-2011

REVISIONS:	DATE:
C#6 – ULTRATECH CLARIFICATION	1/28/2011

UV & EFFLUENT PUMP STATION

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	3/18/2010	AS SHOWN	62 OF 95

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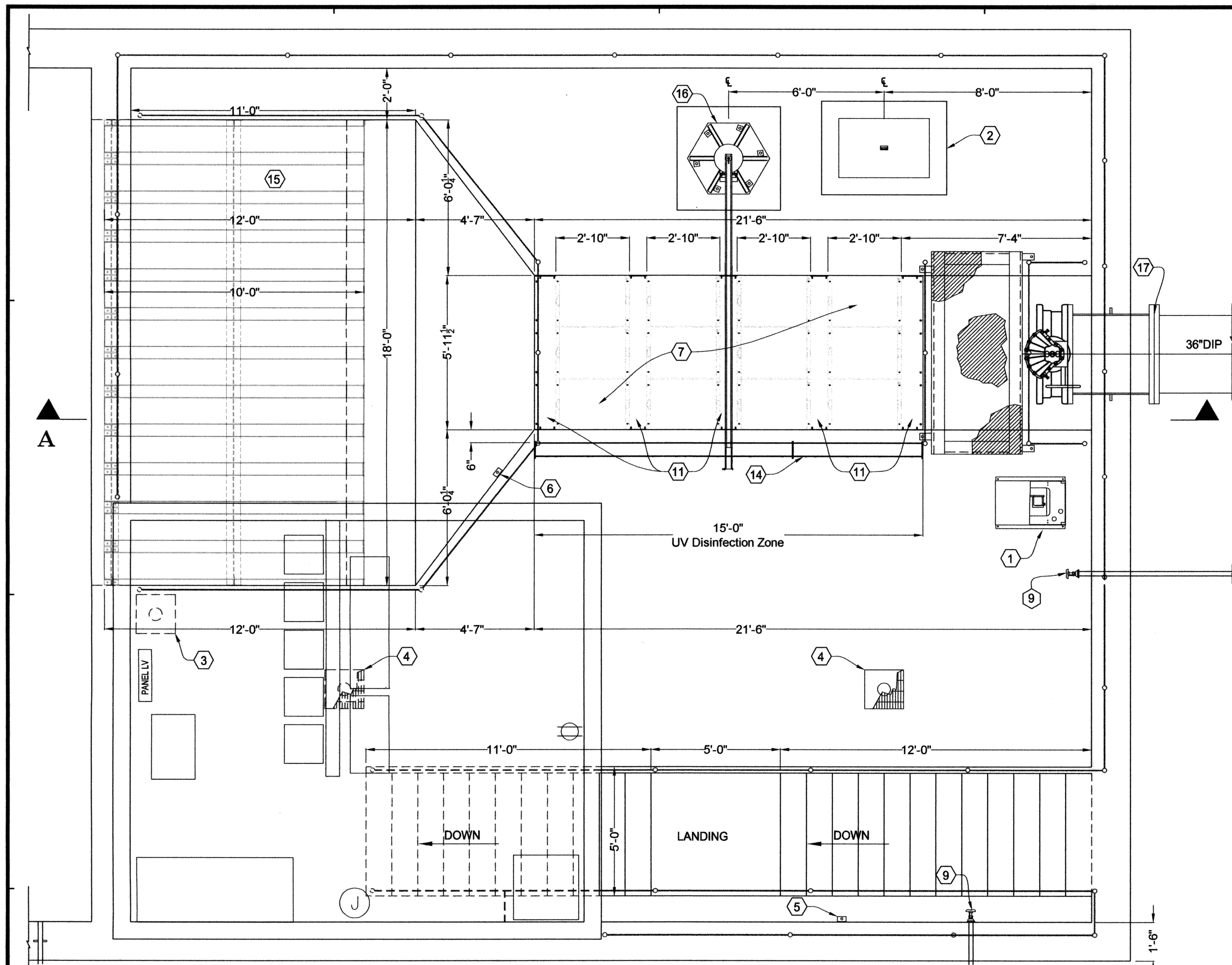
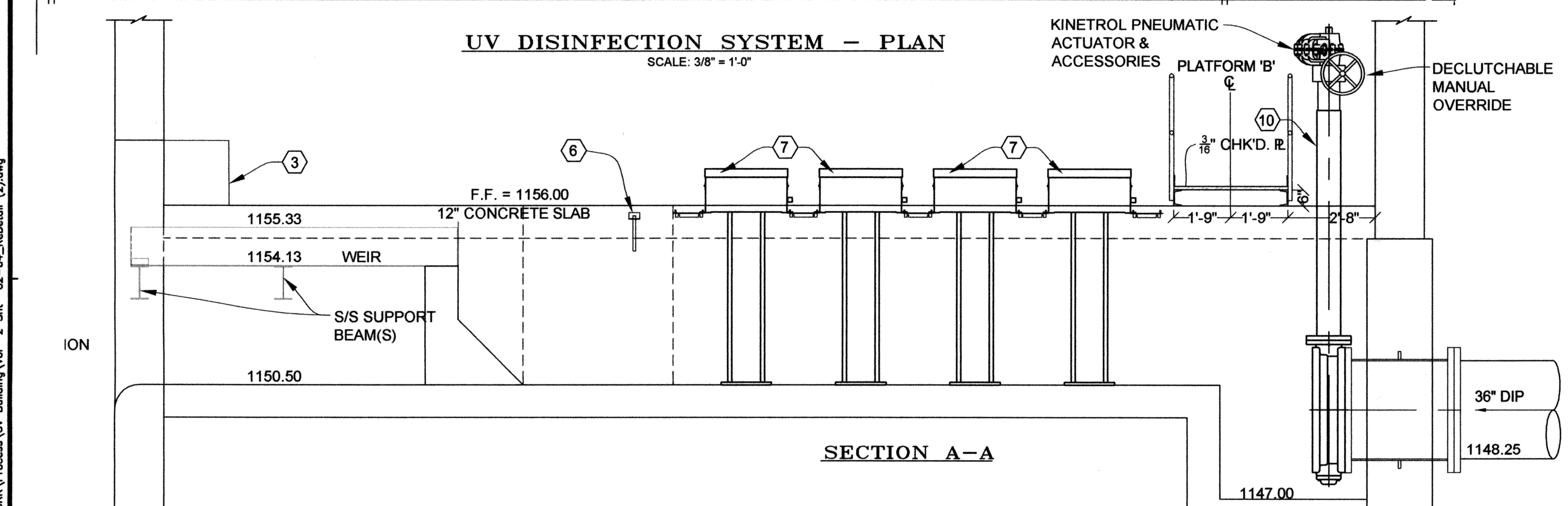
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

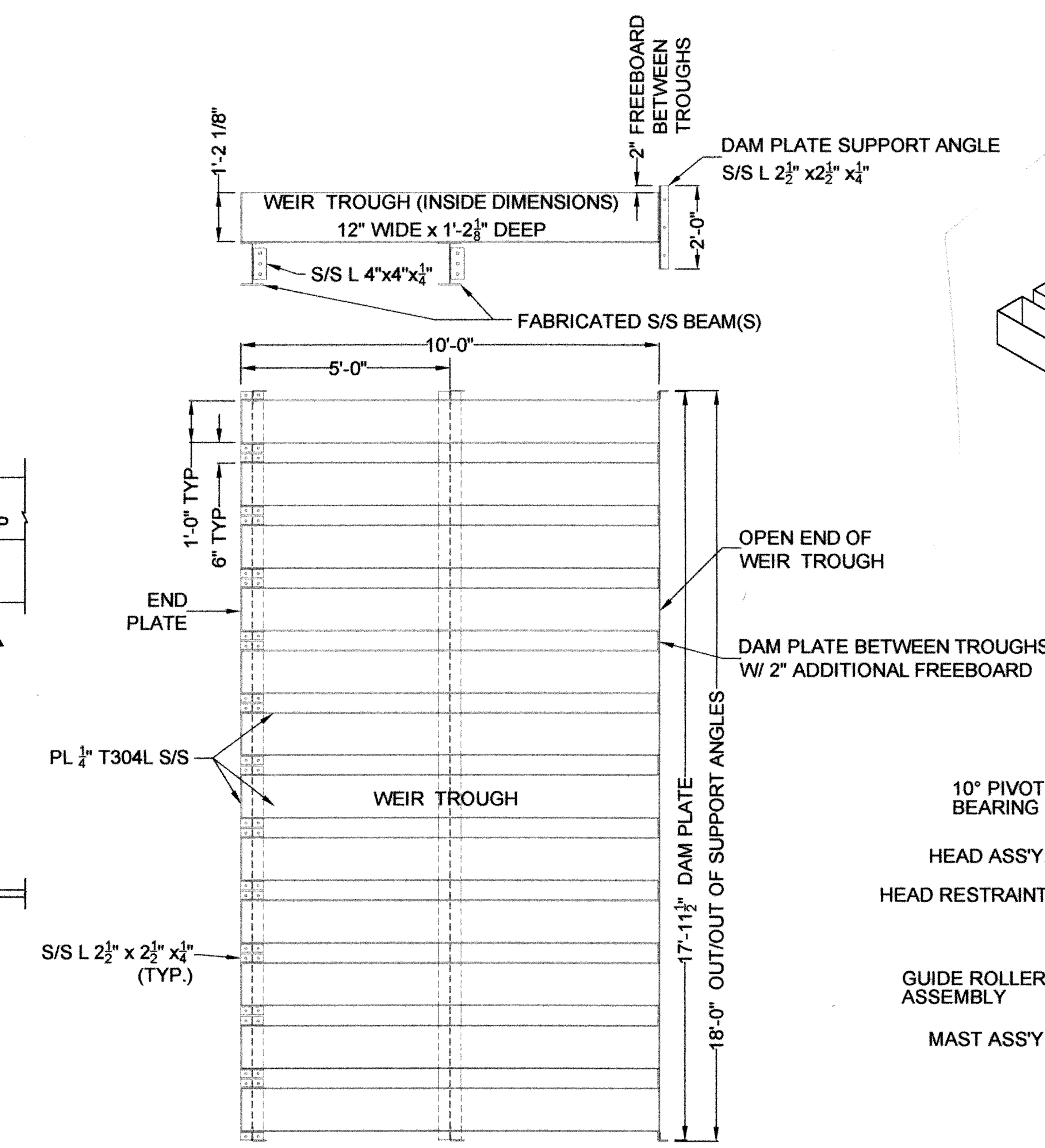


UV DISINFECTION SYSTEM – PLAN
SCALE: 3/8" = 1'-0"

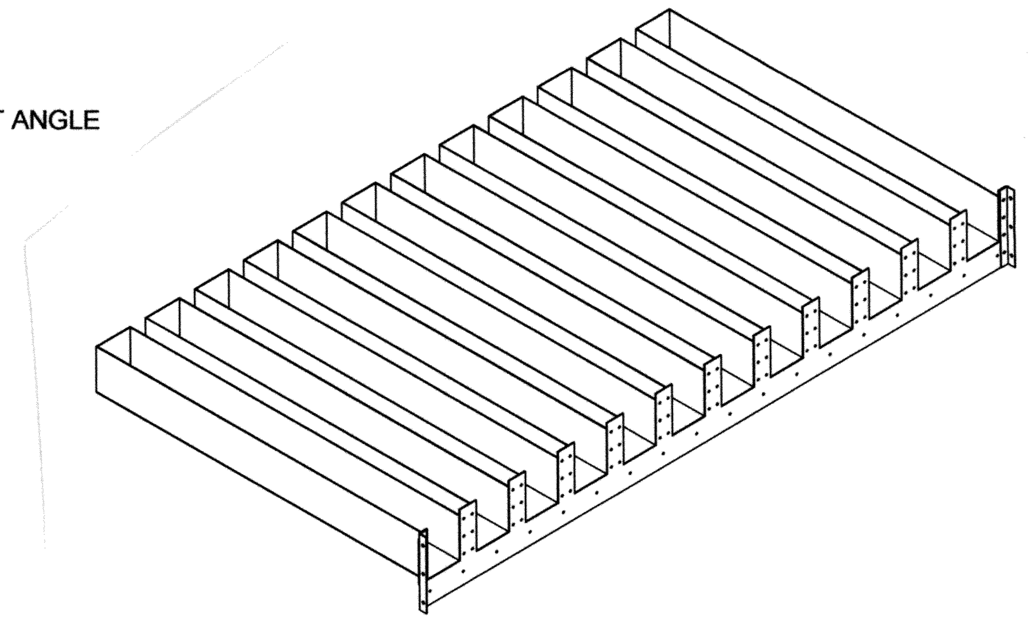


SECTION A–A

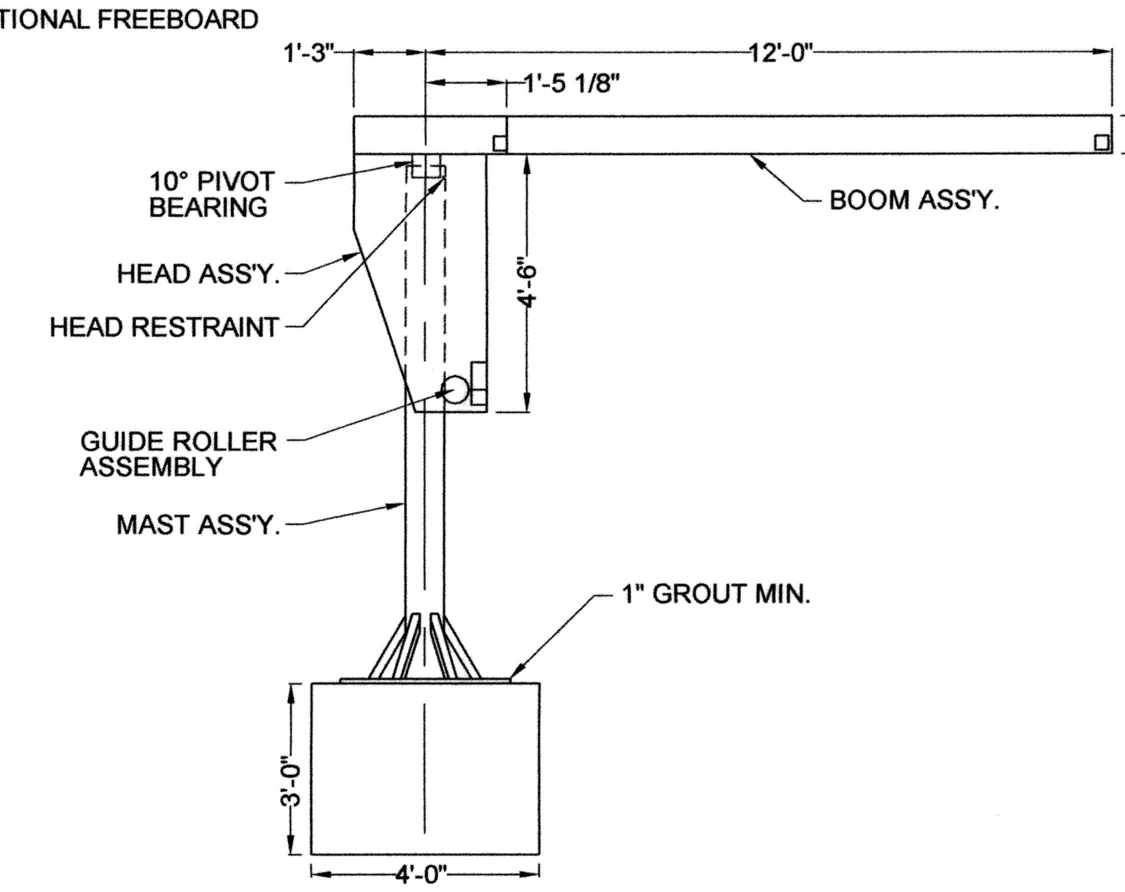
UV DISINFECTION SYSTEM – PLAN
SECTION A–A
SCALE: 3/8" = 1'-0"



WEIR DETAILS



WEIR ISOMETRIC VIEW



JIB CRANE DETAIL
SCALE: 3/8" = 1'-0"

WEIR INSTALLATION NOTES:

1. ATTACH DAM PLATE SUPPORT ANGLES TO DAM PLATE USING HARDWARE SUPPLIED BY CONTRACTOR. USE DAM PLATE ASSEMBLY AS A TEMPLATE TO DRILL MOUNTING HOLES INTO THE CONCRETE DAM WALL AND CHANNEL WALLS. DAM PLATE MUST BE HORIZONTALLY LEVEL AND SQUARE TO THE CHANNEL WALLS.
2. MOUNT DAM PLATE ASSEMBLY TO DAM WALL AND CHANNEL WALLS USING HARDWARE SUPPLIED BY CONTRACTOR.
3. ATTACH CLIP ANGLES TO WEIR SUPPORT BEAM(S) USING HARDWARE SUPPLIED BY CONTRACTOR. ATTACH CLIP ANGLES AND SUPPORT BEAM(S) TO CHANNEL WALLS USING HARDWARE SUPPLIED BY CONTRACTOR.
4. LOWER FINGER WEIRS INTO PLACE AND FASTEN TO DAM PLATE USING HARDWARE SUPPLIED BY CONTRACTOR. PLUMB WEIR SUPPORT BEAM(S) SO THAT FINGER WEIRS ARE HORIZONTALLY LEVEL.
5. ATTACH CLIP ANGLES TO TOP OF SUPPORT BEAM, TO CREATE PROPER SPACING BETWEEN FINGER WEIRS, USING HARDWARE SUPPLIED BY CONTRACTOR.
6. SEAL DAM PLATE, DAM PLATE SUPPORT ANGLES AND FINGER WEIRS AT ATTACHMENT LOCATIONS WITH SILICONE TO FORM WATER TIGHT SEAL.

UV DISINFECTION EQUIPMENT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	AIR COMPRESSOR	1	UNDER ELECTRIC CONTROL ROOM
2	41.5"x27" CLEANING TANK	1	
3	SAMPLER	1	UNDER ELECTRIC CONTROL ROOM
4	2'x2'x2' SUMP	1	UNDER LANDING
5	HIGH WATER ALARM	1	UNDER LANDING
6	LOW WATER LEVEL SENSOR	1	
7	T4024i-HO(40 LAMP)	X 12	40 LAMP, HIGH OUTPUT, UV MODULE
8	WEIR FINGERS	12	
9	1" HOSE BIB	1	NON POTABLE WATER
10	36" PNEUMATIC BUTTERFLY VALVE	1	20 BFV01
11	EYE SHIELD ~~(DIAMOND PLATE)~~	X 5	
12	1" HOSE BIB	1	POTABLE WATER
13	~~BARRIER V-40E-A300~~ DELETED	X	
14	WIRE WAY	1	
15	WEIR SYSTEM	1	INCLUDES SUPPORT BEAM(S)
16	CRANE	1	
17	36" FLGxFLG WALL SLEEVE	1	3'-4"

NOTES:
1. PROVIDE A REMOVABLE COVER OVER THE UV CLEANING TANK.
2. FLOOR OF UV ROOM TO HAVE HIGH WATER ALARM.
3. CONTRACTOR SHALL SUBMIT AN UV WIRING PLAN TO ENGINEER FOR APPROVAL PRIOR TO STARTING WORK.
4. CONTRACTOR SHALL CO-ORDINATE THE LOCATION OF PLUG POINT FOR CONNECTING SAMPLER.

REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA
1-31-2011

REVISIONS:	DATE:
C#6 – ULTRATECH CLARIFICATION	1/28/2011

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STRUCTURE No. 20
UV DISINFECTION SYSTEM

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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CERTIFICATE OF AUTHORIZATION NO. CA2088

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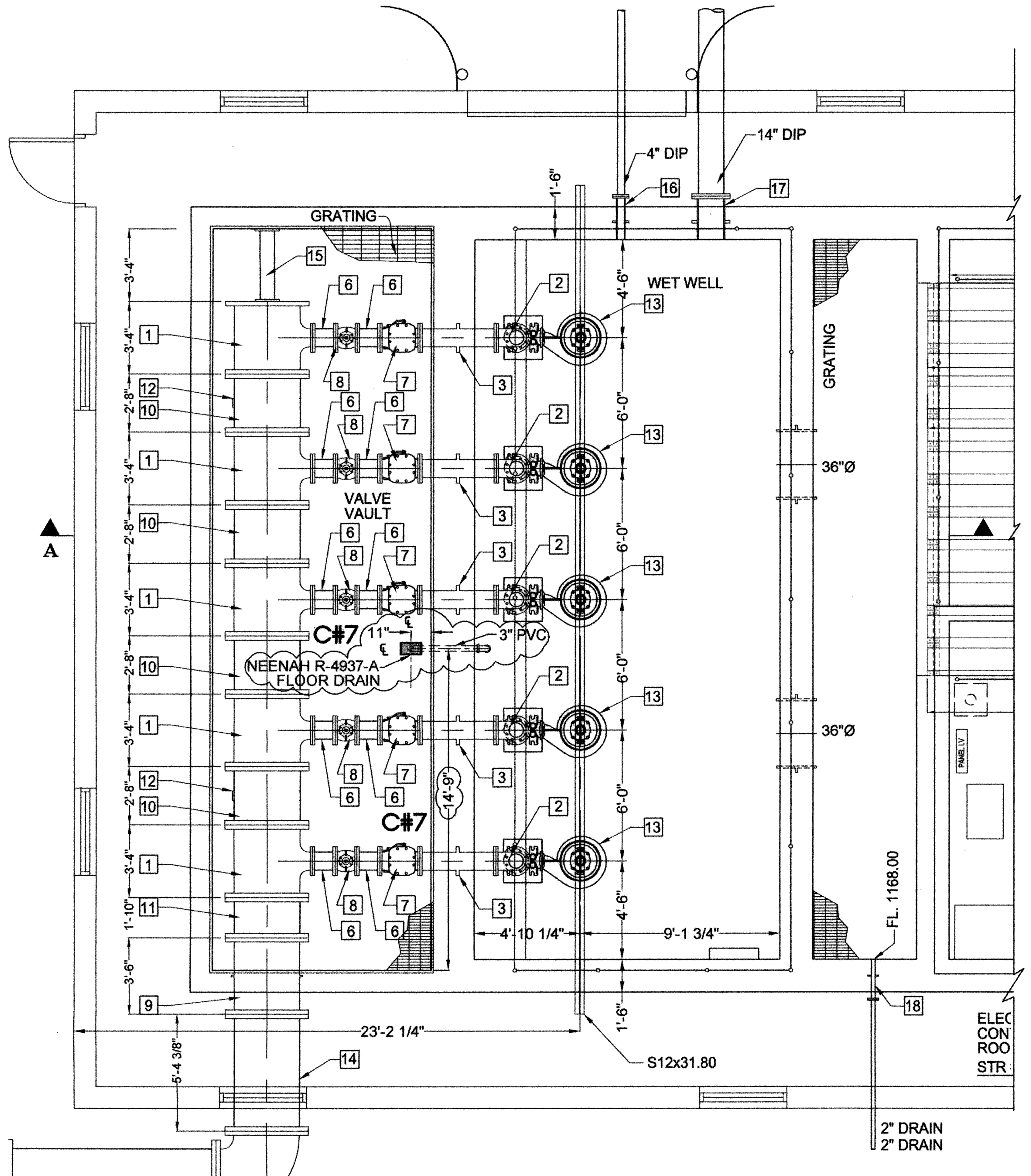
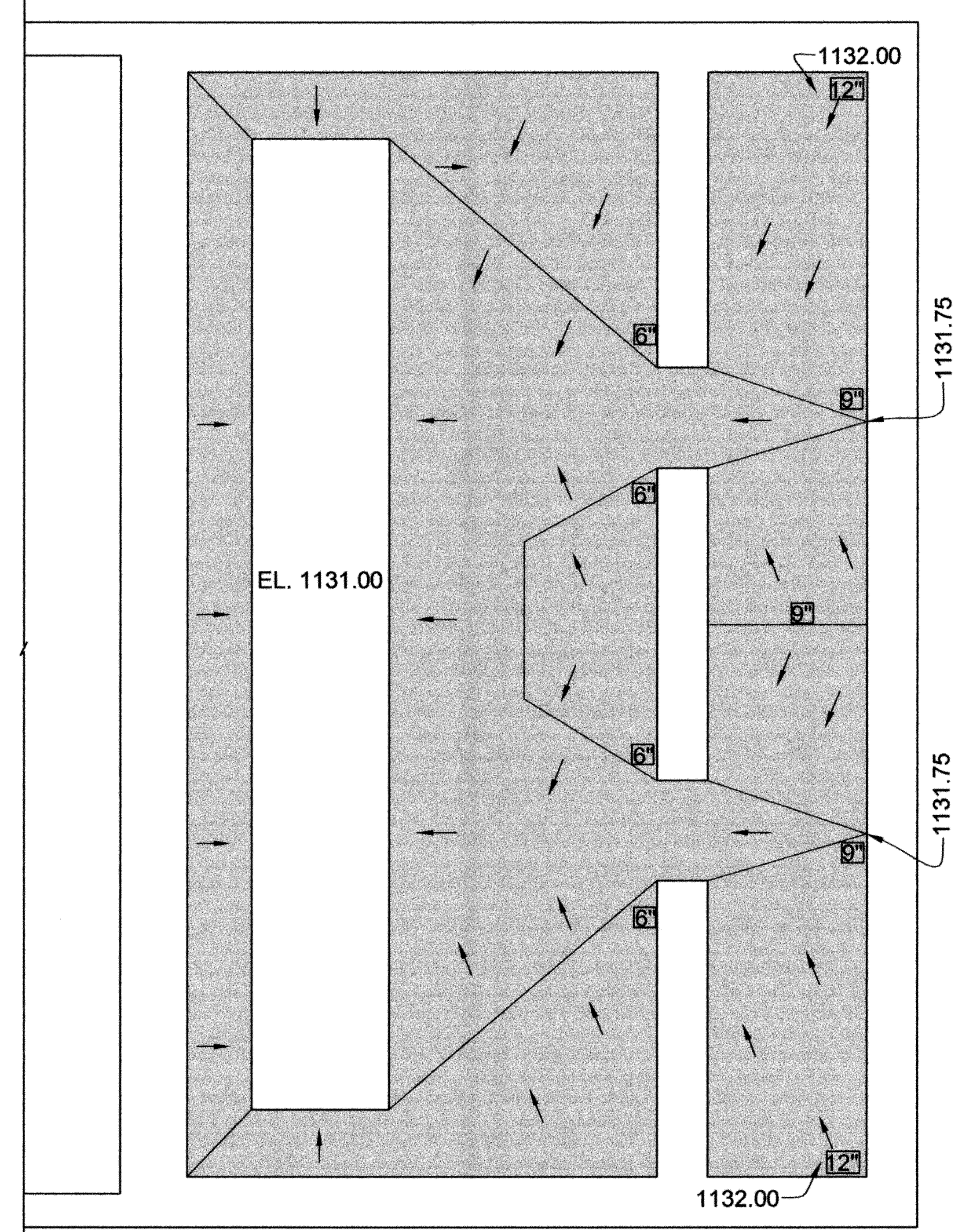
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



PUMP STATION – PLAN

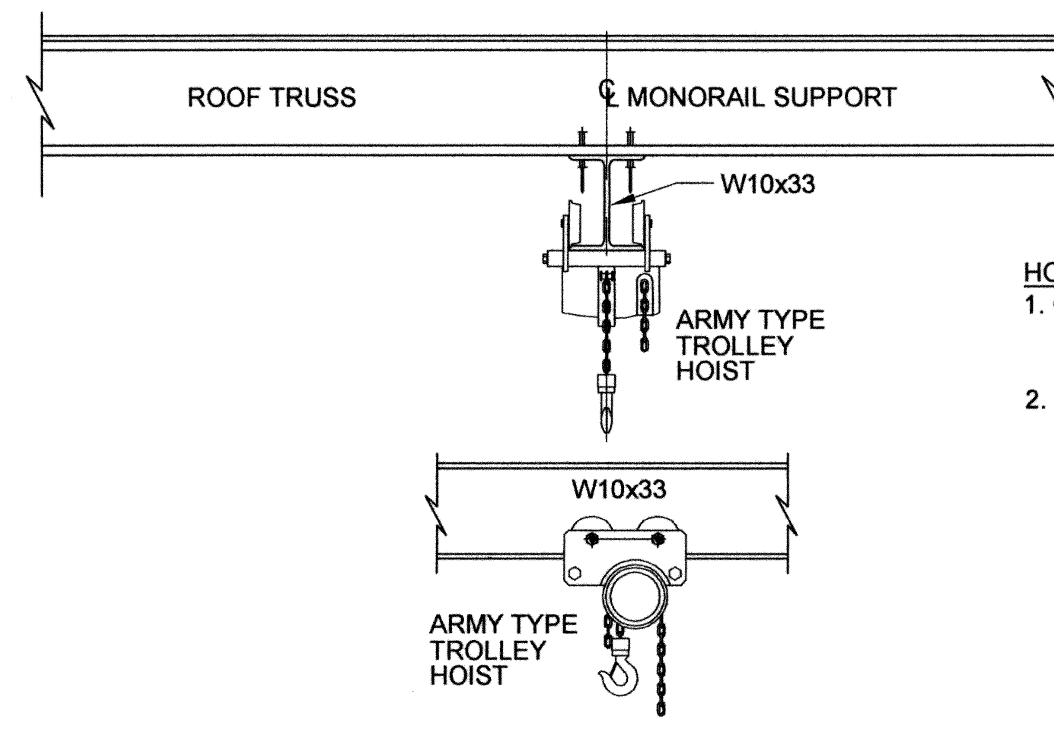
SCALE: 1/4" = 1'-0"



EFFLUENT PUMP STATION GROUT PLAN

PER OAC 252: 656 - 7 -1

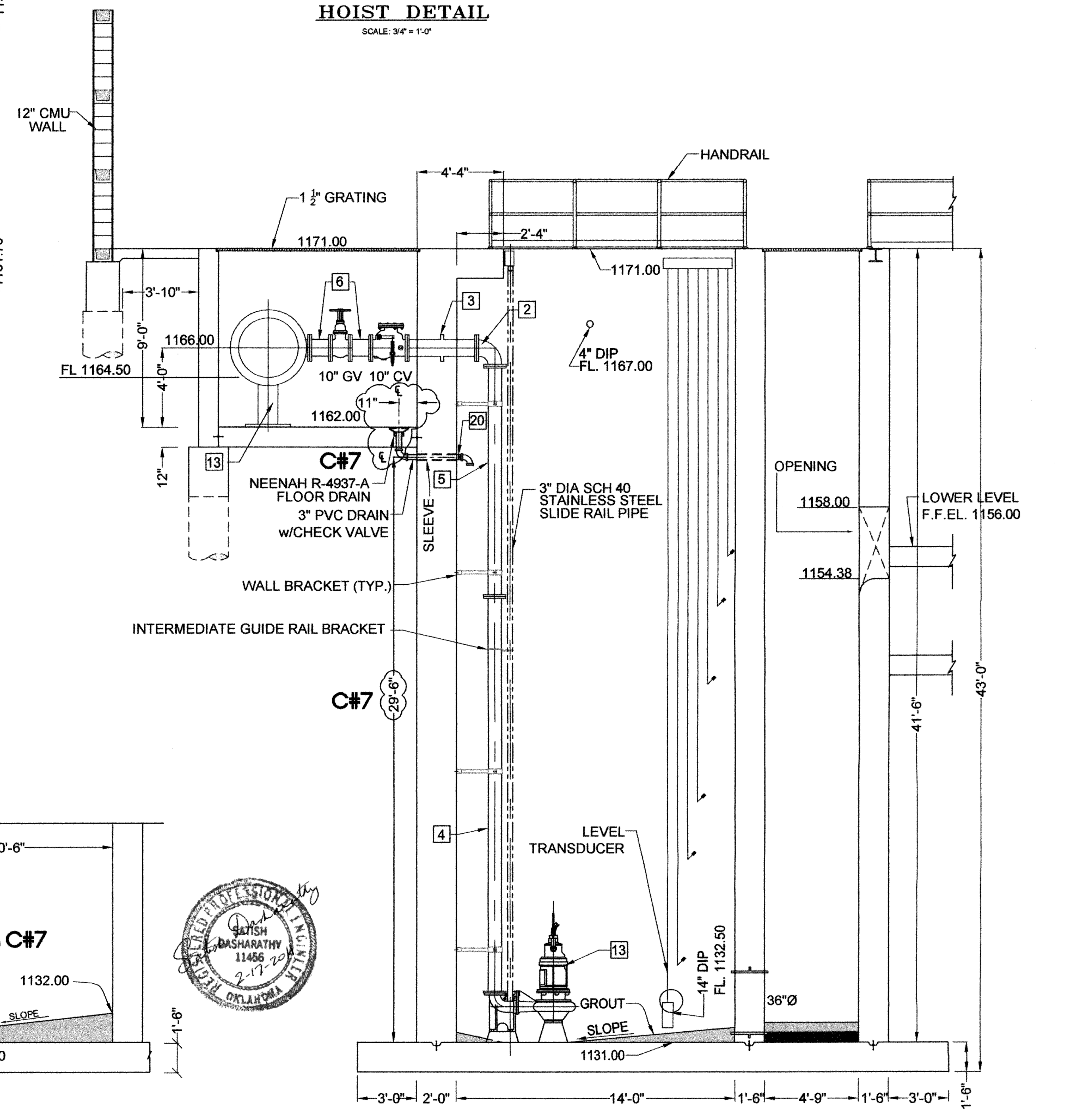
SCALE: 1/4" = 1'-0"



HOIST DETAIL

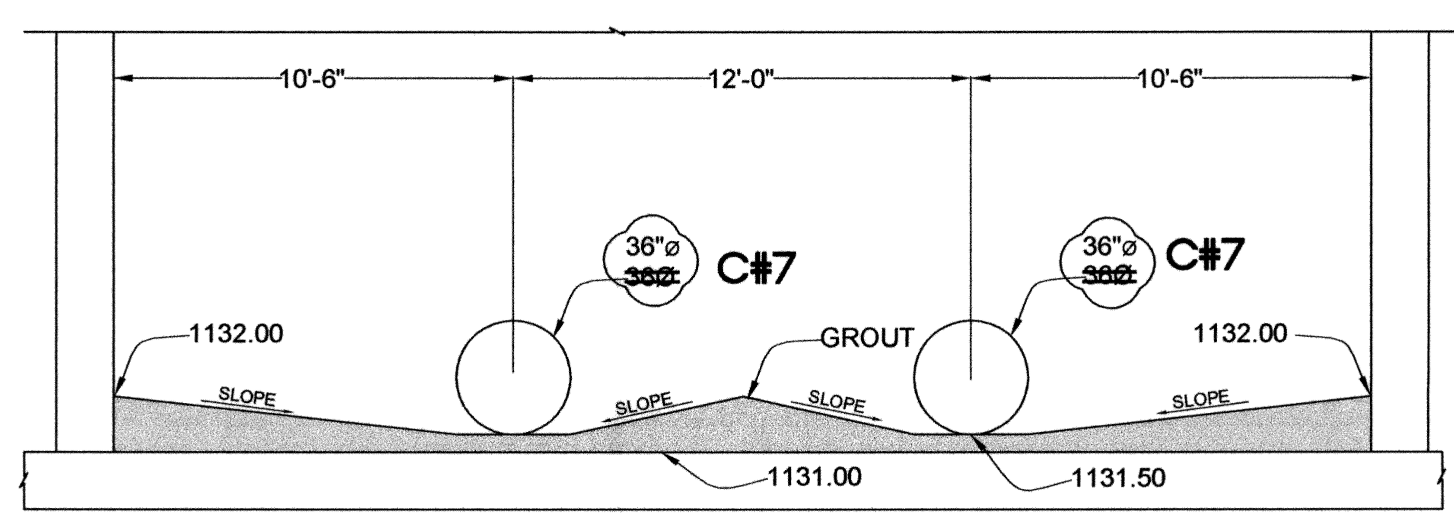
SCALE: 3/4" = 1'-0"

HOIST NOTES:
1. CONTRACTOR SHALL PROVIDE HOIST CAPABLE OF LIFTING SUBMERSIBLE PUMPS FROM WET WELL FOR PUMP MAINTENANCE & REPAIR.
2. HOIST SUPPLIER SHALL INSPECT INSTALLATION & CERTIFY THAT HOIST INSTALLATION MEETS MINIMUM STANDARDS & IS APPROPRIATE FOR THIS APPLICATION.



SECTION A–A

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



SECTION 1

NOTE:
1. CONTRACTOR SHALL GROUT PUMPSTATION WET WELL TO DIVERT FLOW TO PUMPS. AND TO ELIMINATE LOW SPOTS.

LIFT STATION EQUIPMENT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	36"x10" REDUCING TEE	5	
2	10"x8" FLGxFLG 90° REDUCING BEND	5	WITH RESTRAINT GLAND
3	10" WALL SLEEVE	5	0'- 42"
4	8" DIP FLGxFLG	5	31'- 7"
5	8" DIP FLGxFLG	5	
6	10" DIP FLGxFLG	10	12 1/2"
7	10" CHECK VALVE	5	56CV01-05
8	10" GATE VALVE	5	56GV01-05
9	36" DIP FLGxFLG WALL SLEEVE	1	0'- 40"
10	36" DIP FLGxFLG	4	0'- 40"
11	36" DIP FLGxFLG	1	0'- 40"
12	PIPE STANDS	2	
13	SUBMERSIBLE PUMP	5	56P01-05
14	36" DIP FLGxFLG	1	5'- 4 3/8"
15	8" STEEL PIPE SCH 90	1	0'- 40"
16	4" DIP FLGxPE WALL SLEEVE	1	0'- 24"
17	17" DIP FLGxPE WALL SLEEVE	1	0'- 24"
18	2" DIP FLGxPE WALL SLEEVE	1	0'- 24"
19	36" DIP PExPE WALL SLEEVE	2	0'- 22"
20	3" CHECK VALVE	1	56CV06

REVISIONS:	DATE:
C#7 – CLARIFICATION NO. 7	2/14/2011

EFFLUENT PUMP STATION
STRUCTURE No. 56

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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CIVIL AND ENVIRONMENTAL ENGINEERS
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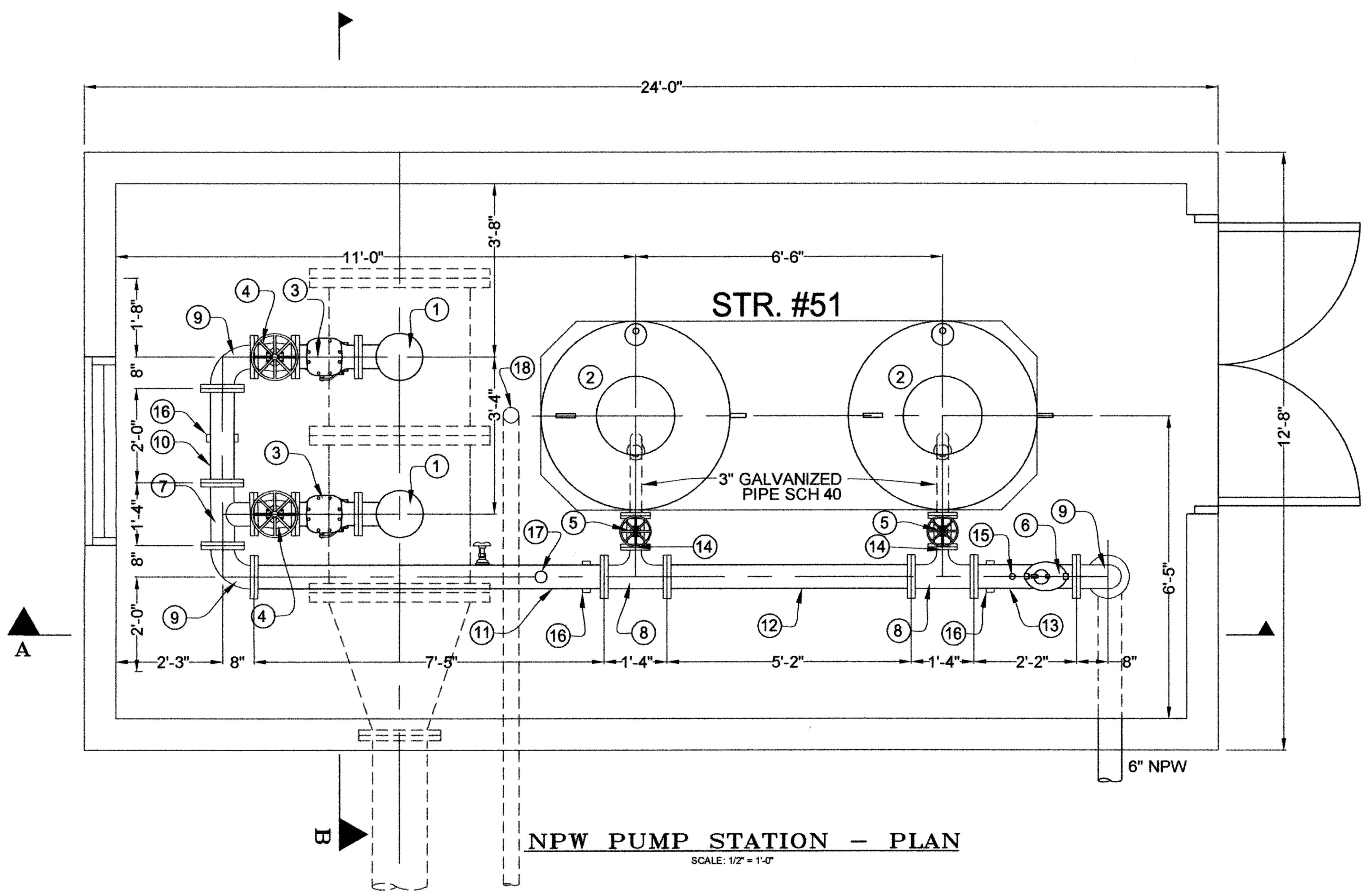
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

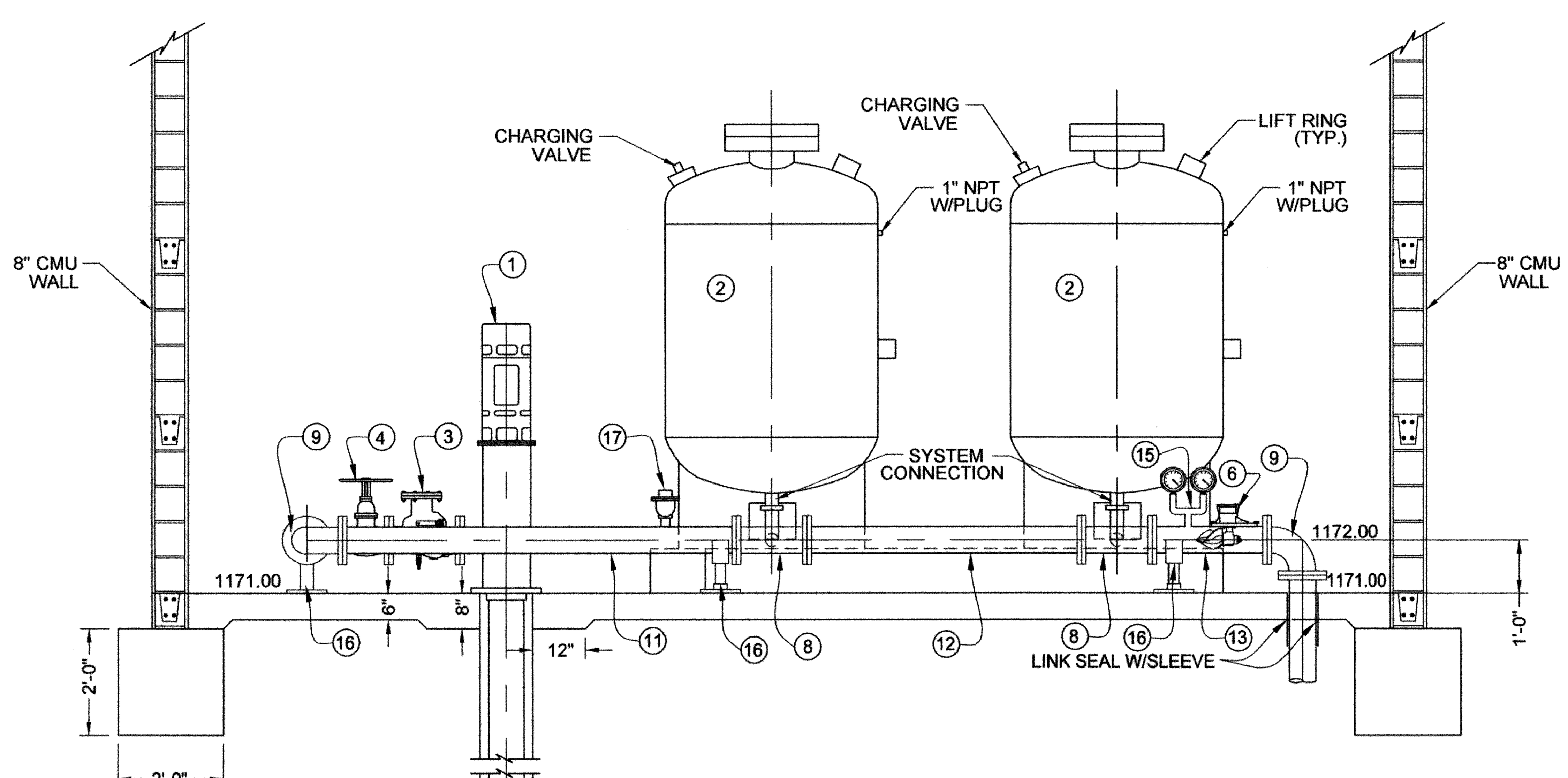
NPW PUMP STATION EQUIPMENT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	VERTICAL TURBINE PUMP	2	51P01-02
2	PRESSURIZED TANK	2	51PT01-02
3	6" CHECK VALVE	2	51CV01-02
4	6" GATE VALVE	2	51GV01-02
5	3" GATE VALVE	2	51GV03-04
6	6" FLOW METER	1	51FM01
7	6"x6" FLG TEE	1	
8	6"x3" FLG TEE	2	
9	6"x90Ø BEND	3	
10	6" DIP FLGxFLG	1	
11	6" DIP FLGxFLG	1	
12	6" DIP FLGxFLG	1	
13	6" DIP FLGxFLG	1	
14	3" FLGx3" NPT COMPANION FLANGE	2	
15	PRESSURE TRANSDUCER & PRESSURE GAUGE	1	
16	PIPE STANDS	3	
17	AIR RELEASE VALVE	1	
18	4" CI FLOOR DRAIN	1	



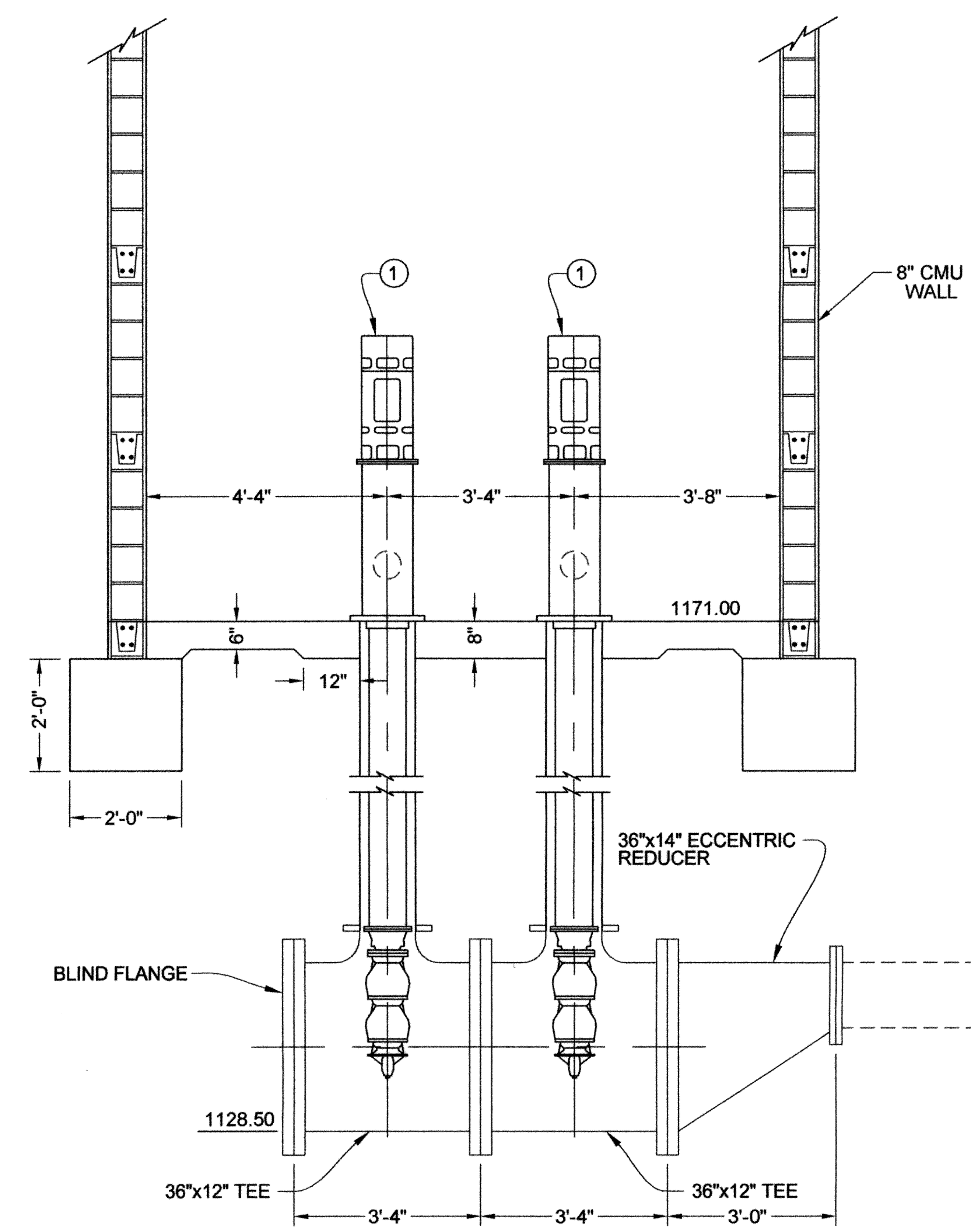
NPW PUMP STATION – PLAN

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



NPW PUMP STATION – PLAN
SECTION A–A

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



NPW PUMP STATION – PLAN
SECTION B–B

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

NOTE: CONTRACTOR SHALL RESTORE EXCAVATED AREA IN 6" LIFTS & MEET COMPACTION REQUIREMENTS OF 95% SPD.

REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11466
OKLAHOMA
5-17-2010

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REVISIONS:	DATE:

STRUCTURE No. 51
NON–POTABLE WATER PUMP STATION

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2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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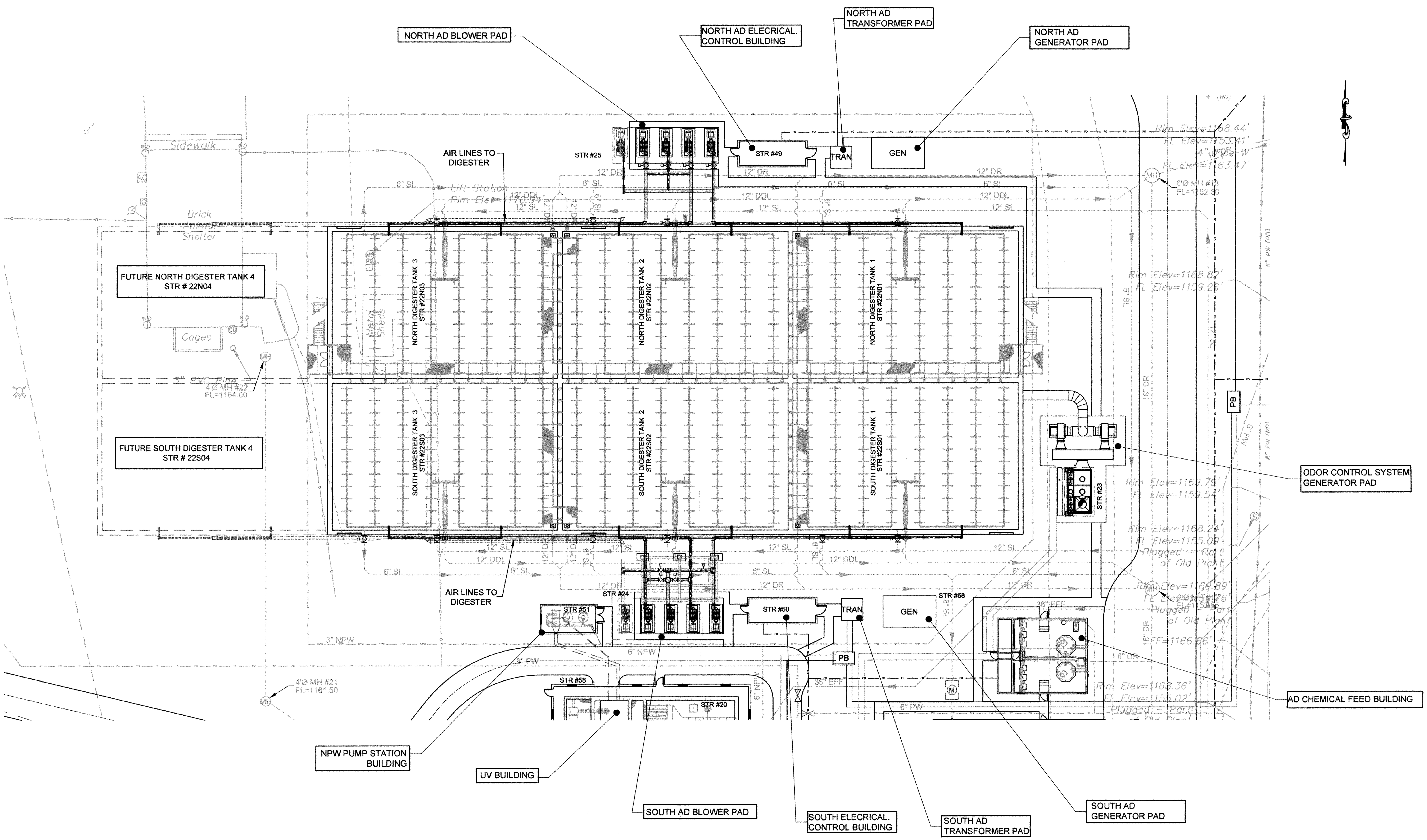
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



AEROBIC DIGESTER OVERALL PLAN

(SCALE: 1" = 20')

DESIGNED BY: S.D.	CAD OPERATOR:	CHECKED: S.D.	APPROVED: S.D.	PLOT DATE: 12/21/2009	DWG. SCALE: AS SHOWN	SHEET: 66 OF 95

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AEROBIC DIGESTER OVERALL PLAN

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2803 SOUTH BRYANT
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FAX. (405) 844-3600

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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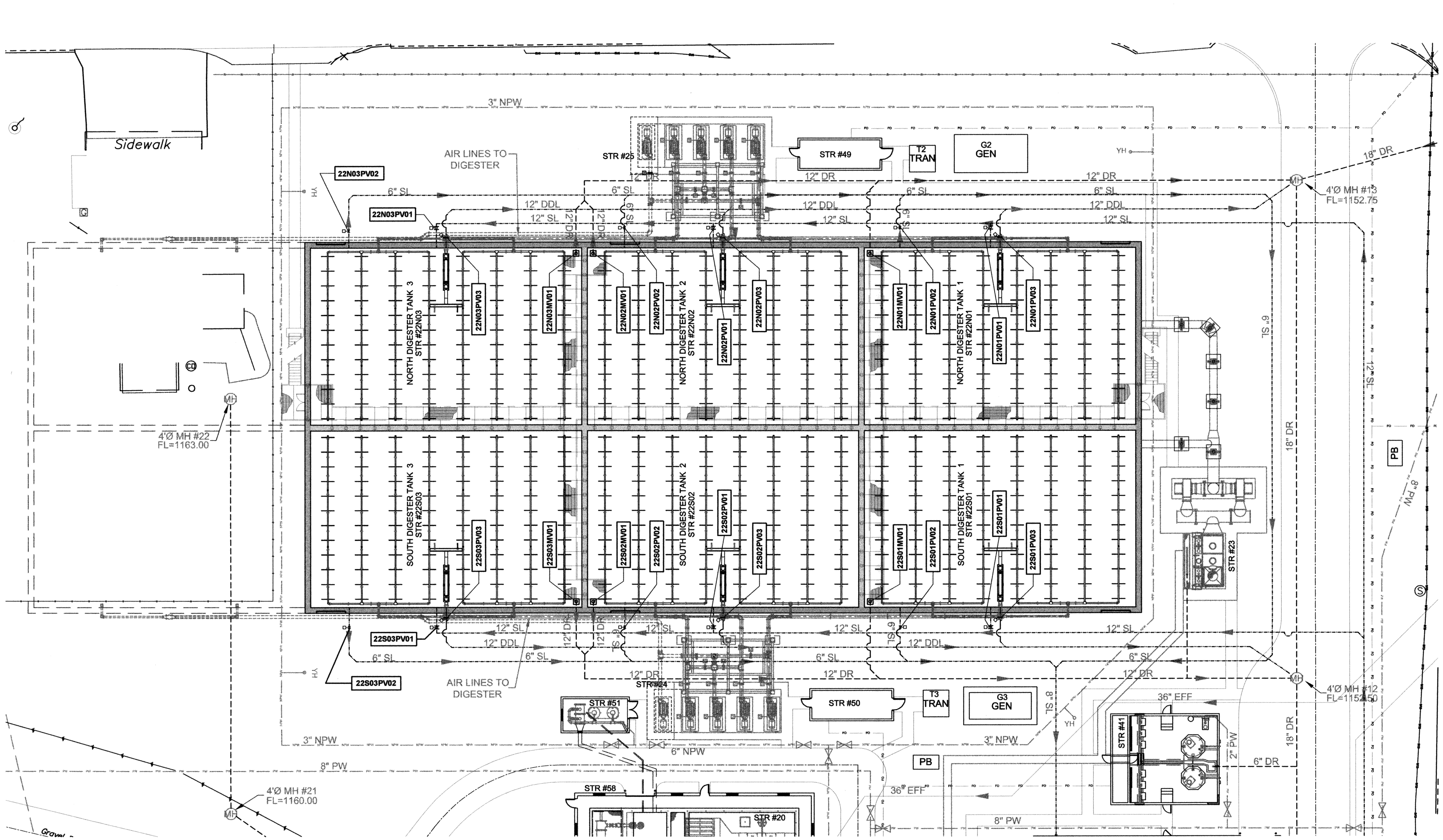

AEROBIC DIGESTER VALVE SCHEDULE

VALVE ID	VALVE TYPE	VALVE SIZE	MANUAL OR AUTOMATIC	COMMENT
22S01MV01	MUD	12"	MANUAL	TANK DRAIN
22S02MV01	MUD	12"	MANUAL	TANK DRAIN
22S03MV01	MUD	12"	MANUAL	TANK DRAIN
22N01MV01	MUD	12"	MANUAL	TANK DRAIN
22N02MV01	MUD	12"	MANUAL	TANK DRAIN
22N03MV01	MUD	12"	MANUAL	TANK DRAIN
22S01PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22S02PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22S03PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22N01PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22N02PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22N03PV02	PLUG	6"	AUTOMATIC	DIGESTED SLUDGE TO BFP
22S01PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22S02PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22S03PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22N01PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22N02PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22N03PV01	PLUG	12"	AUTOMATIC	DECANT LINE
22S01PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR
22S02PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR
22S03PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR
22N01PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR
22N02PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR
22N03PV03	PLUG	12"	AUTOMATIC	WAS FROM SBR

NOTE: 1. 54 - 6" HYDROSTATIC PRESSURE RELIEF VALVES REQUIRED IN FLOOR OF BASINS. SEE STRUCTURAL DRAWINGS FOR LOCATIONS.

INDEX:
MV - MUDVALVE
PV - PLUG VALVE
BFV - BUTTERFLY VALVE

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

AEROBIC DIGESTER VALVE PLAN

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2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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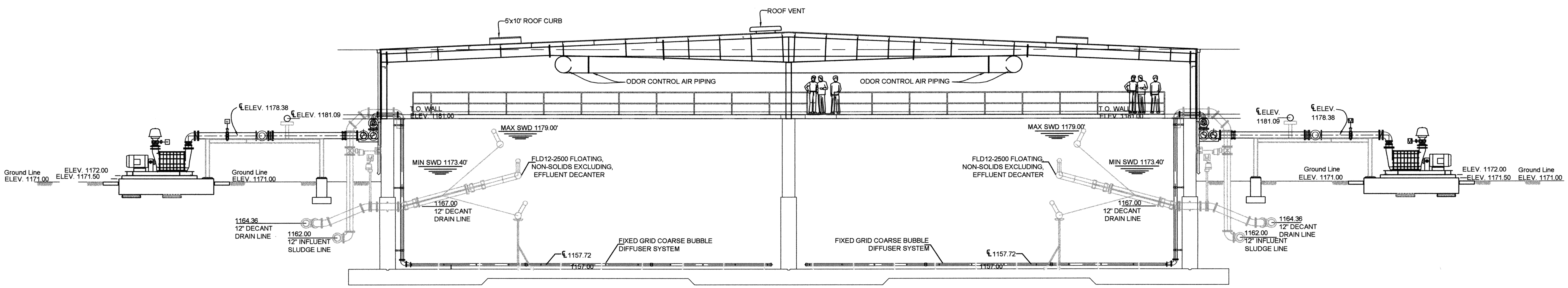

AD SECTION C

SCALE: 1/8" = 1'-0

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DIGESTER SECTION SHOWING BLOWER AND BUILDING

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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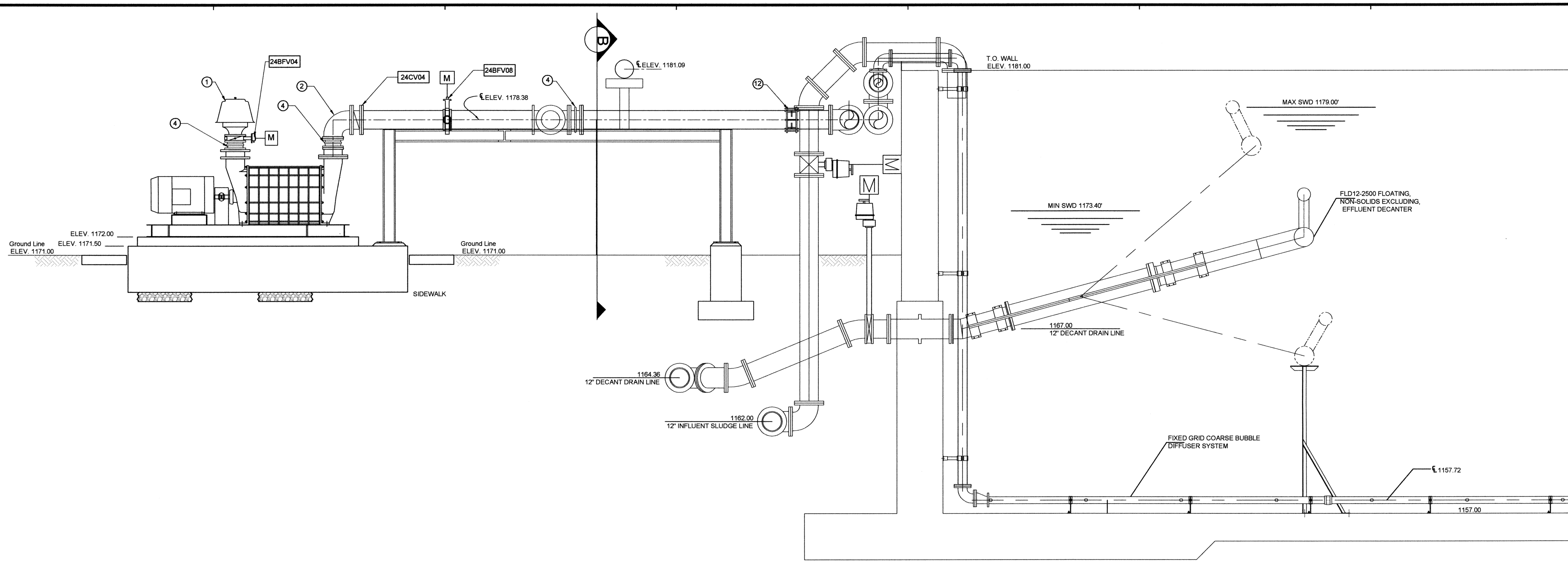
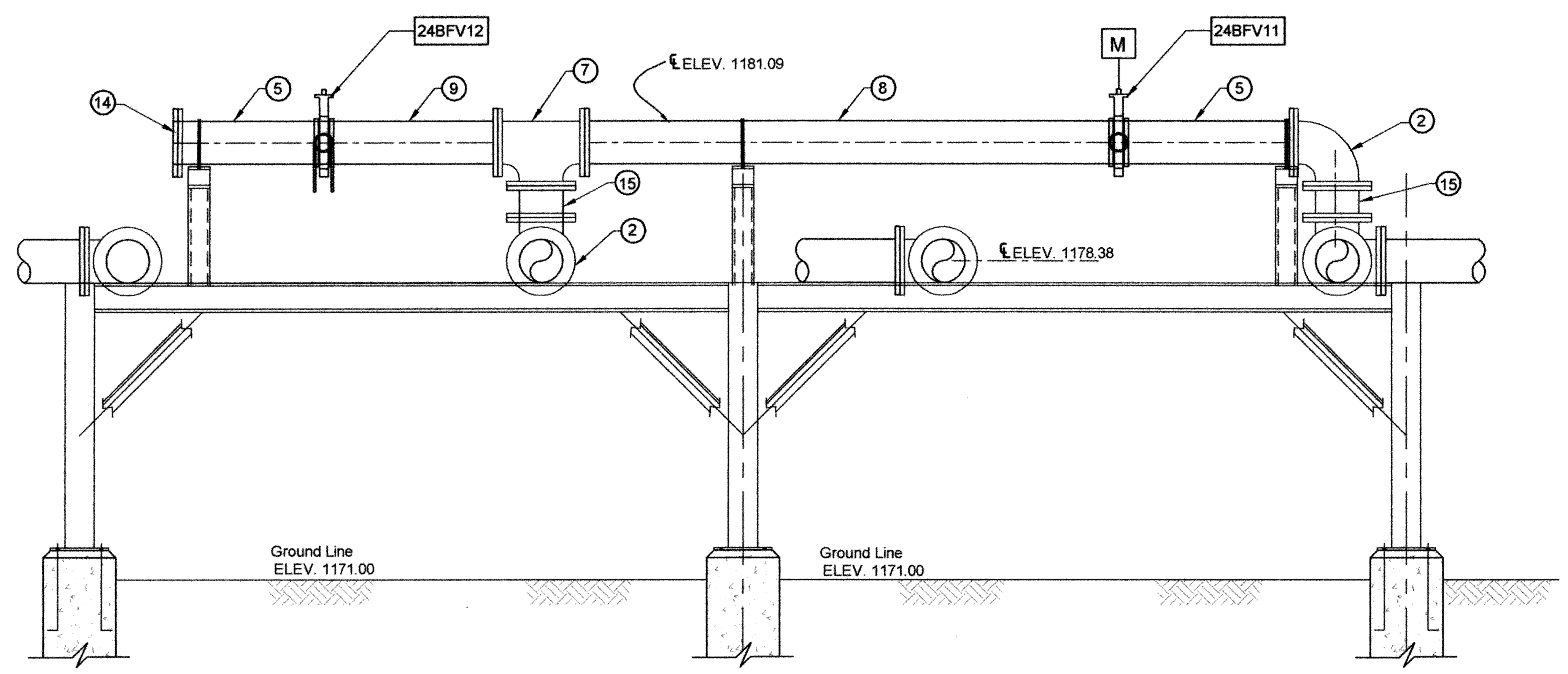
REGISTERED PROFESSIONAL ENGINEER SATISH DASHARATHY 11456 OKLAHOMA

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SOUTH AD SECTION A
SCALE: 3/8" = 1'-0



SOUTH AD SECTION B
SCALE: 3/8" = 1'-0

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SOUTH AEROBIC DIGESTER
PIPING SECTIONS

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2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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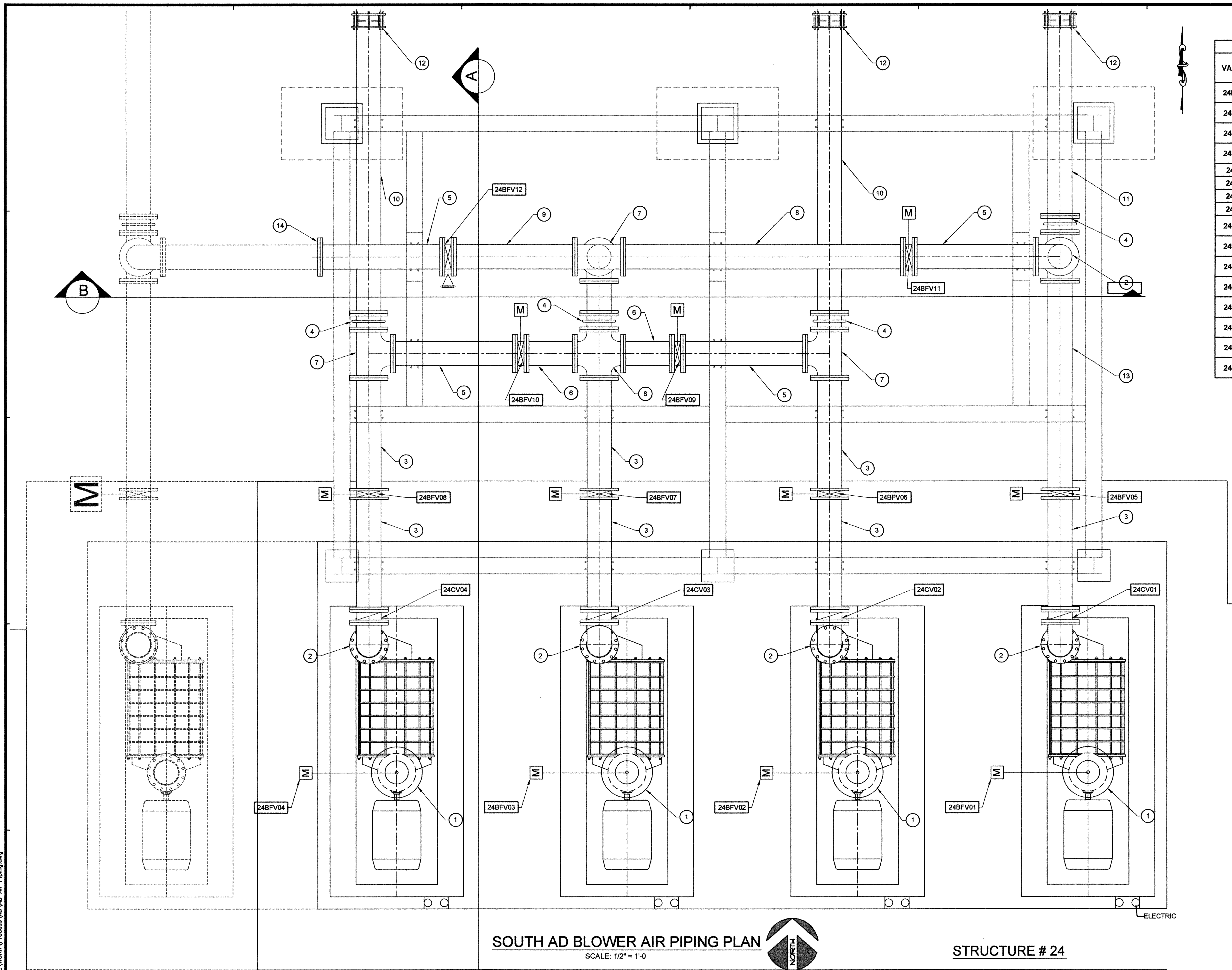
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SOUTH AD BLOWER AIR PIPING PLAN

SCALE: 1/2" = 1'-0

NORTH

STRUCTURE # 24

SOUTH DIGESTER SUCTION, DISCHARGE, & ISOLATION VALVE SCHEDULE					
VALVE ID	LOCATION	TYPE	SIZE	ELECTRICALLY MOTORIZED OPERATOR	MANUAL OPERATOR TYPE
24BFVO1	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV02	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV03	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV04	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
24CV01	DISCHARGE	WAFER CHECK	12"	N/A	N/A
24CV02	DISCHARGE	WAFER CHECK	12"	N/A	N/A
24CV03	DISCHARGE	WAFER CHECK	12"	N/A	N/A
24CV04	DISCHARGE	WAFER CHECK	12"	N/A	N/A
24BFV05	DISCHARGE 24B01	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV06	DISCHARGE 24B02	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV07	DISCHARGE 24B03	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV08	DISCHARGE 24B04	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV09	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV10	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV11	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
24BFV12	ISOLATION	WAFER BUTTERFLY	12"	NO	CHAIN WHEEL

SOUTH DIGESTER BLOWER SCHEDULE				
BLOWER ID	24B01	24B02	24B03	24B04
HP	300			
TYPE	CENTRIFUGAL			

SOUTH AD BLOWER PIPING SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	BLOWER SILENCER	4	SILENCER, TRIVENT SERIES BY BLOWER MANUFACTURER
2	12" X 90° BEND	6	
3	12" DIP FLG X FLG	7	4'-7 3/4"
4	12" FLANGED EXPANSION JOINT	8	BY BLOWER MANUFACTURER (4 ON SUCTION SIDE & 4 ON DISCHARGE)
5	12" DIP FLG X FLG	4	5'- 3/8"
6	12" DIP FLG X FLG	2	2'-0"
7	12' X 12" TEE	4	
8	12" DIP FLG X FLG	1	11'-63/8"
9	12" DIP FLG X FLG	1	5'-0"
10	12" DIP FLG X PE	2	12'-3/4"
11	12" DIP FLG X PE	1	8'-3/4"
12	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT
13	12" DIP FLG X FLG	1	8'-73/4"
14	12" BLIND FLANGE	1	
15	12" DIP FLG X FLG	2	0'- 8 3/4"

GENERAL NOTES

1. CONTRACTOR SHALL CHECK ALL VALVES AND SET THEM APPROPRIATELY PRIOR TO START UP. ALL MANUFACTURERS RECOMMENDED START UP PREPARATION CHECKS & VALVE SETTINGS INSTRUCTIONS MUST BE STRICTLY FOLLOWED PRIOR TO OPERATING.
2. I/O BEARING TEMPERATURE, MOTOR AMPERE INDICATOR, VIBRATION INDICATOR, AND DIFFERENTIAL PRESSURE SHALL BE MEASURED AND INDICATED FOR EACH BLOWER PANEL, LOCATED BY EACH BLOWER.
3. BLOWERS SHALL BE SEQUENCED TO OPERATE IN A WAY WHICH ENABLES EACH BLOWER TO REST FOR A SET PERIOD WHILE THE OTHER THREE ARE AVAILABLE TO OPERATE AND PROVIDE AERATION TO EACH SBR
4. MOTOR OPERATOR AT INLET SHALL BE CALIBRATED TO MODULATE REQUIRED SBR AIR, PER D.O. AND WATER LEVEL

OKLAHOMA ... DASHARATHY 11456

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REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

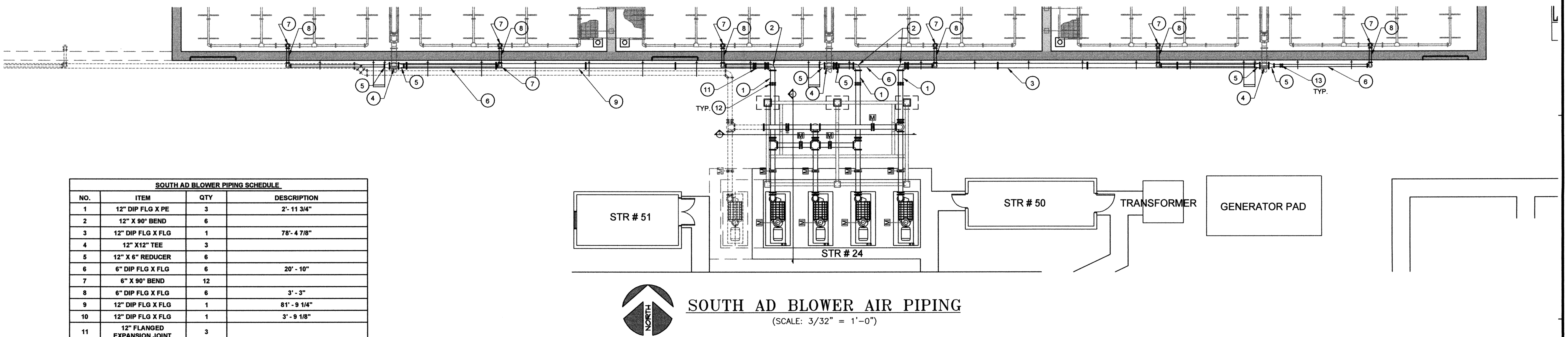
SOUTH AEROBIC DIGESTER BLOWER AIR PIPING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

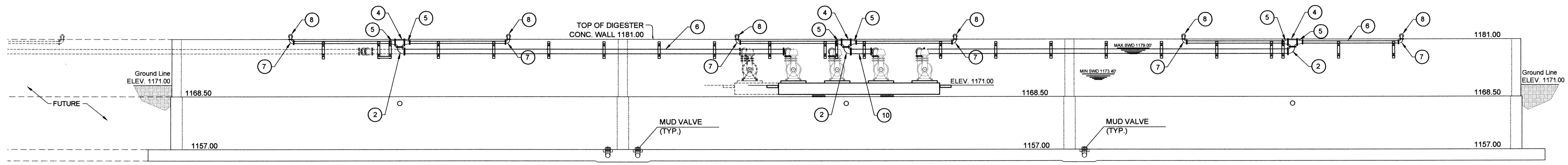
DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	12/18/2009	AS SHOWN	70 OF 95

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



SOUTH AD BLOWER AIR PIPING
(SCALE: 3/32" = 1'-0")

SOUTH AD BLOWER PIPING SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	12" DIP FLG X PE	3	2'- 11 3/4"
2	12" X 90° BEND	6	
3	12" DIP FLG X FLG	1	78'- 4 7/8"
4	12" X12" TEE	3	
5	12" X 6" REDUCER	6	
6	6" DIP FLG X FLG	6	20' - 10"
7	6" X 90° BEND	12	
8	6" DIP FLG X FLG	6	3' - 3"
9	12" DIP FLG X FLG	1	81' - 9 1/4"
10	12" DIP FLG X FLG	1	3' - 9 1/8"
11	12" FLANGED EXPANSION JOINT	3	
12	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT
13	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT



ELEVATION @ SOUTH BLOWERS
(SCALE: 3/32" = 1'-0")

SATISH DASHARATHY 11456 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER 5-17-2010

REVISIONS:	DATE:

SOUTH AEROBIC DIGESTER BLOWER AIR PIPING

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CERTIFICATE OF AUTHORIZATION NO. CA2088

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S.D.		S.D.	S.D.	2/24/2010	AS SHOWN	71 OF 95

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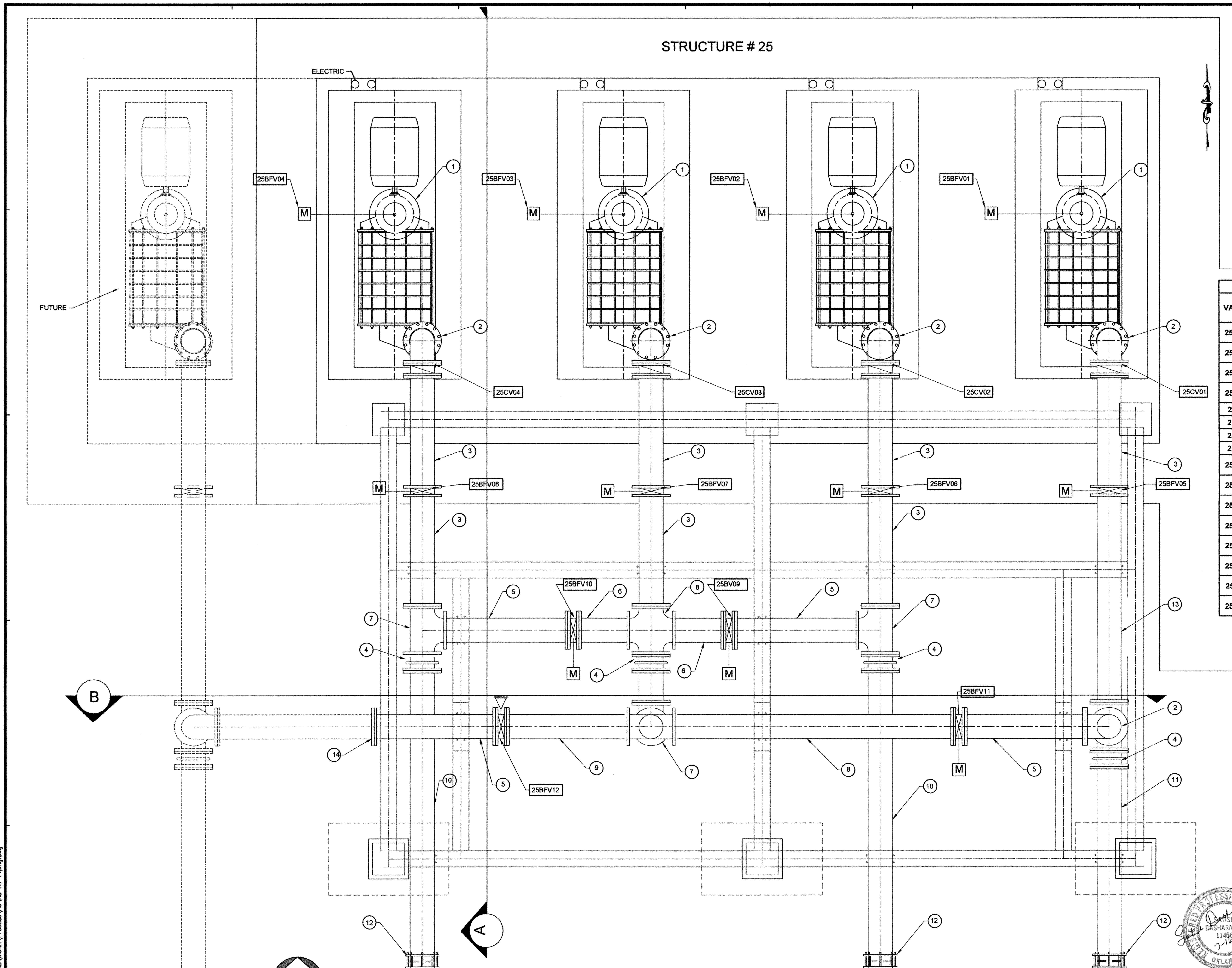
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



NORTH AD BLOWER AIR PIPING PLAN

SCALE: 1/2" = 1'-0

GENERAL NOTES

1. CONTRACTOR SHALL CHECK ALL VALVES AND SET THEM APPROPRIATELY PRIOR TO START UP. ALL MANUFACTURERS RECOMMENDED START UP PREPARATION CHECKS & VALVE SETTINGS INSTRUCTIONS MUST BE STRICTLY FOLLOWED PRIOR TO OPERATING.
2. I/O BEARING TEMPERATURE, MOTOR AMPERE INDICATOR, VIBRATION INDICATOR, AND DIFFERENTIAL PRESSURE SHALL BE MEASURED AND INDICATED FOR EACH BLOWER PANEL, LOCATED BY EACH BLOWER.
3. BLOWERS SHALL BE SEQUENCED TO OPERATE IN A WAY WHICH ENABLES EACH BLOWER TO REST FOR A SET PERIOD WHILE THE OTHER THREE ARE AVAILABLE TO OPERATE AND PROVIDE AERATION TO EACH SBR
4. MOTOR OPERATOR AT INLET SHALL BE CALIBRATED TO MODULATE REQUIRED SBR AIR, PER D.O. AND WATER LEVEL

NORTH DIGESTER SUCTION, DISCHARGE, & ISOLATION VALVE SCHEDULE

VALVE ID	LOCATION	TYPE	SIZE	ELECTRICALLY MOTORIZED OPERATOR	MANUAL OPERATOR TYPE
25BFVO1	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV02	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV03	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV04	SUCTION	WAFER BUTTERFLY	12"	YES	WHEEL
25CV01	DISCHARGE	WAFER CHECK	12"	N/A	N/A
25CV02	DISCHARGE	WAFER CHECK	12"	N/A	N/A
25CV03	DISCHARGE	WAFER CHECK	12"	N/A	N/A
25CV04	DISCHARGE	WAFER CHECK	12"	N/A	N/A
25BFV05	DISCHARGE 25B01	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV06	DISCHARGE 25B02	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV07	DISCHARGE 25B03	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV08	DISCHARGE 25B04	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV09	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV10	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV11	ISOLATION	WAFER BUTTERFLY	12"	YES	WHEEL
25BFV12	ISOLATION	WAFER BUTTERFLY	12"	NO	CHAIN WHEEL

NORTH DIGESTER BLOWER SCHEDULE

BLOWER ID	25B01	25B02	25B03	25B04
HP	300			
TYPE	CENTRIFUGAL			

NORTH AD BLOWER PIPING SCHEDULE

NO.	ITEM	QTY	DESCRIPTION
1	BLOWER SILENCER	4	SILENCER, TRIVENT SERIES BY BLOWER MANUFACTURER
2	12" X 90° BEND	6	
3	12" DIP FLG X FLG	7	4'-7 3/4"
4	12" FLANGED EXPANSION JOINT	8	BY BLOWER MANUFACTURER (4 ON SUCTION SIDE & 4 ON DISCHARGE)
5	12" DIP FLG X FLG	4	5'- 3/8"
6	12" DIP FLG X FLG	2	2'-0"
7	12' X 12" TEE	4	
8	12" DIP FLG X FLG	1	11'-63/8"
9	12" DIP FLG X FLG	1	5'-0"
10	12" DIP FLG X PE	2	12'-3/4"
11	12" DIP FLG X PE	1	8'-3/4"
12	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT
13	12" DIP FLG X FLG	1	8'-73/4"
14	12" BLIND FLANGE	1	
15	12" DIP FLG X FLG	2	0'- 8 3/4"

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	12/18/2009	AS SHOWN	72 OF 95

NORTH AEROBIC DIGESTER BLOWER AIR PIPING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

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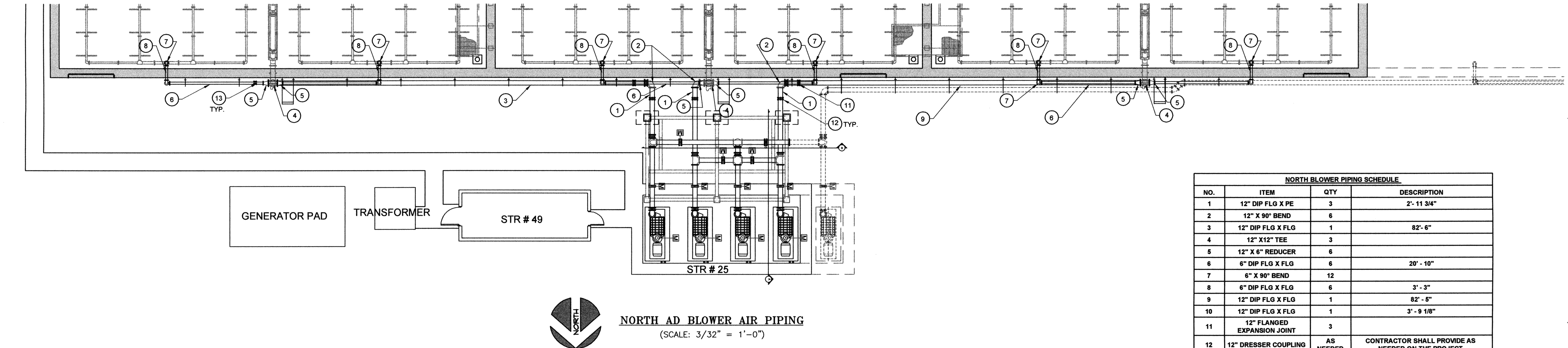
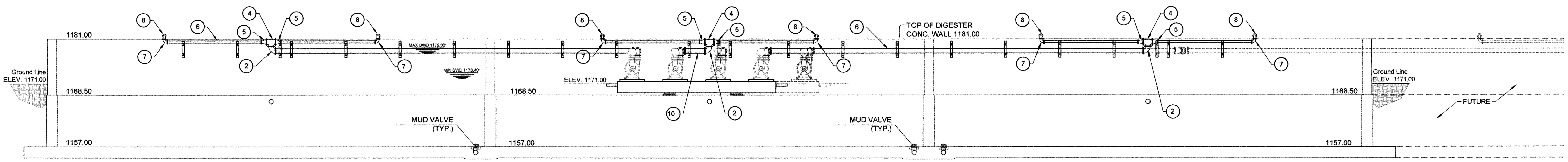
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



NORTH AD BLOWER AIR PIPING
(SCALE: 3/32" = 1'-0")

NORTH BLOWER PIPING SCHEDULE			
NO.	ITEM	QTY	DESCRIPTION
1	12" DIP FLG X PE	3	2'- 11 3/4"
2	12" X 90° BEND	6	
3	12" DIP FLG X FLG	1	82'- 6"
4	12" X12" TEE	3	
5	12" X 6" REDUCER	6	
6	6" DIP FLG X FLG	6	20' - 10"
7	6" X 90° BEND	12	
8	6" DIP FLG X FLG	6	3' - 3"
9	12" DIP FLG X FLG	1	82' - 5"
10	12" DIP FLG X FLG	1	3' - 9 1/8"
11	12" FLANGED EXPANSION JOINT	3	
12	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT
13	12" DRESSER COUPLING	AS NEEDED	CONTRACTOR SHALL PROVIDE AS NEEDED ON THE PROJECT



ELEVATION @ NOTH BLOWERS
(SCALE: 3/32" = 1'-0")

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	2/24/2010	AS SHOWN	73 OF 95

REVISIONS:	DATE:

NORTH AEROBIC DIGESTER BLOWER AIR PIPING

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2803 SOUTH BRYANT
EDMOND, OK. 73013
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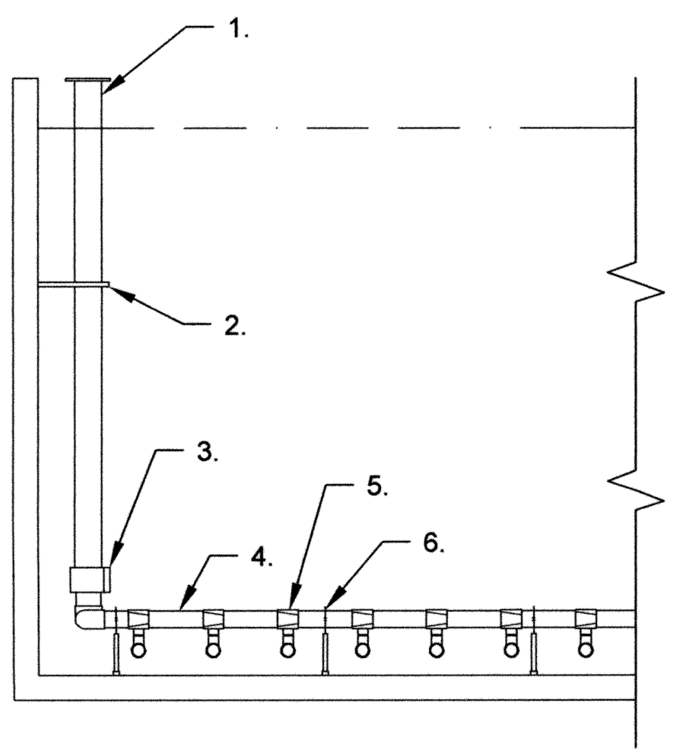
EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

REGISTERED PROFESSIONAL ENGINEER SATISH DASHARATHY 11466 OKLAHOMA 5-17-2010

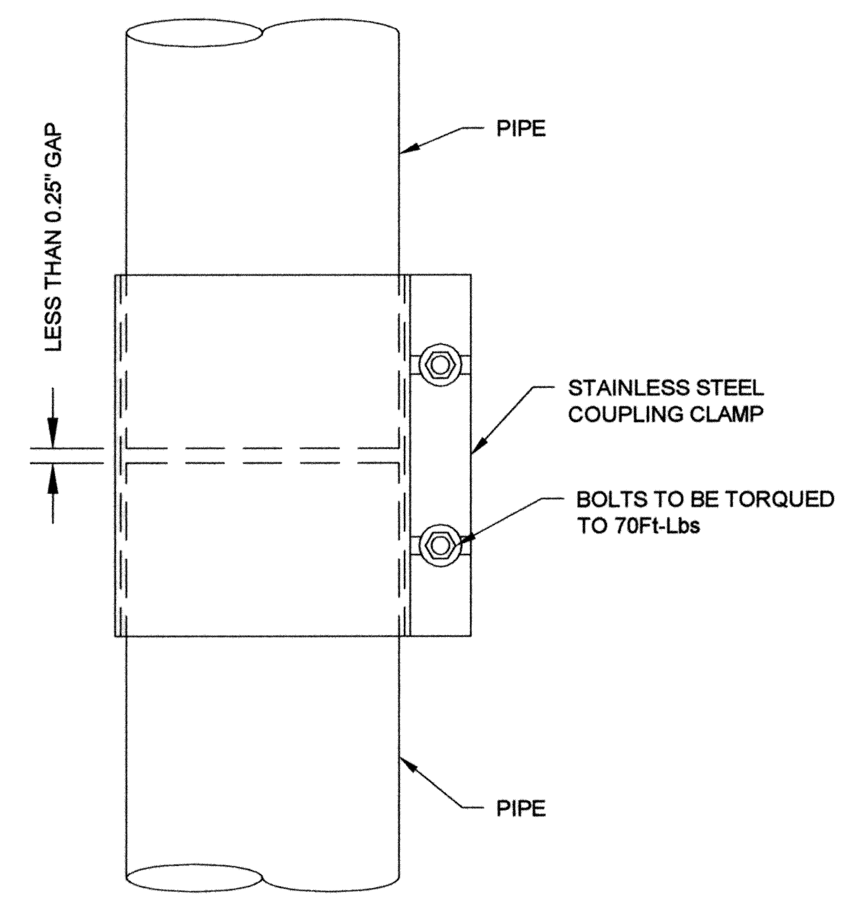
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

NOTES:
1. S.S COUPLING CLAMP TO BE JCM 131 OR EQUAL
2. COUPLING CLAMP TO BE INSTALLED MIN. OF 2FT. BELOW LOW WATER LEVEL.
3. GAP BETWEEN PIPES MUST BE LESS THEN 0.25"

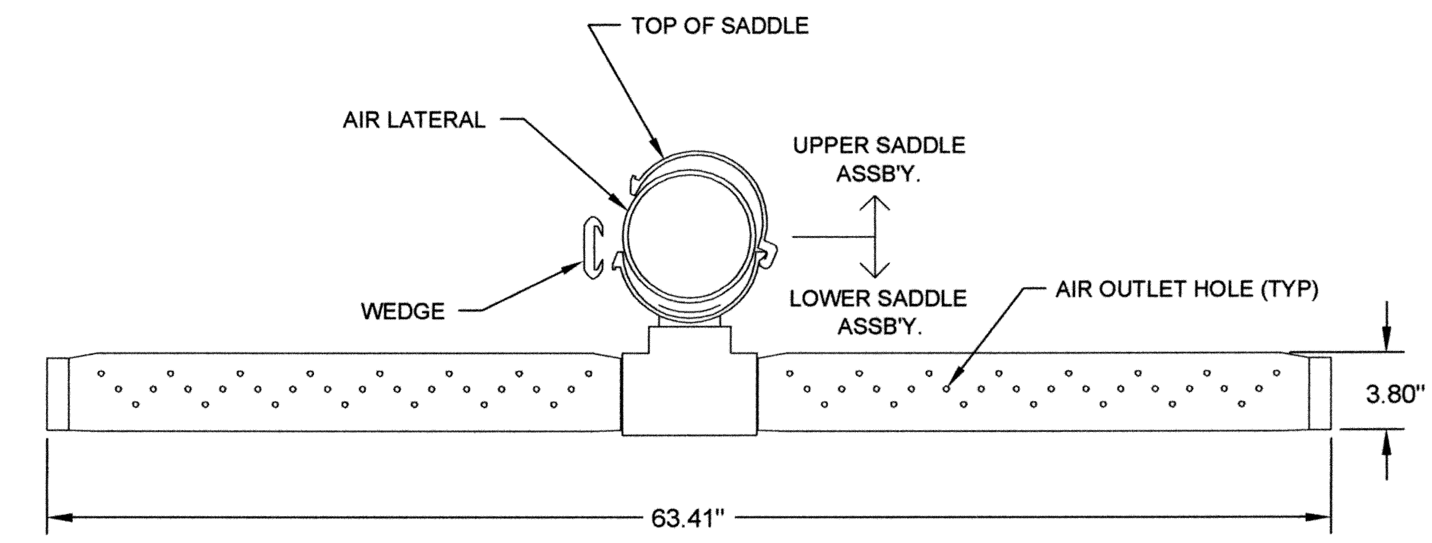


LEGEND:
1. S.S. DROP PIPE
2. DROP PIPE SUPPORT
3. METAL TO PVC CONNECTION
4. PVC AIR LATERAL
5. EDI DIFFUSER ASSB'Y (SEE DETAIL)
6. SIMPLE PIPE SUPPORT

TYPICAL SECTION VIEW - AD PIPING
NOT TO SCALE

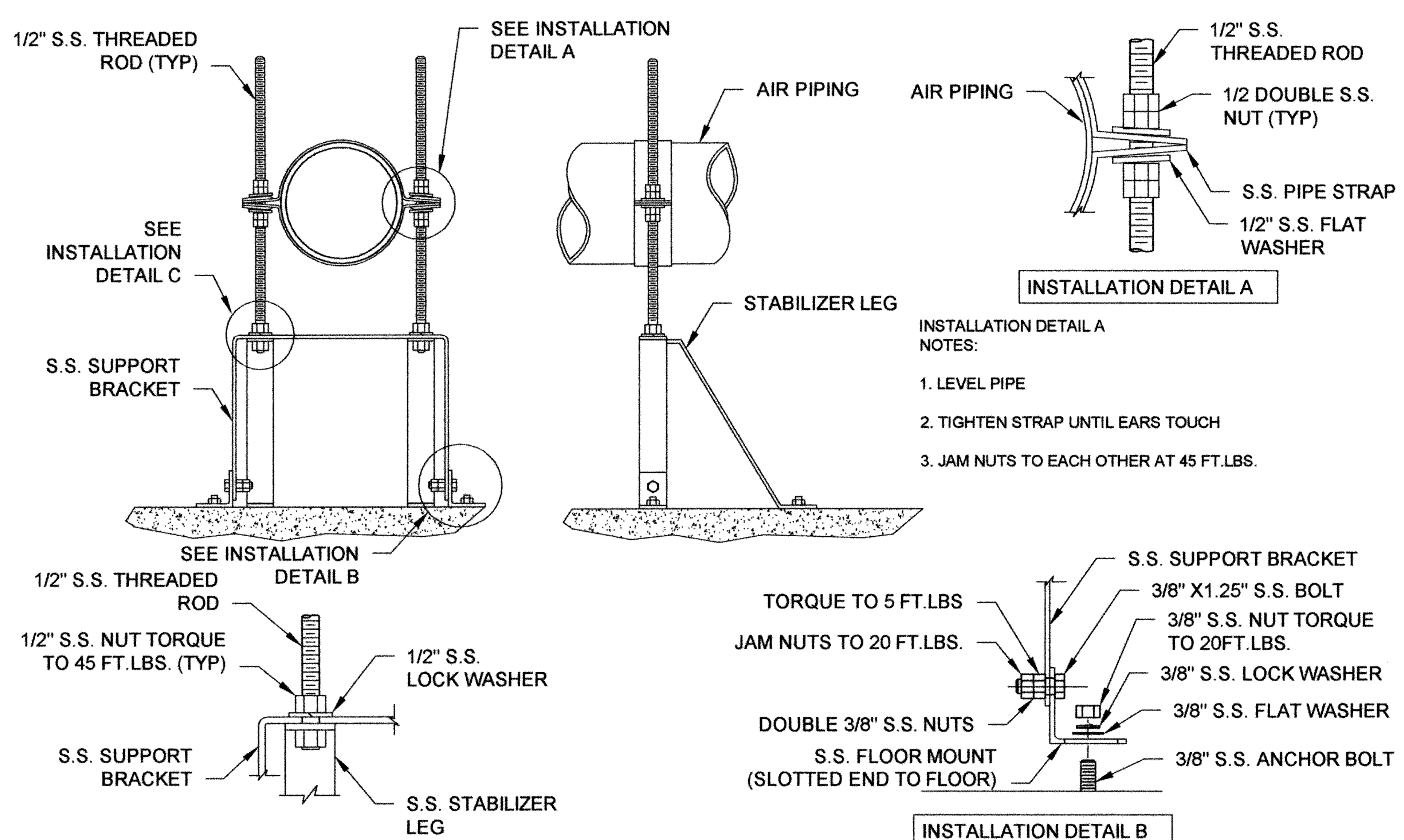


S.S COUPLING CLAMP
NOT TO SCALE



NORMAL AIRFLOW RANGE= 0-60 scfm (101.9 sm^3/h)
PEAK AIRFLOW CAPACITY= 100scfm (139.9sm^3/h)

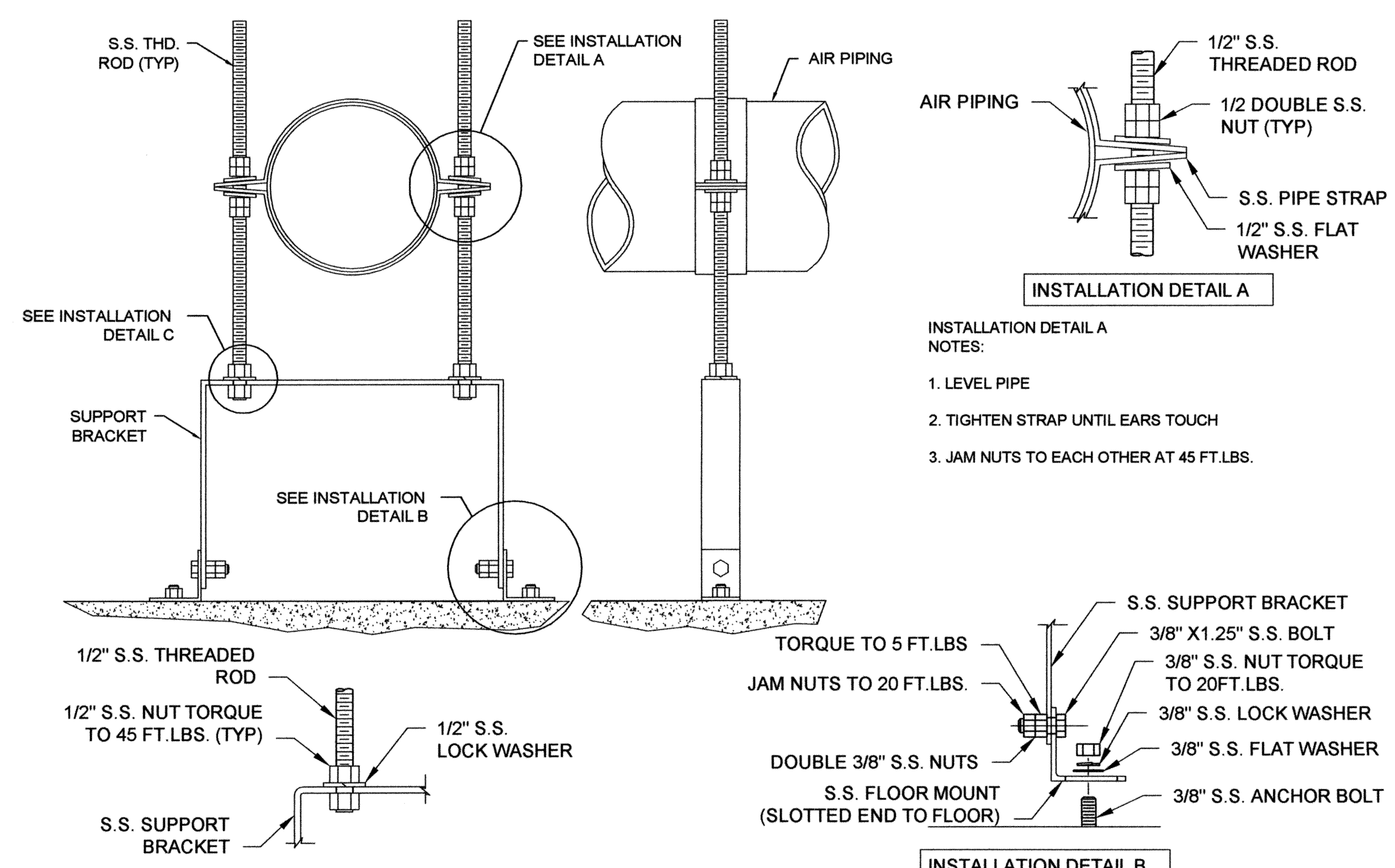
DUPLEX DIFFUSER ASSEMBLY
NOT TO SCALE



INSTALLATION DETAIL A
NOTES:
1. LEVEL PIPE
2. TIGHTEN STRAP UNTIL EARS TOUCH
3. JAM NUTS TO EACH OTHER AT 45 FT.LBS.

NOTES:
1. FLOOR MOUNTS AND STABILIZER LEGS ARE SECURED TO BASIN FLOOR BY CONCRETE ANCHOR BOLTS.
2. A COMERCIAL GRADE ANTI SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL THREADED CONNECTIONS.

S.S RIGID PIPE SUPPORT
NOT TO SCALE



INSTALLATION DETAIL A
NOTES:
1. LEVEL PIPE
2. TIGHTEN STRAP UNTIL EARS TOUCH
3. JAM NUTS TO EACH OTHER AT 45 FT.LBS.

NOTES:
1. FLOOR MOUNTS ARE SECURED TO BASIN FLOOR BY CONCRETE ANCHOR BOLTS.
2. A COMMERCIAL GRADE ANTI SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL THREADED CONNECTIONS .

S.S SIMPLE PIPE SUPPORT
NOT TO SCALE

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REVISIONS:	DATE:

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	1/8/2010	AS SHOWN	74 OF 95

AD AIR DIFFUSER AND PIPING SUPPORT DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA
5-7-2010

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

DESIGNED BY: S.D.	CAD OPERATOR:	CHECKED: S.D.	APPROVED: S.D.	PLOT DATE: 3/22/10	DWG. SCALE: AS SHOWN	SHEET: 75 OF 95

REVISIONS:	DATE:

SITE PLAN
AEROBIC DIGESTER
ODOR CONTROL

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
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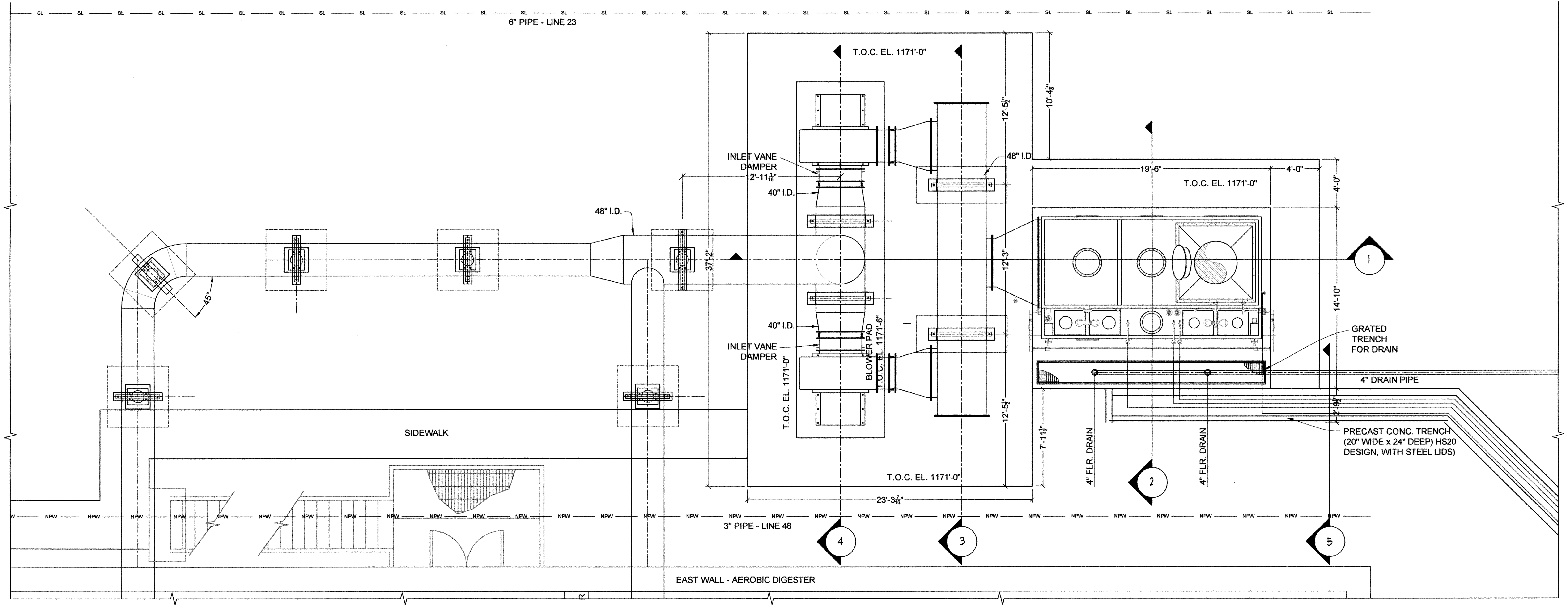
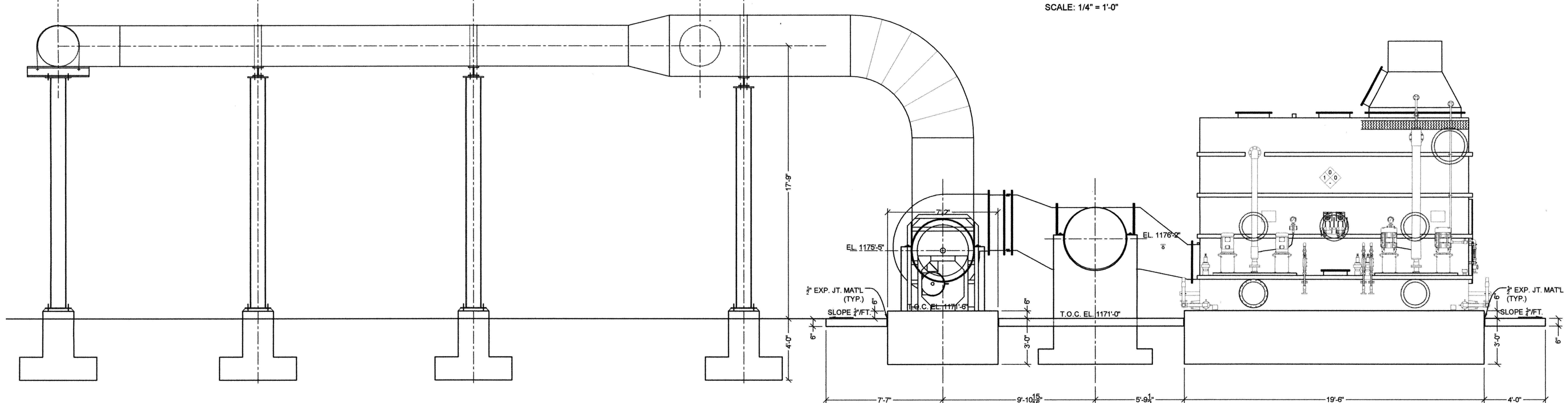
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



AERODIC DIGESTER ODOR CONTROL UNIT

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



1 SECTION

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

NOT FOR CONSTRUCTION

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	3/29/2010	AS SHOWN	76 OF 95

REVISIONS:	DATE:

AD ODOR CONTROL PIPING DETAILS

EAGLE OFFICE CENTER
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CERTIFICATE OF AUTHORIZATION NO. CA2088

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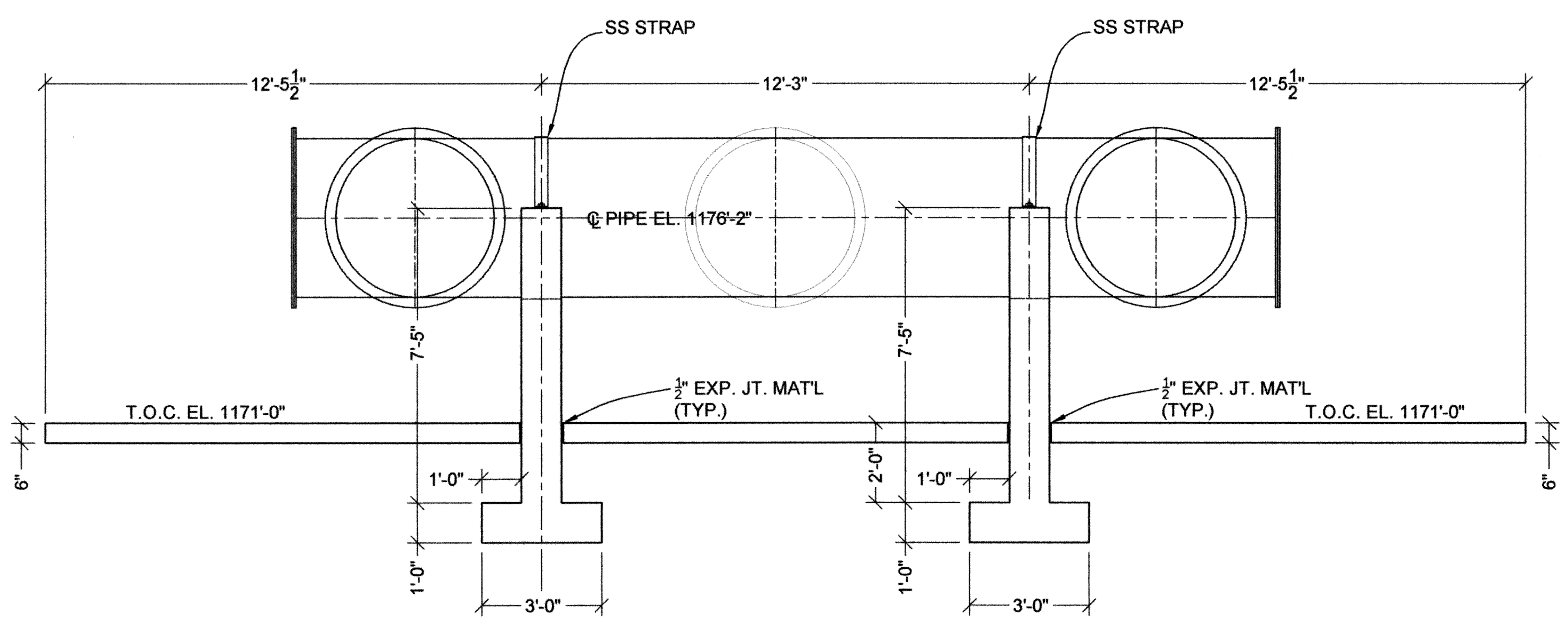
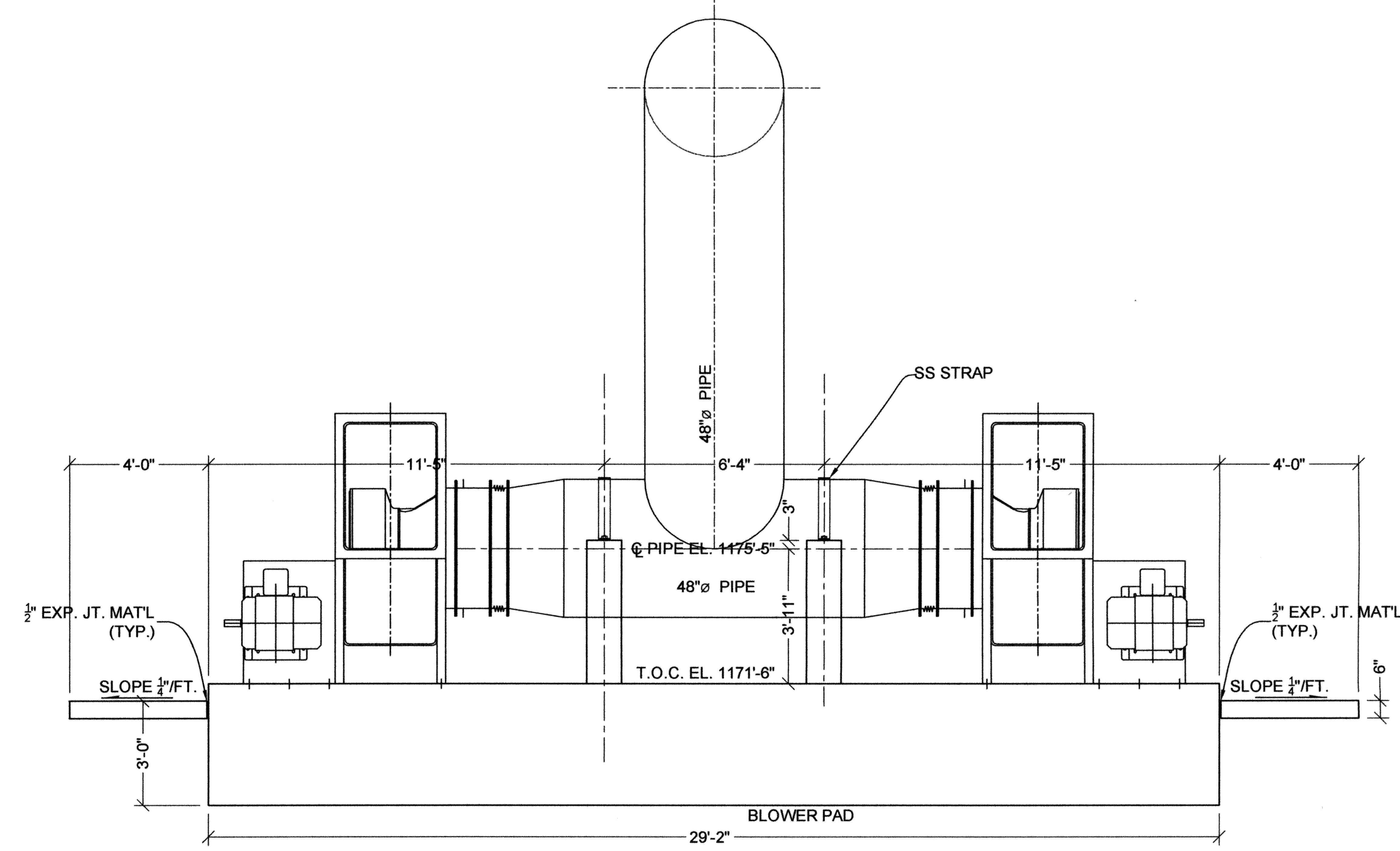
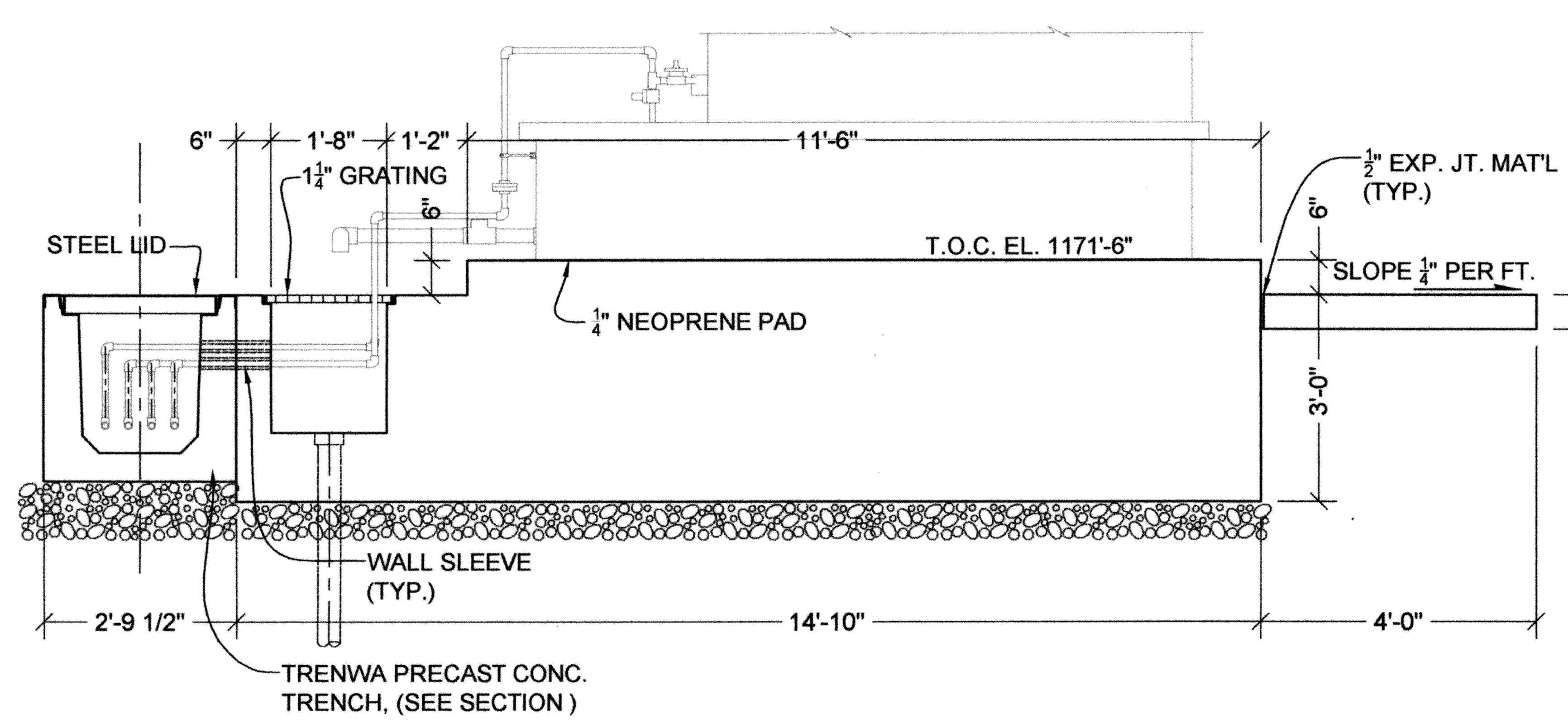
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



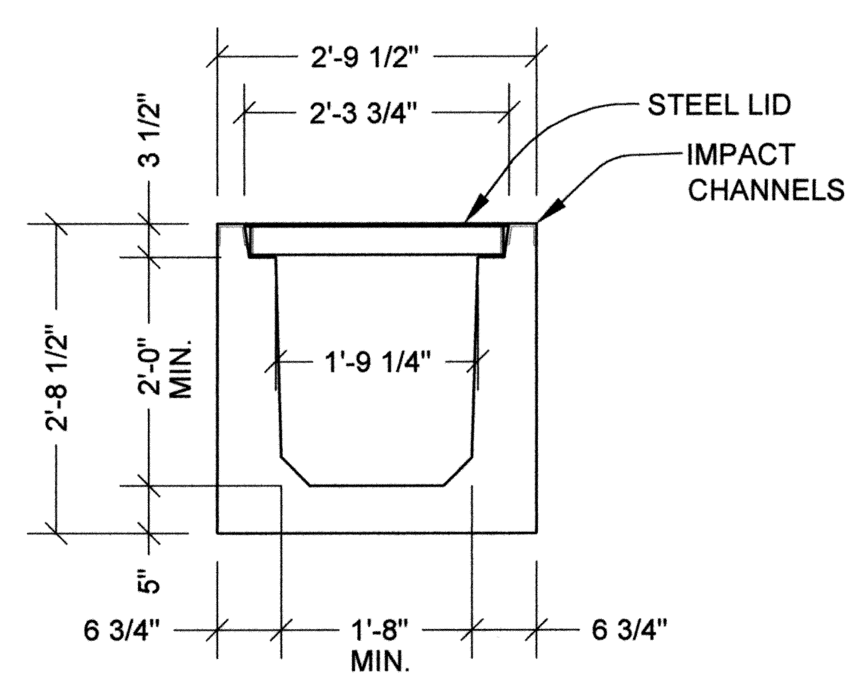
3 SECTION
SCALE: 3/8" = 1'-0



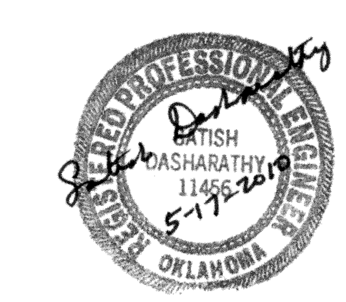
4 SECTION
SCALE: 3/8" = 1'-0



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



5 PECAST TRENCH SECTION
SCALE: 3/4" = 1'-0



NOT FOR CONSTRUCTION

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S.D.	D.O.	S.D.	S.D.	3/29/2010	AS SHOWN	77 OF 95

REVISIONS:	DATE:

AD ODOR CONTROL SECTIONS

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CERTIFICATE OF AUTHORIZATION NO. CA2088

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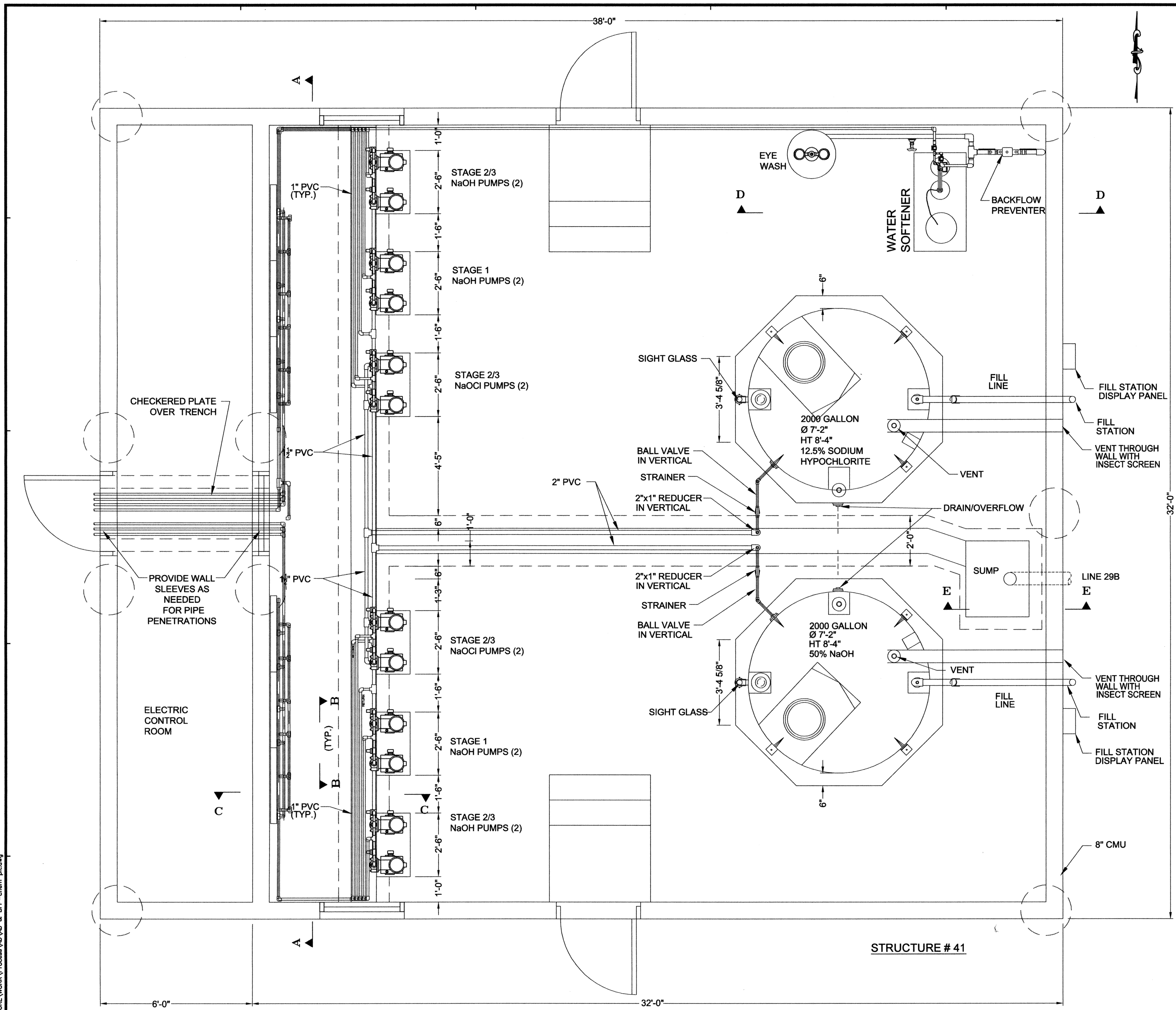
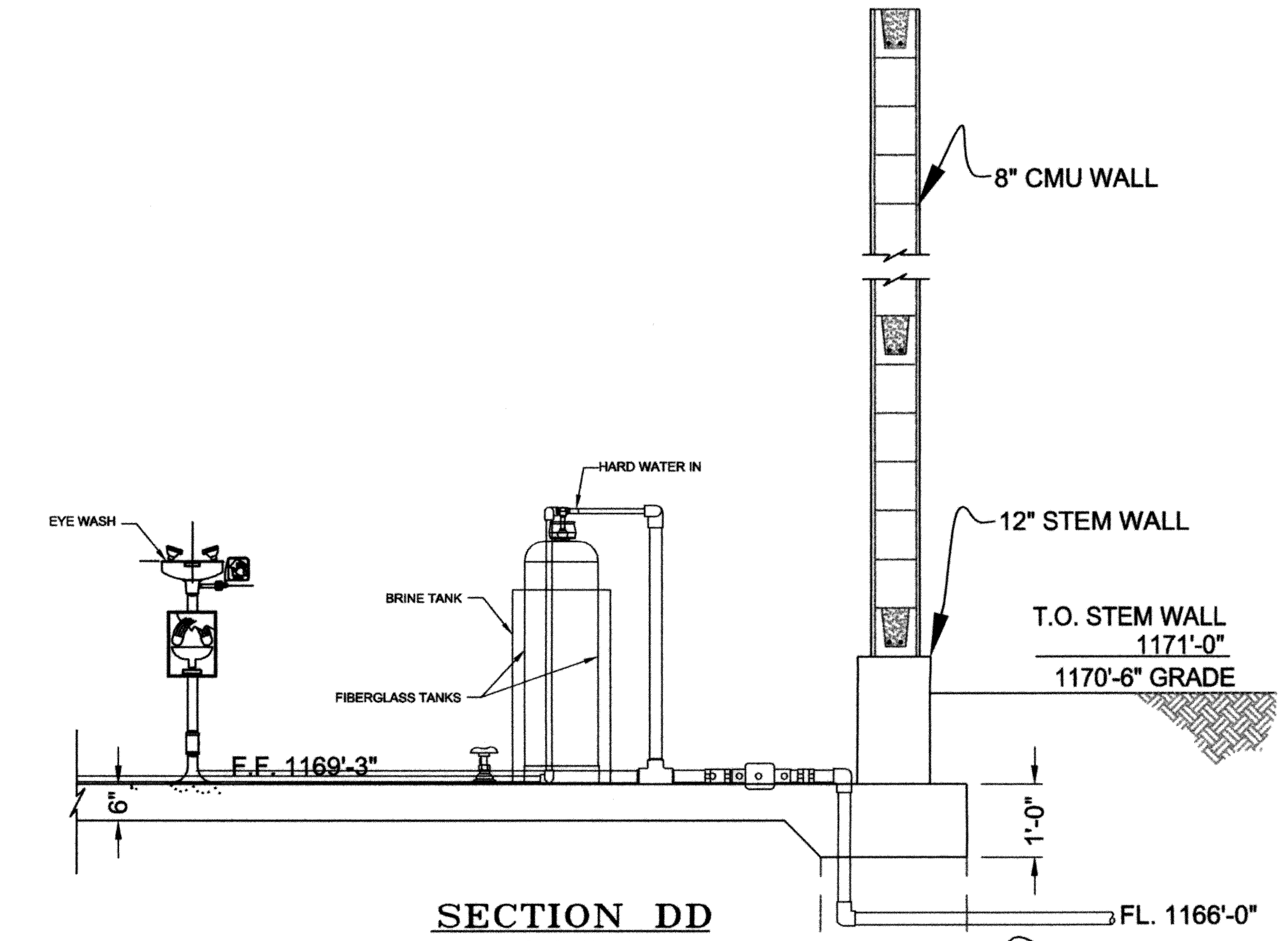
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



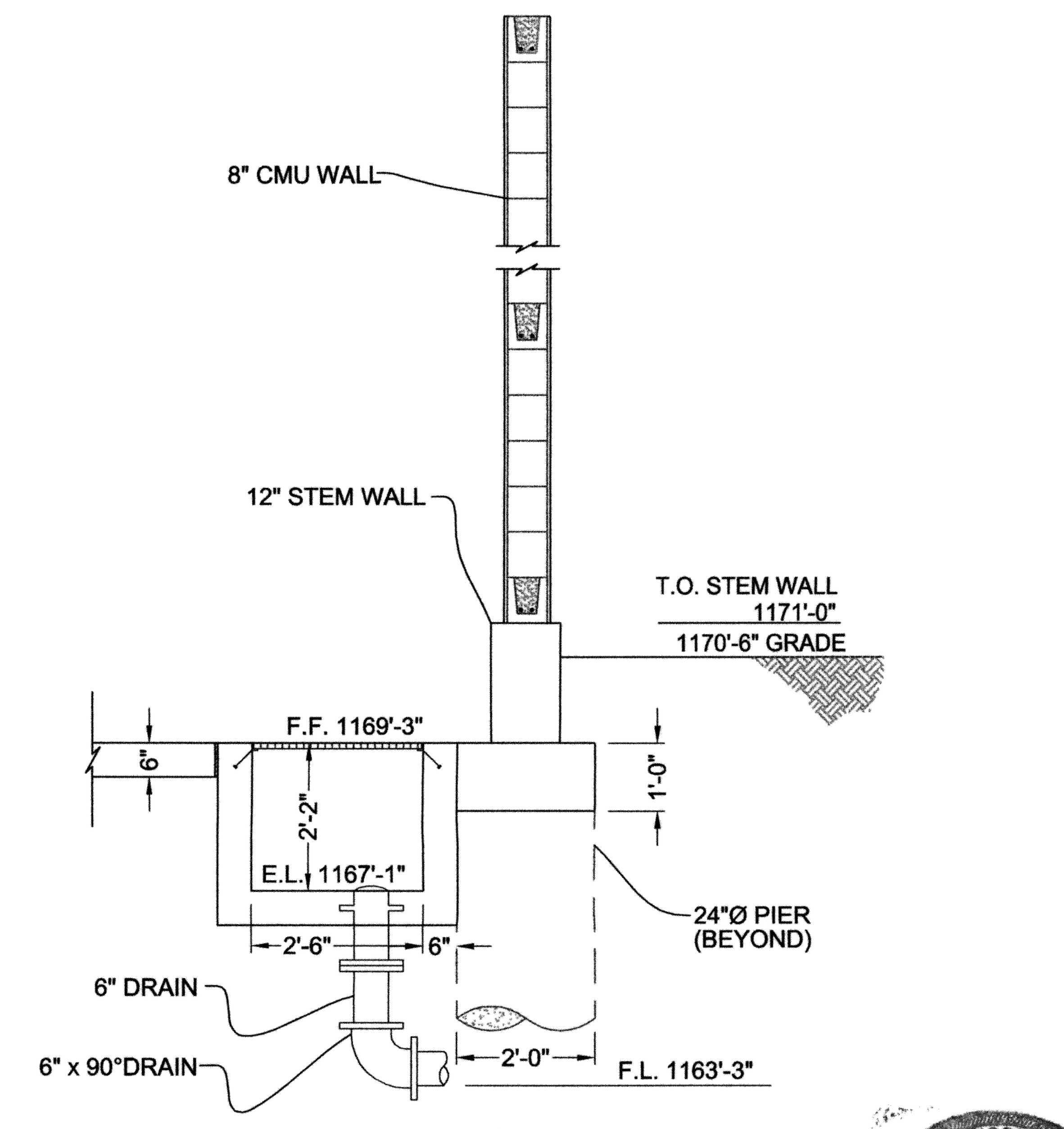
CHEMICAL FEED BUIDLING PLAN

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



SECTION DD

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



SECTION EE

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

REGISTERED PROFESSIONAL ENGINEER SATISH ASHARATHY 11456 OKLAHOMA 5-17-2010

DESIGNED BY: S.D.	CAD OPERATOR:	CHECKED: S.D.	APPROVED: S.D.	PLOT DATE: 5/16/2010	DWG. SCALE: AS NOTED	SHEET: 78 OF 95

REVISIONS:	DATE:

AEROBIC DIGESTER AND BELT FILTER PRESS CHEMICAL FEED BUILDING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
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CERTIFICATE OF AUTHORIZATION NO. CA2088

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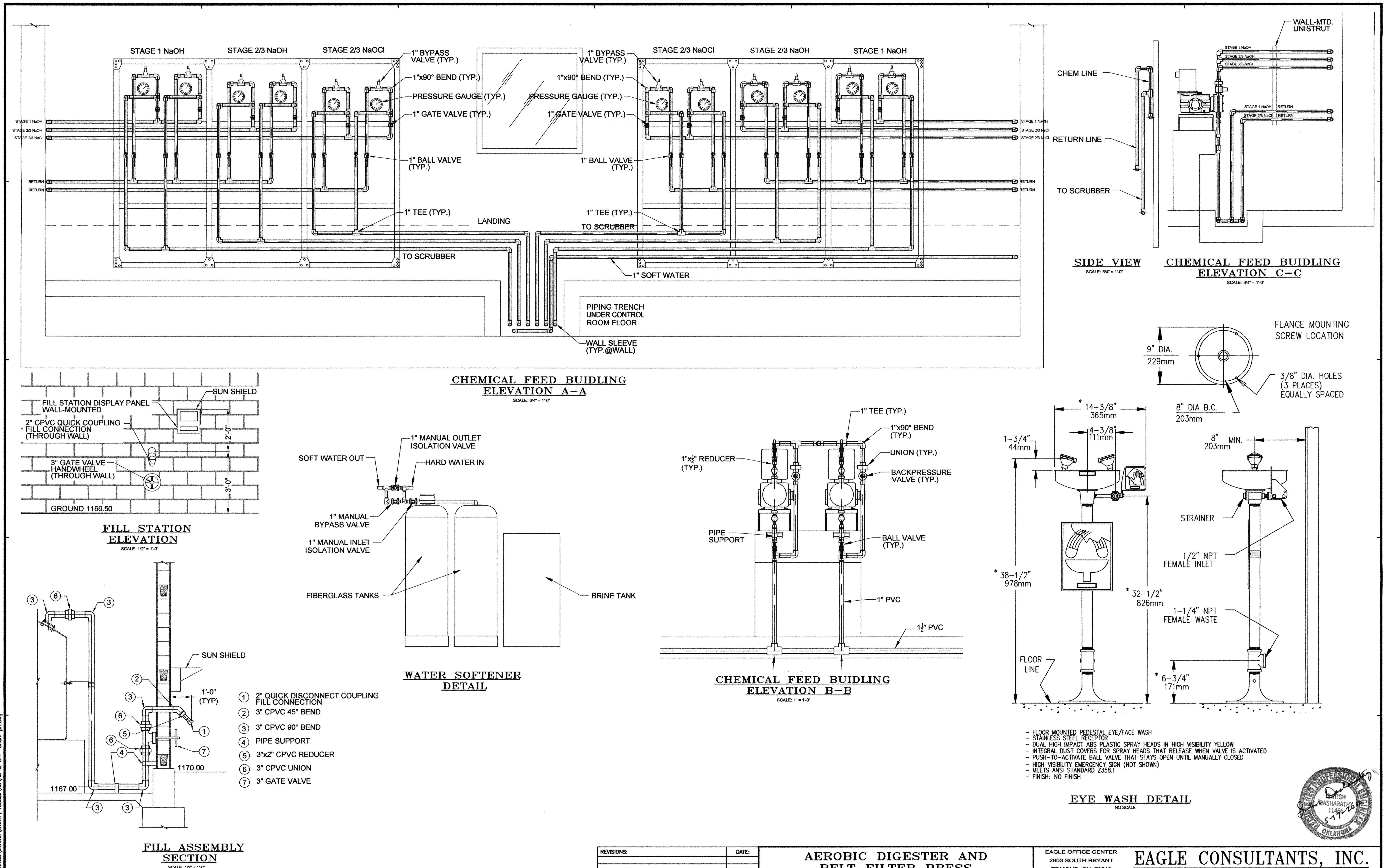
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



REVISIONS:	DATE:

AEROBIC DIGESTER AND BELT FILTER PRESS CHEMICAL FEED BUILDING DETAILS

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	5/16/10	AS NOTED	79 OF 95

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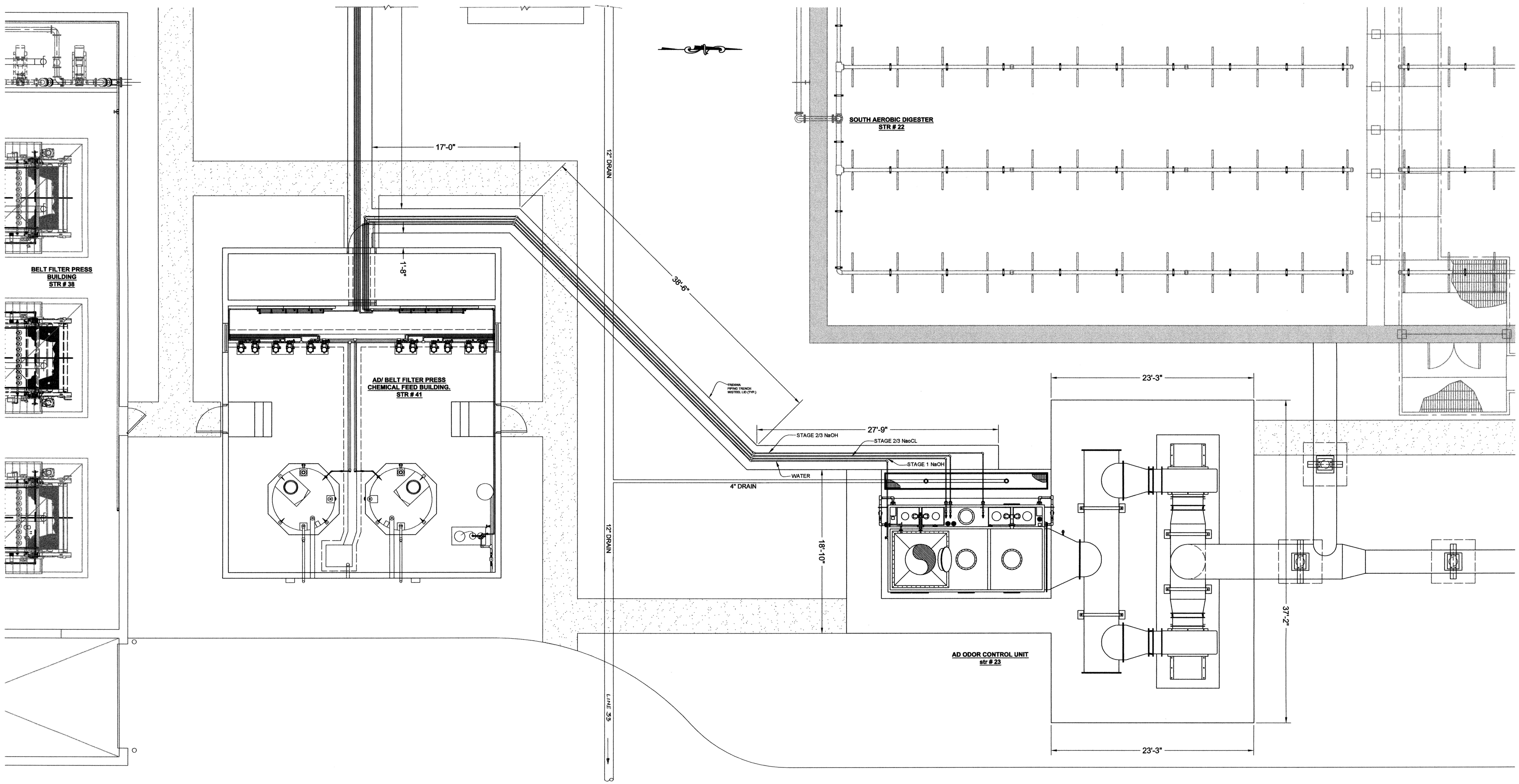
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



PLAN

SCALE: 3/16" = 1'-0"

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S.D.		S.D.	S.D.	3/24/10	AS SHOWN	80 OF 95

REVISIONS:	DATE:

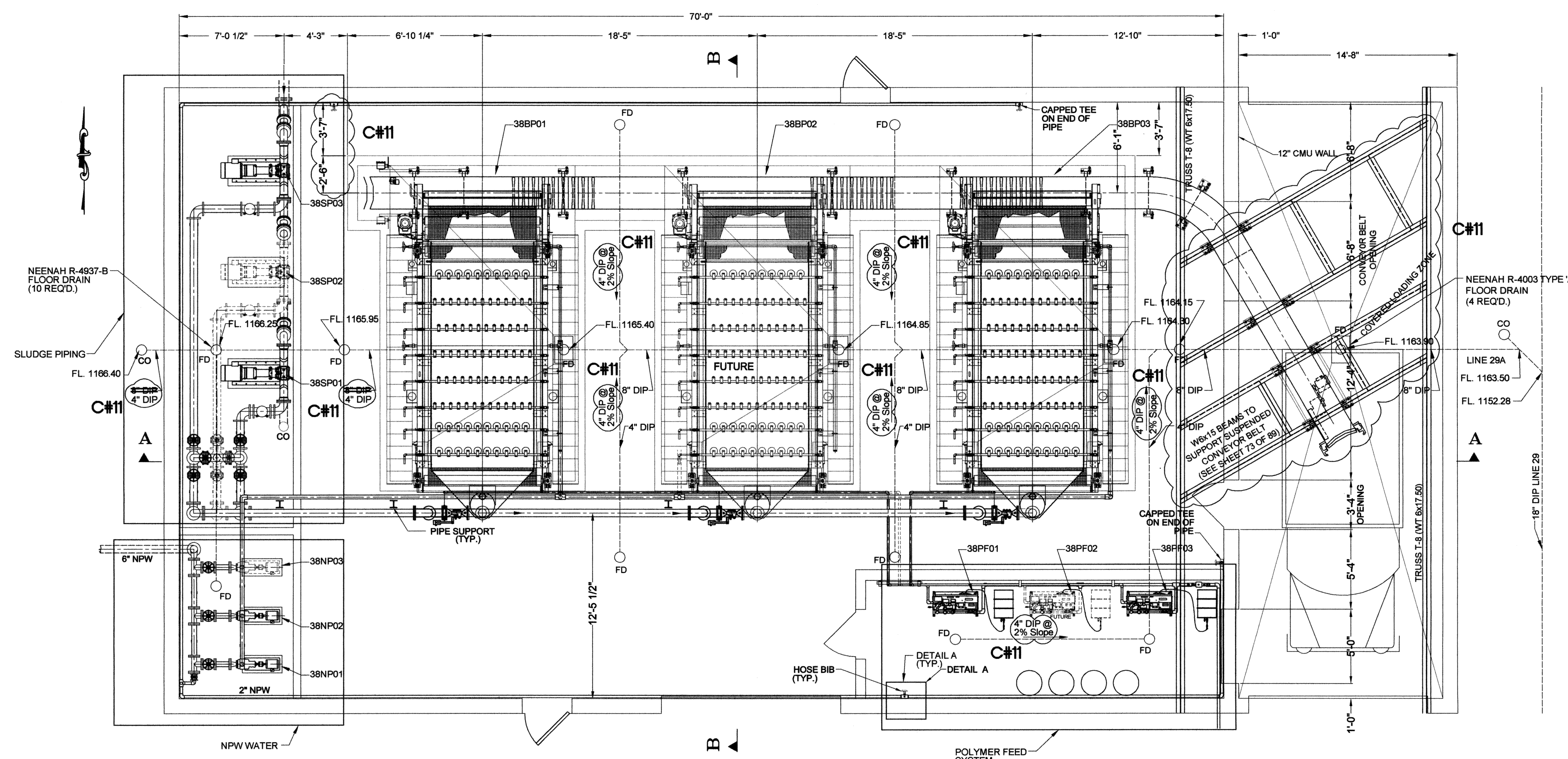
CHEMICAL FEED PIPING FOR AEROBIC DIGESTER

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

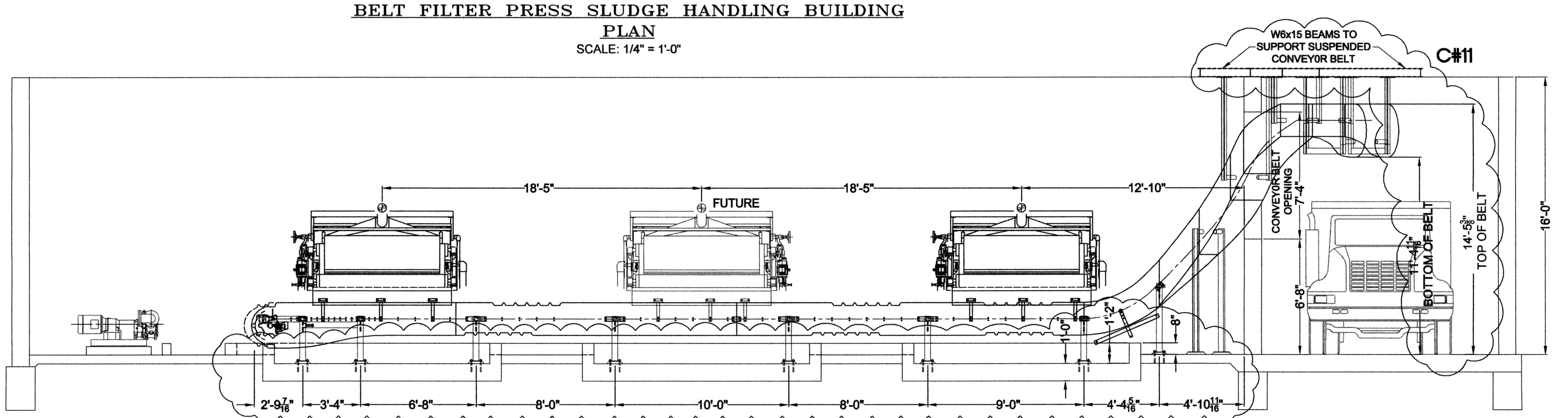
EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

LICENSED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA

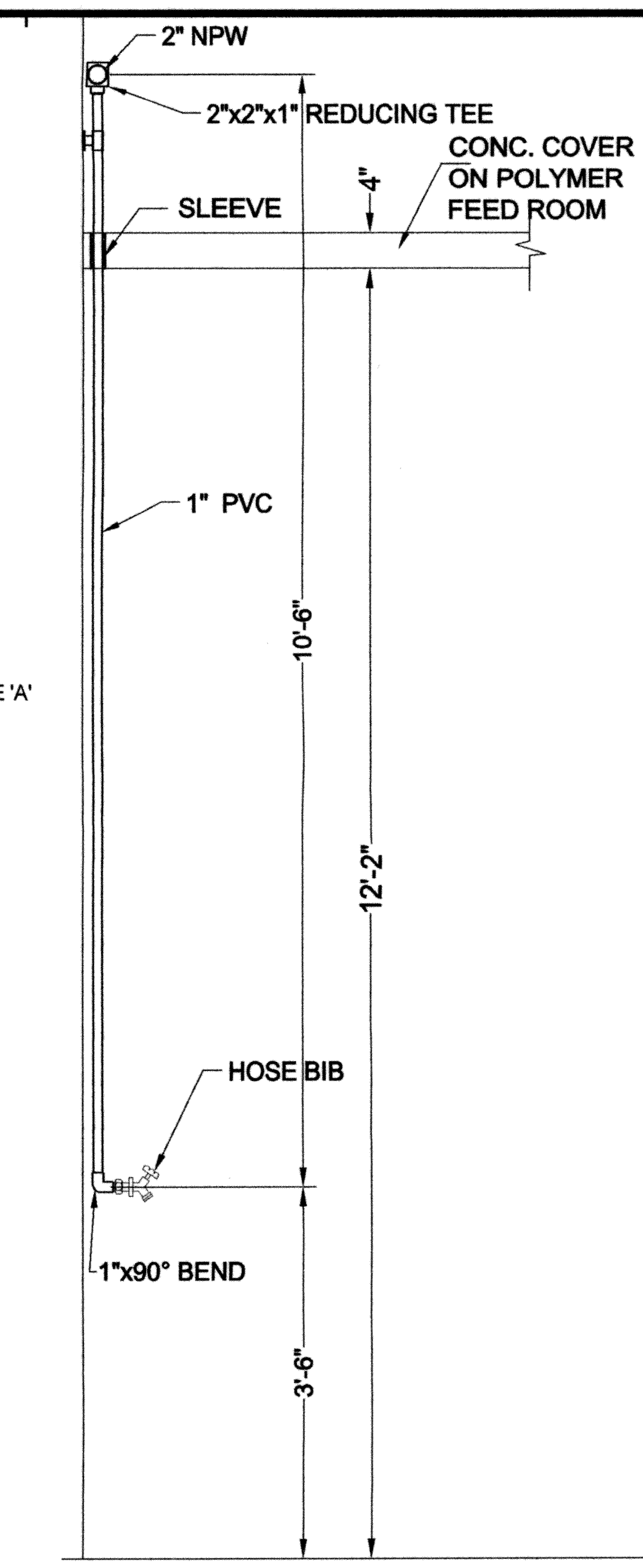
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



BELT FILTER PRESS SLUDGE HANDLING BUILDING
PLAN
SCALE: 1/4" = 1'-0"



BELT FILTER PRESS SLUDGE HANDLING BUILDING
SECTION A–A
SCALE: 1/4" = 1'-0"



DETAIL A
SCALE: 3/4" = 1'-0"

REVISIONS:	DATE:
C#11 – CLARIFICATION NO. 11	4/14/2011

STRUCTURE NO. 38
BELT FILTER PRESS SLUDGE HANDLING BUILDING

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EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	2/14/2010	AS SHOWN	81 OF 95

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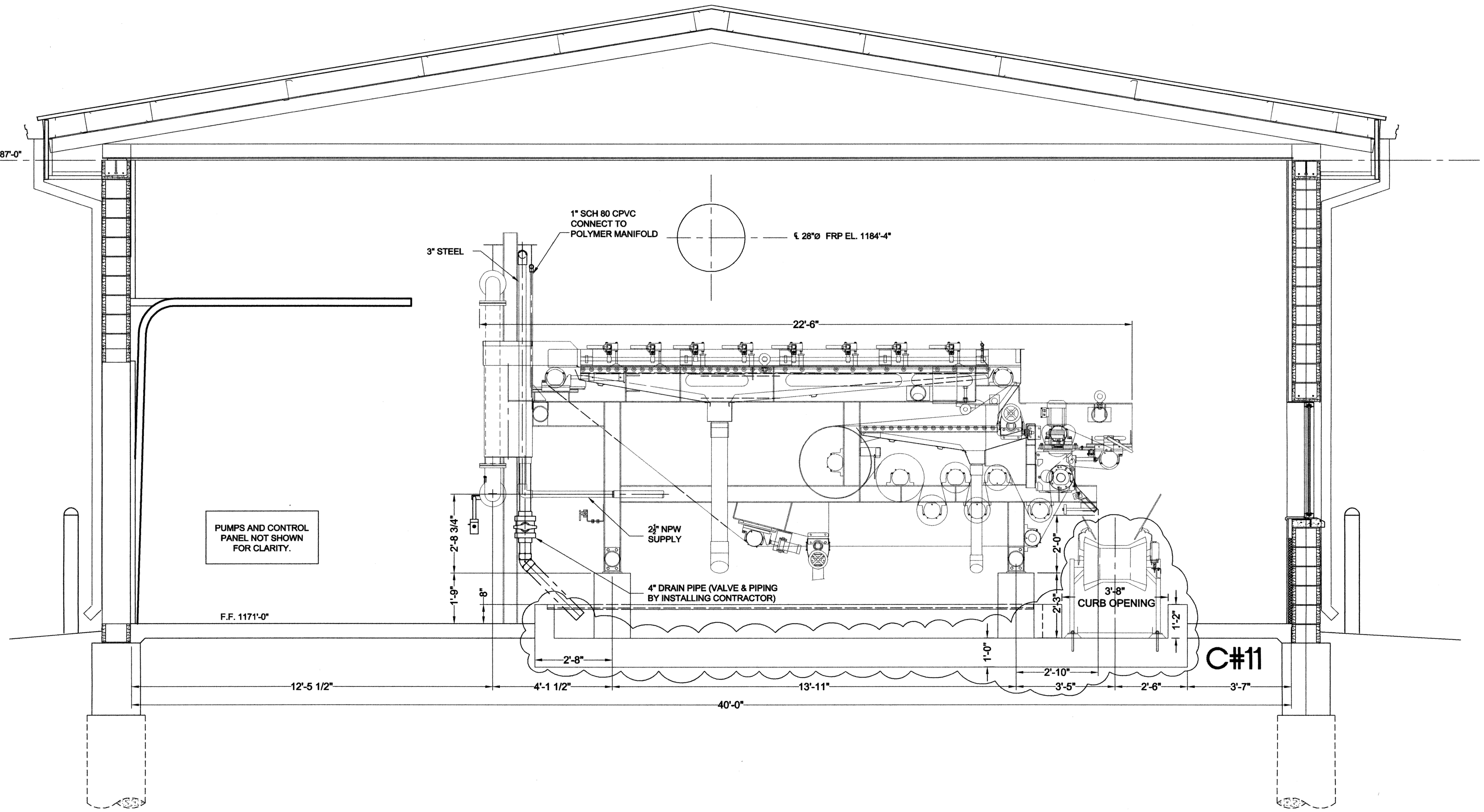
SATISH DASHARATHY 11456 4-14-2011

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



BELT FILTER PRESS SLUDGE HANDLING BUILDING

BUILDING SECTION B–B

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

REVISIONS:	DATE:
C#11 – CLARIFICATION NO. 11	4/14/2011

STRUCTURE NO. 38
BELT FILTER PRESS
BUILDING SECTION

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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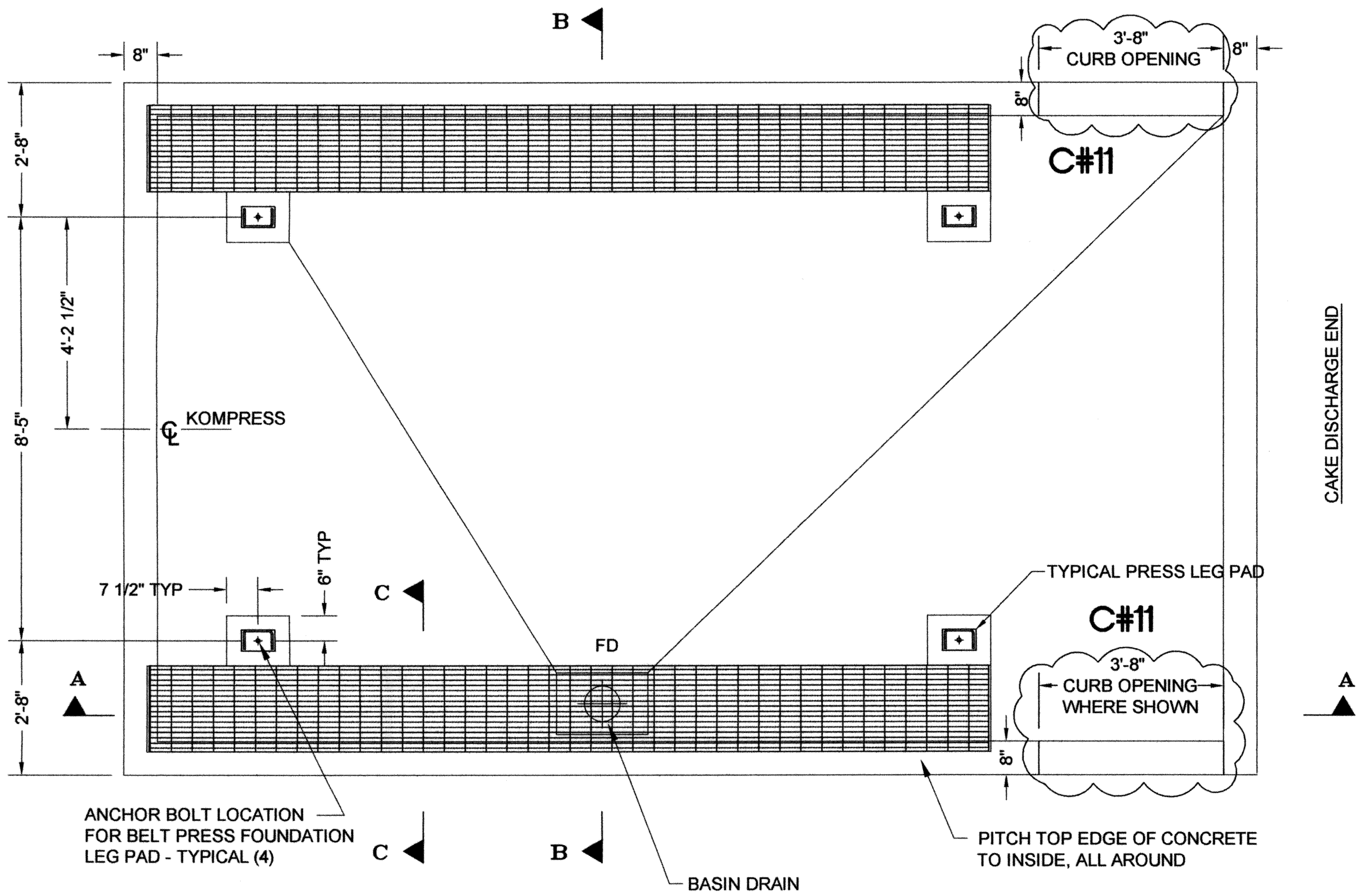
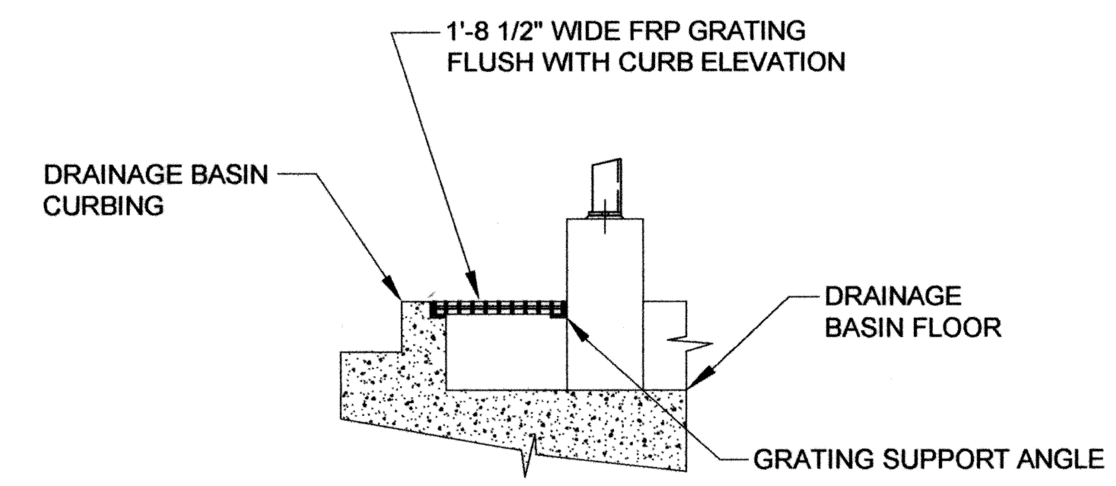


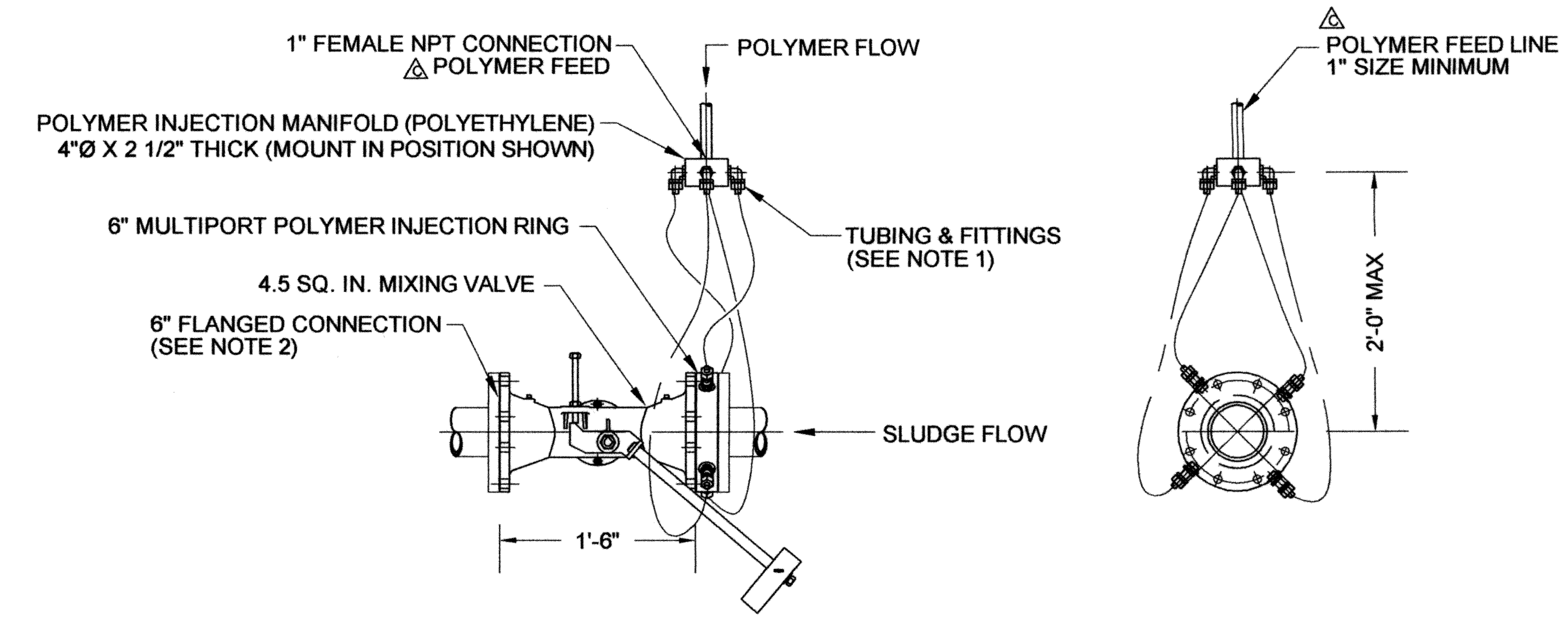
FILTER PRESS FOUNDATION PLAN

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



SECTION "C–C"

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

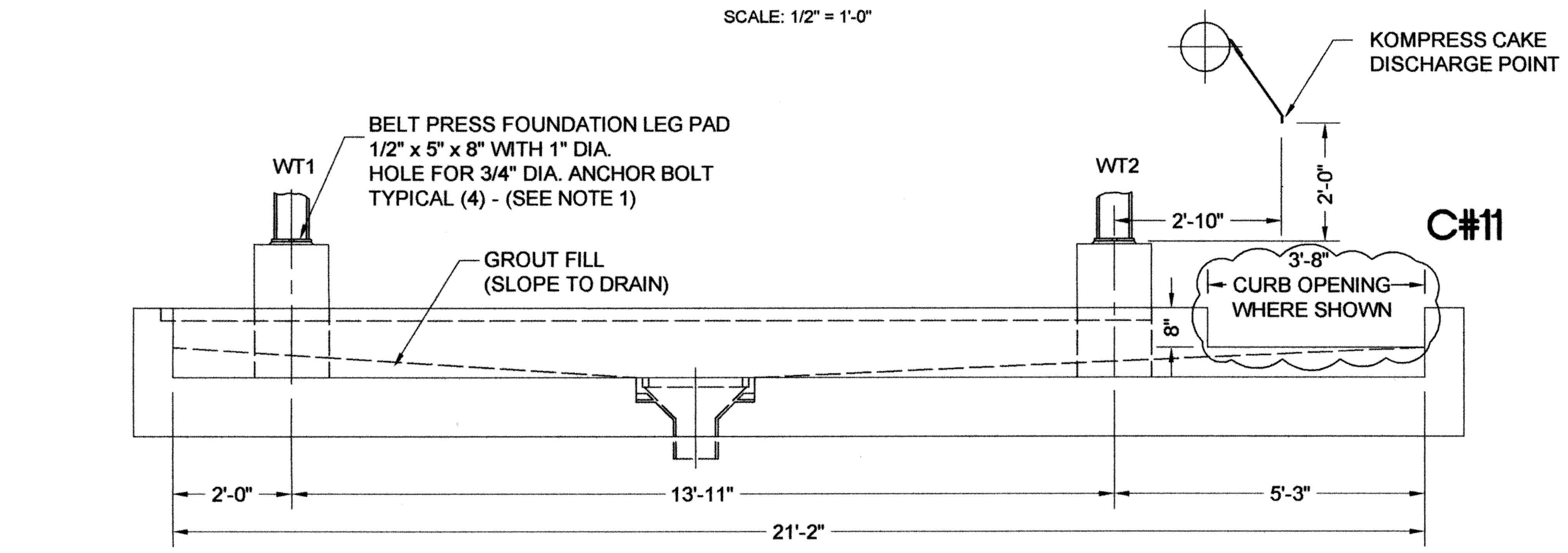


NOTES-

1. 10'-0" OF 1/2" 90 PSI POLYETHYLENE TUBING SUPPLIED BY BFP MANUFACTURER.
2. FLANGED CONNECTIONS ARE 150# F.F. WITH BOLT HOLES STRADDLING CENTERLINES.

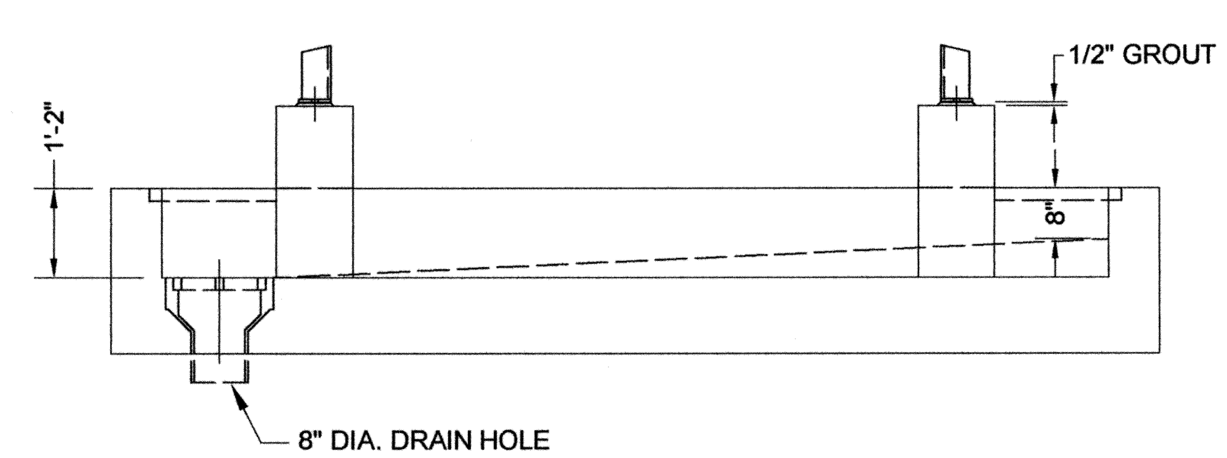
POLYMER INJECTION RING & MIXING VALVE

SCALE: 1" = 1'-0"



SECTION "A–A"

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



SECTION "B–B"

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

NOTES:

1 - 3/4" DIA. ANCHOR BOLTS TO PROJECT 2-1/4" ABOVE FOUNDATION PLATE.
2 - TOLERANCE ON ALL ANCHOR BOLT DIMENSIONS IS ± 1/8" MAX.; DIAGONAL MEASUREMENT DIFFERENTIAL IS 1/4".

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STRUCTURE NO. 38
BELT FILTER PRESS DETAILS
1 OF 2

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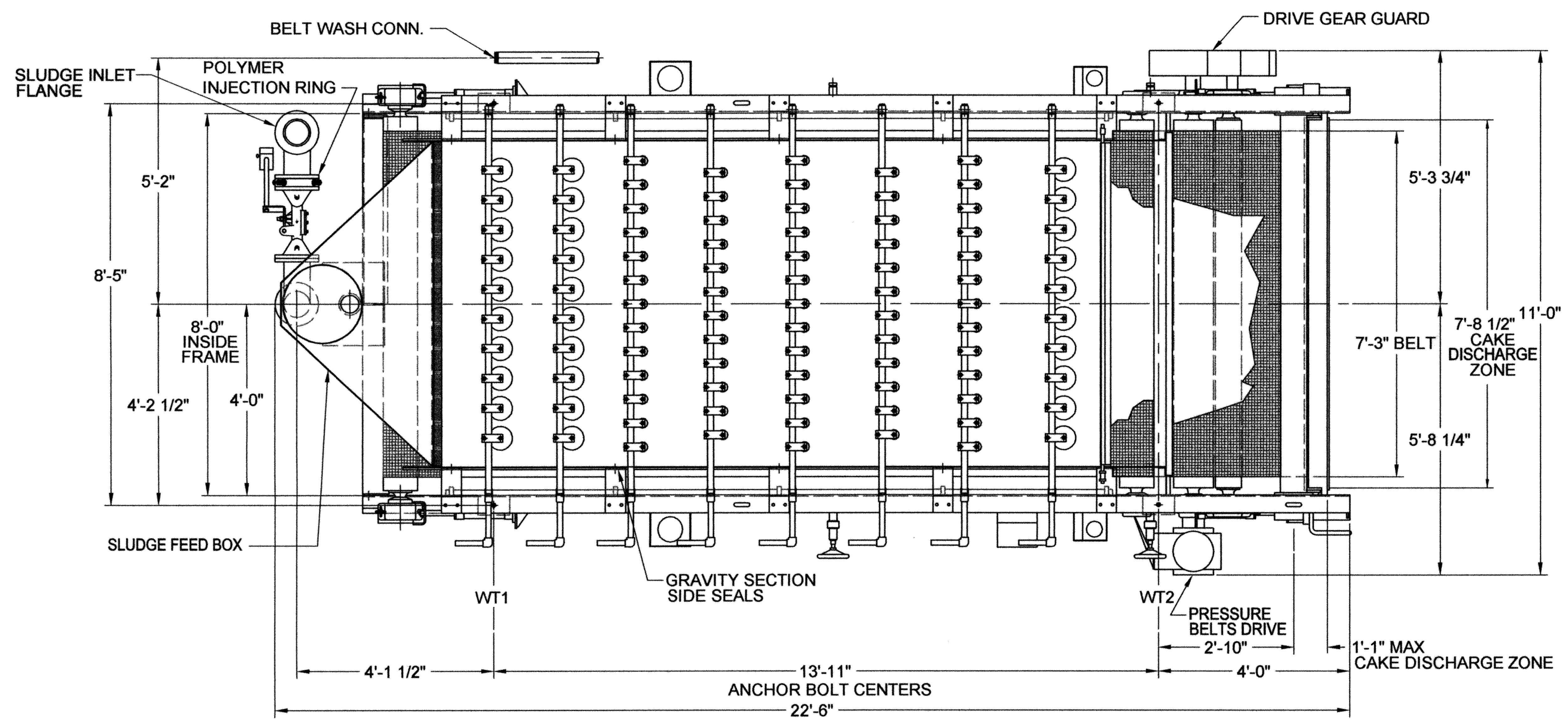
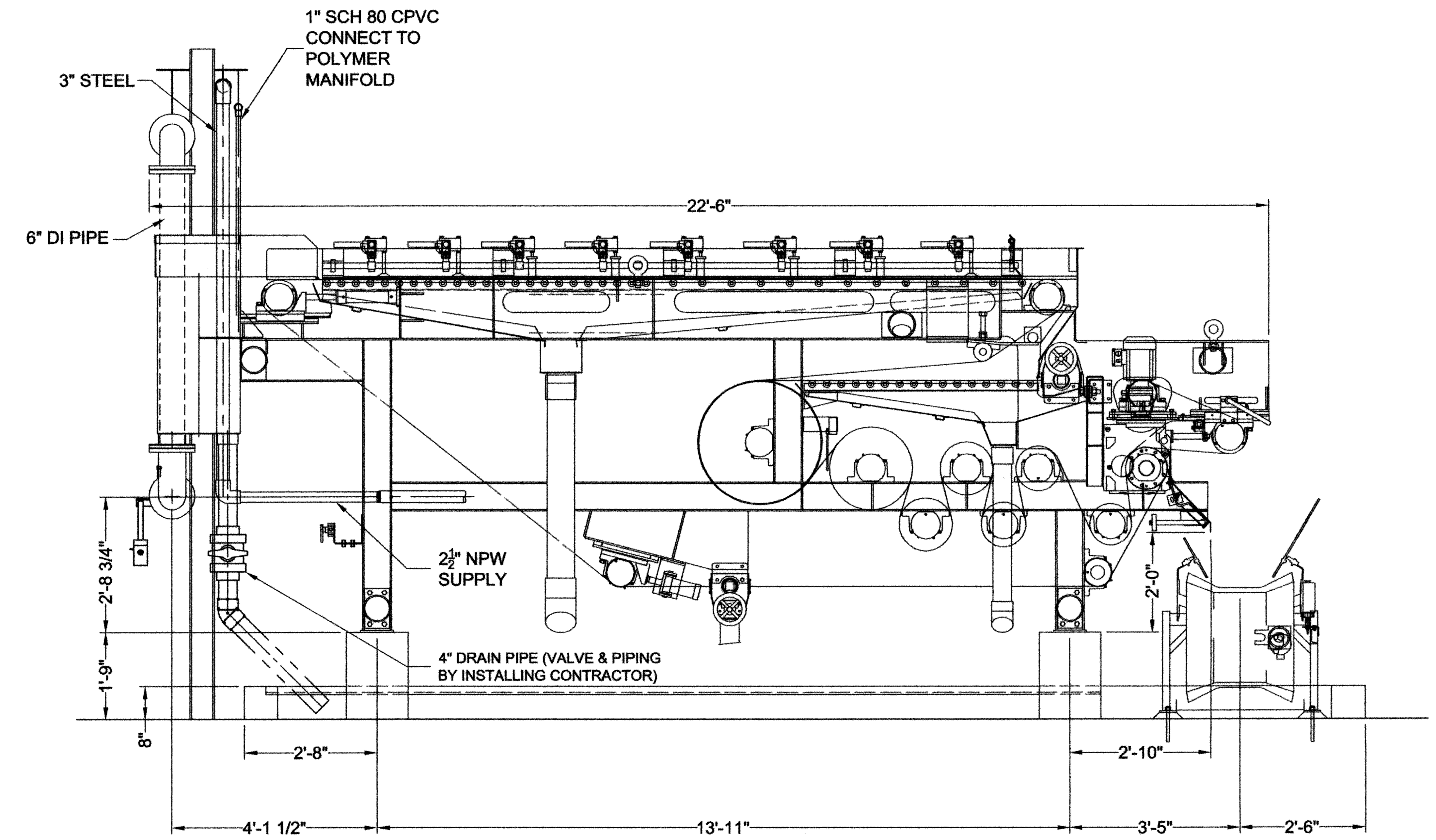
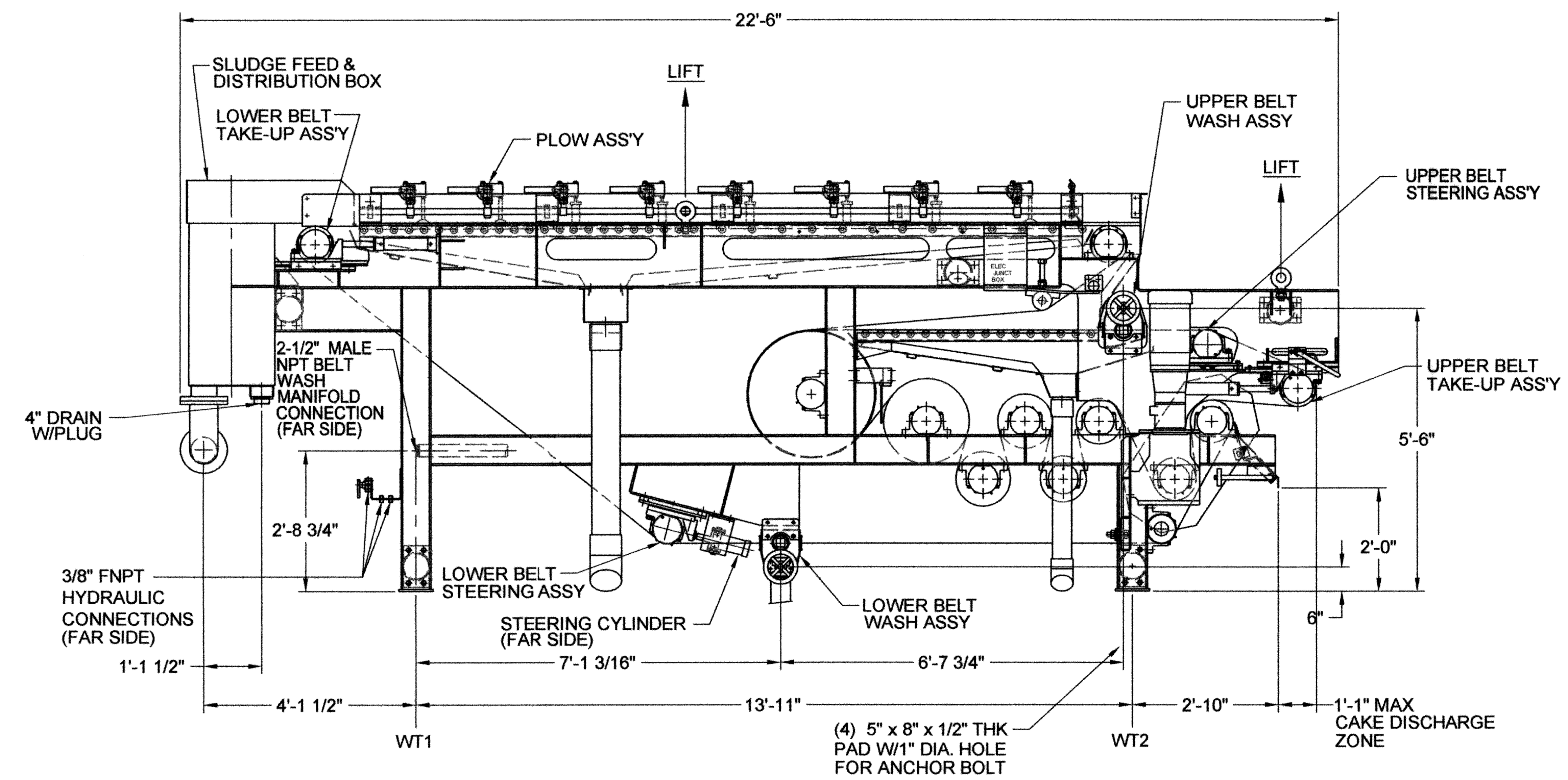
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



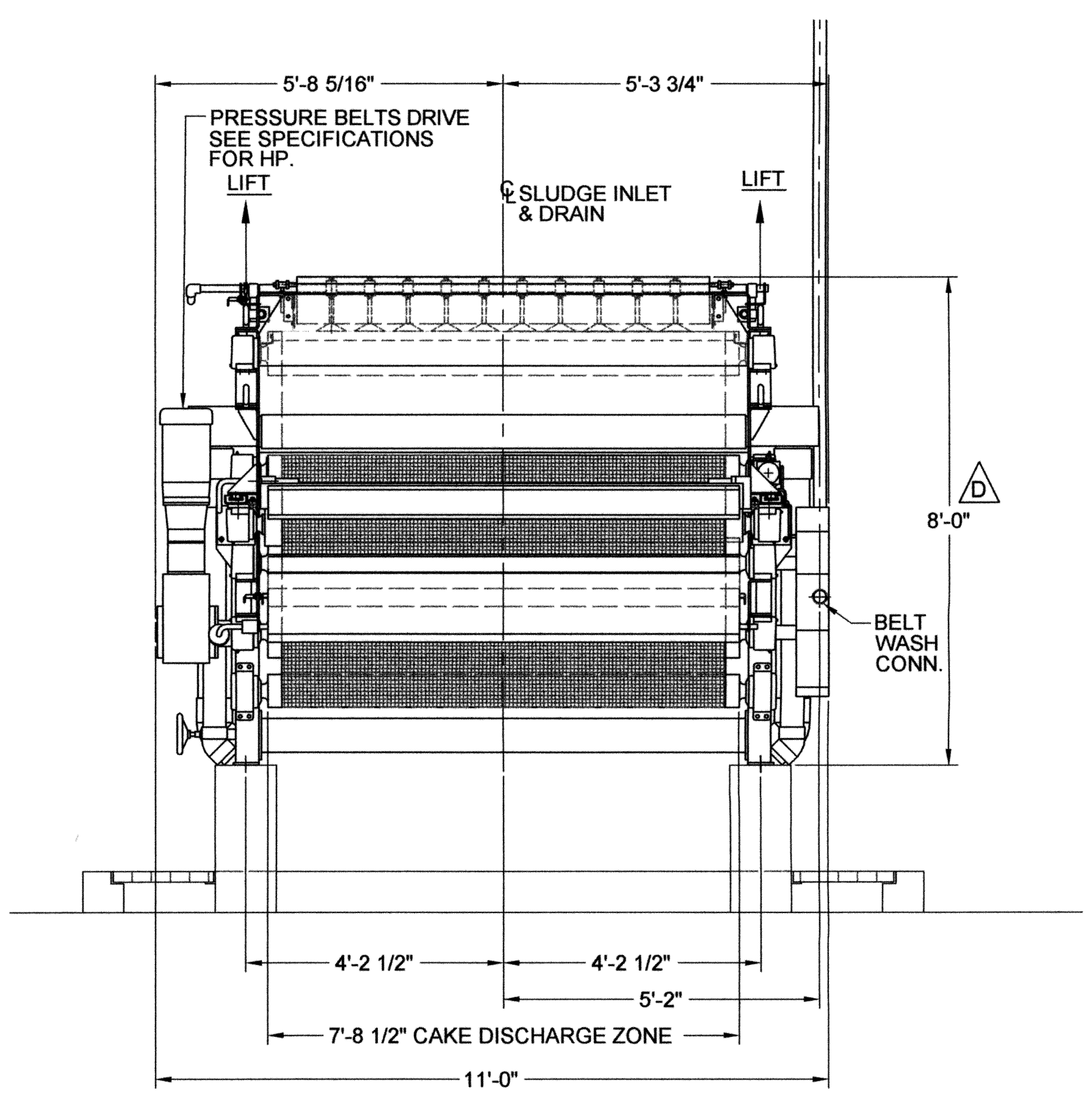
BELT FILTER PRESS
PLAN VIEW – R.H. SHOWN
SCALE: 1/2" = 1'-0"



BELT FILTER PRESS
ELEVATION WITH PIPING
SCALE: 1/2" = 1'-0"



BELT FILTER PRESS
ELEVATION – R.H. SHOWN
SCALE: 1/2" = 1'-0"



BELT FILTER PRESS
DISCHARGE END – R.H. SHOWN
SCALE: 1/2" = 1'-0"

FILTER PRESS
ELEVATIONS

REVISIONS:	DATE:

STRUCTURE NO. 38
BELT FILTER PRESS DETAILS
2 OF 2

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EDMOND, OK. 73013
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CERTIFICATE OF AUTHORIZATION NO. CA2088

REGISTERED PROFESSIONAL ENGINEER SATISH DASHARATHY 11456 OKLAHOMA

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

CONNECTION REQUIREMENTS

A. WATER INLET- INCLUDE UNION, ISOLATION VALVE AND PRESSURE REDUCING VALVE IF REQUIRED. INCOMING WATER PRESSURE MUST BE LESS THAN 100 PSI. BACK FLOW PREVENTION MUST BE USED WHEN POTABLE WATER IS USED.

B. POLYMER INLET - INCLUDE UNION, STRAINER, AND CALIBRATION COLUMN KIT. LINE SIZE SHOULD BE THE SAME, OR NEXT LARGER SIZE IF DISTANCE FROM POLYMER SOURCE TO UNIT IS GREATER THAN 12 FEET.

C. POWER - VERIFY PROPER VOLTAGE AND FREQUENCY ARE AVAILABLE.

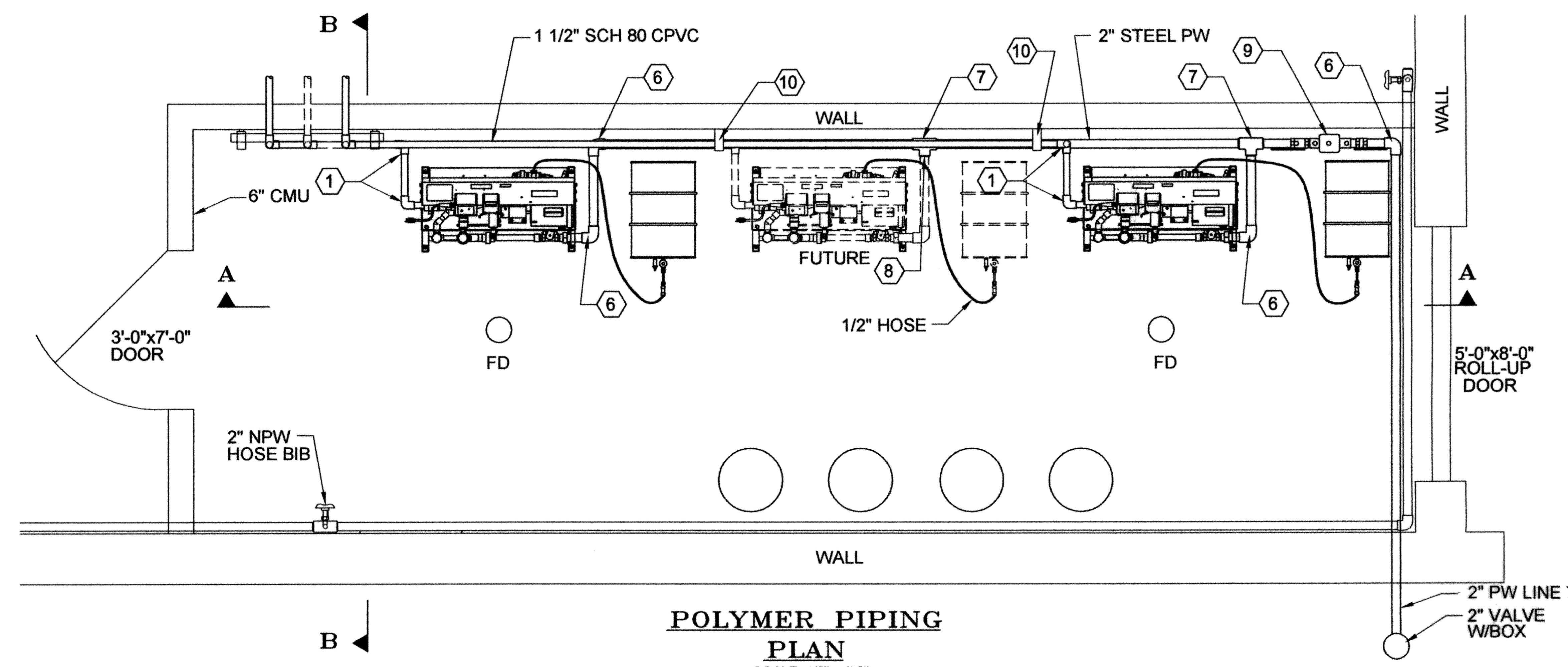
D. POLYMER SOLUTION DISCHARGE - INCLUDE UNION, ISOLATION VALVE, AND CHECK VALVE. INCREASE LINE SIZE TO REDUCE FRICTION LOSS.

INSTALLATION NOTES: TWO PRE-DRILLED HOLES (13/32") ARE LOCATED ON BASE OF UNIT.

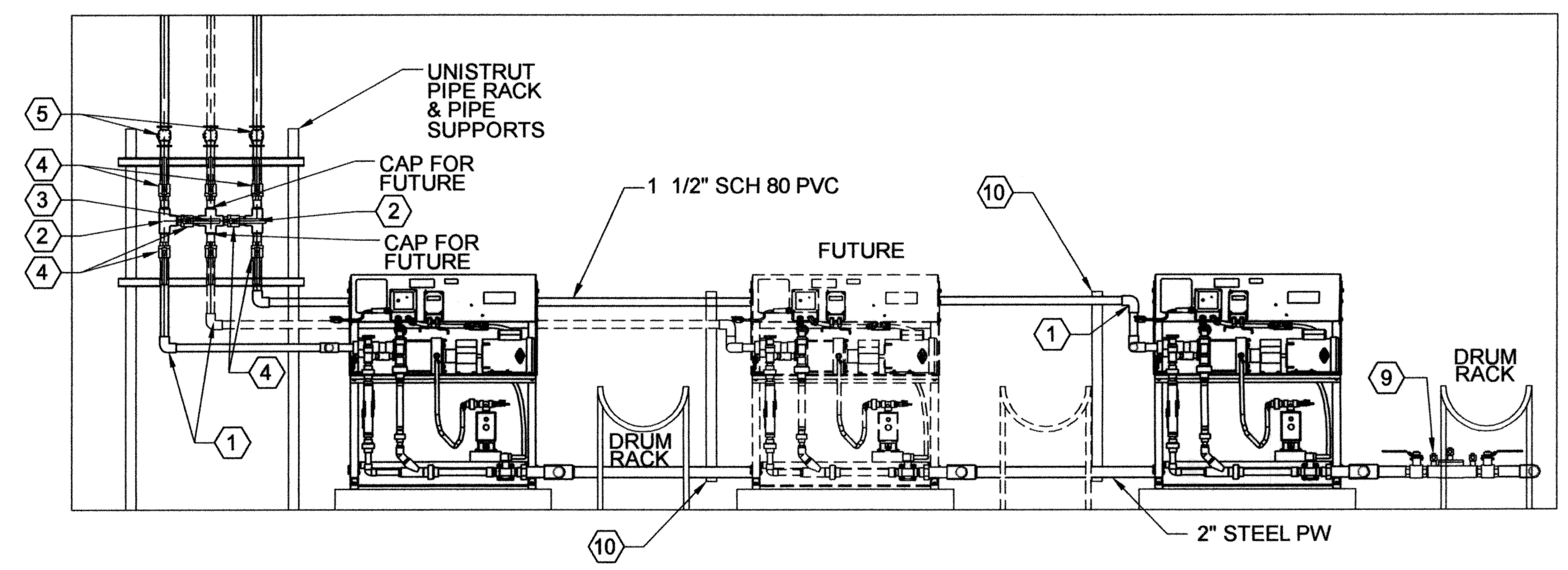
1. CONTRACTOR SHALL INSTALL NECESSARY FITTINGS TO MAKE CONNECTION TO POLYMER FEED DRUM TO MAINTAIN POSITIVE PRIME (FLOODED SUCTION) AT ALL TIMES.
2. POLYMER FEED SYSTEM SHALL BE ANCHORED INTO CONCRETE PAD PER MANUFACTURERS INSTRUCTIONS.
3. TO ACHIEVE MAXIMUM SOLUTION OUTPUT, THE INLET WATER PRESSURE SHALL BE AT LEAST 20 PSI HIGHER THAN THE PRESSURE AT POINT OF INJECTION. SUBTRACT 20 PSI FROM LINE PRESSURE TO DETERMINE MAKEDOWN WATER PRESSURE REQUIREMENT.
4. POLYMER SELECTION SHALL BE MADE AFTER FIELD TESTING BY BELT FILTER PRESS REPRESENTATIVE AND CONTRACTOR.

POLYMER FEED EQUIPMENT SCHEDULE

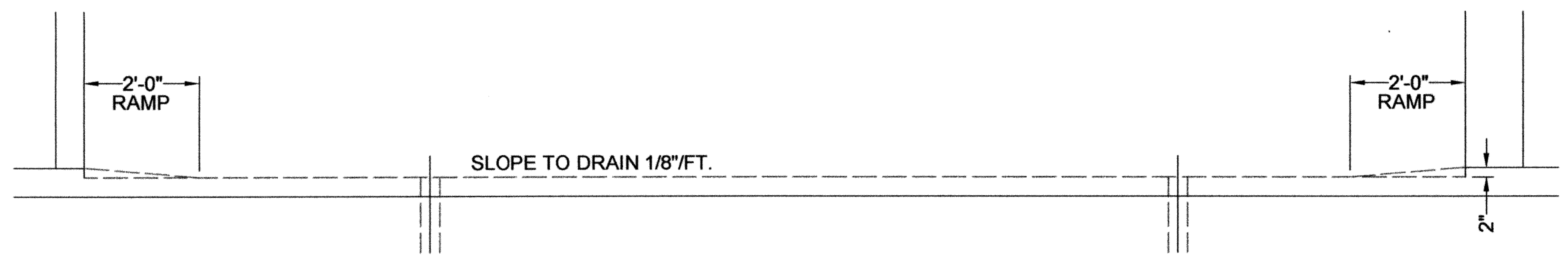
No.	ITEM	Qty.	DESCRIPTION
1	1 1/2"x90° BEND	7	CPVC
2	1 1 /2" TEE	2	CPVC
3	1 1/2" CROSS	1	CPVC
4	1 1/2 BALL VALVE	6	38-BLV01-06
5	1 1/2" CHECK VALVE	2	38-CV01-02
6	2"x90° BEND	4	STEEL
7	2" TEE	2	STEEL
8	2" PLUG	1	STEEL
9	BACKFLOW PREVENTER	1	WATTS 007M1QT BRASS OR EQUAL
10	UNISTRUT PIPE RACK	2	
11	1 1/2"x45° BEND	4	CPVC



POLYMER PIPING PLAN
SCALE: 1/2" = 1'-0"



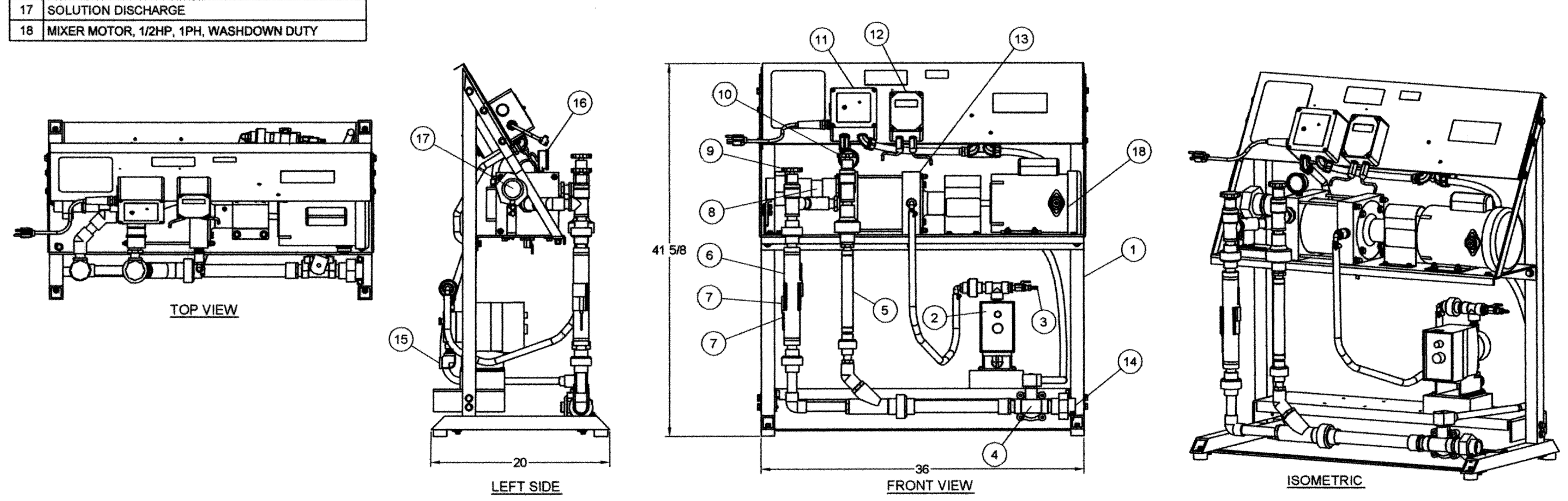
POLYMER PIPING SECTION A-A
SCALE: 3/4" = 1'-0"



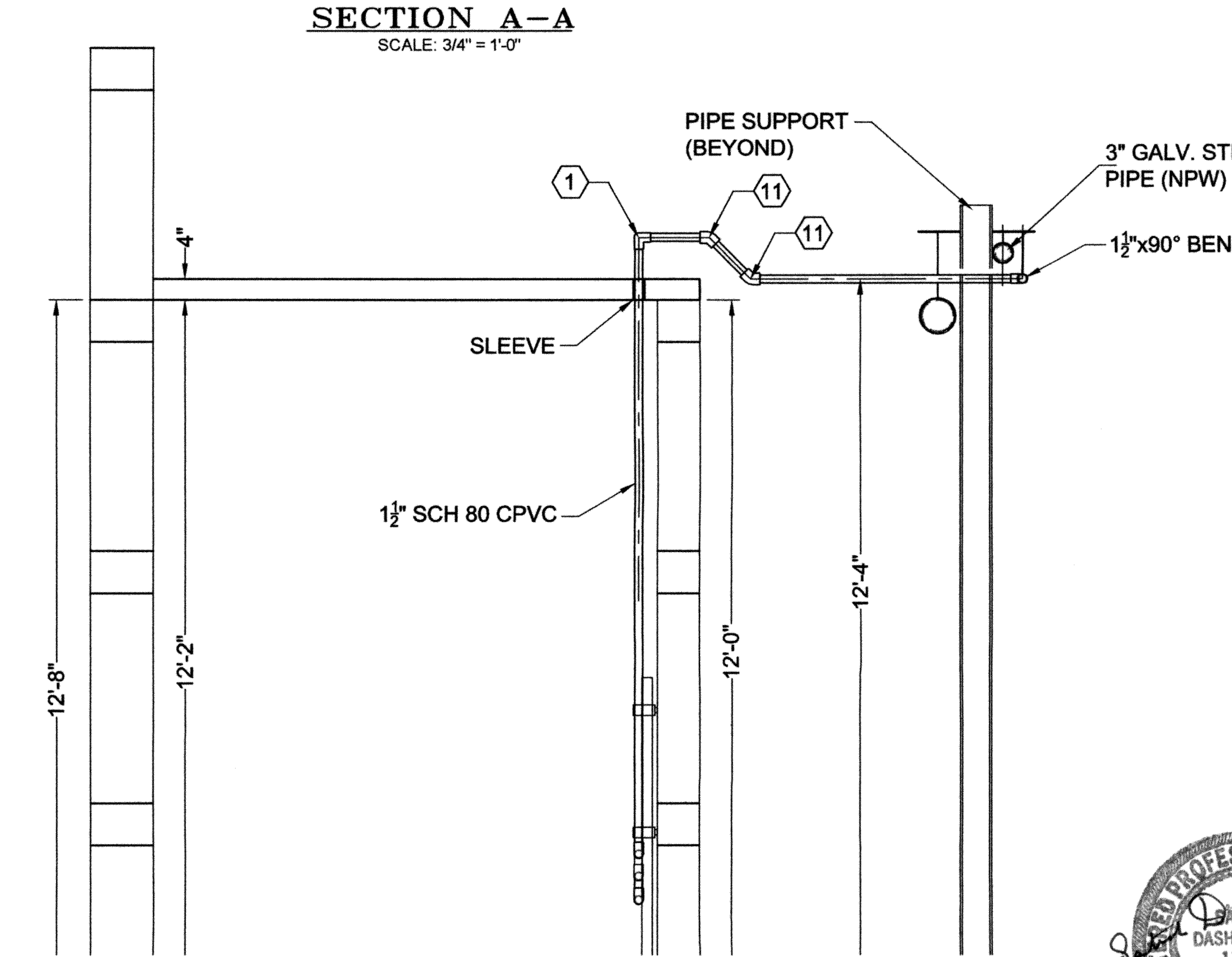
POLYMER ROOM FLOOR CROSS SECTION
SCALE: 3/4" = 1'-0"

KEY	DESCRIPTION
1	BASE & UPRIGHT ASSEMBLY
2	PUMP
3	PUMP PRIMING PORT
4	SOLENOID VALVE
5	FLOWMETER, POST DILUTION
6	FLOWMETER, PRIMARY DILUTION
7	FLOWSWITCH
8	STATIC MIXER
9	FLOW CONTROL VALVE, PRIMARY DILUTION
10	FLOW CONTROL VALVE, POST DILUTION
11	ON/OFF/REMOTE CONTROL
12	REM-1D, PUMP CONTROLLER
13	MIX CHAMBER ASSEMBLY
14	WATER INLET
15	POLYMER INLET
16	PRESSURE GAUGE
17	SOLUTION DISCHARGE
18	MIXER MOTOR, 1/2HP, 1PH, WASHDOWN DUTY

UNIT	PUMP OUTPUT	FLOWMETER RANGE (EA.)	POLYMER CONNECTION	WATER CONNECTION	DISCHARGE
M601-D.4AA	0.4 GPH	30-300 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M601-D1AA	1 GPH	30-300 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M601-D2.5AA	2.5 GPH	30-300 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M601-D4AA	4 GPH	30-300 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M601-D10AA	10 GPH	30-300 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M1200-D2.5AA	2.5 GPH	60-600 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M1200-D4AA	4 GPH	60-600 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT
M1200-D10AA	10 GPH	60-600 GPH	1/2" (F)NPT	1" (F)NPT	1-1/2" (F)NPT



POLYMER FEED SYSTEM DETAIL
SCALE: 1" = 1'-0"



POLYMER PIPING SECTION B-B
SCALE: 1/2" = 1'-0"

POLYMER FEED SYSTEM DETAILS

REVISIONS:	DATE:

STRUCTURE NO. 38
BELT FILTER PRESS BUILDING
POLYMER SYSTEM

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

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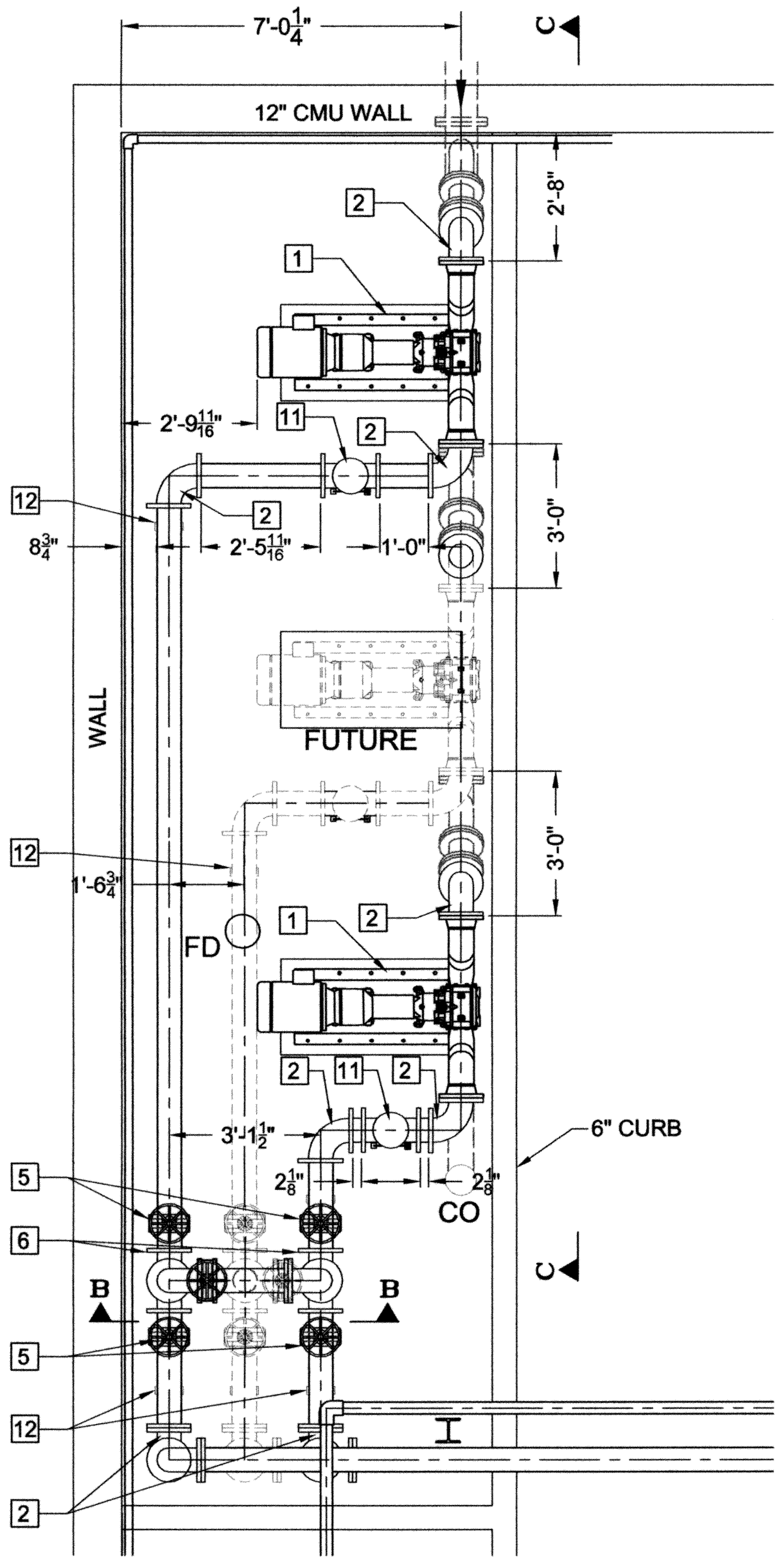
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

NOTE:

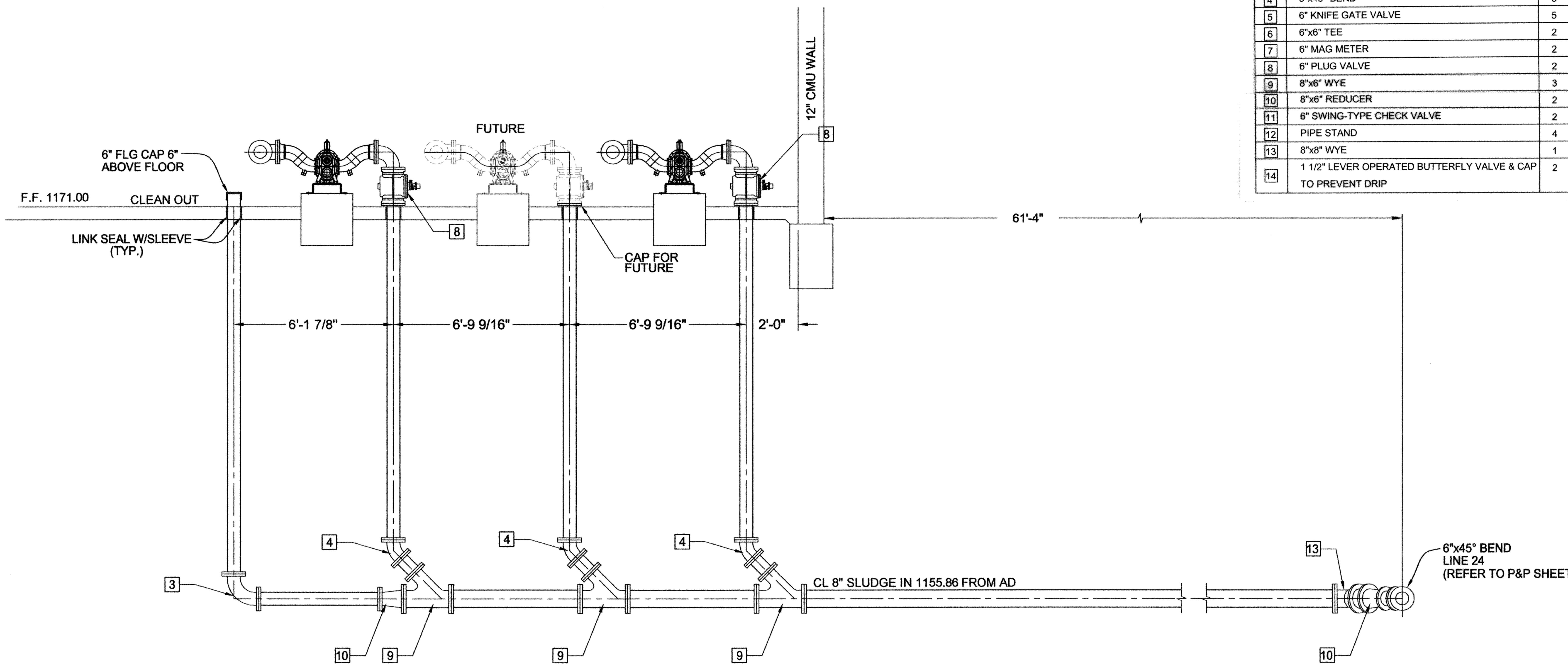
1. CONTRACTOR SHALL INSTALL DIAPHRAGM STYLE PRESSURE SWITCHES ON SUCTION & DISCHARGE SIDE OF EACH SLUDGE PUMP WITH A 1/2" TAP.
2. CONTRACTOR SHALL PROVIDE PIPE SUPPORTS & THRUST RESTRAINT FITTINGS AS NEEDED FOR A COMPLETE SYSTEM. COST FOR THESE ITEMS ARE CONSIDERED INCIDENTAL TO CONSTRUCTION & SHALL BE INCLUDED IN THE BASE BID FOR THE PROJECT.

SLUDGE PIPING EQUIPMENT SCHEDULE

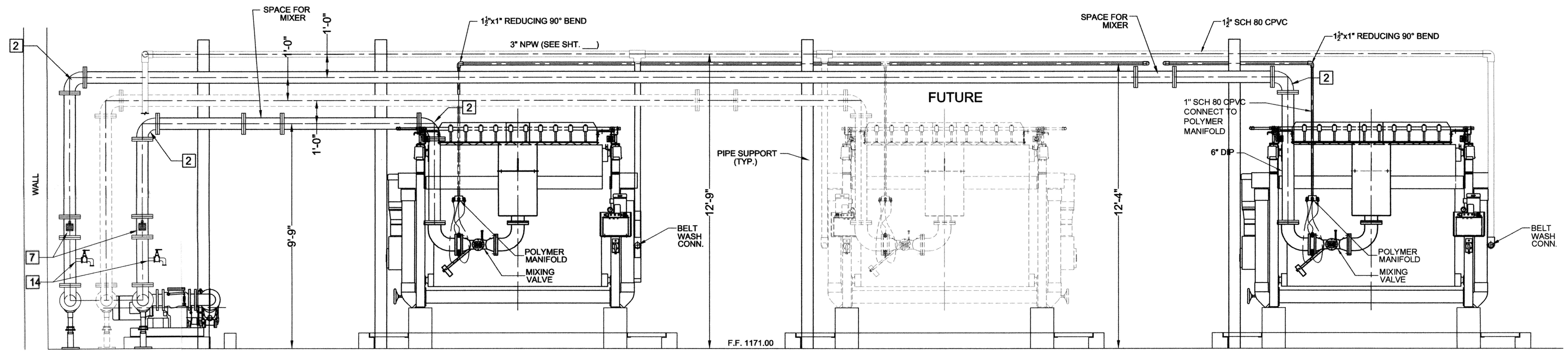
No.	ITEM	Qty.	DESCRIPTION
1	POSITIVE DISPLACEMENT, ROTARY LOBE PUMP	2	38P01-02 (VOGELSANG PUMPS)
2	6"x90° BEND	16	
3	6"x90° BEND	1	LONG RADIUS
4	6"x45° BEND	3	
5	6" KNIFE GATE VALVE	5	38KGV01-05
6	6"x6" TEE	2	
7	6" MAG METER	2	38FM01-02
8	6" PLUG VALVE	2	38PV01-03
9	8"x6" WYE	3	
10	8"x6" REDUCER	2	
11	6" SWING-TYPE CHECK VALVE	2	38SCV01-03; RUBBER SLAPPER
12	PIPE STAND	4	
13	8"x8" WYE	1	
14	1 1/2" LEVER OPERATED BUTTERFLY VALVE & CAP TO PREVENT DRIP	2	38BFV01-02



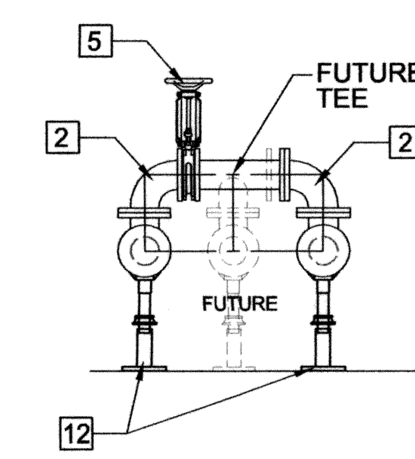
SLUDGE PIPING
PLAN
SCALE: 3/8" = 1'-0"



SLUDGE PIPING – LINE 25
SECTION C–C
SCALE: 3/8" = 1'-0"



SLUDGE PIPING
ELEVATION
SCALE: 3/8" = 1'-0"



SLUDGE PIPING
SECTION B–B
SCALE: 3/8" = 1'-0"

SATISH DASHARATHY 11456 OKLAHOMA

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STRUCTURE NO. 38
BELT FILTER PRESS
SLUDGE PIPING

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EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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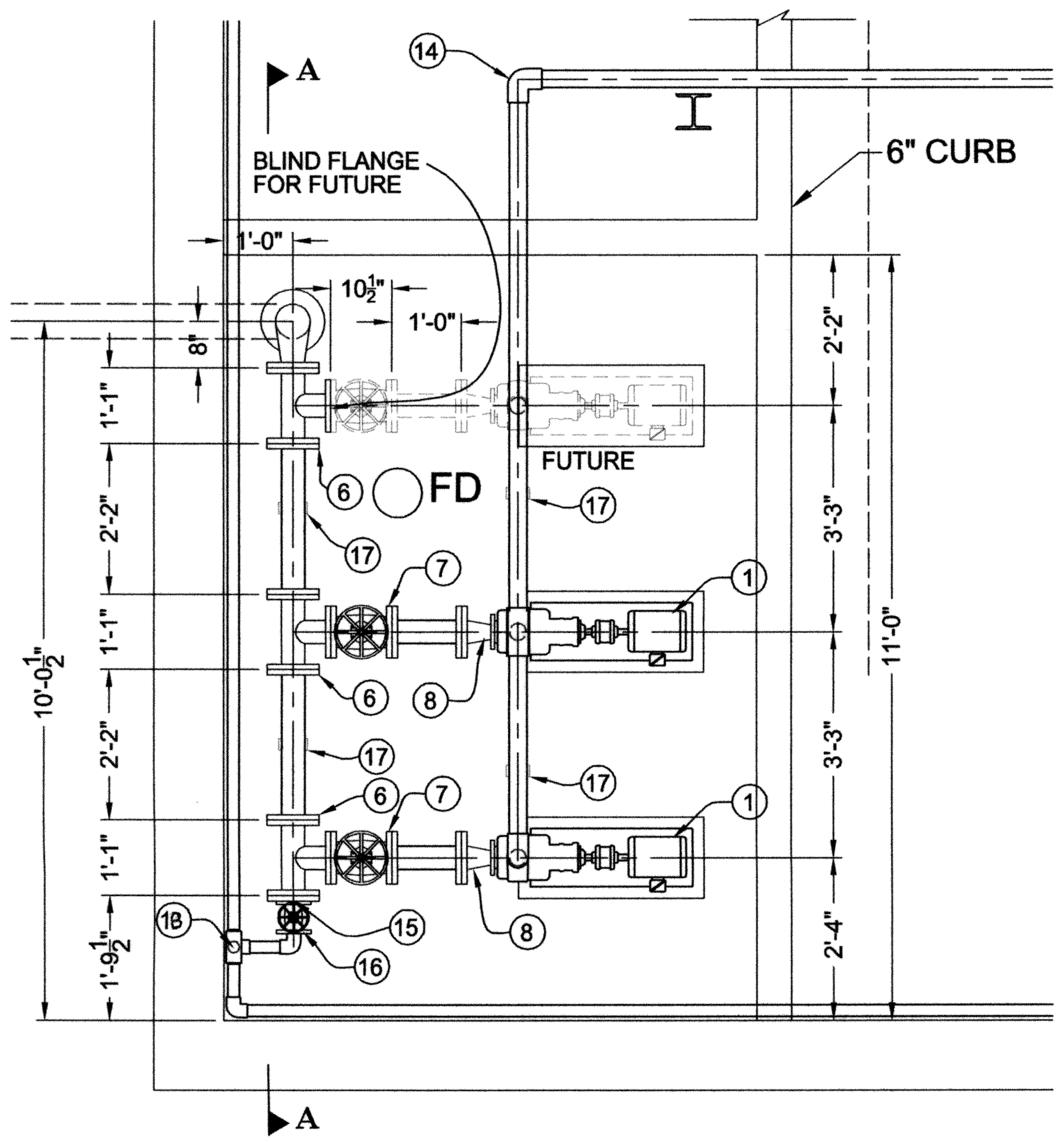
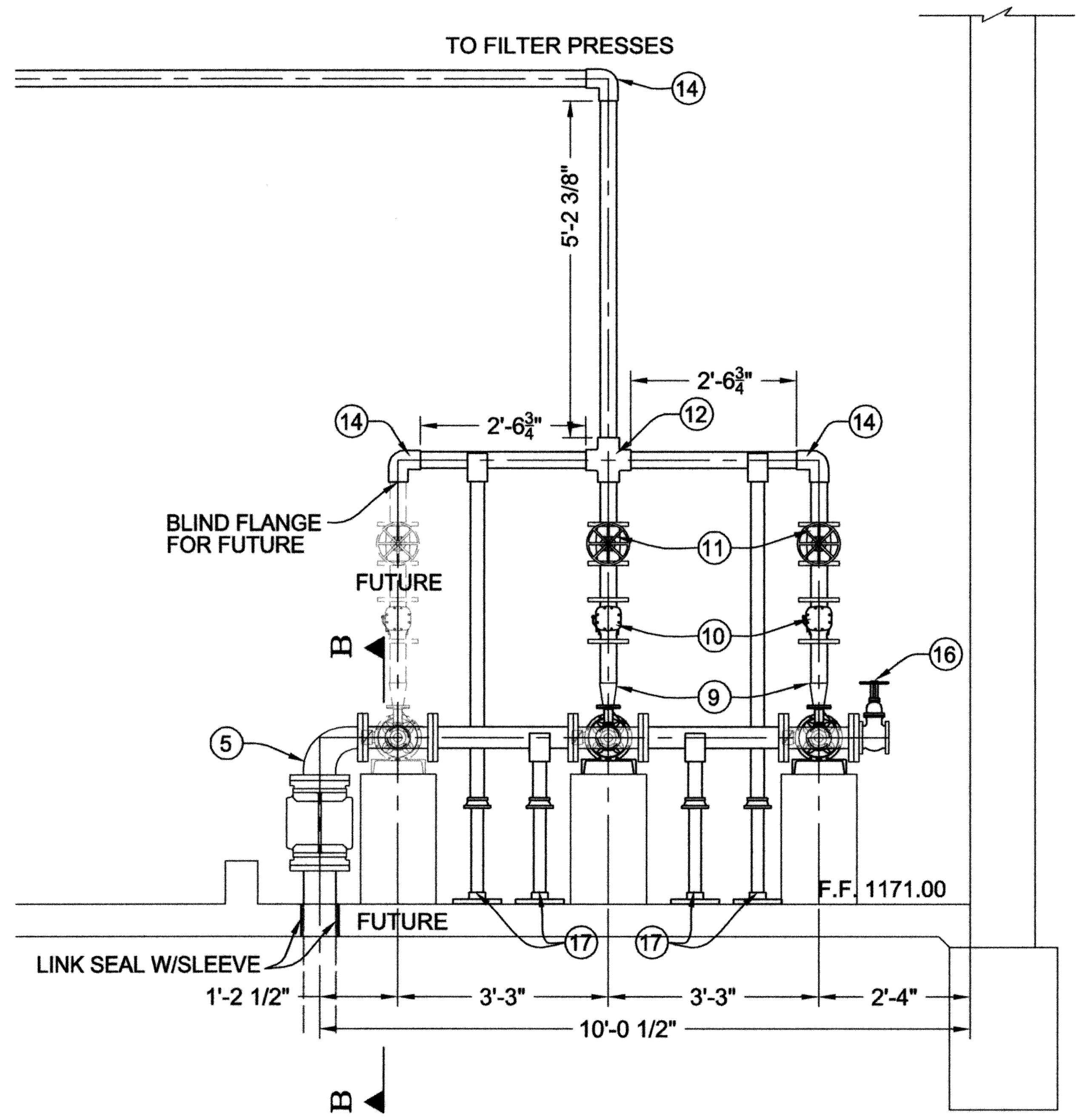


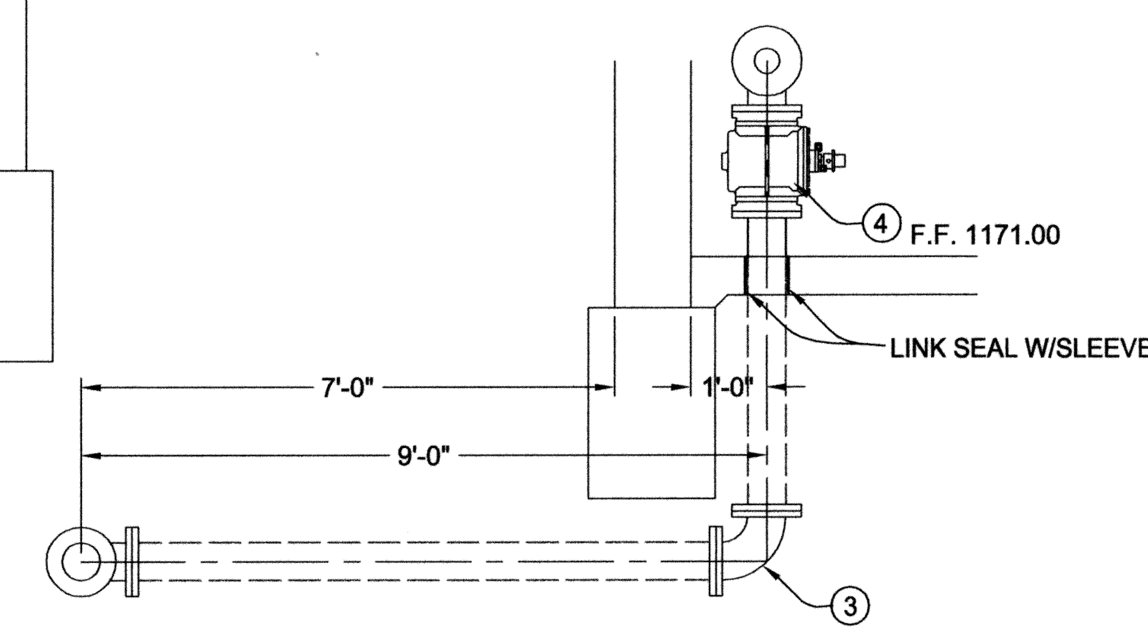
NPW PIPING PLAN

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



SECTION A–A

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



NPW PIPING SECTION B–B

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

NPW PIPING EQUIPMENT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	CENTRIFUGAL PUMP	2	38P01-02
2	DELETED		
3	6"x90° BEND	1	WITH RESTRAINT GLAND
4	6" GATE VALVE	1	38-6GV01
5	6"x4" REDUCING 90° BEND	1	
6	4"x4" FLG TEE	3	
7	4" GATE VALVE	2	38-4GV01-02
8	4"x2 1/2" REDUCER	2	
9	3"x2" REDUCER	2	
10	3" CHECK VALVE	2	38-3CV01-02
11	3" GATE VALVE	2	38-3GV01-02
12	3" CROSS	1	STEEL
13	3"x3" TEE	2	STEEL
14	3"x90° BEND	8	STEEL
15	4" FLGx2" NPT COMPANION FLANGE	1	
16	2" GATE VALVE	1	38-2GV01
17	PIPE STANDS	3	
18	2"x2" TEE	1	STEEL
19	2"x2"x1" TEE	4	STEEL
20	2"x90° BEND	4	STEEL
21	1"x90° BEND	4	STEEL
22	HOSE BIB	4	

NPW PIPING ELEVATION

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

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STRUCTURE NO. 38
BELT FILTER PRESS BUILDING
NPW PIPING

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PH. (405) 844-3900
FAX. (405) 844-3600

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REGISTERED PROFESSIONAL ENGINEER
SATISH DASHARATHY
11456
OKLAHOMA

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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SITE PLAN
Scale 1" = 3/16'

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SITE PLAN
BELT FILTER PRESS
ODOR CONTROL

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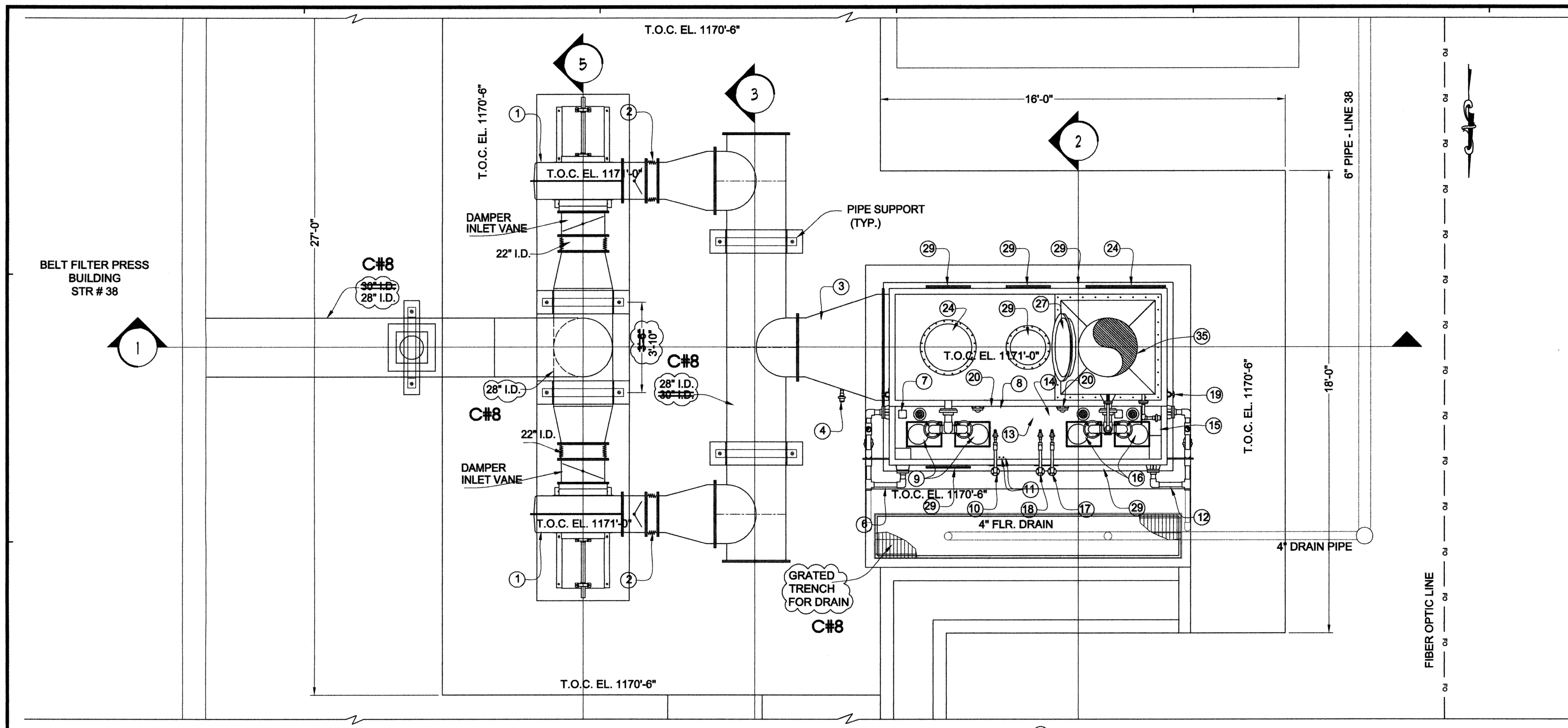
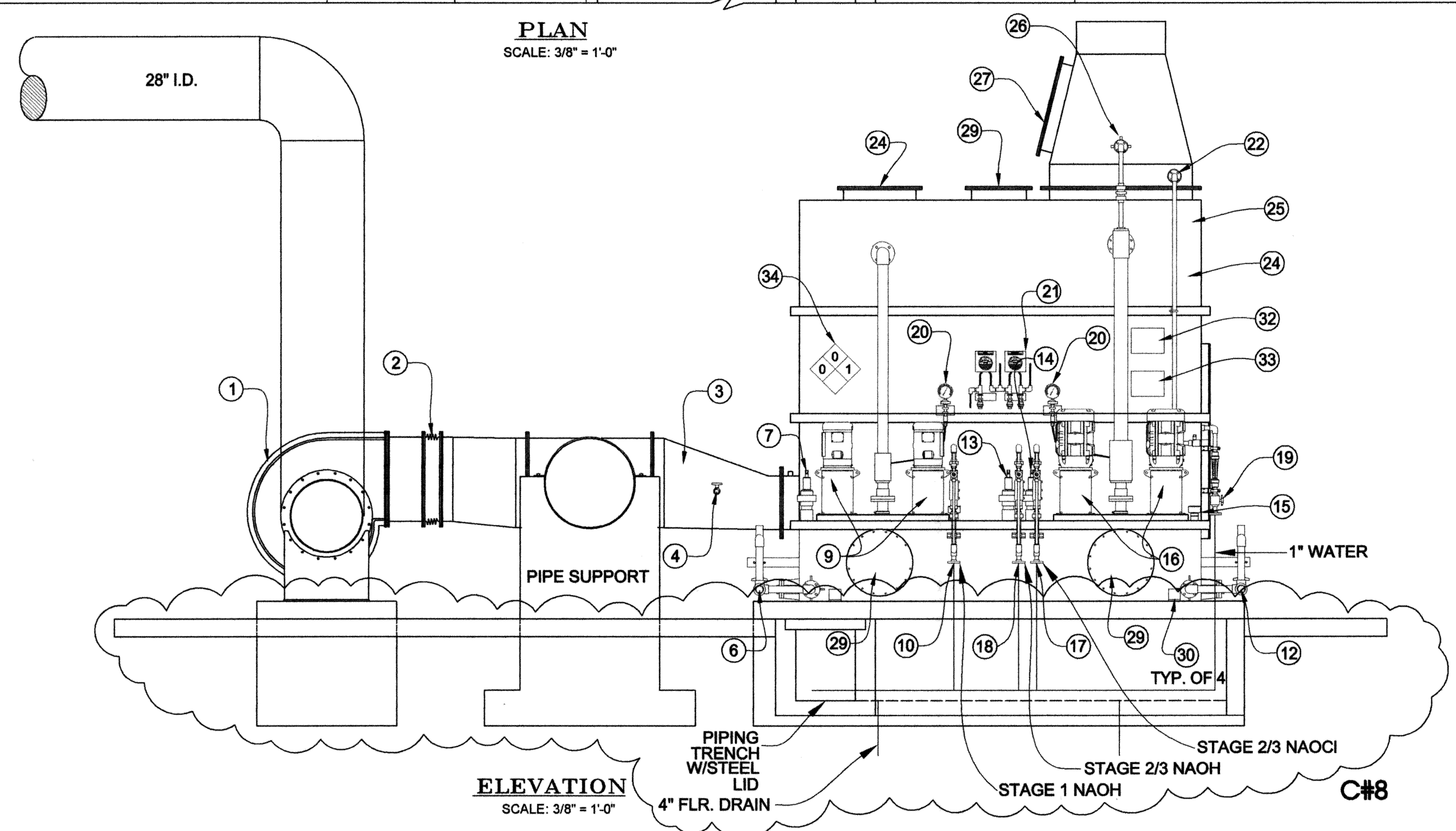
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



PLAN
SCALE: 3/8" = 1'-0"

LEGEND C#8

1. ~~INLET TRANSITION~~ FAN
2. FAN OUTLET FLEXIBLE CONNECTOR
3. SYSTEM FRP INLET TRANSITION
4. INLET AIR SAMPLE
5. 18" DIA. SUMP ACCESS
6. STAGE 1 DRAIN/OVERFLOW
7. STAGE 1 pH PROBE
8. STAGE 1 SUMP LOW LEVEL SWITCH
9. STAGE 1 RECIRCULATION PUMP
10. STAGE 1 NaOH CONNECTION
11. GROUNDING CONNECTION
12. STAGE 2/3 DRAIN/OVERFLOW
13. STAGE 2/3 pH PROBE
14. STAGE 2/3 ORP PROBE
15. STAGE 2/3 SUMP LOW LEVEL SWITCH
16. STAGE 2/3 RECIRCULATION PUMP
17. STAGE 2/3 NaOH CONNECTION
18. STAGE 2/3 NaOCl CONNECTION
19. MAKEUP WATER CONNECTION
20. PRESSURE GAUGES
21. DIFFERENTIAL PRESSURE GAUGES
22. OUTLET AIR SAMPLE
23. (NOT USED)
24. 24" DIA ACCESS
25. SYSTEM MIST ELIMINATOR (INTERNAL)
26. M.E. WASHDOWN
27. 30" DIA NOZZLE M.E. ACCESS
28. EXHAUST STACK
29. 18" DIA ACCESS
30. ANCHOR LUGS (4)
31. 6" HIGH CONCRETE PAD
32. VESSEL I.D. TAG
33. VESSEL CAUTION TAG
34. NFPA TAG
35. ~~42" DIA OUTLET~~ AIR OUTLET C#8



ELEVATION
SCALE: 3/8" = 1'-0"

REVISIONS:	DATE:
C#8 – CLARIFICATION NO. 8	2/25/2011

BELT FILTER PRESS
ODOR CONTROL
STR # 54

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	3/24/10	AS SHOWN	89 OF 95

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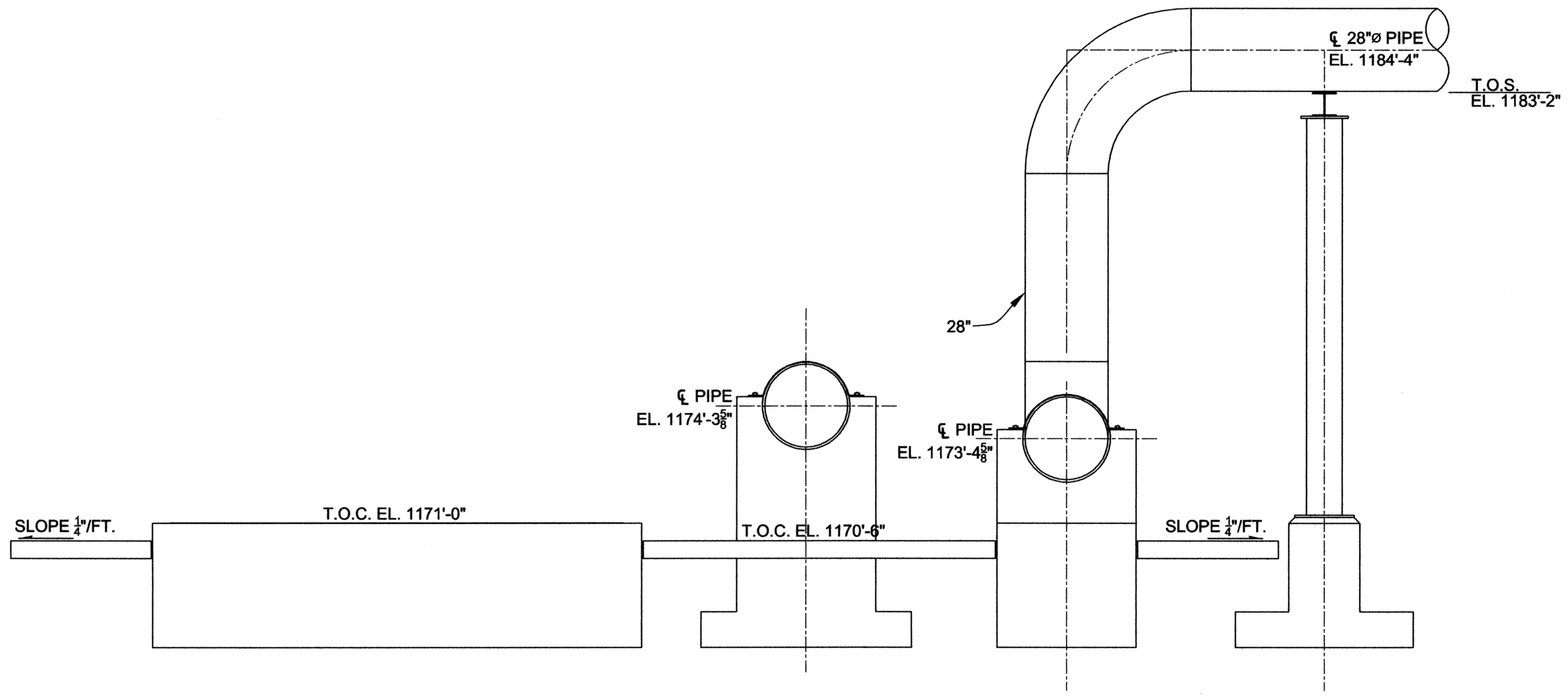
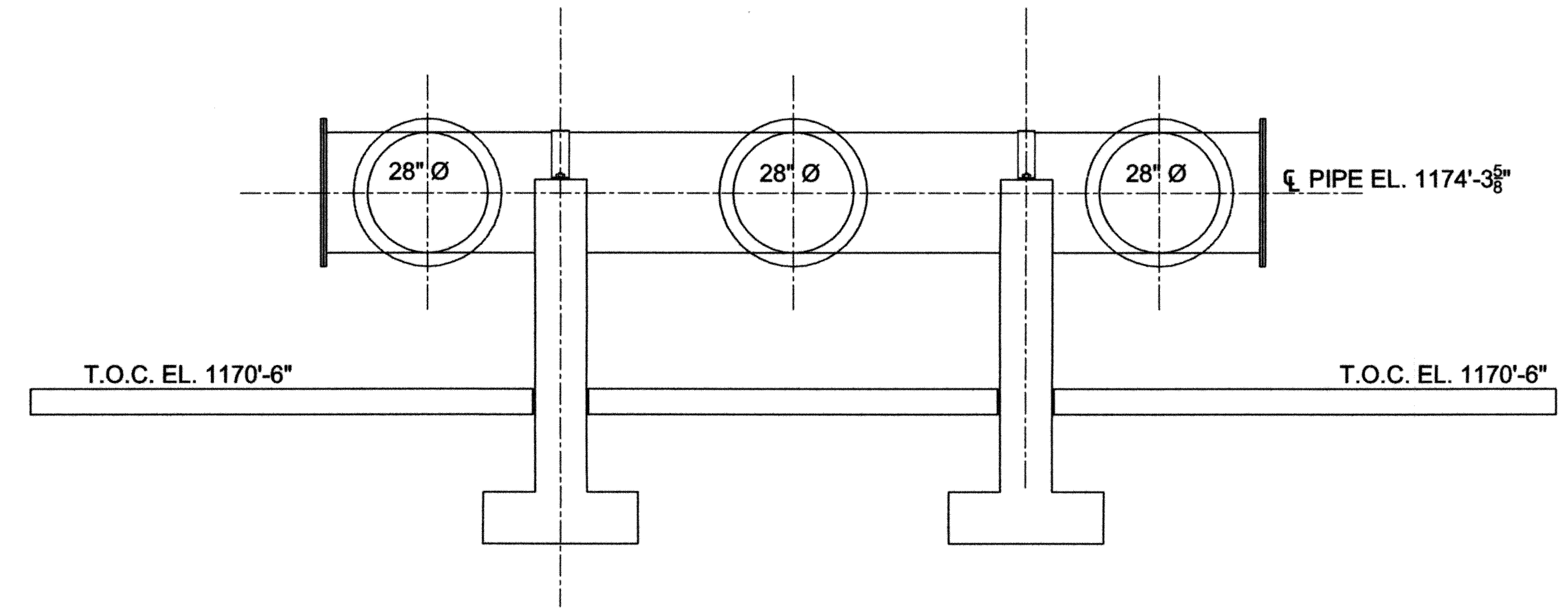
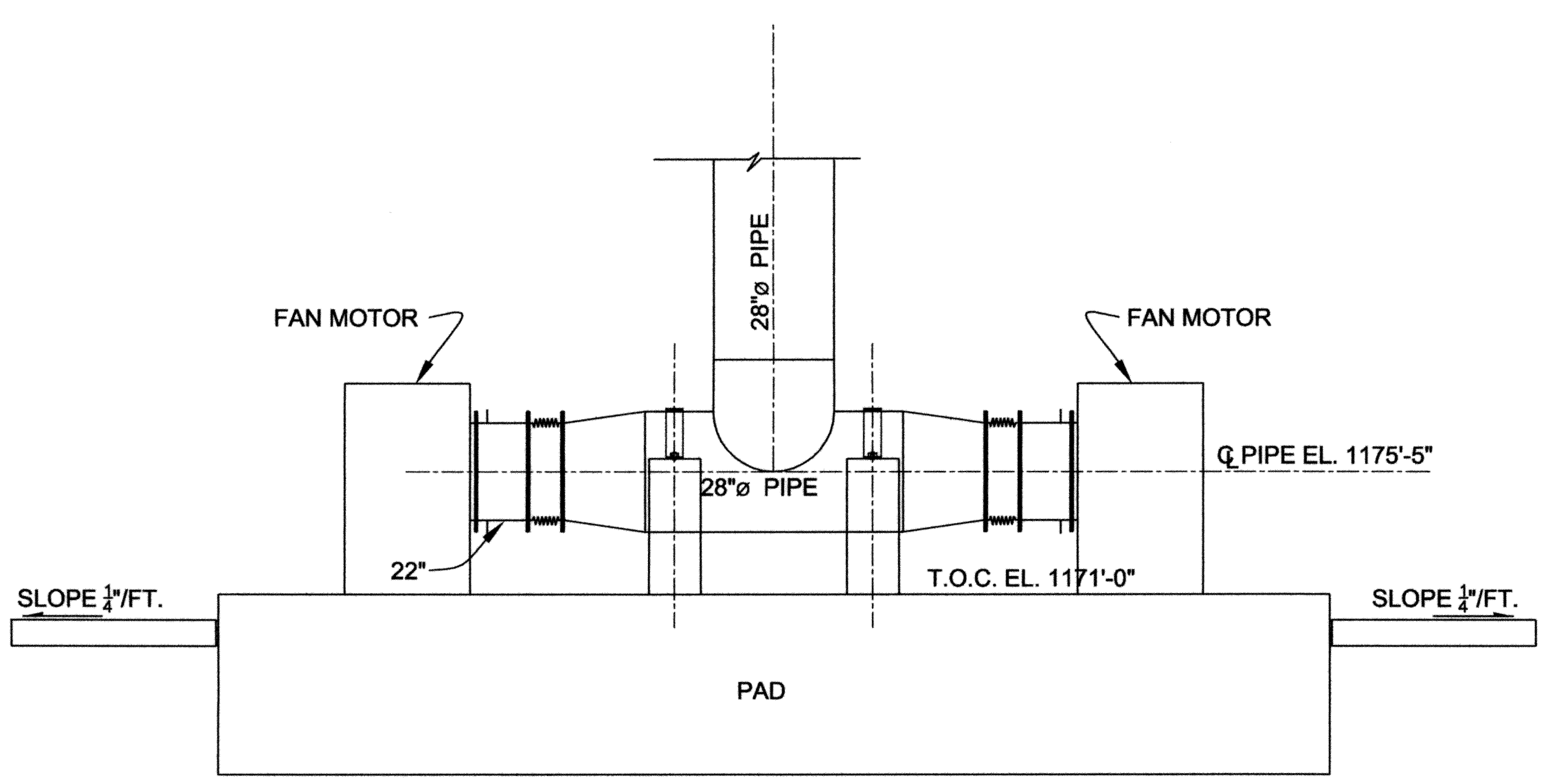
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



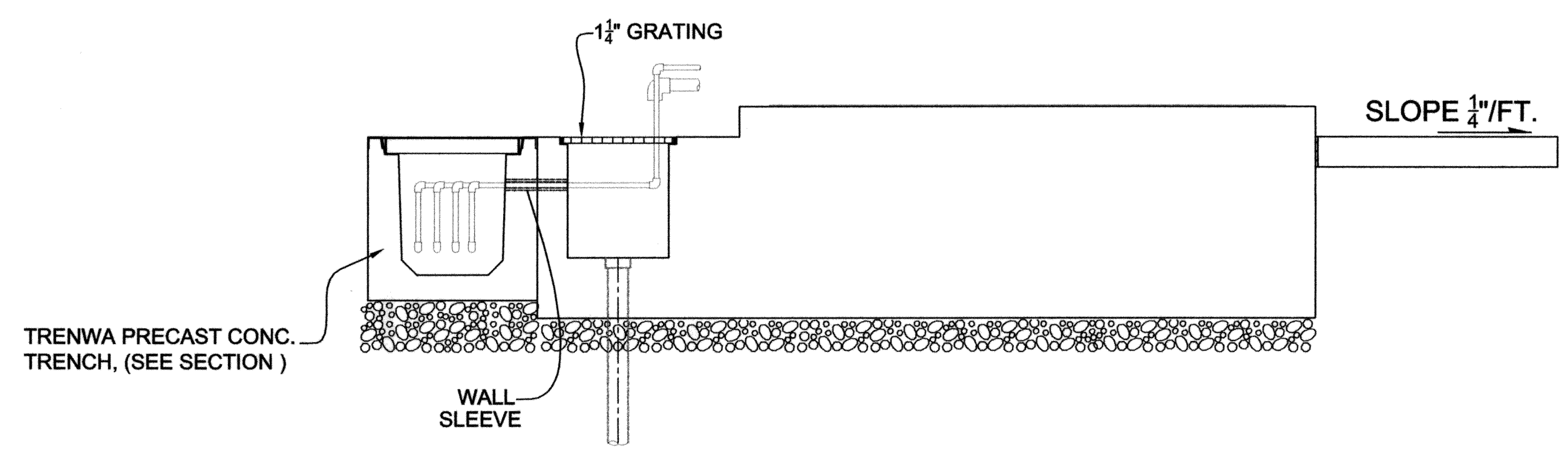
1 SECTION
SCALE: 3/8" = 1'-0



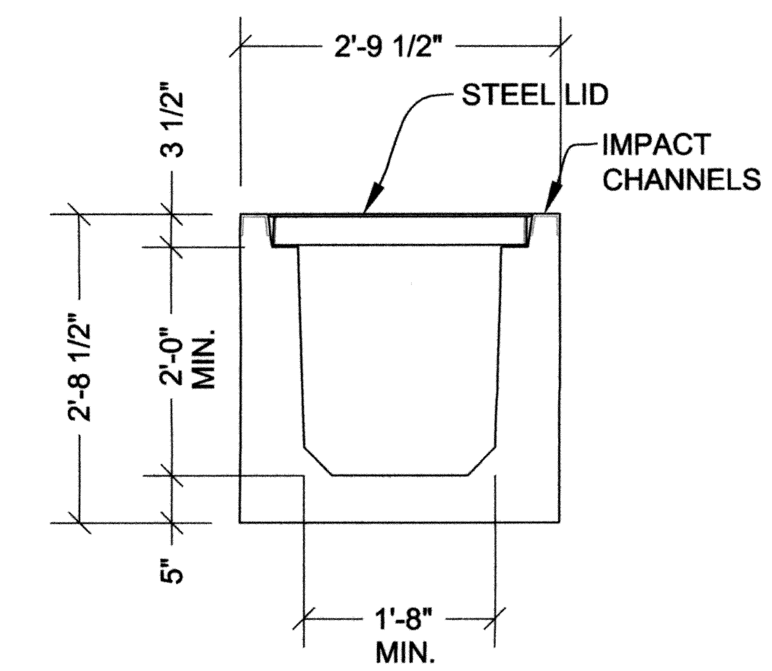
3 SECTION
SCALE: 3/8" = 1'-0



5 SECTION
SCALE: 3/8" = 1'-0



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



PRECAST TRENCH SECTION
SCALE: 3/4" = 1'-0

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	3/24/10	AS SHOWN	90 OF 95

REVISIONS:	DATE:

BELT FILTER PRESS ODOR CONTROL DETAILS

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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PLAN
SCALE: 3/16" = 1'-0"

REVISIONS:	DATE:

CHEMICAL FEED PIPING FOR BELT FILTER PRESS

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S.D.		S.D.	S.D.	3/24/10	AS SHOWN	91 OF 95

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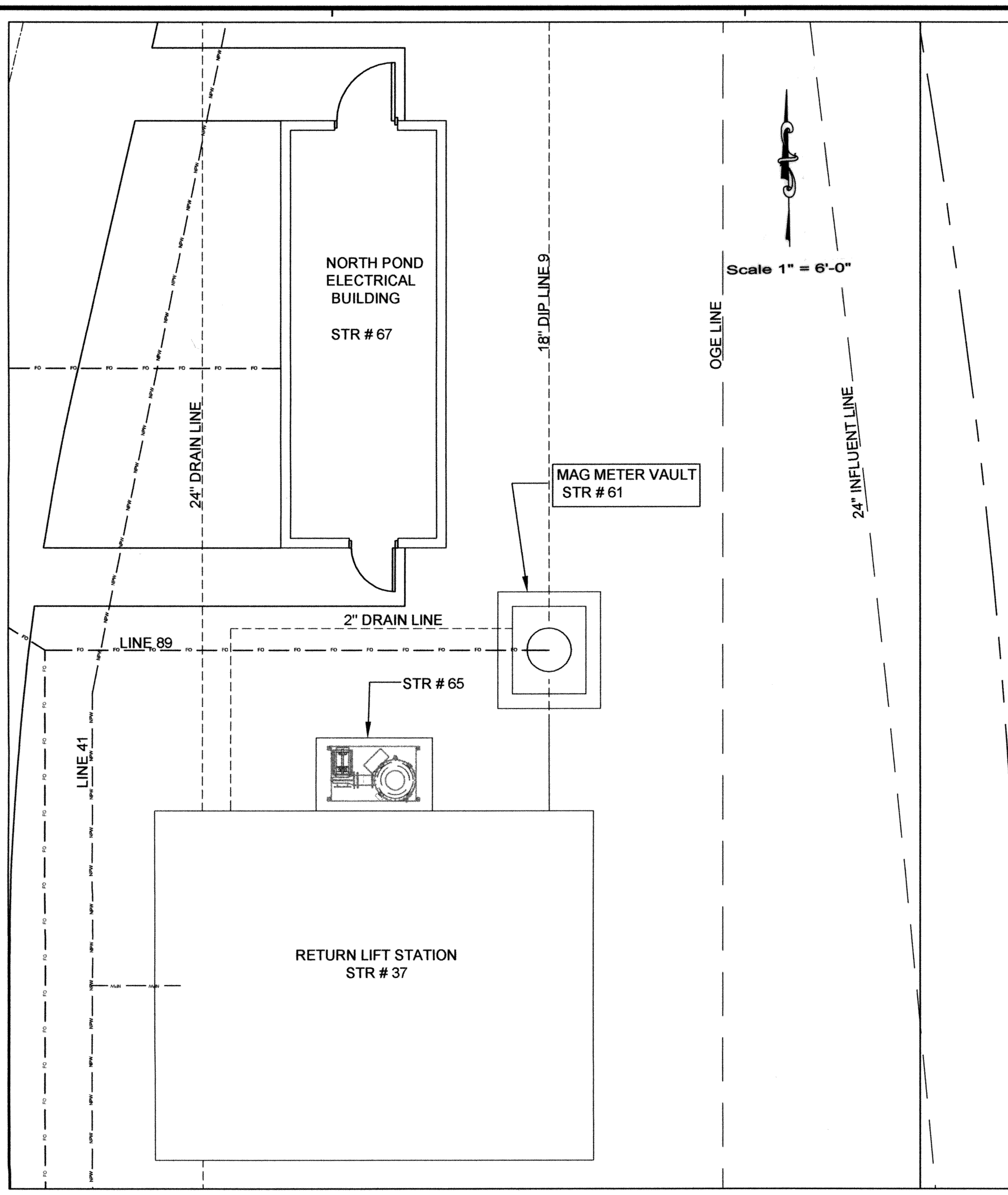
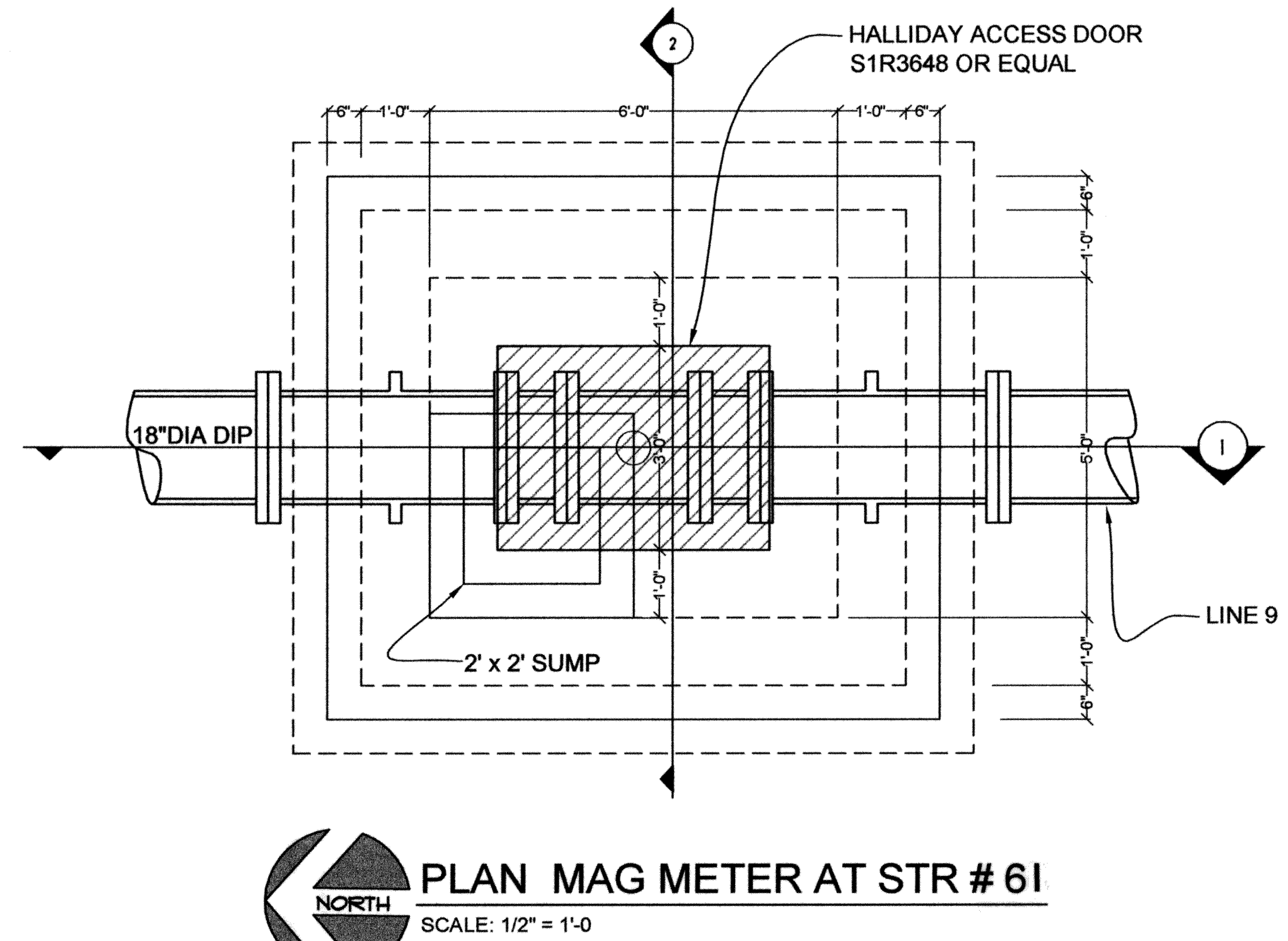
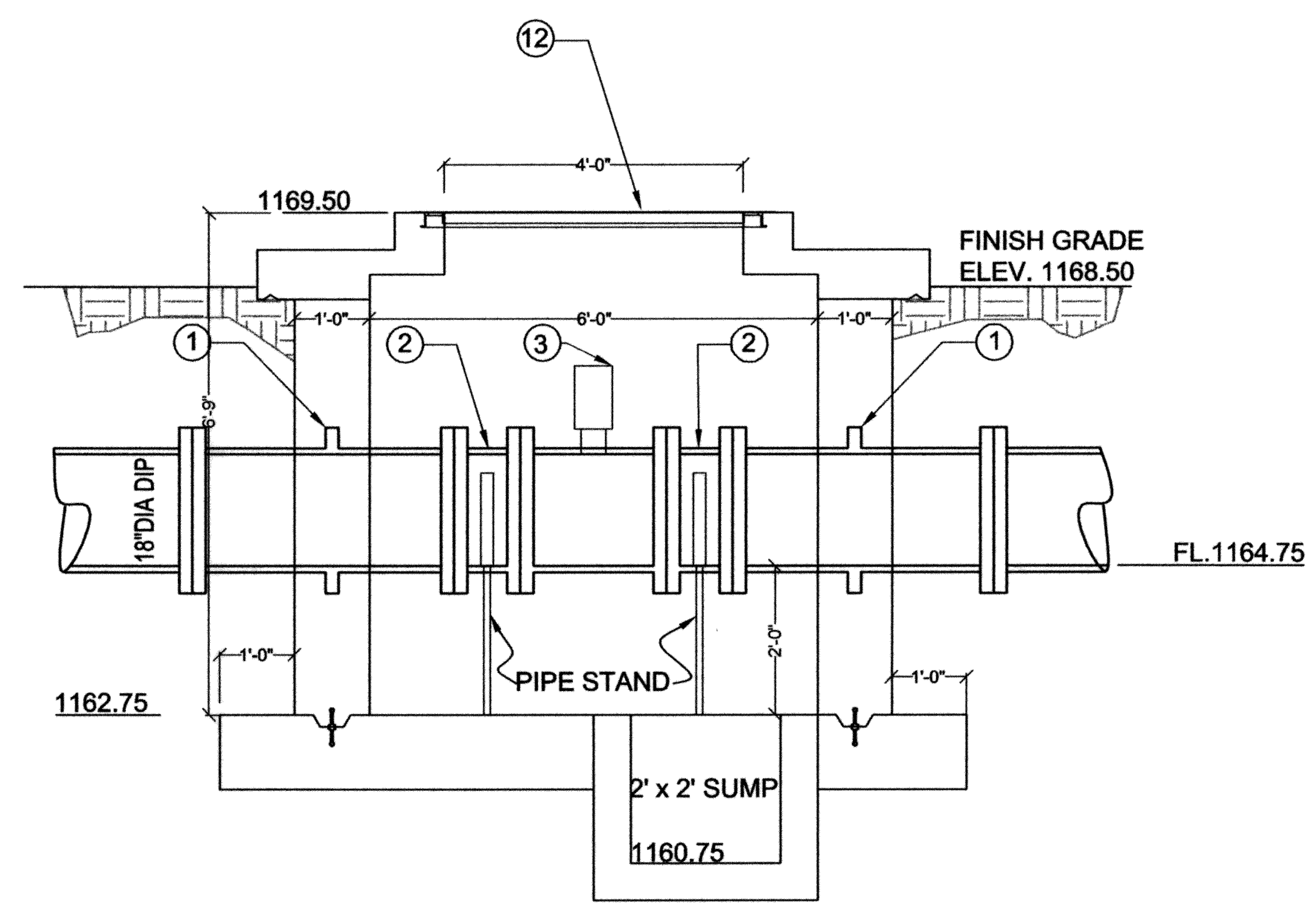
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK





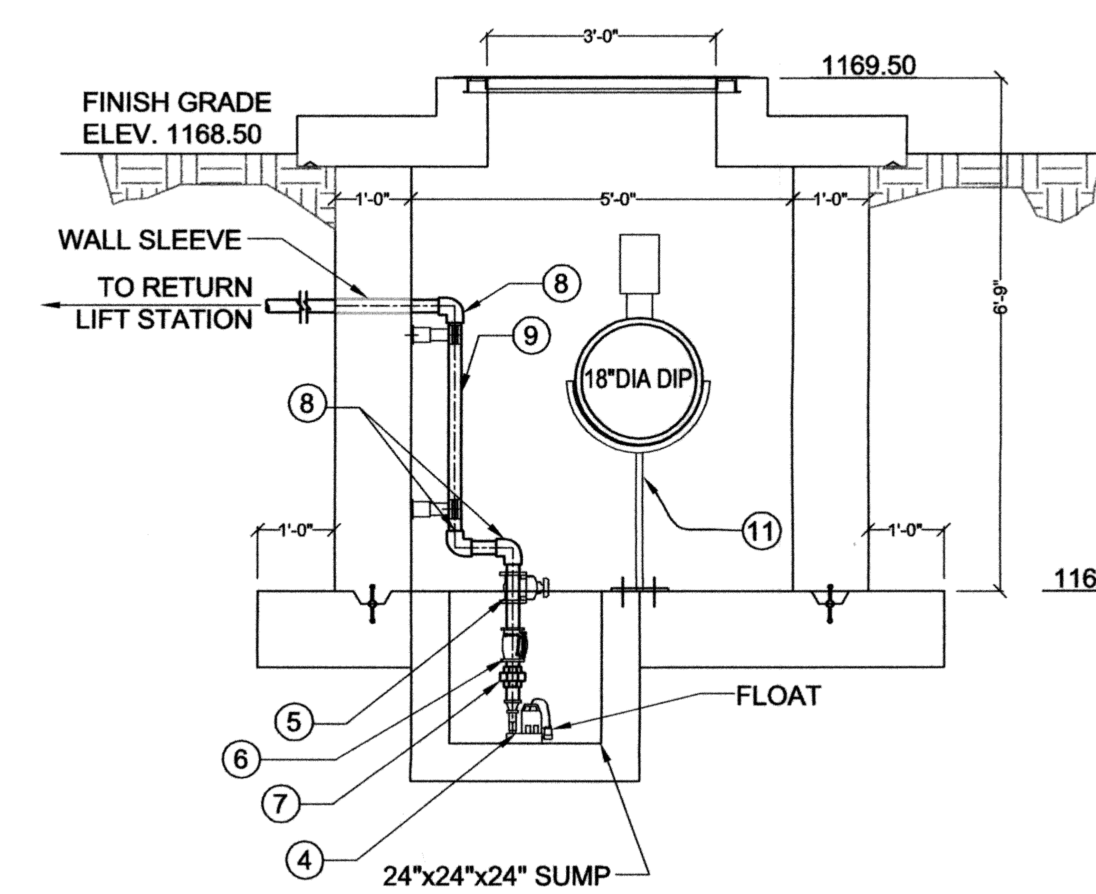
PLAN MAG METER AT STR # 61

SCALE: 1/2" = 1'-0



1 SECTION

SCALE: 1/2" = 1'-0



2 SECTION

SCALE: 1/2" = 1'-0

METER VAULT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	18" DIP FLGxFLG WALL SLEEVE	2	3'-8"
2	18" x PIPE FLGxFLG	2	0'-10 1/2"
3	18" MAGNETIC FLOW METER (FM) FLGxFLG	1	1'-11 1/2" (FLGxFLG) 61 FM01
4	SUMP PUMP	1	NOT SMALLER THAN 0.50 HP
5	2" GATE VALVE	1	
6	2" CHECK VALVE	1	
7	2" UNION	1	
8	2" x 90° BEND	3	
9	2" PVC PIPE	1	8'-0"
10	18" PIPE STAND	2	
11	2" PIPE STAND	4	
12	36" x 48" ACCESS DOOR	1	HALLIDAY ACCESS DOOR S1R3648 OR EQUAL

NOTE: 1. CONTRACTOR SHALL PROVIDE SUMP PUMP CAPABLE OF OVERCOMING THE TDH @ EACH SUMP & PUMP WATER OUT @ A RATE EXCEEDING 5 GPM.
2. CONTRACTOR SHALL PROVIDE 18", 24", & 30" FLG xFLG MAKEUP PIPE CONNECTION TO ALLOW PLANT OPERATOR TO REMOVE MAG METER FOR REPAIR AND KEEP LINE OPERATIONAL. THE WIDTH OF PIECE SHALL MATCH 18", 24" OR 30" MAG METER WIDTH.
3. ALL EQUIPMENT PLACED IN VAULTS (MAG-METERS, VALVES, MOTOR OPERATED VALVES, ETC.) SHALL HAVE ONE REMOVABLE FLANGE IN THE PIPING ARRANGEMENT INSIDE THE VAULT TO FACILITATE THE REMOVAL OF EQUIPMENT FOR SERVICE AND THE INSTALLATION OF A TEMPORARY SPOOL PIECE. THE REMOVABLE FLANGE WILL BE AN EBAA IRON UNI-FLANGE, OR EQUAL

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	1/29/2010	AS SHOWN	92 OF 95

REVISIONS:	DATE:

MAG METER
AT STR # 61
PIPING DETAILS & SCHEDULE

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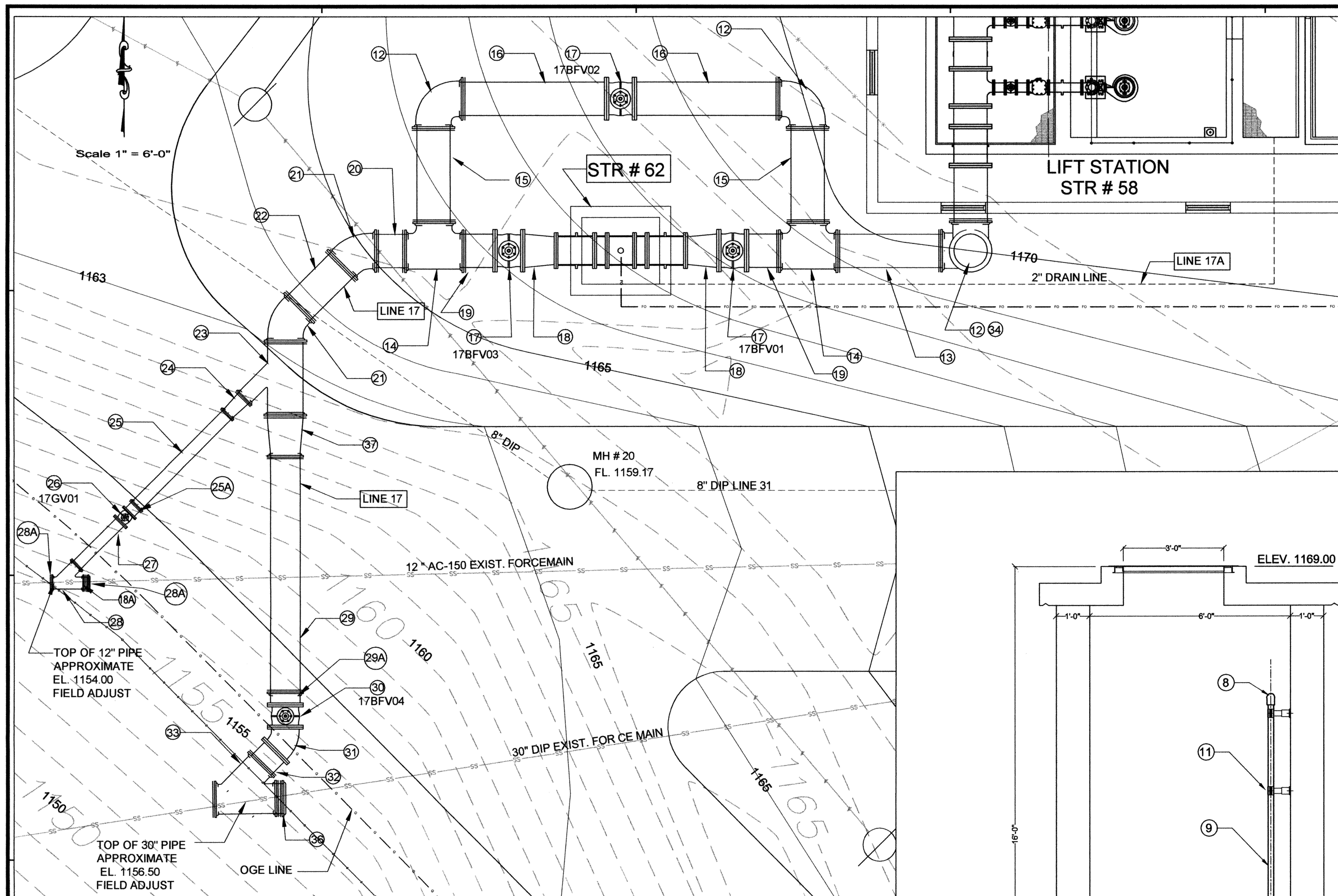
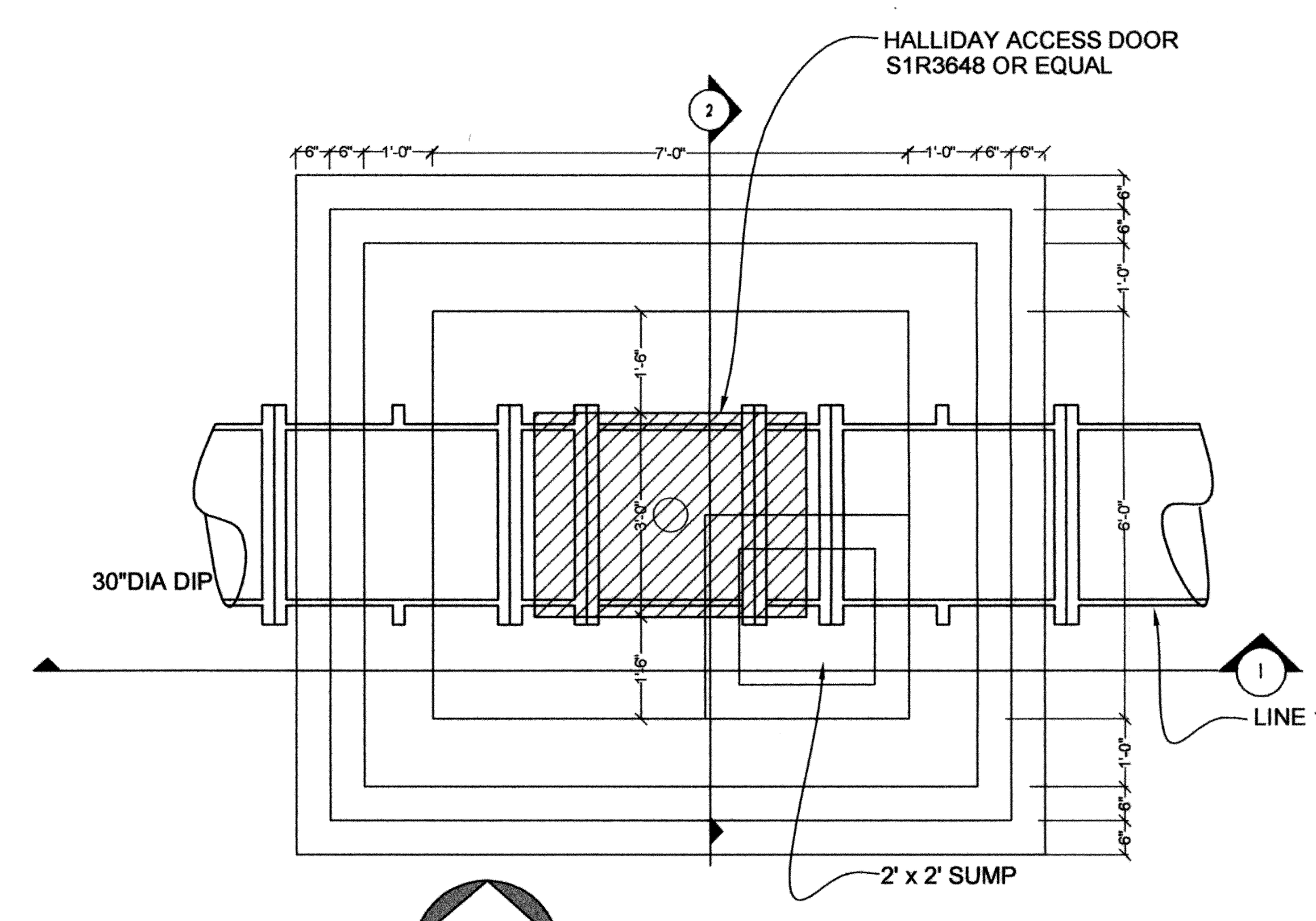
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

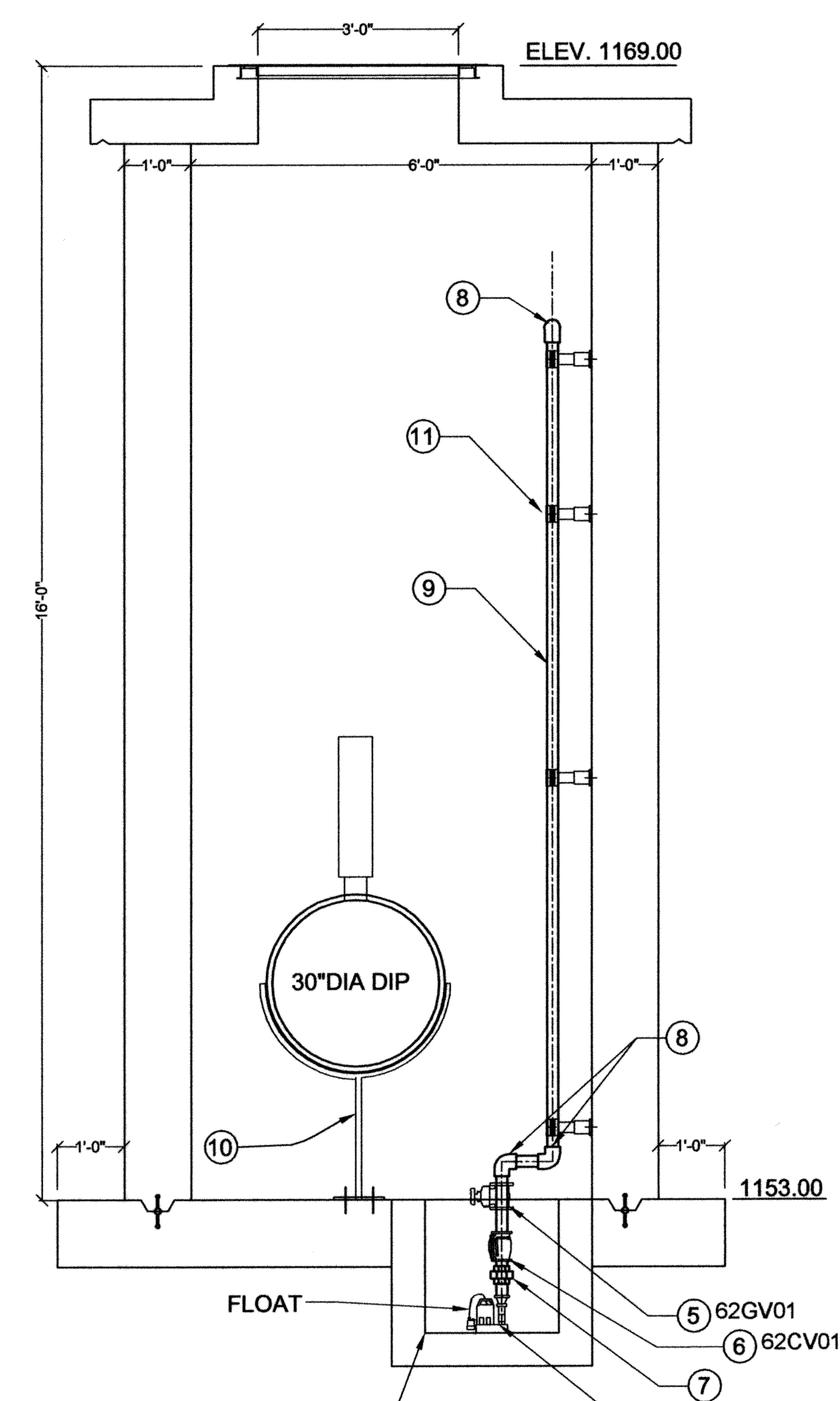
SATISH DASHARATHY 11456 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

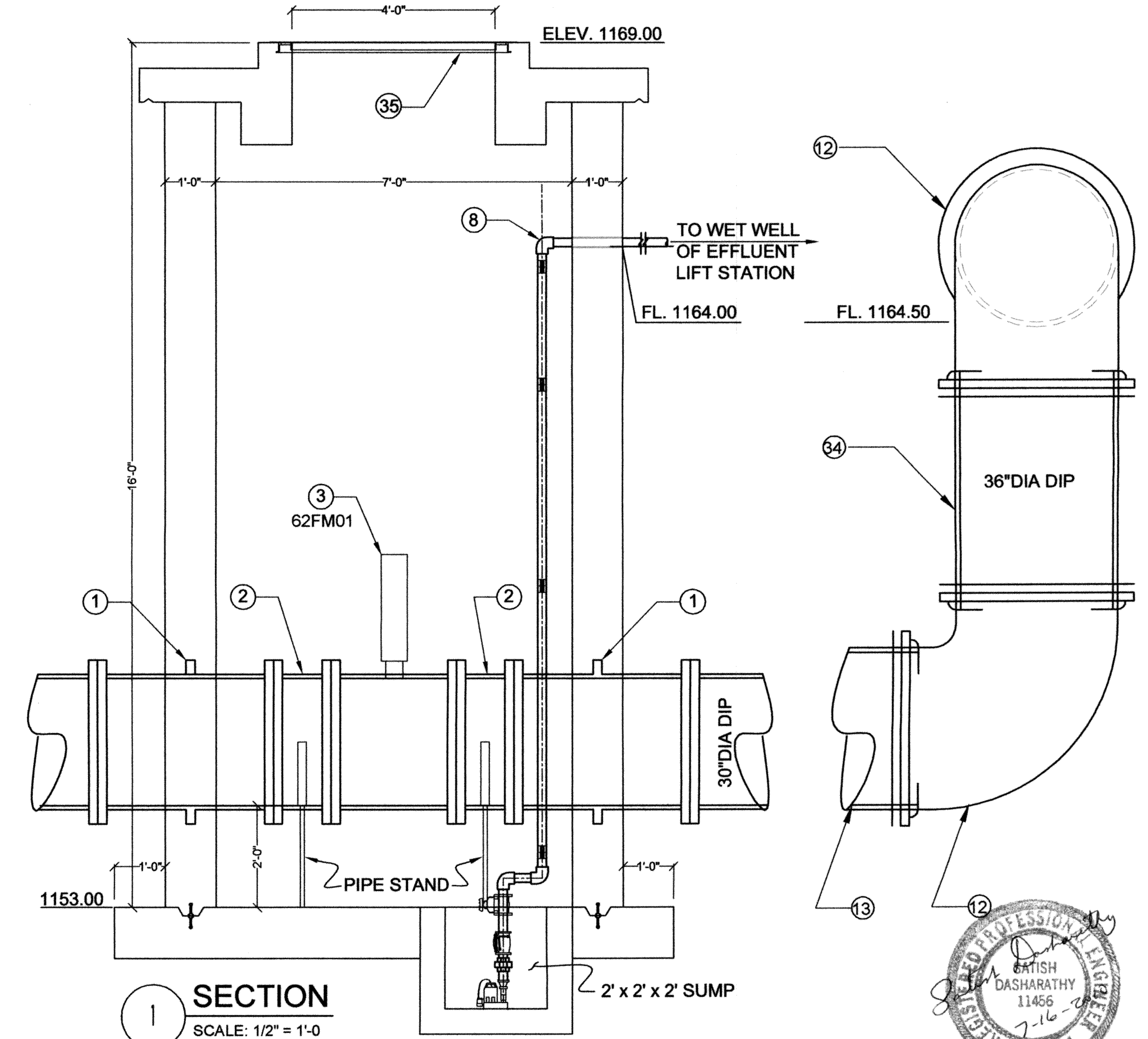




PLAN MAG METER AT STR # 62
SCALE: 1/2" = 1'-0



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



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

METER VAULT & LINE 17 SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	30" DIP FLGxFLG WALL SLEEVE	2	3'-5 1/2"
2	30" x PIPE FLGxFLG	2	0'-13 1/2"
3	30" MAGNETIC FLOW METER FLGxFLG	1	2'-5 1/2" (FLGxFLG) 62 FM01
4	SUMP PUMP	1	NOT SMALLER THAN 0.50 HP 62SP01
5	2" GATE VALVE	1	62GV01
6	2" CHECK VALVE	1	62CV01
7	2" UNION	1	
8	2" x 90° BEND	3	
9	2" PVC PIPE	1	17'-0"
10	30" PIPE STAND	2	
11	2" PIPE SUPPORT AT WALL	4	
12	36" x 90° BEND MJxMJ	4	
13	36" DIP PExPE	1	10'-0"
14	36" x 36" "TEE" MJ	2	
15	36" DIP PExPE	2	9'-0"
16	36" DIP FLGxPE	2	13'-3"
17	36" BUTTERFLY VALVE FLGxFLG	3	17BFV01, 17BFV02, 17BFV03
18	36" x 30" "REDUCER" FLGxFLG	2	
18A	12" CAP MJ	1	
19	36" DIP FLGxPE	2	3'-1 1/2"
20	36" DIP PExPE	1	3'-2"

METER VAULT & LINE 17 SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
21	36" x 45° BEND MJxMJ	2	
22	36" DIP PExPE	1	6'-0"
23	36" x 36"x 16" "WYE" PExMJxMJ	1	
24	16" x 12" "REDUCER" MJRSEB	1	
25	12" DIP MJxPE	1	11'-7"
25A	12" DIP FLGxPE	1	13"
26	12" GATE VALVE FLGxFLG	1	17GV01
27	12" DIP FLGxPE	1	5'-8"
28	12" WYE MJ	1	
28A	12" DIP TO AC PIPE ADAPTER	2	
29	30" DIP PExPE	1	21'-10"
29A	30" MJFPC	1	10" CONNECTING PIECE
30	30" BUTTERFLY VALVE FLGxFLG	1	17BFV04
31	30" x 45° BEND FLGxMJ	1	
32	30" DIP PExPE	1	2'-1/2"
33	30" x 30" WYE MJ	1	
34	36" DIP PExPE	1	4'- 9"
35	36" x 48" ACCESS DOOR	1	HALLIDAY ACCESS DOOR: S 1R 3648 OR EQUAL
36	30" CAP MJ	1	
37	36" x30" REDUCER MJRSEB	1	

NOTE:
1. CONTRACTOR SHALL PROVIDE SUMP PUMP CAPABLE OF OVERCOMING THE THE @ EACH SUMP & PUMP WATER OUT @ A RATE EXCEEDING 5 GPM.
2. CONTRACTOR SHALL PROVIDE 18", 24", & 30" FLG xFLG MAKEUP PIPE CONNECTION TO ALLOW PLANT OPERATOR TO REMOVE MAG METER FOR REPAIR AND KEEP LINE OPERATIONAL. THE WIDTH OF PIECE SHALL MATCH 18", 24" OR 30" MAG METER WIDTH.
3. ALL EQUIPMENT PLACED IN VAULTS (MAG-METERS, VALVES, MOTOR OPERATED VALVES, ETC.) SHALL HAVE ONE REMOVABLE FLANGE IN THE PIPING ARRANGEMENT INSIDE THE VAULT TO FACILITATE THE REMOVAL OF EQUIPMENT FOR SERVICE AND THE INSTALLATION OF A TEMPORARY SPOOL PIECE. THE REMOVABLE FLANGE WILL BE AN EBAA IRON UNI-FLANGE, OR EQUAL.
4. PRIOR TO STARTING WORK ON LINE 17 CONTRACTOR SHALL LOCATE THE EXISTING 12" ACP & 30" DIP IN THE FILLED. CONTRACTOR SHALL PROVIDE A PLAN TO ENGINEER TO INSTALL LINE, GET APPROVAL & THEN PROCEED WITH CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER SATISH DASHARATHY 11456 OKLAHOMA 7-16-2010

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

MAG METER
AT STR # 62
PIPING DETAILS & SCHEDULE

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
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EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

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S.D.		S.D.	S.D.	7/16/2010	AS SHOWN	93 OF 95

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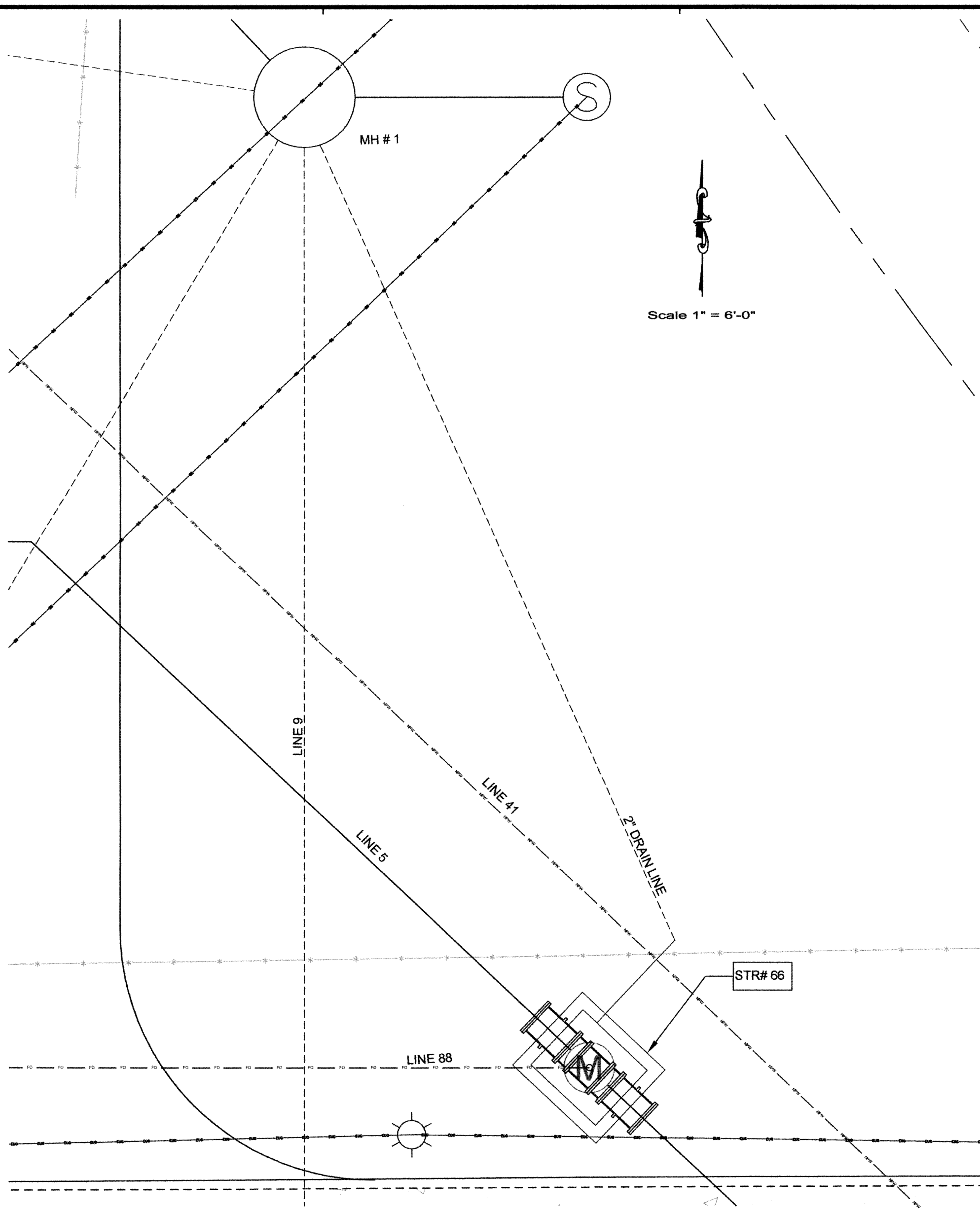
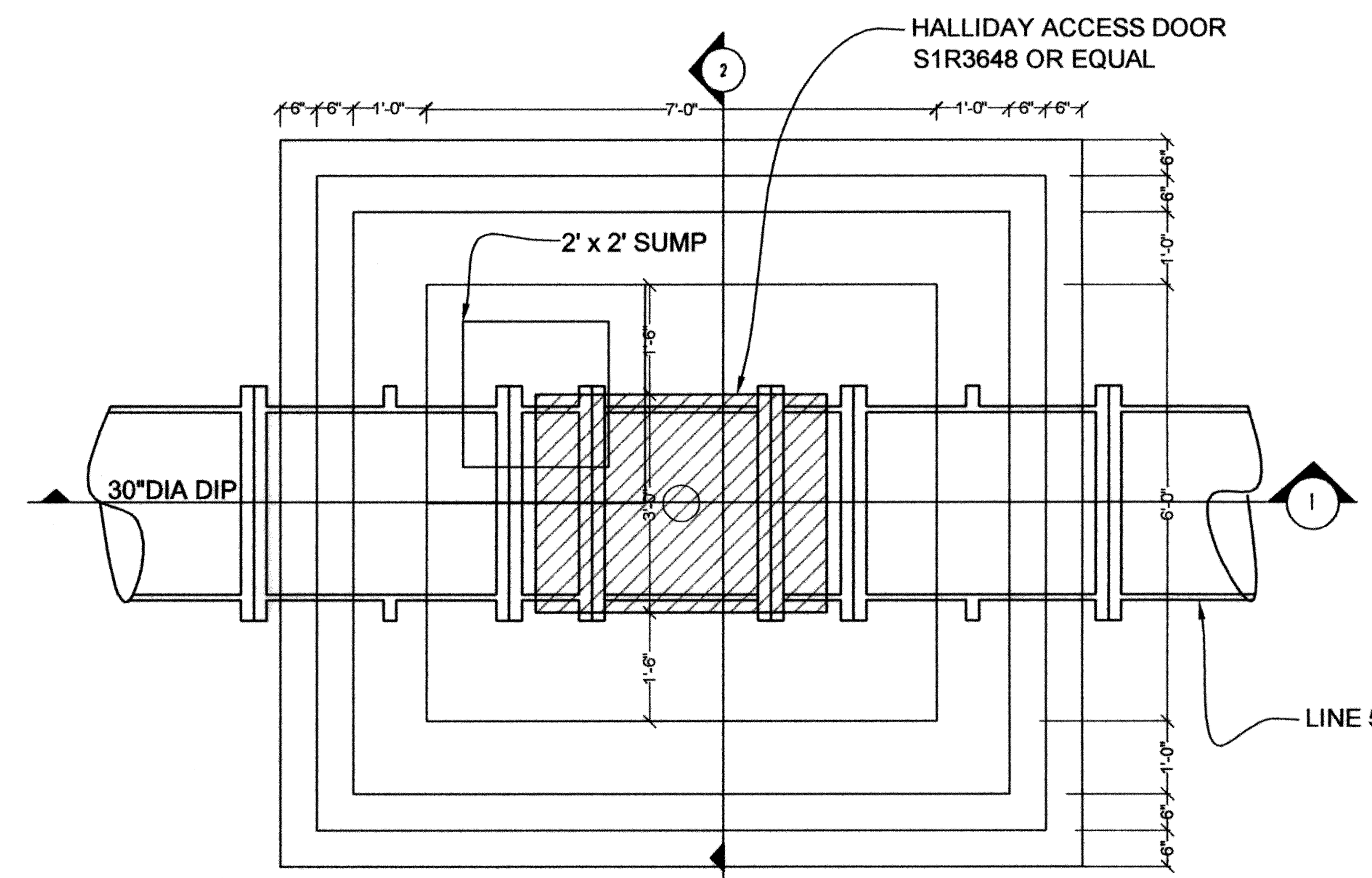
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

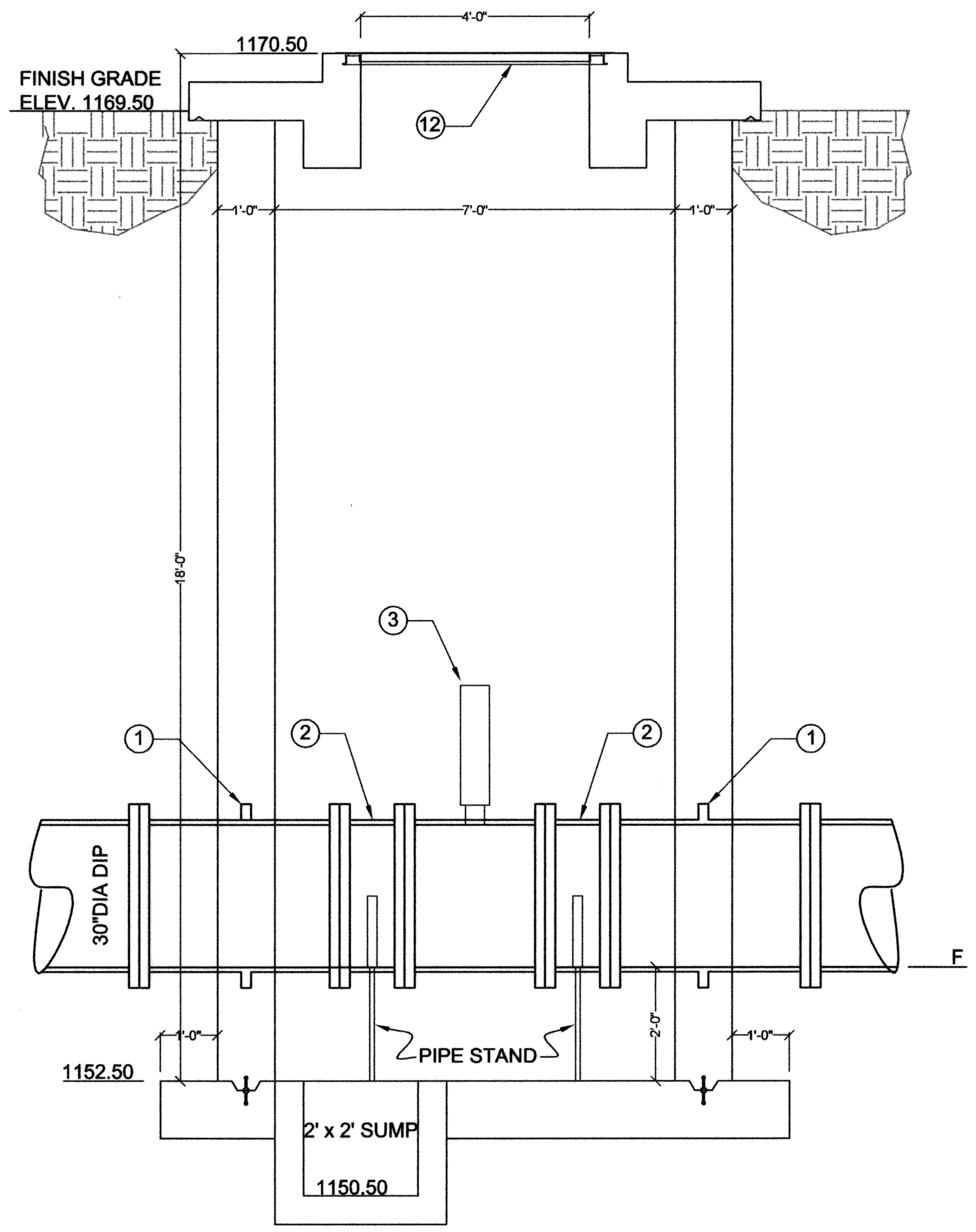




PLAN MAG METER STR # 66

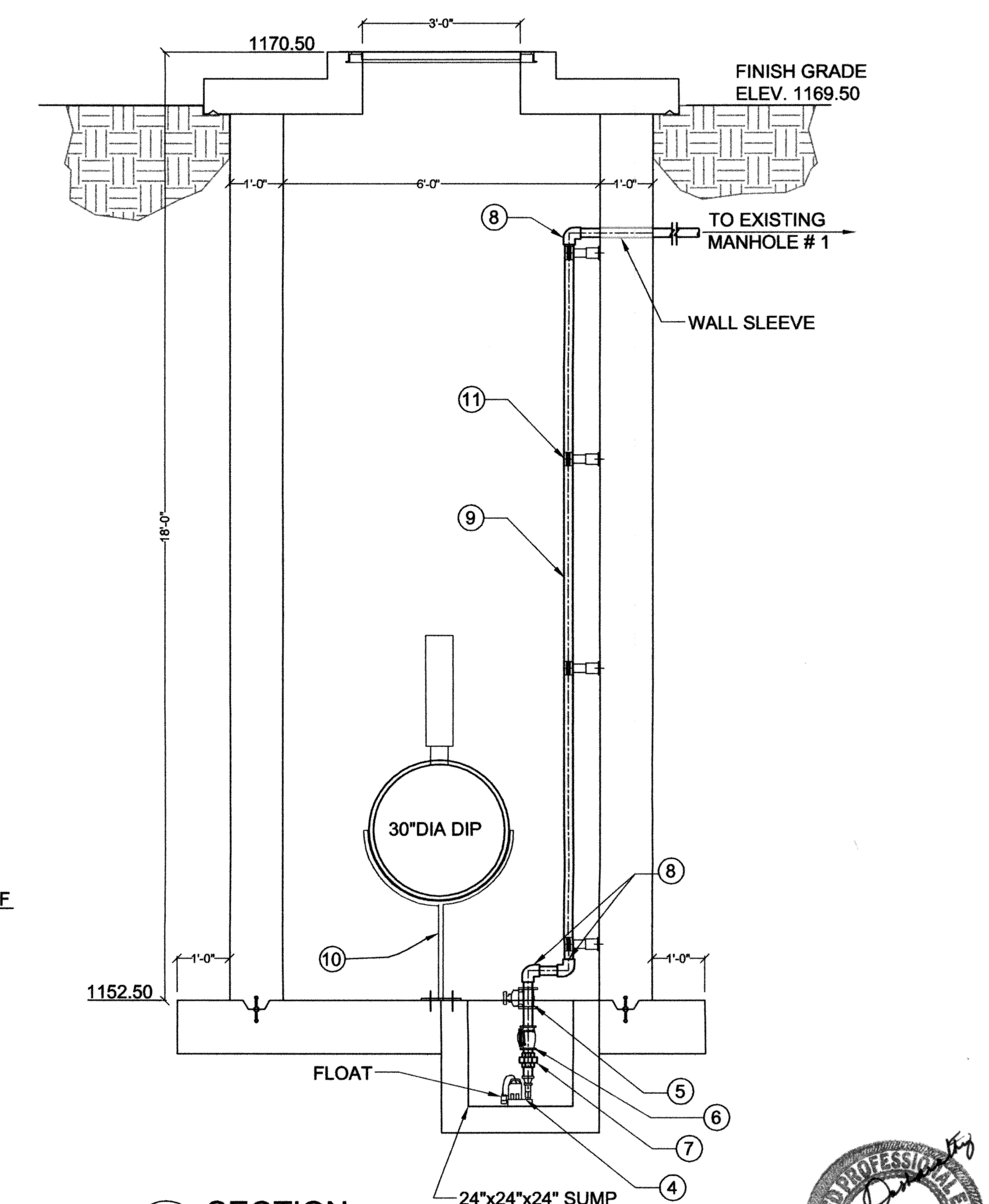
SCALE: 1/2" = 1'-0

NOTE:
1. CONTRACTOR SHALL PROVIDE SUMP PUMP CAPABLE OF OVERCOMING THE TDH @ EACH SUMP & PUMP WATER OUT @ A RATE EXCEEDING 5 GPM.
2. CONTRACTOR SHALL PROVIDE 18", 24", & 30" FLG xFLG MAKEUP PIPE CONNECTION TO ALLOW PLANT OPERATOR TO REMOVE MAG METER FOR REPAIR AND KEEP LINE OPERATIONAL. THE WIDTH OF PIECE SHALL MATCH 18", 24" OR 30" MAG METER WIDTH.
3. ALL EQUIPMENT PLACED IN VAULTS (MAG-METERS, VALVES, MOTOR OPERATED VALVES, ETC.) SHALL HAVE ONE REMOVABLE FLANGE IN THE PIPING ARRANGEMENT INSIDE THE VAULT TO FACILITATE THE REMOVAL OF EQUIPMENT FOR SERVICE AND THE INSTALLATION OF A TEMPORARY SPOOL PIECE. THE REMOVABLE FLANGE WILL BE AN EBAA IRON UNI-FLANGE, OR EQUAL.



1 SECTION

SCALE: 1/2" = 1'-0



2 SECTION

SCALE: 1/2" = 1'-0

METER VAULT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	30" DIP FLGxFLG WALL SLEEVE	2	3'-8"
2	30" x PIPE FLGxFLG	2	0'-13 1/2"
3	30" MAGNETIC FLOW METER (FM) FLGxFLG	1	2'-5 1/2" (FLGxFLG) 66 FM01
4	SUMP PUMP	1	NOT SMALLER THAN 0.50 HP
5	2" GATE VALVE	1	
6	2" CHECK VALVE	1	
7	2" UNION	1	
8	2" x 90° BEND	3	
9	2" PVC PIPE	1	20'-0"
10	30" PIPE STAND	2	
11	2" PIPE SUPPORT AT WALL	4	
12	36" x 48" ACCESS DOOR	1	HALLIDAY ACCESS DOOR S1R3648 OR EQUAL

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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	1/29/2010	AS SHOWN	94 OF 95

REVISIONS:	DATE:

MAG METER
STR# 66
STRUCTURAL DETAILS

EAGLE OFFICE CENTER
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EDMOND, OK. 73013
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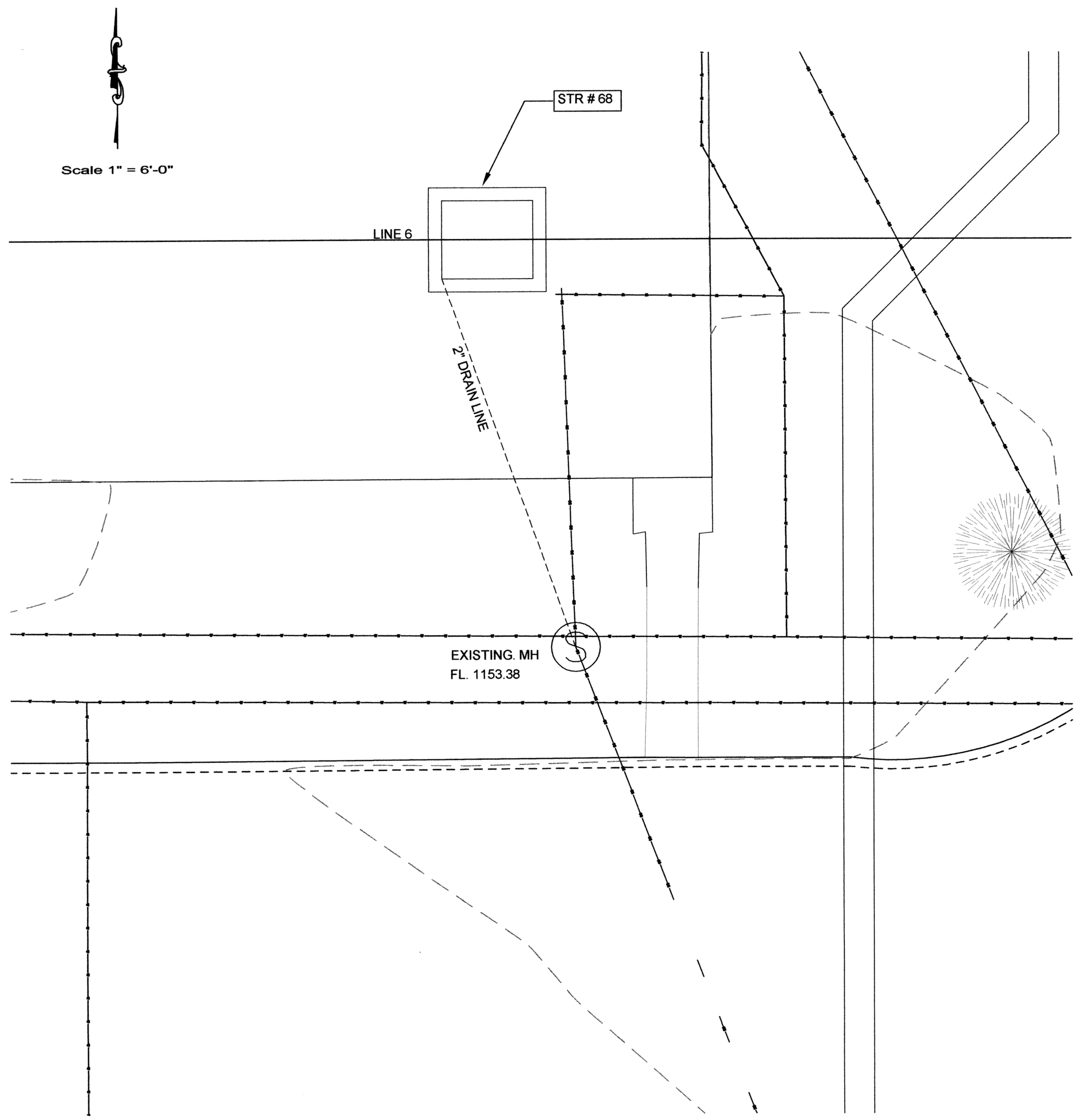
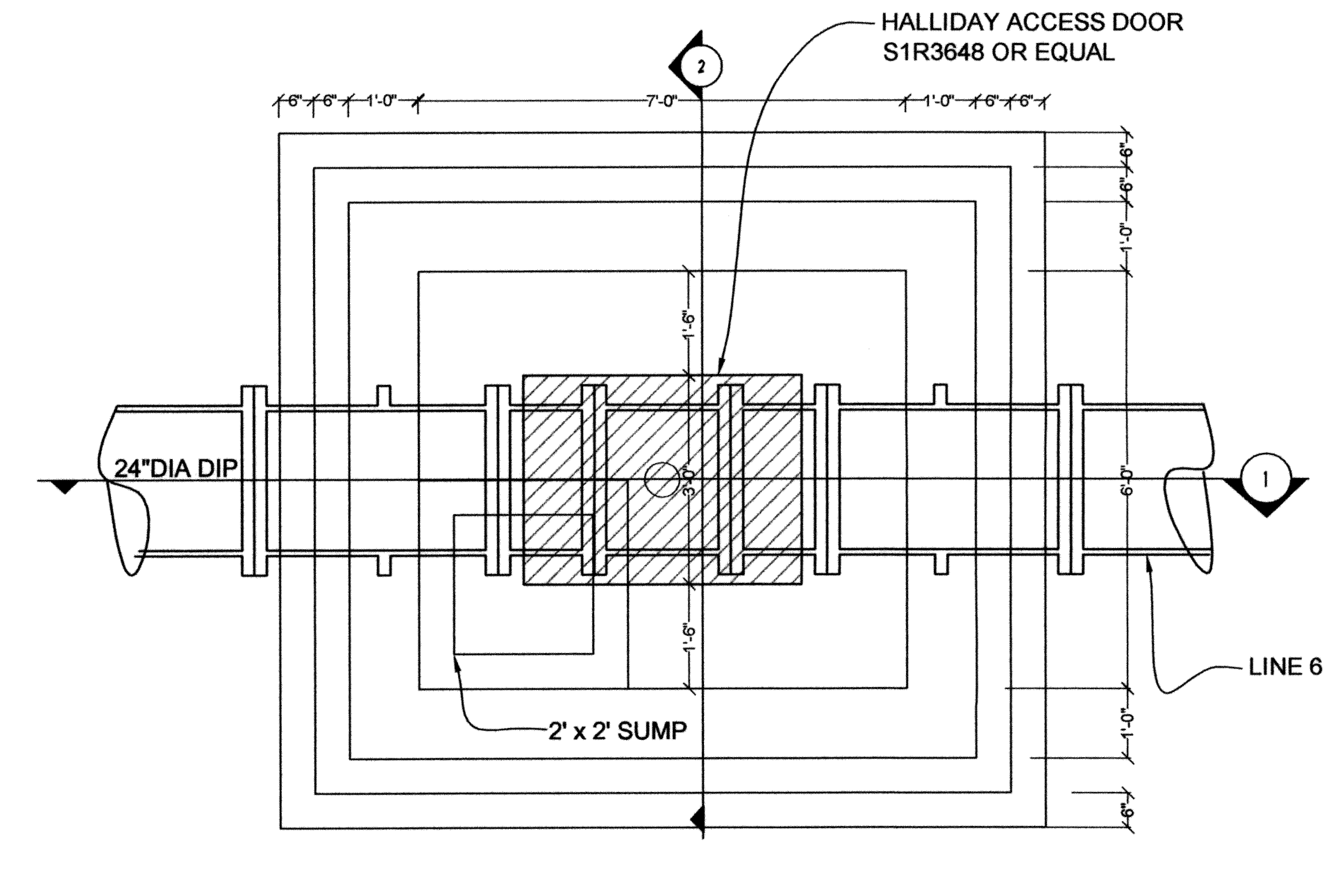
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

SATISH DASHARATHI OKLAHOMA

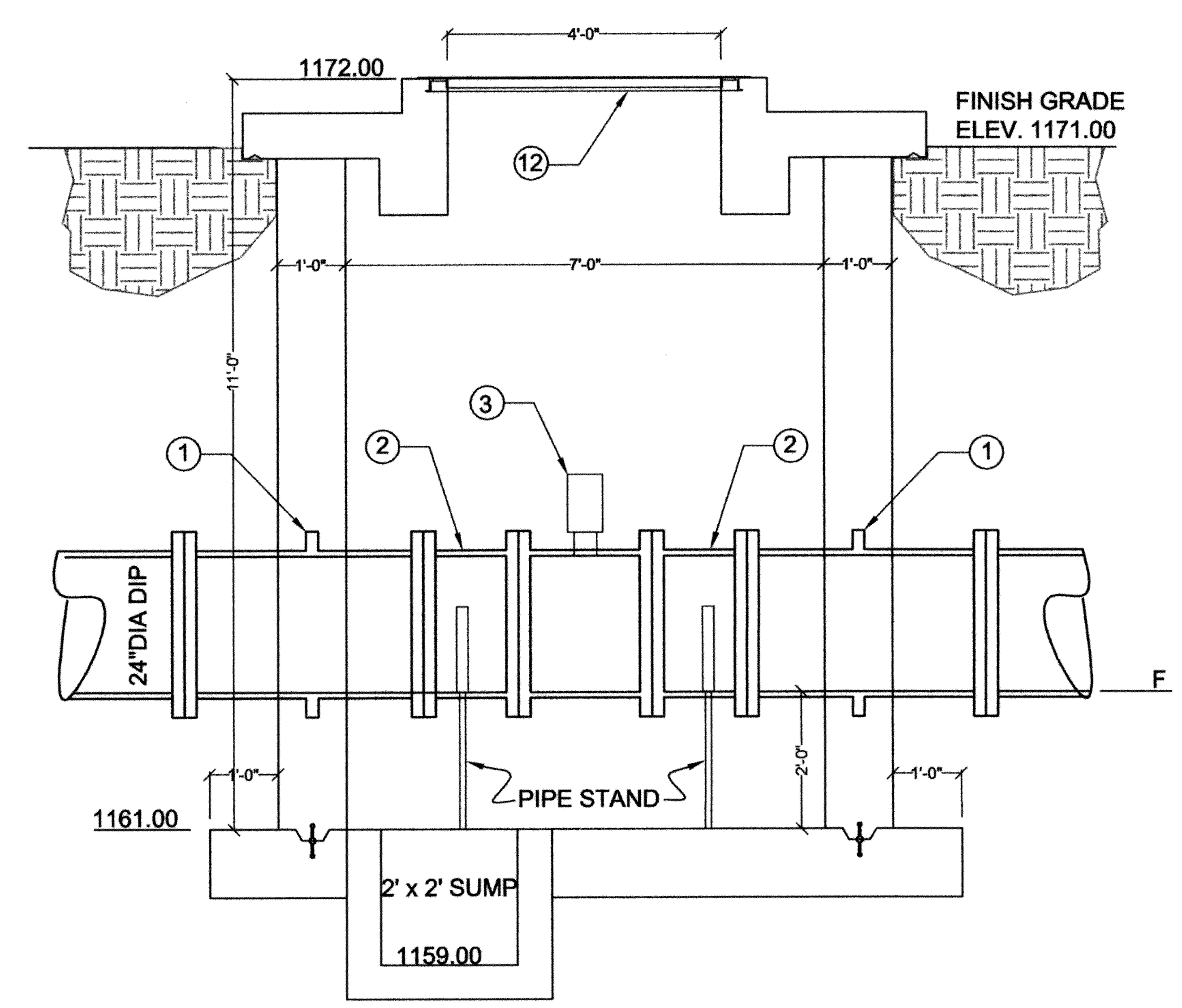
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK





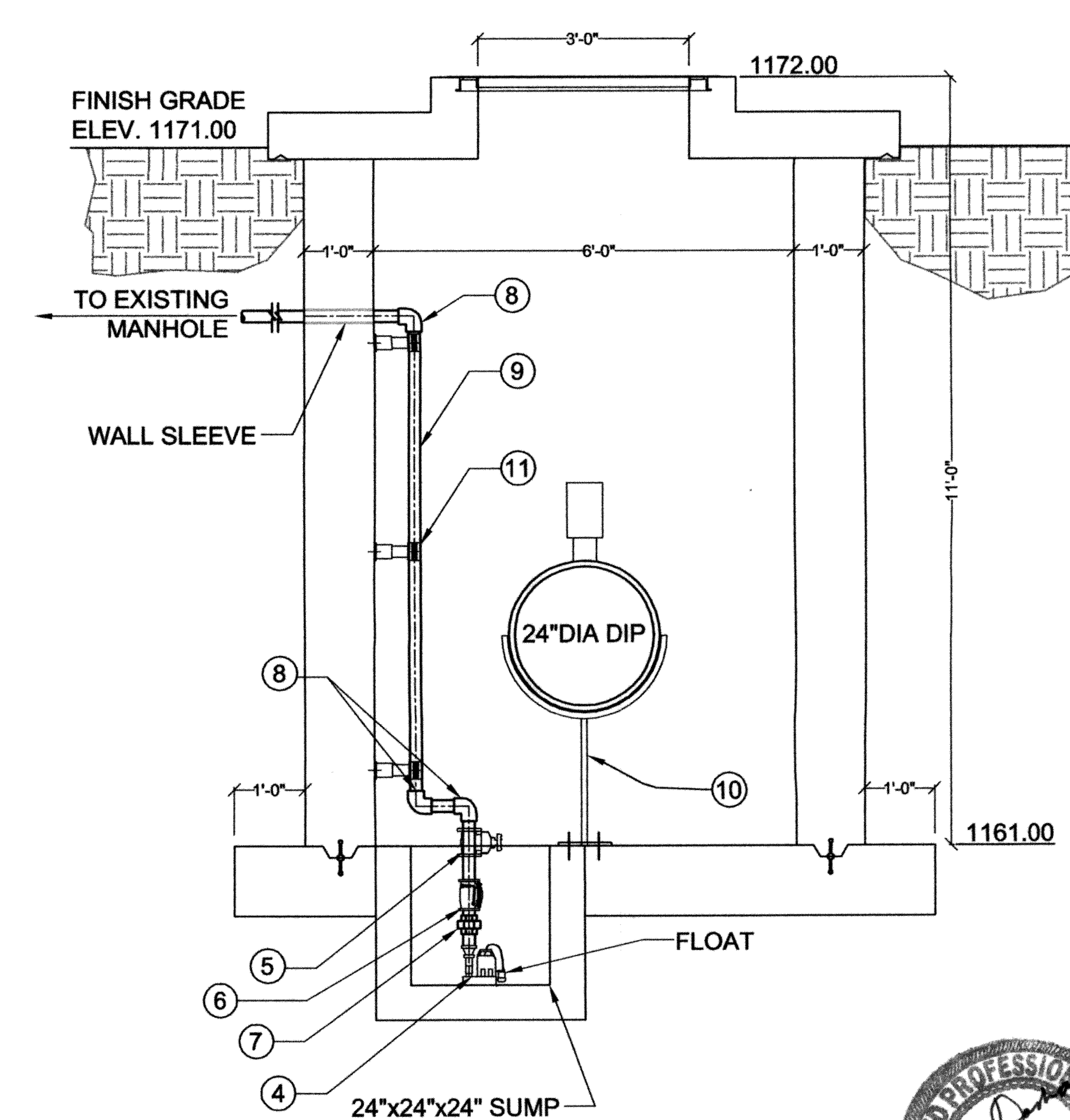
PLAN MAG METER STR # 68

SCALE: 1/2" = 1'-0



1 SECTION

SCALE: 1/2" = 1'-0



2 SECTION

SCALE: 1/2" = 1'-0

METER VAULT SCHEDULE

No.	ITEM	Qty.	DESCRIPTION
1	24" DIP FLGxFLG WALL SLEEVE	2	3'-8"
2	24" x PIPE FLGxFLG	2	0'-16 1/2"
3	24" MAGNETIC FLOW METER (FM) FLGxFLG	1	1'-11 1/2" (FLGxFLG) 68 FM01
4	SUMP PUMP	1	NOT SMALLER THAN 0.50 HP
5	2" GATE VALVE	1	
6	2" CHECK VALVE	1	
7	2" UNION	1	
8	2" x 90° BEND	3	
9	2" PVC PIPE	1	12'-0"
10	30" PIPE STAND	2	
11	2" PIPE SUPPORT AT WALL	3	
12	36" x 48" ACCESS DOOR	1	HALLIDAY ACCESS DOOR: S1R3648 OR EQUAL

NOTE:
1. CONTRACTOR SHALL PROVIDE SUMP PUMP CAPABLE OF OVERCOMING THE TDH @ EACH SUMP & PUMP WATER OUT @ A RATE EXCEEDING 5 GPM.
2. CONTRACTOR SHALL PROVIDE 18", 24", & 30" FLG xFLG MAKEUP PIPE CONNECTION TO ALLOW PLANT OPERATOR TO REMOVE MAG METER FOR REPAIR AND KEEP LINE OPERATIONAL. THE WIDTH OF PIECE SHALL MATCH 18", 24" OR 30" MAG METER WIDTH.
3. ALL EQUIPMENT PLACED IN VAULTS (MAG-METERS, VALVES, MOTOR OPERATED VALVES, ETC.) SHALL HAVE ONE REMOVABLE FLANGE IN THE PIPING ARRANGEMENT INSIDE THE VAULT TO FACILITATE THE REMOVAL OF EQUIPMENT FOR SERVICE AND THE INSTALLATION OF A TEMPORARY SPOOL PIECE. THE REMOVABLE FLANGE WILL BE AN EBAA IRON UNI-FLANGE, OR EQUAL.

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	1/29/2010	AS SHOWN	95 OF 95

REVISIONS:	DATE:

MAG METER
AT STR# 68
PIPING DETAILS & SCHEDULE

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
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CERTIFICATE OF AUTHORIZATION NO. CA2088

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

VOLUME 3
PLANT PIPING PLAN & PROFILE
SHEET INDEX

SHEET NO.	TITLE
1	PLANT PIPING PLAN & PROFILE SHEET INDEX
2	GRAVITY, FORCEMAIN, & DRAIN LINES
3	LINES 1, 2, & 3
4	LINES 4, 9A, 10, & 11
5	LINE 5 - 0+00 TO 8+00
6	LINE 5 - 8+00 TO 17+00
7	LINE 5A, 5B, 5C, 6A & 6B 24" INFLUENT LINE
8	LINE 6 - 0+00 TO 8+00
9	LINE 6 - 8+00 TO 17+00 & LINE 6C
10	LINE 7 PLAN & PROFILES
11	LINE 8 PLAN & PROFILE
12	LINE 9 PLANT RETURN LIFT STATION FORCEMAIN
13	LINES 12 & 13 NORTH & SOUTH SBR EFFLUENT DECANT
14	LINES 12A, 12B, 12C, 13A, 13B & 13C SBR EFF. DECANT
15	LINE 14 36" EFFLUENT FROM SBR FEB TO UV
16	LINES 15 & 16 36" EFFLUENT
17	LINES 18 & 19 SBR WASTE SLUDGE LINES
18	LINES 18A, 18B, 18C, 19A, 19B & 19C SBR WASTE SLUDGE LINES
19	LINES 20 & 20A WASTE SLUDGE INFLUENT LINES
20	LINE 21 & LINE 22 12" N. & S. AD INFLUENT SLUDGE LINE
21	LINES 23 & 24 6" AD DIGESTED SLUDGE LINES TO BFP
22	LINE 25 8" SLUDGE LINE FROM AD TO BFP & LINE 37 36" STORM SEWER
23	LINES 26 & 27 24" DRAIN LINES NORTH POND & PLANT MAIN
24	LINES 28A, 28B, 28C, 28D, 28E, 28F, 28G, & 28H SBR DRAIN LINES
25	LINES 28J & 28K 4" DRAIN LINES
26	LINE 29 & 29B 18" DRAIN LINE
27	LINE 30 8" & 6" DRAIN LINES
28	LINES 31 & 38 DRAIN LINES
29	LINES 32, 33 & 33A NORTH & SOUTH AEROBIC DIGESTER 12" DRAIN LINES
30	LINES 34 & 35 NORTH & SOUTH AEROBIC DIGESTER 12" DECANT LINES
31	LINES 34-A,B,C & 35-A,B,C NORTH & SOUTH AEROBIC DIGESTER 12" DECANT LINES
32	LINE 36 24" SBR INFLUENT SPLITTER BOX OVERFLOW LINE
32A	LINES 17, 17A, 39 AND 40

SHEET NO.	TITLE
33	LINES 41 TO 72 NON POTABLE WATER AND POTABLE WATER LINES
34	LINE 41 - 0+00 TO 9+00
35	LINE 41 - 9+00 TO 18+00
36	LINE 42 - 0+00 TO 5+66.16
37	LINES 43, 44, & 45 - 0+00 TO 7+00
38	LINE 46 - 0+00 TO 8+68.43
39	LINES 47 & 48 - 0+00 TO 5+50
40	LINE 48 & 52 - 0+00 TO 10+ 50
41	LINE 53 4" AND LINES 54, 55, & 56 2"
42	LINE 58, 59, 60, & 61
43	LINE 62
44	LINES 65, 65A, & 66 0+00 TO 3+50
45	LINE 67 & 67A - 0+00 TO 5+00
46	LINE 68- 0+00 TO 6+50
47	LINE 69 TO 72 - 0+00 TO 2+50
48	LINES 73 TO 97 FIBER OPTIC LINES & OG&E LINES
49	LINES 94, & 94A 0+00 TO 8+00
50	LINES 94, 94B, & 95A 0+00 TO 10+20
51	LINE 95 0+00 TO 9+00
52	LINES 95, 95B, & 97 0+00 TO 9+72
53	LINES 96 & 96A 0+00 TO 7+00
54	LINES 96 & 96B 0+00 TO 12+71
55	OG & E DETAILS
56	CITY OF MOORE WATER STANDARD DETAILS NO. 101
57	CITY OF MOORE WATER STANDARD DETAILS NO. 102
58	CITY OF MOORE WATER STANDARD DETAILS NO. 103
59	CITY OF MOORE SANITARY SEWER STANDARD DETAILS NO. 301
60	CITY OF MOORE SANITARY SEWER STANDARD DETAILS NO. 302
61	CITY OF MOORE SANITARY SEWER STANDARD DETAILS NO. 303
62	CITY OF MOORE SANITARY SEWER STANDARD DETAILS NO. 304
63	CITY OF MOORE SANITARY SEWER STANDARD DETAILS NO. 305

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM #1	7/14/2010

VOLUME 3
PLANT PIPING PLAN & PROFILE
SHEET INDEX

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2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	5/10/10	NO SCALE	1 OF 63

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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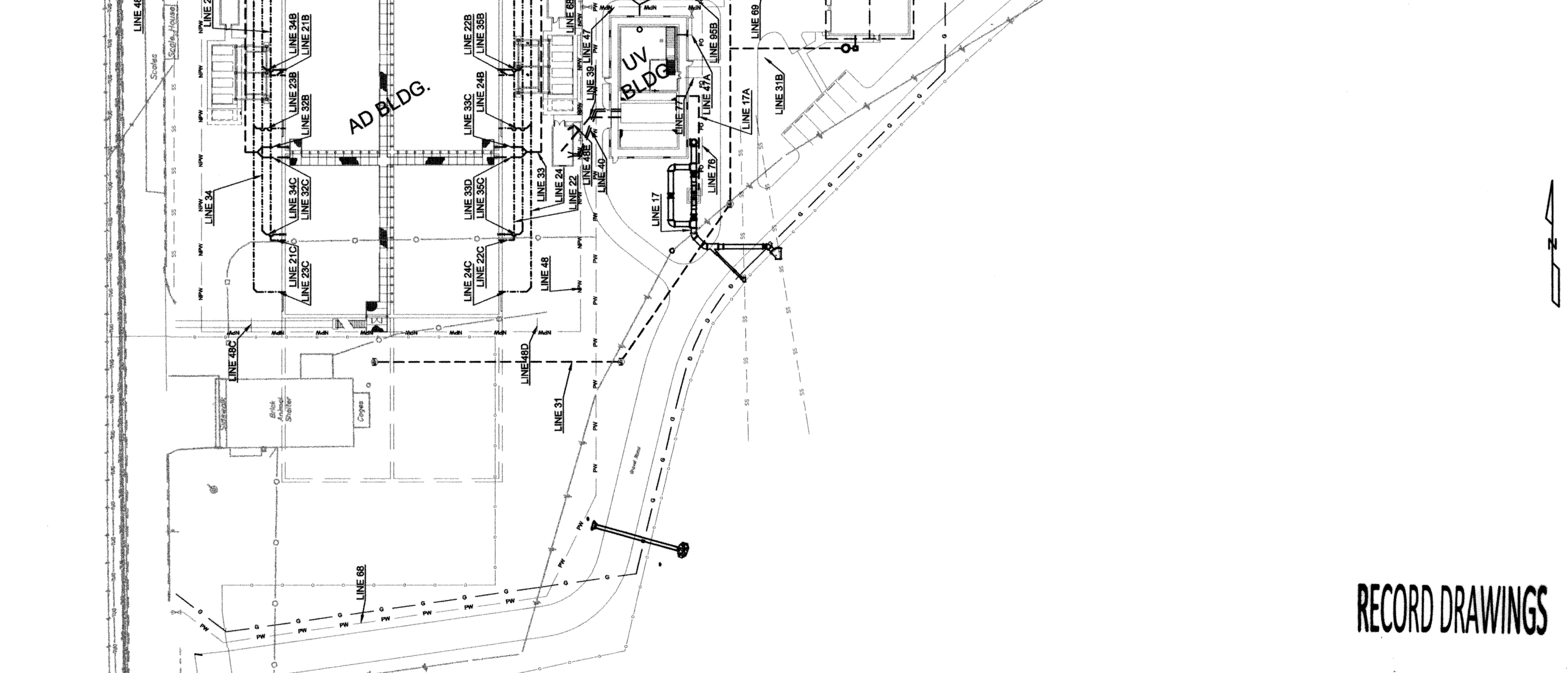

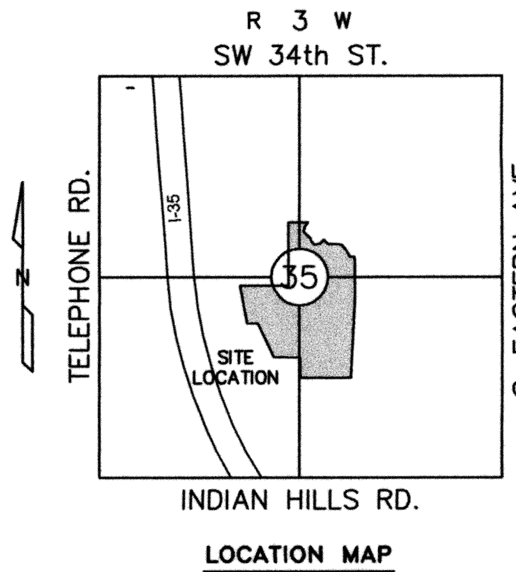

LOCATION MAP

LEGEND

LINE 1 - HEADWORKS INFLUENT (FROM CITY COLLECTION SYSTEM)
LINE 2 - 36" HEADWORKS INFLUENT (FROM CITY COLLECTION SYSTEN)
LINE 3 - 48" INFLUENT (TO HEADWORKS)
LINE 4 - 42" OVERFLOW (FROM PRIMARY HEADWORKS PUMP STATION TO SECONDARY HEADWORKS)
LINE 5 - 30" & 24" INFLUENT (FROM PRIMARY HEADWORKS PUMP STATION TO NE CORNER SOUTH POND)
LINE 5A - 24" INFLUENT (BRANCH FROM LINE 5 TO NORTH PONDS)
LINE 5B - 24" INFLUENT (BRANCH FROM LINE 5 TO CENTER PONDS)
LINE 5C - 30" INFLUENT (BRANCH FROM LINE 5 TO SBR SPLITTER BOX)
LINE 5Z - 24" INFLUENT (CONNECTION BETWEEN LINE 5 AND LINE 6 EAST OF NORTH POND)
LINE 6 - 24" INFLUENT (FROM SECONDARY HEADWORKS PUMP STATION TO SBR)
LINE 6A - 24" INFLUENT (BRANCH FROM LINE 6 TO LINE 5A AND NORTH PONDS)
LINE 6B - 24" INFLUENT (BRANCH FROM LINE 6 TO LINE 5B AND CENTER PONDS)
LINE 6C - 24" INFLUENT (BRANCH FROM LINE 6 TO LINE 5C AND SBR SPLITTER BOX)
LINE 6D - 24" INFLUENT (BRANCH FROM LINE 6 TO MERGE WITH LINE 5 AND SOUTH PONDS)
LINE 7 - 30" INFLUENT (FROM SBR FLOW SPLITTER BOX TO NORTH SIDE SBR)
LINE 8 - 30" INFLUENT (FROM SBR FLOW SPLITTER BOX TO SOUTH SIDE SBR)
LINE 9 - 18" DRAIN RETURN LINE (FROM PLANT RETURN LIFT STATION TO HEADWORKS)
LINE 9A - 18" DRAIN LINE (FROM LINE 9 MH #6)
LINE 9B - 2" DRAIN LINE (FROM METER VAULT TO MH #1)
LINE 10 - 6" DRAIN LINE (FROM HEADWORKS ODOR CONTROL TO MH #1 ON LINE 1)
LINE 11 - 6" DRAIN LINE (FROM HEADWORKS CHEMICAL BUILDING TO MH #1 ON LINE 1)
LINE 12 - 24" EFFLUENT (FROM NORTH SBR TO FLOW EQUALIZATION BASIN)
LINE 12A - 24" EFFLUENT (LINE FROM STR. 6N01 TO LINE 12)
LINE 12B - 24" EFFLUENT (LINE FROM STR. 6N02 TO LINE 12)
LINE 12C - 24" EFFLUENT (LINE FROM STR. 6N03 TO LINE 12)
LINE 13 - 24" EFFLUENT (SOUTH SIDE SBR TO FLOW EQUALIZATION BASIN-CONTRACT 1)
LINE 13A - 24" EFFLUENT (LINE FROM STR. 6S01 TO LINE 13)
LINE 13B - 24" EFFLUENT (LINE FROM STR. 6S02 TO LINE 13)
LINE 13C - 24" EFFLUENT (LINE FROM STR. 6S03 TO LINE 13)
LINE 14 - 36" EFFLUENT (LINE FROM EQUALIZATION BASIN TO UV BUILDING)
LINE 15 - 36" EFFLUENT (LINE FROM EQUALIZATION BASIN TO HYDRO SAND FILTER)
LINE 16 - 36" EFFLUENT (LINE FROM HYDRO SAND FILTER TO UV BUILDING)
LINE 17 - 36" EFFLUENT (LINE FROM UV BUILDING TO EXISTING EFFLUENT FORCEMAIN LINES)
LINE 17A - 2" DRAIN LINE (FROM STR #62 TO UV BLDG.)
LINE 18 - 10" SLUDGE LINE (NORTH SIDE SBR TO NORTH WAS LIFT STATION)
LINE 18A - 8" SLUDGE LINE (LINE FROM STR. NORTH SBR 1 TO LINE 18)
LINE 18B - 8" SLUDGE LINE (LINE FROM STR. NORTH SBR 2 TO LINE 18)
LINE 18C - 8" SLUDGE LINE (LINE FROM STR. NORTH SBR 3 TO LINE 18)
LINE 19 - 10" SLUDGE LINE (SOUTH SIDE SBR TO SOUTH WAS LIFT STATION-CONTRACT 1)
LINE 19A - 8" SLUDGE LINE (LINE FROM STR. SOUTH SBR 1 TO LINE 19)
LINE 19B - 8" SLUDGE LINE (LINE FROM STR. SOUTH SBR 2 TO LINE 19)
LINE 19C - 8" SLUDGE LINE (LINE FROM STR. SOUTH SBR 3 TO LINE 19)
LINE 20 - 10" & 12" SLUDGE LINE (FROM SOUTH WAS LIFT STATION TO CONFLUENCE WITH 10" FROM NORTH WAS LIFT STATION LINE)
LINE 20A - 10" SLUDGE LINE (FROM NORTH WAS LIFT STATION TO LINE 20)
LINE 21 - 12" INFLUENT SLUDGE LINE (FROM LINE 20 TO NORTH SIDE AEROBIC DIGESTER)
LINE 21A - 12" INFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 21B - 12" INFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 21C - 12" INFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 22 - 12" INFLUENT SLUDGE LINE (FROM LINE 20 TO SOUTH SIDE AEROBIC DIGESTER)
LINE 22A - 12" INFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 22B - 12" INFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 22C - 12" INFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)

LEGEND (CONT'D.)

LINE 23 - 6" EFFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER TO LINE 25 TO BELT FILTER PRESS)
LINE 23A - 6" EFFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 23B - 6" EFFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 23C - 6" EFFLUENT SLUDGE LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 24 - 6" EFFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER TO LINE 25 TO BELT FILTER PRESS)
LINE 24A - 6" EFFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 24B - 6" EFFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 24C - 6" EFFLUENT SLUDGE LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 25 - 8" SLUDGE LINE (FROM LINES 23 & 24 TO BELT FILTER PRESS BUILDING)
LINE 26 - 24" DRAIN LINE (FROM STR. #36 AT NORTH PONDS TO PLANT RETURN LIFT STATION)
LINE 27 - 24" DRAIN LINE (MAIN PLANT DRAIN LINE)
LINE 28 - 12" & 24" DRAIN LINE (CONTRACT 1)
LINE 28A - 12" DRAIN LINE (LINE FROM EQUALIZATION BASIN NORTH SIDE TO LINE 28)
LINE 28B - 12" DRAIN LINE (FROM SBR N01 TO LINE 28)
LINE 28C - 12" DRAIN LINE (FROM SBR N02 TO LINE 28)
LINE 28D - 12" DRAIN LINE (FROM SBR N03 TO LINE 28)
LINE 28E - 12" DRAIN LINE (LINE FROM EQUALIZATION BASIN SOUTH SIDE TO LINE 28)
LINE 28F - 12" DRAIN LINE (FROM SBR S01 TO LINE 28)
LINE 28G - 12" DRAIN LINE (FROM SBR S02 TO LINE 28)
LINE 28H - 12" DRAIN LINE (FROM SBR S03 TO LINE 28)
LINE 28J - 4" DRAIN LINE (ON SOUTH SIDE OF SBR BLDG.)
LINE 28K - 4" DRAIN LINE (ON NORTH SIDE OF SBR BLDG.)
LINE 29 - 18" & 24" DRAIN LINE (FROM MH #1 LINE 1 CONTRACT 1 TO EXISTING MH NE OF AEROBIC DIGESTER)
LINE 29A - 8" DRAIN LINE (FROM BFP BLDG.)
LINE 29B - 6" DRAIN LINE (FROM BFP/AD CHEMICAL BLDG.)
LINE 29C - 4" DRAIN LINE (FROM ADMIN. BLDG.)
LINE 30 - 8" DRAIN LINE (FROM MH #4 LINE 1 CONTRACT 1 TO SBR CHEM. FEED BLDG.)
LINE 30A - 6" DRAIN LINE (FROM SBR ODOR CONTROL UNIT)
LINE 31 - 8" DRAIN LINE (FROM MH #11 LINE 29 TO ANIMAL SHELTER)
LINE 31A - 4" DRAIN LINE (FROM MAINT. BLDG.)
LINE 31B - 4" DRAIN LINE (FROM MAINT. BLDG. GARAGE)
LINE 32 -12" DRAIN LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 32A -12" DRAIN LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 32B -12" DRAIN LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 32C -12" DRAIN LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 33 -12" DRAIN LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 33A - 6" DRAIN LINE (SOUTH SIDE AD ODOR CONTROL UNIT)
LINE 33B -12" DRAIN LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 33C -12" DRAIN LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 33D -12" DRAIN LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 34 -12" DECANT LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 34A -12" DECANT LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 34B -12" DECANT LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 34C -12" DECANT LINE (NORTH SIDE AEROBIC DIGESTER)
LINE 35 -12" DECANT LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 35A -12" DECANT LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 35B -12" DECANT LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 35C -12" DECANT LINE (SOUTH SIDE AEROBIC DIGESTER)
LINE 36 - 24" OVERFLOW LINE (FROM SBR FLOW SPLITTER BOX TO CENTER POND EAST)
LINE 37 - 36" STORM DRAIN (ON WEST AND SOUTH SIDE OF NORTH POND)
LINE 38 - 6" DRAIN LINE (FROM BFP ODOR CONTROL)
LINES 39 - 4" DRAINLINE (FROM STR 52 TO UV BLDG.)
LINES 40 - 14" DRAIN LINE (FROM UV BLDG TO NPW PUMP STR 52)
GAS LINE (BY O.N.G.)
EXISTING SANITARY SEWER LINE
EXISTING STORM DRAIN LINE

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REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

GRAVITY, FORCEMAIN & DRAIN LINES

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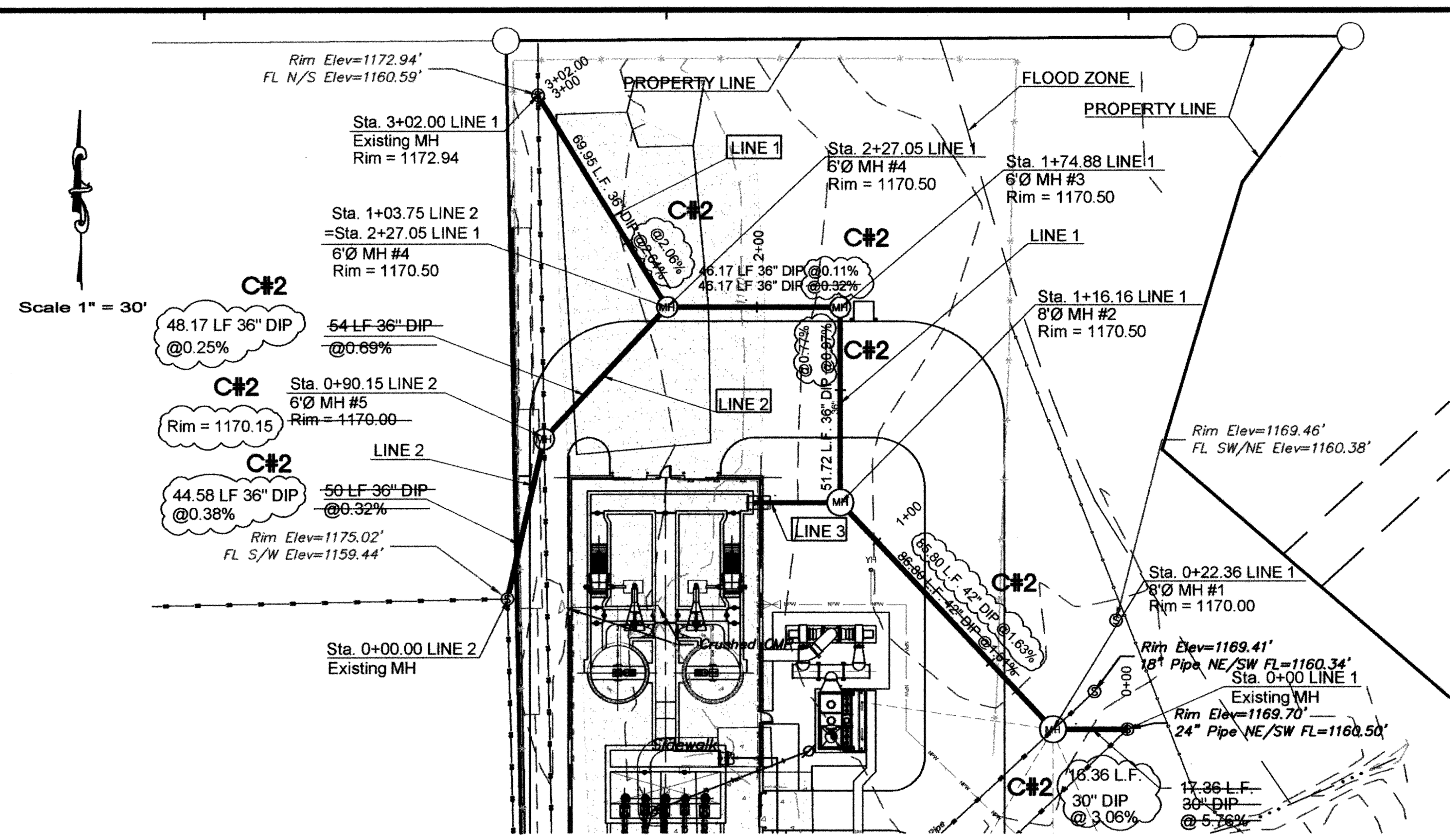
S.D.	D.O.	S.D.	S.D.	7/13/10	AS SHOWN	2 OF 63

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



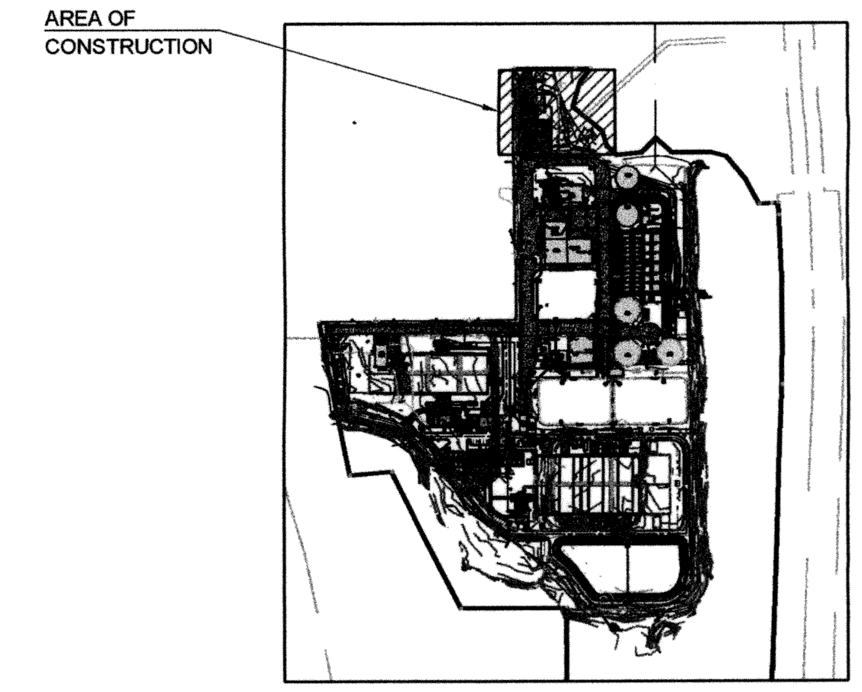
LINE 1 & 2 HEADWORKS INFLUENT LINES
PLAN VIEW

LINE 1

MH #	NORTHING	EASTING
EXISTING	715931.43	2122036.78
#1	715931.43	2122014.42
#2	715999.94	2121950.34
#3	716058.67	2121950.34
#4	716058.77	2121898.03
EXISTING	716122.67	2121859.25

LINE 2

MH #	NORTHING	EASTING
#5	716019.11	2121860.99
EXISTING	715970.78	2121850.07



LOCATION MAP
SCALE: 1"=500'

BEFORE YOU DIG...
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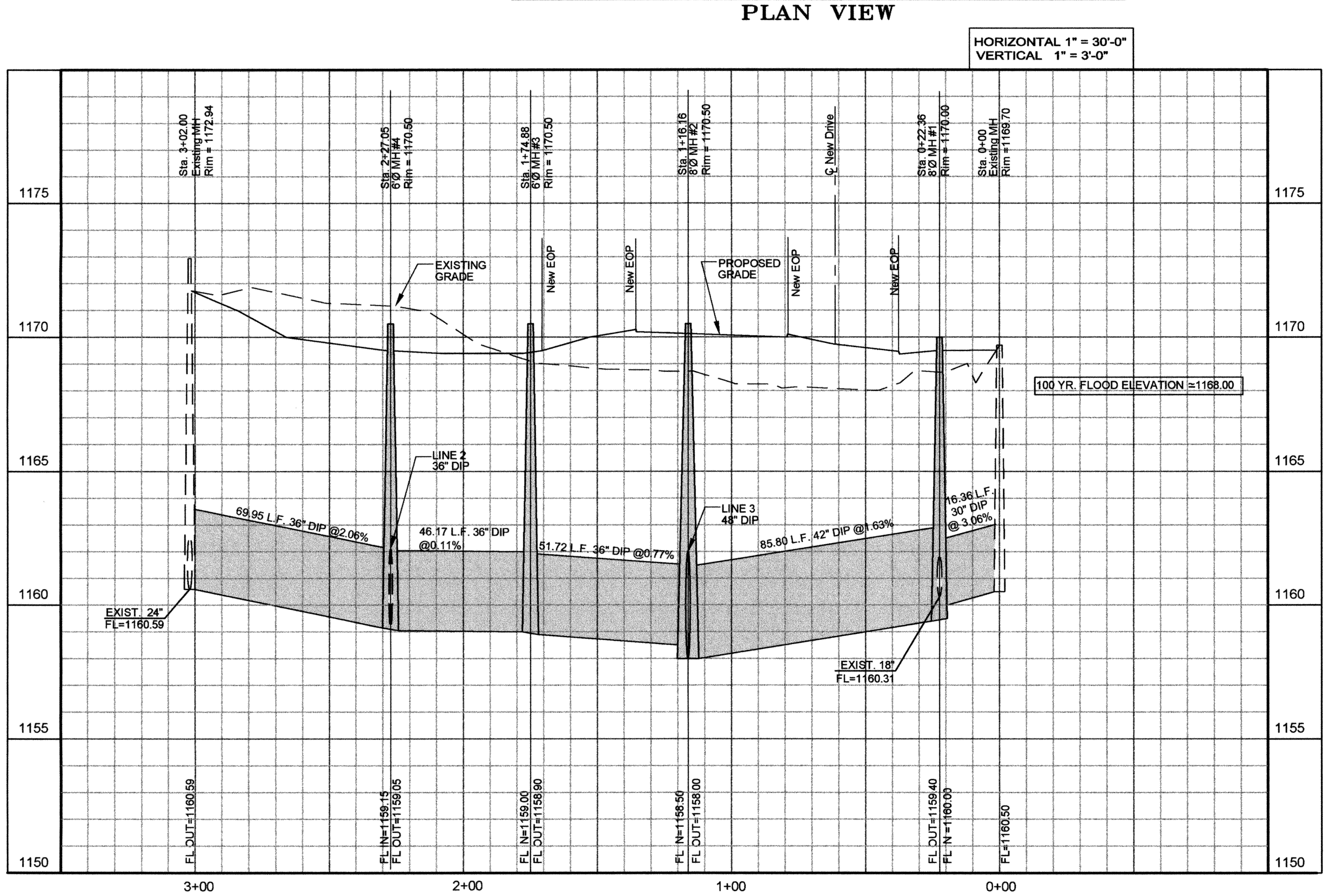
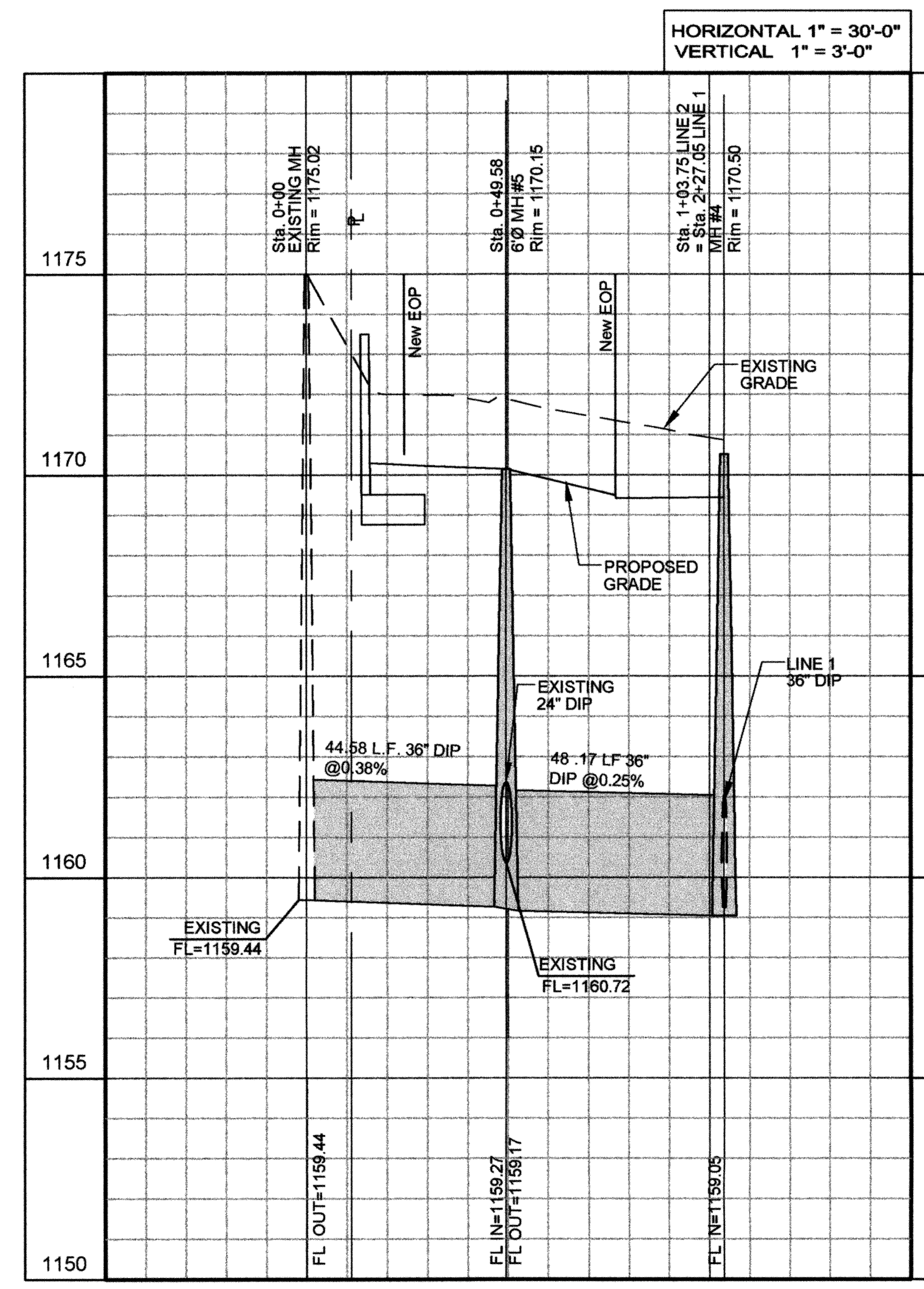
1-800-522-6543

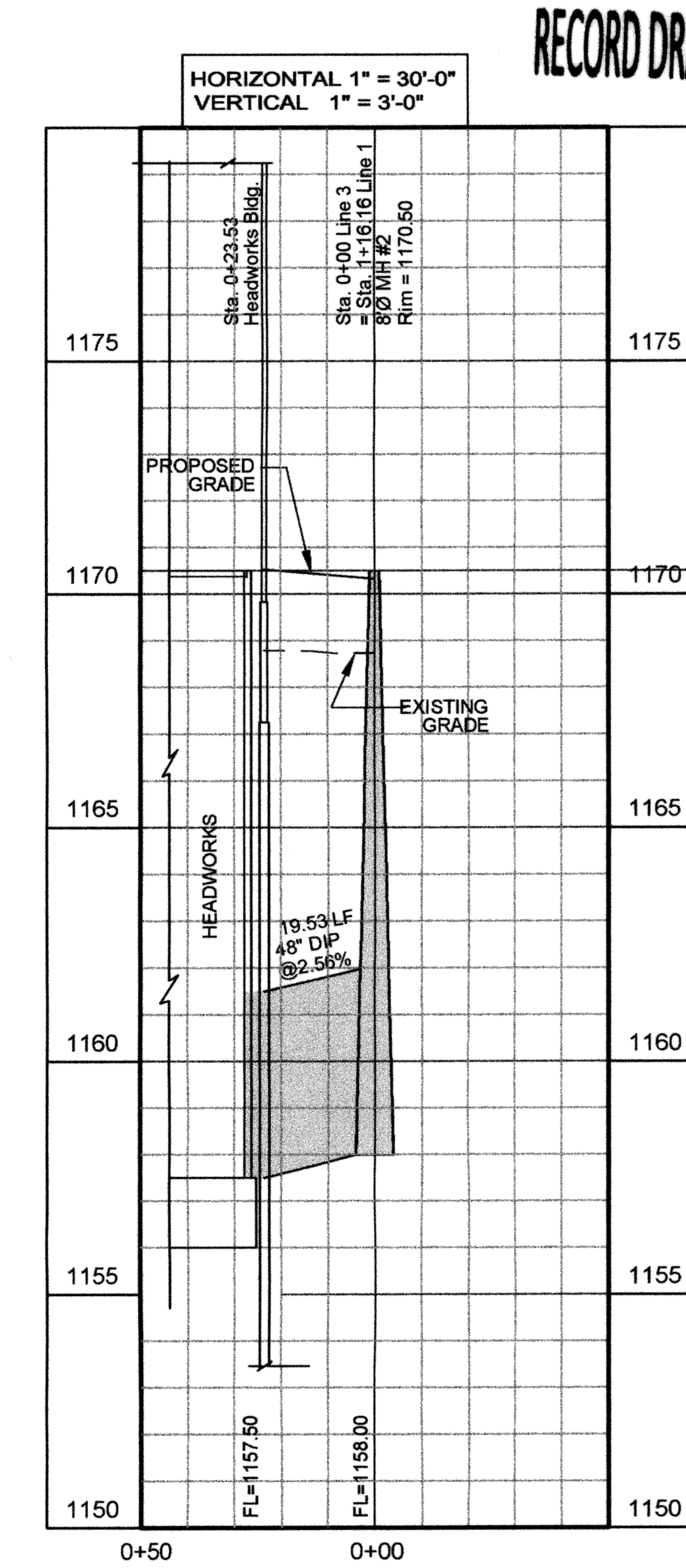
RECORD DRAWINGS



LINE 1 HEADWORKS INFLUENT LINE
PROFILE



LINE 2 HEADWORKS INFLUENT LINE
PROFILE



LINE 3 HEADWORKS INFLUENT LINE
PROFILE

REVISIONS:	DATE:
C#2 – CLARIFICATION #2	10/11/10

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/16/2010	AS NOTED	3 OF 63

LINES 1, 2 & 3

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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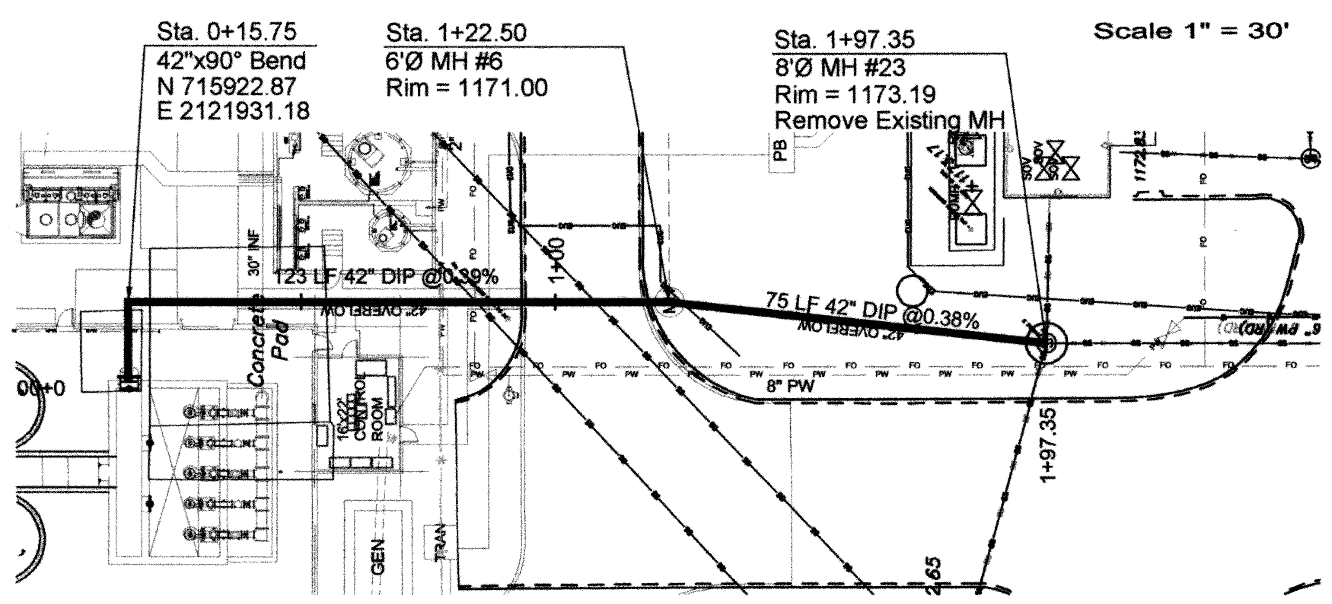
LINE 4

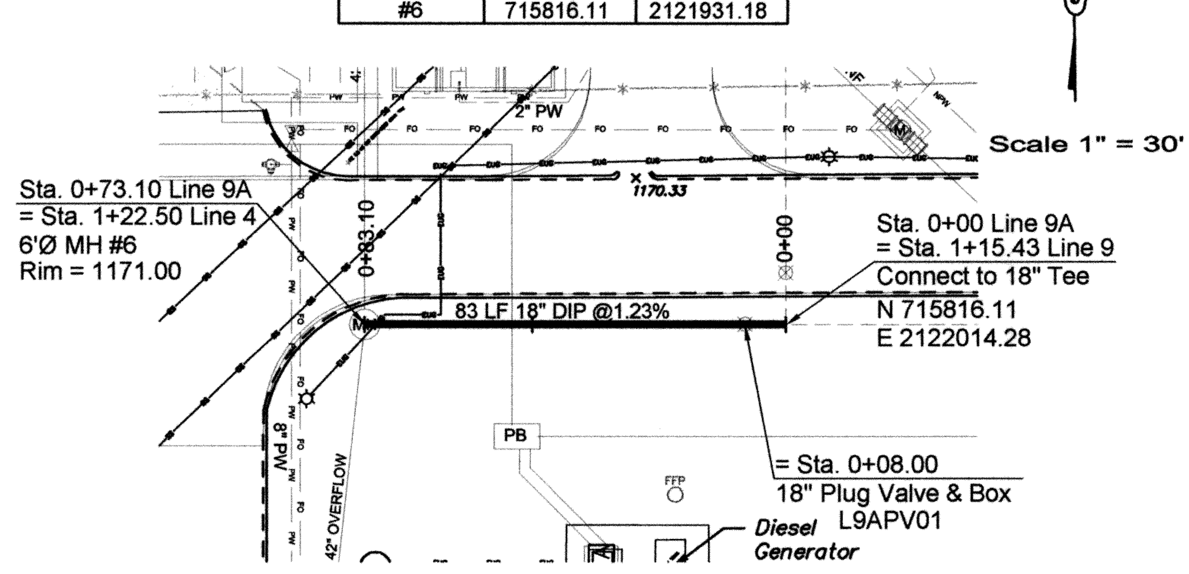
MH #	NORTHING	EASTING
#6	715816.11	2121931.18
EXISTING	715741.71	2121922.96



LINE 4 – 42" PRIMARY HEADWORKS OVERFLOW LINE
PLAN VIEW

LINE 9A

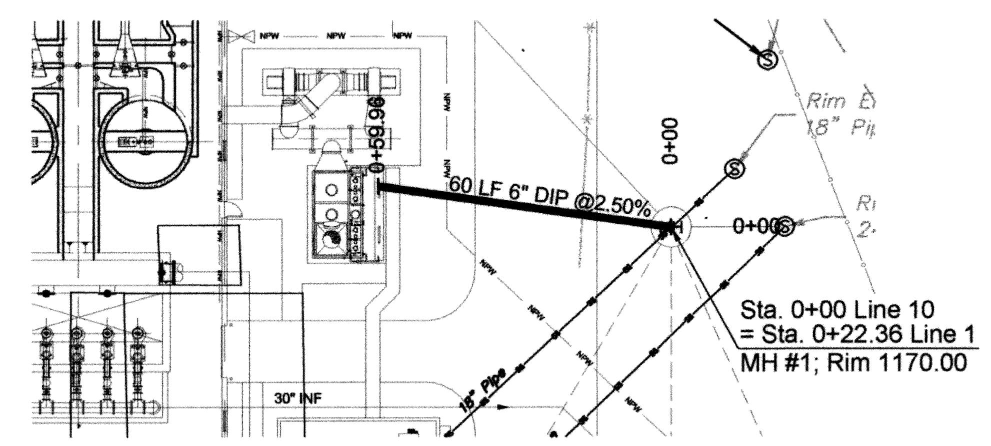
MH #	NORTHING	EASTING
#6	715816.11	2121931.18



LINE 9A – 18" PLANT RETURN FM PLAN VIEW

LINE 10

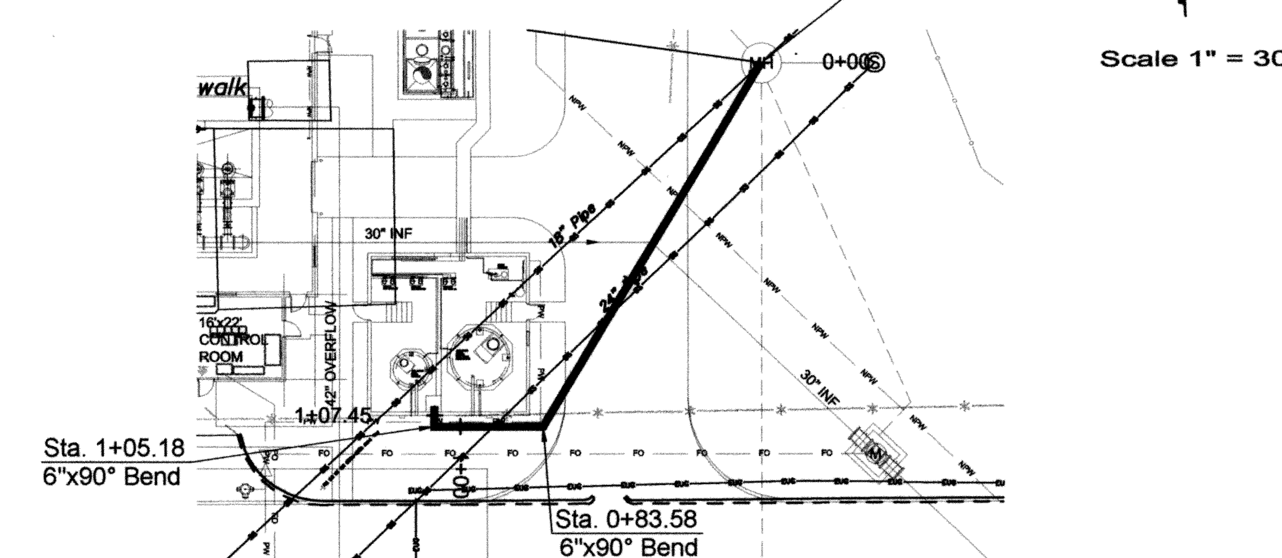
MH #	NORTHING	EASTING
#1	715931.43	2122014.42



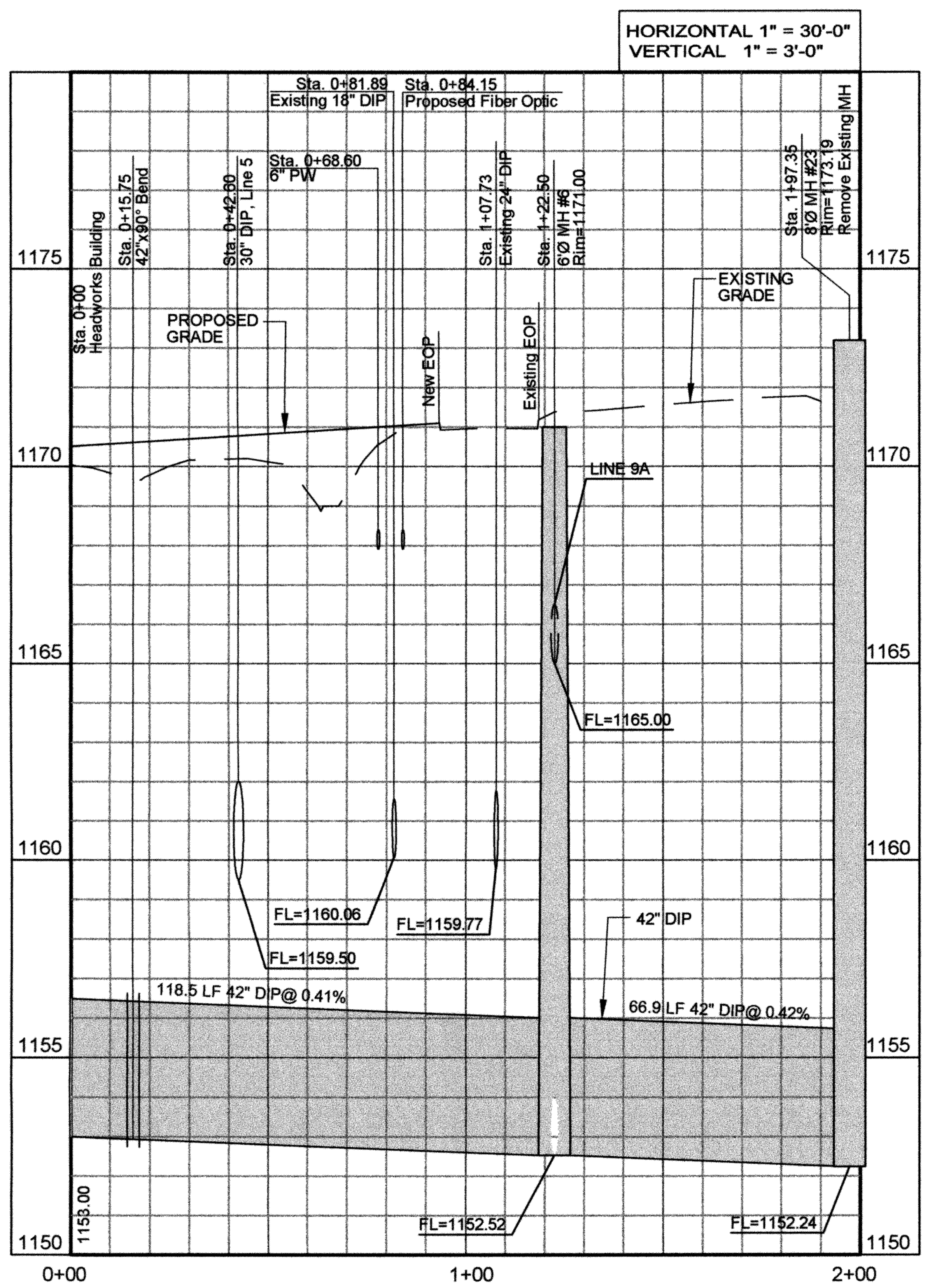
LINE 10 – 6" HEADWORKS ODOR CONTROL DRAIN LINE
PLAN VIEW

LINE 11

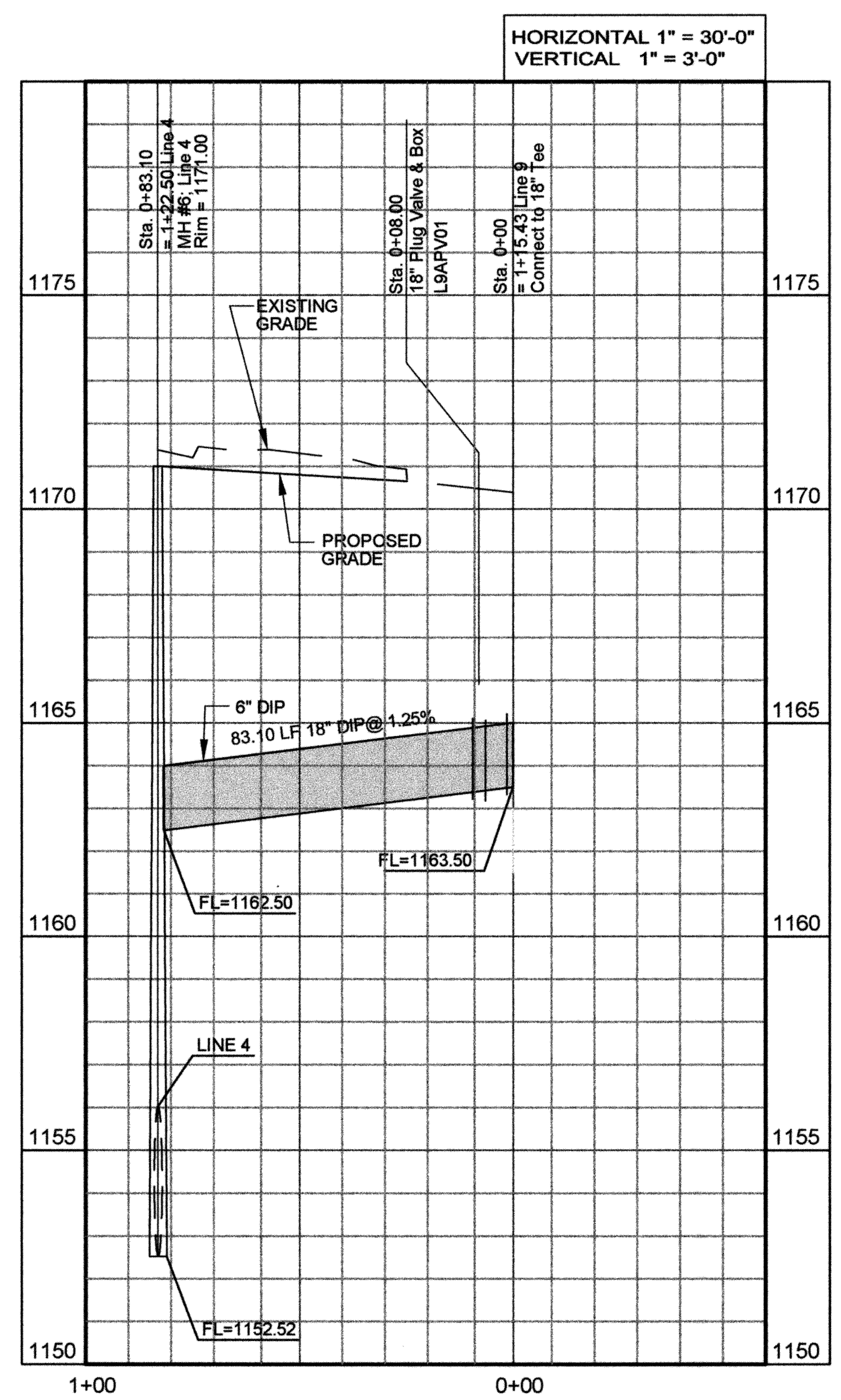
MH #	NORTHING	EASTING
#1	715931.43	2122014.42



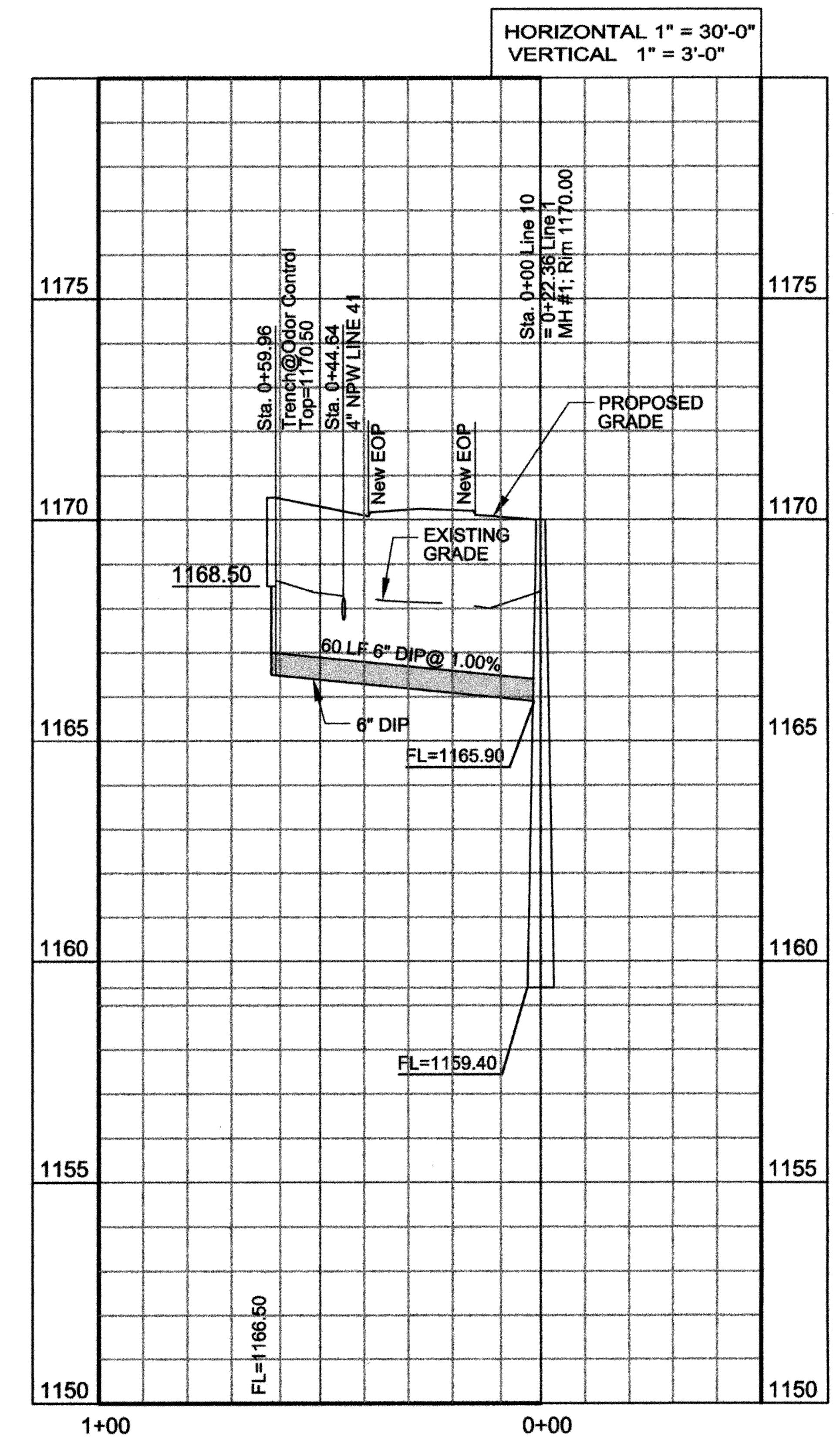
LINE 11 – 6" HEADWORKS CHEM. BUILDING DRAIN LINE
PLAN VIEW



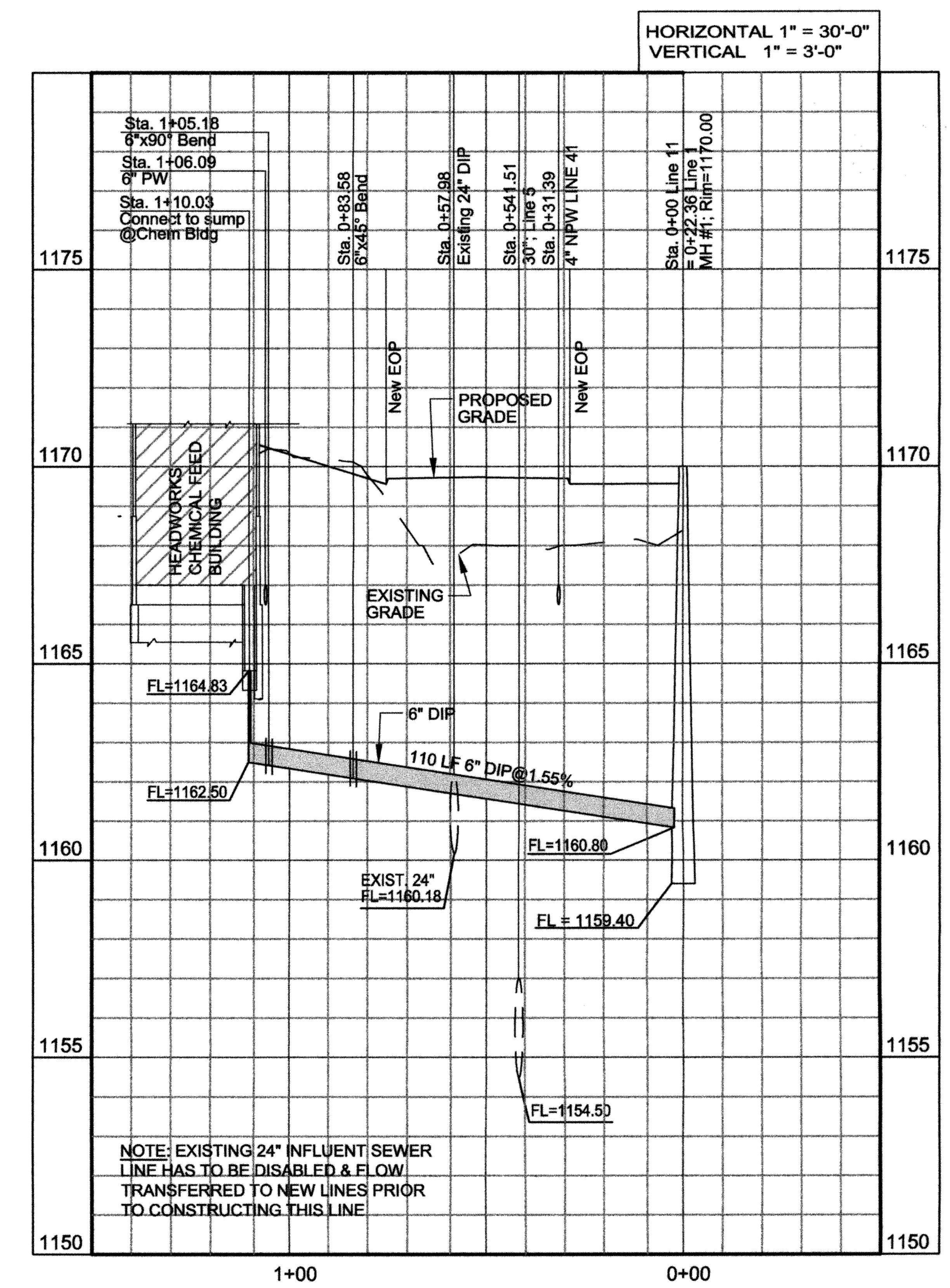
LINE 4 – 42" PRIMARY HEADWORKS OVERFLOW LINE
PROFILE



LINE 9A – 18" PLANT RETURN FM
PROFILE



LINE 10 – 6" HEADWORKS ODOR CONTROL DRAIN LINE
PROFILE



LINE 11 – 6" HEADWORKS CHEM. BUILDING DRAIN LINE
PROFILE

RECORD DRAWINGS

SATISH DASHARATHY 11456 7-16-2010

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REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

LINES 4, 9A, 10 & 11

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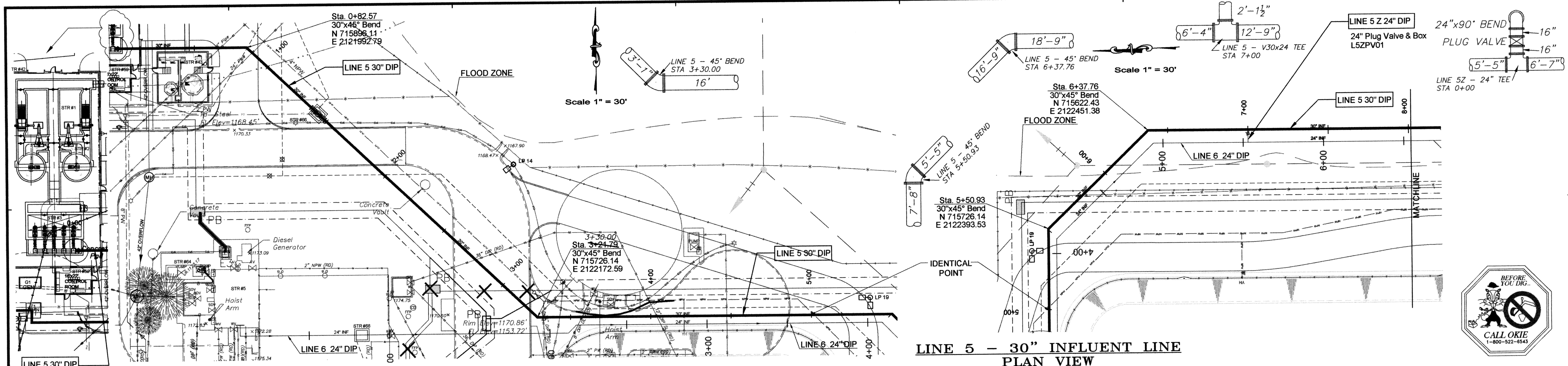
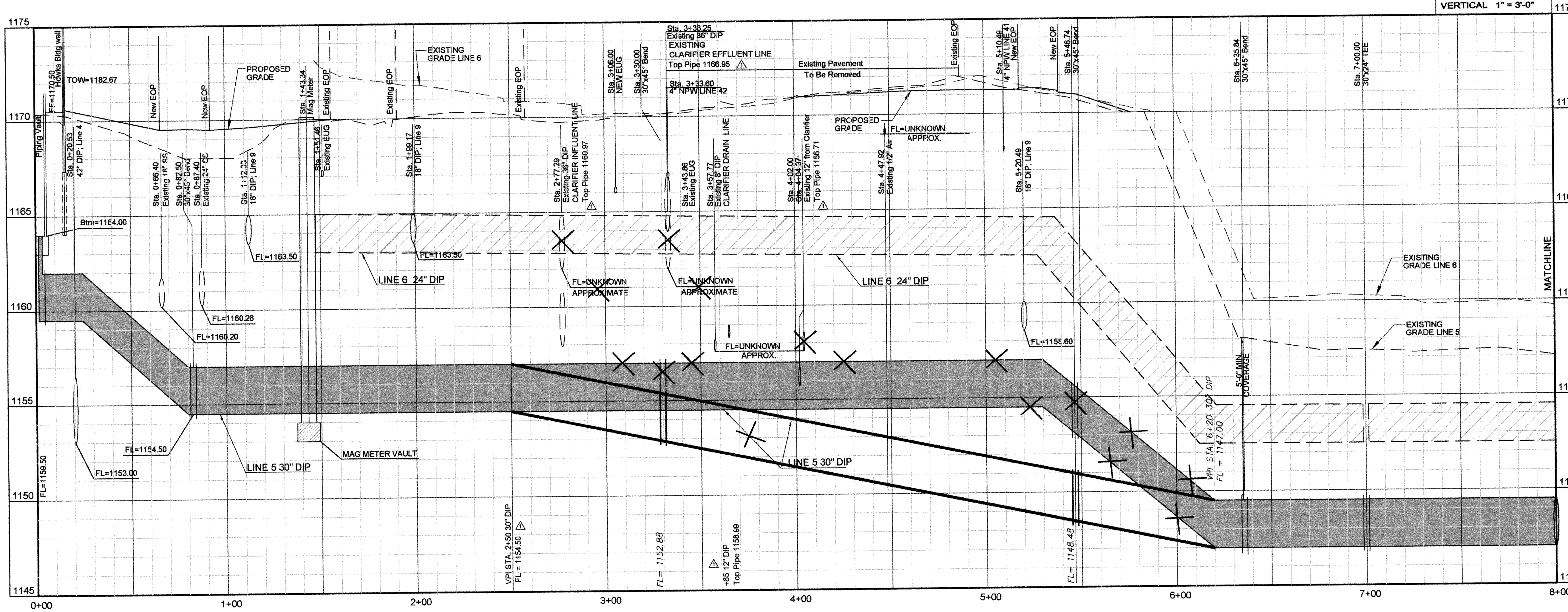
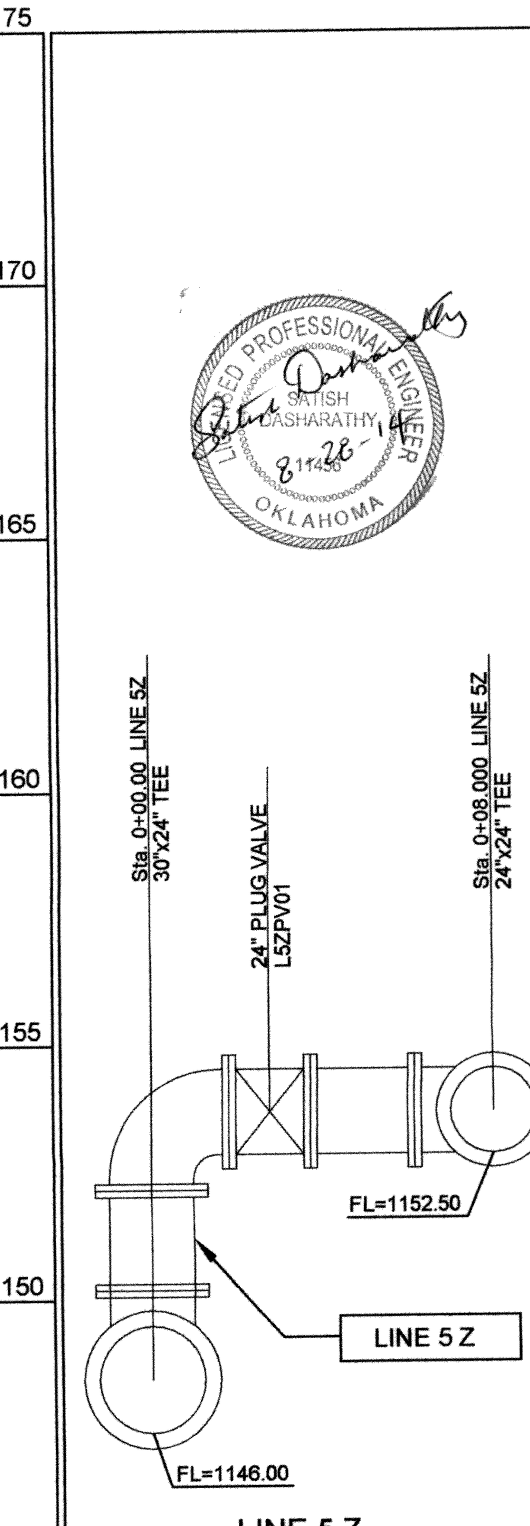
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



LINE 5 – 30" INFLUENT LINE
PLAN VIEW



LINE 5 – 30" INFLUENT LINE
PROFILE



LINE 5 Z
NOT TO SCALE

RECORD DRAWINGS

NOTES:
1. COORDINATE NEW CONSTRUCTION WITH EXISTING UNDERGROUND SYSTEMS.
2. EXCAVATE, VERIFY FLOW LINES OF ALL EXISTING LINES PRIOR TO STAKING ' CONSTRUCTION LINE'

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010
GRADE CHANGE	2/8/2011
AS-BUILT	5/2/2011

LINE 5
0+00 to 8+00

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S.D.		S.D.	S.D.	7/13/2010	AS NOTED	5 OF 63

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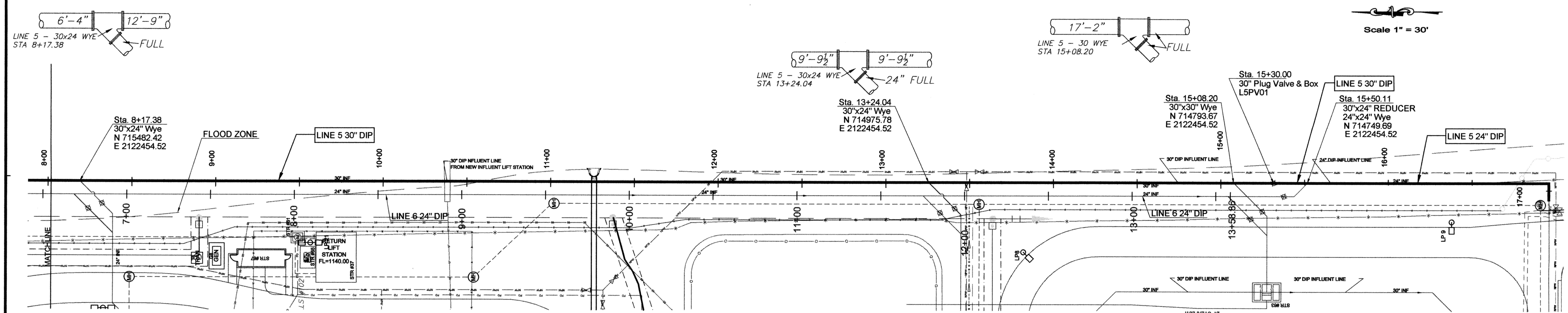
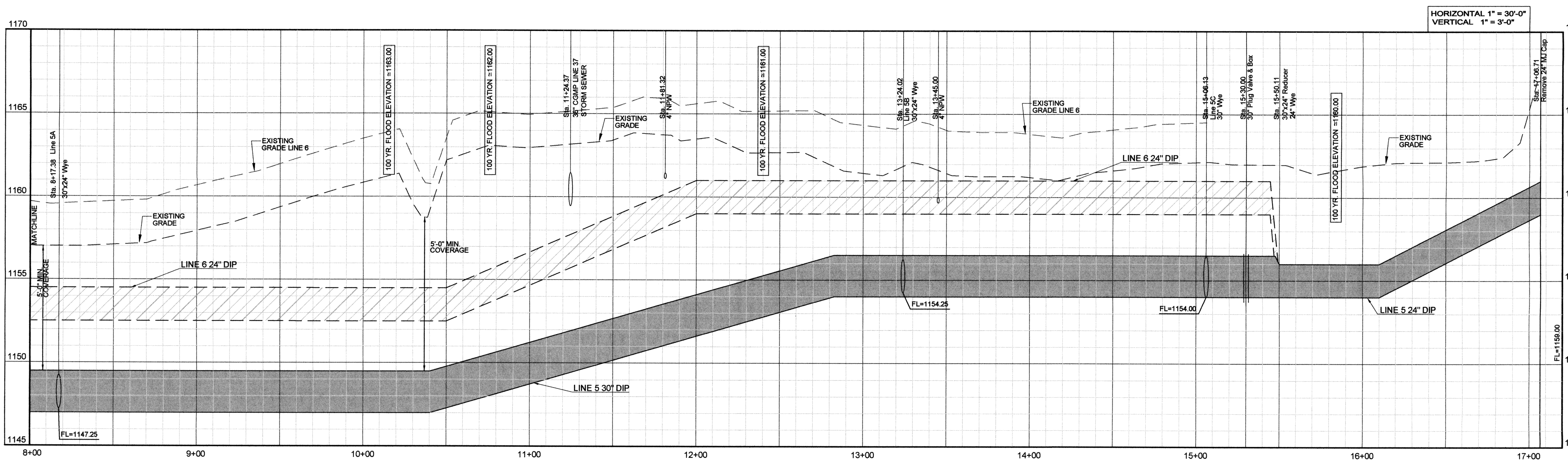
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



LINE 5 – 30" INFLUENT LINE
PLAN VIEW



LINE 5 – 30" INFLUENT LINE
PROFILE

NOTES:
1. COORDINATE NEW CONSTRUCTION WITH EXISTING UNDERGROUND SYSTEMS.
2. EXCAVATE, VERIFY FLOW LINES OF ALL EXISTING LINES PRIOR TO STAKING ' CONSTRUCTION LINE'

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

RECORD DRAWINGS

LICENSED PROFESSIONAL ENGINEER OKLAHOMA DASARATHY 6-28-11

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010
AS-BUILT	5/2/2011

LINE 5
8+00 to 17+00

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S.D.		S.D.	S.D.	7/13/2010	AS NOTED	6 OF 63

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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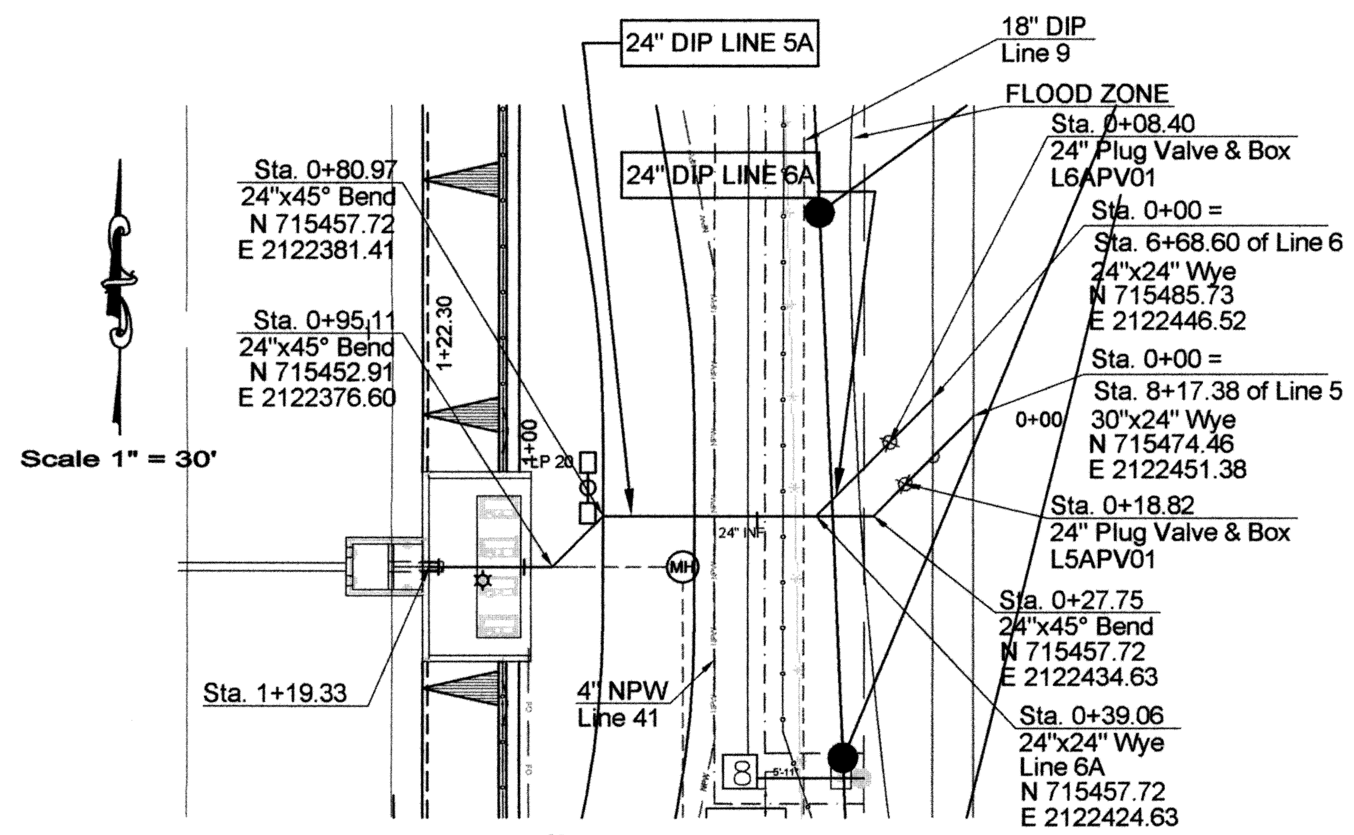
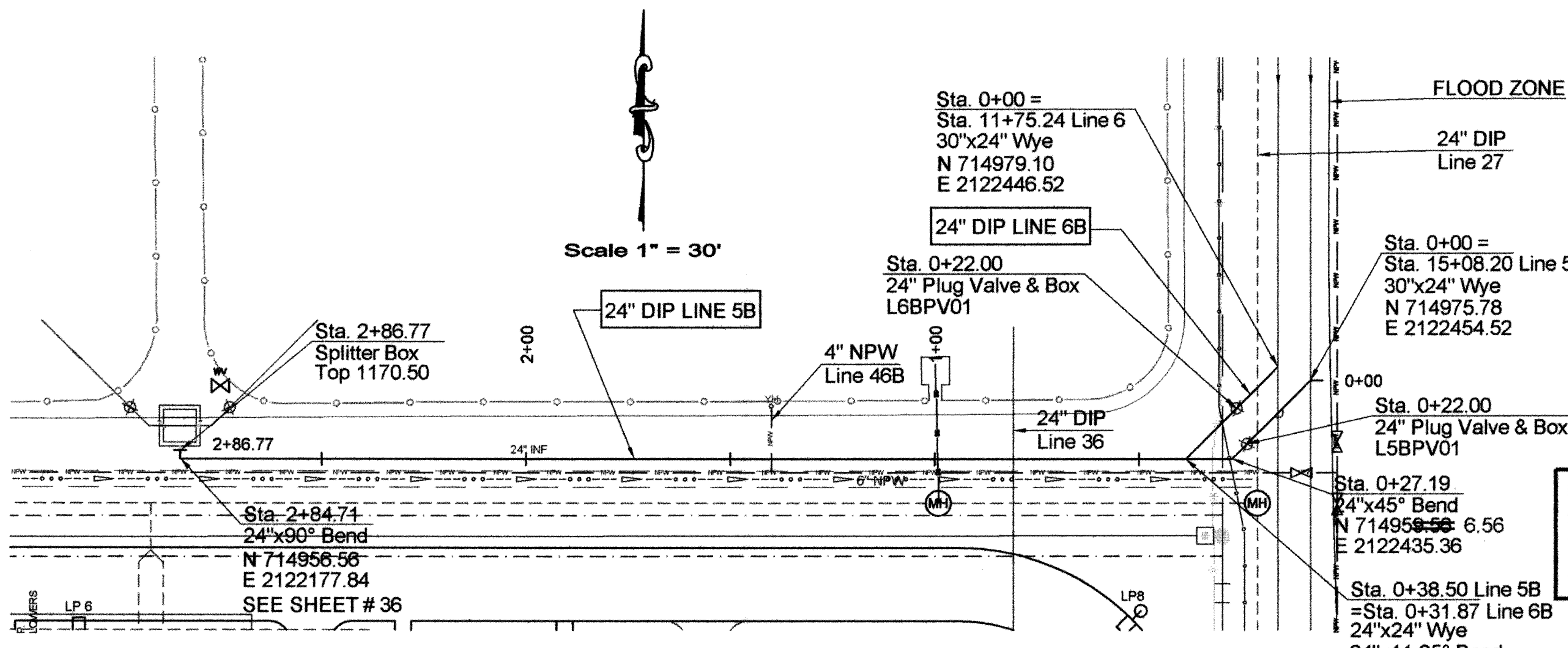
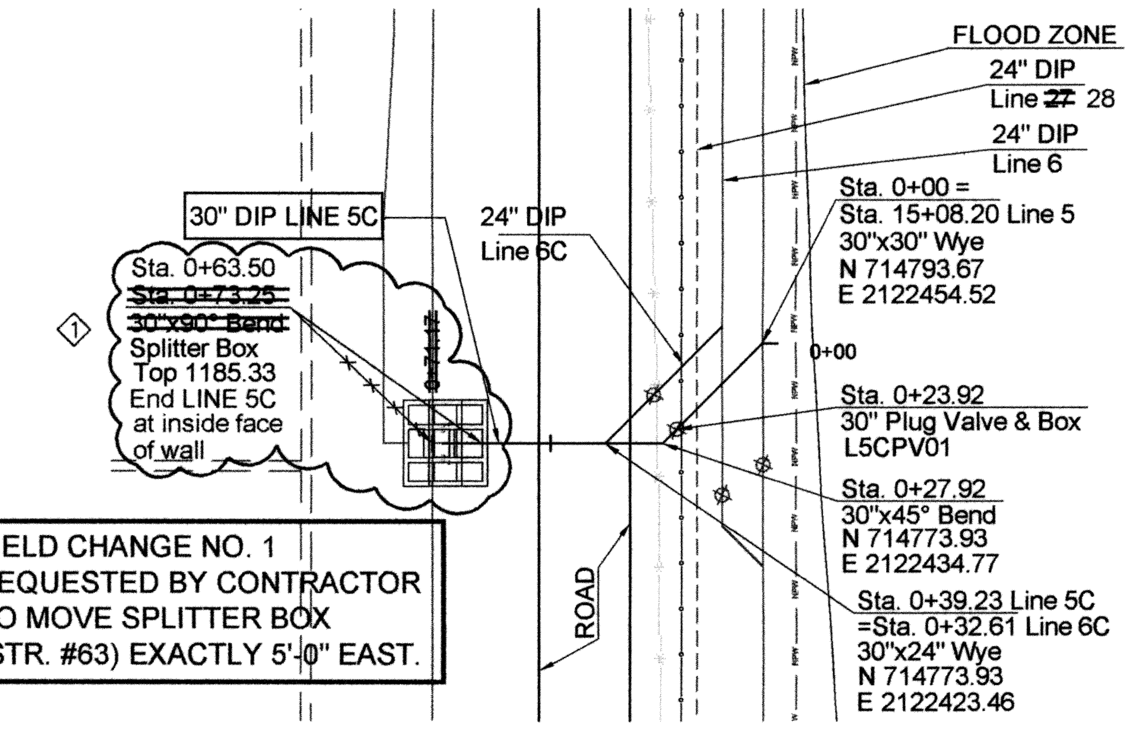


LINE 5A – 24" INFLUENT LINE
PLAN VIEW

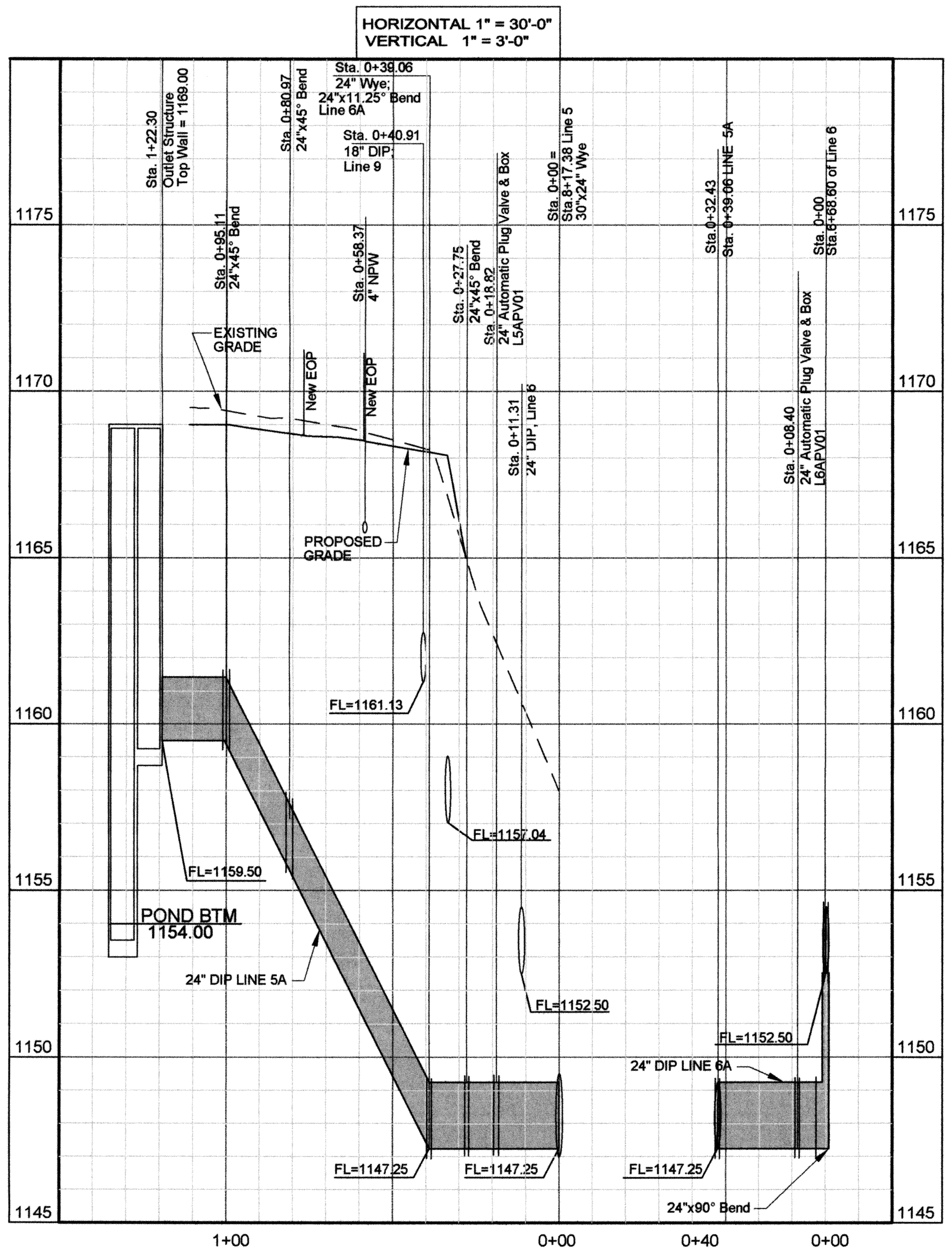


LINE 5B & 6B – 24" INFLUENT LINE
PLAN VIEW

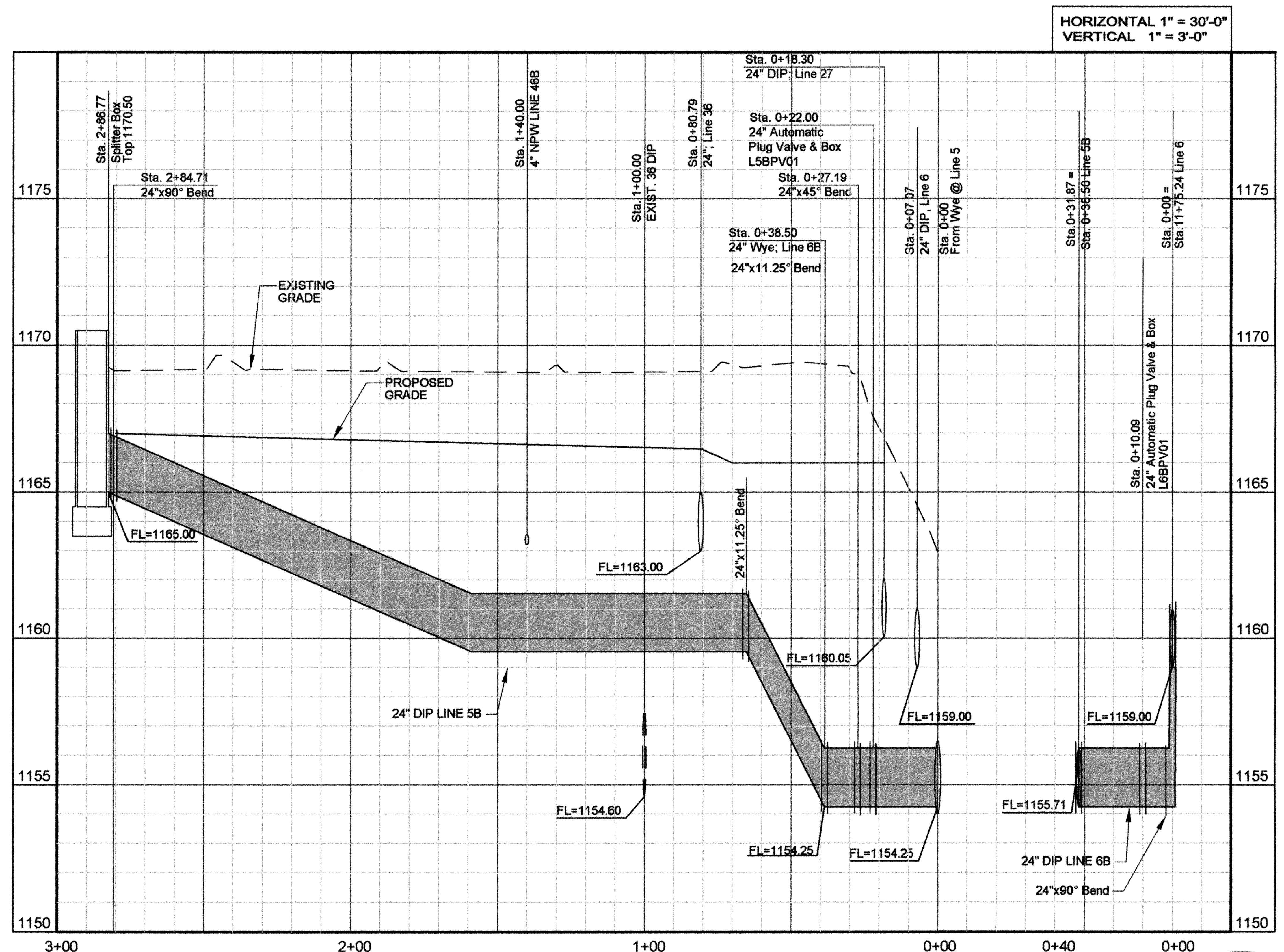


LINE 5C – 30" INFLUENT LINE
PLAN VIEW

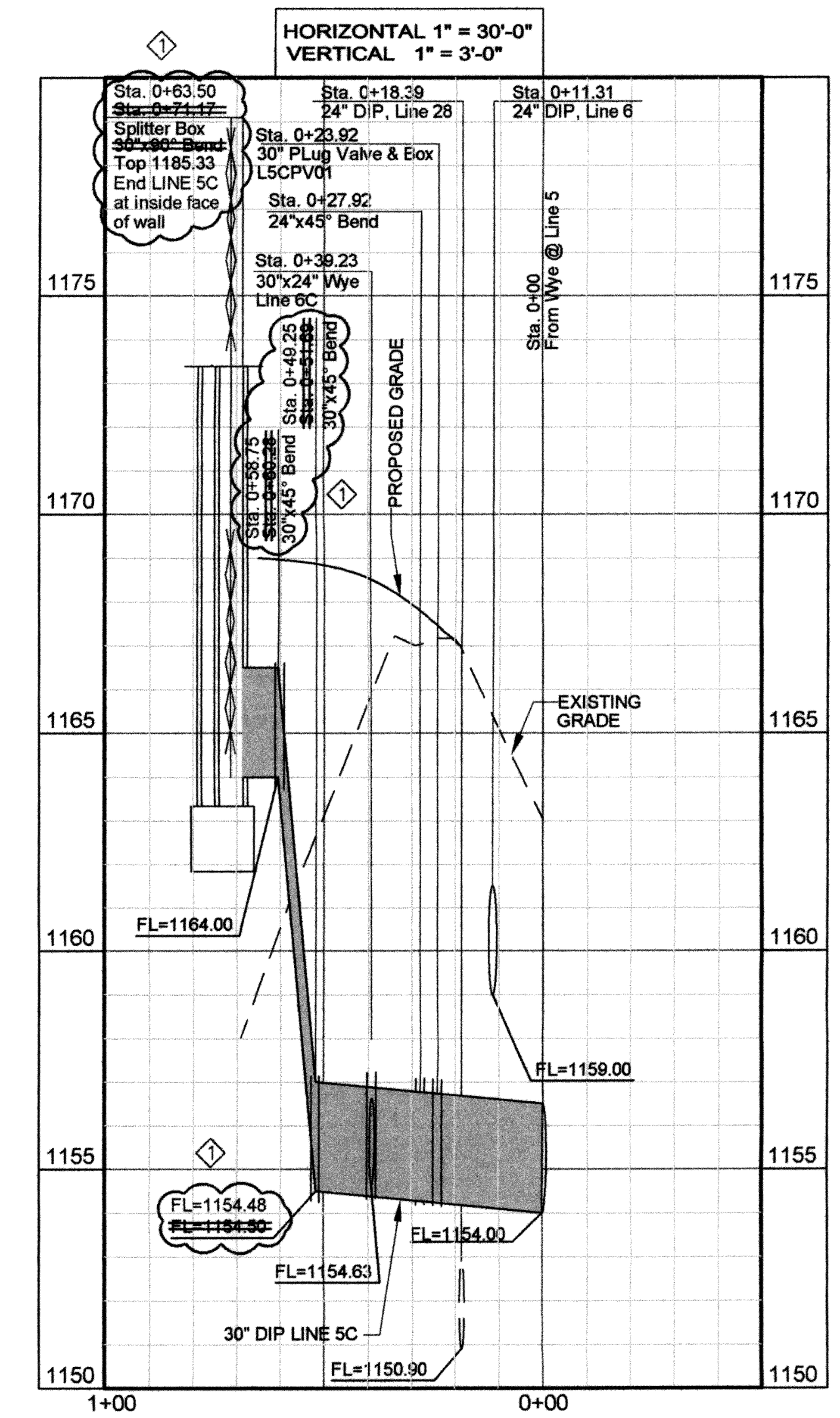
BEFORE YOU DIG... CALL OKIE 1-800-522-6543



LINE 5A& 6A– 24" INFLUENT LINE
PROFILE



LINE 5B & 6B – 24" INFLUENT LINE
PROFILE



LINE 5C – 30" INFLUENT LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010
1 – FIELD CHANGE NO. 1	6/15/2011

LINE 5A, 5B, 5C, 6A & 6B
24" INFLUENT LINE

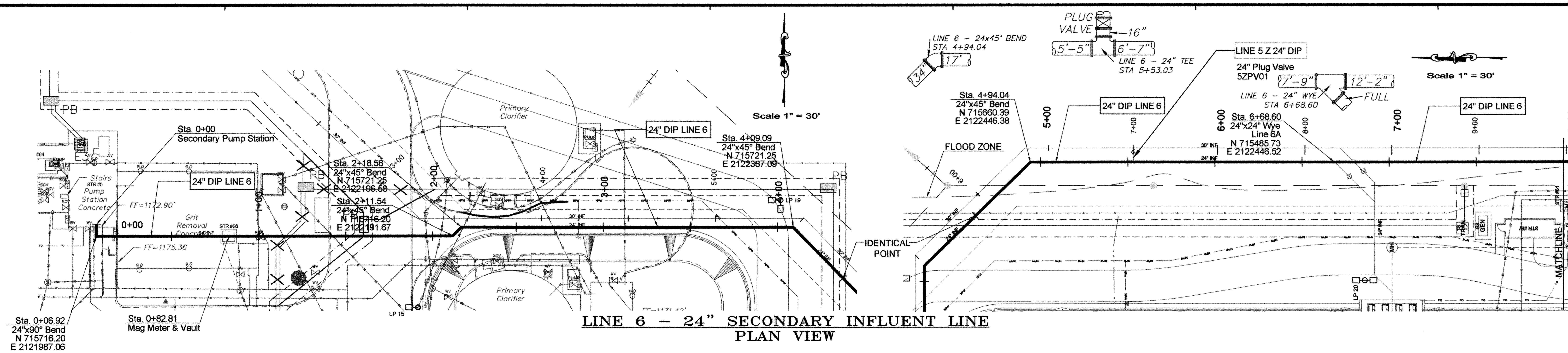
EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3800

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

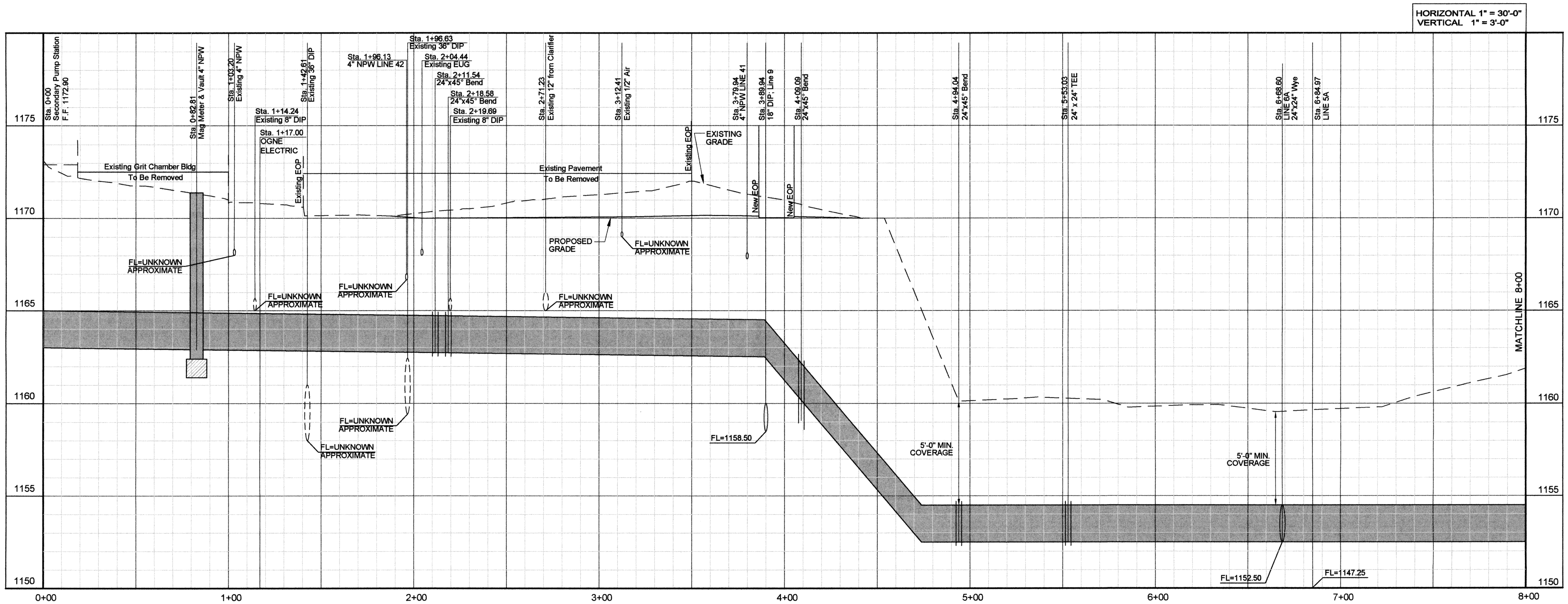
DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/13/2010	AS NOTED	7 OF 63

O:\DRAWINGS\MOORE\WORK\Process\P&P Sheets\Process Lines\Lines 5A-B-C-P&P.dwg

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



LINE 6 – 24" SECONDARY INFLUENT LINE
PLAN VIEW



LINE 6 – 24" SECONDARY INLFUENT LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010
AS-BUILT	3/06/2012

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/13/2010	AS NOTED	8 OF 63

LINE 6
0+00 to 8+00

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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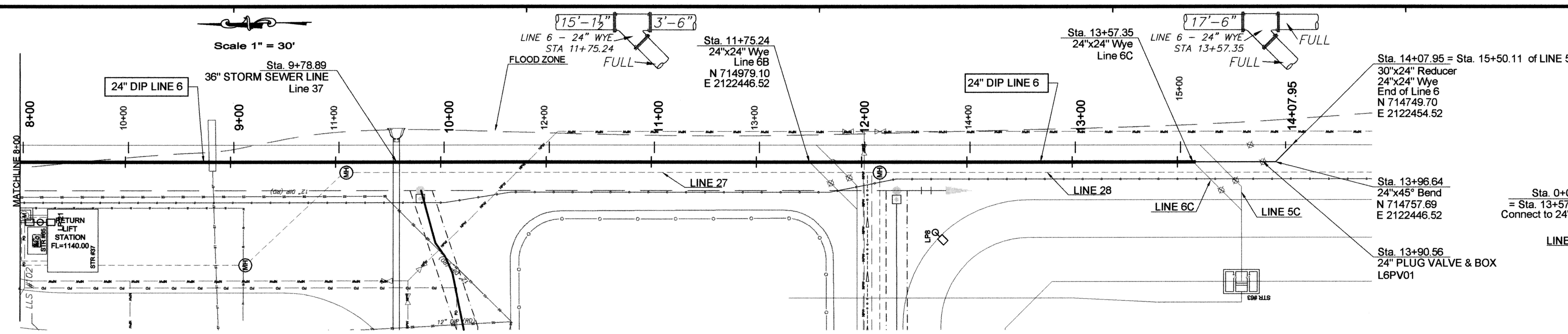
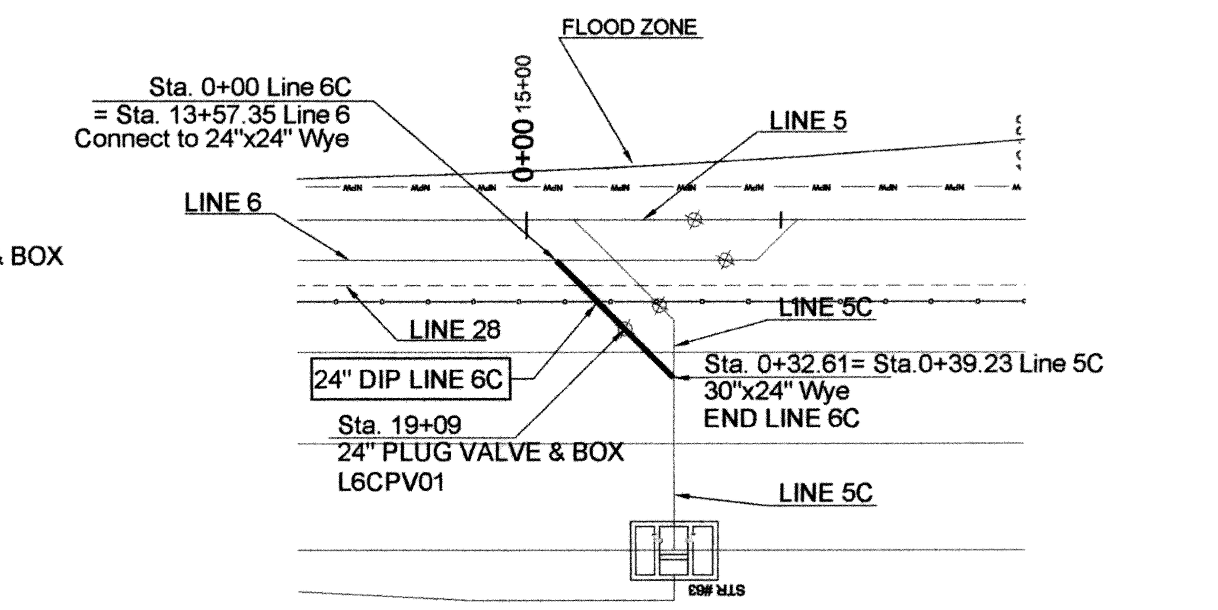
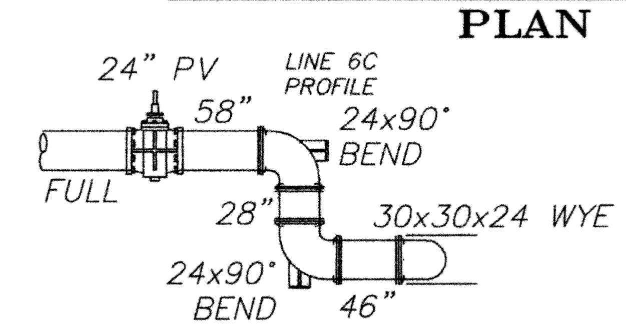
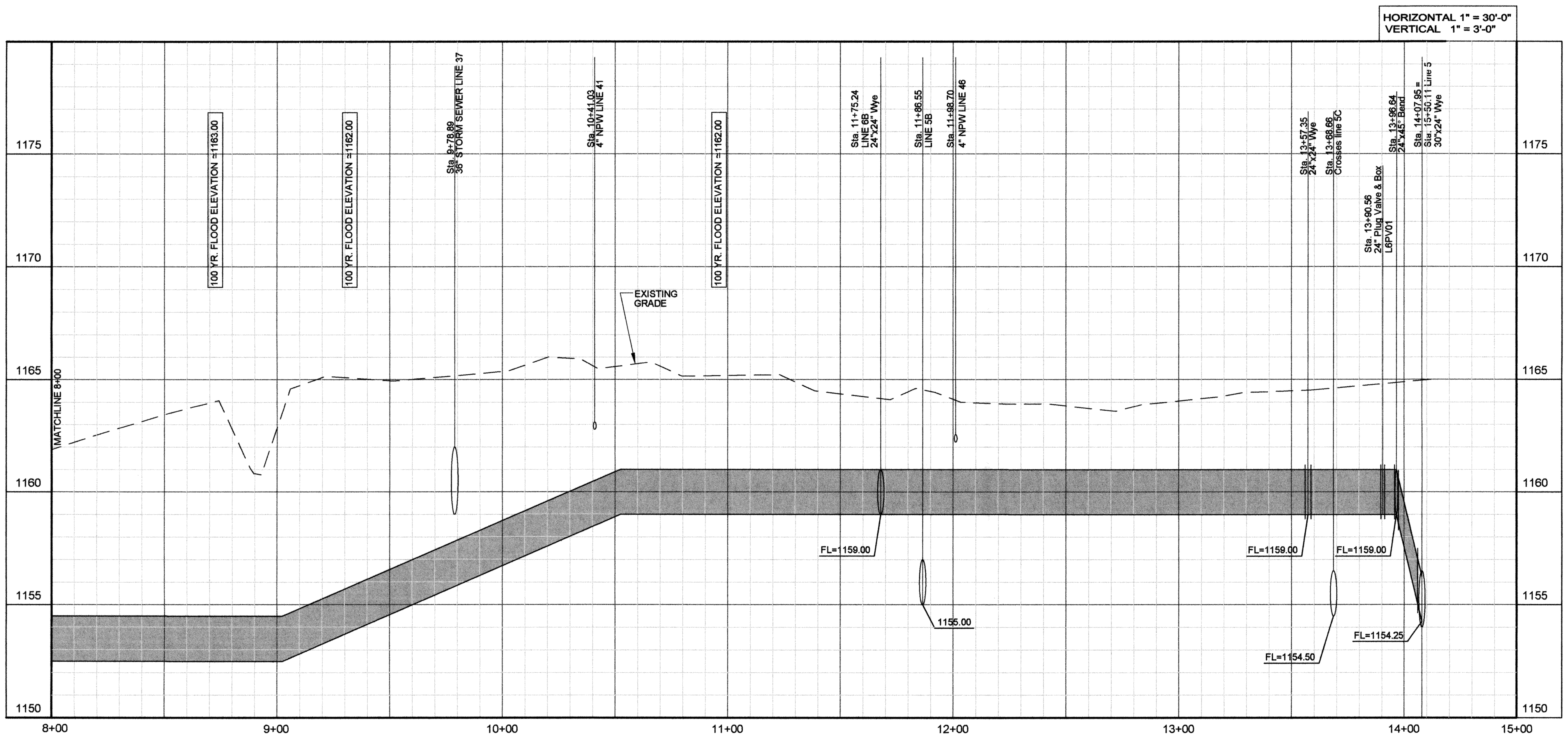


LINE 6 – 24" SECONDARY INFLUENT LINE
PLAN VIEW

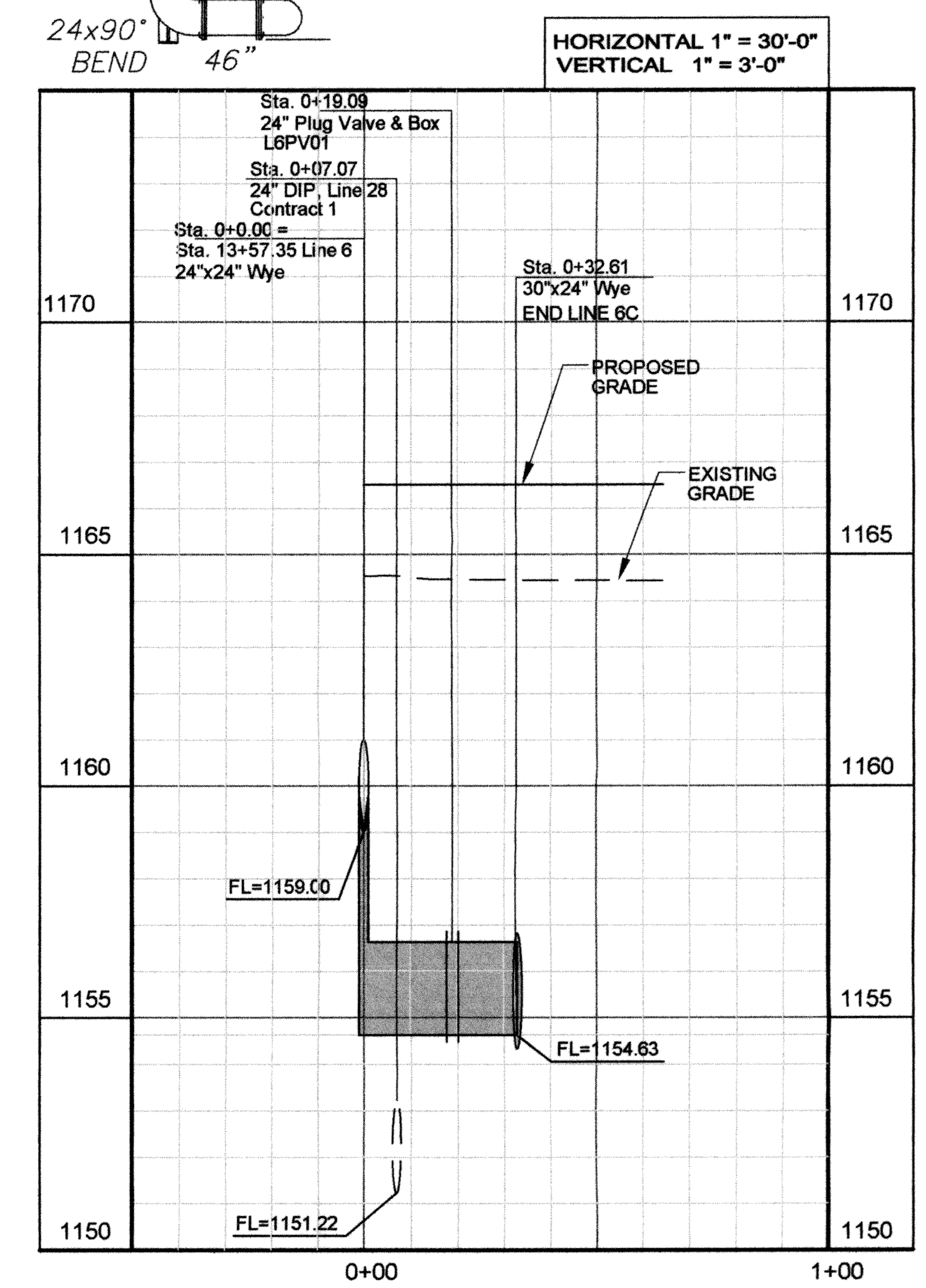


LINE 6C – 24" INFLUENT LINE
PLAN VIEW





LINE 6 – 24" SECONDARY INFLUENT LINE
PROFILE



LINE 6C – 24" INFLUENT LINE
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

RECORD DRAWINGS

LICENSED PROFESSIONAL ENGINEER SATISH MASHARATHY OKLAHOMA 8-28-15

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010
AS-BUILT	3/06/2012

LINE 6 8+00 to 17+00 & LINE 6C

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FAX. (405) 844-3800

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CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/14/2010	AS NOTED	9 OF 63

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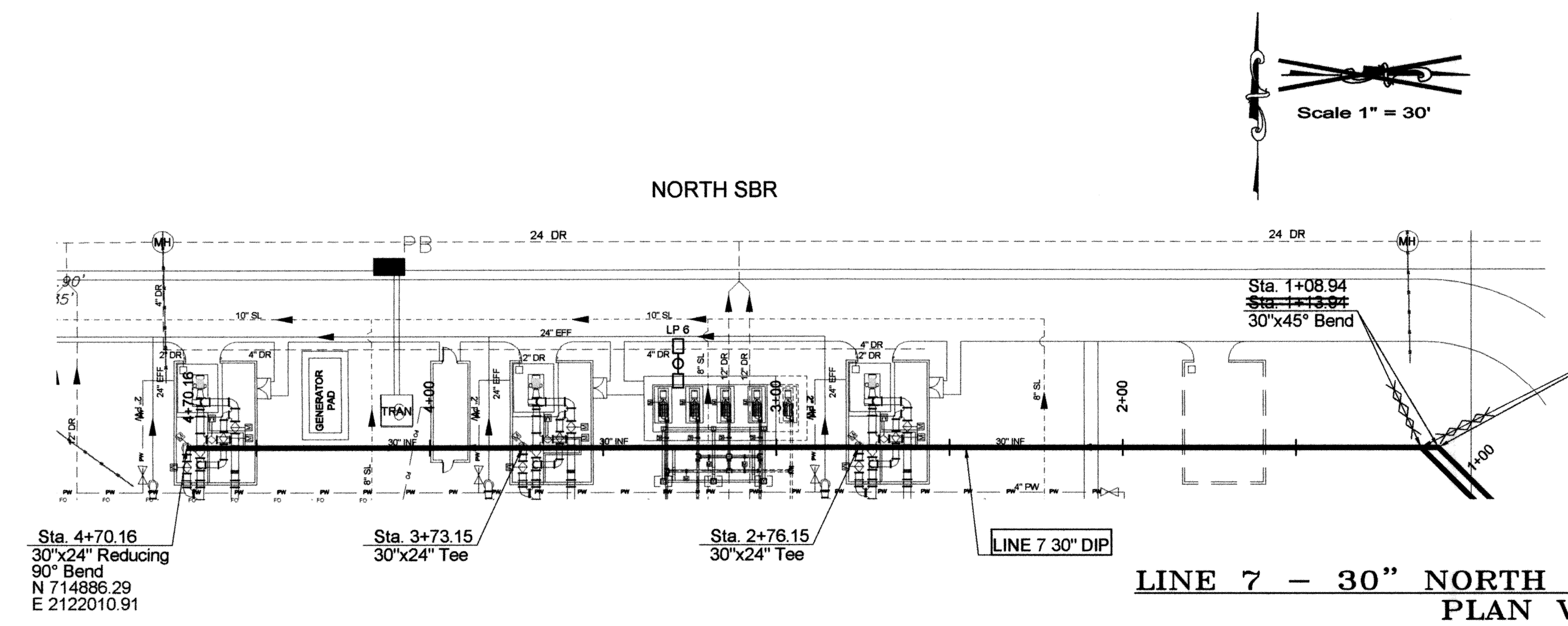
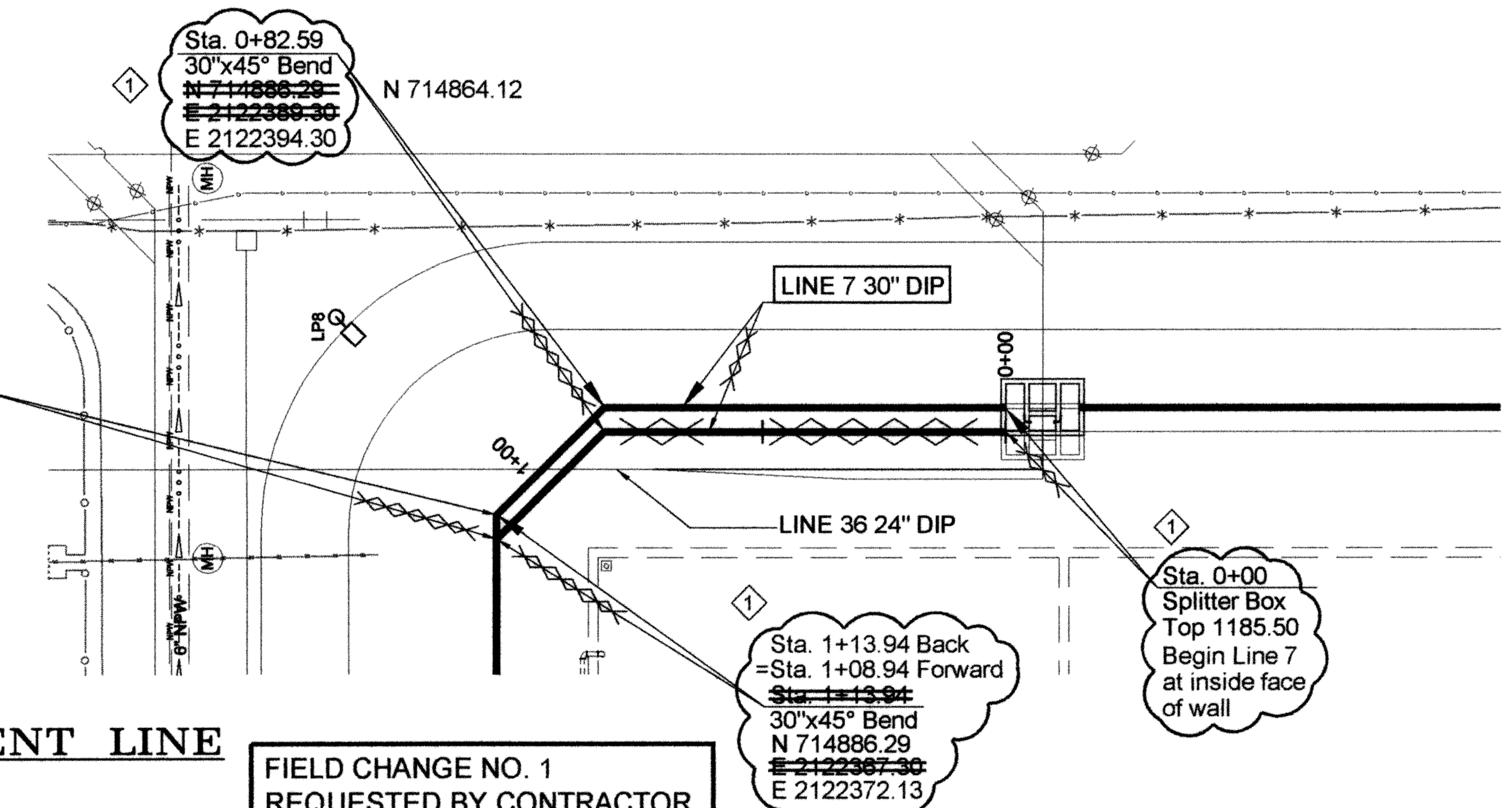
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



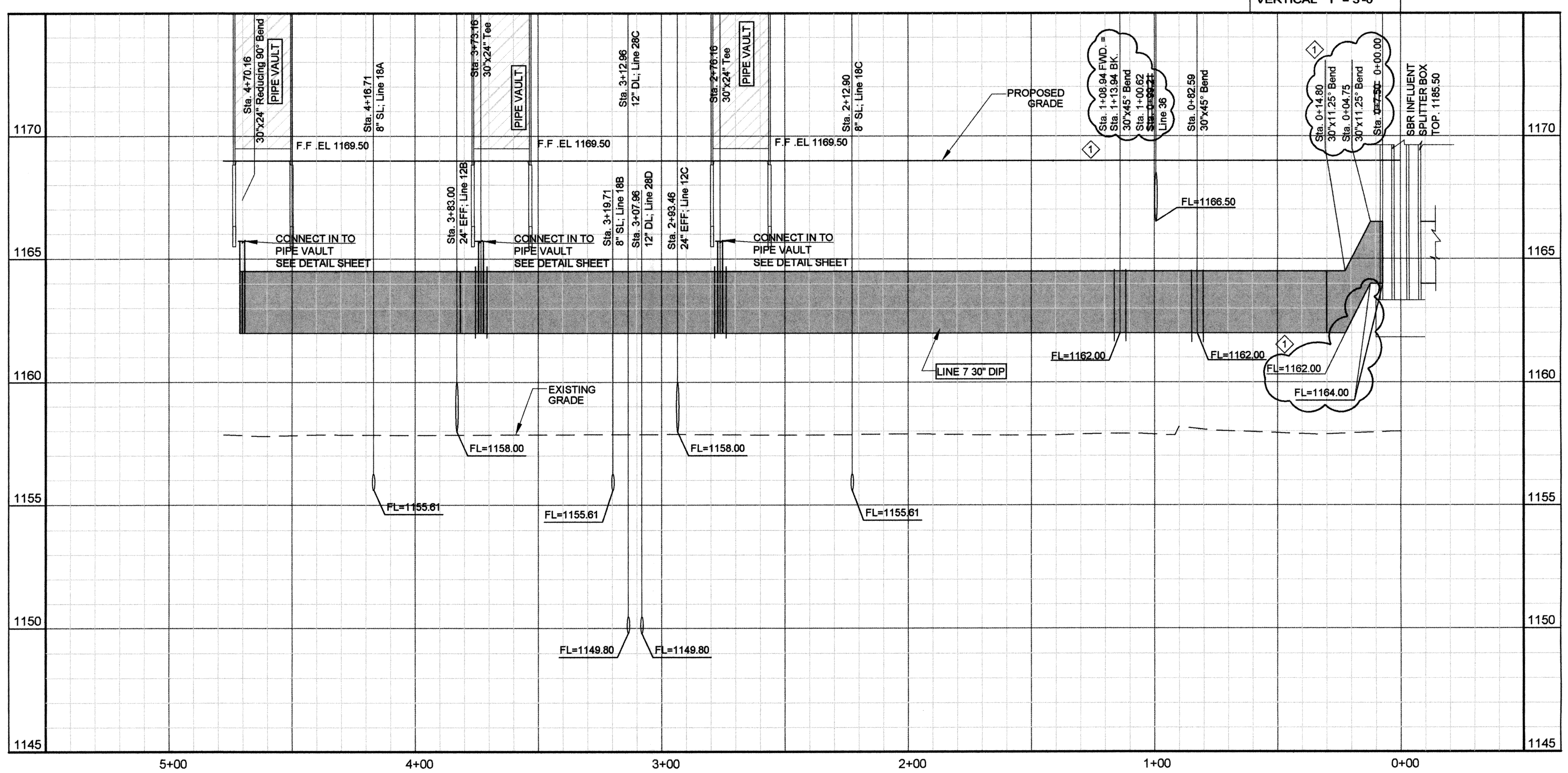


LINE 7 – 30" NORTH SBR INFLUENT LINE
PLAN VIEW

FIELD CHANGE NO. 1
REQUESTED BY CONTRACTOR
TO MOVE SPLITTER BOX
(STR. #63) EXACTLY 5'-0" EAST.

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 7 – 30" NORTH SBR INFLUENT LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
1 – FIELD CHANGE NO. 1	6/15/2011

LINE 7
PLAN AND PROFILES

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EDMOND, OK. 73013
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CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/20/10	AS NOTED	10 OF 63

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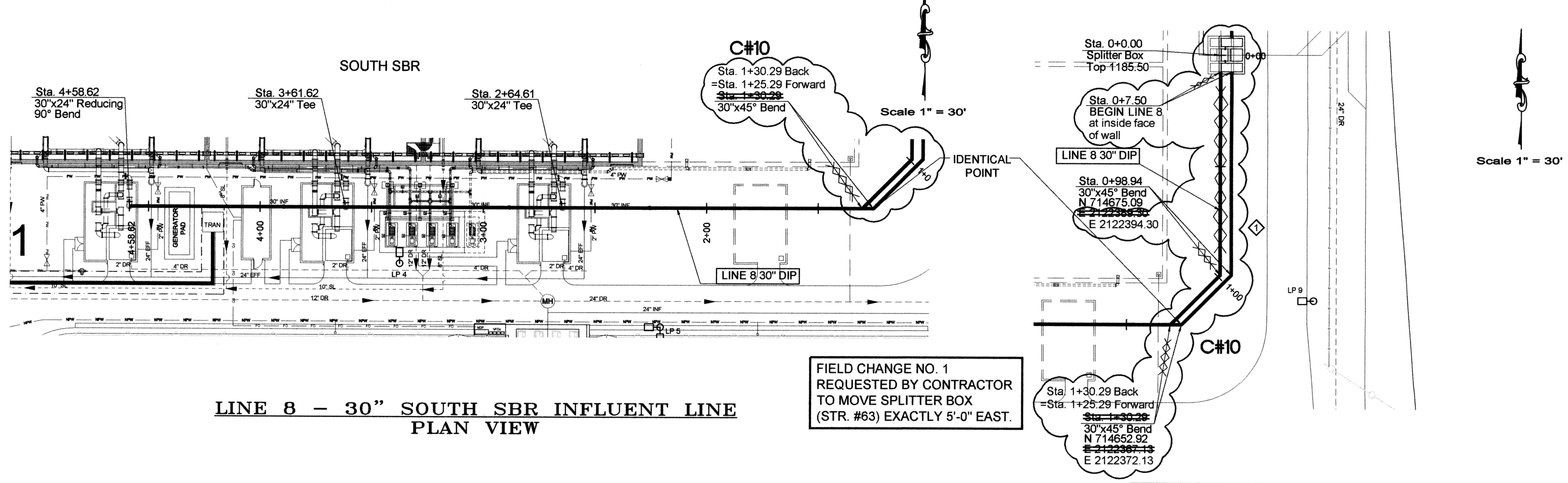
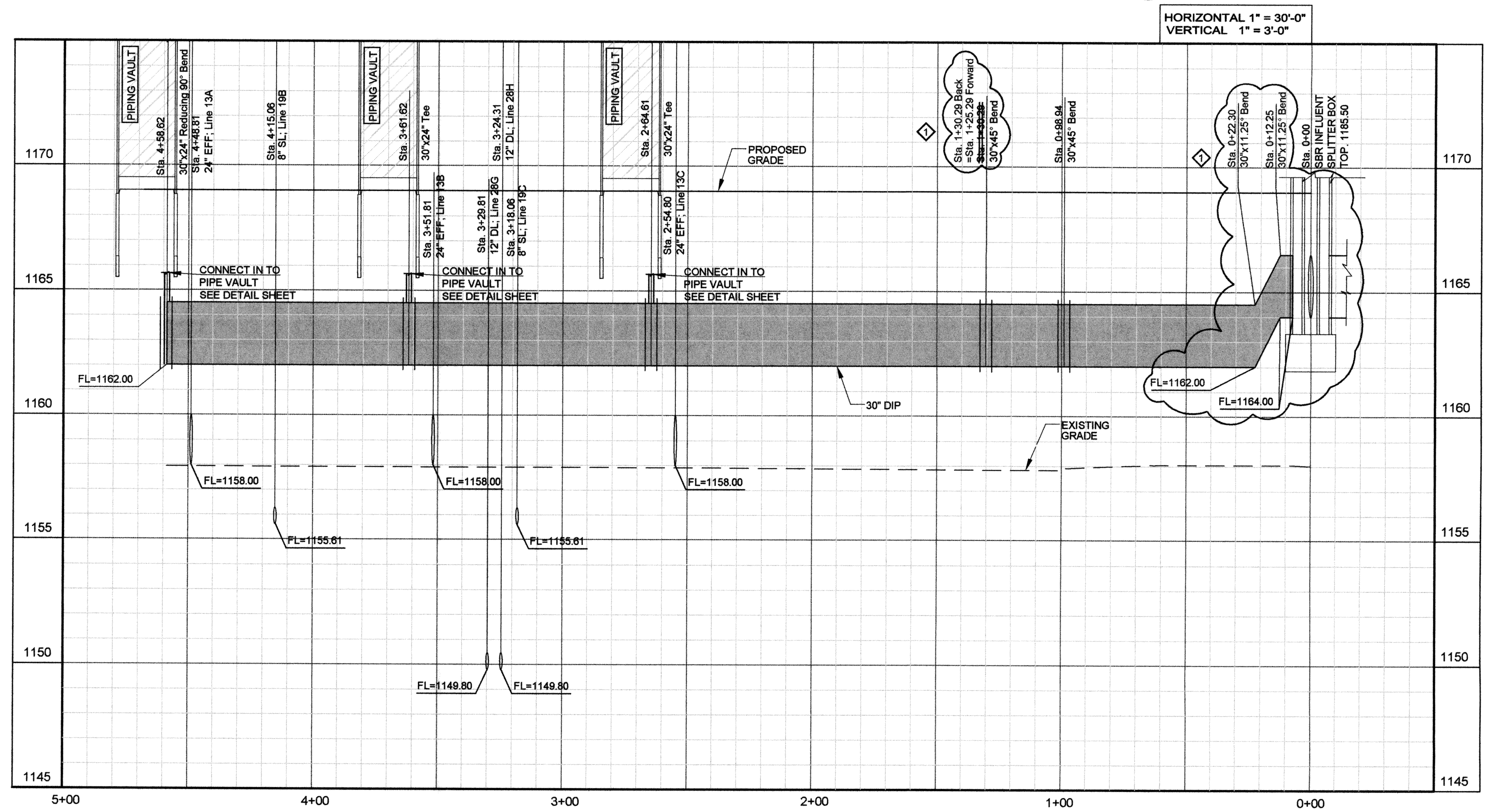
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



LINE 8 – 30" SOUTH SBR INFLUENT LINE
PLAN VIEW



LINE 8 – 30" SOUTH SBR INFLUENT LINE
PROFILE

BEFORE YOU DIG.. CALL OKIE 1-800-522-6543

RECORD DRAWINGS

REVISIONS:	DATE:
1 – FIELD CHANGE NO. 1	6/15/2011

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/20/10	AS NOTED	11 OF 63

LINE 8
PLAN AND PROFILE

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EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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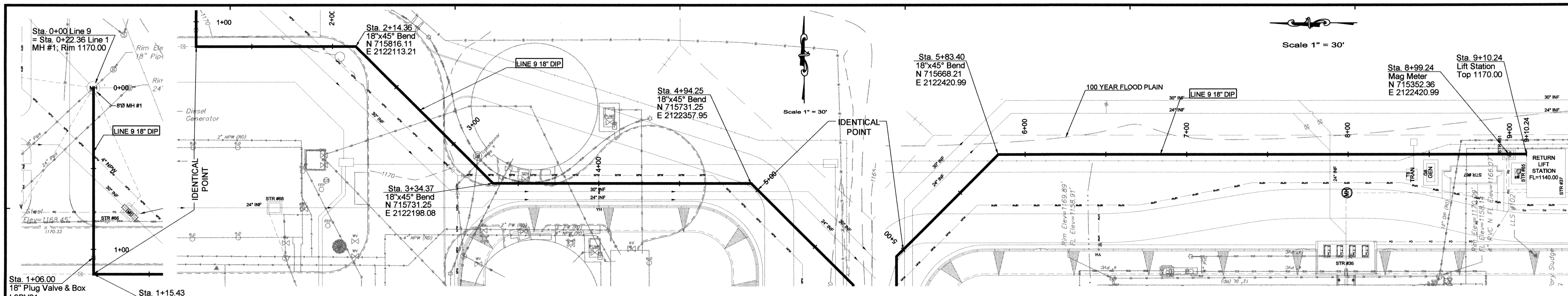
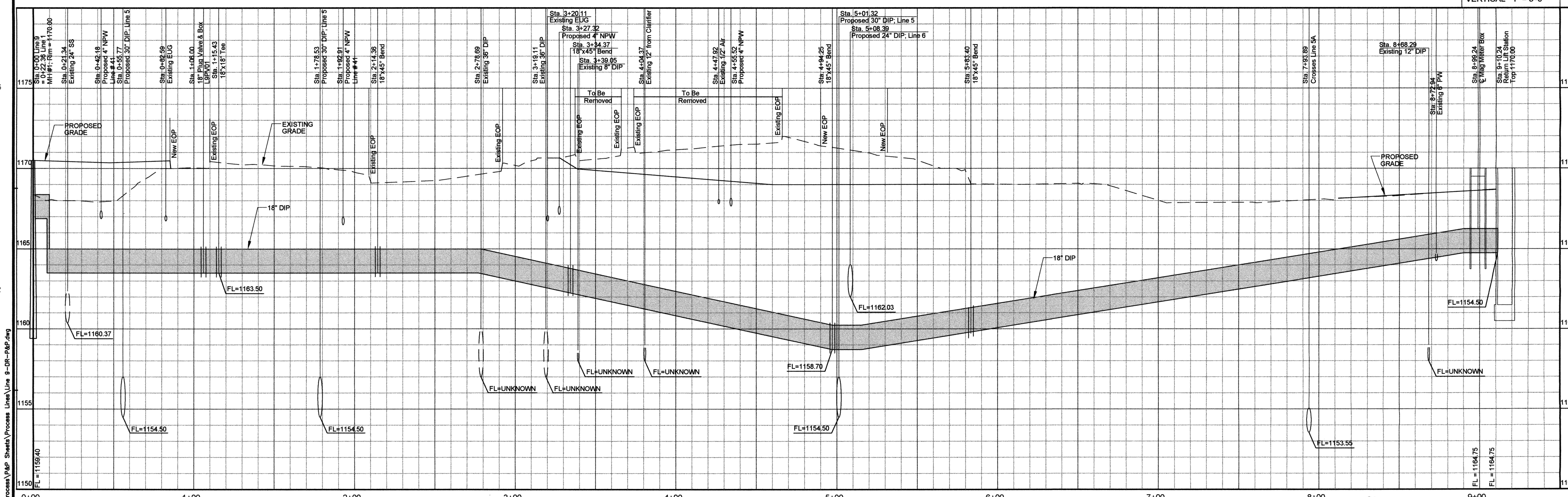


LINE 9 – 18" PLANT RETURN LIFT STATION FORCEMAIN
PLAN VIEW

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

REGISTERED PROFESSIONAL ENGINEER DASHARATHY 11456 OKLAHOMA

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 9 – 18" PLANT RETURN LIFT STATION FORCEMAIN
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

LINE 9
PLANT RETURN
LIFT STATION FORCEMAIN

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EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	9/16/09	AS NOTED	12 OF 63

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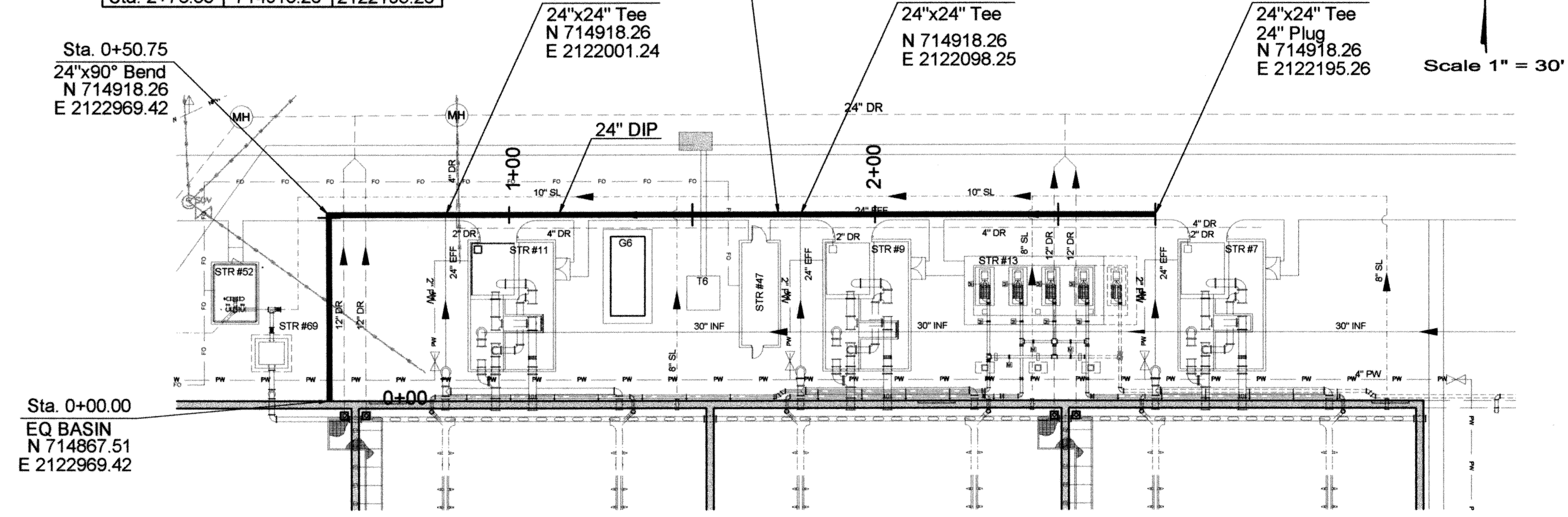
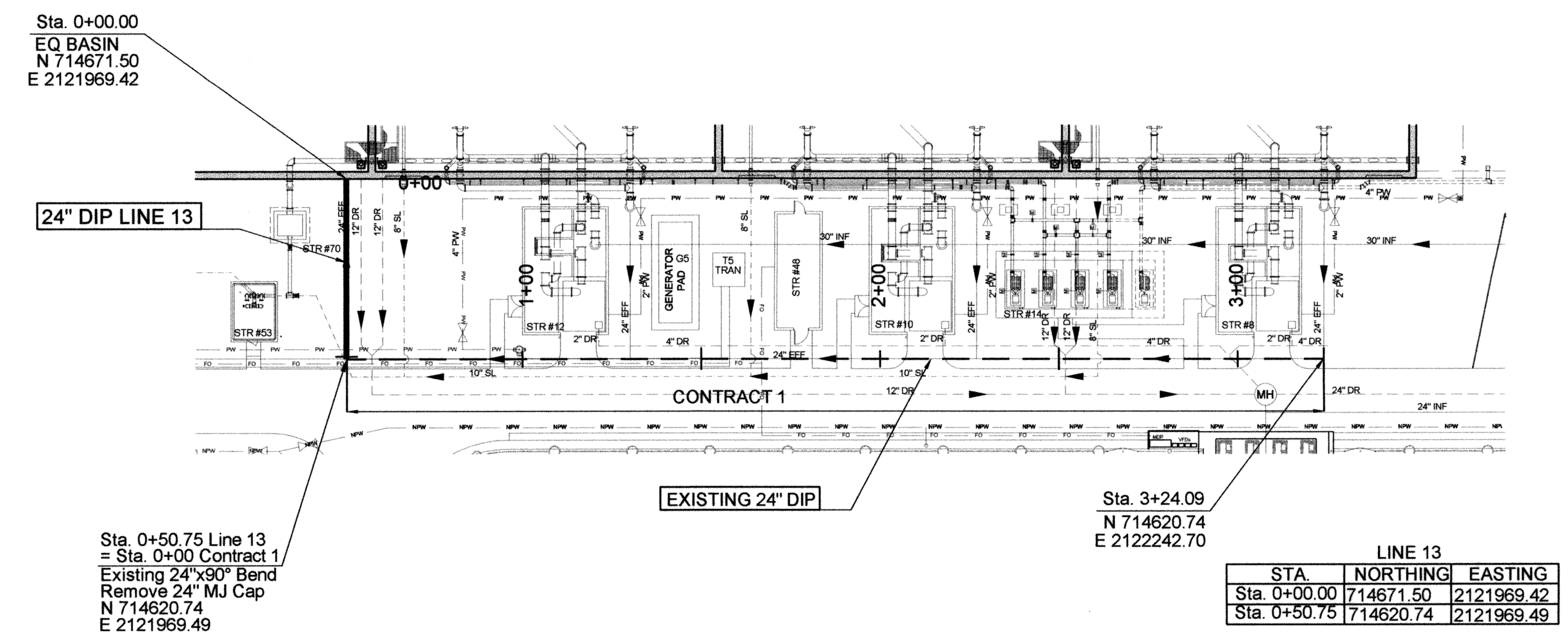
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 12

STA.	NORTHING	EASTING
Sta. 0+00.00	714867.51	2122969.42
Sta. 0+50.75	714918.26	2122969.42
Sta. 0+82.57	714918.26	2122001.24
Sta. 1+79.58	714918.26	2122098.25
Sta. 2+76.58	714918.26	2122195.26



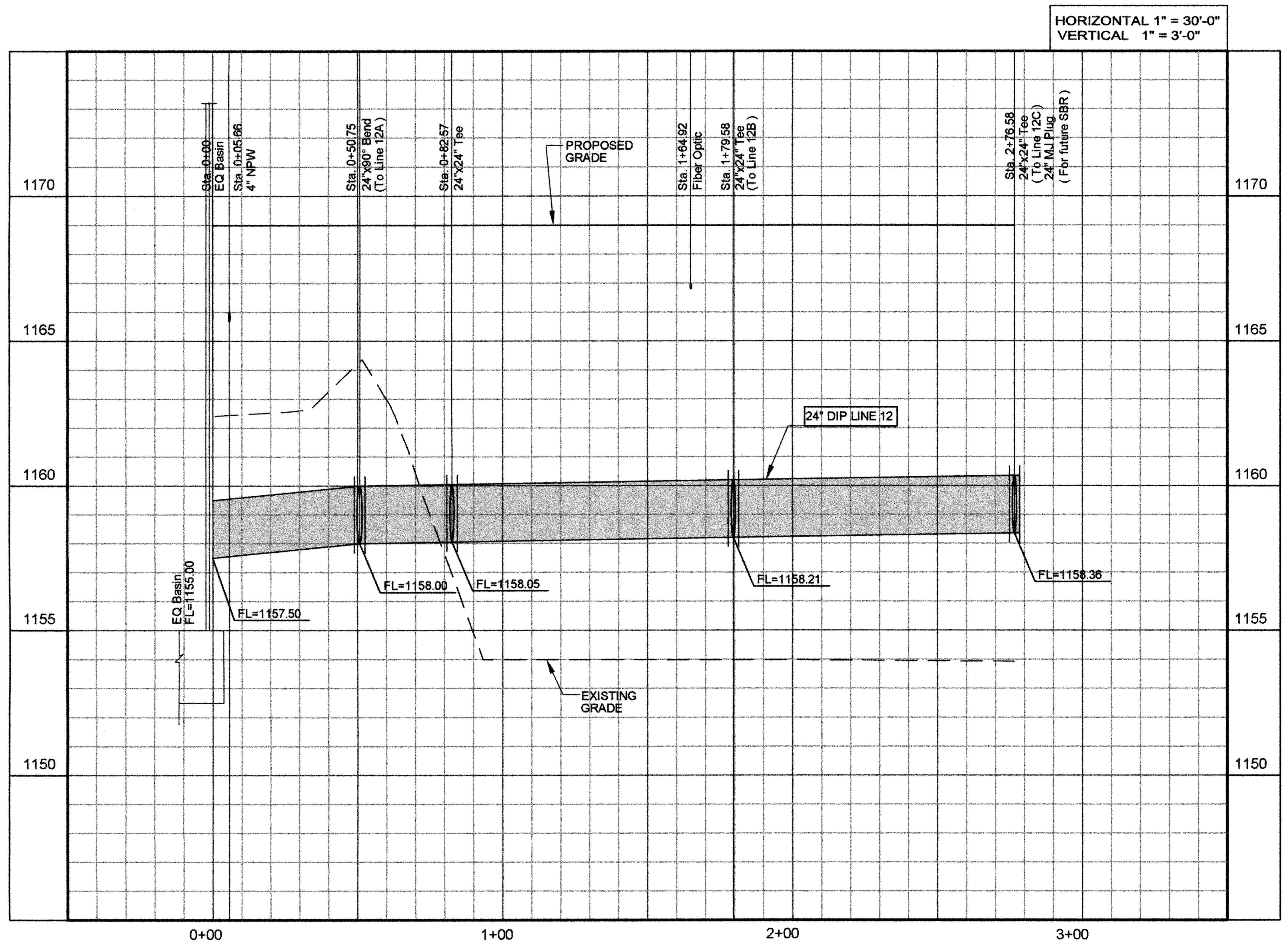
LINE 12 – 24" NORTH SBR EFFLUENT DECANT LINE PLAN VIEW



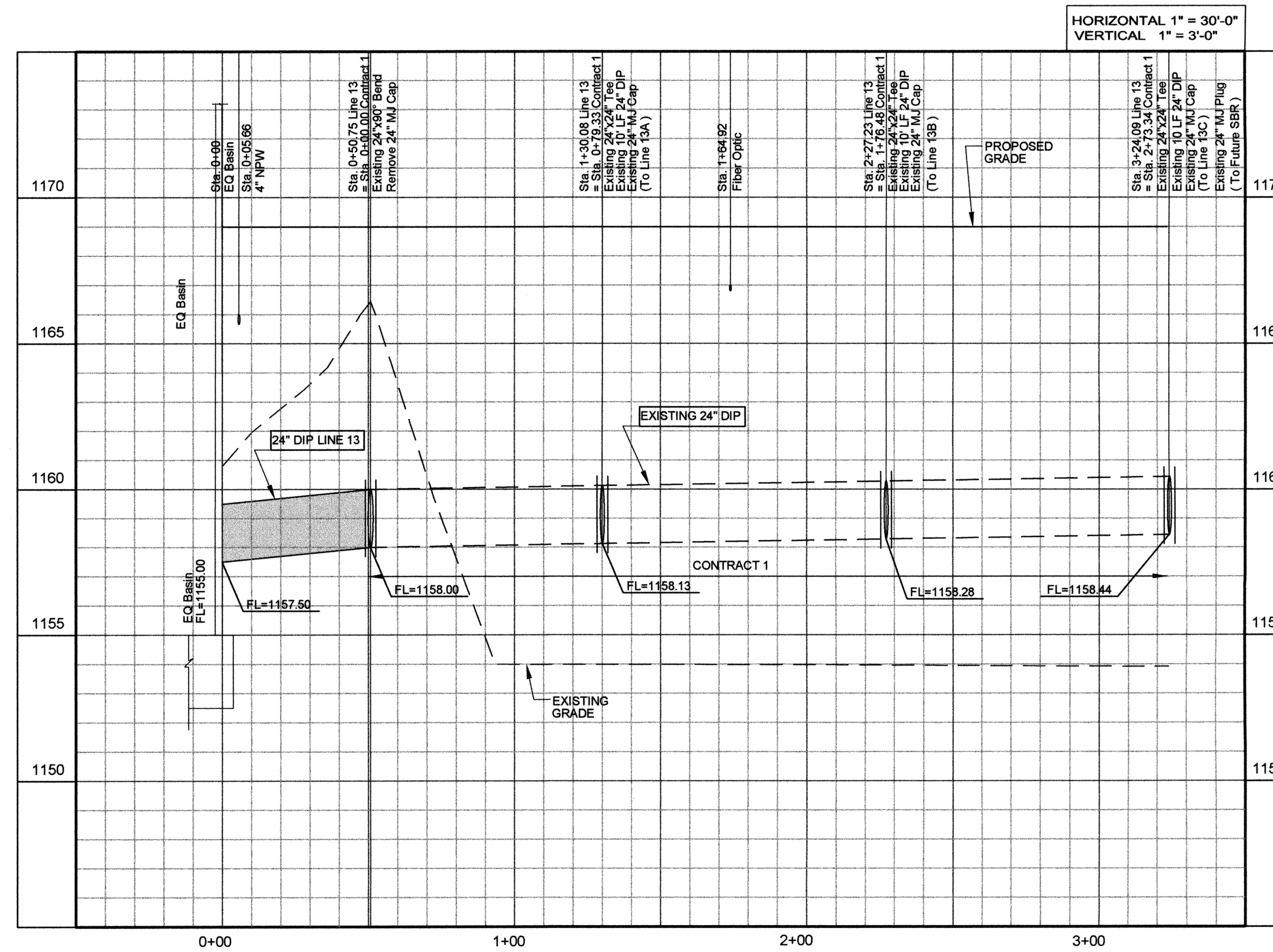
LINE 13

STA.	NORTHING	EASTING
Sta. 0+00.00	714671.50	2121969.42
Sta. 0+50.75	714620.74	2121969.49

LINE 13 – 24" SOUTH SBR EFFLUENT DECANT LINE PLAN VIEW



LINE 12 – 24" NORTH SBR EFFLUENT DECANT LINE PROFILE



LINE 13 – 24" SOUTH SBR EFFLUENT DECANT LINE PROFILE

RECORD DRAWINGS

SATISH DASHARATHY 11456 OKLAHOMA

REVISIONS:	DATE:

LINES 12 & 13
NORTH & SOUTH SBR
EFFLUENT DECANT

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
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EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	5/10/2010	AS NOTED	13 OF 63

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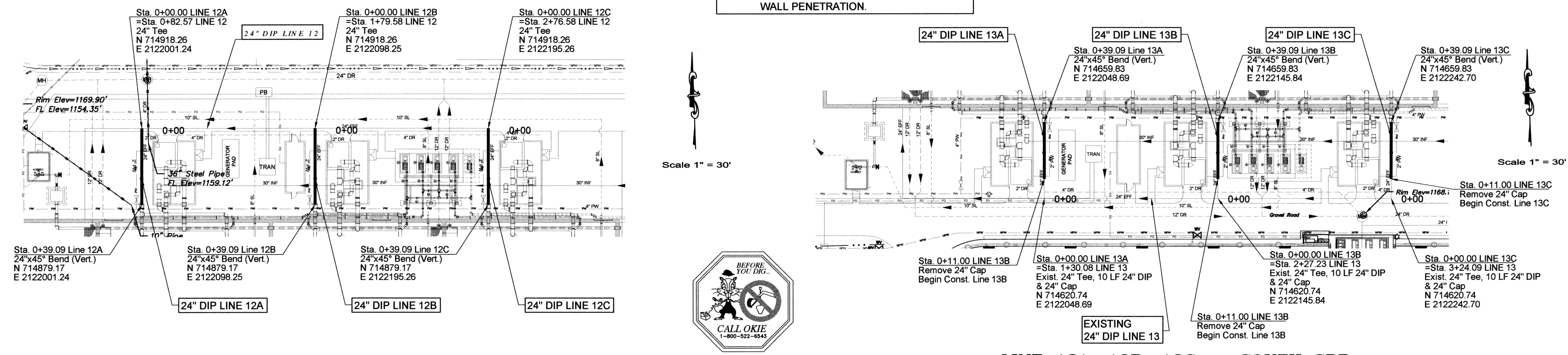
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, CONTRACT 1, MOORE, OK

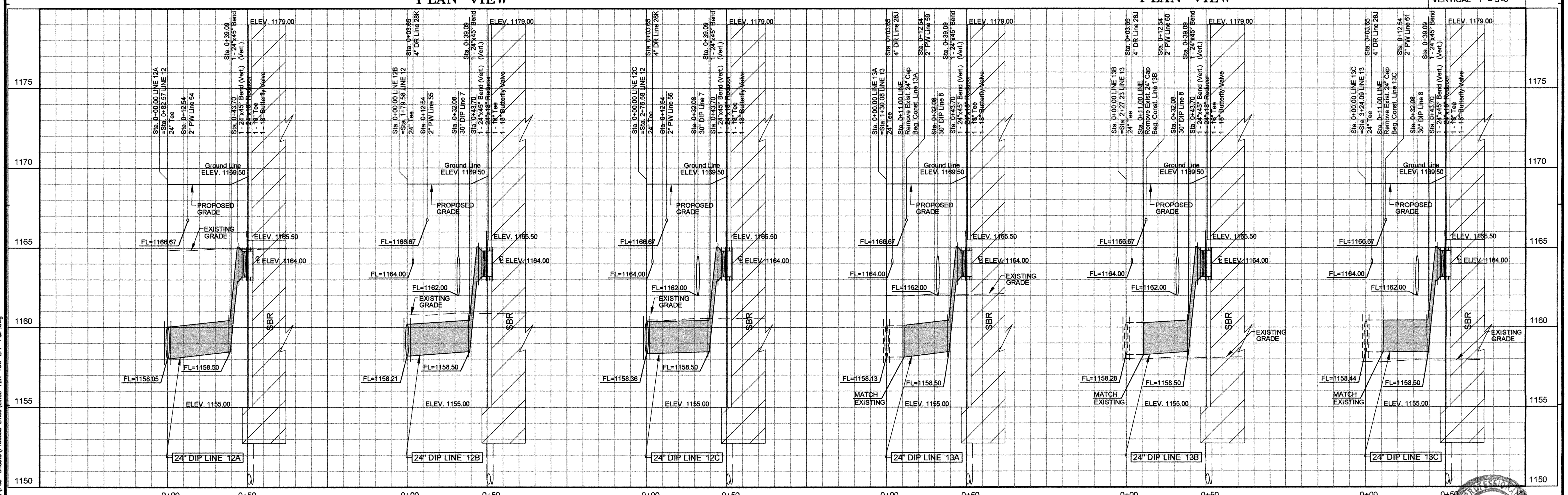
NOTE: SEE PROCESS PLANS FOR ADDITIONAL INFORMATION AT CONNECTION TO SBR WALL PENETRATION.



LINE 12A, 12B, 12C – NORTH SBR
24" EFFLUENT LINES
PLAN VIEW

LINE 13A, 13B, 13C, – SOUTH SBR
24" EFFLUENT LINES
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 12A, 12B, 12C – NORTH SBR
24" EFFLUENT LINES
PROFILE

LINE 13A, 13B, 13C, – SOUTH SBR
24" EFFLUENT LINES
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/13/2010	AS NOTED	14 OF 63

LINES 12A, 12B, 12C, 13A, 13B & 13C SBR EFF. DECANT

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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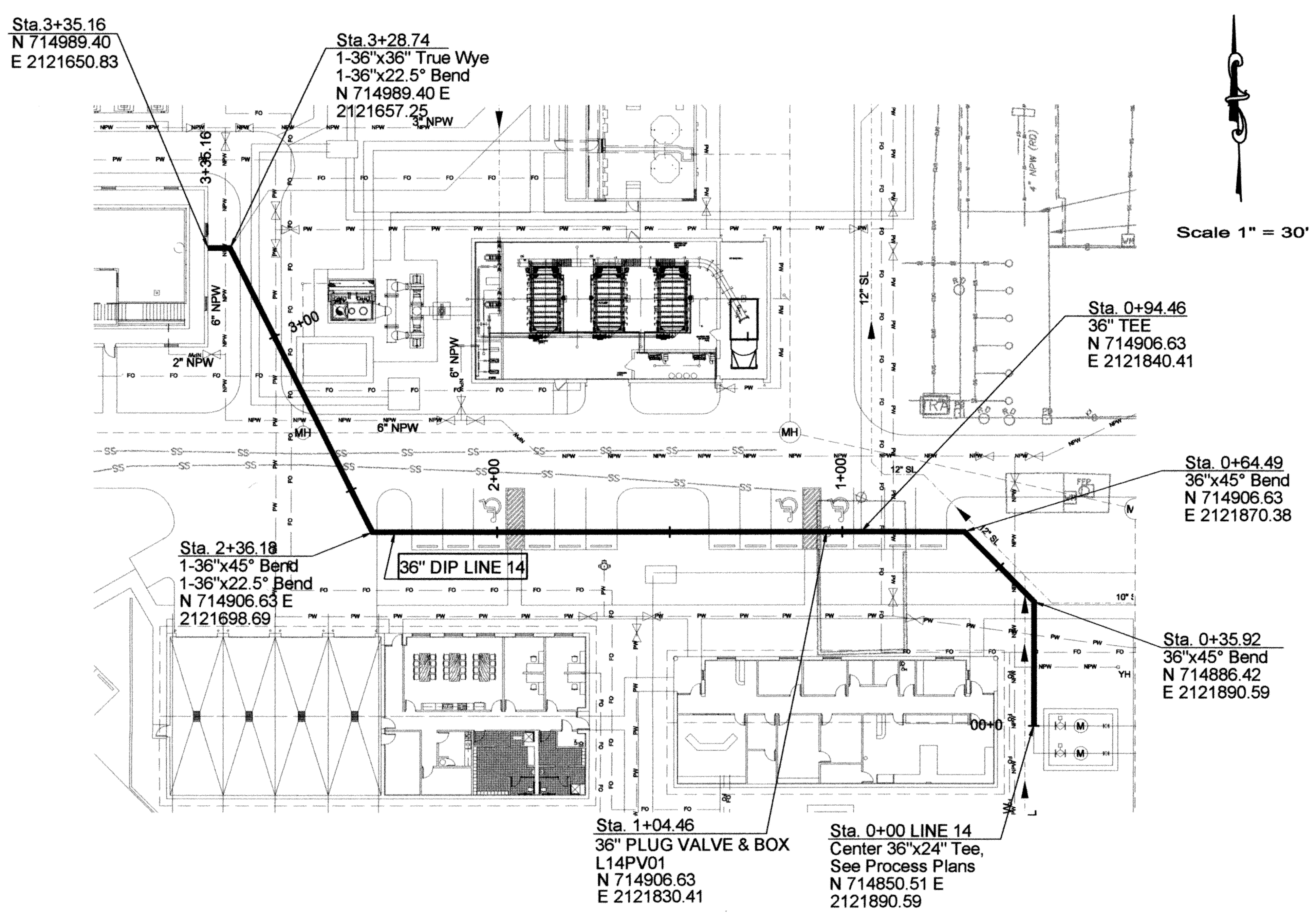
LINE 14

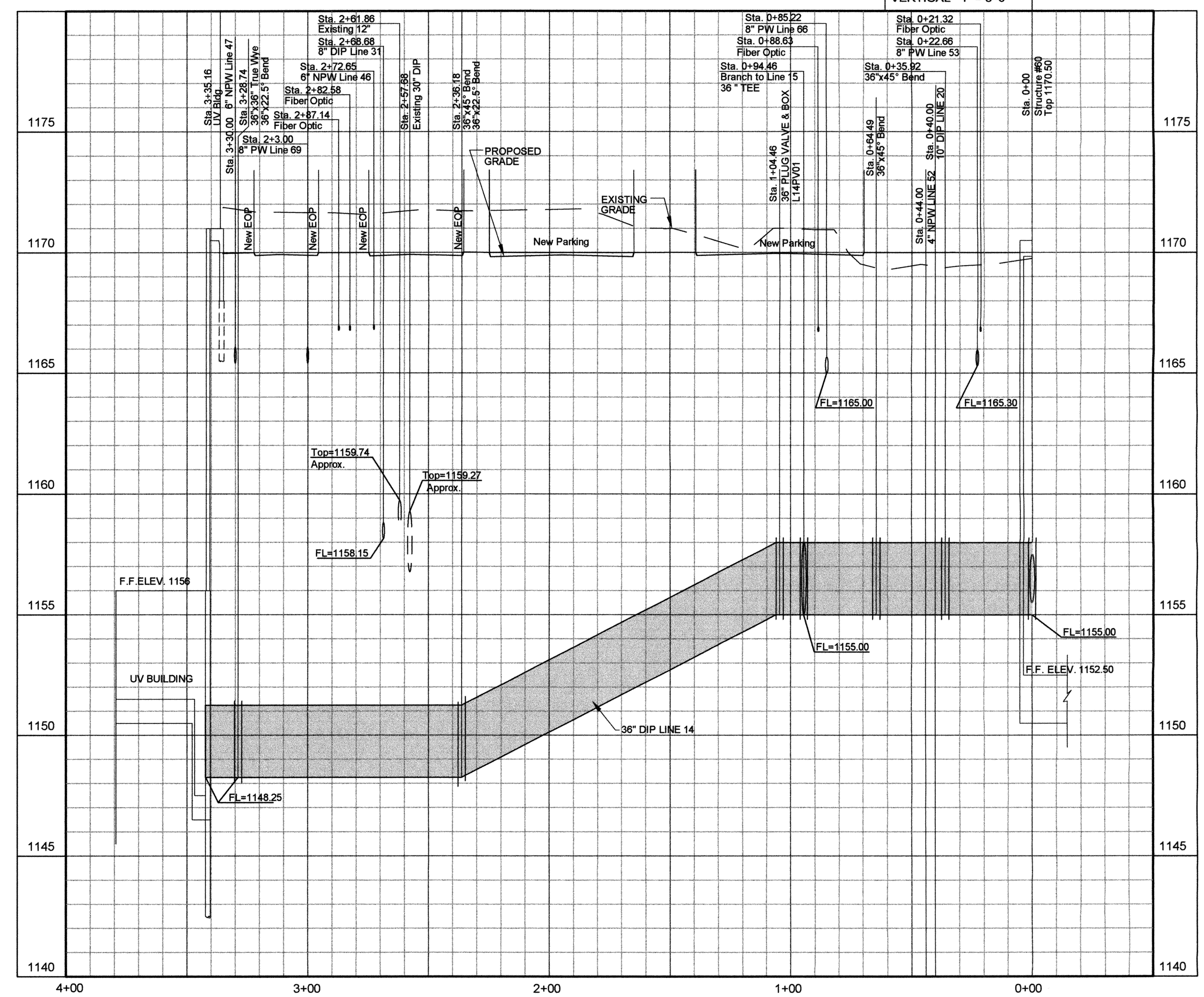
STA.	NORTHING	EASTING
Sta. 0+00.00	714850.51	2121890.59
Sta. 0+35.92	714886.42	2121890.59
Sta. 0+64.49	714906.63	2121870.38
Sta. 2+36.18	714906.63	2121698.69
Sta.3+28.74	714989.40	2121657.25
Sta.3+35.16	714989.40	2121650.83



LINE 14 – 36" EFFLUENT FROM SBR FEB TO UV
PLAN VIEW

NOTE:
EXISTING 30" EFFLUENT FORCEMAIN MUST REMAIN OPERATIONAL AT ALL TIMES TO ENABLE OPERATOR TO PUMP EFFLUENT FROM THE EXISTING PLANT. CONTRACTOR SHALL TAKE EXTREME CARE IN CONSTRUCTING 36" LINE.

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 14 – 36" EFFLUENT FROM SBR FEB TO UV
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

DESIGNED BY: S.D.	CAD OPERATOR:	CHECKED: S.D.	APPROVED: S.D.	PLOT DATE: 5/11/2010	DWG. SCALE: AS NOTED	SHEET: 15 OF 63

REVISIONS: DATE:

LINE 14
36" EFFLUENT FROM
SBR FEB TO UV

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FAX. (405) 844-3600

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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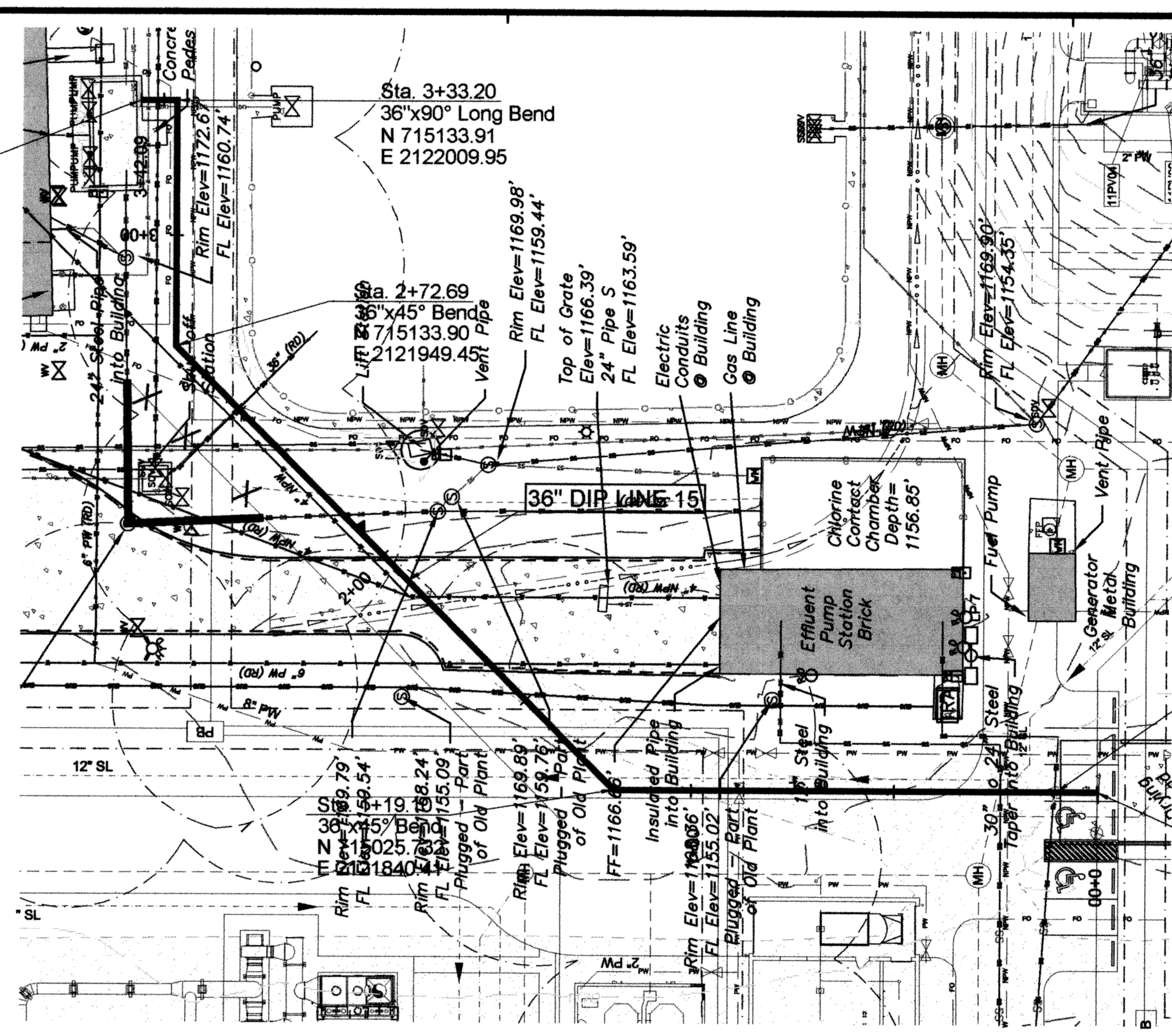
Sta.3+42.09
Existing Influent
Pump Station
N 715142.080
E 2122009.95

LINE 15

STA.	NORTHING	EASTING
Sta. 0+00.00	714906.63	2121840.41
Sta. 1+19.10	715025.732	2121840.41
Sta. 2+72.69	715133.90	2121949.45
Sta. 3+33.20	715133.91	2122009.95
Sta.3+42.09	715142.080	2122009.95

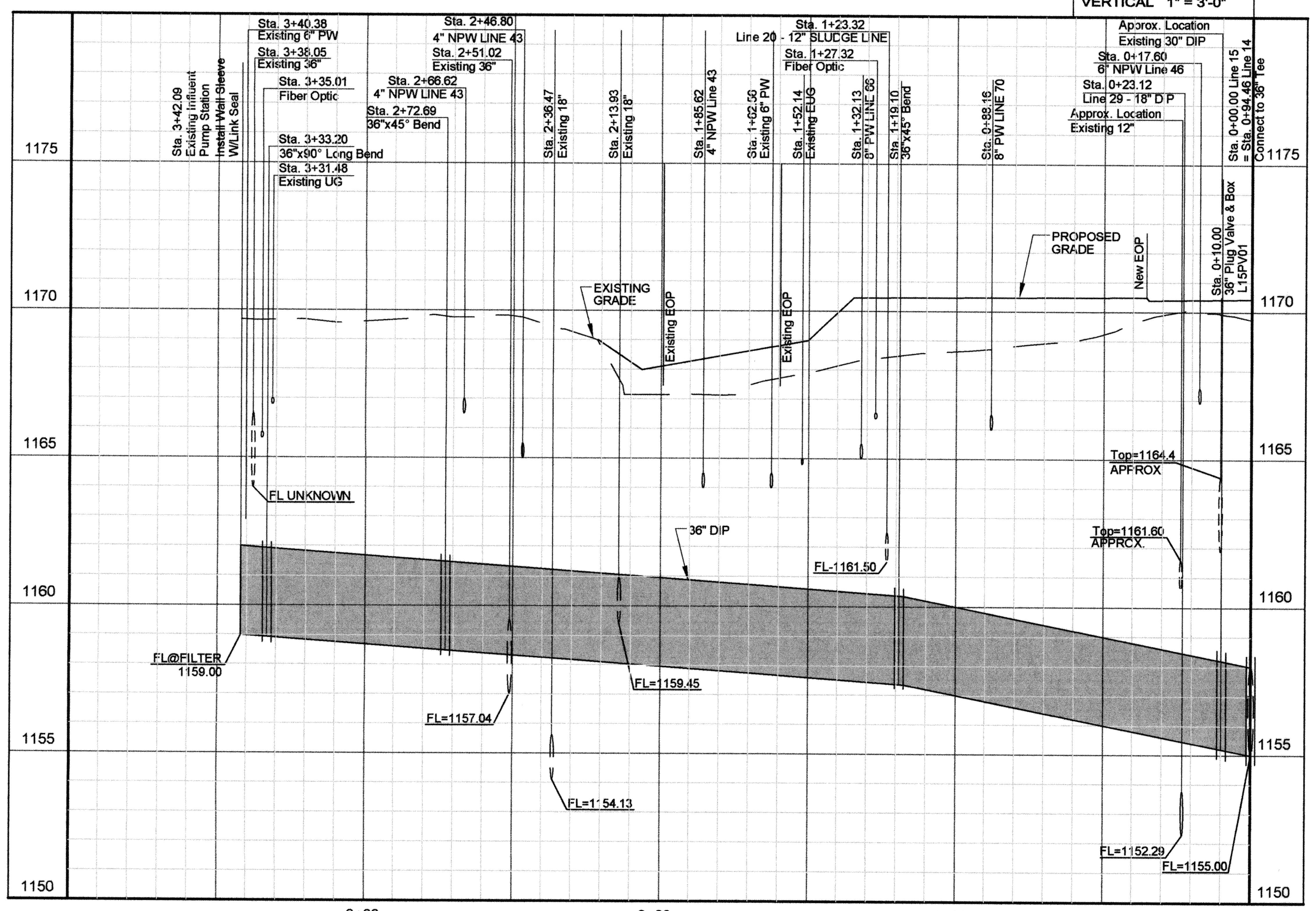
NOTE:
1. CONTACTOR SHALL NOTIFY ENGINEER PRIOR TO STARTING CONSTRUCTION OF LINES 15 & 16
2. NEW PLANT SHALL BE IN OPERATION BEFORE THESE LINES CAN BE LAID.
3. FILTER SHALL NOT BE IN USE TO INSTALL LINE 15 AT FILTER.
4. EXISTING LINES IN OPERATION HAVE TO BE DISABLED IN COLLABARATION WITH PLANT OPERATOR



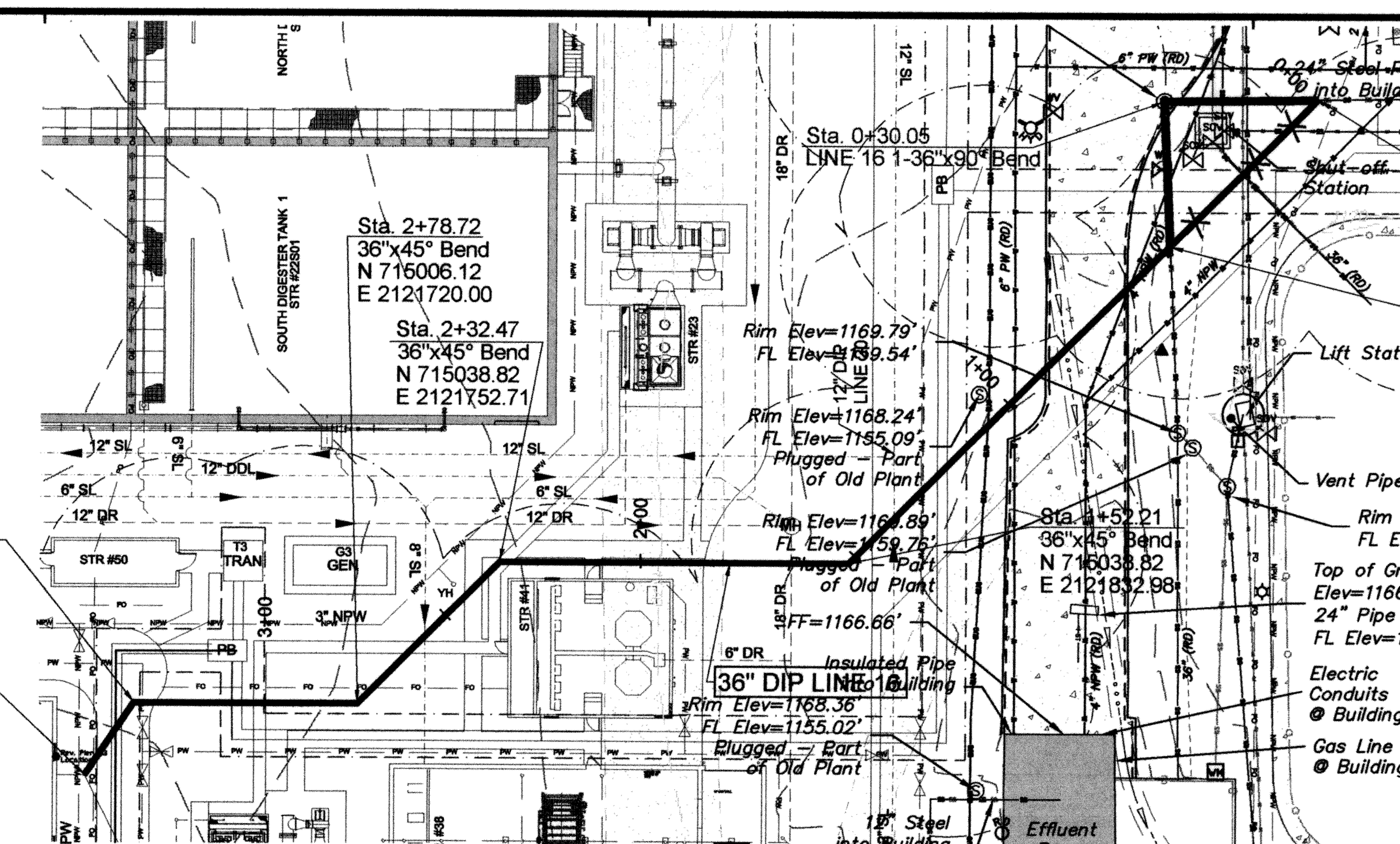
Scale 1" = 30'

LINE 15 – 36" FROM SBR FEB TO HYDRO SAND FILTER PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 15 – 36" FROM SBR FEB TO HYDRO SAND FILTER PROFILE



Sta. 0+00 LINE 16
1-36"x45" Bend or Connect to
Exist. Pipe, 30.05'
East from MH
N 715146.10
E 2121940.96

Sta. 0+68.83 BK
=Sta. 0+52.01 FWD.
LINE 16 1-36"x45" Bend

Scale 1" = 30'

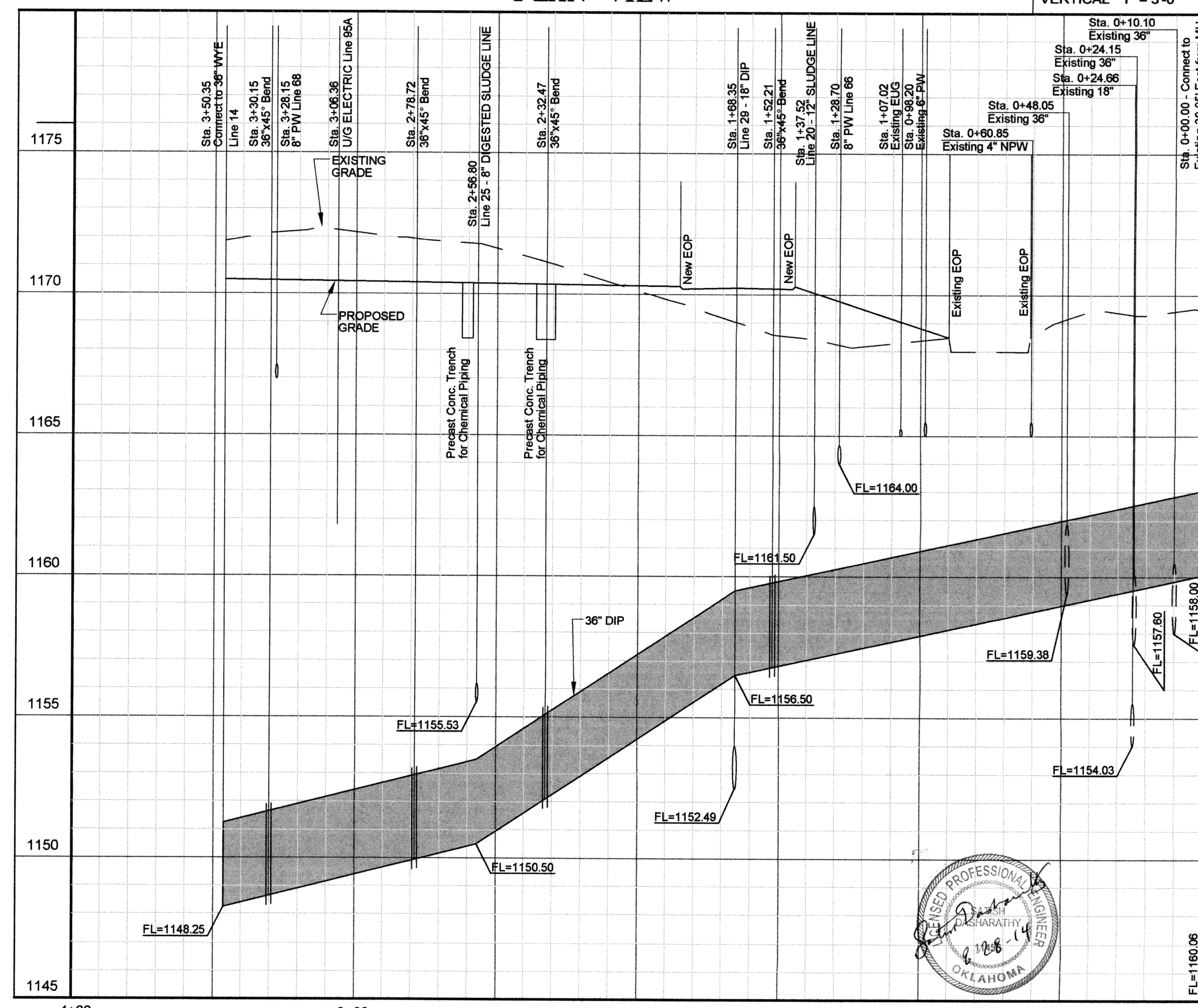
LINE 16

STA.	NORTHING	EASTING
Sta. 0+00.00	715146.10	2121940.96
Sta. 1+52.21	715038.82	2121832.98
Sta. 2+32.47	715038.82	2121752.71
Sta. 2+78.72	715006.12	2121720.00
Sta. 3+30.15	715006.12	2121668.58
Sta. 3+50.35	714989.40	2121657.31

BEFORE YOU DIG.. CALL OKIE 1-800-522-6543

LINE 16 – 36" FROM HYDRO SAND FILTER TO UV PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 16 – 36" FROM FILTER TO UV PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
AS-BUILT	8/20/2013

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	5/11/2010	AS NOTED	16 OF 63

LINES 15 & 16
36" EFFLUENT

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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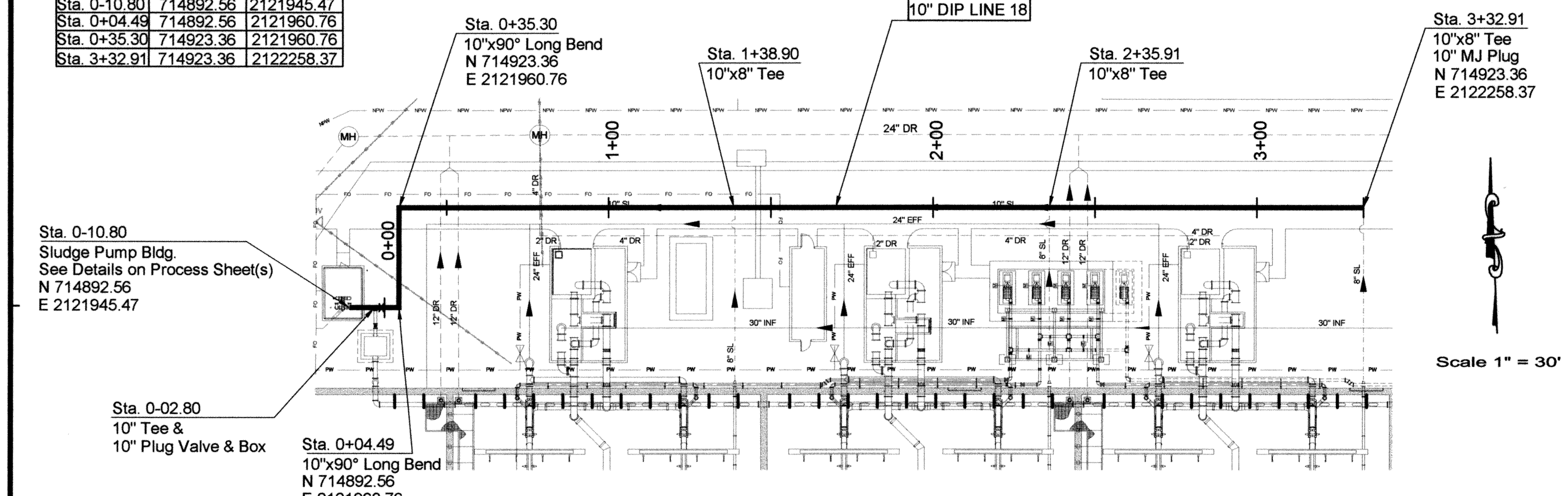
LINE 18

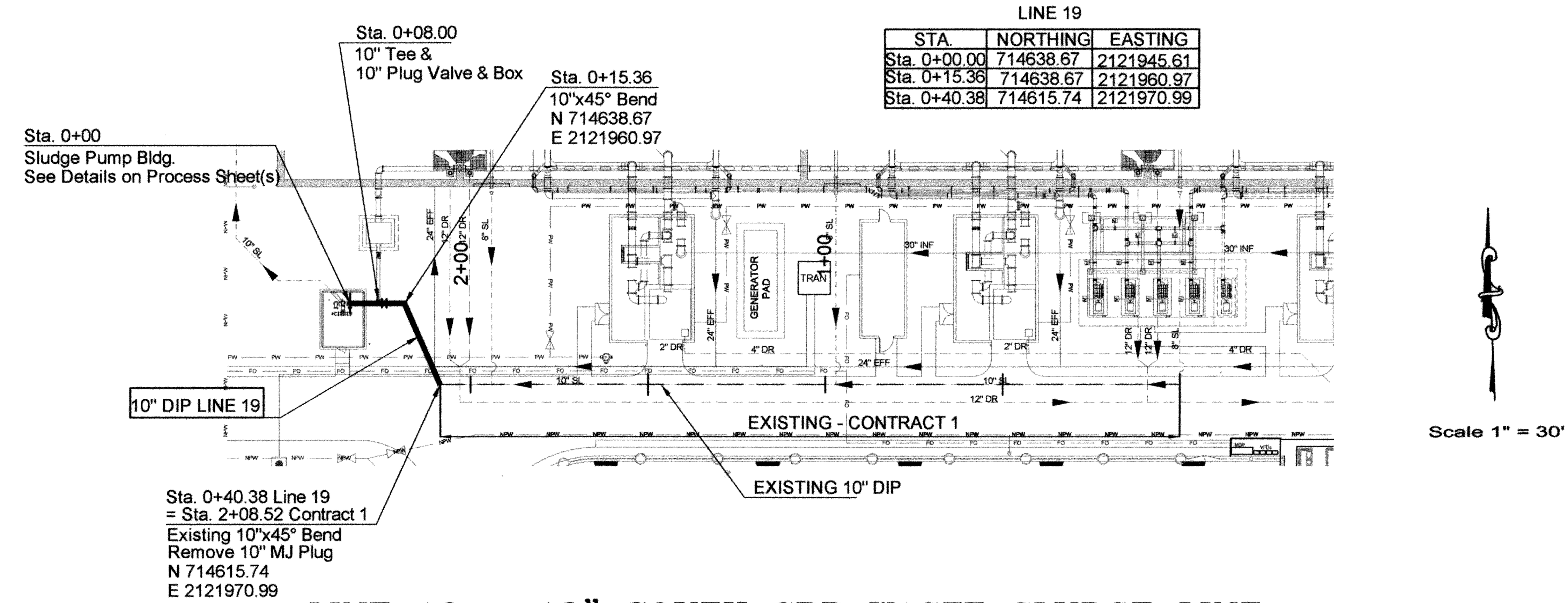
STA.	NORTHING	EASTING
Sta. 0-10.80	714892.56	2121945.47
Sta. 0+04.49	714892.56	2121960.76
Sta. 0+35.30	714923.36	2121960.76
Sta. 3+32.91	714923.36	2122258.37



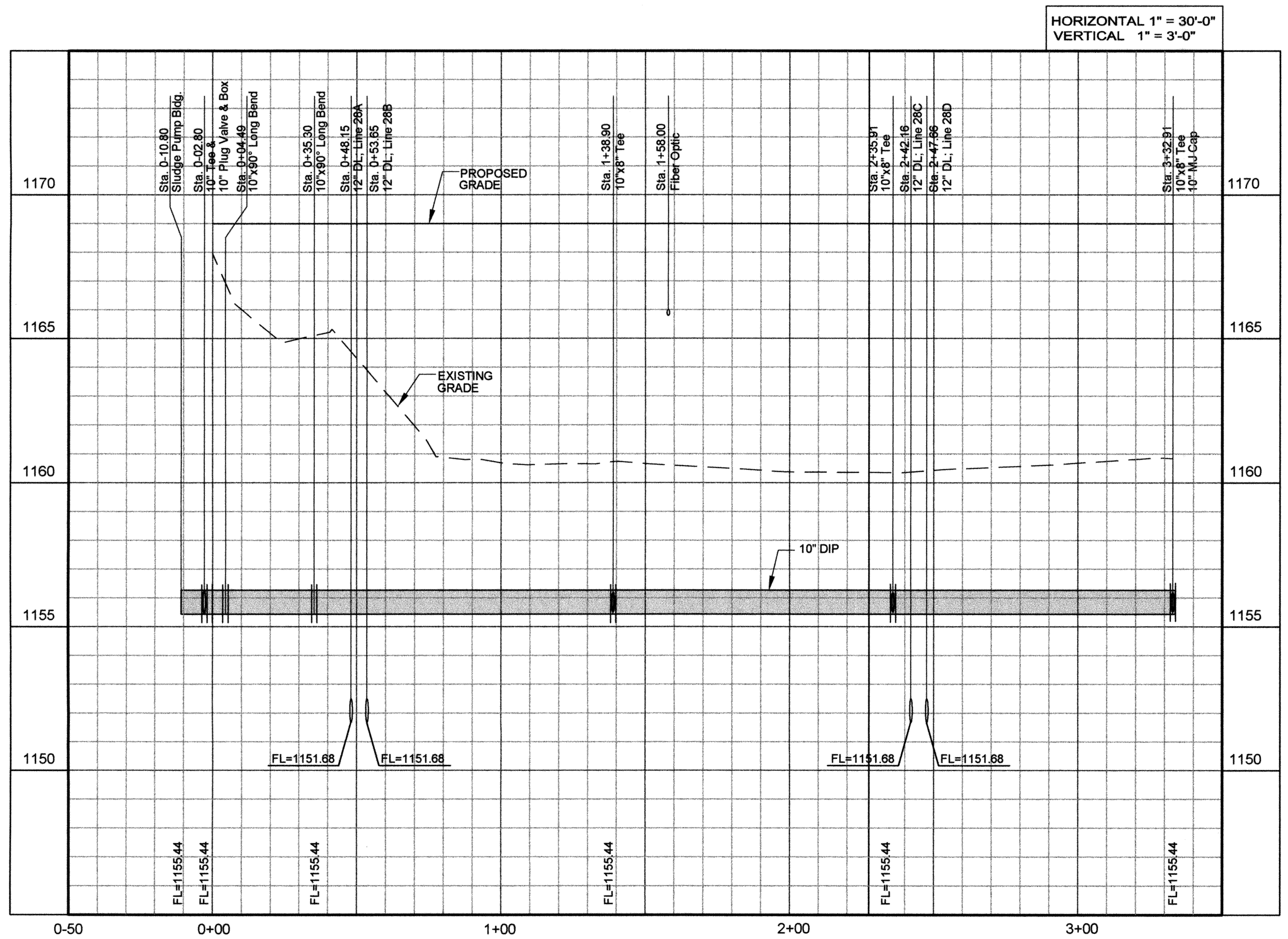
LINE 18 – 10" NORTH SBR WASTE SLUDGE LINE
PLAN VIEW

LINE 19

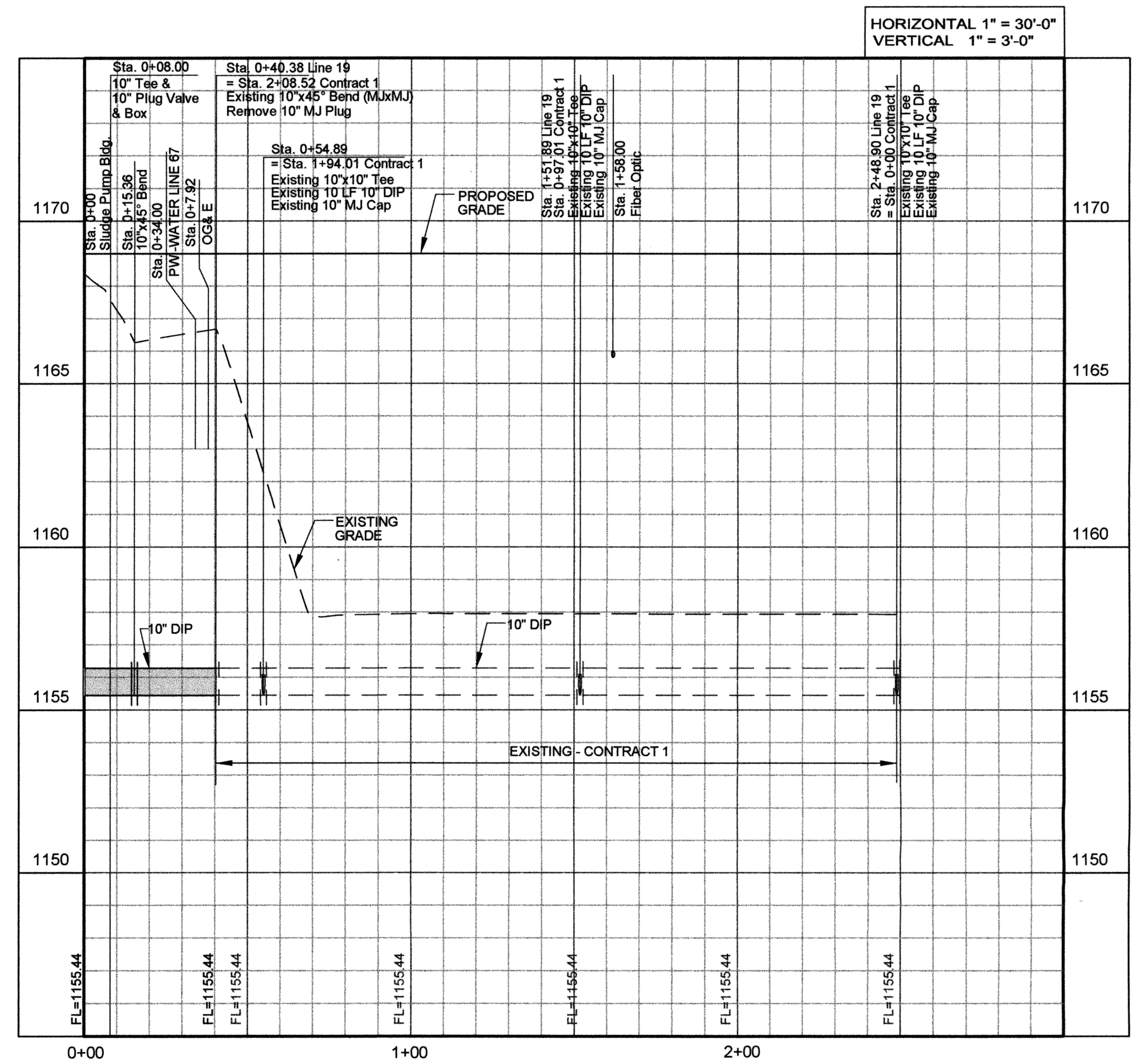
STA.	NORTHING	EASTING
Sta. 0+00.00	714638.67	2121945.61
Sta. 0+15.36	714638.67	2121960.97
Sta. 0+40.38	714615.74	2121970.99



LINE 19 – 10" SOUTH SBR WASTE SLUDGE LINE
PLAN VIEW



LINE 18 – 10" NORTH SBR WASTE SLUDGE LINE
PROFILE



LINE 19 – 10" SOUTH SBR WASTE SLUDGE LINE
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

RECORD DRAWINGS

REVISIONS:	DATE:

LINES 18 & 19
SBR WASTE SLUDGE LINES

EAGLE OFFICE CENTER
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EDMOND, OK. 73013
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FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

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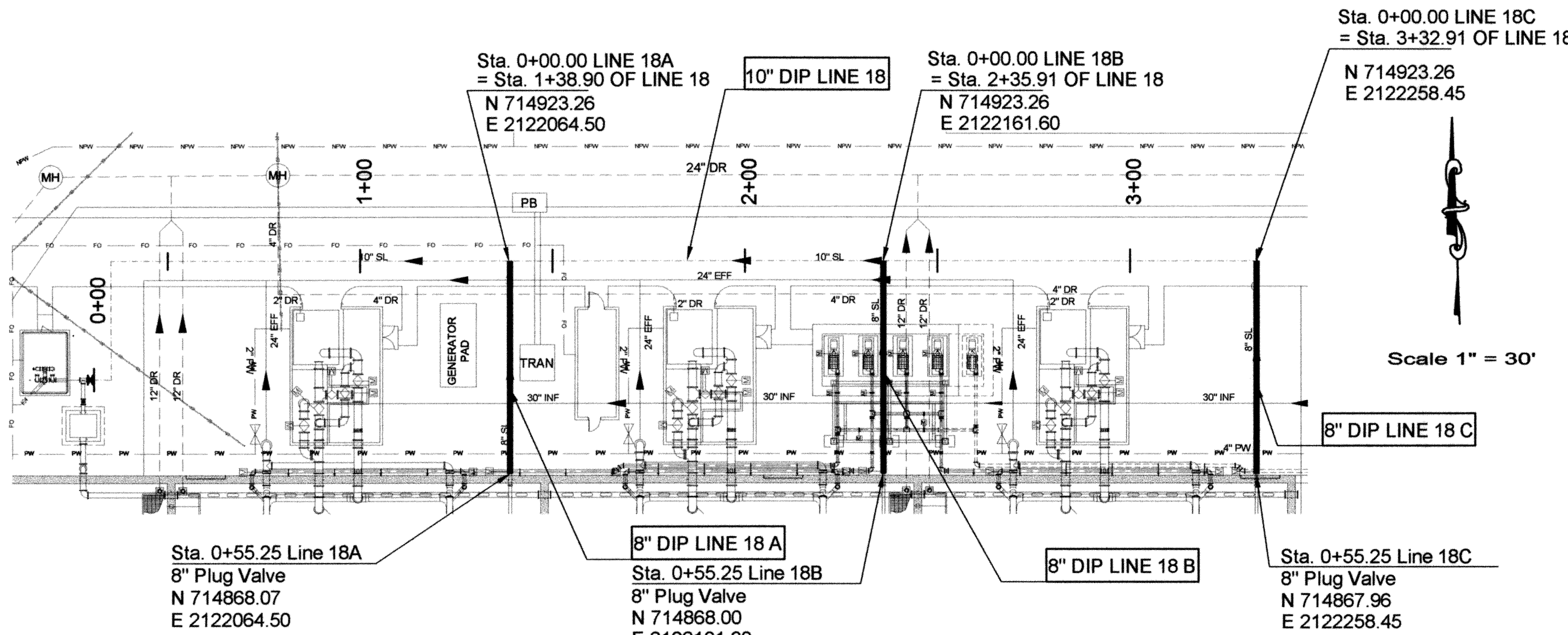
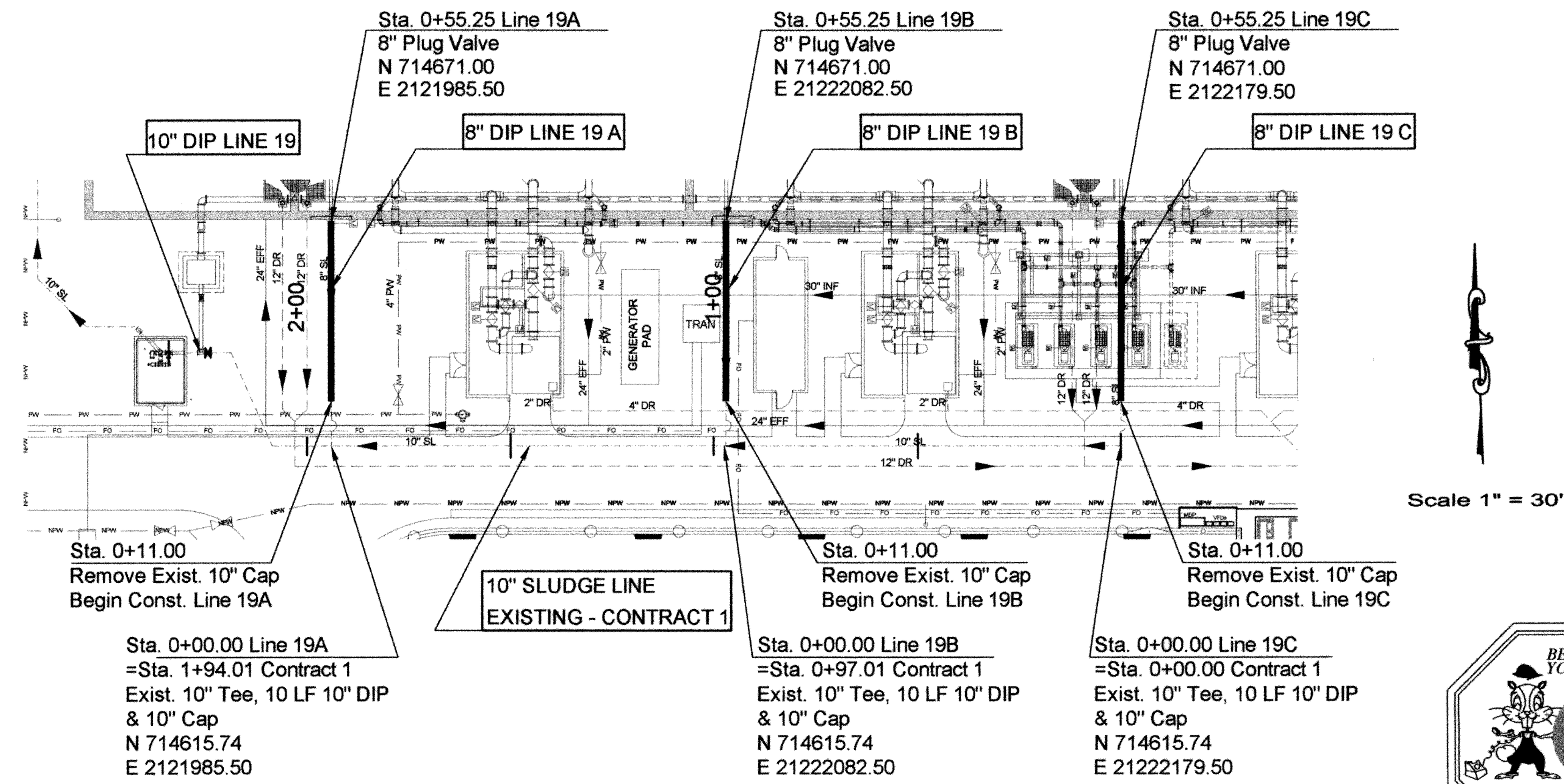
S.D.		S.D.	S.D.	4/21/2010	AS NOTED	17 OF 63

O:\DRAWINGS\MOORE\WORK\Process\P&P Sheets\Process Lines\Lines 18-19-SL-P&P.dwg

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

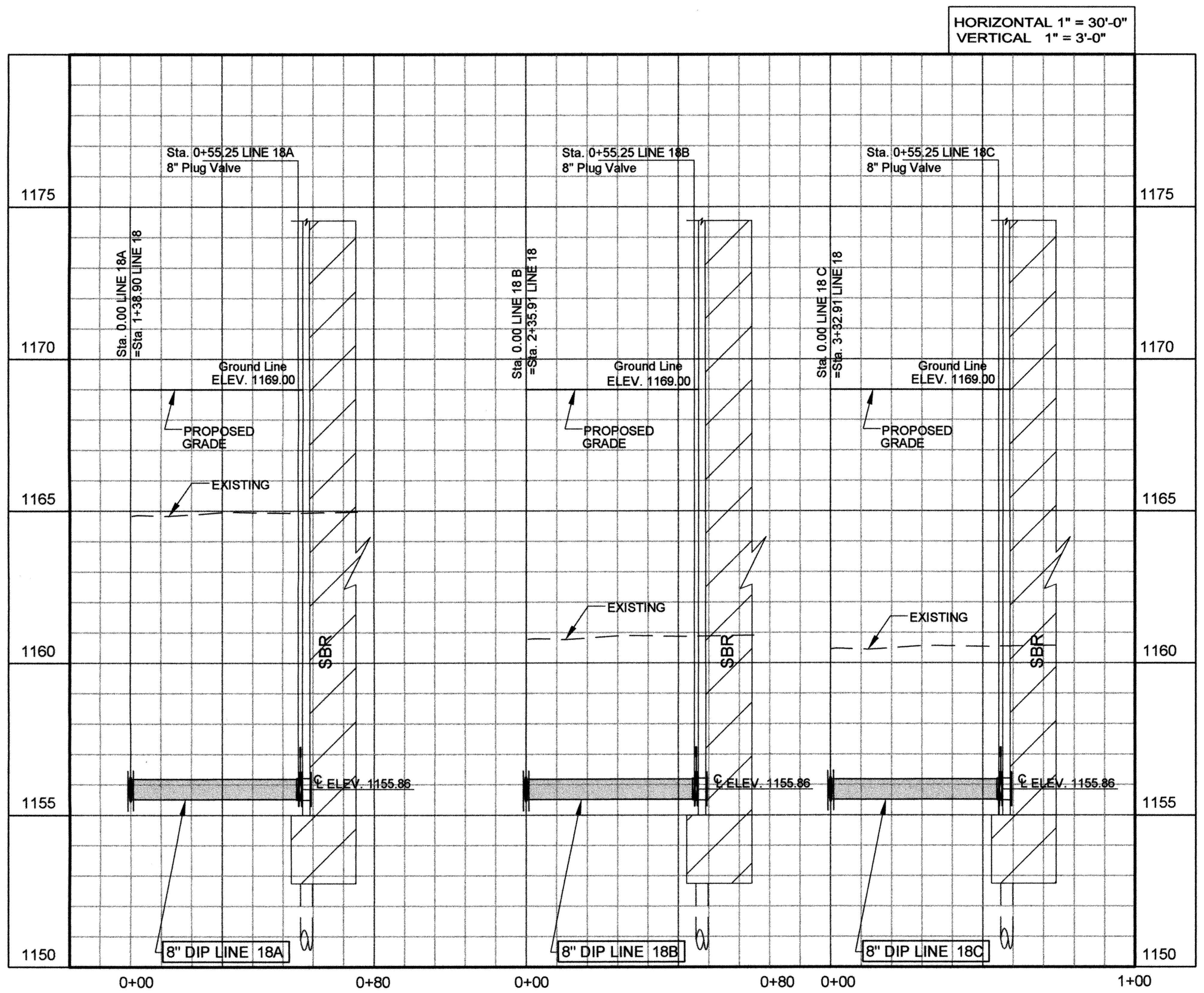


LINE 18A, 18B, 18C – 8" NORTH SBR WASTE
SLUDGE LINE
PLAN VIEW

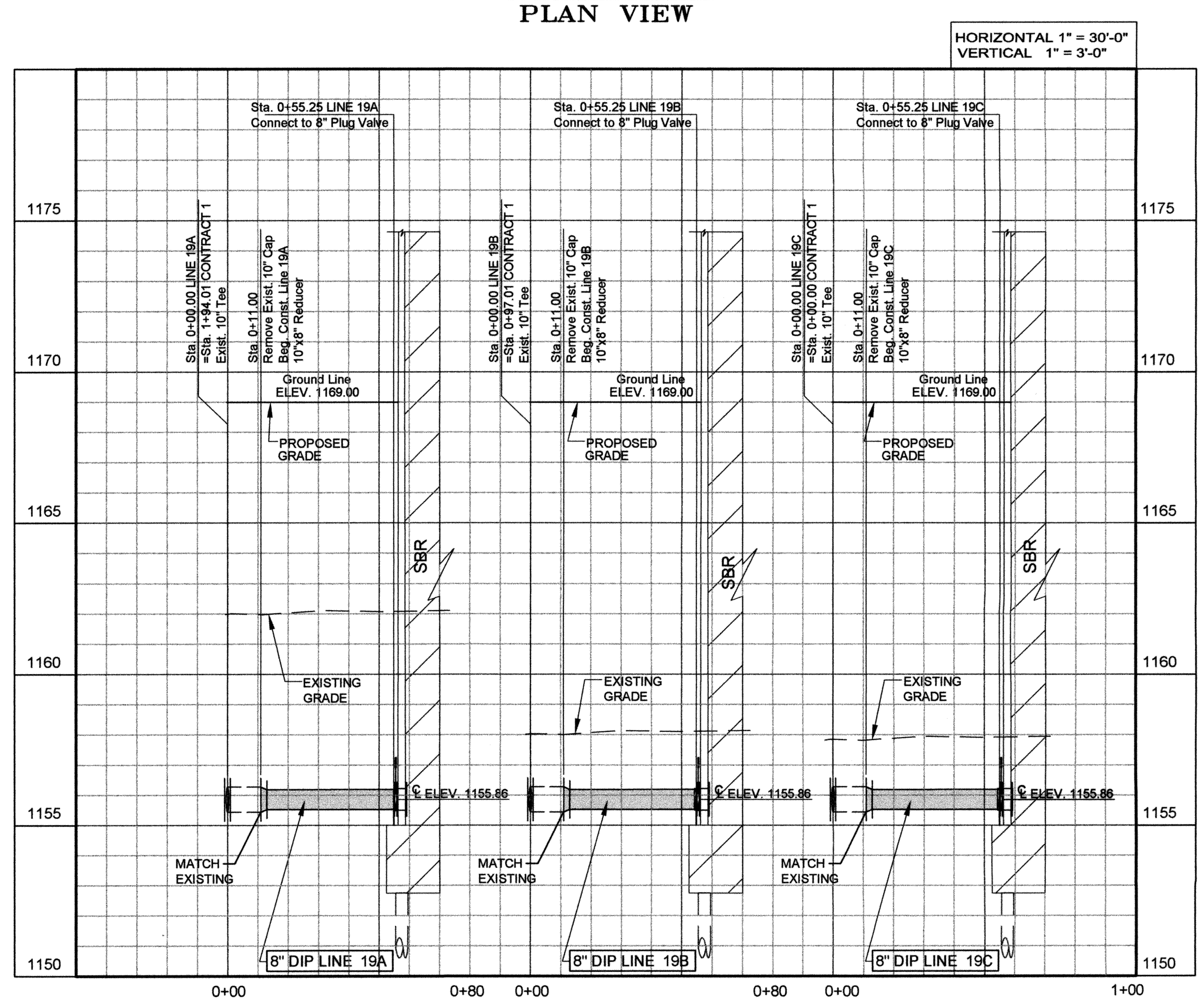


LINE 19A, 19B, 19C, – 8" SOUTH SBR WASTE
SLUDGE LINE
PLAN VIEW

BEFORE YOU DIG.. CALL OKIE 1-800-522-6543



LINE 18A, 18B, 18C – 8" NORTH SBR WASTE
SLUDGE LINE
PLAN VIEW



LINE 19A, 19B, 19C, – 8" SOUTH SBR WASTE
SLUDGE LINE
PLAN VIEW

RECORD DRAWINGS

SATISH DASHARATHY 11466 OKLAHOMA 5-17-

REVISIONS:	DATE:

LINES 18A, 18B, 18C,
19A, 19B & 19C
SBR WASTE SLUDGE LINES

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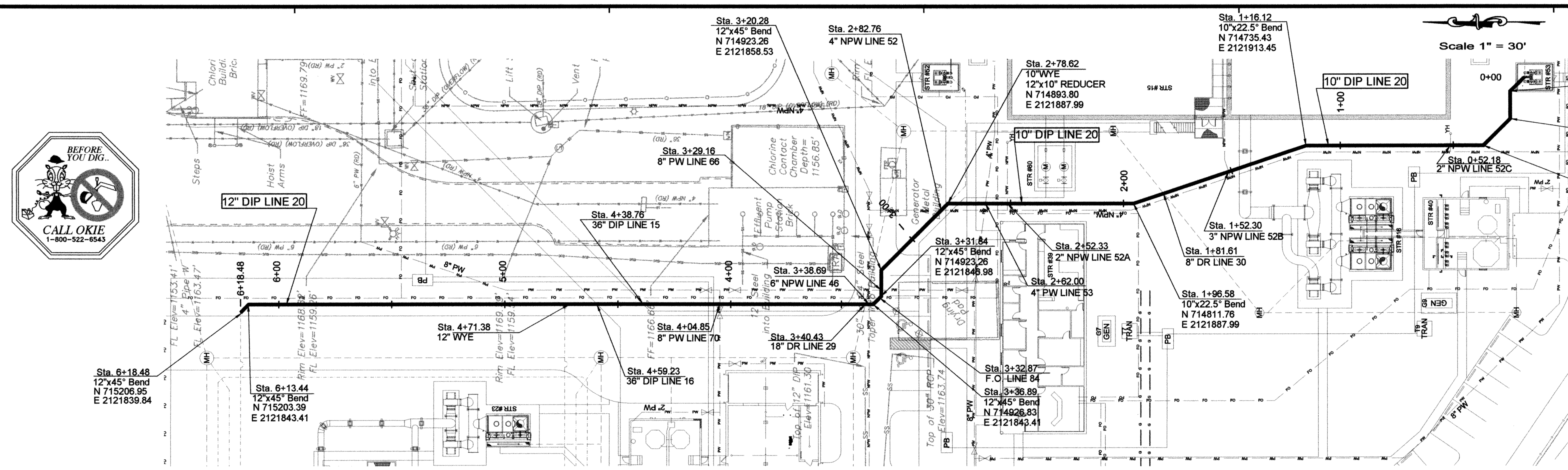
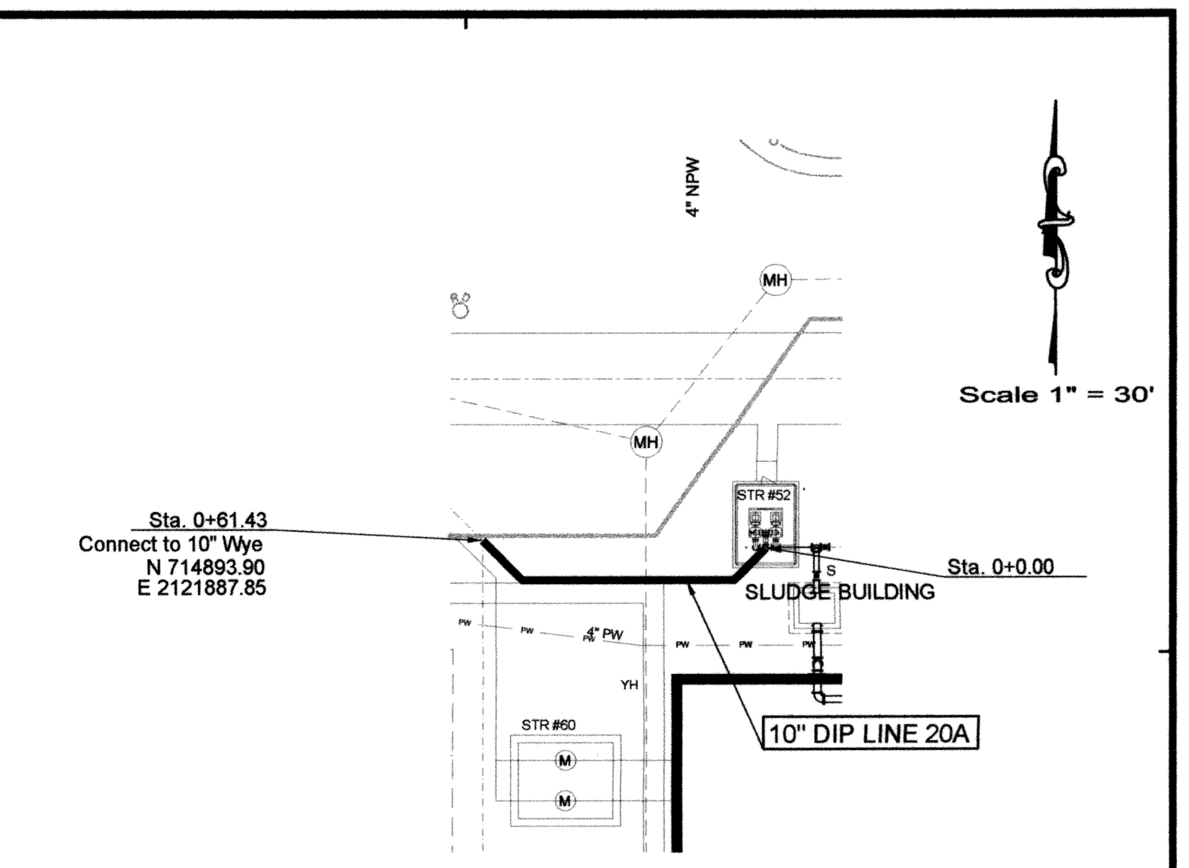
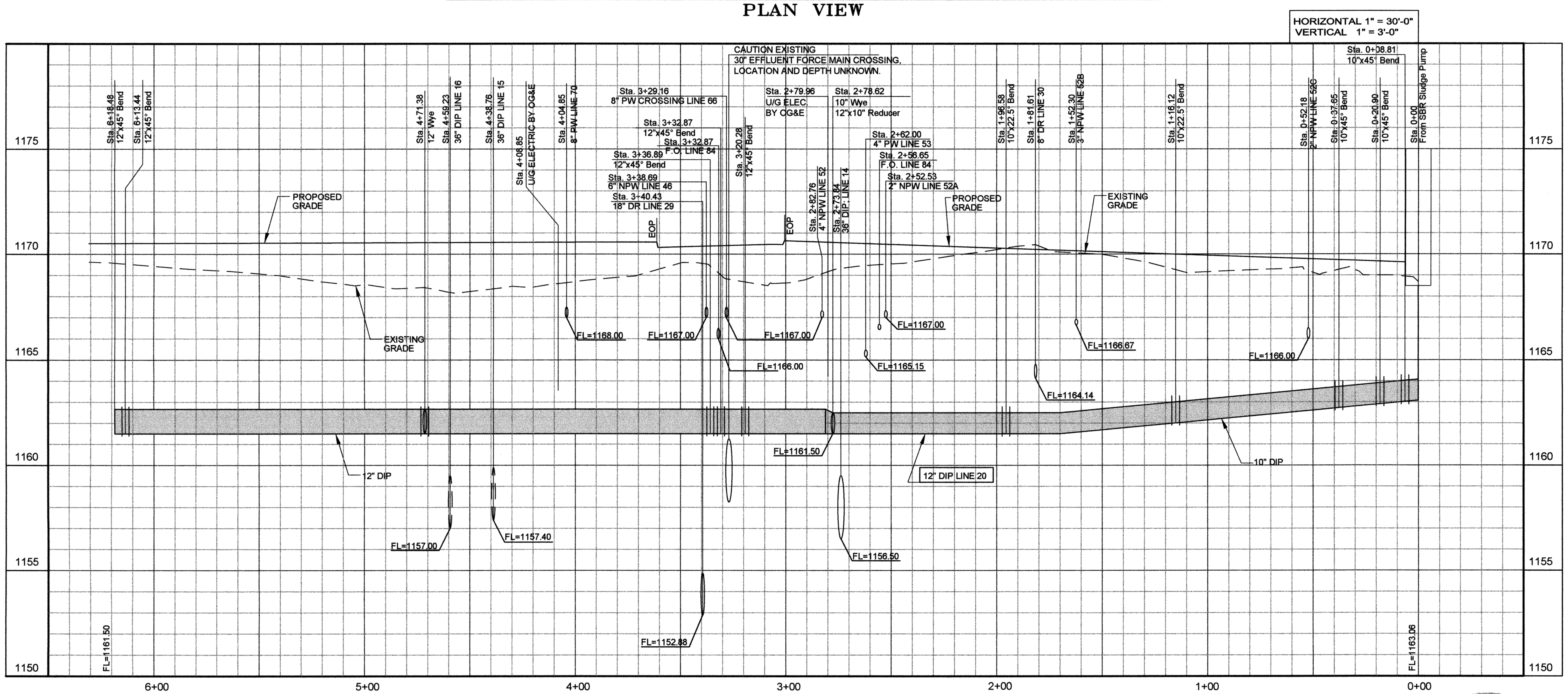
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



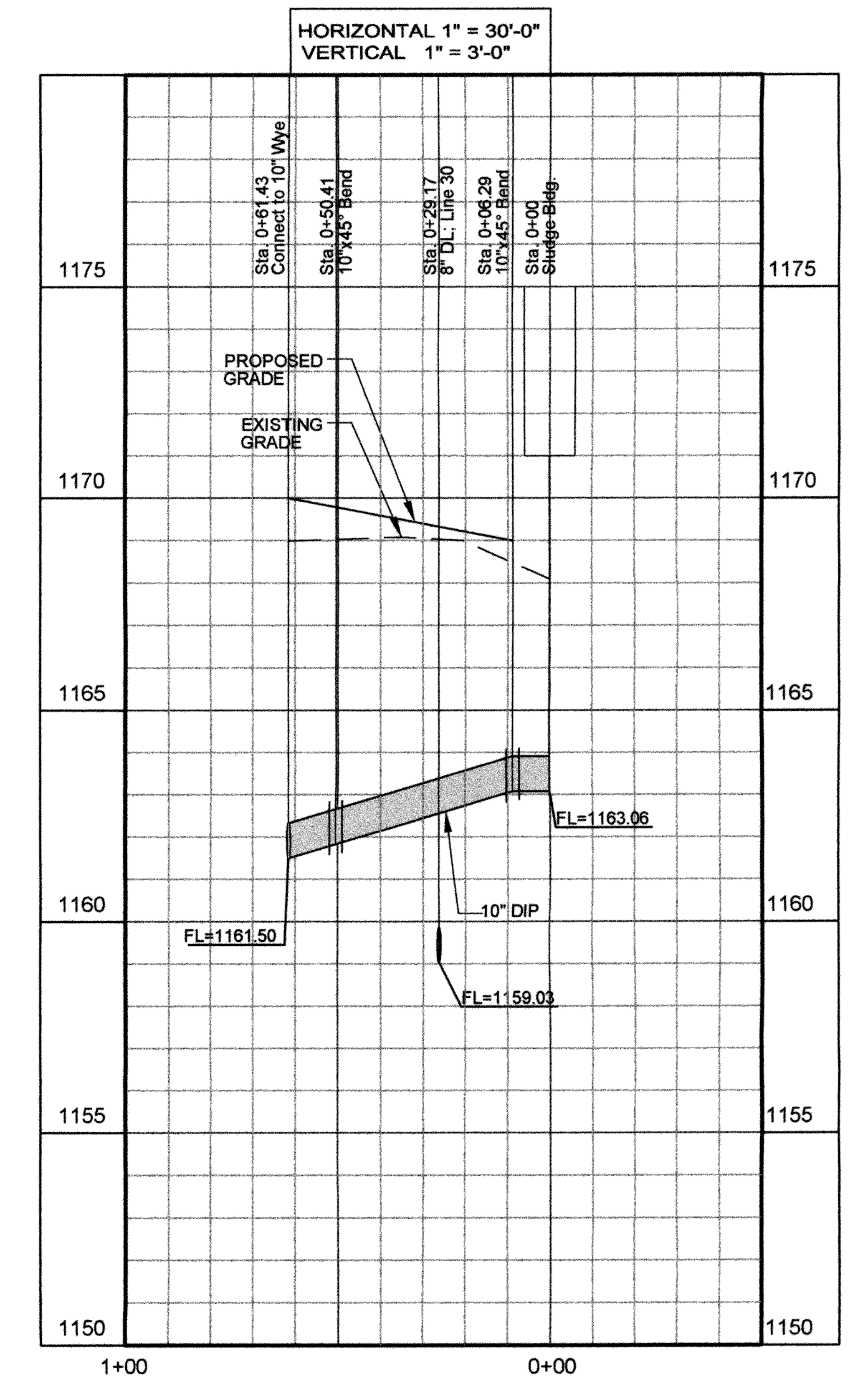
LINE 20 – 10" & 12" WASTE SLUDGE INFLUENT LINE TO AD
PLAN VIEW



LINE 20A – 10" WASTE SLUDGE LINE
– PLAN VIEW



LINE 20 – 10" & 12" WASTE SLUDGE INFLUENT LINE TO AD
PROFILE



LINE 20A – 10" WASTE SLUDGE LINE
– PROFILE

NOTE: CONTRACTOR SHALL
FIELD LOCATE EXISTING 30" EFFLUENT
FORCEMAIN PRIOR TO CONSTRUCTION

RECORD DRAWINGS

REVISIONS:	DATE:

LINE 20 & 20A
WASTE SLUDGE INFLUENT LINES

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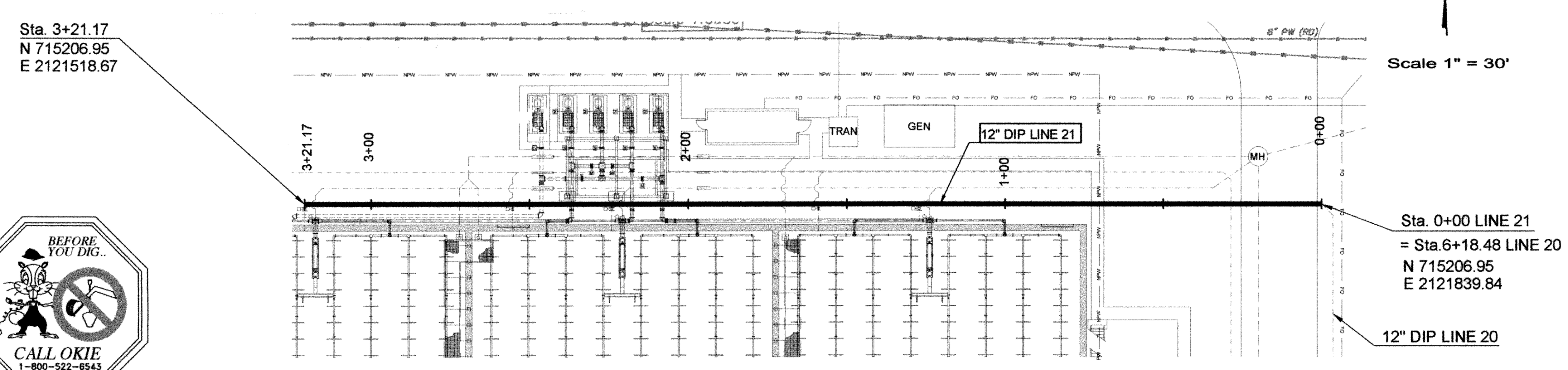
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 21

STA.	NORTHING	EASTING
Sta. 0+00.00	715206.95	2121839.84
Sta. 3+21.17	715206.95	2121518.67

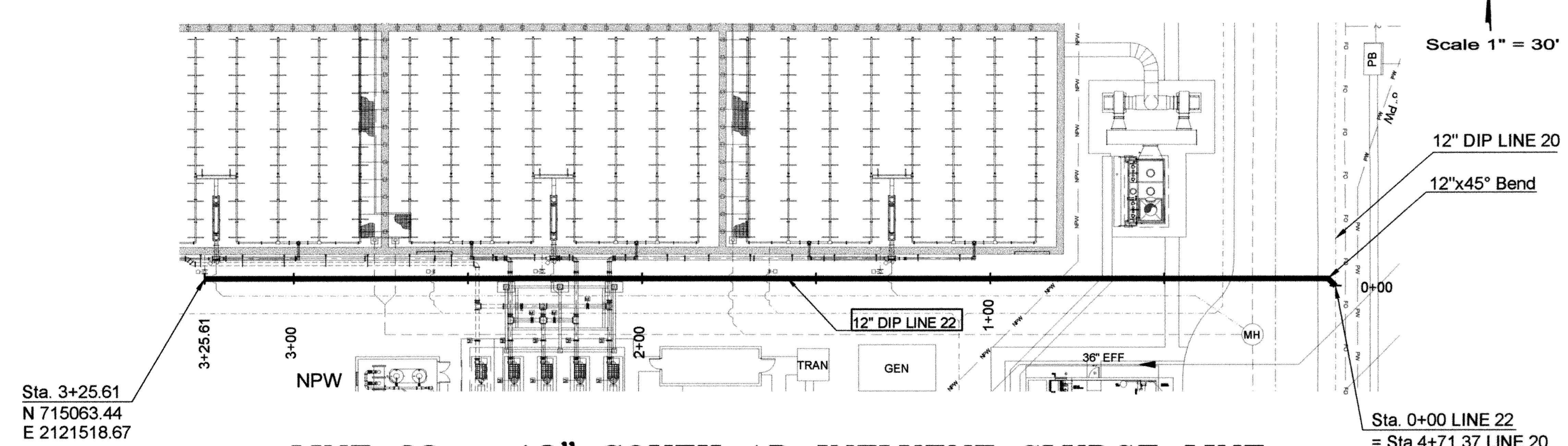
LINE 22

STA.	NORTHING	EASTING
Sta. 0+00.00	715061.32	2121843.41
Sta. 0+15.36	715063.44	2121518.67

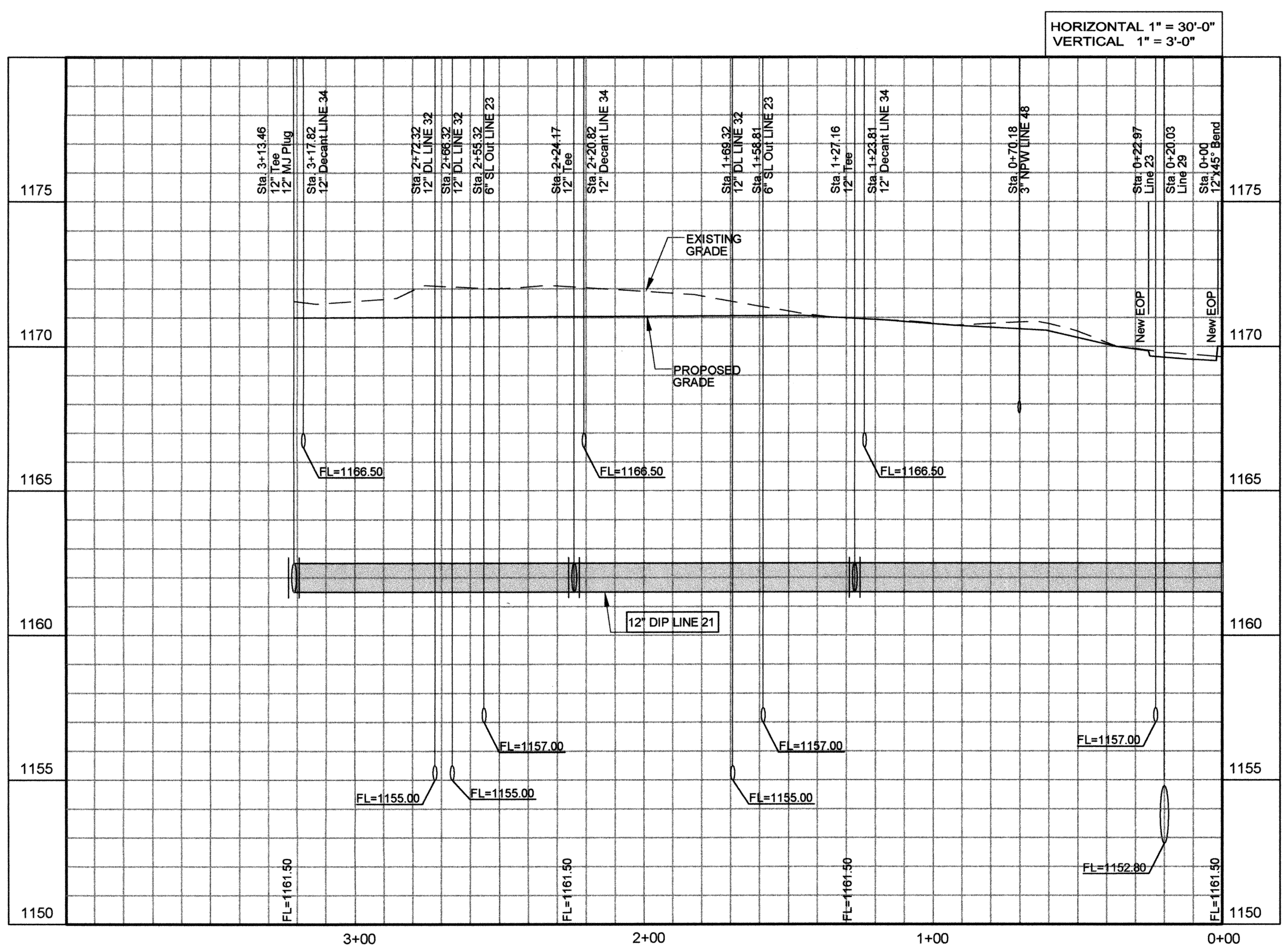


BEFORE YOU DIG.. CALL OKIE 1-800-522-6543

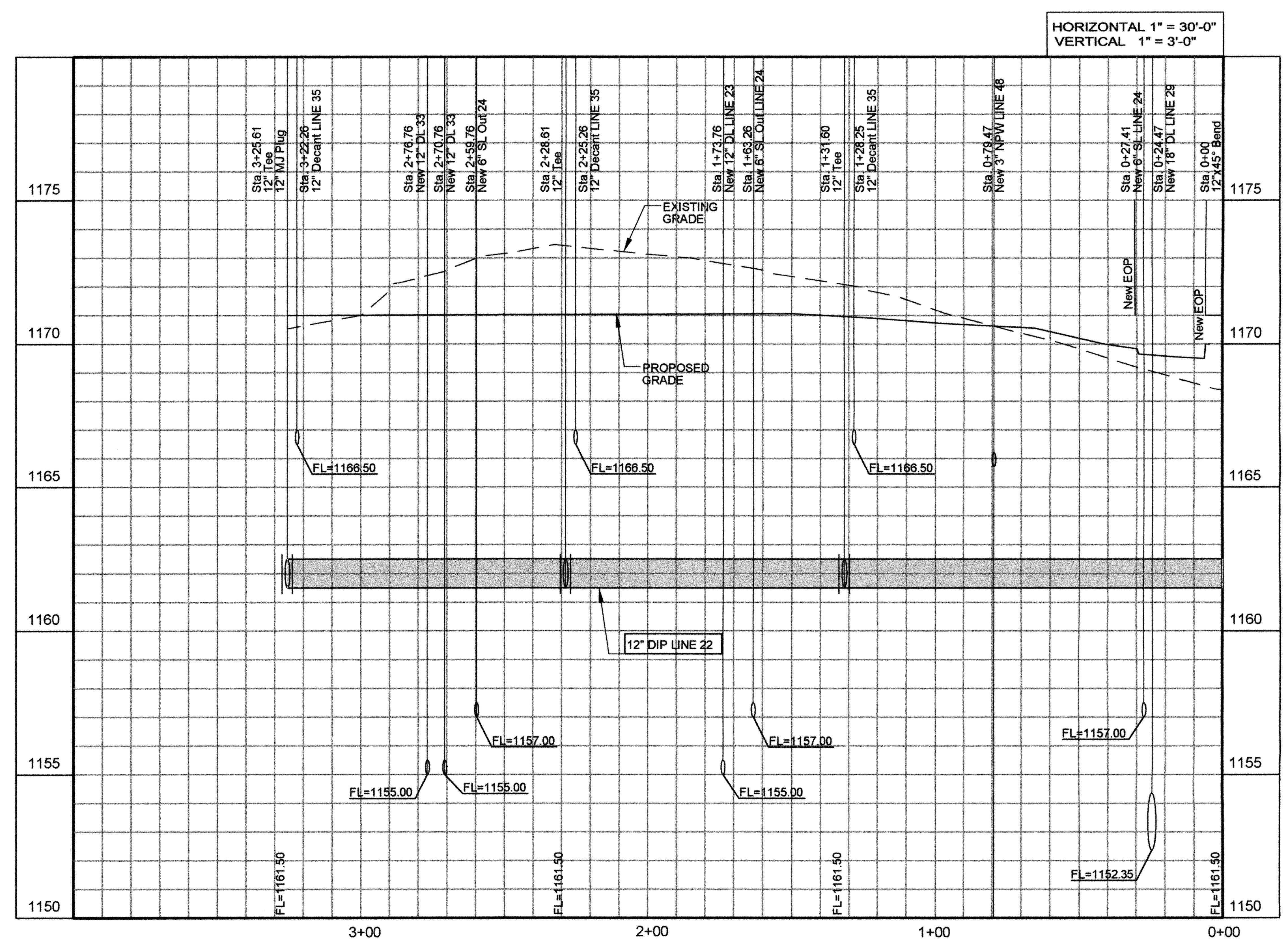
LINE 21 – 12" NORTH AD INFLUENT SLUDGE LINE
PLAN VIEW



LINE 22 – 12" SOUTH AD INFLUENT SLUDGE LINE
PLAN VIEW



LINE 21 – 12" NORTH AD INFLUENT SLUDGE LINE
PROFILE



LINE 22 – 12" SOUTH AD INFLUENT SLUDGE LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:

LINE 21 & LINE 22
12" N. & S. AD INFLUENT SLUDGE LINES

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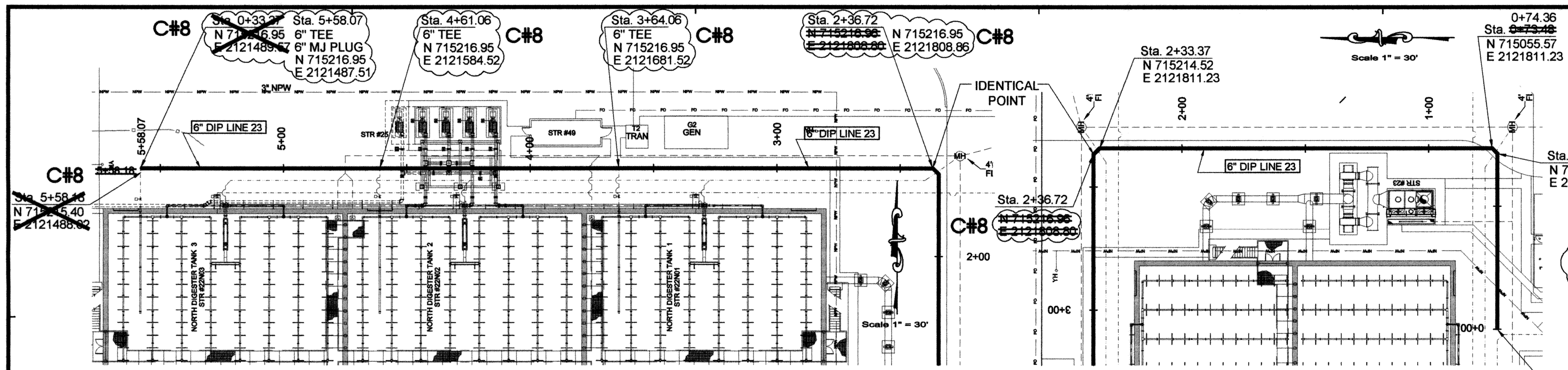
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

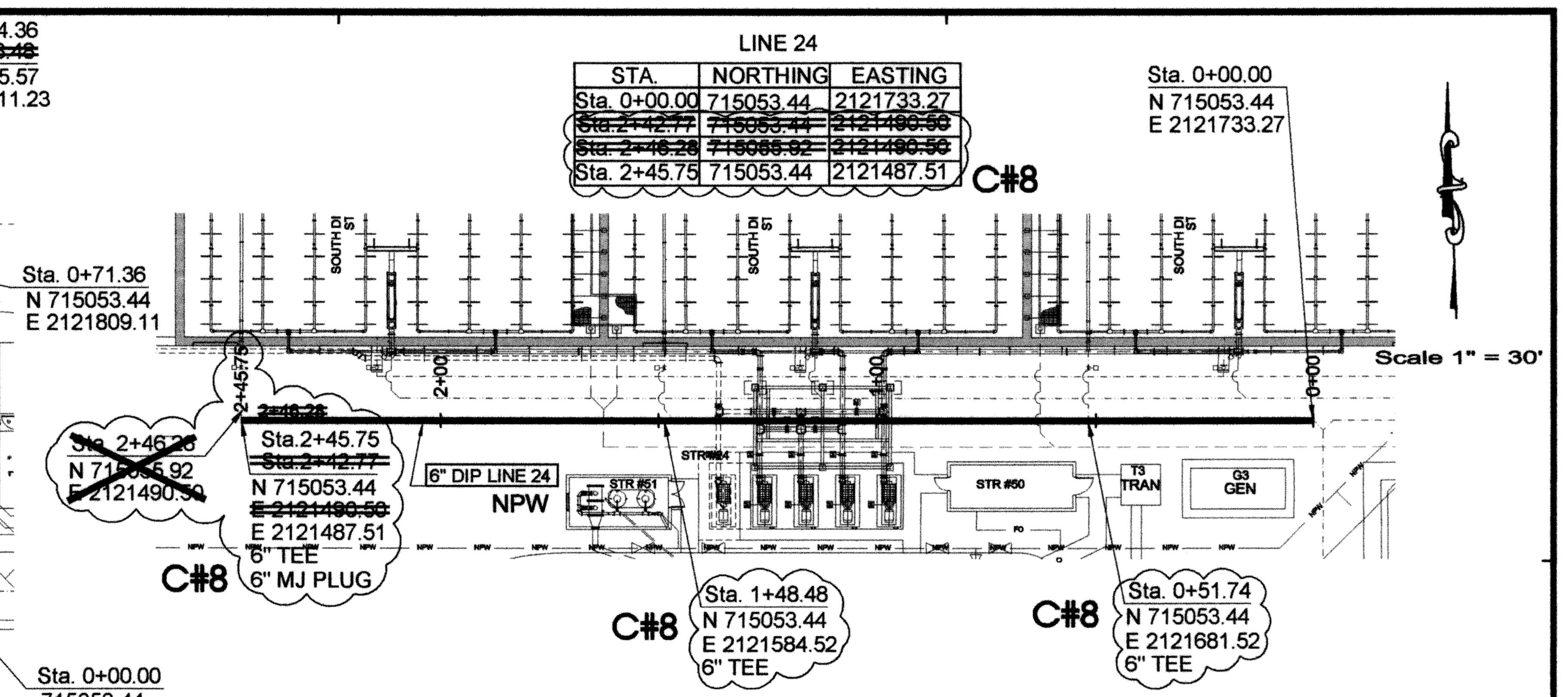


LINE 23 – NORTH AD DIGESTED SLUDGE LINE TO BFP
PLAN VIEW

LINE 23

STA.	NORTHING	EASTING
Sta. 0+00.00	715053.44	2121737.75
Sta. 0+71.36	715053.44	2121809.11
Sta. 0+74.36 ~~Sta. 0+73.48~~	715055.57	2121811.23
Sta. 2+33.37	715214.52	2121811.23
~~Sta. 2+36.72~~	~~715216.96~~	~~2121808.80~~
~~Sta. 0+33.37~~	~~715216.95~~	~~2121489.57~~
~~Sta. 5+58.18~~	~~715215.40~~	~~2121488.02~~
Sta. 2+36.72	715216.95	2121808.86
Sta. 5+58.07	715216.95	2121487.51

C#8

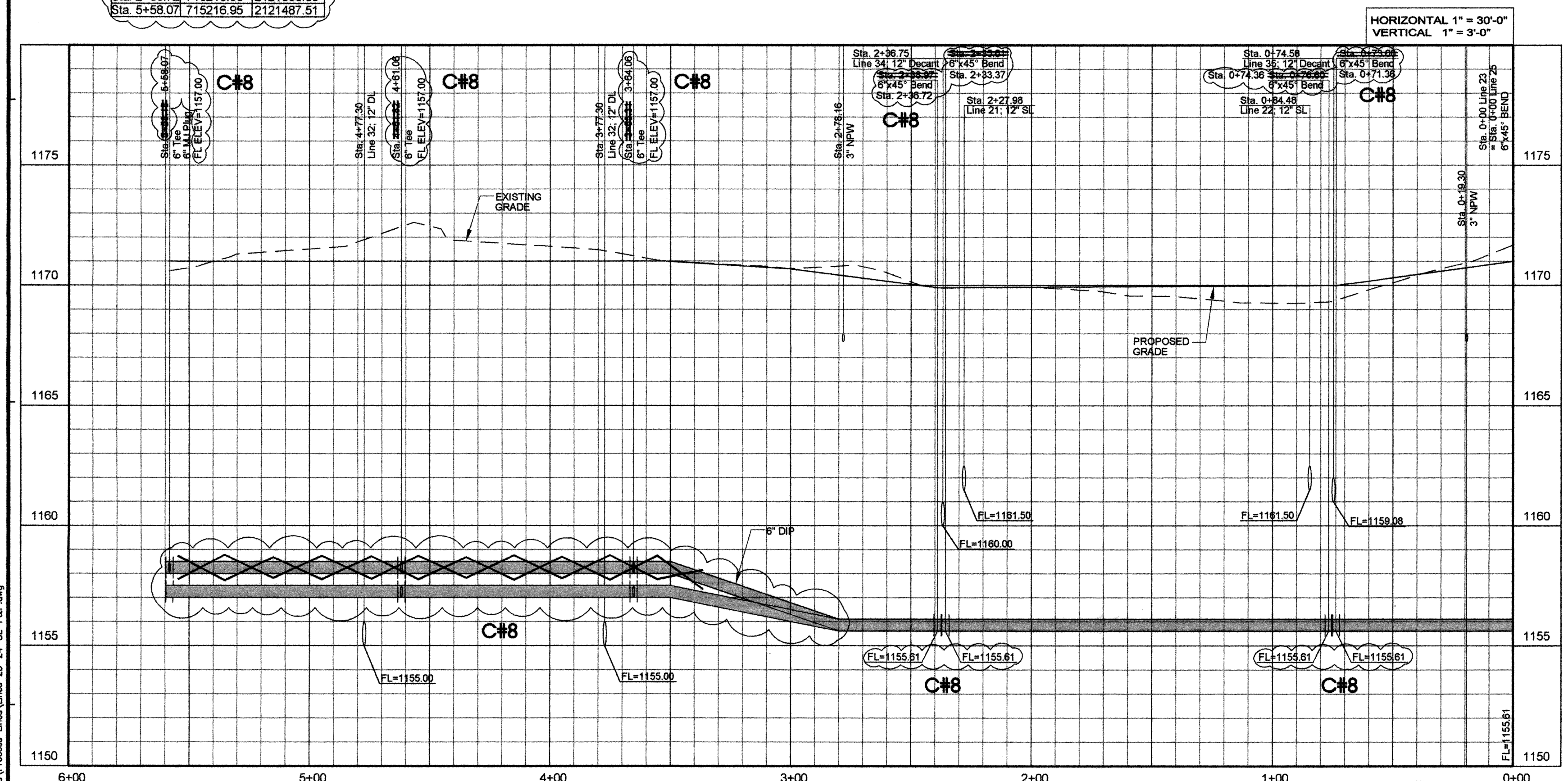


LINE 24 – SOUTH AD DIGESTED SLUDGE LINE TO BFP
PLAN VIEW

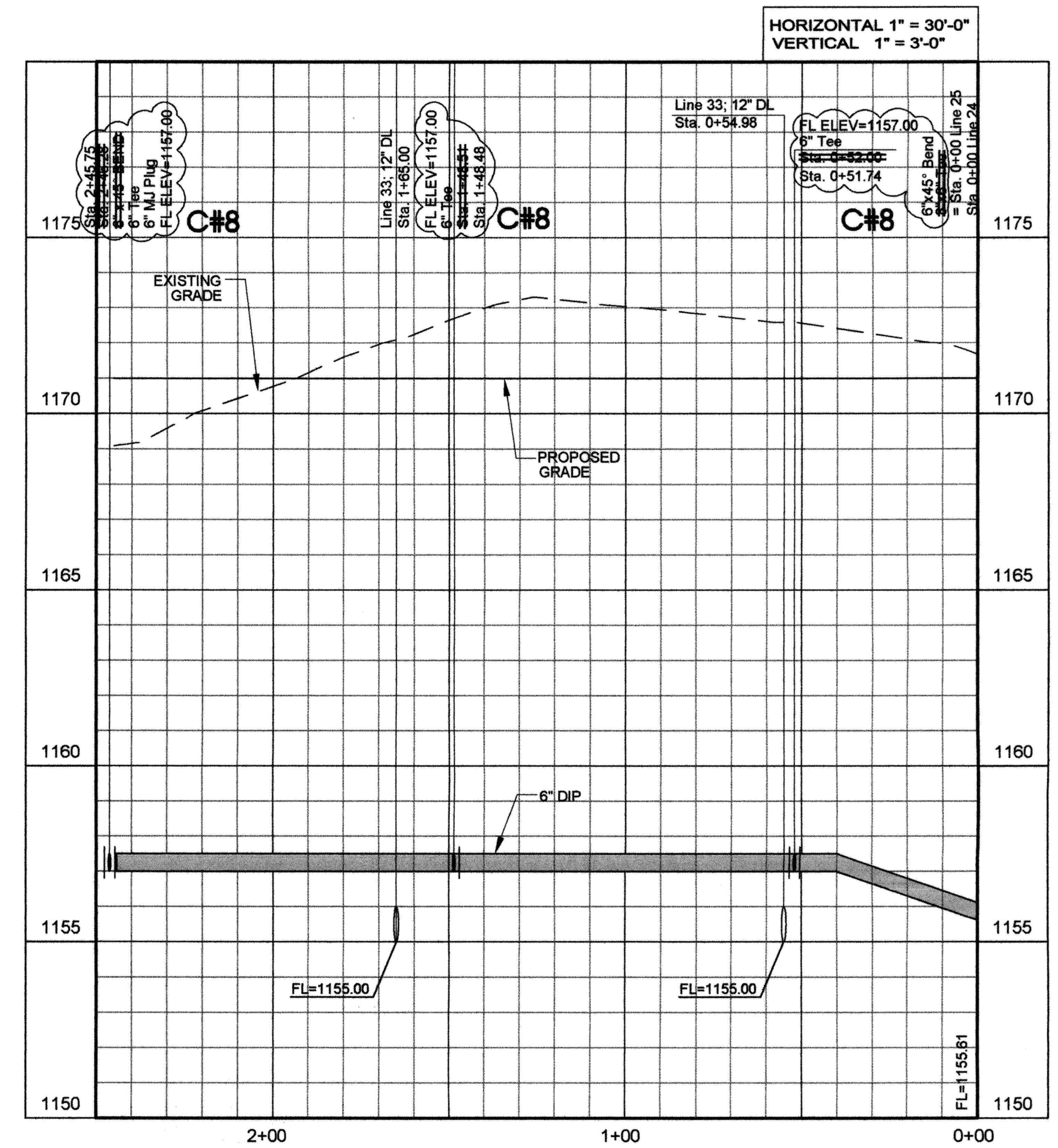
LINE 24

STA.	NORTHING	EASTING
Sta. 0+00.00	715053.44	2121733.27
~~Sta.2+42.77~~	~~715053.44~~	~~2121490.50~~
~~Sta. 2+46.28~~	~~715055.92~~	~~2121490.50~~
Sta. 2+45.75	715053.44	2121487.51

C#8



LINE 23 – 6" NORTH AD EFFLUENT SLUDGE LINE TO BFP
PROFILE



LINE 24 – 6" SOUTH AD EFFLUENT SLUDGE LINE TO BFP
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

SATISH DASHARATHY 11456 OKLAHOMA

RECORD DRAWINGS

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LINES 23 & 24
6" AD DIGESTED
SLUDGE LINES TO BFP

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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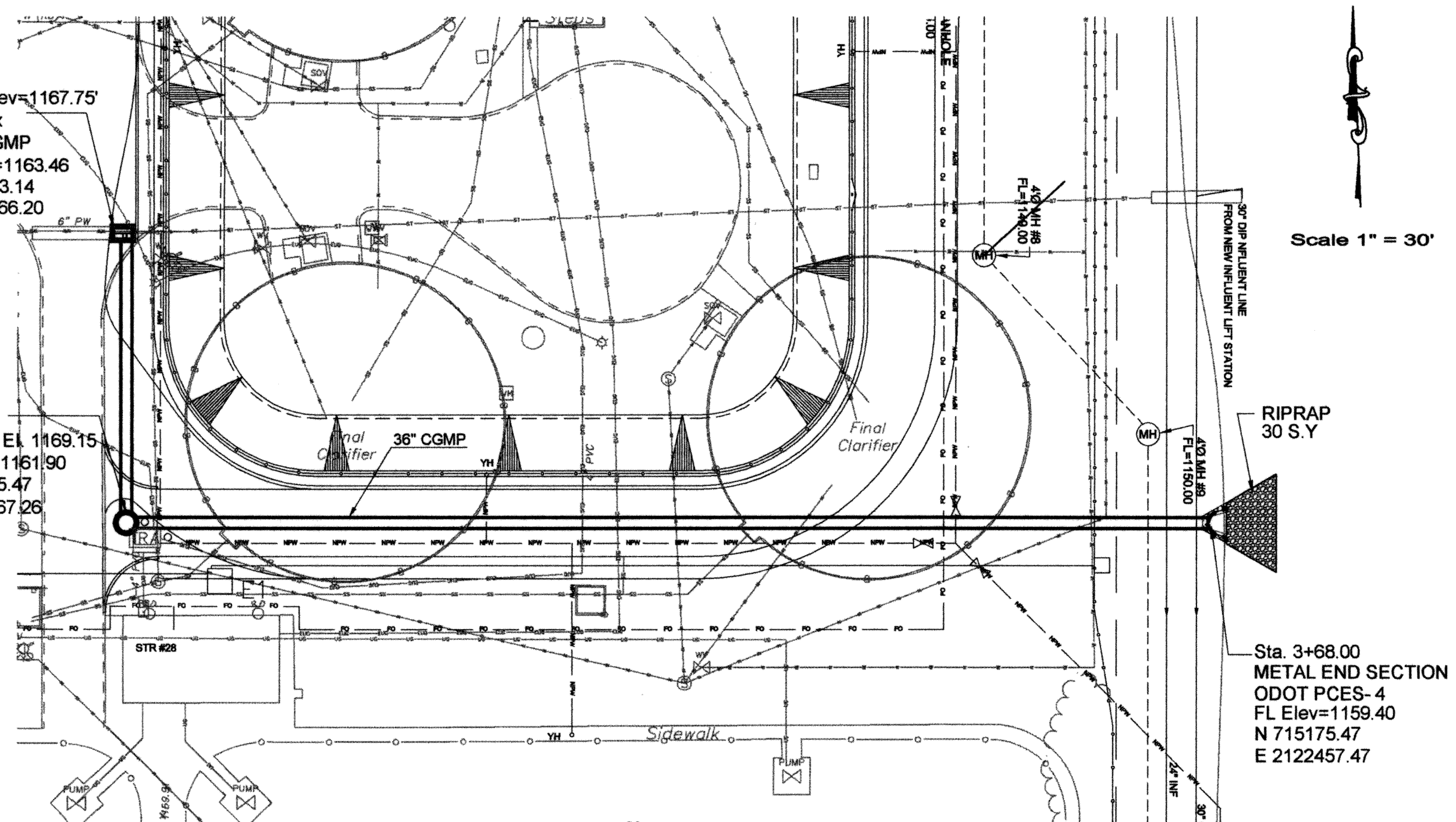
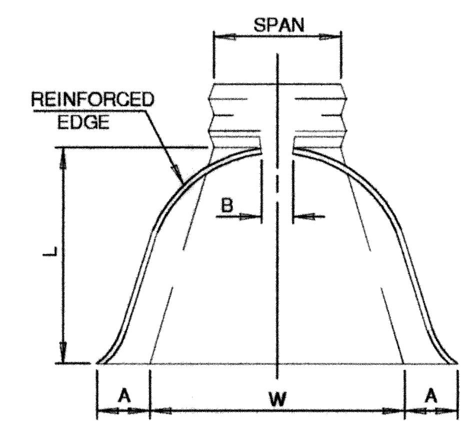
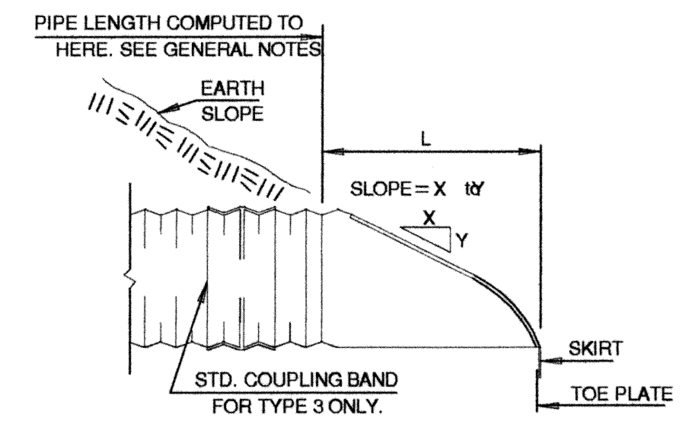


LINE 37 –36" STORM SEWER
PROFILE



METAL END SECTION
PLAN VIEW

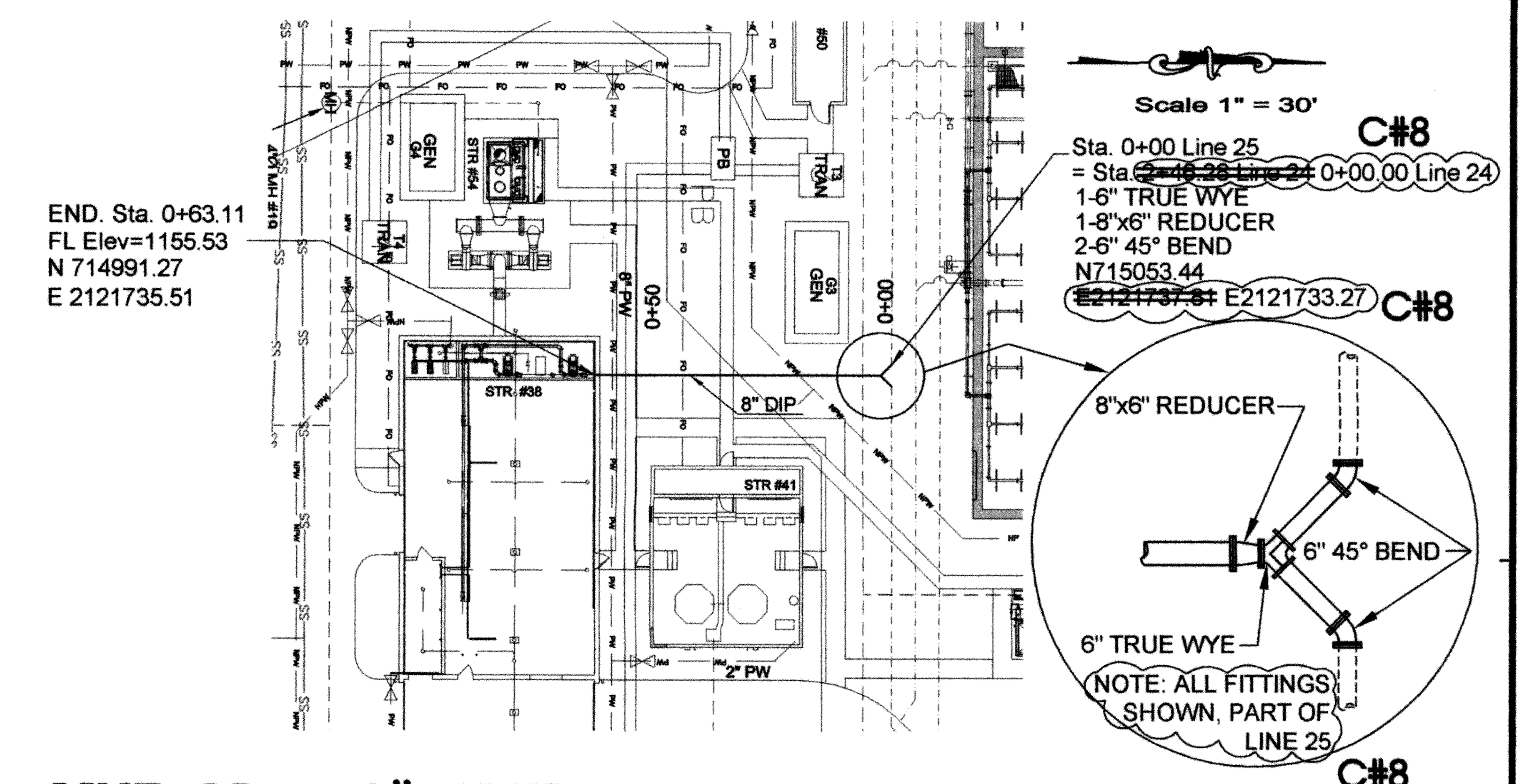


METAL END SECTION
SIDE VIEW

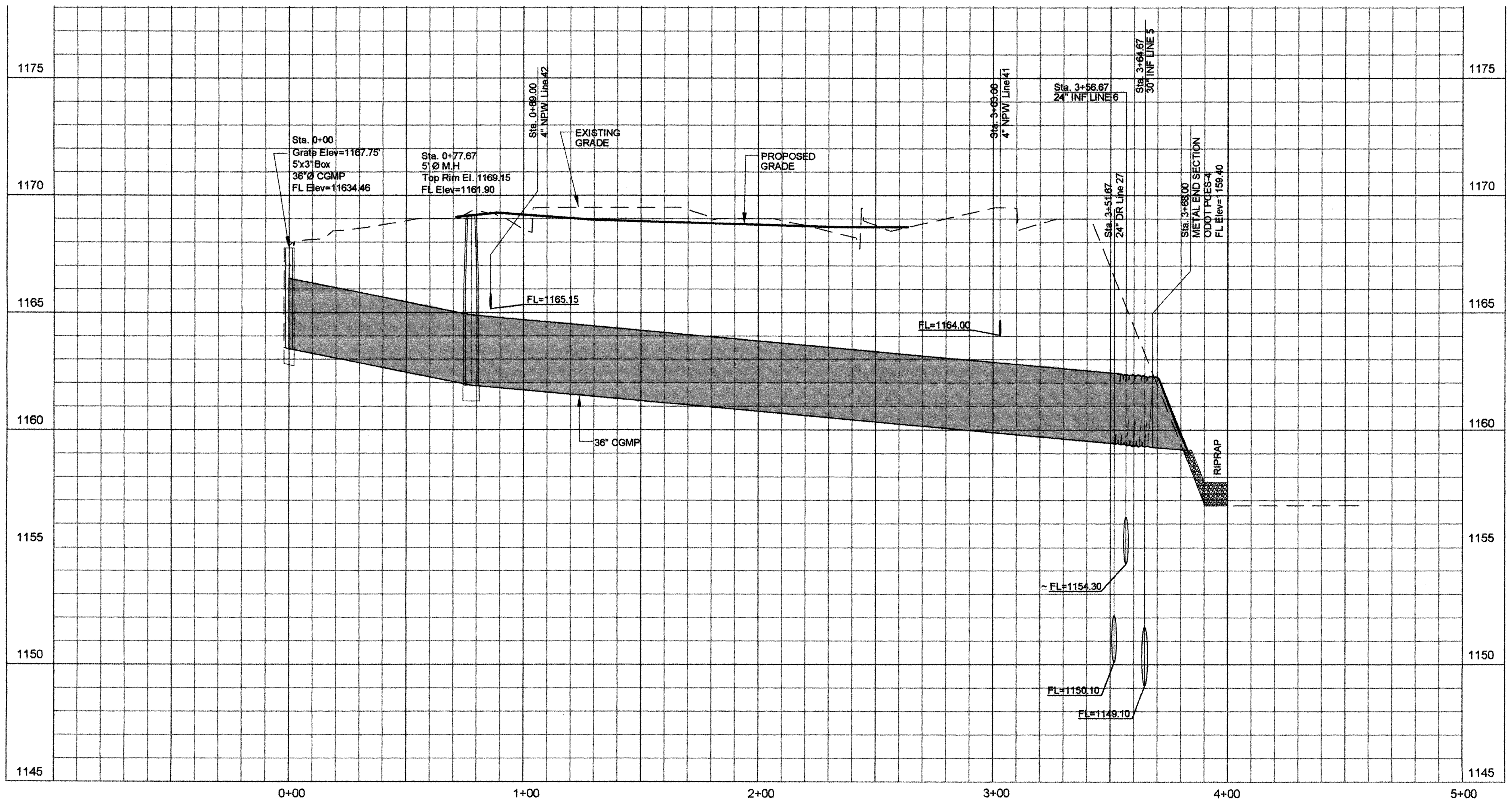
DIMENSIONS OF END SECTIONS
FOR ROUND METAL PIPE

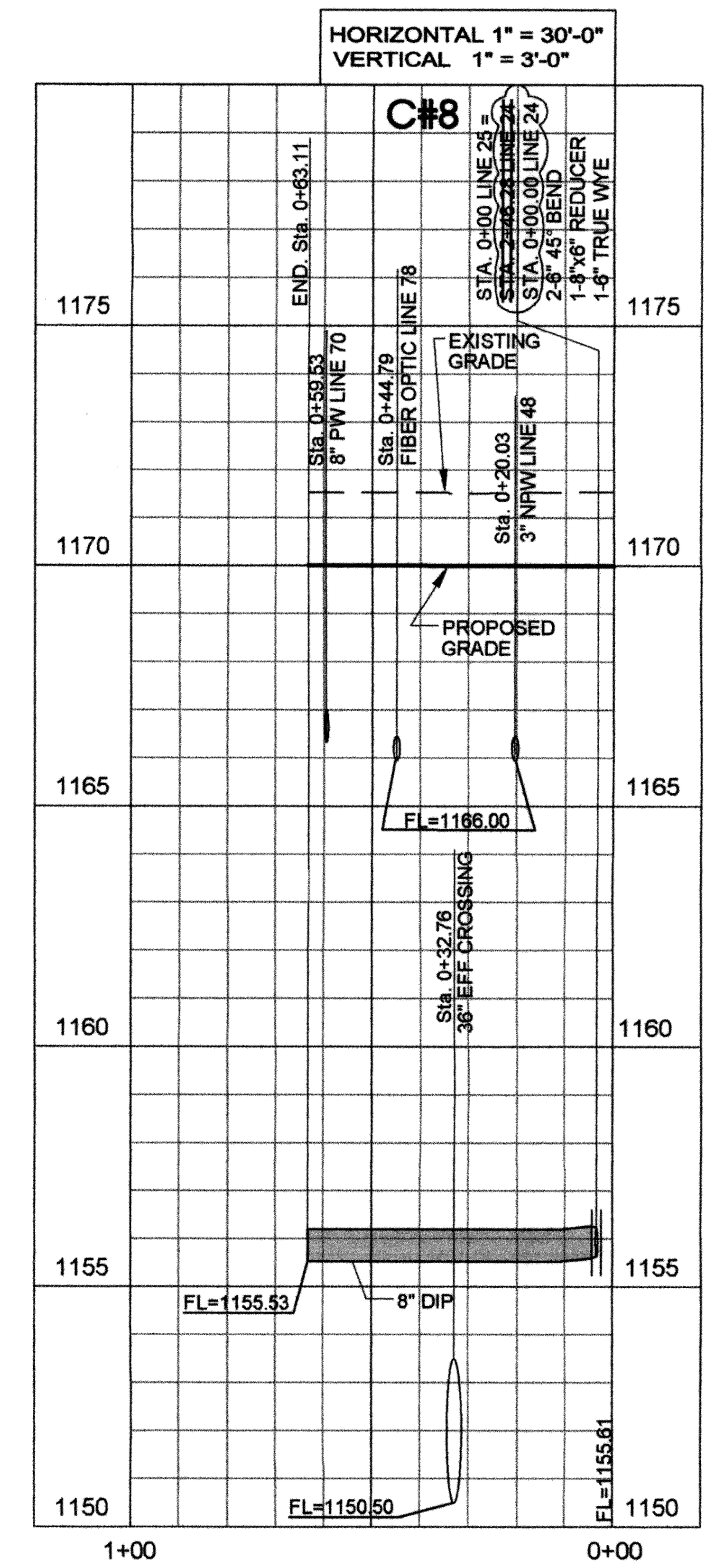
PIPE DIAM. IN.	GA.	A IN.	B IN.	H IN.	L IN.	W IN.	APPROX. SLOPE	BODY TYPE
36	14	14	19	9	60	72	2 1/2:1	2 PC.

ODOT PCES -4



LINE 25 – 8" SLUDGE LINE FROM AD TO BFP
PLAN VIEW





LINE 25 – 8" SLUDGE LINE FROM AD TO BFP
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

SATISH DASHARATHY 11466 2-27-11 OKLAHOMA

RECORD DRAWINGS

LINE 37 –36" STORM SEWER
PROFILE

REVISIONS:	DATE:
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LINES 25 8" SLUDGE LINE
FROM AD TO BFP
& LINE 37 36" STORM SEWER

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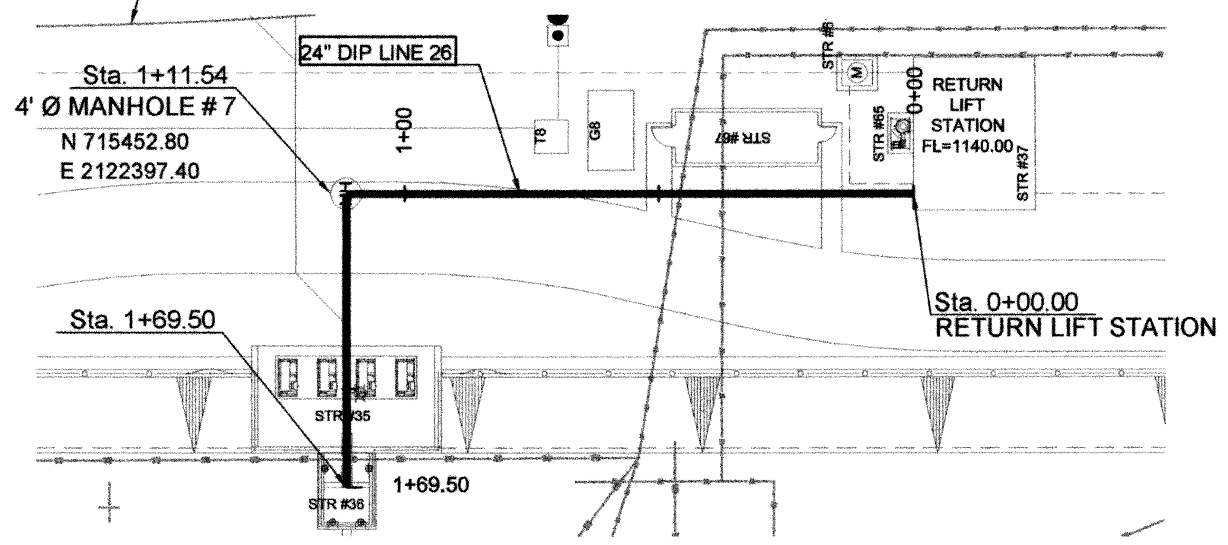
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 26

MH #	NORTHING	EASTING
#7	715452.80	2122397.40

Scale 1" = 30'

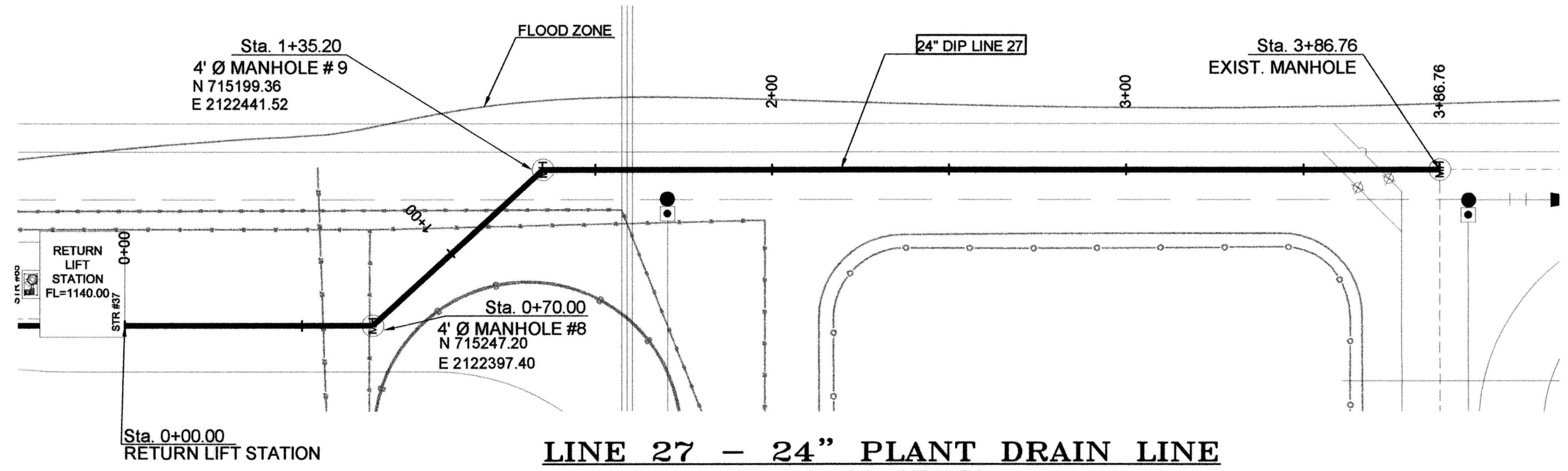


LINE 26 – 24" NORTH POND DRAIN LINE
PLAN VIEW

LINE 27

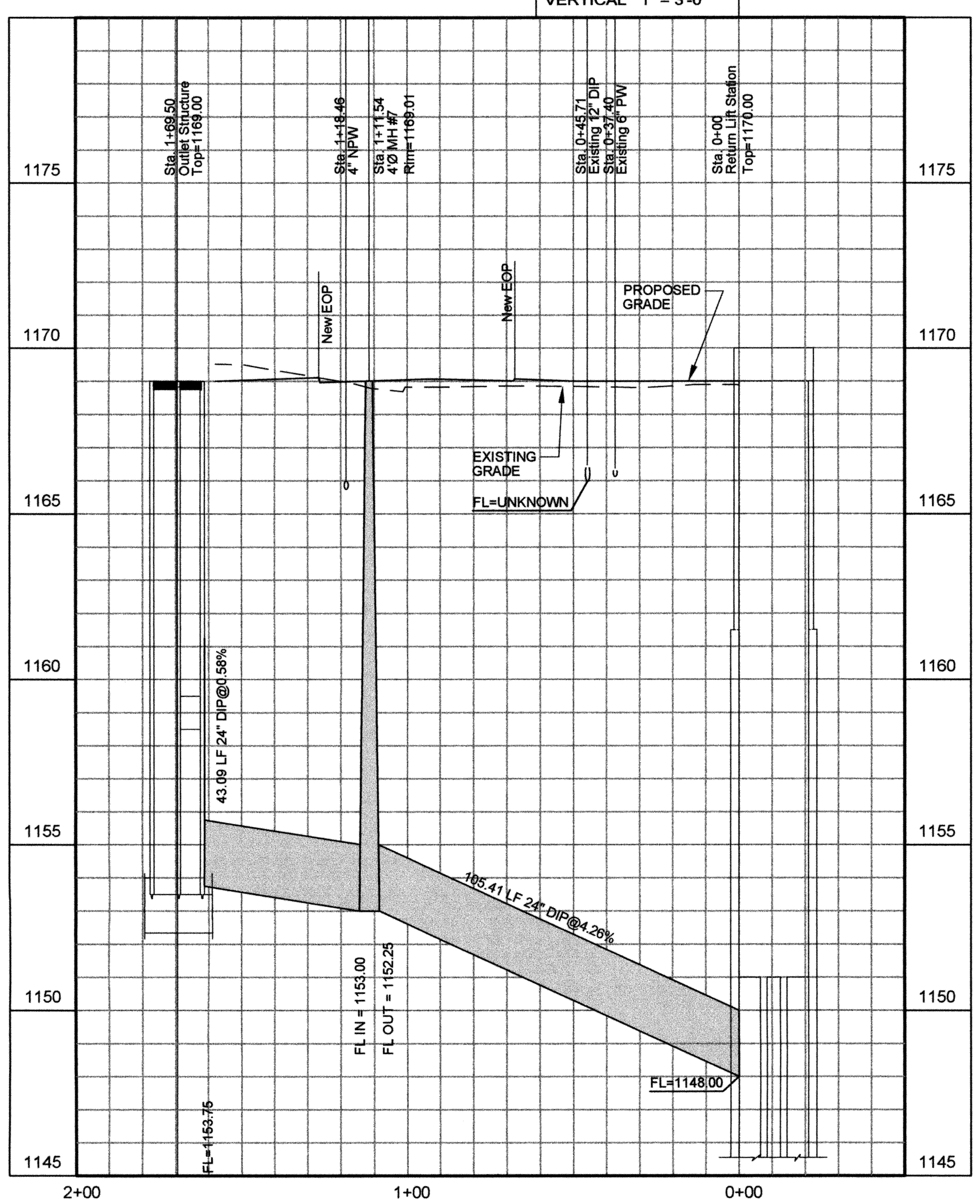
MH #	NORTHING	EASTING
#8	715247.20	2122397.40
#9	715199.25	2122441.52

Scale 1" = 30'



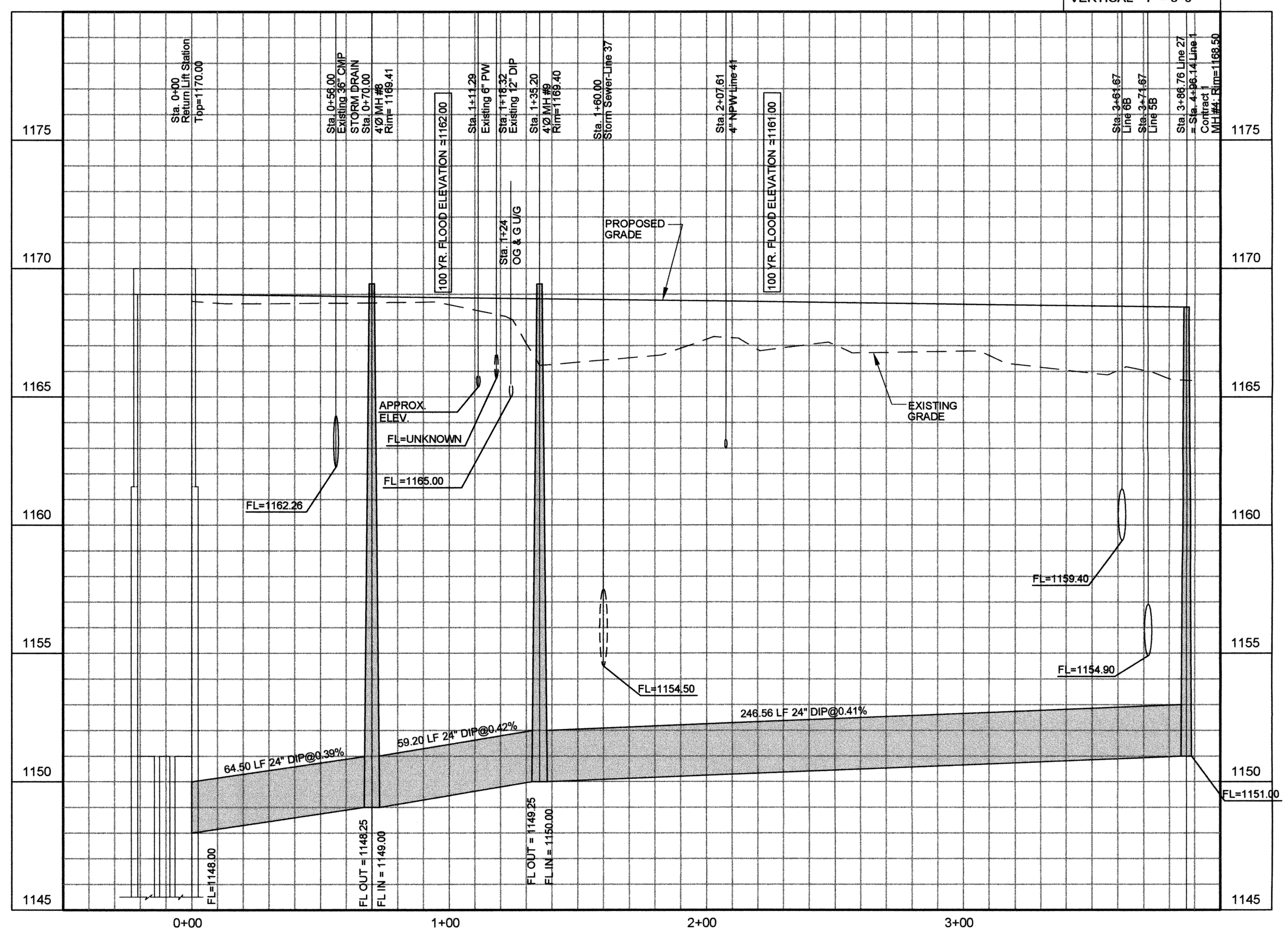
LINE 27 – 24" PLANT DRAIN LINE
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 26 – 24" NORTH POND DRAIN LINE
PROFILE

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 27 – 24" PLANT DRAIN LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:

LINES 26 & 27
24" DRAIN LINES
NORTH POND & PLANT MAIN

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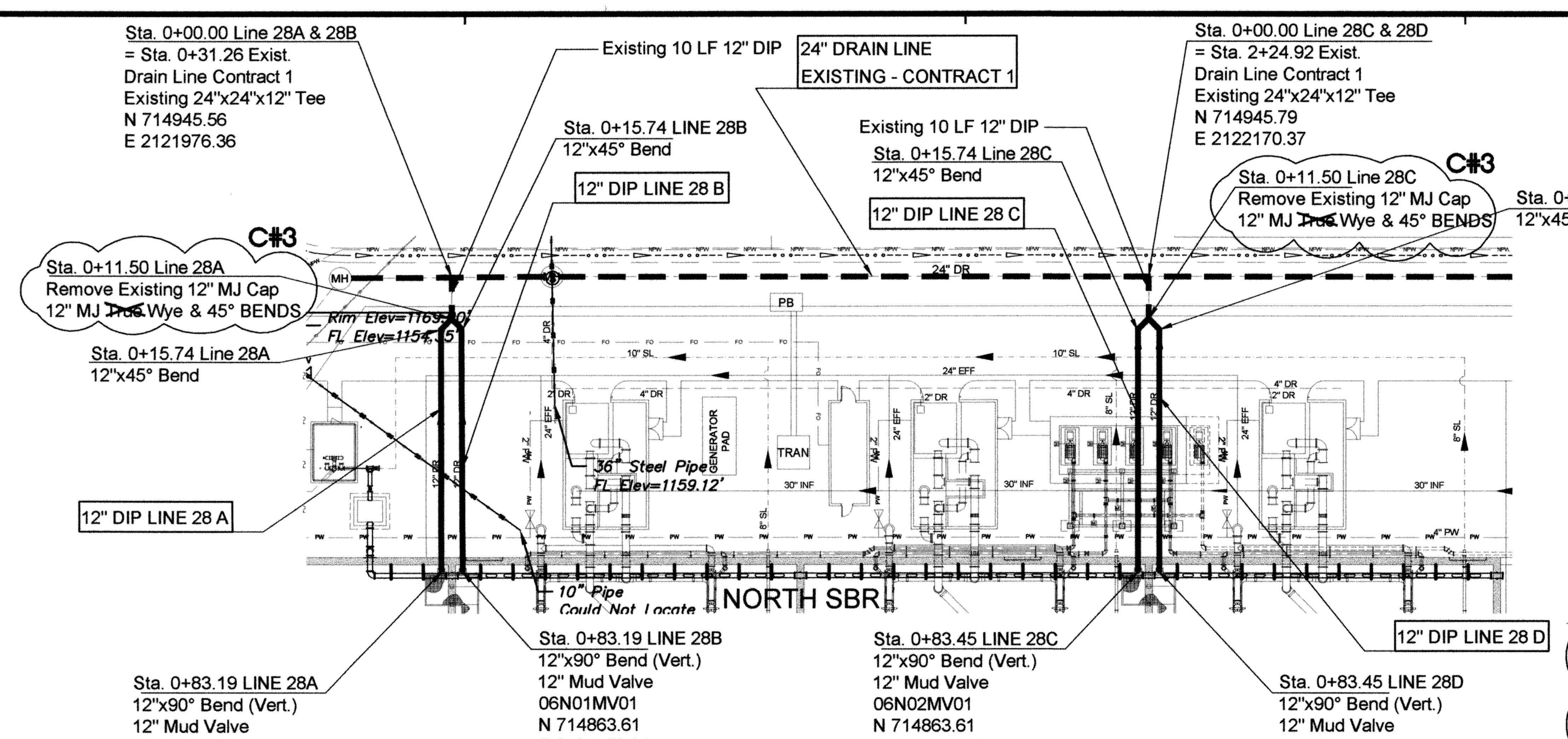
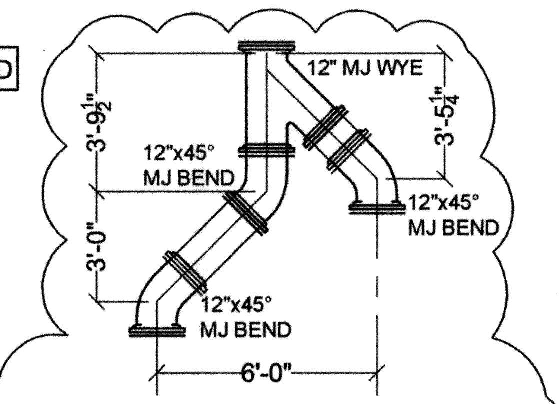
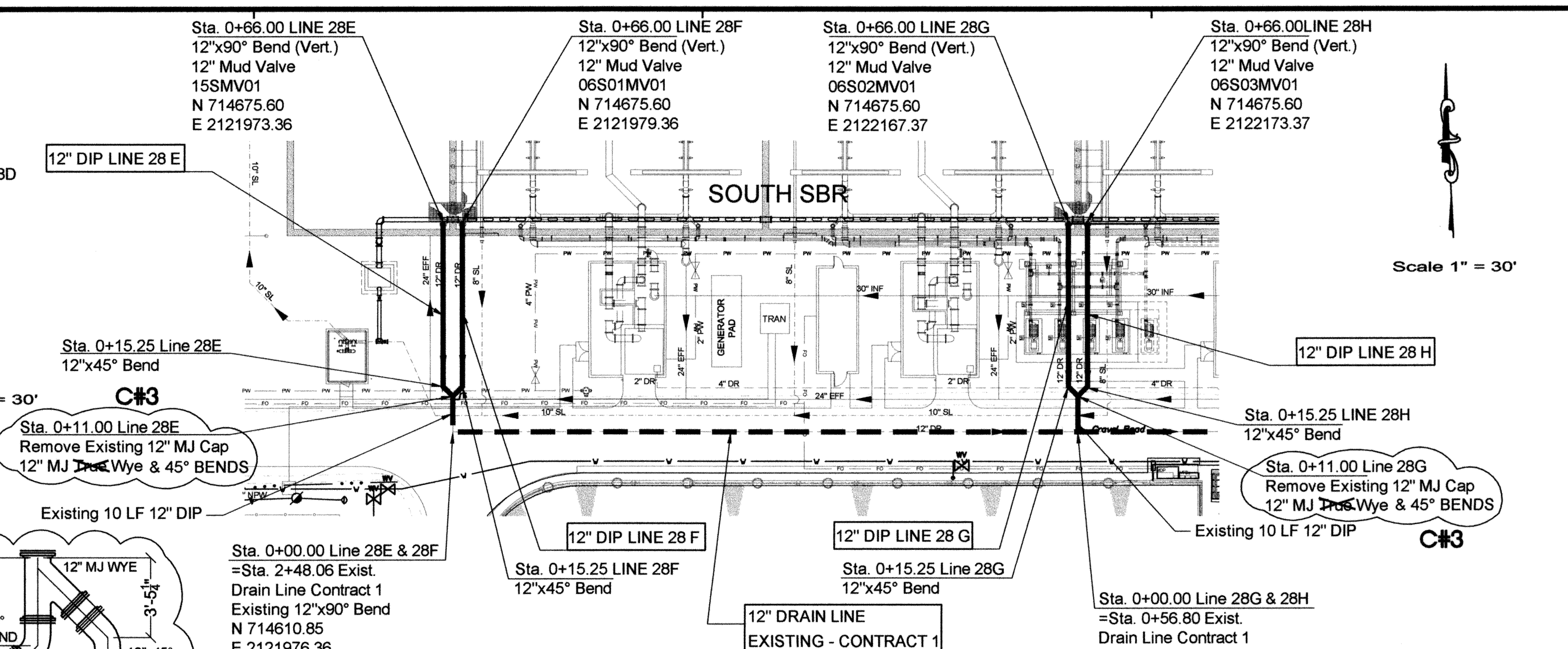
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



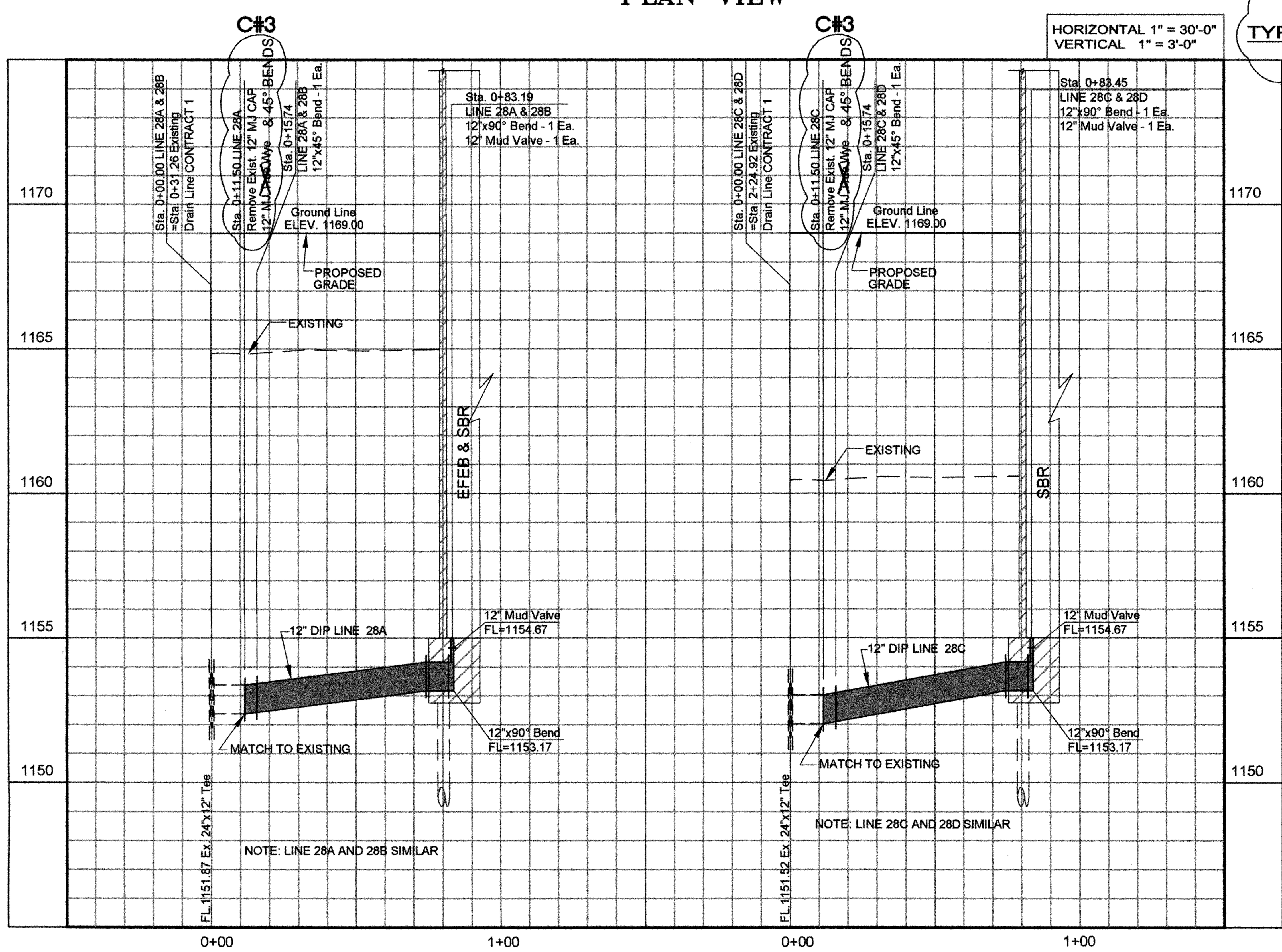
LINE 28A, 28B, 28C & 28D
12" NORTH SBR DRAIN LINES
PLAN VIEW



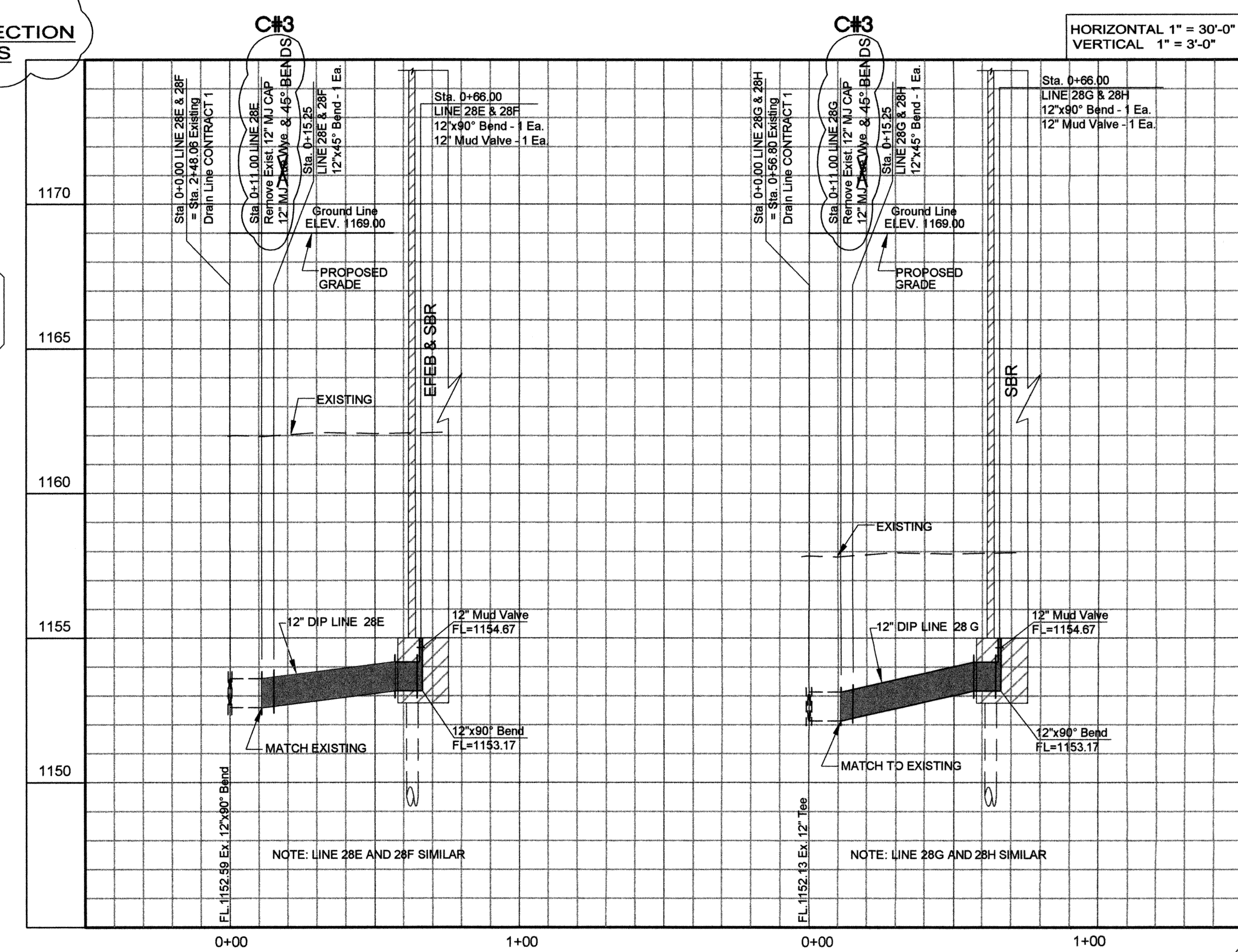
TYPICAL WYE CONNECTION WITH 45° BENDS
NTS
C#3



LINE 28E, 28F, 28G & 28H
12" SOUTH SBR DRAIN LINES
PLAN VIEW



LINE 28A, 28B, 28C & 28D
12" NORTH SBR DRAIN LINES
PROFILE



LINE 28E, 28F, 28G & 28H
12" SOUTH SBR DRAIN LINES
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
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LINES 28A, 28B, 28C, 28D, 28E, 28F, 28G, & 28H
SBR DRAIN LINES

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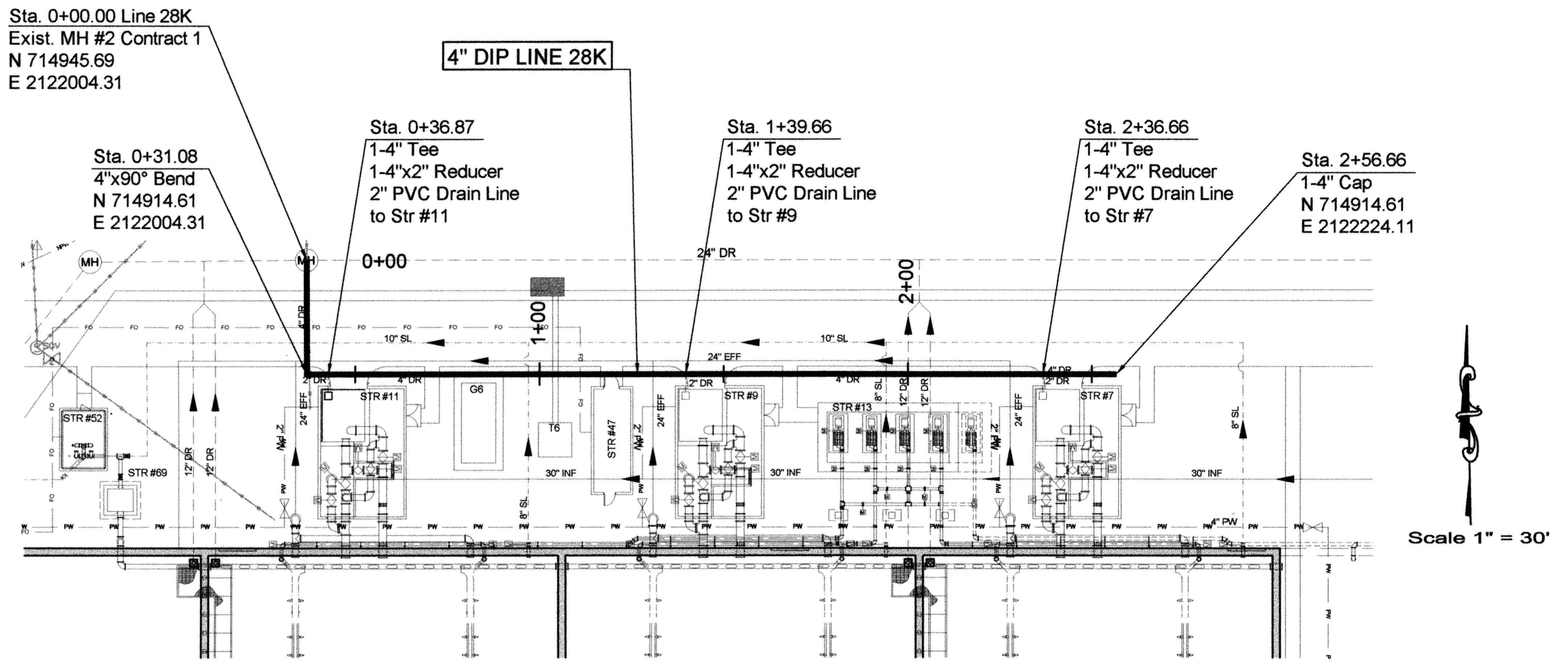
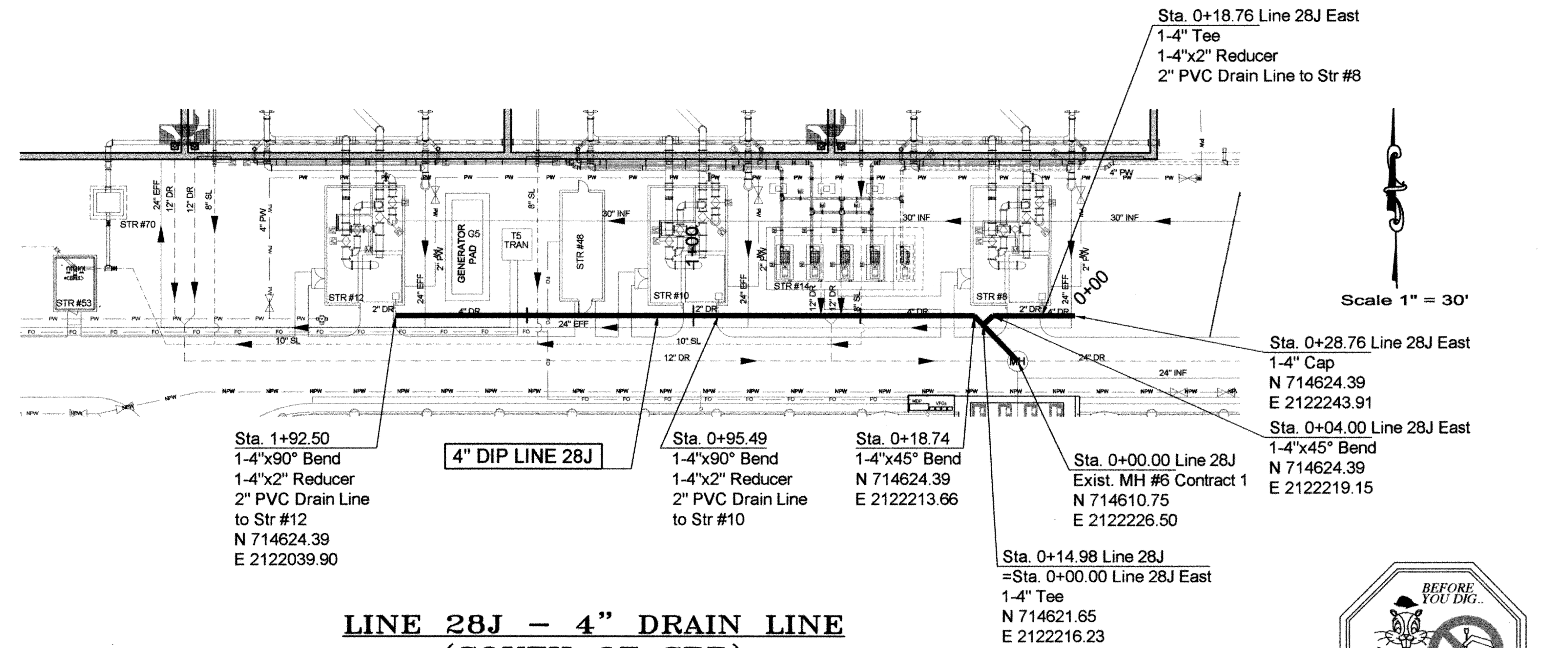
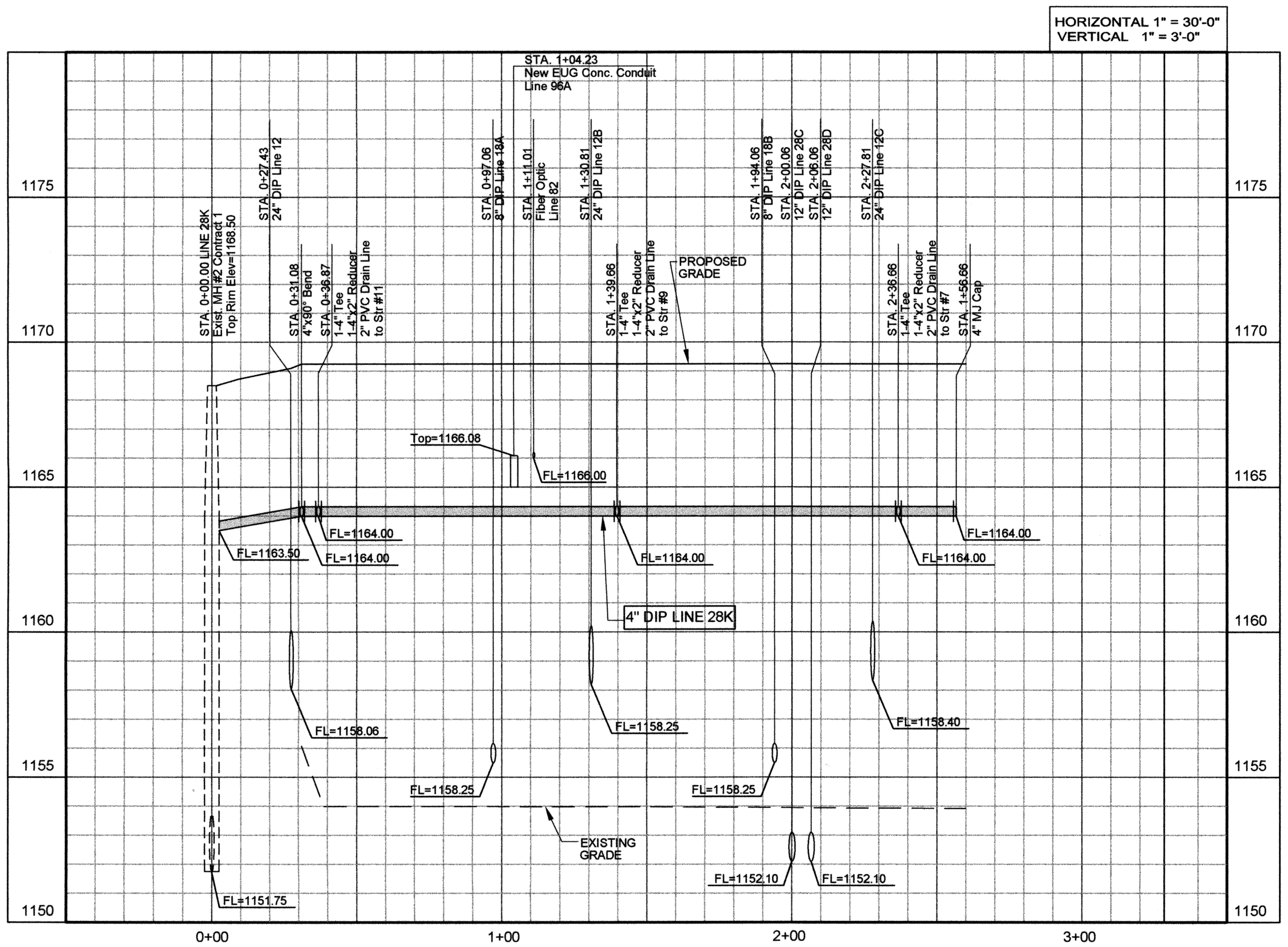
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



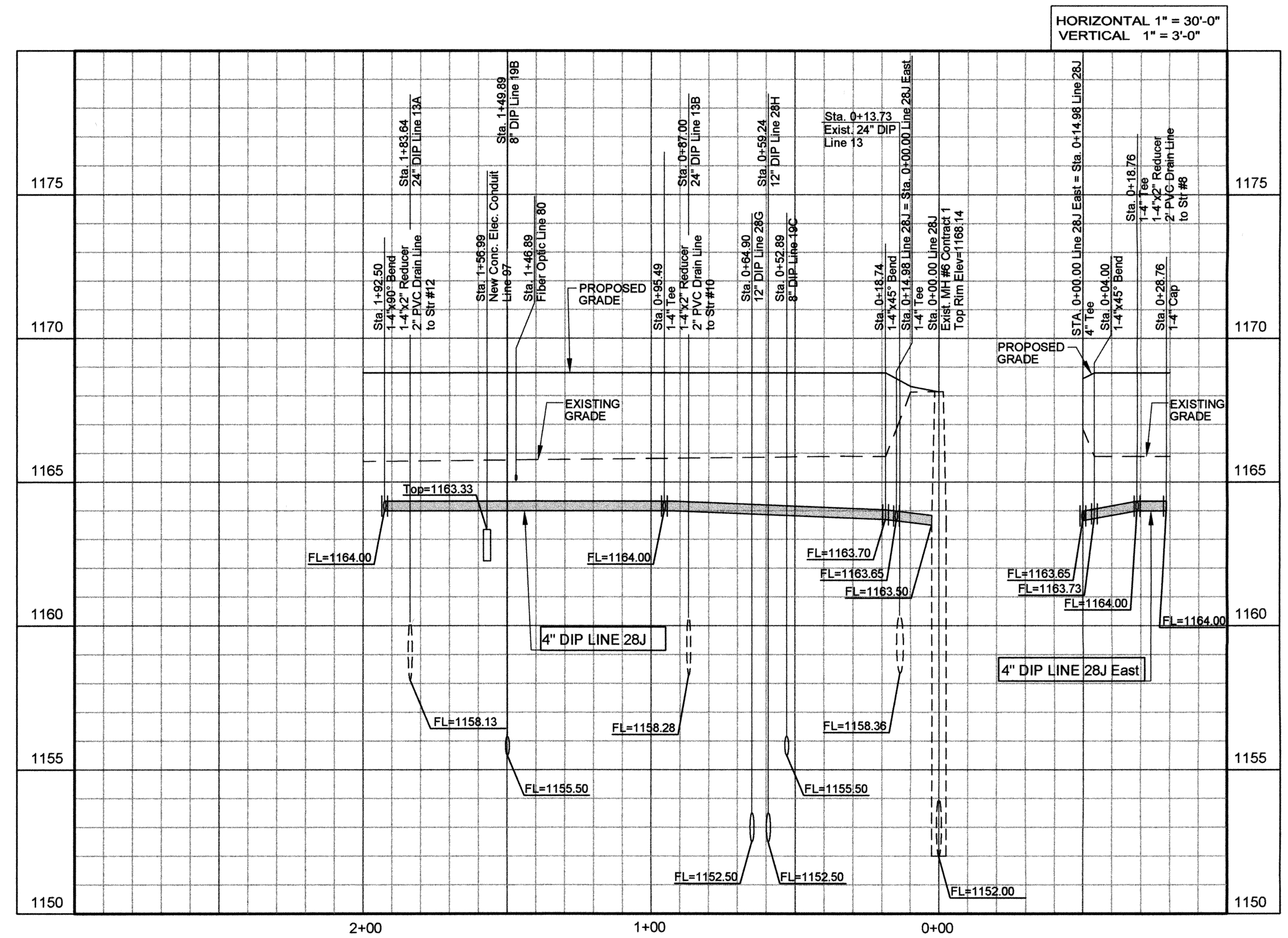
LINE 28K – 4" DRAIN LINE
(NORTH OF SBR)
PLAN VIEW



LINE 28J – 4" DRAIN LINE
(SOUTH OF SBR)
PLAN VIEW



LINE 28K – 4" DRAIN LINE
(NORTH OF SBR)
PROFILE



LINE 28J – 4" DRAIN LINE
(SOUTH OF SBR)
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:

LINES 28J & 28K
4" DRAIN LINES

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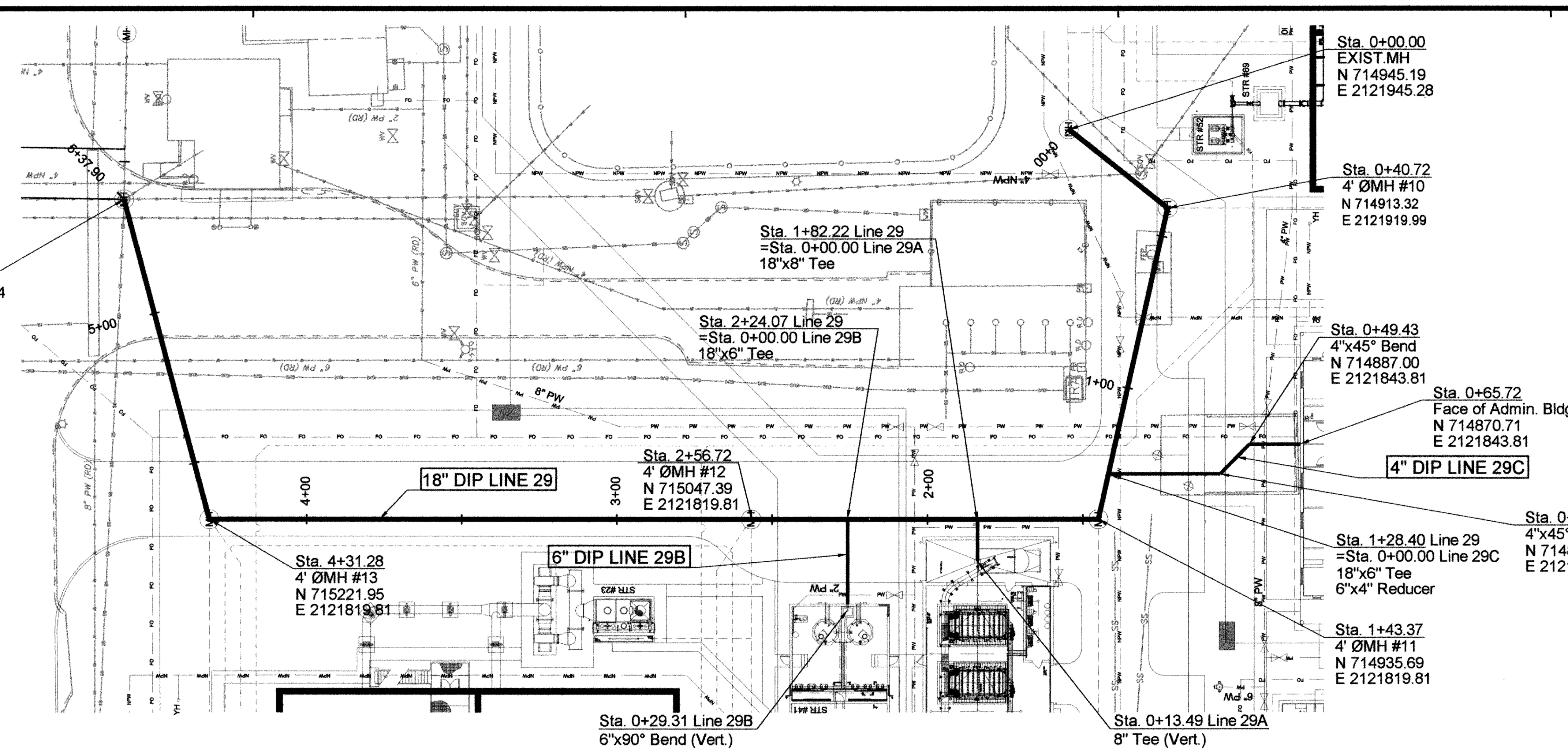
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, CONTRACT 1, MOORE, OK

LINE 29

MH #	NORTHING	EASTING
#10	714913.32	2121919.99
#11	714935.69	2121819.81
#12	715047.39	2121819.81
#13	715221.95	2121819.81
#14	715249.37	2121922.84



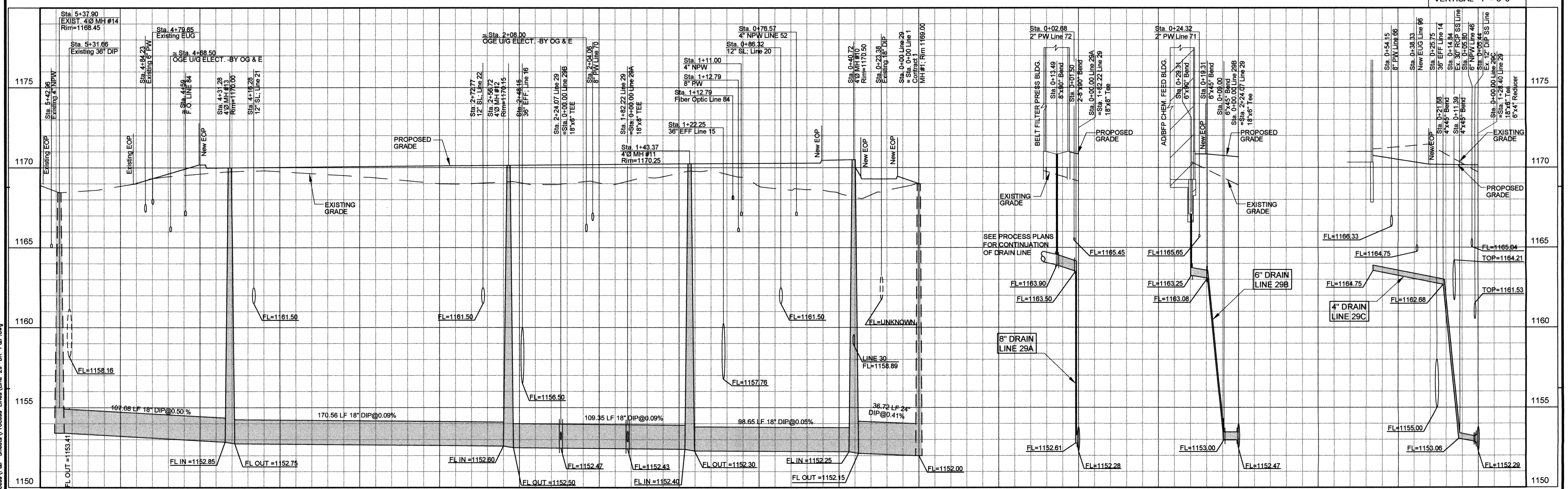
Scale 1" = 30'

BEFORE YOU DIG..
CALL OKIE
1-800-522-6543

RECORD DRAWINGS

LINE 29, 29A, 29B & 29C DRAIN LINES
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 29 – 18" DRAIN LINE
PROFILE

LINE 29A
PROFILE

LINE 29B
PROFILE

LINE 29C
PROFILE

REVISIONS:	DATE:

LINE 29, 29A, 29B & 29C
DRAIN LINES

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	5/21/2010	AS NOTED	26 OF 63

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

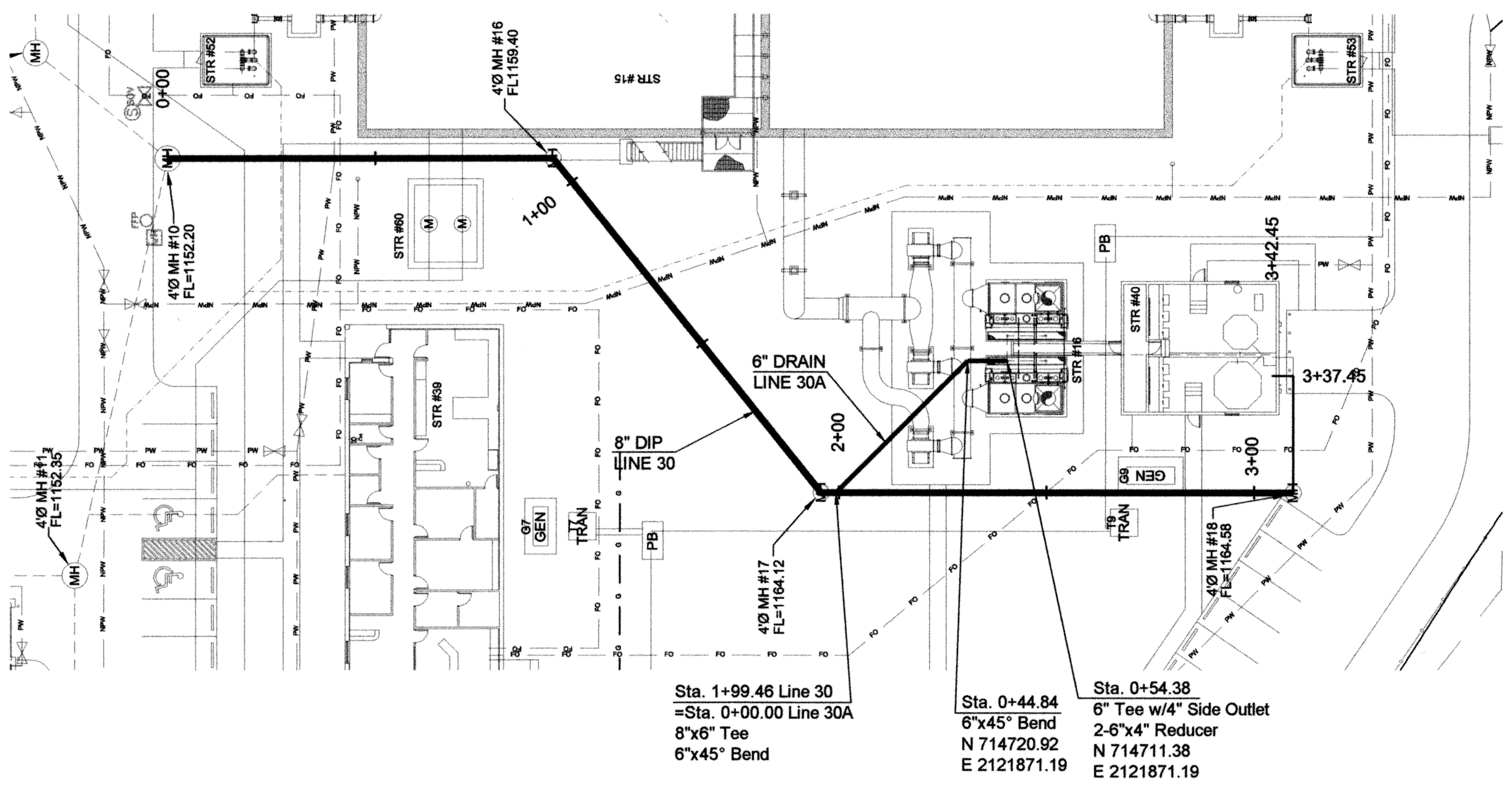
LINE 29

MH #	NORTHING	EASTING
#10	714913.43	2121919.85

LINE 30

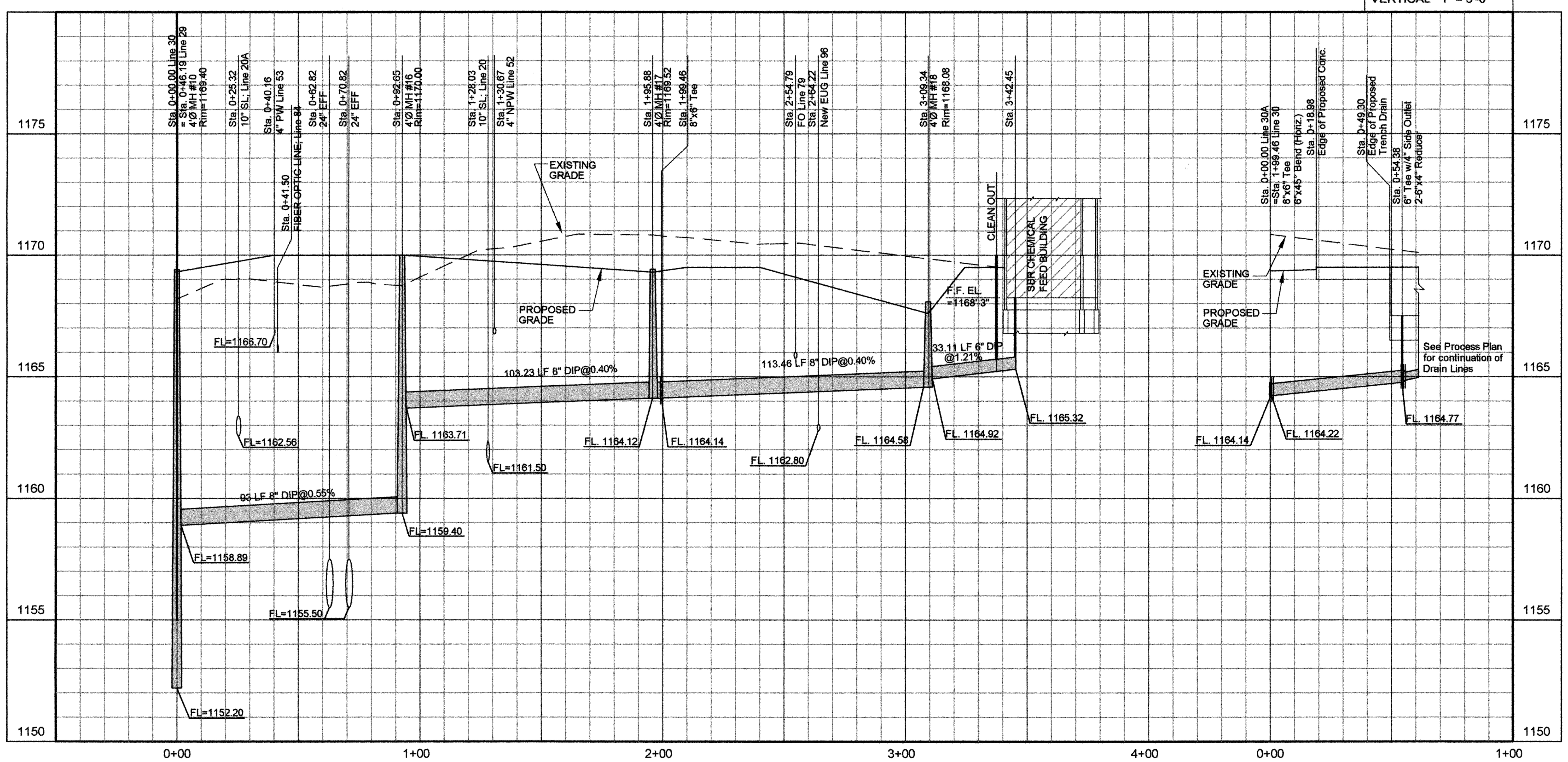
MH #	NORTHING	EASTING
#16	714820.78	2121919.85
#17	714756.00	2121849.48
#18	714642.4285	2121839.62

Scale 1" = 30'



LINE 30 & 30A DRAIN LINES
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 30 – 8" & 6" DRAIN LINE
PROFILE

LINE 30A – 6" DRAIN LINE
PROFILE

RECORD DRAWINGS

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

REVISIONS:	DATE:

LINE 30 & 30A DRAIN LINES

EAGLE OFFICE CENTER
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CERTIFICATE OF AUTHORIZATION NO. CA2088

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S.D.		S.D.	S.D.	5/24/2010	AS NOTED	27 OF 63

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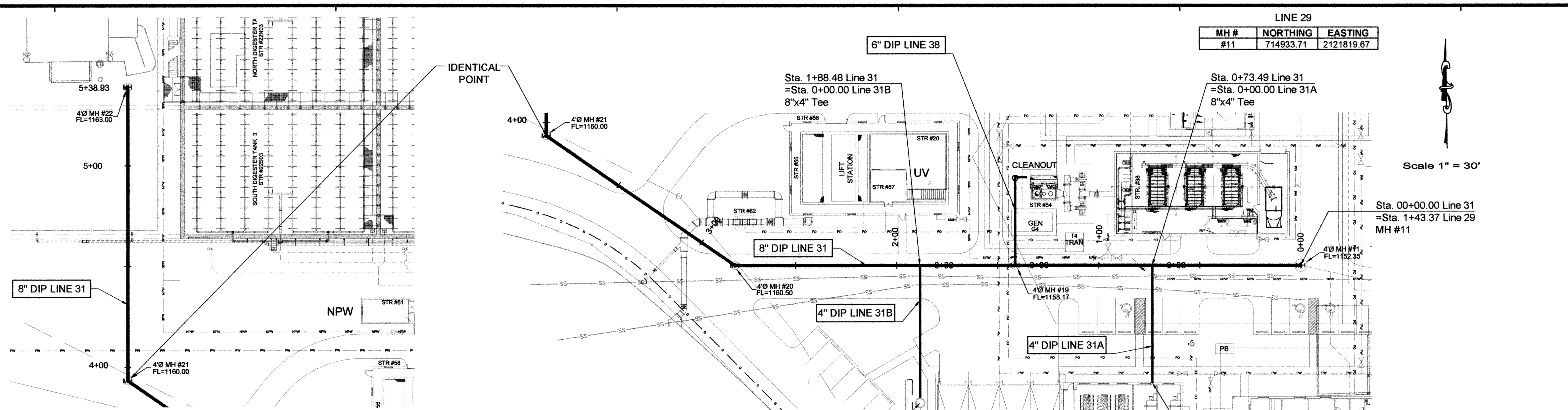
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

RECORD DRAWINGS

LINE 29

MH #	NORTHING	EASTING
#11	714933.71	2121819.67

Scale 1" = 30'

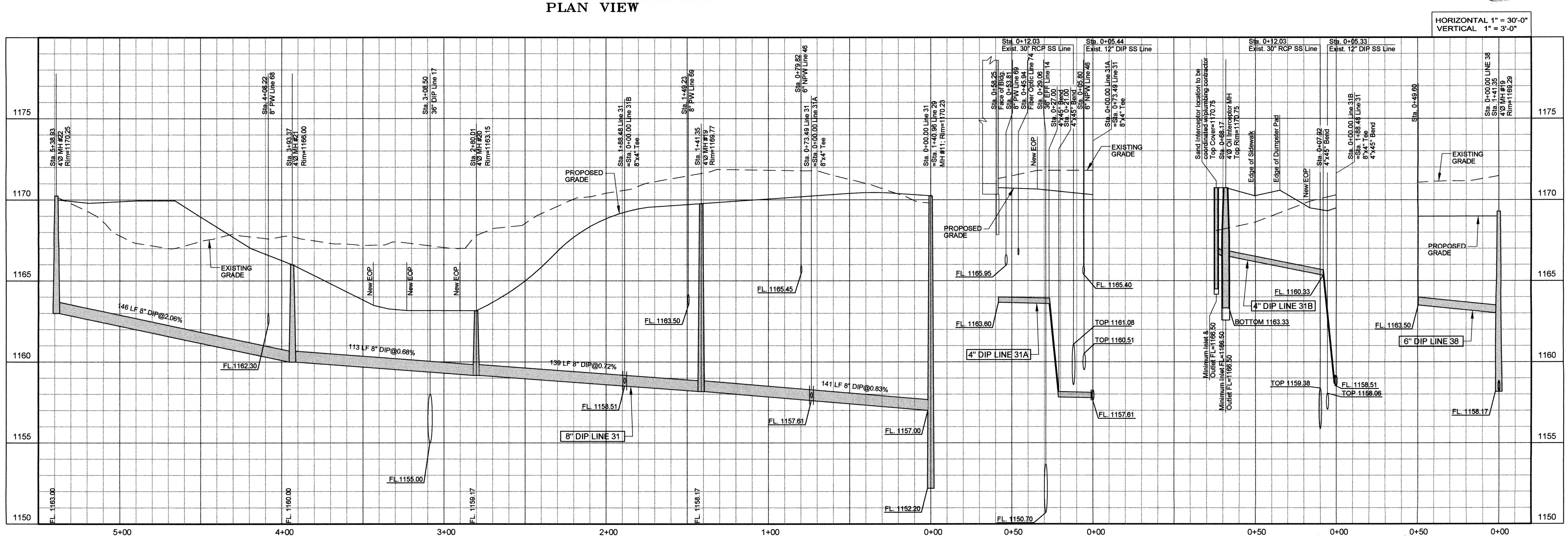


LINE 31

MH #	NORTHING	EASTING
#19	714947.80	2121703.62
#20	714947.80	2121539.66
#21	715000.20	2121466.37
#22	715145.76	2121446.37

LINE 31 – 8" DRAIN LINE
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 31 – 8" DRAIN LINE
PROFILE

LINE 31A
PROFILE

LINE 31B
PROFILE

LINE 38
PROFILE

REVISIONS:	DATE:

LINES 31, 31A, 31B & 38
DRAIN LINES

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CERTIFICATE OF AUTHORIZATION NO. CA2088

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S.D.		S.D.	S.D.	5/20/10	AS NOTED	28 OF 63

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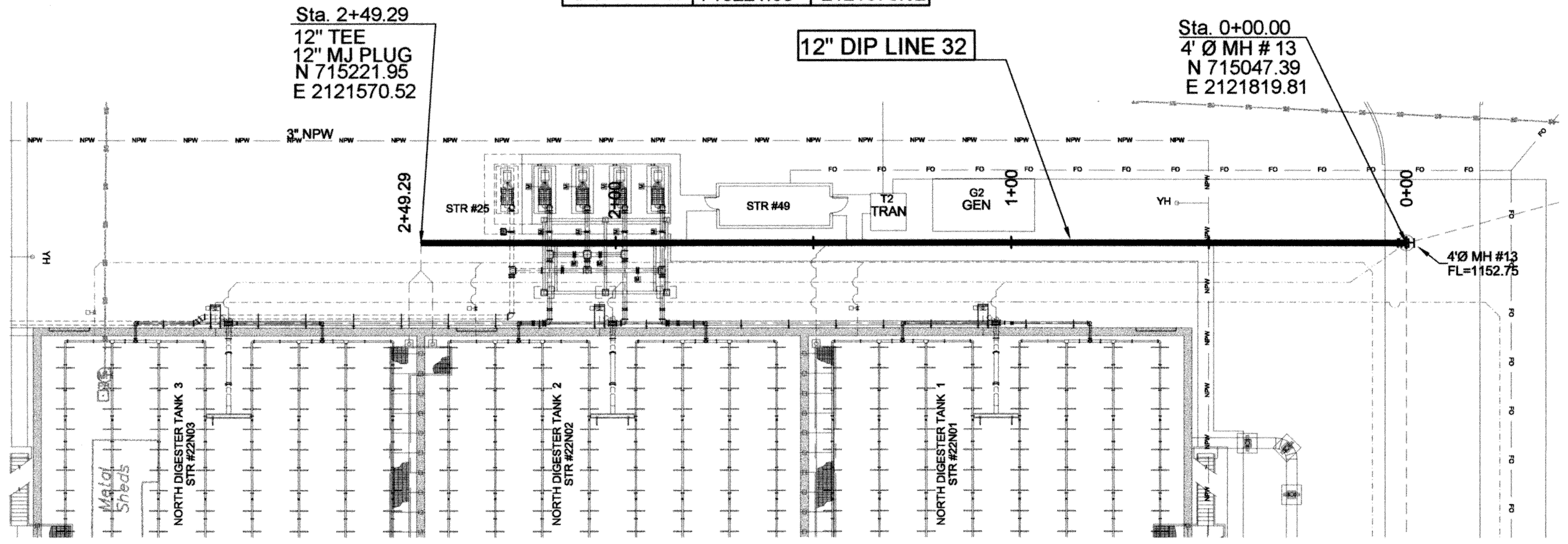
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 32

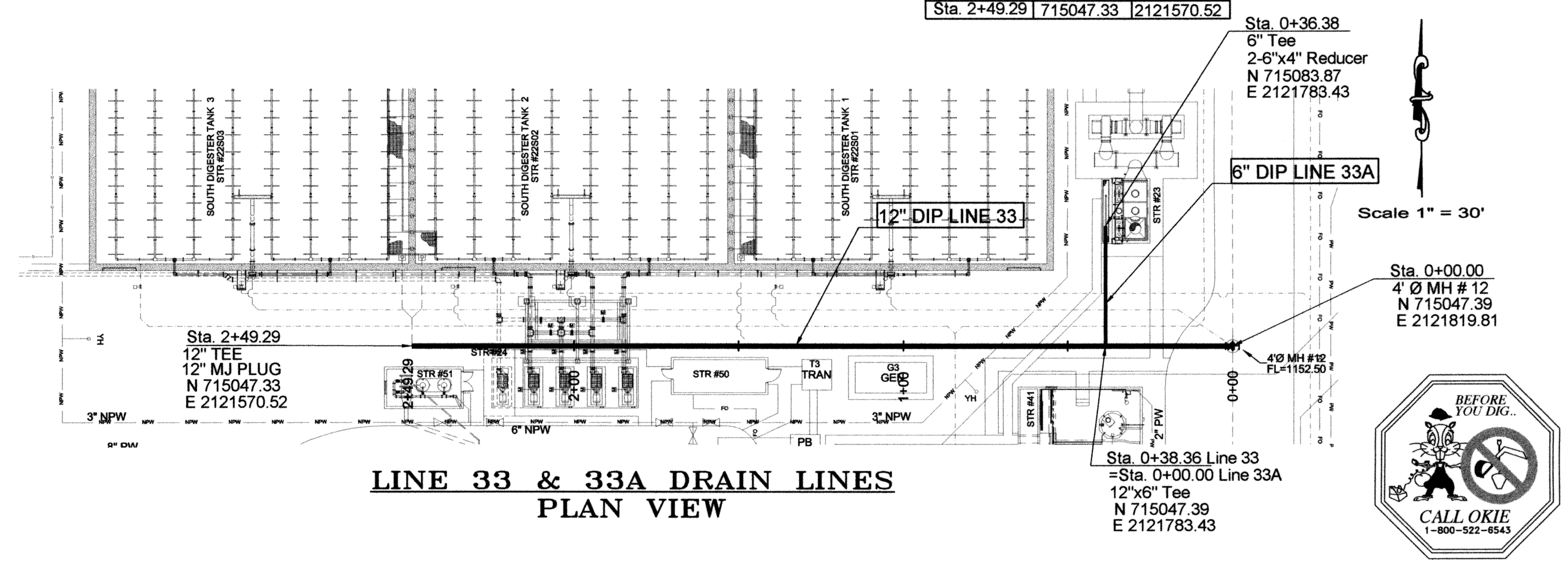
STA.	NORTHING	EASTING
Sta. 0+00.00	715047.39	2121819.81
Sta. 2+49.29	715221.95	2121570.52



LINE 32 – NORTH AD 12" DRAIN LINE
PLAN VIEW

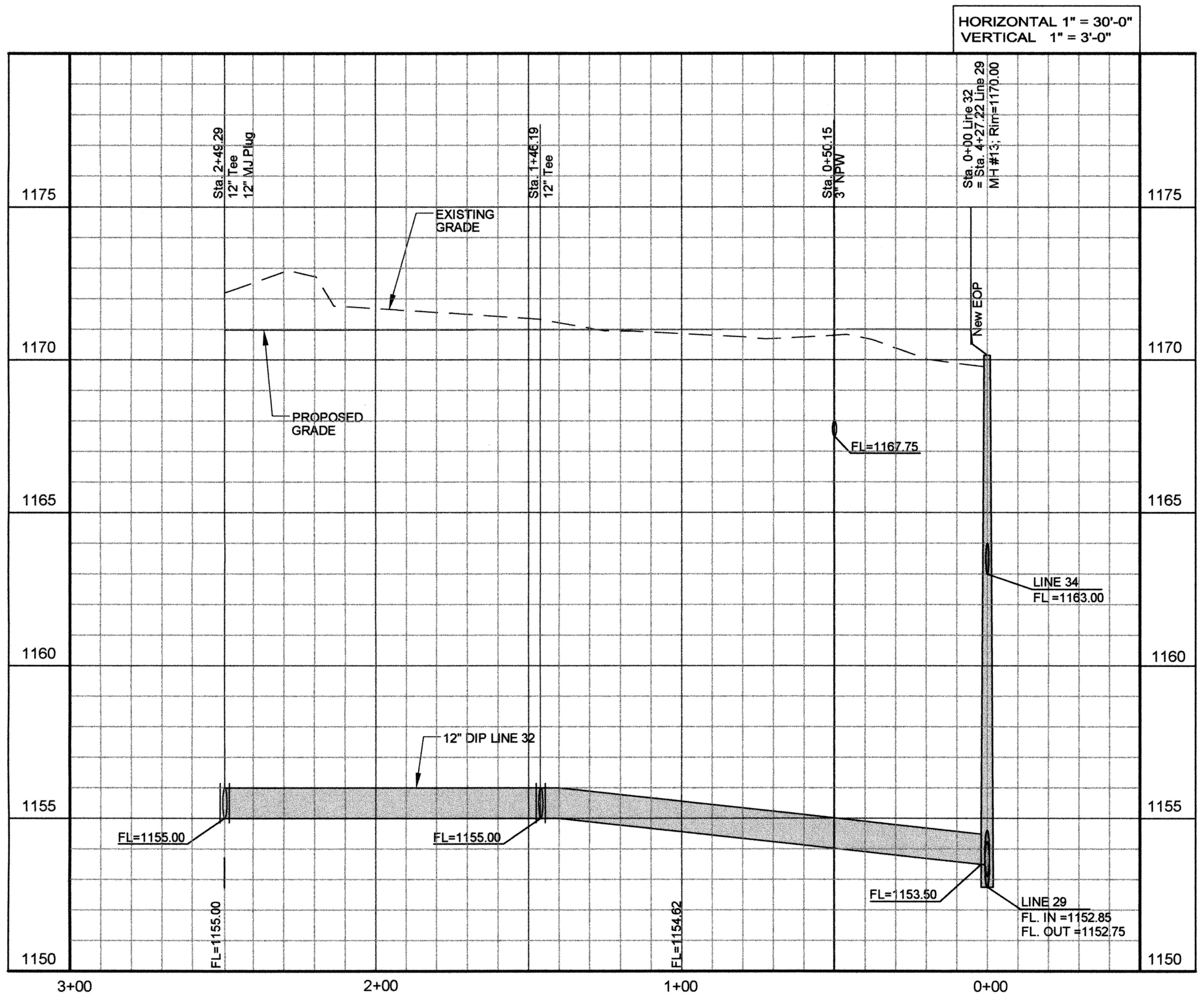
LINE 33

STA.	NORTHING	EASTING
Sta. 0+00.00	715047.39	2121819.81
Sta. 2+49.29	715047.33	2121570.52

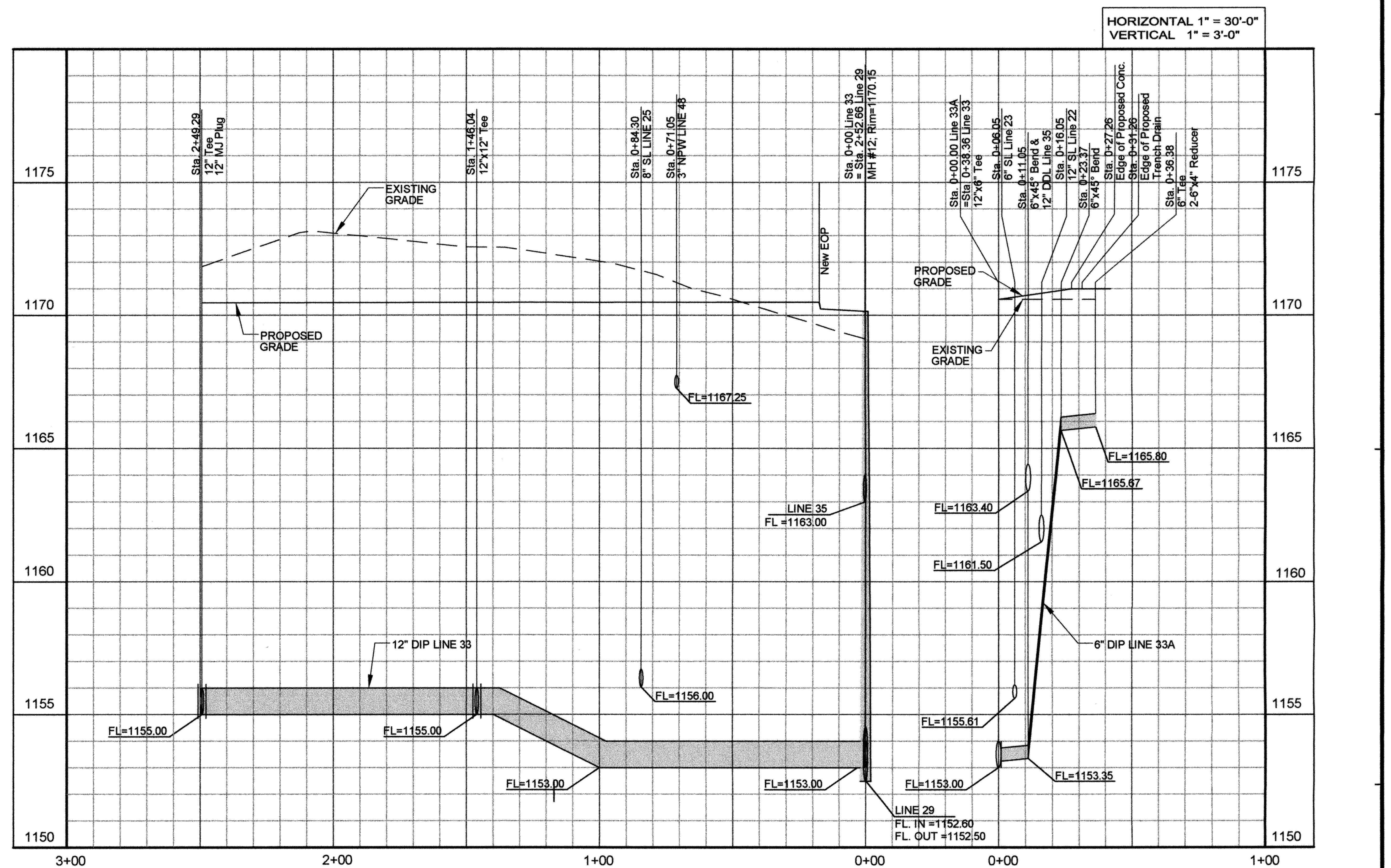


LINE 33 & 33A DRAIN LINES
PLAN VIEW

BEFORE YOU DIG... CALL OKIE 1-800-522-6543



LINE 32 – NORTH AD 12" DRAIN LINE
PROFILE



LINE 33 – SOUTH AD 12" DRAIN LINE
PROFILE

LINE 33A – 6" DRAIN LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

LINES 32, 33 & 33A
NORTH & SOUTH AEROBIC
DIGESTER DRAIN LINES

EAGLE OFFICE CENTER
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PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/14/2010	AS NOTED	29 OF 63

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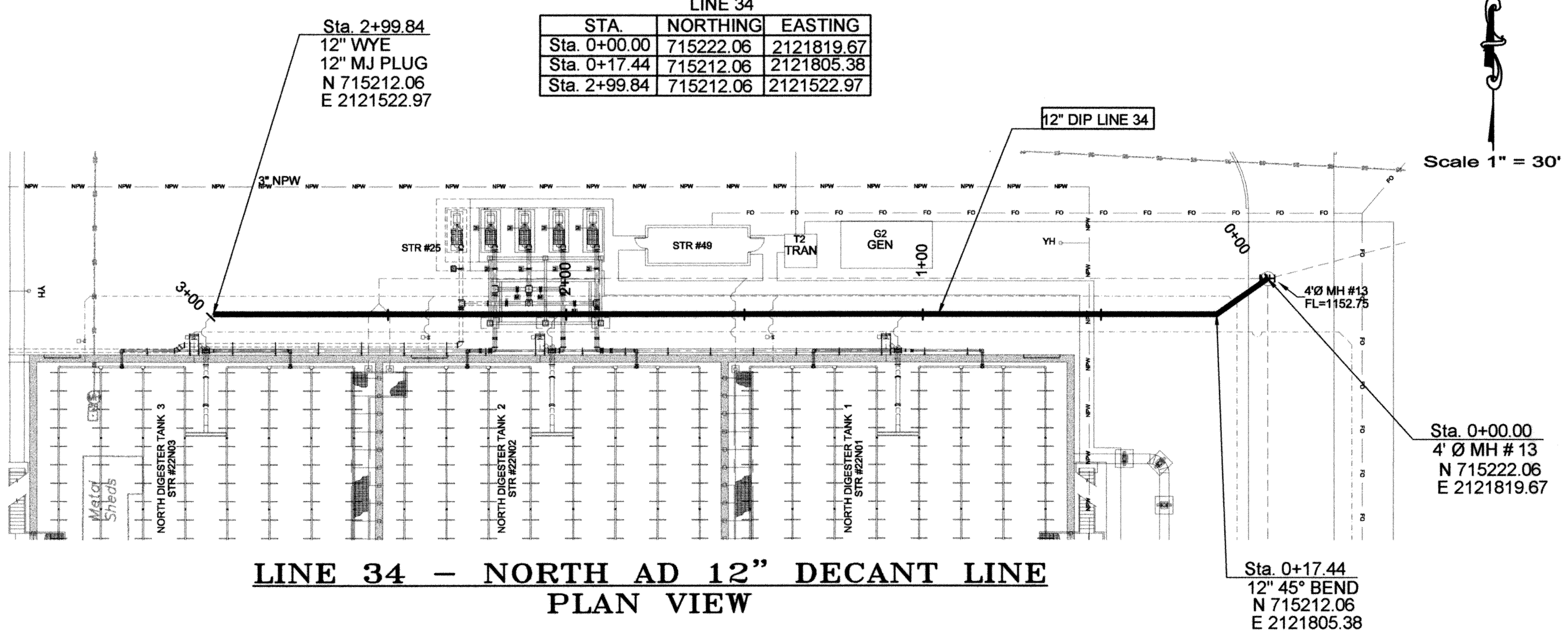
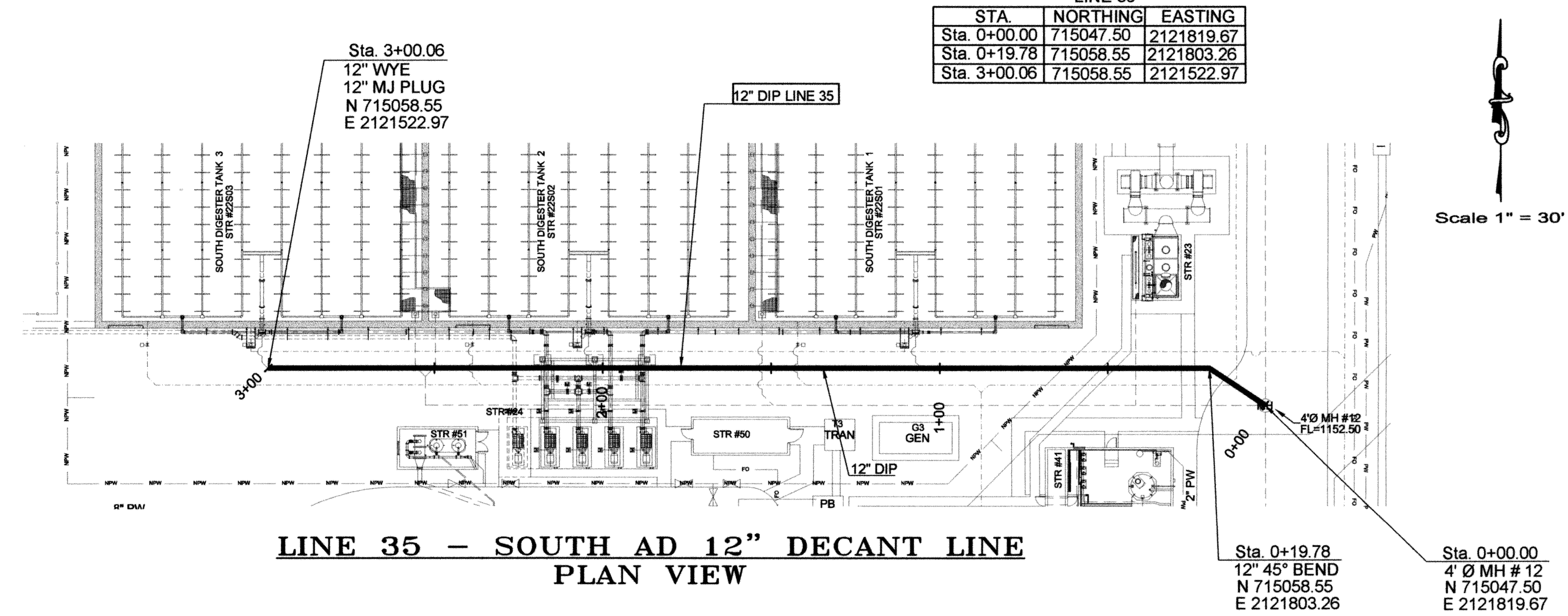
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 34		
STA.	NORTHING	EASTING
Sta. 0+00.00	715222.06	2121819.67
Sta. 0+17.44	715212.06	2121805.38
Sta. 2+99.84	715212.06	2121522.97

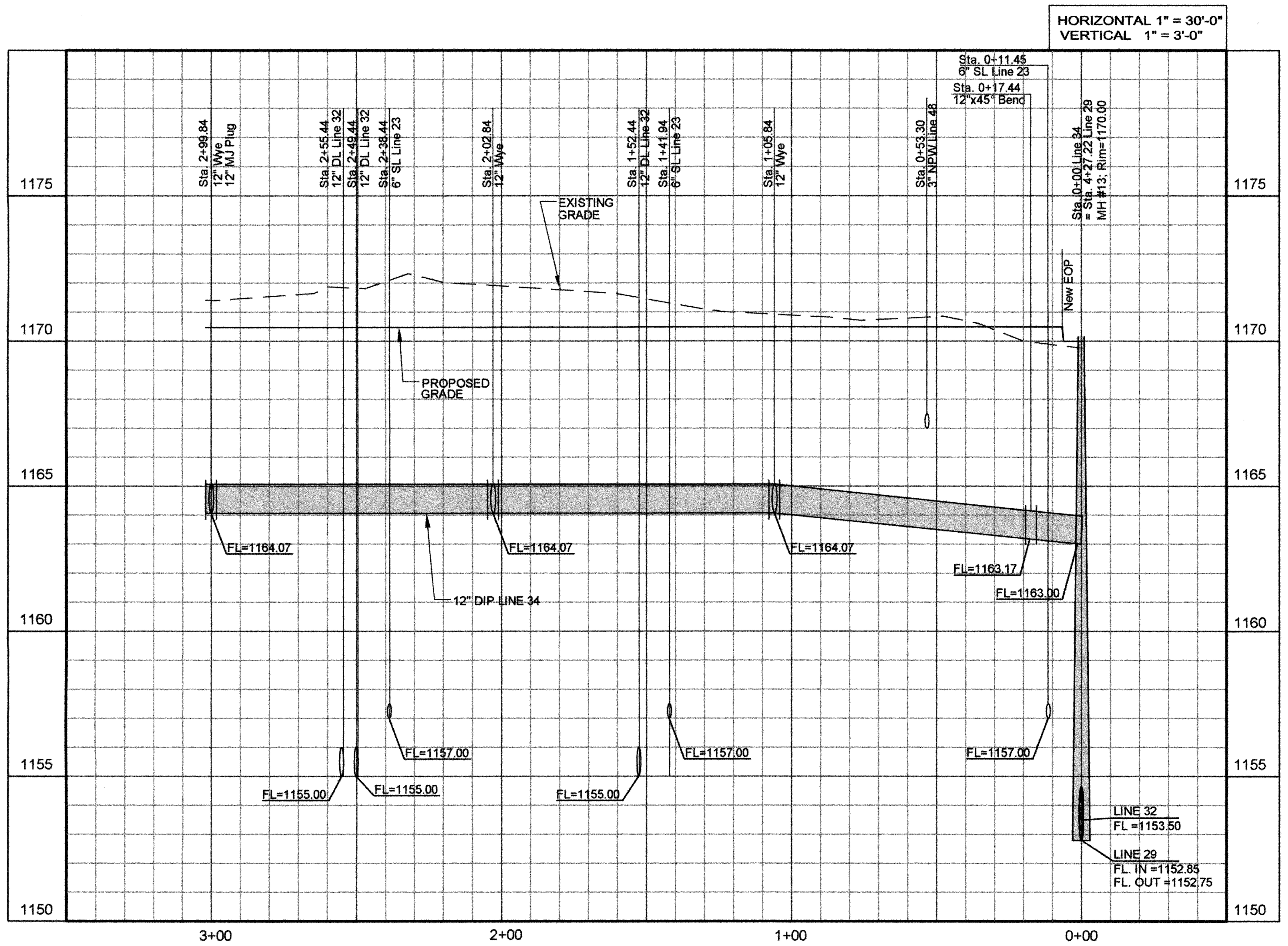


LINE 34 – NORTH AD 12" DECANT LINE
PLAN VIEW

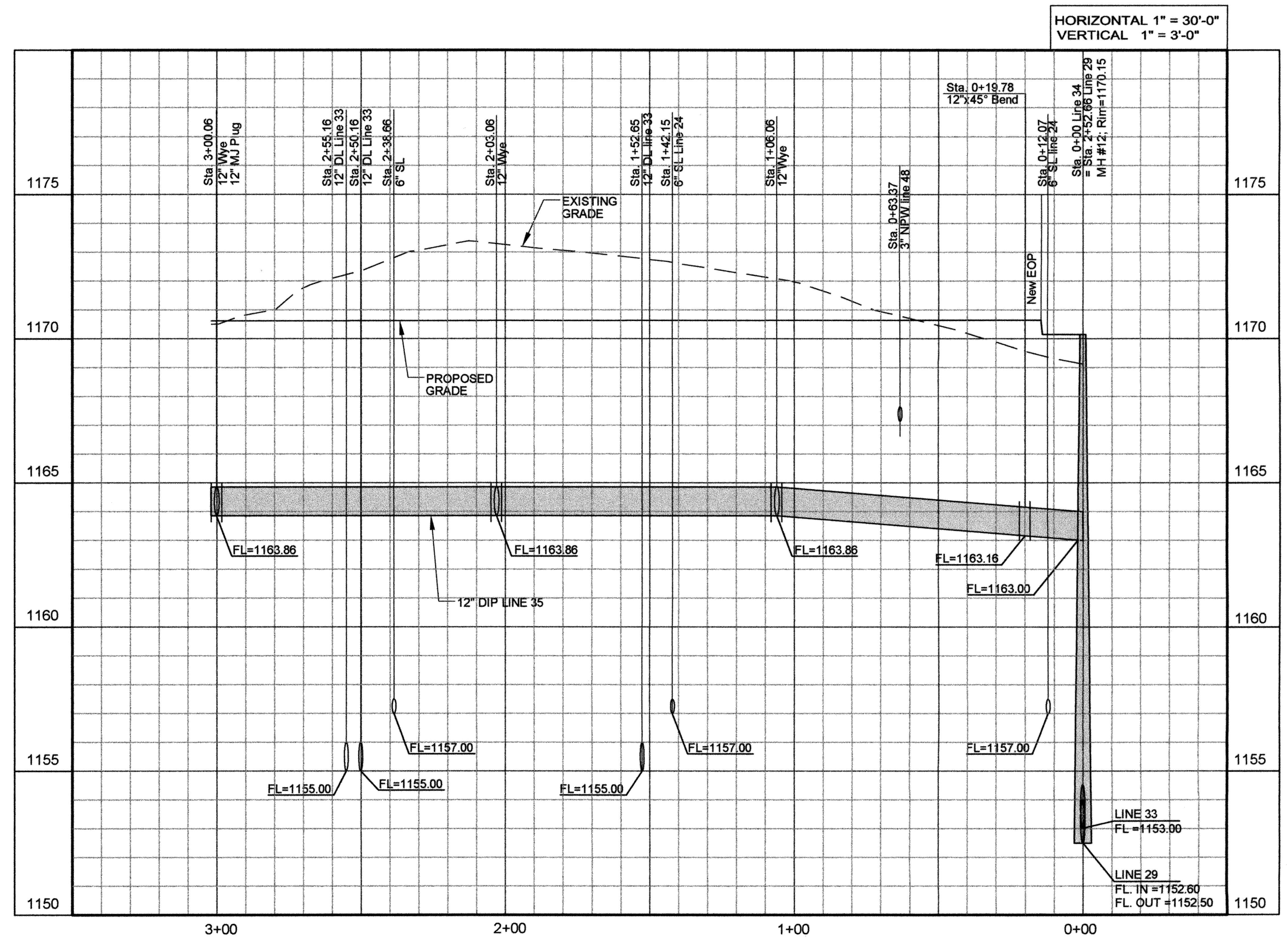
LINE 35		
STA.	NORTHING	EASTING
Sta. 0+00.00	715047.50	2121819.67
Sta. 0+19.78	715058.55	2121803.26
Sta. 3+00.06	715058.55	2121522.97



LINE 35 – SOUTH AD 12" DECANT LINE
PLAN VIEW



LINE 34 – NORTH AD 12" DECANT LINE
PROFILE



LINE 35 – SOUTH AD 12" DECANT LINE
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

LINES 34 & 35
NORTH & SOUTH AEROBIC
DIGESTER 12" DECANT LINES

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EDMOND, OK. 73013
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EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	7/14/2010	AS NOTED	30 OF 63

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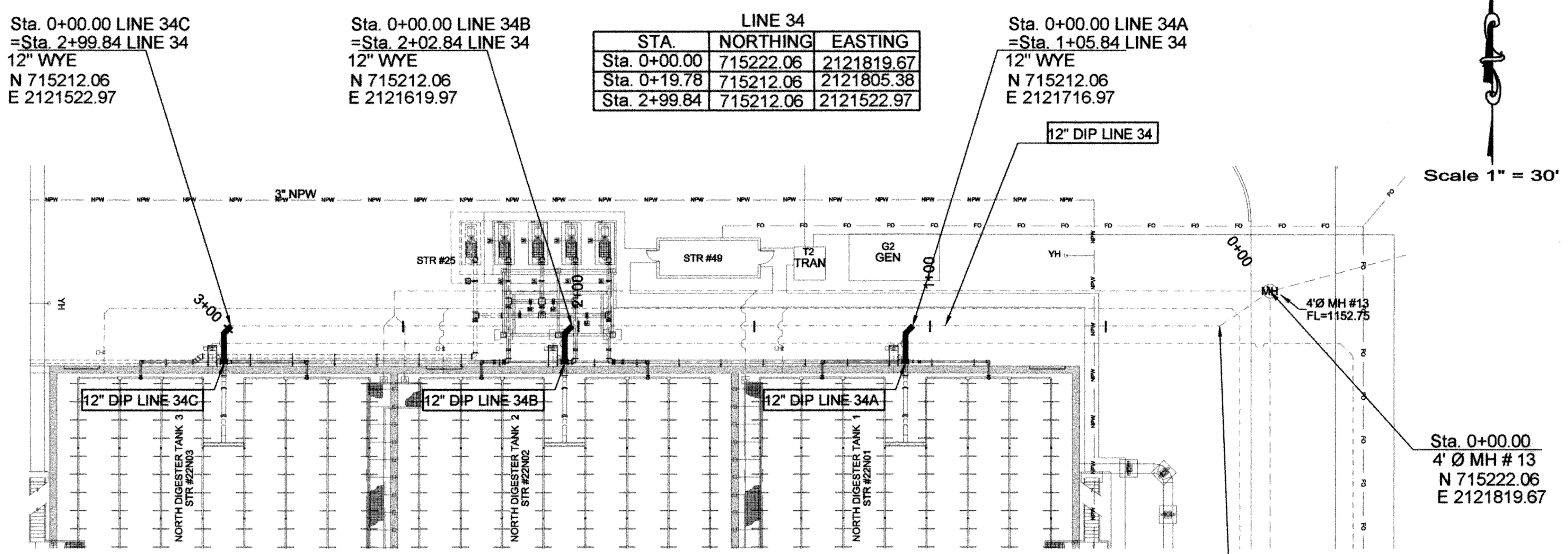
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 34

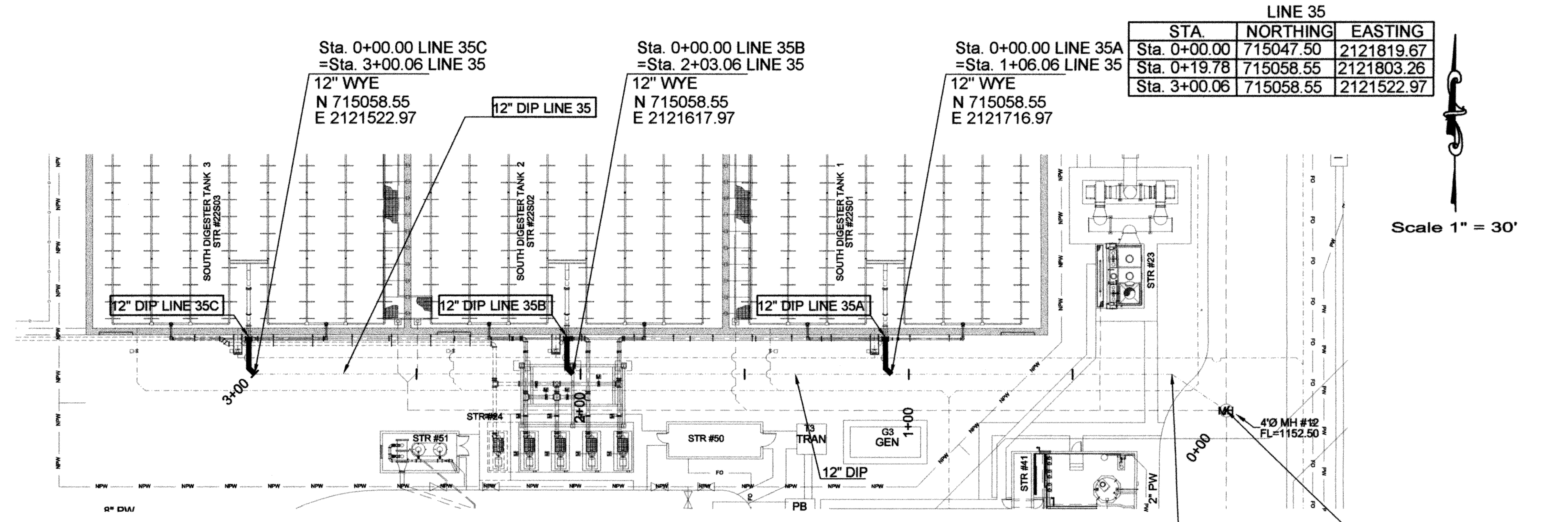
STA.	NORTHING	EASTING
Sta. 0+00.00	715222.06	2121819.67
Sta. 0+19.78	715212.06	2121805.38
Sta. 2+99.84	715212.06	2121522.97

LINE 35

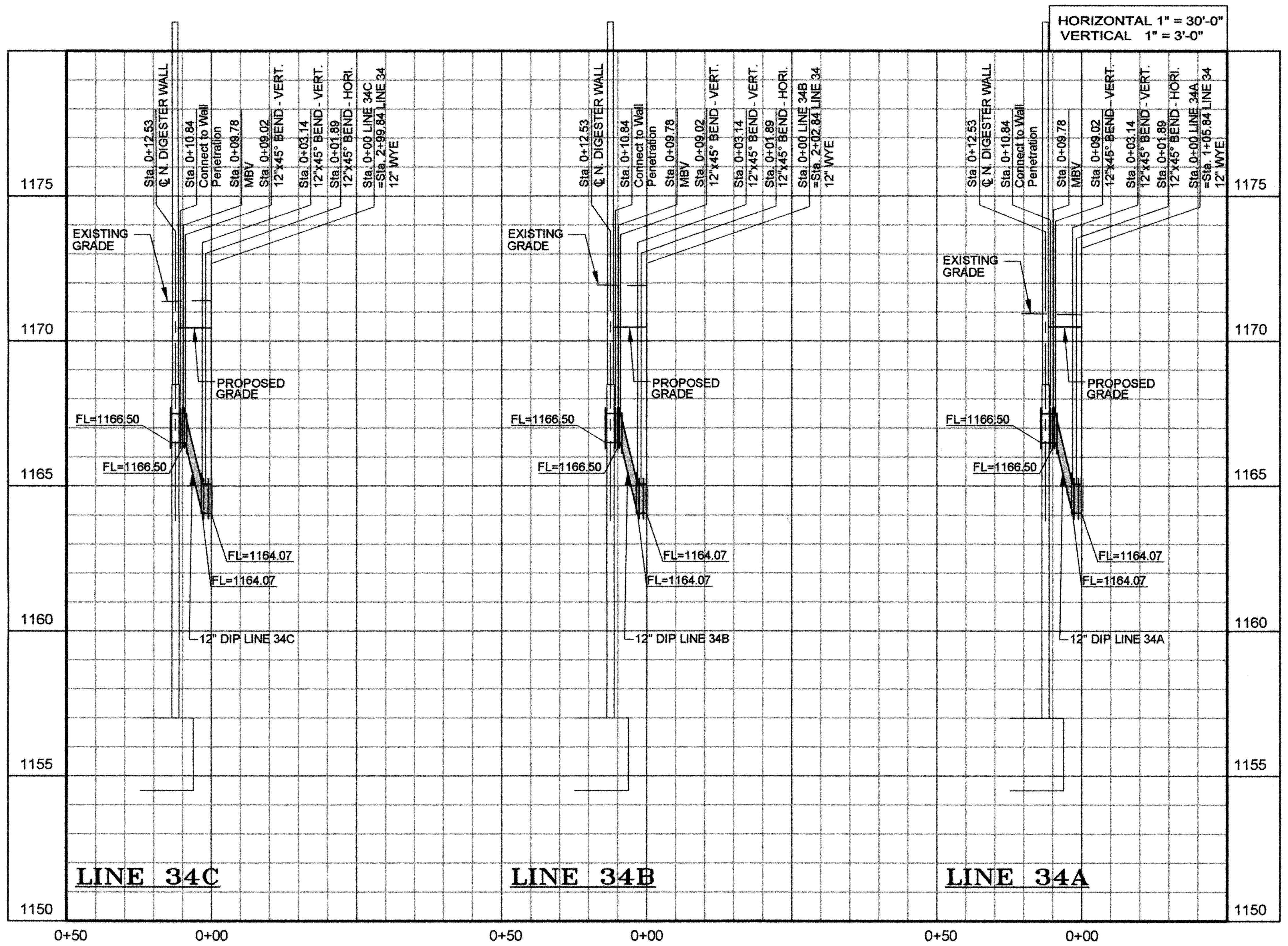
STA.	NORTHING	EASTING
Sta. 0+00.00	715047.50	2121819.67
Sta. 0+19.78	715058.55	2121803.26
Sta. 3+00.06	715058.55	2121522.97



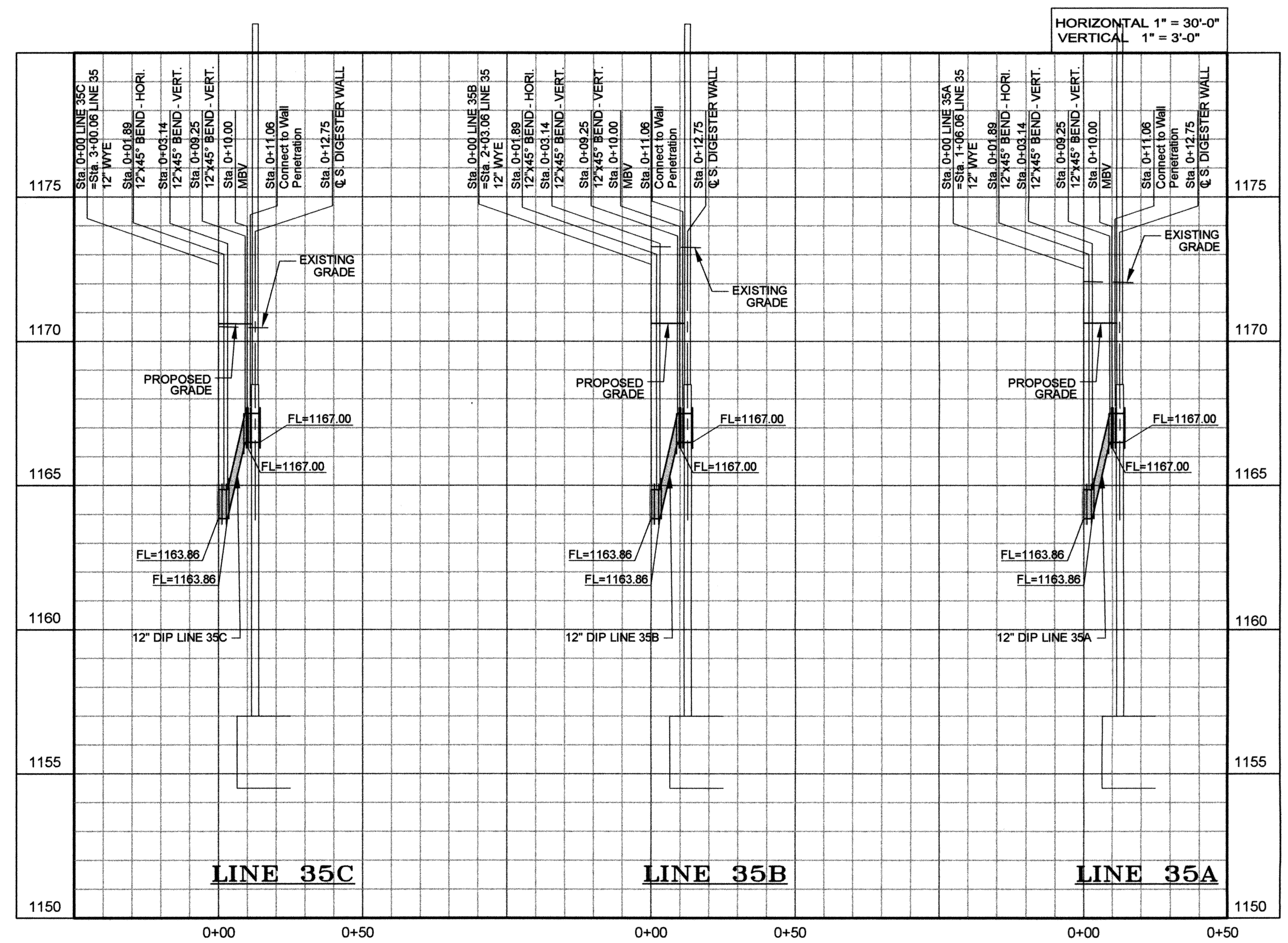
LINE 34A, 34B & 34C
NORTH AD 12" DECANT LINES
PLAN VIEW



LINE 35A, 35B & 35C
SOUTH AD 12" DECANT LINES
PLAN VIEW



LINE 34A, 34B, & 34C – NORTH AD 12" DECANT LINES
PROFILE



LINE 35A, 35B & 35C – SOUTH AD 12" DECANT LINES
PROFILE

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

RECORD DRAWINGS

REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

LINES 34–A,B,C & 35–A,B,C
NORTH & SOUTH AEROBIC
DIGESTER 12" DECANT LINES

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600
EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	7/14/2010	AS NOTED	31 OF 63

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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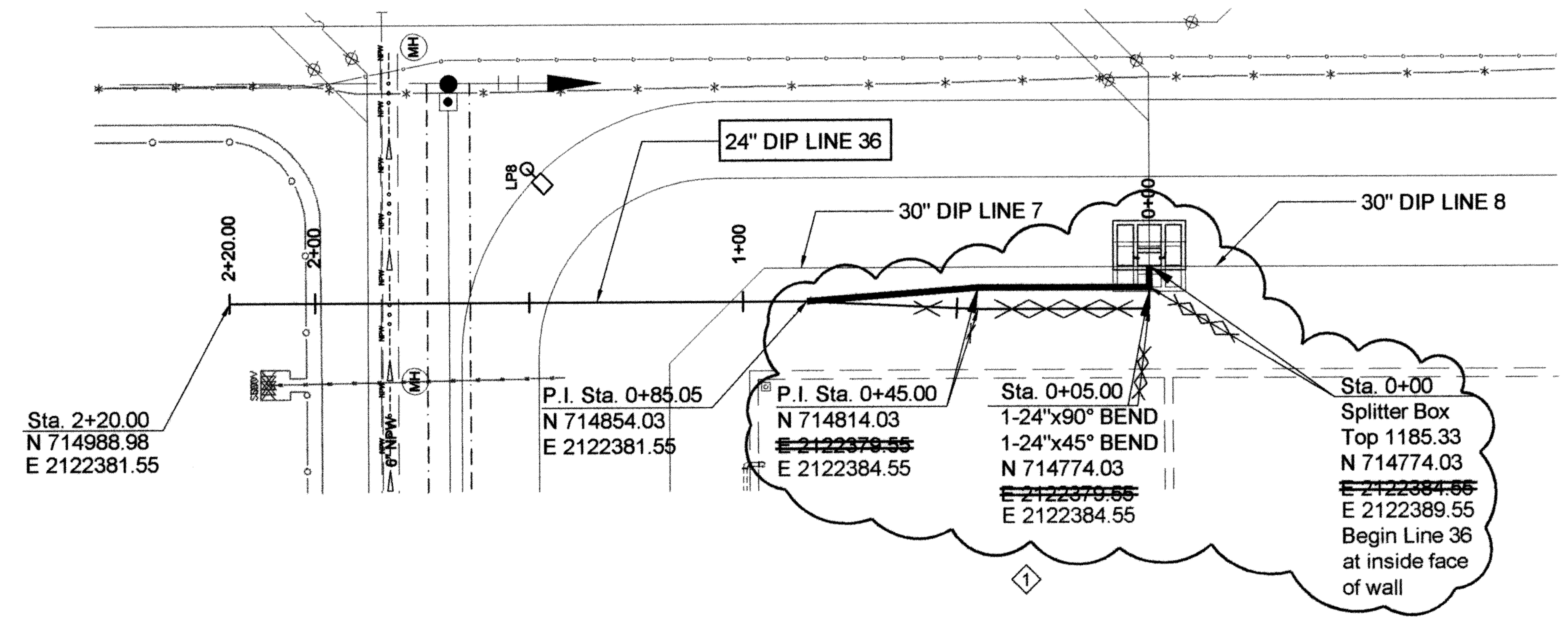
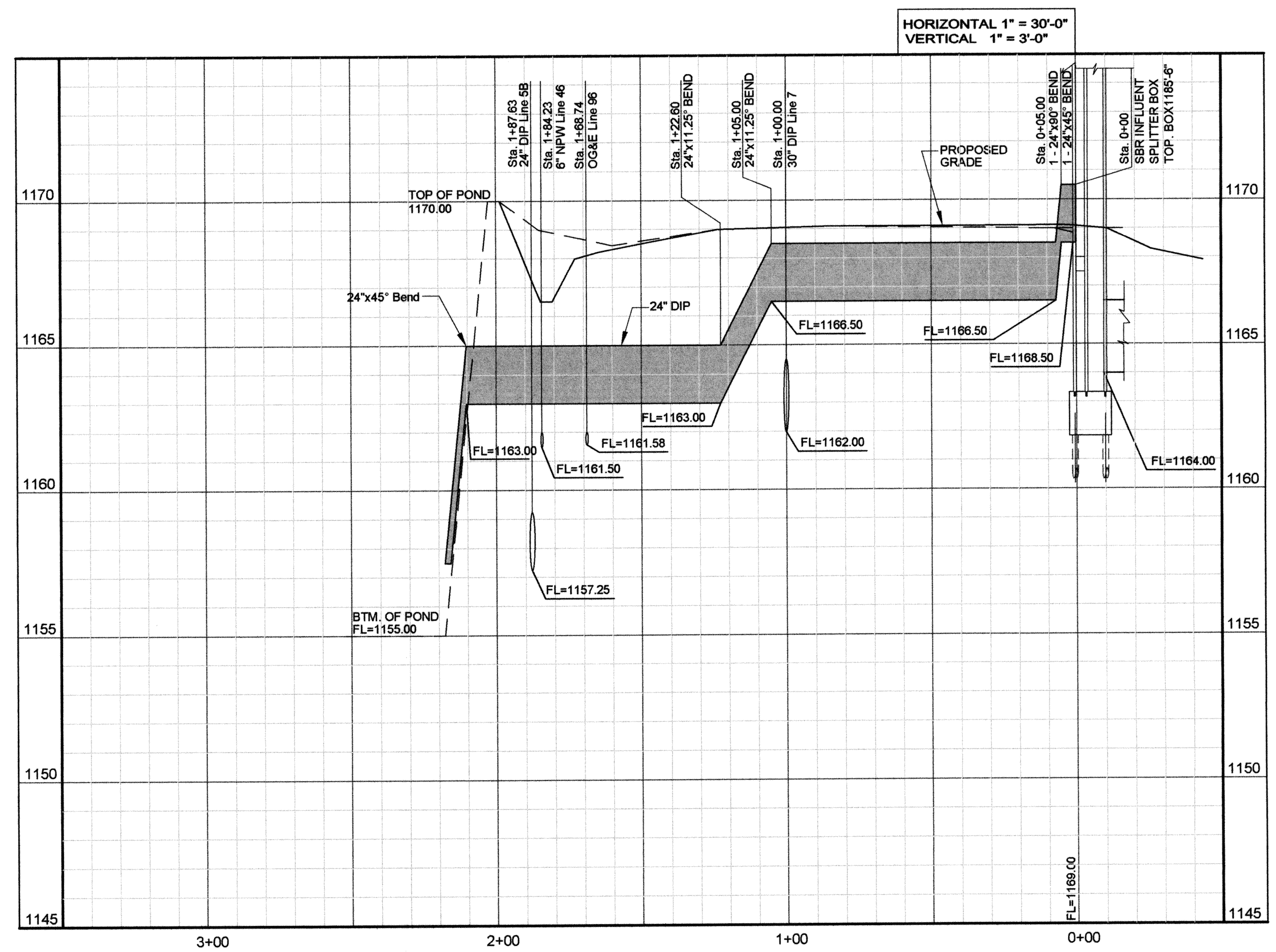
Scale 1" = 30'



FIELD CHANGE NO. 1
REQUESTED BY CONTRACTOR
TO MOVE SPLITTER BOX
(STR. #63) EXACTLY 5'-0" EAST

LINE 36 – 24" SBR INFLUENT SPLITTER BOX OVERFLOW LINE
PLAN VIEW



LINE 36 – 24" SBR INFLUENT SPLITTER BOX OVERFLOW LINE
PROFILE

BEFORE YOU DIG..
CALL OKIE
1-800-522-6543

RECORD DRAWINGS

REVISIONS:	DATE:
1 – FIELD CHANGE NO. 1	6/15/2011

LINE 36
24" SBR INFLUENT SPLITTER BOX OVERFLOW LINE

EAGLE OFFICE CENTER
2803 SOUTH BRYANT
EDMOND, OK. 73013
PH. (405) 844-3900
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	6/15/2010	AS NOTED	32 OF 63

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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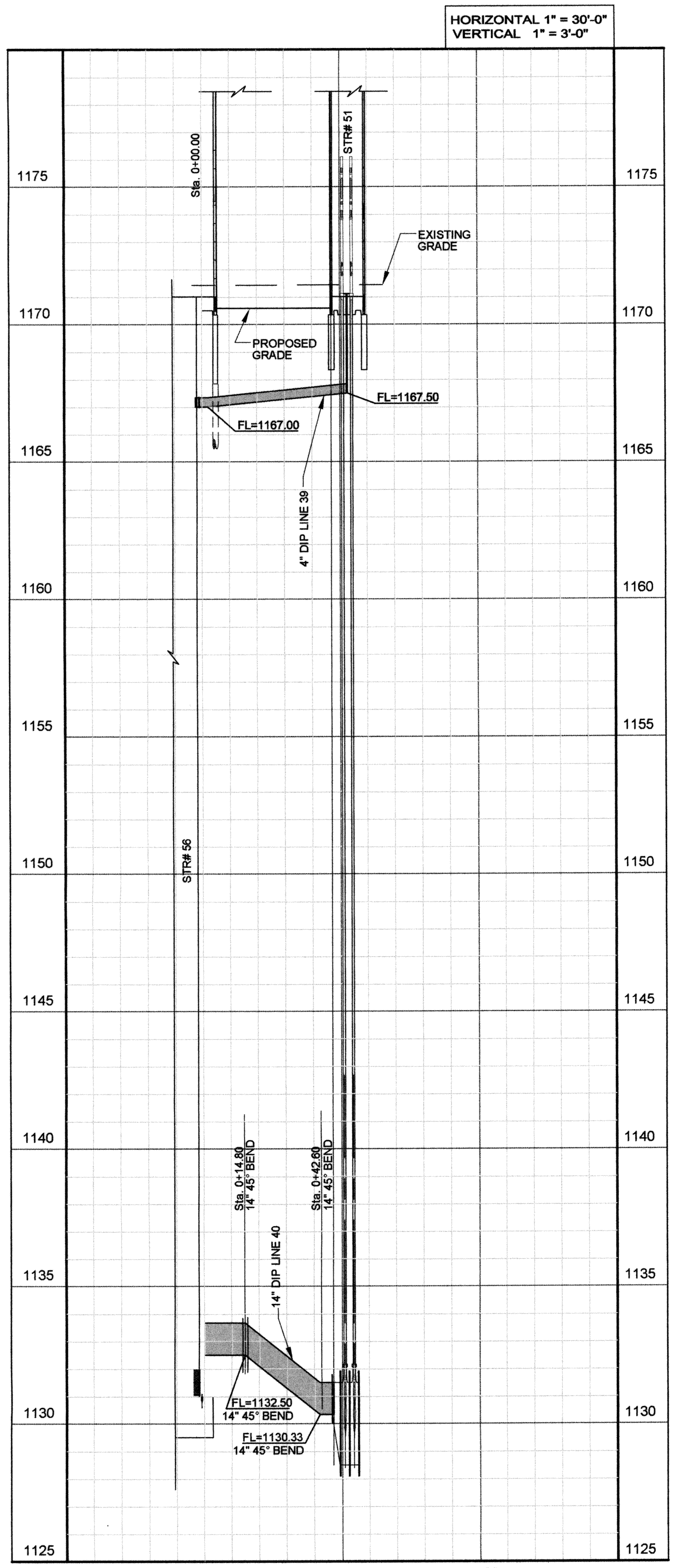
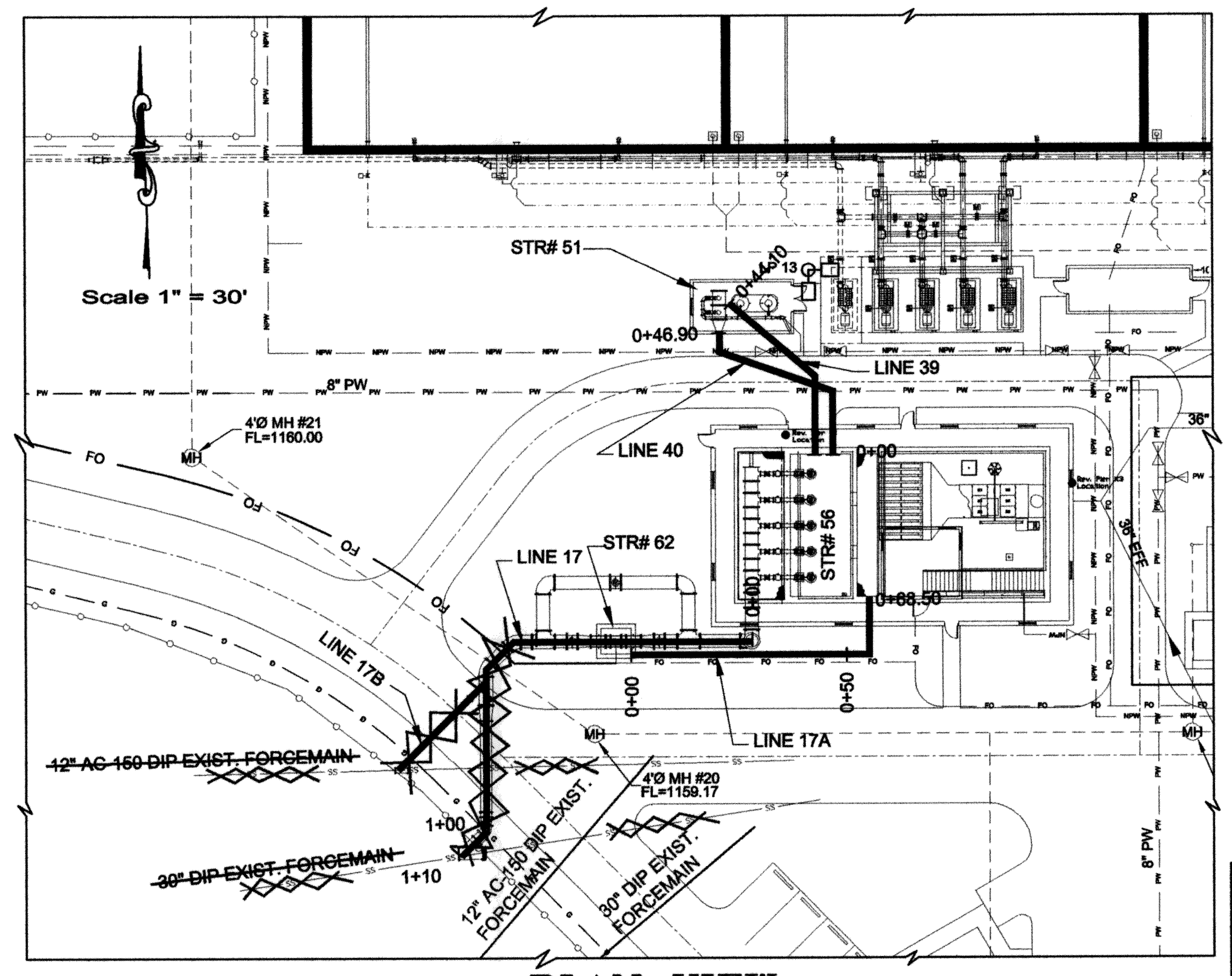
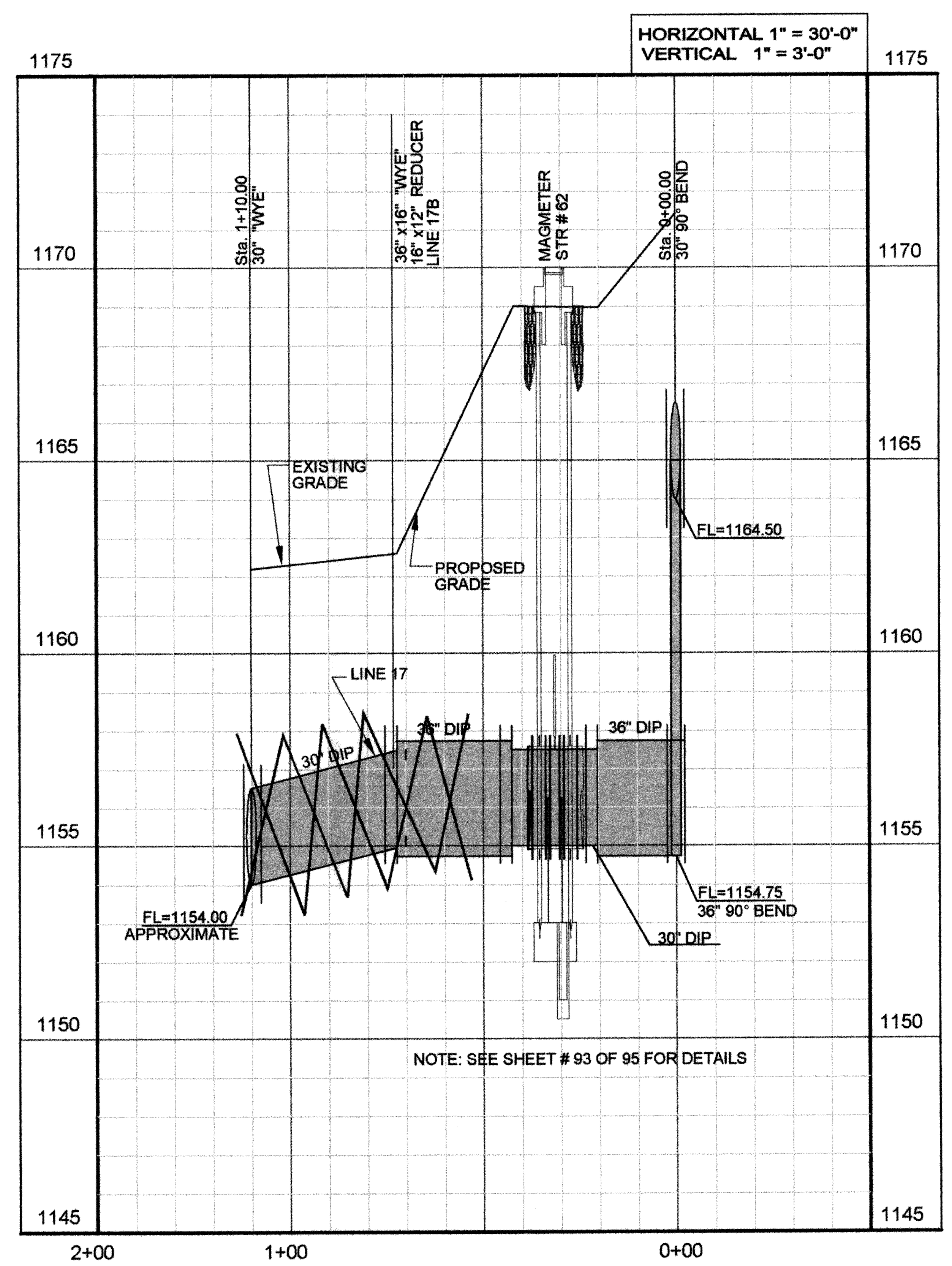


LINE 39 & 40

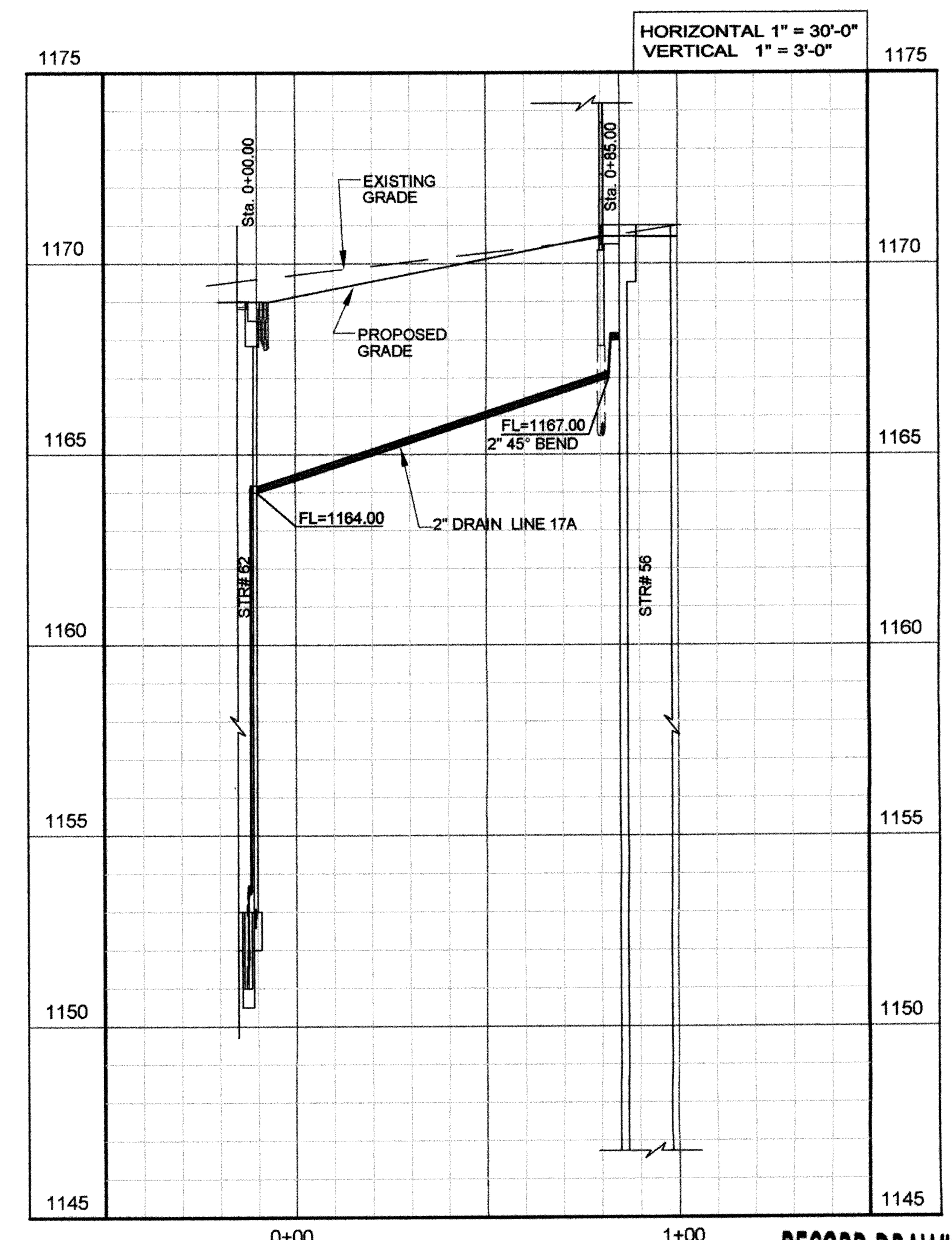


PLAN VIEW

EXTENSION OF LINES 17 & 17B BY CITY
RECORDS NOT AVAILABLE
12/19/2012



LINE 17



LINE 17A

RECORD DRAWINGS

REVISIONS:	DATE:
FIELD CHANGE	7/16/2010

LINES 17, 17A, 39 AND 40

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2803 SOUTH BRYANT
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DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	7/16/2010	AS NOTED	32A OF 63

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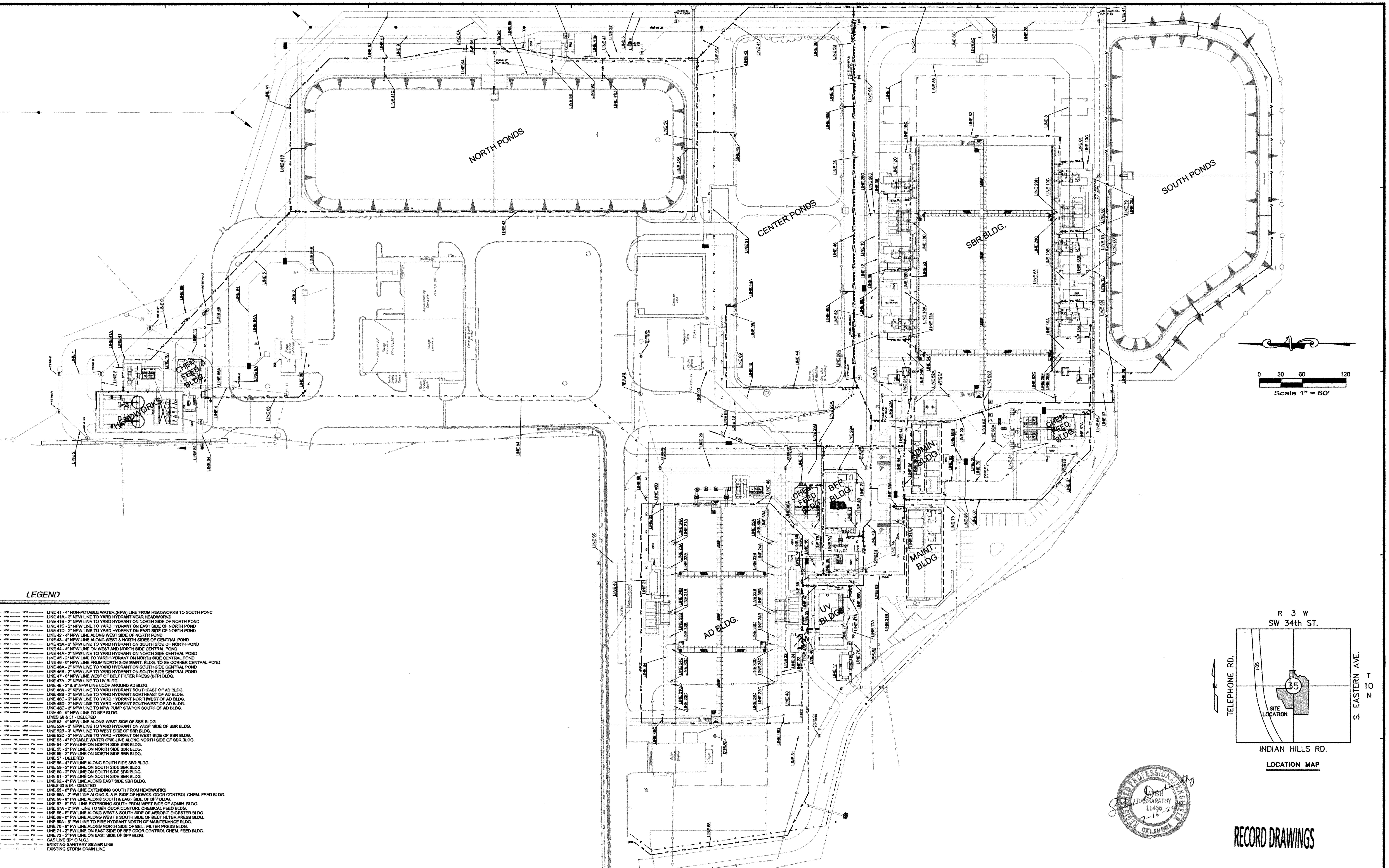
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK



LEGEND

- NPW — LINE 41 - 4" NON-POTABLE WATER (NPW) LINE FROM HEADWORKS TO SOUTH POND
- NPW — LINE 41A - 2" NPW LINE TO YARD HYDRANT NEAR HEADWORKS
- NPW — LINE 41B - 2" NPW LINE TO YARD HYDRANT ON NORTH SIDE OF NORTH POND
- NPW — LINE 41C - 2" NPW LINE TO YARD HYDRANT ON EAST SIDE OF NORTH POND
- NPW — LINE 41D - 2" NPW LINE TO YARD HYDRANT ON EAST SIDE OF NORTH POND
- NPW — LINE 42 - 4" NPW LINE ALONG WEST SIDE OF NORTH POND
- NPW — LINE 43 - 4" NPW LINE ALONG WEST & NORTH SIDES OF CENTRAL POND
- NPW — LINE 43A - 2" NPW LINE TO YARD HYDRANT ON SOUTH SIDE OF NORTH POND
- NPW — LINE 44 - 4" NPW LINE ON WEST AND NORTH SIDE CENTRAL POND
- NPW — LINE 44A - 2" NPW LINE TO YARD HYDRANT ON NORTH SIDE CENTRAL POND
- NPW — LINE 45 - 2" NPW LINE TO YARD HYDRANT ON NORTH SIDE CENTRAL POND
- NPW — LINE 46 - 6" NPW LINE FROM NORTH SIDE MAINT. BLDG. TO SE CORNER CENTRAL POND
- NPW — LINE 46A - 2" NPW LINE TO YARD HYDRANT ON SOUTH SIDE CENTRAL POND
- NPW — LINE 46B - 2" NPW LINE TO YARD HYDRANT ON SOUTH SIDE CENTRAL POND
- NPW — LINE 47 - 6" NPW LINE WEST OF BELT FILTER PRESS (BFP) BLDG.
- NPW — LINE 47A - 2" NPW LINE TO UV BLDG.
- NPW — LINE 48 - 3" & 6" NPW LINE LOOP AROUND AD BLDG.
- NPW — LINE 48A - 2" NPW LINE TO YARD HYDRANT SOUTHEAST OF AD BLDG.
- NPW — LINE 48B - 2" NPW LINE TO YARD HYDRANT NORTHEAST OF AD BLDG.
- NPW — LINE 48C - 2" NPW LINE TO YARD HYDRANT NORTHWEST OF AD BLDG.
- NPW — LINE 48D - 2" NPW LINE TO YARD HYDRANT SOUTHWEST OF AD BLDG.
- NPW — LINE 48E - 6" NPW LINE TO NPW PUMP STATION SOUTH OF AD BLDG.
- NPW — LINE 49 - 6" NPW LINE TO BFP BLDG.
- LINES 50 & 51 - DELETED
- NPW — LINE 52 - 4" NPW LINE ALONG WEST SIDE OF SBR BLDG.
- NPW — LINE 52A - 2" NPW LINE TO YARD HYDRANT ON WEST SIDE OF SBR BLDG.
- NPW — LINE 52B - 3" NPW LINE TO WEST SIDE OF SBR BLDG.
- NPW — LINE 52C - 2" NPW LINE TO YARD HYDRANT ON WEST SIDE OF SBR BLDG.
- PW — LINE 53 - 4" POTABLE WATER (PW) LINE ALONG NORTH SIDE OF SBR BLDG.
- PW — LINE 54 - 2" PW LINE ON NORTH SIDE SBR BLDG.
- PW — LINE 55 - 2" PW LINE ON NORTH SIDE SBR BLDG.
- PW — LINE 56 - 2" PW LINE ON NORTH SIDE SBR BLDG.
- LINE 57 - DELETED
- PW — LINE 58 - 4" PW LINE ALONG SOUTH SIDE SBR BLDG.
- PW — LINE 59 - 2" PW LINE ON SOUTH SIDE SBR BLDG.
- PW — LINE 60 - 2" PW LINE ON SOUTH SIDE SBR BLDG.
- PW — LINE 61 - 2" PW LINE ON SOUTH SIDE SBR BLDG.
- PW — LINE 62 - 4" PW LINE ALONG EAST SIDE SBR BLDG.
- LINES 63 & 64 - DELETED
- PW — LINE 65 - 8" PW LINE EXTENDING SOUTH FROM HEADWORKS
- PW — LINE 65A - 2" PW LINE ALONG S. & E. SIDE OF HDWKS. ODOR CONTROL CHEM. FEED BLDG.
- PW — LINE 66 - 8" PW LINE ALONG SOUTH & EAST SIDE OF BFP BLDG.
- PW — LINE 67 - 8" PW LINE EXTENDING SOUTH FROM WEST SIDE OF ADMIN. BLDG.
- PW — LINE 67A - 2" PW LINE TO SBR ODOR CONTORL CHEMICAL FEED BLDG.
- PW — LINE 68 - 8" PW LINE ALONG WEST & SOUTH SIDE OF AEROBIC DIGESTER BLDG.
- PW — LINE 69 - 8" PW LINE ALONG WEST & SOUTH SIDE OF BELT FILTER PRESS BLDG.
- PW — LINE 69A - 6" PW LINE TO FIRE HYDRANT NORTH OF MAINTENANCE BLDG.
- PW — LINE 70 - 8" PW LINE ALONG NORTH SIDE OF BELT FILTER PRESS BLDG.
- PW — LINE 71 - 2" PW LINE ON EAST SIDE OF BFP ODOR CONTROL CHEM. FEED BLDG.
- PW — LINE 72 - 2" PW LINE ON EAST SIDE OF BFP BLDG.
- G — GAS LINE (BY O.N.G.)
- SS — EXISTING SANITARY SEWER LINE
- ST — EXISTING STORM DRAIN LINE

LOCATION MAP

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REVISIONS:	DATE:
ADDENDUM 1	7/14/2010

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.	D.O.	S.D.	S.D.	7/13/10	AS SHOWN	33 OF 63

LINES 41 TO 72 NON POTABLE WATER AND POTABLE WATER LINES

EAGLE OFFICE CENTER
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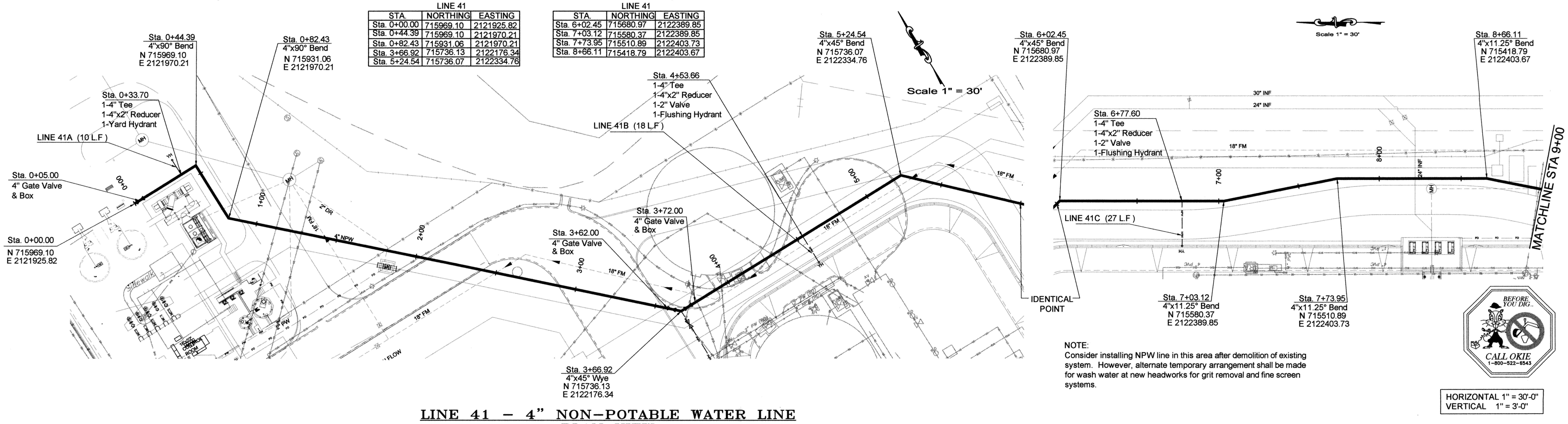
FAX. (405) 844-3600

EAGLE CONSULTANTS, INC.
CIVIL AND ENVIRONMENTAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 41		
STA.	NORTHING	EASTING
Sta. 0+00.00	715969.10	2121925.82
Sta. 0+44.39	715969.10	2121970.21
Sta. 0+82.43	715931.06	2121970.21
Sta. 3+66.92	715736.13	2122176.34
Sta. 5+24.54	715736.07	2122334.76

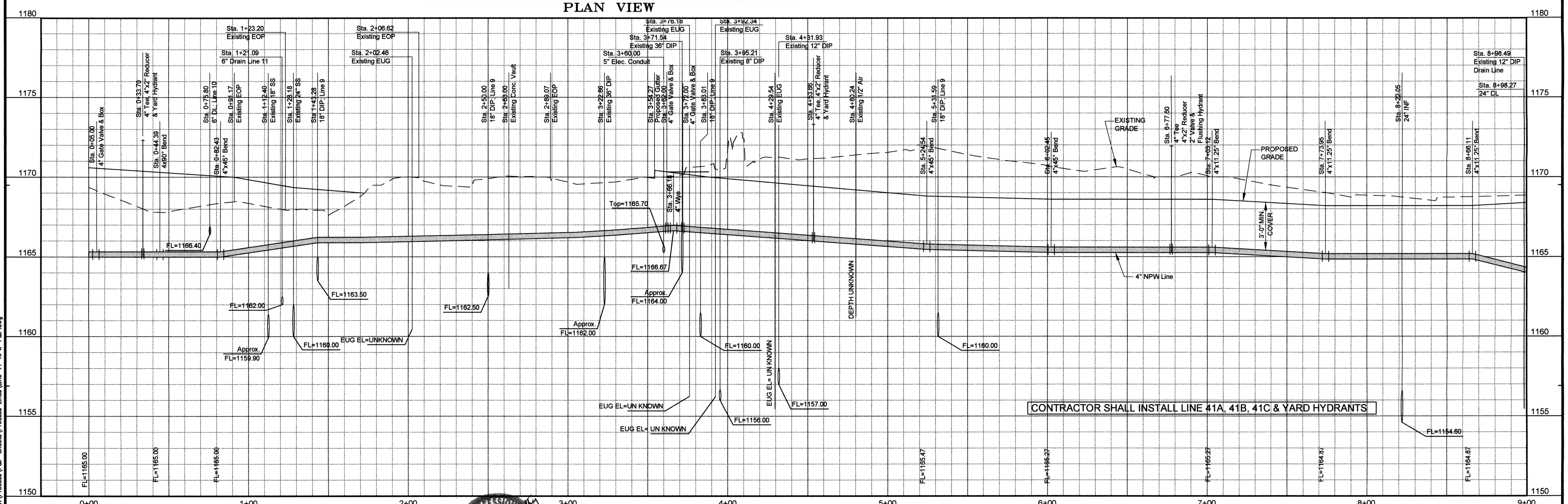
LINE 41		
STA.	NORTHING	EASTING
Sta. 6+02.45	715680.97	2122389.85
Sta. 7+03.12	715580.37	2122389.85
Sta. 7+73.95	715510.89	2122403.73
Sta. 8+66.11	715418.79	2122403.67



NOTE:
Consider installing NPW line in this area after demolition of existing system. However, alternate temporary arrangement shall be made for wash water at new headworks for grit removal and fine screen systems.

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"

LINE 41 – 4" NON-POTABLE WATER LINE
PLAN VIEW



LINE 41 – 4" NON-POTABLE WATER LINE
PROFILE

RECORD DRAWINGS

DESIGNED BY: S.D.	CAD OPERATOR:	CHECKED: S.D.	APPROVED: S.D.	PLOT DATE: 4/28/10	DWG. SCALE: AS NOTED	SHEET: 34 OF 63

REVISIONS: | DATE:

LINE 41
0+00 to 9+00

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CERTIFICATE OF AUTHORIZATION NO. CA2088

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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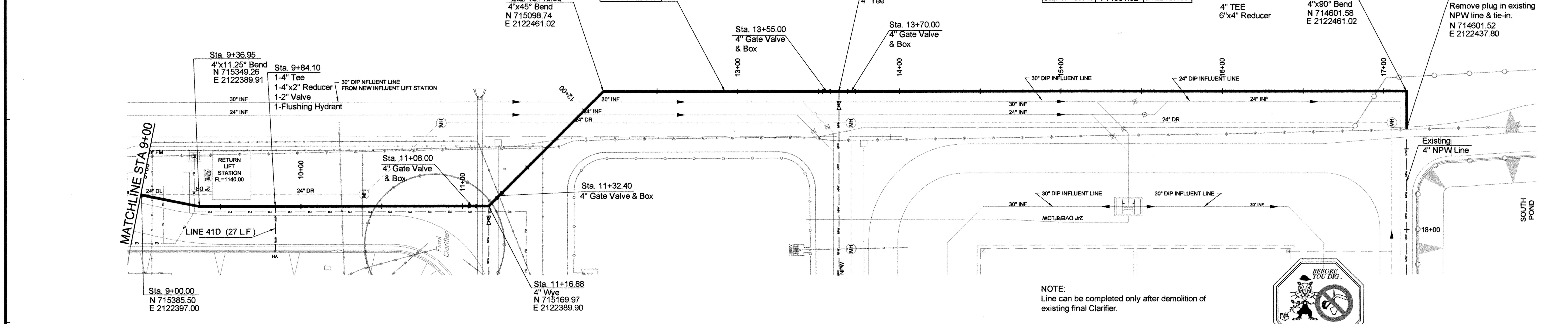
LINE 41		
STA.	NORTHING	EASTING
Sta. 9+00.00	715385.50	2122397.00
Sta. 9+36.95	715349.26	2122389.91
Sta. 11+16.88	715169.97	2122389.90
Sta. 12+16.88	715098.74	2122461.02
Sta. 17+14.17	714601.58	2122461.02
Sta. 17+37.43	714601.52	2122437.80

Scale 1" = 30'



LINE 41 – 4" NON-POTABLE WATER LINE
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"

LINE 41 – 4" NON-POTABLE WATER LINE
PROFILE

RECORD DRAWINGS

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	4/28/2010	AS NOTED	35 OF 63

REVISIONS: DATE:

LINE 41
9+00 to 18+00

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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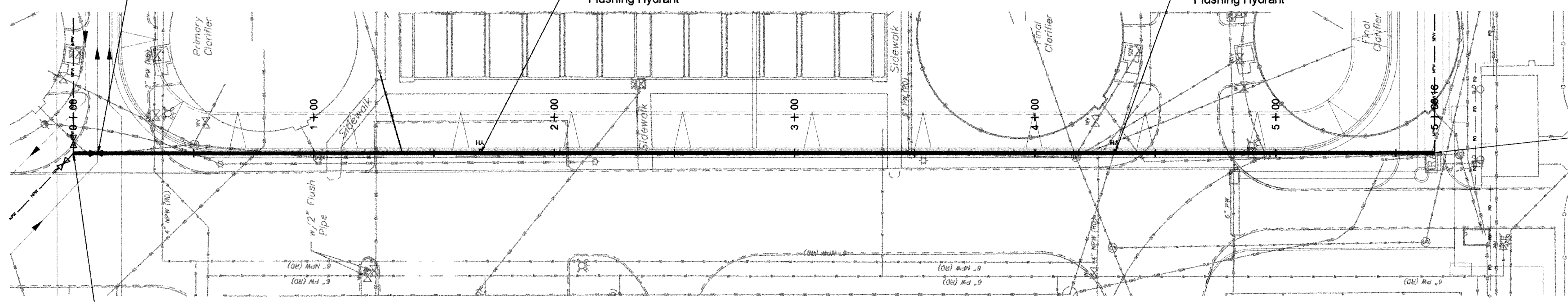
LINE 42		
STA.	NORTHING	EASTING
Sta. 0+00.00	715736.13	2122176.40
Sta. 5+66.16	715169.97	2122176.40

Scale 1" = 30'

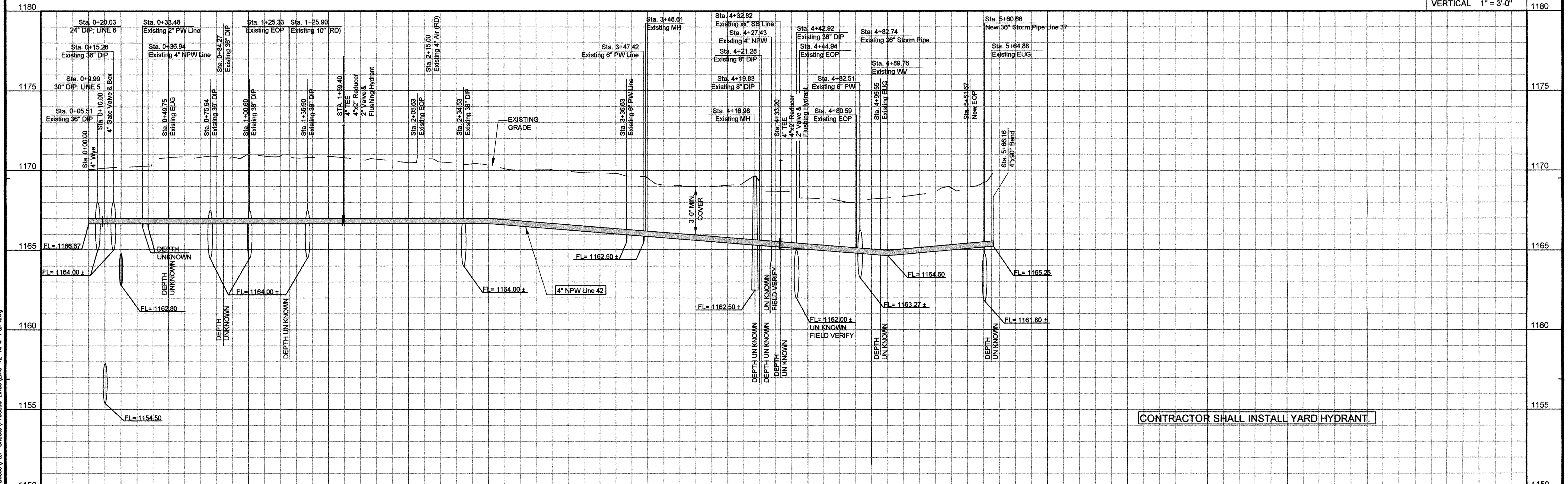


NOTE:
Line 42 shall be constructed after demolition of existing W W T P.

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

LINE 42 – 4" NON-POTABLE WATER LINE PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 42 – 4" NON-POTABLE WATER LINE PROFILE

RECORD DRAWINGS

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REVISIONS:	DATE:

LINE 42
0+00 to 5+66.16

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

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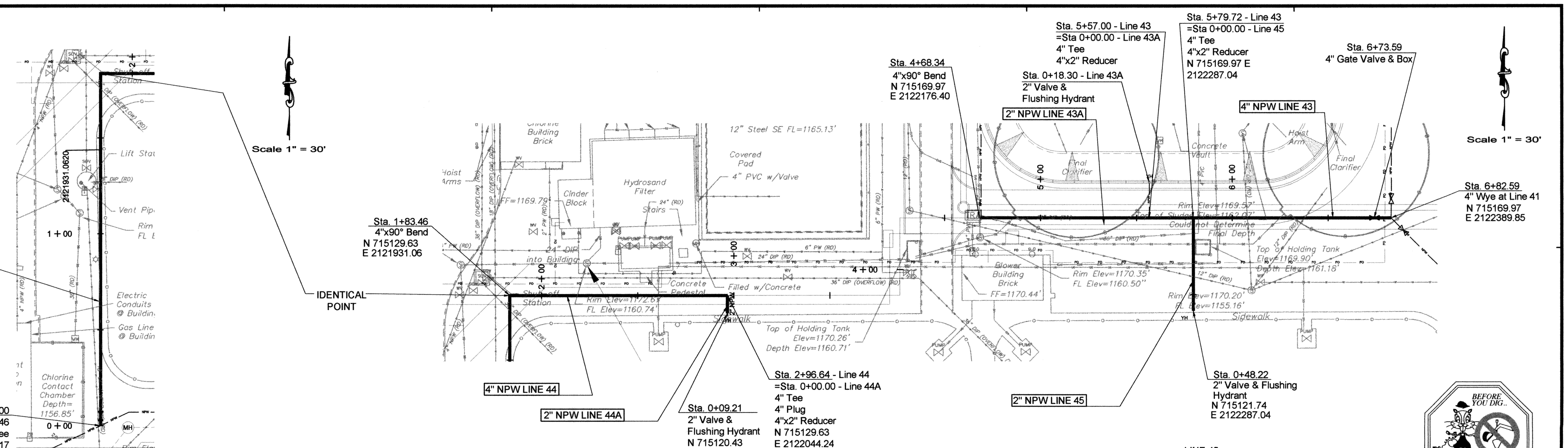
LINE 44		
STA.	NORTHING	EASTING
Sta. 0+00.00	714946.17	2121931.06
Sta. 1+83.46	715129.63	2121931.06
Sta. 2+96.64	715129.63	2122044.24



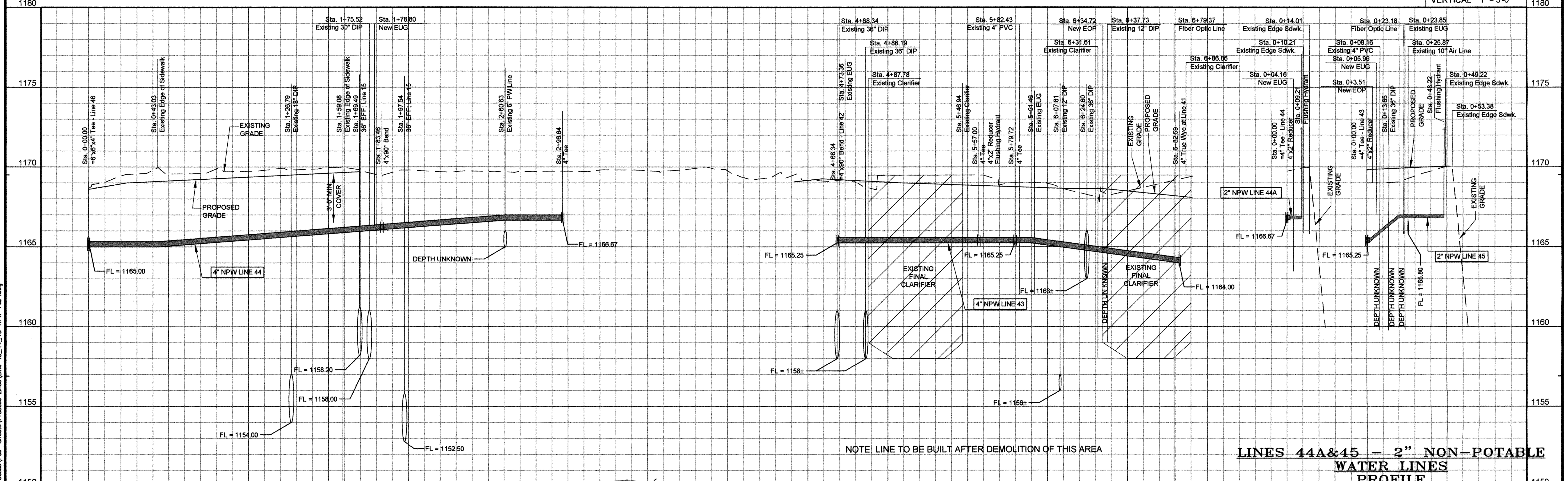
LINE 43		
STA.	NORTHING	EASTING
Sta. 4+68.34	715169.97	2122176.40
Sta. 5+79.72	715169.97	2122287.04
Sta. 6+82.59	715169.97	2122389.85

LINE 45		
STA.	NORTHING	EASTING
Sta. 0+00.00	715169.97	2122287.04
Sta. 0+48.22	715121.74	2122287.04

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

LINE 43 – 4" NON-POTABLE WATER LINE
LINE 44 – 4" NON-POTABLE WATER LINE
LINE 45 – 2" NON-POTABLE WATER LINE
PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINES 44A&45 – 2" NON-POTABLE WATER LINES
PROFILE

LINE 44 – 4" NON-POTABLE WATER LINE
PROFILE

LINE 43 – 4" NON-POTABLE WATER LINE
PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:

LINES 43, 44 & 45
0+00 to 7+00

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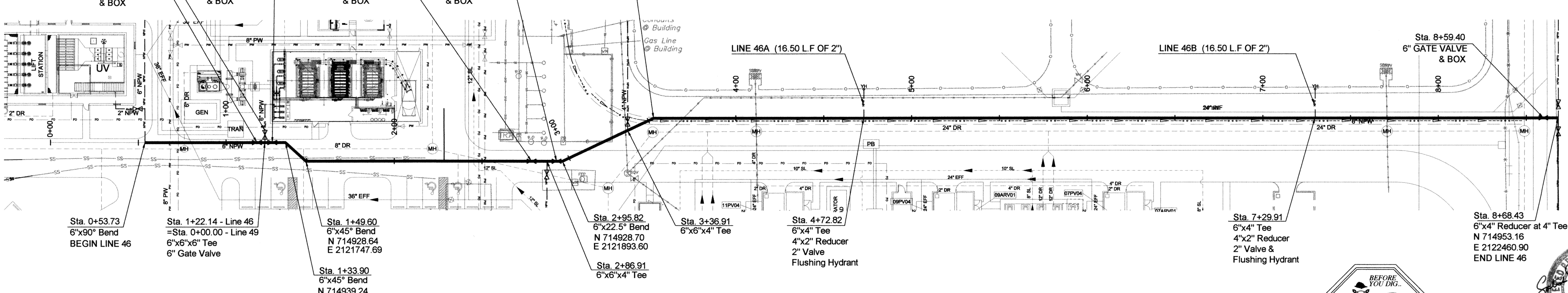
S.D.		S.D.	S.D.	4-23-2009	AS NOTED	37 OF 63

O:\DRAWINGS\MOORE\WORK\Process\P&P Sheets\Process Lines\Line 43_44_45-NPW-P&P.dwg

WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 46

STA	NORTHING	EASTING
Sta. 0+53.73	714939.24	2121655.93
Sta. 1+33.90	714939.24	2121736.10
Sta. 1+49.60	714928.64	2121747.69
Sta. 2+95.82	714928.70	2121893.60
Sta. 3+53.27	714953.16	2121945.86
Sta. 8+68.43	714953.16	2122460.90



LINE 46 – 6" NON-POTABLE WATER LINE PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"

LINE 46 – 6" NON-POTABLE WATER LINE PROFILE

RECORD DRAWINGS

DESIGNED BY:	CAD OPERATOR:	CHECKED:	APPROVED:	PLOT DATE:	DWG. SCALE:	SHEET:
S.D.		S.D.	S.D.	6/16/10	AS NOTED	38 OF 63

REVISIONS: DATE:

LINE 46
0+00 to 8+68.43

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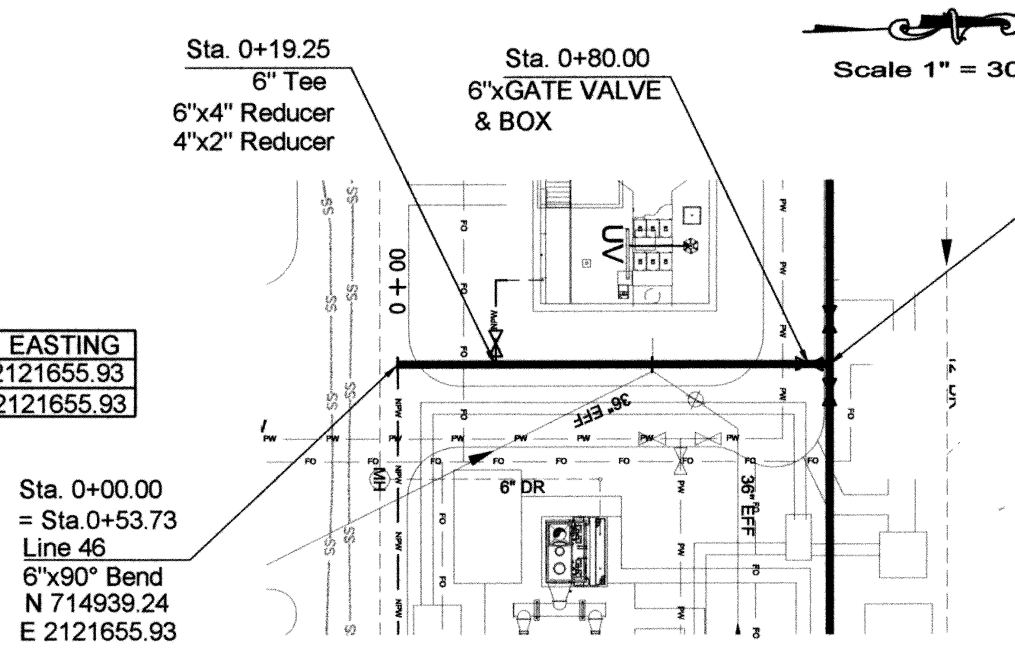
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

LINE 47

STA.	NORTHING	EASTING
Sta. 0+00.00	714939.24	2121655.93
Sta. 2+49.29	715024.19	2121655.93

Scale 1" = 30'



BEFORE YOU DIG... CALL OKIE 1-800-522-6543

LINE 47 – 4" NON-POTABLE WATER LINE PLAN VIEW

LINE 48

STA.	NORTHING	EASTING
Sta. 0+00.00	715024.19	2121655.93
Sta. 0+69.62	715024.19	2121725.49
Sta. 1+32.00	715068.30	2121769.66
Sta. 3+11.42	715247.72	2121769.66
Sta. 5+50.00	715247.72	2121531.15

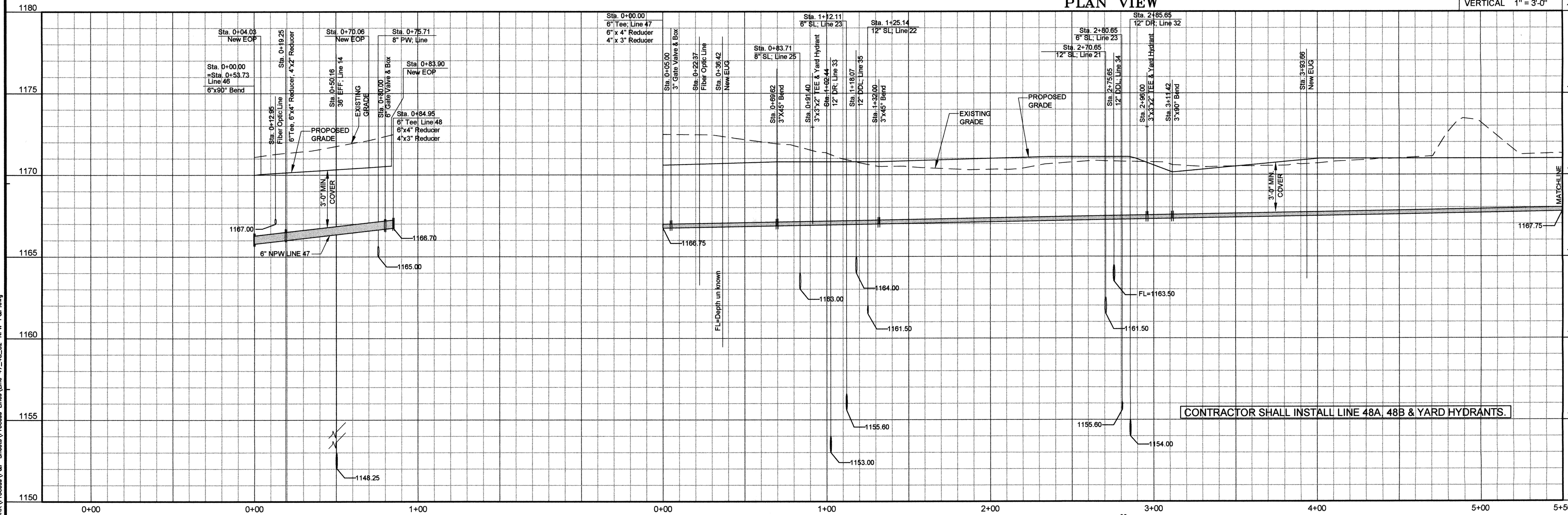
Scale 1" = 30'

RECORD DRAWINGS

SATISH DASHARATHY 11456 OKLAHOMA

LINE 48 – 3" NON-POTABLE WATER LINE PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 47 – 4" NON-POTABLE WATER LINE PROFILE

LINE 48 – 3" NON-POTABLE WATER LINE PROFILE

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S.D.		S.D.	S.D.	4/23/10	AS NOTED	39 OF 63

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LINES 47 & 48
0+00 to 5+50

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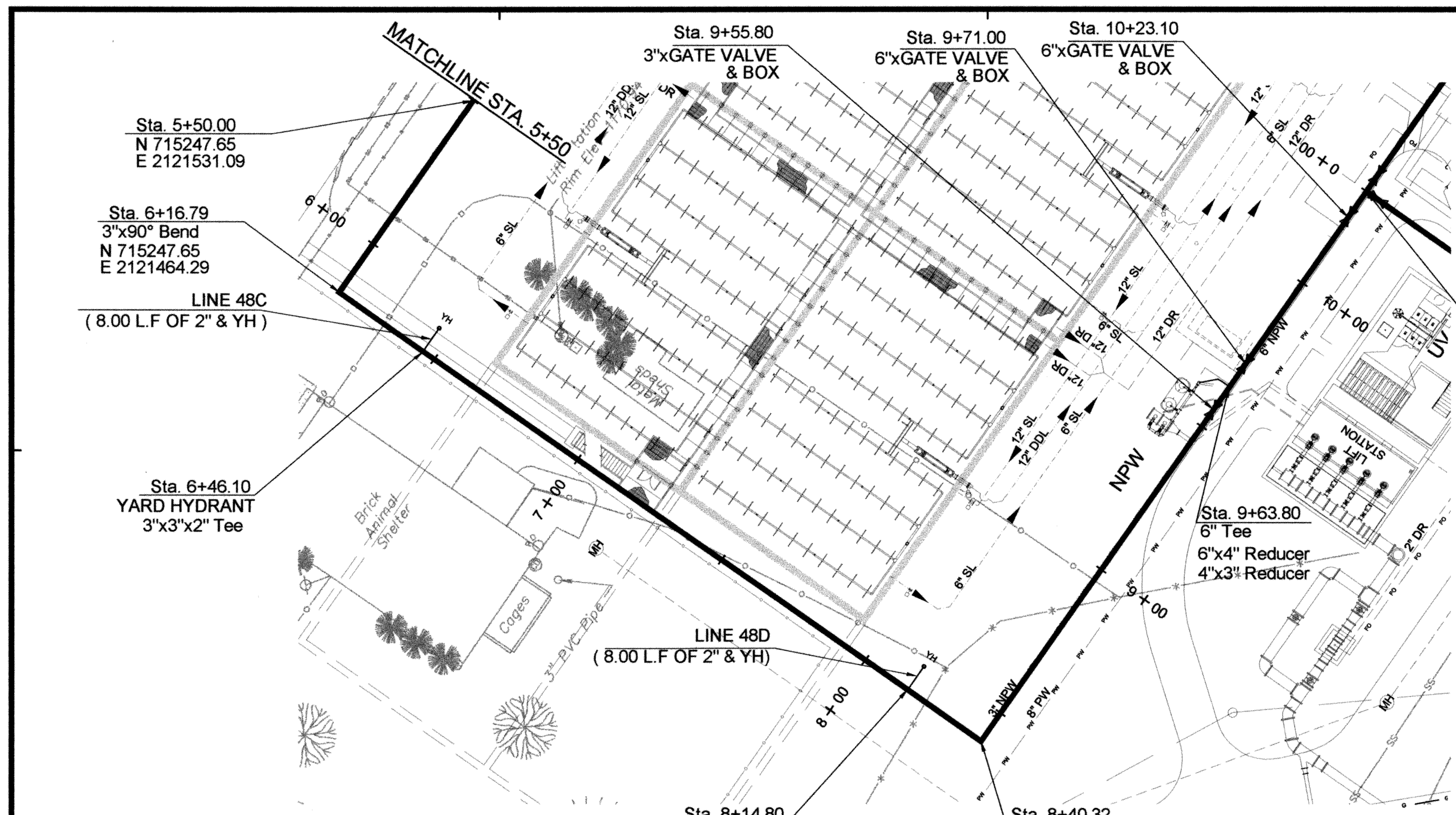
WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK

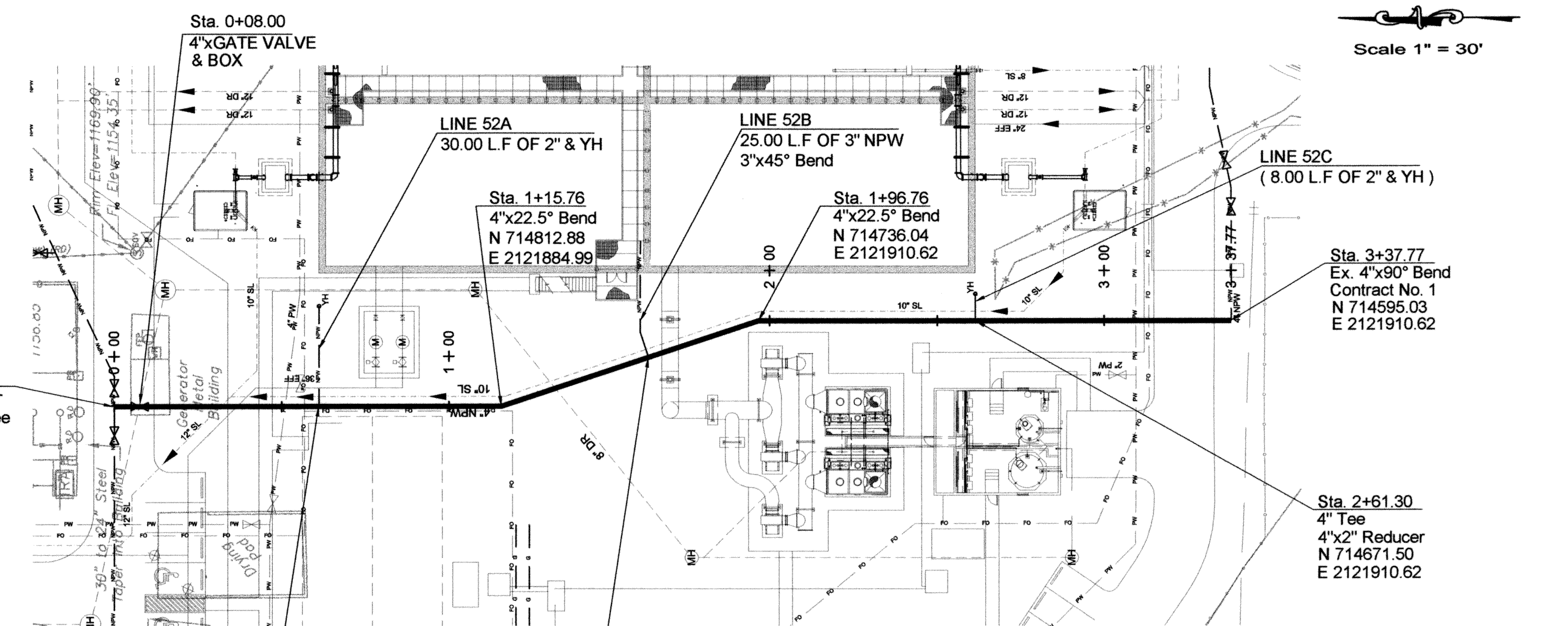


LINE 48

STA.	NORTHING	EASTING
Sta. 5+50.00	715247.65	2121531.09
Sta. 6+16.79	715247.65	2121464.29
Sta.8+40.32	715024.25	2121464.29
Sta.10+31.96	715024.19	2121655.86

LINE 48 – 3" NON-POTABLE WATER LINE PLAN VIEW

BEFORE YOU DIG... CALL OKIE 1-800-522-6543

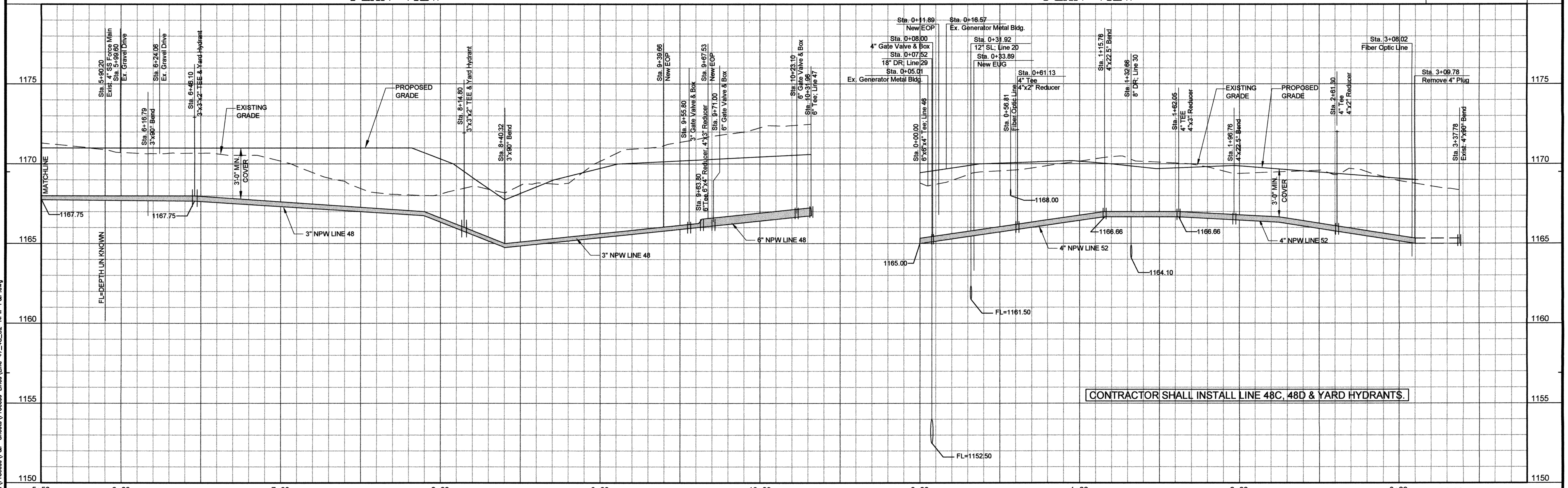


LINE 52

STA.	NORTHING	EASTING
Sta. 0+00.00	714928.64	2121884.99
Sta. 0+61.13	714867.51	2121884.99
Sta. 1+15.76	714812.88	2121884.99
Sta. 1+62.05	714768.97	2121899.64
Sta. 1+96.76	714736.04	2121910.62
Sta. 2+61.30	714671.50	2121910.62
Sta. 3+37.78	714595.03	2121910.62

LINE 52 – 4" NON-POTABLE WATER LINE PLAN VIEW

HORIZONTAL 1" = 30'-0"
VERTICAL 1" = 3'-0"



LINE 48 – 3" NON-POTABLE WATER LINE PROFILE

LINE 52 – 4" NON-POTABLE WATER LINE PROFILE

RECORD DRAWINGS

REVISIONS:	DATE:

LINE 48 & 52
0+00 to 10+50

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S.D.		S.D.	S.D.	4/22/10	AS NOTED	40 OF 63

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WASTEWATER TREATMENT SYSTEM IMPROVEMENTS, MOORE, OK