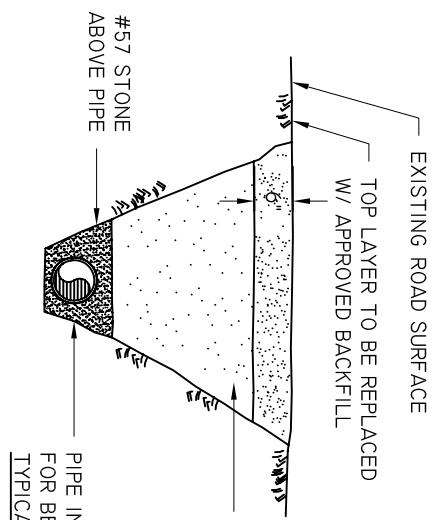


APPENDIX B – WASTEWATER/SEWER STANDARD DETAIL DRAWINGS

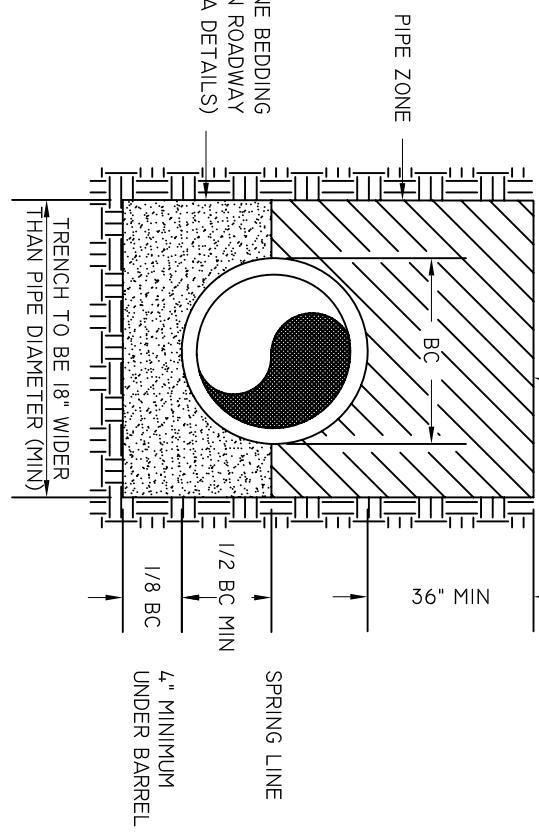
<u>DRAWING NUMBER</u>	<u>TITLE</u>
S-01	Bedding Detail – Gravity Pipe
S-02	Force Main Crossing
S-03	Gravity Main Crossing
S-04	Grease Trap Detail
S-05	Manhole – Cover and Frame
S-06	Manhole - Drop
S-07	Manhole – Flat Top
S-08	Manhole – Force Main Control
S-09	Manhole - Standard
S-10	Sewer Service Double
S-11	Sewer Service - Single
S-12	Pump Station Site Plan
S-13A	Pump Station Section I
S-13B	Pump Station Section II
S-14	Pump Station Wet Well Detail
S-15	Pump Station Fencing Detail
S-16	Pump Station Electrical Layout
S-17	Pump Station Control Panel & Main Disconnect
S-18	Pump Station Bubbler
S-19	Pump Station Hatch Detail
S-20A	Pump Station 2" Duplex Grinder, Plan
S-20B	Pump Station 2" Duplex Grinder, Section
S-21	Pump Station Residential Control Panel
S-22	Pump Station, Simplex Grinder
S-23A	Pump Station (Above Ground – 6x6), Site Plan
S-23B	Pump Station (Above Ground – 6x6), Detail #1
S-23C	Pump Station (Above Ground – 6x6), Detail #2
S-23D	Pump Station (Above Ground – 6x6), Detail #3
S-24	Sewer Check Valve
S-25	Sewer Air Release Pedestal Assembly
S-26	Duplex Residential Grinder Layout
S-27	Pump Station Residential Duplex Control Panel
S-28	Pump Station 6x6 Grate Detail



UNPAVED ROADWAY BEDDING DETAIL

#57 STONE BEDDING
(STONE ABOVE PIPE IN ROADWAY
AND PAVED AREA DETAILS)

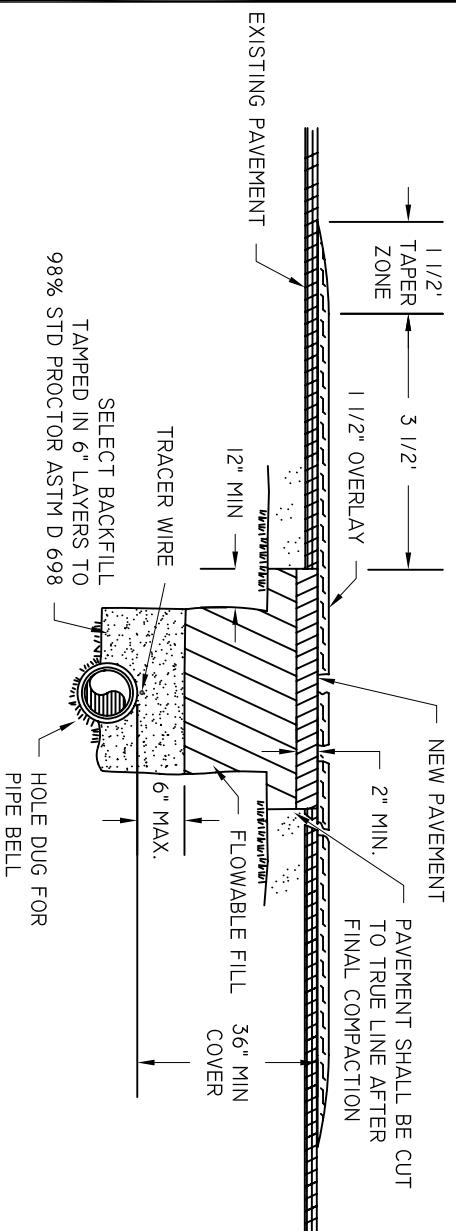
PIPE IN STONE 6" OVER BARREL MIN.
INCLUDE NO MATERIAL GREATER
THAN 2" DIA. (98% COMPACTION
PER STD. PROCTOR ASTM D 698)



TYPICAL BEDDING FOR GRAVITY SEWER PIPE

NOTES:

1. PAVEMENT CUT TO EXTEND 1/2" BEYOND EDGES OF TRENCH INSTALLATION CUT. FINAL CUT TO BE MADE AFTER FINAL COMPACTION.
2. MATCH EXISTING PAVEMENT TYP. THICKNESS IS TO 2" UNLESS EXISTING IS THICKER.
3. ALL INSTALLATIONS IN PUBLIC ROADWAYS SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT, IF MORE STRINGENT.



PAVED AREA DETAIL

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WATER & SEWER AUTHORITY

BEDDING DETAIL, GRAVITY PIPE

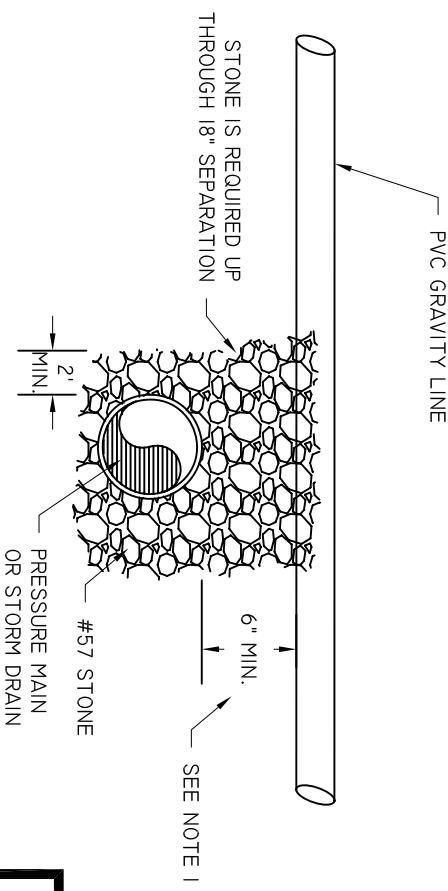
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-01
SCALE N.T.S.	APPROVED BY ERS	

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

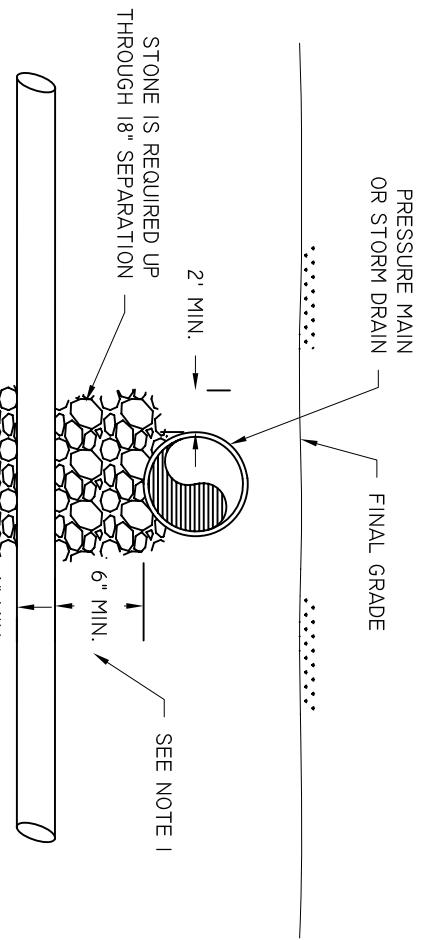
RESERVED

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-02
SCALE N.T.S.	APPROVED BY ERS	

**GRAVITY MAIN CROSSING OVER
STORM DRAIN / PRESSURE MAIN**



**GRAVITY MAIN CROSSING UNDER
STORM DRAIN / PRESSURE MAIN**

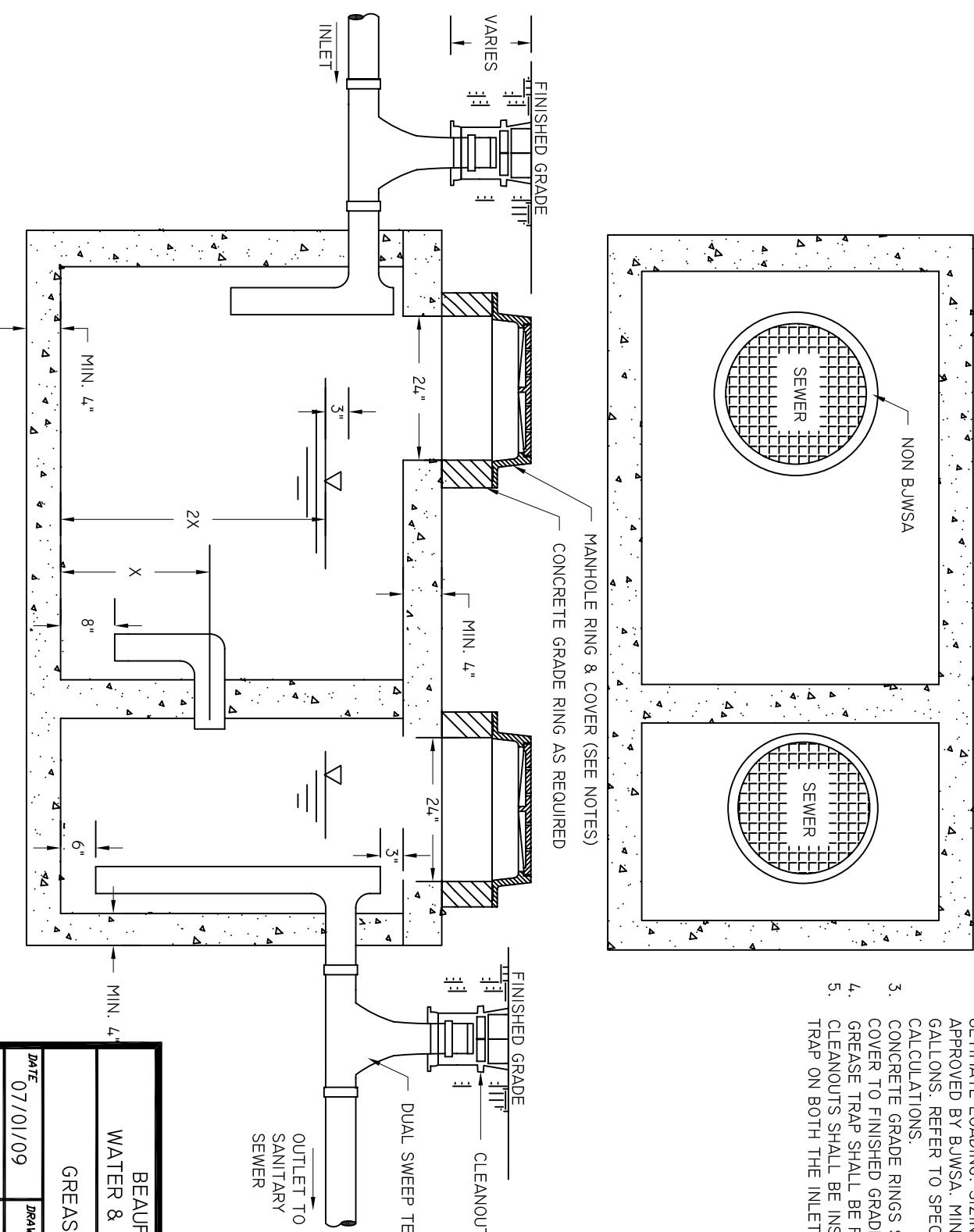


NOTE:
1. SYSTEMS SHOULD NOT BE DESIGNED
WITH LESS THAN 12" SEPARATION. IF
LESS SEPARATION IS UNAVOIDABLE,
WRITTEN AUTHORIZATION FROM BJWSA
IS REQUIRED.

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GRAVITY MAIN CROSSING

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-03
SCALE N.T.S.	APPROVED BY ERS	



NOTES:
1. MAIL

1. MANHOLE RING & COVER SHALL BE GAS AND WATER TIGHT PROVIDING A 22" MINIMUM CLEAR OPENING. REFER TO MANHOLE COVER AND FRAME DETAIL.
2. VOLUME OF GREASE TRAP SHALL BE BASED UPON ULTIMATE LOADING. SIZING CALCULATIONS MUST BE APPROVED BY BJWSA. MINIMUM SIZE SHALL BE 1,000 GALLONS. REFER TO SPECIFICATIONS FOR SIZING CALCULATIONS.
3. CONCRETE GRADE RINGS SHALL BE UTILIZED TO BRING COVER TO FINISHED GRADE.
4. GREASE TRAP SHALL BE PRECAST ONLY.
5. CLEANOUTS SHALL BE INSTALLED WITHIN 2' OF GREASE TRAP ON BOTH THE INLET AND OUTLET.

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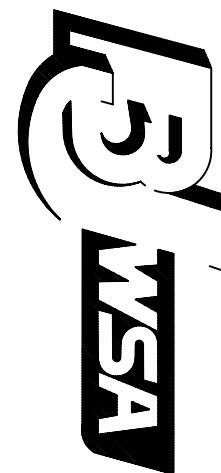
GREASE TRAP DETAIL

**BEAUFORT - JASPER
WATER & SEWER AUTHORITY**

GREASE TRAP DETAIL

DATE:	DRAWN BY:	SCALE:	DRAWING #:
07/01/09	BMC	N.T.S.	APPROVED BY: ERS
S-04			

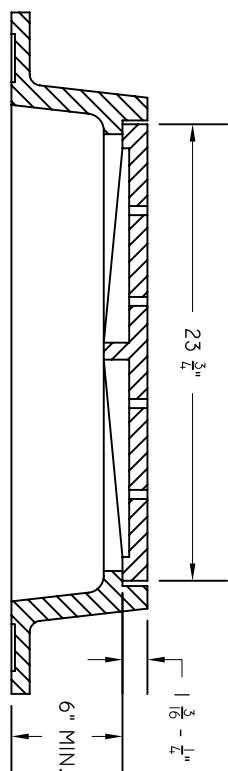
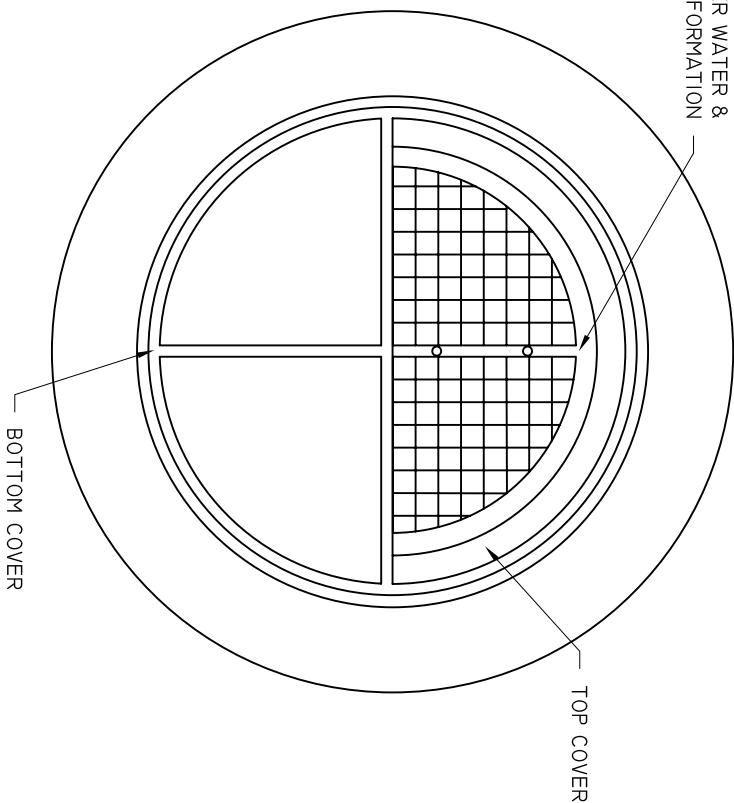
BEAUFORT-JASPER WATER & SEWER
AUTHORITY LOGO TO BE CAST ON COVER
CONTACT BEAUFORT JASPER WATER &
SEWER AUTHORITY FOR INFORMATION



LOGO

NOTES:

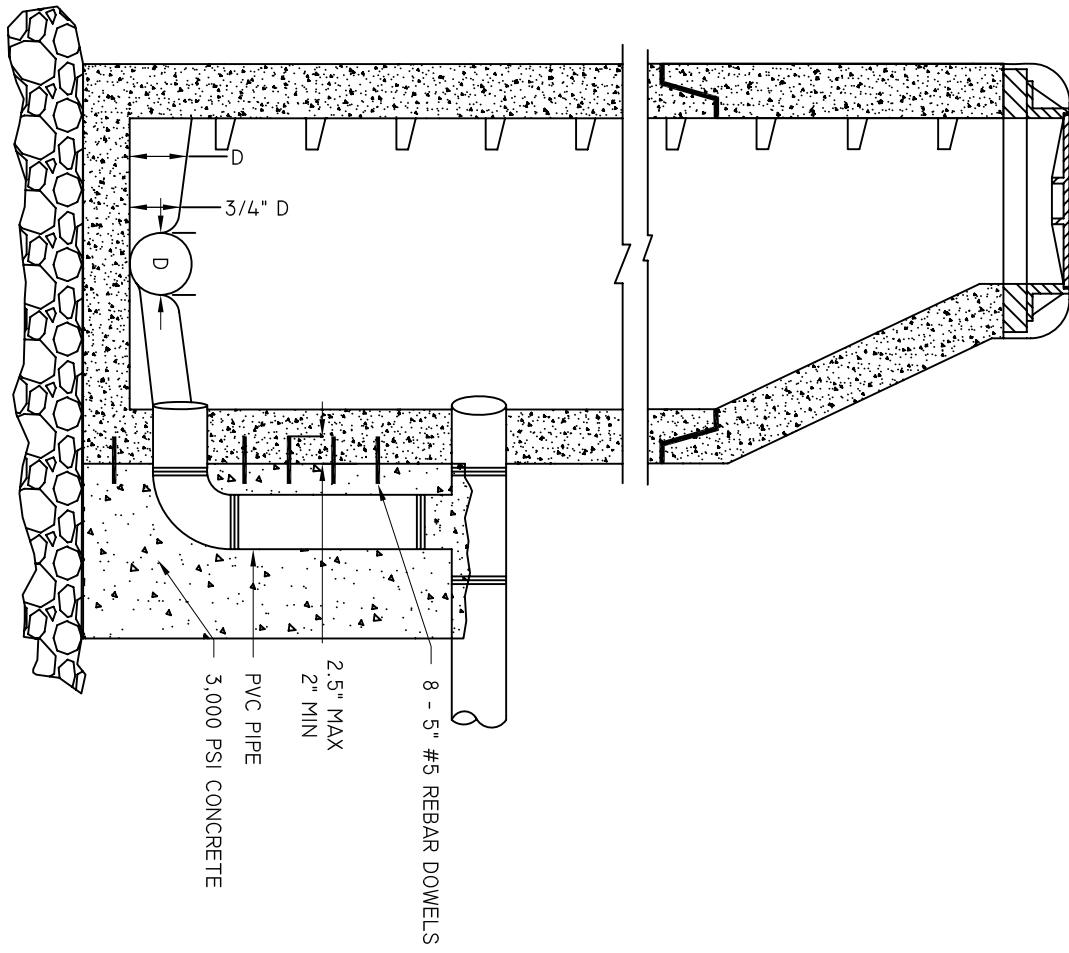
1. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR BY SOME OTHER APPROVED METHOD UNLESS AN ALTERNATIVE SPECIFICATION IS MADE.
2. MATERIALS USED IN THE MANUFACTURE OF CASTINGS SHOULD CONFORM TO ASTM, AASHTO, ASA, MIL, AMS OR FEDERAL SPECIFICATIONS FOR GRAY IRON OR DUCTILE IRON AS FOLLOWS: GRAY IRON-ASTM CLASS 35, DUCTILE IRON-GRADE 60-40-18.
3. ALL CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN



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WATER & SEWER AUTHORITY

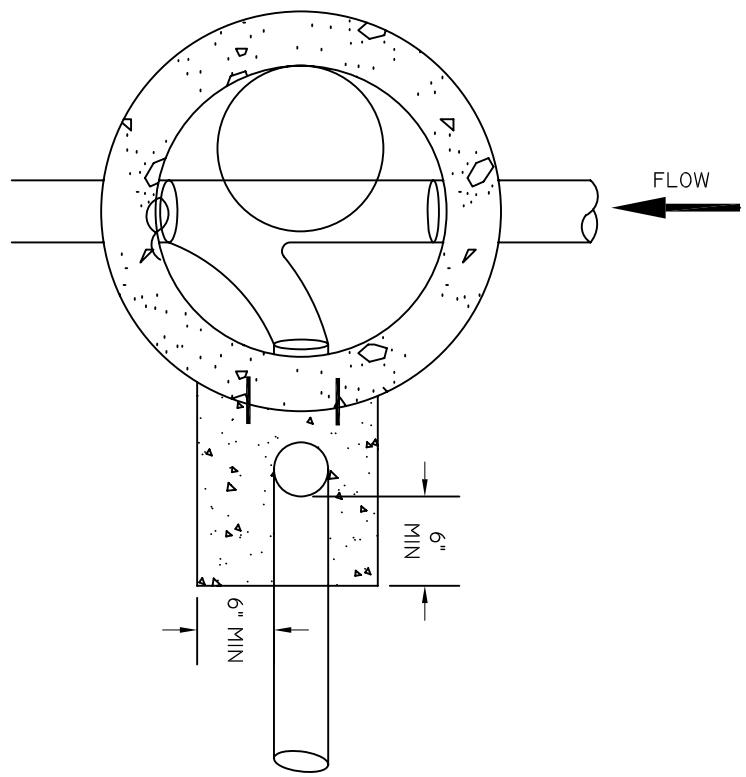
MANHOLE, COVER AND FRAME

DATE	DRAWN BY	DRAWING #
07/01/09	BMC	
N.T.S.	ERS	
		S-05



SECTION VIEW

PLAN VIEW



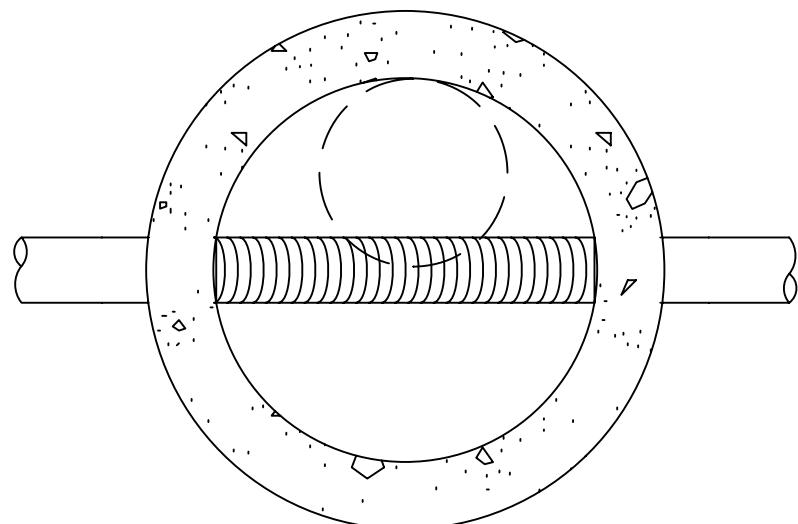
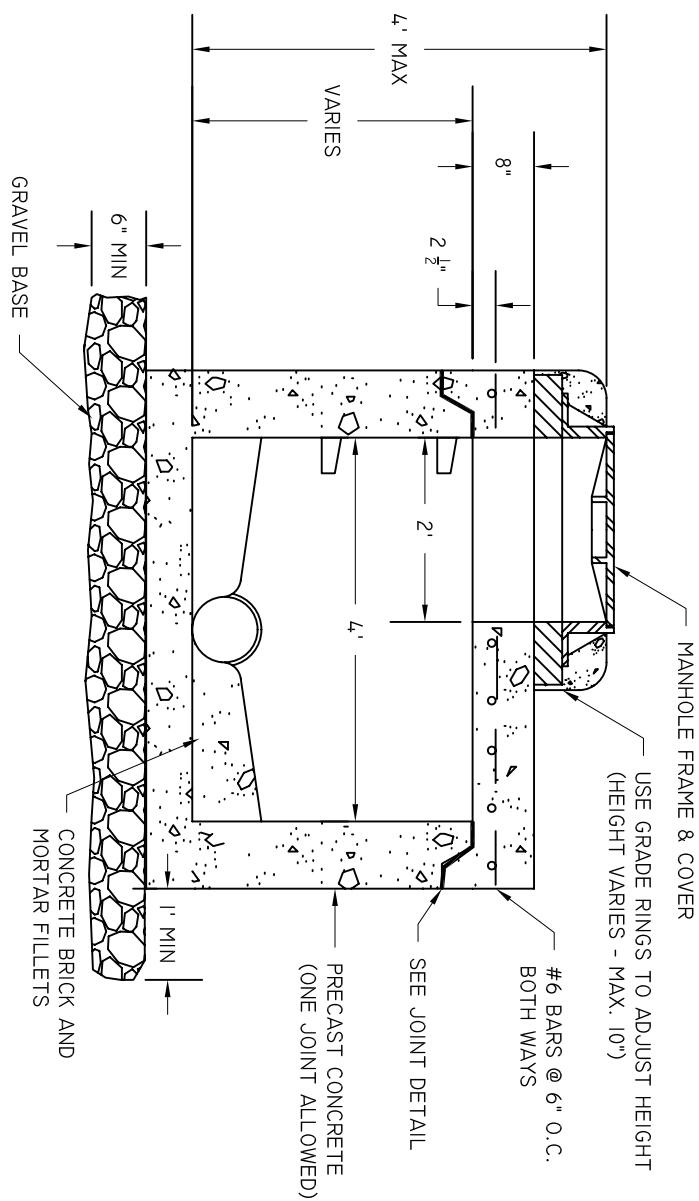
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

DROP MANHOLE

DATE	DRAWN BY	DRAWING #
07/01/09	BMC	S-06

SCALE: N.T.S. APPROVED BY: ERS

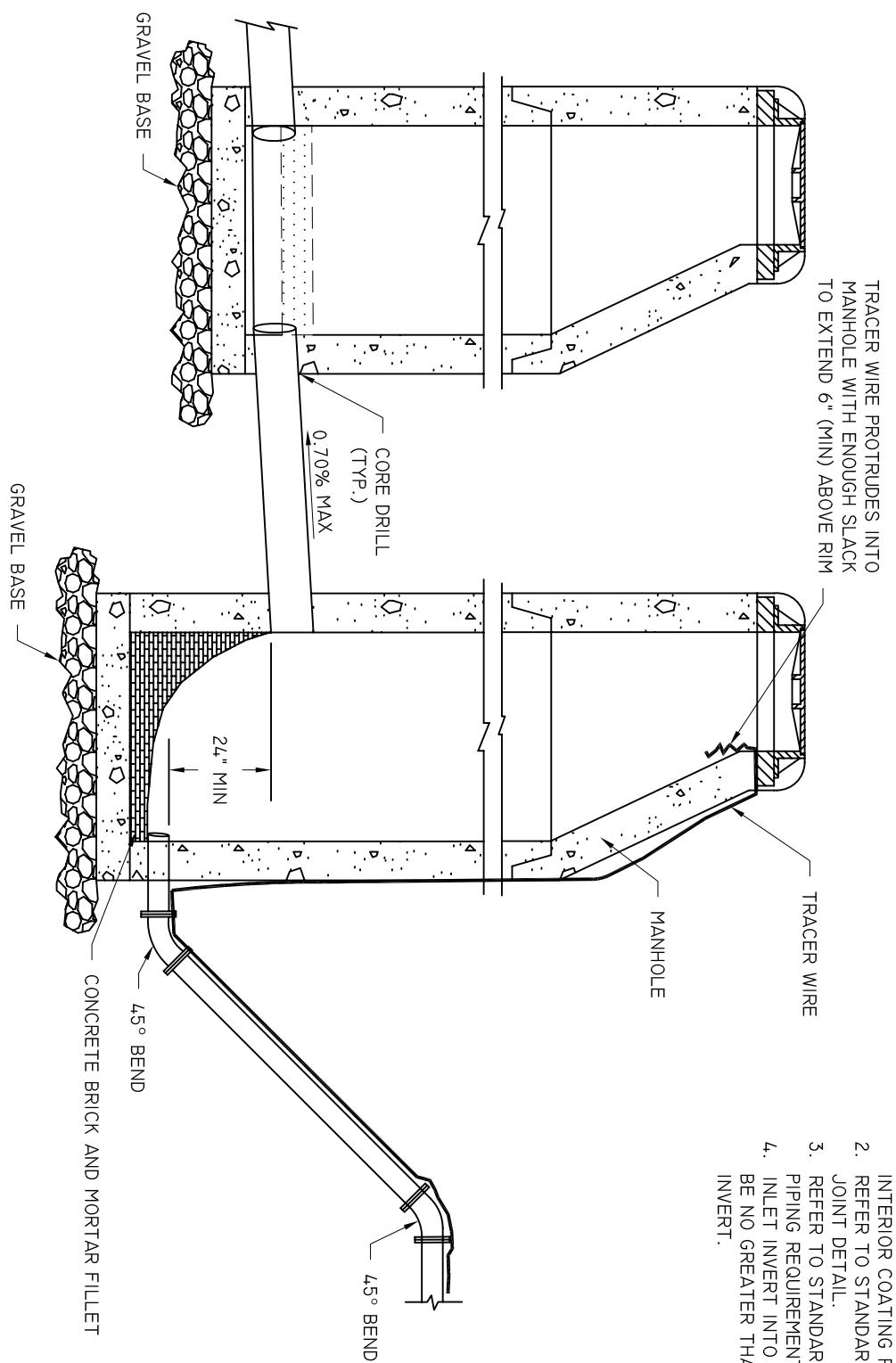
NOTES:
 1. REFER TO STANDARD SPECIFICATIONS
 FOR INTERIOR COATING REQUIREMENTS.



DATE 07/01/09	DRAWN BY BMC	DRAWING # S-07
SCALE N.T.S.	APPROVED BY ERS	

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

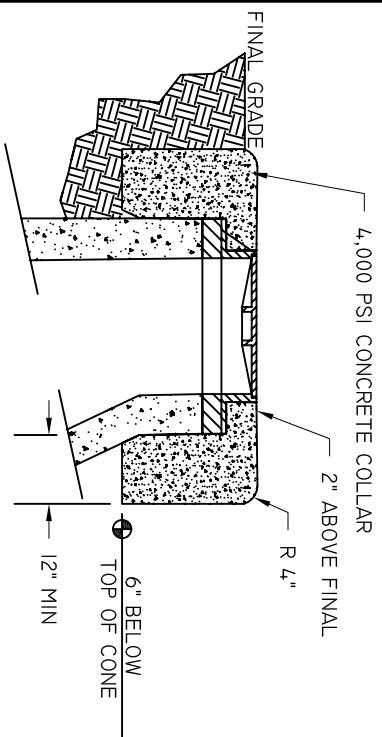
FLAT TOP MANHOLE



NOTES:

1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
2. REFER TO STANDARD MANHOLE DETAIL FOR JOINT DETAIL.
3. REFER TO STANDARD SPECIFICATIONS FOR PIPING REQUIREMENTS.
4. INLET INVERT INTO EXISTING MANHOLE SHOULD BE NO GREATER THAN 0.2' ABOVE OUT GOING INVERT.

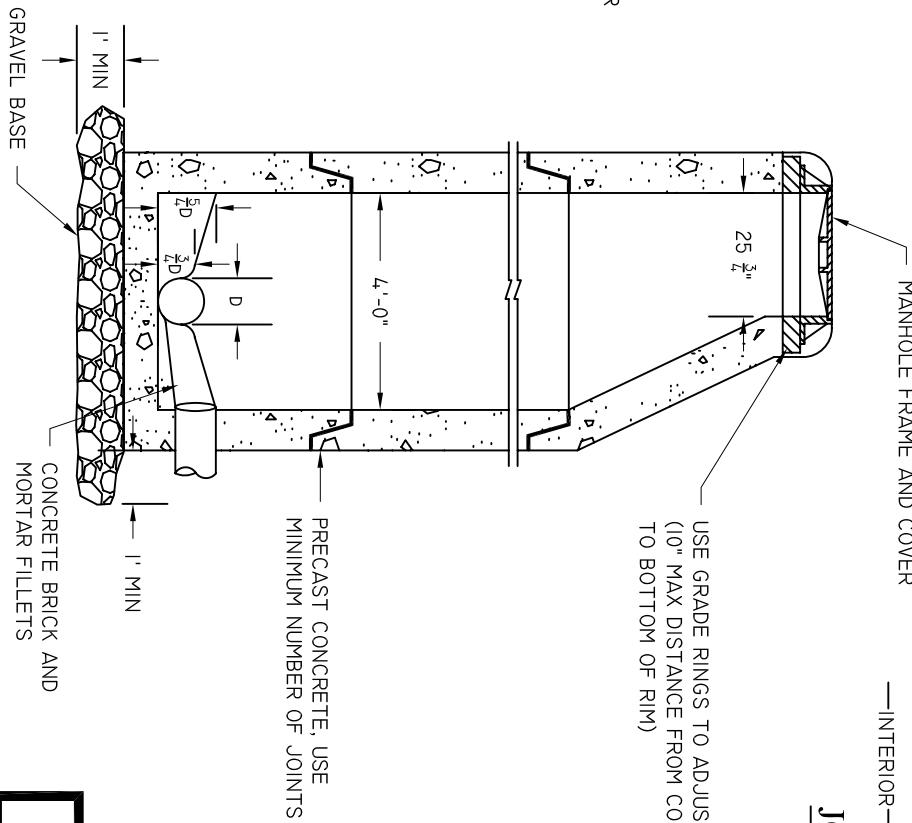
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-08
SCALE N.T.S.	APPROVED BY ERS	



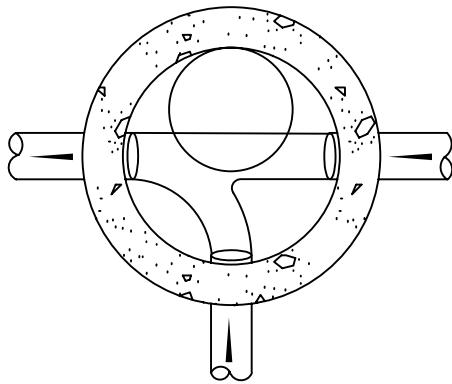
RURAL MANHOLE PROTECTIVE COLLAR

NOTES:

1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
2. CONCRETE GROUTING IS NOT ALLOWED INSIDE MANHOLES.
3. RIM ELEVATION ON RURAL MANHOLES SHALL BE 6" HIGHER THAN NEAREST MANHOLE OUTSIDE THE RURAL AREA.



JOINT DETAIL



PLAN VIEW

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

STANDARD MANHOLE

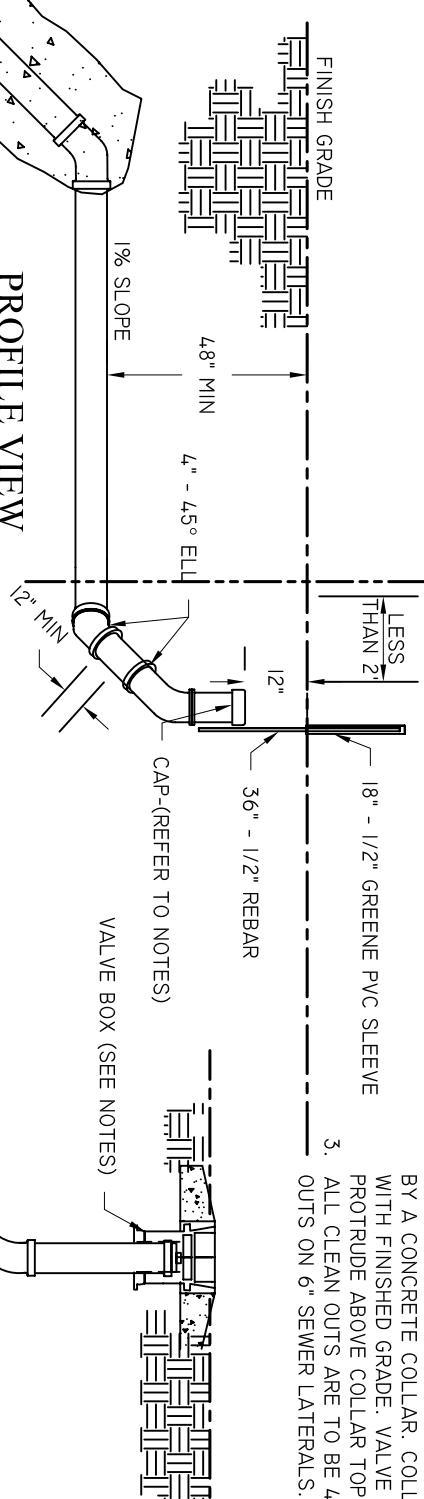
DATE 07/01/09 DRAWN BY: BMC DRAWING #: S-09
SCALE N.T.S. APPROVED BY: ERS

BJWSA OWNERSHIP

HOMEOWNER OWNERSHIP

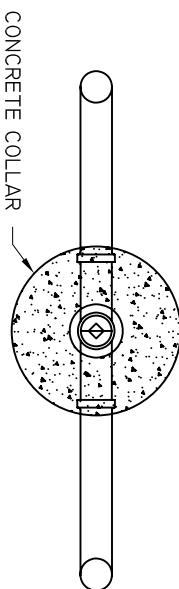
NOTES:

1. SERVICE LATERAL SHALL BE INSTALLED 12" BELOW FINISHED GRADE AND CAPPED IN A MANNER SUITABLE FOR PRESSURE TESTING.
2. CLEAN OUTS INSIDE GRASSED AREA SHALL CONSIST OF PVC PLUG IN SEWER LIDDED VALVE BOX SURROUNDED BY A CONCRETE COLLAR. COLLAR SHALL BE FLUSH WITH FINISHED GRADE. VALVE BOX LID SHALL NOT PROTRUDE ABOVE COLLAR TOP.
3. ALL CLEAN OUTS ARE TO BE 4", INCLUDING CLEAN OUTS ON 6" SEWER LATERALS.



PROFILE VIEW

CLEAN OUT INSTALLATION - PROFILE VIEW



CLEAN OUT - PLAN VIEW

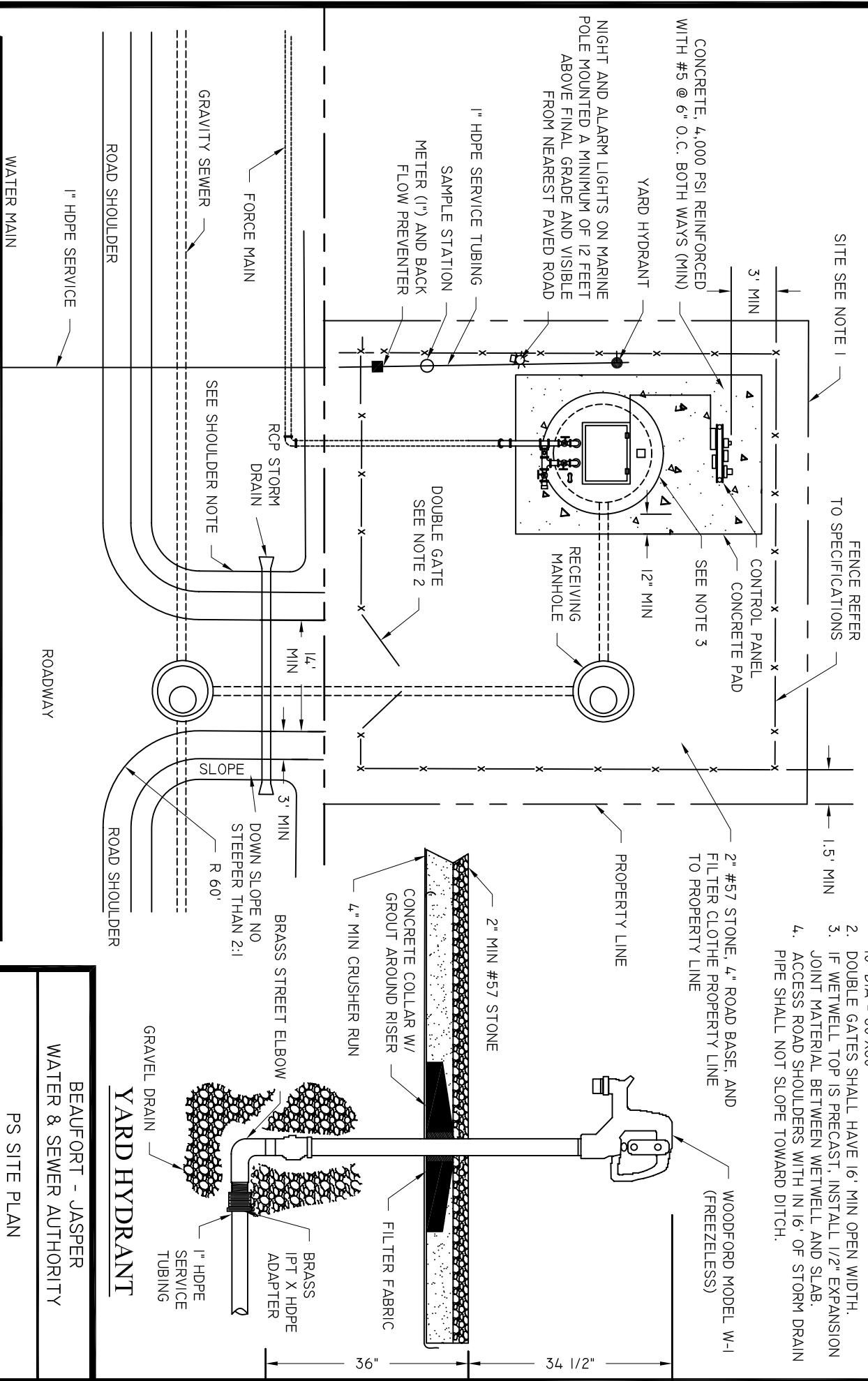
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

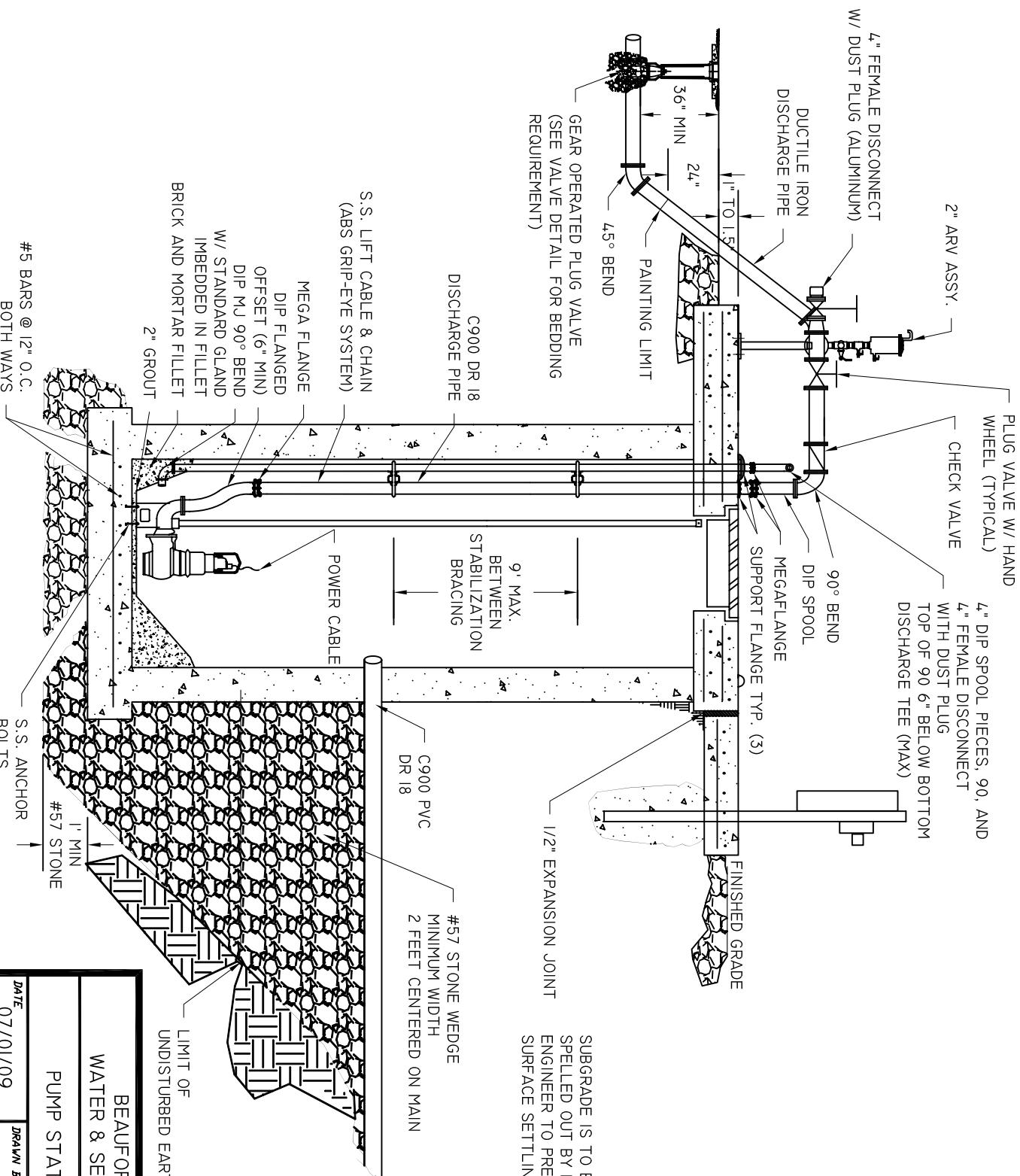
SEWER SERVICE, SINGLE

BJWSA OWNERSHIP

HOMEOWNER OWNERSHIP

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-11
SCALE N.T.S.	APPROVED BY ERS	

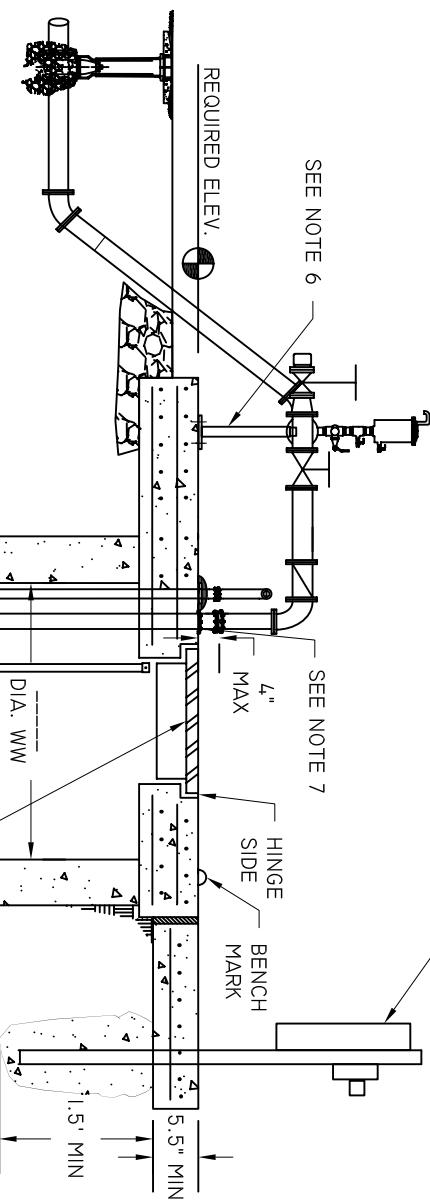




SCALE	DRAWN BY	BMC	DRAWING #
N.T.S.	APPROVED BY	ERS	S-13A

NOTES:

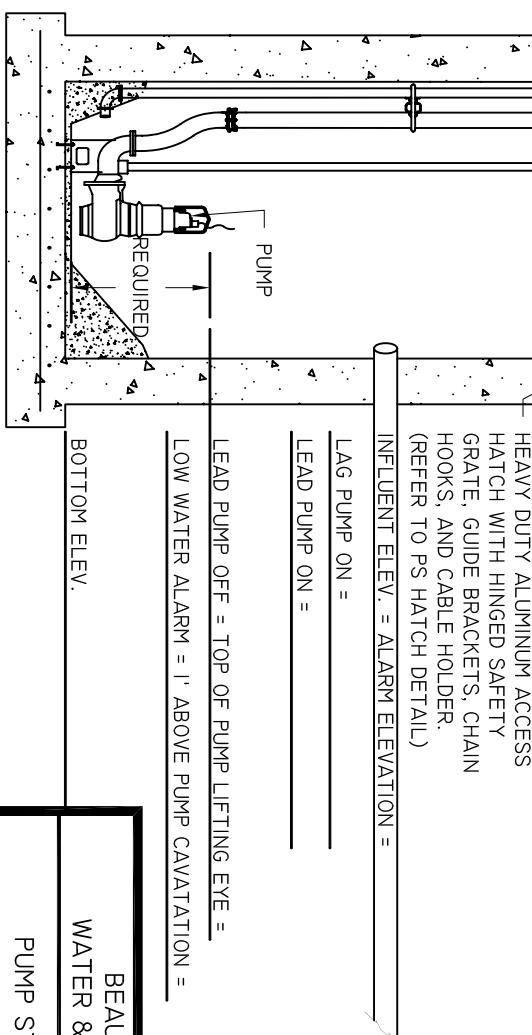
1. ALL WETWELL PIPING SHALL BE ONE SOLID PIECE OF FUSIBLE C900 PVC, WITH NO JOINTS.
2. ALL BOLTS, GUIDE RAILS, BRACKETS, HANGERS, AND LIFTING APPURTENANCES INSIDE WET WELL SHALL BE 316 STAINLESS STEEL.
3. DISCHARGE AND VENT PIPING PENETRATIONS SHALL BE SEALED WITH SS LINK SEALS.
4. WETWELL INTERIOR AND DISCHARGE PIPING SHALL BE COATED WITH HYDROGEN SULFIDE RESISTANT COATING. (SEE SPECIFICATIONS FOR REQUIREMENTS)
5. EXTERIOR PIPING SHALL BE PAINTED. (SEE SPECIFICATIONS FOR REQUIREMENTS)
6. PROVIDE ADJUSTABLE SUPPORT TO ABOVE GROUND PIPING AT THIS POINT. FURNISH SUBMITTAL FOR APPROVAL ON PROPOSED SUPPORT PRIOR TO PROCEEDING.
7. PROTECT EXPOSED PVC FROM UV DETERIORATION SUBMIT ON PROPOSED METHOD.
8. ALL THROUGH TOP PIPING SUPPORTED ON WW TOP BY UNIFLANGES.
10. ATTACH FLOAT CABLES & BUBBLER SUPPORT CABLE TO SAFETY GRATE. ATTACHMENTS AWAY FROM THE HINGE SHALL BE IN THE FOLLOWING ORDER:



PUMP STATION DATA

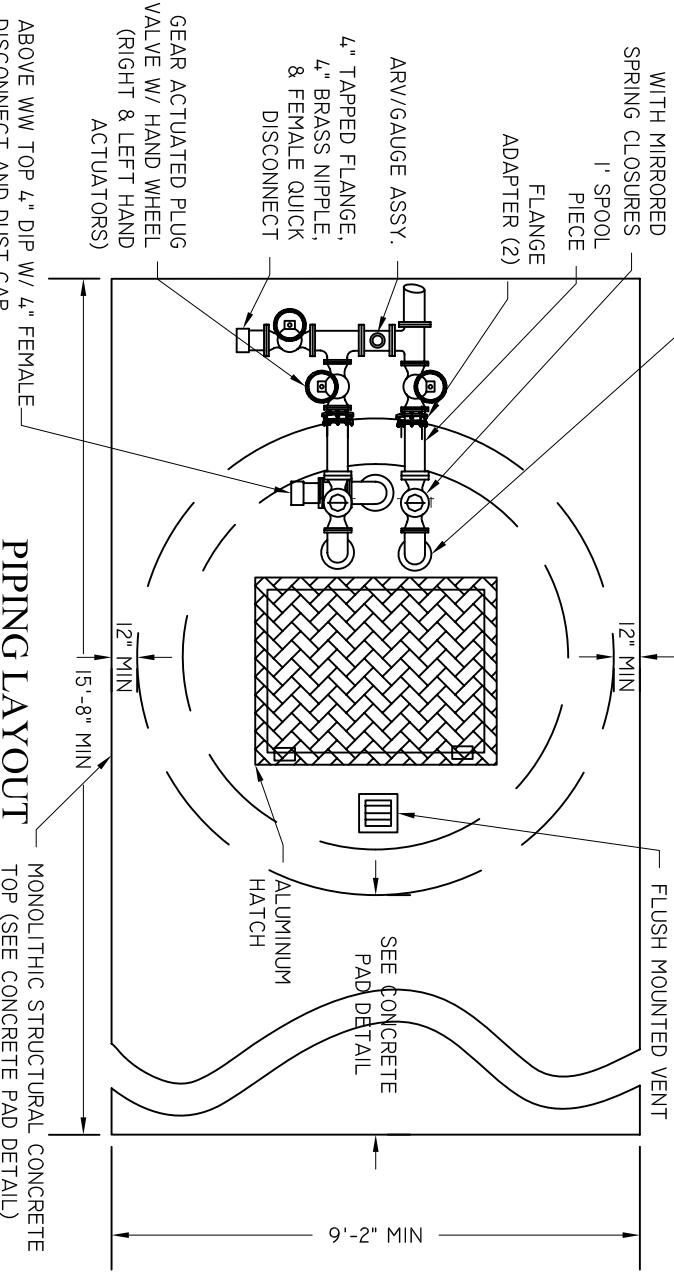
*PUMP STATION # _____
 *LOCATION _____
 *PUMP MANUFACTURER _____
 *MODEL # _____
 SERIAL # _____
 HORSEPOWER _____
 VOLTAGE _____
 DATE INSTALLED _____
 *ENGINEER _____
 CONTRACTOR _____

*INFORMATION REQUIRED ON CONSTRUCTION PLANS. REMAINING INFORMATION REQUIRED ON ASB.



PUMP STATION SECTION II

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-13B
SCALE N.T.S.	APPROVED BY ERS	

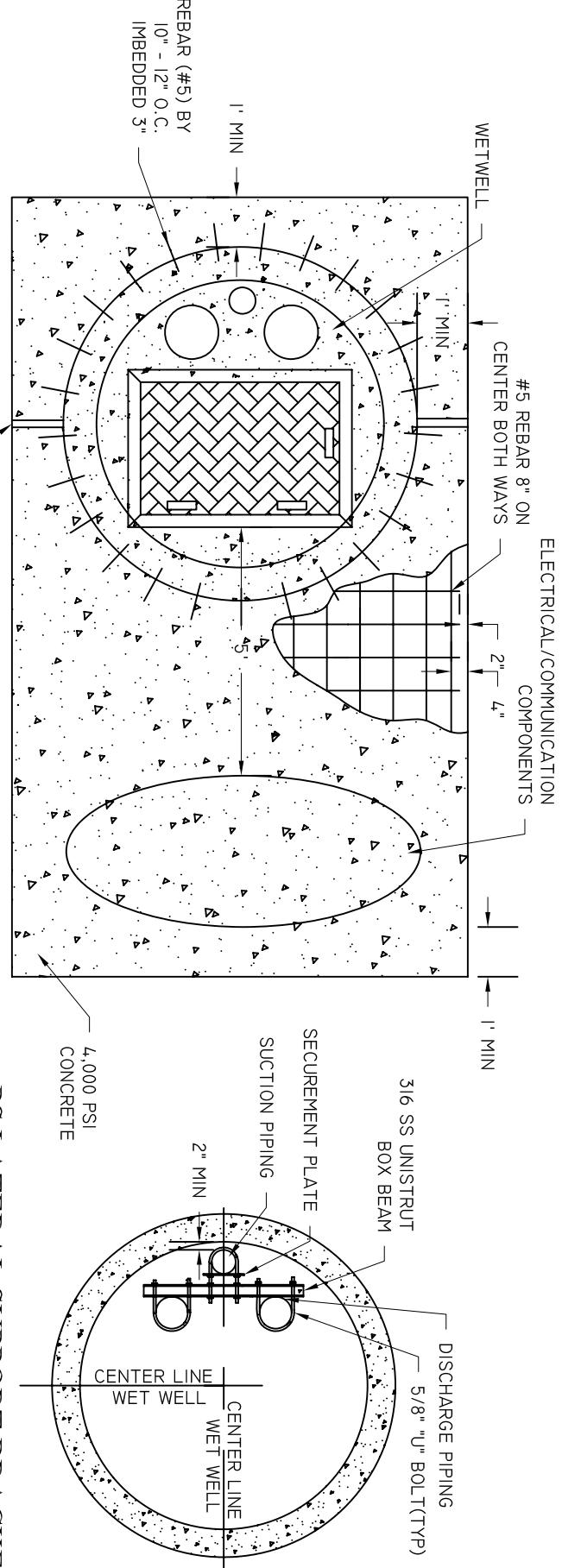


DATE 07/01/09	DRAWN BY BMC	DRAWING # S-14
SCALE N.T.S.	APPROVED BY ERS	

SUPPORT FLANGE OVER
SS LINK SEAL (TYP)

CONCRETE PAD DETAIL

PS LATERAL SUPPORT BRACKET



NOTES:

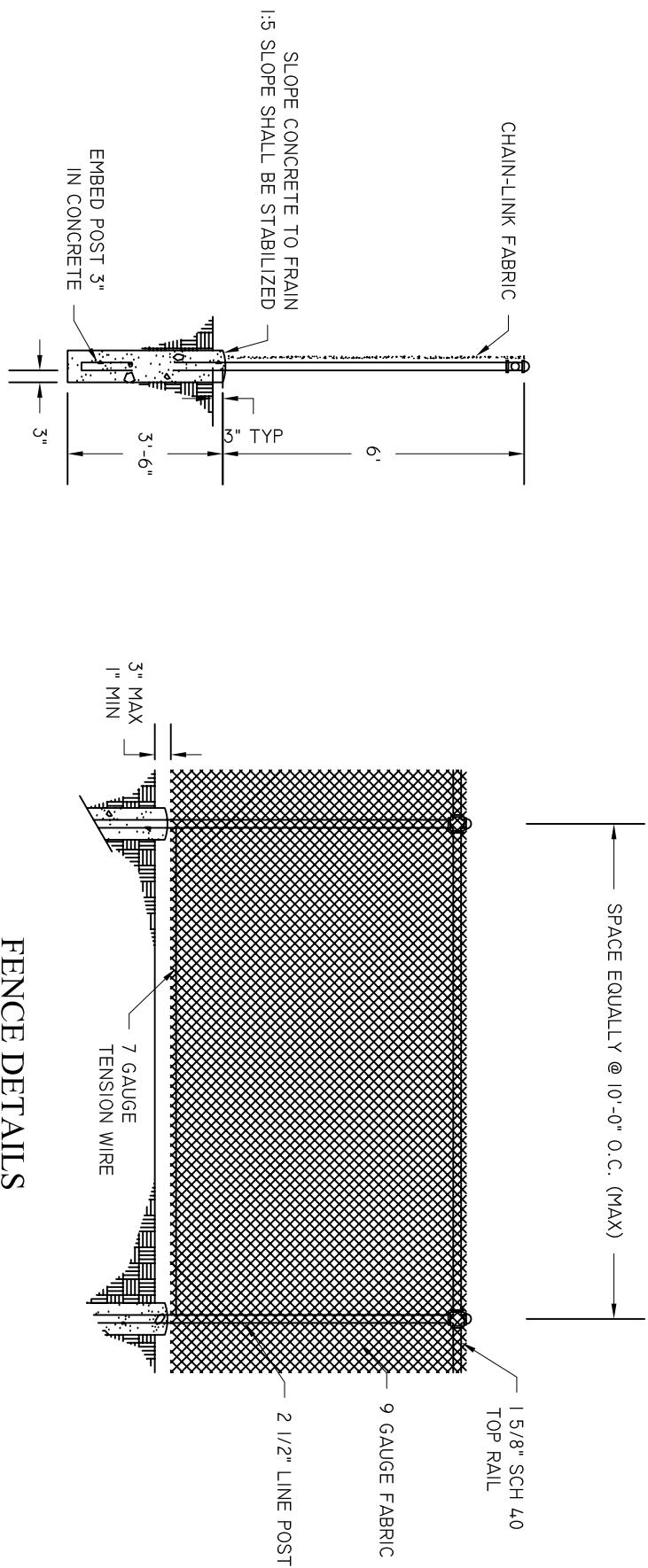
1. CONCRETE IS TO BE A MINIMUM OF 5 1/2" THICK
2. REINFORCING IS TO BE 2" ABOVE BOTTOM
3. ALL EXPOSED EDGES SHALL BE SHAMPHERED (1"X1" MIN)
4. VERTICAL PIPING BRACING IS NOT EXCEED 9' ON CENTER

GEAR ACTUATED PLUG
VALVE W/ HAND WHEEL
(RIGHT & LEFT HAND
ACTUATORS)

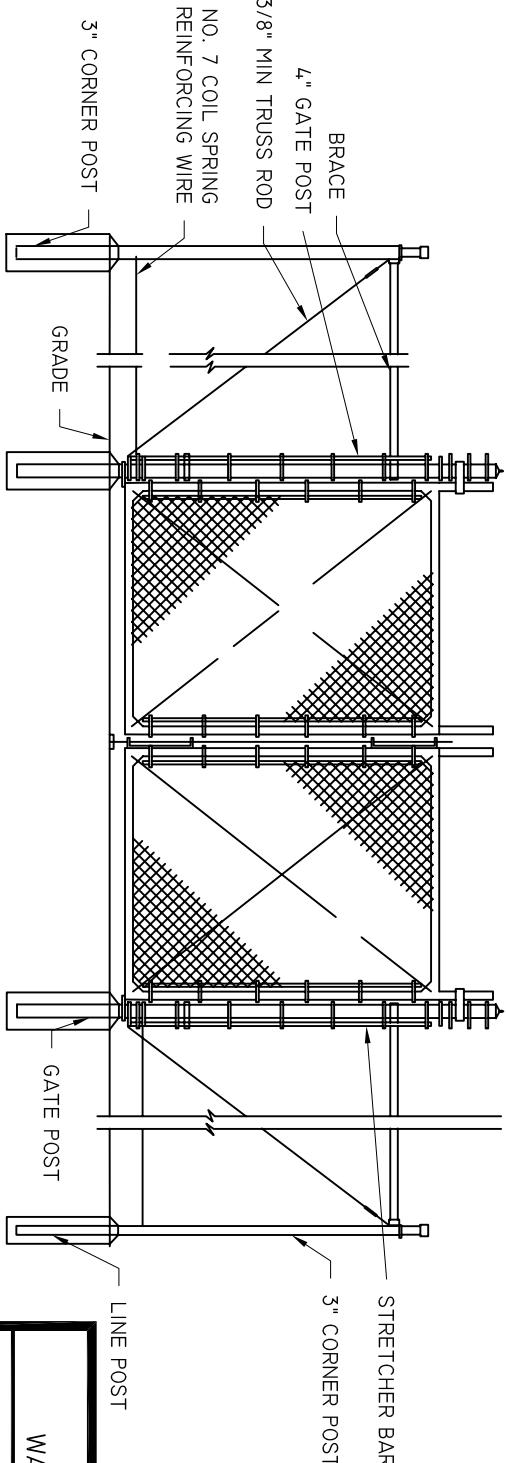
ABOVE WW TOP 4" DIP W/ 4" FEMALE
DISCONNECT AND DUST CAP

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PUMP STATION WETWELL DETAIL



FENCE DETAILS



NOTES:
1. REFER TO STANDARD SPECIFICATIONS FOR SITE SIZE REQUIREMENTS.

2. PROVIDE DUCK BILL GATE STOPS. STOPS ARE TO BE ANCHORED IN ONE CUBIC FOOT OF CONCRETE, MIN., AND ARE TO BE AGAINST THE FENCE.

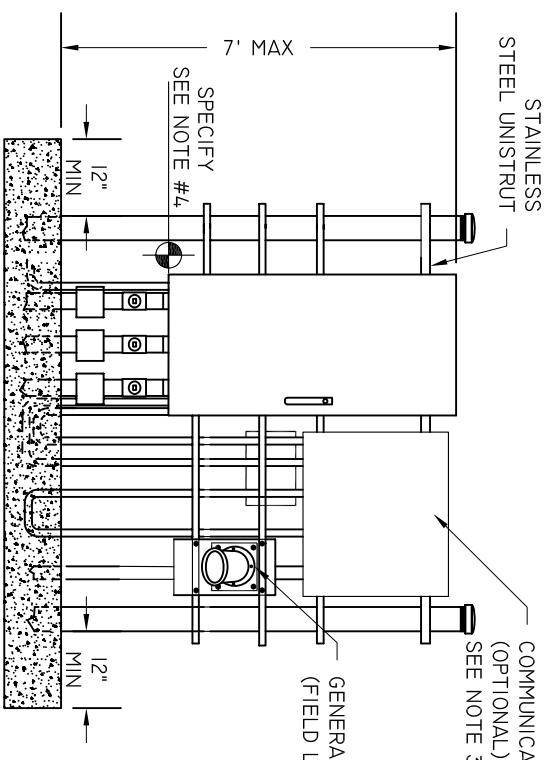
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WATER & SEWER AUTHORITY

PUMP STATION FENCING DETAIL

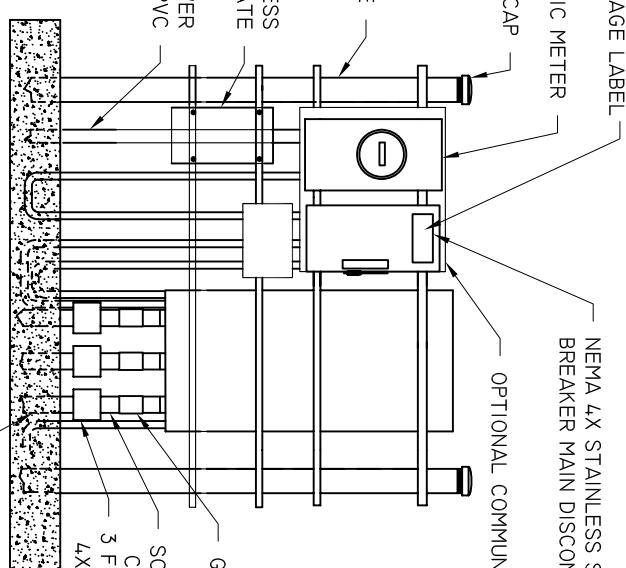
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-15
SCALE N.T.S.	APPROVED BY ERS	

GATE DETAIL

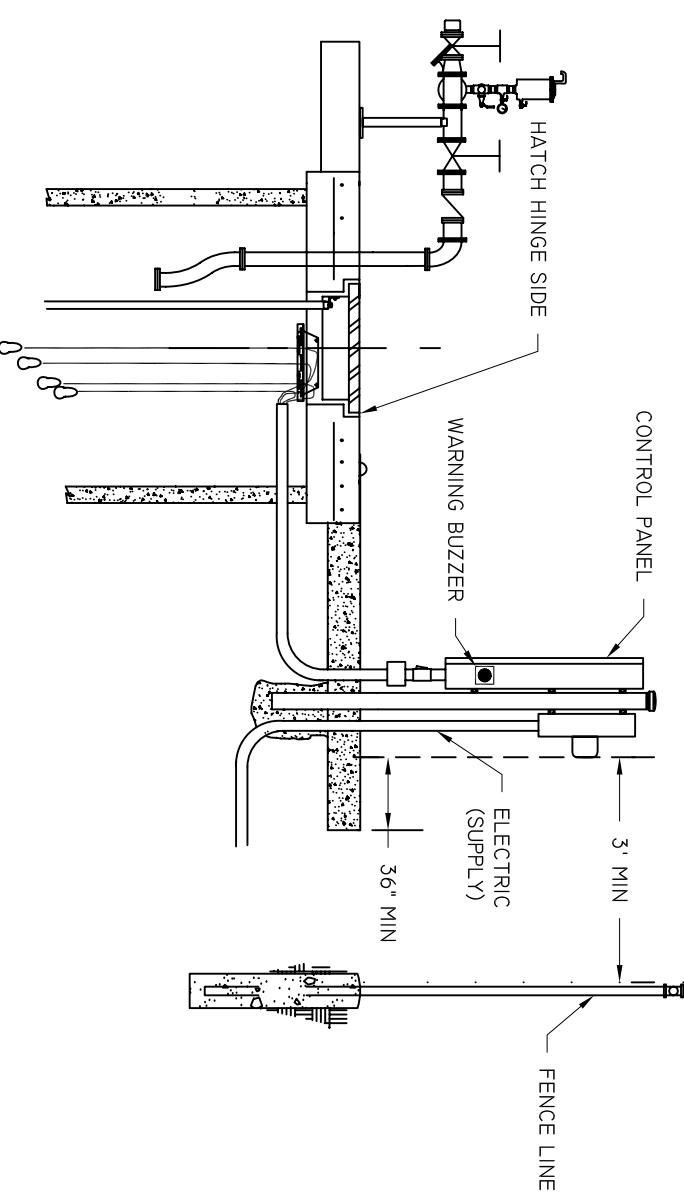
1'-4" CONCRETE FOR POSTS 4" OR LESS
2'-0" CONCRETE FOR POSTS OVER 4"



FRONT VIEW



REAR VIEW



SECTION VIEW

NOTES:

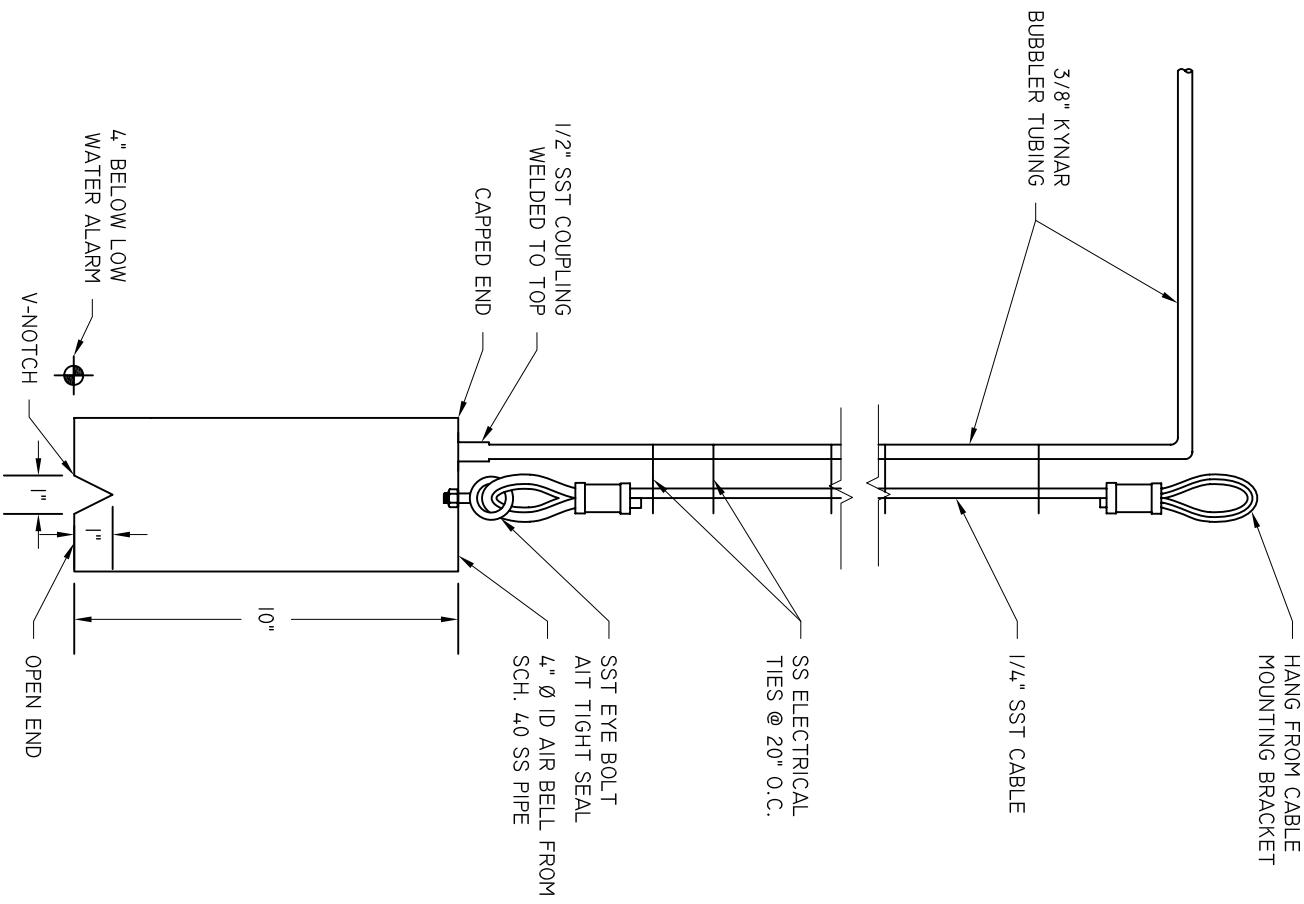
1. ALL PENETRATIONS MUST ENTER THROUGH BOTTOM
2. L-BEE'S MAY BE USED SPARINGLY UPON WRITTEN REQUEST
3. SEE SPECIFICATIONS FOR COMMUNICATIONS REQUIREMENTS
4. MUST BE ABOVE 25 YEAR FLOOD ELEVATION. PROVIDE CERTIFICATION OF THIS ELEVATION FOR THE PS

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PUMP STATION ELECTRICAL LAYOUT

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-16
SCALE N.T.S.	APPROVED BY ERS	

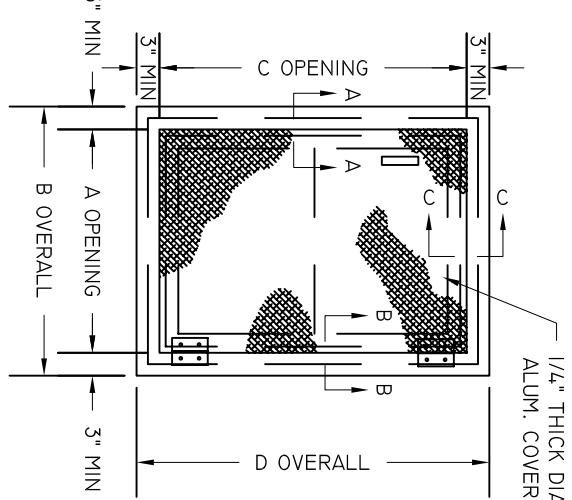
NOTE:
1. ALL STAINLESS STEEL IS 316



DATE 07/01/09	DRAWN BY BMC	DRAWING # S-18
SCALE N.T.S.	APPROVED BY ERS	

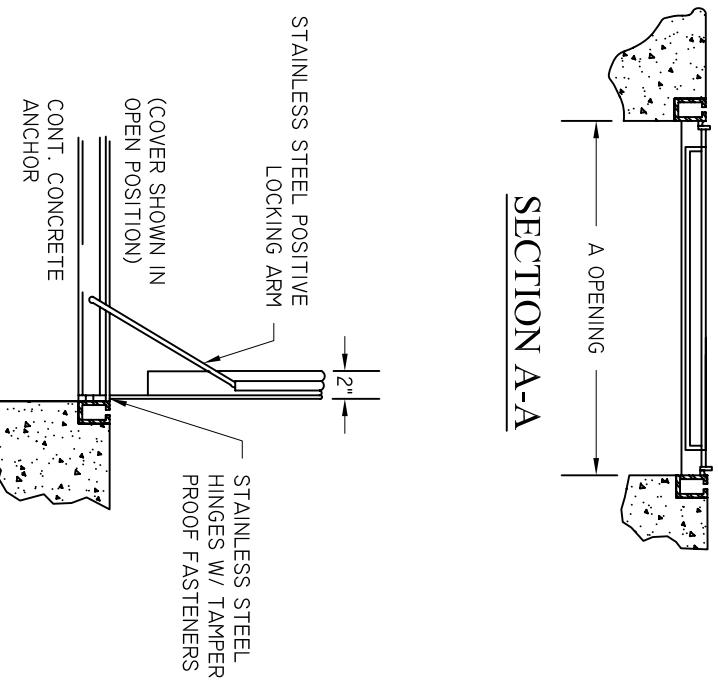
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION BUBBLER

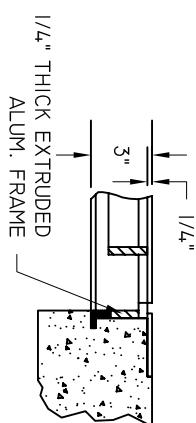


WETWELL ACCESS HATCH

NOT TO SCALE



SECTION B-B



SECTION C-C

NOTES:

1. ALL HATCHES SHALL BE EQUIPPED WITH A SAFETY GRATE. DIMENSIONS "A" & "C" SHALL INCLUDE ANY RESTRICTION IMPOSED BY SAFETY GRATE.
2. FOR LOCATION OF ACCESSORIES SEE PUMP OUTLINE DIMENSIONS.
3. HATCH SHALL BE EQUIPPED WITH A PAD-LOCKABLE RECESSED LOCKING MECHANISM.
4. HATCH DIMENSIONS SHOWN ARE MINIMUM SIZES ALLOWED. THE ENGINEER SHALL BE RESPONSIBLE FOR VERIFYING MINIMUM HATCH DIMENSIONS FOR PUMP SELECTED.
5. FLOATS AND BUBBLER SHALL BE HUNG FROM THE SAFETY GRATE.

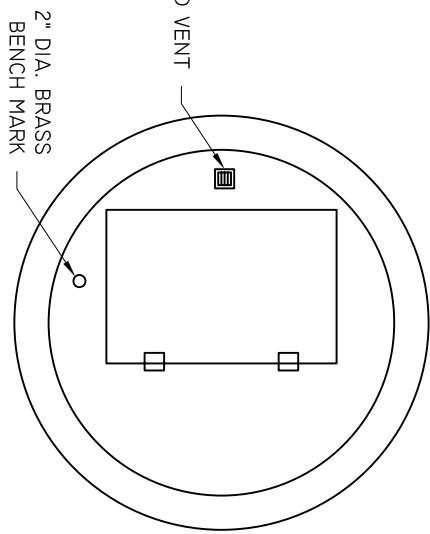
WETWELL DIA	DIMENSION		LIFT WT.
	A	C	
6'	32"	48"	24 LBS
8' - 10'	36"	48"	26 LBS

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-19
SCALE N.T.S.	APPROVED BY ERS	

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PUMP STATION HATCH DETAIL

WETWELL TOP

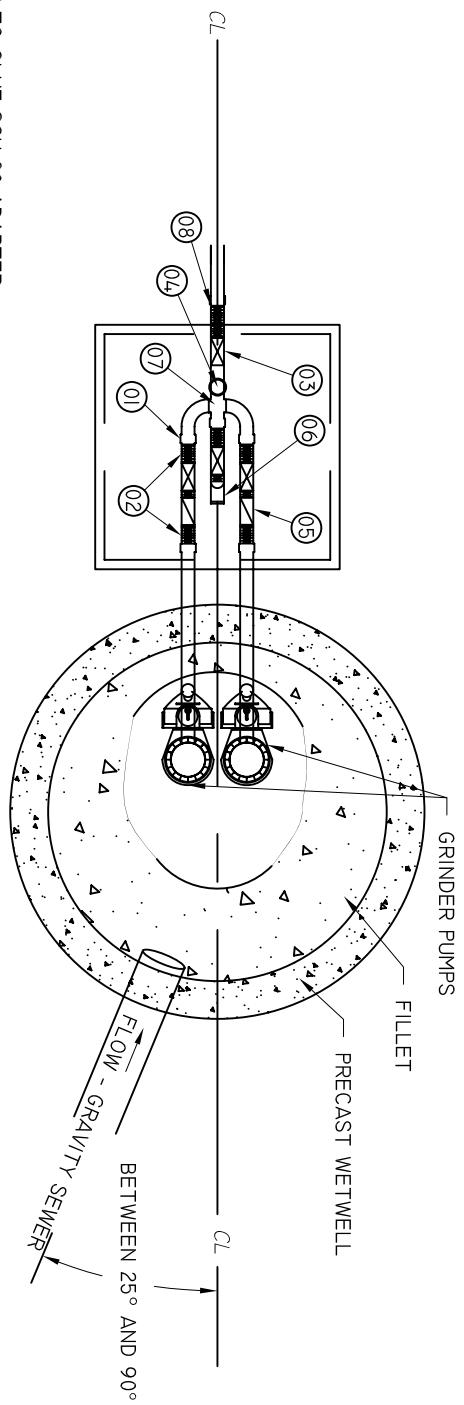


NOTES:

1. PUMP STATION COMPONENTS NOT SHOWN ON THIS DRAWING SHALL BE INSTALLED AND CONSTRUCTED AS SET FORTH IN EARLIER PUMP STATION DRAWINGS.
2. FORCE MAIN FROM WETWELL TO VALVE PIT SHOULD BE 18" DEEP.

01. 2" FEMALE IPT TO GLUE SCH 80 ADAPTER
02. 2" BRASS NIPPLE
03. 4 - 2" SCH. 80 PVC TRUE UNIONIZED BALL VALVE
04. 2"X"X2" PVC SCH 80 TEE W/ 1/2" THREADS, BRASS OR SS NIPPLES, 1/2" SS BALL VALVE, NIPPLE, QUICK DISCONNECT, AND QUICK DISCONNECT BALNK END.
05. 2 - "FLAPPER CHECK VALVES
06. 2" STREET ELBOW, NIPPLE, AND CAM LOCK MALE QUICK DISCONNECT
07. 2" CROSS
08. 2" BRASS NIPPLE AND HDPE TO THREAD ADAPTER

SUB-SURFACE PLAN

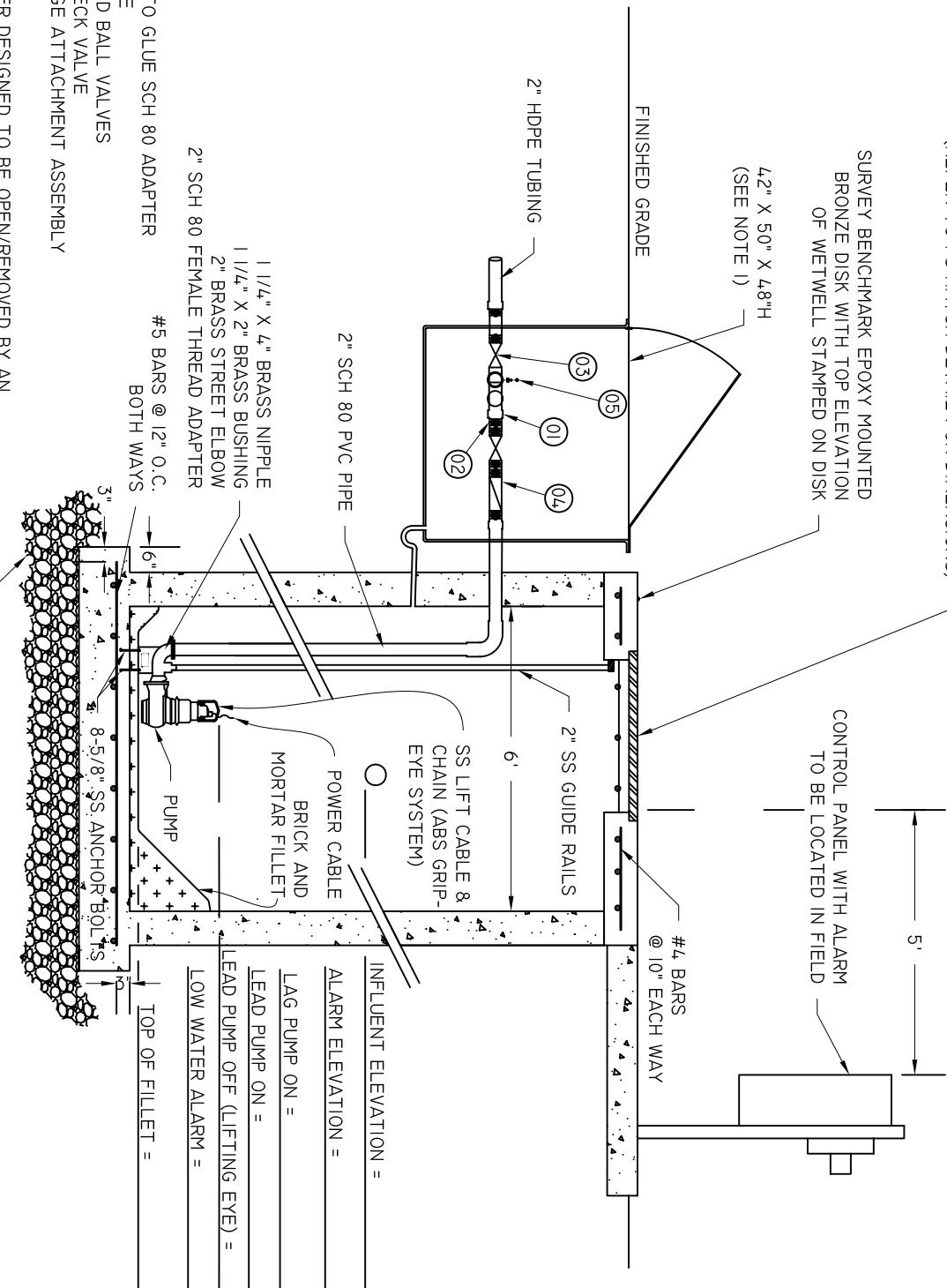


DATE 07/01/09	DRAWN BY BMC	DRAWING # S-20A
SCALE N.T.S.	APPROVED BY ERS	

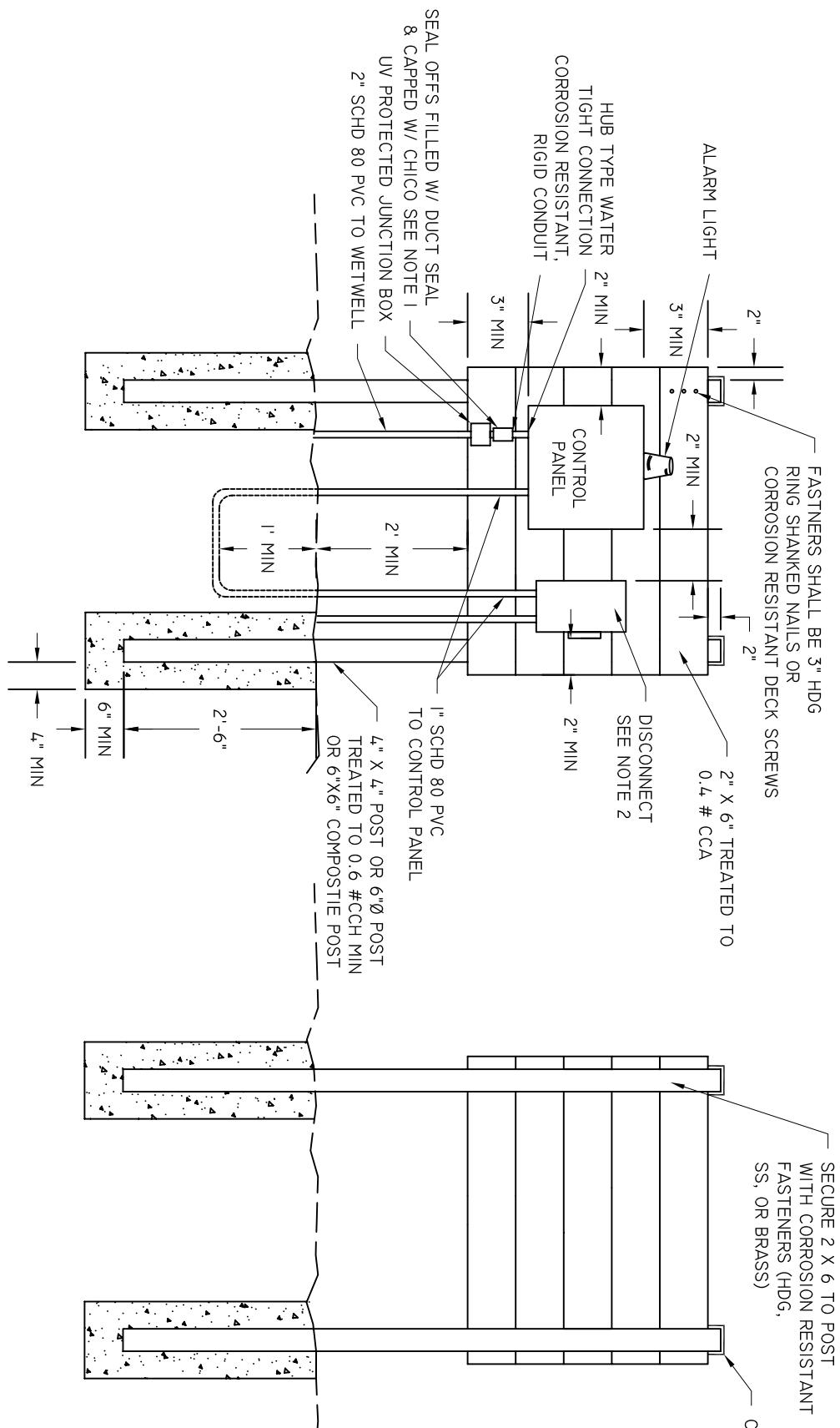
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WATER & SEWER AUTHORITY

PUMP STATION 2" DUPLEX GRINDER, PLAN

HEAVY DUTY CLAM SHELL ACCESS HATCH WITH SAFETY GRATE,
UPPER GUIDE BRACKETS, CHAIN HOOKS AND CABLE HOLDER
(REFER TO PS HATCH DETAIL FOR DIMENSIONS)



- AN ACCESS COVER DESIGNED TO BE OPEN/REMOVED BY AN INDIVIDUAL SHALL NOT WEIGH MORE THAN 50LBS. VAULT MAY BE PRECAST CONCRETE W/ ALUMINUM HATCH OR QUAZITE BOX WITH ALUMINUM HATCH. BOX SHALL DRAIN TO WET WELL.
- GRINDERS PS DO NOT REQUIRE LINING OF THE WETWELL OR RECEIVING MH BUBBLER CONTROL SYSTEM
- DESIGN NOT SPECIFICALLY CALLED OUT SHALL BE CONSTRUCTED AS SET FORTH IN EARLIER PUMP STATION DRAWINGS.
- MIN. RUNTIME WITH NO FLOW BETWEEN INVERT & LEAD PUMP OFF =60 SEC



FRONT

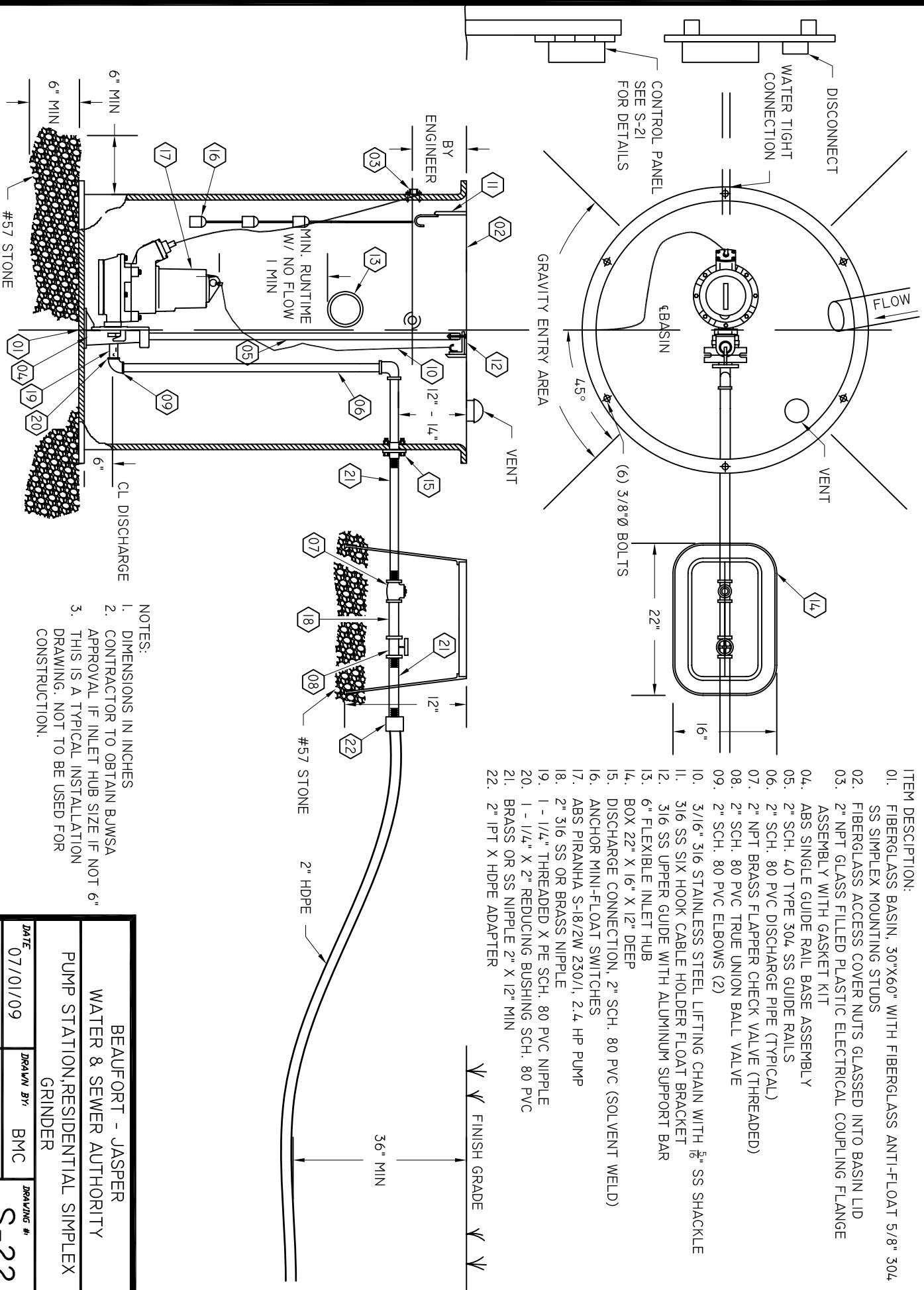
REAR

NOTES:

1. BJWSA INSPECTOR TO BE PRESENT DURING FILLING.
2. DISCONNECT SERVICE BACK TO HOUSE IS OWNER'S RESPONSIBILITY.

**BEAUFORT - JASPER
WATER & SEWER AUTHORITY**

**PUMP STATION RESIDENTIAL
CONTROL PANEL**



ITEM DESCRIPTION:

02. SS SIMPLEX MOUNTING STUDS

03. FIBERGLASS ACCESS COVER NUTS GLASSED INTO BASIN LID

04. 2" NPT GLASS FILLED PLASTIC ELECTRICAL COUPLING FLANGE

ASSEMBLY WITH GASKET KIT

05. ABS SINGLE GUIDE RAIL BASE ASSEMBLY

06. 2" SCH. 40 TYPE 304 SS GUIDE RAILS

07. 2" SCH. 80 PVC DISCHARGE PIPE (TYPICAL)

08. 2" NPT BRASS FLAPPER CHECK VALVE (THREADED)

09. 2" SCH. 80 PVC TRUE UNION BALL VALVE

10. 2" SCH. 80 PVC ELBOWS (2)

11. 3/16" - 3/16" STAINLESS STEEL LIFTING CHAIN WITH $\frac{5}{16}$ " SS SHACKLE

12. 3/16" SS SIX HOOK CABLE HOLDER FLOAT BRACKET

13. 3/16" SS UPPER GUIDE WITH ALUMINUM SUPPORT BAR

6" FLEXIBLE INLET HUB

14. BOX 22" X 16" X 12" DEEP

15. DISCHARGE CONNECTION, 2" SCH. 80 PVC (SOLVENT WELD)

16. ANCHOR MINI-FLOAT SWITCHES

17. ABS PIRANHA S-18/2W 230/1, 2.4 HP PUMP

18. 2" 316 SS OR BRASS NIPPLE

19. 1 - 1/4" THREADED X PE SCH. 80 PVC NIPPLE

20. 1 - 1/4" X 2" REDUCING BUSHING SCH. 80 PVC

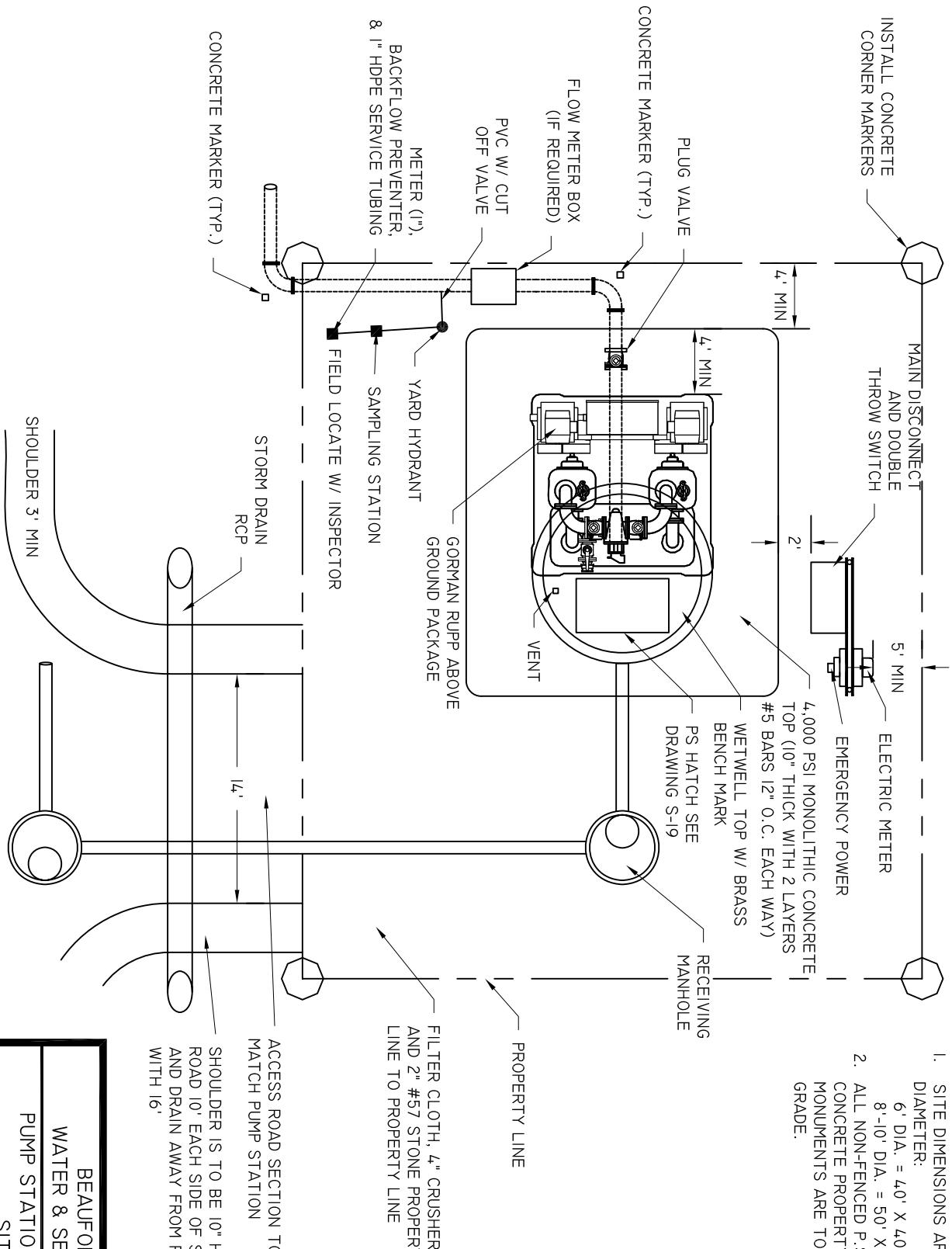
21. BRASS OR SS NIPPLE 2" X 12" MIN

22. 2" IPT X HDPE ADAPTER

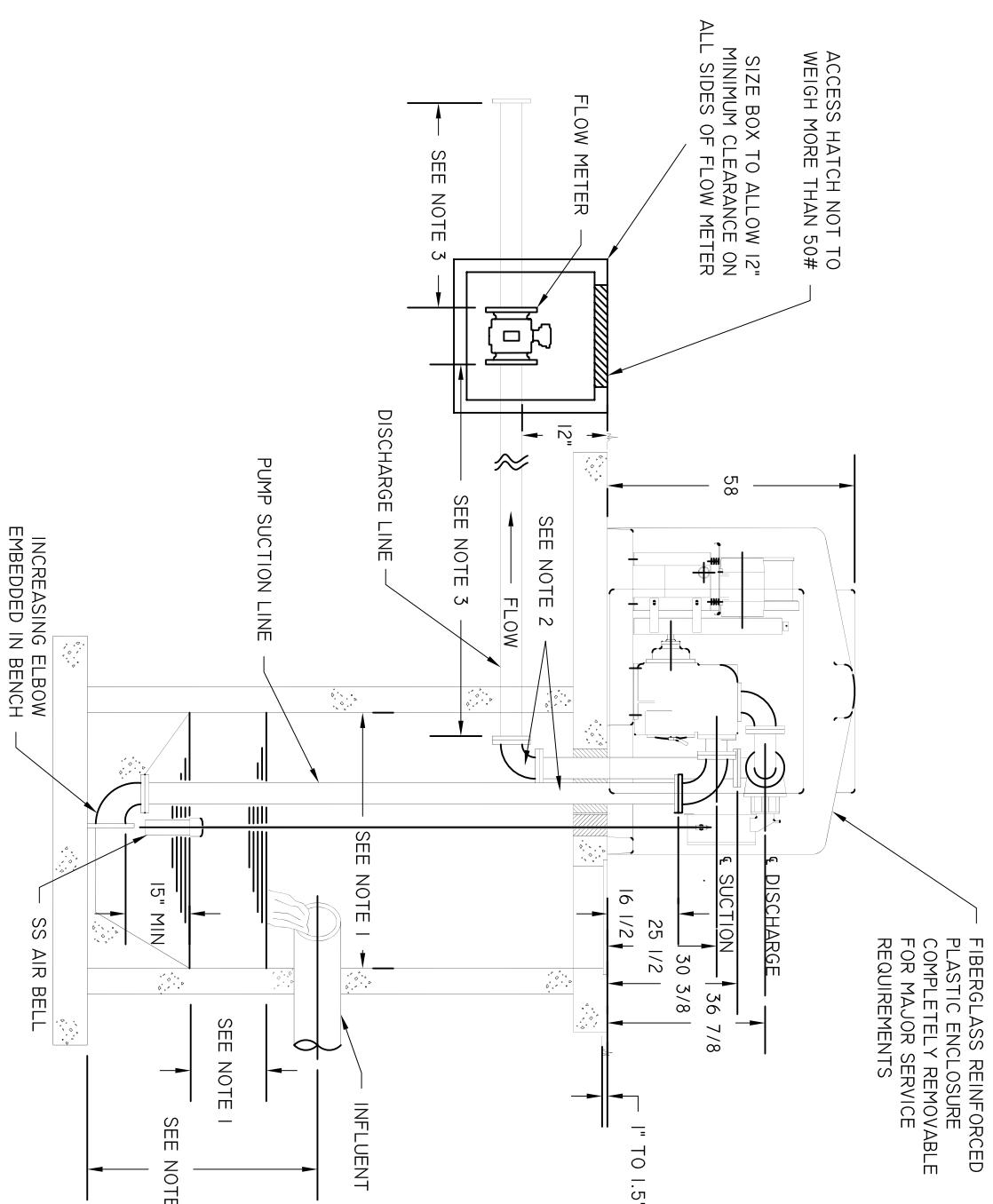
NOTES:

1. DIMENSIONS IN INCHES
2. CONTRACTOR TO OBTAIN BJWSA APPROVAL IF INLET HUB SIZE IF NOT 6"
3. THIS IS A TYPICAL INSTALLATION DRAWING. NOT TO BE USED FOR CONSTRUCTION.

BEAUFORT - JASPER WATER & SEWER AUTHORITY PUMP STATION, RESIDENTIAL SIMPLEX		
DATE 07/10/09	DRAWN BY BMC	DRAWING # S-22
SCALE N. T. S.	APPROVED BY ERS	
GRINDER		



DATE 07/01/09	DRAWN BY BMC	DRAWING # S-23A
SCALE N.T.S.	APPROVED BY ERS	



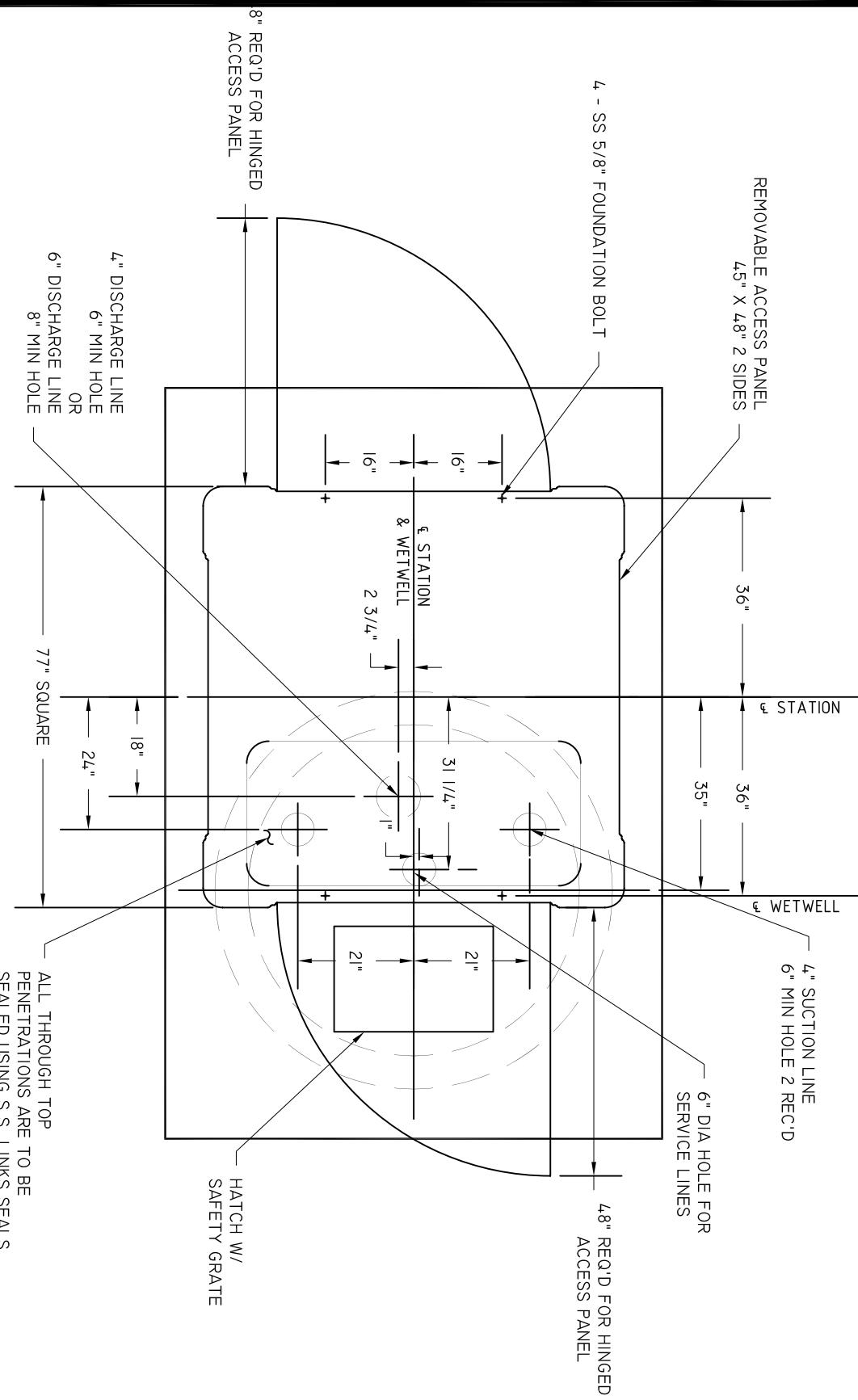
ELEVATION VIEW

NOTES:
I. THE INVERT OF THE INFLUENT LINE

NOTES:

1. THE INVERT OF THE INFLUENT LINE SHOULD BE PROPERLY DESIGNED TO ALLOW AT LEAST FIVE MINUTES LAPSED TIME BETWEEN SUCCESSIVE STARTS OF THE PUMP TO PREVENT SHORT CYCLING OF THE ELECTRIC MOTOR AND CONTROL.
2. ALL PIPING INSIDE WETWELL TO BE 900 DR18 PVC. FITTINGS TO BE FLANGED, EPOXY COATED, AND LINED FOR SEWER GASES. ALL HARDWARE AND BOLTS TO BE 316 STAINLESS STEEL.
3. FLOWMETER WILL REQUIRE A MINIMUM LENGTH OF UNRESTRICTED FLOW BEFORE AND AFTER FLOW METER. SEE MANUFACTURER RECOMMENDATION.

BEAUFORT - JASPER WATER & SEWER AUTHORITY PUMP STATION, ABOVE GROUND 6X6 DETAIL #1		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-23B
SCALE N.T.S.	APPROVED BY ERS	

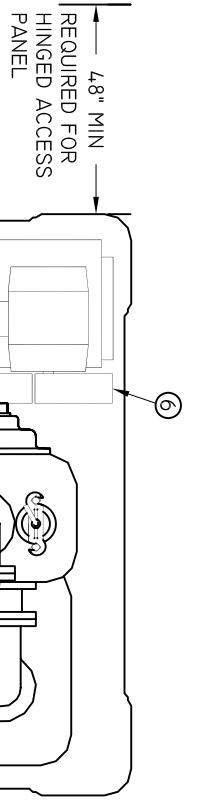


BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION, ABOVE GROUND

6X6 DETAIL #2

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-23C
SCALE N.T.S.	APPROVED BY ERS	



2" NPT SERVICE
ENTRANCE
CONNECTION

TOP VIEW

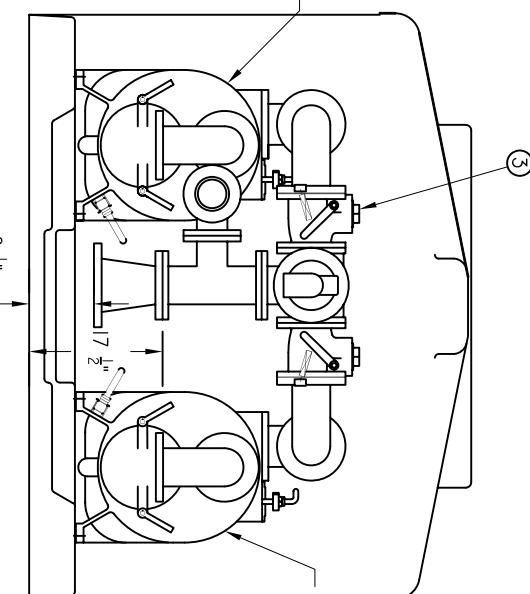
FIBERGLASS REINFORCED PLASTIC
ENCLOSURE COMPLETELY REMOVABLE
FOR MAJOR SERVICE REQUIREMENTS

REMOVABLE ACCESS PANEL
45" X 48" 2 SIDES

PUMP NO. 2
PUMP NO. 1

PUMP STATION, ABOVE GROUND
6X6 DETAIL #3

ITEM	DESCRIPTION	MAT'L & SIZE
1	PUMP	CAST IRON T4A-B
2	MOTOR	CAST IRON
3	CHECK VALVE	CAST IRON 4"
4	PLUG VALVE	CAST IRON 4"
5	MOTOR CONTROL PANEL	STEEL
6	BELTGUARD	STEEL
7	BY-PASS PLUG VALVE	CAST IRON 3"
8	OPV ADAPTER	ALUMINUM



SIDE VIEW

NOTES:
1. FLANGE CONNECTIONS ARE TO BE 125#

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

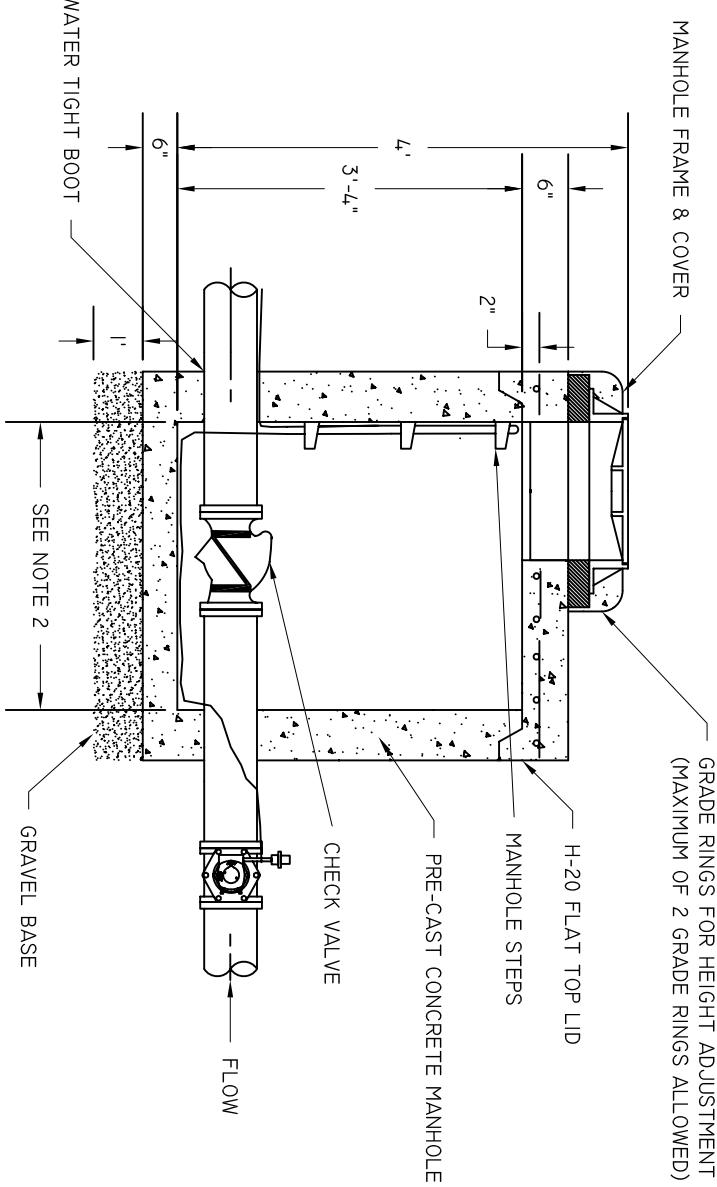
PUMP STATION, ABOVE GROUND
6X6 DETAIL #3

SIDE VIEW



THE GORMAN-RUPP CO.
MANUFACTURED IN U.S.A.

SCALE N.T.S.	DRAWN BY BMC	DRAWING # S-23D
APPROVED BY ERS		



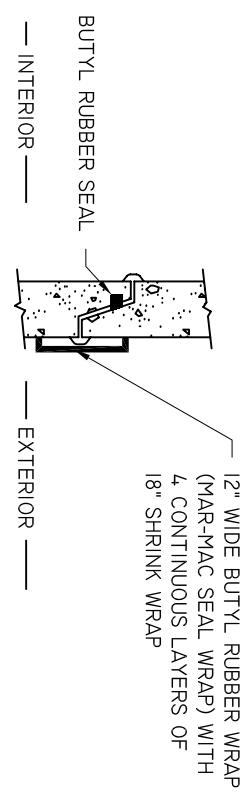
MANHOLE FRAME & COVER
GRADE RINGS FOR HEIGHT ADJUSTMENT
(MAXIMUM OF 2 GRADE RINGS ALLOWED)

H-20 FLAT TOP LID
MANHOLE STEPS
PRE-CAST CONCRETE MANHOLE

NOTES:

1. SET TOPS OF MANHOLES FLUSH WITH FINAL GRADE UNLESS NOTED OTHERWISE.
2. REFER TO SPECIFICATIONS FOR REQUIRED MANHOLE DIAMETER.
3. CHECK VALVE SHALL BE INSTALLED AS NEAR TIE-IN TO F.M. AS POSSIBLE.

TITLE DETAIL



SEWER CHECK VALVE IN MANHOLE

NOT TO SCALE

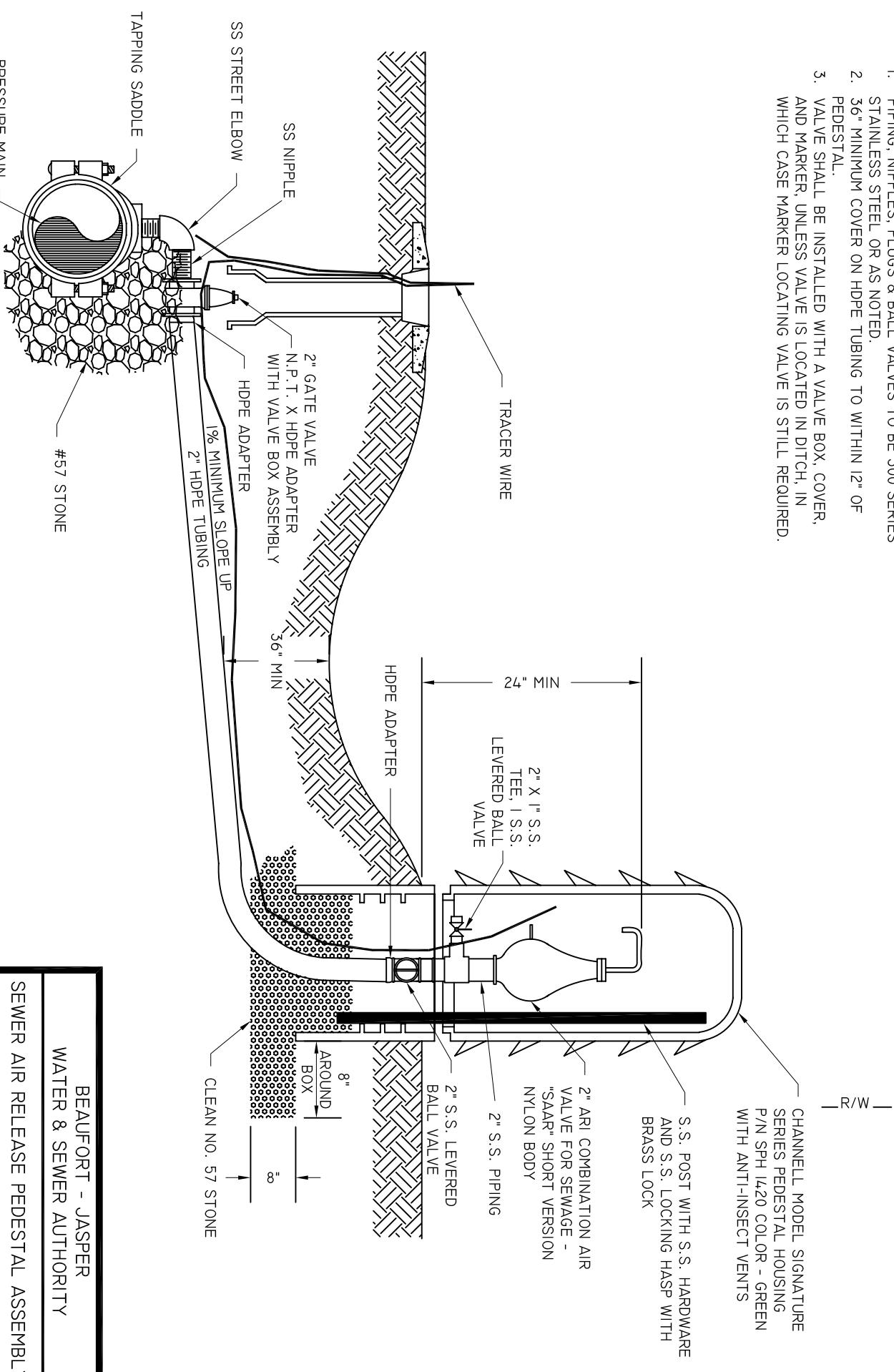
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

SEWER CHECK VALVE

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-24
SCALE N.T.S.	APPROVED BY ERS	

NOTES:

1. PIPING, NIPPLES, PLUGS & BALL VALVES TO BE 300 SERIES STAINLESS STEEL OR AS NOTED.
2. 36" MINIMUM COVER ON HDPE TUBING TO WITHIN 12" OF PEDESTAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX, COVER, AND MARKER, UNLESS VALVE IS LOCATED IN DITCH, IN WHICH CASE MARKER LOCATING VALVE IS STILL REQUIRED.



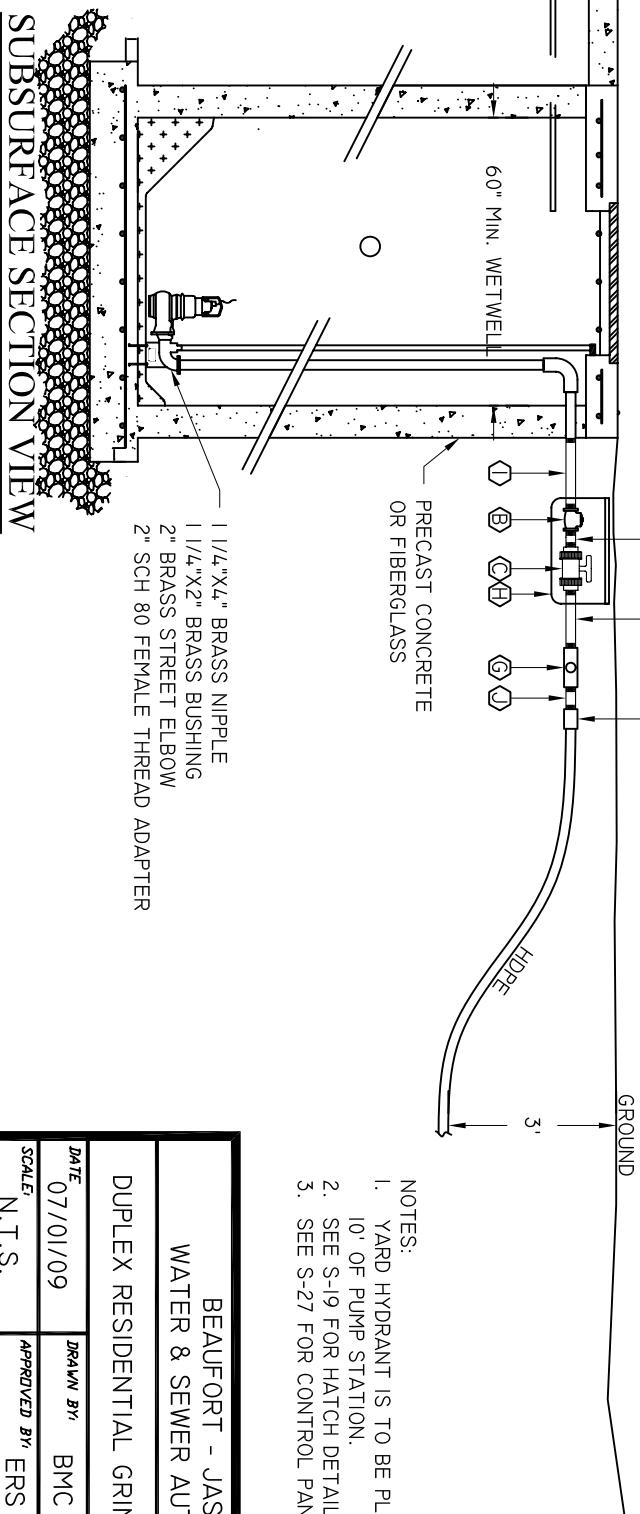
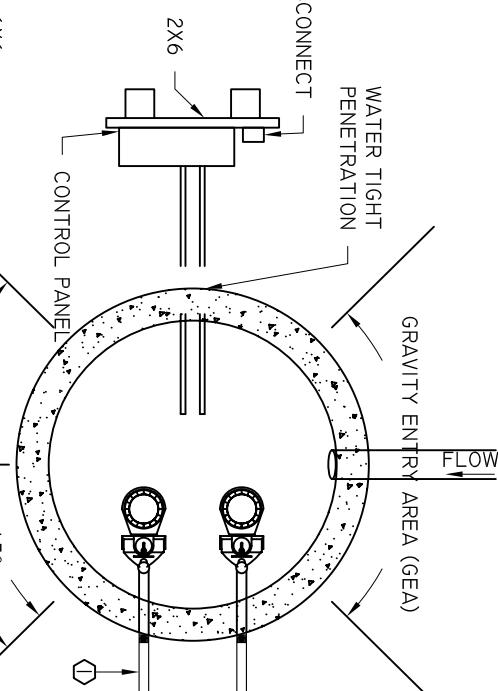
DATE	07/01/09	DRAWN BY	BMC	DRAWING #	S-25
SCALE	N.T.S.	APPROVED BY	ERS		

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

SEWER AIR RELEASE PEDESTAL ASSEMBLY

SUBSURFACE PLAN VIEW

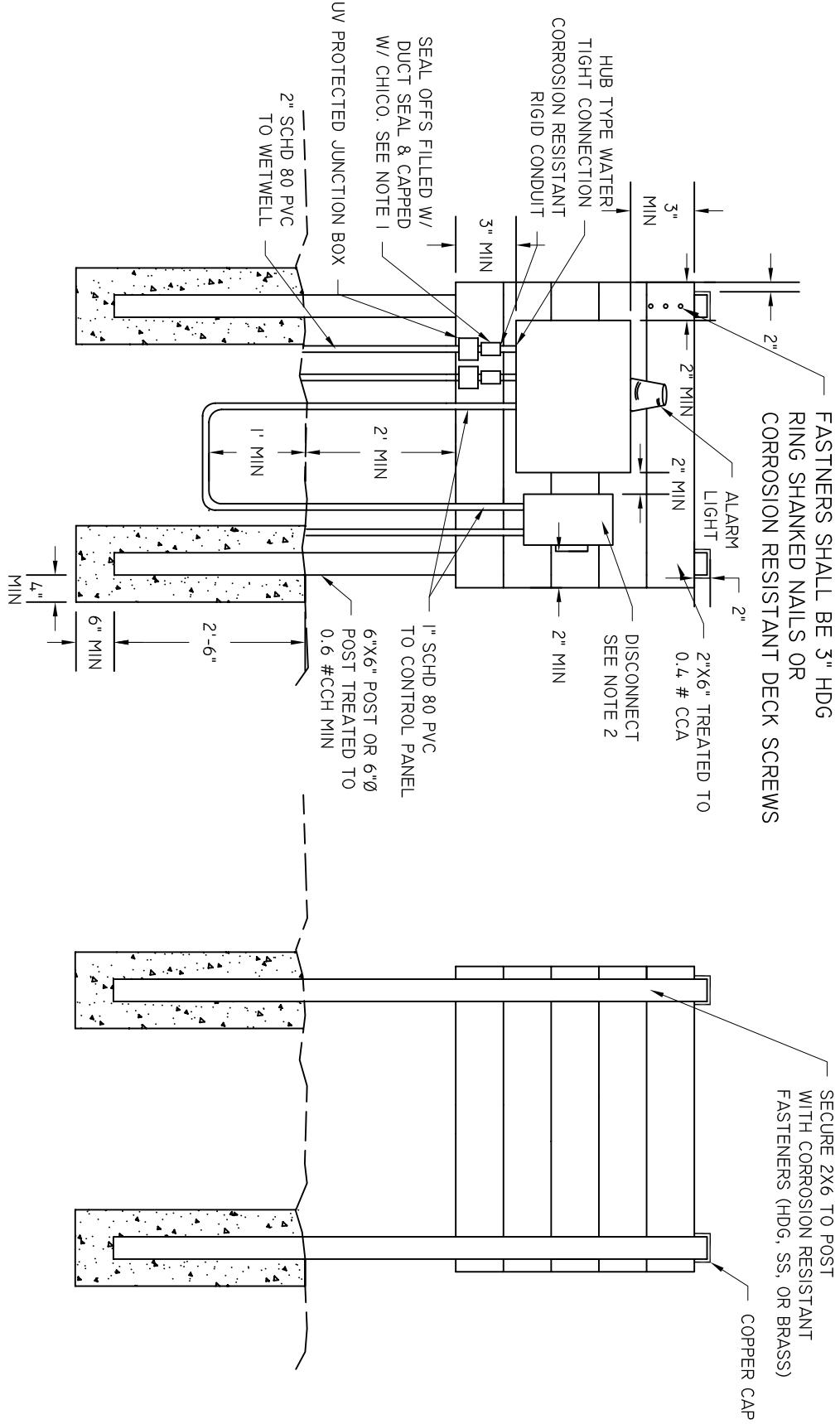
WETWELL TOP



BEAUFORT - JASPER
WATER & SEWER AUTHORITY

DUPLEX RESIDENTIAL GRINDER LAYOUT

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-26
SCALE N.T.S.	APPROVED BY ERS	



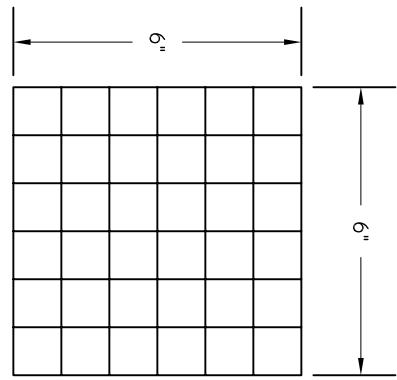
FRONT

BACK

DATE 07/01/09	DRAWN BY BMC	DRAWING # S-27
SCALE N.T.S.	APPROVED BY ERS	

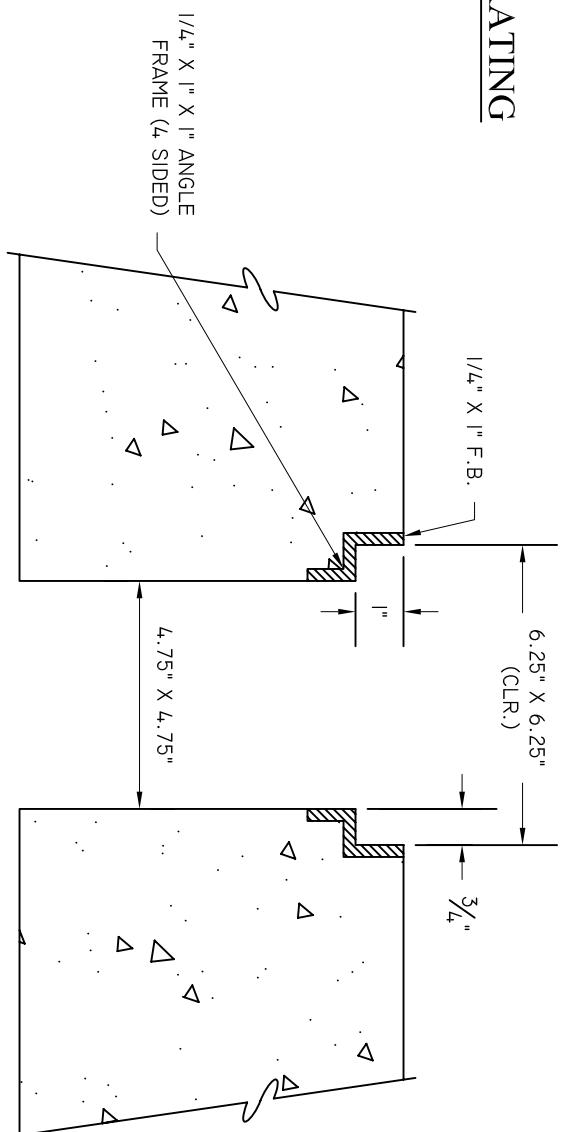
BEAUFORT - JASPER
WATER & SEWER AUTHORITY
PUMP STATION RESIDENTIAL DUPLEX
CONTROL PANEL

6" X 6" X 1" GRATING DETAIL FOR STRUCTURE #-----



SHIP WITH 6"X6"X1" GRATING

1" X 1" X 1" ALUM. GRATING



SECTION THRU FRAME

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION 6X6 GRATE DETAIL

DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-28
SCALE	APPROVED BY	ERS	S-28