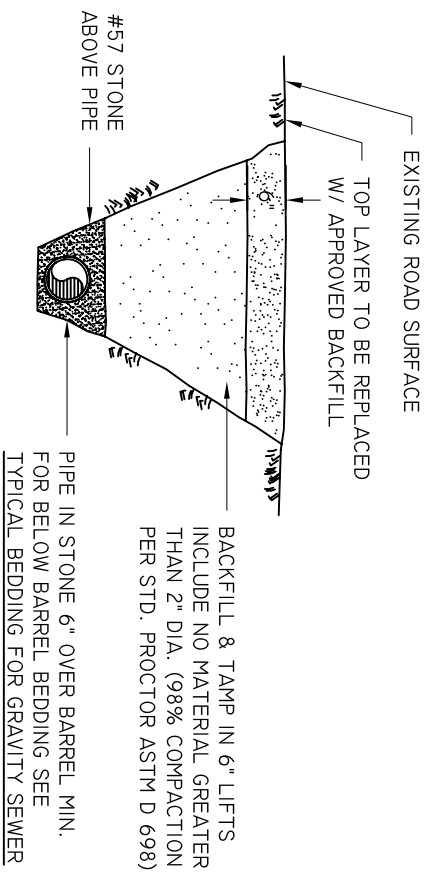


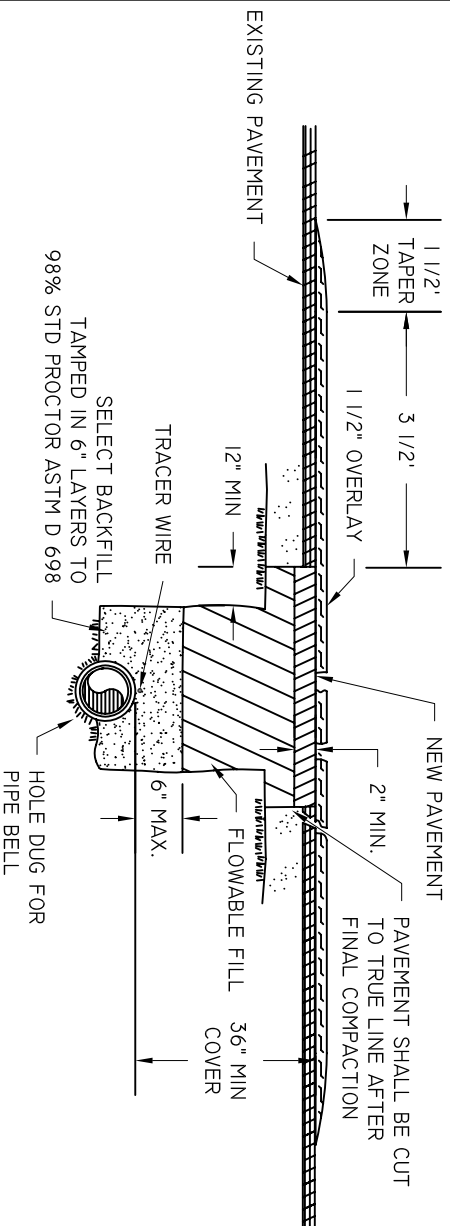
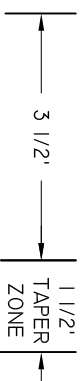
APPENDIX B – WASTEWATER/SEWER STANDARD DETAIL DRAWINGS

<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

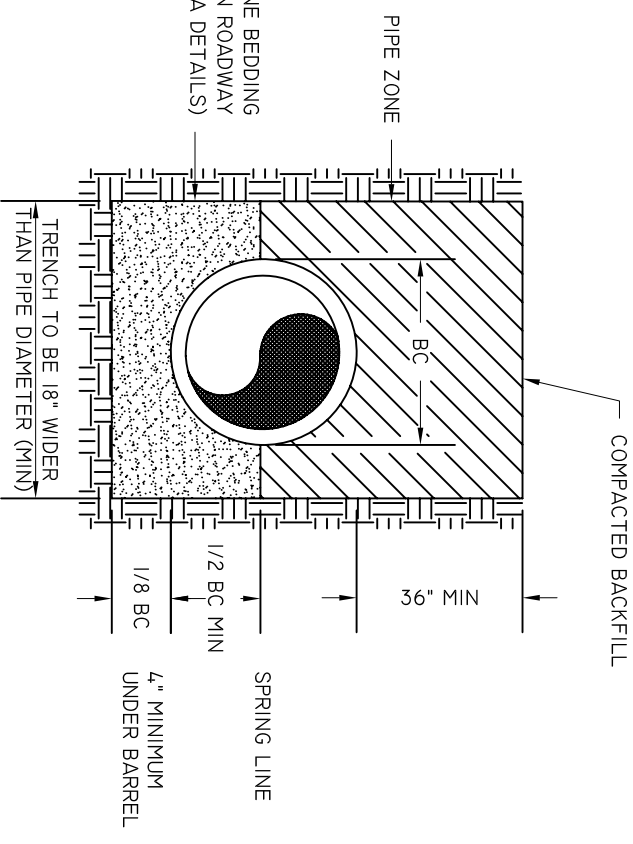


UNPAVED ROADWAY BEDDING DETAIL

(STONE ABOVE PIPE IN ROADWAY AND PAVED AREA DETAILS)



PAVED AREA DETAIL



TYPICAL BEDDING FOR GRAVITY SEWER PIPE

NOTES:

1. PAVEMENT CUT TO EXTEND 12" BEYOND EDGES OF TRENCH INSTALLATION CUT. FINAL CUT TO BE MADE AFTER FINAL COMPACTION.
2. MATCH EXISTING PAVEMENT TYP. THICKNESS IS TO BE 2" UNLESS EXISTING IS THICKER.
3. ALL INSTALLATIONS IN PUBLIC ROADWAYS SHALL COMPLY WITH CONDITIONS OUTLINED ON APPLICABLE ENCROACHMENT PERMIT, IF MORE STRINGENT.

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

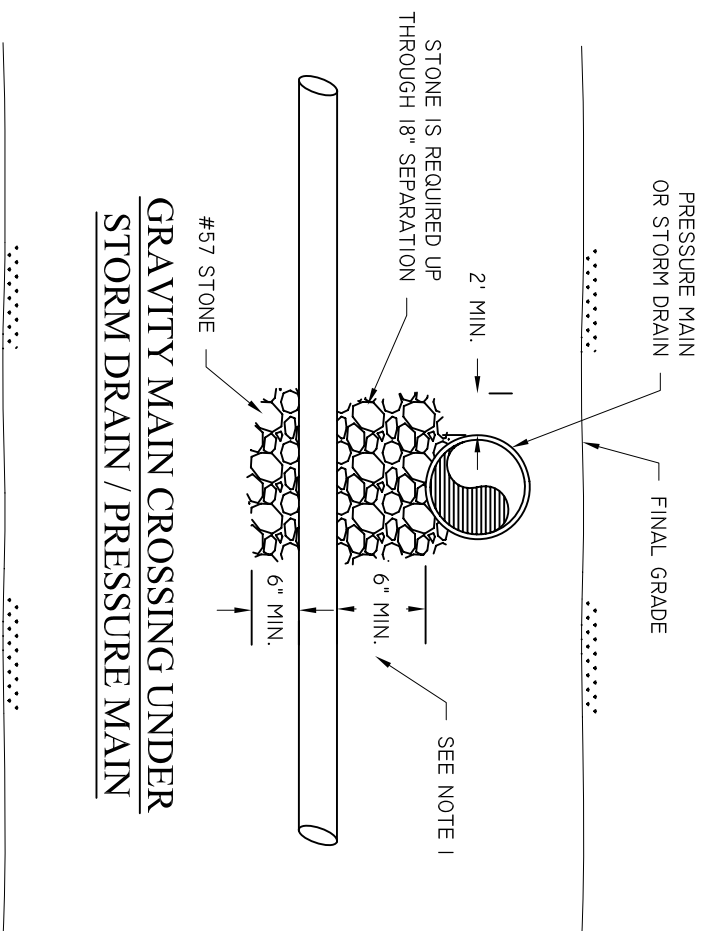
BEDDING DETAIL, GRAVITY PIPE

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

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

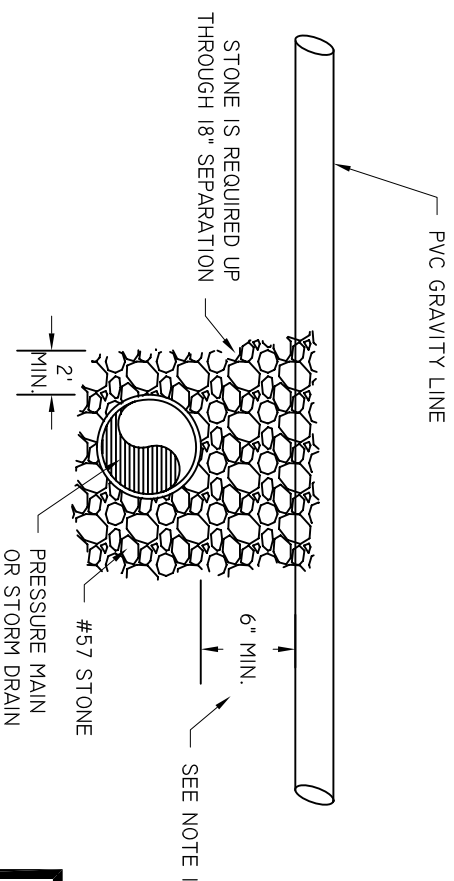
RESERVED

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



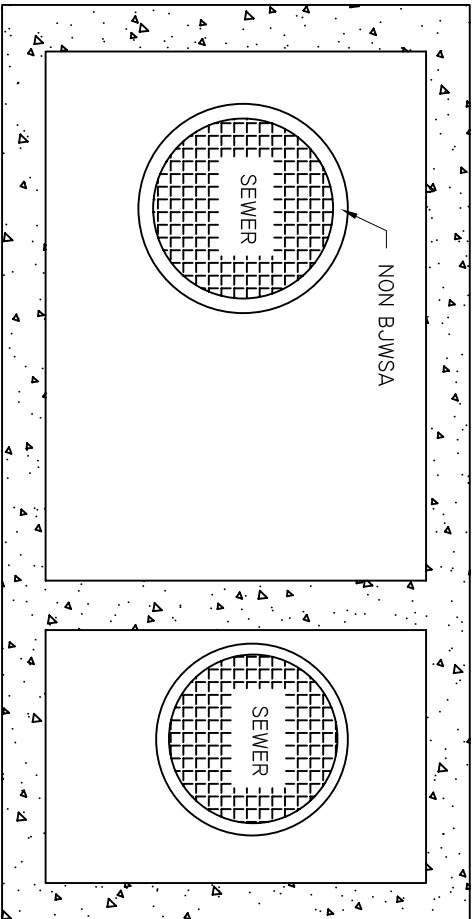
NOTE:
 1. SYSTEMS SHOULD NOT BE DESIGNED WITH LESS THAN 12" SEPARATION. IF LESS SEPARATION IS UNAVOIDABLE, WRITTEN AUTHORIZATION FROM BJWSA IS REQUIRED.

GRAVITY MAIN CROSSING UNDER STORM DRAIN / PRESSURE MAIN



GRAVITY MAIN CROSSING OVER STORM DRAIN / PRESSURE MAIN

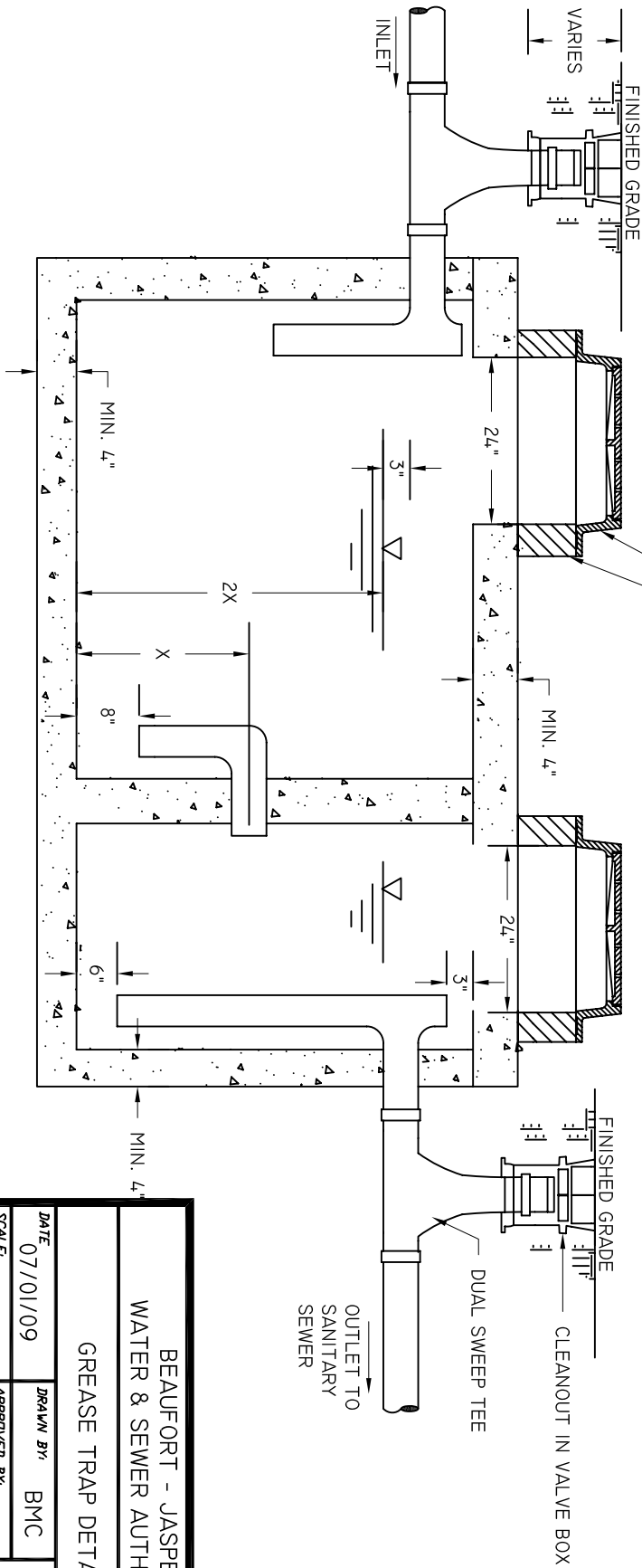
BEAUFORT - JASPER WATER & SEWER AUTHORITY			
GRAVITY MAIN CROSSING			
DATE 07/01/09	DRAWN BY N.T.S.	BMC	DRAWING # S-03
SCALE	APPROVED BY ERS		



- NOTES:
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 BUWSA. 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.

MANHOLE RING & COVER (SEE NOTES)

CONCRETE GRADE RING AS REQUIRED

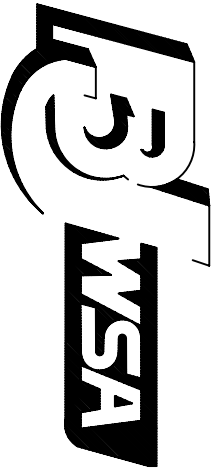


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WATER & SEWER AUTHORITY

GREASE TRAP DETAIL

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

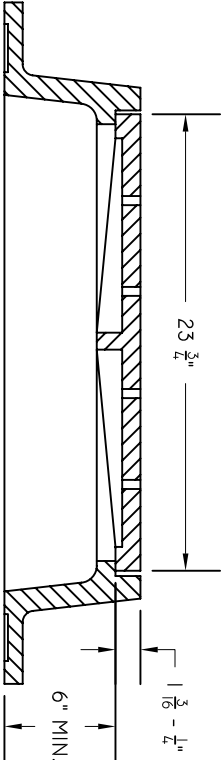
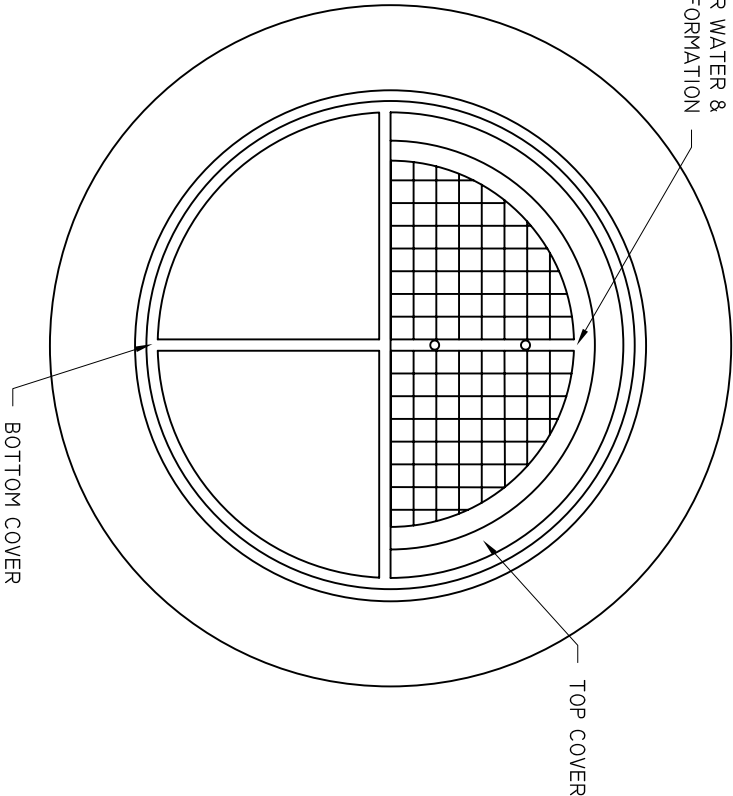
BEAUFORT-JASPER WATER & SEWER
AUTHORITY LOGO TO BE CAST ON COVER
CONTACT BEAUFORT JASPER WATER &
SEWER AUTHORITY FOR INFORMATION



LOGO

NOTES:

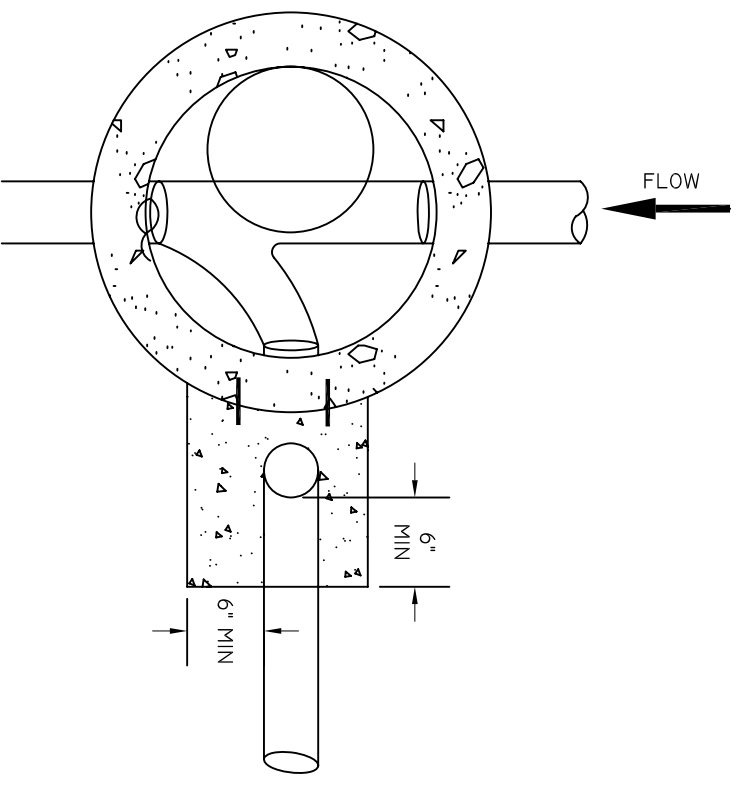
1. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE, DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING OR BY SOME OTHER APPROVED METHOD UNLESS AN ALTERNATIVE SPECIFICATION IS MADE.
2. MATERIALS USED IN THE MANUFACTURE OF CASTINGS 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

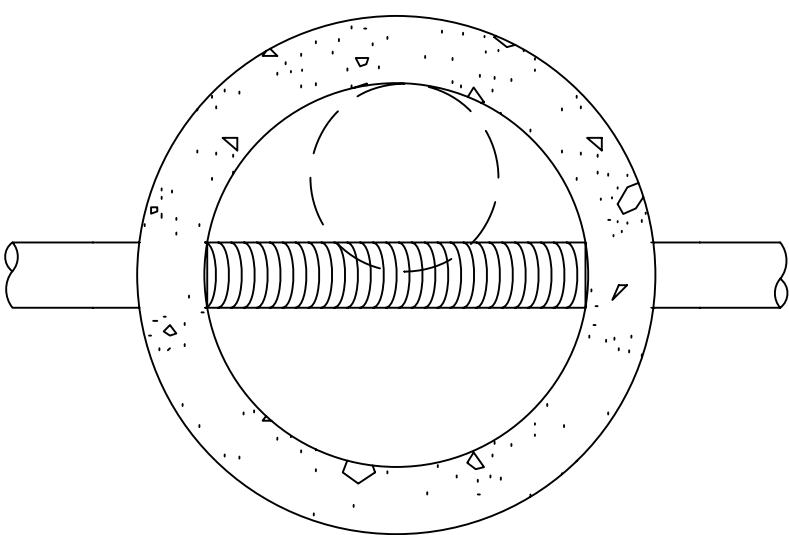
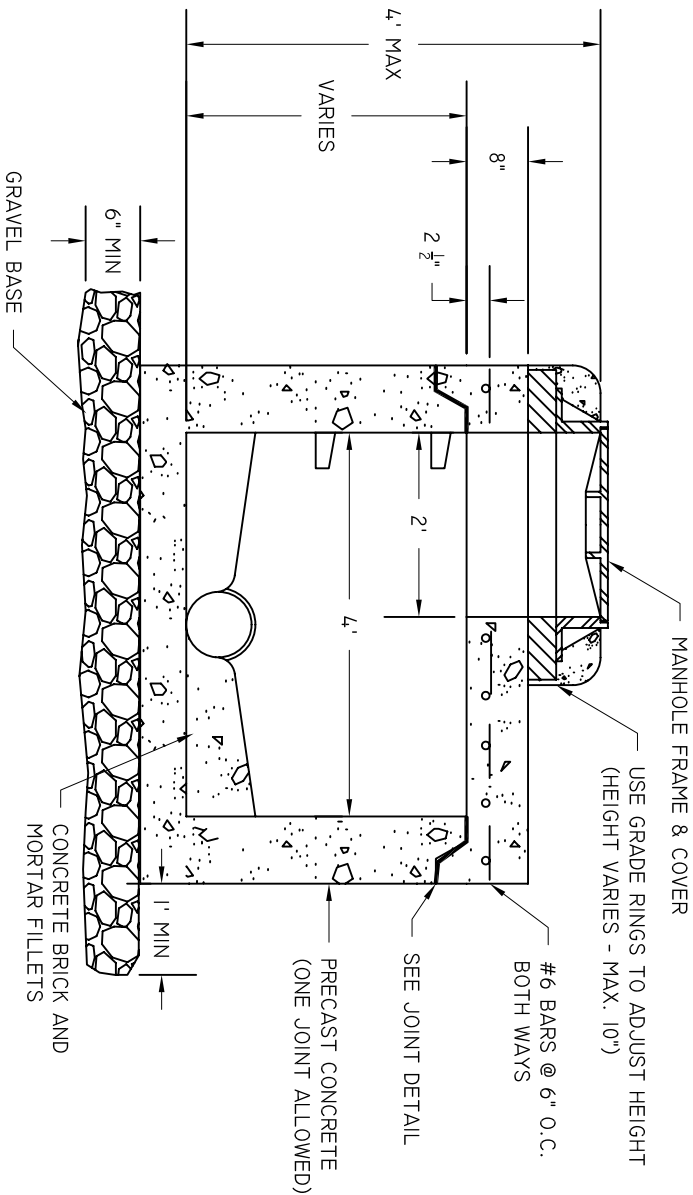
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-05
SCALE	APPROVED BY	ERS	
N.T.S.			



SECTION VIEW

BEAUFORT - JASPER WATER & SEWER AUTHORITY		
DROP MANHOLE		
DATE 07/01/09	DRAWN BY BMC	DRAWING # S-06
SCALE N.T.S.	APPROVED BY ERS	

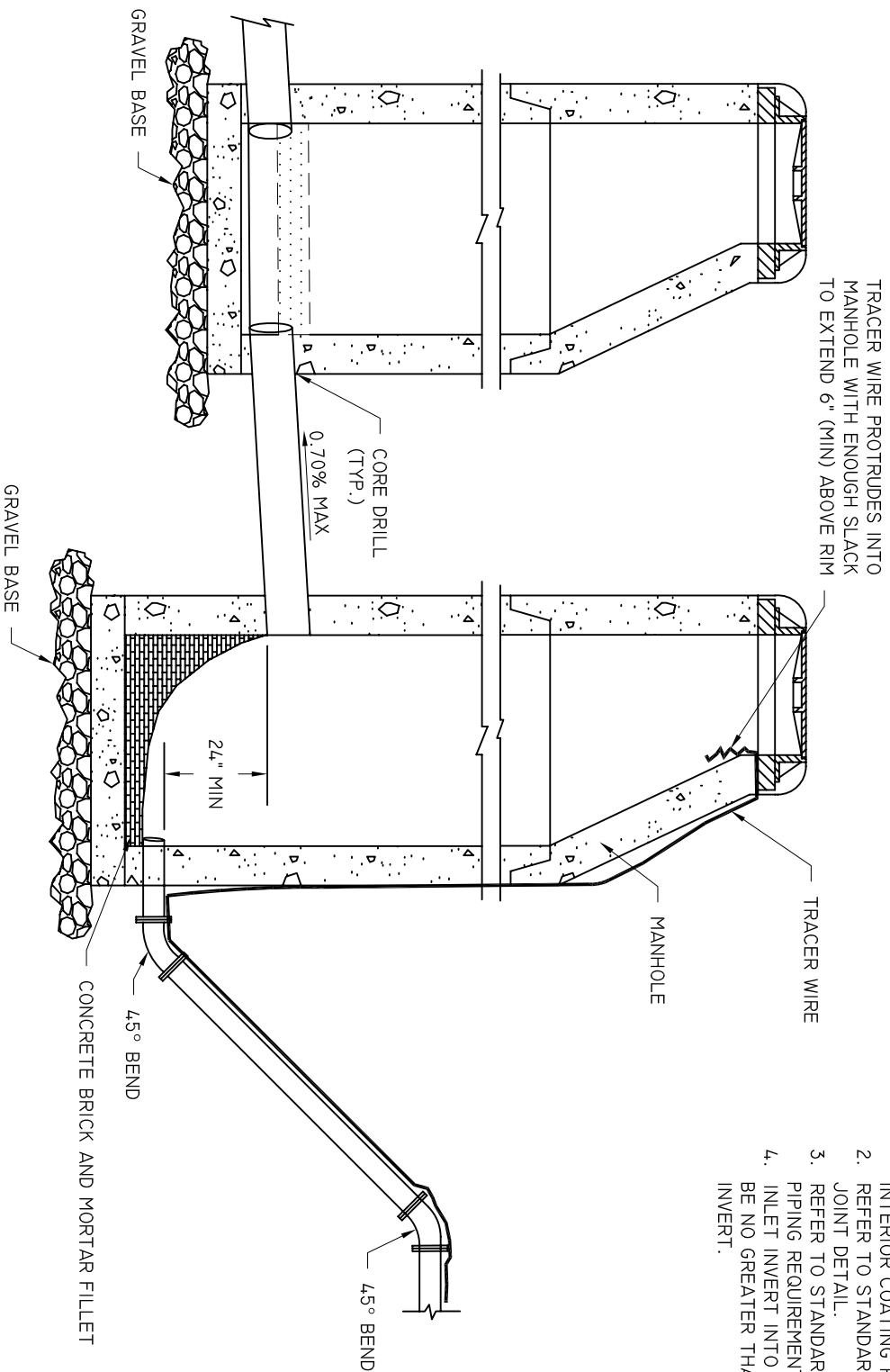
NOTES:
1. REFER TO STANDARD SPECIFICATIONS
FOR INTERIOR COATING REQUIREMENTS.



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WATER & SEWER AUTHORITY

FLAT TOP MANHOLE

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

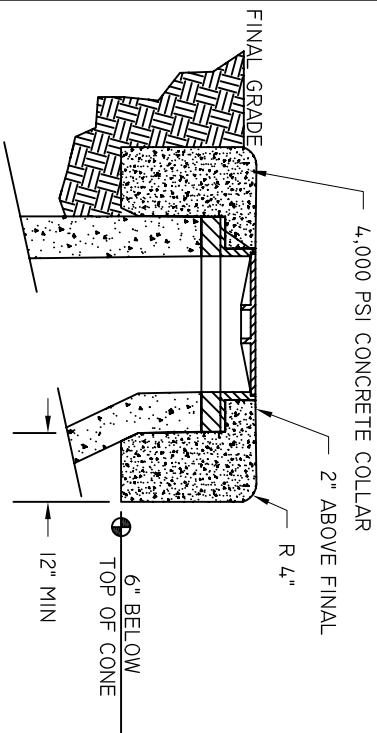


- NOTES:
1. REFER TO STANDARD SPECIFICATIONS FOR INTERIOR COATING REQUIREMENTS.
 2. REFER TO STANDARD MANHOLE DETAIL FOR JOINT DETAIL.
 3. REFER TO STANDARD SPECIFICATIONS FOR PIPING REQUIREMENTS.
 4. INLET INVERT INTO EXISTING MANHOLE SHOULD BE NO GREATER THAN 0.2' ABOVE OUT GOING INVERT.

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WATER & SEWER AUTHORITY

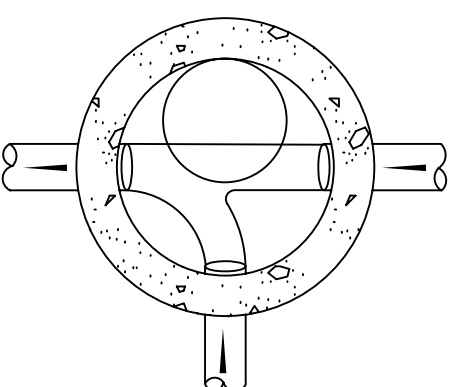
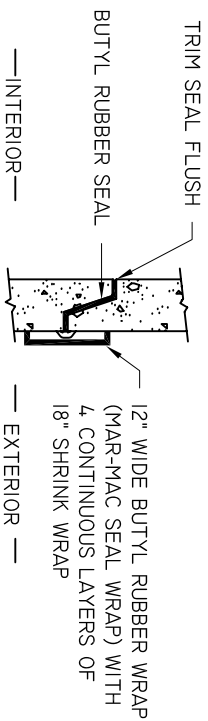
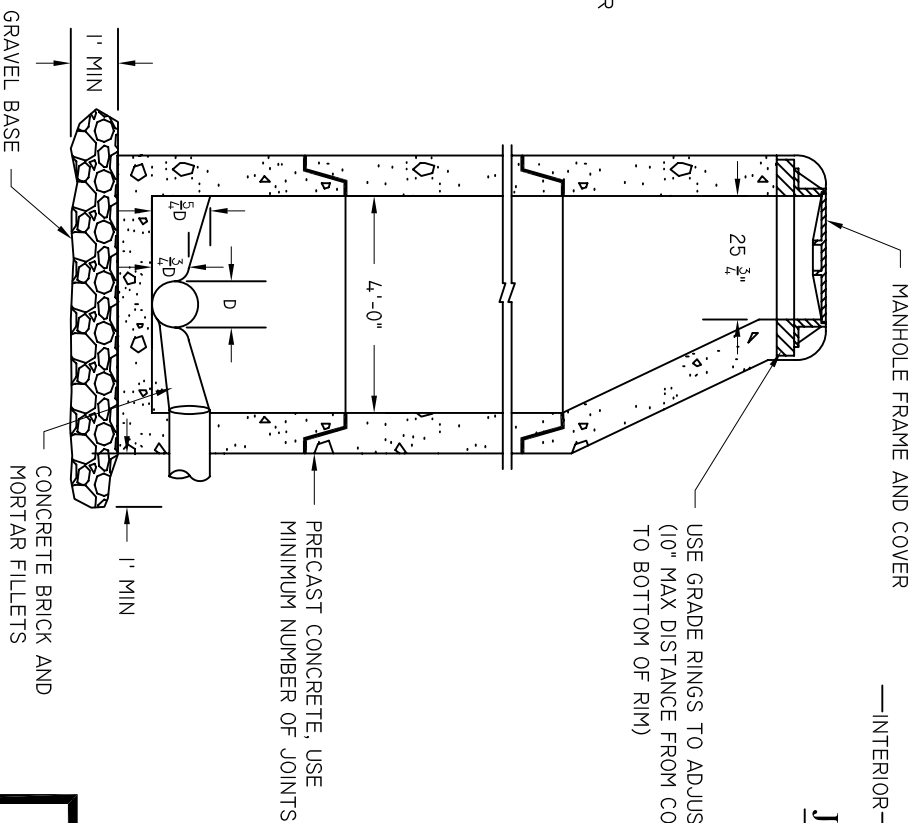
FORCE MAIN CONTROL MANHOLE

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



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.

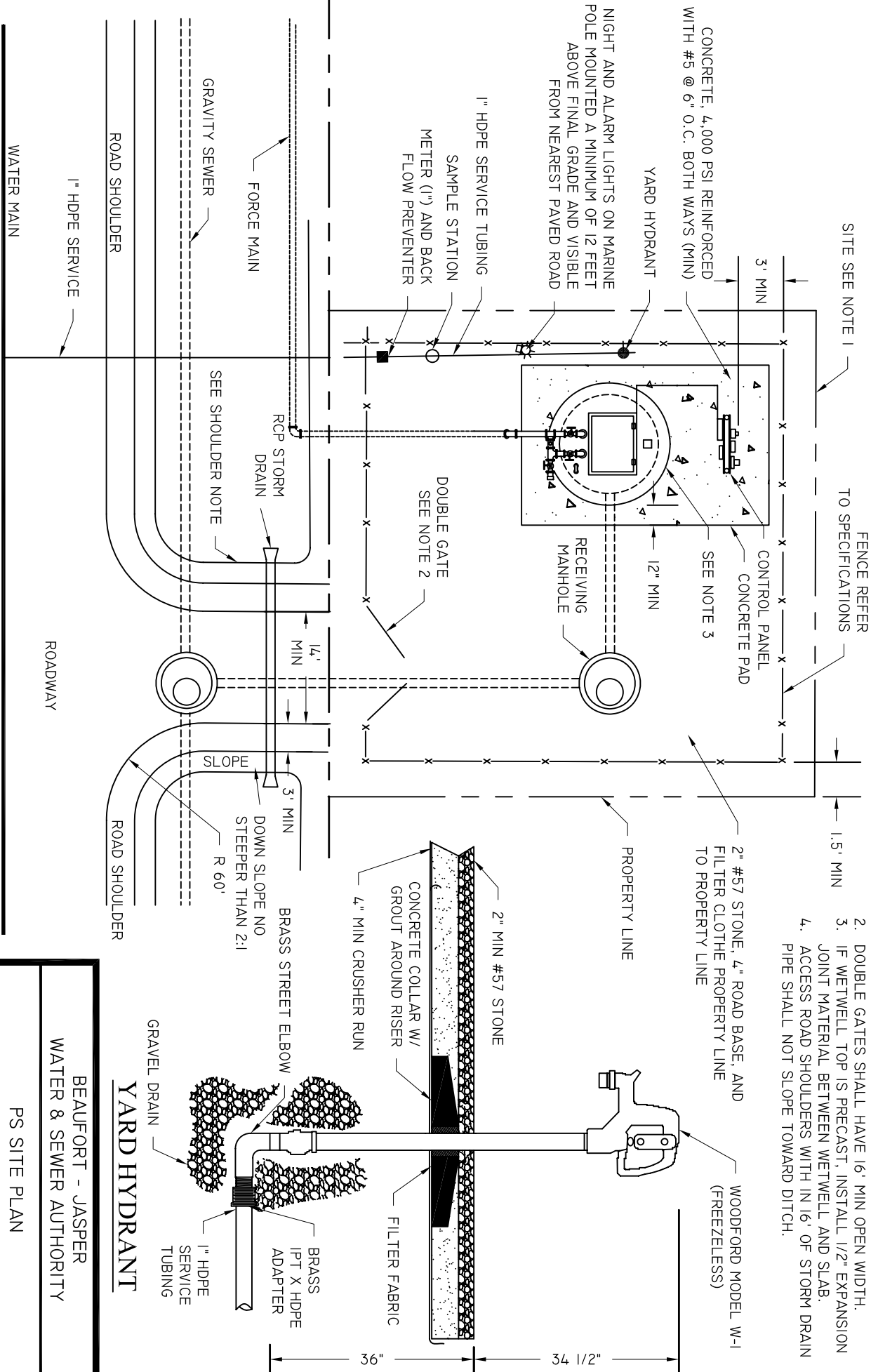


BEAUFORT - JASPER
WATER & SEWER AUTHORITY

STANDARD MANHOLE

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

- NOTES:
1. SITE DIMENSIONS ARE BASED ON WETWELL DIAMETER:
6'-8" DIA = 4.0'X4.0'
10' DIA = 5.0'X5.0'
 2. DOUBLE GATES SHALL HAVE 16' MIN OPEN WIDTH.
 3. IF WETWELL TOP IS PRECAST, INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN WETWELL AND SLAB.
 4. ACCESS ROAD SHOULDERS WITH IN 16' OF STORM DRAIN PIPE SHALL NOT SLOPE TOWARD DITCH.



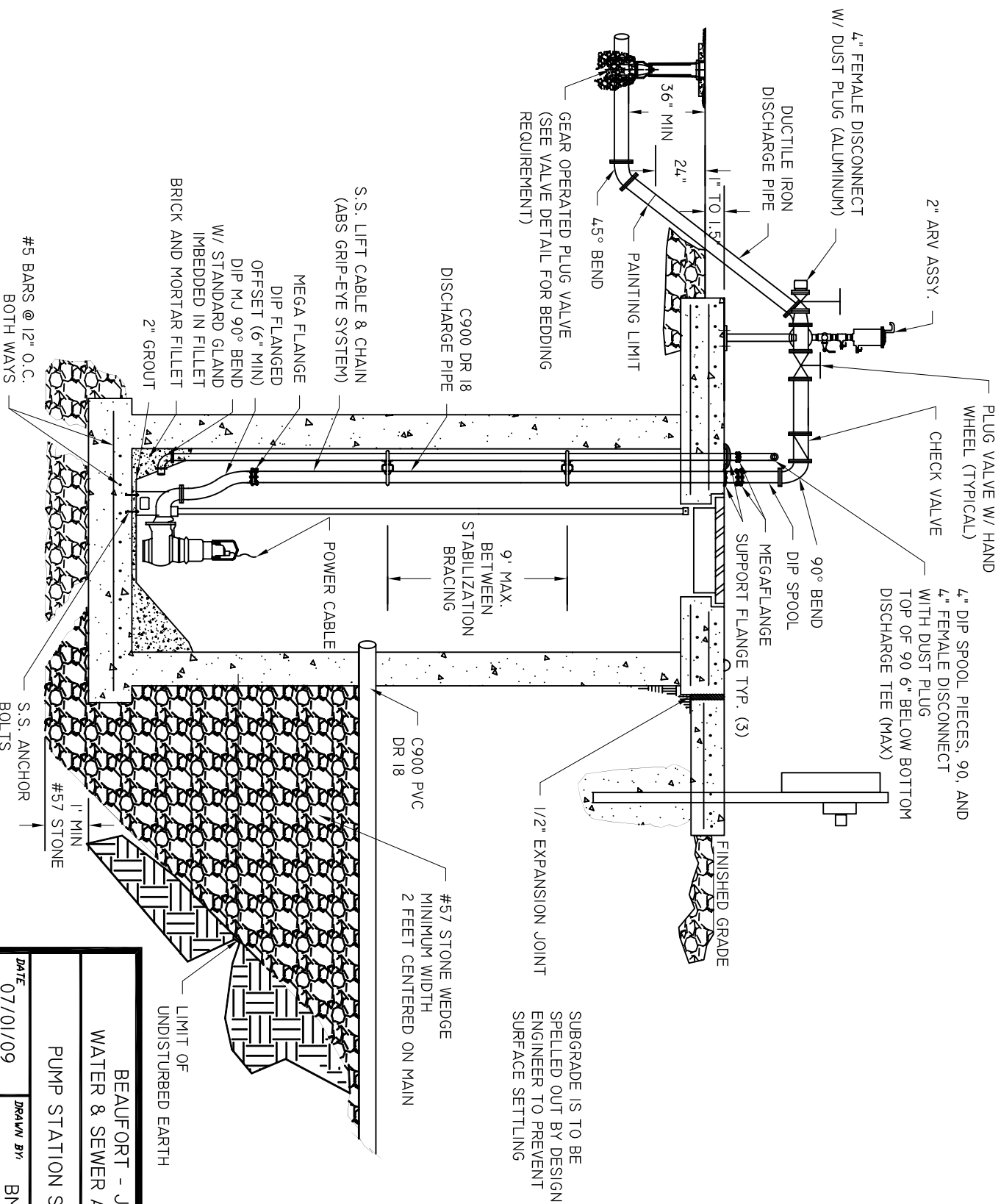
RECOMMENDED LAYOUT

DEVELOP SITE SPECIFIC LAYOUT

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PS SITE PLAN

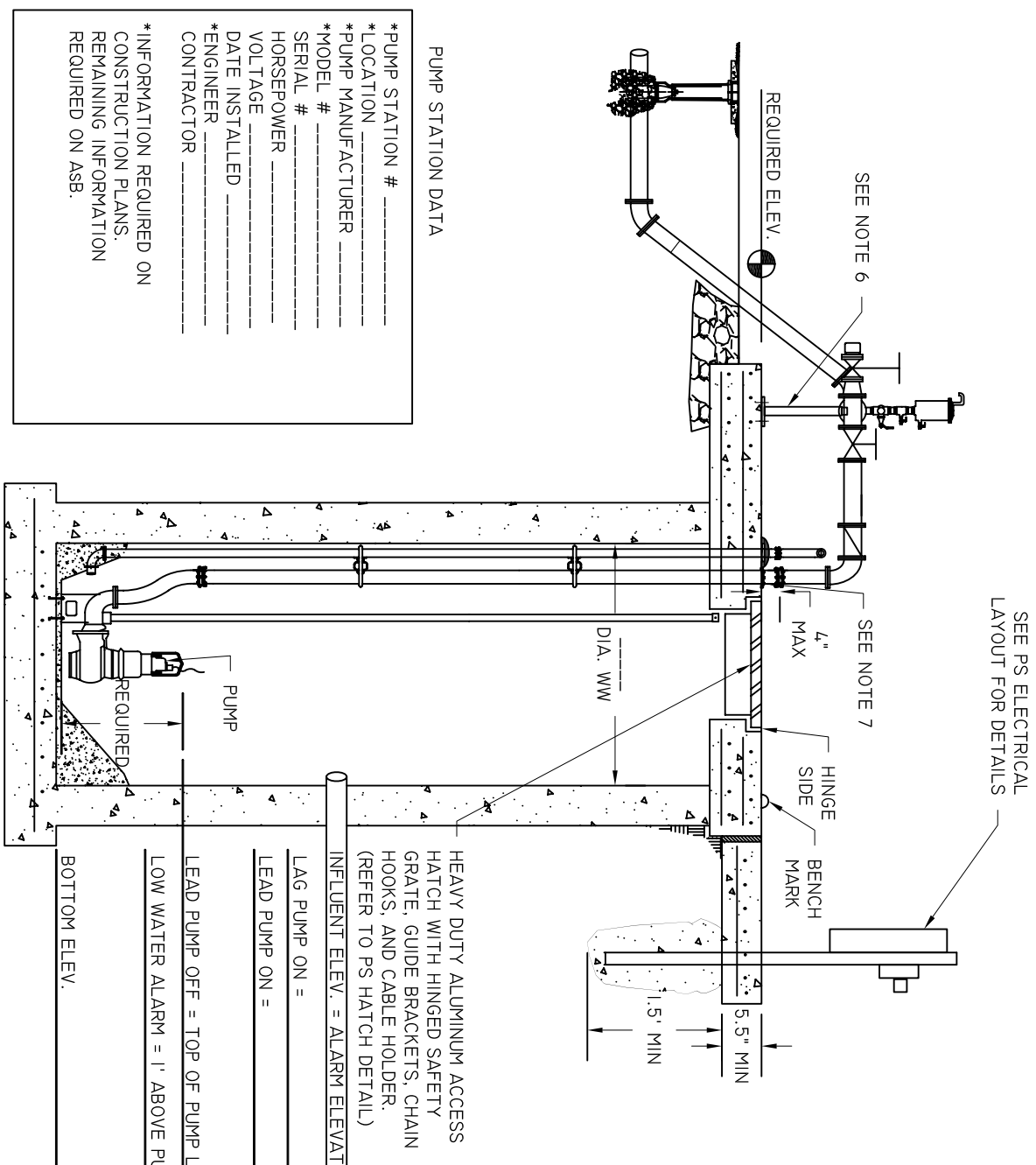
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-12
SCALE	APPROVED BY	ERS	
N.T.S.			



BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION SECTION I

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



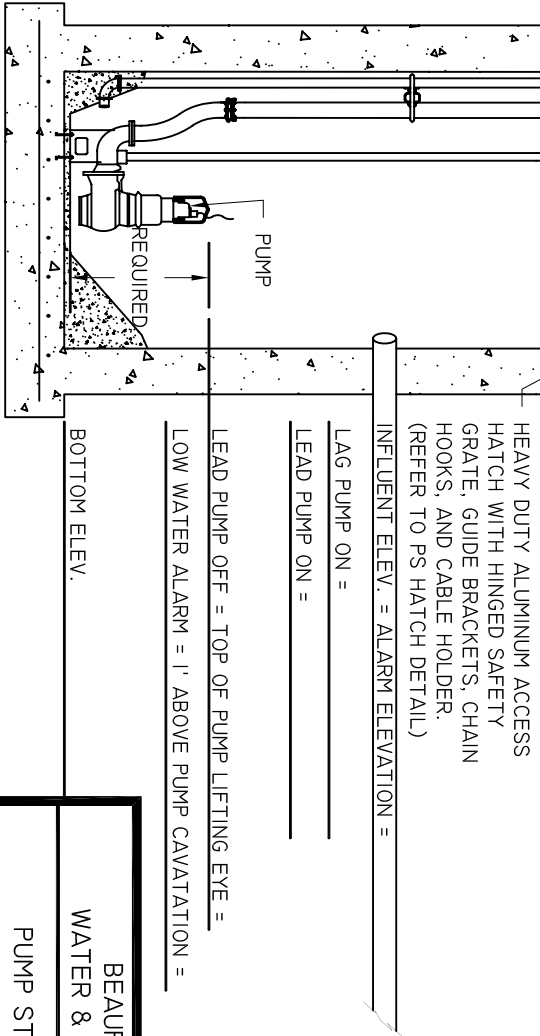
SEE PS ELECTRICAL LAYOUT FOR DETAILS

- 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
 8. DETERIORATION SUBMIT ON PROPOSED METHOD, 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:
AIR TUBING SUPPORT
OFF PUMP
ON PUMP
ALARM (HIGH)

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.



HEAVY DUTY ALUMINUM ACCESS HATCH WITH HINGED SAFETY GRATE, GUIDE BRACKETS, CHAIN HOOKS, AND CABLE HOLDER. (REFER TO PS HATCH DETAIL)

INFLUENT ELEV. = ALARM ELEVATION = _____

LAG PUMP ON = _____

LEAD PUMP ON = _____

LEAD PUMP OFF = TOP OF PUMP LIFTING EYE = _____

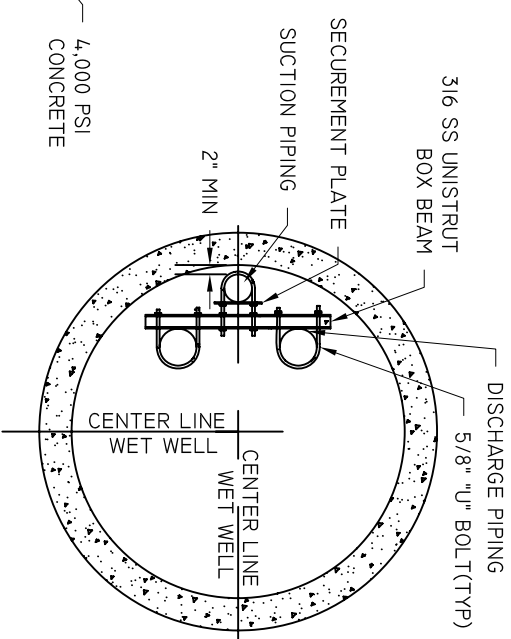
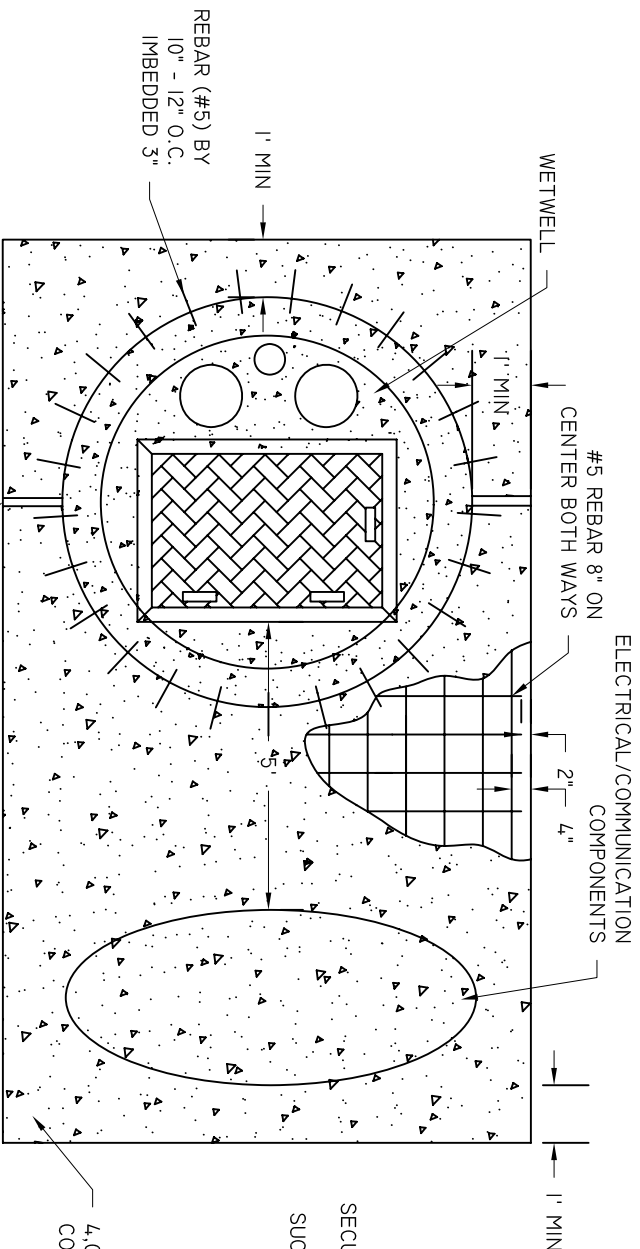
LOW WATER ALARM = 1' ABOVE PUMP CAVATATION = _____

BOTTOM ELEV. _____

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WATER & SEWER AUTHORITY

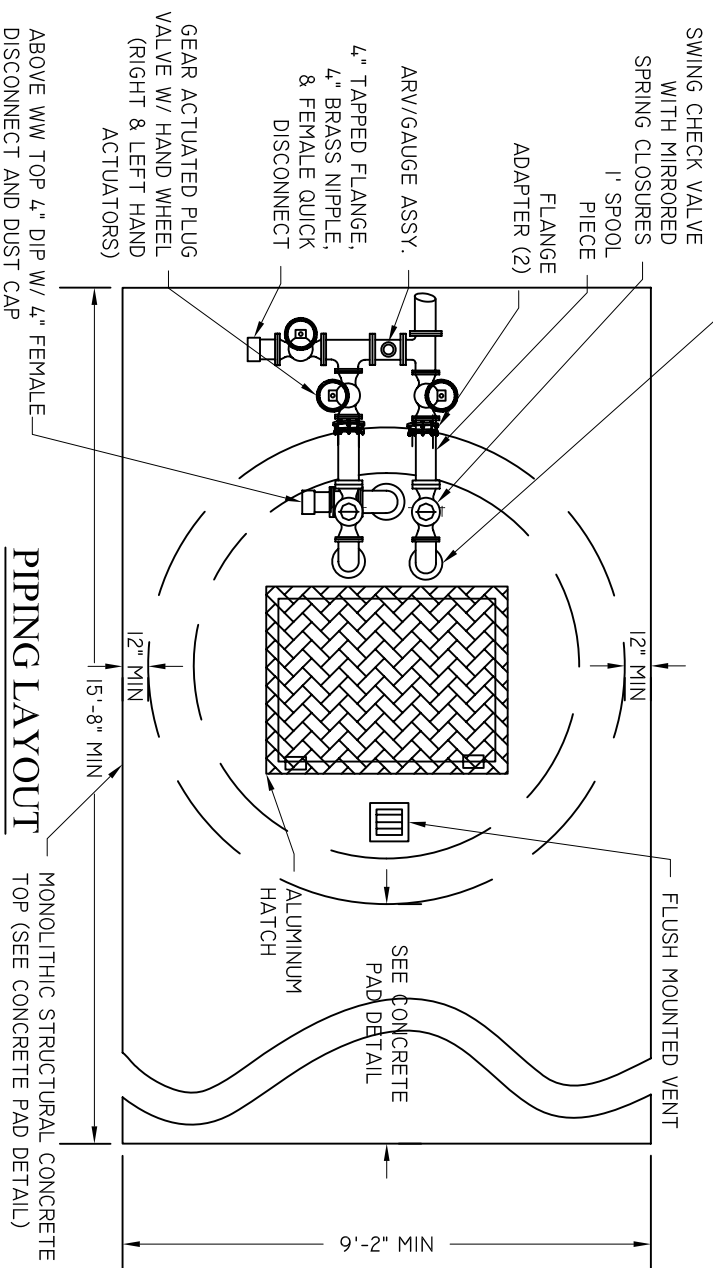
PUMP STATION SECTION II

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



SUPPORT FLANGE OVER
SS LINK SEAL (TYP)

CONCRETE PAD DETAIL



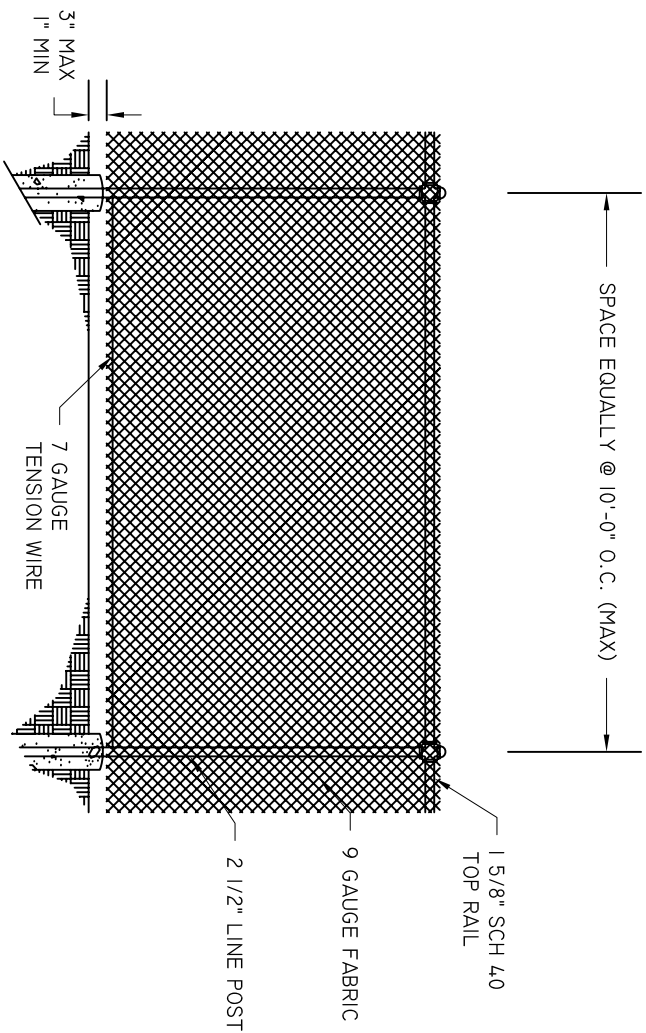
- NOTES:
1. CONCRETE IS TO BE A MINIMUM OF 5 1/2" THICK
 2. REINFORCING IS TO BE 2" ABOVE BOTTOM
 3. ALL EXPOSED EDGES SHALL BE SHAMPERED (1"X1" MIN)
 4. VERTICAL PIPING BRACING IS NOT EXCEED 9' ON CENTER

PS LATERAL SUPPORT BRACKET

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION WETWELL DETAIL

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



BRACE
4" GATE POST
3/8" MIN TRUSS ROD
NO. 7 COIL SPRING REINFORCING WIRE
3" CORNER POST
GRADE
GATE POST
STRETCHER BAR
3" CORNER POST
LINE POST
WA

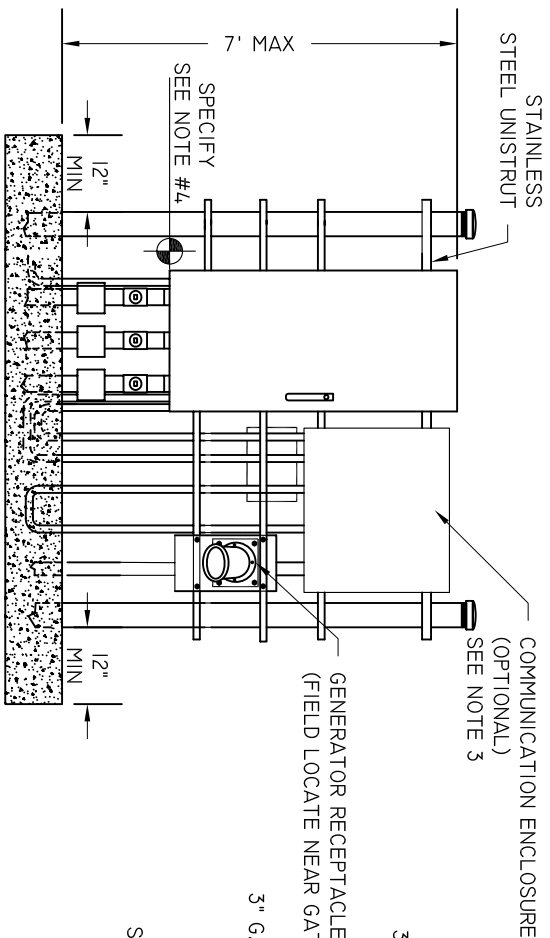
- BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION FENCING DETAIL

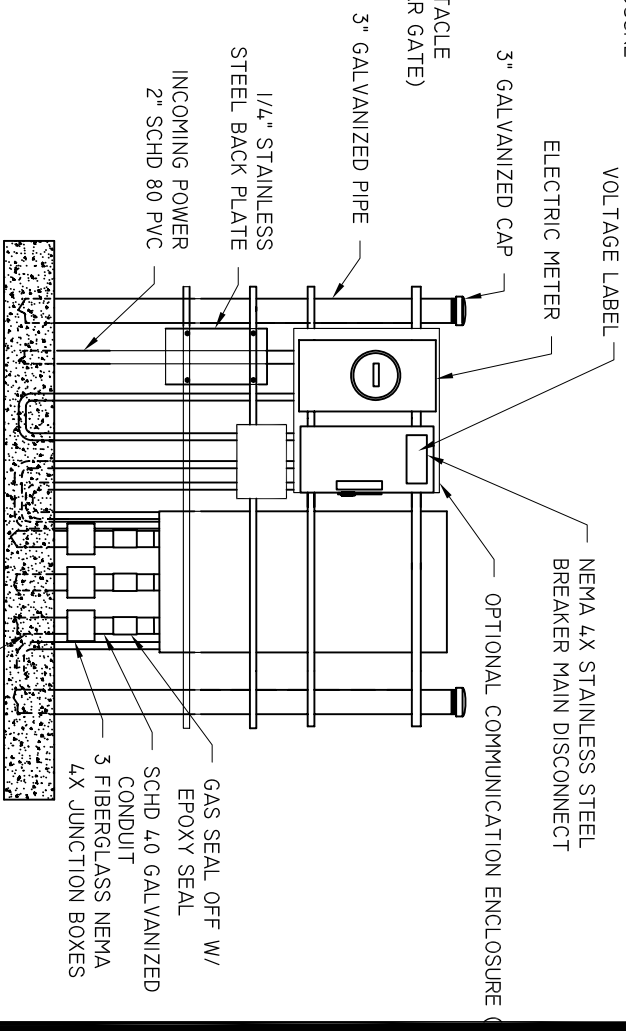
GATE DETAIL

1'-4" CONCRETE FOR POSTS 4" OR LESS

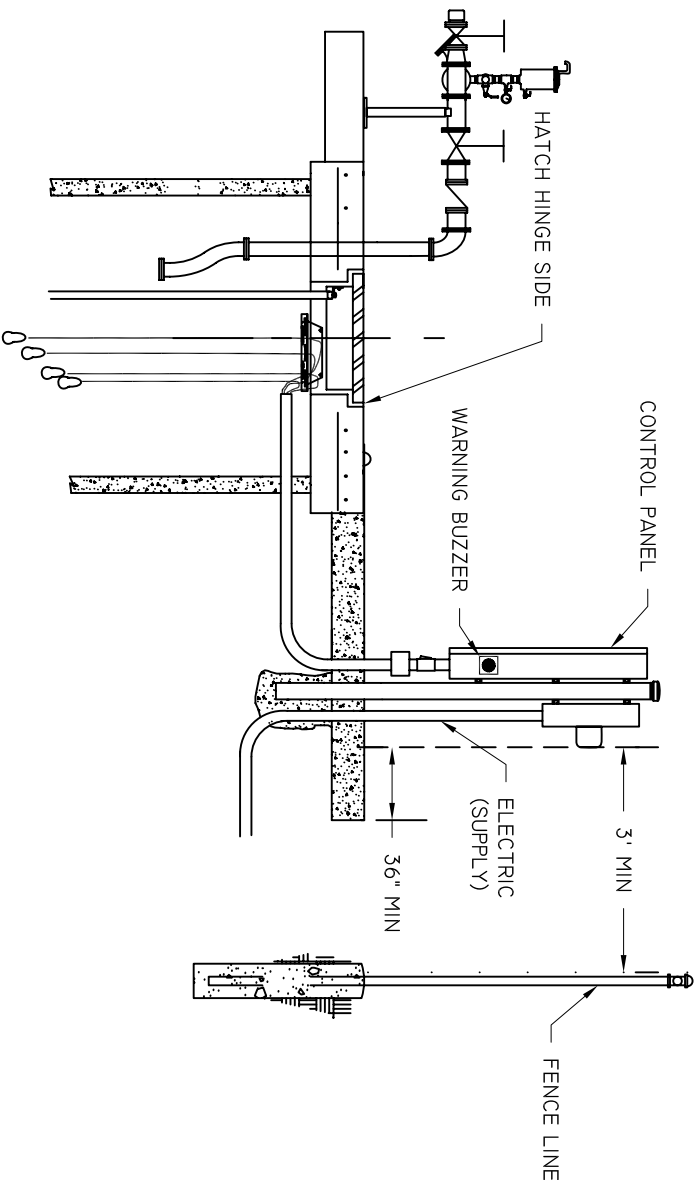
2'-0" CONCRETE FOR POSTS OVER 4"



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

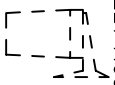
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION ELECTRICAL LAYOUT

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

SUB-PANEL LAYOUT

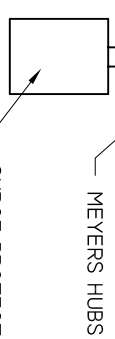
GENERAL FLASHING
ALARM LIGHT
(REMOTEYLY MOUNTED)



SUB-PANEL LAYOUT



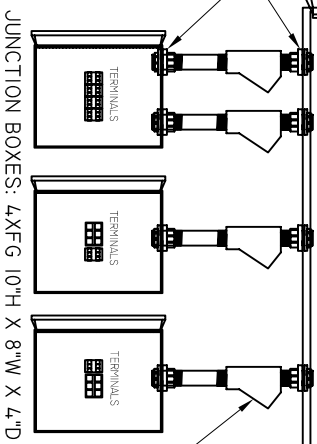
MAIN DISCONNECT



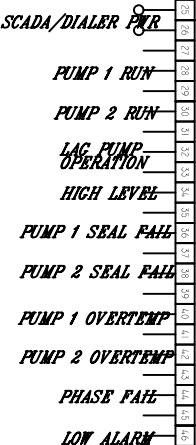
NOTES:

1. PANEL STRUCTURAL MEMBERS SHALL NOT BLOCK COMPONENTS VISIBLE THROUGH INNER DOOR.
2. JUNCTION BOXES MAYBE OFFSET TO LEFT OR RIGHT OF CONTROL PANEL. THEY MUST BE OFFSET ON LARGER STATIONS.

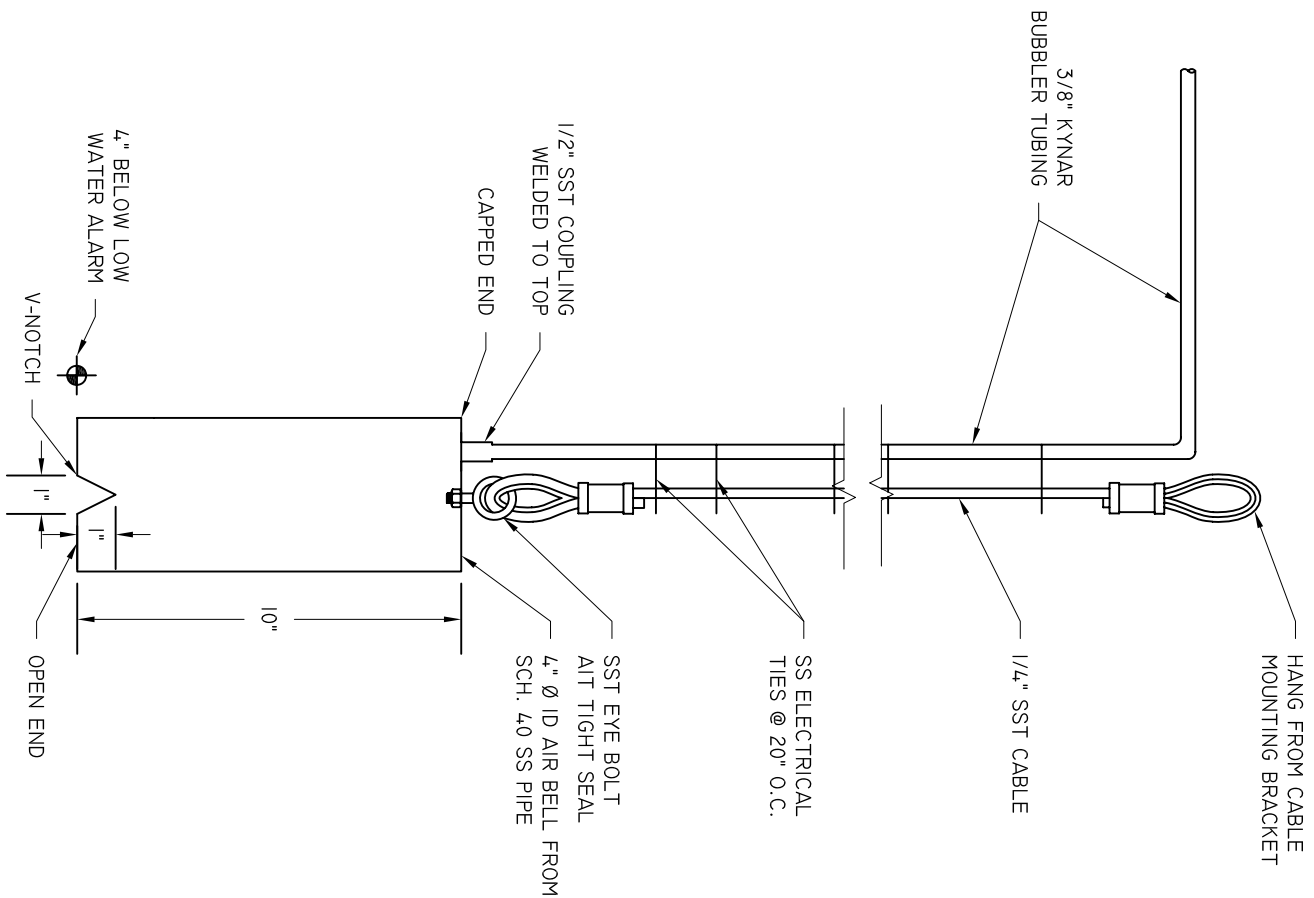
SCADA TERMINAL BLOCK LAYOUT



JUNCTION BOXES

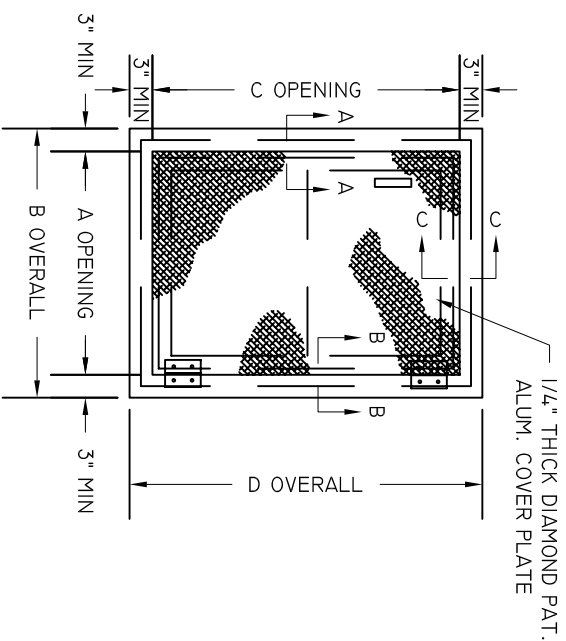


BEAUFORT - JASPER WATER & SEWER AUTHORITY			
PS CONTROL PANEL & MAIN DISCONNECT			
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-17
SCALE	APPROVED BY	ERS	
1" = 1'			



NOTE:
 1. ALL STAINLESS STEEL IS 316

BEAUFORT - JASPER			
WATER & SEWER AUTHORITY			
PUMP STATION BUBBLER			
DATE	DRAWN BY		DRAWING #
07/01/09	BMC		S-18
SCALE	APPROVED BY		
N.T.S.	ERS		



WETWELL ACCESS HATCH

NOT TO SCALE

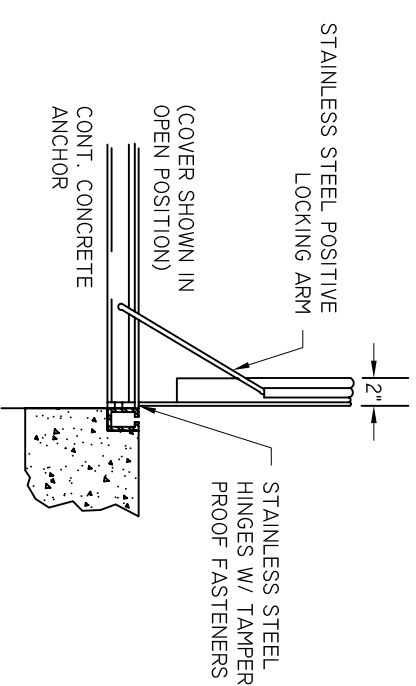
WETWELL DIA	DIMENSION		LIFT WT.
	A	C	
6'	32"	48"	24 LBS
8' - 10'	36"	48"	26 LBS

NOTES:

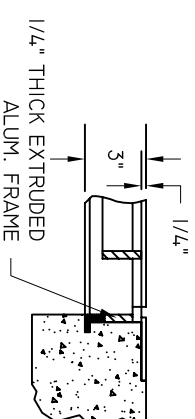
- ALL HATCHES SHALL BE EQUIPPED WITH A SAFETY GRATE. DIMENSIONS "A" & "C" SHALL INCLUDE ANY RESTRICTION IMPOSED BY SAFETY GRATE.
- FOR LOCATION OF ACCESSORIES SEE PUMP OUTLINE DIMENSIONS.
- HATCH SHALL BE EQUIPPED WITH A PAD-LOCKABLE RECESSED LOCKING MECHANISM.
- HATCH DIMENSIONS SHOWN ARE MINIMUM SIZES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



SECTION A-A



SECTION B-B



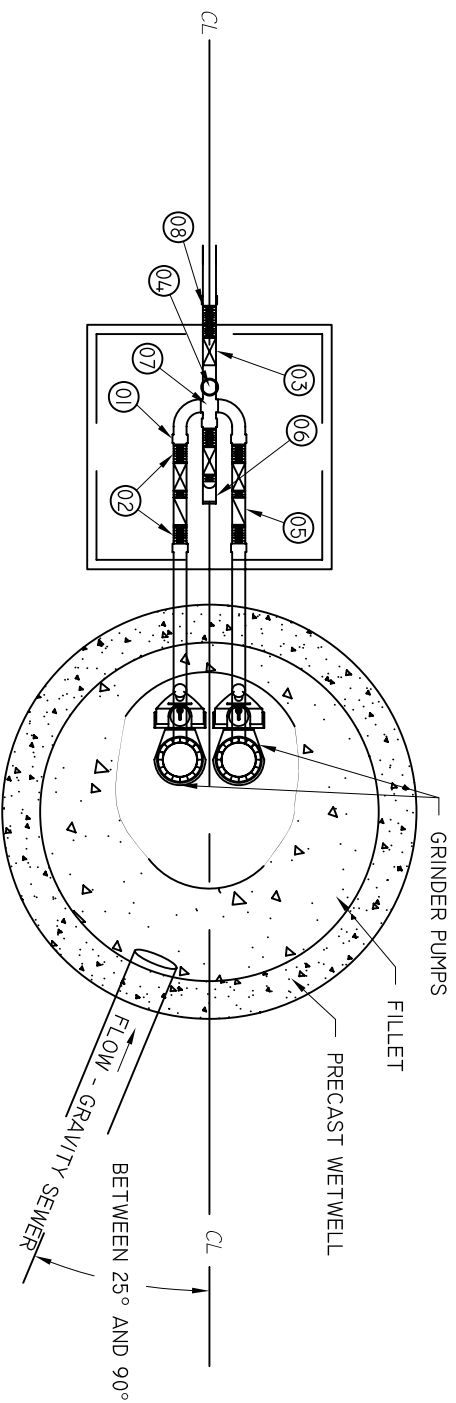
SECTION C-C

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION HATCH DETAIL

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

S-19



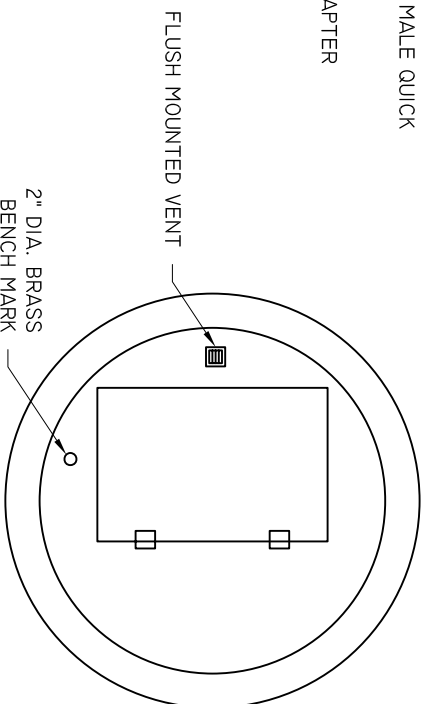
LEGEND

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"X1"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

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.

SUB-SURFACE PLAN



WETWELL TOP

BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION 2" DUPLEX GRINDER, PLAN

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

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

SURVEY BENCHMARK EPOXY MOUNTED
BRONZE DISK WITH TOP ELEVATION
OF WETWELL STAMPED ON DISK

CONTROL PANEL WITH ALARM
TO BE LOCATED IN FIELD

4.2" X 50" X 4.8"H
(SEE NOTE 1)

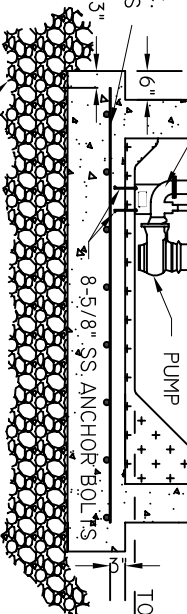
FINISHED GRADE

2" HDPE TUBING

2" SCH 80 PVC PIPE

1 1/4" X 4" BRASS NIPPLE
1 1/4" X 2" BRASS BUSHING
2" BRASS STREET ELBOW
2" SCH 80 FEMALE THREAD ADAPTER

#5 BARS @ 12" O.C.
BOTH WAYS



- LEGEND:
01. 2" FEMALE IPT TO GLUE SCH 80 ADAPTER
 02. 2" BRASS NIPPLE
 03. 4 - 2" UNIONIZED BALL VALVES
 04. 2" FLAPPER CHECK VALVE
 05. PRESSURE GAUGE ATTACHMENT ASSEMBLY

NOTES:

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

SECTION

NOT TO SCALE

INFLUENT ELEVATION =

ALARM ELEVATION =

LAG PUMP ON =

LEAD PUMP ON =

LEAD PUMP OFF (LIFTING EYE) =

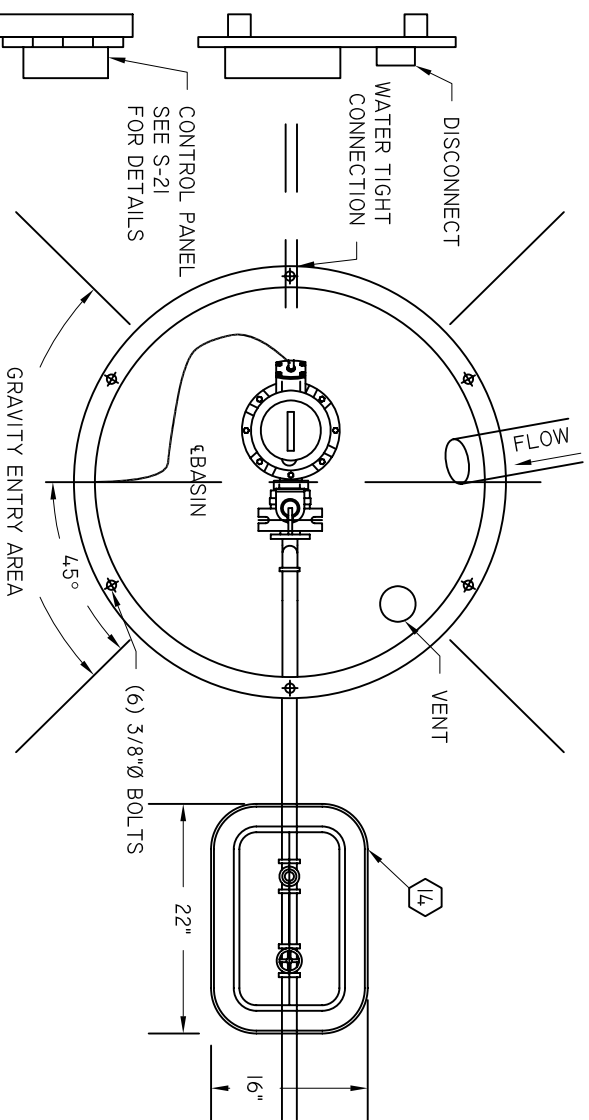
LOW WATER ALARM =

TOP OF FILLET =

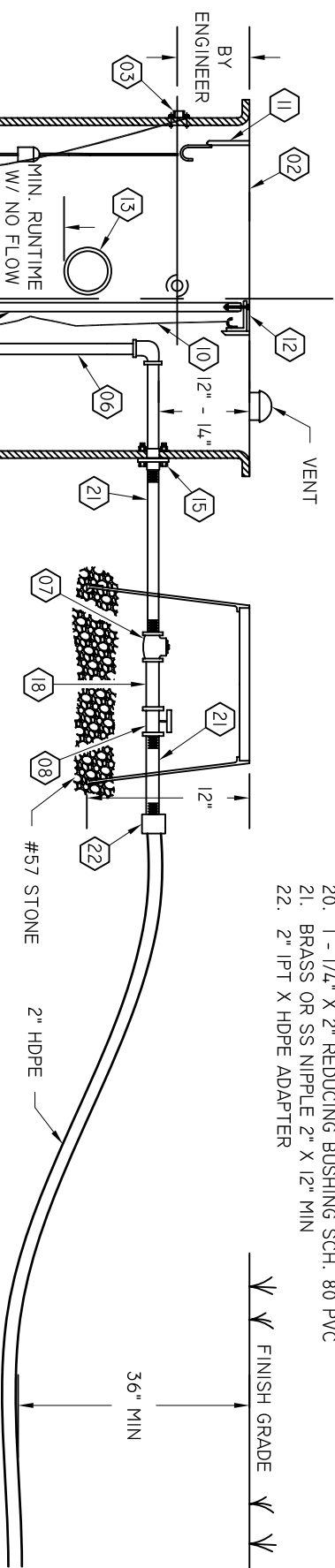
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

PUMP STATION 2" DUPLEX
GRINDER, SECTION

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

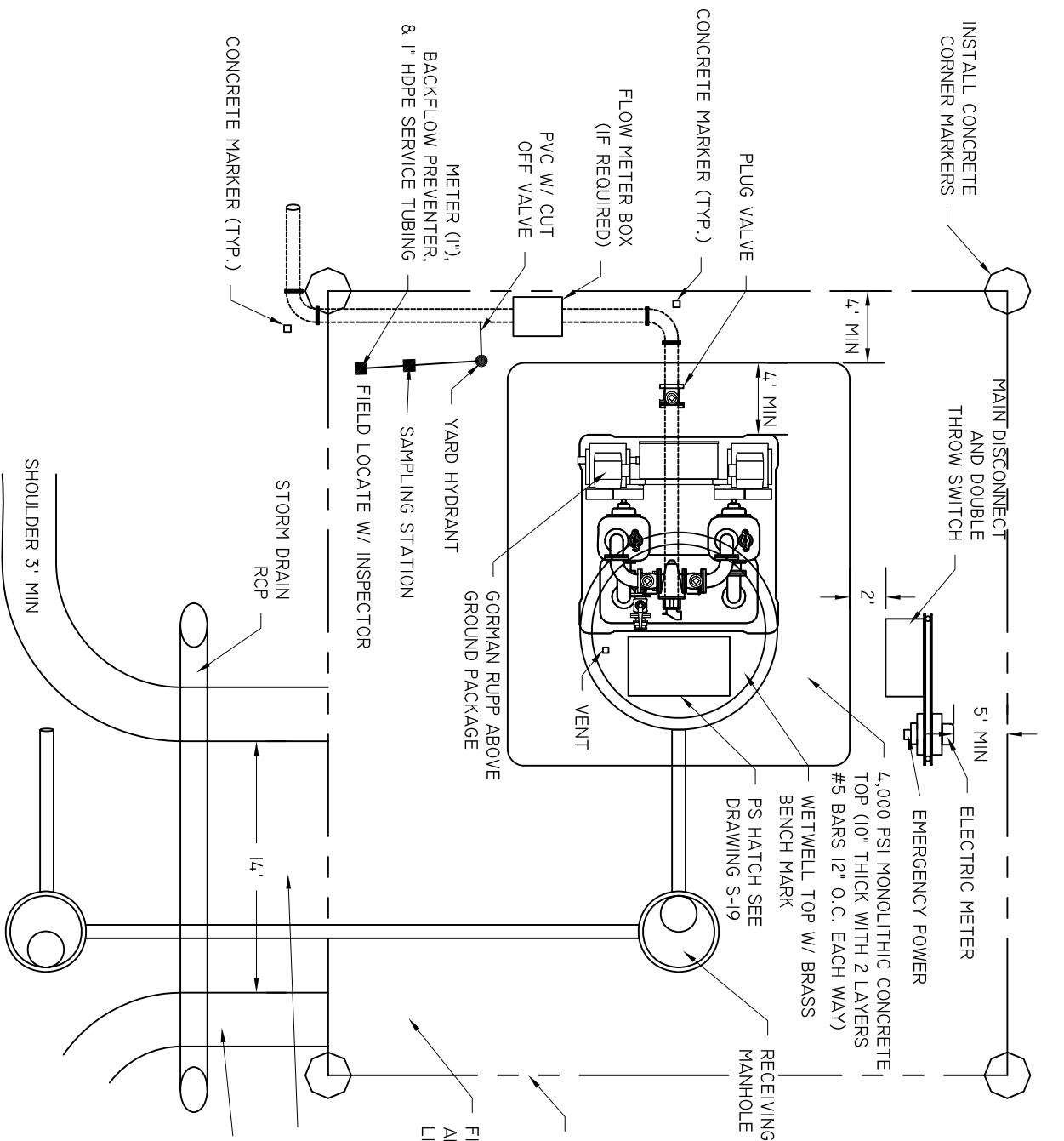


- ITEM DESCRIPTION:
01. FIBERGLASS BASIN, 30"x60" WITH FIBERGLASS ANTI-FLOAT 5/8" 304 SS SIMPLEX MOUNTING STUDS
 02. FIBERGLASS ACCESS COVER NUTS GLASSED INTO BASIN LID
 03. 2" NPT GLASS FILLED PLASTIC ELECTRICAL COUPLING FLANGE ASSEMBLY WITH GASKET KIT
 04. ABS SINGLE GUIDE RAIL BASE ASSEMBLY
 05. 2" SCH. 40 TYPE 304 SS GUIDE RAILS
 06. 2" SCH. 80 PVC DISCHARGE PIPE (TYPICAL)
 07. 2" NPT BRASS FLAPPER CHECK VALVE (THREADED)
 08. 2" SCH. 80 PVC TRUE UNION BALL VALVE
 09. 2" SCH. 80 PVC ELBOWS (2)
 10. 3/16" 316 STAINLESS STEEL LIFTING CHAIN WITH 5/8" SS SHACKLE
 11. 3/16 SS SIX HOOK CABLE HOLDER FLOAT BRACKET
 12. 3/16 SS UPPER GUIDE WITH ALUMINUM SUPPORT BAR
 13. 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" 3/16 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 B.U.W.S.A. APPROVAL IF INLET HUB SIZE IF NOT 6"
 3. THIS IS A TYPICAL INSTALLATION DRAWING. NOT TO BE USED FOR CONSTRUCTION.

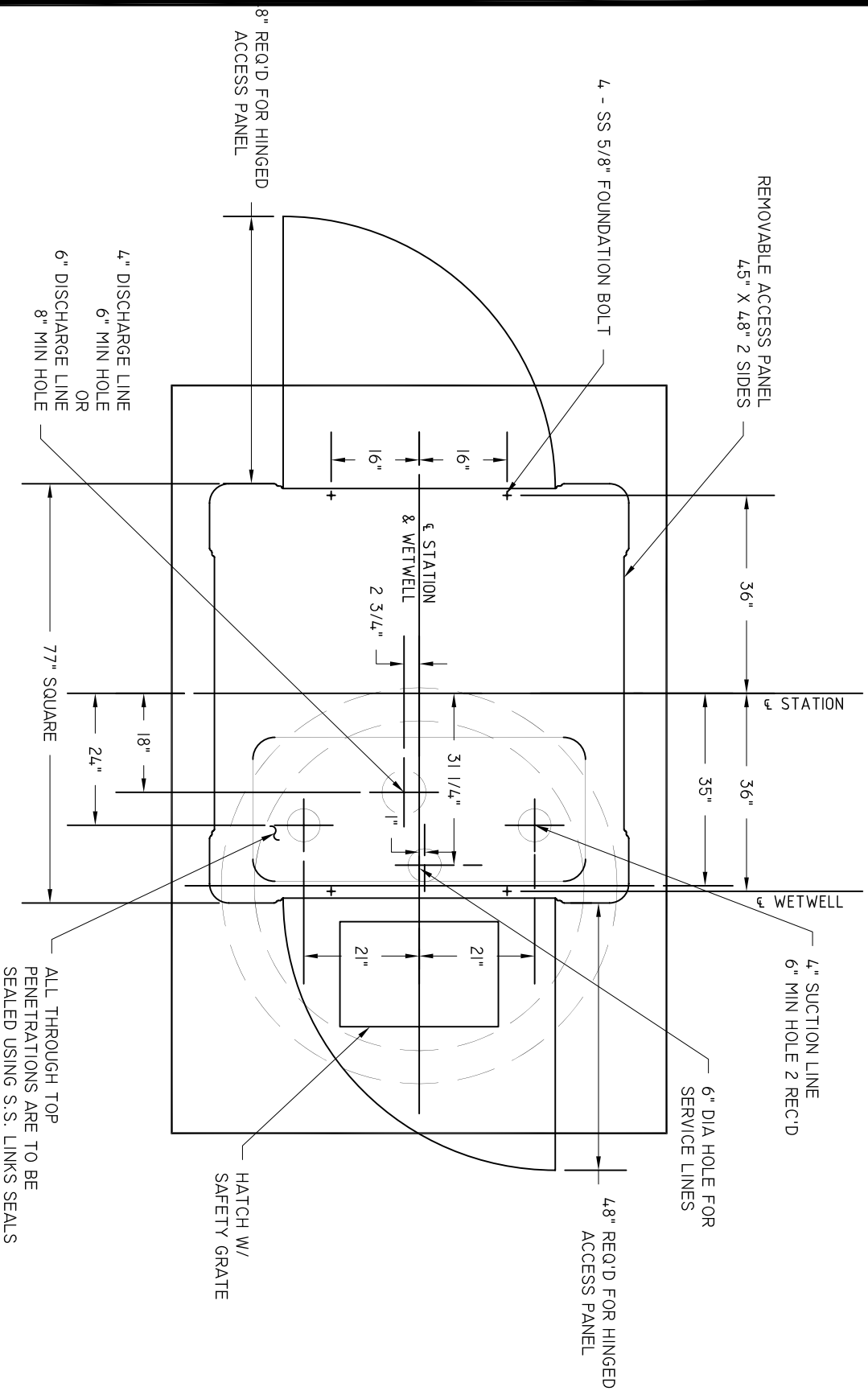
BEAUFORT - JASPER			
WATER & SEWER AUTHORITY			
PUMP STATION, RESIDENTIAL SIMPLEX			
GRINDER			
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-22
SCALE	APPROVED BY	ERS	
N.T.S.			



- NOTES:
1. SITE DIMENSIONS ARE BASED ON WETWELL DIAMETER:
6' DIA. = 40' X 40'
8'-10' DIA. = 50' X 50'
 2. ALL NON-FENCED P.S. SITES ARE TO HAVE CONCRETE PROPERTY CORNER MONUMENTS. MONUMENTS ARE TO EXTEND ABOVE FINAL GRADE.

BEAUFORT - JASPER
WATER & SEWER AUTHORITY
PUMP STATION, ABOVE GROUND
SITE PLAN

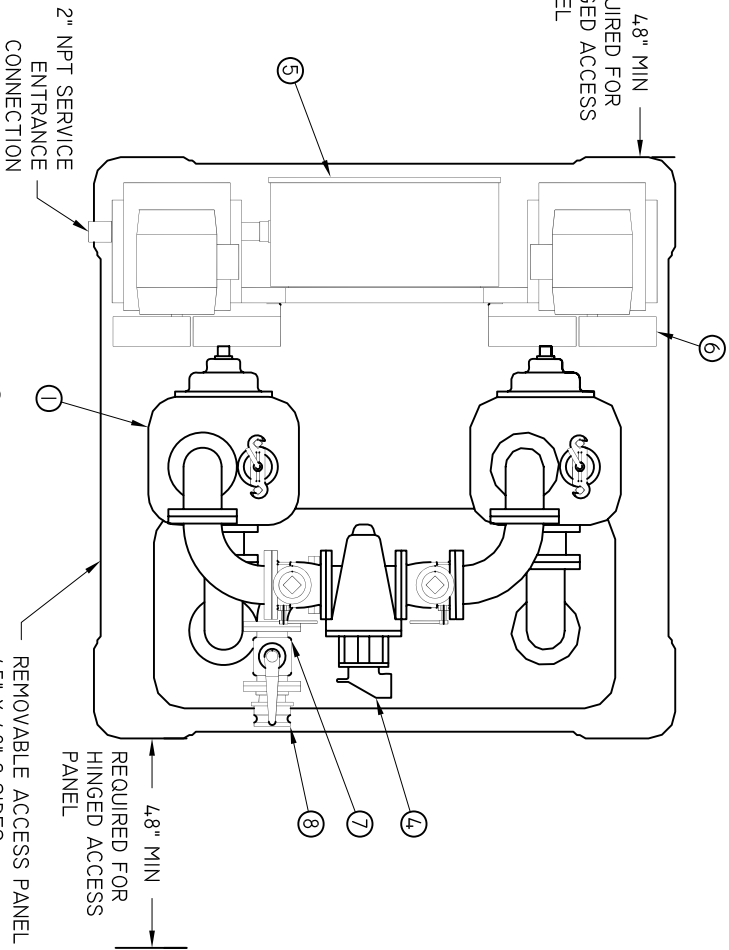
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-23A
SCALE	APPROVED BY	ERS	
N.T.S.			



BEAUFORT - JASPER
WATER & SEWER AUTHORITY
PUMP STATION, ABOVE GROUND
6X6 DETAIL #2

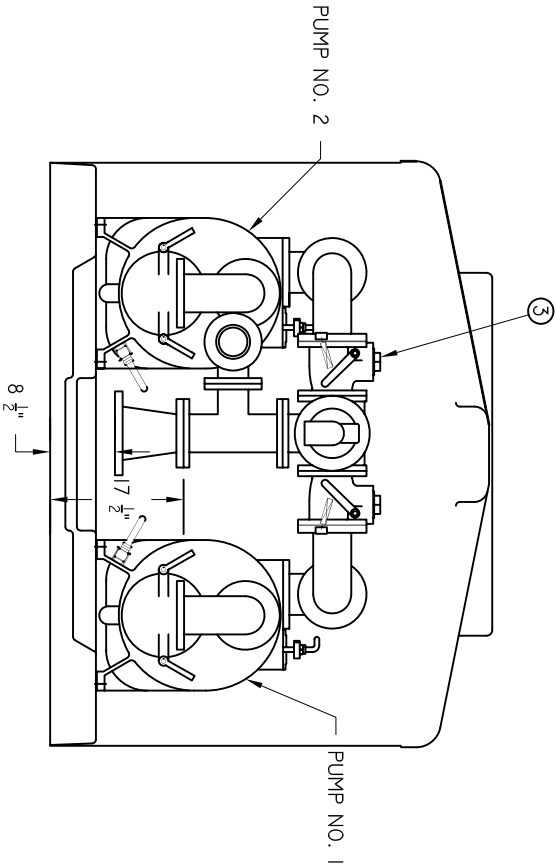
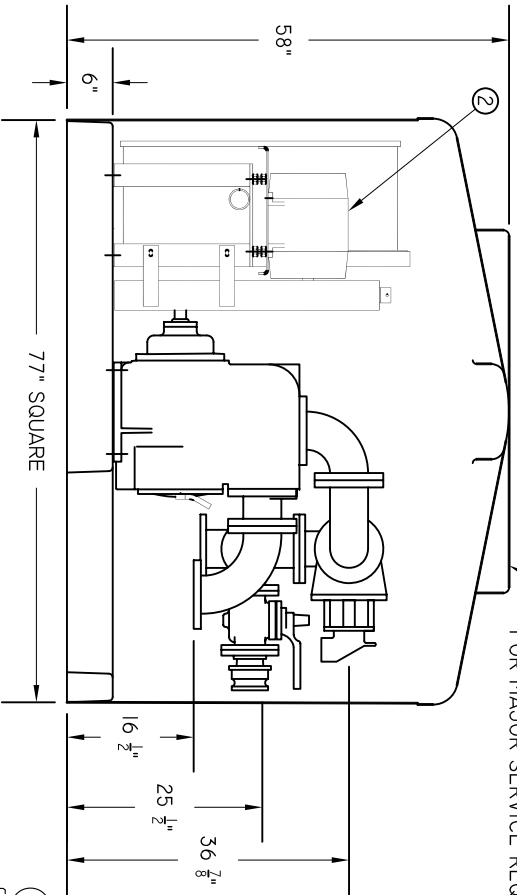
DATE	07/01/09	DRAWN BY	BMC	DRAWING #
SCALE	N.T.S.	APPROVED BY	ERS	S-23C

4.8" MIN
REQUIRED FOR
HINGED ACCESS
PANEL



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

FIBERGLASS REINFORCED PLASTIC
ENCLOSURE COMPLETELY REMOVABLE
FOR MAJOR SERVICE REQUIREMENTS



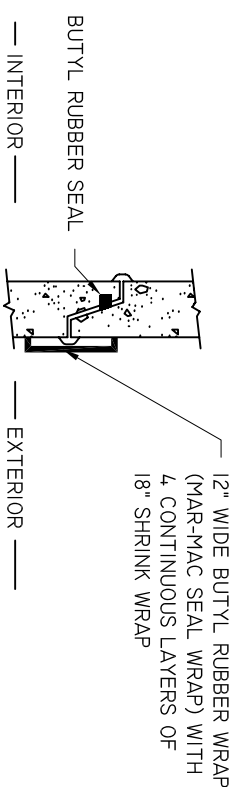
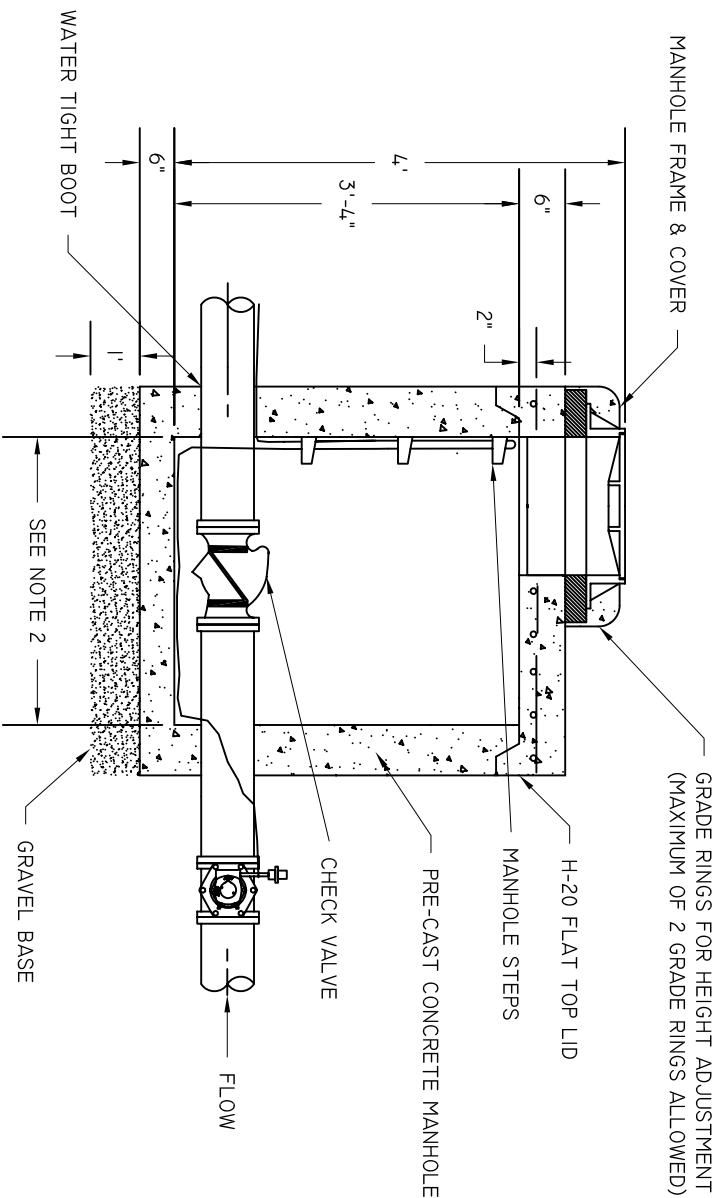
NOTES:
1. FLANGE CONNECTIONS ARE TO BE 125#

BEAUFORT - JASPER
WATER & SEWER AUTHORITY
PUMP STATION, ABOVE GROUND
6X6 DETAIL #3



THE GORMAN-RUPP CO.
MADE IN U.S.A.
ST. THOMAS, ONTARIO

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



TITLE DETAIL

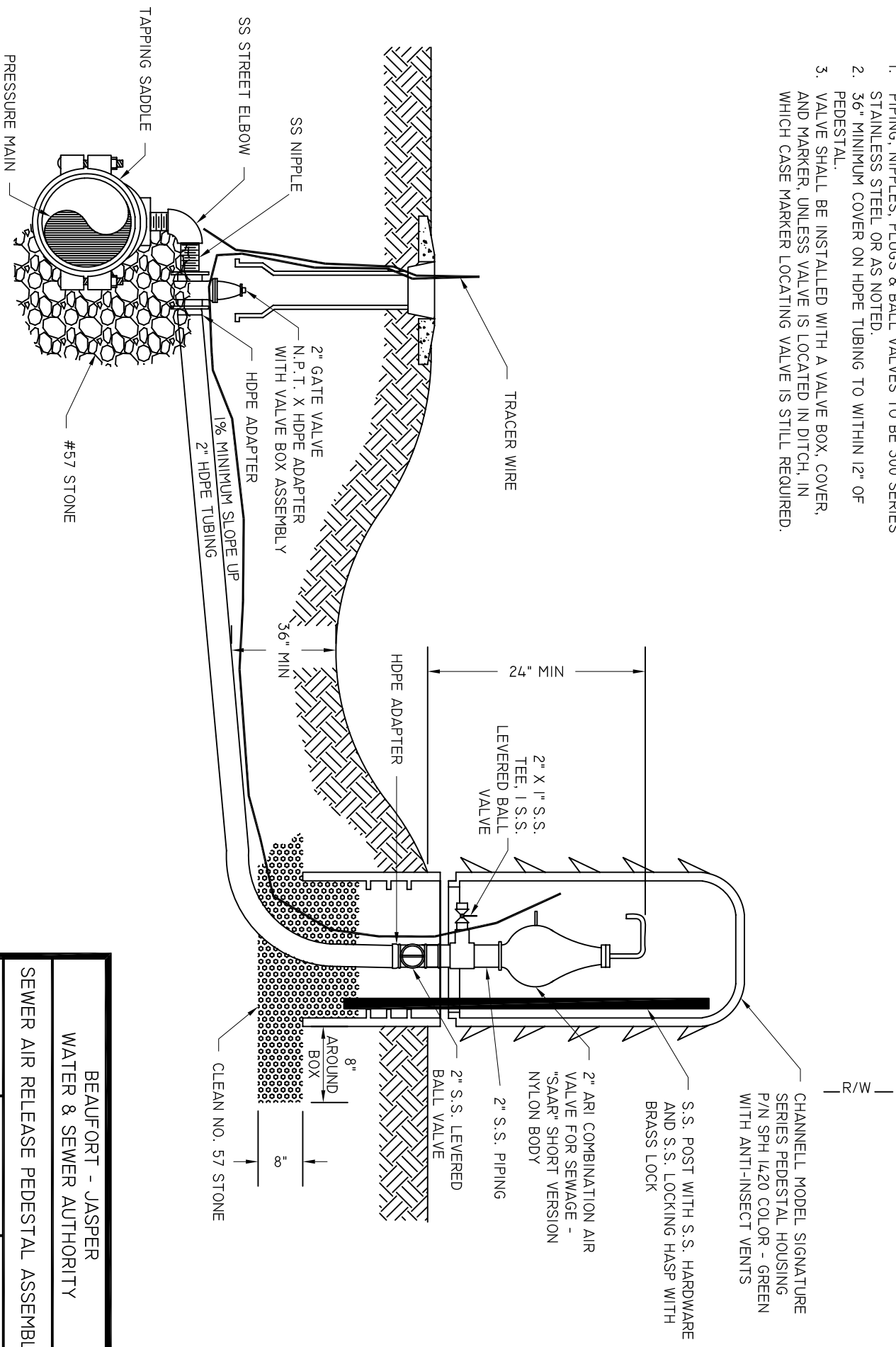
- NOTES:
1. SET TOPS OF MANHOLES FLUSH WITH FINAL GRADE UNLESS NOTED OTHERWISE.
 2. REFER TO SPECIFICATIONS FOR REQUIRED MANHOLE DIAMETER.
 3. CHECK VALVE SHALL BE INSTALLED AS NEAR TIE-IN TO F.M. AS POSSIBLE.

SEWER CHECK VALVE IN MANHOLE

NOT TO SCALE

BEAUFORT - JASPER			
WATER & SEWER AUTHORITY			
SEWER CHECK VALVE			
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-24
SCALE	APPROVED BY	ERS	
N.T.S.			

- NOTES:
1. PIPING, NIPPLES, PLUGS & BALL VALVES TO BE 300 SERIES STAINLESS STEEL OR AS NOTED.
 2. 3/6" 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.

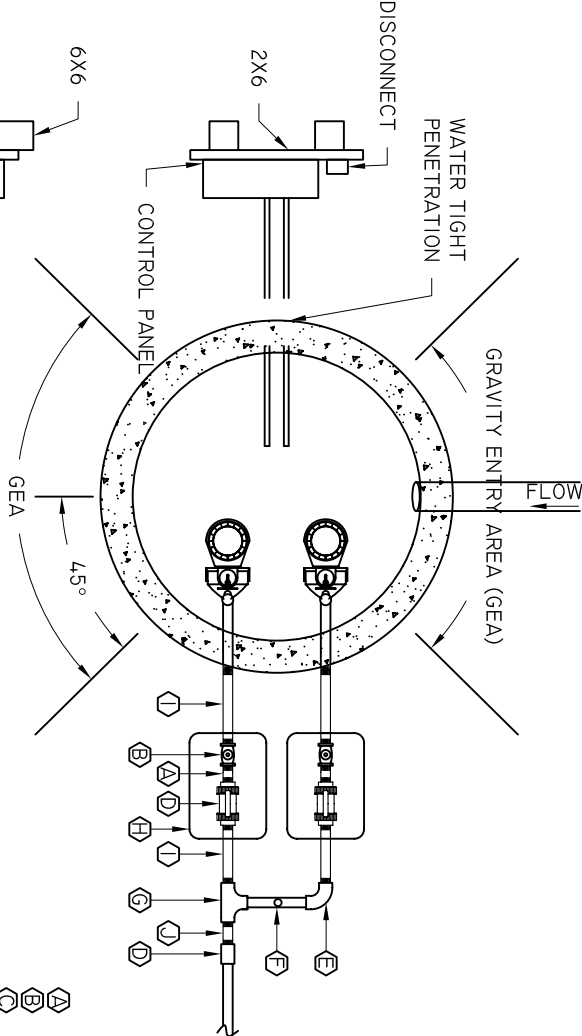


BEAUFORT - JASPER
WATER & SEWER AUTHORITY

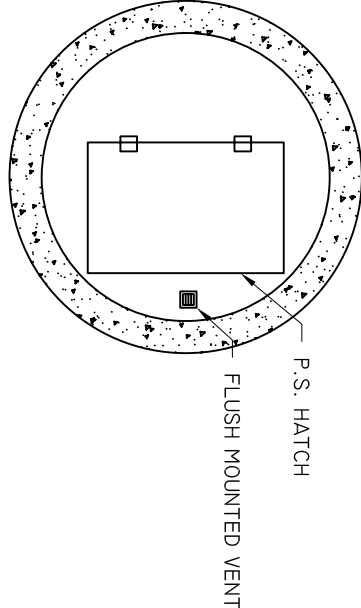
SEWER AIR RELEASE PEDESTAL ASSEMBLY

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

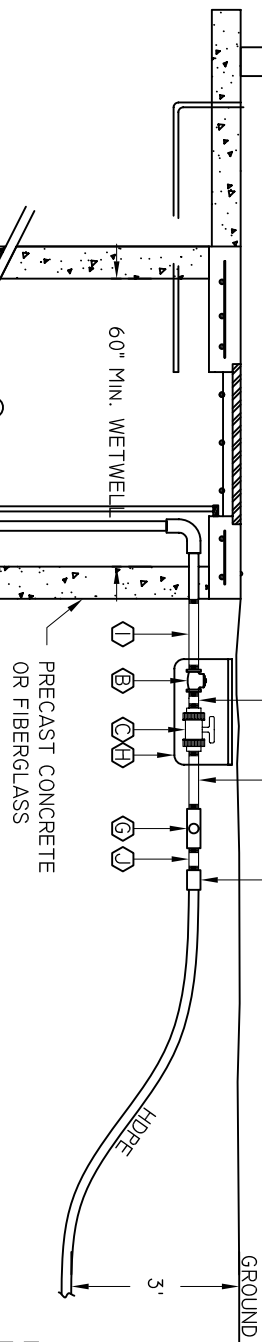
SUBSURFACE PLAN VIEW



WETWELL TOP



- A BRASS OR SS NIPPLE 2"X1"
- B 2" FLAPPER CHECK VALVE (BRASS)
- C TRUE UNION PVC BALL VALVE WITH 1PT THREADS
- D BRASS FEMALE 1PT TO HDPE ADAPTER 2"
- E BRASS OR SS 90° 2"
- F PRESSURE TEST PORT
- G 2"X2" BRASS TEE
- H 22"X16"X12" VALVE BOX WITH LID
- I BRASS OR SS NIPPLE 12" MIN
- J BRASS OR SS NIPPLE 2" MIN



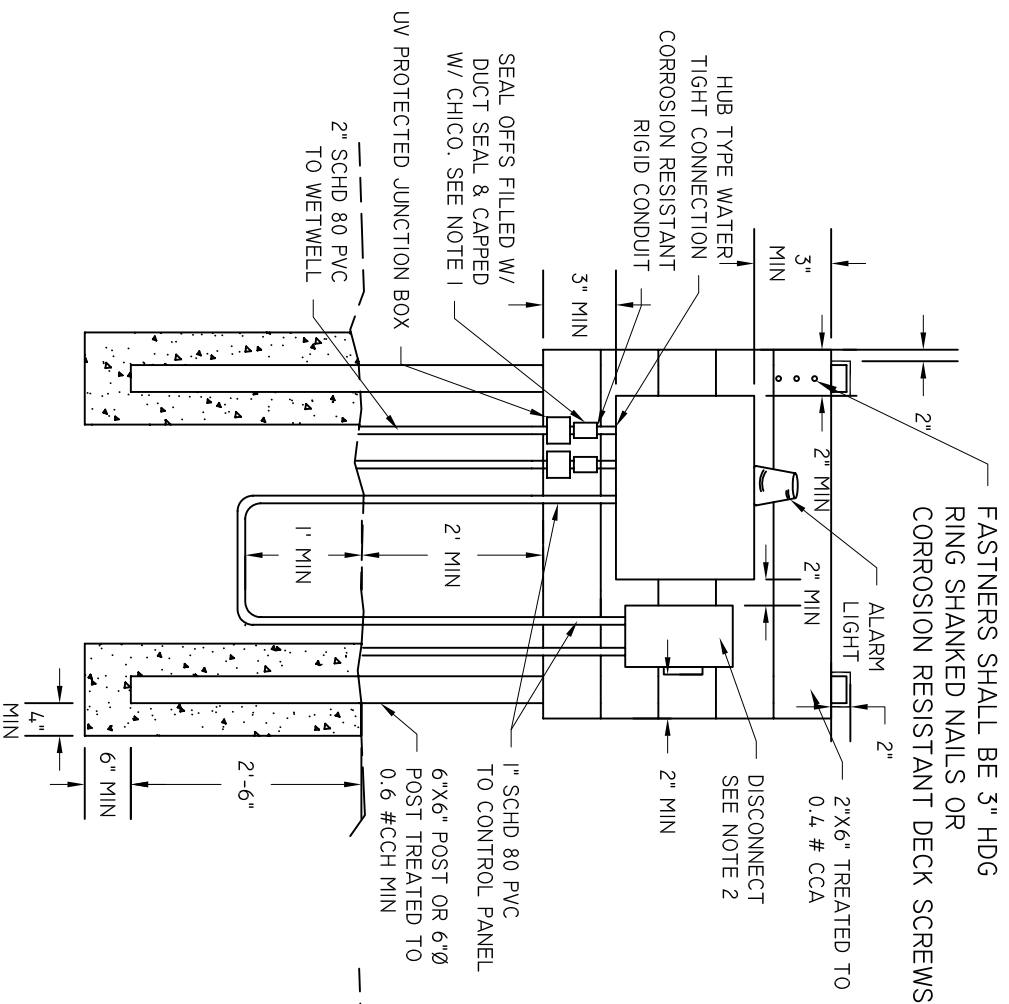
- I 1/4"X4" BRASS NIPPLE
- J 1/4"X2" BRASS BUSHING
- K 2" BRASS STREET ELBOW
- L 2" SCH 80 FEMALE THREAD ADAPTER

- NOTES:
1. YARD HYDRANT IS TO BE PLACED WITHIN 10' OF PUMP STATION.
 2. SEE S-19 FOR HATCH DETAIL.
 3. SEE S-27 FOR CONTROL PANEL DETAIL.

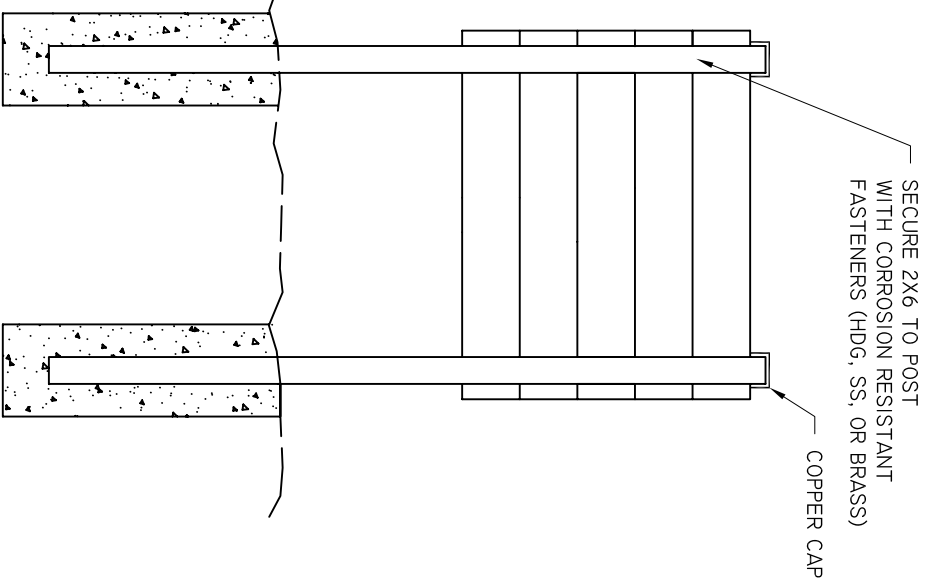
BEAUFORT - JASPER
WATER & SEWER AUTHORITY

DUPLEX RESIDENTIAL GRINDER LAYOUT

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



FRONT

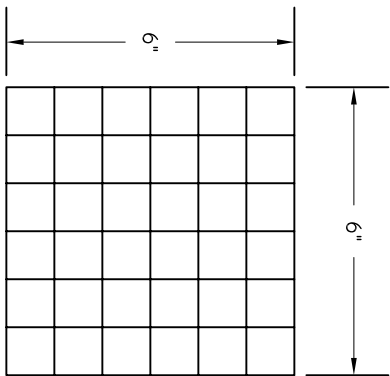


BACK

- NOTES:
1. BUWSA INSPECTOR TO BE PRESENT DURING FILLING.
 2. DISCONNECT SERVICE BACK TO HOUSE IS OWNER'S RESPONSIBILITY.

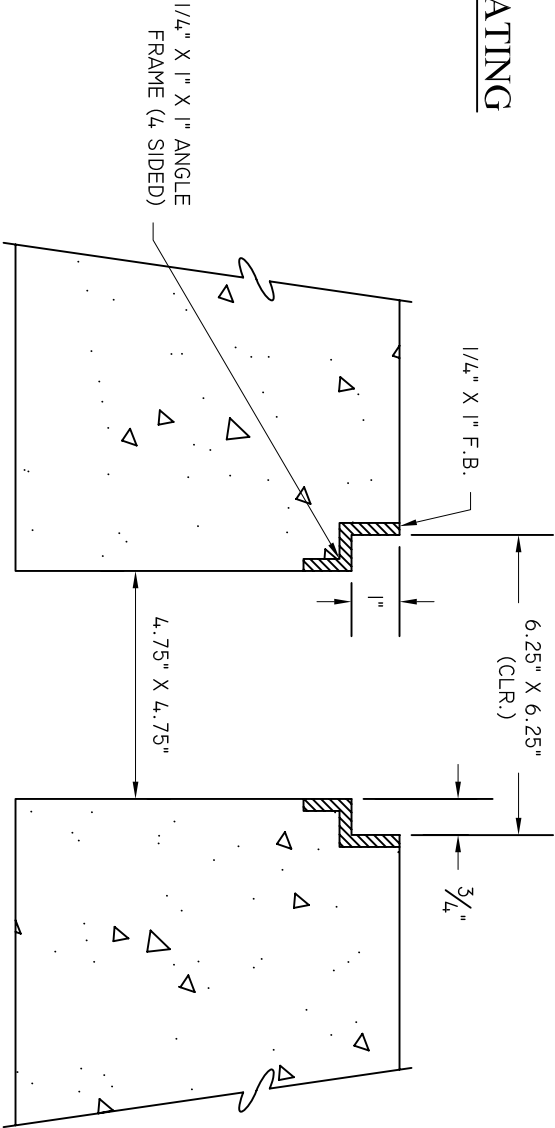
BEAUFORT - JASPER			
WATER & SEWER AUTHORITY			
PUMP STATION RESIDENTIAL DUPLEX			
CONTROL PANEL			
DATE	DRAWN BY	BMC	DRAWING #
07/01/09			S-27
SCALE	APPROVED BY	ERS	
N.T.S.			

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	
N.T.S.			