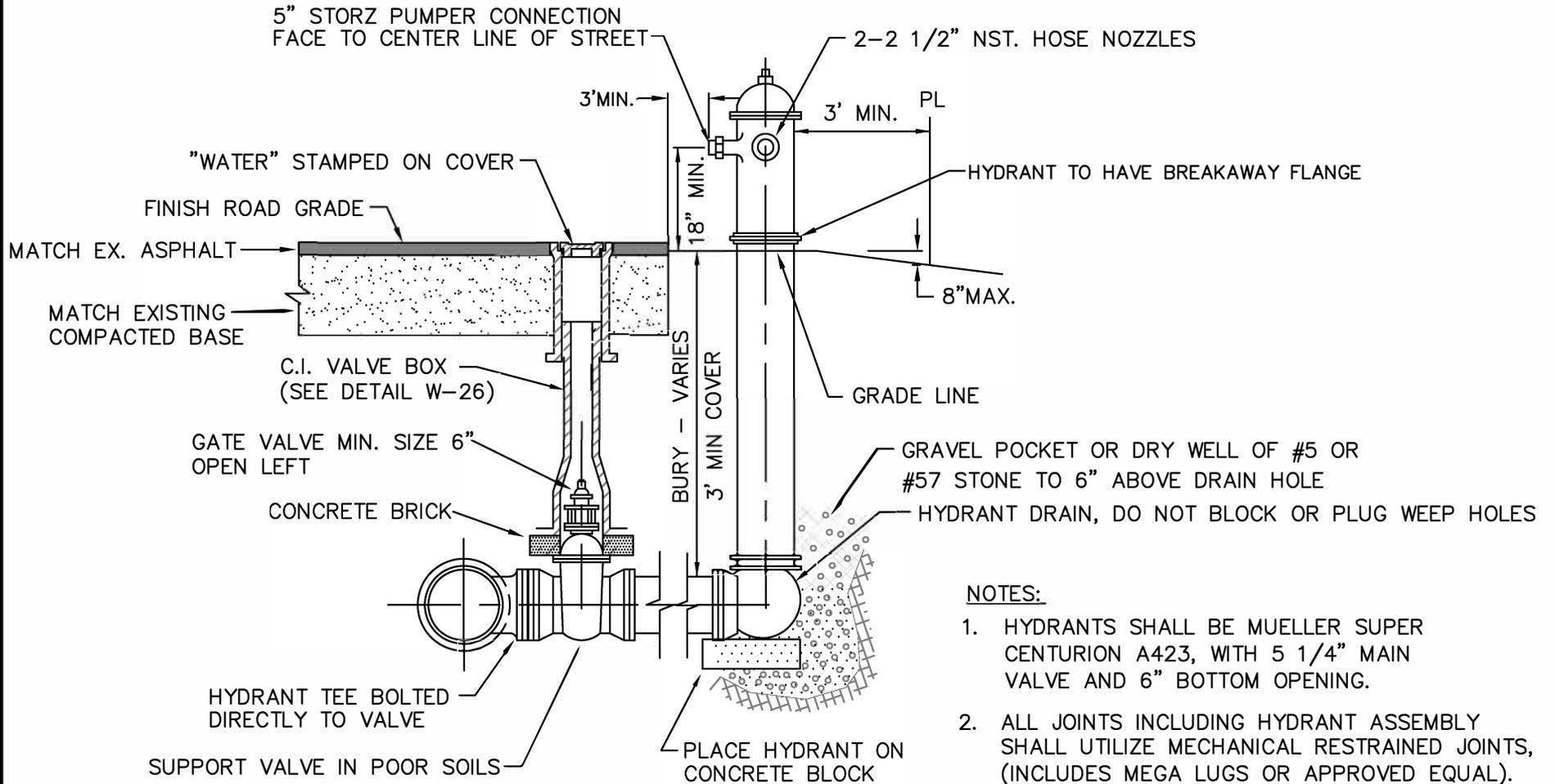


CITY OF NORTH MYRTLE BEACH STANDARD DETAILS
ENGINEERING DIVISION



WATER:

- W-1 FIRE HYDRANT WITH GATE VALVE IN PAVEMENT AREA
- W-2 FIRE HYDRANT WITH GATE VALVE IN UNPAVED AREA
- W-3 POST HYDRANT
- W-4 WATER SAMPLING STATION
- W-5 WATER BLOW OFF DEAD END LINES 2" OR SMALLER
- W-6 BUTTERFLY VALVE AND BOX
- W-7 GATE VALVE AND BOX
- W-8 MAIN VALVE MARKER POST
- W-9 AIR RELEASE VALVE AND MARKER POST
- W-10 AIR RELEASE VALVE AND MANHOLE
- W-11 CLASS 2 PIPE BEDDING
- W-12 CLASS 4 PIPE BEDDING
- W-13 TYPICAL 2" AND 3" WATER SERVICE WITH FIRE LINE
- W-13A TYPICAL 2",3",4" WATER SERVICE WITH 4" OR 6" FIRE LINE WITHOUT IRRIGATION METER
- W-14 FIRE HYDRANT AND GATE VALVE LOCATIONS
- W-15 TYPICAL 4" AND LARGER METER VAULT
- W-16 TYPICAL SINGLE WATER SERVICE
- W-17 TYPICAL DOUBLE WATER SERVICE
- W-18 TYPICAL 1" WATER SERVICE
- W-18A TYPICAL 3/4" RESIDENTIAL WATER SERVICE
- W-19 STORM DRAINAGE AND SANITARY SEWER PIPE CROSSING WATER MAIN
- W-20 OBSTRUCTION BYPASS
- W-21 TYPICAL PVC PIPE WITH TRACER WIRE
- W-22 HORIZONTAL AND VERTICAL PIPE SEPARATION
- W-23 HIGHWAY BORE CASING
- W-24 2" AND 3" SERVICE CONNECTION TO WATER MAIN
- W-25 NOT USED
- W-26 ADJUSTABLE VALVE BOX
- W-27 TYPICAL DOUBLE WATER METER
- W-28 TYPICAL 1-1/2" OR 2" WATER SERVICE
- W-29 DOUBLE CHECK VALVE ASSEMBLY (DC) 3/4" & 1" ABOVE GROUND
- W-30 DOUBLE CHECK VALVE ASSEMBLY (DC) 2-1/2" - 12" BELOW GROUND VAULT



*ALL HYDRANTS SHOULD BE PAINTED YELLOW.
PAINT SHALL BE APPLIED AT FACTORY.

NOTES:

1. HYDRANTS SHALL BE MUELLER SUPER CENTURION A423, WITH 5 1/4" MAIN VALVE AND 6" BOTTOM OPENING.
2. ALL JOINTS INCLUDING HYDRANT ASSEMBLY SHALL UTILIZE MECHANICAL RESTRAINED JOINTS, (INCLUDES MEGA LUGS OR APPROVED EQUAL).
3. ALL UNDERGROUND BOLTS & FASTENERS TO BE 304 STAINLESS STEEL OR COR-TEN IRON.
4. MIN. OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND LOWER SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. HYDRANT DRAIN MUST NOT BE CONNECTED TO OR LOCATED WITHIN 10' OF SEWER SYSTEMS.

FIRE HYDRANT WITH GATE VALVE
IN PAVEMENT AREA

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

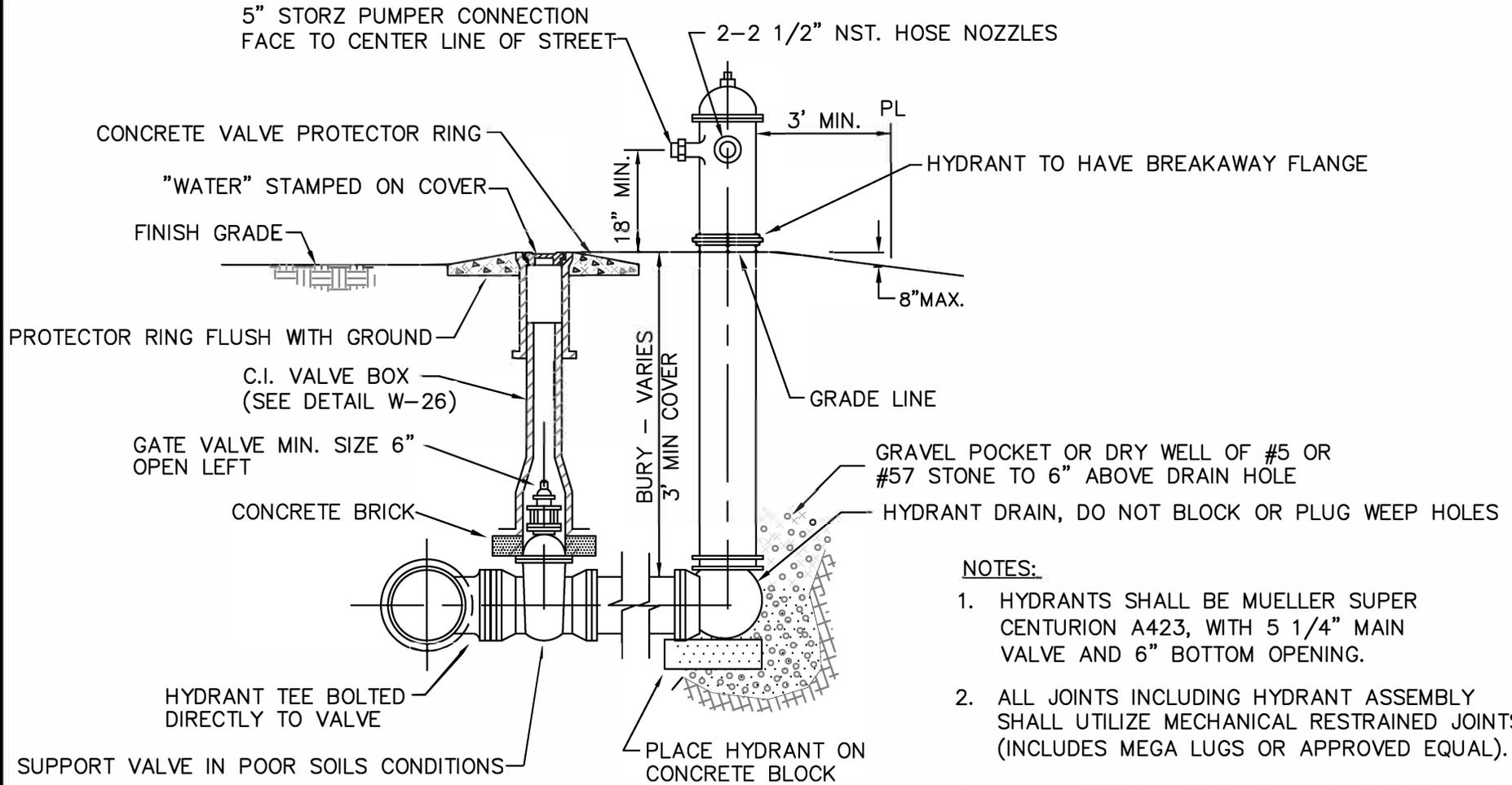
APPROVED BY: KDB
DRAWN BY: KJG

DATE:
5/6/19

SHEET NO.

W-1





*ALL HYDRANTS SHOULD BE PAINTED YELLOW.
PAINT SHALL BE APPLIED AT FACTORY.

NOTES:

1. HYDRANTS SHALL BE MUELLER SUPER CENTURION A423, WITH 5 1/4" MAIN VALVE AND 6" BOTTOM OPENING.
2. ALL JOINTS INCLUDING HYDRANT ASSEMBLY SHALL UTILIZE MECHANICAL RESTRAINED JOINTS, (INCLUDES MEGA LUGS OR APPROVED EQUAL).
3. ALL UNDERGROUND BOLTS & FASTENERS TO BE 304 STAINLESS STEEL OR COR-TEN IRON.
4. MIN. OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND LOWER SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. HYDRANT DRAIN MUST NOT BE CONNECTED TO OR LOCATED WITHIN 10' OF SEWER SYSTEMS.

FIRE HYDRANT WITH GATE VALVE
IN UNPAVED AREA

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

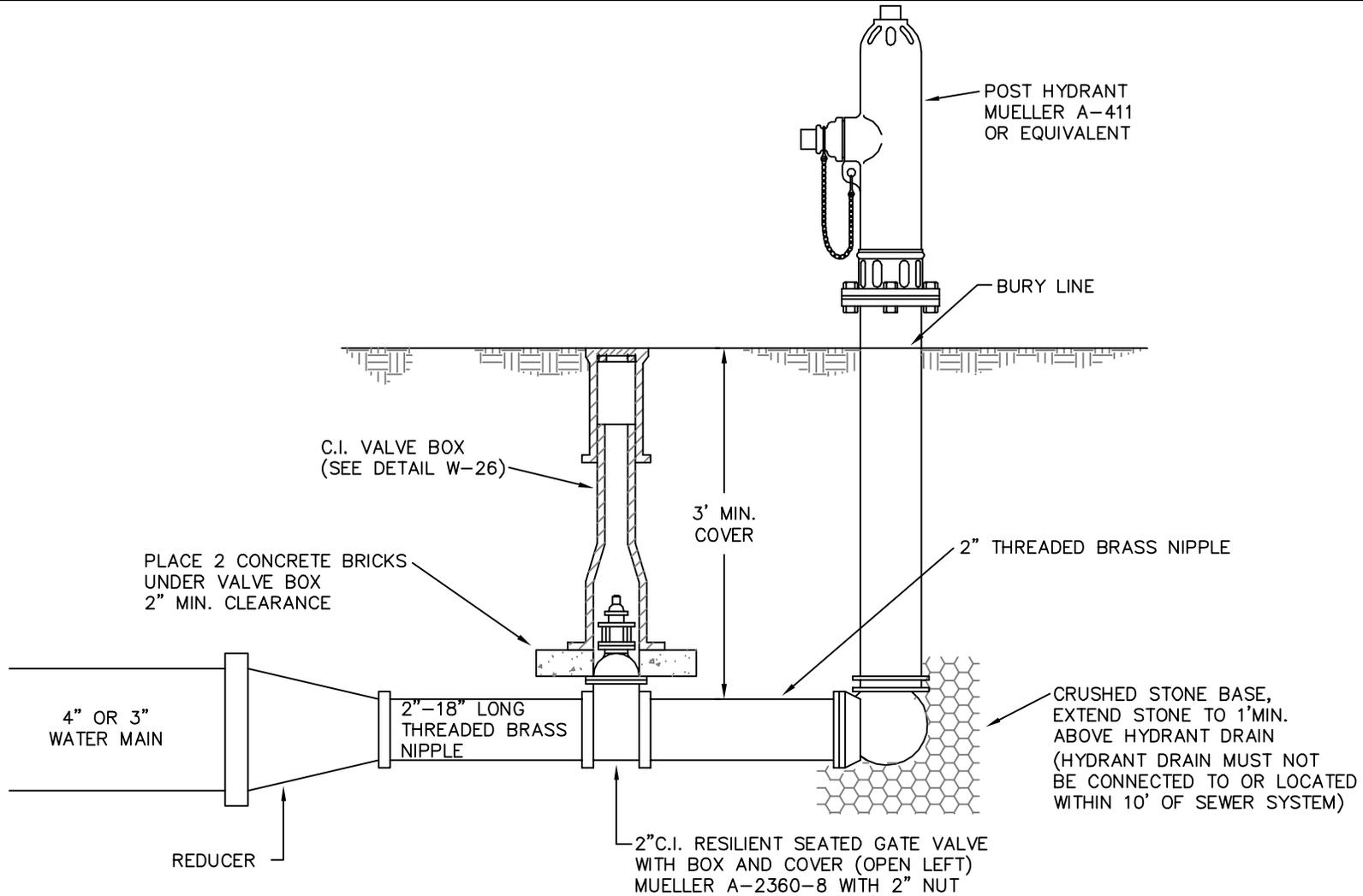
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DRAWN BY: KJG

DATE:
5/6/19

SHEET NO.

W-2

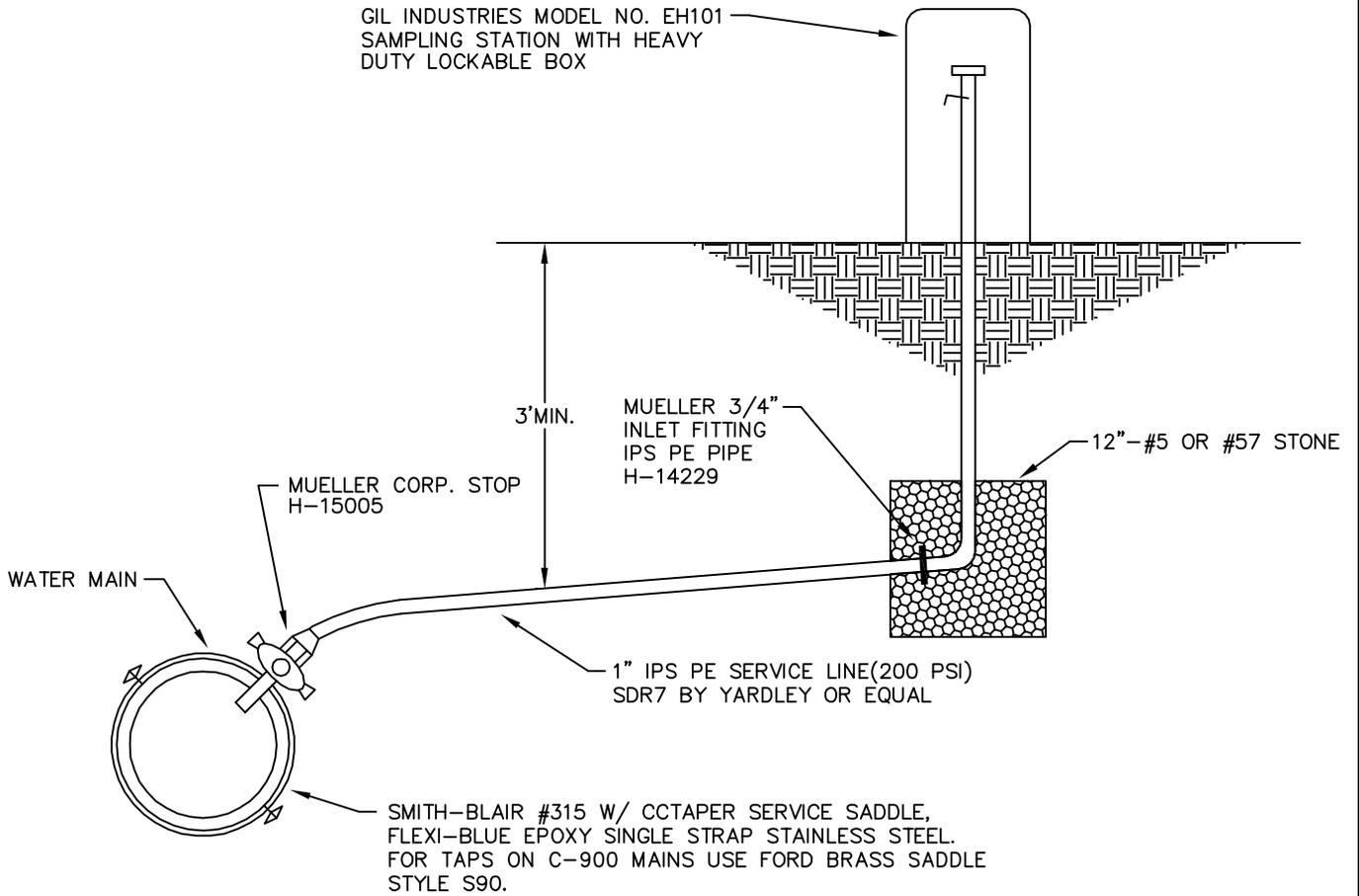




*ALL HYDRANTS SHOULD BE PAINTED YELLOW.
 PAINT SHALL BE APPLIED AT FACTORY.

NOTE:
 POST HYDRANTS SHALL ONLY BE INSTALLED AT THE
 END OF 3" OR 4" WATER LINES AND SHALL BE
 UTILIZED FOR BLOW-OFF PURPOSES.

<p>POST HYDRANT</p>	<p>CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION</p>	<p>DATE: 7/30/07</p>	
	<p>APPROVED BY: KDB DRAWN BY: KJG</p>	<p>SHEET NO. W-3</p>	



WATER SAMPLING STATION

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

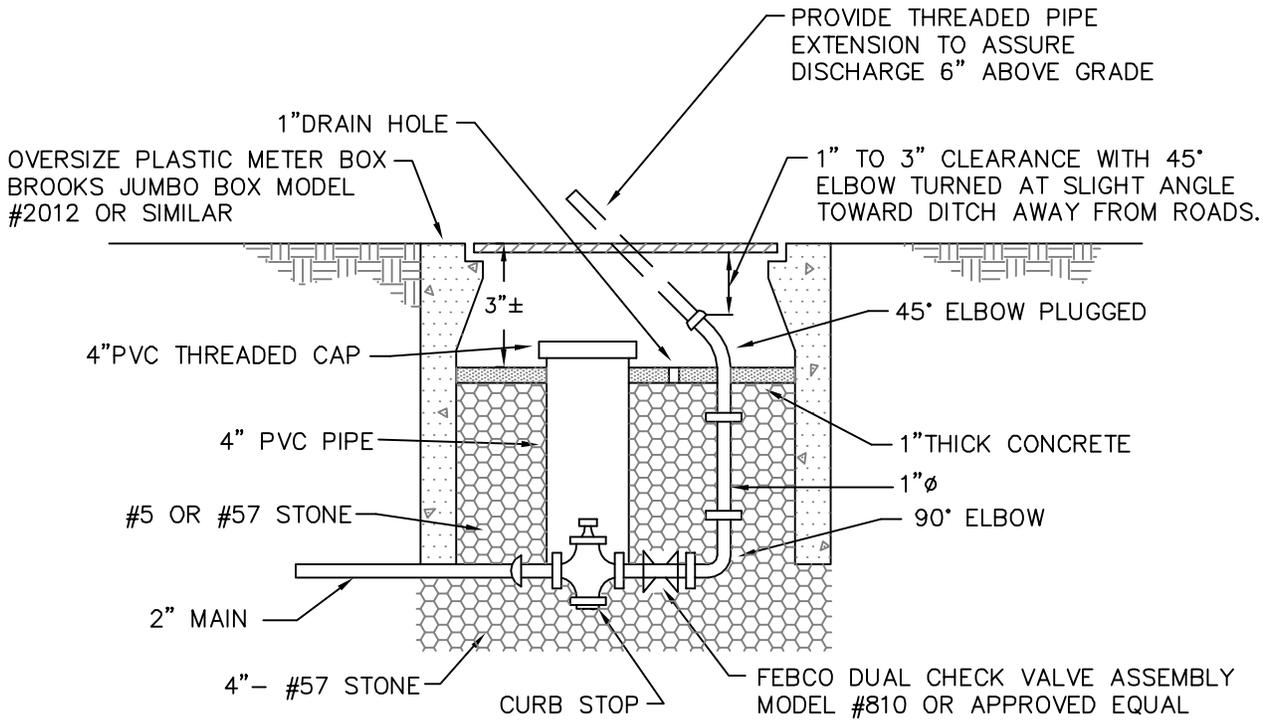
DATE:
10/23/03

SHEET NO.
W-4



BLOW OFF SIZING

<u>MAIN</u>	<u>DETAIL</u>	<u>SIZE</u>
2" - 2-1/2"	W5	1" ORIFICE
3" - 4"	USE POST HYDRANT(DETAIL W3)	2" ORIFICE
6" - 12"	USE FIRE HYDRANT(DETAIL W1,W2)	4-1/2" ORIFICE
14" - GREATER	AS SHOWN ON PLANS	ORIFICE VARIES



ALL FITTINGS AND PIPE (CURB STOP
& BEYOND) TO BE THREADED BRASS

NOTE
DIRECT WATER AWAY FROM
ROADS, CREEKS AND STREAMS.

WATER BLOW OFF

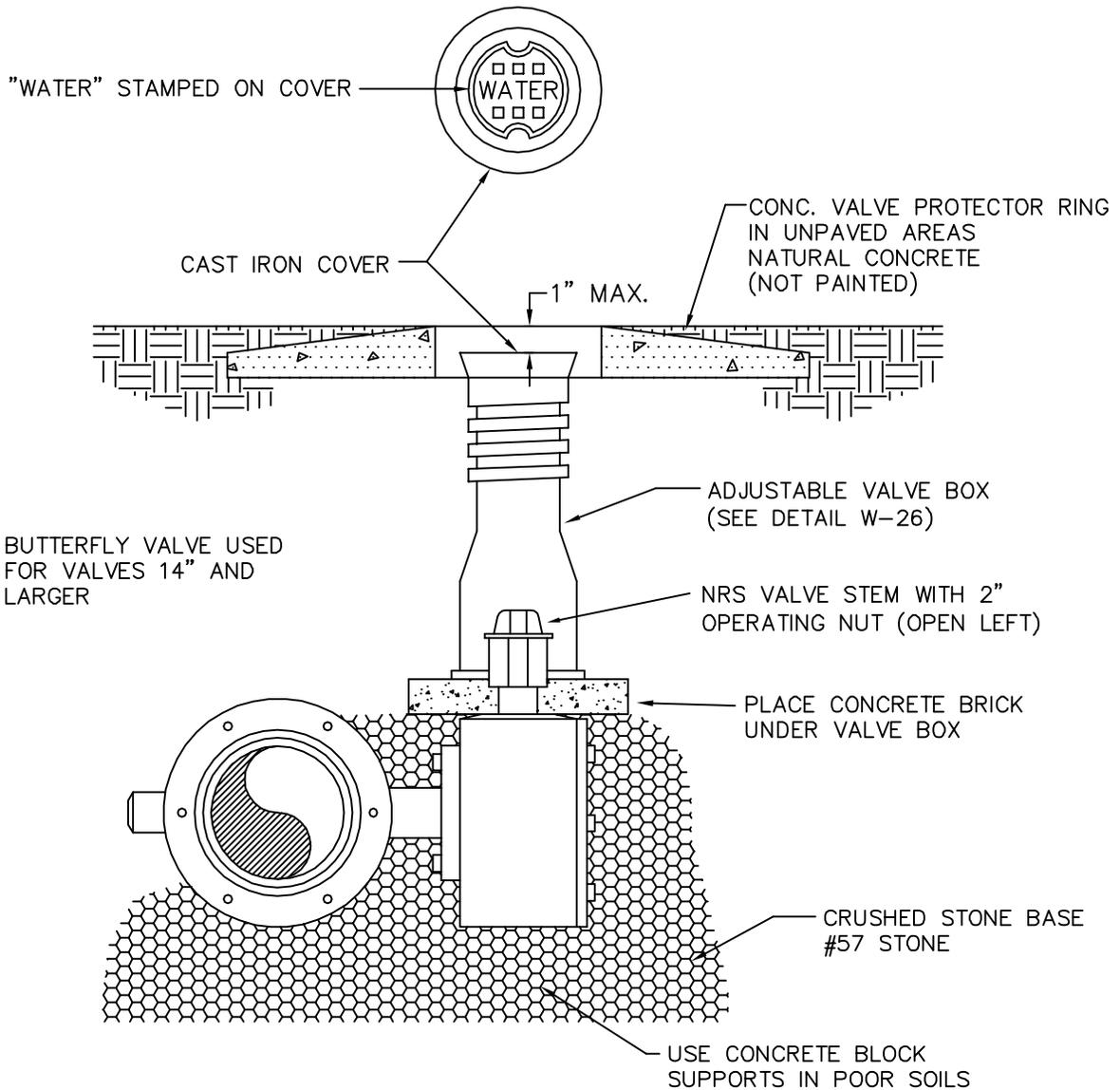
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

DATE:
7/30/07

APPROVED BY: KDB
DRAWN BY: KJG

SHEET NO.
W-5





MIN. 2" CLEARANCE BETWEEN VALVE BOX COVER
AND LOWER SECTION OF VALVE BOX, CUT
LOWER SECTION IF NECESSARY

BUTTERFLY VALVE AND BOX

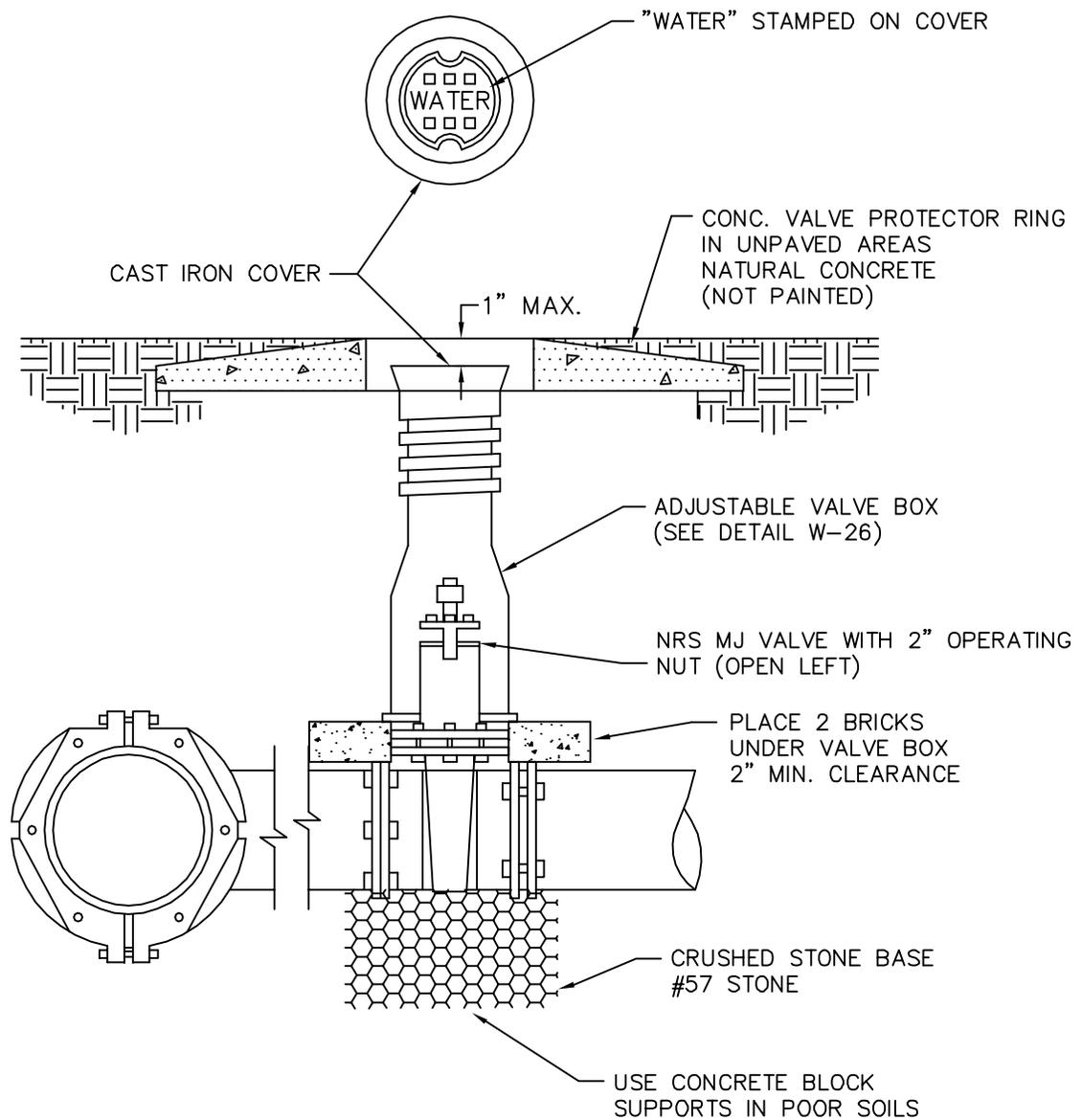
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-6





GATE VALVE AND BOX

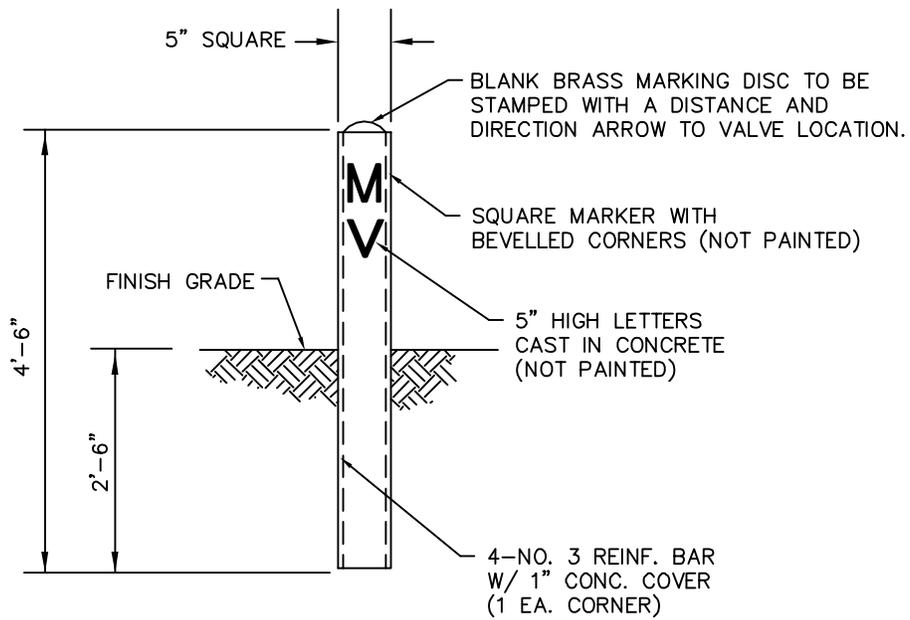
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-7





MAIN VALVE MARKER POST

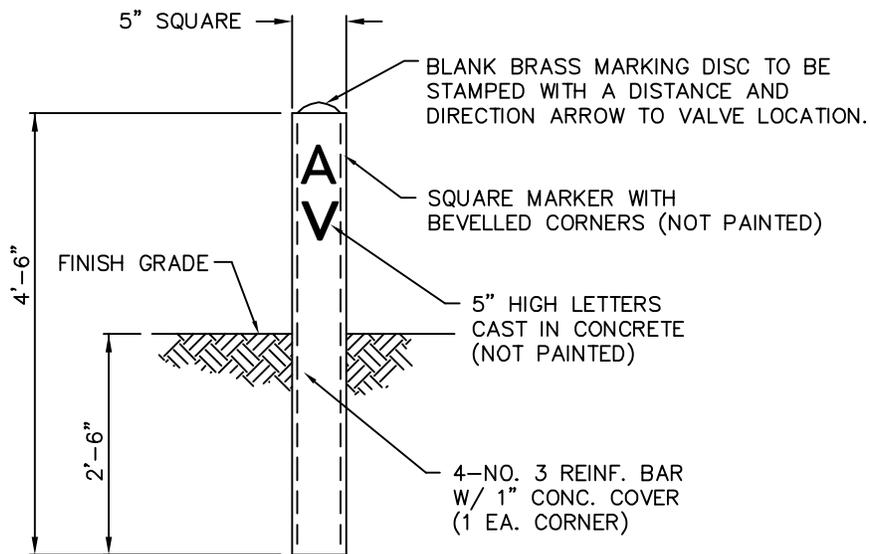
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-8





AIR RELEASE VALVE
MARKER POST

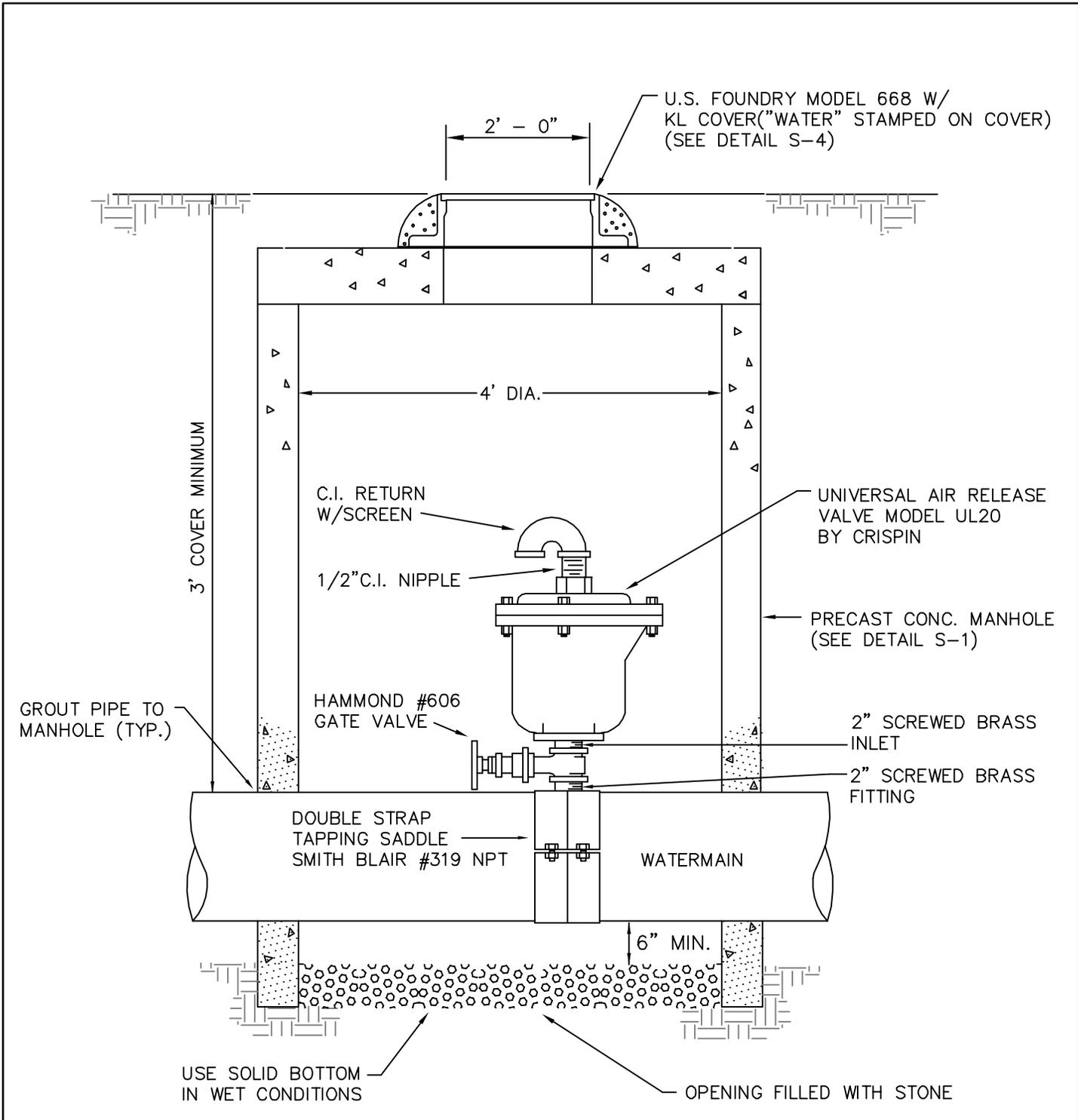
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-9





GROUT PIPE TO MANHOLE (TYP.)

3' COVER MINIMUM

2' - 0"

U.S. FOUNDRY MODEL 668 W/ KL COVER ("WATER" STAMPED ON COVER) (SEE DETAIL S-4)

4' DIA.

C.I. RETURN W/SCREEN

1/2" C.I. NIPPLE

UNIVERSAL AIR RELEASE VALVE MODEL UL20 BY CRISPIN

PRECAST CONC. MANHOLE (SEE DETAIL S-1)

HAMMOND #606 GATE VALVE

2" SCREWED BRASS INLET

2" SCREWED BRASS FITTING

DOUBLE STRAP TAPPING SADDLE SMITH BLAIR #319 NPT

WATERMAIN

6" MIN.

USE SOLID BOTTOM IN WET CONDITIONS

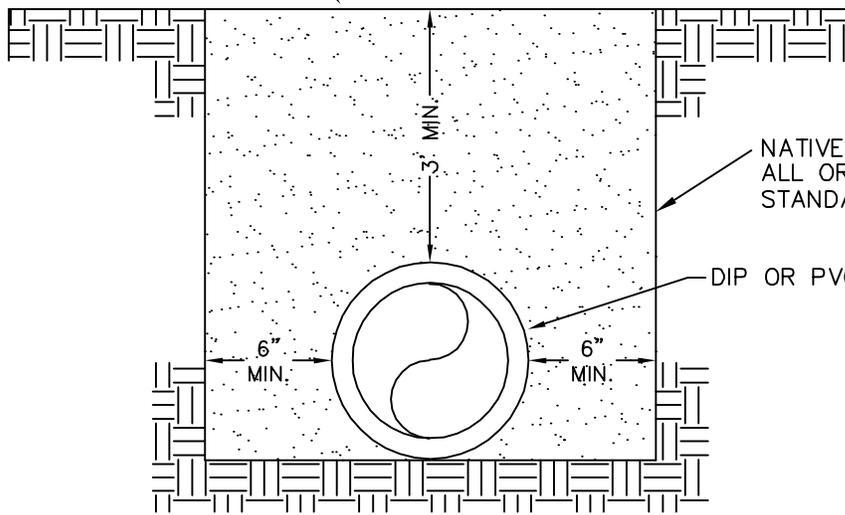
OPENING FILLED WITH STONE

NOTE
DISCHARGE DRAIN SHALL NOT BE DIRECTLY CONNECTED TO STORM DRAIN OR SANITARY SEWER.

NOTE
DO NOT INSTALL AT LOCATIONS WHERE VALVE MAY BE SUBJECT TO GROUND WATER RISE OR WHERE MANHOLE MAY BECOME FLOODED.

AIR RELEASE VALVE & MANHOLE	CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION	DATE: 7/30/07	
	APPROVED BY: KDB DRAWN BY: KJG	SHEET NO. W-10	

BACKFILL COMPACTED TO MATCH EXISTING GRADE



NATIVE SAND BACKFILL FREE OF ALL ORGANICS, COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS.

DIP OR PVC WATERMAIN

NOTE: IN PAVEMENT AREAS, COMPACTION WILL BE INCREASED TO 98% STANDARD PROCTOR

CLASS 2 PIPE BEDDING

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

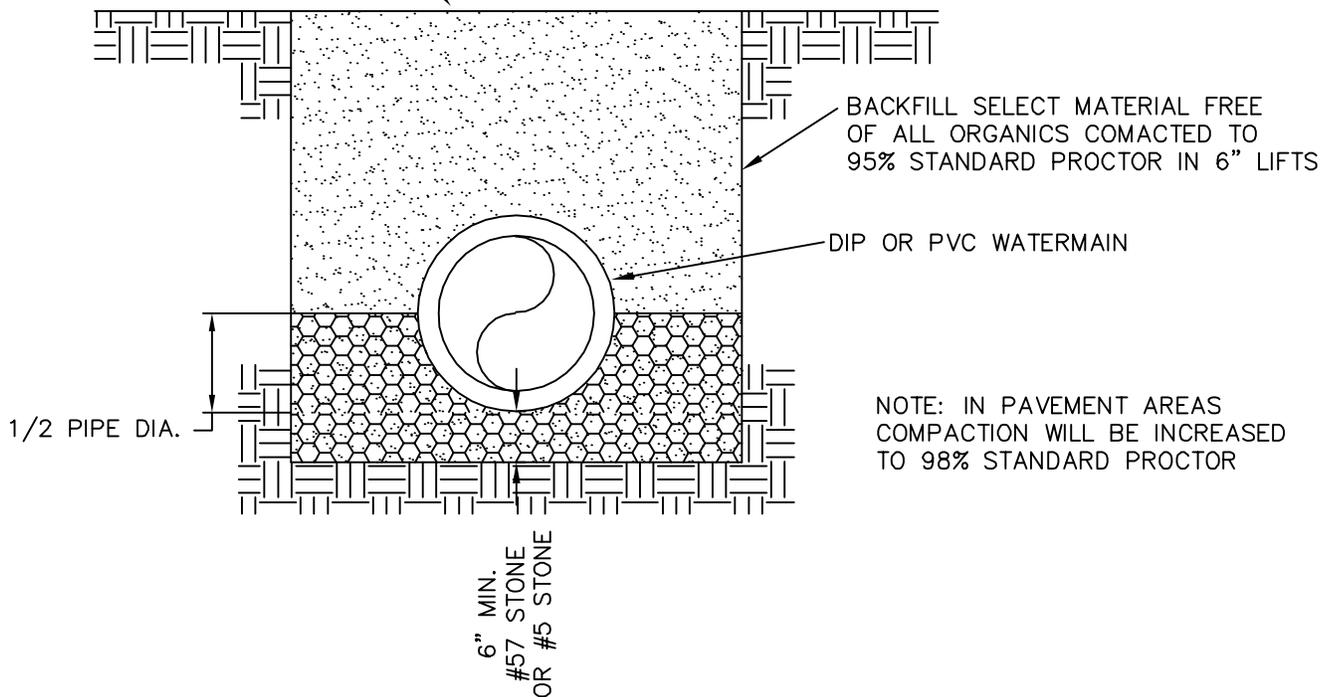
APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-11



BACKFILL COMPACTED TO MATCH EXISTING GRADE



NOTE: CLASS 4 BEDDING WILL BE USED IN THOSE AREAS DEEMED NECESSARY BY THE ENGINEER BASED ON SUBSURFACE CONDITIONS.

CLASS 4 PIPE BEDDING

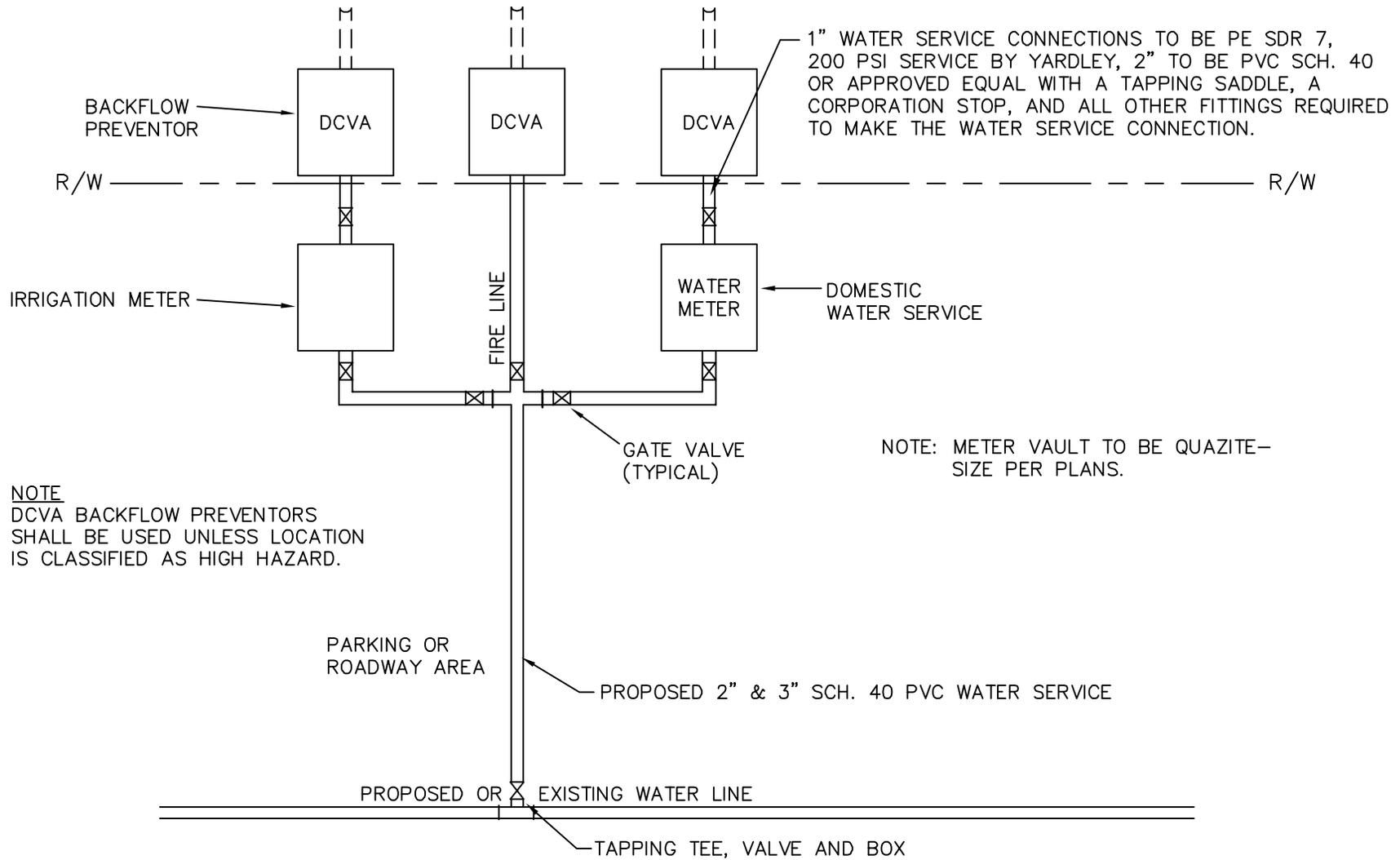
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

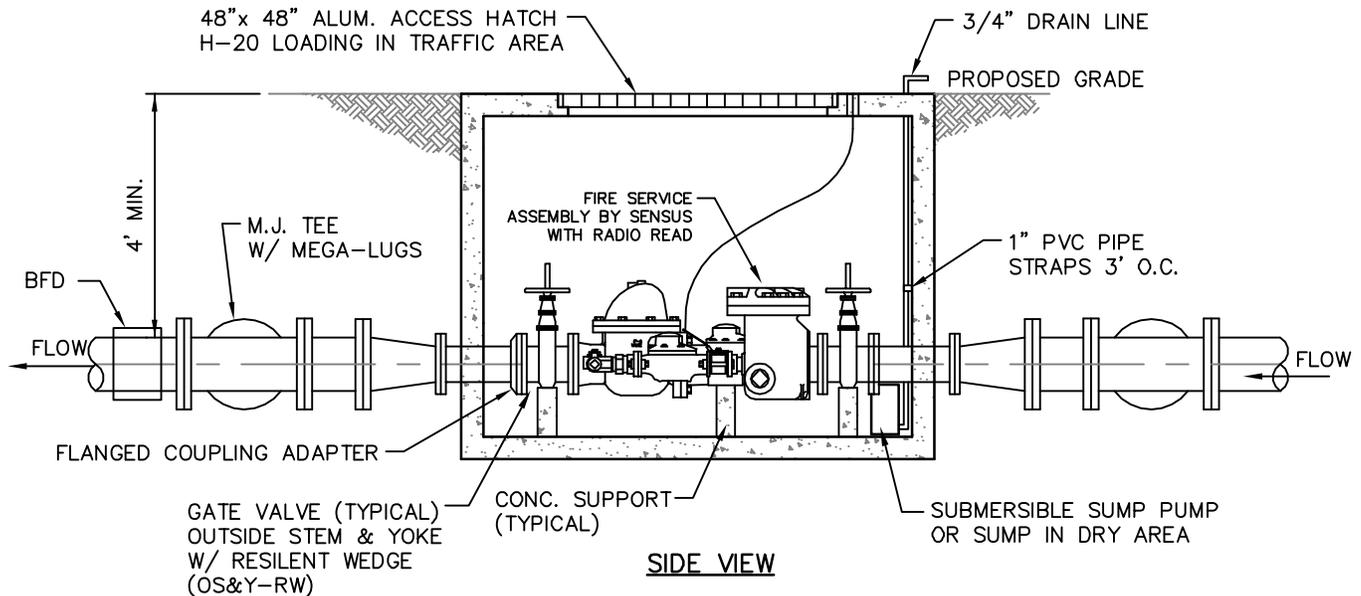
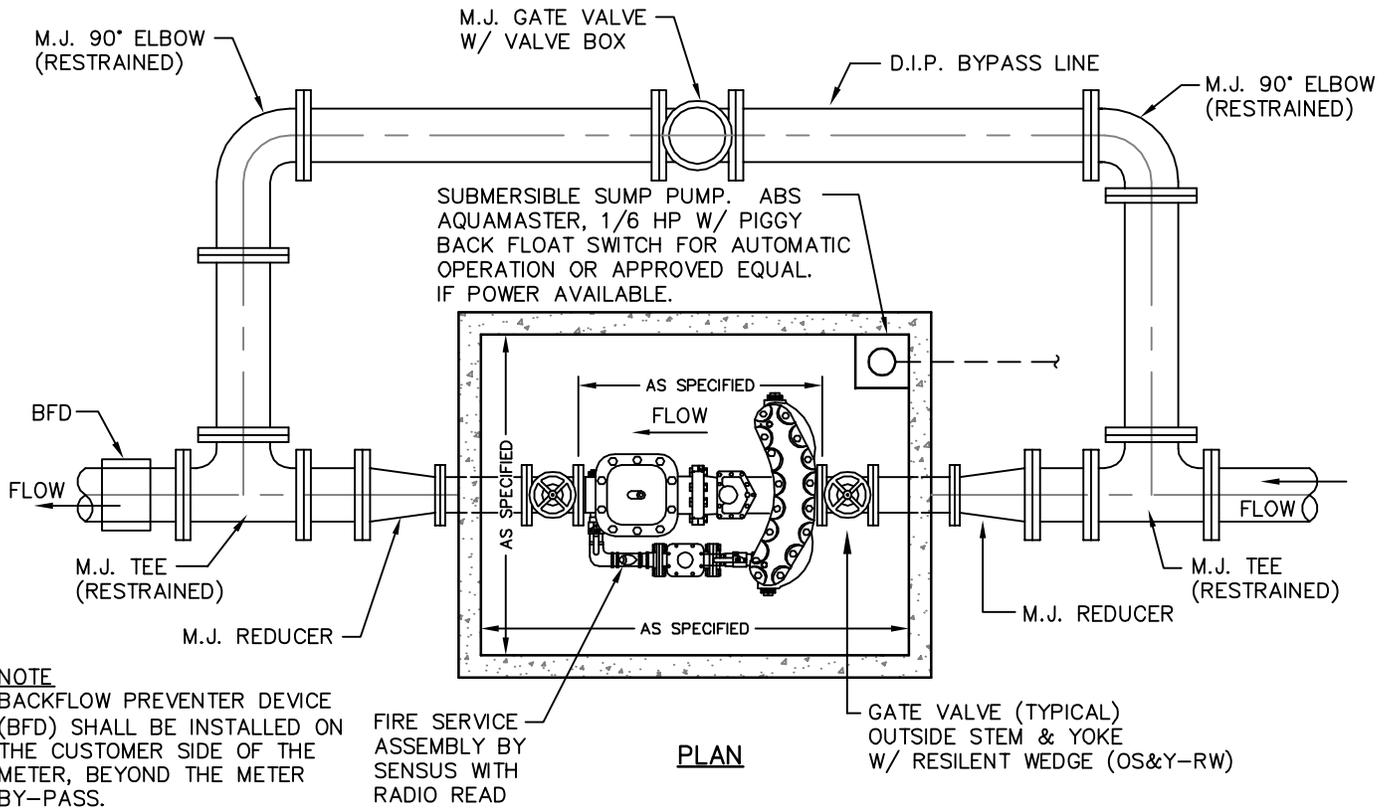
SHEET NO.
W-12





NOTE: METERS TO BE INSTALLED AT THE PROPERTY LINE BEHIND THE SIDEWALK OR CURB.

<p>TYPICAL 2"-3" WATER SERVICE WITH FIRE LINE</p>	<p>CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION</p>	<p>DATE: 7/30/07</p>	
	<p>APPROVED BY: KDB DRAWN BY: KJG</p>	<p>SHEET NO. W-13</p>	



NOTE: MEGA LUG ALL JOINTS WITHIN 60'

NOTE: METER VAULT TO BE QUAZITE-SIZE PER PLANS.

TYP. 4" & LARGER METER VAULT

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
7/30/07

SHEET NO.
W-15

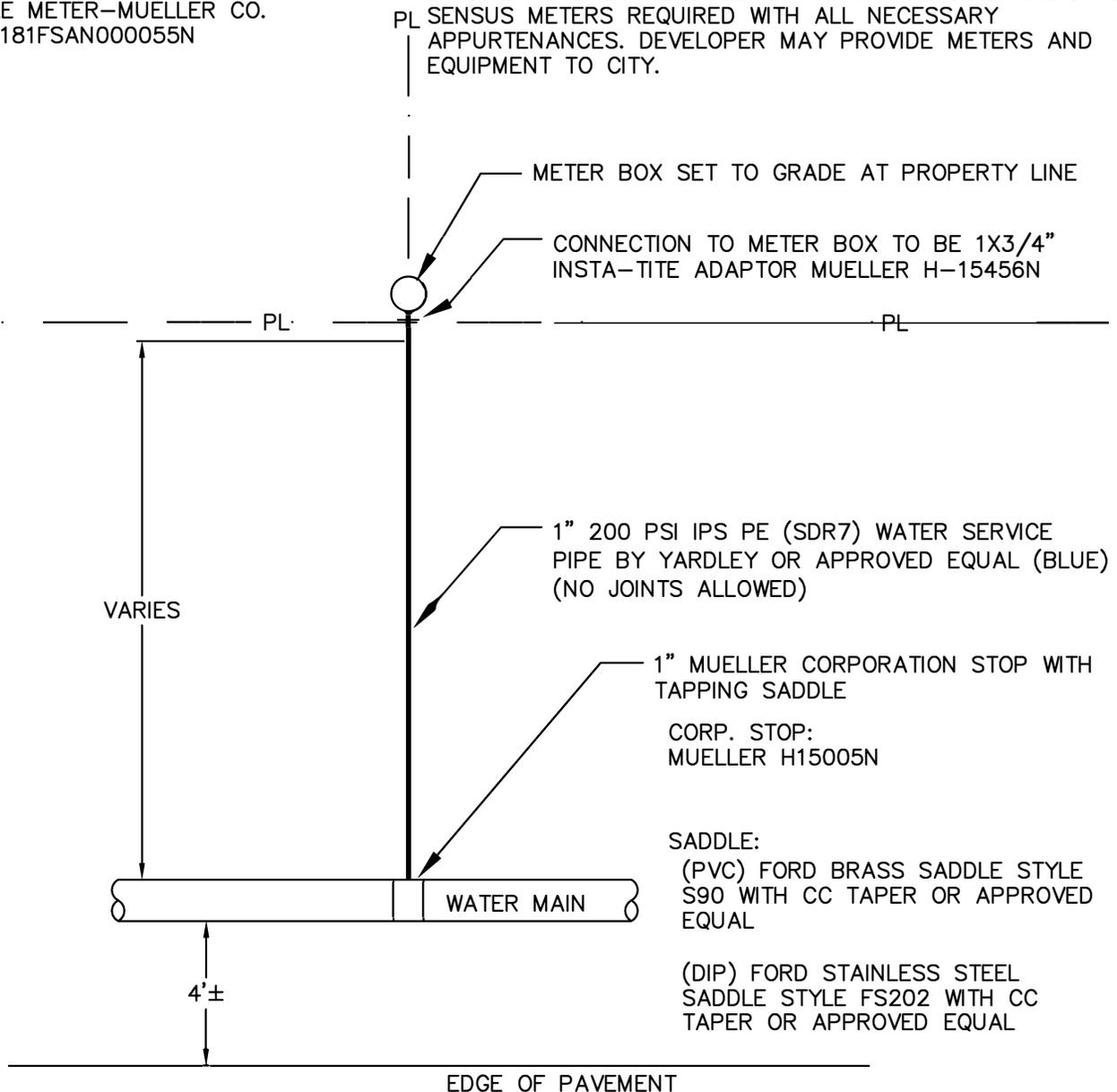


SINGLE METER—MUELLER CO.
203RS1518FSANN

DOUBLE METER—MUELLER CO.
203RD181FSAN000055N

NOTE:

1" SERVICE LINE TO EACH METER. MUELLER/McCULLOUGH EZ SETTER RIGID SINGLE / DOUBLE METER BOX REQUIRED. APPROVED DCVA BY SCDHEC REQUIRED ON IRRIGATION SIDE. RADIO READ SENSUS METERS REQUIRED WITH ALL NECESSARY APPURTENANCES. DEVELOPER MAY PROVIDE METERS AND EQUIPMENT TO CITY.



NOTE:

SERVICE LINE TO BE WITHIN 30" (24" TO 36") OF FINISHED GRADE.
METER WILL ONLY BE SET AFTER FINISHED GRADE IS ACHIEVED.

TYPICAL SINGLE WATER SERVICE

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

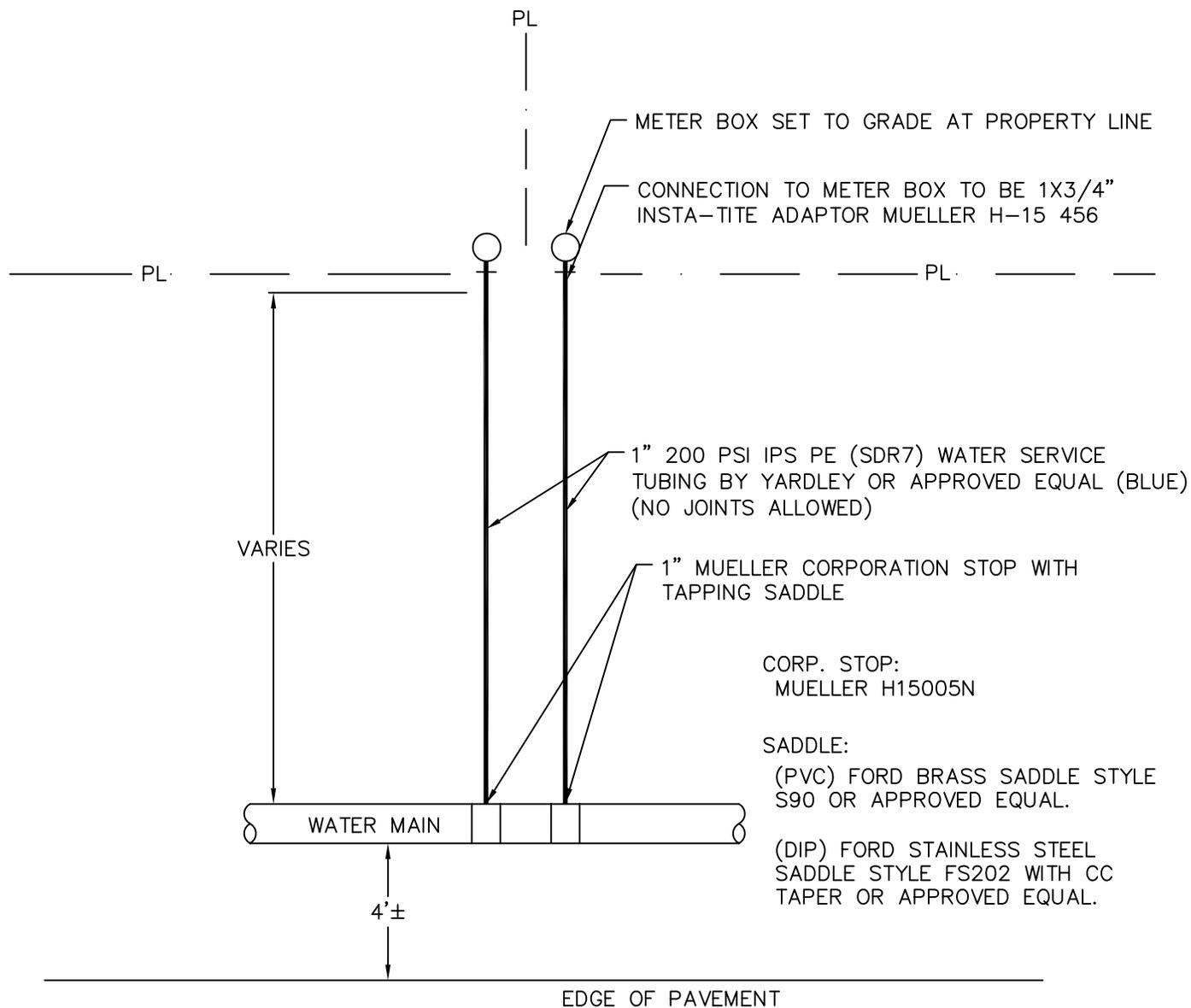
APPROVED BY: KDB
DRAWN BY: HRT

DATE:
10/3/18

SHEET NO.
W-16



NOTE: 1" SERVICE LINE TO EACH METER.
 MUELLER/McCULLOUGH EZ SETTER RIGID DOUBLE METER BOX REQUIRED, APPROVED DCVA BY SCDHEC REQUIRED ON IRRIGATION SIDE. RADIO READ SENSUS METERS REQUIRED WITH ALL NECESSARY APPURTENANCES. DEVELOPER MAY PROVIDE METERS AND EQUIPMENT TO CITY.



NOTE:
 SERVICE LINE TO BE WITHIN 30" (24" TO 36") OF FINISHED GRADE.
 METER WILL ONLY BE SET AFTER FINISHED GRADE IS ACHIEVED.

TYPICAL DOUBLE WATER SERVICE

CITY OF NORTH MYRTLE BEACH
 ENGINEERING DIVISION

APPROVED BY: KDB
 DRAWN BY: HRT

DATE:
 10/3/18

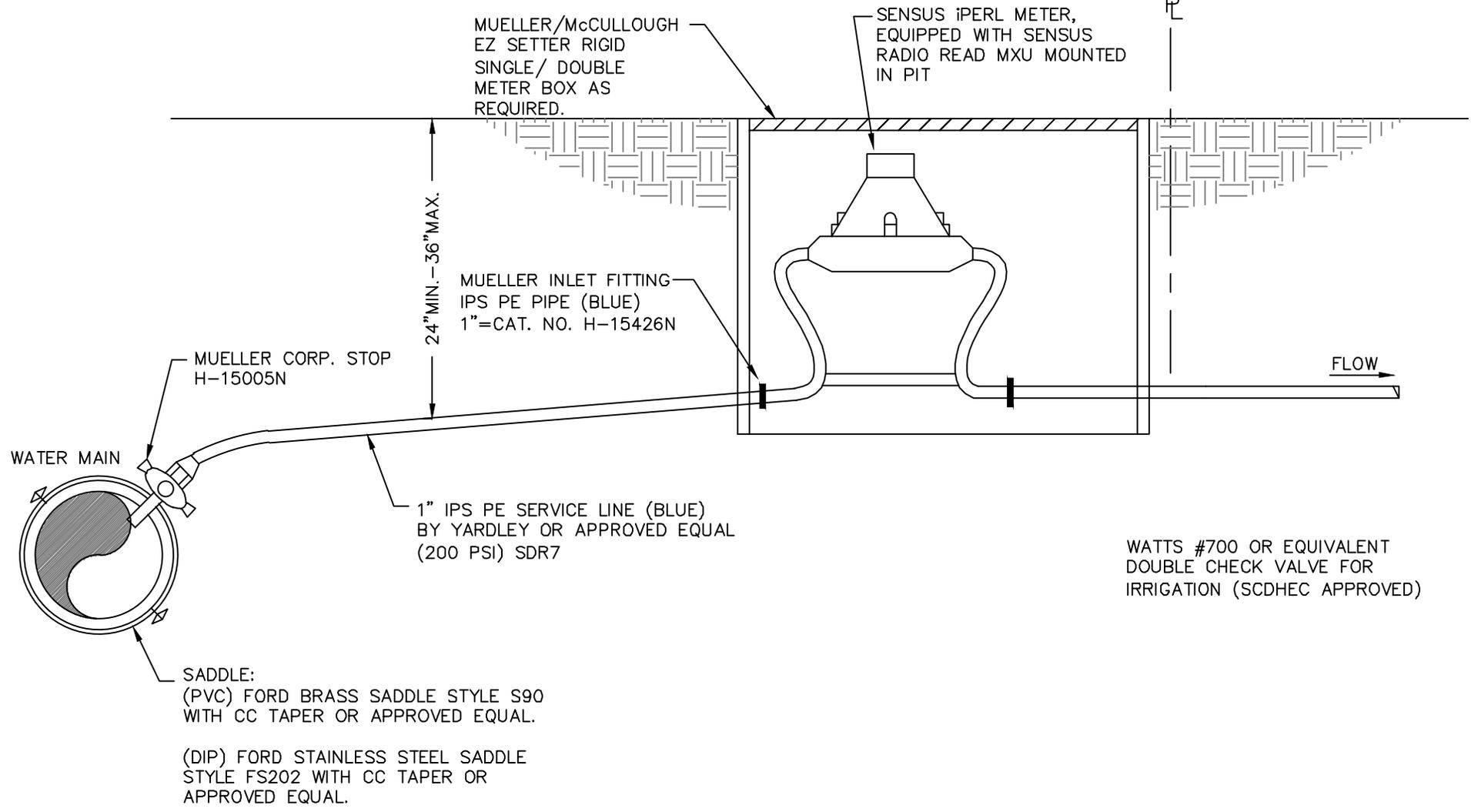
SHEET NO.
 W-17



W-18.DWG

SINGLE METER—MUELLER CO. 203RS1518FSANN
DOUBLE METER—MUELLER CO. 203RD181FSAN000055N

CITY SIDE ←→ CUSTOMER SIDE
(PLUMBER)



TYPICAL 1" WATER SERVICE

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

DATE:
8/1/19

APPROVED BY: KDB
DRAWN BY: HRT

SHEET NO.
W-18

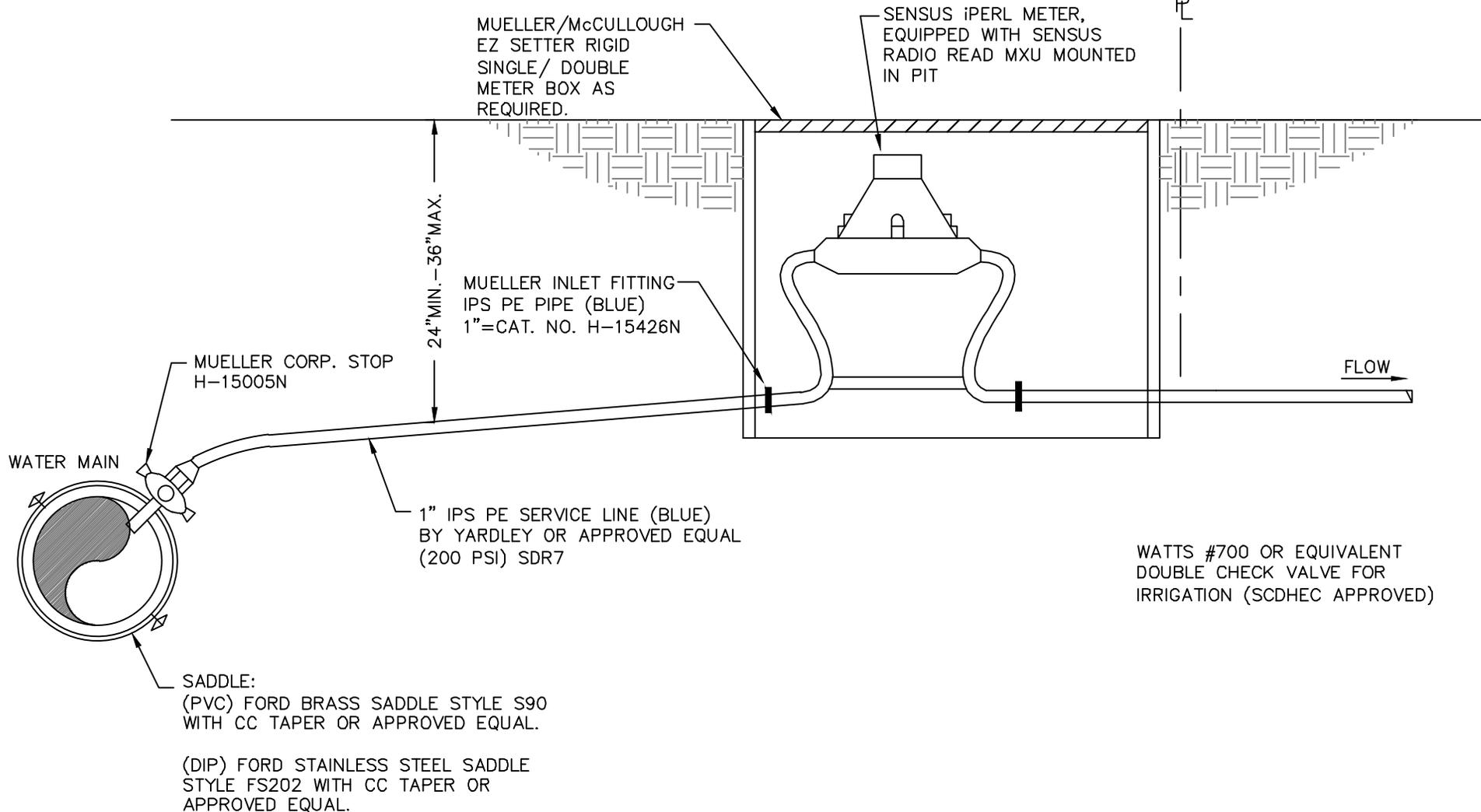


W-18A.DWG

SINGLE METER—MUELLER CO. 203RS1518FSANN

DOUBLE METER—MUELLER CO. 203RD181FSAN000055N

CITY SIDE ← → CUSTOMER SIDE (PLUMBER)



TYPICAL 3/4" RESIDENTIAL WATER SERVICE

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

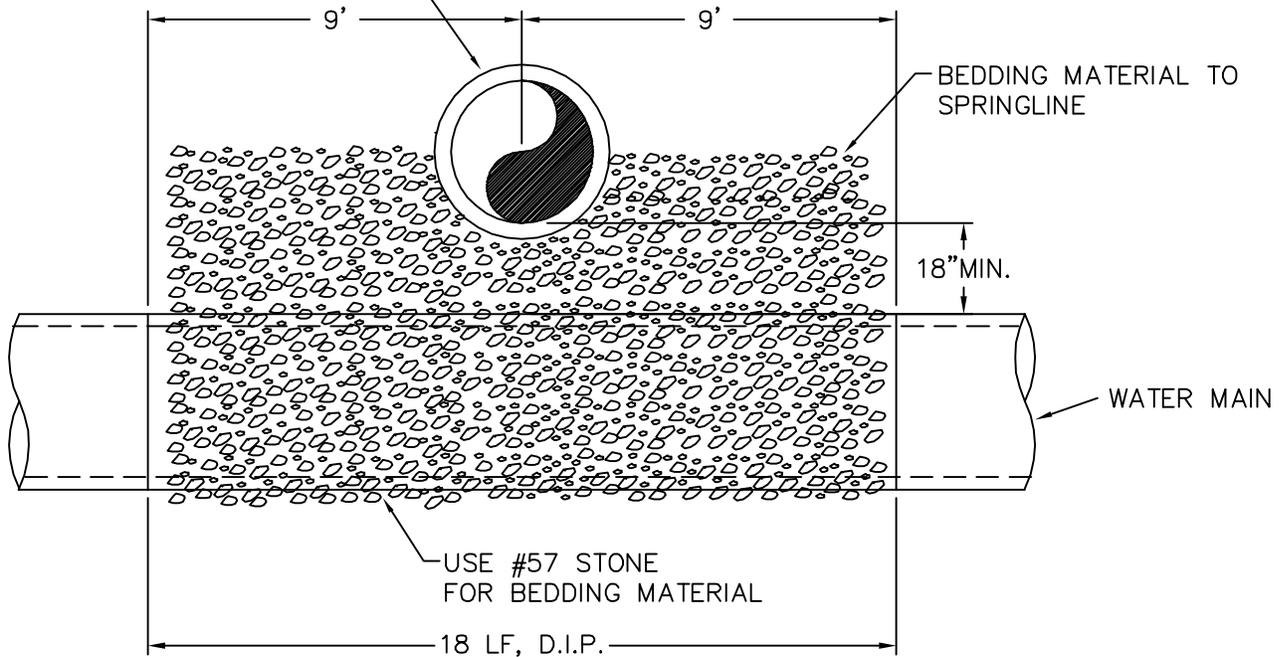
APPROVED BY: KDB
DRAWN BY: HRT

DATE:
8/1/19

SHEET NO.
W-18A



DRAINAGE PIPE OR 18LF OF
DIP SANITARY SEWER PIPE



STORM DRAINAGE PIPE
OR SANITARY SEWER PIPE
CROSSING WATER MAIN

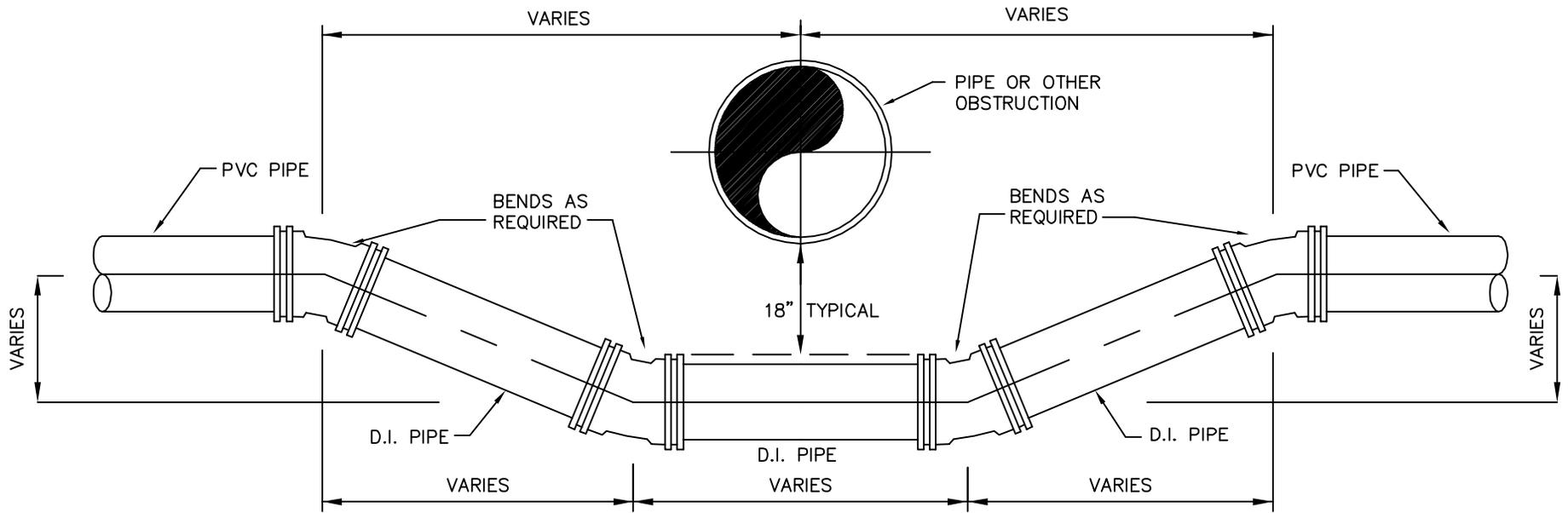
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-19

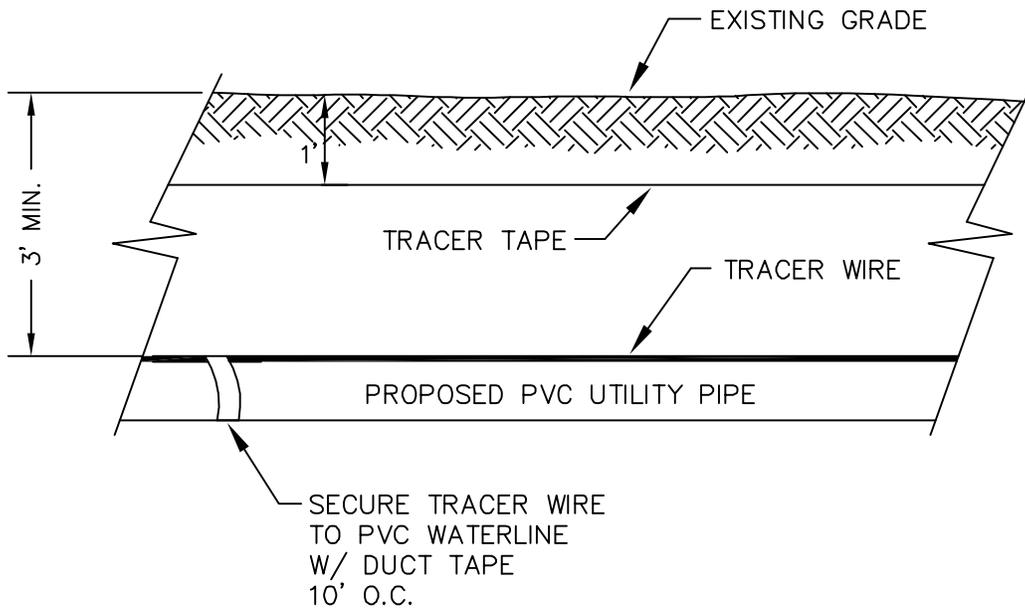
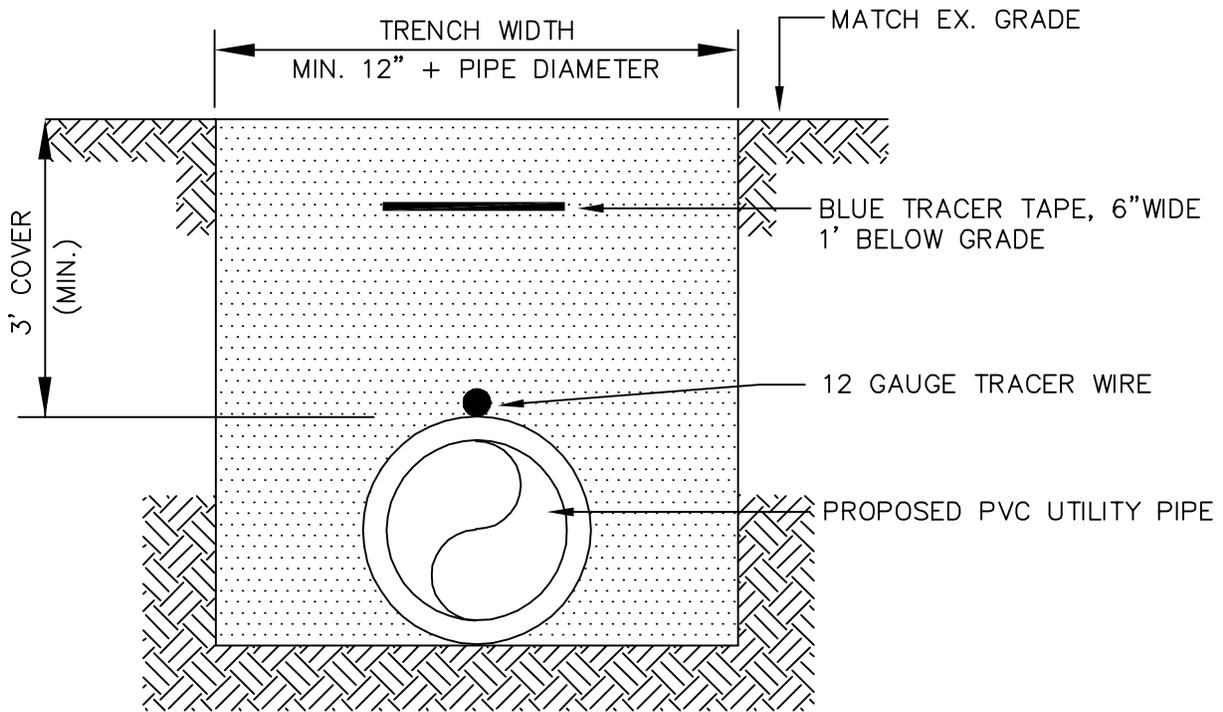




NOTE: ALL FITTINGS SHALL BE DUCTILE IRON, RESTRAINED MECHANICAL JOINTS.

NOTE: SEE DETAIL W-19 FOR BEDDING REQUIREMENTS

OBSTRUCTION BYPASS	CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION	DATE: 10/23/03	
	APPROVED BY: KDB DRAWN BY: KJG	SHEET NO. W-20	



TYPICAL PVC PIPE
WITH TRACER WIRE

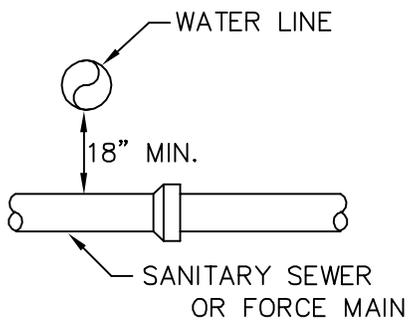
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

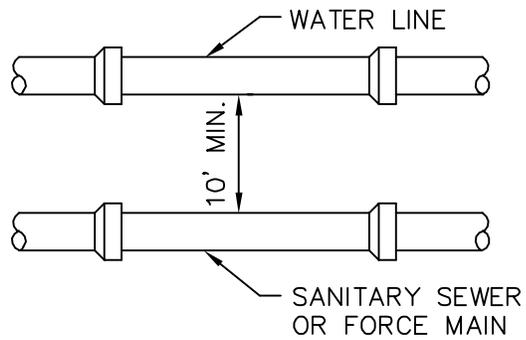
DATE:
10/23/03

SHEET NO.
W-21





VERTICAL



HORIZONTAL

NOTE:
 D.I.P. IS REQUIRED FOR BOTH WATER AND SEWER MAINS
 WHERE MINIMUM SEPARATION IS NOT MAINTAINED.

HORIZONTAL AND VERTICAL
 PIPE SEPARATION

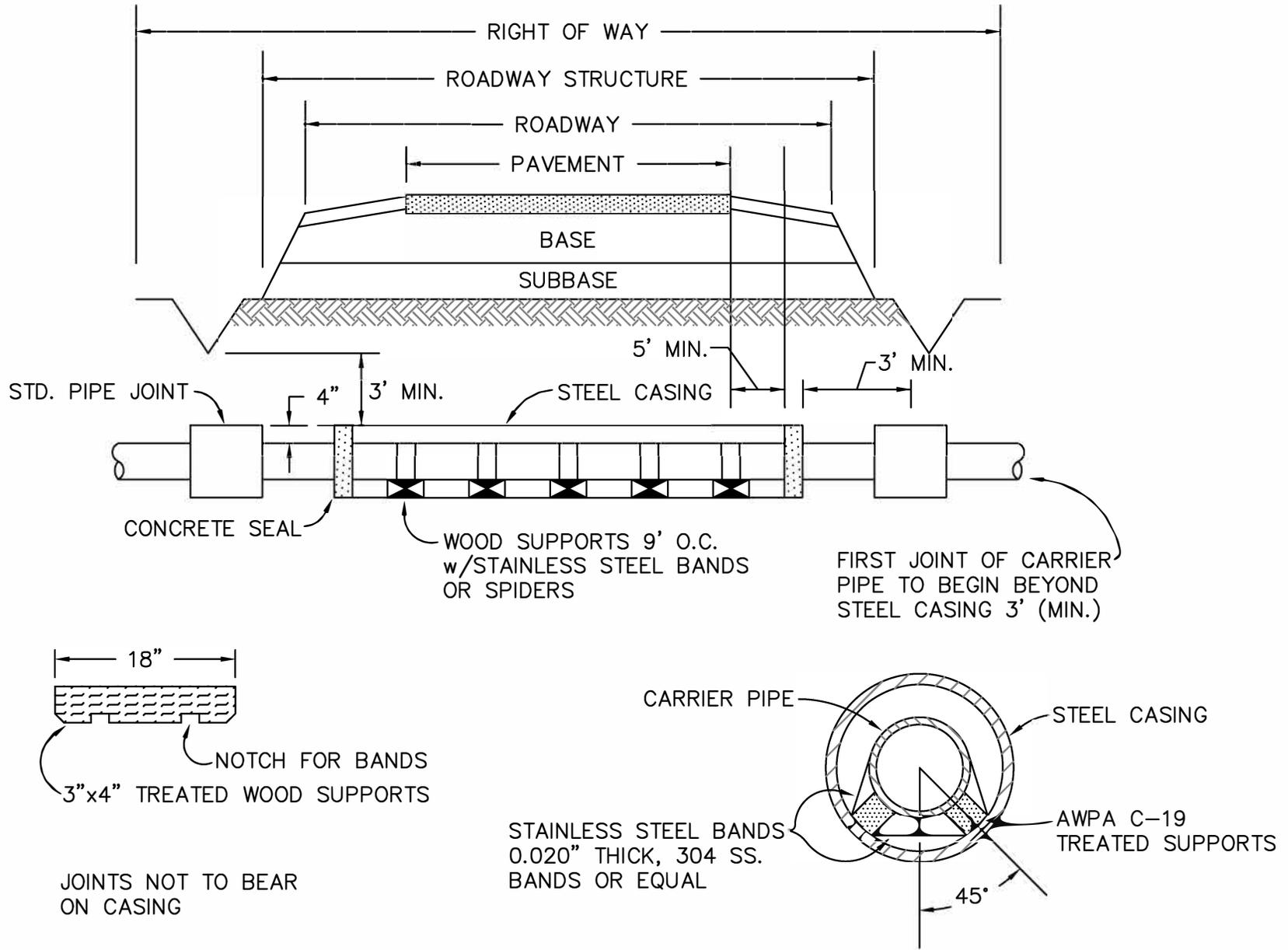
CITY OF NORTH MYRTLE BEACH
 ENGINEERING DIVISION

APPROVED BY: KDB
 DRAWN BY: KJG

DATE:
 10/23/03

SHEET NO.
 W-22





HIGHWAY BORE CASING

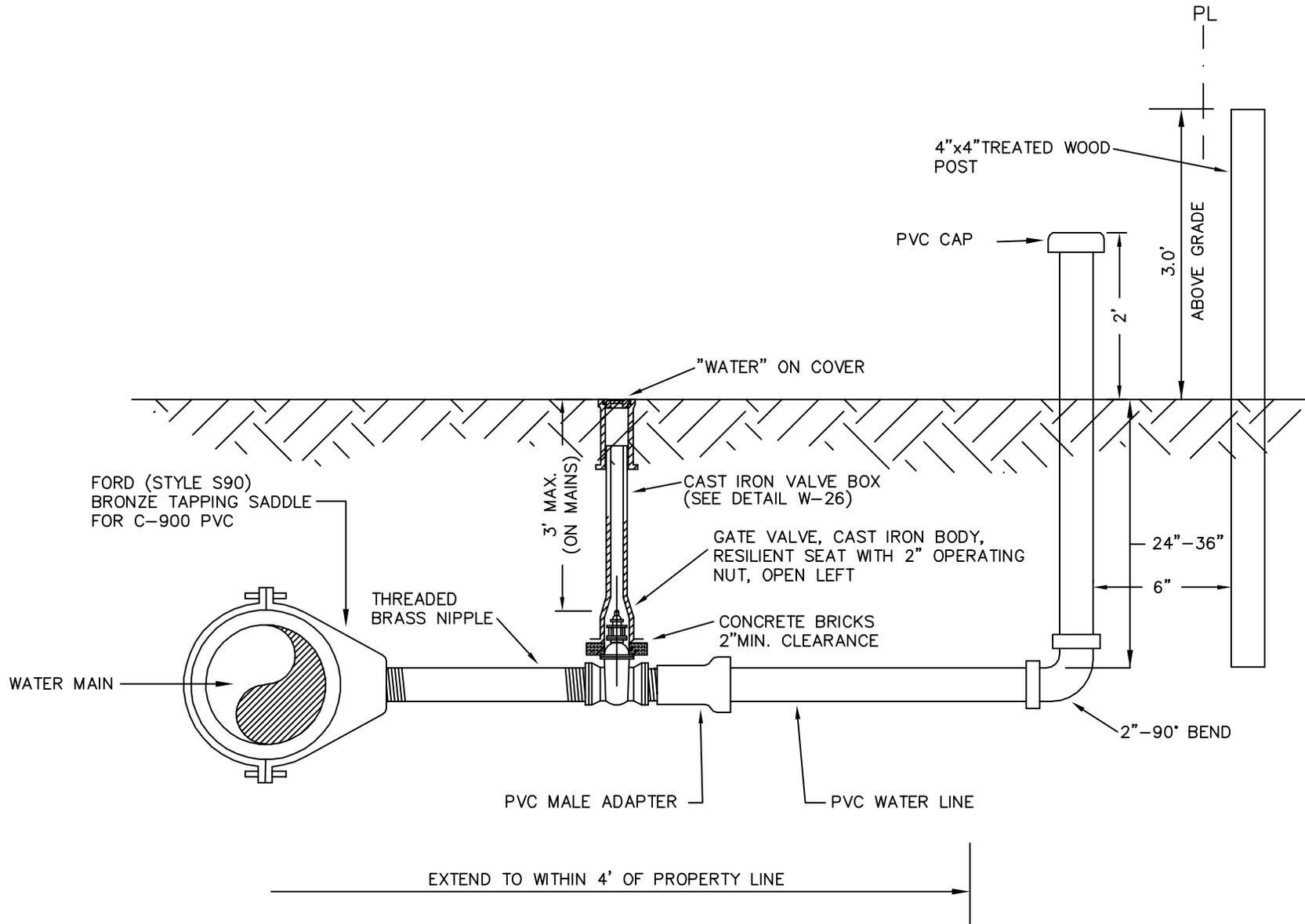
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
1/27/09

SHEET NO.
W-23





2" & 3" SERVICE CONNECTION
TO WATER MAIN

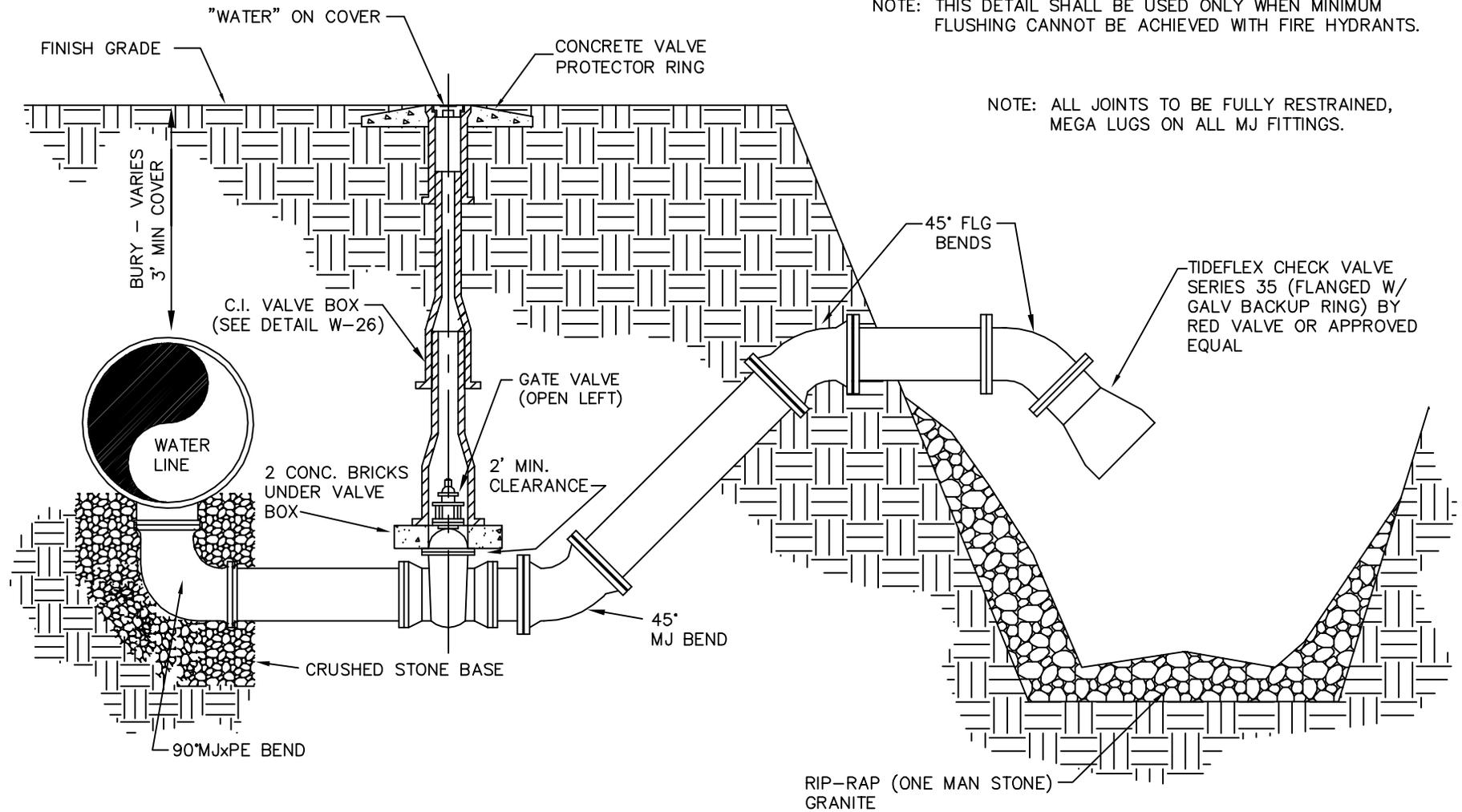
CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-24





NOTE: THIS DETAIL SHALL BE USED ONLY WHEN MINIMUM FLUSHING CANNOT BE ACHIEVED WITH FIRE HYDRANTS.

NOTE: ALL JOINTS TO BE FULLY RESTRAINED, MEGA LUGS ON ALL MJ FITTINGS.

NOTE: BLOW-OFF TO BE SIZED TO FLUSH A MINIMUM OF 2.5 FPS THROUGH WATER MAIN.

LARGE BLOWOFF

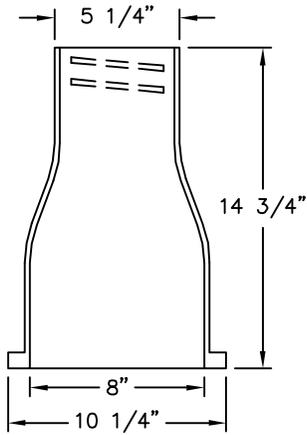
CITY OF N. MYRTLE BEACH
ENGINEERING DIVISION

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DRAWN BY: KJG

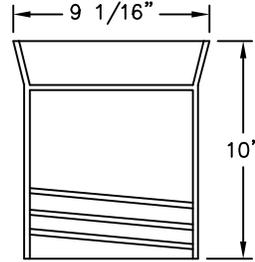
DATE:
8/22/02

SHEET NO.
W-25

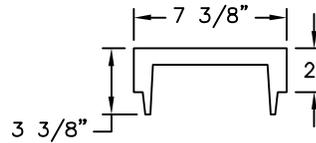




BOTTOM SECTION



TOP SECTION



COVER

NOTES:

1. COVER MARKED "WATER".
2. 18" TO 24" ADJUSTMENT.
3. PENETRATING PICKHOLE.
4. MINIMUM OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND BOTTOM SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. CAST IRON BOX SHALL HAVE A HEAVY COAT OF BITUMINOUS PAINT.

ADJUSTABLE VALVE BOX

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

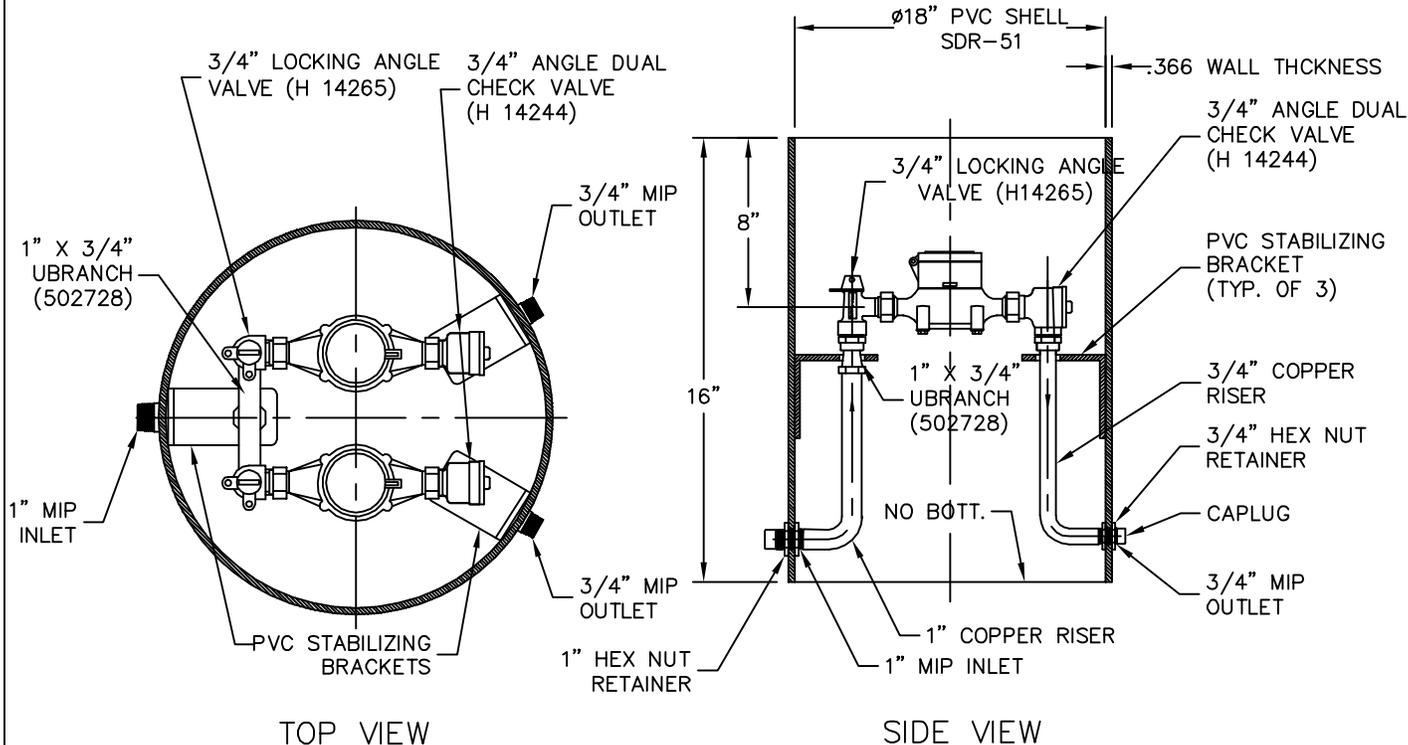
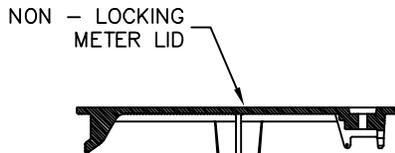
APPROVED BY: KDB
DRAWN BY: KJG

DATE:
10/23/03

SHEET NO.
W-26



MUELLER/ McCULLOUGH EZ SETTER RIGID DOUBLE METER BOX



TYPICAL DOUBLE WATER METER

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: HRT

DATE:
6/23/06

SHEET NO.
W-27

