

ISSUE DATE NOVEMBER 1st, 2011



SECTION 2

GENERAL DETAILS

Page List	
Page Number	Page Title
COVER	COVER
GD-01	RESTRAINT TABLE
GD-02	MARKER BALL AND METALIC LOCATION TAPE INSTALLATION
GD-03	TYPICAL VALVE INSTALLATION
GD-04	TYPICAL BOLLARD
GD-05	MAIN SEPARATION
GD-06	ALIGNMENT OF MAINS, VALVES AND HYDRANTS
GD-07	TAPPING SLEEVE
GD-08	TYPICAL THRUST BLOCK DETAILS
GD-09	TYPICAL CUT-IN VALVE
GD-10	TYPICAL DIRECTIONAL BORE
GD-11	TYPICAL JACK & BORE DETAIL
GD-12	TIE-BACK ASSEMBLY
GD-13	STANDARD PRESSURE PIPE TRENCH
GD-14	STANDARD GRAVITY SEWER PIPE TRENCH
GD-15	MANUAL AIR RELEASE
GD-16	STANDARD CRAWL GUARD ASSEMBLY
GD-17	PILE CAP APPLICATION-CRAWL GUARD ASSEMBLY
GD-18	CRAWL GUARD SIGN
GD-19	BURIED MAIN SIGN
GD-20	CCU PROJECT SIGN
GD-21	TALLY BLOCKS
GD-22	SUBAQUEOUS CROSSING TESTING POINT
GD-23	TYPICAL UTILITY CROSSING

TABLE 1				
HORIZONTAL BENDS AND ELBOWS				
LENGTH OF RESTRAINED JOINT PIPE (FEET)				
NOMINAL PIPE DIAMETER	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4	14	6	3	2
6	20	9	4	2
8	26	11	6	3
10	30	13	7	4
12	36	15	8	4
16	47	20	10	5
20	57	24	12	6
24	66	28	13	7
30	79	33	16	8
36	91	38	19	9

TABLE 2	
TEES AND WYES	
NOMINAL PIPE DIAMETER OF BRANCH PIPE (IN INCHES)	RESTRAINED LENGTH ALONG BRANCH PIPE (IN FEET)
4	11
6	21
8	32
10	48
12	65
16	97
20	128
24	156
30	196
36	233

TABLE 3		
REDUCERS		
NOMINAL PIPE DIAMETER		RESTRAINED LENGTH ALONG PIPE (IN FEET)
LARGE END	SMALL END	
6	4	33
8	6	35
10	4	81
10	6	61
10	8	34
12	4	103
12	6	86
12	8	63
12	10	35
16	12	65
20	16	66
24	20	66
30	24	94
36	30	95

TABLE 4	
DEAD ENDS	
NOMINAL PIPE DIAMETER	RESTRAINED LENGTH ALONG PIPE (IN FEET)
4	45
6	63
8	83
10	100
12	118
16	153
20	187
24	220
30	267
36	313

NOTES : (ALL TABLES)

- FITTINGS SHALL BE RESTRAINED JOINT UNLESS OTHERWISE NOTED.
- ALL PIPE SHALL BE RESTRAINED IN ACCORDANCE WITH THESE TABLES OR AS PER DESIGN CRITERIA, WHICHEVER IS GREATER.
- WHERE TWO (2) OR MORE FITTINGS ARE TOGETHER, RESTRAIN JOINTS IN ACCORDANCE WITH FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
- RESTRAINT TABLES APPLY TO TEST PRESSURES OF 150 PSI OR LESS.
- FOR PIPE ENCASED IN POLYETHYLENE, INCREASE THE GIVEN VALUES BY A FACTOR OF 1.5.
- LENGTH OF RESTRAINED PIPE INDICATED IN TABLES 1 & 4 SHALL BE THE LENGTH OF PIPE ON EACH SIDE OF FITTING OR AS PER DESIGN CRITERIA, WHICHEVER IS GREATER.
- LENGTH OF RESTRAINED PIPE INDICATED IN TABLE 2 SHALL BE THE LENGTH OF PIPE ALONG BRANCH OF PIPE ONLY OR AS PER DESIGN CRITERIA, WHICHEVER IS GREATER. PIPE ON BOTH SIDES OF BRANCH SHALL HAVE A MINIMUM LAYING LENGTH OF 10 FEET.
- LENGTH OF RESTRAINED PIPE INDICATED IN TABLE 3 SHALL BE THE LENGTH OF PIPE ON LARGE END ONLY OR AS PER DESIGN CRITERIA, WHICHEVER IS GREATER.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

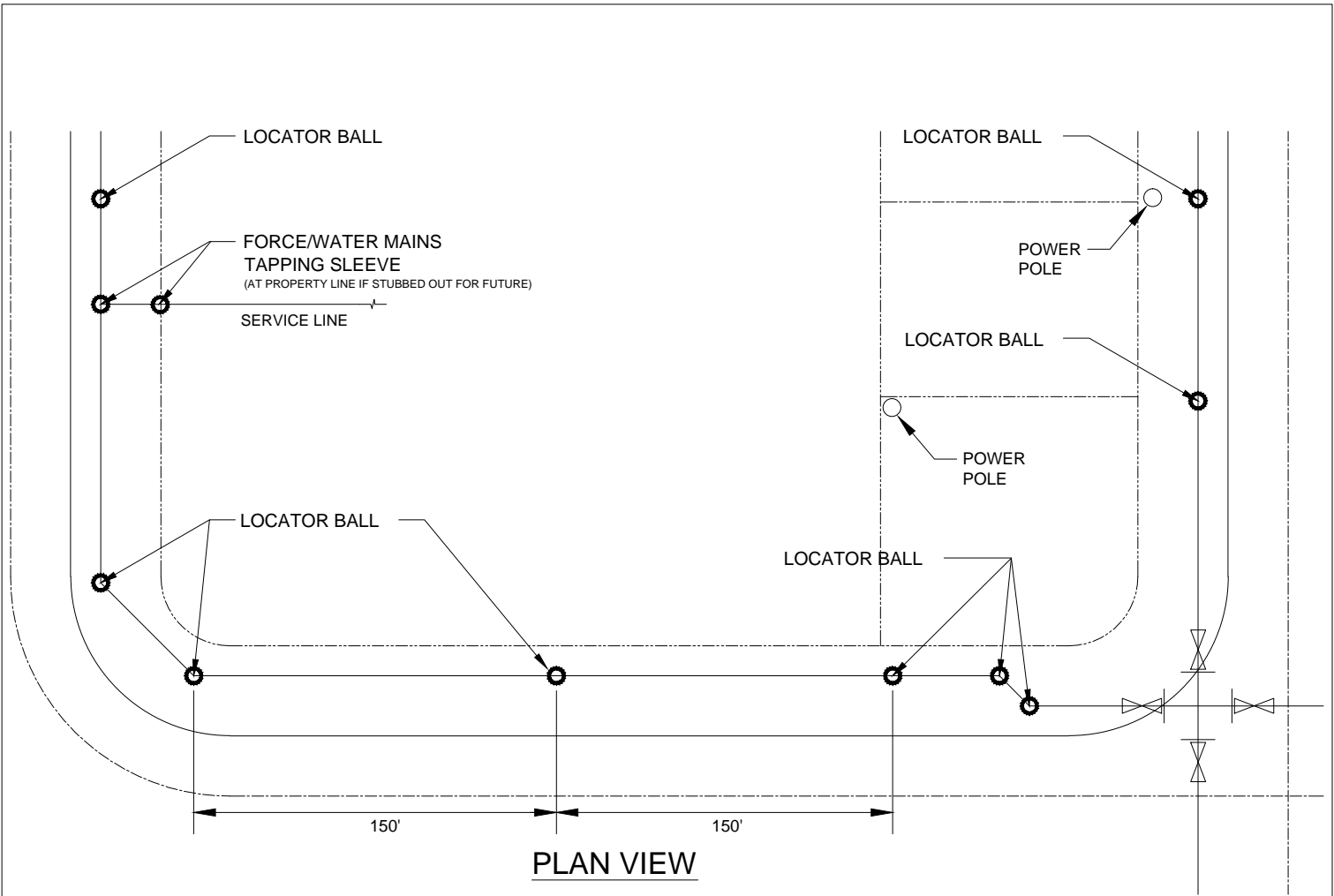
RESTRAINT TABLE

CHARLOTTE COUNTY UTILITIES

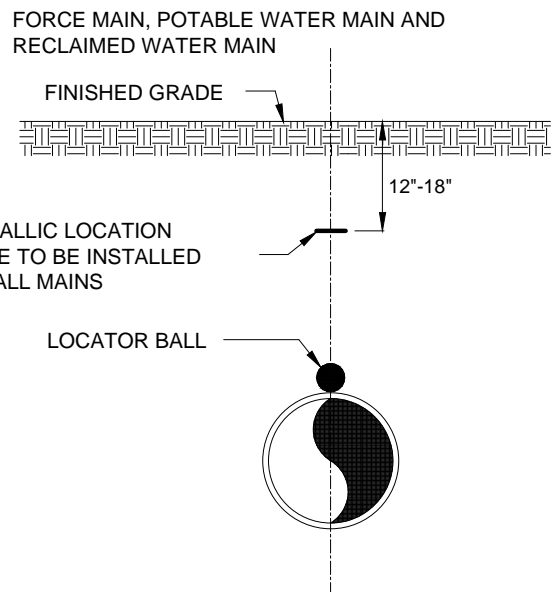
PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-01

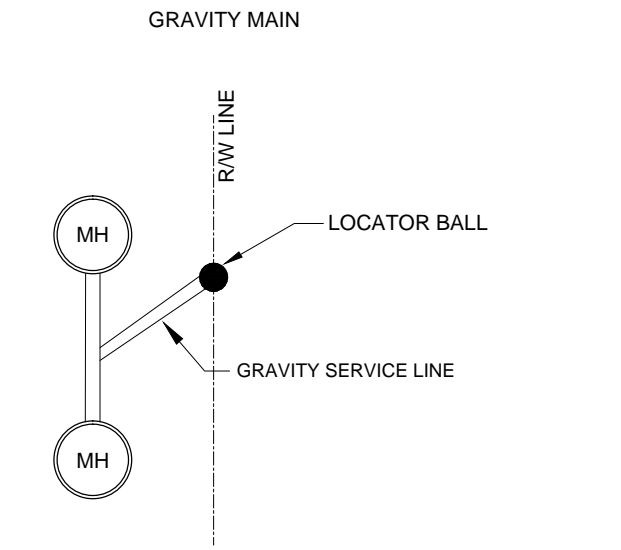
ID: GD-01-RT.DWG



PLAN VIEW



PROFILE VIEW



PLAN VIEW

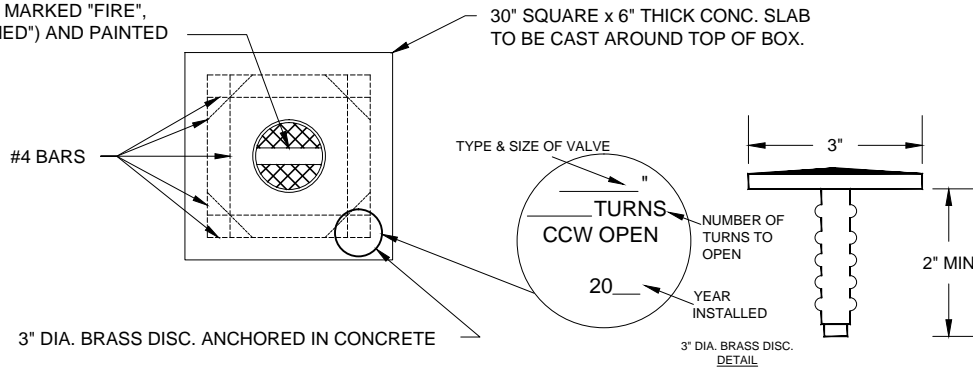
Z:\Auto_Cad_R14\DETAILS\2012_Details\02.GENERAL_DETAILS\GD-02-MBL.dwg

DATE: 11/01/2011
DRAWN BY: DEC
APPROVED BY: BRB

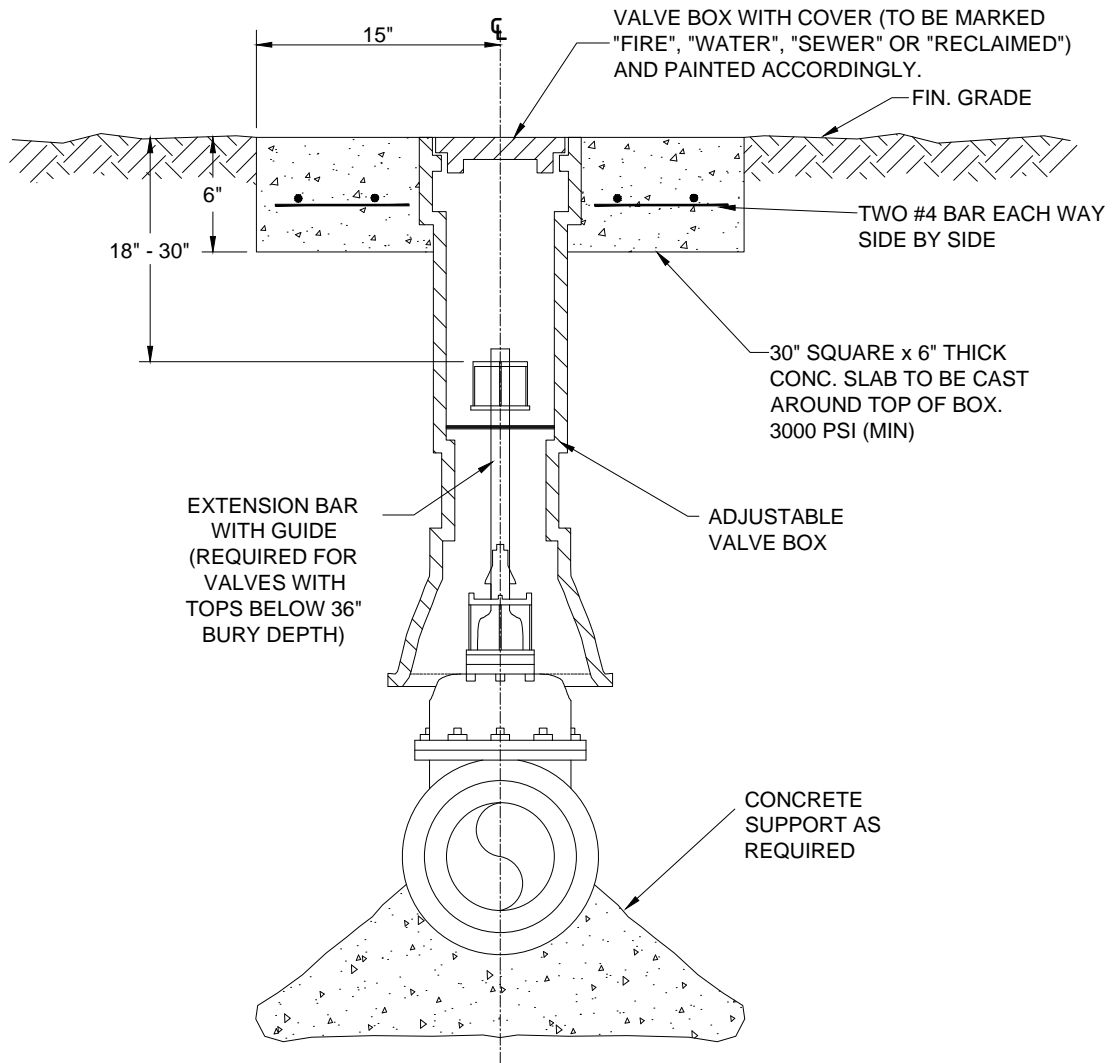
**MARKER BALL AND METALLIC
LOCATION TAPE INSTALLATION
CHARLOTTE COUNTY UTILITIES**

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
GD-02
ID: GD-02-MBL.dwg

VALVE BOX WITH COVER (TO BE MARKED "FIRE", "WATER", "SEWER" OR "RECLAIMED") AND PAINTED ACCORDINGLY.



NOTE:
VALVE PAD SHALL BE USED IN ALL LOCATIONS INCLUDING SIDEWALK, DRIVEWAY AND ROADWAY APPLICATIONS, AND EXPANSION JOINTS SHALL BE USED IN ALL INSTANCES.



NOTE:
ALL VALVES 14" AND LARGER SHALL BE SIDE ACTUATED.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

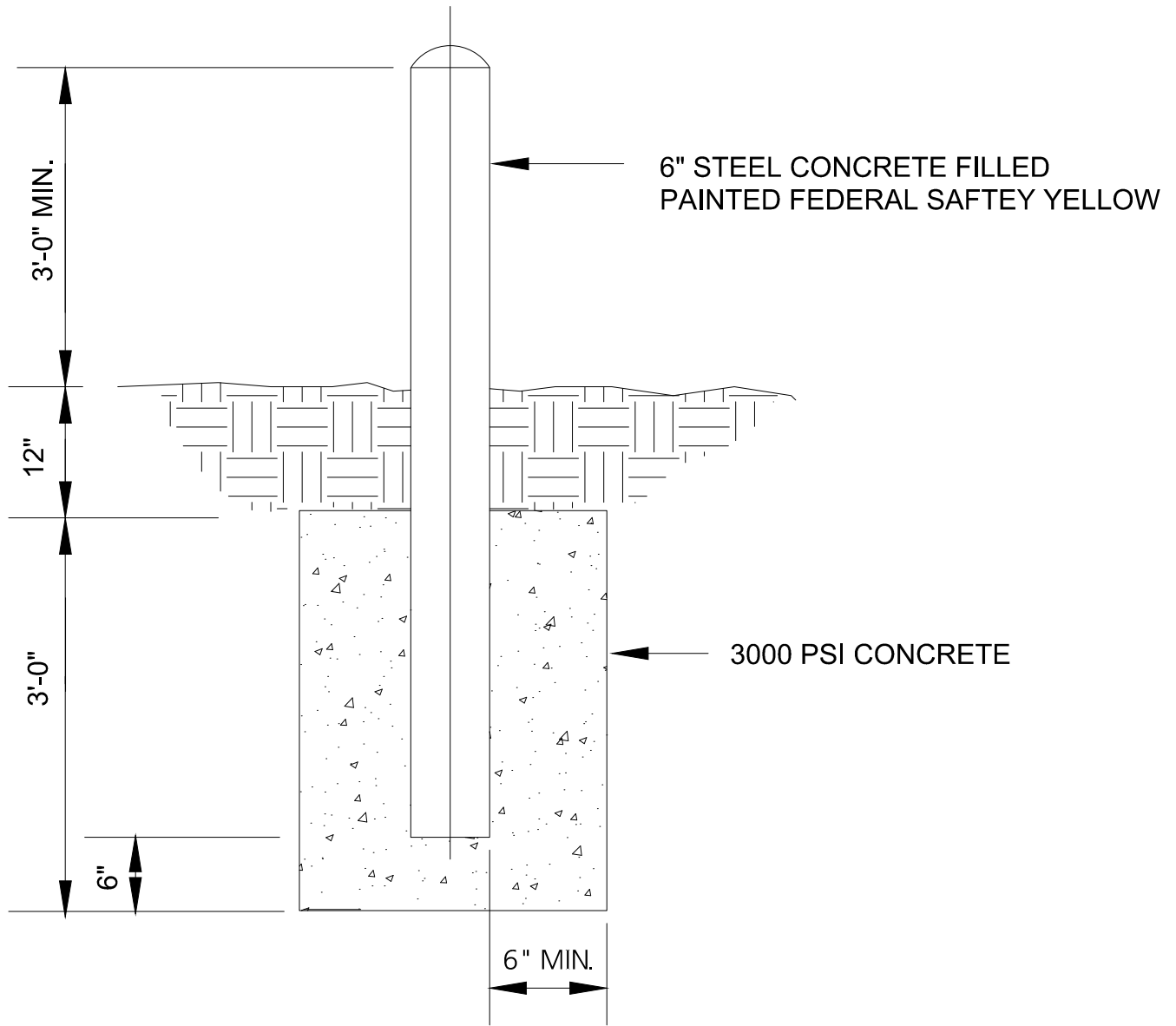
TYPICAL VALVE INSTALLATION

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL
PURPOSES ONLY.
NO MODIFICATIONS WITHOUT
WRITTEN CCU APPROVAL.

GD-03

ID: GD-03-TV.dwg



NOTE: SITE LOCATION, AND THE INSTALLATION TO BE PROTECTED, MAY REQUIRE A LARGER DIAMETER PIPE AND CONCRETE ANCHOR.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

TYPICAL BOLLARD

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-04

ID: GD-04-Bollard.dwg

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

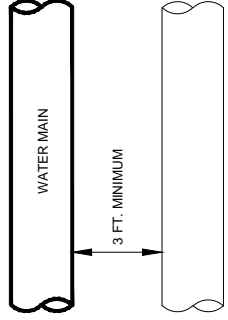
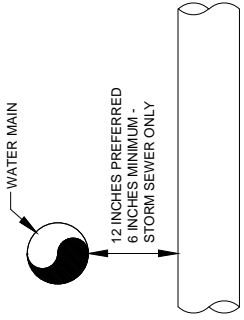
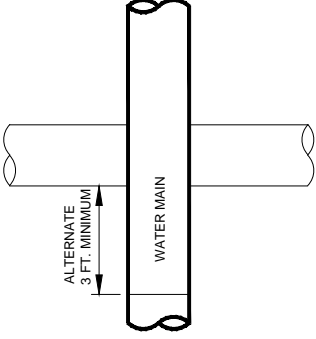
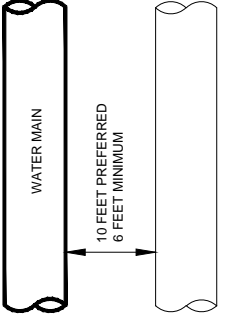
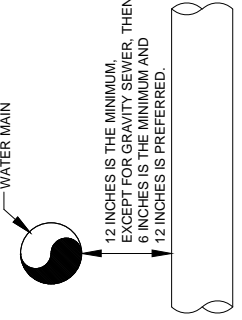
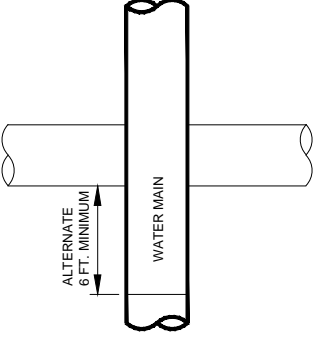
MAIN SEPARATION

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-05

ID: GD-05-MS.dwg

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
<ul style="list-style-type: none"> · STORM SEWER · STORMWATER FORCE MAIN · RECLAIMED WATER 			
<ul style="list-style-type: none"> · GRAVITY OR LOW PRESSURE SANITARY SEWER (1) · SANITARY SEWER FORCE MAIN · SEPTIC TANKS (2) 			

NOTES:

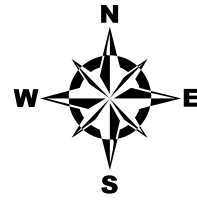
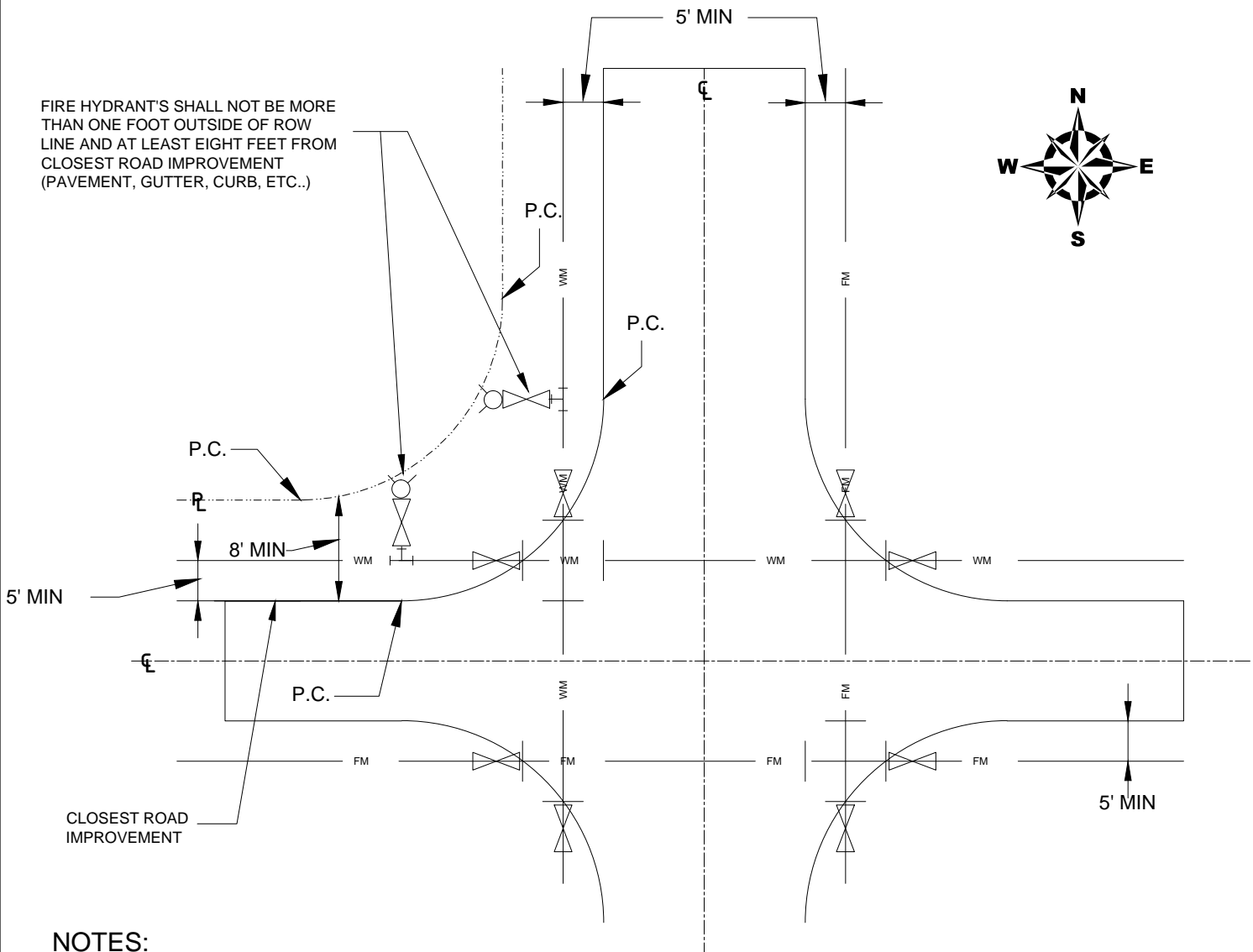
1. 3 FEET FOR GRAVITY TYPE SANITARY SEWERS WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY TYPE SANITARY SEWER.
2. THE SEPARATION BETWEEN POTABLE WATER, RECLAIMED WATER AND OSTDS (SEPTIC TANKS) SHALL BE 10 FEET.
3. WATER MAIN SHALL CROSS ABOVE OTHER PIPE. WHEN WATER MAIN SHALL BE BELOW OTHER PIPE THE MINIMUM SEPARATION SHALL BE 18 INCHES.

WATER AND SEWER LINE AND SEPTIC TANK SEPARATIONS

n.t.s.

IN ACCORDANCE WITH F.A.C. RULE 62-555.314

FIRE HYDRANT'S SHALL NOT BE MORE THAN ONE FOOT OUTSIDE OF ROW LINE AND AT LEAST EIGHT FEET FROM CLOSEST ROAD IMPROVEMENT (PAVEMENT, GUTTER, CURB, ETC..)



NOTES:

1. (P/L) = PROPERTY LINE, EASEMENT LINE OR RIGHT OF WAY LINE
2. ALL VALVES SHALL BE PLACED AT THE FITTING UNLESS APPROVED BY CCU.
3. ALL MAINS SHALL BE LOCATED A MINIMUM OF 5'-0" FROM EDGE OF ROADWAY IMPROVEMENTS (PAVEMENT, GUTTERS, CURBS, ETC..) UNLESS APPROVED BY CCU.
4. ALL WATER LINES SHALL BE LOCATED ON THE NORTH SIDE OF EAST-WEST STREETS AND ON THE WEST SIDE OF NORTH-SOUTH STREETS UNLESS APPROVED BY CCU.
5. ALL RECLAIMED WATER AND SEWER FORCE MAINS SHALL BE LOCATED ON THE SOUTH SIDE OF EAST-WEST STREETS AND ON THE EAST SIDE OF NORTH-SOUTH STREETS UNLESS APPROVED BY CCU.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

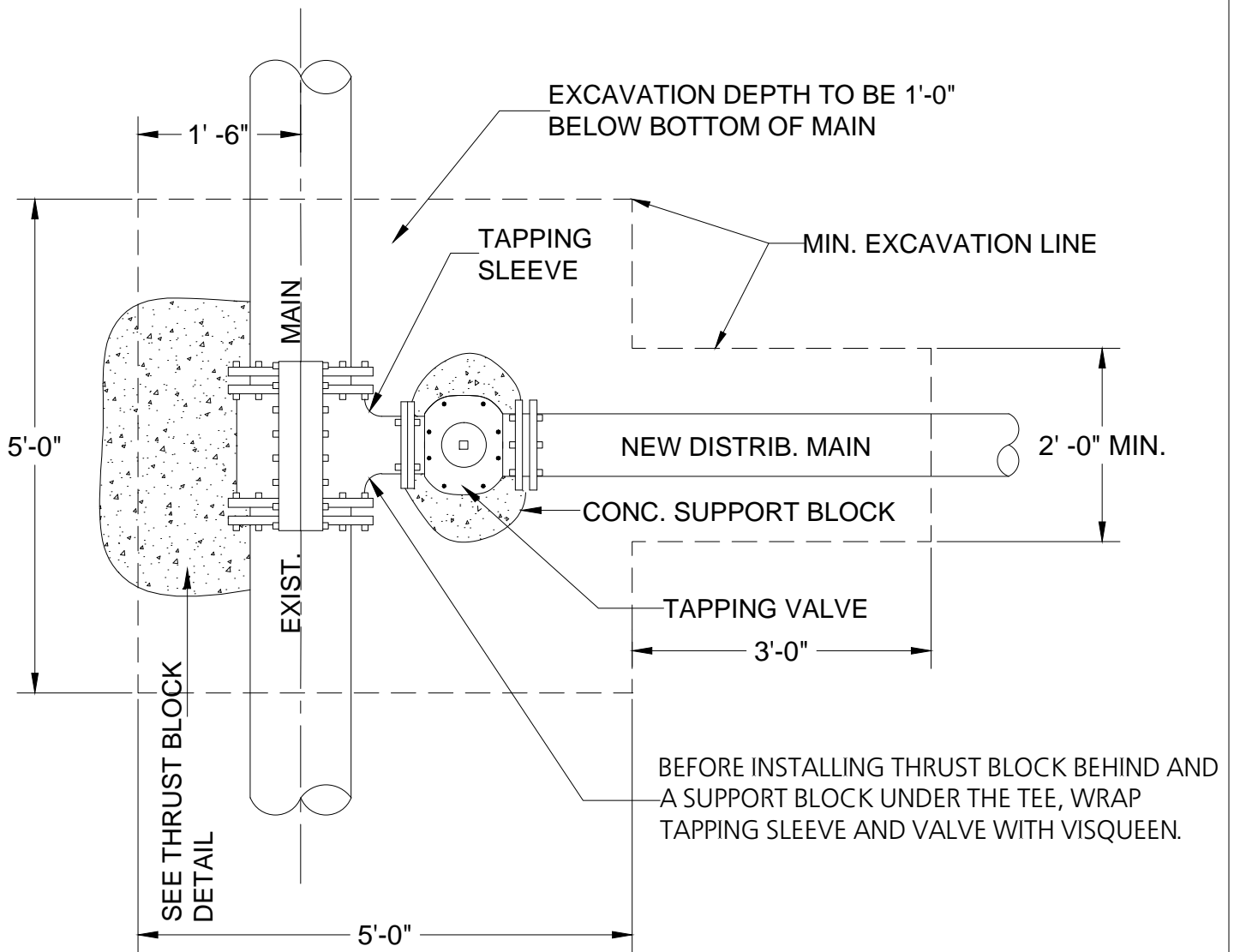
ALIGNMENT OF MAINS, VALVES, AND HYDRANTS

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-06

ID: GD-06-MA.dwg



NOTE:

1. CUT IN TEES SHALL BE CONNECTED USING RIGID COUPLER
2. INSTALL A SUPPORT BLOCK UNDER THE TAPPING VALVE IF DIRECTED BY CCU.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

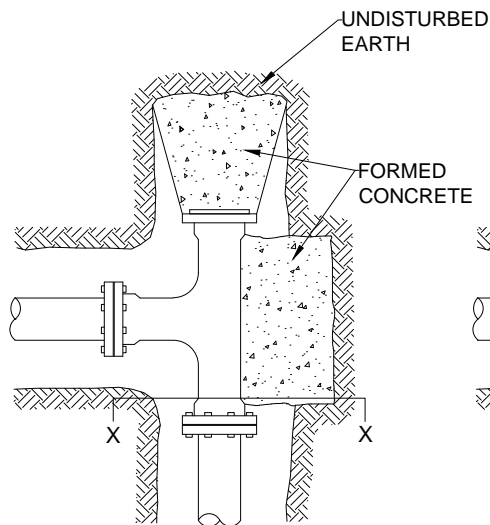
TAPPING SLEEVE

CHARLOTTE COUNTY UTILITIES

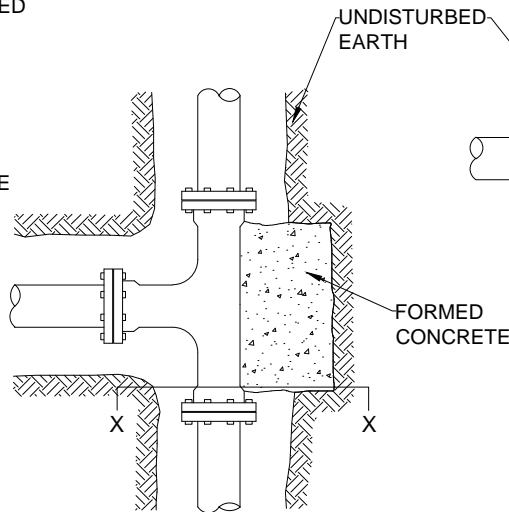
PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-07

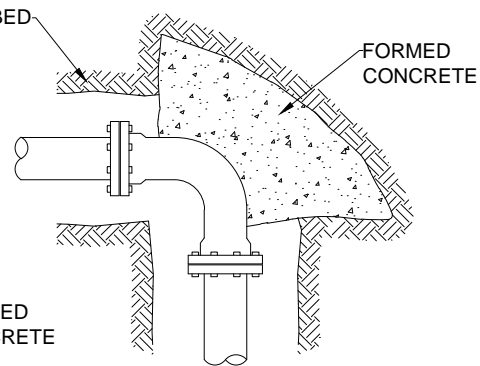
ID: GD-07-TS.dwg



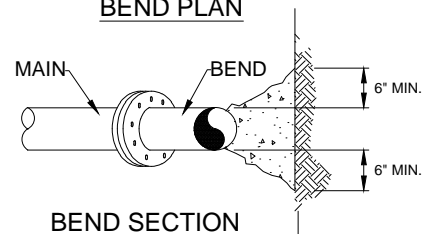
BLANKED TEE & WYE



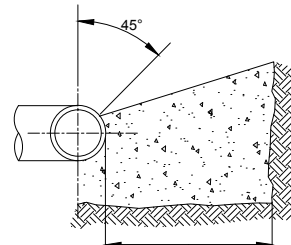
TYPICAL TEE & WYE



BEND PLAN

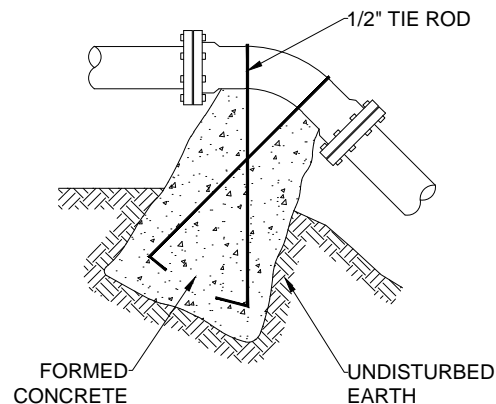


BEND SECTION



24" MIN. - 12" & LARGER PIPE
18" MIN. - 10" & SMALLER PIPE

SECTION X-X



ANCHOR THRUST BLOCK

(VERTICAL BENDS ONLY)

THRUST BLOCK BEARING AREA TABLE (SQ. FT.)					
SIZE OF PIPE	TEES & PLUGS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2.5	2.5	1.5	1.0	1.0
6"	5.0	5.0	3.0	1.5	1.0
8"	9.0	9.0	5.0	2.5	1.5
10"	14.0	14.0	7.5	4.0	2.0
12"	20.0	20.0	11.0	5.5	3.0
14"	27.0	27.0	15.0	7.5	4.0
16"	35.0	35.0	19.0	10.0	5.0

NOTE:

1. THRUST BLOCKS SHALL BE USED IN CONJUNCTION WITH THE RESTRAINED JOINT TABLE WHEN DIRECTED BY THE ENGINEER AND/OR CHARLOTTE COUNTY UTILITIES.
2. WRAP ALL FITTINGS WITH VISQUEEN BEFORE POURING THRUST BLOCKS. ALL THRUST BLOCKS SHALL BE LEFT OPEN FOR INSPECTION BY CCU.
3. ALL BEARING SURFACE SHALL BE CARRIED TO UNDISTURBED SOIL.
4. THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR SOIL WITH A 2,000 P.S.F. SOIL BEARING (A-1 THRU A-3 CLEAN SAND AND GRAVELS).
5. POOR SOIL (A-1 THRU A-8, SILTY SOILS, CLAYS, MUCK & PEAT) SHALL REQUIRE LARGER THRUST BLOCKS.
6. THRUST BLOCK SIZES SHALL BE BASED ON 150 P.S.I. HYDROSTATIC TEST PRESSURE.
7. ALL THRUST BLOCKING SHALL BE 2500 PSI-28 DAY CONCRETE.
8. VERTICAL BENDS ONLY - 1/2" TIE RODS SHALL BE ANCHORED TO REACTION BLOCK AND COATED WITH 2 COATS OF BITUMINOUS EPOXY (16 MILS DRY THICKNESS).
9. VERTICAL BENDS ONLY - THRUST BLOCKS SHALL BE SIZED BY ENGINEER, AND APPROVED BY CCU PRIOR TO CONSTRUCTION.

DATE: 11/01/2011

DRAWN BY: DEC

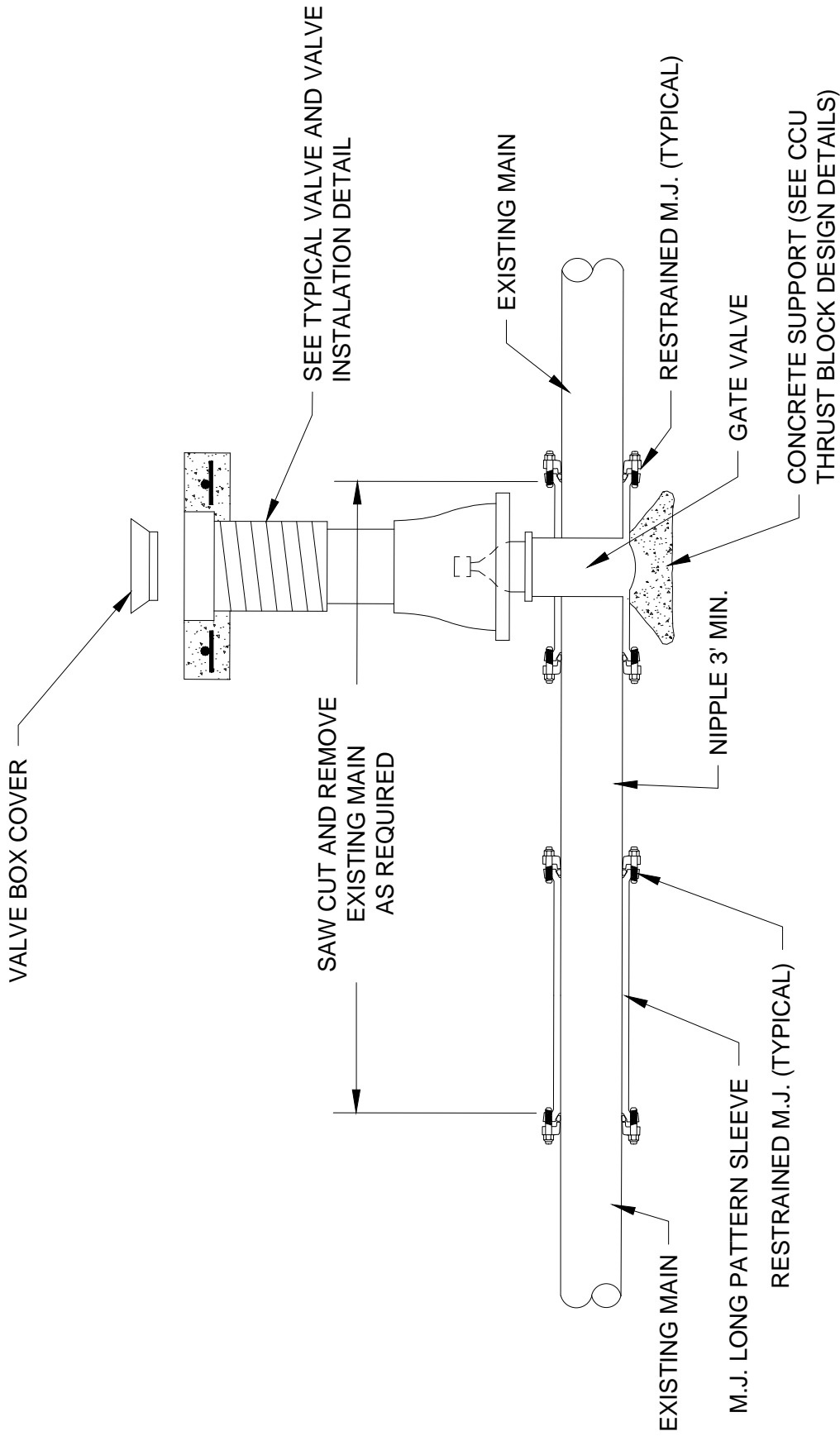
APPROVED BY: BRB

**TYPICAL THRUST
BLOCK DETAILS
CHARLOTTE COUNTY UTILITIES**

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-08

ID: GD-08-THB.dwg



DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

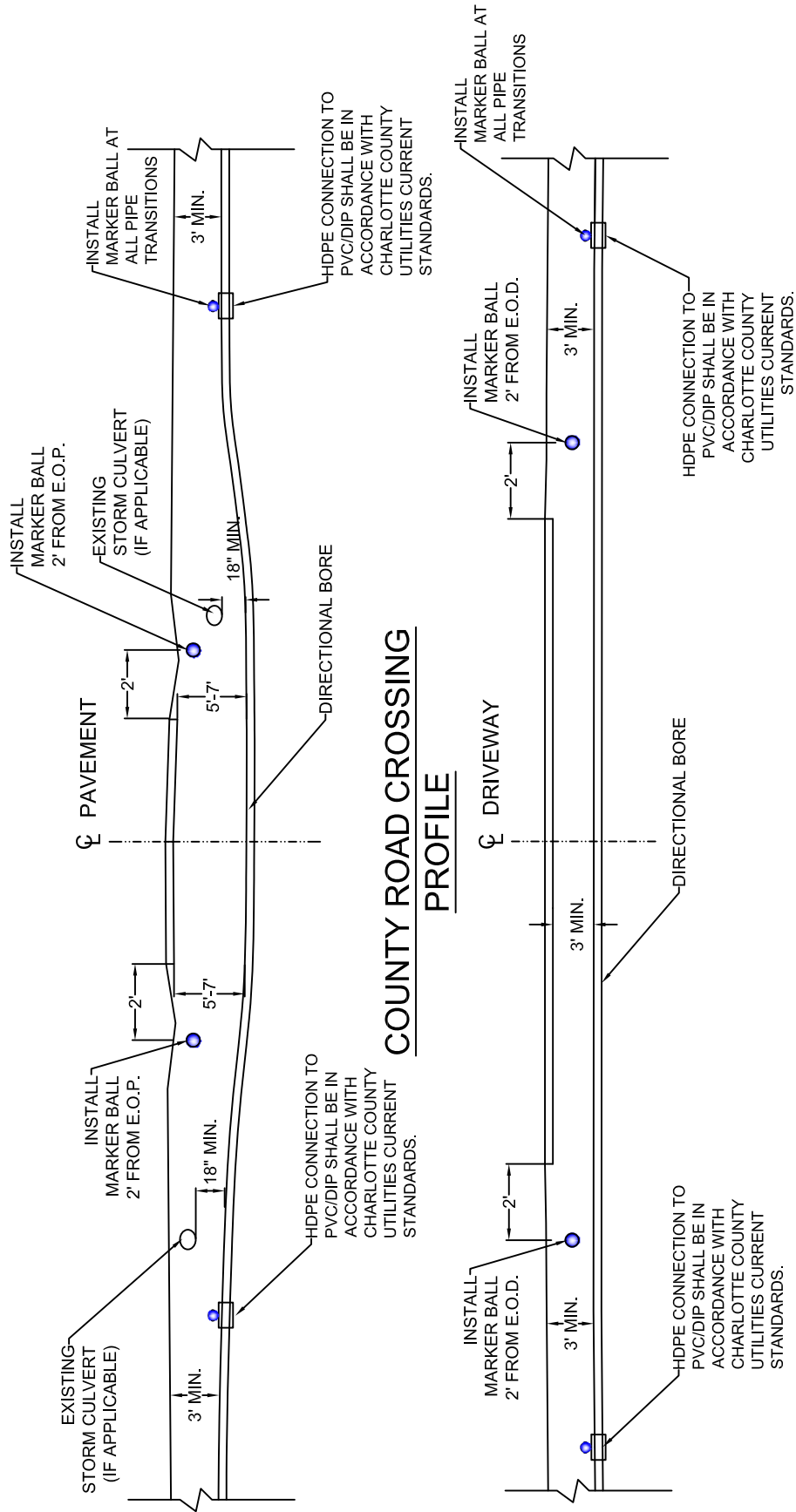
TYPICAL CUT-IN VALVE

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-09

ID: GD-09-CIV.dwg

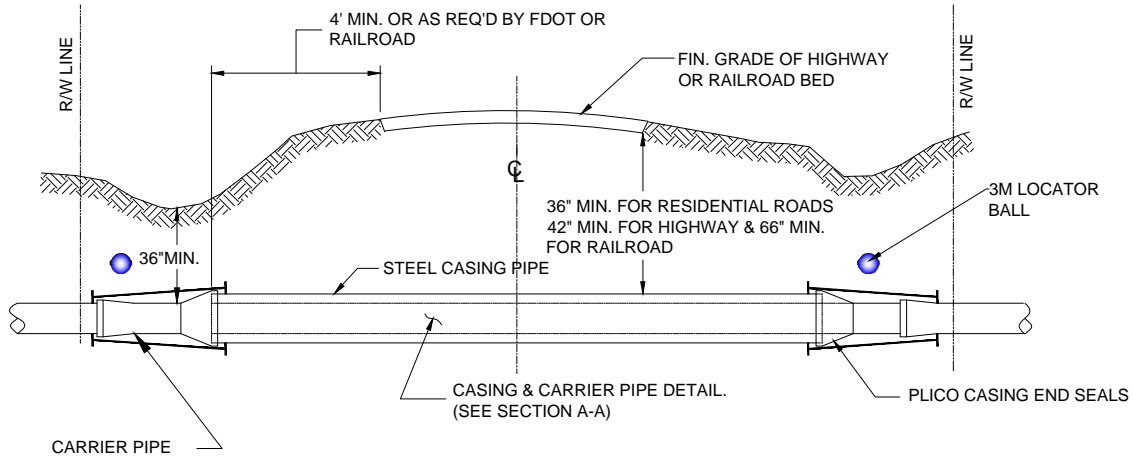


DATE: 11/01/2011
DRAWN BY: DEC
APPROVED BY: BRB

TYPICAL DIRECTIONAL BORE

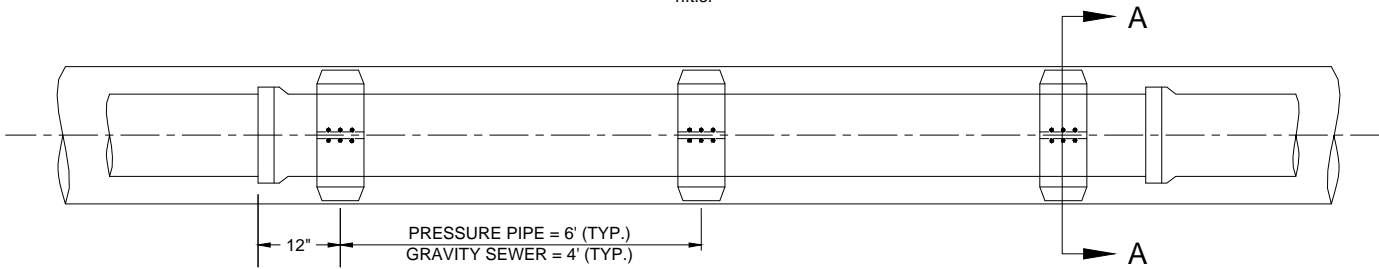
CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
GD-10
ID: GD-10-DB.dwg



**PROFILE
HIGHWAY & RAILROAD CROSSINGS**

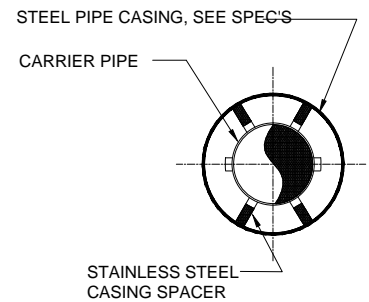
n.t.s.



CASING & CARRIER PIPE DETAIL

NOTE:

1. PLACE SPACERS EQUALLY ON CENTER AND A MIN. OF 4 PER JOINT OF PIPE.
2. ALL CARRIER PIPE JOINTS SHALL BE RESTRAINED TO INCLUDE FIRST JOINT OUTSIDE THE CASING.



SECTION "A-A"

DATE: 11/01/2011

DRAWN BY: DEC

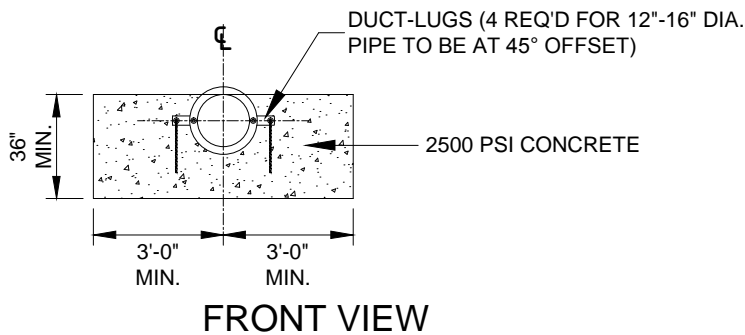
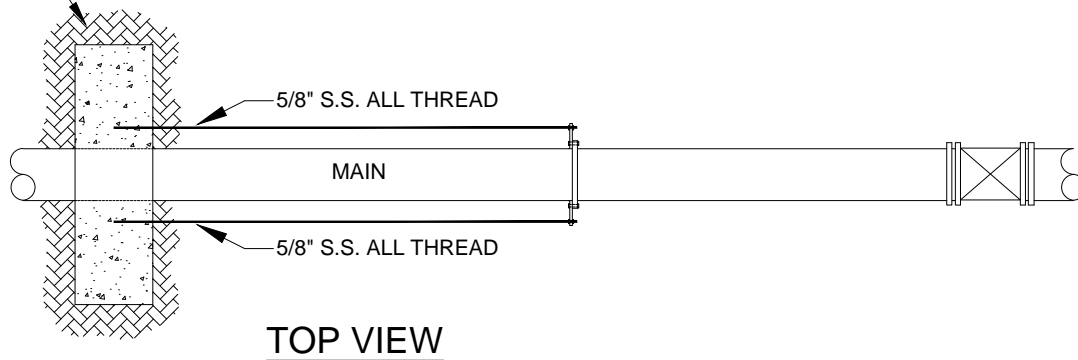
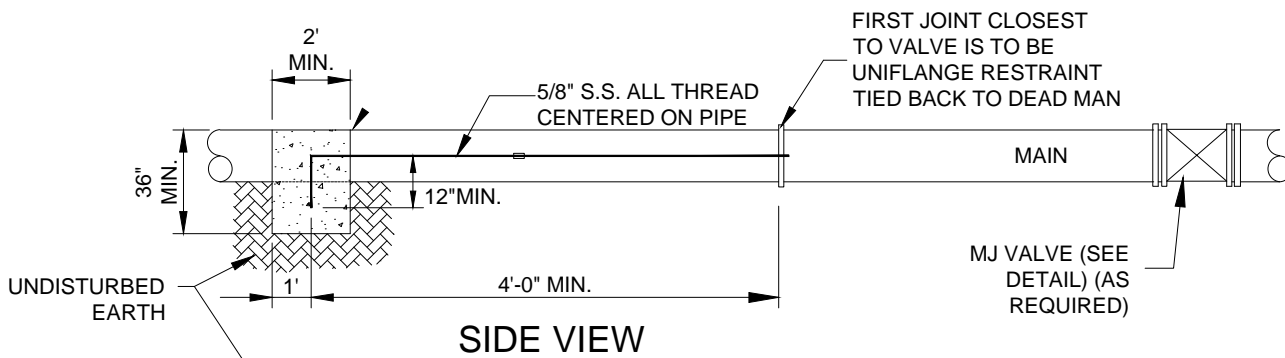
APPROVED BY: BRB

**TYPICAL JACK & BORE
DETAIL
CHARLOTTE COUNTY UTILITIES**

PROVIDED FOR INFORMATIONAL
PURPOSES ONLY.
NO MODIFICATIONS WITHOUT
WRITTEN CCU APPROVAL.

GD-11

ID: GD-11-TJB.dwg



NOTE:

1. DEAD MEN SHALL BE SET PRIOR TO THE FIRST JOINT FROM A VALVE UNLESS IT'S END-OF-LINE, THERE SHALL BE A TIE-BACK ASSEMBLY ON EACH SIDE OF VALVE.
2. ALL JOINTS BETWEEN CONCRETE AND VALVE SHALL BE RESTRAINED.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

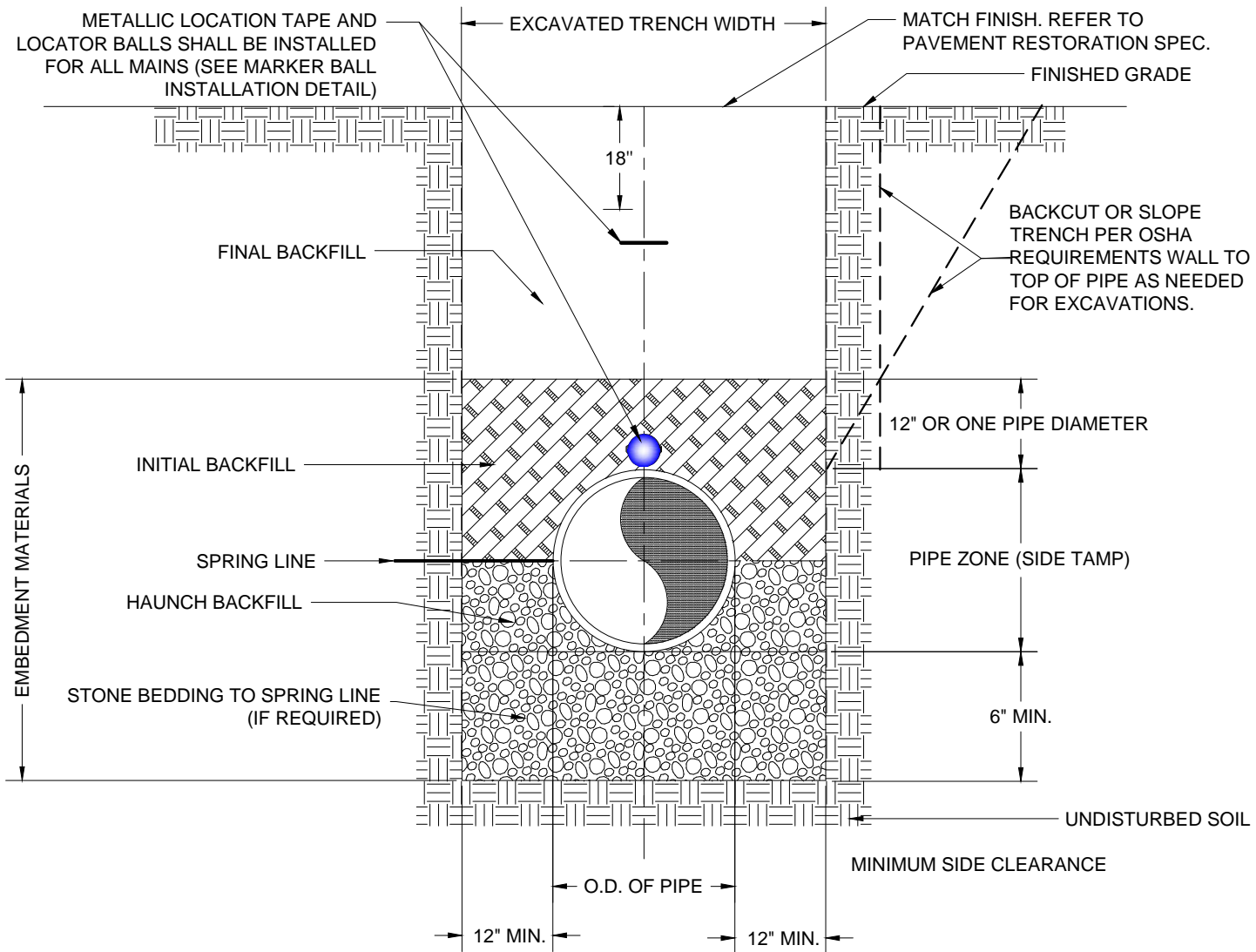
TIE-BACK ASSEMBLY

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-12

ID: GD-12-TB.dwg



DATE: 1/1/2009

DRAWN BY: DEC

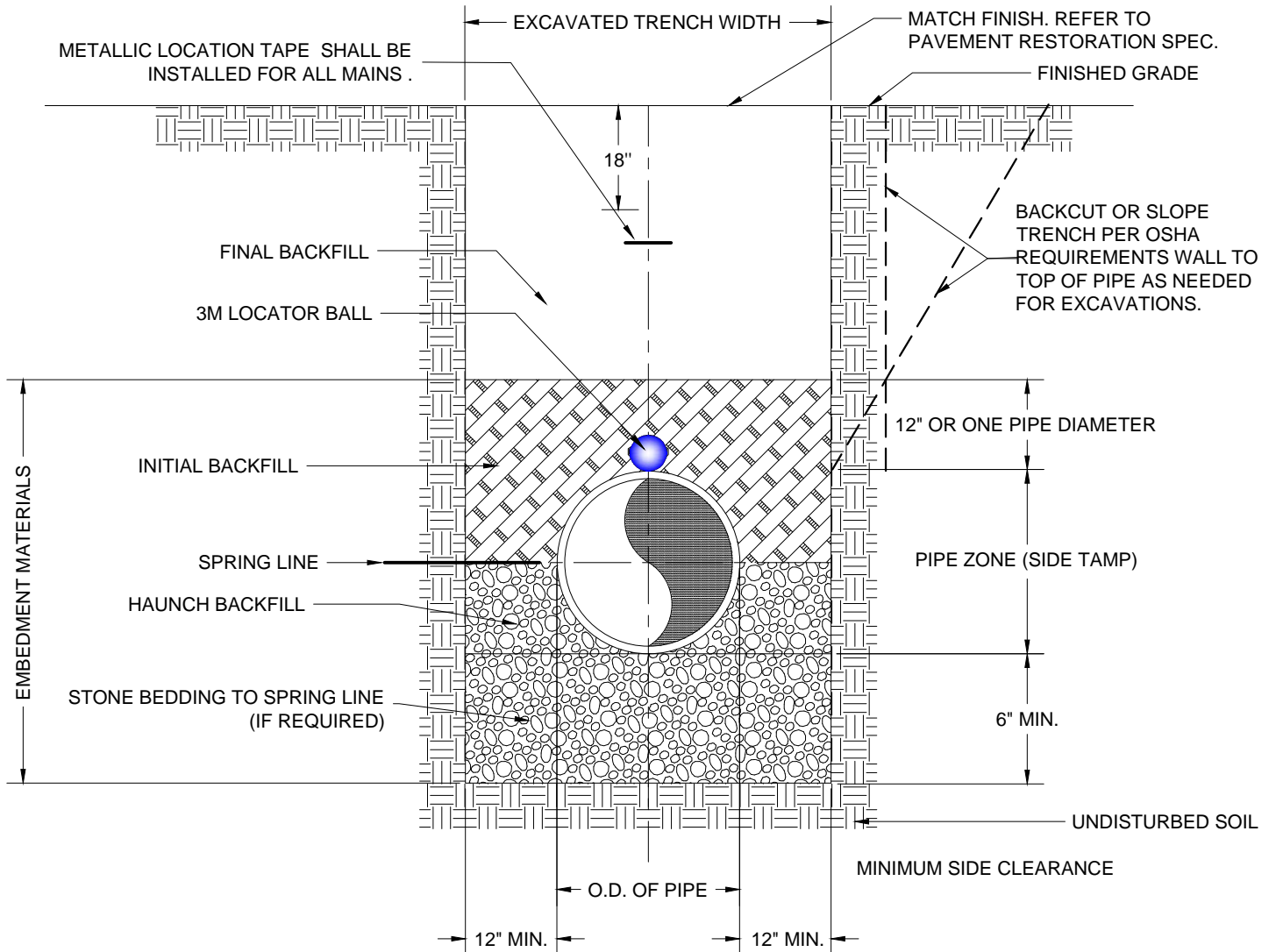
APPROVED BY: TGD

STANDARD PRESSURE PIPE TRENCH CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

PAGE No. GD-13

NUMBER: G-12-TEBFPP



DATE: 11/01/2011

DRAWN BY: DEC

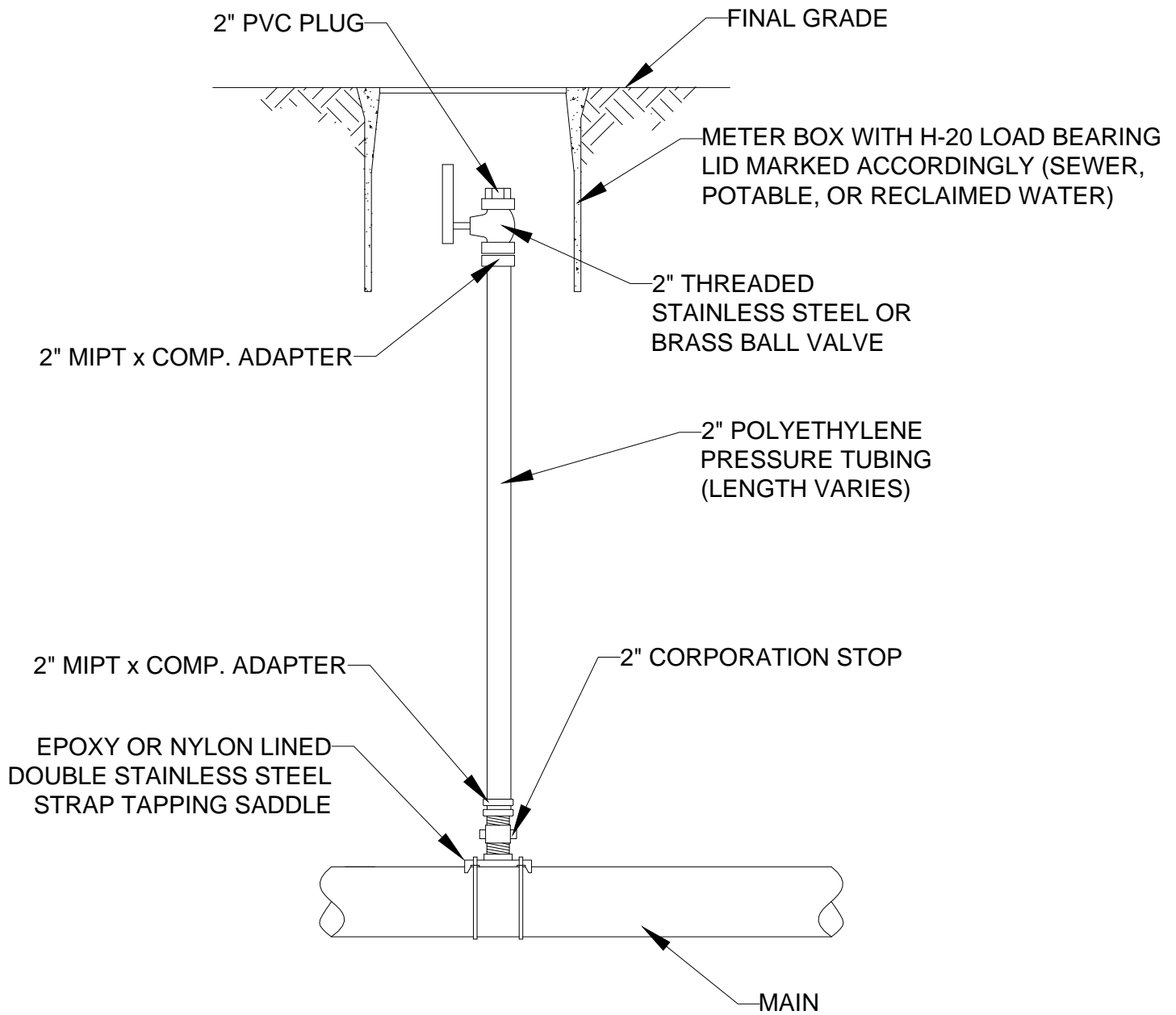
APPROVED BY: TGD

STANDARD GRAVITY SEWER PIPE TRENCH CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

PAGE No. GD-14

NUMBER: G-12-TEBFGS



NOTE: MANUAL AIR RELEASE MAY BE USED FOR A BACTERIOLOGICAL SAMPLING POINT WITH A TEMPORARY EXTENSION TO 3' ABOVE GROUND. THIS MUST HAVE CCU APPROVAL OR BE SHOWN ON THE ENGINEERING PLANS. SEE TYPICAL BACTERIOLOGICAL SAMPLE POINT DETAIL.

Z:\Auto Cad R14\DETAILS\2012 Details\02.GENERAL DETAILS\GD-15-MAR.dwg

DATE: 11/01/2011
DRAWN BY: DEC
APPROVED BY: BRB

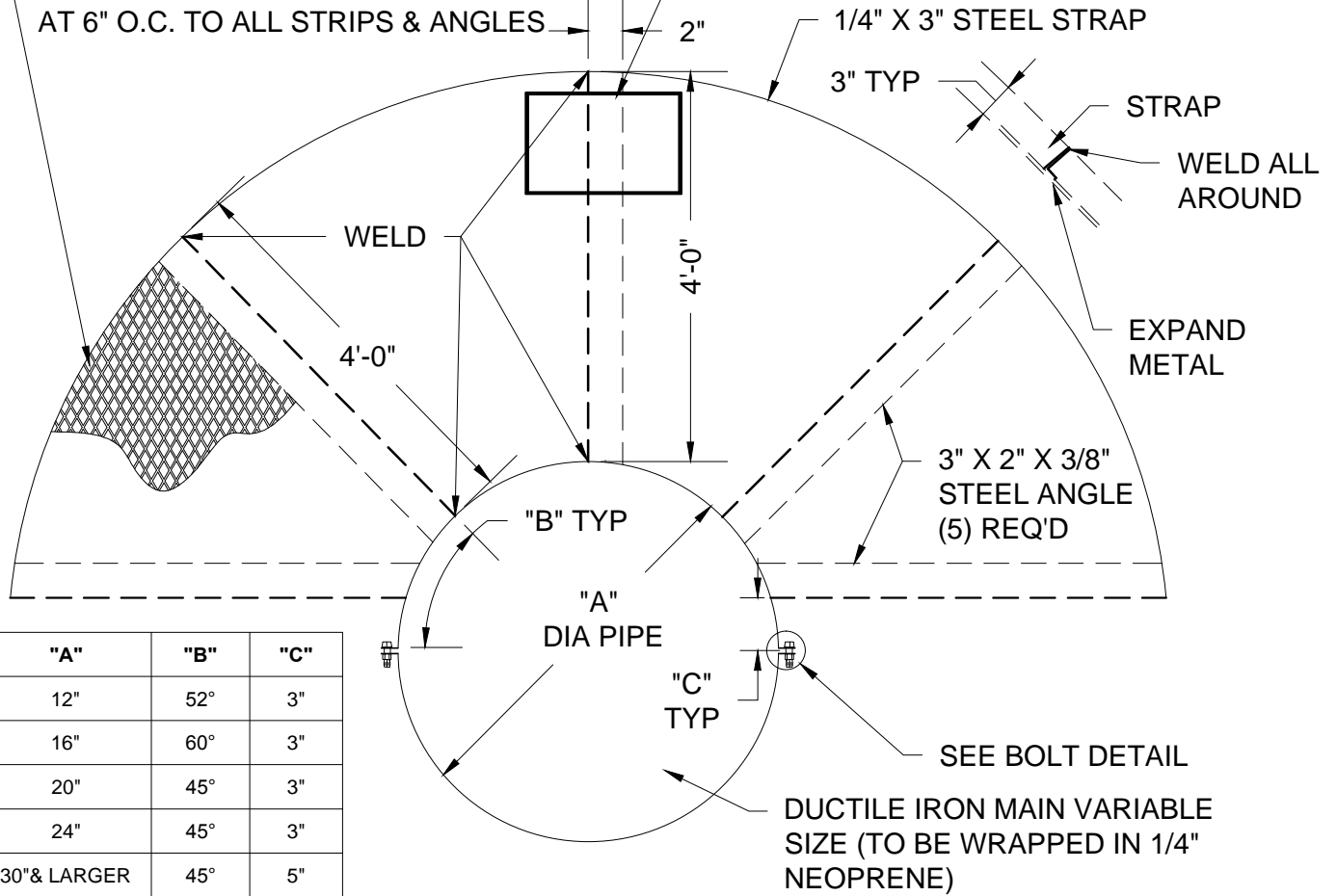
MANUAL AIR RELEASE

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
GD-15
ID: GD-15-MAR.dwg

3/4" - 9-11 GAUGE FLATTENED EXPANDED METAL TO COVER FACE OF GUARD FRAME & SPOT WELDED TO IT AT 6" O.C. TO ALL STRIPS & ANGLES

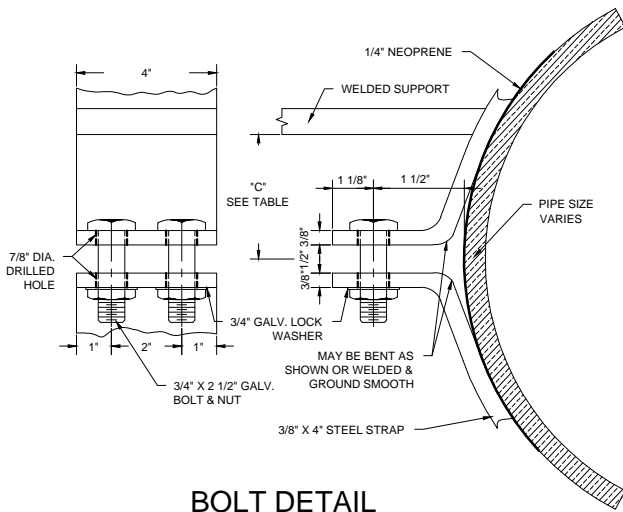
SEE CRAWL GUARD SIGN DETAIL



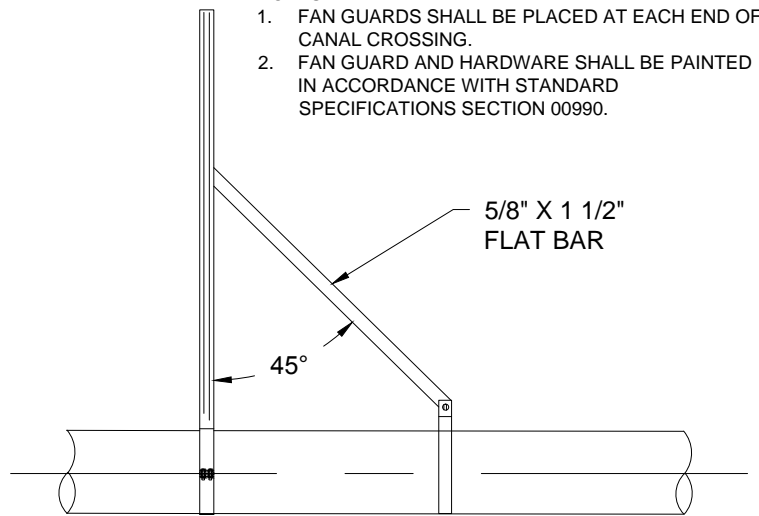
"A"	"B"	"C"
12"	52°	3"
16"	60°	3"
20"	45°	3"
24"	45°	3"
30" & LARGER	45°	5"

NOTES:

- FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
- FAN GUARD AND HARDWARE SHALL BE PAINTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 00990.



BOLT DETAIL



SIDE VIEW

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

STANDARD CRAWL GUARD ASSEMBLY CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-16

ID: GD-16-CGA.dwg

3/4" - 9-11 GAUGE FLATTENED EXPANDED METAL TO COVER FACE OF GUARD FRAME & SPOT WELDED TO IT AT 6" O.C. TO ALL STRIPS & ANGLES

8'-0"

1/4" x 3" STEEL STRAP

SEE CRAWL GUARD SIGN DETAIL

3/8" X 4" FLAT BAR

3/4" x 8" DIA. 316 S/S ANCHOR BOLTS, LOCK WASHER & NUT

DUCTILE IRON MAIN VARIABLE SIZE (TO BE WRAPPED IN 1/4" NEOPRENE)

45°

5/8" X 1 1/2" FLAT BAR

5/8" X 3" 316 ST. ST. FLAT BAR W/316 ST. ST. BOLT, NUT AND WASHER.

NOTES:

1. FAN GUARDS SHALL BE PLACED AT EACH END OF CANAL CROSSING.
2. FAN GUARD AND HARDWARE SHALL BE PAINTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 00990.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

**PILE CAP APPLICATION
CRAWL GUARD ASSEMBLY
CHARLOTTE COUNTY UTILITIES**

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-17

ID: GD-17-CGPILE.dwg



DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

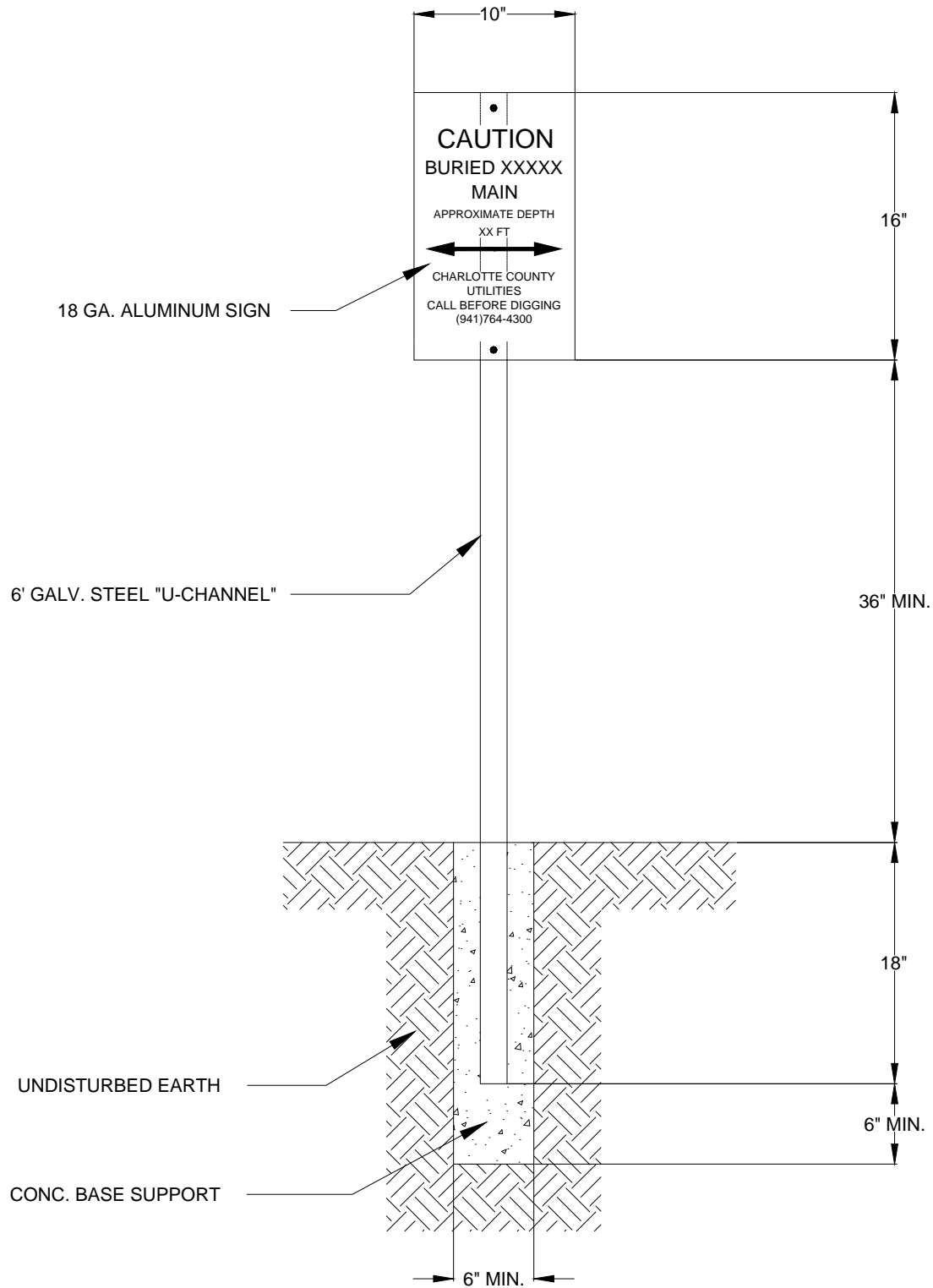
CRAWL GUARD SIGN

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL
PURPOSES ONLY.
NO MODIFICATIONS WITHOUT
WRITTEN CCU APPROVAL.

GD-18

ID: GD-18-CGSIGN.dwg



1. ALL WATER MAIN TEXT SHALL BE BLUE IN COLOR AND ON WHITE BACKGROUND.
2. ALL SEWER MAIN TEXT SHALL BE GREEN IN COLOR AND ON WHITE BACKGROUND.
3. ALL RECLAIMED MAIN TEXT SHALL BE PURPLE IN COLOR AND ON WHITE BACKGROUND.
4. SIGN SHALL BE MOUNTED SO IT WILL NOT TURN.
5. SIGN SHALL INCLUDE DEPTH TO MAIN AT SIGN LOCATION.

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

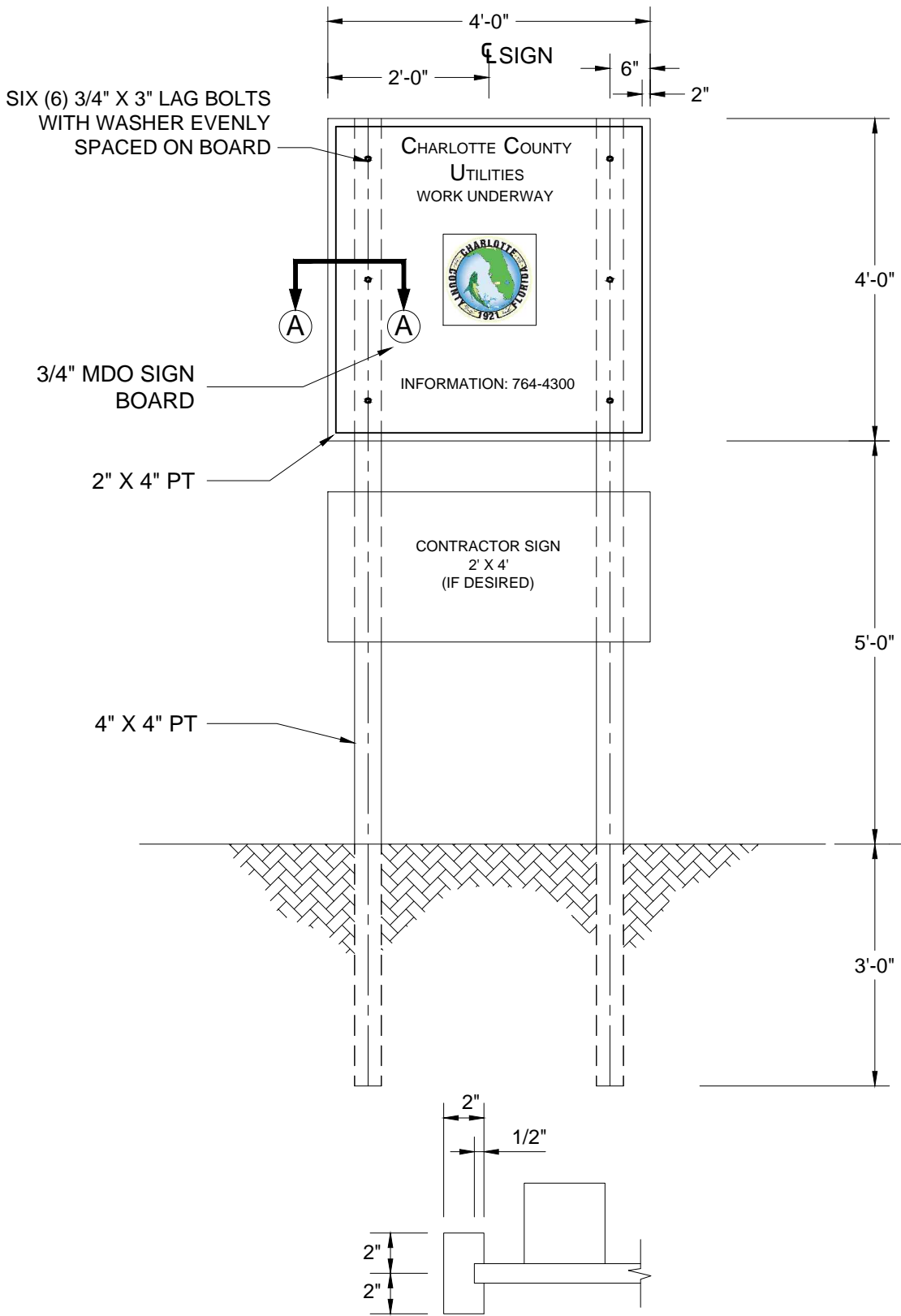
BURIED MAIN SIGN

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL
PURPOSES ONLY.
NO MODIFICATIONS WITHOUT
WRITTEN CCU APPROVAL.

GD-19

ID: GD-19-BMS.dwg



DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

CCU PROJECT SIGN

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-20

ID: GD-20-PS.dwg

Z:\Auto Cad R14\DETAILS\2012_Details\02.GENERAL_DETAILS\GD-20-PS.dwg

WATER DEMAND TALLY BLOCK				
USE	USAGE FACTOR (SQ. FT., SEATS, BEDS,ETC...)	NUMBER OF UNITS	CONTRIBUTORY FLOW RATE (GPD)	TOTAL DAILY FLOW (TDF) (GPD)

METER TALLY BLOCK			
USE	NUMBER OF METERS	SIZE	TOTAL

SEWER DEMAND TALLY BLOCK				
USE	USAGE FACTOR (SQ. FT., SEATS, BEDS,ETC...)	NUMBER OF UNITS	CONTRIBUTORY FLOW RATE (GPD)	TOTAL DAILY FLOW (TDF) (GPD)

NOTE:
WATER AND SEWER DEMAND TALLY BLOCKS ARE THE SAME FOR COMMERCIAL DEVELOPMENTS

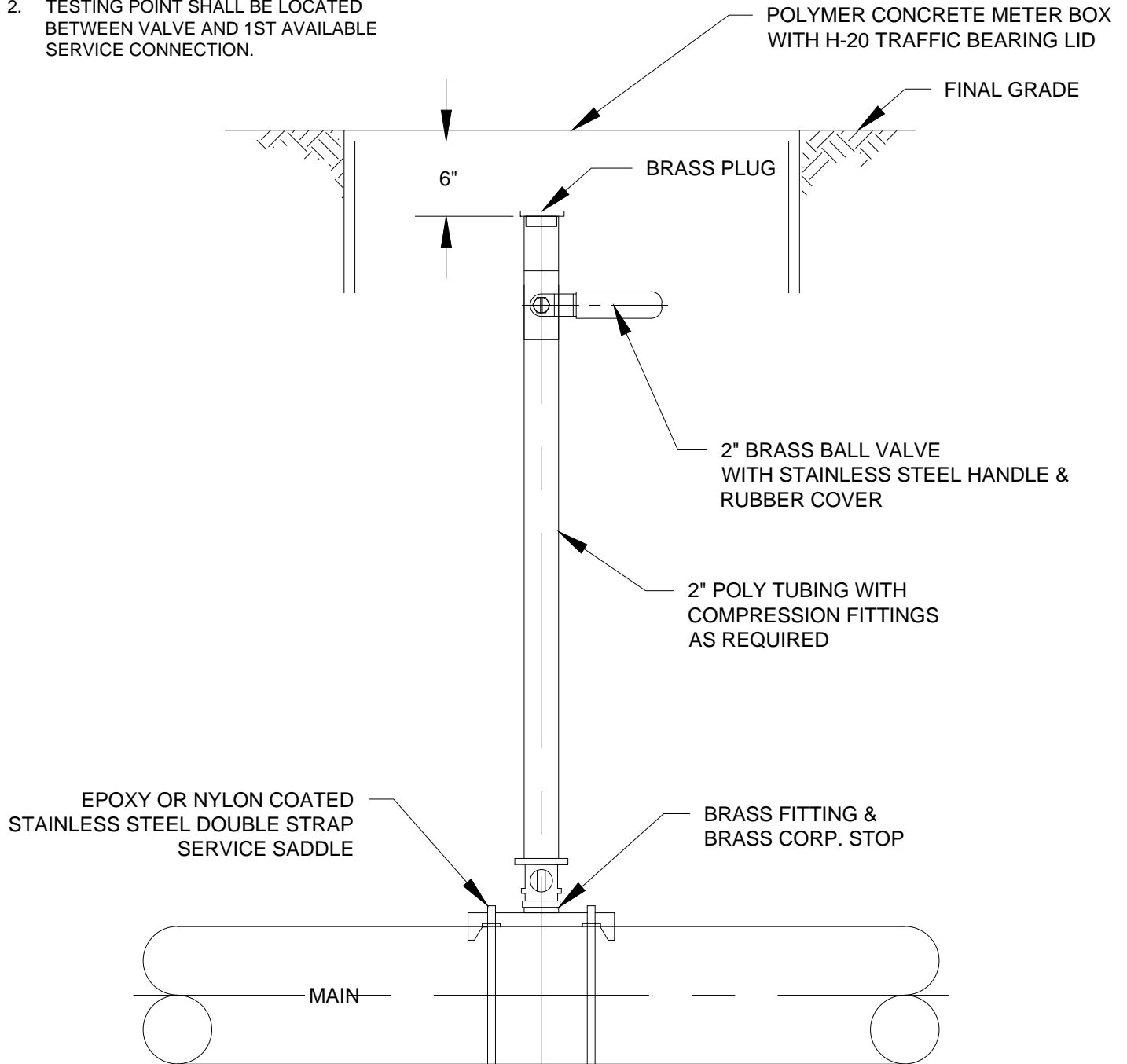
RECLAIMED WATER TALLY BLOCK			
USE	USAGE FACTOR (ACRES / SQ. FT.)	CONTRIBUTORY FLOW RATE (GPD) **	TOTAL DAILY FLOW (TDF) (GPD)

** 1" OF RECLAIMED WATER PER ACRE PER WEEK

DATE: 11/01/2011	<h1>TALLY BLOCKS</h1> <h2>CHARLOTTE COUNTY UTILITIES</h2>	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.
DRAWN BY: DEC		GD-21
APPROVED BY: BRB		ID: GD-21-TBERC.dwg

NOTE:

1. TWO (2) TESTING POINTS REQUIRED ONE ON EACH SIDE OF UPSTREAM VALVE.
2. TESTING POINT SHALL BE LOCATED BETWEEN VALVE AND 1ST AVAILABLE SERVICE CONNECTION.



Z:\Auto_Cad_R14\DETAILS\2012_Details\02.GENERAL_DETAILS\GD-22-SXTP.dwg

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

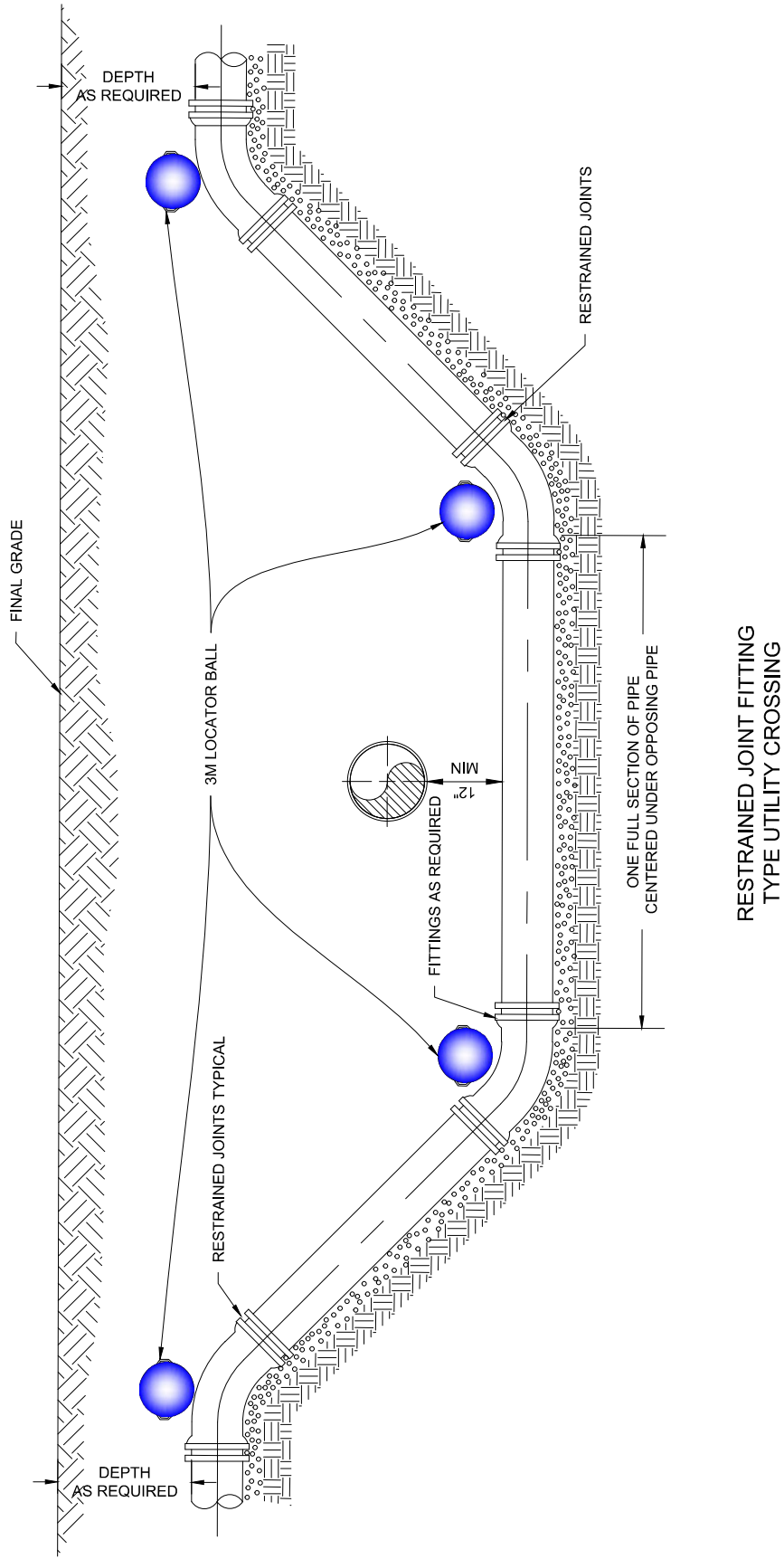
SUBAQUEOUS CROSSING TESTING POINT

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL
PURPOSES ONLY.
NO MODIFICATIONS WITHOUT
WRITTEN CCU APPROVAL.

GD-22

ID: GD-22-SXTP.dwg



RESTRAINED JOINT FITTING
TYPE UTILITY CROSSING

DATE: 11/01/2011

DRAWN BY: DEC

APPROVED BY: BRB

TYPICAL UTILITY CROSSING

CHARLOTTE COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
NO MODIFICATIONS WITHOUT WRITTEN CCU APPROVAL.

GD-23

ID: GD-23-TUXING.dwg