



**UTILITY CONSTRUCTION**

**1 1/2" WATER SERVICE W/ RPZ & BFP**  
NOT TO SCALE

NOTES: 1. 12" MIN. SEPARATION REQUIRED BETWEEN YOKE CENTERLINE AND TOP OF METER BOX.  
2. RPZ MUST BE LOCATED AT THE POINT OF DELIVERY. IF RPZ IS LOCATED IN THE BUILDING, AN ADDITIONAL DOUBLE CHECK VALVE IS REQUIRED AT THE POINT OF DELIVERY.  
3. METER SHALL BE FURNISHED AND SET BY JOHNSTON COUNTY.  
4. IF THE METER BOX IS LOCATED IN A TRAFFIC AREA A CONCRETE METER BOX, BROOKS, No. 38-H WITH 12" EXTENSION SHALL BE USED.  
5. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

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| Approved By: |      |      | P.O. Box 2263                  |                                  |      |
| Scale:       |      |      | Smithfield, NC 27577           |                                  |      |

**TAPPING SLEEVE & VALVE ASSEMBLY**  
NOT TO SCALE

NOTES: 1. TAPPING SLEEVE SHALL BE FABRICATED OF TYPE 304 OR 316 S.S. AND PROVIDE A 360° SEAL AROUND EXISTING PIPE WITH FULL CIRCUMFERENTIAL GASKET.  
2. TAPPING SLEEVE SHALL BE JCM 432, MUELLER H-304, FORD FTSS, ROMAC ST III OR APPROVED EQUAL.  
3. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

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**VALVE AND VALVE BOX INSTALLATION**  
NOT TO SCALE

NOTES: 1. D.I.P. MAY BE USED FOR VALVE BOX EXTENSIONS.  
2. VALVE BOX SHOULD NOT CONTACT WATER MAIN OR VALVE.  
3. CONCRETE PROTECTOR RING SHALL BE USED IN ALL UNPAVED AREAS.  
4. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

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**TRENCH DETAIL**

PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

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**VALVE MARKER DETAIL**  
NOT TO SCALE

NOTES: 1. VALVE MARKERS SHALL BE PLACED AT RW.  
2. LETTERS "MV" SHALL FACE TOWARDS VALVE.  
3. MARKER SHALL HAVE BRASS OR BRONZE EMBED ON TOP OR SIDE.  
4. CONTRACTOR SHALL STAMP DISTANCE TO CENTER OF VALVE INTO EMBED.  
5. BLOW-OFF ASSEMBLY SHALL INCLUDE 1 EA. MARKER W/ "BO" OR "MV" CAST.

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**CONCRETE PROTECTOR RING**  
NOT TO SCALE

NOTE: PROTECTOR RING SHALL BE 3,000 P.S.I. CONCRETE.

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**FIRE HYDRANT ASSEMBLY**  
NOT TO SCALE

NOTE: 1. MIN. OF 4 CU. FT. STONE (MORE IF REQ'D).  
2. CONC. THRUST BLOCK TO HAVE MIN. OF 6 SQ. FT. BEARING ON SOLID BANK (MORE IF REQ'D).  
3. DRAIN HOLES AND FLANGES SHALL BE CLEAR OF CONC.  
4. FIRE HYDRANT BARREL SHALL BE PLUMB.  
5. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

"FIRE HYDRANTS INSTALLED ON EXISTING 6" WATER MAINS, MUST BE INSTALLED USING A 6"x6" TEE CUT INTO THE EXISTING WATER MAIN. FIRE HYDRANTS INSTALLED ON EXISTING WATER MAINS LARGER THAN 6", CAN BE INSTALLED USING A TAPPING SLEEVE AND VALVE ON THE EXISTING WATER MAIN.

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**PIPE LAYING CONDITION**  
NOT TO SCALE

NOTE: PIPE SHALL BE BEDDED UP TO SPRING LINE AND MINIMUM 4" BELOW BOTTOM OF PIPE WHEN WET AREAS ARE ENCOUNTERED.

NOTE: WATER MAINS 8"Ø AND SMALLER SHALL HAVE MINIMUM OF 3" COVER. WATER MAINS LARGER THAN 8"Ø SHALL HAVE A MINIMUM OF 3'-6" COVER.

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