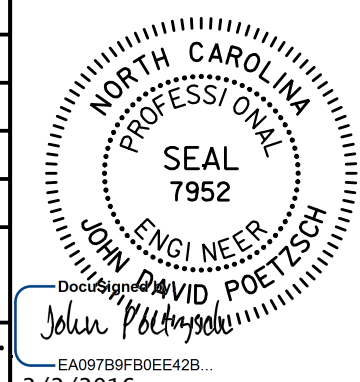
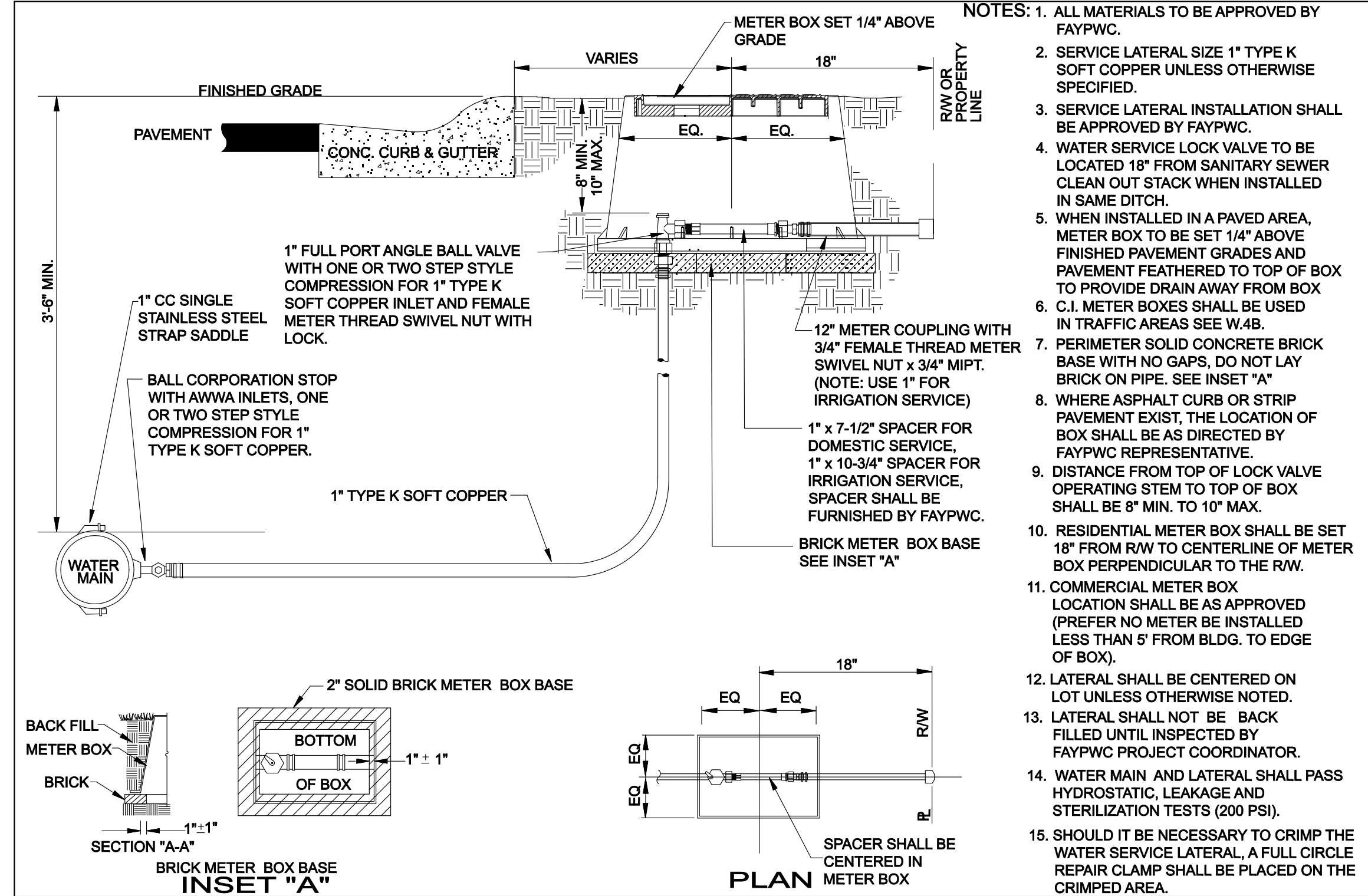



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

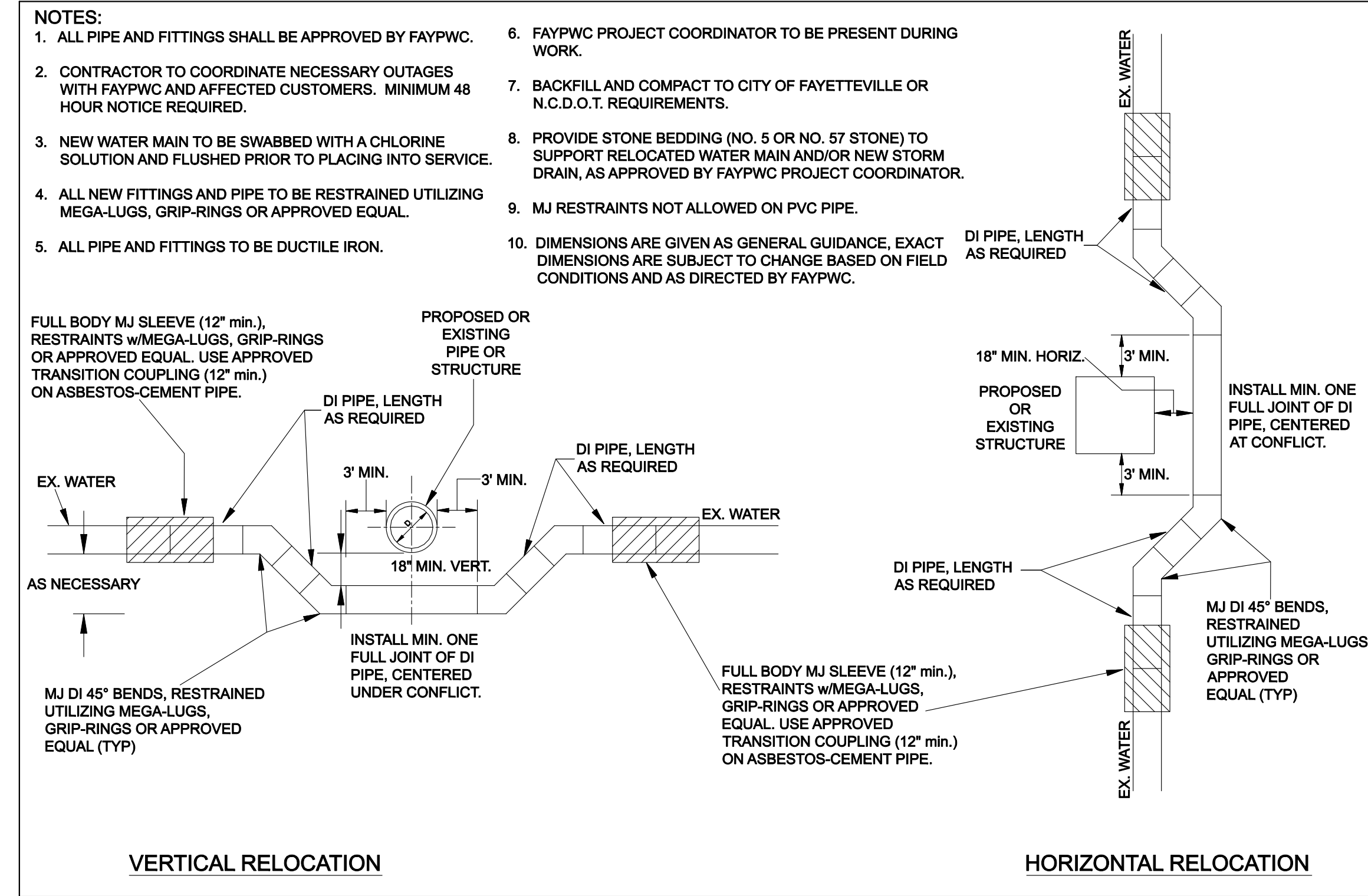
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|---|---|
| PROJECT REFERENCE NO.<br><b>B-4490</b>  | SHEET NO.<br><b>UC-3G</b>   |
| DESIGNED BY:  |  |
| DRAWN BY: <b>NONE</b>   |   |
| CHECKED BY:   |   |
| APPROVED BY:  |   |
| REVISED:  |   |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION<br>UTILITIES ENGINEERING SEC.<br>PHONE: (919) 707-6690<br>FAX: (919) 250-4151<br>2/2/2016 |   |


**UTILITY CONSTRUCTION**




- NOTES:**
- ALL MATERIALS TO BE APPROVED BY FAYPWC.
  - SERVICE LATERAL SIZE 1" TYPE K SOFT COPPER UNLESS OTHERWISE SPECIFIED.
  - SERVICE LATERAL INSTALLATION SHALL BE APPROVED BY FAYPWC.
  - WATER SERVICE LOCK VALVE TO BE LOCATED 18" FROM SANITARY SEWER CLEAN OUT STACK WHEN INSTALLED IN SAME DITCH.
  - WHEN INSTALLED IN A PAVED AREA, METER BOX TO BE SET 1/4" ABOVE FINISHED PAVEMENT GRADES AND PAVEMENT FEATHERED TO TOP OF BOX TO PROVIDE DRAIN AWAY FROM BOX.
  - C.I. METER BOXES SHALL BE USED IN TRAFFIC AREAS SEE W.4B.
  - PERIMETER SOLID CONCRETE BRICK BASE WITH NO GAPS, DO NOT LAY BRICK ON PIPE. SEE INSET "A".
  - WHERE ASPHALT CURB OR STRIP PAVEMENT EXIST, THE LOCATION OF BOX SHALL BE AS DIRECTED BY FAYPWC REPRESENTATIVE.
  - DISTANCE FROM TOP OF LOCK VALVE OPERATING STEM TO TOP OF BOX SHALL BE 8" MIN. TO 10" MAX.
  - RESIDENTIAL METER BOX SHALL BE SET 18" FROM R/W TO CENTERLINE OF METER BOX PERPENDICULAR TO THE R/W.
  - COMMERCIAL METER BOX LOCATION SHALL BE AS APPROVED (PREFER NO METER BE INSTALLED LESS THAN 5' FROM BLDG. TO EDGE OF BOX).
  - LATERAL SHALL BE CENTERED ON LOT UNLESS OTHERWISE NOTED.
  - LATERAL SHALL NOT BE BACK FILLED UNTIL INSPECTED BY FAYPWC PROJECT COORDINATOR.
  - WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC, LEAKAGE AND STERILIZATION TESTS (200 PSI).
  - SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.

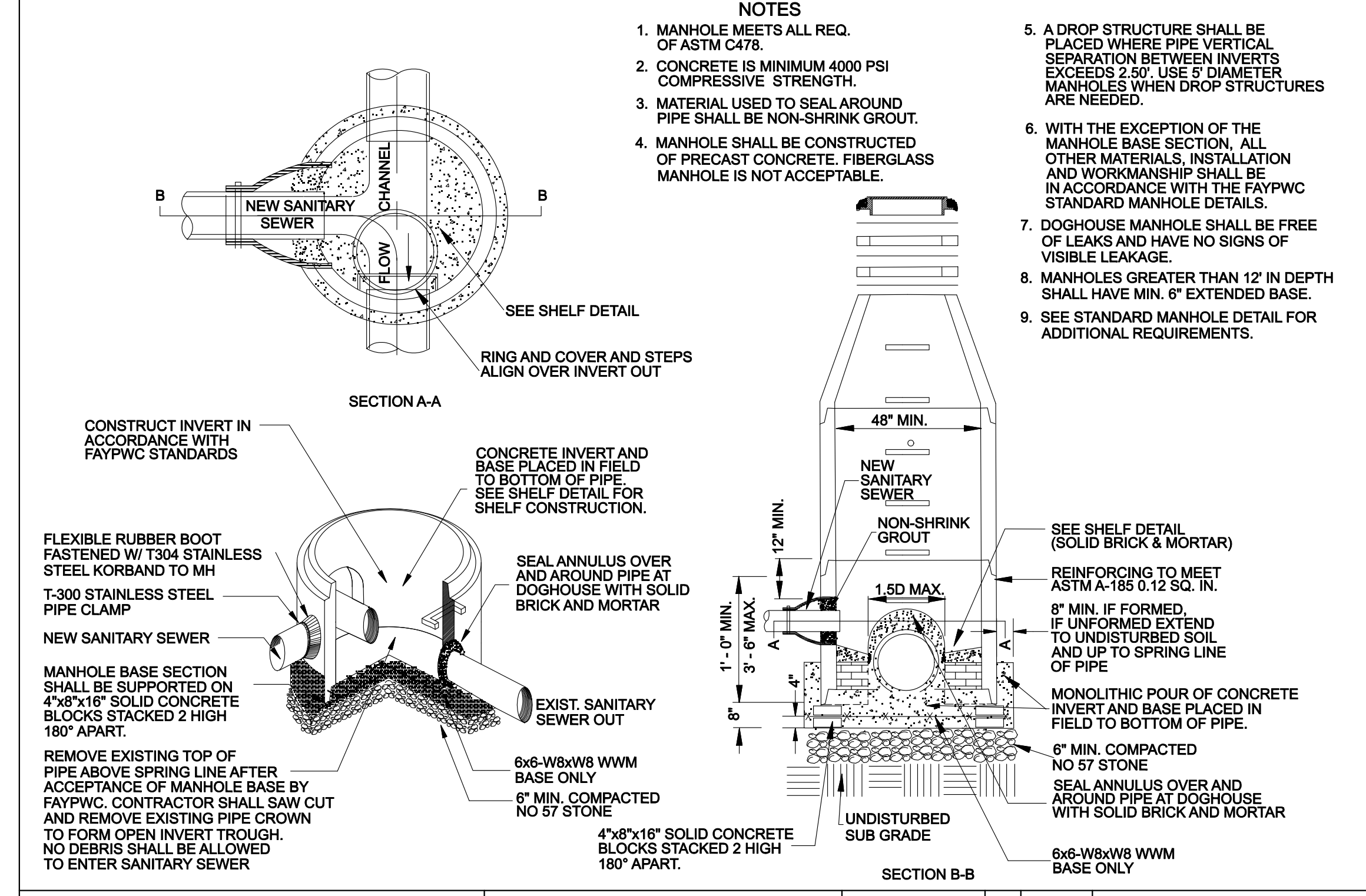
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|--|---|--|---|---|-----|--------|--------------|
| <b>1" COPPER WATER SERVICE LATERAL</b><br>N.T.S. |   | <b>PUBLIC WORKS COMMISSION</b><br>FAYETTEVILLE, N.C. |   |  | NO. | DATE   | REVISION     |
| SHEET NO.<br>1 OF 1                              | DWG. NO. <b>W.24</b><br>DATE: JULY 01, 2015 | DWG. BY: FAYPWC<br>APPROVED BY: J.E.G.               | <b>WATER RESOURCES ENGINEERING DEPARTMENT</b> |   | 1   | MAY 05 | VALVE CHANGE |
| 2015-W24 COPPER SERVICE LATERAL.dwg              |   |  |   |   |     |        |              |




|   |   |  |   |   |     |       |  |
|---|---|--|---|---|-----|-------|--|
| <b>PIPE RELOCATION DETAIL</b><br>N.T.S. |   | <b>PUBLIC WORKS COMMISSION</b><br>FAYETTEVILLE, N.C. |   |  | NO. | DATE  | REVISION                               |
| SHEET NO.<br>1 OF 1                     | DWG. NO. <b>W.26</b><br>DATE: JULY 01, 2015 | DWG. BY: FAYPWC<br>APPROVED BY: J.E.G.               | <b>WATER RESOURCES ENGINEERING DEPARTMENT</b> |   | 1   | 01/12 | REVISED NOTES, ADDED HORIZ. RELOCATION |
| 2015-W26 PIPE RELOCATION DETAIL.dwg     |   |  |   |   |     |       |  |

- CONTRACTOR SHALL REPAIR ALL SEWER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY REPORT ALL SEWER MAIN AND LATERAL BREAKS TO THE FAYPWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH FAYPWC STANDARDS.
- SEWER MAINS, LATERALS, AND MANHOLES SHALL BE INSTALLED UTILIZING A FAYPWC APPROVED CUT-SHEET, INDICATING INSTALLATION DEPTH.
- TRANSFER OF SEWER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
  - INSTALL AND TEST NEW MAINS, MANHOLES, AND LATERALS. CLEANOUTS SHALL BE INSTALLED 18" INSIDE R/W UNLESS OTHERWISE DIRECTED BY FAYPWC.
  - CONNECT EXISTING PLUMBING TO NEW LATERAL UTILIZING THE NECESSARY FITTINGS AS DIRECTED BY FAYPWC.
  - AFTER ALL SERVICES HAVE BEEN TRANSFERRED TO THE NEW MAIN, THE EXISTING SEWER SYSTEM SHALL BE ABANDONED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- WHEN THE EXISTING MAIN IS NOT TO BE ABANDONED, THE CONTRACTOR SHALL UNCOVER THE EXISTING LATERAL AT THE MAIN, CUT AND PLUG BOTH ENDS, REMOVE THE EXISTING CLEANOUT AND COMBINATION, AND PLUG THE LATERAL TO ABANDON THE OLD SEWER.
- SEWER PLUGS SHALL BE INSTALLED TO ELIMINATE ANY DEBRIS OR OTHER MATERIAL FROM ENTERING THE ACTIVE SEWER SYSTEM. UPON ACCEPTANCE OF THE NEW SEWER SYSTEM, THE CONTRACTOR SHALL CLEAN THE NEW MAINS, REMOVE ALL DEBRIS, AND THEN REMOVE THE PLUG.
- SEPARATION REQUIREMENTS:
  - LATERAL SEPARATION OF SEWERS AND WATER MAINS:** WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAIN/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION - IN WHICH CASE:
    - THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL; OR
    - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER MAIN/LATERAL WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL.
  - CROSSING A WATER MAIN OVER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAIN/LATERAL, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAIN/LATERAL SHALL BE CONSTRUCTED OF FERROUS MATERIAL AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
  - CROSSING WATER MAIN UNDER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN/LATERAL, BOTH THE WATER MAIN AND THE SEWER MAIN/LATERAL SHALL BE CONSTRUCTED OF DUCTILE IRON MATERIAL AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
  - CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 24-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A SEWER MAIN/LATERAL CROSSING UNDER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IF DUCTILE IRON PIPE IS USED, A MINIMUM OF SIX(6) INCHES OF SEPARATION SHALL BE MAINTAINED, UNLESS OTHERWISE APPROVED BY FAYPWC.

|  |  |  |   |   |     |          |                       |
|--|--|--|---|---|-----|----------|-----------------------|
| <b>GENERAL NOTES</b><br>SANITARY SEWER UTILITY |  | <b>PUBLIC WORKS COMMISSION</b><br>FAYETTEVILLE, N.C. |   |  | NO. | DATE     | REVISION              |
| SHEET NO.<br>1 OF 1                            | DWG. NO. <b>S.1</b><br>DATE: JULY 01, 2015 | DWG. BY: FAYPWC<br>APPROVED BY: J.E.G.               | <b>WATER RESOURCES ENGINEERING DEPARTMENT</b> |   | 1   | 11/25/08 | MADE CHANGES TO NOTES |
| 2015-S1 SEWER NOTES.dwg                        |  |  |   |   |     |          |                       |



|                                    |  |  |   |   |     |          |                       |
|------------------------------------|--|--|---|---|-----|----------|-----------------------|
| <b>DOGHOUSE MANHOLE</b><br>N.T.S.  |  | <b>PUBLIC WORKS COMMISSION</b><br>FAYETTEVILLE, N.C. |   |  | NO. | DATE     | REVISION              |
| SHEET NO.<br>1 OF 1                | DWG. NO. <b>S.3</b><br>DATE: JULY 01, 2015 | DWG. BY: FAYPWC<br>APPROVED BY: J.E.G.               | <b>WATER RESOURCES ENGINEERING DEPARTMENT</b> |   | 1   | 11/25/08 | MADE CHANGES TO NOTES |
| 2015-S3 DOGHOUSE MH (REV_1-09).dwg |  |  |   |   |     |          |                       |

Prepared by:  
**AECOM**  
AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.  
701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607  
919-854-6200 919-854-6259 (fax)  
F - 0342

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TIME: 7:37:59 AM  
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