

# UTILITY CONSTRUCTION

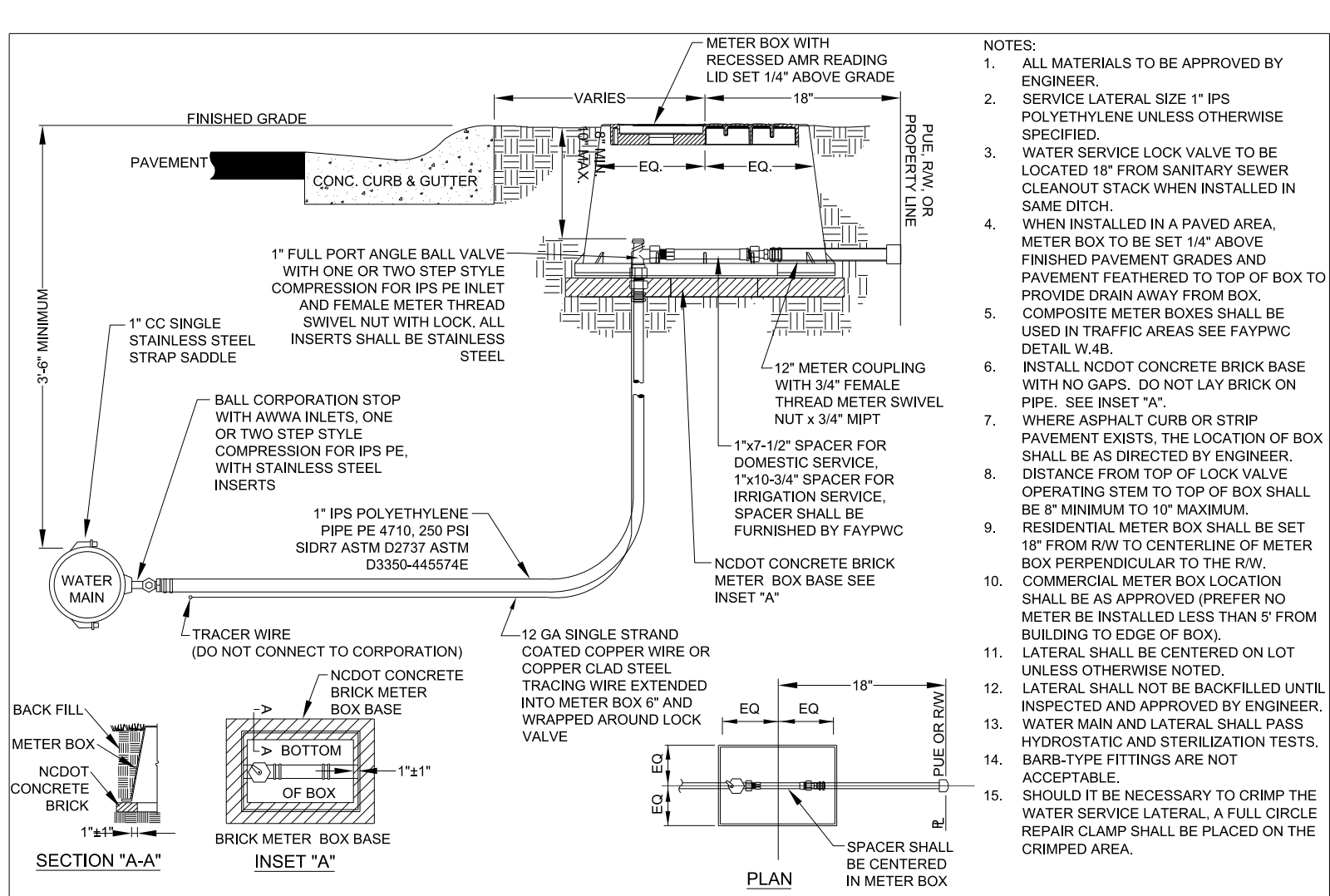
- CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE ENGINEER. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. CONTRACTOR SHALL NOT OPERATE WATER MAIN VALVES WITHOUT ENGINEER APPROVAL AND SHALL COORDINATE ALL VALVE CLOSINGS WITH ENGINEER.
- THE CONTRACTOR SHALL NOT USE HOUSE BIBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THRU RESIDENTS METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENTS PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOGGED SCREENS, ETC.
- WATER MAINS AND LATERALS SHALL BE INSTALLED UTILIZING AN APPROVED CUT SHEET INDICATING INSTALLATION DEPTH.
- TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
  - INSTALL, TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED 18" INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY ENGINEER.
  - TRANSFER EXISTING METER TO NEW METER BOX AND THE NEW WATER LATERAL TO EXISTING DOMESTIC WATER UTILIZING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
  - AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH DETAILS AND SPECIAL PROVISIONS.
  - CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.
  - WHEN MAIN IS NOT TO BE ABANDONED, CONTRACTOR SHALL UNCOVER OLD CORPORATION AT MAIN, CLOSE AND PLUG CORPORATION TO ABANDON OLD SERVICE.
  - CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY THE SERVICE AT THE MAIN, PLUGGING THE CORPORATION, AND TURNING OFF THE CORPORATION. AT THE METER BOX, THE ABANDONED SERVICE IS TO BE CUT OR CRIMPED, AND BURIED A MINIMUM OF 3 FEET BELOW GRADE.
  - ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH PLAN REQUIREMENTS.
  - ALL WORK ON FAYPWC WATER UTILITIES (MAINS, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE ENGINEER SHALL OBSERVE AND APPROVE ALL WORK ON WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE UTILITY SPECIAL PROVISIONS.

- SEPARATION REQUIREMENTS:
    - LATERAL SEPARATION OF SEWERS AND WATER MAINS:** WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAINLATERAL, 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 MAINLATERAL; OR
      - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER MAINLATERAL WITH THE WATER MAIN LOCATED ON 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 MAINLATERAL.
    - CROSSING A WATER MAIN OVER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAINLATERAL, 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 MAINLATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAINLATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH UTILITY SPECIAL PROVISIONS.
    - CROSSING WATER MAIN UNDER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAINLATERAL, BOTH THE WATER MAIN AND THE SEWER MAINLATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH UTILITY SPECIAL PROVISIONS. A FULL JOINT OF DUCTILE IRON PIPE SHALL BE INSTALLED ON THE WATER MAIN CENTERED AT THE POINT OF CROSSING.
    - CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 12 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IN ADDITION, THREE AND A HALF (3.5) FEET OF COVER MUST BE MAINTAINED OVER WATER MAIN OR IT SHALL BE DUCTILE IRON. IF DUCTILE IRON PIPE IS USED THEN TWO AND A HALF (2.5) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN AND A MINIMUM OF 4 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND THE STORM DRAINAGE LINE. WHERE A WATER MAIN CROSSES A STORM DRAINAGE LINE THE MINIMUM OF TWELVE (12) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AND THE WATER MAIN SHALL BE DUCTILE IRON FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
- THE CONTRACTOR SHALL COMPLETE THE REQUIRED WORK AND RESTORE WATER SERVICE WITHIN THE GIVEN TIME PERIOD FOR THE OUTAGE.

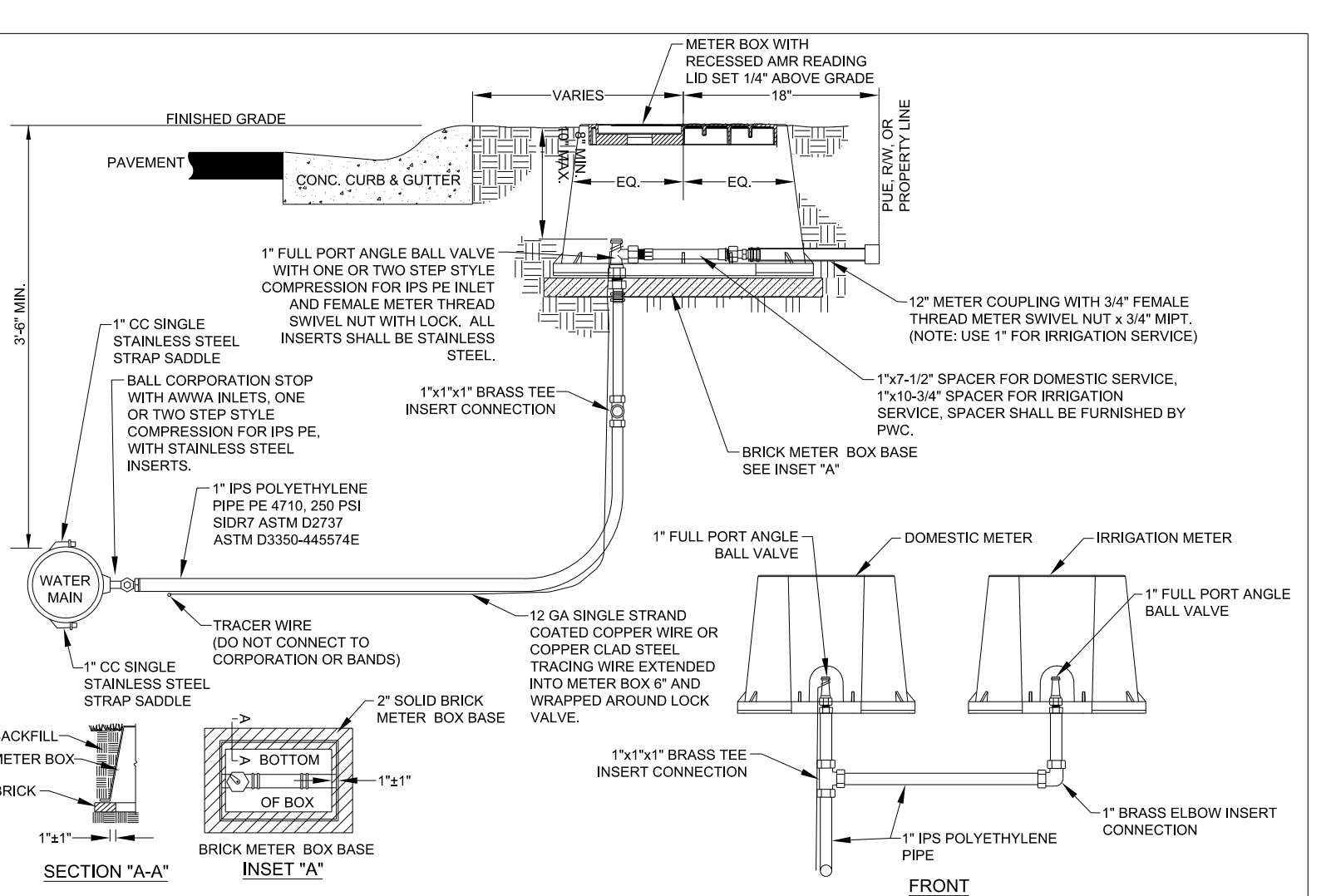
**NOTE:**  
 ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/11	REVISED NOTES AND ADDED NOTE 6	1	07/11	REVISED NOTES AND ADDED NOTE 6
2	07/01/16	ADDED NOTE 6	2	07/01/16	ADDED NOTE 6
3	01/01/16	ADDED NOTES 5, 8	3	01/01/16	ADDED NOTES 5, 8
4	05/29/18	REVISED NOTES 1, 2, 3, 4, C, 7 AND 10 FOR NCDOT U-4405	4	05/29/18	REVISED NOTES 1, 2, 3, 4, C, 7 AND 10 FOR NCDOT U-4405
5	07/24/18	REVISED PER NCDOT COMMENTS	5	07/24/18	REVISED PER NCDOT COMMENTS

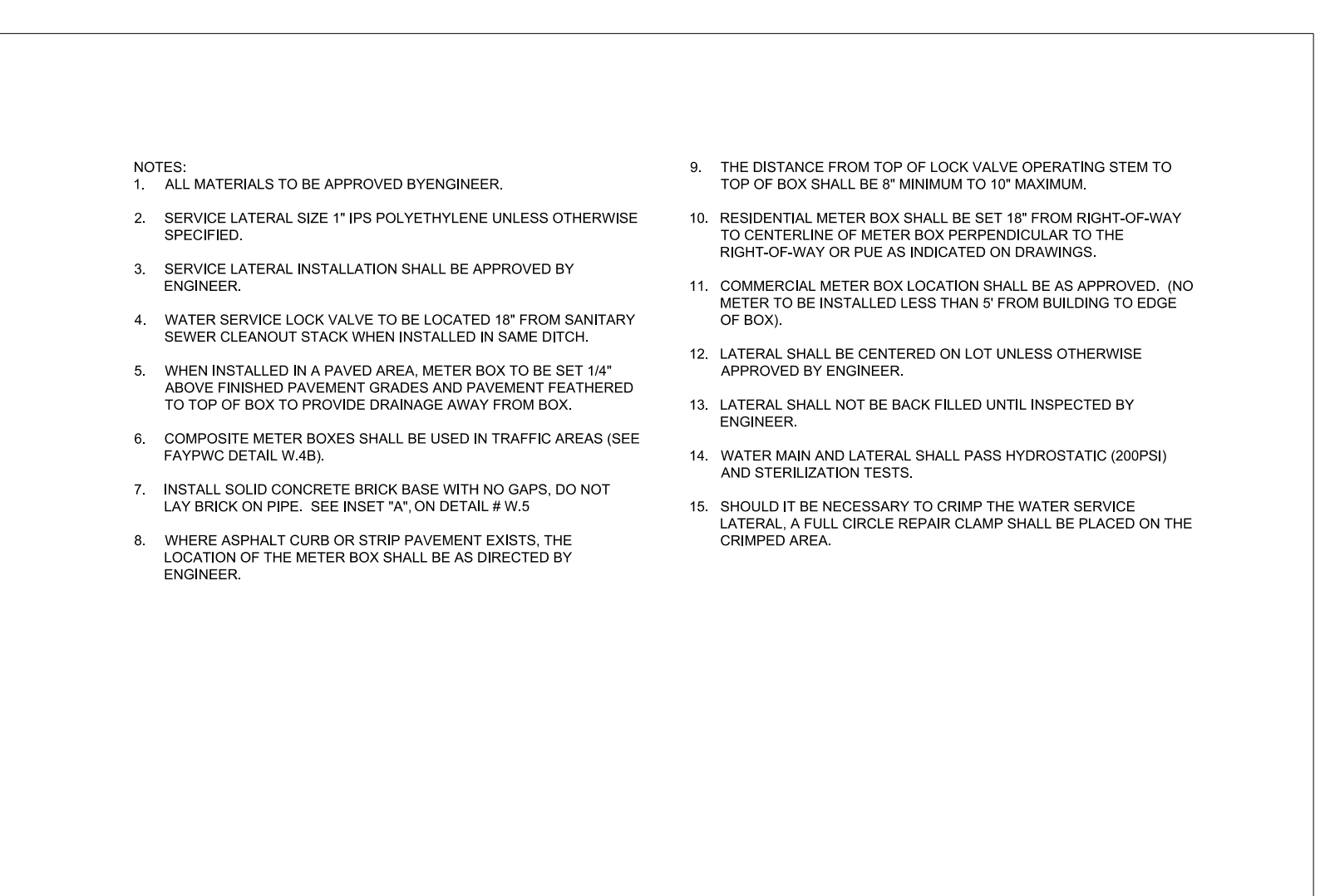
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NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/11	REVISED NOTES AND ADDED NOTE 6	1	07/11	REVISED NOTES AND ADDED NOTE 6
2	07/01/16	ADDED NOTE 6	2	07/01/16	ADDED NOTE 6
3	01/01/16	ADDED NOTES 5, 8	3	01/01/16	ADDED NOTES 5, 8
4	05/29/18	REVISED NOTES 1, 2, 3, 4, C, 7 AND 10 FOR NCDOT U-4405	4	05/29/18	REVISED NOTES 1, 2, 3, 4, C, 7 AND 10 FOR NCDOT U-4405



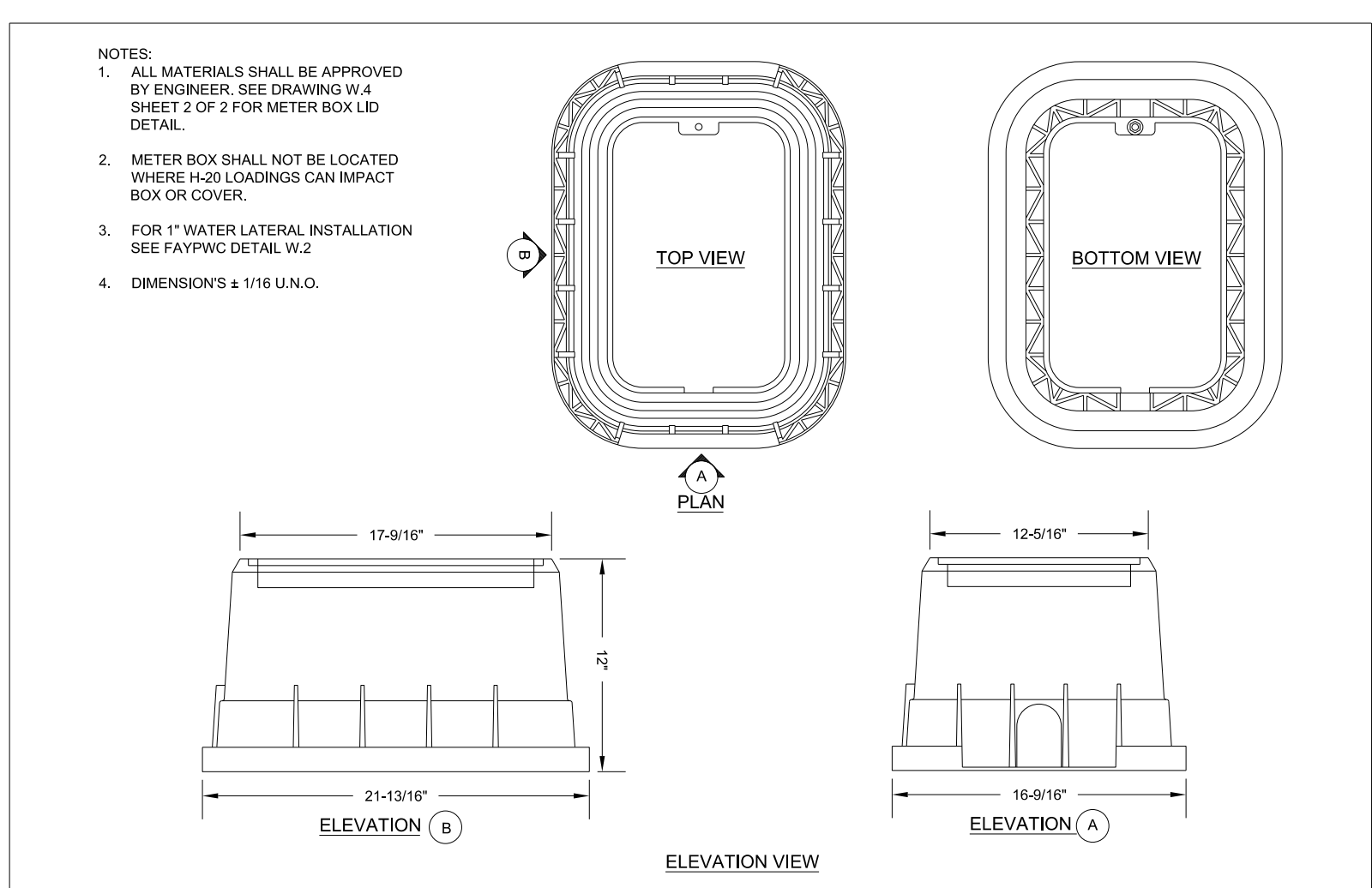
1" WATER SERVICE LATERAL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2	1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2
2	07/13	REVISED NOTE RE: TRACER WIRE	2	07/13	REVISED NOTE RE: TRACER WIRE
3	07/17	REVISED NOTES	3	07/17	REVISED NOTES
4	05/29/18	REVISED NOTES 1, 7 AND 12 AND INCLUDE PLACEMENT OF BOX 18" WITHIN PUE ON SECTION AND PLAN VIEWS	4	05/29/18	REVISED NOTES 1, 7 AND 12 AND INCLUDE PLACEMENT OF BOX 18" WITHIN PUE ON SECTION AND PLAN VIEWS



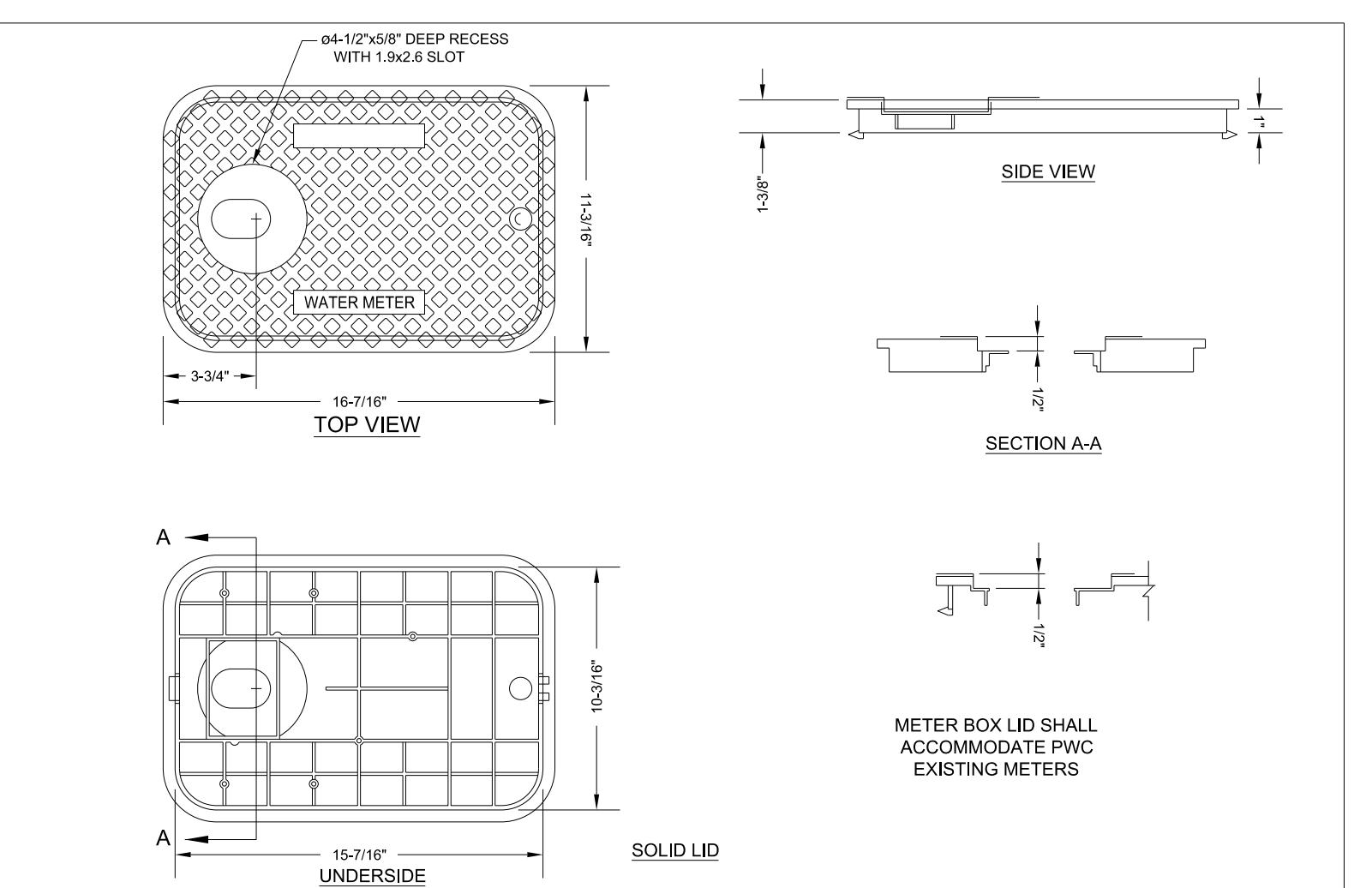
1" SPLIT WATER SERVICE LATERAL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2	1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2
2	07/13	REVISED NOTES	2	07/13	REVISED NOTES
3	05/29/18	INCLUDE PLACEMENT OF BOX 18" WITHIN PUE ON SECTION AND PLAN VIEWS	3	05/29/18	INCLUDE PLACEMENT OF BOX 18" WITHIN PUE ON SECTION AND PLAN VIEWS



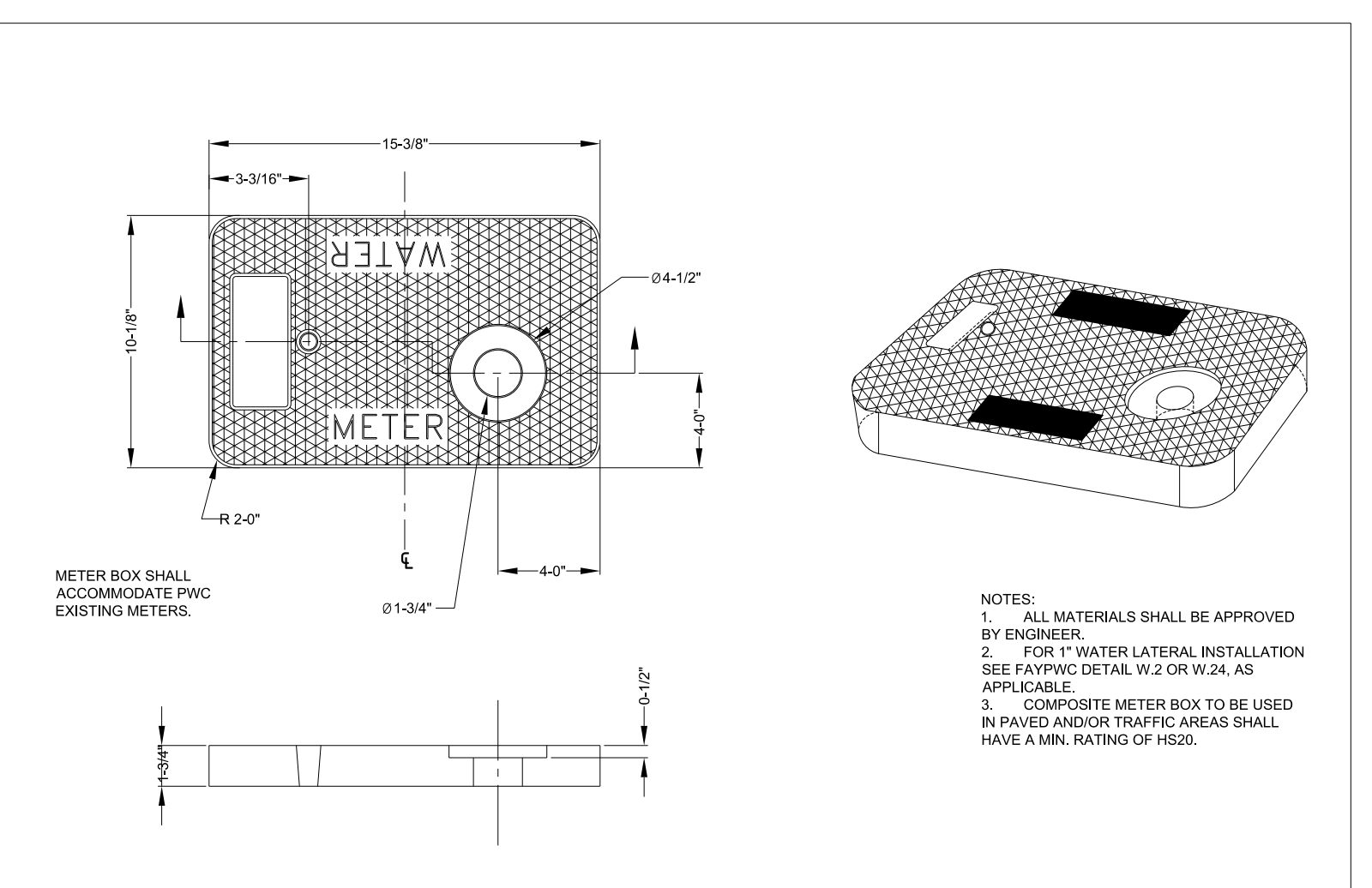
1" SPLIT WATER SERVICE LATERAL NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2	1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2
2	02/16	UPDATED NOTES	2	02/16	UPDATED NOTES
3	05/29/18	REVISED NOTES 1, 3, 8, 10, 12 AND 13 FOR NCDOT U-4405	3	05/29/18	REVISED NOTES 1, 3, 8, 10, 12 AND 13 FOR NCDOT U-4405



1-INCH METER BOX DETAILS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	03/10	CHANGED BOX DIMENSIONS	1	03/10	CHANGED BOX DIMENSIONS
2	05/29/18	REVISED NOTES 1 FOR NCDOT U-4405	2	05/29/18	REVISED NOTES 1 FOR NCDOT U-4405



1-INCH METER BOX LID N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/07	REVISED LID	1	07/07	REVISED LID
2	03/10	CHANGED BOX AND LID DIMENSIONS	2	03/10	CHANGED BOX AND LID DIMENSIONS
3	01/15	REVISED LID	3	01/15	REVISED LID
4	05/29/18	ADDED NOTE FOR METER LID CONFORMANCE TO AMRs	4	05/29/18	ADDED NOTE FOR METER LID CONFORMANCE TO AMRs



1-INCH COMPOSITE METER BOX & COVER N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	03/10	CHANGED BOX & LID DIMENSIONS	1	03/10	CHANGED BOX & LID DIMENSIONS
2	12/15	REPLACED CI BOX w/COMPOSITE BOX	2	12/15	REPLACED CI BOX w/COMPOSITE BOX
3	05/29/18	ADDED NOTE FOR METER LID CONFORMANCE TO AMRs	3	05/29/18	ADDED NOTE FOR METER LID CONFORMANCE TO AMRs

REVISIONS  
 UTILITY REV. - JULY 24, 2018 - REVISIONS TO DETAIL SHEETS  
 03-AUG-2018 09:57  
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