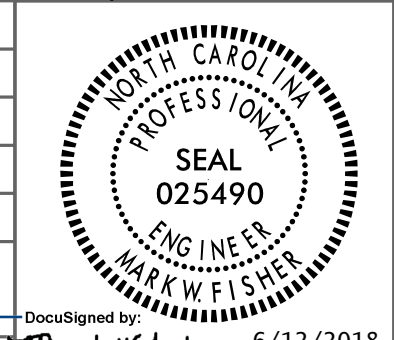


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UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-3A
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: MWF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION PHONE: (919) 707-6650 FAX: (919) 250-4151	
6/12/2018 CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

UC-4 UTILITY NOTES:

- FULLY GROUT MIN. 60LF OF 24" EXIST MAIN. PLUG EACH END OF ABANDONED MAIN PER PWC DETAIL W-22.
- KILL OUT OF BRANCH LINE SIDE OF TAPPING SLEEVE SHALL BE COORDINATED WITH 24" MAIN SHUTDOWN FOR LAYING BACK NEW 24" MAIN INTO EXIST ALIGNMENT (SEE SHEET UC-5)
- WL-2, WL-3 AND WL-1 BETWEEN TAP AT -WL-1- STA 0+00 AND VALVE AT APPROX -WL-1- STA. 8+95 SHALL BE INSTALLED AND OPERATIONAL BEFORE INSTALLING ANY OTHER PORTION OF WL-1
- PURSUANT TO TRAFFIC CONTROL REQUIREMENTS, CONTRACTOR MUST BE COMPLETE WITH THE PORTION OF WL-1 AND WL-2 AS DEFINED IN NOTE 3 BEFORE BEGINNING INSTALLATION OF WL-3. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.
- WL-3 TO BE CONNECTED TO EXISTING MAIN UNDER SERVICE INTERRUPTION. ADHERE TO PWC'S PROCEDURES FOR SHUTDOWN. EXISTING VALVES EV-2A AND EV-2B SHALL BE CRITICAL IN ISOLATING CONNECTING POINTS.
- KILL-OUT OF 24" SIDES OF 24"x24"x8"x8" CROSS TO BE FACILITATED BY SHUTDOWN WHEN KILLING OUT 24" MAIN AT TAPPING SLEEVE FOR WL-1. VALVES INCLUDING EV-1, EV-2A, EV-2B, EV-4 AND TAPPING VALVE FOR WL-1.

UC-5 UTILITY NOTES:

- CONTRACTOR SHALL LAY BACK INTO EXISTING 24" WATER MAIN WITH A MINIMUM OF 20 LF OF RESTRAINED JOINT UNDER PLANNED SERVICE INTERRUPTION.
- CONTRACTOR SHALL PROVIDE A TEMPORARY RESTRAINED PLUG AND TEMPORARY BLOW OFF ASSEMBLY FOR TESTING AND FLUSHING PURPOSES BEFORE RECONNECTING TO EXISTING 24" MAIN. NO SEPARATE PAYMENT SHALL BE MADE FOR TEMPORARY BLOW-OFF ASSEMBLIES.
- CONTRACTOR SHALL REMOVE TEMPORARY 24" PLUG AND SLEEVE TO EXISTING 24" WATER MAIN USING MJ x MJ FULL BODY SLEEVE AND RESTRAIN WITH RESTRAINING GLANDS.
- AFTER SLEEVEING OF PROPOSED 24" MAIN TO EXISTING 24" MAIN, CONTRACTOR SHALL ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS (AWWA C651) WHEN REINSTATING THE 24" MAIN.
- WL-2, WL-3 AND WL-1 BETWEEN TAP AT -WL-1- STA 0+00 AND VALVE AT -WL-1- STA 8+95 SHALL BE INSTALLED AND OPERATIONAL BEFORE INSTALLING ANY OTHER PORTION OF WL-1.
- PURSUANT TO TRAFFIC CONTROL REQUIREMENTS, CONTRACTOR MUST BE COMPLETE WITH THE PORTION OF WL-1 AND WL-2 BEFORE BEGINNING INSTALLATION OF WL-3. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.
- SHUTDOWN TO CONNECT WL-1 TO EXISTING 24" MAIN AND PERFORM KILL-OUT OF EXISTING 24" MAIN AT TAPPING LOCATION SHALL BE FACILITATED THROUGH EV-1, EV-2A, EV-2C, EV-4 AND 24" TAPPING VALVE AND NEW IN-LINE VALVE AT STA. 8+95. WL-2 AND WL-3 SHALL BE INSTALLED AND OPERATIONAL PRIOR TO SHUTDOWN FOR WL-1 TO BACKFEED SKATEWAY DRIVE.
- PWC'S SAMPLING STATION SHALL NOT BE DISTURBED. PROVIDE NEW TAP AND LATERAL TO SAMPLING STATION IF 1" SERVICE LATERAL IS IN CONFLICT WITH PROPOSED DRAINAGE. SAMPLING STATION SHALL NOT BE INTERRUPTED DURING ANNUAL BURN OUT, WHICH OCCURS EVERY MARCH, OTHERWISE, SERVICE TO SAMPLING STATION MAY BE INTERRUPTED SHOULD PLANNED SHUTDOWNS IMPACT THIS SERVICE LATERAL.
- CITY OF FAYETTEVILLE HAS A 1" SERVICE FOR MEDIAN IRRIGATION. PROVIDE NEW TAP AND LATERAL TO RECONNECT 1" IRRIGATION SERVICE IF IT IS IN CONFLICT WITH PROPOSED DRAINAGE. CONTRACTOR SHALL REPLACE ALL DAMAGED IRRIGATION PIPING (INCIDENTAL AND THAT IS IN CONFLICT WITH WORK) AT NO ADDITIONAL COST.

UC-6 UTILITY NOTES:

- EXISTING METER AND SERVICE WAS NOT LOCATED. CONTRACTOR TO PROVIDE 1" METER SERVICE. COORDINATE LOCATION WITH PWC'S PROJECT COORDINATOR.
- INSTALL AND HAVE OPERATIONAL WL-5 BETWEEN TAPPING VALVE TO 24"x24"x24" TEE AT -WL-5- STA 8+37.33. STUB-OUT WL-5 FOR CONNECTION TO EXISTING 24" MAIN. INSTALL AND HAVE OPERATIONAL WL-6 BETWEEN WL-5 AND 24" TAPPING VALVE FOR WL-6. STUB-OUT WL-7.
- PURSUANT TO TRAFFIC CONTROL REQUIREMENTS, CONTRACTOR MUST BE COMPLETED WITH WORK ON WL-5 AS DEFINED IN ITEM 2 BEFORE BEGINNING INSTALLATION ON WL-6. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.
- CONNECT EXISTING METERS ON EXISTING 24" MAIN TO WL-5 BEFORE PERFORMING EXISTING MAIN AND HYDRANT LEG ADJUSTMENTS BETWEEN EV-4 AND EV-8.
- COORDINATE SHUTDOWN TO PERFORM EXISTING MAIN AND HYDRANT LEG ADJUSTMENTS BETWEEN EV-4 AND EV-8 WITH PWC'S PROJECT COORDINATOR AND KILLING OUT EXISTING MAIN AT TAPPING SLEEVE FOR WL-5 AT -WL-5- STA 0+00. EXISTING VALVES EV-4, EV-5, EV-8, AND TAPPING SLEEVE FOR WL-5 AT -WL-5- STA 0+00 SHALL FACILITATE SHUTDOWN AND MAINTAIN UNINTERRUPTED SERVICE TO CUSTOMERS.
- AFTER COMPLETING ALTERATIONS IN NOTE 5, COMPLETE CONNECTION OF WL-5 TO EXISTING 24" MAIN BY CUTTING IN AND KILLING OUT EXISTING MAIN AT TAPPING SLEEVE FOR WL-6 UNDER PLANNED SHUTDOWN. CONSTRUCTION TIME FOR THIS WORK SHALL BE LIMITED TO WEEKEND AND SHALL NOT BEGIN UNTIL 6:00 P.M. ON FRIDAY. ALL WORK MUST BE COMPLETED AND WATER MAIN BACK IN OPERATION BEFORE 7:00 A.M. MONDAY. EXISTING VALVES EV-4, EV-5, EV-8A AND EV-9 SHALL FACILITATE SHUTDOWN TO MINIMIZE SERVICE INTERRUPTIONS.
- WL-5 SLEEVE INTO EXISTING MAIN SHALL ENTAIL THE REMOVAL OF ONE 24" RJ BUTTERFLY VALVE AND ONE 24"x24"x24" RJ TEE. EV-8A IS RESTRAINED AND SHALL NOT BE DAMAGED SO WL-5 CAN BE RECONNECTED TO IT USING NIPPLE AND FULL BODY MJ SLEEVE AND RESTRAINING GLANDS.
- DURING INSTALLATION OF WL-5, CONTRACTOR SHALL REMOVE AND REPLACE 48 LF OF RCP AS SHOWN ON PLANS.
- TEMPORARY SHORING IF REQUIRED FOR BUILDING FOUNDATION PROTECTION OR MAINTENANCE OF TRAFFIC WILL BE PAID AS TEMPORARY SHORING IN SQUARE FEET BELOW GROUND SURFACE.

UC-7 UTILITY NOTES

- WL-8 SHALL BE BUILT OUT FROM TAPPING SLEEVE AND VALVE (SEE SHEET UC-8) TO TIE IN TO EXISTING 24" MAIN.
- SEE UTILITY NOTES ON SHEET UC-8 FOR SPECIAL SEQUENCING OF INSTALLATION AND CUT IN REQUIREMENTS FOR WL-8, WL-10, AND 24" MAIN ABANDONMENT.
- LAY BACK MINIMUM OF ONE FULL RESTRAINED JOINT.

UC-8 UTILITY NOTES:

- THE PORTION OF WL-8 WITHIN RAEFORD ROAD (BETWEEN APPROX. -WL-8- STA 12+00 AND APPROX. -WL-8- STA 17+00) SHALL BE INSTALLED DURING WEEKNIGHT TIMES TO FACILITATE MAXIMUM OF TWO LANES OF CLOSURE. WORK EACH NIGHT SHALL NOT BEGIN BEFORE 7:00 P.M. ALL WORK UTILITIZING THE SECOND LANE OF CLOSURE SHALL BE COMPLETED BEFORE 6:00 A.M.
- FULLY GROUT MIN. 60 LF OF 24" EXIST. MAIN. PLUG EACH END OF ABANDONED MAIN PER PWC DETAIL W-22.
- KILL OUT OF LINE SIDE OF TAPPING SLEEVE SHALL BE COORDINATED WITH 24" MAIN SHUTDOWN FOR LAYING BACK NEW 24" MAIN INTO EXISTING ALIGNMENT (SEE SHEET UC-7 AND UC-8 ; WL-8 AND WL-10).
- INSTALL WL-8 AND WL-10 AND HAVE EACH SEGMENT OPERATIONAL TO LAST IN LINE VALVE ON EACH SEGMENT (BETWEEN -WL-8- STA 1+10 AND APPROX. -WL-8- STA 17+10 AND BETWEEN APPROX. -WL-10- STA 1+00 AND -WL-10- STA 25+50). ALL EXISTING METERS THAT OVERLAP THESE RELOCATION SEGMENTS SHALL BE SWITCHED OVER TO THESE NEW SEGMENTS. ALL CROSS-LINES FOR WL-10 SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES. ARRAN CIRCLE AND STRICKLAND BRIDGE ROAD (WL-11 AND WL-12) RECONNECTION SHALL BE COMPLETED AND OPERATIONAL CONCURRENT WITH WL-10 INSTALLATION. EXISTING BRANCH VALVES FOR ARRAN CIRCLE AND STRICKLAND BRIDGE ROAD SHALL BE PERMANENTLY CLOSED AND PROPERLY ABANDONED. SEE UTILITY NOTES ON UC-9 FOR ADDITIONAL SEQUENCING PROVISIONS FOR UC-12 THAT SHALL BE PERFORMED BEFORE SHUTDOWN FOR WL-8 AND WL-10.
- PRIOR TO TAPPING THE EXISTING 24" WATER MAIN CONTRACTOR SHALL INSTALL SPLIT RING BELL HARNESSES ON EXISTING PIPE EQUIVALENT TO 3 FULL JOINT LENGTHS. MJxMJ FULL BODY SOLID TAPPING SLEEVE WITH RESTRAINING GLANDS SHALL BE PLUGGED AND RESTRAINED ON EXISTING WATER LINE ADJACENT TO WL-8
- TEMPORARILY BURY TEMPORARY 6" MAIN AT ALL DRIVEWAY CROSSINGS TO MAINTAIN INGRESS/EGRESS FOR THESE PARCELS.
- RECONNECT WL-8 AND WL-10 TO EXISTING MAIN UNDER SERVICE INTERRUPTION. ADHERE TO PWC'S PROCEDURES FOR SHUTDOWN. EXISTING VALVES EV-8A, EV-12, EV-12A, EV-13, EV-20, EV-20A AND EV-22 IN ISOLATING EXISTING 24" MAIN. KILL-OUT OF 24" TAPPING SLEEVE (LINE SIDE OF 24"x24"x24") FOR WL-8 AND WL-10 TO BE FACILITATED UNDER SAME SHUTDOWN. AFTER COMPLETION OF KILLOUTS AND CUT IN CONSTRUCTION, RESUME OPERATION OF EXISTING 24" WATER MAIN BY OPENING EV-8A, EV-20, EV-20A AND EV-22 AND COMPLETE ABANDONMENT OF 24" ADJACENT TO WL-8 AND WL-10.
- EXISTING 24" WATER MAIN IS RESTRAINED AT DESIGNATED LOCATION OF CUT IN FOR WL-10. WL-10 CAN BE SLEEVED IN WITH FULL BODY SLEEVE AND RESTRAINING GLANDS WITHOUT LAYING BACK ONE FULLY JOINT INTO EXISTING SYSTEM.

UC-9 UTILITY NOTES:

- ADHERE TO SPECIAL PROVISIONS OF OPEN CUTTING EXISTING PAVEMENT.
 - EXISTING IN LINE VALVE TO FACILITATE SHUTDOWN FOR RECONENCTION OF THE EXISTING WATER MAIN IN OAK FOREST DR IS APPROXIMATELY 325 LF FROM PROPOSED RECONNECTION POINT
- FULLY GROUT MIN. 60 LF OF 12" EXIST. MAIN. PLUG EACH END OF ABANDONED MAIN PER PWC DETAIL W-22.
- KILL OUT OF LINE SIDE OF TAPPING SLEEVE SHALL BE COORDINATED WITH 12" MAIN SHUTDOWN.
- INSTALL WL-12 AND HAVE OPERATIONAL PRIOR TO PLANNED SHUTDOWN FOR CONNECTION OF WL-10 BACK TO EXISTING 24" MAIN. WL-12 SHALL BE CONNECTED AS SHOWN TO EXISTING 12" MAIN TO MAINTAIN OPERATION AND TO FACILITATE KILL OUT OF EXISTING 12" MAIN CROSSING OF RAEFORD ROAD.
- 12"x12"x12" TAPPING SLEEVE AND VALVE SHALL BE INSTALLED TO MAINTAIN OPERATION UNTIL WL-13 IS INSTALLED AND OPERATION; THIS SHORT LOOP BETWEEN WL-12 AND EXISTING 12" MAIN SHALL BE ABANDONED AFTER WL-13 IS IN OPERATION.
- KILL OUT OF PORTION OF EXISTING 12" MAIN THAT FEEDS STRICKLAND BRIDGE ROAD (NORTH) AND NORTH SIDE OF RAEFORD ROAD SHALL BE FACILITATED BY EV-13, EV-14 AND EV-15.
- PURSUANT TO TRAFFIC CONTROL REQUIREMENTS, NO WORK ON THE SOUTH SIDE SHALL BE IN PROGRESS WHILE INSTALLING WL-12 AND CONNECTING IT TO THE EXISTING 12" MAIN ON STRICKLAND BRIDGE ROAD. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.
- TEMPORARY SHORING IF REQUIRED FOR BUILDING FOUNDATION PROTECTION OR MAINTENANCE OF TRAFFIC WILL BE PAID AS TEMPORARY SHORING IN SQUARE FEET BELOW GROUND SURFACE

UC-9A UTILITY NOTES

- CONTRACTOR SHALL SUBMIT A DETAILED SEWAGE BYPASS PLAN FOR MAINTAINING ALL SEWAGE FLOWS THAT WILL BE IMPACTED BY THE SEWER RELOCATION AND ADHERE TO ALL REQUIREMENTS IN OWNER'S WASTE WATER CONTROL SPECIFICATIONS
- CONTRACTOR SHALL VERIFY EXISTING SEWER SERVICE LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS.
- CONTRACTOR SHALL COORDINATE WITH PWC AND NCDOT PROJECT COORDINATORS TO DETERMINE IF PARCEL 87 IS CONNECTED TO EXISTING SEWER. IF CONNECTED, CONTRACTOR SHALL DETERMINE LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS.