

PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-3A
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UNTIL ALL SIGNATURES ARE COMPLETED**

# UTILITY CONSTRUCTION

## UC-4 UTILITY NOTES:

- FULLY GROUT MIN. 60LF OF 24" EXIST MAIN. PLUG EACH END OF ABANDONED MAIN PER UTILITY OWNER KILLOUT 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 UTILITY OWNER'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 TO ISOLATE KILL OUT INCLUDE 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 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 SLEEVING OF PROPOSED 24" MAIN TO EXISTING 24" MAIN, CONTRACTOR SHALL ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS WHEN REINSTATING THE 24" MAIN.
- WL-2, WL-3 AND WL-1 BETWEEN TAPPING SLEEVE AND VALVE 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 EXISTING SERVICES ON SKATEWAY DRIVE.
- UTILITY OWNER'S SAMPLING STATION SHALL NOT BE DISTURBED. PROVIDE NEW TAP AND LATERAL TO SAMPLING STATION IF SAMPLING STATION'S 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. EXISTING IRRIGATION PIPING HAS NOT BEEN LOCATED AND IS NOT SHOWN ON SHEET.
- ALL DUCK AND UNDERS BETWEEN WL-1 AND WL-5 SHALL BE PERFORMED DURING PLANNED OUTAGES. CONTRACTOR SHALL CONFORM TO CUT IN CONSTRUCTION REQUIREMENTS WHEN PERFORMING THIS WORK.

## UC-6 UTILITY NOTES:

- EXISTING METER AND SERVICE WAS NOT LOCATED FOR MULTIPLE PARCELS. CONTRACTOR TO PROVIDE 1" METER SERVICE FOR THOSE PARCELS THAT CURRENTLY ARE SERVED BY UTILITY OWNER. COORDINATE LOCATION WITH UTILITY OWNER'S PROJECT COORDINATOR.
- INSTALL AND HAVE OPERATIONAL WL-5 BETWEEN TAPPING VALVE AND 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 NOTE 2 (ABOVE) BEFORE BEGINNING INSTALLATION ON WL-6. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.
- TRANSFER EXISTING METERS FROM EXISTING 24" MAIN TO WL-5 BEFORE PERFORMING DUCK AND UNDERS ON EXISTING MAIN AND HYDRANT LEG ADJUSTMENTS BETWEEN EV-4 AND EV-8.

## UC-6 UTILITY NOTES:

- COORDINATE SHUTDOWN TO PERFORM EXISTING MAIN AND HYDRANT LEG ADJUSTMENTS BETWEEN EV-4 AND EV-8 WITH UTILITY OWNER'S PROJECT COORDINATOR AND KILLING OUT EXISTING MAIN AT TAPPING SLEEVE FOR WL-5, STA 0+00. EXISTING VALVES EV-4, EV-5, EV-8, AND TAPPING SLEEVE FOR WL-5 AT STA 0+00 SHALL FACILITATE SHUTDOWN AND MAINTAIN UNINTERRUPTED SERVICE TO CUSTOMERS.
- AFTER COMPLETING ALTERATIONS IN NOTE 5 (ABOVE), 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 6:00 A.M. MONDAY. EXISTING VALVES EV-4, EV-5, EV-8A AND EV-9 SHALL FACILITATE SHUTDOWN TO MINIMIZE SERVICE INTERRUPTIONS.
- SLEEVING OF WL-5 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 SPOOL PIECE 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 UNLESS ACTUAL CONDITIONS DIFFER, OR WORK CAN BE PERFORMED SO AS NOT TO INTERFERE WITH EXISTING DRAINAGE.

## UC-7 UTILITY NOTES

- WL-8 SHALL BE BUILT OUT FROM TAPPING SLEEVE AND VALVE (SEE SHEET UC-8) TO TIE INTO EXISTING 24" MAIN ON THIS SHEET.
- 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 WHEN SLEEVING INTO EXISTING MAIN.

## 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 KILLOUT 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 FOR WL-8 AND UC-8 FOR 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 TRANSFERED 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 UC-9 UTILITY NOTES 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. MJ x MJ FULL BODY SOLID TAPPING SLEEVE WITH RESTRAINING GLANDS SHALL BE PLUGGED AND RESTRAINED ON LINE SIDE. NO SEPARATE PAYMENT SHALL BE MADE FOR PIPE HARNESSES.

- 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 UTILITY OWNER'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 UNLESS ACTUAL CONDITIONS.

## 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 KILLOUT DETAIL W-22.
- KILL OUT OF LINE SIDE OF TAPPING SLEEVE FOR WL-13 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 AND SHORT LOOP BETWEEN EXISTING 12" MAIN AND WL-13 SHALL BE INSTALLED TO MAINTAIN OPERATION UNTIL WL-13 IS INSTALLED AND OPERATIONAL. THIS SHORT LOOP 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.

## 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 UTILITY OWNER'S PROJECT COORDINATOR TO DETERMINE IF PARCEL 87 IS CONNECTED TO EXISTING SEWER. IF CONNECTED, CONTRACTOR SHALL DETERMINE LOCATION AND DEPTH PRIOR TO ORDERING MATERIALS.

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REVISIONS  
 UTILITY REV. - JULY 23, 2008 - REVISED ALL CONSTRUCTION NOTES  
 27-Jul-2018 14:14  
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 Fayetteville Public Works Commission  
 \2015\017700FA - Reeford Road NCDOT U 4405\CADD\NCDOT PLANS\Utilities\Engineering\UC\Proj\U4405\_ut\_notes\_UC03a\_psh.dgn  
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