


# UTILITY CONSTRUCTION

PROJECT REFERENCE NO.		SHEET NO.	
U-4405		UC-30	
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## UTILITY CONSTRUCTION

### UC-19 UTILITY NOTES:

1. 8" RJ GATE VALVE ON SCOTLAND DRIVE AND 8" WATER MAIN THAT WILL CONTINUE SOUTH ON SCOTLAND DRIVE CONNECTING TO EXISTING 8" MAIN THAT ROUTES ACROSS FRED ANDERSON NISSAN COMPLETING A LOOP AND CONNECTING TO EXISTING MAIN ON ALAMANCE (OUTSIDE OF PROJECT LIMITS) WILL BE INSTALLED AND WILL BE OPERATIONAL PRIOR TO THE INSTALLATION OF WL-19A, WL-19B AND WL-19C. DESIGN PLANS FOR THE PROPOSED 8" MAIN THAT CONTINUES SOUTH ON SCOTLAND DRIVE WILL BE AVAILABLE TO CONTRACTOR AFTER CONTRACT AWARD.

2. PROPOSED 8" MAIN AS NOTED IN NOTE 1 ABOVE SHALL BE CONNECTED TO PROVIDE SOURCE WATER AND FACILITATE THE INSTALLATION AND TESTING OF WL-19A, WL-19B AND WL-19C.

3. INSTALL AND HAVE OPERATIONAL WL-19A FROM CONNECTION TO 8" RJ GATE VALVE AS NOTED IN NOTE 1 TO IN-LINE VALVE (APPROX. STA. 0+02) ON THE OPPOSING SIDE OF RAEFORD. CROSSING SHALL BE PERFORMED IN ACCORDANCE WITH TRAFFIC CONTROL REQUIREMENTS. NO LONGITUDINAL WORK SHALL BE OCCURRING ON THE SOUTH OR NORTH SIDES. FULLY RESTRAIN IN LINE VALVE AND BRANCH VALVES FOR WL-19B AND WL-19C.

4. PRIOR TO PERFORMING THE CROSSING VIA BORE AND JACK FOR WL-19A, CONTRACTOR SHALL RELOCATE METER FOR PARCEL 209 TO DESIGNATED LOCATION (OUTSIDE THE BORE FOOTPRINT) AND PROVIDE TEMPORARY 1" SERVICE TO RELOCATED METER. TEMPORARY 1" SERVICE SHALL BE TAPPED OFF OF THE EXISTING 12". ONCE WL-2R2 IS OPERATIONAL, RECONNECT METER TO 30" USING NEW LATERAL. REMOVE ALL PART OF THE TEMPORARY LATERAL.

5. BUILD OUT WL-19B AND WL-19C FROM WL-19A TO EACH END OF RESPECTIVE LINE.

6. EXIST. 2" MAIN CONFLICTS WITH PROP. TRENCH FOR WL-19C BETWEEN STA. 7+50 AND STA. 12+00. COORDINATE WITH UTILITY OWNER'S PROJECT COORDINATOR TO SHUT DOWN EXIST. 2" MAIN USING EXIST. 2" BALL VALVE BETWEEN WL-STA. 12+00 AND EXIST. SERVICE FOR PARCEL 220. WATER SERVICE SHALL BE MAINTAINED TO PARCEL 220 DURING INSTALLATION OF WL-19C. OUTAGE FOR OTHER EXISTING METER ON EXISTING 2" MAIN SHALL BE COORDINATED AS NOTED IN NOTE 7.

7. COORDINATE SERVICE INTERRUPTION FOR EXIST. 2" METER NEAR STA. 8+10 WITH THE ENGINEER. EXISTING 2" METER SERVICE PROVIDES IRRIGATION TO THE MEMORIAL GARDENS, WHICH ARE MAINTAINED BY THE CITY OF FAYETTEVILLE. OUTAGE SHALL BE MINIMIZED BY HAVING WL-19C INSTALLED AND OPERATIONAL UP TO IN LINE VALVE AT STA. 8+30. TRANSFER EXISTING 2" METER TO WL-19C BEFORE CONTINUING INSTALLATION TO WL-19C TERMINUS.

8. INSTALL AND HAVE WL-19C OPERATIONAL BETWEEN STA. 8+30 AND PLUGGED END WHILE MAINTAINING WATER TO PARCEL 220. RELOCATE WATER METER FOR PARCEL 220 AND CONNECT IT TO WL-19C.

9. KILLOUT EXIST. 2" MAIN AT EXIST. 12" MAIN. SHUT EXIST. VALVE AND PLUG 2" MAIN IN ACCORDANCE WITH KILLOUT DETAIL.

10. SEE SEQUENCE NOTE 2 ON UC-18 UTILITY NOTES AND NOTE 1 ON UC-20 UTILITY NOTES FOR INSTALLATION OF WL-20R2.

11. CONTRACTOR SHALL SAFEGUARD EXIST. 12" AC DURING INSTALLATION OF 30" BY BUILDING OUT 30" WATER MAIN AS NOTED IN NOTE 12.

12. INSTALLATION OF WL-20R2 BETWEEN IN-LINE VALVE NEAR STA. 24+25 AND IN-LINE VALVE NEAR STA. 33+10 SHALL REQUIRE INTERRUPTION OF SERVICE OF EXISTING 12" MAIN ON NORTH SIDE BECAUSE OF THE FOLLOWING:

A. POTENTIAL FOR EXCAVATION OF THE 30" WATER MAIN TO CONFLICT WITH EXISTING 12" MAIN

B. POTENTIAL FOR EXCAVATION TO CAUSE DAMAGE TO AC MATERIAL RESULTING IN RUPTURE OR BREAK

13. PRIOR TO INTERRUPTION OF SERVICE OF THE EXISTING 12" MAIN, RELOCATE METER FOR PARCEL 227 AND PROVIDE 1" TEMPORARY SERVICE FROM EXIST. 12" PVC MAIN IN MONTCLAIR DRIVE TO PARCEL 227.

14. INTERRUPTION OF EXIST. 12" MAIN AS NOTED IN NOTE 11 SHALL BE FACILITATED BY EV-50A, EV-50B, EV-50C AND EV-51.

15. INSTALLATION OF WL-20R2 BETWEEN STA. 24+25 AND STA. 33+10 SHALL ADHERE TO TRAFFIC CONTROL PROVISIONS: WORK SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. OPEN EXCAVATIONS SHALL BE EQUIPPED WITH TRAFFIC RATED PLATED OR RETURNED TO DRIVABLE CONDITIONS BY 6:00 A.M. EACH DAY.

16. INSTALL WL-20R2 AND HAVE IT OPERATIONAL BETWEEN STA. 24+25 AND STA. 33+10. RESTRAIN BRANCH VALVE TO FACILITATE RECONNECTION OF 12" MAIN WITHIN MONTCLAIR DRIVE. PROVIDE NEW LATERAL FROM 30" MAIN TO RELOCATED METER FOR PARCEL 227 TO COMPLETE TRANSFER OF SERVICE AND REMOVE 1" TEMPORARY LATERAL AND PLUG TAP ON EXISTING 12" MAIN FOR TEMPORARY 1" LATERAL. KILL OUT EXIST. MAIN BETWEEN EV-50A AND EV-51.

17. RECONNECT EXIST. 12" MAIN IN MONTCLAIR DRIVE UNDER SERVICE INTERRUPTION ONCE SEGMENT OF WL-20R2 AS NOTED IN NOTE 14 IS OPERATIONAL. UPON RECONNECTION OF 12" MAIN IN MONTCLAIR DRIVE, KILL-OUT BRANCH AT EV-50C.

### UC-20 UTILITY NOTES

1. BUILDOUT WL-20R2 FROM PROP. 12" CROSSING UNDER RAEFORD (WL-22) THAT WILL BE STUBBED WHEN INSTALLING WL-21 AND WL-22. REFERENCE UC-21 UTILITY NOTES FOR SEQUENCE OF WL-21 AND WL-22.

2. INSTALL WL-20R2 AND HAVE IT OPERATIONAL TO ITS IN-LINE VALVE (APPROX. STA. 33+10). ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. ALL CROSS-LINES FOR WL-20R2 SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES. RECONNECTIONS OF THESE CROSS-LINES INCLUDING FIRE LINES SHALL BE COMPLETED AND OPERATIONAL CONCURRENT WITH WL-20R2 INSTALLATION. KILL OUT EXISTING CROSS-LINES AT EXISTING BRANCH VALVES CONFORMING TO KILL OUT DETAIL.

3. SEE SEQUENCE NOTES UNDER UC-19 UTILITY NOTES FOR PORTION OF WL-20R2 BETWEEN STA. STA. 24+25 AND STA. 33+10.

4. SEE SEQUENCE NOTES FOR SEWER ON UC-20A AND UC-20B UTILITY NOTES.

5. BUILDOUT WL-21 FROM TAPPING SLEEVE AND VALVE IN ROXIE AVENUE (SEE SHEET UC-22) TO STA 0+00 (THIS SHEET).

6. 2" SERVICE ON WL-20R2 NEAR STA. 40+25 IS ASSUMED TO BE IRRIGATION TAP FOR BYRAN HONDA. CONTRACTOR TO COORDINATE WITH UTILITY OWNER'S PROJECT COORDINATOR PRIOR TO PROVIDING NEW SERVICE AND ORDERING MATERIAL AND SHALL CONFIRM CONNECTIVITY AND SIZE.

### RIGHT OF ENTRY NOTE:

7. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING RIGHT OF ENTRY TO RECONNECT NEW MAIN TO EXISTING FIRE LINE IF RECONNECTION CANNOT BE MADE WITHIN PUE.

### UC-20A/20-B UTILITY NOTES

1. INSTALLATION OF SL-3 AND SL-4 SHALL ADHERE TO THE INTERMEDIATE COMPLETION DATE. TEMPORARILY RE-CONNECT EXIST. SEWER ON SOUTHSIDE OF RAEFORD ROAD THAT RUNS TOWARDS IRELAND DRIVE TO SL-3 AT STA. 0+39.34 IN THE EVENT BUILDOUT OF SL-5 FLOATS ON A DIFFERENT INSTALLATION SCHEDULE.

2. 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 UTILITY SPECIAL PROVISIONS.

3. CONTRACTOR SHALL PROPERLY BARRICADE BYPASS PUMP MANHOLE AND ADHERE TO MUTCD FOR BARRICADE PLACEMENT AND SIGNAGE. TRAFFIC FLOW IN RAEFORD ROAD SHALL NOT BE OBSTRUCTED BY BYPASS PUMP AND PIPE OPERATION.

4. CONTRACTOR SHALL SECURE BYPASS PIPING ACROSS IRELAND DRIVE AND MAINTAIN TRAFFIC FLOW. TRAFFIC RATED RAMP OR OTHER ACCEPTABLE TEMPORARY MEANS SHALL BE PROVIDED TO MAINTAIN TRAFFIC FLOW FOR IRELAND DRIVE.

5. SEWER MAIN THROUGH ENCASEMENT AND FOR SUBMERGED STREAM CROSSINGS OR UNDERNEATH THE STREAMS SHALL BE FACTORY RESTRAINED JOINT.

6. SEWER MAINS CROSSING UNDER STREAMS SHALL BE HYDROSTATICALLY TESTED TO 150 PSI.

7. STREAM CROSSINGS SHALL NOT HAVE JOINTS BELOW STREAM CHANNEL (NORMAL WATER SURFACE ELEVATION) OR WITHIN TWO FEET OF BANKS UNLESS OTHERWISE NOTED.

8. PROP. RIM ELEVATION IS DESIGNED BASED ON UTILITY OWNER'S REQUIREMENT OF 18" ABOVE EXIST. GRADE.

9. SINCE SUBMERGED CREEK CROSSING FOR SL-4 BETWEEN APPROX. STA. 0+25 AND STA. 0+75 EXCEEDS 20 LF, NOTE 7 IS EXEMPTED FOR THIS CROSSING. ATTEMPT TO KEEP JOINTS OUTSIDE OF NORMAL WATER SURFACE TO THE EXTENT PRACTICAL.

10. WIDTH SPAN OF CREEK IS GREATER THAN 40 FEET, WHICH IS TYPICALLY THE LONGEST SPAN OF A TEMPORARY BRIDGE MAT. BENCH AND SLOPE APPROACHES TO ACCOMMODATE MAX. SPAN OF A TEMPORARY BRIDGE MAT. RESTORE BENCHED BANKS TO ORIGINAL CONDITIONS.

11. SL-5 SHALL BE INSTALLED AND OPERATIONAL BETWEEN SL-3 STA. 0+39.34 AND STA. 21+56.21. TRANSFER ALL IMPACTED SEWER SERVICES FROM EXIST. SEWER TO SL-5. THIS SEGMENT OF SL-5 SHALL BE INSTALLED PRIOR TO ANY INSTALLATION OF WL-21 AND WL-22. SEE ADDITIONAL SEQUENCE NOTES ON UC-21 UTILITY NOTES.

12. INSTALLATION OF SL-6 SHALL BE COORDINATED WITH INSTALLATION OF SL-5. MAINTAIN FLOW CONTROL PROVISIONS WHEN CONSTRUCTING SL-6 AND CUT IN INTO EXISTING SEWER ALONG IRELAND DRIVE. BYPASS PUMP AND PIPING TO MAINTAIN SEWER FLOW DURING CUT IN CONSTRUCTION SHALL BE SITUATED TO MAINTAIN TRAFFIC FLOW.

13. INSTALLATION OF SL-5 AND SL-6 THAT ARE CONTAINED IN IRELAND DRIVE SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. TO MINIMIZE TRAFFIC IMPACTS. ALL OPEN EXCAVATIONS SHALL BE PLATED AND READY FOR TRAFFIC BY 6:00 A.M. UNLESS EXCAVATIONS ARE BACKFILLED/COMPACTED AND PATCHED BY 6:00 A.M.

### UC-21 UTILITY NOTES

1. BUILD-OUT WL-21 FROM TAPPING SLEEVE AND VALVE (SEE SHEET UC-22) TO TERMINUS (SEE SHEET UC-20). ADHERE TO FOLLOWING PROVISIONS FOR WL-21, WL-22 AND SL-5 INSTALLATIONS:

A. BUILDOUT SL-5 FROM SL-3 TO SL-5, STA. 21+56.21. HAVE THIS SEGMENT OPERATIONAL AND ALL IMPACTED SEWER SERVICES TRANSFERRED TO SL-5.  
B. RETAIN EXIST. SSMH BETWEEN PARCELS 246 AND 247 AND EXIST. 4" LATERAL THAT CONNECTS TO THIS EXIST. SSMH AND THAT SERVES PARCEL 247. THIS EXIST SSMH SHALL SERVE AS SEWER BYPASS SSMH TO MAINTAIN SEWER SERVICE FOR PARCEL 247 DURING BORE AND JACK OPERATION OF WL-22.

C. BORE AND JACK PIT FOR WL-22 WILL CONFLICT WITH SL-5 AND CONTINUATION OF WL-21 INSTALLATION TOWARDS IRELAND DRIVE. INSTALL BORE AND JACK FOR WL-22 AND THREAD CARRIER PIPE THROUGH ENCASEMENT. PROTECT/SEAL/TEMPORARILY CAP CARRIER ENDS.

D. COMPLETE SL-5 INSTALLATION BETWEEN STA. 21+56.21 AND STA. 22+18.74. HAVE OPERATIONAL AND TRANSFER SEWER LATERAL FOR PARCEL 247 FROM EXIST. TERMINAL SSMH TO NEW TERMINAL SSMH.

E. INSTALL WL-21 BETWEEN TAPPING SLEEVE AND IN LINE VALVE NEAR STA. 19+25. INSTALL BRANCH VALVE (SOUTH AND NORTH SIDES OF RAEFORD) FOR WL-22 AND CONNECT TO CARRIER PIPE. PRESSURE TEST AND DISINFECT AND PLACE INTO SERVICE THIS PORTION OF WL-21 AND WL-22 AND TRANSFER SERVICES TO THIS PORTION OF WL-21.

F. COMPLETE INSTALLATION OF WL-21 TO ITS TERMINUS AND RECONNECT ALL EXISTING CROSS-LINES AND TRANSFER ALL SERVICES TO THIS PORTION OF WL-21.

2. EXISTING CROSS-LINES ON WL-21 SHALL BE RECONNECTED UNDER SERVICE INTERRUPTION ADHERING TO CUT IN CONSTRUCTION REQUIREMENTS. EXISTING 2" CROSS-LINE NEAR WL-21 STA. 11+25 SHALL BE INTERRUPTED USING EXISTING BRANCH VALVE. EXISTING 2" IS A DEAD-END LINE AND IS NOT LOOPED. RECONNECTION OF EXIST. 12" CROSS-LINE FOR IRELAND AVENUE (SEE SHEET UC-20) SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. TO MINIMIZE TRAFFIC IMPACTS. KILLOUT EXIST. CROSS-LINES AT EXIST. BRANCH VALVES. AFTER COMPLETION OF WL-21 INCLUSIVE OF RECONNECTION OF CROSS-LINES AND SERVICES, CLOSE EV-62, EV- (SEE SHEET UC-22). KILL-OUT OF EXIST. 12" AC MAIN ON SOUTH SIDE OF RAEFORD ROAD BETWEEN ROXIE AVENUE AND PARCEL 223 (IRELAND CROSSING, SEE SHEET UC-20) SHALL BE COORDINATED AND PERFORMED AS DEFINED ON UC-22.

3. WL-20R2 SHALL BE INSTALLED FROM ITS CONNECTION TO WL-22 TO THE PROP. 30" IN-LINE VALVE NEAR STA. 33+10 TO FACILITATE SEQUENCE REQUIREMENTS AS DEFINED ON UC-19 UTILITY NOTES. CONNECT TO WL-22 RESTRAINED VALVE AND INSTALL AND RESTRAIN 30" VALVE TO FACILITATE CONTINUATION OF 30" TOWARDS FERNCREEK (SEE SHEET UC-22) ONCE WL-20R2 IS INSTALLED AND OPERATIONAL BETWEEN WL-22 AND STA. 24+25 (SEE SHEET UC-19).

4. WL-22 IS TO PROVIDE SOURCE WATER TO FACILITATE INSTALLATION SEQUENCE OF WL-20R2 AS NOTED IN NOTE 3.

5. EXISTING CROSS-LINES ON SEGMENT OF WL-20R2 BETWEEN WL-22 AND STA. 33+10 SHALL BE RECONNECTED UNDER SERVICE INTERRUPTION ADHERING TO CUT IN CONSTRUCTION REQUIREMENTS. KILLOUT EXIST. CROSS-LINES AT EXIST. BRANCH VALVES. AFTER COMPLETION OF WL-21 INCLUSIVE OF RECONNECTION OF CROSS-LINES AND SERVICES, CLOSE EV-67A. KILL-OUT OF EXIST. 12" AC MAIN ON NORTH SIDE OF RAEFORD ROAD BETWEEN FERNCREEK ROAD AND EV-67A SHALL BE COORDINATED AND PERFORMED WHEN WL-20R2 IS OPERATIONAL UP TO 30" IN LINE VALVE NEAR STA. 58+10 (SEE SHEET UC-22).

6. BUILD OUT WL-20R2 FROM 30" IN LINE VALVE NEAR STA. 53+55 TO 30" IN LINE VALVE NEAR STA. 58+10 (SEE SHEET UC-22). SEE ADDITIONAL SEQUENCE NOTES FOR CONTINUATION OF WL-20R2 ON UC-22 UTILITY NOTES.

### RIGHT OF ENTRY NOTE:

7. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING RIGHT OF ENTRY TO RECONNECT NEW MAIN TO EXISTING DOMESTIC AND FIRE LINE FOR PARCEL 229 IF RECONNECTIONS CANNOT BE MADE WITHIN PUE.

### PARCEL 229 (BYRAN HONDA) NOTES:

8. CONFIRM DOMESTIC WATER SERVICE AND FIRE LINE SIZES FOR PARCEL 229. SIZES AS INDICATED ON SHEET UC-21 ARE BASED ON RECORD DRAWINGS. ACTUAL SIZES MAY DIFFER. COORDINATE SHUTDOWN WITH PROPERTY OWNER. VERIFY MATERIAL AND SIZES PRIOR TO ORDERING MATERIAL FOR RECONNECTION.

9. CONTRACTOR SHALL COORDINATE WITH BYRAN HONDA PRIOR TO CONSTRUCTION TO COORDINATE TRENCHING THROUGH PARKING LOT. CONTRACTOR SHALL POTHOLE IN ADVANCE OF CONSTRUCTION TO IDENTIFY ALL LIGHTING CIRCUITRY AND CONTROL CONDUIT. LOCATIONS ON DRAWINGS ARE APPROXIMATE AND SHALL BE VERIFIED.

10. CONTRACTOR SHALL NOT DISTURB ANY CONDUIT FOR POWER AND CONTROL WIRING FOR LIGHT POLE AND DRIVEWAY SENSORS. CONTRACTOR SHALL TAKE PRECAUTIONS AND MEASURES TO PROTECT EXISTING CONDUITS.

REVISIONS

UTILITY REV. - JULY 23, 2008 - REVISED ALL CONSTRUCTION NOTES

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