



**UTILITY CONSTRUCTION**  
**DOCUMENT NOT CONSIDERED FINAL**  
**UNLESS ALL SIGNATURES COMPLETED**

# UTILITY CONSTRUCTION

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024.
2. THE EXISTING UTILITIES BELONG TO WINSTON-SALEM AND FORYSTH COUNTY UTILITY COMMISSION . THE CONTACT PERSON IS TODD LEWIS, 336-747-6842.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.
6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.

7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.
10. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE DESIGNED AND SEALED BY A LICENSED ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.
11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY ASSOCIATED WITH THE WORK UNDER THIS PROJECT AND FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY LAWS, CODES, REGULATIONS, AND ORDINANCES INCLUDING BUT NOT LIMITED TO THOSE CURRENTLY MANDATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
12. ALL EROSION CONTROL DEVICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MOST CURRENT STANDARDS OF THE LAND QUALITY SECTION OF THE NCDEQ.
13. ALL WORK MUST CARRY A ONE-YEAR WARRANTY TO COVER ALL DEFECTS IN MATERIALS AND WORKMANSHIP.
14. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS OF NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THERAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHER IS MORE STRINGENT.

15. AS OF JULY 1, 2011 ALL METERS SHALL BE PURCHASED THROUGH THE CITY/COUNTY UTILITIES DIVISION. CONTRACTORS AND DEVELOPERS CAN PURCHASE METERS AT THE UTILITIES BUSINESS OFFICE OFF THE LOBBY OF THE STUART MUNICIPAL BUILDING, 100 E. FIRST STREET.
16. ANY UPGRADES OR WORK BEYOND THE LIMITS CURRENTLY SHOWN ON THE PLANS SHALL BE DISCUSSED AND AGREED TO AS EXTRA WORK PRIOR TO ADDITIONAL WORK BEING STARTED.

## PROJECT SPECIFIC NOTES:

1. CONTRACTOR SHALL ABANDON EXISTING WATER MAIN IN PLACE EXCEPT WHERE REMOVAL IS REQUIRED FOR PROPOSED WORK OR WHERE NOTED. WITHIN THE RIGHT-OF-WAY OF NCDOT MAINTAINED ROADS, CONTRACTOR SHALL FILL ABANDONED WATER MAINS WITH FLOWABLE FILL. ABANDON EXISTING WATER MAINS PER NCDOT 2024 STANDARD SPECIFICATION SECTION 1530.
2. EXISTING WATER MAIN SHALL REMAIN IN SERVICE UNTIL PROPOSED WATER MAIN HAS BEEN TESTED, DISINFECTED, AND APPROVED.
3. EXISTING WATER SERVICES AND FIRE HYDRANTS SHALL BE CONNECTED TO PROPOSED WATER MAIN AFTER PROPOSED WATER MAIN HAS BEEN TESTED, DISINFECTED, AND APPROVED. AS SPECIFICALLY INDICATED BY PLANS, ALL RELOCATED FIRE HYDRANTS SHALL MEET OR EXCEED THE MOST CURRENT EDITION OF THE CITY OF WINSTON-SALEM'S SPECIFICATIONS AND DETAIL (VII-39). CONTRACTOR SHALL LEAVE THE OLD WATER METERS IN THE WATER METER BOX FOR PICK UP BY THE CITY/COUNTY UTILITIES, OR AS NOTED ON THE DRAWINGS.
4. FOR ALL WATER SERVICES TO BE DISTURBED BY CONSTRUCTION, CONTRACTOR SHALL REPLACE WATER METER BOXES WHICH DO NOT MEET THE REQUIREMENTS OF THE CAST IRON METER BOX FOR 5/8" AND 1" METERS DETAIL (VII-48), AS DIRECTED BY THE ENGINEER. TO DETERMINE COMPLIANCE OF THE WATER METER BOXES, CONTRACTOR SHALL EXPOSE, IN THE PRESENCE OF THE ENGINEER, EACH WATER METER BOX. CONTRACTOR SHALL LOCATE NEW WATER METER BOX PER 3/4" AND 1" WATER CONNECTION DETAIL (C-47 - C-49). CITY/COUNTY UTILITIES WILL PROVIDE THE NEW WATER METER BOXES TO THE CONTRACTOR.
5. WATER SERVICE LINES FOR PROPOSED OR RELOCATED WATER METERS SHALL BE RECONNECTED TO THE MAIN BY ABANDONING EXISTING TAP AND RENEWING TAP.

6. WATER VALVES ABANDONED IN PLACE SHALL BE ABANDONED IN THE CLOSED POSITION.
7. PROVIDE CONCRETE THRUST BLOCKS AT ALL WATER MAIN BENDS, TEES, AND CAPS UNLESS OTHERWISE NOTED.
8. PROPOSED WATER LINE SHALL BE D.I. (DUCTILE IRON PIPE).
9. STABILIZATION STONE UNDER PIPING TO BE PLACED AS REQUIRED BY CITY INSPECTOR WHEN CONDITIONS WARRANT.
10. PRIOR TO REQUESTING A FINAL INSPECTION, THE CONTRACTOR MUST SUBMIT RECORD DRAWINGS AND ENGINEER'S CERTIFICATION TO THE ENGINEERING DIVISION'S RECORD CENTER. THE OWNER MUST ALSO SUBMIT THE CONSTRUCTION CHECKLIST TO THE CITY INSPECTOR.
11. CONTACT UTILITIES FIELD OPERATIONS AT 336-462-2199 TO ARRANGE FOR CONSTRUCTION INSPECTION. A CITY INSPECTOR WILL APPROVE BACKFLOW PREVENTER TYPE, VAULT, EXACT LOCATION, AND INSPECTION REQUIREMENTS PRIOR TO INSTALLATION. A CITY INSPECTOR SHALL BE PRESENT WHEN MAKING OR TERMINATING WATER AND SEWER CONNECTIONS INTO NEW OR EXISTING WATER AND SEWER LINE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ENGINEER WITH A SET OF SURVEY RECORD (AS-BUILT) DRAWINGS PREPARED BY A NORTH CAROLINA REGISTERED LAND SURVEYOR CERTIFYING THE ACCURACY OF THE SURVEY HORIZONTAL AND VERTICAL LOCATIONS TO ONE TENTH (0.10) OF A FOOT, SURVEY SHALL BE TIED TO THE NORTH CAROLINA STATE PLANS COORDINATE SYSTEM (NAD83 FEET) HORIZONTALLY, AND ELEVATIONS SHALL BE NORTH AMERICAN VERTICAL DATUM (NAVD88). SURVEY POINT INFORMATION SHALL BE PROVIDED IN AN ELECTRONIC FORMAT FILE OR AN ASCII POINT TEXT FILE [X-Y COORDINATES].

THESE DRAWINGS SHALL AT A MINIMUM SHOW THE FINAL ELEVATIONS AND HORIZONTAL LOCATIONS FOR THE FOLLOWING:

ALL RELOCATION, INCLUDING VAULTS, BELOW GRADE FITTINGS, VALVES, WATER METERS AND BACKFLOW PREVENTION DEVICES ALONG THE WATER LINE ALIGNMENT. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A LETTER CERTIFYING TO THEIR COMPLIANCE WITH THE CONTRACT DRAWINGS

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