

WATER CONSTRUCTION


1. BUY AMERICA REQUIREMENTS APPLY TO ALL STEEL AND IRON PRODUCTS. SEE SUBSECTION 107.22.
2. ONLY CITY PERSONNEL MAY OPERATE VALVES.
3. ISOLATION OF WATER MAIN FOR BRIDGE PROJECT:
 - THE FOREST STREET WATER MAIN CAN BE VALVED OFF BY THE CITY SOUTH OF THE PROJECT AREA AT THE PARK STREET INTERSECTION (STA. 0+10). THE CONTRACTOR SHALL ASSEMBLE SPOOL LENGTHS OF PIPE, REDUCER, 8-INCH GATE VALVE, AND FITTINGS TO INSERT NEAR STA. 2+50 AS SHOWN ON WATER/SEWER LAYOUT 1.
 - THE FOREST STREET WATER MAIN CAN BE VALVED OFF BY THE CITY NORTH OF THE PROJECT AREA AT THE GIBSON AVENUE INTERSECTION. THE CONTRACTOR SHALL ASSEMBLE SPOOL LENGTHS OF PIPE, REDUCER, 8-INCH GATE VALVE, AND FITTINGS TO INSERT NEAR STA. 4+85 AS SHOWN ON WATER/SEWER LAYOUT 1.
 - AT EACH LOCATION, THIS ASSEMBLY SHALL BE INSTALLED AND RESTRAINED BY INSTALLING A MINIMUM OF 20' OF PIPE, FITTINGS AND THRUST BLOCK WITHIN THE PROJECT AREA TO ALLOW WATER SYSTEM RECHARGING. THIS WORK SHALL BE PERFORMED DURING NIGHT HOURS (10 P.M. TO 5 A.M.) MONDAY THROUGH THURSDAY. BOTH LOCATIONS SHALL BE COMPLETED DURING A SINGLE NIGHT SHIFT. PROVIDE 2 WEEKS NOTICE TO THE CITY AND WATER CUSTOMERS. THIS WORK WILL BE PAID FOR USING ESTABLISHED CONTRACT ITEMS. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
4. THE CONTRACTOR SHALL SUPPLY A TIE-CARD TO THE OWNER AND THE WATER CUSTOMER DOCUMENTING THE LOCATION OF EACH INSTALLED SERVICE CONNECTION (CORPORATION AND CURB STOP).
5. WATER MAIN INSTALLATION SHALL COMPLY WITH AWWA C-600 AND THE VERMONT WATER SUPPLY RULE. HYDROSTATIC TESTING PER AWWA C-600 SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER AND CITY DPW PERSONNEL. THE OWNER RESERVES THE RIGHT TO REJECT WORK NOT COMPLYING WITH THIS REQUIREMENT. NOTE THAT SECTION SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE OF LEAST 150 PERCENT OF WORKING PRESSURE FOR A TWO HOUR DURATION. WORKING PRESSURE IS 150 PSI.
6. WATER MAIN DISINFECTION SHALL COMPLY WITH AWWA C-651. CHLORINATED WATER SHALL BE NEUTRALIZED PER APPENDIX C, AWWA C-651, PRIOR TO DISCHARGE TO SANITARY SEWER. COORDINATE WITH OWNER.
7. WATER MAIN SHALL HAVE 5.5 FT COVER MIN. (TYP.).
8. ALL DUCTILE IRON (DI) PIPE SHALL BE CLASS 52, DOUBLE CEMENT LINED AND SEAL COATED
9. ALL WATER SERVICE PIPE TO BE TYPE K COPPER.
10. THRUST RESTRAINT REQUIREMENTS:
 - RETAINER GLANDS WITHIN THREE PIPE LENGTHS ON EACH SIDE SHALL BE USED IN LIEU OF THREADED ROD OR GRIP RINGS AT ALL PIPE BENDS, FITTINGS, VALVES, AND APPURTENANCES.
 - CONTRACTOR SHALL IDENTIFY SELECTION OF RESTRAINT IN WORKING DRAWINGS PROVIDED TO ENGINEER FOR REVIEW.
11. ALL HYDRANTS TO OPEN LEFT AND VALVES TO OPEN RIGHT.
12. THE OPEN ENDS OF EXPOSED PIPE SHALL BE LEFT PLUGGED IN EXCAVATIONS AT THE CONCLUSIONS OF THE DAY'S WORK. DURING PERIODS OF DELAY AND AT THE CONCLUSION OF THE DAY'S WORK, LENGTHS OF PIPE WITH OPEN ENDS SHALL BE TIGHTLY CLOSED WITH WATERTIGHT PLUGS, SPECIAL SEALS, OR BY OTHER SUITABLE MEANS ACCEPTED BY THE ENGINEER TO PREVENT THE ENTRY OF ANIMALS, FOREIGN MATTER AND TRENCH WATER. TRENCH WATER SHALL BE PUMPED OUT BEFORE THE SEALS, PLUGS, OR OTHER TEMPORARY CLOSURES ARE REMOVED.
13. EXISTING WATER MAIN THAT WILL NO LONGER REMAIN IN SERVICE SHALL BE ABANDONED IN PLACE WHERE IT EXISTS BEYOND TRENCHING LIMITS FOR NEW PIPE. PIPE ENDS SHALL BE GROUTED AND CAPPED. THE CONTRACTOR SHALL NOTE LOCATIONS AND DEPTHS OF CAPPED ENDS ON THE RED-LINE DRAWINGS. WHERE THE EXISTING PIPING IS LOCATED WITHIN THE TRENCH LIMITS FOR NEW PIPING, REMOVAL OF OLD PIPE SHALL BE CONSIDERED INCIDENTAL TO INSTALLATION OF NEW PIPE.
14. PROVIDE BRONZE CONDUCTIVE WEDGES ON WATER MAIN INSTALLATION.

SEWER CONSTRUCTION

1. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES, AND SHALL BE MAINTAINED THROUGHOUT THE PROJECT.
2. NO SEWER SURCHARGING WILL BE PERMITTED. WASTEWATER FLOW SHALL BE MAINTAINED BY BYPASS PUMPING OR OTHER METHODS AS APPROVED BY THE ENGINEER.
3. CONTRACTOR TO VERIFY INVERTS ON CONNECTING MANHOLES PRIOR TO LAYING SEWER PIPE.
4. THE CONTRACTOR SHALL SUPPLY A TIE-CARD TO THE TOWN AND BUILDING OWNER FOR DOCUMENTING THE LOCATION OF EACH SERVICE CONNECTION.
5. THE CONTRACTOR SHALL EXCAVATE, REMOVE, AND REPLACE ALL EXISTING PIPE TO REMAIN THAT IS DAMAGED AT THE CONTRACTOR'S OWN EXPENSE. THE NEW PIPE SHALL BE THE SAME SIZE AS THE EXISTING PIPE AND SHALL BE CONNECTED TO THE EXISTING PIPE WITH APPROVED REPAIR COUPLINGS.
6. UNLESS OTHERWISE SPECIFIED, MINIMUM PIPE COVER SHALL BE 5 FT.
7. ALL PIPE LENGTHS ARE MEASURED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL. SLOPES ARE SHOWN IN PERCENT.
8. SEWER LINES SHALL BE LOCATED A MINIMUM OF 10 FT HORIZONTALLY FROM ALL PROPOSED AND EXISTING WATER MAINS, AS MEASURED FROM OUTSIDE PIPE WALLS.
9. ALL SANITARY MANHOLES SHALL PASS LEAKAGE TESTING CRITERIA OUTLINED IN SECTION 628 OF THE SPECIFICATIONS. AS AN ALTERNATIVE, THE CONTRACTOR MAY ELECT TO PERFORM VACUUM TESTING ON MANHOLES PRIOR TO BACK FILLING AS FOLLOWS:
 - ALL LIFT HOLES AND INVERT HOLES SHALL BE PLUGGED.
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg.
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1 INCH Hg DROP TO 9 INCHES Hg SHALL BE:
 - a) NOT LESS THAN 1 MINUTE FOR MANHOLES LESS THAN 14 FT DEEP;
 - b) NOT LESS THAN 2 MINUTES FOR MANHOLES DEEPER THAN 14 FT.
 - THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE CRITERIA LISTED ABOVE.
10. ALL SMHs TO BE 4 FT DIAMETER UNLESS NOTED OTHERWISE.
11. CONTRACTOR SHALL FLUSH INSTALLED SEWER AND VIDEOTAPE FOR ENGINEER'S REVIEW PRIOR TO FINAL ACCEPTANCE AND APPLICATION OF WEARING COURSE PAVEMENT.
12. SEWER PIPE SHALL BE CLASS 50 DUCTILE IRON DOUBLE CEMENT LINED, AND SEAL COATED UNLESS NOTED OTHERWISE.
13. TRENCH DAM SHALL BE INSTALLED ON NORTH SIDE OF STREAM CROSSING. SEE TRENCH DAM DETAIL.

PLAN REVISIONS

- ② 3/5/14: WATER CONSTRUCTION NOTE 3 REVISED (PER CITY).
- ① 1/16/14: MINOR NOTE REVISIONS.

WATER AND SEWER PLANS		PROJECT NAME: RUTLAND CITY
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		WATER AND SEWER NOTES 2
		SHEET 2 OF 7