

# VOID

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	STP-4001(7)	4A	591

## UTILITY CONSTRUCTION NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING WATER SERVICE LINE AND SANITARY LATERAL LOCATIONS. NOT ALL LOCATIONS MAY BE SHOWN ON THE PLANS. NEW WATER / SEWER SERVICE CONNECTIONS SHALL BE MADE FROM RELOCATED MAINS TO THE EXISTING SERVICE LINES.
2. ALL WATER SERVICE LINES AND SANITARY SEWER LATERALS SHALL REMAIN IN SERVICE DURING CONSTRUCTION UNTIL SUCH TIME AS THE NEW SERVICE CONNECTIONS HAVE BEEN INSPECTED AND APPROVED FOR USE. THE CONTRACTOR SHALL PLUG THE ABANDONED WATER SERVICE LINES, WATER MAINS, SANITARY SEWER LATERALS AFTER THE SERVICE HAS BEEN CONNECTED TO THE NEW WATER MAIN OR SEWER MAIN.
3. CONTRACTOR SHALL REPLACE EXISTING WATER SERVICES FROM THE RIGHT-OF-WAY TO THE NEW WATER MAIN. IF ANY WATER SERVICES ARE FOUND TO BE SHARED BY TWO RESIDENCES, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL SERVICE AND METER SO THAT EACH RESIDENCE IS SERVED BY ITS OWN METER. THE METER WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF SAVANNAH AT NO ADDITIONAL COST. THE CONTRACTOR SHALL INSTALL THE METER AND CONNECT TO THE METER AND THE EXISTING SERVICE LINE. PAYMENT FOR THE SERVICE CONNECTION AND METER INSTALLATION WILL BE INCLUDED IN THE PRICE BID FOR THE WATER SERVICE LINE.
4. CONTRACTOR SHALL REPLACE ALL SANITARY SEWER LATERALS AS ENCOUNTERED TO THE RIGHT-OF-WAY AND SHALL RECONNECT TO THE EXISTING SEWER SERVICE WITH A CLEANOUT. SANITARY SEWER LATERALS SHALL BE OF THE SAME DIAMETER AS FOUND PROVIDED THAT THE EXISTING SERVICE IS 4" OR 6". FOR OTHER SIZES, THE CONTRACTOR SHALL USE THE NEXT LARGER SIZE PIPE AND CONNECT IT TO THE EXISTING LINE WITH FITTINGS. COST OF THE CLEANOUT AND CONNECTION TO THE EXISTING SERVICE LINE SHALL BE INCLUDED IN THE PRICE BID FOR THE SEWER PIPE.
5. THE CONTRACTOR SHALL ADJUST EACH MANHOLE, WATER VALVE BOX AND OTHER STRUCTURES TO THE FINISH GRADE AS SHOWN ON THE DRAWINGS. MANHOLES AND OTHER STRUCTURES THAT ARE TO BE ABANDONED SHALL HAVE THE TOP FOUR (4) FEET REMOVED AND THE STRUCTURES FILLED WITH FLOWABLE FILL. THE FILL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD. MANHOLE FRAMES AND COVERS FROM THE ABANDONED STRUCTURES SHALL BE SALVAGED BY THE CONTRACTOR AND RETURNED TO THE CITY OF SAVANNAH LOT AT THE CORNER OF STILES AND GWINNETT STREETS. COST OF REMOVAL, SALVAGE AND TRANSPORT TO BE INCLUDED IN PRICE BID FOR GRADING COMPLETE.
6. POLYETHYLENE ENCASEMENT SHALL BE USED ON ALL DUCTILE IRON PIPINGS, FITTINGS, VALVES AND APPURTENANCES. POLYETHYLENE ENCASEMENT SHALL BE IN TUBE FORM AND SHALL MEET THE REQUIREMENTS OF ANSI / AWWA C105 / A21.5 WITH THE FOLLOWING CHARACTERISTICS:  
 TENSILE STRENGTH: 1200 PSI MINIMUM  
 ELONGATION: 300 PERCENT MINIMUM  
 DIELECTRIC STRENGTH: 800V/MIL THICKNESS MINIMUM  
 THICKNESS: 8 MIL NOMINAL  
 THE COST OF THE POLYETHYLENE ENCASEMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE PIPE.
7. ALL EXISTING WATER AND SEWER MAINS TO BE ABANDONED SHALL BE FILLED WITH FLOWABLE FILL UNTIL ALL VOIDS ARE ELIMINATED. PAYMENT WILL BE MADE PER CUBIC YARD OF FILL USED.
8. ALL WATER VALVES AND FIRE HYDRANTS TO BE REMOVED SHALL BE SALVAGED AND RETURNED TO THE CITY OF SAVANNAH. THE ITEMS WILL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S LOT AT THE CORNER OF STILES AND GWINNETT. ALL OTHER ITEMS WHICH ARE REMOVED AND ARE NOT SHOWN TO BE REUSED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE SITE. ALL COSTS FOR REMOVAL, SALVAGE, TRANSPORT, AND DISPOSAL TO BE INCLUDED IN PRICE BID FOR GRADING COMPLETE.
9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICT WITH EXISTING UTILITIES NOT SHOWN ON THE PLANS PRIOR TO LAYING ANY PIPE.
10. PROPOSED UTILITY LINES SHALL BE INSTALLED BELOW EXISTING UTILITY LINES TO REMAIN BY BORING OR TUNNELING. THE BORING OR TUNNELING SHALL BE CONSIDERED THE SAME AS TRENCHING AND WILL NOT BE PAID FOR SEPARATELY. COSTS FOR TUNNELING OR BORING WILL BE INCLUDED IN THE PRICE BID FOR THE PIPE.
11. THE EXISTING WATER MAIN AND SERVICE LINES MUST REMAIN IN OPERATION UNTIL THE NEW WATER MAINS AND SERVICE LINES HAVE BEEN INSTALLED, TESTED AND APPROVED. ONLY THEN CAN THE EXISTING LINES BE CUT. NEW CONNECTIONS MADE AS SHOWN ON THE PLANS OR AS REQUIRED BY FIELD CONDITIONS. VALVES AND FIRE HYDRANTS REMOVED, AND PIPES PLUGGED AND ABANDONED.
12. THE WORK INVOLVED IN THE RELOCATION AND INSTALLATION OF THE WATER MAINS AND SERVICES SHOWN ON THE PLANS IS UNDER THE DIRECT CONTROL OF THE GEORGIA DEPARTMENT OF TRANSPORTATION. REPRESENTATIVES OF THE CITY OF SAVANNAH AND HUSSEY, GAY, BELL AND DEYOUNG WILL ALSO MAKE PERIODIC INSPECTIONS AND OBSERVATIONS OF THE WORK AND MAY MAKE SUGGESTIONS AND GIVE ADVICE AS TO THE PROGRESS OF THE WORK. THE FINAL RESPONSIBILITY FOR INTERPRETING THE CONTRACT AND ACCEPTING THE WORK SHALL LIE WITH THE DOT REPRESENTATIVE.
13. ALL WORK WILL BE IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS, PLANS, AND DETAILS AND THE SPECIAL PROVISION SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS.
14. ALL WATER MAINS LESS THAN 16" IN SIZE SHALL HAVE A MINIMUM COVER OF 36" FROM FINAL GRADE; LINES 16" AND GREATER IN DIAMETER SHALL HAVE A MINIMUM COVER OF 48" FROM FINAL GRADE. ELEVATIONS SHOWN ON THE WATERLINE PROFILE WILL TAKE PRECEDENCE OVER THE ABOVE GENERAL DEPTHS IF THE ELEVATION IS DEEPER THAN THE MINIMUM.
15. WHEN PIPE LAYING IS NOT IN PROGRESS, A MECHANICAL JOINT PLUG OR CAP WILL BE USED TO FORM A WATERTIGHT SEAL AT BOTH ENDS OF THE LINE BEING INSTALLED.
16. ALL SANITARY SEWER LINES MUST REMAIN IN SERVICE DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING ALL NECESSARY DIVERSIONS, STORAGE, PUMPING, ETC. AS MAY BE REQUIRED TO EFFECT THIS. ALL COSTS REQUIRED TO MAINTAIN SERVICE SHALL BE INCLUDED IN THE PRICE BID FOR SEWER PIPE AND MANHOLES.

17. ALL SANITARY SEWER PIPE SHALL BE PVC. ALL PIPE SHALL BE GREEN IN COLOR.
18. ALL SEWER MAINS AND SERVICES SHALL BE CONSTRUCTED OF PVC UNLESS COVER IS LESS THAN 4" IF SHOWN OTHERWISE ON THE PLANS. MAINS / SERVICES WITH LESS THAN 4" COVER SHALL BE CONSTRUCTED OF DUCTILE IRON.
19. ALL DUCTILE IRON PIPE SHALL BE CLASS 50. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE BURNED ENDS COATED ON THE OUTSIDE AND SHALL BE LINED WITH PROTECTO 401 CERAMIC EPOXY ON THE INSIDE. OUTSIDE COATING SHALL BE AT LEAST 1 MIL THICK. INSIDE COATING SHALL BE AT LEAST 40 MILS. ALL COATINGS TO BE INCLUDED IN THE PRICE BID FOR PIPE.
20. ALL STEEL CASINGS SHALL BE INSTALLED BY OPEN CUT.
21. METAL DETECTOR TAPE SHALL BE PLACED ABOVE ALL NONMETAL WATER AND SEWER PIPES. THE TAPE SHALL BE PLACED OVER THE BURIED PIPES AT A DEPTH OF NO MORE THAN 18" BELOW FINISHED GRADE. COST OF THE TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THE PIPE.
22. ALL TEES, WYES, ETC. USED FOR MAKING SANITARY SEWER CONNECTIONS SHALL BE 4" OR 6", DEPENDENT ON THE SIZE OF THE EXISTING SERVICE. THE FITTINGS SHALL BE OF THE SAME MATERIAL AS THE MAIN UNLESS OTHERWISE INDICATED. THE COST OF ALL FITTINGS AND CLEANOUTS SHALL BE INCLUDED IN THE PRICE BID FOR THE SEWER SERVICE LINE.
23. DURING CONSTRUCTION THE SANITARY SEWER PIPE SHALL BE CLOSED OR CAPPED WHEN WORK IS NOT IN PROGRESS TO PREVENT SOIL OR WATER FROM ENTERING THE PIPE.
24. ALL FITTINGS ON SANITARY SEWER AND FORCE MAINS (WYES, BENDS, TEES, ETC.) WILL NOT BE MEASURED OR PAID FOR SEPARATELY. COSTS FOR THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR THE LINE ON WHICH THE FITTINGS ARE INSTALLED.
25. 4" SANITARY SEWER FORCE MAIN SHOWN ON THE PLANS SHALL BE INSTALLED TO THE LINES AND GRADES INDICATED ON THE PLANS. PAYMENT FOR FORCE MAIN CONSTRUCTION SHALL BE MADE UNDER THE ITEM 660-0804, SANITARY SEWER PIPE, 4 INCH, DUCTILE IRON. THE COST OF ALL FITTINGS, JOINTS, RESTRAINED JOINTS, POLYETHYLENE ENCASEMENT, ETC. ASSOCIATED WITH THE FORCE MAIN, EITHER DIRECTLY OR AS INFERRED FROM THE DETAILS IN THE PLANS, SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PIPE.
26. ALL BUTTERFLY VALVES AND GATE VALVES GREATER THAN 2" IS SIZE SHALL BE INSTALLED IN MANHOLES PER THE DETAILS IN THE PLANS. ALL 2" VALVES SHALL BE INSTALLED IN VALVE BOXES. COSTS ASSOCIATED WITH THE MANHOLES AND VALVE BOXES SHALL BE INCLUDED IN THE PRICE BID FOR THE VALVE.
27. ALL TAPPING SLEEVES AND VALVE CONNECTIONS TO EXISTING WATER MAINS SHALL BE LOCATED IN A MANHOLE AS SHOWN ON THE PLANS. COSTS FOR THE MANHOLE SHALL BE INCLUDED IN THE PRICE BID FOR THE TAPPING SLEEVE AND VALVE ASSEMBLY. ALSO INCLUDED IN THE COST FOR THE ASSEMBLY WILL BE PROVIDING THE MATERIALS, PREPARING THE TOP, INCLUDING CONNECTING SLEEVE TO PIPE, PROVIDING LIFTING DEVICES AND AIR COMPRESSOR, AND COORDINATING ACTUAL TAP WITH THE CITY OF SAVANNAH.
28. COSTS ASSOCIATED WITH CONNECTIONS OF NEW WATER LINES TO EXISTING WATER LINES WITH RESTRAINED JOINT FITTINGS AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER MAIN.
29. EACH FIRE HYDRANT SHOWN ON THE PLANS SHALL INCLUDE A 6" DUCTILE IRON LEAD LINE AND A 6" GATE VALVE IN VALVE BOX AS SHOWN ON THE DETAILS IN THE PLANS. ALL COSTS ASSOCIATED WITH THE FIRE HYDRANT, INCLUDING LEAD LINE, 6" VALVE IN VALVE BOX, CONCRETE SLAB, AND GRAVEL BLOCK, SHALL BE INCLUDED IN THE PRICE BID FOR THE FIRE HYDRANT.
30. ALL EXISTING WATER SERVICES ON LINES TO BE REPLACED UNDER THE PROJECT SHALL BE CONNECTED TO THE NEW LINES. COSTS FOR TAPPING THE NEW MAIN AND CONNECTING TO THE EXISTING METER OR SERVICE LINE SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER SERVICE LINE.
31. WATER MAINS AND FITTINGS SHALL HAVE RESTRAINED JOINTS WHERE INDICATED BY THE DETAILS IN THE PLANS. RESTRAINED JOINTS SHALL MEET THE REQUIREMENTS OF ANSI / AWWA C111 / A21.11. THE JOINTS SHALL BE MECHANICAL JOINTS WITH DUCTILE IRON RETAINER GLANDS EQUIVALENT TO 'MEGALUG'. THE COSTS FOR ALL RESTRAINED JOINTS AND OTHER FITTINGS SHALL BE INCLUDED IN THE PRICE BID FOR THE LINE ON WHICH THEY WILL BE INSTALLED.
32. ALL WATER MAINS SHALL BE DUCTILE IRON, CLASS 50 OR BETTER. ALL PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH ANSI A21.4. COSTS FOR CEMENT LINING SHALL BE INCLUDED IN THE PRICE BID FOR WATER MAIN.
33. ALL 1" WATER SERVICE LINES SHALL BE POLYETHYLENE.
34. DETECTION/MARKING TAPE SHALL BE INSTALLED ABOVE ALL WATER MAINS. THE TAPE SHALL BE A MINIMUM OF 4 MIL THICKNESS, BE MADE OF INERT POLYETHYLENE THAT IS RESISTANT TO ALKALIS, ACID, AND OTHER DESTRUCTIVE ELEMENTS, AND HAVE A MINIMUM WIDTH OF 3" AND A TENSILE STRENGTH OF AT LEAST 2800 PSI. THE TAPE SHALL BE LOCATED NO MORE THAN 18" BELOW GROUND SURFACE. THE COST OF THE DETECTION TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER MAIN.
35. A #14 GAUGE INSULATED SINGLE STRAND COPPER TRACING WIRE SHALL BE INSTALLED ON ALL WATER MAINS AND SERVICE LINES. THE WIRE SHALL BE ATTACHED TO THE LINE AT INTERVALS NOT TO EXCEED 36". COSTS OF THE WIRE ARE TO BE INCLUDED IN THE PRICE BID FOR THE WATER LINE TO WHICH IT IS ATTACHED.

DATE	REVISIONS
3/23/04	ADDED UTILITY RELOCATION PLAN

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
**GENERAL NOTES**

PROJECT STP-4001(7)  
 COUNTY CHATHAM COUNTY  
 DATE AUGUST, 2003 SH OF