

CITY OF ST. AUGUSTINE (C.O.S.A.) WATER AND SEWER GENERAL NOTES

GENERAL NOTES

1. THE CITY OF ST. AUGUSTINE (C.O.S.A.) STANDARDS AND SPECIFICATIONS DESIGN MANUAL AND DETAILS, LATEST EDITION, SHALL PRESIDE; THESE NOTES AND THIS PLAN SET ARE NOT INTENDED TO BE ALL INCLUSIVE WITH REGARD TO ALL POSSIBLE CONSTRUCTION REQUIREMENTS FOR THIS PROJECT.
2. THE C.O.S.A. STANDARDS MANUAL, DETAILS, AND UTILITY CONSTRUCTION AND DEDICATION REQUIREMENTS" (LATEST EDITIONS) ARE AVAILABLE ONLINE. LINKS TO THESE ITEMS CAN BE FOUND ON THE "Public Works Documents, Forms and Reports" PAGE OF THE CITY'S WEBSITE. GO TO: www.staugustinegovernment.com ---> [Forms, Applications & Docs](#) ---> [Public Works Requests and Documents](#).
3. A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE DEVELOPER AND/OR OWNER'S REPRESENTATIVE, THE ENGINEER OF RECORD, THE GENERAL CONTRACTOR, THE UNDERGROUND UTILITY CONTRACTOR, AND THE C.O.S.A. PRIOR TO THE START OF ANY CONSTRUCTION. A PRE-CONSTRUCTION MEETING WITH THE C.O.S.A. IS REQUIRED REGARDLESS OF OTHER AGENCIES REQUIREMENTS.
4. FOR PRE-CONSTRUCTION MEETING REQUIREMENTS, REFER TO THE C.O.S.A.'S "UTILITY CONSTRUCTION AND DEDICATION REQUIREMENTS", LATEST EDITION. PLAN AHEAD - C.O.S.A. APPROVAL OF PRE-CON SUBMITTALS IS REQUIRED PRIOR TO SCHEDULING THE PRE-CON MEETING.
5. ALL WATER, SEWER, AND/OR REUSE CONSTRUCTION SHALL BE PERFORMED BY A CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES. A COPY OF THE CONTRACTOR'S GENERAL LICENSE AND/OR UNDERGROUND UTILITY LICENSE SHALL BE PROVIDED PRIOR TO THE PRE-CONSTRUCTION MEETING.
6. PLAN AHEAD FOR C.O.S.A. DEDICATION AND ACCEPTANCE REQUIREMENTS FOR UTILITIES. THE CITY MUST OFFICIALLY ACCEPT ALL UTILITIES TO BE DEDICATED TO THE CITY PRIOR TO INSTALLING ANY WATER METERS, AND PRIOR TO SIGNING OFF ON ANY USE PERMIT OR CERTIFICATE OF OCCUPANCY. REFER TO THE C.O.S.A.'S "UTILITY CONSTRUCTION AND DEDICATION REQUIREMENTS", LATEST EDITION, FOR SUBMITTAL REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL REQUIRED DOCUMENTS ACCURATELY, DILIGENTLY AND IN A TIMELY MANNER. THE C.O.S.A. WILL NOT BE RESPONSIBLE FOR REQUESTING OR MANAGING SUBMITTAL OF THESE DOCUMENTS.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL LOCATIONS AND ELEVATIONS, PROPERTY LINES AND EASEMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. CONTRACTOR SHALL LOCATE, VERIFY, AND IDENTIFY ALL EXISTING UTILITIES AND UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO ANY EXCAVATING ACTIVITIES AND TAKE ALL MEASURES NECESSARY TO PROTECT ALL UTILITIES DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER OR C.O.S.A. (INCLUDING MEASURES SPECIFIED BY C.O.S.A. INSPECTOR SUCH AS MECHANICAL JOINT RESTRAINTS). SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE AFFECTED UTILITY COMPANY, ENGINEER OF RECORD, AND C.O.S.A. AT A MINIMUM, CONTRACTOR SHALL ENSURE PROTECTION OF ALL EXISTING UTILITIES BY FOLLOWING THE COMMON GROUND ALLIANCE BEST PRACTICES, LATEST VERSION, UNLESS EXCEPTIONS ARE SPECIFICALLY AGREED TO IN ADVANCE. BUREAU OF UTILITIES SHALL COORDINATE UTILITIES LOCATIONS WITH SUNSHINE STATE ONE-CALL OF FLORIDA. ONCE THE LOCATE SERVICE HAS FIELD MARKED ALL UTILITIES, CONTRACTOR SHALL VERIFY EACH UTILITY (INCLUDING ANY SERVICE LATERALS, I.E. WATER, SEWER, CABLE, GAS, ELECTRIC, PHONE, ETC.) AND THOSE WITHIN EACH PAVED AREA. VERIFICATION MAY BE PERFORMED UTILIZING GROUND PENETRATING RADAR, HAND DIG, OR VACUUM EXCAVATION. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL RECORD ON THE DRAWINGS BOTH THE HORIZONTAL AND VERTICAL LOCATION OF THE UTILITIES OFF OF A PREDETERMINED BASELINE.
9. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO LOCATE, EXCAVATE AND PREPARE FOR CONNECTIONS TO THE TERMINUS OF THE C.O.S.A.'S EXISTING WATER OR SEWER SYSTEMS AT THOSE POINTS SHOWN ON THE DRAWINGS OR WHERE DIRECTED BY THE C.O.S.A. OR THE ENGINEER. ALL COSTS ASSOCIATED WITH THIS WORK AND FOR THE ACTUAL CONNECTION OF THE EXISTING MAINS SHALL BE INCLUDED IN THE BID FOR THE PROJECT AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE C.O.S.A.
10. THE CONTRACTOR SHALL FIELD VERIFY THE CONNECTION POINTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD AND THE C.O.S.A. IMMEDIATELY.
11. THE WATER AND/OR SEWER SYSTEM SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE C.O.S.A. APPROVED CONSTRUCTION DRAWINGS, DETAILS AND SPECIFICATIONS. IF THERE IS ANY DEVIATION FROM THE APPROVED CONSTRUCTION DRAWINGS, DETAILS OR SPECIFICATIONS, WITHOUT PRIOR AUTHORIZATION AND CONSENT FROM THE C.O.S.A., THE CONTRACTOR SHALL REMOVE THE DEVIATION AND RESTORE IT TO THE APPROVED CONSTRUCTION DRAWING CONFIGURATION AT NO EXPENSE TO THE C.O.S.A. FAILURE TO CONSTRUCT UTILITIES ACCORDINGLY WILL RESULT IN DELAYS IN OBTAINING SERVICE, C.O.S.A. REFUSAL TO ACCEPT THE UTILITIES, AND UNANTICIPATED COSTS AND CONSTRUCTION TIME WHILE CORRECTIONS ARE MADE. SUCH DELAYS AND COSTS WILL NOT BE THE RESPONSIBILITY OF THE C.O.S.A. THE C.O.S.A. WILL NOT ACCEPT UTILITIES WHICH ARE NOT CONSTRUCTED TO C.O.S.A. STANDARDS AND SPECIFICATIONS.
12. EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED USING AVAILABLE MEANS. THE C.O.S.A. WILL NOT BE RESPONSIBLE FOR INACCURATE OR INCOMPLETE SURVEY INFORMATION, AND ANY RESULTANT DELAYS AND COSTS.
13. VERTICAL LOCATIONS OF ALL UTILITIES SHOWN ON THE PLANS HAVE BEEN REFERENCED TO A BENCH MARK NOTED ON THE PLANS. CONTRACTOR SHALL EXERCISE CAUTION DURING EXCAVATION NEAR EXISTING UTILITIES SHOWN ON THE PLANS AND SHALL NOTIFY THE ENGINEER IF LOCATION DIFFERS FROM THAT SHOWN ON THE PLANS BEFORE CONTINUING WITH CONSTRUCTION.
14. SHOULD CONDITIONS VARY FROM THOSE SHOWN ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE C.O.S.A. PRIOR TO CONTINUING CONSTRUCTION.
15. THE CONTRACTOR SHALL PROTECT SURVEY MARKERS, MONUMENTS, ETC. DURING CONSTRUCTION. THE CONTRACTOR SHALL RESTORE/REPLACE, AT NO ADDITIONAL EXPENSE TO THE OWNER, ANY DAMAGE DONE BY CONSTRUCTION ACTIVITIES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY HIS OR HER OPERATIONS. ANY DAMAGE SHALL BE REPLACED/REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE C.O.S.A.
17. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION AND BUILDING PLACEMENT WITH ALL OTHER UTILITIES CONSTRUCTION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY UNSUITABLE MATERIAL FROM THE OPERATION. FURNISHING AND COMPACTING SUITABLE REPLACEMENT BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
19. UNSUITABLE MATERIALS UNDER WATER AND/OR SEWER MAINS SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL PROPERLY COMPACTED TO 95% OF MAXIMUM DENSITY. BACKFILL SHALL BE COMPACTED IN A MAXIMUM OF ONE-FOOT (1) LIFTS. DENSITY TESTS SHALL BE TAKEN AFTER COMPACTION OF EVERY LIFT.
20. THE CONTRACTOR(S) SHALL NOTIFY ALL APPLICABLE UTILITIES COMPANIES, THE ENGINEER OF RECORD, THE PROPERTY OWNER, AND THE C.O.S.A. 72 HOURS PRIOR TO INITIATING ANY EXCAVATION ACTIVITIES, OR AS SPECIFIED BY THE UTILITY COMPANIES AND THE PERMITS OBTAINED FOR THE WORK.
21. THE ENGINEER OF RECORD AND THE C.O.S.A. SHALL BE GIVEN FORTY-EIGHT HOURS (48-HR) NOTICE OF ALL REQUESTED MEETINGS AND/OR TESTING MEASURES RELATED TO THE PROJECT.
22. ALL WORK, MATERIALS, AND EQUIPMENT SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELEVANT C.O.S.A. STANDARDS AND REQUIREMENTS AS WELL AS STATE AND LOCAL REGULATIONS.
23. ALL UNDERGROUND UTILITY EQUIPMENT, MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF ST. AUGUSTINE (C.O.S.A.) STANDARDS AND SPECIFICATIONS DESIGN MANUAL AND DETAILS, AND ALL INTERIM STANDARDS UPDATES, LATEST EDITION, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, AND THE APPROVED PLANS.
24. ALL UTILITY CROSSINGS SHALL COMPLY WITH F.D.E.P. REGULATIONS (CHAPTER 62-555.314, F.A.C.).
25. DURING ALL EXCAVATION ACTIVITIES NEAR EXISTING C.O.S.A. UTILITIES, CONTRACTOR SHALL PROTECT EXISTING PIPE FROM DAMAGE AND NECESSARY REPAIRS. CONTRACTOR SHALL RESTRAIN EXISTING PIPE AS NECESSARY AND/OR AS DIRECTED BY THE PLANS OR C.O.S.A. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE, AND THE EXISTING UTILITIES SHALL BE REPLACED/REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR THE C.O.S.A.
26. LANDSCAPING TREES SHALL HAVE A MINIMUM OF 7.5 FEET SEPARATION FROM THE EDGE OF PIPELINE TO THE EDGE OF THE TREE CANOPY.

GENERAL NOTES (CONTINUED)

27. ALL ROCK AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA AND C.O.S.A. STANDARDS AND/OR PIPE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES FOR NEW AND RELOCATED PIPE SHALL BE REMOVED TO A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE BACKFILL. CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED FOR NEW AND RELOCATED PIPES. THE BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE NEW AND RELOCATED PIPES AND TO A SUFFICIENT HEIGHT ABOVE SUCH PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE.
28. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF SIX INCHES BELOW UTILITIES BEING LAID. CONTRACTOR SHALL SECURE ALL REQUIRED FEDERAL, STATE AND LOCAL PERMITS FOR DEWATERING.
29. FOR WATER AND WASTEWATER MAINS SMALLER THAN 12 INCHES, THE MINIMUM AND MAXIMUM COVER SHALL BE 30 INCHES AND 36 INCHES, RESPECTIVELY, IN UNPAVED AREAS, AND 36 INCHES AND 42 INCHES, RESPECTIVELY, IN PAVED AREAS, OR AS REQUIRED WITHIN F.D.O.T. OR RAILROAD RIGHTS-OF-WAY. FOR MAINS GREATER THAN 12 INCHES, THE MINIMUM AND MAXIMUM COVER SHALL BE 42 INCHES AND 54 INCHES, RESPECTIVELY. EXCEPTIONS MAY BE MADE FOR CONFLICTS.
30. INSTALLATION OF FORCE MAINS OR WATER MAINS USING PIPE DEFLECTION WITHOUT FITTINGS SHALL ONLY BE ALLOWED AS APPROVED IN ADVANCE BY THE CITY. CONTRACTOR SHALL USE FITTINGS AS NECESSARY TO INSTALL PIPE WITHOUT JOINT DEFLECTION AT NO ADDITIONAL COST TO THE CITY. WHERE FORCE MAINS OR WATER MAINS ARE DEFLECTED WITHOUT FITTINGS, THE MAXIMUM JOINT DEFLECTION SHALL BE 80% OF THAT RECOMMENDED BY THE MANUFACTURER.
31. FITTINGS SHALL BE USED AT LOCATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL FITTINGS SHALL BE RESTRAINED PER THE RESTRAINED JOINT TABLE IN THE APPROVED PLAN SET.
32. ALL UNDERGROUND VALVES SHALL BE INSTALLED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH TOP SET TO FINAL GRADE IN ACCORDANCE WITH THE C.O.S.A. DETAILS AND SPECIFICATIONS. ALL VALVES SHALL HAVE PEG LOCATORS (145.7 KILOHERTZ).
33. ALL UNDERGROUND VALVES SHALL BE INSTALLED SO THAT THE OPERATING NUT IS ACCESSIBLE USING A STANDARD VALVE KEY. VALVE EXTENSIONS SHALL BE INSTALLED AS NECESSARY SO THAT THE OPERATING NUT IS A MAXIMUM OF 36" BELOW FINAL GRADE.
34. LOCATE WIRE AND LOCATOR PEGS SHALL BE INSTALLED ACCORDING TO C.O.S.A. STANDARDS, LATEST EDITION. IN GENERAL, LOCATE WIRE SHALL BE 10 GAUGE, SINGLE STRAND, UF RATED (DIRECT BURIAL), COPPER WIRE WITH 30 MIL (MIN.) INSULATION WITH EITHER WHITE OR YELLOW COLOR. LOCATOR PEGS SHALL BE ZIP-TIED TO BOTTOM SECTION OF ALL VALVE BOXES. THE ENTIRE LOCATING SYSTEM SHALL BE INSPECTED BY THE C.O.S.A. PRIOR TO BACKFILLING. ENTIRE LOCATING SYSTEM SHALL BE TESTED BY A CERTIFIED UTILITY LOCATOR OR BY A LICENSED ELECTRICAL CONTRACTOR, WITH THE TEST REPORT SUBMITTED TO C.O.S.A. THE C.O.S.A. SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY LOCATE SYSTEM TESTING. WHERE INSTALLED UNDER PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT. IF ANY LOCATION IS IDENTIFIED WHERE THE TRACER WIRE IS NOT CONTINUOUS OR WHERE THE LOCATOR PEG DOES NOT DETECT, THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER OR C.O.S.A., SHALL MAKE NECESSARY REPAIRS AND RE-TEST. SUCCESSFUL LOCATE SYSTEM TEST REPORT IS REQUIRED PRIOR TO INSTALLATION OF WATER METERS.
35. CONTRACTOR IS RESPONSIBLE FOR PROPER NOTIFICATION TO INSPECTING AUTHORITIES BEFORE AND DURING CONSTRUCTION.
36. CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) CALENDAR DAYS NOTICE TO THE C.O.S.A. PRIOR TO SCHEDULING THE FINAL INSPECTION.
37. NO WORK REQUIRING CITY INSPECTION SHALL BE DONE AFTER 4:00 P.M. OR BEFORE 8:30 A.M. MONDAY THROUGH THURSDAY. NO WORK REQUIRING CITY INSPECTION SHALL BE DONE ON FRIDAYS, SATURDAYS, SUNDAYS, OR CITY RECOGNIZED HOLIDAYS. UNLESS THE PROPER AND EFFICIENT PROSECUTION OF THE WORK REQUIRES OPERATIONS DURING THESE HOURS. IN THE EVENT THAT SUCH WORK HOURS ARE NECESSARY, THE CONTRACTOR SHALL REIMBURSE THE CITY FOR ALL COSTS ASSOCIATED WITH INSPECTION STAFF OVERTIME. WRITTEN NOTIFICATION FOR THE WORK SHALL BE PROVIDED TO THE CITY A MINIMUM OF 48 HOURS BEFORE STARTING WORK WITHIN THE ABOVE RESTRICTED HOURS AND SHALL BE SUBJECT TO THE AVAILABILITY OF THE INSPECTION STAFF. NO WORK THAT DOES NOT REQUIRE CITY INSPECTION SHALL BE DONE AFTER 7:00 P.M. OR BEFORE 7:00 A.M., OR ON SATURDAYS AND SUNDAYS, UNLESS THE PROPER AND EFFICIENT PROSECUTION OF THE WORK REQUIRES OPERATIONS DURING THESE TIMES. WRITTEN NOTIFICATION FOR THE WORK DURING THESE TIMES SHALL BE PROVIDED TO THE CITY A MINIMUM OF 48 HOURS BEFORE STARTING THE WORK. THE CITY SHALL HAVE 24 HOURS TO REVIEW AND APPROVE THE NOTIFICATION BEFORE THE WORK MAY BE STARTED.
38. THE C.O.S.A. RESERVES THE RIGHT TO KEEP ALL C.O.S.A. UTILITIES REMOVED DURING CONSTRUCTION.
39. ALL SPOOL PIECES TO BE MINIMUM 30-INCHES. CONTRACTOR SHALL PLAN AHEAD ACCORDINGLY TO ALLOW FOR THIS REQUIREMENT, AND SHALL NOTIFY CITY IMMEDIATELY SHOULD CONDITIONS DISCOVERED DURING CONSTRUCTION NECESSITATE ALTERNATE SOLUTIONS. MINIMUM 30-INCH SPOOL PIECES CANNOT BE MET. ALL ALTERNATE FITTINGS, SUCH AS FOSTER ADAPTERS? FOR EXAMPLE, SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
40. ALL OF THE STANDARD C.O.S.A. CONSTRUCTION DETAILS SHALL APPLY TO THIS PROJECT, REGARDLESS OF DETAILS SHOWN OR NOT SHOWN ON THE PLANS.
41. ADHERENCE TO THE PLANS AND SPECIFICATIONS CONTAINED HEREIN, OR THE CITY REPRESENTATIVE'S APPROVAL ON ANY ASPECT OF ANY CONSTRUCTION OPERATION COVERED BY THESE PLANS AND SPECIFICATIONS, SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THEIR ULTIMATE RESPONSIBILITY FOR THE SATISFACTORY COMPLETION OF THE WORK.
42. CITY VALVES, FIRE HYDRANTS, LIFT STATIONS, FLUSHING HYDRANTS, AND SEWER MANHOLE COVERS ARE TO BE EXERCISED BY CITY STAFF OR OTHERS UNDER THE DIRECT SUPERVISION OF THE CITY INSPECTOR.
43. IN CASE OF ACCIDENTAL IMPACTS TO ANY CITY UTILITY SYSTEM IMMEDIATELY CONTACT THE CITY PUBLIC WORKS DEPARTMENT AT 904-825-1040 OR AFTER HOURS, CONTACT THE CITY WATER TREATMENT PLANT 904-825-1044.

NOTICE OF PROCEDURE

1. ALL BUILDING PERMITS AND WATER METERS PROCESSED THROUGH THE C.O.S.A. PLANNING & BUILDING DEPARTMENT, OR THE C.O.S.A. CUSTOMER SERVICE DEPARTMENT SHALL BE ACCOMPANIED BY A SET OF CIVIL SITE DESIGN AND CONSTRUCTION PLANS STAMPED APPROVED BY THE C.O.S.A. PUBLIC WORKS DEPARTMENT.
2. C.O.S.A. PUBLIC WORKS DEPARTMENT SITE PLAN APPROVAL IS REQUIRED PRIOR TO OBTAINING A BUILDING PERMIT.
3. ALL CONNECTIONS TO THE WATER AND/OR SEWER SYSTEM, FLUSHING, AND PRESSURE TESTS TO BE PERFORMED BY THE UTILITY CONTRACTOR OR LICENSED MASTER PLUMBER MUST BE SCHEDULED AT LEAST FIVE (5) WORKING DAYS IN ADVANCE WITH THE C.O.S.A. THE C.O.S.A. INSPECTOR MUST BE PRESENT PRIOR TO THE CONNECTION BEING MADE OR TESTING.
4. IT IS THE ENGINEER OF RECORD'S RESPONSIBILITY TO SECURE APPLICABLE PERMITS PRIOR TO CONSTRUCTION.
5. THE OWNER SHALL PURCHASE ALL WATER METERS THROUGH THE C.O.S.A.
6. WATER AND/OR SEWER UTILITY CONNECTION FEES SHALL BE PAID PRIOR TO ISSUANCE OF A SITE AND/OR BUILDING PERMIT.
7. ALL ON-SITE PRIVATE WATER AND/OR SEWER CONSTRUCTION BETWEEN THE METER OR CLEANOUT AND BUILDING MAY BE INSPECTED BY THE C.O.S.A. TO ENSURE STANDARDS ARE MET.
8. ALL REQUIREMENTS BY THE C.O.S.A. (I.E. FINAL INSPECTION, CORRECTION OF PUNCH LIST ITEMS, "AS-BUILTS", F.D.E.P. CERTIFICATION OF COMPLETION, BILL OF SALE, RECORDED EASEMENTS, ETC.) MUST BE SATISFIED PRIOR OF ISSUANCE OF CERTIFICATES OF OCCUPANCY.

AS-BUILT NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRODUCE, SUBMIT AND OBTAIN APPROVAL OF REPRODUCIBLE "AS-BUILT" DRAWINGS FROM JURISDICTIONAL AGENCIES AS MAY BE REQUIRED.
2. "AS-BUILT" INFORMATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL EMPLOY THE SERVICES OF A SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO DETERMINE ALL "AS-BUILT" INFORMATION.
3. REFER TO C.O.S.A.'S "UTILITY CONSTRUCTION AND DEDICATION REQUIREMENTS" AND SECTION 30 OF THE CITY'S MANUAL, LATEST EDITIONS, FOR A COMPLETE DESCRIPTION AND LISTING OF THE CITY'S AS-BUILT REQUIREMENTS.
4. ALL C.O.S.A. AS-BUILT REQUIREMENTS ARE REQUIRED TO BE MET PRIOR TO C.O.S.A. ACCEPTANCE OF UTILITIES, INSTALLATION OF WATER METERS, OR FINAL PAYMENT.
5. ALL AS-BUILT PLANS AND CAD DRAWINGS MUST BE PROVIDED ON THE NAD 83 STATE PLANE FLORIDA EAST COORDINATE SYSTEM (US FEET), AND CONTAIN A MINIMUM OF FOUR (4) GPS ACQUIRED LOCATION POINTS. THE C.O.S.A. WILL NOT ACCEPT AS-BUILT PLANS OR CAD DRAWINGS NOT REFERENCED TO S.P.C.
6. A MINIMUM OF FIVE WORKING DAYS PRIOR TO THE PRELIMINARY FIELD INSPECTION, TWO (2) SETS OF PRELIMINARY BLACKLINE "AS-BUILTS" SHOWING THE REQUIRED INFORMATION, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND THE C.O.S.A.
7. THE RECORD OR "AS-BUILT" DRAWINGS TO BE PREPARED BY THE CONTRACTOR AND SUBMITTED AT THE TIME OF THE REQUEST FOR A LETTER OF RELEASE TO PLACE THE CONSTRUCTION INTO SERVICE WILL CLEARLY DEPICT THE VERTICAL CLEARANCES BETWEEN WATER, SEWER (INCLUDING STORM) AND REUSE LINES AT ALL CROSSINGS AND PARALLEL RUNS WHERE THE HORIZONTAL SEPARATION IS LESS THAN 10 FEET. IN ADDITION, THE CENTERING OF UNLIFT LENGTHS OF PIPE (USUALLY 20 FEET) AT POINTS OF CROSSINGS WILL BE DOCUMENTED ON THE DRAWINGS AND MEASURING CONSTRUCTIONS WILL BE CLEARLY DEPICTED IN CASES WHERE A MINIMUM OF 18 INCHES OF VERTICAL CLEARANCE BETWEEN THE WATER AND SEWER (INCLUDING STORM) LINES IS NOT POSSIBLE.

POTABLE WATER SYSTEM NOTES

1. ALL WATER MAINS 4" THROUGH 12" DIAMETER SHALL BE PVC C-900, DR-18, COLOR "BLUE" WITH PUSH-ON GASKETED JOINTS OR C-906 HDPE DR 11 COLOR "BLUE" OR DIP CLASS 350.
2. ALL WATER MAINS 16" THROUGH 20" DIAMETER SHALL BE PVC C-905, DR-25, COLOR "BLUE" WITH PUSH-ON GASKETED JOINTS OR C-906 HDPE DR 11 COLOR "BLUE" OR DIP CLASS 250.
3. ALL WATER MAINS 24" AND LARGER DIAMETER SHALL BE DUCTILE IRON PIPE.
4. ALL WATER LINES 2" DIAMETER OR LESS SHALL BE HDPE CTS DR 9 COLOR "BLUE".
5. ALL CURB STOPS ARE TO BE FORD BALL-TYPE OR EQUAL WITH LOCKING CAPACITY AND LARGE NUT. 1" MINIMUM. SEE C.O.S.A. APPROVED MATERIALS AND MANUFACTURER'S LIST, LATEST EDITION.
6. THE SEPARATION REQUIREMENT BETWEEN POTABLE WATER MAINS AND OTHER UTILITIES SHALL BE PER CHAPTER 62-555, F.A.C.
7. A FULL UNLIFT LENGTH OF WATER MAIN PIPE (USUALLY 20 FEET) SHALL BE CENTERED AT THE POINT OF CROSSING OF ALL WATER AND SEWER (INCLUDING STORM) LINES AT THE POINT OF CROSSINGS REGARDLESS OF THE VERTICAL SEPARATIONS.
8. WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH THE APPROVAL OF THE C.O.S.A. AND THE HEALTH DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED CONTAMINATION.
9. NO CONNECTION TO EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED, DISINFECTED, CLEARED FOR SERVICE AND ACCEPTED FOR MAINTENANCE BY THE C.O.S.A. AND F.D.E.P.
10. JUMPER CONNECTIONS WITH BACKFLOW PREVENTION DEVICE SHALL BE USED TO FILL OR FLUSH WATER MAINS.
11. ALL NEW AND RELOCATED WATER MAIN PIPE, FITTINGS, VALVES, AND FIRE HYDRANTS SHALL BE IN CONFORMANCE WITH APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) AND THE C.O.S.A. STANDARDS.
12. ALL NEW AND RELOCATED WATER MAIN PIPE AND FITTINGS WILL COMPLY WITH THE LATEST F.D.E.P. AND AWWA STANDARDS FOR LEAD CONTENT.
13. ALL NEW AND RELOCATED WATER MAINS SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C605, LATEST EDITION.
14. ALL NEW AND RELOCATED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651 AND RULE 62-555.340, F.A.C.
15. ALL NEW AND RELOCATED WATER SERVICES SHALL BE IN CONFORMANCE WITH THE STATE PLUMBING CODE AND THE C.O.S.A. STANDARDS.
16. THE BACTERIOLOGICAL SAMPLE POINTS SHALL BE INDICATED ON THE ASBUILT DRAWINGS. THE SAMPLE POINT NUMBERING AND STATIONING SHALL CORRESPOND TO THOSE ON THE BACTERIOLOGICAL SAMPLE CHAIN OF CUSTODY FORMS.
17. ALL METER BOX ASSEMBLIES ARE TO BE INSTALLED OUTSIDE PAVED AREAS UNLESS CONDITIONS NECESSITATE OTHERWISE AND ALTERNATE LOCATIONS ARE APPROVED IN ADVANCE BY THE CITY. ALL METER BOX ASSEMBLIES ARE TO BE INSTALLED 1-FOOT INSIDE RIGHT-OF-WAY LINES UNLESS CONDITIONS NECESSITATE OTHERWISE AND ALTERNATE LOCATIONS ARE APPROVED IN ADVANCE BY THE CITY.

WASTEWATER SYSTEM NOTES

1. INTERIOR LINERS ARE REQUIRED ON JUNCTION MANHOLES WITH THREE OR MORE INVERTS, AND/OR MANHOLES RECEIVING FORCE MAIN FLOW. LINERS SHALL BE SPECTRASHIELD, SEWPERCOAT, OR EQUAL AS APPROVED BY THE C.O.S.A.
2. SANITARY SEWER LINE TO DEPTHS OF 10' SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034 COLORED GREEN. SANITARY SEWER LINE OF DEPTHS 10' TO 15' SHALL BE SDR-26 PVC. ALL SANITARY SEWER LINES SHALL BE GREEN AND CLEARLY MARKED ON THE PIPE.
3. SANITARY SEWER FORCE MAIN 4" AND LARGER SHALL BE C900 DR25 PVC PIPE CONFORMING TO ASTM D-1784, D-1785, AND D-2241. DUCTILE IRON PIPE SHALL ONLY BE USED WITH PRIOR APPROVAL BY THE THE C.O.S.A. SANITARY FORCE MAIN SHALL BE COLOR CODED GREEN AND CLEARLY MARKED.
4. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD AND THE C.O.S.A. ALL VIDEO LOGS, WRITTEN REPORTS, AND DEFLECTION TEST RESULTS FOR REVIEW AND APPROVAL.
5. THE CONTRACTOR SHALL CONTACT THE C.O.S.A. FOR INSPECTION AFTER INSTALLATION OF GREASE TRAPS, INTERCEPTORS, AND/OR OIL-WATER SEPARATORS.

HYDROSTATIC TESTING NOTES

1. AFTER ALL PRESSURE PIPES ARE INSTALLED, THE JOINTS COMPLETED, AND THE TRENCH BACKFILLED, THE NEWLY LAID PIPE AND APPURTENANCES SHALL BE SUBJECTED TO A HYDROSTATIC TEST FOR A PERIOD OF AT LEAST TWO (2) HOURS. THE ENGINEER AND THE C.O.S.A. MUST BE NOTIFIED AT LEAST 48 HOURS BEFORE A TEST IS TO BE PERFORMED. TEST SHALL BE AS SET FORTH IN AWWA STANDARD C605. ANY LEAKS DETECTED SHALL BE CORRECTED AND THE SECTION OF PIPELINE RETESTED. THE TWO HOUR TEST PERIOD SHALL BEGIN WHEN ALL JOINTS HAVE BEEN DETERMINED TO BE WATER TIGHT. LEAKAGE SHALL BE LIMITED TO THAT ALLOWANCE SET FORTH IN SECTION 4 OF AWWA STANDARD C600 LATEST EDITION. HYDROSTATIC AND LEAKAGE TEST AND BLOW-DOWN (ZEROING OF GAUGE) MUST OCCUR BEFORE SAMPLING FOR BACTERIOLOGICAL TEST. THE MAXIMUM ALLOWABLE PRESSURE LOSS IS 5 PSI.

UTILITY ABANDONMENT

1. ALL EXISTING WATER AND SEWER UTILITY SERVICES THAT WILL NO LONGER BE UTILIZED MUST BE PROPERLY ABANDONED BY CONTRACTOR BY CUTTING, CAPPING, AND REPAIRING SERVICE CONNECTIONS AT THE UTILITY MAIN LOCATIONS BY METHODS DIRECTED BY THE CITY INSPECTOR AND UNDER CITY INSPECTOR'S OBSERVATION. EXCAVATION MAY BE REQUIRED IN ORDER TO DETERMINE PROPER ABANDONMENT METHODS.
2. ALL EXISTING WATER AND SEWER UTILITY SERVICES INTENDED TO BE REUSED MUST BE INVESTIGATED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS AND/OR REPLACEMENT TO RENEW EXISTING POTABLE WATER SERVICES, AND SEWER SERVICE LATERALS. ALL UTILITIES MUST BE RETURNED TO GOOD WORKING ORDER. ALL INVESTIGATIVE AND REPAIR/REPLACEMENT METHODS WILL BE AS DIRECTED BY THE CITY INSPECTOR AND UNDER CITY INSPECTOR'S OBSERVATION. EXCAVATION AND OTHER PROCEDURES SUCH AS CLOSED-CIRCUIT TV MAY BE REQUIRED IN ORDER TO DETERMINE CONDITION.

STANDARD WATER/SEWER/RECLAIMED WATER SEPARATION REQUIREMENTS

THE CONTRACTOR SHALL INSTALL ALL MAINS IN ACCORDANCE WITH THE REQUIREMENTS OF RULE 62-555.314, F.A.C. BELOW. THE CONTRACTOR SHALL NOTIFY THE C.O.S.A. IN ANY INSTANCE WHERE THE BELOW REQUIREMENTS CANNOT BE MET PRIOR TO INSTALLATION OF PIPE.

*62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.

FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART OF CHAPTER 62-610, F.A.C.

STANDARD WATER/SEWER/RECLAIMED

WATER SEPARATION REQUIREMENTS (CONTINUED)

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM, AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO AS TO AVOID CONFLICT MANHOLES. IF THE WATER MAIN AND THE OTHER PIPELINE INTERSECT, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART OF CHAPTER 62-610, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C.

(3.) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A

(B) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE, WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT IN ACCORDANCE WITH PART V OF THIS CHAPTER AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:

1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.

2. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT

3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-SUBPARAGRAPHS A. THROUGH D. BELOW.

A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.

B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).

C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.

D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C. AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE

(5) EXCEPTIONS. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF PUBLIC HEALTH AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:

(A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE:

OR THE OTHER PIPELINE, OR

1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPE PIPELINE;

2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN

3. USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.

(B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTAL FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:

1. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER."

