

1. ALL WORK SHALL BE ACCOMPLISHED ACCORDING TO APPLICABLE STATE, COUNTY, MUNICIPAL, AND LOCAL CODES.
2. WORK IN CONNECTION WITH UTILITY OWNED BY THE CITY OF WEST PALM BEACH (CITY) SHALL BE IN CONFORMANCE WITH THE CITY'S LATEST TECHNICAL SPECIFICATIONS, STANDARD CONSTRUCTION DETAILS, AND APPROVED MATERIALS LIST (AML).
3. CONTRACTOR WILL BE RESPONSIBLE TO CONTACT ALL UTILITY COMPANIES FOR LOCATION OF THEIR EXISTING FACILITIES. IT WILL THEN BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THESE FACILITIES FOR THE EXACT LOCATIONS. CONTACT SUNSHINE "811" NOT LESS THAN 2 FULL BUSINESS DAYS AND NO MORE THAN 5 BUSINESS DAYS PRIOR TO DIGGING. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT / LOCATE OTHER UTILITIES NOT SUBSCRIBING TO "SUNSHINE" ONE CALL "811."
4. CONTRACTOR MUST ABIDE BY "UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT," CHAPTER 556, FLORIDA STATUTES (F.S.). OTHER LAWS MAY ALSO AFFECT EXCAVATIONS SUCH AS, "TRENCH SAFETY ACT," PART III, CHAPTER 553, F.S.; "THE GAS SAFETY LAW OF 1967," PART 1, CHAPTER 368, F.S.; THE FEDERAL PIPELINE SAFETY ACT; AND OSHA STANDARD 1926.651.
5. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF THESE UTILITIES PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY OTHER UTILITIES (NOT SHOWN ON THE PLANS) WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE ANY UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY AND NOTIFY THE RESPECTIVE OWNERS TO RESOLVE UTILITY CONFLICTS AND UTILITY ADJUSTMENTS, AS REQUIRED.
6. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST 2 BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN (10) FEET OF CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.
7. CONTRACTOR WILL ASSUME LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE CONTRACTOR'S OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND THE APPROPRIATE UTILITY COMPANIES WHEN THEIR EXISTING FACILITIES CONFLICT WITH THE CONSTRUCTION.
8. LIMITED SUBSURFACE EXPLORATORY INVESTIGATION OF CITY UTILITIES WAS PERFORMED.
9. EXISTING CITY-OWNED UTILITIES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL SUBMIT APPLICATION FOR WORK WITHIN R.O.W. ALONG WITH THE PLANS FOR MAINTENANCE OF TRAFFIC AT THE PRE-CONSTRUCTION MEETING. CITY OF W.P.B. APPROVAL IS REQUIRED PRIOR TO IMPLEMENTATION. BARRICADES AND LIGHTING FOR TRAFFIC CONTROL SHALL CONFIRM TO CURRENT EDITION OF F.D.O.T. MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES.

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11. CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR CITY APPROVAL PRIOR TO ORDERING OF MATERIALS AND/OR INSTALLATION. THE LATEST EDITION OF CITY APPROVED MATERIALS LIST (AML) IS INCLUDED IN THE CONTRACT DOCUMENTS.
12. CONTRACTOR PROPOSING SUBSTITUTION OF SPECIFIED MATERIALS AFTER AWARD OF BID SHALL BE DIRECTED TO ENGINEER-OF-RECORD AND ACCOMPANIED WITH MANUFACTURER'S DRAWINGS, SPECIFICATION AND PERTINENT DATA TO ESTABLISH EQUIVALENCY OF THE PROPOSED SUBSTITUTION. AT THE CCITY'S OPTION, A SIGNED AND SEALED CERTIFICATION BY A FLORIDA LICENSED ENGINEER MAY BE REQUIRED. THERE IS NO GUARANTEE THAT APPROVAL OF SUBSTITUTE MATERIALS PROPOSED WILL BE GRANTED.
13. EXISTING GAS MAINS WITHIN THE PROJECT LIMITS SHALL BE RELOCATED BY OTHERS IN CONJUNCTION WITH IMPROVEMENT WORK.
14. WHEN DEWATERING IS REQUIRED, DEWATERING PUMPS SHALL BE POWERED BY ELECTRIC DRIVEN MOTORS ONLY. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH FLORIDA POWER & LIGHT (FPL) TO PROVIDE THE TEMPORARY ELECTRIC SERVICE POINTS FOR THE DEWATERING OPERATION.
15. DEWATERING SHALL BE INCLUDED IN THE COST OF UTILITY PAY ITEMS.
16. SANITARY SEWER PAY ITEMS SHALL INCLUDE SEWAGE FLOW BY-PASS PUMPING, ENVIRONMENTAL PROTECTION, AND PROPER HANDLING OF SEWAGE DISCHARGE.
17. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND/OR REMOVAL, STORAGE AND REINSTALLATION OF EXISTING ITEMS TO BE ADJUSTED BUT NOT REPLACED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER-OF-RECORD PRIOR TO COMMENCING CONSTRUCTION IF SAID ITEMS ARE DAMAGED, MISSING, OR IN A DETERIORATED CONDITION.
18. ALL EXISTING CITY UTILITY MARKERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED, STORED, AND REINSTALLED BY THE CONTRACTOR. LOCATION TO BE DETERMINED BY THE CITY. CONTRACTOR SHALL EXERCISE CAUTION DURING THE REMOVAL OF EXISTING CITY UTILITY MARKERS TO PREVENT ANY UNNECESSARY DAMAGE. UTILITY MARKERS DAMAGED BEYOND USE, AS DETERMINED BY THE CITY REPRESENTATIVE, SHALL BE REPLACED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.
19. CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND SUPPORT EXISTING UTILITIES AND MAINTAIN CONTINUOUS SERVICE OF ALL UTILITIES, SPECIFICALLY WATER AND SEWER. FOR SCHEDULED TIE-INS/SERVICE CONNECTIONS, THE CONTRACTOR SHALL COORDINATE WITH PRIVATE PROPERTY OWNERS OR THEIR REPRESENTATIVE AT LEAST 7 CALENDAR DAYS PRIOR TO ANY SERVICE INTERRUPTIONS. SCHEDULED TIE-INS/SERVICE CONNECTIONS SHALL BE SCHEDULED FOR AFTER HOURS OR NIGHT TIME DURING LOW DEMANDS (BETWEEN 10:00 P.M. AND 6:00 A.M.) AS REQUIRED BY THE CITY.
20. TRENCH RESTORATION AND BACKFILL SHALL BE IN CONFORMANCE WITH CITY REQUIREMENTS. ASSOCIATED COST SHALL BE INCLUDED IN THE UTILITY PAY ITEMS.

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REQUIREMENTS. ASSOCIATED COST SHALL BE INCLUDED IN THE UTILITY PAY ITEMS.

21. UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATION, THE FOLLOWING REQUIREMENTS SHALL APPLY:
- A. COMPACTION OF BACKFILL SHALL BE ACCORDING TO ASTM D1557 AND SHALL BE 98% WITHIN RIGHT OF WAY OR UNDER STRUCTURES; 95% ALL OTHER BACKFILL. ALL FAILED DENSITY TESTS MUST BE IMMEDIATELY REPORTED TO THE CITY.
 - B. UNLESS OTHERWISE SPECIFIED, FURNISH CONCRETE WITH TYPE II PORTLAND CEMENT. ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS TO BE 3000 PSI FOR WALKS, CURBS, GUTTERS, DRIVEWAYS AND SIMILAR CONSTRUCTION; 4000 PSI FOR ALL OTHER WORK. UNLESS OTHERWISE SPECIFIED, MAXIMUM SLUMP SHALL BE 5". CYLINDER TEST AND PAYMENT THEREFORE SHALL BE AS INDICATED IN THE SPECIFICATIONS.
 - C. CAST-IN-PLACE CONCRETE SHALL CONFORM TO PERTINENT STANDARDS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE AMERICAN SOCIETY OF TESTING MATERIALS (ASTM).
22. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. WELDED WIRE MESH SHALL CONFORM TO ASTM A185. BENDS AND PLACEMENT SHALL CONFORM TO PERTINENT STANDARDS OF ACI AND ASTM.
23. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A MINIMUM $\frac{3}{4}$ " CHAMFER.
24. ALL STORM, SANITARY, WATER OR FORCE MAIN PIPE SHALL BE LAID IN A CLEAN, DRY TRENCH. DE-WATERING AS REQUIRED SHALL BE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL MAKE ALL INSTALLATION PURSUANT TO THE FLORIDA TRENCH ACT. DISCHARGE WATER SHALL NOT BE DIRECTED THROUGH THE PIPE BEING LAID.
25. REFER TO THE CITY OF WEST PALM BEACH CODE OF ORDINANCES, CHAPTER 90-UTILITIES, ARTICLE IV - SEWERS AND SEWAGE DISPOSAL, FOR GREASE, OIL AND SAND SEPARATOR REQUIREMENTS.

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STANDARD WATER & SEWER SEPARATION STATEMENT

(F.A.C. 62-555.314, EFFECTIVE 08/28/03)

PER F.A.C. 62-555.314, AUGUST 28, 2003:

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 III OF CHAPTER 62-610, F.A.C.
 - (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 III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY 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.
 - (e.) THE CITY OF WEST PALM BEACH'S MINIMUM HORIZONTAL SEPARATION REQUIREMENT FOR ITEMS (a) AND (b) IS 5 FEET, PREFERABLY 10 FEET. DISTANCES LESS THAN 5 FEET MAY BE APPROVED ON A CASE BY CASE BASIS AND MUST MEET MINIMUM REQUIREMENTS OF F.A.C. 62-555.314, AS STATED HEREIN. EXCEPTIONS LISTED IN PARAGRAPH 5 REQUIRE CITY APPROVAL PRIOR TO INSTALLATION.

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NOTE 2 CONTINUED FROM GN-2

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 THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, 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 III 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 III OF CHAPTER 62-610, F.A.C.

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NOTE 3 CONTINUED FROM GN-2.1

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 SANITARY SEWER MANHOLE.
- (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:
 - i. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.
 - ii. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
 - iii. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS 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 AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE.
 - c. EACH CONFLICT MANHOLE SHALL HAVE A MINIMUM OF ONE 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.

CONTINUED ON GN-2.3

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NOTE 4 CONTINUED FROM GN-2.2

4. SEPARATION BETWEEN FIRE HYDRANT DRAINS & SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(a.) 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 REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLE TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLE 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 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 64E-6.002, F.A.C.

5. EXCEPTIONS:

WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN PARAGRAPH 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 RELIABILITY 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:

- i. 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:
- ii. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE: OR
- iii. USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT 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 HORIZONTALLY 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:

- i. 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 ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER WATER MAIN; AND
- ii. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (i.e., HAVING AN IMPACTSTRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

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CITY OF WEST PALM BEACH

IDENTIFICATION AND COLOR OF PIPE & FITTINGS:

A. POTABLE WATER MAINS

1. ALL WATER MAIN PIPE AND FITTINGS SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO OR APPLIED TO, THE EXTERNAL PIPE WALL.
2. UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 180-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG BOTH SIDES. FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.
3. BLUE WARNING TAPE WITH "WATER" PRINTED ON THE TAPE SHALL BE PLACED IN THE TRENCH DURING BACKFILL OF THE WATER PIPE, A VERTICAL DISTANCE OF 18" ABOVE THE CROWN OF THE PIPE.
4. ABOVEGROUND PIPE AT DRINKING WATER TREATMENT PLANTS AND PUMP STATIONS SHALL BE COLOR CODED AND LABELED IN ACCORDANCE WITH SUBSECTION 62-555.320(10), F.A.C.
5. INSTALL METALLIC TRACING WIRE OR LOCATING TAPE ON THE TOP OF ALL PVC PIPE FOR FUTURE LOCATING PURPOSES.

B. WASTEWATER FORCE MAINS

1. ALL WASTEWATER FORCE MAIN PIPE AND FITTINGS SHALL BE COLOR CODED OR MARKED USING GREEN AS A PREDOMINANT COLOR. UNDERGROUND PLASTIC PIPE SHALL HAVE A CO-EXTRUDED GREEN EXTERNAL SKIN OR SHALL BE WHITE OR BLACK PIPE WITH GREEN STRIPES INCORPORATED INTO, OR APPLIED TO, THE EXTERNAL PIPE WALL.
2. UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE GREEN STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 180-DEGREE INTERVALS AROUND THE PIPE AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG BOTH SIDES. FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.
3. ALL ABOVEGROUND WASTEWATER FORCE MAINS SHALL BE PAINTED SOLID GREEN.
4. GREEN WARNING TAPE WITH "WASTEWATER" PRINTED ON THE TAPE SHALL BE PLACED IN THE TRENCH DURING BACKFILL OF THE WASTEWATER PIPE, A VERTICAL DISTANCE OF 18" ABOVE THE CROWN OF THE PIPE.
5. INSTALL METALLIC TRACING WIRE OR LOCATING TAPE ON THE TOP OF ALL PVC PIPE FOR FUTURE LOCATING PURPOSES.

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C. WASTEWATER GRAVITY SEWERS

1. ALL PVC GRAVITY SEWER LINE, FITTINGS, AND LATERALS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE GREEN IN COLOR.
2. NO COLOR CODING OR IDENTIFICATION MARKINGS ARE REQUIRED ON VITRIFIED CLAY PIPE. METAL OR HDPE GRAVITY SEWER LINES SHALL HAVE AN INTEGRAL GREEN STRIPE OR PAINTED STRIPE TO IDENTIFY THE PIPE. THE INTEGRAL STRIPE OR PAINT SHALL BE PERMANENTLY AFFIXED TO EACH SIDE OF THE PIPE, 180° APART AND BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE.

D. RECLAIMED WATER MAINS

1. ALL RECLAIMED WATER VALVES AND OUTLETS SHALL BE APPROPRIATELY TAGGED OR LABELED (BEARING THE WORDS IN ENGLISH AND SPANISH: "DO NOT DRINK" TOGETHER WITH THE EQUIVALENT STANDARD INTERNATIONAL SYMBOL) TO WARN THE PUBLIC AND EMPLOYEES THAT THE WATER IS NOT INTENDED FOR DRINKING. ALL PIPING, PIPELINES, VALVES AND OUTLETS SHALL BE COLOR CODED, OR OTHERWISE MARKED, TO DIFFERENTIATE RECLAIMED WATER FROM DOMESTIC OR OTHER WATER. UNDERGROUND PIPING WHICH IS NOT MANUFACTURED OF METAL OR CONCRETE, SHALL BE COLOR CODED FOR RECLAIMED WATER DISTRIBUTION SYSTEMS USING PANTONE PURPLE 522C USING A LIGHT STABLE COLORANT. UNDERGROUND METAL AND CONCRETE PIPE SHALL BE COLOR CODED OR MARKED USING PURPLE AS A PREDOMINANT COLOR. IF TAPE OR PAINT IS USED TO MARK THE PIPE, THE TAPE OR PAINT SHALL BE PERMANENTLY AFFIXED TO THE TOP AND EACH SIDE OF THE PIPE (THREE LOCATIONS PARALLEL TO THE AXIS OF THE PIPE) AND BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE. FOR PIPES LESS THAN 24 INCHES IN DIAMETER, A SINGLE TAPE OR PAINTED STRIPE MAY BE USED ALONG THE TOP OF THE PIPE. VISIBLE, ABOVE-GROUND PORTIONS OF THE RECLAIMED WATER DISTRIBUTION SYSTEM SHALL BE CLEARLY COLOR CODED AND MARKED. IT IS RECOMMENDED THAT METER BOXES, DISTRIBUTION PIPES AND SPRINKLER MAINS LOCATED ON PRIVATE PROPERTIES, INCLUDING RESIDENTIAL PROPERTIES, BE COLOR CODED USING PANTONE PURPLE 522C.
2. PURPLE WARNING TAPE WITH "RECLAIM" PRINTED ON THE TAPE SHALL BE PLACED IN THE TRENCH DURING BACKFILL OF THE WASTEWATER PIPE, A VERTICAL DISTANCE OF 18" ABOVE THE CROWN OF THE PIPE.
3. INSTALL METALLIC TRACING WIRE OR LOCATING TAPE ON THE TOP OF ALL PVC PIPE FOR FUTURE LOCATING PURPOSES.

E. STORMWATER & DRAINAGE SEWERS

1. NO COLOR CODING OR IDENTIFICATION MARKINGS ARE REQUIRED ON THE PIPE.
2. GREEN WARNING TAPE WITH "STORMWATER" PRINTED ON THE TAPE SHALL BE PLACED IN THE TRENCH DURING BACKFILL OF THE STORMWATER PIPE, A VERTICAL DISTANCE OF 18" ABOVE THE CROWN OF THE PIPE.
3. INSTALL METALLIC TRACING WIRE OR LOCATING TAPE ON THE TOP OF ALL PVC PIPE FOR FUTURE LOCATING PURPOSES.

REVISED: JUNE-2016	GENERAL NOTES - IDENTIFICATION & COLOR CODING: PIPE SYSTEMS	STANDARD DETAIL
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1. FINAL LAMPING AND T.V. INSPECTION OF SANITARY GRAVITY SYSTEMS MAIN AND LATERALS AND STORMWATER SYSTEMS TO BE MADE BY CONTRACTOR UPON COMPLETION OF SYSTEMS. MANDREL SHALL BE PULLED THROUGH PIPE PRIOR TO T.V. INSPECTION. A COPY ON DVD OF THE T.V. INSPECTION WITH VOICE-OVER SHALL BE SUBMITTED PRIOR TO FINAL ACCEPTANCE.
2. ALL AS BUILT MEASUREMENTS & ELEVATIONS TO BE MADE BY A FLORIDA REGISTERED AND LICENSED LAND SURVEYOR.
3. CONTRACTOR SHALL PROVIDE ALL AS-BUILTS WITH FP&L POWER SUPPLY SHOWN, FROM SOURCE TO METER.
4. WARRANTY – ALL MATERIALS & EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR SHALL BE WARRANTED FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE CITY OF FAILURE OF ANY PART OF THE WARRANTED EQUIPMENT OR MATERIALS DURING WARRANTY PERIOD, THE AFFECTED PART, PARTS OR MATERIALS SHALL BE PROMPTLY REPLACED BY THE CONTRACTOR WITH NEW PARTS OR MATERIALS AT NO EXPENSE TO THE CITY. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS IMMEDIATELY AFTER NOTIFICATION, THE CITY MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.
5. CONTRACTOR SHALL PREPARE AND PROVIDE ALL AS-BUILT RECORD DRAWINGS (PARTIAL & FINAL) AS REQUIRED FOR RELEASE AND ACCEPTANCE OF NEW SYSTEM BY THE PBC HEALTH DEPARTMENT AND AS SPECIFIED PER CONTRACT DOCUMENTS. AS-BUILT DRAWINGS, SIGNED AND SEALED BY EITHER A CERTIFIED REGISTERED LAND SURVEYOR OR LICENSED PROFESSIONAL ENGINEER.
6. FINAL ACCEPTANCE OF CITY WATER AND SEWER INSTALLATION SHALL BE PREDICATED UPON RECEIPT OF AS-BUILT DRAWINGS, SIGNED AND SEALED BY EITHER A FLORIDA CERTIFIED REGISTERED LAND SURVEYOR OR FLORIDA LICENSED PROFESSIONAL ENGINEER. RECORD DRAWING REQUIREMENTS ARE SPECIFIED IN THE CONTRACT DOCUMENTS.

REVISED: JUNE-2016	GENERAL NOTES - PROJECT CLOSEOUT REQUIREMENTS	STANDARD DETAIL
ISSUED: 2016	CITY OF WEST PALM BEACH	GN-4