JEFFERSON PARISH DEPARTMENT OF ENGINEERING

WATER DISTRIBUTION SYSTEMS GENERAL STANDARD NOTES

1. CONTRACTORS SHALL NOTIFY THE DEPARTMENT OF WATER AT 736-6743 AND THE DEPARTMENT OF ENGINEERING, INSPECTION DIVISION AT 736-6793, 48 HOURS PRIOR TO ANY FIELD WORK RELATING TO WATER LINES, WATER VALVES, WATER METERS, HYDRANTS, ETC. ALL WATER VALVES 16 INCH AND LARGER SHALL BE OPERATED BY PARISH PERSONNEL. SMALLER VALVES MAY BE OPERATED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF JEFFERSON PARISH PERSONNEL.
2. ALL DUCTILE IRON/CAST IRON VALVES, HYDRANTS, FITTINGS, ETC., SHALL BE OF DOMESTIC UNITED STATES MANUFACTURE. NO FITTINGS MANUFACTURED OUTSIDE OF UNITED STATES WILL BE ALLOWED.
3. THE MINIMUM ACCEPTANCE SIZE FOR NEW WATER LINES IS 8 INCHES IN DIAMETER. NEW WATER LINES 10 INCHES AND SMALLER SHALL HAVE A MINIUM OF 3 FEET OF COVER. WATER LINES 12 INCHES AND LARGER SHALL HAVE A MINIMUM OF 4 FEET OF COVER.
4. WATER LINES SHALL NOT BE INSTALLED CLOSER THAN 10 FEET (MEASURED HORIZONTALLY) FROM ANY BUILDING FOUNDATION, WALL OR BUILDING OVERHANG. THIS 10 FOOT CLEARANCE MAY BE REDUCED TO 6 FEET IN AREAS WITH COMMERCIAL ZONING WITH LIMITED RIGTH-OF-WAY AND WITH APPROVAL OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT.
5. POLYVINYL CHLORIDE (PVC) PRESSURE PIPE 4 INCHES THROUGH 12 INCHES IN DIAMETER SHALL MEET AWWA SPECIFICATION C-900, DR18. PVC PIPE LARGER THAN 12 INCHES IN DIAMETER SHALL MEET AWWA SPECIFICATION C-905, DR25.
6. ALL POLYETHYLENE (PE) PLASTIC TUBING, 3/4 INCH THROUGH 2 INCHES SHALL BE PE 3408, DR9, CONFORMING TO ASTM D2737. THE PE MATERIAL SHALL MEET OR EXCEED THE REQUIREMENTS OF D1248 FOR TYPE III, GRADE "P34", CLASS "C" MATERIAL. ALL BRONZE/BRASS FITTINGS, CONNECTORS, CORPORATION STOPS AND ANY OTHER APPLICABLE AND APPROPRIATE APPURTENANCES USED IN CONJUNCTION WITH PE TUBING SHALL BE OF DOMESTIC UNITED STATES MANUFACTURE AND MEET ALL CRITERIA SET FORTH BY AWWA, ASTM AND ANSI FOR USE OF THESE ITEMS FOR POTABLE WATER DISTRIBUTION SYSTEM.
7. ALL DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA A21.51/C151, ANSI/AWWA A21.50/C150 AND SHALL BE THICKNESS CLASS 51 OR GREATER. DUCTILE IRON PIPE AND FITTINGS SHALL HAVE A FACTORY CEMENT MORTAR LINING AS PER ANSI/AWWA A21.4/C104, AND FACTORY ASPHALTIC EXTERIOR COATING. POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 SHALL BE SPECIFIED WHEN AGGRESSIVE/ CORROSIVE SOIL CONDITIONS WARRANTS ITS USE.
8. EXPOSED WATER LINES, SUCH AS AERIAL/BRIDGE CROSSINGS OVER DRAINAGE CANALS SHALL HAVE FACTORY APPLIED PRIMER WITH FIELD-FINISH SILVER ALUMINUM PAINT. PAINT MATERIAL SHOULD BE FULLY COMPATIBLE WITH THE EXTERNAL ENVIRONMENT AND IN FULL CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS FOR THE INTENDED PURPOSE.
9. FITTINGS SHALL BE DUCTILE IRON FLANGED, MECHANICAL OR BOLTLESS RESTRAINED JOINTS MEETING ANSI/AWWA C110/A21.10 AND ANSI/AWWA C111/A21.11, CLASS 250, OR ANSI/AWWA C153/A21.53.84, CLASS 350, COMPACT STANDARD.
10. TAPPING SLEEVES FOR PVC, AC AND DUCTILE IRON SHALL BE MANUFACTURED OF 18-8 304 STAINLESS STEEL WITH STAINLESS STEEL FLANGE. TAPPING SLEEVES FOR PRE-STRESSED CONCRETE CYLINDER PIPE SHALL BE IN ACCORDANCE WITH AWWA MANUAL M-2. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL WITH ANTI-SEIZE COMPOUND OR HEAT TREATED TEFLON COATED CORE-TEN. TAPPING SLEEVES SHALL BE MANUFACTURED BY ROMAC, CASCADE OR JCM.
11. TAPPING VALVES SHALL BE MANUFACTURED BY MUELLER, CLOW, M & H OR KENNEDY. VALVES SHALL HAVE AN OUTLET AND CONNECTION SUITABLE FOR MAKE UP, TAPPING SLEEVE AND ADJACENT PIPE.
12. ALL VALVES FITTINGS PLUGS, REDUCERS, ETC., SHALL HAVE RESTRAINED JOINTS. IT WILL NOT BE REQUIRED TO RESTRAIN ANY LENGTH OF PIPE ON EITHER SIDE OF IN-LINE VALVES. HYDRANTS, HYDRANT VLAVES AND HYDANT TEES SHALL BE RESTRAINED. UNLESS FIELD CONIDITIONS AND / OR SPECIAL DESIGN CONIDITIONS NECESSITATE, USE OF THRUST BLOCKING SHALL NOT BE PERMITTED. THRUST BLOCKS ARE PERMITTED ONLY WHEN ADEQUATE LENGTH OF PIPE CANNOT BE RESTRAINED DUE TO FIELD CONIDITIONS AND/OR FOR TEMPORARY CONSTRUCTION.
13. LONG BODY TRANSITIONAL COUPLINGS IN ACCORDANCE WITH FOLLOWING TABLE, SHALL BE USED FOR CONNECTING PROPOSED/NEW PIPES TO EXISTING PIPES OF DIFFERENT MATERIAL, FOR EXAMPLE, "PVC C-900" TO "AC".

NOMINAL PIPE SIZE, INCHES.	TRANSITION COUPLING MINIMUM LENGTH, INCHES.
4, 6, 8	12
10, 12, 14, 16	18
18, 20, 24, 30, 36	24

14. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH ANTI-SEIZE COMPOUND OR HEAT TREATED TEFLON COATED CORE-TEN.
15. THERE SHALL BE A MINIMUM OF 18 INCHES OF STRAIGHT PIPE BEFORE, AFTER OR IN BETWEEN VALVES, FITTINGS, ETC.
16. EASTBANK FIRE HYDRANTS SHALL BE THREE WAY COMPRESSION TYPE (OPENING AGAINST PRESSURE) CONFORMING TO AWWA C-502, HYDRANTS SHALL HAVE A 5 1/4 INCH INLET CONNECTION WITH TWO 2 1/2 INCH NOZZLES AND ONE 4 1/4 INCH PUMPER NOZZLE. ALL NOZZLES SHALL HAVE THE NEW ORLEANS SEWERAGE AND WATER BOARD THREAD STANDARDS. HYDRANTS SHALL HAVE A 1 1/8 INCH OPERATING NUT. RIGHT HAND OPENING (CLOCKWISE). ALL HYDRANTS FOR THE EAST JEFFERSON WATER DISTRICT SHALL BE MUELLER (NO. A423), KENNEDY GUARDIAN (MODEL K81A) OR AMERICAN DARLING MODEL---).
17. WESTBANK FIRE HYDRANTS SHALL BE THREE WAY, COMPRESSION TYPE (OPENING AGAINST PRESSURE) CONFORMING TO AWWA C-502. HYDRANTS SHALL HAVE A 5 1/4 INCH INLET CONNECTION WITH TWO 2 1/2 INCH HOSE NOZZLES AND ONE 4 1/4 INCH PUMPER NOZZLE. ALL NOZZLES SHALL HAVE NATIONAL STANDARD THREADS. HYDRANTS SHALL HAVE A 1 1/4 INCH OPERATING NUT. LEFT HAND OPENING (COUNTER-CLOCKWISE). ALL HYDRANTS FOR THE WEST JEFFERSON WATER DISTRICT SHALL BE MUELLER SUPER CENTURION 200 (MUELLER NO. A423), KENNEDY GUARDIAN (MODEL K81A) OR AMERICAN DARLING (MODEL---).
18. FIRE HYDRANTS SHALL BE SUPPLIED BY NOT LESS THAN AN 8 INCH DIAMETER LINE IN LOOPED SYSTEMS. DEAD-END LINES, WHICH SUPPLY FIRE HYDRANTS, SHALL NOT EXCEED 600 FEET IN LENGTH FOR LINE SIZES LESS THAN 10 INCH IN DIAMETER.
19. A 6 INCH RESILENT GATE VALVE SHALL BE INSTALLED ON ALL NEW HYDRANTS LEADS REGARDLESS OF WATER LINE SIZE.
20. ALL GATE VALVES, 4 INCH - 12 INCH, SHALL HAVE CAST IRON OR DUCTILE IRON BODIES, BRONZE MOUNTED RESILENT SEAT TYPE WITH A 200 P.S.I. WORKING PRESSURE. VALVES SHALL CONFORM TO AWWA C509 OR C515 AND HAVE A NON-RISING STEM. 2 INCH OPERATING NUT AND OPEN IN A COUNTER-CLOCKWISE DIRECTION (LEFT HAND OPENING). GATE VALVES SHALL HAVE A FACTORY APPLIED EPOXY COATING AND HAVE STAINLESS STEEL OR HEAT TREATED TEFLON COATED CORE-TEN BOLTS AND NUTS. NO CADIUM PLATED NUTS AND BOLTS ARE PERMITTED. GATE VALVES SHALL BE MANUFACTURED BY HENRY PRATT COMPANY, MUELLER COMPANY, M & H, CLOW OR DZURICH. VALVES MUST BE OF DOMESTIC UNITED STATES MANUFACTURE.
21. ALL VALVES 14 INCHES AND LARGER SHALL BE BUTTERFLY VALVES CONFORMING TO AWWA C504, CLASS 150B. VALVES SHALL BE SHORT BODY DESIGN WITH MECHANICAL OR FLANGED ENDS AND OPERATE BY TURNING A TWO (2) INCH OPERATING NUT IN A COUNTER-CLOCKWISE DIRECTION (LEFT HAND OPENING). BUTTERFLY VALVES SHALL BE MANUFACTURED BY HENRY PRATT COMPANY, MUELLER COMPANY, M & H, CLOW OR DZURICH. VALVES MUST BE OF DOMESTIC UNITED STATES MANUFACTURE.
22. ALL NEW AND/OR MODIFIED SEGMENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE TESTED TO 100 P.S.I. THIS PRESSURE SHALL BE MAINTAINED FOR A PERIOD OF TWO (2) HOURS WITH NO DISCERNIBLE PRESSURE LOSS. LEAKS SHALL BE REPAIRED BY REMOVING AND REPLACING FAULTY SECTIONS. THE PRESSURE TEST SHALL BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT. ALL NEW, MODIFIED AND/OR CONTAMINATED SEGMENTS OF THE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED (CHLORINATED) EITHER BY JEFFERSON PARISH ENGINEERING DEPARTMENT PERSONNEL OR UNDER THEIR DIRECT SUPERVISION. ONLY AFTER SATISFACTORY PRESSURE TESTING AND CHLORINATION IS COMPLETED CAN THE SEGMENT BE TIED INTO THE EXISTING WATER DISTRIBUTION SYSTEM. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO MAKE A TIE-IN TO THE EXISTING WATER DISTRIBUTION SYSTEM WITHOUT DIRECT SUPERVISION OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT. ALL COSTS ASSOCIATED WITH THE TESTING AND CHLORINATION PROCEDURE SHALL BE BORNE BY THE CONTRACTOR.
23. THE CONTRACTOR WILL BE REQUIRED TO FURNISH THREE (3) BLUELINE COPIES OF WATER "AS-BUILTS" PLANS TO THE ENGINEER AND TO THE DEPARTMENT OF ENGINEERING PRIOR TO TESTING AND CHLORINATION OF THE WATER DISTRIBUTION SYSTEM.
24. FIRE SERVICE LINES FOR BUILDING SPRINKLER SYSTEMS SHALL HAVE CHECK VALVES ADJACENT TO AND DOWNSTREAM OF THE TAPPING VALVE. CHECK VALVES SHALL BE PLAIN TYPE WITH BRONZE MOUNTING SUITABLE FOR DIRECT BURIAL, AND BE OF DOMESTIC UNITED STATES MANUFACTURE.
25. ALL FIRE LINES WITH FIRE HYDRANTS, AND ALL "LOOPED" WATER LINES, SHALL BE INSTALLED IN ACCORDANCE WITH JEFFERSON PARISH SPECIFICATIONS. ALL WATER LINES, AND/OR FIRE SERVICE LINES CONSTRUCTED ON PRIVATE PROPERTY, SHALL REMAIN PRIVATE. IN SPECIAL CIRCUMDTANCES WHEN JEFFERSON PARISH MAY HAVE TO TAKE OVER THE MAINTENANCE OF ANY FIRE SERVICE LINE, A 15 FOOT WIDE MINIMUM SERVITUDE, CENTERED ON THE LINE, MUST BE DEDICATED TO JEFFERSON PARISH.
26. FIRE HYDRANT SPACING SHALL NOT BE GREATER THAN 400 FEET IN RESIDENTIAL AREAS, OR 350 FEET IN COMMERCIAL AREAS.
27. WHEN SANITARY SEWER LINES ARE PARALLEL TO WATER LINES, THE CLEARANCE SHALL BE A MINIMUM OF 6 FEET (MEASURED HORIZONTALLY). WHEN SEWER AND WATER LINES CROSS, VERTICAL CLEARANCE SHALL BE 18 INCHES, WITH THE WATER LINE CROSSING ON TOP. IF THESE CONDITIONS CANNOT BE MET, DUE TO FIELD CONDITIONS, THE "10 STATE STANDARDS" ((PHONE (518) 439-7286, WEB SITE: WWW.HES.ORG)) GUIDELINES CAN BE FOLLOWED, WITH APPROVAL OF THE JEFFERSON PARISH ENGINEERING DEPARTMENT.
28. MINIMUM CLEARANCE BETWEEN A WATER LINE AND ANY PRIVATE UTILITY LINE SHALL BE 6 FEET (MEASURED HORIZONTALLY). PRIVATE UTILITIES SHALL BE INSTALLED IN PRIVATE SERVITUDES.
29. THE DEPARTMENT OF ENGINEERING HAS THE RIGHT TO REJECT ANY AND ALL EQUIPMENT, OR WORK, WHICH DOES NOT CONFORM TO SPECIFICATIONS. ANY WORK SO REJECTED SHALL BE REDONE BY THE CONTRACTOR AT HIS OWN EXPENSE.
30. THE DEPARTMENT OF ENGINEERING MUST BE GIVEN A MINIMUM OF 48 HOURS NOTICE BEFORE A TAP IS TO BE MADE ON A WATER LINE (FOR METERS, FIRE SERVICES AND FIRE LINES).
31. JEFFERSON PARISH MAINTENANCE RESPONSIBILITY FOR FIRE SERVICE LINES WILL NOT INCLUDE ANY SEGMENT OF THESE LINES ON THE PRIVATE PROPERTY SIDE OF THE REQUIRED CHECK VALVE, INCLUDING THE CHECK VALVE. FIRE SERVICE LINE CHECK VALVES WILL BE PRIVATELY OWNED AND MAINTAINED.
32. JEFFERSON PARISH WILL ASSUME MAINTENANCE RESPONSIBILITY FOR LARGE WATER METERS (3 INCHES AND ABOVE) 365 CALENDAR DAYS FROM THE DATE THE OWNER ACCEPTS THE PROJECT, OR ALL WATER FACILITY WORK IS COMPLETED IN ACCORDANCE WITH JEFFERSON PARISH STANDARD SPECIFICATIONS, WHICHEVER OCCURS LAST. UNTIL JEFFERSON PARISH ISSUES A "LETTER OF WATER FACILITY ACCEPTANCE", THE OWNER IS RESPONSIBLE FOR ALL REPAIR AND REPLACEMENT COSTS FOR WATER FACILITIES.
33. THE SYMBOL "^" (LETTER " V ", UPSIDE DOWN) SHALL BE PLACED IN THE FACE OF THE CURB POINTING TO EACH WATER VALVE.
34. WATER LINE CROSSINGS BENEATH EXISTING STREETS SHALL HAVE STEEL CASING, IF REQUIRED BY THE DEPARTMENT OF ENGINEERING.
35. WHEN PIPE IS INSTALLED IN CASINGS, COMMERCIALLY FABRICATED CASING SPACERS MUST BE USED TO PREVENT DAMAGE TO PIPE AND BELL JOINTS DURING INSTALLATION AND TO PROVIDE PROPER LONG-TERM LINE SUPPORT. USE OF WOODEN SKIDS WILL NOT BE PERMITTED. PIPES IN CASINGS SHOULD NOT REST ON BELLS. CASING SPACERS MUST PROVIDE SUFFICIENT HEIGHT TO PERMIT CLEARANCE BETWEEN BELL JOINTS AND CASING WALLS (ALL CASING PIPE SHALL HAVE AN INSIDE CLEAR DIMENSION AT LEAST 2 INCHES GREATER THAN THE MAXIMUM OUTSIDE DIMENSION OF THE CARRIER PIPE BELL OR MECHANICAL JOINT RESTRAINTS). SPACE BETWEEN THE CASING AND THE CARRIER PIPE SHOULD NOT BE BACKFILLED. JEFFERSON PARISH APPROVED END CASING SEAL WITH STAINLESS STEEL BANDS SHOULD BE USED TO SEAL THE ENDS OF THE CASINGS.
36. BACKFILL ALL TRENCHES WITHIN STREET RIGHT-OF-WAY WITH RIVER SAND.
37. CHECK VALVES 3 INCH TO 12 INCH IN SIZE SHALL BE A PLAIN SWING CHECK TYPE WITH A CAST IRON OR DUCTILE IRON BODY, STAINLESS STEEL HINGE PIN. BRONZE DISC AND SEAT RING. THE VALVE SHALL BE SUITABLE FOR DIRECT BURIAL AND SHALL HAVE FLANGED OR MECHANICAL JOINTS ENDS. VALVES SHALL BE OF DOMESTIC UNITED STATES MANUFACTURE.
38. SERVICE SADDLES FOR USE ON SERVICE TAPS AND WATER LINE BLOW-OFF INSTALLATIONS SHALL BE CASCADE STYLE CS12, SMITH-BLAIR 391, ROMAC STYLE 202BS OR APPROVED EQUAL.
39. WHERE A TIE-IN, FIRE SERVICE OR WATER METER INSTALLATION IS TO BE MADE BY OTHER THAN WATER DEPARTMENT PERSONNEL, THE OWNER, CONTRACTOR OR HIS AGENT SHALL CONTACT THE DEPARTMENT OF ENGINEERING 24 HOURS IN ADVANCE FOR THE INSPECTION OF THE INSTALLATION. THE INSTALLATION SHALL BE INSPECTED AND APPROVED BY THE DEPARTMENT OF ENGINEERING PRIOR TO BACKFILLING.
40. ALL WATER METERS 2 INCH OR SMALLER SHALL BE PROVIDED BY AND INSTALLED BY THE JEFFERSON PARISH DEPARTMENT OF WATER. APPLICATIONS FOR ALL COMMERCIAL, IRRIGATION/GARDEN WATER METERS AND FIRE SERVICE INSTALLATIONS SHALL BE MADE TO THE DEPARTMENT OF ENGINEERING (504) 736-6814 PRIOR TO SCHEDULING ANY CONSTRUCTION. THE APPLICANT SHALL COMPLETE A WATER VERIFICATION FORM AND/OR A FIRE SERVICE WATER VERIFICATION FORM AS REQUIRED BY THE DEPARTMENT OF ENGINEERING.
41. ALL WATER METERS AND FIRE SERVICE TAPS, 3 INCH AND LARGER, SHALL BE FURNISHED AND INSTALLED BY THE APPLICANT. METERS 3 INCH AND LARGER SHALL BE OF THE TYPE AND MANUFACTURER SPECIFIED BY THE DEPARTMENT OF ENGINEERING. CONTACT THE DEPARTMENT OF ENGINEERING FOR REQUIRED METER SPECIFICATIONS PRIOR TO ORDERING ANY METER EQUIPMENT OR MATERIALS. ALL METERS 3 INCH AND LARGER SHALL BE FURNISHED WITH A STRAINER. BY-PASS METERS, IF REQUESTED BY THE OWNER AND/OR IF DEEMED NECESSARY BY THE JEFFERSON PARISH DEPARTMENT OF WATER, SHALL BE 2 INCH MINIMUM. THE APPLICANT MUST PRESENT A RECEIPT FOR ALL REQUIRED FEES AND DEPOSITS (CONSUMER RECEIPT) ON THE INSTALLATION TO THE DEPARTMENT OF ENGINEERING, INSPECTION DIVISION, (736-6793) PRIOR TO ANY CONSTRUCTION.
42. THE CONTRACTOR SHALL EXPOSE THE LINE TO DETERMINE DEPTH OF METER BOX. METER ELEVATION IS TO BE DETERMINED BY THE DEPARTMENT OF ENGINEERING. THE MAXIMUM DISTANCE BETWEEN GROUND SURFACE AND THE CENTERLINE OF THE WATER METER SHALL BE 24 INCHES UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT OF ENGINEERING.
43. MATERIALS TO BE USED IN CONSTRUCTION OF METER VAULTS INSTALLED IN TRAFFIC AREAS MAY BE COMMON BRICK, CONCRETE BLOCK, POURED IN PLACE REINFORCED CONCRETE OR A PRECAST CONCRETE BOX AS MANUFACTURED BY BROOKS PRODUCTS OR APPROVED EQUAL.
44. METER VAULT ACCESS HATCH SHALL BE A HEAVY DUTY CAST IRON MANHOLE RING AND COVER WITH MACHINED RING SEATS. THE WORD "WATER" SHALL BE EMBOSSED ON THE COVER. THE MANHOLE RING AND COVER SHALL BE CENTERED OVER THE METER AND SHALL BE A VULCAN V-1406 W/COVER OR APPROVED EQUAL. WATER VALVE COVERS FOR THE METER VAULT SHALL BE HEAVY DUTY CAST IRON VULCAN V-8460 OR APPROVED EQUAL. THE VALVE COVERS SHALL BE CENTERED OVER THE VALVES AND THE WORD "WATER" SHALL BE EMBOSSED ON THE COVER.

ORIGINAL
05/21/96

JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

DRAWING TITLE
WATER STANDARD DETAILS

DRAWN BY: H.J.W.	DATE FINISHED: 5/21/96	CHECKED: B.J.L.	DATE: 5/21/96
REVISED: H.J.W.	DATE: 12/09/97	REVISED: H.J.W.	DATE: 01/23/02
REVISED TO AUTOCAD-LT: H.J.W.	DATE: 02/11/04	REVISED: H.J.W.	DATE: 02/20/03
XREF: AUTOCADLT.2004		VER: WATER2NTS.DWG	
FILE NUMBER: 1746D			