

SCHEMATIC

GENERAL NOTE:  
PRIOR TO ORDERING MATERIAL, PROVIDE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS FROM ARCHITECT TO ENGINEER TO OBTAIN VERIFICATION ON EQUIPMENT SIZES BASED ON FINAL SERVICE FLOW AND PRESSURE REQUIREMENTS.

NO ALTERNATE EQUIPMENT, MATERIAL, OR ARRANGEMENT SHALL BE USED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.

NOTE:  
ALL CONCRETE TO BE 3000 P.S.I. @ 28 DAYS.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH TOWN OF LONGBOAT KEY CODE REQUIREMENTS.

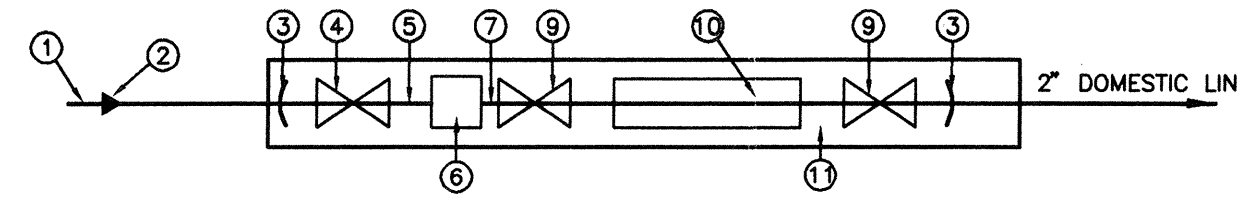
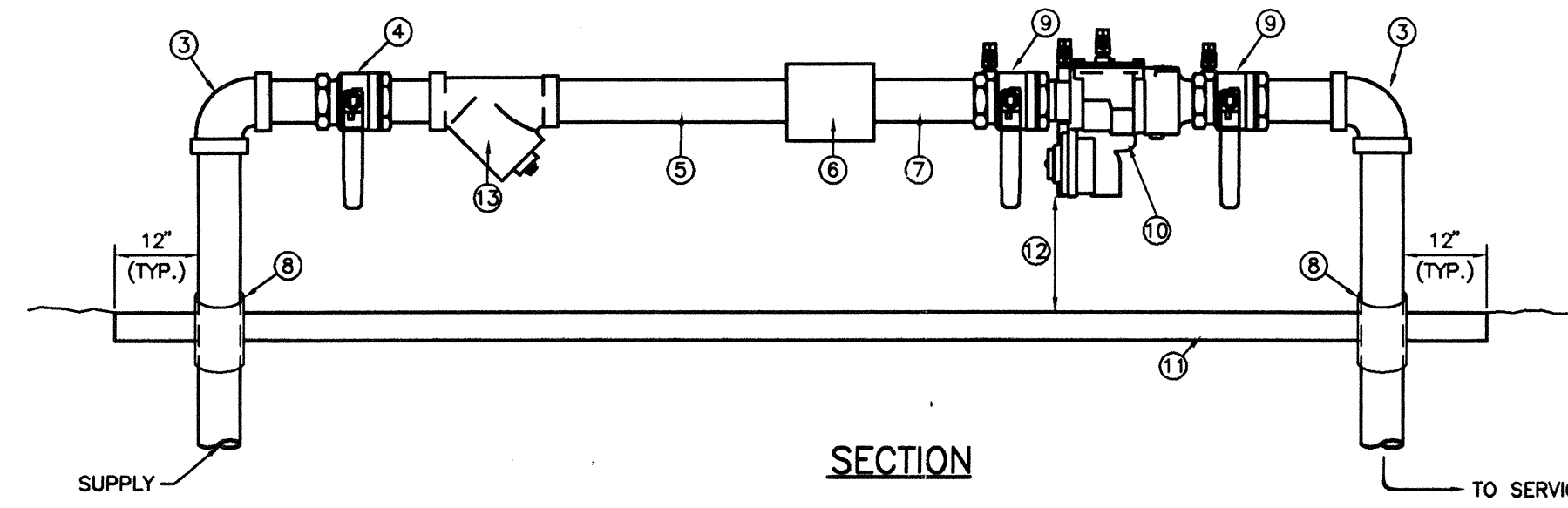
BACKFLOW ASSEMBLY TO BE RESTRAINED BELOW GRADE BY MEGALUGS OR EQUAL AS APPROVED BY THE ENGINEER.

ALL PIPE & FITTING ABOVE GROUND TO BE RIGID, NO PVC ABOVE GROUND.

ALL COPPER SHALL BE "L" OR "K"

- ① 4" PVC (DR 18) OR DIP (CLASS 51).
- ② 90° BEND
- ③ 1" BALL VALVE
- ④ 1" HARD COPPER (MIN. 5 DIAM.)
- ⑤ 1" WATER METER (PROVIDED BY UTILITY VERIFY SPACE REQUIREMENTS PRIOR TO ASSEMBLY INSTALLATION)
- ⑥ 1" HARD COPPER (MIN. 2 DIAM.)
- ⑦ SLEEVE AROUND PIPE TO PROTECT IT FROM CONCRETE
- ⑧ 1" BALL VALVE, PART OF ⑤
- ⑨ APPROVED REDUCED PRESSURE BACKFLOW PREVENTER (FEBCO 860)
- ⑩ 3' WIDE x 4" THICK REINFORCED CONCRETE SLAB, 3000 P.S.I. @ 28 DAYS
- ⑪ 12" MIN. - 18" MAX. CLEARANCE (D.C.)
- ⑫ STRAINER

1" DOMESTIC REDUCED PRESSURE BACKFLOW PREVENTER  
S-W022 N.T.S.



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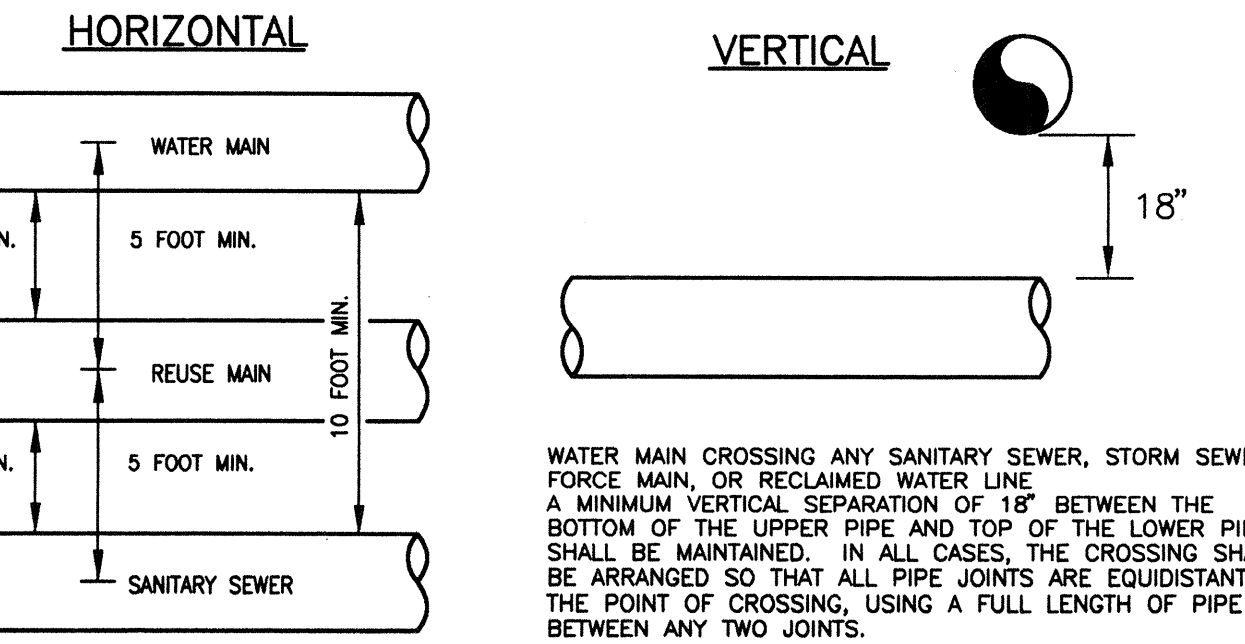
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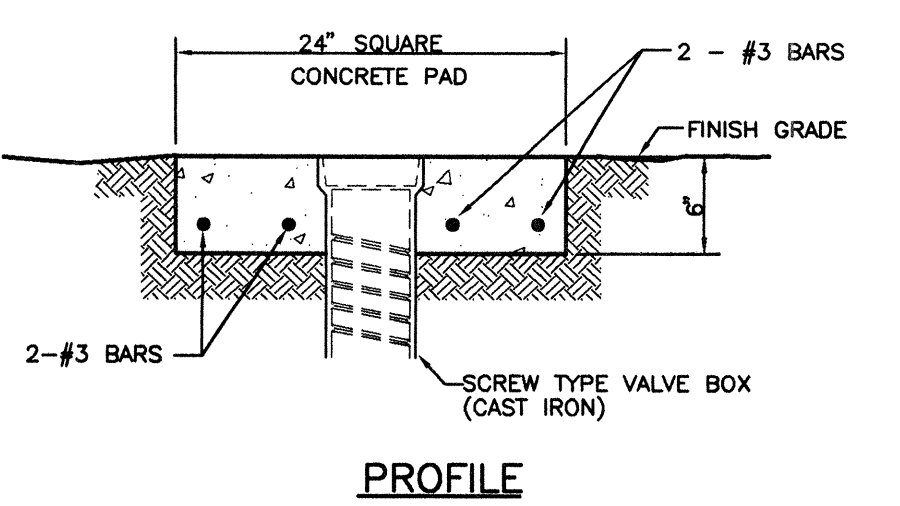
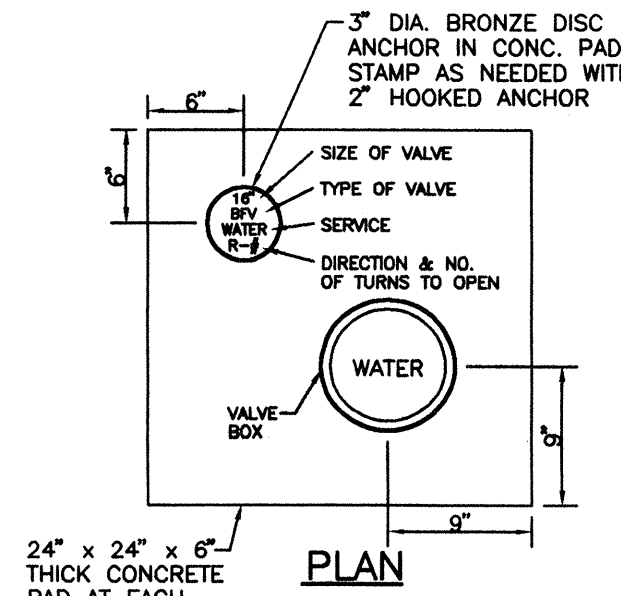
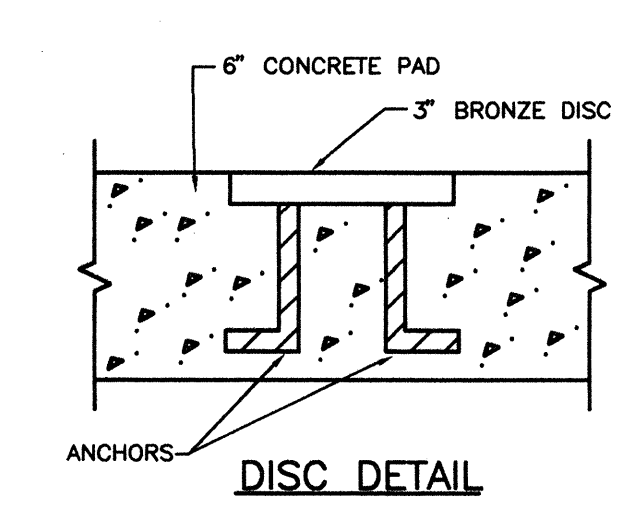
- ① 4" PVC (DR 18) OR DIP (CLASS 51).
- ② 4"x2" REDUCER
- ③ 2" x 90° BEND
- ④ 2" GATE VALVE OR BALL VALVE
- ⑤ 2" HARD COPPER (MIN. 5 DIAM.)
- ⑥ 2" WATER METER (PROVIDED BY UTILITY VERIFY SPACE REQUIREMENTS PRIOR TO ASSEMBLY INSTALLATION)
- ⑦ 2" HARD COPPER (MIN. 2 DIAM.)
- ⑧ SLEEVE AROUND PIPE TO PROTECT IT FROM CONCRETE
- ⑨ 2" GATE VALVE OR BALL VALVE, PART OF ④
- ⑩ APPROVED REDUCED PRESSURE PREVENTER (FEBCO 860)
- ⑪ 3' WIDE x 4" THICK REINFORCED CONCRETE SLAB, 3000 P.S.I. @ 28 DAYS
- ⑫ 12" MIN. - 18" MAX. CLEARANCE (D.C.)
- ⑬ STRAINER

2" DOMESTIC REDUCED PRESSURE BACKFLOW PREVENTER  
S-W022 N.T.S.



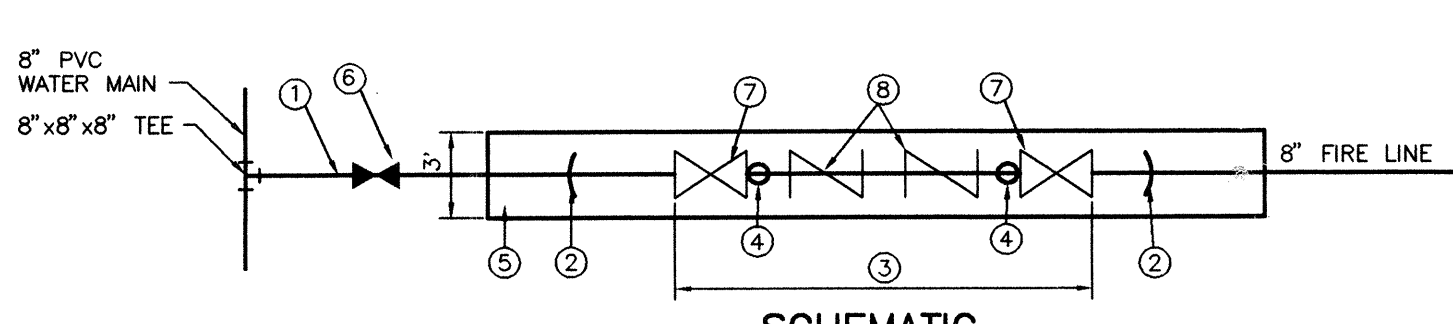
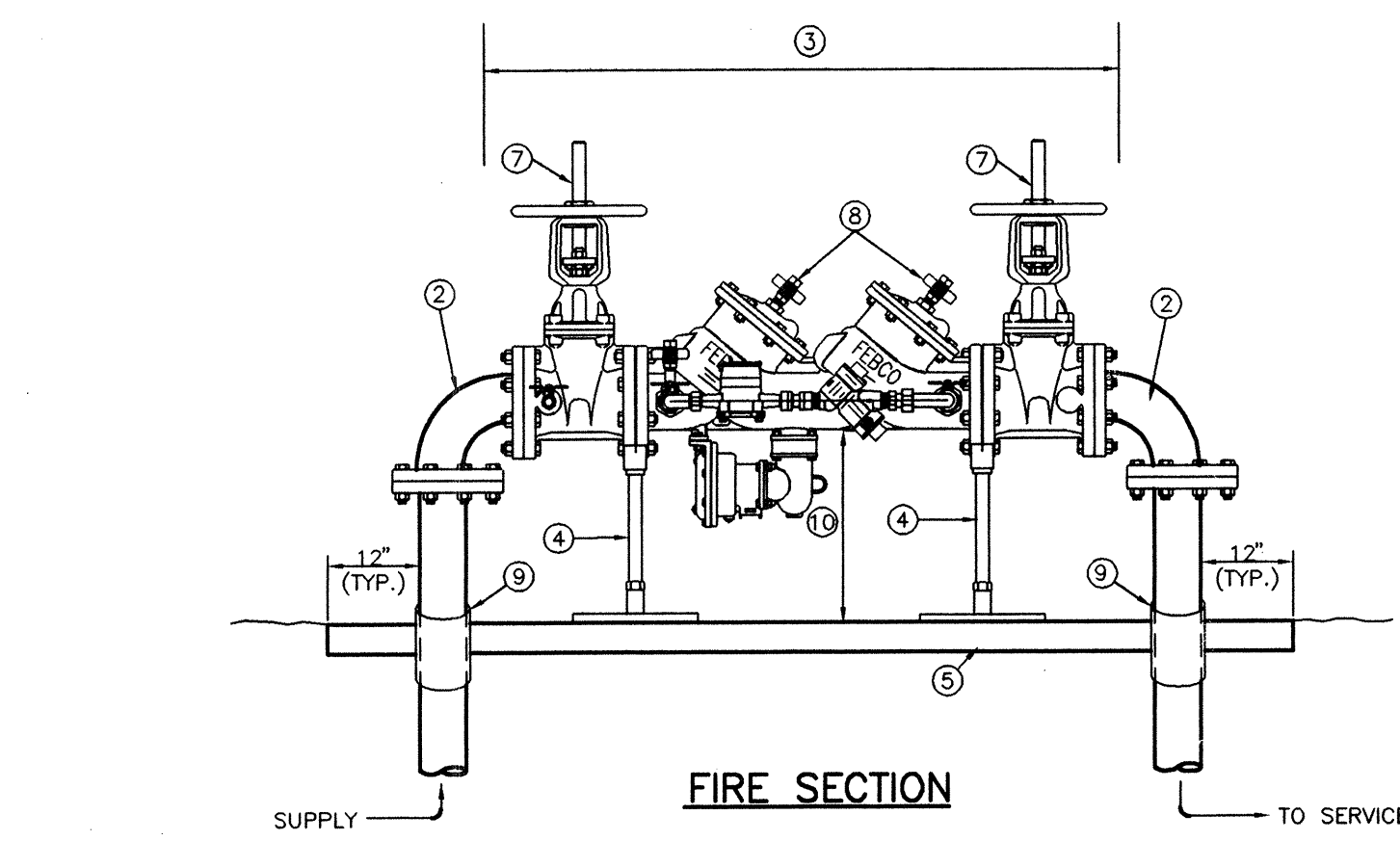
1. HORIZONTAL SEPARATION BETWEEN PARALLEL LINES: SANITARY SEWER OR FORCE MAIN SHALL BE INSTALLED AT LEAST 10 FEET FROM ANY WATER MAIN. THE DISTANCE SHALL BE MEASURED OUTSIDE TO OUTSIDE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 10 FOOT SEPARATION, THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE LINE, AND AT AN ELEVATION SO THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE WASTEWATER LINE. THE WATER AND WASTEWATER PIPE JOINTS SHALL BE STAGGERED.
2. REUSE LINES SHALL BE INSTALLED AT LEAST 5 FEET, MEASURED CENTER TO CENTER HORIZONTALLY, FROM ANY WATER MAIN. THE DISTANCE SHALL BE A MINIMUM OF 3 FEET OUTSIDE OF PIPE.
- FOR VERTICAL SEPARATION LESS THAN 18"
- FOR NEW CONSTRUCTION OR RELOCATION OF WATER MAIN: DR-14, C900 PVC OR CLASS-S1 DUCTILE IRON PIPE SHALL BE USED.
  - FOR NEW CONSTRUCTION OR RELOCATION OF SANITARY SEWER, FORCE MAIN OR RECLAIMED WATER LINE: DR-14 PVC PIPE SHALL BE USED.
  - WHEN WATER AND WASTE WATER LINES CROSS WITH LESS THAN 18" VERTICAL CLEARANCE, THE WASTE WATER LINE CAN BE ENCASED IN 10" CONCRETE AT POINT OF CROSSING.
  - MINIMUM VERTICAL SEPARATION SHALL BE 6 INCHES.

WATER AND SEWER MAIN CROSSINGS



- NOTE:
- VALVE STEM EXTENSIONS SHALL BE PINNED TO THE OPERATING NUT AND SUPPLIED BY THE VALVE MANUFACTURER.
  - NO PVC PIPE SHALL BE USED IN VALVE BOX REPLACEMENTS.

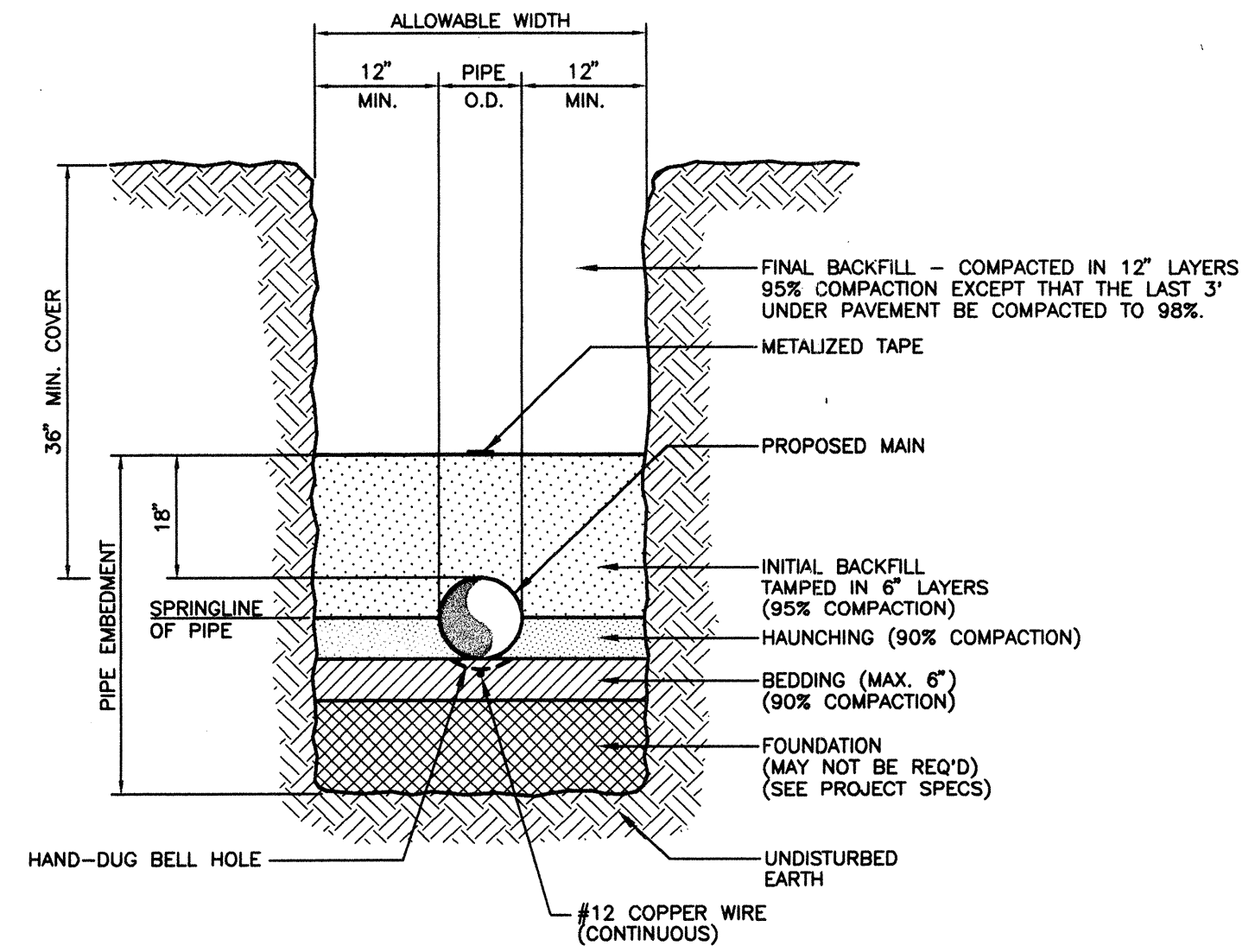
TYPICAL VALVE PAD DETAIL  
SARASOTA COUNTY  
S-W019 N.T.S.



SCHEMATIC

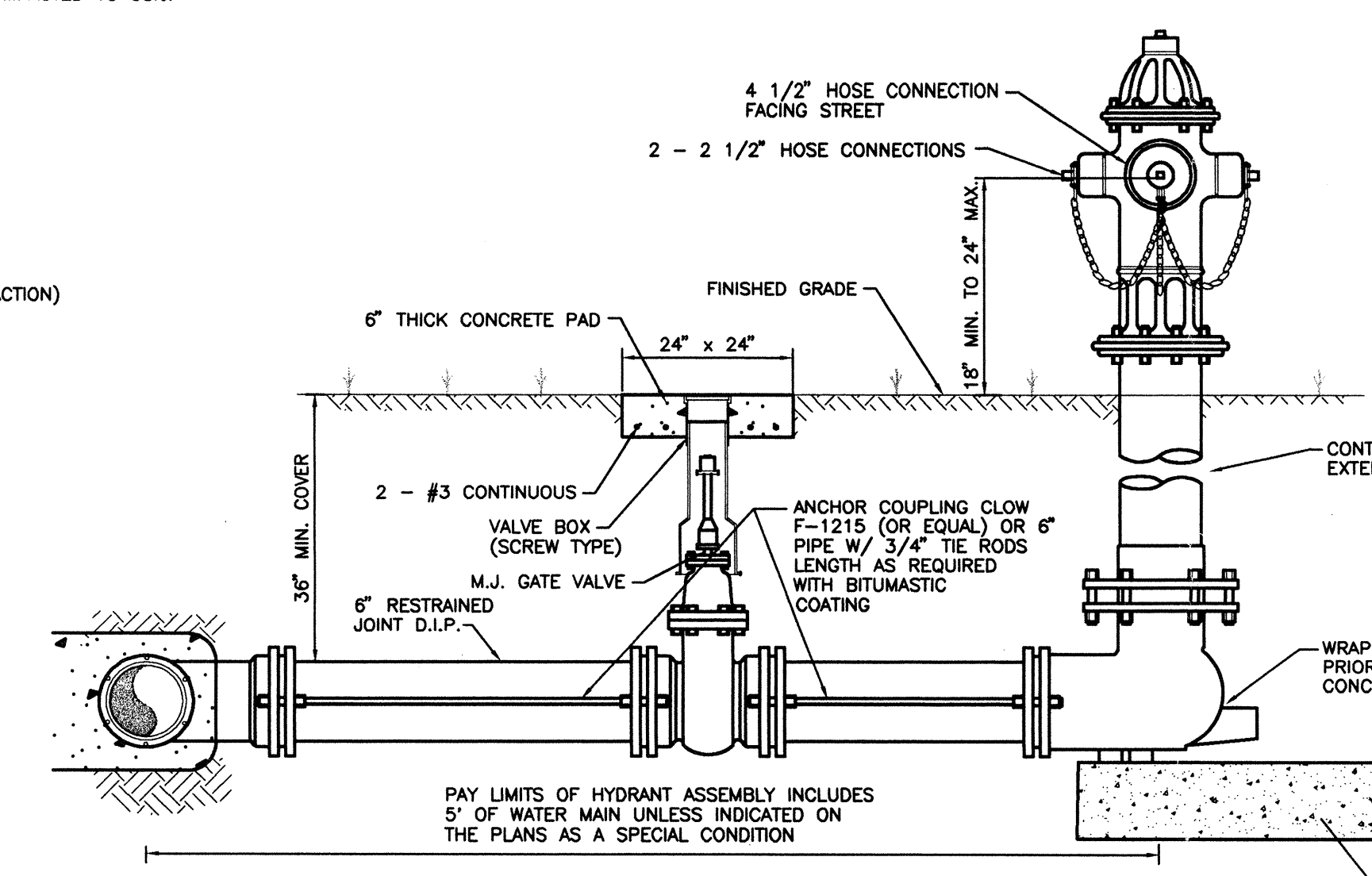
- ① 8" DIP (CLASS 51).
- ② 8" x 90° DIP BEND (FLANGED)
- ③ 8" OS&Y VALVES FLANGE PART OF 8" REDUCED PRESSURE DETECTOR ASSEMBLY FEBCO MODEL 826VD
- ④ PIPE SUPPORTS
- ⑤ 3' WIDE x 4" THICK REINFORCED CONCRETE SLAB, 3000 P.S.I. @ 28 DAYS
- ⑥ 8" APPROVED RESILIENT SEAL GATE VALVE W/ VALVE BOX (MECHANICAL JOINT)
- ⑦ 8" OS & Y VALVES FLANGED PART OF ③
- ⑧ 8" REDUCED PRESSURE DETECTOR ASSEMBLY FEBCO MODEL 826VD W/ 3/4" BY-PASS LINE (FIRE BFP ONLY)
- ⑨ SLEEVE AROUND PIPE TO PROTECT IT FROM CONCRETE
- ⑩ 12" MIN. - 18" MAX. CLEARANCE (D.C.)

8" FIRE DOUBLE CHECK DETECTOR ASSEMBLY  
S-M004 N.T.S.



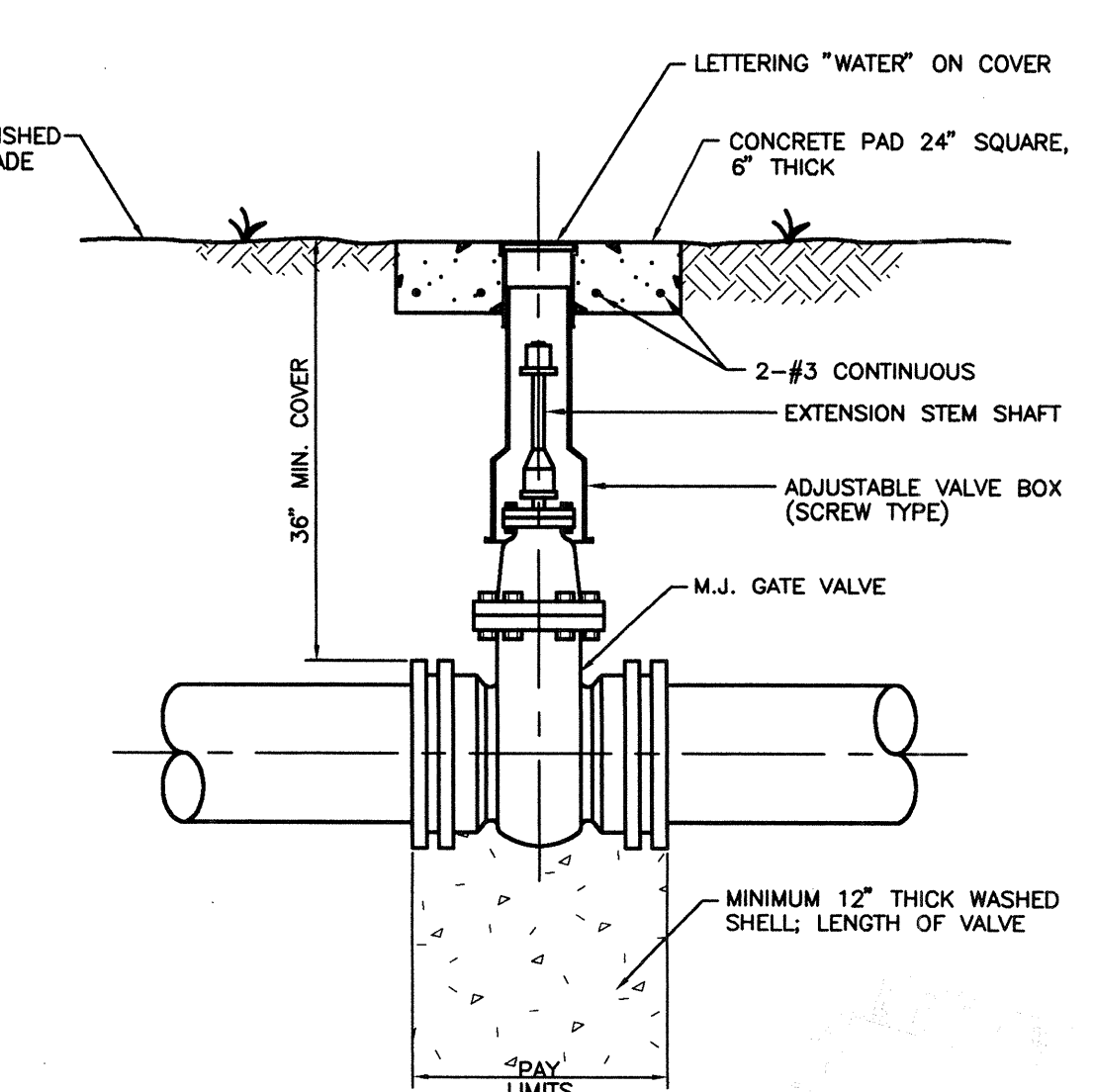
- NOTES:
- SEE PROJECT SPECIFICATIONS FOR DETAILED REQUIREMENTS OF TRENCH CONSTRUCTION.
  - PIPE EMBEDMENT BACKFILL BASED ON ENGINEER'S REQUIREMENTS BACKFILL MATERIALS MUST CONFORM TO A.A.S.H.T.O. STANDARD M-145, GROUPS A-1 & A-3, FREE OF ROCKS, GRAVEL, CLAY, SILT, DEBRIS, ROOTS & VEGETATION.
  - WHERE BEDDING IS NOT REQUIRED, SHAPE TROUGH IN NATIVE MATERIAL TO UNIFORMLY SUPPORT THE BOTTOM QUADRANT OF THE MAIN.
  - FINAL BACKFILL BASED ON LOCATION OF TRENCH.
  - BACKFILL COMPACTION SHALL BE THE MINIMUM PERCENTAGES OF THE MAXIMUM DENSITY DETERMINED BY THE "MODIFIED PROCTOR DENSITY" TEST (ASTM D-1557).
  - THE CONTRACTOR SHALL ADD WATER OR DRY OUT THE MATERIAL USED FOR BACKFILLING UNTIL THE MOISTURE CONTENT IS WITHIN TWO PERCENT OF THE OPTIMUM MOISTURE REQUIRED TO ACHIEVE THE MAXIMUM COMPACTION.
  - ONE DENSITY TEST SHALL BE TAKEN FOR EVERY 300 LINEAL FOOT SECTION OF TRENCH OR PART THEREOF FOR EACH LAYER.

TRENCH DETAIL  
S-M004 N.T.S.



- NOTES:
- THE CONTRACTOR SHALL SUBMIT HIS METHOD OF RESTRAINING THE VALVE OR HYDRANT TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIAL.
  - CONSTRUCT THE HYDRANT BLOCK AS FOR TEE BLOCK. BLOCK DRAIN HOLE.
  - WHERE VALVES CONNECTED TO TEE USE CLOW-F-1217 (OR EQUAL) ANCHORING TEE WITHOUT ANCHOR COUPLING BETWEEN TEE & GATE VALVE.
  - INSTALL HYDRANT AT GROUND LINE AS MARKED ON HYDRANT AND PER MANUFACTURER RECOMMENDATIONS.
  - CONTRACTOR WILL INSTALL BLUE HYDRANT DELINEATORS AT LOCATIONS AS REQUIRED BY TOWN OF LONGBOAT KEY CODE
  - ALL FIRE HYDRANT ASSEMBLIES LOCATED AT A DISTANCE GREATER THAN ONE (1) PIPE LENGTH, SHALL USE MEGALUG TYPE RESTRAINING JOINTS OR EQUAL, AS APPROVED BY THE ENGINEER, ALONG THE ENTIRE PIPE LENGTH.

TYPICAL FIRE HYDRANT ASSEMBLY DETAIL  
WATEROUS PACER HYDRANT ASSEMBLY ONLY  
N.T.S.



TYPICAL GATE VALVE & ASSEMBLY DETAIL  
S-W006 N.T.S.

		CLIENT: LAURELTON MERRICK CORPORATION PROJECT: EN PROVENCE	DATE: 4/00 HORIZONTAL SCALE: AS SHOWN VERTICAL SCALE: AS SHOWN SEC: TWP: REE: 17 36S 17E	TITLE: WATER DISTRIBUTION CONSTRUCTION DETAILS PROJECT NUMBER: 03317-000-000-FLFCP SHEET NUMBER: 10 OF 12
ACTIVITY: DESIGNED BY: KAW/1200 4/00 DRAWN BY: MAX/1292 4/00 CHECKED BY: CONTRACT ADMIN. BY:	INITIALS/EMP. NO. DATE DATE: 4/00 DATE: 4/00	6200 Professional Parkway East, Suite 100 • Sarasota, Florida 34240-9444 • Phone 941-507-6900 • Fax 941-507-6910 • Web Site www.wilsonmiller.com	PRINTED DEC 6 2009 Wilson Miller, Inc.	HILLARD J. PROFFER, P.E. FLORIDA REGISTERED PROFESSIONAL ENGINEER NO. 33769 INDEX NUMBER: D-03317-000-000029 CROSS REFERENCE FILE NO.: PROJECT NUMBER: 03317-000-000-FLFCP SHEET NUMBER: 10 OF 12