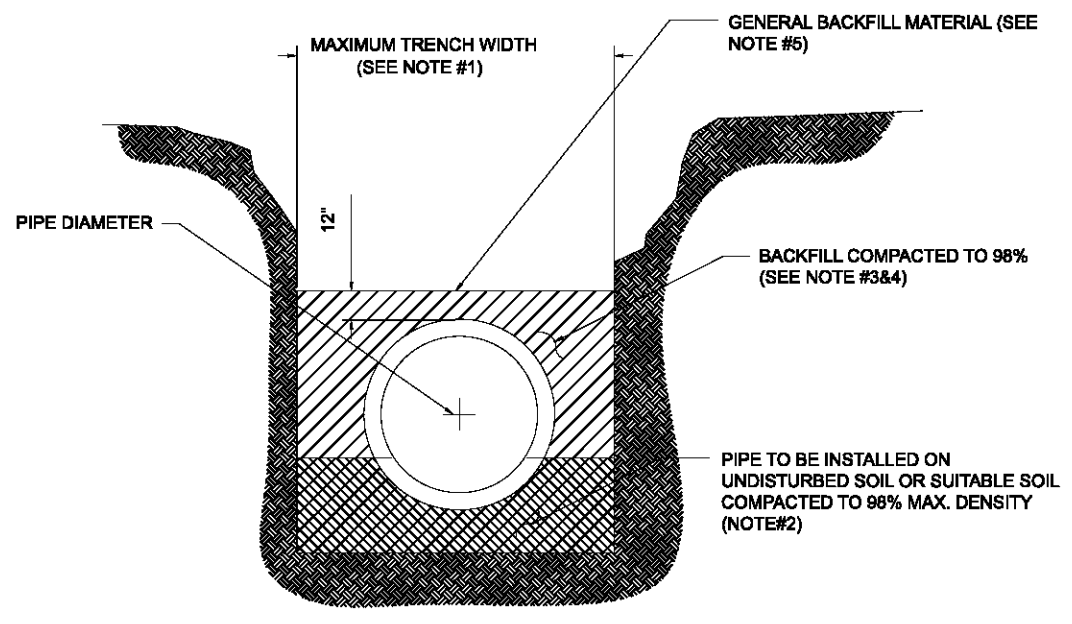


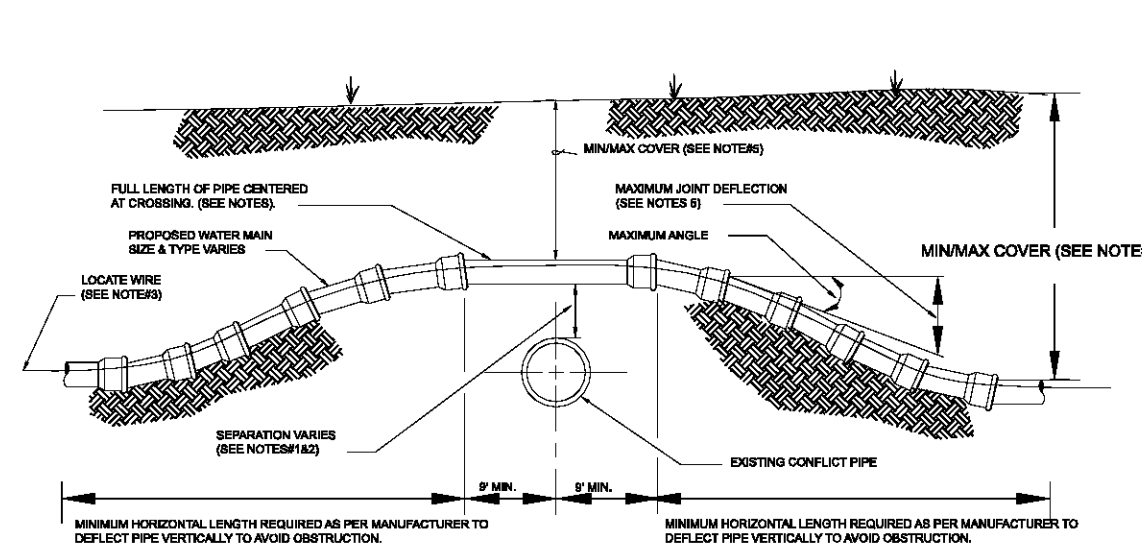
CASE "A" CROSSING

- NOTES:
- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 6-INCHES OF SEPARATION IS REQUIRED. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
 - FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11)
 - LOCATING WIRE REQUIRED; SEE DETAIL W-44.
 - THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
 - IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND THE NEW PIPE IS D.I.P., THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).



TYPICAL TRENCH

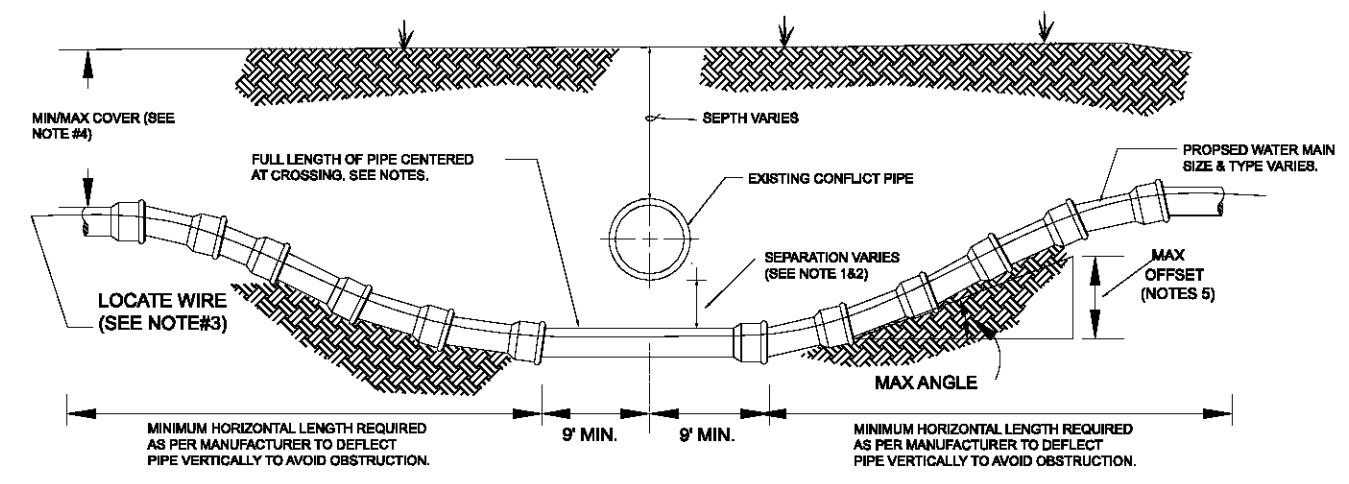
- NOTES:
- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION 8601, PARAGRAPHS 443) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
 - BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
 - BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
 - BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF ITS MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
 - SEE "EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.



CASE "A" CROSSING

- NOTES:
- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 6-INCHES OF SEPARATION IS REQUIRED. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
 - FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11)
 - LOCATING WIRE REQUIRED; SEE DETAIL W-44.
 - THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA.
 - THE MAXIMUM TOTAL COMBINED LONGITUDINAL PIPE BENDING INCLUDING JOINT DEFLECTION OF PVC PIPE SHALL BE LIMITED TO AN OFFSET (OFFSET LIMIT IS BASED UPON 20L.F. PIPE LENGTH) AS INDICATED BELOW:

PVC PIPE SIZE	MAX OFFSET (20L.F. JOINT)
2"	30"
4"	18.0"
6"	15"
8"	10"
10"	8"
12"	7"
14" AND LONGER	5"



CASE "B" CROSSING

- NOTES:
- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 6-INCHES OF SEPARATION IS REQUIRED. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
 - FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11)
 - LOCATING WIRE REQUIRED; SEE DETAIL W-44.
 - THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA.
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PVC PIPE SIZE	MAX OFFSET (20L.F. JOINT)
2"	30"
4"	18.0"
6"	15"
8"	10"
10"	8"
12"	7"
14" AND LONGER	5"

**ADJUSTMENT OVER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

1/05 PLATE W-32

OPEN-CUT TRENCH FOR PRESSURE PIPE

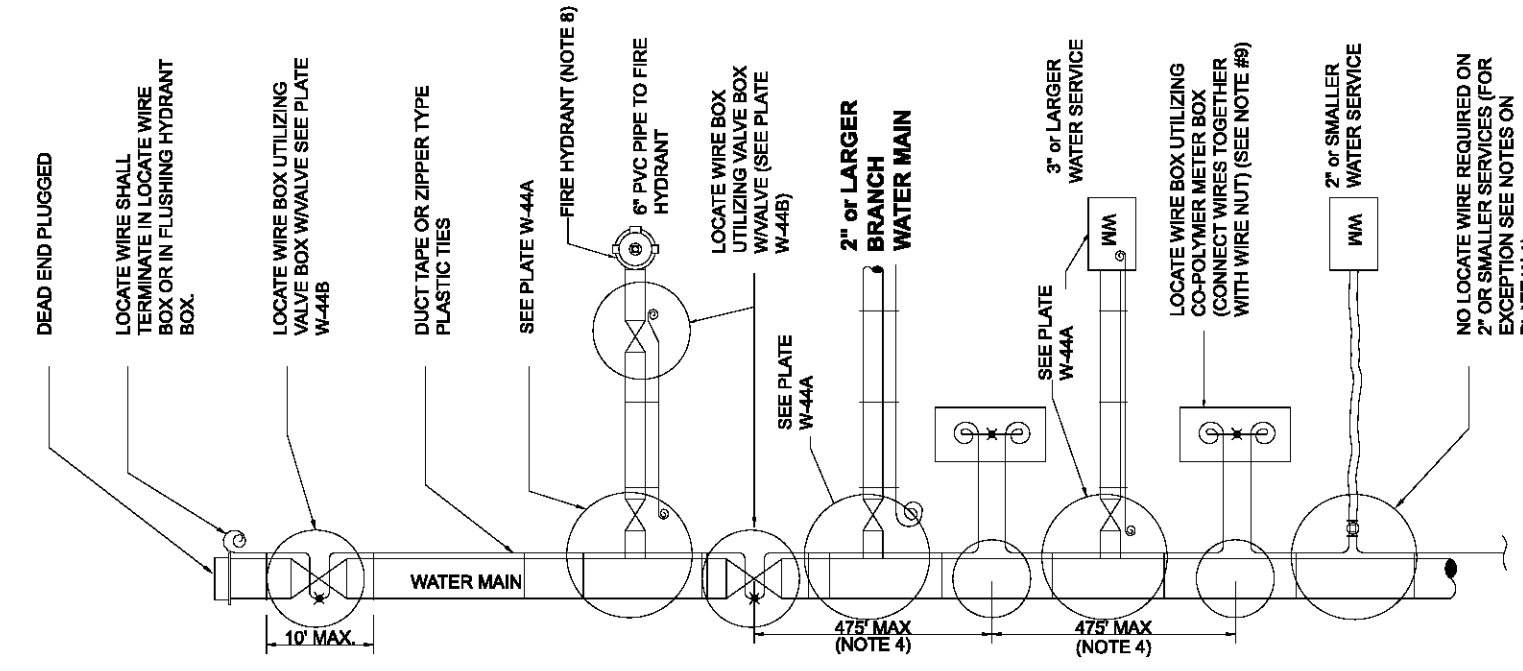
1/05 PLATE W-42

**ADJUSTMENT OVER EXISTING UTILITIES
PIPE JOINT DEFLECTION**

4/06 PLATE W-41

**ADJUSTMENT UNDER EXISTING UTILITIES
PIPE JOINT DEFLECTION**

4/06 PLATE W-40

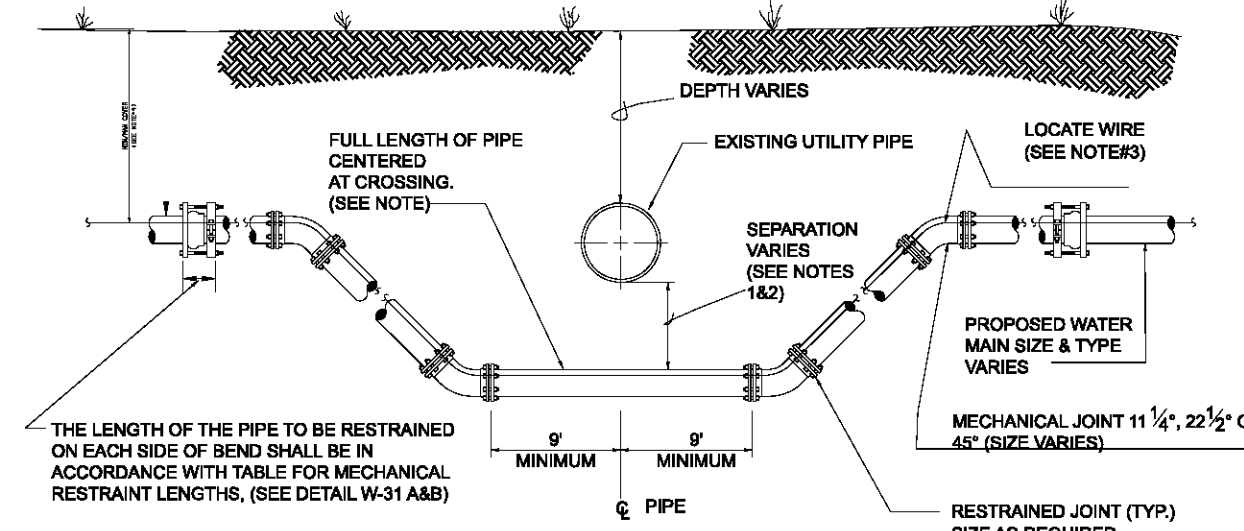


LOCATE WIRE SYSTEM

- NOTES:
- LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR PVC (PRESSURE MAINS), LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1100 OR 1120 POSITION, IF POSSIBLE).
 - SECURE LOCATING WIRE TO PVC & D.I.P. WATER MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
 - THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
 - LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX (WITH A VALVE) OR A METER BOX (IF NO VALVE) AT 475' INTERVALS. SEE DETAIL PLATE W-44B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
 - LOCATING WIRE SHALL BE 10 GAUGE, SINGLE STRAND, UF RATED (DIRECT BURIAL), COPPER WIRE WITH 30 MIL (MIN.) INSULATION WITH EITHER WHITE OR YELLOW COLOR. FOR HDD INSTALLATIONS, THE LOCATE WIRE SHALL BE COPPER CODED STEEL AS SPECIFIED IN SPEC SECTION 750.
 - ⊕ INDICATES THAT THE WIRES ARE CONNECTED TOGETHER.
 - ⊗ INDICATES A WIRE PIG-TAIL (12" LONG)
 - FOR FIRE HYDRANT LOCATE WIRE REQUIREMENTS AND EXCLUSIONS, SEE PLATE W-12.13 AND 14.
 - AN "V" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.

**LOCATE WIRE FOR CONSTRUCTION
WATER SYSTEM**

1 / 25 PLATE W-44

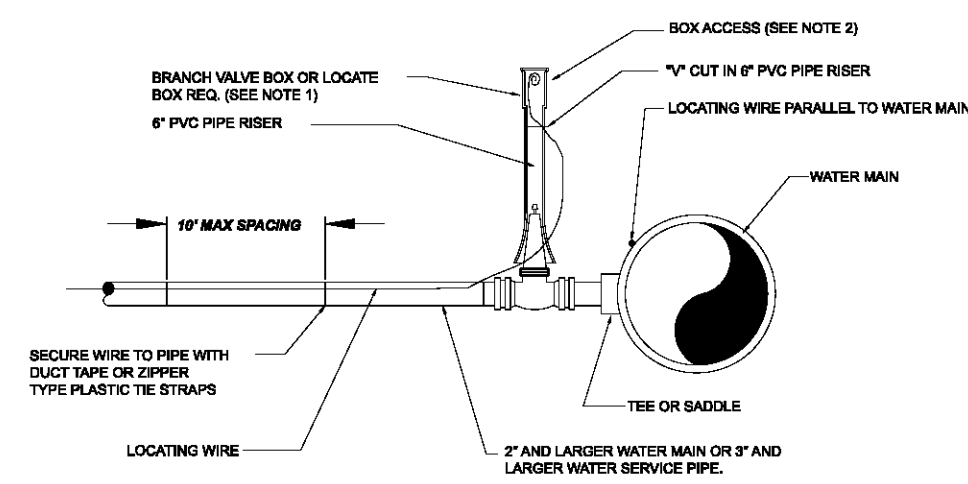


CASE "B" CROSSING

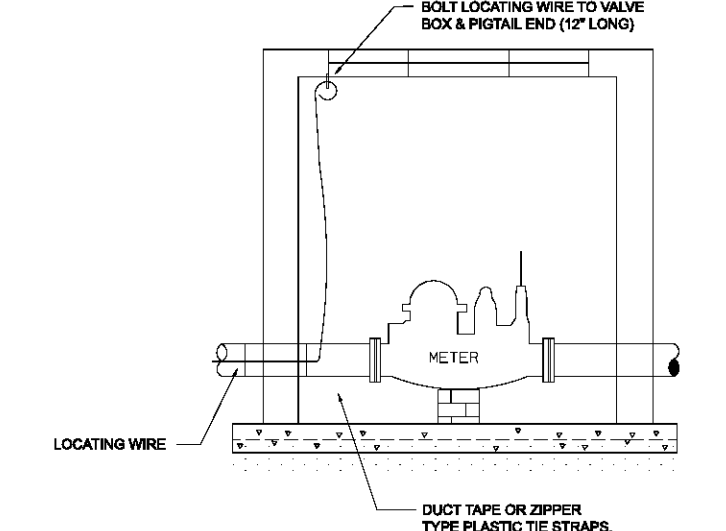
- NOTES:
- IF EXISTING UTILITY PIPE IS A WATER MAIN, 6-INCHES OF SEPARATION IS REQUIRED. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
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**ADJUSTMENT UNDER EXISTING UTILITIES
MECHANICAL RESTRAINTS**

1/05 PLATE W-34



BRANCH WATER MAIN

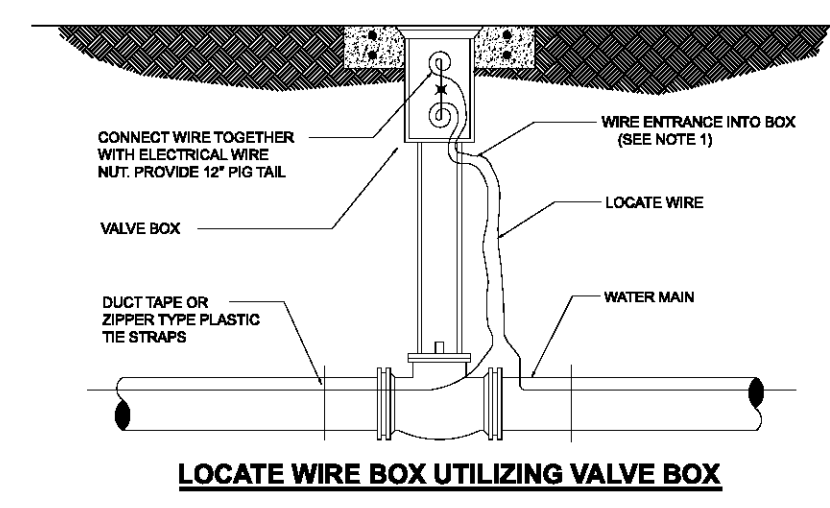


CONNECTION AT LARGE METER BOX

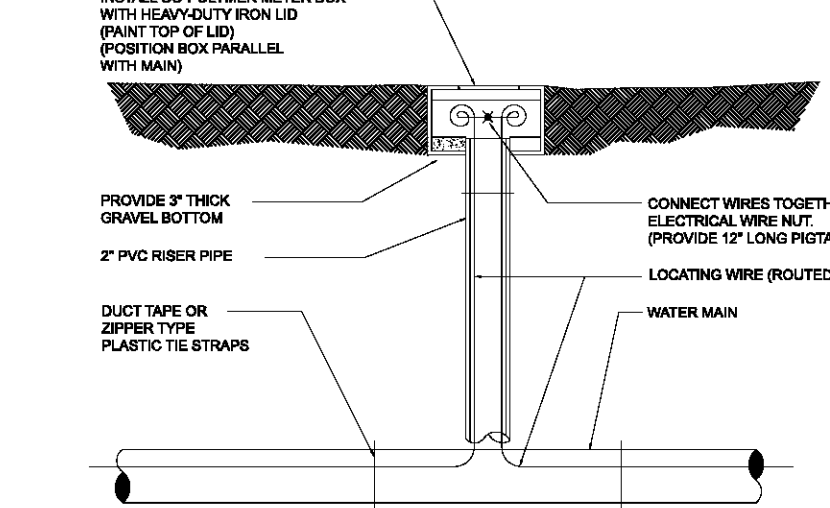
- NOTE:
- NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
 - LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE W-18)

**LOCATE WIRE FOR BRANCH,
MAIN AND LARGE SERVICES**

4/06 PLATE W-44a



LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX

- NOTES:
- LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE (SEE W-18)

LOCATE WIRE BOX

4/06 PLATE W-44b

Professional Engineer

No.	Date	Per Walgreens Review Comments	Description
1	02/05/2010		

WATER AND SEWER DETAILS

Taylor & White, Inc.
Consulting and Design Engineers
Jacksonville, Florida
SWC Fouraker Rd & Normandy Blvd
Store No. 13450

Taylor & White, Inc.
8956 Meridian Way, Suite 100 - Jacksonville, Florida 32255
Tel: (904) 346-0071 - Fax: (904) 346-3051 - Toll Free (877) 426-4440
www.taylorandwhite.com

Scale: N.T.S.
Project Manager: DGT
Designer: -
Drawn by: -
Certificate of Authorization: 7298
Key Map

Project No.: 08140.07
Date: November 2008
Sheet No.: C4.4

NOT RELEASSED FOR CONSTRUCTION