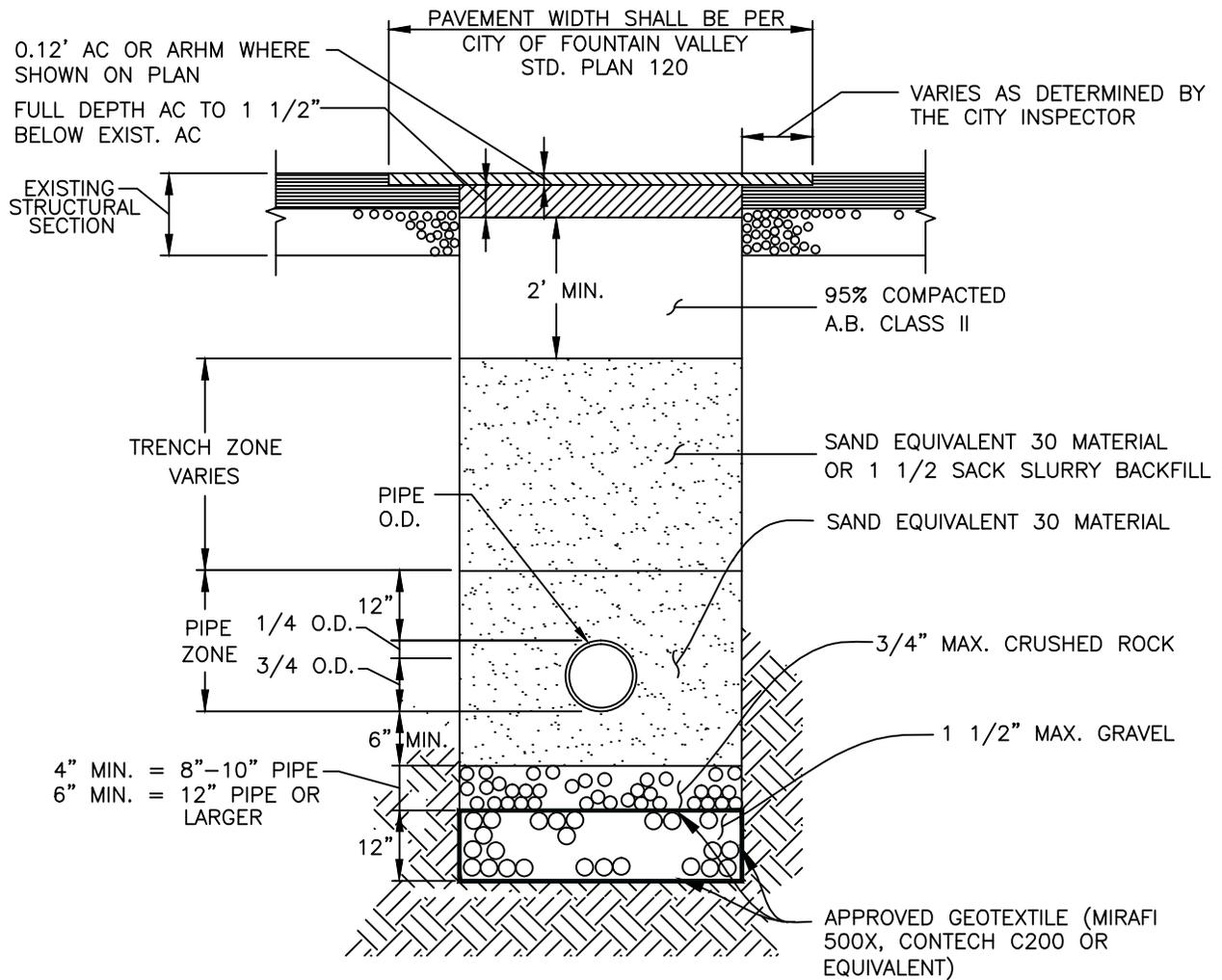


SECTION 700 **WATER**

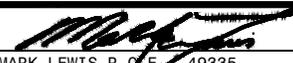
<u>PLAN NO.</u>	<u>DESCRIPTION</u>
700	DIP AND C-900 PVC PIPE MAIN INSTALLATION AND STREET RESURFACING
701	C-900 PVC PIPE STANDARD THRUST BLOCKS
702-1	HOT TAP 1 INCH THRU 2 INCH SERVICE CONNECTIONS
702-2	ABANDONMENT OF 3/4 INCH THRU 2 INCH SERVICE CONNECTIONS
702-3	ABANDONMENT OF 3 INCH THRU 16 INCH DOMESTIC OR FIRE SERVICE CONNECTIONS AND LATERALS
702-4	ABANDONMENT OF 3/4 INCH THRU 2 INCH SERVICE CONNECTIONS- DIRECT TAP INTO ACP
703	HOT TAP MORTAR LINED STEEL CYLINDER
704	HOT TAP 6 INCH, 8 INCH, 10 INCH AND 12 INCH MAINS
705-1	VALVE OR TEE INSTALLATION C-900 PVC PIPE- PRIMARY METHOD
705-2	VALVE OR TEE INSTALLATION C-900 PVC PIPE- SECONDARY METHOD
705-3	VALVE OR TEE INSTALLATION ASBESTOS CEMENT PIPE RETROFITTED WITH C900 PVC AND TRANSITION COUPLINGS
705-4	VALVE OR TEE INSTALLATION MORTAR LINED STEEL CYLINDER MAINS
706-1	3/4 INCH THRU 2 INCH METER AND BOX INSTALLATION
706-2	WATER SERVICE MANIFOLD FOR FOUR (4) OR MORE METERS
707	3 INCH, 4 INCH AND 6 INCH METER AND BOX INSTALLATION
708	VALVE BOX AND RISER INSTALLATION
709	FIRE HYDRANT INSTALLATION (DRY BARREL)
710	FIRE HYDRANT INSTALLATION (WET BARREL)
711	FIRE HYDRANT INSTALLATION WITH METER SERVICE
712	DEAD END OR SIPHON BLOW OFF ASSEMBLY
713	MORTAR LINED AND COATED STEEL PIPE BLOW OFF ASSEMBLY
714	1 INCH TO 2 INCH AIR RELEASE ASSEMBLY C-900 PVC PIPE
715	COMBINATION AIR VACUUM AIR RELEASE VALVE (STEEL CYLINDER PIPE)
716-1	DOUBLE CHECK DETECTOR ASSEMBLY
716-2	DOUBLE CHECK DETECTOR ASSEMBLY 4 INCH TO 10 INCH FIRE SERVICE
716-3	REMOVAL OF BELOW GROUND SINGLE CHECK VALVE
717	AIR GAP SEPARATION DEVICE
718	REDUCED PRESSURE PRINCIPLE DEVICE PRIVATELY OWNED AND MAINTAINED DEVICES
719	REDUCED PRESSURE PRINCIPLE DEVICE CITY OWNED AND MAINTAINED DEVICES
720	ATMOSPHERIC VACUUM BREAKER RESIDENTIAL USE ONLY
721-1	WATER LINE SIPHONS-(TYPICAL)- REPAIR ONLY MORTAR LINE AND COATED
721-2	WATER LINE SIPHONS-(INVERT)- REPAIR ONLY MORTAR LINE AND COATED
721-3	WATER LINE SIPHONS- (TYPICAL)- NEW INSTALLATIONS MORTAR LINE AND COATED
721-4	WATER LINE SIPHONS-(INVERT)- NEW INSTALLATIONS MORTAR LINE AND COATED
722	MORTAR LINED AND COATED STEEL PIPE FLANGE WELDING
723	MORTAR LINED AND COATED STEEL PIPE LAP WELD
724	MORTAR LINED AND COATED STEEL PIPE WELD JOINT
725	MORTAR LINED AND COATED STEEL PIPE BUTT STRAP JOINT
726	VAULT VENTING
727	WATER WELLS BACKFILLING OF ABANDONED
728	RESIDENTIAL FIRE AND DOMESTIC COMBINATION SERVICE INSTALLATION

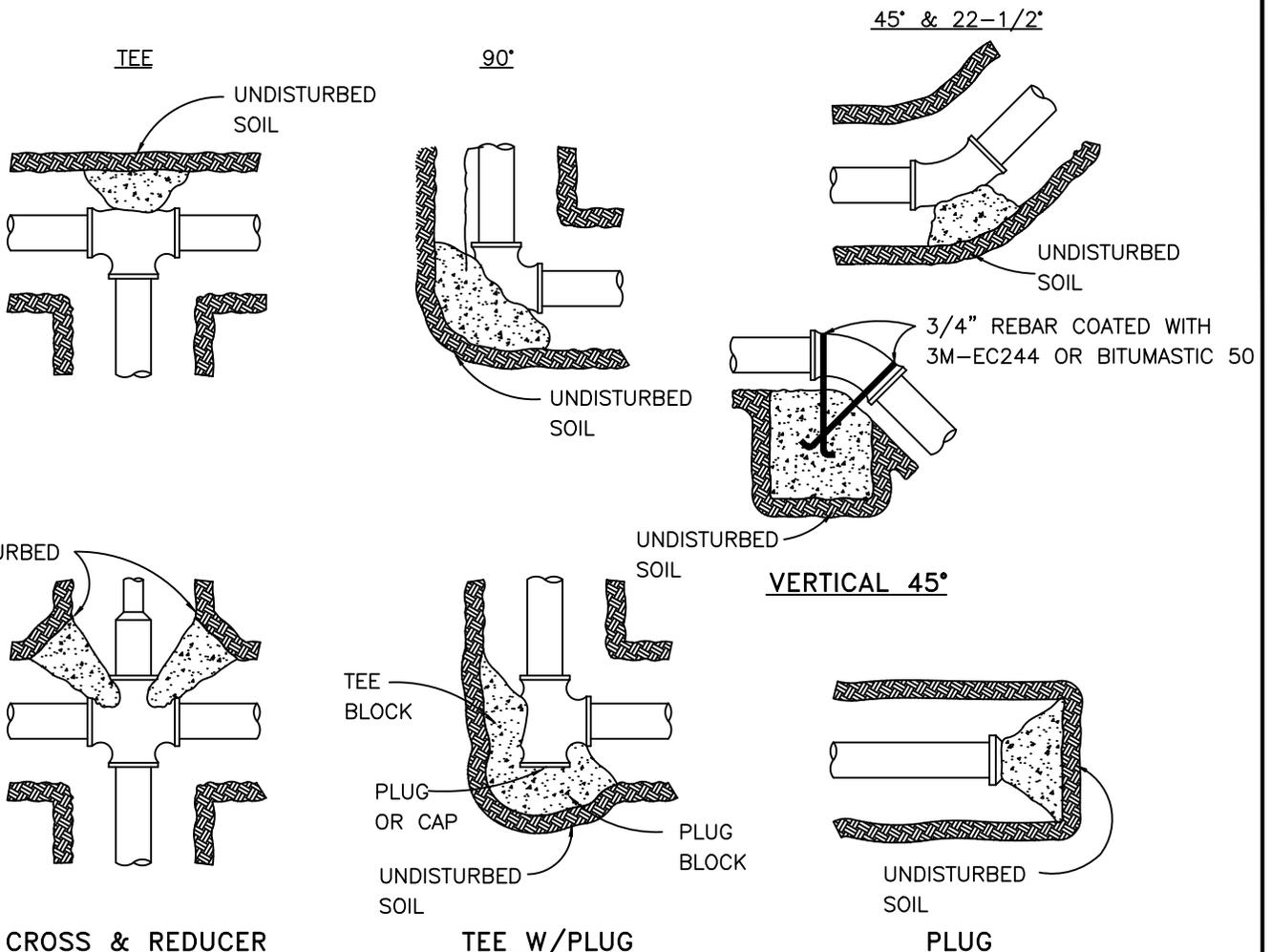


NOTES:

1. ANY EXCAVATION DEEPER THAN 5' MUST BE SHORED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE CODE, TITLE 8, ARTICLE 6, SECTION 1539 THRU 1541.
2. NO SAWCUT JOINTS TO FALL WITHIN WHEEL TRACKS OF TRAFFIC LANES AS DETERMINED BY CITY ENGINEER.
3. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON, ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED 1'-0" ABOVE PIPELINE LOCATION.
4. COMPACTION TO BE OBTAINED BY USE OF MECHANICAL TYPE COMPACTOR (HYDRO-JETTING IS NOT PERMISSIBLE).

ALL EXCAVATIONS AND WATER MAINS MUST BE INSPECTED PRIOR TO BACKFILLING.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 700
	DIP AND C-900 PVC PIPE MAIN INSTALLATION AND STREET RESURFACING	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1



CROSS & REDUCER

TEE W/PLUG

PLUG

BASED ON 200 PSI PRESSURE & ALLOWABLE BEARING PRESSURE OF 2000 PSF

THRUST BLOCK BEARING MINIMUM AREA IN SQ. FT.	PIPE SIZE	4	6	8	10	12	14	16	18	20	24
	CONDITION	TEE	2	4	7	11	16	21	27	35	43
90°		3	6	9	15	22	30	38	49	61	88
45°		2	3	5	8	12	16	21	27	33	48
22-1/2°		1	2	3	4	6	8	11	14	17	24
PLUG		2	4	7	11	16	21	27	35	43	62
CUBIC YARD	VERTICAL 45°	1	1.5	2.6	4.5	SEE PRECISE PLAN					

AREA OF THRUST BLOCK SHALL BE INCREASED, IF IN THE OPINION OF THE CITY'S INSPECTOR, SOIL CONDITIONS REQUIRE LARGER BEARING AREAS.

CONCRETE SHALL BE MIN. OF 6 SACKS
 CONCRETE SHALL BE READY MIXED AND CEMENT TRUCK DELIVERED.
 HAND MIXING CONCRETE IS UNACCEPTABLE.

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO.
	C-900 PVC PIPE STANDARD THRUST BLOCKS		
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER		SHEET: 1 OF 1
	DATE: 04/01/15		

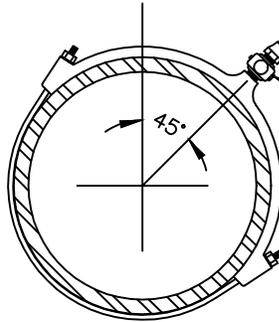
TYPICAL 1" COPPER SERVICE

CONNECTIONS

(NO 3/4" SERVICE LINES ALLOWED)

NOTES:

1. USE 1" X 1" CORPORATE STOP, 1" COPPER TUBING, AND A 1"X3/4" OR A 1" X 1" ANGLE METER STOP- DEPENDING ON METER SIZE. ON METER SIZE.
2. ALL COPPER TUBE TO BE TYPE K.
3. ALL CONNECTIONS AND COUPLINGS SHALL BE FLARED.
4. FOR SPLICE OR REPAIR USE JONES J-1528, FORD C-22 SERIES, MULLER H-15400.



SEE TYPICAL TYPE 'C' CONNECTIONS

STD
706

1" COPPER PIPE

1" CORP STOP
JONES J-1500, FORD F600
OR MUELLER H-15000

- C-900 PIPE TAPPING SADDLE, CC THREAD
JONES J-965, J-996
FORD S 70 & S 90 OR STYLE 202 BS
MUELLER H-13440 TO H-13444
- D.I. PIPE TAPPING SADDLE, CC THREAD
JONES J-979
FORD S-202B SERIES
MUELLER H-16123 TO H-16137

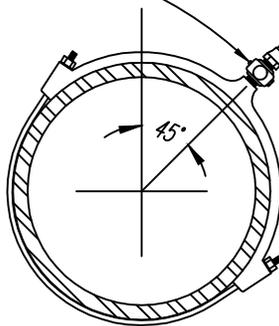
TYPE 'A' CONNECTIONS

TYPICAL 1-1/2" OR 2" COPPER SERVICE

CONNECTIONS

NOTES:

1. ALL COPPER TUBE TO BE TYPE K MALLEABLE.
2. ALL CONNECTIONS AND COUPLINGS SHALL BE FLARED.
3. FOR SPLICE REPAIR USE JONES J-1528, FORD C-22 SERIES MUELLER H-15400.



SEE TYPICAL TYPE 'D' CONNECTIONS

STD
706

1-1/2" OR 2" CORP STOP
JONES J-1500, FORD FB600
OR MUELLER H-15000

1-1/2" OR 2" COPPER PIPE

- C-900 PIPE TAPPING SADDLE, CC THREAD
JONES J-965, J-996
FORD S 70 & S 90 OR STYLE 202 BS
MUELLER H-13440 TO H-13444
- D.I. PIPE TAPPING SADDLE, CC THREAD
JONES J-979
FORD S-202B SERIES
MUELLER H-16123 TO H-16137

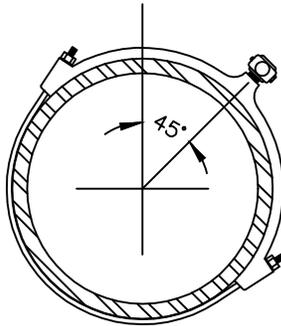
TYPE 'B' CONNECTIONS

ALL CONNECTIONS MUST BE FLARED. ANY DEVIATION MUST BE APPROVED BY CITY WATER DEPARTMENT IN WRITING.

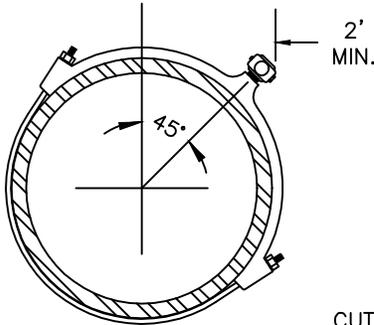
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	HOT TAP 1 INCH THRU 2 INCH SERVICE CONNECTIONS	702-1
	APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
	SHEET: 1 OF 4	

TYPICAL 3/4" THRU 2" COPPER SERVICE
DISCONNECTIONS THAT ARE SECURED
TO TAPPING SADDLE

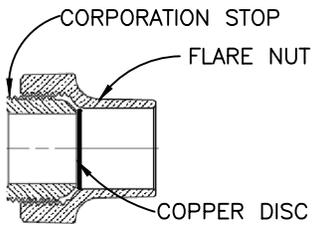
1. DISCONNECT COPPER SERVICE LINE AT CORPORATION STOP.



2. REMOVE FLARE NUT FROM PIPE.
 CUT COPPER PIPE 2' (MIN.) AWAY FROM CORPORATION STOP.



CUT COPPER PIPE BELOW ANGLE METER STOP, CRIMP END AND BEND OVER.

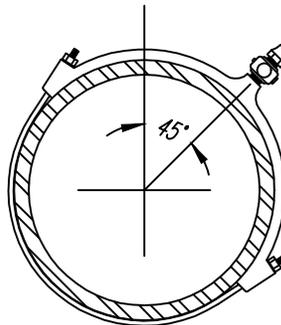


DETAIL

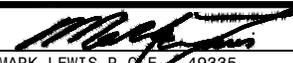
NOTES:

- SOLID COPPER DISCS
- FORD-DISC 3-3/4"
- DISC 4-1"
- DISC 6-1 1/2"
- DISC 7-2"
- MUELLER-H-15535

CRIMP END OF COPPER PIPE AND BEND OVER.

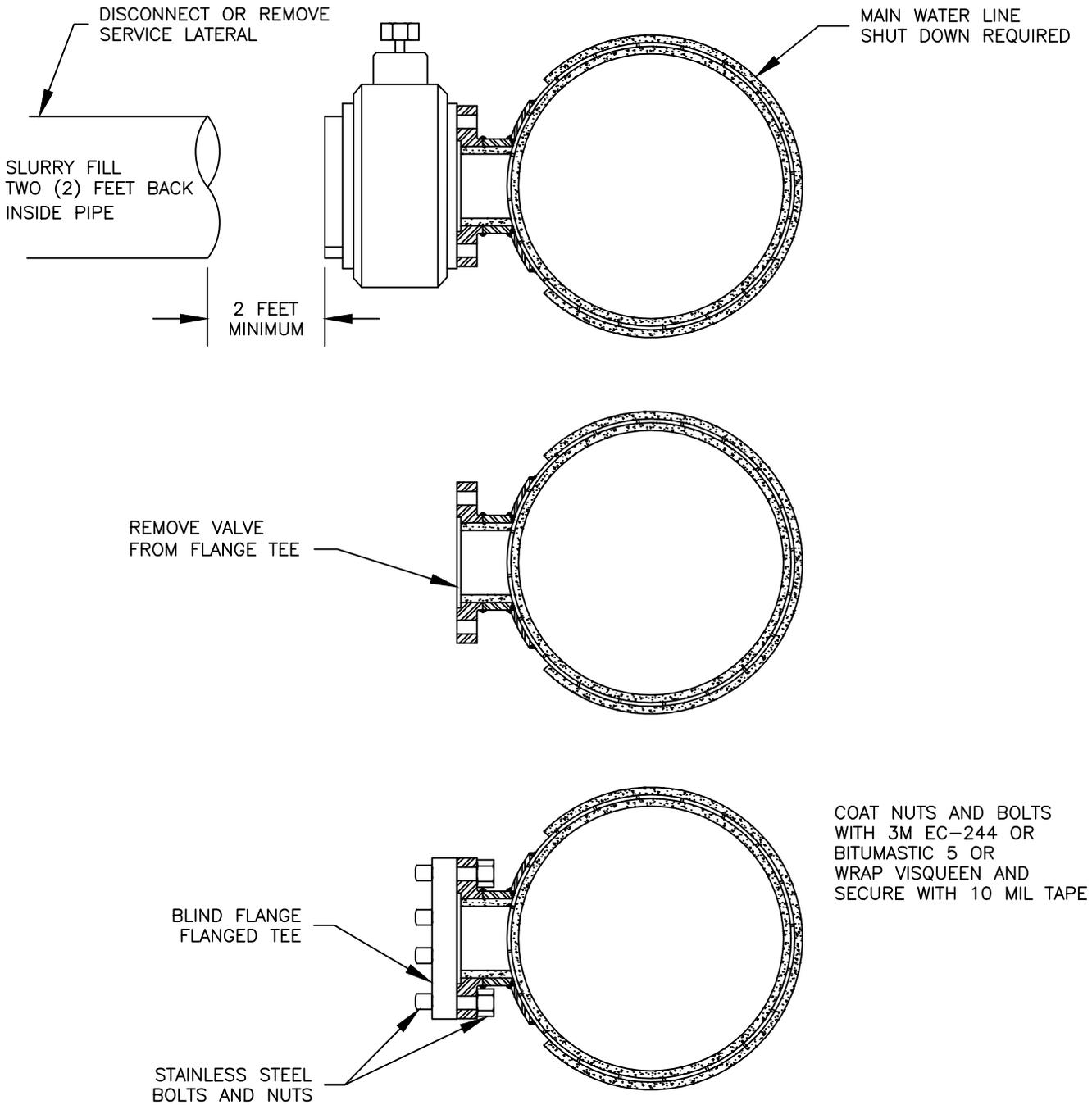


INSERT SOLID COPPER DISC IN FLARE NUT. INSTALL FLARE NUT ON CORPORATION STOP AND TIGHTEN (SEE DETAIL).

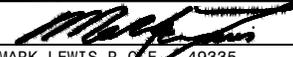
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	ABANDONMENT OF 3/4 INCH THRU 2 INCH SERVICE CONNECTIONS	702-2
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 2 OF 4

DATE: 04/01/15

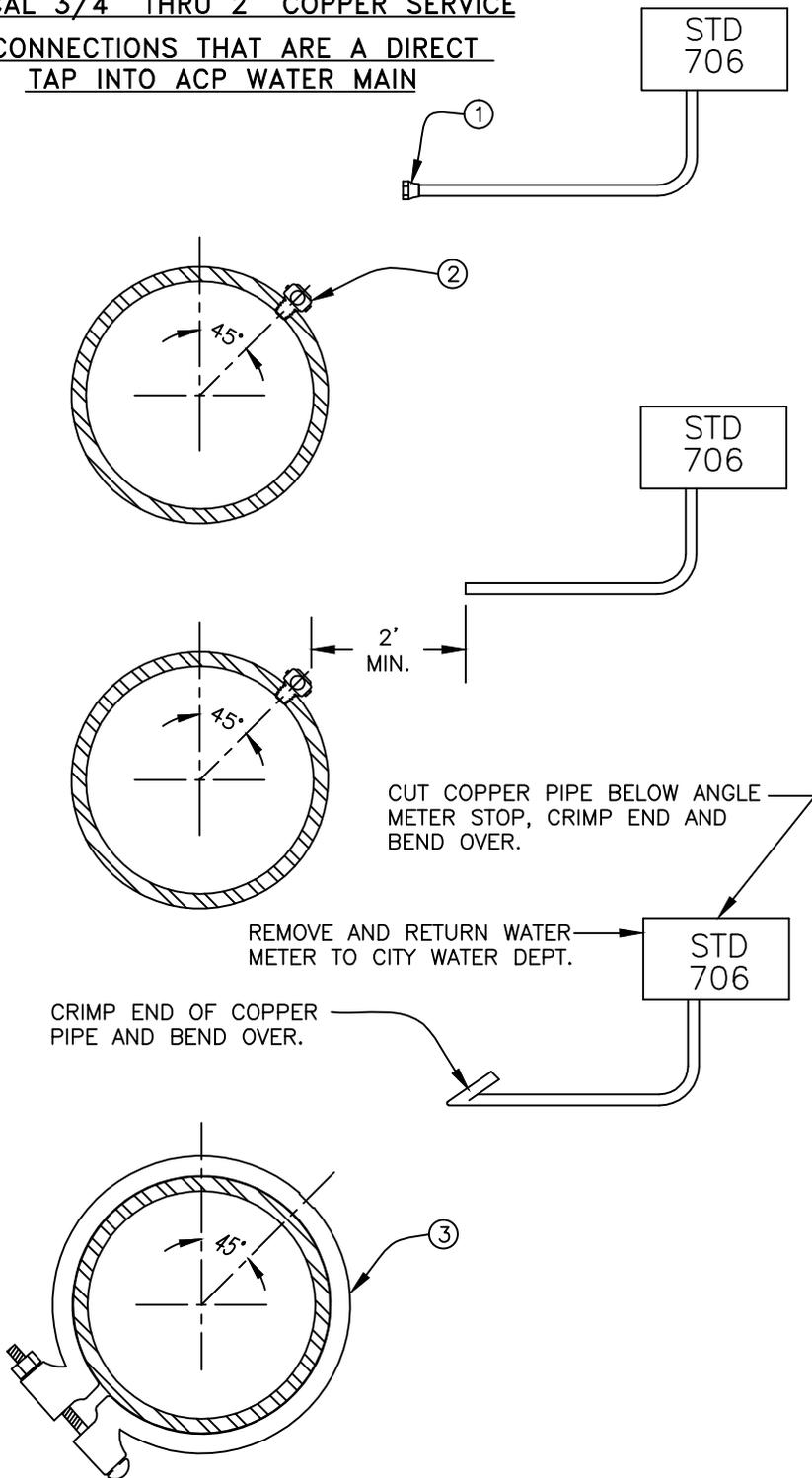
TYPICAL 3" THRU 16" DOMESTIC OR FIRE SERVICE
DISCONNECTIONS



NOTE: 48 HOUR SHUT DOWN NOTIFICATION TO FOUNTAIN VALLEY PUBLIC WORKS DEPARTMENT IS REQUIRED.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	ABANDONMENT OF 3 INCH THRU 16 INCH DOMESTIC OR FIRE SERVICE CONNECTIONS AND LATERALS	702-3
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 3 OF 4
		DATE: 04/01/15

TYPICAL 3/4" THRU 2" COPPER SERVICE
DISCONNECTIONS THAT ARE A DIRECT
TAP INTO ACP WATER MAIN



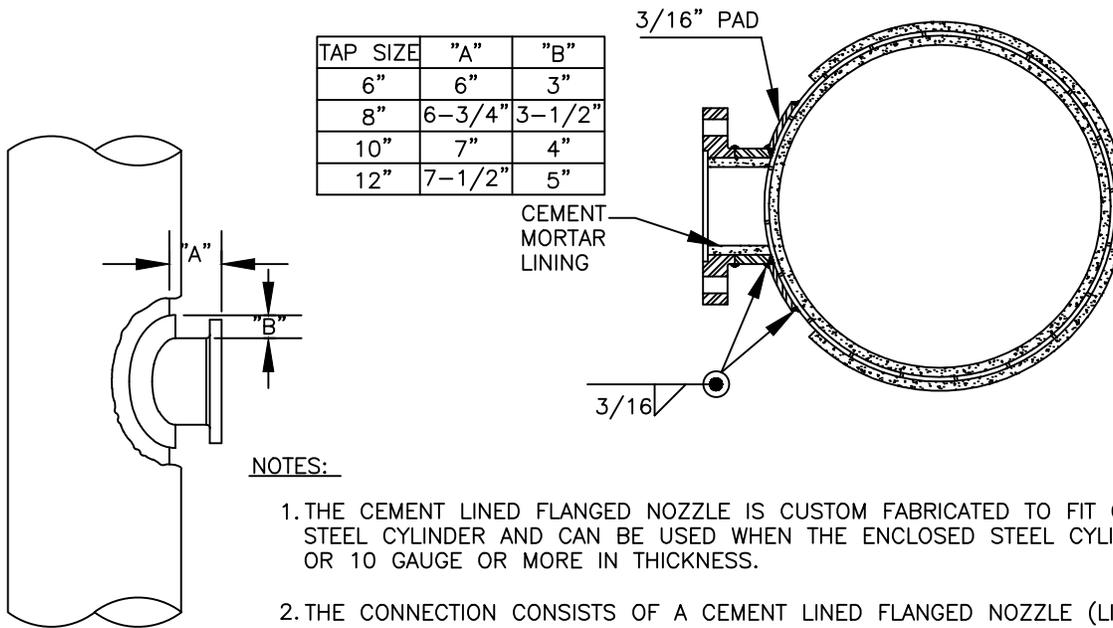
NOTES:

1. DISCONNECT COPPER SERVICE LINE AT CORPORATION STOP
2. UNSCREW CORPORATION STOP FROM ACP PIPE.

CUT COPPER PIPE 2' (MIN.) AWAY FROM CORPORATION STOP.
3. INSTALL AND CENTER STAINLESS STEEL REPAIR CLAMP OVER EXISTING HOLE IN ACP PIPE AND SECURE. FORD FS1/ FS2 OR EQUIVALENT.

SEE WATER GENERAL NOTES # 45 C(a).
MINIMUM 48 HR. WATER OUTAGE NOTIFICATION REQUIRED

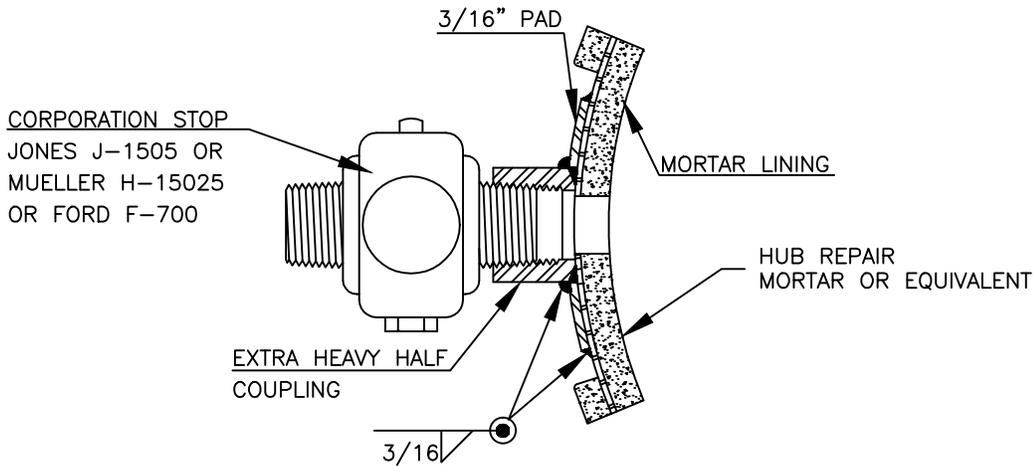
REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO.
	ABANDONMENT OF 3/4 INCH THRU 2 INCH SERVICE CONNECTIONS-DIRECT TAP INTO ACP		
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER		702-4
	DATE: 04/01/15		



NOTES:

1. THE CEMENT LINED FLANGED NOZZLE IS CUSTOM FABRICATED TO FIT O.D. OF INSIDE STEEL CYLINDER AND CAN BE USED WHEN THE ENCLOSED STEEL CYLINDER PIPE IS 12 OR 10 GAUGE OR MORE IN THICKNESS.
2. THE CONNECTION CONSISTS OF A CEMENT LINED FLANGED NOZZLE (LINING 1/2" OR MORE) WITH CURVED PAD (TO FIT AGAINST STEEL LINER).
3. AFTER CONCRETE HAS BEEN ALL CHIPPED OFF (JUST LARGE ENOUGH FOR THE PAD), THE NOZZLE IS WELDED TO THE LINES, PAD IS WELDED TO THE NOZZLE AND PIPE TO PREVENT FLUID FROM GETTING BETWEEN THE PAD, VALVES ARE BOLTED ON, LINES ARE PRESSURED (AIR) TESTED, AND ALL MORTAR LINING AND COATING REMOVED OR DAMAGED SHALL BE REPLACED TO ITS ORIGINAL OR NEW CONDITION PER AWWA C602.

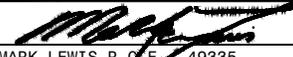
150# 6" TO 12" HOT TAP

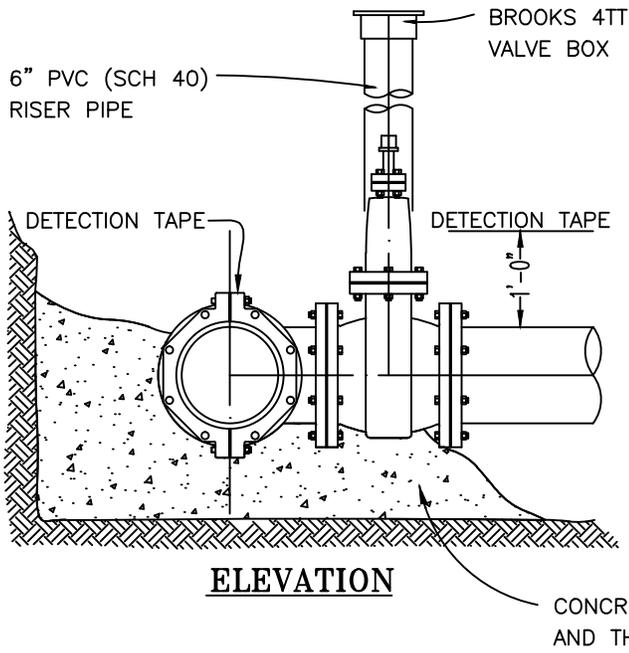


3/4" TO 2" HOT TAP

CONTRACTOR PERFORMING ACTUAL HOT TAP MUST BE APPROVED BY WATER SUPERINTENDENT PRIOR TO STARTING WORK.

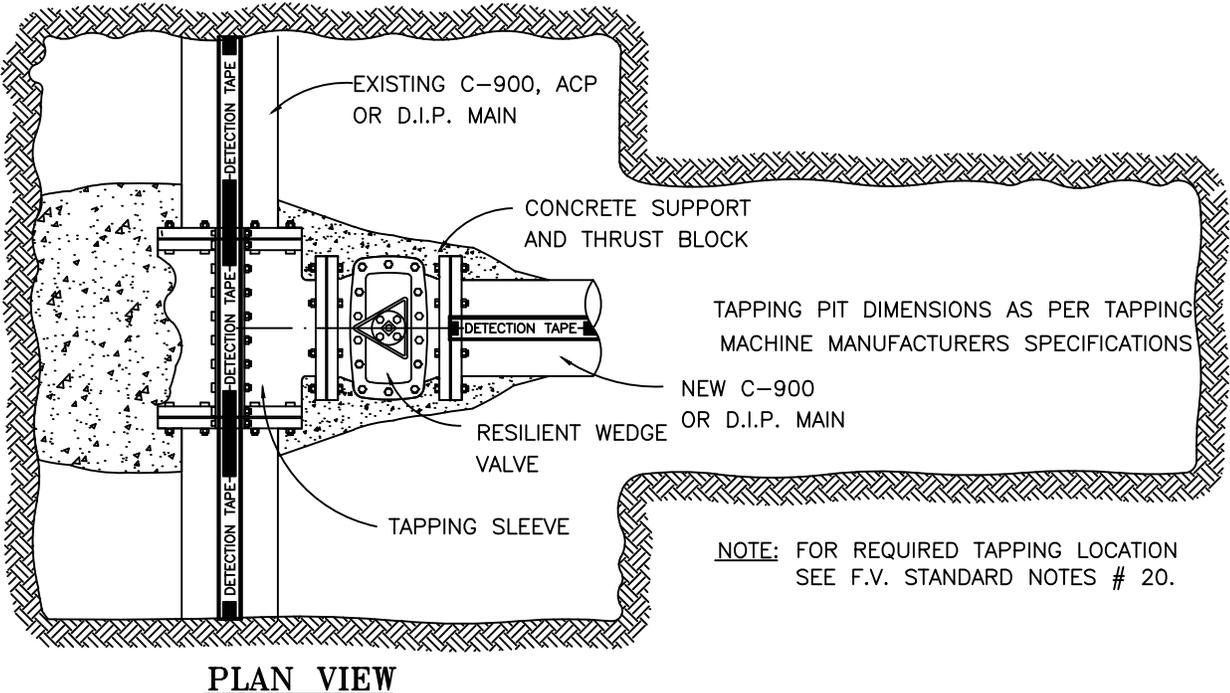
ALL WELDING SHALL BE COMPLETED BY A AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206 MUST BE APPROVED BY UTILITIES MANAGER.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	HOT TAP MORTAR LINED STEEL CYLINDER	703
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15 SHEET: 1 OF 1



NOTE
 SEE PUBLIC WORKS WATER STANDARD SPECIFICATIONS SHEET 3 OF 11 FOR LIST OF APPROVED TAPPING SLEEVES.
 FOR HOT TAPS ON PIPE OVER 12" IN DIAMETER USE FORD FAST-1574 TO 2600.

NOTE:
 PRIOR TO FINAL BACKFILLING, ALL BURIED WATER PIPELINES SHALL HAVE A METALLIC TYPE DETECTABLE MARKING TAPE (IE; TYPE III BY LINEGUARD, INC. OR APPROVED EQUIVALENT) PLACED ONE (1) FOOT ABOVE PIPELINE LOCATION.
 INSTALL TEE AND VALVE PER F.V. STD. PLAN NO. 704 OR 705-3. INSTALLATION METHOD 704 OR 705-3 WILL BE DETERMINED PER F.V. STD. PLAN NOTES SHEET 10 OF 14 #20.

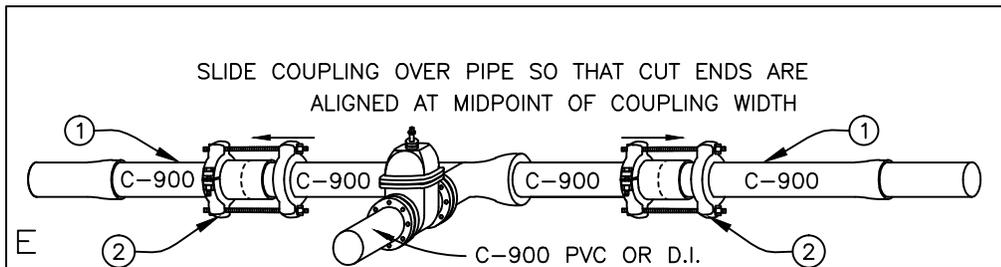
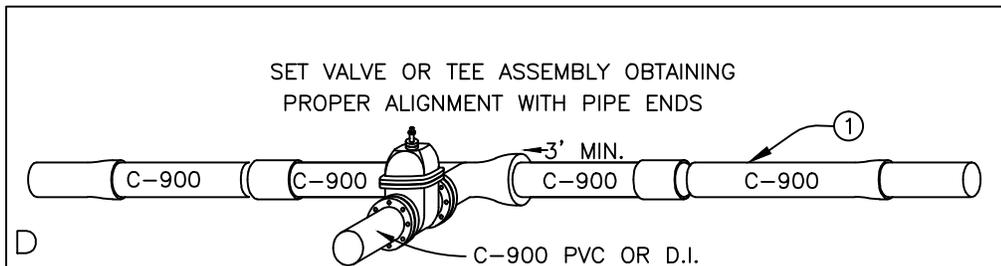
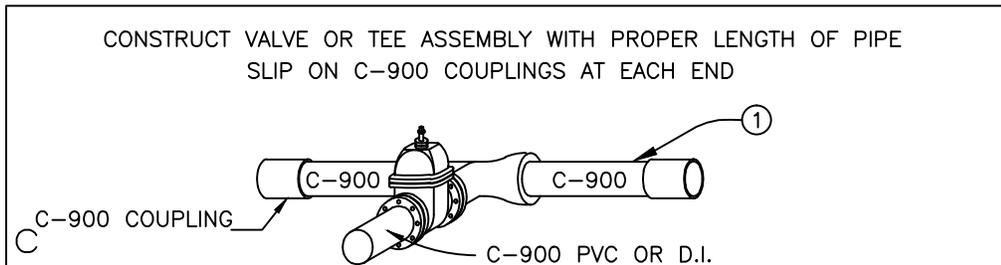
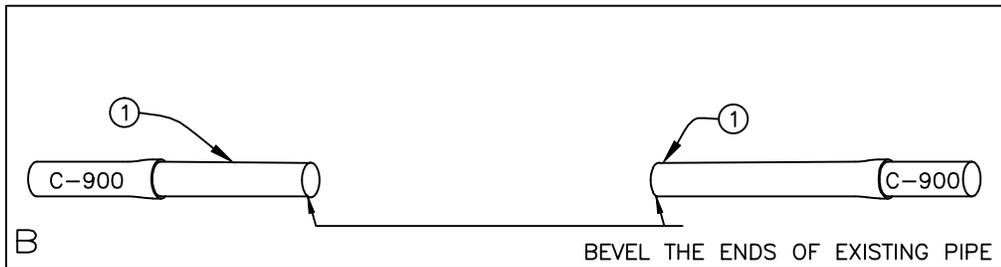
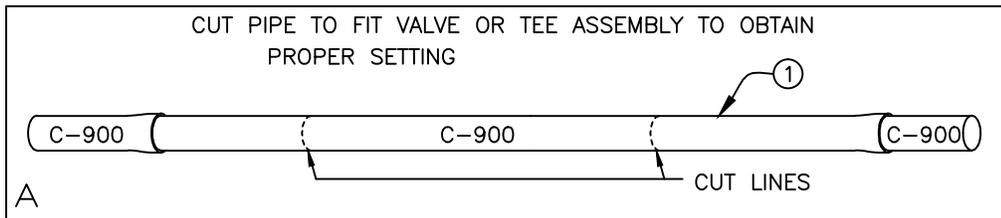


NOTE: FOR REQUIRED TAPPING LOCATION SEE F.V. STANDARD NOTES # 20.

THIS INSTALLATION MUST BE APPROVED BY THE UTILITIES MANAGER. (SPECIAL USE APPLICATION ONLY)

CONTRACTOR PERFORMING ACTUAL HOT TAP MUST BE APPROVED BY UTILITIES MANAGER PRIOR TO STARTING WORK.

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO. 704
	HOT TAP		
	6 INCH, 8 INCH, 10 INCH AND 12 INCH MAINS		
APPROVED BY:	 MARK LEWIS R.C.E. 49335 CITY ENGINEER	DATE: 04/01/15	SHEET: 1 OF 1



***** PRIMARY METHOD OF INSTALLATION *****

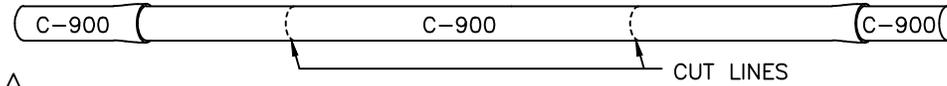
NOTES:

1. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD, INC. WHEATON, ILLINOIS 60187 (OR APPROVED EQUAL) TAPE SHALL BE PLACED ONE (1') FOOT ABOVE PIPELINE LOCATION.
2. RESTRAINT SYSTEM FOR EACH NEW C-900 COUPLING SHALL BE FORD UNI-FLANGE SERIES 1350 OR APPROVED EQUIVALENT AS SHOWN IN PICTURE (E).

CONTRACTOR PERFORMING ACTUAL INSTALLATION MUST BE APPROVED BY UTILITIES MANAGER PRIOR TO STARTING WORK.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 705-1
	VALVE OR TEE INSTALLATION C-900 PVC PIPE PRIMARY METHOD	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 4

CUT PIPE TO FIT VALVE OR TEE ASSEMBLY TO OBTAIN PROPER SETTING



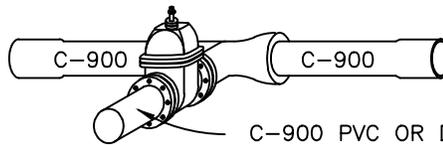
A

INSTALL STRAIGHT COUPLINGS WITH RESTRAINERS ON EXISTING PIPE.



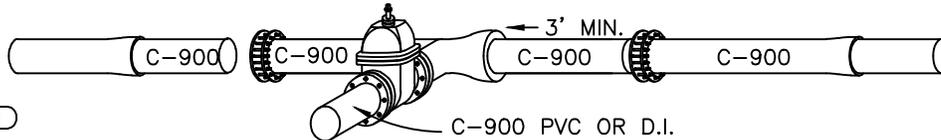
B

CONSTRUCT VALVE OR TEE ASSEMBLY WITH PROPER LENGTH OF PIPE



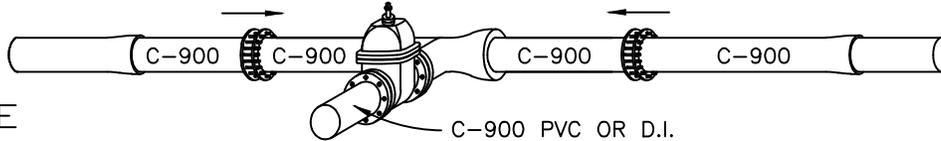
C

SET VALVE OR TEE ASSEMBLY OBTAINING PROPER ALIGNMENT WITH PIPE ENDS



D

SLIDE STRAIGHT COUPLING OVER PIPE SO THAT CUT ENDS ARE ALIGNED AT MIDPOINT OF COUPLING WIDTH



E

*** SECONDARY METHOD OF INSTALLATION ***

THIS INSTALLATION MUST BE APPROVED BY UTILITIES MANAGER

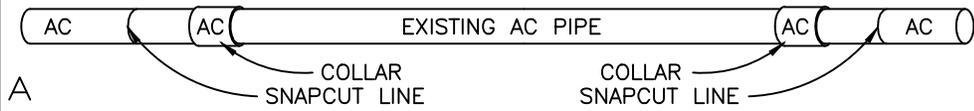
NOTE:

PRIOR TO FINAL BACKFILLING, ALL BURIED WATER PIPELINES SHALL HAVE A METALLIC TYPE DETECTABLE MARKING TAPE (IE; TYPE III BY LINEGUARD, INC. OR APPROVED EQUIVALENT) PLACED ONE (1) FOOT ABOVE PIPELINE LOCATION.

CONTRACTOR PERFORMING ACTUAL INSTALLATION MUST BE APPROVED BY UTILITIES MANAGER PRIOR TO STARTING WORK.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 705-2
	VALVE OR TEE INSTALLATION C-900 PVC PIPE SECONDARY METHOD	
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	
	DATE: 04/01/15	SHEET: 2 OF 4

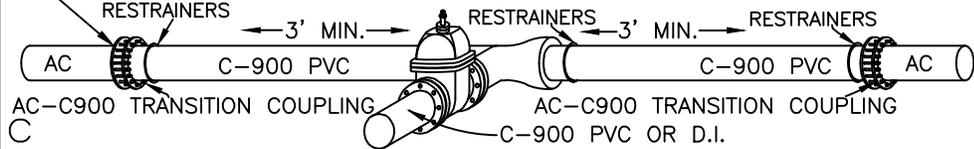
SNAPCUT A.C. PIPE TO FACILITATE
REMOVAL FROM COLLARS.



REMOVE A.C. PIPE



INSTALL AC-C900 TRANSITION COUPLINGS WITH RESTRAINERS
C-900 PIPE, FITTINGS AND VALVES



ROMAC XR501
EXTENDED RANGE
OR EQUIVALENT.

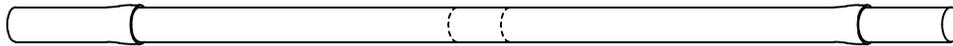
NOTES:

1. SEE PUBLIC WORKS WATER STANDARD SPECIFICATIONS SHEET 40F 11 FOR LIST OF APPROVED COUPLINGS.
2. INSTALL TEE AND VALVE PER F.V. STD. NO. 704 OR 705-3. INSTALLATION METHOD 704 OR 705-3 WILL BE DETERMINED PER F.V. STANDARD PLAN NOTES 10 OF 14 #20.
3. PRIOR TO FINAL BACKFILLING, ALL BURIED WATER PIPELINES SHALL HAVE A METALLIC TYPE DETECTABLE MARKING TAPE (IE; TYPE III BY LINEGUARD, INC. OR APPROVED EQUIVALENT) PLACED ONE (1) FOOT ABOVE PIPELINE LOCATION.

CONTRACTOR PERFORMING ACTUAL INSTALLATION MUST BE APPROVED
BY UTILITIES MANAGER PRIOR TO STARTING WORK.

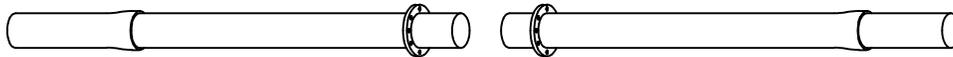
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 705-3
	VALVE OR TEE INSTALLATION ASBESTOS CEMENT PIPE RETROFITTED WITH C-900 PVC AND TRANSITION COUPLINGS	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 3 OF 4

CUT PIPE TO FIT VALVE OR TEE ASSEMBLY TO OBTAIN
 PROPER SETTING OF SLIP WELD FLANGE PER STD. 722



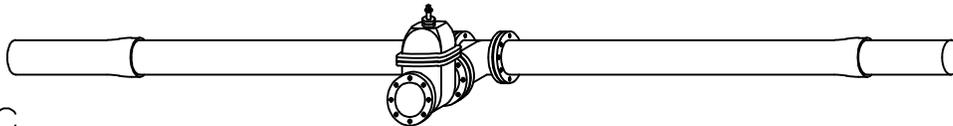
A

INSTALL SLIP-ON WELD FLANGES OVER PIPE. POSITION PROPERLY
 AND MAKE REFERENCE MARKS OF FLANGE NECK ON PIPE



B

INSTALL VALVE OR TEE ASSEMBLY AND BOLT UP SLIP-ON WELD FLANGES
 (WITH FLANGE GASKETS INSTALLED). OBTAIN PROPER POSITION OF SLIP-ON WELD
 FLANGES WITH REFERENCE MARKS ON PIPE. TACK WELD SLIP-ON WELD FLANGES.



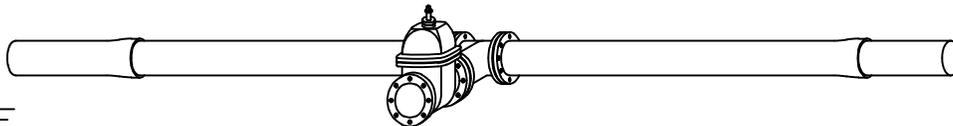
C

UNBOLT AND REMOVE VALVE OR TEE ASSEMBLY. WELD FLANGES PER
 STD. 722. REPLACE MORTAR AFTER WELDING ON INSIDE OF FLANGES.



D

REINSTALL VALVE OR TEE ASSEMBLY. REPLACE WIRE MESH
 REINFORCEMENT AND MORTAR ON OUTSIDE OF PIPE.

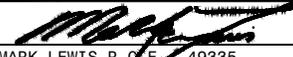


E

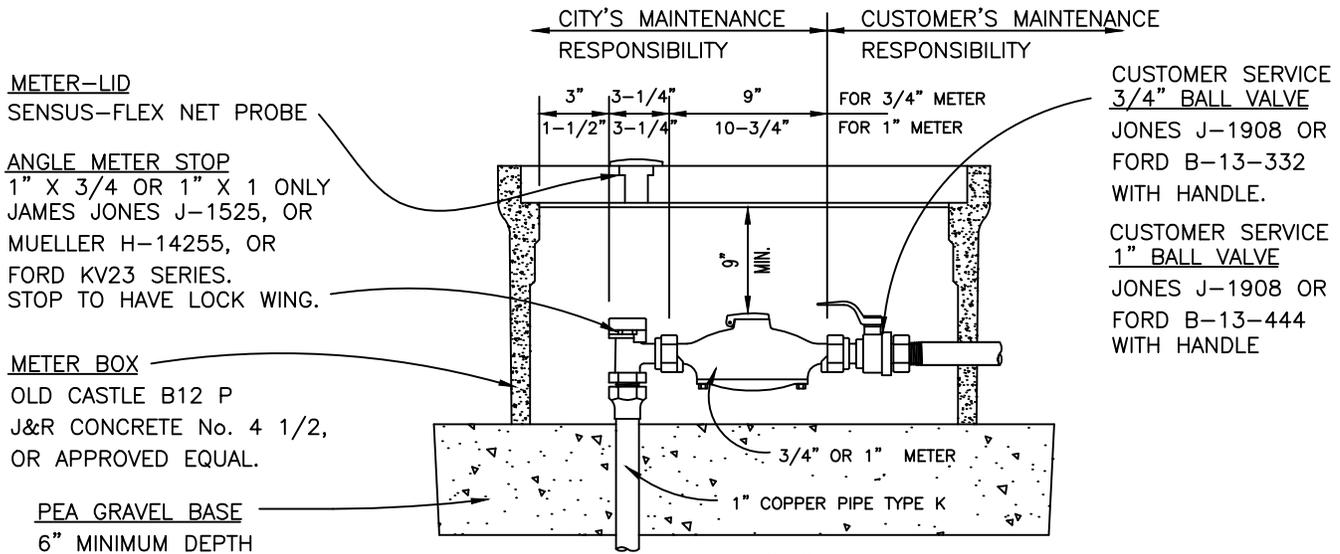
NOTE:

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE O.D. OF THE WATER MAIN.
 ALL WELDING SHALL BE COMPLETED BY AN AWS CERTIFIED WELDER IN COMPLIANCE WITH "AWWA" STANDARD C-206-97.
 SEE F.V. STD. PLAN NO. 722 FOR FLANGE WELDING METHOD.

CONTRACTOR PERFORMING ACTUAL INSTALLATION MUST BE APPROVED
 BY UTILITIES MANAGER PRIOR TO STARTING WORK.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	VALVE OR TEE INSTALATION MORTAR LINED STEEL CYLINDER MAINS	705 - 4
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 4 OF 4
	DATE: 04/01/15	

TYPICAL 3/4" OR 1" METER CONNECTION



METER-LID
SENSUS-FLEX NET PROBE

ANGLE METER STOP
1" X 3/4" OR 1" X 1" ONLY
JAMES JONES J-1525, OR
MUELLER H-14255, OR
FORD KV23 SERIES.
STOP TO HAVE LOCK WING.

METER BOX
OLD CASTLE B12 P
J&R CONCRETE No. 4 1/2,
OR APPROVED EQUAL.

PEA GRAVEL BASE
6" MINIMUM DEPTH

CUSTOMER SERVICE
3/4" BALL VALVE
JONES J-1908 OR
FORD B-13-332
WITH HANDLE.

CUSTOMER SERVICE
1" BALL VALVE
JONES J-1908 OR
FORD B-13-444
WITH HANDLE

FOR 3/4" OR 1" METER CONNECTION CLEARANCE FROM BACK OF CURB 9" TO ANGLE METER STOP

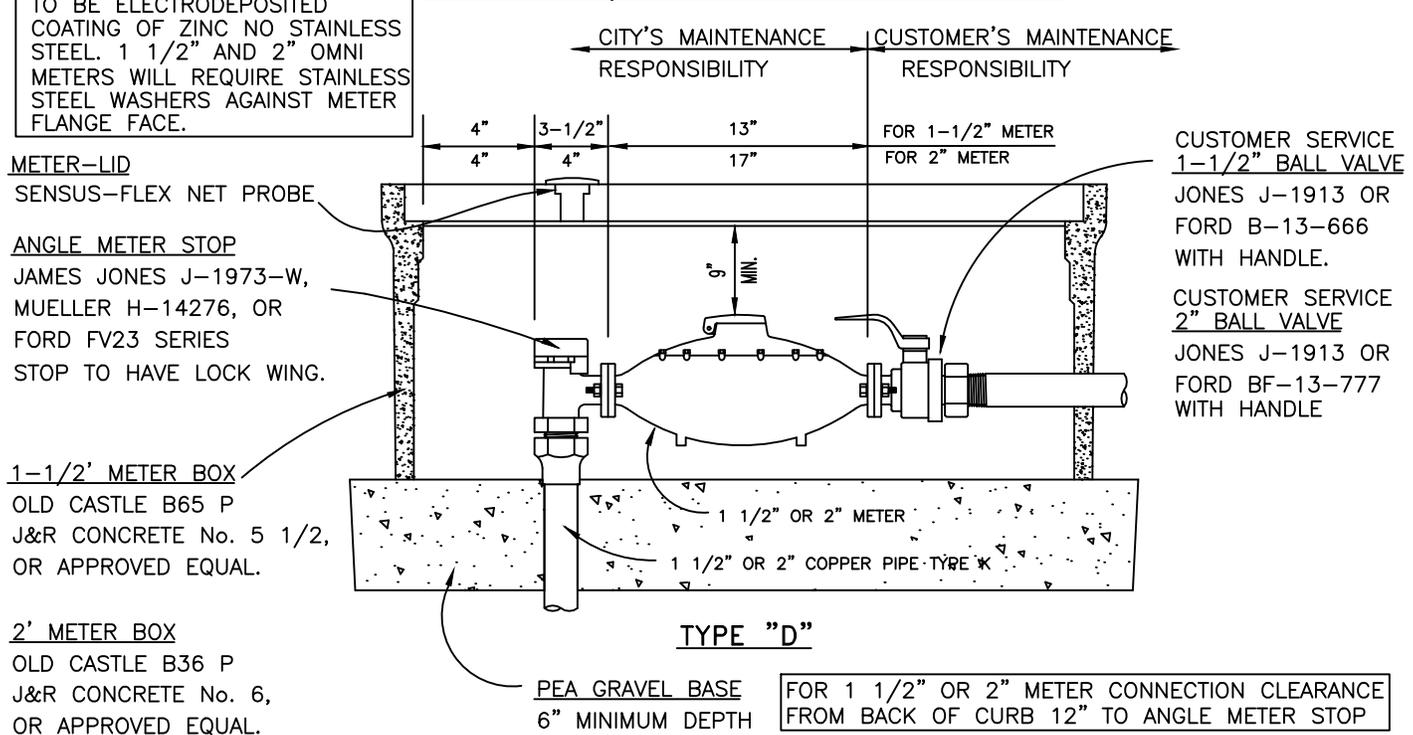
TYPE "C"

NOTE:
ALL COPPER TUBING TO BE TYPE K.

NOTE:
METER AND CUSTOMER SERVICE BALL VALVE ARE PURCHASED FROM CITY.
CUSTOMER SERVICE BALL VALVE REQUIRED ON CUSTOMER SIDE OF METER.

ALL FLANGE BOLTS AND NUTS TO BE ELECTRODEPOSITED COATING OF ZINC NO STAINLESS STEEL. 1 1/2" AND 2" OMNI METERS WILL REQUIRE STAINLESS STEEL WASHERS AGAINST METER FLANGE FACE.

TYPICAL 1-1/2" OR 2" METER CONNECTION



METER-LID
SENSUS-FLEX NET PROBE

ANGLE METER STOP
JAMES JONES J-1973-W,
MUELLER H-14276, OR
FORD FV23 SERIES
STOP TO HAVE LOCK WING.

1-1/2' METER BOX
OLD CASTLE B65 P
J&R CONCRETE No. 5 1/2,
OR APPROVED EQUAL.

2' METER BOX
OLD CASTLE B36 P
J&R CONCRETE No. 6,
OR APPROVED EQUAL.

CUSTOMER SERVICE
1-1/2" BALL VALVE
JONES J-1913 OR
FORD B-13-666
WITH HANDLE.

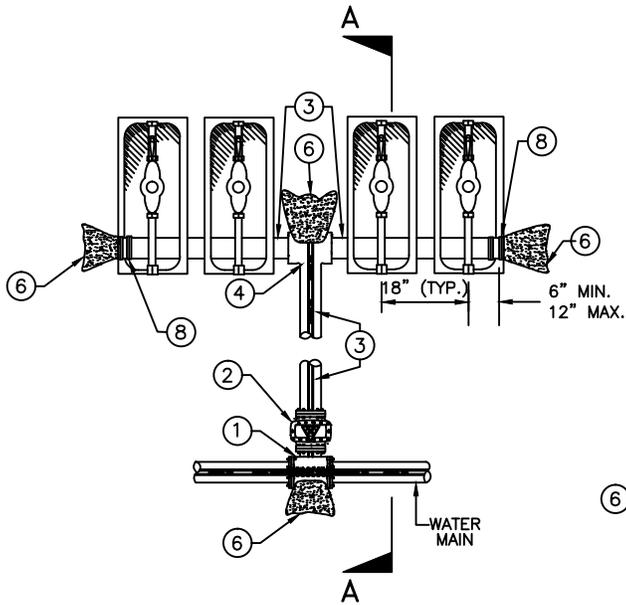
CUSTOMER SERVICE
2" BALL VALVE
JONES J-1913 OR
FORD BF-13-777
WITH HANDLE

FOR 1 1/2" OR 2" METER CONNECTION CLEARANCE FROM BACK OF CURB 12" TO ANGLE METER STOP

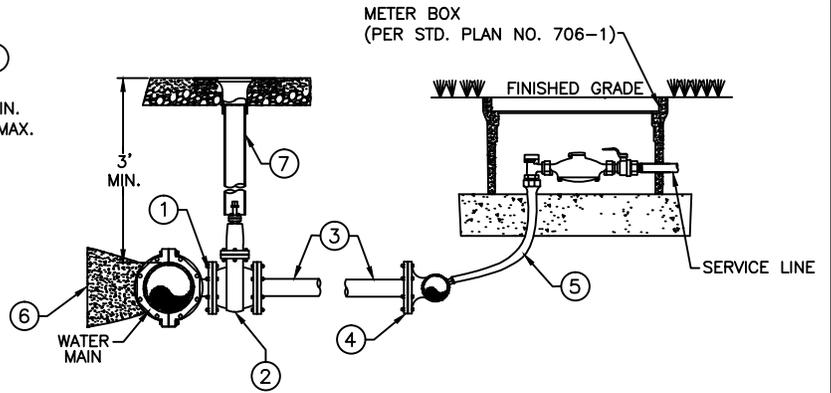
TYPE "D"

ALL FITTINGS MUST BE FLARED. ANY DEVIATION MUST BE APPROVED BY CITY WATER DEPARTMENT IN WRITING.
(POLYMER CONCRETE BOXES & LIDS ACCEPTABLE EXCEPT IN TRAFFIC AREAS)

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	3/4 INCH THRU 2 INCH METER AND BOX INSTALLATION	706-1
	APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	SHEET: 1 OF 2
	DATE: 04/01/15	



PLAN



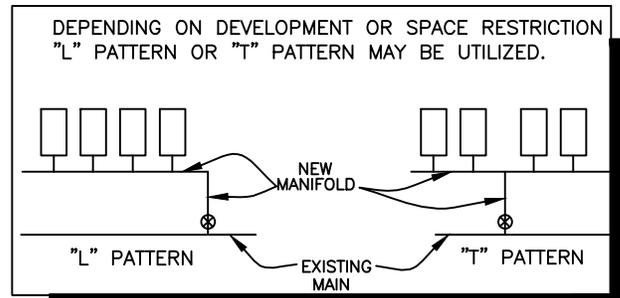
SECTION A/A

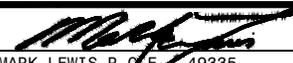
ITEM MATERIALS

- ① EXISTING MAIN SIZE 8" AND ABOVE CONSTRUCT PER STD. NO. 704.
EXISTING MAIN SIZE 6" ACP CONSTRUCT PER STD. NO. 705-3.
EXISTING MAIN SIZE 6" C-900 CONSTRUCT PER STD. NO. 705-1 & 705-2.
- ② 6" GATE VALVE F.E. X P.O. (THEN REDUCE TO 4" IF NECESSARY).
- ③ 6" OR 4" C-900 PVC PIPE CLASS 200 MANIFOLD ALLOWED.
- ④ P.O. X P.O. D.I. TEE OR 90° PER PATTERN.
- ⑤ 1" THRU 2" PER STD. NO. 702-1 AND 706-1.
- ⑥ THRUST BLOCK PER STD. NO. 701.
- ⑦ VALVE BOX PER STD. NO. 708.
- ⑧ 4" OR 6" D.I. M.J. CAP WITH RETAINER GLAND.

NOTES:

- 1. THIS ASSEMBLY SHALL NOT BE USED FOR FEWER THAN 4 OR MORE THAN 10 SERVICE CONNECTIONS.
- 2. SERVICE CONNECTIONS FOR FIRE SPRINKLER SYSTEMS OR FIRE HYDRANTS SHALL NOT BE PERMITTED ON THE MANIFOLD.
- 3. IRRIGATION SERVICE TO BE PLACED ON FURTHEST DOWNSTREAM POINT OF MANIFOLD.



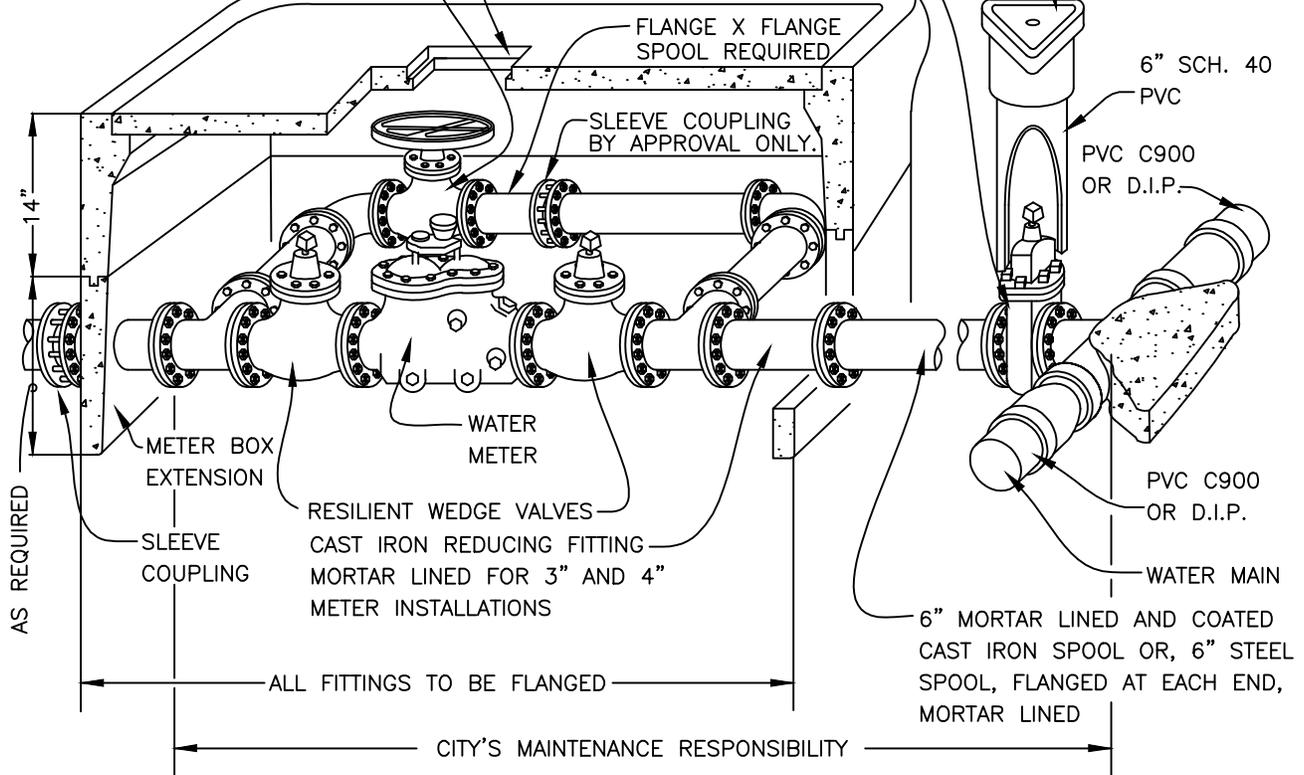
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 706-2
	WATER SERVICE MANIFOLD FOR FOUR (4) OR MORE METERS	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 09/01/15
		SHEET: 2 OF 2

METER READING LID INSERT TO ACCOMMODATE SENSUS FLEX NET PROBE TO BE CENTERED OVER METER REGISTER.

BROOKS 4TT VALVE BOX OR EQUAL

RESILIENT WEDGE BYPASS VALVE WITH WHEEL REQUIRED SO CITY CAN LOCK OFF

RESILIENT WEDGE GATE VALVE (6" MINIMUM)



NOTES:

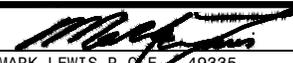
1. BYPASS SHALL BE THE SAME SIZE AS METER.
2. PIPING SAME SIZE AS METER.
3. ALL BOLTS SHALL BE 316 STAINLESS STEEL WITH 3M EC-244 OR BITUMASTIC 50 COATINGS
4. ALL PIPING WITHIN VAULT TO BE MORTAR LINED DUCTILE IRON
5. ORDER TO SIZE AND INSTALL ON DOWNSTREAM TEST PORT OF METER 6" IN LENGTH OR LESS BRASS NIPPLE AND BALL VALVE THEN BRASS PLUG IN BALL VALVE.

VAULT:

BROOKS 68 SERIES WITH No. 68 S COVERS 34-1/2" X 52-1/4", OR
 CHRISTY B48 WITH No. 2M 85 COVERS 34-3/4 X 52-1/2, OR
 CHRISTY B52 WITH No. 3M 90 COVERS 35" X 64-1/2", OR
 SOUTHWEST C52 W WITH No. 2 G90 COVERS. C52W WITH 62 G90 COVER 35" X 64-1/2" OR
 J & R CONCRETE No. 8. (POLYMER BOXES AND LIDS ACCEPTABLE EXCEPT IN TRAFFIC AREAS)

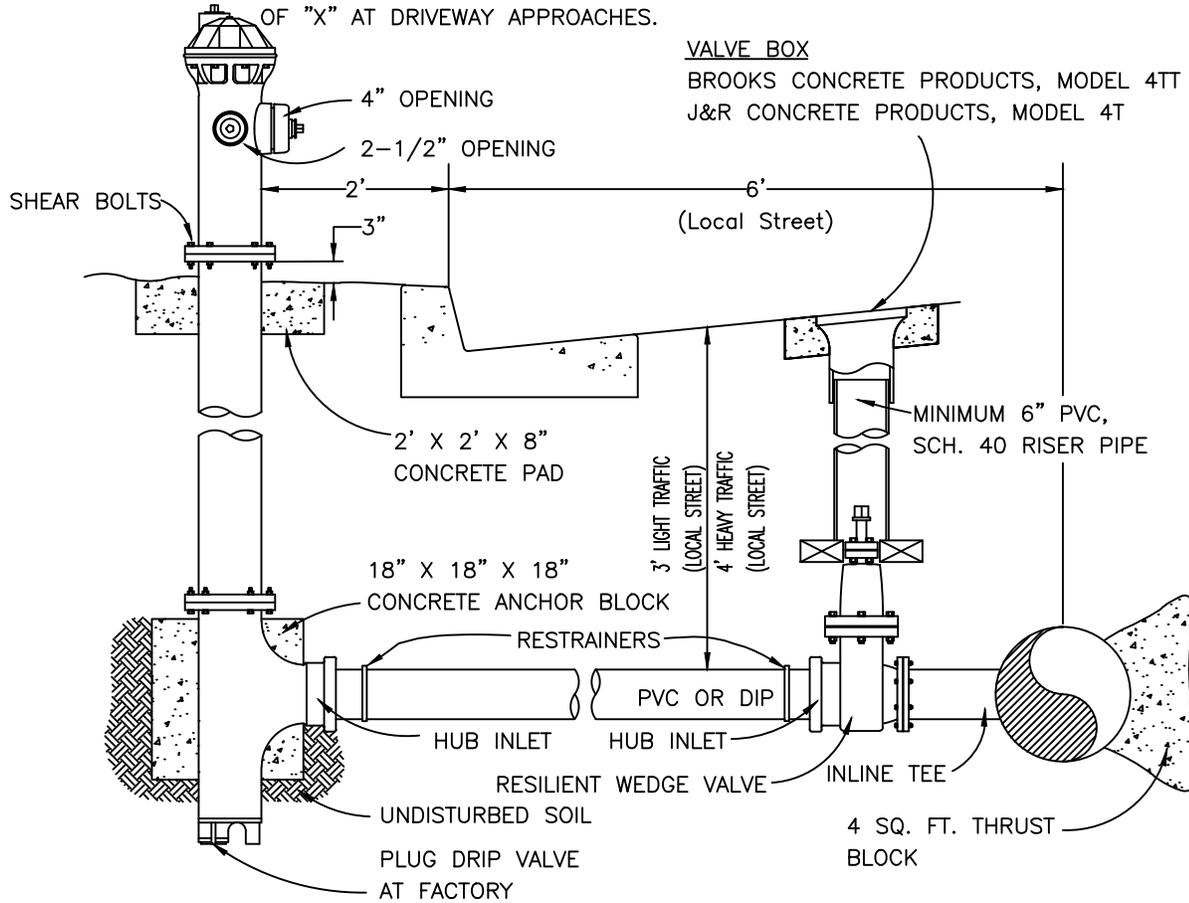
ALL METER READING LID INSERTS TO ACCOMMODATE SENSUS FLEX NET PROBE
 PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES
 SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE
 TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON,
 ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED
 1'-0" ABOVE PIPELINE LOCATION.

WATER METER TO BE PURCHASED THROUGH CITY WATER DEPARTMENT

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 707
	3 INCH, 4 INCH, AND 6 INCH METER AND BOX INSTALLATION	
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1

HYDRANTS TO BE PLACED A
A MINIMUM OF 3' FROM TOP
OF "X" AT DRIVEWAY APPROACHES.

VALVE BOX
BROOKS CONCRETE PRODUCTS, MODEL 4TT OR
J&R CONCRETE PRODUCTS, MODEL 4T



(DRY BARREL) FIRE HYDRANT INSTALLATION

NOTES:

1. IF A WATER SERVICE IS INSTALLED BETWEEN GATE VALVE AND FIRE HYDRANT, AN ADDITIONAL VALVE WILL BE REQUIRED AT THE HYDRANT.
2. IF DISTANCE FROM FIRE HYDRANT TO MAIN LINE IS 25' OR MORE, AN ADDITIONAL VALVE WILL BE REQUIRED AT THE HYDRANT.
3. ALL HYDRANTS SHALL BE PAINTED FRAZEE ARO-PLATE WHITE No. 001 OR APPROVED EQUAL.
4. ALL NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL WITH 3M, EC-244 OR BITUMASTIC 50 COATINGS (EXCEPT SHEAR NUTS AND BOLTS)
5. ALL PIPE FITTINGS AND VALVES SHALL BE PROPERLY BEDDED WITH SAND AND COMPACTED IN MULTIPLE LIFTS TO A MINIMUM COVER OF 12" OF SAND.
6. DRY BARREL HYDRANTS SHALL BE STRICTLY BE USED IN AREAS ADJACENT TO MAIN ARTERIAL, INTERSECTIONS, AND HEAVY TRAFFIC AREAS.

TYPES OF FIRE HYDRANTS ALLOWED:

CLOW MEDALLION

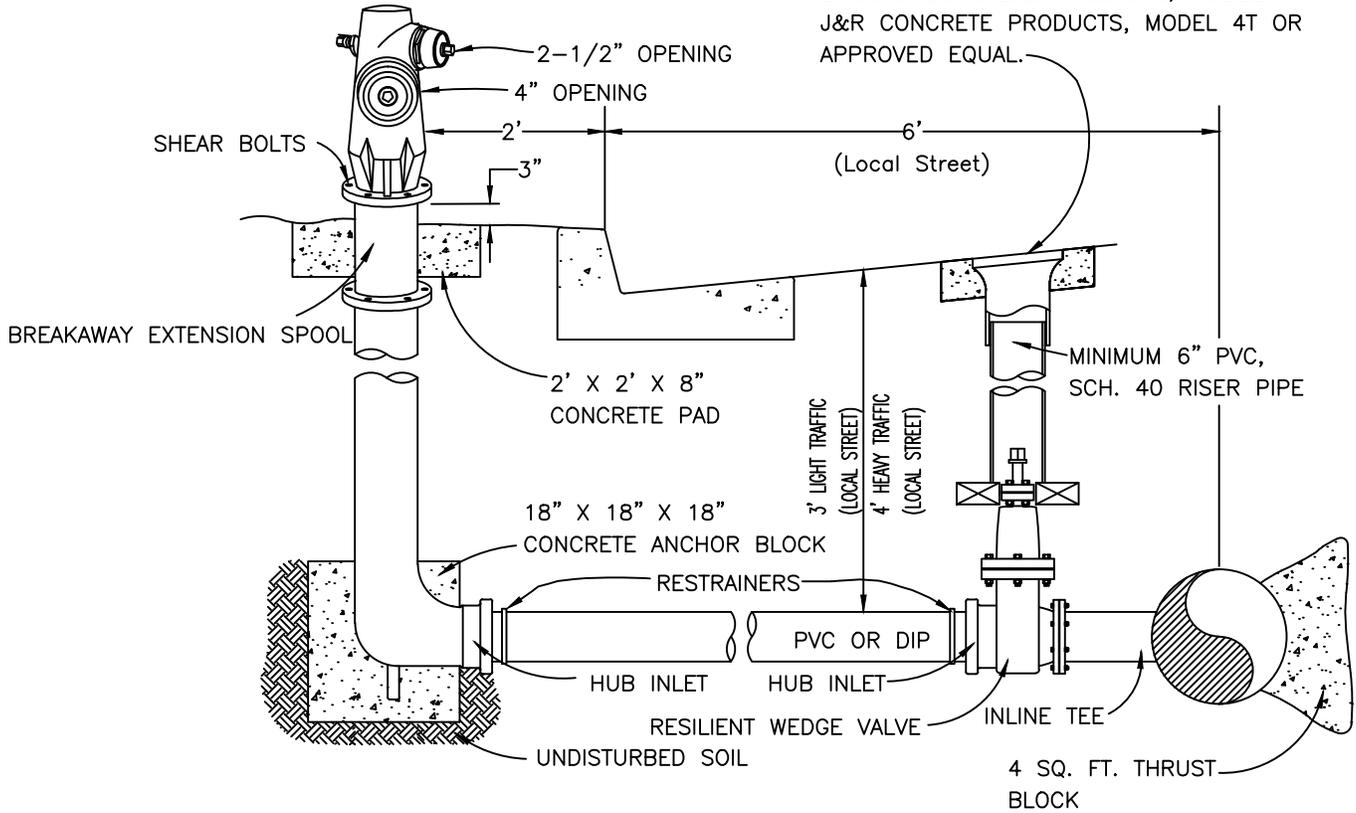
MUELLER, MODEL MODERN CENTURION OR

WATEROUS PACER MODEL WB67 ONLY.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	FIRE HYDRANT INSTALLATION (DRY BARREL)	
	709	
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1

HYDRANTS TO BE PLACED A
A MINIMUM OF 3' FROM TOP
OF "X" AT DRIVEWAY APPROACHES.

VALVE BOX
BROOKS CONCRETE PRODUCTS, MODEL 4TT OR
J&R CONCRETE PRODUCTS, MODEL 4T OR
APPROVED EQUAL.



(WET BARREL) FIRE HYDRANT INSTALLATION

NOTES:

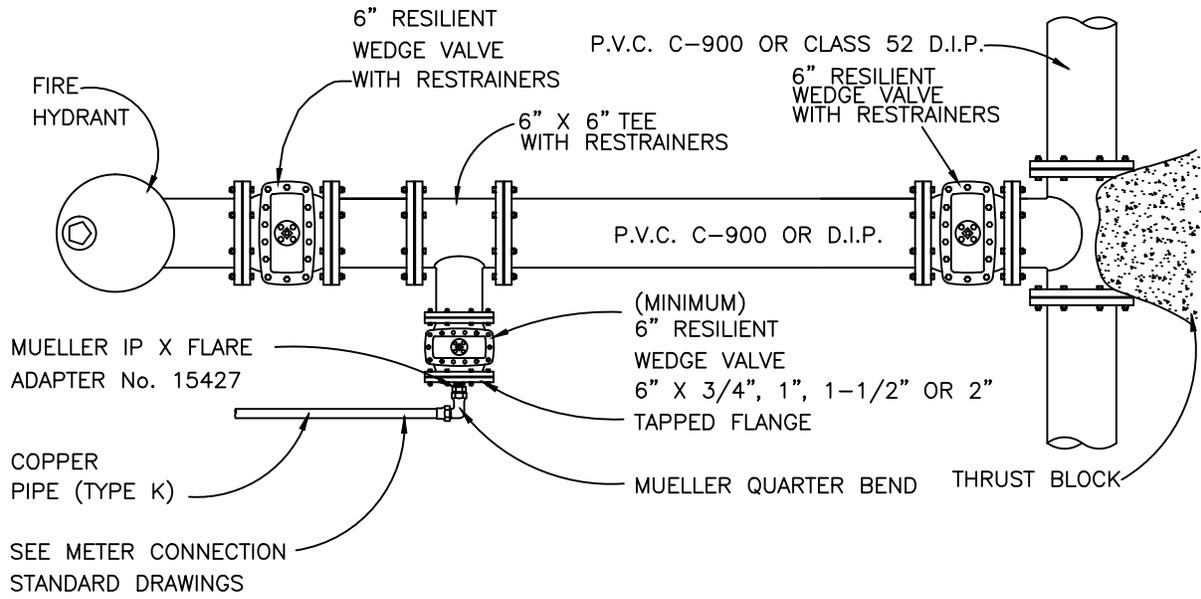
1. IF A WATER SERVICE IS INSTALLED BETWEEN GATE VALVE AND FIRE HYDRANT, AN ADDITIONAL VALVE WILL BE REQUIRED AT THE HYDRANT. (SEE STD. PLAN NO. 711)
2. IF DISTANCE FROM FIRE HYDRANT TO MAIN LINE IS 25' OR MORE, AN ADDITIONAL VALVE WILL BE REQUIRED AT THE HYDRANT.
3. ALL HYDRANTS SHALL BE PAINTED FRAZEE ARO-PLATE WHITE No. 001 OR APPROVED EQUAL.
4. ALL NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL WITH 3M, EC-244 COATING (EXCEPT SHEAR NUTS AND BOLTS)
5. ALL PIPE FITTINGS AND VALVES SHALL BE PROPERLY BEDDED WITH SAND AND COMPACTED IN MULTIPLE LIFTS TO A MINIMUM COVER OF 12" OF SAND.

TYPES OF FIRE HYDRANTS ALLOWED:

JONES, MODEL J4040D ONLY
CLOW, MODEL 850

****WET BARREL FIRE HYDRANT INSTALLATION MUST BE APPROVED BY THE UTILITIES MANAGER**

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 710
	FIRE HYDRANT INSTALLATION (WET BARREL)	
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1



1", 1-1/2" AND 2" METER SERVICE DETAIL

NOTES:

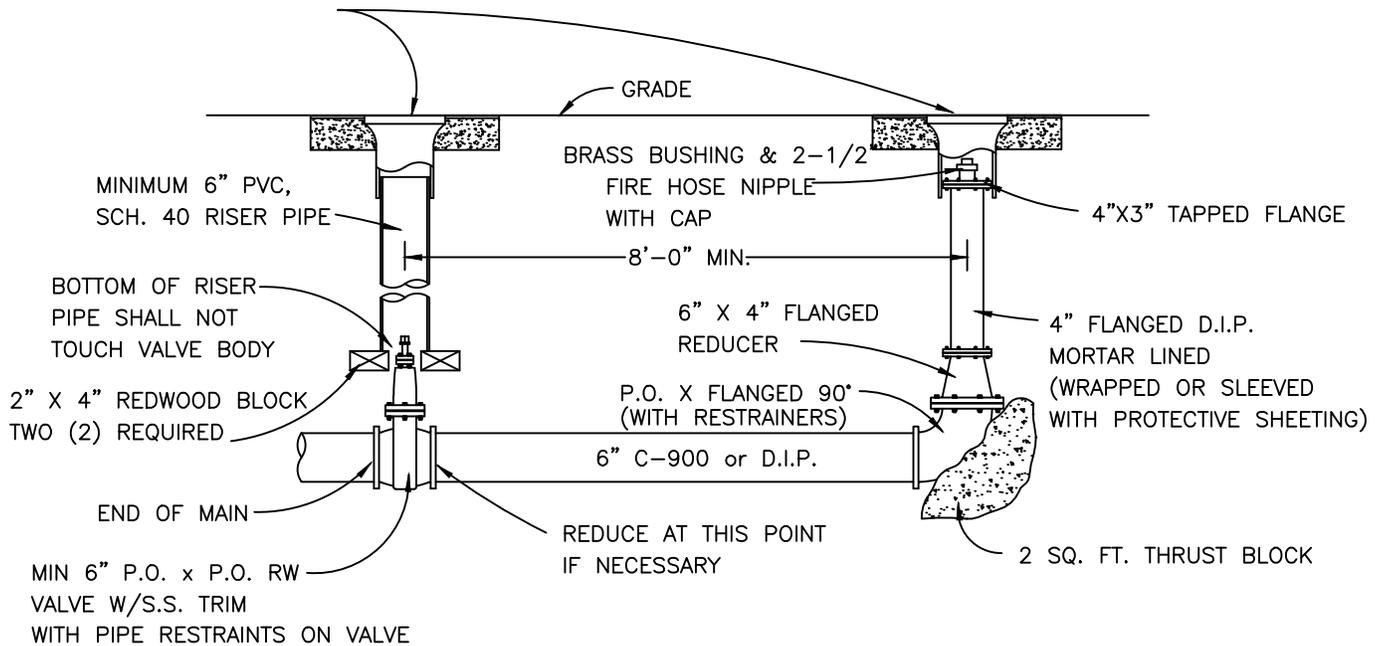
1. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON, ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED 1'-0" ABOVE PIPELINE LOCATION.
2. TYPES OF FIRE HYDRANTS ALLOWED:
 IOWA MODEL F-5100P, OR
 MUELLER MODEL MODERN CENTURION, OR
 WATEROUS, PACER MODEL WB67
 JONES MODEL 4040D
 CLOW MODEL 850
3. SIZE OF VALVE OPENING:
 SINGLE FAMILY (R-1) 4-1/4"
 ALL OTHER DEVELOPMENT 5-1/4"

THIS INSTALLATION ONLY UPON APPROVAL OF UTILITIES MANAGER. (SPECIAL USE APPLICATION)

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 711
	FIRE HYDRANT INSTALLATION WITH METER SERVICE	
	APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	
	DATE: 04/01/15	SHEET: 1 OF 1

VALVE BOX

BROOKS CONCRETE PRODUCTS, MODEL 4TT OR
J&R CONCRETE PRODUCTS, MODEL 4T.



NOTES:

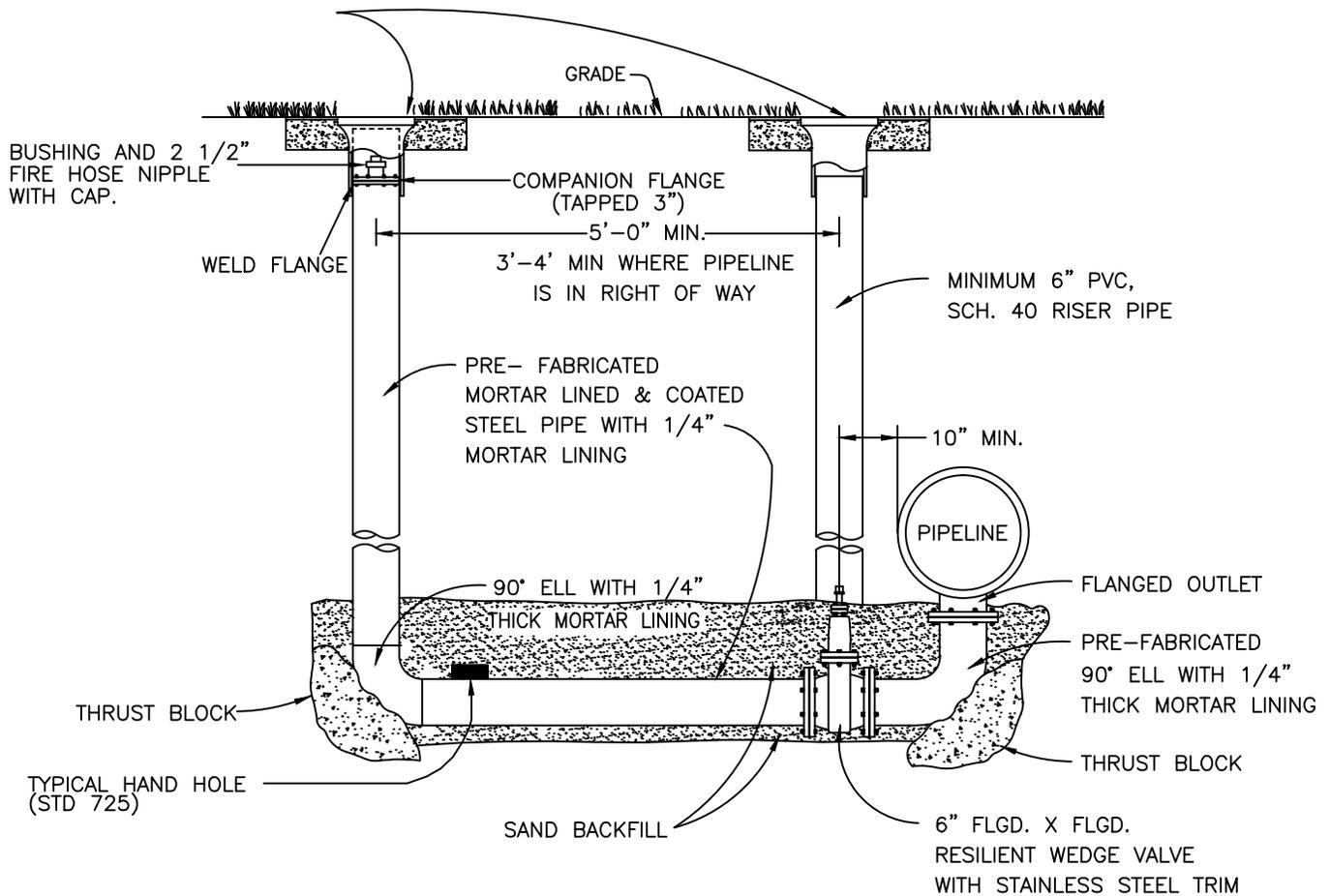
1. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON, ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED 1'-0" ABOVE PIPELINE LOCATION.

MINIMUM BLOW OFF SHALL BE 6".

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	DEAD END OR SIPHON BLOW OFF ASSEMBLY	712
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1
		DATE: 04/01/15

VALVE BOX

BROOKS CONCRETE PRODUCTS, MODEL 4TT OR
J&R CONCRETE PRODUCTS, MODEL 4T



FACTORY FABRICATED NOTES:

1. BLOW OFF ASSEMBLY SHALL BE PRE FABRICATED THICK WALL MORTAR LINED AND COATED STEEL PIPE BY A PRE-APPROVED MANUFACTURER/DISTRIBUTOR.
2. PRIOR TO FINAL BACKFILLING, ALL BURIED WATER PIPELINES SHALL HAVE A METALLIC TYPE DETECTABLE MARKING TAPE (IE: TYPE III BY LINEGUARD, INC. OR APPROVED EQUIVALENT) PLACED (1) FOOT ABOVE PIPELINE LOCATION.
3. ALL BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL WITH 3M, EC-244 OR BITUMASTIC 50 COATINGS.
4. BLOW OFF OUTLET PIPING (VALVE TO BE 6") 4" FOR 8" WATER MAIN, 6" FOR 10", 12" AND 16" WATER MAINS.

ALL WELDING SHALL BE COMPLETED BY AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206.

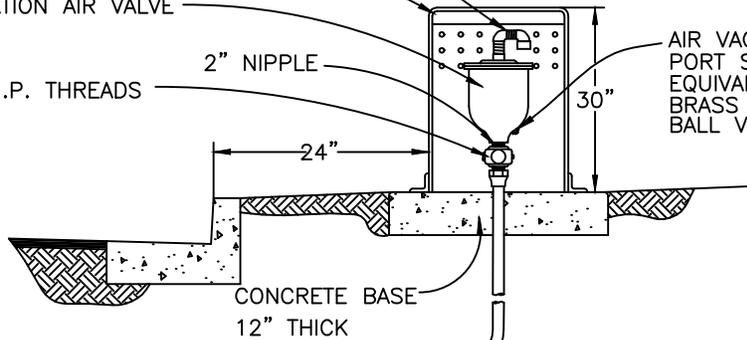
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 713
	MORTAR LINED AND COATED STEEL PIPE BLOW OFF ASSEMBLY (SIPHON)	
	APPROVED BY:  49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1

INSTALL TO SIZE BRASS NIPPLES,
BRASS 90, BRASS STREET ELL,
AND VENT SCREEN STRAINER
1" CHRISTY'S VCI/ 2" CHRISTY'S VC2
CEBE, MODEL 39A CAN OR EQUAL

APCO 145C COMBINATION AIR VALVE

CORPORATION STOP I.P. THREADS
JONES J-1505,
FORD F-700,
MUELLER F-15025,

AIR VAC DRAIN
PORT SHALL HAVE
EQUIVALENT SIZE
BRASS NIPPLE AND
BALL VALVE.

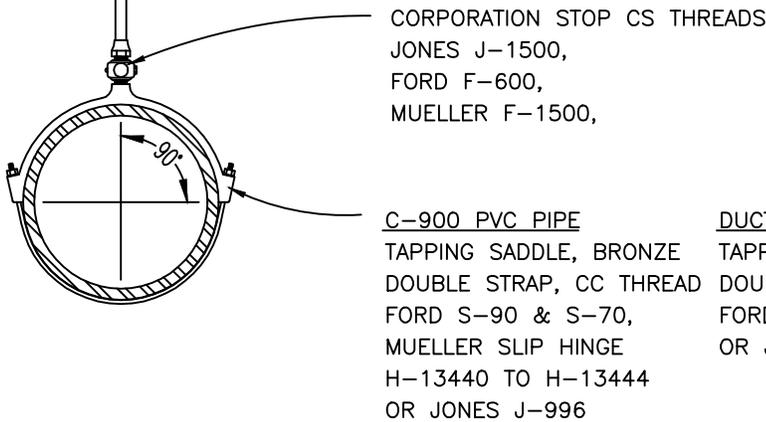


FOR SPLICE OR REPAIR USE:

JONES J-1528,
FORD C22,
MUELLER H-15400

SLOPE UPWARD

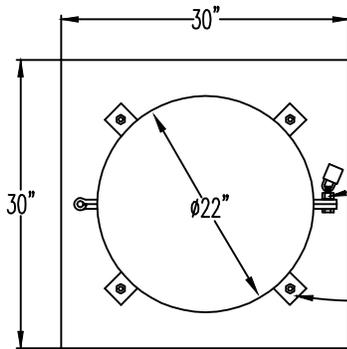
COPPER PIPE TYPE "K"



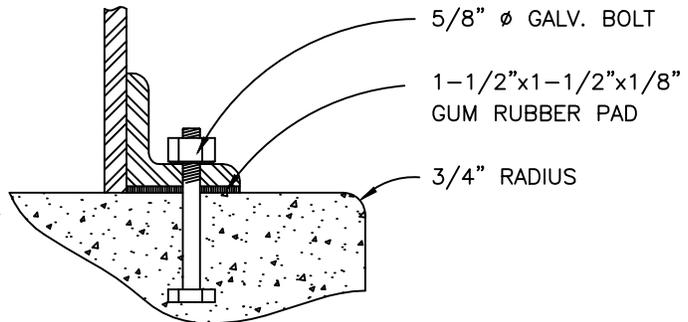
CORPORATION STOP CS THREADS
JONES J-1500,
FORD F-600,
MUELLER F-1500,

C-900 PVC PIPE
TAPPING SADDLE, BRONZE
DOUBLE STRAP, CC THREAD
FORD S-90 & S-70,
MUELLER SLIP HINGE
H-13440 TO H-13444
OR JONES J-996

DUCTILE IRON PIPE
TAPPING SADDLE, BRONZE
DOUBLE STRAP, CC THREAD
FORD S-202B SERIES,
OR JONES J-979



PLAN VIEW



DETAIL "A"

ALL CONNECTIONS MUST BE FLARED. ANY DEVIATION MUST BE APPROVED
BY CITY WATER DEPARTMENT IN WRITING.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 714
	1 INCH TO 2 INCH AIR RELEASE ASSEMBLY C-900 PVC PIPE	
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1

INSTALL TO SIZE BRASS NIPPLES,
BRASS 90, BRASS STREET ELL,
AND VENT SCREEN STRAINER
1" CHRISTY'S VCI/ 2" CHRISTY'S VC2
CEBE, MODEL 39A CAN OR EQUAL

APCO 145C COMBINATION AIR VALVE

ROCKWELL NORDSTROM SCREWED
LUB. PLUG VALVE (FIG 214)

AIR VAC DRAIN
PORT SHALL HAVE
EQUIVALENT SIZE
BRASS NIPPLE AND
BALL VALVE.

BROOKS 4TT
VALVE BOX

2" NIPPLE

6" PVC PIPE SHC. 40

CONCRETE BASE
12" THICK

2" X 4" X 12" REDWOOD BLOCK
TWO (2) REQUIRED

COMPANION FLANGE

90° FLG'D ELL

SLOPE UPWARD

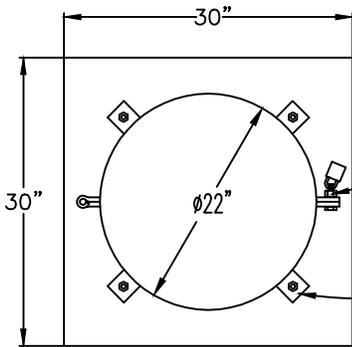
FLG'D OUTLET

PIPELINE

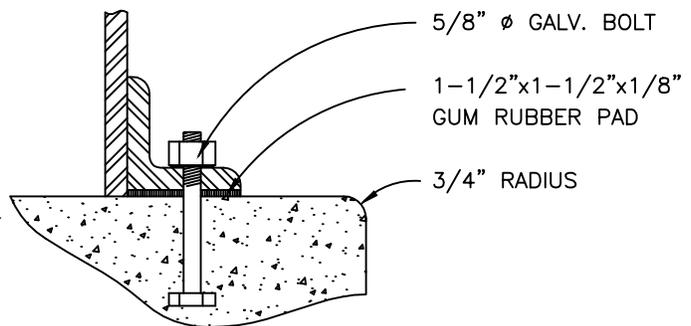
4" FLG'D RESILIENT
WEDGE VALVE

2" WELDED STEEL PIPE
PRIME AND WRAP W/ 10 MIL
PVC WRAPPER

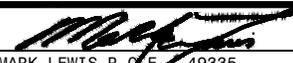
WELDING ELL

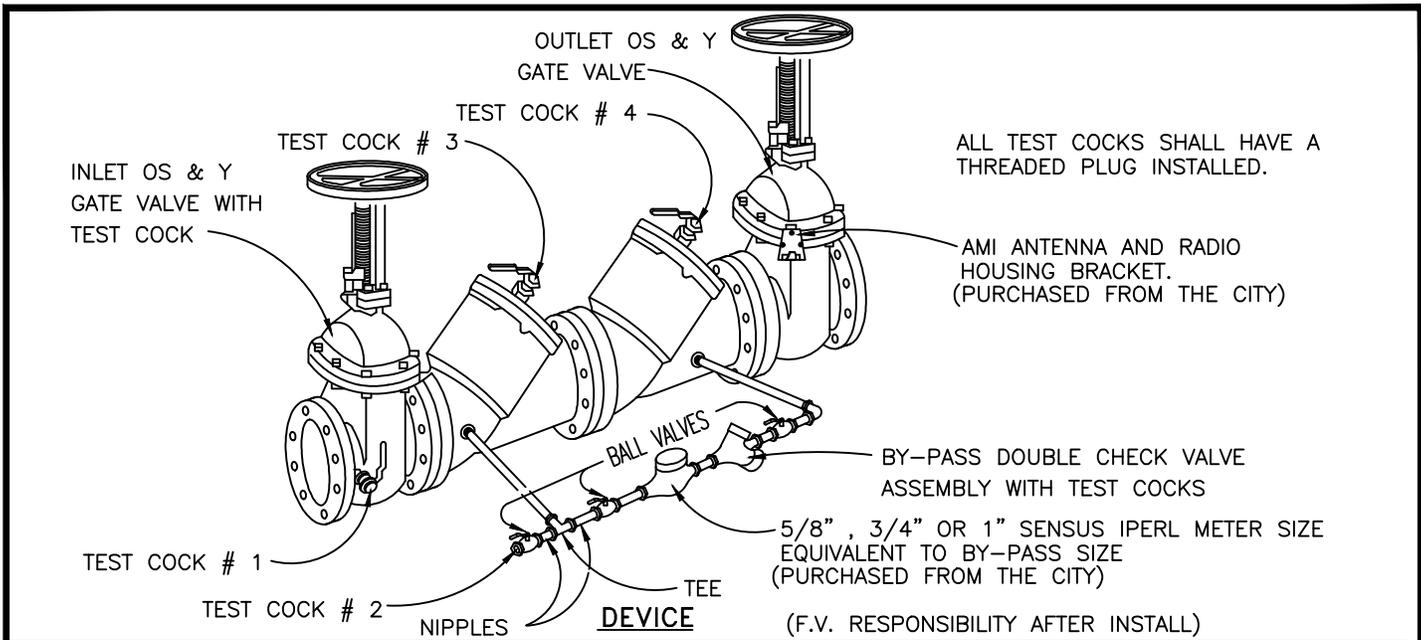


PLAN VIEW



DETAIL "A"

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	COMBINATION AIR VACUUM AIR RELEASE VALVE (STEEL CYLINDER PIPE)	715
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1
	DATE: 04/01/15	

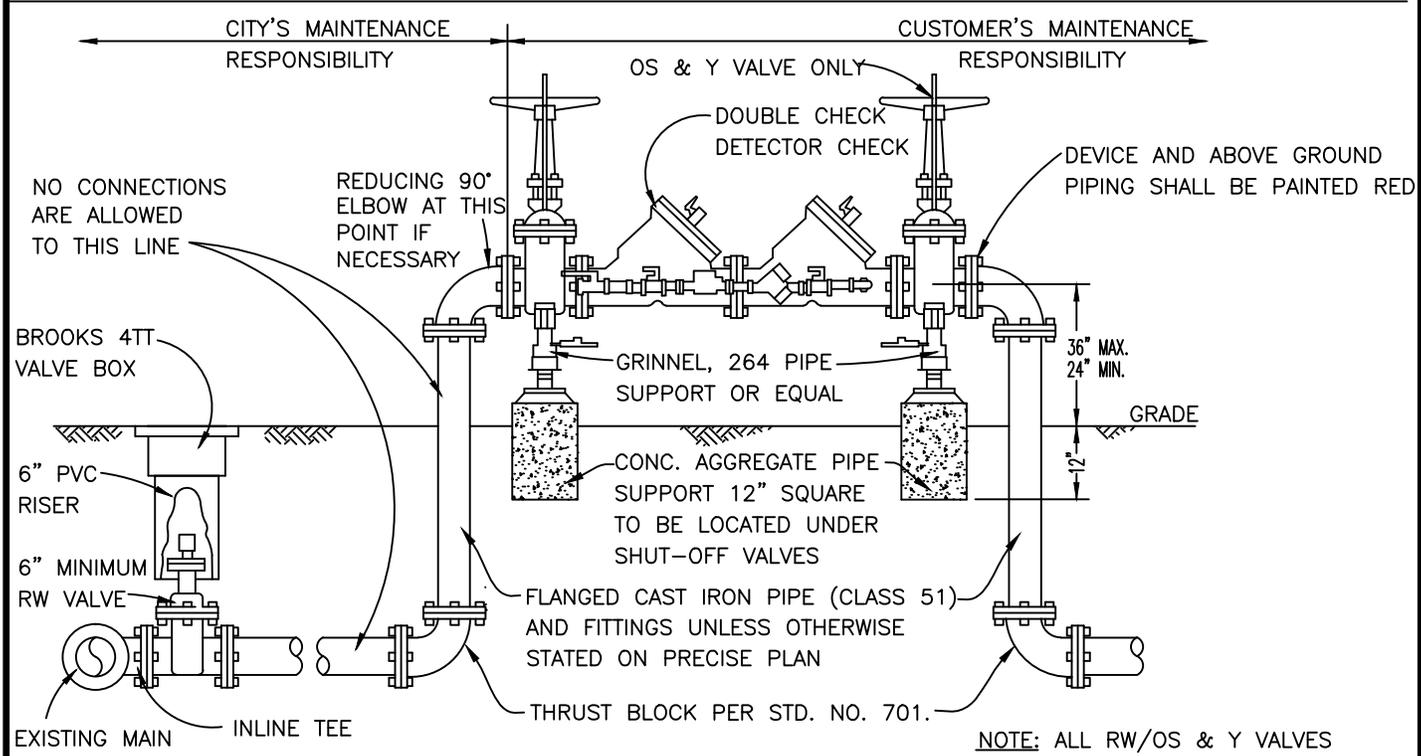


ALL TEST COCKS SHALL HAVE A THREADED PLUG INSTALLED.

AMI ANTENNA AND RADIO HOUSING BRACKET. (PURCHASED FROM THE CITY)

5/8" , 3/4" OR 1" SENSUS IPERL METER SIZE EQUIVALENT TO BY-PASS SIZE (PURCHASED FROM THE CITY)

DEVICE (F.V. RESPONSIBILITY AFTER INSTALL)



CITY'S MAINTENANCE RESPONSIBILITY

CUSTOMER'S MAINTENANCE RESPONSIBILITY

NO CONNECTIONS ARE ALLOWED TO THIS LINE

REDUCING 90° ELBOW AT THIS POINT IF NECESSARY

OS & Y VALVE ONLY

DOUBLE CHECK DETECTOR CHECK

DEVICE AND ABOVE GROUND PIPING SHALL BE PAINTED RED

BROOKS 4TT VALVE BOX

6" PVC RISER

6" MINIMUM RW VALVE

EXISTING MAIN

INLINE TEE

REDUCING 90° ELBOW AT THIS POINT IF NECESSARY

GRINNEL, 264 PIPE SUPPORT OR EQUAL

CONC. AGGREGATE PIPE SUPPORT 12" SQUARE TO BE LOCATED UNDER SHUT-OFF VALVES

FLANGED CAST IRON PIPE (CLASS 51) AND FITTINGS UNLESS OTHERWISE STATED ON PRECISE PLAN

THRUST BLOCK PER STD. NO. 701.

36" MAX. 24" MIN.

GRADE

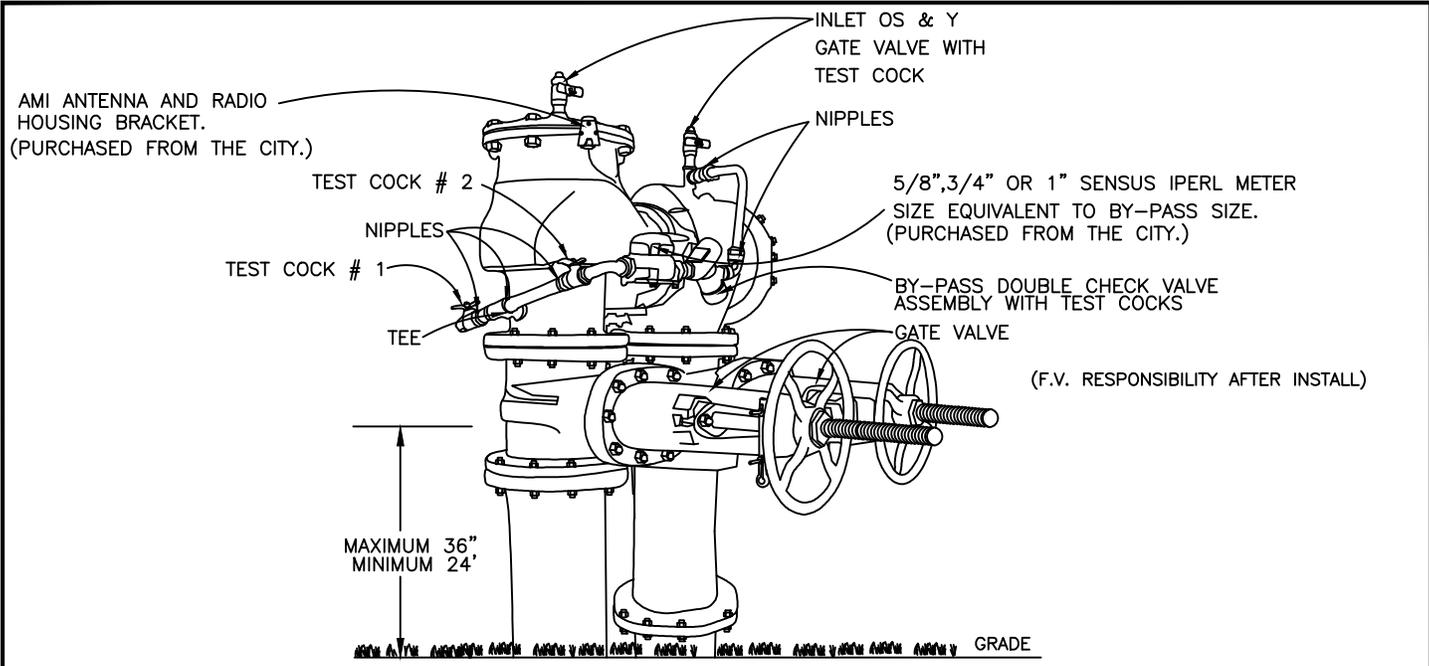
NOTE: ALL RW/OS & Y VALVES SHALL BE SUPERVISED TO A U.L. APPROVED CENTRAL STATION.

INSTALLATION

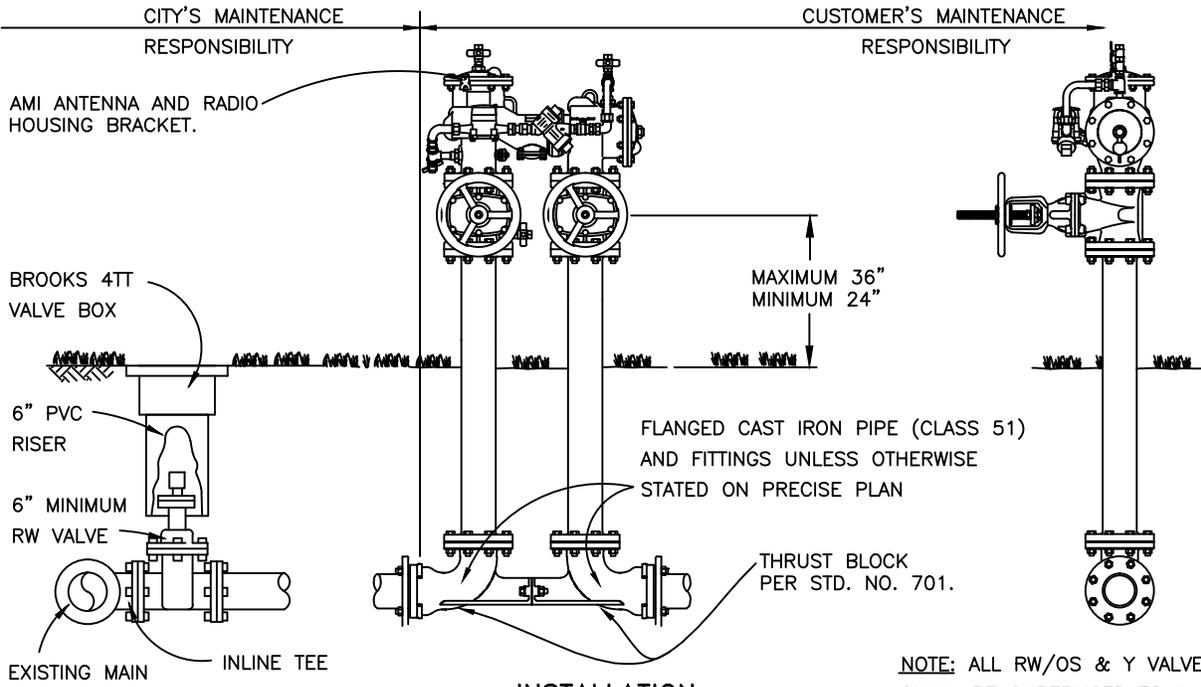
OS&Y VALVES TO BE CHAINED AND LOCKED IN THE OPEN POSITION WITH AN APPROVED BREAKAWAY/ SNAP TYPE LOCK PER FIRE DEPT. REQUIREMENTS

ANY DOUBLE CHECK DETECTOR ASSEMBLIES THAT CONFORM TO THE STANDARDS OF AND ARE APPROVED BY THE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, AND THE FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH, (UNIVERSITY OF SOUTHERN CALIFORNIA) OR THEIR LATEST REVISION. ASSEMBLIES MUST BE TESTED AND CERTIFIED BY AN ORANGE COUNTY CERTIFIED TESTER THAT POSSESSES A CITY OF FOUNTAIN VALLEY BUSINESS LICENSE AT TIME OF INSTALLATION.

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO. 716-1
	DOUBLE CHECK DETECTOR CHECK ASSEMBLY		
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER		
		DATE: 04/01/15	SHEET: 1 OF 3



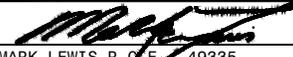
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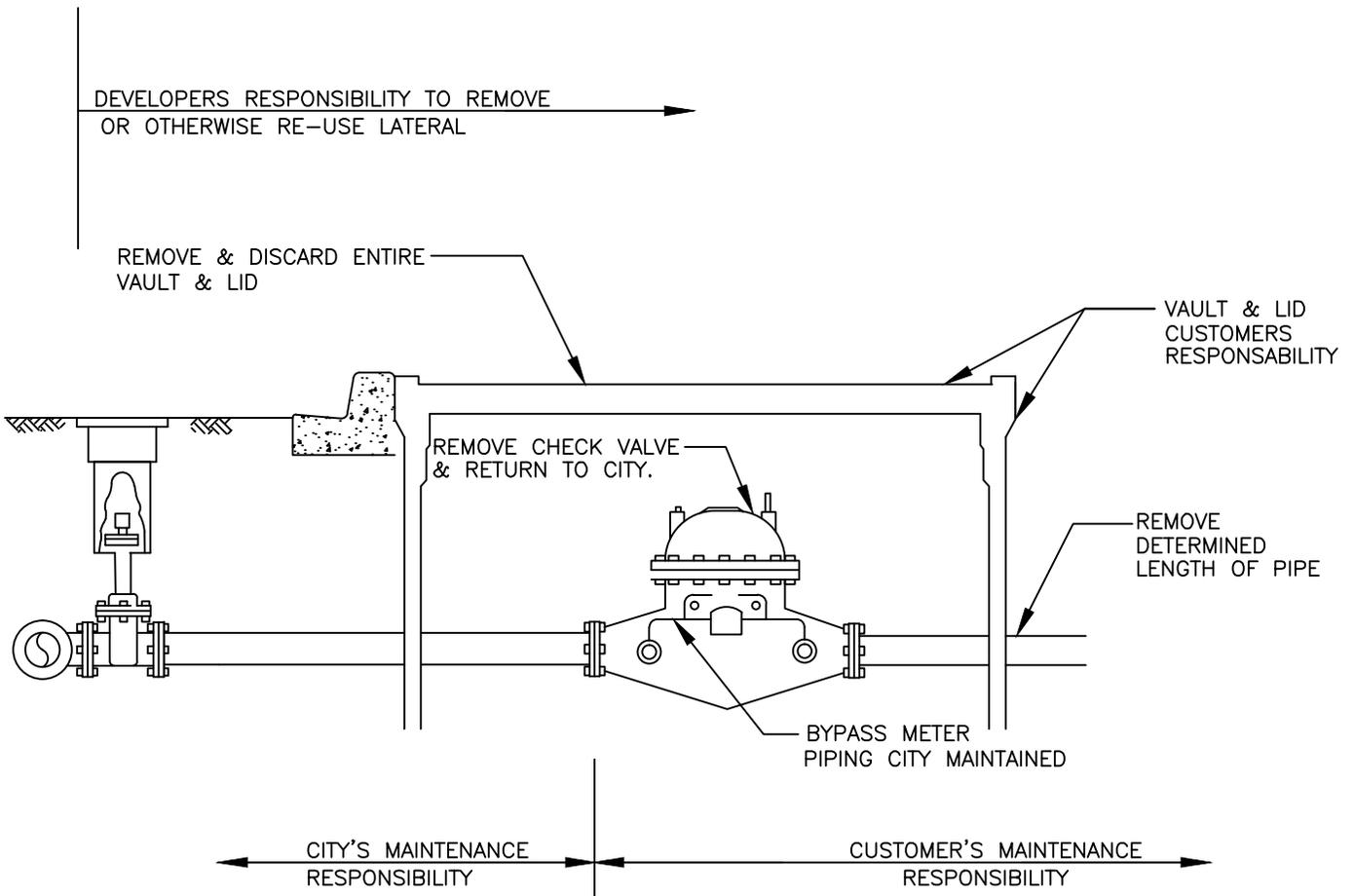


INSTALLATION

OS&Y VALVES TO BE CHAINED AND LOCKED IN THE OPEN POSITION WITH AN APPROVED BREAKAWAY/ SNAP TYPE LOCK PER FIRE DEPT. REQUIREMENTS

ANY DOUBLE CHECK DETECTOR ASSEMBLIES THAT CONFORM TO THE STANDARDS OF AND ARE APPROVED BY THE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, AND THE FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH, (UNIVERSITY OF SOUTHERN CALIFORNIA) OR THEIR LATEST REVISION. ASSEMBLES MUST BE TESTED AND CERTIFIED BY AN ORANGE COUNTY CERTIFIED TESTER THAT POSSESSES A CITY OF FOUNTAIN VALLEY BUSINESS LICENSE AT TIME OF INSTALLATION.

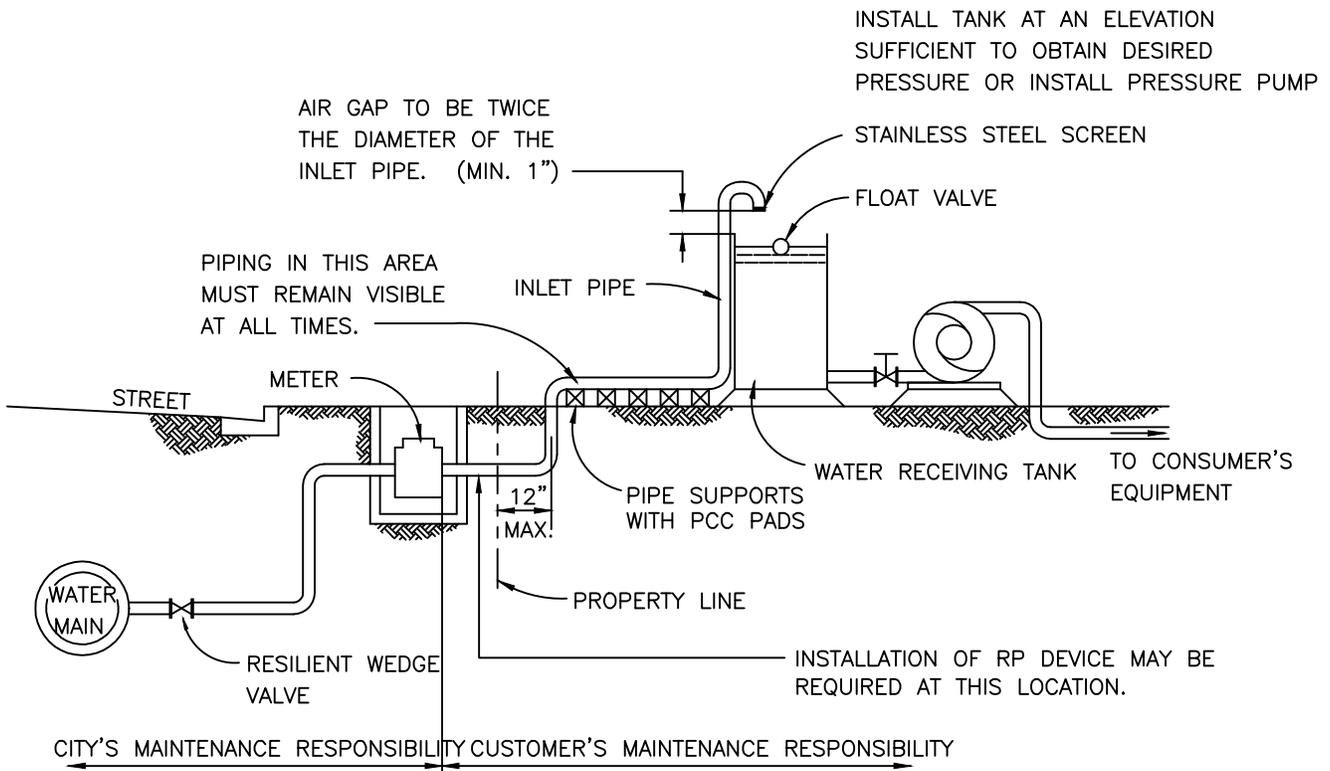
REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	DOUBLE CHECK DETECTOR CHECK ASSEMBLY 4 INCH TO 10 INCH FIRE SERVICE	716-2
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 2 OF 3
	DATE: 04/01/15	



NOTE: FOR INSTALLATION SEE STANDARD PLAN NO. 716-1

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	REMOVAL OF BELOW GROUND SINGLE CHECK VALVE	716-3
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 3 OF 3

DATE: 04/01/15



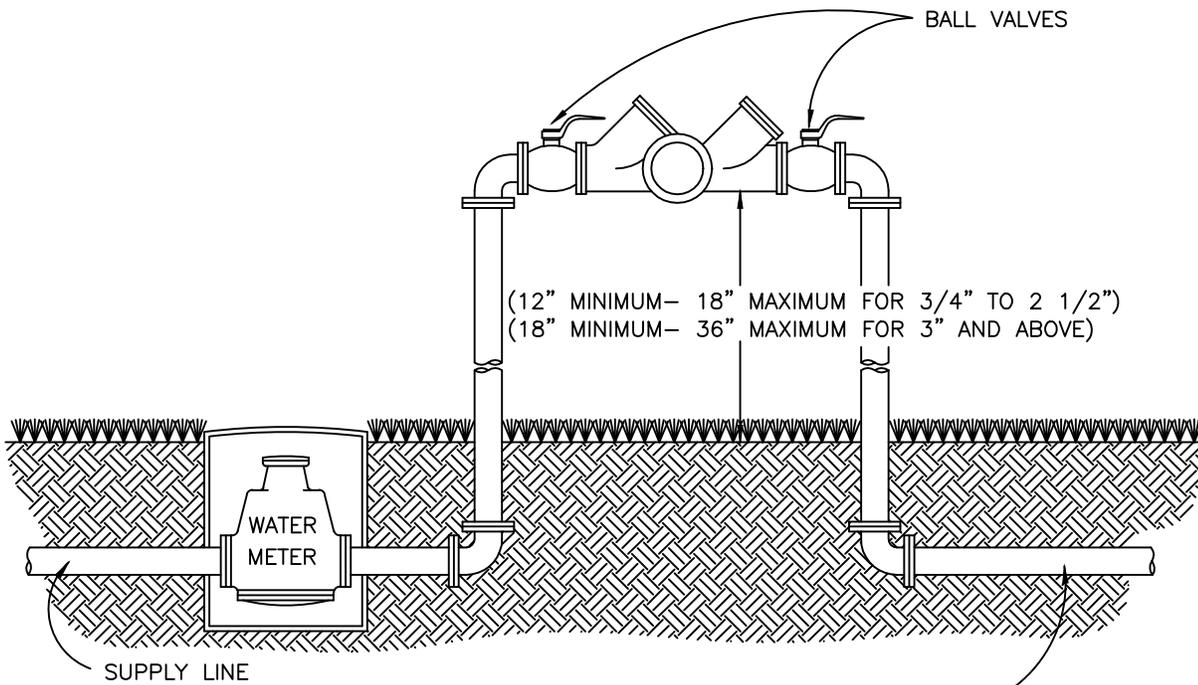
AIR-GAP SEPARATION

NOTES:

1. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON, ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED 1'-0" ABOVE PIPELINE LOCATION.
2. TANK SHOULD BE OF SUBSTANTIAL CONSTRUCTION AND OF A KIND AND SIZE TO SUIT CONSUMER'S NEEDS. TANK MAY BE SITUATED AT GROUND LEVEL (WITH A PUMP TO PROVIDE ADEQUATE PRESSURE HEAD) OR BE ELEVATED ABOVE THE GROUND.
3. THE AIR GAP SEPARATION SHALL BE INSTALLED AS SHOWN. ABOVE, AND SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. ANY DEVIATION FROM THE METHODS DESCRIBED ABOVE MUST RECEIVE APPROVAL PRIOR TO INSTALLATION.

NO CONNECTION BETWEEN METER AND AIR-GAP WILL BE ALLOWED

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 717
	AIR GAP SEPARATION DEVICE	
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1



ANY ADDITIONAL CONNECTION FOR IRRIGATION WILL REQUIRE ANOTHER REDUCED PRESSURE DEVICE.

REDUCED PRESSURE PRINCIPLE DEVICE

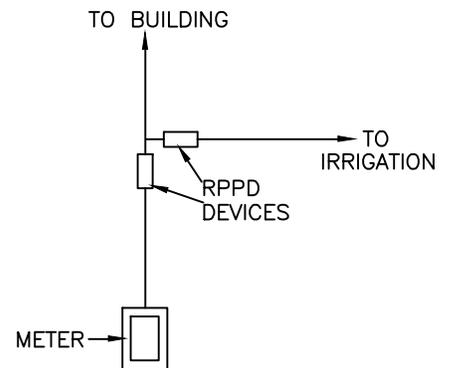
TYPES OF REDUCED PRESSURE PRINCIPLE DEVICE ALLOWED:

ANY REDUCED PRESSURE PRINCIPLE DEVICES THAT CONFORM TO THE STANDARDS OF AND ARE APPROVED BY THE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH AND THE FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH, (UNIVERSITY OF SOUTHERN CALIFORNIA) OR THEIR LATEST REVISION.

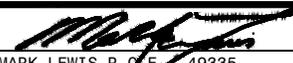
NOTE:

PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD, INC. WHEATON, ILLINOIS 60187 (OR APPROVED EQUAL). TAPE SHALL BE PLACED ONE (1') FOOT ABOVE PIPELINE LOCATION.

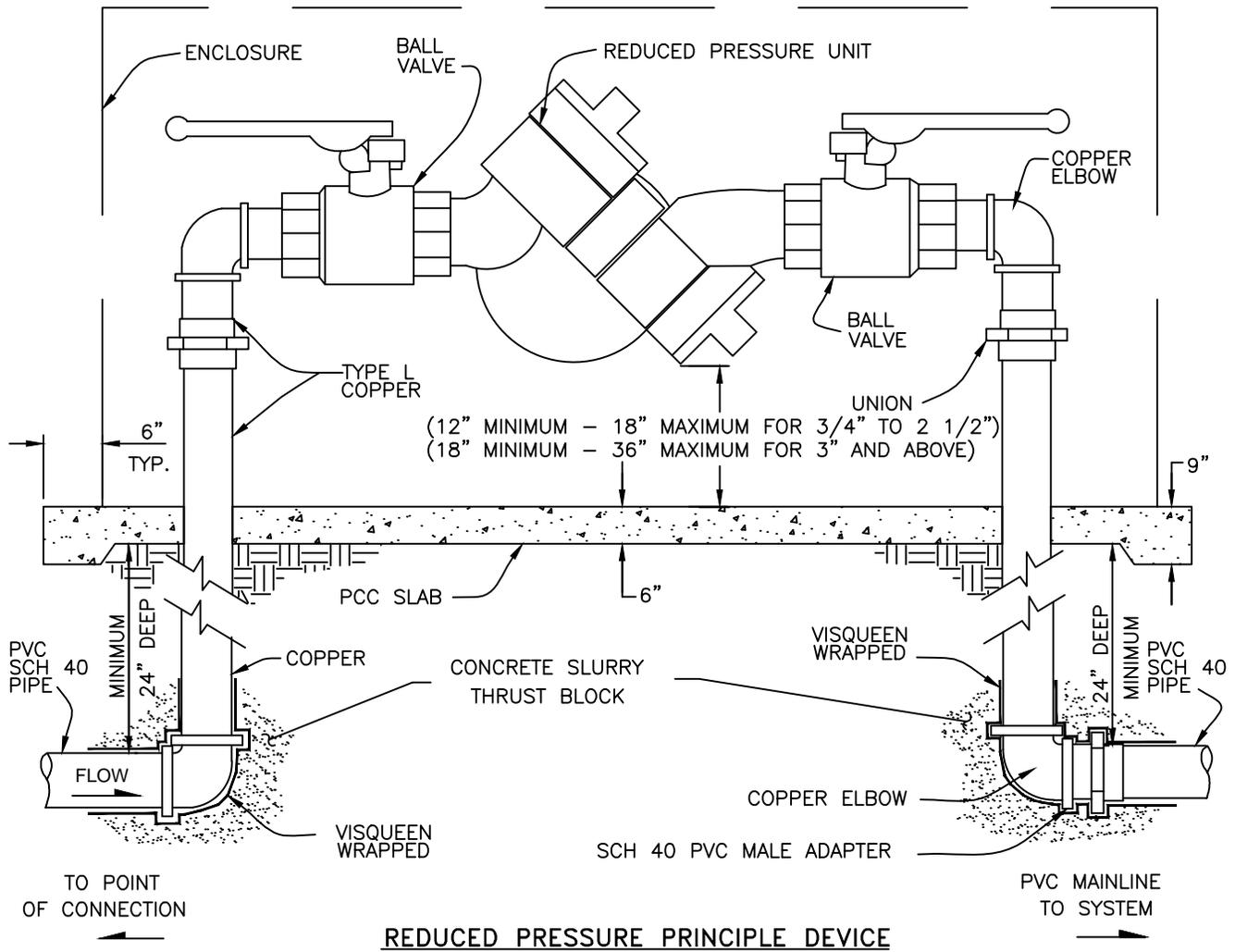
PROPER INSTALLATION



ANY REDUCED PRESSURE PRINCIPLE DEVICES MUST BE TESTED AND CERTIFIED BY AN ORANGE COUNTY CERTIFIED TESTER THAT POSSESSES A CITY OF FOUNTAIN VALLEY BUSINESS LICENSE AT THE TIME OF INSTALLATION.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	REDUCED PRESSURE PRINCIPLE DEVICE PRIVATELY OWNED AND MAINTAINED DEVICES	718
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1

DATE: 04/01/15



REDUCED PRESSURE PRINCIPLE DEVICE

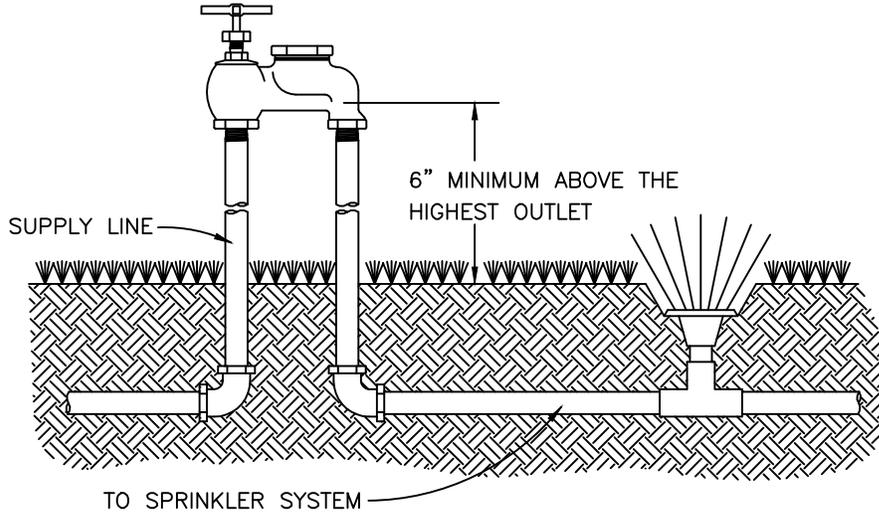
GENERAL NOTES:

1. INSTALL PER CITY OF FOUNTAIN VALLEY PLUMBING CODE AND WATER DEPT. STD. PLANS.
2. FITTINGS AND PIPE SHALL BE COPPER AND PER CITY APPROVED PLANS AND SPECIFICATIONS.
3. REDUCED PRESSURE PRINCIPLE DEVICE SHALL BE FEBCO MASTER SERIES MODEL 860 RP PAINTED COLOR TO BE "FRAZEE #277, FOREST GREEN ENAMEL" WITH 2 COATS.
4. REMOVE ALL HANDLES AND DELIVER TO THE CITY LANDSCAPE INSPECTOR.
5. THRUST BLOCK TO BE A ONE (1) SACK SLURRY MIX AROUND ELBOW ASSEMBLY THAT HAS THE PIPE AND ELBOW WRAPPED WITH VISQUEEN.
6. ENCLOSURE SHALL BE SAFE CAGE MODEL SC1 WITH Q1 BRACKETS FOR 3/4" AND 1" DEVICES, AND SC2 WITH Q2 BRACKETS FOR 1 1/2" AND 2" DEVICES. BRACKETS TO BE SURFACE MOUNTED. PAINT PER GENERAL NOTE # 3.
7. ALL REDUCED PRESSURE PRINCIPLE DEVICES MUST BE TESTED AND CERTIFIED BY AN ORANGE COUNTY CERTIFIED TESTER THAT POSSESSES A CITY OF FOUNTAIN VALLEY BUSINESS LICENSE AT TIME OF INSTALLATION.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 719
	REDUCED PRESSURE PRINCIPLE DEVICE CITY OWNED AND MAINTAINED DEVICES	
	APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
	SHEET: 1 OF 1	

NOTE:

THE ATMOSPHERIC VACUUM BREAKER CANNOT BE INSTALLED WHERE THERE CAN BE BACK PRESSURE, ONLY WHERE THERE CAN BE BACKSIPHONAGE. THE ATMOSPHERIC VACUUM BREAKER CANNOT HAVE SHUTOFF VALVES DOWNSTREAM OF THE DEVICE. THE DEVICE MUST BE INSTALLED AT LEAST 6" ABOVE THE HIGHEST OUTLET OR, IF IT IS FEEDING AN OPEN TANK, AT LEAST 6" ABOVE THE HIGHEST OVERFLOW RIM OF THE TANK.



ATMOSPHERIC VACUUM BREAKER
(RESIDENTIAL USE ONLY)

TYPES OF ATMOSPHERIC VACUUM BREAKERS ALLOWED:

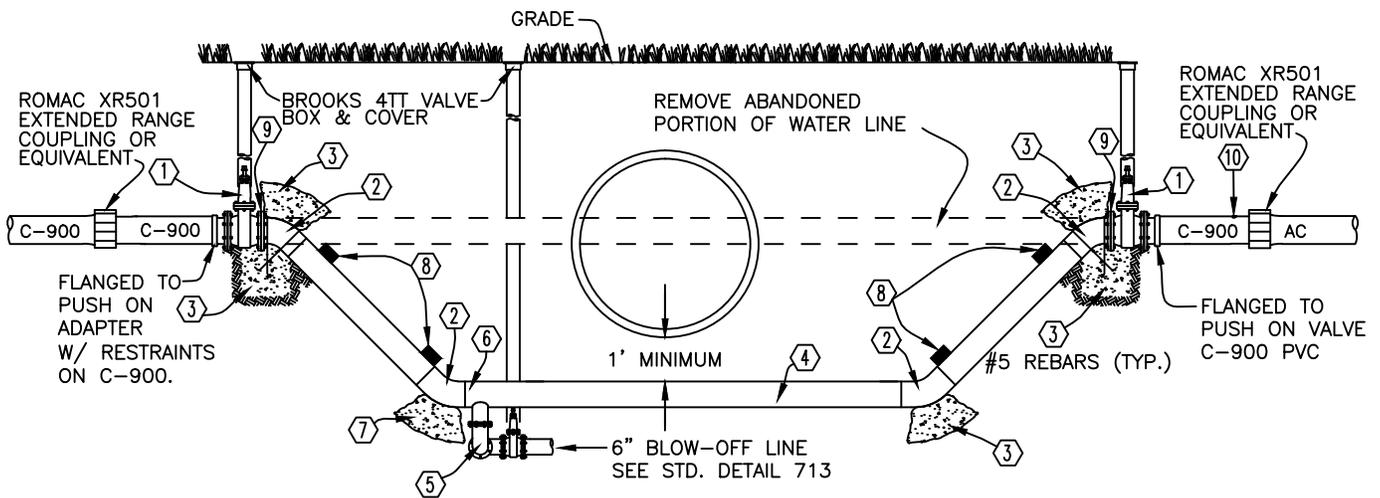
ANY ATMOSPHERIC TYPE VACUUM BREAKERS THAT CONFORM TO THE STANDARDS OF AND ARE APPROVED BY THE FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH, (UNIVERSITY OF SOUTHERN CALIFORNIA) OR THE LATEST REVISION.

NOTE:

PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD, INC. WHEATON, ILLINOIS 60187 (OR APPROVED EQUAL). TAPE SHALL BE PLACED ONE (1') FOOT ABOVE PIPELINE LOCATION.

ALL ATMOSPHERIC VACUUM BREAKERS MUST BE INSPECTED BY CITY BACKFLOW INSPECTOR AT THE TIME OF INSTALLATION.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	ATMOSPHERIC VACUUM BREAKER	720
	RESIDENTIAL USE ONLY	
		
	APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1



**WATER LINE SIPHON – REPAIR ONLY (TYPICAL)
MORTAR LINED AND COATED STEEL PIPE**

NOTES:

- 1 LOCATION OF RESILIENT WEDGE GATE VALVES THAT WILL REQUIRE SHUTTING DOWN FOR SIPHON PURPOSES ARE SHOWN ON WATER LINE SCHEMATIC WITHIN THE SPECIFICATIONS. PRIOR TO CONSTRUCTION, FOUNTAIN VALLEY WATER DEPARTMENT WILL ASSIST CONTRACTOR IN LOCATING VALVES.
- 2 CONCRETE THRUST BLOCKS SHALL BE CLASS B AND CURED A MINIMUM OF 3 DAYS BEFORE ANY LOADS ARE APPLIED.
- 3 SIPHON SHALL BE CONSTRUCTED OF MORTAR LINED AND COATED STEEL PIPE 3M, EC-244 OR BITUMASTIC 50 COATED OR SLEEVED
- 4 BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL WITH 3M, EC-244 OR BITUMASTIC 50 COATINGS.

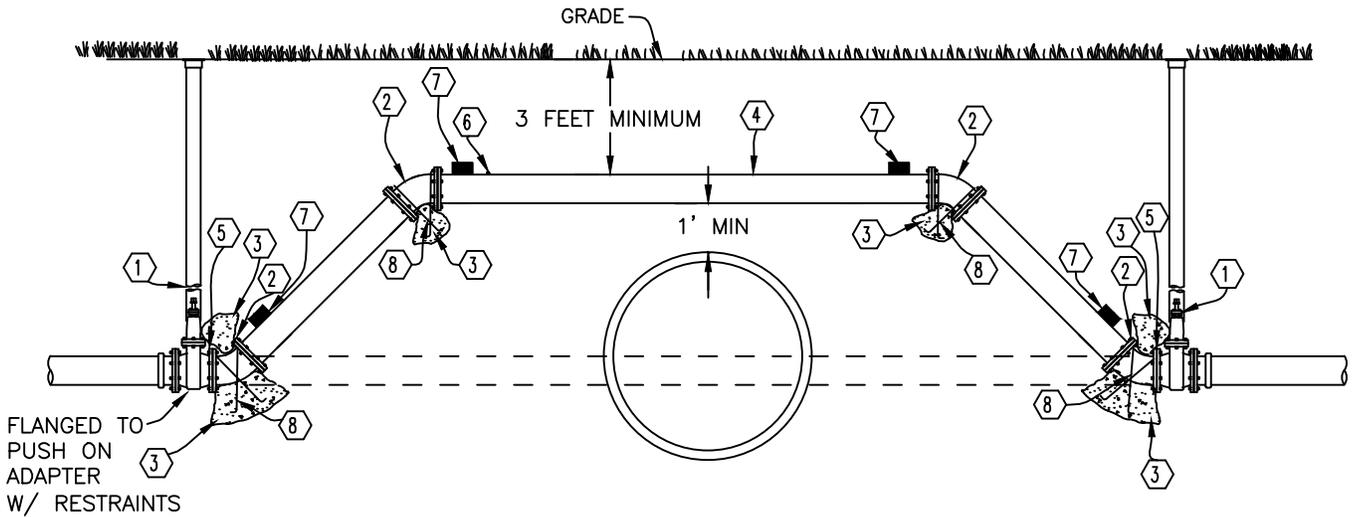


CONSTRUCTION NOTES:

1. CONSTRUCT 6" OR 8" RESILIENT WEDGE VALVE PER PLANS AND SPECIFICATIONS
2. MORTAR LINED AND COATED 45° BEND
3. 1.9 CU. YD. THRUST BLOCK, 1.0 CU. YD. FOR 6" WATER LINE.
4. CONSTRUCT 8" OR 6" MORTAR LINED AND COATED STEEL PIPE
5. CONSTRUCT 6" BLOW-OFF ASSEMBLY WITH 6" RESILIENT WEDGE VALVE.
6. CONSTRUCT 8" X 6" TEE.
7. THRUST BLOCK 9 CU. FT. EACH.
8. CONSTRUCT HANDHOLE (TYP) PER STD 725.
9. SLIP ON WELD FLANGE WITH WELDNECK, FLAT FACE SURFACE (STD 722).
10. CONSTRUCT AIR RELEASE ASSEMBLY PER STD 714 OR 715.

ALL WELDING SHALL BE COMPLETED BY AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO.
	WATER LINE SIPHONS- (TYPICAL)- REPAIR ONLY MORTAR LINE AND COATED		
			721-1
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER		SHEET: 1 OF 4 DATE: 04/01/15



**WATER LINE SIPHON – REPAIR ONLY (INVERT)
MORTAR LINED AND COATED STEEL PIPE**

NOTES:

- 1 LOCATION OF RESILIENT WEDGE GATE VALVES THAT WILL REQUIRE SHUTTING DOWN FOR SIPHON PURPOSES ARE SHOWN ON WATER LINE SCHEMATIC WITHIN THE SPECIFICATIONS. PRIOR TO CONSTRUCTION, FOUNTAIN VALLEY WATER DEPARTMENT WILL ASSIST CONTRACTOR IN LOCATING VALVES.
- 2 CONCRETE THRUST BLOCKS SHALL BE CLASS B AND CURED A MINIMUM OF 3 DAYS BEFORE ANY LOADS ARE APPLIED.
- 3 SIPHON SHALL BE CONSTRUCTED OF MORTAR LINED AND COATED STEEL PIPE 3M, EC-244 OR BITUMASTIC 50 COATED OR SLEEVED
- 4 BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL WITH 3M, EC-244 OR BITUMASTIC 50 COATINGS.

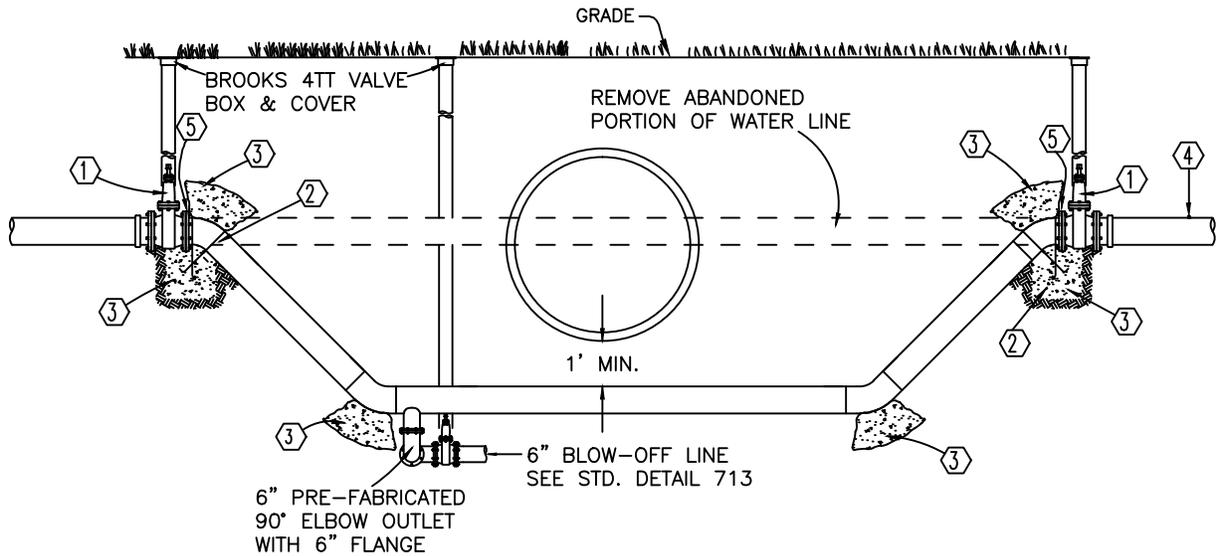


CONSTRUCTION NOTES:

1. CONSTRUCT 6" OR 8" RESILIENT WEDGE VALVE PER PLANS AND SPECIFICATIONS
2. MORTAR LINED AND COATED 45° BEND
3. 1.9 CU. YD. THRUST BLOCK, 1.0 CU. YD. FOR 6" WATER LINE.
4. CONSTRUCT 8" OR 6" MORTAR LINED AND COATED STEEL PIPE
5. SLIP ON WELD FLANGE WITH WELDNECK, FLAT FACED SURFACE (STD 722).
6. CONSTRUCT AIR RELEASE ASSEMBLY PER STD 714 OR STD 715.
7. CONSTRUCT HANDHOLE (TYP) PER STD 725.
8. NO. 5 REBAR (TYP).

ALL WELDING SHALL BE COMPLETED BY AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO.
	WATER LINE SIPHONS- (INVERT) - REPAIR ONLY MORTAR LINE AND COATED		
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER		721-2
	DATE: 04/01/15		



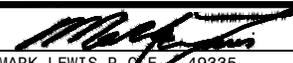
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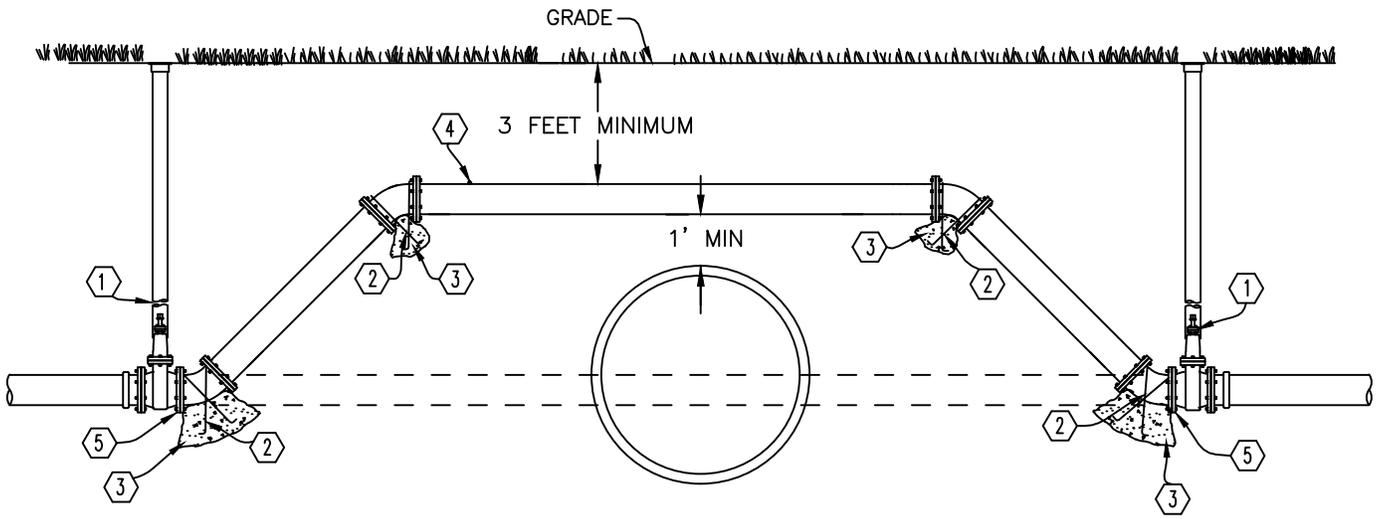
- 1 THE WATER LINE SIPHON (TYPICAL) SHALL BE PRE-FABRICATED, THICK WALLED, MORTAR LINED AND COATED STEEL PIPE.
- 2 ALL UTILITY INSTALLATIONS, SPECIAL SECTIONS AND FITTINGS SHALL CONFORM TO THE MOST RECENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK", CITY OF FOUNTAIN VALLEY PUBLIC WORKS STANDARD PLANS AND IN ACCORDANCE WITH THE AMERICAN WATER WORKS MANUAL M11.
- 3 AFTER AWARD, THE CONTRACTOR SHALL SUBMIT FROM THE MANUFACTURER, THE SHOP DRAWINGS FOR SPECIAL SECTIONS REQUIRED UNDER THESE SPECIFICATIONS. THE MANUFACTURER SHALL SUBMIT THESE DRAWINGS IN TRIPPLICATE FOR APPROVAL AND SHALL NOT PROCEED WITH THE FABRICATION OF FITTINGS AND SPECIAL SECTIONS BEFORE RECEIVING THE APPROVAL FROM THE CITY ENGINEER.
- 4 CONTRACTOR IS NOT PERMITTED TO TURN (EXERCISE) WATER VALVES. THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTOR A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO REQUIRING THE SHUTDOWN OF THE WATER MAINS TO FACILITATE THE CONNECTION.
- 5 CITY OF FOUNTAIN VALLEY WATER DEPARTMENT CANNOT GUARANTEE A COMPLETE SHUTDOWN OF EXISTING WATER MAINS. THE DEPARTMENT WILL ATTEMPT TO SHUTDOWN WATER MAINS AS COMPLETELY AS POSSIBLE. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND ISOLATION FOR THE TESTING PURPOSES.
- 6 CONCRETE THRUST BLOCKS SHALL BE CLASS B AND CURED A MINIMUM OF THREE (3) DAYS BEFORE ANY LOADS ARE APPLIED.
- 7 ALL BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL.
- 8 ALL BURIED BOLTS AND NUTS SHALL BE COATED WITH TWO (2) COATS OF MASTIC SUCH AS "3M" BRAND, EC-244, OR BITUMASTIC 50 COATINGS.

CONSTRUCTION NOTES:

1. CONSTRUCT RESILIENT WEDGE VALVE FLANGED TO PUSH ON ADAPTER AND RESTRAINTS PER PLANS AND SPECIFICATIONS
2. NO. 5 REBAR (TYP)
3. 1.9 C.Y. THRUST BLOCK, 1.0 C.Y. FOR 6" WATER LINE
4. CONSTRUCT AIR RELEASE PER STD 714 OR 715 DEPENDING ON TYPE OF PIPE
5. SLIP ON WELD FLANGED WITH WELDNECK, FLAT FACED SURFACE PER CITY OF F.V STD. PLAN 722
6. CONSTRUCT 6" BLOW-OFF ASSEMBLY WITH 6" RESILIENT WEDGE VALVE PER CITY OF F.V. STD. PLAN 713

ALL WELDING SHALL BE COMPLETED BY AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 721-3
	WATER LINE SIPHONS- (TYPICAL)- NEW INSTALLATIONS MORTAR LINE AND COATED	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 3 OF 4



NOTES:

1. THE WATER LINE SIPHON (INVERT) SHALL BE FABRICATED, THICK WALLED, MORTAR LINED AND COATED STEEL PIPE.
2. ALL UTILITY INSTALLATIONS SHALL CONFORM TO THE MOST RECENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK", THE CITY OF FOUNTAIN VALLEY PUBLIC WORKS STANDARD PLANS ON FILE IN THE CITY ENGINEERS OFFICE, AND IN ACCORDANCE WITH THE AMERICAN WATER WORKS MANUAL M11. ALL SPECIAL SECTIONS AND FITTINGS SHALL BE MADE WITH COMPETENT PARTS HAVING THE DIMENSIONS, TYPE ENDS, AND OTHER DETAILS SHOWN ON THE DRAWINGS MADE A PART OF THESE SPECIFICATIONS. AFTER AWARD, THE CONTRACTOR SHALL SUBMIT FROM THE MANUFACTURER, THE SHOP DRAWINGS FOR SPECIAL SECTIONS REQUIRED UNDER THESE SPECIFICATIONS. THE MANUFACTURER SHALL SUBMIT THESE DRAWINGS IN TRIPPLICATE FOR APPROVAL AND SHALL NOT PROCEED WITH THE FABRICATION OF FITTINGS AND SPECIAL SECTIONS BEFORE RECEIVING THE APPROVED DRAWINGS FROM THE CITY ENGINEER.
3. CONTRACTOR IS NOT PERMITTED TO TURN (EXERCISE) WATER VALVES. THE CONTRACTOR SHALL CONTACT THE CITY OF FOUNTAIN VALLEY PUBLIC WORKS INSPECTOR A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO REQUIRING THE SHUTDOWN OF THE WATER MAINS TO FACILITATE THE CONNECTION.
4. THE CITY OF FOUNTAIN VALLEY WATER DEPARTMENT CANNOT GUARANTEE A COMPLETE SHUTDOWN OF EXISTING WATER MAINS. THE DEPARTMENT WILL ATTEMPT TO SHUT SOWN WATER MAINS AS COMPLETELY AS POSSIBLE. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND ISOLATION FOR TESTING PURPOSES.
5. CONCRETE THRUST BLOCKS SHALL BE CLASS B AND CURED A MINIMUM OF THREE (3) DAYS BEFORE ANY LOADS ARE APPLIED.
6. ALL BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL.
7. ALL BURIED BOLTS AND NUTS SHALL BE COATED WITH TWO (2) COATS OF MASTIC SUCH AS "3M" BRAND, EC-244, OR BITUMASTIC 50 COATINGS.

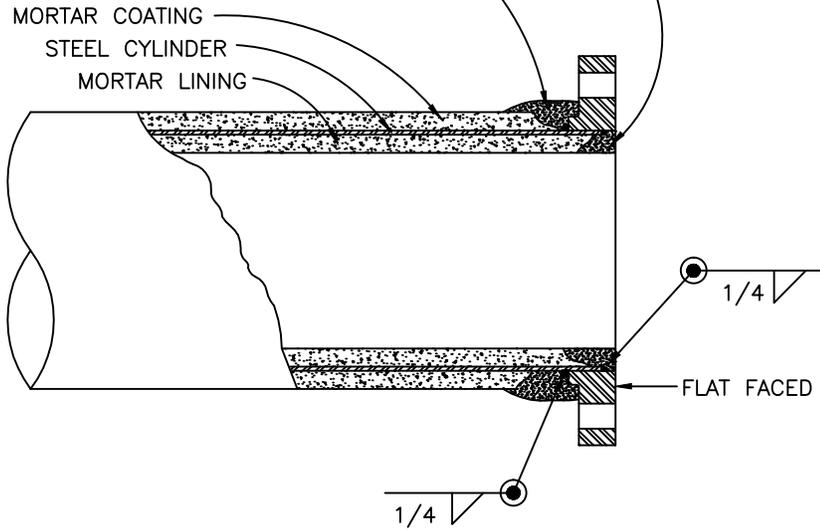
CONSTRUCTION NOTES:

1. CONSTRUCT RESILIENT WEDGE VALVE FLANGED TO PUSH ON ADAPTER AND RESTRAINTS PER PLANS AND SPECIFICATIONS
2. NO. 5 REBAR (TYP)
3. 1.9 C.Y. THRUST BLOCK, 1.0 C.Y. FOR 6" WATER LINE
4. CONSTRUCT AIR RELEASE PER STD 714 OR 715 DEPENDING ON TYPE OF PIPE
5. SLIP ON WELD FLANGED WITH WELDNECK, FLAT FACED SURFACE PER CITY OF F.V STD. PLAN 722

ALL WELDING SHALL BE COMPLETED BY AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 721-4
	WATER LINE SIPHONS- (INVERT)- NEW INSTALLATIONS MORTAR LINE AND COATED	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 4 OF 4
	DATE: 04/01/15	

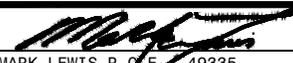
CHIP MORTAR LINING AND COATING
AS REQUIRED FOR WELDING REPLACE
MORTAR AFTER WELDING.

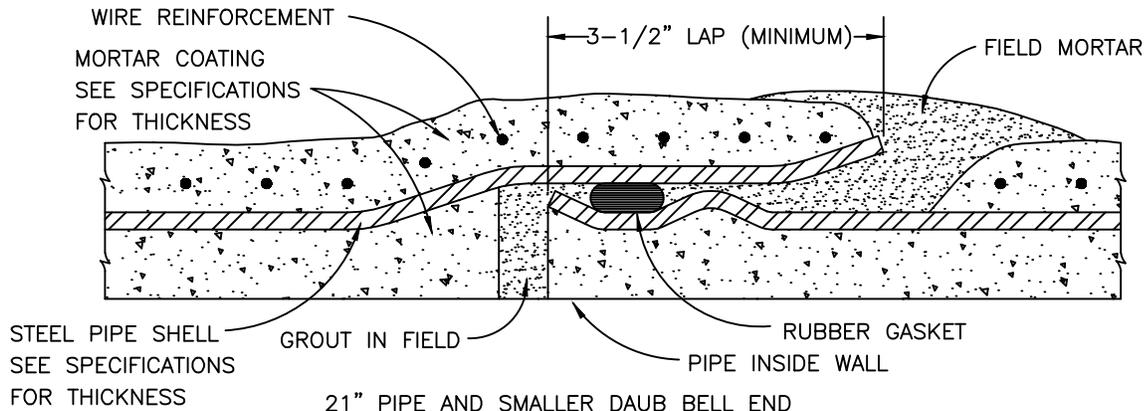


**150# SLIP ON FLANGE
(WITH WELDNECK, FLAT FACED)**

NOTES:

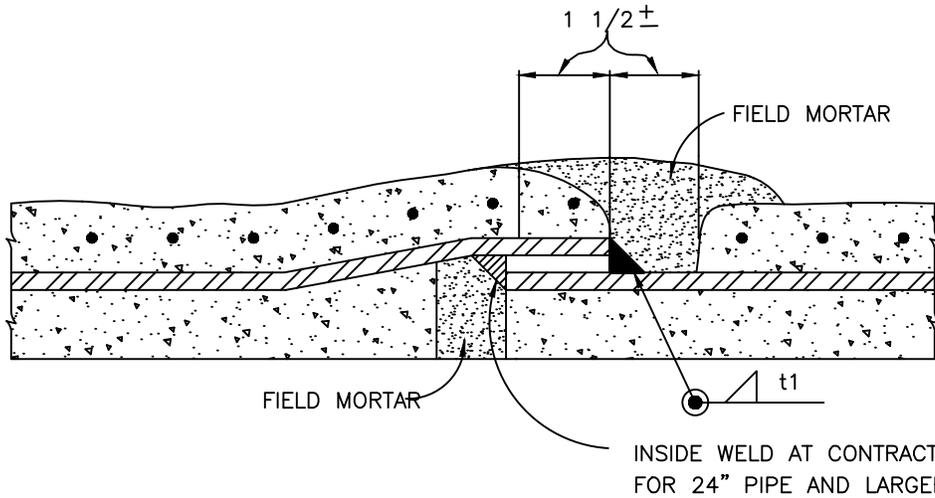
1. PRIOR TO BACKFILLING, ALL BURIED WATER PIPELINES SHALL BE LOCATED BY USING DETECTABLE MARKING TAPE TYPE III AS MANUFACTURED BY LINEGUARD INC., WHEATON, ILLINOIS 60187 (OR EQUAL). TAPE SHALL BE PLACED 1'-0" ABOVE PIPELINE LOCATION.
2. CONTRACTOR PERFORMING ACTUAL INSTALLATION MUST BE APPROVED BY WATER SUPERINTENDENT PRIOR TO STARTING WORK.
3. ALL WELDING SHALL BE COMPLETED BY A AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97 AND MUST BE APPROVED BY THE UTILITIES MANAGER.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 722
	MORTAR LINED AND COATED STEEL PIPE FLANGE WELDING	
	 APPROVED BY: MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1
	DATE: 04/01/15	



21" PIPE AND SMALLER DAUB BELL END OF LINING BEFORE STABBING, THEN SWAB SMOOTH. 24" AND LARGER, POINT AFTER BACKFILL.

BELL AND SPIGOT RUBBER GASKET JOINT



INSIDE WELD AT CONTRACTORS OPTION FOR 24" PIPE AND LARGER

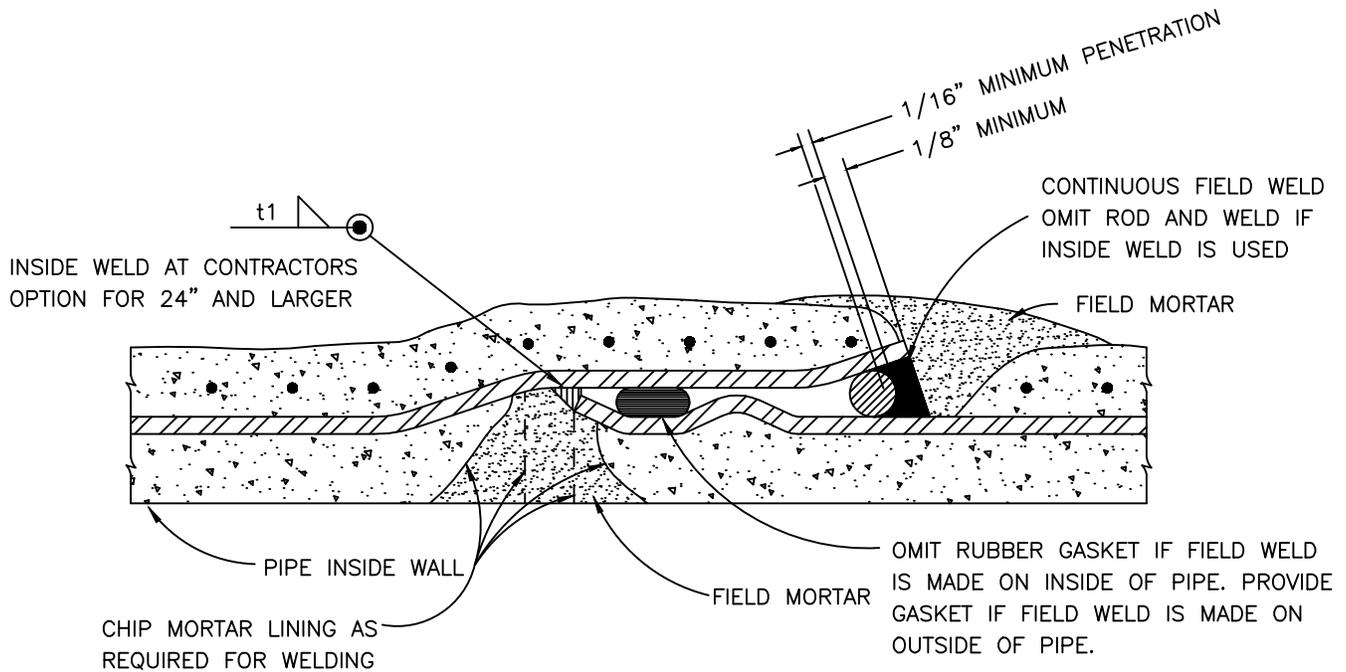
LAP WELDED STEEL JOINT

MORTAR LINED AND COATED STEEL PIPE

ALL WELDING SHALL BE COMPLETED BY A AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	MORTAR LINED AND COATED STEEL PIPE LAP WELD	723
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1

DATE: 04/01/15



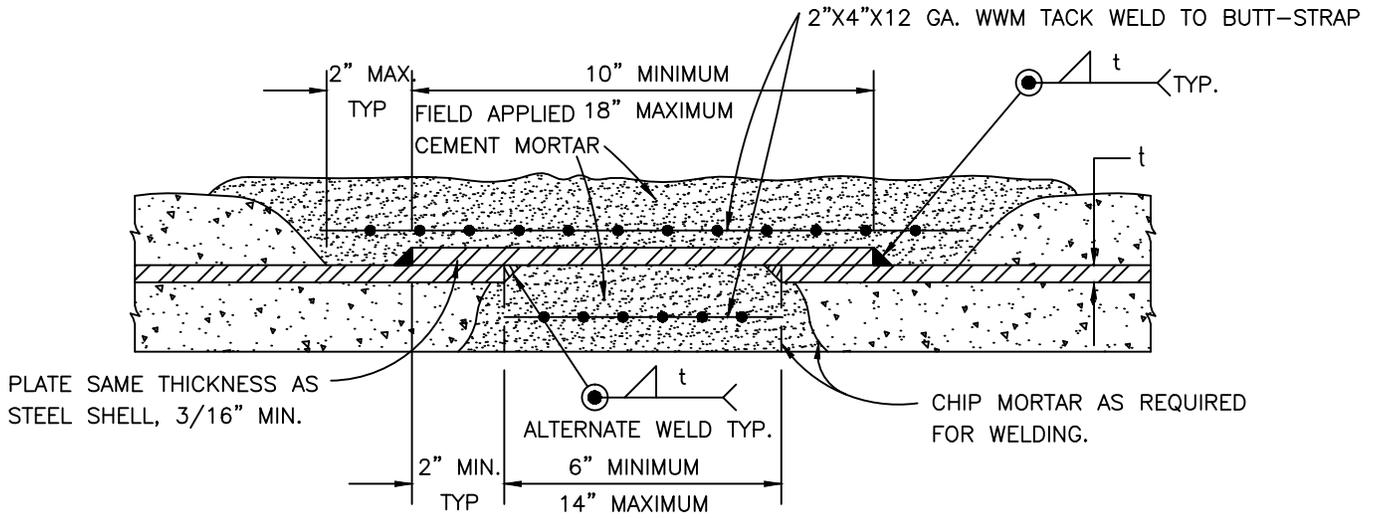
ALTERNATE WELDED STEEL JOINT

MORTAR LINED AND COATED STEEL PIPE

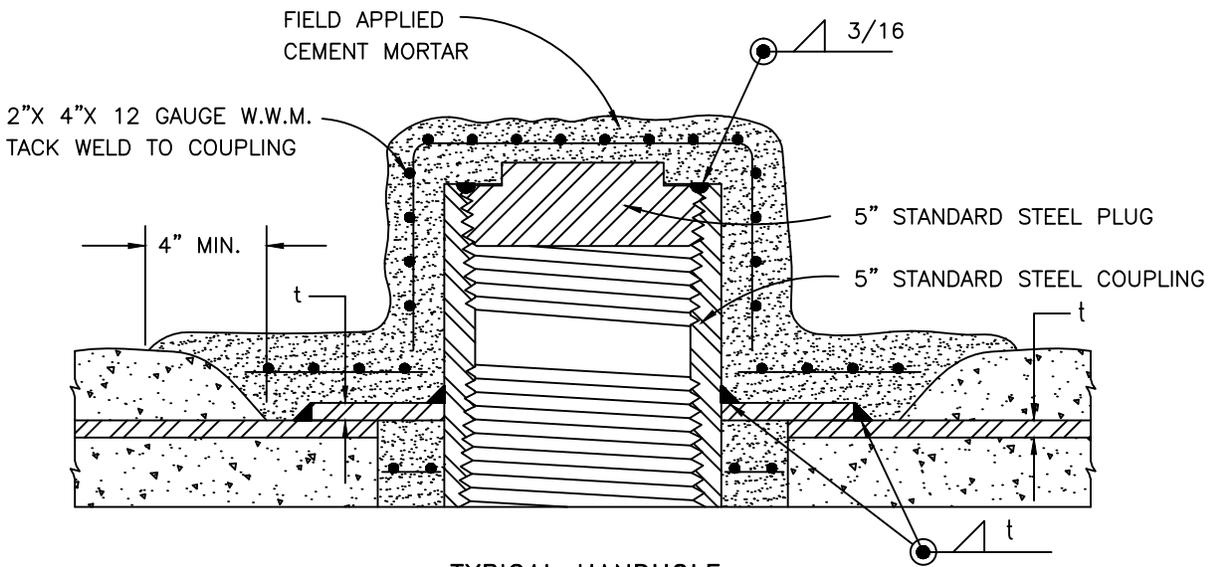
ALL WELDING SHALL BE COMPLETED BY A AWS CERTIFIED WELDER
AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	MORTAR LINED AND COATED STEEL PIPE WELD JOINT	724
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	SHEET: 1 OF 1

DATE: 04/01/15



TYPICAL SECTION BUTT-STRAP JOINT

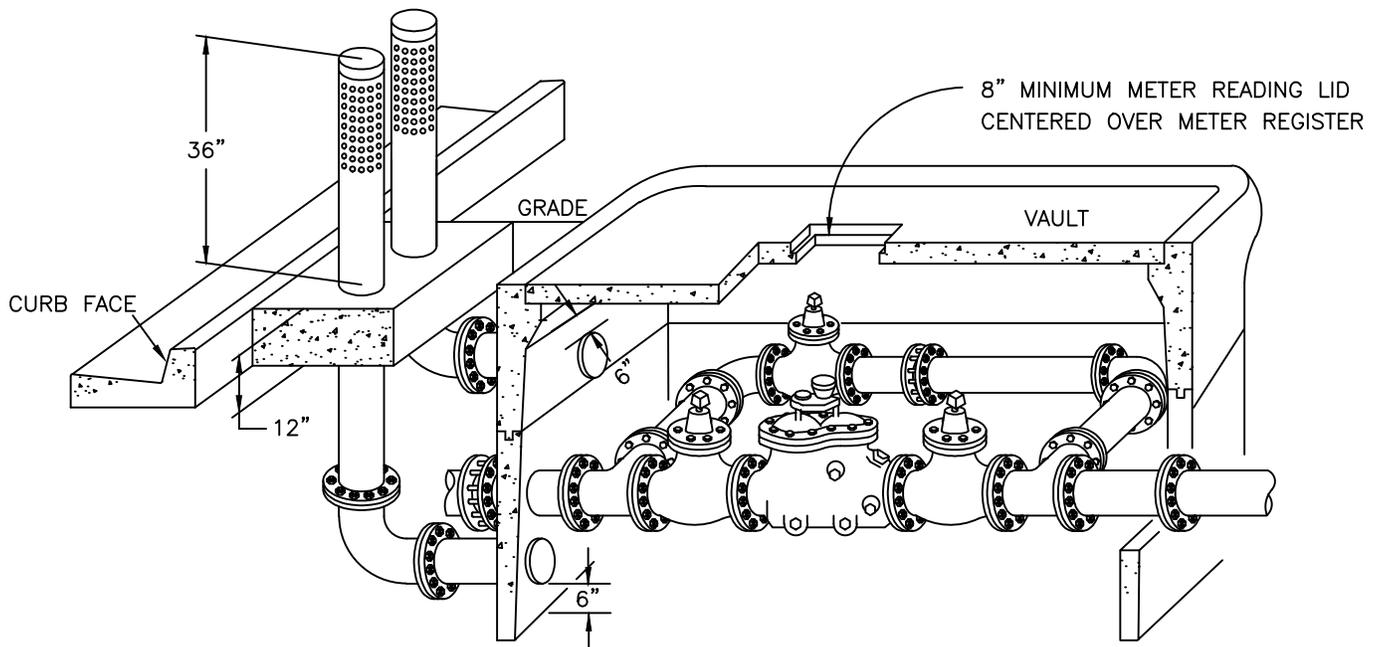
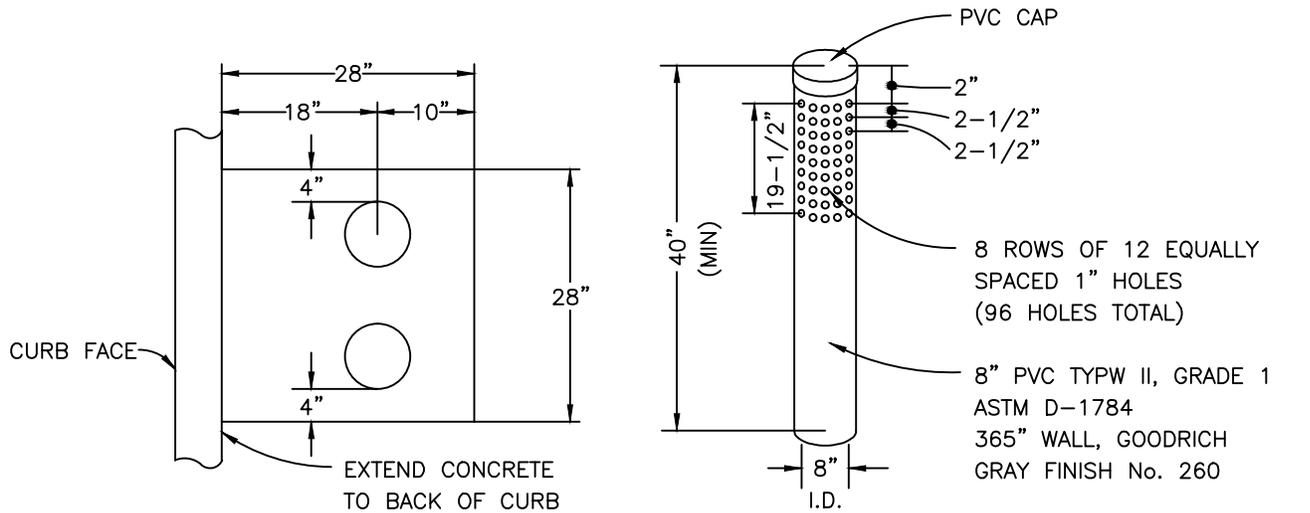


TYPICAL HANDHOLE
(REQUIRED ON PIPE SMALLER THAN 24" DIAMETER)

BUTT-STRAP JOINT FOR MORTAR LINED AND COATED STEEL PIPE

ALL WELDING SHALL BE COMPLETED BY A AWS CERTIFIED WELDER AND IN COMPLIANCE WITH "AWWA" STANDARD C-206-97

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	MORTAR LINED AND COATED STEEL PIPE BUTT STRAP JOINT	725
	APPROVED BY:  49335 CITY ENGINEER	DATE: 04/01/15 SHEET: 1 OF 1



MATERIAL: SHALL BE 8" POLYVINYL CHLORIDE (PVC) TYPE II, GRADE I, ASTM D-1784, 0.365" WALL WITH GOODRICH GRAY No. 260 FINISH. ALL JOINTS MUST BE SEALED AGAINST WATER INFILTRATION IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATION.

LOCATION: VENT PIPES SHALL BE PLACED A MINIMUM OF 5' FROM DRIVEWAYS, FIRE HYDRANTS OR OTHER STRUCTURES.

VAULT VENTING: ONE PIPE SHALL ENTER THE VAULT 6" FROM THE TOP AND BOTTOM.

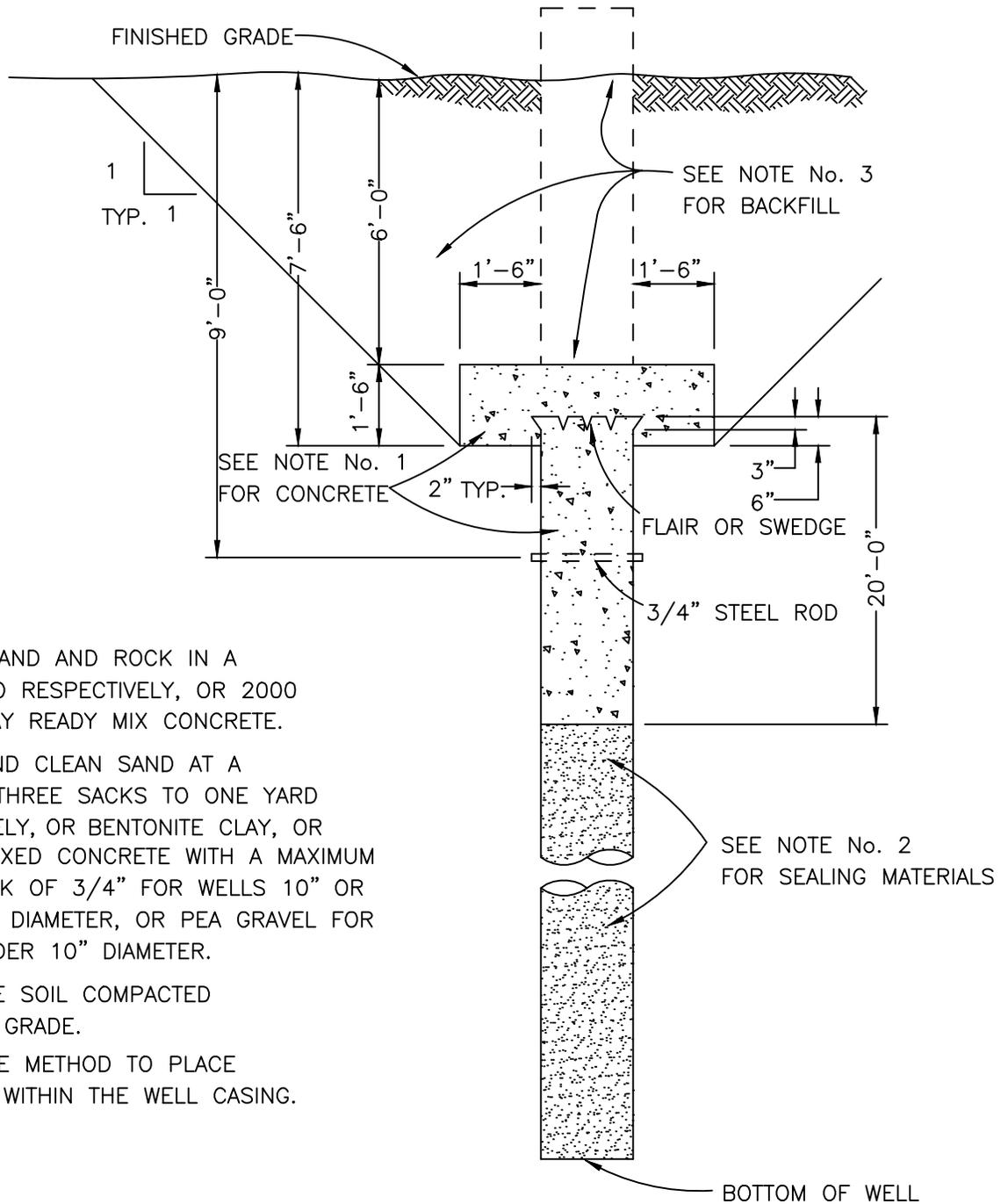
VENT PIPES: SHALL BE SEALED AGAINST WATER INFILTRATION WHERE THEY ENTER THE VAULT.

NOTE: ANY VAULT GREATER THAN 5'-0" IN DEPTH SHALL BE VENTED.

DIMENSIONS TYPICAL-LOCATION OF VENTS IN SIDEWALK REQUIRE REVIEW AND APPROVAL.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO.
	VAULT VENTING	
	APPROVED BY:  MARK LEWIS R.O.E. 49335 CITY ENGINEER	726 SHEET: 1 OF 1

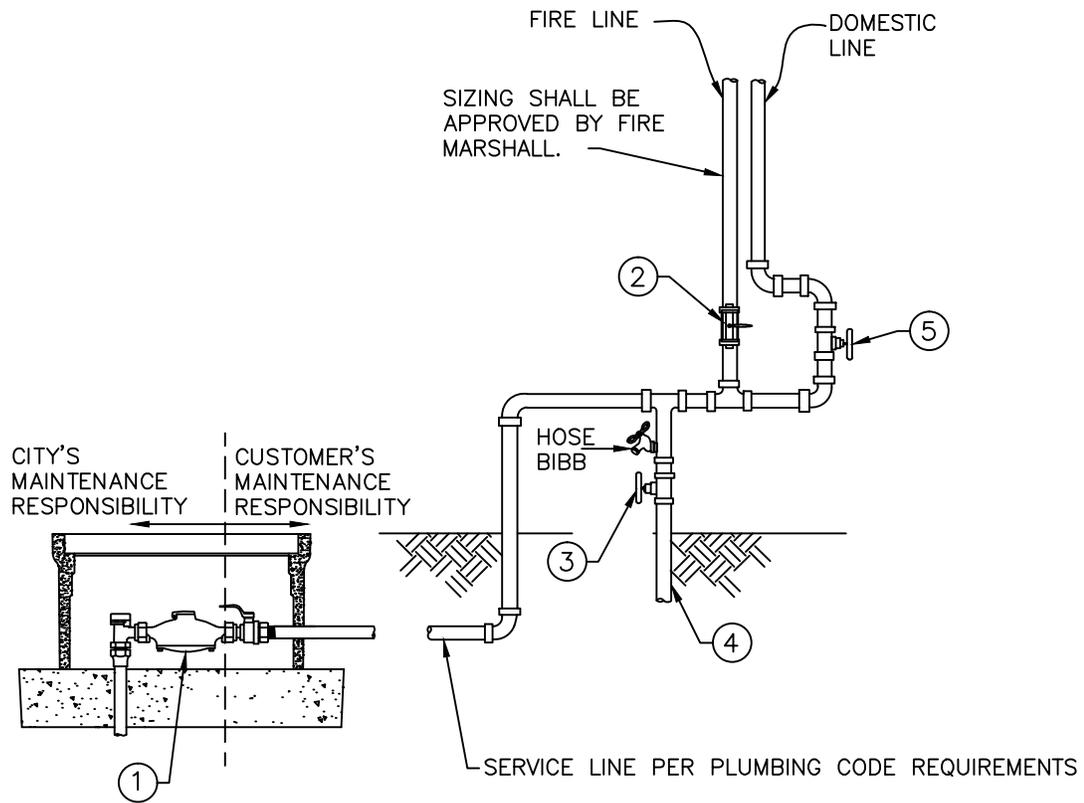
DATE: 04/01/15



NOTES:

1. CEMENT, SAND AND ROCK IN A 1:3:4 RATIO RESPECTIVELY, OR 2000 PSI 28 DAY READY MIX CONCRETE.
2. CEMENT AND CLEAN SAND AT A RATIO OF THREE SACKS TO ONE YARD RESPECTIVELY, OR BENTONITE CLAY, OR TRANSIT MIXED CONCRETE WITH A MAXIMUM SIZED ROCK OF 3/4" FOR WELLS 10" OR LARGER IN DIAMETER, OR PEA GRAVEL FOR WELLS UNDER 10" DIAMETER.
3. USE NATIVE SOIL COMPACTED TO FINISH GRADE.
4. USE TREMIE METHOD TO PLACE CONCRETE WITHIN THE WELL CASING.

REVISIONS	CITY OF FOUNTAIN VALLEY	STANDARD PLAN NO. 727
	WATER WELLS BACKFILLING OF ABANDONED	
	 APPROVED BY: MARK LEWIS R.C.E. 49335 CITY ENGINEER	DATE: 04/01/15
		SHEET: 1 OF 1



ITEM	DESCRIPTION	MANUFACTURER CAT. NO.
①	RESIDENTIAL FIRE METER; MINIMUM 1" FOR RESIDENTIAL FIRE SERVICE.	PURCHASED FROM CITY.
②	DUAL CHECK VALVE (LEADFREE)	WATTS LF07S, AMES 20S OR APPROVED EQUAL.
③	IRRIGATION SHUT OFF VALVE	PER PLUMBING CODE REQUIREMENTS.
④	IRRIGATION LINE	PER PLUMBING CODE REQUIREMENTS.
⑤	PRIVATE PROPERTY SHUTOFF.	PER PLUMBING CODE REQUIREMENTS.

NOTES:

- FOR WATER SERVICE AND METER DETAILS SEE STANDARD PLANS 702-1 AND 706-1.
- 1" MIN. METER REQUIRED FOR ALL NEW RESIDENTIAL FIRE SERVICES.
- THIS STANDARD IS CONSIDERED THE MINIMUM REQUIREMENT AND WILL BE SUPERSEDED BY ANY FUTURE AWWA OR EQUIVALENT STANDARD.

REVISIONS	CITY OF FOUNTAIN VALLEY		STANDARD PLAN NO. 728
	RESIDENTIAL FIRE AND DOMESTIC COMBINATION SERVICE INSTALLATION		
	APPROVED BY: <i>Mark Lewis</i> MARK LEWIS R.O.E. 49335 CITY ENGINEER	DATE: 04/01/15	