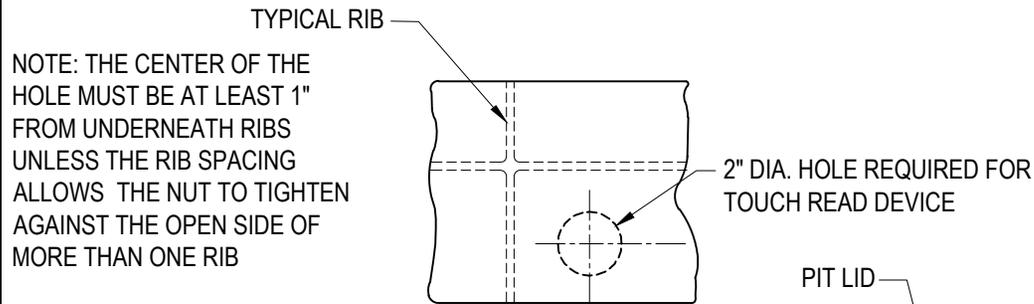


**NOTES:**

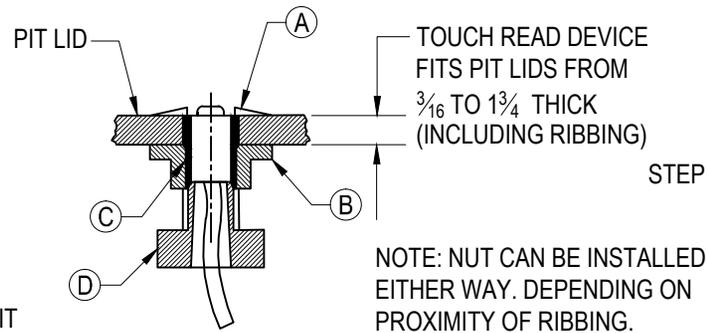
1. ALL TAPS MUST BE MADE USING A SERVICE SADDLE.
2. COPPER SERVICE LINES 1" IN DIAMETER THAT CROSS STREETS WILL BE ONE CONTINUOUS PIECE. NO JOINTS IN STREET OR UNDER CONCRETE.
3. COPPER SERVICE LINES 2" IN DIAMETER SHALL BE SILVER SOLDERED.
4. CONTRACTOR SHALL PROVIDE TAPPING SERVICE NOT SUPPLIED BY CITY.

DETAIL NO. <h1 style="margin: 0;">A1300</h1>	<h1 style="margin: 0;">Avondale</h1> <p style="margin: 0;">STANDARD DETAIL</p>	<h1 style="margin: 0;">WATER SERVICE CONNECTION</h1>	APPROVED BY: DATE: 8.24.16
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## INSTALLATION INSTRUCTIONS



**LOOKING DOWN ON  
TYPICAL METER PIT LID**



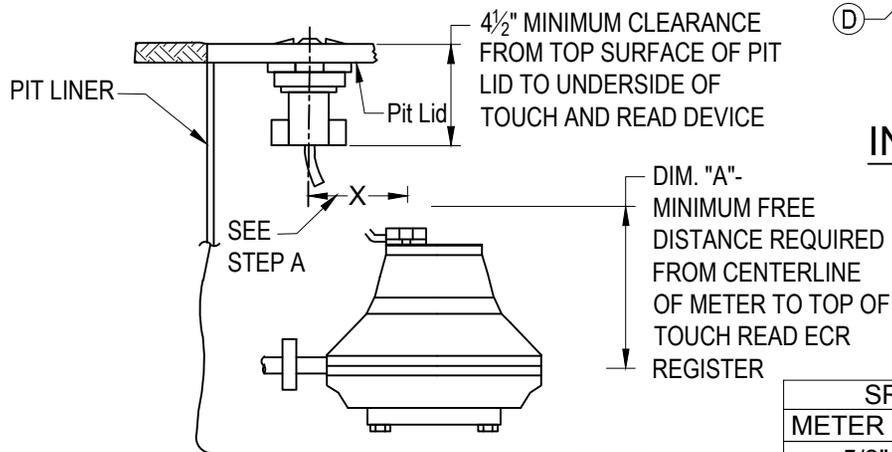
**INSTALLATION DETAILS OF  
TOUCH READ DEVICE**

STEP A: LOCATING AND DRILLING HOLE-  
DRILL  $1\frac{3}{4}$ " DIA. HOLE THROUGH PIT LID-  
CLEARING UNDERSIDE RIBBING.

1. WHEN LOCATING THE HOLE, DETERMINE THE REQUIRED VERTICAL CLEARANCE TO AVOID INTERFERENCE OF THE TOUCH READ DEVICE AND THE METER (DIM. X)
2. THE HOLE CENTER MUST BE  $2\frac{1}{2}$ " MINIMUM FROM THE OUTSIDE EDGE OF THE PIT LID FOR CLEARANCE OF THE DEVICE'S TOP FLANGE. SEE THE NOTE ON RIB CLEARANCE

STEP B: INSTALLING DEVICE -

1. INSERT SENSOR HOUSING (A) THROUGH PIT LID HOLE (FROM ABOVE) AND TIGHTEN SECURELY IN PLACE WITH PLASTIC NUT (B)
2. INSERT SENSOR ASSEMBLY (C) -CONNECTED TO METER'S REGISTER - INTO HOUSING AND SECURE IN PLACE WITH SCREW PLUG. (D)
3. EXCESS WIRE SHOULD BE COILED LOOSELY (NOT TIED) IN METER PIT, ALLOWING SLACK FOR PIT LID REMOVAL



**SIDE VIEW OF TYPICAL METER  
PIT INSTALLATION**

SR METERS	
METER SIZE	DIA "A"
5/8"	4-1/2"
5/8"	5"
5/8"	5-1/2"
5/8"	6-1/2"
5/8"	7"

SR II METERS	
METER SIZE	DIA "A"
5/8"	5-1/2"
3/4"	5-1/2"
1"	6"

ITRON  
RADIO READ  
TOUCH READ SYSTEM  
PIT LID DEVICE INSTALLATION  
DIMENSIONS & INSTRUCTIONS  
UM-80430D

DETAIL NO.

**A1302**

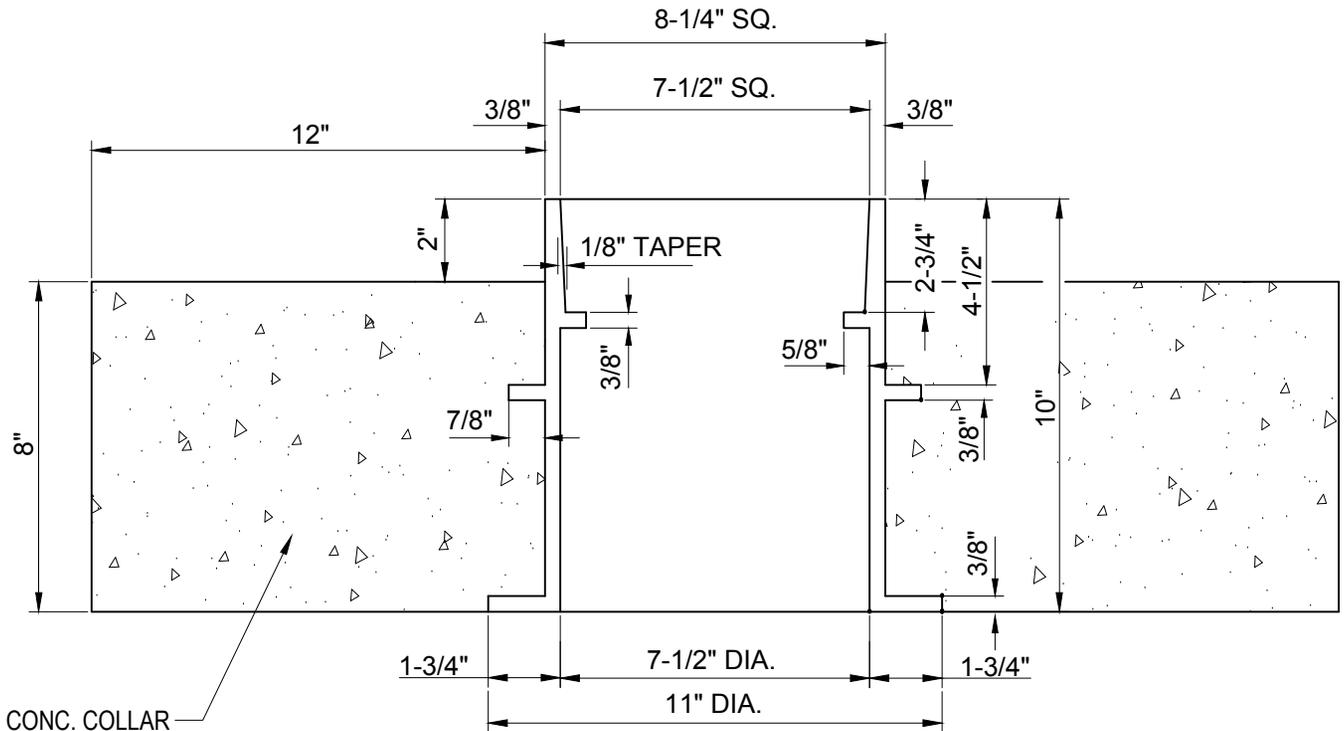
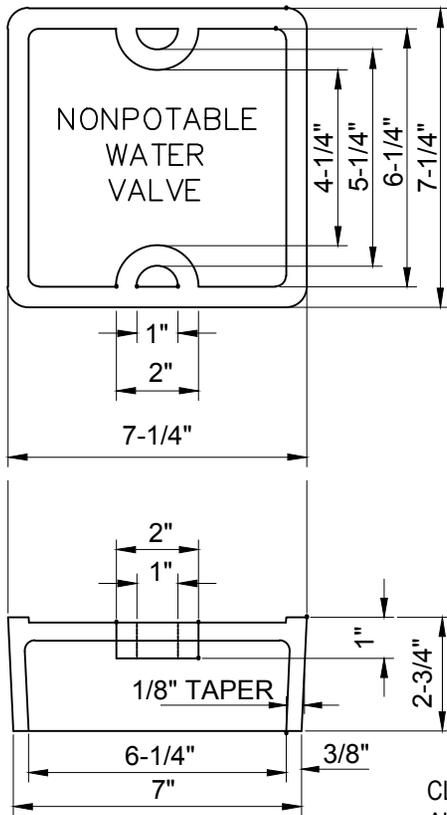
**Avondale**  
STANDARD DETAIL

**WATER METER TOUCH  
READ SYSTEM**

APPROVED BY:

DATE:

*David S. Jones*  
8-24-16



CLASS "B" CONC. COLLAR  
ALL AROUND FRAME  
PER M.A.G. SEC. 725

**NOTES:**

1. ROUND BOTTOM FOR RISER PIPE, SQUARE TOP FOR COVER.
2. ALL MATERIALS SHALL BE CAST IRON PER ASTM A48, CLASS 30B.
3. NONPOTABLE WATER VALVE BOX TO BE INSTALLED PER M.A.G. STD. DETAIL 391.
4. THE CAST IRON LID SHALL BE MARKED "NONPOTABLE WATER VALVE" ON THE TOP SIDE. LETTERS SHALL BE 1" EACH AND RAISED 1/8".

DETAIL NO.

**A1315**

**Avondale**  
STANDARD DETAIL

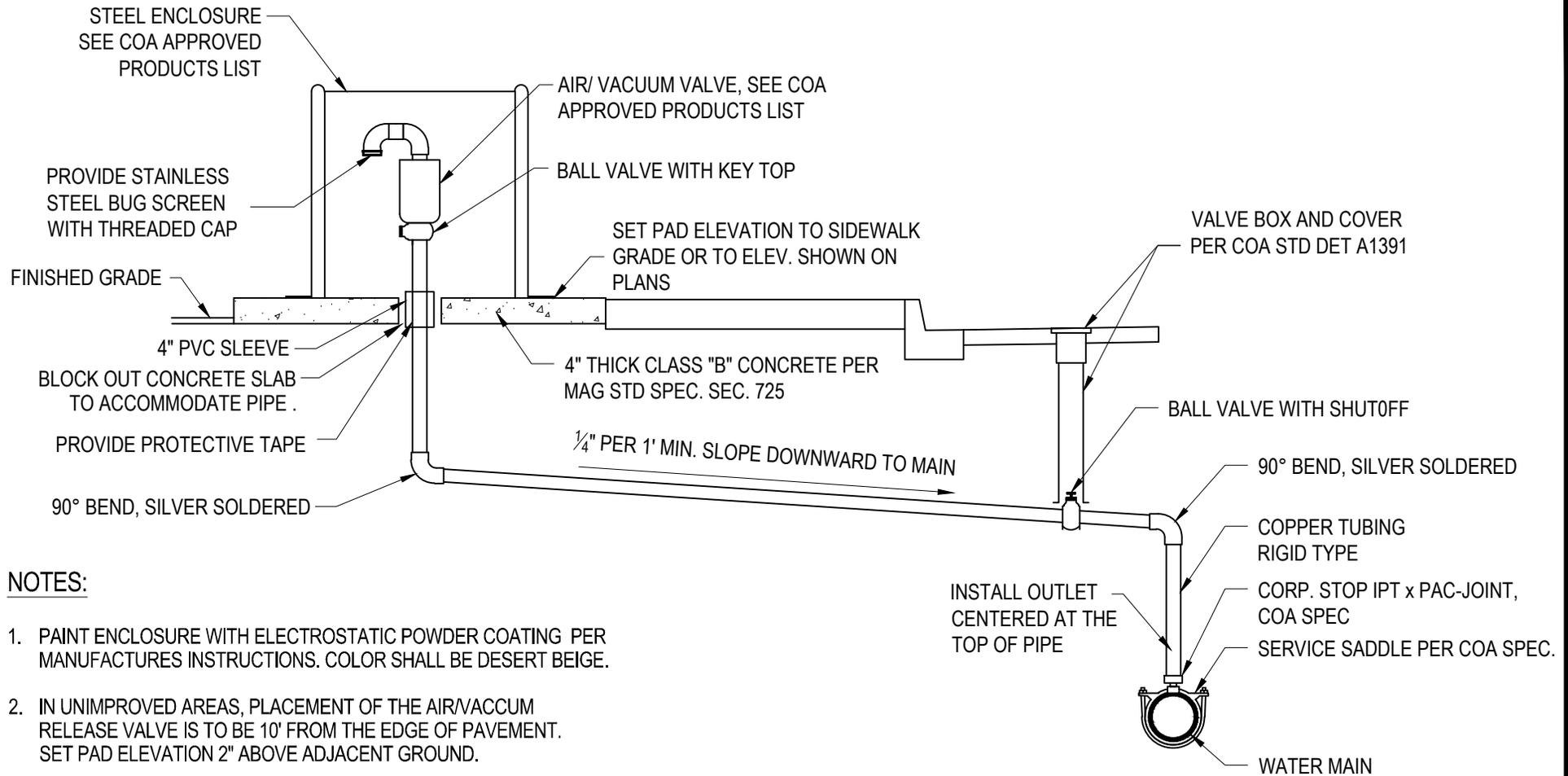
**NONPOTABLE WATER VALVE  
BOX & COVER**

APPROVED BY:

*Daniel S. Jones*

DATE:

8.24.16



**NOTES:**

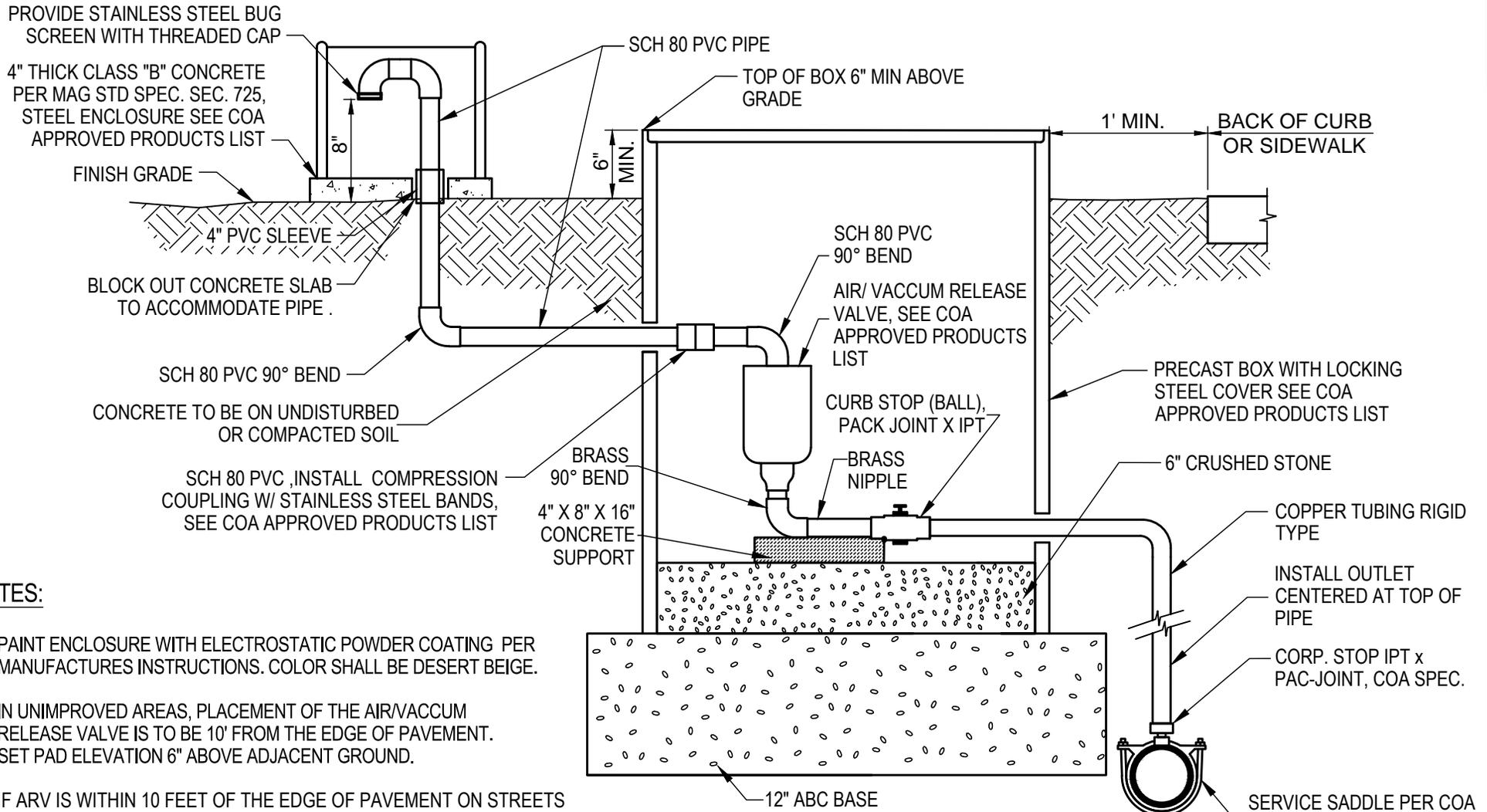
1. PAINT ENCLOSURE WITH ELECTROSTATIC POWDER COATING PER MANUFACTURERS INSTRUCTIONS. COLOR SHALL BE DESERT BEIGE.
2. IN UNIMPROVED AREAS, PLACEMENT OF THE AIR/VACCUM RELEASE VALVE IS TO BE 10' FROM THE EDGE OF PAVEMENT. SET PAD ELEVATION 2" ABOVE ADJACENT GROUND.
3. IF ARV IS WITHIN 10 FEET OF THE EDGE OF PAVEMENT ON STREETS NOT HAVING CURB, INSTALL A VERTICAL OBJECT MARKER ON APPROACH SIDE OF THE STAND PIPE.
4. FOR RECLAIMED WATER APPLICATION THE WORDS: "CAUTION: RECLAIMED WATER. DO NOT DRINK". SHALL BE STENCILED WITH 3/4" LETTERS IN PURPLE ON A WHITE BACKGROUND.
5. COPPER SERVICE LINES 1-INCH IN DIAMETER THAT CROSS STREETS WILL BE ONE CONTINUOUS PIECE. NO JOINTS IN STREET OR UNDER CONCRETE.
6. COPPER SERVICE LINES 2-INCH IN DIAMETER SHALL BE SILVER SOLDERED.

DETAIL NO.  
**A1320-1**

**Avondale**  
STANDARD DETAIL

**AIR /VACCUM RELEASE VALVE  
ABOVE GRADE (≤ 2")**

APPROVED BY: *[Signature]*  
DATE: 8.24.16



PROVIDE STAINLESS STEEL BUG SCREEN WITH THREADED CAP  
 4" THICK CLASS "B" CONCRETE PER MAG STD SPEC. SEC. 725, STEEL ENCLOSURE SEE COA APPROVED PRODUCTS LIST

SCH 80 PVC PIPE  
 TOP OF BOX 6" MIN ABOVE GRADE

1' MIN. BACK OF CURB OR SIDEWALK

FINISH GRADE  
 4" PVC SLEEVE

BLOCK OUT CONCRETE SLAB TO ACCOMMODATE PIPE

SCH 80 PVC 90° BEND

CONCRETE TO BE ON UNDISTURBED OR COMPACTED SOIL

SCH 80 PVC, INSTALL COMPRESSION COUPLING W/ STAINLESS STEEL BANDS, SEE COA APPROVED PRODUCTS LIST

BRASS 90° BEND  
 4" X 8" X 16" CONCRETE SUPPORT

SCH 80 PVC 90° BEND  
 AIR/ VACCUM RELEASE VALVE, SEE COA APPROVED PRODUCTS LIST

CURB STOP (BALL), PACK JOINT X IPT

BRASS NIPPLE

PRECAST BOX WITH LOCKING STEEL COVER SEE COA APPROVED PRODUCTS LIST

6" CRUSHED STONE

COPPER TUBING RIGID TYPE

INSTALL OUTLET CENTERED AT TOP OF PIPE

CORP. STOP IPT x PAC-JOINT, COA SPEC.

SERVICE SADDLE PER COA SPEC.

12" ABC BASE

**NOTES:**

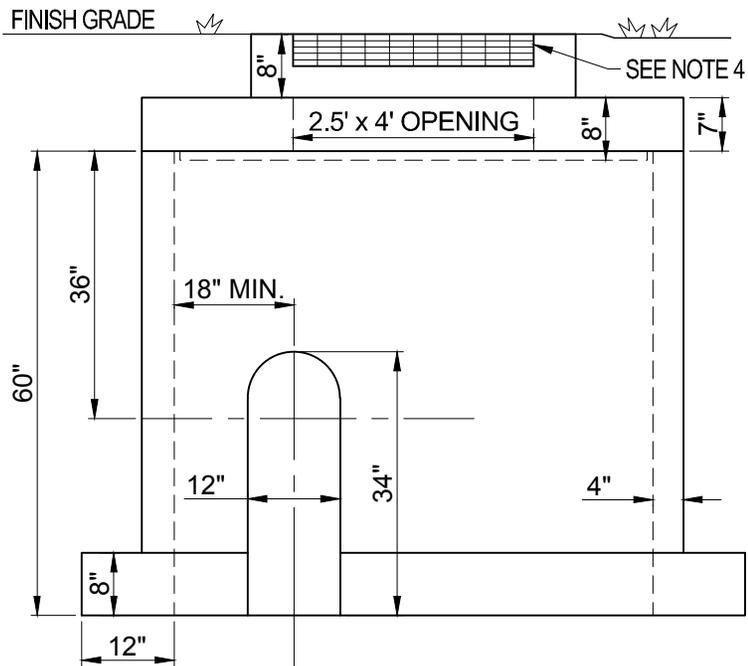
1. PAINT ENCLOSURE WITH ELECTROSTATIC POWDER COATING PER MANUFACTURERS INSTRUCTIONS. COLOR SHALL BE DESERT BEIGE.
2. IN UNIMPROVED AREAS, PLACEMENT OF THE AIR/VACCUM RELEASE VALVE IS TO BE 10' FROM THE EDGE OF PAVEMENT. SET PAD ELEVATION 6" ABOVE ADJACENT GROUND.
3. IF ARV IS WITHIN 10 FEET OF THE EDGE OF PAVEMENT ON STREETS NOT HAVING CURB, INSTALL A VERTICAL OBJECT MARKER ON APPROACH SIDE OF THE STAND PIPE.
4. FOR RECLAIMED WATER APPLICATION THE WORDS: "CAUTION: RECLAIMED WATER. DO NOT DRINK". SHALL BE STENCILED WITH 3/4" LETTERS IN PURPLE ON A WHITE BACKGROUND.
5. COPPER SERVICE LINES 1-INCH IN DIAMETER THAT CROSS STREETS WILL BE ONE CONTINUOUS PIECE. NO JOINTS IN STREET OR UNDER CONCRETE.
6. COPPER SERVICE LINES 2-INCH IN DIAMETER SHALL BE SILVER SOLDERED.

DETAIL NO.  
**A1320-2**

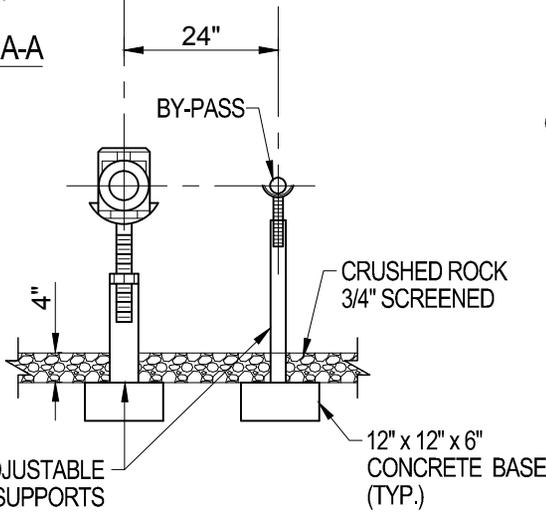
**Avondale**  
 STANDARD DETAIL

**AIR /VACCUM RELEASE VALVE  
 BELOW GRADE (>2")**

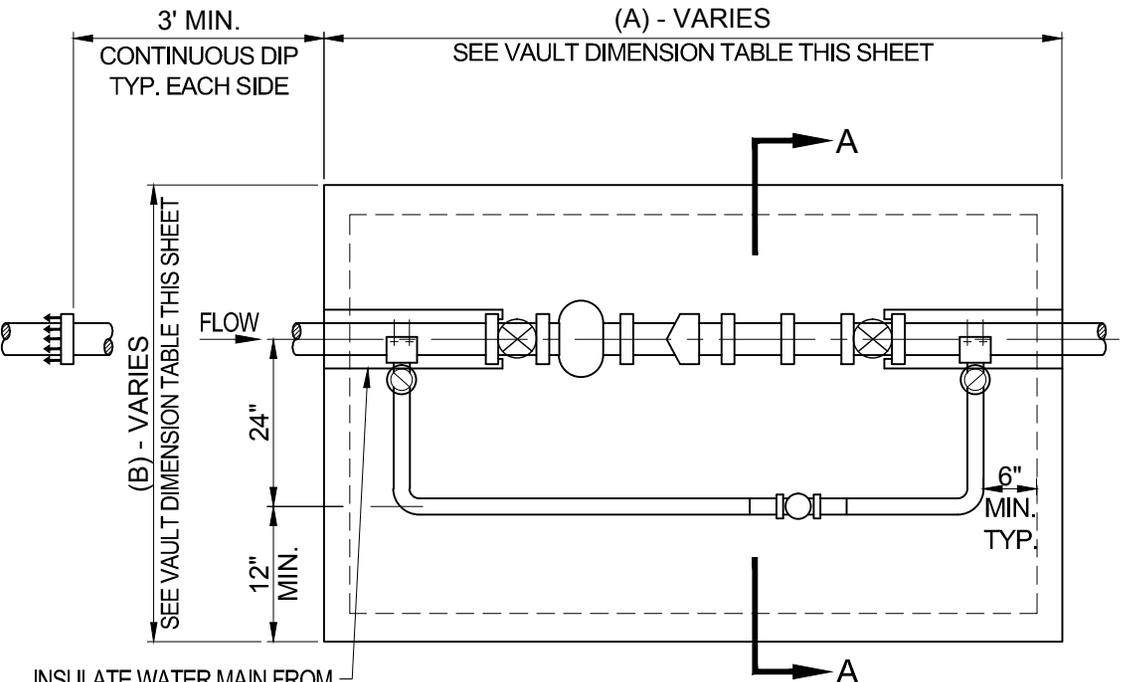
APPROVED BY: *[Signature]*  
 DATE: 8.24.16



SECTION A-A



INSULATE WATER MAIN FROM CONCRETE BOX WITH A MINIMUM 1" OF CITY-APPROVED EXPANSION MATERIAL. GROUT BALANCE OF OPENING PER M.A.G. SPECIFICATIONS.



PLAN VIEW

VAULT DIMENSIONS TABLE			
MAIN SIZE	3"	4"	6"
(A)	9'-6"	11'-2"	13'-0"
(B)	5'-6"	5'-8"	7'-0"

NOTES:

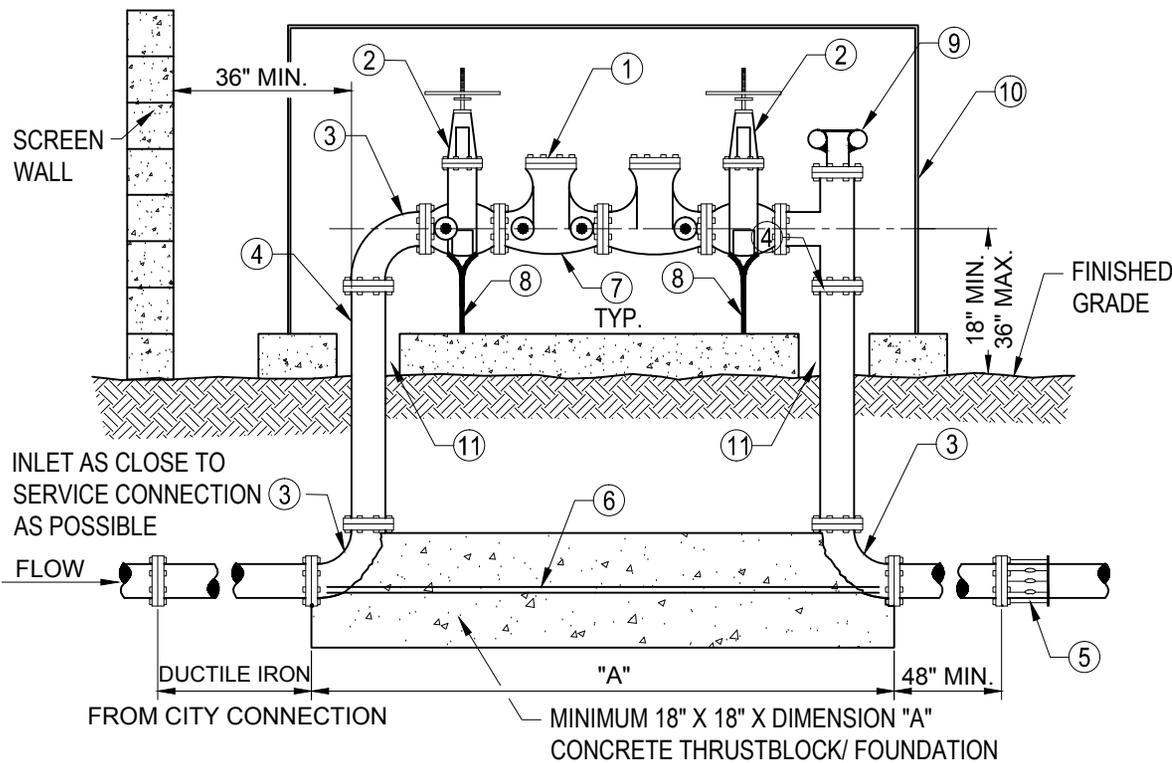
1. CONCRETE SHALL BE M.A.G. CLASS 'A'.
2. METER VAULTS MAY BE EITHER CAST-IN-PLACE OR PRE-CAST CONCRETE.
3. ALL FITTINGS SHALL BE FLANGED EXCEPT FOR 2" COPPER BYPASS. UNIFLANGE IS NOT ACCEPTABLE UNLESS APPROVED BY THE CITY ENGINEERING AND PUBLIC WORKS DEPARTMENTS. 2" COPPER BYPASS WILL BE JOINED WITH SILVER SOLDER EXCEPT AT 2" CORP. STOPS.
4. COVERS SHALL HAVE A [PEDESTRIAN RATED 42" x 42"(3" & 4") OR 36" x 60"(6")] SYRACUS ECHD-9AL 3660 ALUMINUM FRAME DOUBLE LEAF HATCH WITH RECESSED PADLOCK HASP.
5. ALL JOINTS SHALL BE SEALED, SEE COA APPROVED PRODUCTS LIST FOR SEALANT TYPE.
6. STAINLESS BOLTS & NUTS REQUIRED FOR ENTIRE ASSEMBLY.

DETAIL NO.  
**A1321-1**

**Avondale**  
STANDARD DETAIL

**3", 4" & 6" WATER  
METER VAULTS**

APPROVED BY: *[Signature]*  
DATE: 8.24.16



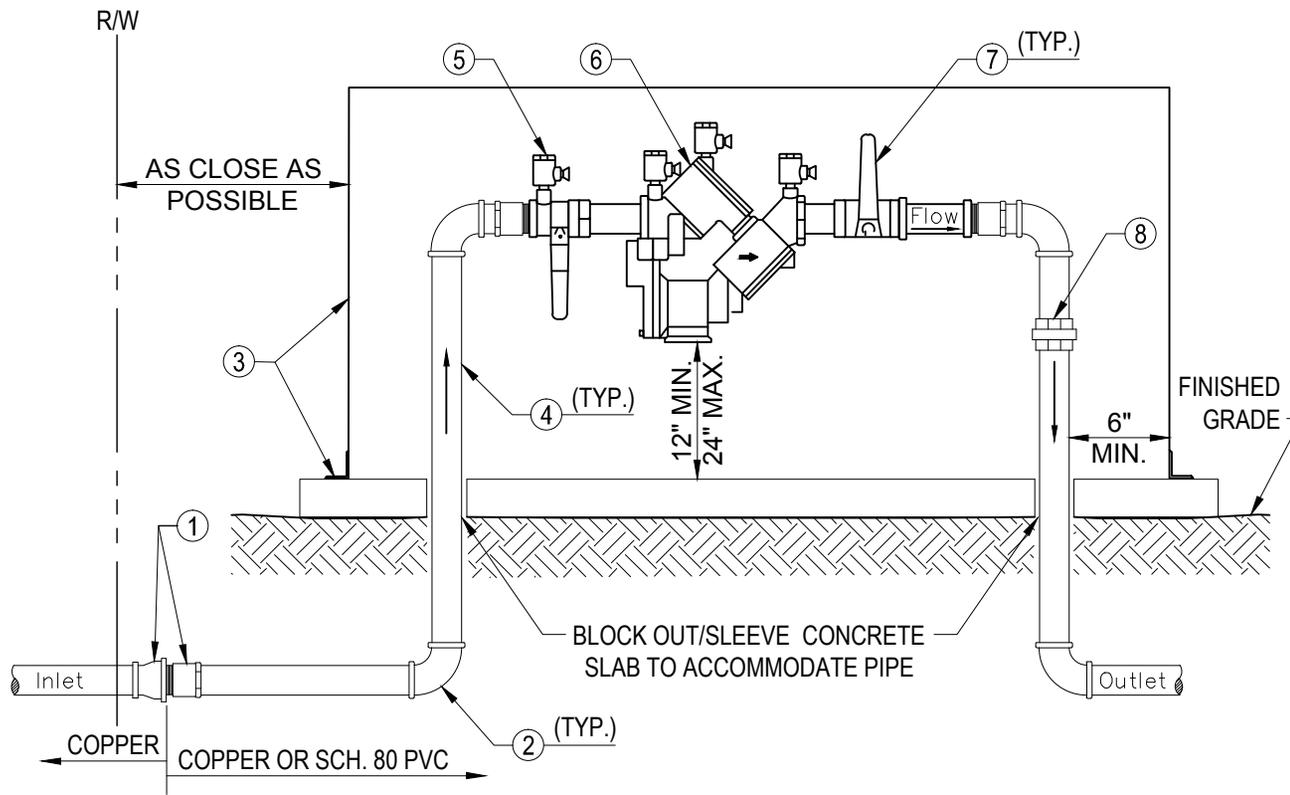
**LIST OF MATERIALS**

- ① APPROVED BACKFLOW PREVENTION ASSEMBLY. FOR COMBO (FIRE & DOMESTIC) OR CHEMICAL INJECTED LINES USE REDUCED PRESSURE BACKFLOW. FOR FIRE ONLY LINES USE DOUBLE CHECK VALVE. (USC & UL APPROVED).
- ② RESILIENT SEATED O.S. & Y GATE VALVE.
- ③ 90° ELL. FLANGED D.I.P. 4" THRU 12"
- ④ PIPE SPOOL. FLANGED D.I.P. 4" THRU 12"
- ⑤ FLANGED ADAPTER (WHEN REQUIRED)
- ⑥ 3/4" ZINC COATED THREADED ROD, BOLT TO FLANGES AS SHOWN, TYPICAL BOTH SIDES
- ⑦ TEST COCKS WITH BRASS PLUGS OR ADAPTERS WITH CAPS INSTALLED (4 REQUIRED)
- ⑧ ADJUSTABLE INDUSTRIAL GRADE METAL PIPE SUPPORTS (PER CITY APPROVAL), AND HARDWARE, MOUNTED TO CONCRETE SLAB.
- ⑨ FIRE DEPARTMENT CONNECTION CONSISTING OF TWO 2.5" FEMALE INLETS WITH NATIONAL STANDARD FIRE THREAD, BREAKAWAY COVERS, AND CHECK VALVE (DOUBLE CHECK ASSEMBLIES).
- ⑩ INSTALL 6" THICK CONCRETE PAD, ENCLOSURE, AND HARDWARE. ENCLOSURE SHALL BE PER COA APPROVED PRODUCTS LIST. (AS REQUIRED)
- ⑪ BLOCK OUT CONCRETE SLAB TO ACCOMMODATE PIPE AND FLANGE DIAMETER.

**NOTES:**

- 1. APPROVED BACKFLOW ASSEMBLIES MUST HAVE SEAL OF APPROVAL FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH. BACKFLOW ASSEMBLIES INSTALLED ON FIRE SUPPRESSION SYSTEMS MUST ALSO HAVE APPROVAL FROM UNDERWRITERS LABORATORIES AND/OR FACTORY MUTUAL RESEARCH CORPORATION.
- 2. BACKFLOW ASSEMBLIES MUST BE TESTED BY A CERTIFIED TESTER THAT IS RECOGNIZED BY THE CITY OF AVONDALE
- 3. BACKFLOW PREVENTERS SHALL BE PAINTED LIGHT TAN OR A COLOR TO MATCH THE BUILDING OR SCREEN WALL. FIRE DEPARTMENT CONNECTION SHALL BE PAINTED RED. DO NOT PAINT THE NAME PLATE OR ANY BRASS PARTS ON THE ASSEMBLY.
- 4. SCREENING WALL, GUARD POSTS (IF REQUIRED BY FIRE DEPARTMENT) AND VEGETATION SHALL MAINTAIN A MINIMUM 36 INCH CLEARANCE FROM THE ASSEMBLY.
- 5. FINISHED GRADE UNDERNEATH THE BACKFLOW PREVENTER SHALL BE AT 95% COMPACTION.
- 6. CALL CITY OF AVONDALE ENGINEERING DEPARTMENT A MINIMUM OF 24-HOURS IN ADVANCE FOR UNDERGROUND INSPECTION BEFORE BACK FILLING TRENCH.
- 7. TAMPER SWITCHES ON EACH VALVE TIED TO THE BUILDING FIRE ALARM SYSTEM SHALL BE IN ACCORDANCE WITH FIRE DEPARTMENT POLICY.
- 8. DETECTABLE MARKING TAPE TO BE APPROVED BY THE CITY OF AVONDALE FIRE DEPARTMENT TO BE PLACED ALONG THE FULL LENGTH OF THE FIRE LINE ON THE CUSTOMER SIDE FROM THE BACKFLOW/FIRE DEPARTMENT CONNECTION ASSEMBLY TO THE BUILDING IS REQUIRED.
- 9. IDENTIFICATION TAGS OR SIGNS IDENTIFYING THE OCCUPANCY OR OCCUPANCIES SERVED BY THE ASSEMBLY MAY BE REQUIRED AT THE DISCRETION OF THE FIRE DEPARTMENT.

DETAIL NO. <b>A1325</b>	 <b>Avondale</b> STANDARD DETAIL	<b>BACKFLOW PREVENTION ASSEMBLY</b> <b>3 INCHES THRU 12 INCHES</b>	APPROVED BY:  DATE: 8.24.16
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**LIST OF MATERIALS**

- ① THREADED FEMALE COPPER TRANSITION COUPLING TO THREADED MALE SCHEDULE 40 PVC COUPLING /ADAPTER (ONLY IF USING SCHEDULE 40 PVC ON THE ASSEMBLY, OTHERWISE OMIT).
- ② 90° ELBOW
- ③ INSTALL 4" CONCRETE PAD, ENCLOSURE, AND HARDWARE. ENCLOSURE SHALL BE PER COA APPROVED PRODUCTS LIST. (AS REQUIRED)
- ④ PIPE RISER
- ⑤ TEST COCKS WITH BRASS PLUGS OR ADAPTORS WITH CAPS INSTALLED. (4 REQUIRED)
- ⑥ APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY (SEE NOTE 1 BELOW).
- ⑦ THREADED BRASS BALL VALVES
- ⑧ PIPE UNION

**NOTES:**

- 1. APPROVED BACKFLOW ASSEMBLIES MUST HAVE SEAL OF APPROVAL FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH. BACKFLOW ASSEMBLIES INSTALLED ON FIRE SUPPRESSION SYSTEMS MUST ALSO HAVE APPROVAL FROM UNDERWRITERS LABORATORIES AND/OR FACTORY MUTUAL RESEARCH CORPORATION.
- 2. ALL MATERIALS TO BE COPPER, BRASS, OR SCHEDULE 80 PVC. ALL SCHEDULE 80 PIPE AND APPURTENANCES MUST UTILIZE A CITY APPROVED UV PROTECTION WHEN INSTALLED ABOVE GROUND.
- 3. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD FREE SOLDER JOINTS.
- 4. PVC FITTINGS SHALL BE SOLVENT WELDED.
- 5. THE BACKFLOW MECHANISM AND ALL VALVES SHALL BE THREADED.
- 6. FINISHED GRADE UNDERNEATH THE BACKFLOW PREVENTION ASSEMBLY SHALL BE AT 95% COMPACTION..
- 7. ALL PIPE NIPPLES TO BE COPPER, BRASS, OR SCHEDULE 80 PVC.
- 8. PIPING IN THE CITY RIGHT OF WAY MUST BE TYPE "K" COPPER.
- 9. CALL FOR UNDERGROUND INSPECTION BEFORE BACKFILLING TRENCH.
- 10. BACKFLOW ASSEMBLIES MUST BE TESTED BY A CERTIFIED TESTER THAT IS RECOGNIZED BY THE CITY OF AVONDALE.

DETAIL NO.

**A1326**

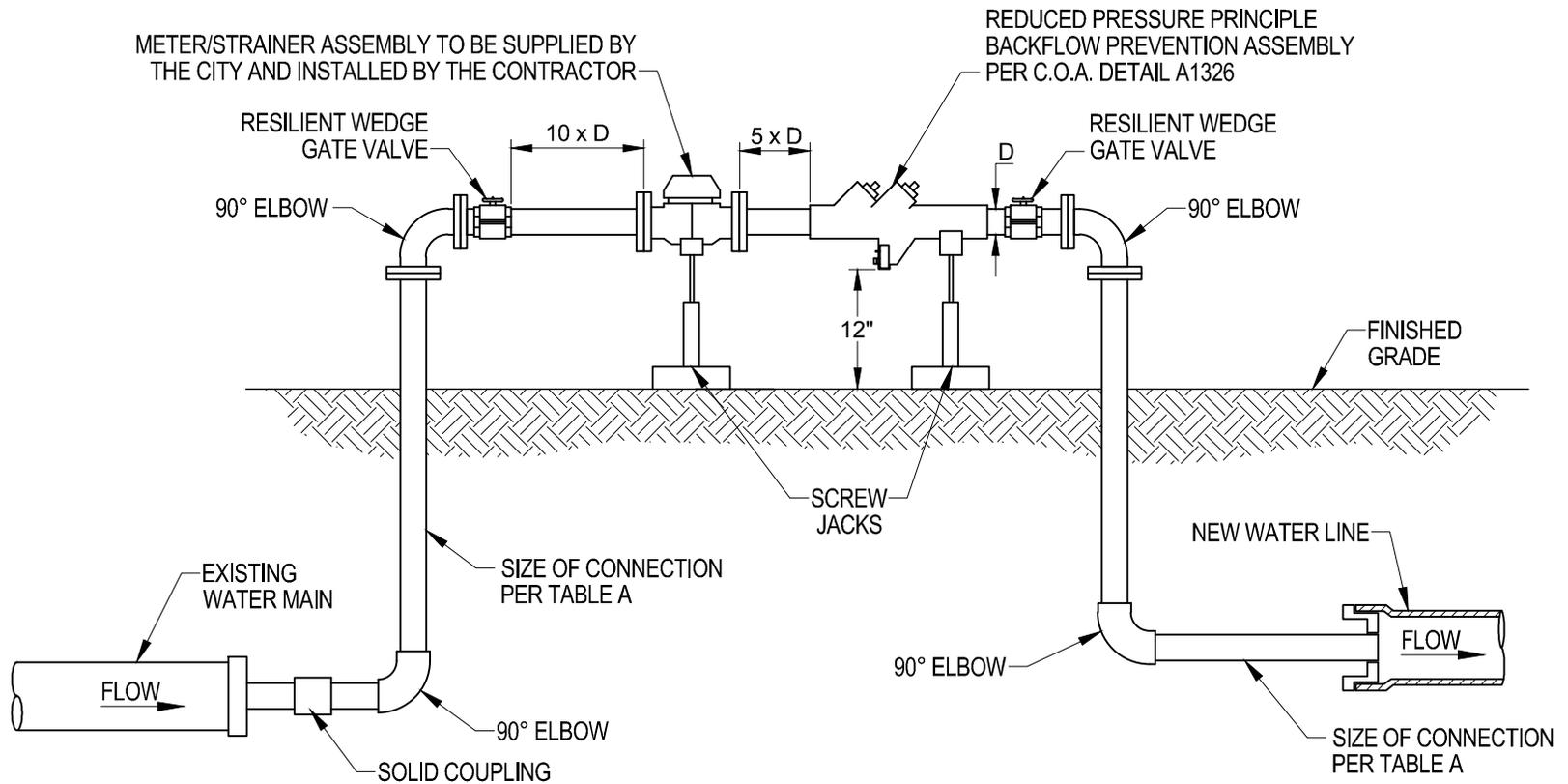
**Avondale**  
STANDARD DETAIL

**REDUCED PRESSURE BACKFLOW  
PREVENTION ASSEMBLY FOR ASSEMBLIES  
1/2 INCH THRU 2 INCHES**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



**NOTES:**

1. DO NOT INSTALL ELBOWS, BENDS, NON-CONCENTRIC REDUCERS, CHECK VALVES, BACKFLOW PREVENTERS AND/OR PRESSURE REDUCING DEVICES WITHIN 10 PIPE DIAMETERS UPSTREAM OR 5 PIPE DIAMETERS DOWNSTREAM OF THE METER.
2. ALL JOINTS AND FITTINGS BELOW GROUND SHALL BE FLANGED OR MECHANICALLY RESTRAINED.
3. ALL JOINTS ABOVE GROUND SHALL BE FLANGED.

**TABLE A**

NEW WATER LINE PIPE DIAMETER (inches)	FLOW (gpm)	SIZE OF CONNECTION (inches)	LENGTH OF PIPE BEFORE METER (inches)	LENGTH OF PIPE AFTER METER (inches)	MINIMUM NUMBER OF 2.5" NOZZLES FLOWING
6	200	3	30	15	1
8	400	4	40	20	1
10	600	4	40	20	1
12	900	4	40	20	2
16	1600	6	60	30	2
20	1800	6	60	30	2
24	2000	6	60	30	2

DETAIL NO.

**A1330**

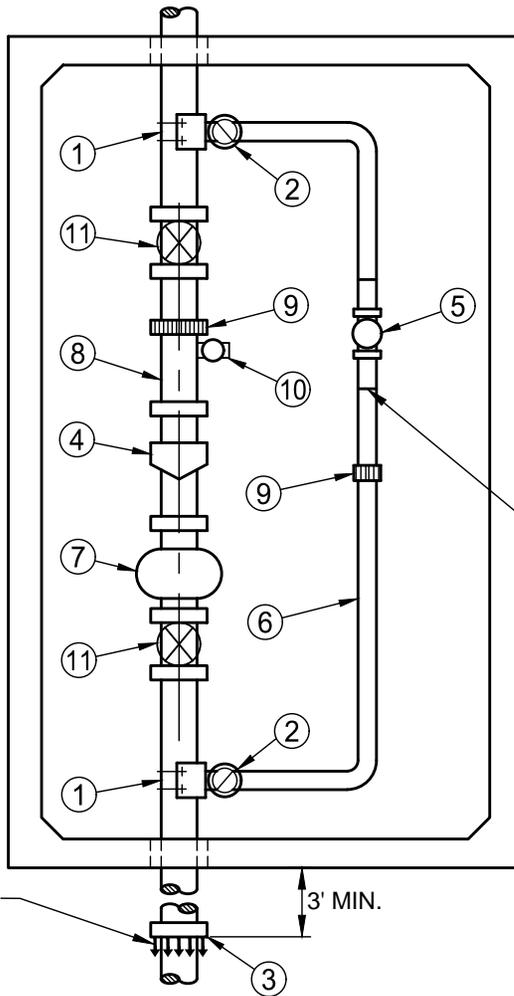
**Avondale**  
STANDARD DETAIL

**TEMPORARY JUMPER CONNECTION**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



TYPICAL BOTH SIDES

3' MIN.

COMPOUND / TURBOMETER

**KEY NOTES:**

- ① DOUBLE STRAP ALL BRONZE SERVICE SADDLES, OR FLANGED X FLANGED TEE WITH FLANGED X FLANGED VALVE FOR SIZES 3" OR LARGER.
- ② CORP. STOP WITH LOCKING EARS (IN CLOSED POSITION) SO STOP CAN BE LOCKED OFF IF NEEDED.
- ③ ADAPTER, FLANGED TO MECH. JOINT FOR A.C.P.
- ④ COMPOUND OR TURBOMETER METER.
- ⑤ BRONZE CHECK VALVE FOR 2" LINE, CAST IRON WITH COUNTERWEIGHT FOR 3" LINES AND LARGER. (SAME SIZE AS BYPASS LINE).
- ⑥ 2" RIDGED TYPE "K" COPPER BYPASS LINE, 3" OR LARGER TO BE DUCTILE IRON. NOT LESS THAN ONE PIPE SIZE SMALLER THAN METER IN NOTE 4.
- ⑦ STRAINER, SUPPLIED WITH METER.
- ⑧ FLANGED SPOOL (3 PIPE DIAMETERS IN LENGTH, MIN.)
- ⑨ PROVIDE RESTRAINED FLEX COUPLING ADAPTERS (RFCA) FOR ALL LINES 3" OR LARGER.
- ⑩ 2" THREADED OUTLET AND BALL VALVE NOT NEEDED IF VERTICAL TEST VALVE IS PROVIDED ON METER.
- ⑪ RESILIENT WEDGE GATE VALVE, FLANGED, WITH HAND WHEEL, OPEN LEFT, WITH NON-RISING STEM.

SOLDER 2"  
COPPER TO  
MALE THREAD  
ADAPTERS

**GENERAL NOTES:**

1. THE DESIGN OF 3" METERS OR METERS LARGER THAN 8" MAY REQUIRE ADDITIONAL INFORMATION FROM THE CITY. CONTACT THE CITY PUBLIC WORKS DEPARTMENT PRIOR TO BEGINNING DESIGN WORK.
2. INSTALLATION OF A REMOTE READING DEVICE TO BE REQUIRED AS DIRECTED BY THE PUBLIC WORKS DEPARTMENT.
3. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE REQUIRED DOWNSTREAM OF THE WATER METER. CONTACT PUBLIC WORKS, BACKFLOW PREVENTION FOR SPECIFIC INFORMATION.
4. INLET AND OUTLET PIPES MUST BE JOINT RESTRAINED D.I.P. TO PERMIT REMOVAL OF FITTINGS OR METER.
5. STAINLESS BOLTS & NUTS REQUIRED FOR ENTIRE ASSEMBLY.

DETAIL NO.

**A1345**

**Avondale**  
STANDARD DETAIL

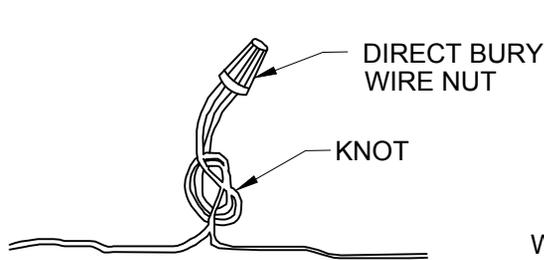
**3", 4", & 6"**  
**WATER METERS**

APPROVED BY:

*Daniel S. Jones*

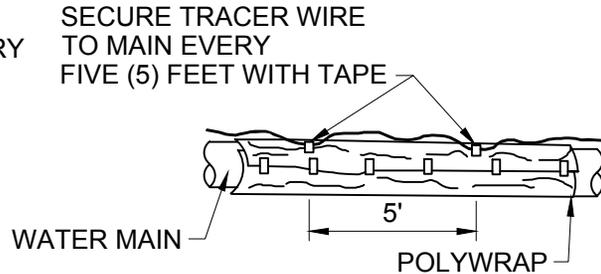
DATE:

8.24.16



**FIGURE 1**

DIRECT BURY WIRE NUT CONNECTION



**FIGURE 3**

TRACER WIRE INSTALLATION

**NOTES:**

**TRACER WIRE CONNECTIONS**

1. JOINING ENDS OF TRACER WIRE: CONNECTIONS INTO EXISTING TRACE WIRE, CONNECTIONS INTO TRACER WIRE USED DURING WATER MAIN BORES, CONNECTIONS BETWEEN ONE SPOOL OF TRACE WIRE TO ANOTHER, AND OTHER SIMILAR CONNECTIONS SHALL BE MADE USING A DIRECT BURY WIRE NUT.
2. WHEN CONNECTING TRACER WIRE ENDS TOGETHER, STRIP  $\frac{5}{8}$ " OF INSULATION FROM THE END OF EACH WIRE. INSERT TWO ENDS FIRMLY INTO THE DIRECT BURY WIRE NUT. TWIST THE WIRE NUT CLOCKWISE WHILE PUSHING THE WIRES FIRMLY INTO THE NUT. DO NOT OVER TORQUE. TIE THE WIRES IN A KNOT AS SHOWN IN FIGURE 1.
3. JOINING TRACER WIRE - BRANCH TO MAIN: CONNECTIONS OF TRACER WIRE AT TEES, CROSSES, AND AT LOCATIONS WHERE THE TRACER WIRE WILL BE BROUGHT TO THE SURFACE SHALL BE CONDUCTED USING A DIRECT BURY LUG. REFER TO FIGURE 2 FOR THIS CONNECTION STYLE.
4. DIRECT BURY WIRE NUTS (DRYCON DIRECT BURY NUT (KING 6 BLUE) MANUFACTURED BY KING INNOVATION, DBY-6 OR DBR-6 AS MANUFACTURED BY 3M OR SEE COA APPROVED PRODUCTS LIST).
5. DIRECT BURY LUG (DRYCONN DIRECT BURY LUG AS MANUFACTURED BY KING INNOVATION OR SEE COA APPROVED PRODUCTS LIST).

**INSTALLATION**

1. TRACER WIRE SHALL BE INSTALLED IN A CONTINUOUS FASHION. INSTALL TRACER WIRE ON TOP OF WATER MAIN AND SECURE TO MAIN EVERY FIVE(5) FEET AS SHOWN IN FIGURE 3.
2. TRACER WIRE SHALL BE PER COA APPROVED PRODUCT LIST

OPEN LUG



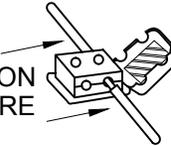
STEP 1

STRIP MAIN WIRE WIDTH OF LUG



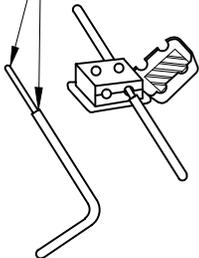
STEP 2

PLACE LUG ON MAIN WIRE



STEP 3

STRIP BRANCH WIRE WIDTH OF LUG



STEP 4

INSERT BRANCH WIRE INTO LUG



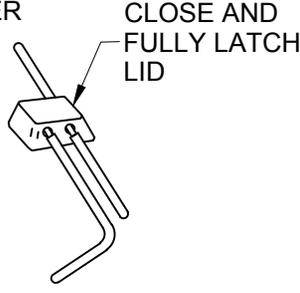
STEP 5

TIGHTEN SCREWS



STEP 6

REMOVE SEALANT COVER



STEP 7

CLOSE AND FULLY LATCH LID

**FIGURE 2**

DIRECT BURY LUG CONNECTION

DETAIL NO.

**A1350-1**

**Avondale**  
STANDARD DETAIL

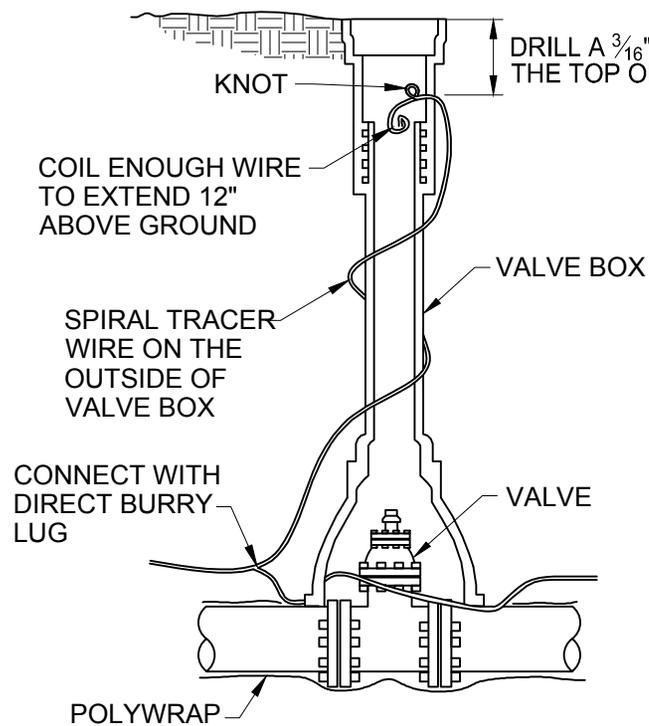
**TRACER WIRE INSTALLATION  
DETAIL - WATERLINE**

APPROVED BY:

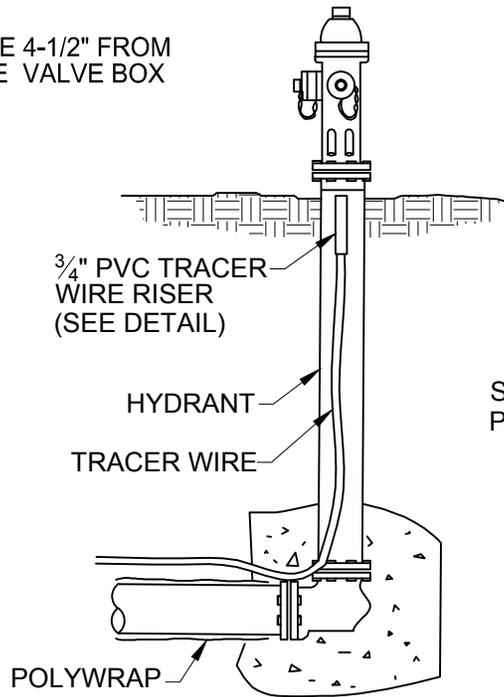
*David S. Jones*

DATE:

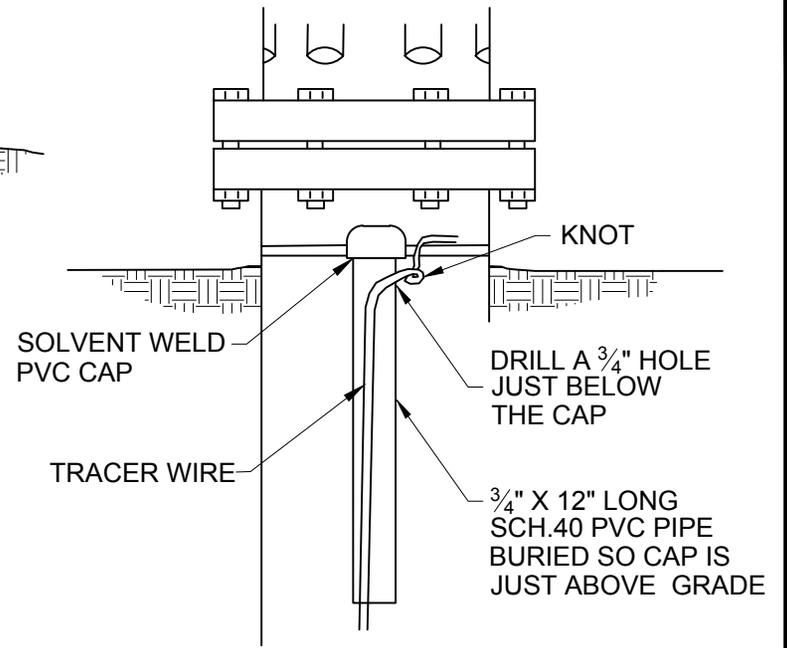
8.24.16



**FIGURE 6**  
TRACER WIRE ACCESS AT VALVE BOX



**FIGURE 7**  
TRACER WIRE ACCESS AT FIRE HYDRANT



**RISER DETAIL**

**NOTE:**

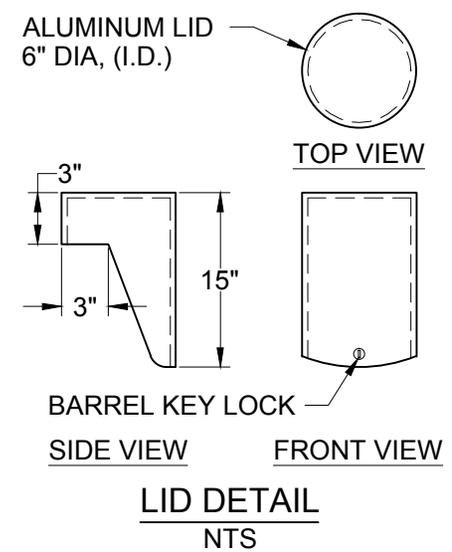
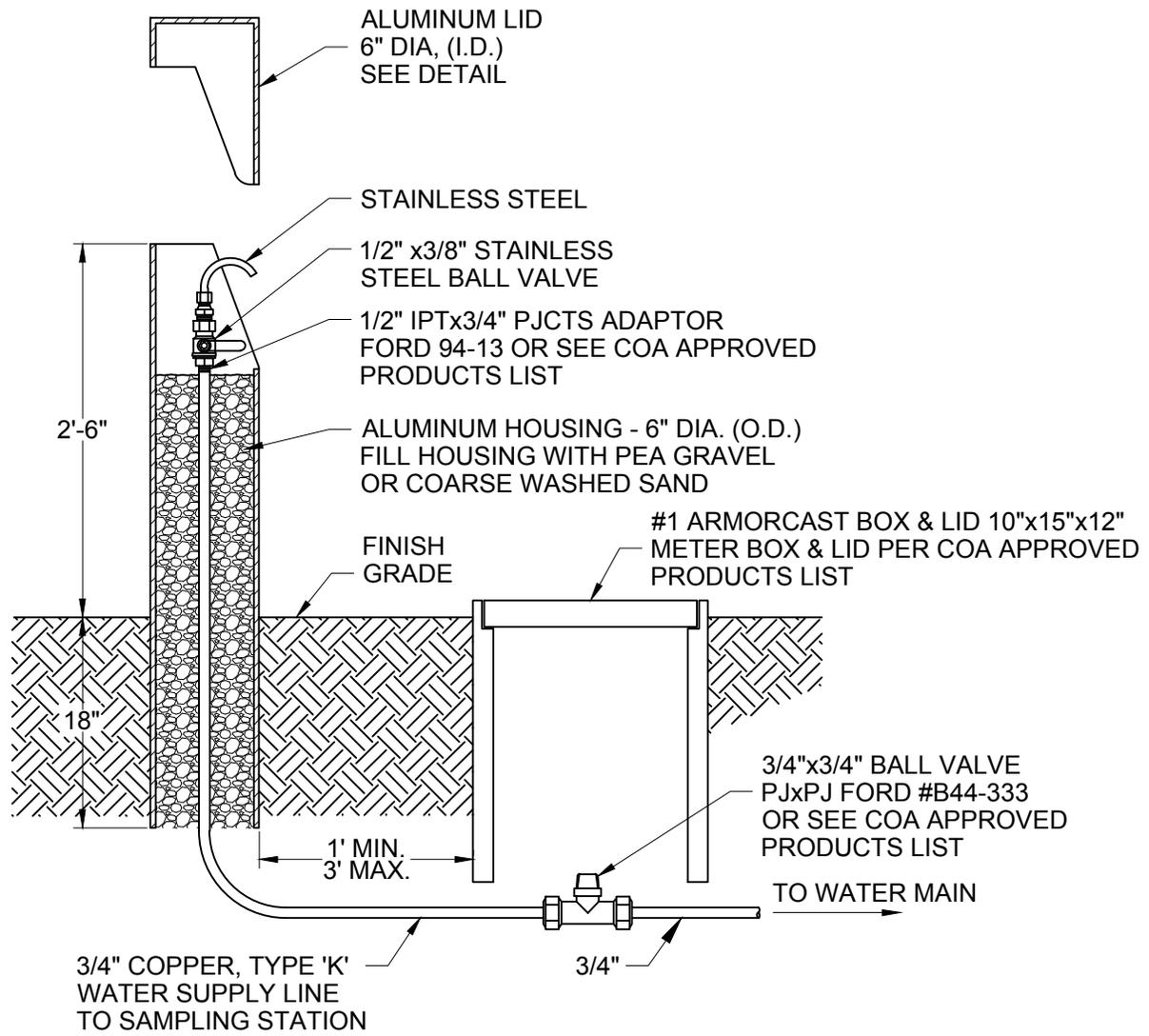
TRACER WIRE SHALL BE BROUGHT TO THE SURFACE ACCORDING TO THE RISER DETAIL. NOTE LOCATION OF PVC CONDUIT IN RELATION TO THE HYDRANT (I.E. NORTH, EAST, SOUTH, WEST) ON AS-BUILT DRAWINGS.

DETAIL NO.  
**A1350-2**

**Avondale**  
STANDARD DETAIL

**TRACER WIRE INSTALLATION**  
**DETAIL - FIRE HYDRANT & VALVE**

APPROVED BY: *[Signature]*  
DATE: 8.24.16



**NOTES:**

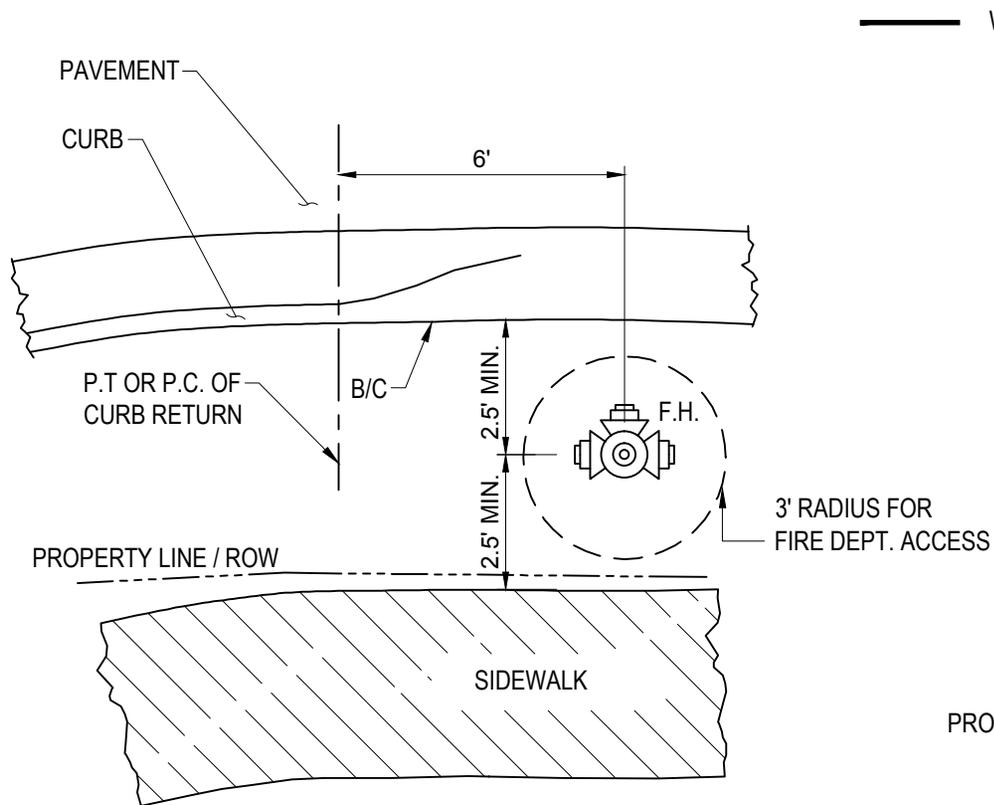
1. WATER QUALITY SAMPLING STATION TO BE PER COA APPROVED PRODUCTS LIST
2. KEYS TO LOCKS SHALL BE DELIVERED TO CITY PUBLIC WORKS DEPARTMENT UPON ACCEPTANCE.

DETAIL NO.  
**A1355**

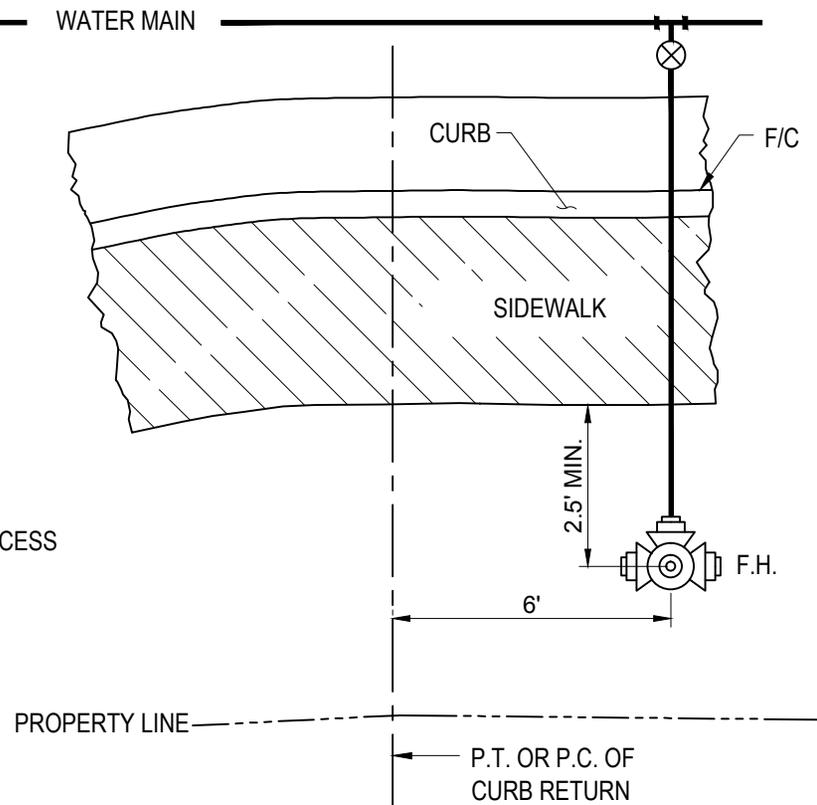
**Avondale**  
STANDARD DETAIL

**WATER QUALITY SAMPLING STATION**

APPROVED BY: *David S. Jones*  
DATE: 8.24.16



PARKWAY AREA



AREA WITH SIDEWALK

NOTES:

1. OBSTRUCTIONS SUCH AS UTILITY POLES, STREET SIGNS, IRRIGATION BOXES, FENCES, ETC., MUST NOT BE PLACED BETWEEN CURB AND HYDRANT.
2. DIMENSIONS SHOWN ON CONSTRUCTION DRAWINGS SUPERSEDE LOCATIONS SHOWN HERE.
3. ON LOCATIONS IN MIDBLOCK, THE FIRE HYDRANT WILL BE ALIGNED WITH A PROPERTY LINE AND 6' MINIMUM FROM DRIVEWAYS.
4. ALL FIRE HYDRANTS INSTALLED WILL BE LOCATED IN ACCORDANCE WITH THIS DETAIL.
5. IN INDUSTRIAL/COMMERCIAL ZONES, FIRE HYDRANT TO BE A MINIMUM OF 6' FROM DRIVEWAYS WITH VALVE INSTALLED AWAY FROM DRIVEWAY.
6. BOTTOM FLANGE OF FIRE HYDRANT TO BE 2" ABOVE SIDEWALK.

DETAIL NO.

**A1362**

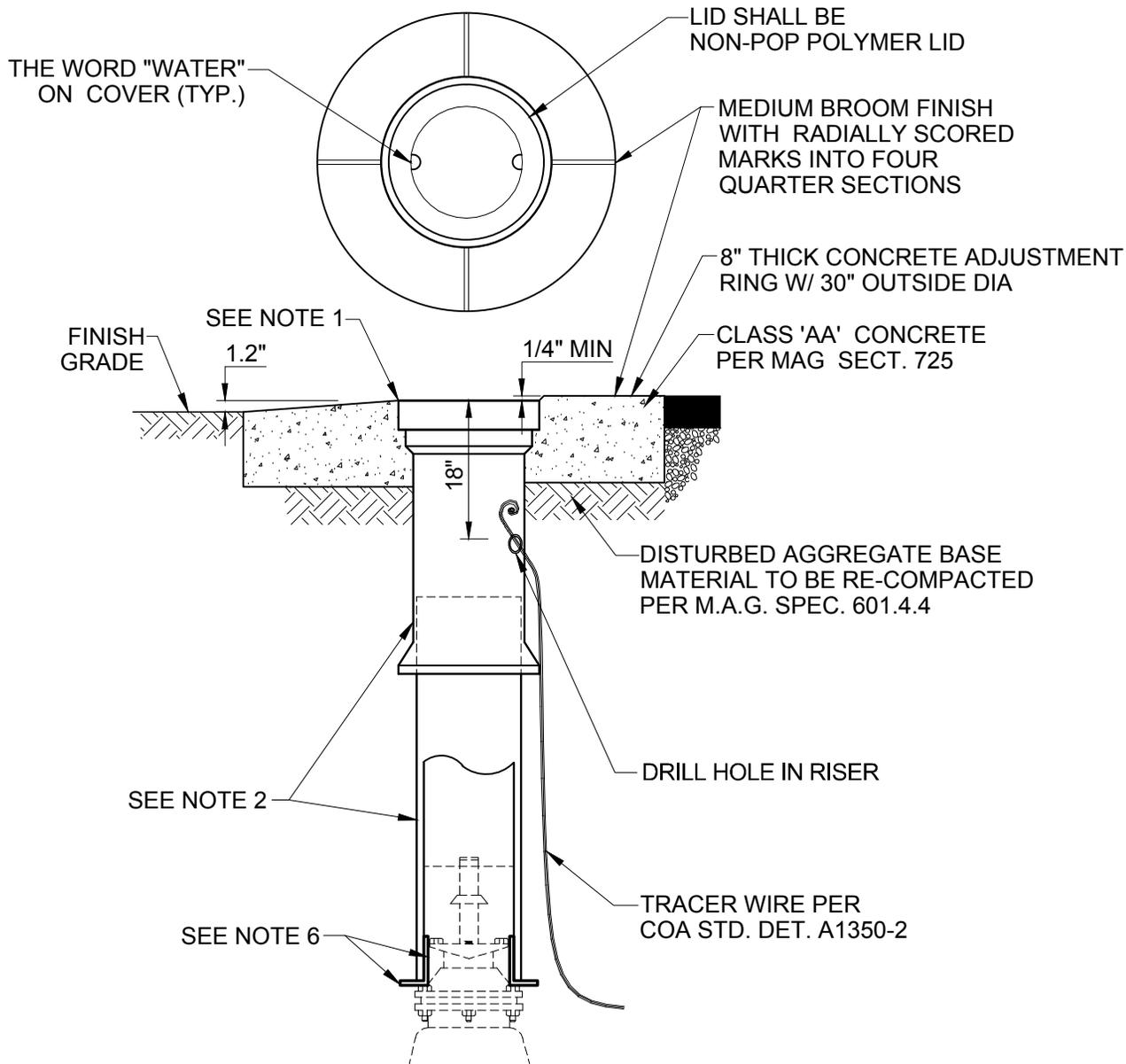
**Avondale**  
STANDARD DETAIL

**LOCATIONS FOR NEW FIRE  
HYDRANT**

APPROVED BY:

DATE:

*David S. Jones*  
8.24.16



### NOTES:

1. VALVE BOX SHALL BE ADJUSTED TO THE FINISHED GRADE PRIOR TO PLACING OF THE PORTLAND CEMENT CONCRETE SURFACE.
2. UNION OR OTHER APPROVED EQUAL, DEEP SKIRTED LID (4" OR GREATER) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX C.I. MIN. T.S. 30,000 P.S.I.
3. THE PROFILE OF THE CONCRETE RING SHOULD NOT VARY FROM PAVEMENT PROFILE BY MORE THAN  $\frac{1}{4}$ " IN BOTH THE PARALLEL AND PERPENDICULAR DIRECTION OF TRAVEL.
4. CLEAN OUTS, GAS VALVES, OR OTHER SIMILAR FACILITIES TO BE ADJUSTED MADE IN THE SAME MANNER AS WATER VALVE ADJUSTMENTS.
6. INSTALL A SADDLE TYPE VALVE BOX STABILIZER (VBS) OVER EACH VALVE TO POSITION THE VALVE NUT IN THE CENTER OF THE VALVE BOX. THE VBS SHALL BE PER COA APPROVED PRODUCT LIST.

DETAIL NO.

**A1391**

**Avondale**  
STANDARD DETAIL

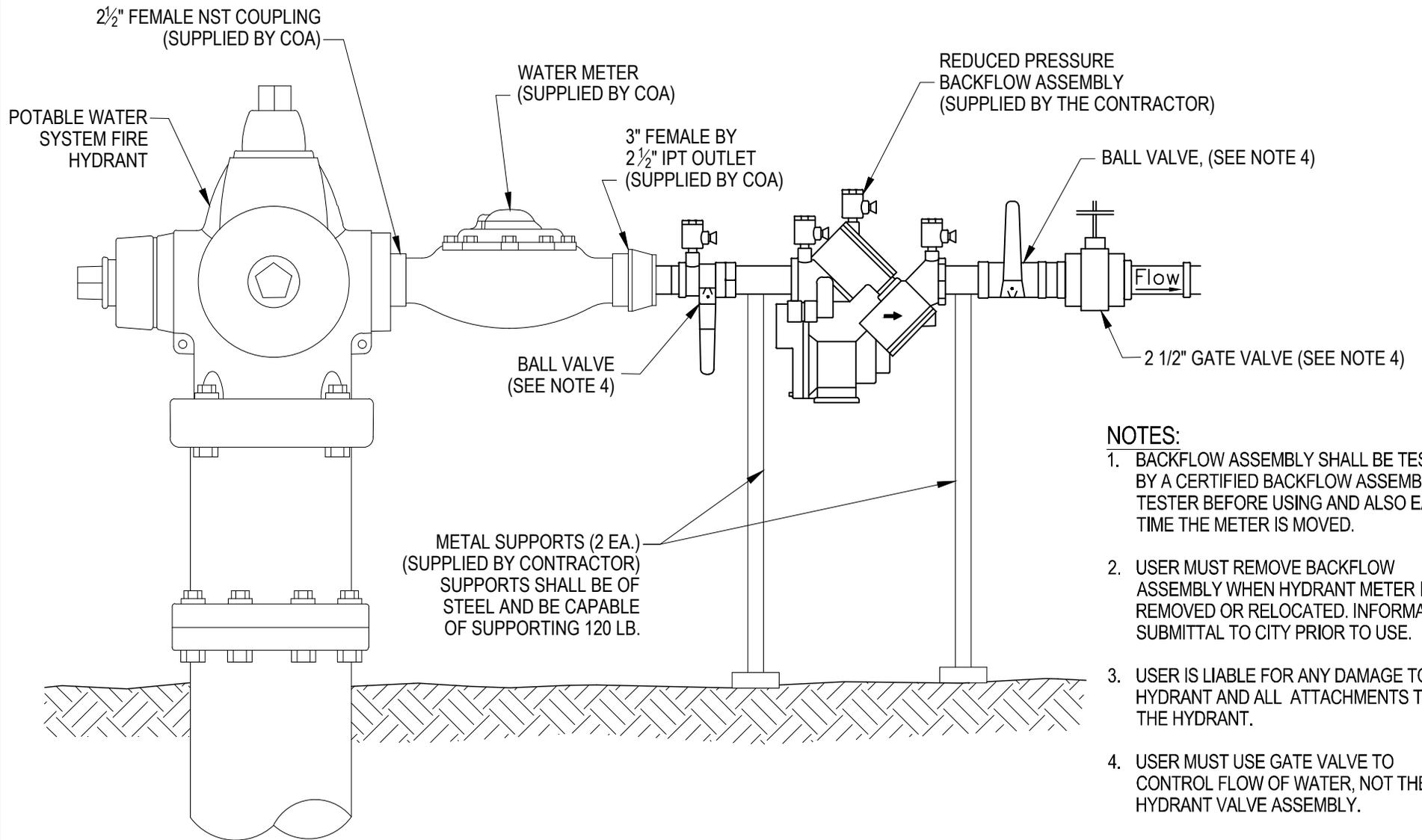
**VALVE BOX INSTALLATION  
AND GRADE ADJUSTMENT**

APPROVED BY:

DATE:

*David S. Jones*

8.24.16



**NOTES:**

1. BACKFLOW ASSEMBLY SHALL BE TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER BEFORE USING AND ALSO EACH TIME THE METER IS MOVED.
2. USER MUST REMOVE BACKFLOW ASSEMBLY WHEN HYDRANT METER IS REMOVED OR RELOCATED. INFORMATION SUBMITTAL TO CITY PRIOR TO USE.
3. USER IS LIABLE FOR ANY DAMAGE TO THE HYDRANT AND ALL ATTACHMENTS TO THE HYDRANT.
4. USER MUST USE GATE VALVE TO CONTROL FLOW OF WATER, NOT THE HYDRANT VALVE ASSEMBLY.

DETAIL NO.

**A1394**

**Avondale**  
STANDARD DETAIL

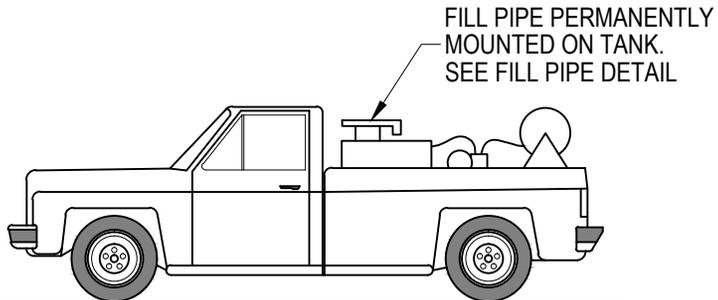
**TEMPORARY WATER SUPPLY  
HYDRANT METER ASSEMBLY**

APPROVED BY:

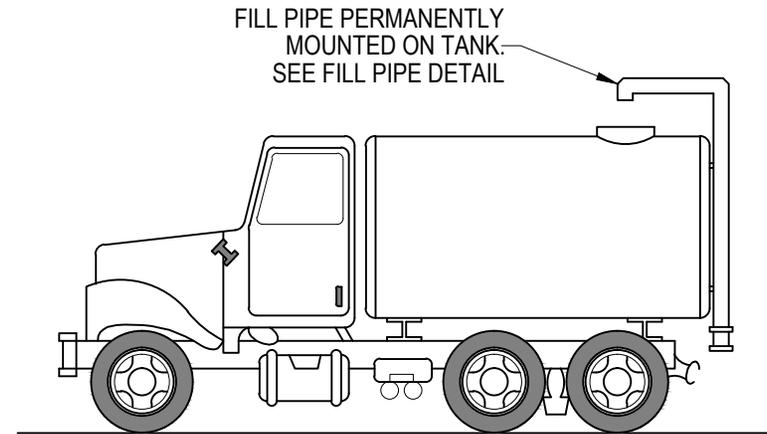
*Daniel S. Jones*

DATE:

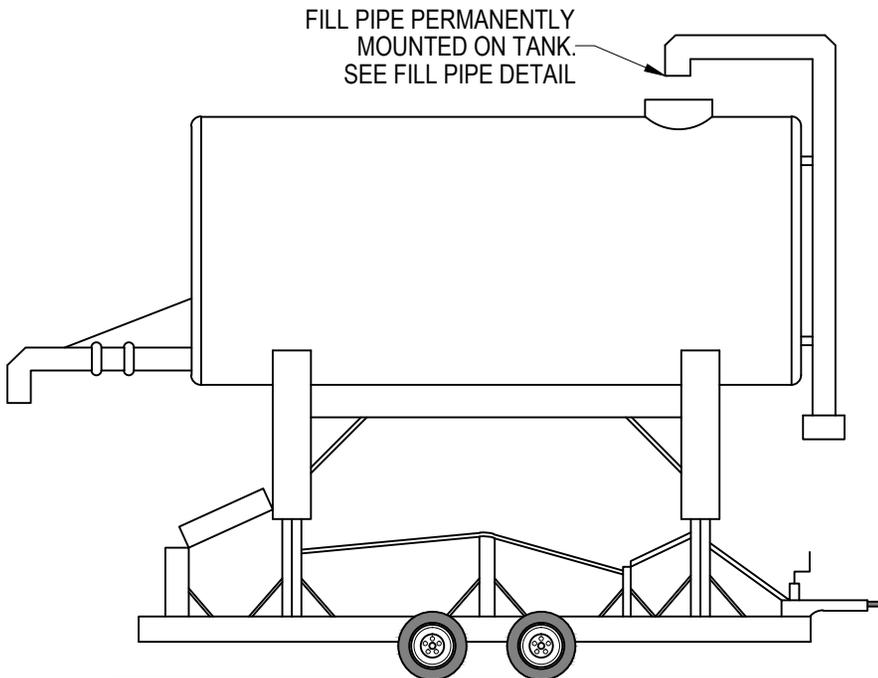
8.24.16



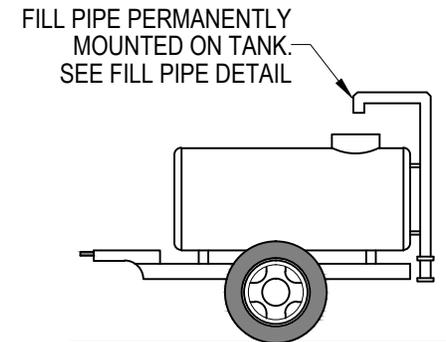
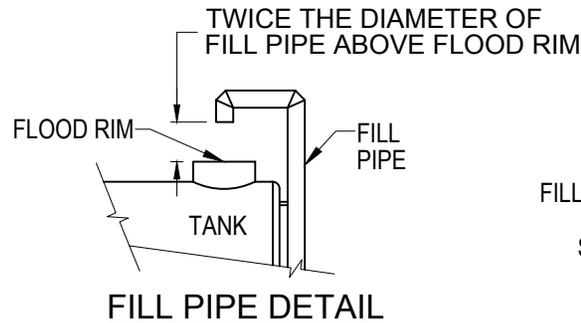
PESTICIDE APPLICATOR TRUCK



WATER TRUCK



ELEVATED TANK



WATER WAGON

DETAIL NO.

**A1395**

**Avondale**  
STANDARD DETAIL

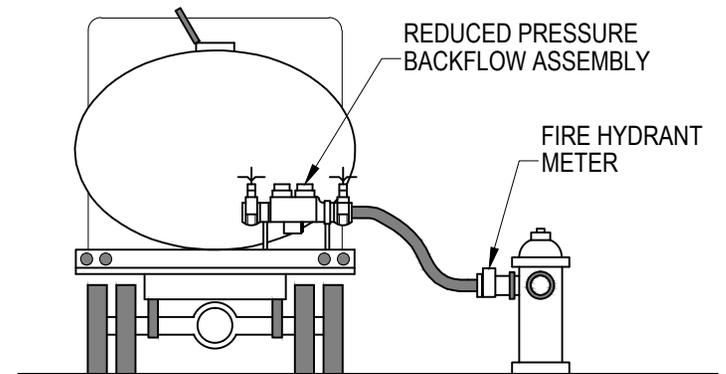
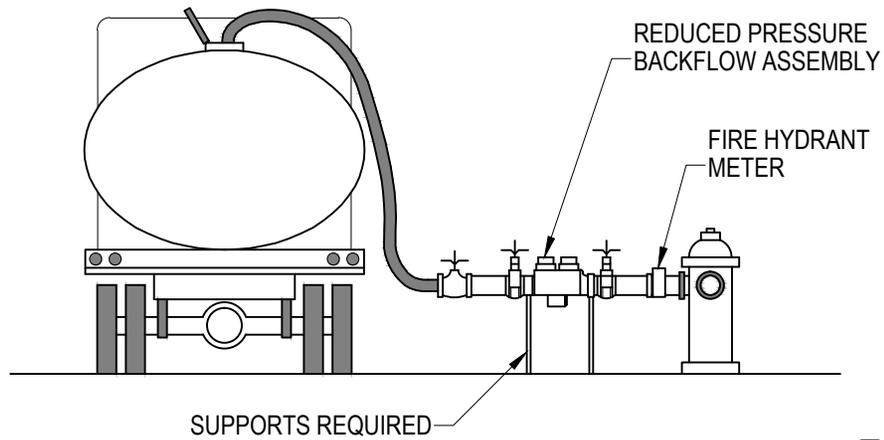
**FILL PIPE DETAILS FOR POTABLE  
TANKS WITH AIR GAP SEPARATION**

APPROVED BY:

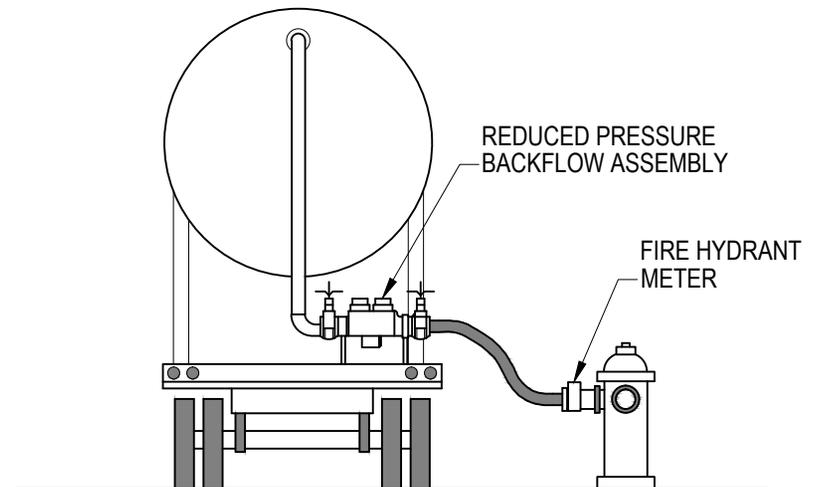
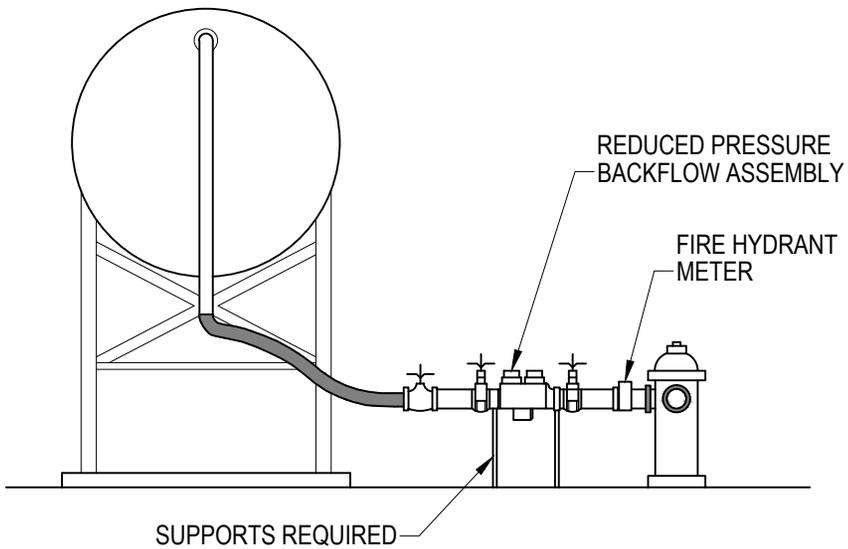
*Daniel S. Gower*

DATE:

8.24.16



TANK TRUCKS



ELEVATED TANKS

DETAIL NO.

**A1396**

**Avondale**  
STANDARD DETAIL

**BACKFLOW PREVENTION METHOD FOR  
POTABLE TANKS WITH AIR GAP SEPARATION**

APPROVED BY:

*Daniel S. Jones*

DATE:

8.24.16