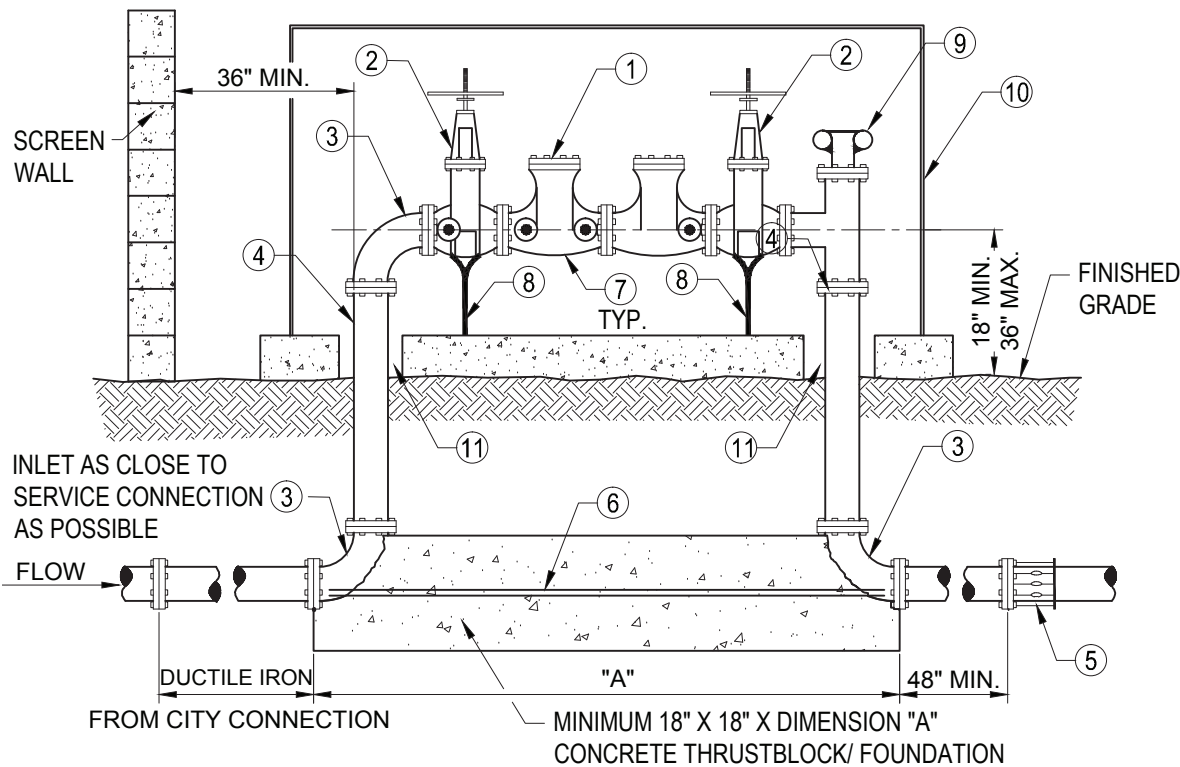


**PERMIT REQUIREMENTS  
FOR RETROFIT  
REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) INSTALLATIONS**

1. The applicant must comply with the current City adopted version of the International Plumbing Code, International Fire Code along with amendments, rules and regulations. All installations shall be in conformance with City of Avondale Approved Standard Detail A1325 or A1326 as modified.
2. The permittee must be a licensed contractor in good standing with the Arizona Registrar of Contractors (ROC) with the appropriate plumbing, mechanical, or landscape license to complete the work. **The licensed contractor will be required to sign for the permit.**
3. For each RPBA permit, the applicant shall submit one (1) copy of the following:
  - a. A completed Building Review Submittal Form.
  - b. The contractor's Certificate of Insurance must be submitted and shall meet the minimum requirements. Please contact 623-333-4000 if you have questions concerning insurance minimums.
4. For each RPBA permit, the applicant shall submit Two(2) copies of the following:
  - a. A scaled drawing, or sketch with dimensions and offsets, showing the location of the installation and its proximity to the following:
    - i. Property lines/ Public right-of-way lines
    - ii. Topographical surroundings (i.e. walls, fence, buildings, driveways, parking lots)
    - iii. Any other above ground objects or obstructions
  - b. Manufacturer's specifications and cut sheets of the proposed equipment, model number, and materials for the installation. Approved pipe materials, per the City Supplement to MAG Specifications and Details, includes copper or PVC up to 2.5 inches in diameter, and ductile iron for diameters larger than 2.5 inches.
5. These projects are reviewed over the counter Monday through Thursday 7am-5:30 pm and once approved and fees paid, the permit will be issued to the contractor.
6. Once the permit is issued and the work completed, the contractor shall call 623-333-4005 to schedule an inspection with the City of Avondale Building Safety Division. The contractor shall have the RPBA tested and certified by a qualified testing company prior to the request for city inspection. The contractor shall deliver an original copy of the certification to the City Building Inspector during the inspection. A list of qualified testing companies may be obtained by contacting Maria Hinojos at 623-333- 4446.



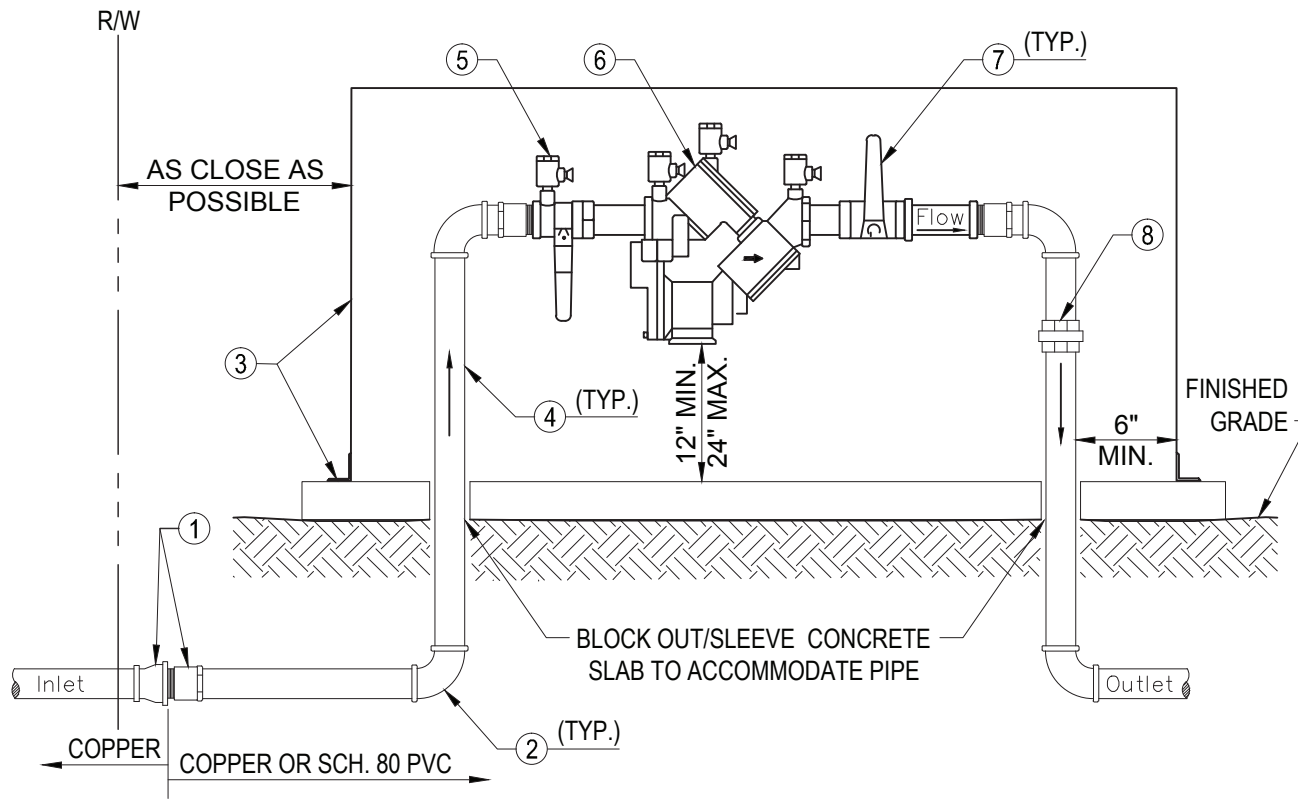
**LIST OF MATERIALS**

- 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