

Guidelines for Backflow Installation and Replacements

(Not intended to be all-inclusive)

- Backflow assemblies are the responsibility of the property owner. Pursuant to Turlock Municipal Code, 6-6-04, Consumer's Responsibility, "The responsibility to provide, test, and maintain protective devices as required by this chapter shall rest with the water user."
- All devices must be state approved and must meet the University of Southern California, Manual of Cross-Connection Control, 10th Edition (or newer) specifications, as well as current City of Turlock Standard Specifications. Backflow prevention assemblies shall be installed in accordance with the current City of Turlock Standard Specifications, and shall comply with the latest editions of the Uniform Plumbing Code and USC Manual of Cross-Connection Control, and applicable local agency requirements.
- All backflow devices must be, at a minimum, reduced pressure principle assemblies.
- Approval must be given by the City of Turlock, for the location of the device to be installed.
- If the work to be performed involves any excavation in the City's right-of-way, an encroachment permit must be obtained from the Engineering Department.
- The City of Turlock requires all backflow devices to be installed as close to the water meter as possible without interfering with any rights of way such as sidewalks, etc.
- The relief valve must be installed with a minimum distance of 12" to the finished floor level. The height of the device must not exceed 36" from floor level. The device must be installed with a minimum distance of 24" on the test cock side of the device and must have a total clearance on all sides of 12". The device must be accessible with easy access for testing.
- The City of Turlock's responsibility will be for repairs from the water main to the meter only.
- Included in these guidelines are the City of Turlock Standard Specifications for backflow installations (see below).
- Only tests submitted by those on the City of Turlock Certified Backflow Tester List will be accepted by the City of Turlock as valid test results.
- Requests for water service to be turned off/on for backflow testing, or for the repair or replacement of an existing backflow device, must be received by the City of Turlock Utilities Department 24 hours prior to the scheduled work, including work being performed on weekends and holidays. Should Municipal Services receive any test reports advising that a backflow was replaced without the City being notified, the backflow tester may be removed from the certified tester list for one year.
- The continued use of backflow prevention assemblies that were included on previous versions of the Department's approved listing, in existing installations, is allowable until the assembly fails and cannot be repaired. This exception does not apply to devices that cannot be tested.
- Failed assemblies must be replaced with currently approved assemblies or repaired with approved spare parts.

- Four test cocks shall be appropriately located on the assembly for testing and certification.
- **After the repair or replacement of a backflow device (where a city valve is operated), a certified backflow tester must test the backflow device with passing results, and the paperwork must be submitted to Municipal Services prior to service being turned on.**
- **For new construction, a newly installed backflow assembly shall be tested by the City of Turlock Utility Division and pass testing prior to being placed in to service.**

City of Turlock 2016 Standard Specifications (Sections applicable to Cross-Connection Control):

15-7 BACKFLOW ASSEMBLIES

All backflow assemblies shall be purchased as factory pre-assembled units. Only those devices approved by U.S.C. Foundation for Cross-Connection Control are acceptable to the City. DCDA (Double Check Detector Assembly) must be a type designed for use in fire systems.

Locking Knox F.D.C. (Fire Department Connection) caps are required on new installations. Locking Knox F.D.C. caps may be required on existing F.D.C.'s by the Fire Chief. Two 2½ inch male plugs with swivel guards (all stainless steel) with a bright stainless finish, Knox part number 3041.

On ¾ inch through 2 inch backflow assemblies, all above ground riser pipe shall be galvanized steel. Also, a galvanized union shall be installed on both risers between the top of the riser pipe and the ground.

15-10 INTERRUPTION OF SERVICE

No valve, other control or existing system shall be operated for any purpose by the Contractor. The City or an authorized City representative will operate all valves, hydrants, blow-offs, and curb stops. City crews will notify customers when service will be interrupted.

15-26 FIRE LINES

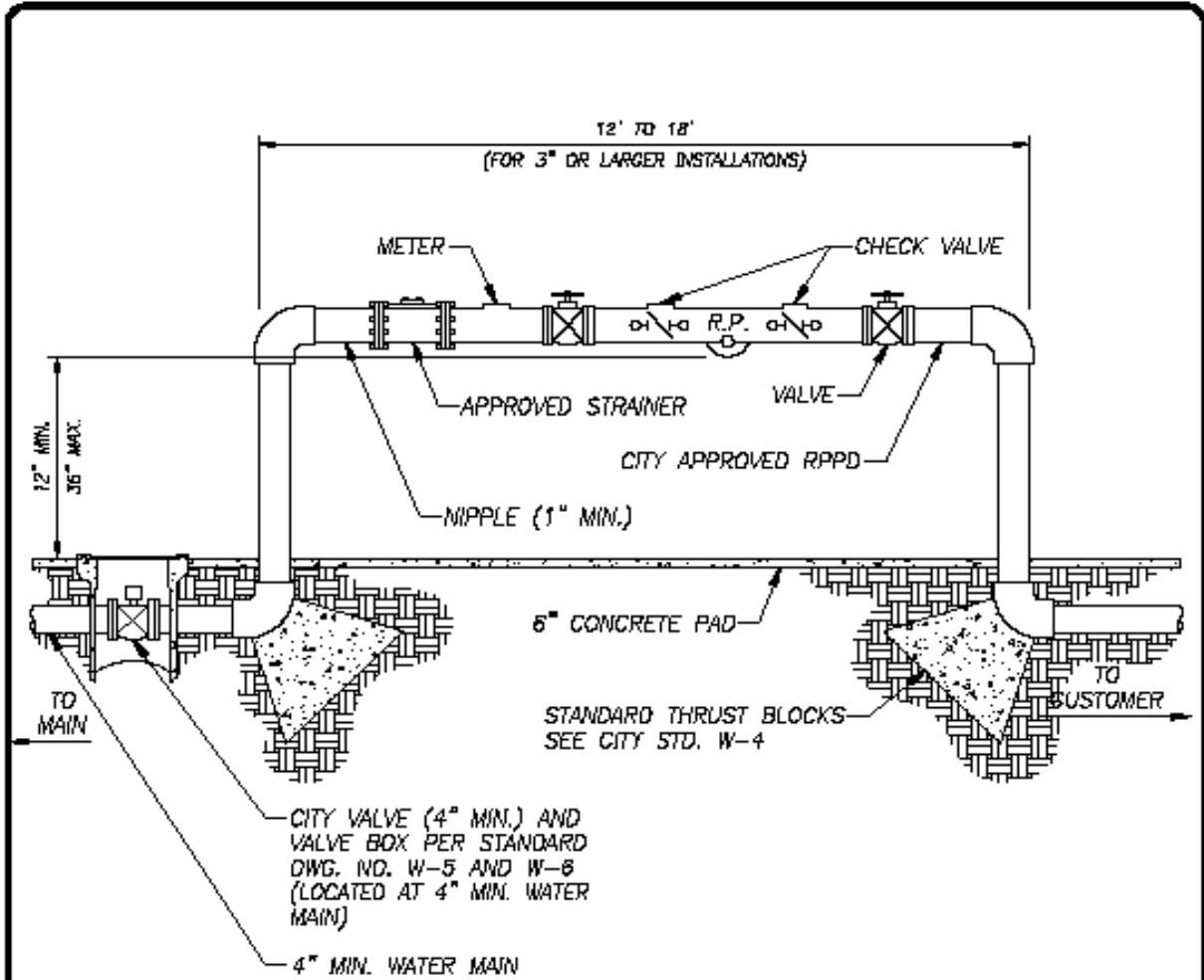
Fire lines installed for the purpose of on-site fire hydrants or fire sprinkler systems shall be fitted with an approved double check detector assembly with F.D.C. installed in the Public Utility Easement whenever possible. This installation shall conform to the requirements shown in the Standard Drawings. There will be no taps allowed off of a fire line without the approval of the City Engineer.

15-27 CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION

These shall be provided by the developers when in the opinion of the City Engineer, a cross-connection or a potential health hazard exists. Protection of the City's water system from these conditions shall be provided by a backflow prevention assembly approved by the City Engineer. The type required and its installation shall conform to the "Manual of Cross-Connection Control and Hydraulic Research", by the University of Southern California. Information regarding the above may be obtained from the City.

15-30 BACKFLOW THERMAL PROTECTION


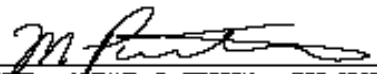
Approved polar blankets and approved enclosures shall be provided by the Contractor on all backflow devices 2 inches in diameter and smaller. Approved polar blankets shall be provided by the Contractor and are required for backflow devices larger than 2 inches in diameter. Polar blankets shall not be required for DCDA devices.

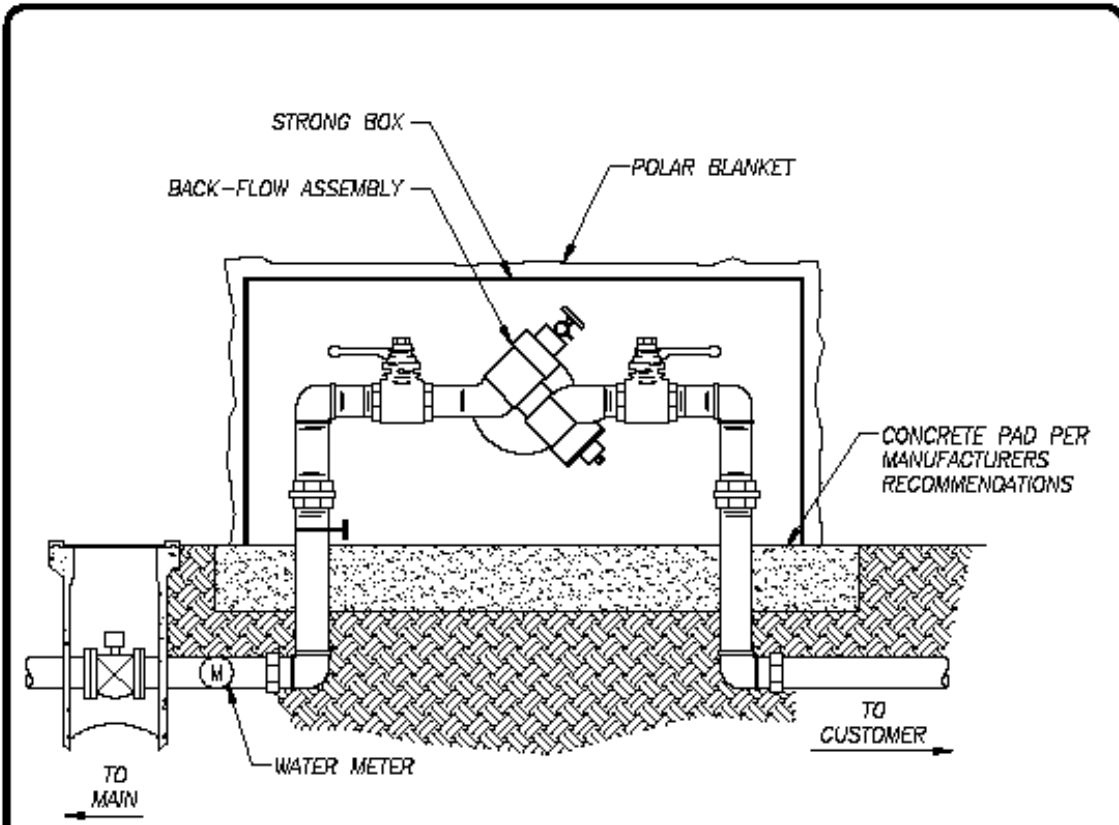


NOTES:

1. REFER TO MANUFACTURER'S CATALOG FOR CORRECT DIMENSIONS TO FIT SIZE OF SPECIFIED BACKFLOW.
2. COVER BACKFLOW ASSEMBLY WITH POLAR BLANKET TO PREVENT FREEZE DAMAGE.
3. DIMENSIONS OF CONCRETE PAD TO BE DETERMINED BY THE CITY ENGINEER FOR EACH INDIVIDUAL JOB.
4. AN APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ON EACH SERVICE LINE TO CUSTOMER'S WATER SYSTEM AT OR NEAR THE PROPERTY LINE AS PER TURLOCK MUNICIPAL CODE, SECTION 6-6.07.

STANDARD METER-BACKFLOW INSTALLATION


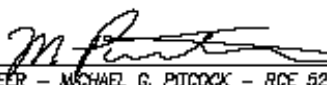
	DRAWN BY: JSH	CITY OF TURLOCK	DRAWING NO. W-12
	CHECK BY: NBB	APPROVED BY: 	COUNCIL APPROVAL DEC, 2015
	SCALE: NONE	CITY ENGINEER - MICHAEL G. PITCOCK - RCE 52694	

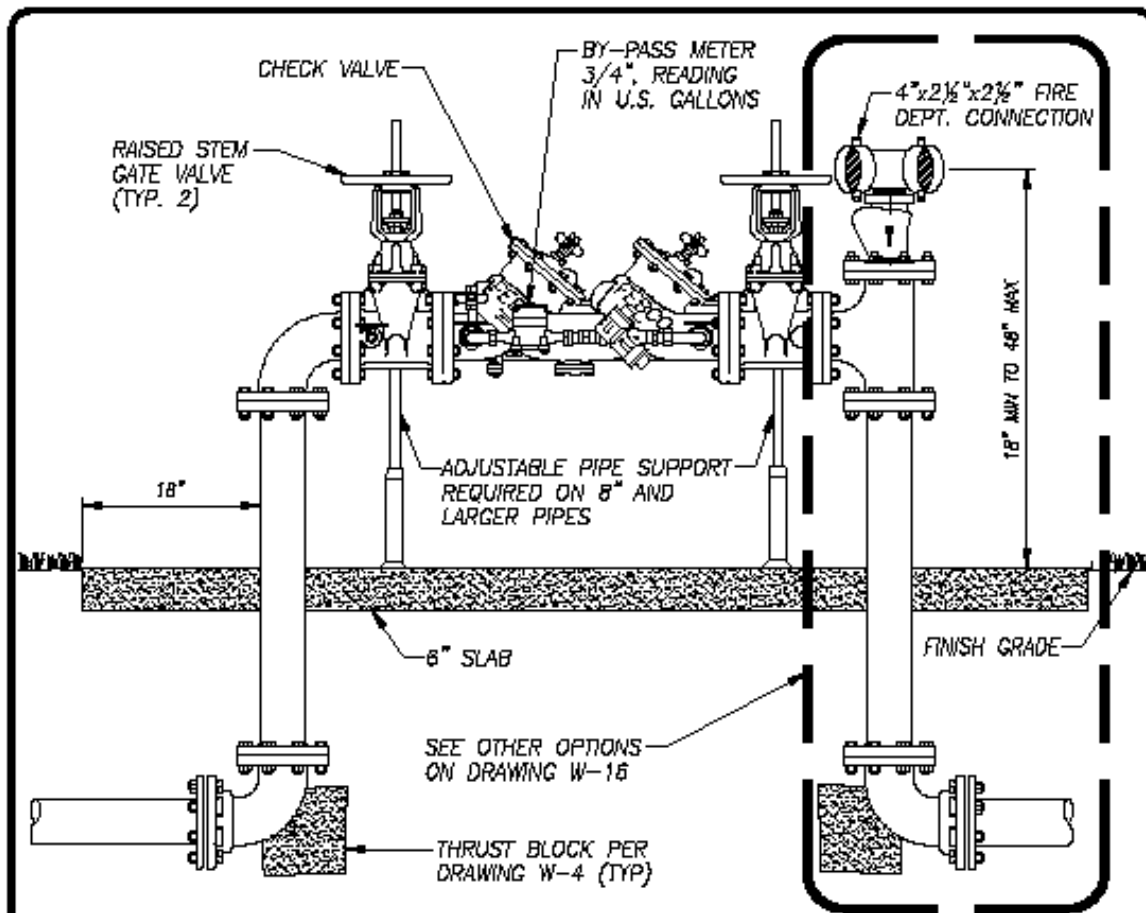


NOTES:

1. FOR INSTALLATIONS LESS THAN 3"
2. EQUIPMENT TO BE INSTALLED AT A MINIMUM OF 24" FROM ANY STRUCTURES OR HARDSCAPING.
3. COVER BACKFLOW ASSEMBLY WITH POLAR BLANKET TO PREVENT FREEZE DAMAGE.
4. ENCLOSE ENTIRE BACKFLOW DEVICE WITH STRONG BOX BC-45-CR OR APPROVED EQUAL WHEN UNIT IS NEXT TO A STRUCTURE (I.E. WALL, BUILDING, ETC.) MOUNT TEST COCKS ON OPEN OR NON STRUCTURE SIDE.
5. ALL FITTINGS SHALL COMPLY WITH CALIFORNIA HEALTH AND SAFETY CODE, 116875 (NO LEAD BRASS)

BACKFLOW PREVENTER ASSEMBLY DETAIL

	DRAWN BY: JSY	CITY OF TURLOCK APPROVED BY:  CITY ENGINEER - MICHAEL G. PITCOCK - RCE 52694	DRAWING NO. W-13
	CHECK BY: NBB		COUNCIL APPROVAL DEC, 2015
SCALE: NONE			



NOTES:

1. METER AND VALVES SHALL MEET CITY AND A.W.W.A. STANDARDS.
2. BACKFLOW DEVICES SHALL BE A DOUBLE CHECK DETECTOR ASSEMBLY OR REDUCED PRESSURE DETECTOR ASSEMBLY, AS PER CITY ENGINEER.
3. MAINTAIN 18" CLEARANCE AROUND PERIMETER OF DEVICE.
4. FIRE HYDRANT SHALL NOT BE LOCATED BETWEEN F.D.C. AND BUILDING.
5. FIRE HYDRANT SHALL BE LOCATED WITHIN 75 FEET OF THE F.D.C.
6. THREE FEET CLEARANCE SHALL BE MAINTAINED AROUND F.D.C.
7. RPDA MAY BE REQUIRED WHERE THERE IS AN EXISTING OR POTENTIAL HEALTH HAZARD, AS DETERMINED BY THE CITY.
8. LOCKING KNOX F.D.C. CAPS ARE REQUIRED ON NEW INSTALLATIONS. LOCKING KNOX F.D.C. CAPS MAY BE REQUIRED ON EXISTING F.D.C.'S BY THE FIRE CHIEF. (2) 2-1/2" MALE PLUG WITH SWIVEL GUARD, ALL STAINLESS STEEL WITH BRIGHT STAINLESS FINISH, KNOX PART NUMBER 3041.

FIRE-LINE INSTALLATION

CITY OF TURLOCK



DRAWN BY: JSH

CHECK BY: NBB

SCALE: NONE

APPROVED BY:

CITY ENGINEER - MICHAEL G. PITCOCK - RCE 52694

DRAWING NO.

W-15

COUNCIL APPROVAL

DEC, 2015