

BACKFLOW PREVENTION GENERAL NOTES:

1. BACKFLOW PREVENTION DEVICES: ALL LANDSCAPE AND COMMERCIAL WATER SERVICES REQUIRE BACKFLOW PREVENTION DEVICES, MEETING THE REQUIREMENTS OF THE CITY. BACKFLOW DEVICES SHALL BE IN PLACE PRIOR TO METERS BEING SET. TESTING OF THE BACKFLOW DEVICES MAY BE COMPLETED AFTER THE INSTALLATION OF THE METER.
2. CONTACT UTILITY WATER QUALITY SPECIALIST (BACKFLOW PREVENTION) AT WATERQUALITYSPECIALIST@BULLHEADCITYAZ.GOV OR (928) 763-9400 FOR APPROVED ASSEMBLY LIST, INSPECTIONS, AND TESTING.
3. USE ONLY A UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH (USC) APPROVED ASSEMBLY.
4. BACKFLOW PREVENTION ASSEMBLIES SHALL HAVE A CERTIFICATE OF APPROVAL ISSUED BY USC-FCCCHR, OR OTHER APPROVED THIRD-PARTY CERTIFYING ENTITY UNRELATED TO THE PRODUCT MANUFACTURER OR VENDOR, IN ACCORDANCE WITH AAC R18-4-215. ALL ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARD DETAILS. NO ASSEMBLY SHALL BE PLACED IN SERVICE UNLESS IT HAS BEEN TESTED AND IS FUNCTIONING AS DESIGNED. A CERTIFIED TEST SHALL BE SUBMITTED TO THE CITY WATER QUALITY SPECIALIST (BACKFLOW PREVENTION) AT WATERQUALITYSPECIALIST@BULLHEADCITYAZ.GOV FOR APPROVAL. APPROVAL OF WATER FACILITIES WILL NOT BE GRANTED PRIOR TO BACKFLOW PREVENTION APPROVAL.
5. LOCATE ASSEMBLY WITHIN 36 INCHES OF WATER METER UNLESS OTHERWISE DIRECTED BY UTILITY'S WATER QUALITY SPECIALIST.
6. ALL PRESSURE VACUUM BREAKER ASSEMBLIES SHALL BE INSTALLED A MINIMUM OF 12 INCHES ABOVE ALL DOWNSTREAM PIPING AND OUTLETS.
7. USE LEAD FREE SOLDER ONLY.
8. CLEARANCES:
 - a) WALL OR STRUCTURE: MINIMUM 36"
 - b) ABOVE FINISH GRADE: MINIMUM 12" - MAXIMUM 24"

FIRE LINES:

1. PROVIDE USAGE-TAMPER SWITCHES & WIRING TO ALARM SYSTEM WHERE REQUIRED BY FIRE DEPARTMENT. NOTE: FIRE LINES LONGER THAN 75' REQUIRE BACKFLOW ASSEMBLY AT PROPERTY LINE OR THE CITY APPROVED LOCATION. SUCH FIRE LINES SHALL HAVE BACKFLOW PREVENTION ASSEMBLIES WITH A METERED BYPASS.

APPROVAL PROCESS FOR BACKFLOW PREVENTION ASSEMBLIES:

1. ALL NEW BACKFLOW PREVENTION ASSEMBLIES (BPAS) SHALL BE TESTED AND FUNCTIONING AS DESIGNED PRIOR TO APPROVAL IN ACCORDANCE WITH AAC R18-4-215.
2. DEVELOPER/CONTRACTOR/CUSTOMER SHALL FORWARD PASSING TEST REPORT WITH REQUIRED BPA INFORMATION TO THE CITY WATER QUALITY SPECIALIST, MARKED PENDING APPROVAL.
3. THE CITY WATER QUALITY SPECIALIST (BACKFLOW PREVENTION) WILL NOTIFY DEVELOPER SERVICES THAT AN APPROVED BACKFLOW PREVENTION ASSEMBLY TEST HAS BEEN RECEIVED, AND THIS PROJECT IS READY FOR AN APPROVAL INSPECTION.
4. AN ENGINEERING INSPECTOR THEN SCHEDULES AN APPROVAL INSPECTION WITH THE DEVELOPER/CONTRACTOR/CUSTOMER.

APPROVAL PROCESS FOR BACKFLOW PREVENTION ASSEMBLIES (CONTINUED):

5. THE CITY ENGINEERING INSPECTOR CONFIRMS PRESENCE OF BPA AND CONFIRMS PROPER INSTALLATION GUIDELINES HAVE BEEN FOLLOWED.
6. BACKFLOW PREVENTION APPROVAL PROCESS COMPLETE.
7. APPROVAL MAY BE GRANTED PROVIDED ALL OTHER REQUIRED OPERATION INSPECTION ITEMS HAVE NO DEFICIENCIES.

WATER SYSTEM MATERIAL SPECIFICATION: DISTRIBUTION PIPING:

1. C900 POLYVINYL CHLORIDE (PVC): IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C900 FOR PIPE DIAMETERS THRU 12": DR=14, ELASTOMERIC GASKET, BELL-END, OR RESTRAINED JOINTS.
2. DUCTILE IRON PIPE, MORTAR-LINED (DIP) SHALL BE USED FOR PIPE DIAMETERS GREATER THAN 12".
3. DUCTILE IRON PIPE, MORTAR-LINED (DIP): IN ACCORDANCE AWWA STANDARDS C150 & C151 MORTAR LINING SHALL BE IN ACCORDANCE WITH AWWA C104. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE WRAPPED FOR THE ENTIRE LENGTH IN ACCORDANCE WITH MAG SEC. 610.6. 6" THROUGH 14" DIAMETER MUST BE PRESSURE CLASS 350 MINIMUM: 16" THROUGH 24" MUST BE PRESSURE CLASS 250 MINIMUM, 30" AND LARGER MUST BE PRESSURE CLASS 150 MINIMUM.
4. CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE: IN ACCORDANCE WITH AWWA STANDARD C303 AND MAG SEC. 758 FOR PIPE DIAMETERS GREATER THAN 24". MANUFACTURER'S TECHNICAL DATA SHEETS SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL. SERVICE TAPS ARE NOT PERMITTED ON CONCRETE PRESSURE PIPE.

DISTRIBUTION FITTING:

1. PUSH-ON OR MECHANICAL JOINT IN ACCORDANCE WITH AWWA C111 AND MAG SEC. 750.4. JOINT RESTRAINTS, WHERE REQUIRED, SHALL BE MECHANICAL RESTRAINED JOINT WITH PRODUCT APPROVED BY THE CITY OR FLANGED JOINT FOR LENGTHS IN ACCORDANCE WITH MAG STD. DET.303-2. FIELD LOCK GASKETS ARE NOT ALLOWED.

WATER LINE VALVE:

1. MUELLER, CLOW, WATEROUS, OR M&H RESILIENT WEDGE SEATED GATE VALVE IN ACCORDANCE WITH MAG SEC. 630.3 WITH VALVE BOX AND COVER IN ACCORDANCE WITH MAG STD. DET. 391-1 TYPE "C" MINIMUM LID WEIGHT OF 16LBS. VALVES INSTALLED OUTSIDE THE PAVEMENT OR IN THE FLOW LINE OF A ROADWAY SHALL HAVE A DEBRIS CAP INSTALLED PER MAG STD. DET. 392. BUTTERFLY VALVES ARE NOT ALLOWED WITHOUT THE CITY APPROVAL.
2. AIR/VACUUM RELEASE VALVES ARE REQUIRED AT ALL HIGHPOINTS AND AT VERTICAL REALIGNMENTS OF THE WATER LINE.

CONTROL VALVES:

1. THE EXTERNAL TUBING NEEDS TO BE STAINLESS STEEL, NOT COPPER. CLA-VAL IS THE ONLY ACCEPTABLE MANUFACTURER.

Date:
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BACKFLOW PREVENTION GENERAL NOTES BACKFLOW
PREVENTION APPROVAL PROCESS WATER SYSTEM
MATERIAL SPECIFICATION

Detail No.
100-2