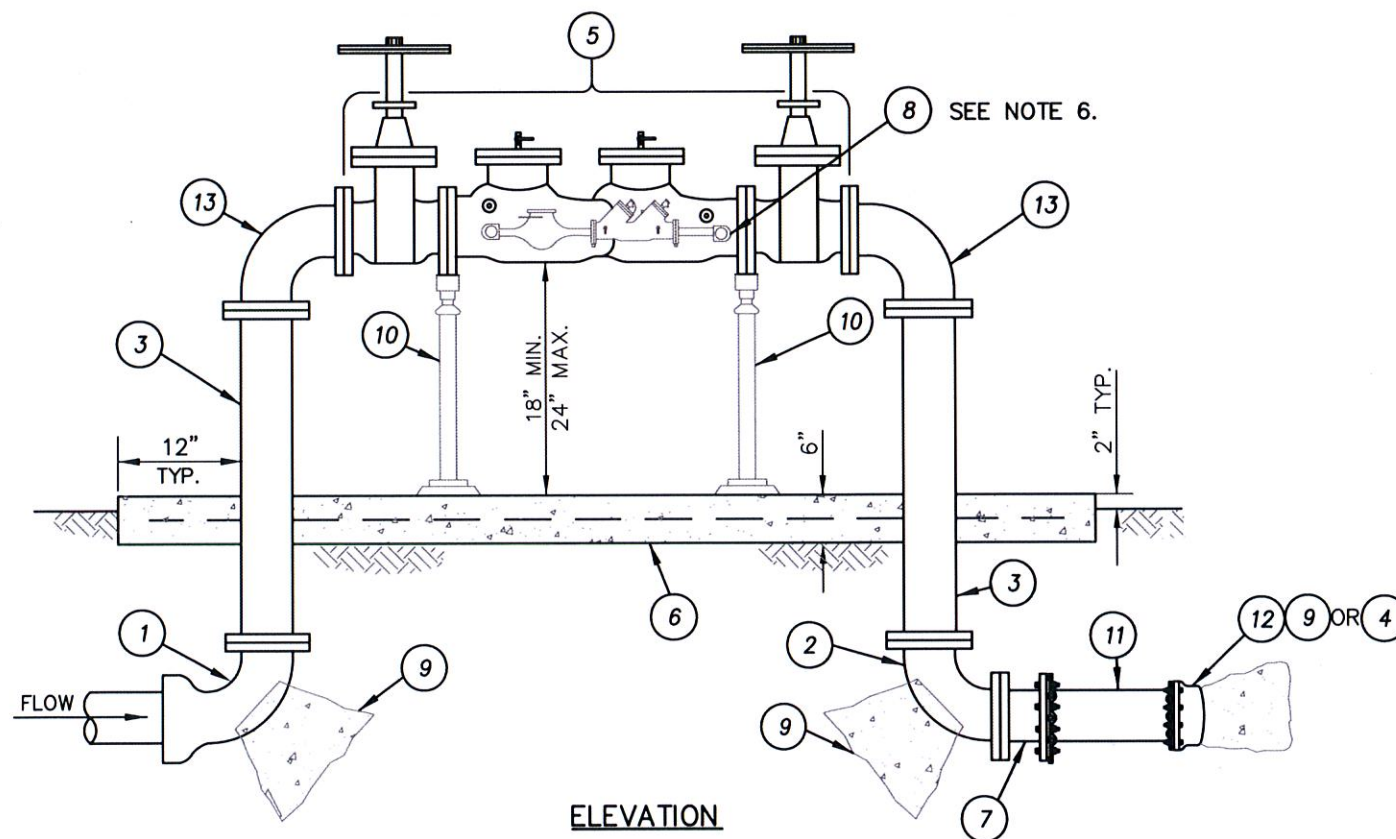


PLAN



ELEVATION

ITEM

MATERIALS

- 1 — D.I. 90° BEND F.E. x P.O.
- 2 — D.I. 90° BEND F.E. x F.E.
- 3 — D.I. SPOOL F.E. x F.E. LENGTH AS REQUIRED.
- 4 — TRANSITION COUPLING. (BY OTHERS, FOR ON-SITE CONNECTION WHEN ON-SITE PIPING EXISTS.)
- 5 — APPROVED DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY WITH RISING STEM RESILIENT WEDGE GATE VALVES, VALVES SHALL BE PROVIDED AS AN INTEGRAL PART OF BACKFLOW ASSEMBLY.
- 6 — 6" THICK P.C.C. SLAB, REINFORCE WITH W.W.F. 1.6 X 1.6
- 7 — F.E. X M.J. ADAPTER WITH RETAINER GLAND.
- 8 — FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, DOUBLE CHECK VALVE AND ASSOCIATED PIPING. METER TO BE USED FOR FIRE SYSTEMS ONLY. METER READS IN CUBIC FEET.
- 9 — THRUST BLOCK
- 10 — ADJUSTABLE PIPE SUPPORT FOR ASSEMBLIES 8" DIAMETER AND LARGER
- 11 — C-900 P.V.C. PIPE SECTION, CL. 200, 24" LONG.
- 12 — END CAP. M.J. WITH RETAINER GLAND.
- 13 — D.I. 90° BEND F.E. x F.E. (FOR 3" DOUBLE CHECK BACKFLOW ASSEMBLY USE 4"x3" D.I. 90° REDUCING BEND F.E. x F.E.)

NOTES:

1. NOTIFY BSMWC PRIOR TO INSTALLATION OF BACKFLOW DEVICE.
2. FIRE DEPARTMENT CONNECTION AND POST-INDICATOR VALVES SHALL NOT BE PART OF THE BACKFLOW ASSEMBLY AND MUST BE INSTALLED ON THE CUSTOMER SPECIFIED PIPING SIDE.
3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDE WALK.
4. BACKFLOW ASSEMBLY AND BSMWC PIPING SHALL BE WITHIN A DEDICATED BSMWC EASEMENT OR PUBLIC RIGHT-OF-WAY.
5. PLACE BRASS PLUGS IN ALL TEST VALVE OUTLETS.
6. BY-PASS METER TO BE USED FOR FIRE SYSTEMS ONLY. DO NOT INSTALL BY-PASS METERS WHERE SUPPLY TO DEVICE IS ALREADY METERED.

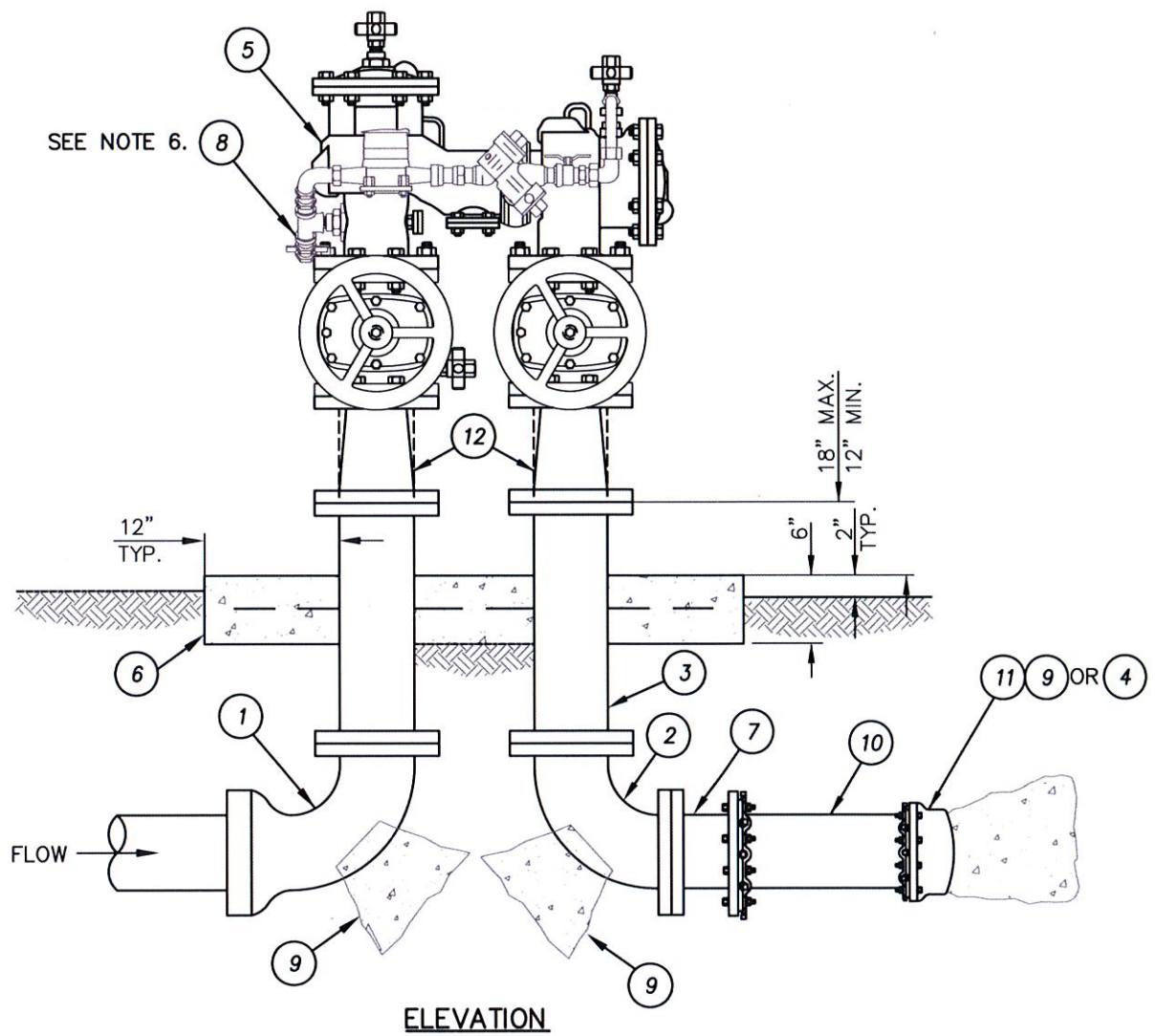
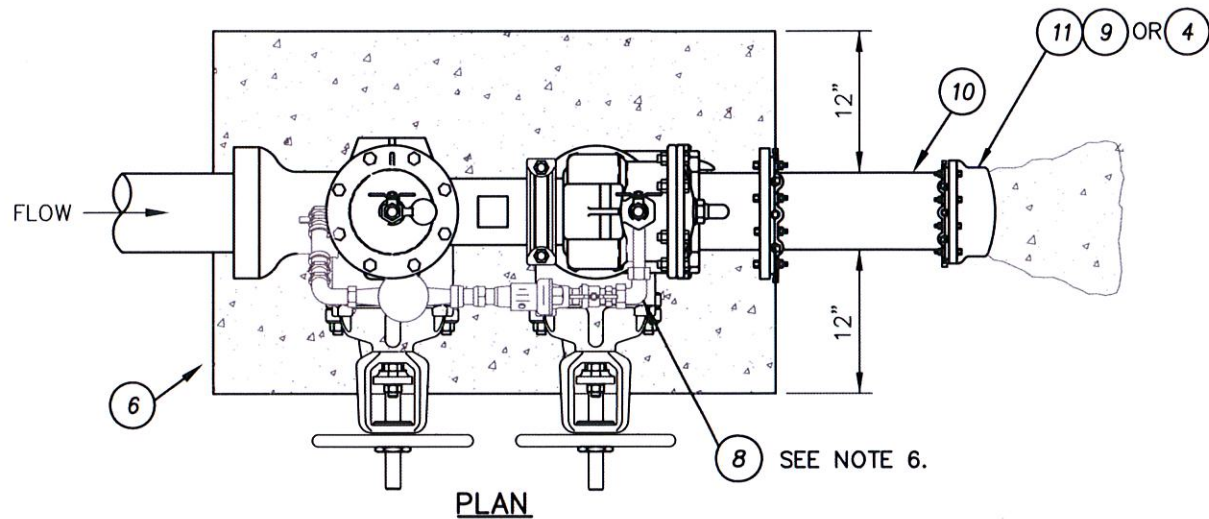


TOM COLEMAN EXECUTIVE DIRECTOR

DATE

DOUBLE CHECK
BACKFLOW ASSEMBLY

W-12



ITEM

MATERIALS

- 1 D.I. 90° BEND F.E. x P.O.
- 2 D.I. 90° BEND F.E. x F.E.
- 3 D.I. SPOOL F.E. x F.E. LENGTH AS REQUIRED.
- 4 TRANSITION COUPLING. (BY OTHERS, FOR ON-SITE CONNECTION WHEN ON-SITE PIPING EXISTS.)
- 5 APPROVED N-PATTERN DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY WITH RISING STEM RESILIENT WEDGE GATE VALVES, VALVES SHALL BE PROVIDED AS AN INTEGRAL PART OF BACKFLOW ASSEMBLY.
- 6 6" THICK P.C.C. SLAB, REINFORCE WITH W.W.F. 1.6 X 1.6
- 7 F.E. X M.J. ADAPTER WITH RETAINER GLAND.
- 8 FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, DOUBLE CHECK VALVE AND ASSOCIATED PIPING. METER TO BE USED FOR FIRE SYSTEMS ONLY. METER READS IN CUBIC FEET.
- 9 THRUST BLOCK
- 10 C-900 P.V.C. PIPE SECTION, CL. 200, 24" LONG.
- 11 END CAP. M.J. WITH RETAINER GLAND.
- 12 4" D.I. SPOOL F.E. X F.E. OR 4"x3" D.I. REDUCER F.E. x F.E. FOR 3" DOUBLE CHECK BACKFLOW ASSEMBLY.

NOTES:

1. NOTIFY BSMWC PRIOR TO INSTALLATION OF BACKFLOW DEVICE.
2. FIRE DEPARTMENT CONNECTION AND POST-INDICATOR VALVES SHALL NOT BE PART OF THE BACKFLOW ASSEMBLY AND MUST BE INSTALLED ON THE CUSTOMER SPECIFIED PIPING SIDE.
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5. PLACE BRASS PLUGS IN ALL TEST VALVE OUTLETS.
6. BY-PASS METER TO BE USED FOR FIRE SYSTEMS ONLY. DO NOT INSTALL BY-PASS METERS WHERE SUPPLY TO DEVICE IS ALREADY METERED.

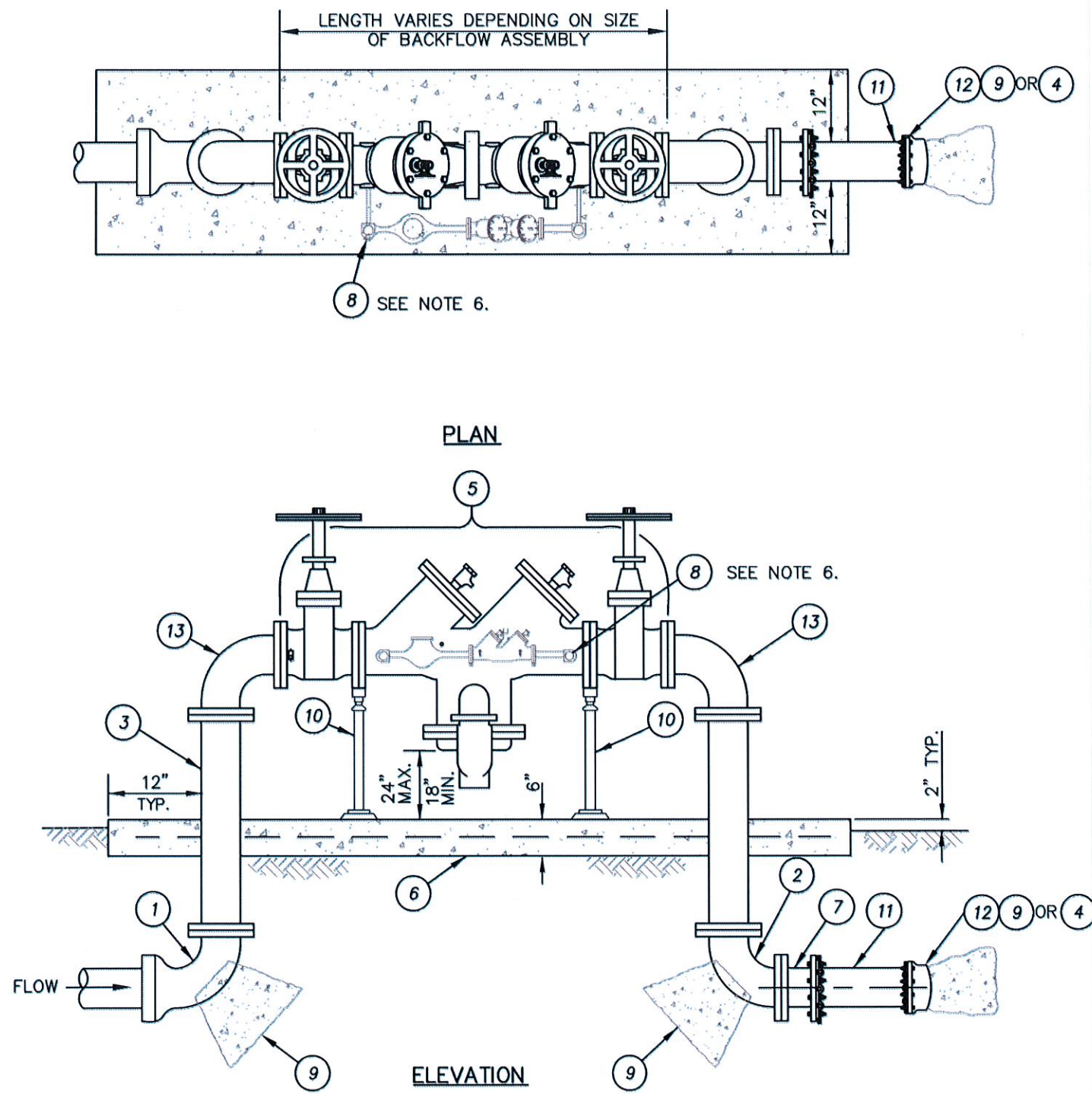


TOM COLEMAN EXECUTIVE DIRECTOR

DATE

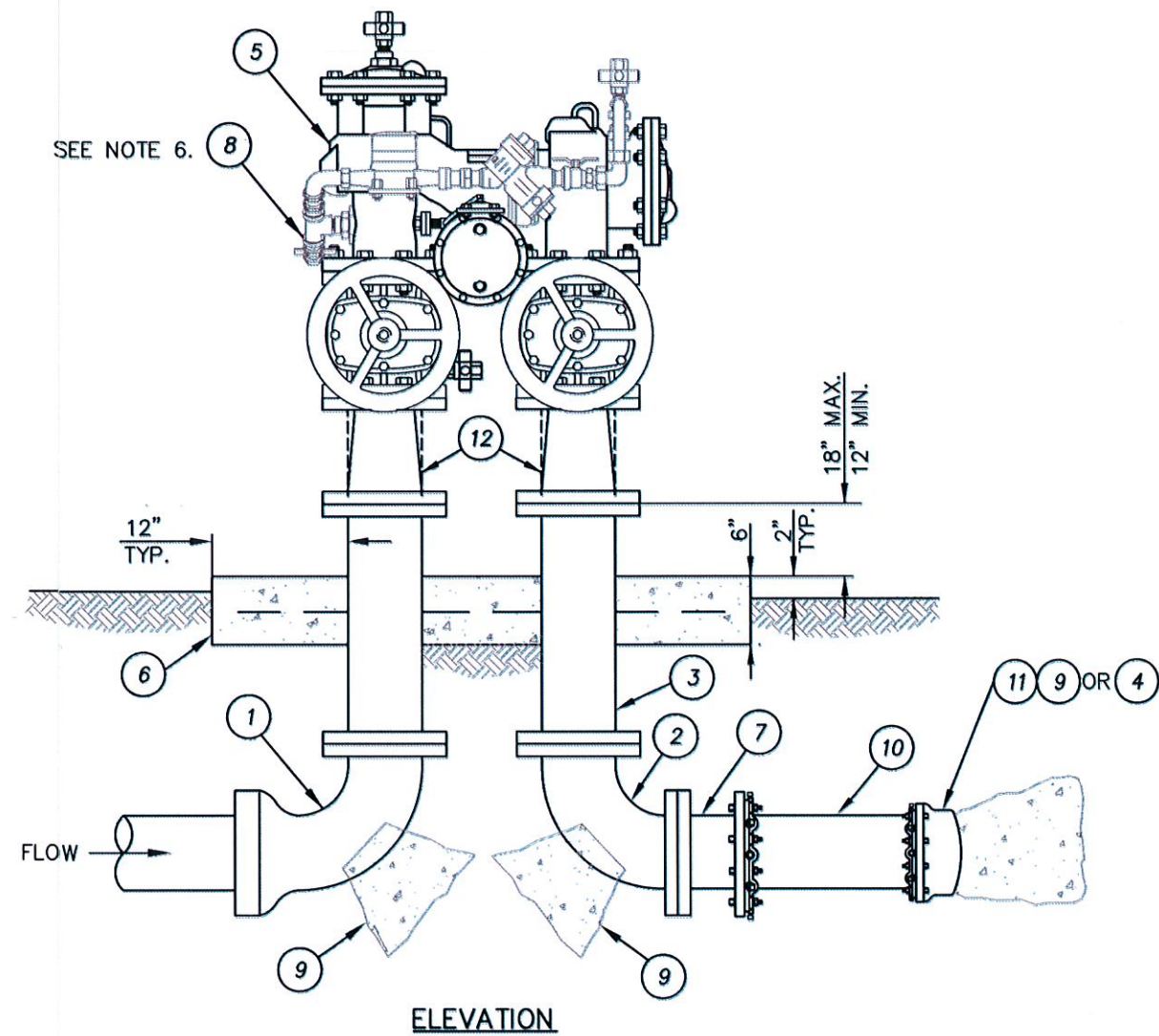
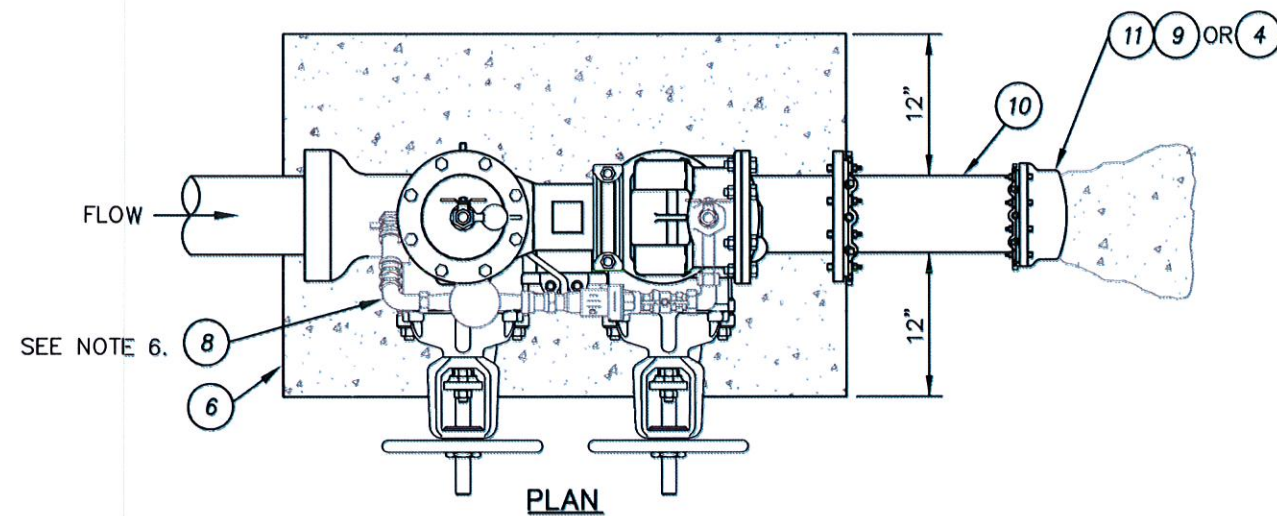
DOUBLE CHECK
BACKFLOW ASSEMBLY
(N-PATTERN)

W-12A



- | ITEM | MATERIALS |
|------|--|
| 1 | D.I. 90° BEND F.E. x P.O. |
| 2 | D.I. 90° BEND F.E. x F.E. |
| 3 | D.I. SPOOL F.E. x F.E. LENGTH AS REQUIRED. |
| 4 | TRANSITION COUPLING. (BY OTHERS, FOR ON-SITE CONNECTION WHEN ON-SITE PIPING EXISTS.) |
| 5 | APPROVED REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTION ASSEMBLY WITH RISING STEM RESILIENT WEDGE GATE VALVES, VALVES SHALL BE PROVIDED AS AN INTEGRAL PART OF BACKFLOW ASSEMBLY. |
| 6 | 6" THICK P.C.C. SLAB, REINFORCE WITH W.W.F. 1.6 X 1.6 |
| 7 | F.E. X M.J. ADAPTER WITH RETAINER GLAND. |
| 8 | FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, REDUCED PRESSURE PRINCIPLE DEVICE AND ASSOCIATED PIPING. METER TO BE USED FOR FIRE SYSTEMS ONLY. METER READS IN CUBIC FEET. |
| 9 | THRUST BLOCK |
| 10 | ADJUSTABLE PIPE SUPPORT FOR ASSEMBLIES 8" DIAMETER AND LARGER PER |
| 11 | C-900 P.V.C. PIPE SECTION, CL. 200, 24" LONG. |
| 12 | END CAP. M.J. WITH RETAINER GLAND. |
| 13 | D.I. 90° BEND F.E. x F.E. FOR 3" REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY USE 4"x3" D.I. 90° REDUCING BEND F.E. x F.E. |

- NOTES:**
1. NOTIFY BSMWC PRIOR TO INSTALLATION OF BACKFLOW DEVICE.
 2. FIRE DEPARTMENT CONNECTION AND POST-INDICATOR VALVES SHALL NOT BE PART OF THE BACKFLOW ASSEMBLY AND MUST BE INSTALLED ON THE CUSTOMER SPECIFIED PIPING SIDE.
 3. BACKFLOW ASSEMBLY SHALL BE A MINIMUM OF 36" FROM ANY STRUCTURE, CURB OR SIDE WALK.
 4. BACKFLOW ASSEMBLY AND BSMWC PIPING SHALL BE WITHIN A DEDICATED BSMWC EASEMENT OR PUBLIC RIGHT OF WAY.
 5. PLACE BRASS PLUGS IN ALL TEST VALVE OUTLETS.
 6. BY-PASS METER TO BE USED FOR FIRE SYSTEMS ONLY. DO NOT INSTALL BY-PASS METERS WHERE SUPPLY TO DEVICE IS ALREADY METERED.



ITEM

MATERIALS

- 1 — D.I. 90° BEND F.E. x P.O.
- 2 — D.I. 90° BEND F.E. x F.E.
- 3 — D.I. SPOOL F.E. x F.E. LENGTH AS REQUIRED.
- 4 — TRANSITION COUPLING. (BY OTHERS, FOR ON-SITE CONNECTION WHEN ON-SITE PIPING EXISTS.)
- 5 — APPROVED N-PATTERN REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTION ASSEMBLY WITH RISING STEM RESILIENT WEDGE GATE VALVES, VALVES SHALL BE PROVIDED AS AN INTEGRAL PART OF BACKFLOW ASSEMBLY.
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- 8 — FACTORY INSTALLED BY-PASS METER ASSEMBLY CONSISTING OF APPROVED POSITIVE DISPLACEMENT METER, REDUCED PRESSURE PRINCIPAL DEVICE AND ASSOCIATED PIPING. METER TO BE USED FOR FIRE SYSTEMS ONLY. METER READS IN CUBIC FEET.
- 9 — THRUST BLOCK
- 10 — C-900 P.V.C. PIPE SECTION, CL. 200, 24" LONG.
- 11 — END CAP. M.J. WITH RETAINER GLAND.
- 12 — 4"x3" D.I. REDUCER F.E. x F.E. FOR 3" DOUBLE CHECK BACKFLOW ASSEMBLY.

NOTES:

1. NOTIFY BSMWC PRIOR TO INSTALLATION OF BACKFLOW DEVICE.
2. FIRE DEPARTMENT CONNECTION AND POST-INDICATOR VALVES SHALL NOT BE PART OF THE BACKFLOW ASSEMBLY AND MUST BE INSTALLED ON THE CUSTOMER SPECIFIED PIPING SIDE.
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5. PLACE BRASS PLUGS IN ALL TEST VALVE OUTLETS.
6. BY-PASS METER TO BE USED FOR FIRE SYSTEMS ONLY. DO NOT INSTALL BY-PASS METERS WHERE SUPPLY TO DEVICE IS ALREADY METERED.



TOM COLEMAN EXECUTIVE DIRECTOR

DATE

REDUCED PRESSURE
PRINCIPAL BACKFLOW
ASSEMBLY (N-PATTERN)

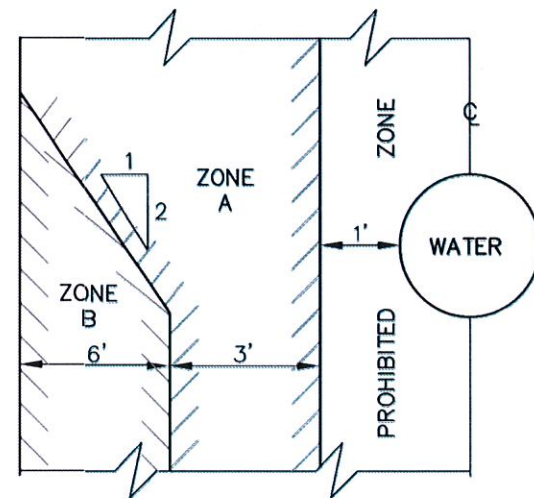
W-13A

BASIC SEPARATION STANDARDS

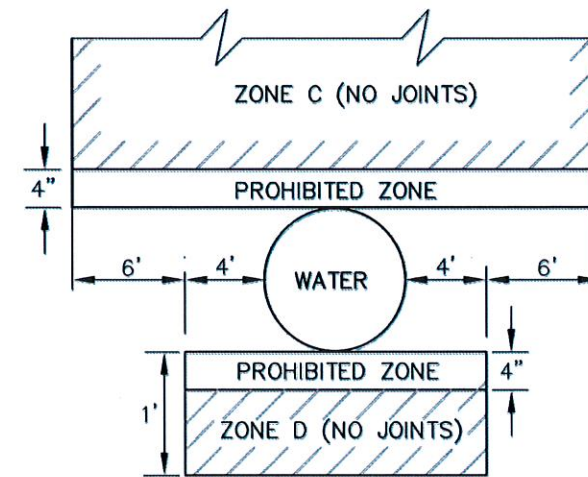
1. PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN DOMESTIC WATER AND RECLAIMED WATER LINES AND SEWER LINES SHALL BE AT LEAST 10 FEET, OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
2. PERPENDICULAR CONSTRUCTION (CROSSING): WATER LINES SHALL BE AT LEAST ONE FOOT ABOVE SEWER AND RECLAIMED WATER LINES WHERE THESE LINES MUST CROSS.
3. SPECIAL PROVISIONS: WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ALTERNATIVE CONSTRUCTION CRITERIA ARE SHOWN BELOW:

SITUATION:

LOCATION OF NEW SEWER & RECLAIMED WATER LINES TO EXISTING DOMESTIC WATER LINE.



PARALLEL CONSTRUCTION



PERPENDICULAR CROSSING

IF ANY SEWER OR RECLAIMED WATER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

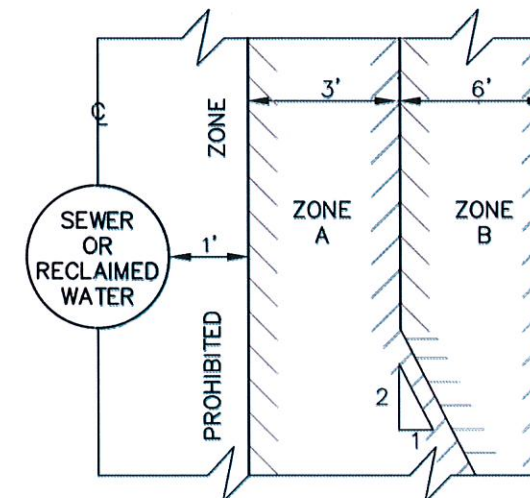
ZONE	SEWER	RECLAIMED WATER
A.	DO NOT LOCATE ANY PARALLEL SEWER OR RECLAIMED WATER LINES IN THIS AREA WITHOUT A STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.	
B.	USE V.C.P., CLASS 200 PVC, OR D.I.P. WITH COMPRESSION JOINTS.	USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900
C.	USE D.I.P. WITH MECHANICAL JOINTS OR CLASS 200 P.V.C. - AWWA C900	USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900
D.	USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900	USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900

GENERAL NOTES:

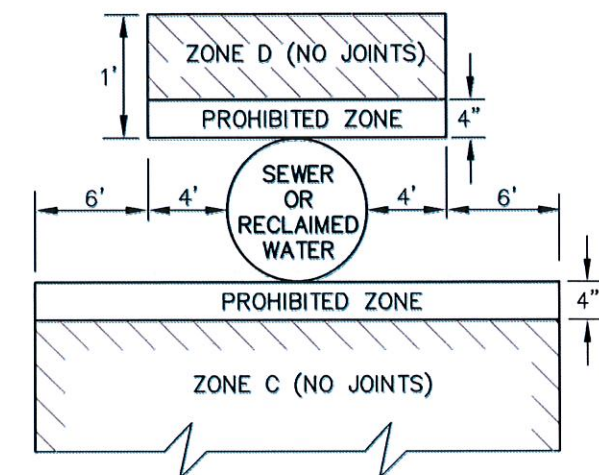
1. NO PIPE JOINTS SHALL BE PERMITTED WITHIN ZONE D. IT IS THE INTENT OF THESE REQUIREMENTS NO JOINTS SHALL OCCUR WITHIN ZONE C. IF THAT CANNOT BE ACCOMPLISHED, THE NEW LINE SHALL BE ENCASED FOR THE FULL LENGTH OF ZONE C.
2. SEWER FORCE MAINS SHALL NOT BE PERMITTED IN ZONES A THROUGH D.
3. THE MATERIALS OF NEW LINE'S AT CROSSINGS SHALL BE CONSISTENT WITH OTHER NEW MATERIALS I.E., STEEL ON A STEEL LINE.
4. THESE CONSTRUCTION CRITERIA APPLY TO HOUSE SEWER LATERALS THAT CROSS ABOVE A WATER MAIN, BUT NOT TO THOSE THAT CROSS BELOW A WATER LINE.

SITUATION:

LOCATION OF NEW DOMESTIC TO EXISTING SEWER & RECLAIMED WATER LINES.



PARALLEL CONSTRUCTION



PERPENDICULAR CROSSING

IF ANY WATER LINE IS TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE DOMESTIC WATER (SEE GENERAL NOTE 3)

- A. DO NOT LOCATE ANY PARALLEL DOMESTIC WATER LINE IN THIS AREA A WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B. USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900.
- C. USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900.
- D. USE D.I.P., WELDED CML & C STEEL OR CLASS 200 P.V.C. - AWWA C900.



TOM COLEMAN EXECUTIVE DIRECTOR

DATE

WATER AND SEWER
SEPARATION
STANDARDS

W-14