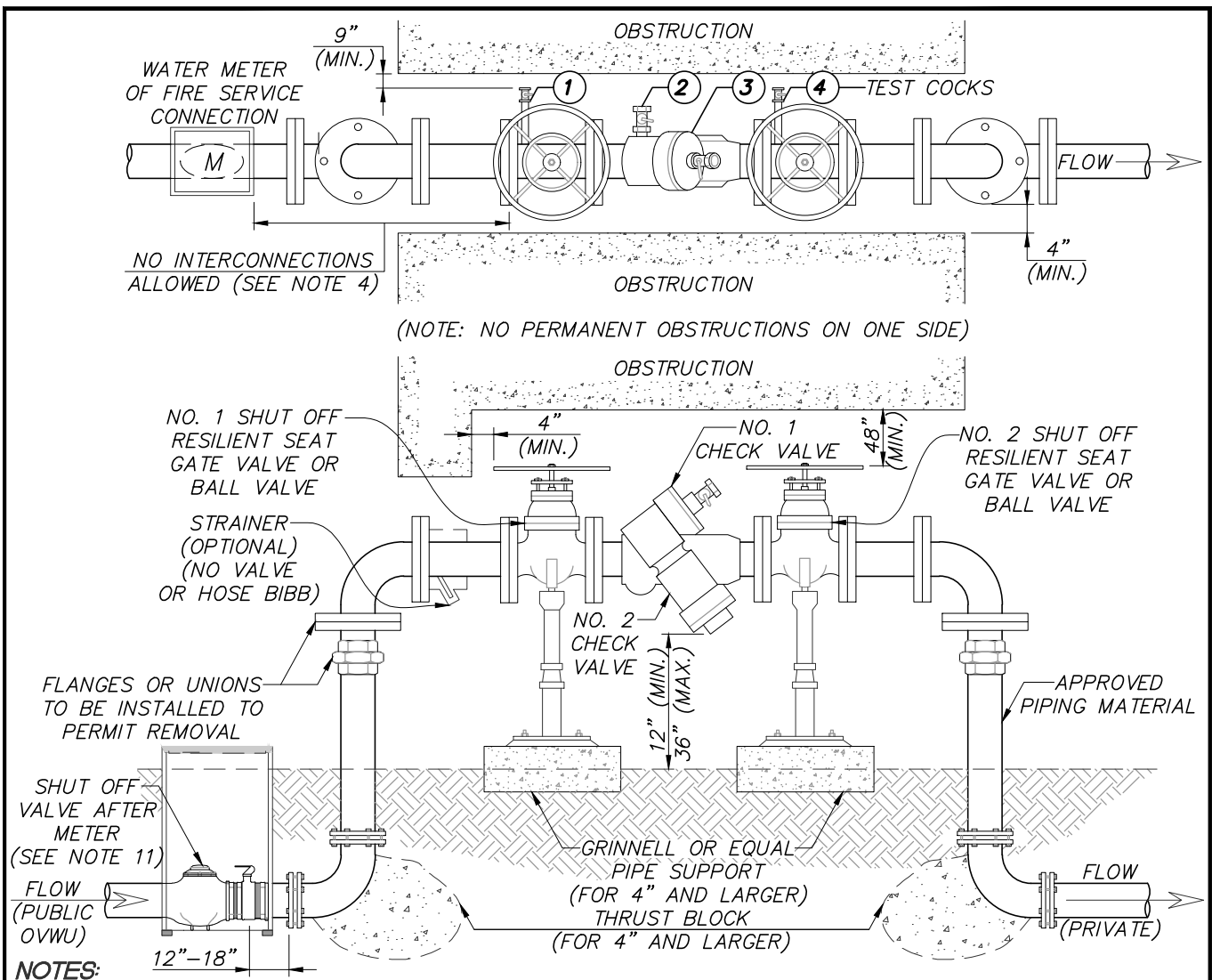


NOTES:

1. THE PREVENTION OF BACKFLOW IN A POTABLE WATER SUPPLY SYSTEM IS NECESSARY TO PREVENT CONTAMINATION OR POLLUTION OF THE WATER SUPPLY. PREVENTION IS ACCOMPLISHED BY THE USE OF AIR-GAP SEPARATIONS OR BY MECHANICAL BACKFLOW PREVENTION ASSEMBLIES. AIR-GAP SEPARATIONS AND BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED ACCORDING TO CURRENT OVWU STANDARD DETAILS TO ASSURE PROTECTION OF THE PUBLIC WATER SUPPLY SYSTEM.
2. AN AIR GAP IS NOT GENERALLY UTILIZED FOR WATER SERVICE LINE PROTECTION SINCE ALL SUPPLY PRESSURE IS LOST. A WATER SERVICE LINE TO A LAKE, TANK OR OTHER VESSEL IS GENERALLY WHERE AN AIR GAP IS USED. HOWEVER, FOR SERVICE PROTECTION, ANOTHER DETERRENT IS THAT ALL PIPING TO THE AIR GAP MUST REMAIN EXPOSED.
3. THE MINIMUM REQUIRED AIR-GAP SEPARATION SHALL BE MEASURED VERTICALLY FROM THE LOWEST END OF THE POTABLE WATER OUTLET TO THE FLOOD RIM OF THE RECEPTACLE INTO WHICH THE POTABLE WATER DISCHARGES. THIS AIR-GAP DISTANCE SHALL BE A MINIMUM OF TWICE THE INSIDE DIAMETER OF THE POTABLE WATER OUTLET. IF THE WATER OUTLET IS LOCATED AT A DISTANCE LESS THAN THREE TIMES THE INSIDE DIAMETER AWAY FROM A WALL OR SIMILAR VERTICAL SURFACE, THE MINIMUM AIR-GAP SHALL BE THREE TIMES THE EFFECTIVE OPENING OF THE INSIDE DIAMETER OF THE OUTLET. IN NO CASE MAY THE MINIMUM REQUIRED AIR-GAP BE LESS THAN ONE INCH.
4. THERE SHALL NOT BE ANY PROVISIONS FOR EXTENDING THE FIXTURE BELOW THE FLOOD LEVEL RIM. IF THE END OF THE POTABLE WATER PIPE OR FIXTURE OUTLET IS THREADED OR ALLOWS FOR ANY TYPE OF EXTENSION BY ANY MEANS, A PROPERLY INSTALLED AND APPROVED BACKFLOW PREVENTED SHALL BE INSTALLED.
5. FOR ADDITIONAL INFORMATION CONSULT OVWU BACKFLOW PREVENTION ORDINANCE OR CONTACT (520) 229-5042.

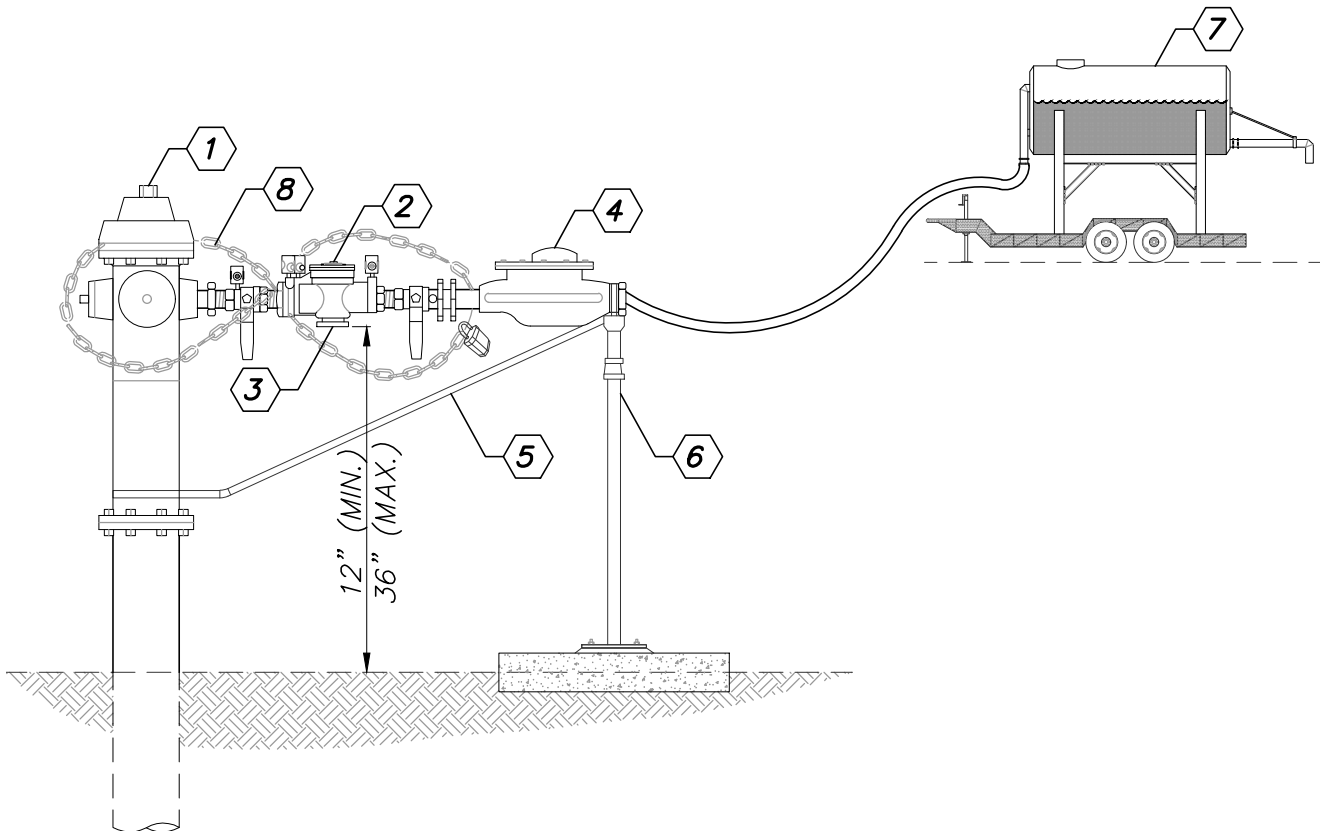
	ISSUED:	STANDARD DETAIL	DETAIL NO.
	01/18		BACKFLOW PREVENTION AIR GAP SEPARATION INSTALLATION
	REVISED:	SHEET 1 OF 1	
	11/20		



NOTES:

1. A PERMIT IS REQUIRED BEFORE INSTALLING OR REPLACING A BACKFLOW ASSEMBLY. PERMITS SHALL BE OBTAINED BY CONTACTING WATER QUALITY-BACKFLOW DIVISION AT 520-229-5042.
2. A LIST OF APPROVED BACKFLOW ASSEMBLIES IS MAINTAINED AND AVAILABLE FROM OVWU.
3. THE DCVA SHALL BE INSTALLED OUTSIDE, ABOVE GROUND, 12"-18" FROM THE WATER METER AND ON PRIVATE PROPERTY UNLESS OTHERWISE AUTHORIZED. (RIGHT-OF-WAYS ARE NOT PRIVATE PROPERTY).
4. THERE SHALL BE NO OTHER PIPING CONNECTED TO THE PIPING BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY EXCEPT FOR PARALLEL INSTALLATIONS.
5. INSTALLATIONS SHALL MEET CURRENT LOCAL PLUMBING CODES AND FIRE CODES AS APPLICABLE IN ADDITION TO OVWU'S STANDARD DETAILS. (SEE #12 APPROVED PIPING MATERIALS)
6. ALL CONNECTIONS SHALL BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY OVWU.
7. PROTECTIVE CAGES ARE OPTIONAL, AND SHALL MEET CLEARANCE, ACCESS AND DRAINAGE REQUIREMENTS.
8. IT IS RECOMMENDED THAT BACKFLOW ASSEMBLIES BE PROTECTED FROM THE ELEMENTS. CARE SHALL BE TAKEN TO ENSURE THAT THE PROTECTION DOES NOT HINDER OPERATION OF THE ASSEMBLY.
9. BEFORE INSTALLING A BACKFLOW ASSEMBLY ON ANY FIRE SYSTEM, CONSULT WITH THE FIRE AUTHORITY FOR ADDITIONAL REQUIREMENTS. (ie. OS AND Y SHUTOFFS, ALARMS ETC.)
10. THE INSTALLATION OF A BACKFLOW ASSEMBLY WILL CREATE A CLOSED SYSTEM. CONSULT LOCAL PLUMBING CODES FOR PRESSURE RELIEF VALVE AND THERMAL EXPANSION REQUIREMENTS.
11. DEVELOPER OR BUILDER IS REQUIRED TO INSTALL A CUSTOMER'S 1" SHUTOFF BALL VALVE W/SWIVEL NUT AND HANDLE. 1" AMS COMPRESSION (MUELLER H-108961). PRIVATE SIDE 1" BALL VALVE SWIVEL NUT x FIP (B-2435IN) OR APPROVED EQUAL.
12. APPROVED PIPING MATERIALS SHALL BE: COPPER TYPE L OR K, OR DUCTILE IRON.
13. FOR ADDITIONAL INFORMATION CONSULT OVWU BACKFLOW PREVENTION ORDINANCE OR CONTACT (520) 292-5042.
14. DOUBLE CHECK VALVE ASSEMBLY (DCVA) INSTALLATION THESE SPECIFICATION ARE TO BE FOLLOWED FOR ALL WATER SERVICES PROTECTION INSTALLATION UTILIZING A DCVA.

	ISSUED:	STANDARD DETAIL	DETAIL NO.
	01/18		DOUBLE CHECK VALVE ASSEMBLY (DCVA) INSTALLATION
	REVISED:	SHEET 1 OF 1	
	10/20		



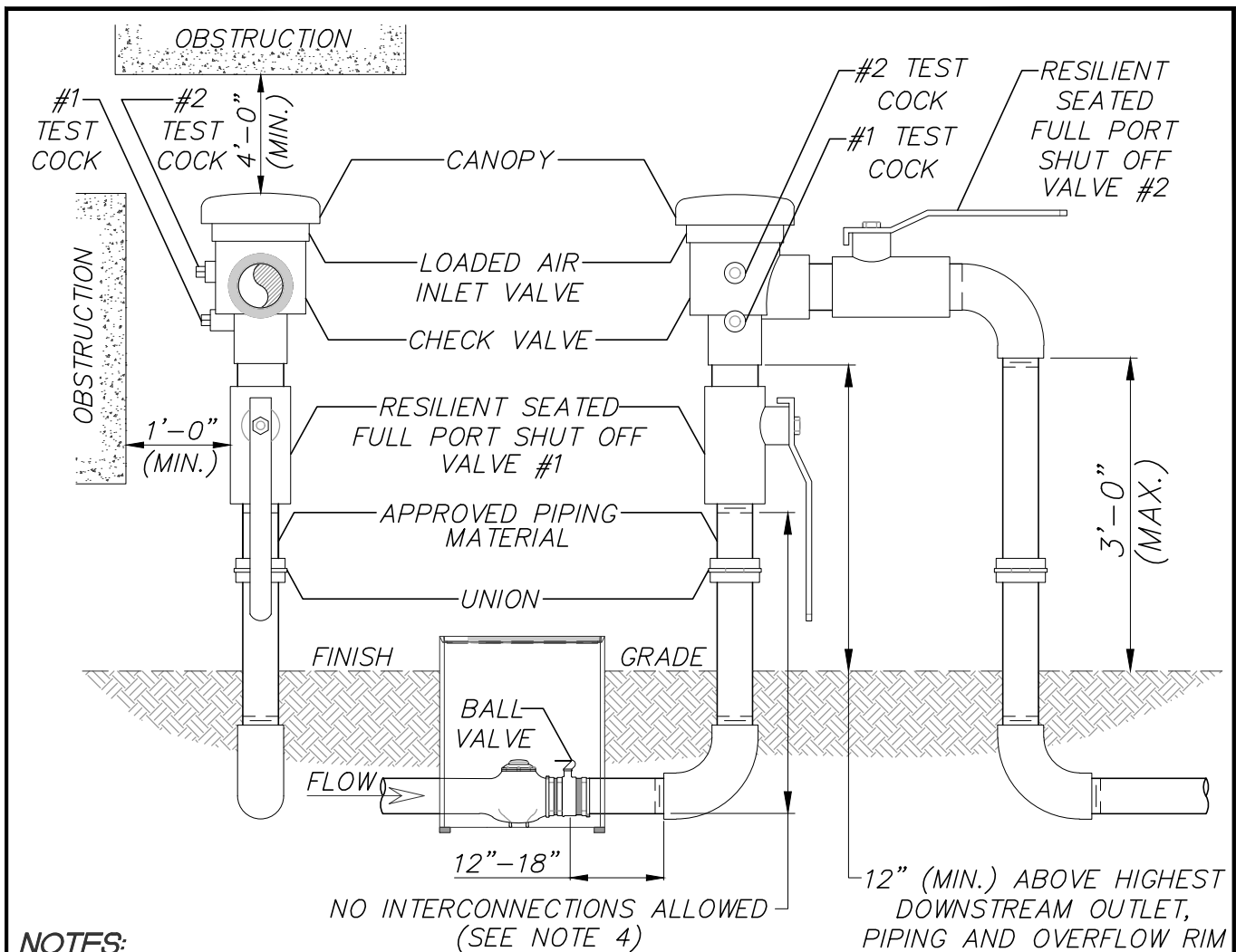
KEYNOTES:

- ① POTABLE WATER SYSTEM FIRE HYDRANT
- ② 2" REDUCED PRESSURE BACKFLOW ASSEMBLY
- ③ RELIEF VALVE POINTING DOWNWARD
- ④ WATER METER
- ⑤ OPTIONAL SUPPORT
- ⑥ PIPE SUPPORT
- ⑦ KLEIN TANK, WATER TRUCK, VESSEL OR OTHER USE
- ⑧ CHAIN AND PADLOCK (PROVIDED BY OVWU)

NOTES:

1. ALL BACKFLOW ASSEMBLIES SHALL BE INSTALLED, MAINTAINED AND TESTED (BY OVWU).
2. ONLY ONE CONNECTION PER HYDRANT IS ALLOWED.
3. FOR FURTHER INFORMATION CONTACT THE BACKFLOW PREVENTION SECTION AT (520) 229-5042.

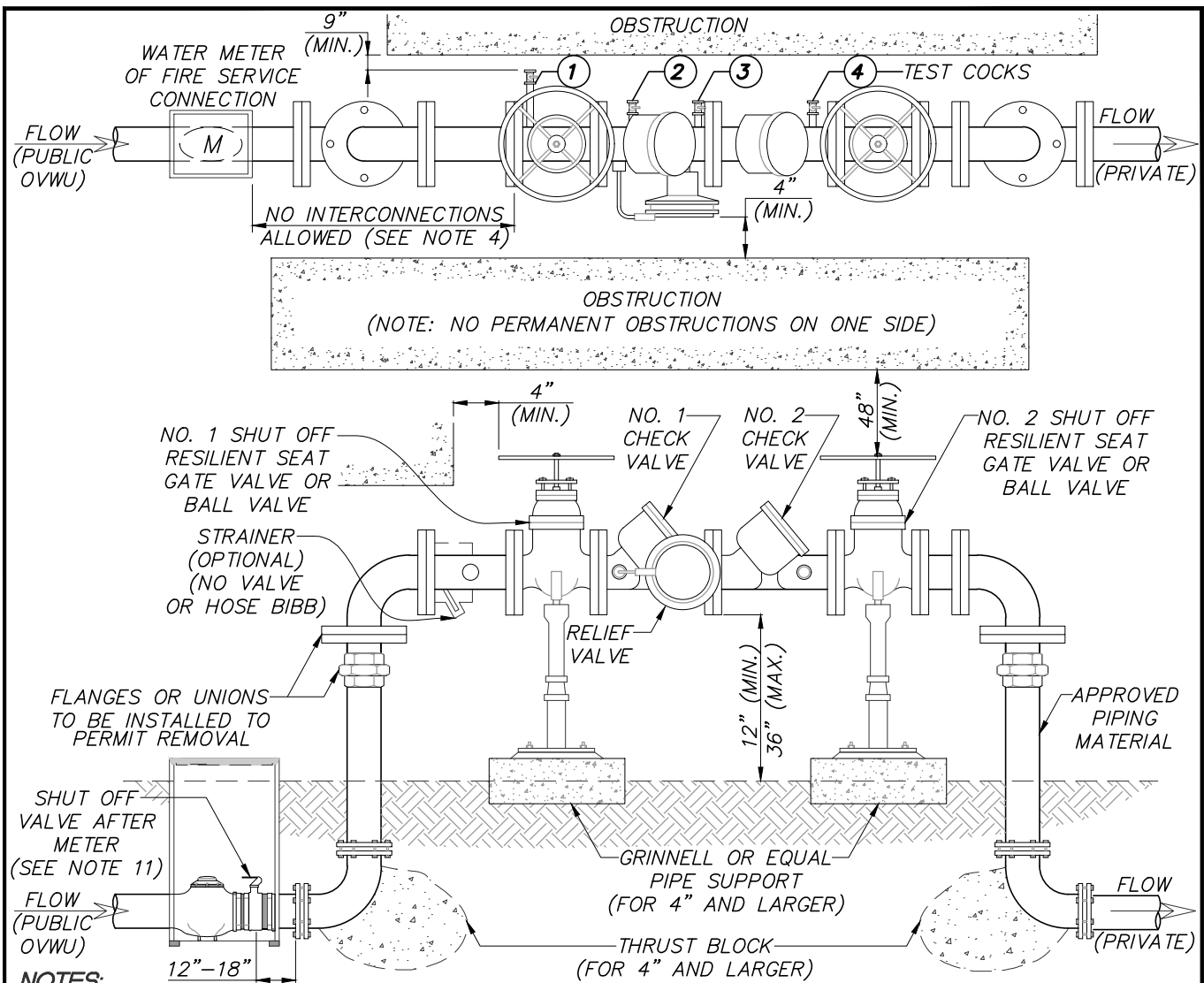
	ISSUED:	STANDARD DETAIL	DETAIL NO.
	01/18		BACKFLOW PREVENTION POTABLE WATER FIRE HYDRANT OR STANDPIPE WATER SERVICE
	REVISED:	SHEET 1 OF 1	
	10/20		



NOTES:

1. A PERMIT IS REQUIRED BEFORE INSTALLING OR REPLACING A BACKFLOW ASSEMBLY. PERMITS SHALL BE OBTAINED BY CONTACTING WATER QUALITY-BACKFLOW DIVISION AT 520-229-5042.
2. A LIST OF APPROVED BACKFLOW ASSEMBLIES IS MAINTAINED AND AVAILABLE FROM OVWU.
3. THE PVB SHALL BE INSTALLED OUTSIDE, ABOVE GROUND, 12"-18" FROM THE WATER METER AND ON PRIVATE PROPERTY UNLESS OTHERWISE AUTHORIZED. (RIGHT-OF-WAYS ARE NOT PRIVATE PROPERTY).
4. THERE SHALL BE NO OTHER PIPING CONNECTED TO THE PIPING BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY.
5. INSTALLATIONS SHALL MEET CURRENT LOCAL PLUMBING CODES AND FIRE CODES AS APPLICABLE IN ADDITION TO OVWU'S STANDARD DETAILS. (SEE #12 APPROVED PIPING MATERIALS)
6. ALL CONNECTIONS SHALL BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY OVWU.
7. PROTECTIVE CAGES ARE OPTIONAL, AND SHALL MEET CLEARANCE, ACCESS AND DRAINAGE REQUIREMENTS.
8. IT IS RECOMMENDED THAT BACKFLOW ASSEMBLIES BE PROTECTED FROM THE ELEMENTS. CARE SHALL BE TAKEN TO ENSURE THAT THE PROTECTION DOES NOT HINDER OPERATION OF THE ASSEMBLY. (ALLOW FOR PROPER DRAINAGE).
9. PVB'S MAY BE MAINTAINED UNDER CONTINUOUS PRESSURE AND HAVE SHUT OFF VALVES DOWNSTREAM, BUT THERE SHALL BE NO MEANS OF IMPOSING BACK PRESSURE ON THE PVB FROM ANY OTHER SOURCE.
10. PVB'S SHALL ONLY BE APPROVED FOR IRRIGATION METER SERVICE PROTECTION WHERE THERE IS NO OTHER SOURCE OF WATER SUPPLY TO THE PREMISES, I.E. MEDIAN ISLANDS NO BACK PRESSURE.
11. DEVELOPER OR BUILDER IS REQUIRED TO INSTALL A CUSTOMER'S 1" SHUTOFF BALL VALVE W/SWIVEL NUT AND HANDLE. 1" AMS COMPRESSION (MUELLER H-108961). PRIVATE SIDE 1" BALL VALVE SWIVEL NUT x FIP (B-2435IN) OR APPROVED EQUAL.
12. APPROVED PIPING MATERIALS SHALL BE: COPPER TYPE L OR K, OR DUCTILE IRON.
13. TO BE INSTALLED IN AN OPEN AREA WITH NO OBSTRUCTION ON ONE SIDE.
14. PRESSURE VACUUM BREAKER ASSEMBLY (PVB) INSTALLATION THESE SPECIFICATIONS ARE TO BE FOLLOWED FOR ALL WATER SERVICE PROTECTION INSTALLATIONS UTILIZING PVB.
15. FOR ADDITIONAL INFORMATION CONSULT OVWU BACKFLOW PREVENTION ORDINANCE OR CONTACT (520) 292-5042.

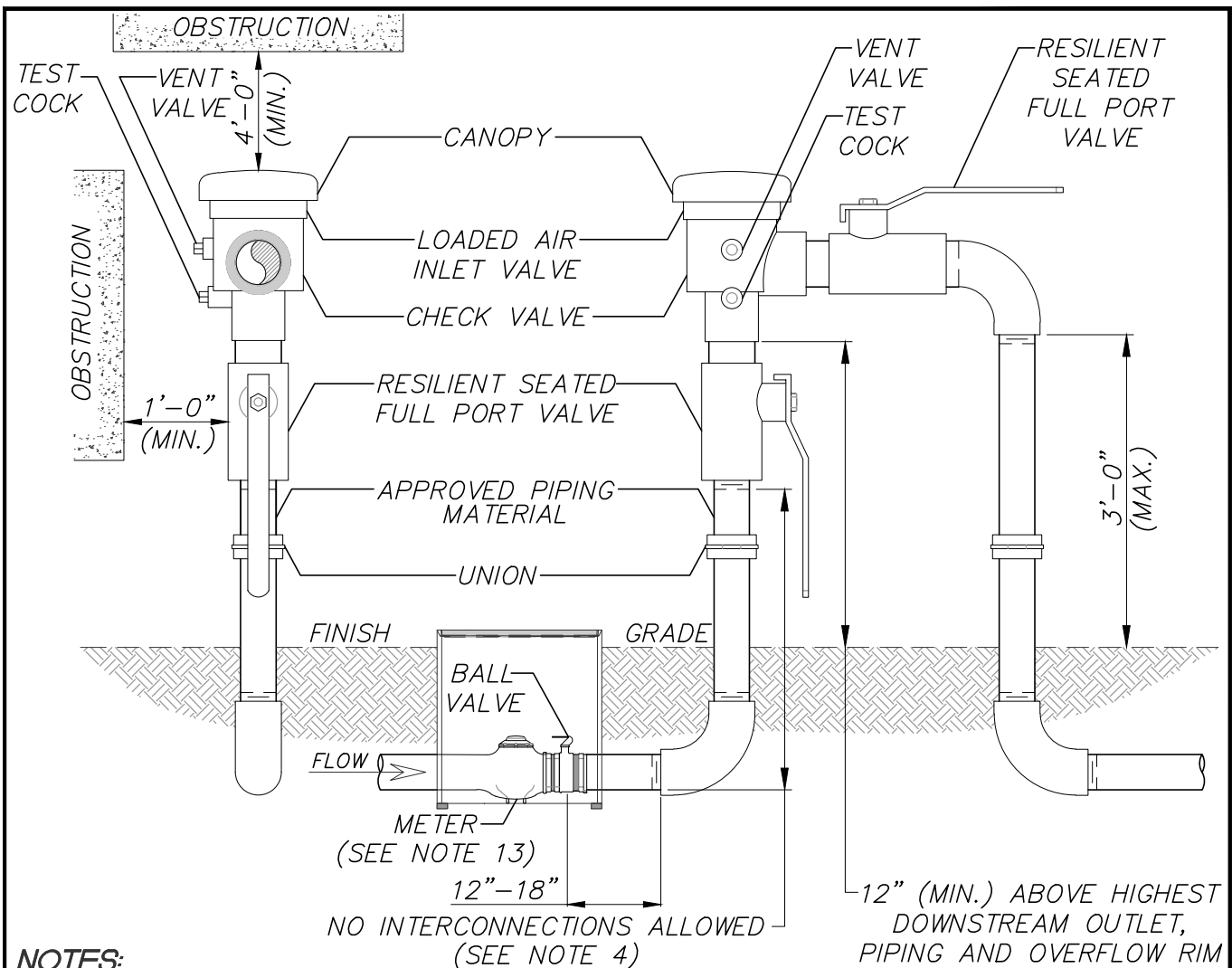
	ISSUED:	STANDARD DETAIL	DETAIL NO.
	01/18		PRESSURE VACUUM BREAKER ASSEMBLY (PVB) INSTALLATION
	REVISED:	SHEET 1 OF 1	
	10/20		



NOTES:

1. A PERMIT IS REQUIRED BEFORE INSTALLING OR REPLACING A BACKFLOW ASSEMBLY. PERMITS SHALL BE OBTAINED BY CONTACTING WATER QUALITY-BACKFLOW DIVISION AT 520-229-5042.
2. A LIST OF APPROVED BACKFLOW ASSEMBLIES IS MAINTAINED AND AVAILABLE FROM OVWU.
3. THE PVB SHALL BE INSTALLED OUTSIDE, ABOVE GROUND, 12"-18" FROM THE WATER METER AND ON PRIVATE PROPERTY UNLESS OTHERWISE AUTHORIZED. (RIGHT-OF-WAYS ARE NOT PRIVATE PROPERTY).
4. THERE SHALL BE NO OTHER PIPING CONNECTED TO THE PIPING BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY EXCEPT FOR PARALLEL INSTALLATIONS.
5. INSTALLATIONS SHALL MEET CURRENT LOCAL PLUMBING CODES AND FIRE CODES AS APPLICABLE IN ADDITION TO OVWU'S STANDARD DETAILS. (SEE #12 APPROVED PIPING MATERIALS)
6. ALL CONNECTIONS SHALL BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY OVWU.
7. PROTECTIVE CAGES ARE OPTIONAL, AND SHALL MEET CLEARANCE, ACCESS AND DRAINAGE REQUIREMENTS.
8. IT IS RECOMMENDED THAT BACKFLOW ASSEMBLIES BE PROTECTED FROM THE ELEMENTS. CARE SHALL BE TAKEN TO ENSURE THAT THE PROTECTION DOES NOT HINDER OPERATION OF THE ASSEMBLY. (ALLOW FOR PROPER DRAINAGE)
9. BEFORE INSTALLING A BACKFLOW ASSEMBLY ON ANY FIRE SYSTEM, CONSULT WITH THE FIRE AUTHORITY FOR ADDITIONAL REQUIREMENTS. (ie. OS AND Y SHUTOFFS, ALARMS ETC.)
10. THE INSTALLATION OF A BACKFLOW ASSEMBLY WILL CREATE A CLOSED SYSTEM. CONSULT LOCAL PLUMBING CODES FOR PRESSURE RELIEF VALVE AND THERMAL EXPANSION REQUIREMENTS.
11. DEVELOPER OR BUILDER IS REQUIRED TO INSTALL A CUSTOMER'S 1" SHUTOFF BALL VALVE W/SWIVEL NUT AND HANDLE. 1" AMS COMPRESSION (MUELLER H-108961). PRIVATE SIDE 1" BALL VALVE SWIVEL NUT x FIP (B-2435IN) OR APPROVED EQUAL.
12. APPROVED PIPING MATERIALS SHALL BE: COPPER TYPE L OR K, OR DUCTILE IRON.
13. FOR ADDITIONAL INFORMATION CONSULT OVWU BACKFLOW PREVENTION ORDINANCE OR CONTACT (520) 292-5042.
14. METER COUPLING 1" OR SMALLER SHALL BE EQUIPPED WITH (MUELLER H-10896) W/SWIVEL NUT AND HANDLE.

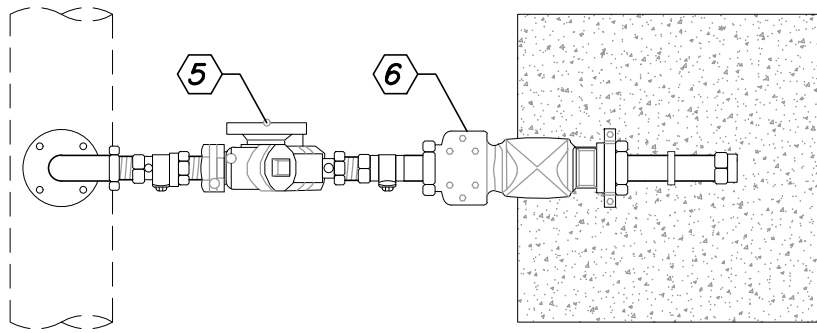
	ISSUED:	STANDARD DETAIL	DETAIL NO.
	01/18		BACKFLOW PREVENTION REDUCED PRESSURE ASSEMBLY (RPA) INSTALLATION
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	11/20		



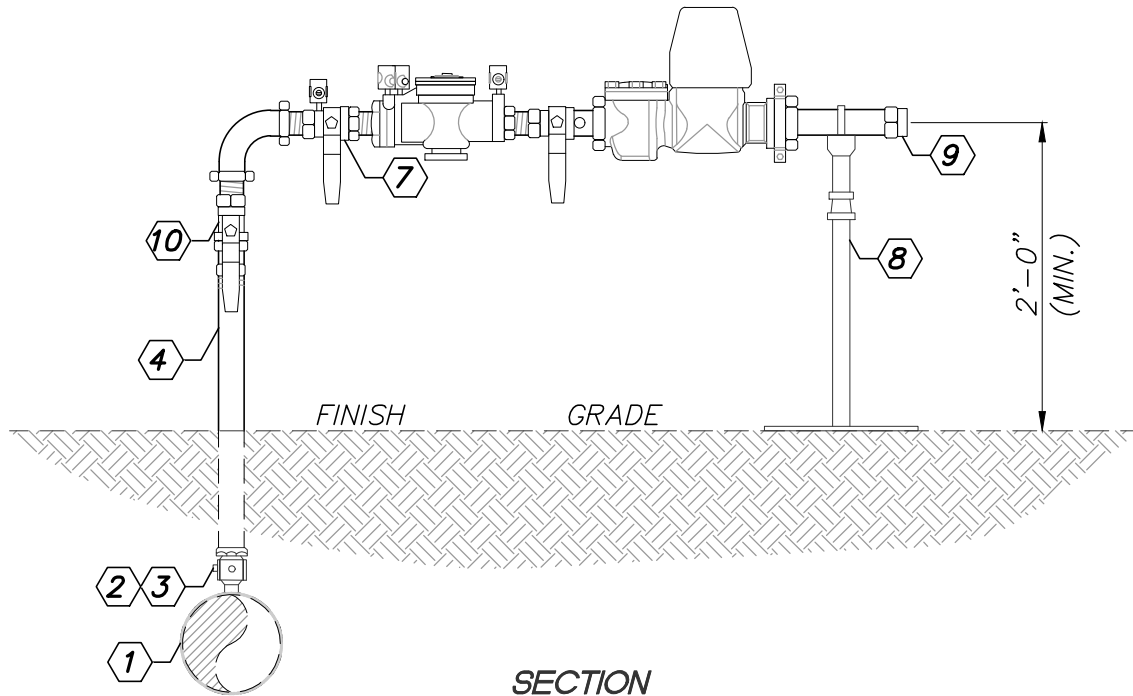
NOTES:

1. A PERMIT IS REQUIRED BEFORE INSTALLING OR REPLACING A BACKFLOW ASSEMBLY. PERMITS SHALL BE OBTAINED BY CONTACTING OVWU WATER QUALITY-BACKFLOW DIVISION AT 520-229-5042.
2. A LIST OF APPROVED BACKFLOW ASSEMBLIES IS MAINTAINED BY OVWU.
3. THE BACKFLOW LISTED IN THIS DETAIL OR SVB SHALL BE INSTALLED OUTSIDE, 12"-18" FROM THE WATER METER AND ON PRIVATE PROPERTY UNLESS OTHERWISE AUTHORIZED. (RIGHT-OF-WAYS ARE NOT PRIVATE PROPERTY)
4. THERE SHALL BE NO OTHER PIPING CONNECTED TO THE PIPING BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY.
5. ALL CONNECTIONS SHALL MEET CURRENT LOCAL PLUMBING CODES AND FIRE CODES AS APPLICABLE IN ADDITION TO OVWU'S STANDARD DETAILS. (SEE #12 OR #10 APPROVED PIPING MATERIALS)
6. ALL CONNECTIONS SHALL BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY OVWU.
7. PROTECTIVE CAGES ARE OPTIONAL, AND SHALL MEET CLEARANCE, ACCESS AND DRAINAGE REQUIREMENTS.
8. IT IS RECOMMENDED THAT BACKFLOW ASSEMBLIES BE PROTECTED FROM THE ELEMENTS. CARE SHALL BE TAKEN TO ENSURE THAT THE PROTECTION DOES NOT HINDER OPERATION OF THE ASSEMBLY.
9. DEVELOPER OR BUILDER IS REQUIRED TO INSTALL A CUSTOMER'S 1" SHUTOFF BALL VALVE W/SWIVEL NUT AND HANDLE. 1" AMS COMPRESSION (MUELLER H-108961). PRIVATE SIDE 1" BALL VALVE SWIVEL NUT x FIP (B-2435IN) OR APPROVED EQUAL.
10. APPROVED PIPING MATERIALS SHALL BE: COPPER TYPE L OR K, OR DUCTILE IRON.
11. TO BE INSTALLED IN AN OPEN AREA WITH NO OBSTRUCTION ON ONE SIDE.
12. SPILL RESISTANT PRESSURE VACUUM BREAKER ASSEMBLY (SVB) INSTALLATION. THESE SPECIFICATION ARE TO BE FOLLOWED FOR ALL WATER SERVICES PROTECTION INSTALLATION UTILIZING A SVB. ADD NOTE #11 FROM (RP 1802) TO (SPVB 1807).
13. METER SERVICE INSTALLATION FOR COUPLING ASSEMBLY. (PER OVWU STANDARD DETAIL 309)
14. FOR ADDITIONAL INFORMATION CONSULT OVWU BACKFLOW PREVENTION ORDINANCE OR CONTACT (520) 292-5042.

	ISSUED:	STANDARD DETAIL BACKFLOW PREVENTION SPILL RESISTANT PRESSURE VACUUM BREAKER ASSEMBLY (SVB) INSTALLATION	DETAIL NO.
	01/18		OVWU-1807
	REVISED:		SHEET 1 OF 1
	10/20		



PLAN



SECTION

**TEMPORARY CONNECTION FOR
DVA AND WATER MAIN STUBS**

KEYNOTES:

- | | |
|---|--|
| ① EXISTING POTABLE WATER MAIN | ⑥ FIRE HYDRANT METER |
| ② 2" CORP. STOP PLUG WHEN FINISHED | ⑦ CUSTOMER SUPPLIED 2" GATE OR BALL VALVE & 2-1/2" BRASS MALE HYDRANT NIPPLE |
| ③ TEMPORARY CONNECTION FOR CONSTRUCTION WATER USE | ⑧ PIPE SUPPORT |
| ④ RIGID POTABLE WATER PIPE | ⑨ QUICK DISCONNECT (CAMLOCK) |
| ⑤ REDUCED PRESSURE (R.P.) BACKFLOW ASSEMBLY | ⑩ 2" GATE OR BALL VALVE |

NOTES:

- BACKFLOW ASSEMBLY SHALL BE INSTALLED, MAINTAINED AND TESTED IN ACCORDANCE WITH STATE AND LOCAL CODES AND REGULATIONS.
- TEMPORARY CONNECTION TO EXISTING POTABLE MAIN MUST BE APPROVED BY A ORO VALLEY WATER QUALITY/BACKFLOW SECTION, CONTACT ADAM 520-229-5042.
- WATER TO BE USED FOR FILLING AND FLUSHING OF NEW WATER MAINS ONLY.
- BACKFLOW ASSEMBLY AND METER SHALL BE TESTED BY ORO VALLEY WATER QUALITY/BACKFLOW SECTION WHEN INSTALLED, MOVED, OR REMOVED.
- BACKFLOW ASSEMBLY IS REQUIRED TO BE TURNED OFF AT BOTH SHUT OFF VALVES AND REMAIN OFF WHEN CHLORINATING NEW MAIN.
- DO NOT LEAVE BACKFLOW ASSEMBLY CONNECTED WITHOUT WATER METER. INSTALLATION MUST COMPLY WITH STANDARD DETAIL AT ALL TIMES.



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STANDARD DETAIL
BACKFLOW PREVENTION POTABLE WATER MAIN TEMPORARY CONNECTION FOR TESTING AND FLUSHING OF NEW WATER MAINS ONLY

DETAIL NO.	
OWWU-1809	
SHEET 1 OF 1	