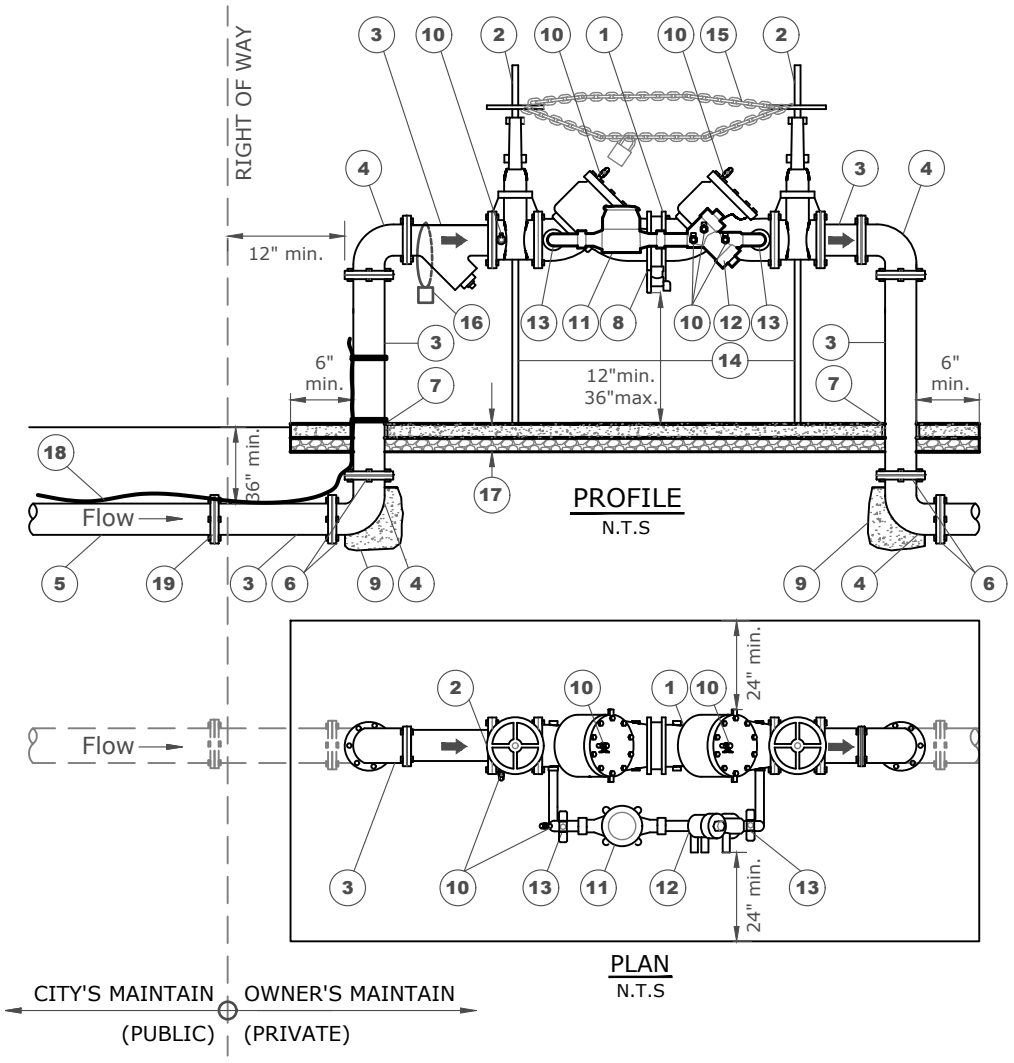

1. REDUCED PRESSURE DETECTOR ASSEMBLY UNIT
2. GATE VALVES (OS&Y)
3. DUCTILE IRON PIPE
4. 90° BEND, DUCTILE IRON FLANGE
5. PVC PIPE (FIRE SERVICE)
6. BURIED FITTING TO BE FUSION EPOXY COATED
7. PIPE SLEEVE & 1" ANNULAR SPACE
8. RELIEF VALVE
9. CONCRETE THRUST BLOCKS, SEE NOTE 11 ON SHEET 2
10. TEST COCKS WITH THREADED ENDS
11. 5/8" BY 3/4" BYPASS METER, SEE NOTE 4 ON SHEET 2
12. 3/4" REDUCED PRESSURE BACLFLOW ASSEMBLY
13. FULL PORT BALL VALVE
14. PIPE SUPPORT, SEE NOTE 10 ON SHEET 2
15. CHAIN & LOCK VALVE WHEELS
16. ASSET TAG
17. 4" MIN P.C.C OVER 4" MIN CLASS 2AB
18. TRACER WIRE, SEE NOTE 8 ON SHEET 2
19. TRANSITION FITTING TO BE FUSION EPOXY COATED

CITY OF MILPITAS, ENGINEERING DIVISION

REVISION	DATE
4	2025
5	
6	

REDUCED PRESSURE DETECTOR ASSEMBLY FOR FIRE SERVICE

APPROVED BY: *Michael Silveira*

4 MICHAEL SILVEIRA, P.E., CITY ENGINEER RCE # C-83869

STANDARD DRAWING
NO. 730

DATE : JUNE 2025

SHEET 1 OF 2

1. Reduced Pressure Detector Assembly (RPDA) shall be Wilkins 375DA or 475DA or approved equal, as approved by the USC Foundation for Cross-Connection Control and Hydraulic Research.
2. Double Check Detector Assemblies may be used only for existing fire sprinkler systems with approval from the City Engineer prior to issuance of permit.
3. RPDA shall be installed per the current State of California of Public Health regulations contained in Title 17 of the Administrative Code and City of Milpitas Ordinance No. 232.
4. RPDA shall be purchased and installed as a whole unit with Outside Screw & Yoke (OS&Y) gate valves, bypass meter including backflow preventor and port ball valves. The bypass meter shall read in cubic feet and be a Badger Recordall M25 with a register model type - HR-ELCD CF and transmitter model type - Integral Orion SE.
5. The components of the RPDA shall be lead-free certified.
6. All pipe and spools shall be ductile iron pipe. Galvanized pipe or dissimilar metal pipe are not allowed.
7. Underground metal piping shall be wrapped with 15 mil polywrap and fittings shall be fusion epoxy coated.
8. The 10-gauge solid trace shall be extended from fire service 2-feet above ground, folded in half and secured to the inlet side of the RPDA with zip ties and the ends shall be stripped.
9. All joints shall be ductile iron flanged. The bolts, nuts, and washers shall be stainless steel 316.
10. RPDA shall have resilient seated OS&Y gate valves with flanged ends and supported by stainless steel pipe saddle braces.
11. Thrust Blocks shall be installed per Standard Drawing No. 704.
12. Fire service shall be installed per Standard Drawings.
13. The size of the RPDA and piping shall be the same size of the fire service. The applicant' s designer is responsible for sizing the RPDA and fire service according to the Building and Fire Codes.
14. Fire and/or Building Departments shall approve the size of the RPDA, and the design and install of the Fire Department Connection (FDC) and Post Indicator Valve (PIV).
    A. PVI shall be installed per NFPA 24, 6.3.1 where the top of each post shall be between 32" to 40" above the final grade to the satisfaction of the City Fire Marshall.
    B. FDC shall be located per CFC 912.2 where the fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The FDC location shall be approved by the City's Fire Marshall.
    C. The contractor shall mount signage on all PIV(s) and FDC(s) per CFC 912.5 serving automatic sprinklers, standpipes or fire pump connections to the satisfaction of the City Fire Marshall. The sign shall be metal with raised letters at least 1" in size. Signs shall read: AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION or a combination thereof as applicable. Where the FDC does not serve the entire building, a sign shall be provided indicating the portions of the building served.
15. OS&Y gate valves shall be electrically monitored by the fire sprinkler monitoring system.
16. The RPDA shall be inspected by the Building, Fire, and Public Works Department and tested and certified by a licensed certified tester registered with the City. The testing of the RPDA shall be coordinated with all Departments and immediate tested after the install. The Certification Report (including test results) shall be submitted to the Building Department prior to occupancy and Engineering Division prior to acceptance of public improvements.

CITY OF MILPITAS, ENGINEERING DIVISION			
REVISION	DATE	REDUCED PRESSURE DETECTOR ASSEMBLY FOR FIRE SERVICE	STANDARD DRAWING NO. 730
4	2025	APPROVED BY: Michael Silveira	DATE : JUNE 2025
5		4 MICHAEL SILVEIRA, P.E., CITY ENGINEER RCE # C-83869	SHEET 2 OF 2
6			