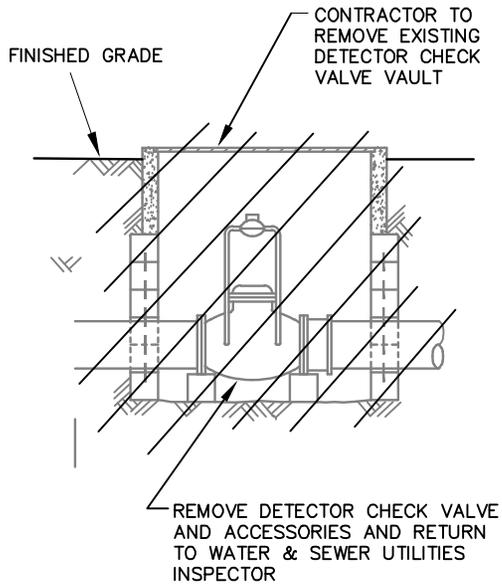
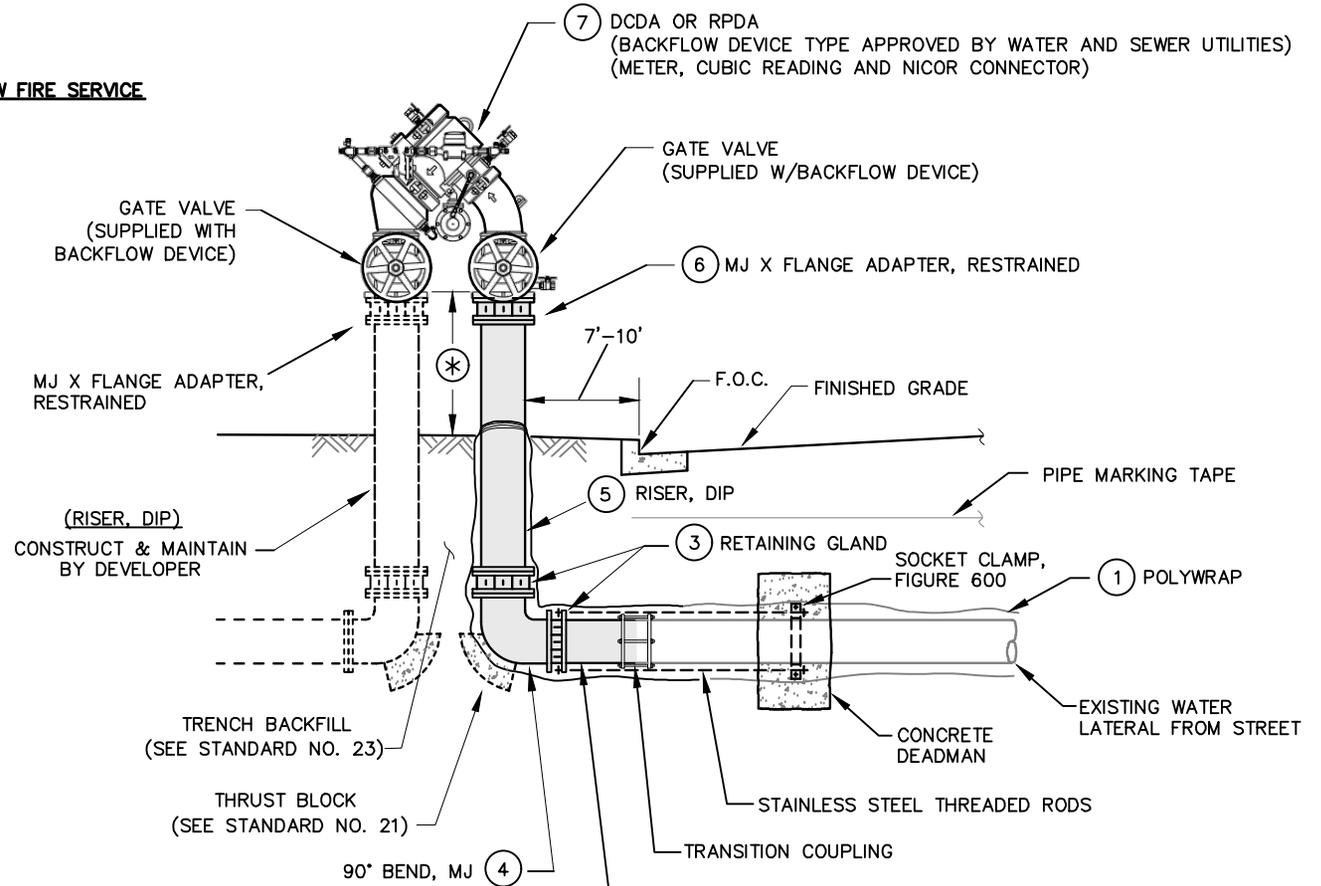


**EXISTING FIRE SERVICE**



**NEW FIRE SERVICE**



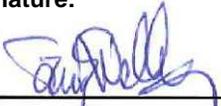
**NOTES TO DEVELOPER:**

1. ADD DIELECTRIC UNION WHEN TRANSITIONING BETWEEN DISSIMILAR METALS.
2. KEEP METER & BACKFLOW INSTALLATION PLUMB AND LEVEL.
3. NO ADDITIONAL SERVICE CONNECTIONS ALLOWED ON FIRE SERVICE.
4. MECHANICALLY RESTRAIN ALL JOINTS.
5. PROVIDE 5 FEET CLEARANCE AROUND SERVICE ABOVE-GROUND SERVICES.
6. BOLLARDS MAY BE REQUIRED AS DETERMINED BY CITY.
7. WATER UTILITY EASEMENT IS REQUIRED 5 FEET AROUND ALL SIDES OF THE DEVICE.
8. UPGRADED BACKFLOW DEVICE SHALL NOT BLOCK VIEW OF PIV OR FDC, IT SHALL BE OFFSET 3 FEET.
9. ALL UPGRADES REQUIRED FIRE DEPARTMENT APPROVAL.
10. IF FIRE DEPARTMENT REQUIRES A TAMPER SWITCH, APPLICANT SHALL SIGN A HOLD HARMLESS AGREEMENT WITH WATER AND SEWER UTILITIES PRIOR TO INSTALLATION.

- (\*) 14" TO 18" FOR MODEL:  
 WILKINS 450DA (DCDA)  
 WILKINS 375DA, 475DA (RPDA)  
 FEBCO LF876V (DCDA)  
18" TO 24" FOR MODEL:  
 WATTS LF909 (RPDA)



Drawn By: **DUC L.**  
 Checked By: **TANISHA W. / JOHN S.**  
 Approved By: **SHILPA M. / TERRY W.**  
 Revised Date: **NOVEMBER 2017**

Signature:   
 Director of  
 Water and Sewer Utilities

**CITY OF SANTA CLARA**  
**WATER AND SEWER UTILITIES - STANDARD NO. 31**  
**UPGRADE EXISTING 4" - 10" FIRE SERVICE ASSEMBLY**  
**(WITH ABOVE-GRADE BACKFLOW DETECTION ASSEMBLY)**

**Standard No. 31 – Upgrade Existing 4"-10" Fire Service Assembly  
(with Above Grade Backflow Detection Assembly) – Material List**

**Domestic Products Only.**

Use 316 stainless steel bolts, flange gasket with EPDM rubber, nuts, and washers for all bolted connections.

Coat above ground fire service shall be painted fire safety red.

Provide 5-foot clearance around service above ground.

Material	Description	Manufacturer	Model
1. Polywrap	Blue. 8 mil low density or 4 mil high density polyethylene film installed per AWWA C105. Tape ends to pipe with 10 mil tape.		
2. Pipe	Mechanically restrain all joints. -Ductile iron, cement lined Class 50. Protect with polywrap for underground pipe.	US Pipe Pacific States	
3. Retaining Gland	Joint restraint for use with mechanical joint fittings. Size as specified.	US Pipe (not allowed above ground)	MJ Field Lok, High Max, Romac
		EBAA	Megalug Series 1100
		Unflange	Series 1400 (DIP)
4. 90 Degree Bend with mechanical joint	AWWA C-153 ductile iron with mechanical joint, cement lined with stainless steel bolts and gaskets	US Pipe Tyler Union	
5. Riser	Ductile iron, class 50 minimum.		
6. MJ x Flange Adapter	AWWA C-153 ductile iron.	Tyler Union	#5-158
		Trinity / USP	With megalug restraining gland
7. Double Check Detection Assembly  Reduced Pressure Principle Backflow Detection Assembly	Includes gate valves and bypass (leak detection) Badger meter. Provide Elster transmitter compatible encoded register with Nicor connector. All registers to be facing inlet and provide cubic feet reading.	Wilkins	450DA
		FEBCO	LF876V
	Includes gate valves and bypass (leak detection) Badger meter with Elster transmitter compatible encoded register with Nicor connector. Meter register to be facing inlet and provide cubic feet reading. Each RP to have separate serial number.	Watts	LF909 RPDA with Rising Stems
Wilkins		375DA, 475DA	
*(Unit to be determined by City)			