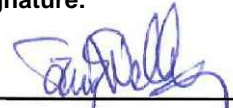


**NOTES TO DEVELOPER:**

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.
6. FIRE DEPARTMENT APPROVAL IS REQUIRED FOR ALL NEW FIRE SERVICES.
7. WATER UTILITY EASEMENT SHALL BE RECORDED 5 FEET AROUND ALL SIDES OF THE DEVICE.
8. IF FIRE DEPARTMENT REQUIRES A TAMPER SWITCH, APPLICANT SHALL SIGN A HOLD HARMLESS AGREEMENT WITH WATER & SEWER UTILITIES PRIOR TO INSTALLATION.
9. BACKFLOW DEVICE SHALL NOT BLOCK VIEW OF PIV OR FDC, IT SHALL BE OFFSET.



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. 16**  
**4" - 10" FIRE SERVICE ASSEMBLY**  
**( WITH DOUBLE CHECK DETECTION ASSEMBLY )**

**Standard No. 16 – 4"-10" Fire Service Assembly (with Double Check 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. Tapping Saddle	Mechanical joint with all accessories.		
	-Ductile iron, cast iron, or PVC	Mueller H-615 Clow F-5205	
	-AC pipe	Mueller H-619 Clow F-5207	
2. Pipe Marking Tape	Blue. 3" wide, 4 mil, non-detectable.		
3. Tracer Wire	RHW#12 AWG Solid. Taped to the top of the water main with 12" minimum slack inside all valve boxes		
4. Thrust Block	See City Standard No. 21		
5. Tee	Mechanical joint with flanged branch. AWWA C-153 ductile iron with mechanical joint, cement lined with stainless steel bolts and gaskets	US Pipe	
		Tyler Union	
6. Gate Valve	Flange x MJ. AWWA C-509 resilient seat, epoxy coat inside and out to meet AWWA C-550. Open left with 2" square operating nut. All rubber components shall be EPDM.	M&H	Style 4067
		Mueller	A-2361
		Clow	F-6106
7. Polywrap	Blue. 8 mil low density or 4 mil high density polyethylene film installed per AWWA C105		
8. Pipe	Mechanically restrain all joints. -Ductile iron, cement lined Class 50. Protect with polywrap for underground pipe.	US Pipe	
		Pacific States	
9. 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
		Uniflange	Series 1400 (DIP)
10. 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	
11. Riser	Ductile iron, class 50 minimum		
12. Traffic Valve Box & Extension (see Standard Detail Nos. 19 & 20)	Valve Box	Christy	G5 with lid marked "WATER"
	Extension - 8" PVC SDR 35, single piece cut to proper length.		
13. MJ x Flange Adapter	AWWA C-153 ductile iron.	Tyler Union	#5-158
		Trinity / USP	With megalug restraining gland
14. Double Check Detection & Assembly & gate valves 15.	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. 6 test nipples, 3 - 3/4" x 1/4" Standard pipe thread and SAE flare brass fittings.	Wilkins	450DA
		FEBCO	LF876V