San Jose Fire Flow and Hydrant Policy

Effective Date: January 1, 2020

2019 CFC Section 507.5.1 – Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official. *Exception: For Group R-3 and Group U occupancies, equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the distance requirement shall be not more than 600 feet (183 m).*
SJ Muni Code 17.12 Part 13 – Adopts 2019 CFC Appendix B and Appendix C with modifications represented below.
NOTE: Mixed Construction Fire Flow is to be determined as directed by State Fire Marshal Code Interpretation #11-015 published 12/19/2011.

Building Area (square feet)					Fire Flow (gpm) [g] [f] and Duration				Required Number and Spacing of Fire Hydrants [e]		
Type IA and IB*	Type IIA and IIIA*	Type IV and VA*	Type IIB and IIIB*	Type VB*	Light Hazard Occ.+	Ordinary Hazard Groups 1 and 2 Occ.+	<NS> or Extra Hazard Groups 1 and 2 Occ.+	Flow Duration (hours) [f]	Min. # of Hydrants	Average Spacing between Hydrants (feet) [a] [b] [c]	Max. Distance from Any Point on Street or Road Frontage to a Hydrant (feet) [d]
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	1,500	1,500	2	1	500	250
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,500	1,500	1,750	2	1	500	250
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	1,500	1,500	2,000	2	2	450	225
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	1,500	1,688	2,250	2	2	450	225
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	1,500	1,875	2,500	2	3	450	225
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	1,500	2,063	2,750	2	3	450	225
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	1,500	2,250	3,000	3	3	400	225
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	1,625	2,438	3,250	3	3	400	225
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	1,750	2,625	3,500	3	4	350	210
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	1,875	2,818	3,750	3	4	350	210
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	2,000	3,000	4,000	4	4	350	210
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	2,150	3,188	4,250	4	5	300	180
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	2,250	3,375	4,500	4	5	300	180
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	2,375	3,563	4,750	4	5	300	180
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	2,500	3,750	5,000	4	5	300	180
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	2,625	3,938	5,250	4	6	300	180
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	2,750	4,125	5,500	4	6	300	180
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	2,875	4,313	5,750	4	6	250	150
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	3,000	4,500	6,000	4	6	250	150
–	–	115,801-125,500	83,701-90,600	51,501-55,700	3,125	4,688	6,250	4	7	250	150
–	–	125,501-135,500	90,601-97,900	55,701-60,200	3,250	4,875	6,500	4	7	250	150
–	–	135,501-145,800	97,901-106,800	60,201-64,800	3,375	5,063	6,750	4	7	250	150
–	–	145,801-156,700	106,801-113,200	64,801-69,600	3,500	5,250	7,000	4	7	250	150
–	–	156,701-167,900	113,201-121,300	69,601-74,600	3,625	5,438	7,250	4	8	200	120
–	–	167,901-179,400	121,301-129,600	74,601-79,800	3,750	5,625	7,500	4	8	200	120
–	–	179,401-191,400	129,601-138,300	79,801-85,100	3,875	5,813	7,750	4	8	200	120
–	–	191,401-Greater	138,301-Greater	85,101-Greater	4,000	6,000	8,000	4	8	200	120

Occ. = Occupancy Classification <NS> = Non-Sprinklered

The applicant has the option to apply for a variance if these requirements cannot be met.

* – Types of construction are based on the California Building Code.
\+ – Types of Hazard are based on NFPA 13.
g – Measured at 20 psi residual pressure.
a – Reduce by 100 feet for dead-end streets or roads.
b – Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.
c – Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 500 feet to provide for transportation hazards.
d – Reduce by 50 feet for dead-end streets or roads.
e – The fire code official is authorized to modify the location, number and distribution of fire hydrants based on site-specific constraints and hazards.
f – For one- and two- family dwellings; the minimum fire-flow and flow duration requirements for one- and two- family dwellings having a fire-flow calculation area that does not exceed 3,600 square feet shall be 1,000 gallons per minute for a duration of 1 hour.