



Residential Fire Sprinkler NFPA 13D/13R SUBMITTAL CHECKLIST

Permit No.: _____ (for use by City Staff)

This submittal checklist is required to be completed by the applicant prior to submittal with all applicable sheets identified in columns provided and will be used to ensure that all items and sufficient detail is included before accepted for review.

It is the intent of this checklist to ensure vehicular gates will provide first responders with quick, reliable and easy access

DIGITAL PLAN REVIEW SUBMITTAL REQUIREMENTS:

PDF Submittals must be complete with all required documents and clearly labeled on a Single Flash Drive, CD, or emailed in a single email to

PlanSubmittal@CityofSLT.US

Dropbox and/or Google Drive links are encouraged if emailing as file sizes are so large. Incomplete submittals will be rejected and sent back.

All Plan Reviews, both initial submittals and re-submittals require – A Complete PDF Submittal containing the following:

- ✓ **PDF #1 - All City Applications & Checklists on One (1) single PDF.**
 - File to be Named: Address_Permit#_PC#_CityApplications
- ✓ **PDF #2 - All plan sheets combined and in order on One (1) single PDF**
 - File to be Named: Address_Permit#_PC#_Plans
- ✓ **PDF #3 - Supporting Documents on One (1) single PDF with cover page.**
 - File to be Named: Address_Permit#_PC#_SupDocs

If Permit # is unknown upon first submittal, please indicate TBD in place of Permit #
 PC# Refers to Plan Check # Starting with PC1

PDF Submittal Requirements Checklist

		Applicant Use:			Staff Use Only:	
		Included	N/A		Included	Missing
PDF # 1 - Applications	_____	_____	Permit Worksheet	Click here for Link	_____	_____
	_____	_____	Permit/Plan Review Application	Click here for Link	_____	_____
	_____	_____	Property Owner Authorization	Click here for Link	_____	_____
	_____	_____	Residential Fire Sprinkler Submittal Checklist	This Form	_____	_____
	_____	_____	Credit Card Authorization Form (or other form of payment)	Click here for Link	_____	_____
PDF # 2 - Plans	_____	_____	All Plans Combined in order per plan index on cover sheet		_____	_____
PDF #3 Supporting Documents	_____	_____	Cover Sheet for Supporting Documents	Click here for Link	_____	_____
	_____	_____	Hydraulic Calculations		_____	_____
	_____	_____	Sprinkler Head Specification Sheets		_____	_____
	_____	_____	Listed Fire Sprinkler Antifreeze	Click here for Link	_____	_____

Plan Sheet Numbers Checklist to be completed by applicant

Plan sets shall consist of:	Sheet #
Project name & address, as well as project owner's name, address, phone number, Contractor's Contact Information	
Assessor Parcel Number (APN)	
Detailed description of scope of work along with Index of drawings	
Vicinity map identifying the subject property, the adjoining streets, and the major streets in the Surrounding area within a one-quarter mile radius of the site and North arrow	
Occupancy Classifications per the current California Building Code and California Fire Code.	
Equipment Legend	
Site Plan	
The plans declare the design standard is the 2016 edition year of NFPA 13R	
LISTING NFPA 13D and 13R - System components are listed for intended use and compatible with the system, and equipment data sheets are provided	
DESIGN CRITERIA and HYDRAULIC CALCULATIONS	
Pipe diameters match the plans - NFPA 13D-13R	
Sprinkler information matches the plans - NFPA 13D-13R	
Piping shall be sized using hydraulic calculation procedures in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems - NFPA 13D-13R	
NFPA 13D/13R - The domestic water design demand is added to the sprinkler design when there is a single water supply,	
NFPA 13D/13R - Calculations are correct: static PSI, pipe length, GPM, calculated K-for for riser nipples or drop nipples, elevation data, hose allowance, friction loss, and equivalent pipe length	
NFPA 13D/13R - Sprinklers without a listed discharge criteria are assigned a discharge criteria in accordance with, NFPA 13R.	
NFPA 13D/13R - Sprinklers with a listing discharge criteria: sprinklers comply with the discharge criteria for multiple and single sprinkler operation as required by their listing, and at the discharge flow.	
NFPA 13D/13R - Sprinkler design for flat, smooth ceilings are calculated in accordance with Section 6.7.1.2 for the greatest hydraulic demand,	
NFPA 13D/13R - Sprinkler design for sloped, beamed, and pitched ceilings could require special design features such as larger flows or a design of 5 or more sprinklers to operate in the compartment,	
NFPA 13D/13R - Sprinklers without a listed coverage criteria shall not exceed the area limits for sprinkler coverage area,	
NFPA 13D/13R - Areas outside dwelling unit shall have the design discharge, number of design sprinklers, coverage area, and sprinkler positions designed in accordance with Section 6.7.2.1.	
NFPA 13D/13R - Areas outside dwelling unit: Residential sprinklers can protect building areas with flat smooth ceilings not exceeding 10 ft. as listed in Section 6.7.2.3.	
NFPA 13R - A garage separated from the residential building by fire-resistive construction that qualifies the garage as a separate building is sprinklered in accordance with NFPA 13 criteria,	
NFPA 13R - Garage areas accessible by people from more than 1 dwelling unit and where the area is not constructed like 6.7.3.1 is a part of the building and is protected in accordance with 6.7.2. 22. NFPA	
NFPA 13R- Garage areas accessible by people from more than 1 dwelling unit and where the area is not constructed like 6.7.3.1 is a part of the building and is protected in accordance with 6.7.2.	
NFPA 13R - A garage that is only accessible from 1 dwelling unit is a part of that dwelling and is sprinklered with residential sprinklers in accordance with NFPA 13R 6.7.1 or quick-response.	
NFPA 13- Hydraulic reference points match the plans.	
NFPA 13 - Hydraulic calculations are provided for single sprinkler and multi sprinkler design.	
NFPA 13 - A legend for calculation abbreviations is provided	
NFPA 13 - Water flow information is provided; static PSI, residual PSI, GPM at 20 PSI residual with graphed results	
Title 24 CFC 903 - A single combination water supply shall be allowed provided that the domestic demand is tied to the sprinkler demand as required by NFPA 13R.	
GENERAL	
NFPA 13R - The type of system is noted: __ wet, __ dry, __ antifreeze not exceeding 40 gals., __ pre-	

action, and o type of sprinklers are noted: ___pendent, ___upright, ___sidewall,	
Sprinkler plans shall provide a plan of each floor	
Sprinkler plans shall be capable of being easily duplicated.	
Sprinkler plans shall indicate the following:	
Name of owner and occupant	
Location, including street address	
Point of compass	
Ceiling construction	
Full height cross section	
Location of fire walls	
Location of partitions	
Occupancy of each area or room	
Location and size of concealed spaces, attics, closets, and bathrooms	
Any small enclosures in which no sprinklers are to be installed	
Size of the city main in the street, pressure, whether dead-end or circulating and, if dead-end, the direction and distance to the nearest circulating main	
Make, manufacturer, type, heat-response element, temperature rating, and nominal orifice size of the sprinkler	
Temperature rating and location of high-temperature sprinklers	
Number of sprinklers on each riser, per floor	
Kind and location of alarm bells	
Type of pipe and fittings	
Type of protection for nonmetallic pipe	
Nominal pipe size with lengths shown to scale	
Location and size of riser nipples	
Types of fittings and joints and the locations of all welds and bends	
Types and locations of hangers, sleeves, and braces, and methods of securing sprinklers, where applicable	
All control valves, check valves, drain pipes, and test connections	
Underground pipe size, length, location, weight, material, and point of connection to the city main; type of valves, meters, and valve pits; and depth at which the top of the pipe is laid below grade	
In the case of hydraulically designed systems, the material to be included on the hydraulic data nameplate	
NFPA 13R - A water flow alarm and test connection are provided,	
NFPA 13R - The system demand has at least 30 minutes of water supply,.	
NFPA 13R - If a fire pump is required it is designed and detailed in accordance with NFPA 20 and this book's worksheet,	
NFPA 13- Pressure gauges are provided and detailed for supply and system pressure	
NFPA 13 - Antifreeze systems are detailed and designed in accordance with NFPA 13	
Title 24 CFC 903 - All water supply valves and flow switches are supervised,	
Title 24 CFC 903. and NFPA 13R - Exterior flow alarm location is shown and the type identified, if electric, it is listed for outdoor use, and connected to the building fire alarm, if provide	
Title 24 CFC 903- Backflow prevention device, is shown in the pipe schematic, listed specification sheet and pressure loss data is provided.	
PIPE SUPPORT and HANGERS	
NFPA 13R - Type and locations of hangers, sleeves, braces, and methods of securing pipe are shown	
NFPA 13R - Pipe Support and Hangers are in Accordance with NFPA 13.	
NFPA 13R - Pipe hanger spacing is in compliance with NFPA 13 Table 9.2.2.1.	
NFPA 13 - Branch lines show one hanger per section of pipe, exceptions are listed	
NFPA 13 - Mains show one hanger between each branch line unless the requirements in NFPA 13 9.2.4.2 through. are met	
NFPA 13 - Cross mains show one hanger between each two branch lines, exceptions are listed,	
NFPA 13- Risers in multistory buildings show supports at the lowest level, each alternate	
NFPA 13 - Risers have a distance between supports not to exceed 25 ft	
DRAINS AND TEST CONNECTIONS	
NFPA 13R - At least a 1 in. nominal diameter drain with a valve is detailed as being on the system side of the control valve,	

NFPA 13R - Each portion of trapped dry system piping that is subject to freezing is provided a ½ in. drain	
NFPA 13R - The location and size of a test connection with a valve is detailed and complies with 6.6.3.1	
PIPE AND VALVES	
Title 23 CFC 903 One control valve is provided for both the domestic water and sprinkler, unless a separate control valve is provided for the sprinkler system and it is electronically supervised	
SEISMIC BRACING	
NFPA 13R 6.6.6- Seismic Bracing in accordance with NFPA 13 Chapter 9.	
NFPA 13 9.3.2.2 and 9.3.2.3 - Flexible couplings may be used for pipe 2½ in. or larger in accordance with NFPA 13 Sections 9.3.2.2 and 9.3.2.3	
NFPA 13 9.3.3 - A seismic separation assembly for piping is provided at building seismic joints	
NFPA 13 9.3.4.2 – 9.3.4.5 - Proper pipe clearance is noted on the plans for pipe penetrations in walls, floors, platforms or foundations, 9.3.4. Minimum clearance is in accordance with section NFPA 13 9.3.4.2 – 9.3.4.5	
NFPA 13 9.3.5.3.1 - Lateral sway bracing is required at a maximum spacing of 40 ft. for all feed and cross mains, and branch lines 2½ in. and larger,	
NFPA 13 9.3.5.3.3 - Lateral sway bracing can be spaced up to 50 ft. if the design is in compliance with NFPA 13 9.3.5.3.3	
NFPA 13 9.3.5.3.2 - Lateral sway bracing is within 20 ft. of the end of the pipe,	
NFPA 13 9.3.5.3.4 - A lateral sway brace is provided on the last pipe of a feed or cross main	
NFPA 13 9.3.5.3.7 and 9.3.5.3.8 - Lateral sway bracing is required unless all the pipes are supported by rods less than 6 in. or by 300 wraparound U-hooks for any size pipe,	
NFPA 13 9.3.5.4 - Longitudinal sway bracing is a maximum of 80 ft. for mains and cross mains and within 40 ft. of the end of the line	
NFPA 13 9.3.5.5 - A four-way sway brace spacing on a riser does not exceed 25 ft. and a fourway sway brace is located at the top of the riser if the top of the riser exceeds 3 ft. in length	
NFPA 13 Figure A 9.3.5.6(e) - Seismic bracing calculations are detailed and provided for each brace to be used as shown in NFPA 13 Figure A.9.3.5.6(e)	
NFPA 13 9.3.5.11- Longitudinal and lateral bracing is provided for each run of pipe between the change of direction unless the run is less than 12 ft. and supported by adjacent pipe run bracing,	
NFPA 13 9.3.6.1-9.3.6.3 - Branch line method of restraint is detailed and in accordance with NFPA 13 Sections 9.3.6.1-9.3.6.3.	
NFPA 13 9.3.6.4- Restraints for branch lines shall be at intervals not greater than 30 ft. if line movement will impact equipment or structural elements.	
NFPA 13 9.3.6.5. -Restrain riser nipples 4 ft. long or greater against lateral movement.	
NFPA 13 9.3.5.6 – 9.3.5.11.- Calculations for sway bracing zone of influence may be required.	
SPRINKLERS	
NFPA 13R 6.1.7 - Total number of each type of sprinkler is noted and the number of sprinklers per floor are noted.	
NFPA 13R 6.1.7 - Sprinkler location is correct.	
NFPA 13R 6.1.7- Type of sprinklers: sprinkler K-factors, temperature rating, and orifice size	
NFPA 13R 6.6.7.1.1 - Residential sprinklers are limited for use for wet pipe automatic sprinkler systems unless specifically listed for another use.	
NFPA 13R 6.6.7.1.3- When listed quick-response sprinklers are used in dwelling units, the dwelling unit shall meet the definition of a compartment and a maximum of four sprinklers are used. The sprinkler density complies with 6.6.7.1.3	
NFPA 13R 6.6.7.1.5 - Sprinklers are rated for ordinary temperature (135°F-175°F) when ceiling temperature does not exceed 100°F	
NFPA 13R 6.6.7.1.5.2 - Sprinklers installed where maximum ambient ceiling temperatures are between 101°F and 150°F (39°C and 66°C) shall be intermediate temperature–rated sprinklers unless modified by 6.6.7.1.5.3.	
NFPA 13R Table 6.6.7.1.5.3 - Distance of sprinklers from heat sources complies with Table 6.6.7.1.5.3	
NFPA 13R 6.6.7.2 - Quick-response sprinklers are used when protection is on the outside a dwelling unit.	
NFPA 13R 6.6.7 - Each sprinkler coverage area is within its listing limitations.	
NFPA 13R 6.7.1.3.1.2 and 6.7.1.3.1.3 - Residential sprinklers without a listed coverage criteria: Sprinkler separation is a maximum of 12 ft. and a maximum of 6 ft. from the wall unless the listing states otherwise	
NFPA 13R 6.7.1.3.1.4 - Residential sprinklers without a listed coverage criteria: Sprinkler separation is a minimum of 8 ft. within a compartment unless the listing states otherwise.	

NFPA 13R 6.7.1.5.2.1 - Sidewall sprinklers distance from the ceiling complies with 6.7.1.5.2.1.	
NFPA 13R 6.7.1.5.4 - A single sprinkler at the highest ceiling level can provide coverage for closets and storage areas not exceeding 300 cu. ft. and the lowest point of the ceiling height is 5 ft.	
NFPA 13R 6.8.2 - Sprinklers are not required in noncombustible dwelling unit bathrooms where the area and the walls and ceiling meet the construction requirements of 6.8.2.	
NFPA 13R 6.8.3 - Sprinklers are not required in dwelling unit clothes closets, pantries, or linen closets, provided the closet area, its least dimension, and its method of construction complies with 6.8.3	
NFPA 13R 6.8.4 - Sprinkler protection for open and attached porches, balconies, corridors, and stairs are not required, o If the building construction is of Type V balconies and decks require sprinkler protection in accordance with Title 23 CFC 903.3.1.2.1	
NFPA 13R 6.8.5 - Sprinklers are not required for areas not used for living purposes or used for storage as listed in 6.8.5.	
FIRE DEPARTMENT CONECTIONS	
NFPA 13R 6.6.4.1- At least one fire department connection is provided for buildings accessible by a fire department that exceed 2000 ft2 (186 m2) or are more than a single story.	
NFPA 13R 6.6.4.2- FDC is provided a connection that is at least a 1½ in.	
Title 24 CFC 912.2 - The FDC location is detailed on the street side or response side of building or as approved by the fire official, and when connected to the water supply it will not obstruct emergency vehicle access to the building,	

I verify that I am submitting all the required materials on this checklist and I acknowledge that failure to comply with these requirements may result in my application not being accepted and/or may extend the length of time needed to review the project.

Applicant (Applicant Representative) Name Print: _____

Signature: _____

Date: _____