



**CITY OF LONG BEACH**  
 Department of Development Services  
 BUILDING AND SAFETY BUREAU  
**NFPA 13D RESIDENTIAL SPRINKLER SYSTEM**  
**FIRE PLAN REVIEW CHECKLIST** **DATE:**

<b>INFORMATION</b>	PROJECT NO.:	EXPIRATION DATE:	STATUS:
	PROJECT ADDRESS:	VALUATION:	
	WORK DESCRIPTION:		
	APPLICANT'S NAME:		
<b>INSTRUCTIONS</b>	<p>Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any sections of the Fire Code, Residential Code or Standards and other local ordinances or state laws.</p> <p>In an effort to streamline the plan review process, please follow the steps outlined below to ensure that there is no delay in processing your application and reviewing your responses to these plan check comments.</p> <ul style="list-style-type: none"> <li>Comments with circled item numbers apply to this plan check.</li> <li>Revised plans and calculations shall incorporate or address all comments marked on the original checked set of plans, calculations, and this plan review checklist. Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Time spent searching for the corrected items on the revised plans or calculations will delay the review and approval process. Once all comments on the plans, calculations, and this checklist have been addressed, contact the plan check staff to <b>SCHEDULE AN APPOINTMENT</b> to review the changes made.</li> </ul>		
	PLAN REVIEWER: _____ TEL. NO.: 562-570-_____ ADDRESS: 333 W. OCEAN BLVD., 4 <sup>TH</sup> FLOOR, LONG BEACH, CA 90802		
	EMAIL: _____@longbeach.gov WEBSITE: www.lbds.info/building/		
	<p>Should you have any questions or need clarification pertaining to the comments made on your project, you may contact the plan check staff by telephone from 7:30 AM (8:30 AM Wed) to 4:30 PM (M T W TH F).</p> <ul style="list-style-type: none"> <li>Bring the original checked set of plans and calculations along with this checklist to the appointment meeting. Do not schedule an appointment meeting with the plan check staff until all comments have been addressed.</li> <li>We will ensure that the appointment meeting or re-submittal of the plans for recheck will proceed as expeditiously as possible. If an impasse is reached during the appointment meeting, you may request that the plan check supervisor be summoned for a 2<sup>nd</sup> opinion or to attempt to resolve and/or clarify the matter.</li> <li>Major revisions to the plans that necessitate additional review time may be subject to re-submittal and additional plan check fees as authorized by Section 18.05.040 of the Long Beach Municipal Code.</li> <li>Reviewed plans and/or calculations not picked up within 60 days of notice will be discarded.</li> </ul>		
<b>NOTE</b>	<p>Numbers within the parenthesis ( ) refer to the section of the applicable code. 2013 California Residential Code (CRC). 2013 California Building Code (CBC). 2013 National Fire Protection Association 13D (NFPA-13D). Underwriter Laboratory (UL). Long Beach Municipal Code (LBMC). Table (T).</p>		

**A. PERMIT APPLICATION**

1. Provide complete contact information such as name, address, phone number, email address, etc. for the following individuals:
  - a. Applicant
  - b. Owner
  - c. Fire protection engineer
  - d. Contractor
  - e. Other \_\_\_\_\_
2. Sprinkler count provided or determined during the initial submittal process was not accurate. Sprinkler count is revised to \_\_\_\_\_. Additional required plan check fee shall be added to the total permit fee and collected at the time of permit issuance.
3. When all required approvals are obtained, the permit application must be signed by the property owner, licensed contractor, or authorized agent at the time the permit is to be issued:
  - a. For permits by owner-builder: Owner's signature can be verified with owner's driver license. Owner's representatives must present owner's approval with a notarized letter from the owner.
  - b. For permits by contractor: Prior to the issuance of the permit, the contractor shall have the following:
    - i. Certificate of workers Compensation Insurance made out to the Contractors State License Board
    - ii. Copy of Contractors State License or pocket ID
    - iii. Copy of city business tax registration certificate or a newly paid receipt for one
    - iv. Notarized letter of authorization for agents
3. Each sheet of the construction documents must bear the signature, registration number and expiration date of the registered (design professional) (contractor) in responsible charge licensed in the State of California.
4. The first sheet or title sheet of the construction documents shall contain the following information, as applicable:
  - a. Project description or scope of work
  - b. Address of the project
  - c. Name and address of the owner
  - d. Name and address of the (design professional) (contractor) (other \_\_\_\_\_)
5. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the Fire Code and relevant laws, ordinances, rules and regulations. Provide the following type of information with each set of construction documents: (CFC 105.4.2)
  - a. Site plan
  - b. Floor plan(s)
  - c. Construction section(s)
  - d. Adequate water supply, listed devices, adequate sprinkler coverage, etc. (NFPA-13D 4.5)
  - e. Location of underground piping from the City water main to the dwelling, indicate pipe size/type and water meter size/type
  - f. Location of the horn and strobe devices
  - g. Location of ceiling fans and similar obstructing objects to sprinklers
  - h. Full height cross section(s) showing the building construction, location of vaulted and/or beamed ceiling, pitch of sloped ceilings, etc.
  - i. Others \_\_\_\_\_

**B. ADMINISTRATION**

1. Obtain approval from the Long Beach Water Department (LBWD). The construction documents must have the LBWD's stamp of approval and the proposed method of backflow protection (backflow assembly or passive purge system) provided. Required approval must be secured prior to permit issuance. For more information, please contact the LBWD at 562-570-2381.
2. Two final sets of construction documents will be required at the time of permit issuance. Construction documents must be:
  - a. Quality blue or black line drawings with uniform and light background color
  - b. Min. 24"x36" or max. 36"x48" size and min. 1/8" lettering size
  - c. Sticky back details must produce prints without contrasting shades of background color
6. Provide note(s) on the construction documents indicating the current prevailing codes or standards:
  - a. 2013 California Residential Code
  - b. 2013 NFPA-13D
  - c. Long Beach Municipal Code Chapter 18.48
  - d. Other \_\_\_\_\_
7. Provide note(s) on the construction documents indicating the following:
  - a. The installer shall coordinate the time and date of testing with the Inspector for the acceptance test. (NFPA-13D 11.1.2)
  - b. Where the water flow detection devices are installed, these devices shall be flow tested through the Inspector's test connection and shall result in an audible alarm on the premises. (NFPA-13D 11.2.3.1)

- c. The exterior alarm device shall be a horn and strobe device located on the address side of the building. (LBMC 18.48.470, CBC 903.4.2)
- 8. Remove all plans, details or notes that do not pertain to the project from the final set of construction documents.

**C. SYSTEM COMPONENTS**

- 1. Indicate the manufacturer, style, model #, orifice size, temperature and "K" factor of each style sprinkler used on the construction documents. Provide the total number of each style sprinkler used. All sprinklers located within a residential area shall be listed and meeting the requirements of UL 1626. (NFPA-13D 7.5.1)
- 2. Provide the listing for all devices and materials used in the sprinkler system. (NFPA-13D 5.1.2)
- 3. Indicate the type of aboveground piping that will be used. Pipe or tubing used in the sprinkler system shall be of a material specified in NFPA-13D T-5.2.2 or in accordance with NFPA-13D 5.2.3.
- 4. Provide the manufacturers' listed temperature rating on the construction documents. Sprinklers shall be classified as ordinary temperature rated with a temperature rating of 135°F to 170° or intermediate temperature rated with a temperature rating of 175° to 225°. (NFPA-13D 4.1.1 and 4.1.2)
- 5. Indicate on the construction documents that each sprinkler system shall have a min. 1/2" drain on the system side of the control valve. (NFPA-13D 7.2.1)
- 6. Provide the required min. sprinkler clearance near specific heat source that are identified in NFPA-13D T-7.5.6.3 unless listed for positioning closer to the heat source. (NFPA-13D 7.5.6.3)
- 7. Sprinkler piping shall be supported to prevent upward movement of the piping upon sprinkler operation. (NFPA-13D 7.4.4)

**D. SPRINKLER POSITION AND LOCATION**

- 1. Indicate on the construction documents the min. and max. spacing of the sprinklers used in the design. Sprinklers shall be installed in accordance with their listing based on the type of ceiling configuration specified in the listing. (NFPA-13D 8.1.3.1.1)
- 2. Indicate the square footage of the bathroom(s) on the construction documents. Provide additional sprinklers

where bathrooms are 55 ft<sup>2</sup> or greater. (NFPA-13D 8.3.2)

- 3. Sprinklers are required in clothes closets, linen closets, and pantries that meet any of the following conditions: (NFPA-13D 8.3.3)
  - a. Area exceeds 24 ft<sup>2</sup>.
  - b. Shortest dimension exceeds 3 ft.
  - c. Walls and ceilings surfaces are of combustible or limited-combustible materials as defined in NFPA 220.
- 4. Sprinklers are required in attached garages, carports, porches, etc. where there are habitable spaces located above. (CRC R313.3.1.1, Exception #4)
- 5. Where fuel-fired equipment is below or on the same level as occupied areas of the dwelling unit, at least one quick response intermediate temperature sprinkler shall be installed above the equipment or at the wall separating the space with the fuel fired equipment from the occupied areas. (NFPA-13D 8.3.5.1.2)
- 6. Indicate on the construction documents that pendent sprinklers are located at least 3 ft. away from the center of obstructions such as ceiling fans, light fixtures and similar obstructing objects. (NFPA-13D 8.2.5.2.1)

**E. DISCHARGED AND HYDRAULIC CALCULATIONS**

- 1. The system shall provide at least the flow required to produce a min. discharge density of 0.05 gpm/ft<sup>2</sup> or as required by the listing for the sprinkler, whichever is greater. (NFPA-13D 10.1.1.1)
- 2. The number of sprinklers in the design area shall be all of the sprinklers within a compartment, up to a max. of 2 sprinklers, that require the greatest hydraulic demand. (NFPA-13D 10.2.1)
- 3. Obtain a current fire flow report from the Long Beach Water Department (LBWD). This info is required to verify the assumption in the hydraulic calculations. Contact LBWD at (562) 570-2381 or schedule an appointment with the Inspector to witness the static water pressure at the site.
- 4. A min. of 5 gpm domestic water shall be added to the sprinkler demand at the base of the riser. (NFPA-13D 6.5)
- 5. The hydraulic calculations shall include a 10% safety margin between the available water supply and the required system supply. (LBMC 18.48.440, CBC 903.3.5.3)

