The intent of these guidelines is to standardize the method in which the requirements for fire sprinklers in existing buildings are applied. These requirements apply to residential and non-residential buildings undergoing repairs, alterations, additions or a combination thereof of more than 50% of the existing floor, over a 3-year period. (Effective Jan 1st, 2017.)

*Townhouses with their own parcel number shall be treated as R3 occupancies when determining the requirement for fire sprinklers.

Exception:

1) Detached ADUs do not require fire sprinklers, if the main residence is not required to be sprinklered.
2) Detached Group U occupancies less than 400 sq. ft. may be unsprinklered.

### ADU Sprinkler Decision Table

<table>
<thead>
<tr>
<th>1 - Proposed ADU Detached or Attached to main existing residence?</th>
<th>2 - Main Existing Residence Sprinklered?</th>
<th>3 - Sprinklers Required in ADU?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detached</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Detached</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Attached</td>
<td>No</td>
<td>use 50% rule</td>
</tr>
<tr>
<td>Attached</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Definitions:

**ALTERATIONS.** A change that results in the reconfiguration of any space or use, excluding addition, elimination, relocation or associated in-fill of any door or window. Alterations also include changes in the use of a room or space.

**REPAIRS.** The replacement, upgrading, or refinishing of any damaged structural or non-structural building element and includes the reconstruction or renewal of any part of an existing building for the purpose of its maintenance.

**FLOOR AREA, GROSS.** The floor area within the inside perimeter of the exterior walls of the building under consideration, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other
features. The floor area of a building or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings, interior courts, or unconditioned / unfinished interior space. Attached garage area may count towards the gross floor area.

Section 1 - The following must be submitted by the Applicant:

1. Building plans for the entire building which includes labeled dimensions, height of building, number of stories and height of each story.
2. Building plans must include the type of construction being used.
3. Building plans must include the type of fire protection system existing and/or being proposed.
4. Each new and altered room shall be identified and include its existing and new use, if applicable.
5. Each room shall be identified with its square footage and alphabetical identifier. (i.e. attachment D).
6. Each new and altered space (hallway, foyer, lobby, etc.) shall be identified and include dimensions.
7. Floor Plan with Fire Sprinkler Calculation Block to include:
   a. Existing building square footage BEFORE modifications
   b. Any Alterations shown on plan, clearly identified by shaded area or similar
   c. All Repairs shown on plan, clearly identified by shaded area or similar
   d. All additions shown on plan, clearly identified by shaded area or similar
   e. Sum of the square footage of all alterations, repairs, and additions
   f. Percentage of new/altered work
8. Please Reference Exhibits A, B, and C on page 4 and 5.

Example:

<table>
<thead>
<tr>
<th>A</th>
<th>Modified 100 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>1,000 sf</td>
<td></td>
</tr>
</tbody>
</table>

| B | 100 sf |

| C | New addition 300 sf |

A - Existing building = 1,000 sf
B - Remodeled area = 100 sf
C – New addition = 300 sf
Total altered/added space = 400 sf

\[
\% \text{ of altered space} = \left( \frac{400 \, \text{sf}}{1,000 \, \text{sf}} \right) \times 100 = 40\%
\]
Section 2 - The following guidelines should be used to measure the area of the proposed work:

1. New rooms are measured using the interior dimension surrounding the area of alteration proposed in the building plans.
2. Existing rooms modified in size are measured using inside perimeter walls surrounding the area of alteration proposed in the building plans.
3. Existing spaces (hallways, foyers, lobbies, etc.) modified in size shall be measured using the dimensions of the new size of the space being considered.
4. Work within a room that changes the character, use, operation or nature of the room shall be identified as new. For example, an office that is converted into a server room shall be identified as new. However, work that involves only esthetics and/or substitution of existing components does not change the use of the room.
5. To calculate the percentage of new/altered work: add together the square footage of the new, altered, or repaired spaces. Divide this number by the total existing square footage before modifications. Multiply by 100 to obtain percentage.
6. Like-for-like exterior work (i.e. re-roofing, repairs of existing exterior deck or balcony) shall not be counted to calculate the area of proposed work.
7. New exterior balconies, porches, decks or similar with a roof or canopy with a projection over four feet, shall count towards the area of proposed work.
8. Detached sheds, garages, carports, storage, or other ancillary buildings that are greater than 400 square feet shall require fire sprinklers. The water supply for the sprinklers may be combined with the domestic supply provided the sprinkler demand does not exceed the supply. A check valve, drain, and flow switch with horn/strobe alarm shall be installed. The number of sprinklers shall be installed using light or ordinary hazard calculations based on NFPA 13 hazard occupancies and its use.

Section 3 - Committee Review

To ensure that the Fire Department has made the most accurate determination regarding the requirement to install a fire sprinkler system, one plan reviewer appointed by the Fire Marshal shall re-evaluate plans that are either 5% below or above the threshold required. The final decision shall be made by the Fire Marshal with supporting documentation and placed in the applicant’s file.

Section 4 - Waivers and Appeals

There are no waivers for code requirements. However, alternative means or methods or a modification of code may be requested (see Section 5). Appeals may be made to the Fire Prevention Bureau only if the Applicant believes the determination that sprinklers are required is in error. A staff consultation fee may be required if the determination is upheld. The Fire Marshal shall review and make a decision regarding the appeal. An approval or denial of the appeal shall be provided to the Applicant in writing within 10 business days of receipt. The Fire Marshal's decision shall be final. A staff consultation fee may be required if the Appeal is denied.

Section 5 - Alternate Means and Methods

Whenever there are practical difficulties in carrying out the provisions of the code the Fire Marshal shall have the authority to grant the use of alternative means or methods which achieve equivalent life-safety or fire protection as permitted by the Fire Code. The evaluation for whether it is appropriate to permit alternate means or methods shall
be made through the use of California Fire Code Section 104.9.
Fire Sprinkler Required
Area of Work Over 50%
Exhibit C

730 Total Sq. Ft. of Residence

Area of work definition:

Any area that has had the ceiling removed, replaced, or altered over 50% shall require a full fire sprinkler retrofit. Any area / rooms that consists of new or relocated walls with ceilings removed to facilitate the installation of new structural members, electrical, (lighting, see below) plumbing or any construction that requires removal of ceiling drywall will be factored into the fire sprinkler retrofit percentage.

Lighting definition:

Like for like ceiling lighting replacement will not count as area of work. Any room that has revised lighting or additional lighting added requiring new electrical wiring shall count as area of work.
Approved by:

Ray Iverson
Deputy Fire Chief