

# CITY OF MERCER ISLAND

Fire Marshal's Office

3030 78<sup>th</sup> Ave SE | MERCER ISLAND, WA 98040

PHONE: 206.275.7966 | [www.mercergov.org](http://www.mercergov.org)



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## 2018 RESIDENTIAL FIRE AREA SQUARE FOOTAGE CALCULATION

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|   |                  |
|---|------------------|
| <b>Project Type:</b> <input type="checkbox"/> New Single Family <input type="checkbox"/> Alteration <input type="checkbox"/> Addition |                  |
| <b>Project Address:</b>   |                  |
| <b>Contact Name:</b>  | <b>Phone No.</b> |
| <b>Owner Name:</b>  |                  |

Gross floor area shall be that area in square feet under the roof line of the structure including all usable area whether heated or not, above and below grade. This includes the garage and any unheated storage rooms or attachments including covered decks. If it is *usable space*, then it is included in the **Gross** square footage calculation. *This is not the same calculation for floor area ratio.*

For all construction types, add all the interior wall measurements of each floor and the basement and total that figure.

### NEW CONSTRUCTION *(over for addition or alteration)*

| Measurements             | Square Footage |
|--------------------------|----------------|
| Main Floor interior      |                |
| Lower Floor Interior     |                |
| Other Floors interior    |                |
| Basement interior        |                |
| Attached Garage interior |                |
| Covered Decks interior   |                |
| Other interior           |                |
| <b>TOTALS</b>            |                |

# ADDITION or ALTERATION

Does this house have an existing **Fire Sprinkler System?** Yes  No  / **Fire Alarm System** Yes  No

| Measurements             | Existing Square Footage | Standardized Value | Final Square Footage |
|--------------------------|-------------------------|--------------------|----------------------|
| Main Floor interior      |                         | x \$166.37 = _____ |                      |
| Lower Floor Interior     |                         | x \$166.37 = _____ |                      |
| Other Floors interior    |                         | x \$166.37 = _____ |                      |
| Basement interior        |                         | x \$166.37 = _____ |                      |
| Attached Garage interior |                         | x \$ 34.54 = _____ |                      |
| Covered Decks interior   |                         | x \$ 34.54 = _____ |                      |
| Other interior           |                         | x \$166.37 = _____ |                      |
| <b>TOTALS</b>            |                         |                    |                      |

Construction Cost \$ \_\_\_\_\_

### Official Use

Verified Cost \$ \_\_\_\_\_

Higher of Verified or Cost \$ \_\_\_\_\_ / Value \_\_\_\_\_ = % \_\_\_\_\_

- Valuation Ratio
  - Exempt structure – detached garage or similar structure less than 750 sf.
  - Less than 10% (fire review not required)
  - 10 – 49% (monitored Household Fire Alarm System per NFPA 72 Chapter 29, if fire deficiency)
  - 50% or greater (substantial alteration)

### 2015 INT'L FIRE CODE

**901.4.4 Additional Fire Protection Systems.** In occupancies of a hazardous nature, where special hazards exist in addition to the normal hazards of the occupancy, or where the fire code official determines that access for fire apparatus is unduly difficult, the fire code official shall have the authority to require additional safeguards. Such safeguards include, but shall not be limited to, the following:

- Automatic fire detection systems,
- Fire alarm systems,
- Automatic fire-extinguishing systems,
- Standpipe systems, or
- Portable or fixed extinguishers.

Fire protection equipment required under this section shall be installed in

accordance with this code and the applicable referenced standards.

### 2015 INT'L RESIDENTIAL CODE

**AV107.1 Fire Sprinklers.** An approved automatic fire sprinkler system shall be installed in new one-family and two-family dwellings and townhouses in accordance with Appendix Q.

**AV107.2 Fire Sprinklers in Existing Buildings.** An approved automatic fire sprinkler system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) in accordance with Appendix Q when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within

a sixty-month period exceeds 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

**AV107.3 Household Fire Alarm System.** An approved household fire alarm system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) that have deficiencies in fire flow, hydrants or access. This system shall be installed in accordance with NFPA 72 Chapter 29 when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period is within 10% to 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.