



**City of Mercer Island
Development Services Group
Fire Code Review and Inspection**

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FIRE AREA SQUARE FOOTAGE CALCULATION

Project Type: _____ Address: _____

Architect: _____

Owner: _____

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. As an example, a house that had a main floor of 1999 square feet, a lower floor of 2304 square feet, a basement of usable space of 980 square feet, a garage of 880 square feet and two covered decks of 440 square feet would have a total **Gross sq. ft.** of: 6,603 square feet.

For commercial structures simply list the total square footage of each construction type including all floors.

Does this house have an existing fire sprinkler system? YES NO

Main Floor interior measurement _____ +

Lower Floor interior measurement _____ +

Other Floors interior measurement _____ +

Basement interior measurement _____ +

Attached Garage interior measurement _____ +

Covered Decks interior measurement _____ +

Other interior measurement _____ +

Total Gross Square Feet = _____

2009 INTERNATIONAL FIRE CODE

901.4.3 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.

Mercer Island City Code Title 17, Construction Codes

Excerpt from Ordinance 04C-12

FIRE SPRINKLER ORDINANCE

Effective July 1, 2004

17.16. Automatic Fire-Sprinkler Systems

17.16.010 Applicability. For purposes of subsections 17.16.020 through 17.16.040, gross floor area shall be as defined in the International Fire Code (IFC) Section 1002.1 – Definitions for FLOOR AREA, GROSS.

17.16.020 New construction. An automatic fire-sprinkler system shall be installed in all newly constructed buildings, regardless of use, with a gross floor area of 5,000 or greater square feet.

17.16.030 New townhouses. An automatic fire-sprinkler system shall be installed in all newly constructed zero lot-line townhouses with an aggregate area of connected townhouses of 5,000 or greater square feet.

17.16.040 Additions and alterations to existing buildings. An automatic fire-sprinkler system shall be installed in additions and substantial alterations to existing buildings regardless of use when such addition or substantial alteration plus the existing gross floor area equals 5,000 or greater square feet. For purposes of this section, a substantial alteration shall be defined as an alteration that costs 50 percent or more of the current assessed value of the structure.

Exception: Additions of up to 750 square feet of gross floor area to one- and two-family dwellings and Group R-3 and U Occupancies are permitted without compliance with this section. This is a one-time exemption that must be recorded on the title.