

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org

Inspection Requests: Online: www.mybuildingpermit.com VM: 206.275.7730



Residential Water Meter Sizing Worksheet

Owner's Name:

Main Permit #

Site Address:

Water Permit #

Fixture Type	Number of Fixtures		Total Fixtures	Fixture Units	Total Units
	New (For replacement, list as existing)	Existing			
Bathtub or Combination Bath/Shower				x 4	=
3/4" Bathtub Fill Valve (Soaker Tubs)				x 10	=
Shower (per head)				x 2	=
Sink				x 1	=
Toilet				x 2.5	=
Bidet				x 1	=
Kitchen Sink				x 1.5	=
Dishwasher				x 1.5	=
Bar Sinks & Ice Makers				x 1	=
Clothes Washer				x 4	=
Laundry Sink				x 1.5	=
Drinking Fountain				x 0.5	=
Hose Bibs (first)				x 2.5	=
Each additional				x 1	=
Lawn Sprinkler Irrigation/per head				x 1	=
Other:				x	=
				TOTAL UNITS	=

For Official Use Only	
REQUIRED SERVICE SIZE	
Requirements are based per 2015 U.P.C., Chapter 6, Table 610.4	
Existing Meter Size:	Meter Number:
Upsize: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes the code requires:	<input type="checkbox"/> 5/8" <input type="checkbox"/> 3/4" <input type="checkbox"/> 1" <input type="checkbox"/> 1 1/2" <input type="checkbox"/> 2" <input type="checkbox"/> Larger:
Map Page & Hydrant #:	Required Supply Line Size:
Distance from meter to farthest Fixture outlet (in feet):	Required Service Line Size: (from water main to meter)
Known Static Pressure: (Otherwise use 65lb/in)	*REQUIRED METER SIZE:
Height difference (in feet):	** Pressure Reducing valve required: <input type="checkbox"/> Yes <input type="checkbox"/> No
Minus if Building Higher - x .5	
Building Design P.S.I.	

*Meter installation **DEPOSIT** for these items. Additional charges may be incurred for time and materials

**Pressure Reducing valve is required if the known water pressure is in excess of 80 psi.

CITY OF MERCER ISLAND

Fire Marshal's Office

3030 78th Ave SE | MERCER ISLAND, WA 98040

PHONE: 206.275.7966 | www.mercergov.org



2019 RESIDENTIAL FIRE AREA SQUARE FOOTAGE CALCULATION

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

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	
TOTALS	

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 \$177.76 = _____	
Lower Floor Interior		x \$177.76 = _____	
Other Floors interior		x \$177.76 = _____	
Basement interior		x \$177.76 = _____	
Attached Garage interior		x \$ 36.88 = _____	
Covered Decks interior		x \$ 36.88 = _____	
Other interior		x \$177.76 = _____	
TOTALS			

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.

Alterations Worksheet 2015 Washington State Energy Code

Project Information

Contact Information

The Washington State Energy Code requirements for alterations are located in Chapter 5
Alterations (remodels) do not need to obtain energy credits from Table R406.2

Additions must meet the requirements for new construction. This includes nonconditioned space being altered to become conditioned space.

Will the wall cavities be exposed? Yes No

If yes: Exposed wall cavities must be insulated -
 2 X 4 wall studs require **R-15** insulation
 2 X 6 wall studs require **R-21** insulation

Will the roof/ceiling framing cavities or attic be exposed? Yes No

If yes: Exposed roof/ceiling assemblies must be insulated -
 Vaulted ceilings: Insulate to the full depth of the framing member while allowing for the minimum 1" ventilated space
 Flat ceilings: Install R-49 insulation or what the attic space can accommodate based on the roof pitch

Will the floor framing cavities be exposed? Yes No

If yes: Exposed floor cavities must be insulated to R-30

Are the windows and/or doors being replaced? Yes No

(includes both window or door and frames)

If yes: New windows and doors must have an area weighted average U-factor of ≤ 0.30

Will the heating or cooling system be replaced? Yes No

If yes: New equipment must meet current requirements and ducts need to be tested

Will the hot water system be altered? Yes No

If yes: New water heating equipment must meet current code requirements

Are more than 50% of the light fixtures being changed? Yes No

If yes: 75% of all lamps must be high efficacy (LED or CFL)

R503.1.1 Building envelope. Building envelope assemblies that are part of the alteration shall comply with Section R402.1.1 or R402.1.4, Sections R402.2.1 through R402.2.11, R402.3.1, R402.3.2, R402.4.3 and R402.4.4.

Exception: The following alterations need not comply with the requirements for new construction provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 framed walls shall be insulated to a minimum of R-21.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover.
5. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Surface-applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided the code does not require the glazing fenestration to be replaced.

R503.1.1.1 Replacement fenestration. Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for *U*-factor and SHGC in Table R402.1.1.

R502.1.1.2 Heating and cooling systems. New heating, cooling and duct systems that are part of the addition shall comply with Sections R403.1, R403.2, R403.3, R403.5 and R403.6.

Exception: The following need not comply with the testing requirements of Section R403.3.3:

1. Additions of less than 750 square feet.
2. Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in WSU RS-33.
3. Ducts with less than 40 linear feet in unconditioned spaces.
4. Existing duct systems constructed, insulated or sealed with asbestos.

R503.1.3 Service hot water systems. New service hot water systems that are part of the alteration shall comply with Section R403.4.

R503.1.4 Lighting. New lighting systems that are part of the alteration shall comply with Section R404.1.

Exception: Alterations that replace less than 50 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.

R503.2 Change in space conditioning. Any nonconditioned or low-energy space that is altered to become *conditioned space* shall be required to be brought into full compliance with this code.