



## Chan Residence Fire Valuation Supplemental information

Date: 12.03.20

Re: 7036 81st Ave SE Application for ADU Permit

To: Jeromy Hicks

Jeromy,

Per our discussion and corrected Fire Valuation form, the budget for the project is at \$300,000.00. I understand that I may provide a list of maintenance items on the main residence that is included in that budget, that can reduce the budget considered for the fire valuation. Below is a list of those items:

- Replacing the existing entry porch: We can't use any of the existing porch structure in between the existing garage and main residence. The tile is failing, and the structure needs to be replaced.
- Roof: We are modifying the main roof as it is outdated, and we can't properly tie the new roof to it.
- Gutters: The gutters are integral to the eave and the eaves are rotten and need to be replaced
- Paint: We will be painting the main residence as part of our maintenance plan since the painters will already be out there painting (exterior only). We are also modifying the deck which will need painting as well.

After talking with a few contractors, it appears a fair market value for the above work would be \$15,000.00 for the above-mentioned items. That would bring the total to \$285,000.00.

Please let me know if you have any questions or concerns.

Let me know if you need anything else.

Stephanie Wascha, AIA (applicant, architect)

# 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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## 2020 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)*

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

# ADDITION or ALTERATION

Does this house have an existing <b>Fire Sprinkler System?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> / <b>Fire Alarm System</b> Yes <input type="checkbox"/> No <input type="checkbox"/>				
Measurements	Existing Square Footage	Standardized Value	Added Footage	Final Square Footage
Main Floor interior		x _____		
Lower Floor Interior		x _____		
Other Floors interior		x _____		
Basement interior		x _____		
Attached Garage interior		x _____		
Covered Decks interior		x _____		
Other interior		x _____		
<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.



Mercer Island Fire Marshal Office
3030 78th Avenue SE
Mercer Island, WA 98040
(206) 275-7966

Permit No: [ ]

FIRE PLAN REVIEW

Address: \_\_\_\_\_

1. PROJECT TYPE

- NSF ADU/ Garage
Alteration or Addition

Valuation Ratio (based on Fire Area Worksheet)
Proposed Work / Assessed Value = %
Exempt structure - detached garage or similar non living space structure
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)

2. FIRE AREA

- Fire Area = \_\_\_\_\_ square feet (sf) (from Fire Area Worksheet)
≥ 10000 SF Requires a NFPA 13R or 13 sprinkler system (use 13R sprinkler system as base)

3. FIRE FLOW

Hydrant ID# \_\_\_\_\_ PSI \_\_\_\_\_
Flow Required \_\_\_\_\_ GPM @ 20 psi (from IFC table B105.1)
With Sprinkler Reduction \_\_\_\_\_ GPM @ 20 psi (50% reduction)
Available \_\_\_\_\_ GPM @ 20 psi (Max of 500gpm for a 2-port hydrant)
Does not meet fire flow even with sprinkler reduction (use 13R sprinkler system as base)
Does not meet fire flow due to no sprinkler reduction credit.

4. HYDRANTS

- Number Required: \_\_\_\_\_ Spacing \_\_\_\_\_
Number Available: \_\_\_\_\_ Spacing \_\_\_\_\_
Distance from all building points to hydrant \_\_\_\_\_ (300' Max, 600' W/ Sprinklers)

## 5. FIRE ACCESS ROADS

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- Distance from all points to access road (150'). \_\_\_\_\_
- Length provided: \_\_\_\_\_ ft. (Over 150' from access road must provide turn-around)
- Width Required:      < 500' = 20'                      ≥ 500' = 26'
- Width provided:  ≥ 16'     12' - 16'  
 ≤ 12' Code Alternate Required
- Radius provided (minimum 28' inside/45' outside): \_\_\_\_\_ ft.
- Turnaround provided:  None     Sub Standard     Standard         N/A
- Grade Provided:  < 10'     < 15'     < 20'    Current \_\_\_\_\_ %  
 > 20' Code Alternate Required

## 6. FIRE REQUIREMENT

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- No Fire Requirement
- Monitored Household Fire Alarm
- 13D Fire Sprinkler System
- 13R Fire Sprinkler System
- Code Alternate Proposal