

Suyama Peterson Deguchi

21 April 05

Jeromy Hicks
Fire Marshal
City of Mercer Island
3030 78th Ave SE
Mercer Island WA 98040

RE: Permit Application #2103-222 – Application for Fire Code Alternate

Address: 5401 W Mercer Way

Fire Area: 4723 Total Gross Square Feet

Attn: Jeromy Hicks

Please accept this fire code alternate request for application # 2103-222.

Scope:

The scope of the project includes the demolition of an existing single-family residence with attached carport and construction of a new single-family residence with attached (2-car) carport.

The proposed residence is a 2-story building, with slab on grade and a cathedral ceiling, gable roof; no crawlspaces exist. There will be a small attic area where the carport roof intersects the main house roof, at the Entry and Primary Bathroom. The lower level will be half basement and half partially enclosed exterior space. There are decks on both east and west sides. They are accessed off the main, upper story and will be partially covered by the main roof overhang. The west deck is closed-framed, sloped to drain; the east deck is open-framed.

Fire Code Review:

The following deficiencies were identified during the permit application review at intake:

1. No turnaround for fire trucks on the fire access road.
2. Grade on site exceeds 10%.
3. The width of the fire access road is less than 20'-0"; widths less than 12'-0" require a fire code alternative request.

Proposed Alternative Fire Protections:

To mitigate the deficiencies identified in the fire code review, based upon the recommendations of the Mercer Island Fire Marshal, Jeromy Hicks, we are proposing to incorporate an NFPA 13-R Fire Sprinkler System and an NFPA 72 Monitored Fire Alarm System throughout the residence, as well as, install 5/8" 1-hour rated Type 'X' gypsum wallboard on all walls and ceilings, and solid core interior swing and pocket doors throughout.

Conclusion:

Due to these considerations, we believe the proposed mitigation measures are equal to or better than the code requirement.

The following is a summary of the proposed fire protection system:

- NFPA 13-R fire sprinkler system.
- NFPA 72 monitored fire alarm system.
- Type 'X' gypsum wallboard throughout the structure.
- Solid core swing and pocket doors throughout the structure.

If you would like any further information about our proposed improvements, feel free to contact me at any time.

Sincerely,

Jay Deguchi AIA | Partner
Suyama Peterson Deguchi