



Department of Public Safety
Fire Marshal's Office
9611 36th St SE
Mercer Island, WA 98040
(206) 236-3515 voice mail/direct

Attn: Rod Mandery, Fire Marshal



FIRE REVIEW

READ CAREFULLY

Pages 1 through 5.

DATE: 03-07-2006 **Permit #** 0602-121 **TYPE OF PROJECT:** NSFR
Square footage gross total: 9500
PROJECT ADDRESS: 3315 97th Ave SE

Owners Name: Petrie **Owner Mailing:** **Contractor:** Beckes **Architect:**

NOTE: RESPONSIBLE PARTY MUST READ AND SIGN THIS DOCUMENT

TO THE GENERAL CONTRACTOR: This document contains information for the **plumbing contractor** (fire and water line), the **electrical contractor** (fire alarm requirements) and the **fire sprinkler contractor** (design requirements).

AN APPROVED FIRE SPRINKLER SYSTEM IS REQUIRED SEE ITEMS 2-5

Caution, do not add square footage to the original drawing without re-submitting for plan review.

Fire Marshals Office Plan Review Comments

REQUIREMENTS FOR OCCUPANCY

Item 1. PREMISES IDENTIFICATION:

- A. Approved clearly visible numbers are required for the rapid identification of buildings that emergency units may respond to.
- B. Signs shall be durable and all weather. Numeral height shall be a minimum of 6 inches with a minimum of 3/4" stroke.
- C. Sign color shall be well contrasted to background and preferably reflective.
- D. All forks or turn-offs of access roads leading to the final driveway shall be marked. The driveway shall be marked with the house address numerals as shall the home or building facing the entrance drive. **EXCEPTION:** If the home and address sign is clearly visible from the municipal street extra signs are not required. **WE CANNOT HELP YOU IF WE CANNOT FIND YOU!**

Item 2. ACCESS FOR FIRE APPARATUS AND PERSONNEL:

FIRE LANE: *The road surface that fire and emergency vehicles must use to arrive at this building, whether private or not.*

- 12 feet of paved surface with 2-foot clear shoulders.
- Inside turning radius must not be less than 30 inside diameter.
- This is only acceptable with fire sprinklers. Otherwise fire access shall conform to International Fire Code Chapter 5 and Appendix "D".
- Bridges shall be designed to AASHTO Standards, 40,000 GVW minimum.
- Bridge shall have sign erected stating GVW Load

Fire and Rescue Access Around Building:

- (a) A clear path around the house shall be maintained for fire and rescue access.
- (b) A minimum four foot wide space around the exterior shall be maintained.
- (c) Grass, pavement or gravel is acceptable.
- (d) Fenced areas shall have gates provided at each end of the house if applicable.

DRIVEWAY OR FIRE LANE SECURITY GATES

GATE CLEARANCE:

- (a) WIDTH: Clear unobstructed width of the security gate including the hinges, shall be no less than **20 feet**. See *Appendix "D" of the International Fire Code, 2003 Edition*
- (b) VERTICAL CLEARANCE: Minimum height shall be 13'9" feet of vertical clearance above fire apparatus, or as approved by the Fire Marshal.
- (c) SECURITY: **Knox Gate Switch For Security Gate:** An approved Knox™ brand gate key-switch shall be included for emergency vehicle access.
- (d) POWER FAILURE: The gate must be capable of being opened in the event of a power failure.
- (e) ORDER FORM: Order forms are obtained from Fire Marshal for **KNOX BOX™** security entry systems, or at the headquarters Fire Station 3030 78th Ave SE.

Item 3. Fire Flow and Fire Hydrant Requirements:

N/A

Item 4. SMOKE/HEAT AUTOMATIC DETECTION ALARMS:

Automatic Smoke Detection:

- If FIREX model is used the water flow alarms can be connected to the smoke alarms by using the approved module # 0498, interfacing the water flow switch with the smoke alarm horns.
- If Kidde smoke alarms are used the water flow switch may be connected to the sounder side of the line voltage smoke alarms using relay/power supply module SM120X

Water flow alarm monitoring: REQUIRED

NOTE: Also see water flow alarm below.

ITEM 5. FIRE SPRINKLER REQUIREMENTS

TO THE GENERAL CONTRACTOR: Provide a copy of this document to the fire sprinkler contractor.

Provide for a path for the combination drain and test line to the outside. Planning is essential especially if the fire sprinkler riser is located below grade. Floor drains are no longer accepted for fire sprinkler test/drain lines.

DO NOT allow the sprinkler heads or the concealed cover plate to be painted or coated with any materials. If you need to match the color of the sprinkler cover it must be ordered through the sprinkler company.

Carefully read the alarm information.

DO NOT allow the plumber to install a pressure reducing valve (PRV) or a shut off valve on the fire sprinkler side of the water line. No shut off valves (other than the City valves and meter) or prv's from the wet tap in the City water main to the backflow preventer at the base of the sprinkler riser.

TO THE SPRINKLER CONTRACTOR: NFPA 13-R Sprinkler required

An approved fire sprinkler system shall be installed throughout.

The fire sprinkler system shall be designed and installed in accordance with NFPA 13-R, 1999 Edition. Submit full plans in accordance with NFPA 13-R.

PLEASE NOTE: If the plans are not complete they will be returned.

General Information

- (a) **RISER LOCATION.** The riser controls and backflow preventer shall be installed in a room that is easily accessible. Do not install the riser or backflow preventer controls in any crawl space or similar area of difficult access. Backflow preventer must be installed with the test connections facing away from the wall.
- (b) **PLUMB DRAIN OUTSIDE.** The drain shall be plumbed to the outside using approved pipe. The termination shall not cause erosion or damage to the foundation. In the event that the test/drain line must be designed with a low point, an auxiliary drain shall be installed at such low point.
- (c) **FLUSH THE SUPPLY LINE BEFORE HOOKING TO SPRINKLER PIPE.** It is vital that the water supply for the fire sprinkler system is properly flushed to prevent debris from entering the system. The underground utilities inspector shall witness the flush.
- (d) **GARAGE SPRINKLERS:** 4-head design calculate for the most demanding area.
- (e) **FDC Required** to be located in a plainly visible location. 1 ½" female swivel with cap and chain required.
- (f) **TESTING:** Three fire sprinkler system tests are required.
 - I. Per NFPA

- II. Per NFPA
- III. Per NFPA. FINAL. A final test for occupancy is required. All alarms must be installed and operational along with the backflow preventer test and head box and wrenches with the system properly drained and all controls properly labeled.

WATER FLOW ALARM: Per NFPA 13 and 72.

This system is required to send an automatic signal of water flow to a Central Station receiver through an approved UL Listed automatic dialer. The account must be in place before the final flow test.

TO THE ELECTRICAL CONTRACTOR:

- **Exterior:** 10" potter bell above the FDC

NOTE: For any alarm, suppression or special system to be approved the installer shall be present for all witnessed testing. The alarm company shall be present for the water flow test. The monitored account shall be established and active before the final test is called for.

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ITEM 6. FIRE SAFETY DURING CONSTRUCTION


1. Fire extinguishers shall be placed and clearly marked so that no travel distance shall exceed 50 feet.
2. Flammable liquids are not allowed to be used for cleaning.
3. The application of flammable spray finishes is **specifically prohibited inside the structure**. The spraying of flammable finishes shall be accomplished in an approved spray booth and the finished wood transported to the site for assembly.
4. NO SMOKING signs shall be posted throughout, especially when flammable finishes are being applied.
5. The contractor may use flammable lacquer finish that is applied by brush.
6. Contact cement or other flammable glues shall be used in a well-ventilated area with no smoking signs erected and sources of potential ignition eliminated.
7. Welding, cutting and pipe brazing shall be done with extreme care and a fire watch shall be maintained for 30 minutes after the hot work is completed. Fire extinguishing equipment shall be readily available while all hot work is underway.

FOR TESTING CALL THE INSPECTION REQUEST LINE (206) 236-3587

NOTE:

- The owner must retain a copy of this document.
- The fire sprinkler system is required as a condition of occupancy.
- The fire sprinkler system shall be maintained in service for the life of the building.
- The owner is responsible for the care and maintenance of the required system. System must be serviced on a regular basis at least every two years by a fire sprinkler inspection company.

SIGNATURE REQUIRED: The person picking up the plans will sign as the responsible party.


_____ I have read and understand requirements
Owner/Authorized Representative

- I shall provide the owner with a copy of this document initial _____.

Date 6/6/06