Development Services

From Concept to Construction

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APPEAL SUMMARY

Status: Decision Rendered - Held over from ID 16071 (11/8/17) for additional information

Appeal ID: 16155	**Project Address:** 19900 NW Watson Rd
Hearing Date: 11/22/17	**Appellant Name:** Rich Bailey
Case No.: B-006	**Appellant Phone:** 503-880-6679
Appeal Type: Building	**Plans Examiner/Inspector:** Tara Carlson
Project Type: residential	**Stories:** 1 **Occupancy:** residental **Construction Type:** new home
Building/Business Name: Rich Bailey Construction LLC	**Fire Sprinklers:** No
Appeal Involves: Erection of a new structure	**LUR or Permit Application No.:** 17-225452-DFS-01-RS
Plan Submitted Option: mail [File 1]	**Proposed use:** residental

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	ORS 455.610
Requires	Whole house sprinkler system
Proposed Design	Original text: Install a monitored fire alarm, install a non-combustible roof material, install non-combustible siding, defensible space of 30' around structure, fire separation 100' around house, 5/8" drywall in garage with one hour door, if need install a in ground swimming pool that would hold 25,000 gallons of water. Reconsideration text: As per letter from Fire Chief of Scappoose Mike Greisen we are going to be using his option #2 installing a in ground swimming pool that will hold a minimum of 25,800 gallons of water to assist in fire fighting.
Reason for alternative	Original Text: The customers do not want a sprinkler system in their home we feel with the location of home so close to HWY 30 plus the methods of construction we are using that we have a very low fire chance. We are also being required to install a fire turn around for their fire trucks. Reconsideration text: The home owners are not wanting a sprinkler system in their new home. We feel with the in ground swimming pool plus the construction methods we are using, plus the location to Hwy 30 and a fire truck turn around we have a very low chance of a major fire event.

APPEAL DECISION

Omission of residential fire sprinkler system with alternate water supply source per O.R.S. 455.610: Granted as proposed with recommendation of Scappoose Fire Chief and compliance to O.A.R. 918-480-0125(2).

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

SCAPPOOSE RURAL FIRE PROTECTION DISTRICT

P.O. Box 625 • 52751 Columbia River Hwy. • Scappoose, Oregon 97056
Phone: (503) 543-5026 • FAX: (503) 543-2670 • www.srfd.us

October 13, 2017

To: Terry White, Building Official
Dawn Drantz, Fire Land Use Review Tech

This letter is in reply of your request for comments from application #17-225452-000-00-RS located at 19900 Watson Road, Multnomah County

The request from the contractor for using uniform alternate construction standards as in

- Installation of fire-resistance exterior siding
- Installing non-combustible roofing
- Defensible space of 30' around structure
- Fire separations 100" around structure

The above alternate construction standards as we understand are related to the urban interface areas under OAR 629-044-1060 or the International Urban Wildland Interface Code which were develop to either stop structure from burning during a wildfire or structure fire from spreading to the urban interface. These alternatives really don't focus on fire flow requirements but for meeting setback for primary and secondary areas.

- 5/8 type X sheetrock in garage is acceptable if it meets the intent of Oregon Fire Code, Appendix B, Section B104.2 on area separation. Would the square feet of the floor area within the exterior walls and under the horizontal projections of the roof be less than 3600 square feet?

The Scappoose Fire District feels there are three options to meet the fire-flow requirements for this residential structure which is located in a protected area without adequate and reliable water system.

Any of the following three options are acceptable to the Scappoose Fire District and we will abide by your decision.

Option 1
Appendix B, Section B104.2 Area separation. Portions of buildings which are separated by fire walls, constructed in accordance with the International Building Code (Oregon Structural Specialty Code) are allowed to be considered as separate fire-flow calculation

area. Using this code would allow this residential structure to be separated down to 3600 square feet which would require no additional water supply.

Option 2
Appendix B, Section B107.1 Areas without water supply system. It allows the use of NFPA 1142, International Urban-Wildland Interface Code or the ISO Guide for Determining Needed Fire-Flow. Alternate water supply allows the use of rivers, streams, lake, ponds, tanks, cisterns, swimming pools and other means to supply the necessary water to meet the fire flow requirement.

NFPA 1142, Chapter 4 (4.1.1) Calculation for fire flow. Attached are the calculations for this residential structure. Fire flow needed would be 33,800 gallons minus 8,000 gallons carried by fire apparatus remaining water needed is 25,800 gallons. Or

International Urban-Wildland Interface Code 404.5 Adequate water supply for a one and two family dwelling shall be 1,500 gallons per minute for a minimum duration of 30 minutes. Fire flow needed would be 45,000 gallons minus 8,000 gallons carried by fire apparatus, remaining water needed is 37,000 gallon. Or

ISO Guide for Determining Needed Fire-Flow for ISO 8B rating requires 500 gallons per minute for 2 hours which is 60,000 gallons minus 8,000 gallons carried by fire apparatus, minus tanker operations over 2 hours is 33,000 gallons, remaining water needed is 19,000 gallons.

Option 3
Installation of a residential approved 13D automatic sprinkler system installed in accordance with Appendix T of the Oregon Residential Specialty Code would require no additional water supply.

If there are other options for this contractor which we are not aware of, please let us know as we are more than willing to consider them. If you feel we do not understand the codes correctly we could meet with you in your office so we can have a discussion on the interpretation of the codes. We are available to ome into Portland at a time that works best for you.

Respectfully Submitted

Michael S, Greisen
Fire Chief

19900 NW WATSON ROAD AP #17-225452-000-00-RS

First Floor:	**Length =**	60	**Width =**	37.5	**Sq. Ft. =**	2,250
Second Floor:	**Length =**	60	**Width =**	23.5	**Sq. Ft. =**	1,410
Third Floor:	**Length =**		**Width =**		**Sq. Ft. =**	-
					Total Sq. Ft. =	3,660
	Ceiling Height =	22			**Cu. Ft. =**	80,520
*Note: Fill in one.	**Attic Height =**	11	Standard pitch		**Cu. Ft. =**	20,130
or:	**Attic Height =**		Gambrel attic		**Cu. Ft. =**	-
or:	**Attic Height =**		Mansard attic		**Cu. Ft. =**	-

Additional space: (porch, etc.)	22 Length	21 Width	10 Height	**Cu. Ft. =**	4,620
				Total Cu. Ft. =	105,270

Total Cu. Ft. = 105,270 **OHC =** 7 **Gallons =** 15,039

Note Occupancy Hazard Classification number is 7 for dwellings, small office complexes and similar constructed facilities. Refer to NFPA 1142 for other types of structures.

Gallons = 15,039 **CCN =** 1.5 **Gallons =** 22,558

Note Type II Construction .75. Ex: Cinderblock, approved non-combustible material.
Type III Construction 1.0. Ex: Brick vaneer, approved non-combustible material, or limited combustible.
Type V Construction 1.5. Ex: Wood frame, wood or other approved combustible material.

Gallons = 22,558 **Exp =** 0 **Gallons =** 22,558

Note Any structure within 50' of burn structure is considered an exposure and requires total gallons to be multiplied by 1.5. Add .5 to this number for each additional exposure. (Example: 1.0 + .5 + .5 + .5 = 2.5 exposure factor for 3 exposures.

Total Gallons Required	GPM Flow
Up to 2,499 Gallons	250 GPM
2,500 to 9,999 Gallons	500 GPM
10,000 to 19,999 Gallons	750 GPM
20,000 or more	1000 GPM

Required GPM's = 1000

In accordance with NFPA 1403, an additional water supply in the amount of 50% of total required fire flow must be available to handle unforseen situations.

Gallons = 22,558 **at** 1000 **GPM** **for** 23

22,558 **Gallons** x 1.5 = 33,837 **Total Gallons**