

# Development Services

## From Concept to Construction

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### APPEAL SUMMARY

**Status:** Decision Rendered - Held over from ID 27531 (2/23/22) for additional information

<b>Appeal ID:</b> 27749	<b>Project Address:</b> 2422 NE Glisan St
<b>Hearing Date:</b> 5/11/22	<b>Appellant Name:</b> Tom Jaleski
<b>Case No.:</b> B-013	<b>Appellant Phone:</b> 971-238-5266
<b>Appeal Type:</b> Building	<b>Plans Examiner/Inspector:</b> Catherine Heeb
<b>Project Type:</b> commercial	<b>Stories:</b> 3 <b>Occupancy:</b> R-2, S-1 <b>Construction Type:</b> V-B
<b>Building/Business Name:</b>	<b>Fire Sprinklers:</b> Yes - Throughout per NFPA 13
<b>Appeal Involves:</b> Correction of a violation, Reconsideration of appeal, occ Change from R-3 to R-2	<b>LUR or Permit Application No.:</b> 20-222001-CO
<b>Plan Submitted Option:</b> pdf [File 1] [File 2] [File 3]	<b>Proposed use:</b> Multi-family dwelling (fourplex)

### APPEAL INFORMATION SHEET

#### Appeal item 1

<b>Code Section</b>	OSSC 111.1 & OAR 918-020-0390
<b>Requires</b>	<p>OSSC 111.1 Change of Occupancy – a building shall not undergo a change of use or occupancy classification until the building official has issued a certificate of occupancy.</p> <p>OAR 918-020-0390 –</p> <p>(1) A municipality may grant approval for conversion to no more than four dwelling units through alternate methods, modifications, and waivers to:</p> <ul style="list-style-type: none"><li>(a) means of egress requirements;</li><li>(b) smoke/carbon monoxide alarms;</li><li>(c) fire separation, fire resistance ratings, dwelling unit penetrations and compartmentalization;</li><li>and (d) automatic fire sprinkler systems.</li></ul> <p>(2) A building official may consider whether an automatic sprinkler system is technically feasible and consider alternate methods and materials, provided that adequate safeguards exist to address the items listed in section (1) and other appropriate measures are in place to ensure public safety, fire and smoke control, and safe egress.</p> <p>(3) A building official may accept an alternate method, modification, or waiver of other code items pertaining to the conversion of existing single-family dwellings into no more than four dwelling units; a building official may not approve a condition that would create an imminent threat to public health and safety.</p> <p>(4) Applicable standards for the conversion of a single-family dwelling into two dwelling units follows the construction standards of the ORSC, and a conversion into three or four dwelling units follows the construction standards of the OSSC.</p>

**Code Modification or Alternate Requested** The intent of the appeal is to bring the building into compliance with the proposed modifications in this appeal.

**Proposed Design** This 4,000 square foot home located at 2422 NE Glisan Street was built in 1913 as a single-family residence and subsequently renovated to support four dwelling units. There is no record of these alterations and the current owner was unaware that it had undergone a change of use without a permit.

The main level residential unit with three bedrooms, three baths, and a kitchen is accessed by an exterior stairway and front porch. A studio unit that was added at some point to the back of the main level has a bedroom, bath, kitchen, and rear stairway access. The lower level has grade level access and has been compartmentalized with separate access to storage (S 1) and a residential unit with two bedrooms, one bath, and kitchen. The upper level unit has three bedrooms and two baths, with access off the front porch via an interior stairway. See attached floor plans.

The proposed scope of work is to bring the previously unpermitted construction into compliance with the building codes. The home was built prior to the adoption of statewide codes and later modifications may have followed the Council of American Building Officials (CABO) One- and Two-Family Dwelling Code. Since the home was built prior to the adoption of the statewide codes it does not meet the applicable requirements of either the current codes or the legacy residential dwelling code. This makes it impractical if not infeasible to meet all the requirements of the OSSC for a multi-plex residential building.

Therefore, this appeal proposes to follow the path of OAR 918-020-0390, which is to balance the limitations of the existing construction with the interests of public health and safety. It focuses on four elements: (a) means of egress requirements; (b) smoke/carbon monoxide alarms; (c) fire separation, fire resistance ratings, dwelling unit penetrations and compartmentalization; and (d) automatic fire sprinkler systems.

We propose the following design approach:

Occupancy – R-2

Structure – Existing residential structure to be upgraded as outlined in the attached letter from Miller Consulting Engineers based on the 2019 OSSC.

Means of Egress: As required for R-2 occupancy

- a. Common path – 125 feet
- b. Exit access travel – 250 feet
- c. Number of exits per dwelling unit – One (1) per dwelling unit
- d. Number of exit stairs – Single (1) enclosed stair connecting upper floor
- e. Emergency exit windows – Not required per 1030.1, exception 4.

Acoustic separation: The existing 3/4" lath and plaster ceiling is covered with 1/2" Type-X gypsum board to improve the STC Sound Transmission Class (airborne) ratings. The ceiling construction between the floors has 5/8" Type-X gypsum board.

Fire separations/Compartmentalization:

- a. Interior walls between dwelling units – existing 5/8-inch Type-X gypsum board to each side (see attached drawing A0.1).
- b. Interior wall between the storage and dwelling unit – existing 5/8-inch Type-X gypsum board to each side (see attached drawing A0.1).
- c. Interior exit stair – Add 5/8-inch Type-X gypsum board on the interior over existing plaster finish.
- d. Floors/ceilings – Existing 3/4" lath and plaster covered with 5/8" Type-X gypsum board (see attached drawing A0.1).
- e. Exterior walls – Non-rated when more than 4 feet from property line with NFPA 13D sprinklers throughout.

f. Exterior openings – Unprotected openings when at least 4 feet from property lines with NFPA 13D sprinklers throughout.

Sprinkler Protection: NFPA 13D sprinklers throughout (OSSC 903.3.1.3).

Smoke detectors: Existing condition recently inspected and approved by City of Portland Fire Inspector.

Carbon monoxide detectors: Existing condition recently inspected and approved by City of Portland Fire Inspector.

**Reason for alternative** There are several houses of this size and vintage in the City of Portland. Large residences close to the urban core were in demand in the early 1900s. With the advent of automobiles and urban congestion, many families moved to the suburbs. Decreasing family sizes, and the number of families greatly increasing, expanded the need for more dwelling units in the city. These large homes became too expensive for single families to purchase or maintain, and it has long been commonplace to convert them into multiplexes with separate living facilities. These and comparable multiplexes from that era and even later were built without any sprinkler protection or compartmentalization. OAR 918-020-0390 was enacted to recognize the safe conversions of such existing multi-family dwellings to meet the need for affordable housing within the city limits and provide a way to bridge the gap between what is prescriptively required and what is realistically possible.

Conversion of an existing residential structure built in the 1913 to meet the requirements of the current OSSC for a new R-2 occupancy is very challenging. We believe the proposal to upgrade the existing structure as proposed will provide the appropriate level of safety, consistent with the intent of 2019 OSSC and OAR 918-020-0390.

This house at 4,000 sf is much smaller than most R-2 apartment buildings and requiring it to meet that higher standard is excessive, especially when compared to the relatively low risk it poses to the surrounding structures. Historical data from residential fires confirms that the best way for improving safety for residential structures is to add fire protection and smoke detection. For a building of this size and limited to three stories, the addition of sprinklers, smoke detectors, carbon monoxide detectors, and upgrading the walls separating the dwellings, storage area, and the main stair, will substantially improve the level of safety.

Where four or more dwelling units are added, the units being added must meet the requirements of Section 1107 for Type B units based on OSSC 3403.4 which modifies IEBC 305.8.8. In this case three dwelling units are being added and Type B units will not apply.

Full remediation of this existing building based on prescriptive requirements 2019 OSSC for an R-2 occupancy is infeasible. The proposed design provides safeguards and appropriate measures to ensure public safety, fire and smoke control, and safe egress. We request approval of the conversion of the existing single-family dwelling into four dwelling units as proposed based on the provisions of OAR 918-020-0390.

RECONSIDERATION TEXT: In this reconsideration, we are adding a Code Compliance Report per our discussion with Catherine Heeb. There are no other changes.

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## APPEAL DECISION

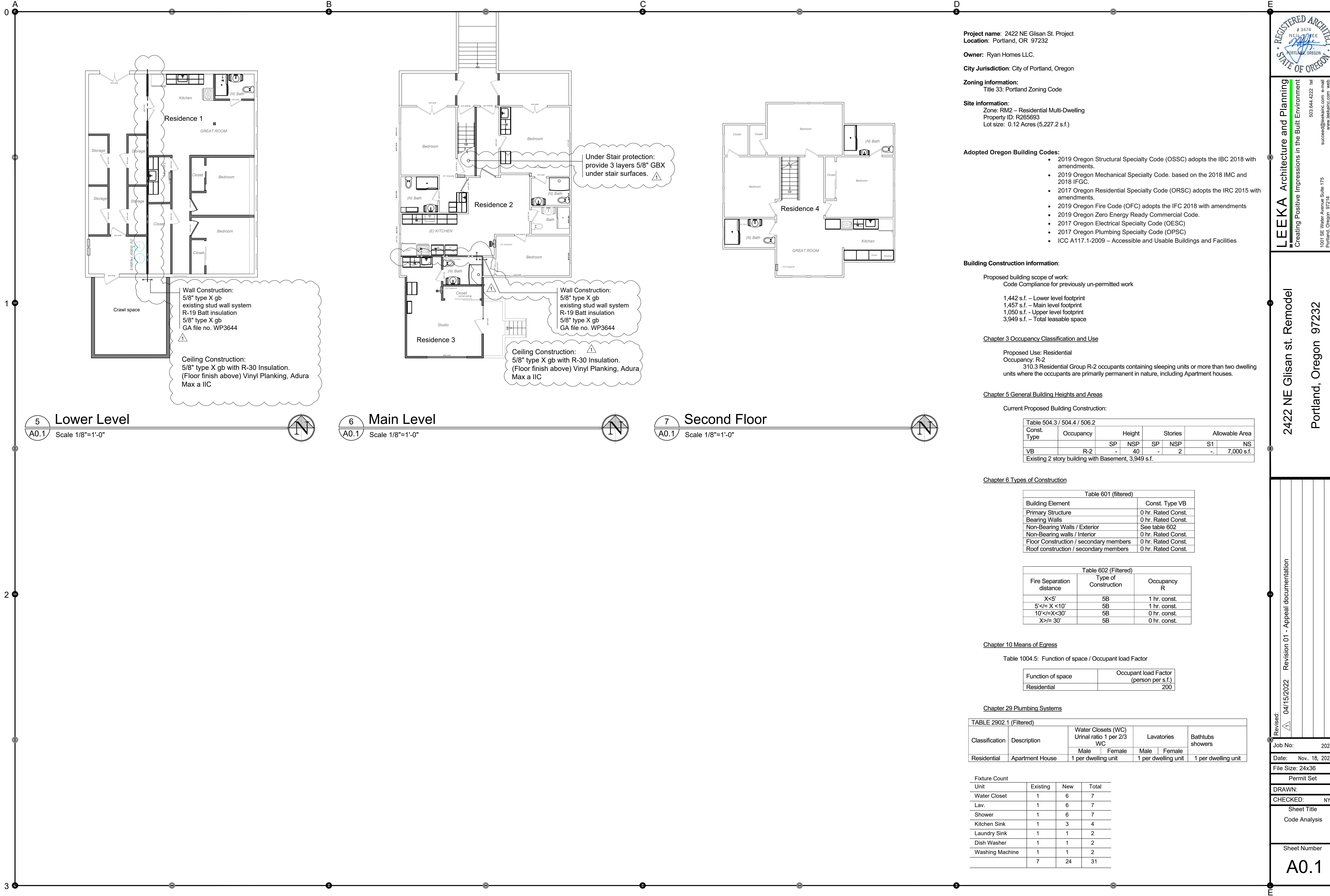
**Conversion of single family dwelling to four-plex per OAR 918-020-0390: Granted provided the emergency escape and rescue openings are verified at time of plan review and provided the 13D sprinkler installation, to include closets, storage areas and bathrooms, is permitted through the Fire Marshal's office.**

**Appellant may contact John Butler (503 865-6427) or e-mail at [John.Butler@portlandoregon.gov](mailto:John.Butler@portlandoregon.gov) with questions.**

The Administrative Appeal Board finds with the conditions noted, 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 90 calendar days of the date this decision is published. For information on the appeals process, go to [www.portlandoregon.gov/bds/appealsinfo](http://www.portlandoregon.gov/bds/appealsinfo), call (503) 823-7300 or come in to the Development Services Center.

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**Project name:** 2422 NE Glisan St. Project  
**Location:** Portland, OR 97232

**Owner:** Ryan Homes LLC.

**City Jurisdiction:** City of Portland, Oregon

**Zoning information:**  
Title 33: Portland Zoning Code

**Site information:**  
Zone: RM2 – Residential Multi-Dwelling  
Property ID: R265693  
Lot size: 0.12 Acres (5,227.2 s.f.)

- Adopted Oregon Building Codes:**
- 2019 Oregon Structural Specialty Code (OSSC) adopts the IBC 2018 with amendments.
  - 2019 Oregon Mechanical Specialty Code. based on the 2018 IMC and 2018 IFGC.
  - 2017 Oregon Residential Specialty Code (ORSC) adopts the IRC 2015 with amendments.
  - 2019 Oregon Fire Code (OFC) adopts the IFC 2018 with amendments
  - 2019 Oregon Zero Energy Ready Commercial Code.
  - 2017 Oregon Electrical Specialty Code (OESC)
  - 2017 Oregon Plumbing Specialty Code (OPSC)
  - ICC A117.1-2009 – Accessible and Usable Buildings and Facilities

**Building Construction information:**

Proposed building scope of work:  
Code Compliance for previously un-permitted work

1,442 s.f. – Lower level footprint  
1,457 s.f. – Main level footprint  
1,050 s.f. - Upper level footprint  
3,949 s.f. – Total leasable space

**Chapter 3 Occupancy Classification and Use**

Proposed Use: Residential  
Occupancy: R-2  
310.3 Residential Group R-2 occupants containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including Apartment houses.

**Chapter 5 General Building Heights and Areas**

Current Proposed Building Construction:

Table 504.3 / 504.4 / 506.2						
Const. Type	Occupancy	Height		Stories		Allowable Area
		SP	NSP	SP	NSP	S1 NS
VB	R-2	-	40	-	2	- 7,000 s.f.
Existing 2 story building with Basement, 3,949 s.f.						

**Chapter 6 Types of Construction**

Table 601 (filtered)	
Building Element	Const. Type VB
Primary Structure	0 hr. Rated Const.
Bearing Walls	0 hr. Rated Const.
Non-Bearing Walls / Exterior	See table 602
Non-Bearing walls / Interior	0 hr. Rated Const.
Floor Construction / secondary members	0 hr. Rated Const.
Roof construction / secondary members	0 hr. Rated Const.

Table 602 (Filtered)		
Fire Separation distance	Type of Construction	Occupancy R
X<5'	5B	1 hr. const.
5'<= X <10'	5B	1 hr. const.
10'<=X<30'	5B	0 hr. const.
X>= 30'	5B	0 hr. const.

**Chapter 10 Means of Egress**

Table 1004.5: Function of space / Occupant load Factor

Function of space	Occupant load Factor (person per s.f.)
Residential	200

**Chapter 29 Plumbing Systems**

TABLE 2902.1 (Filtered)

Classification	Description	Water Closets (WC)		Lavatories		Bathtubs showers
		Male	Female	Male	Female	
Residential	Apartment House	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit

Fixture Count

Unit	Existing	New	Total
Water Closet	1	6	7
Lav.	1	6	7
Shower	1	6	7
Kitchen Sink	1	3	4
Laundry Sink	1	1	2
Dish Washer	1	1	2
Washing Machine	1	1	2
	7	24	31



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2422 NE Glisan st. Remodel  
Portland, Oregon 97232

Revised: 04/15/2022 Revision 01 - Appeal documentation

Job No: 2022

Date: Nov., 18, 2020

File Size: 24x36

Permit Set

DRAWN:

CHECKED: NYL

Sheet Title  
Code Analysis

Sheet Number

A0.1





# 2422 NE Glisan Street

## Code Compliance Report

Client Name: Stephanie Ryan

Client Address: 2422 Glisan St, Portland, OR

Date: 5/4/2022

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# 1 OVERVIEW

## 1.1 Project Background

This home located at 2422 NE Glisan Street was built in 1913 as a single-family residence and subsequently renovated to support four dwelling units. There is no record of these alterations, and the current owner was unaware that it had undergone a change of use without a permit. The building was built to legacy residential codes and is being altered to an R-2 occupancy. It has an aggregate floor area of approximately 4,000 square feet on three floor levels.

The main level residential unit with three bedrooms, three baths, and a kitchen is accessed by an exterior stairway and front porch. A studio unit at the back of the main level has a bedroom, bath, kitchen, and rear stairway access. The lower level has grade level access and has been compartmentalized with separate access to storage (S-1) and a residential unit with two bedrooms, one bath, and kitchen. The upper-level unit has three bedrooms and two baths, with access off the front porch via an interior stairway. The main function of the building is multi-family residential.

Appeal #27531 was submitted in order to bring the building into compliance with the commercial code based on the existing and proposed modifications. This document serves as additional information for reconsideration of the appeal. The following parameters provide a basis of analysis for the report:

<i>Occupancy Groups:</i>	R-2, S-1
<i>Occupancy Separation:</i>	Non-separated
<i>Stories:</i>	3 stories
<i>Sprinklers:</i>	Building fully sprinklered in accordance with NFPA 13D
<i>Accessibility:</i>	Type B units not applicable per OSSC §1107

## 1.2 Applicable Codes and Standards

Year	Code
2019	Oregon Structural Specialty Code (OSSC)
2019	Oregon Fire Code (OFC)

## 1.3 Key Clarifications

This report provides an analysis of the fire and life safety code requirements, which include:

- Use and occupancy
- Building size requirements
- Type of construction and exterior wall fire resistive construction



- Fire and smoke protection
- Means of egress with exit access travel distance
- Energy efficiency

The analysis is provided in the code compliance tables in Section 2 below of this report.

## 2 CODE COMPLIANCE TABLE

### 2.1 Table A – Building Parameters and Occupancy

No.	Basis	Compliance Criteria	Compliance
<b>OCCUPANCY GROUP</b>			
A.1	OSSC §310.3	Residential Group R-2. Dwelling units will need to comply with fire life safety requirements of a Group R-2 occupancy.	Complies based on design proposed herein.
A.2	OSSC §311.2	Moderate-hazard storage, Group S-1	Complies based on design proposed herein.
<b>CONSTRUCTION TYPE</b>			
A.3	OSSC §602.5	Type V-B	Complies based on design proposed herein.
<b>ALLOWABLE AREA</b>			
A.4	OSSC Table 506.2	For an R-2 occupancy with V-B construction, 7,000 square feet of allowable area	Complies. Building is 3,949 square feet.
<b>ALLOWABLE HEIGHT</b>			
A.5	OSSC Table 504.3	R Occupancy buildings: S, S13R – 60 ft NS, S13D – 40 ft	Complies with unsprinklered 40-foot requirement. Building height is 28'-4" above grade plane.
<b>ALLOWABLE STORIES</b>			
A.6	OSSC Table 504.4	For an R-2 occupancy with V-B construction: 3 stories above grade are allowed for NFPA 13R sprinklers	Proposed appeal for 3 stories above grade with NFPA 13D sprinklers.

## 2.2 Table B – Fire-Rated Separations and Opening Protection

No.	Basis	Compliance Criteria	Compliance
<b>FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS</b>			
B.1	OSSC Table 601	<p>Requirements of Type V-B construction, unless required by other sections of the IBC, include:</p> <p>Non-rated primary structural frame  0-hr exterior bearing walls  0-hr interior bearing walls  0-hr nonbearing interior walls and partitions  0-hr floor construction  0-hr roof construction</p>	Complies based on design proposed herein.
B.2	OSSC §1011.7.3	Storage closets required to be 1 hour rated	Proposed addition of three layers of 5/8-inch Type-X gypsum board at storage closet under the interior stair (see attached drawing A0.1).
<b>VERTICAL OPENINGS</b>			
B.3	OSSC §713.4	Shaft enclosures connecting less than 4 stories are required to be rated to no less than 1 hour	Proposed addition of 5/8-inch Type-X gypsum board on the interior of the interior exit stair over existing plaster finish (see attached drawing A0.1).
<b>OCCUPANCY SEPARATION</b>			
B.4	OSSC §508.2.4	R-2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from accessory occupancies contiguous to them in accordance with the requirements of Section 420	Complies based on design proposed herein (see B.5 – B.7 below).
B.5	OSSC §420.2	Walls separating dwelling units in the same building shall be constructed as fire partitions in accordance with section 708.	Interior walls between dwelling units, and interior walls between the storage and dwelling unit are existing 5/8-inch Type-X gypsum board per GA WP3644 (see attached drawing A0.1). Request approval of existing condition.
B.6	OSSC §420.3	Floor assemblies separating dwelling units in the same buildings shall be constructed as horizontal assemblies in accordance with section 711.	Floors and ceilings are existing 3/4" lath and plaster covered with 5/8" Type-X gypsum board (see attached drawing A0.1). Request approval of existing condition.

No.	Basis	Compliance Criteria	Compliance
B.7	OSSC §420.10, OMSC §917.2	In Group R occupancies, cooking appliances installed within dwelling units shall be listed and labeled as household-type appliances for domestic use.	Standard domestic appliances observed.
<b>EXTERIOR WALLS</b>			
B.8	OSSC §705.8.1, Table 705.8	Maximum area of exterior wall openings based on fire separation distance and degree of opening protection (unprotected, sprinklered): <ul style="list-style-type: none"> <li>• 3 to 5 feet: 15%</li> <li>• 5 to 10 feet: 25%</li> <li>• 10 to 15 feet: 45%</li> </ul>	Proposed appeal for 6.5% unprotected openings when at least 4 feet from property lines with NFPA 13D sprinklers throughout. Request approval of existing condition using NFPA 13D sprinklers in lieu of 13R following OAR 918-020-0390 (1)(d).
B.9	OSSC Table 602, §708.1, §708.3	Fire-resistance rating for exterior walls based on fire separation distance for Type V-B Group R occupancy: <ul style="list-style-type: none"> <li>• 1 hour &lt; 10 feet</li> <li>• 0 hour ≥ 10 feet</li> </ul>	Greater than 10 feet except 4 feet at northwest property line. Proposed appeal for non-rated when greater than 4 feet from property line with NFPA 13D sprinklers throughout.

## 2.3 Table C – Fire Protection/Detection and Prevention

No.	Basis	Compliance Criteria	Compliance
<b>SPRINKLERS</b>			
C.1	OSSC §903.3.1.2	Automatic sprinkler systems in Group R occupancies up to four stories in height, not exceeding 60 feet above grade plane, shall be permitted to be installed throughout in accordance with NFPA 13R.	Proposed appeal for NFPA 13D automatic sprinkler throughout.  Request approval for appeal
<b>FIRE ALARM AND DETECTION SYSTEMS</b>			
C.2	OSSC §907.2.9, §907.5.2.3.3	Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required per sections 907.2.9.1 - 907.2.9.3.  Each story containing a dwelling unit and 1 sleeping unit shall be provided with the capability to support visible alarm notification appliances	Fire alarms and smoke alarms are provided and approved by inspector.

No.	Basis	Compliance Criteria	Compliance
<b>CARBON MONOXIDE DETECTION</b>			
C.3	OSSC §915.1.2	Carbon monoxide alarms and carbon monoxide detectors shall be installed in Group R occupancies	Carbon monoxide detectors are provided and approved by inspector.

## 2.4 Table D – Means of Egress

No.	Basis	Compliance Criteria	Compliance
<b>OCCUPANT LOAD FACTORS (OLF)</b>			
D.1	OSSC Table 1004.5	Residential: 1 occupant per 200 square feet	Complies.
<b>EXIT ACCESS TRAVEL DISTANCE</b>			
D.2	OSSC Table 1017.2	In a sprinklered building: Group R – 250 ft	Complies. Maximum access travel distance is less than 250 feet.
<b>MAXIMUM COMMON PATH OF EGRESS TRAVEL</b>			
D.3	OSSC Table 1006.2.1	Maximum common path of egress for R-2 occupancy with sprinkler system is 125 ft	Maximum common path is less than 125 feet in all dwelling units. Request approval for approximately 130 feet maximum common path from southeast extreme of lower-level storage unit.
<b>REQUIRED EXITS</b>			
D.4	OSSC Table 1006.2.1	Maximum occupant load of a space with one exit or exit access doorway: Group R-2 – 20 occupants	Complies.
<b>CORRIDORS</b>			
D.5	OSSC §1020.4 Exception 2	In Group R-2 occupancy where the building is sprinklered, the length of the dead-end corridors shall not exceed 50 feet	Complies. No dead-end corridors approaching 50 feet.

No.	Basis	Compliance Criteria	Compliance
<b>EXIT DOORS</b>			
D.6	OSSC §1010.1.2 Exception 4	Egress doors shall be of the pivoted or side-hinged swinging type, with the exception of doors within, or serving, a single dwelling unit in R-2 and R-3 occupancies	Complies.

## 2.5 Table E – Interior Environment

No.	Basis	Compliance Criteria	Compliance
<b>SOUND TRANSMISSION</b>			
E.1	2019 OSSC §1206.2 §1206.3	<p>Walls, partitions and floor-ceiling assemblies separating dwelling units and sleeping units from each other or from public or service areas shall have a sound transmission class (STC) of not less than 50, or not less than 45 if field tested, for airborne noise where tested in accordance with ASTM E90.</p> <p>Floor-ceiling assemblies between dwelling units and sleeping units or between a dwelling unit or sleeping unit and a public or service area within the structure shall have an impact insulation class rating (IIC) of not less than 50, or not less than 45 if field tested, where tested in accordance with ASTM E492.</p>	<p>The existing 3/4" lath and plaster ceiling is improved by addition of 1/2" Type-X gypsum board and acoustical vinyl planking. Assembly is not tested but most likely STC rating is 55 and IIC rating is 65.</p> <p>Interior walls between dwelling units, are wood stud framing with 5/8-inch Type-X gypsum board per GA WP3644. Assembly is not tested but most likely STC rating is 40.</p> <p>Request approval for existing condition.</p>