

Development Services

From Concept to Construction

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APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 20800	Project Address: 2167 NW Glisan St
Hearing Date: 8/28/19	Appellant Name: David Horsley
Case No.: B-010	Appellant Phone: (503) 388-3680
Appeal Type: Building	Plans Examiner/Inspector: Anne Schmidt
Project Type: commercial	Stories: 3 Occupancy: R-2 Primary, E secondary Construction Type: V-B
Building/Business Name:	Fire Sprinklers: Yes - NFPA 13R Throughout
Appeal Involves: Erection of a new structure	LUR or Permit Application No.: 19-172122-EA
Plan Submitted Option: pdf [File 1] [File 2]	Proposed use: Multifamily housing

APPEAL INFORMATION SHEET

Appeal item 1

Code Section 1022.7

Requires	Exterior walls of the interior exit stairway and ramp shall comply with the requirements of Section 705 for exterior walls. Where nonrated walls or unprotected openings enclose the exterior of the stairway and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees, the building exterior walls within 10 feet horizontally of a nonrated wall or unprotected opening shall have a fire-resistance rating of not less than 1 hour. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet above the topmost landing of the stairway or to the roof line, whichever is lower.
Proposed Design	<p>The proposed stair design is an exterior egress stairway in compliance with OSSC section 1026 (except where proposed in appeal item #3 below). It is enclosed on three sides by 2-hour rated walls, and open to an exterior garden court on the fourth side. The landings protrude +/- 3' from the face of the exterior walls. The exterior walls are 1-hour rated within 10 feet horizontally of the protruding landings as required. In lieu of a 3/4-hour rated window, the alternate design proposes a single unrated, non-operable window located within the 10 foot rated wall zone on either side of the stair. These windows will each be protected by a sprinkler located on the interior, occupied side of the window, a minimum of 6 inches and a maximum of 12 inches from the opening and a maximum of 12 inches below the ceiling, on the occupied side of the window.</p> <p>The stair itself will be equipped with side wall sprinklers and constructed with non-combustible components (steel structure and guardrails, concrete treads and landings).</p> <p>The windows proposed to be non-operable are in the living/dining area of the units, so the required emergency rescue openings in the sleeping rooms are still provided per the OSSC.</p>

Both buildings are Type V-B, three stories above grade with a full/partial basement, and sprinklered throughout with an NFPA 13R system.

Reason for alternative The proposed design is located in the Alphabet Historic District, meaning the detailing of the exterior windows must be compatible with the surrounding context and also consistent within the project. The windows are proposed to be aluminum-clad double-hung wood windows in order to conform to the historical context, so providing ¾-hour rated windows (likely with a steel or aluminum frame) on such prominent and visible elevations would pose difficulties in providing a rigorous and consistent match with the historical context.

Given the safety measures provided to the stair (2-hour rated enclosing walls, side wall sprinklers, non-combustible construction), the stair provides less of a risk to the exposed walls on either side of it than the code is designed to guard against. There is also a strong precedent of approved appeals providing non-operable, sprinklered windows in lieu of a 3/4-hour rated window in similar situations (Appeal # 20599, 15059, 12842, etc.). The proposed design thereby provides equivalent life safety.

Appeal item 2

Code Section OSSC 1027.4.2

Requires Where an egress court serving a building or portion thereof is less than 10 feet (3048 mm) in width, the egress court walls shall have not less than 1-hour fire-resistance-rated construction for a distance of 10 feet (3048 mm) above the floor of the court. Openings within such walls shall be protected by opening protectives having a fire protection rating of not less than 3/4 hour.

Proposed Design The west wall of the south building is approximately 7 feet from the property line, therefore windows less than 10 feet from the property line are required to be ¾-hour rated and non-operable. The proposed alternate design provides ¾-hour rated windows, as required. Where required for OSSC emergency rescue openings, the design proposes operable windows which are protected by a dedicated sprinkler located on the interior, occupied side of the window, a minimum of 6 inches and a maximum of 12 inches from the opening and a maximum of 12 inches below the ceiling.

The west wall of the building is 1-hour fire rated for the entirety of its height. The building is Type V-B and equipped with an NFPA 13R system throughout.

Reason for alternative Two of the four windows along the egress court serve as the only emergency rescue opening for their respective sleeping rooms, so they must be operable.

The egress court in question serves only as the required accessible means of egress for the north building on the site- there is an alternate egress path which allows occupants to exit the site, via stairs, on the east side of the south building through a wider court. The north building also has a relatively small occupant load (approx. 24 total), in addition to a short path of egress discharge to the public due to the compact site.

There is a strong precedent of approved appeals (Appeal # 20599, 15059, 12842) allowing sprinkler protection of unrated windows in lieu of ¾-hour rated windows. Typically, these windows are fixed and non-operable. However, given the additional layer of protection afforded by the proposed ¾-hour rating in addition to sprinklering these windows, as well as the multiple options for egress and small occupant load, proposing two of the four bedroom windows in this area to be operable provides equivalent life safety.

Appeal item 3

Code Section	OSSC 1026.5
Requires	Exterior exit stairways and ramps shall have a minimum fire separation distance of 10 feet (3048 mm) measured from the exterior edge of the stairway or ramp, including landings, to adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.
Proposed Design	We request a small, 1 foot reduction in the required fire separation distance for the exterior exit stairway at the south building (from 10 feet to 9 feet). As noted above, the stair is enclosed on three sides with a 2-hour fire rated wall, is protected with side-wall sprinklers, and is constructed of noncombustible components (steel structure and guardrails, concrete treads and landings). The stair width exceeds the minimum required for less than 50 occupants, even though the total occupant is less than 12.
Reason for alternative	<p>The goal of the project is to create compact and efficient affordable housing units for single mothers. In order to create reasonably sized residential units, the stairways must be kept to a compact size within the building footprint. This objective is aided by allowing additional landing space. In addition, the extra landing space can be used to aid in passing by occupants on the stairs, generally improving the safety and efficacy of circulation during both normal and emergency situations.</p> <p>The building is three stories, fully protected with an NFPA 13R sprinkler system, and has a very small occupant load (four units, approx. 12 combined occupants on second and third stories).</p> <p>Given the non-combustible stair construction, provision of side-wall sprinklers on the stairs, and the small occupant load, the proposal provides equivalent life safety as required by code.</p>

APPEAL DECISION

1. Type 13 water curtain sprinkler protection at non-fire rated openings in exterior walls within 180 degrees of exit stair: Granted provided the 1st floor doors on the West elevation are minimum 45 minute rated.

2. Type 13 water curtain sprinkler protection at non-fire rated openings in exterior walls of egress court less than 10' in width: Granted provided the non-rated windows are non-operable, and sprinklers are spaced not more than 6 feet apart and placed a minimum of 6 inches and a maximum of 12 inches from the opening(s) and a maximum of 12 inches below the ceiling. Sprinklers are to be installed on the occupied side of the openings. A separate permit from the Fire Marshal's Office is required.

Note: 3/4 hr. windows can be operable without additional sprinkler protection.

Also Note: Openings at grade level located beneath the 1st floor windows are not part of the appeal and will be reviewed at time of permit plan review.

3. Exterior exit stair with 1 foot reduction in minimum fire separation distance: Granted provided the landings are of minimum 1 hour fire rated construction.

Appellant may contact John Butler (503 823-7339) 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, call (503) 823-7300 or come in to the Development Services Center.



3 NORTH ELEVATION
SCALE : 1/16"=1'-0"

UNRATED, NON-OPERABLE
WINDOWS, SPRINKLER
PROTECTED ON THE INTERIOR
(APPEAL ITEM #1)

+35'-0"
T.O. PARAPET

+24'-0"
3RD FLOOR

+14'-9"
2ND FLOOR

+5'-6"
1ST FLOOR

0'-0" GRADE

-3'-6"

1 WEST ELEVATION
SCALE : 1/16"=1'-0"

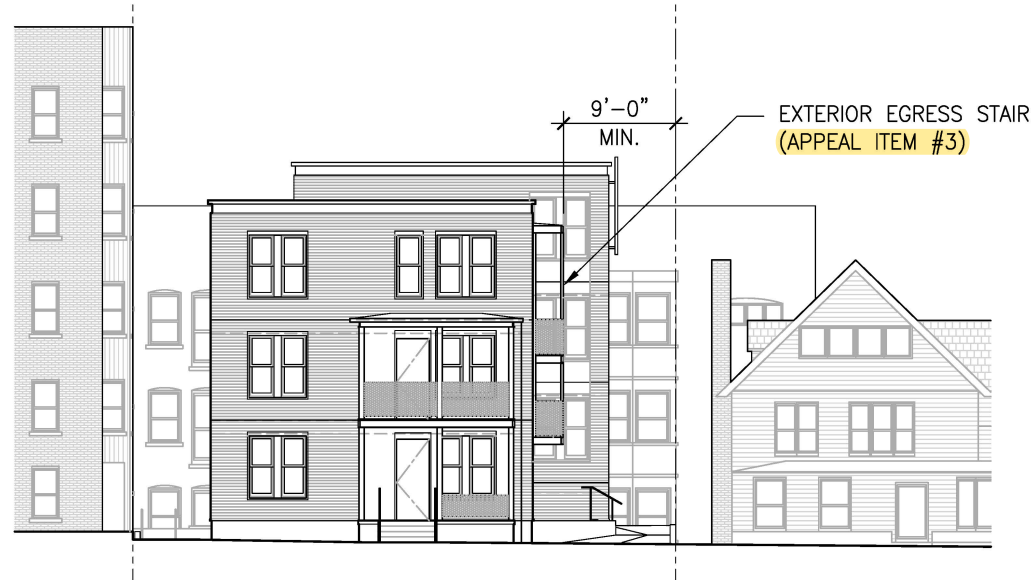
UNRATED, NON-OPERABLE
WINDOWS, SPRINKLER
PROTECTED ON THE INTERIOR
(APPEAL ITEM #1)

ADA RAMP
(EGRESS COURT)

3/4-HOUR FIRE RATED
OPERABLE WINDOWS
(APPEAL ITEM #2)

3/4-HOUR FIRE RATED
NON-OPERABLE WINDOWS
(APPEAL ITEM #2)

UNRATED, NON-OPERABLE WINDOWS,
SPRINKLER PROTECTED ON THE INTERIOR
(APPEAL ITEM #1)



4 SOUTH ELEVATION
SCALE : 1/16"=1'-0"

EXTERIOR EGRESS STAIR
(APPEAL ITEM #3)

9'-0"
MIN.

UNRATED, NON-OPERABLE
WINDOWS, SPRINKLER
PROTECTED ON THE INTERIOR
(APPEAL ITEM #1)

+31'-6"
T.O. PARAPET

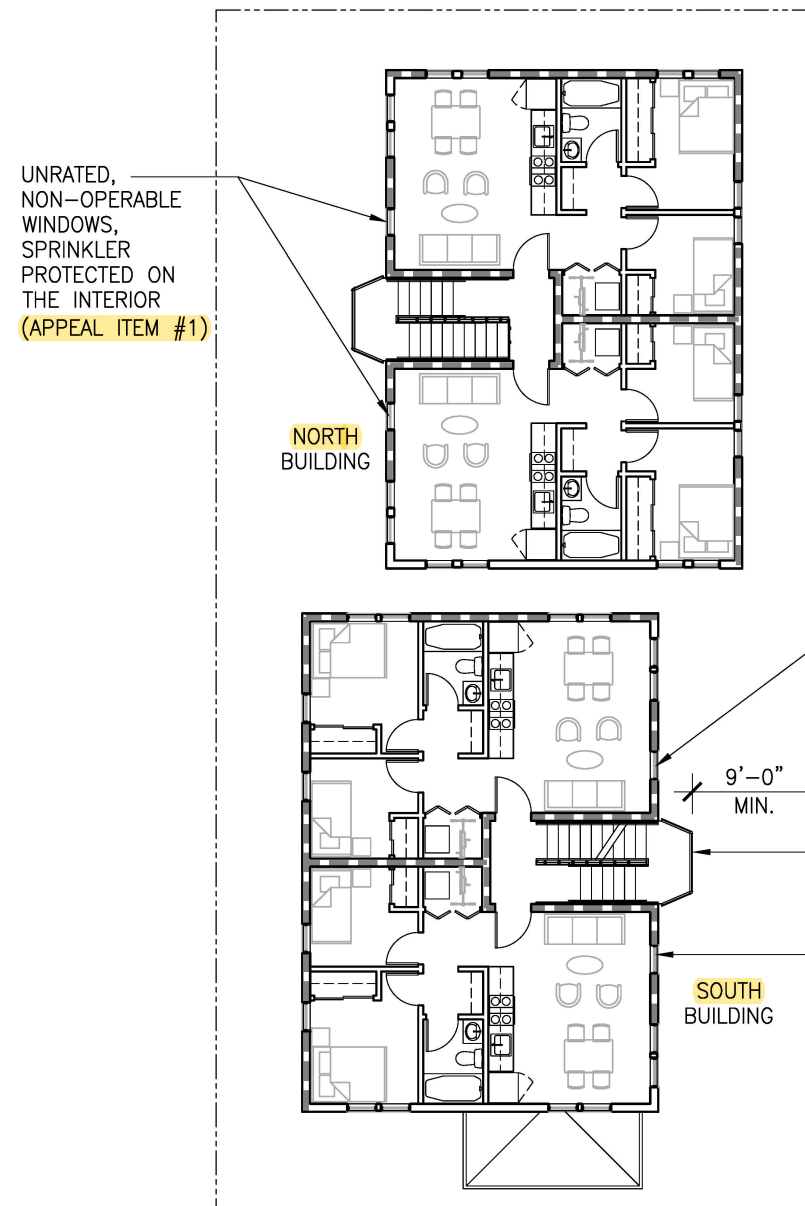
+20'-6"
3RD FLOOR

+11'-3"
2ND FLOOR

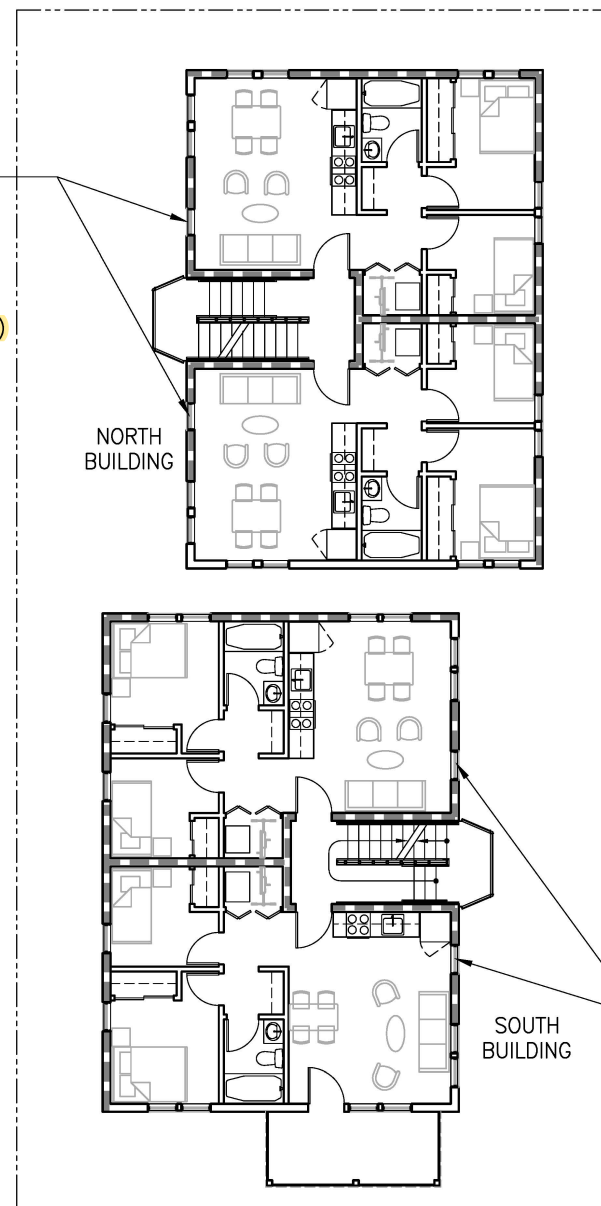
+2'-0"
1ST FLOOR
0'-0"

2 EAST ELEVATION
SCALE : 1/16"=1'-0"

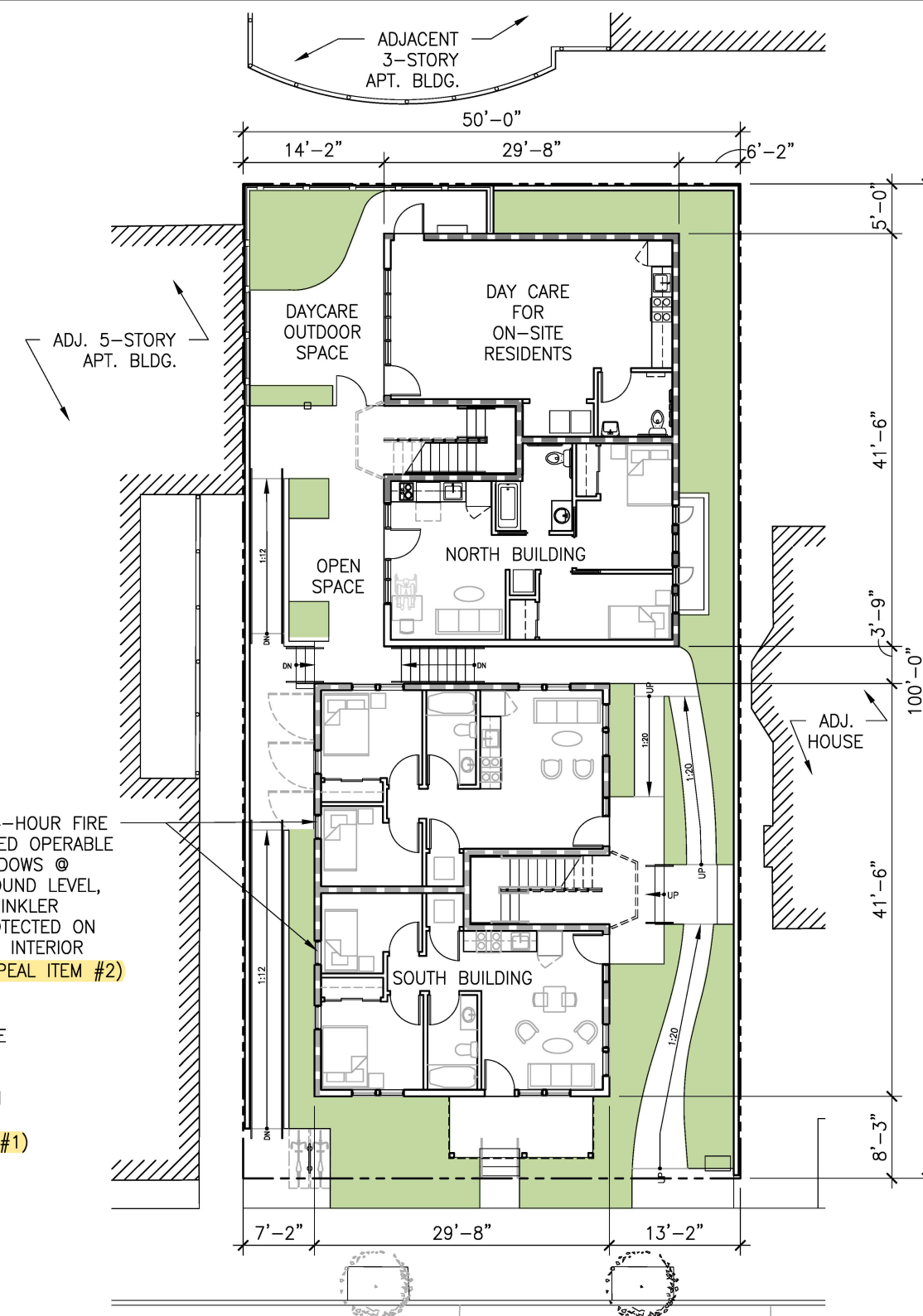
NOTE: DRAWINGS ARE SCALED FOR 11X17 SHEET



3 THIRD FLOOR PLAN
SCALE: 1/16"=1'-0"



2 SECOND FLOOR PLAN
SCALE: 1/16"=1'-0"



1 SITE PLAN
SCALE: 1/16"=1'-0"



LEGEND

— — — — — FIRE-RESISTIVE WALL ASSEMBLY
(1-HOUR AT EXTERIOR WALLS, 2-HOUR AT EXTERIOR STAIRWELLS)

NOTE: DRAWINGS ARE SCALED FOR 11X17 SHEET