

# Development Services

## From Concept to Construction

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More Contact Info (<http://www.portlandoregon.gov/bds/article/519984>)



### APPEAL SUMMARY

**Status:** Decision Rendered

<b>Appeal ID:</b> 20538	<b>Project Address:</b> 1535 NE 41st Ave
<b>Hearing Date:</b> 6/19/19	<b>Appellant Name:</b> Bob Schatz/Melissa Moline
<b>Case No.:</b> B-010	<b>Appellant Phone:</b> 5032358585
<b>Appeal Type:</b> Building	<b>Plans Examiner/Inspector:</b>
<b>Project Type:</b> commercial	<b>Stories:</b> 3 <b>Occupancy:</b> R-2 <b>Construction Type:</b> 5-B
<b>Building/Business Name:</b> 41 Central	<b>Fire Sprinklers:</b> Yes - NFPA 13
<b>Appeal Involves:</b> Erection of a new structure	<b>LUR or Permit Application No.:</b>
<b>Plan Submitted Option:</b> pdf [File 1] [File 2]	<b>Proposed use:</b> Apartments

### APPEAL INFORMATION SHEET

#### Appeal item 1

<b>Code Section</b>	CODE SECTION 705.2 BALCONY PROJECTIONS
<b>Requires</b>	MAXIMUM PROJECTION ALLOWED IS BASED ON DISTANCE FROM WALL TO FIRE SEPARATION LINE (24"+8" PER FOOT OVER 3')
<b>Proposed Design</b>	PROPOSED DESIGN HAS RATED WALLS AT THE BUILDING PERIMETER WITH COVERED PORCHES WITH OPEN GUARDRAILS PROJECTING TOWARD THE PROPERTY LINES. THIS APPEAL IS FOR ALL OF THE EXTERIOR PORCHES.
<b>Reason for alternative</b>	THE PROPOSED ALTERNATE WILL PROVIDE MORE DESIRABLE PRIVATE OUTDOOR SPACES BY BEING MORE OPEN AND ALLOW MORE LIGHT INTO THE INDIVIDUAL UNITS. THE PROPOSAL IS CONSISTENT WITH THE 2018 IBC (ADOPTION SCHEDULED 8/2019) WHICH WILL ALLOW PROJECTIONS OF A MINIMUM OF 40" WHERE THE FIRE SEPARATION DISTANCE EXCEEDS 5' TO THE FIRE SEPARATION LINE. PROJECTIONS ARE TO BE A MAXIMUM OF 60". THE STRUCTURE IS SPRINKLED PER NFPA 13 STANDARDS. A SIMILAR APPEAL WAS GRANTED ON 6/13/18: APPEAL ID #18056 & 3/13/19: APPEAL ID #20109

#### Appeal item 2

<b>Code Section</b>	CODE SECTION 1027.4.2
<b>Requires</b>	WHERE AN EGRESS COURT IS LESS THAN 10 FEET IN WIDTH, THE EGRESS COURT WALLS SHALL HAVE NOT LESS THAN 1HR FIRE RESISTANCE RATED CONSTRUCTION FOR A DISTANCE OF 10 FEET ABOVE THE FLOOR OF THE COURT. OPENINGS WITHIN

SUCH WALLS SHALL BE PROTECTED BY OPENINGS HAVING A FIRE PROTECTION RATING OF NOT LESS THAN ¾ HOUR

**Proposed Design** IN LIEU OF PROVIDING ¾ HR WINDOWS ALONG THE EGRESS COURT WE WOULD LIKE TO PROVIDE NON-OPERABLE WINDOWS WITH A SPRINKLER HEAD ABOVE THE WINDOW AT THE OCCUPIED SIDE.

**Reason for alternative** THIS APPEAL IS BEING REQUESTED IN ORDER TO MAINTAIN THE SAME FIRE SAFETY SEPARATION WHILE REDUCING THE COST OF THE WINDOW ASSEMBLY.

### Appeal item 3

**Code Section** CODE SECTION 1027.4 EGRESS COURTS

**Requires** PER CHAPTER 10: DEFINITION OF EGRESS COURT (P.207): A COURT OR YARD, WHICH PROVIDES ACCESS TO A PUBLIC WAY FOR ONE OR MORE EXITS.

PER CHAPTER 2: DEFINITION OF COURT (P.15): AN OPEN, UNCOVERED SPACE, UNOBSTRUCTED TO THE SKY, BOUNDED ON THREE OR MORE SIDES BY EXTERIOR BUILDING WALLS OR OTHER ENCLOSING DEVICES.

**Proposed Design** A 3'X9' SECTION OF THE EGRESS COURT IMMEDIATELY ADJACENT TO THE REAR INTERIOR STAIR IS TO BE COVERED WITH AN OVERHANG OF THE LANDING ABOVE. THIS PORTION OF THE EGRESS COURT SHOULD BE CALLED AN "OPEN EXIT PASSAGEWAY" AND IS TO BE CONSIDERED AN EXTERIOR SPACE. THIS COVERED OPEN EXIT PASSAGEWAY IS TO BE SPRINKLERED. THE ADJACENT WALL IS 2-HOUR FIRE RATED AND THE CEILING IS TO BE AN UNVENTED, 2-HOUR FIRE RATED ASSEMBLY.

**Reason for alternative** THE DEFINITION OF A COURT IS TO DETERMINE THE TYPE OF SPACE AND NOT INTENDED TO BE A FIRE CODE REGULATION. THE ADDED PROTECTION OF A 2-HOUR EXIT PASSAGEWAY CEILING AND ADJACENT WALL STRUCTURE IN ADDITION TO THE SPRINKLERS IN THE CEILING OF THE PASSAGEWAY PROVIDES EQUIVALENT FIRE SAFETY.  
THIS TYPE OF APPEAL HAS BEEN APPROVED UNDER APPEAL ID #5500 AND 13447

### Appeal item 4

**Code Section** VENTED ATTIC SPACES 2014 OSSC 1203.2

**Requires** ATTIC SPACES. ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF FRAMING MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATION OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW.

**Proposed Design** THE PROPOSED PROJECT UTILIZES AN UNVENTED LOW SLOPE ROOF SYSTEM WHERE THE CEILING IS TO ATTACH THE UNDERSIDE OF ROOF TRUSS MEMBERS. 2R-40.6 CONTINUOUS RIGID INSULATION IS TO BE INSTALLED DIRECTLY ABOVE THE ROOF SHEATHING TO MAINTAIN THE ROOF SHEATHING AT A TEMPERATURE ADEQUATE TO KEEP THE DEW POINT WITHIN THE RIGID INSULATION AND PREVENT MOLD GROWTH.

**Reason for alternative** THE ALTERNATE IS REQUIRED BECAUSE CONTINUOUS EXTERIOR INSULATION IS PREFERABLE OVER PROVIDING VENTILATION OPENINGS INTO THE STRUCTURAL CAVITY. INCLUDED IN THIS SUBMITTAL ARE THE DEW POINT CALCULATIONS FOR A

TYPICAL ROOF ASSEMBLY AND THE 2 HOUR ROOF ASSEMBLY THAT IS NECESSARY AT THE STAIR ENCLOSURES. THE CALCULATIONS SHOW THAT THE DEWPOINT FALLS WITHIN THE INSULATION LAYER.

AN UNVENTED ROOF ASSEMBLY WITH RIGID INSULATION ON THE TOP OF THE ROOF SHEATHING HAS BEEN APPROVED IN THE PAST PREVIOUSLY WITHOUT AN APPEAL AS WELL: 16-265211-000-00-CO AND THROUGH APPEAL WITH APPEAL ID 20246.

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## APPEAL DECISION

**1. Porch projections with minimum 40 inch fire separation distance from property line per 2018 IBC:**

**Granted as proposed.**

**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 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.**

**3. Overhead obstruction in egress court: Granted as proposed.**

**Note: The Board determined this is a partial overhead obstruction, not an open exit passageway.**

**4. Unvented roof assembly: Granted as proposed.**

**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 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](http://www.portlandoregon.gov/bds/appealsinfo), call (503) 823-7300 or come in to the Development Services Center.

CONSTRUCT A FULLY SPRINKLERED, 19 UNIT, 3 STORY APARTMENT BUILDING OF STUDIOS AND 1 BEDROOM UNITS.

OCCUPANCY: R-2  
TYPE VB CONSTRUCTION  
NFPA 13 SPRINKLERS

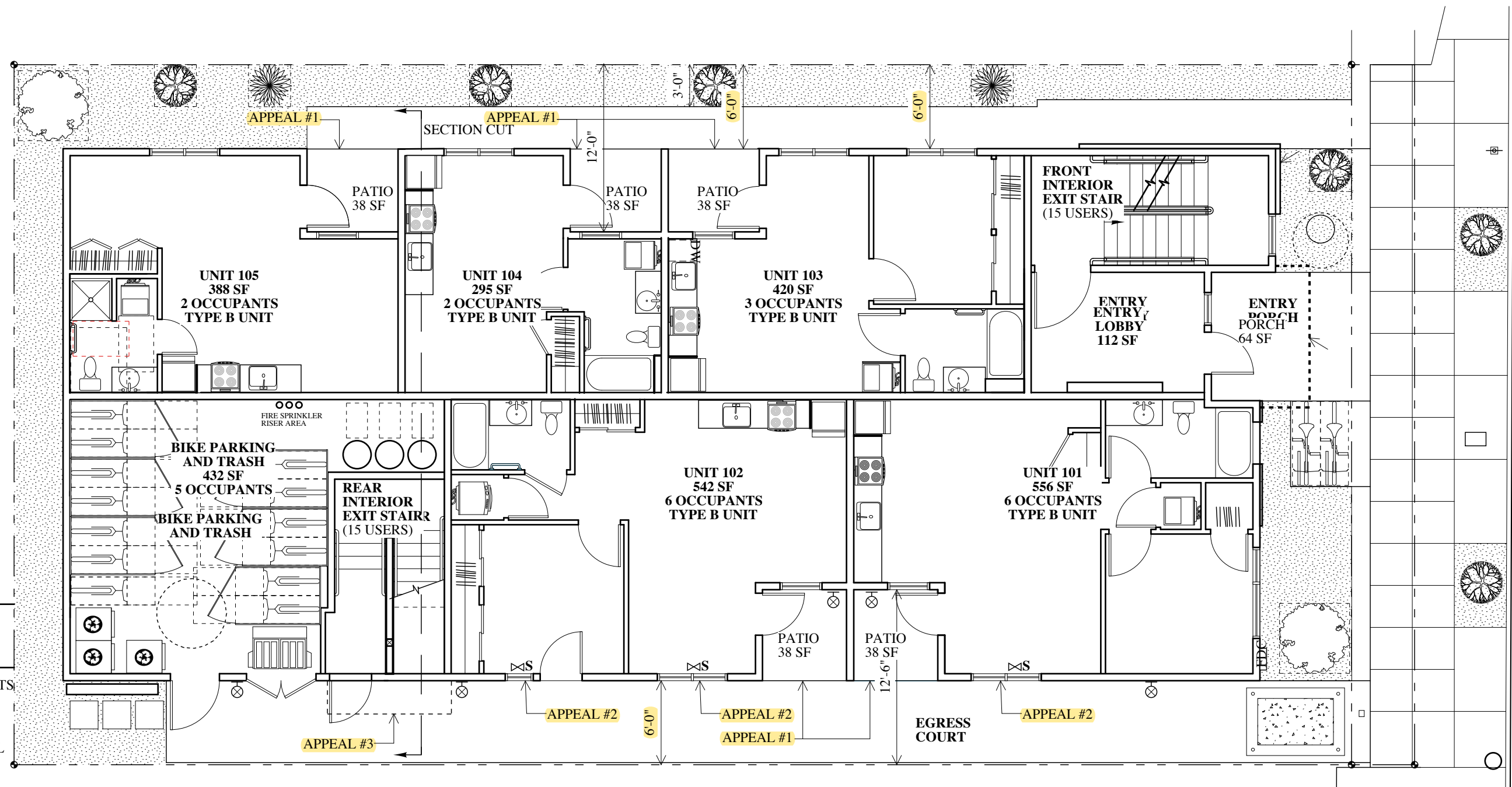
APPEAL #1:  
CODE SECTION 705.2 BALCONY PROJECTIONS  
USE 2018 IBC FOR 705.2, BALCONY PROJECTIONS, WHICH WE MEET

APPEAL #2  
CODE SECTION 1027.4.2 SPRINKLER HEAD IN LIEU OF 3/4 HR WINDOW

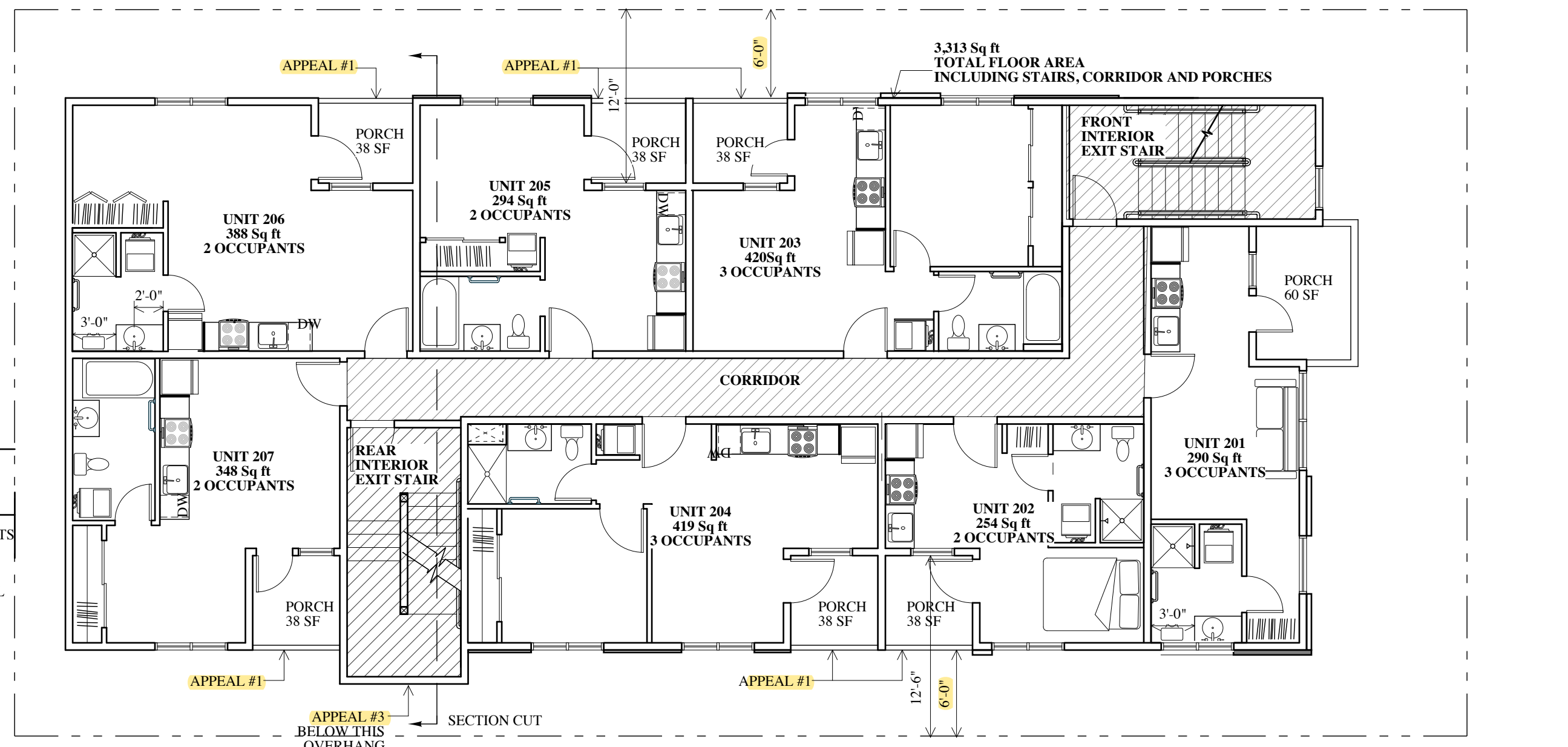
APPEAL #3 CODE SECTION: 1027.4. STAIR ENCLOSURE TO PARTIALLY  
EXTENDS OVER EGRESS COURT, PROVIDE SPRINKLERS BELOW OVERHANG  
& 2 HOUR FIRE RATED ASSEMBLY & NO VENTILATION.

APPEAL #4 UNVENTED ROOF ASSEMBLY: CODE SECTION 1203.2 UNVENTED ROOF ASSEMBLY WITH MIN. R-40.6 RIGID INSULATION ON TOP OF THE ROOF SHEATHING.

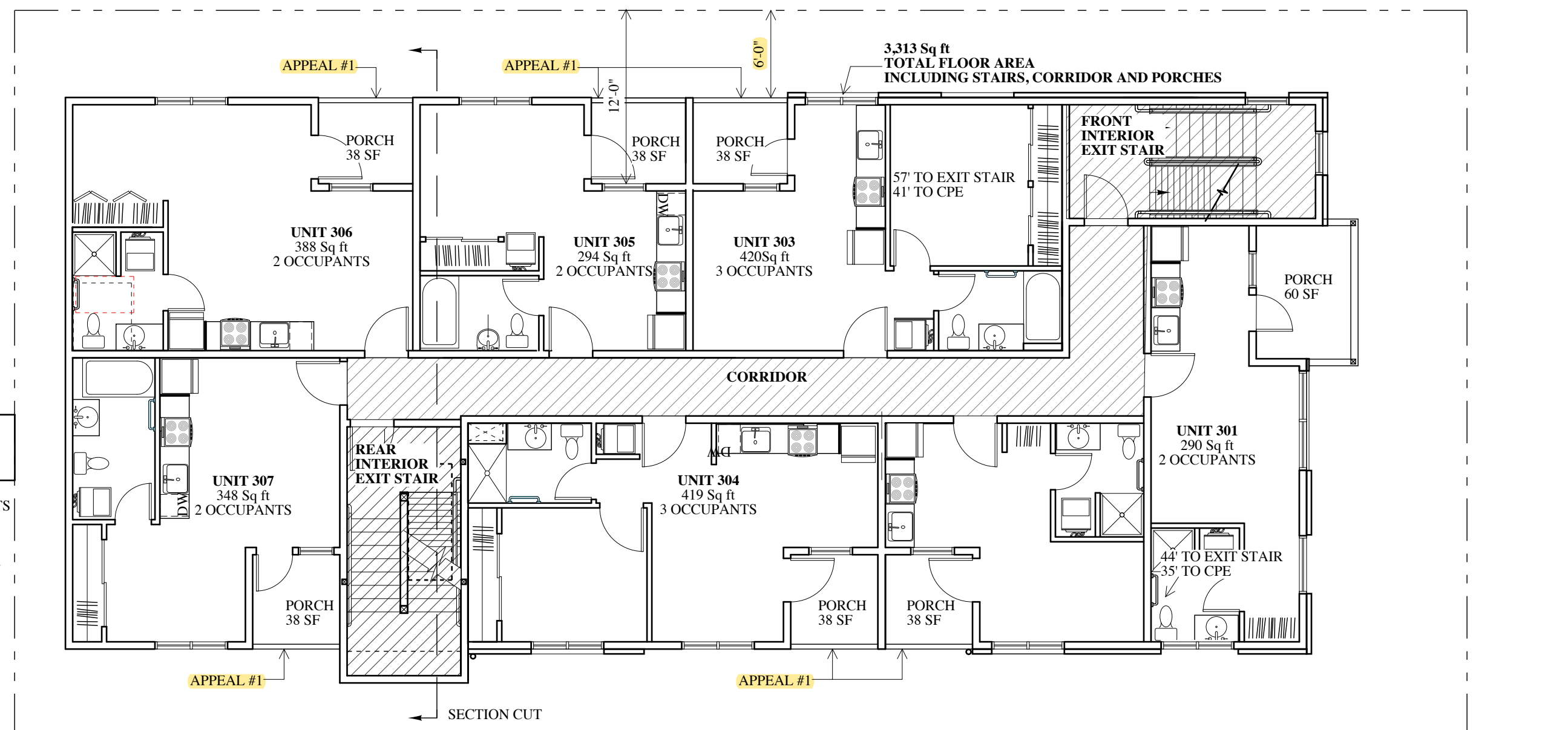
OCCUPANT LOAD	24 OCCUPANTS
(3) 1-BEDROOM UNITS (2) STUDIOS	2633 SF RESIDENTIAL
AREA OF COVERED PATIO	254 SF



OCCUPANT LOAD	15 OCCUPANTS
(2) 1-BEDROOM UNITS (5) STUDIOS	2413 SF RESIDENTIAL
AREA OF COVERED PORCH	288 SF



OCCUPANT LOAD	15 OCCUPANTS
(2) 1-BEDROOM UNITS (5) STUDIOS	2413 SF RESIDENTIAL
AREA OF COVERED PORCH	288 SF



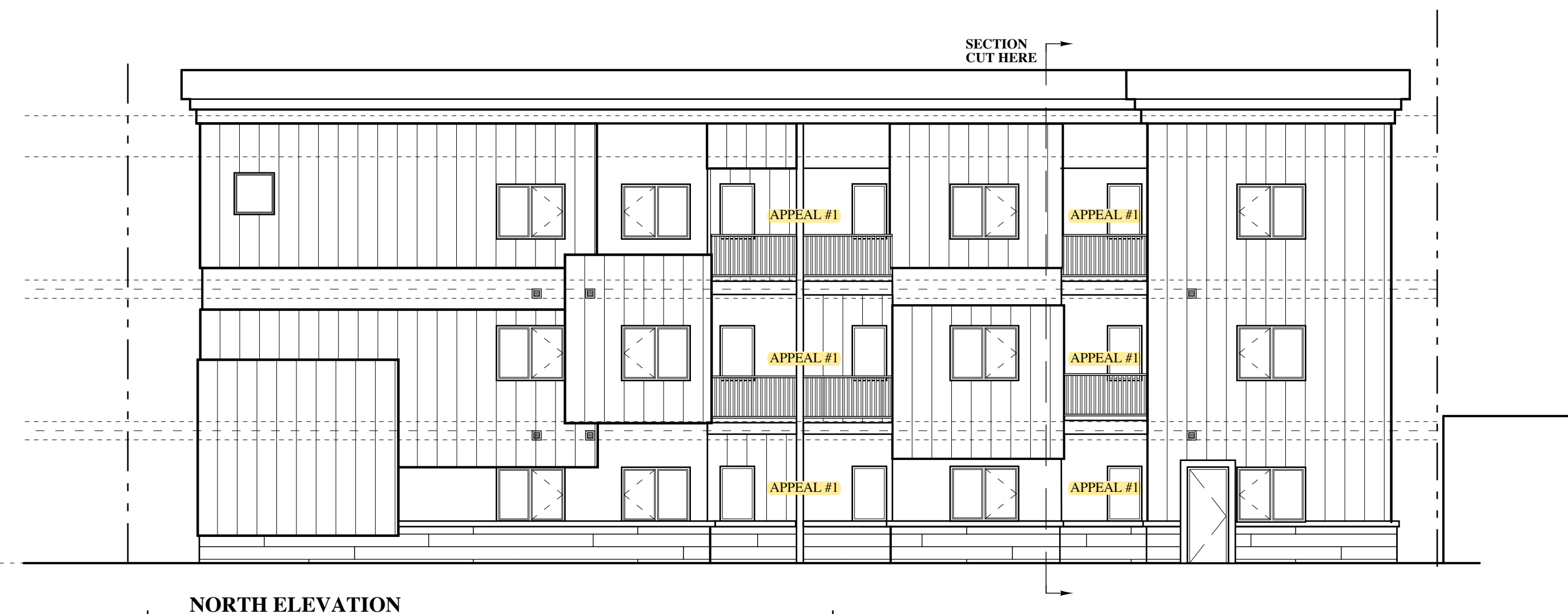
DIAGRAMS AT 1/16" = 1'-0" SCALE

**41 CENTRAL** **APPEAL**  
**1535 NE 41st** **Portland, OR**

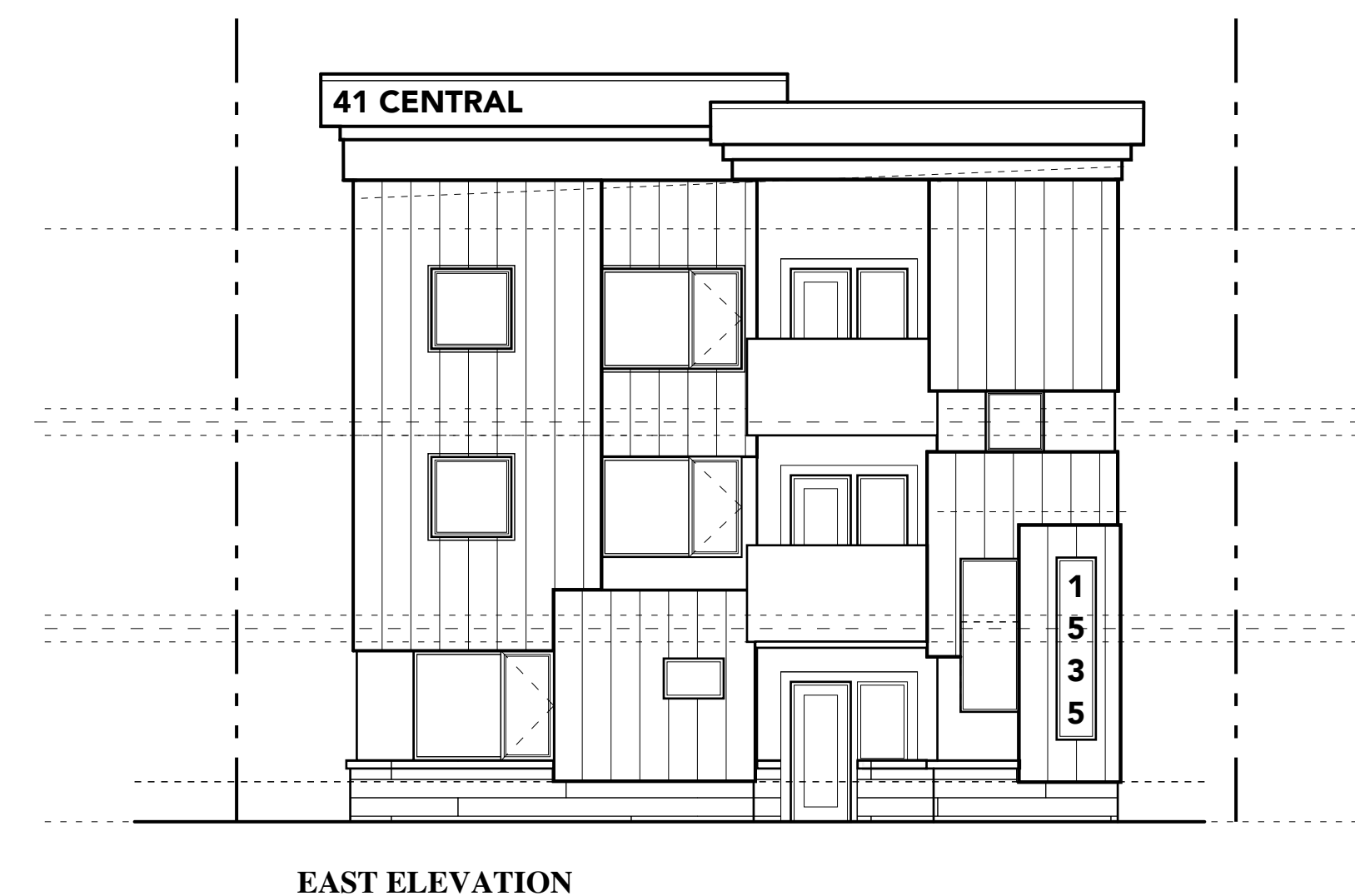
**ALLUSA**  
**ARCHITECTURE**

22118 SE Division street Portland, OR 97202  
Phone (503) 235-8585 Fax (503) 235-0835 Allusaarchitecture.com

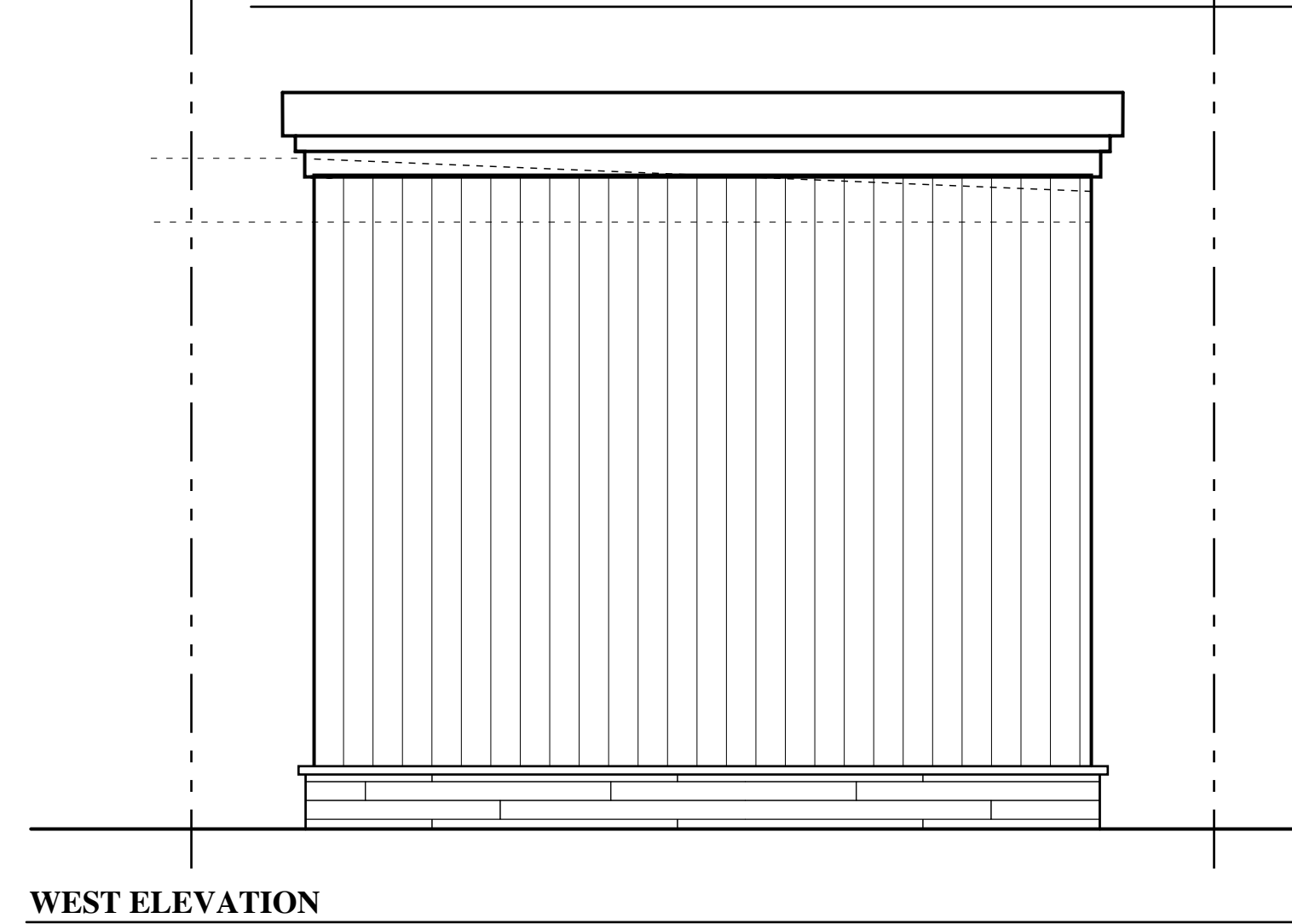




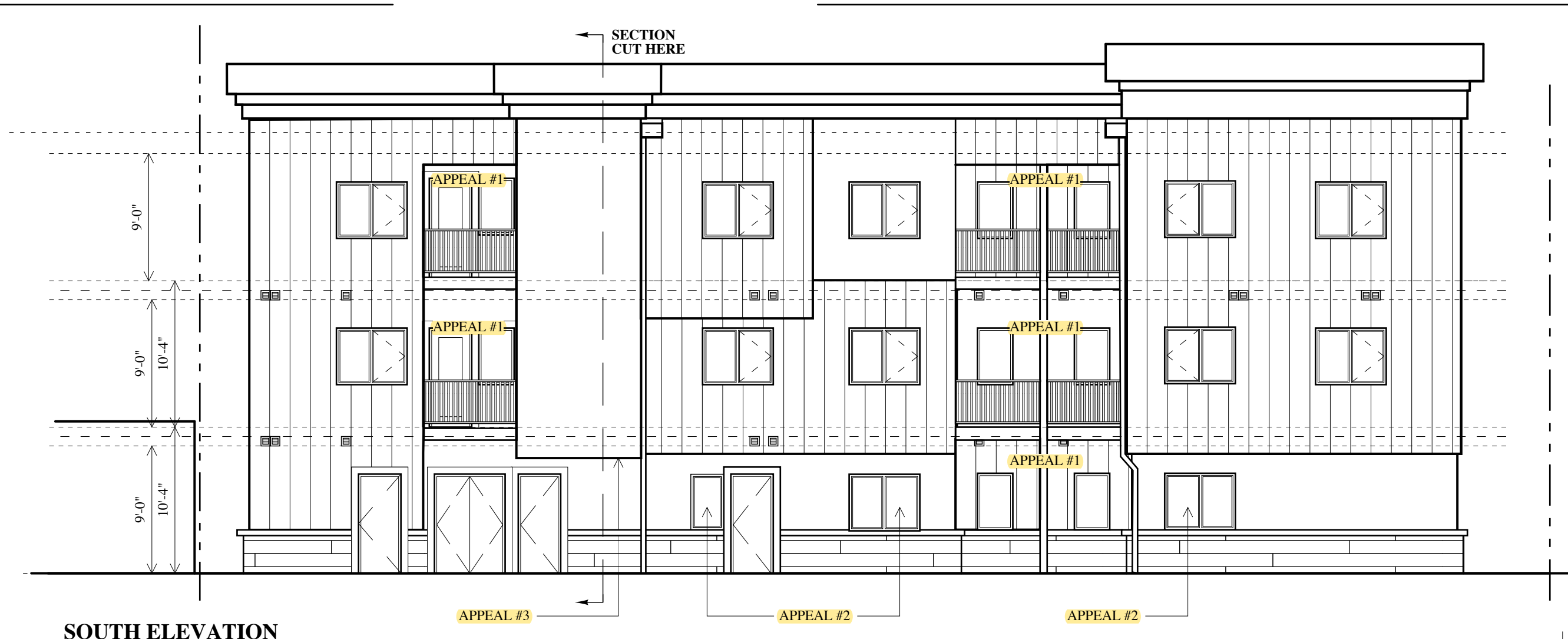
NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION



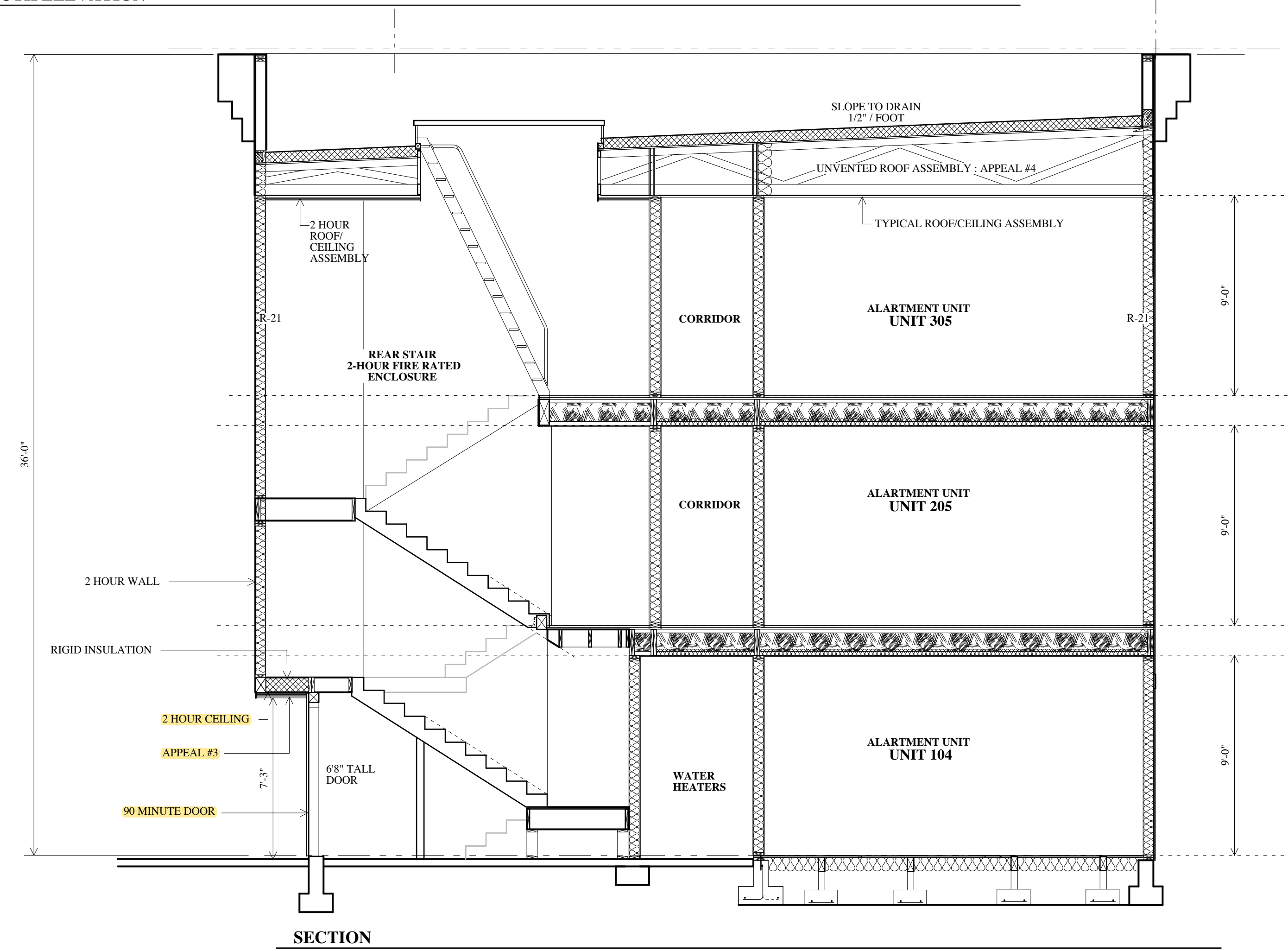
SOUTH ELEVATION

APPEAL #1:  
CODE SECTION 705.2 BALCONY PROJECTIONS  
USE 2018 IBC FOR 705.2, BALCONY PROJECTIONS, WHICH WE MEET

APPEAL #2  
CODE SECTION 1027.4.2 SPRINKLER HEAD IN LIEU OF 3/4 HR WINDOW

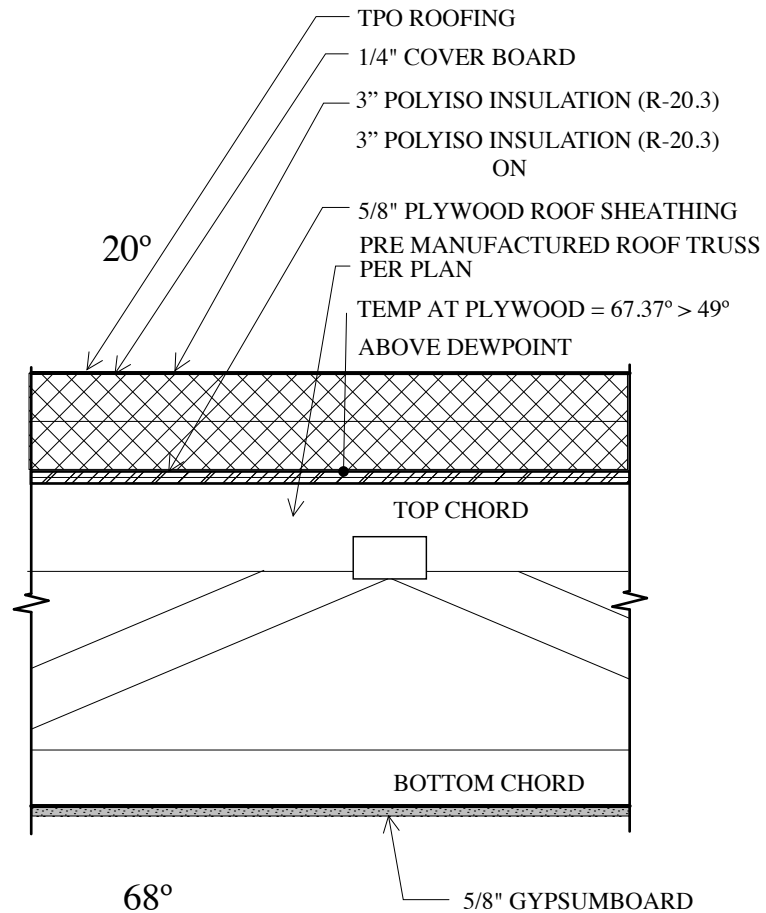
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ROOF ASSEMBLY WITH MIN. R-40.6 RIGID INSULATION ON TOP OF THE  
ROOF SHEATHING.



SECTION

**41 CENTRAL**  
**1535 NE 41st**  
**APPEAL**  
**Portland, OR**



## TYPICAL ROOF ASSEMBLY

$\Delta T =$  48 DEGREES (68°-20°)

Related Formula: (Cumulative R / Total R) x  $\Delta T$

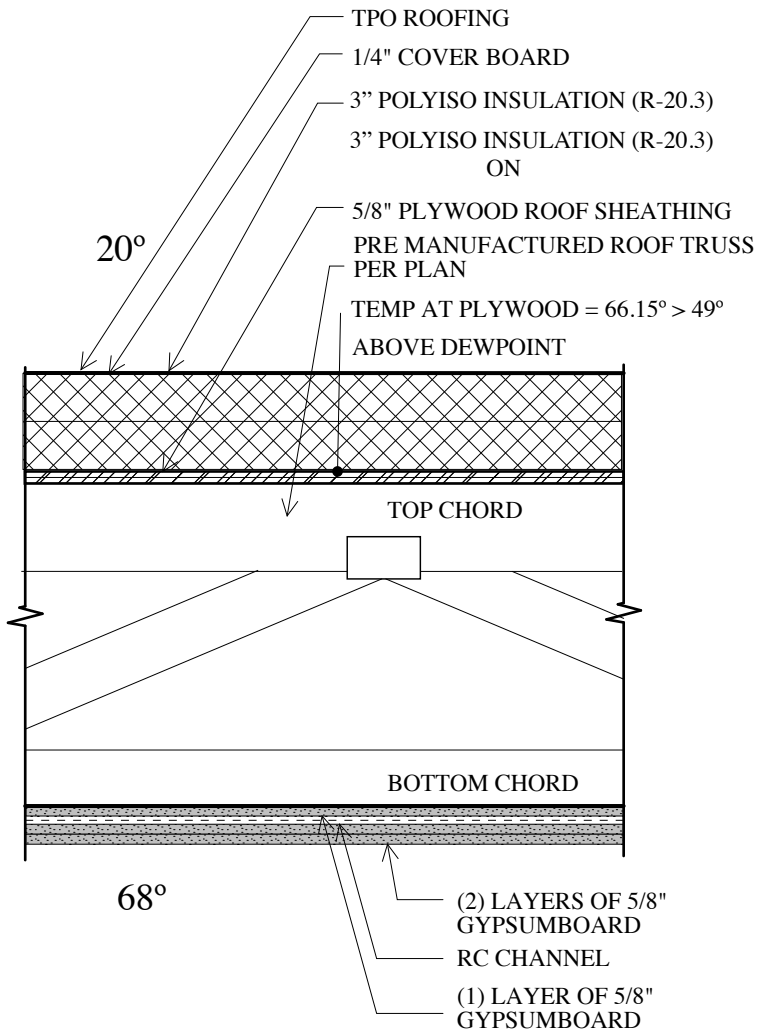
MATERIAL	R-Value	Cumulative R-Value	$\Delta T$ to reference point	Temp. at reference point
Extreme outdoor temp				20.00 °
TPO	0.33	0.33	0.374	20.37 °
1/4" gypsum Cover board	0.28	0.61	0.691	20.69 °
3" Polyisocyanurate	20.3	20.91	23.677	43.68 °
3" Polyisocyanurate	20.3	41.21	46.664	66.66 °
PLYWOOD	0.62	41.83	47.366	67.37 °
AIRSPACE IN JOIST CAVITY	0	41.83	47.366	67.37 °
5/8" GYPSUMBOARD	0.56	42.39	48.000	68.00 °
Indoor Temp				68.00 °
Total R-Value		42.39		

PSYCHROMETRIC CHART RESEARCH				
Relative Humidity at 68°	30%	40%	50%	
Dew Point Temperature	36°	42.5°	49°	
Worst Case Scenerio				



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**41 CENTRAL APARTMENTS**  
**1535 NE 41ST**



## 2-HOUR UNVENTED ROOF ASSEMBLY

$\Delta T = 48$  DEGREES (68°-20°)

Related Formula: (Cumulative R / Total R) x  $\Delta T$

MATERIAL	R-Value	Cumulative R-Value	$\Delta T$ to reference point	Temp. at reference point
Extreme outdoor temp				20.00 °
TPO	0.33	0.33	0.364	20.36 °
1/4" gypsum Cover board	0.28	0.61	0.673	20.67 °
3" Polyisocyanurate	20.3	20.91	23.068	43.07 °
3" Polyisocyanurate	20.3	41.21	45.463	65.46 °
PLYWOOD	0.62	41.83	46.147	66.15 °
AIRSPACE IN JOIST BAY	0	41.83	46.147	66.15 °
5/8" GYPSUMBOARD	0.56	42.39	46.764	66.76 °
RC CHANNEL	0	42.39	46.764	66.76 °
5/8" GYPSUMBOARD	0.56	42.95	47.382	67.38 °
5/8" GYPSUMBOARD	0.56	43.51	0.000	20.36 °
Indoor Temp				68.00 °
Total R-Value	43.51			

PSYCHROMETRIC CHART RESEARCH				
Relative Humidity at 68°	30%	40%	50%	
Dew Point Temperature	36°	42.5°	49°	
Worst Case Scenerio				



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