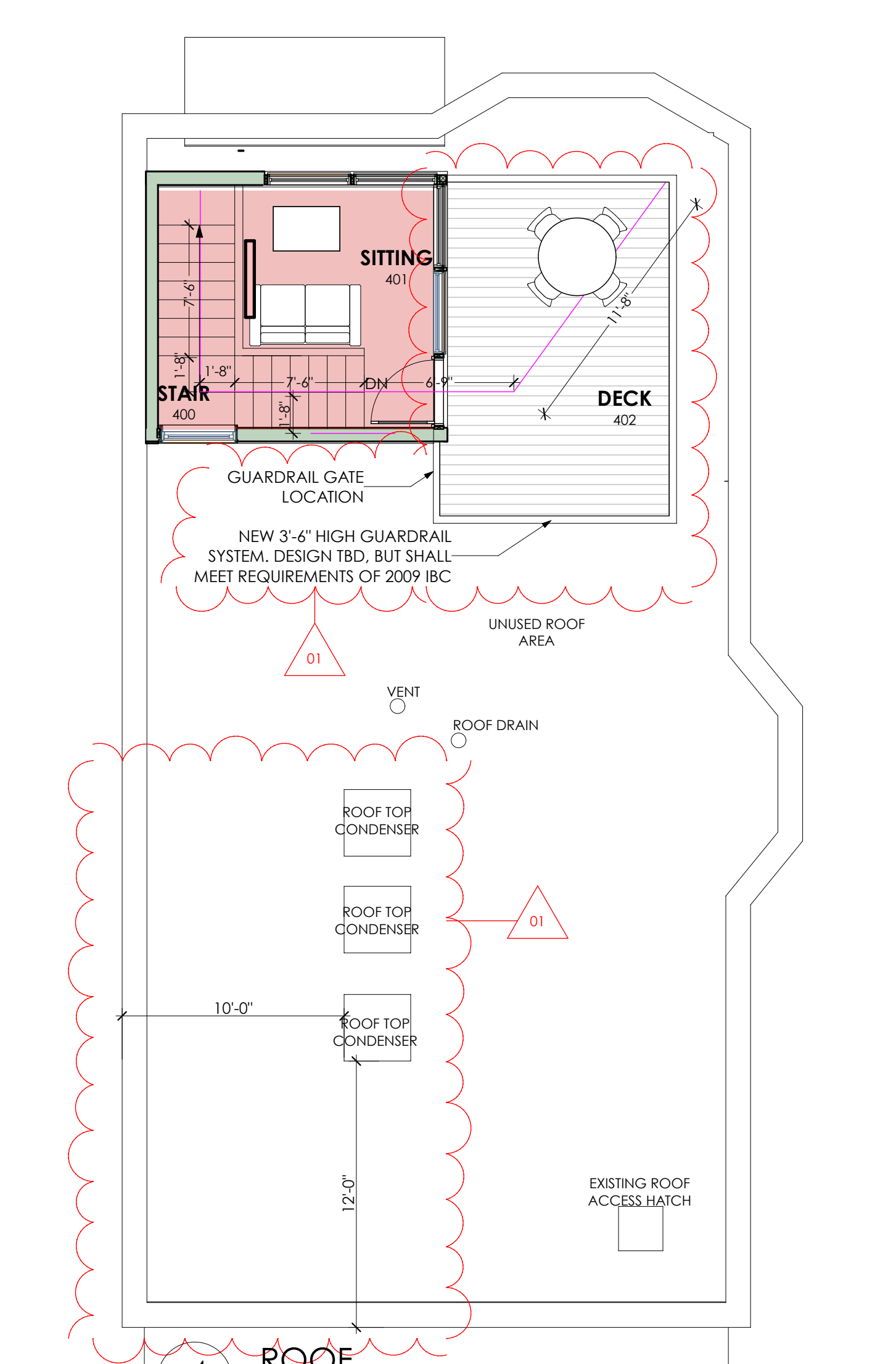
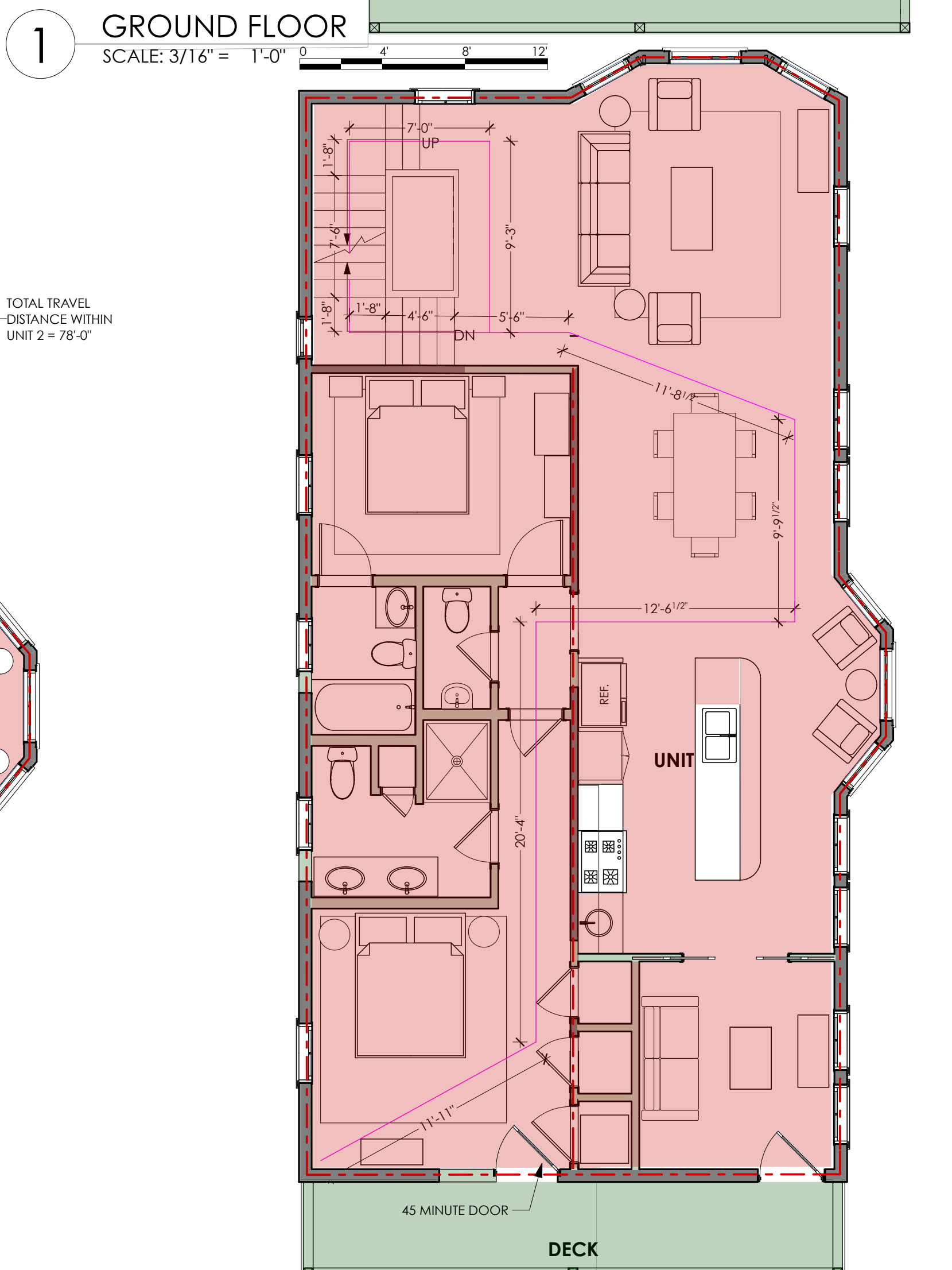
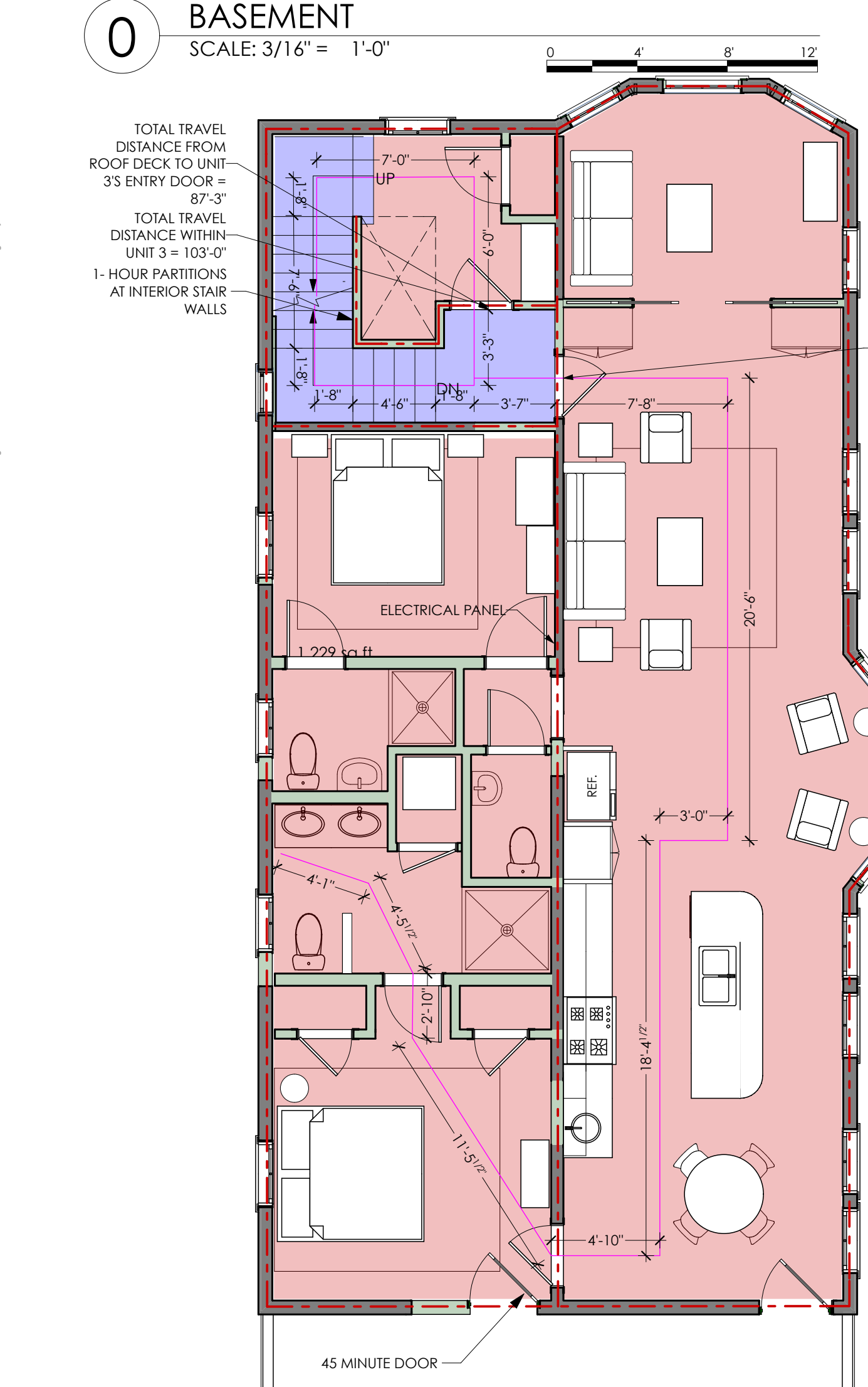
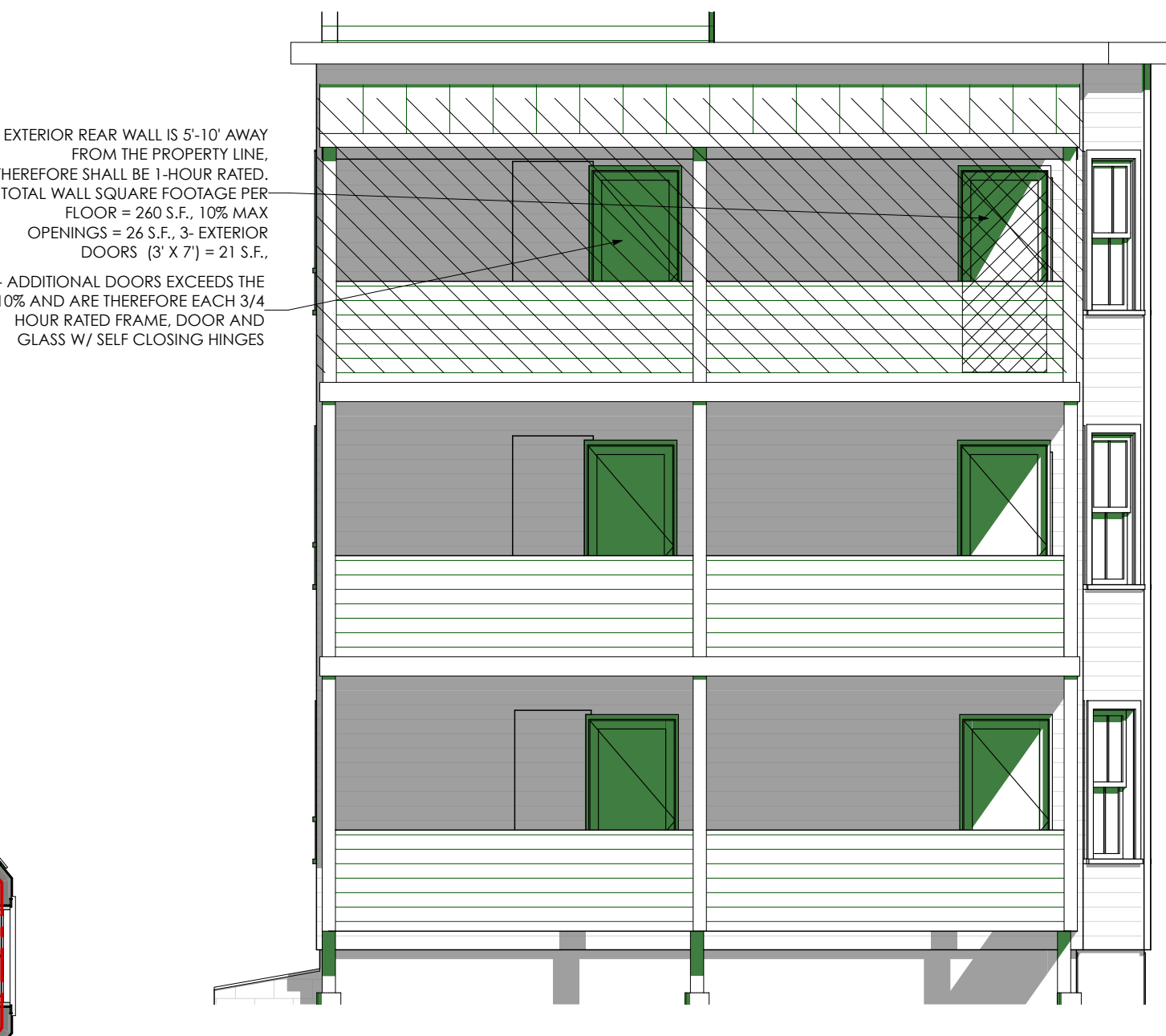
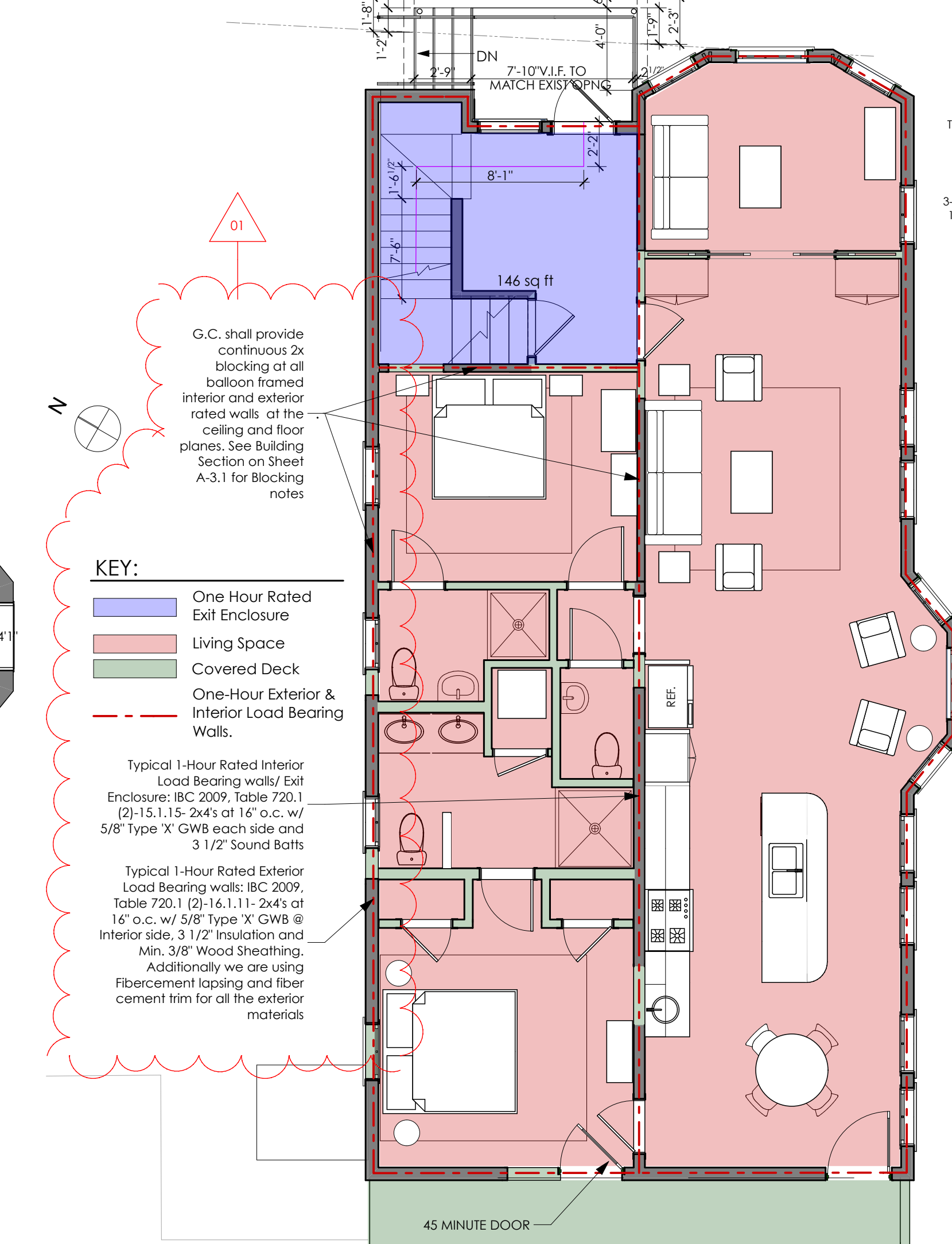
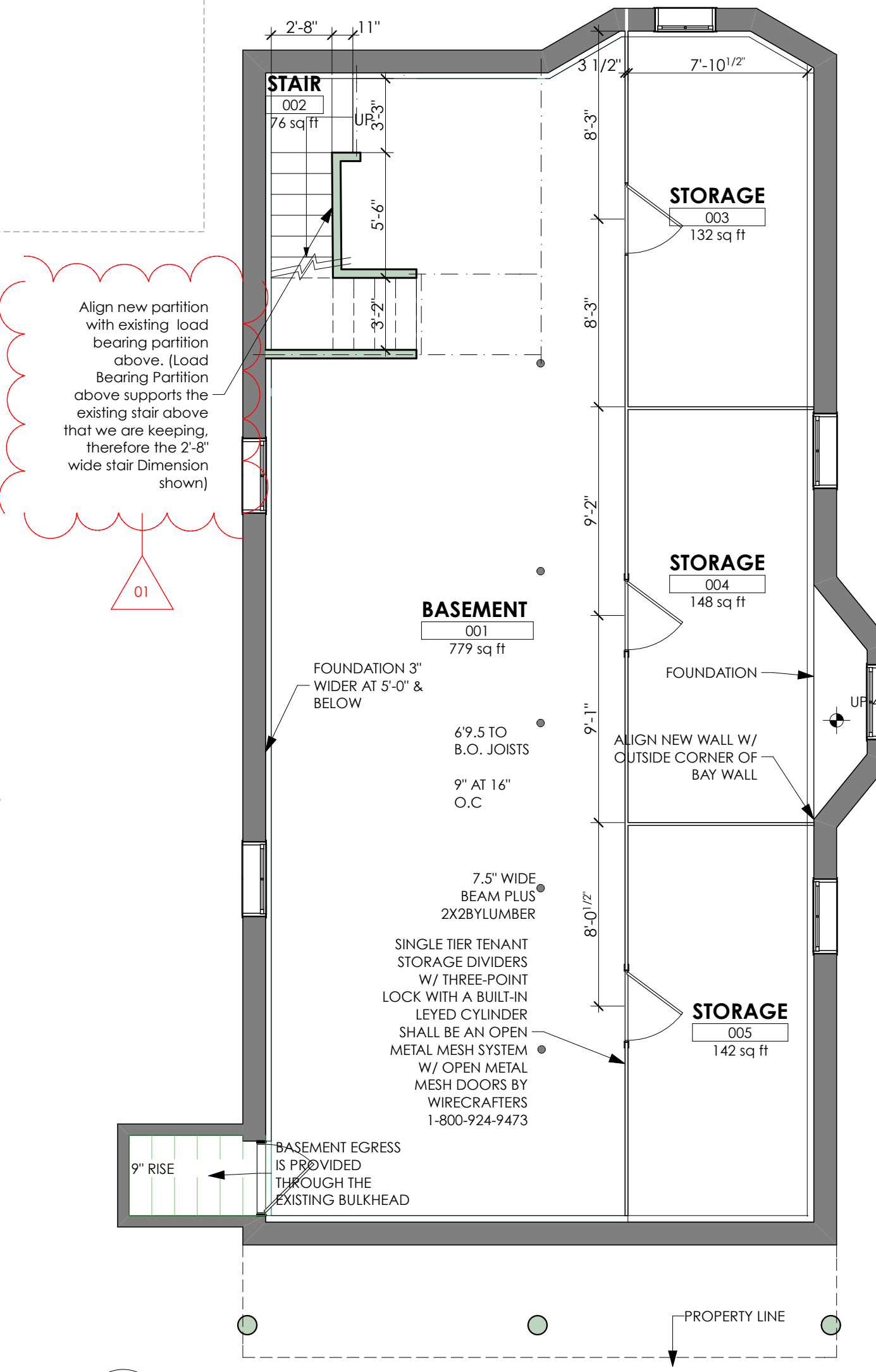


Volumes/Network Files/CJAB/PROJECTS/B COMMERCIAL-STUDIO/1 Current Projects/Grisanti Munjoy S/1 DESIGN/DRAWINGS/S CB/ARCHCAD/Grisanti CD 8.21.17 AC19.p19



Applicable Codes:
City of Portland, Maine Code of Ordinances
Maine Uniform Building and Energy Code (MUBEC)
2009 International Residential Code (IRC)
2009 International Building Code (IBC)
2009 International Existing Building Code (IEBC)
2009 International Energy Conservation Code (IECC)
American Society of Heating, Refrigerating & Air-Conditioning Engineers (ASHRAE) Standards
2007 ASHRAE 62.1 - Ventilation for Acceptable Indoor Air Quality
2007 ASHRAE 62.2 - Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings
2007 ASHRAE 90.1 - Energy Standard for Buildings except Low Rise Residential Buildings w/out addenda
2006 E-1465 Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings

CODE REVIEW SUMMARY:
Portland Ordinance Review:

ITEM	CITY OF PORTLAND, MAINE CODE OF ORDINANCES REQUIREMENTS	ACTUAL
Zoning	Zone: R-6	
Minimum Lot Size	2,000 sq ft / 750 sq ft per dwelling	3,122 sq ft (4 units allowable)
Minimum Street Frontage	20 ft	50 ft
Minimum Side Street Yard Setback	0 ft / 10 ft	0 ft and 21 ft
Minimum Rear Yard Setback	10 ft	0 ft - Nonconforming
Parking	0 in R-6 (otherwise 1 space per unit)	2
Maximum Building Footprint	60% / 1,873.2 sq ft	1,565 sq ft (not including street side deck & steps)
Minimum Landscaped Open Space (not parking)	20% / 624.4 sq ft	0% - Nonconforming
Maximum Building Height	45 ft	32'-2" grade to bottom of cornice
Structure Setbacks	Above 35'-10" from side property line, 15' from rear property line when abuts residential zone. Does not apply to side yards on side streets	

CODE REVIEW BY SECTION: IBC and NFPA 101

ITEM #	SECTION	REQUIREMENT/CONDITION	2009 NFPA 101 - Life Safety Code SECTION	REQUIREMENT/CONDITION	PROPOSED COMPLIANCE
1.0	USE AND OCCUPANCY				
1.0	Basement	Unoccupiable		Residential - Apartment Building	No Change in Use
1.0	Ground Floor	R-2 Residential - Apartments		Residential - Apartment Building	No Change in Use
1.0	Second Floor	R-2 Residential - Apartments		Residential - Apartment Building	No Change in Use
1.0	Third Floor	R-2 Residential - Apartments		Residential - Apartment Building	No Change in Use
1.0	Roof Deck	R-2 Residential - Apartments		Residential - Apartment Building	No Change in Use
2.0	CONSTRUCTION TYPE & GENERAL BUILDING HEIGHT AND AREA LIMITATIONS				
2.0	Construction Type	602.5 Type V-A (Existing)	Table A.8.2.1.2	Type V (Existing)	No Change in Use. Construction Type shown for compliance with current standards. Existing gross floor area = 1,420 s.f.
2.0	Area Limitation: Group R-2	Table 503 and 504.3 R-2: V-A 12,000 sq ft per story.			
2.0	Story Limitation: Group R-2	Table 503 and 504.2 V-A: 3 stories. Increase up to 4 stories w/ sprinkler and 1-hour rated exterior walls.	NFPA 5000 7.4.1	NFPA 5000 not adopted by the Maine State Fire Marshal's Office	
2.0	Height Limitation: Group R-2	Table 503 and 504.2 V-A: 40 ft. Increase up to 60 ft w/ sprinkler.	NFPA 5000 7.4.1	NFPA 5000 not adopted by the Maine State Fire Marshal's Office	41'-7" Proposed
3.0	BUILDING SEPARATION & EXPOSURE PROTECTION				
3.0	Exterior Walls: Load Bearing & Non-load bearing	Table 602 Rear Wall is 5' to 10' from property line so wall shall be 1-hr.			All Exterior Walls will have a 1-hr. rating. UK Design U330. Door Openings that are required shall be self-closing 3/4 hour. See Exterior Elevation S/A.0.1.
3.0	Separation of Occupancies	Table 308.4 39 - no fire separation requirements			
4.0	FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS				
4.0	Air Building Elements	Table 601 Type I-A construction requires 1-hour ratings for Exterior and Interior Load-bearing walls. Floor Construction and roof construction.	Table A.8.2.1.2		1-hour ratings for Exterior and Interior Load-bearing walls. Floor Construction and roof construction shall be provided
4.0	Horizontal Assemblies	712.3 Fire-Resistant Rating. Dwelling and sleeping unit separations in buildings with type VA construction shall have fire-resistance rating of not less than 1-hour in buildings equipped throughout with an 13R automatic sprinkler system.	31.2.4.3	Condition 7 for Single Exit requires min. 1/2 Horizontal rating between Units.	1-Hour Horizontal Assemblies Provided between ground and second floors and second and third floors.
5.0	FIRE AND SMOKE PROTECTION FEATURES				
5.0	Automatic Sprinkler Systems	903/ 903.2.2 Sprinkler system required for Group R	31.1.1.1	Option #4: Buildings Protected Throughout by an Approved Automatic Sprinkler System	NFPA-13R Sprinkler system shall be installed
5.0	Corridor Construction	1018.1 1 hour w/ No Reduction for 13R System			Exit Access Corridors do not exist in this project because Unit Doors are directly adjacent to a Rated Exit Enclosure. Not Required: Apartments are made-up of an entire floor and are not adjacent to each other.
5.0	Sleeping Unit Separation	420.2/709.3 ex 2 1 hr required, if Units are adjacent to each other. No Reduction w/ 13R System			Exit Stair enclosure shall have 1-hour walls and 1-hour self-closing doors.
5.0	Exit Stair Enclosure	1022.1/ 1022.6 Exit Enclosures shall have a fire-resistance rating of not less than 1-hour if it connects less than 4 stories.	31.2.4.3		Exit stair enclosure shall have 1-hour walls and 1-hour self-closing doors.
6.0	MEANS OF EGRESS				
6.0	Occupant Load	Table 1004.1.1 200 sq ft gross per floor / 1,404 s.f. = 7 per floor for 3-Floors. Plus a 256 s.f. Roof Deck = 2 People. Total Occupant Loads= 23	7.3.1.2	200 sq ft gross per floor / 1,404 s.f. = 7 per floor for 3-Floors. Plus a 256 s.f. Roof Deck = 2 People. Total Occupant Loads= 23	Actual Occupant load is anticipated at 3-4 per floor
6.0	Egress Width per Occupant	1005.1 3" per person Stairways x 7x 21" 2 per Person Horizontal= 14"	7.3.3.1	3" per person Stairways x 7x 21" 2 per Person Horizontal= 14"	3'-0" + provided due to Occupant Load of 23
6.0	Minimum Door Widths	1008.1.1 32" Minimum Clear Width	7.2.1.2.3	32" Minimum Clear Width	Provided at all doors for egress passage in new work areas
6.0	Common Path of Travel	1014.3 R-2: 75 ft or 125 ft w/ sprinkler			Common Path of Travel is 0'-0" because Unit Doors are directly adjacent to a Rated Exit Enclosure. Furthest travel Distance Outside Units is from roof deck to Exterior Door = 125'-0"
6.0	Travel Distance	Table 1016.1 R-200 Feet or 250 Feet with sprinkler system	31.2.6	Within Apartment using Option 4: 125'-0" max. Max Distance other than Units = 200' Distance Outside Units is from roof deck to Exterior Door = 125'-0"	Max. Distance within Apartment= 66'-0". Furthest travel max. Distance Outside Units is from roof deck to Exterior Door = 125'-0"
6.0	Spaces w/ 1 exit Access	Table 1015.1 R-2 - maximum Occupant load 10, R-2 and 1015.1.1 one means of egress permitted from individual dwelling units w/ maximum Occupant Load of 20 w/ sprinklers.	31.2.4.3	total number of stories not to exceed 4 w/ sprinkler system.	Existing 3-Story Apartment building to Remain. Additional roof deck proposed, but the only access will be within the first floor unit. NFPA Conditions 1-7 shall be met.
6.0	Corridor Width	1018.2 44" min when occupancy > 50 36" min when occupancy < 50	7.4.3	44" min when occupancy > 50 36" min when occupancy < 50	All corridors serve less than 50 persons, min 36"
6.0	Dead End Corridors	1018.4 20 Feet or 50 Feet with sprinkler system	29.2.5.5	50 Feet max.	No new or existing dead end corridors exceeds 50'-0"
6.0	Number of Exits and Continuity	1021.1 Exception 4. Group R-2 occupancy is allowed 1 means of egress if occupant load per floor is less than or equal to 20	31.2.4.5	Number of Exits: One allowed if all 7 conditions are met	IBC - Occupant load > 7 per floor and 2, & for roof deck. IBC-101 All 7 conditions shall be met with the renovations. See section 5.0 Fire and Smoke Protection Features for rating of Exit Enclosure.
6.0	Exit Discharge	1027.1 Exits shall discharge directly to the exterior.	7.7.1	Exits shall discharge directly to the exterior.	Exit discharges directly to the exterior.
6.0	Emergency Egress and Escape	1021.2, 1021.2.c. One egress allowed if sprinklered and emergency escape and rescue openings have been provided.			All Bedrooms shall have either an egress window or a door that leads directly to a deck.
7.0	SPECIAL OCCUPANCY REQUIREMENTS				
7.0	Max. Area Exit. Wall opens based on fire separation distance and degree of opening protection.	Table 705.8 5'-10" = 1 hr. Unprotected and Non-sprinklered= 10'S			Proposed Openings at Roof Elevation. See S/A-0.1 this sheet
8.0	STAIRWAYS (IN AREAS OF NEW WORK)				
8.0	Staircase Width	1009.1 44" Min (36" min. for <50 Occupants)	7.2.2.2.1.2	44" Min (36" min. for <50 Occupants)	All Stairways serve less than 50occupants
8.0	Headroom	1009.2 80" min headroom clearance	7.2.2.2.1.1(a)	80" min headroom clearance.	
8.0	Stair Treads and Risers	1009.4 4" min < Riser < 7" max 11" min tread	7.2.2.2.1.1(a)	4" min < Riser < 7" max 11" min tread	Stair meet rise and run requirements
8.0	Profile	1009.4.5 Risers shall be solid			
8.0	Stairway Landings	1009.5 Required top and bottom. Width and distance in direction of travel equal to or greater than stair width	7.2.2.3.2	Landing size can not decrease in the path of travel. Distance in direction of travel equal to or greater than stair width	Stair meets landing requirements
8.0	Vertical Rise	1009.7 12" max vertical rise between floors or landings	7.2.2.2.1.1(a)	12" max vertical rise between floors or landings	Proposed Stair is 9'-4" floor to floor and 10'-0" floor to upper landing at roof deck interior landing
8.0	Handrails	1009.12 Handrails required on both sides	7.2.2.4.1	Handrails required on both sides	Stair Handrails meet requirements
8.0	Handrail Height	1012.2 34" min and 36" max above stair tread nosing	7.2.2.4.1.1	34" min and 36" max above stair tread nosing	Stair Handrails meet requirements
8.0	Handrail Graspability	1012.1 Must comply with Type 1			Stair Handrails meet requirements
8.0	Handrail Extensions	1012.6 Must extend 12" beyond top riser and depth of 1 tread beyond bottom riser. Required on landings > 30" high	7.2.2.4.4.10	Must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	Stair Handrail extensions meet requirements
8.0	Guard Rails	10013.1 42" min 4" max opening	7.2.2.4.5.2	42" min 4" max opening	Guardrails meet requirements
8.0	Guard Rail Height	1013.2 42" min	7.2.2.4.5.2	42" min	Guardrails meet requirements
8.0	Opening Limitations	1013.3 4" max opening	7.2.2.4.5.3	4" max opening	Guardrails meet requirements

STUDIO MANAGER: CALEB JOHNSON ARCHITECTS + BUILDERS
PROJECT ARCHITECT: SUSAN GRISANTI
ORDINANCE AND CODES: A-0.1
DATE: 9/8/17
SUBMISSIONS: 9/8/17
CONSULTANTS: #Structural Engineering: #Portland, Maine: #Aron Jones
DRAFTSPERSON: Michael Chestnut
DATE OF ISSUE: 9/8/17
PROJECT STATUS: PRELIMINARY DESIGN
9/8/17
ORDINANCE AND CODES: A-0.1
STATE OF MAINE LICENSED ARCHITECT CALEB JOHNSON NO. 2913