Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 05/16/16

vant Codes

	Reference	Discussion or Finding
Residential Occupancy	310	8 apartment units on (3) floors
Use Group U, Utility, (garage)	406.1.1	Exterior, unenclosed, parking area below 2nd floor
Separation of parking area from residential occupancy	406.1.4	provide 1 layer ⅝" type x gypsum board above parking area
Separation Walls Between units	420.2	1 hour fire partitions required, no reduction for NFPA 13R sprinkler
Horizontal Separation between apartment units	420.3	1 hour fire partitions required, no reduction for NFPA 13R sprinkler
Construction Type: VB	Table 601	Primary structural frame 0 Bearing walls 0 Exterior 0 Interior 0 Non Bearing Exterior per Table 602 Floor construction and secondary members 0 Roof construction and secondary members 0
Building Height and Area limitations	Table 503	Type VB= 2 stories, 40' and 7000 sf. Floor area provided is less than allowable
Building Height increase for sprinkler = 1 story and 20'	504.2	Height limit = 3 stories, 60 ' allowed
Exterior Walls	Table 602	1 hour rated construction required For type VB 0-10 feet from property line. See diagram for affected walls
Openings in Exterior Rated wall, distance 5'-10'	Table 705.8	10% maximum unprotected opening, measured at each floor. 25% maximum protected opening, measured at each floor. See sheet A2.01
Openings in Exterior Rated wall, distance 10'-15'	Table 705.8	15% maximum unprotected opening, measured at each floor. 45% maximum protected opening, measured at each floor. See sheet A2.01
Parapet not required	705.11	Exception 5.1 Fire retardant roof sheathing used 4' in from exterior wall
Fire Barriers	707	Stair enclosure walls constructed as fire barriers
Shaft Enclosure	708	Stairs: 1 hour rated shaft required
Shaft Enclosure Openings	708.7	Provide self or automatic closing doors into stair enclosure
Horizontal Assemblies	712.3	One hour separation between dwellings, no exception for NFPA 13R sprinkler
Support of Horizontal Assemblies	712.4 except 2	Supporting structure in VB construction not required to be rated
Firestopping of Penetrations	713	Contractor shall firestop all penetrations as required by IBC section 713
Fire Door Protection	Table 715.4	All unit entry doors shall be 1 hour rated and self closing
Draftstopping	717.3.2	provide at floor and ceiling space in line with dwelling unit separation. Note that continuity of fire partitions per 709 provides draft stopping between units
Sprinkler System Required	903.2.8	Sprinkler required in all R occupancies Sprinkler design/build by licensed sprinkler contractor by separate permit
NFPA 13R system shall be provided	9.3.3.1.2	Group R Occupancy, 4 stories or less
Standpipe not required	905.3.1	3 story building with 3rd floor less than 30' above lowest level of fire department access
Fire Extinguishers Required	906.1	1 per floor in accordance with NFPA 10
Manual Fire Alarm System not required	907.2.9.1	building is 3 stories
Smoke Alarms Provided	907.2.11	Smoke alarms shall be photoelectric and installed per City of Portland Requirements
Occupant Load	Table 1004.1.1 1 per 200 gross	1st floor: 987sf = 5 occupants 2nd floor 2011sf = 10 occupants 3rd floor: 2027sf = 10 occupants
Means of Egress Illumination		Emergency power for illumination not required where 1 exit only required
Direction of Door Swing	1008.1.2	occupant load less than 50, door can swing either direction
Stairway Width	1009.1	3-0 minimum required, 3-9½ provided
Single means of egress permitted	1015.1.1 except.	Maximum occupant load of 20 per dwelling unit with sprinkler
Common Path of Travel	Table 1014.3 except. 4	125' allowed. 113' provided from most remote point at 3rd floor (measurement includes actual distance along stairs)
Exit Access Travel Distance	Table 1016.1	250' allowed 43' maximum provided
Dead Ends in Corridors	1018.4	No corridor dead ends are present in this project
Single Exit Permitted	1021.1 except. 4 Table 1021.2	Maximum occupant load per dwelling unit of 20 with sprinkler 2nd floor maximum travel distance to exit: 50' allowed 43' provided 3rd floor maximum travel distance to exit: 50' allowed 43' provided
Exterior Wall of exit Stair Rated	1022.6	exterior wall at 6" recess of north stair wall shall be 1 hour rated. see figure 1022.6(1) condition 1
2nd emergency escape and rescue openings required in sleeping rooms by IBC	table 1021.2 footnote c	egress windows required by Laws of the Fire Service, State of Maine for single exit building. Floor plans at all stories show egress windows at bedrooms
Sound Transmission	1207.2 1207.3	minimum STC 50 at walls and floor/ceilings separating dwelling units Minimum IIC 50 at floor/ceilings separating dwelling units
Interior Dwelling Unit Space Dimensions	1208.2	7-0 minimum ceiling height at bathrooms, storage rooms

1) All means of egress to remain accessible at all times.
2) Shall comply with NFPA 101, Chapter 39, Existing Business Occupancies.
3) Shall meet the requirements of 2009 NFPA 1 Fire Code.
4) All construction shall comply with City Code Chapter 10.

Area Tabulations

	Square Feet
Building Footprint	2376
1st Floor Gross Area	1638
2nd Floor Gross Area	2376
3rd Floor Gross Area	2376
Total Building Gross Area	6390
Storage Area	225
Apartment Unit Areas (enclosed)	
1a	987
2a	412
2b	581
2c	509
2d	509
3a	1009
3b	509
3c	509
Total Unit Areas	5025

FIRE RATINGS FOR EXTERIOR WALLS BASED ON TABLE 602

Minimum Insulation Required (per IECC Table 402.1.1)
Climate Zone 6

Windows and doors U Factor	0.35
Ceiling/roof	R-30
Wood framed wall	R-13 Cavity, R-5 continuous
Floor	R-30
Slab	R-10 48" deep

NOTE: provide spray foam insulation to seal all rim locations.
Spray foam at rims shall be as follows:

1. Maximum 3¼" thick
2. Density of foam shall be between 1.5 and 2.0 pcf
3. The foam plastic shall have a flame spread index of 25 or less and an accompanying smoke-developed index of 450 or less when tested in accordance with ASTM E 84 or UL 723

NFPA 101 Relevant Codes

Chapter 30: New Apartment Buildings	Reference	Discussion or Finding
Occupant Load: 1 per 200 sf gross	Table 7.3.1.2	1st floor: 987sf = 5 occupants 2nd floor 2011sf = 10 occupants 3rd floor: 2027sf = 10 occupants
2 Means of Escape from bedrooms and livings rooms within dwelling units, 1 provided by egress windows	30.2.1.2	NFPA13R Sprinkler eliminates requirement for egress window under 24.2.2.3 note: egress windows required by Laws of the Fire Service, State of Maine for single exit building
Exit Enclosure shall be 1 hour rated with 1 hour rated doors	30.2.2.1.2	Assumes sprinklered building
Single (stair enclosure) exit permitted	30.2.4.4	All conditions met
Common path of travel: Unit door to stair enclosure	30.2.5.3.2	50' allowed, 0 feet provided
Dead end Corridor	30.2.5.4.2	no corridors, not applicable
Travel Distance within dwelling unit to corridor door:	30.2.6.1	125" allowed in sprinklered building, 44' Maximum provided
Travel Distance to Exits: Unit door to stair enclosure	30.2.6.3.1	Apartment unit doors exit directly to exit enclosure
Illumination of Means of Egress	30.2.8	Lighting provided at exit enclosure, exit passageway, and exit discharge
Emergency Lighting, per requirements of 7.9	30.2.9	not required in building 3 stories or less
Vertical Openings 1 hour rated with 1 hour doors	30.3.1.1.4	Apartment unit doors exit directly to exit enclosure. Unit doors are 1 hour rated with self closing devices
Protections from Hazards	Table 30.3.2.1.1	1 hour and sprinklers for storage room
Fire Alarm System.	30.3.4.1.2	Not required for apartment buildings less than 4 stories
Smoke Alarms	30.3.4.5	provided at all sleeping rooms and outside each sleeping room. Type and location of units shall be per requirements of the City of Portland

Interior Finishes: (NFPA)

Interior Wall and Ceiling Finish:
Interior wall and ceiling finish materials complying with shall be permitted as follows:

Exit	Class A
Exit Access Corridors	Class A or B
Other spaces	Class A, B, or C

Interior floor finish:
Interior floor finish in exit enclosures and exit access corridors shall be not less than Class II.

3 3rd Floor Travel Distance
1/8"= 1'-0"
0 5' 10' 20'

2 2nd Floor Travel Distance
1/8"= 1'-0"
0 5' 10' 20'

1 1st Floor Travel Distance
1/8"= 1'-0"
0 5' 10' 20'

LICENSED ARCHITECT DAVID LLOYD NO. 936 STATE OF MAINE

Developer
Tate Street Partnership, LLC
17 Chestnut Street
Portland Maine, 04101

Structural Design
SDC

MEP- Design/Build

Architect:
ARCHETYPE Architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:
West Port Lofts Condominiums
8 Unit Apartment Building
22-28 Tate Street, Portland Maine, 04101

Tax Map 44, Block E, Lots 15,17, &19

for construction permit

Date:
March 30 2016

Code Review

A0.01