

Code Analysis - TIQA

311 Commercial St (corner of Maple Street), Portland, ME	
Existing newly constructed 5 story Marriott Courtyard hotel, Building Permit No. 201301158. First floor shell will be constructed into a 6,600 sf restaurant / bar, Tiqu. A separate Commercial Interior Alterations/Change of Use Permit will be required for this fit-up. Building is fully sprinklered.	
IBC 2009 Code Review	
Chapter 3 Use and Occupancy Classification	
Section 303	Assembly A-2 (Hotel type R-1)
Chapter 4 Special Detailed Requirements Based on Use and Occupancy	
Section 410 Stages and Platforms	A raised area within a building used for worship, head table for special guests, etc
Section 410.4	Permanent platforms shall be constructed of materials required for the type of construction of the building. Where space beneath is used for storage (except wiring or plumbing), the floor assembly shall be rated 1 hour.
Chapter 5 General Building Heights and Areas	
Construction Type	1A & 2A - Refer to Shell approval drawings
Table 507.3.1 - Mixed occupancy buildings with Group A-1 and A-2	Group A-1 and A-2 occupancies other than Type V shall be permitted provided: Group A-2 separated per table 508.4.4 with no reduction for sprinklers Area for A-2 shall not exceed maximum allowable area per section 503.1 All exit doors from Group A-2 shall discharge directly to the exterior of the building
Table 508.4 Required Separation of Occupancies	
Group A / R	Indicates 1 hour sprinklered - OK
Table 508.4 - Required Separation	Kitchen need not be separated from seating area
Chapter 7 Fire and Smoke Protection Features	
Table 705.8 Max Area of Exterior Wall Openings Based on Fire Separation Dist.	
0 to 3' (Unprotected, Sprinklered)	Not permitted
3' to 5'	15%
5' to 10'	25
10' to 15'	45%
15' to 20'	75%
More than 25'	No limit
Table 715.4 Fire Door and Fire Shutter Fire Protective Ratings	
Fire walls, 2 hour	1 1/2 Hour rating
Shaft, 1 hour	1 Hour
Exit enclosures, 1 hour	1 Hour
Corridor walls, 1 hour	20 Minute
Table 715.4.4 Limiting Size of Wired Glass Panels	
1 and 1 1/2 hours	100 sq in, 33" max ht, 10" max width
3/4 hour	1,296 sq in, 54" max ht, 54" max width
20 minute	Not limited
Chapter 8 Interior Finishes	
Sec 803.1.1 Interior wall and ceiling finish material	
Class A	Flame spread index 0-25; smoke-developed index 0-450
Class B	Flame spread index 26-75; smoke-developed index 0-450
Class C	Flame spread index 76-200; smoke-developed index 0-450
Sec 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy (A-2)	
Exit enclosures and passageways	Class C
Corridors	Class B
Rooms and enclosed spaces	Class C
Sec 804.4 Interior floor finish requirements	
Interior floor finish	Not less than Class II and comply with DOCFF-1 "pill test"
Sec 806 Decorative Materials and Trim (A)	
Curtains, draperies, hangings and other decorative materials	Shall meet flame propagation performance criteria of NFPA 701
Chapter 9 Fire Protective Systems (New buildings)	
Sec 903.2.1.2 Group A-2 - Sprinkler system required - OK	Required if fire area exceeds 5,000 sf, fire area has an occupant load of 100 or more, or fire area is located on a floor other than the level of exit discharge. OK, sprinkler system required

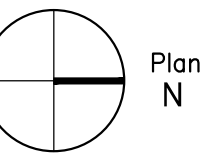
Chapter 10 Means of Egress	
Table 1004.1.2 Occupant Load	
Ground Floor	205 Occupants (refer to drawings)
	Total Occupant Load = 205
Outdoor Patio Seating	49 Occupants (refer to drawings)
Table 1005 Egress Width	
Stairways	.30" per person
Doors, ramps, and corridors	.2" per person
Sec 1005.2 Door encroachment	Doors and handrails shall not reduce required means of egress by more than 7". Doors in any position shall not reduce the required width by more than one-half.
Sec 1006.2 Illumination Level	Means of egress illumination level shall not be less than 1 foot-candle at the walking surface.
Sec 1006.3 Illumination Emergency Power	Power supply for means of egress illumination shall normally be provided by premises' electrical power.
	In power failure event, automatic illumination shall include corridors, exit enclosures, exit passageways, interior exit discharge elements for a duration of 90 minutes with battery backup or on-site generator.
Sec 1007.1 Accessible Means of Egress	
Accessible spaces must be provided with an accessible means of egress. Exception, accessible means of egress not required in alterations to existing buildings	
Sec 1007.3 Stairways	
Minimum width between handrails	48" unless sprinklered - N/A
Sec 1008.1.1.1 Projections into Clear Width	No projections into required clear width allowed lower than 34" above the floor. Shall not exceed 4" between 34" and 80" above the floor. Exceptions: Door closers and door stops shall be permitted to be 78" min above the floor.
Sec 1008.1.2 Door swing	Door shall swing in the direction of egress travel where serving an occupant load of 50 or more persons.
Sec 1008.1.5 Floor Elevation	There shall be a floor or landing on each side of a door and shall be at the same elevation. Exterior may slope .25 / 12 units (2%).
Sec 1008.1.6 Landings at Doors	Landings shall have a width not less than the width of the stairway. When serving an occupant load of 50 or more, doors shall not reduce the landing to less than 1/2 its required width. Landings shall not have a length less than 44" in the direction of travel.
Sec 1008.1.7 Thresholds	Thresholds shall not exceed 1/2"
Sec 1008.1.10 Panic Hardware	Doors serving rooms or spaces with 50 or more occupants shall not be provided with a latch or lock unless its is panic hardware.
Sec 1009.1 Stairway width	
Minimum width	3'-8"
Exception serving less than 50	3'-0"
Min headroom	6'-8"
Sec 1009.4 Stair treads and risers	
Stair riser	Max 7"
Stair riser	Min 4"
Stair tread	Min 11"
Sec 1009.5 Stairway Landings	There shall be a floor or landing at the top and bottom of each stairway. The width shall not be less than the width of the stairway. The length must be at least the same as the width but need not exceed 48" in s straight run.
Sec 1009.7 Vertical Rise	Max 12' vertical rise between landings or levels
Sec 1009.12 Handrails	Handrails shall be on both sides of stairways
Sec 1012 Handrails	Between 34" and 38" above nosing Handrail gripping surfaces shall be continuous, without interruption Handrails shall return to a wall, guard, or continuous. Handrails shall extend 12" horizontally above top riser and continue to slope for the depth of one tread beyond the bottom riser
Sec 1013.1 Guards	
When more than 30" above floor	Guards required
Height	3'-6"
Sec 1014.2 Egress through intervening spaces	Shall not pass through adjoining spaces, including kitchens and storage rooms

Sec 1017.4 Seating at tables	Seating at table or counter and adjacent to an aisle or aisle accessway, clear width of the aisle shall be the back of the seat (19" away from and parallel to the edge of the table or counter)
Sec 1017.4.1 Aisle accessway for tables and seating	Aisle accessways shall have sufficient clear width to conform to the capacity requirements of Sec 1005.1
Sec 1017.4.2 Table and seating accessway width	Aisle accessways shall provide a minimum of 12" of width plus 1/2" of width for each additional 1 foot, beyond 12' of aisle accessway length measured from the center of the seat farthest from an aisle
Sec 1017.4.3 Table and seating aisle accessway length	Exception: Portion of an accessway having a length not exceeding 6' and used by not more than 4 persons Length of travel shall not exceed 30' from any seat to the point where a person has a choice of 2 or more paths of egress travel to separate exits
Sec 1014.3 Common path of egress travel	
Occupancy A	Not more than 75'
Table 1015.1 Spaces with 1 exit	
Occupancy A	Max occupant load = 49
Sec 1015.2.1 Two exits	
When 2 are required	Not less than 1/3 overall diagonal when sprinklered
Exception	When exit enclosures are interconnected by a 1 hour travel corridor, separation shall be measured along the shortest direct line of travel within the corridor
Table 1016.1 Travel Distance Limitations	
Occupancy A	250' (with sprinkler system)
Table 1018.1 Corridor Fire-Resistance Rating	
Occupancy A, corridor serving more than 30	0 Hour when sprinklered
Sec 1018.2 Corridor Width	
Min width	3'-8"
Req occupant capacity less than 50	3'-0"
Sec 1018.4 Dead Ends	
Group A	Max 20'
	Not limited when corridor is less than 2.5 times the least width of the corridor
Table 1021.2 Stories with One Exit (A)	
First story or basement	49 Occupants and 75' travel distance
Sec 1022 Exit Enclosures	
Stairway enclosure	1 Hour rating
Sec 1027 Exit Discharge	
Exits shall discharge directly to the exterior of the building and shall be at grade or direct access to grade.	
Sec 1027.1 Exceptions	Max of 50% occupants permitted to egress through areas of exit discharge Free and unobstructed path of travel and exit is readily visible Area of exit discharge is 1 hour separated from areas below Egress path is sprinklered Max of 50% occupants permitted to egress through a vestibule Entire area of vestibule is 1 hour separated from areas below Depth from exterior of building is not greater than 10' and length is not greater than 30' Area is separated from remainder of exit discharge with equivalent of wired glass in steel frames Area is used only for mean of egress and exits directly to outside.
Exceptions	
Sec 1027.3 Exit discharge location	
Exterior balconies, stairways, ramps	Located at least 10' from lot lines
Sec 1028.2 Assembly Main Exit	
Group A with occupant load greater than 300 shall be provided with a main exit	Shall accommodate not less than 1/2 of the occupant load
Chapter 11 Accessibility	
Sec 1105.1 Public entrance	Min 60% entrances Accessible entrance not required to areas not required to be accessible
Chapter 14 Exterior Walls	
Sec 1406.3 Balconies	Balconies not constructed with fire-retardant-treated wood shall be rated per table 601 or of Type IV construction. Aggregate length shall not exceed 50% of the buildings perimeter on each floor.
Exceptions	Balconies on Type V buildings are permitted to be of Type V construction and shall not be required to be fire-resistance rated when sprinkler system extends to this area.
	When sprinklered, aggregate length of balconies on each floor shall not be limited

NFPA 101 Life Safety Code Review	
Sec 3.3.168.2	Assembly Occupancy used for gathering over 50 or more persons
Chapter 7 Means of Egress	
Sec 7.1.3.1 Exit Access Corridor	1 Hour when occupant load exceeds 30
Exception	Does not apply to existing buildings if occupancy classification does not change
Sec 7.1.3.2 Exits	Indicates 1 hour separation for exits if 3 or less stories Openings in exit enclosures shall be limited to door assemblies from normally occupied spaces and corridors An exit enclosure shall provide a continuous protected path of travel to an exit discharge
Sec 7.1.5.1 Means of egress headroom	Not less than 7'-6" with projections not less than 6'-8"
Sec 7.1.5.1.1 Existing building	Not less than 7'-0"
Sec 7.2.1.4.3 Door Leaf Encroachment	During its swing, any door leaf in a means of egress shall not leave less than 1/2 of the required width of a corridor, and shall not project more than 7" into the required width when fully opened.
Table 7.2.2.1.1 New Stairs	
Min width	36" when occupant load less than 50 44" when occupant load less than 2000
Max riser	7"
Min riser	4"
Min tread depth	0'-11"
Min head room	6'-8"
Max height between landings	12'-0"
Sec 7.2.2.3.4 Stair landings	Not required to exceed 48"
Sec 7.2.2.4.1 Handrails	Stairs and ramps shall have handrails on both sides
Sec 7.2.2.4.1.2 New stairs exceeding 6'-3" in width	Handrails shall be provided within 30" of all portions of req egress width
Sec 7.2.2.4.5.2 Guard details	Guards shall be not less than 42" high Existing guards on existing stairs shall be permitted to not less than 30" high
Sec 7.2.2.4.5.3 Open guards	4" Sphere must not pass through any opening to a height of 34" Triangular openings at stairs, 6" opening max
Sec 7.2.2.5.2 Exposure	Where nonrated walls or unprotected openings enclose the exterior of a stairway, and the walls are exposed by other parts of the building at an angle less than 180 degrees, the building enclosure walls within 10' horizontally of the nonrated wall shall be 1 hour constructed
Sec 7.2.2.5.3 Usable Space	Enclosed usable space shall be permitted under stairs when separated with 1 hour construction and entrance is not from the same stair enclosure
Table 7.3.1.2 Occupant Load	
Ground Floor (refer to drawings)	210 Occupants
Total Occupants	210 Occupants
At-grade Patio Seating	49 Occupants
Sec 7.7.2 Discharge Through Areas on Level of Exit Discharge	Not more than 50% of the required number of exits and egress capacity shall discharge through LED Discharge shall lead to a free and unobstructed way to the exterior of the building. LED shall be protected by a sprinkler system.
Chapter 12 New Assembly Occupancies	
Table 12.1.6 Construction Type Limitations, Type II (000)	
Sprinklered	One story in height is acceptable
Sec 12.2.3.6.2 Main entrance	If bar shall have live entertainment, main entrance shall be of width to accommodate 2/3 of total occupant load
Sec 12.2.3.7 Other exits	Additional exits (other than main exit) shall accommodate not less than 1/2 total occupant load
Sec 12.2.3.8 Minimum corridor width	Width of any exit access corridor serving 50 or more persons shall not be less than 44"
Sec 12.2.5.1.2 Common path of travel	Shall not exceed 20' for any number of occupants and 75' for not more than 50
Sec 12.2.5.1.3 Dead-end corridors	Shall not exceed 20'
Sec 12.2.5.2 Access through hazardous areas	Shall not pass through kitchens, storerooms, platforms, etc.
Sec 12.2.6 Travel distance to exits	Shall not exceed 250' if sprinklered

Sec 12.3.3.2 Interior wall and ceiling finish	
Corridors and lobbies	Class A or B
Enclosed stairways	Class A
Assembly areas less than 300	Class A, B, or C
Assembly areas more than 300	Class A or B
Projection screens	Class A or B
Interior floor finish in exit enclosures	Class II
Sec 12.4.5.11.1 Flame-Retardant Requirements	Combustible materials of cloth, film, vegetation (dry) shall meet NFPA 701.

Maine State Internal Plumbing Code (Uniform Plumbing Code 2009)	
Total occupant load	205 Occupants / 103 men, 103 women
Male	2 WC required 1 Urinal required
Female	2 WC required
Lavatories, both	1 Lavatory each
Sec 413.6 Food Service Establish	With occupant load more than 100, shall be provided with separate facilities for employees and customers

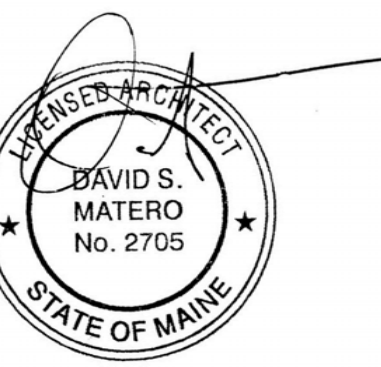


Consultants

Revisions

TIQA

311 Commercial Street
Portland, Maine



Job Number: 14.000

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Scale: NTS

Drawing Title:

Code Analysis

R.2

Issued for
Permit