CODE ANALYSIS FOR PROJECTS INVOLVING NEW CONSTRUCTION

Reference Standards

2020 Building Code of NYS, 2020 Energy Conservation Code of NYS

2020 Plumbing Code of NYS

Project Location: Port Ewen, Ulster NY

Prepared by: Keystone Associates Architects, Engineers, and Surveyors, LLC

No	TOPIC	NYS Code Section	REQUIRED / ALLOWED	EXISTING/PROPOSED	COMMENTS
	Occupancy Classification	BCNYS 302	Mixed Occupancy	A-3/ B/ S-1	A-3 = Community halls; B = Civic Administration; S-1 = Fire Apparatus Parking
	Construction Classification	BCNYS Table 601		Type IIB construction	
		Structural Frame	0	Not rated.	
		Bearing and Nonbearing Walls	0	Not rated.	1-hr fire separation walls for A-3 to S-1 occupancy are provided.
		Floors	0	Not rated.	1-hr rated floor separation for A-3 to B occupancy is provided.
		Roof Construction	0	Not rated.	
	Building Height & Area Limitations	BCNYS 503			
		BCNYS 504.2	Mixed occupancy maximum height / story	Shall not exceed the maximum applicable for occupancy below.	
	Allowable Height (feet)	BCNYS Table 504.3	Maximum height A-3, fully sprinklered = 75'; S-1, fully sprinklered = 75'; B, fully sprinklered = 75'.	Max building height is 45ft ±.	
	Allowable height (stories)	BCNYS Table 504.4	Maximum stories A-3, fully sprinklered = 3, S-1, fully sprinklered = 3, B, fully sprinklered = 4.	2 story.	
		BCNYS 505.2.1 Exception 2	The mezzanine is allowed to be 1/2 of the floor area of the room or space in Type I or II construction with an automatic sprinkler and emergency voice/alarm system.	A mezzanine is part of S-1 occupancy. Floor area of S-1 = 12,028 s.f. The total mezzanine area at 2nd level = 914 s.f. 914 is less than 1/2 of 12,028.	These portions of the building do not contribute to the building area of the number of stories. These do contribute to the fire area. The building will not exceed the allowed fire area.
	Allowable Area	BCNYS Table 506.2	A-3 = 28,500; B = 69,000; S-1 = 52,500	Building total area is 21,110 s.f +/- NFPA 13 fire sprinkler is provided throughout.	Type IIB Construction.
	Mixed Use and Occupancy	BCNYS 508.1 Exception #1	Occupancies are separated per BCNYS Ch. 5 Sec. 510.		
	Separated occupancies	BCNYS 508.4	A-3 to S-1 = 1hr required; A-3 to B = 1hr required; B to S-1 = no separation required	1-hr fire separation walls for A-3 to S-1 occupancy are provided. 1-hr rated floor separation for A-3 to B occupancy is provided.	No separation provided between B and S-1 occupancies.
	Fire and Smoke Protection Features	BCNYS Chapter 7			
	Fire Barriers	BCNYS 707			
	Shaft Enclosure	BCNYS 707.3.1 and 707.3.4	1-hr fire separation is required.	1-hr fire separation is provided.	
	Floor and Roof Assemblies	BCNYS 711			
	Separating Mixed Occupancies	BCNYS 711.2.4.1	1-hr fire separation is required between A-3 and B occupancies.	1-hr rated floor separation for A-3 to B occupancy is provided.	See also Sec 508.2.
	Interior Finishes	BCNYS Chapter 8			
	Foam Plastics	BCNYS 802.7	Foam plastic shall not be used as interior finish.	See drawings and specs for finishes.	If the material is researched to comply with Sec. 803.4, 806.5, 2603.9 or 2604.2 it may be allowed under certain circumstances.
	Wall and Ceiling	BCNYS 803.1, Table 803.13	Interior wall & ceiling finish requirement.	All occupancies may use Class C.	
	Floor Finishes	BCNYS 804.4.2	Not less than Class II material is permitted.		See plan for finish.
	Fire Protection and Life Safety Systems	BCNYS Chapter 9			
	Automatic Sprinkler Systems	BCNYS 903	A-3 = Not required; less than 300 occupant. S-1 = required more than 5,000 s.f with storage of commercial motor vehicles.	NFPA 13 fire sprinkler is provided throughout.	
	Portable Fire Extinguishers	BCNYS Table 906.3(2)	20-B rated fire extinuisher; max travel distance 50ft	Complies.	
		BCNYS 906.4, 906.1 condition 2.	Fire extinguisher provided for protection of cooking equipment involving solid fuels, oils, or fats, shall be Class-K rated; 30ft travel distance.	Complies.	
	Means of Egress	BCNYS Chapter 10			
	Occupant load (Max. Floor Area Allowances)	BCNYS Table 1004.5	Design occupant load requirement; A = 15 net (unconcentrated) Kitchen = 200. B = 150 gross (business). S = 200 gross (parking garage)	Design occupant load is: A-3 = 109 occupants. B = 69 occupants. S-1 = 80 occupants.	
	Egress Width & Required Capacity	BCNYS 1005			
	Stairways	BCNYS 1005.3.1 Exception 1	0.2 in per occupant for buildings with a sprinkler and emergency voice alarm system.	Minimum stair width: 52in	Second floor occupancy: 69. Two stairs. 35 persons per stair. 35 x 0.2 = 7"
	Other Egress Components	BCNYS 1005.3.2 Exception 1	0.15 in per occupant for buildings with a sprinkler and emergency voice alarm system.	Minimum corridor width: 60in Minimum door clear width: 32in	Total occupancy: 258. 258 x 0.15 = 38.7in
	Number of Exits and Exit Access Doorways	BCNYS Table 1006.2.1	Not less than two exits shall be provided from each of occupants.	At least 2 exits provided from each area.	
	Exit and Exit Access Doorway Configuration	BCNYS 1007	Access to exits are required to be separate and spaced apart.	Exit separation complies with the code.	A fire sprinkler is installed allowing for a seperation of 1/3 diagonal.
	Egress Illumination	BCNYS 1008.1			
	Illumination to Public Way	BCNYS 1008.2.3	Exit paths are required to be illuminated at the exterior.	Exterior lighting is provided.	
	Emergency Power	BCNYS 1008.3	Emergency power shall be provided to required fixtures.	Emergency power is provided.	
	Accessible Means of Egress	BCNYS 1009.1	Not less than one accessible means of egress.	All means of egress are accessible.	Accessible stair provided from second floor.
	Stairways	BCNYS 1009.3	Required width 48 inches.	Minimum stair width: 52in	
	Areas of Refuge	BCNYS 1009.6	Required size 30 inches by 48 inches for each 200 occupants.	2 areas of refuge provided.	See plan for location.
	Doors, Gates and Turnstiles	BCNYS 1010			
	Door Size, Swing, Opening Force, Special	BCNYS 1010.1.1	Minimum clear width: 32in.	Minimum door clear width: 32in.	See plan and schedule.
	Stairways	BCNYS 1011			
	Width and Capacity, Headroom, Stair Treads and Riser,	BCNYS 1011.2, 1011.3, 1011.5	Minimum width shall be not less than 44 inches. Headroom clearance shall be not less than 80 inches. Stair riser height shall be 7 inches maximum.	Minimum 52in stair width provided. Minimum requirement for riser and treads provided.	See plan and details.
	Exit Signs, Illumination	BCNYS 1013	Exit sign placement required within 100 feet any point in an exit access corridor.	Exit signs and directional signs are provided as noted on the drawings.	
	Handrails for stairway	BCNYS 1014		Work shall comply. See details on drawings.	
	Exit Access Travel Distance	BCNYS Table 1017.2	A-3 = 250 feet; B = 300 feet; S-1 = 250 feet	Complies.	See code plans for more information.
	Corridors	BCNYS 1020			
	Corridor Fire-Resistance Rating	BCNYS Table 1020.1	Not required for occupancy with sprinkler system.	Not provided.	
	Dead Ends	BCNYS 1020.4	Exception #2 = S-1 with sprinkler throughout the length shall not exceed 50 feet.	Exit door provided at the corridor exceed with the minimum required.	See plan for location.
	Exits, Interior Exit Stairs & Ramps	BCNYS 1022 / 1023		Exits at interior and exterior are provided with proper access and 1hr rated enclosure	See plans for location and details.
	Exit Discharge	BCNYS 1028		Each exit is discharging at an access to a public way.	See plans for locations.
	Accessibility	BCNYS Chapter 11			
	Scoping Requirements	BCNYS 1103	Building is required to provide accessibilty	Building complies with 2009 ANSI/ICC A117.1	
	Public Entrance	BCNYS 1105.1	60% of all public entrance shall be accessible.	Two public entrance are provided. Both of these are accessible and on an accessible route.	
	Parking	BCNYS 1106 & Table 1106.1		Accessible parking is provided.	
	Toilet and Bathing Facilities	BCNYS 1109.2	Toilet Facilities shall be accessible.	Accessible toilet facilities for each sex provided.	See plans for locations. Per Exception 3, only 50 percent need to be accessible where there is a cluster of single-user toilet rooms.
	Signage	BCNYS 1111		Signage is provided as required for parking and access route.	
	Commercial Energy Efficiency	ECCNYS Chapter 4			
	Opaque Thermal Envelope Insulation	ECCNYS Table C402.1.3			
		Insulation entirely above roof deck	R-30ci	Complies.	See drawings for details.
		Mass walls above grade	R-13.3ci	Complies.	See drawings for details.
		Unheated Slab-on-grade floors	R-10 for 24" below	Complies.	See drawings for details.
	Opaque Thermal Envelope Maximum Requirements	ECCNYS Table C402.1.4			
		Swinging door	Max U-factor: 0.37	Complies.	See specifications for details.
		Garage door - <14% glazing	Max U-factor: 0.31	Complies.	See specifications for details.
	Fenestration	ECCNYS Table C402.4			
		Fixed Fenestration	Max U-Factor: 0.36	Complies.	See specifications for details.
		Operable Fenestration	Max U-Factor: 0.43	Complies.	See specifications for details.
		Entrance Doors	Max U-Factor: 0.77	Complies.	See specifications for details.
		SHGC	Max 0.40	Complies.	See specifications for details.
	Air Leakage of Fenestration	ECCNYS Table C402.5.2			
		Windows	0.20 cfm/sq.ft.	Complies.	See specifications for details.
		Sliding doors	0.20 cfm/sq.ft.	Complies.	See specifications for details.
		Swinging doors	0.20 cfm/sq.ft.	Complies.	See specifications for details.
		Storefront glazing	0.06 cfm/sq.ft.	Complies.	See specifications for details.
		Glazed swinging entrance doors	1.0 cfm/sq.ft.	Complies.	See specifications for details.
		Garage doors	0.40 cfm/sq.ft.	Complies.	See specifications for details.
	Minimum Plumbing Fixtures	PCNYS Table 403.1			
		Assembly - Restaurants, banquet halls and food courts	Waterclosets: Male - 1 per 75, Female 1 per 75; Lavatories: Male and Female 1 per 200; Drinking Fountain: 1 per 500; 1 service sink	A-3 occupancy: 1 watercloset and 1 lavatory provided for each sex, 1 high-low drinking fountain provided, 1 service sink provided.	
		Business	Waterclosets: 1 per 25 for the first 50 and 1 per 50 or the remainder exceeding 50; Lavatories: 1 per 40 for the first 80; Drinking Fountain - 1 per 100; 1 service sink	2 waterclosets and 2 lavatories provided for each sex, 1 high-low drinking fountain provided, 1 service sink provided.	1 watercloset and 1 urinal provided in men's room.
		Storage	Waterclosets: 1 per 100; Lavatories: 1 per 100; Drinking Fountains: 1 per 1,000; 1 service sink	4 unisex waterclosets and 4 sinks provided, 1 high-low drinking fountain provided, 1 service sink provided.	

DATE: 6/9/2023
DRAWN BY: Author
SCALE:
REVIEWED BY: Approver
PROJECT NO.: 21-2343
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REVISIONS

NO.	DATE	DESCRIPTION

PORT EWEN FIRE DEPARTMENT, ULSTER, NEW YORK

DETAILED CODE INFORMATION

BID PLANS

SHEET: A002

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