Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 01/27/14

Building Code Analysis (IBC 2009 and NFPA 101 2009)	
Current Use and Occupancy Classification	Business Group B (304.1), and (6.1.11)
Proposed Use and Occupancy Classification	MIXED OCCUPANCY - Educational Group E (NFPA 6.1.14.3) / Business, NON-separated
Existing Building Area Modification	NFPA 43.4 and 43.5
Construction Type	Type III B Exterior walls are of non-combustible material and interior building elements are of any material permitted by code
Automatic Sprinkler System	The building is currently fully sprinklered (monitored system)

1. Existing Structure Information

	Building Area	Renovation Area
Lower Level	7,067 sq ft	0 sq ft
First Floor	7,067 sq ft	0 sq ft
Second Floor	7,067 sq ft	2,377 sq ft
Totals	21,201 sq ft	2,377 sq ft
Number of Stories above Grade	3	
Building height	approx. 35 ft	

2. Allowable Area (Table 503)

Allowable area per floor	23,500 sq ft	
Allowable height	65'	
Allowable number of stories	2	See Hgt. Modifications below

3. Height and Area Modification with Automatic Sprinkler System (504.2)

Allowable height increase	1 Story, 20 ft	2+1 = 3 Stories
Total allowable height with modifications	3 Stories, 85 ft	

THE BUILDING HEIGHT AND AREA ARE WITHIN THE PERMITTED LIMITS

4. Occupant Load (NFPA 101 Table 7.3.1.2, & IBC Table 1004.1.1)

Floor	Occupied Spaces	Area NET Sq. Ft.	Occupancy Load	Actual Design Occupancy	Use Classification
FIRST FLOOR NO WORK This floor at this time	Classroom 101	463	24	21	Educational Classroom space = 20 net/person
	Classroom 102	613	31	21	"
	Classroom 103	897	45	21	"
	Art Classroom 104	735	18	16	Educational vocational space = 50 net/person
	Student Center 105	1,411	95	---	Assembly space = 15 net/person
	Office 106	211	2	2	Business Office space = 100 net/person
	Teacher's Room 108	80	2	--	Occupant Load = 2
	TOTAL First Floor	4,410	217	81	
SECOND FLOOR Current Rooms	Office 201	173	2	2	Business Office space = 100 net/person
	Classroom 202	321	16	19	Educational Classroom space = 20 net/person
	Classroom 203	412	21	21	"
	Classroom 204	432	22	21	"
	Classroom 205	432	22	21	"
	Classroom 206	534	27	21	"
	Tutoring Room 207	165	9	8	"
	Office 212	143	2	2	Business Office space = 100 net/person
SECOND FLOOR INTERIOR UPFIT Newly Renovated Areas	Social Worker's Office 215	112	2	1	Business Office space = 100 net/person
	Office 216	90	1	1	"
	Office 217	92	1	1	"
	Existing Stair 218	– – –	– – –	– – –	– – –
	Existing Clo. 219	– – –	– – –	– – –	– – –
	Hall 220	– – –	– – –	– – –	– – –
	Office 221	111	2	1	Business Office space = 100 net/person
	Secretary 222	105	2	1	"
	Guidance Office 223	105	2	1	"
	Storage 224	– – –	– – –	– – –	– – –
	Hall 225	– – –	– – –	– – –	– – –
	Meeting 226	215	14	10	Assembly space = 15 net/person
	Conf. 227	70	1	1	Business Office space = 100 net/person
	Classroom 228	431	22	18	Educational Classroom space = 20 net/person
	Classroom 229	449	23	18	"
	Total Second Floor	4,392	191	168	
	TOTAL - First & Second Floor	8,802	408	249	

Note: All Sq. Ft. Numbers shown are NET unless otherwise noted.

5. Minimum Fire Resistance Requirements of Building Elements (IBC Tables 601 & 602)

Structural Frame	0 hour	Table 601	
Load bearing exterior walls	2 hours	Table 601 and 602	
Load bearing interior walls	0 hour	Table 601	
Non-load bearing exterior walls (fire separation Greater than 30 ft.)	0 hour	Table 602	
Non-load bearing exterior walls (fire separation distance greater than 30 ft.)	0 hours	Table 602	
Floor construction	0 hour	Table 601	
Roof construction	0 hour	Table 601	
Shaft enclosures	1 hours	Section 708.4	
Exit enclosures	1 hours	Section 1022.1	
Corridors	0 hours	Table 1018.1	with automatic sprinkler system
Corridors per NFPA 101 15.3.6	1/2hours		
	0 hours	IF Smoke Partitions provided Per NFPA 101, 8.4.3.5	
Mixed Occupancy - No Separation	0 hour	**NFPA 101- 6.1.14.3**	
Accessory Occup. - Main Occup.	0 hour	IBC 508.2.4	

6. Means of Egress Components

Exit access Travel Distance with automatic sprinkler system	200 ft. per *NFPA 101, 15.2.6.3
Minimum Number of exits required per floor	(2) (Table 1021.1)
Number of exits provided per floor	(2)
Spaces with (1) means of Egress allowed when Occ. load less than 50 in Group E	IBC Table 1015.1, NFPA 15.2.5.4
Common path of travel in Group E fully sprinklered buildings.	75 ft (IBC 1014.3), **100** ft NFPA 15.2.5.3.1
Dead End Limit in Group E fully sprinklered buildings.	50 ft (IBC 1018), NPFA 15.2.5.2
Required Corridor Width = 6'-0"	Educational Occupancy NFPA 101, 15.2.3.2
Min. Corridor Width Provided = 6'-0"	
Accessible means of egress are Not required in alterations to EXISTING buildings	IBC Section 1007.1 and NFPA 3411.6

	Area Served	Occupant Load = 1/2 Total	Width Required, (* min. req'd.)	Width Provided	
Stair 1	3,533 gross sq ft	96 X .3" =	28.8" (*36")	40"	*NFPA 101, 7.2.2.2.1.1-(2) and Table 7.2.2.2.1.1(b) Existing Stairs
*Existing Risers: 6.75" to 7" *Existing Treads: 9.5"					
Stair 2	3,533 gross sq ft	96 X .3" =	28.8" (*36")	46"	
*Existing Risers: 6.75" to 7" *Existing Treads: 10.75"					
Egress Doors		169 x .2" =	33.8" (36")	36"	Calculated for Stair exit doors at 1/2 of 2nd Floor Occ. load Plus 1/3 of First Floor Occ. Load

7. Minimum Plumbing Fixtures - Uniform Plumbing Code 2009

	WATER CLOSETS		URINALS	LAVATORIES		DF/person
Required Student Fixtures For Secondary Schools	1 : 40 male	1: 30 female	1 per 35 males	1: 40 male	1: 40 female	1 per 150
STUDENTS	**MALE Students** 65	**FEMALE Students** 65	add1 Female WCs req'd. to equal total male WC and Urinal fixtures	MALE Students 65	FEMALE Students 65	130 Students
REQUIRED Student Fixtures	2 WC	3 + 2 = 5 WC	2 Urinals	2 Lavs	2 Lavs	1 DF
Student Fixtures PROVIDED	3 WC	5 WC	3 Urinals	5 Lavs	5 Lavs	3 DF
Required Staff Fixtures For Secondary Schools	1 per 1-15	1 per 1-15	1 per 50	1: 40 male	1: 40 female	none
STAFF	Male Staff 10	Female Staff 10				
Required Staff Fixtures	1 WC	1 WC	1 Urinal	1 Lav	1 Lav	
Staff Fixtures Provided	1 WC	1 WC	1 Urinal	1 Lav	1 Lav	

Occupancy Count Based On Max. Number Of Students And Staff Planned For Max Capacity. 2013 - 2014

Additional Classrooms created this year are for current enrollment.

130 students
20 staff

LEGEND

- Smoke Partition
- One Hour Rated Wall
- New Walls
- Existing Walls
- EXISTING 1 HOUR RATED EGRESS STAIR
- EGRESS PATH
- 14' DISTANCES TO EXIT
- EXIT SIGNS
- EMERGENCY LIGHTS
- EXIT/EMERGENCY COMBINATION LIGHTS
- AREA OF NEW UPFIT WORK

SEE SHEET A1.3 FOR COMPLETE DOOR SCHEDULE AND HARDWARE.

ALL WORK LIMITED TO SECOND FLOOR. NO WORK ON OTHER LEVELS. SEE SHEET A1.1 FOR EXISITNG LOWER LEVEL AND FIRST FLOOR PLANS FOR REFERENCE ONLY.

END OF COMMON PATH OF TRAVEL FROM ADMINISTRATION SUITE = 60'

100 ft allowed by NFPA 15.2.5.3.1
75 ft allowed by (IBC 1014.3),

ONE EXIT ALLOWED PER NFPA 101 15.2.5.4 AND IBC Table 1015.1

Spaces with (1) means of Egress allowed when Occupancy load is less than 50 in Group E. NFPA 15.2.5.4, and IBC Table 1015.1

ADMIN. SUITE AREA TOTAL = 900 NSF

No Enclosure required per NFPA 15.3.1.3

STAIR 218 EXITS DIRECT TO STREET BELOW - BUT NOT A REQUIRED MEANS OF EGRESS.

N
Plan North

2 Second Floor Plan - Interior Upfit
SCALE: 1/8" = 1'-0"

ALL WORK LIMITED TO SECOND FLOOR. NO WORK ON OTHER LEVELS. SEE SHEET A1.1 FOR EXISITNG LOWER LEVEL AND FIRST FLOOR PLANS FOR REFERENCE ONLY.

8 0 4 8 16
Scale: 1 inch = 8 feet

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REGISTERED ARCHITECT
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STATE OF MAINE

Baxter Academy
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SECOND FLOOR INTERIOR UPFIT
Portland, Maine

Code Summary

Drawn by: RRA
File Name:
Scale: As Shown
Project No. 2013.00
Date: 11-26-13
Revised:

Baxter Academy 2nd Floor Upfit

G1.1