



CODE STUDY

Project Name: USM Department Reorganization – LUTHER BONNEY			Date: 9/11/15	
Location: Portland, Maine			Project #: 15457	
Scope:	New ___	Addition ___	Renovation X	
Occupancy Classification	Mixed Use in building – A and B – See Life Safety Plan		Construction Type	2B
Building Area	See Life Safety Plan		Building Height	See Life Safety Plan

Code Heading	IEBC/IBC 2009	NFPA 101-2009	Remarks
401 Classification of Work	IEBC Chapter 4	43.1.4 Compliance Renovations, modifications, reconstructions shall comply with each specific section of this Chapter	The proposed use is the same as the previous use in this space. The renovation is addressing a new configuration of office spaces as new departments are being located in this area.
404.1 Alteration – Level 2	Work area = 14,000 SF Total Building Area = 82,892 SF. Comply with Chapters 6 for Level 1 alterations and Chapter 7 for Level 2 alterations	43.5.2.3 Where the work area exceeds 50% of building area, the work shall be considered Reconstruction	Level 3/Reconstruction applies when work area exceeds 50% of aggregate area of building. Work area is less than 50% building area, therefore not considered Level3/Reconstruction
601 Alterations – Level 1 Compliance	Level-1 alterations shall meet requirements of Chapter 6. Building or portions of building shall not be made less safe	Renovation-Renovations shall comply with this section. New work shall comply with requirements for existing buildings (chapter 39 Existing Business). The work shall not make the building less conforming than was before renovations	Level of renovations are Renovations and Modifications



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701 Alterations – Level 2 Compliance	New construction shall meet IBC except: <ul style="list-style-type: none"> • Ceiling height: 7' • Dead end corridors • Exterior windows – light and ventilation requirements 	Modifications- Modifications shall comply with this section and the section for Renovations. 43.5.1.3 Newly constructed elements components and systems shall comply with other sections of the code as applicable to new construction	NFPA Modifications requires new work and extension of existing systems to comply with other sections of the code (Existing Business)
602.1 Materials and Methods	All new work shall comply with materials and methods requirements of IBC, IECC, IMC, IPC as applicable for: <ul style="list-style-type: none"> • material specification • detail of installation, joints, penetrations, continuity of elements 	43.4.4 Reconfiguration of any system, installation of equipment shall comply with requirements for Modifications	
602.1 Interior Finish	Comply with IBC Chapter 8 for new work	43.4.3 New interior finishes shall meet the requirement for new construction.	All interior finishes comply with that for new construction.
703.4 Interior Finish	Interior finishes in work area (L1,L2) shall comply with IBC or be treated with fire retardant coating Where work area exceeds 50% of floor area, finishes in corridors and exits serving work area must comply with new	39.3.3 Interior finish shall be according to section 10.2 Walls and ceilings in exits and exit access corridors shall be Class A or B, all other areas Class A, B or C. 10.2.7 Carpet shall comply with ASTM D 2859	Work area exceeds 50% of floor area. All interior finishes comply with IBC Chapter 8
603.1 Fire Protection	Maintain the level of fire protection provided		
704.1 Fire Protection	Requirements limited to work areas except where noted	39.3.1 Vertical Openings shall comply with 8.6 39.3.2 Hazardous areas including general storage rooms shall be protected in accordance with 8.7	Exceptions identified in individual sections below.



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Extinguishment Requirements		39.3.5 Provide portable fire extinguishers in accordance with NFPA 10. Maximum travel distance to extinguishers by hazard <ul style="list-style-type: none"> • Class A : 75' • Class B: 30'/50' 	
704.1.1 Corridor Ratings	Reduction in required ratings of corridors with sprinkler system if exit stair landings serving the floor are covered	39.3.6 Corridors: no requirements	Work area not sprinklered, Not Applicable
704.2 Automatic Sprinkler System	<ul style="list-style-type: none"> • High Rise Buildings: Install where work areas have OL>30 and there is an existing sprinkler riser • Install in work area if all apply: <ul style="list-style-type: none"> ○ Required by IBC for occupancy use in work area ○ Work area exceeds 50% of floor area ○ Sufficient municipal water supply ○ Work area use requires it. • Windowless stories • Other areas per IBC 903.2.11.6 	39.4.2 High Rise Buildings require installation of sprinkler system or engineered life safety system. Building is not high rise building. Max height of ground floor level to top floor is less than 75 ft.	Building is not a High Rise Building (IBC 403, NFPA Chapter 11). IBC does not require sprinkler system for work area use. NFPA does not require sprinkler for existing business use.
704.4 Fire Alarms and Detection	Fire alarm system shall be installed in work areas for occupancies E, I, R except if there is an existing approved system	39.3.4 Provide a fire alarm system (9.6) in all business occupancies with OL>100 <ul style="list-style-type: none"> • Initiation by manual mean or automatic detection 	Although not in E,I, or R, existing approved fire alarm system will be modified within work area. Modifications are designed per IBC/NFPA



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604.1 Means of Egress	Maintain the level of protection provided	43.4.2 Capacity of egress shall comply with 7.2 unless AHJ permits or previously found to be adequate	
705.1 Means of Egress	<p>Requirements of this section apply to exits and corridors within the work area shared by more than one tenant.</p> <ul style="list-style-type: none"> • Min No. Exits.: 2 • Egress Doorways <ul style="list-style-type: none"> ○ All areas with OL>50 shall have 2 exits • Openings in corridor walls <ul style="list-style-type: none"> ○ Corridor doors shall not be hollow core ○ Door sash, grill, opening, sealed with materials consistent with wall construction • Dead end corridor shall not exceed 35, allowed to be 50' if building has a fire alarm system in other than A and H occupancies 	<p>39.2.1 Means of Egress All means of egress shall be in accordance with Chapter 7</p> <p>39.2.23 Stairs-Existing Stair is being maintained</p> <p>39.2.2.4 Smokeproof Enclosures – Provided at Exit Stair</p> <p>39.2.3 Capacity of Means of egress <ul style="list-style-type: none"> • Corridor min width: 44" </p> <p>39.2.4 Number of exits: 2</p> <p>39.2.5 Arrangement of egress <ul style="list-style-type: none"> • Dead end: 50 ft • Common path of travel: 75 ft </p> <p>39.2.6 Travel Distance <ul style="list-style-type: none"> • Max travel distance: 200 ft </p>	<p>Work area serves only one tenant – USM.</p> <p>Min egress provided</p>
Occupant Load		<p>39.1.7 Occupant load for means of egress shall be from table 7.3.1.2</p> <p>Business Use: 100 SF/oc.</p>	See Code Plan for occupant loads.
605.1 Accessibility	Comply with accessibility standards of IBC except where technically infeasible. Where infeasible, comply to the maximum extent feasible.		New configuration of space designed to meet accessibility requirements
706 Accessibility	Comply with 605		



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707 Structural	Minimum design loads on existing structural elements that do not support additional loads as a result of the alteration shall be those applicable at time of original building construction		No additional loads created by alterations
708 Electrical	Comply with Chapter 5 <ul style="list-style-type: none"> • Electrical in new partitions comply with NFPA 70- NEC • Electrical in A-1,A-2,A-3, A-5, H, I meet the materials and methods requirements of Chapter 5. • Chapter 5 allows wiring and equipment being repaired to be replaced or repaired with like material 		All new work per NFPA 70
709 Mechanical	Comply with International Mechanical Code		Mechanical systems in work areas designed to comply with IMC
710 Plumbing	Where OL increases by >20%, provide quantity of fixtures for new OL		No anticipated change in occupant load by the alteration.
710 Energy Conservation	Alterations do not require entire building to comply with IECC. Alterations shall conform to the energy requirements.		