

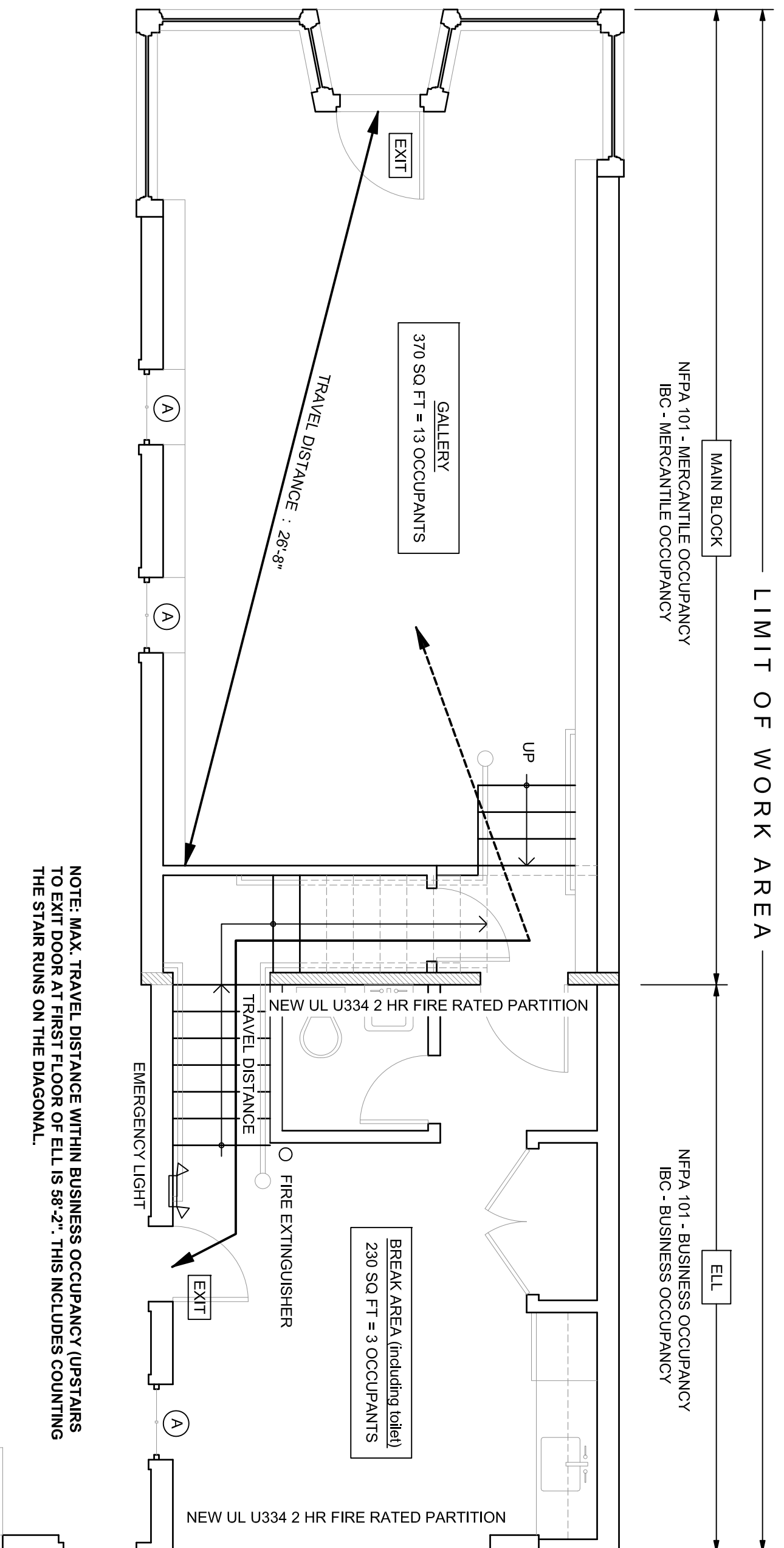
FLOOR / CEILING ASSEMBLY TO BE UL L511 2 HR FIRE RATED BETWEEN THE FIRST FLOOR MERCANTILE OCCUPANCY AND THE SECOND FLOOR BUSINESS OCCUPANCY. THIS WILL REQUIRE A 2HR RATING AT THE UNDERSIDE OF THE NEW STAIR.

UL DESIGN NO. L511 - UNRESTRAINED ASSEMBLY RATING 2 HR.

SYSTEM NO. 4

1. TOP LAYER - TO CONSIST OF 1/8\"/>

2 UPPER LEVEL EGRESS PLAN
1/4" = 1'-0"



NOTE: MAX. TRAVEL DISTANCE WITHIN BUSINESS OCCUPANCY (STAIRS TO FIRST FLOOR) AND BUSINESS OCCUPANCY (STAIRS TO SECOND FLOOR) SHALL BE 90'-2" - THIS INCLUDES COUNTING THE STAIR RUNS ON THE DIAGONAL.

1 FIRST FLOOR EGRESS PLAN
1/4" = 1'-0"

Code Review - NFPA 101 (Life Safety) 2009

Chapter 6 - Classification of Occupancy

Section 6.1.1.0 This building is classified as "Mercantile". The Studio portion of the property is classified as "General Industrial" per section 6.1.1.2 and Chapter 40 section 40.1.4.1.1(1) low hazard industrial operations.
 Section 6.1.1.4.1 - The occupancy shall be classified as a "Multiple Occupancy" and further defined as a Mixed Occupancy.
 Section 6.1.1.4.2 - The "Business" portion of the building shall be separated from the "General Industrial" portion of the building as per Table 6.1.1.4.1 (B) by 2 hr fire resistive assembly. "Business" portion of the building shall be separated from the "Mercantile" portion of the building by 2 hr fire resistive assembly.

Chapter 7 - Means of Egress

Section 7.1.3.2.1(1) - All new exits connecting three stories or less shall be 1-hour fire rated.
 Section 7.2.1 - Doors shall comply with the section including panic hardware and fire exit hardware, section 7.2.1.1(7).
 Section 7.2.2 - All stairs shall comply with this section. Minimum new stair width for occupancy load less than 50 is 36" clear with the exception of 2' wide fire-resistive assembly.
 Table 7.2.1.2 - Occupant Load: see Egress Plans, 12.(b)
 Mechanical spaces: 1 person per 300 square feet
 Mercantile user (first floor, Main Block): 1 person per 100 square feet
 Business user (first floor, EII and second floor Main Block): 1 person per 100 square feet

Section 40.1.4.1(1) - Occupant load shall be determined in accordance with Chapter 37 Existing Business Occupancies 37.2.4.3 (for a mezzanine within a Class C occupancy with a common path of travel less than 75 feet).

Chapter 8 - Features of Fire Protection

Table 8.2.1.2 - Construction Type shall be Type II (000).
 Section 8.2.2.3 - Fire barriers shall be continuous from outside wall to outside wall or from fire barrier to fire barrier, including continuity through all concealed spaces, such as those found above ceilings and other interstitial spaces.
 Section 8.2.3.2 - Fire resistance rated floors shall be classified as untested in accordance with NFPA 251, Standard Methods of Tests of Fire Endurance of Building Construction and Materials; ASTM E 119; or UL 263.
 Section 8.6.3.2 - The means of egress opening shall be permitted as Chapter 28 as the stair connects only two adjacent stories. This includes the use of fire-resistive assembly for the fire-resistive enclosure of the opening.
 Section 8.6.3.3 - Mezzanines do not have to be open and unobstructed to level below if occupant load is less than 10 persons.

Chapter 37 - Existing Mercantile Occupancies

Section 37.1.4.2.1(9) - Occupancy shall be classified as Class C as mercantile occupancy is less than 3,000 sq ft and Section 37.2.5.3.2 - Common path of travel shall not exceed 75 feet within a single tenant space having an occupant load not exceeding 30.
 Section 37.2.6.2 - Travel distance to exit shall not exceed 150 feet.
 Section 37.2.8 - Means of Egress shall be illuminated in accordance with Section 7.8.
 Section 37.2.9 - Emergency Lighting shall be provided in accordance with Section 7.8.
 Section 37.2.10 - Means of egress signage shall be provided in accordance with Section 7.10.

Chapter 39 - Existing Business Occupancies

Section 39.2.4.3 - A single exit shall be permitted for a room or area with a total occupant load of fewer than 100 persons when travel distance is less than 200 feet.
 Section 39.2.5.2 - Travel distance to exit shall not exceed 200 ft.
 Section 39.2.8 - Means of Egress shall be illuminated in accordance with Section 7.8.
 Section 39.2.9 - Emergency Lighting shall be provided in accordance with Section 7.8.
 Section 39.2.10 - Means of egress signage shall be provided in accordance with Section 7.10.

Chapter 40 - Industrial Occupancies

Section 40.1.4.1.1 - This Studio portion of the property shall be classified as General Industrial as it houses low hazard industrial operations.
 Section 40.2.4.1.1 - Not less than two means of egress shall be provided for each floor level.
 Table 40.2.5 - Dead end corridors shall not exceed 50 feet, and common path of travel shall not exceed 50 feet in unprotected buildings.
 Table 40.2.6 - Maximum travel distance to exits shall not exceed 200 feet in unprotected buildings.
 Section 40.2.8 - Means of Egress shall be illuminated in accordance with Section 7.8.
 Section 40.2.9 - Emergency Lighting shall be provided in accordance with Section 7.8.
 Section 40.3.4.1 - A fire alarm system shall not be required as the total occupant load is under 100 persons.

Code Review - IEBC 2009

Chapter 3 - Prescriptive Compliance Method

Section 303.1 - Alterations must be no less conforming to IBC than existing. There will be no change of occupancy.
 Section 303.3 - Structural upgrades shall comply with requirements for new construction.
 Section 303.6 - Means of egress does not need to meet Section 1005.1 of the IBC. The components of the means of egress shall be considered complying per alteration. In the opinion of the code official, they do not constitute a distinct hazard to life.
 Section 304 to 306 - The building shall be considered to be a "Type III" building. The code official shall determine if the building meets the requirements of the International Building Code. The code official shall determine if the building meets the requirements of the International Building Code. The code official shall determine if the building meets the requirements of the International Building Code.
 Section 310.4 - Any change of use would trigger accessibility upgrades. The owner plans to retain the existing occupants.

Chapter 4 - Classification of Work

Section 401.3 - Occupancy and use as per IBC Chapter 3 shall be considered Group M Mercantile Group B Business and Group F1 Factory Moderate Hazard.
 Section 404.3 - Alterations Level 2, Rework, doors and windows. Work areas does not exceed 50% aggregate, therefore does not trigger Level 3. Level 2 needs to meet requirements of Chapters 6 and 7.

Chapter 5 - Alterations - Level 1

Section 603.1 - Fire Protection - Alterations shall be done in a manner that maintains the level of fire protection provided.
 Section 604.1 - Means of Egress - Repairs shall be done in a manner that maintains the level of protection provided for the means of egress.
 Section 605.1 - Accessibility - ADA upgrades shall be made where technically feasible.
 Section 605.1.10 - Accessibility - ADA upgrades shall be made where technically feasible given the existing grading of the property and small building footprint.
 Section 605.1.13 - Thresholds and leveling surfaces shall be ADA compliant interior thresholds are allowed to be 3/4" in height with beveled edges.
 Section 606.2 - Structural alterations affecting the area of primary function (Mercantile Occupancy portion of first floor).
 Section 606.2 - Structural upgrades shall conform to the load requirements of the International Building Code.

Chapter 7 - Alterations - Level 2

Section 701.3 - New construction elements, components, systems and spaces shall comply with the requirements of the IBC with the exception of windows, electrical to meet Section 706, dead-end corridors to meet Section 705.6 and min. ceiling height shall be 7'-0".
 Section 703.2.1 - Vertical openings, exception 5.1 - In Business occupancies, vertical enclosure is not required if building is less than 3,000 sq ft.
 Section 703.2.2 - Automatic sprinkler system in Groups M, B and F1 - not required by exception 2, as the work area does not exceed 50%.
 Section 704.1.1 - Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of NFPA 70.
 Section 704.1.2 - Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of NFPA 70.
 Section 705.1 - Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of NFPA 70.
 Section 705.1.1 - Level 2 alterations to existing buildings are permitted without requiring the entire building comply with the International Energy Conservation Code. Those portions within the work area shall conform to the IECC.

PARTITIONS BETWEEN MERCANTILE AND BUSINESS AND BETWEEN BUSINESS AND GENERAL INDUSTRIAL SHALL BE 2 HR FIRE RATED

1. Wood Studs - Shall be nominal 2 1/2 by 4 in., spaced 16 in. OC. Studs cross braced at mid-height and effectively fire-stopped at top and bottom of wall.
2. Furring Channel - Resilient, 23 MSG gal steel, nom. 2-1/2 in. wide spaced vertically max. 24 in. OC. Flange portion attached to each intersecting stud with 1 in. long Type S steel screws.
3. Gypsum Board - Install two layers of 5/8 in. thick Type X GWB, 4 ft. wide each side of wall framing. Attached to furring channels at one side only; base layer with 1 in. long Type S steel screws spaced max 24 in. OC, face layer with 1-5/8 in. long Type S steel screws spaced max 12 in. OC. Attached to wood studs; base layer with 1-7/8 in. long hot coated nails spaced max 14 in. OC, face layer with 2-3/8 in. long 8d coated nails spaced 7 in. OC. Base layers installed vertically. Face layers installed horizontally.
4. Batts - Install wall cavity with No. 2 in. thick mineral wool insulation, 96 in. long, cut to 15 in. widths, friction fitted between studs in wall cavity. Insulation shall bear UL Classification Mark.
5. Joint Tape and Compound - Vinyl, dry or pre-mixed joint compound, applied to joints, screw head, and nail heads (two applications); paper Vape, 2 in. wide, embedded in first layer of compound over all joints.

NFPA 101 - GENERAL INDUSTRIAL OCCUPANCY
IBC - FACTORY - MODERATE HAZARD OCCUPANCY

NFPA 101 - MERCANTILE OCCUPANCY
IBC - MERCANTILE OCCUPANCY

NFPA 101 - BUSINESS OCCUPANCY
IBC - BUSINESS OCCUPANCY

PERMIT SET

Title: Egress Floor Plans
 Date: 2 October 2015
 Scale: As Shown
 Revisions:
 Sheet No: C-1

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