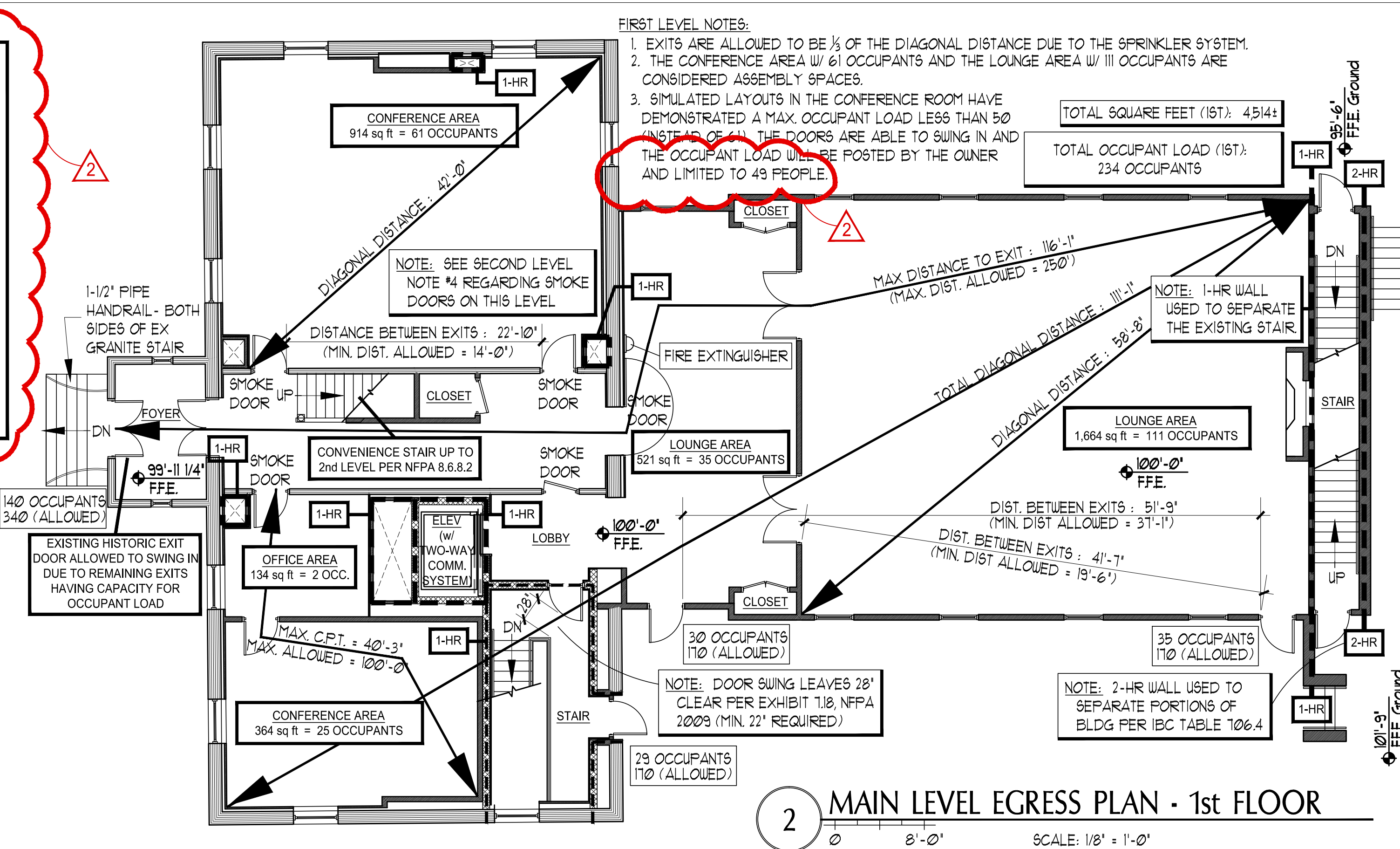


The two-hr fire wall is being constructed to divide the current bldg. and create separate bldgs for the purpose of allowable area and construction type reqmts. This portion of the bldg. (as shown in these documents) is a mixed use of "Business" and "Assembly" (see the Code Review - this sht). The other portion of the bldg. (also existing) is also a mixed-use of "Business", "Assembly", and "Storage". Per IBC Table 706.4, for the Use Groups of the current bldgs. and the Type V construction type, a 2-hour fire wall is req'd. (per footnote a.). This allows the renovations of the portion of the bldg. as shown in these documents to be its own project, without taking into consideration of the remainder of the existing bldg. See wall types and wall sections for wall continuity and fire wall terminations per IBC Sections 706.5 and 706.6.



Code Review - NFPA 101 (Life Safety) 2009
Chapter 6 - Classification of Occupancy
Section 6.1.1.1.1 - This building is classified as "Business" (A.6.1.1.1.1(3)). The Conference room and Main Lounge area on the Main Level, along with the Lounge area on the Lower Level, are classified as "Assembly" per section 6.1.2.1.
Section 6.1.1.4.1 - This occupancy shall be classified as a "Multiple Occupancy" and further defined as a Mixed Occupancy.
Section 6.1.1.4.3.2 - The requirements of a Non-Separated Mixed-Use occupancy shall be utilized and the most restrictive of the Assembly and of the Business occupancies shall be used.

Section 38.2.5.3.1 - Common path of travel shall not exceed 100' (use Assembly requirement of 75').
Section 38.2.6.3 - The travel distance to an exit shall not exceed 300' (use Assembly requirement of 250').
Section 38.2.8 - The means of egress shall be illuminated.
Section 38.2.9.1 - Emergency lighting is required.
Section 38.2.10 - Exit signs shall be provided (see Electrical plans).
Section 38.3.1.1(1) - The existing unenclosed (convenience) stair is permitted per Section 8.6.8.2.
Section 38.3.4.1(3) - A fire alarm system is required.
Section 38.3.5 - Fire extinguishers are required.
Section 38.3.6.1(3) - The 1-hour rating for an exit access corridor is not required.

Chapter 7 - Means of Egress
Section 7.1.3.2.1(1) - All new exits connect three stories or less and shall be 1-hour rated.
Section 7.2.1 - Doors shall comply with this section (including panic hardware and fire exit hardware, section 7.2.1.7).
Section 7.2.2 - All stairs shall comply with this section.
Section 7.2.12.1.1 - Due to the Assembly occupancy, the Area of Refuge shall consist of two rooms separated by a smoke partition. In addition, the requirements of this section requiring a two-way communication system shall be applied. Due to the sprinkler system, this building is exempt from the further requirements in Section 7.2.12.2 and 7.2.12.3.
Table 7.3.1.2 - Occupant Load: see Egress Plans.
 Storage / Mechanical spaces on the lower level: 1 person per 500 square feet
 Lounge Area on the lower level: 1 person per 15 square feet
 Conference rooms and Lounge area on the main level: 1 person per 15 square feet
 Offices / Reception areas on the upper level: 1 person per 100 square feet
 Conference room on the upper level: 1 person per 15 square feet
Section 7.4.1.2 - For the occupant loads on the lower level and the main level, two means of egress are required (85 and 234 occupants respectively). Furthermore, the Lounge area on the lower level, along with the Lounge areas and a Conference room on the main level, are required to have two means of egress out of the spaces (more than 50 occupants).
Section 7.4.1.6 - Each elevator landing shall have access to at least one exit.
Section 7.5.1.3.3 - Exits shall be separated by a minimum of 1/3 the overall diagonal of each space due to the sprinkler system.
Section 7.5.1.6 - Exit access from the offices on the upper level are permitted to pass through the intervening office/reception spaces.
Section 7.5.4.1 - Two accessible means of egress are required and have been provided.
Section 7.5.4.2.2 - Due to the sprinkler system, the two accessible means of egress are not required to be separated by one-half of the overall diagonal distance.
Table 7.6 - Common Path Limit = 75'; Dead-End Limit = 20'; Travel Distance Limit = 250' (All distances must defer to the Assembly occupancy per the requirements for Mixed-Use).

Chapter 43 - Building Rehabilitation
Section 43.1.3.1 - There are two areas of rehabilitation. The historic portion is defined as "Reconstruction" and the remainder is defined as "Addition" per sections 43.2.2.1.3 and 43.2.2.1.4.
Section 43.6.6.2 - Illumination and emergency lighting are provided.
Section 43.6.4.2 - An automatic sprinkler system is provided.
Section 43.10 - The existing portion of the building that is undergoing "Reconstruction" is considered Historic and shall comply with this section of the code.
Section 43.10.4.2 - Building elements (i.e. the existing stair, ballusters, etc...) that are historic and designated for replacement are allowed to comply with this section.
Section 43.10.4.3(1) - The authority having jurisdiction is allowed to approve the existing convenience stair as a means of egress, if in their opinion, it meets the requirements of this section (see also sections 43.10.4.7.1 and 2).
Section 43.10.4.4 - The existing historic front entrance doors are not required to swing in the direction of egress travel as there are additional exits that have sufficient capacity for the entire occupant load.
Section 43.10.4.7.1 - The existing convenience stair is allowed to remain as it serves one adjacent floor.
Section 43.10.4.7.2 - The existing convenience stair shall serve as the only exit from the upper level and is not required to be enclosed with a fire-rated assembly. The doors adjacent to the stair on the main level shall be smoke doors with closers and on automatic hold-opens tied to the fire alarm system (if warranted) as to resist the passage of smoke and comply with this section.
Section 43.10.4.9 - The existing hand/guardrail on the existing stair will be removed and reinstalled as to comply with the current requirements of the code.

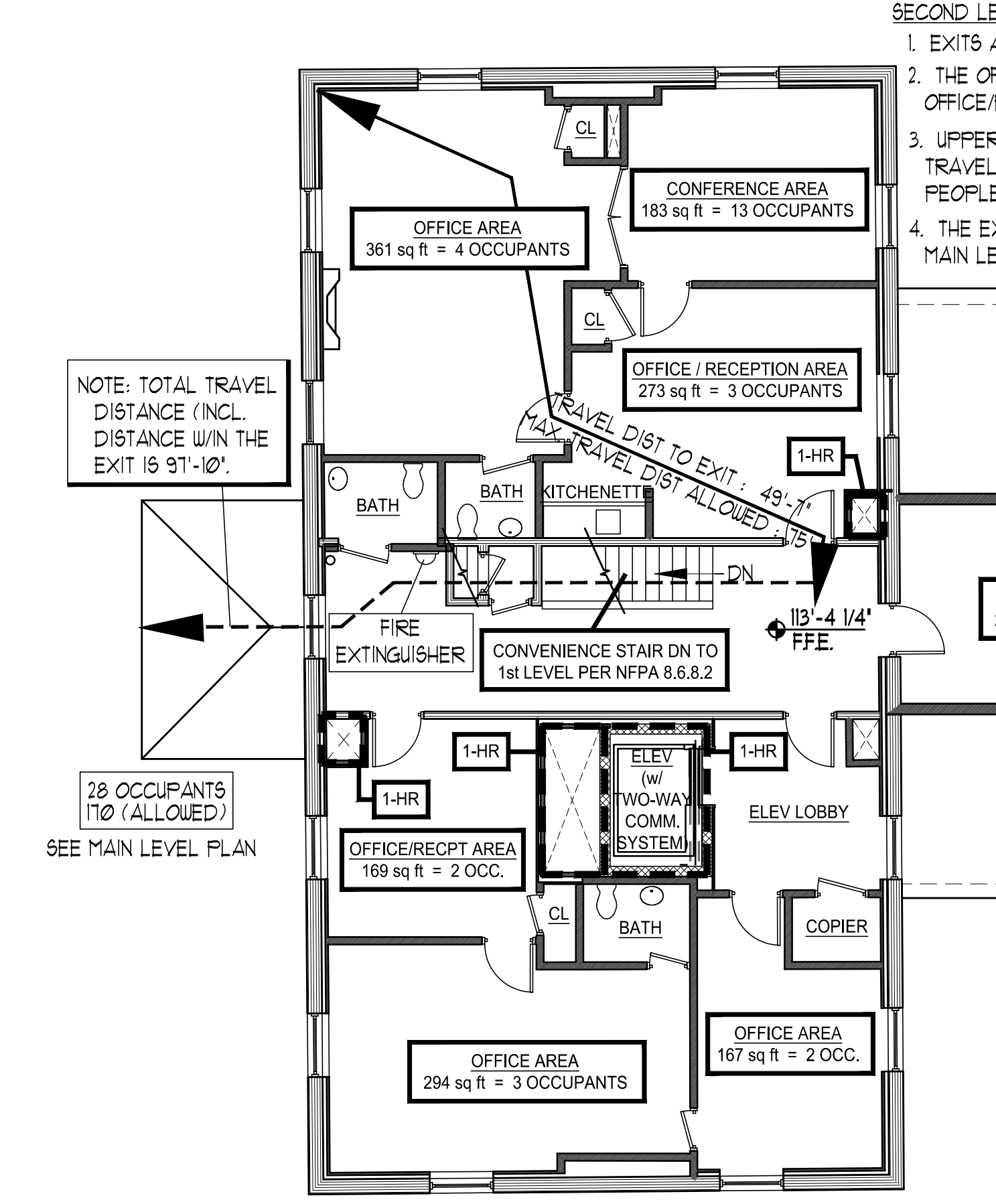
Code Review - IBC 2009
Chapter 3 - Use and Occupancy Classification
Section 303.1 - This building is classified as Assembly (A-3).
Section 304.1 - This building is classified as Use Group B (Business).
 Note: Due to the intermingling of the uses, this will be a Mixed-Use, Non-separated building. See Section 508.3.

Chapter 8 - Features of Fire Protection
Table 8.2.1.2 - Construction shall be Type V (000).
Section 8.6.5(2) - The shaft enclosures are all under 4 stories and are required to be 1-hour rated.
Section 8.6.8.2 - The existing convenience opening only connects two stories, and is separated from the corridors. This is the only convenience opening in this building. This convenience opening serves as the means of egress from the upper level (reference section 43.10.4.3, 43.10.4.7.1, and 43.10.4.7.2 for further information).

Chapter 5 - General Building Heights and Areas
Table 503 - This building is partially existing and is classified under Type V (B) construction type. For the A-3 classification this building is limited to one story above the grade plane and 6,000 square feet per floor. For the B classification, 2 stories above the grade plane are allowed and 9,000 square feet are allowed. Due to the mixed use classification, the limits for the Assembly use shall be used.
 Note: The heights and areas will be increased due to the sprinkler system.
Section 504.2 - The building height shall be increased by 20' and 1 additional story above the grade plane due to the sprinkler system.
Section 506.3 - The building area is allowed to be increased by 200% to 18,000 square feet per floor.
Section 508.3.1 - The requirements of this section to be utilized for this space to allow a Non-Separated occupancy within this building. The most restrictive requirements of Chapter 9 will be utilized. The remainder of requirements from other chapters will apply to the individual Assembly or Business spaces.
Section 508.3.3 - No separation between uses is required.

Chapter 38 - Business Occupancies
 Note: It is widely regarded that the Assembly occupancy is the more stringent of the two occupancies in this space. Since this space is being evaluated as a Non-Separated Mixed-Use, the requirements of the Assembly occupancy shall be used in most instances.
Section 38.2.2.12.2 - Due to the sprinkler system, an Area of Refuge consisting of two separate rooms is not required. (Note: Per the Assembly occupancy, this Area of Refuge is required.)
Section 38.2.4.1 - Two exits are required from the lower level and main level.
Section 38.2.4.6 - A single exit is permitted from the upper level as this is a single tenant 2-story, sprinkled building with an exit length to the outside of less than 100'.
Section 38.2.5.2.1 - Dead-End corridors shall not exceed 50' (use Assembly requirement of 20').

Chapter 6 - Types of Construction
Section 602.3 - The construction type shall be Type V (B).
Table 602 - For a fire separation distance over 10', no exterior wall fire-ratings are required.
Chapter 7 - Fire and Smoke Protection Features
Table 705.8 - There are no limits to the allowable area of exterior wall openings for separation distances over 20' (unprotected, sprinklered).
Section 708.2(7) - The existing convenience stair is not required to be enclosed in a shaft.
Section 708.4 - All stair enclosures connect less than 4 stories and are required to be 1-hour rated (except for the existing convenience stair as mentioned above).
Table 715.4 - Doors in the shaft/exit enclosures shall also be 1-hour rated (within a 1-hour rated enclosure).
Chapter 9 - Fire Protection Systems
Figure 903.2 - A sprinkler system is required (over 12,000 s.f. / over 300 occupants) and will be provided.
Section 906.1 - Portable fire extinguishers are required (see Egress plan).
Section 907.2.1 - A fire alarm system is required (Assembly with an occupant load over 300).
Chapter 10 - Means of Egress
Table 1004.1.1 - Occupant Load, see Egress plans.



SECOND LEVEL NOTES:
 1. EXITS ARE ALLOWED TO BE 1/2 OF THE DIAGONAL DISTANCE DUE TO THE SPRINKLER SYSTEM.
 2. THE OFFICE AND CONFERENCE ROOM ARE ALLOWED TO EXIT THROUGH THE OFFICE/RECEPTION AREA PER NFPA 1.5.16 AND IBC 1014.2.
 3. UPPER LEVEL IS ALLOWED TO HAVE ONLY ONE EXIT PER NFPA 382.4.6 WITH A TOTAL TRAVEL DISTANCE UNDER 100' AND IBC TABLE 1021.2 WITH AN OCCUPANT LOAD UNDER 29 PEOPLE AND TRAVEL DISTANCE TO THE EXIT UNDER 15'.
 4. THE EXISTING CONVENIENCE STAIR SERVES AS THE UPPER FLOOR EXIT. THE DOORS ON THE MAIN LEVEL ADJACENT TO THE CONVENIENCE STAIR ARE SMOKE DOORS TO PROTECT THE EXIT.

Section 1007.1 - Two accessible means of egress are required from the lower level and the first floor. The elevator is not an accessible means of egress, the stairways are, per Section 1007.3.
Section 1007.3.2(3) - The stairways are accessible means of egress, but are not required to be 48" wide or have areas of refuge due to the sprinkler system.
Section 1008.1.10 - Doors serving an occupant load over 50 people shall not be provided with a lock or shall be provided with panic hardware.
Section 1009 - The exit stairways shall comply with this section.
Section 1011.1 - Exit signs will be provided (see Electrical Plans for locations).
Section 1014.2 - The office spaces on the upper level are allowed to pass through the Office/Reception areas, as these spaces are accessory to one another.
Section 1014.2.4.3 - Travel distance within the suites (per Section 1014.2) is under the 100' maximum.
Section 1014.3 - The common path of travel for the Assembly areas is 75' (also see Section 1028.8), and for the Business areas is 100' (due to the sprinkler system).
Section 1015.1 - Two exits (min) have been provided for the lower level and main level. In addition, two exits are required out of each Assembly space in excess of 50 people (lower level and main level).
Section 1015.2.1(2) - The exits from each space shall be placed a minimum of 1/3 of the diagonal of each space due to the sprinkler system.
Table 1016.1 - The maximum exit travel distance shall be 250' for the Assembly areas and 300' for the Business areas.
Table 1018.1 - There are no requirements for fire-rated corridors.

Section 1018.4(2) - The maximum dead-end corridor length is 50' in the Business areas. In the Assembly areas the maximum dead-end corridor length is 20'.
Section 1021.1 - The lower level and main level shall have a minimum of two exits.
Table 1021.2 - The upper level is allowed one means of egress as there is less than 29 occupants and less than 75' of travel distance to the exit.
Section 1022.1 - The new exit stairway connects less than 4 stories and are required to be 1-hour rated.
Section 1028.2 - The main entrance shall accommodate 1/2 of the total occupant load (345 people). The main entrance/exit shall accommodate 173 persons at 2" per person (34.6" total required), 68" is provided.
Section 1028.3 - The other exits (not the main exit) shall also accommodate 1/2 of the total occupant load (34.6" minimum).
Plumbing Fixture Requirements
Total Occupant Load - 335 people
Unisex Restrooms - Located on the Second Level, and per UPC Section 413.3(2), each unisex restroom covers 10 occupants each.
 3 unisex restrooms = 30 occupants
 335 people - 30 people = 305 people (152.5 Men and 152.5 Women)
Men - Toilets: 1 per 40 occupants = 4 toilets required
 Urinals: 1 per 35 occupants = 5 urinals required
 Lavatories: 1 per 40 occupants = 4 lavatories required
Women - Toilets: 1 per 30 occupants = 5 toilets required (rounded down from 5.08 toilets required)
 Lavatories: 1 per 40 occupants = 4 lavatories required

NOTE: SEE SHEETS EL11, EL12, AND EL13 FOR EMERGENCY LIGHTING AND EXIT SIGN LOCATIONS.

65 NEWBURY STREET
 PORTLAND, ME 04101
 207.761.9000
 info@portcityarch.com
 WWW.PORTCITYARCH.COM

UNE
 UNIVERSITY OF
 NEW ENGLAND
 Allied Engineering
 Structural Mechanical Electrical Commissioning

CONSIGLI
 Est. 1995

BECKER
 STRUCTURAL ENGINEERS

**BID SET
 NOT FOR
 CONSTRUCTION**

No.	Description	Date
1	Addendum 1	5/20/15
2	Addendum 2	5/27/15
3	Addendum 3	7/1/15
4	REVISION PER FIRE MARSHAL REVIEW	5/8/15
5	REVISION PER CITY OF PORTLAND REVIEW	7/23/15

**UNIVERSITY OF
 NEW ENGLAND**
 PORTLAND, MAINE

**ALUMNI HALL
 RENOVATION**

EGRESS

Project Number 14525
 Date July 2, 2015
 Drawn by TS SM JA
 Checked by LAS

T1.3

Scale AS NOTED