

CODE REVIEW

USE GROUP: B- BUSINESS, TYPE IIB CONSTRUCTION
 BUILDING FULLY SPRINKLERED WITH FIRE ALARM SYSTEM.
 SPRINKLER SYSTEM TYPE: 13, 14, 24, 70, 101

2012 NFPA LIFE SAFETY

CHAPTER 39 EXISTING BUSINESS OCCUPANCIES

39.1.1 APPLICATION
 39.1.1.1 THE REQUIREMENTS OF THIS CHAPTER SHALL APPLY TO EXISTING BUILDINGS OR PORTIONS THEREOF CURRENTLY USED AS BUSINESS OCCUPANCIES.

39.1.1.4 THE PROVISIONS OF THIS CHAPTER SHALL APPLY TO LIFE SAFETY REQUIREMENTS FOR EXISTING BUSINESS BUILDINGS.

39.1.2 CLASSIFICATION OF OCCUPANCY. BUSINESS OCCUPANCIES SHALL INCLUDE ALL BUILDINGS AND STRUCTURES OR PARTS THEREOF WITH OCCUPANCY AS DEFINED IN 6.1.1.1.

39.1.5 CLASSIFICATION OF HAZARD OF CONTENTS. THE CONTENTS OF BUSINESS OCCUPANCIES SHALL BE CLASSIFIED AS ORDINARY HAZARD IN ACCORDANCE WITH SECTION 6.2.

39.1.6 MINIMUM CONSTRUCTION REQUIREMENTS. (NO REQUIREMENTS)

39.1.7 OCCUPANT LOAD. THE OCCUPANT LOAD, IN NUMBER OF PERSONS FOR WHO, MEANS OF EGRESS AND OTHER PROVISIONS ARE REQUIRED, SHALL BE DETERMINED ON THE BASIS OF THE OCCUPANT LOAD FACTORS OF TABLE 7.3.1.2 THAT ARE CHARACTERISTIC OF THE USE OF THE SPACE, OR SHALL BE DETERMINED AS THE MAXIMUM PROBABLY POPULATION OF THE SPACE UNDER CONSIDERATION, WHICHEVER IS GREATER.

39.2 MEANS OF EGRESS REQUIREMENTS

39.2.1 GENERAL

39.2.1.1 ALL MEANS OF EGRESS SHALL BE IN ACCORDANCE WITH CHAPTER 7 AND THIS CHAPTER.

39.2.3 CAPACITY OF MEANS OF EGRESS

39.2.3.2 THE CLEAR WIDTH OF ANY CORRIDOR OR PASSAGEWAY SERVING AN OCCUPANT LOAD OF 50 OR MORE SHALL BE NOT LESS THAN 44 IN. NUMBER OF EXITS

39.2.4 EXITS SHALL COMPLY WITH THE FOLLOWING, EXCEPT AS OTHERWISE PERMITTED BY 39.2.4.2 THROUGH 39.2.4.6:

39.2.5.1 COMMON PATH OF TRAVEL SHALL NOT EXCEED 100 FT. ON A STORY PROTECTED THROUGHOUT BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 9.7.1.1.

39.2.6.2 THE TRAVEL DISTANCE SHALL NOT EXCEED 200 FT. FROM ANY POINT IN A BUILDING.

39.2.8 ILLUMINATION OF MEANS OF EGRESS. MEANS OF EGRESS SHALL BE ILLUMINATED IN ACCORDANCE WITH SECTION 7.8.

39.2.9 EMERGENCY LIGHTING

39.2.9.1 EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 7.9 IN ANY BUILDING WHERE ANY ONE OF THE FOLLOWING CONDITIONS EXISTS:

39.2.10 MARKING OF MEANS OF EGRESS. MEANS OF EGRESS SHALL HAVE SIGNS IN ACCORDANCE WITH SECTION 7.10.

39.3.2 PROTECTION FROM HAZARDS

39.3.2.1 GENERAL. HAZARDOUS AREAS INCLUDING, BUT NOT LIMITED TO, AREAS USED FOR GENERAL STORAGE, BOILER OR FURNACE ROOMS, AND MAINTENANCE SHOPS THAT INCLUDE WOODWORKING AND PAINTING AREAS SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 8.7.

39.3.3 INTERIOR FINISH

39.3.3.2 INTERIOR WALL AND CEILING FINISH

39.3.3.2.1 INTERIOR WALL AND CEILING FINISH MATERIAL, COMPLYING WITH SECTION 10.2 SHALL BE CLASS A OR CLASS B IN EXITS AND IN EXIT ACCESS CORRIDORS.

39.3.3.2.2 INTERIOR WALL AND CEILING FINISHES SHALL BE CLASS A, CLASS B, OR CLASS C IN AREAS OTHER THAN THOSE SPECIFIED IN 39.3.3.2.1.

39.3.5 EXTINGUISHMENT REQUIREMENTS. PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED IN EVERY BUSINESS OCCUPANCY IN ACCORDANCE WITH 9.7.4.1.

39.3.6 CORRIDORS. (NO SPECIAL REQUIREMENTS)

39.3.7 SUBDIVISION OF BUILDING SPACES. (NO SPECIAL REQUIREMENTS)

CHAPTER 7 - MEANS OF EGRESS

7-3.3 EGRESS CAPACITY

STAIRWAYS 0.3 INCHES PER PERSON
 LEVEL/RAMP 0.2 INCHES PER PERSON

7-3.3.1 EGRESS CAPACITY OF DOORS - EXAMPLE 1 HAND-BOOK: 36" DOOR = 34" CLEAR/0.2 = 170 PERSONS

7-3.3.2 CORRIDOR CAPACITY
 OCCUPANT LOAD UTILIZING THE CORRIDOR DIVIDED BY THE REQUIRED NUMBER OF EXITS

7-4.1.2 MINIMUM NUMBER OF EXITS
 OCCUPANT LOAD GREATER THAN 500 BUT LESS THAN 1,000 = 3
 OCCUPANT LOAD GREATER THAN 1,000 = 4

7-5.1.4 EXITS REMOTELY LOCATED
 LOCATIONS EQUAL TO OR GREATER THAN 1/2 LENGTH OF MAX OVERALL DIAGONAL DIMENSION OF BUILDING OR AREA TO BE SERVED; 1/3 DISTANCE IN SPRINKLED BLDGS.

CHAPTER 8 - FEATURES OF FIRE PROTECTION

8-2. CONSTRUCTION AND COMPARTMENTATION

8-2.1.3 (1) SEPARATE BUILDINGS, IF A 2-HOUR OR GREATER VERTICALLY ALIGNED FIRE BARRIER WALL IN ACCORDANCE WITH NFPA 221, STANDARD FOR FIRE WALLS.

2012 NATIONAL FIRE CODES

NFPA 221
 CHAPTER 2- FIRE WALLS
 2-2 STRUCTURAL STABILITY AND STRENGTH
 2-2.1 FIRE WALLS SHALL BE DESIGNED AND CONSTRUCTED TO REMAIN STABLE AFTER THE COLLAPSE OF THE STRUCTURE DUE TO FIRE ON EITHER SIDE OF THE WALL. FIRE WALLS CONSTRUCTED IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 2.3, 2.4, OR 2.5 SHALL BE DEEMED TO PROVIDE THE REQUIRED STABILITY.

2012 INTERNATIONAL BUILDING CODE

USE GROUP: B- BUSINESS

TABLE 503 - ALLOWABLE HEIGHT & AREA
 TYPE IIBB - 3 STORY 19,000 SF

BASE TABULAR FACTOR	1.0
FRONTAGE INCREASE	Not Incl.
SPRINKLER INCREASE	2.0
MULTIPLIER	3.0
	x 19,000
TOTAL ALLOWABLE (w/ MODIFICATIONS)	57,000
ACTUAL	19,680

OCCUPANT LOAD CALCULATIONS

2012 INTERNATIONAL BUILDING CODE- TABLE 1004.1.2
 OCCUPANCY FLOOR AREA/ OCCUPANT

ASSEMBLY (WITH FIXED SEATS)	100 GROSS
1 PER SEAT PLUS REMAINDER @	
BUSINESS AREAS	100 GROSS
ACCESSORY STORAGE/ MECHANICAL ROOMS	300 GROSS

PLUMBING FIXTURE CALCULATIONS

2012 INTERNATIONAL BUILDING CODE- TABLE 2902.1

PLUMBING FIXTURE OCCUPANT LOAD			
OCCUPANCY	TOTAL	MALE	FEMALE
B	155	78	78

PLUMBING FIXTURE REQUIREMENTS - TABLE 2902.1

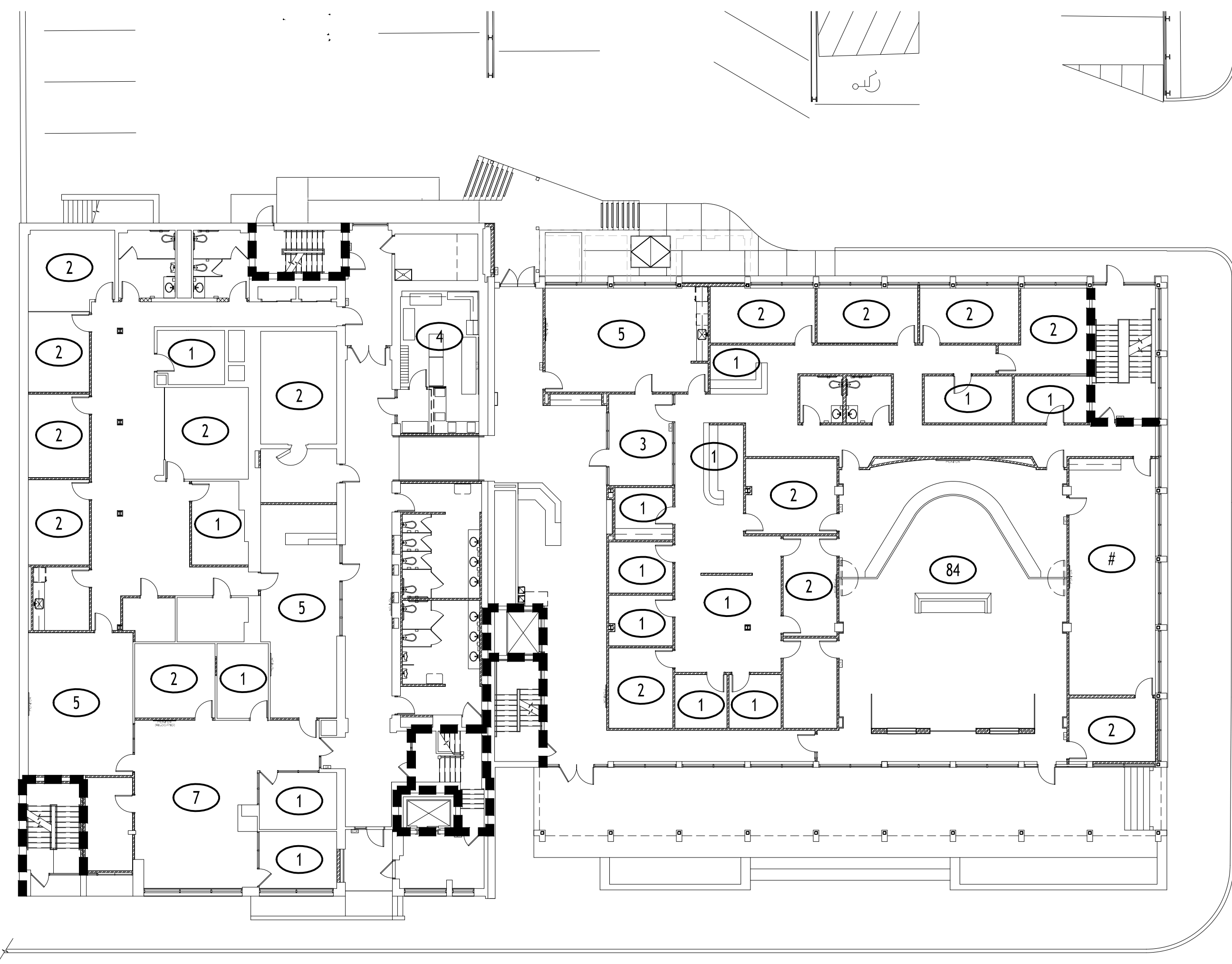
OCCUPANCY	WATER CLOSET		LAVATORIES		DRINKING FOUNTAINS	SERVICE SINK
	MALE	FEMALE	MALE	FEMALE		
MIN. REQUIREMENTS	1 PER 25	1 PER 40	1 PER 40	1 PER 40	1 PER 100	1 SINK
FIRST FLOOR						
CALCULATION	78 / 25	78 / 40	78 / 40	78 / 40	155 / 100	1 SINK
REQ. PER OCCUPANT LOAD	3.12	3.12	1.95	1.95	1.55	1 SINK
REQUIRED	4	4	2	2	2	1 SINK
PROVIDED	7	7	5	5	2	1 SINK

FIRE PROTECTION PLAN NOTES

- ALL THRU-WALL PENETRATIONS IN NON-RATED SMOKE PARTITIONS AND FIRE-RATED PARTITIONS SHALL BE APPROPRIATELY SEALED WITH APPROVED UL METHODS.
- REFER TO SHEET CS-3 FOR WALLTYPE REQUIREMENTS AND FOR METHOD OF SEALING NON-RATED SMOKE PARTITIONS. REFER TO M/E DRAWINGS FOR METHOD OF SEALING FIRE RATED PARTITIONS.
- ALL INSULATION SHALL BE FLAME SPREAD 25.
- GLAZING IN NON-RATED SMOKE PARTITIONS SHALL RESIST THE PASSAGE OF SMOKE.
- BUILDING CONTAINS A VOICE EVACUATION SYSTEM THROUGHOUT.
- BUILDING IS FULLY SPRINKLERED.

LEGEND

- 2-HR FIREWALL WITH 1 1/2-HR RATED DOORS
- 1-HR FIRE-RATED PARTITION WITH 3/4-HR RATED DOORS
- NON-RATED SMOKE PARTITION DESIGNED TO RESIST THE PASSAGE OF SMOKE
- FIRE EXTINGUISHER LOCATION
- EXIT SIGN
- FIRE DEPARTMENT SIAMSE CONNECTION
- OCCUPANT LOAD
- TOTAL OCCUPANT LOAD MOVING IN DIRECTION OF EGRESS.
- OCCUPANT LOAD THROUGH EGRESS DOOR
- EGRESS CAPACITY OF DOORS (NOTE: WHERE STAGED EGRESS OCCURS, THE HIGHER LOAD IS INDICATED IN PARENTHESIS.)



DRAWING INVENTED BY
 OCCUPANT LOADS
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BFM BUSHEY FEIGHT MORIN ARCHITECTS INC.
 475 North Potomac Street, Hagerstown, MD 21740
 301-733-5600 Fax 301-733-5612
 E-mail: BFM@BFM-Architects.com
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BID DOCUMENTS
 FIRE PROTECTION
 PLAN & NOTES
CS-3
 OF SHEETS
 DATE: 08,15,14