# NEW YORK CITY BUILDING CODE CALCULATIONS

OCCUPANCY CLASS:
F-1 ASSEMBLY WITH ACCESSORY OCCUPANCIES

STAIR CAPACITY: (NYC BLDG. CODE TABLES 5-L, 8-B)

STAIR NO. 1: STAIR - 2 EA. @ 60 P./EA. = 120 P.
DOOR - 1.5 EA. @ 88 P./EA. = 129 P.
CAPACITY = 120 PERSONS

STAIR NO. 2: STAIR - 2 EA. @ 60 P./EA. = 120 P.
DOOR - 1.5 EA. @ 88 P./EA. = 129 P.
CAPACITY = 120 PERSONS

STAIR NO. 3: STAIR - 2.5 EA. @ 60 P./EA. = 150 P.
DOOR - 2 EA. @ 100 P./EA. = 200 P.
CAPACITY = 150 PERSONS

OCCUPANT LOAD: (NYC BLDG. CODE SECTION 27-367)

ASSEMBLY AREAS: 1072 PERSONS (PATRONS AND STAFF)
OTHER STAFF: 58 PERSONS
TOTAL OCCUPANT LOAD = 1130 PERSONS

TOTAL STAIR CAPACITY = 390 P. @ 3 AREAS OF REFUGE = 1170 PERSONS
TOTAL FLOOR CAPACITY

1130 P.(OCCUPANT LOAD) < 1170 P.(FLOOR CAPACITY)

NOTE: EACH STAIR IS ASSIGNED TO AN AREA OF REFUGE IN ADDITION.
ALL STAIRS ARE INSTANTLY ACCESSIBLE BY COMMON EXIT PASSAGES.

NUMBER OF EXITS FROM FLOOR: (NYC BLDG. CODE SECTION 27-368)

PLACE OF ASSEMBLY NO. 1: 444 P. ASSEMBLY SPACE OCCUPANT LOAD
BANQUET FOR 500 PERSONS 3 EXITS FROM THE FLOOR ARE REQUIRED
THERE ARE 3 EXIT STAIRS

PLACE OF ASSEMBLY NO. 2: 333 P. ASSEMBLY SPACE OCCUPANT LOAD
BAR FOR 500 PERSONS 3 EXITS FROM THE FLOOR ARE REQUIRED
THERE ARE 3 EXIT STAIRS

PLACE OF ASSEMBLY NO. 3: 295 P. ASSEMBLY SPACE OCCUPANT LOAD
RESTAURANT FOR 500 PERSONS 3 EXITS FROM THE FLOOR ARE REQUIRED
THERE ARE 3 EXIT STAIRS

TRAVEL DISTANCES: (NYC BLDG. CODE TABLES 8-L, 8-D)

OCCUPANCY CLASS F-1:
PASSAGE - 127'-0" (SPRINKLED)
SECONDARY - 200'-0" (SPRINKLED)
OCCUPANCY CLASS B: 300'-0"
OCCUPANCY CLASS B-2: 200'-0"
OCCUPANCY CLASS B-1: 150'-0"
OCCUPANCY CLASS B-2: 175'-0"
OCCUPANCY CLASS D: 200'-0"

FIRE SEPARATION/DIVISION BETWEEN OCCUPANCIES: (NYC BLDG. CODE TABLE 5-D)

BUILDING OCCUPANCY - E BUSINESS - FIRE INDEX 2

BETWEEN OCCUPANCIES:

| | | |
|---|---|---|
| F-1 AT FIX INDEX 1) | B-2 FIX INDEX 2) | NO REQUIREMENT |
| F-1 AT FIX INDEX 1) | B-1 FIX INDEX 3) | 2 HOUR RATED DIVISION |
| F-1 AT FIX INDEX 1) | B-2 FIX INDEX 2) | NO REQUIREMENT |
| F-1 AT FIX INDEX 2) | F-1 FIX INDEX 2) | NO REQUIREMENT |
| F-1 AT FIX INDEX 1) | D FIX INDEX 2) | NO REQUIREMENT |
| D FIX INDEX 2) | D FIX INDEX 2) | NO REQUIREMENT |
| D FIX INDEX 2) | B-1 FIX INDEX 3) | 3 HOUR RATED DIVISION |
| D FIX INDEX 2) | B-2 FIX INDEX 2) | NO REQUIREMENT |
| D FIX INDEX 2) | B-1 FIX INDEX 3) | 3 HOUR RATED DIVISION |
| D FIX INDEX 2) | B-2 FIX INDEX 2) | NO REQUIREMENT |

DOOR CAPACITIES: (NYC BLDG. CODE TABLES 5-L, 8-D)

OCCUPANCY F-1:
FIRST ASSEMBLY SPACE - 100 PERSONS/EA.
FROM NEXT AREA = 100 PERSONS/EA.
OTHER SPACE = 100 PERSONS/EA.
OCCUPANCY F-1: 100 PERSONS/EA.
OCCUPANCY B: 100 PERSONS/EA.
OCCUPANCY B-2: 100 PERSONS/EA.
OCCUPANCY B-1: 100 PERSONS/EA.
OCCUPANCY D: 100 PERSONS/EA.

NOTE: -ALL DOORS IN 2 HOUR RATED WALLS ARE 3/4" LABEL, SELF CLOSING.
-ALL DOORS IN 1 HOUR RATED WALLS ARE 3/4 LABEL, SELF CLOSING.

CORRIDORS, EXIT PASSAGEWAYS AND SAFE AREA CAPACITIES: (NYC BLDG. CODE TABLES 8-L, 8-D)

OCCUPANCY F-1: 100 PERSONS/EA. (7'-0" MIN. WIDTH, SAFE AREA = 2'-0" MIN. WIDTH)
OCCUPANCY B: 100 PERSONS/EA. (5'-0" MIN. WIDTH)
OCCUPANCY B-2: 100 PERSONS/EA. (5'-0" MIN. WIDTH)
OCCUPANCY B-1: 75 PERSONS/EA. (5'-0" MIN. WIDTH)
OCCUPANCY B-2: 75 PERSONS/EA. (5'-0" MIN. WIDTH)
OCCUPANCY D: 100 PERSONS/EA. (5'-0" MIN. WIDTH)

## KEY NOTES

1. OCCUPANT LOAD OF ROOM IS LESS THAN 12 S.F. PER PERSON. THEREFORE A CLASS 1 EXIT IS REQUIRED. (NYC BLDG. CODE SECTION 27-534(d))
2. NOT USED ON THIS SHEET
3. OCCUPANT LOAD OF ROOM IS GREATER THAN 75 PERSONS. THEREFORE 2 EXITS ARE REQUIRED. (NYC BLDG. CODE SECTION 27-365)
4. PRE-FUNCTION (NON-SIMULTANEOUS OCCUPANCY)
5. CHAIRS ARE SPACED 1'-0" APART THEREFORE, 12'-0" PROVIDE TO THE NEAREST AISLE (NYC BLDG. CODE SECTION 27-532(e)(5))
6. THE HUDSON "A", "B", "C" AND HUDSON LOUNGE ARE PRE-FUNCTION (NON-SIMULTANEOUS SPACES THAT SERVE THE PINNACLE SUITES.
7. THE LIBERTY PRE-FUNCTION (NON-SIMULTANEOUS SPACES SERVE THE LIBERTY SUITE.
8. THE STATED OCCUPANT LOAD FOR THIS SPACE IS BASED ON A STANDING ROOM RECEPTION IF THE FURNITURE LAYOUT IS SHOWN TO INDICATE TRAVEL DISTANCES AND CLEARANCES ONLY.

## LEGEND

- AREA OF REFUGE BOUNDARY / 2 HOUR RATED SEPARATION
- AREA OF REFUGE BOUNDARY IN STORAGE SPACE BELOW - 2 HOUR RATED SEPARATION
- SAFE AREA BOUNDARY / 2 HOUR RATED SEPARATION
- 1 HOUR RATED DIVISION
- 2 HOUR RATED DIVISION
- EXIT SIGN (NUMBER INDICATES CAPACITY OF EXIT IN PERSONS AND EXIT UNITS)
- KEY NOTE
- INDICATES CAPACITY OF CORRIDOR, EXIT PASSAGE, SAFE AREA, OR STAIR
- PRIMARY TRAVEL DISTANCE
- SECONDARY TRAVEL DISTANCE

NOTE: THE PROPOSED DESIGN COMPLIES WITH THE REQUIREMENTS OF THE FEDERAL AMENDING WITH DISABILITIES ACT (ADA), P.L.101-336.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 1 TO AREA OF REFUGE NO. 3= 325 PERSONS.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 2 TO AREA OF REFUGE NO. 3 = 348 PERSONS.

## AREA OF REFUGE NO. 3

PLACE OF ASSEMBLY NO. 3 (RESTAURANT)
-ASSEMBLY SPACE OCCUPANT LOAD - 235 PERSONS (PATRONS AND STAFF)
BACK OF HOUSE STAFF - 60 PERSONS
295 PERSONS TOTAL

-DOOR CAPACITY TO SAFE AREA/AREA OF REFUGE/EXIT STAIR=1020 PERSONS

THERE MUST BE DOOR CAPACITY FOR TWO THIRDS OF THE OCCUPANT LOAD OF PLA. 3 TO EXIT TO PLA. 1 AND PLA. 2 (N.Y.C. BUILDING CODE SECTION 27-367).

2/3 OF 316 P. = 211 PEOPLE WHO MUST EXIT TO PLA. 1 AND PLA. 2.

TOTAL DOOR CAPACITY FROM PLA. 3 TO PLA. 1 = 348 PERSONS.
TOTAL DOOR CAPACITY FROM PLA. 2 TO PLA. 1 = 548 PERSONS.
980 P. > 211 P. THEREFORE OK.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 2 TO AREA OF REFUGE NO. 3= 568 PERSONS.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 2 TO AREA OF REFUGE NO. 3= 120 PERSONS.

## AREA OF REFUGE NO. 1

PLACE OF ASSEMBLY NO. 1 (BANQUET)
-ASSEMBLY SPACE OCCUPANT LOAD - 444 PERSONS (PATRONS AND STAFF)
BACK OF HOUSE STAFF - 28 PERSONS
164 PERSONS TOTAL

-PRE-FUNCTION SPACES (NON-SIMULTANEOUS LOAD) -
164 PERSONS (PATRONS AND STAFF)

-DOOR CAPACITY TO SAFE AREA/AREA OF REFUGE/EXIT PASSAGE=575 PERSONS.

THERE MUST BE DOOR CAPACITY FOR TWO THIRDS OF THE OCCUPANT LOAD OF PLA. 1 TO EXIT TO PLA. 2 AND PLA. 3 (N.Y.C. BUILDING CODE SECTION 27-367).

2/3 OF 164 P. = 389 PEOPLE WHO MUST EXIT TO PLA. 2 AND PLA. 3.

TOTAL DOOR CAPACITY FROM PLA. 1 TO PLA. 2 = 200 PERSONS.
TOTAL DOOR CAPACITY FROM PLA. 1 TO PLA. 3 = 325 PERSONS.
525 P. > 389 P. THEREFORE OK.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 1 TO AREA OF REFUGE NO. 2= 200 PERSONS.

TOTAL DOOR CAPACITY FROM AREA OF REFUGE NO. 2 TO AREA OF REFUGE NO. 3= 235 PERSONS.

2 HR. RATED AREA OF STORAGE SPACE BELOW FLOOR

## AREA OF REFUGE NO. 2

PLACE OF ASSEMBLY NO. 2 (BAR)
-ASSEMBLY SPACE OCCUPANT LOAD - 333 PERSONS (PATRONS AND STAFF)
BACK OF HOUSE STAFF - 17 PERSONS
350 PERSONS TOTAL

-DOOR CAPACITY TO SAFE AREA/AREA OF REFUGE/EXIT STAIR=475 PERSONS

THERE MUST BE DOOR CAPACITY FOR TWO THIRDS OF THE OCCUPANT LOAD OF PLA. 2 TO EXIT TO PLA. 1 AND PLA. 3 (N.Y.C. BUILDING CODE SECTION 27-367).

2/3 OF 350 P. = 234 PEOPLE WHO MUST EXIT TO PLA. 1 AND PLA. 3.

TOTAL DOOR CAPACITY FROM PLA. 2 TO PLA. 1 = 225 PERSONS.
TOTAL DOOR CAPACITY FROM PLA. 2 TO PLA. 3 = 120 PERSONS.
355 P. > 234 P. THEREFORE OK.

1 107TH FLOOR PLAN
SCALE: 1/8"=1'-0"

RECEIVED
OCT 11 1995
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211 E. 46th ST., N.Y., N.Y.C. 10017

# WINDOWS ON THE WORLD
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## NEW YORK CITY, NEW YORK

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BLDG. A

NORTH

BLDG. B

| NO.: | DATE: | REVISIONS: |
|---|---|---|
| | | CONSTRUCTION DOCUMENTATION SUBMISSION |
| 1 | 5/22/95 | PA QUERIES/REVISIONS |
| 2 | 10/9/95 | ISSUE FOR CONSTRUCTION |

TITLE: 107th FLOOR EGRESS PLAN

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DATE:
SCALE: 1/8"=1'-0"
DRAWING NO.: A010

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