309 to 323 Marginal Way - IBC section 508 review (2009 - sixth printing) -1/14/12

Step 1: Divide the building into "Separate Occupancies" per 508.1 using existing separations (see attached plans).

Table 508.4 requires a one hour separation between the "A-3" occupancy and the B, M, or S-1 Occupancies.

Table 508.4 does not require a separation between B, M, or S-1 Occupanices and othe B, M, or S-1 Occupancies.

Step 2 a: Confirm "Separated Occupancies" shown on the plan conform to requirements of Section 508.4 and using the most restrictive requirements for 309 Marginal Way space, "A" occupancy, that see tables below).

Step 2 b: Confirm using the most restrictive requirements for 309 Marginal Way space, "A" occupancy, that the 309 Marginal Space can be considered a Non Separated Occupancy per Section 508.3see tables below).

Data:

Section 508.3.3 does not require a separation between Occupancies if the requirements of 508.3.1 and 508.3.2 are met.

All other building uses are either "B". "M", or "S-1" uses.

Entire building is fully sprinklered.

309 Marginal Way is separated from adjacent uses by existing one hour separations as required by Table 508.4 (separation between "A" and "M" uses in a fully

Table 508.4 requires a one hour separation between the "A-3" occupancy and the B, M, or S-1 Occupancies.

Table 508.4 does not require a separation between B, M, or S-1 Occupanices and Bldg is two stories an is allowable for the existing Occupancies.

The tables below show that the building can be considered as a number of "Separated Occupancies". 309 Marginal Way space is a non separated Occupancy (M and A-3 uses) and therefore the entire 309 Marginal Way space is considered the more restrictive A-3 use for the purposes of review of section 508.

First Floor						
	Most			Actual bldg area		
Separated bldg	restrictive	Separated	Allowable	divided by allowable	Max Allowable	
area/Address	use	Bldg area	building area	bldg area ratio	area ratio	
309	A-3	4778	35625	0.13		
315	M	10582	46875	0.23		
317	M	4445	46875	0.09		
319	В	4595	86250	0.05		
321	S-1	1028	65625	0.02		
323	В	4446	86250	0.05		
Sum of Actual Building Areas divided by Allowable Building Areas				0.58	1.00	

Second Floor							
Separated bldg area/Address	Most restrictive use	Separated Bldg area	Allowable building area	Actual bldg area divided by allowable bldg area ratio	Max Allowable area ratio		
309 - Not applicable							
315 - Not applicable							
317 - Not applicable							
319	В	4595	86250	0.05			
321 - Not applicable							
323 - Not applicable							
Sum of Actual Building Areas divided by Allowable Building Areas				0.05	1.00		

Conclusions:

Section 508.4 permits the building to be considered as "Separated Occupancies" as shown on the attached plans. 309 Marginal Way is one of the "Separated Occupancies" (from the other "Separated Occupanies" shown on the plan).

Section 508.3 allows the 309 Marginal Way space as shown in the table above and on the attached plans to be considered internally a Nonseparated Occupancies (M and A-3).

Allowable building areas

Allowable building areas							
	construction type IIB area from table 5.3	stories	F/P (frontage/ perimeter)	W (MIN = 32.5+/- ft)	I _f (Frontage Increase)	I _s (Sprinkler increase)	A_{a}
group			1	30.00	0.75	2	
a-3	9500	2					35625
b	23000	3					86250
m	12500	2					46875
s-1	17500	2					65625



