In Building Radio Propagation Considerations for public Safety Frequency

S/N	Public Safety Frequency Bands (MH_z)	25 to 50	138 to 144	148 to 174	220 to 222	406 to 420	450 to 470	764 to 776	794 to 806	806 to 824	851 to 869
1	Rural Setting (Low dense area)	4	4	4	4	3	3	2	2	2	2
2	Suburban Setting(Medium dense area)	3	3	3	3	2	2	1	1	1	1
3	Suburban Setting(Medium dense area)	3	3	3	2	2	2	1	1	1	0
4	0 to 30 ft (below ground)	1	1	1	1	1	1	0	0	0	0
5	0 to 50 ft (below ground)	4	4	4	4	3	3	2	2	2	2
6	50 to 100 ft (below ground)	4	4	4	3	3	3	2	2	2	2
7	100 to 150 ft (below ground)	4	4	4	4	4	4	3	3	3	3
8	Low Density Building	4	4	4	4	4	4	3	3	3	3
9	Medium Density Building	3	3	3	3	3	3	2	2	2	2
10	Height Density Building	2	2	2	2	2	2	1	1	1	1
11	Plain Glass	4	4	4	3	3	3	2	2	2	2
12	Leaded Glass	4	4	4	3	3	2	1	1	1	1
13	Foil Insulation	3	3	3	3	2	2	1	1	1	1
14	Concrete	2	2	2	2	2	2	1	1	1	1
15	Metal	1	1	1	1	1	1	0	0	0	0
16	Sheetrock	3	3	3	3	2	2	1	1	1	1

4-Very Good Coverage
3- Good Coverage
2- Average Coverage
1- Very Little Coverage
0- Poor Coverage

Propagation with Natural Obstruction for Public Safety Frequency

S/N	Public Safety Frequency Bands (MH_Z)	25 to 50	138 to 144	148 to 174	220 to 222	406 to 420	450 to 470	764 to 776	794 to 806	806 to 824	851 to 869
1	Free Space	4	4	4	4	4	4	4	4	4	4
2	Atmospheric 0 to 600 ft	4	4	4	4	4	4	3	3	3	3
3	Atmospheric 600 to 1200 ft	3	3	3	3	3	3	2	2	2	2
4	Weather	4	3	3	3	3	3	2	2	2	2
5	Mountainous Terrain	2	2	2	2	1	1	1	1	1	1
6	Foliage	4	3	3	3	3	3	2	2	2	2

4-Very Good Coverage
3- Good Coverage
2- Average Coverage
1- Very Little Coverage
0- Poor Coverage

Average Signal Loss for Radio Paths Obstructed by Common Buiiding Materials

S/N	Material Type	Loss(decibeles)
1	Wall Constructed of metal plate	26
2	Aluminum Siding	20.4
3	Foil Insulation	3.9
4	2.7∗2.7 Square reinforced concrete pillar	12-14
5	Concrete Block Wall	13
6	Sheetrock (3/8 in)-2 sheets	2