

17. LOW-RISE BUILDING: 1 – 4 STORIES (LROB)

General Description

- Generally consist of rectangular modules but can be “odd shaped” in plan
- Flat roofs, but can have gable, hip or mansard shapes
- Most will have flat roofs but can have other shapes
- Roofing materials include BUR, single-ply membrane, metal panels or standing seam
- Roof deck is wood or metal deck, poured gypsum deck or concrete slab
- Steel or reinforced concrete structural frame
- Glass and metal curtain walls, metal studs with EIFS, masonry walls with stucco or brick veneer
- Examples are office buildings, medical facilities, and bank buildings.

Table 17

DOD*	Damage description	EXP	LB	UB
1	No visible damage	68	55	83
2	Loss of roofing material ($\leq 20\%$)	80	67	103
3	Uplift of metal roof deck at eaves and roof corners; significant loss of roofing material ($>20\%$)	101	83	120
4	Broken windows; glass in entryways; significant damage to building interior	101	83	122
5	Uplift or collapse of roof structure	133	114	157
6	Failure of exterior walls at top floor	143	122	167
7	Significant structural deformation or collapse of building	188	161	221

* DOD is degree of damage

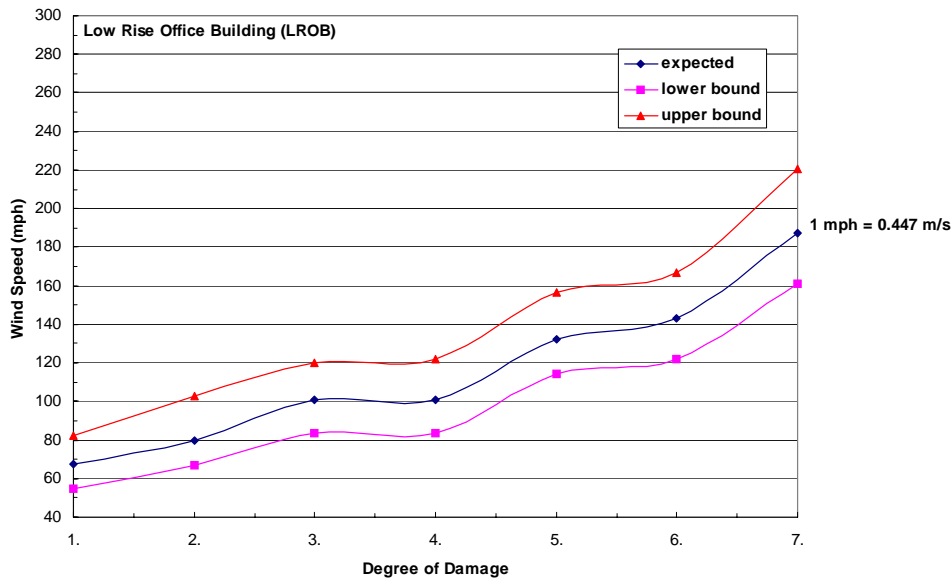


Figure 17. Wind Speed vs. Degree of Damage