

Type of Object	Face Side Both	40 MPH		50 MPH		60 MPH		70 MPH	
		Range	Avg	Range	Avg	Range	Avg	Range	Avg
Tree									
Diameter \leq 4"	Both	0.4 -2.6	1.5	0.6 -3.2	1.9	0.8 -3.8	2.3	1.0 -4.4	2.7
Diameter $>$ 4"	Both	2.6 -5.0	3.8	3.2 -6.0	4.6	3.8 -7.2	5.5	4.4 -8.6	6.5
Bridge Pier	Both	2.6 -5.0	3.8	3.2 -6.0	4.6	3.8 -7.2	5.5	4.4 -8.6	6.5
Headwall									
Height $<$ 4"	Both	0.6 -1.0	0.8	1.0 -1.8	1.4	1.4 -2.4	1.9	1.8 -3.0	2.4
Height \geq 4" \leq 10"	Both	1.0 -2.6	1.8	1.8 -3.2	2.5	2.4 -3.6	3.0	3.0 -4.4	3.7
Height $>$ 10"	Both	2.6 -5.0	3.8	3.2 -6.0	4.6	3.8 -7.2	5.5	4.4 -8.6	6.5
Edge Drop-Off									
Height $<$ 4"	Face	0.4 -1.0	0.7	0.6 -1.4	1.0	0.8 -1.8	1.3	1.0 -2.2	1.6
Height \geq 4" \leq 10"	Face	1.0 -1.6	1.3	1.4 -2.2	1.8	1.8 -2.8	2.3	2.2 -3.4	2.8
Height $>$ 10"	Face	1.6 -2.2	1.9	2.2 -3.0	2.6	2.8 -3.8	3.3	3.4 -4.6	4.0
Curb									
Mountable $<$ 6"	Face	0.6 -1.0	0.8	1.0 -1.8	1.4	1.4 -2.4	1.9	1.8 -3.0	2.4
Non-Mountable \geq 6" \leq 10"	Face	1.2 -2.6	1.9	1.6 -3.2	2.4	2.0 -4.0	3.0	2.4 -4.6	3.5
Fire Hydrant	Both	1.8 -2.4	2.1	2.2 -3.0	2.6	2.6 -3.6	3.1	3.0 -4.2	3.6
Mail Box	Both	1.2 -2.2	1.7	1.6 -2.8	2.2	2.0 -3.4	2.7	2.6 -4.2	3.4
Chainlink Fence	Face	1.4 -1.8	1.6	2.0 -2.6	2.3	2.4 -3.2	2.8	2.6 -3.6	3.1

Note: The surrounding slope may be more severe than the object, and another hazard directly beyond the object may be more severe. In most cases, the highest severity index should be used.

FACTORS THAT AFFECT SEVERITY RANGE:

Low Range: Object on uphill backslope where less likely to be hit, non-frangible diameter is small, no erosion around base.

Mid Range: Object on relatively flat slope (recoverable), proper design, installation and maintenance, no erosion around base.

High Range: Object on 4:1 or steeper slope (non-recoverable), non-frangible diameter is large, erosion around base.

**SEVERITY INDICES
(Miscellaneous Fixed Objects)
Figure 49-10P**