

IMPROVING TRAVERSE LAKE ROAD SIGHT DISTANCE

Previous Traverse Lake Road (TLR) characterization studies indicate a ratio of two vehicular users to one non-vehicular user. Sight distance is a significant factor in road safety of a multi-use road and is important in providing enough reaction time for vehicular users as well as vulnerable road users such as pedestrians, runners and cyclists. Two key strategies can help improve road safety related to sight distance: 1) slow driving speeds, and 2) eliminate visibility restrictions that block views of the road.



Road speeds determine the amount of sight distance that is required to ensure proper reaction time as well as stopping distance needed. Slower driving speeds greatly reduce the amount of sight distance needed. The Traverse Lake Road community continues efforts to encourage drivers to reduce their speeds as well as exploring options to reduce the speed limit below 40 mph.

Road conditions can also limit sight distance. Traverse Lake Road has winding curves and other features that can reduce sight distance.

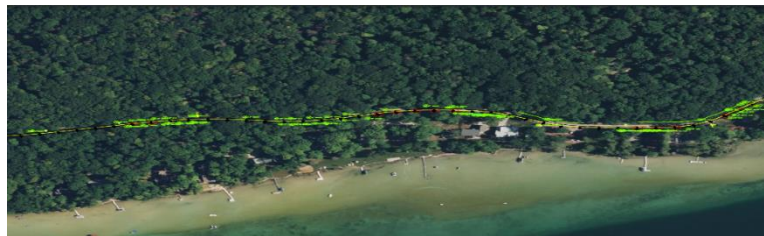
Thus, removing barriers to road visibility plays is essential to road safety. These barriers often include vegetation such as trees, hanging branches, bushes or landscaping which can block the view of vehicles or non-vehicular road users. The Leelanau County Road Commission has the authority to clear any vegetation within the road right of way (33' from the centerline). Private property owners can help improve sight distance by (1) avoiding landscaping that could block sight distance and (2) trim tree branches or bushes that also limit visibility down the road.



Quick Charts for Stopping Sight Distance

Design Speed (mph)	Stopping Sight Distance (ft)	Rate of Vertical Curvature, K*	
		Calculated	Design
15	80	3.0	3
20	115	6.1	7
25	155	11.1	12
30	200	18.5	19
35	250	29.0	29
40	305	43.1	44
45	360	60.1	61
50	425	83.7	84
55	495	113.5	114
60	570	150.6	151
65	645	192.8	193
70	730	246.9	247
75	820	311.6	312
80	910	383.7	384

A survey was completed of Traverse Lake Road to identify potential sight distance concerns and mapped obstacles alongside the roadway. This help identify areas critical to improving sight distance. Efforts were then taken by Leelanau County Road Commission and property owners to remove vegetation that reduce sight distance and were a contributing factor to road safety concerns.



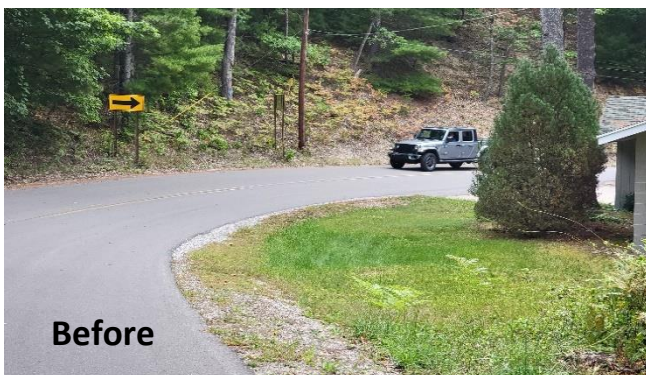
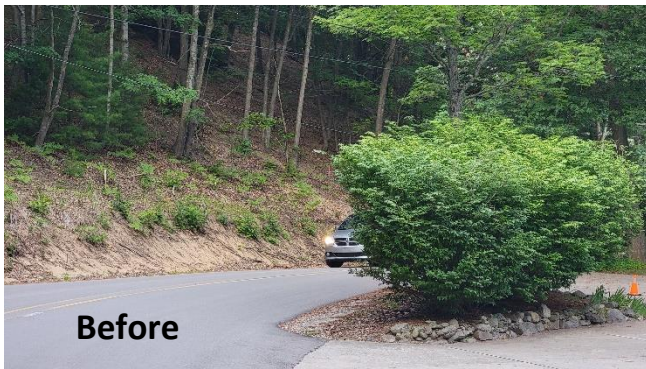
The improvement of sight distance along Traverse Lake Road has been significant, with significant benefits to enhancing road safety for both vehicular and non-vehicular users. Two areas remain where sight distance can easily be improved: 1) removal of berm at the curve across from 992 E Traverse Lake Road; 2) annual mowing of cattails at the sharp curve at the west end of TLR with the addition of bike lanes to road pavement width around the curve for additional safety.

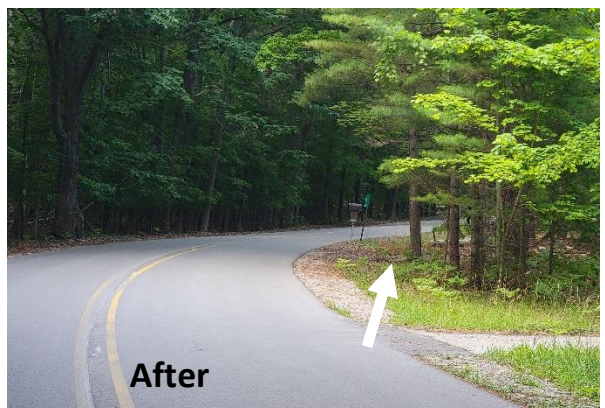
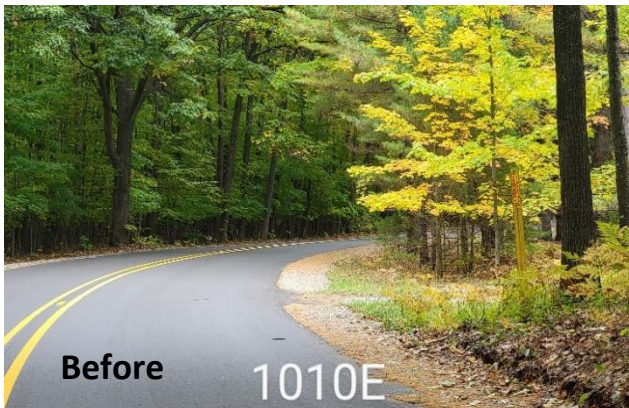
Following are visual examples of sight distance improvements along Traverse Lake Road:

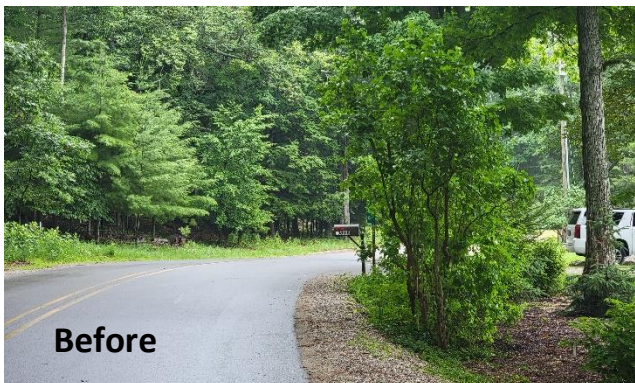
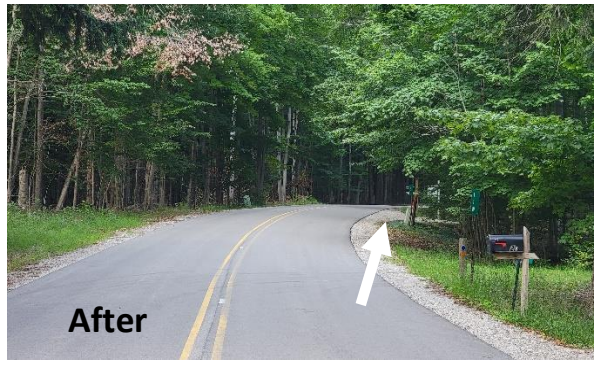
Enhanced vehicle visibility



Enhanced pedestrian visibility







ADDITIONAL OPPORTUNITIES FOR SIGHT DISTANCE IMPROVEMENT

Cutting back of berm at middle curve

Sight distance can be improved at the middle curve by cutting back the dirt bank. This is a minor earth project that can be easily accomplished by the Leelanau County Road Commission. Sight distance is also important for the families that frequently cross the road just to the west of this curve. The result would be increased visibility at this curve and thus an improvement in road safety for all users.



Improvements at west end curve

Sight distance and road safety can be improved at the west end curve by two actions: (1) Cutting down of vegetation to increase visibility around the curve; and (2) Increasing road width during scheduled road reconstruction by adding 5' bike lanes to provide more clearance space when cars meet non-vehicular users.

