



TRAFFIC AND SAFETY MANUAL

Chapter 7 – Traffic Engineering Studies 7A – No Passing Zone Study

General

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Guidelines

No passing zone lines shall be placed at vertical and horizontal curves on two-lane roadways where passing must be prohibited because of inadequate sight distance or other special conditions covered in this section. The field survey determines locations where the passing sight distance is less than the minimum for the 85th percentile speed or the speed limit as shown in Table 1. The passing sight distance is the distance at which an object 3.5 feet above the pavement surface can be seen from a point that is also 3.5 feet above the pavement surface. The no passing zone line shall begin 100 feet in advance of the point where sight distance becomes less than that required. It shall end where a driver with an eye height of 3.5 feet can see enough of the roadway ahead to determine that there is no secondary feature such as a dip that could cause a vehicle to be hidden within the apparent passing sight distance.

Additionally, no passing zone lines shall be extended or special zones placed under certain conditions. Those adjustments are noted below with distances shown for speed limits of 55 mph. Table 1 shows distances for other speed limits as well.

1. When a no passing zone ends at a point 300 feet or less from an at grade intersection, the no passing zone line shall be extended to the intersection.
2. When a no passing zone ends at a point 300 feet or less from the near end of a narrow bridge, the no passing zone line shall be extended to a point 50 feet beyond the far end of the bridge.
3. When a no passing zone ends 400 feet or less in advance of the beginning of another no passing zone in the same direction, the no passing zone lines shall be connected.
4. When a no passing zone as determined by the survey would be less than 500 feet long it shall be extended to 500 feet by adding the extra length to the beginning of the zone.
5. When a no passing zone as determined by the survey would be less than 50 feet long it shall not be marked.
6. For primary road traffic approaching a primary road intersection where a stop is required, a no passing zone line shall begin 600 feet in advance of the stop line.
7. For traffic approaching a partially channelized intersection where a stop is not required, a no passing zone shall be established to discourage traffic from entering a one-way turning roadway. Normally, the channelization consists of an island or barrel, which requires left turning approach traffic to pass to the right of the channelization. The no passing zone line shall begin 600 feet in advance of the intersection and continue to a point adjacent to the channelizing object.
8. When a no passing zone begins at a point 1,000 feet or less past the end of a median, the no passing zone line shall be extended to the end of the median and the no passing zone pennant eliminated.

9. When a no passing zone begins at a point 1,000 feet or less from a stop line for traffic leaving an intersection, the no passing zone line shall be extended back to a point adjacent to the stop line and the no passing pennant eliminated.
10. No passing zones shall be placed in advance of highway-rail grade crossings. For details see Figures 9 and 10 in [Section 3B-2](#) of the Traffic and Safety Manual.

Typical pavement marking layouts including no passing zone markings can be found in [Section 3B-2](#) of the Traffic and Safety Manual. Procedures for conducting the no passing zone survey using the pulled rope method are found in [Section 7A-2](#) and procedures for conducting the no passing zone survey using the distance measuring method are found in [Section 7A-3](#). Safety and Equipment are discussed in [Section 7A-4](#).

Table 1

Minimum Passing Sight Distances And Conditional Adjustments

Speed	Min. Passing Sight Dist	Length of Extensions and Special Zones				
		Notes: 1,2	3	4	6,7	8,9
55	1000	300	400	500	600	1000
50	1000	300	400	500	600	1000
45	800	240	320	400	480	800
40	800	240	320	400	480	800
35	600	180	240	300	360	600
30	600	180	240	300	360	600
25	500	150	200	250	300	500
20	500	150	200	250	300	500

Documentation

For many studies, the findings, conclusions and recommendations must be clearly conveyed to those who are responsible for acting on the results. This is done through the use of a memo, letter or more formal report. Some study presentations include the use of forms, tables or graphs depicting the data collected. It is very likely, however, that there will be no written report for a no passing zone study but that the results will be marked on the pavement surface. The pavement marking inventory for the area must be revised when the marking is done. The minimum documentation includes when, where and by whom the study was conducted, which method was used, and that it was done in conformance with established guidelines. For spot checks it should be noted whether or not the location warranted marking.

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