SECTION 648 LOCATING NO-PASSING ZONES

648.1 Description

(1) This section describes locating the termini of no-passing zones and spotting those termini on the pavement surface.

648.2 (Vacant)

648.3 Construction

648.3.1 Equipment

(1) Use 2 vehicles that place the observer's eye 42 inches above the roadway and a target 42 inches above the roadway. Ensure that the target 42-inch height point offers sharp cutoff when it disappears and appears.

(2) Equip both vehicles with odometers that automatically subtract the distance traveled in reverse from the total forward distance measured before the reversal. Adjust the odometers to have an error of no more than 52 feet in 2 miles.

(3) Also, equip each vehicle with the following:

- Slow moving vehicle emblems.
- A sign with the message, "FREQUENT STOPS".
- One or more flashing or revolving yellow lights.
- Two-way communication equipment.

648.3.2 Locating No-Passing Zones

(1) Locate the termini of all no-passing zones as the plans show or the contract specifies. Report to the engineer before beginning work under the Locating No-Passing Zones bid item.

(2) Spot the beginning and end of all no-passing zones by spray painting T's and dots on the roadway. Use paint that will be readily visible for at least one year. Make T's one foot by one foot with at least a 2-inch wide line. Paint a 3 to 4 inch diameter dot on the centerline adjacent to the T stem.

(3) Spot both ends of no-passing zones, to an accuracy of 50 feet, where the highway has inadequate sight distance. Conform to the sight distance requirements as follows:

POSTED SPEED LIMIT	SPOTTING SIGHT DISTANCE	MINIMUM DISTANCE[1] BETWEEN ZONES
25 - 30 mph	0.10 miles/528 feet	0.10 miles/528 feet
35 - 40 mph	0.13 miles/686 feet	0.10 miles/528 feet
45 - 50 mph	0.16 miles/845 feet	0.13 miles/686 feet
55 mph	see[2]	0.15 miles/792 feet

[1] If the distance between 2 successive no-passing zones is less than the minimum distance between zones, connect the 2 zones.

[2] The spotting sight distance is specified in the special provisions.

(4) On horizontal curves, no part of the line-of-sight can extend outside the shoulder.

(5) Spot a no-passing zone wherever the sight distance is interrupted. If the no-passing zone is under 500 feet long, extend the zone to 500 feet by lengthening the zone at its beginning for each traffic direction.

(6) Also, spot no-passing barrier lines as the plans show for the following:

1. Approaches to railroad crossings.
2. Bridges.
3. Full width auxiliary lanes, such as a truck climbing, intersection bypass, or passing lanes

(7) On state trunk highways, spot a 500 foot no-passing barrier line at the following locations:

1. Approaches to intersections with a stop sign or traffic signal facing traffic on the highway being surveyed.
2. Approaches to a divided highway.
3. Approaches to an intersection with another state trunk highway.
4. Other locations as the engineer directs.

(8) Terminate intersection no-passing barrier lines at stop lines, marked crosswalks, stop signs, or signals; or if none of these features are present, at the theoretical stopping point.

(9) If the contract specifies, also spot no-passing zones on planned detour routes. Unless the engineer directs otherwise, use criteria applicable to state trunk highways to locate all no-passing zones on county trunk highways and local roads on the detour route. Base the locations on posted detour speed limits.

(10) Check the correctness of no-passing zones leading into and out of the project limits. Ensure that the minimum distance between zones and sight distance are correct.

(11) Upon completing the work under this section, furnish the engineer 4 copies of an odometer log locating features to the 1/100 of a mile for each road surveyed. Make all log points specific and readily identifiable. Include the following:

- Date of survey on each sheet.
- The cardinal direction of travel.
- The beginning and ending of each no-passing barrier line in both directions.
- The sight distance and speed criteria for each zone.
- The location of all permanent landmarks.

648.4 Measurement

(1) The department will measure Locating No-Passing Zones by the mile acceptably completed, measured as the actual centerline length of road surveyed and reported to the nearest 1/100 of a mile.

648.5 Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
648.0100	Locating No-Passing Zones	MI

(2) Payment is full compensation for all the work required under this section.