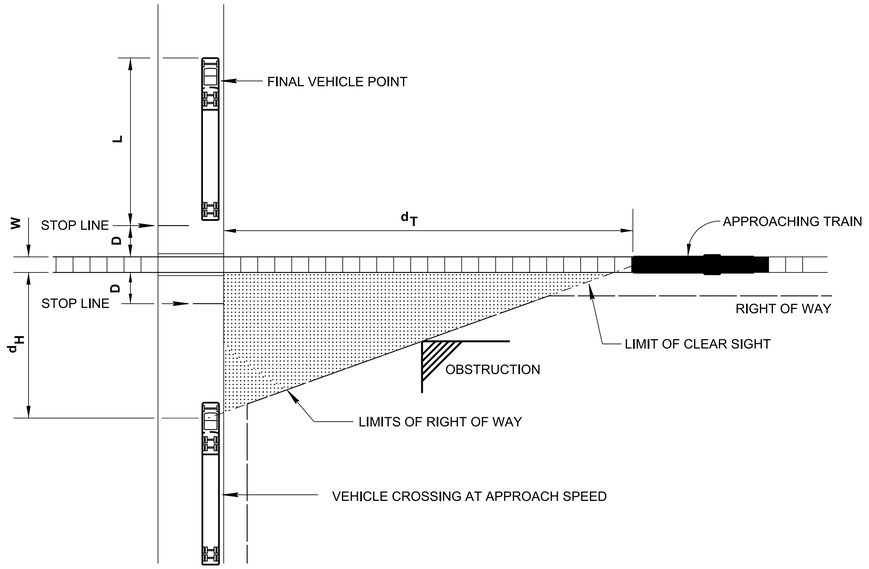
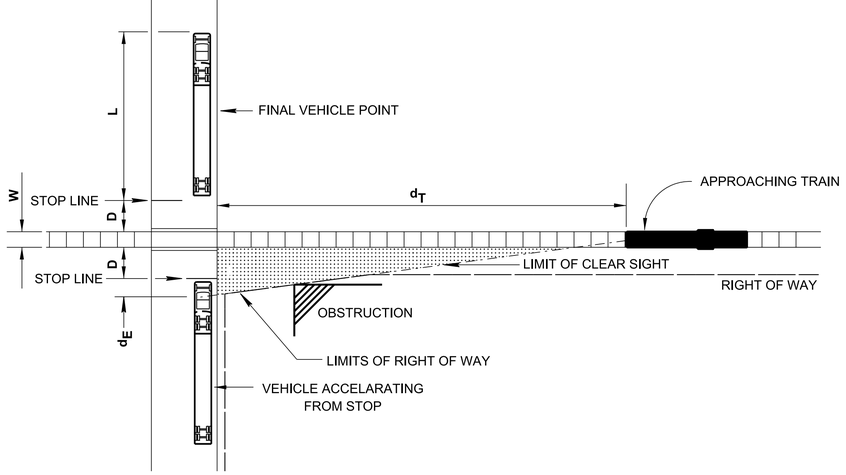


CASE A

APPROACHING VEHICLE TO SAFELY CROSS OR STOP AT RAILROAD CROSSING
(FOR CLARITY RIGHT OF WAY LINES ARE NOT SHOWN FOR THE OTHER QUADRANTS)



CASE B

VEHICLE DEPARTING FROM STOPPED POSITION TO SAFELY CROSS RAILROAD TRACK
(FOR CLARITY RIGHT OF WAY LINES ARE NOT SHOWN FOR THE OTHER QUADRANTS)

LEGEND

AREAS FREE OF SIGHT OBSTRUCTIONS

NOT TO SCALE

DESIGN SIGHT DISTANCES FOR COMBINATION VEHICLE PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS

CONDITIONS: SINGLE RR TRACK 90° CROSSING, DESIGN VEHICLE WB-67, FLAT HIGHWAY GRADES, PASSIVE CROSSING

TRAIN SPEED (MPH)	CASE B VEHICLE DEPARTURE FROM STOP	CASE A MOVING VEHICLE					
	VEHICLE SPEED (MPH) (V_v)						
	0	10	20	30	40	50	60
	SIGHT DISTANCE ALONG RAILROAD TRACT, d_T (FT)						
10	255	155	110	102	102	106	112
20	509	310	220	203	205	213	225
30	794	465	331	305	307	319	337
40	1019	619	441	407	409	426	450
50	1273	774	551	509	511	532	562
60	1528	929	661	610	614	639	675
70	1783	1084	771	712	716	745	787
80	2037	1239	882	814	818	852	899
90	2292	1394	992	915	920	958	1012
STOPPING SIGHT DISTANCE ALONG HIGHWAY FROM RR CROSSING, d_H(FT) ㉔							
		69	135	220	324	447	589

㉔ ADD D = 15' TO d_H TO STOP BAR.

GENERAL NOTES

① SIGHT DISTANCES ARE REQUIRED IN ALL QUADRANTS OF THE CROSSING.

② CORRECTIONS MUST BE MADE FOR CONDITIONS OTHER THAN SHOWN IN THE TABLE, SUCH AS, MULTIPLE RAILS, SKEW, ASCENDING AND DESCENDING GRADES, AND CURVATURE OF HIGHWAYS AND RAILS. FOR CONDITION ADJUSTMENTS AND ADDITIONAL INFORMATION, REFER TO RAILROAD-HIGHWAY GRADE CROSSINGS UNDER CHAPTER 9 OF "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK).

③ DEFINITIONS:

- d_H = SIGHT-DISTANCE LEG ALONG HIGHWAY ALLOWS A VEHICLE PROCEEDING TO SPEED V_v TO CROSS TRACKS EVEN THOUGH A TRAIN IS OBSERVED AT A DISTANCE d_T FROM THE CROSSING OR TO STOP THE VEHICLE WITHOUT ENCROACHMENT OF THE CROSSING AREA (FT)
- V_v = SPEED OF THE VEHICLE (MPH)
- W = DISTANCE BETWEEN OUTER RAILS (FOR A SINGLE TRACK, THIS VALUE IS 5 FT.)
- D = DISTANCE FROM THE STOP LINE OR FRONT OF THE VEHICLE TO THE NEAREST RAIL, WHICH IS ASSUMED TO BE 15 FT.
- d_E = DISTANCE FROM THE DRIVER TO THE FRONT OF THE VEHICLE, WHICH IS ASSUMED TO BE 8 FT.
- L = LENGTH OF VEHICLE, WHICH IS ASSUMED TO BE 73.5 FT. (WB-67)
- d_T = SIGHT DISTANCE ALONG RR TRACK
- V_T = SPEED OF THE TRAIN (M.P.H.) (DESIGNER SHOULD OBTAIN THIS INFORMATION FROM THE UTILITIES OFFICE)

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

INTERSECTION SIGHT DISTANCE FOR PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS

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