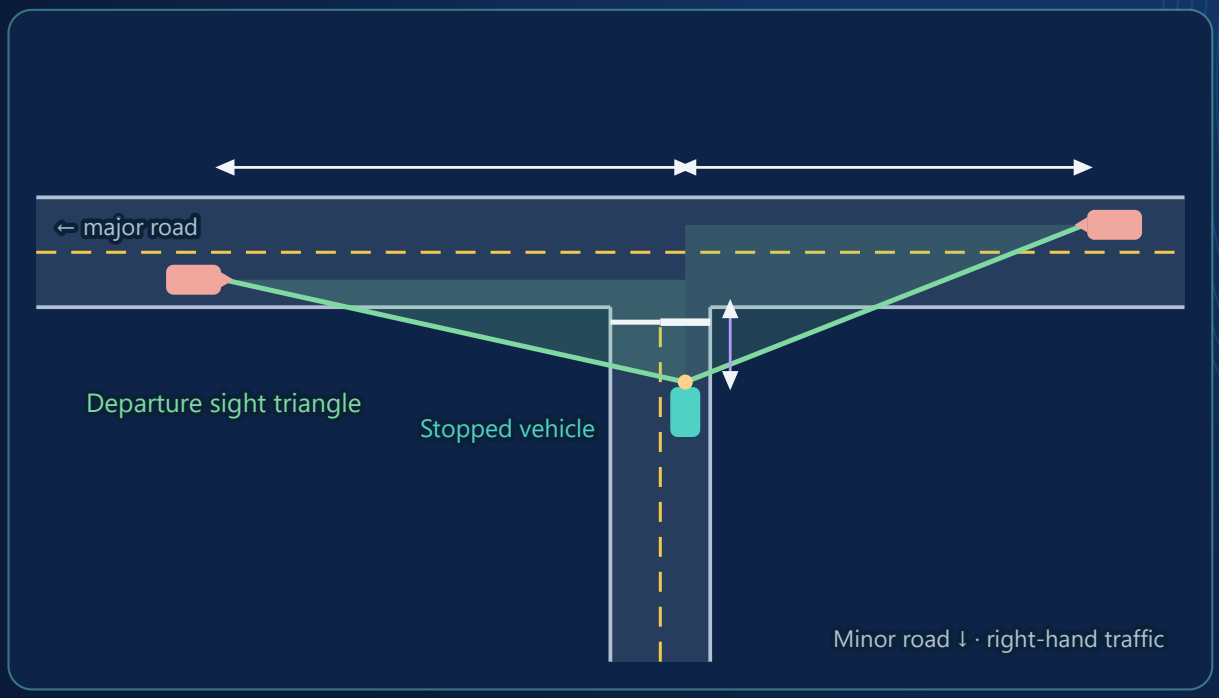
Intersection Sight Distance Report

Sight triangles for vehicles turning
and crossing at intersections (AASHTO Green Book).



Sample Project

Client: Urban City

PREPARED & SUBMITTED BY

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Intersection Sight Distance Calculator

Design report · Reference: AASHTO Green Book, 7th Ed. (2018) §9.5.3 Basis: ISD = 0.278 · V · tg · eye 1.08 m · object 1.08 m · Generated 11/5/2026 3:16:24 PM

1. Project

Project / road	Sample Project
Prepared by	SP Consultant
Date	11/5/2026

2. Intersection Sight Distance

MANOEUVRE & VEHICLE

Case	B1 · Left turn from stop
Design vehicle	Passenger car

MAJOR ROAD

Design speed of major road V (kph)	80
Through lanes, both directions	2
Median width (m)	0
Lane width (m)	3.65

MINOR ROAD APPROACH

Approach grade (%) — + upgrade	0
Decision point from edge of major road (m)	4.4

CALCULATION

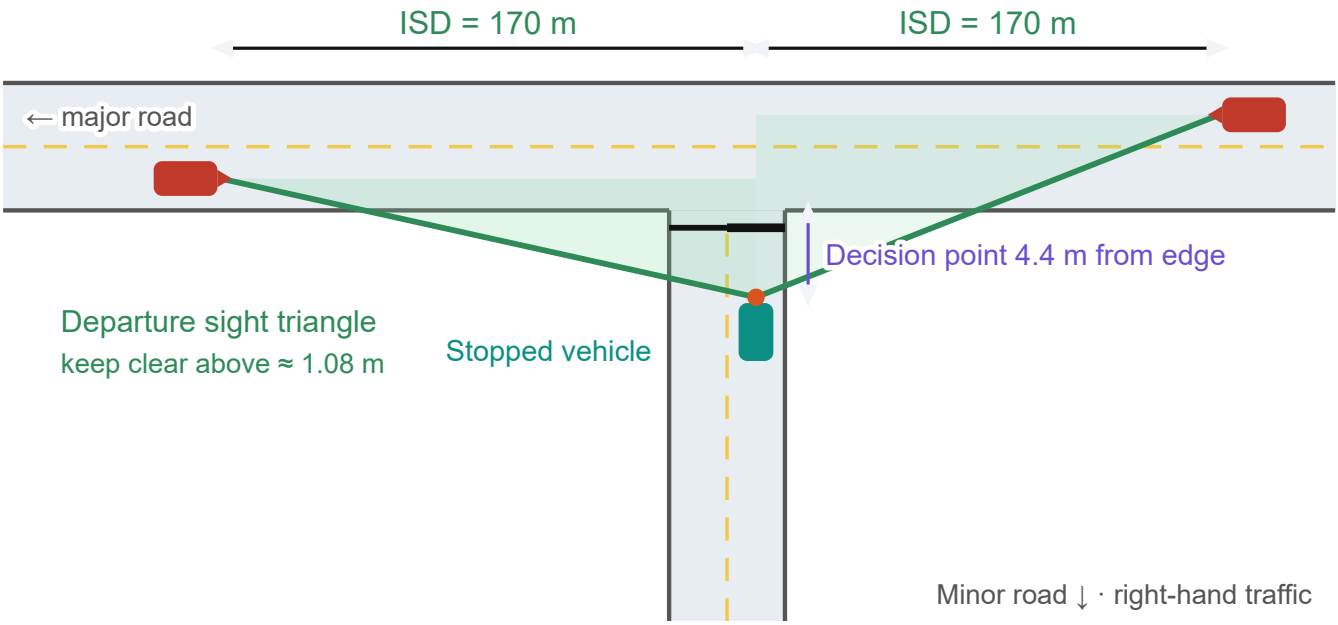
Base time gap (s)	7.5
Lanes crossed beyond one (from the left)	0
Adjustment for lanes (s)	0.00
Adjustment for approach grade (s)	0.00
Design time gap tg (s)	7.50
ISD = 0.278 × V × tg (m)	166.8
Stopping sight distance, level (m)	130

RESULTS

Intersection sight distance, design (m)	**170 m**
Sight triangle legs along the major road (left and right)	**170 m each side**
Sight triangle leg along the minor road (m)	**6.2 m to the driver's eye**
Comparison with stopping sight distance	**ISD 170 m ≥ SSD 130 m — OK**

Sample report: illustrative data, not for design use

SKETCH — INTERSECTION SIGHT TRIANGLE (NOT TO SCALE)



COMPUTED VALUES

Case	`B1 · Passenger car`
Time Gap tg	`7.50 s`
ISD Design	`170 m`
Travel Time at V	`7.7 s`
Minor-road Leg	`6.2 m`
SSD Level	`130 m`

ISD = 0.278 · V_{major} · t_g (m), V in kph, t_g in s, design value rounded up to 5 m.
Time gaps (P / SU / combination truck): B1 left turn from stop 7.5 / 9.5 / 11.5 s · B2 right turn and B3 crossing from stop 6.5 / 8.5 / 10.5 s · F left turn from major road 5.5 / 6.5 / 7.5 s.
Extra lanes: +0.5 s (car) or +0.7 s (trucks) for each lane crossed beyond one (B1, F) or beyond two (B3), including narrow medians.
Approach upgrade steeper than 3 %: +0.2 s per percent (B1, B3) or +0.1 s per percent (B2).
The sight line runs from a 1.08 m eye height to a 1.08 m object (the approaching vehicle): keep the triangle clear of anything taller.

INTERSECTION SIGHT DISTANCE (M) — DESIGN SPEED VS CASE, THIS VEHICLE

Base time gaps for the design vehicle, two-lane undivided major road, level approach, rounded up to 5 m. `highlighted` = current design speed; outlined = current case.

V (kph)	B1 t_g 7.5 s	B2 t_g 6.5 s	B3 t_g 6.5 s	F t_g 5.5 s	SSD
20	45	40	40	35	20
30	65	55	55	50	35
40	85	75	75	65	50
50	105	95	95	80	65
60	130	110	110	95	85
70	150	130	130	110	105
80	**170**	**145**	**145**	**125**	**130**

Sample report: illustrative data, not for design use

V (kph)	B1 t_g 7.5 s	B2 t_g 6.5 s	B3 t_g 6.5 s	F t_g 5.5 s	SSD
90	190	165	165	140	160
100	210	185	185	155	185
110	230	200	200	170	220
120	255	220	220	185	250
130	275	235	235	200	285

Generated with the Intersection Sight Distance Calculator — https://shahidpervaiz.net/EngineeringDesignTools/intersection_sight_distance_calculator. Results should be checked by a qualified engineer before use.

Sample report: illustrative data, not for design use