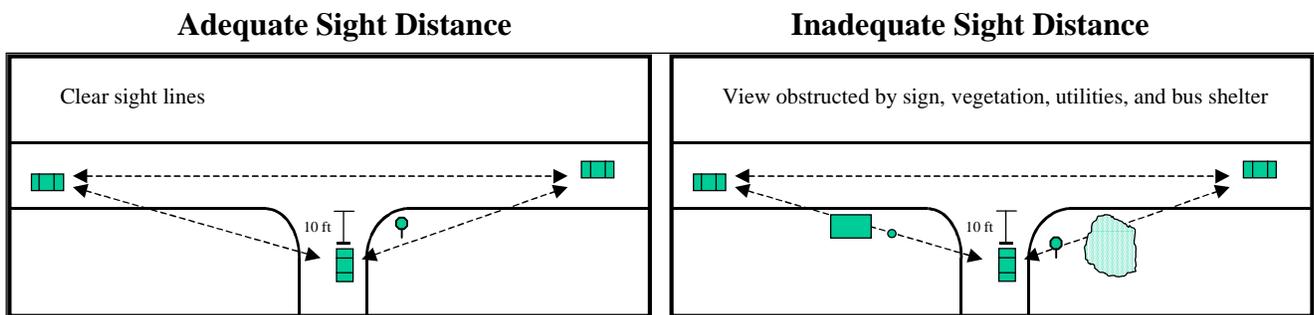


Sight Distance

Guidelines for adequate sight distance are one of the most important and basic approaches a community can take in managing access to its roadways. Sight distance guidelines can help communities ensure that its arterials are safe for motorists and pedestrians. Sight distance guidelines can also help communities promote adequate spacing of residential and commercial driveways.

What is sight distance?

Sight distance is the length of highway visible to a driver. A safe sight distance is the distance needed by a driver on an arterial, or a driver exiting a driveway or street, to verify that the road is clear and avoid conflicts with other vehicles. Sight lines must be kept free of objects which might interfere with the ability of drivers to see other vehicles (see figure). Features such as hills, curves in the road, vegetation, other landscaping, signs, and buildings can reduce sight distance.



Why is sight distance important?

Sight distance is critical to motorists in making decisions such as to stop, slow down, turn, enter a traffic stream from a driveway or public road, or merge into traffic. Adequate sight distance allows motorists the time they need to avoid crashes and conflicts. Adequate sight distance will help keep roadways operating safely and smoothly.

What is a reasonable sight distance?

The safe sight distance for low and medium volume driveways should be large enough to allow vehicles on the arterial to slow down to a reasonable speed, but not stop, to avoid a collision with vehicles exiting a driveway. The safe sight distance for high volume driveways should be higher to allow a greater margin of safety. Stopping sight distance increases on downgrades and increases on upgrades.

The Iowa Department of Transportation's sight distance policy is based upon the American Association of State Highway and Transportation Officials (AASHTO) stopping distance criteria and posted daytime speed limits for passenger cars. The

following table shows desirable sight distances published in the AASHTO *Green Book* (1994, Table III-1).

Posted Daytime Speed Limit (mph)	Desirable Sight Distance (feet)	Minimum Sight Distance (feet)
55	725	450–500
50	650	400–475
45	550	325–400
40	475	275–325
35	400	225–250
30	325	200
25	250	150

What about in rural areas?

Sight distance at driveways and/or farm field entrances is especially critical in rural areas because travel speeds are high and curves or hilly terrain may restrict sight lines. Higher vehicle speeds mean that driver reaction and physical stopping distances are longer.



Example of inadequate sight distance as viewed from the driveway. The exiting driver cannot see far enough to safely enter the traffic stream. This situation presents an operational and safety concern.

Are there issues that should be considered in conjunction with sight distance?

Sight distance is closely related to the following access management subjects: driveway-related crashes, driveway spacing, driveway density and consolidation, access management and pedestrian safety, and utility placement and clear zones.