



Install an Intersection Conflict Warning System (ICWS)

Intelligent Transportation System (ITS) technology used to warn motorists approaching an intersection of potential conflicts with other approaching vehicles. Such systems include detection of vehicles on the major road, minor road, or both.



Source: Terry Berends (WSDOT)

This ICWS employs ground-mounted signing and Warning Beacons to warn major road drivers that one or more vehicles may be entering from the minor road.



Source: VHB

This ICWS utilizes overhead signing and Warning Beacons to warn major road drivers that one or more vehicles may be entering from the minor road.

Targeted Crash Types

- Right-angle
- Rear-end (major road)

Problems Addressed

- Inadequate visibility of intersection or intersection traffic control devices
- Inadequate intersection sight distance
- Misjudgment of gaps
- Speeding

Conditions Addressed

- Crash history involving vehicles entering or crossing major road.
- Difficulty among drivers in determining appropriate gaps in traffic.
- Awareness of the intersection is lacking.
- High running speeds are typical of major road traffic.

Considerations

- There are applications designed for the major road approaches only, the minor road approaches only, or the approaches of both roads.
- Requires similar equipment to a traffic signal: controller, cabinet, detection devices (loops or video), and possibly LED message signs.
- Message should be simple and easily understood.
- Place at a distance from the intersection that would provide the approaching driver time to react.
- When ICWS design incorporates dynamic messages, some agencies program their devices to display random dots on the message screen when they are not working properly.

Other Resources

[Stop-Controlled Intersection Safety: Through Route Activated Warning System, FHWA](#)

[Innovative Operational Safety Improvements at Unsignalized Intersections, Florida DOT](#)

[NCHRP 613: Guidelines for Selection of Speed Reduction Treatments at High-Speed Intersections](#)

Select Examples

[US 24 & MO 15, Paris, MO](#)

[NC 42 & Castleberry Rd., Clayton, NC](#)

[Salem Church Rd. & Kingsland Rd., Richmond, VA](#)

