

Diverging Diamond Interchange FACT SHEET

Diverging Diamond Interchanges

A diverging diamond interchange, or DDI, is an innovative design that addresses congestion by allowing vehicles to travel more quickly through busy intersections. DDIs are particularly effective at locations that have a high volume of left-turning traffic. A DDI increases traffic flow by temporarily shifting traffic to the left side of the roadway, allowing through-traffic and left-turning traffic to proceed through the exchange simultaneously. This eliminates the need for left-turn signals.

Driving in a Diverging Diamond Interchange

While driving through a diverging diamond interchange (DDI) is different, it is not difficult to understand and navigate once you get used to it. A DDI creates a diamond-shaped pattern in the intersection and temporarily shifts traffic to the left side of the roadway prior to entering the intersection.



How it Works

- Two-phase traffic signals are installed at the roadway crossover points.
- Once on the left side of the road, drivers can:
 - Freely turn left, rather than wait for oncoming traffic to clear or for a left-turn signal.
 - Continue straight and switch back to the right side of the roadway once they've cleared the intersection.
- Through-traffic on the frontage road bypasses the intersection via a collector-distributor lane, or intersection bypass lane, and proceeds straight through the cross-street intersection, allowing drivers to avoid the traffic signal.

Advantages of a Diverging Diamond Interchange

A DDI enhances safety and mobility by reducing potential crash points at intersections and by allowing more cars to move through an intersection. This means a reduction in delays and travel time. Other benefits include:

- Motorists can bypass the exchange without stopping at a traffic signal.
- Improved travel time because additional "green time" at traffic signals allow more vehicles to pass through the roadway.
- Additional sidewalks will increase safety and better accommodate pedestrians and bicyclists.
- Relatively low-cost improvement.

Contact Information

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Watch YouTube video: [Demonstration of Diverging Diamond Interchange](#)