



# Diverging Diamond Interchange (DDI)



## I-43 Rock Freeway



ID: 1090-39-00

### What is a Diverging Diamond Interchange (DDI)?

The Wisconsin Department of Transportation (WisDOT) is planning to construct a Diverging Diamond Interchange (DDI) at the I-43 and WIS 164 interchange, located in the Village of Big Bend.

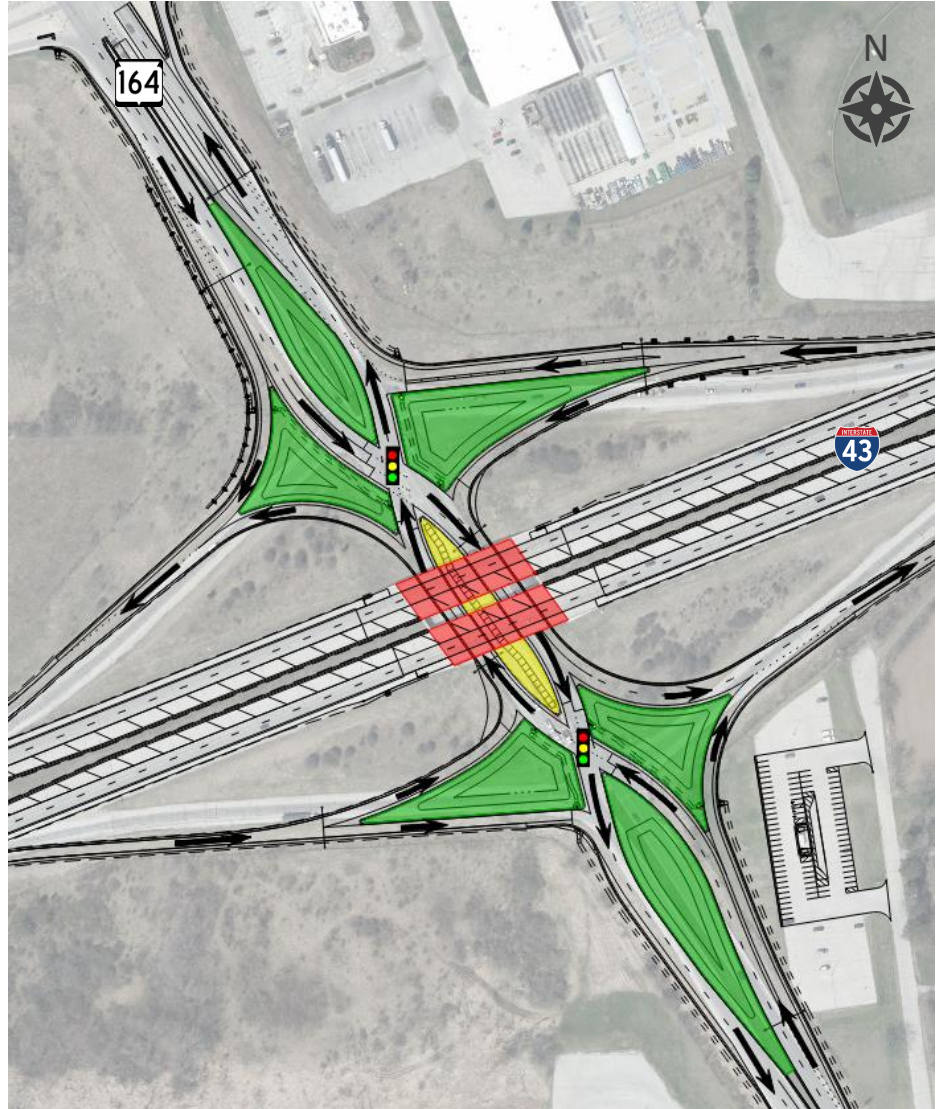
A DDI is a type of interchange that connects a freeway with a higher volume roadway.

The DDI is based on a standard diamond interchange with a shift in the roadway traffic within the interchange to safely and efficiently accommodate high volume, left turn movements. Within the interchange, traffic on the roadway briefly crosses over and travels on the left side of the road to allow left turn movements to occur without crossing oncoming traffic or stopping.

A DDI has fewer conflict points than a standard diamond interchange, reducing the opportunities for crashes, while also being able to accommodate more vehicles in the interchange.

### Need for Proposed DDI

WIS 164 has a significant amount of traffic making left turns onto the interstate ramps. During the morning peak hour, more than 800 vehicles per hour are projected to turn left from southbound WIS 164 onto northbound I-43. The DDI will safely and efficiently accommodate these left turns along with all other traffic movements. This design will also assist in handling the oversized/overweight trucks that travel this route.



### Share your feedback!

If you have comments or questions regarding this project, please contact the project team below.

### Project Contacts

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Visit the project website or scan QR code below for additional information on the project:

<https://wisconsindot.gov/Pages/projects/by-region/se/43rock-freeway-ddi/default.aspx>





### Advantages of a DDI

DDIs are an alternative to roundabouts, traffic signals, and stop signs to control traffic. DDI's have many operational and safety benefits, and are designed to meet the needs of all road users.

- SAFETY

DDI's reduces the number of ways vehicles can collide by almost half (14 compared to 26 in a conventional diamond interchange).

- GREATER CAPACITY AND EFFICIENCY

DDI's accommodate more traffic than conventional designs. Drivers make free-flow, left turns onto the Freeway.

- REDUCES BACKUP CONGESTION

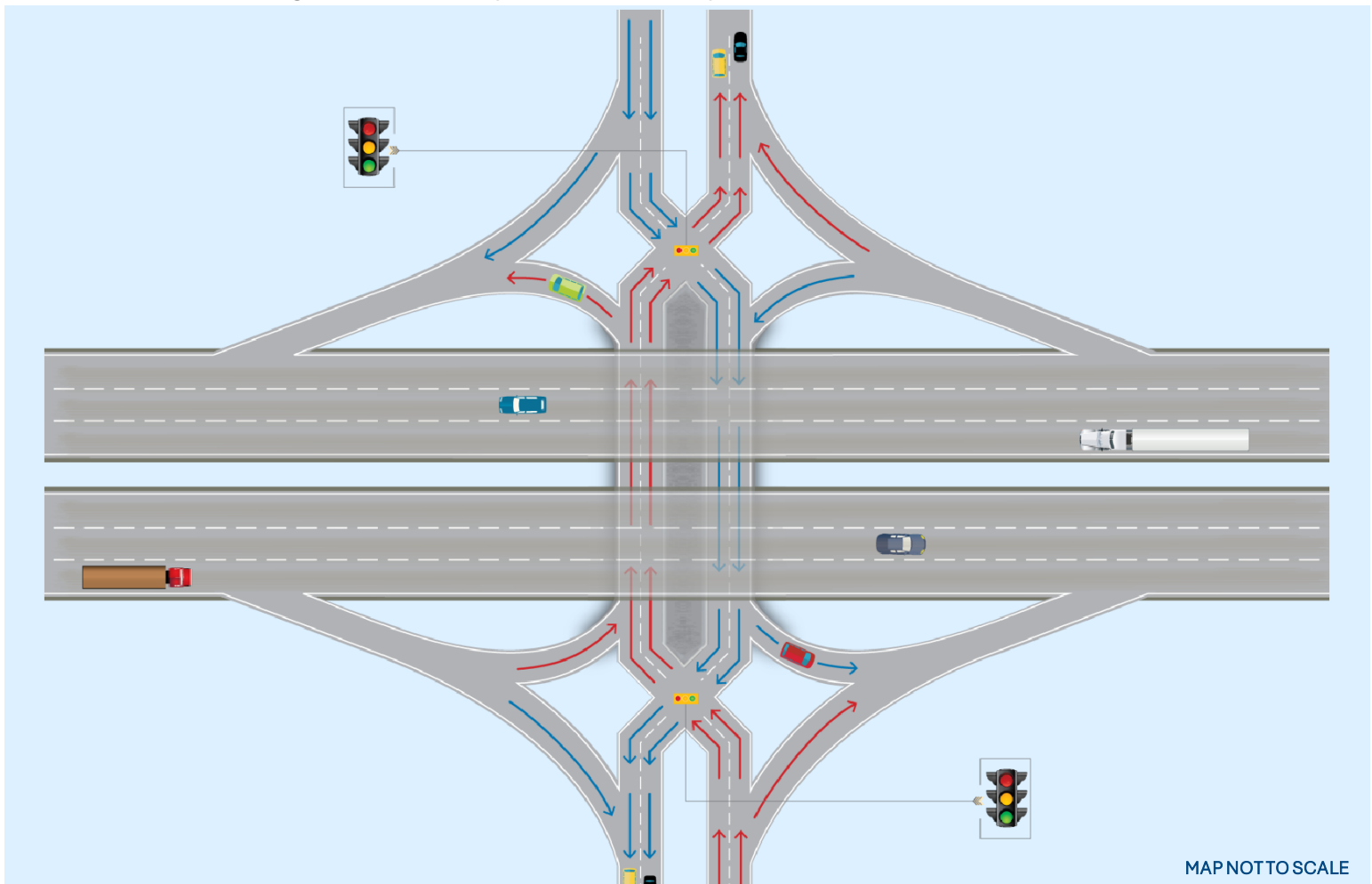
At intersections where there is a high volume of left turns onto the Freeway, DDIs reduce traffic backups because the free-flow left turns mean vehicles do not have to stop to access the ramp.

- EASY NAVIGATION

DDI's Guide drivers with overhead signs, pavement marking, and traffic signals.

- MEETS THE NEEDS OF ALL ROAD USERS

DDI's accommodate large trucks, vehicles, pedestrians, and bicyclists.



MAP NOT TO SCALE

### DRIVING the DDI

- Following the signage, signals and pavement markings, motorists cross over to the left side of the roadway after the first set of traffic lights.
- Vehicles going straight simply proceed through a second set of traffic lights and cross back to the right side of the road.
- All left turns onto the freeway are free flow, meaning vehicles do not have to stop to access the ramp.
- To view how DDIs operate, please watch the narrated animation video of the I-39/90 and WIS 11 (Avalon Road) interchange at <https://wisconsin.gov/Pages/safety/safety-eng/inter-design/ddi.aspx>.