



What is a Diverging Diamond Interchange?

The Wisconsin Department of Transportation (WisDOT) is planning to construct a Diverging Diamond Interchange (DDI) at the I-43 and WIS 100/Brown Deer Road interchange, located in the villages of River Hills, Bayside, and Fox Point.

A Diverging Diamond Interchange (DDI) is a type of interchange that connects a freeway with a major highway. The DDI is based on a standard diamond interchange with a shift in the highway traffic within the interchange to safely and efficiently accommodate high volume left turn movements. Within the interchange, traffic on the highway briefly drives 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, and there is greater capacity for vehicles at the interchange.

WIS 100 (Brown Deer Road) has a significant amount of traffic making left turns onto the interstate ramps. During the peak hours, an average of 1,100 vehicles are expected to merge onto southbound and 800 vehicles are expected to merge onto northbound I-43 from WIS 100/Brown Deer Road, compared with only 300 through vehicles. This design will also assist in handling the oversized/overweight trucks that travel this route.



Do you have Questions, Comments or Concerns?

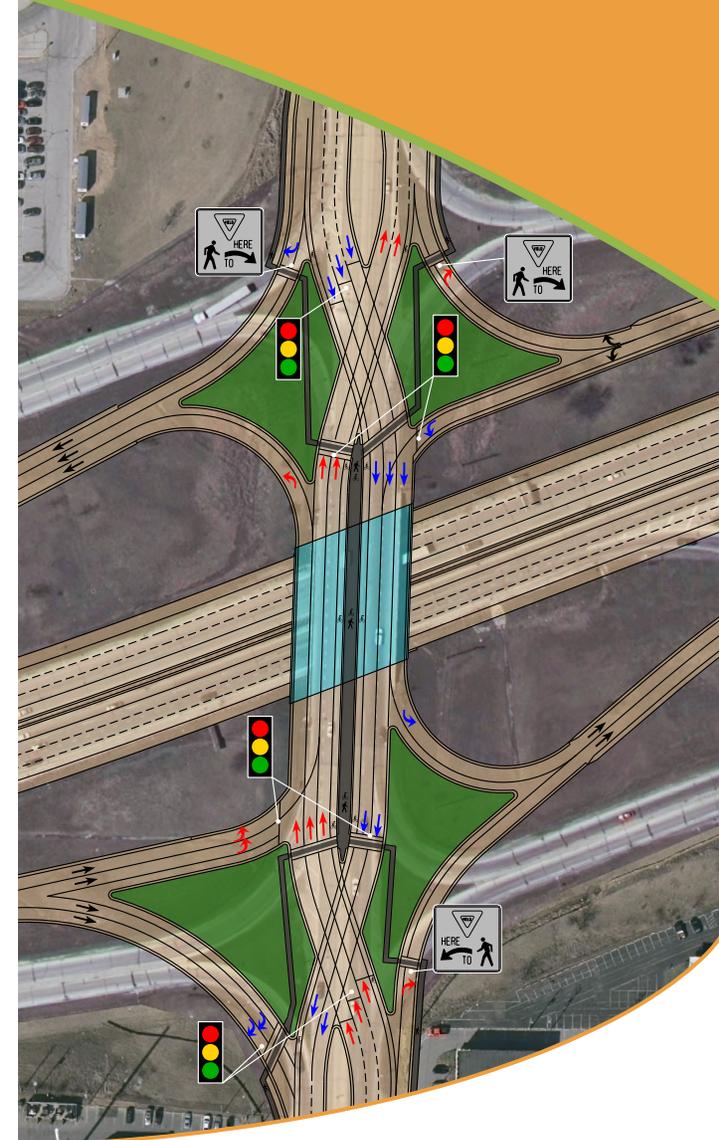
Steve Hoff, P.E.
WisDOT, Project Manager
(262) 548-6718
doti43northsouth@dot.wi.gov

Visit the project website:
www.dot.wisconsin.gov/projects/seregion/43
For additional DDI information, click on "[Related info](#)" in the green box, then click "[Innovative Interchange and Intersection Design](#)."



DIVERGING DIAMOND INTERCHANGE

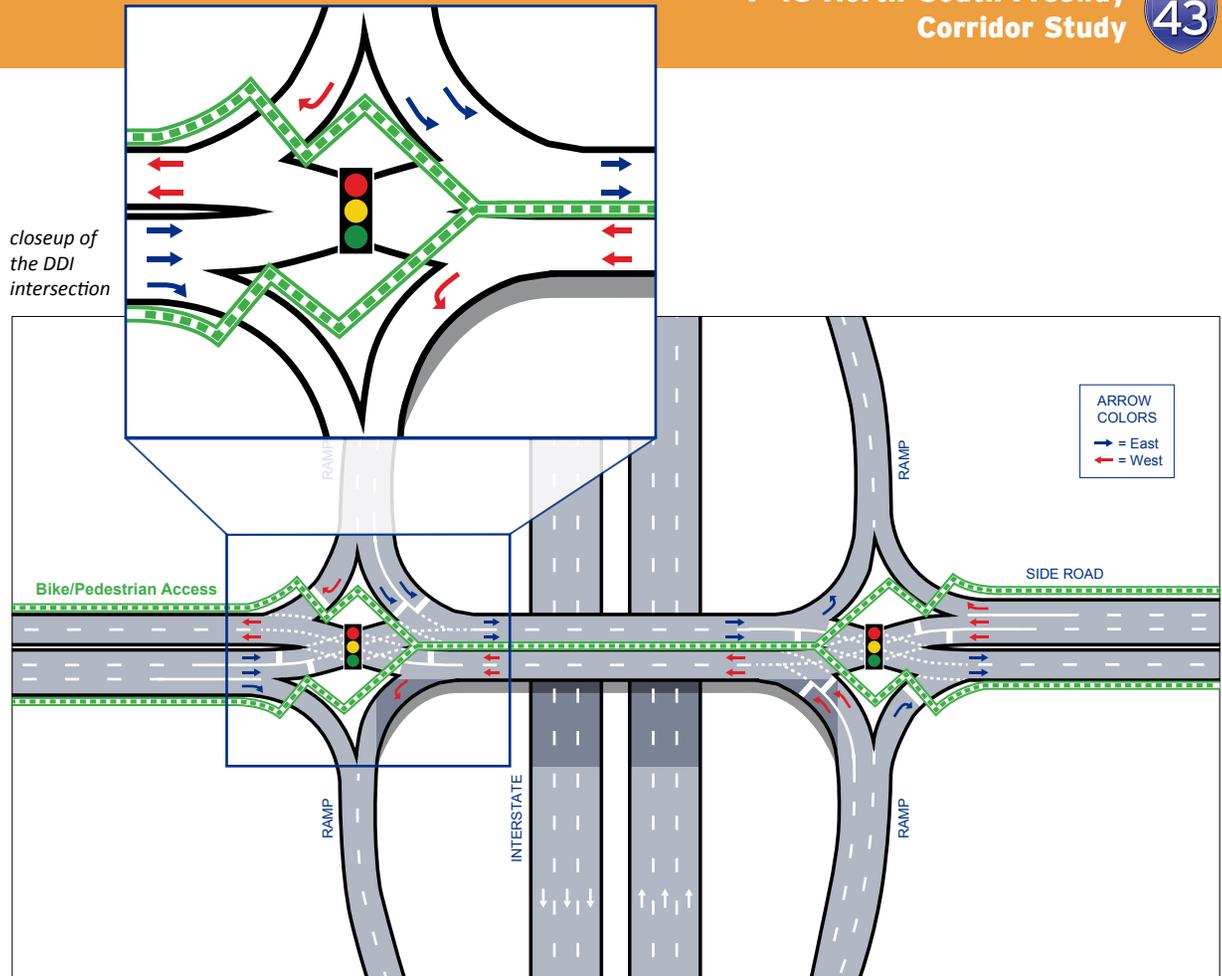
at Brown Deer Road



Advantages of the DDI

DDIs are an alternative to standard diamond interchanges, have traffic signals to control traffic, have many operational and safety benefits and are designed to meet the needs of all road users:

- Safety – reduces the number of ways vehicles can collide by almost half (14 compared to 26 for a conventional diamond interchange).
- Greater capacity and efficiency – accommodates more traffic than conventional designs. Drivers make free-flow, left turns on to the Interstate.
- Reduces congestion – at intersections where there is a high volume of left turns onto the Interstate, DDIs reduce traffic backups because the free-flow left turns mean vehicles do not have to stop to access the ramp.
- Easy navigation – guides drivers with overhead signs, pavement marking and traffic signals.
- Meets the needs of all road users – accommodates large trucks, motorists, pedestrians and bicyclists.
- Retains the bridges constructed in 2010 (*note the standard diamond also retains the bridges, with minor widening required*).



Driving the Diverging Diamond Interchange (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.
- All left turns onto the freeway are free flow, meaning vehicles do not have to stop to access the ramp.
- Vehicles going straight simply proceed through a second set of traffic lights and cross back to the right side of the road.
- Bicycles and pedestrians safely cross traffic to a center walk protected by concrete barriers.