



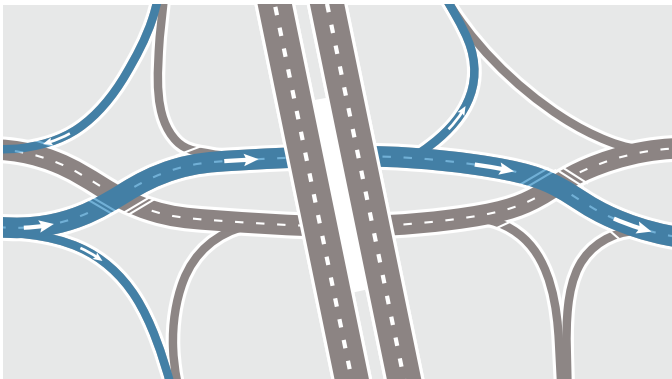
San Bernardino County
Transportation Authority

I-215/UNIVERSITY PARKWAY DIVERGING DIAMOND INTERCHANGE San Bernardino, CA

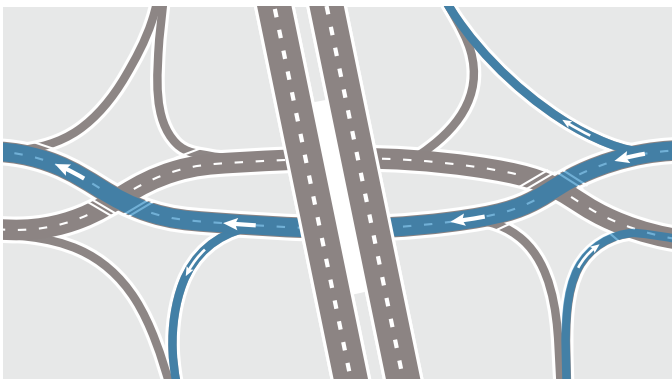
Frequently Asked Questions (FAQ)

1. What is a Diverging Diamond Interchange?

The Diverging Diamond Interchange (DDI) is a simple design built where interstates meet busy local roadways to help improve safety and traffic flow. As traffic on the local road approaches the interstate, it switches sides at a traffic signal. After traveling past the interstate, traffic switches back at another traffic signal. By moving traffic to the left side of the road, the DDI eliminates the need for left turns across oncoming traffic and reduces the number of traffic light phases, allowing more cars to travel through the interchange. See diagram below.



When exiting the interstate onto the local road, motorists are able to make right turns and left turns easily. DDIs reduce the number of points where vehicles cross paths from 10 down to two. This makes the intersections safer for motorists and pedestrians who will have their own signal as well. See diagram below.



The road geometry, signs, and pavement markings all work together to make circulation very simple. Drivers have responded well to DDIs in cities that have utilized them.

2. How does the DDI compare to other interchange forms?

When comparing the DDI to other diamond interchange forms with the same number of through lanes, the DDI is less expensive to build, safer, and allows more cars to travel through the interchange.

3. What are the benefits of a DDI?

Innovative designs such as the DDI promote safety, decrease congestion, and minimize the cost of new infrastructure. DDI advantages include:

- **Safety:** A DDI design will reduce the number of potential conflict points by eliminating left turns across opposing traffic. Generally, reducing conflict points reduces accidents.
- **Efficiency:** Traffic congestion is reduced by eliminating the left-turn phase from the traffic signal cycle. This increases capacity, without adding lanes, and allows traffic to flow through the interchange more efficiently.
- **Cost Savings:** The cost to construct a DDI is normally less than a traditional diamond interchange. A DDI typically needs fewer lanes to accommodate the same number of vehicles.

4. How does the DDI affect adjacent intersections?

When the signals of the DDI are synchronized with the signals of adjacent local intersections, traffic flow improves by allowing more vehicles to travel through each green light, reducing congestion.

5. What should a pedestrian or cyclist do to safely cross the interchange?

Obey the signs, signals, and markings. The crosswalks and bike lanes are clearly marked. A DDI is safer for pedestrians and cyclists since there are no vehicle left turns clearing opposing traffic.

6. Are there other DDI's in the U.S.? When and where was the first one built?

Opened in 2009, the DDI at I-44 and SR-13 in Springfield, Missouri was the first in the United States. Since then, dozens more have been built in several states, and they have quickly become a popular interchange design option. There are now over 90 DDIs across the country with many more in the design or construction phase. In California, there are currently five DDIs in the construction, design, or planning phase.

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