

CO 21 (Powers Boulevard) and Research Parkway Interchange

FACT SHEET



IN RESPONSE TO GROWTH IN THE NORTHEAST AREA OF COLORADO SPRINGS ALONG THE POWERS BOULEVARD CORRIDOR, THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) IS PLANNING FOR A NEW INTERCHANGE AT POWERS BOULEVARD AND RESEARCH PARKWAY. THIS PROJECT IS PART OF AN ONGOING CDOT EFFORT TO IMPROVE INTERCHANGES ALL ALONG THE POWERS BOULEVARD CORRIDOR.

The initial design of the interchange was approved in 1997 as part of the Powers Boulevard Extension North, Woodmen Road to Interstate-25 Environmental Assessment (EA). The EA defines a plan to address the needs within the Powers & Research intersection limits. CDOT is required to implement the Powers & Research grade separated traffic solution and has completed a re-evaluation including additional screening and analysis of interchange design alternatives. The planning and design process is in compliance with the National Environmental Policy Act (NEPA) during the re-evaluation.

The current configuration is an at-grade signalized intersection. Key issues at this intersection:

- excessive vehicle wait times
- multimodal movements are not currently well-accommodated
- inadequate left turn lanes
- excessive vehicular congestion

Recommended Improvements

CDOT has identified a cost of approximately \$40 million to design and reconstruct the improvements to the interchange within the Powers & Research area. The interchange will be grade-separated with a traffic light at the intersection.

The project is intended to produce the following improvements:

- Reconstruction of the interchange resulting in improved safety and increased capacity – in and around the Powers & Research intersection
- Improved riding surface (smoother and stronger pavement)
- Bridge replacement
- Resurfacing, restoration, rehabilitation

Diverging Diamond Interchange (DDI)

Following additional screening and analysis of interchange types, CDOT identified the Diverging Diamond Interchange as the Preferred Alternative for reconstruction of the interchange at Powers Boulevard and Research Parkway.

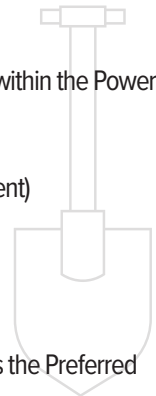
What's a DDI?

A DDI configuration is able to move high volumes of traffic through an interchange without increasing the number of lanes and traffic signals.

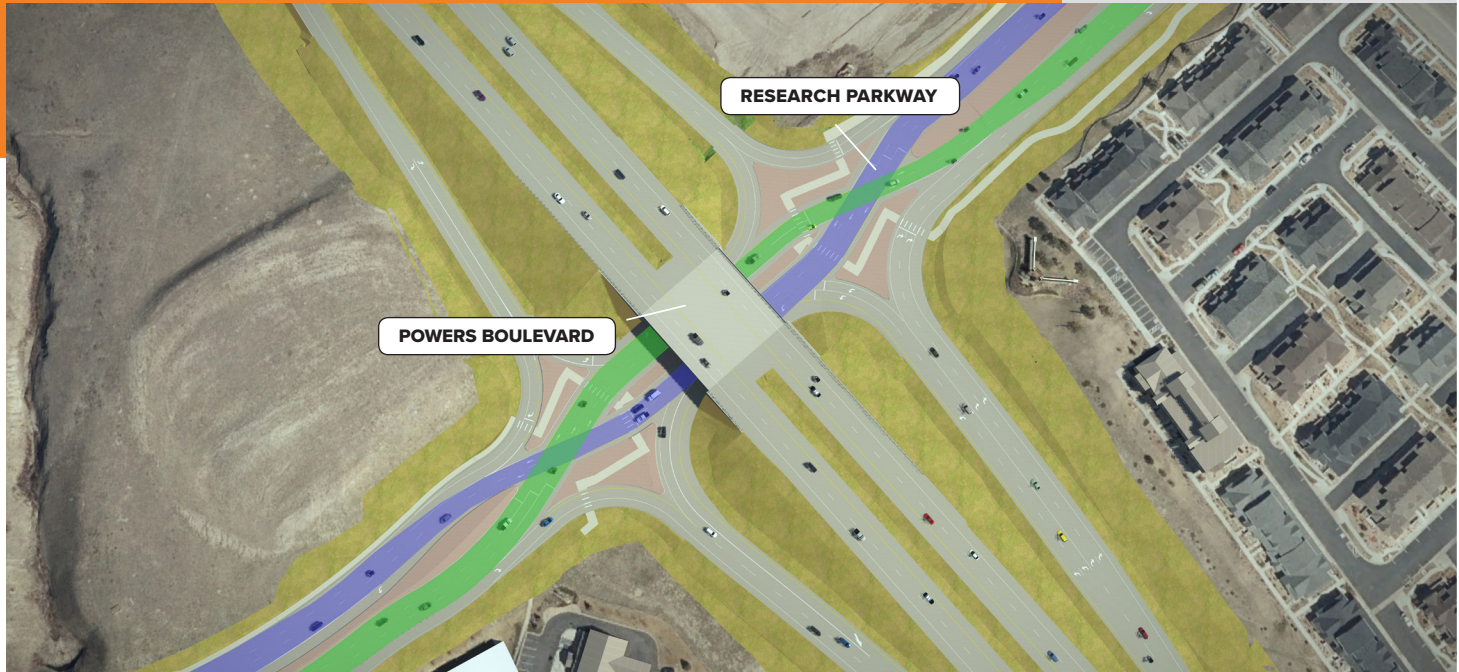
A DDI crosses traffic to the left side of the road across a grade separated interchange (in this case, Research Boulevard will pass under CO 21 Powers Boulevard and allows vehicles to have direct access to freeway ramps without having to wait at a traffic light). Vehicles cross to the opposite side of the road at a traffic light. Left turns at the interchange do not cross oncoming traffic, which results in fewer crashes because there are fewer potential conflict points. Crashes that do occur are likely to not be as damaging as the T-bone crash that can occur with left turns at typical intersections.

There are more than 100 DDI's currently operating throughout the country, three of which are located in Colorado:

- US 36 and McCaslin Boulevard in Louisville
- I-70 and US 6/50 in Grand Junction
- I-25 and Fillmore Street in Colorado Springs



How to Drive a DDI



Although DDIs can seem confusing in an aerial view, traveling through them is extremely efficient. Motorists simply follow the pavement markings, signage and traffic signals just like any other intersection.

For more information view: https://youtu.be/CQLEBp_QsM

Benefits of a DDI at CO 21/Powers Boulevard and Research Parkway

- Improved peak hour levels of service at ramp intersections
- Reduced traffic delays at ramps
- Substantially shorter traffic queues
- Substantial decrease in crashes due to reduction in congestion and less conflict points
- Meets the needs of all road users – accommodates motorized vehicles including large trucks, pedestrians and bicyclists.
- Additional sidewalks will increase safety and better accommodate pedestrians and bicyclists
- Relatively lower cost improvement

Schedule

Phase 1 RE-EVALUATION AND DDI PRELIMINARY DESIGN: COMPLETED SUMMER 2018

Phase 2 FINAL DESIGN: COMPLETED END OF 2019

- Final design of Diverging Diamond Interchange (DDI)
- Right-of-way easement plans
- Geo technical borings
- Road Surveying

Funding availability: Announced Winter 2019

Stakeholder and property owner outreach: 2018/2019

Public Meeting/Open House: Spring 2020

Construction: To be determined based on funding

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