

# Public Meeting

**IM 0902(111)62 PCN 3022**  
**SDDOT I-90 Exit 63 Interchange**

**Jennica Wilcox, PE**  
**Design Project Manager**

**April 13, 2023**



# Purpose of the Meeting

**Involve the public  
in the planning  
and design process**

**Provide a Project  
Overview**

- **Background Information**
- **Proposed Project**
- **Project Schedule**

**Gather Input and  
Comments**

# Project Limits





# Background Information

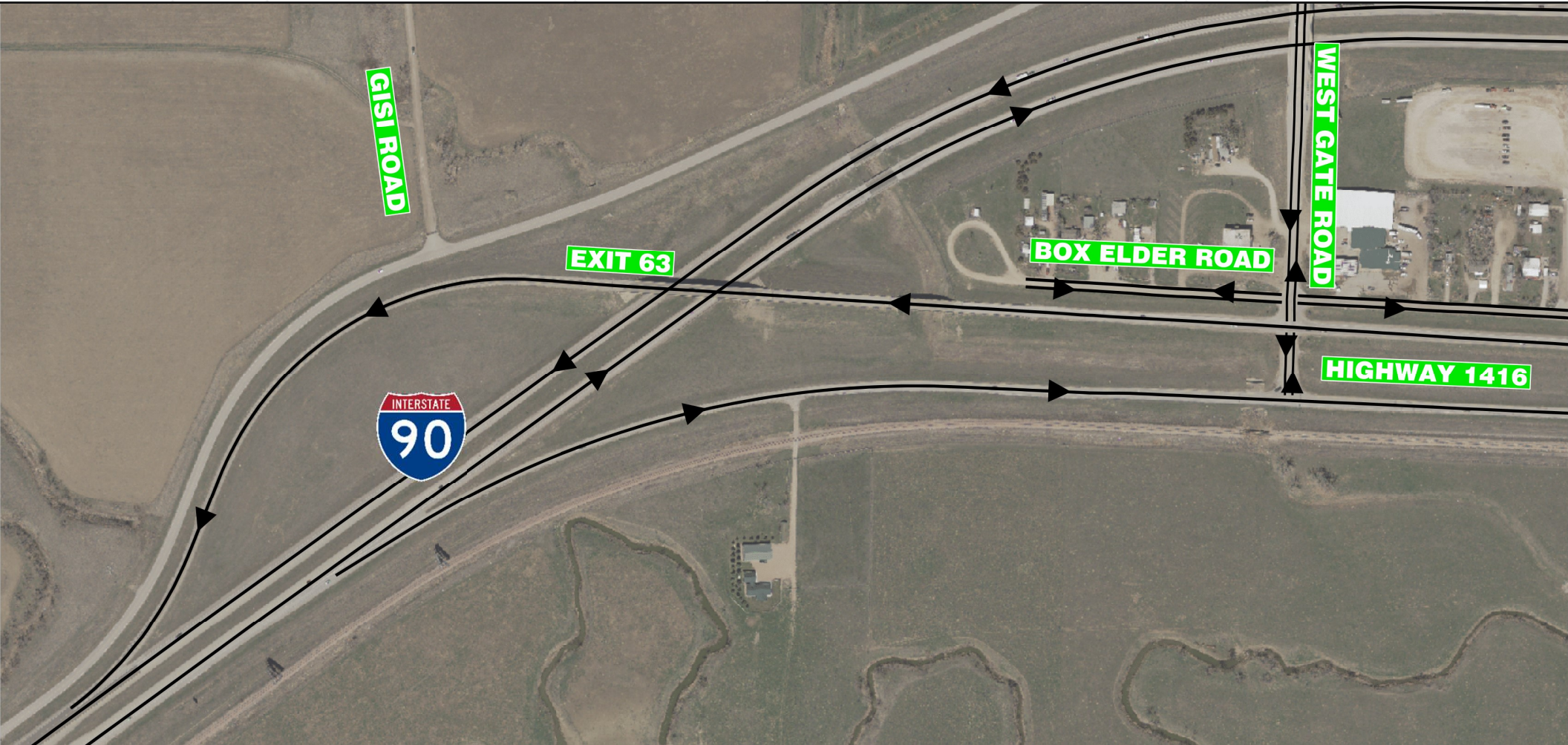
8 Bridge Structures Constructed in 1962 and 1963

Last Surface Improvements in 2010

Corridor Studies and Reports Completed in 2017, 2020, and 2021



# Existing Interchange



# Traffic

**190 EB & WB 2021 Average Daily  
Traffic (ADT) = 32,400**

**190 EB & WB 2050 Projected  
ADT = 62,500**

**8% Average Truck Traffic**

**Highway 1416 2018 ADT = 16,200**



# Crash History

## 97 Reported Crashes

- 15 Injury Crashes
- 1 Fatal Crash
- 81 Property Damage Only Crashes
- I-90 – 59 crashes
- Hwy 1416 – 38 crashes

**5 Year Period  
2018 to 2022**

- 45 Roadway Departure Crashes
- 16 Rear End Crashes
- 13 Animal Related Crashes
- 8 Angle Crashes
- 8 “Other” Crashes
- 7 Side Swipe Crashes

**Interstate 90  
and Hwy 1416**



# Why We Are Reconstructing

Traffic Congestion

Lack of Pedestrian Facilities

Interstate Access

Improve Safety

Future Growth in the Area

# Proposed Improvements

Modify Existing Interchange to Diverging Diamond Interchange Layout

Add Auxiliary Lane Between Exits 61 and 63, 3 Lanes of Pavement

Increase Drainage Capacity and Floodplain Improvement

Grading for future lanes through project

Consolidate Highway 1416/West Gate Road Intersections Into 1 Signalized Intersection

# Proposed Improvements

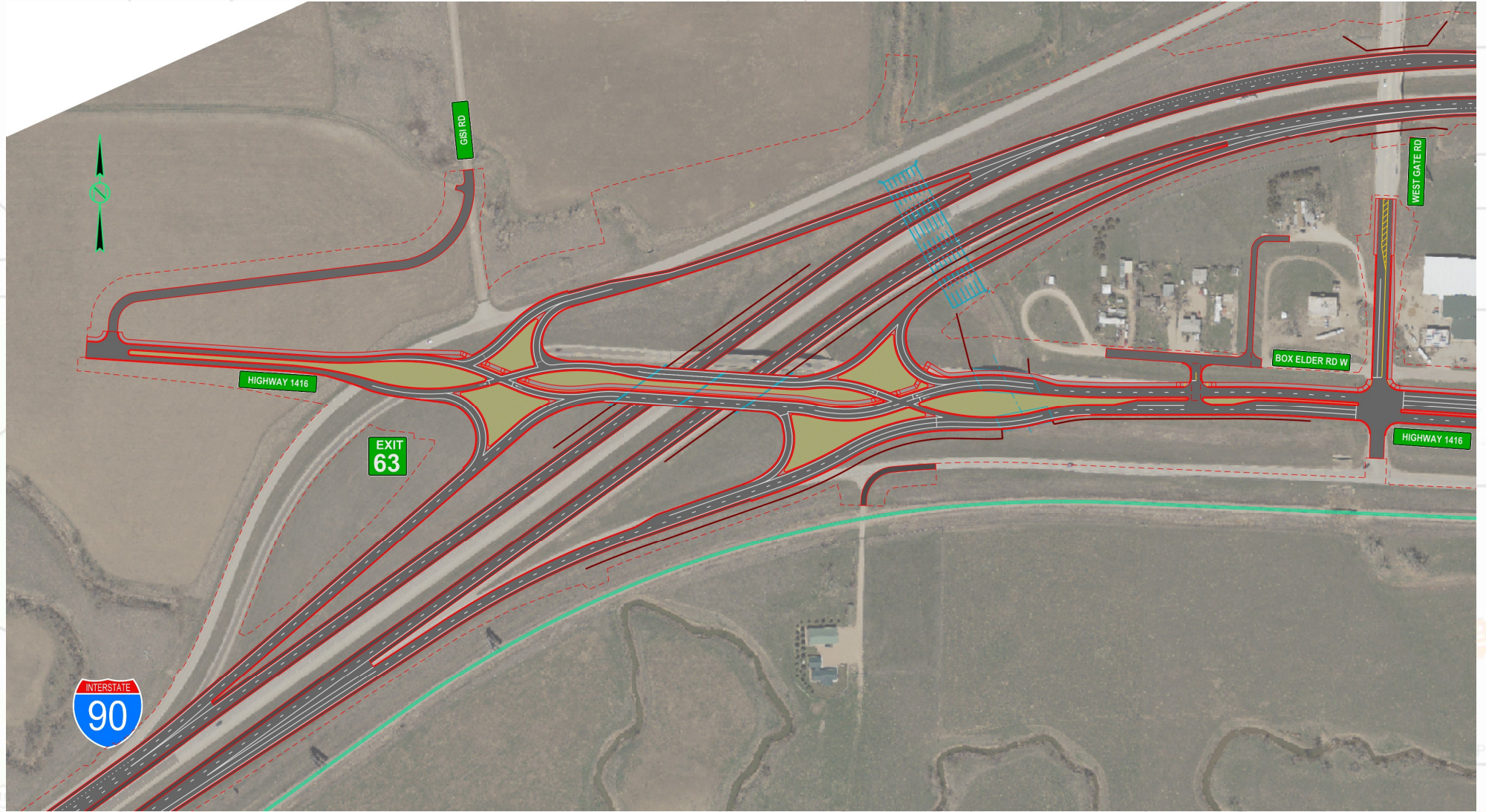
Roadway Lighting

Traffic Signals

8 Bridges to be Removed or Replaced



# Proposed Interchange





# Proposed Typical Section

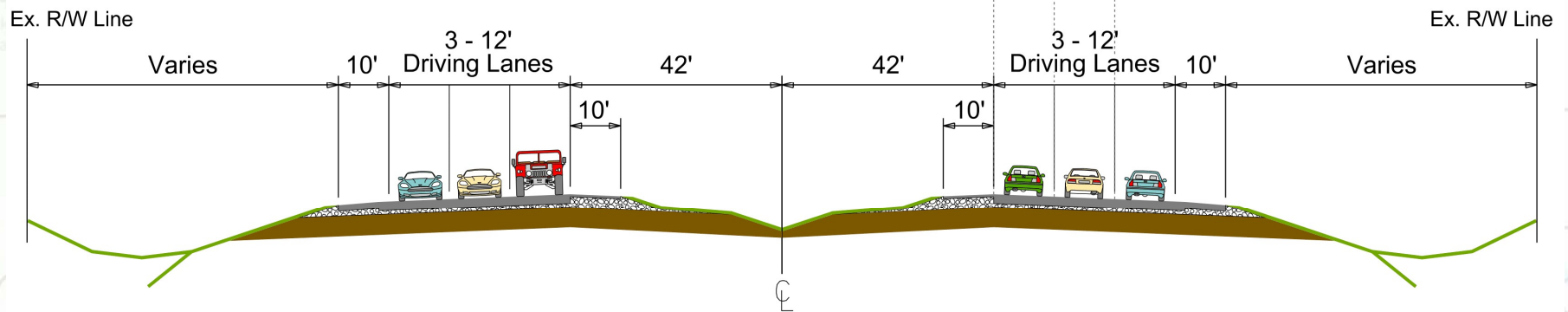


Existing I-90 East Bound

Existing I-90 West Bound

Proposed Westbound I-90  
I-90 Between Exit 61 and Exit 63

Proposed Eastbound I-90  
I-90 Between Exit 61 and Exit 63

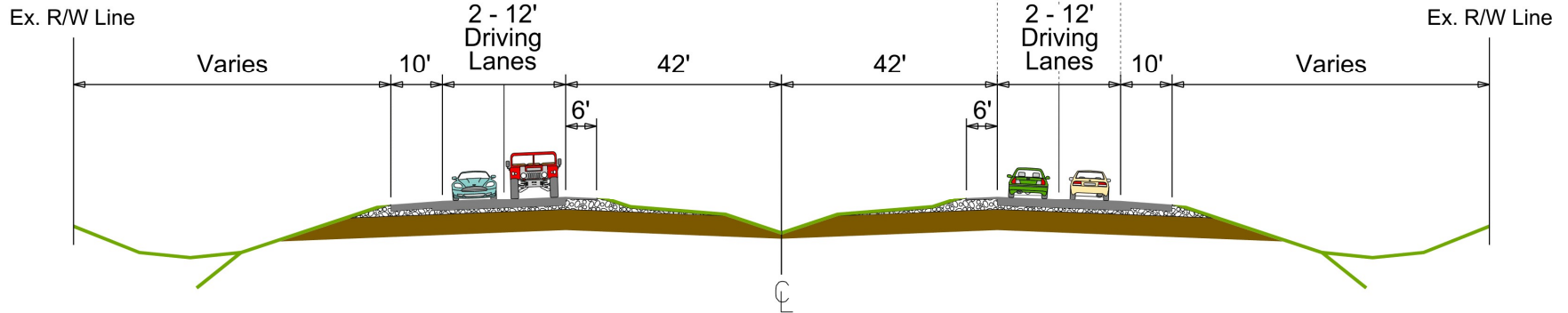


# Proposed Typical Section



Proposed Eastbound I-90  
I-90 East of Exit 63

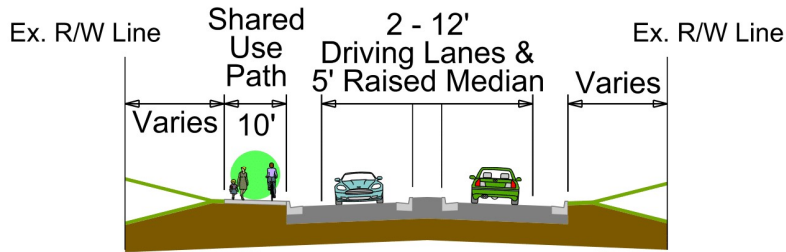
Proposed Eastbound I-90  
I-90 East of Exit 63



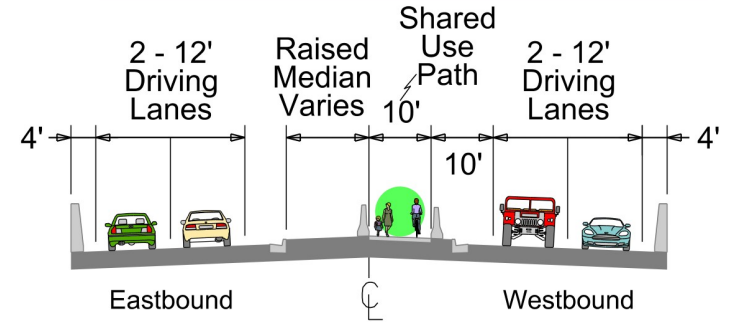


# Proposed Typical Section

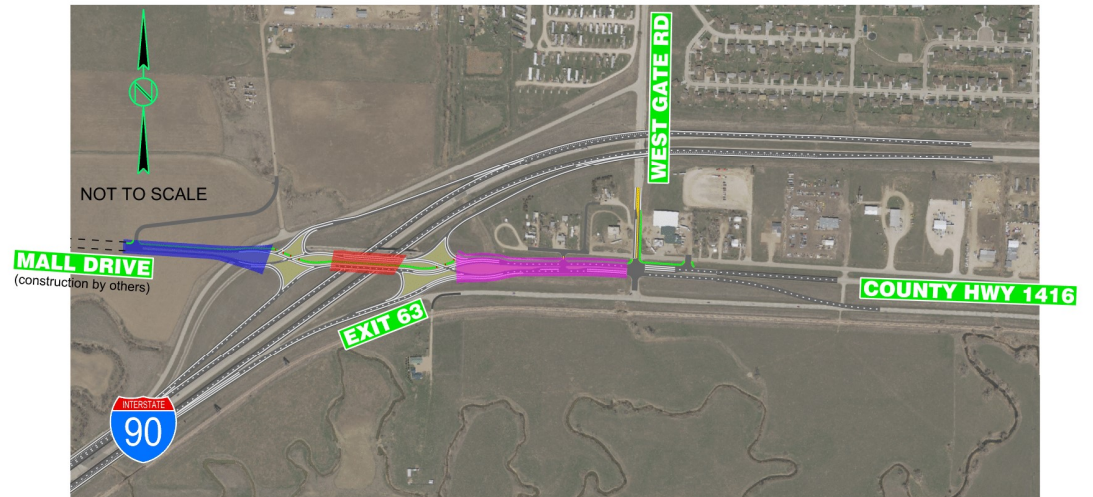
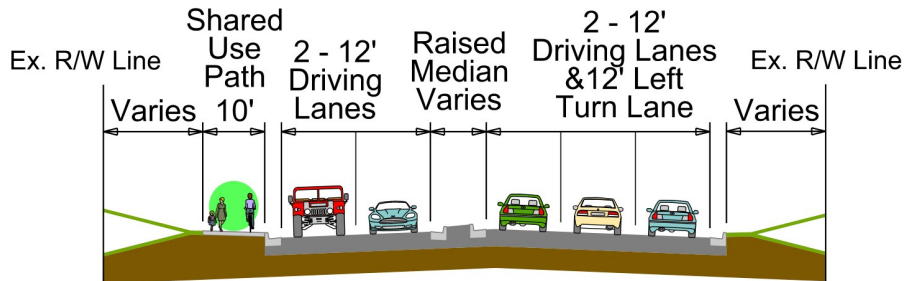
**Proposed Highway 1416**  
2 Lane Section West of DDI



**Proposed Highway 1416**  
4 Lane Bridge over I-90



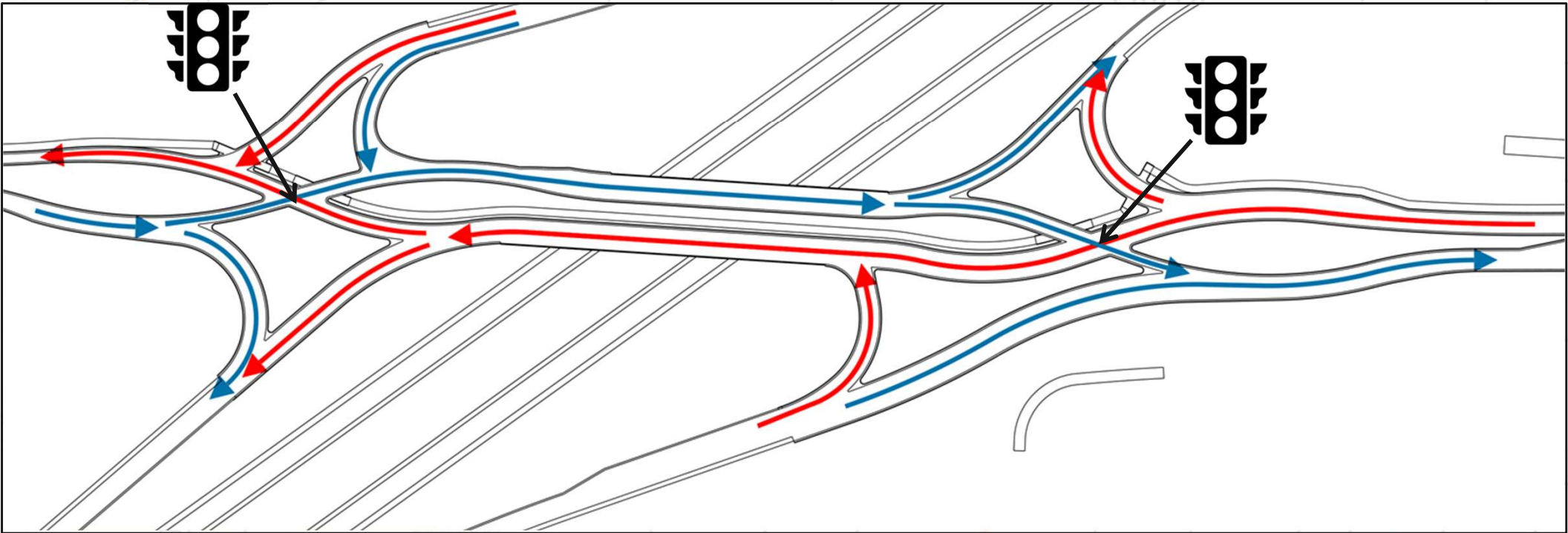
**Proposed Highway 1416**  
4 Lane Section Between DDI & West Gate Rd



# Interstate Improvement Advantages

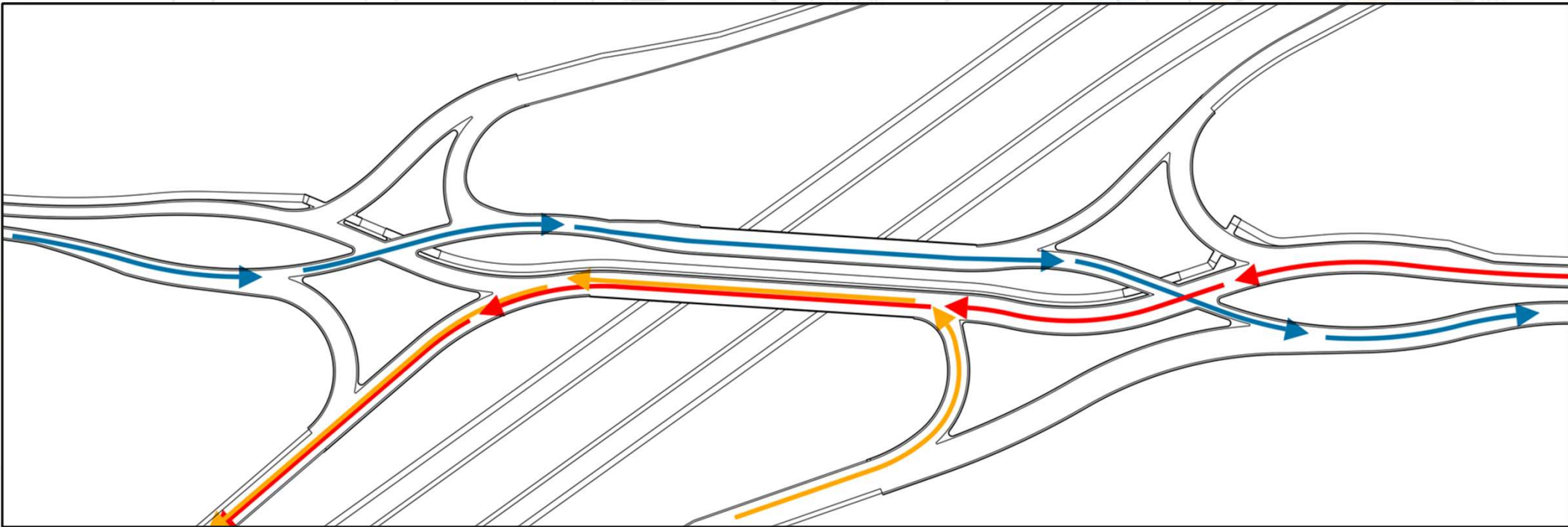
- Future traffic volumes warrant auxiliary lane
- Capable of safely and efficiently handling future traffic volumes
- Reduces the speed differential between vehicles
- Adds safer acceleration/deceleration lanes and weaving section, rather than shorter merging and diverging sections

# Diverging Diamond Interchange





# Diverging Diamond Interchange



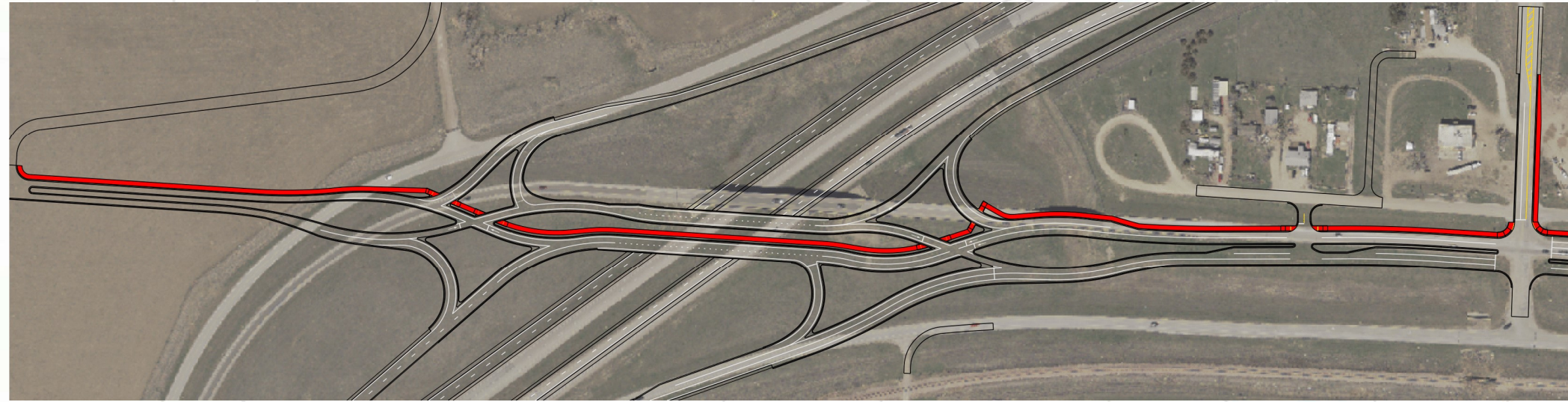
## Example Movements

- ▶ Going straight across DDI
- ▶ Going from Box Elder towards Rapid City
- ▶ "U-Turn" from EB to WB

# DDI Advantages

- Traffic Analysis – Greatest benefit/cost ratio
- Capable of safely and efficiently handling future traffic volumes
- Reduces the number of conflict points for vehicles through interchange
- Safer and easier for vehicles entering and exiting the interstate ramps

# Proposed Pedestrian Facilities



## Shared Use Path

- 10' wide
- Enough room for pedestrians and bicyclists
- Path protected when in center median with barrier



# Roadway Lighting

## Install New Lighting

- Interchange area
- Along shared-use path
- Along Highway 1416 between interchange and West Gate Road intersection
- Along West Gate Road



# Traffic Signals

## Traffic Signals being installed

- Diverging diamond interchange at I-90 Exit 63
  - Highway 1416 crossovers
  - EB off-ramp right-turn (2 lanes)
  - May be considered at other off-ramp turning movements
- Intersection of Highway 1416 and West Gate Road

There are currently no traffic signals in the project area

# Access Management

**Manage location and number of access points**

Provide safe,  
efficient access to  
streets and  
highways

Relocating,  
combining and  
eliminating access  
points

**See Handout**



# Right of Way (ROW)

Existing width varies 300-700 feet wide

Purchase additional ROW as needed,  
potentially 300-950 feet wide

Temporary Easements as needed for  
construction

See Handout

# Environmental, Social and Economic Concerns

This project is being developed in accordance with applicable State and Federal environmental regulations.

- **National Environmental Policy Act of 1969 (NEPA), as amended.**
- **Section 106 of the National Historic Preservation Act** (The RCP&E Railroad and other properties meeting the minimum age for potential NRHP eligibility will be evaluated. No historic or archaeological sites are anticipated to be impacted by the project)

**See  
Handout**

# Environmental, Social and Economic Concerns

- **Section 404 of the Clean Water Act** (Wetlands and other waters of the U.S. are anticipated to be impacted by the project. A USACE Section 404 permit would be necessary and may require mitigation)
- **Section 4(f) of the USDOT Transportation Act of 1966** (It is not anticipated that the proposed roadway improvements would lead to use of a Section 4(f) resource)

**See  
Handout**



# Environmental, Social and Economic Concerns

- **Section 7 of the Endangered Species Act**

The U.S. Fish and Wildlife Service will review the project to determine if it will impact the following species that are known to occur in Pennington County:

- Birds: Least Tern, Piping Plover, Red Knot & Whooping Crane
- Mammals: Northern Long-Eared Bat

**No impacts are anticipated to these species by the project.**

**See  
Handout**

# Environmental, Social and Economic Concerns

- **FEMA and Floodplain**

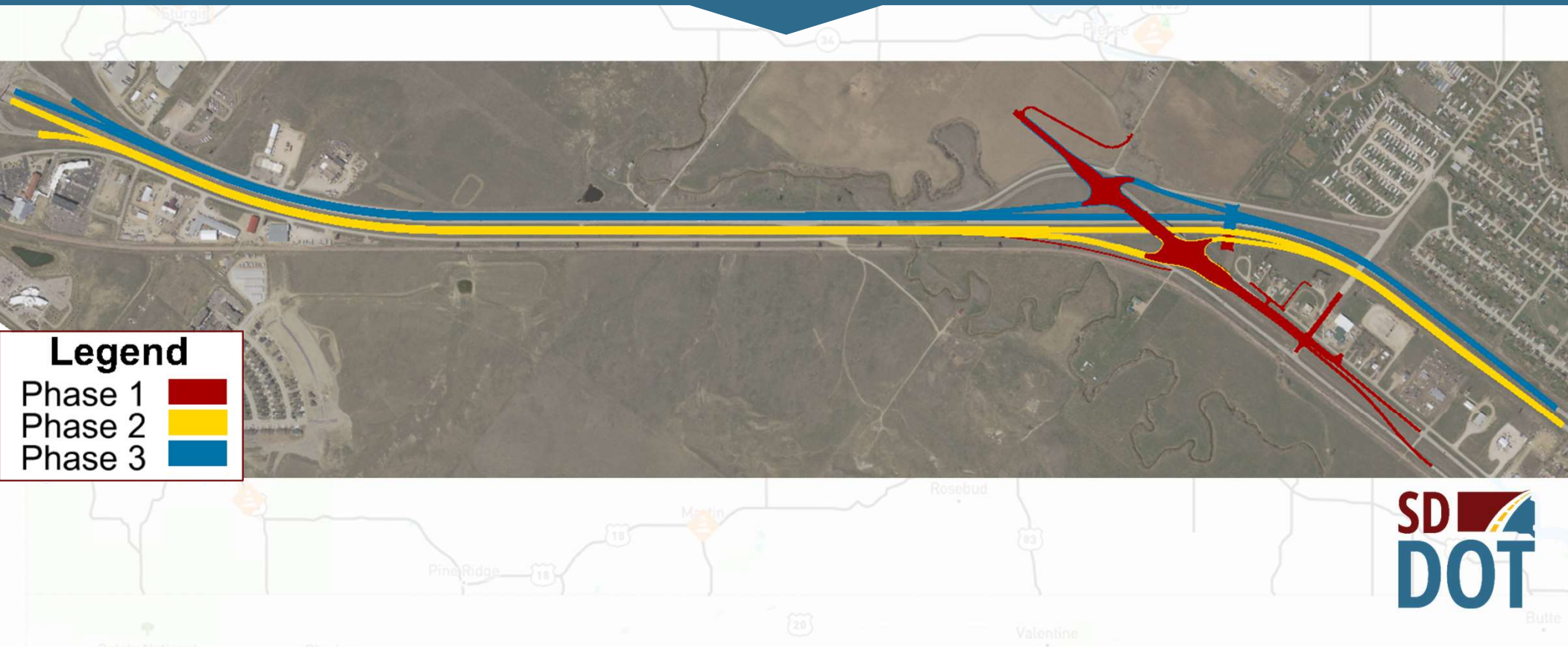
In the process of remapping the Floodplain. Impacts are not completed yet.

**See  
Handout**

# Construction Traffic Control

## Preliminary Construction Sequencing Layout

- Phase 1 – Highway 1416 closed
- Phase 2 – EB lanes closed, head-to-head traffic on Existing I-90 WB
- Phase 3 – WB lanes closed, head-to-head traffic on Proposed EB I-90





# Landowner Meetings

**Landowners adjacent to the project will be contacted individually by SDDOT to schedule a meeting**

## **Discussion Items:**

- Driveway locations/widths
- Sidewalk and Curb Ramps
- Fences
- Drainage
- Trees
- Floodplain
- Temporary Easements or ROW acquisition

**See Handout**

# Tentative Project Schedule

Dependent on Federal Funding

Early 2024  
Landowner  
Meetings

2024  
Final Design

2025 - 2026  
ROW  
Acquisition

2027 - 2029  
Construction

Estimated Cost: \$55 million

# Public Input

Please Submit Questions or Comments by

**April 28, 2023** to:

Jennica Wilcox

Felsburg Holt & Ullevig

600 East 7<sup>th</sup> Street

Sioux Falls, SD 57103

[Jennica.Wilcox@fhueng.com](mailto:Jennica.Wilcox@fhueng.com)

Public Meeting Information can be found at:

<https://www.i90exit63.com/events>

