



WELCOME

SDDOT INTERSTATE 90, EXIT 48 INTERCHANGE STUDY

A new interchange on I-90 at Stagestop Rd. will address aging infrastructure, address operational concerns, improve safety, and enhance multimodal accessibility.



<https://fhu.mysocialpinpoint.com/i-90-exit-48-interchange-study>



Why are We Here

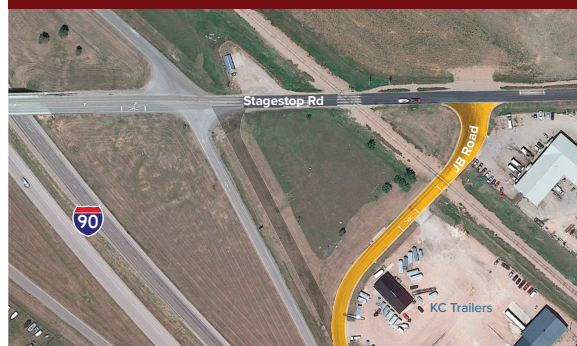
I-90 Black Hawk to Sturgis Corridor Preservation Study (2004) Recommendations:

JB Road Relocation

Access Change Recommended



Final Improvement



Siouxland Road Closure

Access Change Recommended



Final Improvement



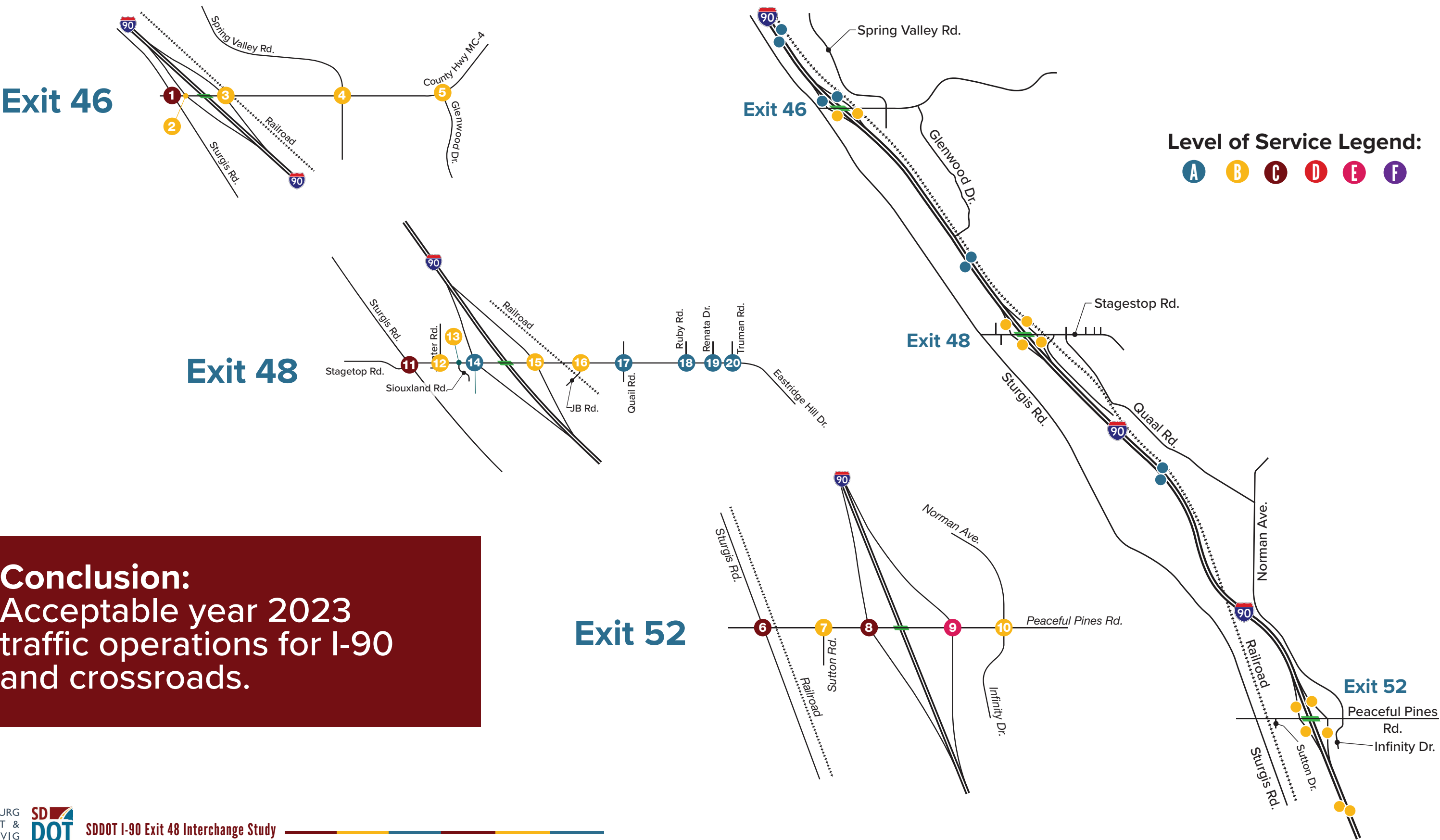
Reconstruct Interchange (not completed)

Subsequent studies also identified the need for interchange reconstruction, including the I-90 Exit 40 to Exit 51 Environmental Assessment (2008), the 2010 Decennial Interstate Corridor Study, and the 2020 Decennial Interstate Corridor Study.

Other Area Plans

The Summerset Comprehensive Plan (2016) identifies a connection of the Piedmont Valley Shared Use Trail across I-90 along Stagestop Road. It also identifies the extension of Glenwood Road from Stagestop Road to Elk Creek Road along the east side of I-90. The Meade County Transportation Plan (2022) includes widening of Quaal Road southeast of the interchange and bicycle / pedestrian improvements along Stagestop Road.

Existing (year 2023) Traffic Conditions

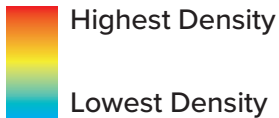


Conclusion:
Acceptable year 2023
traffic operations for I-90
and crossroads.

Existing Safety Conditions

Legend

Crash Density



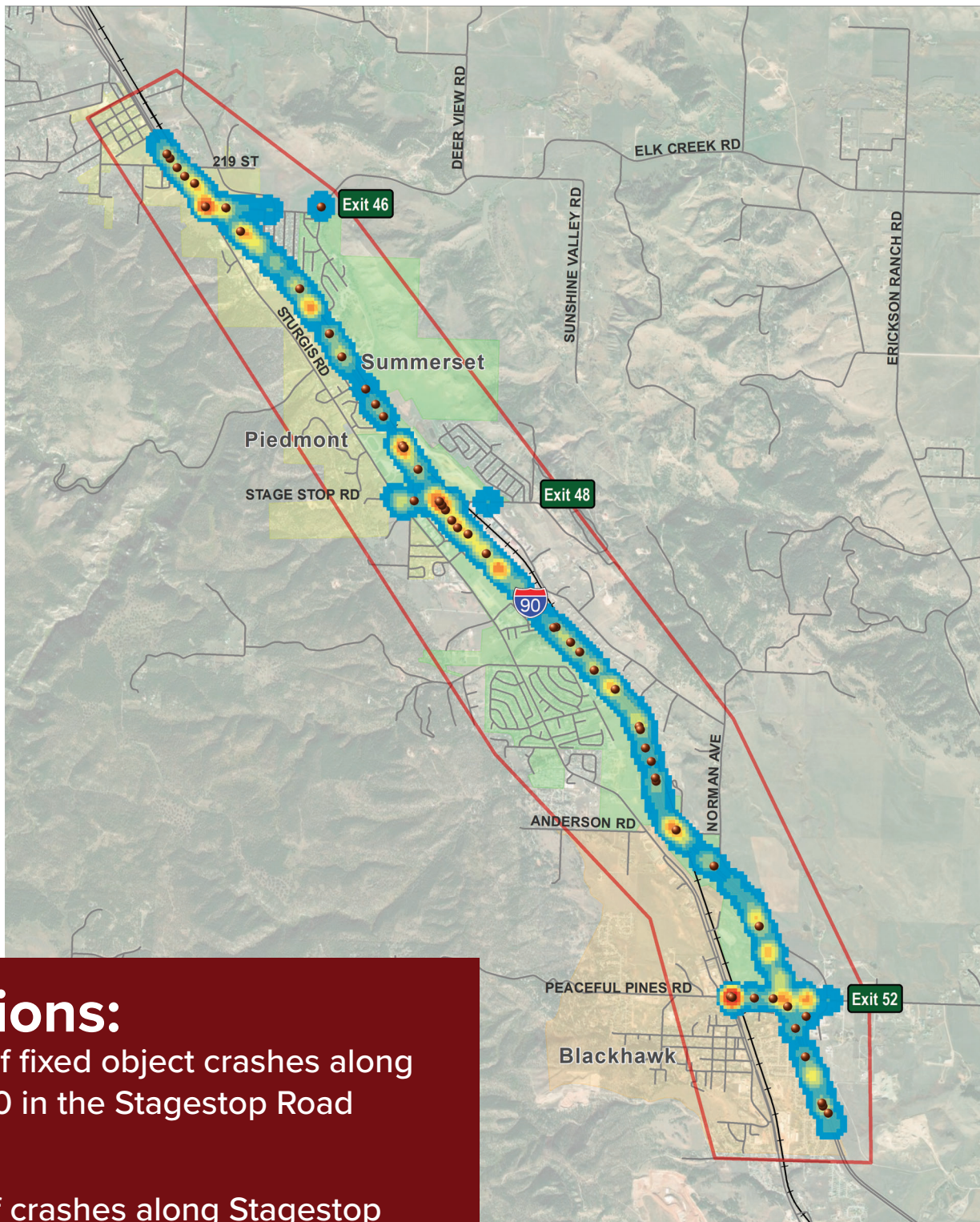
● Severe Crash Location

□ Study Area

Blackhawk

Piedmont

Summerset

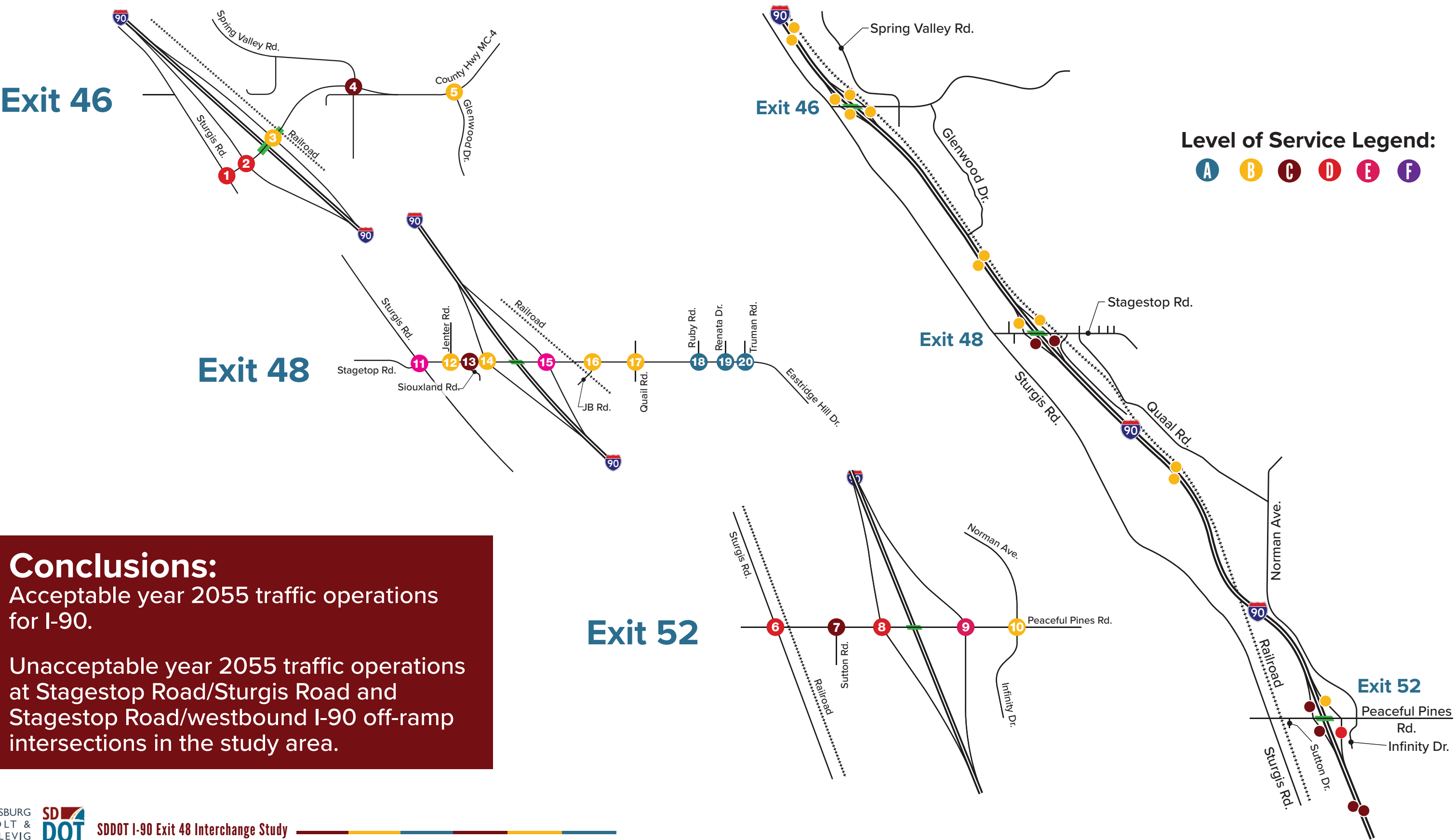


Conclusions:

High number of fixed object crashes along westbound I-90 in the Stagestop Road interchange.

The majority of crashes along Stagestop Road occurred at Sturgis Road.

Future (year 2055) Traffic Conditions



Conclusions:

Acceptable year 2055 traffic operations for I-90.

Unacceptable year 2055 traffic operations at Stagestop Road/Sturges Road and Stagestop Road/westbound I-90 off-ramp intersections in the study area.

Area Concerns

Future growth and intersection operations

At-grade railroad crossing

Future I-90 widening to 6 lanes

Proximity of side streets and driveways

Skewed interchange and ramp intersections

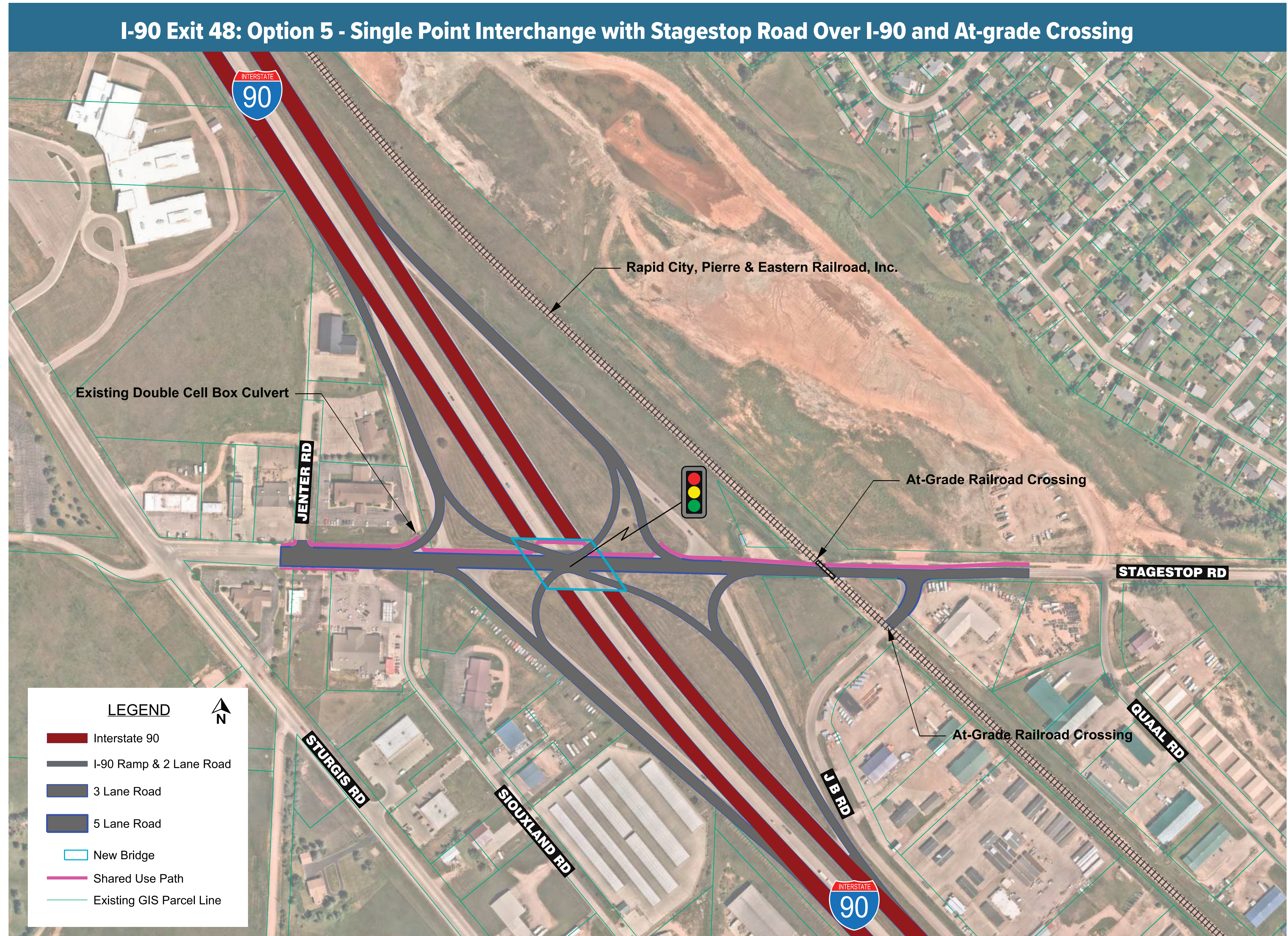
Proximity to RCP&E railroad and existing development

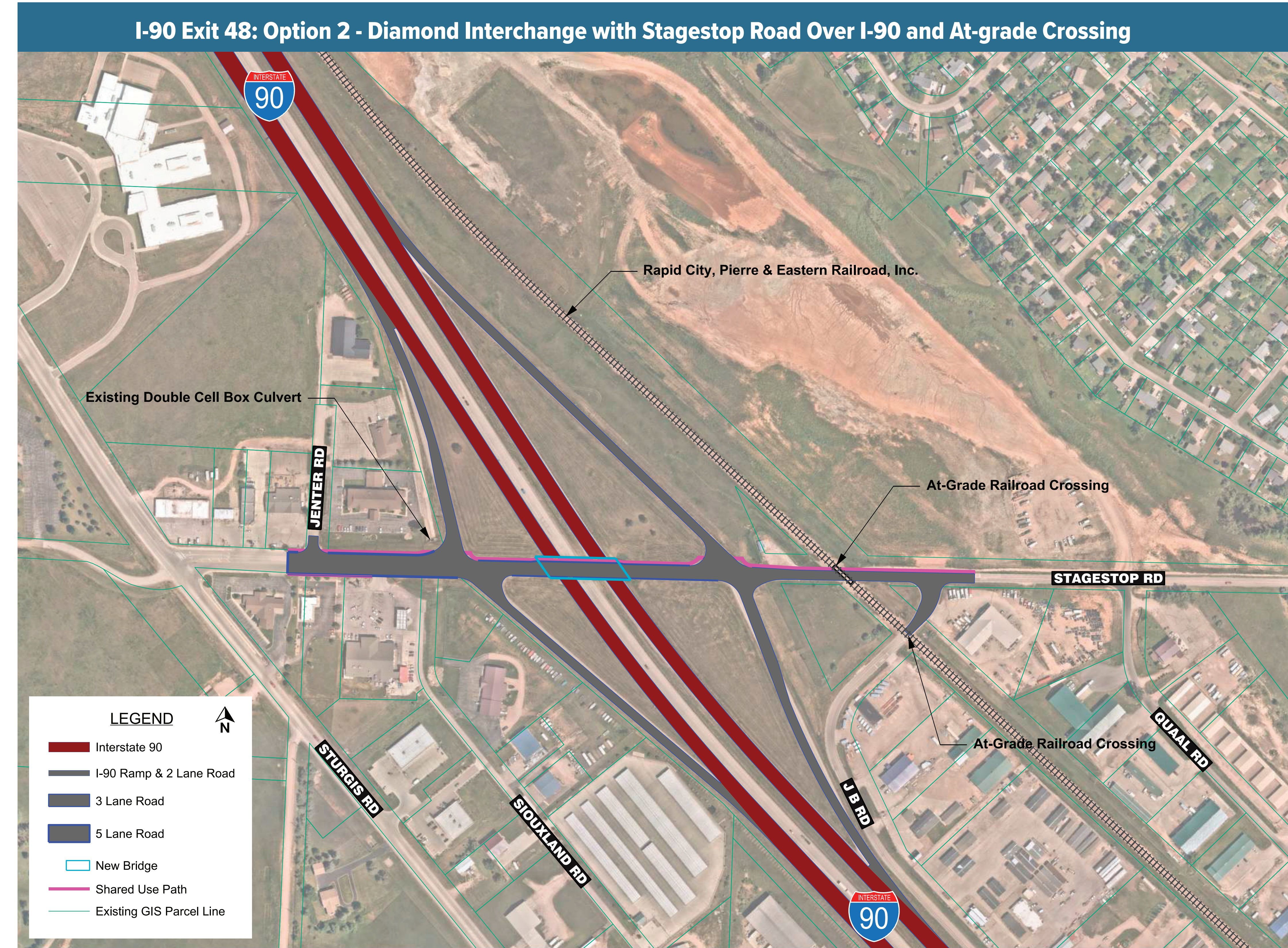
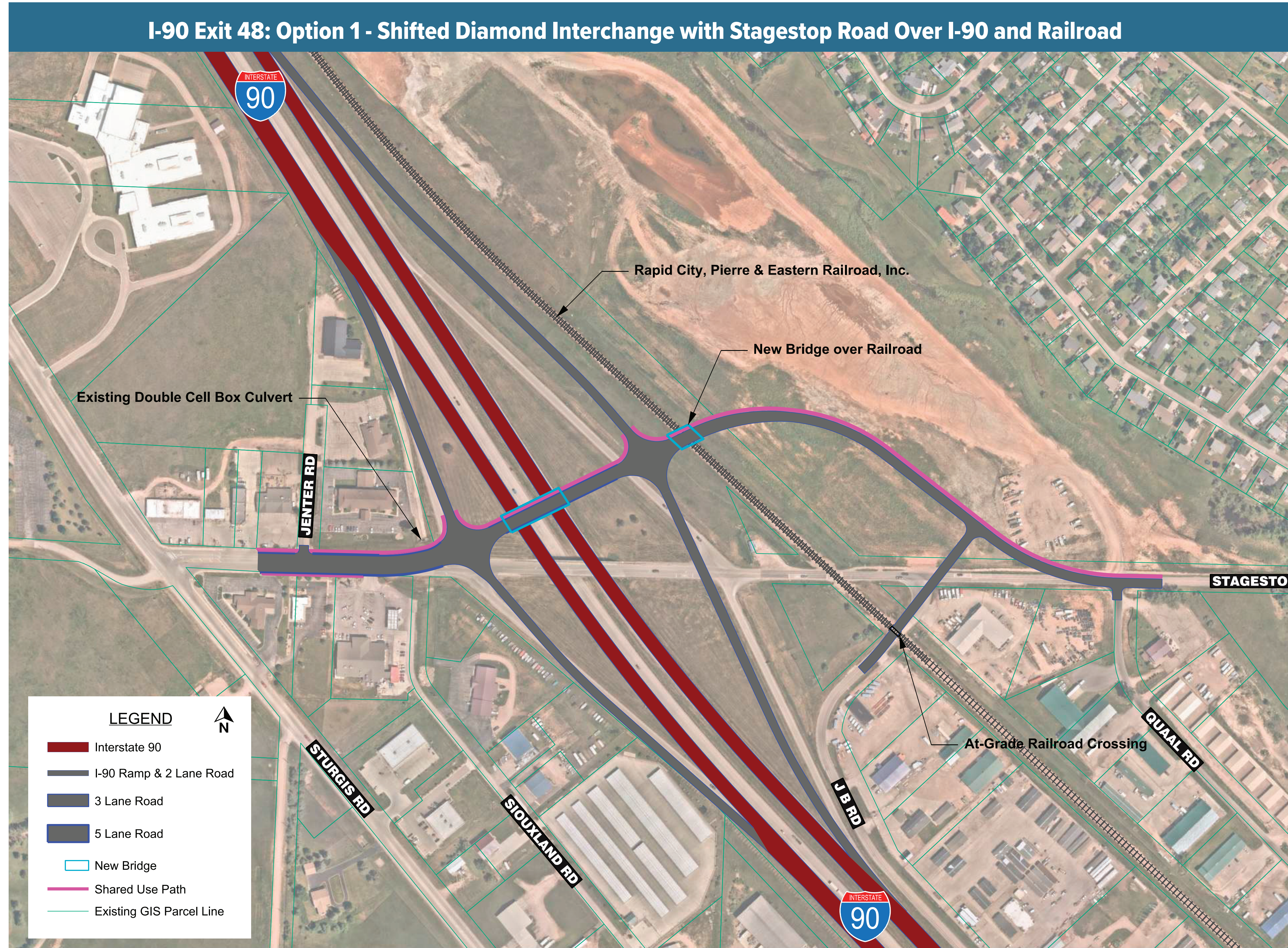
Sight distance and safety at ramp intersections

Pedestrian and bicycle connections

Bridge condition and age

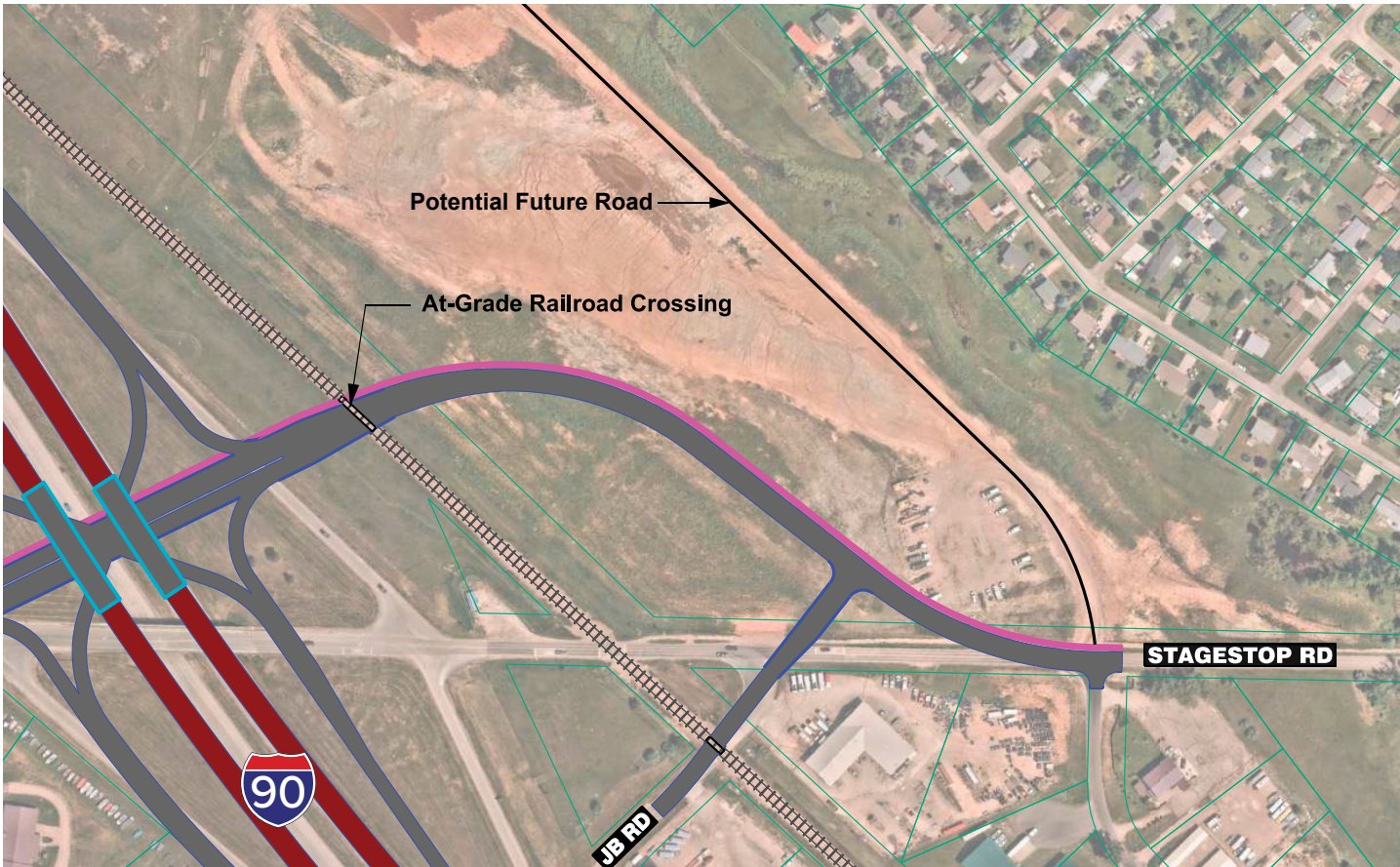






Potential Cross Road Options

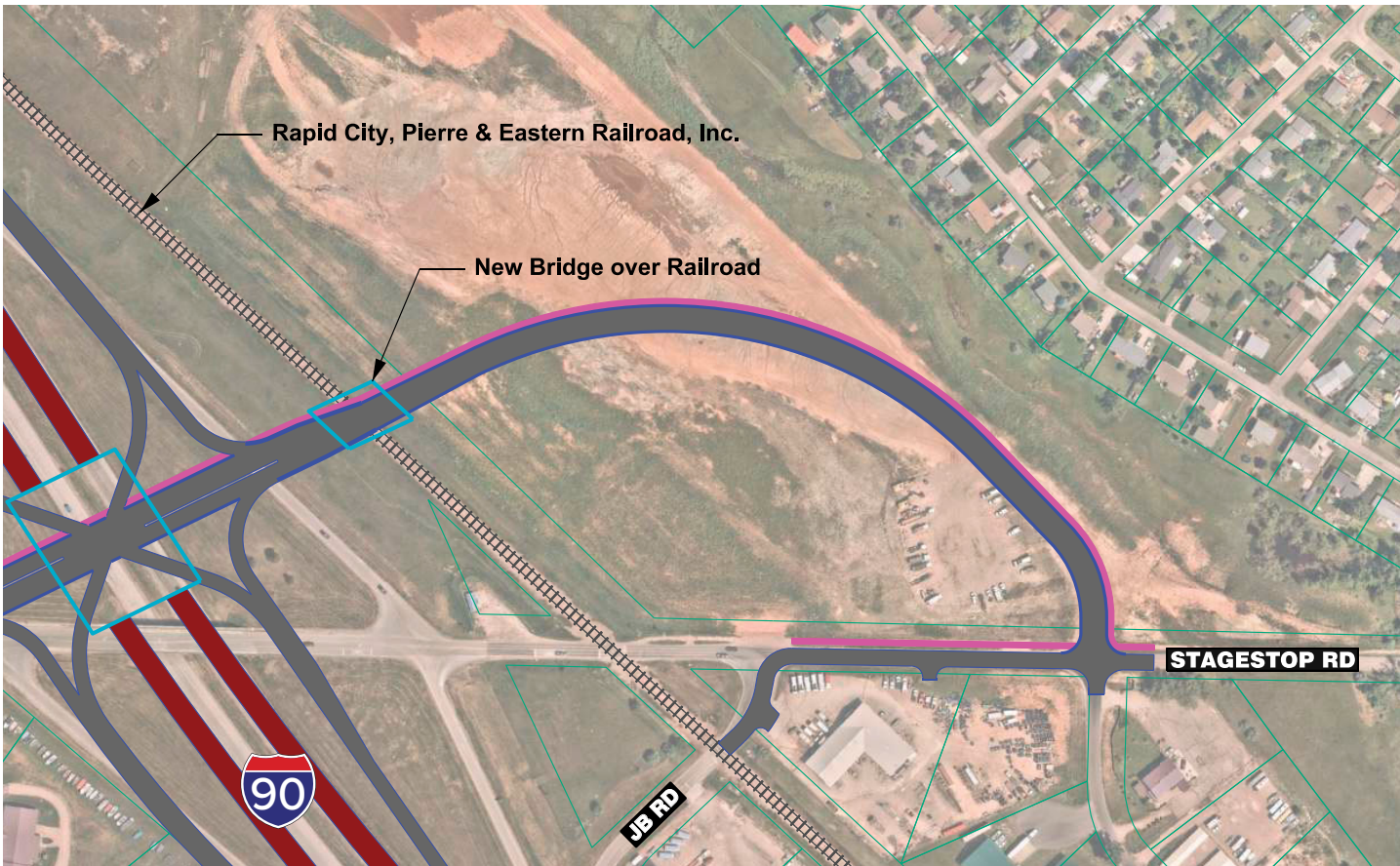
A



B

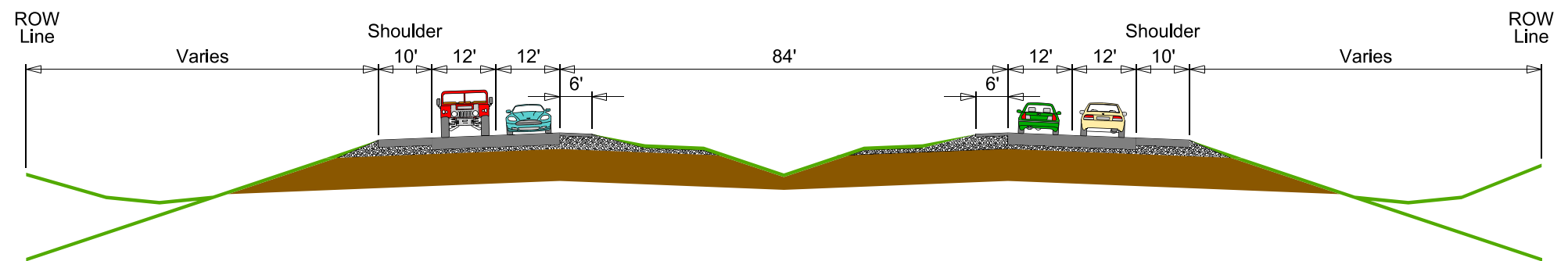


C

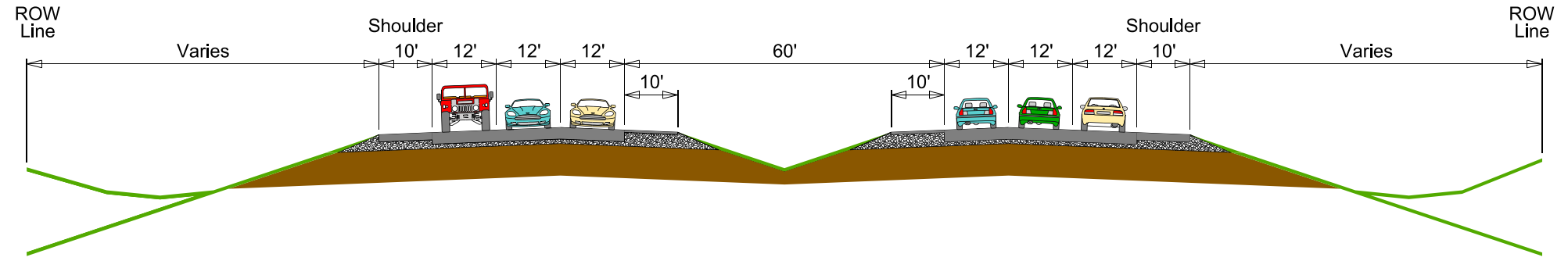


Proposed Typical Sections

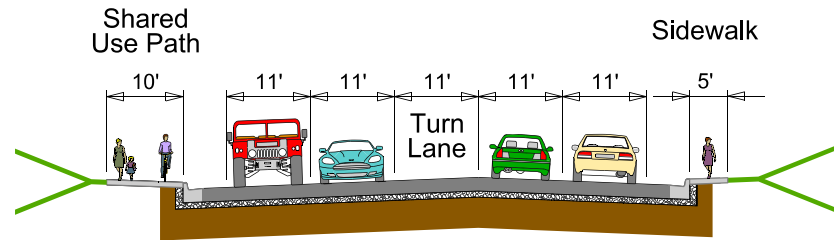
Mainline I-90: Proposed 4 Lanes



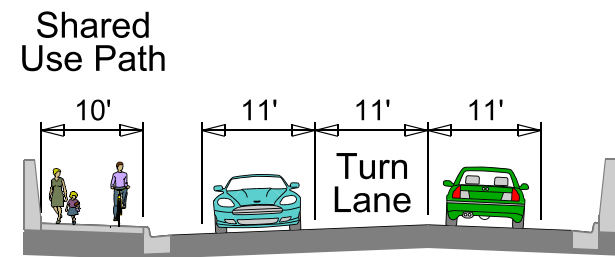
Mainline I-90: Future Widening 6 Lanes



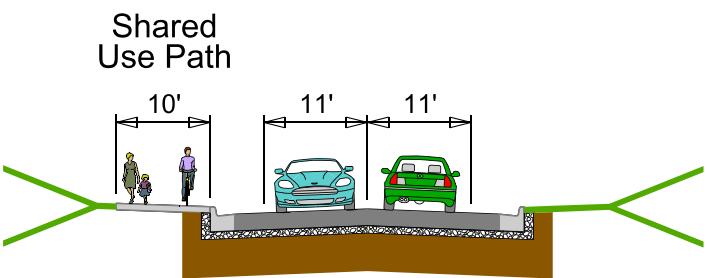
Stagestop Road: West of I-90



Stagestop Road: Bridge Over I-90



Stagestop Road: East of I-90

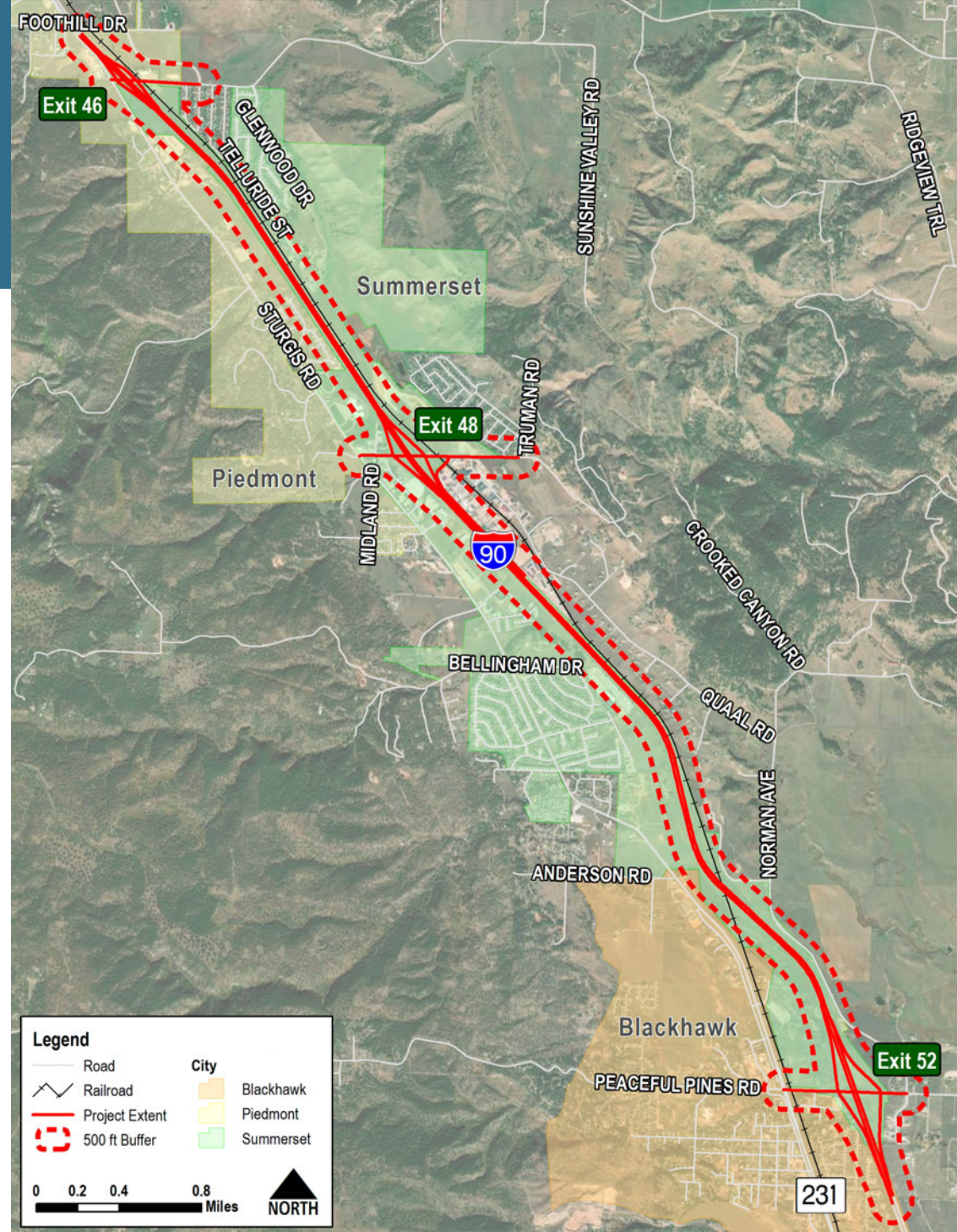


Environmental, Social, & Economic Concerns

An Environmental Screening Study is being developed in accordance with applicable State and Federal environmental regulations.

The environmental study area is a 500-foot buffer along I-90 between exit 46 and exit 52.

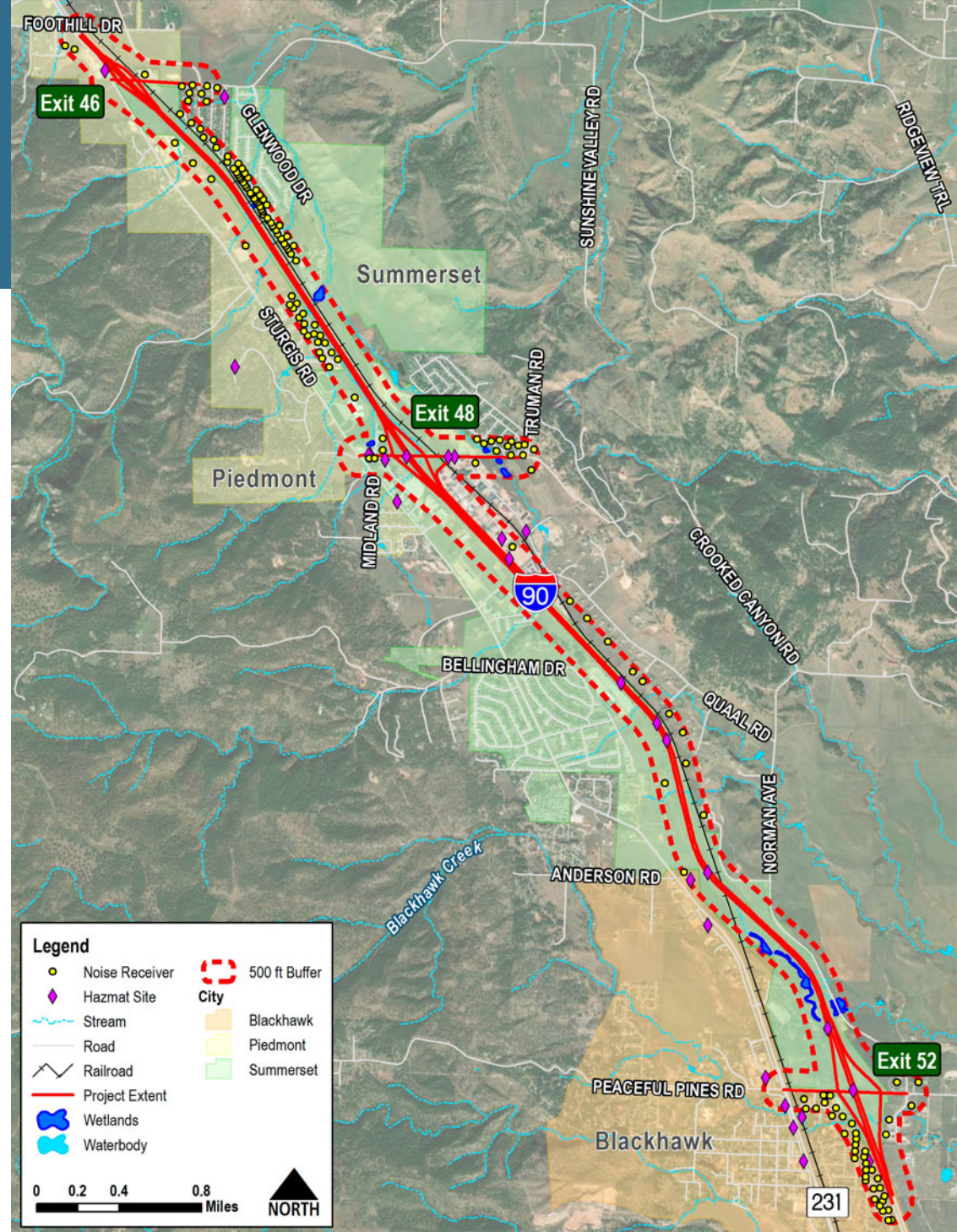
The objective of the Environmental Screening Study is to prepare for the upcoming NEPA process.



Environmental, Social, & Economic Concerns

Existing Conditions are being evaluated within the environmental study area, including:

- Biological Resources
- Wetlands and Other Water Resources
- Hazardous Materials
- Noise and Air Quality
- Cultural and Historic Resources
- Community and Social Resources
- Visual and Aesthetics



Evaluation Criteria

PROCESS



PRIORITIES

You have 2 dots. Add them on the jars to indicate your preference.

Physical:

- Right of Way acquisitions - full/partial
- Access Management - Closures/Relocations
- Glenwood Road extension
- Major utility conflicts
- Major structures
- Effect on railroad
- Constructability concerns
- Order of magnitude cost

Traffic Operations

- Interstate 90
- Stagestop Road
- Other Interchanges
- Railroad crossing queues

Safety

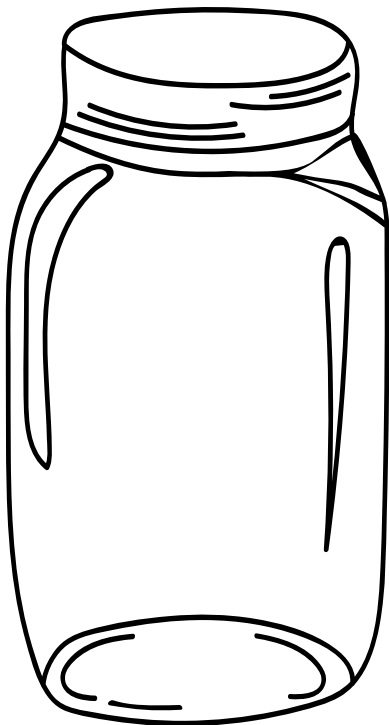
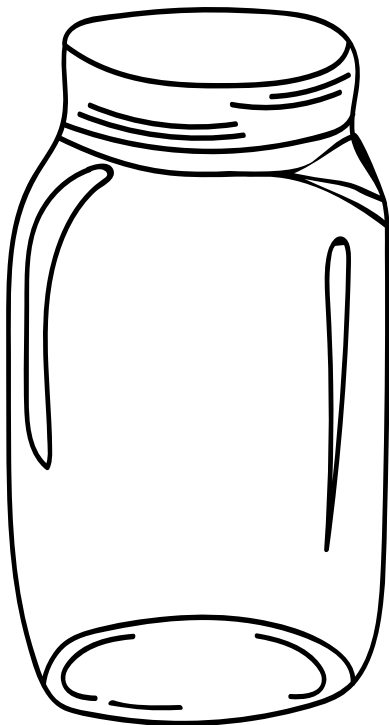
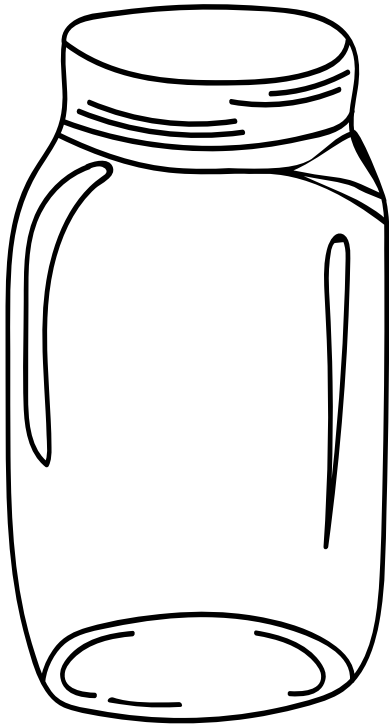
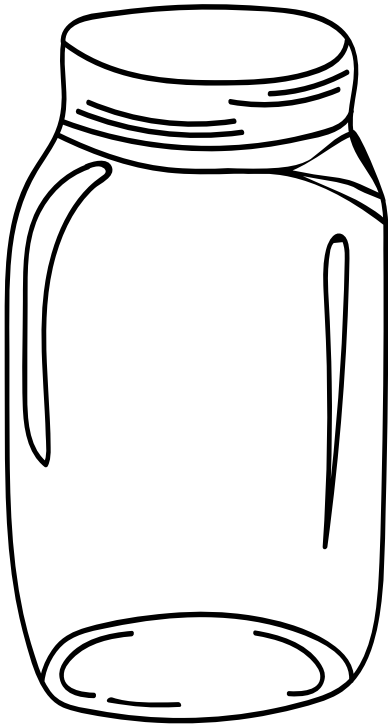
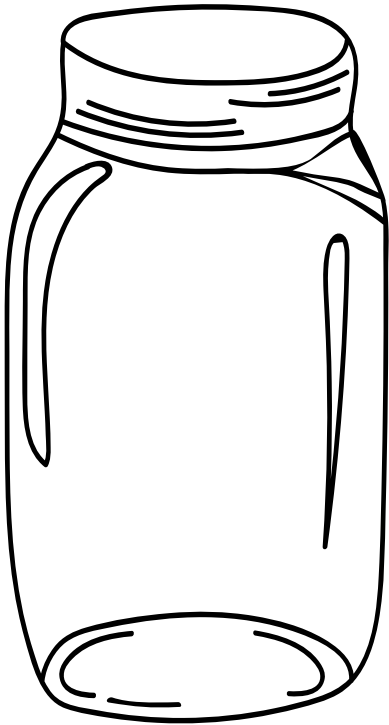
- Interstate
- Stagestop Road
- Other Interchanges
- Railroad Crossing
- Conflict Points

Multimodal Accomodations

- Piedmont Valley shared use trail
- Sidewalk connectivity
- Bicycle connectivity
- Can multimodal access be provided to/from Stagebarn Middle School

Environmental Considerations

- Environmental justice communities
- Historical resources
- Noise receptors
- Hazardous materials
- Air quality emissions
- Wetlands



Where are We Headed?

Complete the Interstate Modification Justification Report (IMJR)

Refinement of alternatives

Screen refined alternatives to define most technically feasible alternative

Second Public Meeting

Obtain preliminary SDDOT and FHWA approvals

Next Steps

Complete NEPA Study

Identify funding

Perform detailed design

Construction!

For More Information Visit:



<https://fhu.mysocialpinpoint.com/i-90-exit-48-interchange-study>

Contacts

Paul Brown, PE, PTOE

Felsburg, Holt & Ullevig
6400 South Fiddlers Green Circle, Suite 1500
Greenwood Village, CO 80111
303-721-1440
paul.brown@fhueng.com

Steve Gramm, PE

South Dakota Department of Transportation
700 East Broadway Avenue
Pierre, South Dakota 57501
605-733-3281
steve.gramm@state.sd.us

I-90 Exit 46 / Elk Creek Road Project

Currently in Final Design

Planned Construction 2024-2025

Full I-90, Exit 46 interchange, and Elk Creek Road access during construction

- Except temporary closure of westbound I-90 on-ramp for part of construction time

Located 2.2 miles northwest of exit 48 project

Project features – move interchange southeast, improve safety, bridge over railroad, widen I-90, future I-90 lanes, shared use path, 6 box culverts

Project contact – Jennica Wilcox
jennica.wilcox@fhueng.com

