



COLORADO

Department of Transportation

I-25: Speer and 23rd Bridge and Interchange Project **Stakeholder Focus Group Meeting 3**

October 28, 2024



Navigating the Project:

- 1 Shared Understanding of Project Process and Constraints
- 2 Shared Understanding Stakeholders' Concerns and Interests
- 3 Shared Understanding of Next Steps





- 1 Welcome and Introductions
- 2 Objectives & Agenda
- 3 Process Overview
- 4 Traffic Evaluation
- 5 Concept Workshopping: Stakeholders Concerns, Interests, + Ideas
- 6 Next Steps



Introductions



Process Overview



Understanding the Project's Process, Challenges, and Goals

Goals

- Existing Conditions Assessment
- Develop Purpose and Need
- Develop Full Range of Alternatives

Public Involvement

Alternatives Analysis

- Design Criteria
- Environmental Resources
- Meeting Purpose and Need

Public Involvement

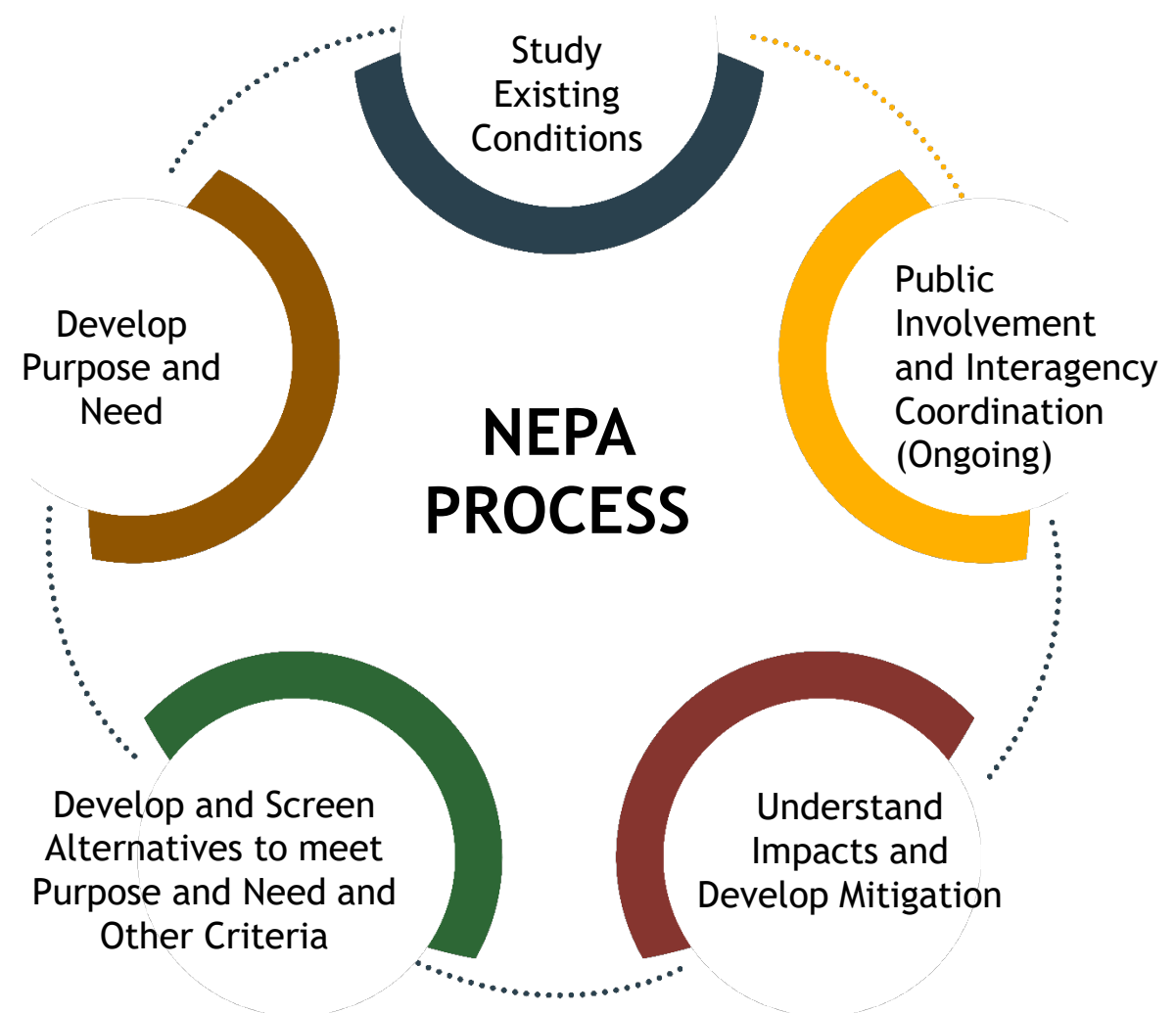
NEPA

- Confirm Purpose and Need
- Proposed Action Refinement
- Impacts and Mitigation Analysis
- Public feedback considerations
- Federal approval



National Environmental Policy Act (NEPA)

NEPA requires that projects using federal funds, requiring a federal permit or linked to a federal action analyze effects on the natural and social environment. Since CDOT is using federal funding for this project, once a recommended alternative(s), including the No Action, are selected, the project will go through NEPA review and documentation.



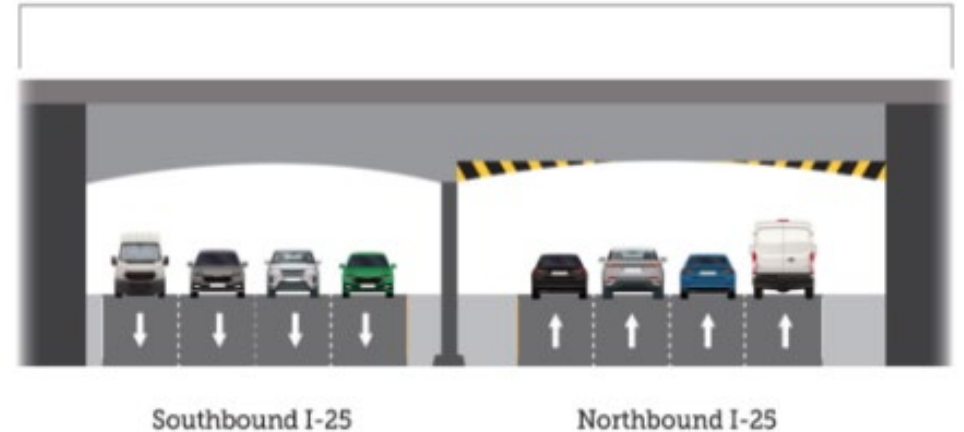
The project team gathered existing conditions data on transportation infrastructure, vehicle crashes, bike and pedestrian facilities, and on the height or vertical clearance of the Speer Boulevard and 23rd Avenue bridges over I-25.



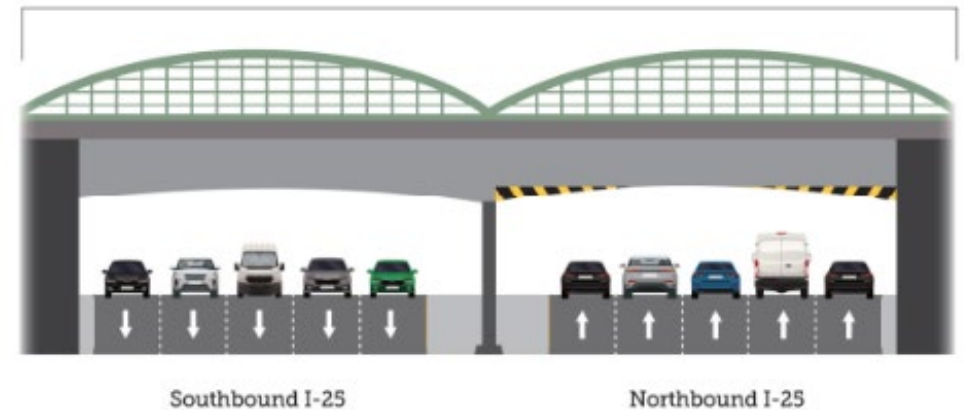
Action Required

- ◆ Address the Aging Infrastructure
- ◆ Adequate Vertical Clearance

23rd Avenue



Speer Boulevard

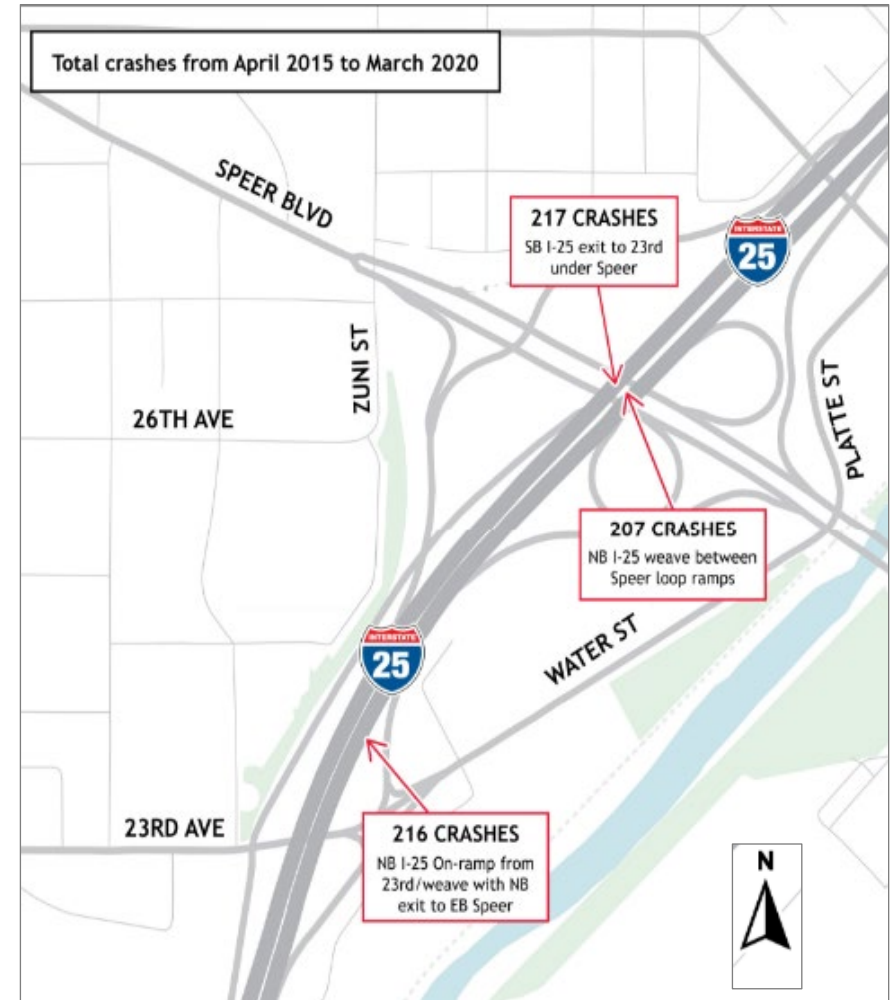


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Action Required

- ◆ Improve Safety Issues identified within the interchange complex.



Purpose

The purpose of the **I-25 Speer Boulevard & 23rd Bridge & Interchange Project** is to address the increasing maintenance needs and deteriorating condition of the aging 23rd Avenue and Speer Boulevard bridges over I-25, to provide crossings with adequate vertical clearance over I-25 for interstate travelers, to improve the transportation connection across I-25 for all road users, and to improve the safety issues identified within the interchange complex.



Need



Safety Needs

Improve safety in the interchange complex at Speer Boulevard and 23rd Avenue



Pedestrian, Bicycle, and Micromobility Device Needs

Accommodate pedestrians, bicycles, and other micro mobility devices (small, low-speed, human- or electric-powered transportation devices) across I-25 and along Speer Boulevard and 23rd Avenue.



Interstate Crossing Needs

Provide interstate crossings that have adequate clearance over I-25 and structural integrity



Federal Highway Administration (FHWA) Controlling Criteria

The following criteria cover various aspects of road design, including:

- ◆ Design Speed
- ◆ Lane Width
- ◆ Shoulder Width
- ◆ Horizontal Curve Radius
- ◆ Superelevation Rate
- ◆ Stopping Sight Distance
- ◆ Maximum Grade
- ◆ Cross Slope
- ◆ Vertical Clearance
- ◆ Design Load Structural Capacity



The project team is evaluating the following resources:

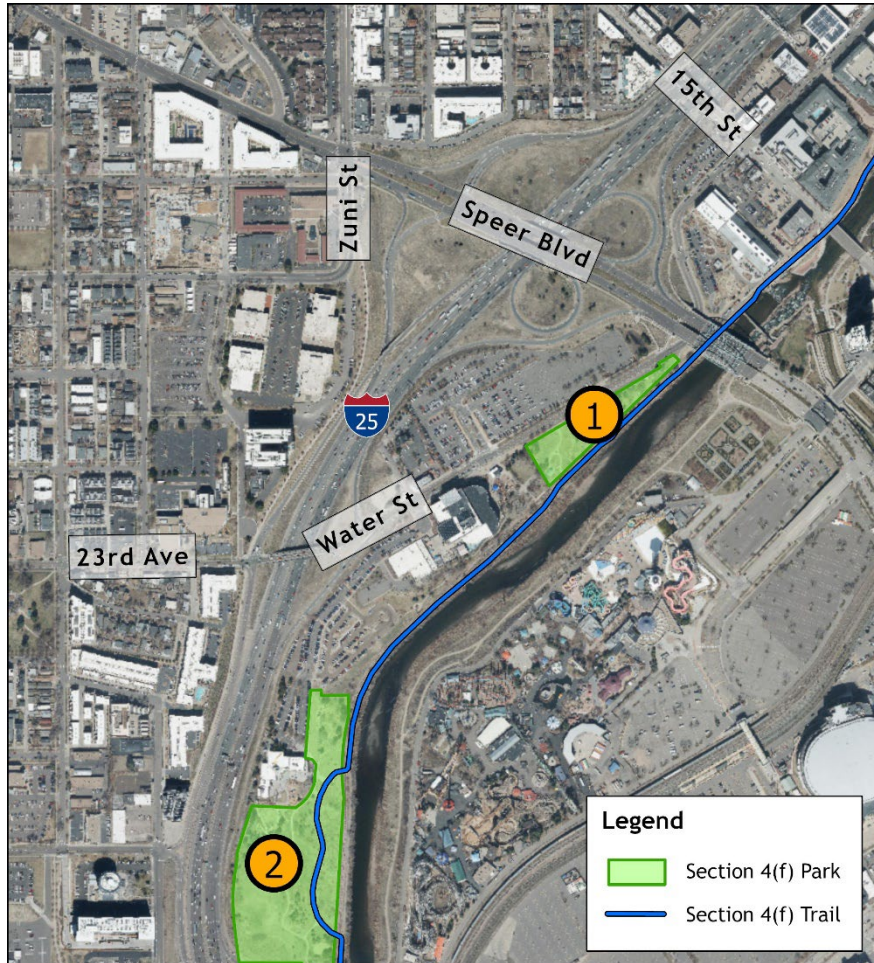
■ Additional
FHWA Approval
- Section 4(f)

- ◆ Air Quality And Greenhouse Gas Emissions
- ◆ Water Quality
- ◆ Floodplains
- ◆ Waters Of The U.S., Including Wetlands
- ◆ Environmental Justice
- ◆ Socioeconomic Resources
- ◆ Land Use
- ◆ Biological Resources (Wildlife, Fisheries)
- ◆ Threatened, Endangered, And State Special Status Species
- ◆ Noxious Weeds
- ◆ Hazardous Materials
- ◆ **Historic And Archeological Resources**
- ◆ Paleontological Resources
- ◆ Noise
- ◆ Visual Resources
- ◆ **Recreational Resources**
- ◆ Secondary And Cumulative Impacts



Historic and Archeological Resources

- ◆ Brewmaster's House (1)
- ◆ Diamond Hill/Brick Storm Sewer (2)
- ◆ 2420 Alcott St (3)
- ◆ Denver Tramway (4)
- ◆ Stonemen's Row Historic District (5)
- ◆ 2727 Zuni St (6)

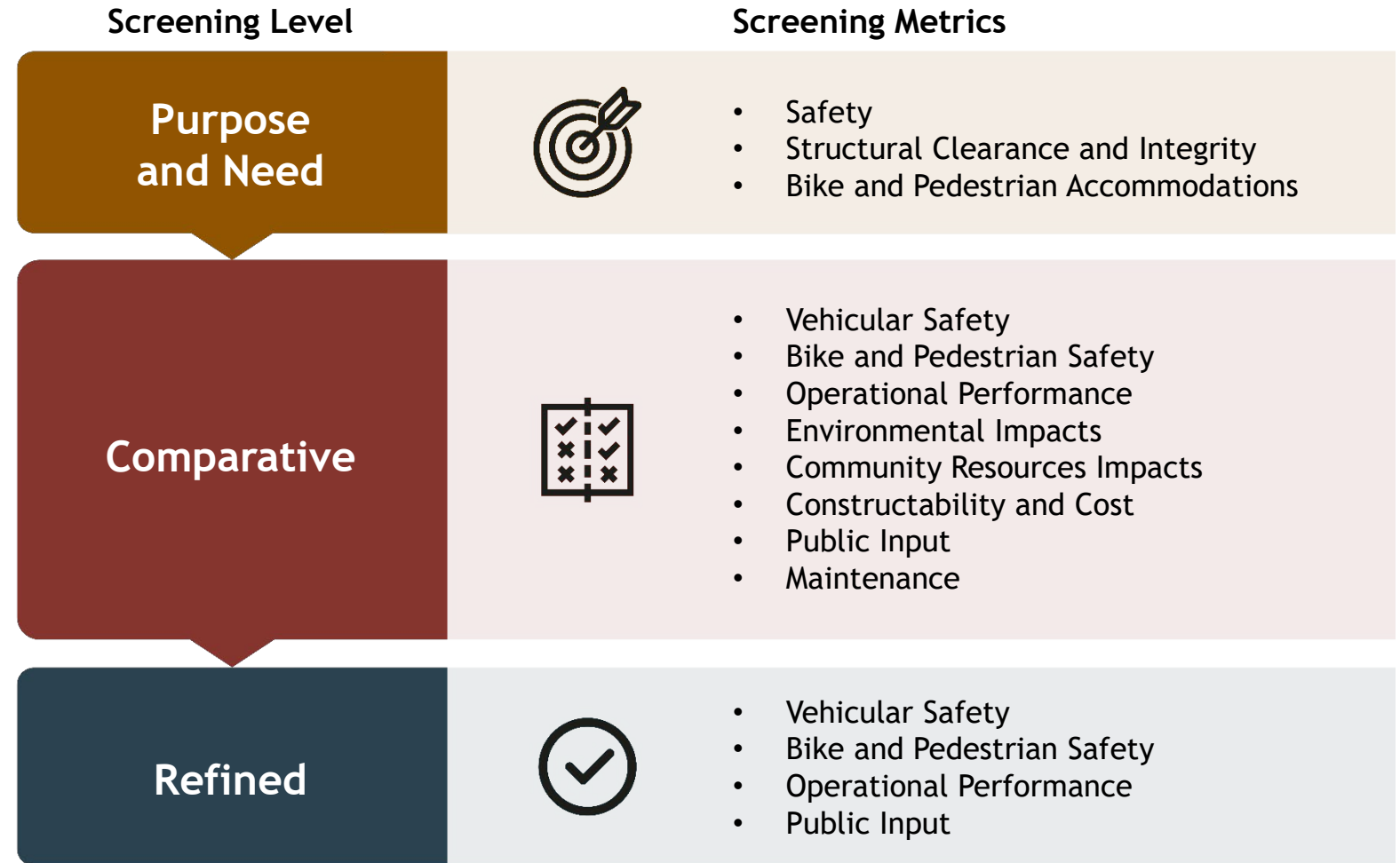


Recreational Resources

- ◆ Fishback Park (1)
- ◆ Gates Crescent Park (2)
- ◆ South Platte River Trail



The **Alternatives Screening Process** is designed to evaluate and select the best design options based on several criteria. This process involves three levels of screening, each focusing on different aspects to ensure that the chosen alternative meets all necessary requirements and addresses key concerns.





Design and Study Schedule



2023

Data collection and preliminary alternatives development



Early 2024

Purpose and need developed, and initial screening



2024 - 2025

Alternative refinement and secondary screening



2025

Environmental analysis and documentation, start of preliminary design



Next Steps

**2026 and Beyond
Final Design and Construction**

Identify construction delivery method, identify construction funds, and finish preliminary design.





Do you have questions or comments regarding the project's constraints, decision-making, or other process considerations?



Traffic Evaluation



23rd Avenue Alternatives

Decision-Making Process

No decisions have been made - CDOT is currently evaluating these alternatives based on Purpose & Need, specific screening metrics, and Public/Stakeholder input.

Public/Stakeholder Input

Feedback is an important aspect of the decision-making process. CDOT continues to accept and review all Public/Stakeholder comments as they are received.

**Close 23rd Avenue
Access to I-25 (Ramps)**

**23rd Avenue Bridge
Replacement Only**

23rd Avenue Braid



How is traffic being considered/evaluated?

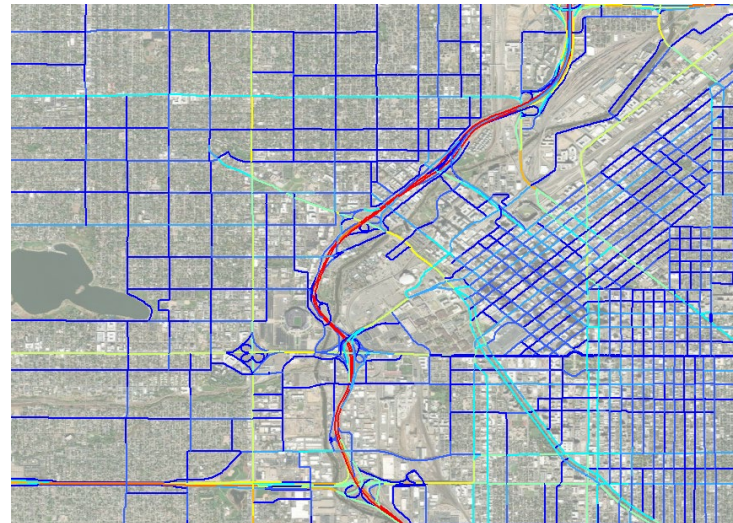
1 Data-Driven Conceptual Analysis

- Traffic counts (volumes, speeds, turning movements, truck counts, etc.)
- GPS origin-destination data (cell phones, connected vehicles, etc.)
- Bicycle & pedestrian volumes



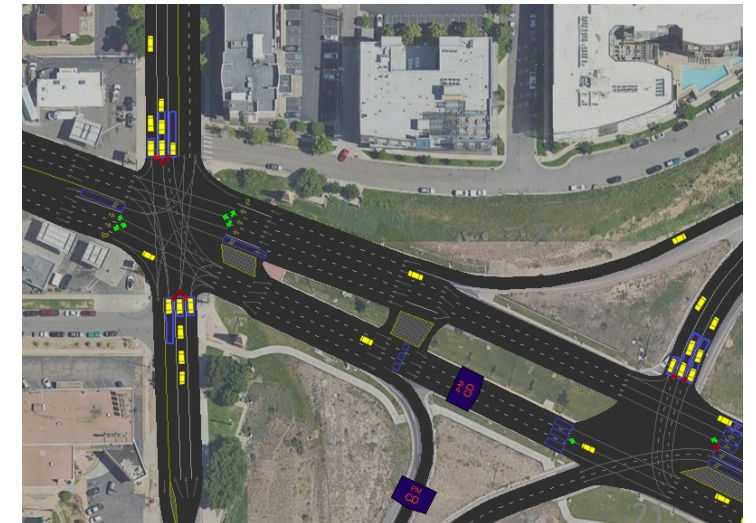
2 Regional Modeling (DRCOG Travel Demand Model)

- Considers regional travel patterns
- Uses generalized roadway characteristics
- Accounts for land use and travel pattern changes (new developments, work from home trends, etc.)



3 Detailed Microscopic Modeling

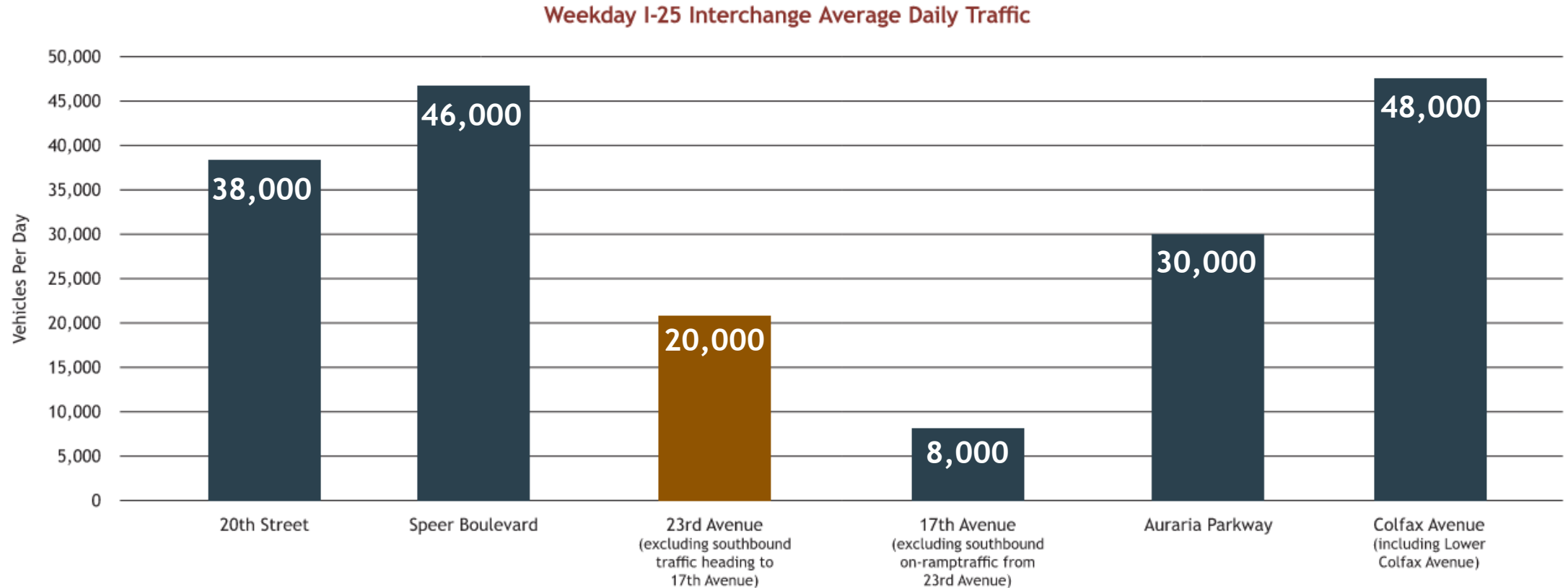
- Evaluates individual intersections





How many people use the 23rd Avenue Ramps Today?

On a typical weekday in 2023, about 20,000 vehicles entered or exited I-25 at 23rd Avenue.

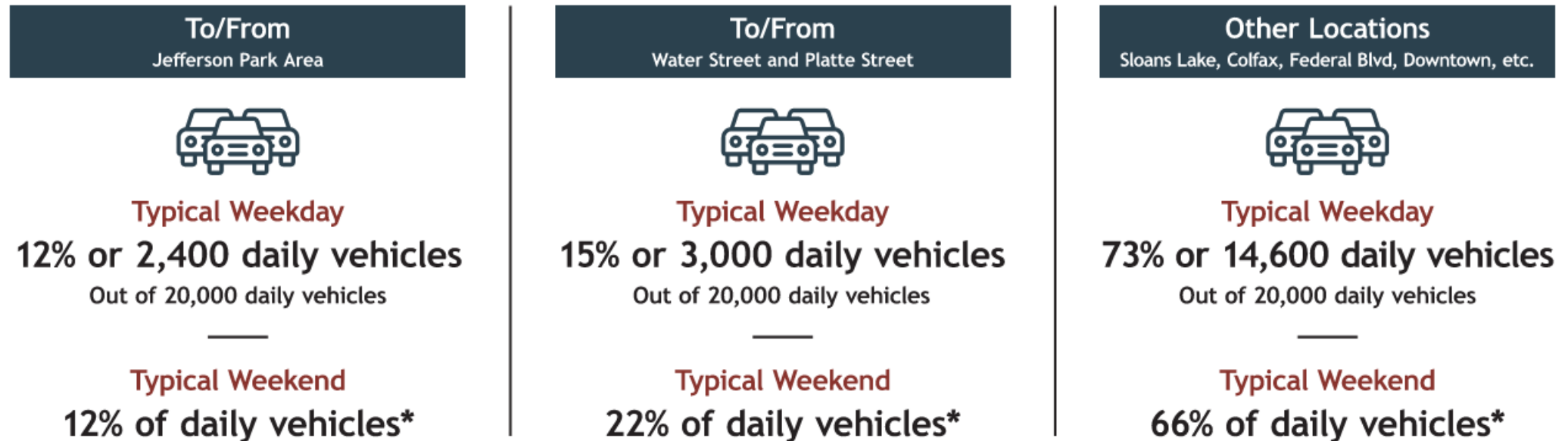


Data Source: In-field traffic counts collected in October 2023.



Traffic Patterns at the 23rd Avenue Interchange

The data below shows the percent of traffic on and off the 23rd Avenue ramps going to various locations. For example, 15 percent of all daily weekday traffic at 23rd Avenue goes to and from Water Street and Platte Street.



*Weekend traffic volumes were not collected as part of this study; therefore; total numbers of vehicles cannot be estimated for weekend trips.

- Routing data comes from StreetLight location-based data analytics, collected between May 2021 and April 2022.
- Absolute traffic volumes are estimates based on StreetLight data applied to in-field traffic counts, collected in October 2023.

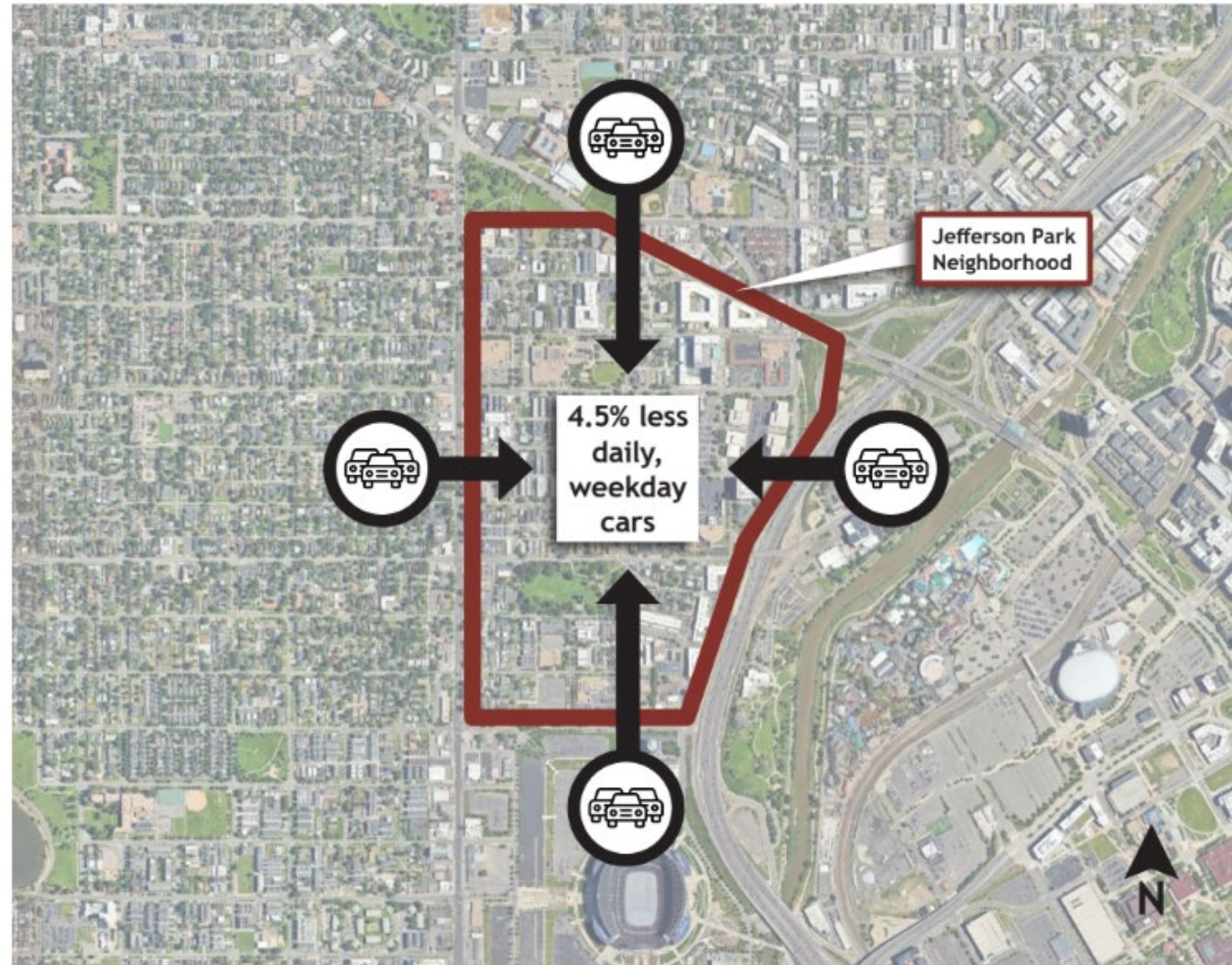


23rd Avenue Ramp Closure - Expected Changes to Jefferson Park Neighborhood Traffic

How would the closure of the ramp affect traffic in the Jefferson Park Neighborhood?

Regional modeling shows that closing the on and off ramps at 23rd Avenue could reduce traffic through Jefferson Park by about 4.5% or approximately 1,300 vehicles per day.

This estimate is based on projected traffic data for 2050.





**Do you have questions or comments
regarding traffic modeling,
levels, or routes?**



Pedestrian Bridge Considerations

Potential Advantages Associated with Pedestrian Bridges

- May provide significant safety benefits by separating non-motorists from vehicular traffic.
- May improve user experience with an inviting and accommodating pathway.
- May provide community benefits because of improved connectivity.

Potential Challenges Associated with Pedestrian Bridges

- May introduce undesirable out-of-direction travel, which could discourage use.
- Must be designed with grades that do not exceed 5 percent for ADA compliance.
- May require a large footprint, and in some cases they may also require ROW acquisition.





47th Avenue & York Street Pedestrian Bridge Over Union Pacific Railroad





Colorado Center Drive Pedestrian Bridge Over I-25, near Evans Avenue



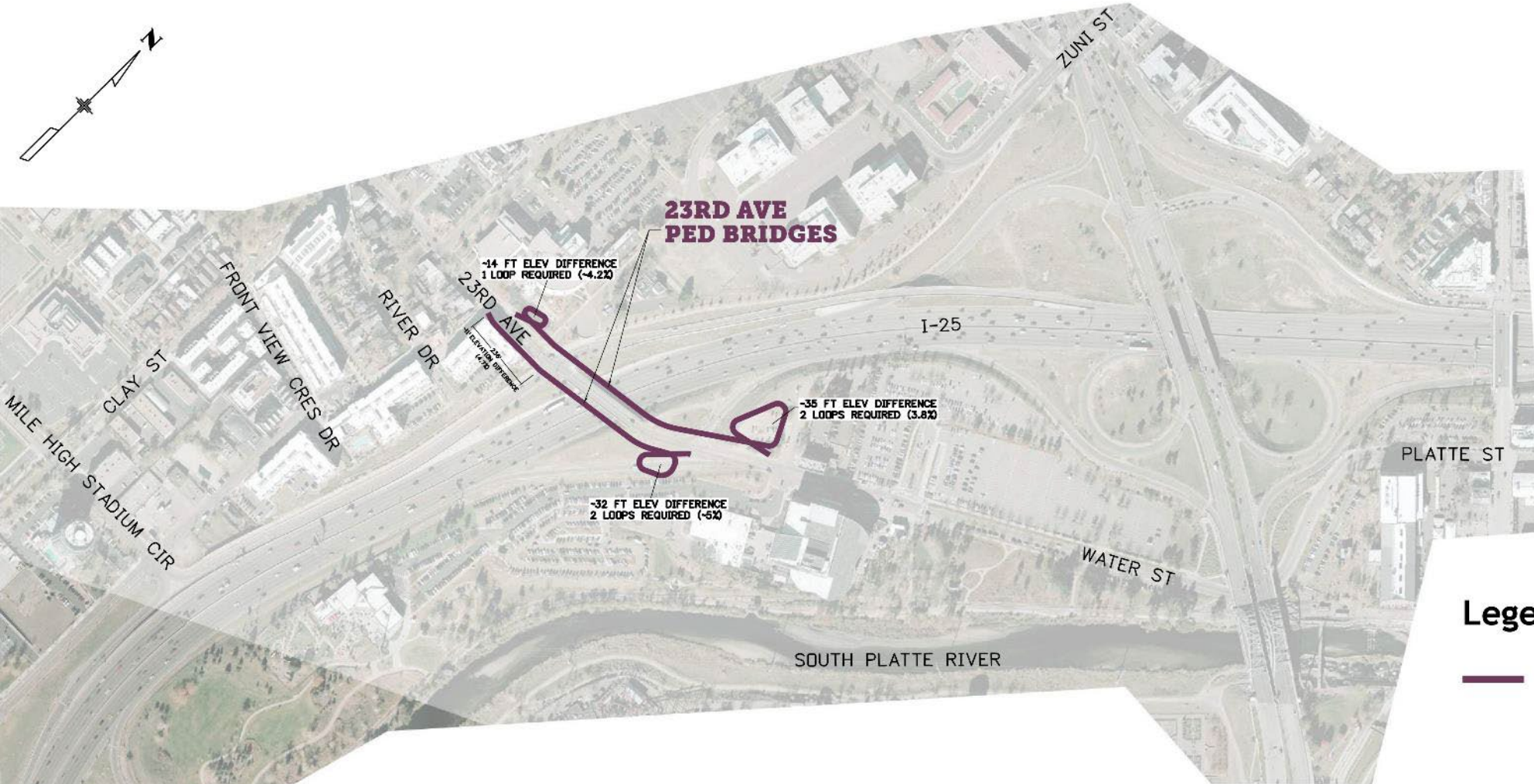


Westminster Park-N-Ride Pedestrian Bridge Over US 36, near Sheridan Boulevard





Pedestrian Bridge Options Adjacent to 23rd Avenue

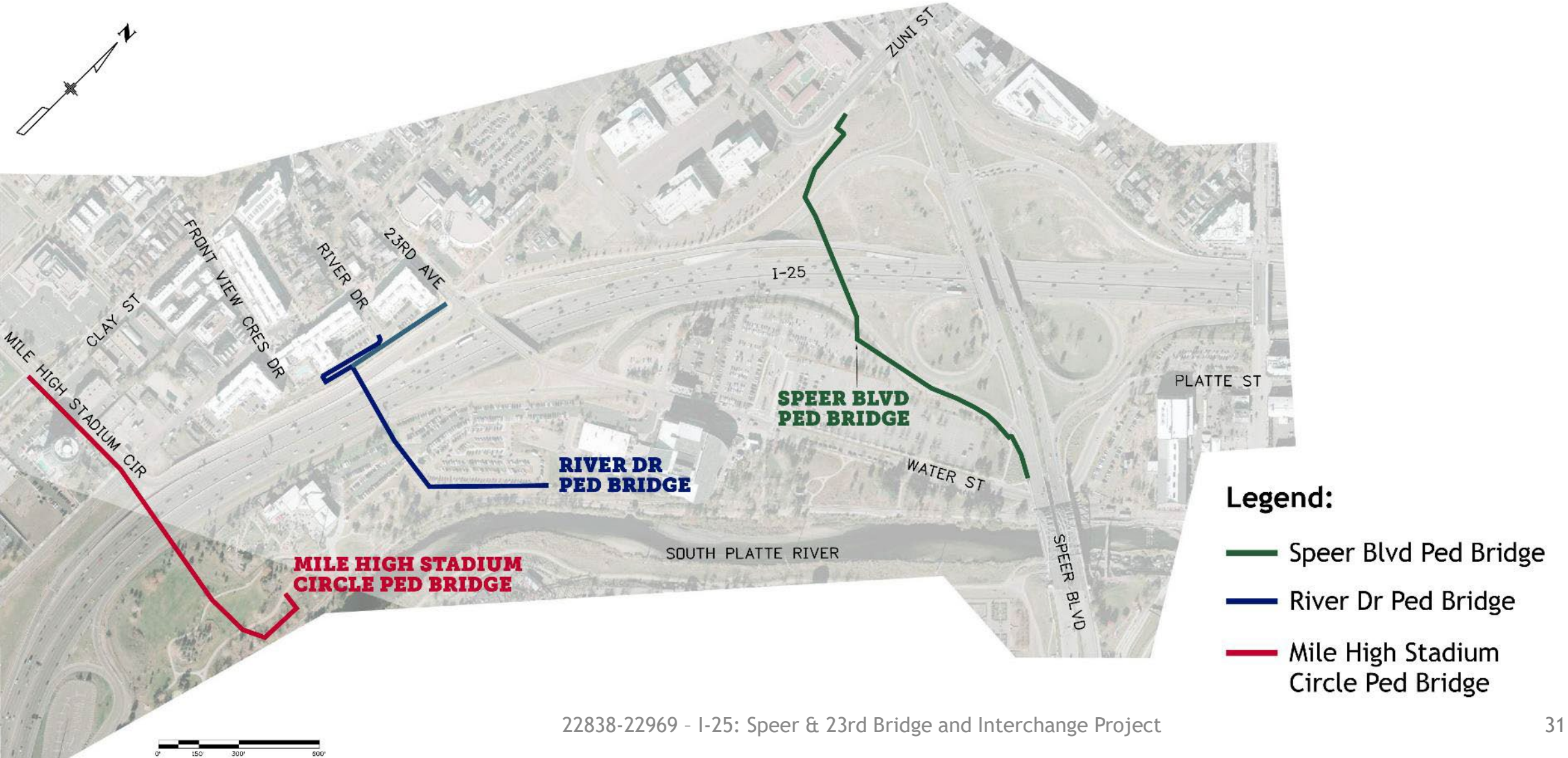


Legend:

 23rd Ave Ped Bridges



Pedestrian Bridge Options Near 23rd Avenue





Pedestrian Bridge Options - By the Numbers

- **Cost** - These pedestrian bridge options are estimated to range in cost from **\$25M to \$40M**.
- **Structure Length** - These pedestrian bridge options range from **500 feet to nearly 950 feet in length**.
- **Out-of-Direction Travel** - These pedestrian bridge options would detour users off of 23rd Avenue by **as much as half a mile**.
- **Grade/Steepness** - All of these pedestrian bridge options require segments of **5 percent grade** so that they can achieve adequate clearance over I-25.



**Do you have questions or comments
regarding bike & pedestrian
facilities?**



Concept Workshopping

In-person activity for stakeholders to discuss and express concerns, interests and ideas.