



I-25 Central PEL

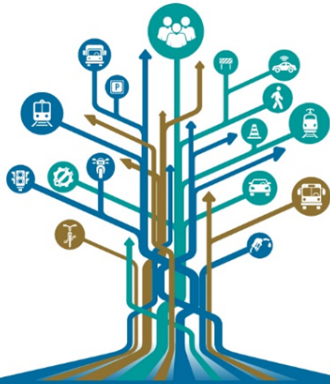
Activity

- Go to www.PollEv.com/hdr
- Answer the question:

Most of the time, when you use I-25 Central,
where are you going?



Most of the time when you are using I-25 Central, where are you going?



I-25 Central PEL

Stakeholder Focus Group Meeting #2

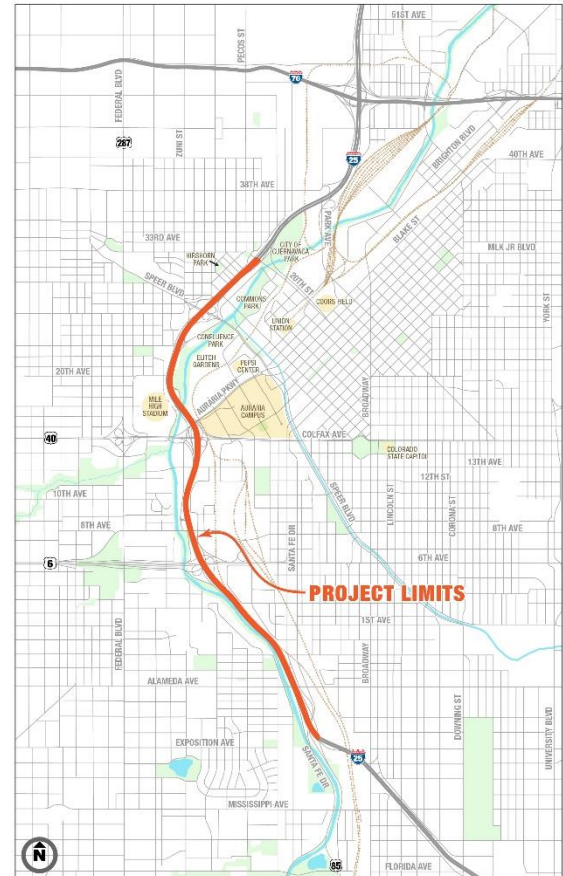
Alternative Creation and Level 1 Evaluation Results

Agenda

1. Welcome & Update
2. Study Review
3. SFG Questions & Concerns
4. Evaluation process & Alternatives
5. Level 1 Results: Break Out & Full Group Discussions
6. Level 2 Preview
7. Next steps

Project review

The purpose of the recommended transportation improvements in the I-25 Central Corridor between approximately Santa Fe Drive and 20th Street is to **reduce congestion** and **improve safety** and **travel-time reliability** for the movement of people and goods. The improvements will also consider **access** to and from I-25 as well as **connectivity across I-25** for bicycles, pedestrians, transit and local traffic.



Goals and Objectives

1. Investigate opportunities to improve mainline geometry and design to meet current standards and address substandard:
 - Stopping-sight distance
 - Clear zones
 - Narrow lane widths and narrow shoulder widths
2. Investigate opportunities to use and/or not preclude emerging technologies to improve the safety, capacity, and management of mainline operations
3. Provide efficient access to major parallel routes and corridor destinations
4. Consider the impacts and benefits of proposed improvements on the local network
5. Improve connectivity across I-25 and the South Platte River for all modes
6. Consider the impacts of adjacent high-density redevelopment and the related potential changes in travel demand on I-25
7. Consider the impact of congestion improvements on southbound I-25 in relation to improved operation for southbound RTD buses
8. Consider the impacts and benefits on freight movement in the corridor
9. Consider the ability of improvements to the mainline and local network to improve person- trip connectivity
10. Consider the effects of improvements on the South Platte River and the surrounding communities
11. Consider the effects of expanded ROW on adjacent land uses
12. Consider the ability of improvements to provide community and environmental enhancements
13. Consider the ability of improvements to support economic development opportunities in the metro Denver area



PEL Video

Schedule and community interaction

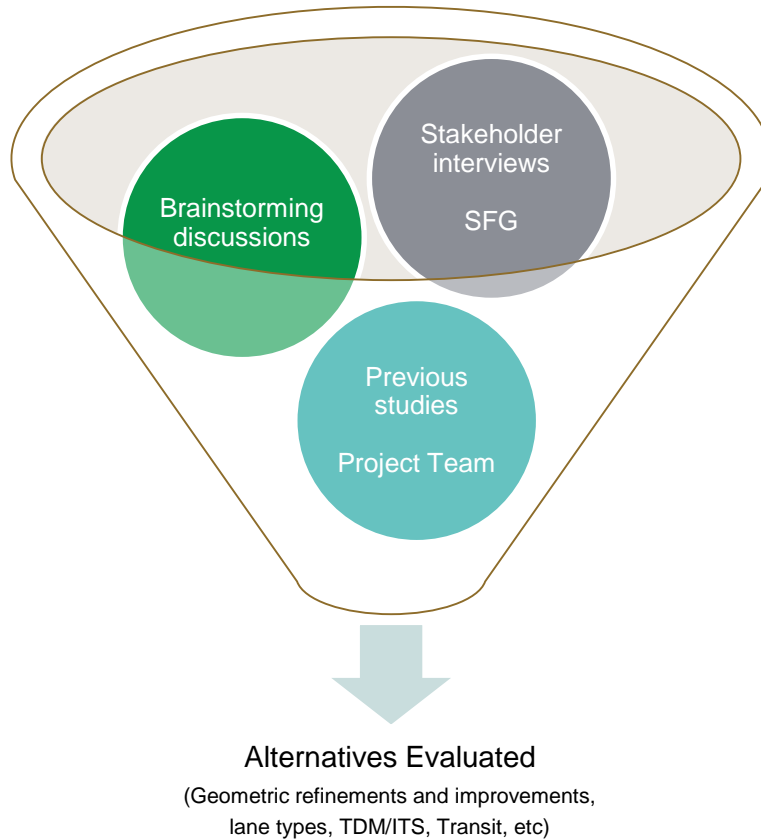


SFG Organizations & Networks

- What information have you provided?
- What questions, concerns, or areas of interest does your organization or network have?

Alternatives Development & Evaluation Process

Alternatives Development



Alternatives Evaluation Process

This project is using a three level evaluation process:

Level 1:

Does the alternative meet the project's purpose and need?

Yes/No/Neutral

Level 2:

Does the alternative address the needs, goals, and objectives to a satisfactory level?

Yes/No/Neutral with qualitative discussion

Level 3:

Does the alternative address the needs, goals, and objectives to a satisfactory level and balance trade-offs?

Quantitative data and qualitative discussion

Criteria Question Determinations

Yes

- Alternative meets or has the potential to meet the criteria

Neutral

- Alternative would likely not affect the criteria or the potential benefits and drawbacks balance each other out

No

- Alternative would negatively affect the criteria

Outcomes of Level 1 Evaluation

Carried Forward

- Alternative is carried forward into Level 2 evaluation



Removed as a Standalone Alternative

- Alternative is removed from consideration, but specific elements (identified in the comments section) are carried forward for incorporation into other alternatives during future levels of evaluation



Removed from Consideration

- Alternative is removed from consideration, no elements unique to the alternative are carried forward



Range of Alternatives

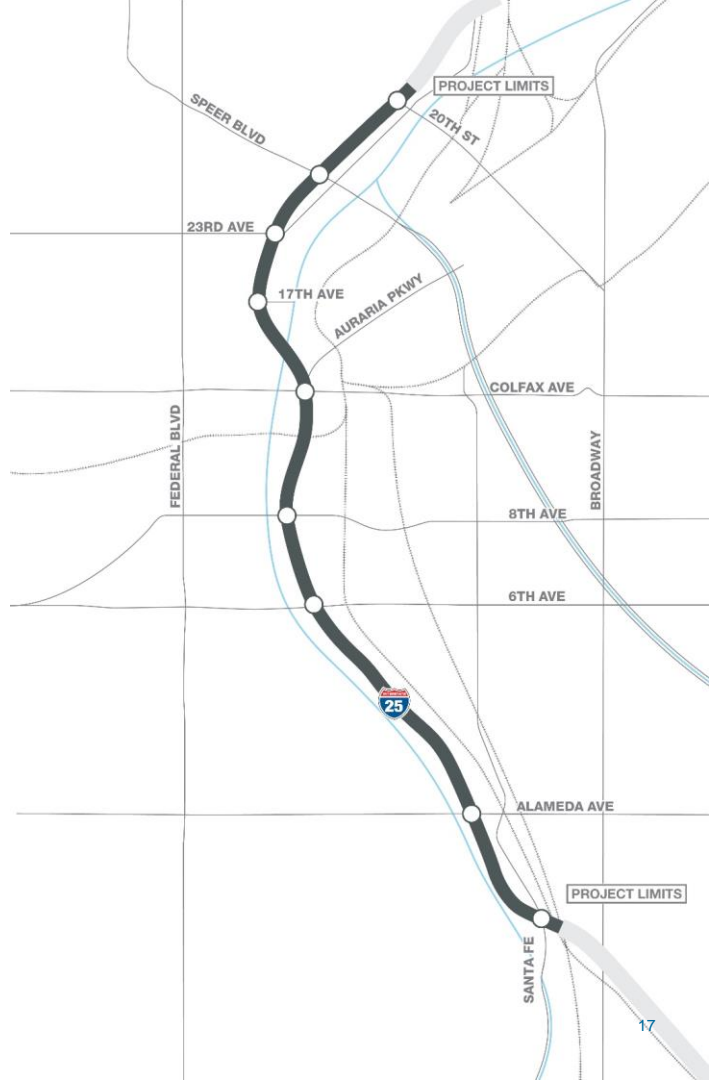
No Action		
Reroute / Urban Boulevard	Realignment	Collector / Distributor
Lane Reductions	Lane Conversion	Multi-Level Highway
Shoulder Lane Use	Add'l Gen Purpose Lanes	TDM, Operational, ITS
Refinements	Added Express Lanes	Congestion Pricing
Improvements	Dedicated Transit Lane	New Transit Facility



No Action

This alternative presents the expected future condition if no action is taken. This includes reasonably planned mobility improvements in the region within the 2040 regional planning horizon. On I-25 Central, these projects include adding one additional lane on I-25 between Alameda Avenue and Walnut Street and interchange capacity improvements at the I-25 and Broadway interchange. This alternative is not the same as the existing condition.

Criteria	Determination
Safety	Neutral
Congestion	Neutral
Travel Time Reliability	Neutral
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

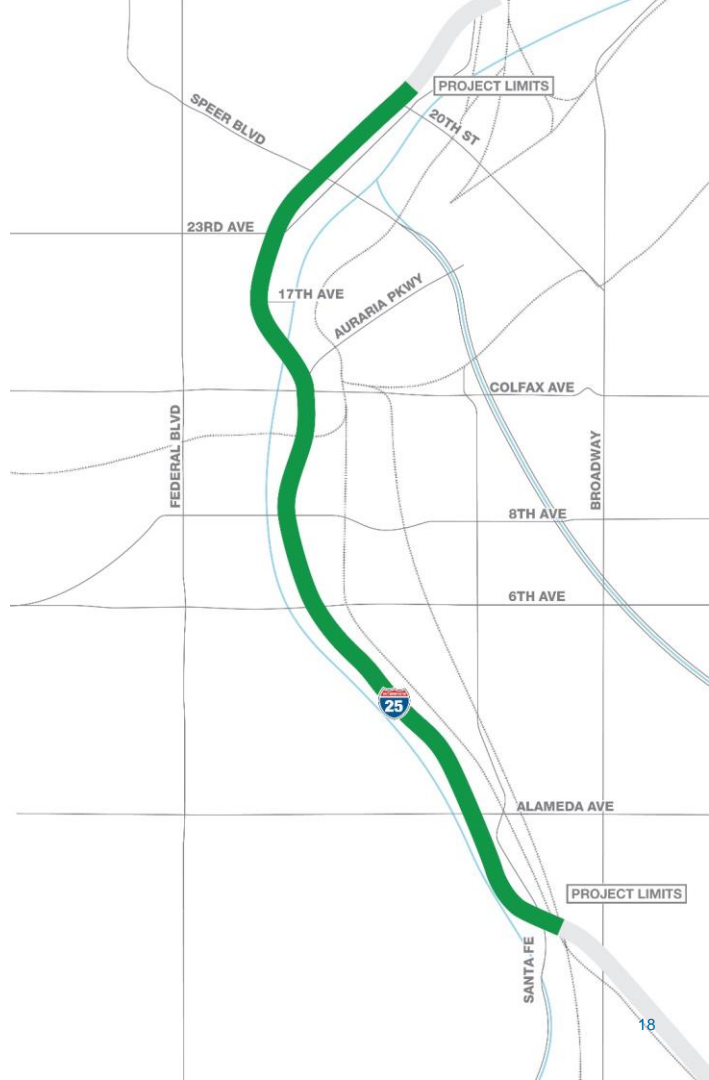




I-25 Reroute with Urban Boulevard

This alternative would include the rerouting of regional traffic around the urban core of the City and replacement of the existing I-25 with an urban boulevard. Regional traffic would be rerouted east using I-76, I-70, and I-225. A signalized urban boulevard would be created from approximately 20th Street to US 85/Santa Fe Drive that connects to the existing surface grid.

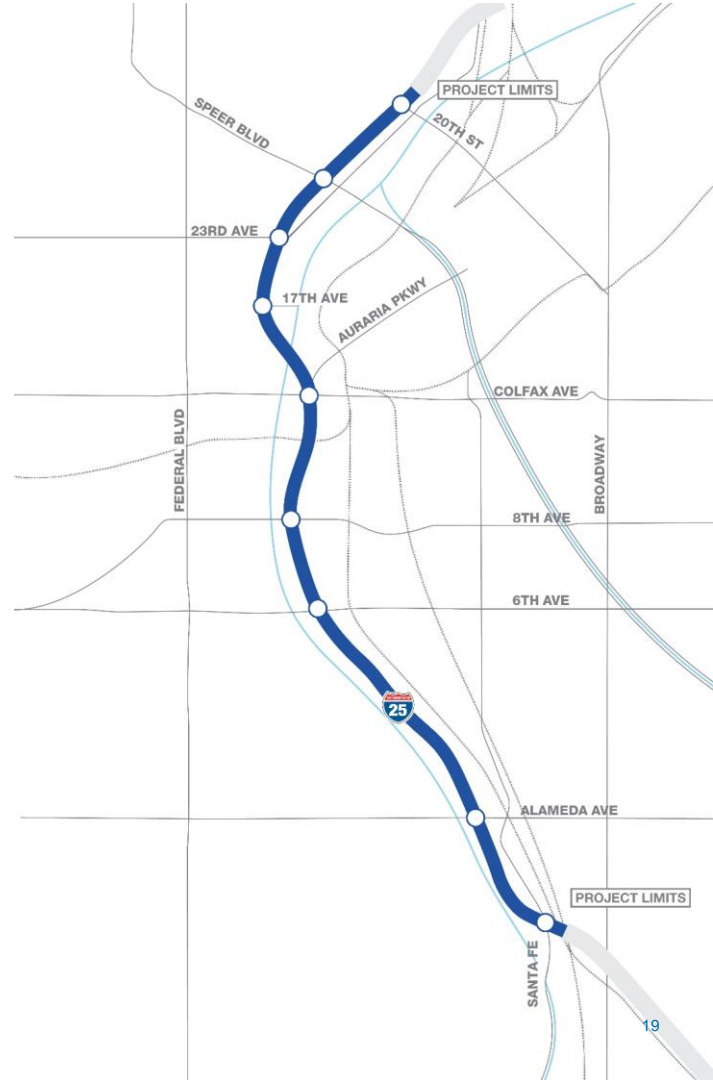
Criteria	Determination
Safety	No
Congestion	No
Travel Time Reliability	No
Access	Neutral
Cross Connectivity	Neutral
Removed from Consideration	





Lane Reductions

This alternative proposes removal of travel lanes to implement a more standard cross section (as achievable within the existing ROW).



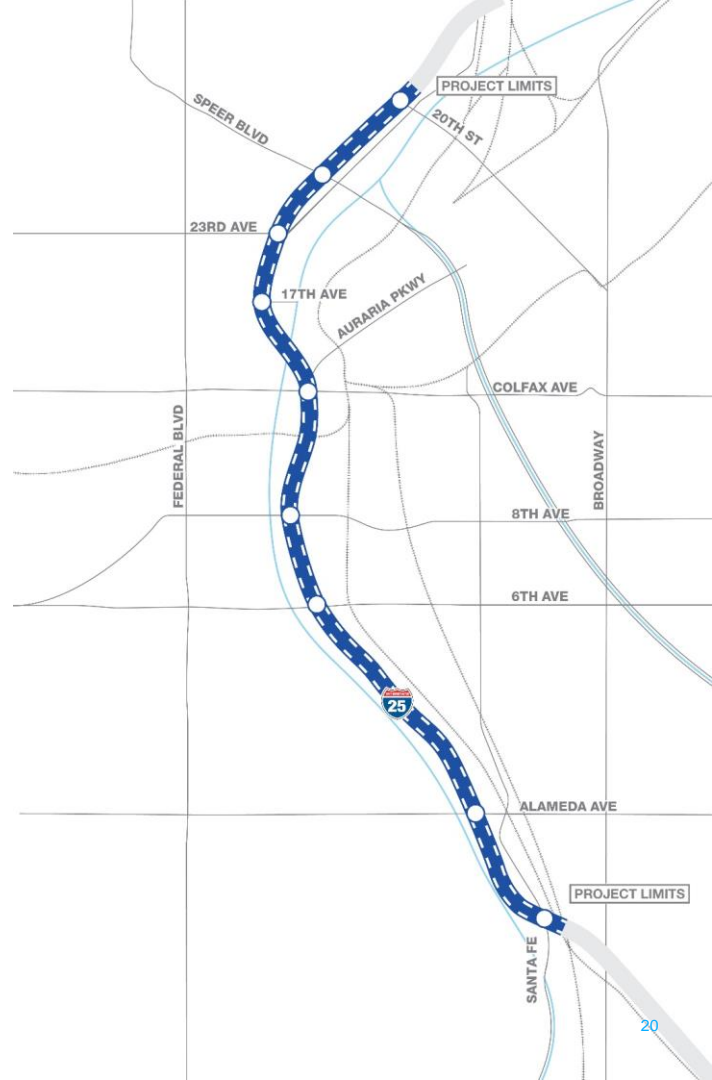
Criteria	Determination
Safety	Neutral
Congestion	No
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Removed from Consideration	



Shoulder Use Lane

This alternative would bring shoulders up to standard, or construct new shoulders as needed to be used as flexible travel lanes during peak periods. Current shoulder space is inconsistent along the existing freeway between 20th Street and Santa Fe Drive/US 85.

Criteria	Determination
Safety	No
Congestion	Yes
Travel Time Reliability	Neutral
Access	Neutral
Cross Connectivity	Neutral
Removed as a Standalone Alternative	

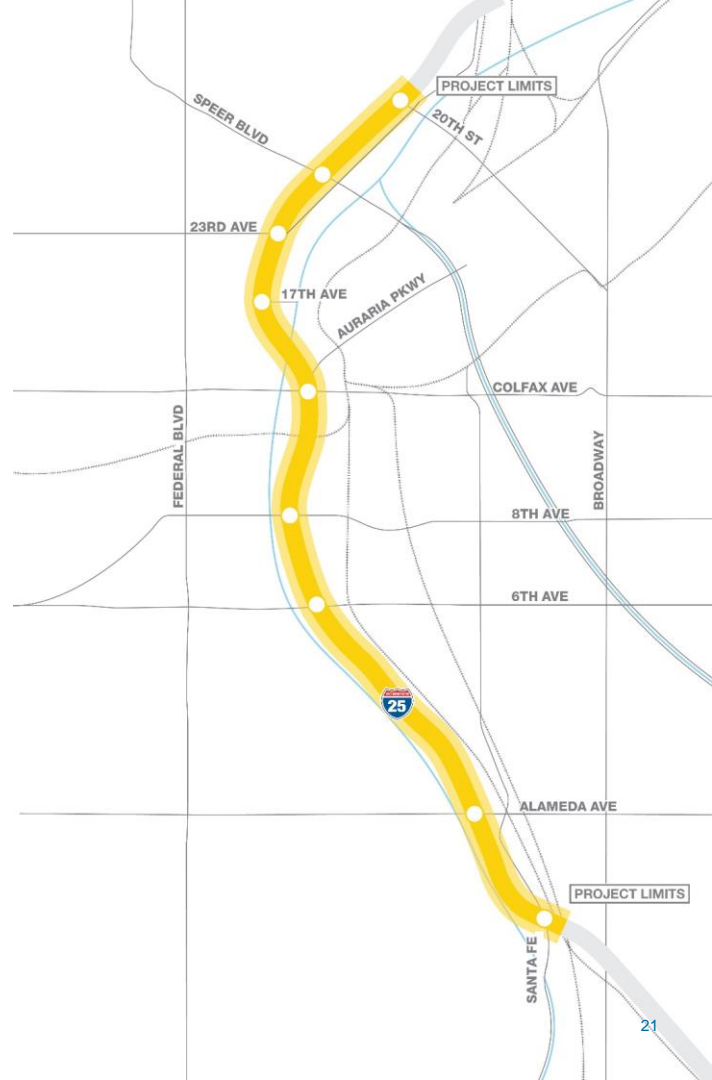




I-25 Geometric Refinements

This alternative would provide geometric refinements along the existing alignment. The intent of this alternative is to implement a more standard cross section (if achievable) with standard lane widths, shoulders, ramp lengths, etc. to the extent possible within the existing right of way, or with minimal additional right-of-way.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Yes
Cross Connectivity	Neutral
Carried Forward	

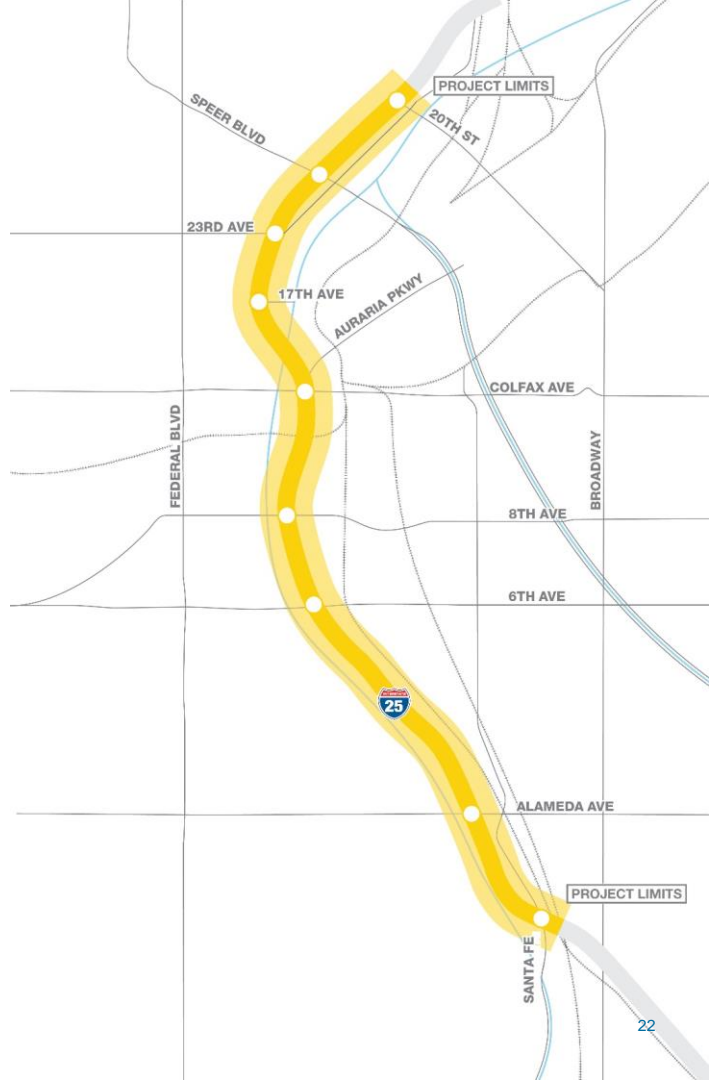




I-25 Geometric Improvements

This alternative would provide major alignment alterations such as implementing a more standard cross section, improved access/egress ramp configurations, straightening curves, etc. Additional right-of-way would be acquired where necessary to achieve a standard cross section.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Yes
Cross Connectivity	Neutral
Carried Forward	

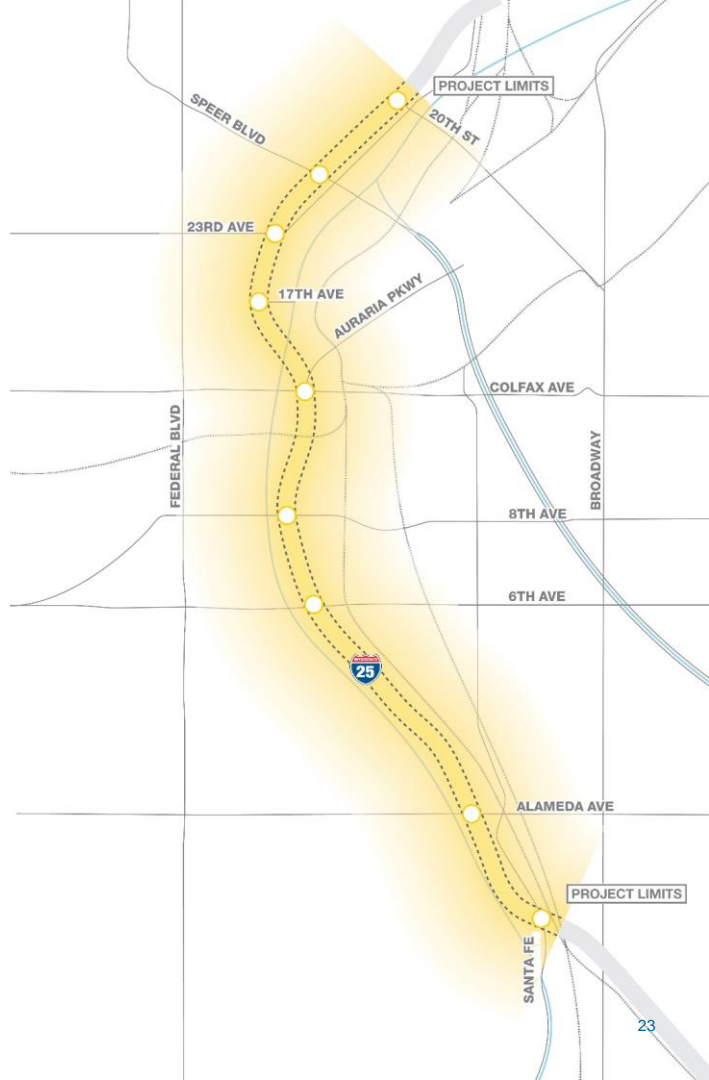




I-25 Realignment

The alternative proposes the substantial realignment of the highway (new right-of-way) using the Consolidated Main Line (CML) or other corridor that may serve I-25 traffic.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

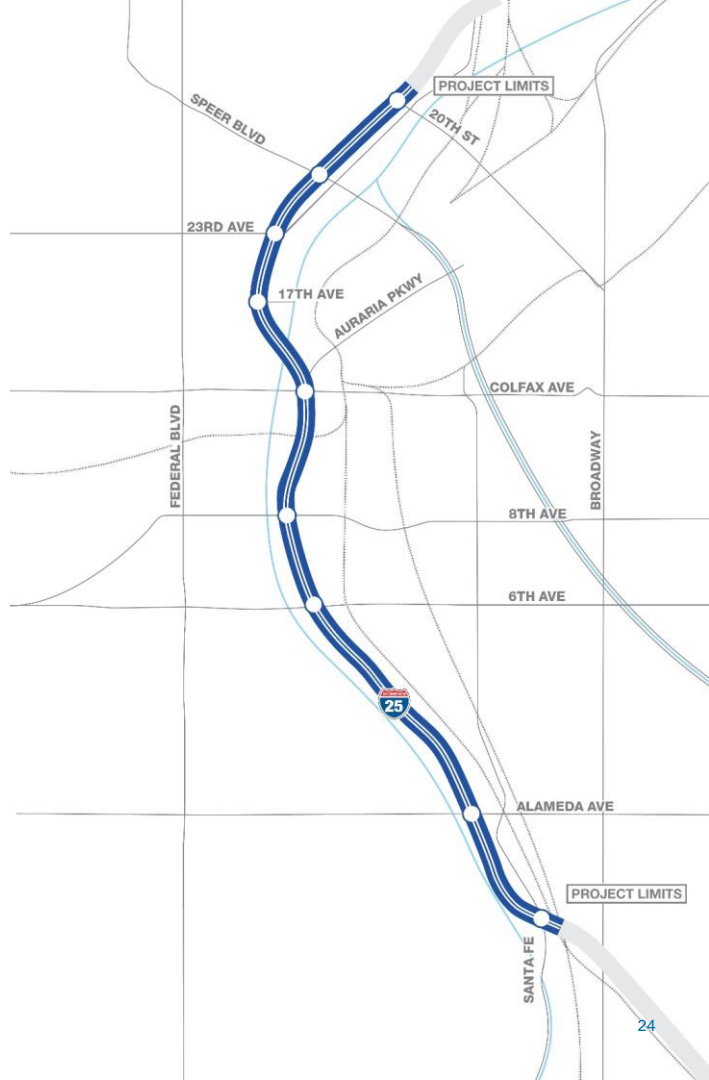




Lane Conversion

This alternative proposes converting existing general-purpose lanes to express lanes.

Criteria	Determination
Safety	Neutral
Congestion	Neutral
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

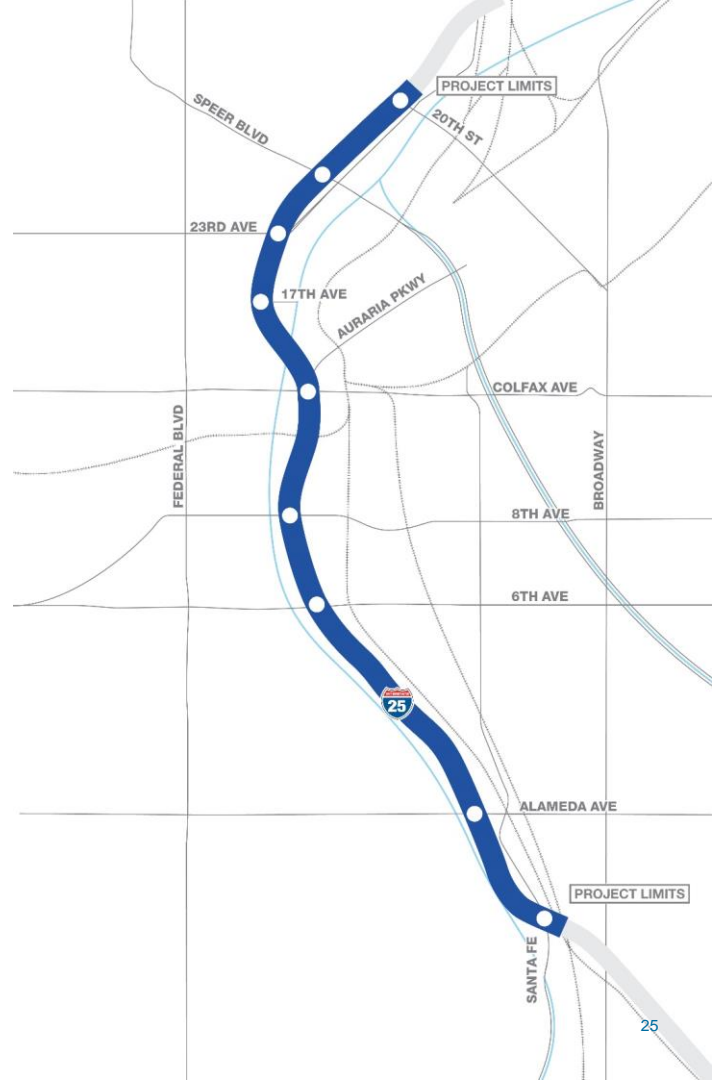




Additional General-Purpose Lanes

This alternative proposes adding travel lanes to the freeway that could be used by any driver or vehicle type.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	





Added Express Lanes

This alternative proposes adding travel lanes to the highway that could be used by regional (through) traffic or managed for specific users such as high occupancy vehicles (HOV), tolled vehicles, etc.

Criteria	Determination
Safety	Neutral
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

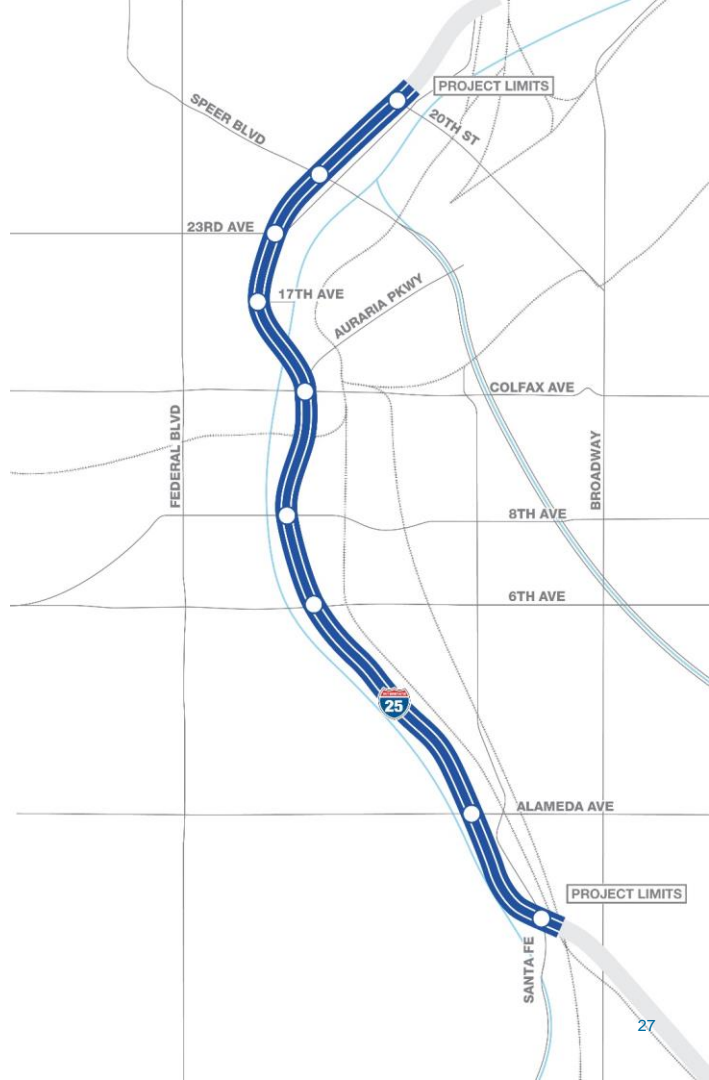




Dedicated Transit Lanes

This alternative proposes adding travel lanes to the highway that are for transit only (bus, express bus, BRT, or other new technology type, etc.).

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

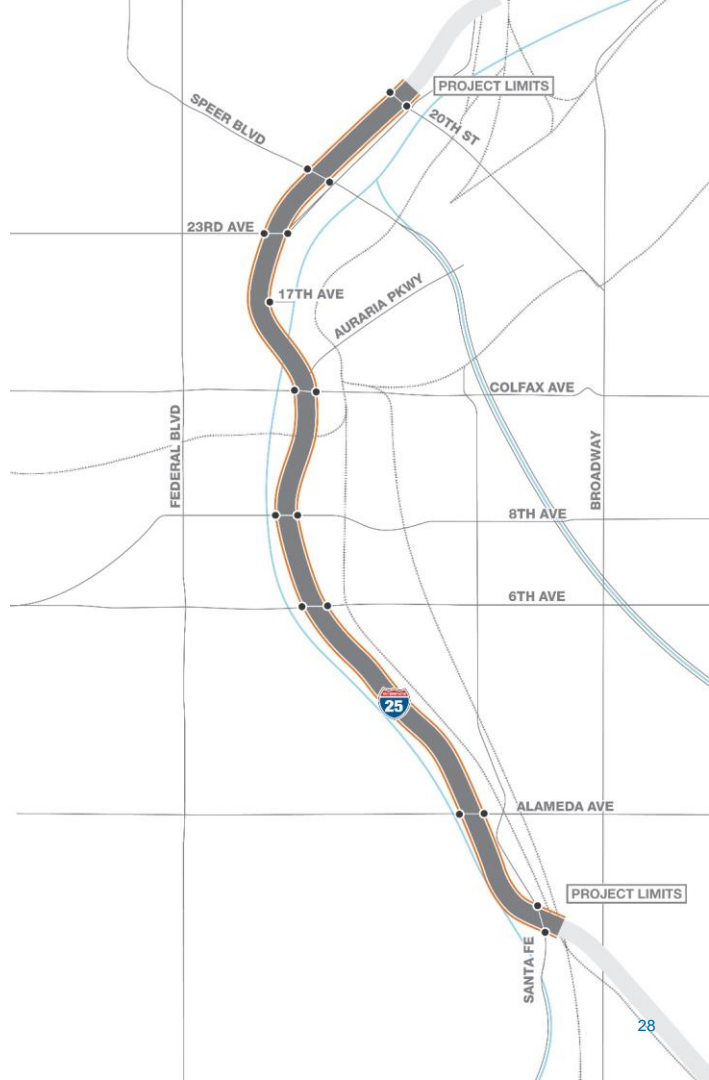




Collector/Distributor Roads

This alternative would add a system of roads adjacent to the highway which could allow for the consolidation of access.

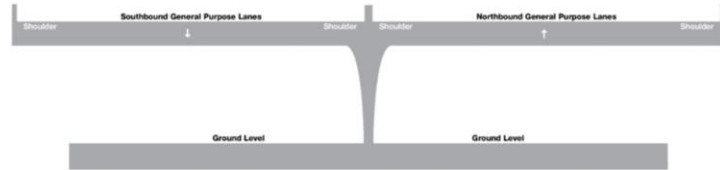
Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Neutral
Access	Yes
Cross Connectivity	Yes
Carried Forward	



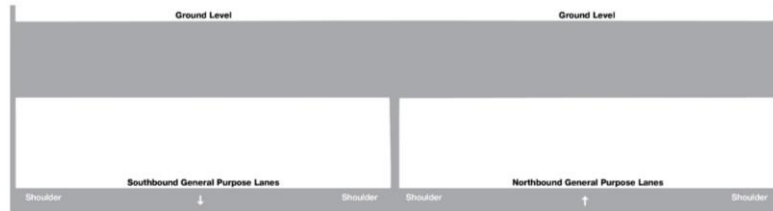
Multi-Level Highway

This alternative would include reconstruction of the existing I-25 as a viaduct (elevated), tunnel, or an open lowered freeway. These improvements may be consistent throughout the corridor or only proposed in specific segments.

Example of a Typical Viaduct Section



Example of a Typical Tunnel Section



Example of a Typical Lowered Section



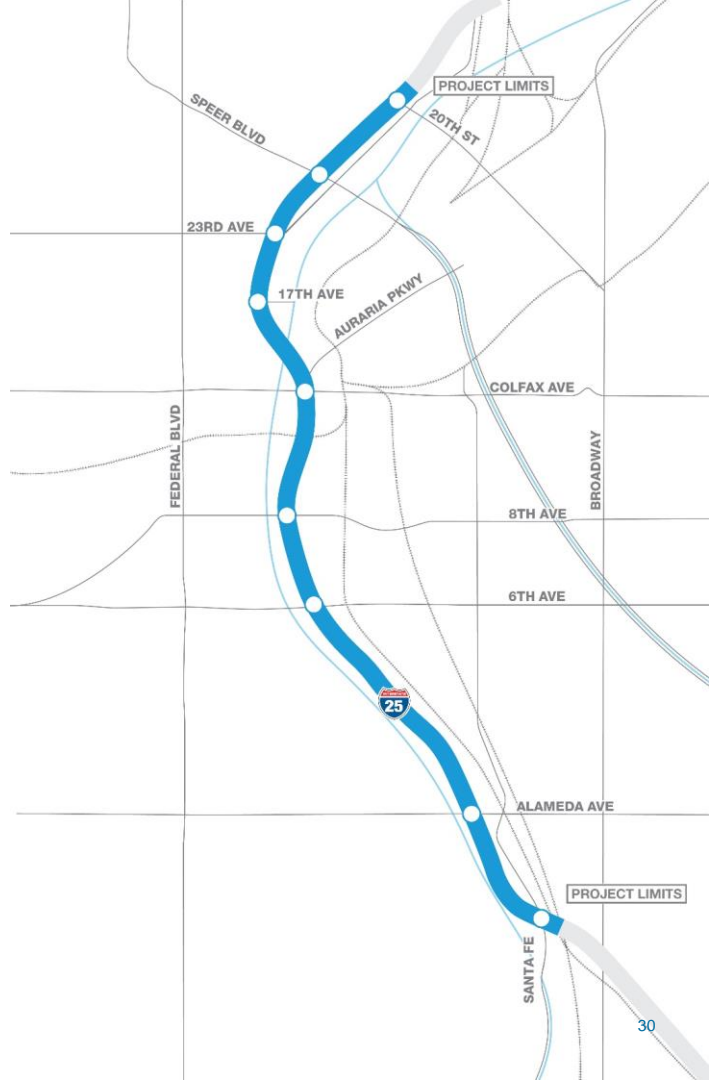
Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Yes
Cross Connectivity	Yes
Carried Forward	



Transportation Demand Management (TDM), Operational, and Intelligent Transportation Systems (ITS)

This alternative includes strategies designed to reduce travel demand and improve the use of the current transportation system, while reducing the need for major capital investments. TDM strategies would address traffic congestion by reducing travel demand rather than increasing transportation capacity. TDM programs provide user information, incentives, and encourage behavior change to reduce travel demand. ITS improvements may include active traffic management (ATM), variable message signs (VMS), and variable speed limits to help improve traffic flow on the existing transportation system.

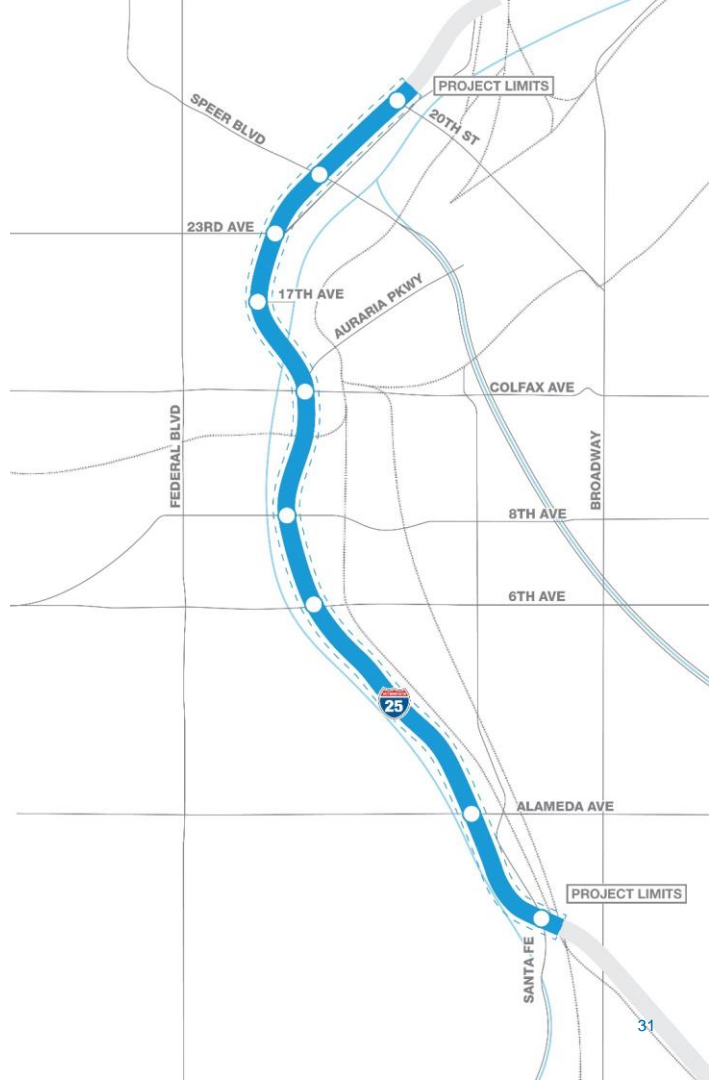
Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	



Congestion

Pricing
 This alternative proposes a mechanism to reduce peak congestion by shifting or reducing trips to off-peak times by implementing variable charges during the commuter peaks. These charges may apply to specific lanes of a roadway (similar to express toll lanes); variable tolls on an entire roadway; cordon charges that require a toll to enter a congested area of the city; or per mile charges in a specific congested area.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	

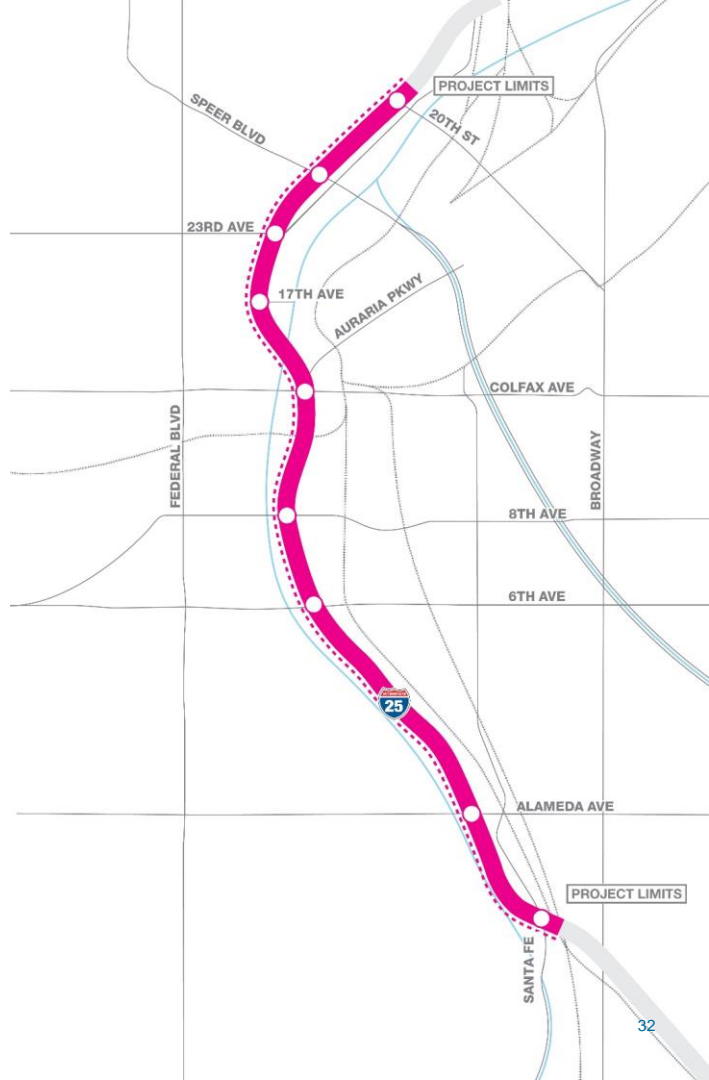




New Transit Facility

This alternative includes the construction of a high capacity transit facility (rail or other new technology type). The new transit facility may be located adjacent to the I-25 corridor (in new ROW) or follow another corridor in the region depending on the transit corridors' ability to serve similar origins and destinations as I-25.

Criteria	Determination
Safety	Yes
Congestion	Yes
Travel Time Reliability	Yes
Access	Neutral
Cross Connectivity	Neutral
Carried Forward	



Break Out Groups

Is the I-25 Central Project evaluating an appropriate range of alternatives?

Yes

No, there are too many under consideration

No, there are more that should be considered

Do you understand how the PEL evaluation process works to help us find good solutions?

Yes and it is clear to me

Yes but I am not sure I fully understand it

No I think we are missing important criteria

Do you accept the outcomes from the Level 1 evaluation?

Yes! I am excited about these alternatives.

Yes, we are headed the right direction.

Probably if we make good progress in Level 2.

I have issues that may not be addressed with these alternatives.

Moving Forward

Level 2 Preview

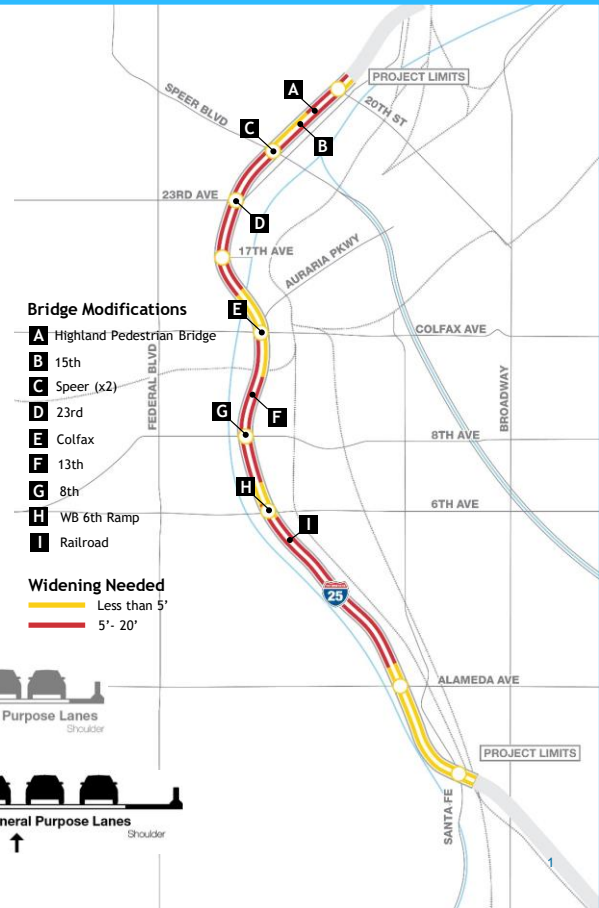


I-25 Central PEL

Bring the Corridor to Standard (DRAFT)

The primary goal of this alternative is to provide all the improvements necessary to bring the I-25 Central corridor to current engineering design standards. For the purposes of the Level 2 evaluation, geometric deficiencies along the mainline freeway and potential corrective actions which could be implemented to rectify these deficiencies were reviewed. To allow for evaluation in Level 2, corrective actions were separated into two categories including improvements which would generally impact approximately zero to five feet of pavement width and improvements which would impact approximately zero to 20 feet of pavement width. These improvements include:

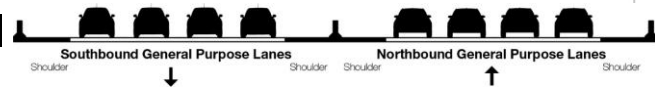
- Superelevation correction
- Cross-slope correction
- Lane widening
- Vertical sight distance improvements
- Clear zone improvements
- Ramp departure angle improvements
- Vertical grade improvements
- Shoulder widening
- Horizontal sight distance improvements
- Acceleration/deceleration lane lengths



Existing



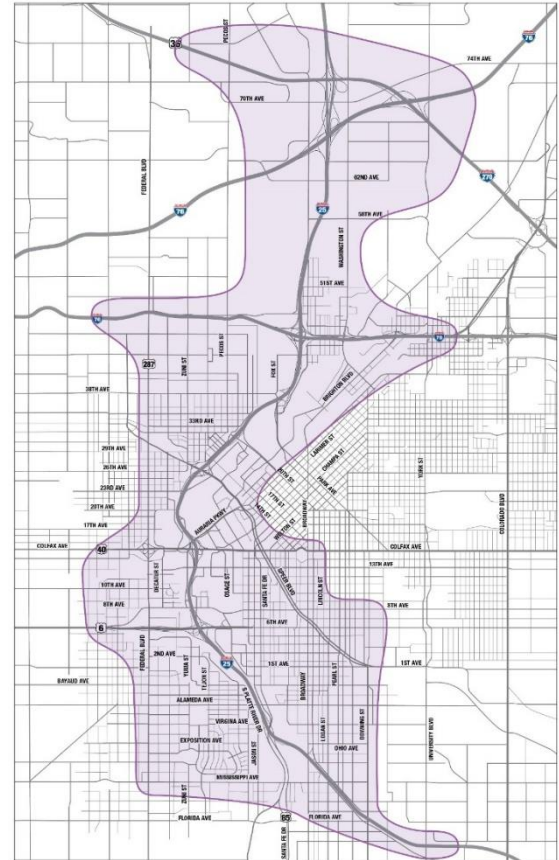
Proposed



TAC Meeting #2: For discussion only

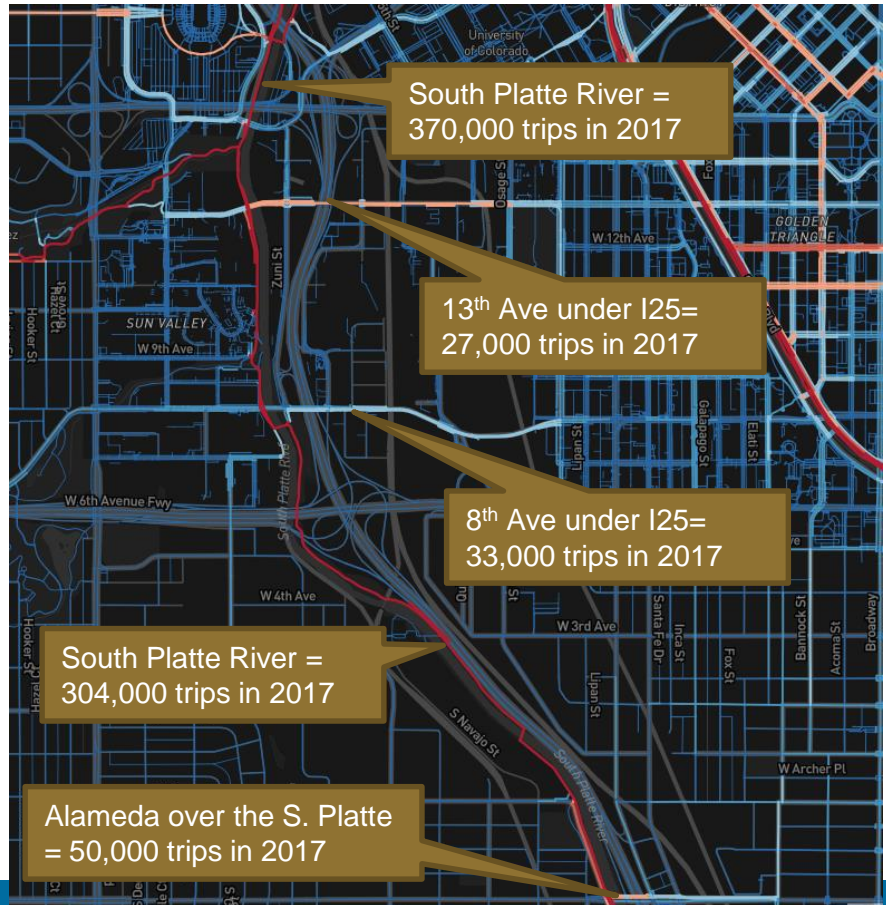
Study activities

- Finalized existing conditions
- Calibrating the traffic model
- Performing sensitivity analysis for Denver land use changes.
- Planning alternatives to model
- Generating more detailed Level 2 alternatives
- Discussing funding scenarios
- Reviewing transit and technology
- Reviewing bike/ped data

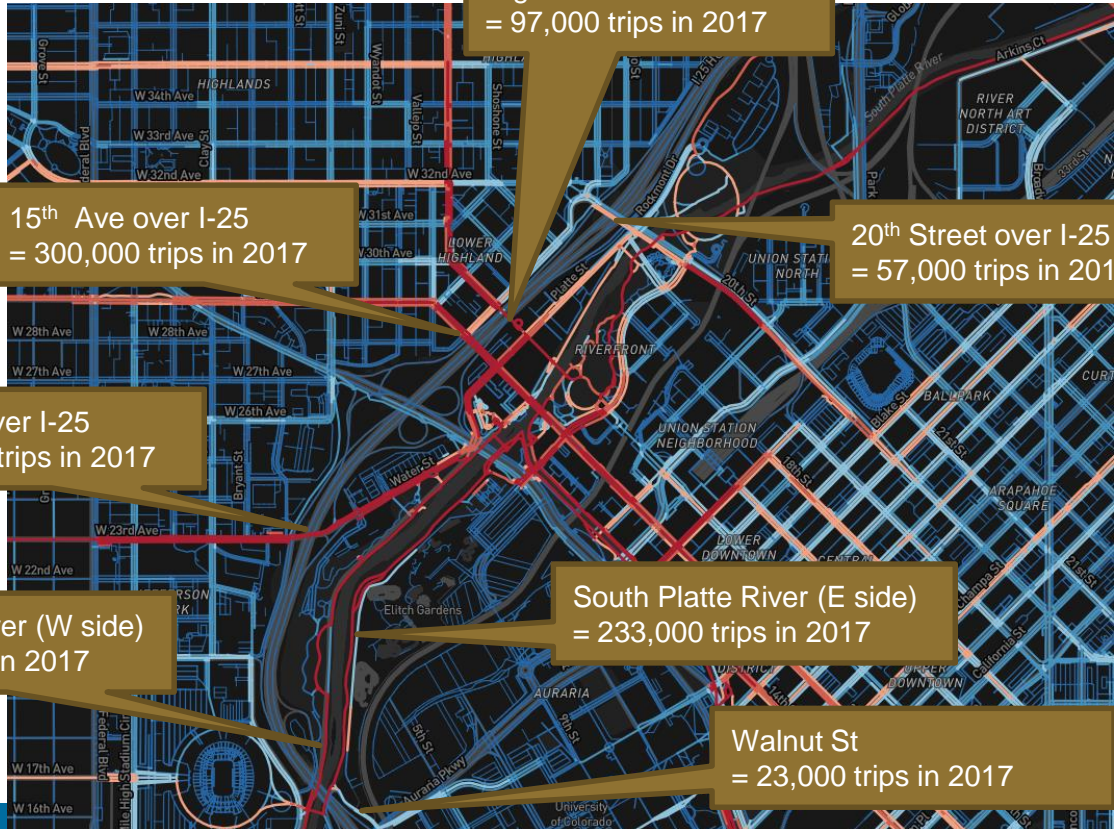


Bike Data (South)

- High use bike corridors, using Strava Data.
- Experience shows Strava captures 4% to 20% of riders.
- Numbers reported here assume 10%, though it may be closer to 4% on these highly travelled corridors.



Bike Data (North)



Next Steps

- 
- August 2017 - Project initiation/kick-off
 - February to August 2018 - Purpose and Need
Develop evaluation process and alternatives
 - October to December 2018 - Review alternatives and level 1 evaluation
 - Spring 2019 - Review level 2 evaluation
Next SFG meeting
Public open house
 - Summer/Fall 2019 - Review level 3 evaluation
 - Fall 2019 - PEL study

Thanks!

[Bit.ly/I-25CentralSurvey](https://bit.ly/I-25CentralSurvey)