DENVER
TRANSPORTATION & INFRASTRUCTURE

July 23, 2024

West 38th Avenue Corridor Study

Community Meeting #2

DENVERGOV.ORG

Welcome! We're glad you're here.

Project Team

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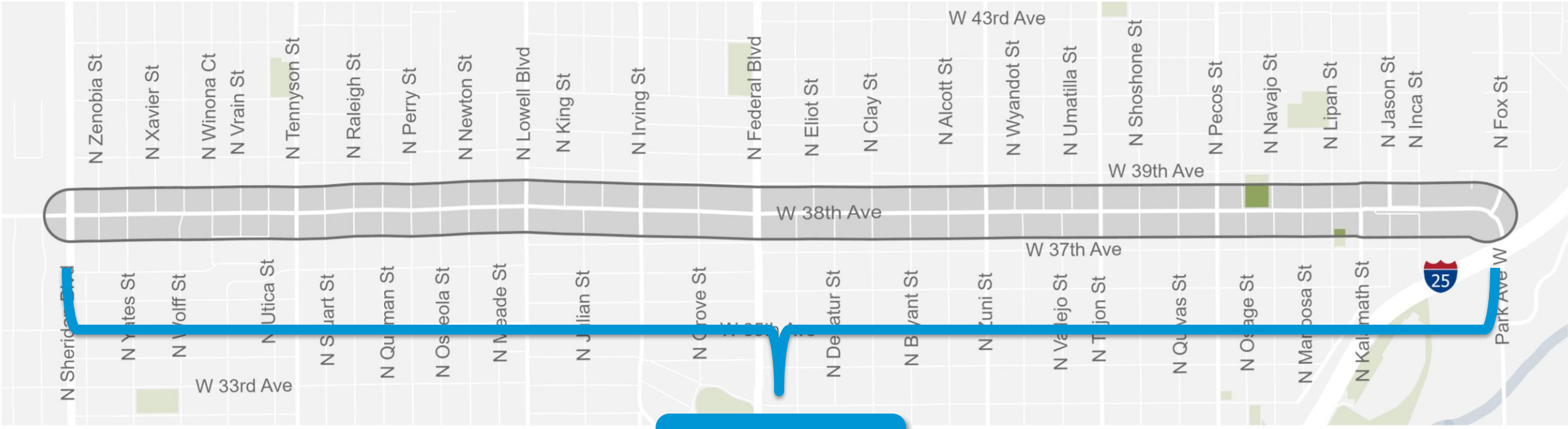
Agenda

- Project Overview
- Review Results of Recent Analyses and Public Outreach
- Explain How Corridor Options Were Developed
- Presentation of Corridor Options
- Break Out to Stations

Project Overview

Project Overview

Study Area



3 miles

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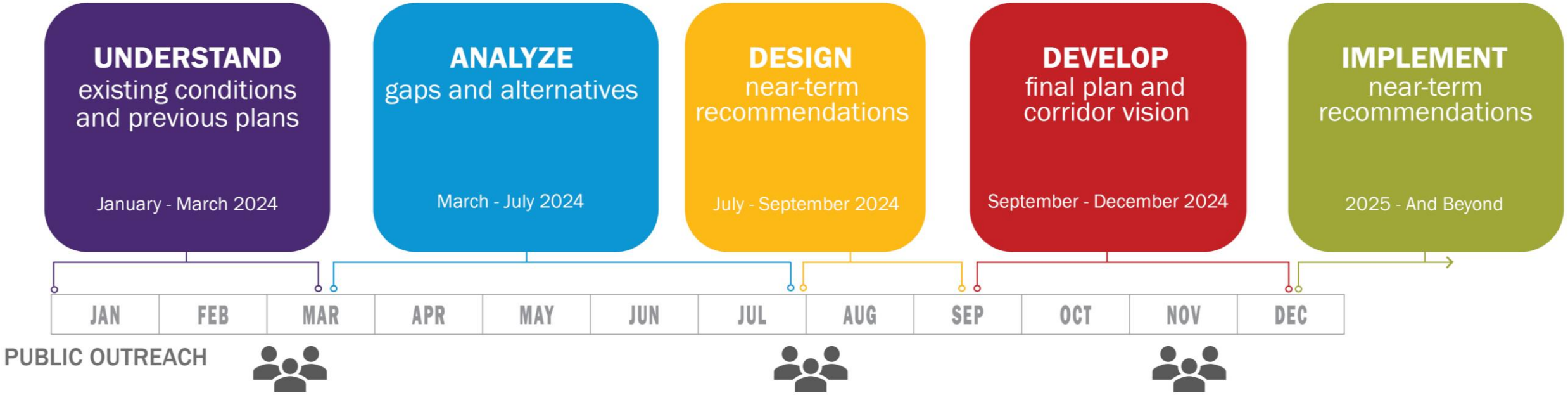
Project Overview

Timeline



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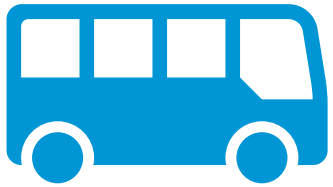
Project Overview

Project Priorities

Establish a Clear Community Vision

Improve Safety



Enhance Public Transit

Promote Biking, Walking & Rolling

"Green" the Corridor

Opportunities for near-term interventions (2024-2025)

How were potential options developed?

Conduct Technical Analysis

Identify Mobility Challenges

Incorporate Community Input

Create 10+ options that meet various project goals → Narrow to 3 options → Define long-term (10+ years) and mid-term (3-9 years) options

Your Input Today!
+ Second Survey open though August 2024

Preferred Option

The most feasible option that best aligns with project priorities and community vision.

Recap of

Recent Technical Analyses and Phase 1 Outreach

And how this influenced options

Conduct Technical Analysis

Identify Mobility Challenges

Incorporate Community Input

- Road Safety Audit
- Traffic Analysis
- Bike/Ped Analysis
- Transit Analysis
- Green Infrastructure Analysis
- Survey Results

Near-term recommendations and long-term corridor options that address the gaps identified

Safety And Traffic

Road Safety Analysis

BROADSIDE CRASHES (aka T-Bone Crashes)

42% of killed/severely injured crashes
32% of all crashes

BIKE/PEDESTRIAN CRASHES

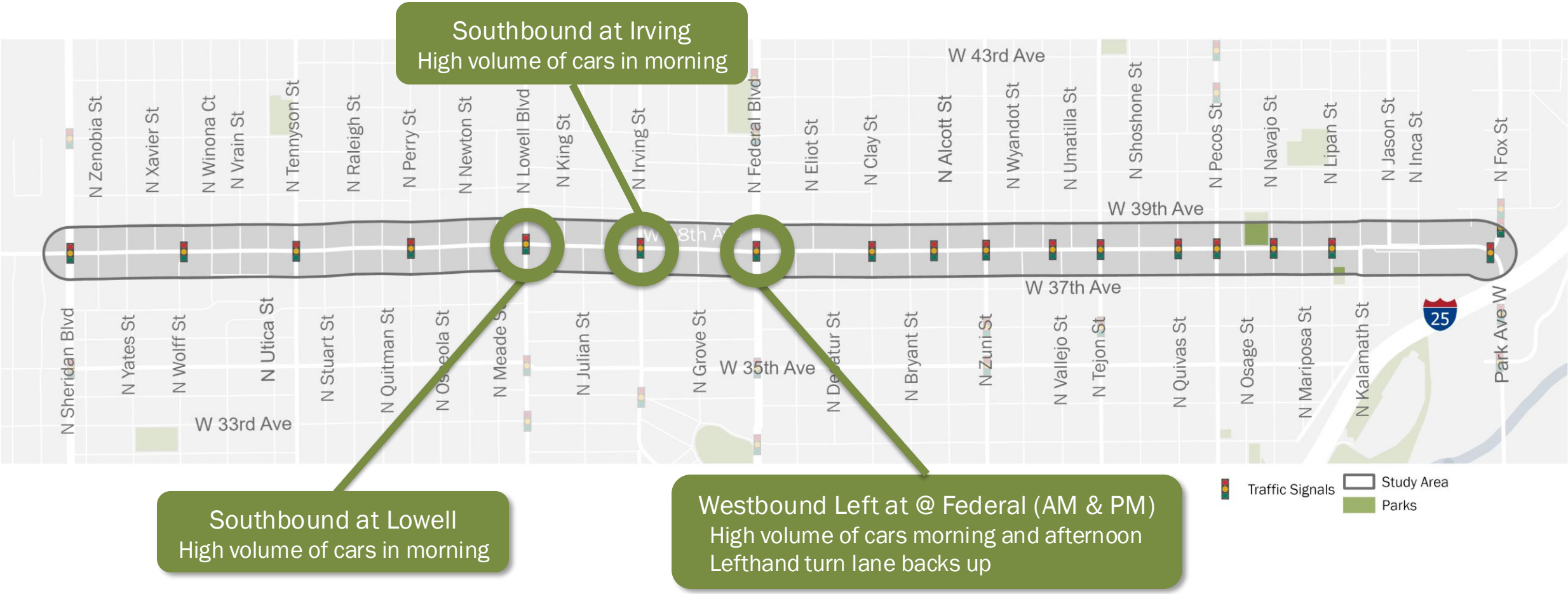
29% of killed/severely injured crashes
5% of all crashes

Broadside and Bike/Ped crashes are typically…

- Left turn movements
- Failing to yield ROW
- Failing to stop at signal/stop sign.

Addressing these two crash types could address up to 71% of killed/severely Injured crashes on W 38th Avenue.

Traffic Analysis: Intersections of Interest



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Traffic Analysis

Traffic moves relatively well today with minimal performance issues identified.

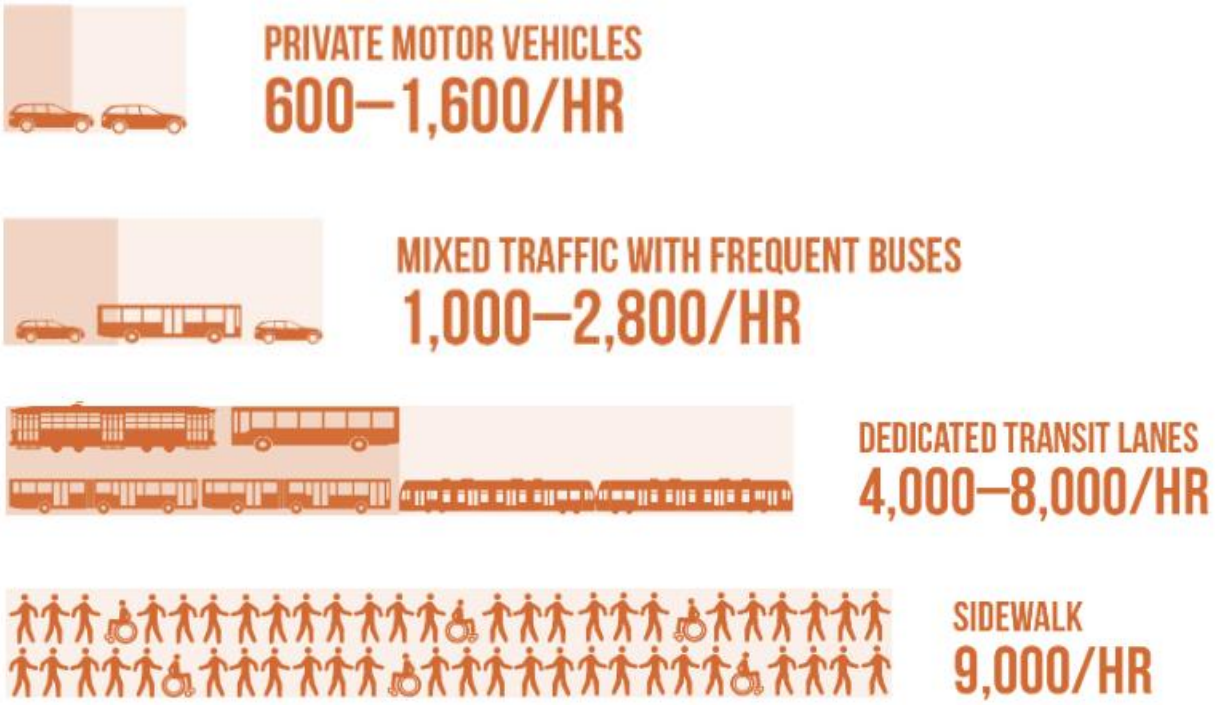
The roadway is used by fewer cars than it was designed to carry

Traffic congestion only happens at a few peak times (less than 2 hours/day).

Lanes for cars are not the most efficient or desirable use of space.

Wider lanes encourage speeding.

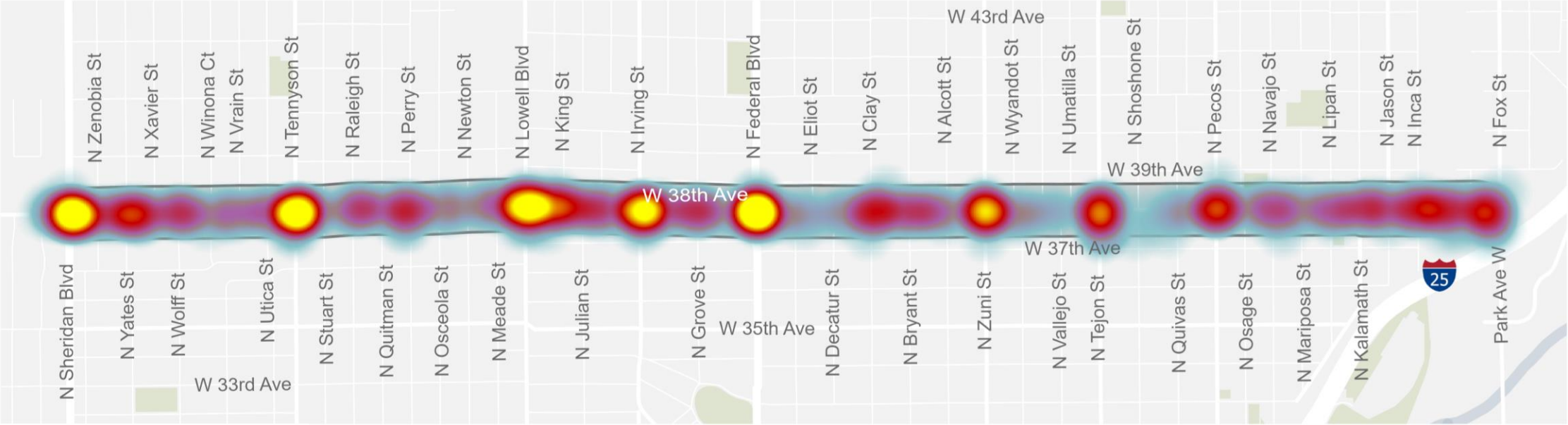
There are more efficient ways to move people



National Association of City Transportation Officials (NACTO)

Corridor Wide Public Survey #1 Results

- 454 social map comments
- 378 survey responses



Less Comments

More Comments

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Survey Results – Safety and Traffic

- Nearly unanimous desire for **calmer traffic** to improve accessibility to walking/rolling/etc.
- Handful of comments for maintaining efficient through-traffic flow to/from downtown
- Desire for protected left turns
- Most traffic calming comments are oriented towards feeling safer for **pedestrians**, not for vehicles

Road Safety: Possible Solutions

These solutions were identified in the Road Safety Audit and helped us form the alternatives:

1. Adjust how traffic signals operate.
2. Change left turns to green arrow only.
3. Lower speed limit, narrow lanes, meander roadway, and mark parallel parking to help reduce speeds and calm traffic.
4. Install reflective plates around signals.
5. Reduce parking at corners so it is easier to see cars.
6. Reduce crossing distances for pedestrians.
7. Consider moving bus stops nearer to intersections with crosswalks.
8. Widen and maintain the sidewalks.

Pedestrians

Current Pedestrian Issues

Inconsistent Sidewalks

Limited Crossings

Image Source: DOTI

Pedestrian Crossing Analysis

75% of intersections are uncomfortable to cross.

Potential Near-Term Improvements

Enhance crosswalk and stop bar markings

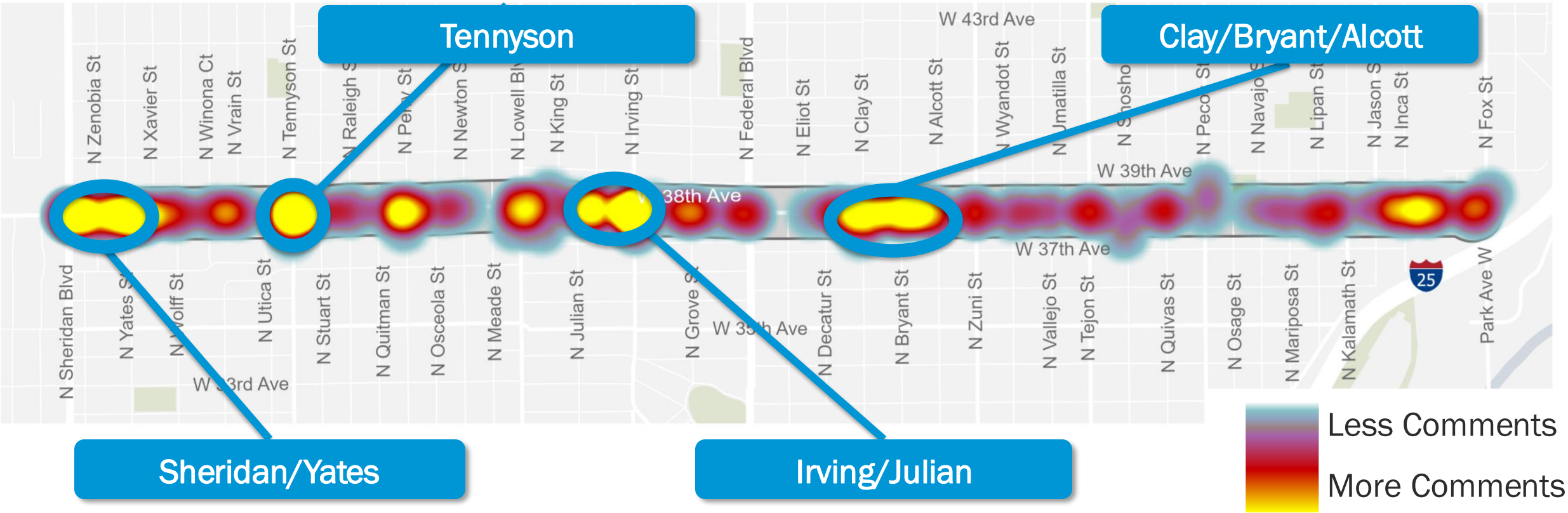
Create shorter crossing distances with paint-and-post curb extensions

Install median refuge islands

Have pedestrian signal on every cycle (pedestrians don't have to push a button)

Survey Results – Pedestrian-Specific Comments

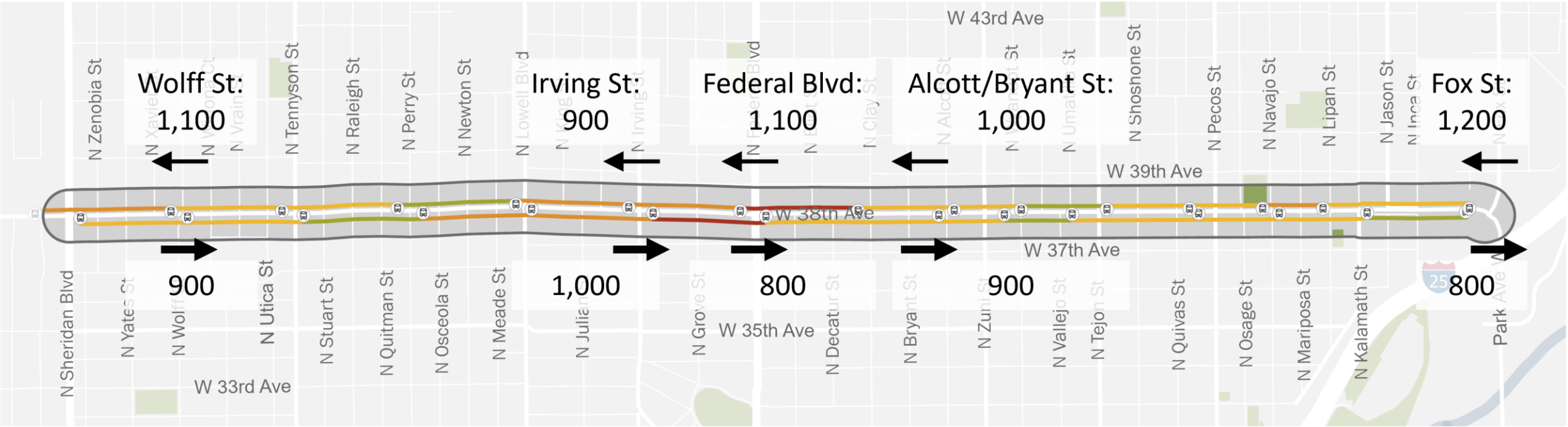
- 151 Pedestrian-Specific Comments
- Significant concern about safe crossings coupled with traffic calming (highest comment category on social map and survey)
- Desire for automatic and protected pedestrian signal phases
- 26 map & 47 survey comments about safe routes to school or other community destinations



Transit

Transit Analysis

Transit is delayed along West 38th, especially near Federal Boulevard during the PM peak hour



PM Peak Transit Speeds and PM Peak Hour Vehicle Volume

0 0.5 1 Miles

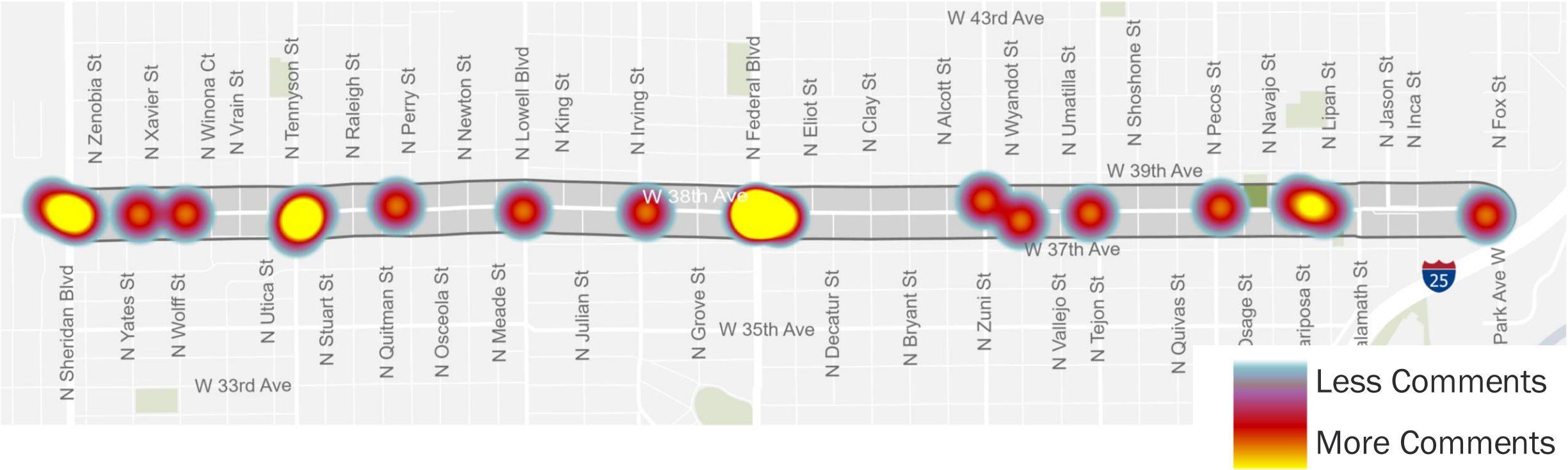
PM Peak Transit Speeds
- <10 MPH
- 10 to 15 MPH
- 16 to 20 MPH
- 21 to 25 MPH
- >25 MPH

Bus Stop
Study Area
Parks

Total Vehicle Intersection Approach Volume

Survey Results – Transit-Specific Comments

- 25 Transit-Specific Comments
- Desire for more efficient & prioritized transit on this corridor – especially frequency
- Many comments about improving bus stop facilities for transit users – lighting, maintenance/cleaning, benches and shelters, protection from traffic
- General support for dedicating space and/or signal priority to buses



What is Bus Rapid Transit (BRT)?

BRT is an **opportunity** to provide **frequent and efficient** transit while also improving sidewalks, crosswalks, and green opportunities. BRT corridors can include:

Safer Pedestrian Crossing

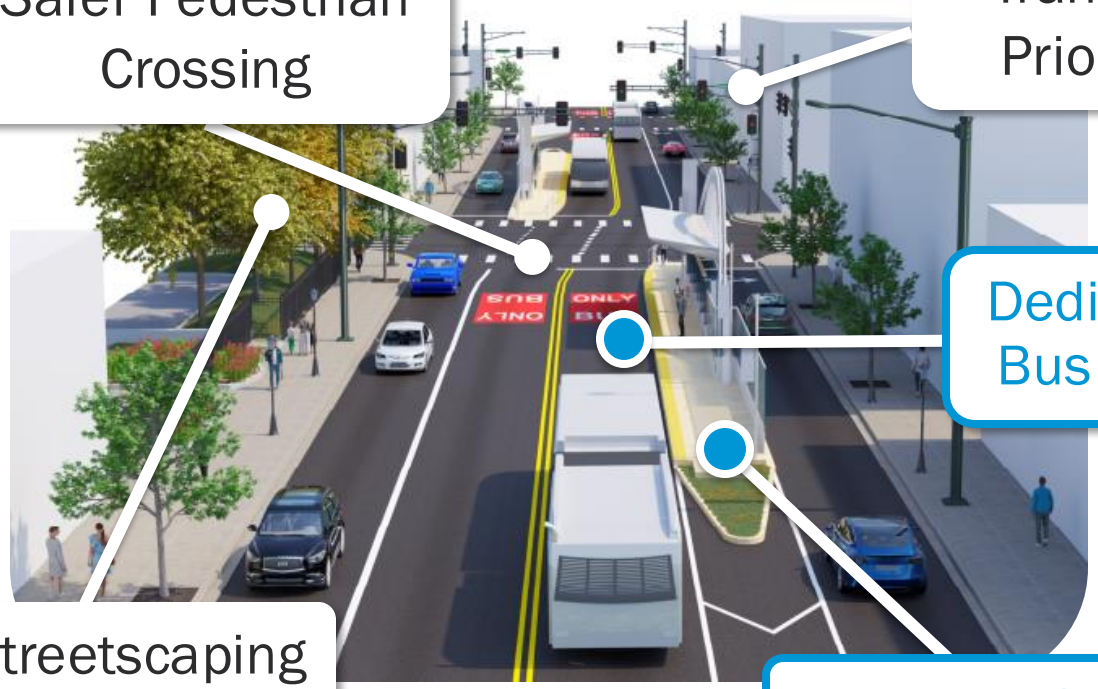
Transit Signal Priority (TSP)

Off-board Fare Payment

Dedicated Bus Lane

Streetscaping

Enhanced Stations



East Colfax BRT (Rendering)
Source: DOTI

St. Paul, MN BRT
Source: Kimley Horn

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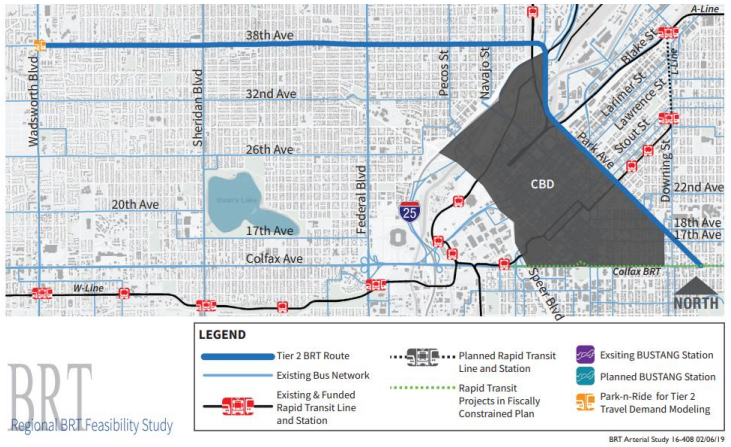
Why is BRT recommended on W 38th Ave?



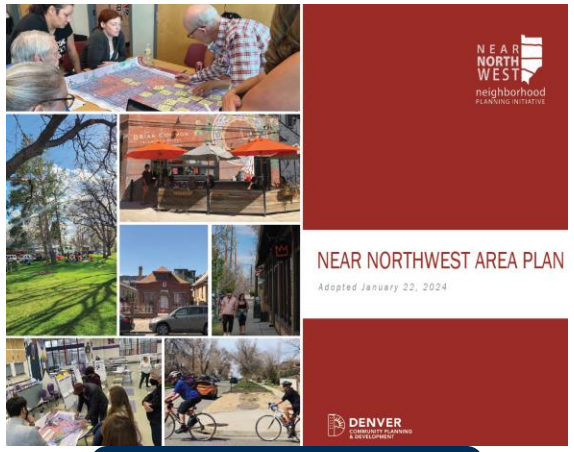
2019

RTD Regional BRT Feasibility Study recommends BRT on 38th based on:

- Top 25% population density per mile
- Population growth
- Top 25% employment density per mile
- Employment growth
- Population/employment density ≥17/acre
- Regional connectivity
- Top 25% regional destinations per mile

2019

Denver Moves: Transit recommends local BRT with dedicated lanes, transit signal priority and/or bypass/queue jump lanes, and enhanced stops and stations.



2024

Near Northwest Area Plan recommends increased frequency, bus bulbs, transit signal priority, and bus stop improvements

What is the process for implementing BRT?

Regional Visioning

Previous plans

Alternatives Analysis

We are here!

Conceptual Design

- Determine Route and Service Plan
- Maintenance Strategy
- Funding Strategy

Final Design

Detailed design block by block

Construction

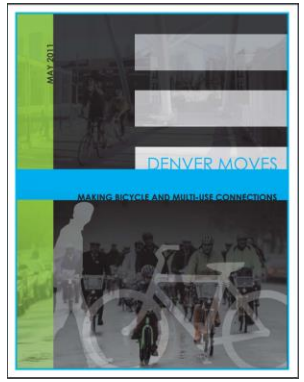
Rebuild entire corridor for BRT

BRT Running

Bikes

Bike Analysis – Previous Plans

Bike facilities on and off West 38th Avenue have been considered through several previous studies



2011

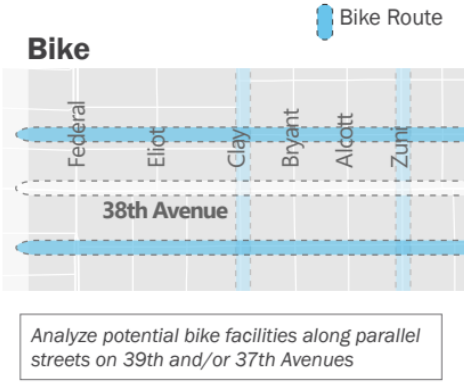
Denver Moves Bikes recommends neighborhood bikeways on W 35th and 41st Aves.

2015

Denver Moves Bikes update adds recommendation for further study of a bike facility on W 38th Ave.

2020-2023

Northwest Community Transportation Network program implements a connected bikeway network, including neighborhood bikeways on W 35th and 41st Aves.



2024

Near Northwest Area Plan recommends analyzing **W 37th or W 39th Ave** between Federal and Inca as parallel bike facilities instead of 38th.

Survey Results – Implementing Bike Facilities

Survey:

- Half in favor of bike lanes on West 38th
- Half in favor of bike lanes or bikeways on a parallel street

- Parallel streets discussion included new on 37th/39th or improve existing on 35th/46th
- General concern for improving neighborhood bikeway crossings of W 38th

Green Infrastructure

What is Green Infrastructure (GI) or Greening?

GI uses trees, plants, and vegetation to **manage stormwater** and create **healthier** urban environments.

Greening is adding trees and plants to make the corridor **more inviting** and **appealing.**

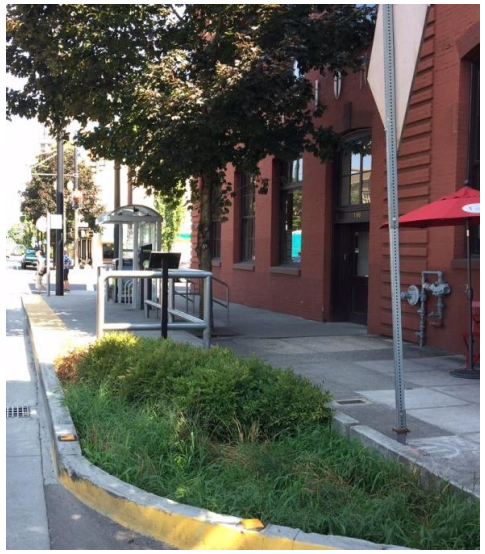
Brighton Blvd

21st & Broadway

Carla Madison Rec Center

Green Infrastructure Opportunities

- Near bus stops
- At intersections where space allows
- Add street trees
- Between road/parking and sidewalk for longer distances
- Adjacent to parks or other public spaces



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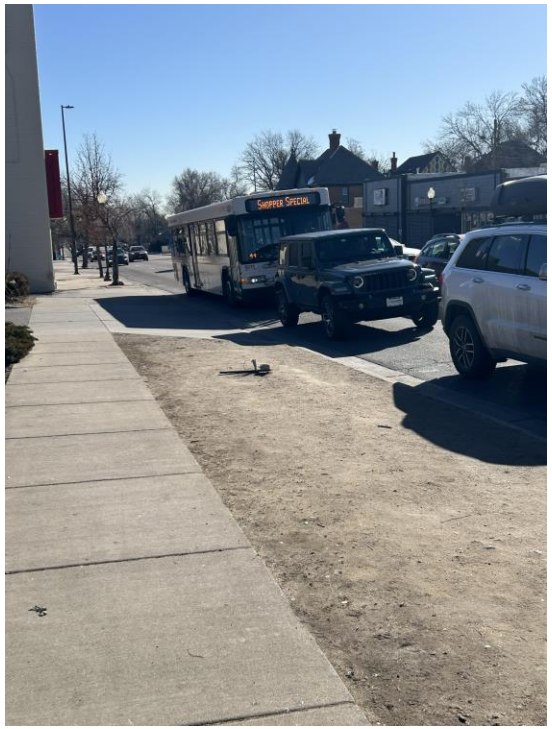
Survey Results – Green Infrastructure

- High desire for greenery adjacent to the sidewalks, some desire for a landscaped median

- Several comments about existing tree planters on the sidewalk that no longer contain trees



Corridor Option Development

How were potential options developed?

Conduct Technical Analysis

Identify Mobility Challenges

Incorporate Community Input

Create 10+ options that meet various project goals → Narrow to 3 options → Define long-term (10+ years) and mid-term (3-9 years) options

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Preferred Option

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How were potential options narrowed?

Create 10+ options that meet various project goals → Narrow to 3 options → Define long-term (10+ years) and mid-term (3-9 years) options

Ideas considered:

- BRT in center of road
- Many bike lane options
- Less space for cars
- Repurposing parking

Viable options that consider trade-offs of project priorities

Many eliminated due to space constraints, conflicts with private property, operational issues, and misfit with City guidelines.

Long-Term:

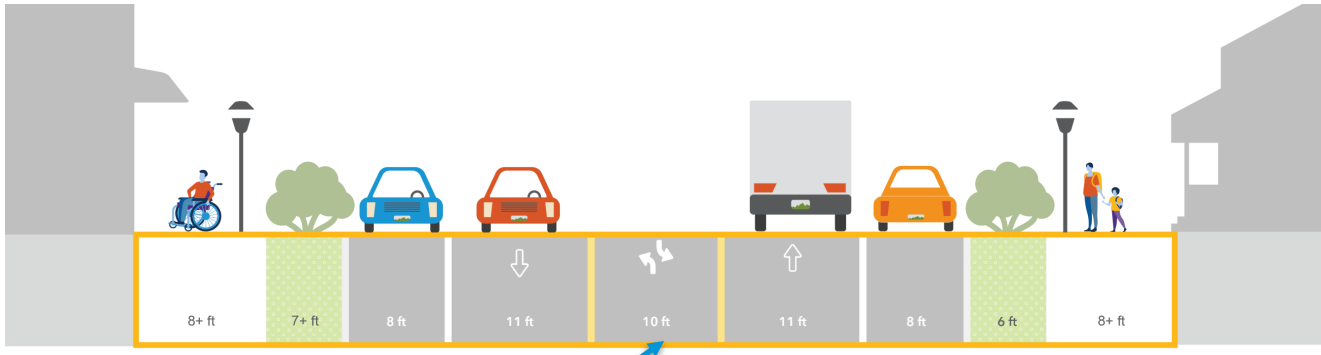
- Full vision where space allows and locations of redevelopment

Mid-Term:

- Within existing space that support the long-term vision

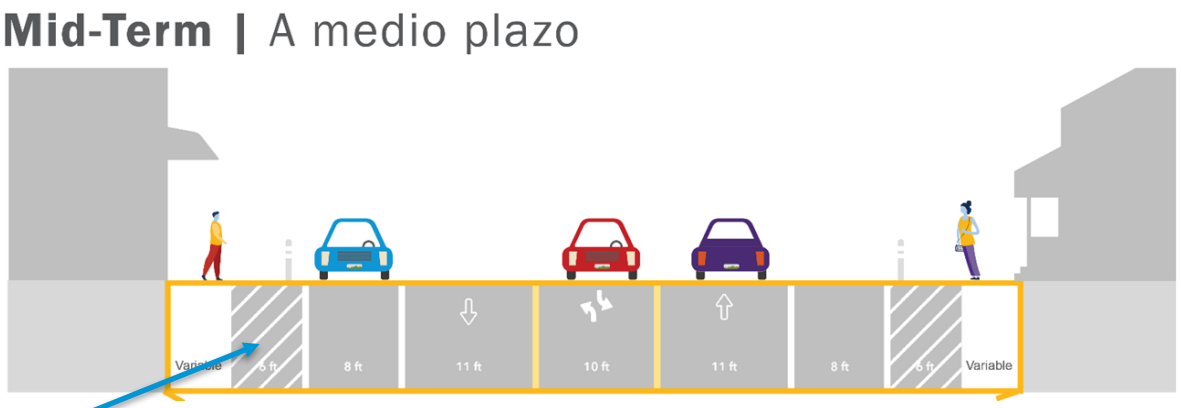
What Long-term Options Show

- A vision for how the corridor could develop long-term (10 years+)
- Space shown for each transportation mode
- Wider street layout for consideration of redevelopment and where space allows
  - Many parts of the corridor are wider than 70' and long-term corridor construction would adapt to varying widths
- Consider concrete median to improve safety for pedestrians and cars (not shown)



What Mid-term Options Show

- 3-to-9-year vision for how to improve W 38th sooner than later, in line with long-term vision
- Keeps existing curbs (same width as today)
- Adds flexible space that could be used for additional pedestrian space, bus stop extensions, planters, parklets, etc.

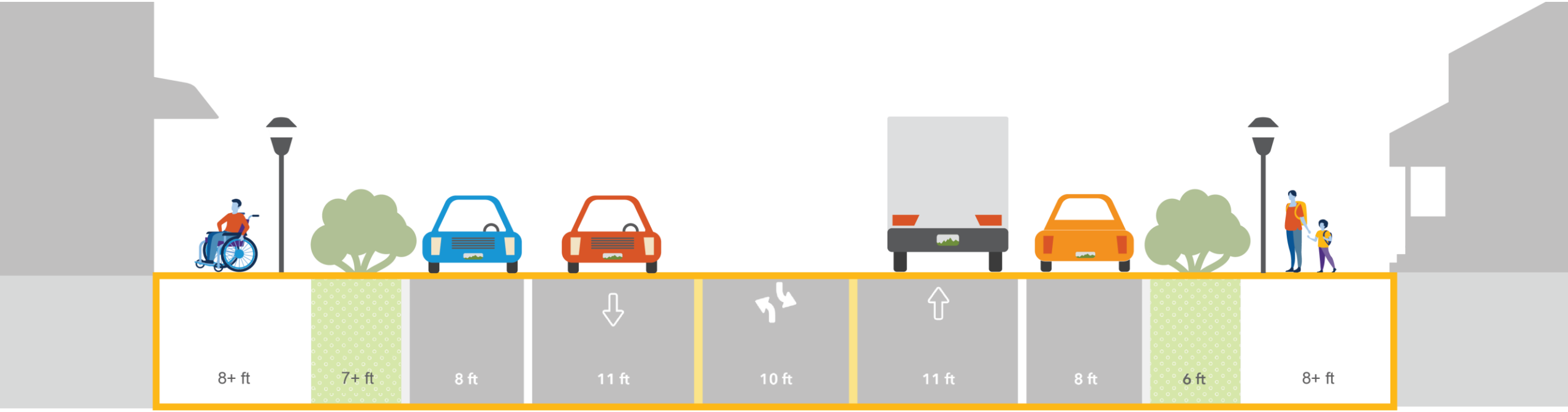


Which options were considered?

- Option 1: Lane Reduction
  - Adds sidewalk space, improves safety for walking
  - Includes most space for green infrastructure
  - No emphasis on buses
- Option 2: Bus Rapid Transit (BRT) Priority
  - Adds most space/priority for buses with improved walking environment
  - More limited/targeted green infrastructure
  - Shortens crossing distance for pedestrians at bus stops
- Option 3: Lane Reduction with Bus Priority
  - Adds most space for sidewalks, improves safety for walking
  - Includes some space for green infrastructure
  - Adds space for bus lanes

Our 3 Options

Option 1: Lane Reduction



Project Priorities Score

Wider sidewalks and amenity zones

Consistent parking

Potential median for improved safety for pedestrians and cars where appropriate (not shown)

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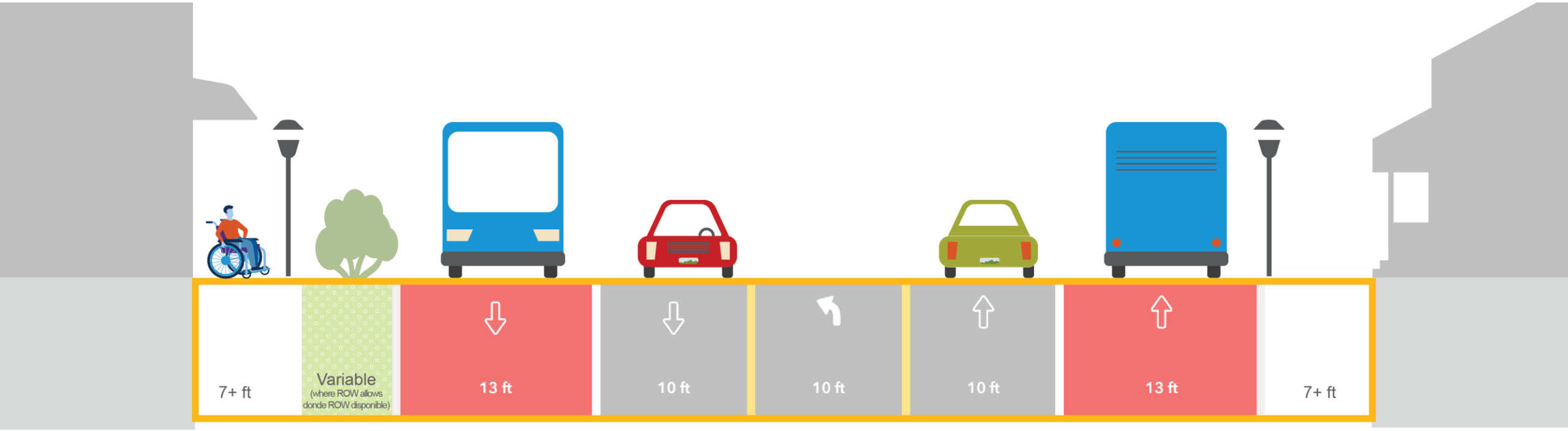
Option 2: Bus Rapid Transit (BRT) Priority



Project Priorities Score

Corridor-wide bus lanes

Wider sidewalks and amenity zones through repurposed parking

Full BRT stations with shelters, benches, real-time information, level-boarding, and off-board fare payment

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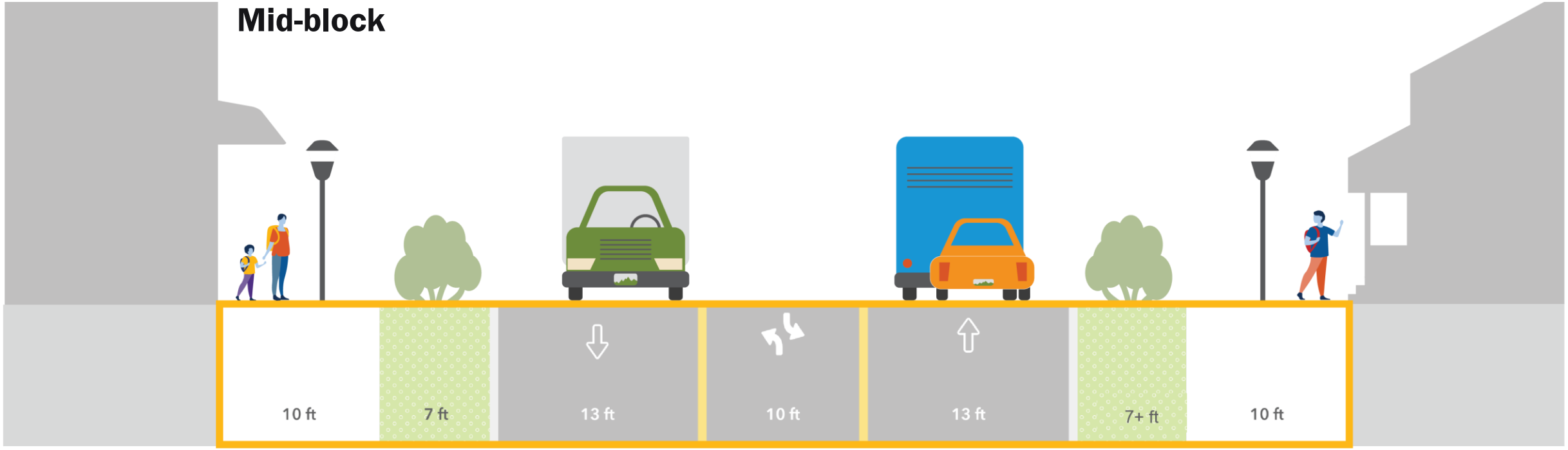
Option 3: Lane Reduction with Bus Priority



Project Priorities Score

Combine the lane reduction and BRT options by applying elements of each in appropriate and feasible locations.

At mid-block lane reduction sections: wider sidewalks, wider travel lanes to accommodate vehicles and buses

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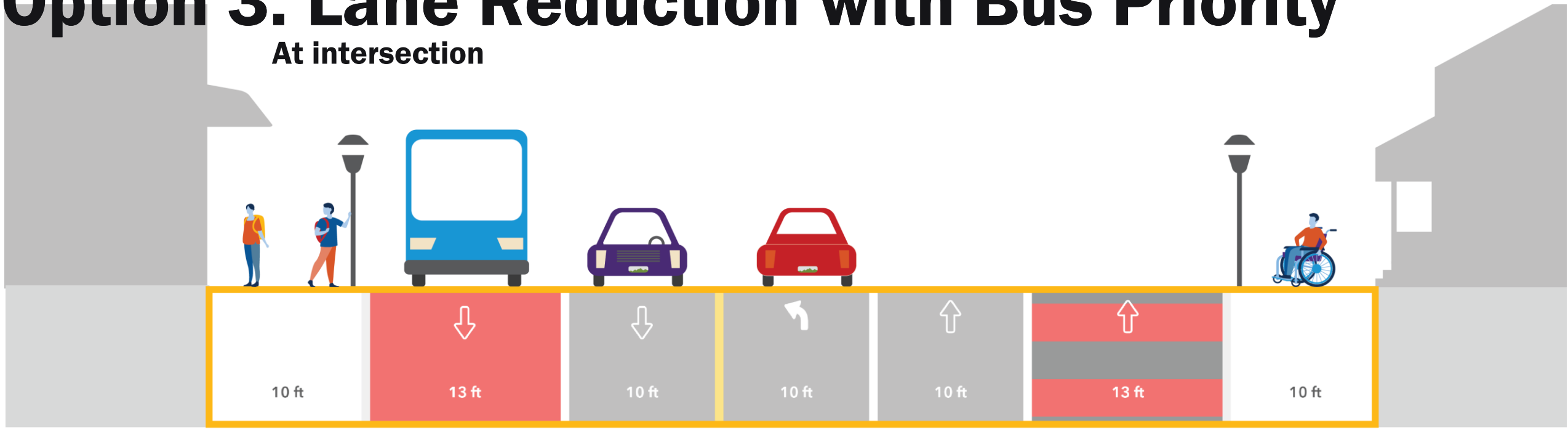
Option 3: Lane Reduction with Bus Priority

At intersection



Project Priorities Score

Combine the lane reduction and BRT options by applying elements of each in appropriate and feasible locations.

At intersection transit sections: wider sidewalks, shared right-turn lanes, dedicated transit lane or bus bulbs at stops.

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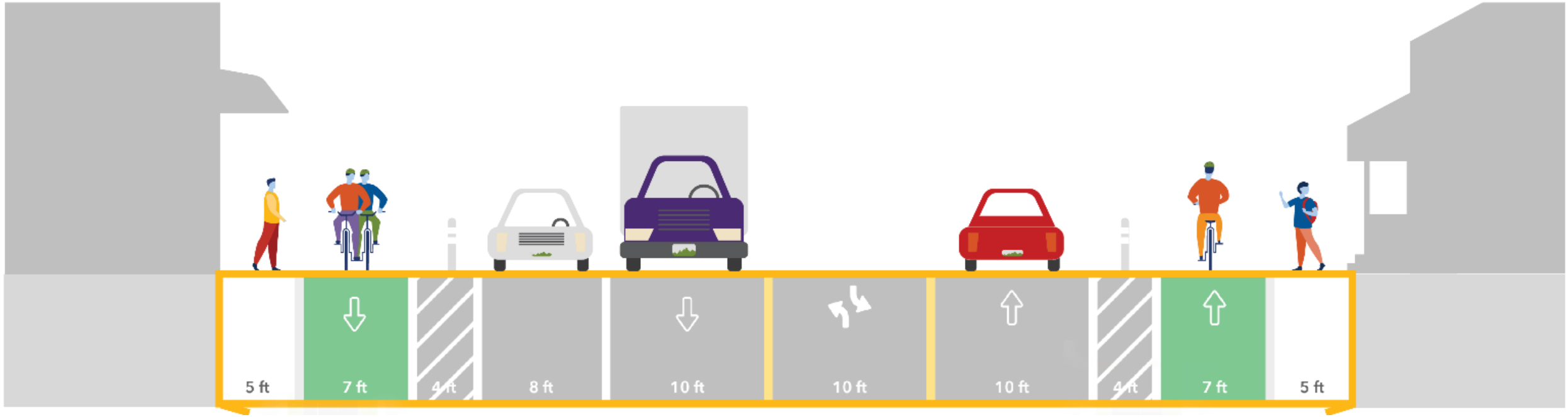
Other Considered Options

Considered Option: Bike lanes?



Project Priorities Score

Does not fulfill many project priorities including sidewalks for pedestrians due to space limitations.

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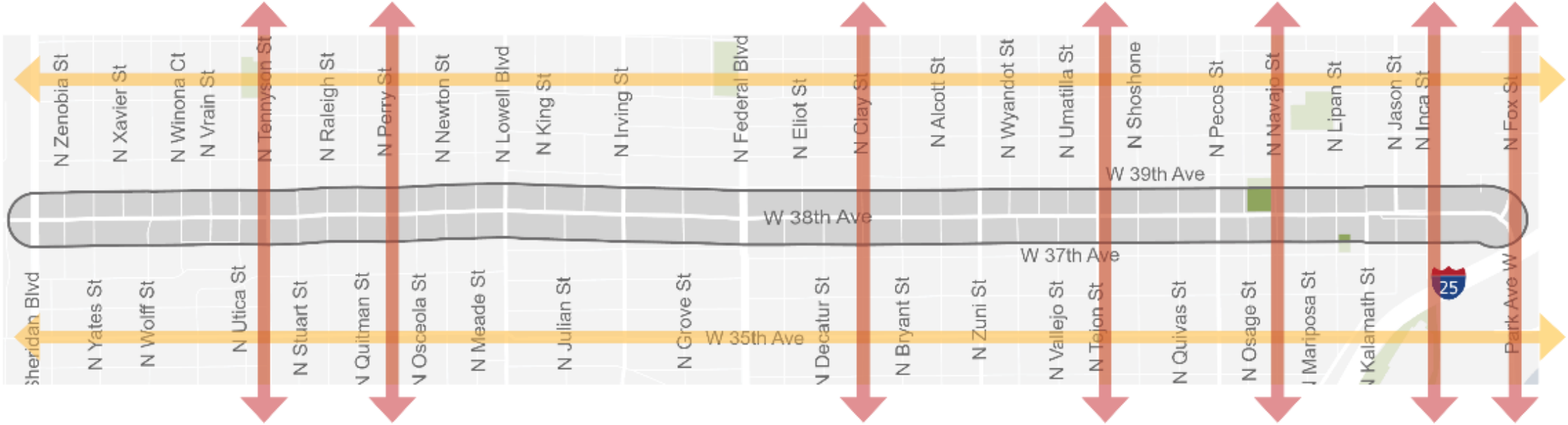
So what do we do about bikes?

Consider parallel facilities



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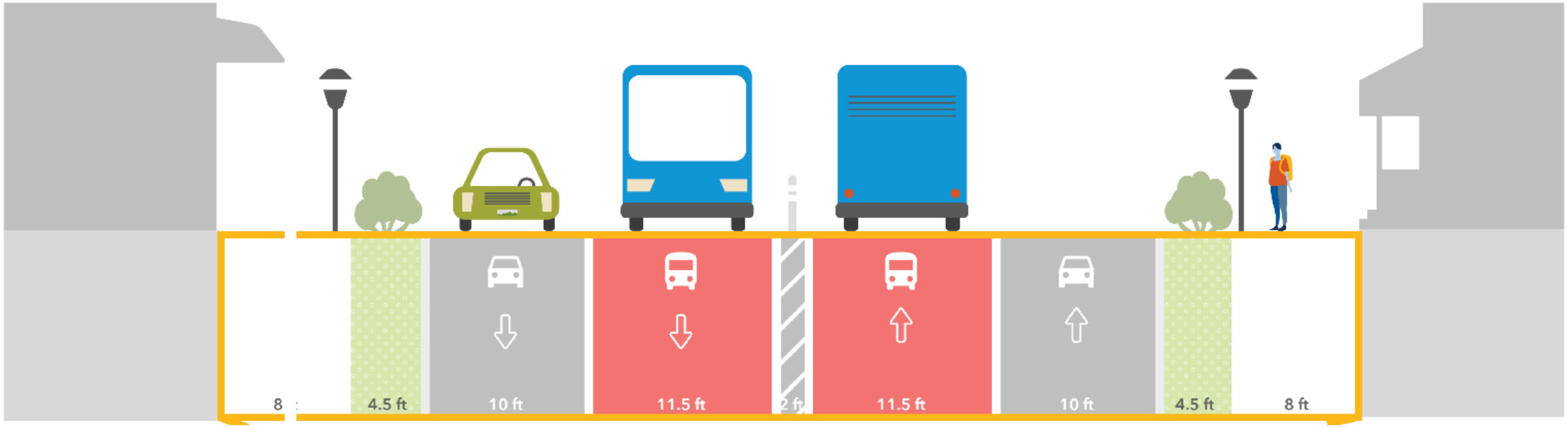
Considered Option: Center-running BRT?



Project Priorities Score

- Limited opportunities to fulfill other project priorities
- Requires significant upgrades to bus fleet/stations that may not support the larger regional transit network.

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Next Steps

Project Website:

bit.ly/West38thAvenue

Online Survey #2
open by 7/26
(Friday)

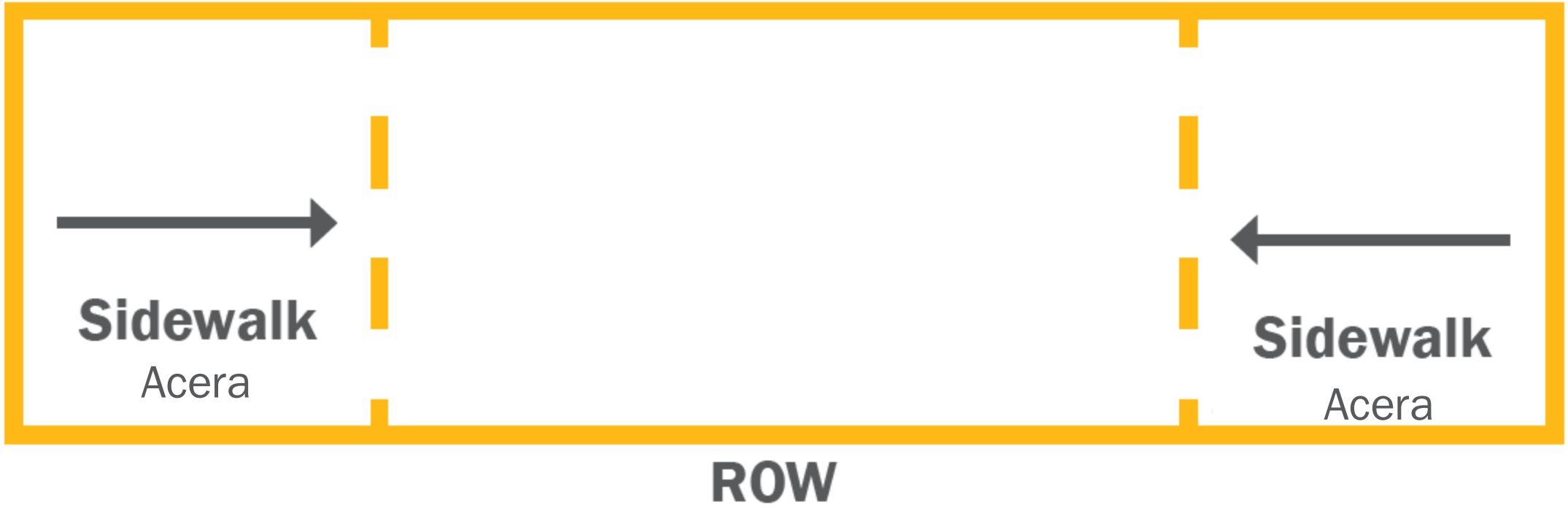
Pop Up Events
Aztlan Rec Center,
Bicycle Event, July 27
SUNI and HUNI, annual
pig roast, August 24

Public Meeting #3
to present final near-
and long-term
recommendations
Fall 2024

NOW	JULY-AUGUST	FALL/WINTER

Break Out to Stations

Check out the options for yourself!


Sidewalk
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