



# FEDERAL BOULEVARD

## MULTIMODAL TRANSPORTATION STUDY

# Stakeholder Working Group Meeting #2

December 10, 2020



# Meeting Facilitation

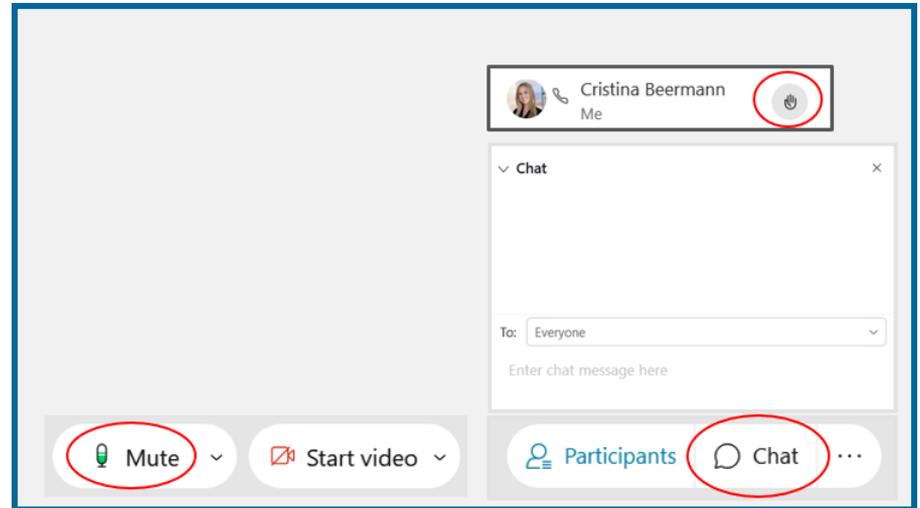
## Ask Questions & Provide Comments

### Webex Instructions

- Maintain mute
- Video
- Chat box
- Hand raise

### Menti.com for feedback exercise

Go to [www.menti.com](http://www.menti.com) and use the code 89 18 79 0



# Welcome and Introductions

# Introductions

## Who We Are

The 'Partnership' management team:

- **Adams County:**

**Chris Chovan**

Senior Transportation and Mobility  
Planner

- **City of Federal Heights:**

**Tim Williams**

Community Development Director

- **City of Westminster:**

**Debra Baskett**

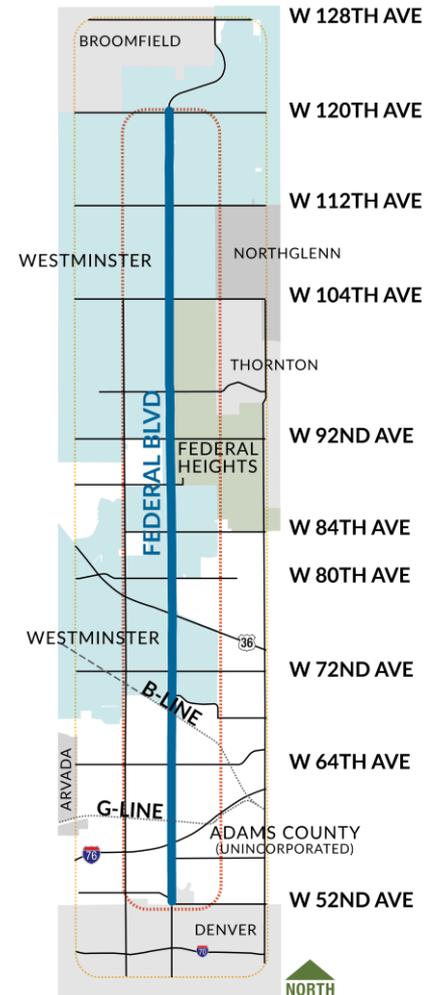
Senior Transportation and Mobility  
Planner



# Welcome

## Agenda

- Introductions
- Study Process
- Stakeholder Engagement Update
- Needs and Conditions Summary
  - Stakeholder input
- Long Range Improvements
  - Stakeholder input
- Short Term Improvement Opportunity
- Next Steps



# Working Group Members Roll Call

Thank you for joining us today! Please 'sign-in' by entering your name and organization (if applicable) in the Chat box on the bottom right of your screen.

# Project Update

# Study Process



# Engagement

## Update

- SWG Meeting #1
- Public Questionnaire
  - 250 responses
- Community Ambassadors
- Business outreach
- Stakeholder interview completion

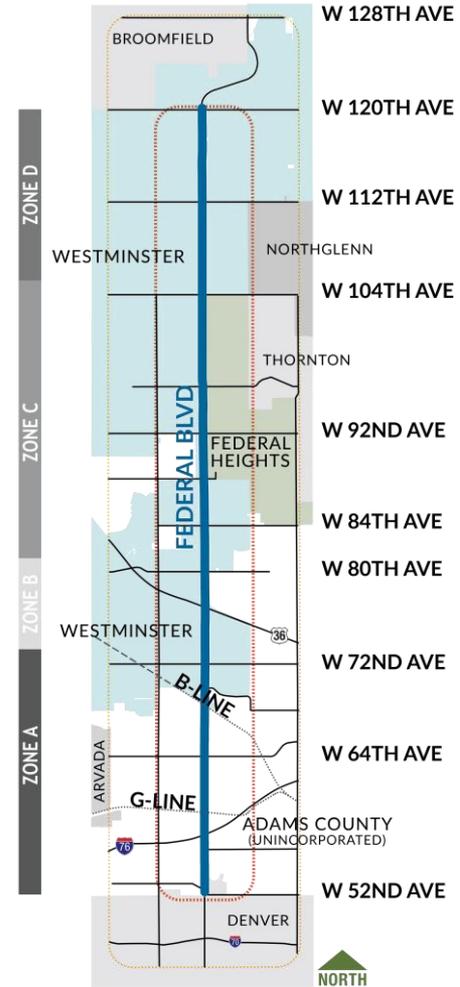
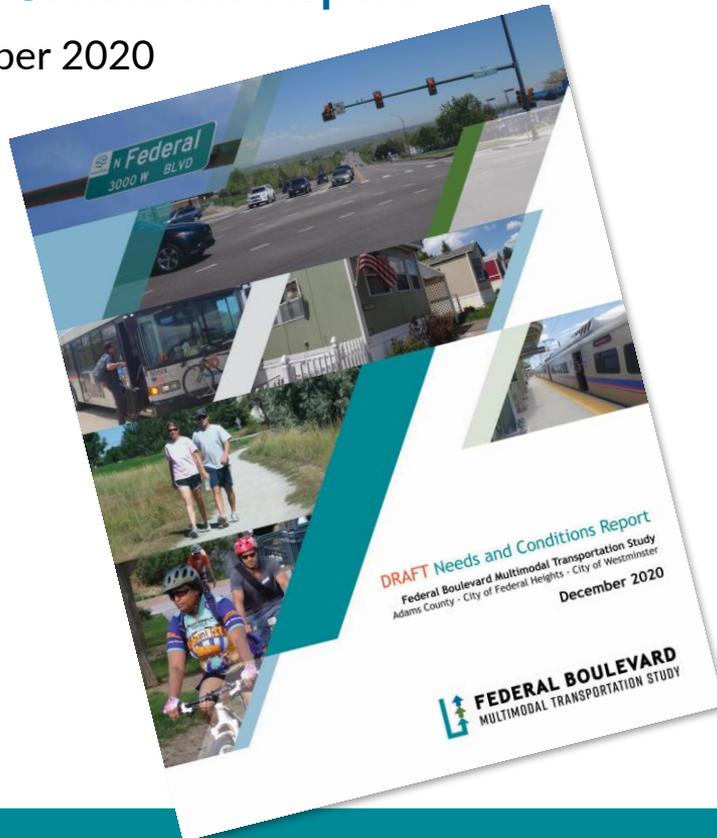


# Needs and Conditions Findings

# Needs and Conditions

## Needs and Conditions Report

Draft December 2020



# Needs and Conditions - Safety

## Public and Stakeholder Input



When asked to indicate their top ranked concern along Federal Boulevard, 43% of questionnaire respondents selected:

“Safety & Comfortability (i.e. speeding, personal safety, lighting at nighttime, etc.)”

One survey respondent said they experience:

*“General fear for safety along entire Federal corridor.”*

*- Survey Respondent*

# Needs and Conditions - Safety

High crash rate - especially for pedestrians



Crash/Injury Data

Type	Total Crashes (KSI Data)
Pedestrian	60
Bicyclist	16
Automobile Occupant	138
<b>TOTAL</b>	<b>214</b>

Source: DRCOG Regional Vision Zero High-Injury Network and Critical Corridors, 2013-2017



# Needs and Conditions - Pedestrian & Bicycle

## Public and Stakeholder Input



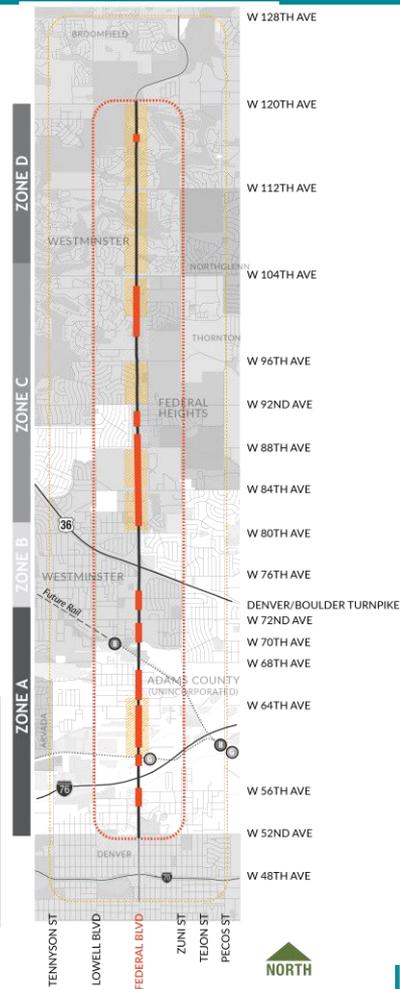
The most frequently noted corridor-wide experience associated with concerns for safety was a lack of pedestrian and bicycle facilities, i.e. consistent sidewalks, pedestrian connections, safe biking options along/around the Federal corridor

“There are long stretch(es) of Federal that don't even have sidewalks, and some aren't even wide enough. And with the speeding along Federal there needs to be a barrier along the street to protect people walking”

- *Survey respondent*

# Needs and Conditions - Pedestrian & Bicycle

## Challenging Experience for Walking/Biking



# Needs and Conditions - Transit

## Public and Stakeholder Input



In the 1<sup>st</sup> SWG meeting, we asked what needs were most important to you and the communities you serve. 71% of you said:  
“Connections to mobility options including bus, rail, sidewalks and trails”

One-on-one interviewees nearly unanimous in emphasizing the need for major transit improvements

“BRT, high capacity and high-quality transit service should be considered to improve reliability.”

*- Stakeholder quote*



# Needs and Conditions - Traffic Operations

## Public and Stakeholder Input



22% of respondents noted traffic congestion as their top-rated concern along the corridor

Common request of questionnaire respondents:  
“Better use of timed intersection signals”

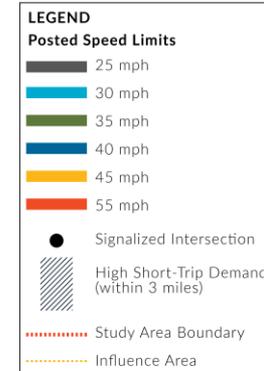
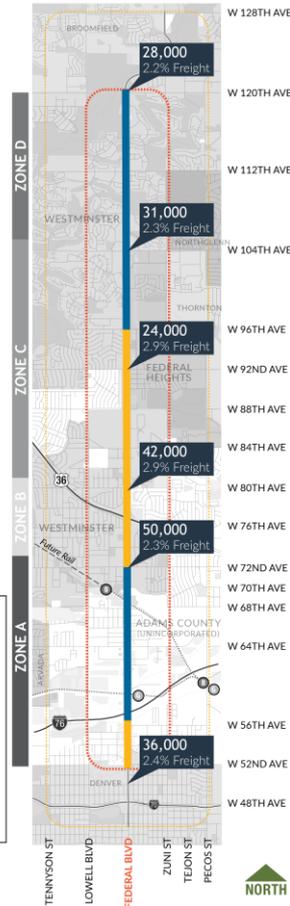
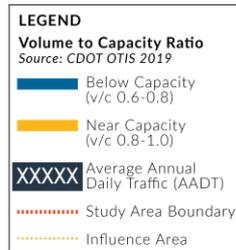
“Lanes are narrow, drivers are constantly speeding, there is no barrier between sidewalks and roads, crosswalks are poorly marked.”

*- Survey respondent*

# Needs and Conditions - Traffic Operations

## Important Corridor within the Local/Regional Mobility Network

- Most of corridor is below capacity, though some segments are still congested
- Posted speeds range from 40 to 55 mph within study area



# Draft Mobility Needs

The Federal Boulevard Multimodal Transportation Study will...

- Focus on **safe, equitable, consistent, and high-quality** options
- Build on **existing multimodal facilities** (trails, rail, etc.)
- Identify **attainable alternatives** to driving alone
- Generate recommendations for **walking, rolling, biking, transit, driving, and freight**

# Group Activity - Menti

Go to [www.menti.com](https://www.menti.com) and use the code 89 18 79 0

# Stakeholder Input

## Goals of this Exercise

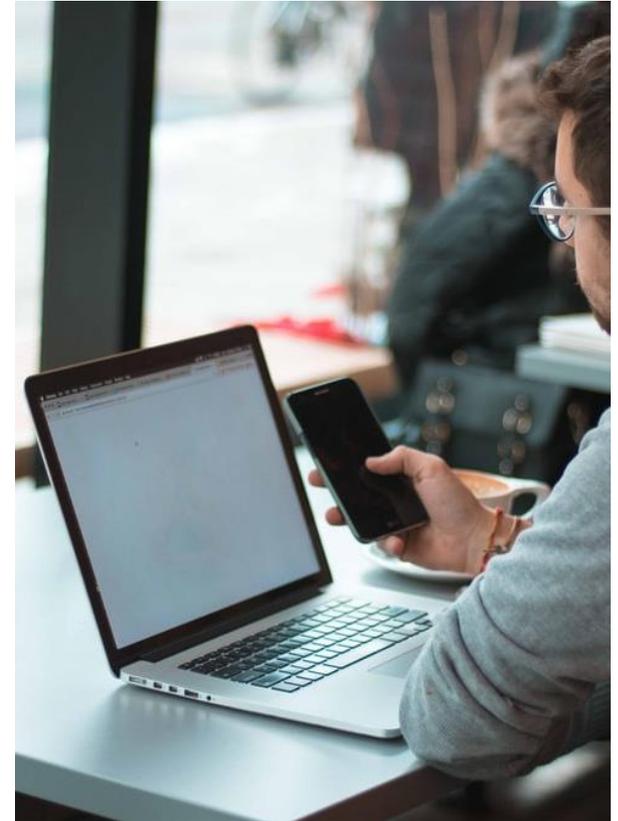
We've developed a set of transportation and mobility tactics based on:

- The Needs & Conditions analysis
- Stakeholder input

**We'd like your feedback on the benefit and priority of each tactic.**

There are three categories of tactics in the polling exercise

1. **Multimodal connections** – i.e. sidewalks, scooters, first and last mile connections to transit
2. **Movement of people** – i.e. how efficiently we move people along the corridor by bus, car, bike, etc.
3. **Corridor enhancements** – i.e. corridor beautification, landscaping, medians, etc.



# Multimodal Connections

## Tactics

- 1 Identify sidewalk gap locations and bring all sidewalks to minimum widths for each zone
- 2 Identify and implement a safe and functional bicycle network within the study boundaries
- 3 Focus on last/first mile connections to transit stops, stations, etc. including shelters, lighting, etc. within each zone
- 4 Determine locations within each zone for implementation of scooter/e-bike facilities

# Movement of People

## Tactics

- 1 Implement traffic calming measures (narrow vehicular travel lanes, intersection operations)
- 2 Implement safety improvements (to address locations with high crash frequency)
- 3 Consolidate driveways and/or curb cuts (to improve safety and mobility)
- 4 Implement transit priority measures to improve transit speed and reliability (signal priority, queue jump lanes, etc.)

# Corridor Environment

## Tactics

- 1 Improve landscaping
- 2 Develop and implement a public art program
- 3 Streamline signage
- 4 Implement transit stop enhancements consistent within each zone
- 5 Implement street/sidewalk lighting standards for each zone

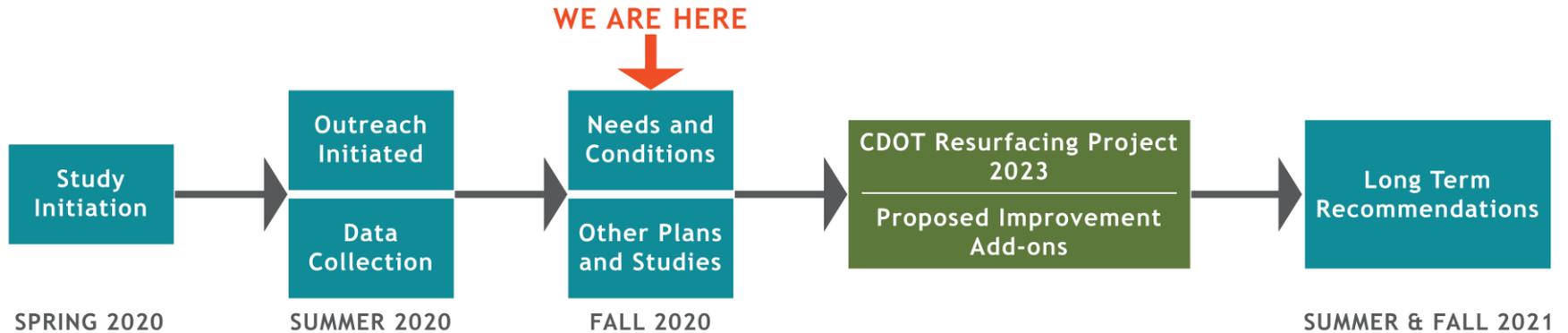
# Discussion

# Short Term Improvement Opportunity

# Study Process



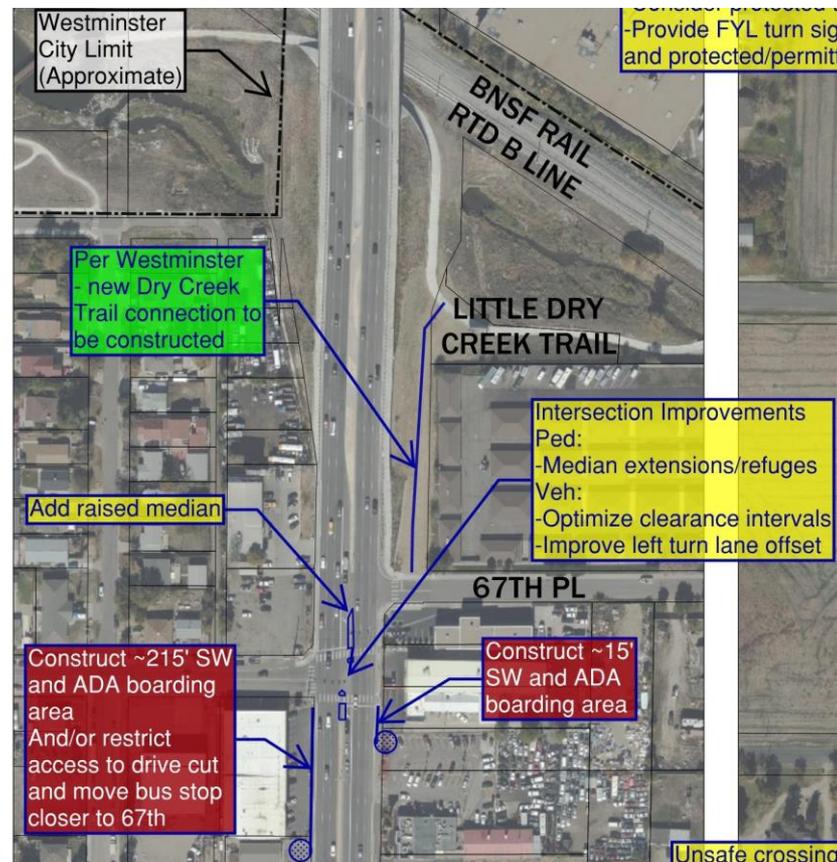
# Study Process



# Short Term Opportunity

## CDOT Repaving Project

- I-70 to 92<sup>nd</sup> Avenue
- Repaving, Curb Ramp Improvements to ADA standards
- Construction begins 1<sup>st</sup> quarter 2023
- Partners recognized opportunity to request additional improvements



# Example Recommendations and Description

## Leading Pedestrian Interval

A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left.



# Example Recommendations and Description

## Countdown Pedestrian Crossing Signal

These systems provide pedestrians with the remaining seconds available before the pedestrian phase ends.



# Example Recommendations and Description

## Curb Extensions and Directional Curb Ramps

Curb extensions are only recommended in a few specific areas where there is unused roadway width on streets crossing Federal Blvd.



# Example Recommendations and Description

## Median Refuge / Extension

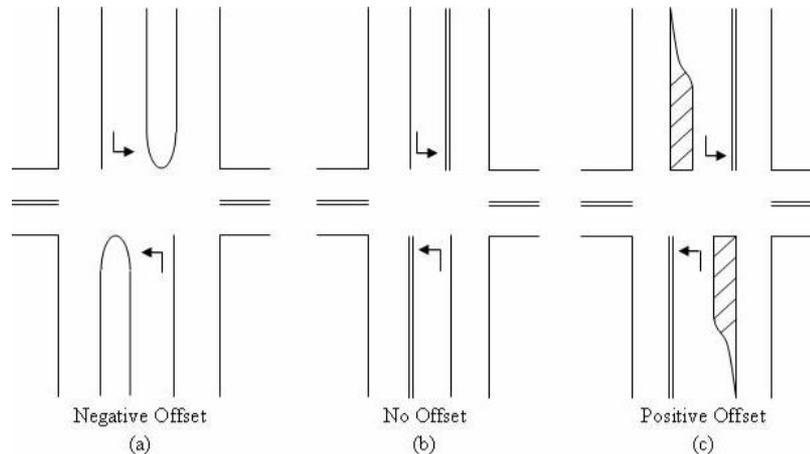
An area in the middle of a roadway where a crossing pedestrian can take shelter from approaching traffic in either direction. A median refuge allows a pedestrian to cross each direction of approaching traffic in a separate step.



# Example Recommendations and Description

## Left Turn Positive Offset

Adding a left turn positive offset to intersections on Federal Blvd would allow left turning traffic to see oncoming traffic more clearly, allowing a driver to better determine safe gaps for completing turning movements. Most of existing Federal Boulevard has a raised median and has negative left turn offset at intersections.



# Example Recommendations and Description

## Reflective Signal Tape Around Signal Heads

The use of retroreflective borders on existing signal backplates to increase the visibility of traffic signals (particularly at night or under low-visibility conditions) is a simple, inexpensive countermeasure that can reduce crashes by improving driver awareness of traffic signals.



# Example Recommendations and Description

## Hybrid Pedestrian Beacon Signal (HAWK)

A pedestrian hybrid beacon is a relatively new type of crossing treatment used to both warn and control traffic at a pedestrian crossing. It is actuated by a pedestrian push button, and uses a combination of circular yellow and red traffic signal displays to first warn motorists of a pedestrian that is about to cross the street, then requires the motorist to stop for the pedestrian crossing.



Drivers		Pedestrians	
...will see this	... will do this	... will see this	... will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution if Clear		Continue Crossing (Countdown Signal)
	Proceed if Clear		Push the Button to Cross

# Example Recommendations and Description

## Rectangular Rapid Flash Beacons (RRFB)

RRFBs are user-actuated amber LEDs that supplement warning signs at unsignalized intersections or mid-block crosswalks.



# Example Recommendations and Description

## Sidewalk Extensions to Bus Stops / Alighting Areas

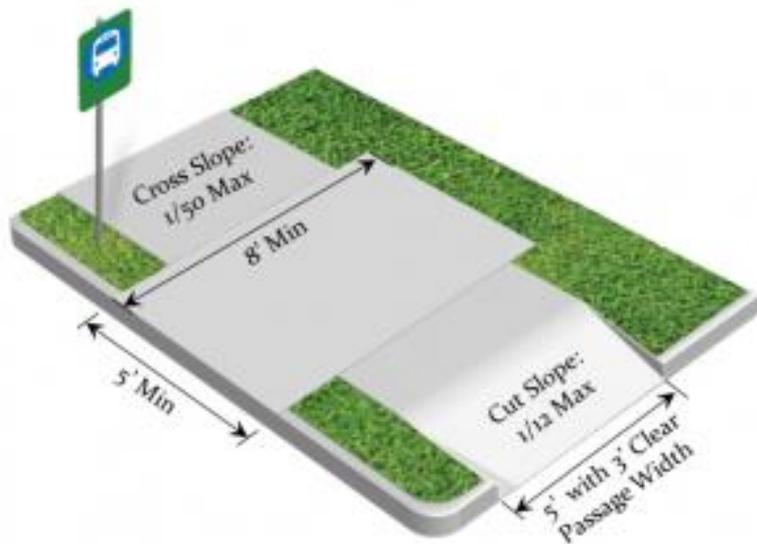
There are significant stretches of Federal Blvd without adequate pedestrian facilities. This limits mobility for all users and makes access to the transit resources on Federal Blvd difficult or impossible to access for some communities. By adding sidewalk connections to the nearest sidestreet, users will have an ADA accessible path into the adjacent neighborhoods.



# Example Recommendations and Description

## ADA Boarding Area at Transit Stops

Similar to the lack of sidewalk access to transit facilities on Federal Blvd, many bus stops do not have adequate facilities for ramp loading available to the users or the bus drivers. Installing these 8' by 5' level concrete pads increases access for all users during loading and unloading.



# Example Recommendations and Description

## Transit Priority Lane

Transit priority lanes can be installed on Federal Blvd in several locations where there is already a paved shoulder or auxiliary/turn lane. By allowing busses to use this existing space, transit speed and reliability on the corridor will improve.



# Next Steps

# Thank You!



**FEDERAL BOULEVARD**  
MULTIMODAL TRANSPORTATION STUDY