



Duke Street Transitway

City Council
June 27, 2023



Tonight's Agenda

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**Background
& Project
Goals**

02

**Process &
Engagement
Overview**

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**Advisory
Group
Preferred
Concept**

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**What We're
Hearing**

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Future
Council
Action**

Background & Project Goals

Why Duke Street?

Over 3,000 average weekday
riders (March 2023)...

~120% of pre-pandemic ridership



...stuck in traffic that is
anticipated to increase as
the region grows

Volumes projected to increase by 10% by 2030

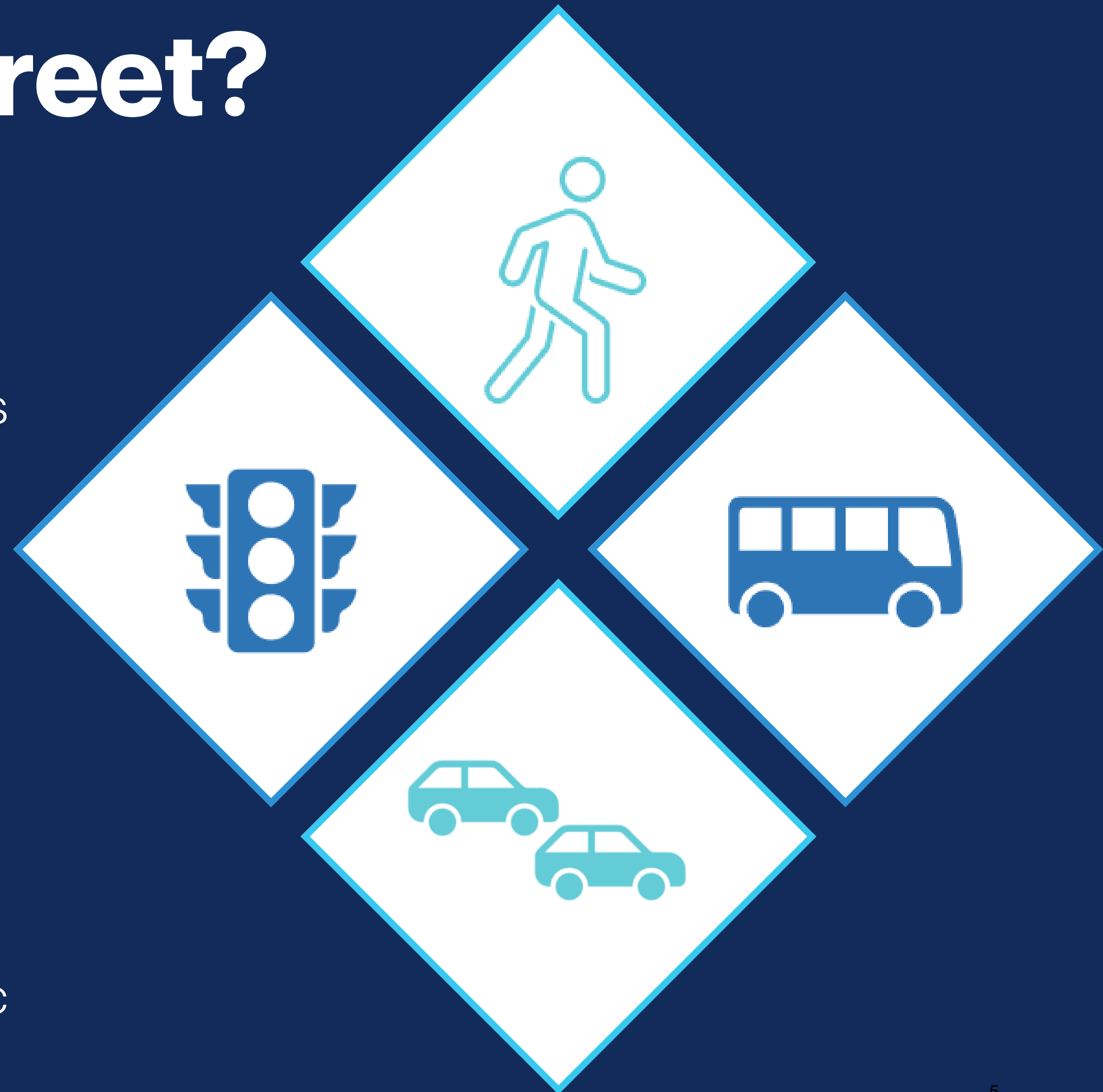
Why Duke Street?

CHALLENGES

- Traffic congestion
- Cut-through traffic on residential streets
- Safety
- Bus experience

OPPORTUNITIES

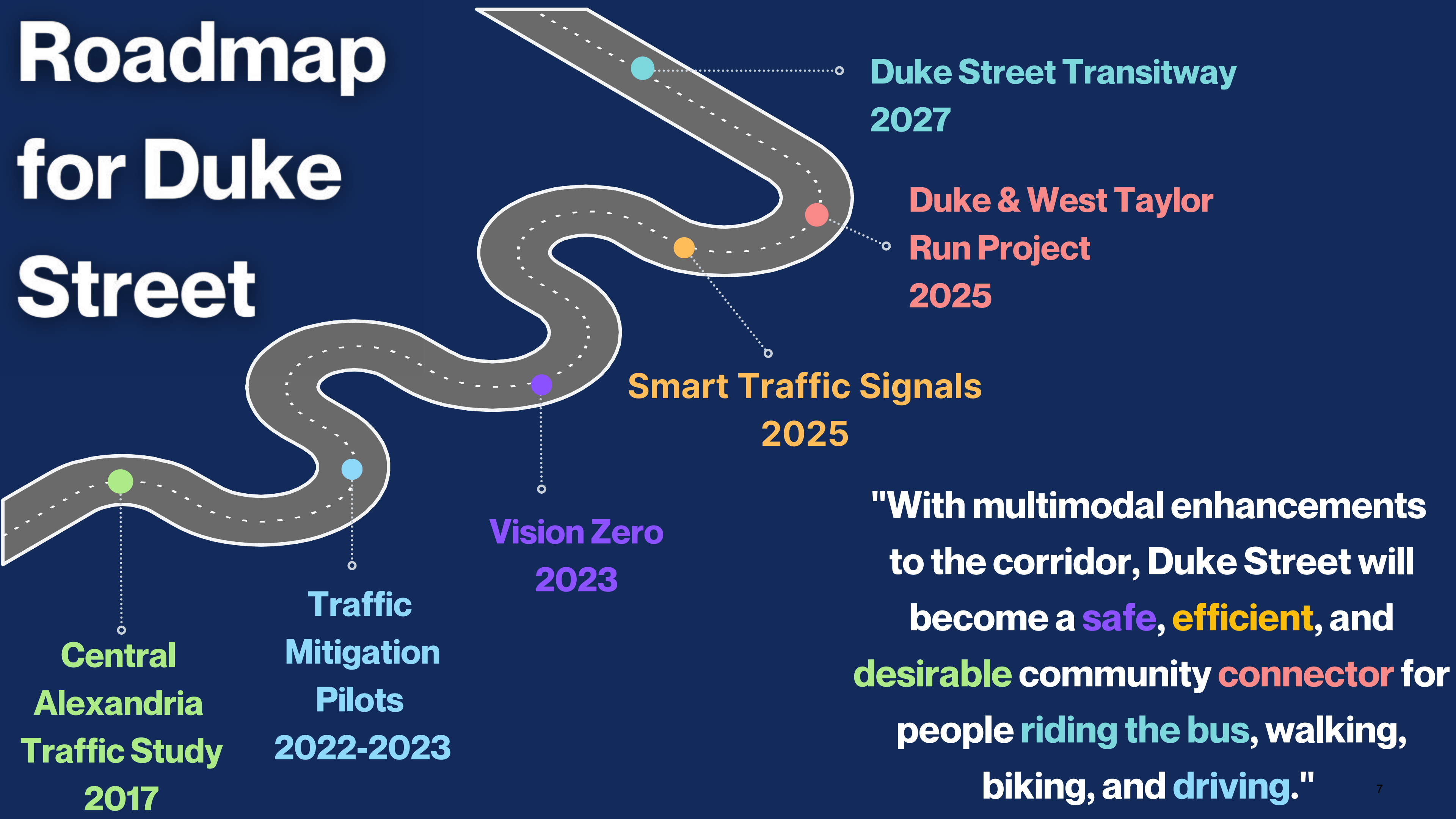
- Improve options for people to use other modes
- Redesign intersections for safety
- Use technology to better manage traffic
- Build on strong transit ridership



Project Alignment with City Goals



Roadmap for Duke Street



"With multimodal enhancements to the corridor, Duke Street will become a **safe**, **efficient**, and **desirable** community **connector** for people **riding the bus**, walking, biking, and **driving**."

On Duke Street, the Transitway could achieve...



**UP TO 9.5 MINUTES IN
TRAVEL TIME SAVINGS
FOR BUS RIDERS**



**UP TO 5 MINUTES
TRAVEL TIME SAVINGS
FOR VEHICLES**



**70% REDUCTION IN
LEFT TURN CRASHES
CORRIDOR-WIDE**



**50% REDUCTION IN
PEDESTRIAN CRASHES
AT 29 INTERSECTIONS**

DUKE STREET TRANSITWAY TIMELINE

2008

Duke Street
Identified as
future transit
corridor

2012

Transitway
Concept Plans
Approved

2018 &
2020

- \$12M
Planning
funding
awarded
- \$75M
Construc-
tion funding
awarded

2021

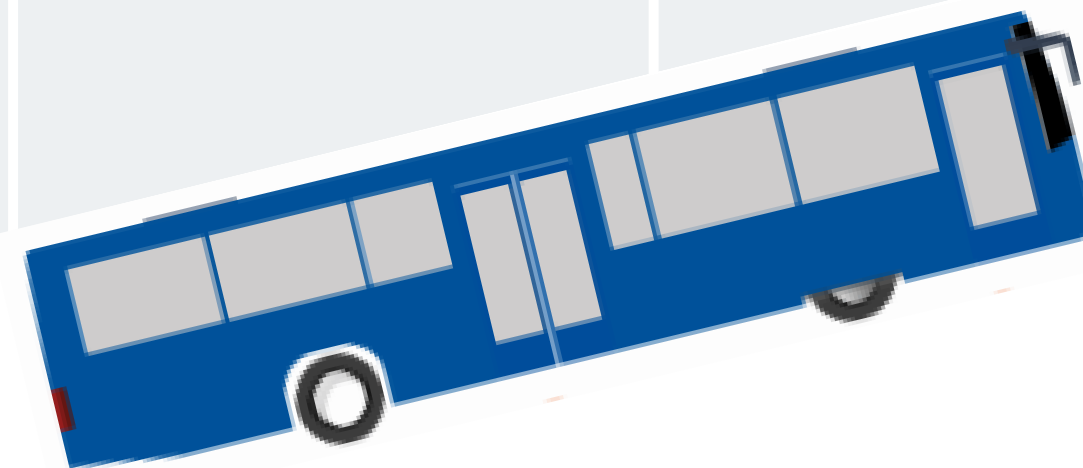
Phase I -
Community
Visioning

2022

Phase II -
Concept
Planning -
Community
Priorities &
Tradeoffs

2023

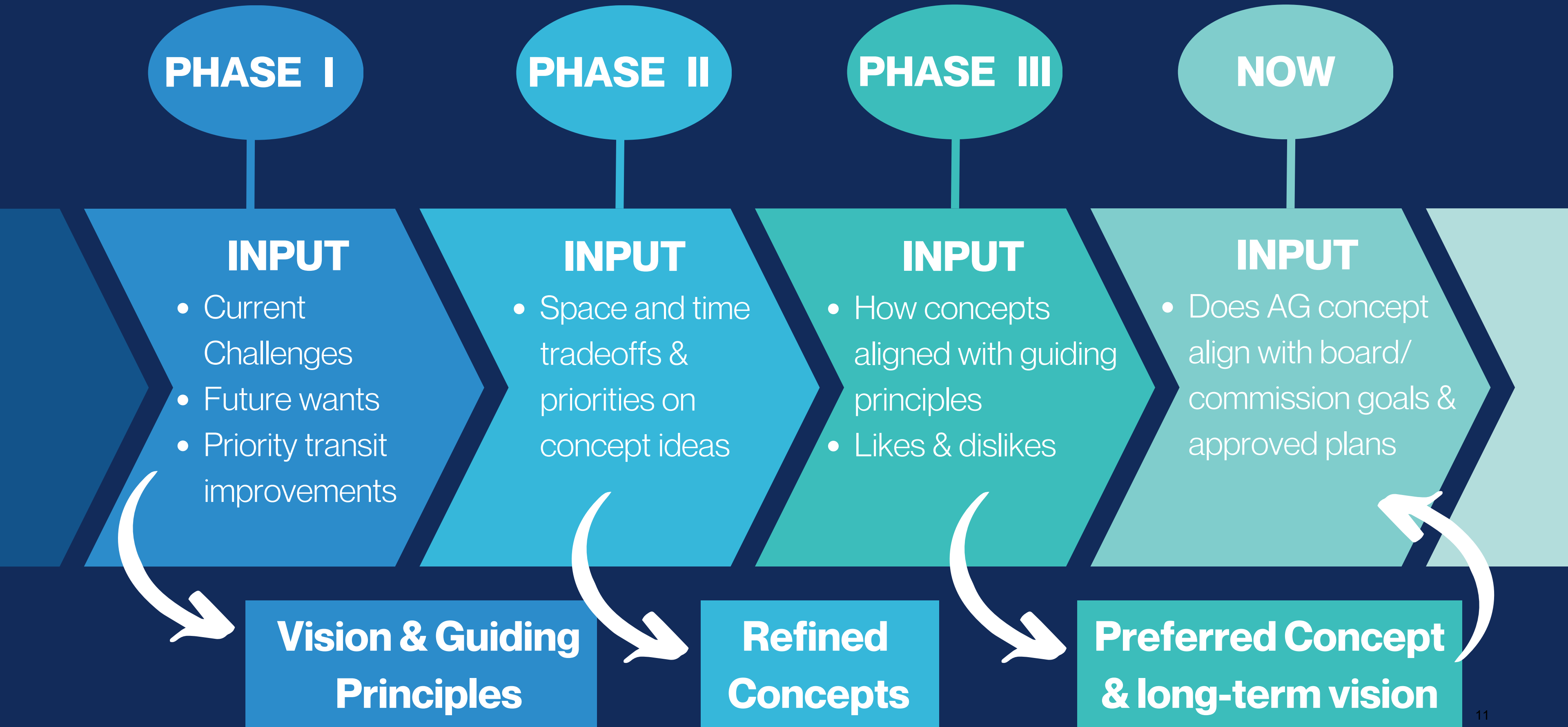
- Phase III -
- Concept
Refinement
& Curb
Features
 - Council
Action





Process & Engagement Overview

Process



Community Visioning

PHASE I

INPUT

- Current Challenges
- Future wants
- Priority transit improvements

Vision & Guiding Principles



Improve the bus



Prioritize Safety



Congestion is a major concern



Concept Options

PHASE II

INPUT

- Space and time tradeoffs & priorities on concept ideas

Refined
Concepts



**Maintaining service
road access to homes
and buffer space**

**Support for
changes that
improve bus
travel times**



Refined Concepts

PHASE III

INPUT

- How concepts aligned with guiding principles
- Likes & dislikes

Preferred Concept
& long-term vision



**Bus stop spacing
& consolidation**



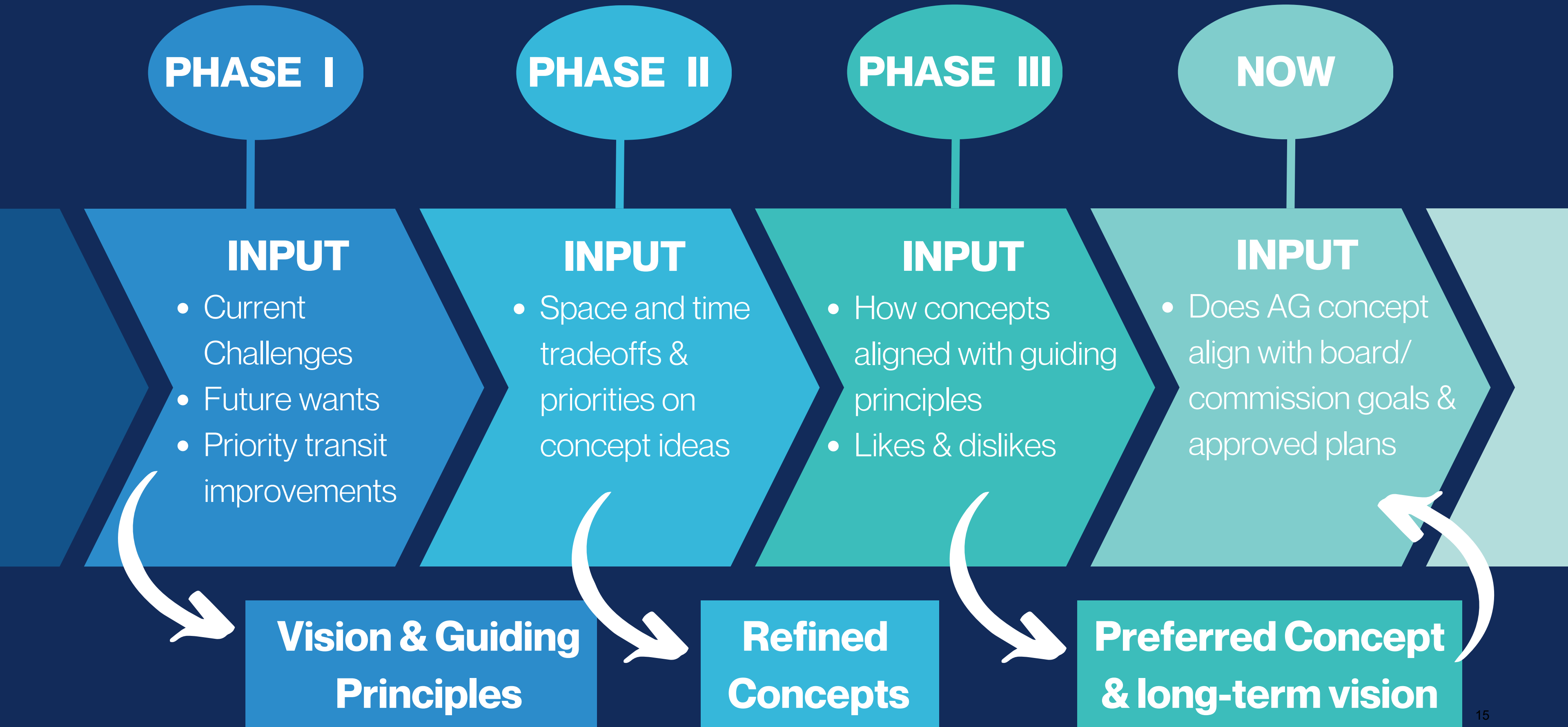
Separate bike & pedestrian space



**Changes to
service roads**



Process



Outreach Summary



Written Feedback



Duke Street Meetings



Meetings Attended



Pop-up Events



Mailings



Businesses Contacted

Feedback form + emails

- **3,445** feedback form responses
- **165** email comments

Open houses and public forums with Q/A components

- **12** hosted live meetings
 - **270+** attendees
- **3** webinars
 - **850+** views

Presentations and Q/A as part of other meetings

- **16+** community groups
- **7+** boards and commissions

Shared multilingual information throughout the corridor

- **37** events
- **3,950+** interactions
- **638** polls completed

Postcards with project information and links

- **17,623** direct mailings

Drop ins, follow up calls, and emails

- **115+**

Targeted Outreach



Advisory Group

- May 25, 2023
- April 13, 2023
- March 16, 2023
- February 16, 2023
- December 15, 2022
- November 17, 2022
- September 15, 2022
- August 18, 2022
- June 30, 2022
- June 1, 2022
- April 28, 2022



Civic Groups

- AFCA
- Seminary Ridge
- Seminary Hill
- Wakefield Tarleton
- Cameron Station CA
- Cameron Station Dems
- Colonial Village
- Quaker Ridge
- Quaker Village
- Clover College Park
- Longview rep.
- BPAC
- Carlyle Towers
- Agenda Alexandria



Boards and Commissions

- Commission on Aging
- Commission on Persons with Disabilities
- Transportation Commission
- Traffic & Parking Board
- DASH
- Environmental Policy Commission



Business Outreach

- WEBA
- Chamber of Commerce
- Business Development Roundtable
- Door-to-door Outreach
- Phone calls



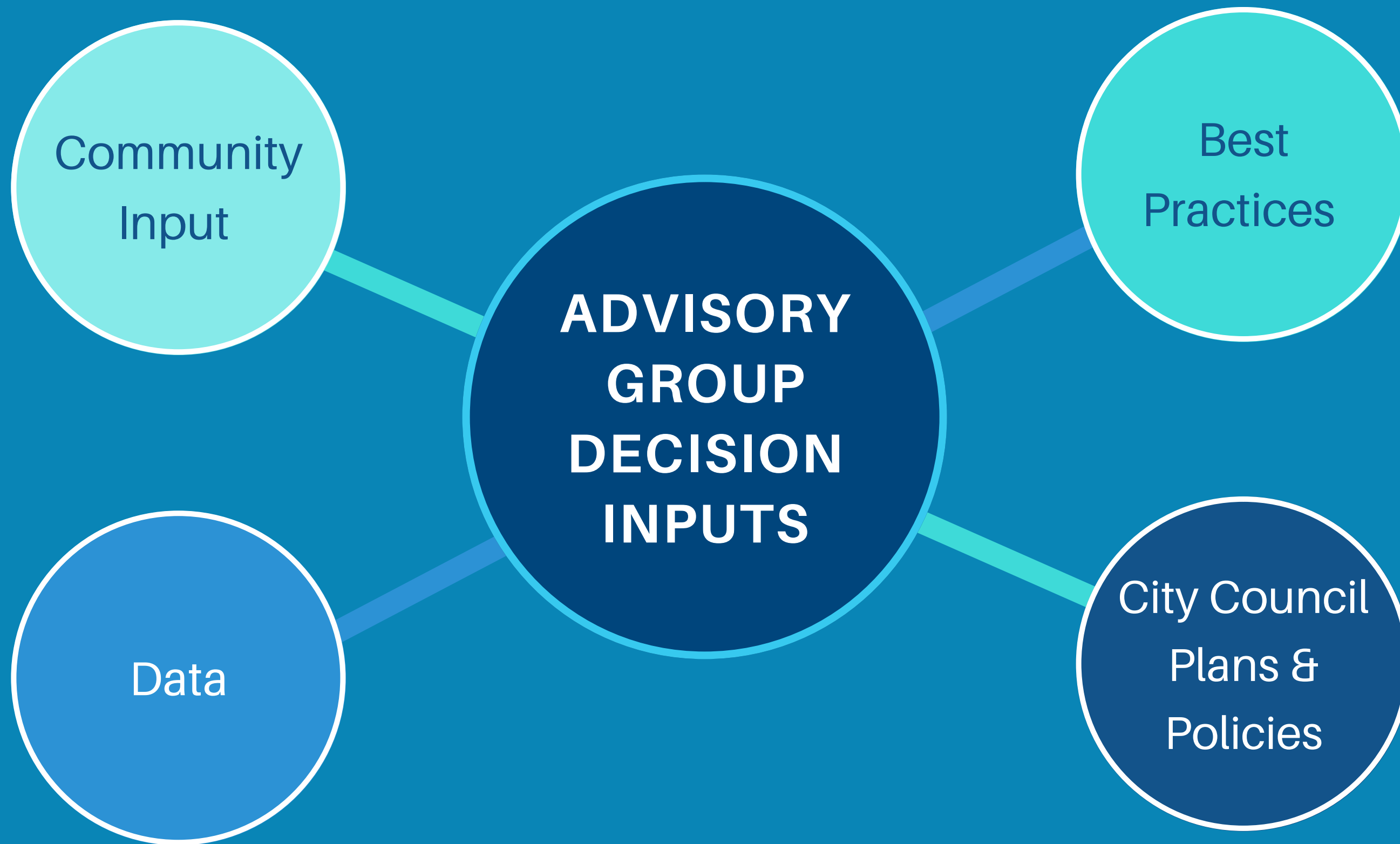
Other Stakeholders

- Alexandria City High School Students
- ACPS staff
- Police
- Fire



Pop Ups

- Speedy Laundromat
- Beatley Library
- Fun Run @ Patrick Henry
- King Street Metro
- Van Dorn
- Jordan St.
- Fox Chase Apts.
- The Mark Apts.
- Ben Brennan Park
- The Mark Apts
- Angel Park
- And more.



Advisory Group Preferred Concept

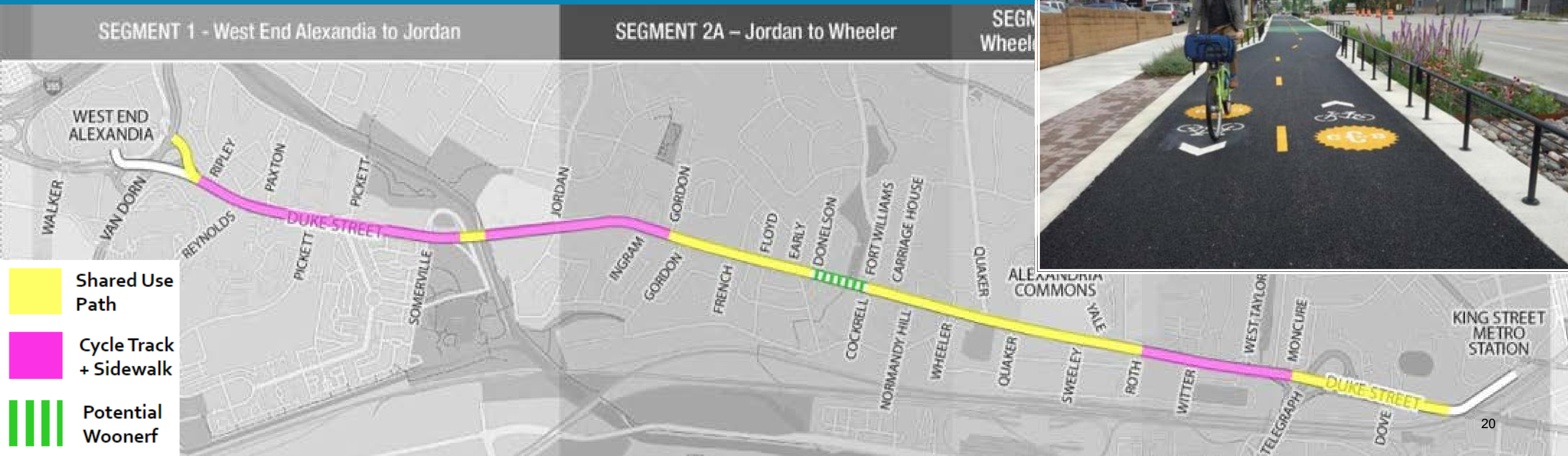
AG Busway Recommendation - Concept A

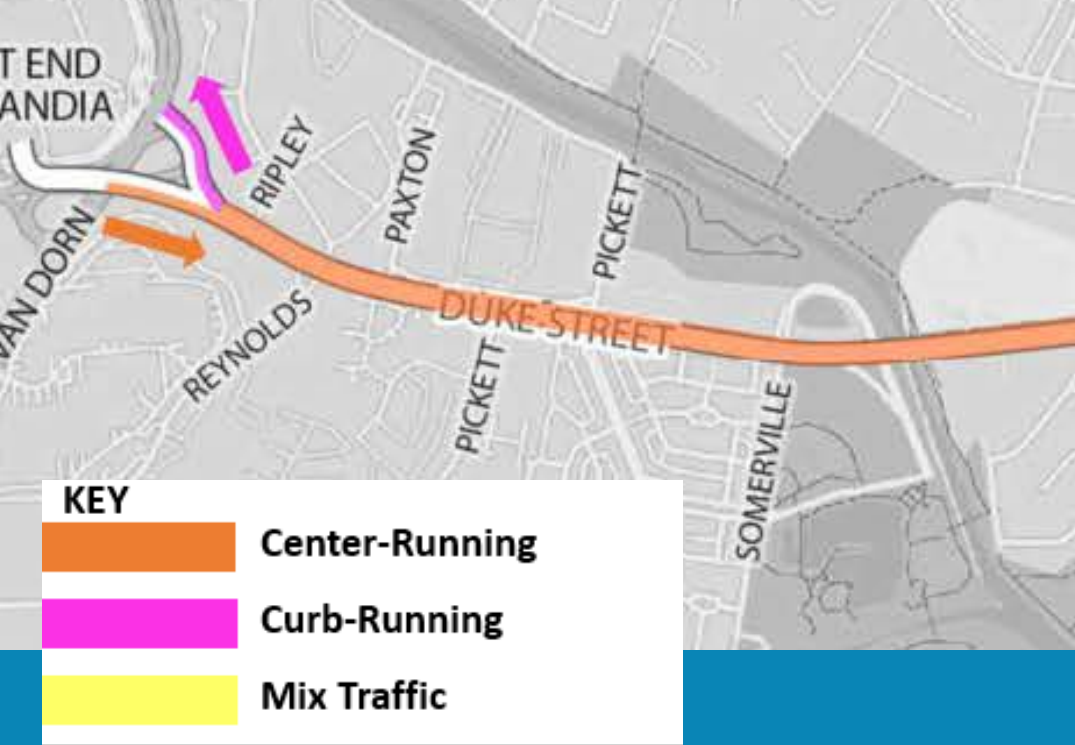
- Signal technology + stop consolidation + dedicated lanes to optimize bus service
- If cost becomes an issue near term, Roth-Quaker could become mixed traffic



AG Curb Feature Recommendation Concept Y

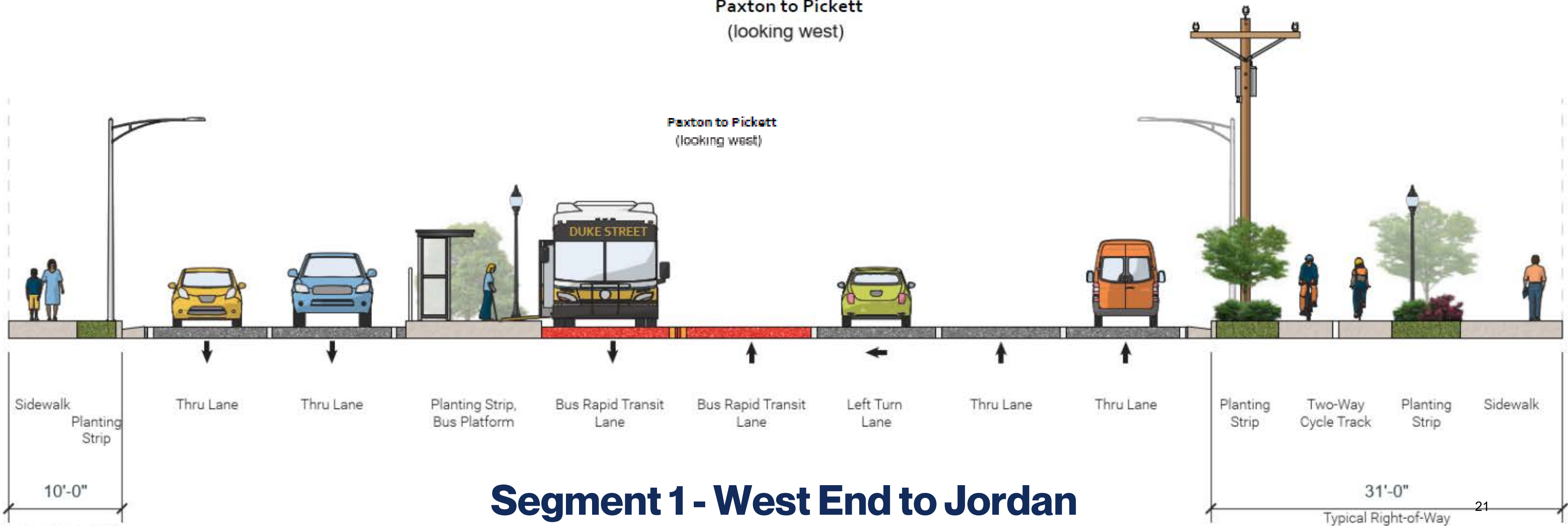
- Map is showing **north side** improvements
- Preference for **separated ped/bike facilities**
- Options in constrained right of way
- Recognize need to work with **service road** communities to refine options



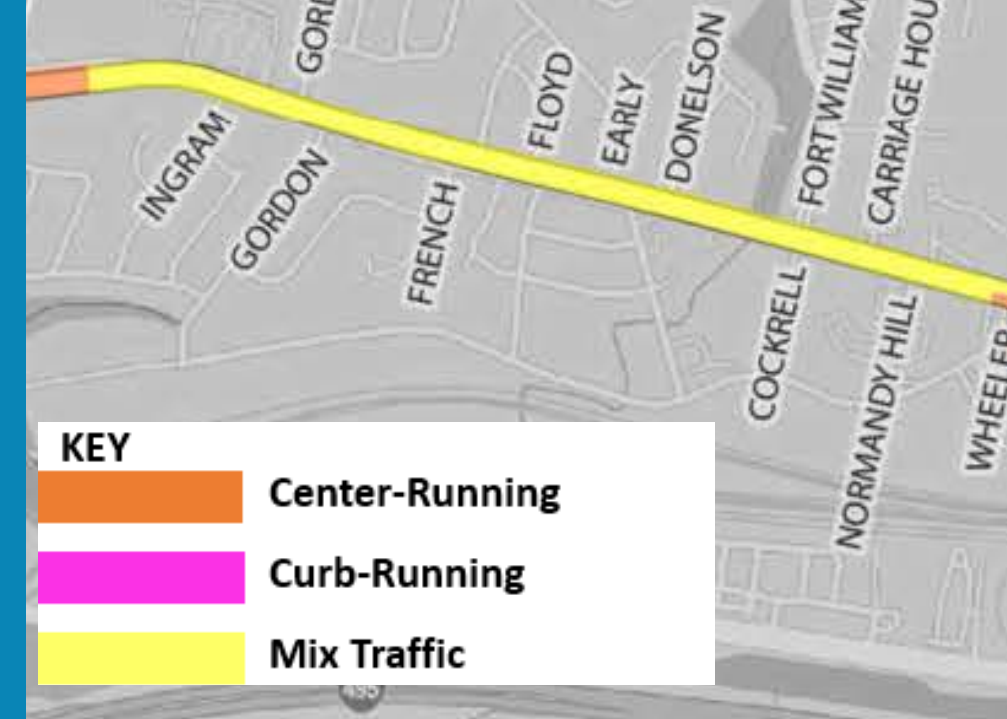


Paxton to Pickett
(looking west)

Paxton to Pickett
(looking west)

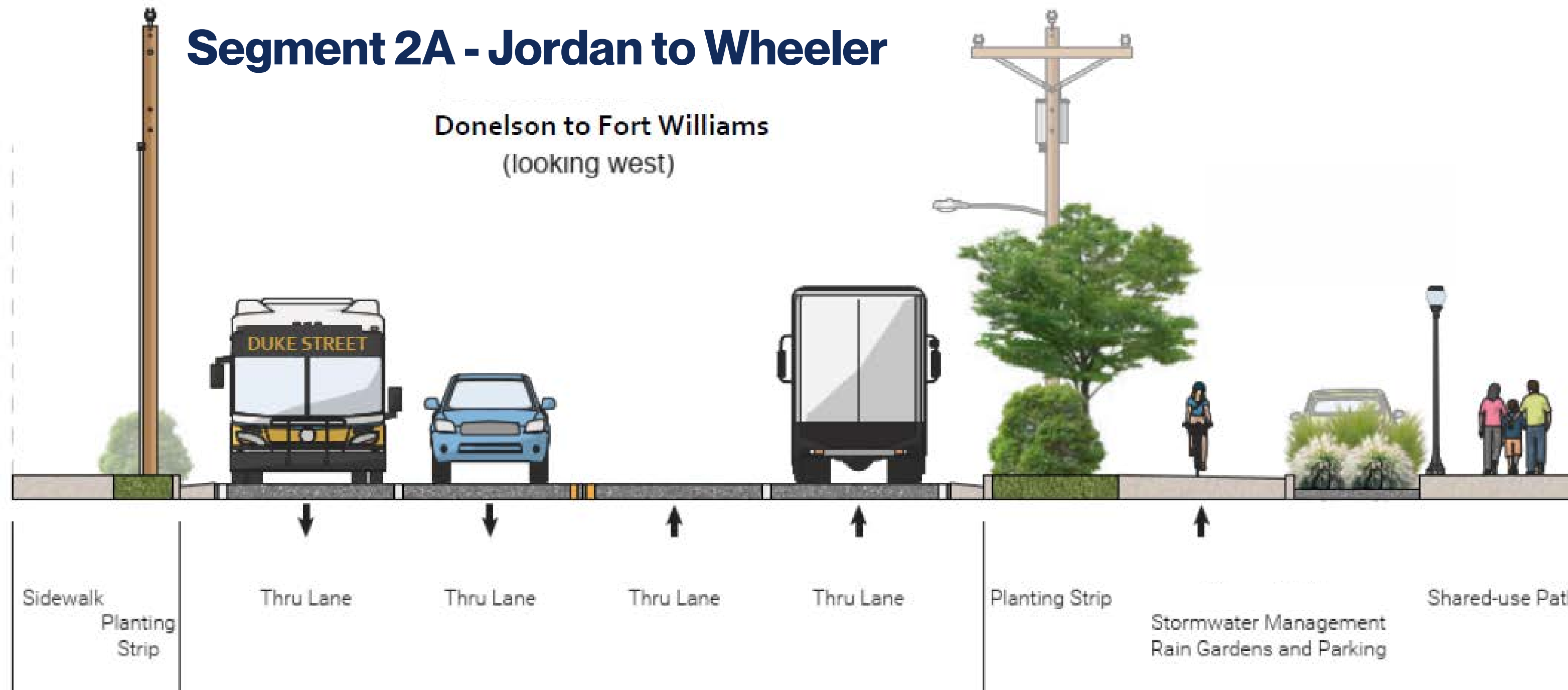


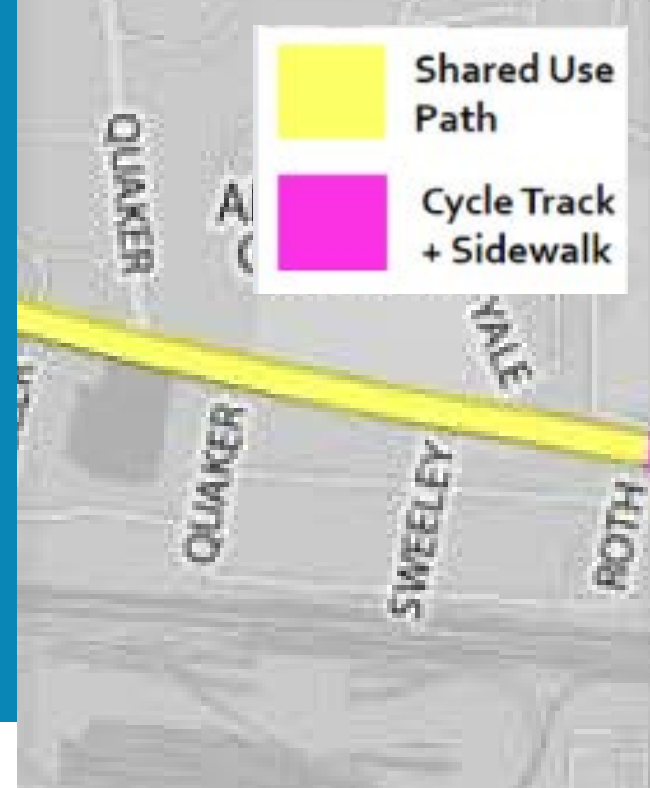
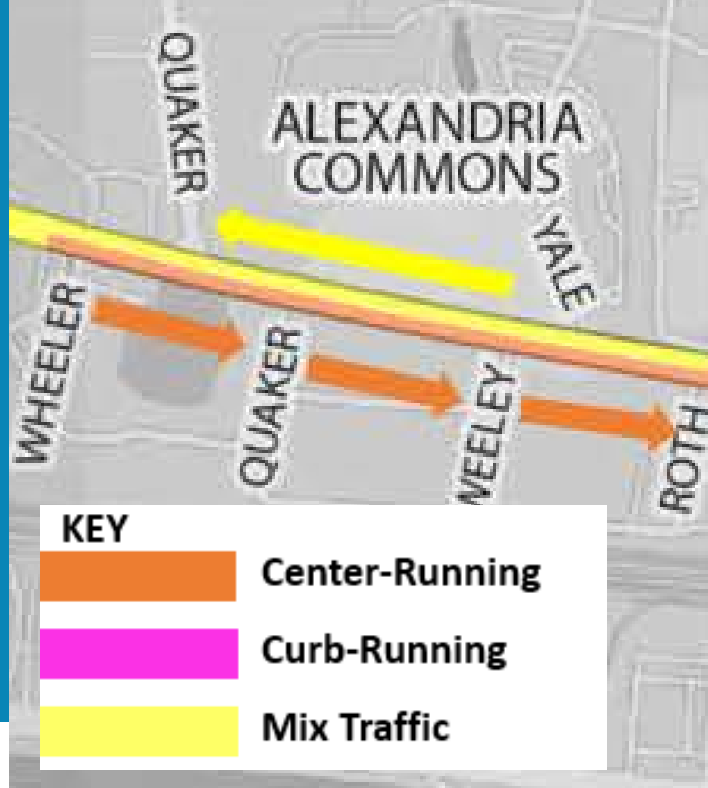
Segment 1 - West End to Jordan



Segment 2A - Jordan to Wheeler

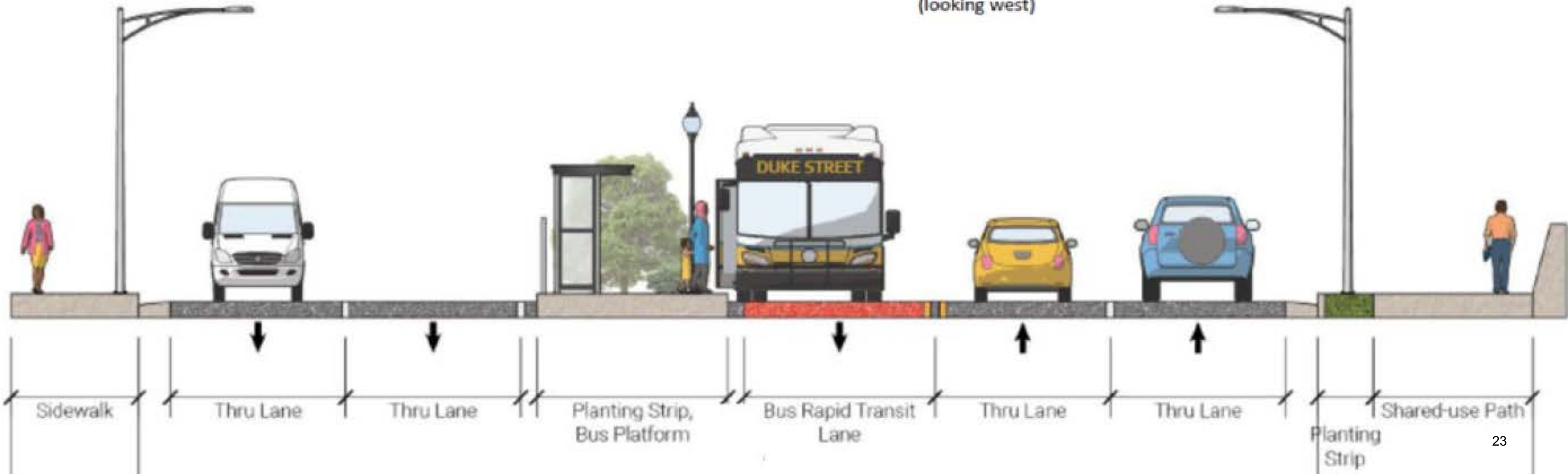
Donelson to Fort Williams
(looking west)





Segment 2B - Wheeler to Roth

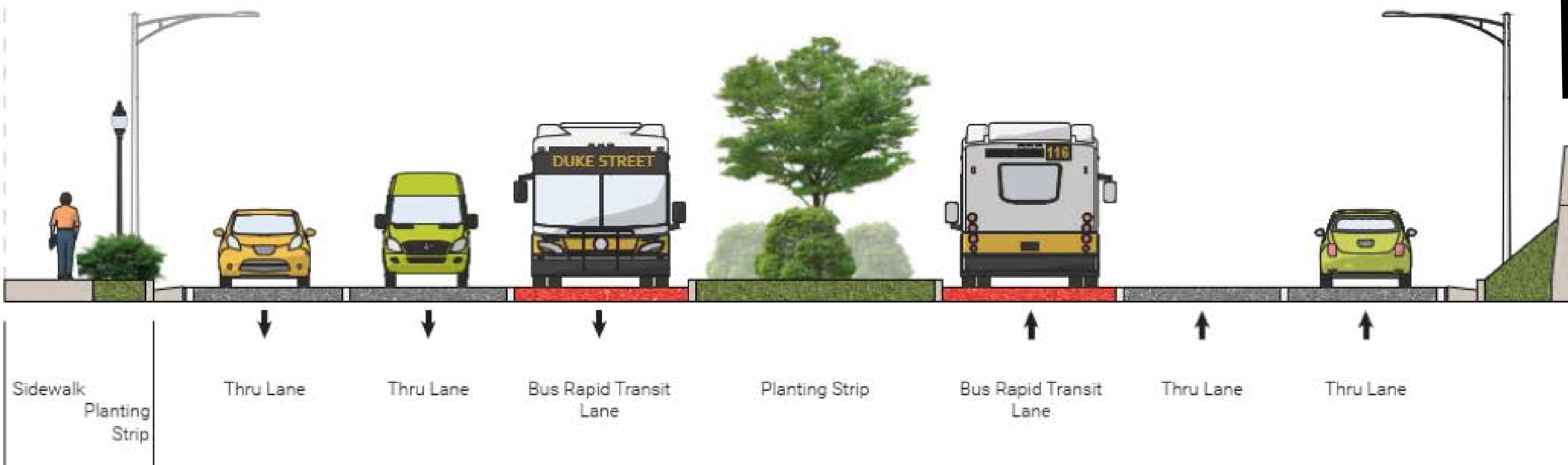
Yale Drive to Sweeley Street
(looking west)





Segment 3 - Roth to Callahan

Roth to W. Taylor Run
(looking west)



Curb features to be refined with community



Service road could be one way with cycle track and wider sidewalk or two-way with sharrows



RENDERING - Duke Street at North Pickett Street - Facing West

RENDERING - Duke Street at West Taylor Run - Facing East



Key Takeaways - AG Recommended Concept



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AG Recommendation - Long Term

- The **long-term plan** for the corridor should include **center running bus lanes** for the entirety of Duke Street with **separate spaces for pedestrians and cyclists**.
- This long-term plan would be partially **dependent on redevelopment** and **available funding** and should be assessed further during the **Duke Street Small Area Plan process**.



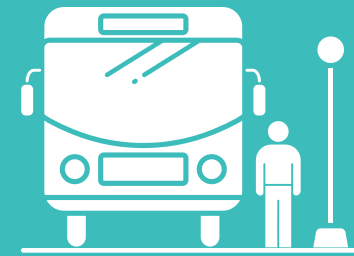
**Cost &
Funding**



**Service
Roads**



**Current & Future
bus riders**



**Stop
spacing**



**Process &
Timeline**

What we're hearing

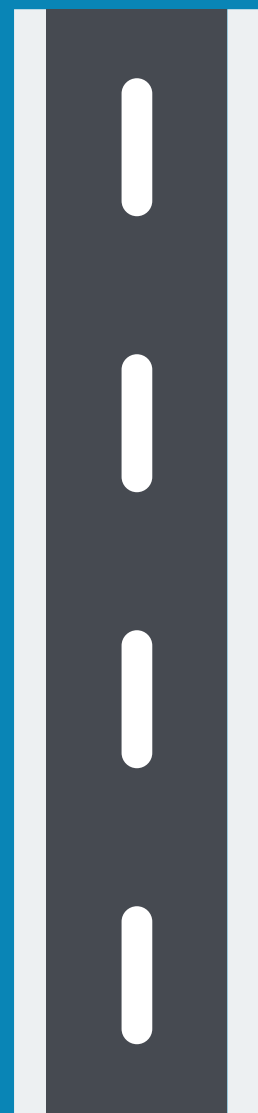




Cost & Funding (Phase I)

- **Project Funding = \$87m**
- **10% Design Cost Estimate = \$97m**
 - **\$60m = design + construction in today's dollars**
 - **\$27m = contingency**
 - **\$10m = escalation**

***AG Recommendation provides prioritization if project needs to scale back**



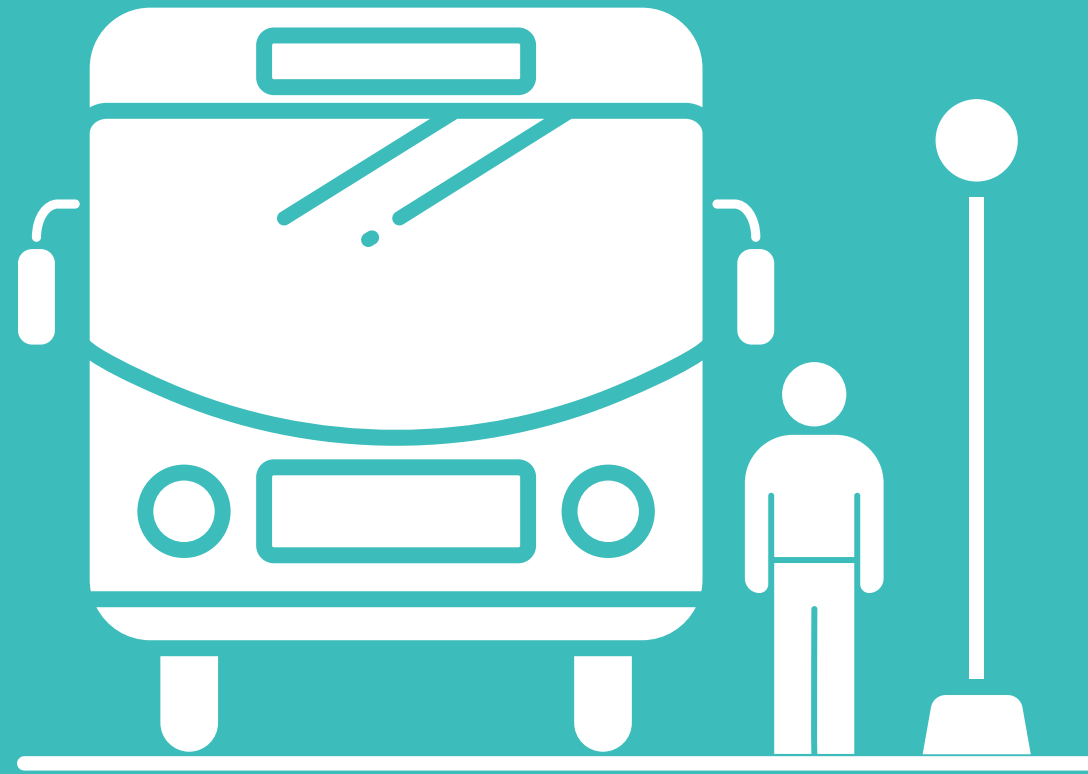
- **East end service road conversion concerns about access and travel times**



Duke Street service road east of ETR facing east

Service Roads

- **Staff will continue to work with community to discuss service road design**
- **Future Council action IF conversion to one-way advances**

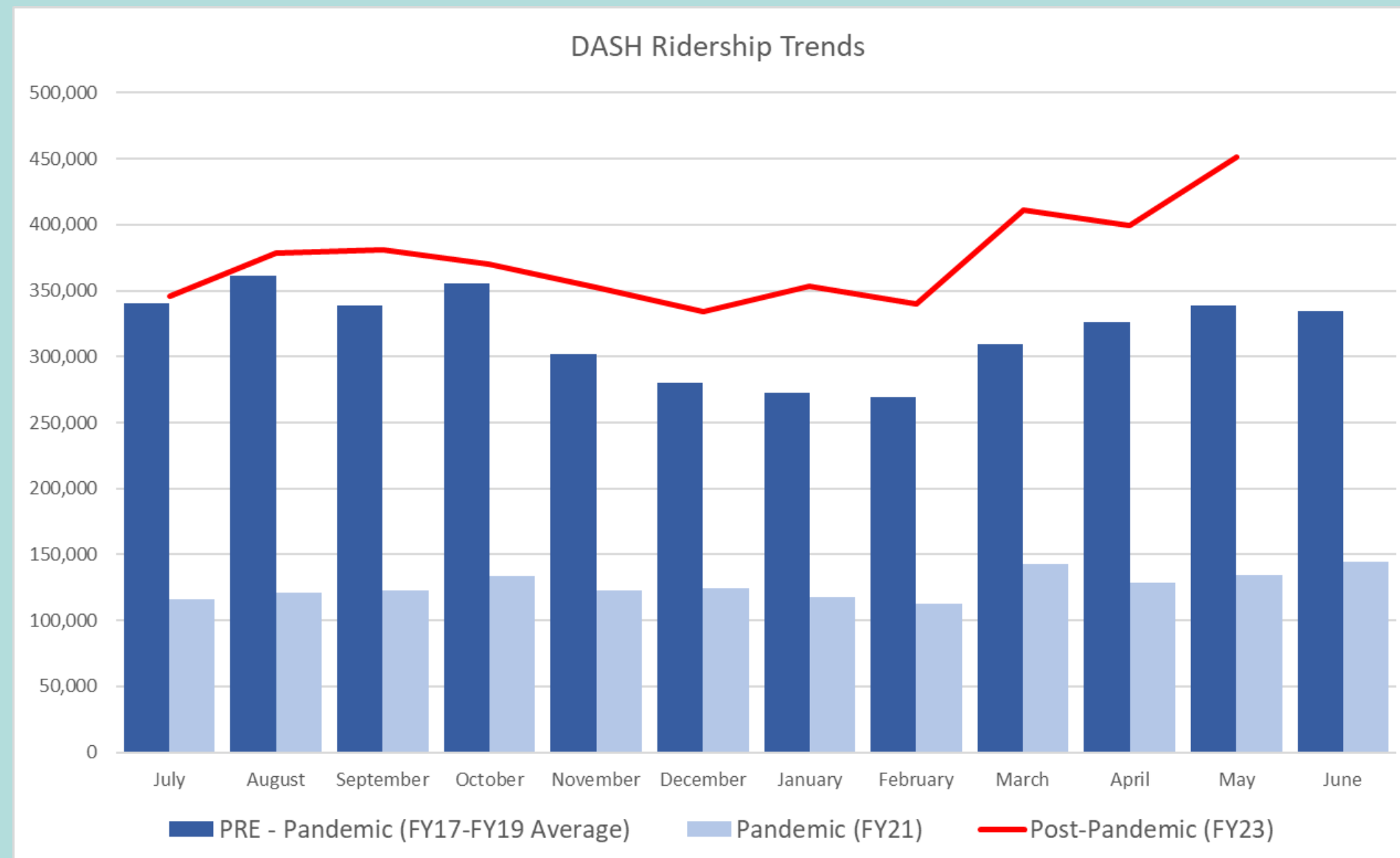


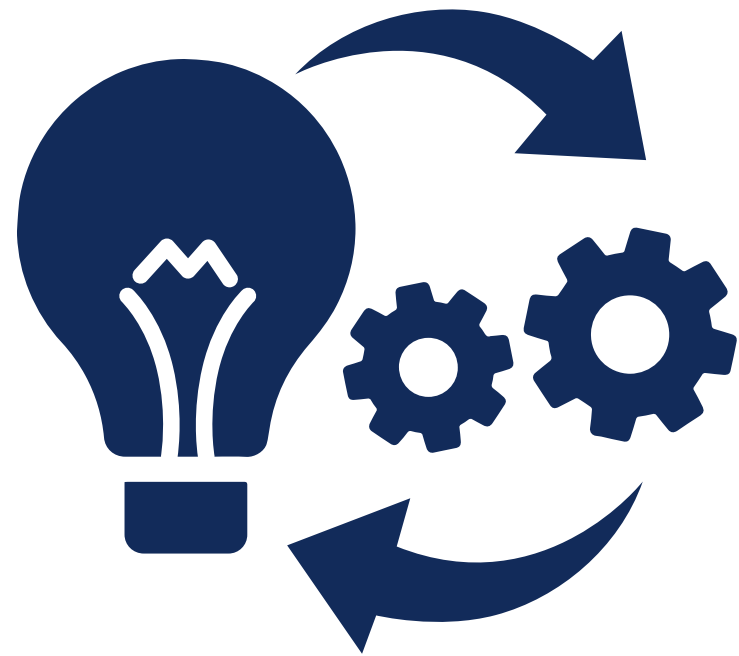
Stop Spacing

- Stop consolidation saves at most 3.5 minutes of total 9.5 minute PM peak travel time savings per trip
- 73% of people at pop-ups and 76% of feedback form respondents supported spacing proposals

Current & Future bus riders

- **Average weekday boardings along the corridor are 3,000+**
- **Projections for bus ridership increases show 2x riders, per FTA model**
- **Current PM bus travel time = 25 mins**
- **Projected PM bus travel time = 16 mins**





Process and Timeline

- **2-year process to check-in with community and revision**
- **Project delivery is important to support already planned growth**
- **Delay will increase costs, which will decrease scope**

A stylized graphic on a blue background. It features a light blue winding road with dashed lines, starting from the bottom left and curving towards the top right. Four location pins, also in light blue, are placed around the road: one at the top left, one at the top right, one at the bottom left, and one at the bottom right.

Next Steps & Future Council Action

Next Steps

2023

- Finalize Concept
- Survey
- Begin Design

2024

- Design
- Duke SAP
- Council Action on Final Design*

2025

- Finalize Design
- Right-of-way

2026

- Begin Construction
- Council Action to designate dedicated transit lanes*

2027

- Finish Construction
- Fully operational BRT



Questions & Comments