DUKE STREET IN MOTION

Transitway Advisory Group Meeting #5

September 15, 2022

alexandriava.gov/DukeInMotion

$87M in Northern Virginia Transportation Authority regional revenues are being utilized towards this Duke Street Transitway project.

WELCOME


208
VIRGINIA
168-9151


2008
Transportation Master Plan identifies Duke Street as one of three high capacity corridors in Alexandria.
2008
2012 Transit Corridors Feasibility Study evaluated transit alternatives for the three high capacity corridors identified in 2008.
2012
Northern Virginia Transportation Authority (NVTA) awards $12 million for environmental work and design for FY20-22.
2016
NVTA grants $75 million in the 2020-2025 Six Year Program to help construct the first phase of improvements identified through the Duke Street In Motion process.
2020 Alexandria Transit Vision Plan adopted by the DASH board, with Duke Street identified as a key all-day, frequent service transit corridor.
2020
Duke Street in Motion kicks off with community visioning.
2021
Development of final design concepts and plan.
2022

AGENDA

- Welcome & Agenda Overview
- Public Comment
- Meeting Background
- Public Engagement Plan
- BRT 301
- Segment 2A Existing Conditions & Design Concepts
- Segment 2B Existing Conditions & Design Concepts
- Next Steps
- Virtual Meeting Policy
- Approval of Meeting #4 Minutes

AG ROLES AND RESPONSIBILITIES

DUKE STREET IN MOTION

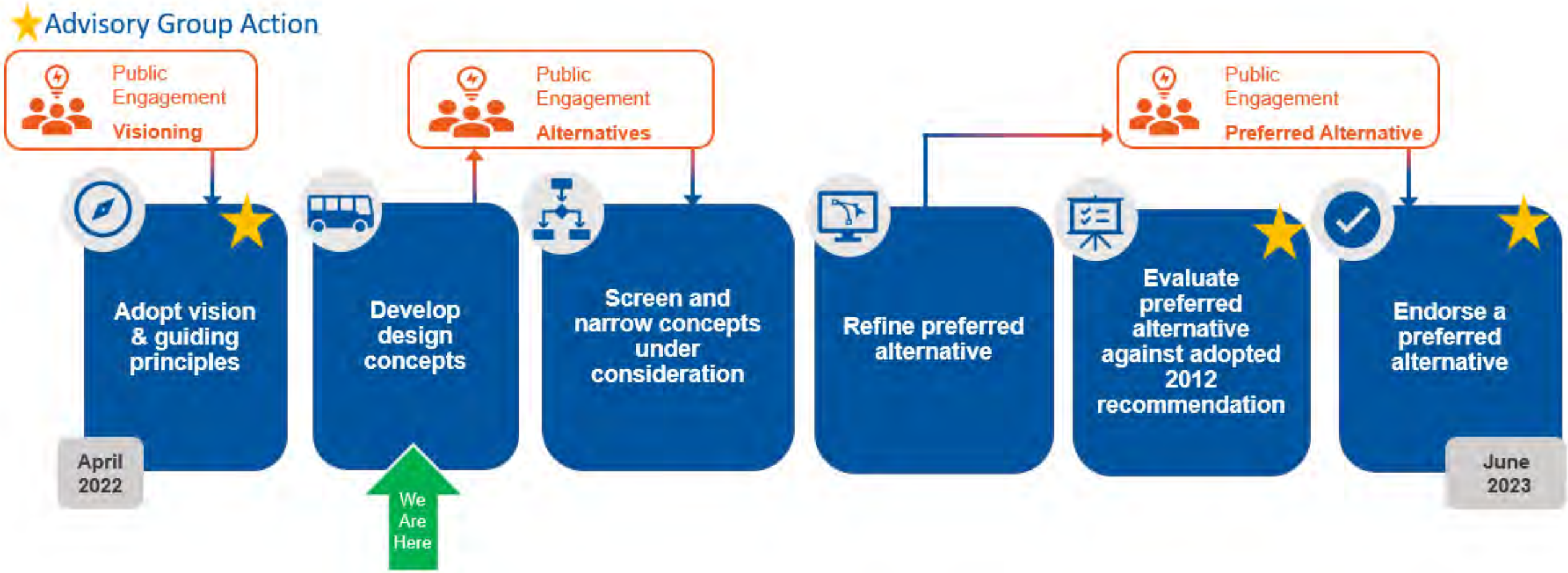
- ✓Relay information
- ✓ Participate
- ✓ Provide feedback
- ✓ Respect each other
- ✓ Represent groups
- ✓ Build on decisions

PUBLIC COMMENT

- 2 minutes to speak
- Virtual attendees can raise hand in Zoom or press *9 on your phone
- If you have questions or comments after this public comment period, please reach out to Jennifer.Monaco@alexandriava.gov
- Written comments will be shared with the Advisory Group

MEETING BACKGROUND

AG PROCESS


Advisory Group Action
Public Engagement Visioning
Public Engagement Alternatives
Public Engagement Preferred Alternative
Adopt vision & guiding principles
Develop design concepts
Screen and narrow concepts under consideration
Refine preferred alternative
Evaluate preferred alternative against adopted 2012 recommendation
Endorse a preferred alternative
April 2022
We Are Here
June 2023

VISION AND GUIDING PRINCIPLES

DUKE STREET IN MOTION

- **Convenient**: Make bus travel more predictable, frequent, and comfortable
- **Efficient**: Improve mobility for all Duke Street travelers
- **Equitable**: Use enhanced bus transit to support equitable access for a diversity of people and places
- **Safe**: Ensure safety and accessibility for those connecting to and riding the bus, as well as other travelers
- **Vibrant**: Create and enhance thriving and future corridor destinations that improve resident quality of life and boost the local economy
- **Sustainable**: Contribute positively to the environment, now and in the future

FOLLOW-UP FROM OUR LAST MEETING

DUKE STREET IN MOTION

- ✓ Project email list - eNews
- ✓ 2012 Council language on the website
- ✓ Additional information on Pilot Project at West Taylor Run
- ✓ Expectations for screening data
- ✓ Additional visuals
- ✓ Schedule Duke Street & Metroway tours
- ✓ Frontage road attributes and uses (ongoing)
- ❑ Address costs
- ❑ Address how segments connect

MEETING GOALS

DUKE STREET IN MOTION

- **Understand**:
  - The public engagement approach
  - Why the City is pursuing BRT on this corridor
  - Features of proposed designs for Duke Street - tradeoffs & interchangeable elements
- **Provide feedback**:
  - On whether the proposed design concepts are the right range of options to bring to the community
  - On presentation of materials

PUBLIC ENGAGEMENT PLAN

PUBLIC ENGAGEMENT PHASES

DUKE STREET IN MOTION

OCTOBER PUBLIC OUTREACH

DUKE STREET IN MOTION

Purpose: Share three running way options for each segment with quantitative and qualitative comparison and gather community perspective on design elements
Comment methods: Feedback Form, Emails, Input at Meetings

Webinar
- Available Oct 1

Pop-Ups
- Throughout October
- 7-10 events

Focus Groups
- 4+ events will occur throughout October
- Target Title VI populations

In-Person Meetings
- Throughout October
- 4 in-person events
- Segment focused meetings + an open house covering the entire corridor
- Exercise to build your own Duke Street to help understand space considerations

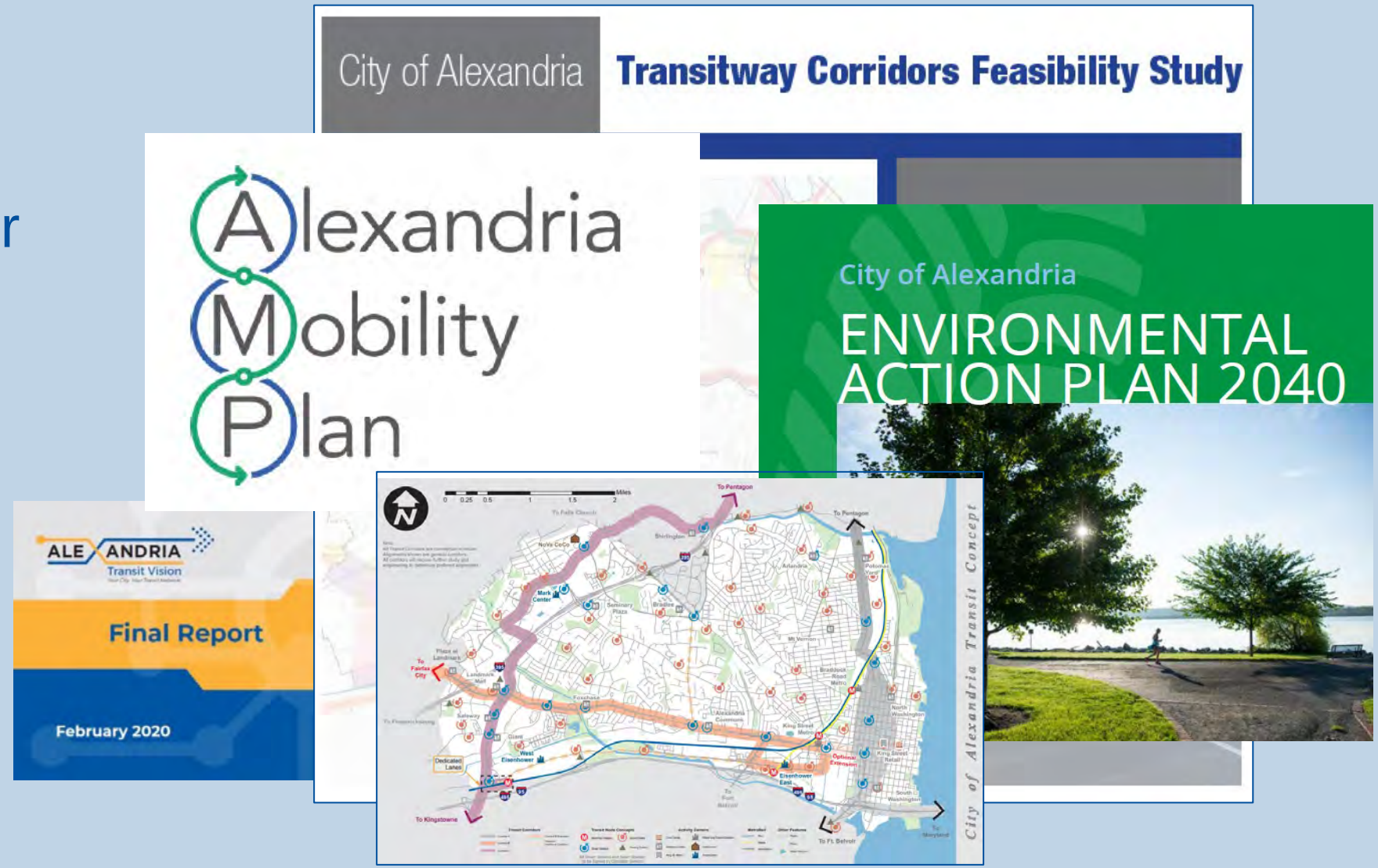
- **Segment-focused meetings tentatively planned for Oct. 12, 13, 17, or 20 (3 meetings)**
- **Final Open House tentatively planned for Oct. 26**

BRT 301

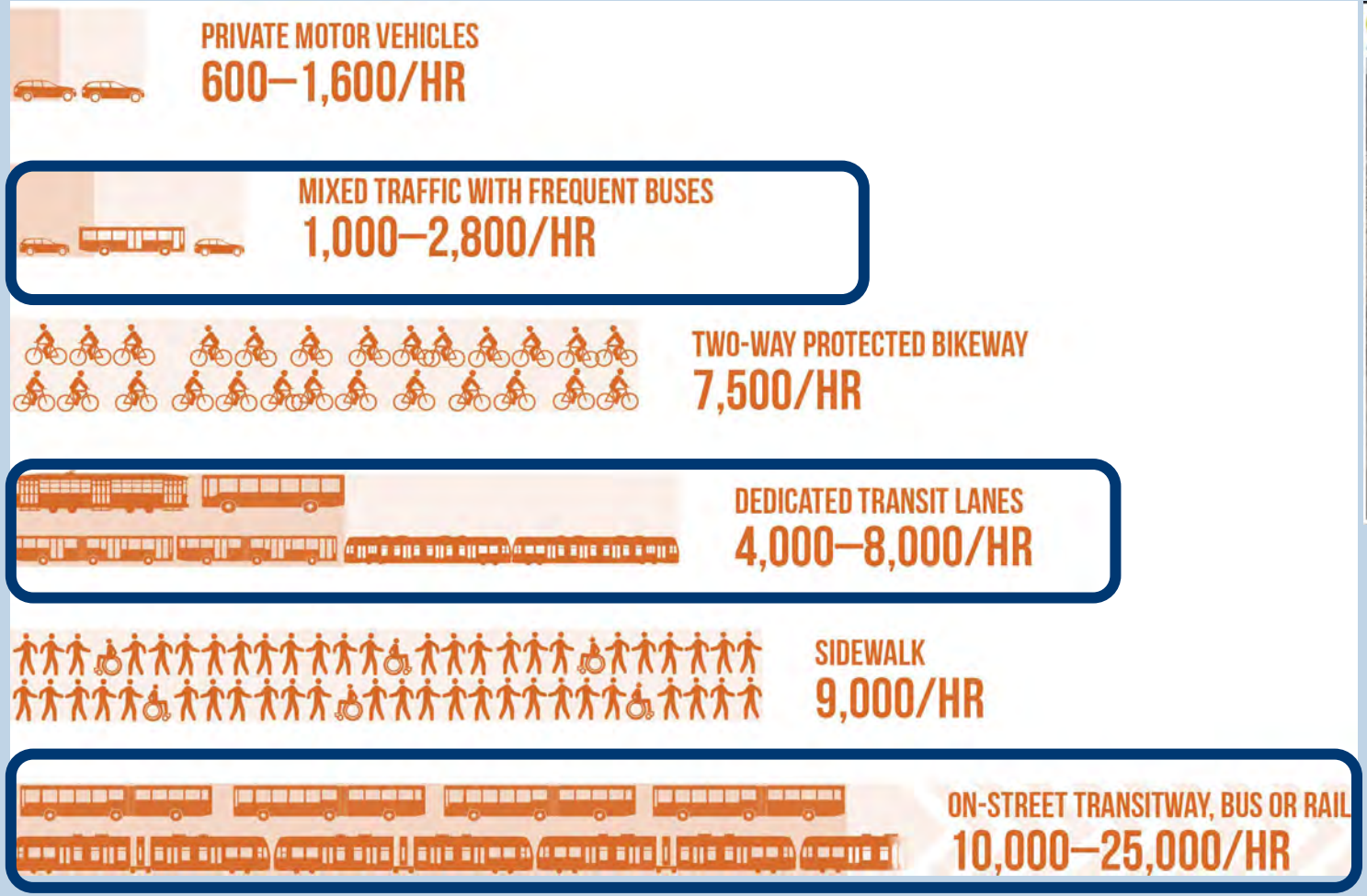
BRT 301 – WHY HIGH SERVICE TRANSIT ON DUKE ST?

DUKE STREET IN MOTION

But why did they all recommend transit for Duke Street?



WHY TRANSIT - CAPACITY



WHY TRANSIT - CONNECTIONS

DUKE STREET IN MOTION

High service transit connections important throughout Alexandria

– Not just on East side

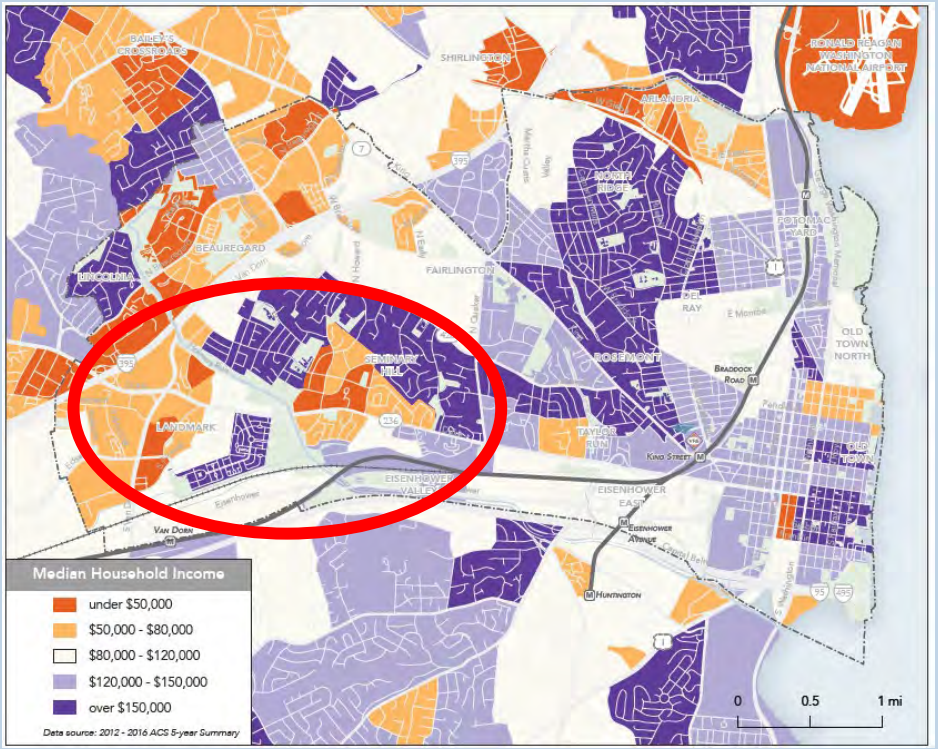
Local connections throughout Alexandria

WHY TRANSIT - EQUITY

DUKE STREET IN MOTION

Many areas with low median incomes along Duke

Higher transit needs

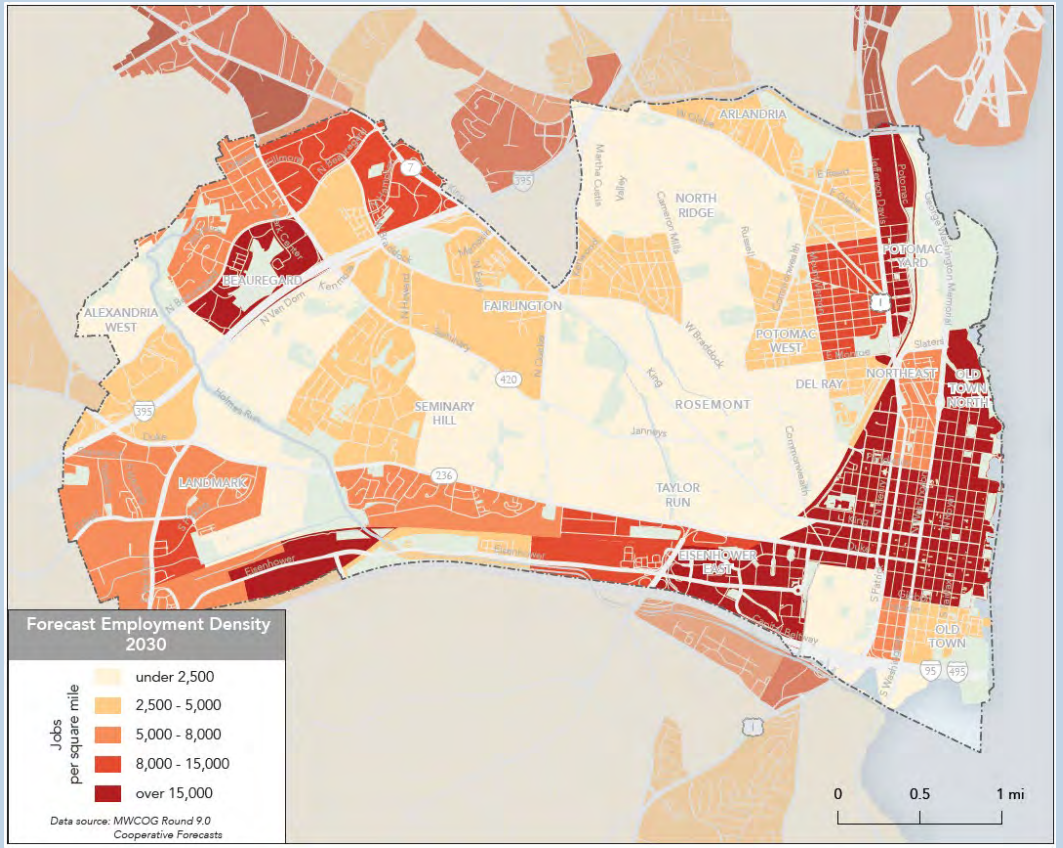


Median Household Income

WHY TRANSIT – ACCESS TO JOBS

DUKE STREET IN MOTION

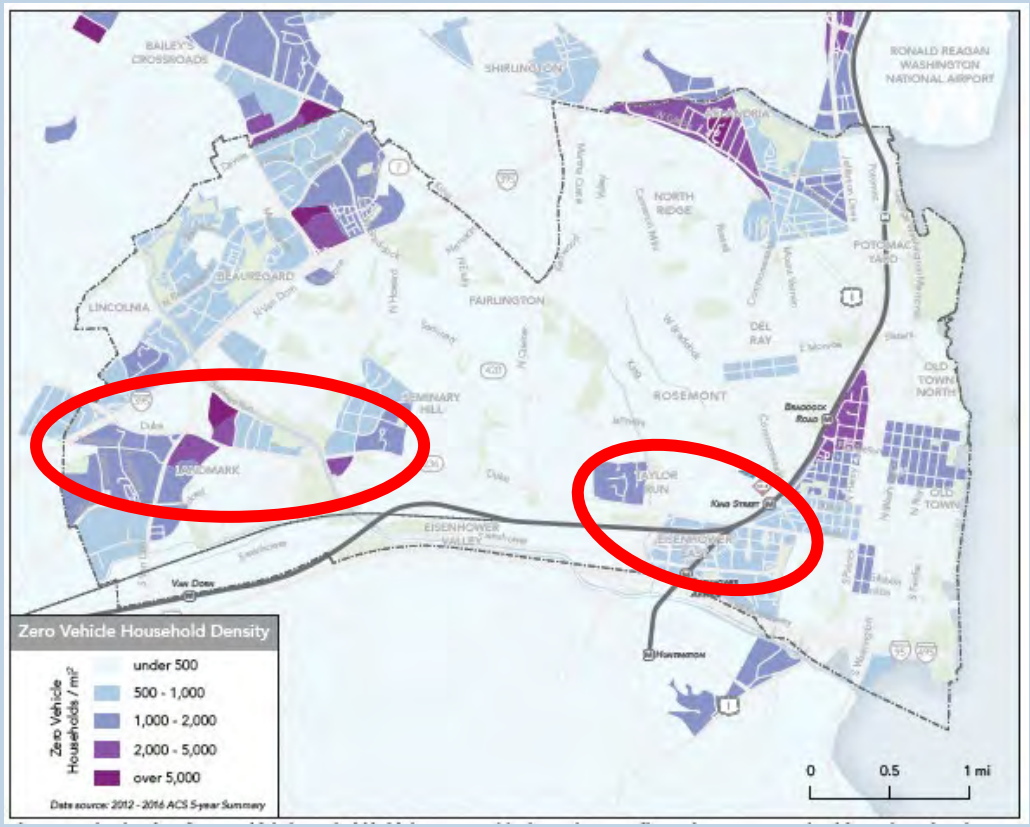
- Dense job centers outside of Duke



Forecast Employment Density 2030

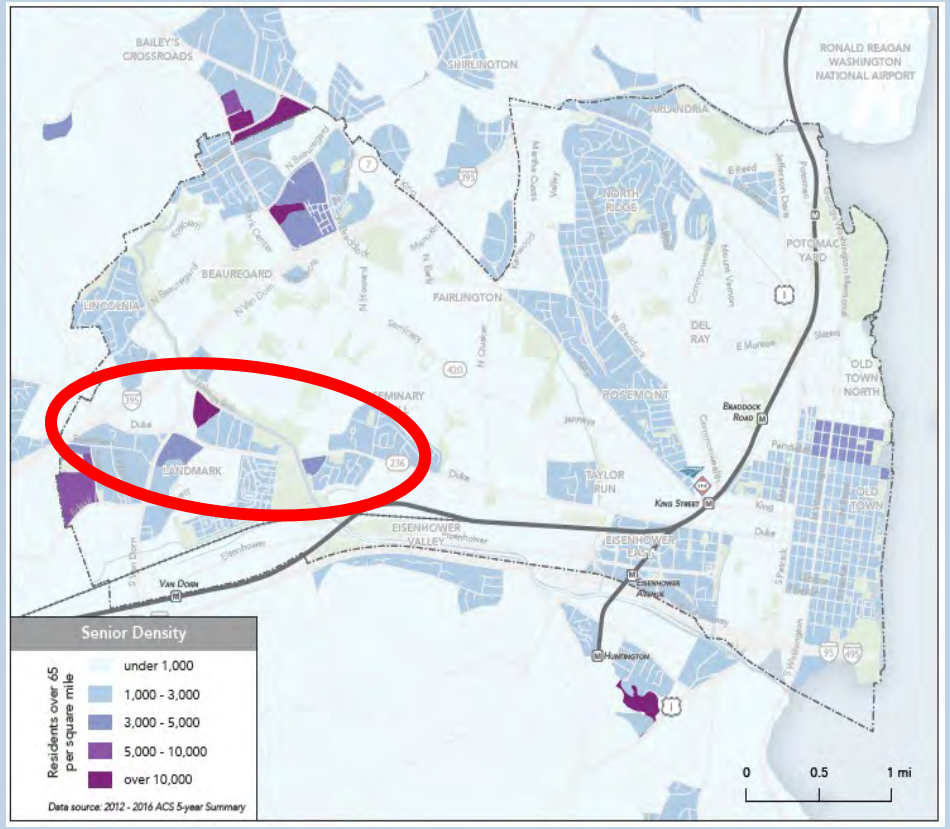
WHY TRANSIT - CHOICES

- Zero-car households
- Resilience
- Gas Prices
- Temporary conditions

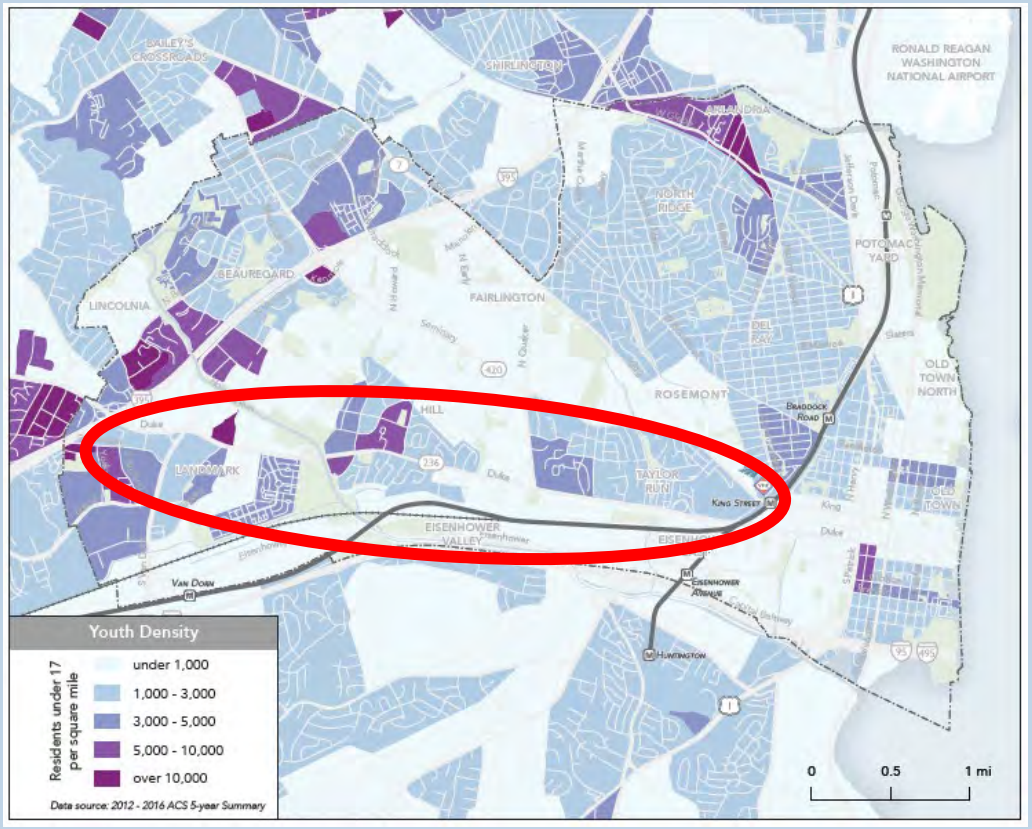


Zero Vehicle Household Density

TRANSIT – ALL AGES AND ABILITIES



Senior Density



Youth Density

WHY TRANSIT - SAFETY

DUKE STREET IN MOTION

- Safer left turns
- Slower traffic speeds
- Stations encourage peds to cross at intersection
- Trained professional drivers
- Buses mix less with general traffic

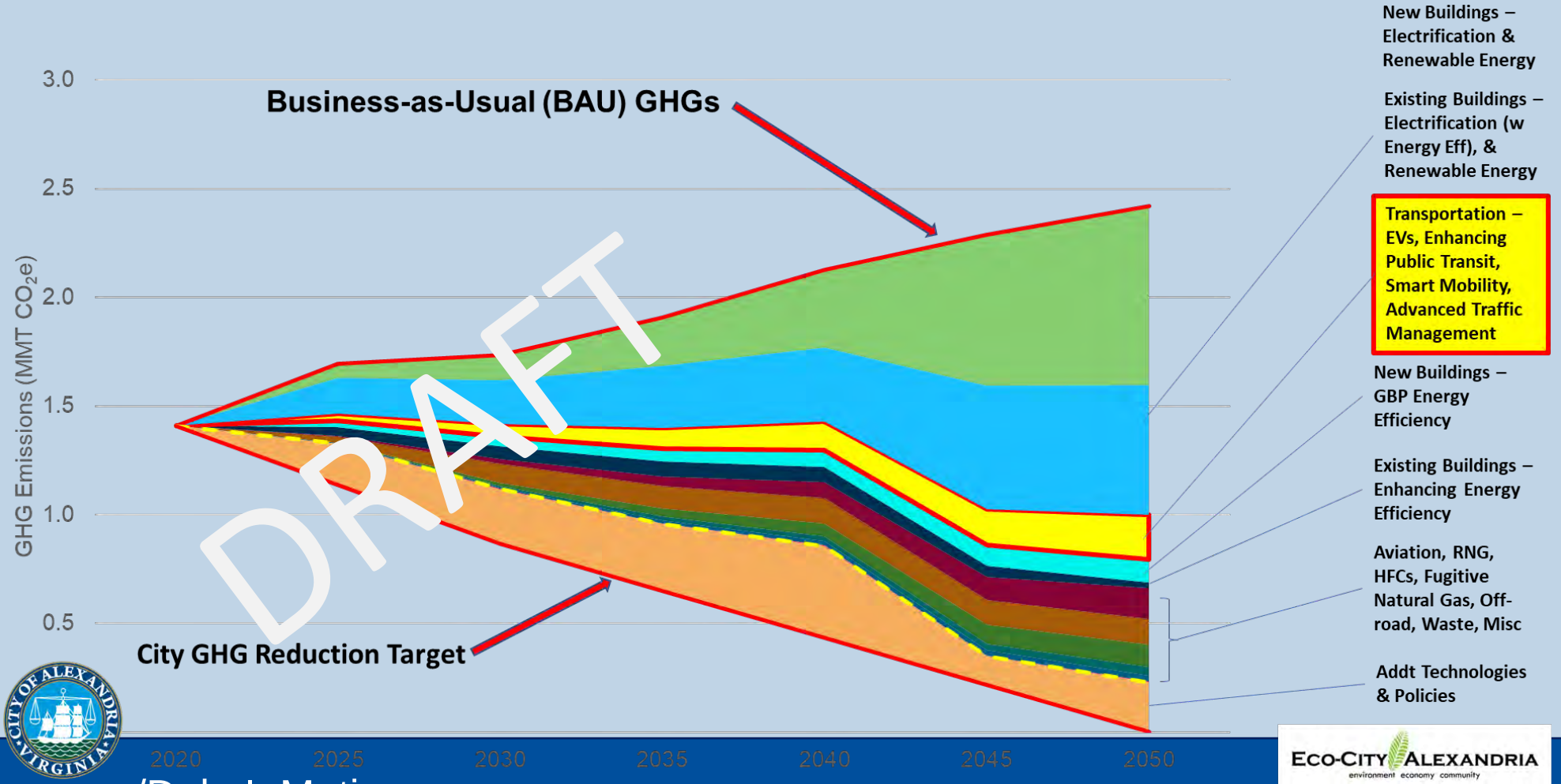
	Safety Impacts with BRT per Year per KM		
City	Property Damage Only	Injuries	Fatalities
Mexico City	+11%	-38%	-38%
Guadalajara	-56%	-69%	-68%
Bogota	n/a	-39%	-48%
Ahmedabad	-32%	-28%	-55%
Melbourne	-11%	-25%	-100%

Source: Embarq

WHY TRANSIT – CLIMATE CHANGE

DUKE STREET IN MOTION

Sustainable transportation to meet Greenhouse Gas Emission Goals



ECO-CITY ALEXANDRIA
environment economy community

WHY TRANSIT - ENVIRONMENT

- Funding includes new buses (usually cleaner)
- New infrastructure for reducing flooding
- Greening the street

WHY TRANSIT – LIVABILITY

WHY TRANSIT?

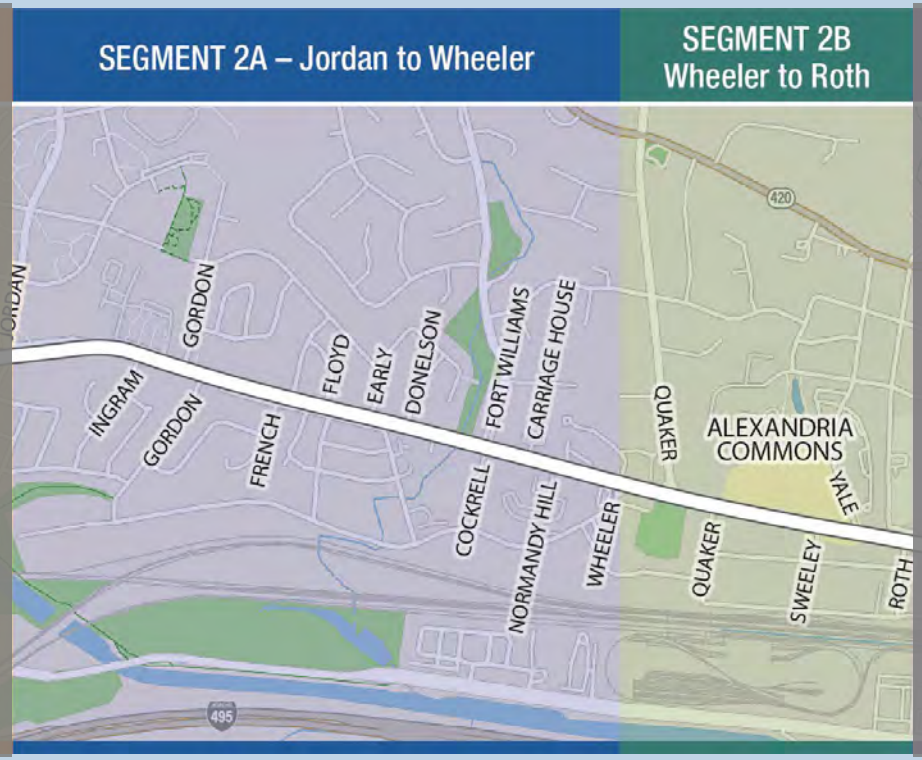
- Capacity
- Connections
- Equity
- Access to Jobs
- Choices
- All Ages and Abilities
- Safety
- Environment
- Livability

DUKE STREET SEGMENT 2A EXISTING CONDITIONS & DESIGN CONCEPTS

CORRIDOR SEGMENTS

DUKE STREET IN MOTION

Segment 1 discussed at AG Meeting #4 on 8.17.2022



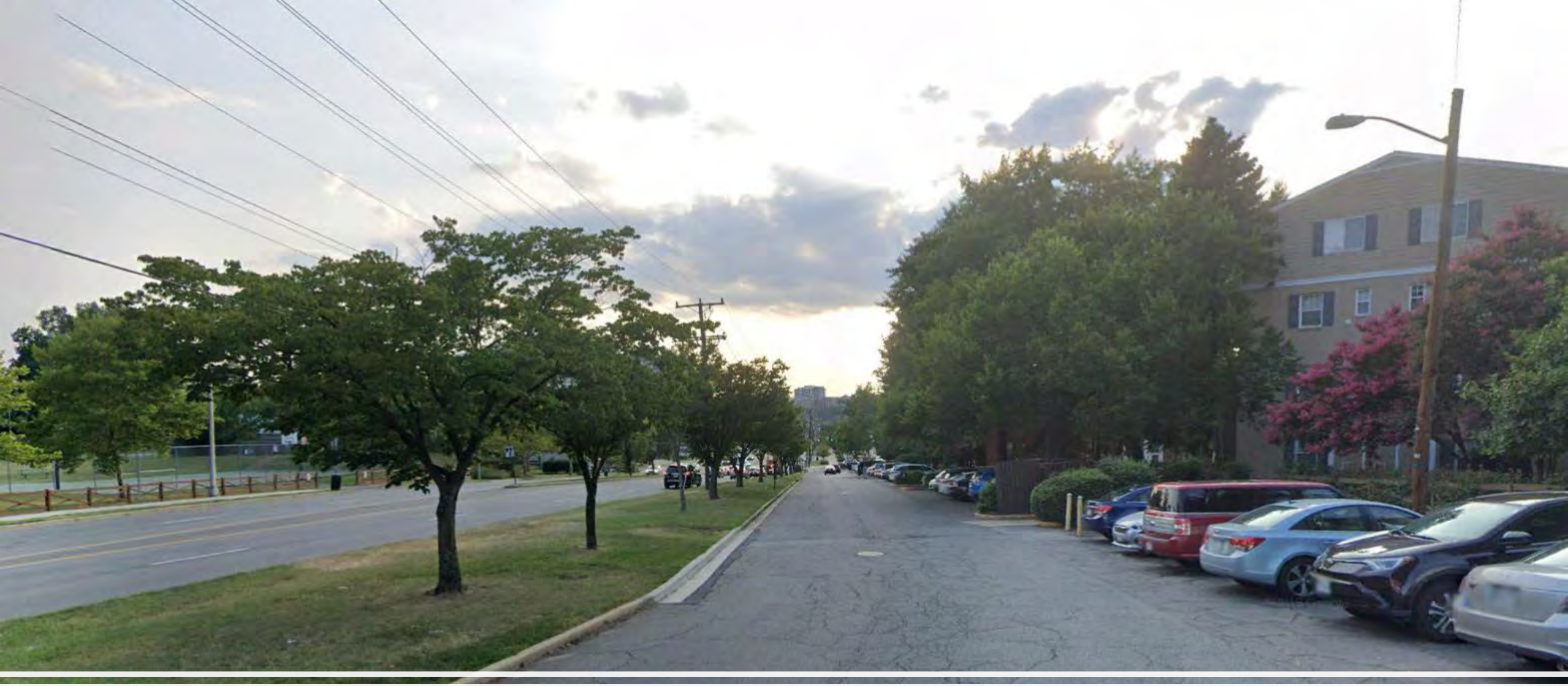
Segment 3 discussed at AG Meeting #4 on 8.17.2022

SEGMENT 2A:
JORDAN STREET TO WHEELER AVENUE
EXISTING CONDITIONS

DUKE STREET IN MOTION

SEGMENT 2A: EXISTING CONDITIONS

DUKE STREET IN MOTION



FRONTAGE ROAD – JORDAN TO N. GORDON

FRONTAGE ROADS (BOTH SIDES) – S. INGRAM

FRONTAGE ROAD – S. GORDON TO S. EARLY

FRONTAGE ROAD – DONNELSON TO FORT WILLIAMS

CORRIDOR DESIGN CONCEPT DEVELOPMENT

DUKE STREET IN MOTION

Step 1: Choose a Bus Running Way

Step 2: Select Edge Features

Step 3: Develop Design Concepts

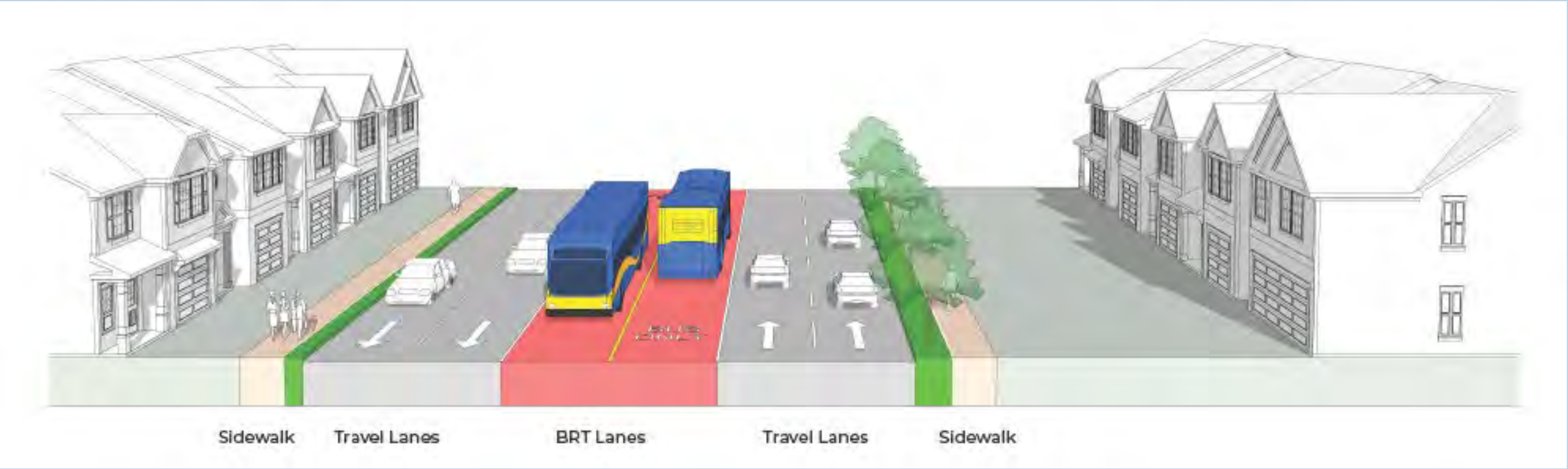
FRAMING QUESTIONS FOR TODAY

DUKE STREET IN MOTION

- Are we presenting an **appropriate range of design concepts**?
- Do you **understand the tradeoffs** present in each design concept?
- Are we **missing anything** from the running way or edge features?
- Are there additional ideas on educating, framing and visualizing this information for the **public engagement period?**

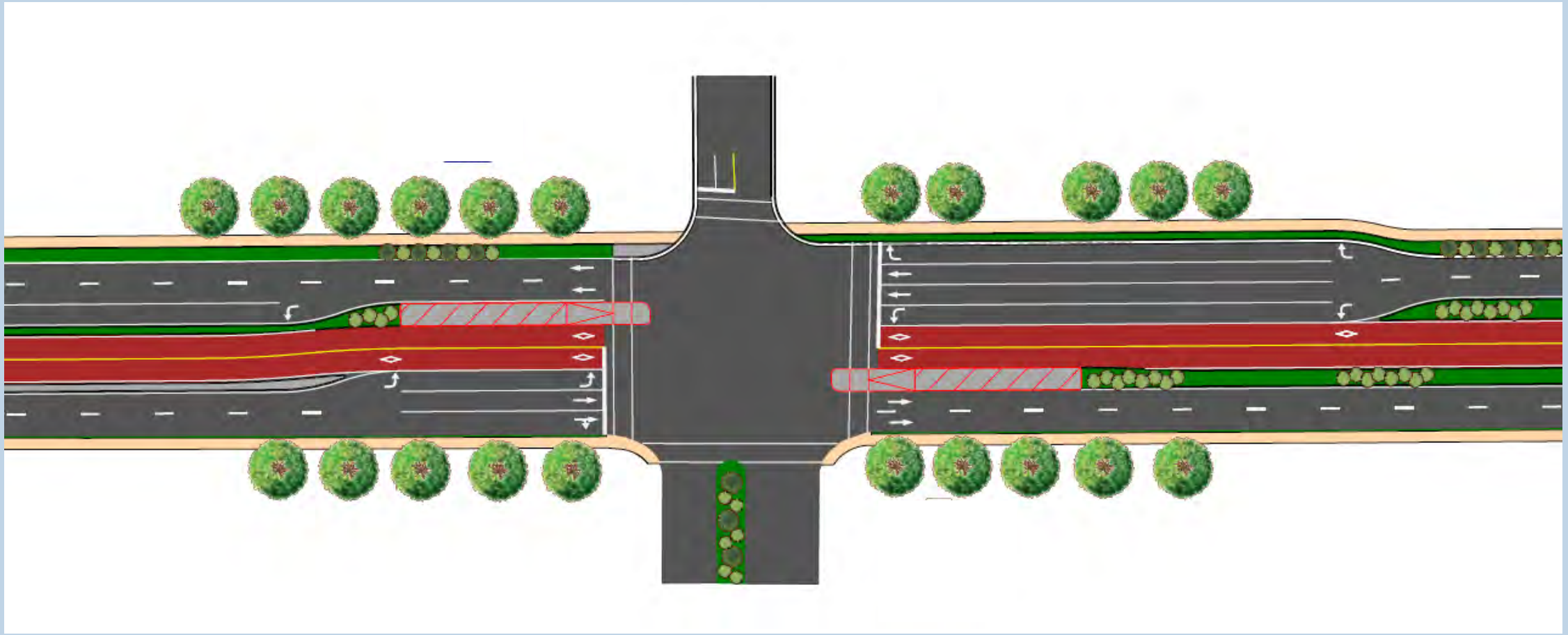
SEGMENT 2A: CENTER RUNNING DESIGN CONCEPT

DUKE STREET IN MOTION



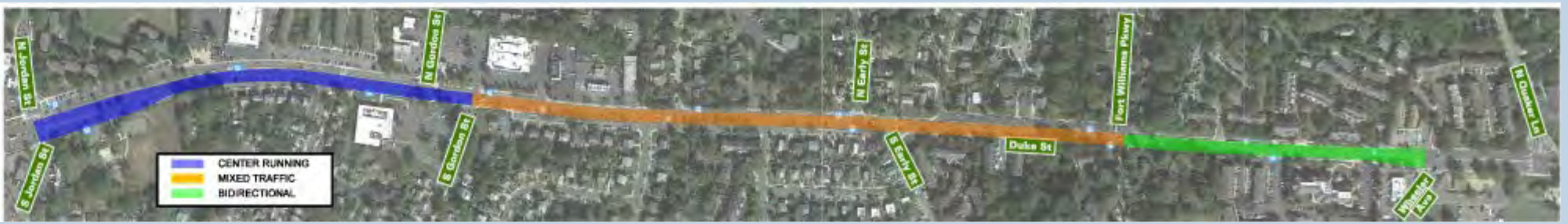
SEGMENT 2A: CENTER RUNNING
PLAN VIEW - GENERIC

DUKE STREET IN MOTION



SEGMENT 2A: CENTER RUNNING FRONTAGE ROADS

SEGMENT 2A: HYBRID



BIDIRECTIONAL TRANSIT LANES

Rouen, France

Eugene, Oregon

BI-DIRECTIONAL TRANSIT LANES

DUKE STREET IN MOTION

Features
- Single transit lane
- Center stations
- Hold points

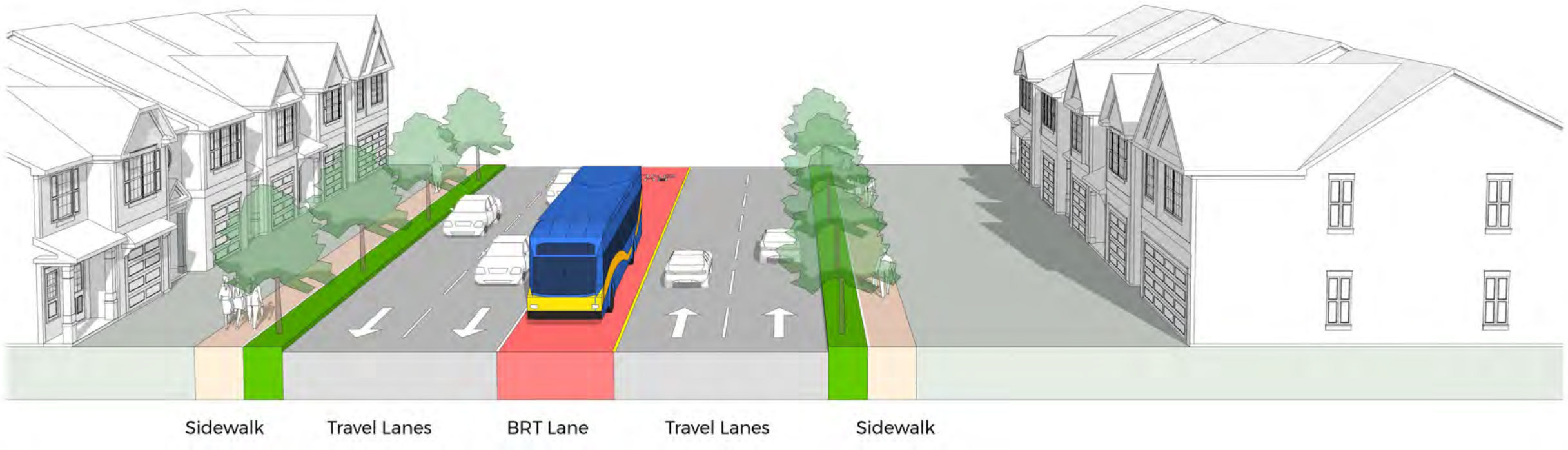
Benefits
- Corridor safety
- Transit travel time and reliability
- Less space

Tradeoffs
- Requires space
- Operational challenges

Indianapolis, IN

SEGMENT 2A: HYBRID DESIGN CONCEPT (SHOWING BI-DIRECTIONAL LOCATION)

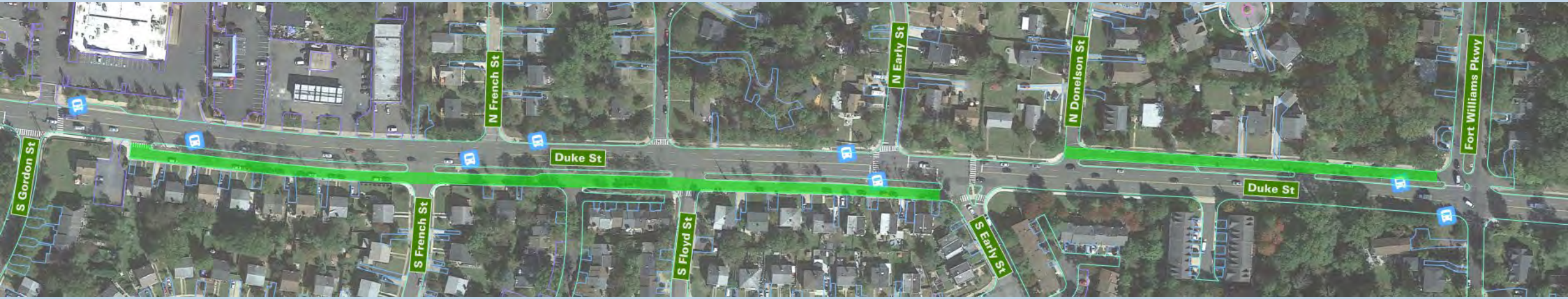
DUKE STREET IN MOTION



SEGMENT 2A: HYBRID - GENERIC (SHOWING BI-DIRECTIONAL LOCATION)

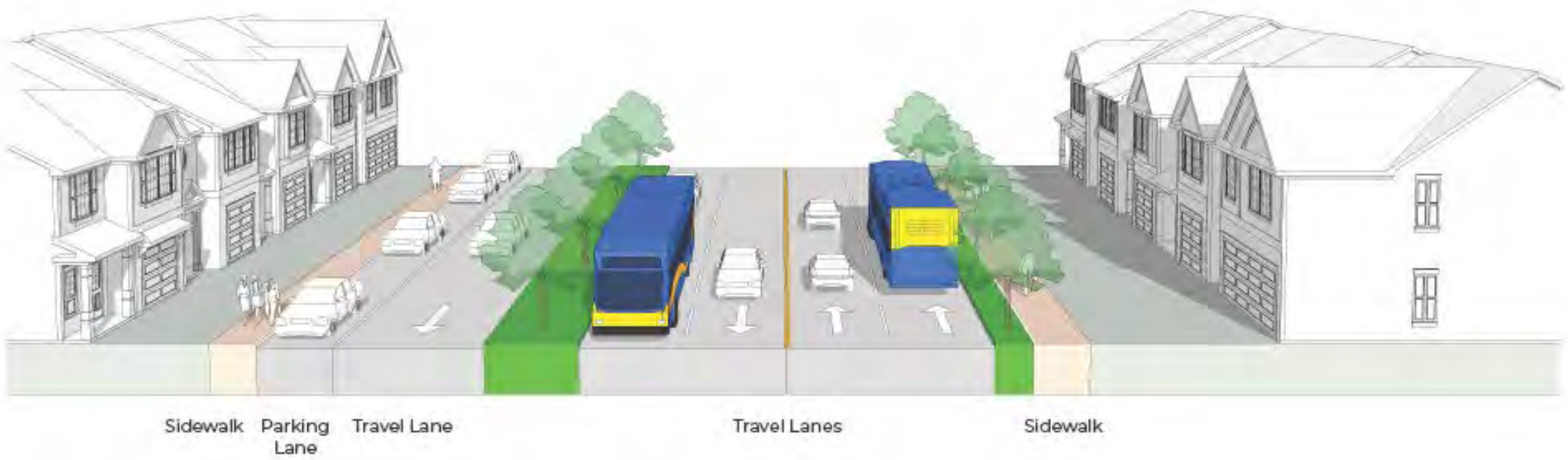
DUKE STREET IN MOTION

SEGMENT 2A: HYBRID FRONTAGE ROADS



SEGMENT 2A: MIXED TRAFFIC DESIGN CONCEPT

DUKE STREET IN MOTION



SEGMENT 2A: MIXED TRAFFIC
PLAN VIEW - GENERIC

DUKE STREET IN MOTION

SEGMENT 2A: MIXED TRAFFIC FRONTAGE ROADS

DUKE STREET IN MOTION

Segment 2A: Jordan Street to Wheeler Avenue

Key	No Benefit	Minor Benefit	Moderate Benefit	Large Benefit
	No Impact	Minor Impact	Moderate Impact	Large Impact

Center Running BRT Concept

Hybrid BRT Concept

Mixed Traffic BRT Concept

		Center Running BRT Concept	Hybrid BRT Concept	Mixed Traffic BRT Concept
Benefits	Convenient	Bus schedule reliability and user experience	●●●	●●	●
	Safe	Corridor and intersection safety features	●●●	●	●
	Efficient	Bus travel time*	●●●	●●	●
		Non-transit vehicle travel time*	●	●	●
Impacts	Vibrant	Property impacts	●	●	●
		Business and residential access	●●●	●	●
		Parking	●●	●	●

*High level estimate based on bus running way configuration, signal delay. More detailed corridor end-to-end travel time will be provided once the corridor alternative(s) are determined.

SEGMENT 2A KEY QUESTIONS

DUKE STREET IN MOTION

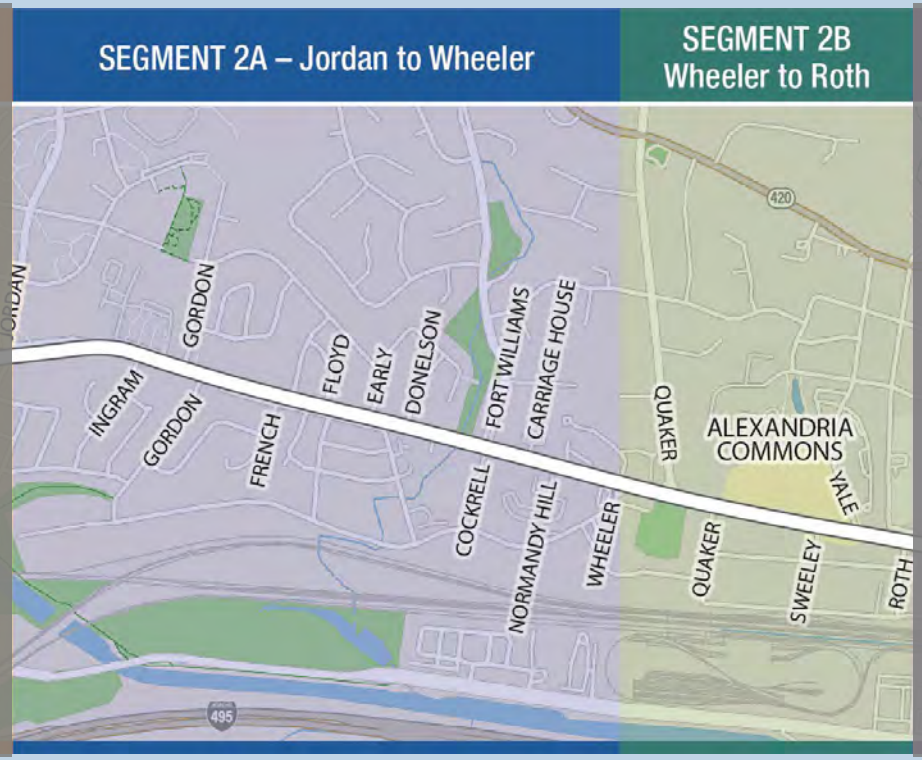
1. Do you **understand the features and tradeoffs** presented in the Segment 2A design concepts?
2. Are we **presenting an appropriate range** of Segment 2A design concepts?
3. Are we **missing key elements** from Segment 2A running way or edge features?
4. Are there additional ideas on educating, framing and visualizing this information for the **public engagement period?**

DUKE STREET SEGMENT 2B EXISTING CONDITIONS & DESIGN CONCEPTS

CORRIDOR SEGMENTS

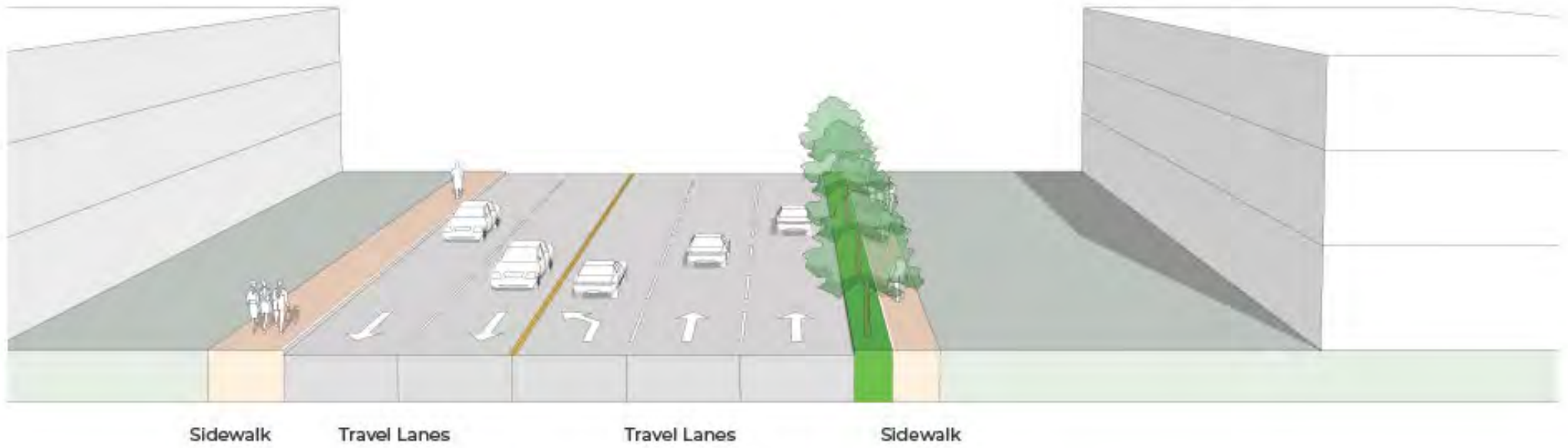
DUKE STREET IN MOTION

Segment 1 discussed at AG Meeting #4 on 8.17.2022



Segment 3 discussed at AG Meeting #4 on 8.17.2022

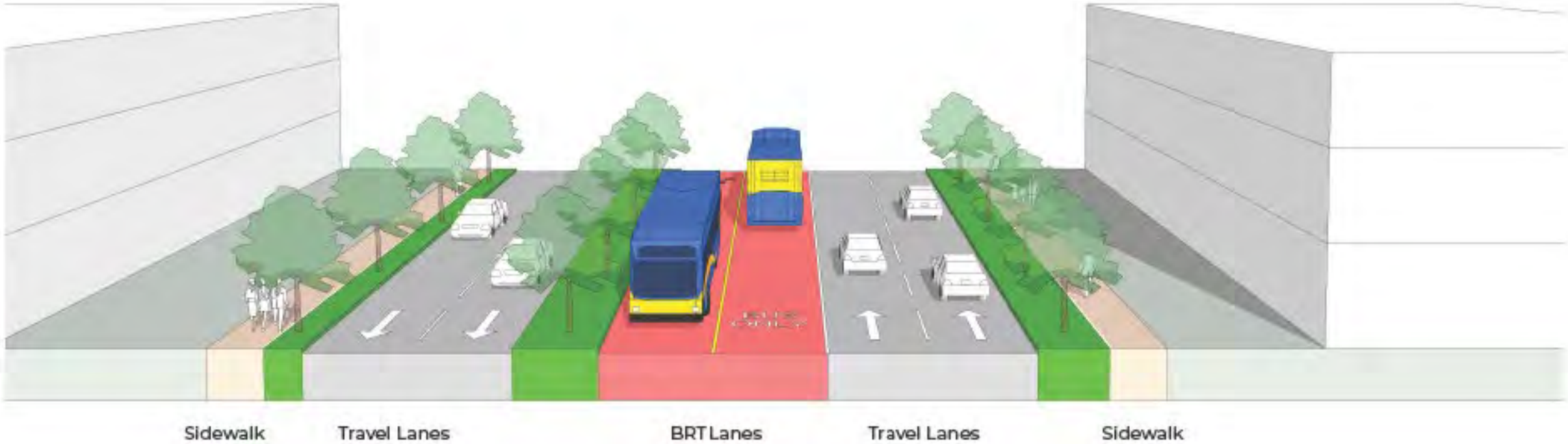
SEGMENT 2B: WHEELER AVENUE TO ROTH STREET EXISTING CONDITIONS



SEGMENT 2B: EXISTING CONDITIONS

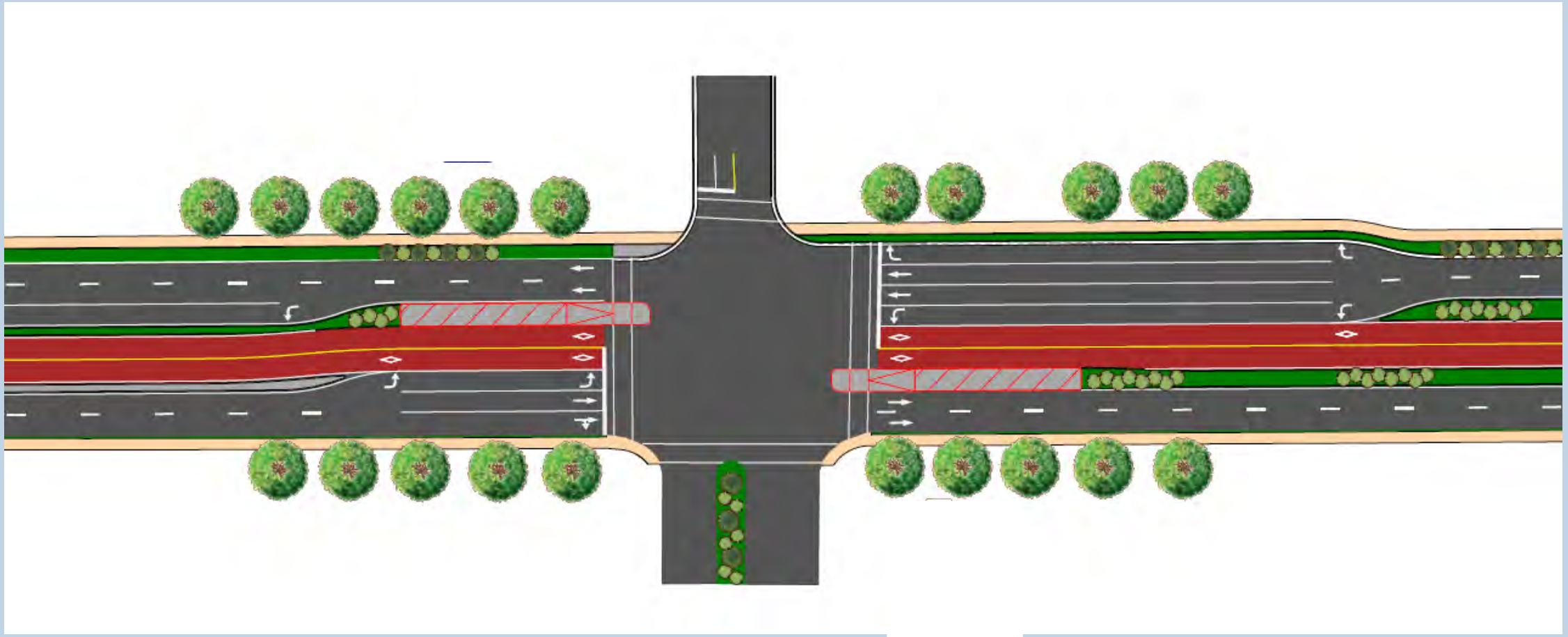
DUKE STREET IN MOTION

SEGMENT 2B: CENTER RUNNING DESIGN CONCEPT



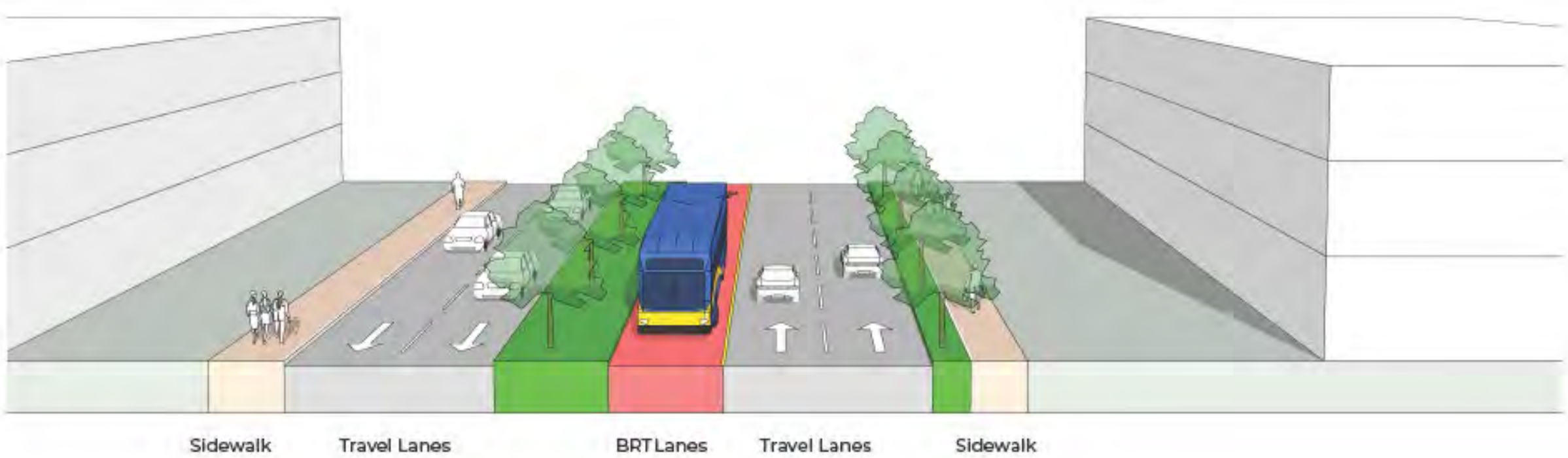
SEGMENT 2B: CENTER RUNNING
PLAN VIEW - GENERIC

DUKE STREET IN MOTION



SEGMENT 2B: BI-DIRECTIONAL DESIGN CONCEPT

DUKE STREET IN MOTION

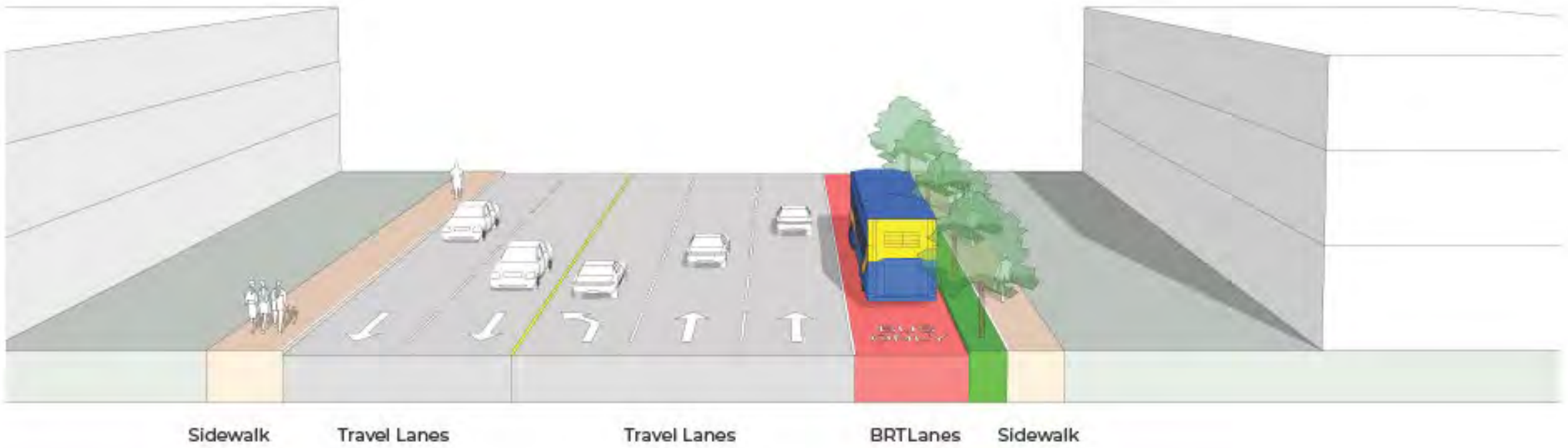


SEGMENT 2B: BI-DIRECTIONAL PLAN VIEW - GENERIC

DUKE STREET IN MOTION

SEGMENT 2B: MIXED TRAFFIC DESIGN CONCEPT

DUKE STREET IN MOTION



SEGMENT 2B: MIXED TRAFFIC
PLAN VIEW - GENERIC

DUKE STREET IN MOTION

Segment 2B: Wheeler Ave to Roth Street

Key	No Benefit	Minor Benefit	Moderate Benefit	Large Benefit
	No Impact	Minor Impact	Moderate Impact	Large Impact

Center Running BRT Concept

Bi-Directional BRT Concept

Mixed Traffic BRT Concept

		Center Running BRT Concept	Bi-Directional BRT Concept	Mixed Traffic BRT Concept
Benefits	Convenient: Bus schedule reliability and user experience	●●●	●●	●
	Safe: Corridor and intersection safety features	●●●	●●●	●
	Efficient: Bus travel time*	●●●	●●	●
Impacts	Efficient: Non-transit vehicle travel time*	●	●	●
	Vibrant: Property impacts	●●●	●●	●
	Vibrant: Business and residential access	●●●	●●	●
	Vibrant: Parking	●●●	●	●

*High level estimate based on bus running way configuration, signal delay. More detailed corridor end-to-end travel time will be provided once the corridor alternative(s) are determined.

SEGMENT 2B KEY QUESTIONS

DUKE STREET IN MOTION

1. Do you **understand the features and tradeoffs** presented in the Segment 2B design concepts?
2. Are we **presenting an appropriate range** of Segment 2B design concepts?
3. Are we **missing key elements** from Segment 2B running way or edge features?
4. Are there additional ideas on educating, framing and visualizing this information for the **public engagement period?**

NEXT STEPS

NEXT STEPS

DUKE STREET IN MOTION

- **Toolkit distribution:** Spread the word about October engagement
- **Participate in October engagement**
- **Optional Duke Street and Metroway Tours**
- **Next regular Meeting**: November 17
  - Receive summary of October engagement findings
  - Consider advancing running way concepts for further design and analysis
- **Looking ahead**: December meeting?

VIRTUAL MEETING POLICY

VIRTUAL MEETING POLICY

DUKE STREET IN MOTION

- Remote attendance:
  - Can attend virtually 2 times per calendar year or 25% of all meetings, with a valid reason accepted by the Chair
  - Quorum must be present at the meeting location
- All virtual meetings:
  - May be held no more than twice per calendar year or 25% of all meetings, whichever is greater

APPROVAL OF MEETING #4 MINUTES

ADJOURN