HANOVER STREET CORRIDOR STUDY

includes the Vietnam Veterans Memorial Bridge

Public Advisory Committee Meeting

9/6/17

CITY OF BALTIMORE
CATHERINE E. PUGH
MAYOR

dot
DEPARTMENT OF TRANSPORTATION
BALTIMORE CITY

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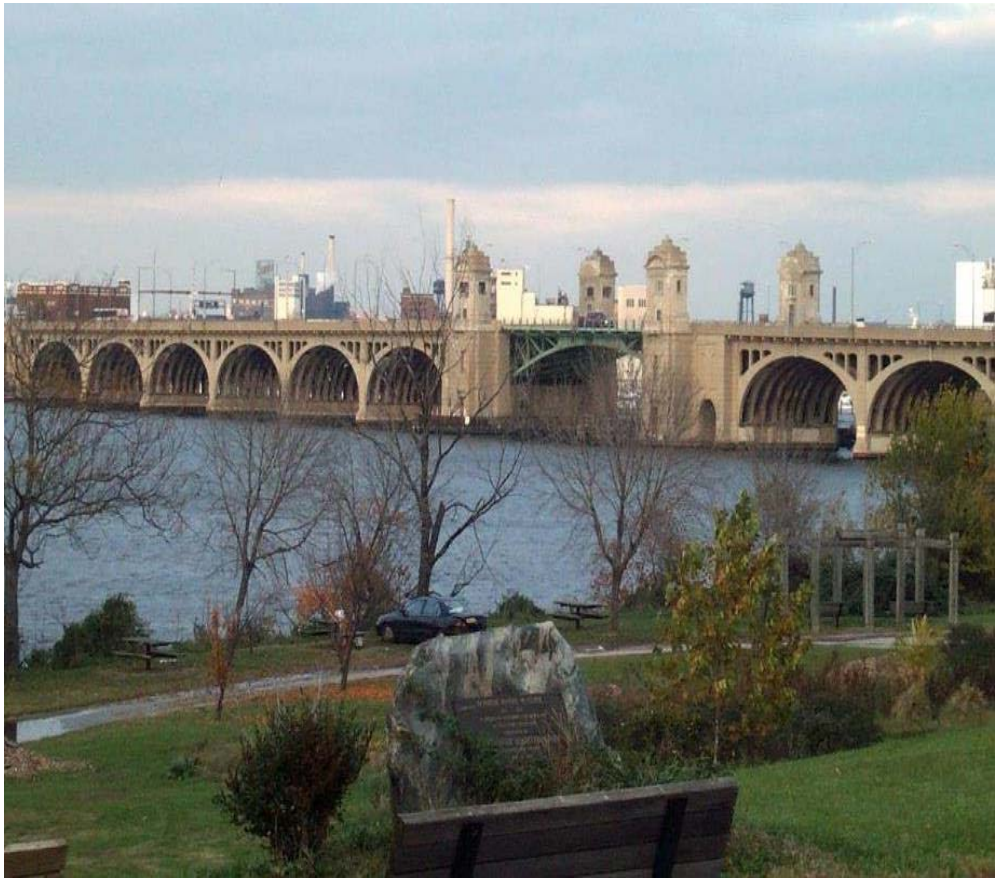
Tonight's Presentation

- Study Overview
- Project Goals
- Process & Schedule
- Work Completed to Date
- Design Opportunities
- Next Steps
- Your Input



Study Overview

- **Purpose**: Identify improvements to the Vietnam Veterans Memorial Bridge and Hanover Street corridor to address accessibility, connectivity, and safety for multiple modes:
  - Bicycle
  - Pedestrian
  - Transit
  - Automobiles
  - Freight
- **Funding**: US DOT $1.1 M TIGER Grant and a $700,000 match from Baltimore City
- **Study Limits**: Wells Street to Reedbird Avenue (a distance of 1.4 miles)

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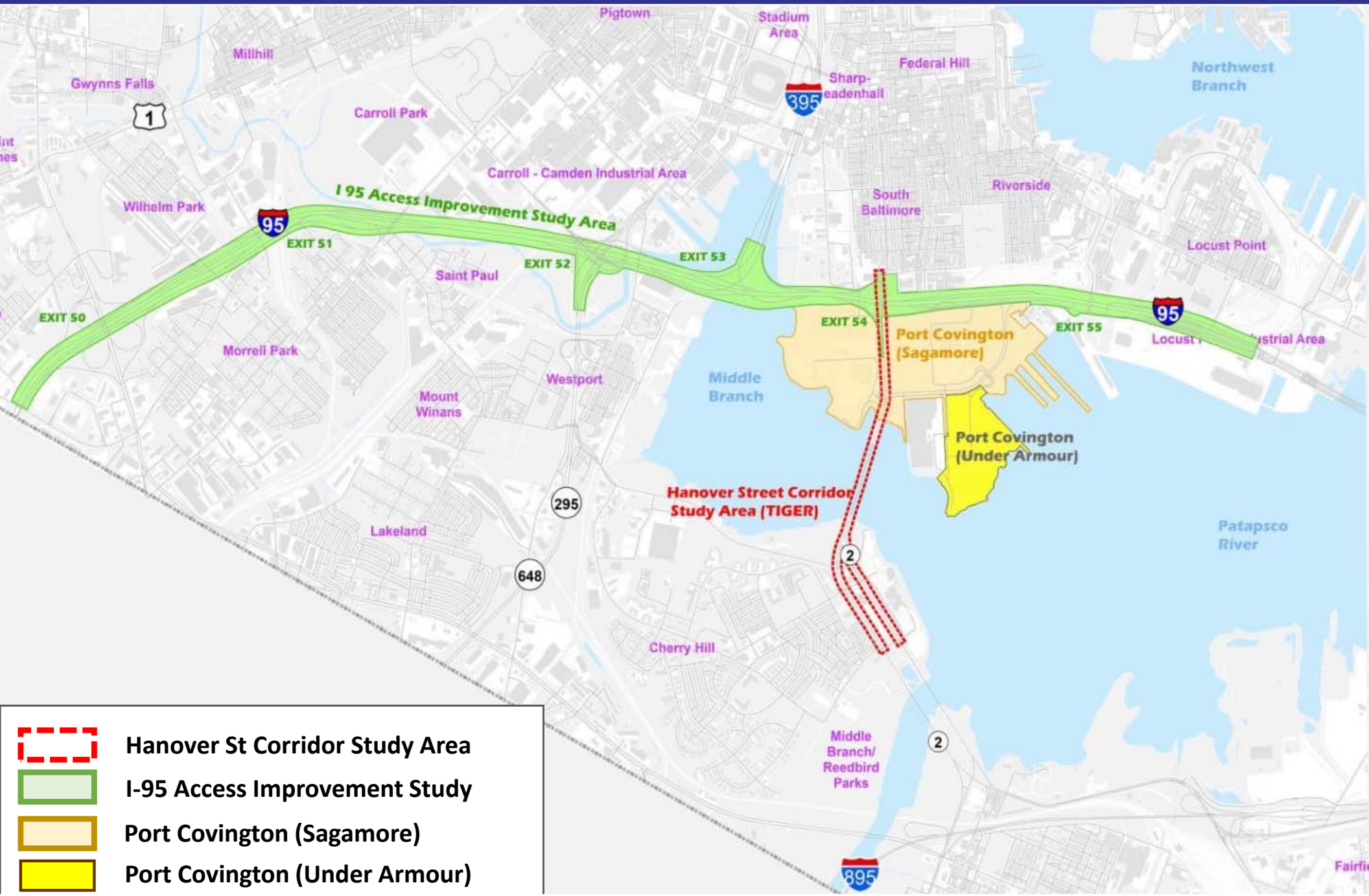
Adjacent Projects



- Hanover St Corridor Study Area
- I-95 Access Improvement Study
- Port Covington (Sagamore)
- Port Covington (Under Armour)

Project Goals

At the end of this process, the team will produce a PLAN to upgrade and enhance the Hanover Street corridor and Vietnam Veterans Memorial bridge by:

- Providing the surrounding communities with safe and reliable access to key quality of life resources
- Maintaining a critical link between existing and planned bicycle and pedestrian infrastructure
- Improving access for local and regional motorists
- Maintaining freight access to and from the Port of Baltimore
- Promoting better connectivity between local bus and light rail services

Process & Schedule

Summer 2016 | Winter 2017 | Summer 2017 | Winter 2018

Assess Existing Conditions & Collect Data

- Review area master plans
- Collect regional and community demographic data
- Assess existing and proposed land uses
- Review current traffic data
- Review bridge inspection reports

Conduct Economic Market Analysis

- Assess current economic climate
- Identify future potential development opportunities and challenges

Study Existing Transportation Network

- Identify potential barriers to multi-modalism
- Review existing pedestrian and bicycle facilities
- Identify transit facilities and assess operations
- Conduct safety assessment

Identify Design Opportunities and Constraints

- Identify growth opportunities
- Identify design opportunities and constraints
- Compare concepts to study area needs
- Evaluate constructability challenges

Develop Corridor Plan and Guiding Principles

- Develop corridor plan
- Create guiding principles
- Outline recommendations in Project Plan
- Determine costs
- Identify key factors needed to advance project

Solicit Public and Agency Feedback

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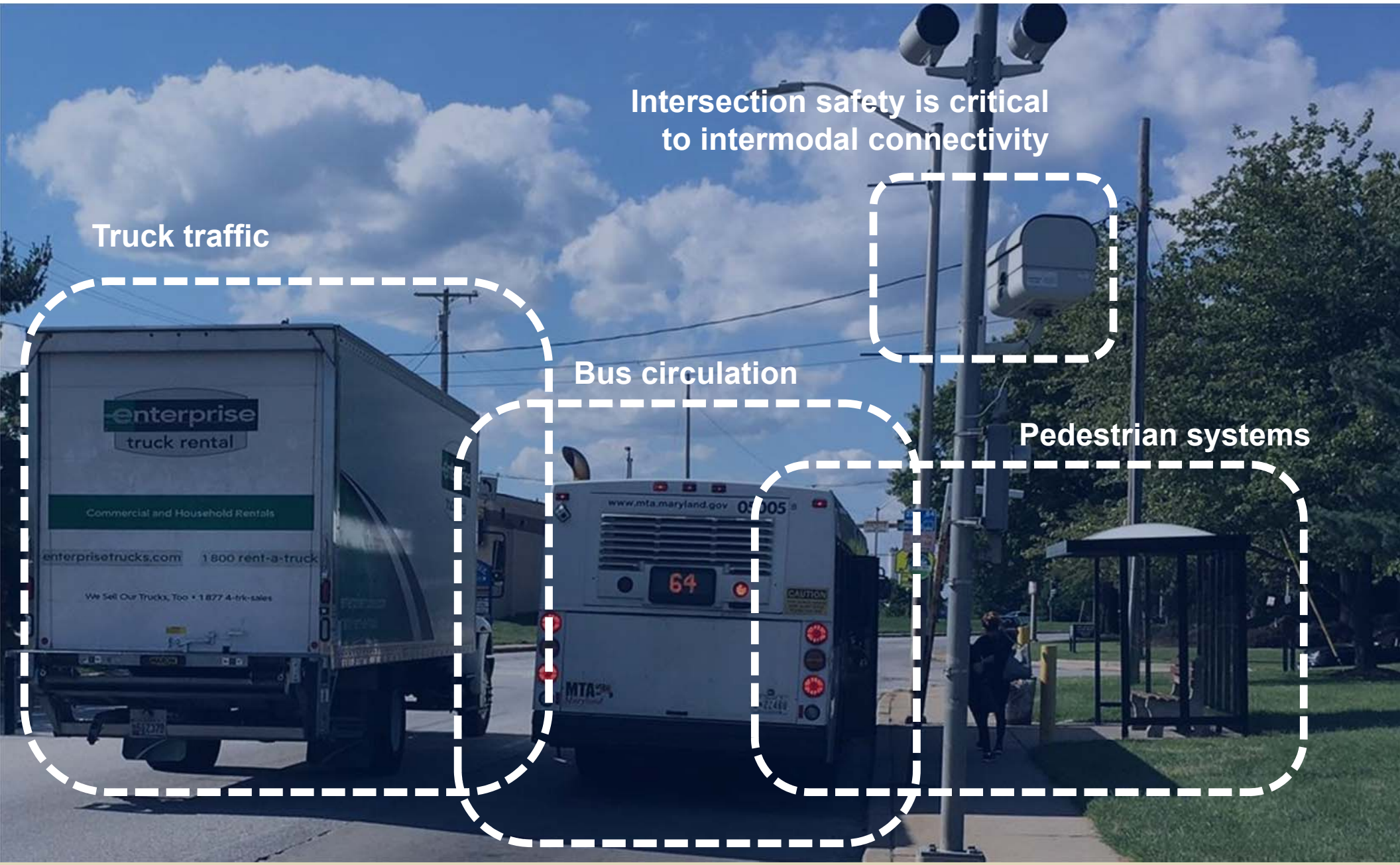
Work Completed to Date

- Conducted Public Outreach
  - Interagency Advisory Group (IAG)
  - Community Advisory Panel (CAP)
  - Public Meetings – September 2016, January 2017, May 2017
- Collected Existing Conditions Data
  - Review of available data and previous plans, studies, and inspection reports
  - Field visits to verify existing conditions
- Conducted Economic Market Analysis
  - Review of previous economic and master plans
  - Analysis of demographic, economic, and real estate data
  - Stakeholder interviews
  - Documentation of economic strengths and weaknesses
- Analyzed Existing Transportation Network
  - Investigation of existing demand
  - Review of safety and capacity of existing facilities

Existing Conditions: Multimodal Safety, Connectivity, and Accessibility



Multimodal Safety, Connectivity, and Accessibility

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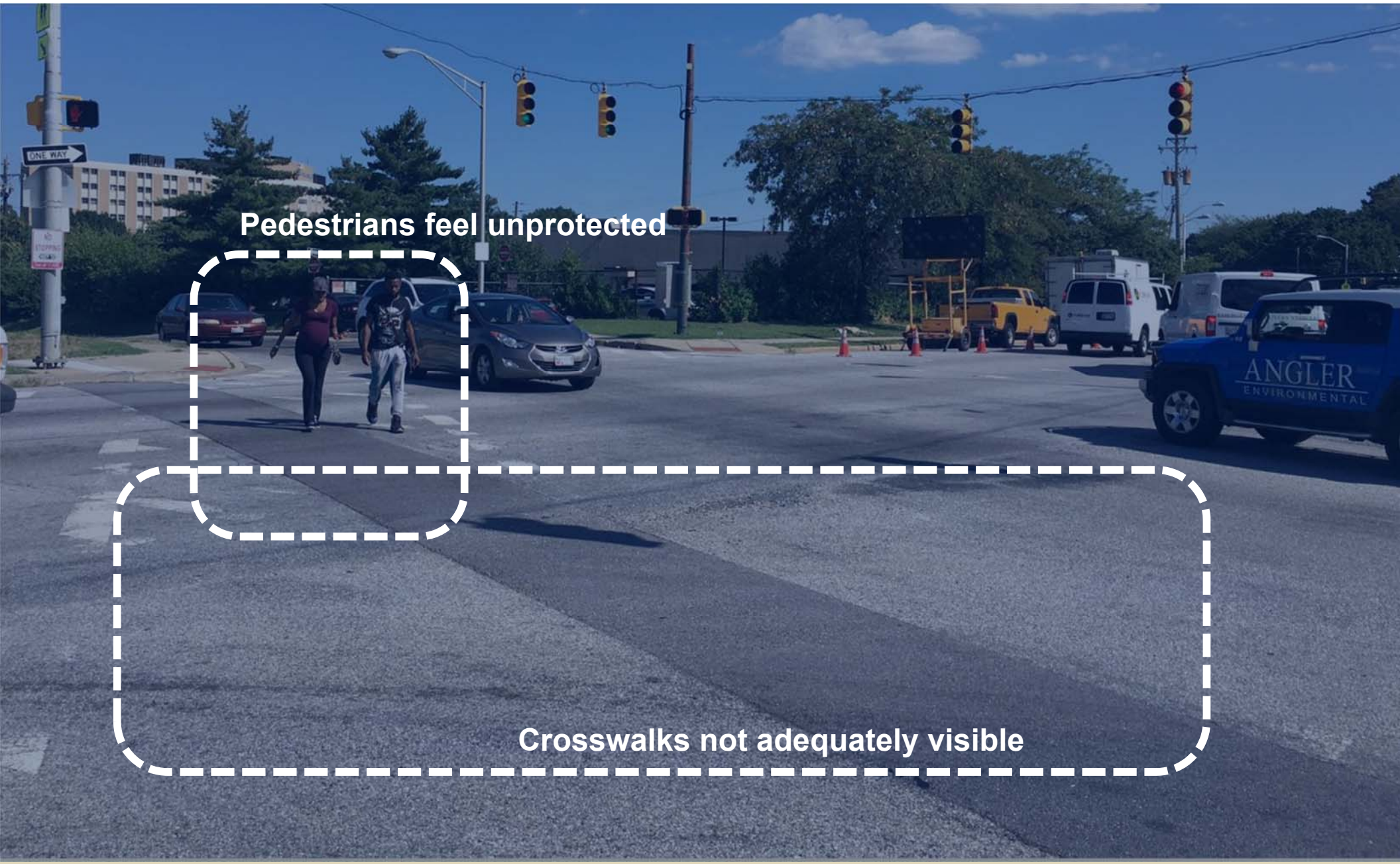
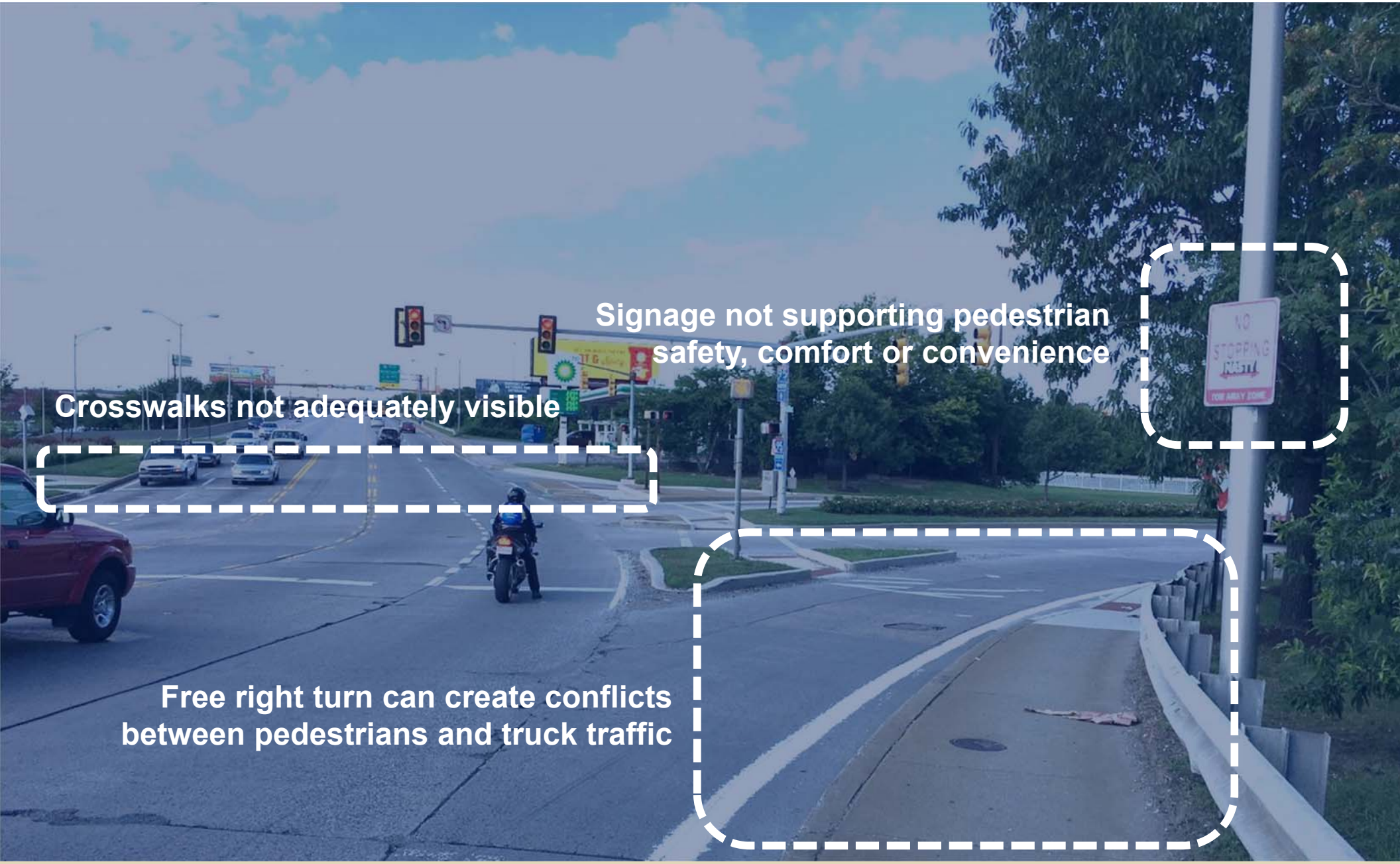


Multimodal Safety, Connectivity, and Accessibility



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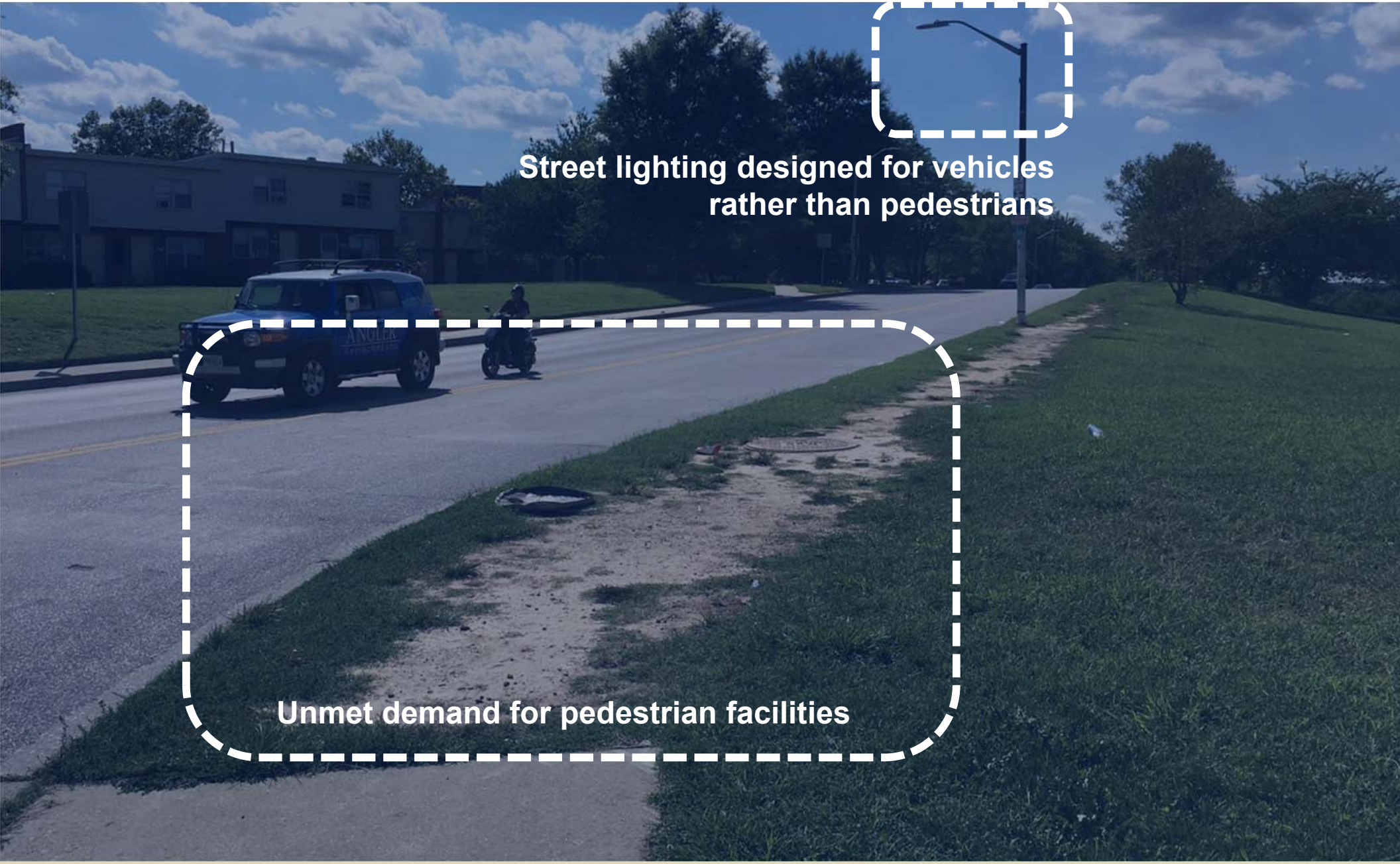
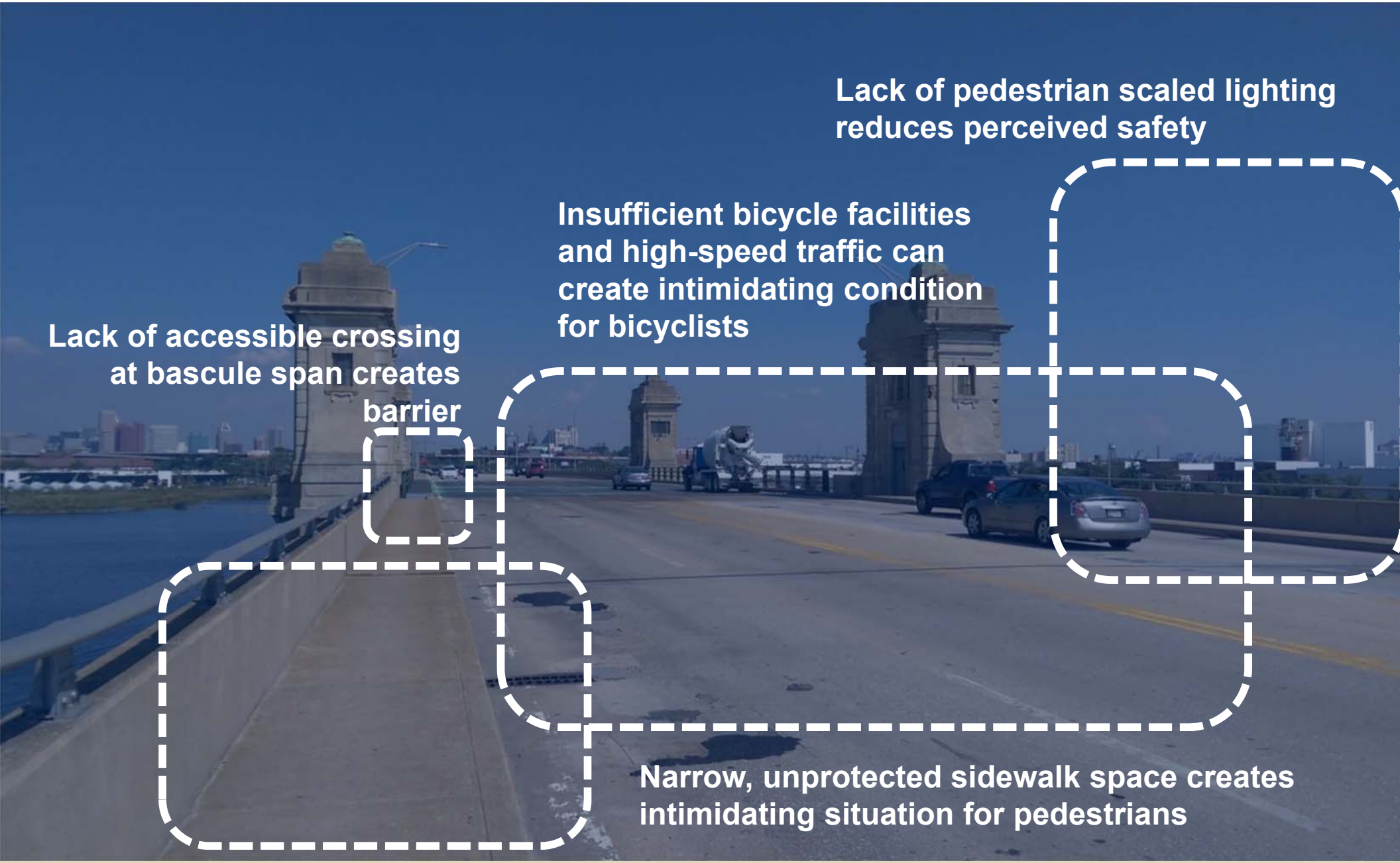


Multimodal Safety, Connectivity, and Accessibility



Multimodal Safety, Connectivity, and Accessibility

Summary of Corridor Conditions

- Sidewalks adjacent to trucks and high speed traffic
- Lack of accessibility to bus stops (no sidewalks or obstructed sidewalks)
- Lack of pedestrian type lighting
- Some pedestrian signals and curb ramps not in compliance with current ADA design standards
- Crosswalks in need of maintenance
- No bike facilities
- Poor bridge deck and pavement conditions
- Movable span operating system that creates challenges with maritime access

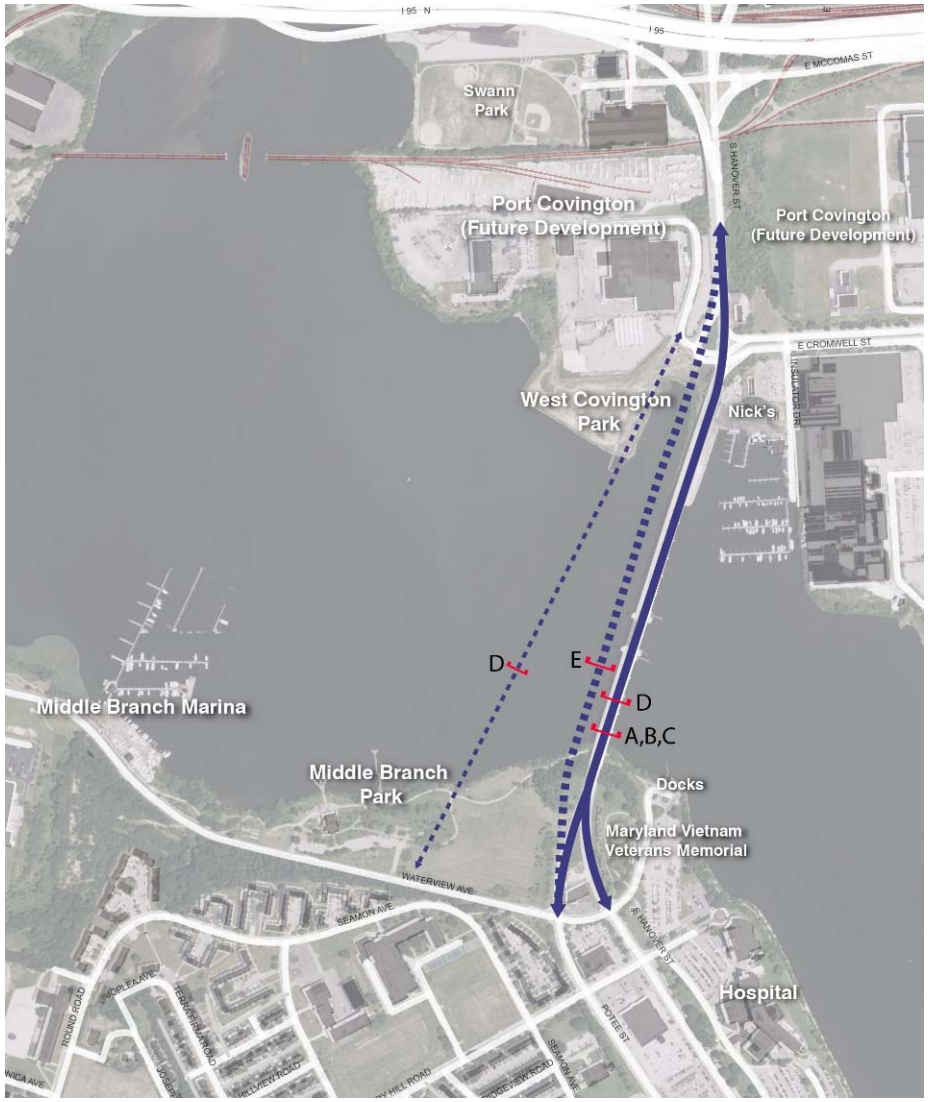
What We've Heard from Stakeholders

Key areas of focus for the project team to consider:

- Safety and comfort for pedestrians and cyclists
- Improving traffic signalization and signage
- Future construction impacts to community
- Neighborhood beautification (landscaping, community signage, etc.)
- Maintaining historic view into Baltimore
- Vehicular riding surface on bridge
- Speeding in corridor
- Poor transit access to downtown (jobs)
- Commercial vehicle travel
- Consistency with area master plans and ongoing development

Design Opportunities

Potential Bridge Typical Sections



Option A

No-Build (maintain existing bridge)

Option B

Maintain existing bridge,
improve roadway approaches

Option C

Rehabilitate bridge within existing footprint

Option D

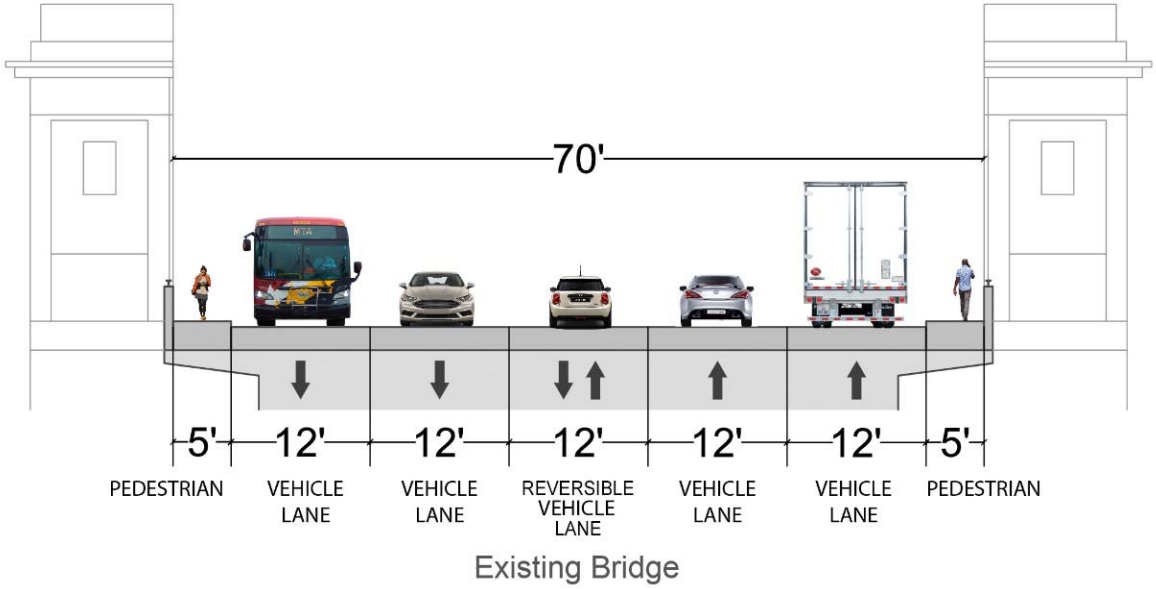
Rehabilitate existing bridge (Option C),
build new adjacent pedestrian/bike bridge

Option E

Build new bridge, demolish existing bridge

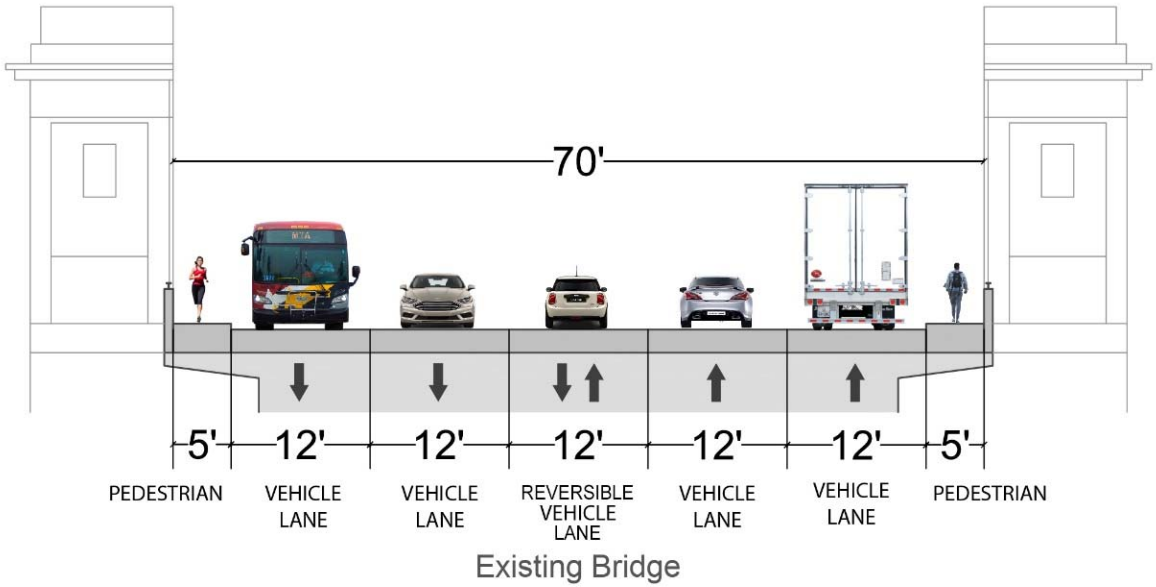
Potential Bridge Typical Sections

Option A: No-Build (maintain existing bridge)



Potential Bridge Typical Sections

Option B: Maintain existing bridge, improve roadway approaches



Existing Bridge

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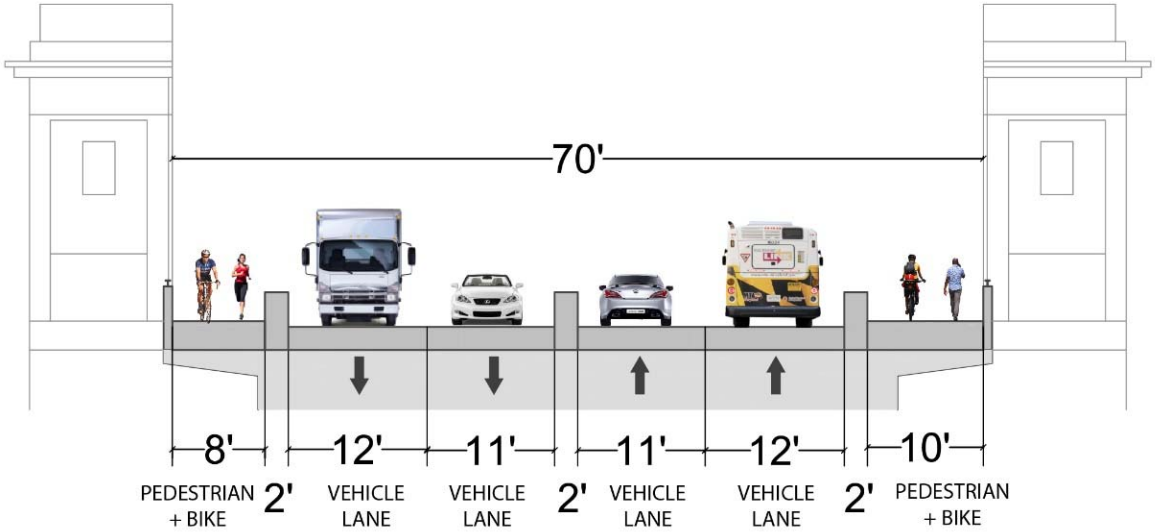
Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C_1

- Reduce travel lanes to four lanes
- Add median barrier
- Add two barrier-separated pedestrian/bike paths



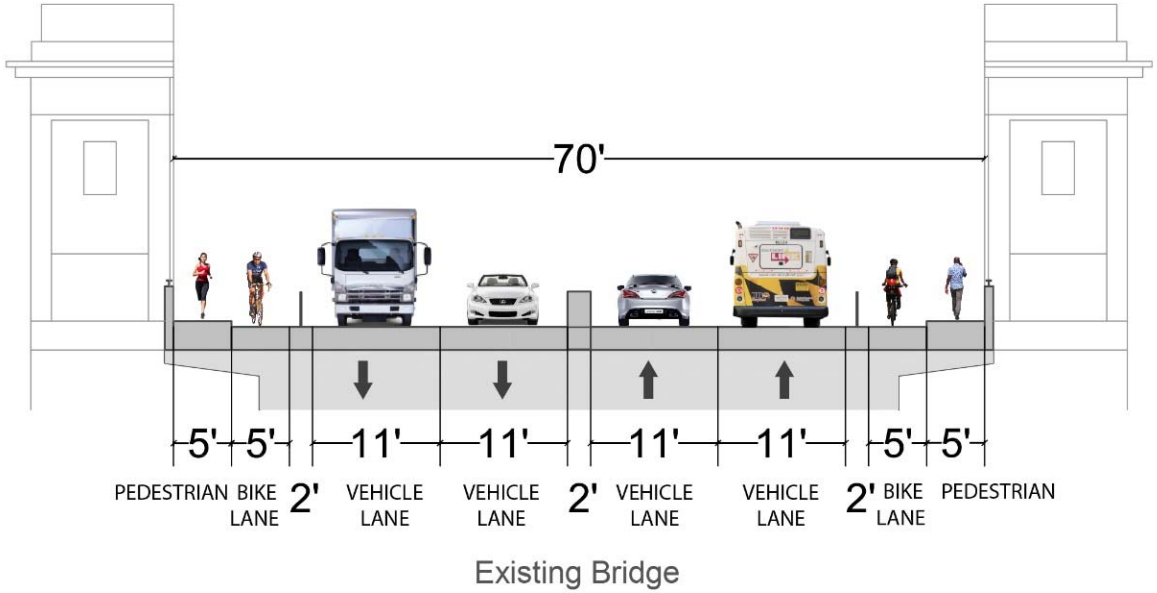
Existing Bridge

Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C_2

- Reduce travel lanes to four lanes
- Add median barrier
- Add two 5' bike lanes with 2' buffer



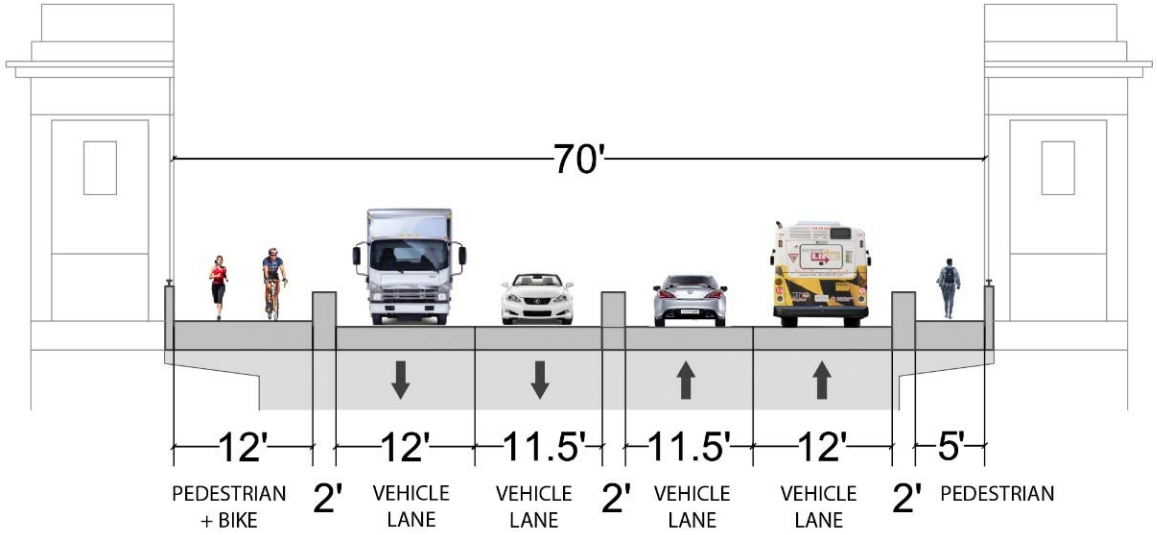
Existing Bridge

Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C_3

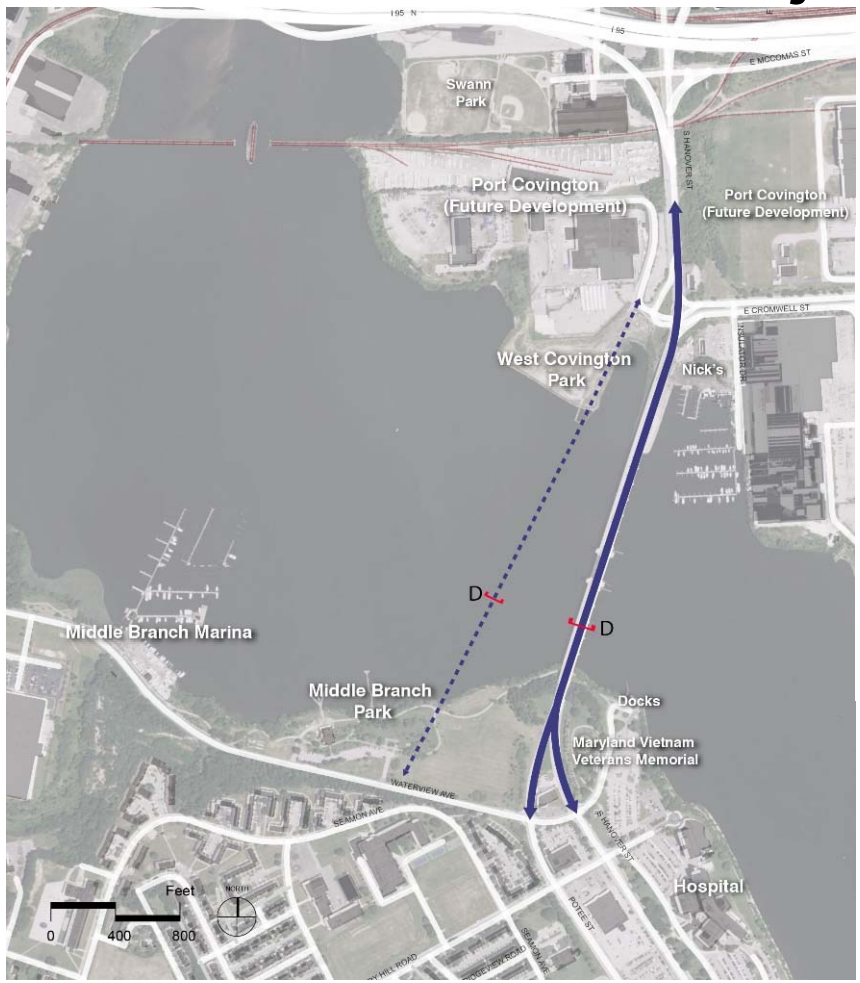
- Reduce travel lanes to four lanes
- Add median barrier
- Add barrier between roadway and existing 5' sidewalk
- Add barrier-separated 12' pedestrian/bike path

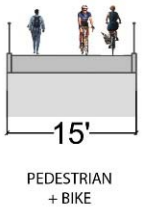


Existing Bridge

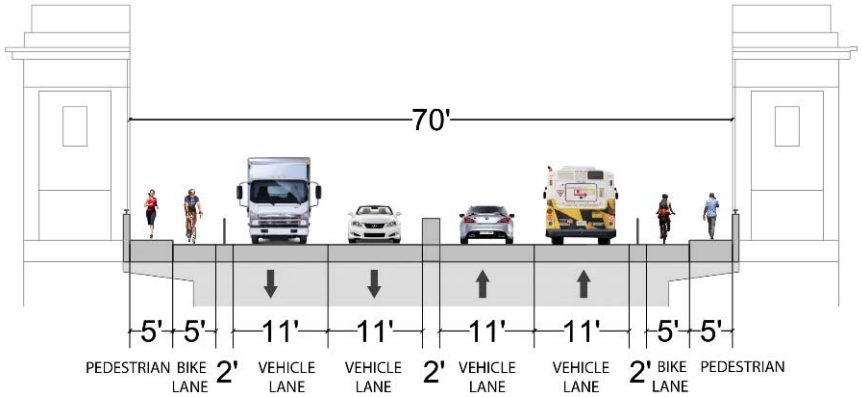
Potential Bridge Typical Sections

Option D: Rehabilitate existing bridge, build new adjacent pedestrian/bike bridge





New Bridge



Existing Bridge

Note:
All Option C typical sections could be considered for Option D

Potential Bridge Typical Sections

Option E: Build new bridge, demolish existing bridge

- Future travel forecasting analysis will determine the sizing of the new bridge
- New bridge would be designed to accommodate all modes of travel (including transit, freight, and ped/bike)

Next Steps

- Identify design opportunities and constraints
  - Evaluate future demand and traffic conditions on Hanover Street, including the effect of new development at Port Covington and other area growth
  - Continue to investigate other potential options to accommodate traffic patterns
  - Continue to develop typical sections and concepts to improve safety, connectivity, and accessibility
  - Refine potential bridge typical sections
  - Develop overall aesthetic plan for the corridor – lighting, sidewalks/paths, crosswalk treatments, trees/shrubs, street furniture, bus stops, etc.
  - Determine costs and impacts of the various concepts
- Continue robust public outreach program