Maryland Transportation Authority

CAPITAL COMMITTEE MEETING

THURSDAY, JANUARY 2, 2025

2310 BROENING HIGHWAY
BALTIMORE, MARYLAND 21224

CAPITAL COMMITTEE MONTHLY MEETING
January 2, 2025 – 9:00 AM

This meeting will be livestreamed on the MDTA Capital Committee Page

NOTE: This is an Open Meeting being conducted via livestreaming. The public is welcomed to watch the meeting at the link listed above. ***If you wish to comment on an agenda item please email your name, affiliation, and the agenda item to gsteffe@mdta.state.md.us no later than 3:00 p.m. on Monday, December 30, 2024. You MUST pre-register in order to comment***. Once you have pre-registered you will receive an email with all pertinent information**.**

AGENDA

OPEN SESSION – 9:00 a.m.

Call Meeting to Order

1.	**Approval** - Open Session Meeting Minutes of December 3, 2024	Chairman	5 mins
2.	**Approval** - 2024-03 CMI Services for FSK Rebuild	Brian Wolf	10 mins
3.	**Update** - MDTA On-Call Signing Construction Contracts	Michael Osborne	10 mins
4.	**Update** - Chesapeake Bay Crossing Study Tier 2 NEPA	Melissa Williams	15 mins

Vote to Adjourn Meeting

TAB 1

MARYLAND TRANSPORTATION AUTHORITY
CAPITAL COMMITTEE MEETING
THURSDAY, DECEMBER 3, 2024
OPEN MEETING VIA LIVESTREAMING

OPEN SESSION

MEMBERS ATTENDING: Mario J. Gangemi – Chairman
Samuel D. Snead
William H. Cox, Jr.

STAFF ATTENDING: Bruce Gartner
James Harkness
Tekeste Amare
Moreshwar Kulkarni
Natalie Henson
Mary O'Keeffe
Donna DiCerbo
Jeffrey P. Davis
Richard Jaramillo
Kimberly Millender
Timothy Sheets
Kelly Harper
Ganine Steffe
Elizabeth Zito-Lynch

Member Gangemi called the meeting of the Maryland Transportation Authority (MDTA) Capital Committee to order at 9:02 a.m. The meeting was held via video conference and livestreamed on the MDTA Board Meeting web page.

APPROVAL – OPEN SESSION MEETING MINUTES OF NOVEMBER 6, 2024

Upon motion by Member Cox and seconded by Member Snead, the Open Session meeting minutes of the Capital Committee's meeting held on November 6, 2024, were unanimously approved.

APPROVAL – MDTA 2022-02B SBR CONSTRUCTION MANAGEMENT AND INSPECTION (CMI) SERVICES

Mrs. Harper presented this request to seek a recommended contingent approval from the Capital Committee to present MDTA Contract No. 2022-02B SBR Construction Management and Inspection (CMI) Services to the full MDTA Board for award at its next scheduled meeting.

The work encompasses all of the MDTA's facilities and services and shall include, but not be limited to constructability reviews, conduct pre-construction conferences, monitor and document contractor performance, conduct detailed inspections of all construction work including erosion and sediment control, contract compliance, environmental project/program monitoring as required, review of contractor safety program and inspection, maintenance of traffic, schedule and conduct progress meetings, conduct detailed materials inspections and testing, contract utility coordination and locating of existing facility utilities as needed, monitor project critical path method (CPM) and cash flow schedules, review and process progress and final payments utilizing Maryland Construction Management System (MCMS), (e-MCMS), or other construction management software approved by the MDTA, provide construction phase review services such as reviewing shop drawings and responding to Request for Information (RFI's), provide on-site program management support as needed, and assist the MDTA compliance program officers with monitoring and enforcement of the Minority Business Enterprise (MBE) goals.

Upon motion by Member Cox and seconded by Member Snead, the Members unanimously recommended contingent approval of Contract No. 2022-02B Construction Management and Inspection (CMI) Services to O'Connell & Lawrence and iCivil, Incorporated and present a recommendation for award to the MDTA Board at its next scheduled meeting.

APPROVAL – MDTA 2024-02 PLANNING, ENGINEERING, CONSTRUCTION MANAGEMENT AND PROGRAM SUPPORT SERVICES FOR FRANCIS SCOTT KEY (FSK) BRIDGE RECONSTRUCTION

Mr. Kulkarni presented to the Capital Committee for approval the MDTA 2024-02 Planning, Engineering, Construction Management and Program Support Services for Francis Scott Key (FSK) Bridge Reconstruction to forward to the full Board for their approval.

The requested services are for a General Engineering Consultant (GEC). The GEC will be responsible for planning, engineering, construction management, and program support services to rebuild the collapsed FSK bridge. The GEC will act as MDTA's engineer and representative in the rebuild effort. The GEC will function under the control of MDTA staff and will supervise or liaise with the selected Progressive-Design-Build contractor. The services include the domains of transportation planning, project planning, land surveying, public involvement, forestry and landscape architecture, environmental sciences, project management, and engineering. The engineering disciplines include areas of highway, construction, water resources, environmental, structural, structural inspection, coastal, traffic, transportation, electrical, intelligent transportation systems, geotechnical, pavement, materials, utility, etc. In addition, the services include coordinating within and outside MDTA, on-site staffing, project scoping, contract administration, financial evaluation, project quality management, documentation management and controls, public outreach, reviewing conformance with the governing laws, risk management, tracking cost and expenses, etc.

Upon motion by Member Snead and seconded by Member Cox, the Members unanimously recommended approval of Contract No. 2024-02 Planning, Engineering, Construction Management and Program Support Services for the Francis Scott Key (FSK) Bridge Reconstruction to Bridging Maryland and present a recommendation for award to the MDTA Board at its next scheduled meeting.

There being no further business, the meeting of the MDTA Capital Committee was adjourned by consensus at 9:13 a.m. following a motion by Member Snead and seconded by Member Cox.

The next meeting of the MDTA Capital Committee is scheduled for Thursday, January 2, 2025, at 9:00 a.m., this meeting will be virtual conducted via livestream.

APPROVED AND CONCURRED IN:

_____

Mario J. Gangemi, Chairman

TAB 2

CAPITAL COMMITTEE PROJECT SUMMARY

Contract No. MDTA 2024-03 CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES for Francis Scott Key (FSK) Bridge Reconstruction

PIN NUMBER	N/A
CONTRACT NUMBER	MDTA 2024-03
CONTRACT TITLE	Construction Management and Inspection Services (CMI) for the Fransic Scott Key (FSK) Bridge Reconstruction
PROJECT SUMMARY	The services to be performed under these three contracts are Construction Management and Inspection (CMI) Services for the Maryland Transportation Authority (MDTA). The consultant shall provide professional Construction Management Services related to supplementing and supporting the construction phase of the Maryland Transportation Authority Consolidated Transportation Program. The Consultants shall perform services in the following general areas: service shall include, but not be limited to; constructability reviews, conduct detailed inspections of all construction work including erosion and sediment control contract compliance, maintenance of traffic, detail materials testing, critical path method cash flow schedules, document control and assist the MDTA's compliance officers with monitoring and enforcement of Disadvantage Business Enterprise (DBE) goals.

SCHEDULE		**PROPOSER**	**CONTRACT NUMBER**	**CONTRACT AMOUNT**
ADVERTISEMENT DATE	September 9, 2024	Greenman-Pedersen/Gannent Fleming (GPI/GF JV)	AE-3133	$20,000,000.00
ANTICIPATED NTP DATE	March 6, 2025	STV/Michael Baker International (MBI/STV JV)	AE-3134	$20,000,000.00
DURATION/TERM	Five (5) years	AECOM	AE-3135	$20,000,000.00
		Outer Harbor Partnership	N/A	N/A
		AMT-KCI	N/A	N/A
		Key Bridge Inspection Partners	N/A	N/A
		ATCS/Jacobs	N/A	N/A
		PrimECS	N/A	N/A

PROTEST	**YES**	**NO**
		✓

DBE PARTICIPATION

	ADVERTISED GOAL (%)	**GPI/GF JV AE-3133 PROPOSED GOAL (%)**	**MBI/STV JV AE-3134 PROPOSED GOAL (%)**	**AECOM AE-3135 PROPOSED GOAL (%)**
DBE PARTICIPATION - OVERALL				
OVERALL DBE	33.00%	33.00%	33.00%	33.00%

CAPITAL COMMITTEE PROJECT SUMMARY

Contract No. MDTA 2024-03 CONSTRUCTION MANAGEMENT AND INSPECTION SERVICES for Francis Scott Key (FSK) Bridge Reconstruction

PIN NUMBER	N/A
CONTRACT NUMBER	MDTA 2024-03
CONTRACT TITLE	Construction Management and Inspection Services (CMI) for the Fransic Scott Key (FSK) Bridge Reconstruction
PROJECT SUMMARY	The services to be performed under these three contracts are Construction Management and Inspection (CMI) Services for the Maryland Transportation Authority (MDTA). The consultant shall provide professional Construction Management Services related to supplementing and supporting the construction phase of the Maryland Transportation Authority Consolidated Transportation Program. The Consultants shall perform services in the following general areas: service shall include, but not be limited to; constructability reviews, conduct detailed inspections of all construction work including erosion and sediment control contract compliance, maintenance of traffic, detail materials testing, critical path method cash flow schedules, document control and assist the MDTA's compliance officers with monitoring and enforcement of Disadvantage Business Enterprise (DBE) goals.

DBEs FOR SELECTED PROPOSER

	GPI/GF	MBI/STV	AECOM
ALA	✓		
CES	✓	✓	✓
DME	✓		
EBA	✓	✓	✓
Eborne	✓	✓	
IT	✓		
NMP	✓		✓
Phoenix	✓		
Coastal Resources Inc.		✓	
HRV		✓	
iCivil		✓	✓
Maryland Technical Services		✓	
Pioneer Civil Engineering		✓	

TAB 3

On Call Signs, Sign Lights, And Sign Structures

January 2025

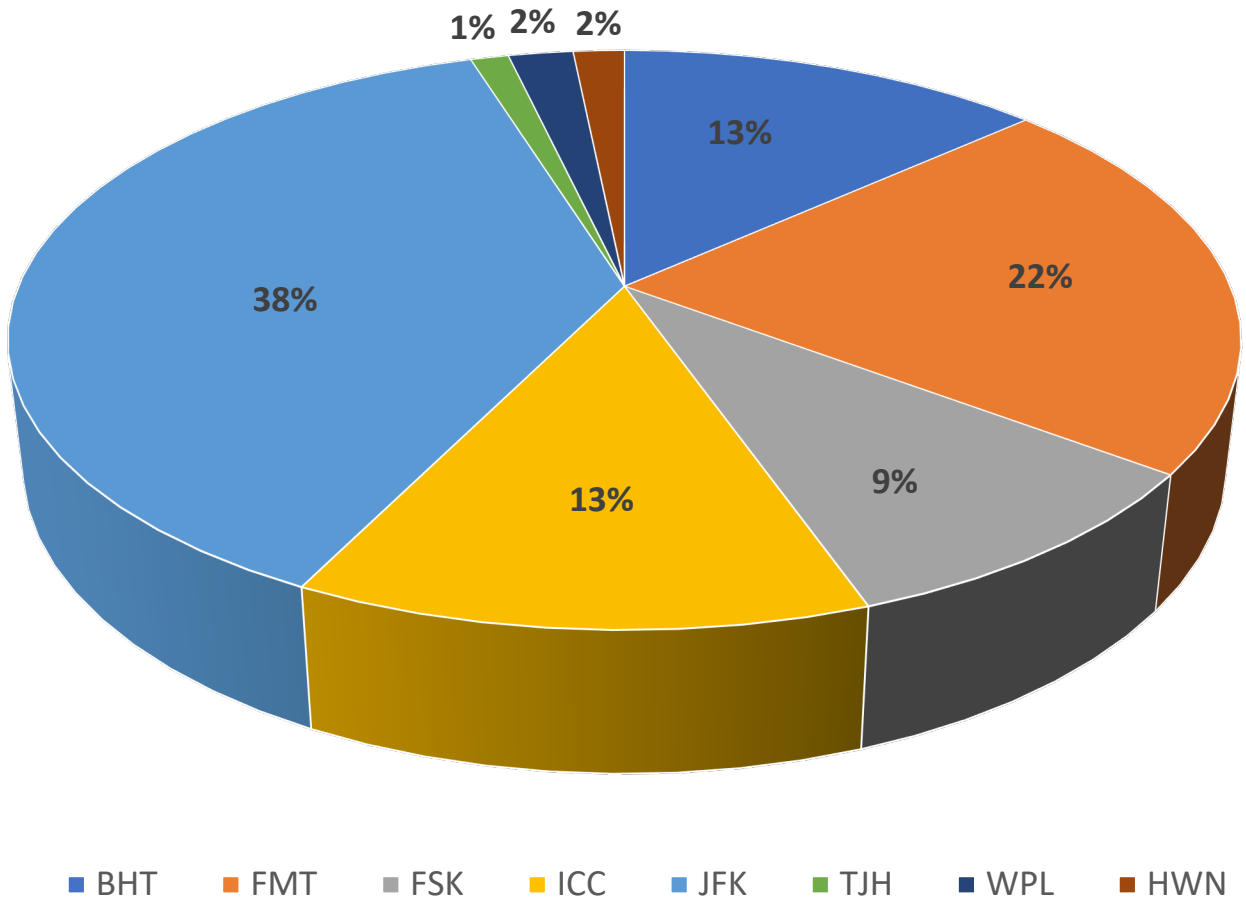
On-Call Signs, Sign Lighting, and Sign Structures
Agenda

- MDTA Highway Signing – Statistics
- Signing Background
- Signing Contract Methods
- Need & Benefit of Signing Contracts
- Signing On-Call – Contract Scope
- Signing On-Call – Past, Present & Future
- Example Task Orders

On-Call Signs, Sign Lighting, and Sign Structures

MDTA Highway Signing – Statistics

- **MDTA Signing Statistics – Over 15,000 signs**



Distribution of signs across facilities

On-Call Signs, Sign Lighting, and Sign Structures
Signing Background

- **Signs on MDTA Facilities – Highway Signs**
  - Regulatory, Warning, Guide and Specific Services/Informational

Regulatory

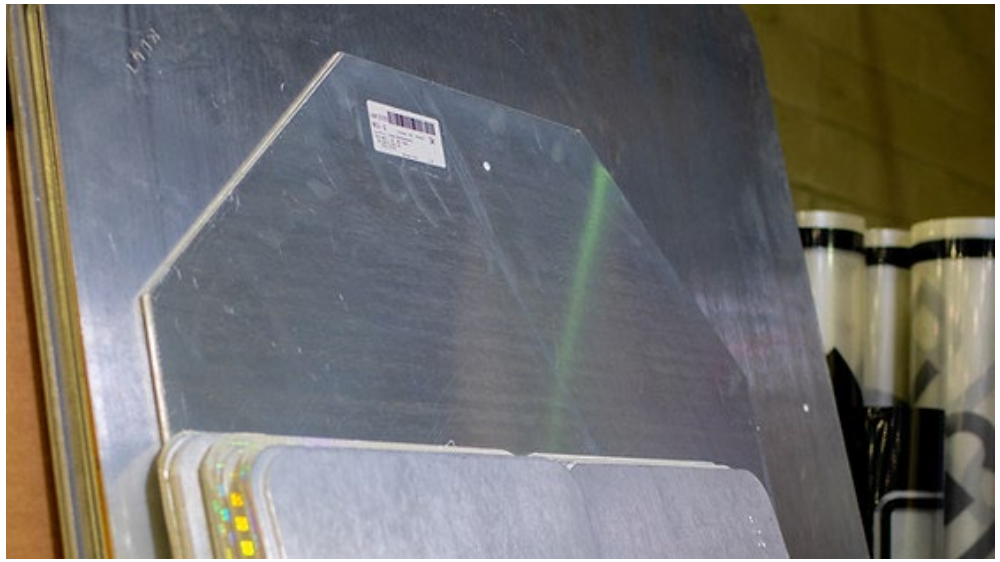
Warning

Guide

Specific Services/ Informational

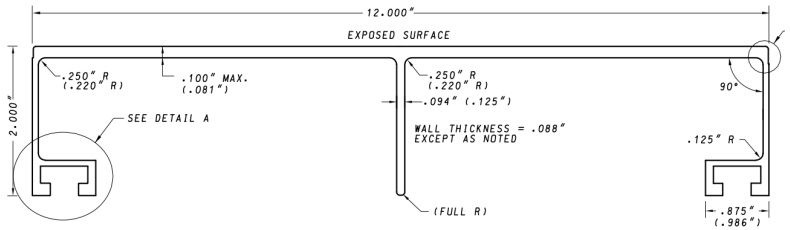
On-Call Signs, Sign Lighting, and Sign Structures
Signing Background

- **Aluminum Signs**
  - Sheet Aluminum Signs – Typically 4-ft x 8-ft or smaller
  - Extruded Aluminum Signs – Typically used for larger signs and come in 12-in tall panels



Blank Sheet Aluminum

Back of Extruded Aluminum



Extruded Panel Detail

On-Call Signs, Sign Lighting, and Sign Structures

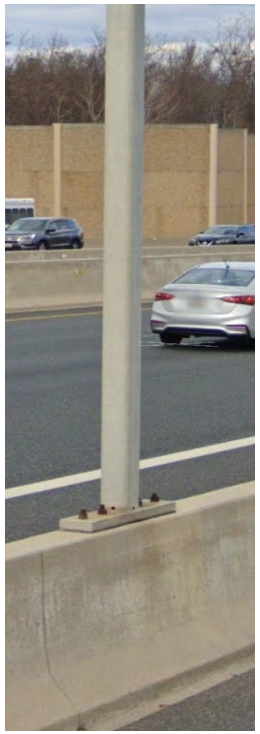
Signing Background

- **Sign Supports**

Wood Support

Steel Beam Support

Bridge Mounted Support



Barrier Mounted Support

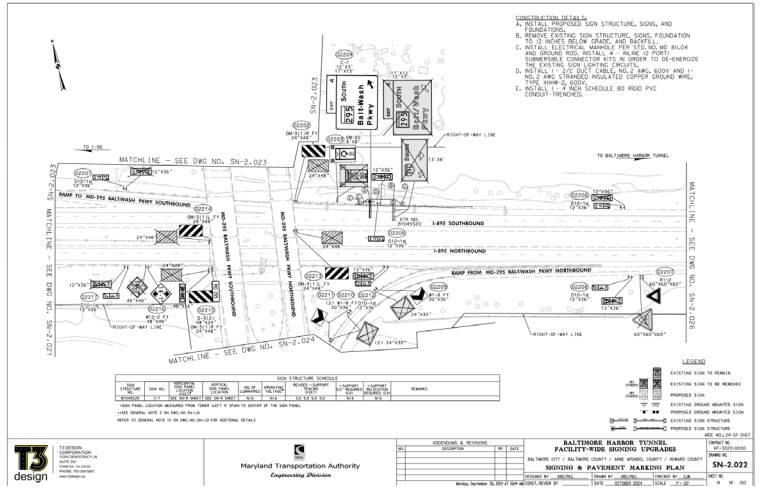
Tubular Steel Support

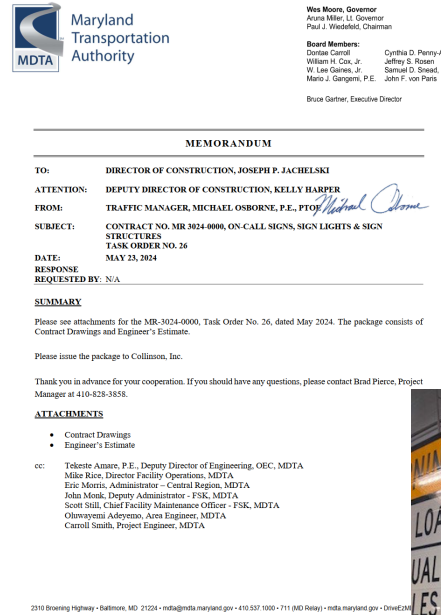
Overhead Truss Support

MDTA

On-Call Signs, Sign Lighting, and Sign Structures
Signing Contract Methods

- **Signing Contracting Mechanisms**
  - Capital Projects
    - Signing Specific – Facility Wide Replacement
    - Signing as part of larger Capital Projects
  - Sign Shop/Maintenance
    - Sign Shop at BHT (One Shop for all of MDTA)
    - Maintenance Team at each Facility
  - On-Call
    - Task Orders Assigned based on MDTA needs





Maryland Transportation Authority

Wes Moore, Governor
Aruna Miller, Lt. Governor
Paul J. Wiedefeld, Chairman

Board Members:
Dontae Carroll, William H. Cox, Jr., W. Lee Gaines, Jr., Mario J. Gangemi, P.E., Cynthia D. Penny-Ardinger, Jeffrey S. Rosen, Samuel D. Snead, MCP, MA, John F. von Paris

Bruce Gartner, Executive Director

MEMORANDUM

TO: DIRECTOR OF CONSTRUCTION, JOSEPH P. JACHELSKI

ATTENTION: DEPUTY DIRECTOR OF CONSTRUCTION, KELLY HARPER

FROM: TRAFFIC MANAGER, MICHAEL OSBORNE, P.E., PTOE

SUBJECT: CONTRACT NO. MR 3024-0000, ON-CALL SIGNS, SIGN LIGHTS & SIGN STRUCTURES
TASK ORDER NO. 26

DATE: MAY 23, 2024

RESPONSE REQUESTED BY: N/A

SUMMARY

Please see attachments for the MR-3024-0000, Task Order No. 26, dated May 2024. The package consists of Contract Drawings and Engineer's Estimate.

Please issue the package to Collinson, Inc.

Thank you in advance for your cooperation. If you should have any questions, please contact Brad Pierce, Project Manager at 410-828-3858.

ATTACHMENTS

- Contract Drawings
- Engineer's Estimate

cc: Tekeste Amare, P.E., Deputy Director of Engineering, OEC, MDTA
Mike Rice, Director Facility Operations, MDTA
Eric Morris, Administrator – Central Region, MDTA
John Monk, Deputy Administrator - FSK, MDTA
Scott Still, Chief Facility Maintenance Officer - FSK, MDTA
Olumayemi Adeyemo, Area Engineer, MDTA
Carroll Smith, Project Engineer, MDTA

2310 Broening Highway • Baltimore, MD 21224 • mdta@mdta.maryland.gov • 410.537.1000 • 711 (MD Relay) • mdta.maryland.gov • DriveEZMD

Task Order Cover Letter

MDTA Sign Shop

On-Call Signs, Sign Lighting, and Sign Structures
Need & Benefit of Signing Contracts

- **Why is a Signing On-Call Needed/Beneficial**
  - Facility Maintenance – Limited in resources/materials/capabilities
  - Fixed pricing – Pricing does not change over life of contract
  - Flexibility – Unknown needs
  - Expertise – Experts in the field of signing
  - Emergency Response – Able to respond quickly to any emergency
  - On-Call – MDTA Traffic manages on-call signing contracts similar to other discipline specific on-call contracts
- **Why is a Facility Wide Needed/Beneficial**
  - Service Life – All signing on a similar maintenance schedule/life cycle. Consistent with FHWA option for maintaining sign sheeting performance
  - Consistency – All signing along facility replaced using current standards and guidelines
  - Cost – Capital funding typically required due to project costs

MDTA

On-Call Signs, Sign Lighting, and Sign Structures

Signing On-Call – Contract Scope

- **Installation of New or Modification/ Removal of Existing Highway Signs**
  - **Multi-Regional Contract – All MDTA Facilities**
  - Signs (Extruded or Sheet Aluminum)
  - Sign Supports (Wood, Steel Beam, Tubular Steel, Barrier/Bridge Mounted, Banded)
  - Sign Structures (Overhead of Cantilever)
  - Sign Luminaires
  - W-Beam Traffic Barrier and End Treatments
  - Sign Structural Defect Repairs

MDTA

On-Call Signs, Sign Lighting, and Sign Structures

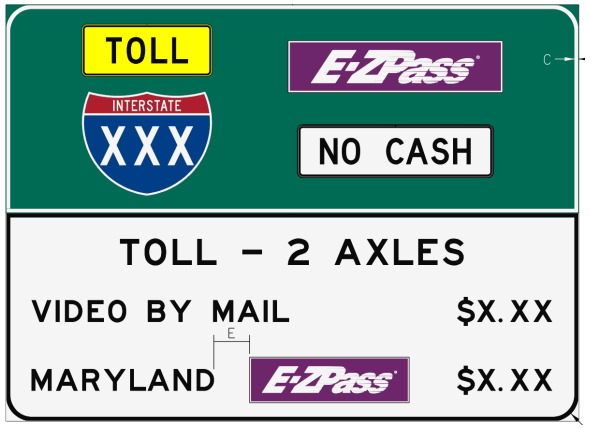
Signing On-Call – Past, Present & Future

- **MA-2665**
  - 25 Task Orders Totaling $2.5 Million
  - September 2013 – October 2016
- **MR-3008**
  - 39 Task Orders Totaling $4.3 Million
  - February 2017 – January 2020
- **MR-3018**
  - 28 Task Orders Totaling $6.7 Million (Original Award of $5.2 Million)
  - Sept 2019 – Aug 2022
- **MR-3024 (On-Going)**
  - 27 Task Orders to Date, Contract Value of $5 Million
  - Apr 2022 – Mar 2025
- **MR-3037 (In Final Stages of Procurement)**
  - Contract Value of $6 Million
  - December 2024 – Nov 2027

MDTA

On-Call Signs, Sign Lighting, and Sign Structures
Example Task Orders

- **All Electronic Tolling Gantries**
  - AET Gantries, including signing and electrical components at FSK, TJH, JFK, WPL and BHT (on-going).



- **FMT Emergency Fire Exit Signing**
  - Installation of Photoluminescent Fire Exit Signing within FMT tunnel
  - Signing visible/glow thru smoke in the event of a tunnel fire

MDTA

On-Call Signs, Sign Lighting, and Sign Structures
Example Task Orders

- **Structural Defect Repairs**
  - Make repairs to sign structures that have defaults noted on MDTA inspection reports including nut/bolt tightening, sign clips, fractured members, and lighting deficiencies

Loose Bolt on Sign Structure

- **Damaged Sign Replacement**
  - Replace existing signs that are damaged by vehicles or natural events.

Knocked over Sign along I-95

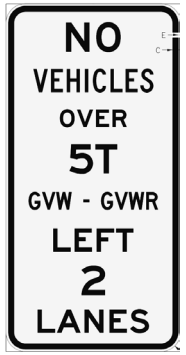
On-Call Signs, Sign Lighting, and Sign Structures
Example Task Orders

- **Emergency**
  - On-call available for immediate assistance when required
  - Removal of Structural deficient structures
  - Emergency Signing Needs – recently completed signing upgrades needed due to Key Bridge collapse
- **Signing Upgrades due to Service Life**
  - Sheet/Extruded Aluminum Signs have a service life of seven to ten years before they fade to the point of losing too much retroreflectivity.
  - Handled with Facility wide replacements or spot replacements
- **Signing Upgrades due to Citizen/Elected Officials Inquires**

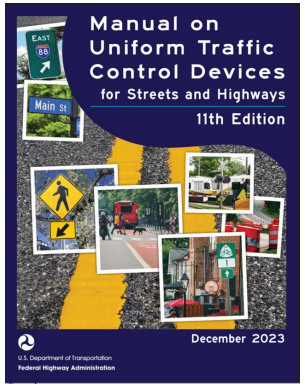
Emergency Signing Work
Key Bridge Collapse

On-Call Signs, Sign Lighting, and Sign Structures
Example Task Orders

- **Signing Upgrades due to Changes to Guidelines**
  - Replace/Install Signing based on changes to State/Federal Standards, Guidelines or Policy
  - Examples:

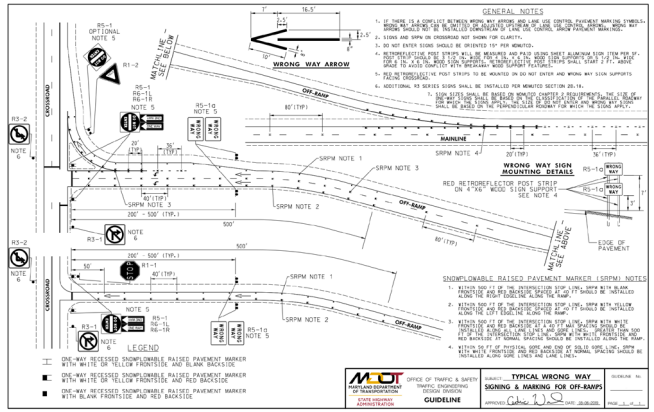


GVW-GVWR Restrictions



MUTCD/MDMUTCD Updates

Move Over Laws



SHA Wrong Way Guidelines

- **Safety Studies**
  - Install Signing based on Safety Study Recommendations.

Dynamic LED Curve Warning Signs

MDTA

Questions?

TAB 4

Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

Capital Committee Meeting

January 2, 2025

Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Agenda

- Schedule
- December 2024 Public Open Houses
- Alternative Elements and Options Studied
- Alternatives Recommended for Detailed DEIS Study
- What’s Next

Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

Schedule

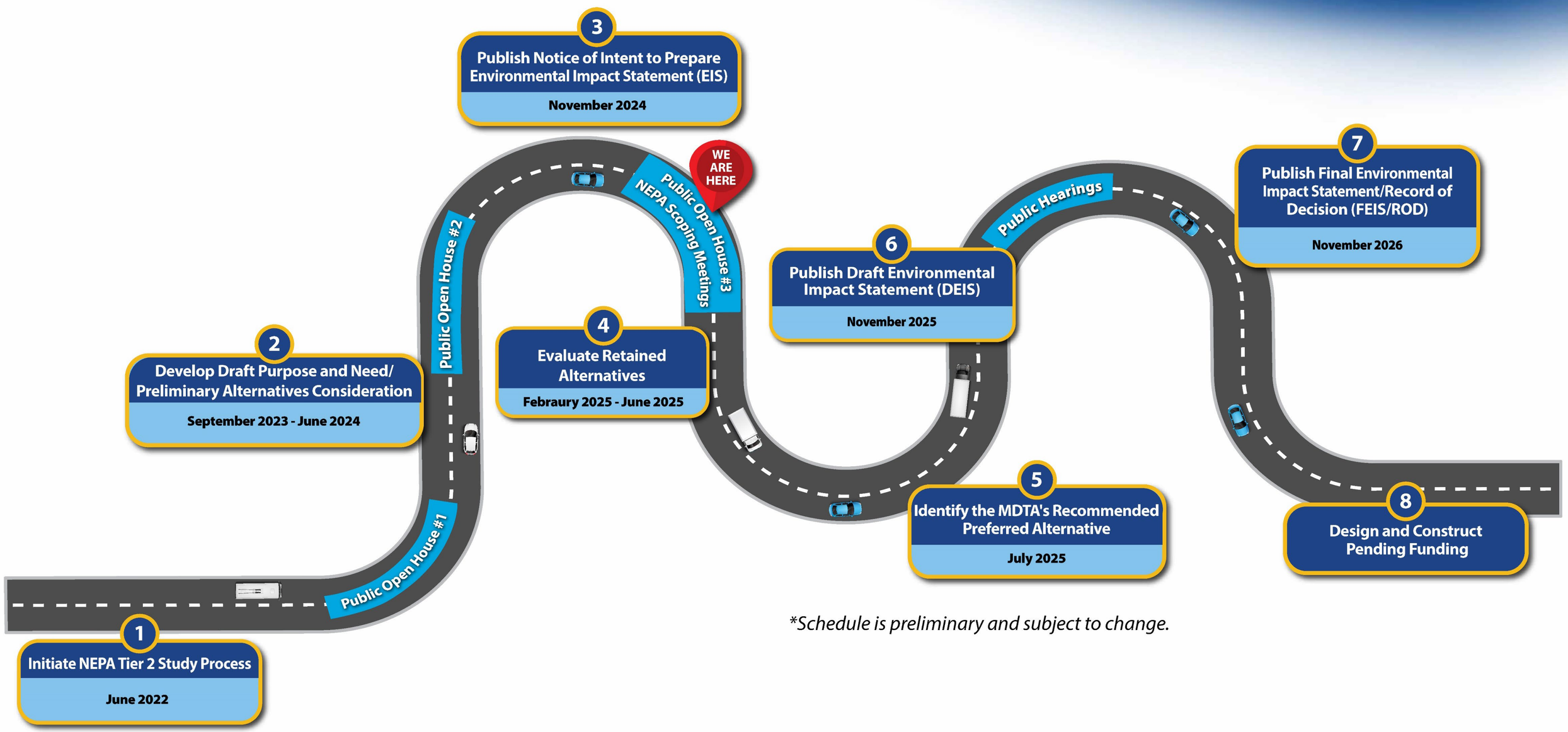
Maryland
Transportation
Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Tier 2 Study Schedule

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority



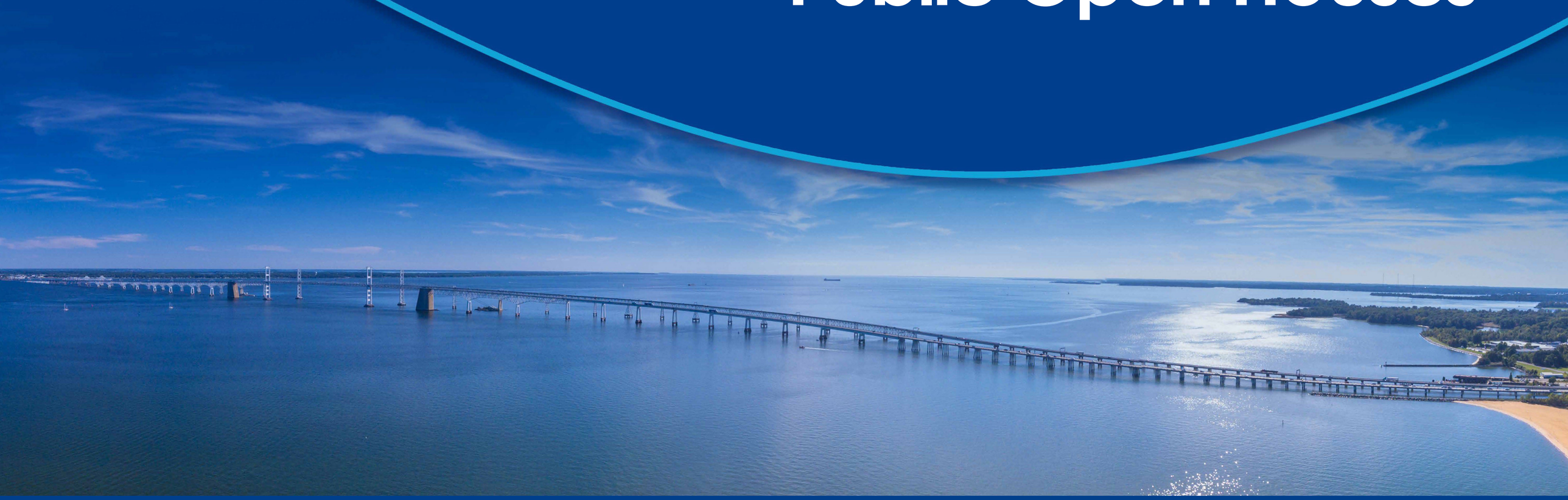
*Schedule is preliminary and subject to change.

Public Open Houses	Open House Content
Public Open House #1: September 2022	Summary of the Tier 1 Study Results, objectives of the Tier 2 Study, and next steps
Public Open House #2: September 2023	Tier 2 Study proposed Purpose and Need and the alternatives development process
Public Open House #3 December 2024	Proposal for the Bay Bridge, proposed retained alternatives, and analysis of elements
Public Hearings December 2025	Analysis of the proposed retained alternatives and MDTA's Recommended Preferred Alternative

WE ARE HERE

Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

December 2024 Public Open Houses



Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

December 2024
Public Open Houses

- **Total Attendees** - 756

- **Wednesday, December 4** – Virtual Open House
  - Attendees – 435 total attendees
  - Q&A – 93 questions answered

- **Monday, December 9 – Broadneck High School**
  - 192 attendees

- **Wednesday, December 11 – Kent Island High School**
  - 129 attendees

Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

Alternative Elements and Options Studied

MDTA Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Alternative Elements and Options Studied

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority

OPTIONS FOR KEY ELEMENTS:

The MDTA evaluated the following options for each key element. Options shown in color are recommended to be advanced with the retained alternatives.

EXISTING BRIDGES
- Remove Both Existing Bridge Spans
- Keep One or Both Existing Bridge Spans

STRUCTURE TYPE
- Full Bridge
- Full Tunnel
- Bridge-Tunnel Combination
- Double Decker Bridge

ALIGNMENTS RELATIVE TO EXISTING US 50/301
- On Existing Approach Alignment (US 50/301)
- Off Existing Approach Alignment (US 50/301)

NUMBER OF LANES*
- 6-6-6
- 6-8-6
- 8-8-8
- 8-10-8
- 10-10-10
- More Than 10 Lanes

STRUCTURE LOCATION
- North Bridge Location
- South Bridge Location
- Fully In Between Bridge Location
- Far South Bridge Location

TRANSIT
- Ferry
- High-Capacity Transit: Rail
- High-Capacity Transit: BRT
- Bus Service Improvements

TSM/TDM
- Ramp Metering
- Congestion Pricing
- Interchange Consolidation
- Park-and-Ride
- Part-Time Shoulder Use
- Express-Local Lanes
- Priced Managed Lanes

SHARED USE PATH
- Shared Use Pedestrian-Bicycle Path on Bridge
- No Shared Use Pedestrian-Bicycle Path on Bridge

Color = recommended Gray = not recommended

*The combination of numbers represent the number of lanes for the Western Shore, Bay Crossing, and Eastern Shore. For example:

Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

Alternatives Recommended for Detailed DEIS Study

MDTA Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Alternatives Recommended for Detailed DEIS Study

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority

Alternative A (No-Build Alternative) *No New Transportation Infrastructure*

Build Alternatives *All Build Alternatives Will Include:*

- EXISTING BRIDGES: REMOVE EXISTING BRIDGES
- STRUCTURE TYPE: FULL BRIDGE WITH TWO NEW BRIDGE SPANS
- ALIGNMENTS RELATIVE TO EXISTING US 50/301: ON EXISTING APPROACH ALIGNMENT (US 50/301)
- TRANIST: BUS SERVICE IMPROVEMENTS

Each Build Alternative Will Include One of These Lane Combinations and Bridge Locations:

	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G
NUMBER OF LANES	6-8-6	6-8-6	8-8-8	8-8-8	8-10-8	8-10-8
STRUCTURE LOCATION	North	South	North	South	North	South

All Build Alternatives Will Also Consider:

TSM/TDM
- PART-TIME SHOULDER USE
- INTERCHANGE CONSOLIDATION
- PARK-AND-RIDE
- CONGESTION PRICING

SHARED USE PATH: INCLUSION OF SHARED USE PATH ON BRIDGE

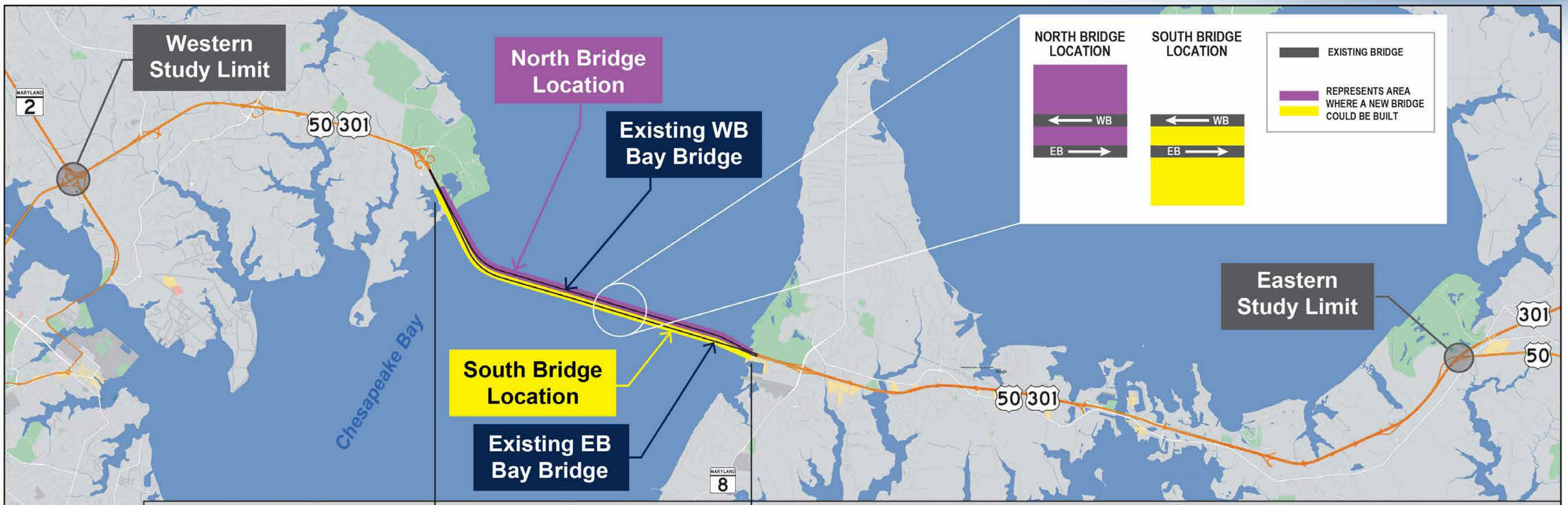
Retained Alternatives

These proposed Alternatives Retained for Detailed Study (ARDS) will be analyzed in the Environmental Impact Statement (EIS).

Alternatives Recommended for Detailed DEIS Study

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority



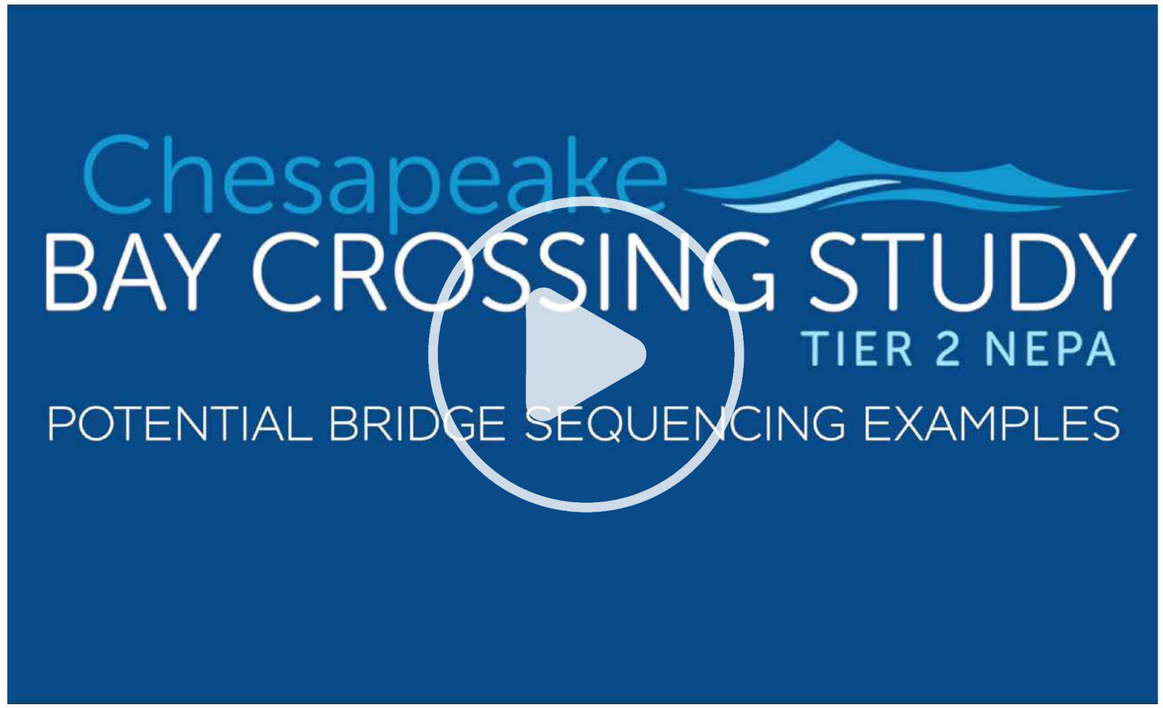
	Western Shore	Bridge Spans	Eastern Shore
Alternative A: No-Build	6 Lanes	5 Lanes	6 Lanes
Alternative B	6 Lanes	8 Lanes NORTH	6 Lanes
Alternative C	6 Lanes	8 Lanes SOUTH	6 Lanes
Alternative D	8 Lanes	8 Lanes NORTH	8 Lanes
Alternative E	8 Lanes	8 Lanes SOUTH	8 Lanes
Alternative F	8 Lanes	10 Lanes NORTH	8 Lanes
Alternative G	8 Lanes	10 Lanes SOUTH	8 Lanes

The locations of transition between the number of approach lanes and number of lanes on the crossing, where they differ, have not been identified yet.

The MDTA will consider inclusion of a shared use path on the bridge, bus service improvements, part-time shoulder use, interchange consolidation, park-and-ride, and congestion pricing for all Build Alternatives.

Bridge Location:
Example Bridge Construction Sequencing

- The video shows potential sequencing for construction that can be applied to south and north bridge locations.
- The video shows south bridge location sequencing options as an example.



The example sequencing would be as follows:

<u>All South Bridge Location</u>

- Construct two new bridge spans south of the existing bridge spans.
- Remove both existing bridge spans.

<u>South and Between Bridge Location</u>

- Construct first new span to the south of the existing bridge spans.
- Remove the existing eastbound bridge span.
- Construct second new span between the existing bridge spans.
- Remove the existing westbound bridge span.

STRUCTURE LOCATION

Alternative A: No-Build

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

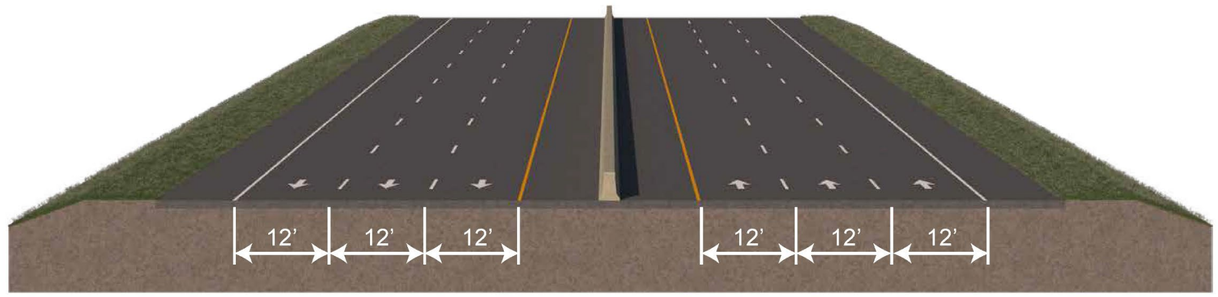
Maryland Transportation Authority

The No-Build Alternative includes regular maintenance of the Chesapeake Bay Bridge and US 50/301, but no capital improvements other than currently planned and programmed projects.

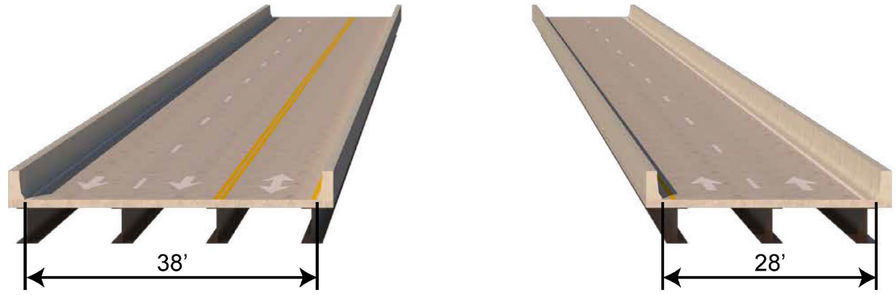
ALTERNATIVE A LANE COMBINATION:

Number of Lanes:
6-5-6 (Existing)

Existing Western Shore - 6 Lanes



Existing Bay Bridge - 5 Lanes



Existing Eastern Shore - 6 Lanes

Retained Alternatives

Alternatives B and C: 6-8-6

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority — MDTA

U.S. Department of Transportation — Federal Highway Administration

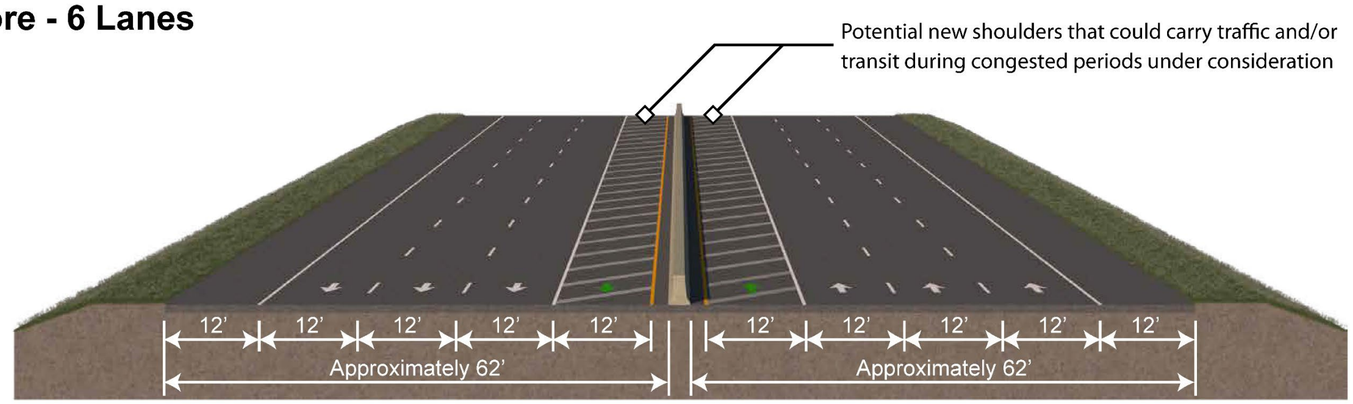
ALTERNATIVES B AND C INCLUDE:

- Remove Existing Bridges
- Full Bridge with Two New Bridge Spans
- On Existing Approach Alignment (US 50/301)
- Bus Service Improvements
- Number of Lanes: 6-8-6
- Alternative B: North Bridge Location
  Alternative C: South Bridge Location

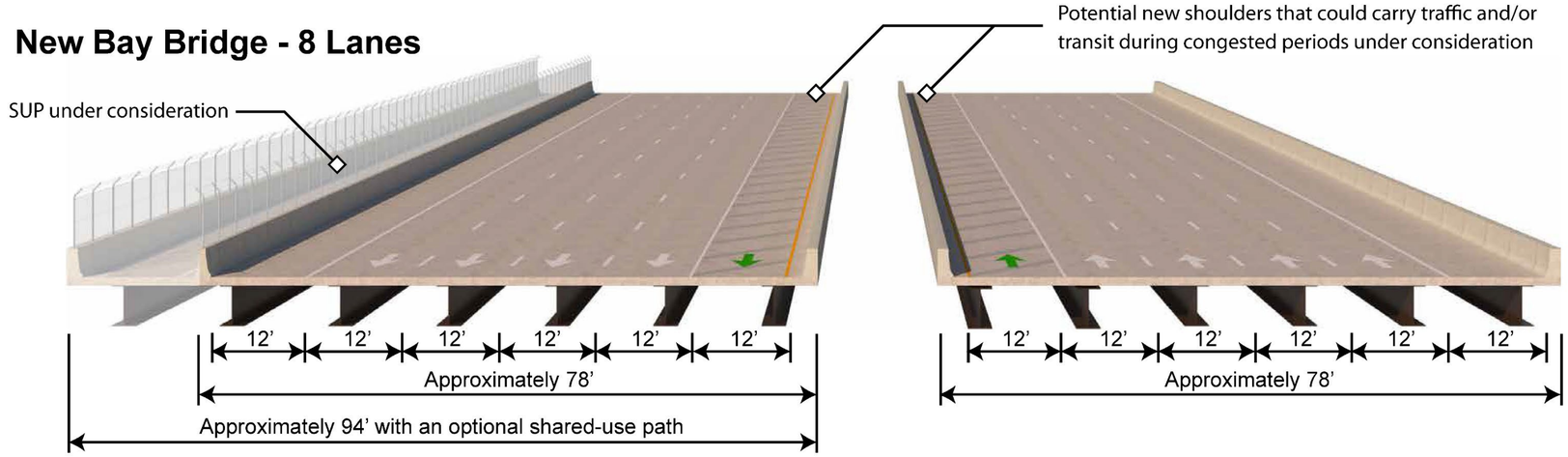
WITH CONSIDERATION OF:

- Part-Time Shoulder Use
  Interchange Consolidation
  Park-and-Ride
  Congestion Pricing
- Inclusion of Shared Use Path on Bridge

Western Shore - 6 Lanes

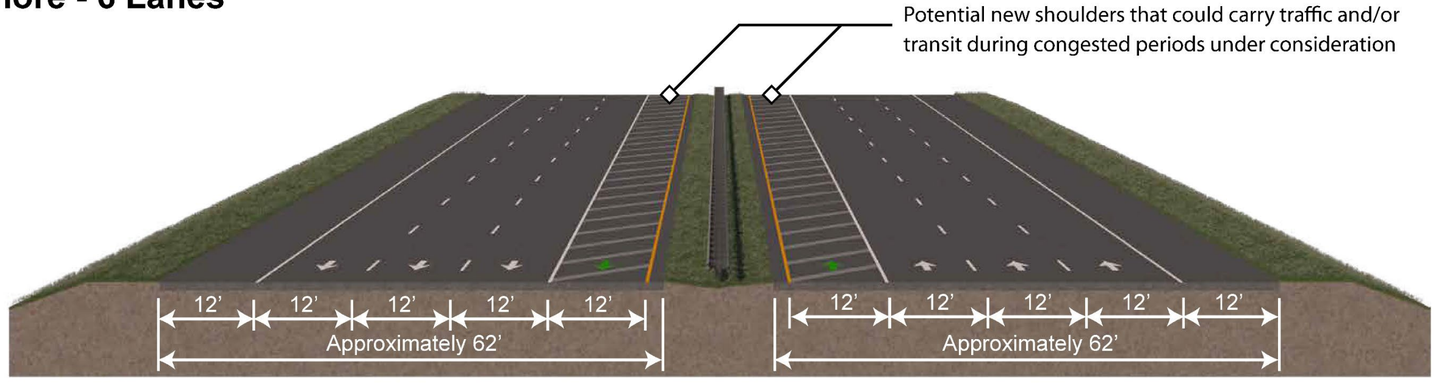


New Bay Bridge - 8 Lanes



Note: The typical section does not represent the locations of the structures relative to the existing structures or each other.

Eastern Shore - 6 Lanes



Alternatives D and E: 8-8-8

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority

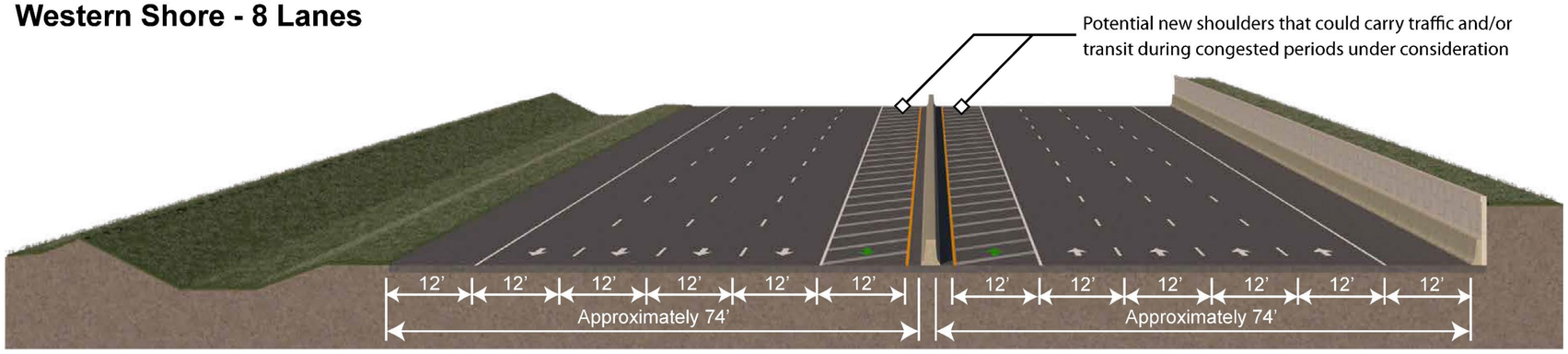
ALTERNATIVES D AND E INCLUDE:

- Remove Existing Bridges
- Full Bridge with Two New Bridge Spans
- On Existing Approach Alignment (US 50/301)
- Bus Service Improvements
- Number of Lanes: 8-8-8
- Alternative D: North Bridge Location
  Alternative E: South Bridge Location

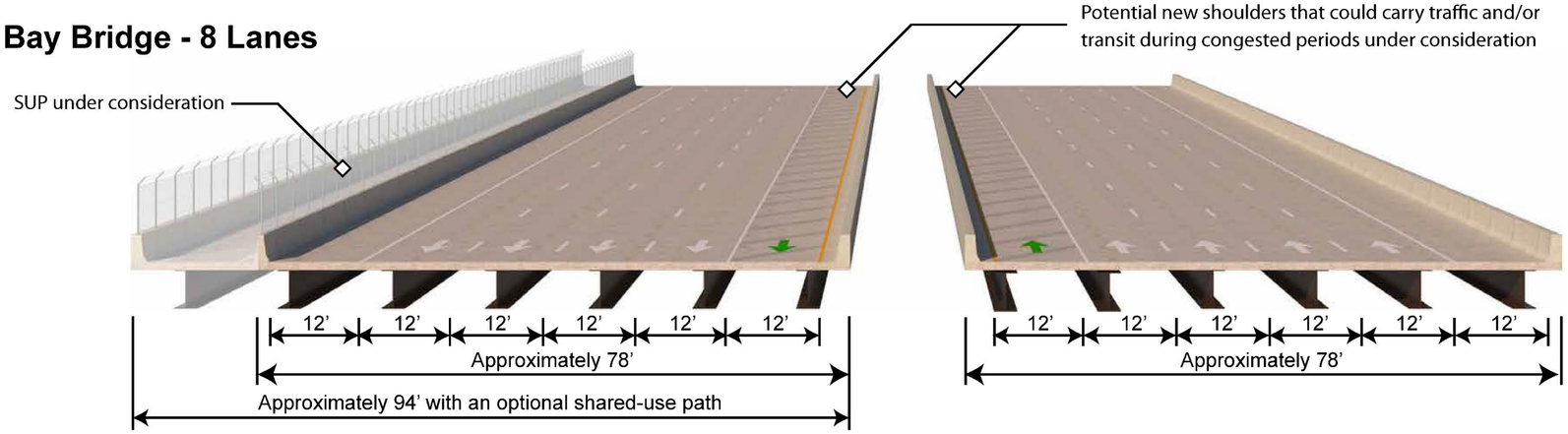
WITH CONSIDERATION OF:

- Part-Time Shoulder Use
  Interchange Consolidation
  Park-and-Ride
  Congestion Pricing
- Inclusion of Shared Use Path on Bridge

Western Shore - 8 Lanes

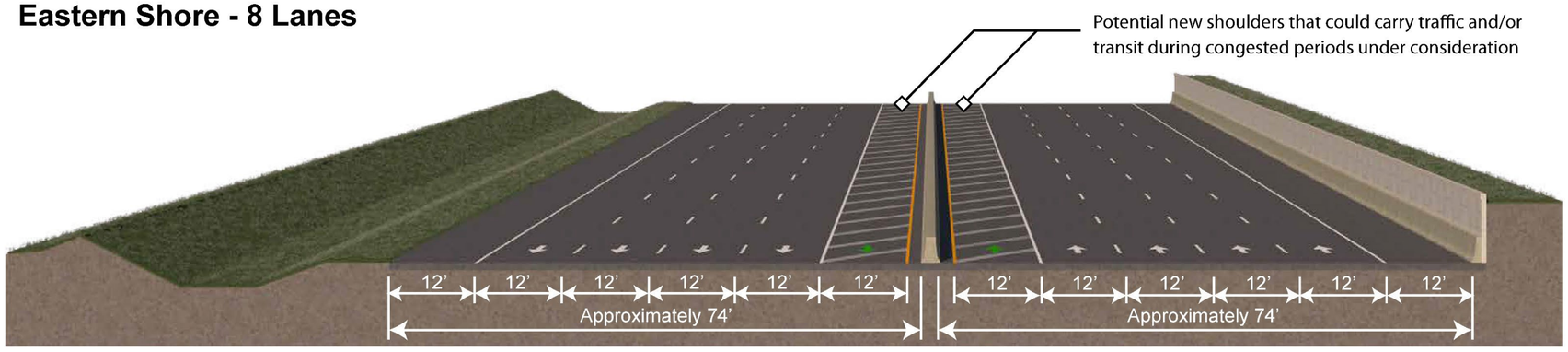


New Bay Bridge - 8 Lanes



Note: The typical section does not represent the locations of the structures relative to the existing structures or each other.

Eastern Shore - 8 Lanes



Alternatives F and G: 8-10-8

Chesapeake BAY CROSSING STUDY TIER 2 NEPA

Maryland Transportation Authority (MDTA)

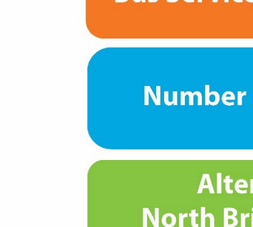
U.S. Department of Transportation Federal Highway Administration

ALTERNATIVES F AND G INCLUDE:

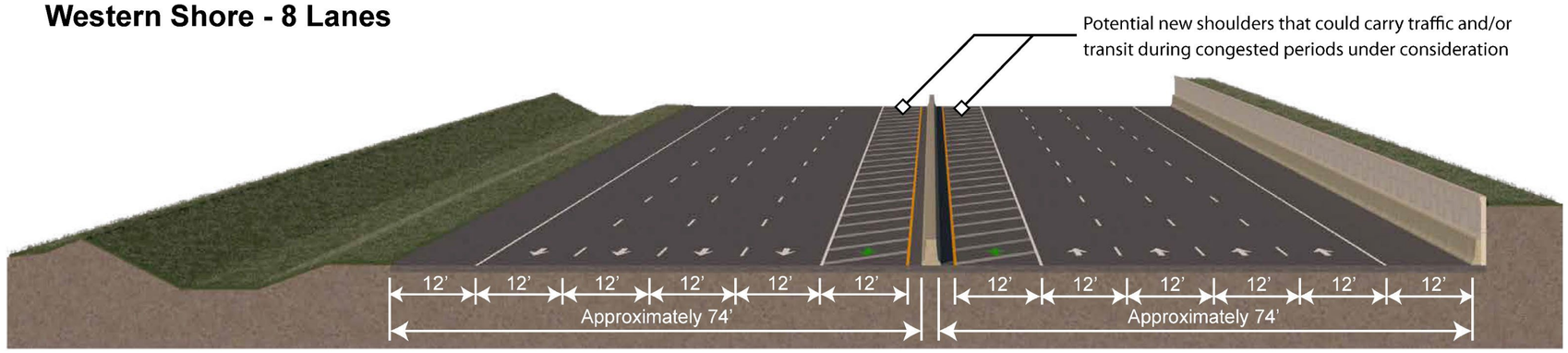
- Remove Existing Bridges
- Full Bridge with Two New Bridge Spans
- On Existing Approach Alignment (US 50/301)
- Bus Service Improvements
- Number of Lanes: 8-10-8
- Alternative F: North Bridge Location
  Alternative G: South Bridge Location

WITH CONSIDERATION OF:

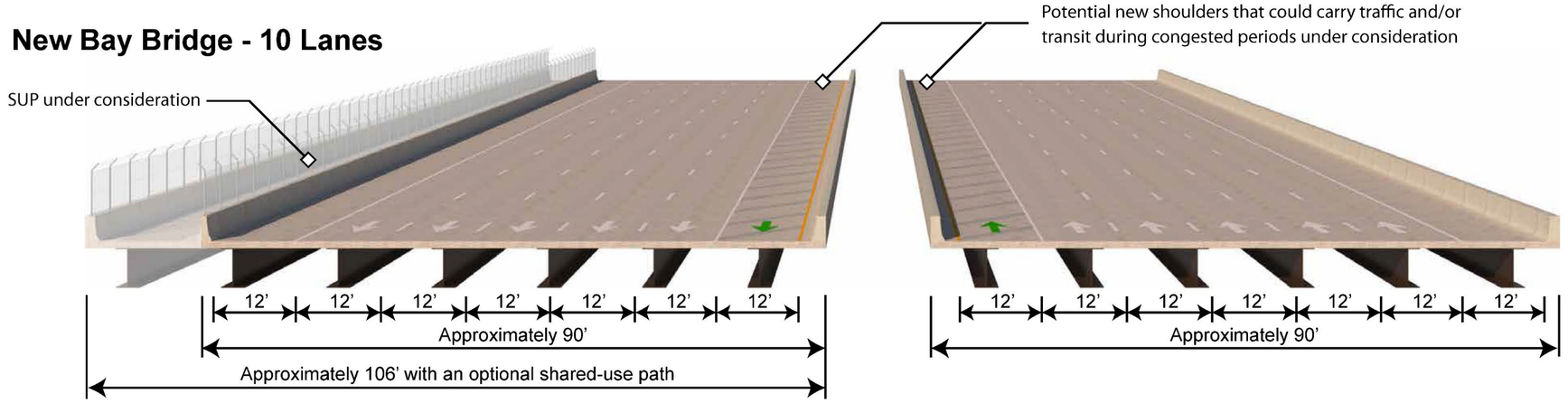
- Part-Time Shoulder Use
  Interchange Consolidation
  Park-and-Ride
  Congestion Pricing
- Inclusion of Shared Use Path on Bridge



Western Shore - 8 Lanes

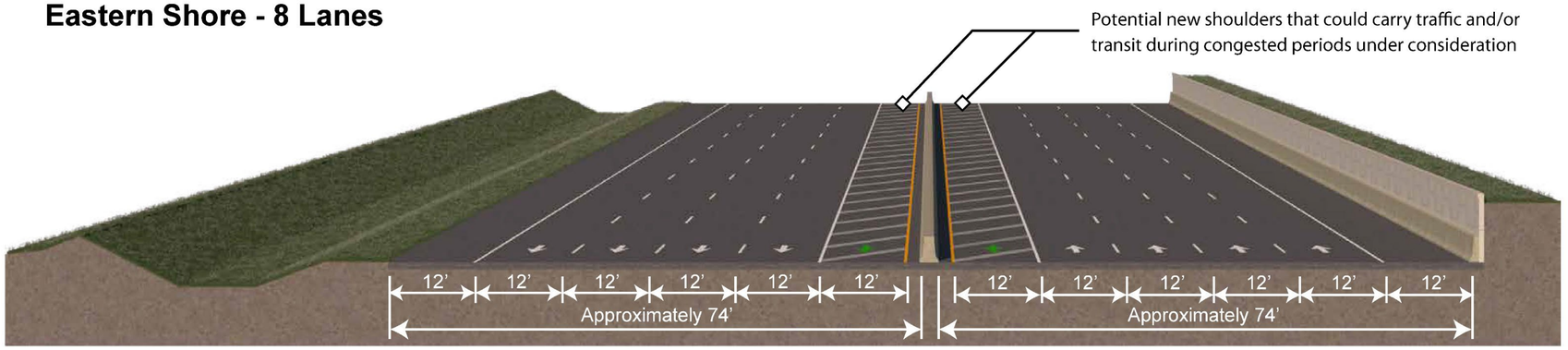


New Bay Bridge - 10 Lanes



Note: The typical section does not represent the locations of the structures relative to the existing structures or each other.

Eastern Shore - 8 Lanes



Chesapeake
BAY CROSSING STUDY
TIER 2 NEPA

What's Next

Maryland Transportation Authority

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION