

HAMPTON ROADS REGIONAL NETWORK OPERATIONAL STUDY – PRELIMINARY RESULTS

Stephen C. Brich, P.E. – VDOT Commissioner

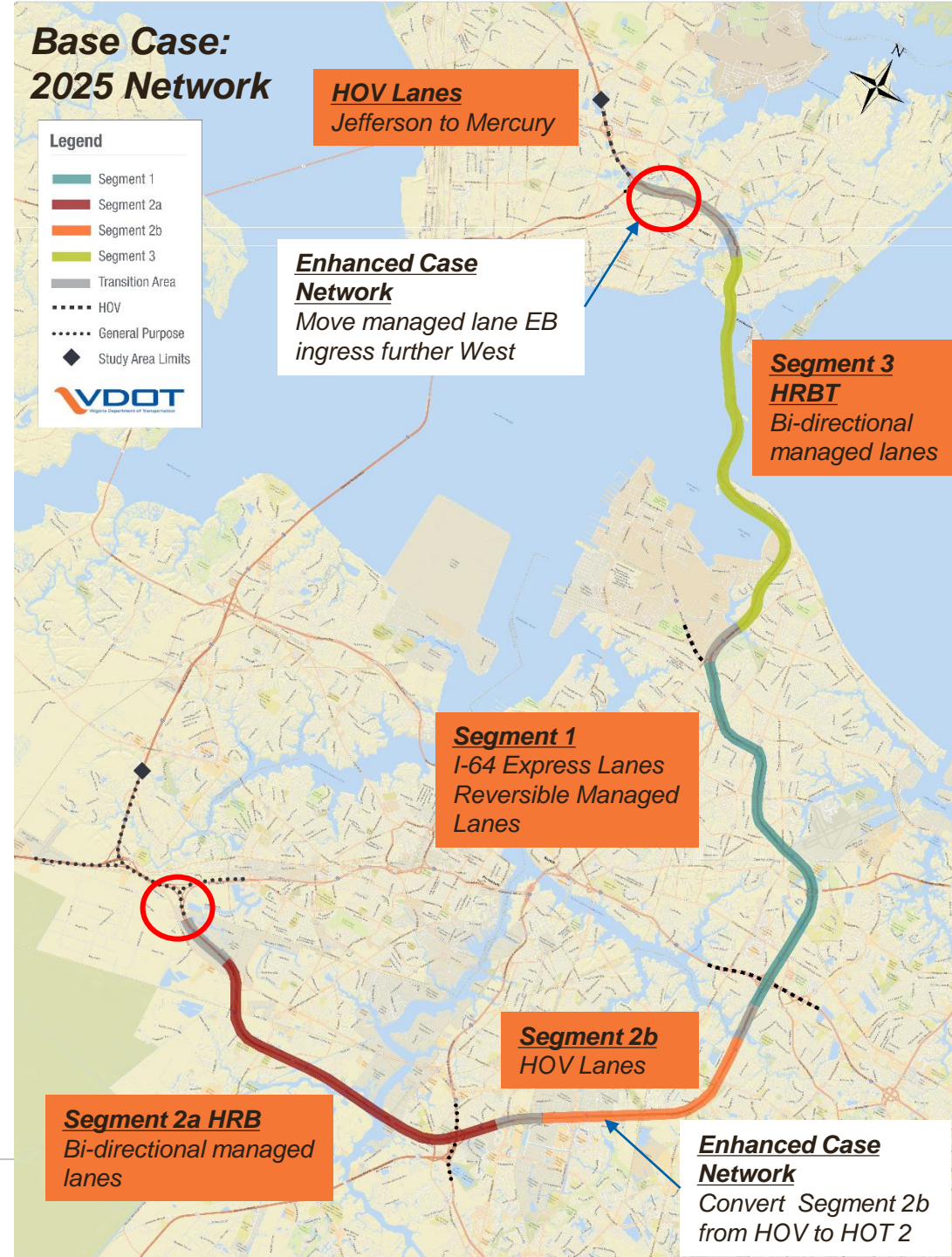
October 16th, 2019

Overview of Need for Study

- **Major Regional Investments/Improvements**
 - High Rise Bridge
 - Hampton Roads Bridge Tunnel Expansion
 - I-64 Express Lanes
- **Have not viewed network as system**
- **Informed decisions for Master Tolling Agreement**

Background

- **Initiated Operational Analysis December 2018**
 - Base Case
 - Enhanced Case
- Understand potential impacts of increased capacity
- Identify potential future operational challenges
- Evaluate system performance
 - GP travel times and speeds
 - Managed Lane travel times and speeds



Outcome from Initial Analyses

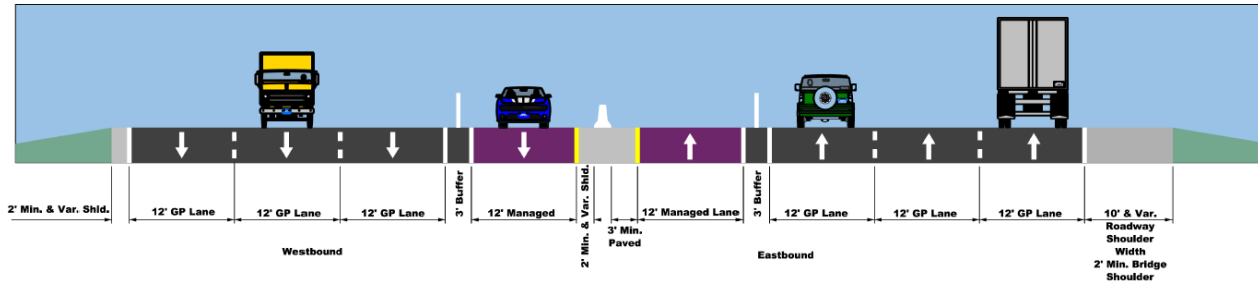
- **Verified investments have major positive impact**
 - **Faster travel time for GP and Managed Lanes**
 - **Less congestion in GP**
 - **Creates reliable system**
- **Identified 5 hot spot locations**
- **Operations significantly improve by moving Hampton sort location west**
- **Developed Proposed Scenario**
 - **Opportunity to repurpose shoulder (Norfolk)**
 - **Investigate repurposing HOV lane on Peninsula**

Proposed Scenario

Jefferson to LaSalle:

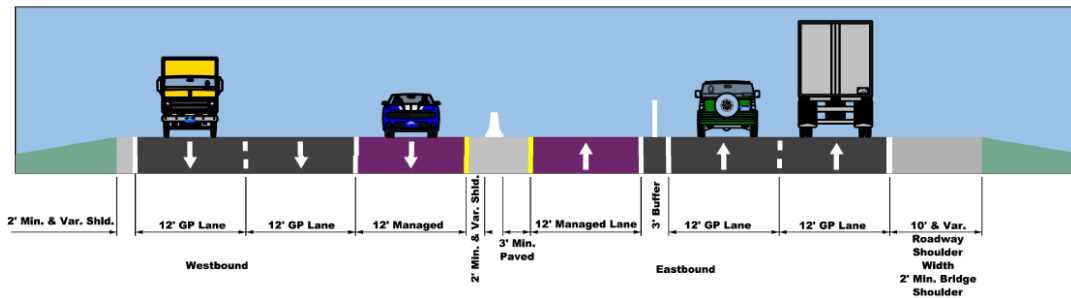
- Between Jefferson & Mercury – HOV2 to HOT2

Proposed Interstate 64



- Between Mercury & LaSalle – HOT2 (1 ML)

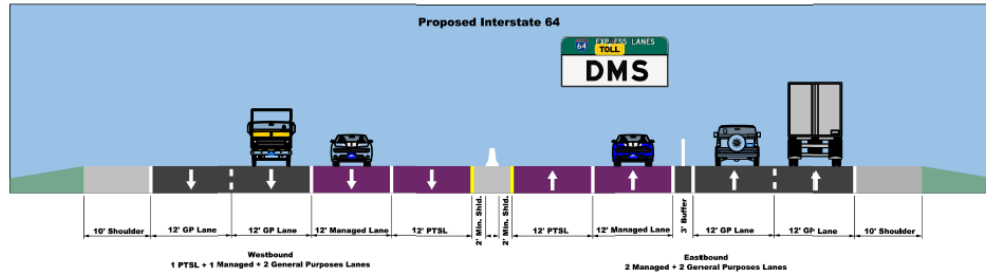
Proposed Interstate 64



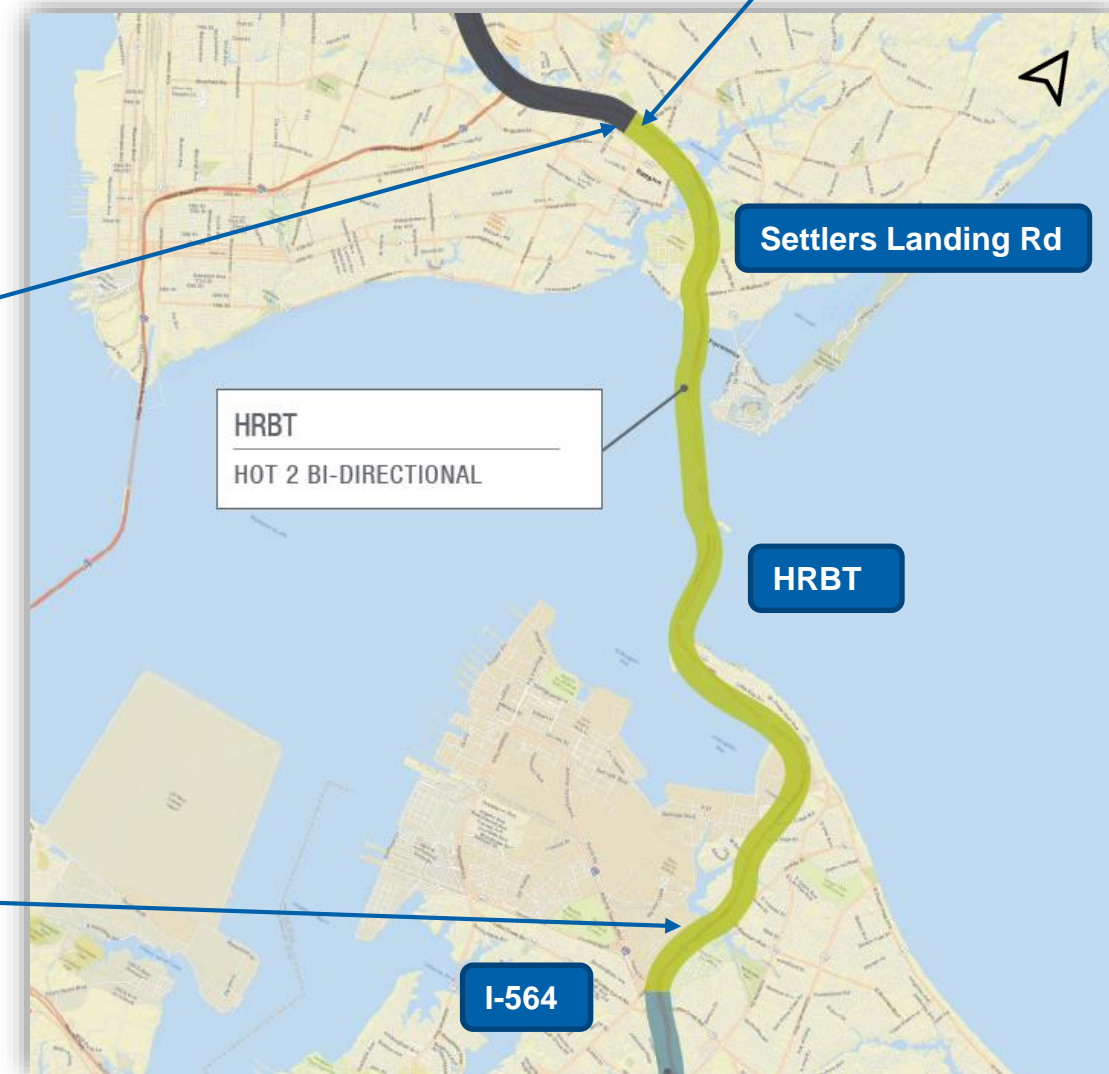
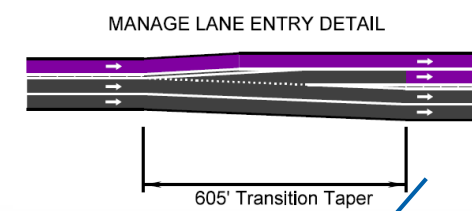
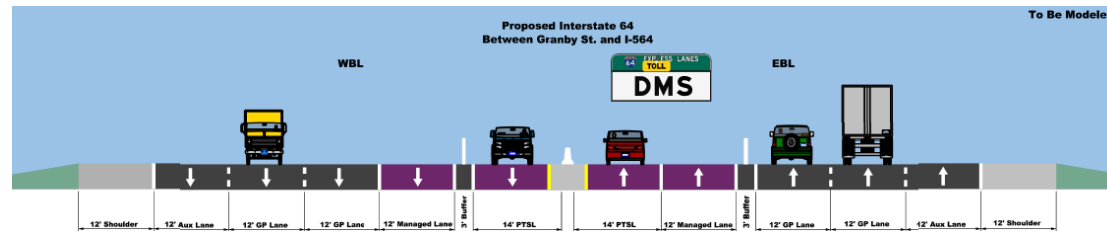
Proposed Scenario

HRBT:

- HOT3 to HOT2
- Shift Eastbound & Westbound Ingress/Egress from Settlers Landing Rd to LaSalle Ave (2 ML)



- Provide 2 lane Ingress/Egress along I-64 Eastbound (at LaSalle Ave) and I-64 Westbound (at Granby St)

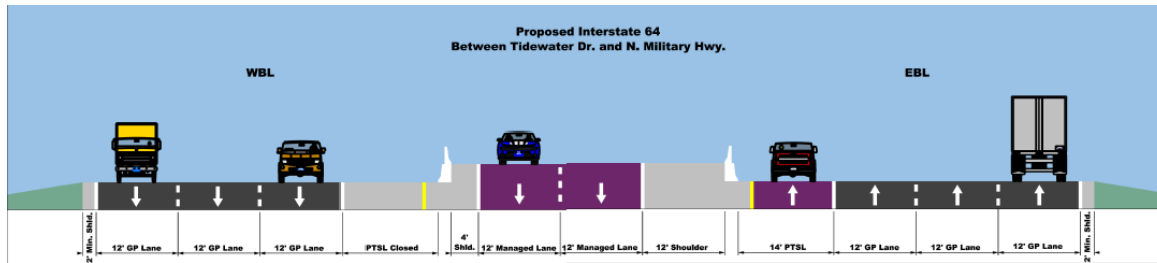


Proposed Scenario

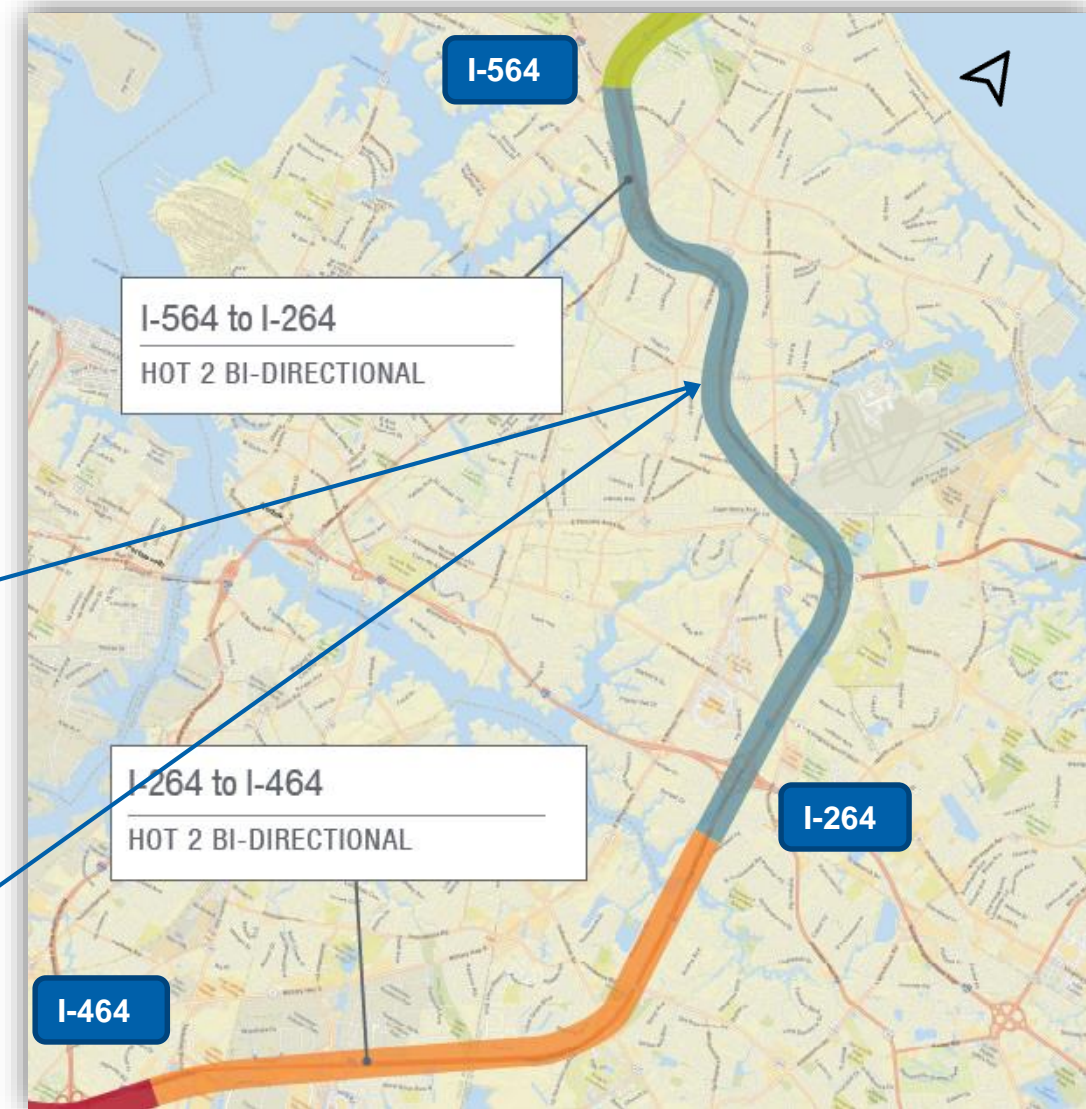
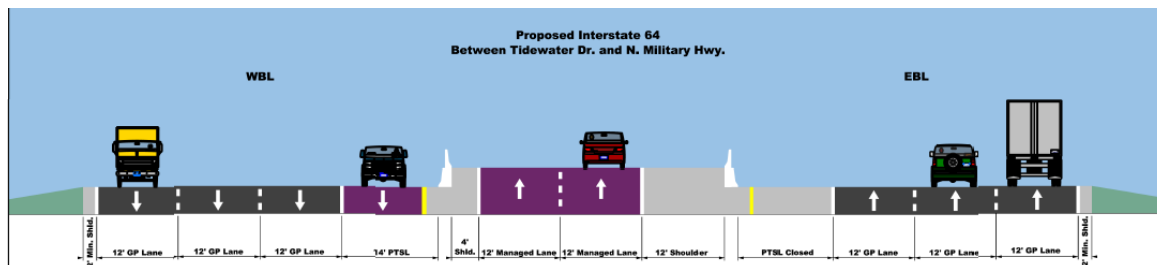
I-564 to I-264:

- HOT2 Reversible in median
- HOT2 PTSL along GP (opposite direction to reversible median lanes)

• AM Peak:



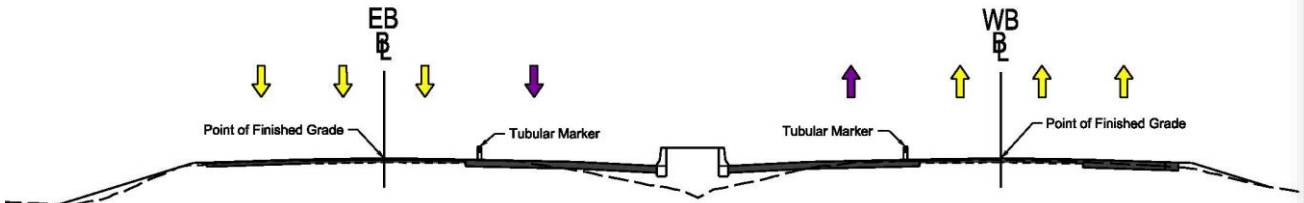
• PM Peak:



Proposed Scenario

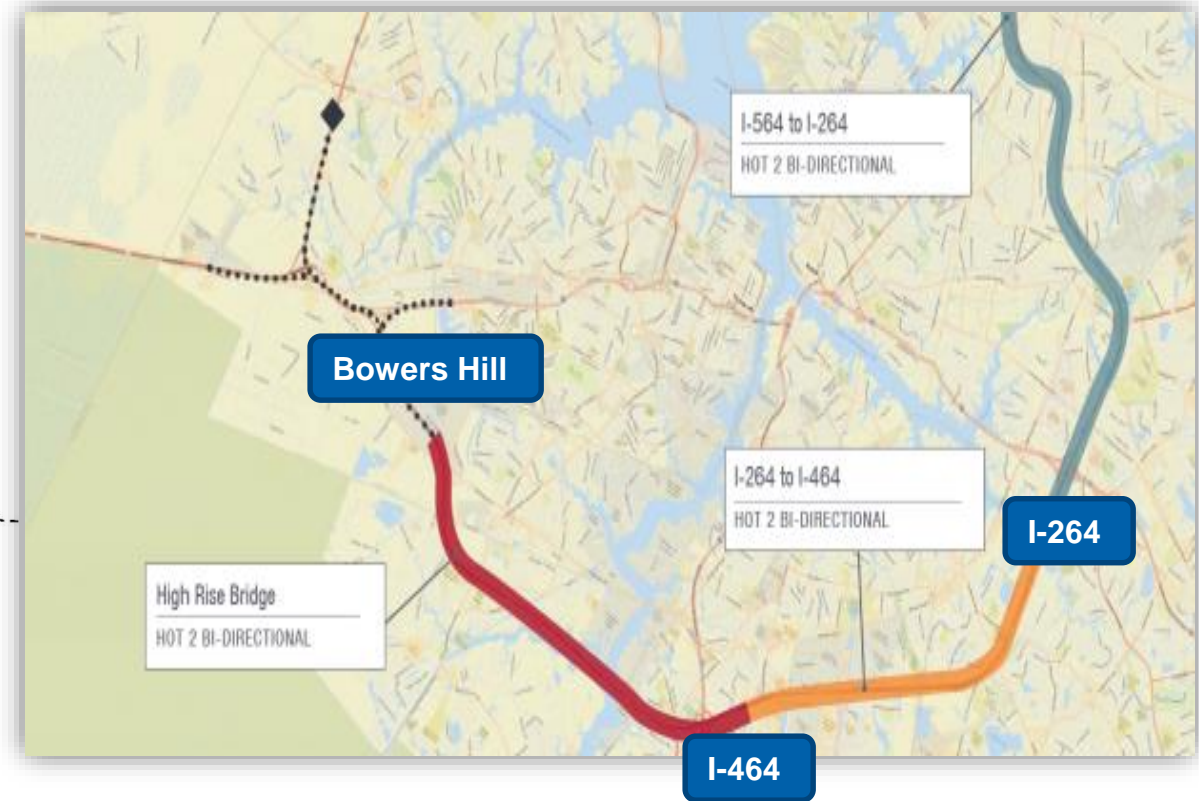
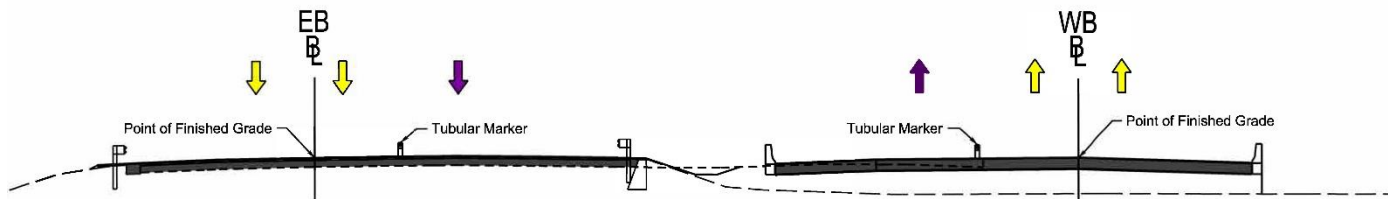
I-264 to I-464:

- Convert HOV to HOT2



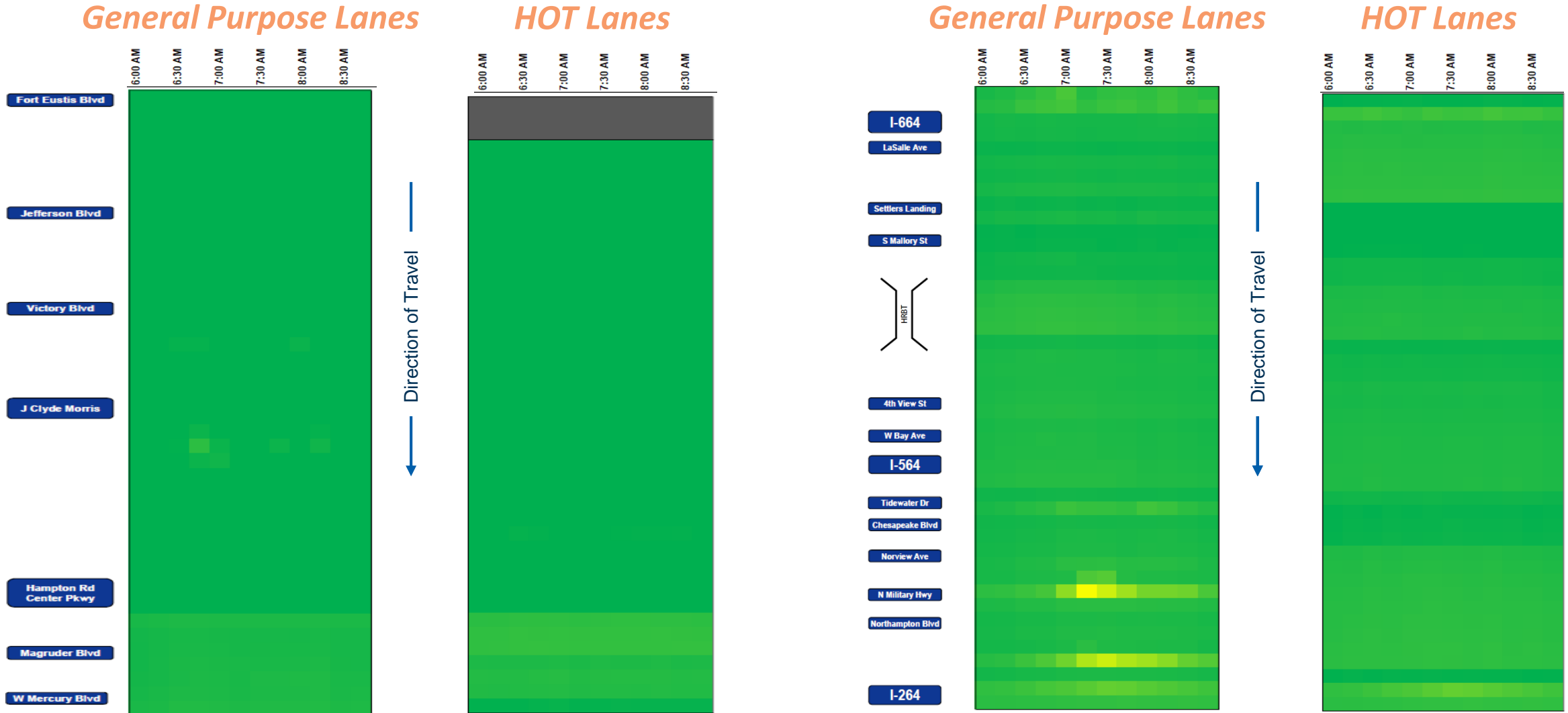
I-464 to Bowers Hill:

- HOT2 (single lane) and 2 General Purpose Lanes



Speed Comparison East Bound 2025 AM: Proposed Scenario

(Fort Eustis Blvd to I-264)

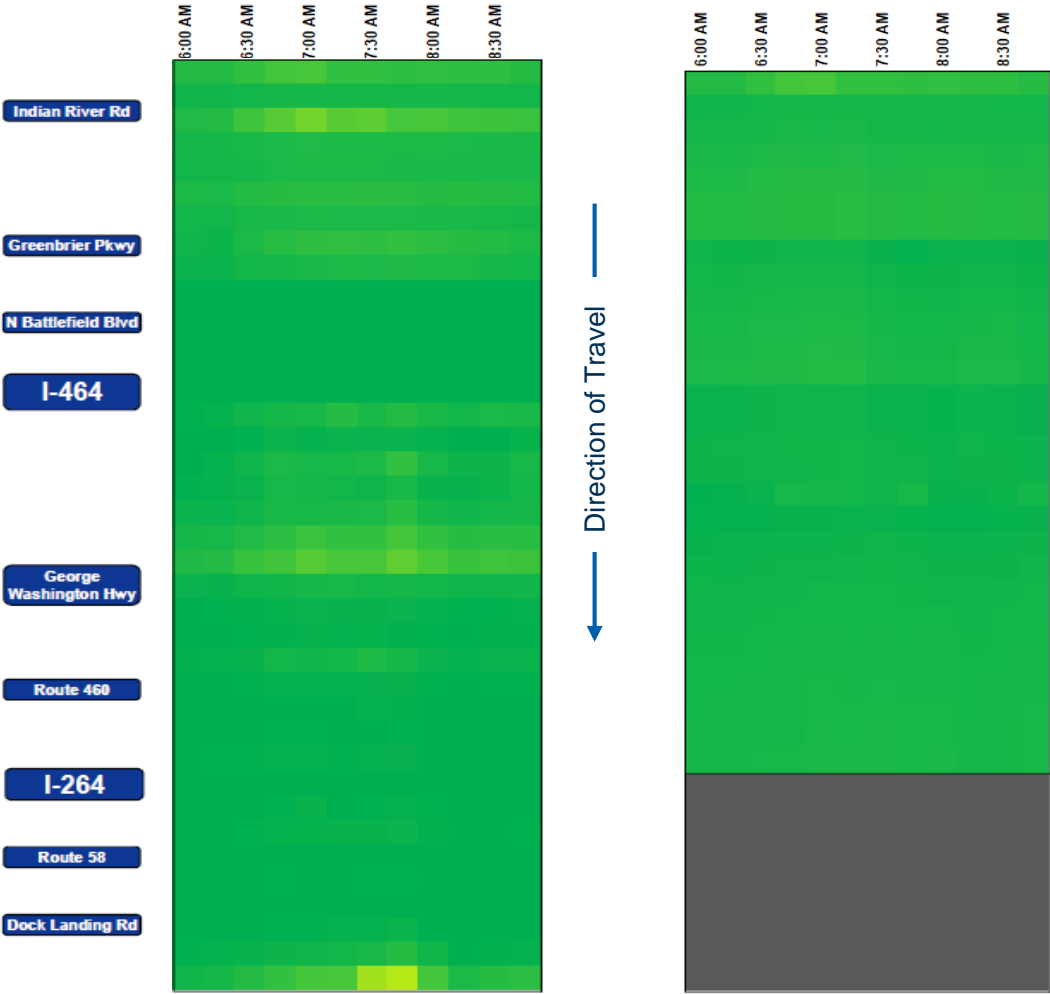


Speed Comparison East Bound 2025 AM: Proposed Scenario

(I-264 to Dock Landing)

General Purpose Lanes

HOT Lanes



Speed Comparison West Bound 2025 AM: Proposed Scenario

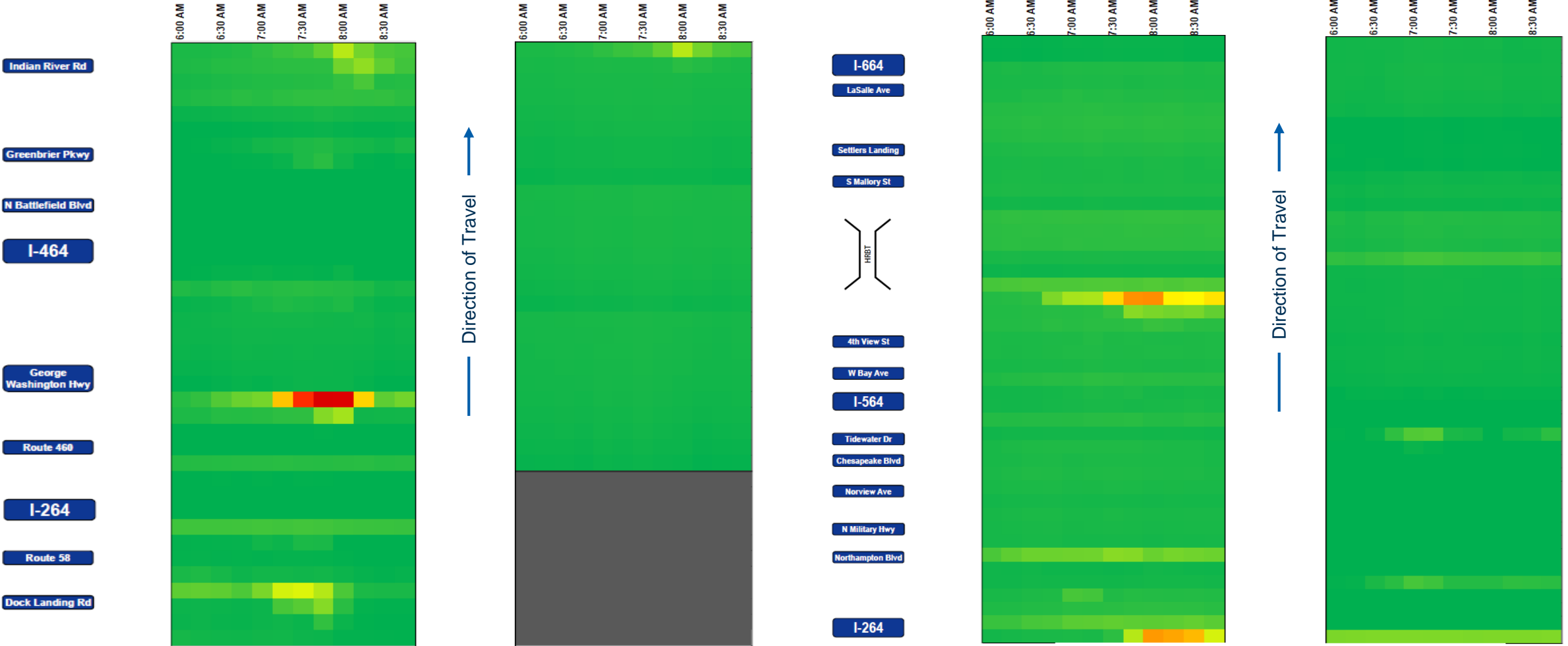
(Dock Landing to I-664)

General Purpose Lanes

HOT Lanes

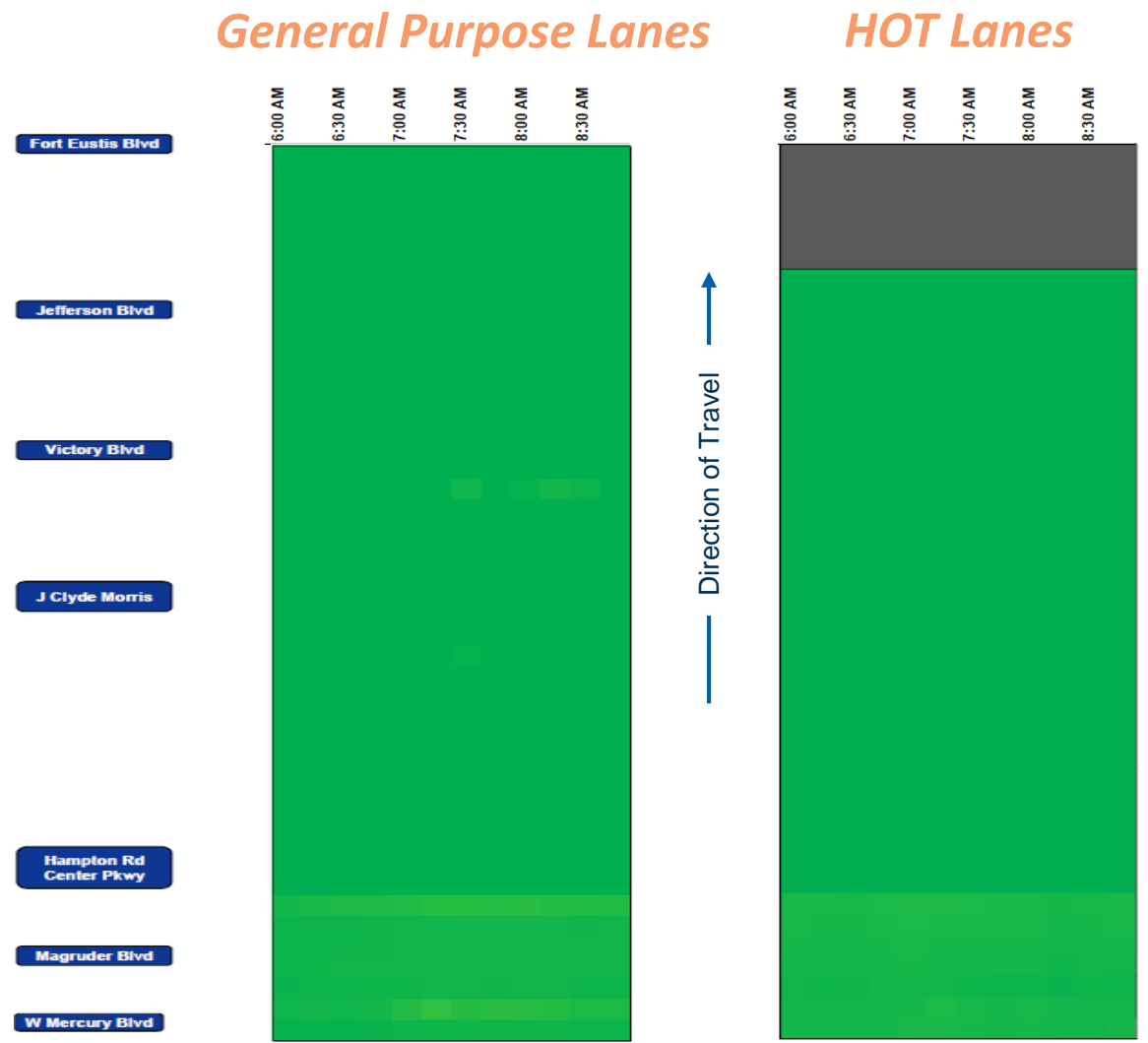
General Purpose Lanes

HOT Lanes



Speed Comparison West Bound 2025 AM: Proposed Scenario

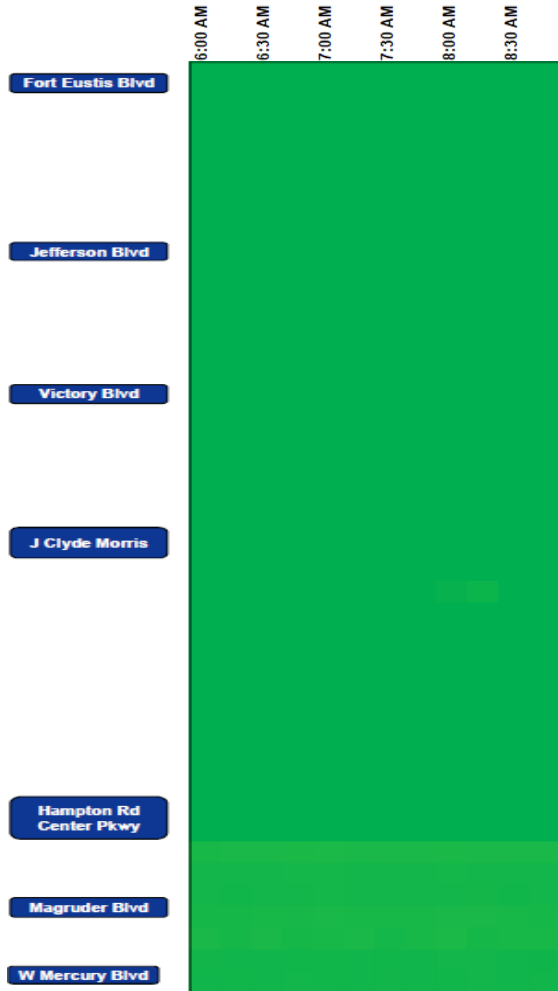
(West Mercury Blvd to Fort Eustis Blvd)



Speed Comparison East Bound 2025 PM: Proposed Scenario

(Fort Eustis Blvd to I-264)

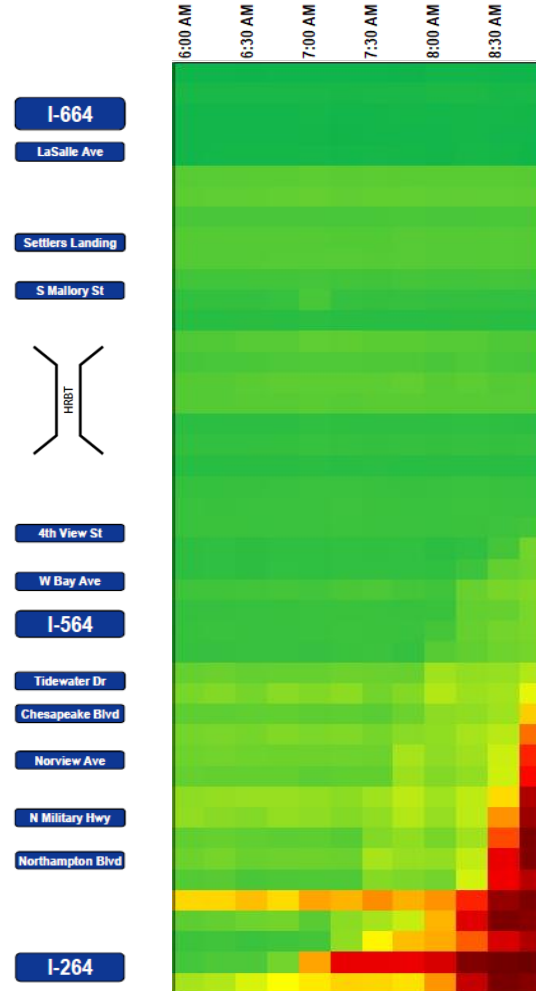
General Purpose Lanes



HOT Lanes



General Purpose Lanes

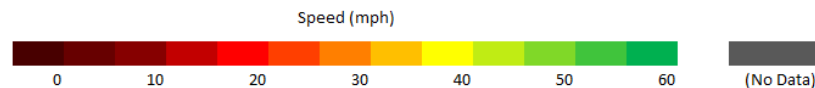


HOT Lanes



Direction of Travel ↓

Direction of Travel ↓

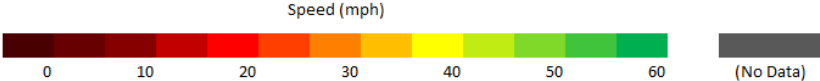
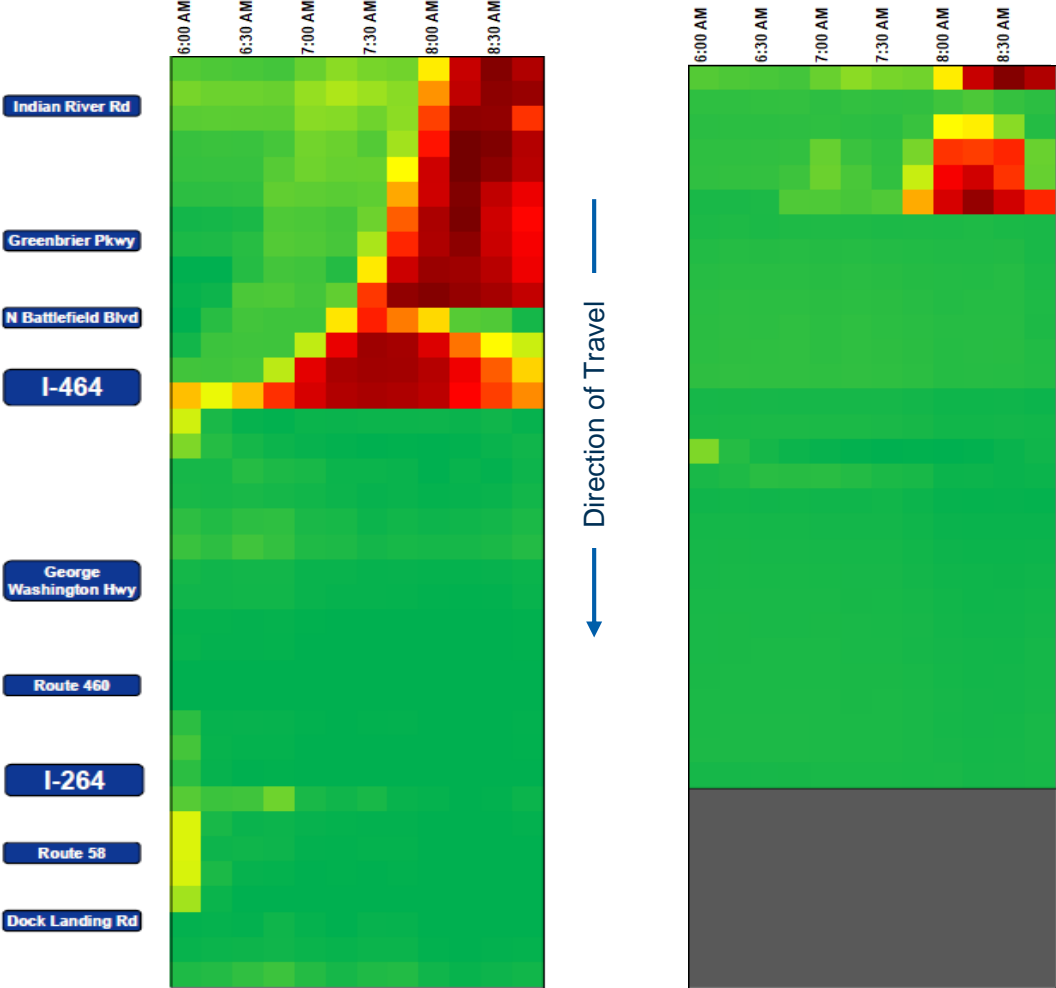


Speed Comparison East Bound 2025 PM: Proposed Scenario

(I-264 to Dock Landing)

General Purpose Lanes

HOT Lanes



Speed Comparison West Bound 2025 PM: Proposed Scenario

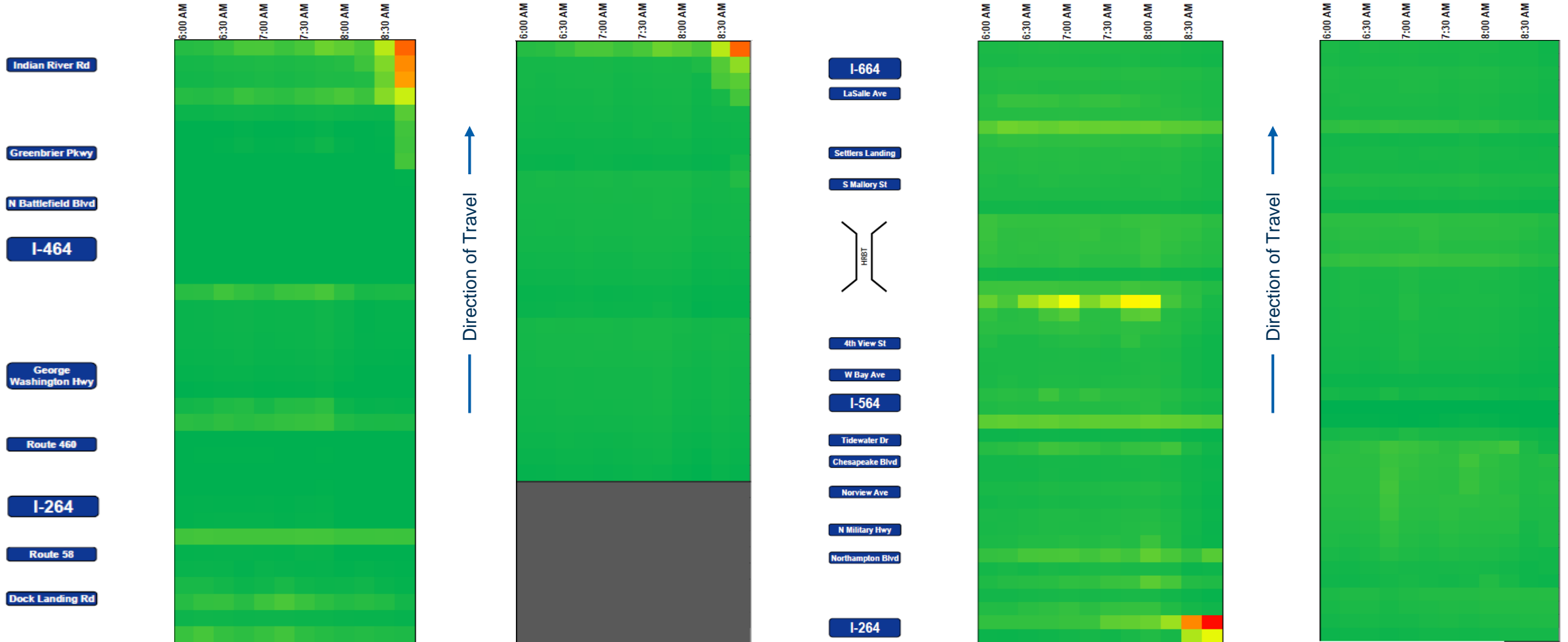
(Dock Landing to I-664)

General Purpose Lanes

HOT Lanes

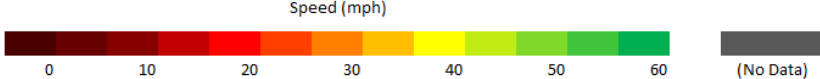
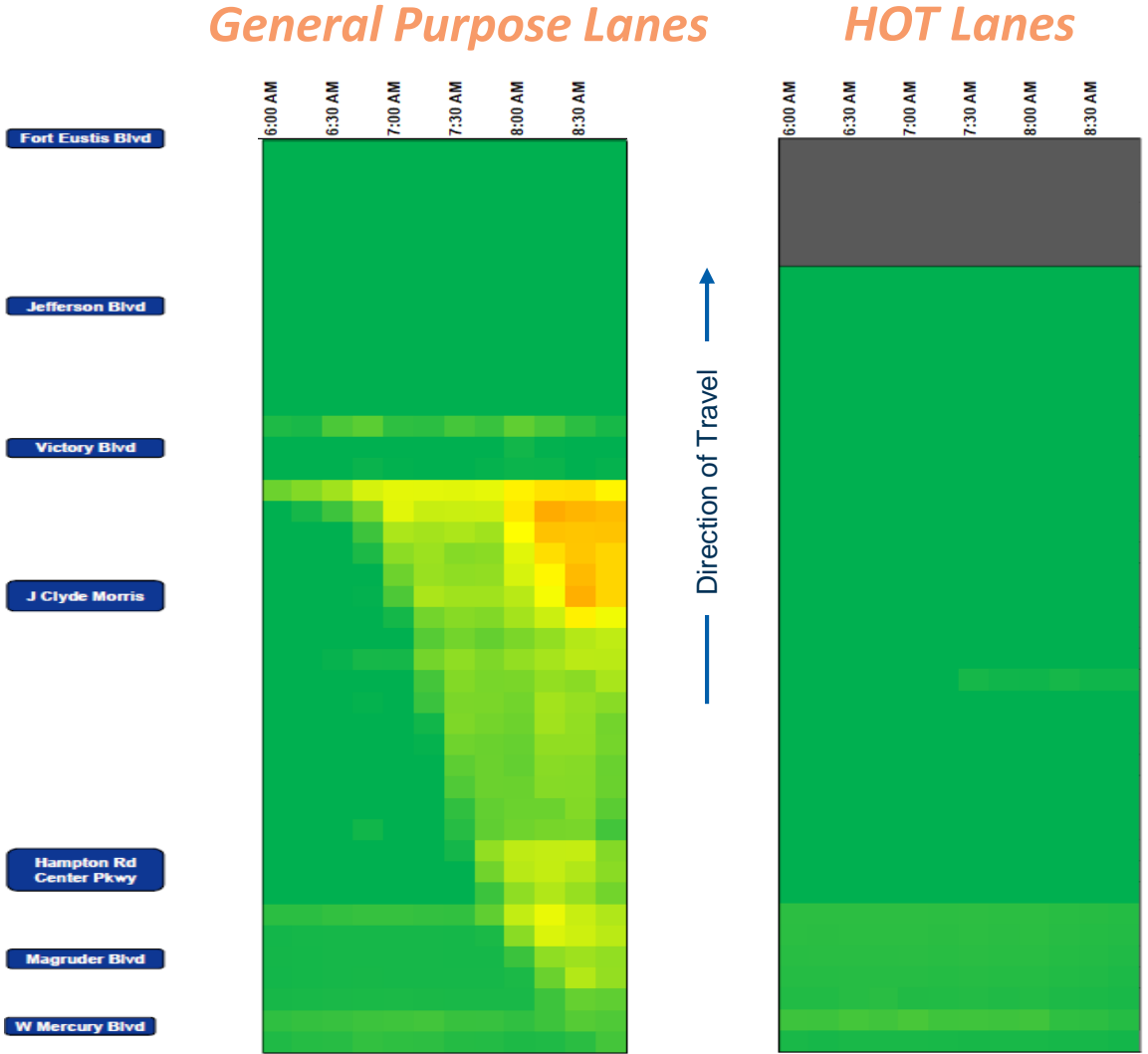
General Purpose Lanes

HOT Lanes



Speed Comparison West Bound 2025 PM: Proposed Scenario

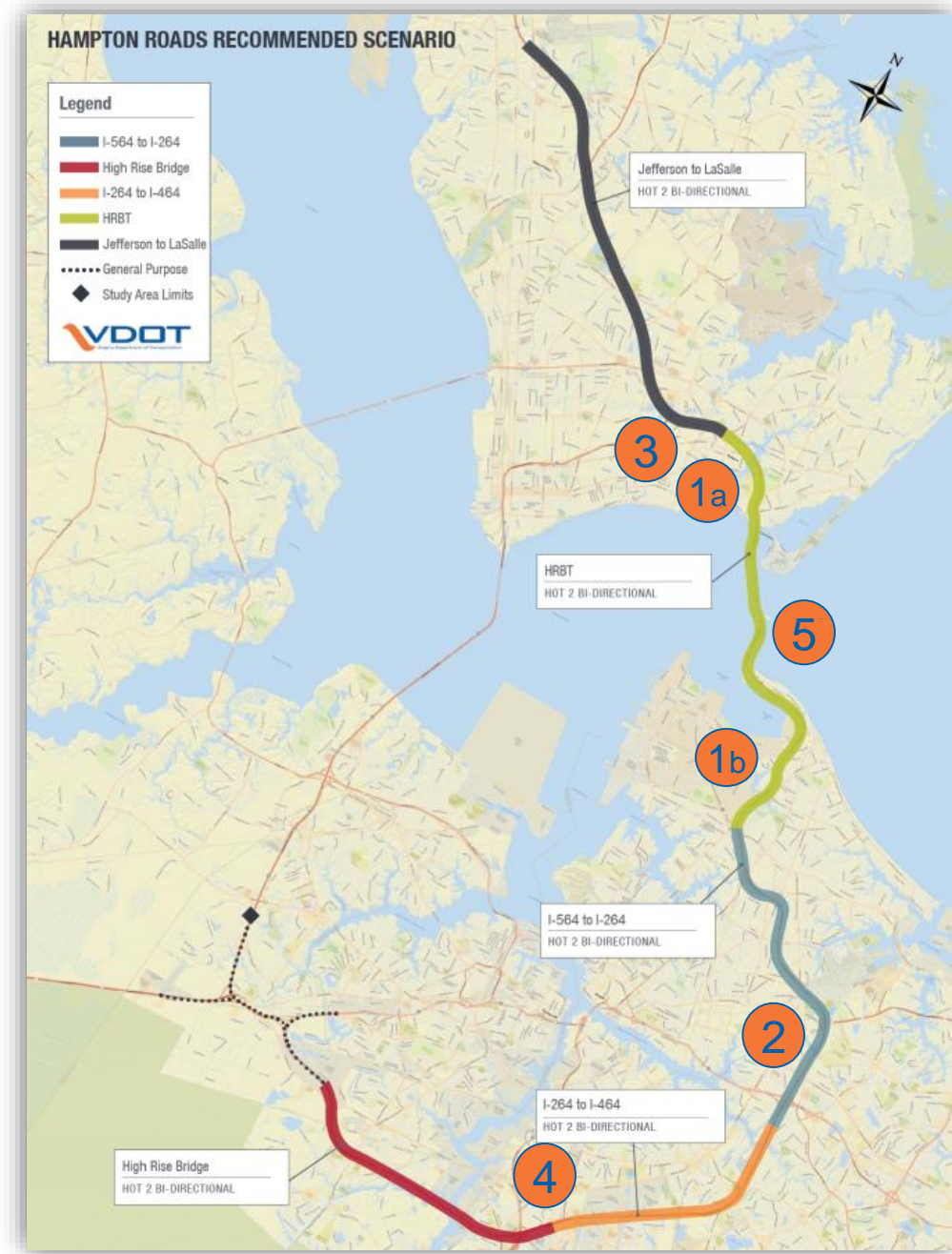
(West Mercury Blvd to Fort Eustis Blvd)



Operational Analysis Results (2025)

Maximize the investment by addressing Interstate Network Hot Spot Locations:

1. 2025 AM I-64 EB at HRBT
2. 2025 AM I-64 EB at I-564 to I-264
3. 2025 PM I-64 EB at HRBT
4. 2025 PM I-64 EB at I-564 to I-264 & High Rise Bridge
5. 2025 PM I-64 WB at HRBT

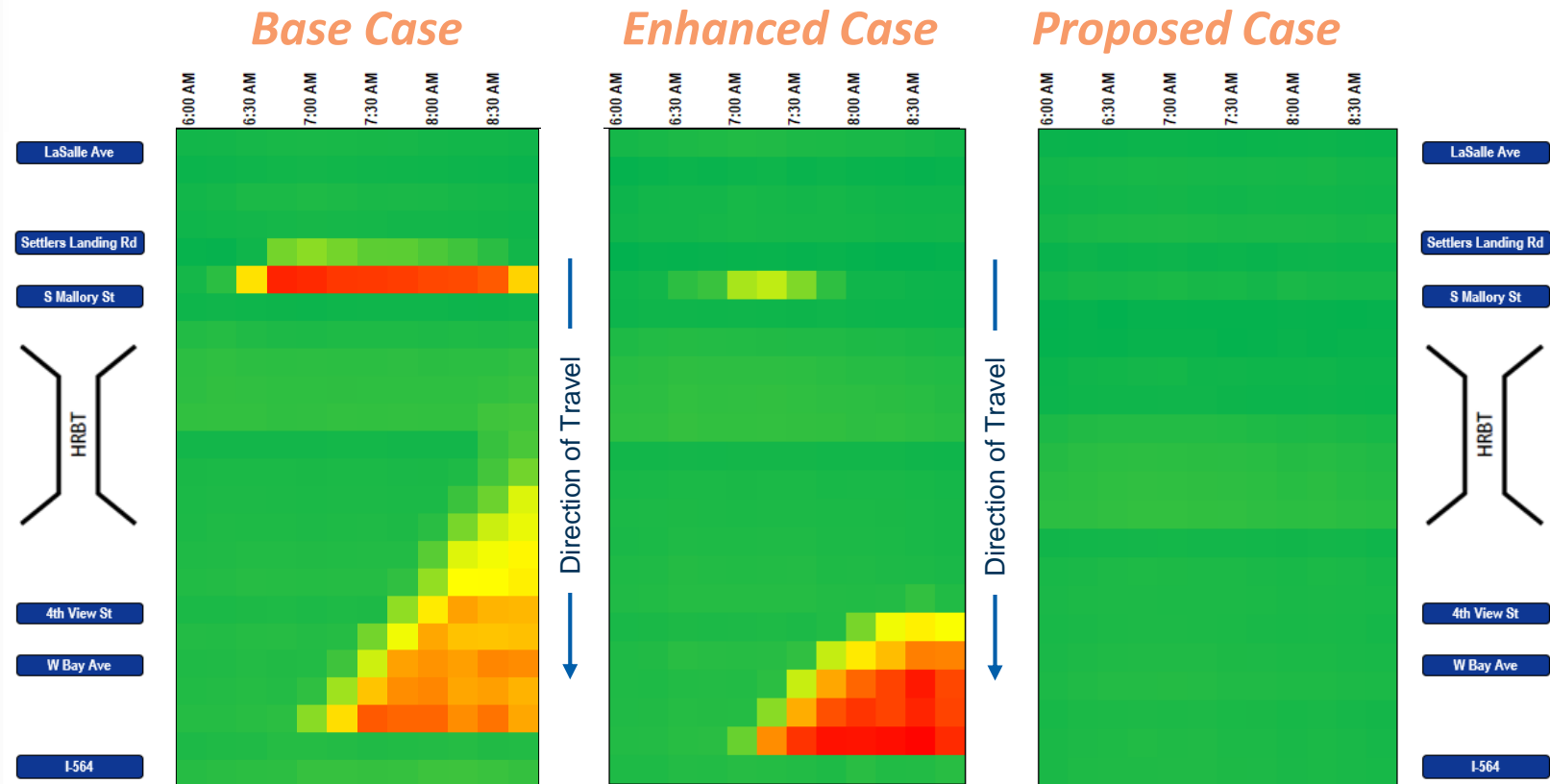
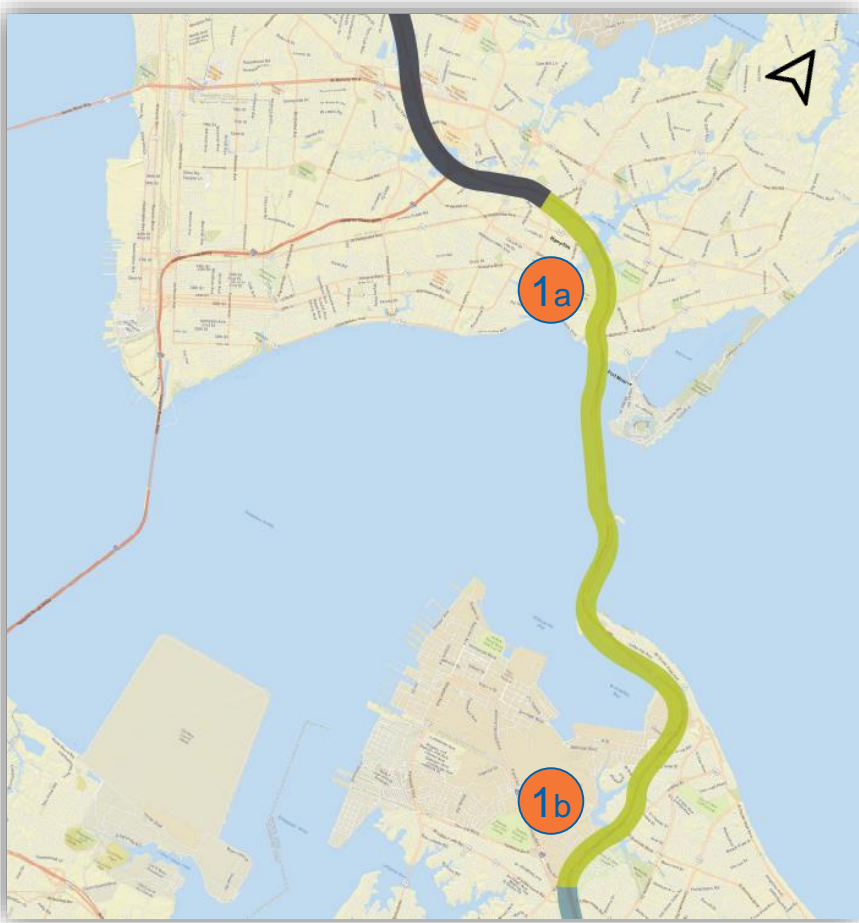


1 Speed Comparison at HRBT (2025 AM I-64 EB)

1a *Between Settlers Landing Rd and Mallory St*

1b *Between W Bay Ave and I-564*

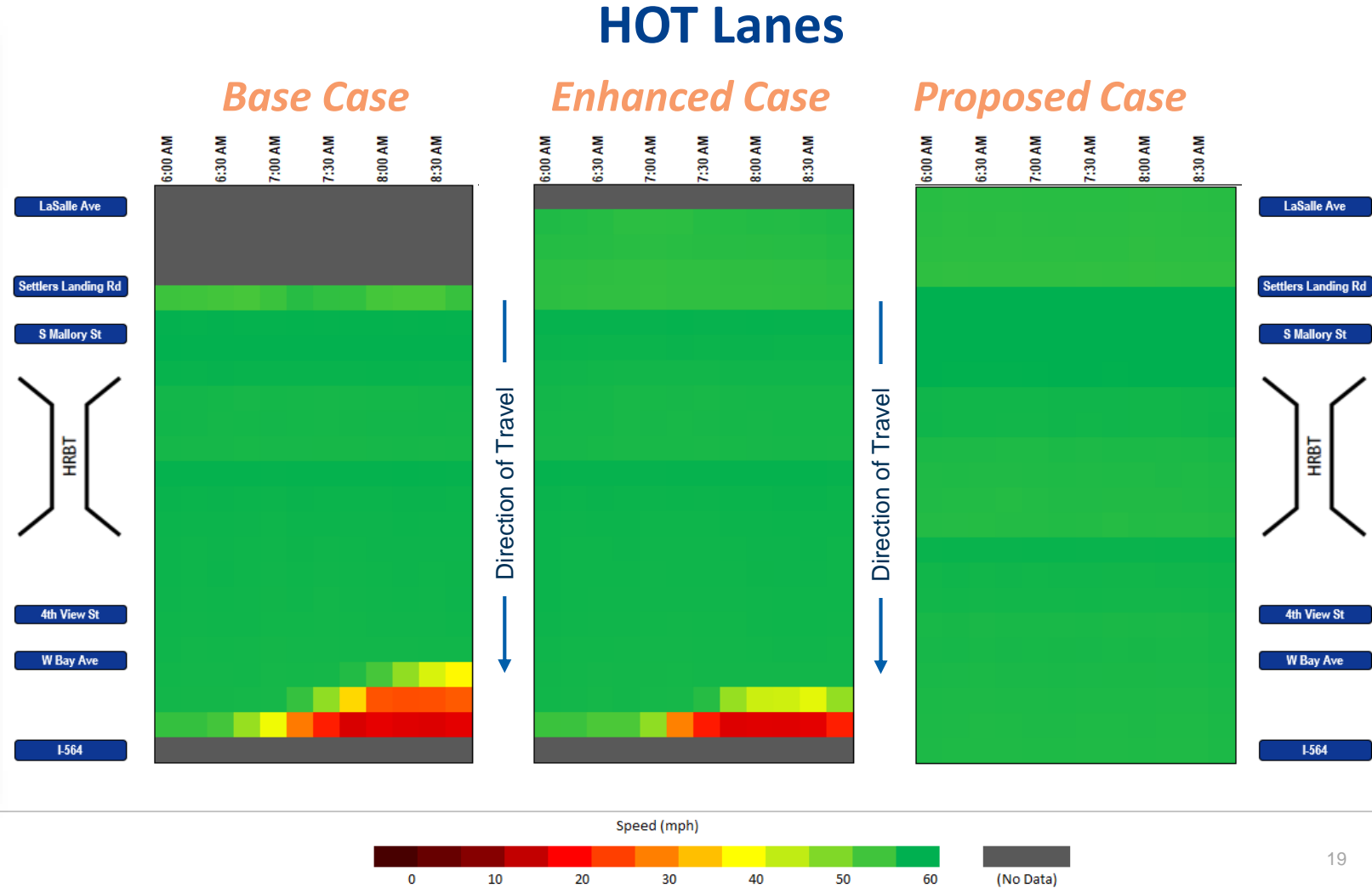
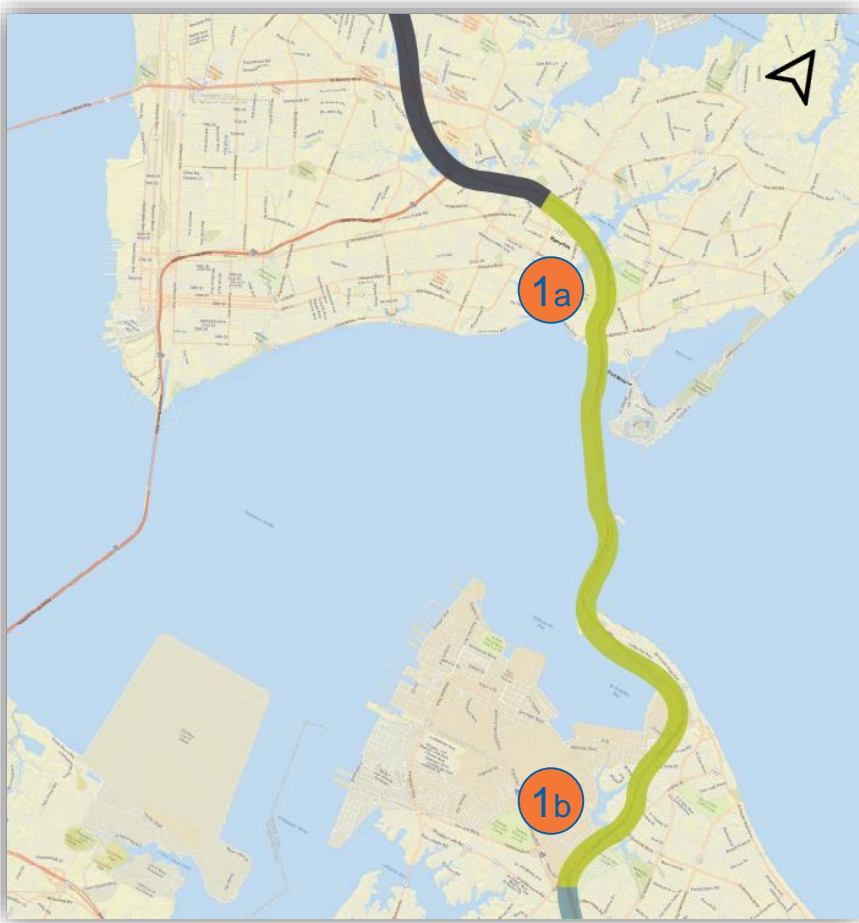
General Purpose Lanes



1 Speed Comparison at HRBT (2025 AM I-64 EB)

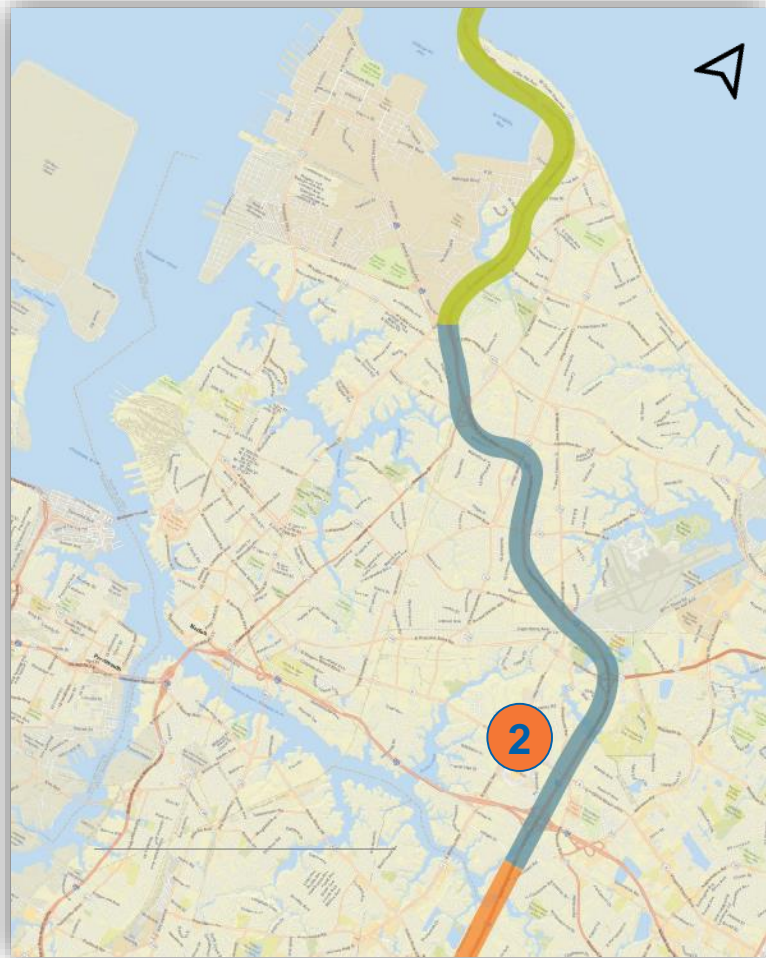
1a *Between Settlers Landing Rd and Mallory St*

1b *Between W Bay Ave and I-564*

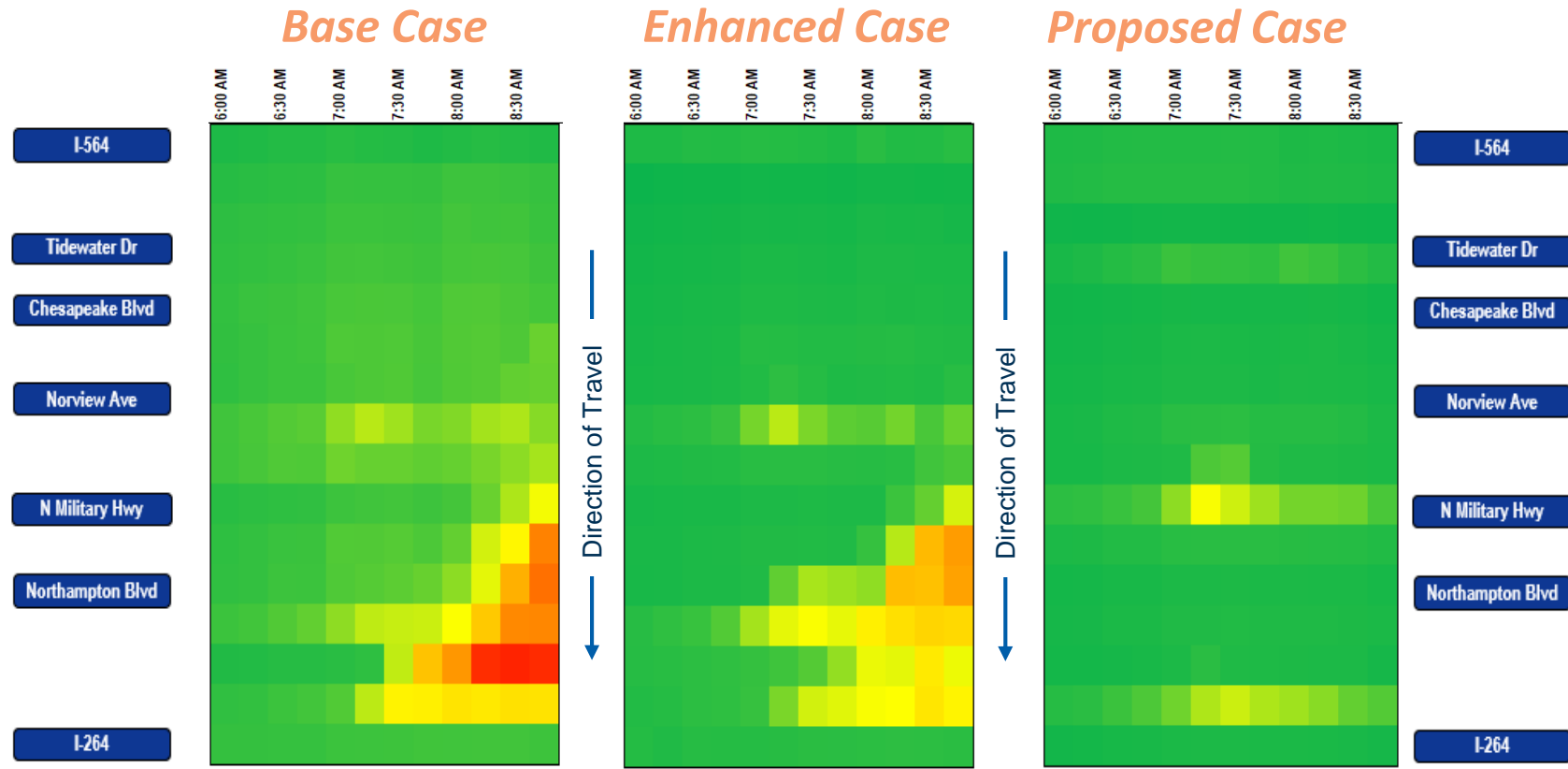


② Speed Comparison from I-564 to I-264 (2025 AM I-64 EB)

② At merge from Northhampton Blvd Ramps

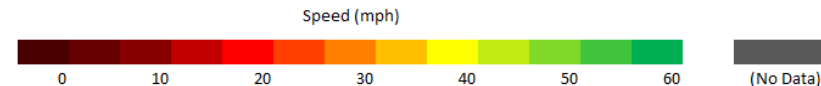
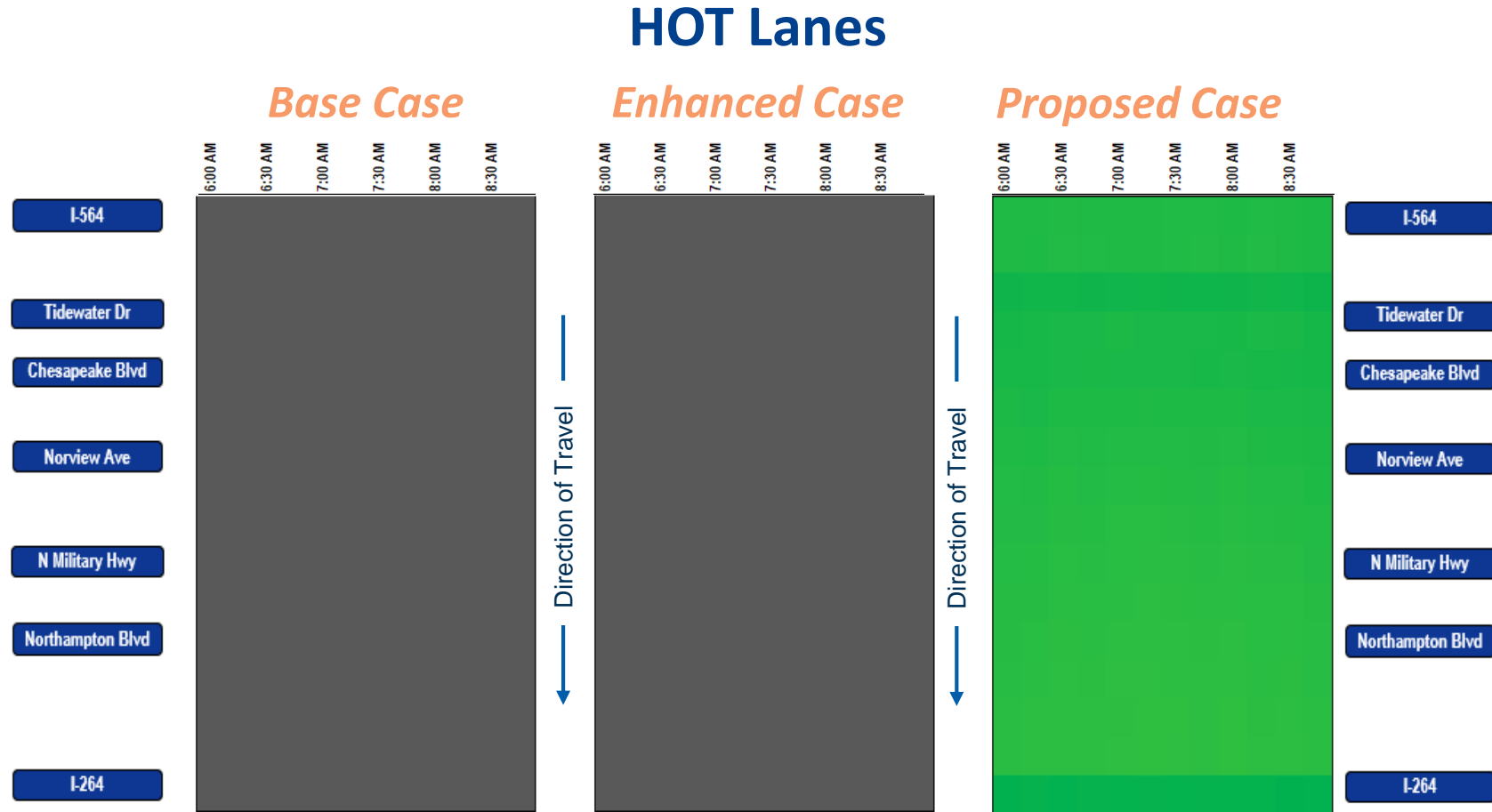
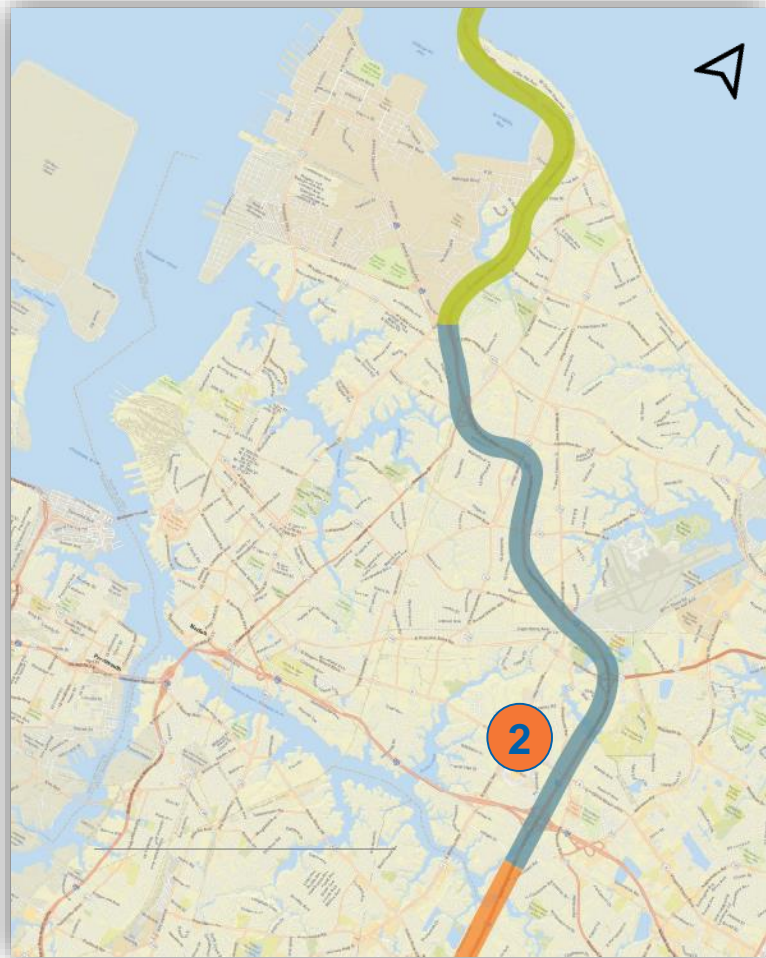


General Purpose Lanes



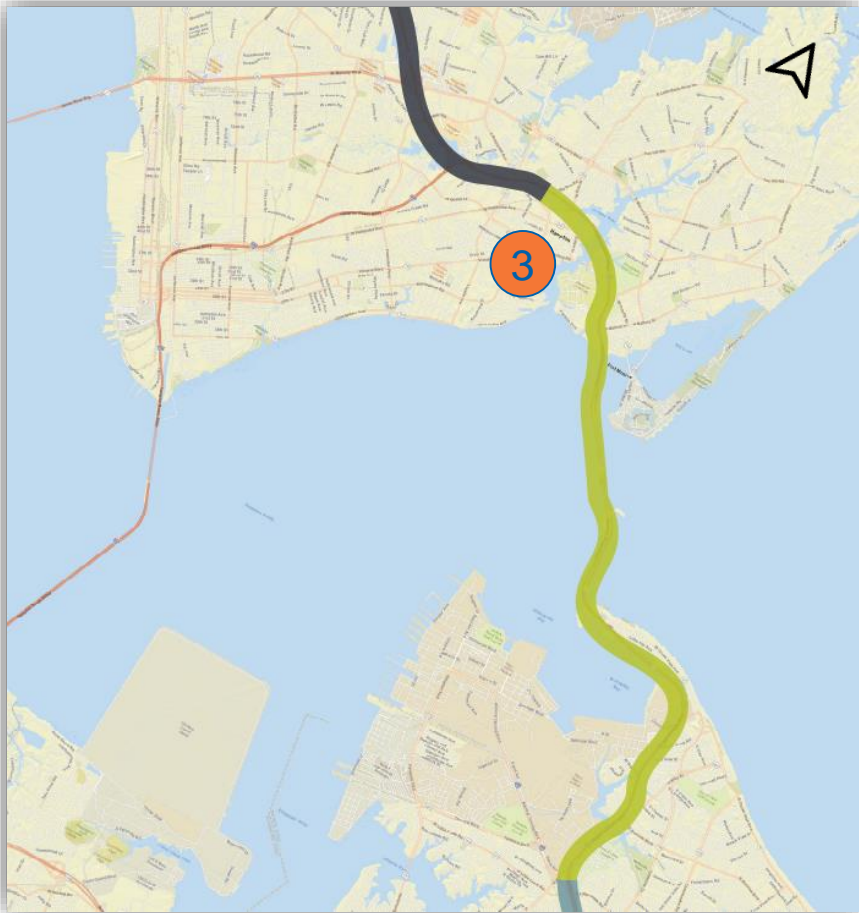
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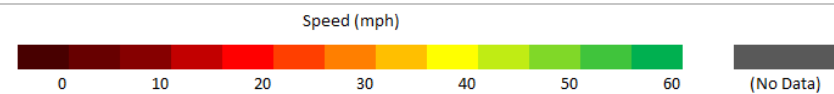
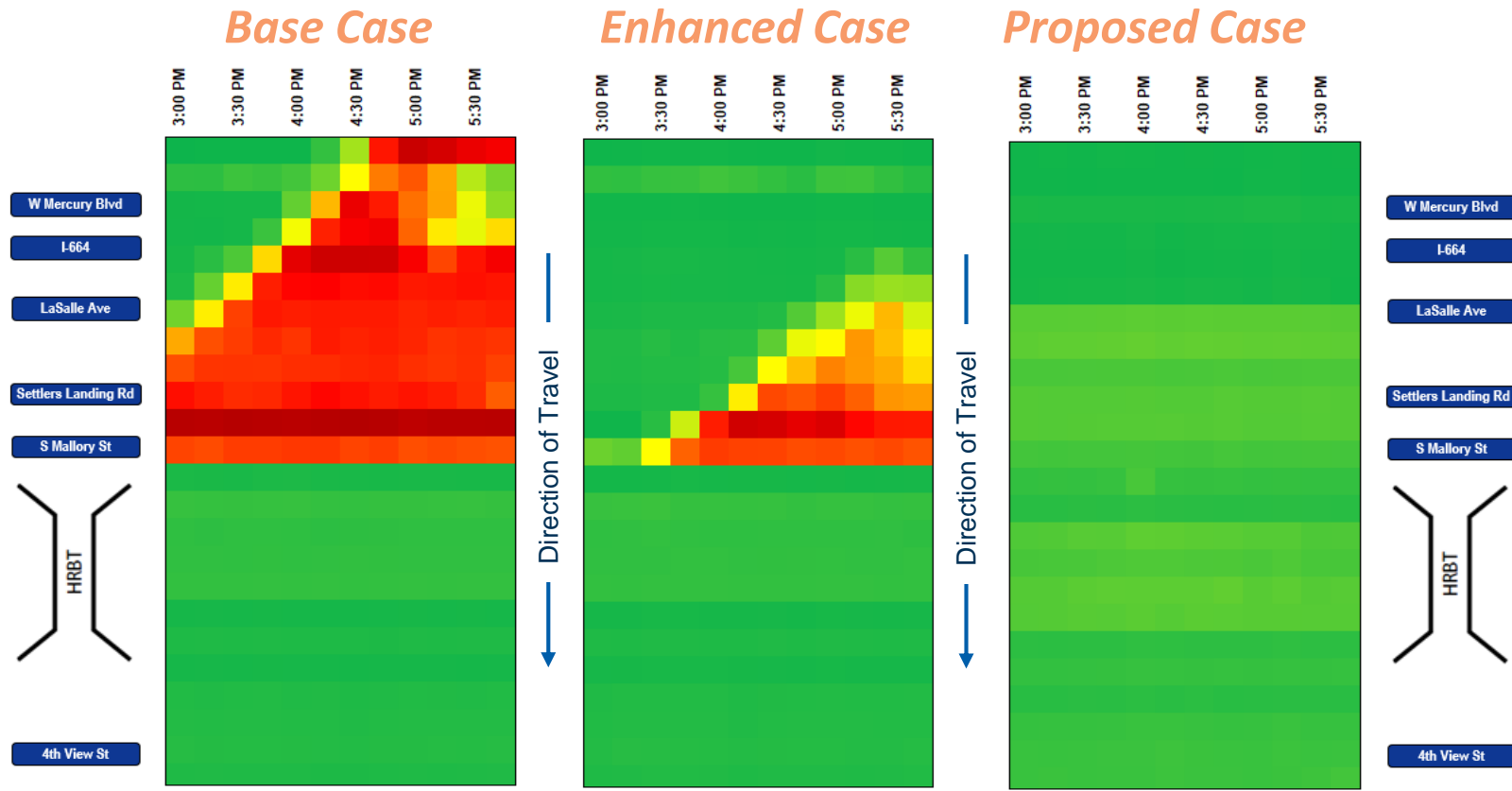


3 Speed Comparison at HRBT (2025 PM I-64 EB)

3 Between Mercury Blvd and Mallory St

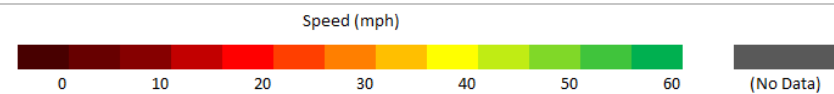
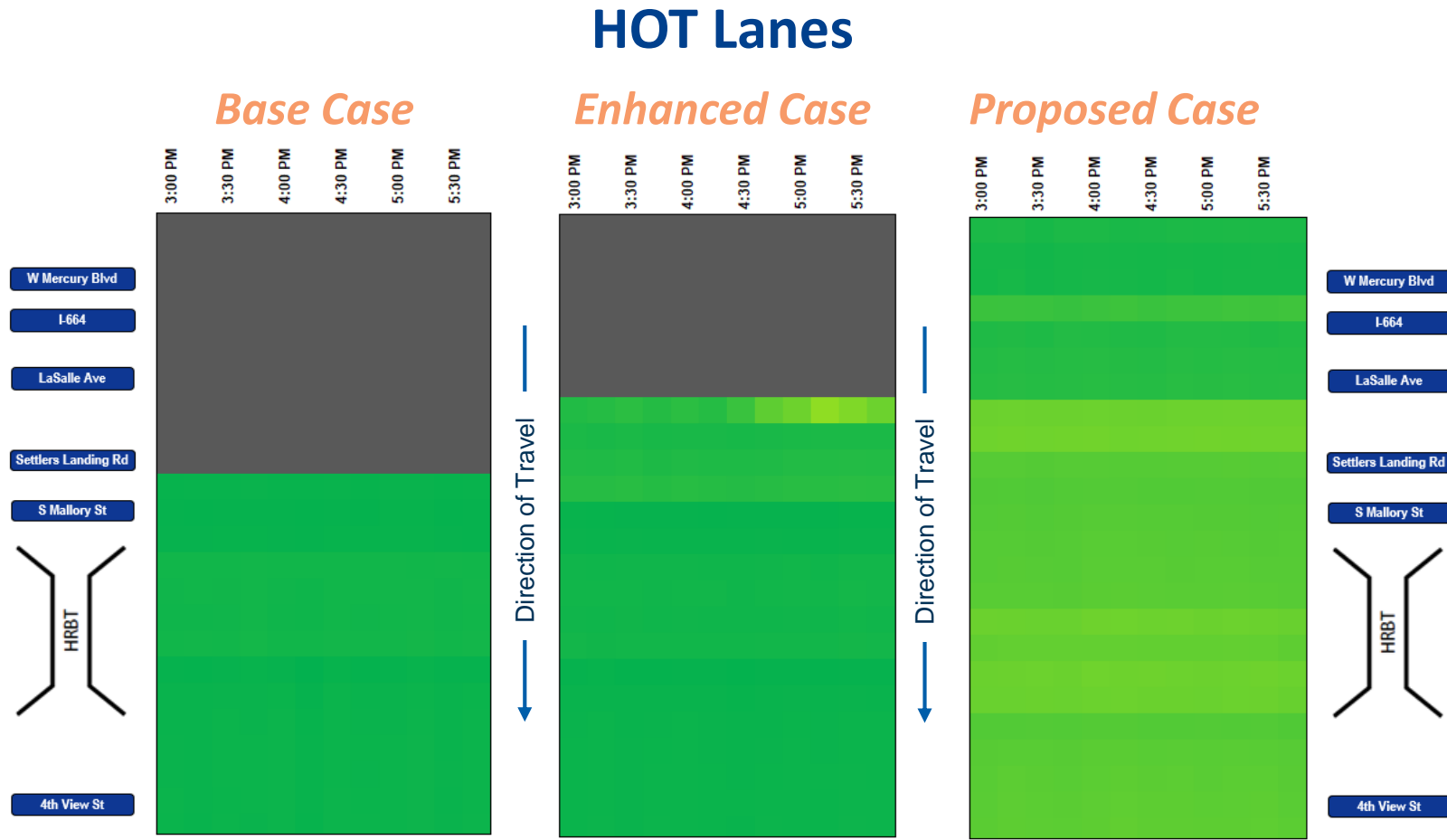
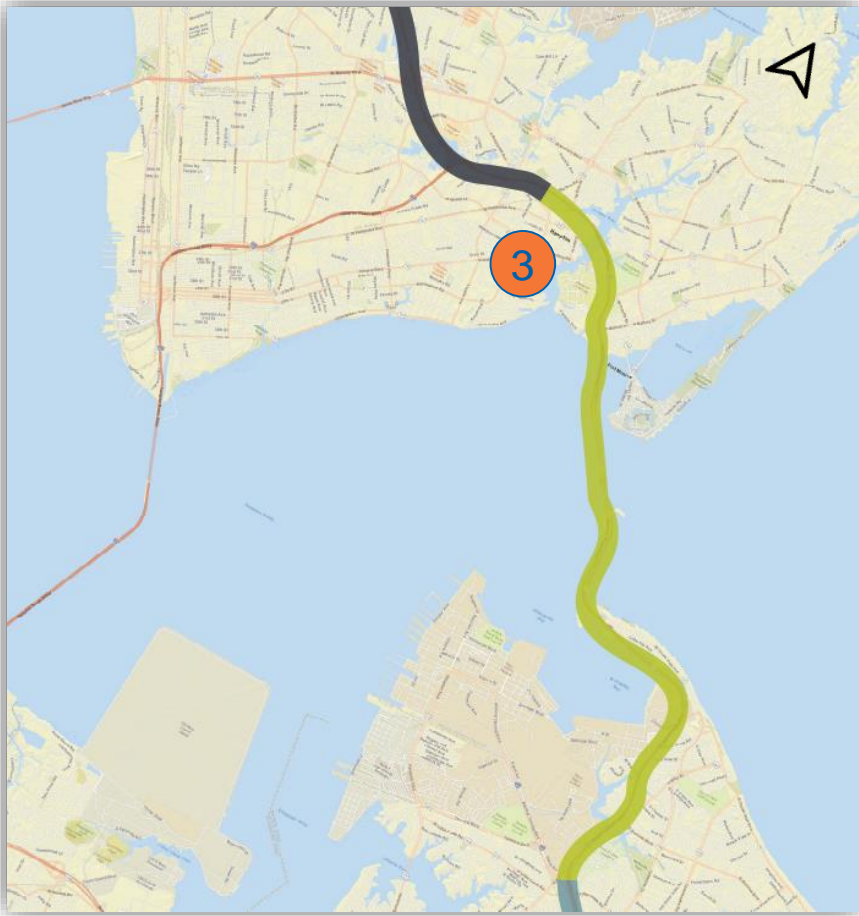


General Purpose Lanes



3 Speed Comparison at HRBT (2025 PM I-64 EB)

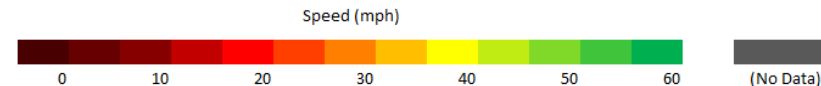
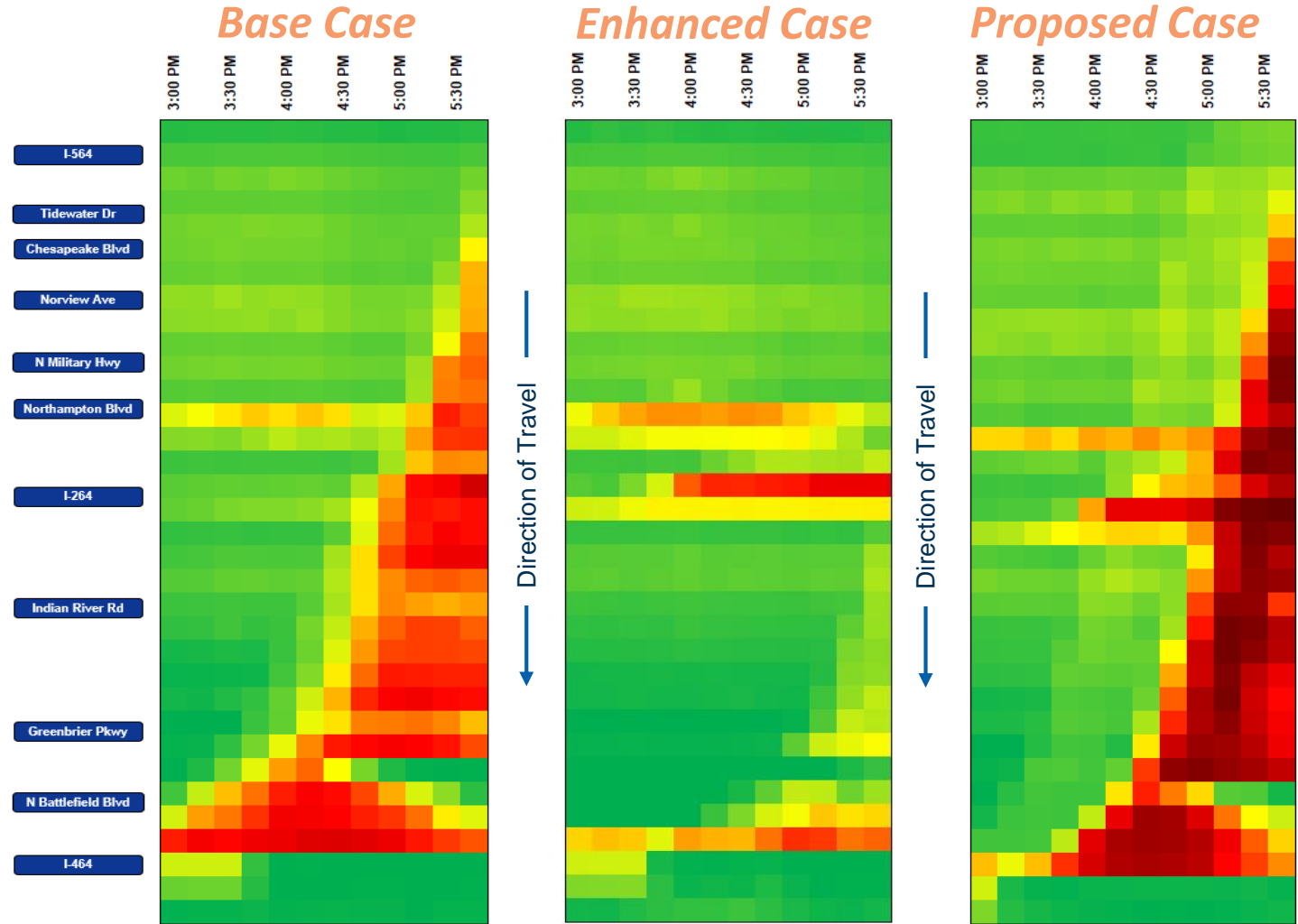
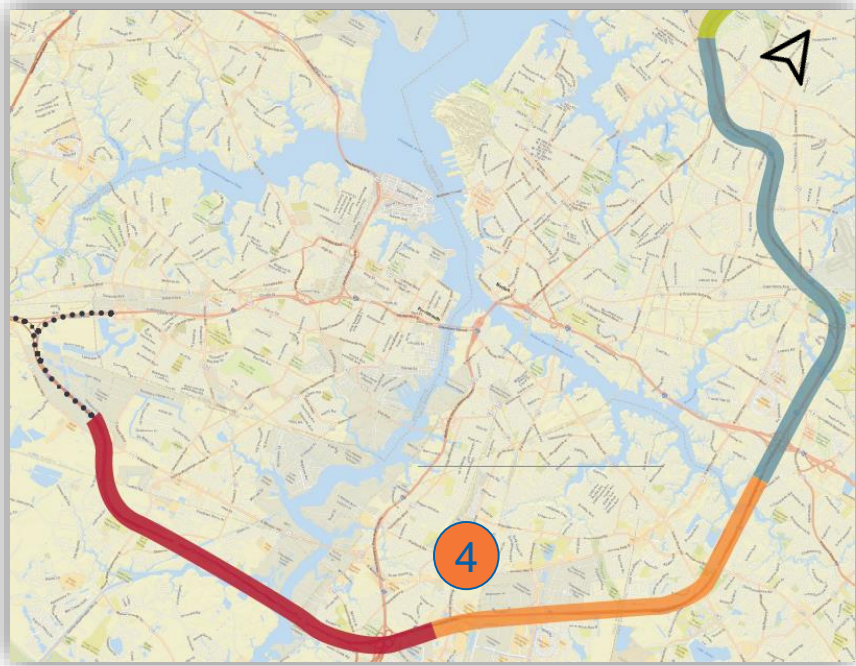
3 Between Mercury Blvd and Mallory St



4 Speed Comparison from I-564 to I-464 (2025 PM I-64 EB)

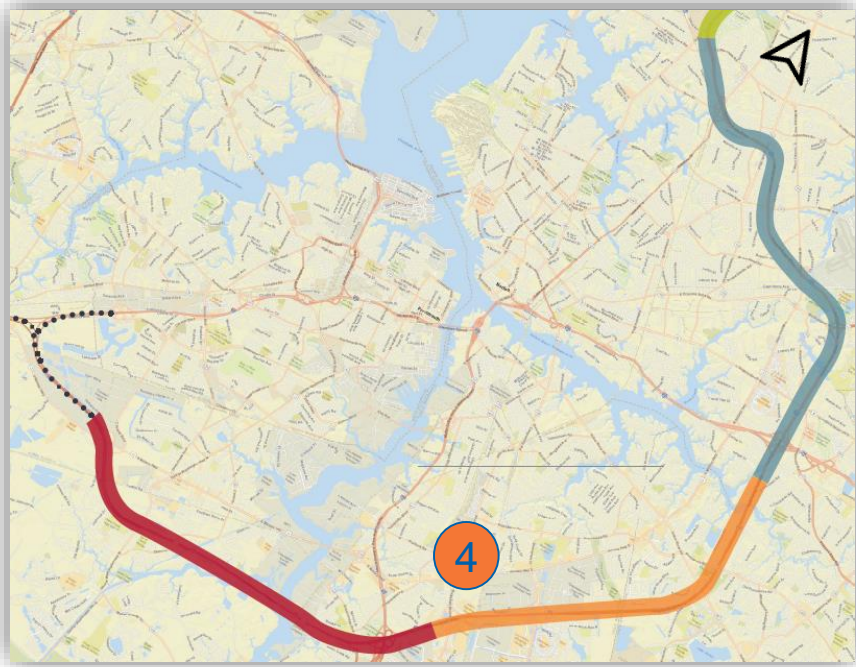
4 At I-464 past I-264

General Purpose Lanes

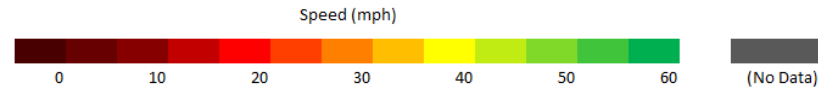
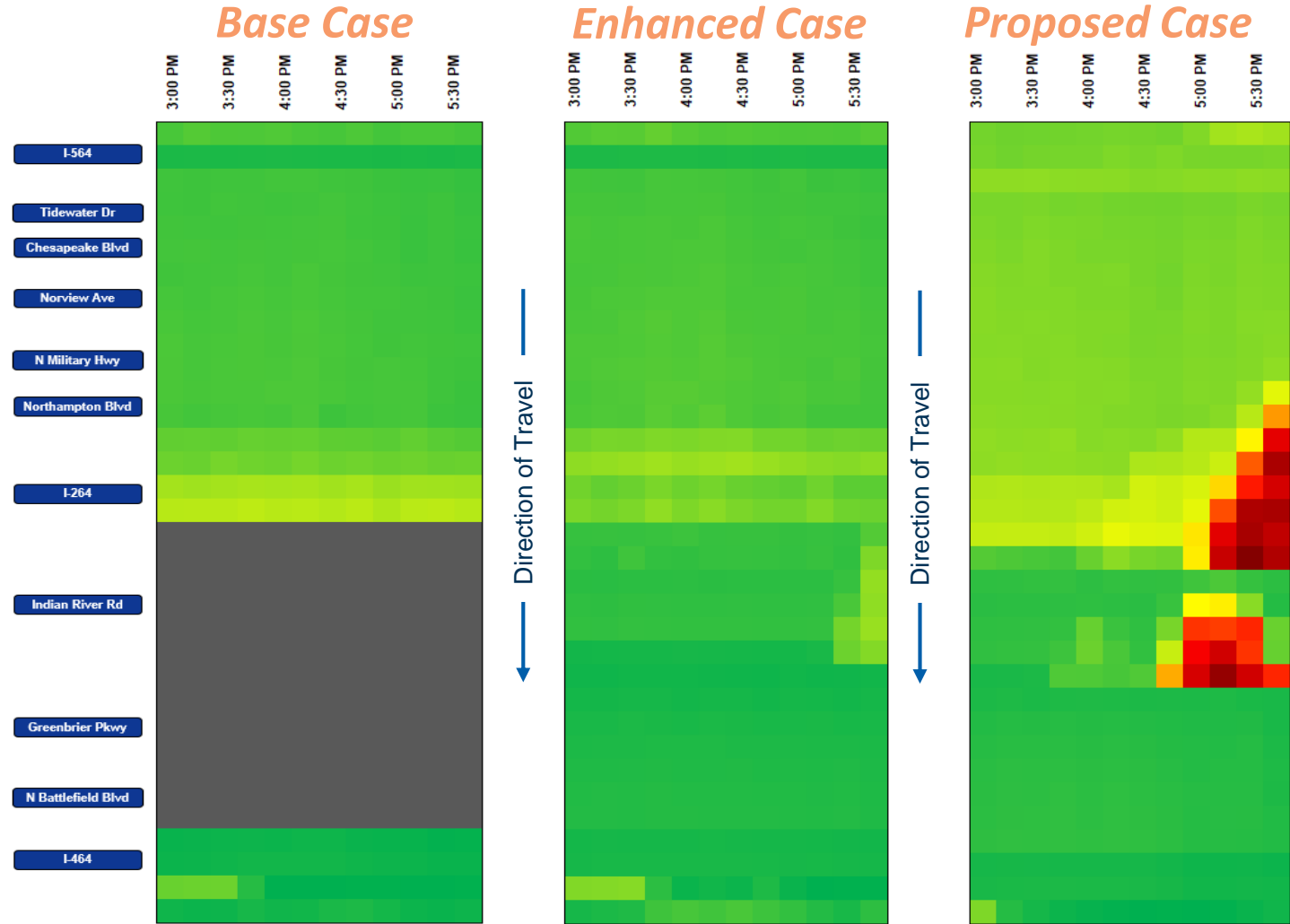


4 Speed Comparison from I-564 to I-464 (2025 PM I-64 EB)

4 At I-464 past I-264



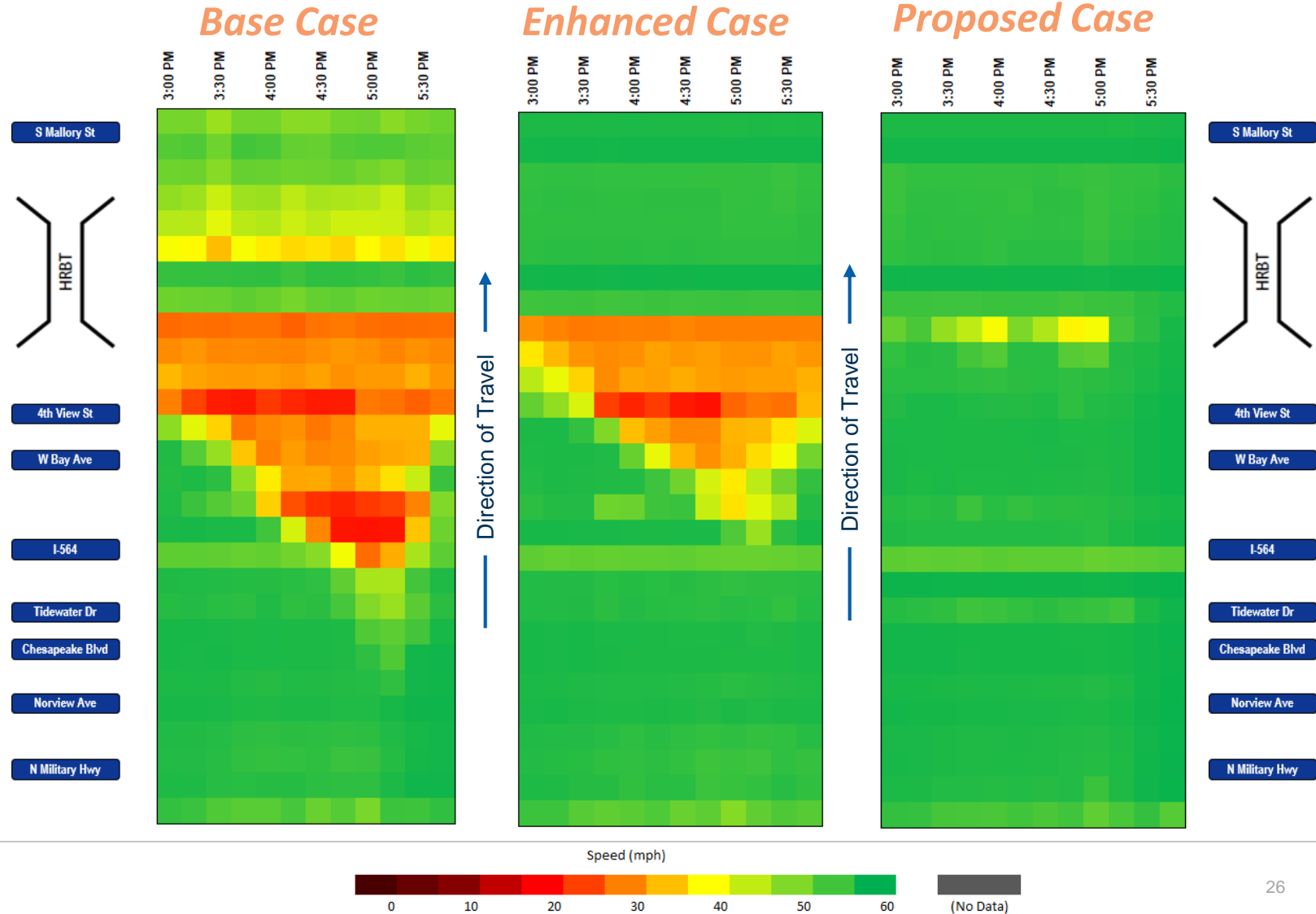
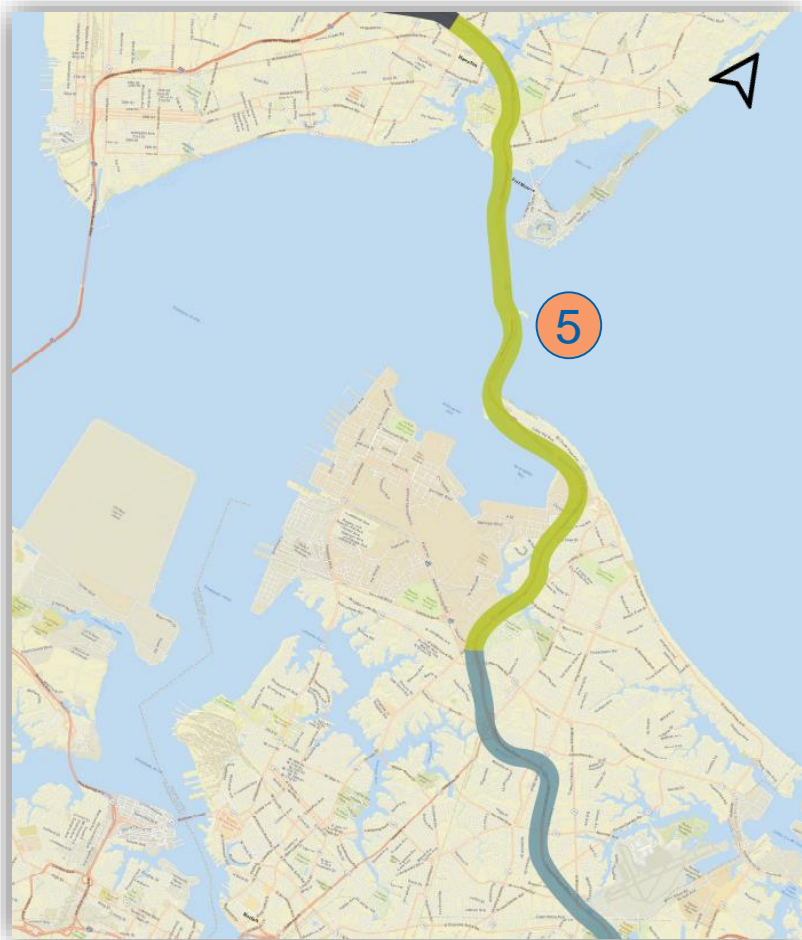
HOT Lanes



5 Speed Comparison at HRBT (2025 PM I-64 WB)

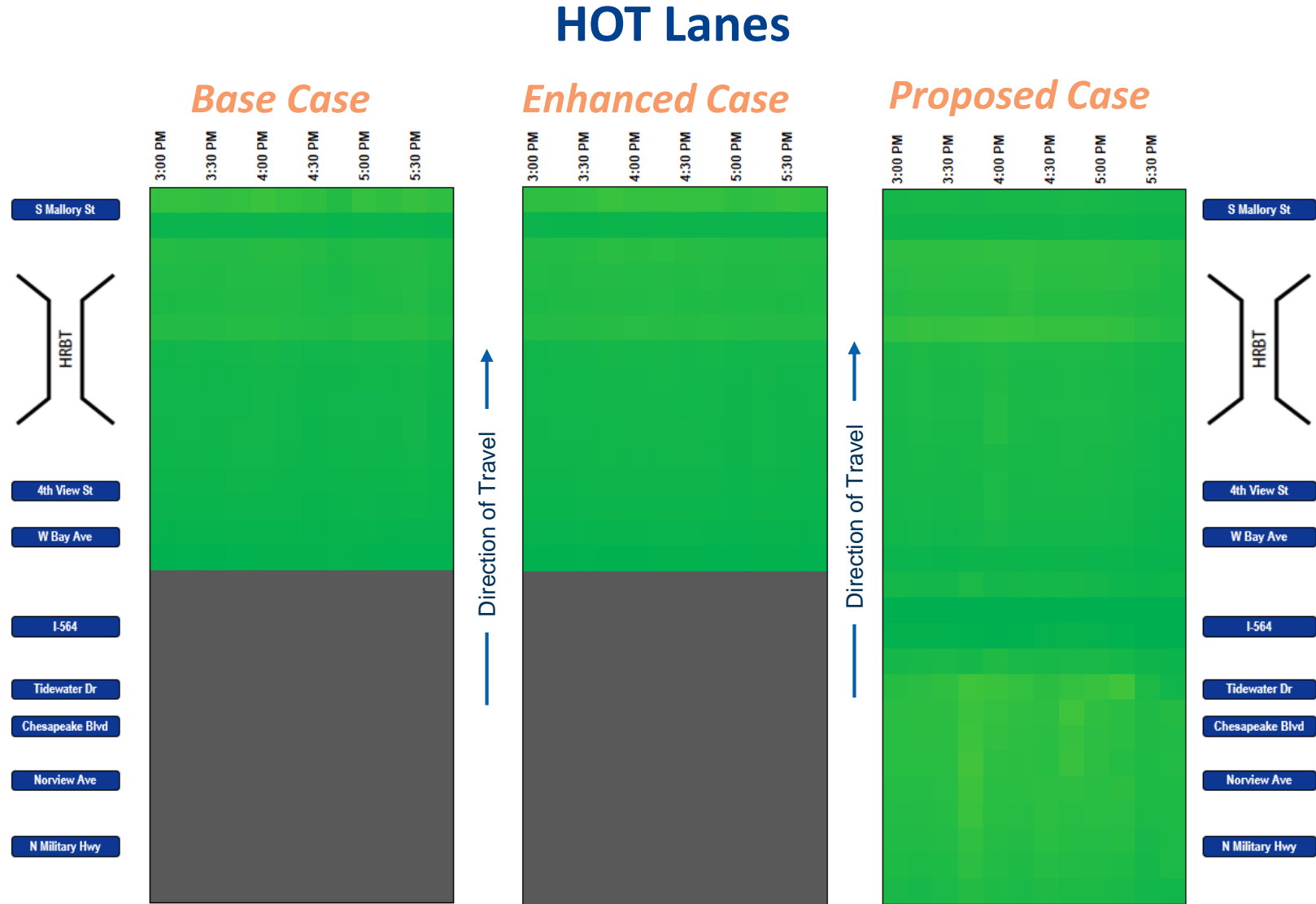
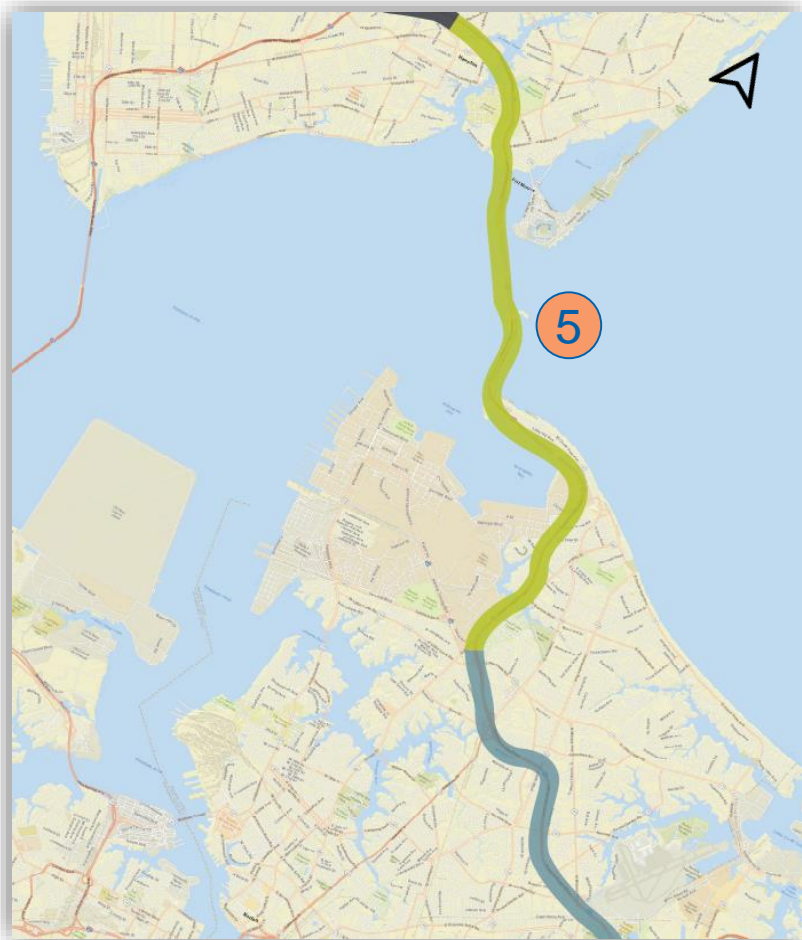
5 At HRBT Tunnel Entrance

General Purpose Lanes



5 Speed Comparison at HRBT (2025 PM I-64 WB)

5 At HRBT Tunnel Entrance



Next Steps

Tolling Policy

- **HOT2 vs HOT3**
- **Hours of Operation**

Financing of Proposed Scenario

- **Traffic & Revenue**
- **Costs of additional proposed improvements**