

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

STATE **FREIGHT** ADVISORY COMMITTEE

presented to

Members of the Committee

presented by

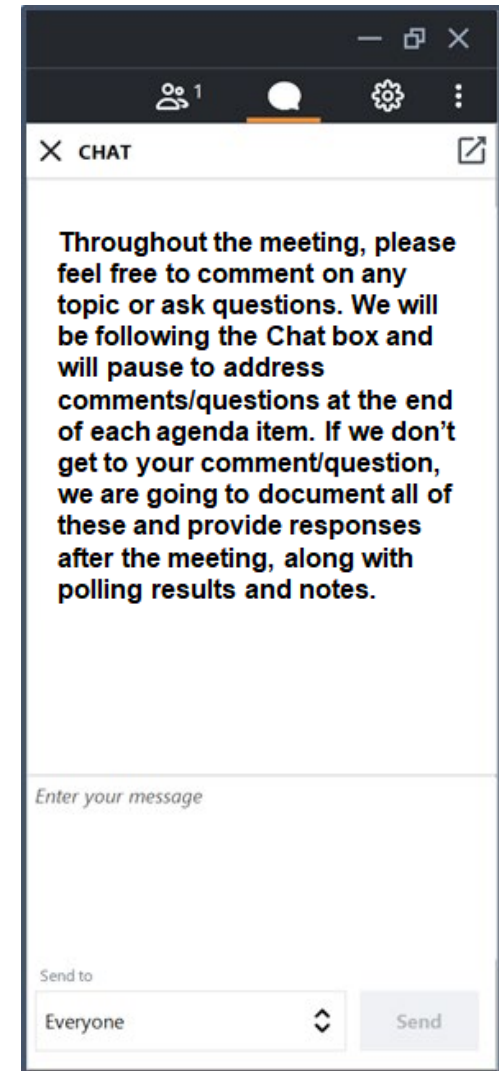
MDOT



WEDNESDAY, APRIL 5, 2023

MEETING LOGISTICS

- Keep your computer/phone on mute
- Please keep your video off until/unless you are presenting
- Use Teams Chat window to share questions/thoughts
- We will pause at the end of each agenda topic/presentation to address comments/questions as time allows
- For Chat comments we do not address, we will document all comments and provide responses in meeting notes



WELCOME & HEADLINES

John Thomas (JT)

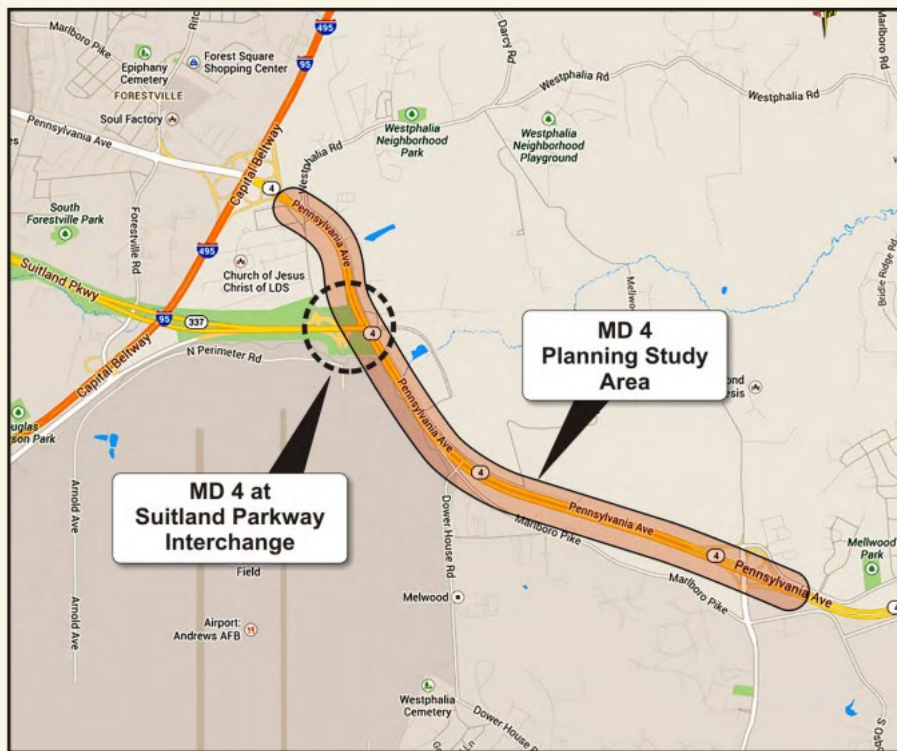
Maryland Department of Transportation



STATE **FREIGHT** ADVISORY COMMITTEE

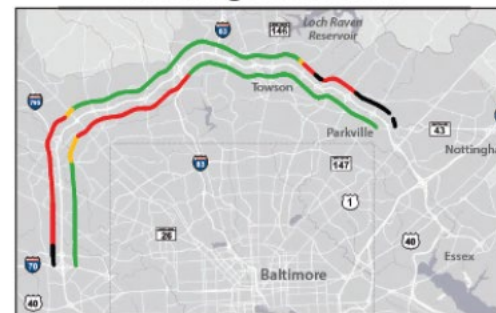
NHFP FUNDING PROJECTS IN MARYLAND

National Capital Parks - East Suitland Parkway



RUSH HOUR CONGESTION

Morning Rush Hour



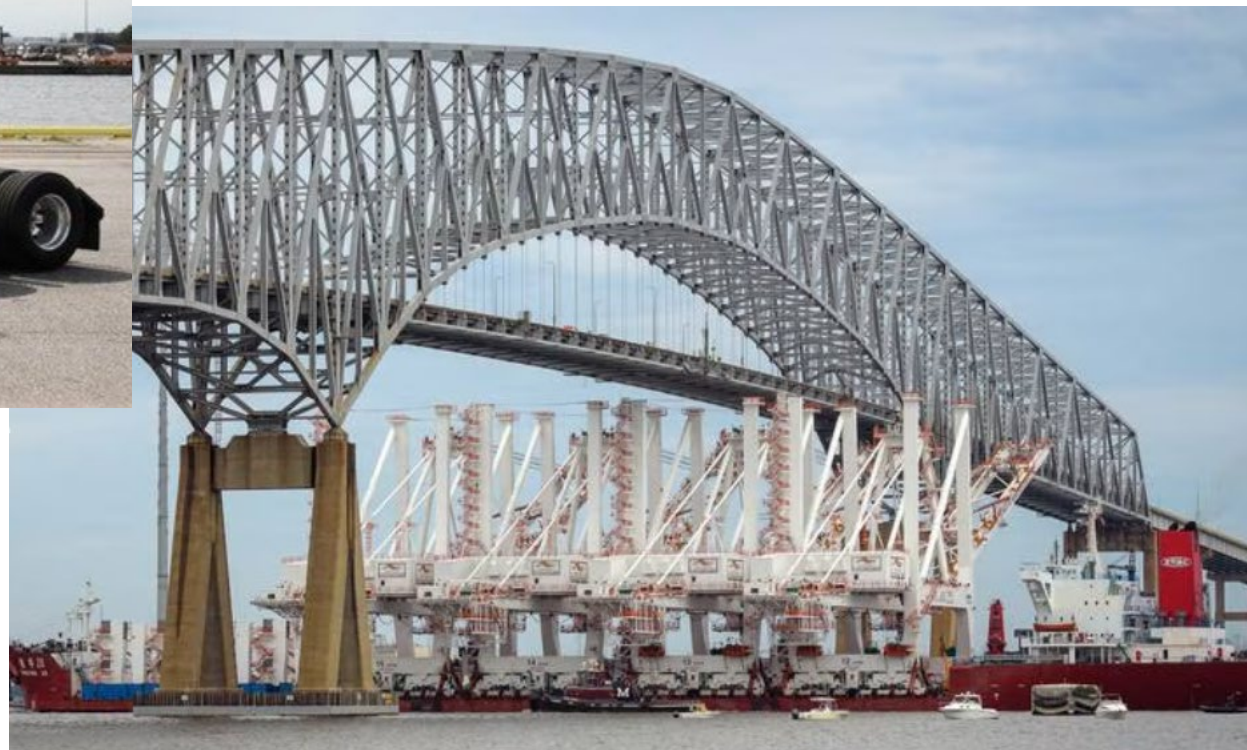
Evening Rush Hour



(based on travel time index)



THE PORT OF BALTIMORE

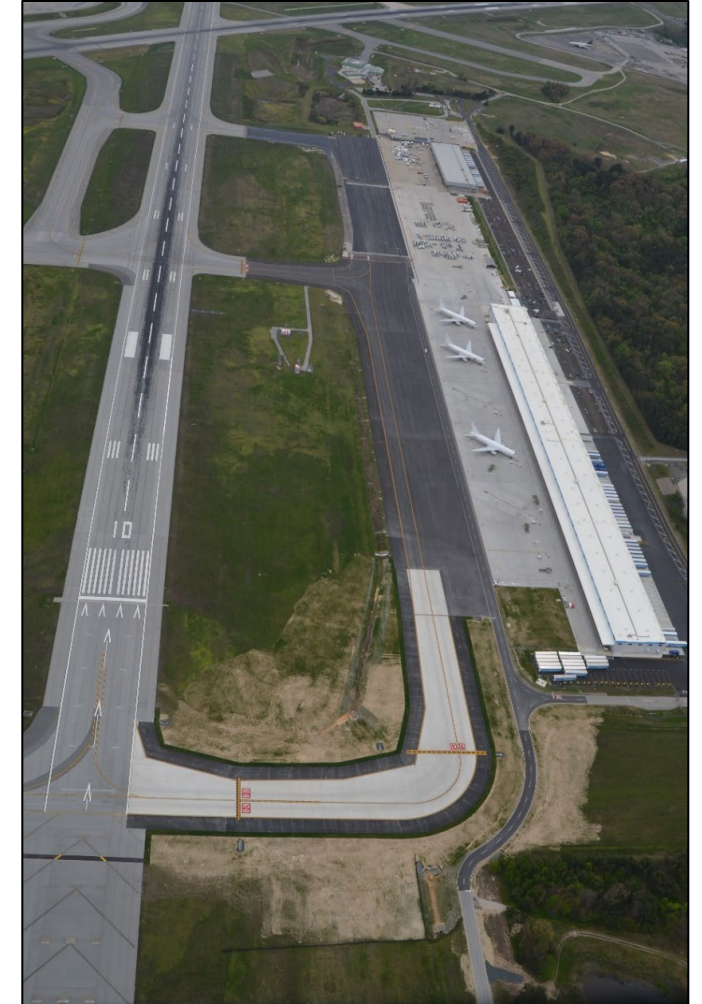


AIR CARGO



“Amazon’s Baltimore location is one of the top 5 busiest Amazon Air facilities in the world.”

(WJZ-13, 6/8/21)



IMPLEMENTING MARYLAND FREIGHT PLANS

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

State **Freight** Plan

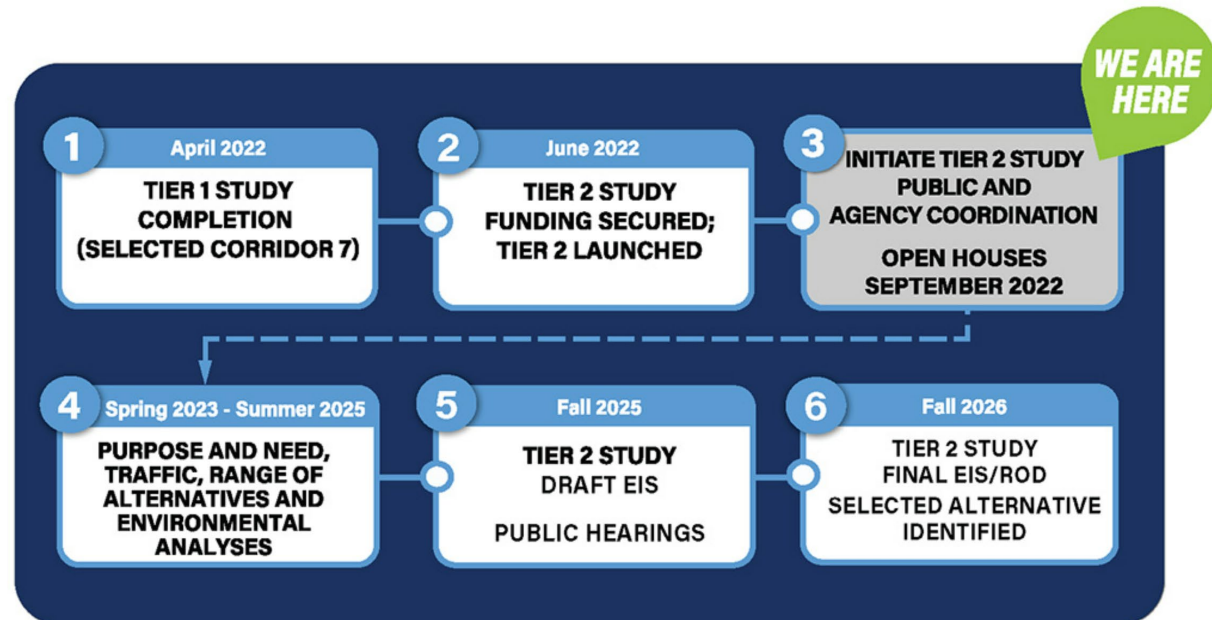
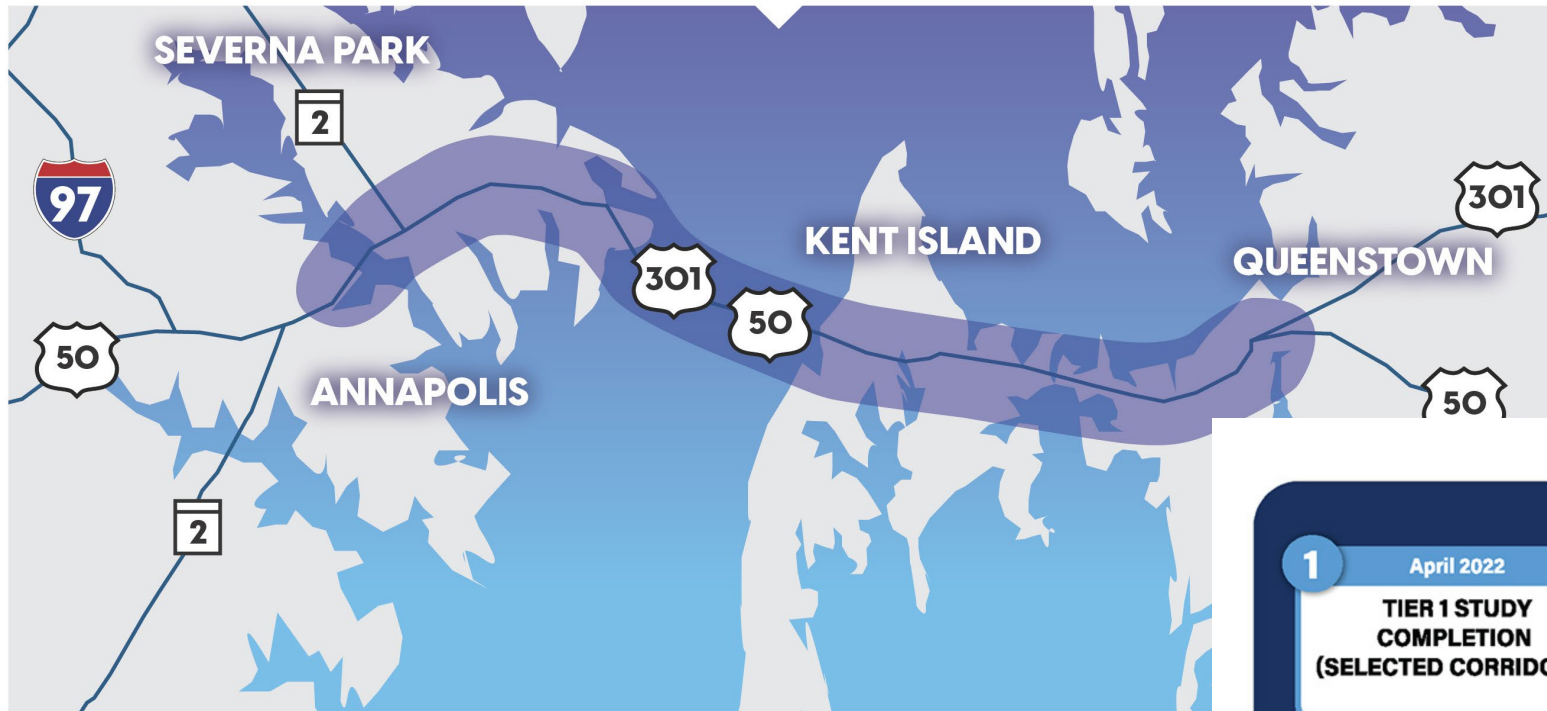


Maryland State Rail Plan

August 2021



BAY CROSSING STUDY TIER 2 NEPA



» [Source](#)



STATE OF THE PRACTICE



STATE **FREIGHT** ADVISORY COMMITTEE

Amtrak Susquehanna River Rail Bridge Project

Jason Hoover, Pete Mazzeo, Kevin Poad

Amtrak and HNTB





Amtrak Susquehanna River Rail Bridge Project

Maryland State Freight Advisory Committee

Project Update

April 5, 2023



Agenda

- Introductions
- Project Description and Scope
- Project Status
- Design Overview
- Next Steps
- Q&A



Introductions

- Jason Hoover – Amtrak Assistant V.P. – Bridges (Interim Project Manager)
- Pete Mazzeo – HNTB Project Manager
- Kevin Poad – HNTB Deputy PM – Civil Engineering



America's Railroad[®]

- Congress created Amtrak in 1970, and the company began operations in 1971



People

32.5 million
annual passengers
supported by **18k**
employees*



Places

500+ destinations
across **46 states,**
DC and **3 Canadian**
provinces (21k route
miles)*

*2019 data



Productivity

\$3.3 billion in annual
revenue and an
additional **\$7.1 billion** in
economic impact*

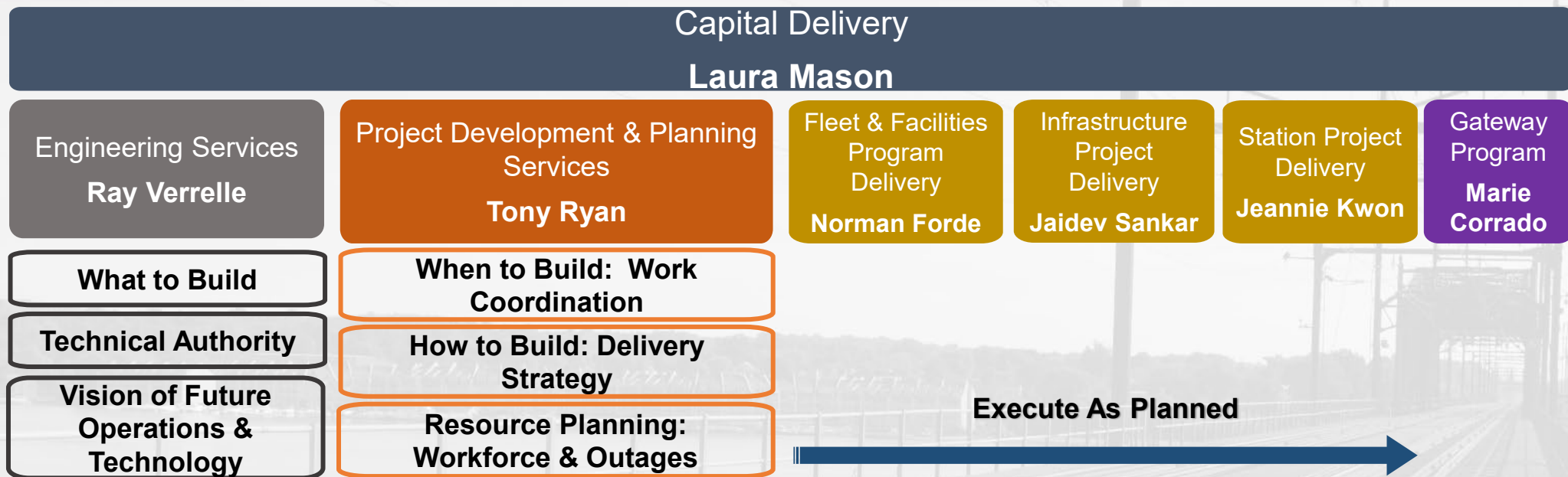
Opportunity for Generational Investment

- The Infrastructure Investment and Jobs Act (IIJA) provides **\$66 billion over five years** in advance appropriations for intercity passenger and freight rail, including:
 - **\$22 billion for grants to Amtrak for new rolling stock; ADA stations; eliminating deferred capital backlog**
 - \$6 billion for Amtrak's Northeast Corridor (NEC) grant
 - \$16 billion for Amtrak's National Network grant
 - **\$36 billion for new FRA Federal-State Partnership for intercity passenger rail (IPR) grants**
 - Not more than \$24 billion for NEC projects (to support CONNECT NEC 2035)
 - At least \$12 billion for non-NEC capital projects (to expand or establish new intercity passenger rail service, including high-speed service; to achieve / maintain a state of good repair; or to improve performance)
 - **\$8 billion for broad rail program for passenger, freight, and safety**
 - \$5 billion for Consolidated Rail Infrastructure and Safety Improvements (CRISI) grants
 - \$3 billion for a new Railroad Crossing Elimination grant program

Amtrak has two major goals for using increased funding:

1. Address our backlog of capital projects and build the infrastructure required for America's *future* transportation needs
2. Expand our network to help fight climate change and offer more equitable transportation access to underserved communities

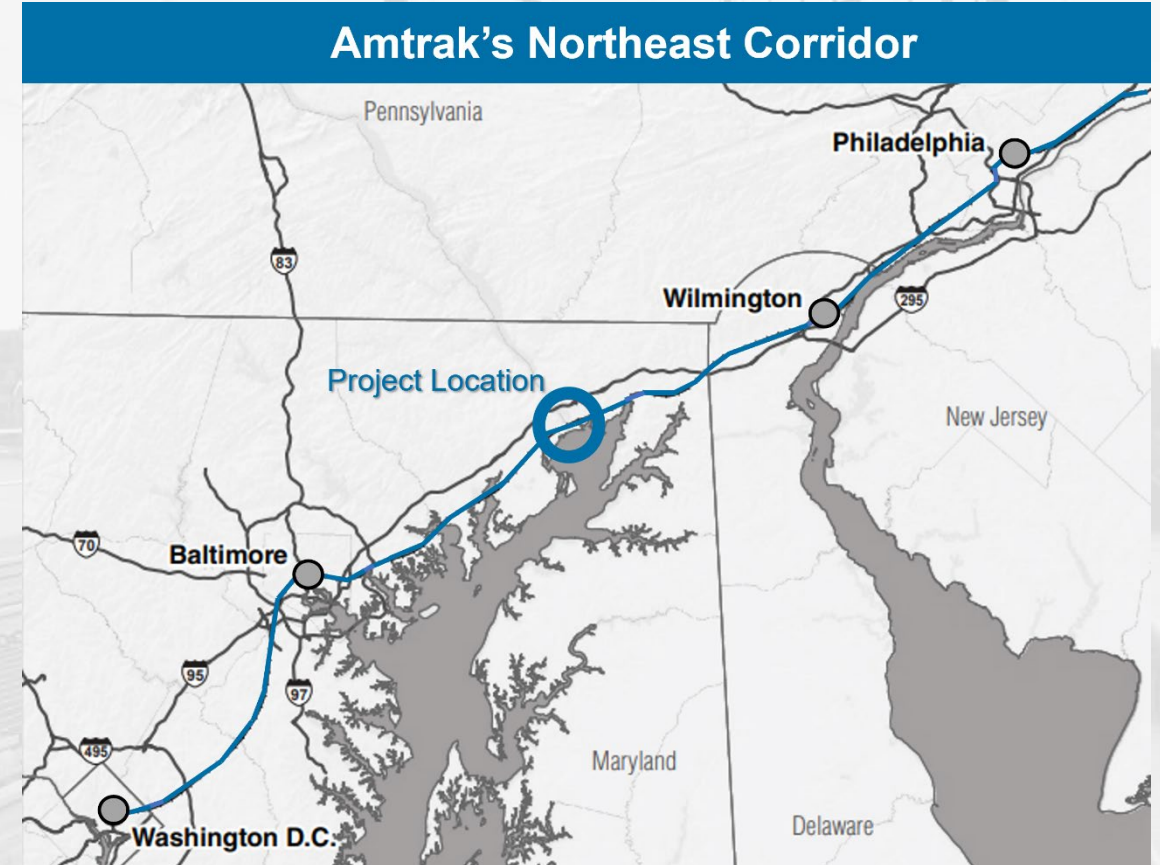
Opportunity for Generational Investment



- New Department established with core “business” of capital project delivery
 - Build world class delivery capability and credibility
 - Holistic approach to **effectively** and **efficiently** planning and execution of \$6.5 billion average annual program
 - Improve project outcomes: **safely** deliver **quality** assets **as planned**
 - Increase visibility and accountability through enhanced processes and expertise
 - Expand Competition to Optimize Implementation Solutions

Project Description and Scope

- Replaces existing 2-track bridge with 2 new 2-track bridges
- Five route miles of track realignment and reconstruction
 - 3 Interlockings
 - 2 Tracks dedicated high speed for Amtrak
 - 2 Tracks primarily for MARC and freight service (Norfolk Southern)
- Modernizing and improve track, catenary and signals for higher speeds



Existing Bridge

- 1906 two-track bridge
- Through-truss swing span
- 17 pin-connected deck truss spans
- 90 mph speed limit
- Functionally obsolete
- Escalating maintenance costs
- Inefficient operational costs
- Marine traffic opening delays



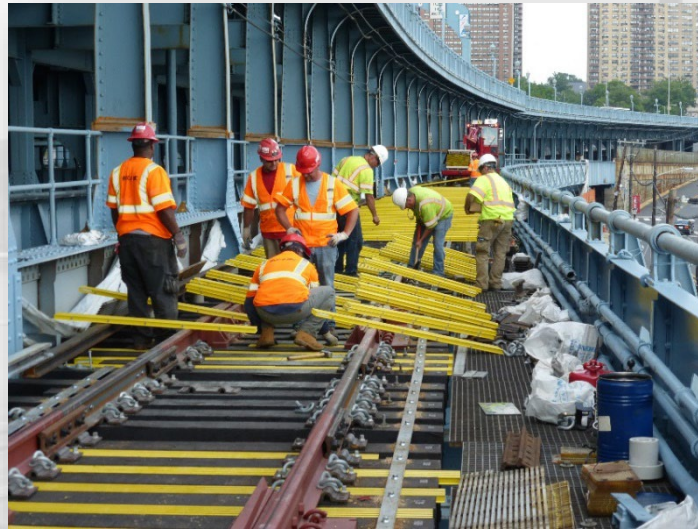
Existing Operations

- Supports 3 Railroads
 - Amtrak – 80 to 90 trains per day
 - MARC – 12 to 14 trains per day
 - Norfolk Southern – 8 to 10 trains per day
- CSX has operational rights



Project Benefits

- Improves
 - Reliability
 - Passenger comfort
 - Trip times and frequency
- Reduces
 - Operating and maintenance costs
 - Highway congestion
- Provides future increased capacity for both passenger and freight



Project Benefits

- Aligns with NEC Futures Program/Next Gen HSR
- Separates MARC/freight (100 mph)
- Provides high-speed tracks for Amtrak (160 mph)
- State of good repair
- Greater flexibility for river traffic

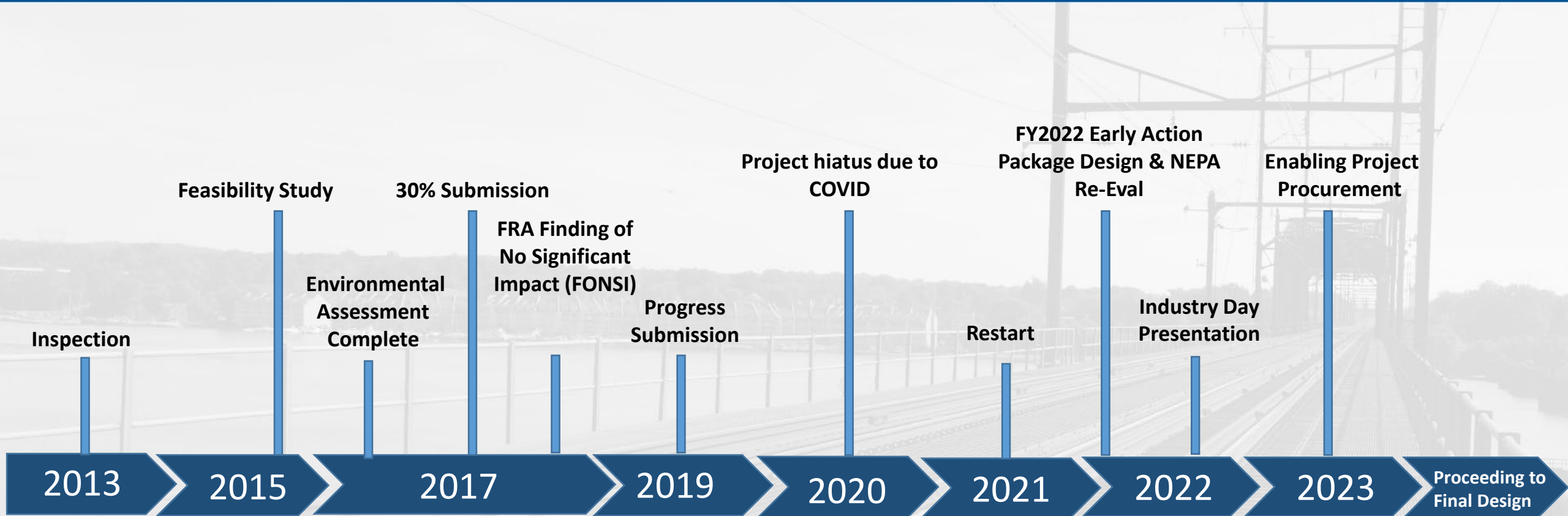


Project Considerations – The Railroad

- Maintain rail operations (staging)
- Working near active, electrified tracks (work windows)
- Contractor - force account integration
- Early packages/long lead items
- Track Profile for freight



Project Status



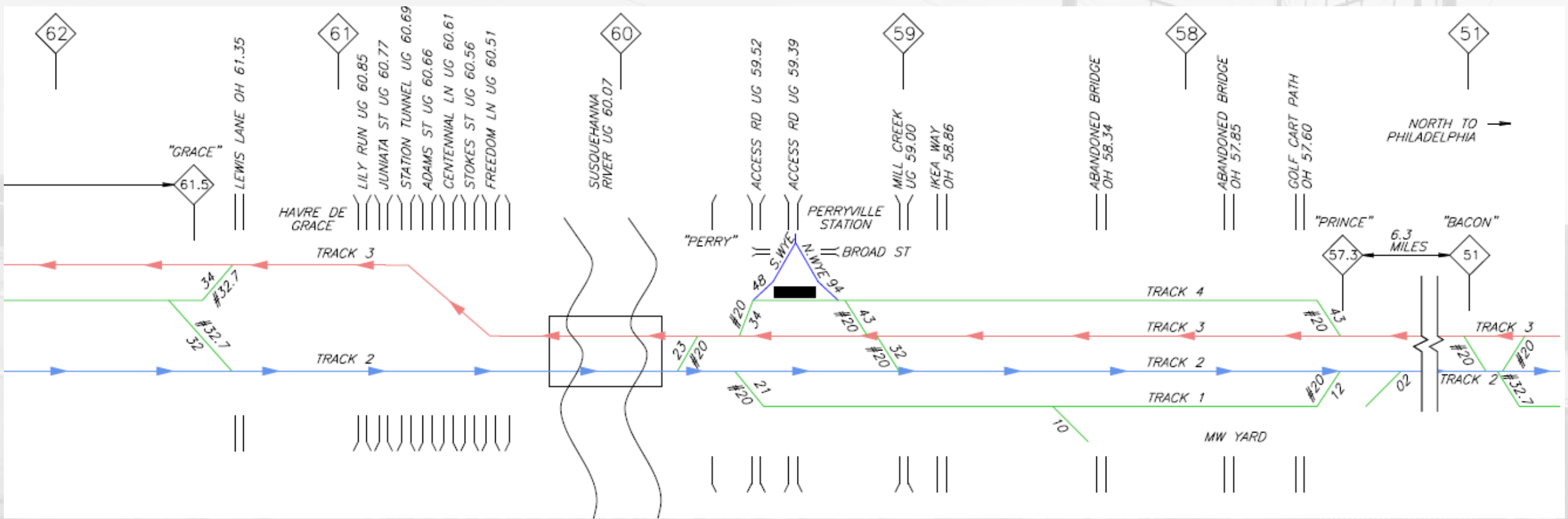


Design Overview

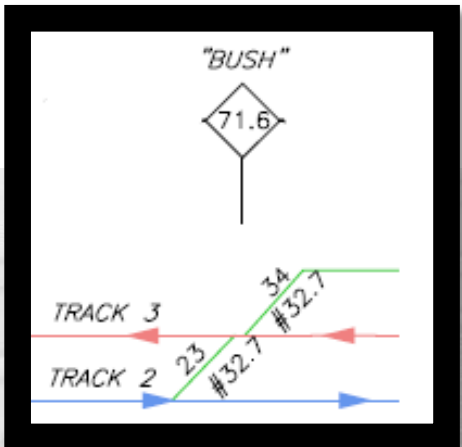
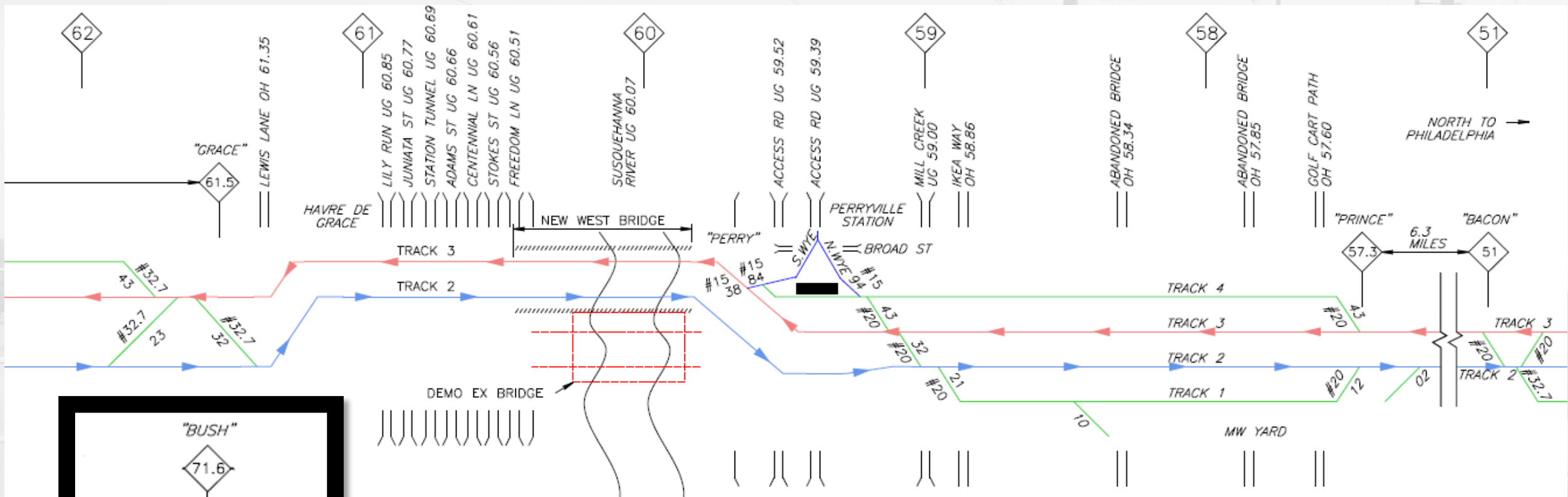
Design Overview – Phasing

- Existing
- Phase 1
 - New west bridge and approaches
 - Cut-over
 - Demolition of existing bridge
- Phase 2
 - New east bridge and approaches
 - Cut-over

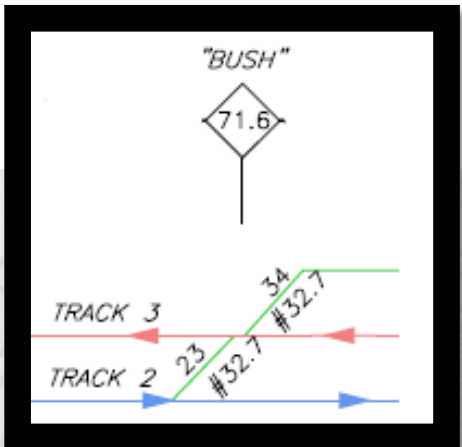
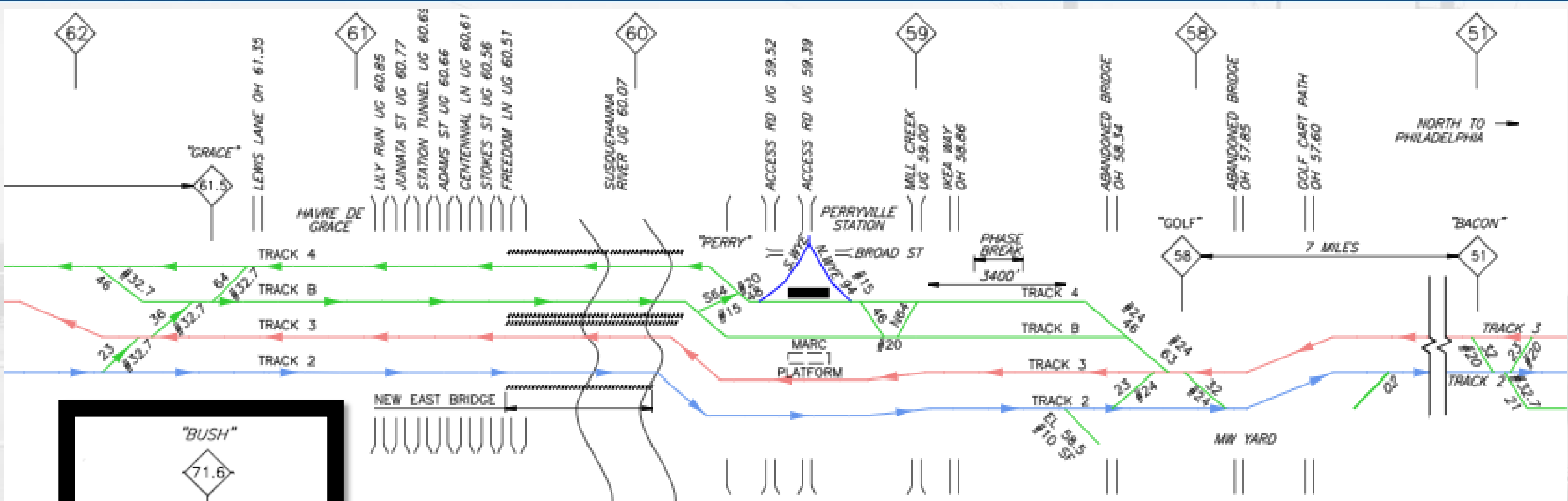
Phasing – Existing



Main Project - Phase 1 (West Bridge)



Main Project - Phase 2 (East Bridge)



The New Bridge



Next Steps

Proposed Construction Schedule

- Early Action Projects 2023 and 2024
- Phase 1
 - 2025 - Begin construction of the West Bridge
 - 2030 - Open West Bridge/Begin demo of existing bridge
- Phase 2
 - 2031 - Begin construction of East Bridge
 - 2036 - Expected completion



Project Next Steps

- FRA Update (NEPA)
 - Following the Programmatic Agreement requirements
- Public Outreach
 - Public Contacts:
 - Email: SRBProject@amtrak.com
 - Website: www.amtrak.com/susquehanna-river-rail-bridge-project
- Early Action Package Procurement and Construction
- Real Estate Activities
- Project Final Design
 - Bridge Replacement Permit anticipated to submit summer 2023
 - Anticipate completing Final Design by late 2024
 - Procurement in 2025

Q&A





Thank You

Amazon Air Cargo

Ali Faddis
Amazon Global Air Safety and Operations

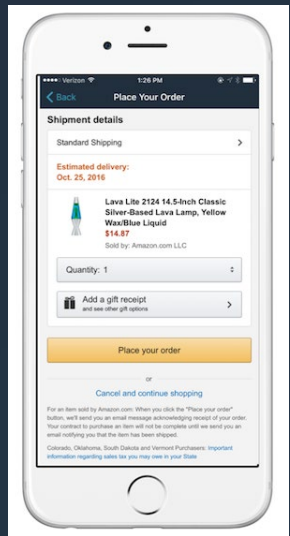


Amazon Air (AIR): Bringing Customers a Wider Selection Faster



What is AIR?

Amazon is not a certificated carrier; AIR uses multiple contract carriers to operate our aircraft to bring speed and selection to customers.



Customer places order



Fulfillment Center



Middle Mile Transportation

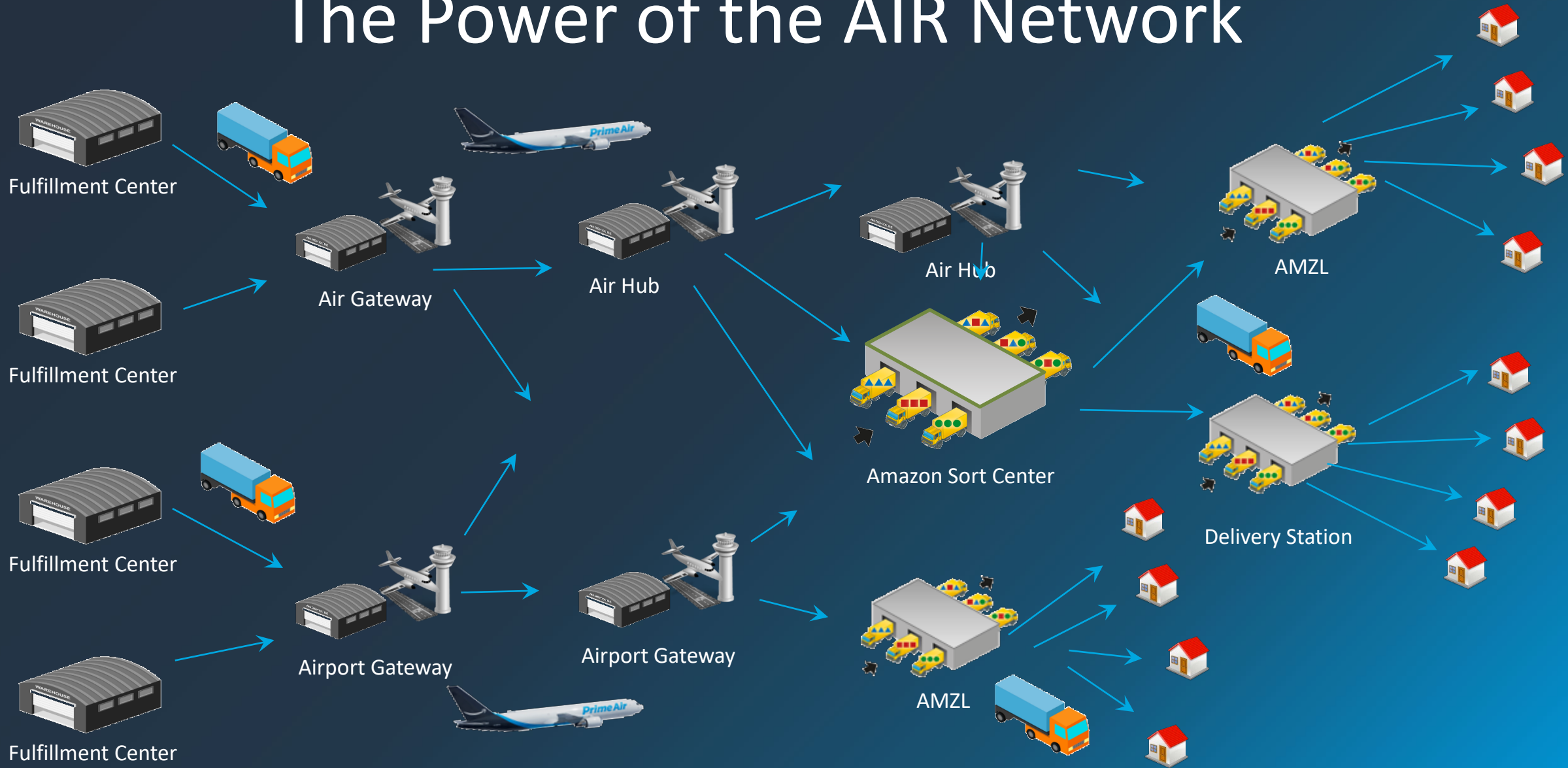


Sort Center or Delivery Station



Deliver to Customer

The Power of the AIR Network



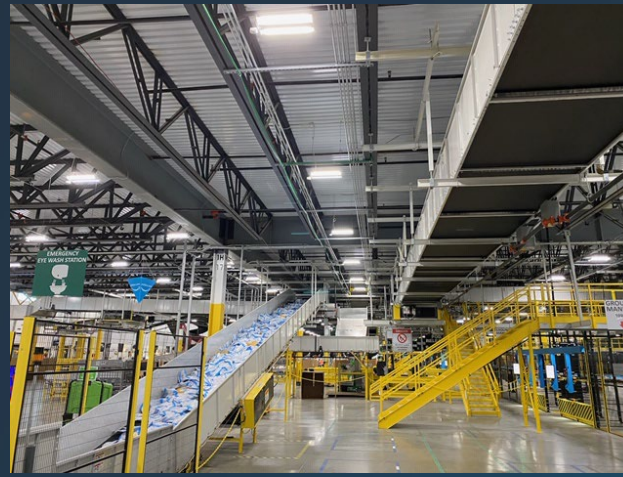
AMAZON AIR FLEET

Global Fleet Includes:

- B767s
 - B7373s
 - ATR-72s
 - Airbus A330 300s (entering our network EOY)
- There are more than 110 aircraft in our global fleet that fly to over 70 destinations across the world.
 - Carriers who operate on AIR's behalf: ABX, ATI, Atlas, Silver, Sun Country and Hawaiian Airlines will begin operating 10 A330 aircraft leased by Amazon in late 2023.



AIR Infrastructure Investments Across the U.S. Including in RFD, CVG, LAL, AFW & SBD



Amazon's Canada Network

Canada
as of JUN 2022

YHM, YWG, YYC,
YVR, YEG and
YVR

8

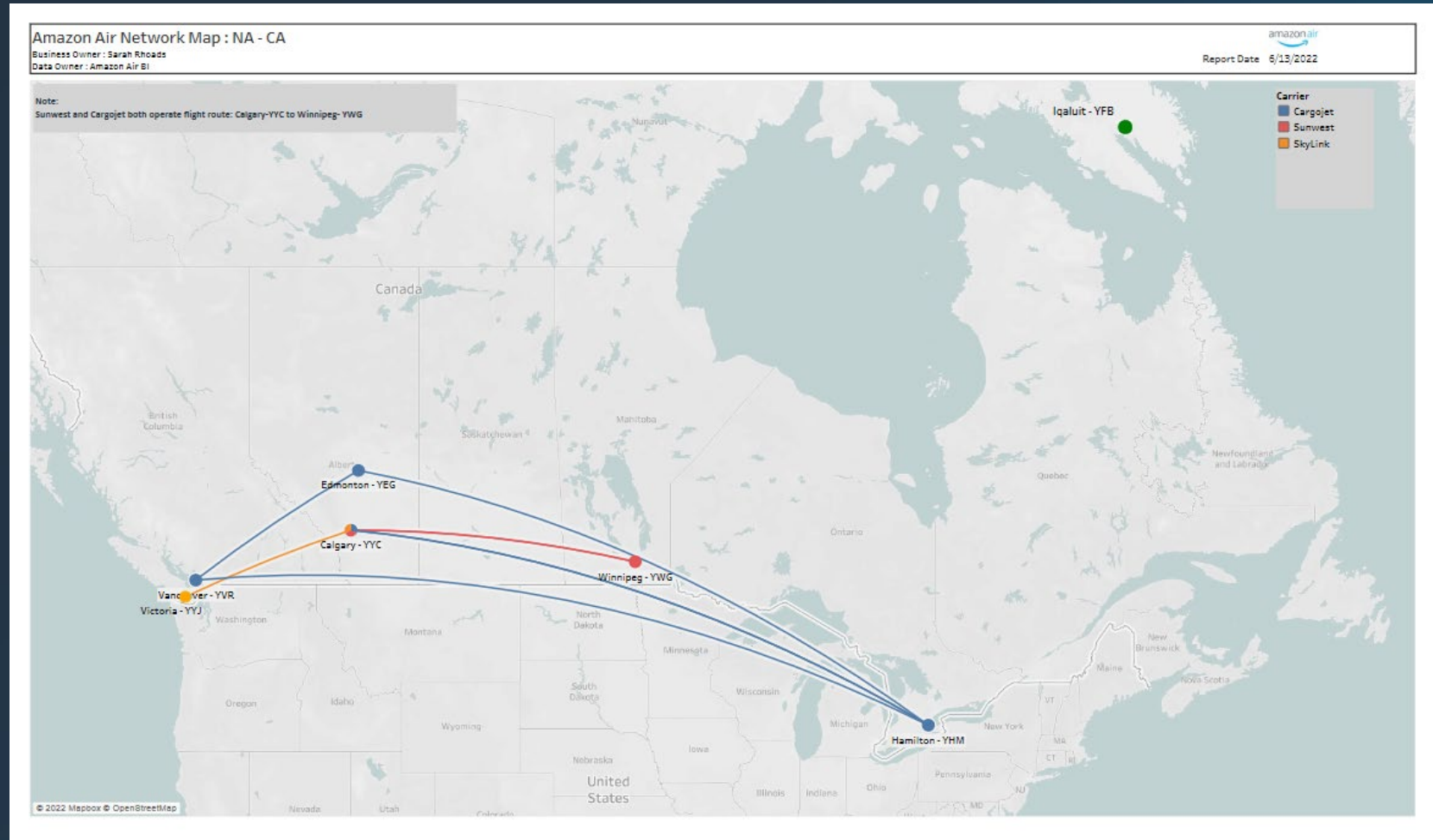
Scheduled
flights/day
(CAN)

Only CargoJet
flights are
dedicated

All flights
operate only
within Canada

3

Operators



Amazon's EU Network

EU+UK
as of JUN 2022

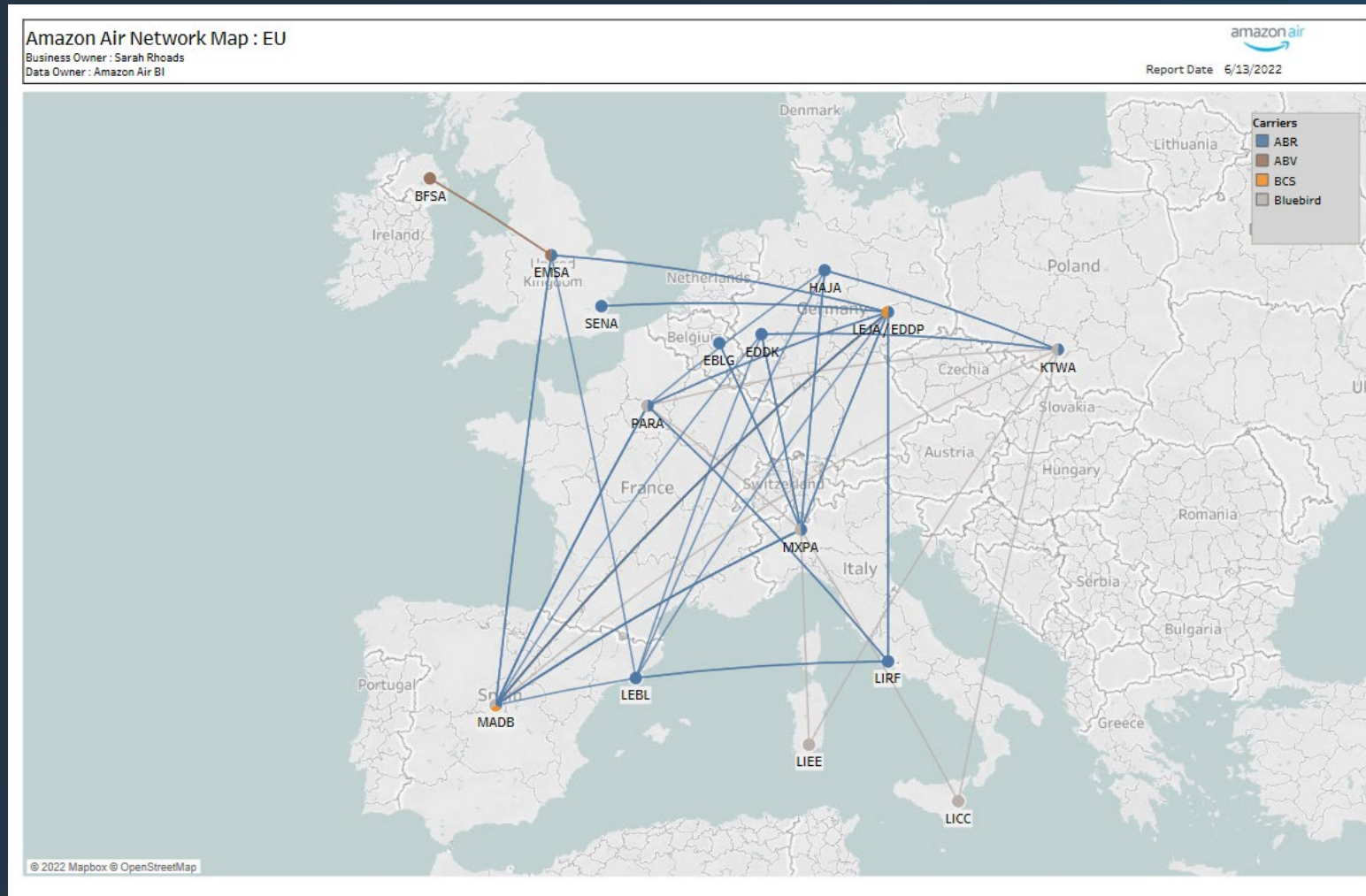
Hub at
Leipzig/Halle
(LEJ)

51
Scheduled
flights per day

15
Airports served

All flights
operate within
EU+UK

4
Operators



International Operations

AIR's role in international operations is:

Facilitating placement of inventory, serving:

- **Amazon Global Mile;**
- **Amazon Devices; and**
- **Amazon Web Services (AWS)**

And also

Working with the Amazon Fulfillment Network to partner for non-dedicated domestic operations including in Mexico, Japan, Australia, and Brazil



Amazon in Maryland

Amazon has invested widely in Maryland over more than a decade. Company wide:

- **Amazon has a significant presence in the state and near this site, including 3 fulfillment centers (BWI2 – ARS, DCA1 – ARS, DCA6 – TNS) in Baltimore City and Sparrows Point (Baltimore County), multiple sort centers in Baltimore City and Baltimore County, and 8 AMZL Delivery Stations across the state;**
- **\$9+ billion invested in Maryland since 2010, including infrastructure and compensation to employees;**
- **32,000+ full- and part-time jobs created in Maryland;**
- **31,000+ small and medium business sellers and independent authors in Maryland grow their businesses with Amazon.**

Infrastructure Issues in Trucking

Alex Leslie

American Transportation Research Institute



Infrastructure Issues in Trucking

Alex Leslie, Ph.D.
Research Associate
American Transportation
Research Institute

Board of Directors

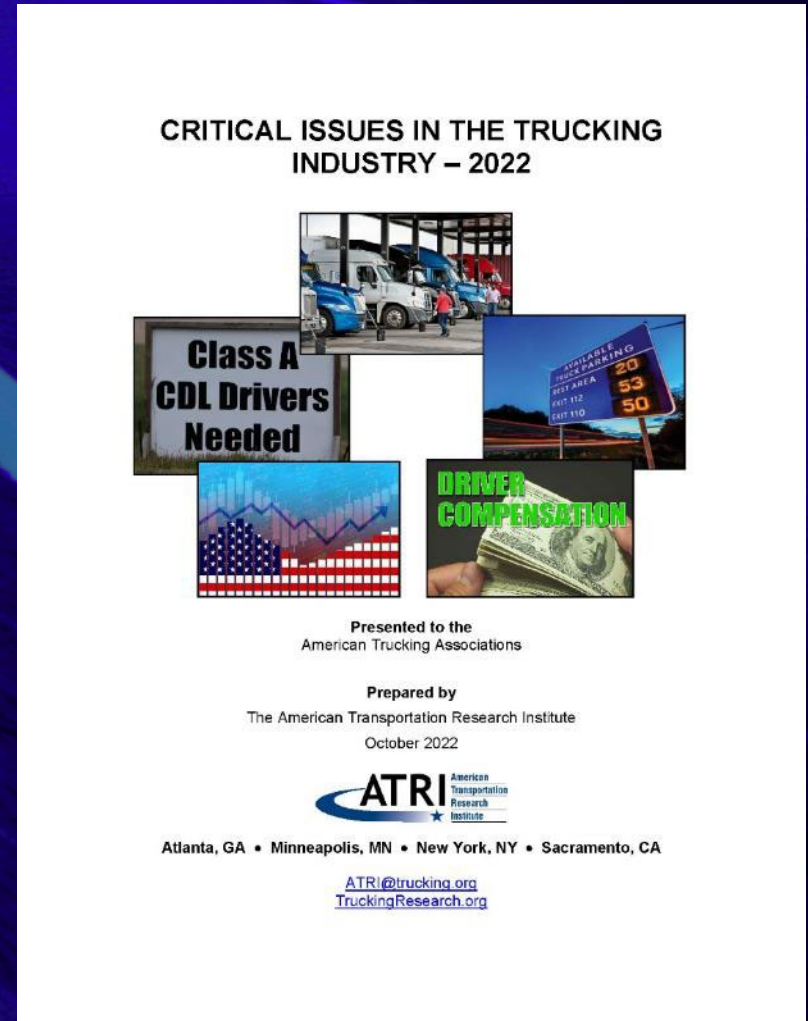


Research Advisory Committee



2022 Top Industry Issues

1. Fuel Prices (#8 in 2013)
2. Driver Shortage (1)
3. Truck Parking (5)
4. Driver Compensation (3)
5. Economy (#8 in 2020)
6. Detention / Delay at Customer Facilities (7)
7. Driver Retention (2)
8. Compliance, Safety, Accountability (6)
9. Speed Limiters
10. Lawsuit Abuse Reform (4)



The More Things Change...

2005	2022
1. Fuel Costs	1. Fuel Prices
2. Driver Shortage	2. Driver Shortage
3. Insurance Costs	3. Truck Parking
4. HOS	4. Driver Compensation
5. Tolls / Highway Funding	5. Economy
6. Tort Reform / Legal Issues	6. Detention / Delay at Customer Facilities
7. Overlapping / Burdensome Regulations	7. Driver Retention
8. Congestion	8. Compliance, Safety, Accountability
9. Environmental Issues	9. Speed Limiters
10. Truck Security	10. Lawsuit Abuse Reform

2022 Top Industry Issues

Rank	Commercial Drivers	Motor Carriers
1	Truck Parking	Driver Shortage
2	Fuel Prices	Driver Retention
3	Driver Compensation	Fuel Prices
4	Detention / Delay at Customer Facilities	Compliance, Safety, Accountability
5	Speed Limiters	Economy
6	Economy	Lawsuit Abuse Reform
7	HOS Rules	Insurance Cost / Availability
8	ELD Mandate	Diesel Technician Shortage
9	Driver Training Standards	Detention / Delay at Customer Facilities
10	Transportation Infrastructure / Congestion / Funding	Truck Parking

Operational Costs of Trucking

- Collects and analyzes real-world motor carrier operational data
- Covers data 2008-2021
- Calculates costs by mile and by hour
- Includes sector, regional analyses
 - ◆ TL, LTL, Specialized/Other
 - ◆ Small vs Large Fleets

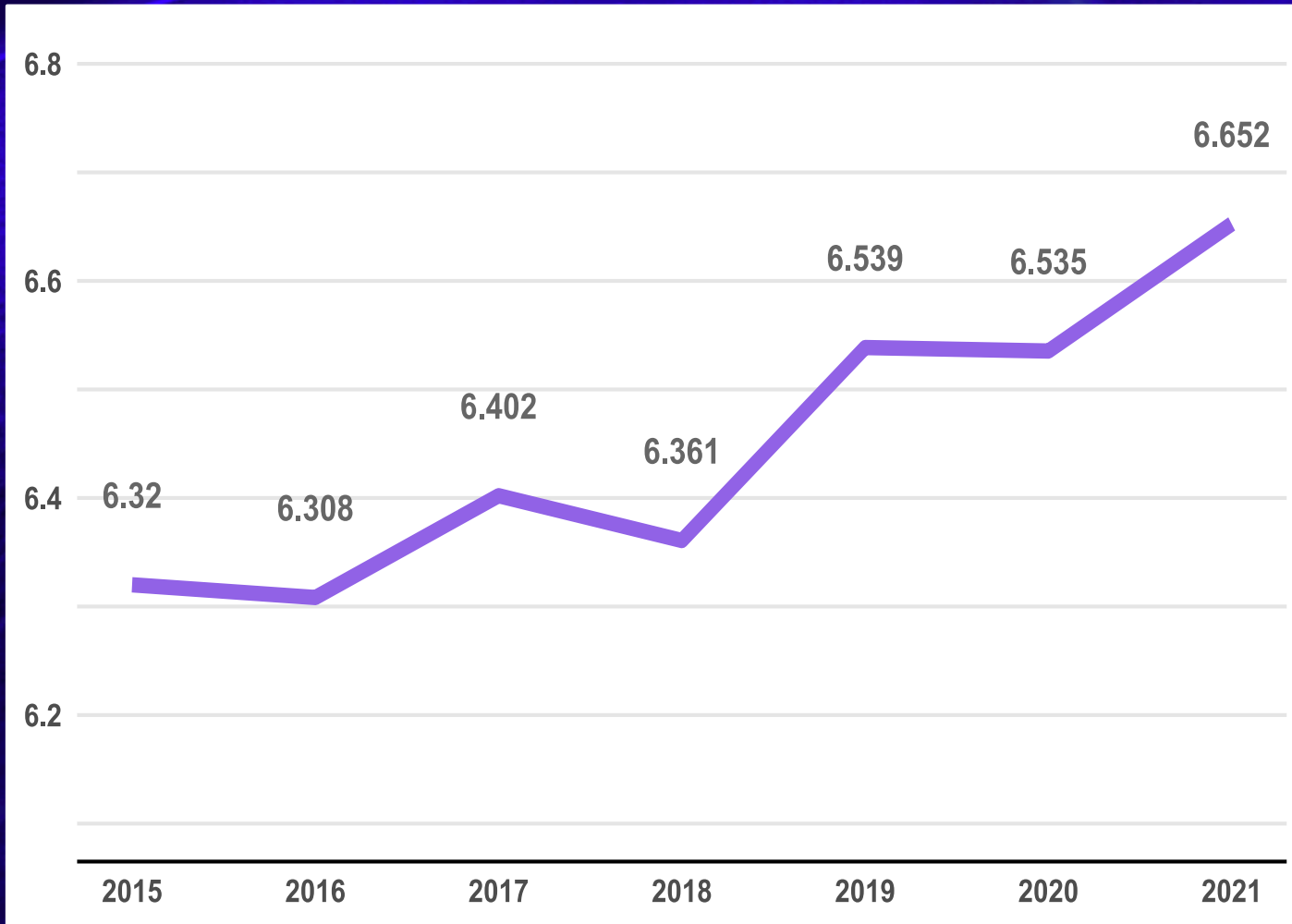


Operational Costs of Trucking

Average Carrier Costs per Mile

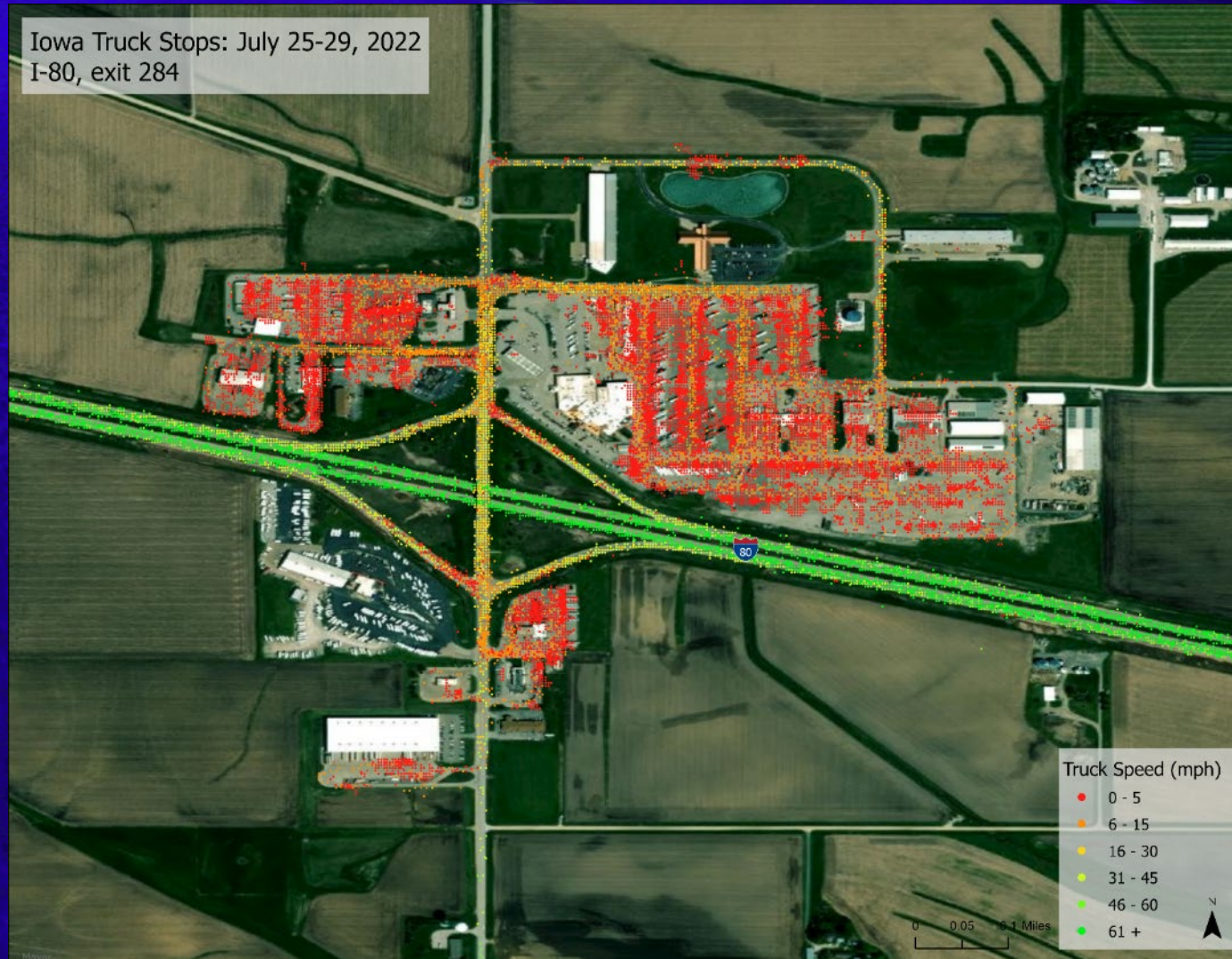
Motor Carrier Costs	2017	2018	2019	2020	2021
Vehicle-based					
Fuel Costs	\$0.368	\$0.433	\$0.384	\$0.308	\$0.417
Truck/Trailer Lease or Purchase Payments	\$0.264	\$0.265	\$0.256	\$0.271	\$0.279
Repair & Maintenance	\$0.167	\$0.171	\$0.149	\$0.148	\$0.175
Truck Insurance Premiums	\$0.075	\$0.084	\$0.071	\$0.087	\$0.086
Permits and Licenses	\$0.023	\$0.024	\$0.020	\$0.016	\$0.016
Tires	\$0.038	\$0.038	\$0.039	\$0.043	\$0.041
Tolls	\$0.027	\$0.030	\$0.035	\$0.037	\$0.032
Driver-based					
Driver Wages	\$0.557	\$0.596	\$0.554	\$0.566	\$0.627
Driver Benefits	\$0.172	\$0.180	\$0.190	\$0.171	\$0.182
TOTAL	\$1.691	\$1.821	\$1.699	\$1.646	\$1.855

Improved Efficiencies

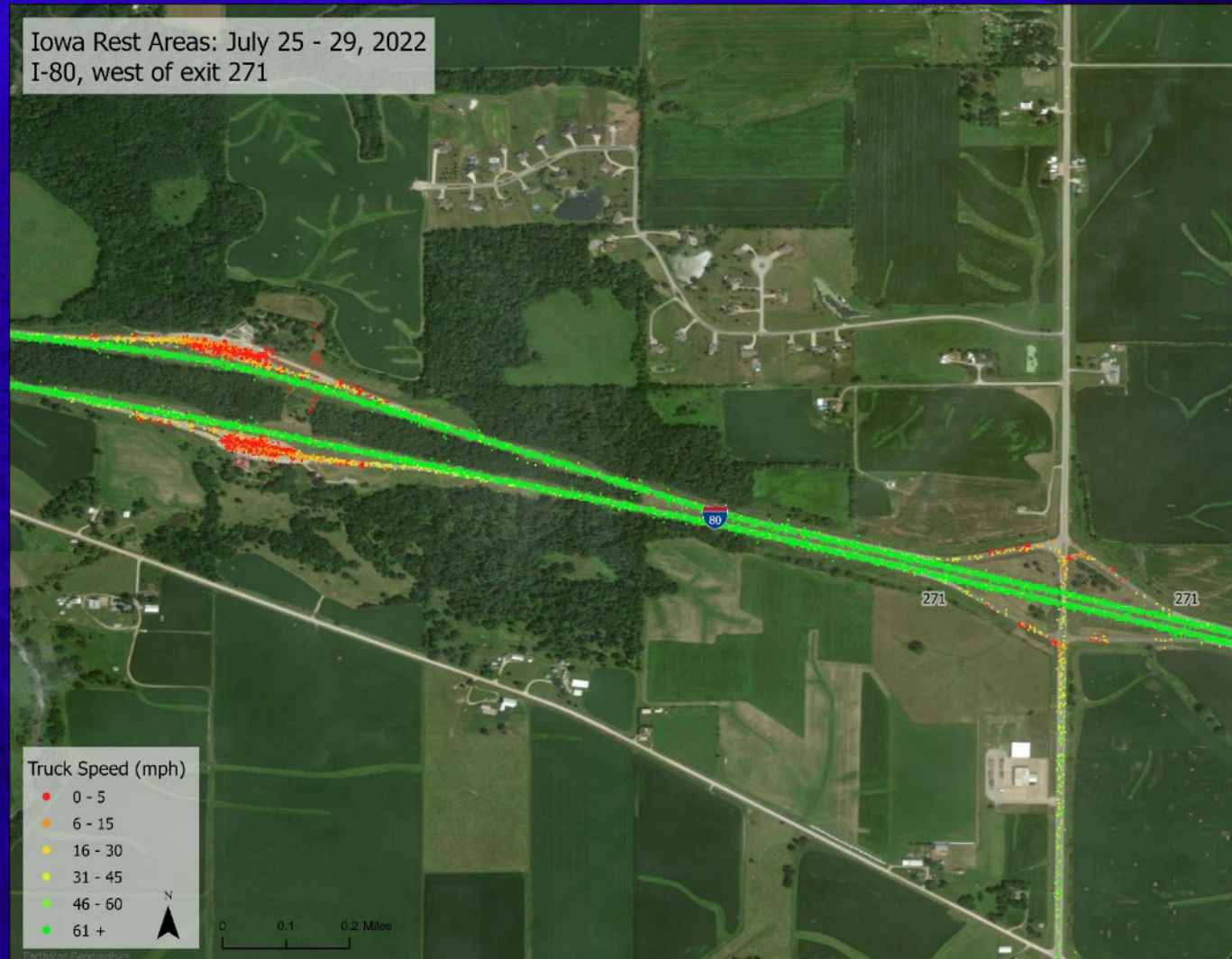


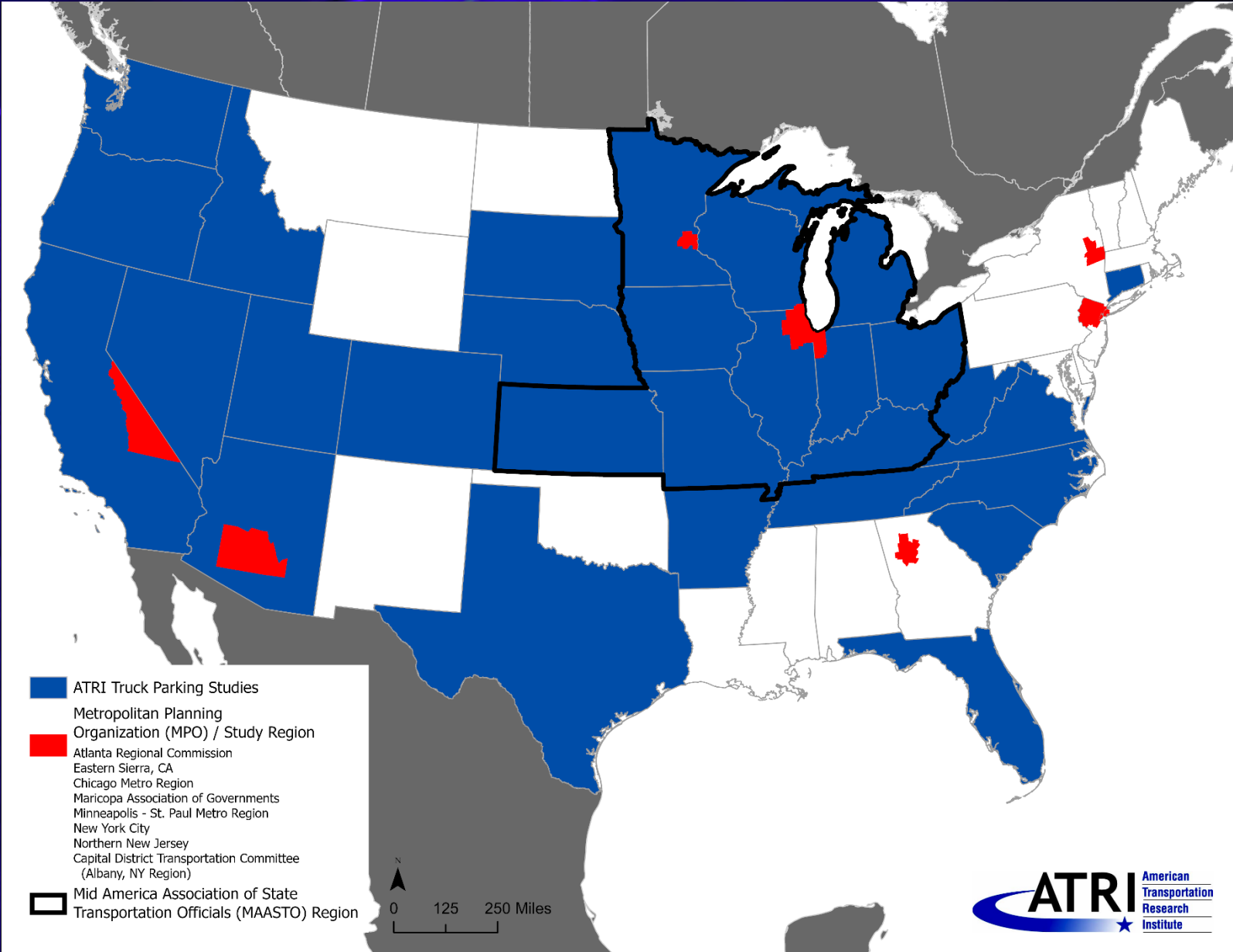
- **MPG on the rise (left)**
- **Deadhead mileage declined to 14.8%**
- **Trailers-per-truck ratio of 2.82 remained higher than in the 2010s**

No Vacancy – Truck Stop



No Vacancy – Rest Area





Truck Parking Challenges

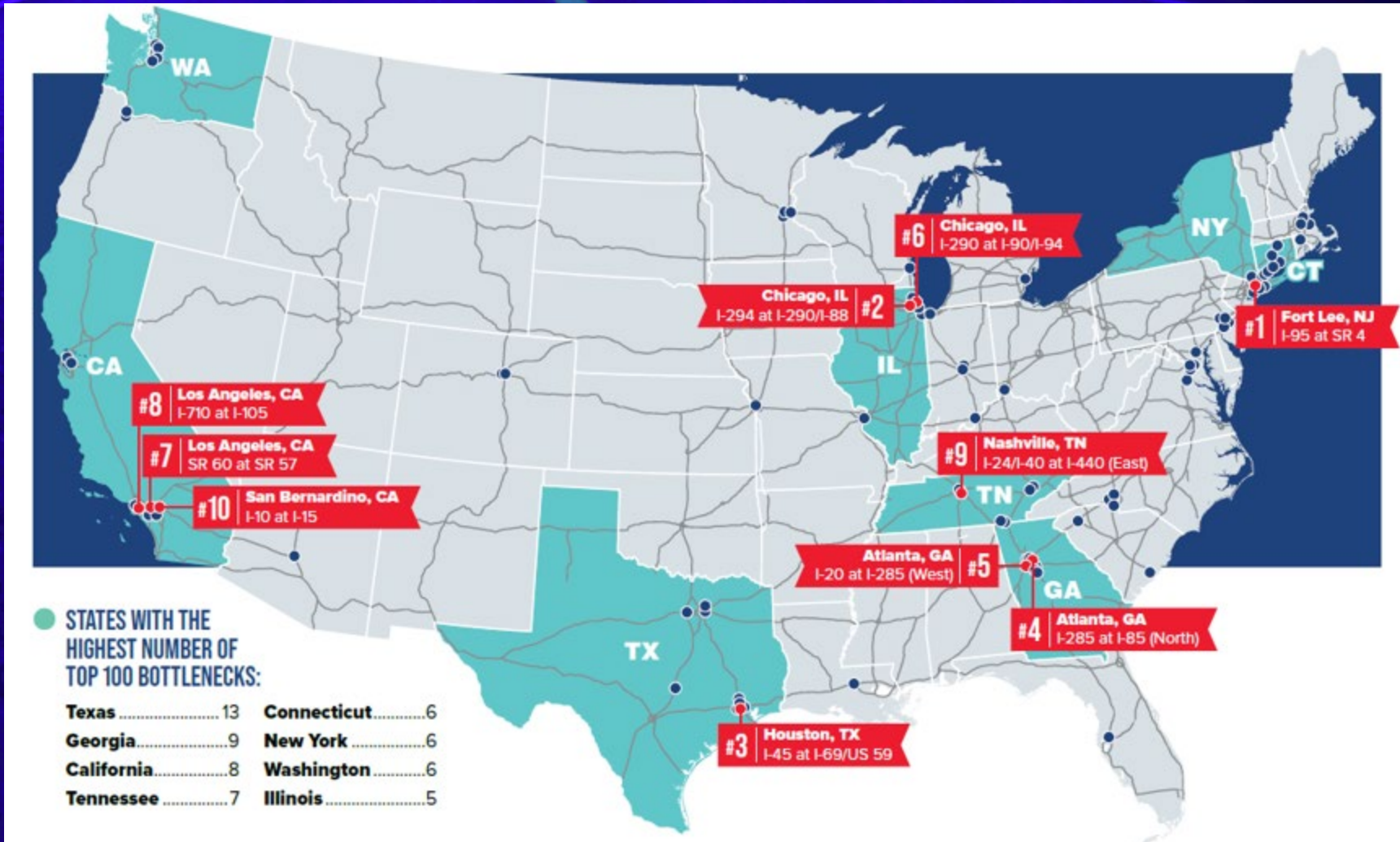
- Zoning laws
- Land expense (especially in urban areas)
- Accuracy/reliability of information on parking availability
- HOS
- Staging

Parking Costs

Sector	Advance Payment / Reservation	Reimburse	None
Truckload	14%	40%	46%
Specialized	8%	21%	71%

- Data from *Operational Costs of Trucking: 2022 Update*
- Up from a 2016 ATRI study that found only 15% of truck drivers had truck parking fees covered by carriers

2023 Top Truck Bottlenecks



2023 Top 10 Truck Bottlenecks

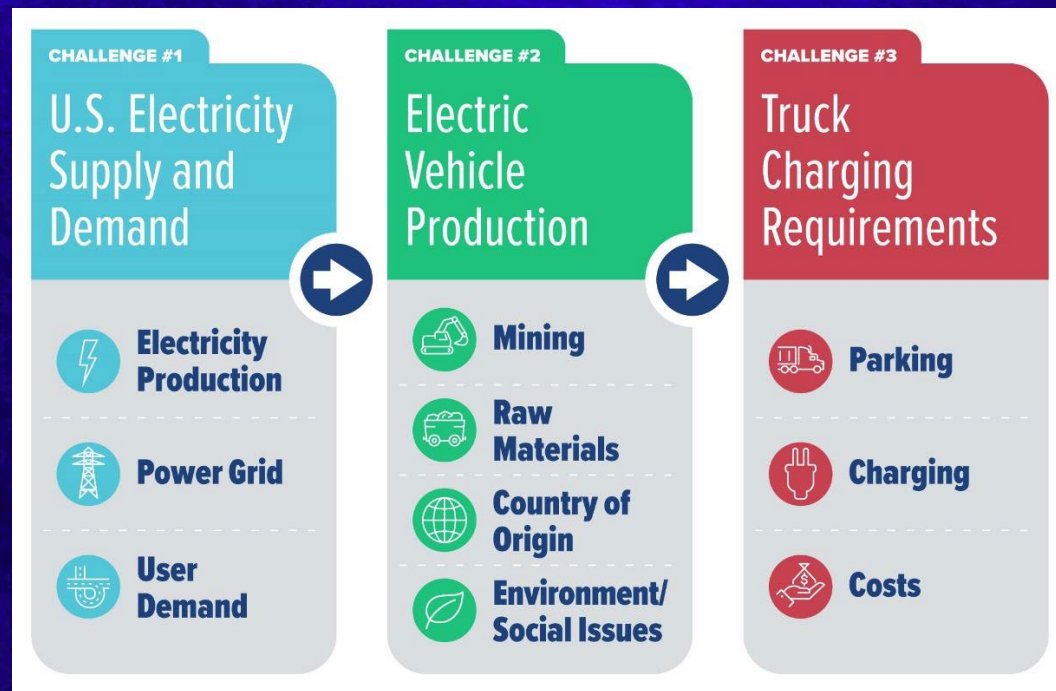
Rank	Location	Average Peak Speed	Y-o-Y Change in Average Peak Speed
1	Fort Lee, NJ: I-95 at SR 4	20.2	-9.9%
2	Chicago, IL: I-294 at I-290/I-88	37.8	-5.9%
3	Houston, TX: I-45 at I-69/US 59	21.7	-11.0%
4	Atlanta, GA: I-285 at I-85 (North)	28.5	-6.2%
5	Atlanta, GA: I-20 at I-285 (West)	36.3	-2.6%
6	Chicago, IL: I-290 at I-90/I-94	18.2	-10.3%
7	Los Angeles, CA: SR 60 at SR 57	35.7	-3.1%
8	Los Angeles, CA: I-710 at I-105	28.5	-32.6%
9	Nashville, TN: I-24/I-40 at I-440 (East)	30.6	-12.5%
10	San Bernardino, CA: I-10 at I-15	34.1	-4.6%

Maryland Bottlenecks

- **#79 – Washington, DC: I-95 at I-495 (North)**
- **#92 – Washington, DC: I-495 at I-270 (West)**
- **#97 – Baltimore, MD: I-695 at I-70**

Charging Infrastructure Challenges for the U.S. Electric Vehicle Fleet

- Analysis of three distinct challenges for EVs – with a focus on trucking



Charging Infrastructure Challenges for the U.S. Electric Vehicle Fleet

December 2022



Prepared by the American Transportation Research Institute

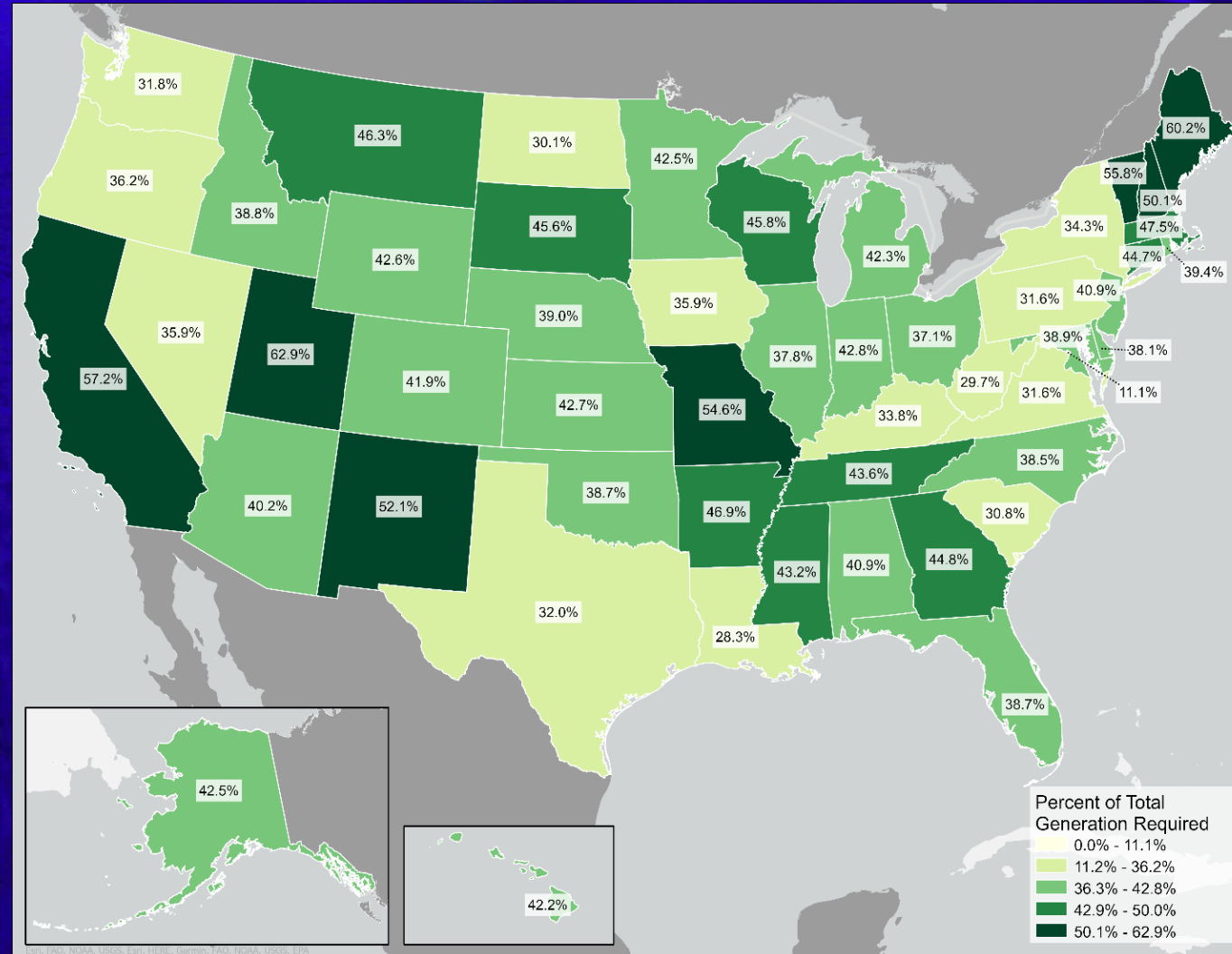


U.S. Electricity Supply and Demand

■ U.S. Vehicle Fleet

- ◆ **Autos: >253 million cars/light duty trucks**
 - **Electricity Needs: 1,039.9 billion kWh representing 26.3% of total U.S. consumption**
- ◆ **Trucks: >12 million medium- and heavy-duty trucks**
 - **Electricity Needs: 553.5 billion kWh representing 14% of U.S. consumption**
 - **10.6% for 2.95 million combo trucks**
- ◆ **Total: 1,593.8 billion kWh representing 40.3% of U.S. consumption**

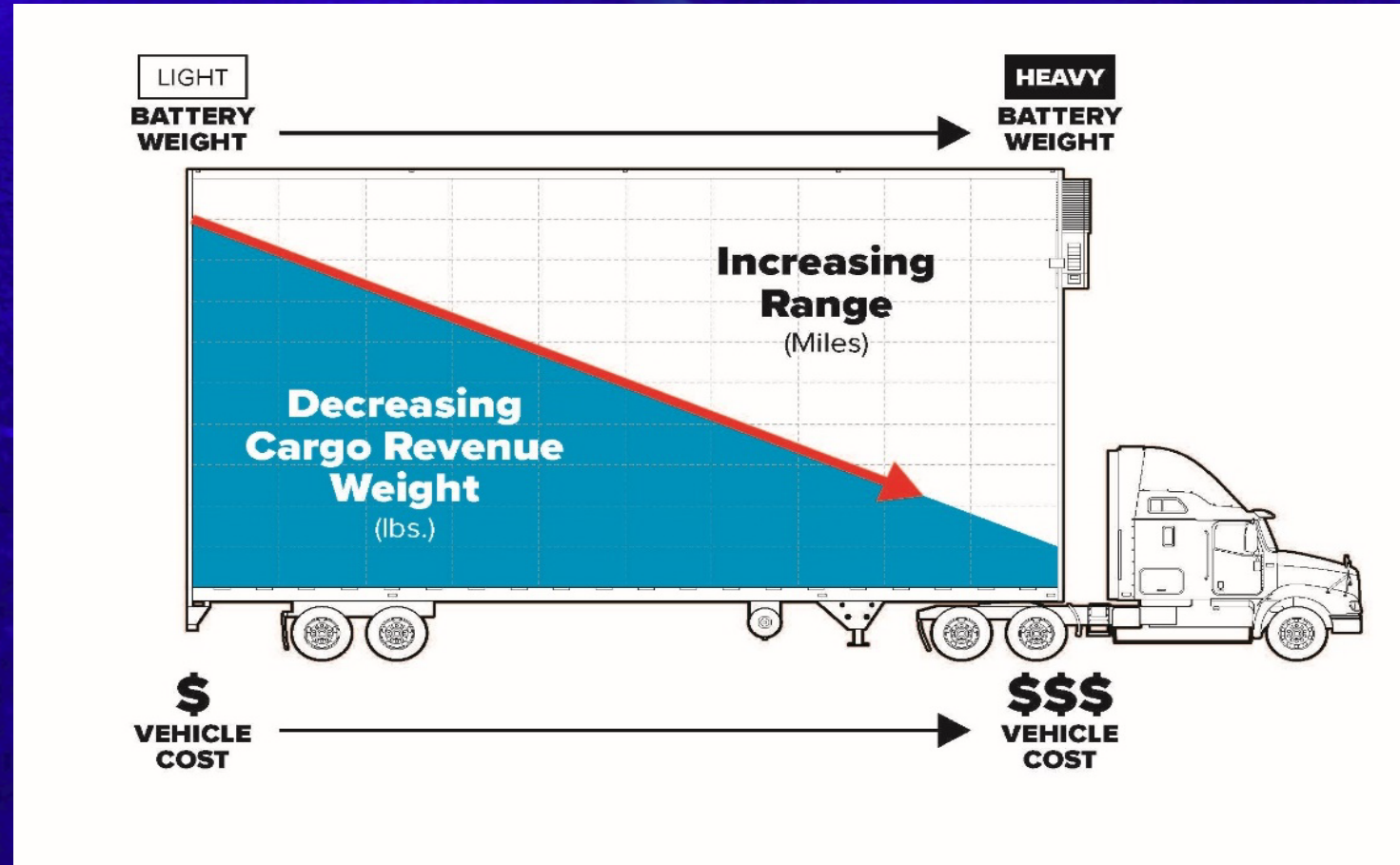
U.S. Electricity Supply and Demand



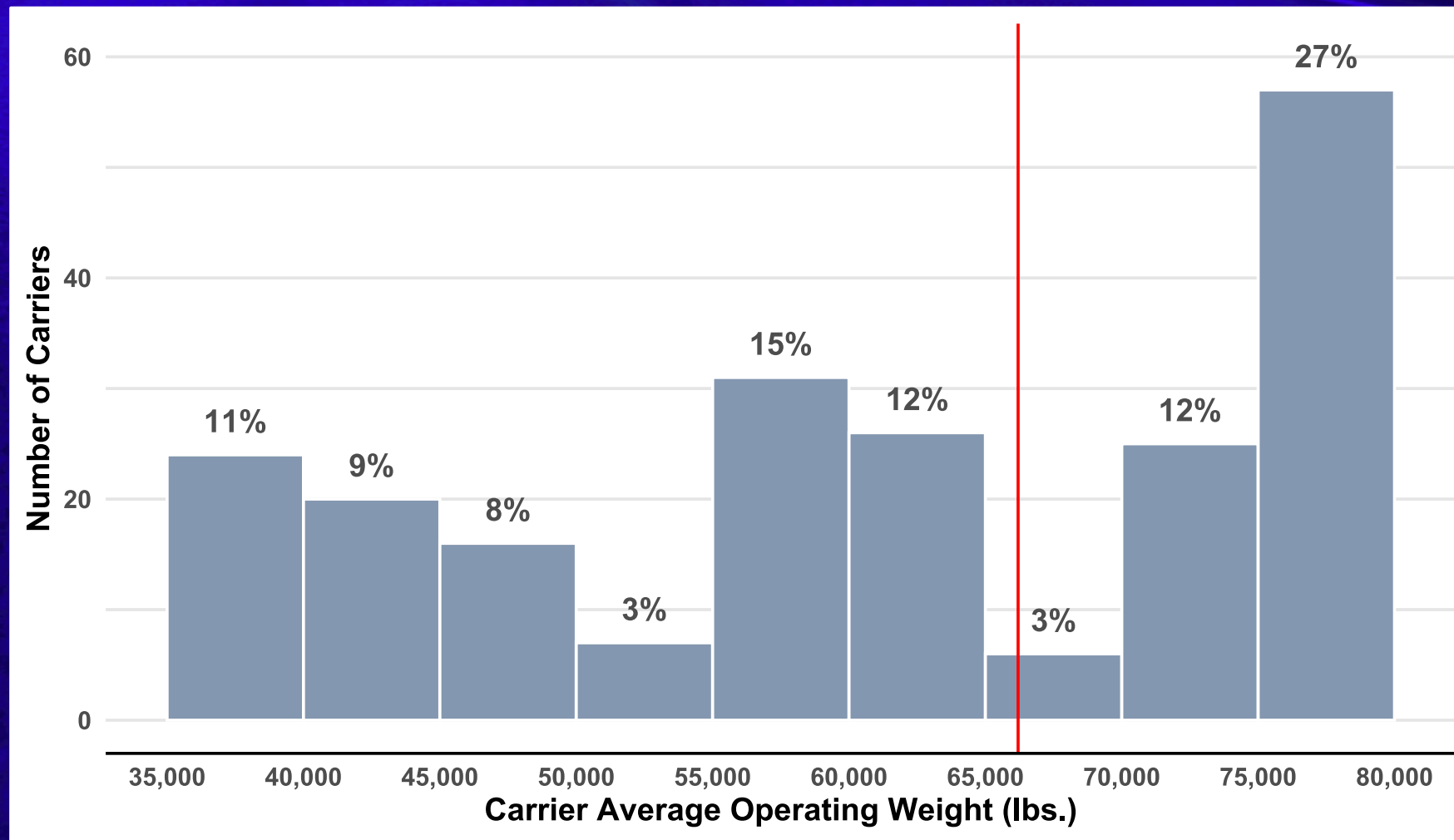
Tons of Material Needed versus Global Reserves

	Cobalt	Graphite	Lithium	Nickel
Global Reserves (Tons)	8,377,556	352,739,200	24,250,820	> 100,000,000
Total U.S. Vehicle Fleet Needs	5,396,733	29,586,708	3,842,239	18,807,908
Fleet Needs as a Percent of Known Reserves	64.4%	8.4%	15.8%	< 18.8%

BEV Truck Conundrum



Carrier Average Operating Weights (2021)

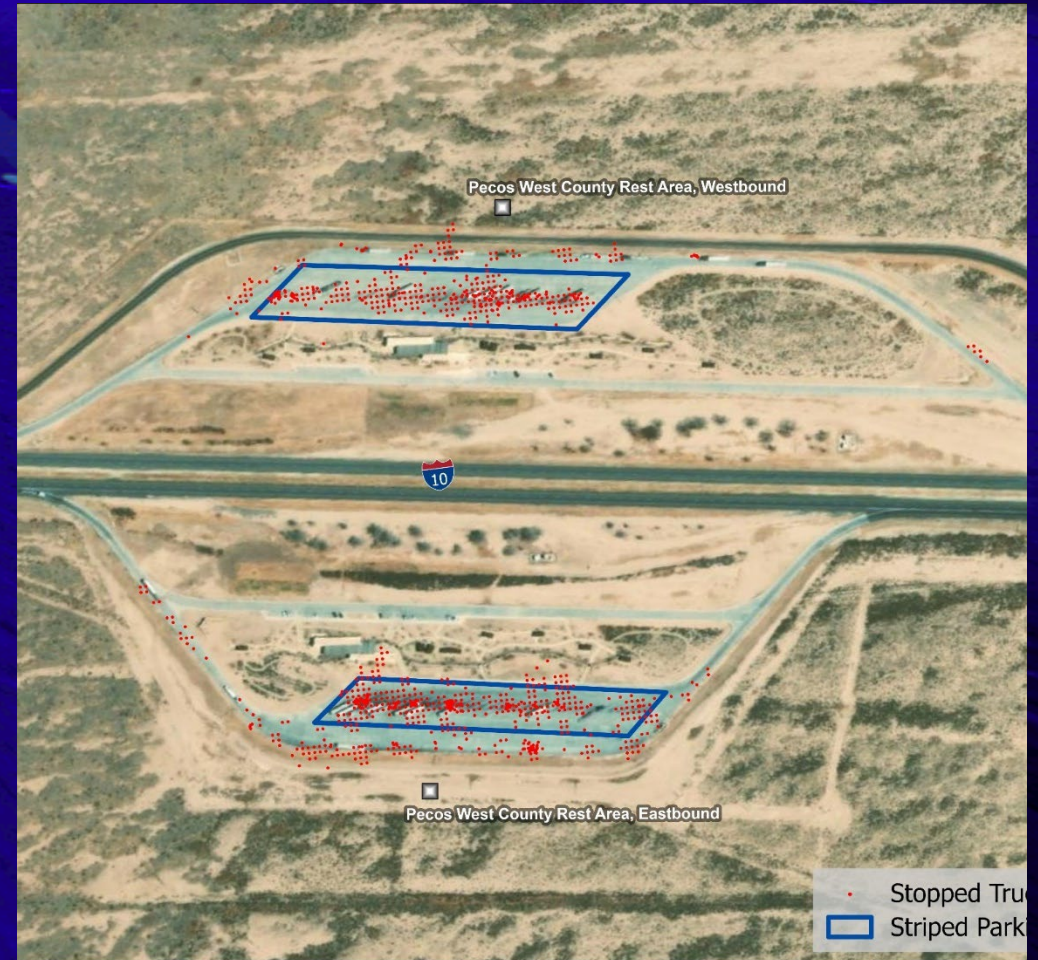


Long-Haul Truck Charging Requirements

- **Truck Charging Availability = Truck Parking Crisis 2.0**
- **BEV charging impacted by federal hours-of-service rules and parking availability**
- **At minimum every truck parking space would need a charger – 313,000 spaces**
 - ◆ **Initial equipment, installation costs – \$35 billion**

Parking Case Study

- Requires enough daily electricity to power more than 5,000 U.S. households for 126 truck charging events



Long-Haul Truck Charging

- **Using today's trucking and charging requirements, more chargers will be needed than there are parking spaces**
- **Regardless of advances in battery capacity or charge rates, BEV charging will be limited by HOS and parking availability**
- **Other barriers include laws preventing commercial charging at public rest areas and the remoteness of many truck parking locations**

Questions?

Alex Leslie

aleslie@trucking.org

651-641-6162

www.TruckingResearch.org



@Truck_Research

BREAK: Stretch, Coffee, Well-Being



MARYLAND STATE UPDATE



STATE **FREIGHT** ADVISORY COMMITTEE

Maryland State Freight and Rail Plans Implementation

John Thomas (JT)

Maryland Department of Transportation



STATE **FREIGHT** ADVISORY COMMITTEE

Chesapeake Bay Crossing Study

Eric Almquist
RK&K



STATE **FREIGHT** ADVISORY COMMITTEE

CHESAPEAKE BAY CROSSING STUDY

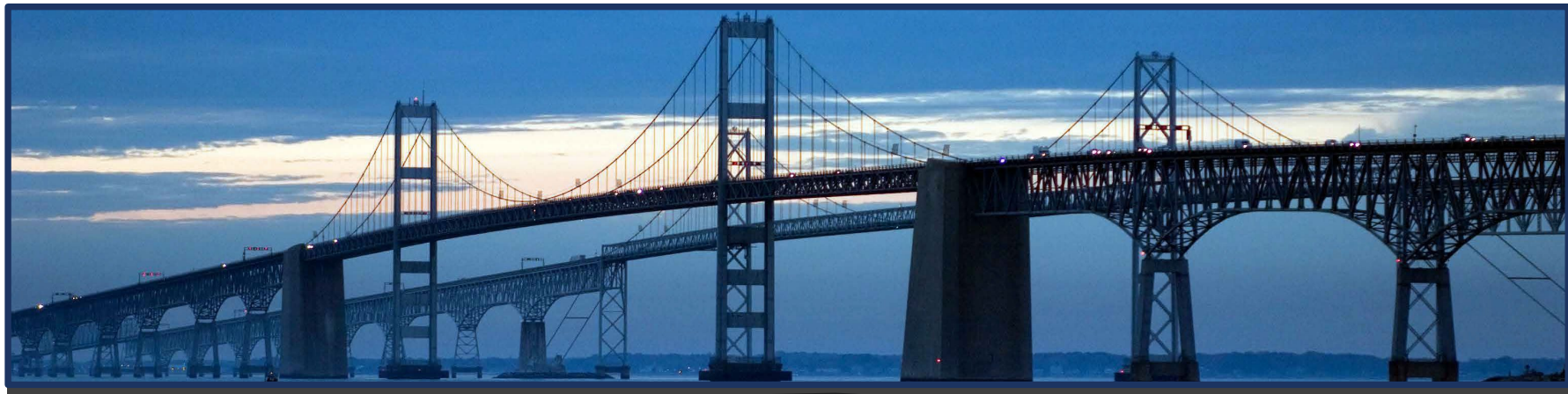
TIER 2 NEPA

Maryland State Freight Advisory Committee
April 5, 2023



Tier 2 Study is Underway

- The Maryland Transportation Authority (MDTA) completed the Chesapeake Bay Crossing Study: Tier 1 NEPA (Tier 1 Study) in April 2022, when the Federal Highway Administration (FHWA) issued a Final Environmental Impact Statement/Record of Decision (FEIS/ROD).
- The Tier 1 FEIS/ROD identifies Corridor 7, the corridor containing the existing Bay Bridge, as the Selected Corridor Alternative.
- In June 2022, the MDTA launched the four- to five-year Chesapeake Bay Crossing Study: Tier 2 NEPA (Tier 2 Study). This Tier 2 Study will evaluate the environmental and socioeconomic impacts of a range of alternative alignments and transportation issues from the Severn River Bridge in Anne Arundel County to the US 50/US 301 split in Queen Anne's County.
- The range of alternatives will include a No Build alternative and build alternatives including various alignments, crossing types and modal and operational alternatives.



National Environmental Policy Act (NEPA)

MDTA requires any project receiving federal funding or approval to assess a project's potential impacts to the human environment before taking action.

- The MDTA and the FHWA, in collaboration with the Maryland Department of Transportation State Highway Administration (MDOT SHA), are following a two-tiered NEPA process for the Bay Crossing Study.
- The Tier 1 Study, completed in April 2022, identified Corridor 7 as the best corridor for locating a potential crossing to address congestion at the Bay Bridge. The Tier 1 Study reviewed a range of alternatives based on a variety of factors, such as cost, traffic performance, engineering and an inventory of environmental data.

TIER 1 NEPA (COMPLETED STUDY)	TIER 2 NEPA (CURRENT STUDY)	
<ul style="list-style-type: none"> ■ Established the project Purpose and Need. ■ Evaluated a range of corridor alternatives across the Chesapeake Bay (and a No Build alternative). ■ Included Public and Agency involvement and comment. ■ Identified a Selected Corridor. 	<ul style="list-style-type: none"> ■ Refine the Purpose and Need for a project-level analysis. ■ Evaluate a No Build alternative and a range of build alternatives including various alignments, crossing types and modal and operational alternatives. ■ Conduct engineering, traffic and environmental analyses. 	<ul style="list-style-type: none"> ■ Include Public and Agency involvement throughout the Tier 2 Study. ■ Identify a Selected Alternative within Corridor 7. ■ Identify mitigation measures.

Purpose and Need

The Purpose of the Tier 1 Study was to evaluate corridor alternatives for providing additional capacity and access across the Chesapeake Bay to improve mobility, travel reliability and safety at the existing Bay Bridge.

The Tier 1 Study Needs included:

- adequate capacity,
- dependable and reliable travel times, and
- flexibility to support maintenance and incident management.

The MDTA also considered:

- financial viability and
- environmental considerations.

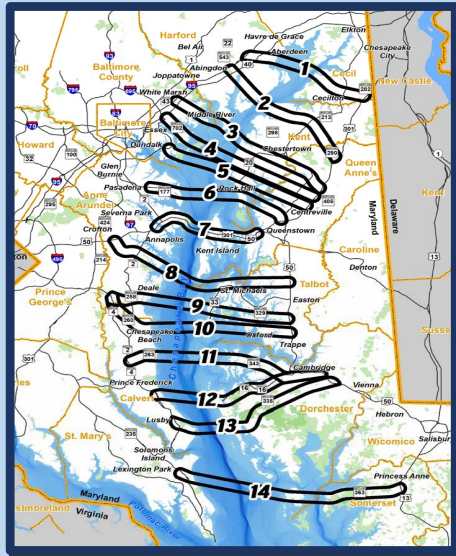


The Tier 2 Study will refine the **PURPOSE AND NEED** to focus on Corridor 7.

Tier 1 Study – Corridor Alternative Screening Process

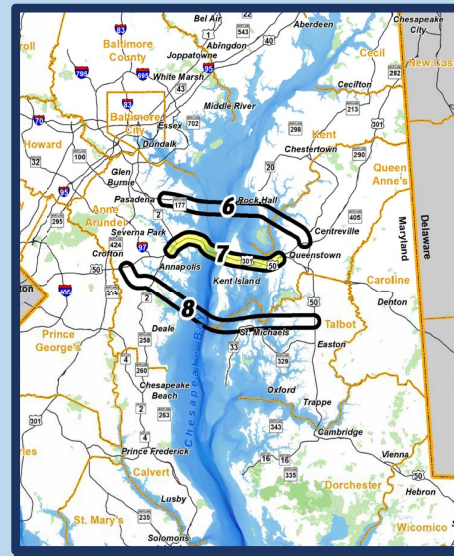
STEP 1

14 two-mile-wide Corridor Alternatives were evaluated for their ability to address the Tier 1 Purpose and Need.



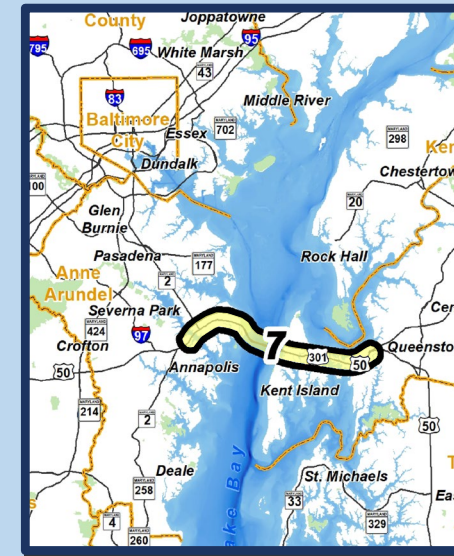
STEP 2

Analysis of traffic, engineering, cost and environmental considerations indicated that Corridors 6, 7 and 8 best met the Tier 1 Purpose and Need.



STEP 3

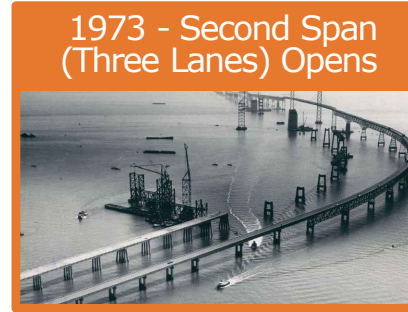
Corridor 7 was identified as the Selected Corridor Alternative and will be studied in greater detail during the Tier 2 Study.



Historic Traffic at the Bay Bridge



1.1M Annual Crossings



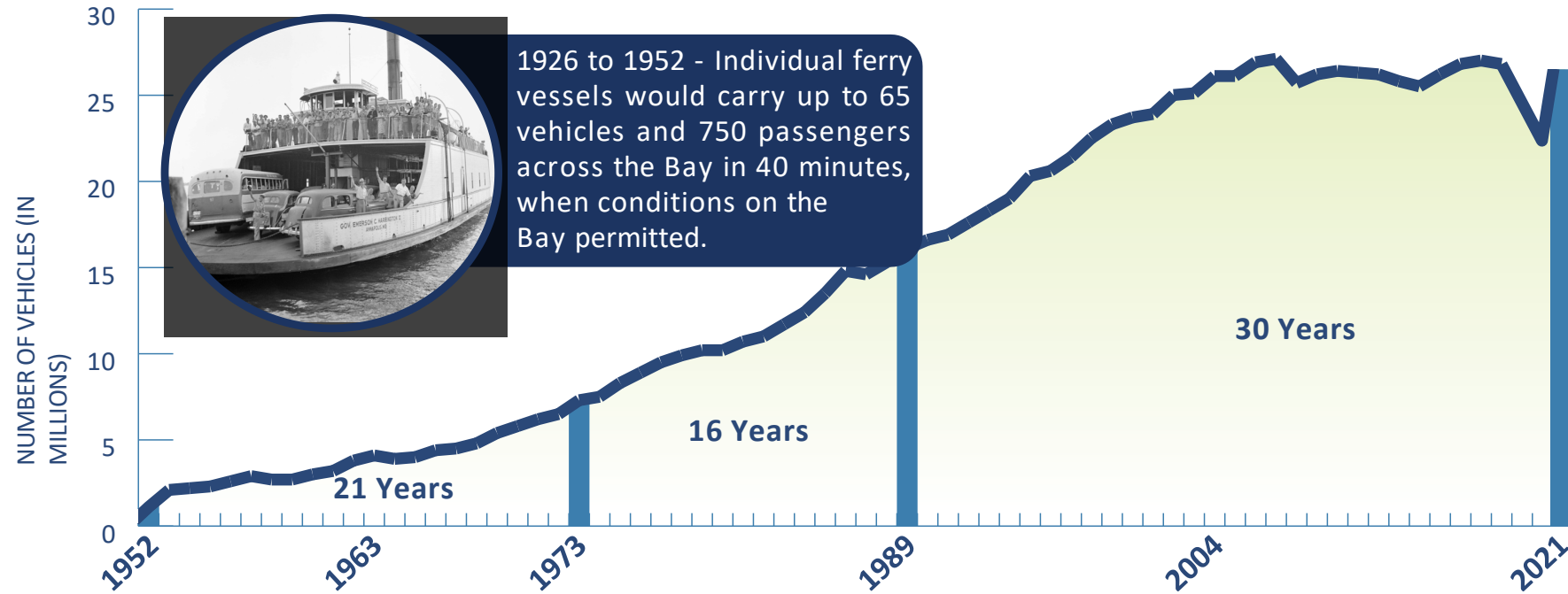
7.3M Annual Crossings



16.1M Annual Crossings

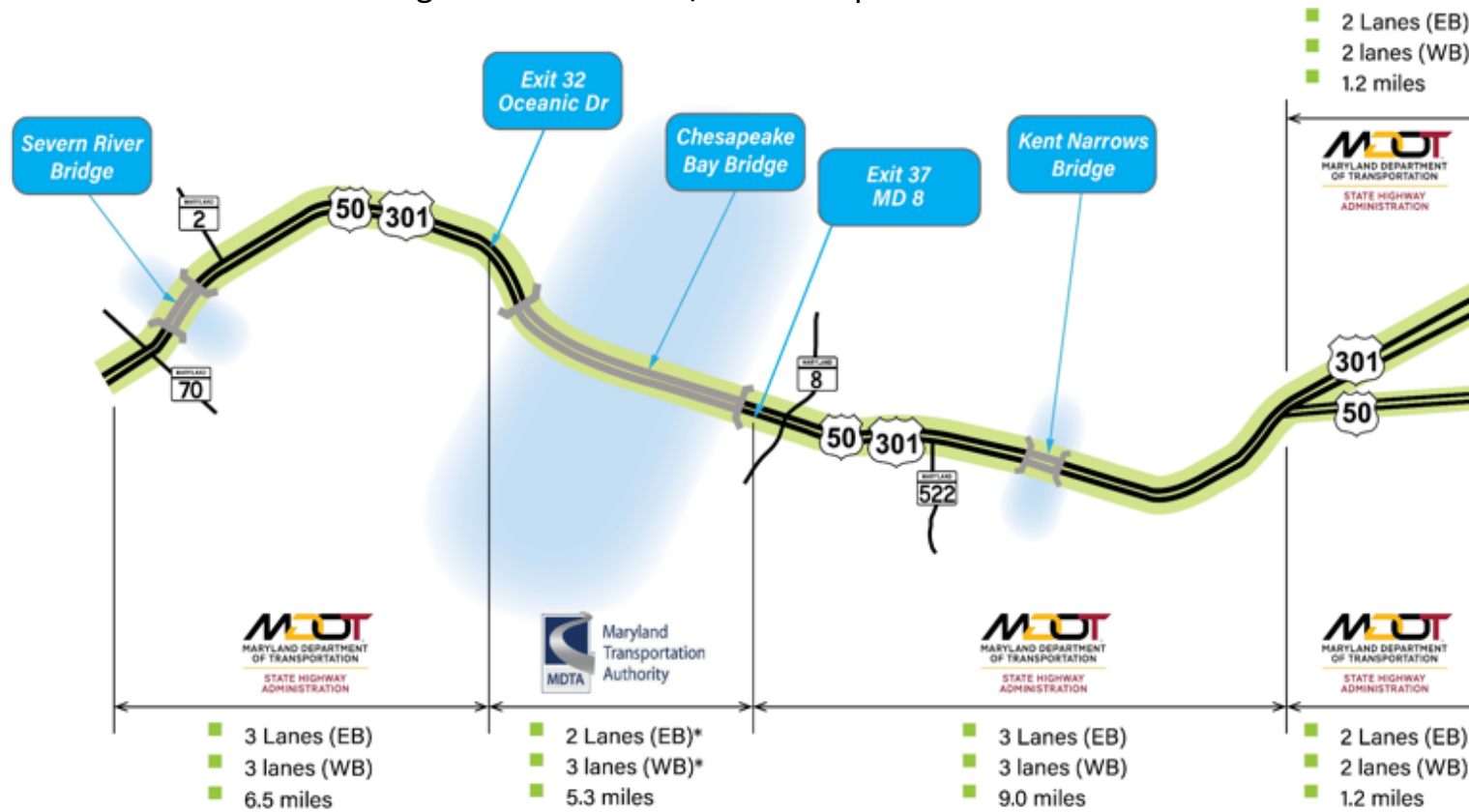


26.6M Annual Crossings



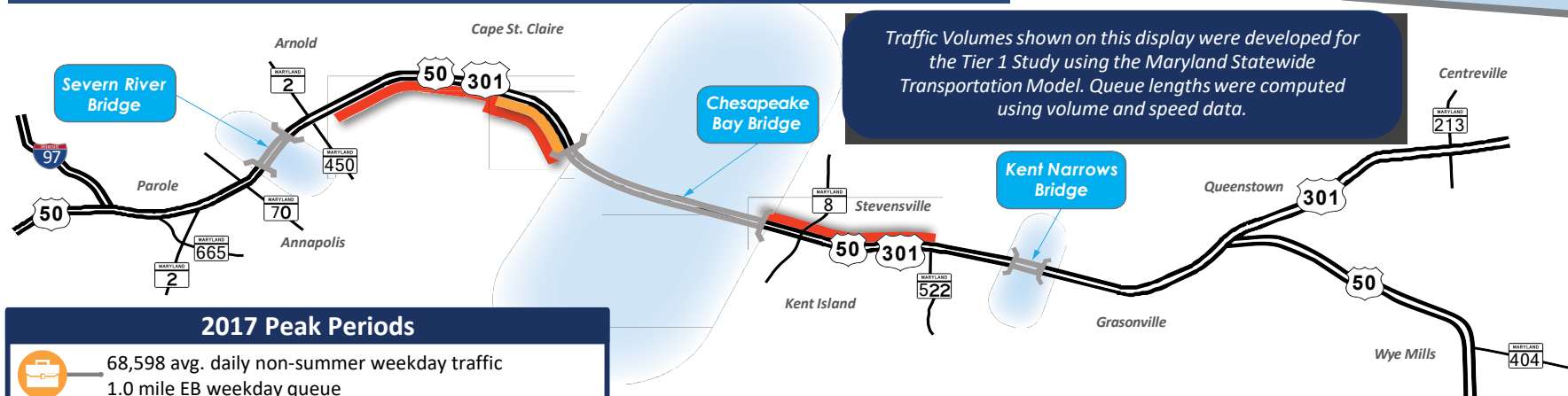
Corridor Lane Configuration

- Throughout Corridor 7, the existing lane configurations along US 50/US 301 vary as shown below.
- The MDTA and MDOT SHA work in collaboration to study transportation mobility in the corridor between the Severn River Bridge and the U.S. 50/U.S. 301 split.



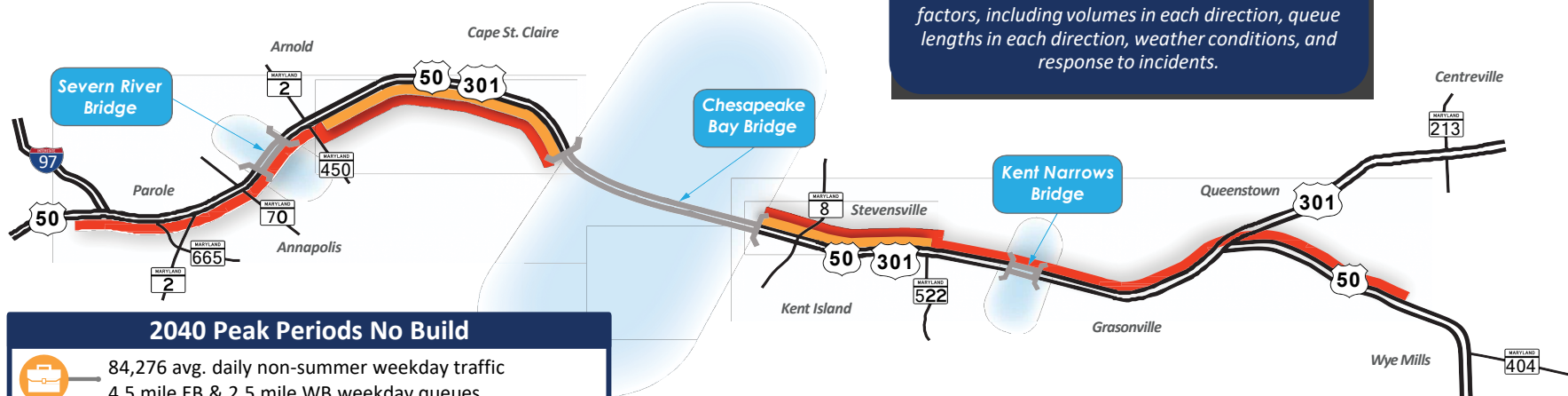
* During peak periods, contraflow operations adjust the eastbound and westbound traffic flow across the bridge.

Typical and Forecasted Traffic Delays



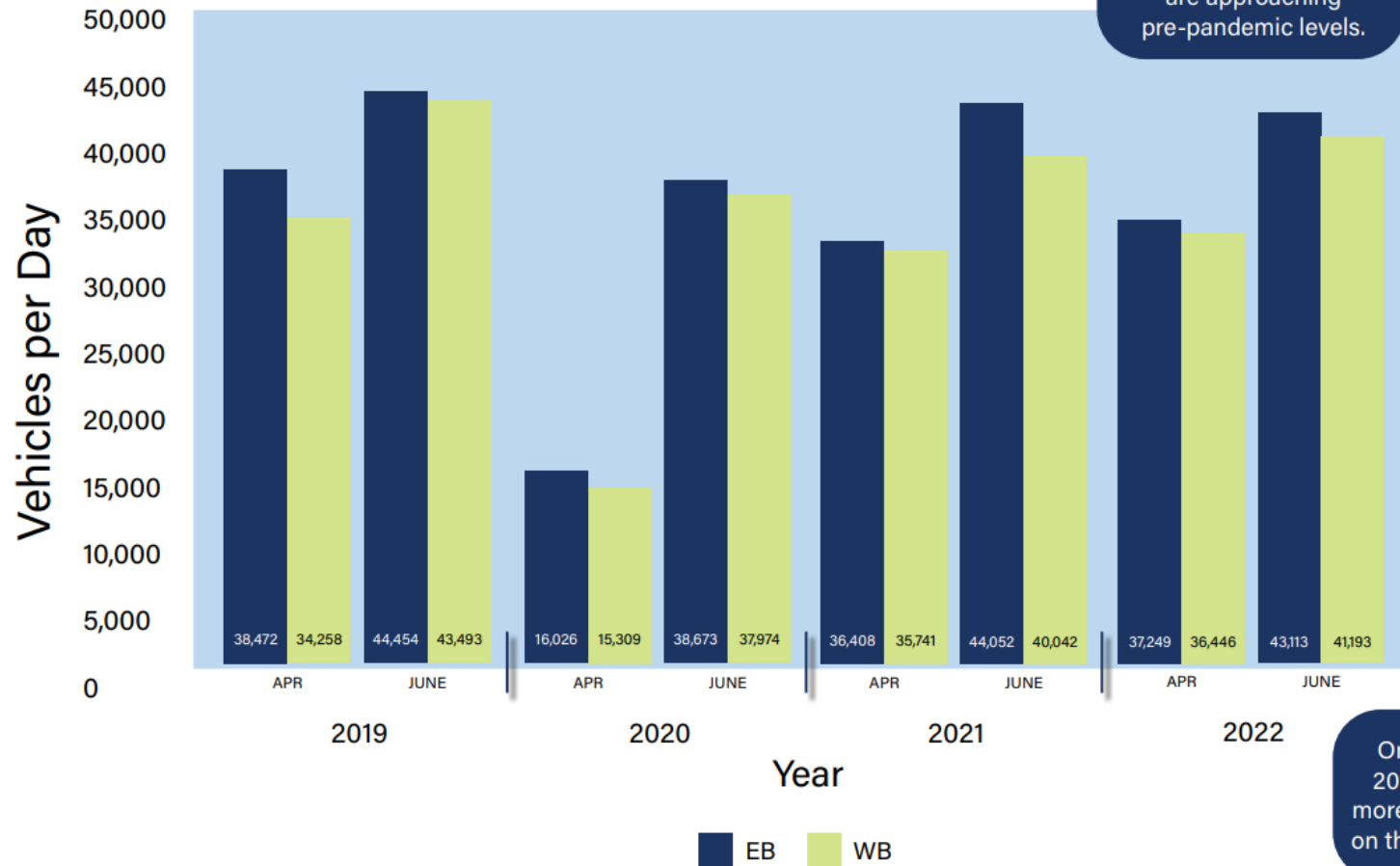
Traffic Volumes shown on this display were developed for the Tier 1 Study using the Maryland Statewide Transportation Model. Queue lengths were computed using volume and speed data.

MDTA continuously monitors traffic conditions on both the eastbound and westbound approaches to the Bay Bridge, adjusting the number of eastbound lanes between two and three based on various factors, including volumes in each direction, queue lengths in each direction, weather conditions, and response to incidents.



Bay Bridge Traffic and the COVID-19 Pandemic

Average Daily Traffic on Bay Bridge



Frequently Heard Concerns

The following concerns were expressed frequently during the Tier 1 Study. The MDTA will consider these and other issues as alternatives in Corridor 7 are evaluated during the Tier 2 Study.



• Congestion affects our communities.



• Consideration of other modal and operational alternatives (e.g. transit and ferries).



• Wait times to cross the existing Bay Bridge caused by congestion, maintenance and incidents.



• Emergency service vehicle mobility during backups.



• Potential environmental impacts.



• Potential induced development on the Eastern Shore.

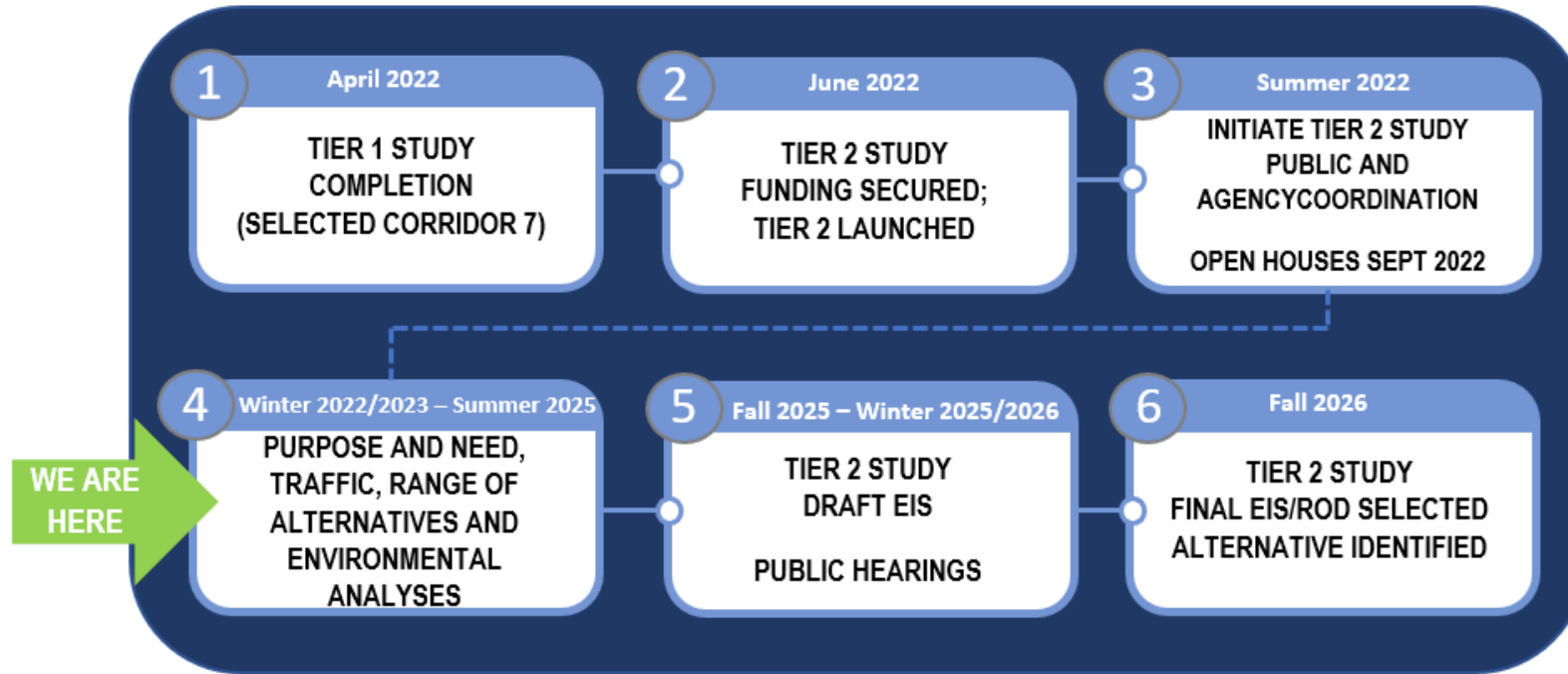


• Potential property acquisitions.



• Citizens' desire to be included in the study.

Tier 2 Study Process*

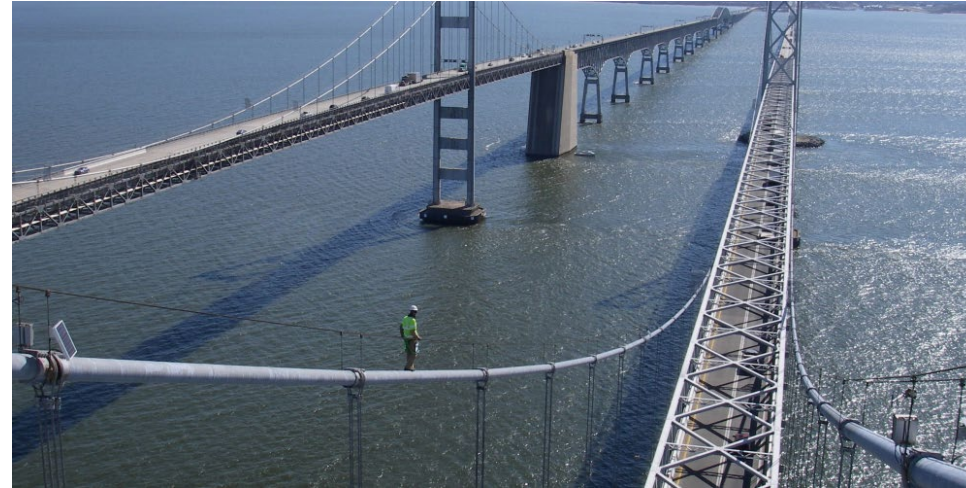


- Should a Build Alternative be selected, subsequent phases will include engineering, right-of-way acquisition and construction.

*Schedule is preliminary and subject to change.

Current Study Activities

- Agency Coordination
- Updated Traffic
- Purpose and Need Development
- Early Alternatives Development
- Public Outreach



CHESAPEAKE BAY CROSSING STUDY

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Maryland
Transportation
Authority



Port of Baltimore
Dominic Scurti
Maryland Port Administration





Port of Baltimore: The Wealth in Our Water

Dominic Scurti, Maryland Port Administration



Maryland Port Administration

- Established originally in 1956 as the Maryland Port Authority. In 1971, it was placed under Maryland Department of Transportation (MDOT)
- Clear purpose: *To increase the flow of waterborne commerce through the ports in the State of Maryland in a manner that provides benefit to the citizens of the State.*
 - Maintain and improve maritime facilities
 - MDOT MPA is the local sponsor for the U.S. Army Corps of Engineers projects
 - Promote and market the Port of Baltimore

Port of Baltimore

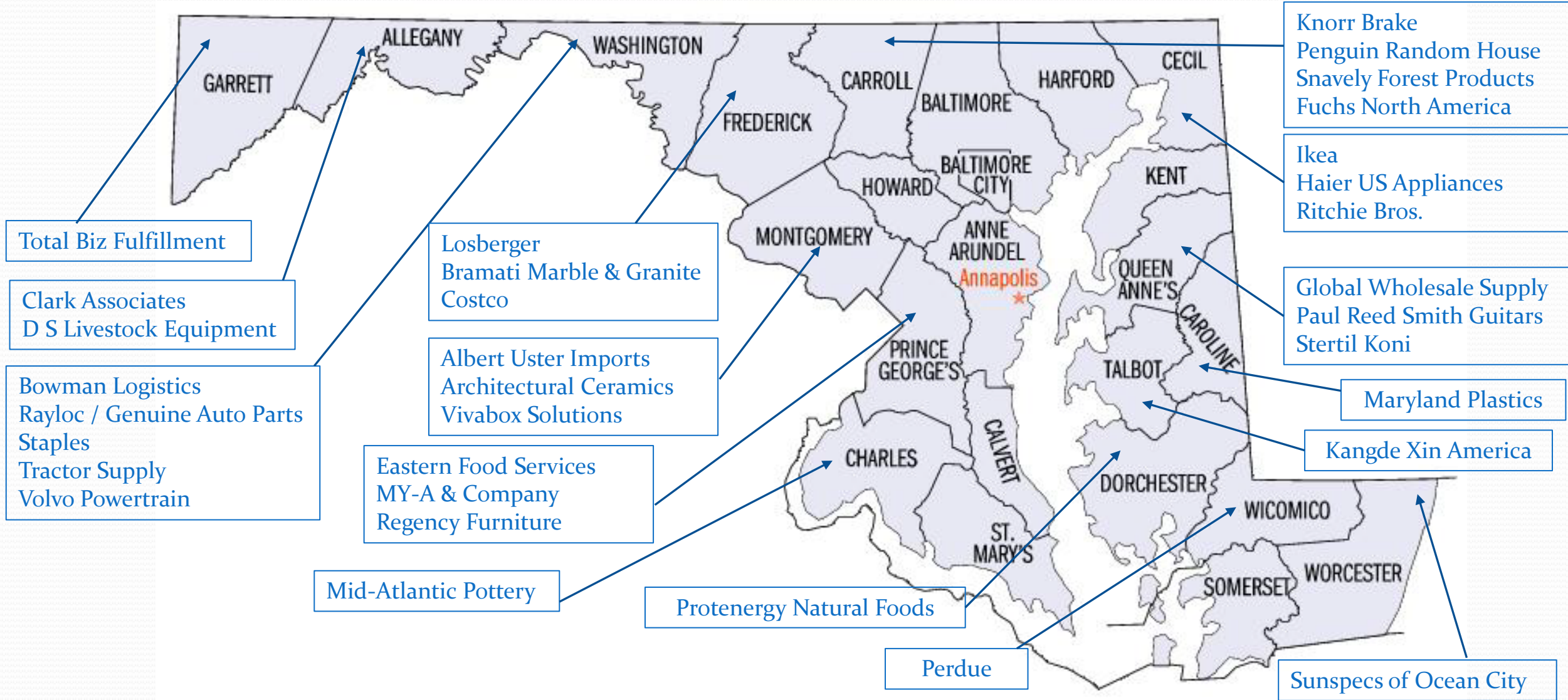
- Mix of private and State-owned terminals
- Diverse array of cargo
 - Bulk (Coal, Salt, Sugar, Gypsum)
 - General Cargo (Containers, Automobiles, Farm and Construction Equipment, Forest Products)
- 10th largest port in the nation for international cargo value (\$74.3B)
- 12th largest port for international tons (43.3 million)



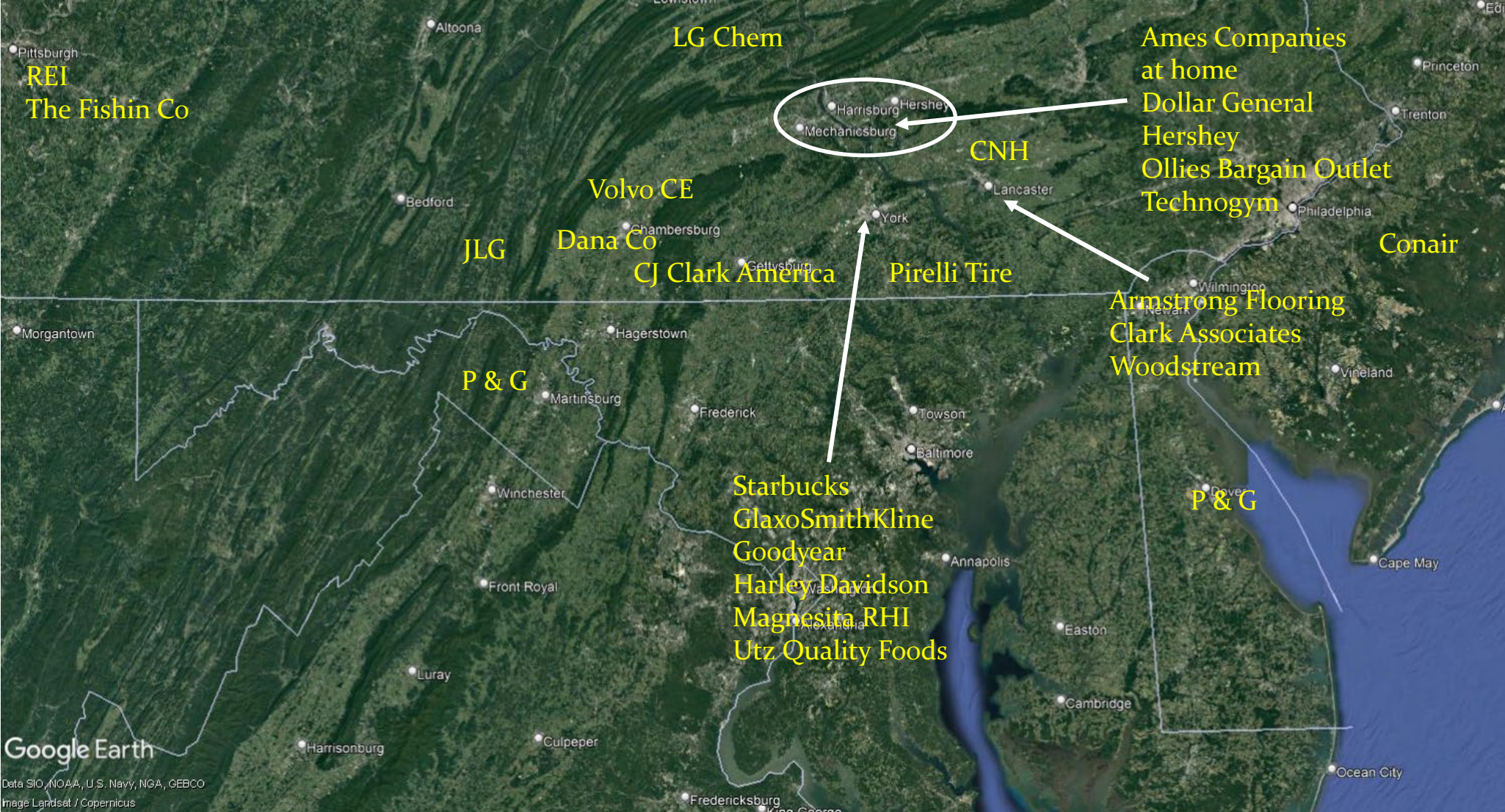
Economic Impact / Benefit to Maryland

- 15,330 Direct Jobs in Maryland
 - Baltimore City 4,335 jobs
 - Baltimore County 4,863 jobs
 - Anne Arundel 3,455 jobs
 - Harford 807 jobs
 - Howard 260 jobs
 - other 1,607 jobs
- 21,970 Indirect and Induced Jobs
- 101,880 Related Jobs
- \$3.3 Billion in personal wages
- Average annual salary is 9.5% higher than the average Maryland annual wage
- \$2.6 Billion in business revenues
- \$395 million in state and local tax revenues

Companies in Maryland using the POB



Regional Beneficial Cargo Owners



Manufacturers Exporting through the POB

- Ford
- General Motors
- Jeep / FCA (Stellantis)
- Toyota
- Honda
- Caterpillar
- John Deere
- CNH

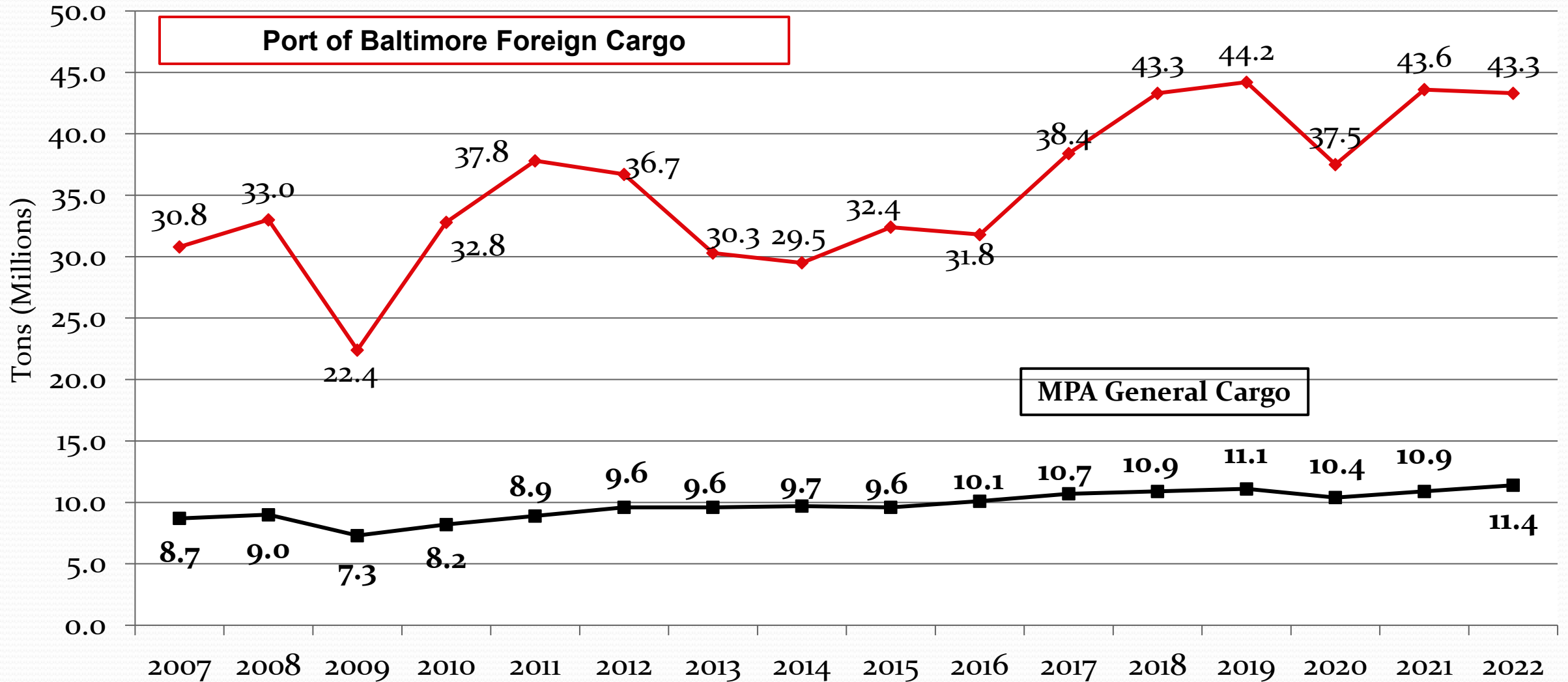
The Port of Baltimore is the largest port in the USA for the handling of automobiles and roll-on/roll-off (Ro/Ro) equipment.



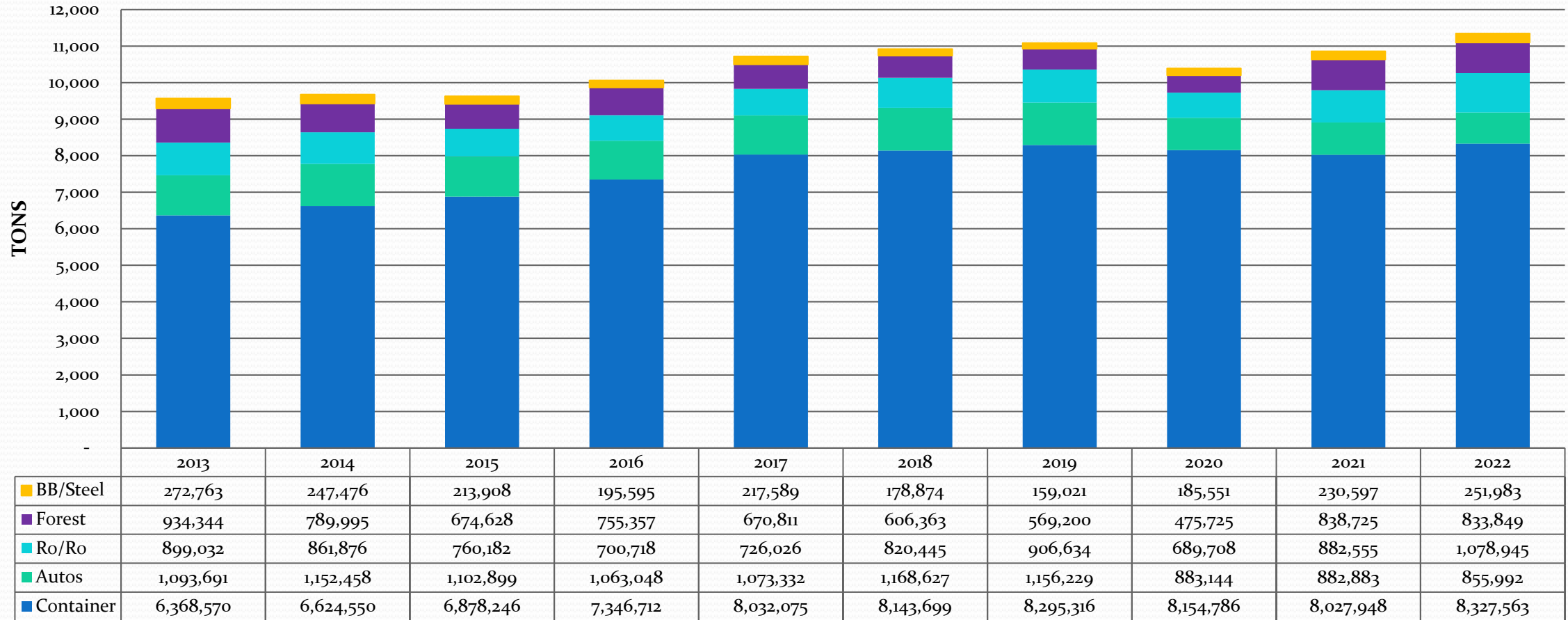
Port of Baltimore Imports & Exports



MPA / POB Annual Cargo Tons

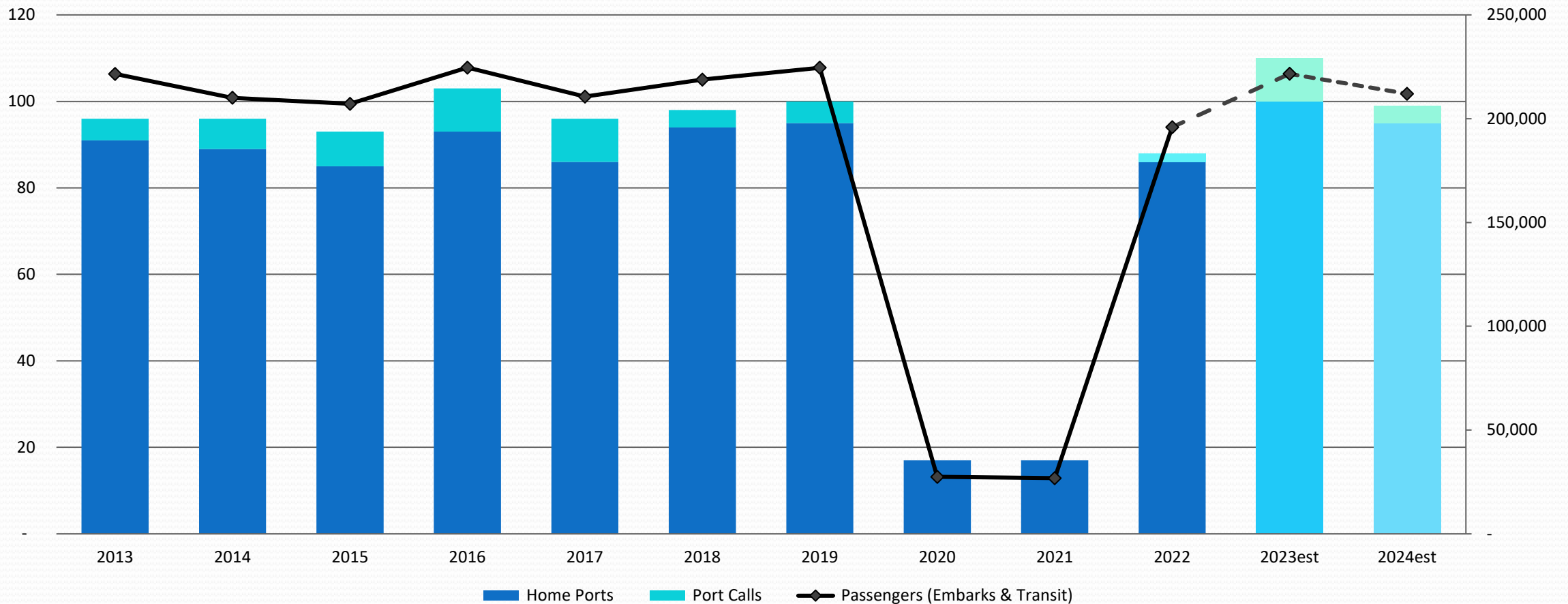


MPA General Cargo Tons



MPA set a record with 11.4 million tons of general cargo moving through its terminals in 2022.

Cruise Maryland



An estimated \$1 million in economic activity is associated with each home port cruise call.

Dredged Material Management Program

- Maintenance of our “marine highway” is critical to the economic health of the State
- Requires sufficient dredged placement capacity
 - 4.7 Mcy annually
 - 20-year demand: 94.5 Mcy
- Citizen and other stakeholder engagement is the key to implementing plans



Poplar Island

- Originally planned to restore 1,140 acres
- Expansion added 575 additional acres
- National model for habitat construction



Mid-Bay Islands Restoration

- Restoration of James and Barren Islands
 - Barren Island will utilize dredge material from the Honga River to restore a minimum of 72 acres of remote island habitat
 - James Island will utilize dredged material from the Chesapeake Bay approach channels serving the Port of Baltimore and restore over 2,000 acres of lost remote habitat.
- Newly formed wetlands and structures will slow not only the erosion of the islands, but also the adjacent lands.
- Formal agreement signed with the US Army Corp of Engineers last year.



Dredged Material Containment Facilities

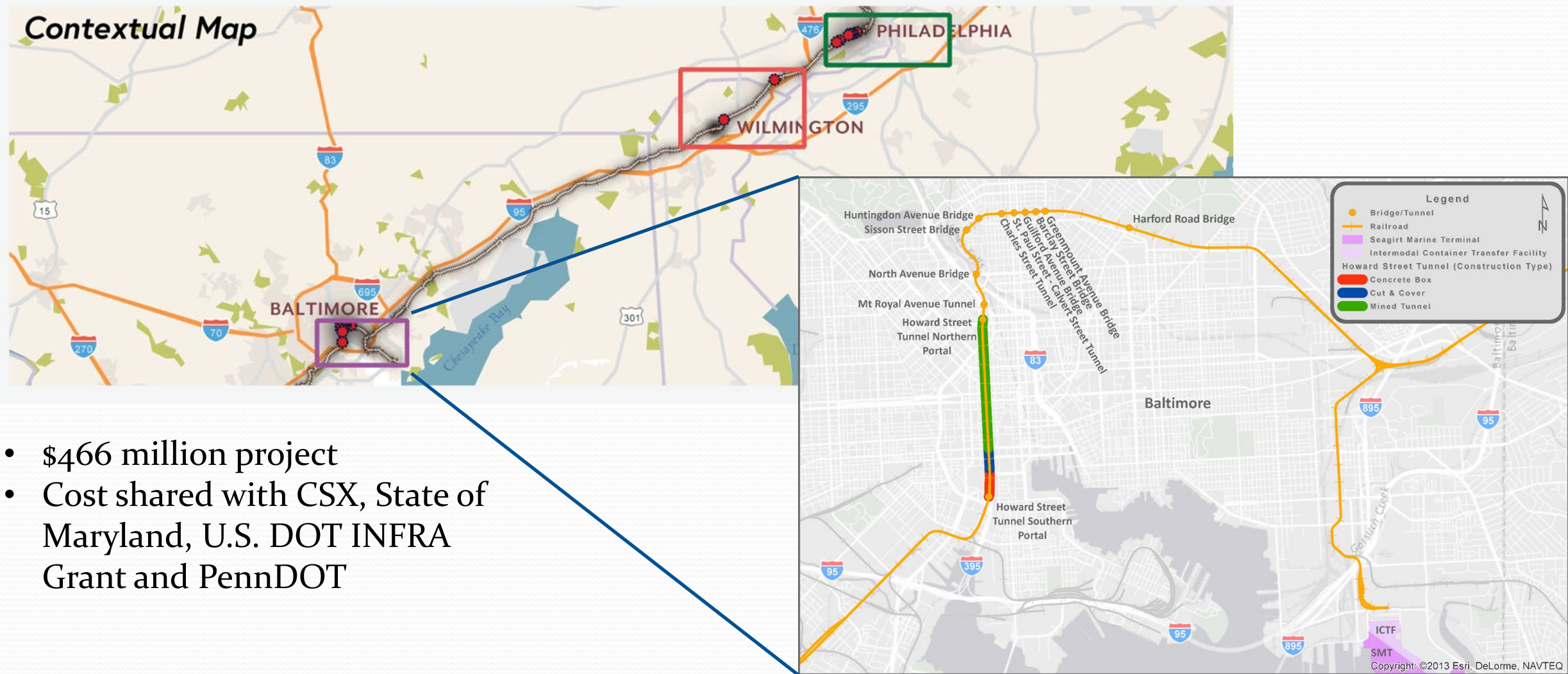
- Three Baltimore Harbor Sites
 - Hart-Miller Island
 - 1,100 acre facility that no longer accepts new dredged material
 - South Cell is now a park open to the public (DNR)
 - Cox Creek (undergoing expansion)
 - 133 acre site
 - Recognized as a great site for bird watching
 - Masonville (undergoing expansion)
 - 141 acres
 - 1st Urban Wildlife Refuge Center in USA



Innovative Reuse and Beneficial Use

- Innovative Reuse includes the use of “dredged material in the development or manufacturing of commercial, industrial, horticultural, agricultural or other products”
 - Goal to use 500,000 cubic yards annually of dredged material
 - Alternative Daily Cover at a Baltimore City landfill
 - Engineered fill & light weight aggregate
- Beneficial Use includes
 - Restoration of underwater grasses and islands
 - Creation or restoration of wetlands
 - Creation, restoration or enhancement of fish/shellfish habitat

Howard Street Tunnel Project



- \$466 million project
- Cost shared with CSX, State of Maryland, U.S. DOT INFRA Grant and PennDOT

Improving Air Quality

- Dray Truck Replacement Program: Offers up to \$30,000 to help truck owners to upgrade to more efficient models. 280+ trucks have been replaced since 2012.
- MPA received an award of \$2 million from the VW Settlement to upgrade port equipment.
- MPA takes an Air Emissions inventory every four years to benchmark reductions and prioritize future actions.
 - Last Study showed a 19% decrease in air emissions, even as cargo volumes increase 10%.



Initiatives to Improve Air Quality

- Maryland Energy Administration awarded a grant to study the feasibility of Microgrid technology at Dundalk Marine Terminal
- MPA and MDE were part of a regional Team that was awarded a DOE grant to advance electrification in the Mid-Atlantic region
- Preparing a strategy for the future electrification of Port equipment, vehicles and cargo



Improving Water Quality

- MPA constructs stormwater improvement projects at our marine terminals such as underground and above-ground sand filters.
- Partnerships to reduce trash in the harbor.
- Oyster Restoration
- Floating Treatment Wetlands



Building Partnerships for Off-Site Projects

Urban Forestry Program



Arlington Echo Living Shoreline

Maryland Zoo in Baltimore



In closing...

- The Port of Baltimore is healthy and continues to be a major economic engine for the State of Maryland
- Working with the US Army Corp of Engineers, the MPA will be able to keep the marine channels open to handle the larger ships that are on the water for many years
- MPA continues to be a good steward of the environment and is planning its terminals to adapt to the changing conditions in our environment.

Questions?



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COMMITTEE ROUNDTABLE

Legislative and Grant Updates/Needs/Wants



HOUSEKEEPING AND ADMINISTRATION



STATE **FREIGHT** ADVISORY COMMITTEE

NEXT SFAC MEETING

Menti Poll:

- Scan this QR code
- Go to www.menti.com
 - Code: 8536 4377
- Direct link to the poll in chat



NEXT SFAC MEETING

Go to www.menti.com and use the code 8536 4377

Please share what your top priority transportation project for freight movement in Maryland would be.

 Mentimeter



THANK YOU



STATE **FREIGHT** ADVISORY COMMITTEE



FEEL FREE TO CONNECT WITH OTHERS

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE FREIGHT
ADVISORY COMMITTEE