MARYLAND DEPARTMENT OF TRANSPORTATION

STATE FREIGHT ADVISORY COMMITTEE

State Freight Advisory Committee Meeting Minutes

Date: Wednesday, September 1, 2021 | Time: 2:00 p.m. – 4:00 p.m.

Attendees

Aaron Tomarchio (Tradepoint Atlantic)
Andrew Shrock
Bala Akundi (BMC)
Ben Cohen (Calvert-St. Mary's County MPO)
Bihui Xu (MDP)
Birat Pandey (FHWA)
Bradley Smith (MDOT MPA)
Brittany Brothers (MDOT)
Carole Delion (MDOT SHA)
Catherine McGee (VDOT)
Cathrin Banks (MDDE Railroad)
Chris Smith (SC&RA)
Daniel Blevins (Wilmington Area Planning Council)
David Greene (MDTA)
Duane Jeffries (W.R. Grace)
Gladys Hurwitz (MDOT)
Greg Meleski (AFCO)
Harry Romano (MDOT)
Jeff Cleland (Amazon)
Jeff Hirsch (MDOT)
Jerry Einolf (MDOT SHA)
Jim Ward (D.M. Bowman, Inc.)
Joe Greco (Ports America)
John Magness (Canton Railroad)
Jon Schermann (MWCOG)
Kathy Robertson (MTA Office of Real Estate)
Keith Hall (Wicomico County)
Keith Kucharek (Baltimore Metropolitan Council)
Kevin Clarke (MDOT MAA)
Kipp Snow (Community College of Baltimore County)
Kwame Arhin (FHWA)
Kyle Leggs (Baltimore City)
Laura MacNeil (DDOT)
Lindsay Donnellon (FHWA)
Louis Campion (MMTA)
Marlee Baucom (NS Corp.)
Matt Helminiak (MD Department of Labor)
Matt Mullenax (Hagerstown/E. Panhandle MPO)
Michelle Martin (MDOT TSO)
Nanette Schieke (MDOT MVA)
Nicole Katsikides (MDOT)
Pamela Steinebach (DelDOT)
Parto Mazdeyasni (MDOT MPA)
Scott Pauchnik (FedEx)
Summer Bowman (FMCSA)
Tom Huesman (Terminal Corp.)
Two phone connections – users unknown

Welcome

Jeffrey Hirsch, MDOT Assistant Secretary, Office of Transportation Policy Analysis & Planning

Michelle Martin, MDOT Deputy Director, Office of Planning & Capital Programming

Officially, Jeffrey Hirsch sponsored the bi-annual meeting. Due to a storm in the area (the remnants of Hurricane Ida), Asst. Sec. Jeffrey Hirsch joined later in the program to introduce speakers.

Ms. Martin welcomed participants and highlighted two recent laws passed in the State, and a new development that have impacts on freight in Maryland.

1. **SB 291** began as a Departmental bill: Motor Vehicle Offenses – Following Too Closely – Unified Truck Travel. Previously, State law did not allow truck platooning, but the new legislation makes that law non-applicable to truck platoons. Additionally, the law requires MDOT Motor Vehicle Administration (MODOT MVA) to adopt regulations governing truck platooning. The agency has been drafting these regulations and working with stakeholders to get them approved.

2. **SB 726** authorizes Personal Delivery Devices, or PDDs, to operate on any road, sidewalk, bike trail, or crosswalk in the State was signed into law this past May. This law paves the way for piloting the personal delivery devices, which are ground-based delivery devices made for transporting cargo or goods and operated by a driving system that allows for autonomous and/or remote operations. The bill established an exception to motor vehicle registration requirements, authorizing PDDs to operate on any road, sidewalk, bike trail, or crosswalk in the State. The MDOT MVA is working to develop a pilot process for authorizing these by 10/1/21 and report to the legislature on how it's going by 12/31/21.

3. **Volvo, Traton (formerly the VW truck division) and Daimler have announced an alliance** that will create a high-performance charging network for Europe with an initial investment of $600 million. See the article from Transport Topics at https://www.ttnews.com/articles/daimler-volvo-traton-form-593-million-truck-charging-venture. The MDOT SHA has been looking into this for Maryland, given Volvo is in Hagerstown. We are currently exploring freight formula funds for a pilot freight EV effort; this is developing story that is important for the following reasons.

- These three manufacturers account for about 65% of North American heavy-duty truck sales, according to the article.
- The intent is to have a fast-charging cycle that would align with the mandatory 45-minute rest period required of EU vehicle operators.
- The lack of a similar charging network in North America is one of the major barriers to large scale adoption of electric long-haul commercial vehicles, even if such vehicles were readily available today.

State of the Practice

Personal Delivery Devices (PDDs) | Jeff Cleland | State Transportation Public Policy | Amazon

Mr. Cleland discussed Scout, Amazon's internally developed PDD. He pointed out that the recent legislation SB 726 (2021) makes Maryland one of 18 states that have passed laws clearing the way for PDDs to have right of way in some form. This is the first step for Amazon to consider when testing.

Mr. Cleland noted other considerations for PDD test sites include the following:

- Underutilized sidewalks. Urban areas such as DC and New York City are not the best place to test bots with all the sidewalk and curb congestion. Amazon is testing in Snohomish County, Washington; Irvine, Calif.; Franklin, Tenn.; among other locations.
- Can the bots support trucks or mitigate truck congestion? Mr. Cleland said there is a truck shortage, and this was the case pre-pandemic. Amazon is evaluating how bots can support deliveries that trucks typically perform.

Questions

Q. How far can Scout go?

A. It is not about distance as much as the ability to come back. Scout has a radius of 1 to 2 miles. But it will return to dock. It will not litter the service area.

Q. Is Scout designed to carry more than one package at a time? If so, how do you ensure the proper package is distributed to the proper customer and prevent against theft of additional packages on board?

A. Scout is designed to move among neighbors. Hopefully, no one would steal from their neighbors. Additionally, it is not easy to break into Scout (need a crowbar).

Connected and Automated Vehicles in Freight
Nanette Schieke | Chief, Driver Safety Division | MDOT MVA
Louis Campion | President and CEO | Maryland Motor Truck Association

Ms. Schieke provided an overview of connected and autonomous vehicle efforts in the State, most recently the CAV Strategic Framework released in December 2020; that work began in 2015. The framework is a call to action around the State for pilots and initiatives. She also discussed the Society of Automotive Engineers (SAE) levels of automation. To advance technology, however, safety is key. Ms. Schieke discussed some of the technologies, including advanced driver assist systems (ADAS) such as forward collision warning (FCW) and automatic emergency braking (AEB). These systems, already in passenger cars, can potentially elevate the (SAE) level of automation in trucks. She discussed a few examples including Perrone Robotics, based in Virginia, which has tested Level 4 automation on Maryland roads.

Mr. Louis Campion discussed the policy and regulatory barriers and opportunities in connected and autonomous vehicle implementation. "The technology is there," he said. It is a matter of the private and public sector partnering on many important high-level and detailed decisions. These include insurance,

return on investment, hours of service changes (federal jurisdiction), and societal acceptance. On the final issue, he referenced Starsky Robotics, which was featured on 60 Minutes recently. The firm tested at level 4 and 5 but went out of business.

Resources:

- CAV Strategic Framework and Actions: https://mva.maryland.gov/safety/Documents/Maryland-CAV-Strategic-Framework.pdf; https://mva.maryland.gov/safety/Pages/MarylandCAV.aspx
- The Story of Starsky Robotics on "60 Minutes": https://www.cbsnews.com/video/driverless-trucks-trucking-industry-60-minutes-video-2021-08-15/

The Eastern Transportation Coalition (TETC) | Carole Delion, P.E., Division Chief, CATS Division, MDOT SHA

Ms. Delion, as a TETC innovation committee member, shared some of the resources the organization has regarding freight at the regional level. Maryland is one of 17 states and DC that are members of what was formerly called the I-95 Corridor Coalition. In the works, TETC is working on a report regarding the impact of COVID on freight. There is a freight data matrix as part of data sharing efforts. Additionally, TETC recently released its upcoming work plan.

Resources:

- FY21 Year in Review: Year-In-Review-2021-FINAL.pdf
- FY22 Work Plan is here TETC-FY22-Workplan_Final.pdf .
- Freight Data piece "Demystifying Freight Data and the "Freight Data Matric Metadata Document" can be found here: Freight Data

Freight Technologies Poll

Attendees voted on what technology trend should Maryland consider in plans and projects:

- Safety features
- Weigh in motion, truck parking availability, automated OS/OW permitting
- Renewable natural gas and CNG charging stations for heavy trucks. EVs are far off and too expensive and RNG/CNG are much better for the environment and a good steppingstone to EV.
- Mobile technology for all freight
- ADAS, AV, CV safety features
- Freight data exchange
- Freight CAV and other freight related technologies that are not followed by mainstream media
- Freight safety features
- PDDs and on-road automated delivery vehicles
- Coordinated home delivery
- Integration with last-mile delivery and curbside operations
- CAV for freight
- Import/Export ratios

FHWA Update

Freight Analysis Framework and Freight Data | Birat Pandey, P.E. | Freight Analysis and Data Manager, FHWA

Mr. Pandey shared the update of the Freight Analysis Framework FAF5.1. He delivered an overview of the data in that it provides a comprehensive picture of freight movement in the U.S. based in a 2017 survey. It includes freight flow by mode, includes 30-year forecasts, and describes freight flows for 42 commodity groups. Mr. Pandey noted a use-case in analyzing sub-area freight flows within Maryland. He also discussed the benefits and limitations of the data:

Benefits of FAF:

- National level survey of shippers.
- Regular data from federal program since 1997.
- Considers national and international trade.
- Forecast assumptions are balanced nationally.
- Publicly available and ready to use.
- Supports national, State, and large metropolitan areas.
- Supports network flow analysis on the national highway system, higher functional class. roadways, and for a large multi-county corridor.

Limitations of FAF:

- Survey is not tailored for a specific region.
- Potential inconsistency with local growth scenarios.
- Limited granularity for local analysis; local roadways are not fully captured.
- Likely requires supplemental data for local analysis.
- Commodity details may not be sufficient.

Resources:

FAF5.1: https://ops.fhwa.dot.gov/freight/freight_analysis/faf/

Maryland State Update

Freight Plan | Michelle D. Martin | Deputy Director, Office of Planning & Capital Programming, MDOT

Ms. Martin discussed the freight plan's progress. The plan is on track for federal approval in Fall of 2022. Currently, MDOT is working on trends, needs, projects and programs. A look at input collected demonstrates that the major themes the comments were related to safety and technology (22 percent); efficient multimodal access and interconnectivity (19 percent); and systems operations, capacity, and infrastructure (16 percent). The plan is assessing the assets (infrastructure), system, and trends.

Top commodities include:

- By tonnage: Coal, Gravel, and nonmetal mineral products
- By value: Motorized vehicles, mixed freight, and electronics

The freight economy represents 25 percent of the State gross domestic product (GDP), with manufacturing, retail trade, construction, and wholesale trade as leading industries.

Ms. Martin emphasized that the Freight Plan should also assess the key freight needs and issues in a way that reflects the uniqueness of the different regions across Maryland. It is important to balance the broader statewide priorities alongside regional relevancy and interests. The plan is leveraging other plans as strategy starting points in preparation for future actions. These include:

- 2040 Maryland Transportation Plan (MTP)
- 2021 Maryland State Rail Plan Update
- 2020 Maryland Statewide Truck Parking Study
- 2019 Maryland Port Strategic Plan
- As well as other agency strategic plans and stakeholder coordination

A list of topics and focus areas have emerged from this work:

- Safety
- Coordination and Collaboration
- Innovative Technologies (Truck-Focused)
- Truck Platooning
- Truck Parking Information Systems
- Advanced Driver Assistance Systems (ADAS) (e.g., FMCSA Tech-Celerate)
- Other CAV and/or TSMO Opportunities
- Innovative Technologies (Other)
- Personal Delivery Devices (PDD)
- Unmanned Aerial Vehicles (UAV) / Drones
- OS/OW Permitting
- Workforce Development / Truck Driver Shortages
- Urban Loading and Delivery Management
- Rural Freight Infrastructure (e.g., bridges)
- Role of Short Line Rail
- Rail Grant Funding Opportunities
- Air Cargo Capabilities, Growth, and Resilience
- Homeland Security (e.g., pests or nefarious activities)
- Land Use Planning and Policy Making (e.g., Freight-Efficient Land Use Principles)

Ms. Martin then polled members for further feedback

- What other notable trends should we evaluate?
- What other notable focus areas should be considered for the Freight Plan?

Trends (polling results)

- Delivery time impacts from congestion.
- Increase in heavier/wider loads, increased congestion on key travel corridors.
- Workforce training needs.
- E-commerce trends.
- Labor compared to freight metrics—to compare labor issues/deficits against about of freight being moved.
- Demographic changes (with COVID and beyond)—folks moving to the suburbs and rural, and effects on freight delivery.
- Forecasting freight trend changes due to COVID, Howard Street Tunnel project, Eastern Shore bypass and other major changes to Maryland's freight movement.
- Diversification of freight vehicles (part time/ gig work/ passenger vehicles, smaller than USDOT vehicle thresholds).
- Port congestion around the country and more volume coming.
- Expansion of Baltimore port and new commerce.
- Mobile/cell phone advances.
- E-commerce trends and effects of local curbside management innovations on goods movement.
- Efficiencies and integration of freight "hubs"— transported by air, land, and sea.
- On workforce: not just truck driver shortage, but also upskilling of labor to prepare for delivery changes.
- Workforce skill development for indirect freight industry.
- How to connect work force shortages to training opportunities.
- Last-mile deliveries.

Focus Areas (polling results)

- Connectivity between freight transportation needs and related workforce development opportunities that help to resolve these problems.
- Changes in freight—different types of products?
- Any changes in freight types?
- Multistate agreements or practices to accelerate adoptions of technologies.
- Regional coordination of corridors/regulations with neighboring states.
- Electrification of freight vehicles and operations.

Primary Highway Freight System | Nicole Katsikides | MDOT

Dr. Katsikides updated the State Freight Advisory Committee (SFAC) on a request for information from the Federal Highway Administration (FHWA). The agency is seeking input on redesignation of the Primary Highway Freight System (PHFS). The deadline for comment is October 25, 2021. The FHWA is specifically seeking input from SFACs. Therefore, we would appreciate your review of the attached briefing memo and your review of our current network. In the attached memo, we have provided some

thoughts on options; however, we would appreciate any ideas or thoughts you may have that we can compile for FHWA. The options we have developed are based on a review of the current network, truck volumes, and locations of major freight generators. MDOT sent this memo to members via email, requesting input by September 15th.

Resources:

- PHFS Memo and Map: https://arcg.is/1b0PTG
- Federal RFI: https://www.federalregister.gov/documents/2021/08/26/2021-18350/re-designation-of-the-primary-highway-freight-system-phfs

Questions:

Q. Do we have an overlay of critical Freight Corridors and controlled access highways (where platooning is now allowed as of Oct 1st)?

A. I have not created that shapefile, but I think we have something like that. I know that the information was used in decision-making. But I would not limit platooning to the network alone. Freight moves on many roadways not on the network. The network is mileage restricted.

Q. Will MDOT/SFAC be seeking FHWA equally allocate the 1,246 miles to all States?

A. We have not discussed that internally. Not speaking for MDOT - I would caution against trying to divide that mileage equally by all states because not every state has equal freight infrastructure or activity, and the purpose of the PHFS network is to identify the most critical freight network. I would put forth options to increase Maryland's mileage by touting our critical infrastructure and network redundancy that is regionally and nationally significant. But we can talk about the equal mileage suggestion for sure and put it forth from the SFAC in our feedback. I know that AASHTO has routinely discussed that the NHFN network mileage is too limiting, and one thing I did not mention is that the surface transportation re-authorization is an opportunity to either increase the mileage or do away with the mileage restrictions...So, all this could change.

Howard Street Tunnel and Port Update | Brad Smith | General Manager of Strategic Initiatives | MDOT

Mr. Smith provided an update on the project since the last SFAC meeting in March 2021. The National Environmental Policy Act (NEPA) process is now complete. Federal funding from an Infrastructure for Rebuilding America (INFRA) grant should be executed soon. Next is finalizing the CSX agreement. Then construction can begin. Mr. Smith said that in addition to the tunnel, there are 21 bridges that require clearance work. Track lowering will also be a priority. He said he expects that Spring 2022 will see a ramp-up of multiple projects in support of the larger Howard Street Tunnel Project.

Question:

Q. When will the Howard Street Tunnel be completed?

A. CSX expects construction to last 3 to 3.5 years. The earliest construction would be complete is the end of 2024. The project website is here: https://mpa.maryland.gov/pages/hst.aspx.

Updates from the Committee

Kipp Snow | Director, Transportation, Distribution, and Maritime Logistics at Community College of Baltimore County | Workforce Updates

Mr. Snow presented on the current state of workforce development in freight transportation industries. He said 1 in 20 jobs are related to the trucking industry in Baltimore. About 93,000 direct and indirect jobs are related to the port of Baltimore. Baltimore is home to the highest workforce concentration of logisticians in the United States. In the face of direct-to-consumer, e-commerce, technology, and warehousing and storage trends, this is an opportunity for the region to invest differently and heavily in the workforce. Mr. Snow said there are challenges in shortages, gaps in skills, and aging of the workforce.

Mr. Snow proposes creating more career paths for potential workers. He said we must throw away everything we think we know about workforce development. There is also a lack in marketing of the freight industry's needs, and what it can offer to employees, such as high salary jobs without requirements for an advanced degree. Mr. Snow emphasized the need for industry partnerships with non-profits, county/city agencies, and educational institutions at the secondary and post-secondary levels. These partnerships can define career paths, certification for consistency in training, and grow the workforce in an equitable manner.

Questions:

Q. Are there any examples across the nation that Maryland can learn from?

> **A.** The Port of Houston has a robust maritime education operation tied with Community College, 4-year institutions, state agencies and private companies and have developed a very strong program to address workforce needs and is very successful. I can follow up with specific examples of what employers and educational institutions are implementing to address those needs.

Joe Greco | Vice President, Ports America | Ports of America Update on Seagirt Marine Terminal

Mr. Greco discussed the work Ports America is doing at the Seagirt Marine Terminal. The $166 million investment by Ports America includes four additional ship-to-shore cranes, berth deepening to accommodate 14K TEU vessels working simultaneously, two gates, and new technology, as well as 15 additional rubber tire gantry cranes. Most of the work will be completed by the end of this year.

The demand for ports is high, and supply is low. The recent Suez Canal, COVID outbreaks across the supply chain, and there are no quick fixes for these events in the face of high consumer demand. The

Howard Street Tunnel Intermodal Rail project is a generational type of initiative that will change the dynamic of intermodal rail on the East Coast, making Baltimore more attractive to ocean carriers as they seek alternatives to New York and New Jersey.

Closing

Jeff Hirsch | MDOT Assistant Secretary | MDOT Assistant Secretary, Office of Transportation Policy Analysis & Planning

- Members discussed possible future topics.
- Members discussed whether they would like a virtual, in-person, or hybrid for the next meeting.
- Hirsch thanked attendees and welcomed three new SFAC members:
    - Pam Steinebach, Delaware DOT
    - Scott Pauchnik, FedEx
    - Duane Jeffries, W.R. Grace, Inc.

Next Meeting was scheduled for March 2022 | 2:00 p.m. However, MDOT is recommending that we reschedule our meetings to the first Wednesday of April and October to avoid summer vacations and winter weather.

*This would move the NEXT meeting to **Wednesday, April 6, 2022.***