The 291st meeting was called to order at 9:05 A.M. by the Chair, Ms. Valorie LaCour.

1. APPROVAL OF MINUTES

A request for a motion to approve the minutes of the June 27, 2017 BRTB meeting was made by Ms. LaCour. A motion was made by Mr. Tony McClune to approve the minutes and seconded by Mr. Robert Andrews. The minutes were approved unanimously.

2. PUBLIC PARTICIPATION OPPORTUNITY

No members of the public offered comments at this meeting.

3. REPORT ON PUBLIC COMMENTS

Ms. Monica Haines Benkhedda reported that there were no comment periods during July. Staff have been busy conducting face-to-face meetings with organizations and individuals, as well as attending meetings such as the Greater Baybrook Transportation Task Force. Ms. Haines Benkhedda asked that BRTB members let staff know of any opportunities for public participation, as staff are always interested in sharing with the public.

4. REPORT FROM THE PUBLIC ADVISORY COMMITTEE

On behalf of Mr. Eric Norton, Ms. Haines Benkhedda reported that the PAC did not hold a meeting in July, but an ad hoc subcommittee met to finalize a proposal for a Leadership Academy. The PAC hopes to work with BMC staff and BRTB members to host a daylong academy in 2018 to provide 150-200 people with information about the transportation planning process, their role in the decision-making process, and how they can connect with local organizations and BRTB members to stay involved. The PAC will submit the proposal to the BRTB for their consideration shortly.
5. REPORT FROM THE JOINT TECHNICAL COMMITTEE/INTERAGENCY CONSULTATION GROUP MEETING

Ms. Sara Tomlinson, BMC, provided an update from the joint Technical Committee/ICG meeting on July 12.

- The TC approved the City of Annapolis as Chair and Queen Anne’s County as Vice Chair for FY 2018, as offered by the Nominating Committee.
- The TC voted to recommend BRTB approval of Resolution #18-1 for the FY 2018-2021 TIP.
- The TC and the ICG both recommended BRTB approval of Resolution #18-2 for the Conformity Determination of the FY 2018-2021 TIP and Amended Plan.
- The TC voted to move forward to the BRTB Resolution #18-3 for Self-Certification of the BRTB.
- The TC and ICG heard a presentation from Mr. David Krask on the Maryland Department of the Environment’s air quality monitoring program.
- SHA gave a presentation on SHA’s new Active Traffic Management study on I-95 from MD 32 to MD 100.
- MDOT gave a presentation on their transportation demand management strategies and programs.

6. RECOMMENDATION FOR APPROVAL OF RESOLUTION #18-1

Mr. Todd Lang introduced Resolution #18-1 regarding approval of the Baltimore Region FY 2018-2021 Transportation Improvement Program. Mr. Zach Kaufman gave a brief overview of the FY 2018 – 2021 Transportation Improvement Program (TIP). It includes 133 projects requesting a total of $3.04 billion – $2.16 in federal funds and $.88 billion in matching funds. SHA ($1.53 billion), MTA - Transit ($894 million), and Baltimore City ($279 million) are the largest sources of fund requests by implementing agency. Of the nine project categories, highway preservation (72) and highway capacity (30) have the largest number of projects. In regards to total funding by project category, the highway preservation (45%), transit (22%), and highway capacity (14%) categories account for approximately 81% of funds programmed. There are seven projects that are new to the FY 2018-2021 TIP, including three Anne Arundel County projects, two Carroll County projects, and one each from Baltimore City and SHA. A 30-day public review began on May 23, 2017 and ended on June 23, 2017. In addition to one public meeting, a presentation to the Public Advisory Committee, a display at the BWI Business Partnership Transportation Breakfast, and advertisement on the web and in newspapers, BMC staff developed an interactive project map that allows people to view and search for TIP projects. Several comments were received and the BRTB has responded to those comments.

Ms. LaCour asked for a motion. Mr. Andrews made a motion to move Resolution #18-1 and Ms. Heather Murphy seconded the motion. Ms. LaCour asked for a vote and Resolution #18-1 was unanimously approved.

[PowerPoint: Baltimore Region FY 2018-2021 Transportation Improvement Program]
7. **RECOMMENDATION FOR APPROVAL OF RESOLUTION #18-2**

Ms. Tomlinson presented background information on the Conformity Determination for the FY 2018-2021 Baltimore Region Transportation Improvement Program and the Amended Plan: *Maximize 2040*. Air quality conformity ensures that federal funding and approvals are given to transportation activities that are consistent with state air quality plans. This process ties together transportation planning and air quality planning. EPA sets National Ambient Air Quality Standards (NAAQS) for criteria air pollutants. For areas that do not meet the NAAQS, conformity determinations are required. Transportation plans, programs, and projects cannot create new violations, increase the frequency or severity of existing violations, or delay timely attainment of the NAAQS.

The Baltimore region is currently classified as moderate nonattainment for the 2008 8-hour ozone NAAQS. As part of the conformity requirements, the BRTB consults with the Maryland Departments of Environment and Transportation, during the conformity determination process. FHWA, FTA and EPA are also included in the Interagency Consultation Group (ICG).

Through the regional emissions analysis, and use of transportation and emissions modeling, it was determined that estimated summer weekday emissions of VOC and NOx are below motor vehicle emission budgets determined adequate by EPA. At their joint meeting on July 12, the ICG and Technical Committee both recommended BRTB approval of the conformity determination resolution.

Ms. LaCour asked for a motion. Mr. McClune made a motion to move Resolution #18-2 and Ms. Lynda Eisenburg seconded the motion. Ms. LaCour asked for a vote and Resolution #18-2 was unanimously approved.

8. **RECOMMENDATION FOR APPROVAL OF RESOLUTION #18-3**

Mr. Lang gave a brief overview of the Self-Certification of the BRTB, what the BRTB is, along with the Urbanized areas the Board covers. Federal regulations require an annual certification of the regional planning process to FHWA and FTA. Mr. Lang also reviewed the federal requirements of the transportation planning process and how the Board is meeting those requirements. Consideration has been given to a range of areas, including: performance management, air quality conformity, consultation with partners and the public, Title VI and environmental justice, developing and endorsing program documents, identifying a DBE goal, and meeting ADA requirements.

Ms. LaCour asked for a motion to approve Resolution #18-3. Ms. Sally Nash made a motion to move Resolution #18-3 and Mr. Ramond Robinson seconded the motion. Ms. LaCour asked for a vote whereby Resolution #18-3 was unanimously approved. Following approval, Mr. Robinson noted that in the list of BRTB committees there was not one to represent transit. Mr. Lang described previous efforts and the current work group. This topic will be discussed further by the BRTB in the future.
9. UPDATE ON THE MARYLAND ADAPTATION AND VULNERABILITY ASSESSMENT

Ms. Elizabeth Habic, SHA, gave a presentation on the Maryland State Highway Administration’s roadway vulnerability assessment. She first discussed climate stressors, including sea level change, storm surge and precipitation. There are tools to assess the impacts of different climate change stressors. Sea level change in Maryland was estimated using new LiDAR data and tidal station data. Salisbury University estimates sea level change in 2050 and 2100 for the state, using the US Army Corps of Engineers methodology. SHA performs a vulnerability assessment through a scoring tool called VAST. The tool estimates an asset’s sensitivity, adaptive capacity and exposure to climate change stressors. An example of the adaptive capacity of a highway asset would be the availability of redundant routes. These evaluations are important – the Mid-Atlantic region is expected to see double the sea level rise as the rest of the world.

Another tool is the Hazard Vulnerability Index. The HVI was developed for SHA as a tool to evaluate state roads. Inputs to this tool include information on whether the road is an evacuation route, the predicted flood depth, and the functional class. Ms. Habic presented maps of the 25-year storm in several different parts of the region, in 2050 and 2100, and the 100-year storm in 2100. The maps show areas that would have different depths of water over a roadway. She mentioned the Maryland Resiliency Partnership, which is a collaboration of public and private partners in Maryland aimed at leveraging funding, personnel, and projects to assist with integrating hazard mitigation, floodplain management, and resiliency in the state.

Ms. Bihui Xu asked if the jurisdictions have been made aware of this through MACO or MML meetings. Outreach meetings to counties are expected in the future.

[PowerPoint: Roadway Vulnerability Assessment]

10. MDOT SMART SIGNALS PROGRAM

Mr. Ben Myrick, Signal Systems Team Leader at SHA and Chair of the Traffic Signal Subcommittee, gave a preview of an upcoming announcement from the Governor and Secretary on smart signals to be deployed across the state in the very near future. Smart signals include adaptive control, Advanced Traffic Management Systems (ATMS), connected and autonomous vehicle technologies (AV/CV), performance monitoring and ramp metering.

Adaptive control allows signal timing to change as per actual conditions and on average can improve travel time by more than 10 percent. Maryland has been testing adaptive control along several corridors – there are currently 36 adaptive signals in four systems. Mr. Myrick pointed to the US 1 corridor in Elkridge, which has been in operation since October 2015 where before/after studies point to a 3 percent reduction in travel time. He noted may not seem like a lot on the surface but when you take into account a 30 second per vehicle reduction in travel time over roughly 30,000 vehicles a day, that adds up to a significant reduction. A much higher reduction in travel time – closer to 10 percent - was observed during some periods along the MD 24 corridor in Bel Air. Two more adaptive systems are currently being deployed (MD 139 in Towson and US 301 in Bowie). Another 50 plus intersections are planned for FY 2018 using a prioritized list of locations. He noted that there are several challenges
to keeping adaptive systems operational – reliable communications, disruptions caused by construction, reprogramming for added, removed, rebuilt signals, etc.

On performance monitoring, Mr. Myrick noted that there is move towards corridor goals such as safety, pedestrian accessibility, and multi-modal measures. Traditionally, delay and travel time were being used but the ATMS’s provide more tools such as percent arrivals on green, cycle failures, etc. There are currently 99 signals in the Baltimore region on an ATMS – more are being added along high volume corridors along with adaptive control.

MDOT wants to be leader in supporting CV/AV development and the US 1 corridor between MD 32 and I-195 has been identified as a demonstration corridor. SHA is currently testing CV/AV ready-signal controllers in the MD 2 corridor.

For the I-270 Innovative Congestion Management (ICM) corridor, ramp metering is one of the strategies being evaluated. The team has been studying efforts in Portland, Minneapolis and other places and looking to determine who monitors and operates the system.

Members had several questions for Mr. Myrick – in response to a question on how the state prioritizes locations for adaptive control, he noted that it is based on volume, proximity to an interstate facility, major activity centers, etc. With regards to communications for adaptive signals, he noted that most of them are hard wired copper but fiber is also an option. On another question regarding cost, if detection is already available at an intersection, it would only cost roughly $5,000 or so per approach but with full detection it could go up to $70,000 per intersection.

[PowerPoint: Smart Signals. Handout: Save the Date for November 8, 2017 Signal Forum]

11. OTHER BUSINESS

There was no other business.

The meeting adjourned at 10:27 A.M.

ATTENDANCE

Members
Robert Andrews, Harford Transit
Kwame Arhin, Federal Highway Administration (FHWA), Maryland Division
Alexandra Brun, (for Tad Aburn) MD Department of the Environment
Steve Cohoon, Queen Anne’s County Department of Public Works
Lynda Eisenberg, Carroll County Department of Planning
Emery Hines, Baltimore County, Department of Public Works
Clive Graham, Howard County, Office of Transportation
Tony McClune, Harford County, Department of Planning
Valorie LaCour, (for Frank Murphy) Baltimore City Department of Transportation
Heather Murphy, Maryland Department of Transportation, OPCP
Sally Nash, City of Annapolis, Department of Planning
Ramond Robinson, Anne Arundel County, Department of Planning & Zoning
Bihui Xu, Maryland Department of Planning

Staff and Guests
Bala Akundi, Baltimore Metropolitan Council (BMC)
Regina Aris, BMC
Robert, Berger, BMC
Tyson Byrne, MDOT
Monica Haines-Benkhedda, BMC
Kathy Falk, Kimley-Horn
Terry Freeland, BMC
Elizabeth Habic, MDOT-SHA
Don Halligan, BMC
Victor Henry, BMC
Zach Kaufman, BMC
Todd Lang, BMC
Ben Myrick, MDOT - SHA
Marieannette Otero, Safe Routes to School National Partnership
Rebecca Smith, BMC
Sara Tomlinson, BMC
Chris Witt, MDOT

Respectfully submitted,

Todd R. Lang, Secretary
Baltimore Regional Transportation Board