



CONFORMITY DETERMINATION OF THE 2023-2026 TRANSPORTATION IMPROVEMENT PROGRAM AND *MAXIMIZE 2045* - APPENDICES

Prepared by the Baltimore Regional Transportation Board



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Appendix A: Conformity Requirement Checklist

Appendix A: Conformity Requirement Checklist

| Section of 40 CFR Part 93 | Requirement | BRTB's Response |
|--------------------------------------|--|---|
| §93.110 | Is the conformity determination based upon the latest planning assumptions? | Yes |
| | (a) Is the conformity determination, with respect to all other applicable criteria in §93.111-§93.119, based upon the most recent planning assumptions in force at the time the conformity analysis began? | (a) Yes. The conformity determination uses the most current planning assumptions in force and approved by the Interagency Consultation Group (ICG) at the time the conformity analysis began. Vehicle fleet characteristics used reflect 2017 vehicle registration data for the Baltimore region. |
| | (b) Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other designated agency? Is the conformity determination based upon the latest assumptions about current and future background concentrations? | (b) Yes. This conformity determination utilizes the most recent demographic and employment data; it uses Round 10 socioeconomic forecasts endorsed by the BRTB in June 2022. The travel demand model was validated to a 2019 base year. |
| | (c) Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination? | (c) Yes. All existing and proposed transit systems and service for the planning horizons have been included in the conformity analysis. |
| | (d) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time. | (d) See above. In addition, the Maryland Transportation Authority has indicated that there are no plans to increase road or bridge tolls in the future. |
| | (e) The conformity determination must use the latest existing information regarding the effectiveness of the transportation control measures (TCMs) and other implementation plan measures that have already been implemented. | (e) Currently, there are no adopted TCMs in the corresponding SIPs. |
| | (f) Key assumptions shall be specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105. | (f) Key assumptions are specified and other supporting documents are included in this conformity determination document, which is available to the public and the ICG. |

Appendix A: Conformity Requirement Checklist

| Section of 40 CFR Part 93 | Requirement | BRTB's Response |
|--------------------------------------|---|--|
| §93.111 | Is the conformity determination based upon the latest emissions model? | Yes. EPA's latest emissions model, Motor Vehicle Emissions Simulator (MOVES) 2014a was used for this conformity determination. EPA's announcement of the MOVES3 emissions model for SIPs and transportation conformity analyses in states other than California was effective January 7, 2021. This announcement started a two-year transportation conformity grace period that ends on January 9, 2023. After this date, MOVES3 will need to be used as the latest EPA emissions model in both regional emissions analyses and in hot-spot analysis for new transportation conformity analyses outside of California. |
| §93.112 | Did the MPO make the conformity determination according to the consultation procedures of the Conformity Rule or the state's conformity SIP? | Yes. Consultation procedures were followed in accordance with the Transportation Conformity Rule. Appropriate agencies were consulted. A scope of work was made available to FHWA, FTA and EPA. |
| §93.106(a) (1) | (1) Are the transportation plan horizon years correct? | Yes. The attainment years for the 1997, 2008, and 2015 ozone NAAQS are not within the timeframe of the TIP and Plan. The first modeled horizon year is 2025 , a year within 10 years of transportation demand model base year 2019. The second horizon year, 2035 , is set so that there are no more than 10 years between horizon years. The third horizon year is 2045 , the date of full implementation of the Plan. |
| §93.106(a) (2)(i) | Does the plan quantify and document the demographic and employment factors influencing transportation demand? | Yes. Round 10 socioeconomic forecasts are available in Appendix D of this document. |
| §93.106(a) (2)(ii) | Is the highway and transit system adequately described in terms of regionally significant additions or modifications to the existing transportation network which the transportation plan envisions to be operational in horizon years? | Yes. The regionally significant additions and modifications to the network utilized in this conformity analysis are listed in Appendix C. It provides a listing of projects from the 2023-2026 TIP. |

Appendix A: Conformity Requirement Checklist

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|------------|--|---|
| §93.108 | Is the transportation plan fiscally constrained? | Yes. The transportation plan is fiscally constrained. See Appendix J for documentation. |
| §93.113(b) | Are TCMs being implemented in a timely manner? | There are no transportation control measures in the SIP. |
| §93.118 | For Areas with SIP Budgets: Is the Transportation Plan, TIP, or Project consistent with the established motor vehicle emissions budget(s) in the applicable SIP? | Yes. The TIP and the Plan result in fewer emissions than the established budgets for all pollutants in each applicable analysis year. |

Appendix B: Interagency Consultation

Appendix B: Interagency Consultation

The major steps of the Interagency Consultation Process regarding the Conformity Determination of the 2023-2026 Transportation Improvement Program and Maximize 2045 took place at the following meetings:

- February 9, 2022 – Interagency Consultation Group - Review and approval of methodology/assumptions for conformity determination
- April 6, 2022 – Interagency Consultation Group - Review and approval of conformity status of projects
- June 30, 2022 - Interagency Consultation Group – results presented with support to release for public review
- July 26, 2022 – Virtual Public Meeting on the Conformity Determination and TIP
- August 9, 2022 - Technical Committee review of public comments and then recommendation to move the TIP to the BRTB for approval
- August 10, 2022 - Interagency Consultation Group review of results of emissions analysis and any related public comments. ICG agreed to send the Conformity Determination to the BRTB for approval
- August 23, 2023 - BRTB Meeting – approval of the Conformity Determination and TIP

Appendices C-1 and C-2: Conformity Status of Projects from the 2023-2026 TIP

C-1 Exempt Projects

C-2 Non-Exempt Projects

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|---------------------|---|------------|--|---------------|-------------------|------|---------------------|
| Anne Arundel County | Furnace Avenue Bridge over Deep Run | 11-1103-13 | <p>This project will reconstruct the existing bridge to correct existing deficiencies, a substandard approach road and bridge deck geometry. Five foot shoulders are planned on both sides of the road. No sidewalks will be included as part of this project.</p> <p>FY 2023 engineering funds will complete preliminary design through NEPA and FY 2024 engineering funds will complete final design.</p> | 2 to 2 lanes | Exempt | 2026 | NA |
| Anne Arundel County | Harwood Road Bridge over Stocketts Run | 11-1208-13 | <p>This project will replace the existing bridge over Stocketts Run. Three foot shoulders are planned on both sides of the road.</p> <p>Engineering funds were included in the FY 2014-2017 TIP. FY 2023 funds are to complete construction.</p> | 2 to 2 lanes | Exempt | 2023 | NA |
| Anne Arundel County | Magothy Bridge Road Bridge over Magothy River | 11-1402-13 | <p>This project will replace the bridge deck and add shoulders to the bridge over the Magothy River. Five foot sidewalks and seven foot shoulders are planned on both sides of the road. The estimated total cost has increased from \$5.117 million to \$6.107 million due to construction cost escalation and permitting requirements.</p> <p>Engineering funds were first included in a previous TIP. FY 2023 funds are to complete the construction phase.</p> | 2 to 2 lanes | Exempt | 2024 | NA |
| Anne Arundel County | O'Connor Road Bridge over Deep Run | 11-1403-13 | <p>This project will replace the bridge over Deep Run at O'Connor Road. Three foot shoulders are planned on both sides of the road. The estimated total cost has increased from \$6.666 to \$8.143 million due to increases in preliminary engineering costs and refined construction cost estimates.</p> <p>Engineering funds were first included in the FY 2014-2017 TIP. FY 2023 engineering funds are to complete the final design after NEPA approval.</p> | 2 to 2 lanes | Exempt | 2026 | NA |
| Anne Arundel County | McKendree Road Culvert over Lyons Creek | 11-1601-19 | <p>This project is to remove and replace the culvert on McKendree Road over Lyons Creek to correct the structurally deficient condition of the existing multicell culvert. Three foot shoulders are planned on both sides of the road.</p> <p>Engineering funds were first included in FY 2017. FY 2023 funds are to complete final design. Costs increased from \$1.829 M to \$2.722 M due to revised construction estimates and preliminary engineering.</p> | 2 to 2 lanes | Exempt | 2024 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|---------------------|---|------------|--|---------------|-------------------|------|---------------------|
| Anne Arundel County | Polling House Road Bridge over Rock Branch | 11-1602-13 | This project will replace the existing bridge along Polling House Road over Rock Branch to correct the deteriorated structure and obsolete deck geometry. Three foot shoulders are planned on both sides of the road. The estimated total cost has increased from \$2.56 million to \$2.875 million as a result of preliminary engineering increases. Engineering funds through NEPA approval were included in FY 2023. | 2 to 2 lanes | Exempt | 2026 | NA |
| Anne Arundel County | Hanover Road Corridor Improvement | 11-1801-42 | This project is to provide design and right-of-way acquisition of a section of Hanover Road on a new alignment between Ridge Road and New Ridge Road in Hanover. Project limits increased to accommodate vertical alignment adjustments which accounts for the cost increase from \$12.2 million to \$25.7 million. Engineering funds were programmed in FY 2017. The estimated total cost includes estimated funding to complete design and right-of-way acquisition of this project. No schedule or funding for construction has been determined. | 0.7 miles | Exempt | TBD | NA |
| Anne Arundel County | Parole Transportation Center | 11-2101-66 | This project will provide a multi-modal transportation center in Parole at the Westfield Annapolis Mall. The facility will serve existing local and regional bus service, but will also be designed as an intermodal hub with possible future connectivity to modes such as bikeshare, carshare, and ridehailing services. Cost increase from \$14.175 million to \$15.574 million is a result of increased prevailing wage rates and construction escalation. | NA | Exempt | 2025 | NA |
| Anne Arundel County | Hanover Road Bridge over Deep Run | 11-2105-13 | This project will replace the existing bridge along Hanover Road over Deep Run due to its deteriorating condition. The width and inclusion of shoulders and sidewalks will be evaluated during engineering. Cost is projected to decrease from \$8.628 M to \$6.945 M due to refined construction estimate. | 2 to 2 lanes | Exempt | 2026 | NA |
| Anne Arundel County | Conway Road Bridge over Little Patuxent River | 11-2106-13 | This project will replace the existing bridge along Conway Road over the Little Patuxent River due to its deteriorating condition. The width and inclusion of shoulders and sidewalks will be evaluated during engineering. | 2 to 2 lanes | Exempt | 2027 | NA |
| Anne Arundel County | Jacobs Road Bridge over Severn Run | 11-2107-13 | This project will replace the existing bridge along Jacobs Road over Severn Run due to its deteriorating condition. The width and inclusion of shoulders and sidewalks will be evaluated during engineering. | 2 to 2 lanes | Exempt | 2027 | NA |
| Baltimore City | Perring Parkway Ramp over Herring Run | 12-1215-13 | This project includes replacement of the Perring Parkway ramp over Herring Run. Engineering for this project was originally authorized in FY 2016. | 4 to 4 lanes | Exempt | 2023 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|---------------|-------------------|---------|---------------------|
| Baltimore City | Sisson Street Bridge over CSX Railroad | 12-1216-13 | The 133-foot long bridge was originally built in 1914 and was rehabilitated in 1950, but severe deterioration is now evident throughout and the structure must be replaced. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. CSX is providing 75% of the construction cost for the project. Engineering funds for this project were authorized in FY 2019. | 2 to 2 lanes | Exempt | 2024 | NA |
| Baltimore City | Citywide Traffic Signals, Intelligent Transportation System and Safety Improvements | 12-1218-07 | This project includes signal and traffic improvements citywide which may include but are not limited to: traffic signal system upgrades, ITS and system integration, traffic signal timing optimization, traffic surveillance camera expansion, traffic signal replacements and upgrades, communications equipment including fiber optic, copper and wireless, variable message signs, vehicular and pedestrian detector upgrades, intersection improvements, signs and marking. Projects included in this TIP ID are: 1) CCTV and signal rewiring citywide, 2) installation of fiber optic and copper communications citywide, 3) ITS deployment and upgrades citywide, 4) geometric improvements at multiple intersections, 5) traffic signal reconstruction, and 6) traffic signal timing optimization. Engineering and planning funds for the traffic signal timing optimization project were included in FY 2022. | NA | Exempt | Ongoing | NA |
| Baltimore City | Wilkens Avenue Bridge Over Gwynns Falls | 12-1403-13 | This project involves replacement of the bridge, which has deteriorated beyond repair. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. Engineering for this project was originally authorized in FY 2013 under TIP ID 12-1030-13. | 4 to 4 lanes | Exempt | 2025 | NA |
| Baltimore City | Belair Road Complete Streets | 12-1404-11 | Design and construction for street, sidewalk, bike improvements and greening at key nodes on Belair Road, including Frankford Avenue, Erdman Avenue, and Fleetwood Avenue. This project is a major implementation item from the Urban Land Institute Belair Road report and BCDOT traffic study. FY 2022 engineering and FY 2023 construction funds are for Phase II, which includes the intersection of Belair Road and Erdman Avenue. Phase I, which includes the intersection of Belair Road and Frankford Avenue, was completed in February 2021. The year of operation of 2025 reflects the completion of Phase II. Phase III, which includes the intersection of Belair Road and Fleetwood Avenue is not currently funded. | 4 to 4 lanes | Exempt | 2026 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|-------------------------|-------------------|------|---------------------|
| Baltimore City | Orleans Street Bridge over I-83 and City Streets | 12-1601-13 | This work will include but will not be limited to rehabilitating the deteriorated bridge with structural improvements, cleaning and painting of the steel elements, replacing and reconfiguring the storm drain system and other repairs in order to correct the deteriorated components of the bridge. The sidewalk along the south side of the bridge will remain in place. | 6 to 6 lanes, 1728 feet | Exempt | 2028 | NA |
| Baltimore City | Remington Avenue Bridge over Stony Run | 12-1602-13 | This work will include but will not be limited to rehabilitating the deteriorating bridge so that it meets current standards. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. Engineering for this project was authorized in FY 2016. | 2 to 2 lanes | Exempt | 2024 | NA |
| Baltimore City | Radecke Avenue and Sinclair Lane over Moores Run | 12-1603-13 | This project includes replacement of the deteriorated bridge on Radecke Avenue with a new structure that will meet current standards. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. Engineering for this bridge was authorized in FY 2019. The project scope has expanded to include rehabilitation of the Sinclair Lane bridge over Moores Run. The existing beams and deck will be removed and replaced. Engineering funds for this bridge were authorized in FY 2021. The two bridges are in close proximity to each other and will advertise for construction as one project in FY 2024. This will result in less disruption to the community and a greater cost savings to Baltimore City. | 2 to 2 lanes | Exempt | 2026 | NA |
| Baltimore City | I-83 Concrete Deck Mill and Resurface | 12-1604-13 | This work will include but will not be limited to rehabilitating the deteriorating concrete decks of the bridges with new wearing surfaces that meet current standards. The limits of this project are between Exit 1 and Exit 10. Engineering funds for this project were authorized in FY 2020. | 6 to 6 lanes | Exempt | 2026 | NA |
| Baltimore City | Moravia Road Ramp Bridge over Pulaski Highway | 12-1605-13 | This work will include but will not be limited to rehabilitating the existing deteriorated bridge with new bridge components that meet current standards. The total cost increased \$5.5 million as a result of additional work needed due to continued deterioration as well as industry cost increases. | 4 to 4 lanes | Exempt | 2029 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|-------------------------|-------------------|---------|---------------------|
| Baltimore City | Transportation Management Center Upgrade | 12-1701-04 | This project will upgrade the central computer system or Advance Traffic Management System (ATMS) along with field controllers and integrate the system with controllers and ITS devices to effectively and safely manage traffic. The system may include but is not limited to software, computer hardware, servers, switches and communications equipment. The current ATMS, known as an i2 System is more than 15 years old and has been discontinued by the vendor. Replacement with a new system requires a complete upgrade of hardware and software, replacement of field controllers, and installation of communications equipment for field devices. The estimated total cost has increased from \$6.15 million to \$11.65 million due to the addition of 150 field locations to the project. | NA | Exempt | 2025 | NA |
| Baltimore City | Monroe Street Ramp over CSX and Russell Street over CSX | 12-1801-13 | This project will replace the bridges carrying the Monroe Street ramp and Russell Street over CSX (sufficiency ratings of 47.8 and 41.2). This replacement includes full depth concrete pavement replacement as well as water, conduit, and BGE. The Monroe Street ramp bridge carries traffic from the southbound I-95 off ramp onto southbound MD 295. The Russell Street bridge carries traffic northbound and southbound into and out of Baltimore City to MD 295. Engineering funds for this project were authorized in FY 2012 under TIP ID #12-1030-13 (citywide bridge). | 2 to 2 lanes, .53 miles | Exempt | 2031 | NA |
| Baltimore City | Capital Project Delivery Services | 12-1901-99 | The purpose of this project is to provide the technological and project management improvements needed to support the design and construction phases of CIP projects. The TIP funding will be used for project delivery services of capital federal-aid roadway projects. This program was initiated in FY 2019. | NA | Exempt | Ongoing | NA |
| Baltimore City | 25th Street Rehabilitation from Greenmount Avenue to Kirk Avenue | 12-2001-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. In addition to roadway rehabilitation, a mixed use trail to accommodate bicycles and pedestrians will be included in the project. Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design. | 4 to 4 lanes, 2,050 ft | Exempt | 2026 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|---|------------------------|-------------------|---------|---------------------|
| Baltimore City | 41st Street over I-83, MTA Light Rail Tracks, and Jones Falls | 12-2002-13 | The 1,238-foot long bridge was originally built in 1930 and was rehabilitated in 1986, but severe deterioration is now evident throughout and the structure must be evaluated to determine whether the bridge should be rehabilitated or replaced. The estimated total cost of \$19.55 million assumes a bridge rehabilitation, which is substantially less expensive than a replacement. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. The existing lighting system will also be upgraded. | 4 to 4 lanes, 1,238 ft | Exempt | 2030 | NA |
| Baltimore City | Citywide Asset Management | 12-2003-19 | This project is for activities related to the development and implementation of a performance based management program for Baltimore City federal-aid roadways. Local funds will be used for roads that are not federal-aid eligible. These activities will include, but are not limited to data collection, condition assessment, condition index rating for prioritization rankings, road treatments, licensing software and equipment required for risk-based asset management. | NA | Exempt | Ongoing | NA |
| Baltimore City | Brehms Lane over Herring Run | 12-2005-13 | The 92-foot long bridge was originally built in 1963, but severe deterioration is now evident throughout and the structure must be replaced. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. | 2 to 2 lanes, 92 ft | Exempt | 2028 | NA |
| Baltimore City | Fremont Avenue Rehabilitation from Lafayette Avenue to Presstman Street | 12-2007-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. The project will also include pedestrian safety improvements. Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design. The estimated total cost has been revised from \$7.07 million to \$7.27 to reflect the actual costs of preliminary design and proposed final design costs. | 2 to 2 lanes, 2500 ft | Exempt | 2025 | NA |
| Baltimore City | Hanover Street Over CSX | 12-2008-13 | The 367-foot long bridge was originally built in 1900 and was rehabilitated in 1975, but severe deterioration is now evident throughout and the structure must be replaced. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. | 5 to 5 lanes, 375 ft | Exempt | 2027 | NA |
| Baltimore City | Howard Street over I-83, CSX, Amtrak, and Jones Falls | 12-2009-13 | The 979-foot long bridge was originally built in 1938 and was rehabilitated in 1981, but severe deterioration is now evident throughout and the structure must be studied for either rehabilitation or replacement. The estimated total cost of \$49.45 million assumes a bridge replacement, which is substantially more expensive than a rehabilitation. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. The existing lighting system will also be upgraded. | 5 to 5 lanes, 979 ft | Exempt | 2030 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|-----------------------|-------------------|------|---------------------|
| Baltimore City | Madison Street Rehabilitation from North Milton Avenue to Edison Highway | 12-2010-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. Pedestrian improvements include bump outs for shorter crossings and improved crosswalks/intersections. Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design. The estimated total cost has been revised downward from \$7.624 million to \$7.924 million based on the actual costs of preliminary design and the proposed costs of final design. | 2 to 2 lanes, 2700 ft | Exempt | 2025 | NA |
| Baltimore City | Park Heights Avenue from West Rogers Avenue to Strathmore Avenue | 12-2011-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design. | 4 to 4 lanes, 4100 ft | Exempt | 2026 | NA |
| Baltimore City | Pennington Avenue Rehabilitation from Birch Street to East Ordnance Road | 12-2013-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. ADA compliant sidewalks will be added where there are no existing sidewalks. Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design. The estimated total cost has been revised downward from \$10.4 million to \$9.9 million to reflect actual preliminary design costs and proposed final design costs. | 4 to 4 lanes, 3500 ft | Exempt | 2026 | NA |
| Baltimore City | Waterview Avenue over Ramp to 295 | 12-2015-13 | The 75-foot long bridge was originally built in 1950, but severe deterioration is now evident throughout and the structure must be evaluated to determine whether the bridge should be rehabilitated or replaced. The estimated total cost of \$6 million assumes a bridge replacement, which is substantially more expensive than a rehabilitation. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks. | 4 to 4 lanes, 75 ft | Exempt | 2027 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|---|-------------------|------|---------------------|
| Baltimore City | Greenway Middle Branch Phase 2 | 12-2102-03 | <p>The Middle Branch Phase 2 project involves the construction of a 0.8 mile trail as part of the Baltimore Greenway Loop that connects Baltimore City's major parks. The trail will serve both pedestrians and cyclists. The type of facility varies between an off-street shared-use trail and an on-street cycle track. The facility will be two-way through the project limits.</p> <p>Engineering was funded with a FY 2019 discretionary grant through the Surface Transportation Block Grant program set-aside for Transportation Alternatives.</p> | 0.8 miles | Exempt | 2025 | NA |
| Baltimore City | Harford Road Bridge Over CSX | 12-2106-13 | <p>The 100 foot bridge that carries Harford Road over the CSX tracks is deteriorated and requires replacement. The existing sidewalks will be replaced with standard SHA and ADA compliant sidewalks.</p> <p>Engineering funds and matching funds for construction are being provided by CSX. Engineering funds were authorized in FY 2019.</p> | 4 to 4 Lanes, 100 feet | Exempt | 2024 | NA |
| Baltimore City | RAISE Transit Priority Project | 12-2201-64 | The East-West Priority Corridor project proposes a comprehensive suite of investments that will facilitate more efficient transit trips, improve multi-modal connections, and address existing safety issues. This project applies strategies from the Transit Priority Toolkit to directly addresses existing challenges in the corridor, offering near-term investments to better connect people to jobs, education, amenities, and leisure activities while the region considers long-term options via the Regional Transit Plan. Planned strategies include dedicated bus lanes, peak only bus lanes, intersection queue jump for buses, transit signal priority, bus stop optimization and accessibility improvements, and bus bulbs. The corridor is currently served by multiple bus routes, including both the CityLink Blue and Orange. The state of Maryland is providing matching funds for this project. | 10.5 miles of roadways, existing number of lanes maintained | Exempt | 2025 | NA |
| Baltimore City | Northern Parkway at Falls Road Traffic Safety and Bike Facility Improvements | 12-2301-39 | <p>This project seeks to construct the following:</p> <ol style="list-style-type: none"> 1. A protected bicycle facility on Falls Road between Northern Parkway and Coldspring Lane 2. Provide geometric safety improvements at the intersection of Northern Parkway at Falls Road | 4 lanes to 3; 1.3 miles | Exempt | 2027 | NA |
| Baltimore City | Russell Street Pavement Rehabilitation from Russell Street Viaduct to City Line | 12-2302-11 | Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, curb and gutter replacement, sidewalk repair, streetlight fixture upgrade, new signage, and pavement marking. | 6 lanes to 6: 2.1 miles | Exempt | 2027 | NA |
| Baltimore City | Frederick Avenue ADA Upgrades (Brunswick to S. Pulaski) | 12-2303-25 | Upgrade ADA pedestrian facilities including curb ramps, sidewalks, removal of obstructions to provide compliant ADA access from Brunswick Street to S. Pulaski Street to the transit transfer stops along Frederick Ave. | 4 lanes to 4 lanes; 0.66 miles | Exempt | 2028 | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|---------------|-------------------|---------|---------------------|
| Baltimore City | Communication Upgrades Wireless | 12-2304-07 | Rehabilitate and upgrade aging and deteriorated signal & ITS (Intelligent Transportation System) communication network. | NA | Exempt | 2028 | NA |
| Baltimore County | Dogwood Road Bridge No. B-0072 Over Dogwood Run | 13-0001-13 | <p>This project is for the total replacement of the existing bridge. The new structure will carry two traffic lanes and one 3 foot shoulder and one 6 foot shoulder. The year of operation has been delayed from 2023 to 2024 due to delays in right of way acquisition.</p> <p>Engineering funding was included in the FY 2013 TIP.</p> | 2 to 2 lanes | Exempt | 2024 | NA |
| Baltimore County | Hammonds Ferry Road Bridge No. B-0100 over CSX Railroad | 13-1012-13 | <p>This project includes replacing the deck and superstructure, and rehabilitation of the overall structure. The existing bridge has two 5-foot wide sidewalks and two 6-foot shoulders. The new structure will continue to have 5-foot sidewalks and 6-foot shoulders.</p> <p>Engineering funds were included in FY 2013. Project cost increase of \$800,000 is a result of updated engineers estimates and increased bid item costs.</p> | 2 to 2 lanes | Exempt | 2024 | NA |
| Baltimore County | Peninsula Expressway Bridge No. B-0119 over CSX Railroad | 13-1108-13 | This project includes rehabilitation or replacement of the dual bridge carrying Peninsula Expressway over CSX railroad tracks. Both structures have 3 foot wide shoulders on both sides. The width of shoulders and need for sidewalks will be evaluated during preliminary design. | 4 to 4 lanes | Exempt | 2026 | NA |
| Baltimore County | Golden Ring Road Bridge No. B-0110 over Stemmers Run | 13-1208-13 | This project includes replacement of the bridge carrying Golden Ring Road over Stemmers Run. The proposed bridge will have minimum 2 foot shoulders. Shoulder widths and sidewalks will be evaluated during preliminary design. The anticipated cost of the project has been revised (3 2022) to reflect the currently anticipated scope of work (full replacement addressing local flooding issue). | 2 to 2 lanes | Exempt | 2027 | NA |
| Baltimore County | Rossville Boulevard Bridge No. B-0132 over Amtrak & Orems Road | 13-1701-13 | This project includes rehabilitation of the bridge carrying Rossville Boulevard over Amtrak Railroad & Orems Road. The proposed bridge will have 5 foot wide sidewalks along both sides of the deck. Shoulder widths will be evaluated during preliminary design. | 4 to 4 lanes | Exempt | 2027 | NA |
| Baltimore County | Bridge Inspection Program | 13-8901-14 | This project includes countywide inspection of all bridges as federally mandated as well as review of countywide bridge inspection reports. | NA | Exempt | Ongoing | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|---------------|-------------------|------|---------------------|
| Carroll County | Stone Chapel Road Bridge over Little Pipe Creek | 14-1103-13 | <p>This project includes replacement of the existing bridge to provide efficient access for local truck traffic to MD 31. The bridge geometry and lane configuration will be determined during initial design. The total cost of this project increased from \$922,000 to \$1,440,000 in 2021 due to changing from a bridge rehabilitation to a bridge replacement project.</p> <p>Engineering funds through the NEPA process were previously authorized. FY 2022 engineering funds are to complete final design.</p> | 2 to 2 lanes | Exempt | 2025 | NA |
| Carroll County | Gaither Road Bridge over South Branch Patapsco River | 14-1602-13 | <p>This project includes rehabilitation of the existing bridge with a new superstructure (type TBD) to provide efficient access for local traffic and emergency service vehicles. The bridge geometry and lane configuration will be determined during initial design.</p> | 2 to 2 lanes | Exempt | 2029 | NA |
| Carroll County | McKinstry's Mill Road Bridge over Sam's Creek | 14-1603-13 | <p>This project includes replacement of the existing bridge with a new structure (type TBD) to provide efficient access for local traffic and emergency service vehicles. The bridge geometry and lane configuration will be determined during initial design. The estimated total cost has been updated from \$1.147 million to \$1.465 million in 2021 to account for funds approved by FHWA and escalating the construction cost to the anticipated year of construction.</p> <p>Engineering funds through the NEPA process were previously authorized. FY 2022 engineering funds will complete final design.</p> | 2 to 2 lanes | Exempt | 2025 | NA |
| Carroll County | Hughes Shop Road Bridge over Bear Branch | 14-1802-13 | <p>This project includes replacement of the existing bridge with a new structure (type TBD). The bridge geometry and lane configuration will be determined during initial design. The estimated total cost has been updated from \$1.697 million to \$2.079 million in 2021 to reflect funds designated by FHWA and to escalate the construction costs forward to the anticipated year of construction.</p> <p>Engineering funds through the NEPA process were previously authorized. FY 2022 engineering funds will complete final design.</p> | 2 to 2 lanes | Exempt | 2025 | NA |
| Carroll County | Old Kays Mill Road Culvert over Beaver Run | 14-2101-13 | <p>This project includes replacement of a 3-cell riveted steel structure plate pipe arch. The replacement structure type, geometry, and lane use configuration will be determined during initial design.</p> | 2 to 2 lanes | Exempt | 2028 | NA |
| Carroll County | Brown Road Culvert over Roaring Run | 14-2102-13 | <p>This project includes replacement of a 3-cell corrugated steel pipe arch. The replacement structure type, geometry, and lane use configuration will be determined during initial design.</p> | 2 to 2 lanes | Exempt | 2026 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|---------------|-------------------|---------|---------------------|
| Carroll County | McKinstrys Mill Road over Little Pipe Creek | 14-2103-13 | This project includes replacement of a single span steel beam bridge. The replacement structure type, geometry, and lane use configuration will be determined during initial design. Costs have been updated in 2021 to reflect moving the engineering and construction further into the future. | 2 to 2 lanes | Exempt | 2027 | NA |
| Carroll County | Patapsco Road Bridge over East Branch Patapsco River | 14-2201-13 | This project includes replacement of the existing 1-span bridge with a new structure, including abutments. The new structure will consist of two 11' travel lanes, which is slightly wider than the existing structure. The replacement structure type, geometry, and lane use configuration will be determined during initial design. | 2 to 2 lanes | Exempt | 2024 | NA |
| Carroll County | Upper Beckleysville Road Bridge over Murphy Run | 14-2202-13 | This project includes replacement of the existing 1-span bridge with a new structure, including abutments. The new structure will consist of two 11' travel lanes to match the existing approach roadway. The replacement structure type, geometry, and lane use configuration will be determined during initial design. | 2 to 2 lanes | Exempt | 2024 | NA |
| Carroll County | Bridge Inspection Program | 14-9401-14 | This project includes a field inspection of 135 county owned and maintained structures and completion and submittal of inspection reports to county and state agencies for each structure. | NA | Exempt | Ongoing | NA |
| Harford County | Abingdon Road Bridge #169 over CSX Railroad | 15-1001-13 | This project includes replacement of the bridge that carries Abingdon Road over the CSX Railroad tracks. A five foot sidewalk is planned on one side of the road. Five foot shoulders are planned on both sides of the bridge. Increase should reflect \$8.75 million to be in-line with subsequent TIP FY table. Engineering funds through NEPA approval were authorized in FY 2021. FY 2024 engineering funds are to complete final design. | 2 to 2 lanes | Exempt | 2025 | NA |
| Harford County | Grier Nursery Road Bridge #43 over Deer Creek | 15-2001-13 | This project includes replacement of the entire superstructure for the Grier Nursery Road bridge over Deer Creek. The bridge will not include sidewalks but will include shoulders (width TBD during engineering). Engineering funds through NEPA were authorized in fall 2020. FY 2023 engineering funds are for completion of final design. The increase in cost is due to determining the project to be a full replacement and recent inflation on material costs. | 2 to 2 lanes | Exempt | 2026 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|---------------|-------------------|------|---------------------|
| Harford County | Hookers Mill Road Bridge #13 over Bynum Run | 15-2002-13 | <p>This project includes replacement of the entire bridge that carries Hookers Mill Road over Bynum Run. The design is anticipated to include a 30-foot clear roadway consisting of two 11-foot travel lanes and two 4-foot shoulders. 5-foot sidewalks will be placed directly behind the curb on both sides of Hookers Mill Road. The bridge section will be evaluated during preliminary design to determine if a sidewalk will be placed on one or both sides of the bridge.</p> <p>Engineering funds were authorized in FY 2021. FY 2023 engineering funds are for the completion of final design.</p> | 2 to 2 lanes | Exempt | 2026 | NA |
| Harford County | St. Clair Bridge Road Bridge #100 over Deer Creek | 15-2102-13 | This project includes replacement of the deck of the bridge carrying St. Clair Bridge Road over Deer Creek. The bridge will not include sidewalks but will include shoulders on each side of the roadway (width TBD during engineering). Previous cost only included preliminary design. This cost includes design and construction costs. The estimated total cost has been updated to reflect the full scope of work. | 2 to 2 lanes | Exempt | 2028 | NA |
| Harford County | Stafford Road Bridge #162 over Buck Branch | 15-2103-13 | This project includes replacement of the deck of the bridge carrying Stafford Road over Buck Branch. The scope of work includes replacement of the superstructure as the superstructure is rated in fair condition. The bridge will not include sidewalks but will include shoulders on each side of the roadway (width TBD during engineering). The previous cost only included preliminary design. This cost includes design and construction costs. The estimated total cost has been updated to reflect the full scope of work. | 2 to 2 lanes | Exempt | 2027 | NA |
| Harford County | Trappe Church Road Bridge #161 over Hollands Branch | 15-2104-13 | This project includes full replacement of the of the bridge carrying Trappe Church Road over Hollands Branch. The bridge will not include sidewalks but will include shoulders on each side of the roadway (width TBD during engineering). The previous estimated total cost of \$300,000 included engineering only. It has been updated to reflect the full scope of work for the project. | 2 to 2 lanes | Exempt | 2027 | NA |
| Harford County | Moores Road Bridge #78 over a tributary to Gunpowder Falls | 15-2201-13 | This project includes replacement of the entire structure carrying Moores Road over a tributary to Gunpowder Falls. The inclusion of sidewalks and shoulders will be determined during engineering. The project also includes realignment of the approach roadways for improved safety. The increase in project cost is because engineering costs were updated to reflect total anticipated engineering costs. | 2 to 2 lanes | Exempt | 2027 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|------------------------------|--|------------|--|---------------|-------------------|---------|---------------------|
| Harford County | Hess Road Bridge #81 over Yellow Branch | 15-2202-13 | <p>This project includes replacement of bridge #81 carrying Hess Road over Yellow Branch. Shoulders will be included as part of the bridge replacement (width to be determined during preliminary engineering). Sidewalks will not be included on the bridge.</p> <p>The estimated total cost includes only the cost of engineering and will be updated when the scope of work is fully defined.</p> | 2 to 2 lanes | Exempt | 2029 | NA |
| Harford County | Bridge Inspection Program | 15-9411-14 | This federal program provides funding for the inspection of bridges in Harford County. | NA | Exempt | Ongoing | NA |
| Howard County | Bridge Repair and Deck Replacement | 16-0436-13 | <p>This project is to repair/replace bridge decks with a mix of county match and federal funding. The project also includes emergency structure reconstruction. The following bridges are included: River Road over Rockburn Branch; Henryton Road over tributary to the Patapsco River (HO-0105); Pindell School Road over Hammond Branch; Daisy Road over Little Cattail Creek; Pfefferkorn Road over Middle Patuxent River; Carroll Mill Road over Benson Branch; Sheppard Lane over Middle Patuxent River; Watersville Road over Hay Meadow Branch; Henryton Road over tributary to Patapsco River (HO-0053); Old Montgomery Road over Lake Elkhorn Branch; Tamar Drive over Little Patuxent River; Snowden River Pkwy over Robert Fulton Dr (SB & NB); Guilford Road over Middle Patuxent River; Park Circle Drive over Deep Run; Broken Land Pkwy over Little Patuxent River</p> | Varies | Exempt | Ongoing | NA |
| Howard County | Replacement of Bridge No. HO-040 on Union Chapel Road over Cattail Creek | 16-2201-13 | This project includes the replacement of bridge number HO-040 on Union Chapel Road over Cattail Creek. Bridge width, sidewalks and shoulders will be evaluated during engineering. | 2 to 2 lanes | Exempt | 2025 | NA |
| Maryland Port Administration | Dundalk Marine Terminal Resiliency and Flood Mitigation Improvements | 30-2101-82 | <p>This project will enable MDOT MPA to provide resiliency and flood mitigation improvements at the Dundalk Marine Terminal (DMT). The project will install sea curbs to prevent the terminal from flooding during storm surges; install back flow preventers on 15 existing storm drain outfalls to prevent storm surges from flooding low level areas on the terminals; and install a new 10' by 5' concrete box culvert to increase the capacity of the existing collection system to handle extreme rainfall events.</p> <p>MDOT is providing a total of \$26.7 million in state matching funds, with improvements continuing through FY 2026. Engineering for the project is complete.</p> | NA | Exempt | 2026 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|------------------------------|---|------------|---|---------------|-------------------|---------|---------------------|
| Maryland Port Administration | Howard Street Tunnel | 32-2101-83 | <p>The project will create double-stack rail access to and from the Port of Baltimore. It consists of reconstructing the 125-year-old Howard Street Tunnel in Baltimore. This work is being done in conjunction with improving the vertical clearance of 22 bridges between Baltimore and Philadelphia to create a double-stack rail corridor to and from the Port of Baltimore and along the entire East Coast. Double-stack service is expected to begin in early 2025.</p> <p>The project is funded with a federal INFRA grant along with matching funds from the state of Maryland (\$202.5 million) and CSX (\$113 million).</p> | 1.7 miles | Exempt | 2025 | NA |
| Maryland Port Administration | Port of Baltimore Rail Capacity Modernization Project | 30-2301-83 | The project will modernize the intermodal yard infrastructure and support increased demand for double stacked trains of containerized cargo at the Intermodal Container Transfer Facility (ICTF) adjacent to Seagirt Marine Terminal. The project will construct four new working tracks totaling 17,670 track feet and two crane beam rails totaling 7,160 feet that will be used to a Rail Mounted Gantry crane. | NA | Exempt | 2026 | NA |
| MTA - Commuter Rail | MARC Rolling Stock Overhauls and Replacement | 70-1501-53 | <p>"This is an ongoing project for the overhaul and replacement of MARC rolling stock. The overhaul of MARC coaches and locomotives is performed in accordance with ""10-year minor"" and ""20-year midlife"" schedules and/or the manufacturer's schedule. MARC vehicles will be upgraded with federally-mandated Positive Train Control safety features.</p> <p>In addition to the matching funds listed, MTA has committed \$11 million in state dollars."</p> | NA | Exempt | Ongoing | NA |
| MTA - Commuter Rail | MARC Improvements | 70-1502-54 | <p>This project provides funding to implement ongoing improvements derived from the MARC Master Plan and Amtrak/CSX Operating Agreements.</p> <p>In addition to the matching funds listed, MTA has committed \$10.8 million in state dollars.</p> | NA | Exempt | Ongoing | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|---------------------|--|------------|---|---------------|-------------------|---------|---------------------|
| MTA - Commuter Rail | MARC Facilities | 70-1503-55 | <p>1) MARC BWI Garage Facility: Identify and prioritize needed repairs which are then designed and constructed</p> <p>2) Riverside Heavy Maintenance Facility: This project will construct a facility with four new maintenance slots for locomotives undergoing heavy maintenance and repair</p> <p>Note: In addition to the matching funds listed, MTA has committed \$18.2 million in state dollars.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Small Urban Transit Systems - Operating Assistance | 40-0104-61 | <p>Operating assistance to urban transit systems throughout the Aberdeen/Bel Air North/Bel Air South urbanized area. Transit agencies eligible for funding include Harford County.</p> <p>Costs generally associated with operating assistance can include utilities, miscellaneous equipment, fuel/oil, and driver, maintenance staff, and administrative salaries.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Kirk Bus Facility Replacement - Phase 1 & 2 | 40-1203-65 | <p>Approximately 175 buses are stored, operated, and maintained at the Kirk Division Bus Facility. Operations include preventive bus maintenance, inspections, fueling, washing, administration, operator support facilities and dispatching. Phase 1 is the construction of a 100,000 square foot state-of-the-art, sustainable design, energy-efficient building that will house the preventive maintenance function of the facility, performed in an enclosed environment, thereby enabling MTA to better control noise, exhaust fumes and visibility of the buses to the surrounding community. Phase 2 is the construction of a transportation bus storage building of approximately 200,000 square feet in size. Phase 1 is complete. Phase 2 completion-Summer 2022. Project closeout activities are currently under way. In addition to the matching funds listed, MTA has committed \$33 million in state dollars.</p> | NA | Exempt | 2021 | NA |
| MTA - Transit | Bus and Rail Preventive Maintenance | 40-1204-64 | <p>This project provides preventative maintenance on the Bus, Light Rail and Metro systems to improve safety, reliability and passenger comfort.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Seniors and Individuals with Disabilities | 40-1502-69 | <p>This project provides capital and operating assistance to non-profit agencies who provide transportation services for the elderly and individuals with disabilities. Non-profit recipients are determined through a competitive selection process and based upon the Baltimore Area Coordinated Public Transit - Human Services Transportation Plan.</p> | NA | Exempt | Ongoing | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|---------------|-------------------|---------|---------------------|
| MTA - Transit | Urban Transit Systems - Capital Assistance | 40-1602-05 | Capital assistance for the purchase of vehicles, equipment, and facilities, for Harford County (Harford County Transportation Services). Planned purchases include a heavy duty bus replacement, continued preventive maintenance, and 4 small bus replacements. | NA | Exempt | Ongoing | NA |
| MTA - Transit | Urban Transit Systems - Operating Assistance | 40-1603-61 | <p>This project provides operating assistance to urban transit systems throughout the Aberdeen/Bel Air North/Bel Air South urbanized area. Transit agencies eligible for funding include Harford County.</p> <p>Costs generally associated with operating assistance can include utilities, miscellaneous equipment, fuel/oil, and driver, maintenance staff, and administrative salaries.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Agencywide System Preservation and Improvement | 40-1801-64 | This is an ongoing project to rehabilitate agency-wide facilities, systems, and infrastructure, including roofing, a system network migration and upgrade, system-wide elevators and escalators, bridge and subway inspection. In addition to the matching funds listed, MDOT MTA has committed \$131 million in state dollars. | NA | Exempt | Ongoing | NA |
| MTA - Transit | Bus and Paratransit Vehicle Overhaul and Replacement | 40-1802-05 | This project provides routine replacement of buses past their useful service life. Planned purchases include 310, 40-foot clean diesel buses and 40, 60-foot clean diesel articulated buses. MDOT MTA will also proactively repair and replace bus components, including the vehicle engine, battery, brakes, suspension, body, paint, wheelchair/ADA, electrical, pneumatic systems, and other components as needed. Hybrid electric bus batteries near the end of their useful life will be replaced. Project also covers the purchase of paratransit vehicles under MTA's Mobility program. In FY22, MTA will purchase 25 large cutaway vehicles and 75 Compact SUV Hybrids vehicles. Mobility is a specialized door-to-door service for people with disabilities who are not able to ride fixed route public transportation, including lift equipped buses. In addition to the matching funds listed, MTA has committed \$117.5 million in state dollars. | NA | Exempt | Ongoing | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|---------------|-------------------|---------|---------------------|
| MTA - Transit | Bus System Preservation and Improvement | 40-1803-64 | <p>This is an ongoing project to rehabilitate bus facilities and infrastructure, including operating division and MTA offices. Project funding includes multiple projects at Bush Division and at Washington Boulevard.</p> <p>In addition to the matching funds listed, MTA has committed \$13.2 million in state dollars.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Metro and Light Rail Rolling Stock Overhauls and Replacement | 40-1804-63 | <p>Mid-life Overhaul of 53 Light Rail Vehicles and upgrades to various systems/sub-systems to address obsolete parts, improve safety and vehicle performance, and enhance passenger comfort. The overhaul has been engineered to provide an additional 15 years of service of the light rail vehicle fleet. The Metro cars were designed with a 30 year life and are due for replacement. The Automatic Train Protection system is experiencing reliability issues due to its age and obsolete parts thus increasing maintainability issues across its various systems/sub-systems. The replacement of Metro Cars and Train Control System with modern, reliable equipment will enhance passenger comfort, ensure better reliability and improve safety. Delays were a result of Covid such as material delivery, sub-suppliers, internal Alstom impacts and plant shutdown. In addition to the matching funds listed, MTA has committed \$87 million in state dollars.</p> | NA | Exempt | Ongoing | NA |
| MTA - Transit | Metro and Light Rail System Preservation and Improvement | 40-1805-64 | <p>This is an ongoing project to rehabilitate Light Rail and Metro facilities, infrastructure, track, and equipment, including replacing interlockings, repairing tunnel liners and doors, and the design and installation of new fiber optic cables. In addition to the matching funds listed, MTA has committed \$279 million in state dollars.</p> | NA | Exempt | Ongoing | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|---------------|-------------------|---------|---------------------|
| MTA - Transit | Eastern Bus Facility | 40-2301-65 | <p>The purpose of this project is to re-develop Eastern Bus Division as an electric bus division. Assuming a 190 bus fleet, construction would take >4 years. This facility would provide a single building with 110,000 square feet of combined maintenance, washing, fueling, and bus operations space. Major facility components include bus parking (190 buses), employee parking (216 spaces), battery electric bus charging infrastructure, solar energy collection system, administrative offices, conference rooms, training rooms, dispatch facilities, fuel lanes (2), wash lanes (2), vaulting, repair bays (16-18), general machine shop, parts storage, break room, restrooms/showers, fuel storage and storm water management.</p> <p>Note: In addition to the matching funds listed, MDOT MTA has committed \$76 million in state dollars.</p> | NA | Exempt | 2026 | NA |
| MTA - Transit | Zero Emission Infrastructure and Rolling Stock | 40-2302-63 | <p>MTA will use an alternative procurement process for a Contractor to procure, install, operate & maintain new electric charging infrastructure for both Kirk & Northwest bus depots. Contractor will provide turn-key design, installation, implementation, commissioning and O&M for the service equipment infrastructure needed so that BEBs can be placed into service upon delivery; Provide O&M services so that the BEBs at both Depots are fully charged at scheduled pull-out times; Provide charge mgt. services to support BEB and EVSE data collection, monitoring the performance of the EVSE, and managing energy use such that MTA can manage the BEBs in an efficient and cost-effective manner; Provide real-time and historical data regarding in-service BEB operations & daily bus charging events and minimizing monthly charging costs. In addition to the matching funds listed, MDOT MTA has committed \$54 million in state dollars.</p> | NA | Exempt | 2026 | NA |
| MTA - Transit | Rural Transit Systems - Operating Assistance | 40-9204-61 | <p>This project provides operating assistance to transit systems located in the Baltimore region. Transit agencies eligible for funding include Baltimore County (Baltimore County Office of Aging) and Carroll Transit System.</p> <p>Costs generally associated with operating assistance can include utilities, miscellaneous equipment, fuel/oil, and driver, maintenance staff, and administrative salaries.</p> | NA | Exempt | Ongoing | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------------|--|------------|--|---------------|-------------------|---------|---------------------|
| MTA - Transit | Rural Transit Systems - Capital Assistance | 40-9501-05 | Capital assistance to small transit systems located throughout the Baltimore region to purchase vehicles, equipment and facilities. Baltimore region transit systems include Anne Arundel County and Baltimore County (Baltimore County Office on Aging), Carroll County (Carroll Transit), and Howard County (Howard Transit). The planned purchases are heavy duty and small bus replacements as well as expansions to small cutaway and medium buses. | NA | Exempt | Ongoing | NA |
| MTA - Transit | Small Urban Transit Systems - Capital Assistance | 40-9502-05 | Capital assistance to small urban transit systems throughout the region to purchase vehicles, equipment, and facilities. The Baltimore region's small urban transit system includes Carroll Transit System, Anne Arundel County, The City of Annapolis, and Howard County. Planned purchases include 2 small bus replacements, a mini van replacement, 2 heavy duty bus replacements, and continued preventative maintenance. | NA | Exempt | Ongoing | NA |
| MTA - Transit | Ridesharing - Baltimore Region | 40-9901-01 | The ridesharing project covers the activities of the ridesharing program in all jurisdictions in the Baltimore region, including the Guaranteed Ride Home (GRH) Program. Entities eligible to receive funding include Baltimore City, the Baltimore Metropolitan Council, and Anne Arundel, Howard, and Harford counties. | NA | Exempt | Ongoing | NA |
| Office of the Secretary | State Safety Oversight | 90-1401-39 | The Maryland Department of Transportation (MDOT) intends to use these Section 5329 Funds to provide administrative expenses for training, consultant services and miscellaneous equipment to oversee MTAs Light Rail and Metro systems and its operations in the Baltimore, Maryland metropolitan area. | NA | Exempt | Ongoing | NA |
| Office of the Secretary | Baltimore-Washington Superconducting Maglev (SCMAGLEV) Project | 90-1901-99 | Baltimore-Washington Rapid Rail (BWRR), a private company based in Maryland, is proposing to construct an SCMAGLEV train system between Baltimore, Maryland and Washington, DC with an intermediate stop at BWI Marshall Airport. An Environmental Impact Statement (EIS) is being prepared to evaluate the potential impacts of the construction and operation of such a system with grant funding from the Federal Railroad Administration and matching funds from BWRR. This project is represented in both the Baltimore Regional Transportation Board (BRTB) (50%) and National Capital Region Transportation Planning Board (TPB) (50%) TIPs. The estimated total cost of \$15 billion is projected funding that will be required to construct this project. No schedule or funding for further phases have been identified. | NA | Exempt | NA | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|---------------|-------------------|---------|---------------------|
| SHA | Morgan State University Transportation Research Program | 60-0702-99 | Transportation research, education and technology transfer activities involving university faculty, staff and students. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Bridge Replacement And Rehabilitation | 60-9310-13 | This is an ongoing program to provide major upgrades and maintenance of structures on State highways. These are non-capacity improvements which may include but are not limited to structural replacements, deck rehabilitation, superstructure replacements, parapet reconstruction, cleaning and painting, and general maintenance on various state-owned bridges. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Resurfacing And Rehabilitation | 60-9501-11 | This is an ongoing program to provide periodic resurfacing and upgrading of auxiliary features on State highways. These are non-capacity improvements which may include but are not limited to milling, patching, sealing, and resurfacing of existing deteriorated state roadways. Other improvements such as ADA or guardrail may be included incidental to other resurfacing and rehabilitation improvements. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Congestion Management | 60-9504-04 | This is an ongoing program to provide traffic control, management, and monitoring on State highways. These improvements may include but are not limited to the employment of variable message signs, video for traffic management (CCTV), traffic management detectors, signal systemization and remote timing, permanent congestion monitoring systems employed by the CHART program, deployment of local jurisdiction intelligent transportation system (ITS) projects, and the development of park-and-ride facilities. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Environmental Projects | 60-9506-38 | This is an ongoing program to provide environmental and aesthetic improvements on MDOT SHA's highway network. These non-capacity improvements may include but are not limited to noise abatement, wetland management and rehabilitation, reforestation, landscaping, scenic beautification, and bicycle and pedestrian facilities. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Safety And Spot Improvements | 60-9508-19 | This is an ongoing program to provide localized improvements to address safety and/or operational issues on State highways. These are highway improvements which may include but are not limited to projects dealing with bypass lanes, acceleration and deceleration lanes, turn lanes, rail crossings, intersection realignment, geometric improvements, safety improvements including bridge, bicycle, and pedestrian safety improvements, pavement markers, ADA improvements, guardrails, and roundabouts. Other improvements such as slope repairs, drainage improvements, and joint sealing may be included incidental to other safety improvements. | NA | Exempt | Ongoing | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|-------------------------|-------------------|---------|---------------------|
| SHA | Areawide Urban Reconstruction | 60-9511-19 | This is an ongoing program to provide roadway rehabilitation and streetscape improvements on State highways in towns and urban areas. These are non-capacity highway improvements which may include but are not limited to projects dealing with drainage, curb and gutter, pavement milling and resurfacing, sidewalks, streetscapes, signs, and markings and lighting improvements. | NA | Exempt | Ongoing | NA |
| SHA | Areawide Transportation Alternatives Projects | 60-9903-29 | This is an ongoing program to expand travel choices and enhance the transportation experience by improving the cultural, historic, and environmental aspects of the Baltimore region's transportation infrastructure. These improvements may include but are not limited to bicycle and pedestrian facilities; rehabilitation of historic transportation facilities such as railroads and canals; conversion and use of abandoned railroad corridors; archaeological activities related to transportation impacts; and mitigation of water pollution caused by highway runoff. This program also includes Safe Routes to School program projects and Recreational Trails program projects. | NA | Exempt | Ongoing | NA |
| SHA | MD 173: Bridge Replacement over Rock Creek | 61-2101-13 | The project will replace bridge no. 0204600 over Rock Creek. The new bridge will maintain two 11' lanes along with 5' 5" bicycle compatible shoulders. Engineering began in 2015 using state only funds. Construction is not currently funded. A 5% overhead increase has been added to federal funding flows for each project phase. | 2 to 2 lanes | Exempt | TBD | NA |
| SHA | I-83: Bridge Replacement over Padonia Road | 63-1701-13 | This project replaces bridge nos. 306201 and 306202 carrying northbound and southbound traffic along I-83 over Padonia Road. The bridges will each carry three 12' lanes with 20' inside shoulders. A 5% overhead increase has been added to federal funding flows for each project phase. | 3 to 3 Lanes NB & SB | Exempt | 2022 | NA |

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| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|--|--|-------------------|------|---------------------|
| SHA | US 1: Bridge Replacement over CSX | 63-1704-13 | <p>This project will replace bridge no. 03008 along US 1 (Washington Boulevard) over CSX railroad track and property. An 8' shoulder is planned on both sides of the roadway with a 5' sidewalk on the west side of the bridge. This project will extend the 5' sidewalk approximately 1,000 feet along southbound US 1 to the Guinness Open Gate Brewery, with a controlled pedestrian crossing at the existing signal adjacent to the brewery. Additional utility work is funded beyond the year of operation.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 4 to 4 lanes | Exempt | 2022 | NA |
| SHA | US 40: Bridge Replacements over Little & Big Gunpowder Falls | 63-1706-13 | <p>This project will replace and widen the superstructure on bridge nos. 0303403 and 0303404 along eastbound and westbound US 40 over Little Gunpowder Falls and bridge nos. 0303503 and 0303504 along eastbound and westbound US 40 over Big Gunpowder Falls. The new bridge superstructures will maintain two 12' lanes on each bridge, as well as 4' inside shoulders and 10' outside shoulders to match the approach roadways.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 4 to 4 lanes | Exempt | 2023 | NA |
| SHA | MD 151/MD 151B: Bridge Replacements | 63-2001-13 | <p>This project replaces bridge no. 0309900 on MD 151 and bridge nos. 0335100 and 0335000 on MD 151B. Bridge no. 0309900 will include an 8' outside shoulder and a 3' inside shoulder with a 5' sidewalk along the southbound roadway. Bridge no. 0335100 will include an 8' shoulder on both sides of the bridge with a 5' sidewalk along the northbound roadway. Bridge no. 0335000 will include a 5' outside shoulder and an 8' inside shoulder. No sidewalk is proposed for this bridge. Bridge work is anticipated to be completed in FY 2024. Utility work will continue into FY 2025.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | #0309900: 4 to 4; #0335100: 2 to 2; #0335000: 1 to 1 | Exempt | 2024 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|---------------|-------------------|------|---------------------|
| SHA | I-695: Bridge Replacement on Putty Hill Avenue | 63-2002-13 | <p>This project replaces bridge no. 0317400 on Putty Hill Avenue over I-695. The new bridge will maintain two 12' lanes and include 6' bicycle-compatible shoulders with 5'8" sidewalks on both sides of the bridge. The estimated total cost has increased by \$1.3 million as a result of increased utility design and construction costs. The engineering and right-of-way phases for this project were originally funded as part of the Areawide Bridge Replacement and Rehabilitation project (60-9310-13).</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 2 lanes | Exempt | 2025 | NA |
| SHA | I-95/I-695 Interchange Bridge Deck Replacement | 63-2202-13 | <p>This project includes replacing bridge decks with latex modified concrete deck overlays on 10 bridges within the I-95/I-695 Interchange. The following structures are included: SB I-95 over I-95 Ramp I, SB I-95 over I-695, I-95 Ramp G over I-695, NB I-95 over I-695, I-95 Ramp C over I-695, SB I-95 over I-695 Ramp C, NB I-95 over I-695 Ramps C & G, I-695 Ramp C over I-95 Ramp G, SB I-95 & Ramp D over Sulphur Spring Road and NB I-95 & Ramp H over Sulphur Spring Road. No widening is associated with any of the deck replacements. MDOT SHA to use toll credits to increase federal funding to 95%.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | Varies | Exempt | 2024 | NA |
| SHA | MD 91: Bridge Replacements over North Branch of Patapsco River and MD Midland Railroad | 64-2201-13 | <p>This project replaces bridge no. 06020 over the North Branch Patapsco River and bridge no. 06047 over the Maryland Midland Railroad. The bridges will carry two 12' lanes with 8' bicycle compatible shoulders.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 2 lanes | Exempt | 2024 | NA |

Appendix C-1: Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|---|-------------------|------|---------------------|
| SHA | MD 24: South of Stirrup Run Culvert to Deer Creek Bridge, Section G | 65-1601-12 | MD 24 will be resurfaced and reconstructed including slope repair and guardrail replacement. This is the southern section (Section G) of MD 24, Rocks Road, from 900' south of Sharon Road to 1,700' north of Ferncliff Lane. The estimated total cost includes estimated funding to complete construction of this project. A schedule and funding for construction have yet to be determined. A 5% overhead increase has been added to federal funding flows for each project phase. | 1.8 Miles | Exempt | TBD | NA |
| SHA | US 1: Bridge Replacements at Tollgate Road and Winters Run | 65-2101-13 | The project will replace bridge no. 12066 over Tollgate Road and bridge no. 12065 over Winters Run along US 1 in Bel Air. The bridge over Tollgate Road will maintain three 12' lanes with a 10' 6" shoulder on each side of the roadway. The bridge over Winters Run will maintain two 12' lanes with a 10' shoulder on one side of the roadway and a 19' 6" shoulder on the other side. A 5% overhead increase has been added to federal funding flows for each project phase. | Tollgate Road: 3 to 3 lanes; Winters Run: 2 to 2 lanes | Exempt | 2026 | NA |

Appendix C-2: Not Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|---|-----------------------|-------------------|------|---------------------|
| Baltimore City | Patapsco Avenue from Magnolia Avenue to Patapsco River Bridge | 12-2012-11 | <p>Roadway rehabilitation work includes concrete roadway slab replacement, concrete type I and type II repair, full depth base repair, milling, paving, ADA compliant sidewalks, pedestrian ramps, crosswalks, drainage improvements, traffic signal replacement, signage, pavement markings, curb and gutter replacement, landscaping, trees, new street lights, and street light fixture upgrades. Existing travel lanes on the south side of the road will be converted to a shared use trail.</p> <p>Engineering funds for preliminary design were appropriated in FY 2021. FY 2022 engineering funds are to complete final design.</p> | 6 to 4 lanes, 5075 ft | Not Exempt | 2026 | 2035 |
| Baltimore County | Mohrs Lane Bridge No. B-0143 over CSX Railroad | 13-0803-13 | <p>This project will construct a new bridge carrying Mohrs Lane over the CSX rail line. The proposed bridge will accommodate 3 lanes of traffic and two 8 foot shoulders. In addition, Mohrs Lane will be widened for approximately 900' on the west approach and 400' on the east approach. The previous bridge was a single lane timber structure owned and maintained by CSX. Due to its deteriorated condition, the previous bridge was closed to traffic in 2007 and removed in 2011.</p> <p>Engineering funds were included in FY 2013. This project has been delayed due to coordination issues with CSX and right of way acquisition. The total project cost has increased by \$1.7 million as a result of updated engineers estimate and increased bid item costs.</p> | 1 to 3 Lanes | Not Exempt | 2026 | 2035 |
| Baltimore County | Piney Grove Road Bridge No. B-0140 over CSX railroad | 13-1107-13 | <p>This project will replace the existing 44' long, 16' wide timber bridge carrying a single lane of traffic over CSX railroad tracks. There are no sidewalks on the approaches or existing bridge, but the need for sidewalks will be evaluated during preliminary design.</p> <p>CSX currently owns and maintains the bridge. Prior to beginning engineering for this project, ownership will be transferred from CSX to Baltimore County.</p> | 1 to 2 Lanes | Not Exempt | 2029 | 2035 |
| Harford County | Glenville Road Bridge #30 over Mill Brook | 15-1601-13 | <p>This project includes replacement of the bridge that carries Glenville Road over Mill Brook. Three foot shoulders are planned on both sides of the road.</p> <p>Engineering funds through NEPA were authorized in FY 2021. FY 2023 engineering funds are for the completion of final design.</p> | 1 to 2 Lanes | Not Exempt | 2026 | 2035 |

Appendix C-2: Not Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-----------------------------------|--|------------|---|--|-------------------|------|---------------------|
| Harford County | Madonna Road Bridge #113 over Deer Creek | 15-2101-13 | <p>This project includes replacement of the entire bridge that carries Madonna Road over Deer Creek. The bridge will not include sidewalks but will include shoulders on each side of the roadway (width TBD during engineering).</p> <p>Engineering funds in FY 2022 are for preliminary engineering through the NEPA phase. FY 2023 engineering funds are for final design. Design has not started yet. Still waiting on the NTP.</p> | 1 to 2 Lanes | Not Exempt | 2026 | 2035 |
| Howard County | Snowden River Parkway: Broken Land Parkway to Oakland Mills Road | 16-1410-41 | This project will design and widen Snowden River Parkway by adding a third lane in each direction and shared-use paths from Broken Land Parkway to Oakland Mills Road. The project will incorporate ten-foot-wide shared-use pathways to increase transportation alternatives to activity centers and public transit. This project is funded through local funds (bonds, developer contributions, and excise tax-backed bonds). | 4 to 6 lanes, 6300 feet | Not Exempt | 2025 | 2025 |
| Howard County | US 29/Broken Land Parkway Interchange and North South Connector Road | 16-1901-42 | <p>The project will provide new direct connections from the westbound US 29/Broken Land Parkway interchange ramp to a new road (Merriweather Drive) and to Little Patuxent Parkway. The project will also provide a direct connection from Merriweather Drive to Broken Land Parkway, including configuring the north and southbound US 29 ramps at Broken Land Parkway into a signalized intersection. The project will also remove an existing ramp from Broken Land Parkway to US 29 southbound.</p> <p>The project will be funded locally through the recently approved tax increment financing (TIF) district.</p> | 3.1 miles of new lanes on ramps and new roadways | Not Exempt | 2024 | 2025 |
| Maryland Transportation Authority | I-95 Fort McHenry Tunnel: Port Covington Access | 22-1901-45 | MDTA and Baltimore City have developed a suite of improvements to I-95 ramps and other nearby transportation facilities to support ongoing and planned redevelopment of the Port Covington peninsula in South Baltimore and to address traffic needs in the Port Covington area. The study limits for these improvements are Caton Avenue to the Fort McHenry Tunnel, involving approximately seven miles of I-95 and sections of Hanover Street, McComas Street and Key Highway. The total project cost is estimated to be \$495 million, with completion anticipated in 2029. The first phase of this project was MDTA's funding and oversight of the projects planning, with a NEPA study that is anticipated to be complete in 2022. Future planning efforts will be funded by a private developer. MDTA construction funding is anticipated in FY 2025 and would be MDTA's match for a potential future INFRA Grant. | 7 miles, 8 lanes | Not Exempt | 2029 | 2035 |

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-----------------------------------|---|------------|--|--|-------------------|------|---------------------|
| Maryland Transportation Authority | I-895/Baltimore Harbor Tunnel Toll Plaza and Interchange Improvements | 22-2201-19 | The I-895/Baltimore Harbor Tunnel Toll Plaza and Interchange Improvements Project includes the removal of the toll booths and installation of an overhead gantry at the I-895/Baltimore Harbor Tunnel Toll Plaza. The project will provide two lanes of barrier-separated mainline through-traffic in each direction along I-895 between the K-Truss bridge and the Baltimore Harbor Tunnel. In addition, a two lane barrier-separated collector distributor road will be installed in each direction adjacent to the mainline traffic lane between the I-895 interchanges with Frankfur Avenue and Childs Street. The proposed mainline I-895 modifications include replacing and raising the I-895 bridge over Frankfur Avenue, replacing the I-895 bridge over Childs Street, and removing the I-895 bridge over the toll facility campus storage area. The project is funded with MDTA toll revenues. | 4 mainline lanes maintained, 4 new 0.7 mile CD lanes | Not Exempt | 2027 | 2035 |
| Maryland Transportation Authority | I-95 Express Toll Lanes Northbound Extension | 25-1801-41 | The I-95 Express Toll Lanes (ETL) Northbound Extension project is the first phase of implementation of I-95 Section 200. The project is funded by MDTA toll revenues and includes the provision of two additional ETLs on I-95 from north of MD 43 to north of MD 24, a distance of more than 11 miles. Tolls are expected to be collected automatically at highway speeds using E-ZPass or Video Tolling. The project also includes: reconstruction of the I-95 interchanges at MD 152 and MD 24 along with a 1.7 mile auxiliary lane between the interchanges; widening MD 24 from two to three lanes from MD 924 to north of Singer Road; reconstruction of the overpasses at Raphel, Bradshaw, Old Joppa, Clayton, and Abingdon roads; construction of five noise walls; widening the I-95 northbound bridges over the Big and Little Gunpowder Falls and Winters Run; environmental mitigation; and additional safety improvements. | 11.25 miles, 6 to 8 lanes | Not Exempt | 2027 | 2035 |
| Maryland Transportation Authority | I-95 Southbound Part-Time Shoulder Usage | 25-2101-41 | This project will provide for the part-time use of the 12' left shoulder along I-95 southbound between the Maryland House Travel Plaza to north of the MD 24 overpass. It requires restriping I-95 southbound lanes and pavement improvements to the left shoulder lane for approximately 4.7 miles in Harford County. The project will also include the installation of intelligent transportation systems (ITS) devices to deploy a new ITS system, including lane-use control gantries, closed-circuit television cameras, traffic detectors, and dynamic message signs. It will allow for the left shoulder to be dynamically opened and closed based on traffic conditions. The project is funded by MDTA toll revenues. Project was delayed by one year due to decreased revenues resulting from the pandemic. Cost has increased as design has progressed. | 4.7 miles, 3 to 4 lanes (3 + Left Shoulder) | Not Exempt | 2026 | 2035 |

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|--------------------------|-------------------|------|---------------------|
| SHA | MD 175: Sellner Road/Race Road to McCarron Court | 61-1701-41 | <p>This project widens MD 175 from Sellner Road/Race Road to McCarron Court from two to six lanes, and reconfigures ramps in the NE and SW quadrants of the MD 295 interchange to create signalized left turns at MD 175. A shared use path on the south side of the road and bicycle compatible shoulders will extend from Race Road/Sellner Road to McCarron Court. The original project limits included the MD 175 segment from National Business Parkway to Sellner Road/Race Road. This segment was eliminated from the project to accommodate ongoing development in this area.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 6 lanes, 0.7 miles | Not Exempt | 2025 | 2025 |
| SHA | MD 2: US 50 to Arnold Road | 61-2301-41 | <p>This project will provide a continuous third lane on northbound MD 2 from US 50 to Arnold Road and sidewalk along northbound MD 2 from Chautaugua Road to Arnold Road and along Arnold Road from the B&A Trail to MD 2. This project was previously included in the FY 2022-2025 TIP as an Anne Arundel County project with TIP ID #11-2102-41.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 3 lanes, 1.25 miles | Not Exempt | 2026 | 2035 |
| SHA | MD 3: Waugh Chapel Road/Riedel Road to MD32/I-97 | 61-2302-41 | <p>This project will provide a continuous third lane on northbound MD 3 from St. Stephens Church Road to MD 175, a continuous third lane on southbound MD 3 from the MD 32 Ramp to Waugh Chapel Road/Riedel Road, a shared use path along MD 3 from MD 175 to Waugh Chapel/Riedel Road, and sidewalk and crosswalk improvements at the MD 3 and MD 175 intersection. This project was previously included in the FY 2022-2025 TIP as an Anne Arundel County project with TIP ID #11-2103-41.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 4 to 6 lanes, 1.60 miles | Not Exempt | 2026 | 2035 |
| SHA | MD 170: Norcross Lane to Wieker Road | 61-2303-41 | <p>This project will include widening of MD 170 from Norcross Lane to Wieker Road to provide an additional through lane in each direction and increased capacity at the MD 170/MD 174 intersection. The project will also include new sidewalk and bicycle compatible shoulders. Shoulder width will be determined during design.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 4 lanes, 0.83 miles | Not Exempt | 2025 | 2025 |

Appendix C-2: Not Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|--|------------|---|--------------------------|-------------------|------|---------------------|
| SHA | MD 214: MD 468 to Camp Letts Road | 61-2304-41 | This project will add an additional lane in each lane direction and improve intersections from MD 468 to Camp Letts Road. The project also includes bicycle and pedestrian improvements. Project will include a shared use path along MD 214. Sidewalk will be determined during design. This project was previously included in the FY 2022-2025 TIP as an Anne Arundel County project with TIP ID #11-2104-41. Anne Arundel County is funding engineering in FY 2023. | 2 to 4 lanes, 0.92 miles | Not Exempt | 2026 | 2035 |
| SHA | I-695: US 40 to MD 144 | 63-1601-41 | This project will widen the I-695 outer loop from US 40 to MD 144 from three to four through lanes. This project will also accommodate the final configuration of this section of the beltway. The noise barrier on the inner loop will be replaced and extended from south of Shady Nook Avenue to US 40 as part of this project. Construction on the noise barrier will begin in summer 2022. The project opened to traffic in summer 2021. The noise barrier is funded for construction beyond the open to traffic date. A 5% overhead increase has been added to federal funding flows for each project phase. | 3 to 4 lanes, 1.2 miles | Not Exempt | 2021 | 2025 |
| SHA | I-695: I-70 to MD 43 | 63-1802-41 | The purpose of this project is to utilize the inside shoulder to create a new travel lane on the inner and outer loops of I-695 during daily peak travel periods from I-70 to MD 43. This project primarily uses federal funding due to toll credits. A 5% overhead increase has been added to federal funding flows for each project phase. The overall cost has decreased slightly from the 2022-2025 TIP as a result of reduced engineering needs. | 6 to 8 lanes, 19 miles | Not Exempt | 2024 | 2025 |
| SHA | I-695: Reconstruction of Interchange at I-70 | 63-2201-12 | This project will reconstruct the interchange at I-695 and I-70 and replace the existing bridges within the interchange. The ultimate configuration will be determined through the design build process. This project primarily uses federal funding due to toll credits. A 5% overhead increase has been added to federal funding flows for each project phase. | TBD | Not Exempt | 2027 | 2035 |

Appendix C-2: Not Exempt Projects from the 2023-2026 TIP

| Sponsoring Agency | Project Name | TIP ID | Project Description | Physical Data | Conformity Status | YOP | First Analysis Year |
|-------------------|---|------------|--|--------------------------------|-------------------|------|---------------------|
| SHA | MD 32: Linden Church Road to I-70, Capacity & Safety Improvements | 66-1703-41 | <p>This project will widen MD 32 in both directions from a two-lane to a four-lane divided roadway, from just north of the Linden Church Road interchange to just south of the I-70 interchange. The project also includes replacement of the Triadelphia Road bridge over MD 32. This is phase 2 of a design build project on MD 32 from MD 108 to I-70 which had TIP ID #66-1405-41 in previous TIPs. Phase 1, MD 108 to Linden Church Road (TIP ID #66-1602-41) is complete and opened to traffic in 2019. Phase 2 roadway improvements are anticipated to be completed in fall 2022. The remaining funds in FY 2023 and FY 2024 will complete utility relocation and right-of-way acquisition.</p> <p>A 5% overhead increase has been added to federal funding flows for each project phase.</p> | 2 to 4 Lanes, 6.6 Miles | Not Exempt | 2022 | 2025 |
| SHA | I-795: Dolfield Boulevard Interchange | 60-0803-46 | <p>This project will develop interchange options at Dolfield Boulevard including widening of I-795 from Owings Mills Boulevard to Franklin Boulevard from four to six lanes. Transportation Systems Management and Operations (TSMO) strategies will also be considered as part of the overall project. Funding will take preliminary engineering to the 30% design milestone. The estimated total cost of the project at \$149.4 million includes projected funding that will be required to construct the project. No schedule or funding for construction has been identified.</p> | Full Interchange, 4 to 6 lanes | Not Exempt | 2030 | 2035 |

Appendix D: Round 10 Cooperative Forecasts

Round 10 Cooperative Forecasts - Baltimore Region - Population, Household and Employment Controls

Round 10 Population

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | NUMERIC CHANGE | | | | PERCENT CHANGE | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|
| | | | | | | | | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 |
| Anne Arundel County | 592,695 | 621,687 | 646,214 | 664,214 | 677,424 | 687,119 | 694,235 | 53,519 | 31,210 | 16,811 | 101,540 | 9.0% | 4.8% | 2.5% | 17.1% |
| Baltimore City | 585,708 | 594,526 | 596,393 | 596,916 | 599,216 | 603,436 | 609,776 | 10,685 | 2,823 | 10,560 | 24,068 | 1.8% | 0.5% | 1.8% | 4.1% |
| Baltimore County | 854,523 | 868,112 | 876,726 | 894,541 | 909,000 | 920,275 | 934,521 | 22,203 | 32,275 | 25,520 | 79,998 | 2.6% | 3.7% | 2.8% | 9.4% |
| Carroll County | 172,891 | 176,399 | 179,140 | 181,580 | 183,956 | 186,253 | 188,357 | 6,249 | 4,816 | 4,401 | 15,466 | 3.6% | 2.7% | 2.4% | 8.9% |
| Harford County | 260,924 | 270,059 | 277,819 | 285,759 | 293,569 | 301,252 | 308,810 | 16,895 | 15,750 | 15,241 | 47,886 | 6.5% | 5.7% | 5.2% | 18.4% |
| Howard County | 332,317 | 349,697 | 363,987 | 380,016 | 393,641 | 404,607 | 414,820 | 31,670 | 29,654 | 21,179 | 82,503 | 9.5% | 8.1% | 5.4% | 24.8% |
| Queen Anne's County | 49,874 | 52,712 | 54,935 | 56,000 | 56,667 | 56,883 | 57,032 | 5,061 | 1,732 | 365 | 7,158 | 10.1% | 3.2% | 0.6% | 14.4% |
| Baltimore Region | 2,848,932 | 2,933,192 | 2,995,213 | 3,059,026 | 3,113,473 | 3,159,824 | 3,207,550 | 146,281 | 118,260 | 94,077 | 358,618 | 5.1% | 3.9% | 3.0% | 12.6% |

Round 10 Households

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | NUMERIC CHANGE | | | | PERCENT CHANGE | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|
| | | | | | | | | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 |
| Anne Arundel County | 219,971 | 228,528 | 236,781 | 244,935 | 251,583 | 256,061 | 260,349 | 16,810 | 14,802 | 8,766 | 40,378 | 7.6% | 6.3% | 3.5% | 18.4% |
| Baltimore City | 251,479 | 258,233 | 260,583 | 262,036 | 264,323 | 267,459 | 271,532 | 9,104 | 3,740 | 7,209 | 20,053 | 3.6% | 1.4% | 2.7% | 8.0% |
| Baltimore County | 329,955 | 334,975 | 338,408 | 345,501 | 351,261 | 355,753 | 361,428 | 8,453 | 12,853 | 10,167 | 31,473 | 2.6% | 3.8% | 2.9% | 9.5% |
| Carroll County | 63,050 | 64,455 | 65,595 | 66,670 | 67,701 | 68,709 | 69,704 | 2,545 | 2,106 | 2,003 | 6,654 | 4.0% | 3.2% | 3.0% | 10.6% |
| Harford County | 98,282 | 101,919 | 105,719 | 109,519 | 113,319 | 117,119 | 120,919 | 7,437 | 7,600 | 7,600 | 22,637 | 7.6% | 7.2% | 6.7% | 23.0% |
| Howard County | 118,781 | 126,599 | 133,334 | 141,148 | 147,881 | 153,953 | 159,721 | 14,553 | 14,547 | 11,840 | 40,940 | 12.3% | 10.9% | 8.0% | 34.5% |
| Queen Anne's County | 19,240 | 20,355 | 21,223 | 21,636 | 21,892 | 21,975 | 22,033 | 1,983 | 669 | 141 | 2,793 | 10.3% | 3.2% | 0.6% | 14.5% |
| Baltimore Region | 1,100,758 | 1,135,064 | 1,161,643 | 1,191,444 | 1,217,960 | 1,241,029 | 1,265,686 | 60,885 | 56,317 | 47,727 | 164,928 | 5.5% | 4.8% | 3.9% | 15.0% |

Round 10 Employment

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | NUMERIC CHANGE | | | | PERCENT CHANGE | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|
| | | | | | | | | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 |
| Anne Arundel County | 340,555 | 375,489 | 389,833 | 404,256 | 419,012 | 434,725 | 451,505 | 49,278 | 29,179 | 32,493 | 110,950 | 14.5% | 7.5% | 7.8% | 32.6% |
| Baltimore City | 365,047 | 377,443 | 396,188 | 413,808 | 430,379 | 446,685 | 450,996 | 31,141 | 34,191 | 20,617 | 85,949 | 8.5% | 8.6% | 4.8% | 23.5% |
| Baltimore County | 398,693 | 411,260 | 425,058 | 428,306 | 434,620 | 441,159 | 444,251 | 26,365 | 9,562 | 9,631 | 45,558 | 6.6% | 2.2% | 2.2% | 11.4% |
| Carroll County | 62,814 | 64,313 | 65,821 | 67,319 | 68,809 | 70,290 | 71,789 | 3,006 | 2,988 | 2,979 | 8,974 | 4.8% | 4.5% | 4.3% | 14.3% |
| Harford County | 100,748 | 110,606 | 120,560 | 130,808 | 141,273 | 151,868 | 162,499 | 19,812 | 20,712 | 21,226 | 61,751 | 19.7% | 17.2% | 15.0% | 61.3% |
| Howard County | 185,600 | 193,976 | 203,284 | 217,619 | 231,970 | 238,935 | 245,600 | 17,684 | 28,686 | 13,630 | 60,000 | 9.5% | 14.1% | 5.9% | 32.3% |
| Queen Anne's County | 16,562 | 16,775 | 17,125 | 17,250 | 17,375 | 17,525 | 17,700 | 563 | 250 | 325 | 1,138 | 3.4% | 1.5% | 1.9% | 6.9% |
| Baltimore Region | 1,470,019 | 1,549,862 | 1,617,869 | 1,679,367 | 1,743,438 | 1,801,187 | 1,844,339 | 147,850 | 125,568 | 100,902 | 374,320 | 10.1% | 7.8% | 5.8% | 25.5% |

Note: Anne Arundel County data includes the City of Annapolis.

Note: Forecasts endorsed by the Baltimore Regional Transportation Board on July 15, 2022.

Source: Local jurisdictions; Cooperative Forecasting Group.

*Appendix E: Excerpt- Baltimore Metropolitan
Council InSITE Activity Based Travel Model:
Model Validation Report*

Excerpt – Approval of InSITE Activity Based Travel Model

Documentation of InSITE enhancements and 2019 validation. The 2019 validated InSITE model will be used in the 2023 to 2026 mobile source emission analysis, updated long-range transportation plan project evaluation and other regional corridor studies. The original InSITE model was estimated using the 2008 Household Travel Survey and validated to 2012.

The original InSITE model geography was modified to incorporate the recently developed 2020 Transportation Analysis Zone (TAZ) boundaries. BMC staff in cooperation with the Cooperative Forecasting Group adjusted, combined, and added TAZs based on 2020 Tiger Line File and 2020 Census PL 94-171 block population and household counts. The model geography was expanded to cover Queen Anne's County, Maryland as well as Adams and York Counties, Pennsylvania. The expanded model contains over 3,000 TAZs with a 2020 base year population of 6.4 million.

Cambridge Systematics, developer of InSITE, incorporated model enhancements in order to improve runtime. The Cambridge Systematics Activity-Based Model (ABM) software, TourCast was modified to adopt a multi-threaded approach to take advantage of multiple server cores and applying a 25% synthetic population sampling approach.

The Cambridge Systematics team analyzed and summarized the 2019 Maryland Household travel survey travel patterns, choices, and behavior. Survey summary statistics were used to adjust InSITE model component parameters. The calibrated InSITE model components capture the change in travel behavior observed between 2008 (model estimation year) and 2019 observed conditions.

The consultant team used other independent data sources to validate InSITE network travel. A Location-Based Services (LBS) data set was purchased in order to validate distribution patterns, time-of day, and trip lengths. Classified counts and On-Board Transit Survey was used to validate network loadings.

Appendix F: HPMS Adjustment Factors

HPMS Adjustment Factors by Jurisdiction

| | | <i>Interstate</i> | <i>Freeway</i> | <i>Principal Arterial</i> | <i>Minor Arterial</i> | <i>Collector</i> |
|-------|----------------|-------------------|----------------|---------------------------|-----------------------|------------------|
| Urban | Baltimore City | 1.2307 | 1.1534 | 0.9384 | 1.0181 | 3.2888 |
| | Anne Arundel | 0.8516 | 1.0888 | 1.1261 | 1.6700 | 1.9040 |
| | Baltimore | 0.9741 | 1.6085 | 1.0694 | 1.8278 | 2.5547 |
| | Carroll | 0.7391 | 0.7391 | 1.2718 | 1.2824 | 1.7677 |
| | Harford | 0.9789 | 2.0018 | 1.4395 | 1.8727 | 2.8882 |
| | Howard | 0.7866 | 1.1726 | 1.0876 | 1.5373 | 1.4479 |
| Rural | Baltimore City | 1.2307 | | 0.9384 | 1.0181 | 3.2888 |
| | Anne Arundel | 0.5509 | | 0.9082 | 0.7916 | 2.2303 |
| | Baltimore | 0.4967 | | 0.6762 | 0.6928 | 0.9775 |
| | Carroll | 0.7391 | | 0.5972 | 0.8869 | 0.7708 |
| | Harford | 1.8522 | | 1.0308 | 1.0072 | 1.1046 |
| | Howard | 1.1237 | | 2.2378 | 0.4432 | 1.0676 |

Local to Non-local Ratios by Jurisdiction

| <i>Jurisdiction</i> | <i>Urban</i> | <i>Rural</i> |
|---------------------|--------------|--------------|
| Baltimore City | 0.0774 | 0.0774 |
| Anne Arundel | 0.0768 | 0.1409 |
| Baltimore | 0.0774 | 0.1402 |
| Carroll | 0.0775 | 0.1265 |
| Harford | 0.0777 | 0.1364 |
| Howard | 0.0765 | 0.1394 |

Appendix G: Resolutions

The following resolutions will be added to the final report:

BRTB Resolution #22-15 Approval of Technical Process for Baltimore Regional Travel Model Update

BRTB Resolution #23-1 Approving the Round 10 Cooperative Forecast

BRTB Resolution #23-2 Approving the 2023-2026 TIP and Conformity Determination

BALTIMORE METROPOLITAN PLANNING ORGANIZATION

**BALTIMORE REGIONAL TRANSPORTATION BOARD
RESOLUTION #22-15**

**APPROVAL OF VALIDATION OF THE
BALTIMORE REGION TRAVEL DEMAND MODEL - INSITE**

WHEREAS, the Baltimore Regional Transportation Board is the designated Metropolitan Planning Organization for the Baltimore region, encompassing the Baltimore Urbanized Area, and includes official representatives of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's as well as representatives of the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, the Maryland Transit Administration, and Annapolis Transit; and

WHEREAS, the Transportation Planning Division of the Baltimore Metropolitan Council, which serves as staff to the Metropolitan Planning Organization, has revised its computerized modeling process for simulating transportation demand and submitted its Baltimore Region Travel Demand Model to the Technical Committee of the Metropolitan Planning Organization; and

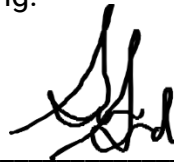
WHEREAS, the Technical Committee has reviewed the technical process of the Baltimore Region Travel Demand Model for base year 2019 as developed through the FY 2019 to 2022 Unified Planning Work Programs; and

NOW, THEREFORE, BE IT RESOLVED, that the Baltimore Regional Transportation Board approves the technical process in performing the Baltimore Region Travel Demand Model for the base year 2019 and recommends its use in analyzing and evaluating transportation demand in a multitude of Unified Planning Work Program tasks, including air quality Conformity Determinations, Transportation Improvement Programs and Long-range Regional Transportation Plans.

I HEREBY CERTIFY that the Baltimore Regional Transportation Board as the Metropolitan Planning Organization for the Baltimore region approved the aforementioned resolution at its June 28, 2022 meeting.

6-28-22

Date



Sam Snead, Chairperson
Baltimore Regional Transportation Board

InSITE 2019 Calibration and Validation

- Geography model coverage area expansion – Adding all of Queen Anne’s County and Adams and York Counties, Pennsylvania
- 2020 Census/Transportation Analysis Zone (TAZ) geography incorporation
- InSITE model run time enhancements – InSITE model component multithreaded software and population sampling
- InSITE model parameter calibration to reflect the 2019 Maryland Household Travel Survey observed travel behaviors, choices, and parameters
- Revised Freight Modeling System expanded to new geography coverage and updated base year model inputs
- InSITE model 2019 validation using Location-based Services (LBS) data, classified traffic counts, On-Board Transit Survey, and MDOT MTA Automatic Passenger Count (APC) data
 - Location-based Services
 - Tours – total, length, distribution, and time-of-day
 - Classified traffic counts
 - Volume/VMT by – Jurisdiction, facility type, area type, and screen lines
 - On-Board Transit Survey
 - Total linked and unlinked trips and transfer rates
 - Automatic Passenger Count
 - Route level ridership

**BALTIMORE METROPOLITAN PLANNING ORGANIZATION
BALTIMORE REGIONAL TRANSPORTATION BOARD**

RESOLUTION #23-1

**ENDORSEMENT OF ROUND 10 COOPERATIVE FORECASTING PROCESS THROUGH 2050
FOR USE IN LOCAL AND REGIONAL TRANSPORTATION AND AIR QUALITY PLANNING**

WHEREAS, the Baltimore Regional Transportation Board is the designated Metropolitan Planning Organization for the Baltimore region, encompassing the Baltimore Urbanized Area, and includes official representatives of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's as well as representatives of the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, the Maryland Transit Administration, and Annapolis Transit; and

WHEREAS, the Metropolitan Planning Organization has the responsibility for developing future estimates of travel demand in the Baltimore region and approving conformity analysis of the Long-Range Transportation Plan and the Transportation Improvement Program for the Baltimore region; and

WHEREAS, in connection with these responsibilities, the Baltimore Regional Transportation Board established the Cooperative Forecasting Group to develop a consensus among State, local and regional planners regarding the current estimates and long-range projections for growth and development in the Baltimore region; and

WHEREAS, the previously endorsed Round 9A forecasts have been updated to reflect the most current socioeconomic development in the Baltimore region. These forecasts which consist of data for population, households and employment for small geographic areas, called transportation analysis zones (TAZ), capture the development projected in earlier forecasts and any new development; and

WHEREAS, the Cooperative Forecasting Group has recommended to the Baltimore Regional Transportation Board a set of forecasts termed Round 10, for use in transportation and air quality planning activities; and

WHEREAS, the purpose of socioeconomic forecasting analysis is to provide inputs to decision makers to assist with determining the overall travel demand and air quality effects of growth, at the regional level, on future year highway and transit networks; and

NOW, THEREFORE, BE IT RESOLVED that the Baltimore Regional Transportation Board endorses the Round 10 cooperative forecasting process for use in transportation and air quality planning in the Baltimore region as provided in Attachment 1.

I HEREBY CERTIFY that the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, approved the aforementioned resolution at its July 15, 2022 meeting.

7-15-22

Date



Sam Snead, Chairman
Baltimore Regional Transportation Board

Local Jurisdiction Submissions: Round 10
Cooperative Forecasts – Population, Household and Employment Controls

Table 1: Round 10 Population

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Anne Arundel County | 592,695 | 621,687 | 646,214 | 664,214 | 677,424 | 687,119 | 694,235 |
| Baltimore City | 585,708 | 594,526 | 596,393 | 596,916 | 599,216 | 603,436 | 609,776 |
| Baltimore County | 854,523 | 868,112 | 876,726 | 894,541 | 909,000 | 920,275 | 934,521 |
| Carroll County | 172,891 | 176,399 | 179,140 | 181,580 | 183,956 | 186,253 | 188,357 |
| Harford County | 260,924 | 270,059 | 277,819 | 285,759 | 293,569 | 301,252 | 308,810 |
| Howard County | 332,317 | 349,697 | 363,987 | 380,016 | 393,641 | 404,607 | 414,820 |
| Queen Anne's County | 49,874 | 52,712 | 54,935 | 56,000 | 56,667 | 56,883 | 57,032 |
| Baltimore Region | 2,848,932 | 2,933,192 | 2,995,213 | 3,059,026 | 3,113,473 | 3,159,824 | 3,207,550 |

Round 10 Population Changes

| JURISDICTION | Numeric Change | | | | Percent Change | | | |
|---------------------|-----------------------|------------------|------------------|------------------|-----------------------|------------------|------------------|------------------|
| | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 | 2020-2030 | 2030-2040 | 2040-2050 | 2020-2050 |
| Anne Arundel County | 53,519 | 31,210 | 16,811 | 101,540 | 9.0% | 4.8% | 2.5% | 17.1% |
| Baltimore City | 10,685 | 2,823 | 10,560 | 24,068 | 1.8% | 0.5% | 1.8% | 4.1% |
| Baltimore County | 22,203 | 32,275 | 25,520 | 79,998 | 2.6% | 3.7% | 2.8% | 9.4% |
| Carroll County | 6,249 | 4,816 | 4,401 | 15,466 | 3.6% | 2.7% | 2.4% | 8.9% |
| Harford County | 16,895 | 15,750 | 15,241 | 47,886 | 6.5% | 5.7% | 5.2% | 18.4% |
| Howard County | 31,670 | 29,654 | 21,179 | 82,503 | 9.5% | 8.1% | 5.4% | 24.8% |
| Queen Anne's County | 5,061 | 1,732 | 365 | 7,158 | 10.1% | 3.2% | 0.6% | 14.4% |
| Baltimore Region | 146,281 | 118,260 | 94,077 | 358,618 | 5.1% | 3.9% | 3.0% | 12.6% |

Note: Throughout, Anne Arundel County data includes the City of Annapolis

Table 2: Round 10 Households

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Anne Arundel County | 219,971 | 228,528 | 236,781 | 244,935 | 251,583 | 256,061 | 260,349 |
| Baltimore City | 251,479 | 258,233 | 260,583 | 262,036 | 264,323 | 267,459 | 271,532 |
| Baltimore County | 329,955 | 334,975 | 338,408 | 345,501 | 351,261 | 355,753 | 361,428 |
| Carroll County | 63,050 | 64,455 | 65,595 | 66,670 | 67,701 | 68,709 | 69,704 |
| Harford County | 98,282 | 101,919 | 105,719 | 109,519 | 113,319 | 117,119 | 120,919 |
| Howard County | 118,781 | 126,599 | 133,334 | 141,148 | 147,881 | 153,953 | 159,721 |
| Queen Anne's County | 19,240 | 20,355 | 21,223 | 21,636 | 21,892 | 21,975 | 22,033 |
| Baltimore Region | 1,100,758 | 1,135,064 | 1,161,643 | 1,191,444 | 1,217,960 | 1,241,029 | 1,265,686 |

Round 10 Household Changes

| JURISDICTION | Numeric Change | | | | Percent Change | | | |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2020- 2030 | 2030- 2040 | 2040- 2050 | 2020- 2050 | 2020- 2030 | 2030- 2040 | 2040- 2050 | 2020- 2050 |
| Anne Arundel County | 16,810 | 14,802 | 8,766 | 40,378 | 7.6% | 6.3% | 3.5% | 18.4% |
| Baltimore City | 9,104 | 3,740 | 7,209 | 20,053 | 3.6% | 1.4% | 2.7% | 8.0% |
| Baltimore County | 8,453 | 12,853 | 10,167 | 31,473 | 2.6% | 3.8% | 2.9% | 9.5% |
| Carroll County | 2,545 | 2,106 | 2,003 | 6,654 | 4.0% | 3.2% | 3.0% | 10.6% |
| Harford County | 7,437 | 7,600 | 7,600 | 22,637 | 7.6% | 7.2% | 6.7% | 23.0% |
| Howard County | 14,553 | 14,547 | 11,840 | 40,940 | 12.3% | 10.9% | 8.0% | 34.5% |
| Queen Anne's County | 1,983 | 669 | 141 | 2,793 | 10.3% | 3.2% | 0.6% | 14.5% |
| Baltimore Region | 60,885 | 56,317 | 47,727 | 164,928 | 5.5% | 4.8% | 3.9% | 15.0% |

Table 3: Round 10 Total Employment

| JURISDICTION | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Anne Arundel County | 340,555 | 375,489 | 389,833 | 404,256 | 419,012 | 434,725 | 451,505 |
| Baltimore City | 365,047 | 377,443 | 396,188 | 413,808 | 430,379 | 446,685 | 450,996 |
| Baltimore County | 398,693 | 411,260 | 425,058 | 428,306 | 434,620 | 441,159 | 444,251 |
| Carroll County | 62,814 | 64,313 | 65,821 | 67,319 | 68,809 | 70,290 | 71,789 |
| Harford County | 100,748 | 110,606 | 120,560 | 130,808 | 141,273 | 151,868 | 162,499 |
| Howard County | 185,600 | 193,976 | 203,284 | 217,619 | 231,970 | 238,935 | 245,600 |
| Queen Anne's County | 16,562 | 16,775 | 17,125 | 17,250 | 17,375 | 17,525 | 17,700 |
| Baltimore Region | 1,470,019 | 1,549,862 | 1,617,869 | 1,679,367 | 1,743,438 | 1,801,187 | 1,844,339 |

Round 10 Total Employment Changes

| JURISDICTION | 2020- 2030 | 2030- 2040 | 2040- 2050 | 2020- 2050 | 2020- 2030 | 2030- 2040 | 2040- 2050 | 2020- 2050 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Anne Arundel County | 49,278 | 29,179 | 32,493 | 110,950 | 14.5% | 7.5% | 7.8% | 32.6% |
| Baltimore City | 31,141 | 34,191 | 20,617 | 85,949 | 8.5% | 8.6% | 4.8% | 23.5% |
| Baltimore County | 26,365 | 9,562 | 9,631 | 45,558 | 6.6% | 2.2% | 2.2% | 11.4% |
| Carroll County | 3,006 | 2,988 | 2,979 | 8,974 | 4.8% | 4.5% | 4.3% | 14.3% |
| Harford County | 19,812 | 20,712 | 21,226 | 61,751 | 19.7% | 17.2% | 15.0% | 61.3% |
| Howard County | 17,684 | 28,686 | 13,630 | 60,000 | 9.5% | 14.1% | 5.9% | 32.3% |
| Queen Anne's County | 563 | 250 | 325 | 1,138 | 3.4% | 1.5% | 1.9% | 6.9% |
| Baltimore Region | 147,850 | 125,568 | 100,902 | 374,320 | 10.1% | 7.8% | 5.8% | 25.5% |

BALTIMORE METROPOLITAN PLANNING ORGANIZATION

BALTIMORE REGIONAL TRANSPORTATION BOARD RESOLUTION #23-2

APPROVAL OF THE BALTIMORE REGION 2023-2026 TRANSPORTATION IMPROVEMENT PROGRAM AND THE ASSOCIATED CONFORMITY DETERMINATION OF THE 2023-2026 TIP AND MAXIMIZE2045

WHEREAS, the Baltimore Regional Transportation Board is the designated Metropolitan Planning Organization for the Baltimore region, encompassing the Baltimore Urbanized Area, and includes official representatives of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's, as well as representatives of the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, the Maryland Transit Administration, and Annapolis Transit; and

WHEREAS, the FY 2023-2026 Baltimore Region Transportation Improvement Program was prepared in response to the Infrastructure Investment and Jobs Act (IIJA), and meets all of the requirements of the May 2016 final rule governing the development of metropolitan plans and programs, and all projects and activities funded in the FY 2023-2026 TIP have been developed in relationship to the regionally adopted *Maximize2045: A Performance-Based Transportation Plan*; and

WHEREAS, the FY 2023-2026 Baltimore Region Transportation Improvement Program is a prioritized program of transportation projects which are financially constrained by year and includes a financial plan that demonstrates that projects can be implemented using available revenue sources; and

WHEREAS, the conformity analysis as reported in the "Conformity Determination of the FY 2023-2026 Transportation Improvement Program and *Maximize2045*," dated August 2022, provides the basis for a finding of conformity to the 8-hour ozone national ambient air quality standard (NAAQS) SIP for the Baltimore region, which includes meeting the 2012 Reasonable Further Progress motor vehicle emissions budgets, as determined adequate by U.S. EPA. This addresses three ozone NAAQS: 1997, 2008, and 2015. (Attachment 1: Tables 1 and 2); and

WHEREAS, a range of outreach strategies were employed to share information about the FY 2023-2026 Baltimore Region Transportation Improvement Program including a public review from June 29 to August 1, 2022. The public review included presentations to BRTB subcommittees and one virtual public meeting. The draft FY 2023-2026 TIP document was also supported by an online Storymap, dashboard, and interactive map. Some XX comments were submitted and considered by the BRTB; and

WHEREAS, the FY 2023-2026 Baltimore Region Transportation Improvement Program uses federal and matching funds as well as Toll Revenues (for project categories see Attachment 2).

NOW, THEREFORE, BE IT RESOLVED that the Baltimore Regional Transportation Board approves the FY 2023-2026 Baltimore Region Transportation Improvement Program.

I HEREBY CERTIFY that the Baltimore Regional Transportation Board, as the Metropolitan Planning Organization for the Baltimore region, approved the aforementioned resolution at its August 23, 2022 meeting.

8-23-22

Date



Sam Snead, Chair
Baltimore Regional Transportation Board

Table 1. VOC Emissions Test Results (average summer weekday, tons/day)

| | 2025 | 2035 | 2045 |
|--------------------------------------|-------------|-------------|-------------|
| Total Emissions | 15.74 | 9.94 | 9.05 |
| Conformity Budget¹ | 40.2 | 40.2 | 40.2 |
| Conformity Result | Pass | Pass | Pass |

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)

Table 2. Weekday NOx Emissions Test Results (average summer weekday, tons/day)

| | 2025 | 2035 | 2045 |
|--------------------------------------|-------------|-------------|-------------|
| Total Emissions | 18.42 | 10.48 | 9.83 |
| Conformity Budget¹ | 93.5 | 93.5 | 93.5 |
| Conformity Result | Pass | Pass | Pass |

¹ 2012, 8-hour ozone Reasonable Further Progress (RFP) SIP budget for the Baltimore region (motor vehicle emission budgets determined adequate by EPA on February 22, 2016)

Overview of the 2023-2026 TIP

- 131 federally-funded and regionally significant projects
 - 7 are new projects
- \$4.25 billion in proposed federal, state, local, and toll funds
 - \$2.59 billion federal; \$1.66 billion state/local
 - highway, transit, bicycle and pedestrian projects
 - maintaining, operating and expanding the transportation system
- Projects support long-range transportation goals
 - for example: accessibility, safety, and prosperity
- Funding limited
 - Programmed funds cannot exceed what is reasonably expected to be available from local, state, and federal sources

2023 – 2026 TIP Project Categories

35.3 percent highway preservation

21.3 percent highway capacity

18.8 percent transit preservation

10.6 percent ports

6.5 percent emission reduction strategies

4.4 percent commuter rail preservation

2.4 percent environmental and/or safety

0.7 percent enhancement program

0.04 percent miscellaneous


0.0 percent transit capacity (no projects submitted in this timeframe)

0.0 percent commuter rail capacity (no projects submitted in this timeframe)

Appendix H: Public Participation Page

APPENDIX H

PUBLIC PARTICIPATION


INVESTING IN THE REGION'S FUTURE 

The Baltimore Regional Transportation Board (BRTB) has a

\$4.26 BILLION
TRANSPORTATION PLAN

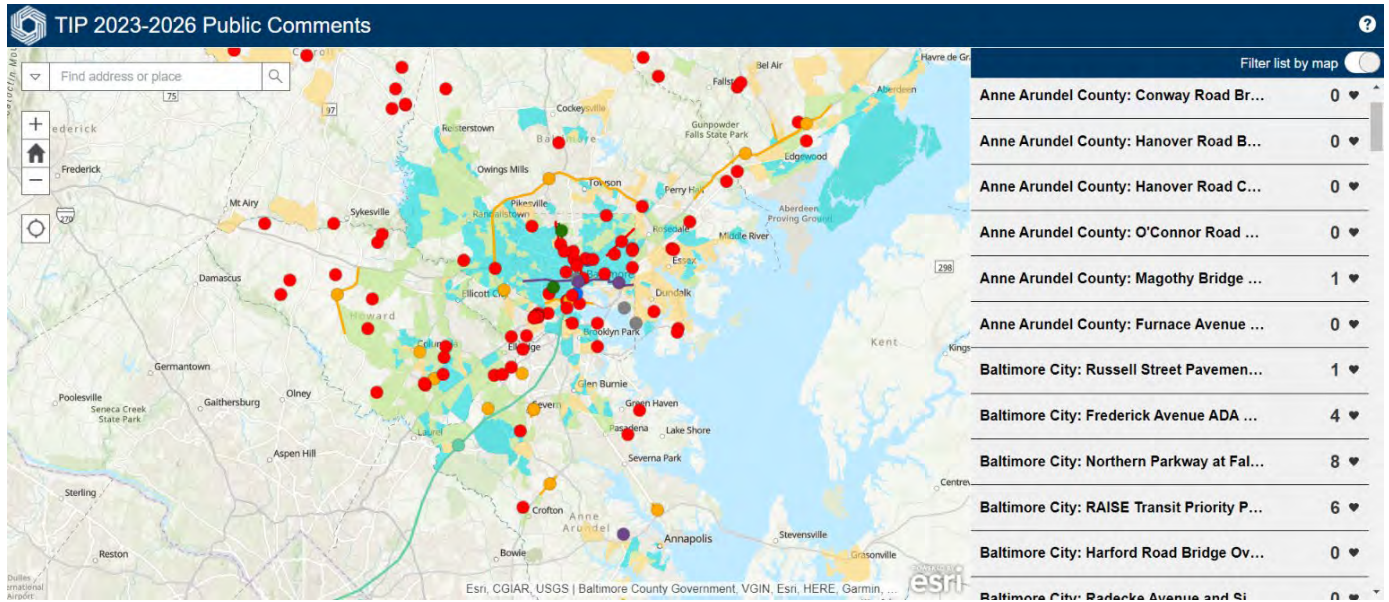
for the region and we want to know what you think!

LEARN MORE ON **JULY 26** OR VISIT **BALTOMETRO.ORG**



The graphic features a stylized road with various colored cars and a city skyline in the background. The text is primarily in blue and green, with the dollar amount in large, bold green letters.

INTERACTIVE MAP



<https://bmc.maps.arcgis.com/apps/CrowdsourcingPolling/index.html?appid=fab3c29ea3c24d2c949b2d31c2dd9897>

STORY MAP



<https://storymaps.arcgis.com/stories/042b874b71ab40a58ca1ea8bfab56f9f>

PUBLIC INPUT PROJECT PAGE

<https://publicinput.com/2023-2026TIP>

Baltimore Metropolitan Council (BMC) > 2023-2026 Transportation Improvement Program and Air Quality Conformity

Monica Haines Benkheide

TRANSPORTATION IMPROVEMENT PROGRAM
AND AIR QUALITY CONFORMITY DETERMINATION

Translate



2023-2026 Transportation Improvement Program and Air Quality Conformity

The Baltimore Regional Transportation Board (BRTB), as the metropolitan planning organization (MPO) for the Baltimore region, seeks comments from the public through **Monday, August 1** on two transportation-related documents – the draft 2023-2026 *Transportation Improvement Program (TIP)* and the associated *Air Quality Conformity Determination*.

The TIP includes a proposed listing of federal, state, and local money, as well as toll revenue, for highway, transit, bicycle and pedestrian projects during the next four years. The funding goes toward maintaining, operating, and expanding the transportation system. The TIP also translates recommendations from the long-range transportation plan (LRTP) into a short-term program of improvements. The LRTP identifies transportation investments for the 20 years beyond the time frame of the TIP. As projects move from the conceptual into the implementation phase, they enter the TIP, which defines funding by fiscal year and funding source.

The TIP is not a "wish list" of projects, but rather must be financially constrained. This means that proposed funds in the TIP must not exceed the funds available over the next four years. The TIP is the region's way of allocating these limited resources among its various capital and operating needs.

Those interested in learning more are invited to join us on **Tuesday, July 26 at 7 p.m.** for a virtual public meeting and information session. RSVP below. Speakers include:

-  Nicole Hebert, Air Quality Planner
-  Keith Kucharek, Transportation Planner

2023-2026 Transportation Improvement Program and Air Quality Conformity

Monica Haines Benkheide

About the TIP

Air Quality Conformity

Share Your Thoughts

The draft 2023-2026 TIP is the list of regional transportation projects requesting federal funding in the near term. It includes **\$4.26 billion** in proposed funding (federal, state, local, toll revenue) for highway, transit, bicycle and pedestrian projects during the next four years. The funding goes toward maintaining, operating and expanding the transportation system. These projects support regional goals such as accessibility, safety, and prosperity. Funding identified in the TIP is based on funding reasonably expected to be available from all sources.

The draft 2023-2026 TIP includes 132 projects, 7 of which are new to this year's TIP. 6 were in previous TIPs but were removed due to lack of funding, and project management for 3 projects have moved from Anne Arundel County to MDOT SHA. Highlights include:

- Anne Arundel County is dedicating nearly \$16 million in funding for a **multi-modal Transportation Center in Pangle** at the Woodfield Annapolis Mall to serve existing local and regional bus service, with possible future connectivity to modes such as bikeshare, carshare, and ride sharing services.
- Baltimore City, in partnership with the state of Maryland, is investing \$50 million in an **RAISE Transit Priority Project** (formerly the East-West Priority Bus Corridor), facilitating more efficient transit trips, improving multi-modal connections, and addressing existing safety issues. The project will improve bus service between east and west Baltimore and will help to reduce emissions.
- Baltimore, Carroll and Harford Counties are dedicating federal and local funding for 28 essential **bridge improvement projects**.
- Howard County continues progress on a \$24 million project on **Snowden River Parkway; Broken Land Parkway to Oakland Mills Road** adding a third lane along Snowden River Parkway in each direction and will provide new 10-foot shared-use paths in an effort to increase transportation alternatives to access public transit.
- MDOT SHA is dedicating \$180.2 million to reconstruct the **Interchange of I-695 at I-70** to improve safety, operations and capacity. MDOT SHA is also dedicating \$133 million to **widen I-695: US 40 to MD 344** to provide safety and capacity improvements.
- The Maryland Port Administration is partnering with CSX to leverage federal grant funding to reconstruct the 125-year-old **Howard Street Tunnel** in order to create double-track rail access to and from the Port of Baltimore. Adjustments to several other bridges in Baltimore City are included in this project.
- MDTA also continues engineering and construction on a \$1.1 billion project in Baltimore and Harford Counties adding two additional **Express Toll Lanes on I-95** from north of MD 43 to north of MD 24. This project is funded with toll revenues.

Please view the draft 2023-2026 TIP through the BRTB's [interactive project map](#) or learn more in our [story map](#). The draft 2023-2026 TIP is also available in PDF format for download at [baltimetro.org](#).

JAN FEB MAR APR MAY JUN JUL AUG SEP

2023

2024

2025

2026

Timeline

Call for Projects

Comment Period

Response to comments

Call for Projects

While the TIP is federally required to be updated at least every four years, the BRTB formally updates the TIP annually. In January of every year, the BRTB conducts a call for projects from local jurisdictions and state agencies.

Comment Period

A key element of the planning process is this opportunity for public comment. The BRTB will release the TIP for a 30-day comment period from **Wednesday, June 29 through Monday, August 1, 2022**.

Response to comments

The BRTB will consider all public comments received and issue a response, sharing how comments were incorporated or addressed.

H-3

ADVERTISEMENTS



INVESTING IN THE REGION'S FUTURE

The Baltimore Regional Transportation Board (BRTB) has a **\$4.26 Billion** Transportation Plan for the region and we want to know what you think!

Learn more at **BALTOMETRO.ORG**

VIRTUAL PUBLIC MEETING
Tue, July 26 at 7:00pm

»BRTB



INVESTING IN THE REGION'S FUTURE

The Baltimore Regional Transportation Board (BRTB) has a

\$4.26 BILLION

TRANSPORTATION PLAN

for the region and we want to know what you think!

LEARN MORE ON **JULY 26** OR VISIT **BALTOMETRO.ORG**



INVIRTIENDO EN EL FUTURO DE LA REGIÓN


La Junta Directiva del Transporte Regional de Baltimore (BRTB) tiene un plan de **\$4.26 Billones** para el transporte de la región y nosotros queremos conocer lo que usted piensa!

REÚNETE VIRTUALMENTE CON NOSOTROS
Martes, 26 de Julio a las 7:00PM

Conozca más Visitando **BALTOMETRO.ORG**

»BRTB





INVESTING IN THE REGION'S FUTURE

The Baltimore Regional Transportation Board (BRTB) has a **\$4.26 Billion** transportation plan for the region and we want to know what you think! Join us for a virtual public meeting or send us your comments through until **Monday, August 1**.

JOIN US VIRTUALLY
Tue, July 26 » 7:00pm

LEARN MORE AT **BALTOMETRO.ORG**

NOTICE TO INTERESTED PARTIES

<https://publicinput.com/S852571>

<https://publicinput.com/A273568>

<https://publicinput.com/P280826>

PRESS RELEASE



BALTIMORE, MD (Wednesday, June 29, 2022) –The Baltimore Regional Transportation Board (BRTB) has launched a draft of its 2023-2026 Transportation Improvement Program (TIP), which includes \$4.26 billion in proposed funding for highway, transit, bicycle and pedestrian projects over the next four years. Members of the public are invited to review and comment on the draft between now and August 1.

As the metropolitan planning organization for the Baltimore region, the BRTB releases an annual TIP to help coordinate investments in transportation development throughout Anne Arundel, Baltimore, Carroll, Harford, Howard and Queen Anne's Counties, as well as Baltimore City. This year's draft TIP includes 132 projects, 7 of which are new.

Highlights include:

- **Anne Arundel County** is dedicating nearly \$16 million to funding for a multi-modal Transportation Center at the Westfield Annapolis Mall in Parole to serve local and regional bus service, with potential future connectivity to modes such as bikeshare, carshare and ride hailing services.
- **Baltimore City**, in partnership with the state of Maryland, is investing \$50 million in a RAISE Transit Priority Project (formerly the East-West Priority Bus Corridor), which will facilitate more efficient transit trips, improve multi-modal connections, address safety issues and help reduce emissions.
- **Howard County** is continuing a \$24 million project to expand Snowden River Parkway from Broken Land Parkway to Oakland Mills Road, adding third lanes in each direction and shared-use paths to encourage transportation alternatives.
- **Baltimore, Carroll and Harford Counties** are dedicating funding for bridge improvement projects, including: I-695 & Putty Hill Ave, I-695 & I-95 and US 40 & Gunpowder Falls (Baltimore); US 1 & Tollgate and Abingdon Road & CSX Railroad (Harford); and MD91 & Patapsco River North Branch and Gaither Road & Patapsco River South Branch (Carroll).

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ANNE ARUNDEL COUNTY BALTIMORE CITY BALTIMORE COUNTY CARROLL COUNTY HARFORD COUNTY HOWARD COUNTY QUEEN ANNE'S COUNTY 1

PRESS RELEASE (continued)

GLOSSARY OF ACRONYMS AND TRANSPORTATION PLANNING TERMS

August 2022

- **MDOT SHA** is dedicating \$180.2 million to reconstruct the interchange of I-695 at I-70 to improve safety and capacity. MDOT SHA is also dedicating \$133 million to widen I-695 from US 40 to MD 144 to improve safety and capacity.
- **The Maryland Port Administration** is partnering with CSX to reconstruct the 125-year-old Howard Street Tunnel in order to create double-stack rail access to and from the Port of Baltimore. Adjustments to several other bridges in Baltimore City are also included.
- **The Maryland Transportation Authority** is continuing a \$1.1 billion project in Baltimore and Harford Counties adding two additional Express Toll Lanes on I-95 from north of MD 43 to north of MD 24. This project is funded with toll revenues.

Returning this year is an [interactive project map](#), where anyone can view and directly comment on specific projects. The Baltimore Metropolitan Council, the BRTB's parent organization, also created a [story map](#) to help folks more easily learn about the development of this year's TIP.

Find the draft 2023-2026 TIP by [clicking here](#). For more a more detailed overview of each project sorted by sponsor, click: Anne Arundel County | Baltimore City | Baltimore County | Carroll County | Harford County | Howard County | Maryland Port Administration | Maryland Transportation Authority | MDOT MTA | MDOT SHA.

Comments on the overall plan will be accepted through [PublicInput](#), by email at 2023-2026TIP@publicinput.com, or through social media using #BRTBListens. Check online for a full list of ways to submit comment. Members of the public are also welcome to join us for a virtual town hall meeting on July 26 at 7 p.m.



COMMENTS

www.baltometro.org/sites/default/files/bmc_documents/general/transportation/tip/23-26/23-26TIP_Comments.pdf



The Metropolitan Planning Organization for the Baltimore Region

Public Comments on 2023-2026 Transportation Improvement Program (TIP) and Air Quality Conformity Determination



BRIAN SEEL

brian.seel@gmail.com

I know you will ignore this feedback, like you have many times in the past, so I am not going to put real effort into this message because I need to keep negativity out of my life. But how on earth, in the year 2022, are you still putting so much of the budget toward additional today capacity for mostly single occupant vehicles, instead of for mass transit, or low carbon options like walking or biking facilities. We are just going to let the world burn, aren't we?

ROLF SJOGREN

rolfcom@hotmail.com

It's shocking how few projects in this plan have anything to do with transit, and the amount of money allocated to improving already bloated expressway corridors is simply appalling.

The I-695/I-70 interchange does not need to be re-built, to the tune of hundreds of millions of dollars. The Beltway will have traffic jams on it no matter how wide you make it.

The only thing that might possibly make a difference on the Beltway is if you built a fast, convenient transit option paralleling it, with parking lots at each stop. I drive on the Beltway every day from Pikesville to Halethorpe, in order to catch the MARC train to D.C., to my job. If there were ANY transit option to do this, even if it took somewhat longer, I would take it, but there is none, zero.

Another main cause of congestion on the Beltway is actually the non-enforcement of the speed limit (speed cameras please!), so there are fender-benders which tie up traffic almost on a daily basis - because literally EVERYONE on the Beltway is driving 15 mph or more (often 25 mph) over the posted speed limit. If everyone drove at a safer speed, there would be orders of magnitude fewer accidents, and a fraction of the traffic tie-ups that result.

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COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

You could build a fast busway (just small stations & parking lots next to major arteries' crossing it - no need to add lanes to the actual roadway) along the whole length of the Beltway for less than it will cost to rebuild the I-70/I-695 interchange, and you would have increased capacity for the entire region, and for all citizens, not just people who are able to drive and who choose to own and can afford to operate a car – all those criteria are actually a _shrinking percentage_ of the population!

We've built more than enough freeways - it's time to improve mobility radically, and for _everyone_, by building robust, fast modes of transportation that aren't dependent on automobiles.

PETER SMITH peterthomassmith@gmail.com

Hello, The region's transportation priorities should reflect increased emphasis in public transit and a shift away from car transportation. Accordingly, the final Transportation Improvement Program for 2023-2026 should reflect lower spending on Highway Capacity especially and Highway Preservation, and greater spending on Transit Preservation than what is proposed in the draft plan. Thank you.

MICHAEL SCEPANIAK - STRONG TOWNS BALTIMORE civic@oluho.com

Thank you for providing the opportunity to comment. Regarding the 2023-2026 TIP, I'm very frustrated to see such a large percentage allocated to roadway expansion ("Highway Capacity"). In my mind, that percentage should be near zero. Instead, that allocation should go toward projects categorized as "Transit Capacity". But, for the next three years, no funds are going toward transit expansion. None.

The Baltimore City East-West Bus Corridor sounds pretty substantial, but the fact that it falls under "Transit Preservation" speaks to how it will in no way move the transit needle. We must stop adding more highway miles. We can't afford to maintain them. The trajectory that we are on and which you, the BMC, intend to continue pursuing is not sustainable - fiscally or environmentally.

According to Strong Towns, the American Jobs Plan "identified 173,000 miles of roadway already in poor condition. The bill would only have modernized 20,000 of those miles, and that would take a decade in which time the backlog of maintenance would be even bigger. The same with bridges. Our leadership identified 45,000 bridges already in a state of disrepair. Over a decade, they would fix only 10,000 of them. That's all." Maryland's transportation priorities need to be reset in a significant way. That reset should start with the 2023-2026 TIP.

ZEN ZINEER, ASSOCIATED STUDENT CONGRESS OF BALTIMORE CITY zenzineer@gmail.com

The Baltimore Regional Transportation Board (BRTB) is sharing a budget plan that will distribute \$4.26 billion in total across several regions (including Baltimore City). Of \$400,000,000 for Baltimore City specifically, 53.8% will go to ports and 38.2% will go to highway preservation. From their presentation: This is a written statement by the Associated Student Congress of Baltimore City (ASCBC). ASCBC is the student government program for Baltimore City Public Schools and represents the city's 78,000 students. We are an organization that was founded to advocate for students and regularly meet with the district school board and elected officials to share student perspectives, with our goal of creating positive change in our community.

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COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

There doesn't seem to be a prioritization of mass transit, to help improve transportation for students. Helping improve travel times and routes for students is a must. This money can fund projects that directly benefit the people of Baltimore, such as reviving the Red Line project canceled previously by Governor Larry Hogan.

We believe that increased investments in city transportation will not only ensure safety in our transportation, but also create less traffic and simpler transportation options for students. As bell schedules are changing and many students will be seeking later-morning transportation options, and many earlier, it is imperative that our existing and new transit options be optimized to fit the needs of students at our schools.

So many students have to get up early and get home late because they need to switch between buses/trains that have large arrival windows and frequent delays. There have been cutbacks on the light rail, such as a decrease in scheduling due to a shortage of operators. The red line plan was canceled despite its potential to help improve transportation for city residents. We want to push that the transportation in Baltimore City needs the help of this budget plan, and advocate for mass transit.

Revisiting the idea of a student metro transit council for feedback on these expanding options would be equally powerful and help improve transportation in the city.

We also want this budget to be shared directly with families with school aged children throughout the city so they can provide their own feedback and personalize the budget plan, whether shared through the mayor's office or through the School Board, so that families can directly provide feedback on a survey of some kind.

MELANIE S

Every cent going to highway expansion over dedicated right of way public transit is a nail in Baltimore's fiscal solvency coffin. The highways are big enough - when there is congestion, the question should not be how to make the roads bigger to fit more cars, but to get more people off the road.

So much of the traffic could be alleviated with a three prong effort to provide truly comprehensive transit options in the metro area.

1. Comprehensive commuter rail to all the major outlying burbs. Owings Mills has the subway terminus, but I'm willing to bet a huge swathe of the population in the area is unwilling to use it because of its long headway, lack of maintenance, and lack of safety. Put money into reviving the subway line by putting security on the trains and in the stations and getting reliability up so people trust using it to get to work downtown rather than being stuck on the beltway and congesting roads. The light rail goes to Timonium and its reliability is a known joke too - make it reliable, get the headway down, and people will use it. Edgewood and Aberdeen get the MARC... at reduced service. How are people living in these towns supposed to commute reliably to Baltimore when trains often only run three times a day? Or not at all on weekends? Laurel gets the Camden line, how are the wealthy folk there supposed to get to Downtown Baltimore to spend money and invest in the cities attractions on the weekends? By car, on I95, like most people think, and then they need parking in the downtown that consumes valuable urban real estate. But that's it. The rest of the exurbs need commuter infrastructure. Ellicott City might get a light rail terminus in a decade? Maybe? Columbia is probably too rich to ever want to touch a train, that's just a cultural thing. Glen Burnie and Pasadena definitely need rail access, but it should go all the way to Annapolis. Sure, the TIP cannot leverage the funds to build entirely new rail lines - that will have to come from state legislature - but there are tons of underused rail lines all over, hell the B&O museum into downtown has grade separated unused track right behind it. Imagine a

COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

- short run light rail train from the museum / shopping center with stops at Carroll Park, in Lansdowne, with a terminus at the St. Denis MARC? Just fix the existing track and build stations. Which is #2...
2. More inner city dedicated right of way fixed transit. IE, more trains. Streetcars! There is a museum for them. Why is there not even a mention of adding streetcars to Federal Hill, Fells Point, or Canton after they gentrified massively this last decade? Why doesn't St. Paul and Light have a streetcar loop through Midtown down to downtown? We need more of everything, but this proposal has none of anything - besides more roads for single occupancy vehicles. Rebuilding short run streetcar lines as part of the Complete Streets redevelopments that need to happen seems like a natural thing to do, but nobody even considers it. I'm talking about streetcars like in Portland - air conditioned and accessible. The fed is giving away money to build streetcars! Just take the money and do it! We don't need hundreds of miles of streetcar track again, just loops in major boulevards like Fayette and Baltimore, Lombard and Pratt, North, Fulton & Monroe, Central & Broadway? Besides those the metro could really use expansion - the Light Rail falls apart downtown trying to run in grade with cars, and future rail lines in the city should probably prioritize being underground within like 2 miles of Downtown.
 3. There are like 3 bike lane proposals in this document, and none of them are particularly impressive - if we want biking to be first class the way the Complete Streets ordinance ordains, we need protected bike lanes that let people get across most of the city. Tons of streets are in awful shape, rather than spending money on highway expansion, if the BRTB can't do anything to add in additional transit that is needed, at least spend that money redeveloping Complete Streets in the city to support biking as a first class citizen. Again, Portland. They have bike boulevards all over now, and you can travel within about a mile of downtown on dedicated bike infrastructure. They are of a similar size to Baltimore, so why can't what they managed there be done here? Putting all the money into supporting cars dooms the city long term.

Expanding roads means more maintenance burden later for roads people become more dependent on because everything is built around roads. We have to change course to revitalize Baltimore, we need to see investment in the things that will make people get out of their cars to solve the traffic, not put more of them on the road.

1199SEIU UNITED HEALTHCARE WORKERS EAST,
MARYLAND/DC

AUDUBON MID-ATLANTIC

BALTIMORE MARC RIDERS

BIKEMORE

CEDAR LANE ENVIRONMENTAL JUSTICE MINISTRY

CENTRAL MARYLAND TRANSPORTATION ALLIANCE

CLEAN WATER ACTION

CLIMATE REALITY, BALTIMORE AREA CHAPTER

COALITION FOR SMARTER GROWTH

DOWNTOWN RESIDENTS ADVOCACY NETWORK
(BALTIMORE)

HOWARD COUNTY CLIMATE ACTION

INDIVISIBLE HOWARD COUNTY

LABOR NETWORK FOR SUSTAINABILITY

MARYLAND NONPROFITS

MARYLAND SIERRA CLUB

MLC CLIMATE JUSTICE WING

THE FUND FOR EDUCATIONAL EXCELLENCE

TRANSIT CHOICES

Thank you for the opportunity to provide input on the Draft 2023-2026 Transportation Improvement Program (TIP) for the Baltimore region. The TIP can be simply described as the list of regional transportation projects using federal

COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

funds over the next four years. However, we believe it is important to look at this document not simply as a collection of individual projects, but as a program that reflects our region's transportation priorities.

Many of the undersigned organizations have submitted comments for the region's last two TIPs. In the 2021 TIP letter we wrote:

"Unfortunately, this Draft TIP does not prioritize spending in a way that will do anything but worsen the interwoven crises facing our state and our world. The COVID-19 pandemic is an acute crisis that has highlighted how black people and other communities of color have been disproportionately impacted by poor air quality. Meanwhile, the climate crisis continues to mount with the transportation sector as the number one source of greenhouse gas emissions. And the racial and economic disparities underlying it all are, in part, due to decades of transportation and land use decisions designed to exclude and segregate black people."

In the 2022 TIP letter we referenced that passage and then wrote:

"Those realities have not fundamentally changed in the last year. Despite some improvements in spending by category, the 2022-2025 TIP is still heavily tilted towards spending on fossil fuel infrastructure that exacerbates more problems than it purports to solve. In the previous TIP we noted that the \$1.3 billion for highway capacity was 650 times the \$2 million programmed for transit capacity. In this year's TIP, there are zero dollars for transit capacity. So despite a reduction in the highway capacity category (still almost a billion dollars), mathematically speaking, the region is now spending infinitely more on new highways than it is on new transit. The consequence of spending priorities like these is ever more driving. No wonder Maryland was setting new highs for vehicle miles traveled per capita shortly before the pandemic."

Now for the Draft 2023-2026 TIP we could re-submit those same comments verbatim, and they would still hold true. The 2023 TIP still has zero dollars for transit capacity or commuter rail capacity, but \$900 million for highway capacity. In fact, the one positive step that the BRTB took in last year's TIP, not adding any new highway capacity projects, has been reversed. The 2023 TIP adds four new highway capacity projects into the project pipeline. We believe that this region is in a deep transportation hole and the first step in getting out of it is to put down the shovel on adding more road capacity.

We ask the BRTB to remove from the Draft 2023-2026 TIP the four highway capacity projects listed in Table II-2. As highlighted in our 2021 letter, many of the elected officials who serve on the Board have expressed a desire to invest in a multi-modal transportation system that reduces our dependence on cars. Unfortunately, the reality continues to fall short of the rhetoric as evidenced in the regional spending priorities the BRTB approves each year.

As regional leaders, you have options to change the status quo. For example, the BRTB could use annual federal surface transportation funding for transit, bike and pedestrian infrastructure rather than continuing its practice of spending them exclusively on roads.

In fact, Section IIA of the Draft TIP states: *"The TIP is required to take full advantage of the increased flexibility of Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) capital funds. MDOT provides a 'statement of concurrence' that consideration of this provision (flexing funds) has been utilized in the development of all state initiatives."* The two largest sources of flexible federal funds are the National Highway Performance Program (NHPP) and the Surface Transportation Block Grant Program (STBG). However, according to the tables summarizing federal aid for each fiscal year from FY 2023 through FY 2026, there are zero NHPP or STBG funds being flexed to transit.

COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

If the region does not take the necessary step of redirecting these funds away from widening roads and towards sustainable transportation, then we will continue on a business as usual path that continues to hold this region back from reaching its full potential economically, socially, and environmentally.

HENRY COOK Henry.cook@gmail.com

I am very disappointed in reviewing the 2023-2026 TIP and discovering that vast sums programmed towards road and highway expansion and very, very little for active transportation network construction and maintenance. Having reviewed prior public comment and the BRTB response, you have clearly been introduced to the concepts of induced demand and the fact that building more highways results in more traffic. Also, you are clearly aware of the climate crisis and are ignoring it by over-prioritizing private vehicle transportation at the cost of all other modes of transportation.

I would call on BRTB to change their culture and reflect the leadership that our region needs for transportation infrastructure. Include separated bike/pedestrian infrastructure in ALL roadway projects (including maintenance projects). A moratorium on highway widening or other projects that will increase total traffic. Redesign of streets and bridges maintained to prioritize safety and access for vulnerable road users.

As a regional transportation board, there is also a decided lack of regional view for completing bike and pedestrian networks that connect residents to public transit, commercial destinations, etc. Special focus should be placed on projects that connect neighborhoods by bike/pedestrian short-cut rather than forcing users to follow a car-based road network. Funding individual projects that do not connect to existing infrastructure does not address our region's needs.

I would like to see BRTB set goals for the organization at directing funding towards active transit options and public transit until these areas reach at least parity with automobile-based infrastructure.

Finally, I would also call on BRTB to evaluate projects with a greater focus on sustainability, financial as well as environmental. New build projects should include an anticipated annual maintenance cost projection and, if relevant, potential replacement cost at the end of useful life.

NEB SERTSU NSertsu@bwrapiidrail.com

As the developers of the Superconducting Magnetic Levitation (SCMAGLEV) train system, BaltimoreWashington Rapid Rail (BWRR) is committed to building a system that will improve the transportation landscape for the region.

The SCMAGLEV system will provide ultra-high-speed passenger rail service for thousands, diverting millions of car trips – and their harmful greenhouse gas emissions – from our roads. The reduction in emissions expected from these car trip diversions will help Maryland achieve its air quality goals, crucial for the survival of our planet and future generations.

This project will bring more than \$10 billion in direct construction spending to the region. It will also open ample opportunities to develop supporting industries, businesses, and contracts. This adds up to an unprecedented opportunity for sustainable growth for the region. Not only will we benefit locally; successful development of the SCMAGLEV will serve as a blueprint for other major metropolitan areas in the country to look to when developing sustainable growth plans.

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COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

BWRR has evaluated parts of the 2023-2026 Transportation Improvement program and provides the following comments:

1. The Description (pg. 321 of 471) should be updated to note that the Draft Environmental Impact Statement was completed on January 15, 2021.
2. The Description (pg. 321 of 471) indicates "No schedule or funding for further phases have been identified." This should be updated to reflect that the project has been awarded an additional \$26 million in federal funding; \$24 million was awarded in March 2020 and \$2 million was awarded in November 2020.

We're glad to be included in the Transportation Improvement Program and Air Quality Conformity Determination, and look forward to seeing the results.

Public Comments Received On Individual Projects

11-1402-13 MAGOTHY BRIDGE ROAD BRIDGE OVER MAGOTHY RIVER

JON KORIN korin.jon@gmail.com 21146

Bike Lane markings in the shoulders will fill a gap in that road which has bike lanes on either side of the bridge

11-2101-66 PAROLE TRANSPORTATION CENTER

JON KORIN korin.jon@gmail.com 21146

The project should include shared-use paths to provide safe access to the proposed transit center on bike or foot.

11-2101-66 PAROLE TRANSPORTATION CENTER

JON MUELLER jonmueller@comcast.net 21401

It would be greatly appreciated if a dedicated bike lane could be added to Bestgate road at least to Ridgely. The sharrows and signs do NOT slow traffic and it is extremely dangerous to ride there. Speed has increased due to new paving. Tons of \$ has been spent on sidewalks no one uses but nothing for cyclists and bike commuters other than signs. I have been writing to the county about this for over 10 years. I fear for my life every time I commute to work along Bestgate from Generals Hwy to Admiral.

11-2101-66 PAROLE TRANSPORTATION CENTER

STEVEN ONKEN annapolis@hotmail.com 21113

As long as a "multi-modal transportation center" includes bike lanes along Bestgate, I'm all for it! We need to take a hard look at making biking more practical throughout Anne Arundel County. Just came back from 10 days in Europe and they are WAY ahead of the curve on making walking and biking a priority!!!

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COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

I just HAVE to comment - though not on any link - to the area noted as "low income region", bounded by I-97, Rte. 50, Chesterfield, Hawkins, and Bacon Ridge ranch. I lived in there for 24 years. Twin Hills, The Ridges, Ashers Farms, Crosspointe, North River Forest, Hidden View Farm, are ALL comprised of homes in the 600-800K range!!! How can this possibly be a "low income region"?!! Time for a new census!!

11-2106-13 CONWAY ROAD BRIDGE OVER LITTLE PATUXENT RIVER

STEVEN ONKEN annapolis@hotmail.com 21113

I live right off Conway and heartily endorse shoulders and sidewalks along the bridge. There is a very wide shoulder on both sides of the bridge - very conducive to cycling, and having it continue across the bridge would be very beneficial.

12-2102-03 GREENWAY MIDDLE BRANCH PHASE 2

DANIEL PASCHALL daniel@greenway.org 19121

This is a critical connection in the Baltimore Greenway Trails Network as well as the long distance trails of national significance, the East Coast Greenway and the September 11th National Memorial Trail. Please invest more funds into completing the rest of the gaps in all of these networks, and please prioritize a larger Baltimore Region Trail Network that extends into the surrounding counties with more trail connectivity to destinations, transit, parks, and homes for all.

16-0436-13 BRIDGE REPAIR AND DECK REPLACEMENT

SHAUN LEHMANN shaunboylelehmann@gmail.com 21043

This is how transportation money ought to be spent. Maintaining not expanding liabilities

16-0436-13 BRIDGE REPAIR AND DECK REPLACEMENT

C GELWICKS Colette.gelwicks@gmail.com 21113

Would love it if this could also be paired with pedestrian access since it is very difficult for people walking or biking to access the shopping area.

16-1410-41 SNOWDEN RIVER PARKWAY: BROKEN LAND PARKWAY TO OAKLAND MILLS ROAD

SHAUN LEHMANN shaunboylelehmann@gmail.com 21043

Why in a community which is actually bikeable and walkable are we expanding lanes for cars? Build the multi use lanes for bikes and pedestrians. Improve intersections with traffic circles. The traffic in this area A) Its never actually that bad except peak commute hours B) Traffic isnt caused by volume. Its caused by poor design and constant use of traffic signals when they are not necessary. There are more effecient traffic control measures to be had. Why in a

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COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

climate change reality are we expanding capacity for cars? It just doesn't make sense. Maintain the infrastructure you have now, don't overbuild and load up on liabilities you won't be able to maintain in the future.

16-1410-41 SNOWDEN RIVER PARKWAY: BROKEN LAND PARKWAY TO OAKLAND MILLS ROAD

C GELWICKS Colette.gelwicks@gmail.com 21113

Having worked in this area for several years, I'm familiar with the traffic on SRP. While there is some congestion during rush hour, it is otherwise not a problem. In addition, adding another lane will only result in drivers speeding and new accidents. What this stretch really needs is the multi-use pathway. There are bus stops along this stretch with no sidewalk to get to any of the stores. Safe ways to cross SRP are also missing. Nix the third lane and focus on the multi-use path instead.

16-1410-41 SNOWDEN RIVER PARKWAY: BROKEN LAND PARKWAY TO OAKLAND MILLS ROAD

JERARDO alfaro.jerardo@gmail.com 21075

It is unnecessary and reckless to continue to widen roads when this funding could be used to alleviate congestion via transit and bike/ped facilities. Induced demand is real and would only serve to congest this area even more. The planned shared use path should stay, however, the road widening should not.

25-1801-41 I-95 EXPRESS TOLL LANES NORTHBOUND EXTENSION

COREY casimmerer@icloud.com 21224

We are easily spending 1.1 billion dollars (nearly a quarter of all funding in the Baltimore region) on Lexus lanes but can't build proper DC-like transit? Our streets could be as bike friendly as Amsterdam with that kind of money. We could build the entire red line, transforming the region with that kind of money.

30-2101-82 DUNDALK MARINE TERMINAL RESILIENCY AND FLOOD MITIGATION IMPROVEMENTS

LARRY BANNERMAN yrralban@gmail.com 21040

I am a former Turner Station MD 21222 resident who worked with Port Of Baltimore leadership. I love this proactive approach to preventing damage and potential loss of life at POB. Climate Change is real. Army Corps recently completed a hydrology study for Turner Station and determined that the same kinds of protection is needed. HOPEFULLY it will get funded. Take care and stay safe.

61-2301-41 MD 2: US 50 TO ARNOLD ROAD

ANONYMOUS

This project does not address the failing intersection of MD 2 @ College Parkway (just to the north of this CIP).

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COMMENTS (continued)



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61-2301-41 MD 2: US 50 TO ARNOLD ROAD

JON KORIN korin.jon@gmail.com 21146

There should be a shared-use path instead of sidewalk from the B&A Trail to Rt 2.

61-2302-41 MD 3: WAUGH CHAPEL ROAD/RIEDEL ROAD TO MD32/I-97

STEVEN ONKEN annapolis@hotmail.com 21113

I travel this route every single day! A third lane would be hugely beneficial in alleviating some of the bottlenecks along that stretch of Route 3.

63-1704-13 US 1: BRIDGE REPLACEMENT OVER CSX

ABRAHAM DRUDE abepdrude@gmail.com 21227

To start, I really want to thank you for the work you do here. I believe this aspect of government is so crucial yet not nearly as recognized by the public as it should be.

Forgive me if I misunderstood the details of this project but I beg that you consider extending the bike lane from the Halethorpe Marc Station on Route 1, on to the bridge, and up to the Guinness Brewery. That would add an extremely valuable element of accessibility and even touristy appeal to the location/area. The possibilities that could lay a foundation for could not be overstated.

Also on the topic of the bike lanes I also feel the need to bring this up. This segment will be much longer but I ask that you hear me out, if not for this plan then the next soonest possible. And if this is just completely outside of your jurisdiction then please at least consider the design implications. The bike lanes at the Halethorpe Marc Station and along that entire section of Route 1 are not something I would consider safe. At first glance they could really be seen as unremarkable, a dedicated bike lane for each direction that lies between the road and a shoulder functioning to provide additional parking for the station and local businesses. However the biggest issue I've found is the fact that the bike lanes are between the road and shoulder. That dynamic implies the bike lane acts as a buffer for parked cars, which essentially makes the safety of cyclists, of people, less valuable than a parked car. Worse yet there's no buffer for the bike lane itself, all it has is the 4 inches of a painted lane line for a 40mph road. Well really most cars will go 50 or 60 even because it's a long, wide, and focused single lane each way. This flaw in the design language absolutely discourages people from using the bike lanes. People can almost subconsciously recognize the danger. I rarely, if ever, see someone using these bike lanes yet there is an entire town built around this train station, it simply begs people to bike or walk to it. Personally I couldn't use that lane without feeling like a car was going to just blast me from behind at 50mph and honestly I wasn't exactly sure how to say this but it absolutely broke my heart to see this fear become a reality for someone.

About two weeks ago I witnessed the horrible aftermath of a cyclist being hit by a car while using these lanes outside the Marc station. Given the location of the accident it seemed like they were about to use the on ramp so as to get across the bridge despite there not being any real accessibility for cycling. The cyclist was in clear agony, the driver was dumbfounded to find himself in this situation, and the cops there almost seemed to share that confusion while doing their best to help the injured man. The first thing that came to me was fury, just complete anger at the ridiculousness of it all but I've come to understand that there may be a way to prevent this from happening again.

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Voting: City of Annapolis, Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Harford County, Howard County, Queen Anne's County, MD Department of Transportation and Annapolis Transit. Non-Voting: MD Department of the Environment, MD Department of Planning, and MD Transit Administration.

COMMENTS (continued)



The Metropolitan Planning Organization for the Baltimore Region

The dynamic I mentioned earlier should be the inverse. That side parking the shoulder provides should be the one that acts as a buffer for the bike lane. In fact, that is the minimum standard of safety for many places that had found the need to figure this out. The concern for the proximity of parked cars also opens the idea of introducing traffic calming for the area. You can reduce the speed to 30mph for that stretch, narrow the road, and assert a design language that forces drivers to pay attention to their surroundings. Not only would addressing this bring a much needed increase in safety, a subtle but substantial economic boost would come to the area. Whether it be the increase in transit ridership from Arbutus and Halethorpe or influx from people out of town who might find the area appealing to visit, especially with the only Guinness Brewery in the US being there, if done right there could be a significant reduction in maintenance costs for that section of road from the result of multiple elements. Such as less asphalt to repave, reduced wear from slower speeds, etc. This could be a foundation or critical stepping stone for future cost effective traffic calming methods and pedestrian/cyclist friendly planning. (Maybe taking a look at the nearby Patapsco State Park Entrance down the road from the brewery for instance. It's right at the entrance of Relay too, I dunno, just saying)

Anyway, I can't thank you enough for taking the time to read my long winded comment. I only hope that you begin to see in this unremarkable station the potential that I do."

63-1802-41 I-695: I-70 to MD 43

JERARDO

alfaro.jerardo@gmail.com

21075

With an estimated cost of \$180 million why does the state insist on building more and more lanes. More lanes do not fix traffic this induced demand is seen in cities across the country (LA, Houston, Dallas, etc). This would only serve to cause more congestion and more pollution during a climate crisis. Funding has to be redirected from road widening projects like this to more robust public transit.

RESPONSE TO COMMENTS

www.baltometro.org/sites/default/files/bmc_documents/general/transportation/tip/23-26/23-26TIP_Comments_BRTBResponse.pdf



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES 2023-2026 Transportation Improvement Program and the Associated Air Quality Conformity Determination

Many of the comments below are shortened for purposes of space. The full set of comments was shared with all BRTB, Technical Committee, and Interagency Consultation Group members and are also located on the [BMC website](#).

Let us say up front that we are very appreciative of the effort so many individuals and organizations have gone through to review materials and send in comments. This is informative for all of our members and does have an impact on the planning process. As is customary for the BRTB, we share all comments and responses with everyone who commented as well as on the BMC website and include them in the final TIP and Conformity Determination documents.

1. Baltimore-Washington Superconducting Maglev (SCMAGLEV) Project - Neb Sertsu - Baltimore Washington Rapid Rail

The description (pg. 321) should be updated to note that the Draft EIS was completed on 1/15/2021. The description (pg. 321) indicates "No schedule or funding for further phases have been identified." This should be updated to reflect that the project has been awarded an additional \$26M in federal funding; \$24M was awarded in 9/2020 and \$2M was awarded in 11/2020.

BRTB response: Thank you for the additional information. The project description has been revised on both points and will be reflected in the final document.

2. Conway Road Bridge over Little Patuxent River - Steven Onken

I heartily endorse shoulders and sidewalks along the bridge. There is a very wide shoulder on both sides of the bridge - very conducive to cycling, and having it continue across the bridge would be very beneficial.

BRTB response: Specific design will be determined during the project, however accommodations will be made for bicyclists and pedestrians. Design is currently in the schematic design phase and is expected to be complete in 2024. Anne Arundel County anticipates holding a public meeting after schematic development is complete, around 30%. This is anticipated to occur around February or March 2023.

3. Dundalk Marine Terminal Resiliency and Flood Mitigation Improvements - Larry Bannerman

I love this proactive approach to preventing damage and potential loss of life at the POB. Climate Change is real. Army Corps recently completed a hydrology study for Turner Station and determined that the same kinds of protection is needed. HOPEFULLY it will get funded.

BRTB response: Thank you for your support for the Dundalk Marine Terminal project. This project is currently in the procurement stage with construction anticipated to begin in late spring or early summer of 2023.

The Turner Station analysis was completed under the Floodplain Management Services (FPMS) Program and included mapping and assessment of existing stormwater infrastructure, stormwater modeling with regards to flooding for existing conditions and a variety of rainfall events. It also included modeling and mapping for sea level rise and potential rainfall scenarios as well as evaluating measures for reducing flood risks to buildings, bridges and roadways.

Funding would have to be secured under other federal aid programs or by another non-federal sponsor such as Baltimore County.

4. Greenway Middle Branch Phase 2 - Daniel Paschall - East Coast Greenway

This is a critical connection in the Baltimore Greenway Trails Network as well as other long distance trails of national significance. Please invest more funds into completing the rest of the gaps in all of these networks, and please prioritize a larger Baltimore Region Trail Network that extends into the surrounding counties with more trail connectivity to destinations, transit, parks, and homes for all.

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

2023-2026 Transportation Improvement Program and
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BRTB response: Baltimore City DOT is currently advancing design work on the northern segment of the Baltimore Greenway that will close the gaps between the Herring Run Trail, Druid Hill Park, and Leakin Park. The City is monitoring grant opportunities and other programs for funding to continue to advance the progress on the trail network.

Beginning in fall 2022, BRTB will lead an effort to develop a Vision for an Integrated Regional Bicycle Network in coordination with member jurisdictions. The plan will focus on developing a regional bicycle and shared use facility network that will improve regional connectivity, safety, and mobility by increasing access to jobs and other daily activities and providing transportation and recreational opportunities.

BRTB will also continue to support the realization of the Patapsco Regional Greenway, a 40-mile, shared use trail running through the Patapsco Valley from Baltimore's Inner Harbor to Sykesville in Carroll County, by promoting coordination between jurisdictions and leading preliminary design efforts for trail segments in partnership with member jurisdictions.

5. Howard County Bridge Repair and Deck Replacement (BRDR)

Shaun Lehmann - This is how transportation money ought to be spent. Maintaining not expanding liabilities.

BRTB response: In addition to the generic BRDR projects in Howard, Baltimore and Harford Counties, there are nearly 30 individual bridge repair or replacement projects within the Baltimore region identified in the 2023-2026 TIP.

C Gelwicks - Would love it if this could also be paired with pedestrian access since it is very difficult for people walking or biking to access the shopping area.

BRTB response: Each bridge repair or replacement is evaluated to determine the feasibility of adding pedestrian and/or bicycle facilities. In many cases this can be accomplished through the addition of wider shoulders capable of accommodating bicycles and pedestrians. Projects that are in the beginning concept stages typically provide the public with the opportunity to provide comments on the specifics of the proposed design.

6. Magothy Bridge Road over Magothy River - Jon Korin

Bike Lane markings in the shoulders will fill a gap in that road which has bike lanes on either side of the bridge.

BRTB response: There appears to be available space on the structure to provide marked bicycle lanes. Anne Arundel County Traffic Engineering will review this request.

7. Parole Transportation Center

Jon Korin - The project should include shared-use paths to provide safe access to the proposed transit center on bike or foot.

Jon Mueller - It would be greatly appreciated if a dedicated bike lane could be added to Bestgate Road at least to Ridgely. The sharrows and signs do NOT slow traffic and it is extremely dangerous to ride there. I have been writing to the county about this for over 10 years. I fear for my life every time I commute to work along Bestgate from Generals Hwy to Admiral.

Steven Onken - As long as a "multi-modal transportation center" includes bike lanes along Bestgate, I'm all for it! We need to take a hard look at making biking more practical throughout Anne Arundel County. Just came back from 10 days in Europe and they are WAY ahead of the curve on making walking and biking a priority!!!

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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BRTB response: Per the County's Bicycle Map and the recommendations of the Parole Mobility Study, shared-use paths are planned along Housely, Bestgate and Generals Highway leading to the Parole Transportation Center. While "offsite" access improvements were included in a RAISE Grant application, they would likely be part of a separate construction project.

Additionally, there is a small segment of Bestgate Road that currently has an existing shared-use path.

8. Snowden River Parkway: Broken Land Parkway to Oakland Mills Road

Shaun Lehmann - Why in a community which is actually bikeable and walkable are we expanding lanes for cars? Build the multi-use lanes for bikes and pedestrians. Improve intersections with traffic circles....don't overbuild and load up on liabilities you won't be able to maintain in the future.

C Gelwicks - While there is some congestion during rush hour, it is otherwise not a problem. What this stretch really needs is the multi-use pathway. There are bus stops along this stretch with no sidewalk to get to any of the stores. Safe ways to cross SRP are also missing. Nix the third lane and focus on the multi-use path instead.

Jerardo - It is unnecessary and reckless to continue to widen roads when this funding could be used to alleviate congestion via transit and bike/ped facilities. The planned shared use path should stay, however, the road widening should not.

BRTB response: Howard County feels this improvement best serves a range of transportation functions and is being designed to meet both current and projected traffic demand, and will be delivered in phases based on both demand and available funding. The project is not proposing to change the current signal based intersection design approach since the county has already invested in this more cost effective approach.

This project will also include a shared-use-path and bus stop improvements that will be delivered as part of the county project as well as private sector development projects on the corridor.

9. MD 2: US 50 to Arnold Road

Jon Korin - There should be a shared-use path instead of sidewalk from the B&A Trail to Rt. 2.

BRTB response: This project is in the beginning of concept design which provides the public with the opportunity to provide comments on the specifics of the proposed design during the process. Options for connections to the B&A Trail will be evaluated.

Anonymous - This project does not address the failing intersection of MD 2 @ College Parkway.

BRTB response: The current project will take improvements to 30% design by summer 2023. MDOT SHA's Transportation System Management and Operations (TSMO) System #3 does include the MD 2 corridor from US 50 to MD 100 and MDOT SHA, in partnership with Anne Arundel County, will continue to address issues and develop solutions for segments along MD 2.

10. MD 3: Waugh Chapel Road/Riedel Road to MD32/I-97 - Steven Onken

I travel this route every single day! A third lane would be hugely beneficial in alleviating some of the bottlenecks along that stretch of Route 3.

BRTB response: Thank you for your support of this project which does include a third through lane in each direction. Currently this project is only funded for 30% design while funding for final design and construction is waiting to be identified.

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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11. US 1: Bridge Replacement over CSX - Abraham Drude

Consider extending the bike lane from the Halethorpe Marc Station on US 1, on to the bridge, and up to the Guinness Brewery. That would add an extremely valuable element of accessibility and even touristy appeal to the location/area. The possibilities that could lay a foundation for could not be overstated.

Nearby on US 1

The bike lanes at the Halethorpe Marc Station and along that entire section of US 1 are not...safe. The biggest issue I've found is the fact that the bike lanes are between the road and shoulder. That dynamic implies the bike lane acts as a buffer for parked cars, which essentially makes the safety of cyclists, of people, less valuable than a parked car. Worse yet there's no buffer for the bike lane itself, all it has is the 4 inches of a painted lane line for a 40 mph road. This flaw in the design language absolutely discourages people from using the bike lanes.

BRTB response: The original structure, built in 1930, was rated in poor condition. The new structure includes wider lanes and 8 foot shoulders allowing cyclists to more safely travel along US 1, which is a "share the road" facility.

Due to the increased pedestrian activity associated with the Guinness Open Gate Brewery, the extension of sidewalk from Clark Boulevard to the Brewery was added to the project.

MDOT SHA considers access and mobility for all users in the design of projects. Your comments will be forwarded to the MDOT SHA District 4 office which will reach out to discuss your safety-related concerns along US 1.

MDOT MTA notes this refers to infrastructure off of MDOT MTA property, therefore there is a limit to their role. MDOT MTA does support bike connections to all of their rail stations, including MARC, and tries to support that connectivity with bike parking, and with the expanding ability to bring bikes on the train. MDOT MTA participates on the BRTB's Bicycle and Pedestrian Advisory Group and also on the Patapsco Regional Greenway planning team.

BRTB continues to support the realization of the Patapsco Regional Greenway (PRG), a 40-mile, shared use trail running through the Patapsco Valley from Baltimore's Inner Harbor to Sykesville in Carroll County. BMC recently led preliminary design of the PRG trail segment from Elkridge to Guinness Open Gate Brewery. BMC is also embarking on preliminary design of the PRG trail segment from Guinness Open Gate Brewery to Southwest Area Park which will include analysis of connections to the Patapsco Light Rail Station.

12. I-695/I-70 Interchange - Rolf Sjogren

This does not need to be re-built, to the tune of hundreds of millions of dollars. The only thing that might possibly make a difference on the Beltway is if you built a fast, convenient transit option paralleling it, with parking lots at each stop. Another main cause of congestion on the Beltway is actually the non-enforcement of the speed limit (speed cameras please!), so there are fender-benders which tie up traffic almost on a daily basis. You could build a fast busway (just small stations & parking lots next to major arteries' crossing it).

BRTB response: This project is part of Governor Hogan's Traffic Relief Plan to improve traffic operations in the Baltimore region. The I-695 and I-70 "Triple Bridges" interchange was constructed in 1965 and carries much more traffic than the original design intended resulting in congestion and travel delays. While the bridges within the interchange remain structurally sound, they are nearing the end of their structural life and need to be replaced. Due to the unique configuration of the interchange, which stacks three levels of

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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roadways and bridges one on top of one other, it is not possible to make the necessary improvements without impacting the entire interchange.

Congestion on I-695 primarily is due to increased demand during peak travel times. MDOT SHA is currently modifying and repurposing the existing shoulders on the Inner and Outer Loops of the Beltway between I-70 and MD 43 to create an extra travel lane in each direction to alleviate recurring and non-recurring (incident related) congestion.

13. I-695: I-70 to MD 43 - Jerardo

With an estimated cost of \$180 million why does the state insist on building more and more lanes? More lanes do not fix traffic this induced demand is seen in cities across the country (LA, Houston, Dallas, etc.). This would only serve to cause more congestion and more pollution during a climate crisis. Funding has to be redirected from road widening projects like this to more robust public transit.

BRTB response: Using the shoulders on I-695 during peak travel hours is an example of how MDOT SHA has begun to emphasize operational approaches to addressing traffic congestion, as opposed to the traditional approach of adding lanes. This project will modify and repurpose existing shoulders on the Inner and Outer Loops of the Baltimore Beltway (I-695) during peak travel times, in lieu of roadway widening. Part-time shoulder use (PTSU) is a Transportation Systems Management and Operations (TSMO) strategy that utilizes technology-based solutions to optimize the performance of existing facilities in a cost-effective manner. Retrofitting shoulders for part-time use preserves the shoulder during most hours of the day and is not a permanent conversion of the shoulder to a full-time travel lane.

14. I-95 Express Toll Lanes Northbound Extension - Corey

We are easily spending 1.1B (nearly a quarter of all funding in the Baltimore region) on Lexus lanes but can't build proper DC-like transit? Our streets could be as bike friendly as Amsterdam with that kind of money. We could build the entire red line, transforming the region with that kind of money.

BRTB response: Regarding the I-95 Express Toll Lanes, nearly seventy percent of the funds under the highway capacity category in the TIP go to this one project being advanced by the Maryland Transportation Authority using Toll Revenues. This project is in the TIP for air quality purposes only.

The I-95 corridor is a major East coast trade and travel corridor and in this region supports multiple activity centers, distribution facilities, airports, and the Port of Baltimore.

15. Transit for Baltimore City Students - Zen Zineer - Associated Student Congress of Baltimore City (ASCBC)

There doesn't seem to be a prioritization of mass transit, to help improve transportation for students. Helping improve travel times and routes for students is a must. We believe that increased investments in city transportation will not only ensure safety in our transportation, but also create less traffic and simpler transportation options for students. Revisiting the idea of a student metro transit council for feedback on these expanding options would be equally powerful and help improve transportation in the city.

BRTB response: MDOT MTA is currently working with Baltimore City Public Schools and the Fund for Educational Excellence to establish a Youth Advisory Council starting in the 2022-2023 Academic Year.

16. Transit and Bike/Pedestrian - Melanie S

Comprehensive commuter rail to all the major outlying burbs. More inner city dedicated right of way fixed transit. IE, more trains. Streetcars! There are like 3 bike lane proposals in this document in Baltimore City, and none of them are particularly impressive - if we want biking to be first class the way the Complete Streets ordinance ordains, we need protected bike lanes that let people get across most of the city.

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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BRTB response: The draft 2023-2026 TIP is the list of regional transportation projects requesting federal funding in the near term. The BRTB recognizes that the framework of the TIP does not help the public to identify other important transportation priorities. To plan for future transit options, the [Central Maryland Regional Transit Plan](#), prepared by MDOT MTA, identifies short-, mid-, and longer-term opportunities to implement transit along 30 regionally significant corridors. There is a multi-agency team in place to implement recommendations from the plan. In addition to the east-west and north-south corridors MDOT MTA is currently advancing, the BRTB is currently conducting a pilot transit feasibility study for a mid-opportunity corridor identified in the RTP from BWI to Columbia. Potential transit modes will be identified in each of these studies based on ridership, connections to employment and other factors. Funding was approved in the BRTB's Unified Planning Work Program (UPWP) to conduct additional feasibility studies at the conclusion of the pilot study.

The TIP includes multiple projects throughout the region that include bicycle compatible shoulders, shared use paths, and/or separated bicycle facilities and many bridge projects that include shoulder width determination to be completed during design. As bridges are replaced, MDOT SHA evaluates bridges for upgrades to include sidewalks and bicycle facilities.

Another place in the TIP to look for bicycle projects is under MDOT SHAs Transportation Alternatives Program. A number of bicycle projects are also under consideration for the Transportation Alternatives Program with bicycle and pedestrian projects funded in previous years including the MDOT MTA led Patapsco Pedestrian Bridge Connection that includes \$780,000 to design a bicycle and pedestrian connection between Cherry Hill and the Patapsco Light Rail Station that borders Southwest Area Park. While the TIP is specifically to identify requests for federal funding, another source of funding outside the TIP is the MDOT SHA managed Kim Lamphier Bikeways Network Program.

The BRTB is committed to improving bicycle and pedestrian safety and access across the region. There are a number of bicycle projects in the planning stage with support in the current UPWP including the Concept Plan for Bicycle and Pedestrian Improvements Along US 40 (Pulaski Highway) in Harford County and the preliminary design of the Patapsco Regional Greenway (PRG) from Guinness Open Gate Brewery to Southwest Area Park.

- 17. Overall policy and project selection** – letter jointly submitted by the following organizations: 1199SEIU United Healthcare Workers East, Maryland/DC, Audubon Mid-Atlantic, Baltimore MARC Riders, Bikemore, Cedar Lane Environmental Justice Ministry, Central Maryland Transportation Alliance, Clean Water Action, Climate Reality, Baltimore Area Chapter, Coalition for Smarter Growth, Downtown Residents Advocacy Network (Baltimore), Howard County Climate Action, Indivisible Howard County, Labor Network for Sustainability, Maryland Nonprofits, Maryland Sierra Club, Maryland Legislative Coalition Climate Justice Wing, The Fund For Educational Excellence, Transit Choices

As highlighted in our 2021 letter, many of the elected officials who serve on the Board have expressed a desire to invest in a multi-modal transportation system that reduces our dependence on cars. Unfortunately, the reality continues to fall short of the rhetoric as evidenced in the regional spending priorities the BRTB approves each year.

We ask the BRTB to remove from the Draft 2023-2026 TIP the four highway capacity projects listed in Table II-2.

The two largest sources of flexible federal funds are the National Highway Performance Program (NHPP) and the Surface Transportation Block Grant Program (STBG). However, according to the tables summarizing federal aid for each fiscal year from FY 2023 through FY 2026, there are zero NHPP or STBG funds being flexed to transit.

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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BRTB response: While there are a number of highway expansion projects in the TIP, it is a far cry from just 5 or 10 years ago. There has been a steady shift toward an equitable, multi-modal transportation system for a number of years that is supported by a wide range of state, regional and local planning studies. That said, there is much progress still to be made. Planning studies are underway that will ensure transit capacity projects are included in upcoming TIPs. To plan for future transit options, the Central Maryland Regional Transit Plan, prepared by MDOT MTA, identifies short-, mid-, and longer-term opportunities to implement transit along 30 regionally significant corridors. There is a multi-agency team in place to implement recommendations from the plan. In addition to the east-west and north-south corridors MDOT MTA is currently advancing, BRTB is currently conducting a pilot transit feasibility study for a mid-opportunity corridor identified in the Plan from BWI to Columbia. Potential transit modes will be identified in each of these studies based on ridership, connections to employment and other factors. Funding is approved in the BRTB's Unified Planning Work Program to conduct additional feasibility studies at the conclusion of the pilot.

Regarding the comment on no new highway projects in the last TIP, 3 of the 4 projects were included as planning studies under Anne Arundel County and continue this year under MDOT SHA. For MD 2 there is a request for a continuous third lane, but the project also adds sidewalks and a connection to the B&A Trail. Additionally, the County increased service on the Gold Line Extension which parallels MD 2. Similarly for MD 3, in addition to a third lanes there is a shared use path, sidewalks, crosswalks and improved service on the Crofton Express. For MD 214 there is also a shared use path proposed and currently transit via the South County Call N Ride. These projects, which support not just motorists but also pedestrians, cyclists and transit users, have been on the books for many years and have a commitment to move forward.

We truly appreciate your support for transit and other modes of transportation. The transit projects that were implemented this spring along MD 2 and MD 3 were sourced from the Central Maryland Transit Development Plan. Additional funding must be provided by MDOT MTA through the Locally Operated Transit System (LOTS) program for operating in order to accelerate more of the priorities within this plan and other transit plans. Capital funds are dedicated to construction projects while operating funds are obtained through separate formula authorizations and distributed based on the state's discretion. We would also encourage you to actively participate in the five-year transit development plans that are being funded through grants from MDOT MTA. These plans guide the expansion of operations and budgets at the local level.

The Maryland Department of Transportation is aware of the flexibility of certain FHWA fund sources that allows transferring between roadway and transit capital needs. MDOT strives to balance capital needs across modes and has, and will, use similar flexibility as needed on a case by case basis. MDOT, with BRTB approval, flexes millions annually from the Congestion Mitigation and Air Quality (CMAQ) program to MDOT MTA and additional funds are flexed from the Transportation Alternatives (TA) program to MDOT MTA. MDOT has initiated such a transfer of STBG funds in the past and depending on the needs, MDOT could again transfer STBG funds for a significant project need in the Baltimore region.

18. About direction of BRTB - Henry Cook

I would call on BRTB to change their culture and reflect the leadership that our region needs for transportation infrastructure. Include separated bike/pedestrian infrastructure in ALL roadway projects (including maintenance projects). A moratorium on highway widening or other projects that will increase total traffic. Redesign of streets and bridges maintained to prioritize safety and access for vulnerable road users.

As a regional transportation board, there is also a decided lack of regional view for completing bike and pedestrian networks that connect residents to public transit, commercial destinations, etc. Special focus should be placed on projects that connect neighborhoods by bike/pedestrian short-cut rather than forcing

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

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users to follow a car-based road network. Funding individual projects that do not connect to existing infrastructure does not address our region's needs.

I would like to see BRTB set goals for the organization at directing funding towards active transit options and public transit until these areas reach at least parity with automobile-based infrastructure.

Finally, I would also call on BRTB to evaluate projects with a greater focus on sustainability, financial as well as environmental. New build projects should include an anticipated annual maintenance cost projection and, if relevant, potential replacement cost at the end of useful life.

BRTB response: The MDOT SHA "Policy for Accommodating Bicycles and Pedestrians on State Highways", included in the Bicycle and Pedestrian Guidelines issued in May 2007, states that, "The State Highway Administration (SHA) shall make accommodations for bicycling and walking a routine and integral element of planning, design, construction, operations and maintenance activities as appropriate." It is MDOT SHA's policy that all projects on state highways are required to be evaluated for the potential to include or improve bicycle facilities to the maximum extent feasible based on design guidance provided in the Bicycle Policy & Design Guidelines released in January 2015.

There are various policies for each jurisdiction in relation to locally managed roadways.

Referring to our UPWP, or work program, we are in the second phase of developing a Climate Change Toolkit for our members, there is a task to help integrate Connected and Automated Vehicles into local planning, and an effort to streamline Electric Vehicle charging stations throughout the region. Last year the BRTB completed a study looking at possible barriers in the transportation system to supporting healthy communities. A small grant program recently funded design studies for bike and transit projects in Annapolis and Baltimore City. Additionally, the BMC just hired a planner to focus on multi-modal topics. This position will augment current staff in those areas.

Beginning in fall 2022, BRTB will lead an effort to develop a Vision for an Integrated Regional Bicycle Network in coordination with member jurisdictions. The plan will focus on developing a regional bicycle and shared use facility network that will improve regional connectivity, safety, and mobility by increasing access to jobs and other daily activities and providing transportation and recreational opportunities. During 2022, BMC purchased a sidewalk dataset covering the entire region that will be used for a variety of tasks, including major gaps that need to be addressed.

19. Too much highway, not enough transit

Michael Scepaniak - Strong Towns Baltimore - I'm very frustrated to see such a large percentage allocated to Highway Capacity. ...should be near zero. Instead, that allocation should go toward projects categorized as Transit Capacity. The Baltimore City East-West Bus Corridor sounds pretty substantial, but the fact that it falls under "Transit Preservation" speaks to how it will in no way move the transit needle. Maryland's transportation priorities need to be reset in a significant way.

Peter Smith - The region's transportation priorities should reflect increased emphasis in public transit and a shift away from car transportation. Accordingly, the final Transportation Improvement Program for 2023-2026 should reflect lower spending on Highway Capacity especially and Highway Preservation, and greater spending on Transit Preservation than what is proposed in the draft plan.

Brian Seel - ...how on earth, in the year 2022, are you still putting so much of the budget toward additional today capacity for mostly single occupant vehicles, instead of for mass transit, or low carbon options like walking or biking facilities.

Henry Cook - I am very disappointed that vast sums are programmed towards road and highway expansion and very, very little for active transportation network construction and maintenance. Having reviewed prior

RESPONSE TO COMMENTS (continued)



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public comment and the BRTB response, you have clearly been introduced to the concepts of induced demand and the fact that building more highways results in more traffic. Also, you are clearly aware of the climate crisis and are ignoring it by over-prioritizing private vehicle transportation at the cost of all other modes of transportation.

BRTB response: The draft 2023-2026 TIP does not reflect all transit investments in the region since it only includes the projects requesting federal funding in the near term. The BRTB recognizes that the framework of the TIP does not help the public to identify other important transportation priorities; many current and ongoing projects and new sources of funding are summarized below.

To plan for future transit options, the Central Maryland Regional Transit Plan, prepared by MDOT MTA, identifies short-, mid-, and longer-term opportunities to implement transit along 30 regionally significant corridors. There is a multi-agency team in place to implement recommendations from the plan. In addition to the east-west and north-south corridors MDOT MTA is currently advancing, BRTB is currently conducting a pilot transit feasibility study for a mid-opportunity corridor identified in the Plan from BWI to Columbia. Potential transit modes will be identified in each of these studies based on ridership, connections to employment and other factors. Funding is approved in the BRTB's Unified Planning Work Program to conduct additional feasibility studies at the conclusion of the pilot.

BMC staff is also reviewing projects for the fiscally constrained Long-Range Transportation Plan. An unprecedented 60 transit projects were submitted of high, medium and lower priorities by BRTB members and MDOT MTA. These candidate projects will be evaluated using updated selection criteria prepared by BMC staff and approved by the BRTB. We welcome your participation in the preparation of [*Resilience 2050: Adapting to the Challenges of Tomorrow*](#) preparation activities.

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Transit Priority Project – or RAISE Project for short – is a collaborative effort between Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) and Baltimore City Department of Transportation (BCDOT). The RAISE Project proposes enhancements to the CityLink Blue and CityLink Orange lines to provide faster, more reliable transit and improved pedestrian safety along the 20-mile corridor extending from the Western terminus of CMS in Baltimore County through Baltimore City and ending at the Eastern Terminus of Fox Ridge in Baltimore County. The Project will enhance access and mobility to essential services, jobs, health care, and schools along the corridor. It will evaluate more than 10 miles of Dedicated Bus Lanes (DBLs), Transit Signal Priority (TSP), real-time signage, upgraded bus shelters, enhanced pedestrian and bicycle safety, and installation of additional electric vehicle charging stations along the project corridor. The ongoing \$50 million RAISE Project is financed through a combination of Federal, State, and local funding.

In addition to the RAISE grant, MDOT MTA has announced the launch of its Fast Forward: Customer Experience Enhancement Project, a \$43 million initiative funded by the passage of the American Rescue Plan Act of 2021. Fast Forward is a wide-ranging effort that focuses on improving transit reliability, travel times and customer safety and access, with the overall goal to enhance the MDOT MTA passenger's complete transit experience from door to door.

There are three ongoing Fast Forward corridors:

- Charles & Light Street Bus Lane Pilot (Conway St. to Saratoga St. and Pratt St. to Lombard St.)
- Harford Avenue Bus Lane Pilot (Forrest Ave. to Biddle St.)
- York Road Bus Lane Pilot (Radnor Ave. to Bellona St.)

MARC Updates

- Riverside Heavy Maintenance Building - Construction on the MARC Riverside Heavy Maintenance Building is now under way. This will free up existing shop space for PMs and repairs, improve operational efficiency and reduce rolling stock downtime

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

2023-2026 Transportation Improvement Program and
the Associated Air Quality Conformity Determination

- Martins Yard Expansion - Supports future service expansion and other major projects including the replacement of the B&P Tunnel
- Frederick Douglass Tunnel - Replacement program will triple capacity and increase travel speeds

Recent Earmarks include:

- \$6 million for Baltimore Penn Station Facility Improvements - Complements the Amtrak and Penn Station Partners projects that will enhance platform access, station capacity, and passenger amenities, while restoring the historic Baltimore Penn Station building and complex to a State of Good Repair
- \$1 million for Electric Locomotives -Specification development for replacement of MARC's six HHP-8 electric locomotives, which are now approximately 21 years old and need to be planned for replacement as they reach end of life. MTA intends to procure rolling stock that will allow for MARC run-through service into Virginia

Run-Through Service & Closing the Gap

- Service to Delaware – The goal to extend MARC service 20 miles from Perryville, MD to Newark, DE. Proposed pilot service of 2 AM and 2 PM trains from Perryville to Newark
- Service to Virginia – The goal is to extend MARC service 8 miles from Union Station in DC to Alexandria, VA. Proposed pilot service of 2 AM and 2 PM trains in Alexandria, VA

Please refer to [Maryland's Consolidated Transportation Program](#) (CTP) for a full picture of MDOT MTA's six-year capital budget from FY 2022-FY 2027, beginning on pdf page 167. The backbone of the CTP is state funding and there is considerably more funding for transit than the federal funding that appears in the TIP.

20. Parole Transportation Center - Steven Onken

On the map, the area noted as "low income region", bounded by I-97, Rte. 50, Chesterfield, Hawkins, and Bacon Ridge ranch, Twin Hills, The Ridges, Ashers Farms, Crosspointe, North River Forest, Hidden View Farm, are ALL comprised of homes in the 600-800K range!!! How can this possibly be a "low income region"?!

BRTB Response: The BRTB defines low-income as the population with incomes at or below 200% of the poverty level. The primary data source for data on low-income persons is the Census Bureau's American Community Survey (ACS). According to the latest 5-year ACS estimates, 21.4% of the population in the Baltimore region has an income at or below 200% of the poverty line. The BRTB uses a geography called a Transportation Analysis Zone (TAZ) to model travel behavior. They are constructed using Census Block units and are smaller than Census Tracts. We identify low-income TAZs through the use of a regional threshold. A TAZ is identified as a low-income area if it has a concentration of low-income population (below 200% of the poverty level) greater than the regional average of 21.4%. So any TAZ where more than 21.4% of persons are estimated to have incomes below 200% of the poverty level will be considered low-income.

While this method is useful, it does include assumptions that can have significant margins of error associated with them. Part of this is because the data we rely on from the Census Bureau is provided at the Census Block Group level, which are smaller geographic areas than Census Tracts. Margins of error tend to be larger in smaller geographic areas. TAZs can be even smaller geographies than Census Block Groups, requiring a method to apportion Census Block Group data to the TAZ level. Apportioning data from the larger geographic units (Census Block Groups) to smaller geographic units (TAZs) can introduce error as well. This can particularly be the case for areas where the population of low-income persons is very near the regional average, because that makes it more likely that the margin of error will span the threshold for being considered a low-income area. This is the case for the area you identified when you look at the

RESPONSE TO COMMENTS (continued)



SUMMARY OF PUBLIC COMMENTS AND BRTB RESPONSES

2023-2025 Transportation Improvement Program and
the Associated Air Quality Conformity Determination

Census Tract level data. Every method requires some simplifying assumptions, and we chose ours based on prior work at the BRTB and based on the methods trusted at other organizations doing similar work. However, you may find some inconsistencies when looking at individual TAZs. When you look at the region or a county, you're likely to have a reasonably accurate picture of where low-income populations live.

Appendix I: Emission Reduction Strategies in the Region

This Appendix includes the following sections:

- Appendix I-1: Description of Emission Reduction Strategies
- Appendix I-2: Tracking the Status of Emission Reduction Strategies

Appendix I-1: Description of Emission Reduction Strategies

This appendix provides descriptions of the key categories of emission reduction strategies used in the Baltimore region and the status of implementation of those strategies. The categories of strategies covered in this appendix include Commuter Assistance Activities, Bicycle/Pedestrian Activities, Park-and-Ride Programs/Lots, Public Transit Services, Management and Operations Projects, Preferential Parking Management, and Clean Vehicles, Fuels and Technologies. These categories are used for organizational purposes and do not relate directly to any particular legislative or funding areas.

While the focus of transportation conformity is on the NAAQS, many of these efforts also work towards greenhouse gas (GHG) reductions. In December 2021 FHWA shared planning emphasis areas for use in the development of metropolitan and statewide planning and research work programs. One of these emphasis areas is dedicated to tackling the climate crisis and transitioning to a clean energy, resilient future. The following efforts contribute to that vision.

COMMUTER ASSISTANCE ACTIVITIES

Rideshare Program

The Rideshare Program, a continuing statewide program since 1978, is administered by Maryland Department of Transportation Maryland Transit Administration (MDOT MTA). MDOT MTA provides funding support to local rideshare programs in order to strengthen carpool/vanpool matching and Transportation Demand Management (TDM) services at the jurisdictional level. The Baltimore Metropolitan Council (BMC) provides ridesharing coordination services for Baltimore and Carroll Counties. Through the Rideshare program, the following rideshare services are provided:

- Carpooling/vanpool/trip matching to interested commuters via the Commuter Connections Database.
- TDM information to commuters and employers.
- Assistance with identifying opportunities for alternative commuting strategies such as transit, flexible work hours, and teleworking for both commuters and employers.
- Printed and electronic information is distributed to both the general public and private employers.
- Advertisements in social media, newspapers, regional magazines, radio, and online to encourage all TDM modes.
- Clean commute activities including, Bike to Work Week, Dump the Pump Day, and transportation fairs.
- The regional Guaranteed Ride Home program is promoted to both employers and commuters.
- The Regional School Pool program is promoted, which matches students (through their parents' registration) for carpool, bike convoy and pedestrian group matching within member schools.
- The MDOT MTA Commuter Choice discount transit fare program are both organized and promoted.

- incenTrip materials were distributed and the program is included in all outreach and advertising.

Commuter Choice Maryland and the Maryland Commuter Tax Credit

The Commuter Choice Maryland commuter benefits program is an incentive designed primarily to encourage Maryland employees who drive to work to switch to transit or vanpools. It has a membership of approximately 16 employers and 1,280 employees. The program provides employers with monthly pass distribution options which encourage employees to ride MDOT MTA Buses, Light Rail, Metro Subway, MARC trains or qualified vanpools to work for less than full fare. Employers are also rewarded with special state tax deductions, state tax credits, and savings on certain payroll taxes. The Maryland Commuter Tax Credit allows Maryland-based employers to claim a tax credit of up to \$100 per employee per month or 50% of eligible costs of providing commuter benefits for eligible expenses for providing tax-free commuter benefits to an employee. Private and non-profit organizations are also able to participate in the program. Maryland employers are able to claim tax credits for providing transit passes and vouchers, as well as for setting up a Guaranteed Ride Home, Cash In Lieu of Parking, Bike Commute Benefits, or Vanpooling programs. Employers must register annually to participate in the Maryland Commuter Tax Credit program. This feature of Maryland law has the potential to reduce single occupancy vehicle use, increase transit ridership, reduce traffic congestion, and improve air quality. Details are available at www.commuterchoicemaryland.com.

Additionally, Baltimore region commuters are now eligible to use incenTrip, a mode-switch incentive program that has been operating in the Maryland DC suburbs for several years. incenTrip is a mobile app that connects users with multi-modal transportation options and rewards responsible commute trips with points that can be exchanged for cash rewards.

Reduced Fare Passes

Programs that reduce transit fares help to encourage greater usage of transit, thereby reducing pollution from private automobiles. One of these reduced transit fare programs is the Reduced Fare CharmCard®, available to seniors and persons with disabilities. The card may be used to ride at reduced fare on these MDOT MTA services: Local Bus, Light Rail, Metro Subway, and in Washington, DC wherever the SmarTrip logo is displayed. For more information, visit <https://www.mtacharmcard.com/seniors/>.

BICYCLE/ PEDESTRIAN ACTIVITIES

In each jurisdiction, local efforts continue to support bicyclists and pedestrians. The Maryland Department of Transportation (MDOT) also continues similar efforts. The following governmental agencies in the Baltimore region have created bicycle and pedestrian master plans, complete streets plans, and/or vision zero plans. Through these plans, agencies can work to develop this key part of a multi-modal transportation network.

| Agency | Plan Name | Status |
|---------------------------------------|---|---------------------------|
| Maryland Department of Transportation | <i>2040 Maryland Bicycle and Pedestrian Master Plan</i> | Completed in January 2019 |
| City of Annapolis | <i>Bicycle Master Plan</i> | Adopted in January 2012 |
| Baltimore City | <i>Bicycle Master Plan</i> | Adopted in 2015 |

| | | |
|---------------------|---|--|
| | | Scheduled to be updated late 2022 |
| | <i>Complete Streets Manual</i> | Completed 2021 |
| Baltimore County | <i>Phase I: Eastern County Bicycle & Pedestrian Plan</i> | Adopted in 2006 |
| | <i>Phase II: Western County Bicycle & Pedestrian Plan</i> | Adopted in 2012 |
| | <i>Bicycle and Pedestrian Master Plan</i> | Currently underway |
| Anne Arundel County | <i>Pedestrian & Bicycle Functional Master Plan</i> | Completed in 2013 |
| | <i>Walk & Roll Anne Arundel!</i> | Currently underway |
| | <i>Vision Zero Anne Arundel County</i> | Draft completed January 2022 |
| Carroll County | <i>Freedom Area Bicycle and Pedestrian Master Plan</i> | Completed in 2013 |
| | <i>Bicycle-Pedestrian Master Plan</i> | Approved in November 2019 |
| Harford County | <i>Bicycle & Pedestrian Master Plan</i> | Adopted in 2013 Update completed 2022 |
| Howard County | <i>WalkHoward</i> | Adopted in 2020 |
| | <i>BikeHoward</i> | Adopted in 2016 Scheduled to be updated in 2023 |
| | <i>Complete Streets Design Manual</i> | Accepted 2022 |

As policy, MDOT includes bicycling and walking accommodations in all of its projects, wherever possible. Two programs provide nearly all funding for bicycle projects, the FHWA Transportation Alternatives (TA) Program and the Kim Lamphier Bikeways Network Program. TA funds went to one project in the Baltimore Region for fiscal year 2022 with a request of \$1,818,000 and a 40% local match for a total project value of \$3,090,600. The Kim Lamphier Bikeways Network Program awarded funds to seven projects in the Baltimore region for fiscal year 2022 with award ranging from \$ 1,472 to \$1,100,000.

In MDOT held its second annual WALKTOBER in 2021, a month where MDOT and other partnering agencies promote and host events and webinars spotlighting Maryland pedestrian safety, health, and commuting options in current walk programs and Initiatives. The Maryland Department of Transportation shared a series of informational resources and free webinars for pedestrians throughout the month of October. MDOT MTA has had bicycle racks on all of its transit buses serving the Baltimore region since September 2008.



In addition, customers can bring full-sized bicycles aboard all MARC trains

All scheduled trains feature at least one car with two first-come, first-served bicycle racks at no additional charge. This expands on the accommodation of full-sized bicycles on the Penn Line. See Figure 1 for an example of a bike train car which accommodates full size bicycles. Combining bicycling with transit use may provide a reasonable alternative to driving a personal vehicle, one that may not be possible if a traveler considers only bicycling or transit as a travel option.

In *Maximize 2045*, the long-range transportation plan (LRTP) for the Baltimore region, 31 of the 74 projects add pedestrian and bicycle improvements to either roadways or to new or existing transit stations. Additionally, the BRTB set-aside \$105M toward projects associated with the Patapsco Regional Greenway and the Baltimore Greenway.

The BRTB has launched the planning process for Resilience 2050: Adapting to the Challenges of Tomorrow, the next LRTP for the Baltimore region. The project scoring process to assess the complete streets features of highway and transit projects has been updated. Complete streets refers to a transportation system that includes features ensuring the safety, security, comfort, access, and convenience of all users of the street including pedestrians, bicyclists, transit riders, and shared mobility users.

The BMC is supporting BRTB members who wish to pursue 30% design for segments of the PRG. Thirty percent design was completed for the Elkridge to Guinness segment and the Sykesville to McKeldin segment. In Fiscal Year 2023 30% design of the planned PRG segment from Guinness to the Southwest Area Park will be completed.

The BMC, on behalf of the BRTB, promotes bicycling and walking through the following mechanisms:

- Bicycling and Pedestrian Advisory Group (BPAG) is hosted, staffed, and supported by BMC. Its members advise the BRTB's Technical Committee on important bicycle and pedestrian issues.
- Periodic articles in COG Quarterly, BMC's public newsletter, inform people in the region on bicycling and pedestrian matters.
- The Active Transportation newsletter created by BMC staff shares information with over 4,000 subscribers on active transportation news around the region.
- The Baltimore Metropolitan Council, and its members, organize the annual Bike to Work celebration in the region. Bike to Work Week is a campaign that celebrates bicycling as a commuting option while promoting public awareness of its safety and environmental benefits. Bike to Work Week helps raise awareness of the rules of the road for drivers, pedestrians, and cyclists, and also highlights the need for bicycle facilities that improve safety and are comfortable to use by a broad audience. Community members from around the Baltimore region took part in the 25th annual Bike to Work celebration the third

week of May 2022. Participants who registered and biked during Bike to Work Week could pick up a free t-shirt and safety materials at participating local bike shops and at local Bike to Work celebrations. Bike rides to any location were eligible for participation in the event. Community members were encouraged to bike to the store, the playground, around their neighborhood, to work, or to school.

PARK-AND-RIDE PROGRAMS/LOTS

The Maryland Department of Transportation State Highway Administration (MDOT SHA) has assessed their park-and-ride facilities. Usage of MDOT SHA park-and-ride facilities in 2022 is estimated at 16 percent across the region, compared with 45 percent in 2019. The most parking spaces are provided in Anne Arundel and Howard Counties. Baltimore County usage is lower from 2019 with a percentage drop from 29 to 17 percent. The table below displays information on these lots from Fall 2021. A substantial amount of VMT is reduced every year as a result of park-and-ride lots in the Baltimore region. MDOT SHA lots only account for a portion of park-and-ride lots in the region.

MDOT SHA Park-and-Ride Facilities 2022

| County | Lots | Spaces | Percent Use |
|-----------------------|-----------|--------------|-------------|
| Anne Arundel | 8 | 2,120 | 15 |
| Baltimore | 9 | 1,121 | 17 |
| Carroll | 7 | 453 | 20 |
| Harford | 14 | 1,487 | 19 |
| Howard | 8 | 1,958 | 12 |
| Regional Total | 46 | 7,139 | 16 |

PUBLIC TRANSIT SERVICES

The Baltimore region is served by an array of bus and rail transportation services. This section addresses both bus and rail transportation in the Baltimore region.

Bus Transit

The MDOT MTA operates a far-reaching system of bus services. The size of MDOT MTA's bus fleet is constantly changing the delivery and retirement of buses, and is approximately 765 buses. Goals in line with the Maryland Greenhouse Gas Reduction Act and Regional Transit Plan include replacing 50% of the bus fleet to zero emission buses by 2030. Most of the bus routes serve areas within and adjacent to the Baltimore Beltway, connecting the region's suburbs to downtown and neighborhoods within the downtown area. MDOT MTA's BaltimoreLink bus service has 65 bus routes, which include the following.

- **CityLink:** 12 color-coded, high-frequency bus routes connect with each other, as well as Metro SubwayLink, Light RailLink, MARC Train, Commuter Bus, and other services such as Greyhound, Amtrak, and university shuttles, creating a single integrated transit network.
- **LocalLink:** 44 local bus routes provide comprehensive crosstown connections and system-wide connectivity to neighborhoods and communities.

- **Express BusLink:** Express BusLink consists of 9 express bus routes that provide suburb-to-city and suburb-to-suburb connections. Typically, express bus routes have fewer stops, use higher speed roadways, and operate during peak hours.
- **Commuter Bus:** Commuter bus service provides an express transit connection from suburban and residential areas to the Baltimore and Washington, D.C. regions. Commuter bus service uses coach vehicles and typically comprise longer trips than Express BusLink routes. 29 routes operate throughout Central and Southern Maryland and 7 routes operate in the Baltimore region.

There are also locally-operated transit systems, or LOTS, that operate in the Baltimore metropolitan region, including Anne Arundel Office of Transportation, Annapolis Transit, Baltimore CountyRide, Carroll County's Trailblazer, the Charm City Circulator and Harbor Connector, Harford Transit LINK, and the Regional Transportation Agency of Central Maryland (RTA).

The Rabbit Express commuter bus operated by Rabbit Transit out of York, Pennsylvania has the I-83 South route with multiple weekday roundtrip service from York to Hunt Valley, Black and Decker, and Towson, Maryland. It connects with MDOT MTA Light Rail and the Towson University Shuttle. 83S buses will stop at any marked MDOT MTA bus stop along the designated route for alighting passengers, however, all boarding locations must be pre-approved by Rabbit Transit.

In addition to MDOT MTA bus service, local bus service, and Rabbit Express, there are private bus companies that offer intercity bus service to the region. MDOT MTA launched an intercity bus program in January 2011 to connect rural communities in Maryland. The Western service operates from Grantsville to Baltimore via the Bay Runner Shuttle, the Central service operates from Elkton to Baltimore via Greyhound, and the Eastern service operates from Ocean City to Baltimore via Bay Runner Shuttle.

The Greyhound bus station at 2110 Haines Street provides a link between intercity and local public transportation, being served by MDOT MTA routes 73 and 75 with routes 69 and 70 stopping nearby. Additionally, numerous companies such as Megabus and FlixBus provide intercity service from Baltimore to regional destinations such as New York, Richmond, and Pittsburgh. Megabus departs from the White Marsh Park-and-Ride facility while Bolt Bus departs from Baltimore City.

Rail Transit

Rail Transit in the Baltimore region is provided through MDOT MTA's Metro SubwayLink, Light RailLink, and Maryland Area Rail Commuter (MARC) service.

- **Metro SubwayLink** - MDOT MTA's Metro Subway system, called Metro SubwayLink, provides high-speed heavy rail transit service in a 15.5-mile corridor, with 14 stations from Owings Mills in western Baltimore County through downtown Baltimore to Johns Hopkins Hospital east of downtown. Connecting bus service is provided with MDOT MTA bus routes. Currently, Metro SubwayLink is undergoing upgrades and replacement of the Metro Cars and Train Control System with modern, reliable equipment that will enhance passenger comfort, ensure better reliability, and offer improved safety.
- **Light RailLink** - MDOT MTA's Light RailLink provides light rail service in a 30-mile north-south corridor from Baltimore County to Anne Arundel County. The main line runs between Hunt Valley and Glen Burnie with extensions to Penn Station in downtown Baltimore and to Baltimore/Washington International Thurgood Marshall Airport in Anne Arundel County.

Light RailLink serves the area by linking communities in the northern and southern suburbs with the downtown core and provides Baltimore City residents access to suburban job centers, such as those located at BWI Airport, the BWI Business District, and the Hunt Valley office park. Service runs every day of the week. There are 33 stations with free parking provided at 12 of these stations.

All but 2.6 miles of the Light Rail are double-track, which makes service more reliable and increases ridership. The remaining 2.6 miles are single-track due to right-of-way issues. A majority of the system from Linthicum to Timonium operates on 10-minute headways during peak service (6 a.m. to 9 a.m. and 3 p.m. to 6 p.m.) and 15-minute headways during off-peak hours. The Penn Station-Camden Yards service operates on 20-minute peak and 30-minute base headways.

Light RailLink vehicles are undergoing upgrades to various systems to address parts obsolescence, improve vehicle performance and reliability, and enhance passenger comfort. The first delivery of refurbished Light RailLink vehicles were put into revenue service in April of 2018 and continue at present.

- **Maryland Area Rail Commuter (MARC)** - MDOT MTA's MARC service provides high-speed, medium frequency commuter rail service in the Baltimore region and beyond. MARC operates on three lines: Brunswick, Camden, and Penn Lines with service to Baltimore, Maryland; Washington, DC; eight counties in Maryland; and parts of northern West Virginia. MARC serves Anne Arundel, Baltimore, Cecil, Frederick, Harford, Howard, Montgomery, and Prince George's Counties, and Baltimore City. The system encompasses approximately 200 miles of track and 42 stations, providing 95 trips daily. MARC's revenue fleet consists of 177 railcars and 42 diesel locomotives, which are operated at maximum speeds of 125 miles per hour, depending on design and railroad limitations. In the Baltimore region, MARC trains operate in two existing rail corridors totaling 112 miles. The Penn Line runs between Perryville in Cecil County and Union Station in Washington D.C. and stops at eleven stations in the region. The Camden Line runs from Camden Station in Baltimore City to Union Station and stops at ten stations in the region.

Commuters traveling the Penn Line benefit from the BWI MARC/Amtrak facility renovation and improvements. The project involved station improvements such as an expanded waiting area, new facilities for ticketing and concessions, new restrooms, and new canopies. The facility boasts a new roof, upgraded HVAC, plumbing, and electrical systems. The facility opened for passenger use in 2019. Additionally, Camden Station opened for passenger use in early September 2019. The new station complements the historic headhouse and Camden Yards ballpark. The brick and glass structure has a large canopy and incorporates an expanded seated area, ticket vending machines, and restrooms. Bike facilities are located outside the building. The station includes wayfinding to nearby bike and pedestrian trails, scenic byways, and the Baltimore Visitor Center and Inner Harbor.

MDOT MTA has completed installation of Positive Train Control (PTC) equipment for all MARC diesel locomotives and cab cars. PTC includes added safety features that aide in preventing train collisions, missed rail traffic signals, and ensure safe and proper spacing of mainline rail traffic.

In addition, there are several MARC overhaul projects ongoing that will improve passenger experience. Sixty-three multi-level MARC vehicles are being overhauled, which includes upgrades to HVAC, trucks, brakes, doors, and communications. Upgrades to HVAC and communications system are included to enhance passenger comfort. Another overhaul project will be the repower of six MARC diesel locomotives, which will reduce emissions, lower fuel costs, and extend the useful life of the locomotive by 15 years. Finally, the overhaul of 26 MARC IIA vehicles will include safety, interior, and communication improvements.

TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS STRATEGIES

Transportation systems management and operations (TSMO) strategies maximize the use of the transportation system through the use of technologies, coordination, and communications. MDOT SHA's TSMO efforts are being led by the Office of Transportation Mobility and Operations. In June 2020, the MDOT SHA Administrator signed a [memorandum](#) directing the mainstreaming of TSMO programs across the administration. The focus on TSMO will enhance safety, reliability, and efficiency of the roadway network, as well as reduce emissions. TSMO strategies address recurring and non-recurring congestion.

The [MDOT SHA Strategic Plan](#) (2018) provides a statewide TSMO vision and goals. The [MDOT TSMO Master Plan](#) (2020) presents TSMO projects, using a "system of systems" approach, to provide TSMO strategy recommendations along 17 corridors across the state. Examples of TSMO strategies included in the Master Plan for the Baltimore region include: closed circuit TV cameras, roadside units to convey data to vehicles, upgraded traffic signals that include connected vehicle technology, part time shoulder use, queue warning, and fiber optic cable installation.

One of the major components of the state's TSMO efforts is the CHART program that focuses on improving the safety and mobility for the users of Maryland's highways through the application of intelligent transportation system technologies and interagency teamwork. The Statewide Operations Center, Authority Operations Center, and two satellite Operations Centers in the region support the CHART program by using TSMO strategies to monitor the state's roadways to quickly identify and clear crashes as well as manage traffic to reduce the impact of incidents. CHART also maintains roving rapid response trucks that operate 24 hours 7 days per week on many of the state highways in the region and provide assistance to disabled motorists, assist in clearing incidents from travel lanes, and reroute traffic around incidents. The state also has a 511 traveler information system (www.md511.org) to provide real-time transportation condition information to the public.

The state's TSMO program, including its CHART operations, save tens of millions of vehicle-hours of delay statewide, millions of gallons of fuel statewide, and reduce overall mobile source emissions.

Additional examples of TSMO programs operating in the region are described below.

Electronic Toll Collection

The use of electronic toll collection technology enables vehicles to move faster through the tolling process, reducing delay at tollbooths, thereby reducing traffic congestion and air pollution

emissions. The Maryland Transportation Authority commenced operation of its electronic toll collection system, M-TAG, at the Authority's three harbor crossing facilities in 1999. By fall 2001, all toll facilities in the region were equipped with electronic toll collection equipment.

In 2001, MDTA joined the E-ZPass InterAgency Group, a coalition of 25 toll agencies in 15 states. At present, travelers in Maryland, as well as at most toll facilities in Delaware, Illinois, Indiana, Maine, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, and West Virginia can pay tolls using one electronic device.

Starting in October 2019, MDTA began cashless toll collection at the Francis Scott Key Bridge and the Thomas J. Hatem Memorial ("Bay") Bridge, with tolls being collected by E-ZPass or video tolling. The COVID-19 pandemic had a notable impact on the volume of traffic on Maryland's tolled facilities and on the transition to all electronic toll collection. Due to the pandemic and significant reduction in traffic (from July 2019 to July 2020, decrease of 28%), the transition to all electronic toll collection was accelerated. Cash collection was suspended at all facilities on March 17, 2020, and the Governor announced that cash collection had permanently ended on August 6, 2020. Vehicles without an E-ZPass were transitioned to video collection. As a result, E-ZPass use dropped system-wide from 78% in July 2019 to 72% the following year. The process to convert to gantry use and remove toll plazas will be phased in through 2025.

Benefits of cashless tolling include less idling time resulting in increased fuel efficiency and reduced emissions as well as decreased congestion and increased driver and worker safety. MDTA estimates drivers at the Hatem and Key bridges will save \$1 million in fuel and 44,000 hours by not stopping at toll booths. Additional MDTA facilities will be converted in the future. The table below shows the portion of vehicles that use E-ZPass and video tolling in the Baltimore region.

| Facility | Percent Using E-ZPass | Percent Using Video |
|--|-----------------------|---------------------|
| I-95 Express Toll Lanes | 86% | 14% |
| William Preston Lane Jr. Memorial (Bay) Bridge | 76% | 24% |
| Baltimore Harbor Tunnel | 73% | 27% |
| Fort McHenry Tunnel | 78% | 22% |
| Francis Scott Key Bridge | 81% | 19% |
| Thomas J. Hatem Memorial Bridge | 85% | 15% |
| John F. Kennedy Memorial Highway | 77% | 23% |

Traffic Signal Retiming

MDOT SHA has a program to review and retime its signals statewide every three years, including its 1,200 signals in the Baltimore region. In addition, signals in high profile corridors or corridors subject to significant traffic pattern change are evaluated on a more frequent schedule. This program results in smoother traffic flow as well as reduced emissions resulting from idling vehicles. *Synchro* software is used to develop new timing plans and to calculate benefits from the new timing plans.

In Federal Fiscal Year 2021 (FFY21), MDOT SHA reviewed five systems containing 40 signals in the Baltimore region. The system reviews resulted in annual savings of 147,963 hours delay, 52,600 gallons fuel, 492,750 grams HC emissions, 16,441,500 grams CO emissions and 1,266,750 grams NO emissions. These values are derived from Trafficware's SimTraffic microsimulation modeling software. The total value of the savings was estimated as \$6,228,530. In addition to system reviews, timing was provided for 13 new, modified or temporary traffic signals. These include new signals and signals where modifications required extensive timing adjustments.

Traffic Incident Management for the Baltimore Region Committee

Launched in September 2000, the Traffic Incident Management for the Baltimore Region Committee (formerly called the Baltimore Regional Operations Coordination Committee) works to improve coordination of incident management activities to enhance the safety of responders and the traveling public, reduce traffic congestion and delay, and improve the quality of the environment. Participants on the TIMBR Committee include police, fire, transportation and emergency management agencies from the jurisdictions, MDOT and its business units, Maryland State Police, MDE, FHWA, and others. Since the inception of the TIMBR Committee, various projects have been undertaken to improve responder coordination, cooperation, and communication, leading to incidents being cleared more quickly and more safely.

PREFERENTIAL PARKING MANAGEMENT

Parking management is an important strategy for managing transportation demand and a complementary action to increase the effectiveness of the various rideshare programs. This strategy assumes several forms, with preferential parking management being the most basic. Preferential parking for carpools/vanpools is a traditional emission reduction strategy in the Baltimore region. Carpoolers receive the most desirable parking spaces, usually those nearest to the building or in protective garages.

CLEAN VEHICLES, FUELS AND TECHNOLOGIES

Alternative Fuel Vehicle Incentives

All-electric and plug-in hybrid vehicles provide the ability for drivers to reduce the amount of fuel they burn, and reduce emissions as a result. Incentives are often provided by the state and federal government for the purchase of these clean vehicles and their supply equipment. Currently, the State of Maryland offers a state *rebate* of 40% of the cost of electric vehicle charging equipment and installation (up to \$700 for individuals, \$4,000 for commercial businesses *through the [EVSE Rebate Program](#)*). And, the federal government provides a tax credit of up to \$7500 for all-electric or plug-in hybrid cars. *The State of Maryland also offers fleets varying incentives for electric vehicles and other alternative fuel vehicles through the [Clean Fuels Incentive Programs \(CFIP\)](#) and the [Maryland Smart Energy Communities \(MSEC\) Program](#).*

Also, as part of the Maryland Volkswagen Settlement, MDE and MEA have worked to develop a light duty charging infrastructure grants program. Maryland will be conducting three rounds of funding. The program will focus on workplace charging, state owned properties (Park-and-Rides, state parks etc.) and Corridor/HUB charging locations. There is a total of \$11.3 million available. The first round of funding opened on December 8, 2020 and applications are due March 5, 2021. Each round of funding will have approx. \$3.7 million in funds. For the first round, MDE received fifty-five applications totally approx. \$11.7 million in funding requests. Based on the application

review process awards were made to thirty-seven applications. The break down for round one was twenty-four awards for Level 2 chargers for workplace charging totaling one hundred and forty five charging ports and thirteen awards were made for Level 3 chargers for corridor charging for a total of 36 new Level 3 charging ports. The second round of funding opened on December 22, 2022 with applications due April 15, 2022. After round two of funding is completed, the remaining final round of funding will open late in the 2022 calendar year.

Dray Truck Program

An important program that MDOT, MDE, and the Maryland Port Administration work jointly on is the Dray Truck Replacement Program. Under this program, participating truck owners (either independent owner-operators or fleet owners) are provided with funding towards the purchase of a newer truck with an engine (MY 2014 or newer) that meets more stringent emission standards. The Port's dray truck replacement program has been in place for several years and to date has replaced approximately 278 dray trucks. Funding for this program has largely been through EPA Diesel Emission Reduction Act grants, Congestion Mitigation and Air Quality program funds via the state and Volkswagen Settlement funding. To date, the Port Dray Truck Program has received approximately \$11.84 million in funding.

In 2021, through the work of this partnership, the Port received approximately \$1.84 million dollars in EPA funding under its regional DERA Program. This funding will go toward the replacement of approximately 3 dray trucks with new electric ray trucks. This will be one of the first electric dray truck projects on the east coast. In addition to the 3 electric dray trucks, the funding will be used to replace 10 pieces of old diesel cargo handling equipment and one mobile welding unit.

Additional Activity

MTA is planning to add Battery (Zero-Emission) Electric Transit Buses to the MTA fleet before 2030. Planning is underway for deployment pilots, charging infrastructure, utility upgrades, facility upgrades.

Deployment of EV Charging Infrastructure at State-owned facilities supporting electrification of the State-owned Fleet vehicles is ongoing, with DGS as the lead agency. Deployments are occurring at various State-owned sites, including MDOT owned sites.

Deployment of publicly accessible EV Charging Infrastructure at public sites is ongoing by BGE and other Utility companies, under the terms of a Public Service Commission (PSC) Pilot Program in effect 2019-2023. MDOT-owned sites and other State-owned sites are among the public sites where these installations are occurring.

Appendix I-2 : *Tracking the status of Emission Reduction Strategies*

Project Type:

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|----------------------------|---------------------|---|
| Baltimore County | WINDSOR MILL ROAD | <p>TThe Windsor Mill Road project consists of Right-of-Way acquisitions, roadway widening, new curb and gutter, sidewalks and additional work. The project would have three phases.</p> <p>Phase 1 - Windsor Mill Road to Featherbed Lane – est. cost (\$6.5M) phase 2 - Windsor Mill Road to Windsor Mill Blvd – est. cost (\$6.5M) phase 3 - Windsor Mill Road to Rolling Road to Windsor Mill Blvd – est. cost (\$10.5M)</p> |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|---|
| Anne Arundel County | Jumpers Hole Rd Improvements | <p>This project will design, acquire rights of way, and construct improvements along Jumpers Hole Road from Benfield Boulevard to Earleigh Heights / Kinder Road / Kinder Park. Improvements include a shared use path along the west side, a sidewalk along the east side, and bike lanes along the road.</p> <p>This project is 100% eligible for use of impact fees in District 3.</p> |
| Anne Arundel County | MD 214 & Loch Haven Road | <p>This project will design, acquire rights of way, and construct improvements consisting of an additional westbound travel lane along MD 214 from MD 468 to east of Loch Haven Road, including bicycle compatible shoulders and intersection improvements at Loch Haven Road.</p> <p>This project is 100% eligible for use of impact fees in District 5.</p> |
| Carroll County | Little Pipe Creek Trail | <p>This project provides planned funding for the development of a 10-foot wide, 4 mile macadam trail along MD Rte 75 corridor for walking, biking and in-line skating. From Union Bridge to New Windsor.</p> |
| Carroll County | Westminster Community Trail - Phase III | <p>Westminster Community Trail Phase III is a state project, with State Highway Administration providing 100% of construction costs, estimated at \$1.1M. Pedestrian walkway/bike trail is to be macadam from Hahn Road along Route 27 south to the MD Route 140 overpass. Included is a pre-engineered bridge to cross an existing drainage area.</p> |
| Carroll County | Sykesville to Piney Run Park Greenway | <p>Construct a 4-mile greenway trail to link the Town of Sykesville to Piney Run Park. This project will interconnect parks and other high-user areas with surrounding residential and town development.</p> |
| Carroll County | Leister Park Phase II | <p>This project provides funding to establish an additional 4,700 linear foot walking trail at Leister Park, located on Black Rock Road in Hampstead. Project is contingent on State funding. Operating impacts include maintenance.</p> |
| Carroll County | Gillis Falls Trail - Phase I | <p>This project provides planned funding to establish a 5,700 foot compacted stone pedestrian trail connecting Salt Box Park to Flag Marsh Road near the Equestrian Center. This section of trail will require a boardwalk in several areas and the installation of a pre-engineered bridge to cross the existing stream and to traverse the marshy areas.</p> |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|--|
| Carroll County | Washington Road (MD 32) Sidewalk | Length: Approx. 2,160 feet Limits: Kate Wagner Road to Washington Lane This project provides planned funding for construction of a sidewalk along Washington Road (MD 32) in Westminster. The project will provide a continuous sidewalk connection with the residential neighborhoods south of Westminster and the facilities of Westminster High School, Carroll Community College, Robert Moton Elementary School, and Carroll County YMCA. |
| Carroll County | Westminster Veterans Memorial Park Phase I | This project provides funding for Westminster Veterans Memorial Park, a 32-acre parcel in the Westminster area. Included is a playground, pavilion, walking trail, and parking areas. Project is contingent on receiving State funding. Operating impacts will include maintenance. |
| Carroll County | Johnsville Road Sidewalk | This project provides funding for construction of a sidewalk along Johnsville Road in Freedom. The project will provide sidewalk connection to Eldersburg Elementary School, Liberty High School, residential neighborhoods, and the commercial corridor along MD 32 (Sykesville Road) via Bartholow Road. |
| Carroll County | Northwest Trail | This project provides planned funding for the design and construction of a five-mile trail from Taneytown to the Pennsylvania state line. Project is contingent on State funding. Operating impacts will include maintenance. |
| City of Annapolis | Hiker/ Biker Path - Rte. 450 to the Navy Memorial Stadium | This project is a partnership between MDOT/SHA, Anne Arundel County. The project consists of an improved bike and pedestrian connection from the MD 450 bridge to MD 435 (Taylor Avenue) and King George Street across College Creek. The project is in the design phase and being led by MDOT/SHA and Anne Arundel County which has a cost sharing agreement in place to fund the project through completion. The City is actively involved in advancing the best design for City residents and visitors and the Navy is supporting the project through land transfer and easements for expanded right of way. |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|---|
| City of Annapolis | S. Southwood Sidewalk and Stormwater Management | This project is for the installation of sidewalks, curbs, gutters, and roadway construction in the South Southwood area, an area that includes almost three miles of roads with and approximate 40 foot right-of-way. A feasibility study of the existing infrastructure will determine potential areas for connecting missing sidewalk sections and upgrading the existing sidewalks to be ADA compliant. The project includes evaluating stormwater management to address drainage complaints and to treat runoff from the additional impervious area due to the new sidewalks. It also includes treatment of the existing impervious area and evaluating the storm drain system to determine whether additional infrastructure is needed. The City will have to acquire right-of-way for installation of sidewalks, curb, gutter and roadway as necessary. This project assumes that the necessary rights-ofway for the installation of sidewalks, curbs, gutters, and roadways will be donated to the City and not purchased. |
| Harford County | Trails & Linear Parks | This project proposes the acquisition, development, repair, and maintenance of hiker/biker trails, greenways, and linear parks. Trails may be constructed along existing roadways, in existing and proposed park sites and/or the Ma & Pa railroad track bed. These trails will be used for transportation, as well as, physical fitness facilities for walking, jogging, and bike riding. Environmental education programs will also be provided. Construction will occur as funds are available. Future projects are under consideration as funding allows. This project supports the goals and objectives of the 2018 Land Preservation, Parks and Recreation Plan and its Capital Improvement Program Recommendations. Prior Bonds reallocated from Emergency Operations Center capital project. |
| Harford County | Sidewalks and Handicapped Ramps | This project provides for the construction of sidewalks to interconnect communities, schools, and commercial areas. The project will benefit air quality and congestion by encouraging local walking trips and will improve safety by separating pedestrians and motor vehicles. This project is consistent with the Master Planning goal of maintaining a safe and adequate transportation system to serve existing and future populations. |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|--|
| Howard County | OAKLAND MILLS ROAD IMPROVEMENTS | A project to improve Oakland Mills Road from Guilford Road northward to Carters Lane. The improvements would include road widening, sidewalk, curb and gutter and bicycle compatibility. At present this section of road is two lanes with no sidewalks and poor drainage. A traffic signal will be installed at the Oakland Mills & Guilford Road intersection. |
| Howard County | US1 CORRIDOR REVITALIZATION | A project to plan, design and implement a series of streetscape, pedestrian, bicycle, transportation and public green space improvements on public property in the US1 Corridor. Acquisition for these improvements may be needed. Funding includes developer contributions. The County will either construct the improvements or have the developers construct the improvements for the County. |
| Howard County | Routine Sidewalk and Walkway Extensions | A project to design and construct routine sidewalk and walkway extensions about 1,000 feet in length. |
| Howard County | School Route Pathways or Sidewalks | Design and construction of sidewalks/pathways to provide a safe walking route for school children. |
| Howard County | Roadside Improvement Program | This project is to repair, replace, or install sidewalks and ramps for handicapped areas, curbs, trees, and guardrails to comply with applicable Federal, State and County codes. |
| Howard County | SNOWDEN RIVER PARKWAY WIDENING BROKENLAND TO OAKLAND MILLS | A project to design and construct a widening of Snowden River Parkway (intermediate arterial) by adding a third lane and sidewalks from Broken Land Parkway to Oakland Mills Road. |
| Howard County | FY 2009 Pathway and Trail Rehab and Expansion | Rehabilitate and expand the existing Pathway System which currently extends from Savage Park through Columbia to Dorsey's Search. |
| Howard County | FY 2009 State Roads Sidewalk Retrofit Program | Design and construct improved pedestrian access along State roads. |
| Howard County | Clarksville - River Hill Streetscape Improvements | A project to plan, design and construct road and related improvements -- including streetscape, storm water management, pedestrian, bicycle, and public space enhancements -- in the Route 108 corridor. |
| Howard County | FY 2007 Pedestrian Plan Projects | Ongoing evaluation, design and construction of pedestrian improvements listed in the Howard County Pedestrian Master Plan. The candidate project list is updated annually by the Dept. of Planning and Zoning in coordination with the Dept. of Public Works. |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------------|---|
| Howard County | Mission Road Sidewalk | A project to install sidewalk along parts of Mission Road. Area 1 will install sidewalk from Pleasant Chase Road to the Ridgley's Run Community Center. Area 2 will address Mission Road from Guildford Road to Concord Drive. |
| Howard County | Sanner Road Improvements | Project providing bicycle compatibility by widening the existing 10 feet lanes to 12 feet and filling in the missing shoulders along both sides of the road. |
| Howard County | School Crosswalk Improvements | This project is for the installation or modification of crosswalks, raised crosswalks, chokers, sidewalks, raised shoulders, signs and/or other roadway retrofits to provide for an enhanced walking route for school children. |
| Howard County | FY2014 Bicycle Plan Projects | A project for the implementation of the comprehensive Howard County Bicycle Master Plan. |
| Howard County | Intersection Improvement Program | Project for the study, design and construction of geometric and pedestrian modifications to improve the safety or increase capacity at various intersections. |
| Howard County | Sidewalk Repair Program | This project is for the repair of deteriorated sidewalks and driveway aprons that are in public rights-of-way. |

Project Type: *Clean Technology*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------|-----------------------------------|
|-----------------------------------|----------------------------|-----------------------------------|

| | | |
|-------------------|---------------------------------------|--|
| City of Annapolis | 100% Electric Annapolis Mobility Plan | <p>The Annapolis Mobility Plan (AMP) includes an all-electric transit system in downtown Annapolis and Eastport. Electric trolleys will transport riders from parking locations in the downtown area and Eastport to the Spa Creek waterfront. From there, an electric ferry will transport riders between City Dock and Eastport. This project includes the acquisition of an electric ferry boat, small electric cart vehicles, electric circulator buses, and all required charging and docking infrastructure. The first phase of the project, funded in FY2022, included the acquisition of an electric ferry boat and a comprehensive planning study, to include passenger demand analysis, parking and traffic study, infrastructure evaluation including dockage and electrical charging requirements, and operations and maintenance evaluation for the system. The proposed FY2023 phase includes electric vehicle acquisition. The FY2024 phase will include detailed design and construction of infrastructure improvements required for the electric ferry, circulators and trolleys as identified by the comprehensive planning study.</p> |
|-------------------|---------------------------------------|--|

| | | |
|------|-----------------|---|
| MDOT | Bus Replacement | <p>Replaces buses in MDOT MTA's existing fleet. Procured vehicles will be clean, diesel buses equipped with air-conditioning, electronic destination signs, automatic vehicle locators, and wheelchair lifts. Delivery and inspection costs are included. 93 buses in total will be replaced.</p> |
|------|-----------------|---|

Project Type: *Congestion Management*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|---|
| City of Annapolis | Wayfinding Signage | The project is a system of signage and wayfinding technologies to be implemented citywide. The signage will include gateway signs, pedestrian signs, information kiosks, vehicular directional and welcome signs, realtime parking information, and other wayfinding tools. This project will be coordinated with new parking and transportation initiatives and with improvements to the City Dock area. The Comprehensive Plan recommends the expansion of the existing wayfinding program. |
| City of Annapolis | Melvin Avenue Traffic Calming | This project is to install traffic calming at selected locations along Melvin Avenue in West Annapolis. The permanent traffic calming will be installed at the various locations piloted. |
| Harford County | Traffic Calming, Bicycle & Road Safety Improvements | To reduce vehicular speeds in communities, this project will construct various "traffic calming" devices aimed at speed reduction, community beautification, and increased safety. The project will be directed at communities with fairly high traffic volumes, 85th percentile speeds greater than 10 MPH over the speed limit, small average lot sizes, and a high percentage of cut-through traffic. With recent interest in Complete Streets and road safety in general for all users; funds are also being provided for bicycle and automobile related safety improvements. |
| Howard County | Residential Traffic Calming | Project to construct geometric roadway changes to reduce traffic speeding in residential areas. |

Project Type: *ITS*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------|---|
| Howard County | Signalization Program | Project designing and constructing various traffic signals when the MUTCD Warrants are met; also includes the modification and modernization of existing traffic signals. |

Project Type: *Public Transit Improvement*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|--|---|
| Howard County | FY 2014 Bus Stop Improvements | Project implementing a series of improvements to Howard Transit bus stops including installation of bus shelters, concrete pads, bus stop signs, connecting sidewalks, curb cuts (consistent with ADA requirements), crosswalks, route map holders and other improvements. The Office of Transportation will determine the location and extent of these improvements. |
| Howard County | FY 2021 Transit Center - Howard County | A project for the site selection, design and construction of a transit center. |
| MDOT | Mobility Bus Replacement | Replaces buses in MDOT MTA's complementary paratransit (shared-ride) program MobilityLink. Procured vehicles will be clean, gas buses equipped with air-conditioning, automatic vehicle locators, and wheelchair lifts. Delivery and inspection costs are included. 100 vehicles will be replaced in total- 75 new large cutaway vans and 25 small vans. |
| MDOT | LOTS State of MD Guaranteed Ride Home - Baltimore Area | The Guaranteed Ride Home program we introduced in 2010 to eliminate the barrier to using alternate modes of transportation and commuters' fears of being stranded without transportation in the case of an emergency. Guaranteed Ride Home program for the Baltimore Region and St. Mary's County provides free return transportation by taxi, rental car, and public transit, in the event of an unexpected personal emergency or unscheduled overtime for individuals who commute to work by alternative modes of transportation at least two times per week. |

Project Type: *Rideshare Program*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|--|
| MDOT | LOTS State of MD Ridesharing Funds D&E | Ridesharing Program promotes the alternative to single occupancy vehicle usage including mass transit, carpools, and vanpools. Operating assistance under this grant consists of 100% Federal funds. Funding will be provided to the following locally operated transit systems: Anne Arundel County, Carroll County (service provided by the Baltimore Metropolitan Council), Frederick County, Harford County, Howard County, Montgomery County, Calvert County, Prince George's County, and the Tri-County Council for Southern Maryland. |

Ongoing Emission Reducing Projects

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|----------------------------|---------------------|--|
| Anne Arundel County | WB & A Trail | <p>This project authorizes the right of way acquisition, design and construction of a paved multiuse trail primarily on the abandoned roadbed of the former W B & A Railroad south of Odenton. When complete, the project will link the South Shore Trail in Odenton with the Patuxent River and an existing rail trail in Prince George's County. The W B & A Trail will be a component of the East Coast Greenway and the American Discovery Trail. Construction of this recreational and transportation corridor will be done in phases: Phase I - Odenton Road to Strawberry Lake Way</p> <p>Phase II A - Strawberry Lake Way to Conway Road (bridges)</p> <p>Phase II B - Strawberry Lake Way to Conway Road (paving)</p> <p>Phase III - Conway Road to Patuxent River</p> <p>Phase IV - Loop from Strawberry Lake Way to South Shore Trail</p> <p>Phase V - Bridge over the Patuxent River</p> |
| Anne Arundel County | School Sidewalks | <p>Funds are needed to provide sidewalk improvements to accommodate walkers, and reduce bus requirement. This project will require funding beyond the program.</p> |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|------------------------------|--|
| Anne Arundel County | South Shore Trail | <p>This project is authorized to acquire property, design and construct a paved multi-use trail primarily utilizing the abandoned road bed of the WB& A Railroad between Annapolis and Odenton. The trail will connect with the Colonial Annapolis Maritime Trail on the east end and the WB & A Trail on the west. The trail will be a component of the East Coast Greenway and the American Discovery Trail. Multi-phase construction will consist of:</p> <ul style="list-style-type: none">> Phase I: Waterbury to MD Rte 3> Phase II: MD Rte 3 to Odenton> Phase III: Bestgate to Eisenhower Golf Course> Phase IV: Eisenhower Golf Course to Waterbury Road> Phase V: Bestgate Road to City of Annapolis> MD-3 Crossing |
| Anne Arundel County | Sidewalk/Bikeway Fund | <p>This project includes design and construction of needed sidewalk, bikeway, and transit links along County roadways.</p> |
| Anne Arundel County | Monterey Ave Sidewalk Improv | <p>This project will provide sidewalk, curb and gutter, storm drain, and roadway improvements along Monterey Avenue between Odenton Road and June Drive.</p> |
| Anne Arundel County | Odenton Area Sidewalks | <p>This project will design, acquire rights of way, and construct sidewalks on one side of Hammond Lane, Monie Road and Higgins Drive to provide a safe way for students from the community to get to Arundel Middle School.</p> |

Project Type: *Bike/Ped/Greenway*

***Implementing
Agency***

Project Name

Project Description

Anne Arundel County

Brock Bridge/MD 198

This project will acquire right-of-way and relocate utilities to reconstruct the existing northbound lane along Brock Bridge Road at MD198 to create separate through lane and right turn lane, modify the signal, and improve drainage at the intersection with MD 198.

This project also includes the construction of an ADA compliant sidewalk extending approx. 500 feet from 241 Brock Bridge Road connecting to the sidewalk being constructed as part of the above intersection improvements.

This project is 100% eligible for use of impact fees in District 4.

Anne Arundel County

Ped Improvement - SHA

This project is to cover the County's share of costs for the State Highway Administration (SHA) to construct new sidewalk and reconstruct existing sidewalks along State Highways. This project would also fund the County's participation in Public Outreach in support of the SHA and acquisition of Rights of Way necessary for construction outside of existing SHA Right of Way.

Sidewalk Projects are identified in the County's Priority Letters to the Maryland Department of Transportation (MDOT) and are located within the State Priority Funding Area. Sidewalks to be constructed shall be funded equally between State and the County, except under special circumstances, which the State will fund up to 100% of the costs.

Project Type: *Bike/Ped/Greenway*

***Implementing
Agency***

Project Name

Project Description

Anne Arundel County

Severn-Harman Ped Net

This project will fund design, right-of-way acquisition and construction of pedestrian, bicycle, and transit facility improvements, creating a network as recommended in the Pedestrian and Bicycle Master Plan Update (2013) and Transit Development Plan connecting communities with public and major privately owned facilities and activity centers.

Improvements include projects identified in the Master Plans and will provide sidewalks at missing segments, new sidewalk segments, crosswalks, pedestrian signals, and multipurpose trail segments creating a network supporting walking, biking, and transit needs of communities near Arundel Mills - MarylandLive!. Projects are consistent with recommendations in the adopted Small Area Plans, the prior Anne Arundel County Pedestrian and Bicycle Master Plan (2003), and the Transit Development Plan.

Legislation established funding to reduce impacts on neighboring communities of MarylandLive!.

Anne Arundel County

Jennifer Road Shared Use
Path

This Project will install a shared use path along the north side of Jennifer Road from Pavilion Parkway to Admiral Drive.

This project is 100% eligible for use of impact fees in District 3.

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------|---|
| Anne Arundel County | Broadneck Peninsula Trail | <p>This project authorizes the design, right of way acquisition and construction of a paved multiuse trail running from Sandy Point State Park to the B & A Trail. The trail Master Plan calls for the phasing of construction, as follows:</p> <p>Phase I A - Green Holly Drive to College Parkway East</p> <p>Phase I B - College Parkway East to Bay Head Park</p> <p>Phase II - Bay Dale Drive to Green Holly Drive</p> <p>Phase III - Peninsula Farm Road to Bay Dale Drive</p> <p>Phase IV - B&A Trail to Peninsula Farm Road</p> <p>Phase V - Bay Head Park to Sandy Point State Park and community connector trails.</p> <p>Design and construction for some phases will be funded in a future budget.</p> |
| Anne Arundel County | MD Rte 175 Sidewalks | <p>This project funds a County contribution to the State project to design, acquire rights of way, and construct a sidewalk along the south side of MD Rte 175 from the Sappington Station Roundabout to MD Rte 170. Given the location and nature of this public improvement, available funds from the BRAC Revitalization and Incentive Zone will be the source of funding for this project.</p> |
| Anne Arundel County | Trail Resurfacing | <p>This multi-year, recurring project provides funds to resurface trails such as the B&A ,WB&A, South Shore, and Broadneck Peninsula trails. Work includes supporting slope stabilization, repairs to aggregate base, full depth asphalt patching and resurfacing, culvert repair / replacement as needed, and repair / replacement of fencing along the trail, as needed.</p> <p>This project also includes trails in the three regional parks including Quiet Waters Park, Downs Park, and Kinder Farm Park.</p> <p>Parking lots and roadways, including related infrastructure, as well as any other trails in other County parks, will continue to be funded in the existing multi-year, recurring project P479800 - Park Renovation, or as part of other one-time, stand-alone projects.</p> |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------------|--|
| Anne Arundel County | Arundel Mills LDC Roads | The project funds all aspects of road and pedestrian rehabilitation, and safety improvements as identified by the Anne Arundel County Arundel Mills - MarylandLive! Local Development Council for the purpose of improving motorist and pedestrian facilities for communities near Arundel Mills - MarylandLive!. |
| Anne Arundel County | Race Road - Jessup Village | <p>This project will design, acquire rights of way, and construct improvements along MD 175 (Annapolis Road), Redbud Avenue, Champion Forest Avenue, Chestnut Avenue, Race Road, and National Business Parkway providing improved vehicular, bicycle, and pedestrian access to the new Jessup Elementary School and the corridor.</p> <p>This project is 65% Impact Fee eligible in districts 6 and 35% in District 4.</p> |
| Anne Arundel County | Waugh Chapel Road Improvements | <p>This project will design, acquire rights of way, and construct improvements along Waugh Chapel Road between Maytime Avenue and MD 3, consisting of intersection upgrades, bicycle compatible shoulders, and a shared use path.</p> <p>This project is 100% eligible for use of impact fees in District 4.</p> |
| Anne Arundel County | Greenways, Parkland & Open Space | This project establishes a fund for County-wide Greenway, Parkland and Open Space Acquisitions and related expenses. This project will be used to acquire land, which satisfies one or more of the following objectives: addresses local or state Greenway objectives, protects sensitive natural resources, provides an addition to an existing park/trail and/or satisfies County park, recreation and preservation needs as identified in the Land Preservation, Park and Recreation Plan, the Greenway Master Plan, the General Development Plan and the Small Area Plans. |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---------------------------------------|---|
| Baltimore County | DUNDALK HERITAGE TRAIL & PARK | FUNDS TO CONSTRUCT A TRAIL AND PARK THAT WILL CONNECT THE CENTER OF HISTORIC DUNDALK TO BALTIMORE CITY AND THE WATER FRONT. THE DUNDALK HERITAGE TRAIL, REFERRED TO AS THE "TECHNOLOGY TRAIL" IN THE URBAN DESIGN ASSISTANCE TEAM'S REPORT "DUNDALK: A SECOND CENTURY VISION", CELEBRATES THE HISTORY OF DUNDALK AND THE CONTRIBUTIONS ITS CITIZENS HAVE MADE TO STEEL MAKING, SHIP-BUILDING, AIR TRANSPORTATION AND MILITARY |
| Baltimore County | BIKEWAYS & PEDESTRIAN ACCESS | CONSTRUCTION AND REPAIR OF ON-ROAD BICYCLE AND PEDESTRIAN FACILITIES AS PART OF THE COUTY COMPLETE STREET POLICY. |
| Baltimore County | GREENWAYS/STREAM VALLEYS/TRAILS DVLP. | ACQUISITION AND DEVELOPMENT OF STREAM VALLEY PARKS AND GREENWAYS THROUGHOUT THE COUNTY INCLUDING DEVELOPMENT OF RECREATIONAL TRAILS |
| Baltimore County | CURBS, GUTTERS, AND SIDEWALKS | REPLACEMENT AND REPAIR OF DETERIORATED CURBS, GUTTERS AND SIDEWALKS AS WELL AS CONSTRUCTION OF NEW SIDEWALKS WHERE NEEDED. |
| Baltimore County | SIDEWALK RAMP/ADA UPGRADE PROGRAM | THIS PROJECT PROVIDES FUNDS TO CONSTRUCT SIDEWALK RAMPS TO ASSIST THE HANDICAPPED. |
| Baltimore County | RECREATION FACILITY RENOVATIONS | CAPITAL IMPROVEMENTS AND/OR CAPITAL RENOVATIONS TO EXISTING PARKS, COURTS AND FACILITIES INCLUDING COMFORT STATIONS, PLANTINGS, BENCHES, PAVILIONS, LIGHTING, SIDEWALKS, FOUNTAINS, BOAT RAMPS, ROADWAY, PARKING, AND PAVING, ETC. |

Project Type: *Bike/Ped/Greenway*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------|--|
| Carroll County | Ramp and Sidewalk Upgrades | This project provides ongoing funding to upgrade or replace non-compliant ramps and sidewalks for ADA accessibility. Non-compliant ramps and sidewalks are also addressed through the Pavement Management Program. This project allows for the acceleration of the replacement and upgrade process. |
| City of Annapolis | Cedar Park Sidewalks | This project will install a five foot wide concrete sidewalk along the southside of Cedar Park Road from Windell Avenue to the existing sidewalk near Halsey Road, including ADA ramps at each sidestreet crossing. |
| City of Annapolis | General Sidewalks | This project is for City sidewalk repairs. The ongoing repair program is based on a comprehensive, citywide sidewalk condition assessment. Sidewalks are inspected for cracking, faulting, and scaling. Based upon this assessment, a list of priorities for repair and reconstruction is developed each year, taking into the sidewalk's condition and the importance of its location to citywide pedestrian traffic. |
| City of Annapolis | Trail Connections | This project consists of several components to create a more cohesive onstreet and off-street trail system in the City as recommended in the Annapolis Bicycle Master Plan (2011). This project improves the safety of bike travel and supports City policy to encourage alternative transportation options. The project may include planning, land acquisition, design, and construction. Project work will also include determination and initiation of possible land easements. |

Project Type: *Bike/Ped/Greenway*

***Implementing
Agency***

Project Name

Project Description

City of Annapolis

West East Express Bikeway

This project will complete the long envisioned West East Express (WEE) bikeway which will connect Downtown Annapolis to Parole along the former WB&A railroad corridor. The project has been recommended in numerous plans including the Annapolis Bicycle Master Plan (2011). This project consists of three distinct segments: Inner WEE which connects Calvert Street to Taylor Avenue; improvements to the existing Poplar Trail (Taylor Avenue to Admiral Drive); and the Outer WEE which connects Admiral Drive to MD 2 / Solomons Island Road along various public and private right-of-ways. The overall project will become the spine of the City's trail system and connect numerous diverse communities to important services, conveniences, destinations, jobs, and recreation. The project will also dramatically improve the safety of bike travel and support City policy to encourage alternative transportation options. The project includes planning, land acquisition, design, easements, and construction. FY2022 funds will be used for project design on each segment. Construction work will be done in phases by location and likely commence in FY2024.

Project Type: *Clean Technology*

***Implementing
Agency***

Project Name

Project Description

City of Annapolis

Landfill Gas Mitigation

Landfill gas (LFG) monitoring at the closed Annapolis Landfill has been ongoing for several years. Monitoring has confirmed that LFG migration has occurred along the northwestern property line and has been observed on the adjoining private property at explosive levels. No residential structures are at risk at the present time. In December 2017, the City and the Maryland Department of the Environment (MDE) finalized a settlement agreement that requires the City to collect and combust LFG that originates on the closed landfill property. The City is obligated to comply with specific time requirements or face legal sanctions. The design must provide for conversion of the existing passive LFG flare system to an active one and the installation of gas interceptor wells extending approximately 1200 lineal feet along the northwestern property line. It is estimated that the annual operational and maintenance costs will be approximately \$30,000.

Project Type: *Congestion Management*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|--|---|
| Anne Arundel County | Nghborhd Traf Con | Funds are requested to construct various traffic calming devices on neighborhood streets in order to control traffic speeds. Installation of these devices will be undertaken after discussion with the community. |
| Baltimore County | TRAFFIC CALMING | THIS PROJECT WILL SUPPORT A TRAFFIC CALMING PROGRAM COUNTYWIDE IN RESPONSE TO CONCERNS FROM VARIOUS COMMUNITIES. |
| Baltimore County | MISCELLANEOUS INTERSECTION IMPROVEMENT | THIS PROJECT WILL INCREASE CAPACITY AND SAFETY ALONG ROADS AND MAJOR INTERSECTIONS THROUGHOUT THE COUNTY. ROAD IMPROVEMENTS WILL RELIEVE CONGESTED AREAS DEFINED AS DEFICIENT UNDER COUNTY LAW. PRIORITY IS GIVEN TO INTERSECTIONS RATED AS SERVICE LEVEL "E" OR "F". |
| City of Annapolis | Traffic Signal Rehabilitation | This project provides for the evaluation and prioritization of citywide traffic signal repairs to the existing signal heads, controllers, poles, and detection equipment with upgrades, including camera detection; actuated pedestrian signals (APS); and coordinated signal timing. |

Project Type: *ITS*

***Implementing
Agency***

Project Name

Project Description

Anne Arundel County

New Traffic Signals

This project will fund the construction of new traffic control equipment on County roadways. This project also includes the construction of new Intelligent Transportation Systems (ITS) such as video detection and monitoring, automated count stations and communication systems to coordinate signals.

Baltimore County

GPS Routing for County
Vehicles

The route optimizer will prescribe an efficient schedule that should increase productivity, while reducing fuel consumption, by minimizing travel time to various locations throughout the workday. Operations involving vehicles with multiple stops per day and those responding to unscheduled maintenance calls will benefit the most from this program.

Project Type: *Land Use*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|-----------------------------------|--|
| Anne Arundel County | Agricultural Preservation Program | <p>This project provides funding for the purchase of agricultural easements or fee simple interest in accordance with the County and State Agriculture and Woodland Preservation Programs. Easements, in the form of development rights, are purchased from qualified property owners of agricultural and woodland properties. Funds may also be used to match or augment other state or federal agricultural preservation programs such as Rural Legacy. Funds from this project will also be used to purchase relevant computer hardware and software that is deemed necessary to the program. Funds for this program are provided from county revenues as well as state agricultural land transfer tax receipts. Because the Maryland Department of Planning has certified the County's agricultural land preservation program, the county retains 75% of locally generated agricultural land transfer tax receipts, which are computed as a 5% state tax on the transfer of land being converted from agricultural to nonagricultural use.</p> |
| Baltimore County | RURAL LEGACY | <p>Protection of rural natural resources through the acquisition of development rights, easements or fee simple interest in properties. Activities will be in conformance with approved rural legacy plans and the MD Rural Legacy Program. Protection of resources by this program will be consistent with the adopted Baltimore County Master Plan. Financing for this project will be through grants from the Md Rural Legacy Program, county bonds and/or general funds and private funds.</p> |

Project Type: *Land Use*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|----------------------------|---|
| Baltimore County | AGRICULTURE PRESERVATION | <p>Protection of farmland through the acquisition of development rights easements purchased through the Md Agricultural Land Preservation Program, the Baltimore County Local Program, and other programs. These programs are financed using the MD Agricultural Transfer Tax, county bonds, general funds, federal funds, state funds, and private funds. Funds are also being set aside to purchase easement options on farmland imminently threatened by development.</p> <p>Protection of farmland through the acquisition of development rights easements purchased through the Md Agricultural Land Preservation Program, the Baltimore County Local Program, and other programs. These programs are financed using the MD Agricultural Transfer Tax, county bonds, general funds, federal funds, state funds, and private funds. Funds are also being set aside to purchase easement options on farmland imminently threatened by development.</p> |

Project Type: *Land Use*

***Implementing
Agency***

Project Name

Project Description

Carroll County

Agricultural Land Preservation

This project provides ongoing funding for the Carroll County Agricultural Land Preservation program. The program provides an opportunity for landowners to make a long-term commitment to agriculture by offering financial incentives in exchange for property development rights. Preserving farmland with permanent easements helps to maintain agriculture as a viable industry and preserve the rural character of Carroll County. The County offers two payment options to the landowners: Installment Purchase Agreement (IPA) or Lump Sum. The IPA option pays the landowner for the easement over a 20-year period. The Lump Sum option pays for the easement at the time of settlement. The Maryland Agricultural Land Preservation Foundation (MALPF), a lump-sum payment program, is jointly funded by the State of Maryland and Carroll County. A portion of Property Tax revenue is dedicated to the Agricultural Land Preservation program, to be appropriated in the Capital Fund for easement purchases, and in the General Fund for interest payments to landowners in the Debt Service - Agricultural Preservation budget. The Capital Fund portion is capped at \$2.5M ongoing. The appropriations are listed in the charts below. The Total Appropriation - IPA and Lump Sum are for easement purchases; operating impacts are interest payments appropriated to the General Fund; and the Total Appropriation - Ag Pres at the bottom of this page includes costs for both the Lump Sum and IPA options.

Project Type: *Public Transit Improvement*

| <i>Implementing Agency</i> | <i>Project Name</i> | <i>Project Description</i> |
|-----------------------------------|---|---|
| Anne Arundel County | Vehicle Replacement | This multi-year project is necessary to maintain and upgrade the school system's vehicle fleet. |
| Anne Arundel County | Transit Improvements | This project is for the installation of new transit improvements including concrete pads, shelters, benches, bike racks, bike lockers, bike racks on buses, etc.; as well as the maintenance and repair of existing transit improvements on County or State right-of-way for services operated by or in coordination with the Office of Transportation. |
| Anne Arundel County | School Bus Replacement | Purchase of replacement school buses. |
| City of Annapolis | Annapolis Transit Reduced Fare Program for Seniors, Disabled Persons and Students | Half-price one-way tickets, as well as day, weekly, and monthly passes are available for purchase by students, senior citizens, and the disabled, with proper identification. |

Appendix J: MDOT Updated Revenue Projections – August 2017

Financially Constrained Long Range Plan

Year 2017 to 2045 Update

For The

Baltimore Metropolitan Area

Prepared by

Maryland Department of Transportation

August 2017

DOCUMENTATION OF ASSUMPTIONS

Date: August 2017

Subject: Methodology and Assumptions used to derive the
2017 – 2045 Constrained Long-range Transportation Plan

Total Program Revenues/Expenditures (operating and capital):

- FY 1981 to FY 2016 figures are actual expenditures from historical records. FY 2017 to FY 2022 are from the FY 2017 Transportation Trust Fund Financial Plan and Consolidated Transportation Plan (CTP).
- The federal funds received directly by WMATA are not included in this exercise.
- FY 2023 to FY 2045 projections of state funds use a historical annual average growth rate of 5.3%. Federal fund projections for the same period are based on an average growth rate of 3.0% for Highway and Transit program funds.

Operating Expenditures:

- FY 1981 to FY 2016 figures are actual expenditures from historical records. Expenditures for FY 2017 to FY 2022 are the operating budget projections contained in the current Trust Fund Forecast.
- FY 2023 to FY 2045 projections are derived by inflating the previous year with an estimate for the percentage change in CPI-U plus 2%. The Consumer Price Index is a generally accepted measure of inflation. The projected annual change in index figures is based on information received from two economic forecasting firms. Two percent (2%) is added to the forecasted rate to account for the additional operating costs associated with new capital expansions.

Capital - Systems Preservation:

- Department records were used to determine the split between systems preservation and expansion for FY 1981 to FY 2016. Amounts for FY 2017 to FY 2022 represent the current version of the capital program.
- For the period FY 2023 – FY 2045, an annual growth rate of 2.0% is assumed for systems preservation projects, not to exceed 70% of the total program.

Capital - Expansion:

- Expenditures for capital expansion were derived by subtracting both operating and systems preservation expenditures from the total program expenditures for each year.

Baltimore Area – Percentage of Capital Expansion:

- Total capital figures from FY 1981 to present were split into surface and non-surface. Surface included highway (SHA) and transit (MTA, MARC, and WMATA) costs. Non-surface included the Maryland Port, Aviation, and Motor Vehicle Administrations and the Secretary's Office expenses.
- The surface / non-surface data and the system preservation / expansion data were combined, analyzed, and evaluated to produce estimates of the percentage of Maryland expansion associated with surface transportation for the various time periods.
- Surface capital in the Baltimore Region was derived by adding the expenditures for all of MTA (excluding LOTS and non-Baltimore region Park and Ride expenditures), one-half of MARC and that portion of SHA that pertained to the region (Anne Arundel, Baltimore, Carroll, Harford, and Howard counties).
- These Baltimore specific figures were used to derive estimates of Baltimore surface expansion. These figures, when used with the above-mentioned projections, produce the estimates shown for Baltimore as a percent of Total Surface Expansion and as a percent of Total Maryland Expansion.

MDOT Operating & Capital Expenditures - Statewide
History, Program & Forecast
(Millions of Dollars)

| Fiscal Year | Operating | Systems Preservation | Operating & Systems Pres. | Expansion | Statewide Total |
|-------------|-----------|----------------------|---------------------------|-----------|-----------------|
| 1981 | 265 | 111 | 376 | 247 | 623 |
| 1982 | 287 | 136 | 423 | 236 | 659 |
| 1983 | 322 | 164 | 486 | 284 | 770 |
| 1984 | 352 | 167 | 519 | 246 | 765 |
| 1985 | 385 | 204 | 589 | 319 | 908 |
| 1986 | 428 | 234 | 662 | 403 | 1,065 |
| 1987 | 441 | 264 | 705 | 508 | 1,211 |
| 1988 | 478 | 260 | 738 | 615 | 1,353 |
| 1989 | 508 | 227 | 735 | 677 | 1,412 |
| 1990 | 551 | 270 | 821 | 760 | 1,581 |
| 1991 | 591 | 268 | 859 | 773 | 1,632 |
| 1992 | 577 | 187 | 764 | 542 | 1,306 |
| 1993 | 638 | 254 | 892 | 418 | 1,310 |
| 1994 | 689 | 279 | 968 | 393 | 1,361 |
| 1995 | 709 | 400 | 1,109 | 497 | 1,606 |
| 1996 | 784 | 391 | 1,175 | 465 | 1,640 |
| 1997 | 770 | 417 | 1,187 | 493 | 1,680 |
| 1998 | 808 | 451 | 1,259 | 411 | 1,670 |
| 1999 | 868 | 515 | 1,383 | 420 | 1,803 |
| 2000 | 913 | 478 | 1,389 | 455 | 1,844 |
| 2001 | 979 | 578 | 1,557 | 632 | 2,189 |
| 2002 | 1,045 | 612 | 1,657 | 772 | 2,429 |
| 2003 | 1,158 | 620 | 1,778 | 772 | 2,550 |
| 2004 | 1,178 | 619 | 1,797 | 762 | 2,559 |
| 2005 | 1,237 | 714 | 1,951 | 780 | 2,731 |
| 2006 | 1,303 | 729 | 2,032 | 793 | 2,825 |
| 2007 | 1,398 | 724 | 2,120 | 701 | 2,821 |
| 2008 | 1,488 | 766 | 2,254 | 680 | 2,934 |
| 2009 | 1,527 | 974 | 2,501 | 368 | 2,869 |
| 2010 | 1,583 | 957 | 2,540 | 275 | 2,815 |
| 2011 | 1,548 | 908 | 2,456 | 325 | 2,781 |
| 2012 | 1,572 | 1,098 | 2,668 | 366 | 3,034 |
| 2013 | 1,638 | 1,154 | 2,792 | 416 | 3,208 |
| 2014 | 1,843 | 1,324 | 3,167 | 477 | 3,644 |
| 2015 | 1,859 | 1,438 | 3,297 | 603 | 3,900 |
| 2016 | 1,917 | 1,389 | 3,306 | 806 | 4,112 |
| 2017 | 1,947 | 1,560 | 3,507 | 1,123 | 4,630 |
| 2018 | 2,030 | 1,580 | 3,610 | 1,071 | 4,681 |
| 2019 | 2,080 | 1,557 | 3,637 | 1,005 | 4,642 |
| 2020 | 2,131 | 1,475 | 3,606 | 687 | 4,293 |
| 2021 | 2,181 | 1,391 | 3,572 | 483 | 4,055 |
| 2022 | 2,264 | 1,449 | 3,713 | 400 | 4,113 |
| 2023 | 2,454 | 1,284 | 3,738 | 550 | 4,288 |
| 2024 | 2,592 | 1,259 | 3,851 | 540 | 4,391 |
| 2025 | 2,696 | 1,332 | 4,028 | 571 | 4,599 |
| 2026 | 2,811 | 1,408 | 4,219 | 603 | 4,822 |
| 2027 | 2,924 | 1,490 | 4,414 | 639 | 5,053 |
| 2028 | 3,043 | 1,576 | 4,619 | 676 | 5,295 |
| 2029 | 3,176 | 1,661 | 4,837 | 712 | 5,548 |
| 2030 | 3,313 | 1,698 | 5,011 | 805 | 5,816 |
| 2031 | 3,451 | 1,732 | 5,183 | 914 | 6,097 |
| 2032 | 3,597 | 1,766 | 5,363 | 1,030 | 6,393 |
| 2033 | 3,754 | 1,802 | 5,556 | 1,146 | 6,702 |
| 2034 | 3,911 | 1,838 | 5,749 | 1,279 | 7,028 |
| 2035 | 4,079 | 1,874 | 5,953 | 1,416 | 7,369 |
| 2036 | 4,257 | 1,912 | 6,169 | 1,559 | 7,728 |
| 2037 | 4,433 | 1,950 | 6,383 | 1,721 | 8,104 |
| 2038 | 4,633 | 1,989 | 6,622 | 1,879 | 8,501 |
| 2039 | 4,837 | 2,029 | 6,866 | 2,052 | 8,918 |
| 2040 | 5,042 | 2,070 | 7,112 | 2,242 | 9,354 |
| 2041 | 5,258 | 2,111 | 7,369 | 2,444 | 9,813 |
| 2042 | 5,475 | 2,153 | 7,628 | 2,667 | 10,295 |
| 2043 | 5,717 | 2,196 | 7,913 | 2,889 | 10,802 |
| 2044 | 5,963 | 2,240 | 8,203 | 3,131 | 11,334 |
| 2045 | 6,228 | 2,285 | 8,513 | 3,383 | 11,896 |

BALTIMORE METROPOLITAN AREA

Percentage of Capital Expansion

| Surface Enhancement % of Maryland Enhancement: | |
|---|-------|
| 1981 - 2016 | 86.4% |

| Baltimore Enhancement % of Surface Enhancement: | |
|--|-------|
| 1981 - 2016 | 40.3% |



| Fiscal Year | Statewide Expansion Funds | Surface Percentage | Private Funds | Total Surface Available | Baltimore Percentage | Total Balto. Expansion Funds |
|----------------------|---------------------------|--------------------|---------------|-------------------------|----------------------|------------------------------|
| 2014 | 477 | | | | | 155 |
| 2015 | 603 | | | | | 192 |
| 2016 | 806 | | | | | 282 |
| 2017 | 1,123 | | | | | 90 |
| 2018 | 1,071 | | | | | 90 |
| 2019 | 1,005 | | | | | 107 |
| 2020 | 687 | | | | | 80 |
| 2021 | 483 | | | | | 83 |
| 2022 | 400 | | | | | 69 |
| 2023 | 550 | 475 | 23 | 498 | 201 | 201 |
| 2024 | 540 | 467 | 23 | 490 | 197 | 197 |
| 2025 | 571 | 493 | 23 | 516 | 208 | 208 |
| 2026 | 603 | 521 | 23 | 544 | 219 | 219 |
| 2027 | 639 | 552 | 23 | 575 | 232 | 232 |
| 2028 | 676 | 584 | 24 | 608 | 245 | 245 |
| 2029 | 712 | 615 | 24 | 639 | 258 | 258 |
| 2030 | 805 | 696 | 24 | 720 | 290 | 290 |
| 2031 | 914 | 790 | 24 | 814 | 328 | 328 |
| 2032 | 1,030 | 890 | 24 | 914 | 368 | 368 |
| 2033 | 1,146 | 990 | 25 | 1,015 | 409 | 409 |
| 2034 | 1,279 | 1,105 | 25 | 1,130 | 455 | 455 |
| 2035 | 1,416 | 1,224 | 25 | 1,249 | 503 | 503 |
| 2036 | 1,559 | 1,347 | 25 | 1,372 | 553 | 553 |
| 2037 | 1,721 | 1,487 | 25 | 1,512 | 609 | 609 |
| 2038 | 1,879 | 1,624 | 26 | 1,650 | 665 | 665 |
| 2039 | 2,052 | 1,773 | 26 | 1,799 | 725 | 725 |
| 2040 | 2,242 | 1,938 | 26 | 1,964 | 791 | 791 |
| 2041 | 2,444 | 2,112 | 26 | 2,138 | 861 | 861 |
| 2042 | 2,667 | 2,305 | 26 | 2,331 | 939 | 939 |
| 2043 | 2,889 | 2,497 | 27 | 2,524 | 1,017 | 1,017 |
| 2044 | 3,131 | 2,706 | 27 | 2,733 | 1,101 | 1,101 |
| 2045 | 3,383 | 2,924 | 27 | 2,951 | 1,189 | 1,189 |
| Total '23-'45 | 34,848 | 30,116 | 571 | 30,687 | 12,363 | 12,363 |
| Total '14-'45 | 41,503 | | | | | 13,511 |

MDOT Operating & Capital Expenditures - Statewide

History, Program & Forecast

