JUL 13 2016

Baltimore, Maryland TMA Certification Review

Baltimore Regional Transportation Board

2016

Based on this review and ongoing oversight by the Federal Highway Administration and the Federal Transit Administration, the transportation planning process carried out by the Baltimore Region Transportation Board for the Transportation Management Area is certified as meeting the requirements as described in 23 Code of Federal Register Part 450, Subpart C and 49 Code of Federal Register Part 613. A number of commendations have been made throughout this report to acknowledge successful practices as well as some recommendations that support continued enhancement of the planning process in this region.

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List of Acronyms

ADA - Americans with Disabilities Act
BMC - Baltimore Metropolitan Council
BPAG - Bicycle and Pedestrian Advisory Group
BREAC - Baltimore Region Emergency Assistance Compact
BRTB - Baltimore Regional Transportation Board
CAAA - Clean Air Act Amendment
CAC – Citizen Advisory Committee
CFR - Code of Federal Register
CMAQ - Congestion Mitigation and Air Quality Improvement Program
CMP - Congestion Management Process
COG – Council of Government
CTP - Consolidated Transportation Program
EEO - Equal Employment Opportunity
FMTF - Freight Movement Task Force
FROG - Freight Regional Oversight Group
DBE - Disadvantage Business Enterprise
EPA - Environmental Protection Agency
FAST Act – Fixing America's Surface Transportation Act
FHWA - Federal Highway Administration
FTA - Federal Transit Administration
HPMS - Highway Performance Monitoring System
HSTP - Human Services Transportation Plan
HUD – Housing and Urban Development
IAAP - ITS Architecture Advisory Panel
ICG - Interagency Consultation Group
ITS - Intelligent Transportation System
JARC - Job Access and Reverse Commute
ISTEA - Intermodal Surface Transportation Efficiency Act
LEP - Limited English Proficiency
LOS – Level of Service
LRTP - Long Range Transportation Plan
MARC - Maryland Area Regional Commuter
MAROPS - Mid-Atlantic Rail Operations
MATOPS - Mid-Atlantic Truck Operations
MDE - Maryland Department of Environment
MDOT - Maryland Department of Transportation
M&O - Management & Operation
MOA - Memorandum of Agreement
MOU - Memorandum of Understanding
MOVES - Motor Vehicle Emission Simulator
MPO - Metropolitan Planning Organization
MPA - Metropolitan Planning Area
MTA - Maryland Transit Administration
MTP - Maryland Transportation Plan
NEPA - National Environmental Policy Act

NHS - National Highway System
NOx - Nitrogen Oxides
PAC – Public Advisory Committee
PSA - Public Service Announcement
PIP - Public Involvement Plan
PPP - Public Participation Plan
P2P – Port to Point
PM2.5 - Particulate matter less than 2.5 micrometers in diameter
SAFETEA LU - Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users
SHA - State Highway Administration
SHRP 2 – Strategic Highway Research Program 2
SHSP - Strategic Highway Safety Plan
SIP - State Implement Plan
STIP - Statewide Transportation Improvement Program
TEA 21 -Transportation Equity Act for the 21st Century
TIP - Transportation Improvement Program
TIMBR - Traffic Incident Management for the Baltimore Region
TMA - Transportation Management Area
T&PW - Transportation & Public Work
UPWP - Unified Planning Work Program
UAB - Urbanized Area Boundary
UC - Urban Cluster
UZA - Urbanized Area
U.S.C. - United States Code
U.S.DOT - United Department of Transportation
VOC - Volatile Organic Compounds
WILMAPCO - Wilmington Area Planning Council

PREFACE

A Transportation Management Area (TMA) is an urbanized area with a population of more than 200,000. Pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303 (k)(5), the FHWA and FTA must jointly certify metropolitan transportation planning in TMAs at least every four years. The Certification Review Process ensures that the planning requirements in TMAs are being satisfactorily implemented.

In general Certification Reviews consists of a site visit, review of planning products, and preparation of a report that summarizes the review and other findings. The formal assessment involved in a Certification Review Process provides a higher-level stewardship assessment of the TMA's transportation planning process than the day-to-day oversight. This helps ensure that major issues facing a metropolitan area are being addressed and can serve as a catalyst to improve the effectiveness and efficiency of the planning process. In addition, by identifying noteworthy practices that can be shared with other states, Metropolitan Planning Organizations (MPOs), and transit operators, the Certification Review Process can provide an opportunity for continued progress in expanding the art and science of transportation planning while implementing regulations.

The Certification Review Process is one of several methods used to evaluate the quality of a local metropolitan planning process, compliance with applicable statutes and regulations, and the level and type of technical assistance needed to enhance the effectiveness of the planning process. Other activities provide opportunities for review and comment by FHWA and FTA, including Unified Planning Work Program (UPWP) approval, Long Range Transportation Plan (LRTP) development, Metropolitan and Statewide Transportation Improvement Program (STIP) findings, Air Quality Conformity Determinations (in nonattainment and maintenance areas), as well as a range of other formal and less formal reviews.

While the Certification Review Report may not fully document those many intermediate and ongoing checkpoints, the results of these other processes are considered during the Certification Review Process, and the findings listed in this report are based on cumulative review efforts.

EXECUTIVE SUMMARY

Previous Finding

The previous Certification Review for the Baltimore Regional Transportation Board (BRTB) which is the MPO of the Baltimore Metropolitan Region was issued on October 3, 2012. The review found that the Baltimore Region Transportation Board's (BRTB) planning process for the Transportation Management Area (TMA) was consistent with the Federal planning requirements in 23 U.S.C. 134(i)(5) and 49 U.S.C. 1607. No corrective actions were issued to the BRTB as a

result of the 2012 Certification Review. However, the Federal Review Team recommended various actions to improve important aspects of the Baltimore transportation planning process. All 2012 Certification Review recommendations have been satisfied and no longer apply.

Part 1: 2016 Certification Review Findings

The following tables summarize the Federal Team Certification Review findings during the three-day site visit on April 25-27, 2016.

Commendation Summary

Review Area	Commendation
MPO Organization Structure *Section 2-1*	The Federal Team commends BRTB for its efforts in achieving transit representation on the Board and for ensuring that all transit operators are well represented in this process.
MPO Organization Structure *Section 2-1*	The Federal Team recognizes BRTB effort to complete projects funded with grants from Housing and Urban Development (HUD) Regional Sustainable Communities Grant, SHRP 2 C20 Freight Demand Modeling and Data Improvement, and SHRP2 C10 Advanced Travel Demand Model and Find-Grained and applying those planning efforts to further the planning process in the metropolitan region.
Metropolitan Plan Development/Regional Transportation Plan *Section 2-6*	The BRTB is recognized for significant progress in implementing performance measures in planning, particularly in regards to the system report. This level of analysis will set the BRTB up well for Performance Based Planning. Additionally, the MPO is commended for developing an elaborate process for project prioritization into the LRTP. The evaluation considers both roadway and transit projects equally, using the established BRTB Goals/Objectives and performance measures.
Environmental Mitigation *Section 2-15*	The MPO is commended for its development of interactive mapping intended to facilitate environmental coordination for *Maximize2040.*

Integrating Freight in the Transportation Planning Process *Section 2-20:*	BRTB is recognized for their coordination and participation in many commendable freight activities in the region, particularly the Port to Point subcommittee initiative to assess the impact of the new Sparrows Point terminal on truck movements.
Travel Forecasting Methods *Section 3-2:*	The Federal Team recognizes BRTB in partnering with MDOT in using two Strategic Highway Research Program 2 (SHRP2) capacity travel modeling awards in the continuing enhancement of regional and statewide simulation tools.

Recommendation Summary

Review Area	Recommendation
Unified Planning Work Program (UPWP) Section 2-4	MDOT should review the remaining balance of previous funding for the MPO and provide this information to the BRTB and all MD MPOs. The Federal Team requests that the MDOT prepare and submit to FTA a set of procedures to document how MDOT administers the Consolidated Grant Program (CPG) funds pursuant to the requirement in Circular C8100.1C and the Common Grant Rule. MDOT should establish a procedure, in consultation with BRTB for ensuring that there is a process in place for tracking previous Federal funding available to BRTB and the remaining Maryland MPOs.
Metropolitan Plan Development/Regional Transportation Plan *Section 2-6*	The Federal Team recommends BRTB to incorporate in its financial plan specific information that describes the sources of Federal, State, and local transportation program funds, including historic trends and future projection, available to the Region. Similar information is made available within the Maryland Consolidated Transportation Program (CTP) regarding funds from the Maryland Toll Authority, Surface Transportation Block Grant Program, Section 5307 program funds, National Highway System, and other Federal, State, and local funds made available for transportation system preservation, expansion and operations in the Baltimore Metropolitan Region.

Air Quality *Section 2-8*	The Federal Team recommends that the BRTB continue to improve its efforts in garnering more public support and participation in Air Quality initiatives. The BRTB should continue to make significant contributions to any future 8-hour ozone or PM2.5 SIPs which may be required under the new air quality standards which EPA has promulgated by providing technical support to Maryland Department of Environment (MDE) in developing motor vehicle emission budgets and emission reduction strategies which will contribute to the attainment of the air quality standard.
Public Outreach and Public Involvement *Section 2-10:*	While BRTB is commended for the use of surveys in evaluating the effectiveness of its Public Participation Plan, the plan does not report on the results and/or numbers gathered from surveys. We suggest BRTB should use the surveys to tell a broader story regarding its public and its process.
Laws and Regulations Pertaining to Title VI and Non-Discrimination *Section 2-12*	The Federal Team recommends BRTB make Title VI Complaint information easily available on the BRTB website.
Integrating Freight in the Transportation Planning Process *Section 2-20:*	While the Federal Review Team was pleased to see BRTB coordination and participation in many commendable freight activities in the region, we also observed that the Freight initiatives are not readily available on the website or other means. We suggest BRTB provide additional documentation on the activities that they are facilitating to advance freight movement in the region. We further recommend BRTB work cooperatively with the State to ensure the State Freight Plan and Freight Network is in accordance with FAST ACT.
Bicycle and Pedestrian Planning *Section 2-21*	The Federal Team recommends BRTB make available on its website additional information of efforts underway to improve pedestrian and bicycle planning in the metropolitan area.

CERTIFICATION STATEMENT

The FHWA and FTA have determined that the metropolitan planning process of the Baltimore Regional Transportation Planning Board of the Baltimore MD TMA, meets the requirements of the Metropolitan Planning Rule at 23 CFR Part 450 Subpart C and 49 CFR Part 613.

INTRODUCTION

The Intermodal Surface Transportation Efficiency Act (ISTEA) established a requirement in 23 U.S.C. 134 and 49 U.S.C. 1607 for the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to jointly certify the transportation planning processes in metropolitan areas with over 200,000 population (i.e., Transportation Management Areas (TMAs)) at least every three years. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 continued this requirement, but extended the timeframe to at least every four years. The Fixing America's Surface Transportation (FAST) Act of December 2015, re-enforces the joint certification transportation planning processes and retained the four year requirement.

The Certification is a joint FHWA/FTA responsibility as mentioned earlier. The review is to focus on compliance with Federal regulations, challenges, successes, and experiences of the cooperative relationship between the MPO, State Department of Transportation, and Transit Operator(s) in the conduct of the metropolitan planning process. Upon evaluation of the metropolitan planning process, the FHWA/FTA may jointly take one of the following actions:

- Certify the transportation planning process;
- Certify the transportation planning process subject to certain specified corrective actions to be taken;
- Certify the transportation planning process as the basis for approval of only those categories of programs or projects that the FHWA/FTA Administrators determine and subject to certain specified corrective actions being taken; or
- Withhold certification.

The Certification Review process is only one of several methods used to assess the quality of a local metropolitan planning process, compliance with applicable statutes and regulations, and a level and type of technical assistance needed to enhance the effectiveness of the planning process. Other activities provide opportunities for review and comment such as:

- The Unified Planning Work Program (UPWP) approval,
- The Long Range Transportation Plan (LRTP) review and comment,
- Metropolitan and Statewide Transportation Improvement Program (STIP) findings,
- Air quality conformity determinations, where applicable, and
- Formal and informal coordination with relevant agencies involved in the metropolitan planning process.

The FHWA Maryland Division Office and the FTA Region 3 Office conducted a joint Certification Review of the Baltimore MPO's metropolitan transportation planning process, with representatives of the MPO, Maryland Department of Transportation (MDOT), Maryland State Highway Administration (SHA), and the Maryland Transit Administration (MTA). The site-visit

portion of the Baltimore MPO Certification Review took place on April 26 - 27, 2016. The review also included a public involvement meeting on April 25, 2016, to provide the public an opportunity to offer comments on the MPO's metropolitan transportation planning process. A list of the participants in the Certification meetings is included as **Part 4**. The site visit agenda is shown in **Part 5**. A copy of the public notices is provided as **Part 6** and a summary of public comments and written testimony received are shown as **Part 7.**

The Federal Review Team consisted of the following individuals:

Federal Review Team
Kwame Arhin *FHWA Maryland Division*
Lindsay Donnellon *FHWA Maryland Division*
Francisco Edwin Gonzalez *FHWA Maryland Division*
Sandra Jackson *FHWA DC Division*
Breck Jeffers *FHWA Maryland Division*
Spencer Stevens *FHWA HQ)*
Kathleen Zubrzycki *FTA-Region 3*
Dwayne Weeks *FTA HQ*
Gregory Becoat *EPA-Region 3*

RESULTS OF CERTIFICATION REVIEW

Part 2: Federal Regulations

Section 2-1: MPO Organization Structure

Basic Requirement: Federal legislation (23 U.S.C. 134(d)) requires the designation of an MPO for each urbanized area with a population of more than 50,000 individuals. When an MPO representing all or part of a TMA is initially designated or redesignated according to 23 CFR 450.310(d), the policy board of the MPO shall consist of (a) local elected officials, (b) officials of public agencies that administer or operate major modes of transportation within the metropolitan area, and including representation by providers of public transportation, (c) appropriate State transportation officials. The voting membership of an MPO that was designated or redesignated prior, will remain valid until a new MPO is redesignated. Redesignation is required whenever the existing MPO seeks to substantially change the proportion of voting members representing individual jurisdictions or the State or the decision-making authority or procedures established under MPO bylaws. The addition of jurisdictional or political bodies into the MPO or of members to the policy board generally does not require a redesignation of the MPO.

Finding of Federal Review:

The Baltimore Regional Transportation Board (BRTB) is the Metropolitan Planning Organization (MPO) for the Baltimore Region. The BRTB is comprised of nine voting and four non-voting members. The nine voting members include representatives from the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford and Howard, Maryland Department of Transportation and Representative of Public Transportation. The four non-voting members consist of the Maryland Department of Environment, the Maryland Department of Planning, the Maryland Transit Administration (unless MTA is selected as the Representative of Public Transportation through which MTA would be considered a voting member), and President (or member of the Board of County Commissioners of Queen Anne's County.

On September 23, 2014, the BRTB Board approved Resolution #15-6 *Resolution to Endorse the Selection of Process for the Representative of Providers of Public Transportation on the Baltimore Transportation Board.* The resolution acknowledged the MAP-21 requirement which requires representation by providers of public transportation in each MPO that serves an area designated as a Transportation Management Area (TMA) by October 1, 2014. The representative will be a provider of public transportation that is elected or an appointed member of the provider's board of directors or senior officer of the provider, such as the chief executive officer or general manager. The transit representative will consider the needs

of all eligible providers of public transportation in the metropolitan planning area and to address those issues that are relevant to the responsibilities of the BRTB. The BRTB has also determined that the designated representative will have equal decision-making rights and authorities as other voting members. Additionally the BRTB Board has determined that the designated representative of public transportation will be elected based upon a majority vote of the eligible recipients (of operators of fixed route transit services as defined in the June 2, 2013 FHWA/FTA Policy Guidance on Public Transportation Representation on MPOs) and will serve for a two (fiscal) year term at which point a new election will be held.

Additionally, alternative representatives have been designated and empowered by their elected officials or Secretary in the absence of official members of the BRTB. The Board meets every month.

Staff to the BRTB is provided by the Baltimore Metropolitan Council (BMC). The BMC staff develops the transportation plans and programs for the BRTB. The staff includes transportation planners, traffic modelers, demographers, urban designers and other planning professionals.

The primary committees associated with the BRTB transportation planning process include: Executive Committee; Technical Committee (TC); Public Advisory Committee (PAC); Cooperative Forecasting Group (CFG); and Traffic Incident Management for the Baltimore Region (TIMBR).

The BRTB also has a number of subcommittees and taskforce involved in the transportation planning process. These include the Traffic Signal Committee, Bicycle and Pedestrian Advisory Group, Budget Subcommittee, Freight Movement Task Force, Interagency Consultation Group, Transportation and Public Works Subcommittees, and Safety Subcommittee. The BRTB staff stated during the Certification Review that the ancillary committee members have been providing expert advice on many transportation issues enabling the BRTB to utilize their resources more efficiently and produce better planning products. The Federal Team recognizes the BRTB effort to compete for grant funding i.e. Housing and Urban Development (HUD) Regional Sustainable Communities Grant, SHRP 2 C20 Freight Demand Modeling and Data Improvement, and SHRP2 C10 Advanced Travel Demand Model and Find-Grained. The BRTB meets the Federal requirements for MPO organizational structure.

Commendation:
The Federal Team commends the BRTB for its efforts in achieving transit representation on the Board and for ensuring that all transit operators are well represented in this process.

The Federal Team recognizes BRTB effort to complete projects funded with grants from

Housing and Urban Development (HUD) Regional Sustainable Communities Grant, SHRP 2 C20 Freight Demand Modeling and Data Improvement, and SHRP2 C10 Advanced Travel Demand Model and Find-Grained and applying those planning efforts to further the planning process in the metropolitan region.

Section 2-2: Metropolitan Planning Area Boundaries

Basic Requirement: In accordance with 23 CFR 450.312 the boundaries of a metropolitan planning area (MPA) shall be determined by agreement between the BRTB and the Governor. At a minimum, the MPA boundaries shall encompass the entire existing urbanized area (as defined by the Bureau of the Census) plus the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan. The MPA boundaries may be further expanded to encompass the entire metropolitan statistical area or combined statistical area, as defined by the Office of Management and Budget. Adjustments to the urbanized area (UZA) as a result of the transportation planning process are typically referred to by FHWA and FTA as the urbanized area boundary. In accordance with 23 U.S.C. 134 (e), the boundary should foster an effective planning process that ensures connectivity between modes and promotes overall efficiency. The boundary should include Environmental Protection Agency (EPA)-defined nonattainment and/or maintenance areas, if applicable, in accordance with the National Ambient Air Quality Standard (NAAQS) for ozone or carbon monoxide.

Finding of Federal Review:

On May 2013 the Baltimore Region Transportation Board (BRTB) adopted an updated urbanized area boundary for the Baltimore region based on 2010 Census. The BRTB planning area includes seven jurisdictions: the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and a portion of Queen Anne's. The BRTB boundaries also include the following three urbanized areas: the Aberdeen-Bel Air South-Bel Air North Urbanized Area, the Baltimore Urbanized Area, and the Westminster-Eldersburg Urbanized Area.

The BRTB is compliant for Metropolitan Planning Area Boundaries

Section 2-3: Agreements and Contracts

Basic Requirement: In accordance with 23 U.S.C. 134 and 23 CFR 450.314, MPOs are required to establish relationships with the State and public transportation agencies under the cover of specified agreements between the parties to carry out a continuing, cooperative and comprehensive (3 C's) metropolitan planning process. The agreements must identify the mutual roles and responsibilities and procedures governing their

cooperative efforts. These agreements must identify the designated agency for air quality planning under the Clean Air Act and address the responsibilities and situations arising from there being more than one MPO in a metropolitan area.

Finding of Federal Review:
The current BRTB agreements meet the regulatory requirements.

Table I lists BRTB agreements and the date of execution.

Table I

BRTB Agreements

Planning Responsibility	**Memoranda of Understanding/Agreements**	**Date Executed**	**Status**	**Changes Planned**
UPWP Development	Formal MOU between MDOT and BMC establishing the BRTB as Baltimore MPO and develop an annual UPWP consistent with the 3-C planning process.	7/1/2004	In Effect	No
UPWP Development	Formal MOA between MDOT and BMC outlining managerial oversight of the UPWP.	7/1/2004	In Effect	No
Transportation Conformity and State Implementation Plan Development	Formal procedures of Interagency Consultation Process between the MPO, MDOT, MDE, EPA, USDOT, and operating agencies	1996	In Effect	No
Public Transit Operators and MPO Process	Formal MOA between MPO, MDOT and MTA defining roles and responsibilities of public transit operators and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No

Financial Plan for Long-range Transportation Plan and Transportation Improvement Program	Formal MOA between MPO, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No
Corridor Planning Studies	Formal MOA between MPO, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No
MPO Certification	Formal MOA between MPO, MDOT and MTA defining roles and responsibilities of public transit operator and State Department of Transportation in the Baltimore regional planning process.	2/26/2008	In Effect	No

The BRTB is compliant for Agreements and Contracts.

Section 2-4: Unified Planning Work Program (UPWP)

Basic Requirement: The MPOs are required to develop Unified Planning Work Programs (UPWPs) in TMAs to govern work programs for the expenditure of FHWA and FTA planning and research funds (23 CFR 450.308). The UPWP must be developed in cooperation with the State and public transportation agencies and include the required elements.

Finding of Federal Review:

The UPWP is the transportation planning work program that is developed bi-annually by the MPO. The BRTB begins developing the program in November with input received from members and BRTB subcommittees. Tasks recommended for UPWP funding are discussed with the PAC prior to BRTB adoption of the UPWP and the BRTB solicits comments from

FHWA and FTA before adoption in early spring. The projects are then initiated starting on July 1st of every year, the start of the State Fiscal Year. After researching other MPOs, the BRTB moved to a two year UPWP starting in State Fiscal Year 2016. BRTB found that the core tasks required by the metropolitan planning regulations continue consistently from year to year and an annual update is not needed. For Fiscal Year 2017, an amendment to the FY 2016-2017 UPWP was proposed to the BRTB that included three additional tasks.

The UPWP includes a description of planning tasks and an estimated budget for each task to be undertaken by the agencies participating in the MPO's metropolitan planning process. The UPWP also serves as the project budget for planning tasks funded by the FHWA and FTA. In addition, the UPWP supports the BRTB's priorities. The development of the UPWP is a joint responsibility of the MPO and MDOT. Other local agencies responsible for carrying out transportation and related planning activities also assist in the development and approval of the UPWP through their participation in BRTB subcommittees.

FTA and FHWA found that there was a lack of certainty in regards to remaining funds available to BRTB from previous Federal Fiscal Years. While, the MPO does provide a spreadsheet with this information to MDOT, FTA and FHWA have noted that there does not appear to be an acknowledgement of those funds.

Recommendation:
MDOT should review the remaining balance of previous funding for the MPO and provide this information to the BRTB and all MD MPOs. The Federal Team requests that the MDOT prepare and submit to FTA a set of procedures to document how MDOT administers the Consolidated Grant Program (CPG) funds pursuant to the requirement in Circular C8100.1C and the Common Grant Rule. MDOT should establish a procedure, in consultation with BRTB for ensuring that there is a process in place for tracking previous Federal funding available to BRTB and the remaining Maryland MPOs.

Section 2-5: Transportation Planning Process

Basic Requirement: The scope of the transportation planning process according to 23 CFR 450.306 and 450.318 defines the relationship of corridor and other subarea planning studies to the metropolitan planning process and National Environmental Policy Act requirements. The transportation planning process must also ensure participation by Federal lands management agencies and tribal governments in the development of products and programs in the planning process as per 23 CFR 450.316 (c) (d) and (e).

Key provisions of 23 CFR 450.306 are related to required planning factors, coordination, and consistency with related planning processes, asset management, and possible

differences in requirements for TMAs and non-TMAs.

Finding of Federal Review:

The eight planning factors identified in Federal legislation, MAP 21 are identified throughout the planning process and products of the BRTB. The BRTB continues to work to strengthen linkages between work elements of the TIP and UPWP to the planning factors. The Constrained *Maximize2040* LRTP project submission form requires the submitting agency to identify the planning factors supported by the project. FAST Act added the following two more planning factors: (1) improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation; and (2) enhance travel and tourism. The Federal team reminded BRTB to incorporate these additional planning factors in their planning process.

The BRTB is compliant for Transportation Planning Process.

Section 2-6: Metropolitan Plan Development/Regional Transportation Plan

Basic Requirement: In accordance with 23 CFR450.322 (a) "The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon…the transportation plan shall include both long-range and short-range strategies/actions that lead to the development of a multi-modal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand."

Finding of Federal Review:

On November 24, 2014, the Baltimore Regional Transportation Board adopted the *Maximize2040* Long Range Transportation Plan (LRTP). FHWA and FTA issued their air quality conformity determination and planning finding on January 15, 2016. *Maximize2040* has 26 horizon years. It also includes nine regional goals, several measures and targets to evaluate the overall performance of the region's transportation system. The eight metropolitan transportation planning factors discussed earlier are also incorporated in the LRTP. For the first time the BRTB established performance targets to track progress towards achievement of goals and measures in the LRTP. The BRTB is recognized for significant progress in implementing performance measures in planning, particularly in regards to the system report. This level of analysis will set the BRTB up well for Performance Based Planning.

The BRTB in consultation with the Maryland Department of Transportation estimated the cost and revenue from federal, state, local, and private sources the region reasonably anticipated to be available for the 20-year period. The LRTP is fiscally constraint and the

Table below summarizes the total estimated Year of Expenditure (YOE) investment for the LRTP from 2020-2040 in billions:

System Operation	$ 29.954	55%
System Preservation	$12.102	22%
Major Expansions Projects	$12.484	23%
Total Estimated Costs	$54.540	100%

Of the $12.484 billion projected for system expansion, approximately $4.2 billion (34%) is allocated to major transit projects and approximately $7.6 billion (61%) to roadway projects. The LRTP also set-aside $620 million for Transportation Emissions Reduction Strategies (TERMs), Complete Streets and bike-pedestrian programs and projects, "Ladders of Opportunity" investments linked to job access recommendations in the Regional Plan for Sustainable Development, and Transportation System Management and Operation programs

Throughout the planning process in the development of *Maximize2040*, the BRTB provided members of the public with opportunities to: provide comments on draft goals and measures; submit project ideas; review draft plans; attend public meetings; and give the BRTB feedback.

Commendation:
The BRTB is recognized for significant progress in implementing performance measures in planning, particularly in regards to the system report. This level of analysis will set the BRTB up well for Performance Based Planning.

Additionally, the MPO is commended for developing an elaborate process for project prioritization into the LRTP. The evaluation considers both roadway and transit projects equally, using the established BRTB Goals/Objectives and performance measures.

Section 2-7: Financial Planning

Basic Requirement: The metropolitan planning statutes state that the long-range transportation plan and TIP (23 U.S.C. 134 (j) (2) (B)) must include a "financial plan" that "indicates resources from public and private sources that are reasonably expected to be available to carry out the program." Additionally, the Statewide Transportation Improvement Program (STIP) may include a similar financial plan (23 U.S.C. 135 (g)(5)(F)). The purpose of the financial plan is to demonstrate fiscal constraint. These requirements are implemented in transportation planning regulations for the metropolitan long-range transportation plan, TIP, and STIP. These regulations provide, in essence, that a long-range transportation plan and TIP can include only projects for which funding "can

reasonably be expected to be available" [23 CFR 450.322(f)(10)(metropolitan long-range transportation plan), 23 CFR 450.324(h) (TIP), and 23 CFR 450.216(m)(STIP)]. In addition, the regulations provide that projects in air quality nonattainment and maintenance areas can be included in the first two years of the TIP and STIP only if funds are "available or committed" [23 CFR 450.324(h) and 23 CFR 450.216(m)]. Finally, the Clean Air Act's transportation conformity regulations specify that a conformity determination can only be made on a fiscally constrained long-range transportation plan and TIP [40 CFR 93.108].

Finding of Federal Review:

The Maryland Department of Transportation (MDOT) has taken the lead in developing a financially constrained program in coordination with the MPOs in Maryland. MDOT has analyzed the history of Statewide Operating and Capital Expenditures and projections from 1981 -2040. This methodology and assumptions are based on past history of funding from all sources including Federal and State. Fiscal Year 2019-FY 2040 projections of state funds use a historical annual average growth rate of 3.89%. A regression model was used to determine the appropriate starting point in FY 2019. Federal fund projections for the same period are based on an average growth rate of 2.75% for Highway and 4.7% for Transit program funds, but assume an Obligation Authority of 90%. It is also assumes that 41.6% of the Statewide transportation funds will be spent in Baltimore Metropolitan areas.

The current 2016-2019 TIP was adopted by BRTB on November 24, 2015 along with *Maximize2040* Long Range Transportation Plan and associated Conformity Determination and was subsequently approved by FHWA and FTA on January 20, 2016. The TIP meets all the Federal requirements. The estimated total cost of the projects in the TIP is approximately $3.33 billion. Of that amount, $2.26 billion is provided by federal funding authorities, while the local and state matching funds are $1.07 billion. Further break down of total projects in the TIP includes: 74 preservation; 29 highway capacity, 10 Emission reduction; 9 transit; 6 commuter rail; 5 Environmental/safety, 3 enhancement; 3 miscellaneous, and 1 ports project.

Although the LRTP and TIP identifies federal, state and local revenues available for operations and maintenance (O&M) projects, the Federal Team recommends the BRTB to incorporate some of the financial information in the Maryland CTP report to describe in more detail sources of both Federal and State funding.

Recommendation:
The Federal Team recommends BRTB to incorporate in its financial plan specific information that describes the sources of Federal, State, and local transportation program

funds, including historic trends and future projections, available to the Region. This should describe and report on the level of funding from sources with as the Maryland Toll Authority, Surface Transportation Program, Section 5307 program funds, National Highway System, and other Federal, State, and local funds made available for transportation system preservation, expansion, and operations in the Baltimore Metropolitan Region.

Section 2-8: Air Quality

Basic Requirement: Section 176(c)(1) of the 1990 Clean Air Act Amendment (CAAA) states: "No metropolitan planning organization designated under section 134 of title 23, United States Code, shall give its approval to any project, program or plan which does not conform to an implementation plan approved or promulgated under section 110." The Intermodal Surface Transportation Efficiency Act of 1991 subsequently included provisions responsive to the mandates of the CAAA. Implementing regulations have maintained the strong connection.

Provisions governing air quality-related transportation planning are incorporated in a number of metropolitan planning regulations, rather than be the primary focus of one or several regulations. For MPOs that are declared to be air quality nonattainment or maintenance areas, there are many special requirements in addition to the basic requirements for a metropolitan planning process. These include formal agreements to address air quality planning requirements, requirements for setting metropolitan planning area boundaries , interagency coordination, Transportation Plan content and updates, requirements for Congestion Management Studies, public meeting requirements, and conformity findings on the Transportation Plan and Transportation Improvement Program (TIP).

Finding of Federal Review:

EPA designated the Baltimore Region as a moderate nonattainment area for the 2008 8-hour ozone NAAQS and as a maintenance area for the 1997 annual $PM_{2.5}$ NAAQS. Currently, the Baltimore Region is attaining the CO NAAQS and no longer has to perform a conformity determination for this standard. The Baltimore Region encompasses Anne Arundel, Baltimore, Carroll, Harford, Howard counties as well as Baltimore and Annapolis Cities. The BRTB is the lead organization responsible for providing documentation for a determination that the TIP and LRTP conforms to the region's air quality State Implementation Plan (SIP). These determinations are based upon the technical analyses conducted by the BRTB staff, in conjunction with the MDOT and the MDE. In addition the BRTB shares relevant transportation planning data with the Transportation Planning Board, which is the MPO for the Washington D.C. metropolitan planning area and works with WILMAPCO the New Castle/Cecil County MPO to the north on regional planning issues.

Clean air planning has been identified as a regional work task priority in order to assure timely attainment of the air quality standards and to protect human health. The BRTB has continued to improve their transportation modeling capabilities on a continuous basis now with using MOVES2014. An Interagency Consultation Group (ICG) was established in 1996 to provide coordination in meeting regional air quality conformity through a MOU between the BRTB, and the MDOT and MDE. The BRTB interagency consultation agreements for conformity are in place and the BRTB continues to meet above the standards with the interagency consultation process.

Recommendation:

The Federal Team recommends that the BRTB continue to improve its efforts in garnering more public support and participation in Air Quality initiatives. The BRTB should continue to make significant contributions to any future 8-hour ozone or PM2.5 SIPs which may be required under the new air quality standards which EPA has promulgated by providing technical support to Maryland Department of Environment (MDE) in developing motor vehicle emission budgets and emission reduction strategies which will contribute to the attainment of the air quality standard.

Section 2-9: Transportation Improvement Program (TIP) Development & Project Selection

Basic Requirement: 23 CFR 450.324 requires the MPO to develop a TIP in cooperation with the State and public transit operators. Specific requirements and conditions, as specified in the regulations, include, but are not limited to:

- An updated TIP covering a period of at least four years that is compatible with the STIP development and approval process; [23 CFR 450.324 (a)]
- The TIP should identify all eligible Transportation Control Measure's (TCM) included in the SIP and give priority to eligible TCM's and projects included for the first two years which have funds available and committed; [23 CFR 450.324 (i)]
- The TIP should include capital and non-capital surface transportation projects, bicycle and pedestrian facilities and other transportation enhancements; Federal Lands Highway projects and safety projects included in the State's Strategic Highway Safety Plan. The TIP and STIP must include all regionally significant projects for which an FHWA or the FTA approval is required whether or not the projects are to be funded with Title 23 or Title 49 funds. In addition, all Federal and non-Federally funded, regionally significant projects must be included in the TIP and STIP and consistent with the MTP for information purposes and air quality analysis in nonattainment and maintenance areas; [23 CFR 450.324 (c),(d)]
- Procedures or agreements that distribute suballocated Surface Transportation Program funds or funds under 49 USC 5307 to individual jurisdictions or modes

within the TMA by pre-determined percentages or formulas are inconsistent with the legislative provisions that require the MPO, in cooperation with the State and the public transportation operator, to develop a prioritized and financially constrained TIP and shall not be used unless they can clearly be shown to be based on considerations required to be addressed as part of the metropolitan transportation planning process [23 CFR 450.324 (j)]

Finding of Federal Review:

The BRTB develops the TIP on annual basis with strong cooperation between all the transportation planning partners. The annual TIP production begins with an announcement and distribution of instructions to project sponsor at a Technical Committee meeting. The instructions include descriptions on how project sponsors can successfully submit federally funded and non-federally funded regionally significant projects for consideration through online TIP database interface. Staff works with project sponsor TIP coordinators to update information; correct errors; and provide additional details often sought by the BRTB Committee, Technical Committee, and Public Advisory Policy Subcommittee. Subsequently, the Interagency Committee Group (ICG) reviews preliminary air conformity categories and determines whether projects submitted are exempt or non-exempt from additional air quality analysis.

There are two major key factors for which projects are considered for the TIP. First, any capacity project must successfully go through the LRTP process, including the technical and policy prioritization process. Furthermore, it must be included in a financial constraint list, and be subject to public review. The second factor relates to all state matched projects must be included in the Maryland CTP, which is approved by the Maryland General Assembly and the Governor.

The Maryland Department of Transportation has worked with the MPO's to develop a process that is consistent for project sponsors to prioritize projects. The new state requirement is based on Chapter 725 of the 2010 Laws of Maryland to define how the state evaluates and selects proposed major capital projects. As part of the annual process for the CTP, local jurisdictions submit a letter to the state with a list of their combined highway and transit priorities that now include detail for how each project supports the five goals of the Maryland Transportation Plan (MTP) and are consistent with the County's land use plan goals. The state considers financial reasonableness and equitable representation across the State in working with jurisdictions to move capacity projects forward for inclusion in the development of the TIP and regional long-range plan. These capacity projects, based on year of operation, then move forward into the TIP. Non-capacity projects are based on available revenue and for the most part are directed at system preservation. In addition, all projects

are reviewed for impact on management, operations, bicycle and pedestrian objectives.

The Baltimore Regional Transportation Board voted to approve the current Amended 2016-2019 TIP on November 24, 2015 along with the *Maximize2040* LRTP and the associated Conformity Determination. Subsequently on January 20, 2016 the Federal Highway Administration and the Federal Transit Administration approved the Air Quality Conformity Determination of the Amended 2016-2019 TIP and *Maximize2040*.

The estimated total cost of the projects in the FY 2016-2019 TIP is approximately $3.33 billion. Of that amount, $2.26 billion will be provided by Federal funding authorities, while the local and state matching funds are $1.07 billion.

The BRTB is compliant for Transportation Improvement Program (TIP) Development & Project Selection.

Section 2-10: Public Outreach and Public Involvement

Basic Requirement: The MPO is required, under 23 CFR 450.316, to engage in a metropolitan planning process that creates opportunities for public involvement, participation and consultation throughout the development of the MTP and the TIP and is also included in 23 CFR 450.322 (f) (7) and (g) (1) (2), (i) and 23 CFR 450.324 (b).

Finding of Federal Review:

Since the last TMA Certification Review, the BRTB has expanded its use of a variety of media to raise awareness of and increase direct public involvement in the planning process. Some of its newest approaches to public outreach include: Council of Government (COG) Quarterly launched in 2016 and a BMC channel on YouTube launched in 2015. Continued outreach activities include: constant contact emails, press releases, social media as a tool for soliciting public comments, website updates, e-newsletters, and staff attendance at local events. The BRTB has a Public Participation Plan (PPP), updated in September 2014, developed in accordance with MAP-21. Development of *Maximize2040* followed the principles identified in that PPP.

Note that the BRTB engaged its Public Advisory Group (PAC) and the public to an unprecedented degree during the development of the *Maximize2040*. This included soliciting recommendations from these groups and the public on proposed goals, strategies, and performance measures. Many of the recommendations from the advisory groups and the public were incorporated, as indicated by italicized text in Appendix D of *Maximize2040*. The BRTB shared that its PAC was the most involved and active committee contributing to *Maximize2040*. Further the mandated name change of the PAC from its former Citizen

Advisory Committee (CAC) title had a direct impact on the community—an additional member that did not realize they could be involved on the CAC as an immigrant.

Over the past four years, the BRTB has undertaken a variety of creative applications of online technology and social media to engage the public, most notably through a map-based activity affiliated with *Plan It 2035* and *Maximize2040* that solicited online users for project suggestions.

The BRTB has well documented policies for offering comment opportunities and responding to written comments. It also offers opportunities for attendees to speak publicly at meetings. The Federal Team commends the BRTB for taking its message into the community at festivals and events, for utilizing library spaces, and for establishing a Public Involvement Task Force within the PAC.

During the 2016 Baltimore TMA Certification Review Public Meeting, the biggest concern voiced by the public surrounded the cancellation of the Red Line project. The public was not explicit in whether there was support for the decision but that the process was not transparent. Some voiced concern that the metropolitan transportation planning process was subverted. Other comments shared during the meeting included inquiry how to better intercept state level discussions to ascertain that metropolitan planning processes are relevant; statements on the difficulty of regional planning when there are urban-suburban-exurban issues and interests; and statements of overall support for the work being done by the BRTB and the Public Involvement Coordinator.

We recognize BRTB for the use of surveys to better understand the public, input, perspectives, and gather information on the effectiveness of BRTB's public involvement approach. The BRTB gathered 60 surveys regarding the 2016 TMA Certification Review Public Meeting.

Recommendation:
While the BRTB is commended for the use of surveys in evaluating the effectiveness of its Public Participation Plan, the plan does not report on the results and/or numbers gathered from surveys. We suggest the BRTB use the surveys to tell a broader story regarding its public and its process.

Section 2-11: Self-Certifications

Basic Requirement: Self-Certification of the metropolitan planning process, at least once every four years, is required under 23 CFR 450.334. The State and the MPO shall certify to FHWA and FTA that the planning process is addressing the major issues facing the area

and is conducted in accordance with all applicable requirements of 23 CFR 450.300 and:

- 23 U.S.C. 134 and 49 U.S.C. 5303 and Sections 174 and 176(c) and (d) of the Clean Air
  Act (if applicable)
- Title VI of the Civil Rights Act of 1964 and the Title VI assurance executed by each State
- 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity
- Section 1101(b) of SAFETEA-LU and 49 CFR Part 26, regarding involvement of DBE in U.S. DOT-funded planning projects
- 23 CFR Part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts
- ADA and U.S. DOT regulations governing transportation for people with disabilities [49 CFR Parts 27, 37, and 38]
- Older Americans Act as amended, prohibiting discrimination on the basis of age Section 324 of Title 23 U.S.C., regarding the prohibition of discrimination based on gender
- Section 504 of the Rehabilitation Act of 1973 and 49 CFR Part 27, regarding discrimination against individuals with disabilities
- All other applicable provisions of Federal law (e.g., while no longer specifically noted in a Self-Certification, prohibition of use of Federal funds for "lobbying" still applies and should be covered in all grant agreement documents (see 23 CFR 630.112).

A Certification Review by FTA and FHWA of the planning process in TMAs is required at least once every four years, in addition to the required self-certification by the MPO and State.

Finding of Federal Review:

The annual Self-Certification of the BRTB transportation planning process is conducted concurrently with the approval of the Transportation Improvement Program (TIP) for the Baltimore region. The last Self-Certification, approved in July 28 2015, coincided with the approval of the FY 2016-2019 TIP. The Federal Team recognizes the BRTB for preparing a comprehensive Self-Certification report that comply all applicable requirements. The public is afforded the opportunity to comment on the "Statement of Certification" as part of the public review and participation opportunity provided for the TIP.

The BRTB is compliant for Annual Self-Certification Requirements.

Section 2-12: Laws and Regulations Pertaining to Title VI and Non-Discrimination – General

Basic Requirement: It has been the long-standing policy of U.S. DOT to actively ensure non-discrimination under Title VI of the Civil Rights Act of 1964. Title VI states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance" Title VI bars intentional discrimination (i.e., disparate treatment) as well as disparate-impact discrimination stemming from neutral policy or practice that has the effect of a disparate impact on protected groups based on race, color, or national origin. The planning regulations [23 CFR 450.334(a)(3)] require the MPO to self-certify that "the planning process . . . is being carried out in accordance with all applicable requirements of . . . Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21."

Finding of Federal Review:

BRTB has designated a Title VI Coordinator, developed an effective mechanism to collect demographic and economic data on vulnerable populations including LEP populations. Furthermore, BRTB has effectively integrated Title VI requirements in their public participation and planning plans.

BRTB should continue to work in coordination with MDOT in the implementation of its Title VI requirements in the planning and public participation processes for their region. 49 CFR Part 21.7, 23 CFR § 450.334, FTA Circular 4702.1B

The BRTB adopted the Maryland Department of Transportation DBE Program for its first DBE goal for FY 2014; and adopted its most recent DBE goal for FY 2016-2017. The BRTB approves its DBE goal in conjunction with the adoption of the Unified Planning Work Program. BMC tracks the participation rate and provides reports to the BRTB and MDOT. The Federal Team acknowledges the BRTB for their effort to include DBE goals in all their contracts with subcontracting opportunities.

The Federal Review Team notes BRTB's efforts in complying with the following:

1. The BRTB adopted its most recent DBE goal – 29% DBE participation – for FY 2016-2017. Note that the BRTB DBE goal needs to be an adoption of the MDOT DBE Goal without variation and therefore, should not exceed a 27% goal. This does not prohibit the BRTB DBE participation from exceeding its goal.
2. BRTB submits its DBE Uniform reports to MDOT.
3. BRTB developed and signed a DBE policy Statement that affirms the BRTB commitment to its DBE program. BRTB made it available to the general public

here: http://www.baltometro.org/public/DBE-Policy.pdf. 49 CFR Part 26.23

4. The DBE Policy Statement Contract Assurance ascertains that BRTB includes in each RFP and contract agreement the following DBE provision:
   The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate. 49 CFR Part 26.13 (b)

Recommendation:

The Federal Team recommends BRTB make Title VI Complaint information easily available to the public on the BRTB website.

Section 2-13: Congestion Management Process

Basic Requirement: The State(s) and the MPO must develop a systematic approach for managing congestion through a process that "provides for safe and effective integrated management and operation of the multimodal transportation system. The Congestion Management Process (CMP) applies to TMAs based on a cooperatively developed and implemented metropolitan-wide strategy of new and existing transportation facilities eligible for funding under 23 U.S.C. and title 49 U.S.C. Chapter 53 through the use of travel demand reduction and operational management strategies." (23 CFR 450.320 (a))

Finding of Federal Review:

The BRTP updated the CMP in May of 2015. The goals and objectives from the *Maximize2040* LRTP feed directly into the CMP. The CMP network covers all the seven areas under BRTB jurisdiction as mentioned earlier. Furthermore, the CMP system components include: highway system (interstates, arterials) transit system (LRT, MTA bus, MARC, local transit service providers), and freight routes / intermodal connections (intermodal terminals, airports,

The CMP as described is made up of potential congestion reduction and mobility strategies, which consist of a number of tools, strategies, and performance monitoring measures to monitor congestion on an ongoing basis. The CMP is an integral part of much of the work that BMC does on a daily basis. System monitoring is an annual process that includes travel time runs on major corridors, traffic counts, and vehicle probe surveys of congestion. In addition, BMC collects vehicle classification and occupancy counts at activity centers each year.

Performance measures are a critical component of the CMP. The BRTB has developed performance measures to access the extent and duration of congestion on both highways and transit facilities. Examples of these performance measures include: vehicle volumes (direction, time of day, peak hour, average daily traffic); volume/capacity ratios, duration of congestions; ratios of bus to auto speed (for bus systems) average peak period vehicle load factors (passenger per vehicle) etc.

As part of data collection effort, BRTB has been in partnership with the I-95 Corridor Coalition and University of Maryland Center for Advanced Transportation Technology Lab (CATT Lab) since 2013. This setup enables the agency to have access to continuous (24/7) probe data to monitor traffic conditions throughout the region. Access to the data is through the Vehicle Probe Project Suite, an online set of tools that can be accessed through a web browser. This eliminates the need for the many hours of processing of raw data that BMC's previous approach (collecting GPS speed data) required. The Vehicle Probe Project (VPP) began in 2008 with the primary goal of enabling Coalition members to acquire reliable travel time and speed data for their roadways without the need for sensors and other hardware. Using VPP data, beginning in 2013 BMC developed the "Quarterly Congestion Analysis Report" identifying the Top 10 Bottlenecks in the Baltimore Region.

Current CMP activities involve measuring and monitoring data over several of these modes of transportation and future efforts will be expanded to include broader coverage and determining performance measures for the entire transportation system. The Federal Team notes BRTB efforts for working closely with the MDOT modal administrations in the development and monitoring of the system. Traffic counts, travel speeds and other performance measures are routinely shared with transportation partners. The Baltimore region strives to integrate management and operations strategies in an effort to continue to improve system performance and reliability. One way this is done is through CHART, the Coordinated Highways Action Response Team. This is an area-wide congestion management program operated by MDOT and the Maryland State Police. It focuses on addressing nonrecurring congestion, such as crashes. Through the Statewide Operations Center and satellite operations centers in the region, roadways are surveyed to quickly identify incidents. During peak traffic periods, traffic patrols are available on state highways to address vehicle crashes and breakdowns. With the combination of quick incident detection and the prompt availability of traffic patrols to respond to the incidents, crashes can be cleared more quickly.

The BRTB's documented CMP meets the requirements of 23 CFR 450.32 and includes all eight elements, as specified in the USDOT Final CMP Guidebook. The Review Team recognizes BRTB's for including a task in the FY 2017 Unified Planning Work Program

(UPWP) to monitor effectiveness of strategies of the Congestion Management Process. The BRTB is encouraged to continue the work to provide additional information on monitoring the effectiveness of the current and potential new CMP strategies.

Finding of Federal Review:

The BRTB is compliant for Congestion Management Process.

Section 2-14: List of Obligated Projects

Basic Requirement: The MPO, transportation operators and the State must cooperatively develop a listing of projects for which Federal funds have been obligated in the previous year in accordance with 23 CFR 450.332 The listing must include all Federally funded projects authorized or revised to increase obligations in the preceding program year and at a minimum, the following for each project:

- The amount of funds requested in the TIP
- Federal funding obligated during the preceding year
- Federal funding remaining and available for subsequent years
- Sufficient description to identify the project or phase
- Identification of the agencies responsible for carrying out the project or phase

Finding of Federal Review:

The BRTB annually prepares "Federal Funding Obligation Report" within 90 days after the end of the program year. Information for the report is obtained from the planning partners including Maryland State Highway Administration (SHA) and the Maryland Transit Administration (MTA). The public can view the current and past annual listings of obligate projects on the BRTB website.

The BRTB is compliant for List of Obligated Projects.

Section 2-15: Environmental Mitigation

Basic Requirement: The specific requirements for environmental mitigation are set forth in connection with the MTP in 23 CFR 450.322 (f) (7). However, the basis for addressing environmental mitigation is detailed in sections addressing consultation: 23 CFR 450.316 (a) (1) (2) (3) and (b) – Interested parties, participation, consultation; 23 CFR 450.322 (g) (1) (2), (i), and (j) – Development and content of the metropolitan transportation plan.

Finding of Federal Review:

The BRTB participates in state-coordinated discussions with project sponsors, state agencies and other consultation agencies to understand the potential environmental impacts of projects. The MPO developed an interactive mapping tool publicly available on its website to facilitate environmental coordination for *Maximize2040*. The map has layers outlining all the possible resources impacted by projects in the LRTP and examples of mitigation measures.

Commendation:
The MPO is commended for its development of interactive mapping intended to facilitate environmental coordination for *Maximize2040*.

Section 2-16: Consultation & Coordination

Basic Requirement: The requirements for consultation in developing the MTP and TIP are set forth primarily in 23 CFR 450.316(b-e) Consultation also is addressed specifically in connection with the MTP in 23 CFR 450.322(g)(1)(2) and (f)(7) related to environmental mitigation (see also *Transportation Planning Process* topic area). The MPO should engage in a consultation that includes (1) comparison of the MTP with State conservation plans or maps, if available, or (2) comparison of the MTP with inventories of natural or historic resources, if available.

Finding of Federal Review:

The BRTB's transportation planning process encompasses multi-modal planning that is occurring at the local level. Local governments that impact transportation planning are part of the BRTB process and these agencies belong to the BRTB committees, which engage in a number of activities that contribute to the regional planning process. The Plan and the TIP are developed with appropriate consultation and coordination with the variety of groups identified in Federal regulations including state, local, and non-government agencies associated with economic development, environmental protection, conservation, historic preservation, and freight movements.

Additionally, as noted above, the BRTB has developed an online interactive mapping for environmental coordination. The GIS levels included in the map include endangered species, wetlands of special state concern, greenways, impaired watersheds, Chesapeake Bay Critical Area, a Maryland, Maryland Inventory of Historic Properties, and the National Register of Historic Places. This is a very useful tool for planning ahead and preparing for the appropriate consultation and coordination for critical infrastructure investment.

The BRTB is compliant for Consultation and Coordination.

Section 2-17: Management and Operations Considerations

Basic Requirement: Federal statute 23 U.S.C. 134 (h)(1)(G), requires the metropolitan planning process to include the consideration of projects and strategies that will *promote efficient system management and operation;* Federal statute 23 U.S.C. 134(i)(2)(D), which provides the basis for 23 CFR 450.322(f)(3), specifies that: *Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods;* Additionally, 23 CFR 450.322(f)(10)(i) further requires that the financial plan for the MTP – and per the 23 CFR 450.324(h), the financial plan for the TIP – must include: *For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways and public transportation.*

Finding of Federal Review:

The BRTB incorporates Management and Operations (M&O) considerations throughout the planning process. M&O encompasses the day-to-day actions and agency responses to the region's transportation system. Examples include routine activities such as reconstruction and maintenance, snow plowing and salting, providing real-time traveler information, and traffic signalization.

The BRTB has four subcommittees that focus on operation issues. The Traffic Incident Management for the Baltimore Region Committee works to address multi-agency coordination in traffic incident management operations, the Traffic Signal Subcommittee addresses operation and coordination of the region's traffic signals, the Transportation and Public Works Committee identifies, initiates, and coordinates public works and transportation issues and projects that address everyday issues as well as large-scale emergencies. This committee is also considered a subcommittee of the Baltimore Urban Area Homeland Security Work Group, and the Disaster Debris Planning Task Force identifies and coordinates issues related to the handling of disaster debris.

The BRTB is compliant for Management and Operations Considerations.

Section 2-18: Transportation Safety Planning

Basic Requirement: 49 U.S.C. 5303 requires MPOs to consider safety as one of eight planning factors. As stated in 23 CFR 450.306, the metropolitan transportation planning process provides for consideration and implementation of projects, strategies, and services that will increase the safety of the transportation system for motorized and non-motorized users.

Finding of Federal Review:

The BRTB proactively includes Safety and educational activities in the transportation planning process. The BRTB has been an active member on the steering committee of the State Strategic Highway Safety Plan (SHSP). It assisted in developing the SHSP emphasis areas, strategies and action steps for the 2016-2020 update of the document. BRTB Staff plays an active role on the 2016-2020 SHSP implementation teams including the infrastructure and pedestrian teams.

Since 2009, the BRTB has been implementing Street Smart, a bicycle and pedestrian safety campaign, aimed at reducing fatalities, injuries and crashes. The Street Smart program emphasizes education of motorists and pedestrians through mass media. Other safety and educational activities supported by the BRTB include the Community Traffic Safety Team, Pedestrian Awareness Day and other initiative to inform and educate the public on roadway safety issues.

Safety is an explicit goal in the BRTB planning process and is one of the factors in the prioritization of candidate projects for LRTP funding. Crash history for the most recent three-year period is used for project prioritization in the planning process.

The BRTB is compliant for Transportation Safety Planning.

Section 2-19: Security in the Planning Process

Basic Requirement: Federal legislation has separated security as a stand-alone element of the planning process (both metropolitan 23 CFR 450.306(a)(3) and Statewide 23 CFR 450.206(a)(3) planning). The regulations also state that the degree and consideration of security should be based on the scale and complexity of many different local issues.

Finding of Federal Review:

The BRTB addresses security and emergency preparedness through its management and operations plans, programs and activities. The primary committee that addresses security issues for the BRTB is the Transportation and Public Works Subcommittee. Other committees such as the Management and Operations Partnership, Traffic Incident Management for the Baltimore Region Committee and Traffic Signal Subcommittee address security issues as needed. The M & O subcommittees include representatives from MDOT and local public works departments and departments of transportation. The M & O subcommittees provide forums for the representatives to discuss security.

The Transportation & Public Works (T&PW) also serves as a committee to the Urban Area

Homeland Security Work Group, on homeland security efforts. The T&PW Committee uses both homeland security and transportation funds to support priority evacuation-related projects. T&PW projects have included; developing a computer model to evaluate how to better handle traffic flow during evacuations; developing a Contraflow Decision tool to help identify roads that may be suitable for contraflow operations and providing guidance on what retrofits might be needed for safe operations; and developing a Terrorism Awareness Training course for Transportation and Public Works Field Staff.

The BRTB adopted the Regional Protective Action Coordination Guidelines to provide a framework for coordination in the event of a large-scale emergency. The guidelines include the Regional Protective Action Coordination Agreement that tries to ensure that protective actions are coordinated regionally in a major emergency that affects multiple jurisdictions in the Baltimore Metropolitan area. The Agreement addresses specific elements of a regional response that require multi-jurisdictional coordination to effectively protect the public in a severe, widespread, or prolonged emergency. Elements include command and management, communications, public information and warning, evacuation, and reception and shelter. The Agreement builds upon the existing Baltimore Region Emergency Assistance Compact (BREAC), a document developed by the BMC Board.

The BRTB staff participates on security committees and in emergency preparedness exercises to help convey the transportation perspective to those stakeholders as well as to bring back the security perspective to the BRTB. Specifically, BRTB staff attends meetings of the Urban Area Homeland Security Work Group, Maryland Shelter and Evacuation Task Force, and Regional Transit Security Work Group.

The BRTB is compliant for Security in the Planning Process.

Section 2-20: Integrating Freight in the Transportation Planning Process

Basic Requirement: 23 U.S.C. 134 (a) and 23 CFR 450.306(4), 450.316(a), 450.316(b), 450.104 - Metropolitan transportation planning section indicates that: "It is in the national interest to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation related fuel consumption and air pollution through metropolitan and Statewide transportation planning processes identified in this chapter; and encourage the continued improvement and evolution of the metropolitan and Statewide transportation planning processes by MPOs, State departments of transportation, and public transit operators as guided by the planning factors identified in subsection (h) and section 135(d)".

Finding of Federal Review:

Baltimore has a Freight Movement Task Force (FMTF) which is an Advisory Committee of the Baltimore Regional Transportation Board. The main function of the Task Force is to provide the public and the freight movement community a voice in the regional transportation planning process. The FMTF is also a forum for Baltimore region freight stakeholders to share information and discuss motor truck, rail, air, and waterway concerns.

The FMTF represents a mix of freight experts from different modes including: railroad operators, port operators, trucking firms, airport operators, freight shippers, economic development organizations, and academics. While the Federal Review Team was pleased to see BRTB coordination and participation in many commendable freight activities in the region, it was also observed that the Freight initiatives are not clearly told. We suggest BRTB provide robust documentation on their participation in the following commendable freight activities:

- The 2015 Maryland Strategic Goods Movement Plan updates
- The State truck routes update map
- Ann Arundel Community College-student outreach and Truck Pull
- I 83 Overnight Truck Parking study
- TIGER Grant for the Southeast Baltimore Port Industrial Freight Corridor Plan
- The formation Freight Regional Oversight Group (FROG) which is used to identify and prioritized regional freight corridors and better coordinate freight-related projects.
- The new Sparrows point terminal development which is the most strategically significant logistics property on the East coast
- Formation of Port to Point (P2P) subcommittee to assess the impact of Sparrows Point terminal on truck movements

The BRTB continues to find opportunities for collaborative activities and have strong partnership with staff and participants at the Delaware Valley Regional Planning Commission, I-95 Corridor Coalition and Delaware, Maryland and Virginia (Delmarva) Freight Region.

The current FY 2016-FY 2017 UPWP includes $125,000 in freight initiatives including: developing Local Economic Activity Corridors (LEAC); coordinating with MDOT/SHA on freight performance measures for long range plan update; and coordinating with state/local offices of economic development.

Commendation:

BRTB is recognized for its coordination and participation in many commendable freight activities in the region, particularly the Port to Point subcommittee initiative to assess the

impact of the new Sparrows Point terminal on truck movements.

Recommendation:

While the Federal Review Team was pleased to see BRTB coordination and participation in many commendable freight activities in the region, we also observed that the Freight initiatives are not readily available on the website or other means. We suggest BRTB provide additional documentation on the activities that they are facilitating to advance freight movement in the region. We further recommend BRTB work cooperatively with the State to ensure the State Freight Plan and Freight Network is in accordance with FAST ACT.

Section 2-21: Bicycle and Pedestrian Planning

Basic Requirement:
Title 23 USC Section 134(c)(2), Title 49 USC Section 5303(c)(2), Title 23 CFR Part 450.300(a), Title 23 CFR Part 450.316(a), Title 23 CFR Part 450.322(f)(2), Title 23 CFR Part 450.322(f)(8), Title 23 CFR Part 450.322(i), Title 23 CFR Part 450.324(c), Title 23 CFR Part 450.332(a), and Title 23 CFR Part 450.324 (l) (1)—Bicycle and Pedestrian Planning code sections outline that the MPO shall provide representatives of users of pedestrian walkways and bicycle transportation facilities with reasonable opportunities to be involved in the metropolitan transportation planning process and the TIP shall include capital and non-capital surface transportation projects inclusive of trails projects; pedestrian walkways; and bicycle facilities.

Finding of Federal Review:

The BRTB has a Bicycle/Pedestrian Coordinator position on staff who dedicates half of his time towards implementing the Bicycle and Pedestrian program.

Activities of the Bicycle/Pedestrian Coordinator include: providing staff support to the Bicycle and Pedestrian Advisory Group (BPAG) (http://www.baltometro.org/transportation-planning/bicycle-and-pedestrian-advisory-group), managing the Transportation Alternatives Program and bicycle/pedestrian planning studies funded through the UPWP, distributing information on bicycling and walking upon request, and making presentations.

The overall goal of the BPAG is to provide advice and assistance to the Technical Committee and BRTB on projects for bike and pedestrian accommodation in the TIP and LRTP. The group also provides public information and facilitates technology transfer and information sharing as it relates to state and local programs.

Through the planning process, the BRTB works to develop plans and programs to best

accommodate bikers and walkers, and to encourage biking and walking in the region.

As referenced in the 2015 and 2016 UPWP, the BRTB is supporting the BPAG, coordinating Bike to Work Day events, working with counties on Bike/Ped Master Plans, coordinating with Baltimore City on Bikeshare, supporting the Transportation Alternatives program through coordination with MDOT, and creating 2013 BMC Count data for a GIS layer. Bicycle and pedestrian related activity has also been included in the UPWP for the last 20 years. Funds for the implementation of the bike/pedestrian plan are included in the financially constrained element of the regional plan. BPAG reviews all proposed projects and makes a recommendation that bicycle and pedestrian improvements be considered during resurfacing, bridge rehabilitation, etc., if a project could improve biking and walking conditions based on Level of Service (LOS) data.

Maximize2040 allocates $155 million to complete streets and bicycle-pedestrian strategies and programs. Unlike in previous plans, these projects were not submitted and scored. This was due in large part to the number of bicycle and pedestrian plans under development in the region.

In addition, many of the recommended roadway projects incorporate in their scopes improvement to adjoining pedestrian and bicycle facilities as well as streetscape treatments where appropriate.

The BRTB is involved in many different public involvement activities regarding bicycle and pedestrian issues. These efforts include: Bike-to-Work Day activities in 30 sites across the region with over 1,500 participants, and conducting an annual pedestrian safety education, and outreach.

The Bicycle/Pedestrian Coordinator and BPAG have also been coordinating the discussion on regional on-road and off-road trail priorities, including a focus on interjurisdictional projects included in bicycle and pedestrian plans.

Recommendation:
The Federal Team recommends BRTB make available on its website additional information on efforts underway to improve pedestrian and bicycle planning in the metropolitan area.

Part 3 – Federal Initiatives

Section 3-1: Livability and Sustainability

Basic Requirement: While current statute and transportation planning regulations do not make direct references to land use or livability planning, the transportation planning

process is required to be coordinated with "planned growth" and similar activities, as those that exist within the region. In addition, MPOs and State DOTs must, when appropriate, consult with other agencies that have certain responsibilities for land and other resource management. The U.S. DOT, in partnership with HUD and EPA, has established, through the Partnership for Sustainable Communities, the following principles to guide the development of livability- supportive policies and legislation:

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate policies and leverage investment
- Value communities and neighborhoods

Finding of Federal Review:

The BRTB competed for and was awarded $3.5 million in the 2012 HUD Sustainable Grant (2nd Round) with the vision of developing a greater Baltimore region. The grant allowed the MPO and its partners to comprehensively approach and make recommendations regarding Baltimore's workforce development, transportation and housing. BRTB is commended for its continued work with interagency partnerships and success in securing funding through grant competitions.

Section 3-2: Travel Forecasting Methods

Basic Requirement: A Metropolitan Transportation Plan (MTP) requires credible forecasts of future demand for transportation services. These forecasts are frequently made using ***travel demand models***, which use estimates of regional population, employment and land use to forecast person trips and vehicle trips by travel mode, route, and time period. The outputs of travel demand models are used both to evaluate the impacts of alternative transportation investments being considered in the MTP and to provide inputs for motor vehicle emissions models used for air quality conformity determinations that are needed in nonattainment and maintenance areas.

Finding of Federal Review:

The BRTB uses a traditional 4-step travel demand model consisting of 1) Trip Generation, 2) Trip Distribution, 3) Mode Choice, and 4) Traffic Assignment. The Version 4.4 model was calibrated using the 2008 Household Travel and MTA On-Board Surveys and validated to 2010. The Trip-Based Model (TBM) is used in long-range plan prioritization and regional emissions analysis for federal air quality conformity determination of plans and programs. In addition, the BMC staff applies the TBM in support of regional policy analysis. The MPO

member originations apply the region's TBM in support of New Start, corridor, and transportation/land use analyses and the development of transportation master plans. The region's TBM was transferred and expanded to the Maryland Statewide Transportation Model (MSTM 1.0) and the Upper Eastern Shore Model, which are both used in the policy analysis of long-distance statewide issues.

The BRTB has initiated a phased approach in transitioning from aggregate to disaggregate travel simulation. A three-year phased approach is underway and scheduled to be completed in June 2016 to design, estimate, calibrate, and validate an advanced Activity Based Model (ABM), known locally as the Initiative to Simulate Individual Travel Events (InSITE). The advanced tour-based model explicitly captures intra-household interaction of school escorting (daycare and K-12) and fully joint non-mandatory travel for 2 or more household members. The BRTB applied and received support under the Travel Model Improvement Program (TMIP) to conduct two Peer Review meetings. The first Peer Review meeting commented on the InSITE model design sufficiency in addressing identified technical tool deficiencies in addressing regional existing and anticipated policy questions. Using the same panel of experts, the final Peer Review meeting provided comment on the model component estimation and provided BMC staff with guidance on interpretation of model component calibration spreadsheet results. The region's InSITE model is again forming the foundation for the update of the MSTM. The model transfer is supported with BMC staff gained knowledge.

The BRTB's partnering with MDOT is using two Strategic Highway Research Program 2 (SHRP2) capacity travel modeling awards in the continuing enhancement of regional and statewide simulation tools. Under the SHRP2 C20 Freight Demand Modeling and Data Improvement, BRTB and MDOT are transferring a long-distance supply chain model and an urban freight model. The long-distance supply chain model is integrated with the MSTM model. Long-distance freight movement is "clipped" at the MPO regional model boundary to inform the urban freight model of goods to be distributed from warehouses and intermodal transfer facilities. An urban commercial vehicle model capturing goods and services was estimated from the Ohio Establishment Survey. Both the urban freight and commercial vehicle model are tour-based, estimating truck trip and tour rosters. These disaggregate freight models' simulated output is consistent with the level of household tour disaggregation from InSITE.

The SHRP2 C10 Advanced Travel Demand Model and a fine-grained, time-sensitive network will integrate the InSITE household trip and tour rosters with a Dynamic Transportation (DTA) Model. The integrated InSITE/DTA mesoscopic assignment process provides disaggregation of demand and route choice through the entire simulation process, connecting demand with transportation network supply. The InSITE model is being integrated with

DTALite providing time of day resolution of 15 minutes, using traffic flow and queuing theories and abandoning static model volume-to-capacity methods. The advance simulation procedure will be used in the identification of bottlenecks and queues, providing capabilities to analyze policies and capacity improvements that are insensitive in TBM static assignments.

The BRTB and MDOT have submitted an SHRP2 L04 Incorporating Reliability Performance Measures in Operations and Planning Modeling Tools application. If successful, the SHRP2 L04 and C10, the two most advanced SHRP2 modeling tools, will provide the BRTB with technical tools capable of incorporating reliability within technical analysis, providing a method to consider operation strategies on an equal footing with capacity projects. The Federal team recognizes BRTB in partnering with MDOT in using two SHRP2 capacity travel modeling awards in the continuing enhancement of regional and statewide simulation tools.

Commendation:
The Federal Team recognizes BRTB in partnering with MDOT in using two Strategic Highway Research Program 2 (SHRP2) capacity travel modeling awards in the continuing enhancement of regional and statewide simulation tools.

Section 3-3: Intelligent Transportation Systems

Basic Requirement: The FHWA Final Rule and FTA Policy on ITS Architecture and Standards, issued on January 8, 2001 and codified under 23 CFR Part 940 ITS Architecture and Standards, requires that all ITS projects funded by the Highway Trust Fund and the Mass Transit Account conform to the national ITS architecture, as well as to U.S. DOT adopted ITS standards. 23 CFR
940 states that:

- At the issuance date (January 8, 2001) of the Final Rule/Policy, regions and MPOs implementing ITS projects that have not advanced to final design by April 8, 2005, must have a regional ITS architecture in place. All other regions and MPOs not currently implementing ITS projects must develop a regional ITS architecture within four years from the date their first ITS project advances to final design
- All ITS projects funded by the Highway Trust Fund (including the Mass Transit Account), whether they are stand-alone projects or combined with non-ITS projects, must be consistent with the provisions laid out in 23 CFR 940.
- Major ITS projects should move forward based on a project-level architecture that clearly reflects consistency with the national ITS architecture.
- All projects shall be developed using a systems engineering process.
- Projects must use U.S. DOT-adopted ITS standards as appropriate.
- Compliance with the regional ITS architecture will be in accordance with U.S. DOT's oversight and Federal-aid procedures, similar to non-ITS projects.

Finding of Federal Review:

The applicable ITS Architecture for the Baltimore Region is the Maryland Statewide ITS Architecture. The Maryland State Highway Administration led the development of the MD Statewide ITS Architecture and the Baltimore Metropolitan Council staff is actively involved in its validation which should be completed this summer and is a member of the ITS Architecture Advisory Panel to ensure that that projects align with the local planning process.

The BRTB has implemented a number of programs and strategies to address congestion through its management and operations committee. The management and operations committee structure includes stakeholders from local, state, and federal agencies as well as neighboring regions and other relevant organizations, such as universities. Many of the M&O sub-committees include representatives from emergency response agencies to ensure their views are considered and incorporated in plans, programs, and projects.

The Management & Operations Partnership is the BRTB's oversight committee for ITS. In the past it met quarterly and provides general guidance and direction for the region's ITS program and to its subcommittees. This group has not met for a number of years. The work of the sub-committees has continued, but it would be good to have the M&O Partnership continue to provide a place to get an overview of all of the M&O activities.

The Traffic Incident Management for the Baltimore Region committee (formerly the Baltimore Regional Operations Coordination Committee) has been meeting since 2000 and addresses multi-agency coordination in daily traffic incident management operations. The committee, which meets bi-monthly, includes representatives from a wide variety of response agencies operating in the region. The BRTB has assumed a leadership role in Traffic Incident Management training for the Baltimore region by partnering with SHA CHART to conduct a traffic incident management training conference in May of 2016. The TIMBR Committee will continue to meet to identify and address daily traffic incident management issues in the region. The TIMBER Committee also performs FHWA's traffic incident management self-assessments on a yearly basis.

The Traffic Signal Subcommittee, which has been meeting quarterly since 2001, identifies and addresses operation and coordination issues related to the regions traffic signals. This committee holds Traffic Signal Forums about every 18 months, with the last one held in 2015, to provide an opportunity for traffic signal engineers, supervisors, and technicians to share ideas and learn from each other. This committee has been very instrumental in the

installation of two Adaptive Signal Control projects in Anne Arundel County and Baltimore City.

The BRTB is compliant with Intelligent Transportation Systems.

Section 3-4: Planning Emphasis Areas

Best Practices: In 2014, the FHWA and FTA sent a letter to the Executive Directors of the Metropolitan Planning Organizations (MPO) and the heads of the State Departments of Transportation (State DOT) encouraging planning emphasis areas identified by the Secretary of Transportation be given priority in the planning process. These three planning emphasis areas included: MAP-21 Implementation, Regional Models of Cooperation, and Ladders of Opportunity.

• *MAP-21 Implementation*

Transition to Performance-based Planning and Programming

Performance-based planning and programming includes using transportation performance measures, setting targets, reporting performance, and programming transportation investments directed toward the achievement of transportation system performance outcomes.

The BRTB has adopted nine regional transportation goals, with supporting performance measures and targets in its most recently adopted Metropolitan Transportation Plan, *Maximize 2040*. The nine transportation goals are as follows: improve system safety, improve and maintain the existing infrastructure, improve accessibility, increase mobility, conserve and enhance the environment, improve system security, promote prosperity and economic opportunity, foster participation and cooperation among stakeholders, and promote informed decision making. The Plan includes a section showing how the region's transportation systems are performing currently relative to the adopted performance measures. This information can serve as a baseline for gauging progress in the future. The MPO sought input on the proposed goals and strategies from each of its advisory groups. Some of these advisory groups formed subcommittees to review proposed goals and strategies and provide recommendations. The MPO also requested comments from the public on the draft goals and strategies.

• *Regional Models of Cooperation*

Ensure a Regional Approach to Transportation Planning by Promoting Cooperation and Coordination across Transit Agency, MPO and State Boundaries

Improved multi-jurisdictional coordination by State DOTs, MPOs, providers of public transportation, and rural planning organizations (RPO) can reduce project delivery times and enhance the efficient use of resources, particularly in urbanized areas that are served by multiple MPOs.

The BRTB demonstrates cooperation with regional MPOs. The BRTB is an active participant in the Mid-Atlantic MPOs Regional Planning Roundtables. The BRTB works very closely with the Wilmington Area Planning Council (WILMAPCO), the Washington Council of Government Regional Transportation Board (TPB), and the Delaware Valley Regional Planning Commission (DVRPC), among other MPOs to share both data and ideas in regards to projects that have an impact outside of the MPO boundaries.

The BRTB is also an active participant in many Transportation Research Board (TRB) initiatives, the Association of Metropolitan Planning Organizations (AMPO), the I-95 Corridor Coalition as well as a member of many statewide planning coalitions and committees.

• *Ladders of Opportunity*

Access to Essential Services

Essential services include employment, health care, schools/education, and recreation. Suggested UPWP work tasks include developing and implementing analytical methods to identify gaps in the connectivity of the transportation system and developing infrastructure and operational solutions that provide the public, especially the traditionally underserved populations, with adequate access to essential services.

The BRTB and its planning partners have been instrumental in helping to create Ladders of Opportunity for individuals in the Baltimore Region. The BRTB coordinates with the Maryland Transit Administration in regards to the Baltimore Seniors and Individuals with Disabilities Program. The program is intended to enhance mobility for seniors and individuals with disabilities by providing capital and operating funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services.

With the cancellation of the Baltimore Red Line Project, the BRTB was tasked to complete a Regional Transit Needs Assessment. This assessment, in conjunction with the employment center and transit shed data analysis completed under the Opportunity Collaborative HUD Sustainability Grant is a prime example of the work that the Baltimore Region is doing to create Ladders of Opportunity. This work is currently being put to use as the Region implements its Baltimore Link project. The Baltimore Link creates a transit system that connects Baltimore residents to today's jobs. The plan will provide more people access to more jobs through an interconnected transit system. Its plan is to be a transformative vision that creates a customer-focused transit system that is safer and cleaner.

CERTIFICATION STATEMENT

The FHWA and FTA have determined that the metropolitan planning process of the Baltimore Regional Transportation Board of the Baltimore, MD TMA meets the requirements of the Metropolitan Planning Rule at 23 CFR Part 450 Subpart C and 49 CFR Part 613.

Part 4: Site-Visit Participants

Baltimore TMA Certification Review
April 26-27, 2016
Baltimore Regional Transportation Board

Federal Review Team
Kwame Arhin *FHWA Maryland Division*
Lindsay Donnellon *FHWA Maryland Division*
Francisco Edwin Gonzalez *FHWA Maryland Division*
Sandra Jackson *FHWA DC Division*
Breck Jeffers *FHWA Maryland Division*
Spencer Stevens *FHWA HQ)*
Kathleen Zubrzycki *FTA-Region 3*
Dwayne Weeks *FTA HQ*
Gregory Becoat *EPA-Region 3*

Baltimore MPO
Bala Akundi
Regina Aris
Charles Baber
Robert Berger
Jamie Bridges
Terry Freeland
Monica Haines Benkhedda
Don Halligan
Zach Kaufman
Todd Lang
Eileen Singleton
Sara Tomlinson

MDOT
Tyson Byrne
Lyn Erickson
Heather Murphy

MTA
Holly Arnold
Pat Keller
Stuart Wilkins
Philip Sullivan

SHA
Eric Beckett
John Thomas

Baltimore TMA Certification Review
Public Meeting
April 25th, 2016
5:00pm—7:00pm

Federal Team:
Kwame Arhin, *FHWA*
Lindsay Donnellon, *FHWA*
Kathleen Zubrzycki, *FTA-Region 3*

BRTB Staff:
Monica Haines Benkhedda, *BRTB*
Regina Aris, *BRTB*
Todd Lang, *BRTB*

Guests:
Derrick Sexton, *BRTB PAC Member*
Brian O'Malley, *Central Maryland Transportation Alliance (CMTA)*
Eric Norton, *Central Maryland Transportation Alliance (CMTA)*
James Leanos, *Former BRTB PAC Member*
Rita Ossiander, *Rossi Transportation Group*
Chris Castelle, *TAM*
Mike Palumbo, *IHI/OC*
Lindsey Bishop, *BRTB PAC Member*
Cathy Ginter Smith, *WSP-Parsons Brinckerhoff*
Yolanda Takesian, *Kittleson*
Father Michael Bishop, *BRTB PAC Member*
Caitlin Doolin, *Baltimore City Department of Transportation (BCDOT)*
Tafadzwa Gwitira, *BRTB PAC & Opportunity Coalition*
Beth Wiseman, *Baltimore County Association of Senior Citizens Organizations (BCASCO)*

The Public Hearing began at 5:30pm and was held at the Baltimore Metropolitan Council, 1500 Whetstone Way, Suite 300, Baltimore, MD 21230.

Part 5: Certification Review Site Visit Meeting Agenda

FHWA/FTA Certification Review of the Baltimore Metropolitan Area Transportation Planning Process

April 25-27, 2016
Baltimore Regional Transportation Board

Location: 1500 Whetstone Way, Suite 300
Baltimore, MD 21230
(410) 732-9566 or (410) 732-9572

April 25-27, Certification Review

Format for all sessions: Each topic is introduced by the federal team discussion leader, followed by a five minute overview and update by BRTB staff (and other local agencies identified by the federal team). The federal team will then lead a discussion involving all participating agencies:

Federal Review Team Members: FHWA/FTA Division and Regional staff

Kathleen Zubrzycki, FTA Region 3
Dwayne Weeks, FTA HQ
Kwame Arhin, FHWA, MD
Lindsay Donnellon, FHWA, MD
Sandra Jackson, FHWA, D.C
Edwin Gonzalez, FHWA, MD
Spencer Stevens, FHWA, HQ
Breck Jeffers, FHWA, MD
Gregory Becoat, EPA, Region 3

Public Meeting – Monday, April 25

5:00 PM **Public Involvement Workshop by the Federal Review Team**
Federal Discussion Leader: Lindsay Donnellon, FHWA

7:00 PM **Adjourn**

DAY 1 – Tuesday, April 26

9:00 -11:00 AM **MPO Board Meeting**

The Federal review team will be available during the MPO Board meeting to respond to any possible questions the Board members may have.

Format for all sessions: The federal team discussion leader will introduce each topic, followed by a five-minute overview and update by BRTB staff (and other local agencies identified by the federal team). The federal team will then lead a discussion involving all participating agencies:

12:30 PM **Overview of the Certification Process of the Transportation Planning Process**
This opening session will provide a brief overview of the Certification Process and summarize issues from the 2012 Certification. BRTB staff will then provide an update and summary of major regional issues, share "Best Practices", priority planning activities and previous review recommendations, with discussion among all participating agencies.

Federal Discussion Leader: Kwame Arhin, FHWA, Maryland. Division
Kathleen Zubrzycki, FTA Region 3

1:30 PM **Long Range Plan, Transportation Improvement Program, Transportation Improvement Program, Performance Measures and Targets**
Discussion will include over-all planning process and the required elements of the Transportation Planning Process through these documents and activities.

Federal Discussion Leader: Kwame Arhin, FHWA, Maryland Division
Spencer Stevens, FHWA

2:00 PM **Financial Planning and Financial Constraint, Operations & Maintenance**
This session will focus on the funding, Operation and Maintenance in the Long Range Plan, TIP and planning process activities leading to identification of funding sources.

Federal Discussion Leader: Kwame Arhin, FHWA, Maryland. Division
Kathleen Zubrzycki, FTA Region 3

2:30 PM **Transit, Ladders of Opportunity, and Consultation/Coordination,**
Discussion will include requirements for Public Transit Issues, Ladders of Opportunity, and Consultation /Coordination

Federal Discussion Leader: Kathleen Zubrzycki, FTA Region 3
Dwayne Weeks, FTA HQ

3:30 PM **Bike/Ped**
Discussion will include over-all required elements of Bike Ped Program

Federal Discussion Leader: Lindsay Donnellon, FHWA

4:30 PM **Adjourn**

DAY 2, Wednesday, April 27, 20106

8:30 AM **Freight Planning and Congestion Management Process**
Discussion will include overall Freight Planning and CMP

Federal Discussion Leader: Spencer Stevens, FHWA
Sandra Jackson, FHWA

9:00 AM **Civil Rights, Title VI and Americans with Disabilities Act, Public Involvement Process**
Discussion will include over-all public involvement processes by BRTB and partners and the required elements of Title VI and requirements of the Americans with Disabilities Act.

Federal Discussion Leader: Edwin Gonzalez, FHWA
Lindsay Donnellon, FHWA

9:30 AM **Air Quality Planning and SIP Planning Conformity Issues**
Experiences with air quality planning, SIP issues and conformity including effectiveness of inter-agency consultation procedures.

Federal Discussion Leader: Gregory Becoat, EPA Region 3

10:00 AM **Safety, ITS, and Travel Demand Model**
Discussion will include requirements for Safety, ITS and travel demand modeling issues.

Federal Discussion Leader: Breck Jeffers, FHWA
Kwame Arhin, FHWA

10:30 AM Break

10:45 AM **Overview of the Unified Planning Work Program, Transportation Planning Board (including Committee Structure, Agreements, Self-Certifications,**
Discussion will include over view of the MPO and the required elements of the Transportation Planning Process through these documents and activities.

Federal Discussion Leader: Kathleen Zubrzycki, FTA Region 3
Kwame Arhin, FHWA, Maryland. Division

12:00 PM **Lunch**

1:00 PM **Land Use, Livability, Sustainability, and Environmental Linkages**

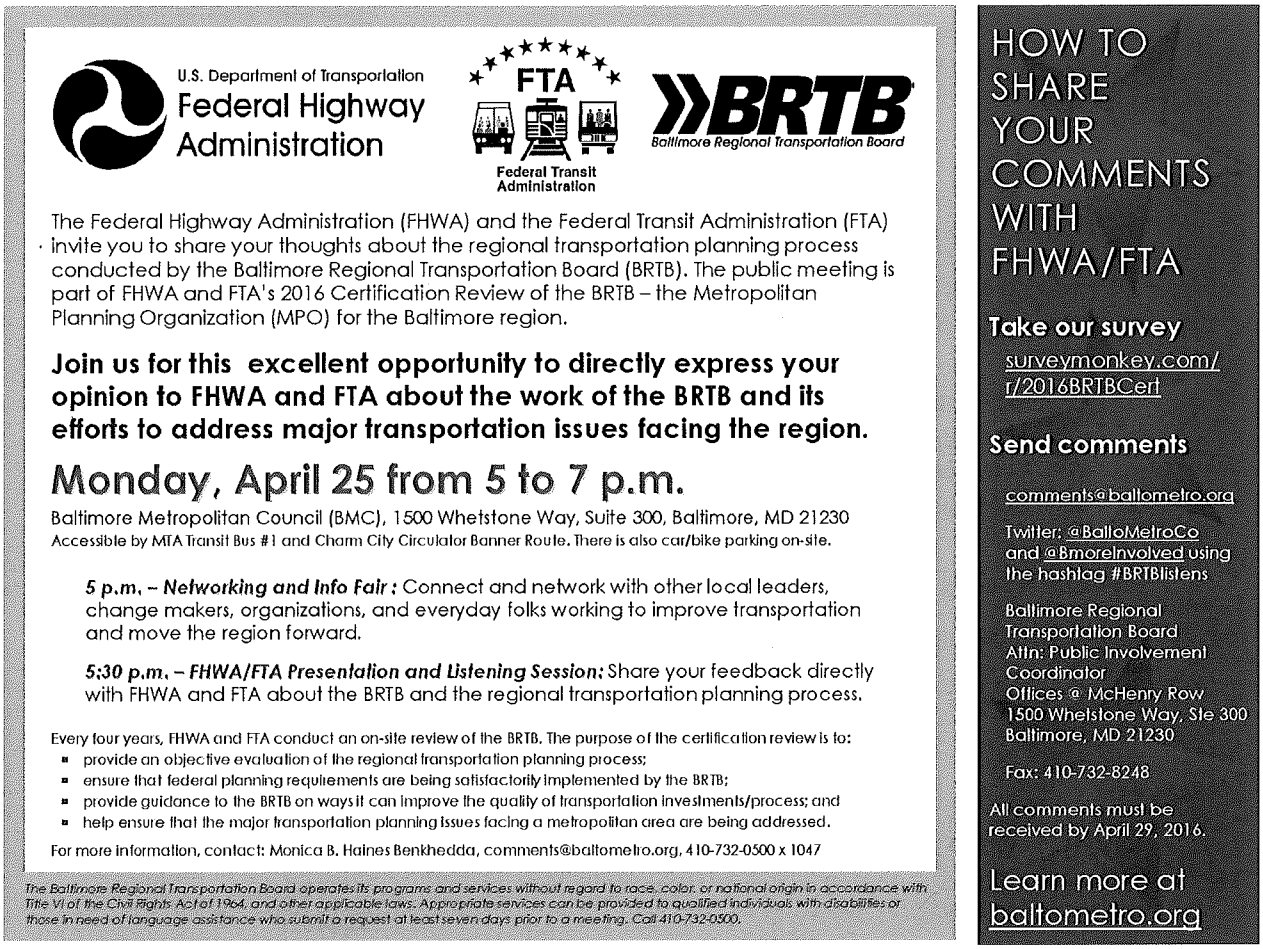
Discussion will include Land Use, Livability, Planning and Environmental Linkages

Federal Discussion Leader: Kwame Arhin, FHWA, Maryland. Division
Lindsay Donnellon, FHWA

2:00 PM **Meeting of Federal Review Team to prepare preliminary observations and close-out issues**

2:45 PM **Concluding Remarks/Adjourn**

Part 6: Public Meeting Notice



Part 7: Summary of Public Comments

	Summary of Written Comments	Received From
1	a. Commends BRTB staff. b. BRTB did not incorporate the goals from the Opportunity Collaborative's regional plan -- goals formulated to address racial and economic disparities -- into its most recent long range plan, Maximize 2040.	Eric Norton, Director of Policy & Programs Central Maryland Transportation Alliance Typed letter dated April 28, 2016.
2	a. Impressed with the open attitude toward public comments that the organization displayed.	Andrew Hall Baltimore City Resident Typed letter, no date.
3	a. Need for dramatically increased transparency and publicity, which clearly outlines the value proposition of transportation planning, funding and management for our region. b. Politics should be informed by planning, engineering and R&D, not the reverse.	James S. Leanos Annapolis City Resident Typed letter dated April 25, 2016.
4	a. Comments on the objectives of the TMA Certification Review. b. Responses to Key Public Involvement Questions from the TMA Certification Handbook. c. Responses to all recommendations from the 2012 TMA Certification Review.	Gregory Shafer, Chairman Public Advisory Committee Typed letter dated April 6, 2016.
	Summary of Survey	**Received From**
Q1	There are opportunities for me to provide input on transportation issues and plans. **Strongly Disagree** 3.08% **Disagree** 9.23% **Neutral** 6.15% **Agree** 29.23% **Strongly Agree** 50.77% **Don't Know or N/A** 1.54%	Answered: 65 Skipped: 1 17 Comments
Q2	There is enough time to comment on regional transportation plans, project updates, and policies. **Strongly Disagree** 4.62% **Disagree** 9.23% **Neutral** 12.31% **Agree** 40.00% **Strongly Agree** 32.31% **Don't Know or N/A** 1.54%	Answered: 65 Skipped: 1 11 Comments
Q3	Information about opportunities for public input and other regional transportation planning activities are easily accessible to me. **Strongly Disagree** 4.76% **Disagree** 9.52% **Neutral** 17.46%	Answered: 63 Skipped: 3 11 Comments

	Agree	33.33%	
	Strongly Agree	34.92%	
	Don't Know or N/A	0.00%	
Q4	I have reasonable access to technical data and information.		Answered: 64
	Strongly Disagree	6.25%	Skipped: 2
	Disagree	3.13%	8 Comments
	Neutral	12.50%	
	Agree	43.75%	
	Strongly Agree	31.25%	
	Don't Know or N/A	3.13%	

Q5 — Appropriate transportation agencies and stakeholders are well represented and have access and opportunity for input in the regional transportation planning process.

Answered: 62
Skipped: 4
17 Comments

	All	All Regions	MDOT	All Users
Strongly Disagree	8.20%	8.33%	3.33%	7.02%
Disagree	11.48%	6.67%	1.67%	10.53%
Neutral	11.48%	10.00%	10.00%	8.77%
Agree	22.95%	35.00%	1.67%	31.58%
Strongly Agree	24.59%	31.67%	41.67%	28.07%
Don't Know or N/A	21.31%	8.33%	11.67%	14.04%

Q6	The BRTB considers and adequately responds to public comments.		Answered: 60
	Strongly Disagree	1.67%	Skipped: 6
	Disagree	10.00%	10 Comments
	Neutral	23.33%	
	Agree	28.33%	
	Strongly Agree	25.00%	
	Don't Know or N/A	11.67%	
Q7	The regional transportation planning process and plans address major issues facing the region.		Answered: 59
	Strongly Disagree	8.47%	Skipped: 7
	Disagree	10.17%	13 Comments
	Neutral	8.47%	
	Agree	40.68%	
	Strongly Agree	32.30%	
	Don't Know or N/A	0.00%	
Q8	Essential transportation improvements are able to be implemented because of the BRTB.		Answered: 59
	Strongly Disagree	10.17%	Skipped: 7
	Disagree	16.95%	16 Comments
	Neutral	13.56%	
	Agree	32.20%	
	Strongly Agree	22.03%	
	Don't Know or N/A	5.08%	
Q9	The region's long-range and short-term transportation plans reflect transportation needs, priorities, and desires of the region.		Answered: 57
	Strongly Disagree	10.53%	Skipped: 9
	Disagree	7.02%	13 Comments
	Neutral	24.56%	
	Agree	29.82%	
	Strongly Agree	26.32%	
	Don't Know or N/A	1.75%	
Q10	What do you think the BRTB is doing well?		Comments: 37
			Skipped: 29
Q11	Do you have any suggestions for how the BRTB can improve?		Comments: 34

			Skipped: 32
	Summary of Public Meeting Comments (Monday, April 25, 2016)		**Received From**
1	a.	Curious how the new legislation in Maryland establishing a MTA Advisory Group will affect the planning and priority setting process.	Christopher Costello, PAC Member
2	a.	Biggest concern was that the Governor's decision regarding the Red Line subverts the planning process.	Eric Norton, PAC Chairman
	b.	Concerned the removal of the Red Line from Maximize 2040 will not meet goals it sets out.	
3	a.	Planning at the regional level needs to intercept state level discussion so that the region is not only engaging in reactionary planning.	Dick Ladd, PAC Member Anne Arundel County Resident
	b.	Regional planning is challenging—must consider the urban-exurban-suburban.	
4	a.	Urban issues with mostly county representation.	Caitlin Doolin, Vice Chair of BPAG BCDOT Planner
	b.	Project prioritization needs to be data driven.	
5	a.	Would like to see public transit between Annapolis and Baltimore.	Jim Leanos, PAC Alum Annapolis City Resident
6	a.	Opportunity for public comment was made however fell short of being accessible to the 117 countries and 17 language groups in the region.	Tafadzwa Gwitira, PAC Member
7	a.	Would like more transparent and accountable process surrounding the role of public comments (i.e. Baltimore Link was presented but the project seemed to be previously adopted without public input considered.)	Lindsey Bishop, PAC Member
8	a.	How are people, residents, businesses, employees from outside the region but spending much of their time in the region included in Baltimore planning?	Derrick Sexton, PAC Member
9	a.	The public did not understand the importance of the Red Line because most of its publicity was engineering heavy.	Yolanda Takesian
10	a.	Commended Monic Haines Benkhedda for outreach and the opportunity to join PAC.	Beth Wiseman, PAC Member Baltimore County Association of Senior Citizens Organizations (BCASCO)
11	a.	Believes new transit proposal, the Baltimore LINK, should be called Baltimore UnLink because it takes all buses from his neighborhood along Greenmount.	Father Michael Bishop, PAC Member