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A PERFORMANCE-BASED TRANSPORTATION PLAN

MAP-21
Moving Ahead for Progress in the 21st Century

WHERE DO THE REGIONAL GOALS AND STRATEGIES COME FROM?

*Primarily from **federal laws,** but also from federal and regional policies and state and local plans*

Planning Factors - Highway and Transit

23 USC, Chap. 1, Sect. 134(h); 49 USC, Chap. 53, Sect. 5303(h)

"The metropolitan planning process . . . shall provide for consideration of projects and strategies that will— [emphasis added]

A. support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

B. increase the **safety** of the transportation system for motorized and nonmotorized users;

C. increase **security** of the transportation system for motorized and nonmotorized users;

D. increase the **accessibility** and **mobility** of people and for freight;

E. protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns;

F. enhance the **integration** and **connectivity** of the transportation system, across and between modes, for people and freight;

G. promote efficient **system management** and **operation**; and

H. emphasize the **preservation** of the existing transportation system."

Performance-based approach to transportation decision making:

National Highway Performance Goals

23 USC, Chap. 1, Sect. 150(b)

"It is in the interest of the United States to focus the Federal-aid highway program on the following national goals: [emphasis added]

1. **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

2. **Infrastructure condition** - To maintain the highway infrastructure asset system in a state of good repair.

3. **Congestion reduction** - To achieve a significant reduction in congestion on the National Highway System.

4. **System reliability** - To improve the efficiency of the surface transportation system.

5. **Freight movement and economic vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

6. **Environmental sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

7. **Reduced project delivery delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices."

National Transit Asset and Transit Safety Requirements

49 USC, Chap. 53, Sect. 5326(a) and Sect. 5329(b)

Consistent with a performance-based approach, federal law requires the U.S. DOT to establish and implement:

- **National Transit Asset Management System** - A "strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets."

- **National Public Transportation Safety Plan** - A plan intended to "improve the safety of all public transportation systems."

National Transit Asset Management System
The foundation of this system is the concept of "state of good repair." "State of good repair" includes "objective standards for measuring the condition of capital assets."

National Public Transportation Safety Plan
This plan includes:

- "safety performance criteria for all modes of public transportation,"

- "minimum safety performance standards for public transportation vehicles used in revenue operations," and

- a "public transportation safety certification training program."

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State and Local Plans

- Maryland Transportation Plan
- Strategic Highway Safety Plan
- Maryland Statewide Freight Plan
- PlanMaryland
- State Implementation Plans for Baltimore Non-Attainment Area
- Greenhouse Gas Emissions Reduction Act Plan
- Smart, Green and Growing Initiative
- Local Comprehensive Master Plans
- State and local transit development plans
- State and local Complete Streets policies
- State and local bicycle/pedestrian master plans
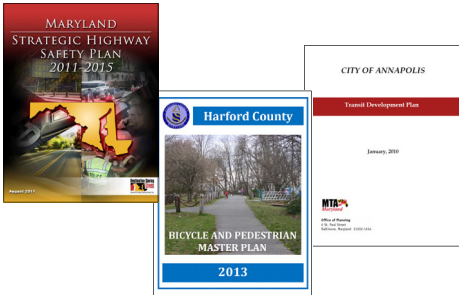
Federal and Regional Policies

**U.S. DOT / EPA / HUD Livability Principles
(incorporated in current regional transportation plan; adopted by The Opportunity Collaborative)**

1. **Provide more transportation choices**.
   Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

2. **Promote equitable, affordable housing**.
   Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

3. **Enhance economic competitiveness**.
   Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

4. **Support existing communities**.
   Target federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

5. **Coordinate and leverage federal policies and investment**.
   Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

6. **Value communities and neighborhoods**.
   Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

7. **Protect the Chesapeake Bay**. (region-specific addition from The Opportunity Collaborative)
   Promote location-efficient and low-impact development in the region, and more specifically by developing a Green and Healthy Neighborhoods program aimed at preserving and rehabilitating existing housing in the region in a "green" manner that considers the water downstream.

Theme of Current Regional Transportation Plan

"Investments in transportation should improve accessibility and mobility for people and goods to advance the overall prosperity of the region and the opportunities available to its communities, businesses, and individuals. Transportation systems and facilities should be as safe and secure and environmentally sustainable as possible.

At the same time, the region needs to recognize that funding for new and expanded systems and facilities is limited. To meet its needs, the region needs innovative thinking, sensitivity to the issues and challenges that can constrain progress, and a willingness to address these issues and challenges in a cooperative manner."

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GOAL: IMPROVE TRANSPORTATION SYSTEM SAFETY

Make conditions safer for pedestrians, bicyclists, transit riders and operators, and motorists

Proposed Strategies to Support Goal

A. Adopt relevant state and local plans that seek to reduce transportation-related injuries and fatalities.

B. Apply traffic and transit system management and operations techniques to improve traveler safety in all modes.

C. Invest in cost-effective safety improvements to eliminate hazardous or substandard conditions in high-crash locations and corridors (all modes).

D. Improve the ability of transportation and emergency service agencies to respond in a timely manner to emergency incidents.

E. Improve conditions to enable pedestrians and bicyclists to travel more safely on a day-to-day basis, including safer interactions with users of other modes and safer access to transit stations and stops.

F. Support research into the causes of pedestrian and bicycle crashes and injuries to promote more effective countermeasures.

G. Educate all travelers of all modes on safe travel techniques that are mode- and age-appropriate.

DEFINITIONS:

Goal:	**Broad aspiration for the region**
Strategy:	**Approach or policy to help the region achieve a goal**

How do the proposed strategies MAXIMIZE transportation safety?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

Baltimore Regional Trends

- 3% decrease in driver fatalities, 2009-2012
- 21% increase in occupant fatalities, 2009-2012
- 50% decrease in bicycle fatalities, 2009-2012
- 33% decrease in pedestrian fatalities, 2009-2012

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GOAL: PRESERVE EXISTING INFRASTRUCTURE

Improve the conditions of existing transportation facilities; systematically maintain and replace transportation assets as needed

Proposed Strategies to Support Goal

A. Continue to improve the condition of existing federal-aid eligible and local roadway systems (pavement, bridges, tunnels).

B. Replace aging traffic signals and Intelligent Transportation Systems (ITS) elements on a timely, systematic basis.

C. Maintain and replace aging transit vehicles on a timely, systematic basis.

D. Research and invest in cost-effective measures that will reduce emissions and life-cycle costs of transit rolling stock and infrastructure elements.

E. Continue to improve the condition of existing transit rail and bus infrastructure and stations/stops.

F. Continue to improve the condition of existing pedestrian and bicycle facilities.

G. Encourage local jurisdictions to develop comprehensive asset management programs to monitor the conditions of transportation assets and repair/replace those assets on a timely, systematic, cost-effective basis.

DEFINITIONS:

Goal: Broad aspiration for the region

**Strategy:** Approach or policy to help the region achieve a goal

How do the proposed strategies MAXIMIZE asset preservation and replacement?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

Baltimore Regional Trends

- 21% decrease in number of structurally deficient bridges, 2009-2013
- 3% decrease in average age of MTA buses, 2009-2013
- 26% increase in average age of light rail vehicles, 2009-2013

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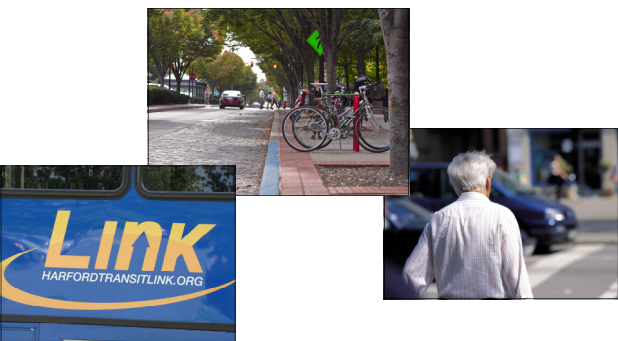
GOAL: IMPROVE ACCESSIBILITY

Help people of all ages and abilities to reach specific destinations

Proposed Strategies to Support Goal

A. Increase transportation alternatives for all segments of the population.

B. Continue to improve conditions for pedestrians and transit riders to meet or exceed Americans with Disabilities Act requirements.

C. Leverage transportation funds in coordination with other funds to provide affordable options for accessing necessities or amenities (e.g., jobs, health care, child care, education).

D. Consider affordable housing and workforce/economic development planning when determining long-range priorities.

E. Continue to invest in pedestrian and bicycle facilities and programs, especially those that link to activity centers and public transit.

F. Integrate strategies identified through the Coordinated Public Transit – Human Services Transportation Plan into regional planning and decision making.

G. Improve system connectivity and continuity among all modes and across inter-jurisdictional and inter-regional boundaries, including coordinating transit planning and investment.

H. Encourage the private sector to provide appropriate access on commercial properties for bicyclists, pedestrians, and transit users.

I. Support operating policies that enable year-round, obstacle-free access to pedestrian, bicycle, and transit facilities.

DEFINITIONS:

Goal:	**Broad aspiration for the region**
Strategy:	**Approach or policy to help the region achieve a goal**

> **How do the proposed strategies MAXIMIZE accessibility?**
>
> **How well do they reflect laws and policies?**
>
> **What would you add or change? – Write your comments on a card.**

Baltimore Regional Trends

- 3% decrease in share of population within 1/4 mile of bus route or rail station, 2009-2011
- 4% increase in share of jobs within 1/4 mile of bus route or rail station, 2009-2011

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GOAL: INCREASE MOBILITY

Help people and freight to move reliably and efficiently

Proposed Strategies to Support Goal

A. Continue to refine and implement a Congestion Management Process (CMP), incorporating the regional Intelligent Transportation Systems (ITS) architecture and transportation systems management and operations strategies.

B. Prepare congestion mitigation plans, including the consideration of congestion pricing, for corridors and locations experiencing recurring high congestion levels.

C. Sustain and balance capacity in the highway, transit, and rail systems and pedestrian and bicycle networks.

D. Increase mobility, including traffic and transit incident response and recovery, through traffic and transit system management and operations techniques.

E. Improve transportation system reliability through broad-based information distribution for interstate highways, surface streets, and the transit network.

F. Develop and support a regional, long-distance bikeway network, including consistent guide signage.

DEFINITIONS:

Goal:	Broad aspiration for the region
Strategy:	Approach or policy to help the region achieve a goal

How do the proposed strategies MAXIMIZE mobility?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

Baltimore Regional Trends

- 2% decrease in average weekday local MTA bus ridership, 2010-2013
- 13% increase in average weekday Metro ridership, 2010-2013
- 13% increase in average weekday MARC ridership, 2010-2013

GOAL: CONSERVE AND ENHANCE THE ENVIRONMENT

Pass on to future generations the healthiest natural and human environments possible

Proposed Strategies to Support Goal

A. Ensure that the region conforms to the applicable state air quality plan by developing programs to reduce congestion (e.g., provide alternatives to the use of single-occupant passenger vehicles through Travel Demand Management (TDM) techniques), reduce growth in mobile source emissions, and encourage emission reduction technologies.

B. Invest in transportation programs and projects that reduce surface runoff and protect water resources.

C. Promote efficient use of energy resources by supporting fuel-efficient technologies and alternative fuel use.

D. Invest in transportation programs and projects that reduce greenhouse gas emissions in accordance with state and local plans and initiatives regarding sustainability and climate change (e.g., Maryland's Greenhouse Gas Reduction Plan).

E. Preserve and protect natural and cultural resources.

F. Enhance the quality of human health by providing multimodal transportation infrastructure and services that support active living and physical activity and minimize transportation-related emissions.

DEFINITIONS:

Goal:	**Broad aspiration for the region**
Strategy:	**Approach or policy to help the region achieve a goal**

How do the proposed strategies MAXIMIZE environmental conservation and enhancement?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

The most recent air quality conformity analysis was conducted for projects in the current regional transportation plan (as amended) and the most recent short-range Transportation Improvement Program (TIP).

This analysis shows that these projects do not worsen the region's air quality or delay the timely implementation of air quality standards.

GOAL: IMPROVE TRANSPORTATION SYSTEM SECURITY

*Provide a secure traveling environment for everyone;
improve the region's ability to respond to natural and man-made disasters*

Proposed Strategies to Support Goal

A. Provide for the personal security of transit riders through the use of closed-circuit TV and other security-related features.

B. Continue to refine a regional emergency coordination and response plan to address large-scale, inter-jurisdictional emergency events, including evacuation routes and procedures.

C. Identify policies and procedures for communication, resource sharing, and cooperative response to emergencies among transportation and non-transportation response agencies.

D. Leverage transportation and security funds to implement regional priorities.

E. Improve the capabilities of the region to respond to and recover from emergencies, including security threats and natural disasters, through the use of traffic and transit system management and operations techniques.

F. Provide increased redundancy in the overall system.

G. Plan for the potential transportation-related implications of climate change (e.g., rising sea level, storm surges).

H. Encourage equitable sharing among all modes of the benefits and burdens of security and safety initiatives.

DEFINITIONS:

Goal: **Broad aspiration for the region**

Strategy: **Approach or policy to help the region achieve a goal**

How do the proposed strategies MAXIMIZE transportation security?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

Each jurisdiction has its own Evacuation Traffic Management document, funded through Homeland Security and transportation programs. These documents (1) identify and rank evacuation-critical intersections based on evacuation scenarios and (2) indicate resources needed for optimal operation.

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GOAL: PROMOTE PROSPERITY AND ECONOMIC OPPORTUNITY
Support the revitalization of communities, the development of activity centers, and the movement of goods and services

Proposed Strategies to Support Goal

A. Incorporate as appropriate into the region's transportation programs and projects the six livability principles developed jointly by the US Department of Housing and Urban Development, US Department of Transportation, and US Environmental Protection Agency.

B. Coordinate transportation investments with state and local plans regarding growth and development (e.g., PlanMaryland).

C. Concentrate transportation investments within local- and state-designated growth areas to encourage prosperity in and revitalization of existing communities.

D. Improve transportation infrastructure (all modes) that improves access to existing communities and regional generators of economic activity (e.g., activity centers and freight corridors).

DEFINITIONS:

Goal: Broad aspiration for the region
Strategy: Approach or policy to help the region achieve a goal

How do the proposed strategies MAXIMIZE economic opportunity?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

The Maryland Department of Transportation continues to partner with the private sector to address connections to freight intermodal facilities. These are facilities where more than one type of transportation (e.g., freight trucks and ships at the Port of Baltimore) come together to transfer goods.

GOAL: FOSTER PARTICIPATION AND COOPERATION AMONG STAKEHOLDERS

Enable all interested and affected parties to participate and cooperate to find workable solutions

Proposed Strategies to Support Goal

A. Foster communication with and encourage input from all groups with a stake in the performance of the region's transportation system.

B. Coordinate transportation planning and programs across all modes, across inter-jurisdictional and inter-regional boundaries, and among all stakeholders as appropriate and feasible to provide affordable, reliable, safe, and secure transportation alternatives.

C. Coordinate with business and development communities to identify and build support for new approaches and public/private partnerships for funding improvements to the transportation system (all modes).

D. Leverage federal transportation funds to the greatest extent possible by encouraging matching contributions from entities that stand to benefit from transportation projects and programs— private organizations and companies as well as local communities.

E. To the greatest extent possible, work with planners and engineers in all jurisdictions to develop common policies and design strategies, including complete streets policies and design templates, for transportation facilities.

DEFINITIONS:

Goal:	**Broad aspiration for the region**
Strategy:	**Approach or policy to help the region achieve a goal**

How do the proposed strategies MAXIMIZE participation and cooperation?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

An Executive Order executed in the summer of 2013 established a state subcabinet to address public/private partnerships. This Order establishes a framework for collaboration and knowledge sharing with respect to state agency regulations, policies, and projects.

GOAL: PROMOTE INFORMED DECISION MAKING

Ensure that adopted transportation policies and performance measures guide the regional decision making process

Proposed Strategies to Support Goal

A. Analyze, compare, and share data on system conditions, system performance, and the effects of transportation investments relative to established performance measures and targets for use in transportation planning and decision making.

B. Develop regional assessments of demographic, travel, land use, environmental, fiscal, and technology trends for use in all plans, programs, and projects.

C. Increase the public's and elected officials' understanding of the trade-offs involved in transportation alternatives.

DEFINITIONS:

Goal: Broad aspiration for the region

Strategy: Approach or policy to help the region achieve a goal

How do the proposed strategies MAXIMIZE informed decision making?

How well do they reflect laws and policies?

What would you add or change? – Write your comments on a card.

This is a proposed new goal recommended by two of the BRTB's advisory groups. The intent is to recognize the importance of a performance-based approach to project planning and programming, as required by MAP-21. The proposed new goal also promotes investment decisions based on consistent policies and data.