



# City of Portsmouth Master Transportation Plan

## Executive Summary

January 26, 2010





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# Purpose and Relation to the Destination 2025 Comprehensive Plan

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Transportation is the reason for Portsmouth's existence as a city. Founded in the 18th century on the Elizabeth River, an ideal location for ship building and maritime trade, Portsmouth quickly became a thriving port. Over time, the Hampton Roads region grew up around Portsmouth, so that today it is strategically located at the center of a land and water transportation network with regional, national, and global dimensions.

The Master Transportation Plan (MTP) is a component of Destination Portsmouth, the City's implementation program for the Destination 2025 Comprehensive Plan. Adopted in 2005, the Comprehensive Plan established the following goal for the future transportation system:

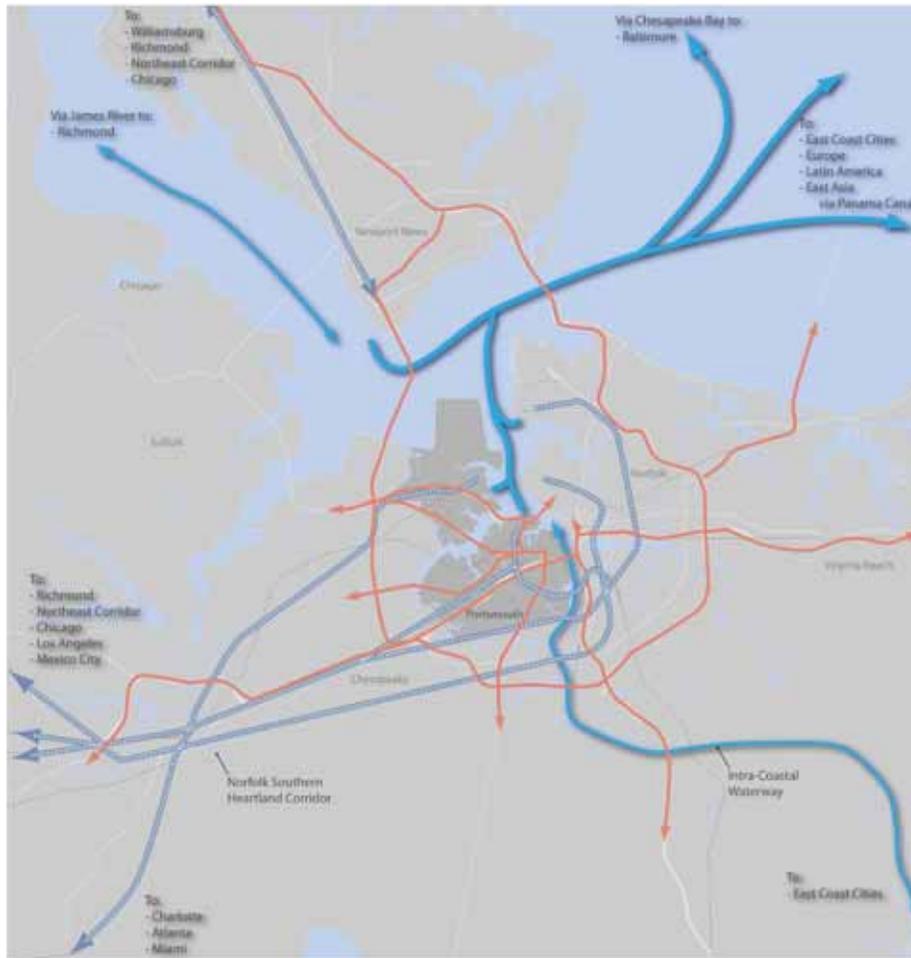
A multimodal transportation network with enhanced features that support the City of Portsmouth's quality of life and economic vitality.

The Destination 2025 Comprehensive Plan proposed a future land use pattern structured around mixed-use activity centers such as Downtown and Midtown and mixed-use corridors such as High Street and Victory Boulevard.

The purpose of the MTP is to coordinate transportation policy, investment, projects, and priorities through the year 2030 to ensure that the future transportation system supports the City's goals for land use, economic development, and quality of life. It is the first plan in the City's history to address all transportation modes – pedestrian, bicycle, public transit and passenger rail, motor vehicles and parking, ports and freight movement, and aviation. It addresses these modes both separately and as a networked, intermodal system

# Transportation Planning in the Hampton Roads Region

The MTP is the City's plan for transportation in Portsmouth. However, given that Portsmouth is a place where local, regional, national, and international transportation systems intersect, the MTP also addresses the City's role in the larger systems that have such a profound impact on the mobility and quality of life of its residents.



- Facility types
- Shipping Flows
  - Freight Rail Flows
  - Vehicular and Commuter Flows

## Shipping, Freight Rail and Commuter Flows

Regional Transportation through the Hampton Roads Region

As the Metropolitan Planning Agency (MPO) for the Hampton Roads region, the Hampton Roads Transportation Planning Organization (HRTPO) is responsible for preparing a Long-Range Transportation Plan (the Hampton Roads LRTP 2034) to guide regional transportation investments. As the regional transit provider, Hampton Roads Transit (HRT) is responsible for long-range planning for public transportation, including bus and light rail (currently under development in Norfolk). The plans and actions of other regional and state transportation agencies, such as the Virginia Department of Transportation (VDOT) and the Virginia Port Authority (VPA), also impact transportation in Portsmouth. VDOT has a particularly important role to play through its policy, regulatory, and funding programs.

The MTP is not intended to preempt these broader planning efforts, which provide the framework for transportation policy and investment within Portsmouth. Rather, it establishes the City's position relative to the larger transportation systems affecting Portsmouth based on two premises:

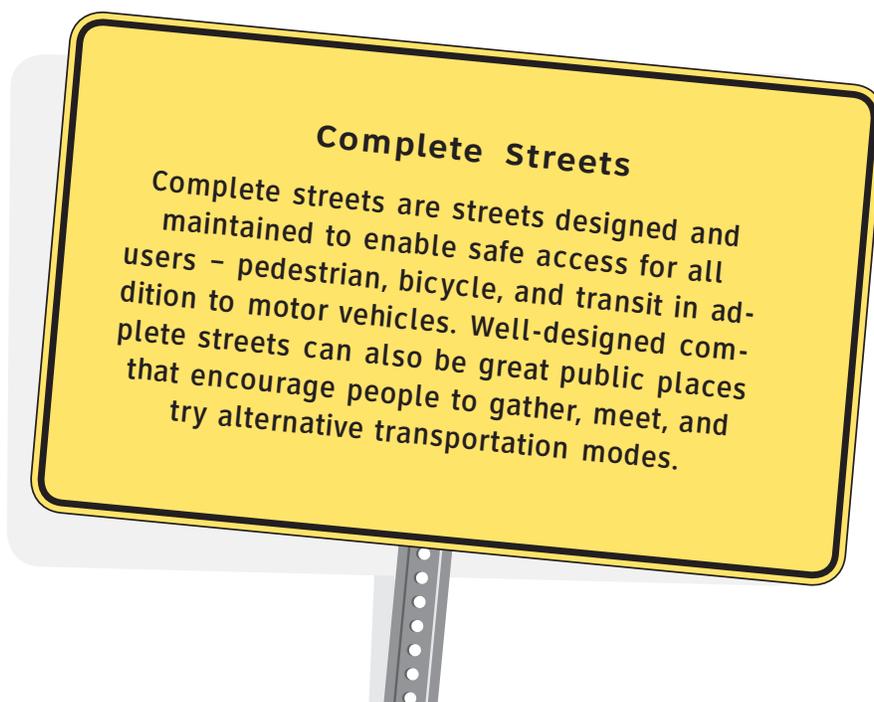
- 1** Portsmouth and its residents should not bear a disproportionate share of impacts from transportation flows (people and freight) that benefit the larger region and Commonwealth of Virginia as a whole.
- 2** Portsmouth's strategic location means that transportation investments that help the City will yield corresponding advantages for the Hampton Roads region as a whole.

# How the Master Transportation Plan is Organized

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The Portsmouth MTP document is organized into two parts. Part I (Existing Conditions and Trends) addresses Portsmouth’s transportation system as it exists today and the major trends that may shape its future. It places local conditions and trends in a regional, national, and international context and provides the foundation for the recommendations provided in Part II.

Part II (Recommendations) establishes a long-range vision, goals, and policy framework for Portsmouth’s future transportation system. It provides detailed strategy and action recommendations for each system element (mode) in Chapter 5. Chapter 6 (Implementation) defines criteria for prioritizing transportation investments; establishes an action plan organized into timeframes over a 20-year period based on the criteria; identifies “catalytic” (early action) projects and available funding sources; and outlines steps to be taken to monitor implementation progress. Chapter 7 (Design Guidelines) presents a street classification system, guidelines, and tools that the City can use to promote development of a multimodal transportation system over time, based on the concept of **complete streets**.



# Planning Process

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The Portsmouth MTP was prepared through a two-phased process consisting of the following steps:

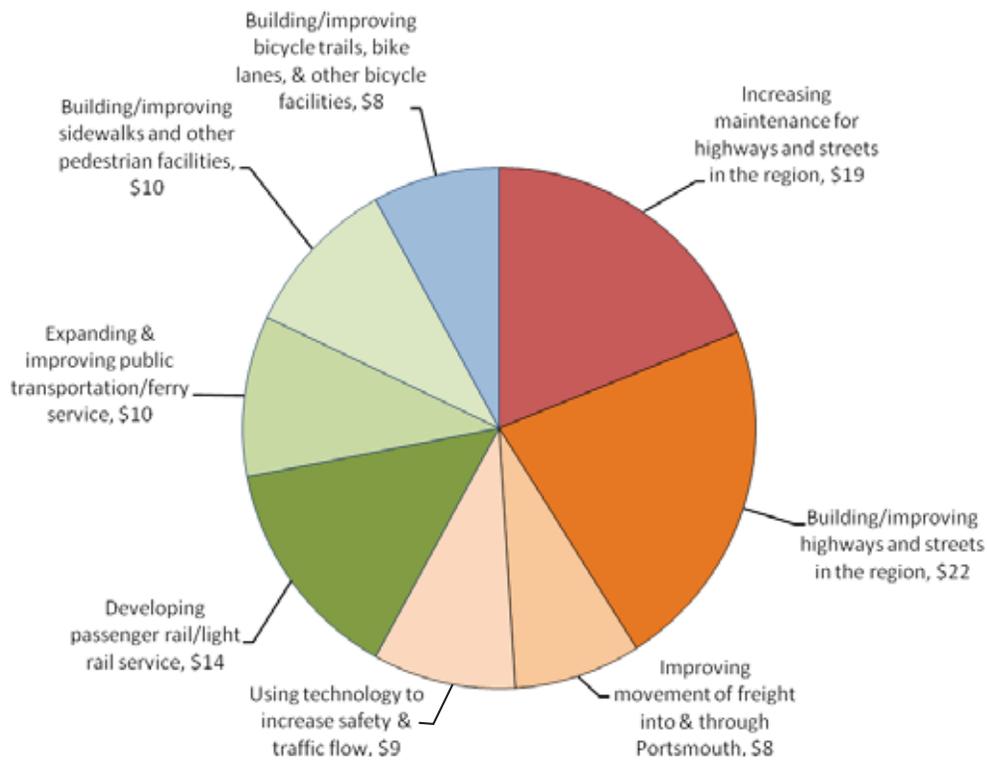
## Phase One

- 1** Interviews were conducted with key stakeholders involved in local and regional transportation to collect data and solicit input on issues and ideas for the plan.
- 2** Data collected from stakeholders and other sources was analyzed to assess existing conditions and trends related to transportation in Portsmouth and the region.
- 3** A random, statistically valid survey of Portsmouth citizens was conducted to understand public attitudes regarding transportation issues in the City.
- 4** Two rounds of public meetings were held in different locations in Portsmouth at key points in the process to solicit the input of residents in developing the plan.

## Phase Two

- 5** Based on the results of the previous steps, specific recommendations to bring about Portsmouth's future transportation system were formulated.

## How Would Respondents Allocate \$100 Among Various Categories of Transportation Funding?



Sample Citizen Survey Results

### Key Findings from Phase 1 Based on Public Input

- 1** Truck traffic is a major concern.
- 2** Traffic congestion is a problem on regional highways and at “hot spots” on the local road network.
- 3** Portsmouth needs streets that support all travel modes, not just motor vehicles.
- 4** The transit system should be more convenient for users.
- 5** Portsmouth lacks a safe bicycle network.

# Vision for the Future of Portsmouth's Transportation System

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The MTP establishes a vision for Portsmouth's future transportation system in the year 2030 as the "destination" that its policies and recommendations are designed to achieve. The vision addresses the different scales of Portsmouth's transportation system as follows:

## The Vision for Local Transportation in 2030

- It is convenient and safe to move throughout Portsmouth using any travel mode.
- The street network is comprised of complete streets that are accessible to all users.
- It is safe for children to bicycle and play in their neighborhoods and walk to school.
- It is easy to reach major destinations such as activity centers and employment areas by all means of transportation, including transit.



Portsmouth will be a safe place for children to bike and walk to school.

## The Vision for Portsmouth's Role in Regional Transportation in 2030

Regional transportation infrastructure has been upgraded through equitable funding sources to enhance overall prosperity and quality of life in the Hampton Roads region, so that:

- Regional traffic moves through Portsmouth with minimal impact on residents and without causing spillover congestion onto city streets.
- It is easy to travel from Portsmouth to destinations throughout the region by automobile, transit, and other travel modes.



Relieving traffic congestion and increasing safety at major intersections is key.

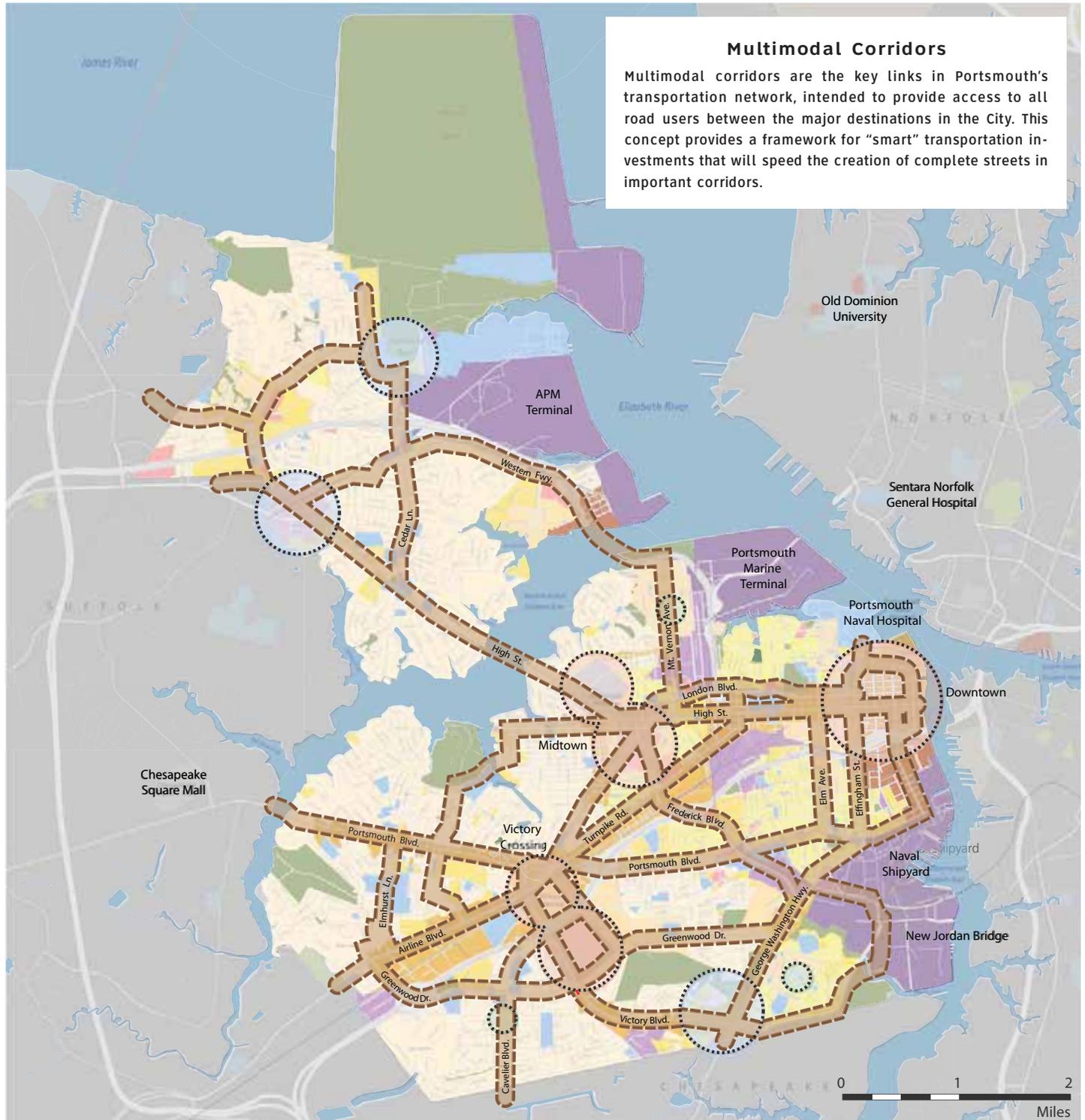
## The Vision for Portsmouth’s Role in National and International Transportation in 2030

- Portsmouth is an international gateway for maritime transportation and a national model for a “green” port city, creating economic opportunities for the City and its residents.
- The ports are served by an efficient freight transportation system that provides a high level of service while maintaining local quality of life and protecting the environment. Fifty percent of landside freight is moved by rail.
- Intercity, high speed rail serves the south side of the Hampton Roads region with a Portsmouth station that supports a thriving downtown.
- Capitalizing on its location at “Mile 0” of the intracoastal waterway, Portsmouth is a hub for recreational and commercial boating.

In order to achieve the vision of a citywide network of complete streets that support the land use goals of the Destination 2025 Comprehensive Plan, the City must work to ensure that all travel modes are accommodated on all roads as appropriate. However, resource and funding limitations make it impossible to implement the improvements needed to accommodate all users on all Portsmouth streets within the 20-year timeframe of the MTP. Therefore, the MTP proposes the concept of **multimodal corridors** to prioritize the implementation of a complete street network in Portsmouth.



Portsmouth will continue to thrive as one of the nation’s most important ports



**Multimodal Corridors**

Multimodal corridors are the key links in Portsmouth's transportation network, intended to provide access to all road users between the major destinations in the City. This concept provides a framework for "smart" transportation investments that will speed the creation of complete streets in important corridors.

-  Multi-Modal Corridors
-  Activity Center

**Multi-Modal Corridors**

Multi-Modal corridors will serve as a framework for investments in complete streets.

# The Elements of Portsmouth's Future Transportation System

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Part II of the MTP presents detailed recommendations (strategies and actions) for the different elements of Portsmouth's future transportation system. While presented separately for each mode, these recommendations are intended to work together to create a truly interconnected, multimodal system.

The recommendations for the future **pedestrian system** are designed to enable residents and visitors to travel easily, safely, and enjoyably by foot throughout Portsmouth, making it a city of walkable neighborhoods. Key strategies include:

- Develop a well-connected network of sidewalks, street crossings, and other pedestrian amenities linking neighborhoods and destinations throughout Portsmouth.
- Promote walking through education, enforcement, and encouragement programs.
- Develop and implement a plan to maintain the pedestrian network.
- Explore potential funding sources for pedestrian improvements and maintenance.



Safe Routes to School Event, *Columbia, MO*. Children walk to school with teachers and parents during a Safe Routes To School event.

The recommendations for the future **bicycle system** are designed to provide safe, attractive, and convenient access for bicyclists of all ages and abilities, making Portsmouth the most bikable city in the Hampton Roads region. Key strategies include:

- Develop a citywide network of bikeways, including bike lanes, bicycle boulevards, and shared use paths.
- Use the most current and innovative communicative devices (pavement markings, signal infrastructure, signage, etc.) to demarcate the bikeway network.
- Educate and encourage the general public on the benefits of bicycling and the rules of the road for bicycles.
- Provide supporting facilities (bike racks/parking, repair stations, route maps, and restroom/shower facilities) at key locations to serve cyclists.



Schuylkill River Trail, *Philadelphia, PA*. Greenway trails and shared use paths provide a high quality experience for bicyclists, pedestrians, and other non-motorized users.

The recommendations for the future **public transit and passenger rail system** are designed to make public transportation a useful, reliable, and enjoyable way to travel throughout Portsmouth and the region. The plan calls for the City to work with HRT to implement HRT's Transit Vision Plan for the Hampton Roads region as it applies to Portsmouth. Key strategies include:

- Improve existing transit within Portsmouth by providing higher frequency service, expanded and new transit transfer centers, and improved passenger amenities.
- Expand and improve Regional Express Bus service serving Portsmouth.
- Work to bring future light rail and passenger rail to Portsmouth.
- Establish a Portsmouth Transportation Management Association (TMA) to promote transit use and coordinate it with other travel modes.



High Frequency Bus Corridors, *Washington, DC*. The DC Circulator operates five routes with frequencies as little as every ten minutes. Passengers can purchase tickets at on-street parking meters and board through any door, reducing the amount of time buses stop to pick up and discharge passengers.

The recommendations for the future **motor vehicle and parking system** are designed to allow safe and efficient flow of vehicular traffic in and through Portsmouth without compromising movement by other transportation modes or quality of life for residents. Key strategies include:

- Improve roadway safety through improvements targeted towards unsafe conditions, taking advantage of available funding programs for this purpose.
- Through the new Portsmouth TMA (and in coordination with TRAFFIX<sup>1</sup>), implement a Travel Demand Management (TDM) program to promote alternatives to peak-hour, single occupancy vehicle travel.
- Implement regionally significant roadway improvement projects needed to relieve congestion and mitigate impacts on local streets. (Examples include the MLK Freeway Extension; the Jordan Bridge replacement and parkway connector; and capacity improvements to the Midtown and Downtown Tunnels.)
- Develop and implement a maintenance plan for the city street network.
- Explore potential funding sources for roadway improvements and maintenance.
- Ensure that parking supply is commensurate with need and improve the design quality of parking infrastructure.



“Wrapped” Parking Garage, *Boulder, CO*. The Pearl Street municipal parking garage is “wrapped” by a liner building containing retail and office space.

(1) TRAFFIX is a cooperative public service staffed by HRT whose mission is to promote alternatives to use of single-occupancy vehicles in the Hampton Roads region.

The recommendations for Portsmouth’s future **freight movement and maritime transportation system** are designed to accommodate the continued growth of maritime trade through the port city and maximize its economic benefits without sacrificing quality of life for residents. Key strategies include:

- Support implementation of regional port and freight-related transportation improvements that improve the efficiency of freight movement through Portsmouth while reducing impacts on residents. (Examples include the Commonwealth Railway Mainline Safety Relocation Project; the Craney Island Access Road to the future Craney Island Marine Terminal planned by VPA; and the MLK Freeway Extension and Midtown Tunnel improvements.
- Shift freight traffic movement from truck to rail by supporting improvements to the Belt Line Railroad and other rail facilities in Portsmouth.
- Reduce the amount of truck traffic on local streets by establishing designated truck routes, demarcating the designated routes with signage, and discouraging truck usage of restricted streets through increased enforcement and traffic calming measures.
- Develop a “sustainable port” strategy to reduce the environmental impacts of port and freight facilities.



Freight Rail Trench, *Los Angeles, CA*. By reconstructing a freight line in a trench below street level, the Alameda Corridor Transportation Authority was able to eliminate all grade crossings between the Ports of Los Angeles/Long Beach and downtown Los Angeles.

# Moving from Vision to Action

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Plans are turned to reality by taking action. The MTP lays out a bold vision for the future of Portsmouth's Transportation System. It also establishes a guide for prioritizing, funding, carrying out, and monitoring the effectiveness of actions taken to implement the detailed plan recommendations.

The multiple scales of the transportation systems that affect Portsmouth, combined with the limited resources available in a relatively small city, mean that successful implementation of the MTP will require **partnerships** among a variety of entities at the local, regional, and state levels. Key partners include, among others: state agencies (VDOT, the Virginia Department of Rail and Public Transportation, VPA); regional organizations (HRPTO, HRT, the Hampton Roads Planning District Commission); neighborhood and resident groups; and private sector concerns (railroads, trucking companies, etc.).

Given the ambitious range of proposed projects identified in the MTP, a second key to successful plan implementation will be **prioritization** of transportation investments in Portsmouth to ensure that they yield the maximum possible benefits. The MTP establishes five criteria for use in prioritizing projects for implementation:

- Degree of achievement and support of goals stated in the plan (mobility, safety, environmental quality, land use, etc.)
- Geographic priority (focused on the network of multimodal corridors designated in the plan)
- Relative ease of implementation (based on factors such as the availability of funding)
- Ability to catalyze future implementation of other MTP projects
- Expressed support by residents, governmental officials, and/or regional agencies

Based on these criteria, the MTP establishes an **action plan** that identifies policies, programs, and projects to be implemented over the time horizon of the plan (through 2030) to achieve the vision for Portsmouth’s future transportation system. These actions are divided into catalytic (0-2 year), near-term (2-5 year), mid-term (5-10 year), and long-term (10-20 year) timeframes. In addition, the action plan includes ongoing actions that require attention on a continuous or regular basis.

## Streets & Intersections Implementation Plan

Related Action	Related Action in Transportation System	Implementing Agency	Partners	Potential Funding Sources
<i>Catalytic (1-2 years)</i>				
Implement zoning ordinance revisions addressing the following: <ul style="list-style-type: none"> <li>• complete street design guidelines</li> <li>• requirements for bicycle parking</li> <li>• reduced minimums and new maximum parking requirements</li> <li>• design and siting requirements for new parking facilities</li> </ul> (Also see Policy & Ordinance Amendments)	P1.3, B1.4, B6.2, B6.3, B6.4, B6.5, V12.1, V12.6, V12.7, V13.2, V13.3, V13.5	Planning	Engineering	N/A
Construct improvements identified as part of the Roadway Safety Assessment (RSA) program and funded through the Highway Safety Improvement Program (HSIP).	P5.1, B4.3, V1.1, V1.4	Engineering	VDOT	HSIP
Stripe crosswalks at all signalized intersections with existing sidewalk connections. (Also see Bicycles & Pedestrians)	P4.2, P5.1	Engineering	VDOT	HSIP
Implement signal system upgrades and optimized signal timing plans to enhance corridor traffic progression and system efficiency.	V3.2	Engineering	VDOT	ARRA, DOE grant, CMAQ
Implement a safe driving campaign.	V2.1	Police		FHWA
Increase enforcement of speeding, reckless driving, and red light running violations.	V2.2	Police Department	City Council	
Construct bike lanes, parking, and sidewalk repair on Portsmouth Boulevard east of I-264 using a road diet. (Also see Bicycles & Pedestrians)	P4.1, P4.2, B4.2, B4.3, B5.1, B4.5, V8.2, V11.1	Engineering	VDOT	TE, HSIP, SRTS

A Selection from the Implementation Plan Component of the MTP

## Catalytic Projects (Proposed for Implementation within Two Years of Plan Adoption)

- Construct intersection improvements identified by the Roadway Safety Assessment program and funded through the Highway Safety Improvement Program.
- Implement signal system upgrades and optimized signal timing plans.
- Stripe crosswalks at signalized intersections with existing sidewalk connections.
- Improve signage and pavement markings for bicyclists and pedestrians on the Western Freeway Bridge.
- Initiate planning and a grant application to construct a “rail trail” on the rail lines being abandoned as part of the Commonwealth Railway Mainline Safety Relocation Project.
- Implement bike lanes, parking, and sidewalk repairs on Portsmouth Boulevard East between I-264 and Effingham Street.
- Install bicycle facilities on the High Street East Corridor.
- Construct the Mt. Vernon Avenue bike boulevard and complete street demonstration project.
- Construct the Clifford/Bart/South Street bike boulevard.
- Stripe bike lanes on Elm Avenue.
- Construct the McLean Transit Transfer Center with pedestrian and bicycle access improvements connecting to Victory Crossing and Tidewater Community College.
- Initiate planning to secure start-up funding for an enhanced service prototype bus corridor.
- Reconstruct the Alexander’s Corridor intersection, including associated bicycle and pedestrian improvements.

Transportation plays a critical role in the life of the City of Portsmouth and the region, state, and nation. A functioning transportation system is essential to the movement of people, the goods on which they depend, and their ability to make a living, but also causes significant environmental impacts. Approximately one-third of greenhouse gas emissions are due to transportation, with over half generated by personal vehicles. The implications of global climate change and sea level rise for a low-lying coastal community such as Portsmouth are well documented, and the Mayor has signed the *US Conference of Mayors Climate Protection Agreement* committing the City to reducing its carbon emissions to seven percent below 1990 levels by the year 2012. Energy security is another transportation issue centering on the nation's dependence on foreign sources of non-renewable fossil fuels, one that was highlighted by the record-setting gas prices of 2008.

The MTP sets a new direction for Portsmouth's transportation system in the context of an uncertain but likely energy-constrained future. Consistent with emerging policy directives and funding opportunities at the federal and state level, it moves away from past transportation decision-making that focused on accommodating vehicular traffic flow at the expense of other travel modes. In its place, it envisions a system that accommodates all modes – vehicular, pedestrian, bicycle, pedestrian, transit, and freight movement – safely, efficiently, and compatibly with the City's goals for land use, economic development, and the quality of its environment and neighborhoods. Implementing the plan will take concerted effort over a number of years and partnerships at all levels. The results will benefit the residents not only of Portsmouth, but of the region and beyond. The time for action is now.