HAMPTON ROADS 2030 LONG-RANGE TRANSPORTATION PLAN

HAMPTON ROADS
PLANNING DISTRICT COMMISSION

December 2007

T07-10

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HAMPTON ROADS
2030 LONG-RANGE TRANSPORTATION PLAN

This report was included in the Work Program
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ABSTRACT

This document identifies the transportation projects planned to be in place in the year 2030 in Hampton Roads and records the process through which the Plan was developed. The purpose of the project identification lists is to serve as a reservoir from which projects are moved to implementation, and to inform persons in both the public and private sectors of planned transportation investments. The purpose of the planning process record is:

- To allow the reader to weigh the assumptions, analyses, and procedures used during plan development and thereby to judge the validity of the Plan, and

- To serve as a guide for the next planning cycle.

ACKNOWLEDGEMENTS

Prepared in cooperation with the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), and the Virginia Department of Transportation (VDOT). The contents of this report reflect the views of the Hampton Roads Metropolitan Planning Organization (MPO). The Hampton Roads Planning District Commission (HRPDC) is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, VDOT, or HRPDC. This report does not constitute a standard, specification, or regulation. FHWA or VDOT acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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PURPOSE OF THE PLAN

Better Transportation for Hampton Roads

Planning for Better Transportation

The 2030 Long-Range Transportation Plan (LRP) is intended to help provide a transportation system which will give Hampton Roads' citizens enhanced mobility and a robust economy. According to SAFETEA, the federal law under which this plan was developed:

> "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…."
>
> "To accomplish the objectives [stated above], metropolitan planning organizations [MPOs]…in cooperation with the State and public transportation operators, shall develop long-range transportation plans…."[1]

From a large list of candidate projects, the Hampton Roads MPO chose for the Plan those projects which seemed best able to further the transportation mobility and economic growth in the region. Policies of the federal government and MPO insured that the Plan contains only high priority project work. The federal government requires that the Plan be fiscally constrained, i.e. that it contain only those expenses that can be covered by reasonably expected revenues. According to the proposed SAFETEA rules:

> "The metropolitan transportation plan shall…include…[a] financial plan that demonstrates how the adopted transportation plan can be implemented…."[2]

If the Plan were not fiscally constrained, projects of lesser priority could be included in it.

Buying a Better Transportation System

One way that the Plan can influence the transportation system of the future is by influencing the spending of dollars during the four-year life of the Plan. Federal law and rule control the use of federal funds, thereby both promoting the implementation of projects in the Plan and limiting the implementation of projects which are not in the Plan. The local Transportation Improvement Program (TIP) is a short-range document which

[1] Title 23, United States Code, Sec. 134 (a) & (c), as reported in "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Conference Report of the Committee of Conference on H.R. 3"

[2] Proposed Rule, June 9, 2006, 23 CFR Part 450.322 (f) 10.

defines where transportation dollars will be spent in the next three years. According to the proposed SAFETEA rules:

> "For public information and conformity purposes, the TIP should include all regionally significant projects..."[3]
> "Each project…included in the TIP shall be consistent with the approved metropolitan transportation plan…."[4]

In this way, the Plan influences the spending of today's transportation dollars.

Better Location Decisions

Enabling better location decisions is another way the Plan proves useful. Local, State, and Federal governments can use the Plan to find locations for public facilities (e.g. schools, fire stations, and military facilities) which will be well-served by the transportation system of the future. Private enterprises can use the Plan to find good locations for retail businesses and offices.

Determination of Appropriateness of Planned Projects, Transportation Funding, and Land Use

Finally, the Plan is a tool that helps the public and elected officials determine:

- the effectiveness of the projects in the Plan,
- the appropriateness of the level of transportation funding assumed for the Plan, and
- the suitability of the local comprehensive plans which determined the land use assumptions used in the development of the Plan.

A snapshot of the amount of congestion which can be expected in Hampton Roads (HR) in the future has been calculated using the set of 2030 Plan projects, which includes only those projects which can be paid for under the existing funding formula scenario, and land use assumptions from local comprehensive plans. See "2030 Vehicle Volumes and Level of Congestion Forecast" section for details. Those citizens and elected officials who find this amount of congestion unacceptable may wish to change the projects included in the next LRP, increase funding for transportation, or change local comprehensive plans.

[3] Proposed Rule, June 9, 2006, 23 CFR Part 450.324 (d).
[4] Proposed Rule, June 9, 2006, 23 CFR Part 450.324 (g).

PURPOSE OF THIS DOCUMENTATION

In addition to enabling the Plan to achieve the purposes discussed above (directing transportation infrastructure expenditures, informing location decisions, and determining the appropriateness of planned projects, transportation funding, and land use), this documentation of the Plan allows the reader to review the *process* of developing the Plan. By judging the validity of the planning process, the reader can gain an indication of the value of the Plan.

2030 PLANNING PROCESS

PERSONS DEVELOPING THE 2030 PLAN

The following groups of persons developed the 2030 Plan:

1) Team2030—a new subcommittee of the TTC with open membership focusing solely on the 2030 Plan meeting from November 2004 through April 2006—created guidelines for the development of the 2030 Plan.
2) The Transportation Technical Committee (TTC)—a committee of planners and engineers from local government, VDOT, and local transit companies which advises the MPO on a variety of transportation issues—selected local projects and made adjustments to regional project recommendations made by PDC staff.
3) The general public impacted the development of the 2030 Plan as outlined in the "Achieving Public Participation" section located below.
4) The Chief Administrative Officers (CAOs)—the city managers of Hampton Roads cities and the county administrators of Hampton Roads counties—advised the MPO on high-profile projects.
5) HRPDC staff facilitated meetings of Team2030, TTC, CAOs, and MPO and provided them technical analyses to inform their decisions.
6) The MPO is responsible for the contents of the 2030 Plan.

OVERVIEW OF THE PLANNING PROCESS

The three-year 2030 LRP planning process followed a logical sequence of steps, several of which build on the preceding step:

- Development of vision and goals
- Forecasting 2030 socio-economic data
- Calculating locations of expected congestion given 2030 socio-economics
- Formulating candidate 2030 Plan projects
- Estimating the cost of the candidate projects
- Calculating the expected effectiveness of each candidate project
- Calculating the expected amount of funding from existing sources
- Selecting projects for draft Plan from list of candidates
- Soliciting public input concerning the draft 2030 projects
- Calculating expected air-quality impacts of Plan projects.

These steps are discussed in the sections of the document which follow.

SETTING PARAMETERS: VISION, GOALS, AND PROJECT SELECTION CRITERIA

Vision

In response to the severe financial forecast contained in the commonwealth's long-range transportation plan, VTrans 2025 (details provided below), on March 16, 2005 the MPO adopted the following three-part vision under which the development of the 2030 Long-Range Transportation Plan was to occur:

Vision
2030 Hampton Roads Regional Transportation Plan

Highway Funding

The cost of maintaining the existing highway system is growing more rapidly than highway funding. In 2003 Virginia started using a portion of construction dollars to cover maintenance overages. Funds available for construction are expected to decrease each year. VDOT's financial forecast shows that "by 2014, state highway funds will be insufficient to match federal highway funds", and "by 2018, there will be no state highway funds for construction." Consequently, there is not enough highway revenue over the next 20 years to complete the projects in the current Six-Year Improvement Program (SYIP).[5]

If the financial future for Hampton Roads' highways—funding, maintenance, and cost of SYIP projects—resembles that of Virginia, the highway portion of the 2030 Regional Transportation Plan may only contain any feasible toll-only-financed projects plus a pared-down version of the TIP.

Transit Funding

If the financial future for Hampton Roads' highways—funding, maintenance, and cost of SYIP projects—resembles that of Virginia as contained in VTrans 2025, NHS funds may not be available for transit.[6] In that case, the inclusion of LRT and BRT projects in the 2030 Plan will be contingent on the availability of federal New Starts and special state and local funding.

Highway Congestion

Even after constructing the projects in the current TIP, the severely congested portion of our local thoroughfare system is expected to double, from 14% in 2000 to 30% of the entire system in 2030.

[5] "VTrans 2025, Summary of the Final Report", VDOT, 2005, p. 3.
[6] In the 2026 RTP, $304M NHS funds were assigned to transit projects.

Goals and Project Selection Criteria

In light of the tight financial forecast and based on federal planning factors, on March 16, 2005 the MPO adopted the following goals and project selection criteria:

Goals and Project Selection Criteria
2030 Hampton Roads Regional Transportation Plan

In light of the current mismatch between transportation funding and transportation deficiencies, it is more important than ever that only the best projects should be selected for planned construction. For highways, if future funding exists for projects not included in the current TIP, the best candidate projects should be added to the TIP to form the highway portion of the Regional Transportation Plan (RTP). If future funding will not cover the projects included in the current TIP, the best TIP projects should be selected for the RTP.

The federal planning factors are listed below (in quotes), with regional project selection criteria added underneath (indented):

- "Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency."
  - Select projects which provide congestion relief.
  - Select cost-effective projects (e.g. lowest cost per new user).

- "Increase the safety and security of the transportation system for motorized and non-motorized users."
  - Select projects with potential to improve safety.

- "Increase the accessibility and mobility options available to people and for freight."
  - Set aside funding for mass transit projects.
  - Select cost-effective projects (e.g. lowest cost per new user).

- "Protect and enhance the environment, promote energy conservation, and improve quality of life."
  - Select projects which promote efficient growth patterns identified in local Comprehensive Plans.

- "Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight."
  - Select projects which improve port access and freight mobility.

- "Promote efficient system management and operation."
  - Set aside funding for cost-effective ITS projects.

- "Emphasize the preservation of the existing transportation system."
  - Fully fund maintenance.
  - In selection process, consider long term operations and maintenance costs.

It should be noted that federal SAFETEA rules proposed in 2006 concerning planning factors revised slightly the above factors which were in place in 2005. According to the proposed SAFETEA rules[7] (*emphasis added*):

> The metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors:
>
> (1) Support the *economic vitality* of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
> (2) Increase the *safety* of the transportation system for all motorized and non-motorized users;
> (3) Increase the ability of the transportation system to support *homeland security* and to safeguard the personal security of all motorized and non-motorized users;
> (4) Increase *accessibility and mobility* of *people and freight*;
> (5) 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*;
> (6) Enhance the integration and *connectivity* of the transportation system, across and between modes, for people and freight;
> (7) Promote efficient system *management and operation*; and
> (8) Emphasize the *preservation* of the existing transportation system.

[7] Proposed Rule, June 9, 2006, 23 CFR Part 450.306 (a).

SAFETEA REQUIREMENTS AND COMPLIANCE

HRPDC staff administered the development of the 2030 Plan following the requirements of current federal transportation law- "Safe, Accountable, Flexible, Efficient Transportation Equity Act", or SAFETEA. To document this compliance with SAFETEA, excerpts from the Final Rule concerning SAFETEA requirements for LRPs as recorded in the February 14, 2007 Federal Register are shown below in italics, with HRPDC action (or the location of information concerning action) underneath each requirement.

§ 450.322 Development and content of the metropolitan transportation plan.

(a) The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon as of the effective date…

The 2030 horizon years provides a 20-year planning horizon through the expected 4-year life of the Plan.

(b) The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

Long and short-range transportation strategies/actions are incorporated throughout this document. See, for example, "Intelligent Transportation Systems (ITS)" section of this document.

(c) The MPO shall review and update the transportation plan at least every four years in air quality nonattainment and maintenance areas…

A conformity finding was issued by USDOT for the 2026 Plan on Feb. 3, 2004. A 2034 LRP will be developed within 4 years of the effective date of this 2030 Plan.

(d) In metropolitan areas that are in nonattainment for ozone or carbon

monoxide, the MPO shall coordinate the development of the metropolitan transportation plan with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP).

Because Hampton Roads is an air quality "maintenance area", the requirements of this section ("d") do not apply.

(e) The MPO, the State(s), and the public transportation operator(s) shall validate data utilized in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity…

The latest data (e.g. population, land use, etc.) was used in the development of the 2030 Plan. See "Developing Socio-Economic Data for Planning" section for details.

(f) The metropolitan transportation plan shall, at a minimum, include:

(1) The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan;

See Appendix C for travel forecasts by highway segment. See "Freight Forecast" section for freight forecast.

(2) Existing and proposed transportation facilities (including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors)…

See "2030 Long-Range Transportation Plan" section and see "Bicycle and Pedestrian Planning" section for existing and proposed transportation facilities.

(3) 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;

For operational and management strategies see "Congestion Management Process (CMP)" section and "Intelligent Transportation Systems (ITS)" section.

(4) Consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart…

The results of the congestion management process (CMP) were considered in the project selection process. See "Selecting Projects" section for details.

(5) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs…

The 2030 Plan is constrained financially by the amount of funding expected to be available. See "Applying Financial Constraint" section for details.

(6) Design concept and design scope descriptions of all existing and proposed transportation facilities…

See "2030 Long-Range Transportation Plan" section for details concerning proposed projects.

(7) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities…. The discussion shall be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies…

VDOT developed potential environmental mitigation activities for LRPs in Virginia. See "Potential Environmental Mitigation Activities" section for details.

(8) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g);

See “Bicycle and Pedestrian Planning” section.

(9) Transportation and transit enhancement activities, as appropriate;

See “Enhancement” section of current TIP for planned enhancement activities.

(10) A financial plan that demonstrates how the adopted transportation plan can be implemented…

In order to insure financial constraint, the 2030 Plan was developed by first forecasting funding expected to be available and then by allocating those funds to projects, by funding type. See “Applying Financial Constraint” section.

(g) The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan…

The MPO staff consulted with agencies responsible for land use management, natural resources, etc. See “Consulting with Other Agencies” section for details.

(h) The metropolitan transportation plan should *include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the Strategic Highway Safety Plan required under 23 U.S.C. 148, as well as (as appropriate) emergency relief and disaster preparedness plans and strategies and policies that support homeland security (as appropriate) and safeguard the personal security of all motorized and non-motorized users.*

Existing crash rates for candidate project roadways were included in the data provided to decision-makers who selected projects for the 2030 Plan (see "Measuring the Effectiveness of Candidate Projects" section). Concerning the Strategic Highway Safety Plan and disaster preparedness plans, see "Strategic Highway Safety Plan (SHSP)" section and "Virginia Hurricane Emergency Response Plan" section, respectively.

(i) The MPO shall provide citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under § 450.316(a).

The MPO provided citizens of all types the opportunity to comment on the draft 2030 Plan. See "Achieving Public Participation in the Development of the Plan" section for details.

(j) The metropolitan transportation plan shall be published or otherwise made readily available by the MPO for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.

The 2030 project list was posted on www.hrpdcva.gov after being approved by the MPO. This document is also available on that website.

(k) A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (f)(10) of this section.

So noted.

(l) In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93)...

The 2030 conformity document was submitted to FHWA and FTA in early 2007. A revised version was submitted in late 2007.

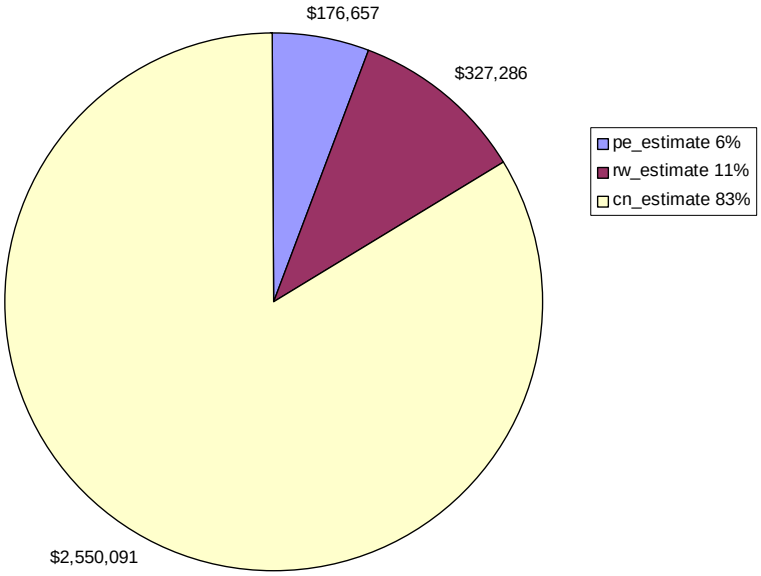
FOCUSING TRANSPORTATION DOLLARS ON CONSTRUCTION

Having noticed in the Transportation Improvement Program (TIP) a large number of projects in Preliminary Engineering (PE) phase, and having received several requests for the inclusion of development-only line items (i.e. line items showing PE and/or right-of-way (RW) phases but no construction (CN) phase) in long-range plans, HRPDC staff analyzed how VDOT and the MPO were spreading transportation dollars over the three phases (PE, RW, and CN).

First, in order to determine a desirable parceling of transportation dollars, staff calculated the average percentages of these three phases by summing a collection of project cost estimates, as shown below.

Cost Estimate Components ($1,000s)

Hampton Roads FY05 STIP Projects (w/ construction cost estimates)

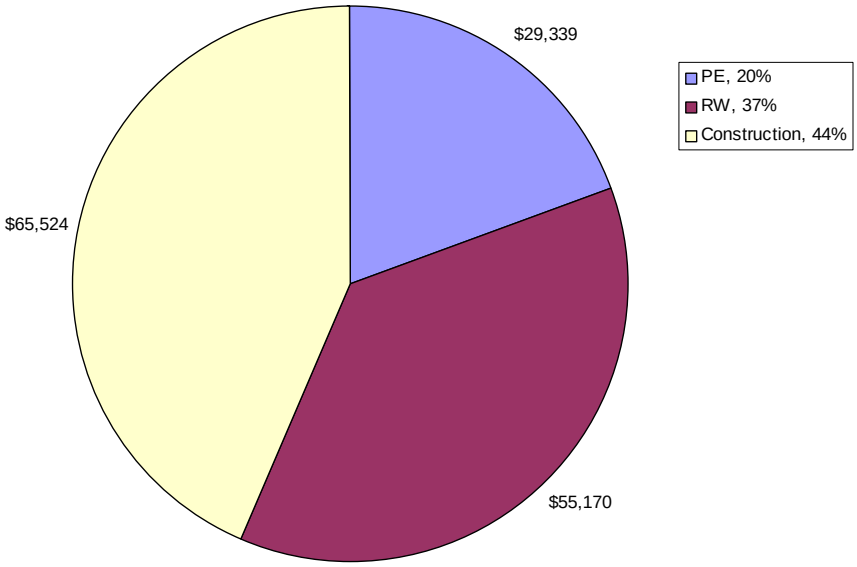


HamptonRoadsSTIP_1_RBC.xls

From the above data, making allowances for PE spending on projects which do not prove feasible, staff determined that a desirable TIP would commit 70-80% of its annual dollars to construction.

Then staff calculated the portion of dollars committed in FY05 to the three phases, as shown below.

FY 05 Obligations, Hampton Roads, $1,000s



HamptonRoadsSTIP_1_RBC.xls

Instead of the desirable 70-80%, staff found that only approximately half of transportation dollars were being spent on construction.

In response to this finding presented at its March 4, 2005 meeting, Team2030 proposed a policy on the inclusion of only construction projects in long-range plans. On April 20, 2005, the MPO adopted the policy, which reads:

> "In order to focus transportation dollars on the construction of transportation projects, it is the goal of the MPO to exclude "development-only" line items from its 2030 Regional Transportation Plan. Under special circumstances, however, the inclusion of a particular development-only line item will be considered."

This 2030 Plan is comprised almost entirely of fully-funded projects. (It contains only one "PE/RW Only" project: US 60 Relocated [in Newport News and James City].)

DEVELOPING SOCIOECONOMIC DATA FOR PLANNING

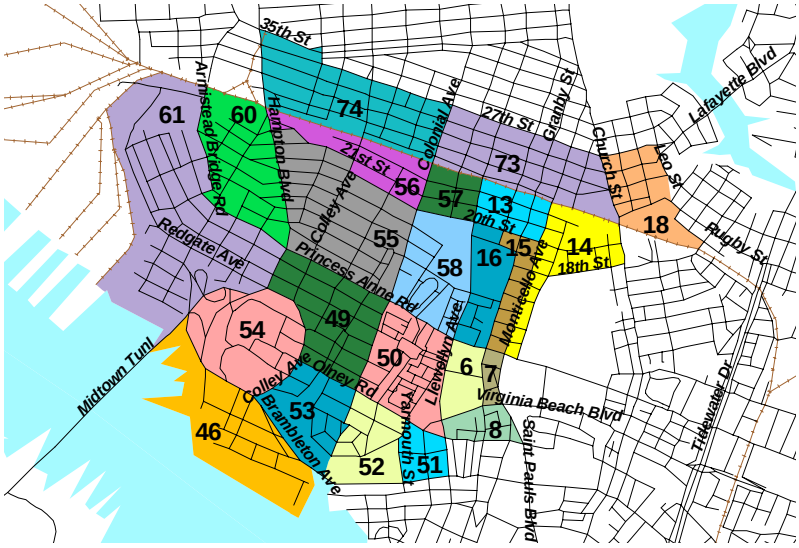
Year 2000 Socioeconomic Data Development

To ensure an accurate estimate of where growth in traffic will occur in 2030, recent socioeconomic data was needed. Data from the 2000 Census was the primary data source for the residential data (population, households, automobiles, and workers). See Appendix D for more details on the development of the 2000 and 2030 residential data. Determining the location of employment (retail and non-retail employment) required significant data processing. The location of each business in the Virginia Employment Commission's database of employers that pay into Worker's Compensation ("ES-202" data) was geocoded to the business' street address. In addition, data from the Bureau of Economic Analysis was used to account for those employees in the labor force that were not covered by the VEC data, such as farm workers, enlisted military, and self-employed.

Year 2030 Socioeconomic Forecast

Forecasting where people will live and work in the year 2030 was a critical task in the development of the 2030 Long-Range Transportation Plan. It began with HRPDC's Economics department developing totals for population, households, vehicles, and employment for Hampton Roads using the REMI model. Next, the department divided the Hampton Roads forecasted growth into shares expected to be captured by each locality. These totals were then allocated to transportation analysis zones (TAZ's) by the staff of each locality. There are approximately 1,000 TAZ's in Hampton Roads.

Sample Transportation Analysis Zones (Ghent neighborhood of Norfolk)[8]



Year 2000 TAZ map.ppt

[8] See the document "Hampton Roads 2000 Transportation Analysis Zones" (HRPDC, November 2001) for maps of the region's TAZ's. See the document "Hampton Roads 2000 and 2030 Socioeconomic Data by TAZ" (HRPDC, Dec. 2004) for the socioeconomic data by TAZ. Both documents are available at www.hrpdcva.gov.

Growth by Locality

The Hampton Roads MPO (HRMPO) area is expected to increase in population by over 442,000 between 2000 and 2030, an annual growth rate of 0.8%. Virginia Beach will experience the largest locality increase in population, with an increase of over 105,000 people. Both Suffolk and James City County are expected to have the largest rate increases in population of any of the localities, with annual growth rates of 2.3% and 2.2%, respectively. The slowest growing localities are Norfolk and Portsmouth, each with an expected annual population growth rate of 0.1% or less.

The HRMPO area is expected to add an additional 243,000 employees between 2000 and 2030, an annual growth rate of 0.8%. The largest increase in employment is in Chesapeake, where an additional 60,000 employees are expected. The localities with the highest employment growth rates are Suffolk, Isle of Wight Co., Gloucester Co. (study area), and James City Co., each with approximately 2% annual growth expected. The localities with the slowest expected growth rate in employment are Norfolk, Portsmouth, Hampton, and Poquoson, each with 0.3% or less annual employment growth.

Growth by Subarea

In addition to the locality-based analysis above, the socioeconomic growth in the Hampton Roads region can be examined using other geographic divisions. One division uses the interstate “beltway”, as formed by the loop of I-64 and I-664 as a boundary. Another division compares the Peninsula, East Southside, and West Southside. The East and West Southside subareas are separated by the Elizabeth River and Intracoastal Waterway.

The area inside the beltway is expected to grow at a much slower pace than the area outside the beltway between 2000 and 2030. The inside area is expected to only add an additional 30,000 people with one-fifth the growth rate of the area outside the beltway. Employment growth is a similar scenario. An additional 27,000 jobs are expected inside the beltway versus an additional 216,000 outside the beltway, or a growth rate inside the beltway of 0.3% versus a rate outside of 1%. However, despite its slow growth rate, the area inside the beltway is still expected to have almost one-fourth of the region’s population as well as 30% of the employment in 2030.

The East Southside area is expected to continue to have almost half of the region’s population and employment in 2030, but the West Southside is projected to grow at the fastest rate. The absolute growth in population is expected to be evenly distributed between the East Southside, West Southside, and Peninsula (36%, 32%, and 32%, respectively), with the West Southside growing at the fastest annual rate of 1.3%. Both the Peninsula and West Southside are anticipated to have the largest portion of the employment growth (36% and 34% respectively) with West Southside having the higher annual growth rate of 1.6%. The Southside (East plus West) is expected to have 64% of the population growth and 64% of the employment growth between 2000 and 2030.

2000 and 2030 Socioeconomic Data by Locality

Locality	2000 Population	2030 Population	Change	Annual Growth Rate	2000 Employment	2030 Employment	Change	Annual Growth Rate	2000 Emp / Pop Ratio	2030 Emp / Pop Ratio	2000 Vehs Per Cap.	2030 Vehs Per Cap.
Chesapeake	199,184	287,200	88,016	1.2%	104,070	164,000	59,930	1.5%	0.52	0.57	0.74	0.82
Isle of Wight Co.	29,728	50,600	20,872	1.8%	14,954	26,100	11,146	1.9%	0.50	0.52	0.88	0.96
Norfolk	234,403	238,900	4,497	0.1%	228,231	238,500	10,269	0.1%	0.97	1.00	0.61	0.72
Portsmouth	100,565	103,200	2,635	0.1%	53,154	57,600	4,446	0.3%	0.53	0.56	0.63	0.74
Suffolk	63,677	125,100	61,423	2.3%	26,566	54,100	27,534	2.4%	0.42	0.43	0.76	0.81
Virginia Beach	425,257	530,500	105,243	0.7%	241,941	284,000	42,059	0.5%	0.57	0.54	0.72	0.80
South Hampton Roads Total	1,052,814	1,335,500	282,686	0.8%	668,916	824,300	155,384	0.7%	0.64	0.62	0.70	0.79
Gloucester Co. (study area)	23,509	40,850	17,341	1.9%	10,576	20,375	9,799	2.2%	0.45	0.50	0.89	1.07
Hampton	146,437	166,500	20,063	0.4%	82,935	88,400	5,465	0.2%	0.57	0.53	0.67	0.89
James City Co.	48,102	93,500	45,398	2.2%	26,517	47,400	20,883	2.0%	0.55	0.51	0.78	0.94
Newport News	180,150	223,000	42,850	0.7%	117,365	149,500	32,135	0.8%	0.65	0.67	0.71	0.83
Poquoson	11,566	18,300	6,734	1.5%	2,477	2,700	223	0.3%	0.21	0.15	0.87	1.04
Williamsburg	11,998	15,100	3,102	0.8%	23,836	28,800	4,964	0.6%	1.99	1.91	0.83	0.95
York Co.	56,297	80,500	24,203	1.2%	23,387	37,300	13,913	1.6%	0.42	0.46	0.78	0.86
Peninsula Total	478,059	637,750	159,691	1.0%	287,093	374,475	87,382	0.9%	0.60	0.59	0.73	0.89
Hampton Roads MPO Total	1,530,873	1,973,250	442,377	0.8%	956,009	1,198,775	242,766	0.8%	0.62	0.61	0.71	0.82

"Vehicles" in vehicles per capita calculation are passenger vehicle registrations.

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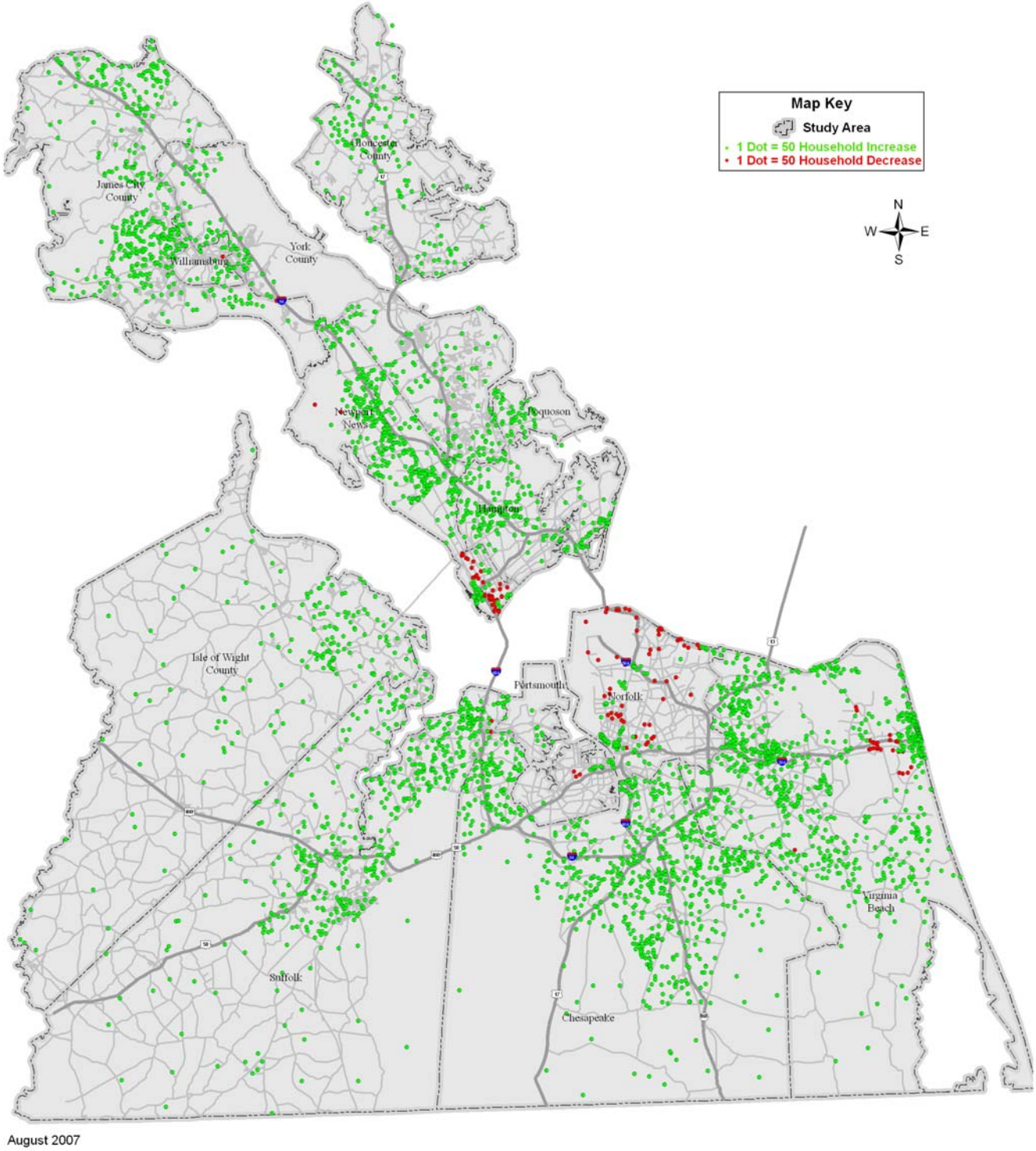
Change in Households from 2000 to 2030



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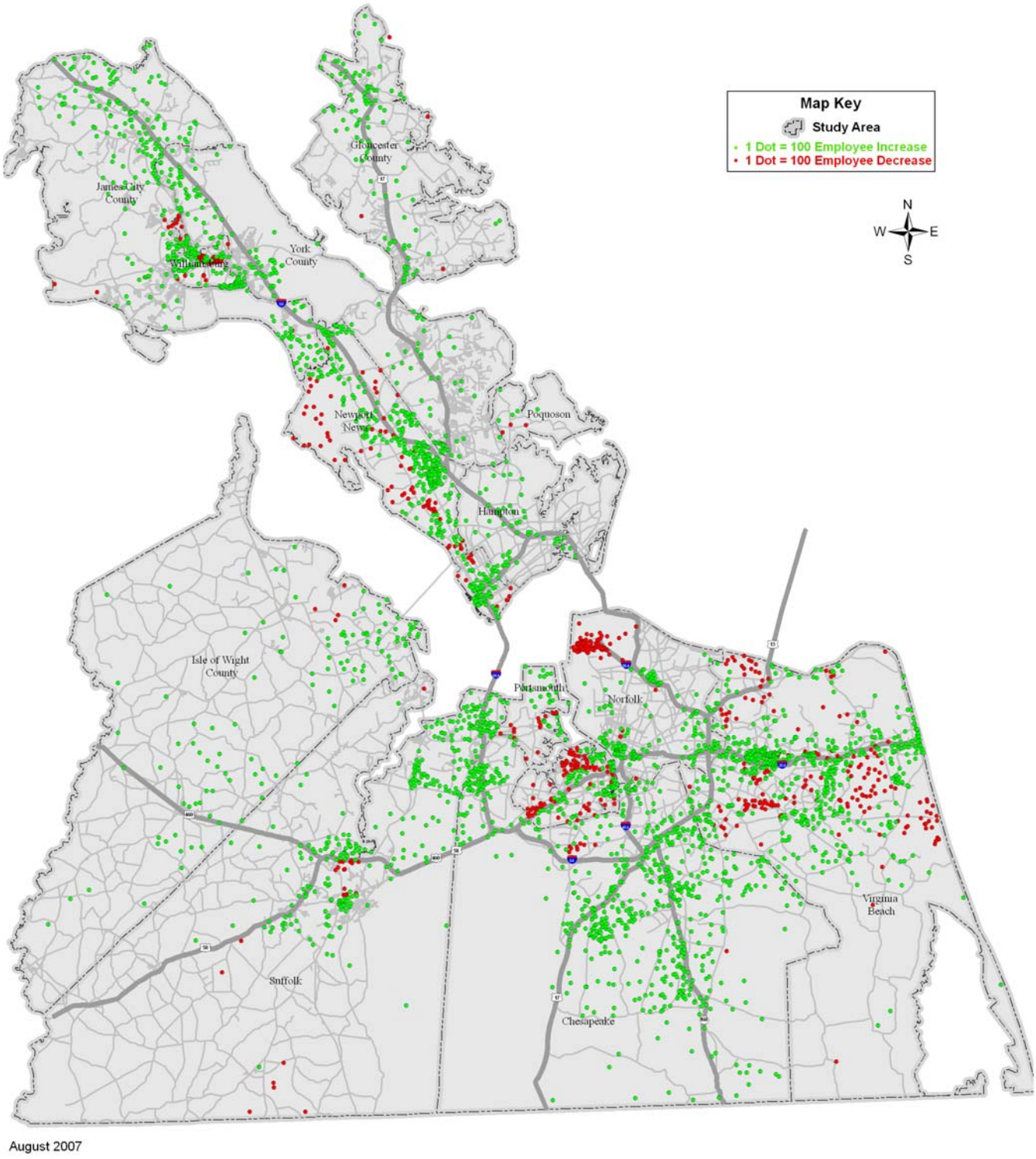
Change in Employment from 2000 to 2030



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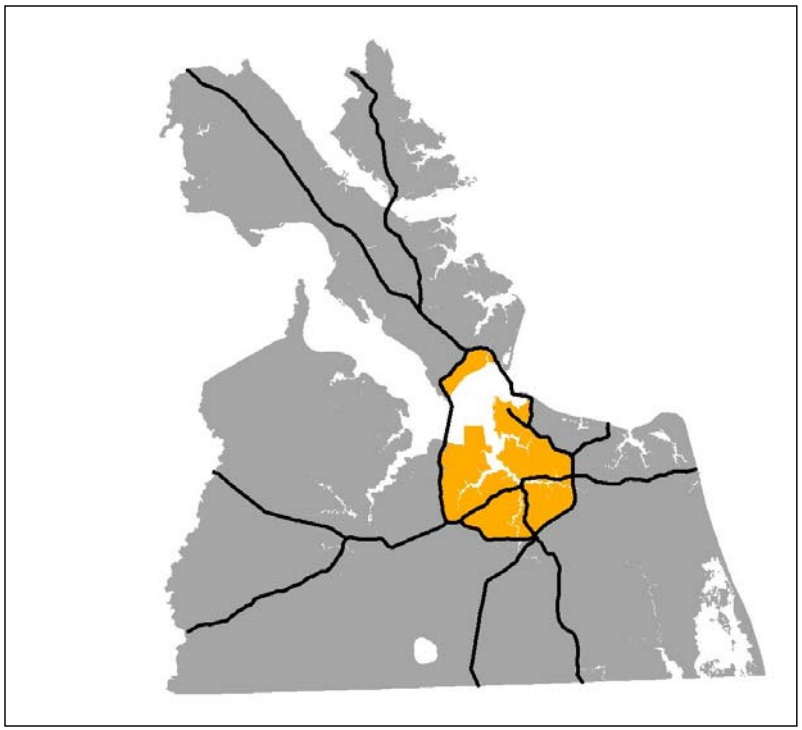
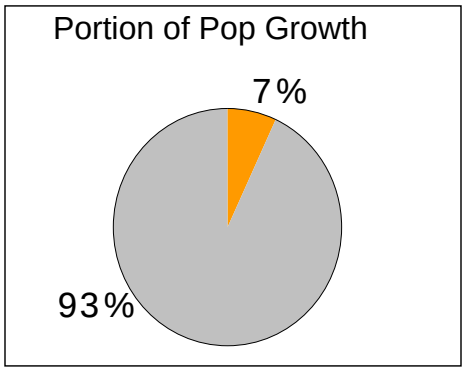
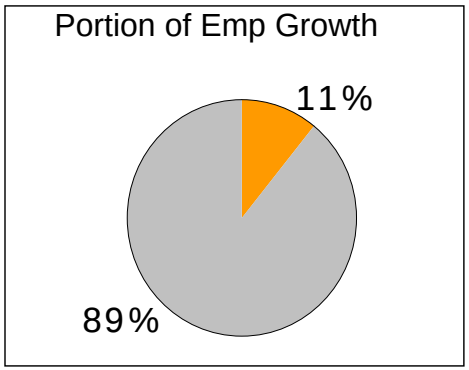
Socioeconomic Data by Subarea

BELTWAY ANALYSIS

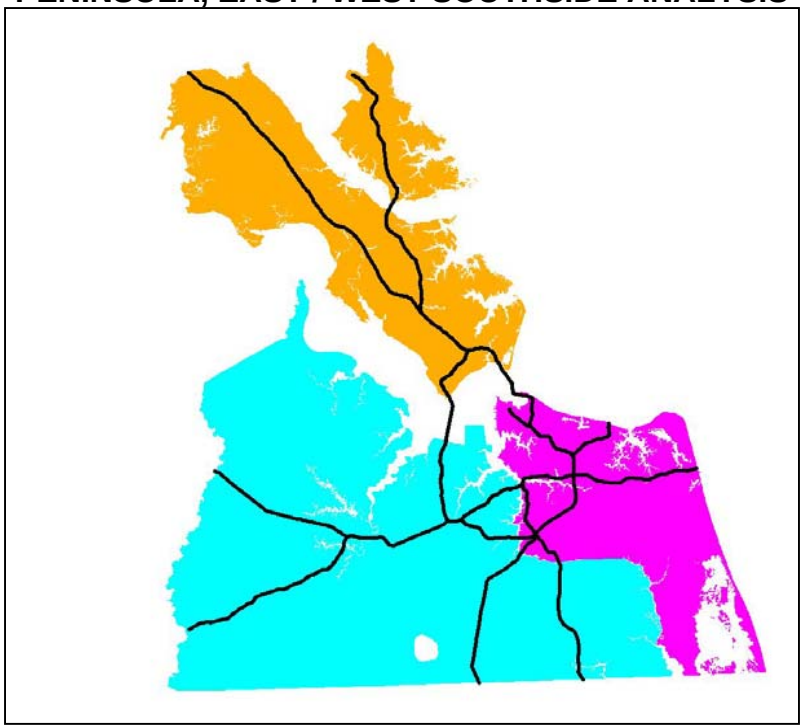


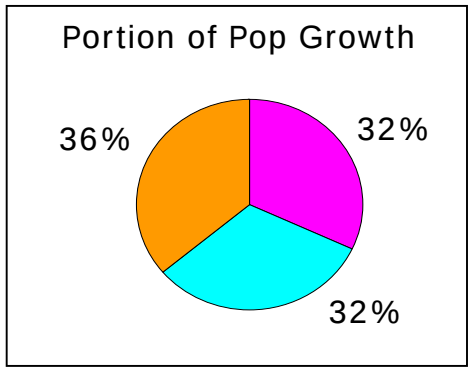


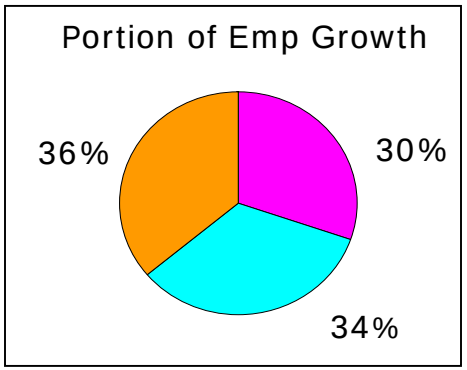


beltway.wmf

PENINSULA, EAST / WEST SOUTHSIDE ANALYSIS







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Socioeconomic Data by Subarea

Subarea	2000 Population	%	2030 Population	%	Change	Portion of Change	Annual Growth Rate	2000 Employment	%	2030 Employment	%	Change	Portion of Change	Annual Growth Rate
Peninsula	478,059	31%	637,750	32%	159,691	36%	1.0%	287,093	30%	374,475	31%	87,382	36%	0.9%
East Southside	741,765	48%	882,520	45%	140,755	32%	0.6%	535,712	56%	609,246	51%	73,534	30%	0.4%
West Southside	311,049	20%	452,980	23%	141,931	32%	1.3%	133,204	14%	215,054	18%	81,850	34%	1.6%
Total	1,530,873	100%	1,973,250	100%	442,377	100%	0.8%	956,009	100%	1,198,775	100%	242,766	100%	0.8%
Inside beltway	414,521	27%	445,111	23%	30,590	7%	0.2%	328,523	34%	354,498	30%	25,975	11%	0.3%
Outside beltway	1,116,352	73%	1,528,139	77%	411,787	93%	1.1%	627,486	66%	844,277	70%	216,791	89%	1.0%
Total	1,530,873	100%	1,973,250	100%	442,377	100%	0.8%	956,009	100%	1,198,775	100%	242,766	100%	0.8%

Note: The Census Bureau revised the 2000 population in Newport News from 180,150 to 180,697 in December 2003 (an increase of 0.3%).
The households in 2000 were also revised from 74,117 to 74,367 (an increase of 0.3%).
The data in the table above reflects the data used in the validation of the region's travel demand forecasting model.

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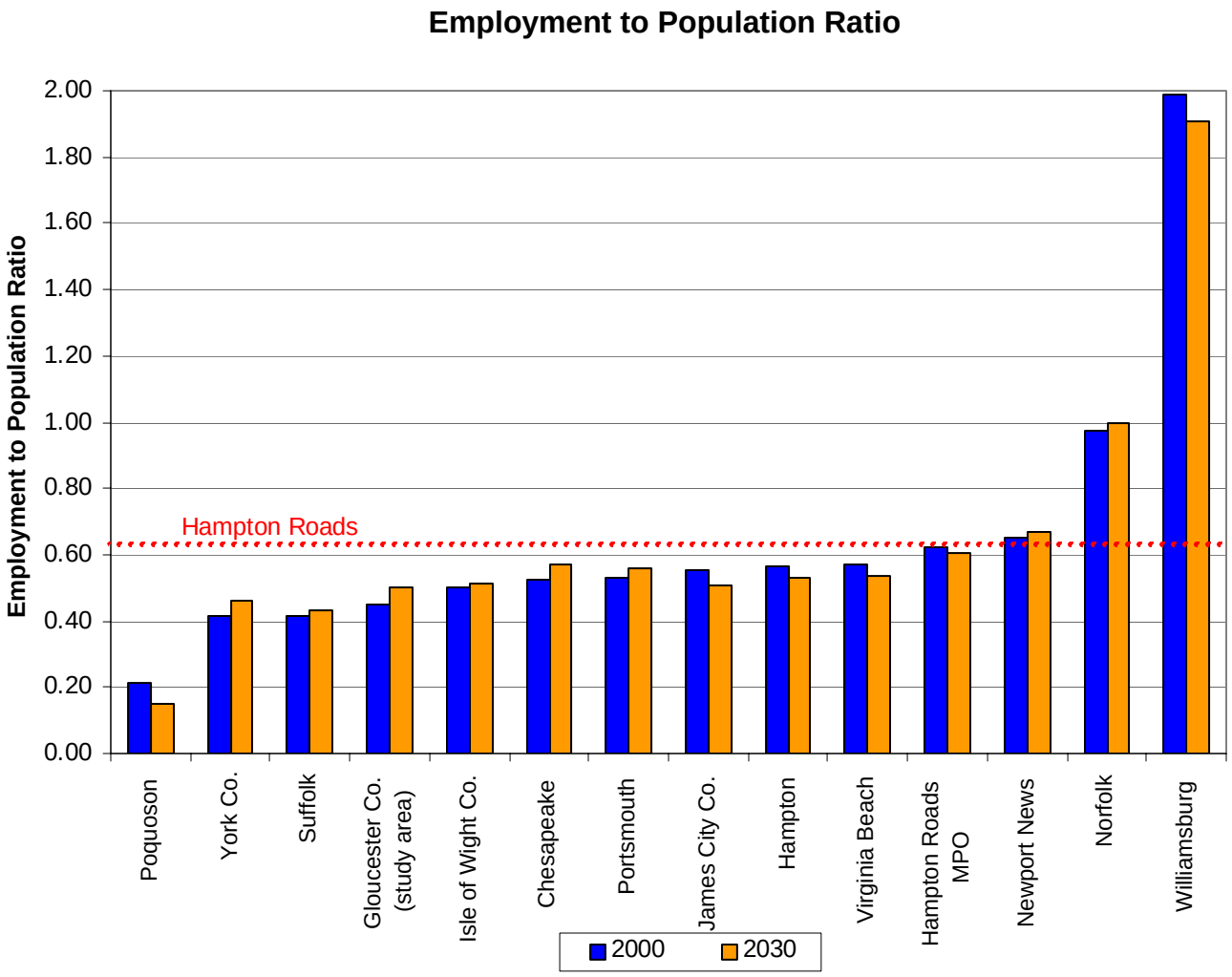
Mix of Employment and Population

A general sense of the character of a community can be obtained from the ratio of employment to workers by place of residence. Large ratios indicate that the locality is dominated by employment centers, while a small ratio would indicate a residential area.

The average ratio for the Hampton Roads MPO was 0.62 in 2000 and decreased slightly to 0.61 for 2030. At the extreme ends of the spectrum, Poquoson had almost five times more population than employment in 2000, while Williamsburg's employment was almost twice its population. Between 2000 and 2030, eight of the thirteen Hampton Roads localities are expected to have their ratios increase, resulting in a more even mix of population and employment.



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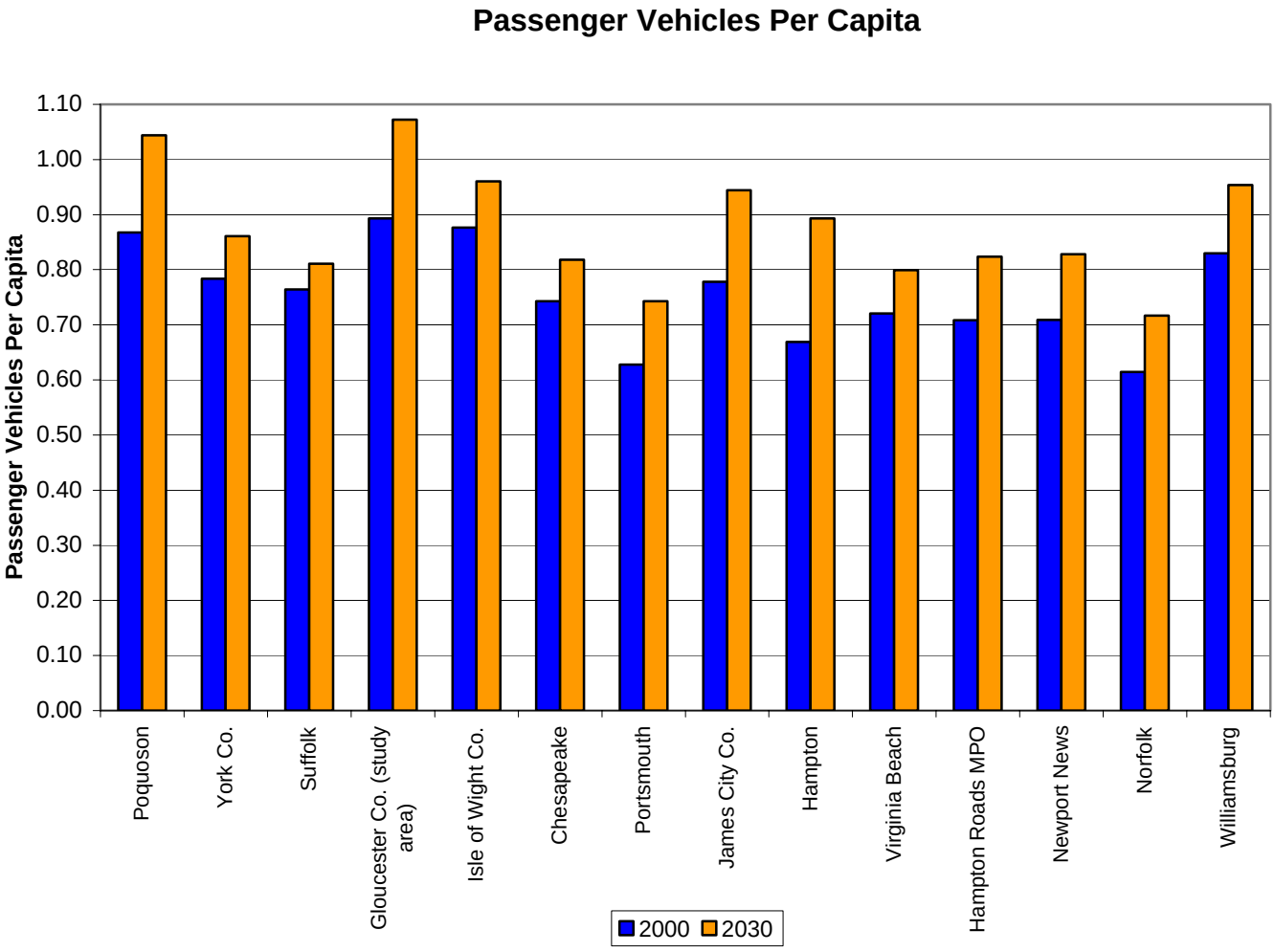
Passenger Vehicle Registrations

Passenger vehicle registrations for the Hampton Roads MPO averaged 0.71 vehicles per capita in 2000 and are expected to increase to 0.82 vehicles per capita in 2030. The additional 0.11 vehicles per person translates into an additional 217,000 vehicle registrations in 2030 beyond what would be expected with a rate of 0.71 vehicles per capita.

All thirteen localities in the Hampton Roads MPO are expected to increase their vehicles per person between 2000 and 2030, ranging from 0.72 vehicles per person in Norfolk to 1.07 vehicles per person in Gloucester Co. (study area).



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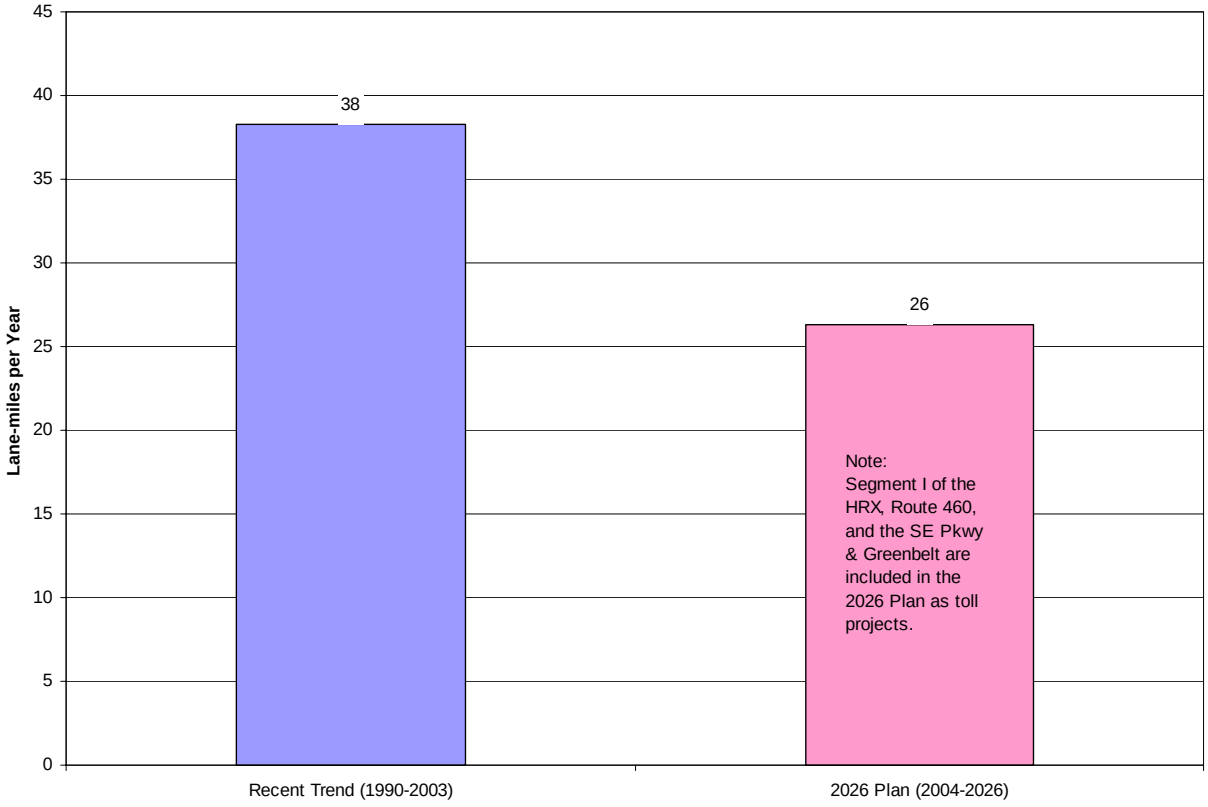
TESTING THE LONG-RANGE TRANSPORTATION PLANNING PROCESS

In order to determine whether the long-range planning process results in a reasonable amount of planned highway construction, the HRPDC staff calculated the actual number of regionally-significant (i.e. arterial class and above) highways constructed in recent years in Hampton Roads, and compared that amount to the amount of planned construction resulting from the most recent planning process, as shown below.

Highway Construction in Hampton Roads



Data.xls

Based on the recent trend in highway construction and the increasing cost of highway maintenance and construction, it appeared that the long-range planning process results in an accurate forecast of planned highway construction.

DEVELOPING LIST OF PROJECTS CONSIDERED CANDIDATES FOR 2030 PLAN

In order to facilitate an informed selection of projects for the 2030 Plan, HRPDC staff developed a list of regionally-significant highway and transit projects to be considered as candidates for the Plan and for which, therefore, measures of effectiveness were to be calculated.

Candidate projects came from several sources, as follows:

1) Team2030

In order to help Team2030 forward potentially effective projects as candidates for the 2030 Plan, HRPDC staff forecasted 2030 levels of congestion for the regional highway network by plugging the above-discussed socio-economic forecasts into the regional transportation model. Staff provided the following products to Team2030 in July 2005 (see Appendix G for a copy of these documents):

a) Table of traffic volumes and congestion levels
b) Maps of congestion levels
c) Written highlights of congestion findings
d) Written guidance for using congestion analysis in forwarding candidate projects.

With these documents available as assistance, Team2030 members forwarded lists of projects to be considered as candidates for the 2030 Plan.

2) 2005 HRPDC Phone Survey

HRPDC staff perused the responses to a 2005 survey of general transportation opinions of Hampton Roads residents, conducted by Northwest Research Group on behalf of HRPDC. Respondents were asked “What are the names of streets, tunnels, water crossings, etc. where you experience these [congestion] problems?” The roadways with the highest number of responses follow, number of responses (out of 613 surveys) are shown in parentheses:

a) Hampton Roads Bridge Tunnel (126)
b) I-64 & Mercury/664 (81)
c) I-64 (58)
d) I-64 & I-264 (54)
e) Downtown Tunnel (43)
f) Midtown Tunnel (32)
g) Indian River Rd (19)
h) Geo. Washington Hwy (18)
i) Mercury Blvd (15)
j) I-64 & I-664 (15)
k) Va. Beach Blvd & Independence Blvd (15)

An investigation for each highway location revealed that projects had already been proposed to address the congestion at most of the locations. One location, I-64 & Mercury/664, already had a project underway. Alleviation of congestion at another location, Downtown Tunnel, would have required more money than was available for that type of project. In the end, although no new candidate projects were found, the survey results validated the importance of the candidate projects already proposed.

3) MPO

On June 15, 2005 the MPO proposed a package of 6 toll projects (see “Developing MPO Package of Toll Projects” below). This package had been prepared by the CAOs who met May 26, 2005. Part of the funding for this package being proposed taxes and fees, these projects became candidates for the 2030 Plan. Including them in the Plan became contingent on General Assembly action.

DEVELOPING MPO PACKAGE OF TOLL PROJECTS

Prior to selecting projects for the 2030 Plan, the MPO conducted a toll feasibility study (the first portion of which was co-sponsored by VDOT), reviewed the Hampton Roads Crossing Study, and then prepared a package of toll projects as candidates for the 2030 Plan.

Toll Feasibility Study

In 2004, HRPDC and VDOT hired consultants to determine the portion of the cost of certain large highway projects which could be covered by tolls. The study found (see "Toll Feasibility Study", HRPDC, 10-28-05) that none of the proposed projects could be financed solely through revenue-maximizing tolls placed only on the project facility (as opposed to additional tolls on unimproved parallel routes), as shown below.

"Stand-Alone" Project Capital Sources & Costs Summary

Project	P/D & E (1)	Net Total Cost (2)	Additional Funding (4)	Total Bond / Loan Funds	Funding Deficit	Const. Start Date	Total Revenue Start Date
HRX, Segment I	53,850,000	1,833,348,300	-	82,670,500	1,750,677,800	2005	2008
HRX	81,000,000	4,152,372,000	-	336,804,100	3,815,567,900	2006	2017
Midtown & MLK	12,630,000	548,827,600	-	83,915,300	464,912,300	2009	2015
Route 460	26,820,000	1,468,264,000	321,000,000	454,236,600	902,375,200	2010	2018
SP&G (3), I-264 to I-64	14,670,000	931,532,800	420,000,000	598,046,400	337,797,000	2010	2017
SP&G (3), Dominion Boulevard	3,270,000	185,180,200	100,000,000			2010	2017

(1) Preliminary design and engineering costs are estimated to be 3% of non-inflated project cost.
(2) Preliminary design and engineering have been subtracted out
(3) SP&G bond/loan amount, and funding deficit shown in aggregate.
(4) NHS, RSTP, and Primary funds. Only part of these funds is scheduled in the construction period; the remainder used to increase bond capacity.
Note: all values are US dollars at year of accrual or expenditure

Because of the inability to finance solely with tolls on the subject facilities, scenarios were developed for the three projects with toll-able parallel facilities which included tolls on those unimproved parallel facilities. Two of the three scenarios could be financed completely with tolls set at revenue maximizing levels, as shown below.

Project Scenarios

Features	Project Scenario #1	Project Scenario #2	Project Scenario #3
Projects	• HRX	• Improved HRBT (1)	• Midtown & MLK
Existing/Unimproved, Tolled Roadways	• MMMBT • JRB • HRBT	• MMMBT • JRB • HRBT	• Downtown Tunnel

MMMBT – Monitor Merrimac Bridge Tunnel
JRB – James River Bridge
HRBT – Hampton Roads Bridge Tunnel

(1) Hampton Roads Crossing Study, Alternative #1

Project Scenario Capital Sources & Cost Summary

	Net Total Cost (1)	Additional Funding (3)	P/D & E (2)	Total Bond / Loan Funds	Funding Deficit	Const. Start Date	Toll Revenue Start Date
Scenario #1 HRX	4,152,400,000	193,500,000	81,000,000	2,805,000,000	1,153,900,000	2006	2006
Scenario #2 HRBT	1,845,500,000	116,300,000	36,000,000	1,729,200,000	-	2006	2006
Scenario #3 Midtown & MLK	548,800,000	251,100,000	12,600,000	297,700,000	-	2009	2009

(1) Preliminary design and engineering have been subtracted out
(2) Preliminary design and engineering costs are estimated to be 3% of non-inflated project cost.
(3) Toll revenues from unimproved roadways scheduled to offset construction costs (the remainder of toll revenue used to increase bond capacity).
Note: all values are US dollars at year of accrual or expenditure

In order to examine the construction of packages of all of the proposed projects (including those with no feasible parallel routes to be tolled) at toll rates which better utilize the capacity of the projects, an addendum to this study was financed by HRPDC without VDOT participation (see "Toll Feasibility Study, Addendum, Additional Revenue Requirements", HRPDC, November 2005). The addendum determined the amount of proposed tax dollars required to fund packages of the proposed projects as shown below.

Project Packages

Package #1	Package #2
• Project Scenario #1 (HRX) • Project Scenario #3 (Midtown & MLK) • SP&G • Route 460	• Project Scenario #2 (HRBT) • Project Scenario #3 (Midtown & MLK) • SP&G • Route 460

Tax Revenue Requirements with Reduced Tolls

	Toll	Project Package 1	Project Package 2
Annual Tax Revenue Required	Optimized	$140,700,000	$40,700,000
	Reduced	$174,400,000	$108,00,000
Gas Tax (cents/gal)	Optimized	13.15	3.80
	Reduced	16.29	10.15
or		or	Or
Sales Tax (percent)	Optimized	0.94%	0.27%
	Reduced	1.16%	0.72%

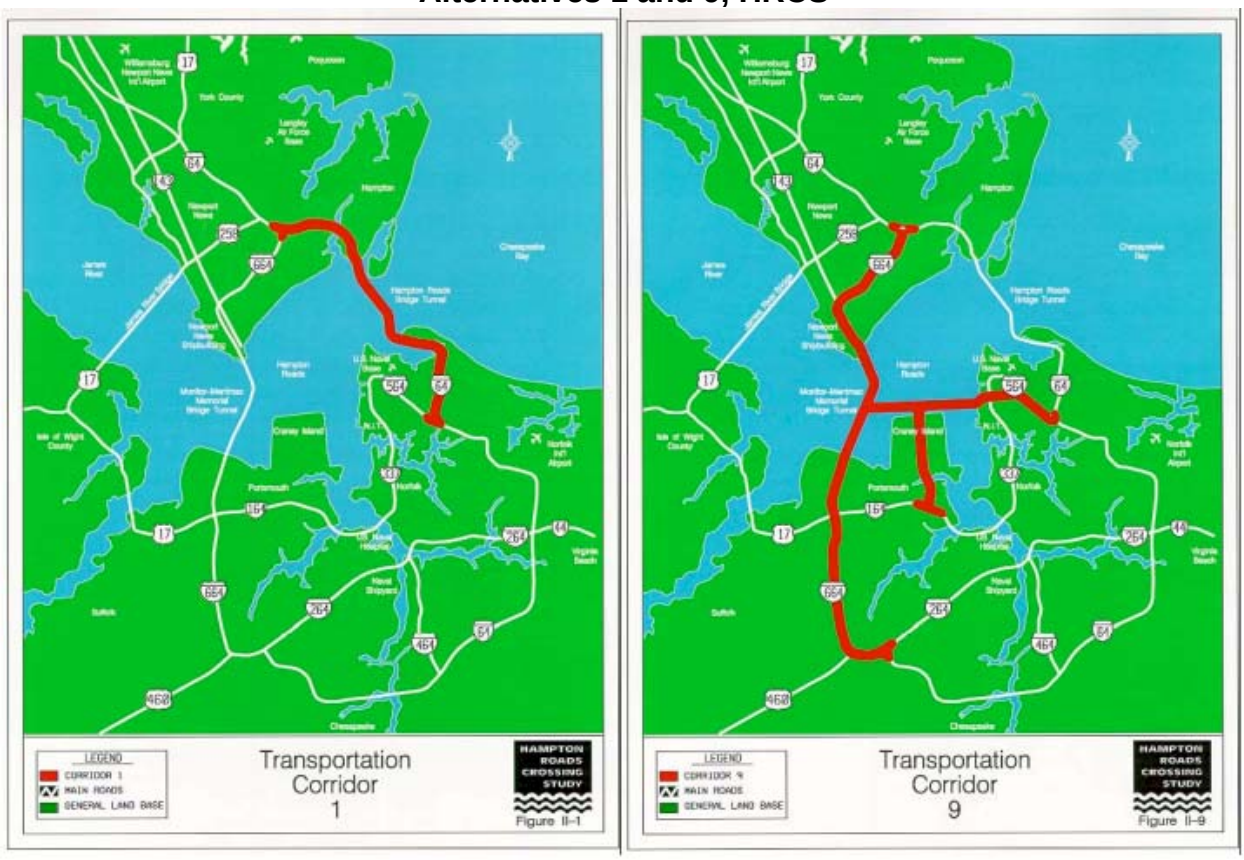
Gas Tax: 1 cent gas tax estimated to generate $10,700,000 in Year 2005 US dollars
Sales Tax: ½ pct. sales tax estimated to generate $75,000,000 in Year 2005 US dollars
Annual tax growth rate estimated to be 4.5%
Taxes assumed to be in place through final bond maturity

The following two sections describe the MPO's response to the toll study.

Review of Hampton Roads Crossing Study

To inform the choice between improving the Hampton Roads Bridge Tunnel (HRBT) and building the Hampton Roads Third Crossing, the MPO reviewed the findings of the Hampton Roads Crossing Study (HRCS) conducted by VDOT in the 1990s.

Alternatives 1 and 9, HRCS



maps of alt 1 & alt 9.bmp

The two projects were compared under the following topics:

- Environmental Consequences
- New Transportation Linkages
- Construction Process
- Traffic Impacts
- Cost

As shown below, the MPO selected the Third Crossing (Alt. 9) over the HRBT (Alt. 1).

MPO Approval of Package of Toll Projects

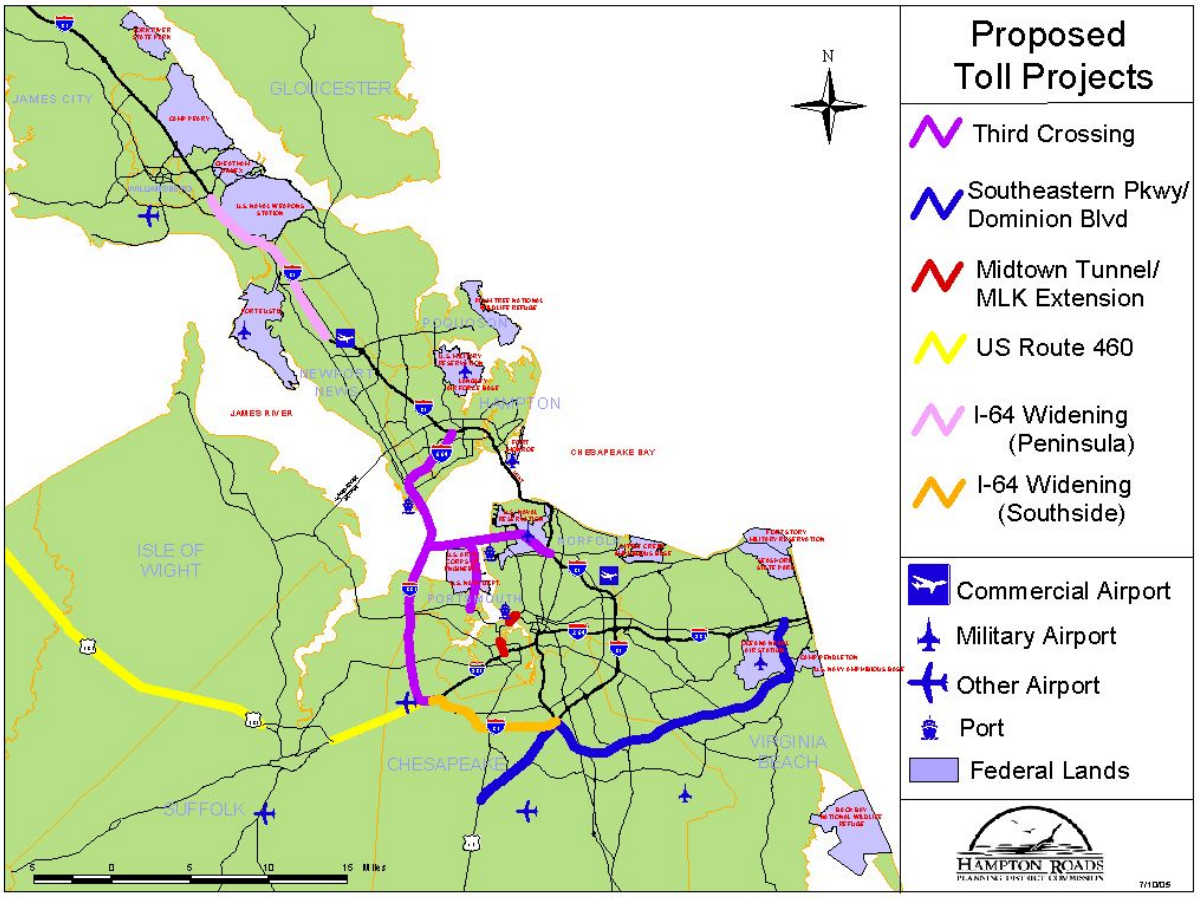
On June 15, 2005, the MPO voted to include six toll projects in the 2030 Plan: the four projects in Package #1 (above), plus two projects on I-64, as shown below. For these projects to be included in the final 2030 Plan, the General Assembly would have to approve the additional funding sources necessary to construct them, raising $275 million in the first year according to an estimate of the HRPDC.

MPO Package of Toll Projects

	Project	Description
1	Third Crossing	Segments 1 thru 6
2	Midtown Tunnel / MLK Extension	Widen Midtown Tunnel to 4 lanes; extend 4 lane MLK Frwy to I-264
3	Southeastern Parkway & Greenbelt / Dominion Blvd	4 lanes from I-264 to Rte 168; 8 ln's on Oak Grove Conn; 4 ln's on Dominion Blvd (1)
4	US 460	Upgrade (2) 460/58 btwn I-664 & Suffolk Byp; new 4 ln's (2) btwn Suffolk Byp and I-295
5	I-64 Peninsula	Widen to 6 lanes + 2 HOV lanes from Bland Blvd to Rte 199 (exit 242)
6	I-64 Southside	Widen to 6 lanes from I-464 to I-264 at Bowers Hill

Notes
(1) Dominion Blvd, from Rte 168 to Cedar Rd: fully controlled access; from Cedar Rd to GW Hwy: arterial.
(2) Upgrade to interstate standards.

post-Baker packages.xls



toll projects map.jpg

This package was to be financed with tolls and proposed taxes/fees as shown below.

Details of MPO Package of Toll Projects

Project Funding

Tolls are projected to cover about 30% of total project costs.
The toll rates are:

Toll Rates for 2030 Plan Package, Approved by MPO June '05

Projects - Length	Off-Peak Tolls [6,8] Year 2004 $		Toll/Trip on Existing Bridges/Tunnels [7]			
	Toll Rate per Mile	Typical Trip Length Toll	JRB[2]	MMBT[3]	HRBT[4]	DTT[5]
Third Crossing[10] - 30 miles	$0.06	$1.20 [1]	$0.80	$0.80	$0.80	-
Midtown Tunnel - 1.0 mile	$0.61	$0.61	-	-	-	$0.65
MLK Extension - 0.6 mile	$0.20	$0.12 [8]	-	-	-	-
SE Parkway - 18 miles	$0.07	$0.49 [8]	-	-	-	-
Dominion Blvd.[11] - 3 miles	$0.07	$0.21 [8]	-	-	-	-
Oak Grove Connector - 2 miles	$0.07	$0.14 [8]	-	-	-	-
US 460[12] - 56 miles	$0.02	$1.00 [8,9]	-	-	-	-
I-64 Peninsula - 12 miles	$0.18	$1.00	-	-	-	-
I-64 Southside - 9 miles	$0.15	$1.00	-	-	-	-

Notes
[1] Trip from central Southside to Peninsula (Bowers Hill to Hampton Coliseum); typical trip using one or more of the 5 tolled segments of the Third Crossing would be considerably shorter.
[2] James River Bridge
[3] Monitor Merrimac Bridge Tunnel
[4] Hampton Roads Bridge Tunnel
[5] Downtown Tunnel
[6] Peak Periods: 3 hours during morning rush and 3 hours during afternoon rush; peak tolls approx. 50% higher than off-peak.
[7] Tolls on existing facilities will be instituted during engineering phase of project; after project opens to traffic, tolls on parallel facilities will be continued.
[8] Tolls on project will be instituted at project completion.
[9] Trip from Hampton Roads to I-295 and beyond; typical trip on 460 would be considerably shorter.
[10] Segments 1 thru 5 are tolled; segment 6 (I-564) is not tolled.
[11] Segment north of Cedar Rd. is tolled; segment south of Cedar Rd. is not tolled.
[12] Segment from Suffolk Bypass to I-295 is tolled; segment from Bowers Hill to Suffolk Bypass is not tolled.

Unfortunately, tolls alone will not cover the cost of these complex and expensive projects. The remaining funds would be generated by user-based, Hampton Roads specific sources. The end result being that for less than the cost of most cellular phone or cable TV services, a Hampton Roads household can help build these projects. The additional funding sources include:

Proposed Financing of Deficit for Toll Projects Package, Approved by MPO June '05

	Millions$ annual
Sales Tax[1] , 0.50%	$75
Gas Tax $0.08 per gallon	$86
Motor Veh Registration Fee, $50.00 per veh.	$70
Motor Veh Sales & Use Tax, 1.00% of sale	$36
Midtown Tunnel Excess[2]	$8
Total	**$275**

Notes
[1] Sales tax is not collected on unprepared food.
[2] The tolls on Midtown and Downtown Tunnels provide dollars beyond the cost of the Midtown Tunnel improvement.

This package of projects would alleviate congestion throughout Hampton Roads.

Facility	*Without Package of Projects*	*With Package of Projects*
HRBT	Beyond Severe Congestion	Moderate Congestion
MMBT/3rd Crossing	Moderate Congestion	Low Congestion
I-64 (Newport News to Williamsburg)	Beyond Severe Congestion	Moderate Congestion
Midtown Tunnel	Beyond Severe Congestion	Low Congestion
Downtown Tunnel	Beyond Severe Congestion	Severe Congestion
Dominion Blvd.	Beyond Severe Congestion	Severe Congestion
Rte. 168 (I-64 to Battlefield Blvd.)	Severe Congestion	Low Congestion
I-64 (I-464 to Bowers Hill including High Rise Bridge)	Severe Congestion	Low Congestion

March '06

Toll insert-2.jpg

In the spring of 2007, the General Assembly passed HB3202 creating the Hampton Roads Transportation Authority (HRTA), giving it the authority to implement a prescribed set of taxes/fees and to build the above six projects[9].

CONGESTION MANAGEMENT PROCESS (CMP)

HRPDC conducts an extensive and ongoing Congestion Management Process. In December 2004 the PDC published "Congestion Management System, Part 1- The State of Transportation in Hampton Roads", and in April 2005 the PDC published "Congestion Management System, Part 2- Bridges and Tunnels, Roadway Congestion Analysis, and Mitigation Strategies and Evaluation".

The Part 2 CMP document contains "operational and management strategies to improve the performance of existing transportation facilities" as required by SAFETEA. It contains a "Congestion Mitigation Strategy Toolbox" (on pg. 73) from which specific recommendations for individual congested roadway segments have been extracted (on pg's 75 thru 89). These recommendations address all thoroughfare segments that are currently operating at severe conditions and are expected to remain congested through 2026 with no current funded plans for capacity improvement.

Concerning coordination between the CMP and the LRP, the current level-of-service (LOS) values for candidate 2030 project roadways were extracted from the CMP for use in measuring the effectiveness of candidate projects to aid decision-makers in choosing the best projects for the 2030 Plan.

[9] Concerning US 460, the HRTA is required to build only that portion which lies with its area, i.e. east of Southampton County.

MEASURING THE EFFECTIVENESS OF CANDIDATE PROJECTS

In order to aid the MPO (and its advisors on the TTC) in choosing highway projects for the Plan, the HRPDC staff calculated the effectiveness for each candidate project. See Appendix B for candidate highway project measures of effectiveness data. A description of the purpose and source of each type of measure follows.

Volume of Vehicles Served

In order to determine the effectiveness of each project in moving vehicles in the year 2030, HRPDC staff compared the volume of traffic without the project ("base volume") to the volume of vehicles expected with the project ("project volume"). The base volume was calculated by entering the existing number of lanes into the Regional Transportation Model (a 4-step computer demand model maintained by VDOT) to derive expected volumes for the years 2000 and 2030, adding the difference between the two volumes to year 2000 traffic counts to calculate year 2030 volumes. To calculate project volumes, the staff entered the number of project lanes into the Regional Transportation Model. The difference between these two volumes—the additional vehicles moved by the project—was reported to decision-makers.

The HRPDC staff also furnished recent traffic counts for each project, providing decision-makers with a means of judging the reasonableness of the computer-generated forecasts.

Existing and Future Level of Service (LOS)

In order to determine the need for each proposed widening project, the existing level of service (A, B, C, D, E, F) was provided for each subject roadway using the existing number of lanes. The existing LOS had been calculated by HRPDC staff for the 2005 Congestion Management System report (CMS, predecessor to CMP) based on traffic counts from 2001 to 2003. In addition, the HRPDC staff calculated the expected 2030 LOS on each subject roadway.

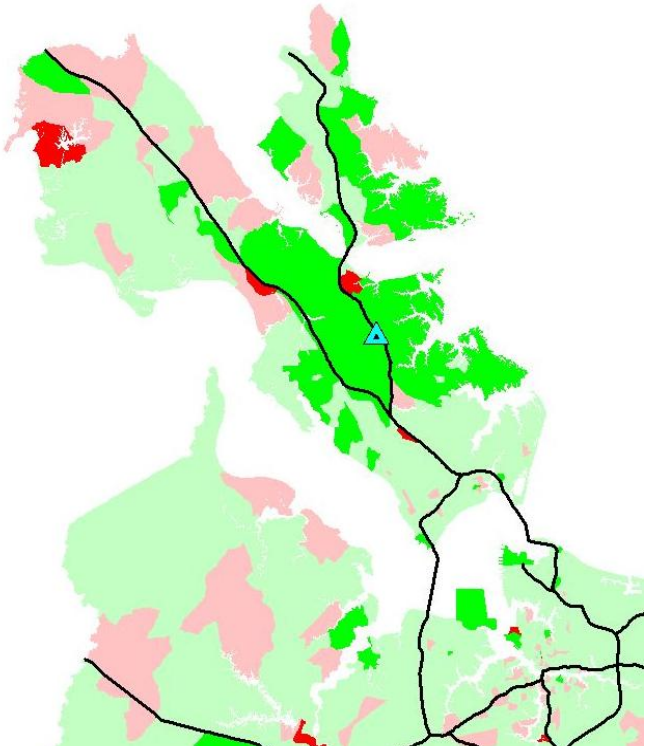
Speed

In order to provide another means of determining the need for NHS candidate projects, in addition to the LOS data discussed above, the speed impact was reported for each candidate NHS project. Staff used the regional model to forecast 2030 speed on the project roadway both with and without the subject project, allowing decision-makers to see the project's impact on speed.

Congested Travel Time per Highway Trip

Two methods were used to determine the effectiveness of each project in increasing accessibility. First, the expected impact of each candidate project on the average travel time of all regional trips was calculated using the regional model. The result was reported as "Regional Travel Time Savings," in minutes. Secondly, the expected impact of each candidate project on the average travel time of trips to each transportation analysis zone (TAZ) was calculated using the regional model. The result was reported using maps (see example below) to show the local impact of projects.

Route 17
(From Hampton Hwy to Goodwin/Denbigh; Widen to 6 Lanes)



Change in Avg. Congested Travel Time to Zone, 2030
Decrease > 1.0 minute
Decrease up to 1.0 minute
No change
Increase up to 1.0 minute
Increase > 1.0 minute

Rte17york.jpg

Nearby Roadways

Because projects often affect travel on nearby roads, for each candidate project the HRPDC staff provided data on one nearby roadway, usually one which serves as an alternate route to the subject roadway.

In order to inform decision-makers of the congestion that will confront a driver who uses an alternate to the candidate project roadway, the LOS on the nearby alternate route was reported, both with and without the subject project.

When a highway improvement is made, i.e. a widening or a new alignment, some vehicles that would otherwise use a nearby road choose instead to use the improved road. In order to determine the size of this impact for each project, the amount of traffic removed from the nearby roadway was reported.

Impact on Minority and Low-Income Residents

The percentage of households in poverty as well as the percentage of households headed by persons of minority ethnic groups near each project were calculated by HRPDC staff and reported to decision-makers. See "Complying with Environmental Justice Requirements" section for details.

Cost Effectiveness

In order for decision-makers to determine the cost effectiveness of each project, the HRPDC staff calculated and reported the following for each NHS candidate project:

- Regional Travel Time Savings 2030 Benefit/Cost Ratio
- Construction Cost Per Additional Trip, 2030
- Construction Cost Per Trip (All Trips), 2030

For each RSTP candidate project, staff calculated "cost per VMT" by dividing the project cost by the expected travel along the project.

Safety

Another consideration that the HRPDC utilized to help rank the candidate projects was each project's potential to improve safety on the transportation network. The existing crash rate, which came from HRPDC's "Hampton Roads Regional Safety Study," (May 2003), was prepared for each subject project roadway and presented to decision-makers.

System Continuity

Another factor that was used to rank the projects was “system continuity”—the degree to which the proposed project completed a missing link or improved a congested link in the transportation network.

Air Quality

For each RSTP candidate project, the expected change in speed was used to forecast whether or not the project would have a beneficial impact on nitrous oxides (NOx) and hydrocarbons (HC).

See Appendix B for the candidate highway project measures of effectiveness data described above.

COMPLYING WITH ENVIRONMENTAL JUSTICE REQUIREMENTS

To assist the MPO in complying with Title VI of the Civil Rights Act (1964) and Executive Order 12898 (1994), the HRPDC staff developed minority and low-income data as measures of the effectiveness of candidate projects. According to US Code:

> "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."[10]

According to Executive Order 12898:

> "To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands."[11]

Consequently, the HRPDC staff analyzed census data and project locations using Geographic Information System (GIS) software to calculate the percentage of households in poverty as well as the percentage of households headed by persons of minority ethnic groups near each project. Reporting this data to the decision-makers allowed them to identify those projects that could have high impact on minority or low-income persons.

See Appendix B for this data.

[10] United States Code, Title 42, Chapter 21, Subchapter V, Section 2000d
[11] Federal Register, Vol. 59, No. 32, Wednesday, February 16, 1994

ACHIEVING PUBLIC PARTICIPATION IN THE DEVELOPMENT OF THE PLAN

Public involvement is a two-way communication process in long-range transportation planning at the HRPDC: 1) information is disseminated to the public, and 2) opinions are gathered from the public, molding the development of the Hampton Roads 2030 Long-Range Transportation Plan. The methods through which this dialogue with the public was achieved are described below.

Public Participates in Plan Process through MPO Members

Given our representative system of government, the most important way in which the public participates in its government (in this case, in the planning of transportation improvements) is through our political process. The majority of the members of the MPO are elected officials and the remainder answer to elected officials. Therefore, the citizens of Hampton Roads' best method of acquiring the transportation system which they desire is by electing those representatives who share their views on transportation policy and projects. In addition, once elected, these politicians are literally "in the business" of knowing and responding to their constituents' desires. The public is given an opportunity to speak at the council/board meetings at which transportation improvements and fees are discussed. Many localities also now make it easy for the public to email the entire council/board. To inform their citizens, many cities replay council proceedings on their local access television stations. Likewise, the MPO meetings at which these elected officials conduct regional transportation planning are open to the public, the minutes are published on the HRPDC website, and the results are often publicized by the local newspapers and television stations. If the elected officials on the MPO do not listen and respond according to the wishes of their constituents, it is likely that the constituents will replace them on their councils and boards with someone who does so.

General Assembly Deliberations

Funding for transportation, and in particular for Northern Virginia and Hampton Roads, has dominated General Assembly politics for several years. General Assembly members, who—like the MPO members—are literally "in the business" of listening to and responding to their constituents, have been doing so concerning the identification of large projects needed in Hampton Roads and the type of new funding desired for those projects. The interaction between the Hampton Roads public and its General Assembly members crested during the 2007 debate over HB (House Bill) 3202. General Assembly members were forced to consider how both action and inaction would affect their chances of re-election.

Newspaper and Television

The local newspapers and television stations in Hampton Roads produce numerous pieces related to transportation in the region every week. Whether a recurring article such as the Pilot Warrior in the Virginian-Pilot or current events such as the General

Assembly special transportation session, transportation frequently appears in the media. Given the extensive TV and newspaper coverage of the large transportation projects in the 2030 Plan (e.g. Midtown Tunnel), of the HB3202 debate in the General Assembly, and of the HRTA, it is difficult to imagine that the residents of any other MPO in the nation have received as much long-range plan information as that which the Hampton Roads public has received for the 2030 Plan.

Newsletter

HRPDC sends out a newsletter to 2,500 individuals, community organizations, and civic groups every three months. The newsletter provides an update on the transportation issues on which the MPO has been working and includes a calendar of upcoming MPO meetings.

Internet

The public reviewed presentations and reports produced by the HRPDC during the development of the 2030 Plan via the HRPDC web site (www.hrpdcva.gov).

Individual Project Meetings

VDOT, locality, and Hampton Roads Transit (HRT) staffs have held numerous public meetings on individual projects which were candidates for the 2030 Plan.

2005 HRPDC General Transportation Phone Survey

In 2005, the HRPDC hired a consultant to conduct a phone survey of local residents to determine their transportation needs and desires. 613 surveys were collected in May of that year. The findings were presented to the TTC and MPO. Findings with application to the 2030 long-range Plan include the following:

1) Top Suggestions for Improving the Transportation System:

    a. Do more road construction at night
    b. Improve/expand existing public transportation services
    c. Expand existing highways
    d. Offer new public transportation services
    e. Improve the quality of traffic information

2) Average Support for Options for Funding Transportation Improvements (scale 0 thru 10- 0: do not support; 10: strongly support):

    a. Vehicle registration fees (4.63)
    b. Local options tax (3.96)
    c. Sales tax (3.70)
    d. Toll roads (3.48)

e. Fuel tax (3.48)
f. Income tax (3.40)
g. Tolls & fuel tax (3.20)
h. Mileage use fee (2.53)

3) Locations Where Significant Problems are Experienced

Respondents were asked "What are the names of streets, tunnels, water crossings, etc. where you experience these [congestion] problems?" The roadways with the highest number of responses follow, number of responses (out of 613 surveys) are shown in parentheses:

a) Hampton Roads Bridge Tunnel (126)
b) I-64 & Mercury/664 (81)
c) I-64 (58)
d) I-64 & I-264 (54)
e) Downtown Tunnel (43)
f) Midtown Tunnel (32)
g) Indian River Rd (19)
h) Geo. Washington Hwy (18)
i) Mercury Blvd (15)
j) I-64 & I-664 (15)
k) Va. Beach Blvd & Independence Blvd (15)

An investigation for each highway location revealed that projects had already been proposed to address the congestion at most of the locations.

Consultation with Other Agencies re: SAFETEA

As required by SAFETEA, HRPDC staff consulted with agencies regarding the development of projects for the Plan and the environmental mitigation discussion included in the Plan. See "Consulting with Other Agencies" section for details.

July 2006 Mason-Dixon Poll

July 25-27, 2006, the Mason-Dixon Polling & Research Inc. surveyed 625 Virginia voters concerning raising additional revenues for transportation. Responses which relate to the development of the 2030 Plan included:

1) "Do you support or oppose putting tolls on some interstate highways in Virginia?" (49% supported; 46% opposed; 5% undecided)
2) "Do you support or oppose giving local governments the authority to levy local and regional taxes to finance transportation projects?" (50% supported; 43% opposed; 7% undecided).

Greater Hampton Roads Quality of Life Survey

Dr. Joshua Behr of Old Dominion University published results of a local 2005 quality of life survey which included the following finding which relates to the development of the 2030 Plan:

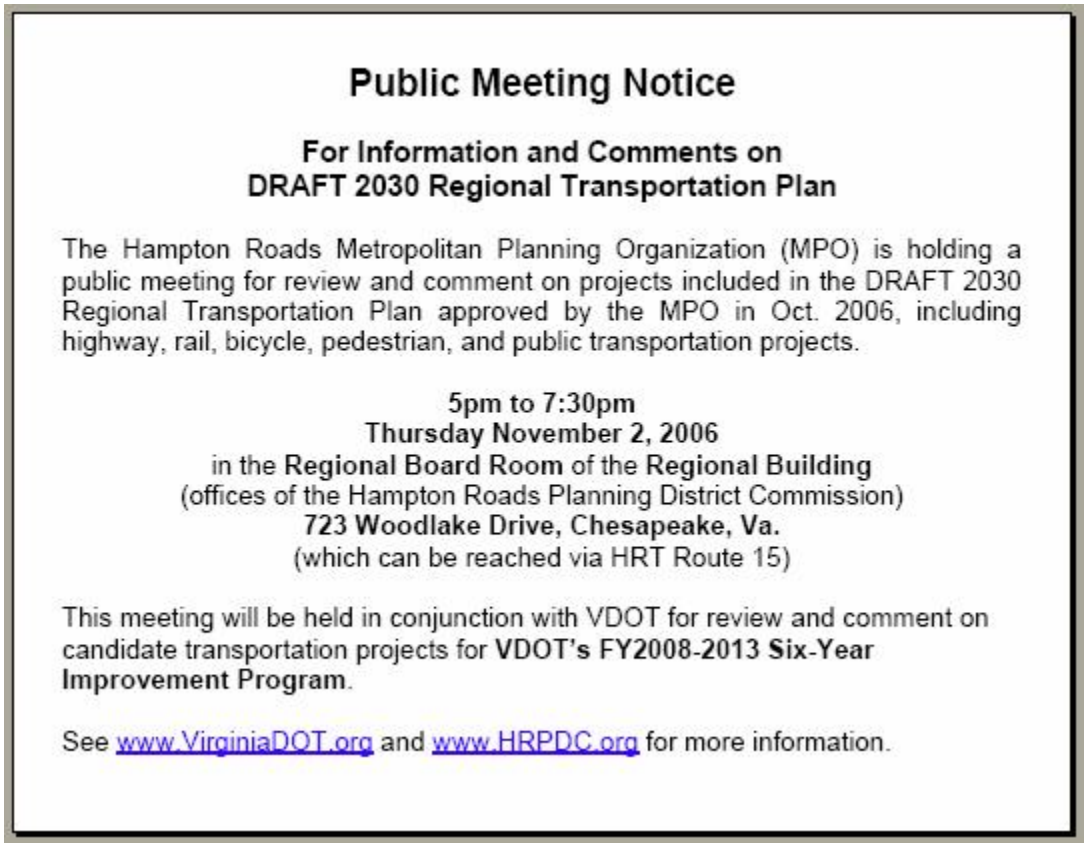
> "Thinking over the next 25 years, do you think a Hampton Roads regional plan ought to focus on adding traffic lanes and tunnels or should the focus be on a light rail system paralleling our freeways, bridges, and tunnels?" (59%: light rail; 35%: adding traffic lanes and tunnels; 6%: don't know).

November 2006 Public Meeting

A joint public meeting for the 2030 Plan and VDOT's FY2008-2013 Six-Year Improvement Program was held on November 2, 2006 at HRPDC. Newspaper ads (see following page) ran twice in local newspapers including the minority-targeted Journal and Guide. In addition, over 1,300 individual invitations were sent via postcard (as shown below) and email to the following:

▪ Local airports	8 postcards
▪ Civic leagues	880 postcards
▪ News media	53 emails
▪ Local government	134 emails
▪ Freight companies	400 (approx.) postcards
▪ Public transit employee representative	1 postcard
▪ Public transit users representative	1 postcard
▪ Bike/pedestrian representatives	7 emails
▪ Representatives of the disabled	5 postcards

Postcard for Public Meeting



Public Meeting Notice

For Information and Comments on
DRAFT 2030 Regional Transportation Plan

The Hampton Roads Metropolitan Planning Organization (MPO) is holding a public meeting for review and comment on projects included in the DRAFT 2030 Regional Transportation Plan approved by the MPO in Oct. 2006, including highway, rail, bicycle, pedestrian, and public transportation projects.

5pm to 7:30pm
Thursday November 2, 2006
in the **Regional Board Room** of the **Regional Building**
(offices of the Hampton Roads Planning District Commission)
723 Woodlake Drive, Chesapeake, Va.
(which can be reached via HRT Route 15)

This meeting will be held in conjunction with VDOT for review and comment on candidate transportation projects for **VDOT's FY2008-2013 Six-Year Improvement Program**.

See www.VirginiaDOT.org and www.HRPDC.org for more information.

postcard image.jpg

Newspaper Advertisement for Public Meeting

PUBLIC MEETING NOTICE

For Comments on Candidate Transportation Projects for the FY2008-2013 Six-Year Improvement Program and the Draft 2030 Regional Transportation Plan

The Commonwealth Transportation Board is holding public meetings for review and comment on candidate projects and programs for inclusion in the Fiscal Year 2008-2013 Six-Year Improvement Program (SYIP), including highway, rail, bicycle, pedestrian and public transportation initiatives.

Projects include interstate and primary highway improvements. Rail and public transportation initiatives are also included, which may be developed and funded in partnership with your Metropolitan Planning Organization (MPO). Your MPO staff will be available to answer questions and receive comments concerning the Draft 2030 Regional Transportation Plan.

All SYIP projects eligible for federal funding will be included in the Statewide Transportation Improvement Program, which documents how Virginia will obligate its federal funds.

For residents of Hampton Roads District*
Hampton Roads Planning District Office
723 Woodlake Dr., Chesapeake, VA
Nov. 2, 2006
5-6 p.m. – Public officials briefing; comments may be submitted
6-6:30 p.m. – Open house public discussion; comments may be submitted
6:30 p.m. – Public discussion; comments may be submitted

*You can find the localities that make up this district on VirginiaDOT.org or by calling (804) 786-2801. If you cannot attend, send your comments on rail and public transportation to Public Information Officer, DRPT, 1313 E. Main St., Suite 300, Richmond, VA 23219, or DRPTPR@DRPT.Virginia.gov and on highway projects to Programming Director, VDOT, 1401 E. Broad Street, Richmond, VA 23219, or Six-YearProgram@VDOT.Virginia.gov up to 10 calendar days after the meeting.

The Secretary of Transportation's Office ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, call 1-866-835-6070 (TTY users, call 711).

newspaper ad image.bmp

At the meeting the HRPDC displayed the following items:

- large poster-size maps of:
  - Existing Bicycle Facilities in Hampton Roads
  - Draft 2030 Long-Range Transportation Plan
  - Change in Households and Employment between 2000 and 2030
  - Congestion in Hampton Roads, 2003 and 2030
- table of Draft 2030 projects (handout)
- VDOT's Policy for Integrating Bicycle and Pedestrian Accommodations (handout)
- maps of Draft 2030 projects (handout)
- sample copies of recent HRPDC reports related to 2030 LRP

In addition, HRT and the Virginia Department of Rail and Public Transportation (VDRPT) manned a table with supporting information.

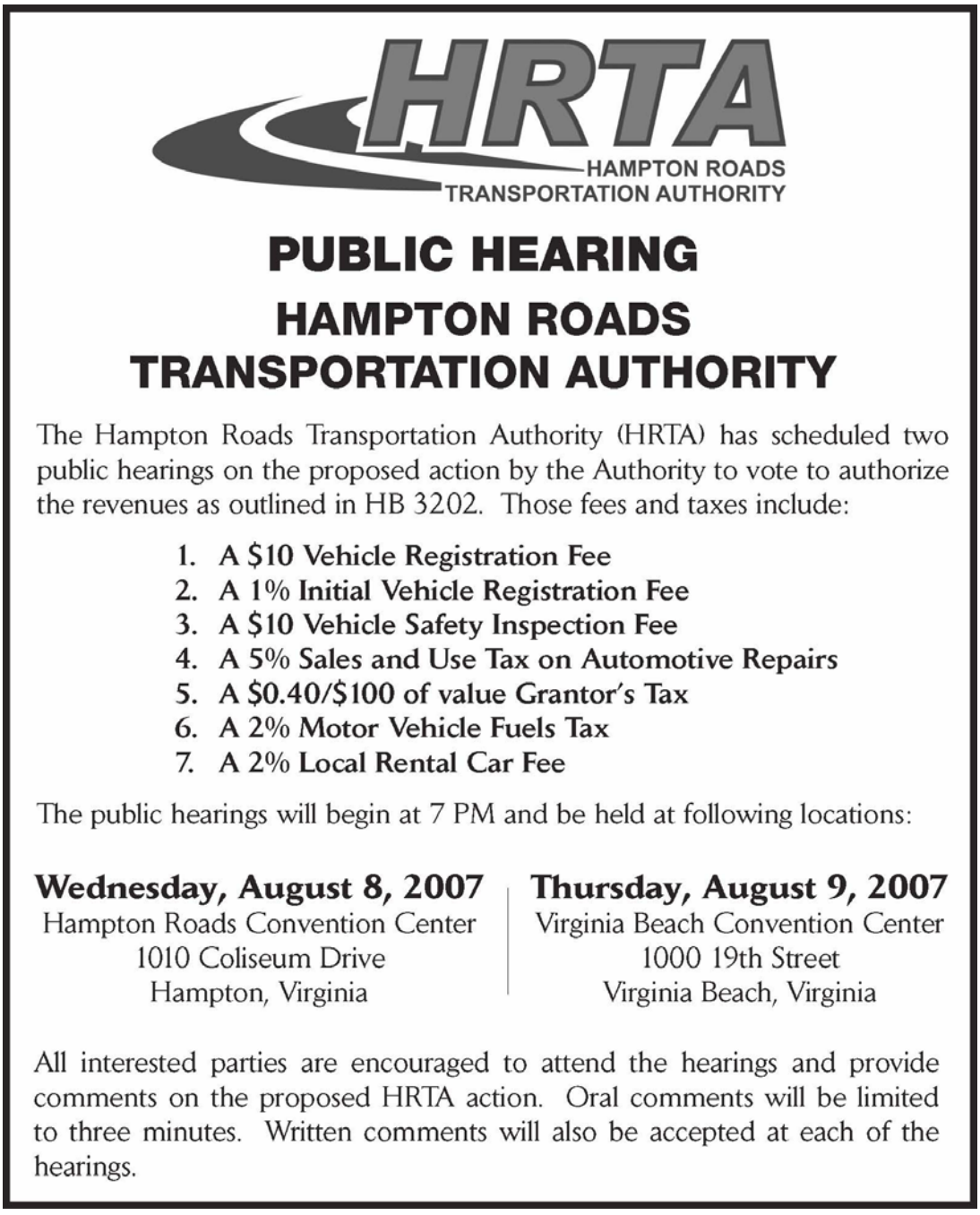
Staff responded to questions of citizens and received comments from them. Out of a total attendance of 40 (including public employees, consultants, and officials), staff received two written comments regarding the draft 2030 Plan:

1. “Good Process”
2. “Excellent map/graphic for 2030 Regional Transportation Plan. It would be nice to understand if there is any correlation between jurisdictional boundaries and Navy Recreational Facilities. It would be nice to think that we are moving towards regionalism for economic development purposes (and perhaps recreational development). I also hope that the light rail / fixed guideways are soliciting public input.”

As neither of these comments was directed toward the contents of the Plan, no corrective action was needed or taken.

August 2007 HRTA Public Hearings

On Aug. 8, 2007 at the Hampton Roads Convention Center, and on Aug. 9, 2007 at the Va. Beach Convention Center, the Hampton Roads Transportation Authority (HRTA)—the body formed by the General Assembly to implement the MPO Package of Toll Projects—conducted public hearings on the six projects and the regional taxes and fees proposed for funding them. Four (4) of the MPO voting members are also voting members of the HRTA, and five (5) more MPO voting members serve on city council or county board of administrators with an HRTA member.



HRTA
HAMPTON ROADS
TRANSPORTATION AUTHORITY

PUBLIC HEARING

HAMPTON ROADS TRANSPORTATION AUTHORITY

The Hampton Roads Transportation Authority (HRTA) has scheduled two public hearings on the proposed action by the Authority to vote to authorize the revenues as outlined in HB 3202. Those fees and taxes include:

1. A $10 Vehicle Registration Fee
2. A 1% Initial Vehicle Registration Fee
3. A $10 Vehicle Safety Inspection Fee
4. A 5% Sales and Use Tax on Automotive Repairs
5. A $0.40/$100 of value Grantor's Tax
6. A 2% Motor Vehicle Fuels Tax
7. A 2% Local Rental Car Fee

The public hearings will begin at 7 PM and be held at following locations:

Wednesday, August 8, 2007
Hampton Roads Convention Center
1010 Coliseum Drive
Hampton, Virginia

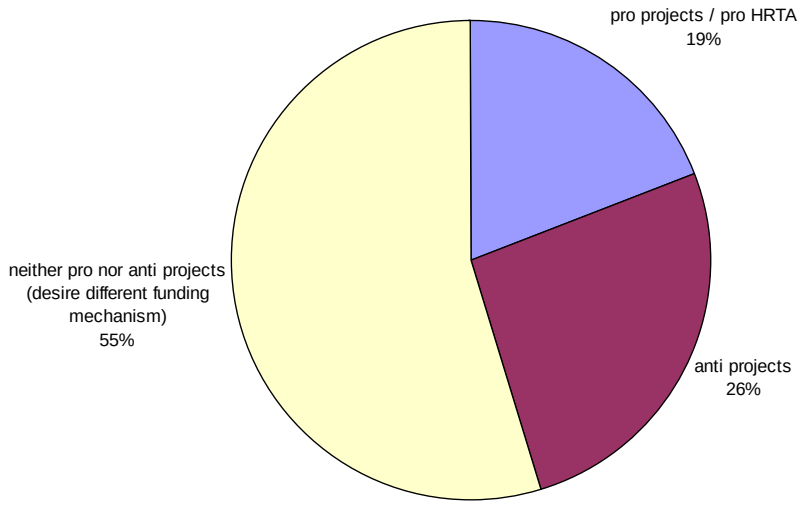
Thursday, August 9, 2007
Virginia Beach Convention Center
1000 19th Street
Virginia Beach, Virginia

All interested parties are encouraged to attend the hearings and provide comments on the proposed HRTA action. Oral comments will be limited to three minutes. Written comments will also be accepted at each of the hearings.

HRTA Public Hearing, Hampton, 8-8-07

Order of Appearance	Name	Locality	Representing	Pro/Anti Projects	Statement Concerning Merit of the Six HRTA Highway Projects
1	Ken Woolard	Portsmouth	Retail Alliance	pro	HRTA provides funding for "nearly 80 percent of the severely congested lane miles in this region."
2	Bill Bell	n.a.	Va. Peninsula Chamber of Commerce	pro	HRTA projects are important for business, keeping inventory, customers, and employees moving.
3	Art Moye	Va. Beach	Va. Maritime Assoc.	pro	Do what is "necessary for these transportation projects to be put in place."
4	Charles Flynn	Poquoson	self	anti	"same old projects were made up in the '90s by MPO"
5	John Gergely	Newport News	self	anti	"none of the stuff, particularly the Third Crossing, is going to help solve the congestion problems"
6	Bob Franz	York	self	neither	"Nobody says that we don't need transportation improvements."
7	John Miller	n.a.	self	neither	n.a. (recommended statewide transportation solution)
8	Hugh Bassette	Hampton	self	anti	"put the fee back on to go through the bridge tunnel [HRBT?] and once it's paid for, drop the fee"
9	A. C. Pulliam	Newport News	self	anti	"fix what [roads] we already have"
10	Peter Eckerd	York	HR Assn. for Commercial Real Estate	pro	"we can…look forward to a brighter future for Hampton Roads"
11	Pam Puchot	York	self	anti	"The Third Crossing will only contribute to gridlock on I-64"; "HRBT is not addressed"
12	Allen Brown	Windsor (IW)	self	neither	n.a. (concerned about tax on car repair)
13	Wilson Holland	Windsor (IW)	self	neither	n.a. (concerned about tax on car repair)
14	Laura Irby	Newport News	self	neither	"We wanted work on our roads…, definitly need those all over but no taxation authority here."
15	Jack Pendleton	Hampton	self	neither	n.a. (recommends returning the problem to the legislature)
16	L. T. Vaughan	Newport News	self	neither	n.a. (recommends finding another way to address transportation)
17	Tricia Stall	Newport News	self	neither	n.a. (if elected, will introduce legislation in Gen. Assembly for state to fund transportation needs)
18	Bill Gilbert	Poquoson	self	anti	Do "a good simulation analysis trade study…making trades between new roads and bridges and…public and private transportation systems
19	Howard Wilson	Hampton	self	anti	"put our freight back on the railroads"; "third crossing to Craney Island is the most stupid idea I have ever heard in my life."
20	Robert Miller	Va. Beach	self	pro	"funding our highway needs"
21	Bob Padgett	Hampton	self	anti	He is concerned about James River Bridge, Monitor Merrimac Bridge Tunnel, and HRBT; doesn't like "Craney Island Crossing".
22	Bonnie Shriver	Poquoson	self	neither	n.a. (considers HRTA taxes/fees the wrong way to raise money)
23	John McMillan	Newport News	self	neither	n.a. (believes that the HRTA may be able to pick and choose taxes/fees)
24	Terry Savage	n.a.	self	neither	n.a. (proposes that the Port Authority pay for the six projects)
25	Charles Brinley	Newport News	self	pro	"we have got to pay for the highway improvements somehow"
26	Jefferson Bowen	Hampton	self	anti	"the solution is mass transit"
27	Christine Gergely	Newport News	self	anti	"the Third Crossing is not for the people"; "the Hamtpon Roads Bridge Tunnel is for the people"
28	Buddy Green	Poquoson	self	neither	n.a. (recommends the HRTA do nothing until challenges to it have been through the courts)
29	George Baisley	Hampton	self	neither	n.a. (recommends requiring state government to take care of the roads)
30	Lisa Guthrie	Hampton	self	neither	n.a. (considers HRTA taxes/fees as stealing money from the public)
31	Brian Guthrie	Hampton	self	neither	n.a. (recommends fixing HB3202)
32	Jackson Guthrie	Hampton	self	neither	n.a. (recommends fixing HB3202)
33	Shaun Brown	Newport News	self	neither	n.a. (recommends fixing HB3202)
34	Mark Burge	Newport News	self	neither	n.a. (recommends fixing VDOT)
35	Mickey Bisese	Va. Beach	self	neither	n.a. (recommends the state pay for transportation in Hampton Roads via $100 per vehicle per year)
36	Edward Miller	Hampton	self	neither	n.a. (recommends the state pay for transportation in Hampton Roads)
37	Larry Gwaltney	Hampton	self	neither	n.a. (recommends the state pay for transportation in Hampton Roads)
38	Kelly Place	n.a.	self	anti	considers the Third Crossing too expensive; the projects will cause environmental damage and sprawl; advocates fixing the HRBT
39	Andy Landrum	York	self	pro	"the Third Crossing is a wonderful project", providing options to those stuck at Wards Corner trying to get to Peninsula; "we need these proj
40	John Procyson	Newport News	self	neither	n.a. (considers VDOT unable to spend money wisely)
41	Dana Dickens	n.a.	Hampton Roads Partnership	pro	"we have finally come to a solution"
42	Keith Moody	Hampton	self	neither	n.a. (recommends shifting money from unneeded projects to needed ones)

HRTA Public Hearing, Hampton, 8-8-07



Most of the speakers in Hampton did not address the projects themselves, advocating instead a different funding mechanism. Of those who did address the merit of the projects, 8 appeared to favor the projects and 11 opposed the projects, many of the latter objecting to the Third Crossing. (Note: Only a portion of the Third Crossing project is included in the 2030 Plan. The widening of I-664 is included, but the East-West and Craney Island Connectors are not.)

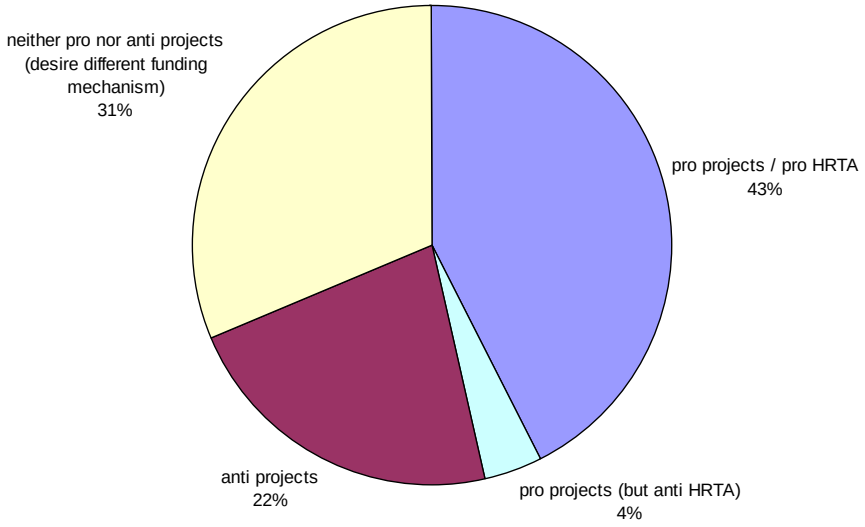
HRTA Public Hearing, Va. Beach, 8-9-07, Part 1 of Table

Order of Appearance	Name	Locality	Representing	Pro/Anti Projects	Statement Concerning Merit of the Six HRTA Highway Projects
1	Jim Beckstadt	Norfolk	self	neither	n.a. (against raising taxes)
2	Brock Beckstadt	Norfolk	self	neither	n.a. (get big corporations to pay)
3	Robin Gilbert	Norfolk	League of Women Voters of South HR	pro	"we need attention to our transportation infrastructure"
4	Dan Montague	Norfolk	self	neither	n.a. (get federal government and port to pay more)
5	Bob MacIver	Va. Beach	self	pro	"transportation is so important to this community"
6	George Dunley	Va. Beach	self	neither	n.a. (recommends finding another way to get the money)
7	John Waters	n.a.	self	anti	"we don't need no Third Crossing"
8	Buzzy Hofheimer	Va. Beach	self	pro	"if we should ever be faced with a storm that requires massive
					evacuation, interstate 64 and route 460 will look like New Orleans"
9	Richard Black	n.a.	self	neither	n.a. (recommends taking legal challenges to HB3202 into account)
10	Paul Hamaker	Va. Beach	self	anti	"it is just going to dump all the same traffic,
					more traffic back onto the same streets"
11	Rob Goodman	Va. Beach	Virginia Beach Vision	pro	"we need to be able to move in and out of our community"
12	Grig Scifres	Va. Beach	HR Chamber of Commerce	pro	"there is a need [for transportation infrastructure] that has been identified"
13	Rich Werber	Va. Beach	HR Chamber of Commerce	pro	"these are the correct projects"
14	Steven Romine	Norfolk	HR Chamber of Commerce	pro	"transportation improvements are critical to protecting the citizens"
15	Louis Eisenberg	Norfolk	HR Chamber of Commerce	pro	"if we don't eat we will surely starve"
16	Joseph Donnelly	Va. Beach	HR Chamber of Commerce	pro	"solutions to our transportation problems"
17	Joe Scharl	Portsmouth	HR Chamber of Commerce	pro	"move forward on these projects"
18	Mick Meyer	Chesapeake	self	neither	n.a. (recommends that General Assembly revise HB3202)
19	Margaret Ballard	Norfolk	Retail Alliance	pro	"shoppers must have decent roads to drive to their destinations"
20	Bobby Mathieson	Va. Beach	self	neither	n.a. (recommends that General Assembly revise HB3202)
21	Roger Leonard	Suffolk	self	anti	"the port is the biggest beneficiary of what you are taxing"
22	Lin Earley	Va. Beach	Greater Norfolk Corporation	pro	"turn the key on this package"
23	Robert Dean	Va. Beach	Va. Beach Taxpayer Alliance	anti	"the port project has nothing to do with congestion relief"
24	Jack King	Chesapeake	Chesapeake Tax Payers Alliance	anti	"if you want the Third Crossing float bonds"
25	David White	n.a.	Va. Maritime Assoc.	pro	"move forward on the projects"
26	Charles Cooper	Norfolk	self	pro	"make the infrastructure changes"
27	Alan Stein	Va. Beach	self	neither	n.a. (favors gas tax)
28	Gordon Helsel	Poquoson	City of Poquoson	neither	n.a. (recommends that General Assembly revise HB3202)
29	Craig Cope	Va. Beach	self	pro	"these proposed transportation projects are critical to Hampton Roads"
30	Jim Owens	Norfolk	self	pro	"congestion is a quality of life issue"

HRTA Public Hearing, Va. Beach, 8-9-07, Part 2 of Table

Order of Appearance	Name	Locality	Representing	Pro/Anti Projects	Statement Concerning Merit of the Six HRTA Highway Projects
31	Walter Erb	Va. Beach	Tidewater Libertarian Party	anti	"back in 2002 the same projects [failed]"
32	Reid Greenmun	Va. Beach	Va. Beach Taxpayer Alliance	anti	"including the Hampton Roads Bridge Tunnel"; "port to pay for the Third Crossing"
33	Robert Crow	Va. Beach	self	anti	"the roads that are proposed here [are] not going to move traffic around here"
34	Robert O'Connor	Va. Beach	self	anti	"a few years ago we rejected all these road projects"; "we need land use"
35	Michael Barrett	Va. Beach	self	pro	"we know how crucial all of the projects are to our families…businesses…visitors"
36	Brian Emrich	Norfolk	self	neither	n.a. (concerned about the projects being funded by the working class)
37	Pat Murphy	n.a.	self	neither	n.a. (recommends waiting until the court case is decided)
38	Martin Mitchell	n.a.	self	pro (but an	"recognize the critical need to fund the improvements" (but questions availability of state-wide funding)
39	Steve Carroll	Portsmouth	self	anti	"cities want their roads to pass through my city…so that we have to breath the pollution"
40	Clifford Dunn	Newport News	self	neither	n.a. (opposes the fees and the HRTA)
41	Ken Brown	Virginia Beach	self	neither	n.a. (believes VDOT has failed)
42	Billy Parker	n.a.	self	neither	n.a. (opposes the grantors tax)
43	Warner Athey	Va. Beach	self	anti	"this is about a billion dollar bridge to hall cargo containers"
44	Gary Arnold (?)	n.a.	self	pro	"people have to get around"
45	Annie Smith	Va. Beach	self	neither	n.a. ("this needs to be put back into our legislators' hands")
46	Steve Nulty	Va. Beach	self	pro	"take pride in moving Hampton Roads forward"
47	Pat Simons	Portsmouth	self	neither	n.a. (dislikes HB3202)
48	Jimmy Capps	Va. Beach	Virginia Beach Vision	pro	"we need to make the project plan work"
49	John Moss	Va. Beach	self	neither	n.a. (believes HRTA is taxation without representation)
50	Rick Naigle	Chesapeake	self	anti	"Third Crossing was a mistake"
51	Jagdish Singh	Chesapeake	Indian Amer. Forum for Political Ed.	pro	"these roads and tunnels which we need so much"
52	Louis Guy	Norfolk	self	pro	"transportation problem that can dismantle our large regional economy"
53	Mona Saferstein	Va. Beach	self	pro (but an	"we all here agree we need new roads" (but wants HB3202 sent back to Richmond)
54	Lisa Murphy	Va. Beach	HR Assn. for Commercial Real Estate	pro	"long realized the critical importance of transportation funding for our region"

HRTA Public Hearing, Va. Beach, 8-9-07



One third of the speakers in Va. Beach advocated a different funding mechanism, and most of these did not address the projects themselves. Of the remainder, 23 appeared to favor the projects and 12 opposed the projects, many of the latter objecting to the Third Crossing. (Note: Only a portion of the Third Crossing project is included in the 2030 Plan. The widening of I-664 is included, but the East-West and Craney Island Connectors are not.)

Following the public hearings, the HRTA board voted to enact the taxes/fees authorized by the General Assembly, establishing the start date at April 1, 2008, i.e. after the next General Assembly session. At press time, HRTA's Legislative Committee is planning to prepare recommended changes to its tax/fee structure to be submitted to the General Assembly.

September 2007 Conformity Analysis

In August 2007, the MPO approved, by letter ballot, the addition of the Craney Island Access Road to the 2030 list of projects to be tested for air quality conformity. The public was provided the opportunity to comment on the 2030 conformity list for 14 days from August 19 thru September 1. On Sunday August 19, 2007, notices were placed in the local newspapers (see below), and the 2030 list was available on the hrpdcva.gov website.

Newspaper Notice Seeking Public Comment on 2030 Conformity List

ATTENTION CITIZENS OF HAMPTON ROADS

The Virginia Department of Transportation is preparing to begin an analysis of the air quality conformity impacts of the regionally significant projects in the Draft 2030 Long Range Transportation Plan (LRP) and the FY 2006-2009 Transportation Improvement Program (TIP) for the Hampton Roads, Virginia 8-Hour Ozone Maintenance Area. The LRP and TIP project lists for the conformity analysis can be viewed on the HRPDC website at www.hrpdcva.gov/publicnotices.shtml.

The Hampton Roads Planning District Commission (HRPDC) and Hampton Roads Metropolitan Planning Organization (HRMPO) encourage all interested parties to review the project lists and send comments via the email link on the web page, or by mail to 723 Woodlake Drive, Chesapeake, Virginia 23320. The deadline for comments is September 1, 2007.

The HRPDC will strive to provide reasonable accommodations and services for persons who require special assistance to participate in this public involvement opportunity. Contact the HRPDC Public Communications Administrator at (757) 420-8300 for more information.

VP August 19, 2007 17499533

No comments were received from the public.

October 2007 LRP Document

Notices for the 30-day public review of this LRP document were placed in local papers on Oct. 20, 2007. One set of comments were received. See “Public Comments on Draft Plan Document” section (at the end of the document) for comments and disposition of same.

CONSULTING WITH OTHER AGENCIES RE: SAFETEA

The SAFETEA-LU legislation included two environmental areas that were new to the transportation planning process: consultation with environmental agencies regarding the development of the Plan, and consultation regarding the environmental mitigation discussion.

Consultation Re: the Development of the Plan

SAFETEA-LU states (per PL109-59 Sections 3005 and 6001, amending 49 USC 5303(i)(4) and 23 USC 134(i)(4)):

> "In each metropolitan area, the metropolitan planning organization shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of a long-range transportation plan.
>
> The consultation shall involve, as appropriate—
> (i) comparison of transportation plans with State conservation plans or maps, if available; or
> (ii) comparison of transportation plans to inventories of natural or historic resources, if available."

Staff from the local cities and counties participated in the development of the 2030 LRP, from allocating the forecasted 2030 land-use to selecting projects for the draft Plan. Additional agencies were also consulted, per the above guidance. A map and table of the 95 candidates for inclusion in the 2030 LRP were sent to the following agencies on September 6, 2006 with a requested response date of September 29, 2006:

- Va. Dept. of Environmental Quality
- Va. Marine Resources Commission
- Hampton Roads Clean Cities Coalition
- Va. Dept. of Conservation and Recreation (DCR)
- Va. Dept. of Forestry (2 contacts)
- Va. Dept. of Historic Resources (DHR)
- Va. Dept. of Game and Inland Fisheries

The HRTA projects which were added to the 2030 Plan in July 2007 were included as candidates on the map and table sent to these agencies. See Appendix I for a copy of the transmitted information.

Electronic GIS files of the location of the candidate projects were requested by, and provided to, staff at DCR. Three responses from the solicited agencies were ultimately received: two from the DCR, and one from DHR. A review of the consultation process and comments received was presented to the HRPDC Transportation Technical Committee in November 2006.

Summary of SAFETEA-LU Consultation Comments Re: Development of the Plan

Agency	Summary
DCR	Performed a thorough inventory of natural heritage resources. 73 projects found to not have an adverse impact . 19 projects found to have a natural heritage resource in project vicinity. Lengthy review of Nimmo Pkwy, Third Crossing, SE Pkwy, and Ft. Eustis Blvd / Oriana Blvd. 3 projects not addressed.
DCR	Addressed impact on Green Sea Byway in Pungo. Indian River Rd, Princess Anne Rd, Sandbridge Rd, West Neck Pkwy extension, West Neck Rd, and Nimmo Pkwy candidates impact the Byway.
DHR	Described review process for federal projects that may affect historic properties ("Section 106"). Suggested that each candidate (95 projects) be submitted for review individually through the Section 106 process. However, Section 106 is for project-level analysis, so it is not applicable to candidates for long-range plans.

SAFETEA Envtl summary.xls

Copies of the full responses can be found in Appendix H.

Consultation Re: the Environmental Mitigation Discussion

SAFETEA-LU states (per PL109-59 Section 3005 and 6001, amending 49 USC 5303(i)(2)(B) and 23 USC 134(i)(2)(B)):

> "A long-range transportation plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.
> The discussion shall be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies."

The environmental mitigation discussion and table were based on text developed by VDOT staff for use by MPO's around the state. VDOT developed its generalized mitigation discussion text and table with preliminary review and input of senior staff in VDOT planning, environmental, and right of way divisions, and the Virginia Division of FHWA planning office.

HRPDC sent out a draft of the environmental mitigation discussion to relevant agencies on March 21, 2007, asking for comments to be returned via either letter or email by April 13, 2007. The agencies solicited for comments were:

- Va. Dept. of Environmental Quality
- Va. Marine Resources Commission
- Va. Dept. of Conservation and Recreation (DCR)
- Va. Dept. of Forestry (2 contacts)
- Va. Dept. of Historic Resources (DHR)
- Va. Dept. of Game and Inland Fisheries
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture (2 contacts)

- U.S. National Park Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Federal Highway Administration, Eastern Federal Lands Highway Div.

See Appendix I for a copy of the information sent out.

Comments were received from DCR and DHR. See the "Potential Environmental Mitigation Activities" section for the resulting discussion. Relevant comments were incorporated into the mitigation discussion, with other comments (e.g., bicycle and pedestrian facilities) incorporated into their respective sections of this document. See Appendix H for copies of the comments received.

Summary of SAFETEA-LU Consultation Comments
Re: Environmental Mitigation Discussion

Agency	Summary of comments
DCR	Purchase acreage in the Grafton Ponds complex containing seasonal ponds (site 22). Avoid rare plant species, amphibians, and reptiles. Concern regarding access to Scenic Rivers. General recommendations regarding Scenic Byways, and bicycle /pedestrian facilities.
DHR	Add State Environmental Review Process (SERP) to mitigation matrix for cultural resources. Keep open all possibilities for mitigation that produce the greatest public benefit.

safetea envtl mit response.xls

DETERMINING WAYS TO IMPROVE NON-DRIVER MOBILITY

As part of the 2030 planning process, HRPDC staff began a multi-year study of ways to improve the mobility of non-drivers in Hampton Roads.

Target of the Study

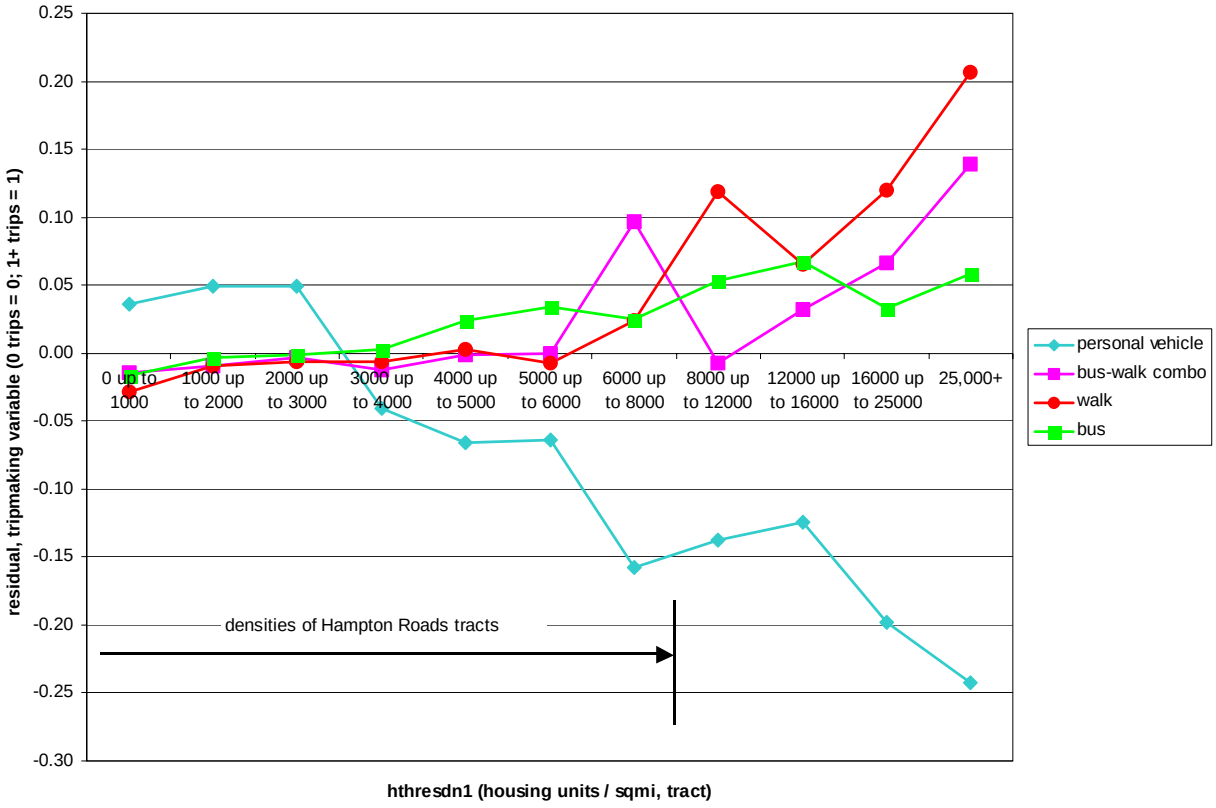
The study did not initially focus on non-drivers, beginning instead as an "elderly and handicapped" study. Examination of data from the 2001 National Household Travel Survey (NHTS), however, revealed that the non-driving subpopulation of the elderly face the greatest mobility challenge. Therefore, the first part of the study examined only those elderly who do not drive. The original target of the second part of the study was handicapped persons. A regression of the NHTS survey results, however, revealed that the lower mobility of handicapped *drivers* is largely related to health, which was beyond the scope of this study. Examining handicapped non-drivers, staff determined that 65% of this population are elderly and therefore already covered by the first part of this study. The remaining 35% of handicapped non-drivers who are younger than 65 are rare, found in only 1% of US households. Therefore, in order to study more common travel-challenged persons, the second part of the study targeted all non-drivers age 18-64, a type of person found in 6% of US households.

Elderly Non-Drivers (Age 65+)

One of the most important findings of the elderly non-driver portion of the study (see "Improving Elderly Transportation Using the NHTS", HRPDC, June 2005) was the following:

> As residential density increases, walking and bus-riding increases, reducing the need for elderly non-drivers to ask for a ride in personal vehicles, thereby increasing their total mobility, as show on the following page.

Impact of Density on Tripmaking of Elderly Non-Drivers, by mode



mode_switch_excel_regr2.xls

A summary of the findings of this first non-driver document follow:

- Is there a problem?

  –Yes- the elderly are more likely to be non-drivers, and non-drivers travel half as much as drivers.

- What can be done to increase the mobility of elderly non-drivers?

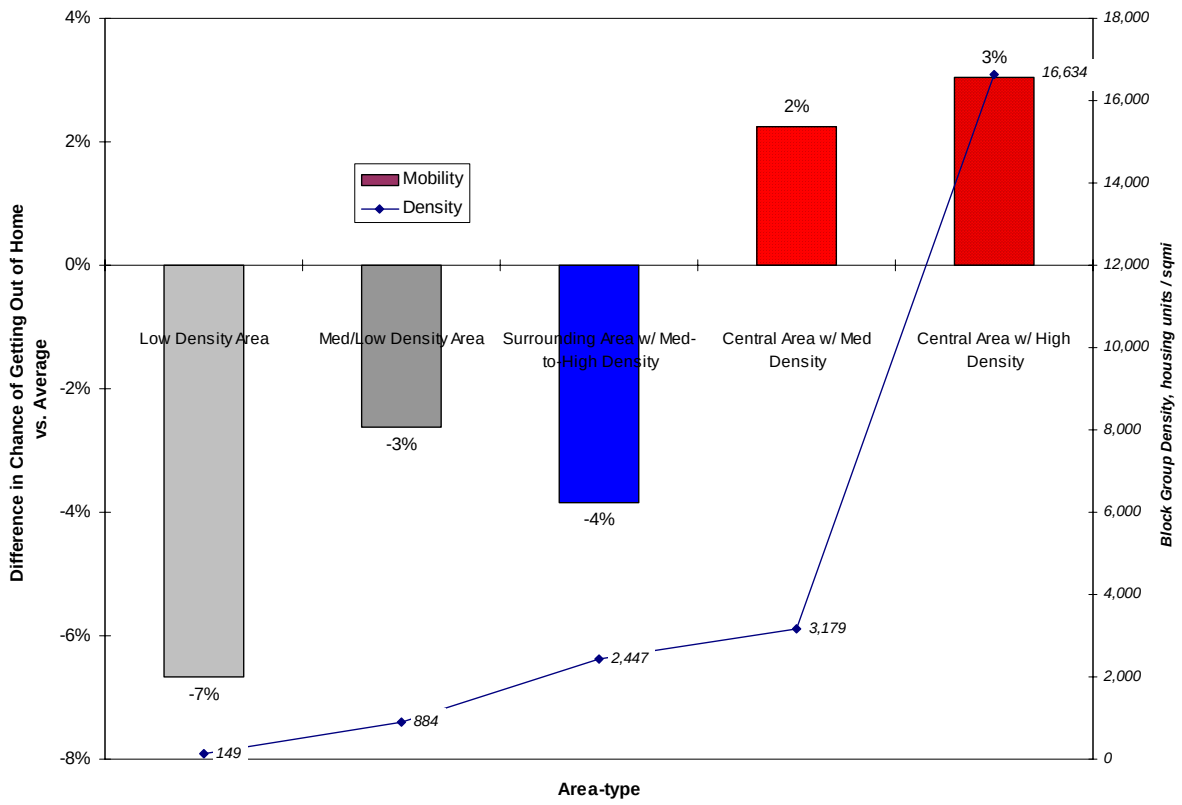
- Local governments can improve pedestrian facilities and transit service, focusing on dense areas.
- Local governments can ensure that adequate portions of their localities are zoned for higher densities, particularly areas conducive to walking and having existing or planned high levels of transit service.
- Local governments can adjust transit service to accommodate the elderly by considering time of day, drivers, route design, vehicle design, marketing.

In addition to informing the planning process at HRPDC, this research was presented at the 2006 annual meeting of the Transportation Research Board. The Institute of Transportation Engineers (ITE) gave its 2006 Innovative Intermodal Solutions for Urban Transportation Award (in memory of Daniel W. Hoyt) to the PDC staff member who wrote this first non-driver document.

Non-Drivers Age 18-64

One of the most important findings of the 18-64 non-driver portion of the study (see "Improving the Mobility of Non-Drivers Age 18-64 Using the NHTS", HRPDC, November 2006) was the following (as shown in the chart on the following page):

Mobility is a function, in part, of both density and centrality.



age18-64 non-driver gotout.xls

A summary of the findings of this second part of the non-driver study follow:

Both individuals and local government can take actions to improve the mobility of 18-64 non-drivers.

18-64 non-drivers who live in those portions of Hampton Roads with poor non-driver mobility may wish to move to areas where destinations are near and pedestrian and transit infrastructure are provided. Considering the discussion of Central Areas in the U.S. above, it is likely that the Central Areas of Hampton Roads have the necessary destinations and infrastructure for higher 18-64 non-driver mobility.

Local governments can take steps to improve the mobility of 18-64 non-drivers, via zoning and infrastructure.

A local government in Hampton Roads can use its zoning authority to promote the development of areas where residences are near destinations. Localities can use zoning to encourage development of more residences in areas where business, shopping, and government facility destinations already exist. This is already being done in some areas, e.g. Downtown Norfolk and Oyster Point.

Conversely, localities can use zoning to encourage the location of business and shopping destinations in areas where many residences already exist. Finally, localities can use zoning to encourage mixed-use developments which simultaneously add residences and destinations to the same area. This is already being done in some areas, e.g. New Town, Port Warwick, and Town Center.

A local government can use its budget to improve the mobility of 18-64 non-drivers. It can locate government facilities (rec. centers, libraries, etc.) in areas where many residences already exist. And localities can invest in improvements to pedestrian and transit infrastructure, particularly in those areas where destinations are near residences.

In summary, this analysis using NHTS data and common-sense transportation assumptions indicates that the combination of walk-able areas, transit infrastructure, and destinations and residences being near each other will result in measurably higher mobility for 18-64 non-drivers in Hampton Roads.

Survey of Local Non-Drivers

Due to the structure of the NHTS survey, neither of the above analyses was able to prove or measure the impact which living near transit and living within walking distance of destinations has on non-driver mobility. Therefore, a survey was designed, implemented, and analyzed to measure these factors.

The third HRPDC non-driver report, “Snapshot of Non-Drivers in Hampton Roads” (2007), provided a summary of the local non-driver survey. The conclusions contained in that document follow:

- Mobility is a significant problem for non-drivers, particularly older ones.
- Non-drivers achieve most of their mobility from persons with personal vehicles.
- Bus and walk are also important modes for non-driver mobility.
- Radical changes would have to be made to taxi, handi-ride, and medical transport systems for them to significantly impact non-driver mobility.
- Mobility improvements for older non-drivers must include consideration of the significant sub-population of older non-drivers with poor health.
- Mobility improvements for non-drivers of any age must include consideration of the low income of these persons.

Improving the Mobility of Non-Drivers Using Proximity to Destinations and Bus

The regression analysis of the local non-driver survey revealed several significant findings, compiled in a fourth non-driver report, “Improving the Mobility of Non-Drivers Using Proximity to Destinations and Bus Routes” (2007). All other things being equal:

- For lesser-walking non-drivers, the odds of getting out of the home on a given day increase for each additional bus stop within a 5 mile radius of their home.
- For better-walking non-drivers, living within 1 mile of a bus stop doubles the odds of getting out of the home.
- Better-walking non-drivers living in High Activity Locations in Hampton Roads have odds of leaving home five times higher than those living away from activities.

From these findings, the following recommendations were offered:

- Local governments can measurably increase the mobility of non-drivers by directing resources to improve the bus infrastructure.
- New routes located on roads with a large number of existing or planned residences within a one-mile walk of that road will improve the mobility of many non-drivers.
- Local governments may be able to increase the mobility of non-drivers by directing resources to improve pedestrian infrastructure (sidewalks, street furniture, pedestrian overpasses, etc.).
- Local governments can measurably increase the mobility of non-drivers by locating government facilities near existing and planned locations of large numbers of residences.
- Local government can measurably increase the mobility of non-drivers by using its zoning authority to ensure that:
  1) Adequate numbers of residences are allowed to be built in existing High Activity Locations
  2) Adequate numbers of activity locations (businesses, institutions, etc.) are allowed to be built near existing high-density residential locations
  3) New developments containing a mixture of both activity locations and residences are allowed to be built
- Local government can measurably increase the mobility of non-drivers by using its zoning authority to ensure that adequate numbers of residences are allowed to be built within one mile of existing and planned bus routes.

Neighborhood Gaps Analysis

In the fifth non-driver report, “Improving the Mobility of Non-Drivers, Neighborhood Gaps Analysis”, knowledge gained from the previous reports was applied to three neighborhoods in Hampton Roads: Coliseum Central in Hampton, Wards Corner in Norfolk, and Hilltop In Virginia Beach. The summaries of recommendations from that report are reproduced below.

Coliseum Central in Hampton

- There are approximately 7.2 miles of gaps in the sidewalk network along major streets in the Coliseum Central study area. The cost to complete the sidewalk network would be about $790,000. Besides impacting pedestrian and cyclist travel, the gaps in the sidewalks could also have an impact on the attractiveness of the area's transit routes, as the lack of sidewalks at transit stops could be a deterrent to potential riders.
- Sidewalks in the area can also be used by cyclists. Besides experiencing the same gaps as pedestrians, cyclists have limited areas with racks for their bicycles. Bicycle racks costs range from approximately $225 for a single rack to $800 for a rack holding ten bicycles.
- The distance to transit stops is sufficient, with five transit lines serving the area. However, routes 102, 113, and 118 could be further examined for ways to increase their ridership per hour.
- Most of the Coliseum Central area does have sufficient proximity for non-drivers to activities. These areas, that are already conducive to non-driver mobility in terms of proximity to businesses, may be good candidates for future additional residential units.
- The area that was found to be less-conducive to non-driver mobility in terms of proximity to activities was the northeast section of the study area. Opportunities for increasing businesses in this area may be limited, however, by the existing landuse.
- The city and current business owners could consider the incorporation of paths across large parking lots for more desirable non-driver access.

The city could work with the residents in the Coliseum Central area to determine acceptable and affordable ways for mobility to be increased for non-drivers in the area and whether the above potential opportunities for increased mobility are desirable to the community.

Wards Corner in Norfolk

- Access to the commercial area along Little Creek Rd. at Granby St. could be intimidating for non-drivers wanting to make the trip by bicycle. The city could provide facilities (bike lanes, bike racks at shopping areas) for those wanting to make the trip by bicycle.
- The distance to transit stops is sufficient, with four transit lines serving the area. However, routes 5 and 61 could be further examined for ways to increase their ridership per hour such as increased frequency or modified stop locations.
- For those living west of Newport Ave., access to the commercial area to the east of Granby St. could be increased by providing amenities (crosswalks, bike lanes) for crossing Newport Ave. Newport Ave. currently has a posted speed of 25 mph but has very wide lanes and no stops for a mile-long stretch, making it easy for drivers to exceed the posted speed limit and potentially difficult for cyclists and pedestrians to cross. The city may find traffic calming methods to be warranted.

- Mobility for those living at the northeast corner of Thole St. and Granby St. (between Suburban Pkwy and Granby Park to the north, and west of Suburban Park Elementary School) could be increased with an additional bicycle / pedestrian access point to the local street network to the north. This would provide a more direct route to the commercial area and increase connectivity to what is currently an area that is separated from the rest of Wards Corner. However, implementation of such a route would require the acquisition of an appropriate right-of-way, with additional financial costs and possible wetland impacts.
- Just over half of the Wards Corner area does have sufficient proximity for non-drivers to activities. These areas, that are already conducive to non-driver mobility in terms of proximity to businesses, may be good candidates for future additional residential units.
- The areas that were found to be less-conducive to non-driver mobility in terms of proximity to activities were the western and southern borders of the study area. These areas may be good candidates for new businesses, if the city and the neighborhood desire to increase walking and bicycling opportunities for non-drivers and others.
- The city and current business owners could consider the incorporation of paths across large parking lots for more desirable non-driver access.

The city could coordinate with the residents in the Wards Corner area to determine acceptable and affordable ways for increasing non-driver mobility in the area, using the above potential opportunities for increased mobility as a starting point.

<u>Hilltop in Virginia Beach</u>

- There are about 2.4 miles of gaps in the sidewalk network along major streets in the Hilltop study area. The cost to complete the sidewalk network would be about $265,000. Besides impacting pedestrian and cyclist travel, the gaps in the sidewalks could also have an impact on the attractiveness of the area's transit routes, as the lack of sidewalks at transit stops could be a deterrent to potential riders.
- Sidewalks in the area can also be used by cyclists. In addition to experiencing the same gaps as pedestrians, cyclists have limited areas with racks for their bicycles. Bicycle racks costs range from approximately $225 for a single rack to $800 for a rack holding ten bicycles.
- Non-driver access to Hilltop from the residential area to the north could be improved through the inclusion of a walkway from Laurel Lane.
- The distance to transit stops is sufficient, with three transit lines serving the area. However, routes 24 and 29 could be further examined for ways to increase their ridership per hour, such as increased frequency or modification of stop locations. Also, three of the routes (24, 29, and the Wave) do not have racks for bicycles, an exception in the HRT fleet.
- Most of the Hilltop area does have sufficient proximity for non-drivers to activities. These areas, that are already conducive to non-driver mobility in terms of

proximity to businesses, may be good candidates for future additional residential units.

- The area that was found to be less-conducive to non-driver mobility in terms of proximity to activities was the residential area just east of Winwood Dr. This area may be a good candidate for new neighborhood-scale businesses in the area, if the city and the neighborhood desire to increase walking opportunities for non-drivers and others.
- The city and current business owners could consider the incorporation of paths across large parking lots for more desirable non-driver access.

The city could coordinate with the residents in the Hilltop area to determine acceptable and affordable ways for increasing non-driver mobility in the area, using the above potential opportunities for increased mobility as a starting point.

UPDATING COST ESTIMATES FOR HRTA PROJECTS

At the request of FHWA, HRPDC staff updated the costs of the six HRTA projects. New cost estimates had been prepared by various agencies after the MPO Package of Toll Projects was developed in 2005. Due to the rapid inflation in construction costs driven by worldwide commodity shortages and various other factors described below, some of these new costs were significantly higher than the original estimates associated with the MPO Package of Toll Projects. Note that all of the costs discussed below were inflated to year-of-expenditure (YOE).

Southeastern Parkway / Dominion Blvd

The cost estimate used in this 2030 Plan for the Southeastern Parkway ($2,360m) was prepared by VDOT in 2007. The original “MPO Package of Toll Projects” estimate for this project ($932m) was based on a 1996 estimate for the Major Investment Study (MIS) prepared by Michael Baker. The new estimate is higher than the old one due to the use of VDOT’s new Project Cost Estimating System (PCES) and the addition of 25% contingency as directed by FHWA.

The cost estimate used in this 2030 Plan for Dominion Blvd ($477m) is the sum of the estimates prepared for the two portions of this project. The original “MPO Package of Toll Projects” estimate for this project ($185m) was based on a 1999 estimate for a feasibility study prepared by JMT. The new estimate for the northern portion of the project (starting at Cedar Rd; $454m) was prepared by the City of Chesapeake and included in the July 2007 draft of its “Financial Analysis for Dominion Blvd/US 17 and Southeast Parkway & Greenbelt”; the new estimate for the southern portion of the project (below Cedar Rd; $23m) was prepared by VDOT and published in its FY08 Six-Year Improvement Program (SYIP). The Chesapeake estimate is higher than the old one due, in part, to the addition of 25% contingency as directed by FHWA.

Third Crossing- Ph I

The cost estimate used in this 2030 Plan for the Third Crossing- Ph I ($2,035m) was prepared by VDOT in 2007 based on proposals received via the Public Private Transportation Act (PPTA). The original "MPO Package of Toll Projects" estimate for this project ($1,692m) was based on an estimate appearing in VDOT's 2001 Final Environmental Impact Study (FEIS) for the entire Third Crossing project.

Midtown Tunnel / MLK Extension

The cost estimate used in this 2030 Plan for the Midtown/MLK project ($775m) was prepared in 2007 and provided by VDOT. The original "MPO Package of Toll Projects" estimate for this project ($549m) was based on an estimate prepared by Michael Baker in 2002.

I-64 Peninsula

The cost estimate used in this 2030 Plan for the I-64 Peninsula project ($1,100m) was prepared by HRPDC staff in 2007 and based on an estimate for the eastern portion of this project developed recently by VDOT using the PCES. The original "MPO Package of Toll Projects" estimate for this project ($556m) was developed by HRPDC using costs from the 1999 MIS for a larger I-64 project.

I-64 Southside

The cost estimate used in this 2030 Plan for the I-64 Southside project ($1,080m) was prepared by VDOT in 2003. It is the same as the original estimate used for the MPO Package of Toll Projects, as no newer official estimate was available.

US 460

Only the eastern portion (i.e. east of Zuni) of the total US 460 project is included in the 2030 Plan because the Plan only covers the twelve localities plus part of Gloucester which comprise the MPO study area. The cost estimate used in this 2030 Plan for the US 460 project ($532m) was developed by the HRPDC by 1) modifying a 1999 Michael Baker estimate (for a longer project) to reflect the length of the 2030 Plan project, and 2) inflating the estimate to YOE. No newer official estimate was available.

APPLYING FINANCIAL CONSTRAINT

In accordance with SAFETEA regulations, the 2030 Plan was developed to contain only those projects for which funding is reasonably expected.

Calculation of Dollars Available for 2030 Projects

Setting Aside Dollars for Operations and Maintenance

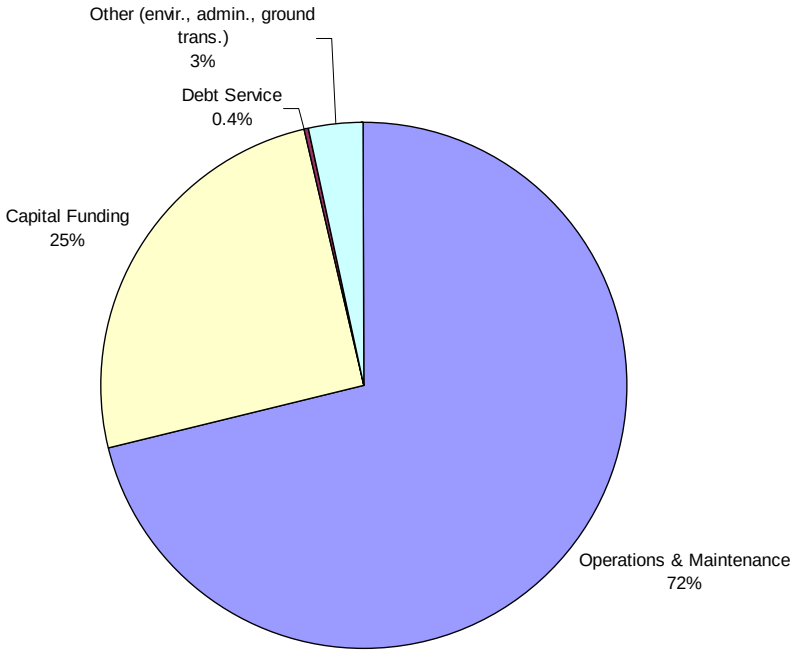
HRPDC staff received a 2030 funding forecast from VDOT in June 2006 for the Hampton Roads (HR) District and in Dec 2007 for the portion of Gloucester County which is in the MPO study area (Gloucester is in the Fredericksburg District of VDOT), covering fiscal years 2007 thru 2030. In order to calculate the amount of funding available for 2030 projects for the MPO study area, 1) the figures for the MPO portion of the HR District were combined with the Gloucester figures, 2) other VDOT forecasts were used to add FY06 to the above figures, and 3) dollars were set aside for operations and maintenance and other purposes as shown below.

Funding Categories Which Were Forecasted by VDOT, HRMPO Area, FY06-30

	$millions
Setting Aside Dollars for O&M, Debt, and Other	
Total Funding Available	$14,324
Less Operations and Maintenance	-$10,196
Less Debt Service	-$55
Less Other (envir., admin., ground trans.)	-$473
Capital Funding Available	$3,600
Breaking Down Capital Funding Available by Funding Source	
NHS	$1,430
Primary	$97
RSTP	$816
Secondary	$72
Urban	$525
CMAQ	$499
Equity Bonus	$28
Enhancement	$42
Safety	$78
Rail	$11
Capital Funding Available	$3,600

2030 funding summary- 2006 series- MPO.xls

Funding Categories Which Were Forecasted by VDOT, HRMPO Area, FY06-30



2030 funding summary- 2006 series- MPO.xls

Note that over $10B was set aside for operations and maintenance.

Local Funding Forecasts

Funding forecasts for local dollars were conducted on a city-by-city basis.

Virginia Beach

The ability of Virginia to fund projects with local dollars was calculated as follows:

Calculation of Available Local Funds- Virginia Beach

Regular Local Funds	
Regular Local Funding for All Transportation Projects, FY04	$23,000,000
Regular Local Funding for All Transportation Projects, FY05	$31,000,000
Regular Local Funding for All Transportation Projects, FY06	$29,068,138
average	$27,689,379
Annual Funding Increase Rate, assumed	3%
Regular Local Funding for All Projects, FY06 thru FY30	$1,009,534,400
Revenue Sharing Funds	
Revenue Sharing funds, FY06-FY30	$19,500,000
Listed Project Funding / All Project Funding	95%
Local Funding for Listed Projects, FY06 thru FY30	$18,525,000
Transition Area Funds	
Transition Area funds, FY06-FY30	$54,551,435
All Local Funds, FY06-FY30	$1,083,585,835

local.xls

Remaining Cities

Virginia Beach is the only locality which routinely invests large amounts of local dollars toward regionally-significant transportation projects. The other cities which allocated local funds to LRP projects allocated relatively small amounts and therefore did not forecast total local funds available over the study period.

Project-by-Project Funding Sources

In addition to the VDOT-forecasted funds and local funds identified above, funding from other sources was assumed to be available for 2030 projects on a project-by-project basis. These sources include bridge, private, FTA, state transit, earmark, and toll funds. For project-by-project details of the funding from these sources, see “Source of Project Funds” table near end of this section.

Additional Funding Enabled by General Assembly via HRTA

On April 4, 2007, the General Assembly (via HB 3202) created the HRTA and enabled it to construct the MPO Package of Toll Projects.[12] For the purposes of the 2030 LRP, it is assumed that HB 3202 is an effective law, i.e. that it provides new funding (via HRTA tax and toll revenues) which, together with existing funding sources (e.g. NHS), is sufficient to construct the subject projects.[13]

HB 3202 provided the following slate of taxes and fees for HRTA to implement:

1. A $10 Vehicle Registration Fee
2. A 1% Initial Vehicle Registration Fee
3. A $10 Vehicle Safety Inspection Fee
4. A 5% Sales and Use Tax on Automotive Repairs
5. A $0.40/$100 of value Grantor's Tax on real estate sales
6. A 2% Motor Vehicle Fuels Tax
7. A 2% Local Rental Car Tax

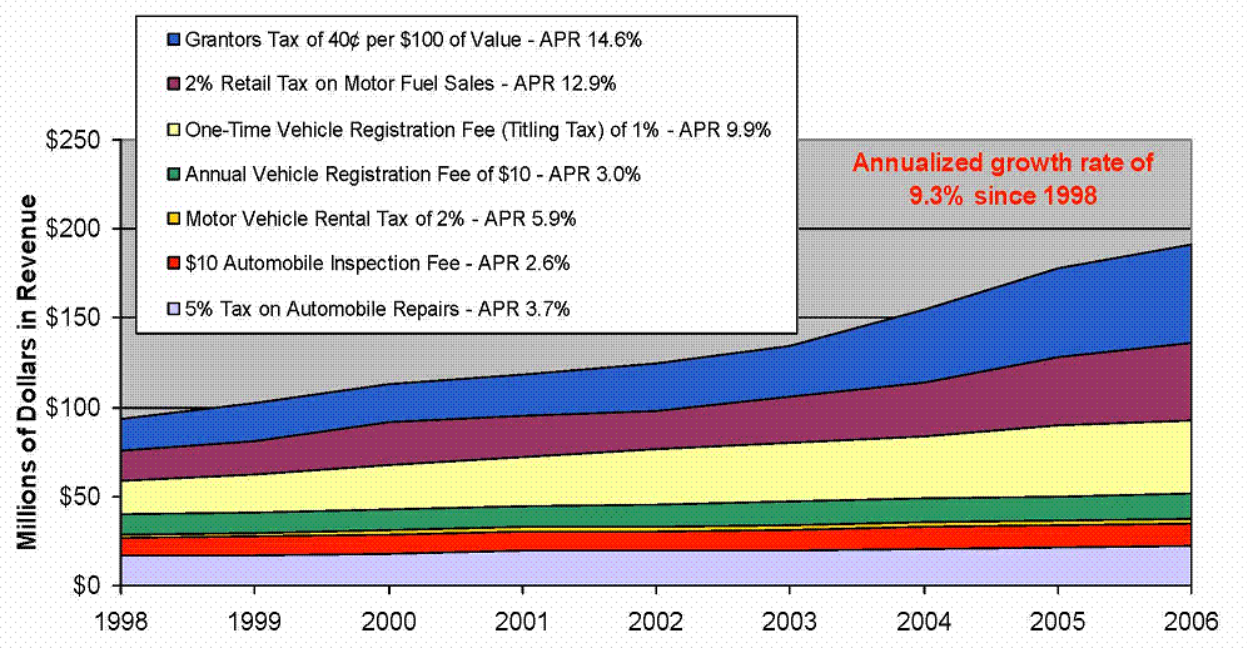
The Virginia Department of Taxation estimates that these taxes and fees will generate a total HRTA revenue in FY09 of $168.5m. Following public hearings in August 2007, the HRTA voted to implement these taxes and fees starting April 1, 2008.

As shown below, the HRPDC Economics Department estimated a recent overall growth rate of 9.3% in the tax bases for HRTA revenues. The sources, used by the Economics Department, of the tax base data varied according to the tax base. For bases which have existing taxes, e.g. motor vehicle rental, the tax collection records were used to calculate growth rates. For bases which have no existing taxes, records from various sources which track the subject activity were used. For example, the growth rate for a motor fuel sales tax was calculated by combining estimates of fuel consumption with historical fuel price data. The overall growth in the HRTA tax bases was calculated by applying the HRTA revenue rates to the above tax base data. As shown on the graph below (source: HRPDC, 4-9-07), the combination of HRTA revenue sources grew at an annualized rate of 9.3% over the period 1998 thru 2006.

[12] HB 3202 also raised additional statewide transportation funding, yet the actual amount of the increase in statewide funding was not available during development of the 2030 Plan.

[13] It is anticipated that the HRTA will, in the future, conduct a near-investment-grade traffic and revenue study analyzing how long it will take for HRTA to fund the six projects it has been legislated to build.

Historic Growth Rates in the Tax Bases for HRTA Revenues



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Given that the General Assembly passed HB3202 on April 4, 2007 providing HRTA with taxing and tolling authority with which to raise funds to build the 6 HRTA projects, the MPO voted July 18, 2007 to include the 6 "First Phase" HRTA projects in the 2030 Plan.[14]

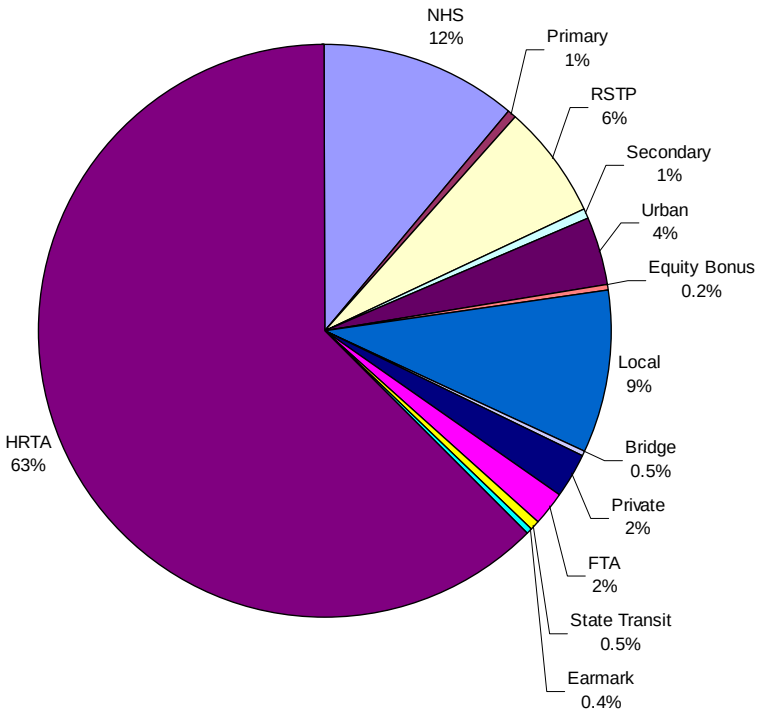
[14] Based on the assumption that the construction of Phase II of the Third Crossing would occur after 2030, the MPO did not include that phase in the 2030 Plan. At press time, the HRTA is preparing an RFP for a traffic and revenue study which is expected to clarify expected construction schedules.

Total Dollars Available for Construction through 2030

The sources discussed above provide the funding available for 2030 projects. Because only regionally-significant projects are listed in the 2030 Plan, no CMAQ, Enhancement, Safety, or Rail dollars are shown below.

Funding Available for Construction of LRP Projects, HRMPO Area, FY06-30

NHS	$1,430
Primary	$97
RSTP	$816
Secondary	$72
Urban	$525
Equity Bonus	$28
Local	$1,180
Bridge	$63
Private	$305
FTA	$254
State Transit	$65
Earmark	$46
HRTA	$8,136
	$13,018



2030 funding summary- 2006 series- MPO.xls

Funding Set-aside for Projects Not Listed in Plan

In order to determine how many dollars will be available for the projects which are individually listed in the Plan, HRPDC staff led Team2030 in a process of setting aside dollars for other (not individually listed) transportation expenditures.

First, at the 06-03-05 Team2030 meeting, HRPDC staff proposed that the following types of highway projects be listed in the 2030 Plan:

- Lane additions on highways classified as arterial or higher
- Bridge replacements
- Interchange work (major)

At its 06-22-06 meeting, the TTC decided that the following transit projects would be listed in the 2030 Plan:

- Fixed guideway projects (e.g. LRT)

Consequently, all other types of work (e.g. bike lanes, turn lanes, ITS, widening of collector and local roadways, regular bus routes) are not listed in the 2030 Plan.

Secondly, staff calculated the percentage of dollars, by funding category, that has been spent in recent years (FY04 and FY05) on non-listed type projects. Based in part on this recent data, at its 7-6-05 meeting, Team2030 (unless otherwise noted) agreed to set aside the following percentages of forecasted 2030 dollars for non-listed projects:

- Local: 0%[15]
- NHS: 30% (CAOs at 8-16-06 meeting)
- Primary: 19%
- RSTP: 14% (TTC at 7-20-06 meeting)
- Secondary: 75%
- Urban: 5%

Overall, over $1B of construction funds were set aside for non-listed projects, as shown on the table on the following page.

[15] Because most localities spend few local dollars on transportation projects, no funding forecast was performed for them and therefore no dollars were set aside for non-listed projects. Va. Beach, on the other hand, has an active local transportation funding program and, therefore, approximately 40% of Va. Beach local transportation funds were set aside for non-listed projects in accordance with a 7-7-06 letter from Tim Rayner (VB) to Robert Case (HRPDC).

Construction Funds Available for Projects Listed in 2030 Plan

	Funding Sources for which Funding Amounts were Forecasted							Sources without Forecasted Funding Amounts (2)						
Note: Year-of-Expenditure (YOE) Dollars	NHS	Primary	RSTP	Second-ary	Urban	Local	Equity Bonus	Bridge	Private	FTA	State Transit	Earmark	HRTA	Total Funding (FY06+; YOE $'s)
Funding Available (FY06 thru FY30)	$1,430	$97	$816	$72	$525	$1,180	$28	$63	$305	$254	$65	$46	$8,136	**$13,018**
% Set-aside for Non-Individually-Listed Work	30%	19%	14%	75%	5%	varies (1)	0%	0%	0%	0%	0%	0%	0%	
Non-Individually-Listed Work	$429	$18	$114	$54	$26	$427	$0	$0	$0	$0	$0	$0	$0	**$1,069**
Funding Available for Listed Work	$1,001	$79	$702	$18	$499	$754	$28	$63	$305	$254	$65	$46	$8,136	**$11,949**

Notes

(1) See footnote in "Funding Set-aside for Projects Not Listed in Plan" section.

(2) For these funding categories, no forecasts were available; therefore, "Funding Available" set equal to amount of funding allocated to projects.

2030 Projects MPO.xls

Calculation of Dollars Allocated to 2030 Projects

Matching Costs to Funding: Candidate Project Cost Estimates

In order to financially constrain the 2030 Plan, the type of dollars used in candidate cost estimates was made to match the type of dollars used in the forecast of available funding. As indicated in this excerpt from a 4-12-05 email from Gerald Sears (VDOT), the funding forecast was performed by VDOT using "year-of-expenditure" dollars:

> "…the revenue projections are representative of each forecast year…."

As indicated in this excerpt from a 10-25-05 email from James Vaughn (VDOT), the cost estimates for the candidate projects were prepared by VDOT using current-year dollars[16]:

> "They [the VDOT cost estimates] include PE/RW/CONST and are today's costs."

Therefore, in order to convert the VDOT cost estimates for candidate projects (originally calculated in current-year dollars) into year-of-expenditure cost estimates, HRPDC staff inflated the original VDOT cost estimates. The 3-7-06 joint FHWA/VDOT/HRPDC teleconference approved this process.

An inflation factor was applied to each estimate, the factor being based on a 3.89%[17] annual construction cost inflation rate and the expected timeframe of project construction, as follows:

2006-2014: no inflation factor applied
2014-2022: 1.64 inflation factor applied (i.e. 13 years of inflation)
2022-2030: 2.23 inflation factor applied (i.e. 21 years of inflation)

Having determined timeframes for projects which were candidates for NHS funding in 2005, Team2030 approved timeframes for non-NHS candidates at its 3-1-06 meeting.

Dollars Allocated to 2030 Projects

The dollars allocated to each 2030 project, by funding source, are shown on the following pages. (The process through which these projects were selected is discussed in the "Selecting Projects" section below. The details of these projects are discussed in the "2030 Long-Range Transportation Plan" section below.)

[16] See "Updating Cost Estimates for HRTA Projects" section for source of estimates for those projects.
[17] As developed by HRPDC and VDOT in preparation for the 2002 gas tax referendum.

Source of Project Funds

Locality	Project [w/ 2030 Proj. ID]	Cost (FY06+, YOE $'s)*	NHS	Primary	RSTP	Second-ary	Urban	Local	Equity Bonus	Bridge	Private	FTA	State Transit	Earmark	HRTA	Total Funding (FY06+; YOE $'s)*
CH	Cedar Rd [2]	$22	$0	$0	$22	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$22
CH	Greenbrier Pkwy [5]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CH	GW Hwy [226]	$4	$0	$0	$0	$0	$0	$1	$0	$0	$3	$0	$0	$0	$0	$4
CH	GW Hwy (in Deep Creek, south) [7]	$25	$25	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25
CH	Hanbury Rd [9]	$19	$0	$0	$0	$0	$19	$0	$0	$0	$0	$0	$0	$0	$0	$19
CH	I-64 [10]	$48	$48	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48
CH	I-64 (Southside, full project, with toll) [224]	$1,080	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,080	$1,080
CH	Long Bridge (GW Hwy, near fire station) [227]	$3	$0	$0	$3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3
CH	Lynnhaven Pkwy - Volvo Pkwy [12]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CH	Military Hwy (Gilmerton Bridge) [14]	$113	$0	$0	$0	$0	$56	$0	$0	$56	$0	$0	$0	$0	$0	$113
CH	Moses Grandy Trail (built; cost remains) [4]	$7	$0	$0	$0	$0	$0	$7	$0	$0	$0	$0	$0	$0	$0	$7
CH	Mt Pleasant Rd (incl'g Byp intx impr'ts) [15]	$8	$0	$0	$8	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8
CH	Nansemond Pkwy - Portsmouth Blvd [16]	$7	$0	$0	$7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7
HM	Armistead Ave [28]	$4	$0	$0	$0	$0	$4	$0	$0	$0	$0	$0	$0	$0	$0	$4
HM	Armistead Ave Conn [27]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HM	Cmdr Shepard Blvd Ext- Phase I [31]	$14	$0	$0	$0	$0	$14	$0	$0	$0	$0	$0	$0	$0	$0	$14
HM	Cmdr Shepard Blvd Ext- Phase II [71]	$6	$0	$0	$6	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6
HM	I-64 (built; FY06+ cost remains) [38]	$2	$2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2
HM	I-64 @ Lasalle Ave [39]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HM	Saunders Rd [47]	$15	$0	$0	$15	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15
HM	Wythe Creek Rd (incl'g bridge widening) [236]	$56	$0	$0	$56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$56
IW	Blackwater Bridge Replacement [99]	$4	$0	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4
JC	Chickahominy Bridge Replacement [188]	$8	$0	$2	$0	$0	$0	$0	$0	$6	$0	$0	$0	$0	$0	$8
JC	Ironbound Rd [72]	$13	$0	$0	$7	$7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$13
JC	Rte 199 [54]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
JC	Rte 199 [55]	$1	$0	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1
JC	Rte 60 Relocated- PE/RW Only [242]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
MULTI	Ft Eustis Blvd [62]	$30	$0	$30	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30
MULTI	HR Third Crossing- Ph I (I-664) (with toll) [244]	$2,035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,035	$2,035
MULTI	I-64 (Peninsula, with toll) [66]	$1,100	$116	$0	$0	$0	$0	$0	$18	$0	$0	$0	$0	$0	$966	$1,100
MULTI	Midtown / MLK (w/ toll incl'g para. fac.) [68]	$775	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$775	$775
MULTI	SP&G / Dominion Blvd (2) (with toll) [70]	$2,837	$0	$8	$9	$0	$0	$40	$8	$0	$0	$0	$0	$15	$2,757	$2,837
MULTI	U.S. 460- HR portion (with toll) [69]	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9	$523	$532
NN	Atkinson Blvd [77]	$41	$0	$0	$41	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$41
NN	Jefferson Ave [81]	$18	$0	$0	$0	$0	$18	$0	$0	$0	$0	$0	$0	$0	$0	$18
NN	Jefferson Ave [82]	$75	$75	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$75
NN	Middleground Blvd [83]	$68	$0	$0	$38	$0	$30	$0	$0	$0	$0	$0	$0	$0	$0	$68
NN	Peninsula Fixed Guideway (Transit) [214]	$250	$0	$0	$39	$0	$0	$49	$0	$0	$0	$125	$37	$0	$0	$250
NN	Rte 17 (J Clyde Morris Blvd) [85]	$42	$42	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$42
NN	Rte 60 Relocated- PE/RW Only [243]	$3	$0	$0	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4
NN	Warwick Blvd [88]	$11	$0	$0	$0	$0	$11	$0	$0	$0	$0	$0	$0	$0	$0	$11
NOR	Intermodal/Chambers Interch. on I-564 [244]	$20	$20	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20
NOR	Hampton Blvd & R/R Grade Separation [97]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NOR	I-264 (built; FY06+ cost remains) [212]	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1
NOR	I-264EB ramp from 64WB [98]	$102	$102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$102
NOR	I-64 / Norview Ave Interchange [241]	$4	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4
NOR	Little Creek Rd [102]	$30	$30	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30
NOR	Military Hwy [103]	$7	$0	$0	$0	$0	$7	$0	$0	$0	$0	$0	$0	$0	$0	$7
NOR	Military Hwy [104]	$108	$0	$0	$91	$0	$17	$0	$0	$0	$0	$0	$0	$0	$0	$108
NOR	Navy Recreational Facilities [106]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NOR	Norfolk Light Rail [213]	$218	$0	$0	$22	$0	$39	$0	$0	$0	$0	$129	$28	$0	$0	$218
NOR	Va. Beach Blvd [107]	$7	$0	$0	$0	$0	$7	$0	$0	$0	$0	$0	$0	$0	$0	$7
NOR	Wesleyan Dr [109]	$4	$0	$0	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4
POQ	Wythe Creek Rd (w/o br. widening) [111]	$9	$0	$0	$6	$0	$3	$0	$0	$0	$0	$0	$0	$0	$0	$9
PORT	Craney Island Access Rd [245]	$182	$0	$0	$0	$0	$0	$0	$0	$0	$182	$0	$0	$0	$0	$182
PORT	Maersk Interchange (Western Frwy.) [115]	$3	$0	$3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3
PORT	Pinners Pt Conn (built; cost remains) [117]	$14	$14	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14

Source of Project Funds

Locality	Project [w/ 2030 Proj. ID]	Cost (FY06+, YOE $'s)*	NHS	Primary	RSTP	Second-ary	Urban	Local	Equity Bonus	Bridge	Private	FTA	State Transit	Earmark	HRTA	Total Funding (FY06+; YOE $'s)*
PORT	Reimburse Toll Facilities Revolving Acct [215]	$39	$0	$0	$0	$0	$39	$0	$0	$0	$0	$0	$0	$0	$0	$39
SUF	Finney Ave extension [240]	$16	$0	$0	$0	$0	$16	$0	$0	$0	$0	$0	$0	$0	$0	$16
SUF	Nansemond Pkwy - Ports. Blvd [126]	$11	$0	$0	$0	$0	$11	$0	$0	$0	$0	$0	$0	$0	$0	$11
VB	Birdneck Rd [131]	$17	$0	$0	$0	$0	$17	$0	$0	$0	$0	$0	$0	$0	$0	$17
VB	Centerville Tnpk [133]	$26	$0	$0	$26	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$26
VB	Centerville Tnpk [134]	$42	$0	$0	$42	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$42
VB	Constitution Dr ext'd [136]	$20	$0	$0	$0	$0	$0	$20	$0	$0	$0	$0	$0	$0	$0	$20
VB	Elbow Rd / Dam Neck Rd [138]	$55	$0	$0	$0	$0	$4	$51	$0	$0	$0	$0	$0	$0	$0	$55
VB	First Colonial Rd [229]	$73	$0	$0	$0	$0	$3	$70	$0	$0	$0	$0	$0	$0	$0	$73
VB	General Booth Blvd [230]	$89	$0	$0	$0	$0	$0	$89	$0	$0	$0	$0	$0	$0	$0	$89
VB	Holland Rd [141]	$15	$0	$0	$0	$0	$15	$0	$0	$0	$0	$0	$0	$0	$0	$15
VB	Holland Rd [238]	$45	$0	$0	$0	$0	$0	$45	$0	$0	$0	$0	$0	$0	$0	$45
VB	Holland Rd [142]	$54	$0	$0	$54	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$54
VB	I-264 / Independence Blvd intx [145]	$250	$250	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$250
VB	I-264 / Lynn/GrtNk intx (incl's UPC 80157) [146]	$90	$80	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11	$0	$91
VB	I-264 / Witchduck Rd intx [144]	$56	$56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$56
VB	I-64 / City Line Interchange & Arterial [143]	$131	$0	$0	$0	$0	$0	$0	$0	$0	$120	$0	$0	$11	$0	$131
VB	Independence Blvd [148]	$69	$69	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$69
VB	Indian River Rd [150]	$76	$0	$0	$0	$0	$4	$72	$0	$0	$0	$0	$0	$0	$0	$76
VB	Indian River Rd [151]	$87	$0	$0	$0	$0	$0	$87	$0	$0	$0	$0	$0	$0	$0	$87
VB	Indian River Rd [149]	$33	$0	$0	$33	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33
VB	Jeanne St [153]	$7	$0	$0	$0	$0	$0	$7	$0	$0	$0	$0	$0	$0	$0	$7
VB	Kempsville Rd / PA Rd Intersection [154]	$21	$0	$0	$0	$0	$17	$4	$0	$0	$0	$0	$0	$0	$0	$21
VB	Laskin Rd [155]	$37	$0	$0	$0	$0	$18	$18	$0	$0	$0	$0	$0	$0	$0	$37
VB	Laskin Rd [222]	$4	$0	$0	$0	$0	$0	$4	$0	$0	$0	$0	$0	$0	$0	$4
VB	Lynnhaven Pkwy [158]	$10	$0	$0	$0	$0	$10	$0	$0	$0	$0	$0	$0	$0	$0	$10
VB	Lynnhaven Pkwy [223]	$13	$0	$0	$0	$0	$0	$13	$0	$0	$0	$0	$0	$0	$0	$13
VB	Lynnhaven Pkwy - Volvo Pkwy [159]	$1	$0	$0	$0	$0	$0	$1	$0	$0	$0	$0	$0	$0	$0	$1
VB	Nimmo Pkwy [161]	$42	$0	$0	$0	$0	$21	$21	$0	$0	$0	$0	$0	$0	$0	$42
VB	Nimmo Pkwy [231]	$19	$0	$0	$0	$0	$0	$19	$0	$0	$0	$0	$0	$0	$0	$19
VB	Northampton Blvd / Shore Dr intx [164]	$33	$33	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33
VB	Princess Anne Rd [168]	$12	$0	$0	$0	$0	$0	$12	$0	$0	$0	$0	$0	$0	$0	$12
VB	Princess Anne Rd and Nimmo Pkwy [163]	$17	$0	$0	$0	$0	$8	$8	$0	$0	$0	$0	$0	$0	$0	$17
VB	Providence Rd [169]	$41	$0	$0	$41	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$41
VB	Rosemont Rd [170]	$56	$0	$0	$56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$56
VB	Salem Rd [172]	$20	$0	$0	$0	$0	$0	$20	$0	$0	$0	$0	$0	$0	$0	$20
VB	Sandbridge Rd [173]	$35	$0	$0	$0	$0	$0	$35	$0	$0	$0	$0	$0	$0	$0	$35
VB	Seaboard Rd [174]	$1	$0	$0	$0	$0	$0	$1	$0	$0	$0	$0	$0	$0	$0	$1
VB	Wesleyan Dr [177]	$4	$0	$0	$4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4
VB	West Neck Pkwy ext'd [179]	$16	$0	$0	$0	$0	$0	$16	$0	$0	$0	$0	$0	$0	$0	$16
VB	West Neck Pkwy ext'd [178]	$39	$0	$0	$39	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$39
VB	West Neck Rd [180]	$28	$0	$0	$0	$0	$10	$18	$0	$0	$0	$0	$0	$0	$0	$28
VB	Witchduck Rd [182]	$39	$0	$0	$0	$0	$15	$24	$0	$0	$0	$0	$0	$0	$0	$39
VB	Witchduck Rd [181]	$23	$0	$0	$23	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23
WMB	Richmond Rd [187]	$1	$0	$0	$0	$0	$1	$1	$0	$0	$0	$0	$0	$0	$0	$1
WMB	Treyburn Dr Ext [190]	$10	$0	$0	$0	$0	$10	$0	$0	$0	$0	$0	$0	$0	$0	$10
YC	Ft Eustis Blvd Ext (Rte 1050) [191]	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
YC	Rte 17 (York Co.) [193]	$59	$28	$31	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$59
		$11,866	$996	$78	$697	$7	$445	$754	$26	$63	$305	$254	$65	$46	$8,136	**$11,871**

* Projects with entire costs allocated prior to FY06 are shown, therefore, to have a $0 FY06+ cost.

2030 projects w source of funds_Page_1.jpg, 2030 projects w source of funds_Page_2.bmp

Financial Constraint Summary

	Funding Sources for which Funding Amounts were Forecasted							Sources without Forecasted Funding Amounts (2)						
Note: Year-of-Expenditure (YOE) Dollars	NHS	Primary	RSTP	Second-ary	Urban	Local	Equity Bonus	Bridge	Private	FTA	State Transit	Earmark	HRTA	Total Funding (FY06+; YOE $'s)*
Funding Available (FY06 thru FY30)	$1,430	$97	$816	$72	$525	$1,180	$28	$63	$305	$254	$65	$46	$8,136	**$13,018**
% Set-aside for Non-Individually-Listed Work	30%	19%	14%	75%	5%	varies (1)	0%	0%	0%	0%	0%	0%	0%	
Non-Individually-Listed Work	$429	$18	$114	$54	$26	$427	$0	$0	$0	$0	$0	$0	$0	**$1,069**
Funding Available for Listed Work	$1,001	$79	$702	$18	$499	$754	$28	$63	$305	$254	$65	$46	$8,136	**$11,949**
Allocations to Individually-Listed 2030 Projects	$996	$78	$697	$7	$445	$754	$26	$63	$305	$254	$65	$46	$8,136	**$11,871**
Balance	$5	$1	$5	$11	$54	$0	$2	$0	$0	$0	$0	$0	$0	**$79**

Notes

(1) See footnote in "Funding Set-aside for Projects Not Listed in Plan" section.

(2) For these funding categories, no forecasts were available; therefore, "Funding Available" set equal to amount of funding allocated to projects.

2030 Projects MPO.xls

Demonstrating Financial Constraint

The costs of planned work being less than or equal to expected funding levels (as shown above), financial constraint is demonstrated.

SELECTING PROJECTS

The list of 2030 projects was developed in sets, with each set of projects associated, typically, with a certain funding source. In other words, the 2030 Plan was developed largely through the allocation of funding source totals to selected projects.

Projects Automatically Included in the Plan

Highway projects committed for construction (i.e. having a construction date published in the FY05-08 TIP or FY07 SYIP) were automatically included in the 2030 Plan. This policy was approved by Team2030 at its November 19, 2004 meeting. Because of the difficulty of securing funding in VDOT's Six-year Improvement Program (SYIP) from which the TIP is formulated, it was assumed that these projects had high priority.

Selection of Local, Secondary, and Urban Projects

Projects to be constructed with local, Secondary, or Urban funds were draft-selected by Team 2030 representatives of each locality.

Selection of Primary Projects

Projects to be constructed with Primary funds were draft-selected by Team2030 representatives of VDOT.

Preliminary Selection of NHS-funded Projects

On June 7, 2006, HRPDC staff presented a draft allocation of available 2030 NHS funding to seven projects with high performance in these categories:

- Travel time savings benefit/cost ratio
- Cost per additional trip
- Cost per trip
- Improved accessibility to areas, large (e.g. whole counties) or small (e.g. development areas)
- Gateway status
- Level of congestion forecasted without project

The performance of candidate projects had been calculated by HRPDC staff, as discussed in "Measuring the Effectiveness of Candidate Projects" section above.

In response to the TTC's request at its 06-07-06 meeting, staff redid its draft allocation under the assumption that several of the projects in the MPO Package of Toll Projects be considered candidates for NHS funding. At a special TTC meeting held 06-22-06, staff presented its updated draft allocation of 2030 NHS funding to five projects with high performance in the categories listed above.

In response to the TTC's request at its 06-22-06 meeting, staff redid its draft allocation under different assumptions for tolling and construction limits of certain projects in the MPO Package of Toll Projects. At the 07-05-06 TTC meeting, staff presented its updated draft allocation of 2030 NHS funding to projects selected using a two step process as follows:

1. First Cut: Projects scoring two or more re: the following criteria (1 point for meeting each criterion) were retained for further consideration:

    a. Low cost per trip, 2030
    b. Improves throughput at major external connection
    c. Significantly increases throughput
    d. Relieves severe congestion

2. Prioritizing Projects, by scoring category: Staff prioritized separately projects scoring three points in the first cut and projects scoring two points in the first cut based on the following considerations:

    a. Primary gateway status
    b. Service of targeted areas
    c. Travel time benefit/cost ratio
    d. Impact on throughput
    e. Presence of current queues on interstate
    f. Cost per trip
    g. Existing volume

The TTC modified the staff's list of recommended projects- retaining some projects, exchanging some projects, and adding some projects. The TTC's NHS list was forwarded to the CAOs for consideration at their 08-16-06 meeting. (This meeting is discussed in the "Final Selection of 2030 Projects" below.)

Preliminary Selection of RSTP Projects

Based on the eligible uses of RSTP funding, HRPDC staff considered all non-interstate 2030 candidate projects as candidates for long-range RSTP funding. Staff scored the RSTP candidates using the method approved by the Transportation Technical Subcommittee (TTS), a subcommittee of the TTC, for use in allocating RSTP dollars for the TIP. The measures of effectiveness follow:

- Congestion level- existing 7 points
- Congestion level- future 10 points
- Cost-effectiveness 20 points
- System continuity 20 points
- Safety 20 points
- Air quality- NOx 5 points
- Air quality- HC 5 points

Applying the above criteria to lane-addition projects, and dealing with non-lane-addition projects on a case-by-case basis, staff recommended allocating 2030 RSTP dollars to the 16 most effective projects.

After the TTC exchanged one project for another, the RSTP list was forwarded to the CAOs for consideration at their 08-16-06 meeting.

Final Selection of 2030 Projects

At the CAO meeting on August 16, 2006, staff provided to the CAOs its analyses of the effectiveness of candidate projects and the resulting TTC project selections. The CAOs set the amount of NHS funding set-aside for non-individually-listed projects through the year 2030 at 30% of total NHS funds, freeing up more dollars[18] for listed Plan projects. This enabled the addition of two more effective projects to the list of NHS and RSTP projects forwarded by the TTC. The CAO list also included the Primary project proposed by VDOT (Ft. Eustis Blvd.) and the fully-toll-funded Midtown Tunnel / MLK Extension project.

At its 10-05-06 meeting, the TTC approved the list of projects automatically included in the 2030 Plan and the list of Urban and local projects, prepared as discussed above.

At the MPO meeting on October 18, 2006, staff provided to the MPO the above mentioned lists of projects approved by the TTC and CAOs. After much discussion, the MPO voted to approve the Plan and forward it to VDOT for air quality conformity testing.

At the MPO meeting on July 18, 2007, the MPO revised the approved 2030 project list to include all 6 of the projects listed as “First Phase” in HB3202 passed by the General Assembly in spring 2007.

ANALYZING AIR QUALITY IMPACTS

VDOT tested the 2030 Plan for conformity with pertinent air quality budgets and found that the Plan conforms. For a complete discussion of the process and results, see “Hampton Roads, Virginia, Eight-Hour Ozone Maintenance Area, Transportation Conformity Analysis, 2030 Long Range Transportation Plan and FY 06-09 Transportation Improvement Program” (VDOT, late 2007).

[18] Approximately 40% of NHS dollars were allocated to non-listed projects in FY04 and FY05.

PLANNING BY OTHERS RELATED TO THE 2030 PLAN

Several transportation planning efforts, conducted by various agencies, affect transportation in Hampton Roads and are therefore related to the 2030 long-range transportation planning effort conducted by the HRPDC. Although not the lead agency, HRPDC typically participates in these planning efforts.

COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN

In accordance with SAFETEA-LU, projects proposed to receive formula funding from three specific FTA programs must be derived from a locally developed public transit-human services transportation plan. This "Coordinated Plan" will require extensive outreach and result in a competitive selection process for projects.

The three FTA programs associated with this plan are:

- 5310 – Special Needs of Elderly Individuals and Individuals with Disabilities
- 5316 – Job Access and Reverse Commute (aimed at low-income individuals)
- 5317 – New Freedom (new services for persons with disabilities beyond ADA requirements)

According to recommendations published by the FTA, the Coordinated Plan should include:

- an assessment of existing services, providers, and users
- an assessment of current gaps and needs, as well as areas of duplication
- strategies and/or activities to address gaps and achieve efficiencies
- relative priorities for implementation

As the designated recipient for Section 5307 funds, Hampton Roads Transit (HRT) is the default recipient of the newly formularized JARC and New Freedom funds and has agreed to initiate the Coordinated Plan process. One element of the plan will be to determine how the future administration of the JARC and New Freedom funds should be best handled at the local level.

The Commonwealth of Virginia is responsible for Section 5310 funds. According to law, any vehicles that will be funded by VDOT/VDRPT under FTA Section 5310 must be derived from this Coordinated Plan.

HRT staff is coordinating with HRPDC, Williamsburg Area Transport (WAT), Virginia Department of Rail and Public Transportation (VDRPT), local service providers, human service agencies, consumers, and other interested parties to develop the plan. As part of the public participation process for the plan, HRT held three "Stakeholder Workshops" in March 2007—one each in Hampton, Norfolk, and Williamsburg.

STRATEGIC HIGHWAY SAFETY PLAN (SHSP)

The Commonwealth of Virginia prepared a draft SHSP in 2006. According to that draft plan, Virginia experiences approximately 1,000 highway crash deaths and 80,000 highway crash injuries per year, and "other countries have surpassed [the US] in making significant reductions in injuries and deaths from motor vehicle crashes."[19] In response, the plan recommends correcting poor driver behavior (through law enforcement and education) and providing information to drivers concerning unexpected conditions which they will face.

The plan establishes the goal of reducing deaths by 200 and injuries by 16,000 within the next five years, approximating 20% reductions in each. The plan identifies the following top measures to achieve these reductions:

- Raise public awareness and develop a safer driving culture.
- Focus on young drivers, aggressive drivers, impaired drivers and seat belt use through legislation, education, enforcement, and adjudication.
- Improve intersection safety for all users in congested areas.
- Keep drivers on the roadway and minimize consequences if they depart.
- Incorporate transportation safety planning into all levels of government.
- Improve traffic records system to be more accurate and up to date.

Concerning the next to last measure, HRPDC staff provided existing crash rates for candidate project roadways to decision-makers who selected projects for the 2030 Plan (see "Measuring the Effectiveness of Candidate Projects" section).

[19] "Commonwealth of Virginia's Strategic Highway Safety Plan", www.VirginiaDOT.org, draft dated 9-1-06

PUBLIC TRANSIT PLANNING

2030 Long-Range Transportation Plan (MPO)

Public transit planning for long-range plans is conducted cooperatively in Hampton Roads by the MPO and the two local transit agencies, Hampton Roads Transit (HRT) and Williamsburg Area Transport (WAT).

MPO staff-led transit planning has been integrated into the LRP planning process and is therefore documented throughout the "2030 Planning Process" section above.

Concerning the two transit projects contained in the 2030 Plan (Norfolk Light Rail and Peninsula Fixed Guideway), HRT has conducted planning for these light rail projects over a period of years. When these projects were forwarded as candidates for the 2030 Plan using NHS and RSTP funds, MPO staff prepared measures of the effectiveness for these projects using input data from HRT planning. For example, MPO staff calculated "Construction Cost per Trip" for the Norfolk Light Rail project using the boardings from the Final Environmental Impact Statement (FEIS) prepared by HRT.

2030 Long-Range Transportation Plans by Others

In addition to planning concerning the two individual LRP projects, HRT and WAT have each prepared a 2030 long-range public transit plan for their respective agencies paralleling the MPO's preparation of its 2030 LRP.

<u>Williamsburg Area Transport (WAT) 2030 Plan</u>

WAT's 2030 plan is copied in Appendix F of this document.

According to the WAT plan, new initiatives will include:

- Shuttle service between Williamsburg and New Town in James City County
- Vehicle replacement plan
- Employee commuter service (Surry County to Williamsburg region)
- Two Transportation Centers
- Medical Circulator

<u>Proposed 20 Year Transit Plan (HRT)</u>

HRT's "Proposed 20 Year Transit Plan" is copied in Appendix L in this document.

According to the HRT plan: "The 2030 Regional Transit Plan for Hampton Roads Transit (HRT) presents rail and bus operating plan assumptions, ferry service, van pool, and paratransit service assumptions. It includes and builds on the following major elements:

- A light rail Minimum Operable Segment (MOS) in Norfolk

- Fixed guideway service on the Peninsula
- Approximately 1.5%/year average growth in fixed route bus service
- Approximately .75%/year average growth in paratransit service
- Additional vanpools for the TRAFFIX vanpool program"

HRT held a public hearing on April 26, 2007 at its Hampton headquarters to receive comments on the proposed plan.

Senior Services of Southeastern Virginia (SSSV)

SSSV's 2030 plan is copied in Appendix K of this document. The portion of SSSV's plan which impacts the MPO study area includes the transit service called "I-Ride" which began operating in Isle of Wight and Smithfield in 2007.

BICYCLE AND PEDESTRIAN PLANNING

Existing Facilities

There are currently 400 miles of bicycle facilities in the region. Forty-four percent of the existing bicycle facility centerline miles are shared roadways, 44% are shared-use paths (which are also used by pedestrians), and 12% are bicycle lanes. These bicycle facility designs vary, and each design has an effect on the potential pool of users. For example, a wide shoulder on a country roadway would not be very appealing to a family with small children out for a weekend ride, while this same facility would be appealing to many experienced riders out for a lengthy training ride.

Existing Bicycle Facilities in Hampton Roads
400 Total Center-line Miles

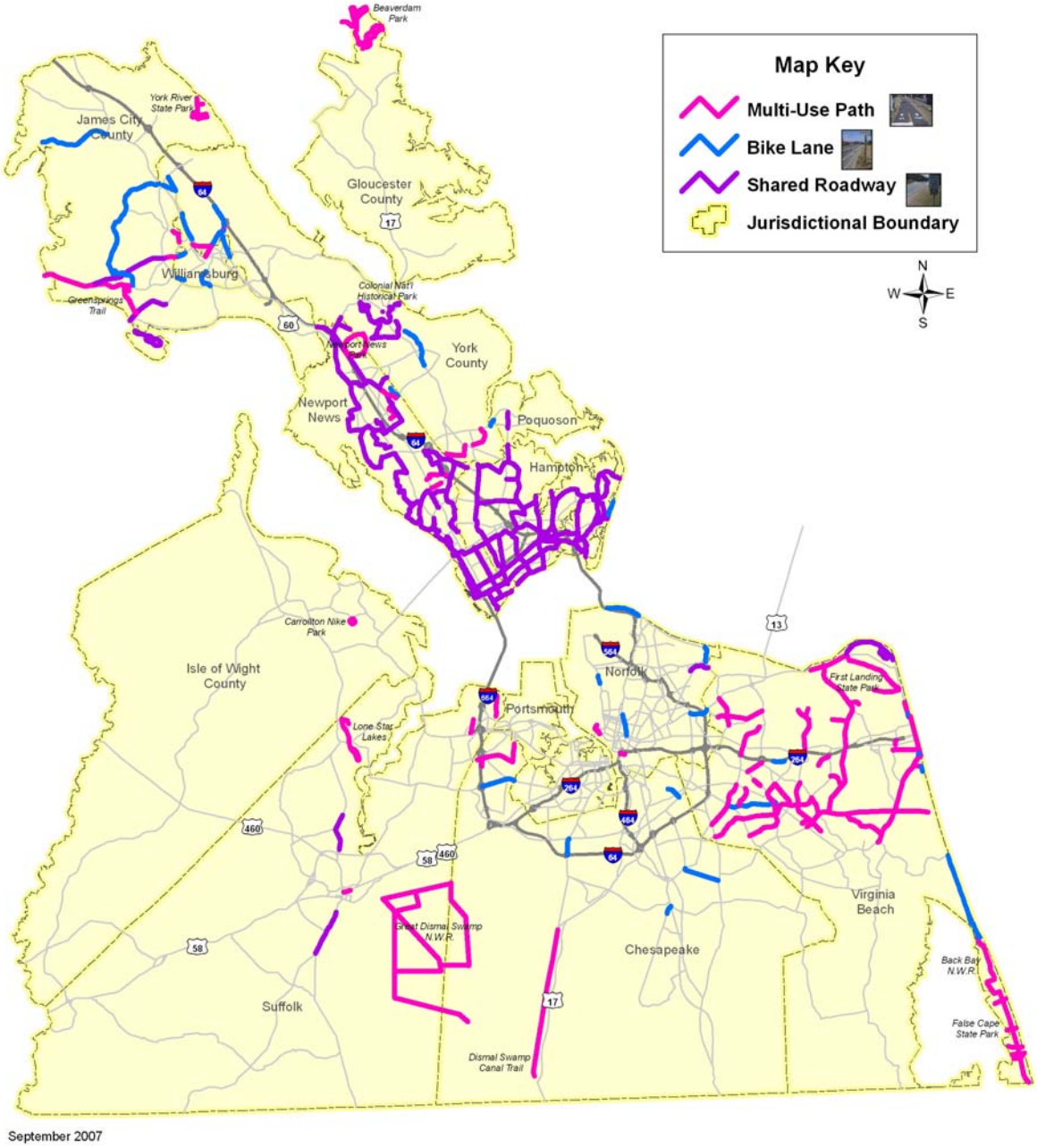
Shared Roadway
177 miles
44%

Multi-use Path
175 miles
44%

Bike Lane
48 miles
12%

2030 bike charts.xls

Inventory of Bicycle Facilities in Hampton Roads



Bike_and_ped2.jpg

Bike and Ped Planning in the Region

Planning for bicycle and pedestrian activity is conducted by many entities in Hampton Roads. HRPDC processes Congestion Mitigation and Air Quality (CMAQ) fund

applications via a scoring system. Over the last two years, PDC staff have put together a series of five reports on the mobility of non-drivers in the region. The PDC staff makes an effort to keep an inventory of existing bicycle facilities current. This data has been used for the above map, other PDC reports, and by VDOT staff. Finally, a member of the PDC staff serves on the board of BikeWalk Virginia, an active non-profit group advancing bicycle and pedestrian issues throughout the state.

Each of the localities in the region have their own bicycle and/or pedestrian plans. The VDOT Hampton Roads District published a compilation of the locality's plans in 2003. Also, both VDOT and FHWA have policies relating to bicycle and pedestrian facilities, generally stating that when a highway project is being done, accommodations will be made for cyclists and pedestrians at the same time except under specific circumstances. See the table below for a summary of the documents relating to bicycle and pedestrian planning.

Table of Bicycle and Pedestrian Plans

AREA	TITLE	DATE
Localities		
Chesapeake	"Forward Chesapeake" *	March 9, 2005
Gloucester Co.	"Gloucester Co. Comprehensive Plan" *	Sept. 1991 ; amended Nov. 2001
Hampton	"Hampton Community Plan" * "Hampton City-wide Bicycle Routes Program" neighborhood Master Plans	Feb. 8, 2006 Nov. 12, 1995 varies
Isle of Wight Co.	"Pedestrian and Bicycle Facilities Master Plan"	Oct. 16, 2006
James City Co.	"Greenway Master Plan"	June 14, 2004
Newport News	"Framework for the Future" *	June 26, 2001
Norfolk	"General Plan of Norfolk" *	Jan. 28, 1992
Poquoson	Draft Comprehensive Plan *	Aug. 2006
Portsmouth	"Destination 2025" *	Aug. 25, 2005
Suffolk	"The Comprehensive Plan for 2026" *	March 2006
Virginia Beach	"Bikeways and Trails Plan" "2003 Comprehensive Plan" *	Oct. 12, 2004 Dec. 2, 2003, amend. March 2006
Williamsburg	"2006 Comprehensive Plan" *	Oct. 12, 2006
York Co.	"Charting the Course to 2025" * "York County Sidewalk Plan"	Dec. 6, 2005 June 17, 1993
Multiple Localities		
VDOT Hampton Roads District	"VDOT Hampton Roads District Bicycle Plan"	2003
JCC, York Co., Wmbg.	"Regional Bikeway Map"	JCC: Nov. 10, 1998 Wmbg.: Nov. 12, 1998 York: Oct. 6, 1999; Dec. 6, 2005 (revised) revisions since made
HRPDC	Series of reports on mobility of non-drivers	June 2005 to Aug. 2007
Policies		
VDOT	"Policy for Integrating Bicycle and Pedestrian Accomodations"	March 18, 2004
FHWA Va. office	"Policy on Bicycle and Pedestrian Facilities"	Feb. 2001

* indicates that the document is the locality's comprehensive plan
See Appendix J for the VDOT and FHWA Va. policies.
2030 bike charts.xls

SECURITY ENHANCEMENT

In accordance with SAFETEA factor #3, homeland security (see "Setting Parameters" section above), VDOT has formulated policies concerning the security of transportation information. These documents are included as Appendix A.

As shown in its abstract, the first document—*Information Security Policy, Critical Infrastructure Information/Sensitive Security Information (CII/SSI)*—provides:

> "uniform guidance for the identification, designation and security-in-depth protection of CII/SSI and for the identification of responsible parties for identifying, designating, marking, safeguarding, protecting, using, storing, reproducing, disposing, and transmitting CII/SSI documents. This policy also establishes the minimum criteria which responsible parties should use to designate information as CII/SSI."

As shown in its abstract, the purpose of the second document—*Information Security Policy, Information Security Policy Development*—is to:

> "assist in the achievement of a consistent approach to the development and review of Information Security policies throughout the Virginia Department of Transportation (VDOT). The policy outlines VDOT's requirements in relation to how policies are to be developed and reviewed."

Finally, as shown in its abstract, the third document—*Information Security Policy, Information Access Control*—is intended to:

> "preserve the properties of integrity, confidentiality and availability of the Virginia Department of Transportation's (VDOT) information assets through the use of logical and physical access control mechanisms commensurate with the value, sensitivity, consequences or loss or compromise, legal requirements and ease of recovery of these assets."

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

In order to summarize regional ITS efforts, portions of the recently published "Linking Planning and Operations to Improve Regional Mobility and Safety in Hampton Roads, Virginia"[20] have been reproduced, with slight modification, below.

SAFETEA identifies eight planning factors to be considered in the transportation planning process. One of these factors requires that States and Metropolitan Planning Organizations (MPO) promote efficient system management and operation and establish a formal role for management and operations (M&O) activities in the transportation planning process. In support of this requirement the Hampton Roads Planning District Commission (HRPDC), the designated MPO for Southeastern Virginia, has been aggressively involved in addressing transportation management and operations under the structure and auspices of regional transportation planning.

Recognizing the need for intergovernmental cooperation and technical innovations to meet planning for M&O activities and challenges, the Hampton Roads MPO formed the Intelligent Transportation Systems (ITS) Technical Committee in early 1990's. In many ways, the Hampton Roads region has long been on the leading edge of ITS planning efforts. The region pioneered development of an Early Deployment Plan in 1995 and was also an early adoptee of an ITS Regional Architecture. There is a strong partnership and collaboration among the region's ITS stakeholders.

Of several ongoing ITS efforts in the region, two key efforts are summarized below.

2004 ITS Strategic Plan

In 2004, the ITS Committee published the 2004 ITS Strategic Plan which is based on six program areas. These six areas serve to focus the Region's efforts on a discrete number of programs, which are areas where significant challenges and needs were identified. New and planned projects should correspond to these six program areas, and a Strategic Vision for projects from now through the 2026 horizon is set out for the region. The six program areas are as follows:

1. Systems Integration
2. Incident and Emergency Management
3. Transportation Management
4. Systems Management
5. Traveler Information
6. Program Development and Management

For each of the six program areas, the ITS Plan describes a vision; discusses main issues; defines strategies; outlines a phased-implementation approach; summarizes expected benefits; and estimates development cost.

[20] *Transportation Research Record: Journal of the Transportation Research Board, No. 1978,* Transportation Research Board of the National Academies, Washington, DC, 2006, pp. 184-188.

Regional Concept of Transportation Operations (RCTO)

As resources for new highway construction have become scarcer, and as highways have become more congested, attention has been focused on strategies to more effectively move traffic on a daily basis. Furthermore, with the shift from deployment and implementation toward a stronger focus on operating current transportation systems to achieve the greatest local and regional benefits, the Hampton Roads ITS Committee saw a need for a more collaborative approach to regional transportation operations. In the fall of 2004 the ITS Committee initiated the development of a Regional Concept of Transportation Operations (RCTO), with strong support and input from agencies throughout the region.

The ITS Committee through collaboration with the Hampton Roads Incident Management Committee (HRHIM) formed a Task Force to oversee the development of the RCTO for the region. A regional training session was organized in May 2005 with representatives from FHWA presenting to the region's stakeholders on the various components and benefits of RCTO. Incident management was selected as the first operational objective shared among the participating stakeholders. The Hampton Roads MPO Board approved the first draft of the RCTO Charter in October 2005. This Charter includes objectives, guiding principles and selected performance measures for improving incident management in the region. Diversion response, clearance time by incident type, and lane blockage were selected as primary measures to track incident management in the region. In 2006, the committee worked to enhance the existing regional incident management plan by expanding the current first responders and on scene activities to include other key players for a more quick clearance time and a more efficient traffic flow movement.

In late 2006, $600,000 of regional CMAQ funds were allocated for the development of the RCTO document. The scope of services has been developed and the document will be complete by early 2008.

VIRGINIA HURRICANE EMERGENCY RESPONSE PLAN

In order to summarize the Virginia Hurricane Emergency Response Plan (Virginia Dept. of Emergency Management, June 2006), the preface of the plan is included below.

> The primary mission of government in an emergency is to protect the lives and property of its citizens. Regardless of how well state and federal governments are organized to provide assistance, the unpredictable nature of hurricanes and the time and space factors involved dictate that the local jurisdiction must be prepared to cope with the initial impact of a hurricane on its own.
>
> Recognizing that routine emergency services will, by their nature, be inadequate to cope with the effects of a hurricane, it is the duty of local government to provide for the emergency expansion of its survival capabilities within the limits of available resources.
>
> The Commonwealth of Virginia Hurricane Emergency Response Plan is an Incident Annex to the Commonwealth of Virginia Emergency Operations Plan (COVEOP) and is published as Volume 5 of the COVEOP. It has been developed to provide a sound basis for hurricane-oriented emergency programs and to establish the organizational and operational concepts and procedures designed to minimize the loss of life and property and to expedite the restoration of essential services following a major hurricane.
>
> In the preparation of this plan, emergency duties and responsibilities have been assigned, to the extent possible, to agencies having the same or similar responsibilities in the COVEOP, Basic Plan. Where necessary, agencies should develop specific standing operating procedures (SOPs) explaining what tasks need to be performed and how they will be accomplished in an emergency situation.
>
> This incident annex has been developed in consonance with cited references and authorities. Specific details and background from these sources are usually referenced rather than included. Agencies using this annex should, therefore, become familiar with the provisions of the Emergency Services and Disaster Laws and other volumes of the COVEOP, as well as this annex.
>
> It is well understood that being prepared to recover from the effects of a hurricane requires constant development and revision of emergency procedures, training of staff and auxiliary personnel, and exercises to test this volume of the COVEOP. This process and the results of actual emergency response operations will allow refining and distillation of this incident annex to the COVEOP and its associated SOPs and supporting plans so that we are as well prepared as possible to cope with hurricane effects.

2030 LONG-RANGE TRANSPORTATION PLAN

The 2030 Long-Range Transportation Plan—approved by the MPO on October 18, 2006, and amended by the MPO on December 20, 2006, March 21, 2007, July 18, 2007, and August 15, 2007—is reproduced on the following pages. This 100+ page Plan document was approved by the MPO on October 17, 2007, subject to the receipt of no adverse public comments.

2030 Long-Range Transportation Plan

2030 Proj. ID	Locality	UPC(1)	Project	From	To	Dist., mi.	Work	2006 Lanes	Prop'd Lanes
2	CH	n.a.	Cedar Rd	Albemarle Dr	Battlefield Blvd	0.95	Widening	3	4
5	CH	72796	Greenbrier Pkwy	Volvo Pkwy	Eden Way	0.42	Widening	5	6
226	CH	local	GW Hwy	Mill Creek Pkwy	Willowood Dr	0.81	Widening	2	4
7	CH	city proj.	GW Hwy (in Deep Creek, south)	Sawyers Mill Rd	Cedar Rd	1.00	New Alignment	0	4
9	CH	n.a.	Hanbury Rd	Johnstown Rd	Battlefield Blvd	1.02	Widening	2	4
10	CH	12379	I-64	Greenbrier Pkwy	I-464	3.12	Widening	6	6+2
224	CH	n.a.	I-64 (Southside, full project, with toll)	I-464	Bowers Hill	8.50	Widening	4	6
227	CH	T4154	Long Bridge (GW Hwy, near fire station)	n.a.	n.a.	0.08	Widening	2	4
12	CH	13485	Lynnhaven Pkwy - Volvo Pkwy	Kempsville Rd	VB CL	0.51	New Alignment	0	4
14	CH	1904	Military Hwy (Gilmerton Bridge)	n.a.	n.a.	n.a.	Replacement	4	4
4	CH	CH1	Moses Grandy Trail (built; cost remains)	Shipyard Rd	Dominion Blvd	2.27	New Alignment	4	4
15	CH	n.a.	Mt Pleasant Rd (incl'g Byp intx impr'ts)	Great Bridge Bypass	Centerville Tnpk	2.46	Widening	2	4
16	CH	18591	Nansemond Pkwy - Portsmouth Blvd	Suff CL	Joliff Rd	0.76	Widening	2	4
28	HM	67200	Armistead Ave	Pine Chapel Rd	Mercury Blvd	0.50	Widening	2	4
27	HM	71697	Armistead Ave Conn	Armistead Ave	Coliseum Dr / Pine Ch Rd	0.69	New Alignment	0	4
31	HM	66846	Cmdr Shepard Blvd Ext- Phase I	Middle Rd	Magruder Blvd	0.95	New Alignment	0	4
71	HM	60970	Cmdr Shepard Blvd Ext- Phase II	Big Bethel Rd	Middle Rd	0.82	New Alignment	0	4
38	HM	17368	I-64 (built; FY06+ cost remains)	0.6km E of HRC Pkwy	I-664	2.54	Widening	6+2	6+2
39	HM	76682	I-64 @ Lasalle Ave	n.a.	n.a.	n.a.	Add Movement	n.a.	n.a.
47	HM	57047	Saunders Rd	NN CL	Big Bethel Rd	0.75	Widening	2	4
236	HM	n.a.	Wythe Creek Rd (incl'g bridge widening)	Comm Shepard Blvd	Poquoson CL	1.06	Widening	2	4
99	IW	17142	Blackwater Bridge Replacement	near IW/Franklin CL	near IW/Franklin CL	n.a.	Bridge Replacement	n.a.	n.a.
188	JC	71883	Chickahominy Bridge Replacement	near JCC/CCC CL	near JCC/CCC CL	n.a.	Bridge Replacement	n.a.	n.a.
72	JC	50057	Ironbound Rd	Strawberry Plains Rd	Longhill Conn Rd	1.15	Widening	2	4
54	JC	65191	Rte 199	Colonial Pkwy	Rte 60	1.67	Widening	4	4
55	JC	65273	Rte 199	Brookwood Dr	Colonial Pkwy	1.12	Widening	4	4
242	JC	13496	Rte 60 Relocated- PE/RW Only	Newport News CL	0.9mi w. NN CL	2.00	PE/RW only	n.a.	n.a.
62	MULTI	13497	Ft Eustis Blvd	0.54 mi. e. Jefferson Ave	Rte 17	3.10	Widening	2	4
244	MULTI	12834	HR Third Crossing- Ph I (I-664) (with toll)	I-264/I-64 at Bowers H.	I-64 at Hampton Col.	21.00	Widening	4,6	6,8+2
66	MULTI	57313	I-64 (Peninsula, with toll)	Jefferson Ave (exit 255)	Rte 199 (exit 242)	12.00	Widening	4	6+2
68	MULTI	n.a.	Midtown / MLK (w/ toll incl'g para. fac.)	Hampton Blvd	I-264	n.a.	Widen & New Alignment	2,0	4
70	MULTI	16556	SP&G / Dominion Blvd (2) (with toll)	Va. Beach (2)	Chesapeake (2)	n.a.	Widen & New Alignment	varies	see (2)
69	MULTI	56638	U.S. 460- HR portion (with toll)	Bowers Hill	S'hamp Co CL at Zuni	n.a.	Varies	varies	see (4)
77	NN	4483	Atkinson Blvd	Warwick Blvd	Jefferson Ave	1.30	New Alignment	0	4
81	NN	13429	Jefferson Ave	Buchanan Dr	Green Grove Ln	1.00	Widening	4	6
82	NN	67673	Jefferson Ave	Grn Grove Ln / Atkinson	Ft. Eustis Blvd	1.60	Widening	4	6
83	NN	11816	Middleground Blvd	Jefferson Ave	Warwick Blvd	1.00	New Alignment	0	4
214	NN	T137	Peninsula Fixed Guideway (Transit)	Christoper Newport Univ.	Mary Immaculate Hosp.	n.a.	Capital cost	n.a.	n.a.
85	NN	n.a.	Rte 17 (J Clyde Morris Blvd)	I-64	Harpersville Rd	0.60	Widening	4	6
243	NN	14598	Rte 60 Relocated- PE/RW Only	JCC CL	Ft. Eustis Blvd	1.00	PE/RW only	n.a.	n.a.
88	NN	10797	Warwick Blvd	Nettles Dr	J Clyde Morris Blvd	2.14	Widening	4	6
244	NOR	59175	Intermodal/Chambers Interch. on I-564	n.a.	n.a.	n.a.	Interchange(s), New	n.a.	n.a.
97	NOR	14672	Hampton Blvd & R/R Grade Separation	Rogers Ave	B Ave	n.a.	Reconstruct underpass	n.a.	n.a.

2030 Long-Range Transportation Plan

2030 Proj. ID	Locality	UPC(1)	Project	From	To	Dist., mi.	Work	2006 Lanes	Prop'd Lanes
212	NOR	2024	I-264 (built; FY06+ cost remains)	Brambleton Ave	Military Hwy	n.a.	Widening	8	8
98	NOR	57048	I-264EB ramp from 64WB	Curlew Dr	thru Witchduck Rd	3.80	Modify Interchange	n.a.	n.a.
241	NOR	17824	I-64 / Norview Ave Interchange	n.a.	n.a.	n.a.	Add Movement	n.a.	n.a.
102	NOR	n.a.	Little Creek Rd	Tidewater Dr	Military Hwy	0.90	Widening	4	6
103	NOR	9783	Military Hwy	Lowery Rd	Northampton Blvd	0.32	Widening	4	8
104	NOR	1765	Military Hwy	Northampton Blvd	Robin Hood Rd	0.75	Widening	4	6
106	NOR	61322	Navy Recreational Facilities	n.a.	n.a.	n.a.	Environ. Related	n.a.	n.a.
213	NOR	n.a.	Norfolk Light Rail	Newtown Rd	Norfolk General	7.40	Capital cost	n.a.	n.a.
107	NOR	17546	Va. Beach Blvd	Jett St	Briar Hill Rd	0.48	Widening	4	6
109	NOR	52147	Wesleyan Dr	Northampton Blvd	VB CL	0.40	Widening	2	4
111	POQ	13427	Wythe Creek Rd (w/o br. widening)	Alphus St	Hampton CL	1.00	Widening	2	4
245	PORT	n.a.	Craney Island Access Rd	Western Freeway	Proposed 4th Terminal	2.00	New Alignment	0	2
115	PORT	70552	Maersk Interchange (Western Frwy.)	n.a.	n.a.	n.a.	Interchange(s), New	n.a.	n.a.
117	PORT	11750	Pinners Pt Conn (built; cost remains)	W Norfolk Bridge	Midtown Tunnel	1.58	New Alignment	4	4
215	PORT	70564	Reimburse Toll Facilities Revolving Acct	for Pinners Point project	n.a.	n.a.	Reimbursement	n.a.	n.a.
240	SUF	15826	Finney Ave extension	Washington St	Finney Ave	0.50	New Alignment	0	2
126	SUF	17568	Nansemond Pkwy - Ports. Blvd	Shoulders Hill Rd	Chesapeake CL	0.76	Widening	2	4
131	VB	11754	Birdneck Rd	Gen Booth Blvd	Southern Blvd	3.50	Widening	2	4
133	VB	n.a.	Centerville Tnpk	Ches CL	Kempsville Rd	1.13	Widening	2	4
134	VB	n.a.	Centerville Tnpk	Kempsville Rd	Indian River Rd	1.83	Widening	2	6
136	VB	n.a.	Constitution Dr ext'd	Columbus St	Bonney Rd	0.41	New Alignment	0	4
138	VB	15828	Elbow Rd / Dam Neck Rd	Indian River Rd	GTE VB Amphitheater	3.00	Widening	2	4
229	VB	n.a.	First Colonial Rd	Old Donation Rd	Republic Rd	0.95	Widening	4	6
230	VB	n.a.	General Booth Blvd	Princess Anne Rd	Dam Neck Rd	2.19	Widening	4	6
141	VB	15827	Holland Rd	Nimmo Pkwy	Dam Neck Rd	2.72	Widening	2	4
238	VB	n.a.	Holland Rd	Rosemont Rd	Independence Blvd	1.78	Widening	4	6
142	VB	n.a.	Holland Rd	Dam Neck Rd	Rosemont Rd	2.27	Widening	4	6
145	VB	n.a.	I-264 / Independence Blvd intx	n.a.	n.a.	n.a.	Interchange imp.	n.a.	n.a.
146	VB	19005	I-264 / Lynn/GrtNk intx (incl's UPC 80157)	n.a.	n.a.	n.a.	Interchange imp.	n.a.	n.a.
144	VB	17630	I-264 / Witchduck Rd intx	n.a.	n.a.	n.a.	Interchange imp.	n.a.	n.a.
143	VB	80029	I-64 / City Line Interchange & Arterial	I-64	Centerville Tnpk	1.00	New interchange & Road	0	4
148	VB	n.a.	Independence Blvd	Haygood Rd	Northampton Blvd	1.70	Widening	4	6
150	VB	15829	Indian River Rd	Lynnhaven Pkwy	Elbow Rd	2.19	Widening	2	4
151	VB	n.a.	Indian River Rd	Elbow Rd	North Landing Rd	3.03	Widening	2	4
149	VB	n.a.	Indian River Rd	Centerville Tnpk	Ferrell Pkwy	0.96	Widening	6	8
153	VB	n.a.	Jeanne St	Constitution Dr	Independence Blvd	0.25	Widening	2	4
154	VB	51866	Kempsville Rd / PA Rd Intersection	n.a.	n.a.	n.a.	New Alignment	n.a.	n.a.
155	VB	12546	Laskin Rd	First Colonial Rd	Birdneck Rd	1.52	Widening	4	6
222	VB	14601	Laskin Rd	Birdneck Rd	Pacific Ave	1.06	Widening	4	6
158	VB	12549	Lynnhaven Pkwy	Holland Rd	Lishelle Pl	1.43	Widening	4	6
223	VB	14603	Lynnhaven Pkwy	Centerville Tnpk	Indian River Rd	1.43	New Alignment	0	4
159	VB	13487	Lynnhaven Pkwy - Volvo Pkwy	Ches CL	Centerville Tnpk	0.87	New Alignment	0	4
161	VB	52058	Nimmo Pkwy	Holland Rd	Gen Booth Blvd	2.20	New Alignment	0	4

2030 Long-Range Transportation Plan

2030 Proj. ID	Locality	UPC(1)	Project	From	To	Dist., mi.	Work	2006 Lanes	Prop'd Lanes
231	VB	n.a.	Nimmo Pkwy	Ind Rvr / N Landing Rds	West Neck Rd ext'd	2.22	New Alignment	0	2
164	VB	n.a.	Northampton Blvd / Shore Dr intx	n.a.	n.a.	n.a.	Improve interchange	n.a.	n.a.
168	VB	n.a.	Princess Anne Rd	Upton Dr	General Booth Blvd	0.87	Widening	2	4
163	VB	13482	Princess Anne Rd and Nimmo Pkwy	Dam Neck Rd	Holland Rd	2.63	New Alignment	2,0	4
169	VB	n.a.	Providence Rd	Kempsville Rd	PA Rd	1.33	Widening	2	4
170	VB	n.a.	Rosemont Rd	VB Blvd	Holland Rd	1.91	Widening	4	6
172	VB	n.a.	Salem Rd	Elbow Rd	Independence Blvd	0.90	Widening	2	4
173	VB	n.a.	Sandbridge Rd	Princess Anne Rd	Atwoodtown Rd	1.63	Widening	2	4
174	VB	VB3	Seaboard Rd	Nimmo Pkwy	Princess Anne Rd (3)	0.63	New Alignment	0	2
177	VB	52148	Wesleyan Dr	Norf CL	Baker Rd	0.45	Widening	2	4
179	VB	n.a.	West Neck Pkwy ext'd	North Landing Rd	Indian River Rd	1.14	New Alignment	0	4
178	VB	n.a.	West Neck Pkwy ext'd	Elbow Rd	North Landing Rd	2.08	New Alignment	0	4
180	VB	n.a.	West Neck Rd	North Landing Rd	Indian River Rd	2.05	Widening	2	4
182	VB	55200	Witchduck Rd	Princess Anne Rd	I-264	0.78	Widening	4	6
181	VB	55202	Witchduck Rd	I-264	VB Blvd	0.51	Widening	4	6
187	WMB	14750	Richmond Rd	Brooks St	New Hope Rd	0.74	Reconstruction & Widening	2	4
190	WMB	16054	Treyburn Dr Ext	Monticello Ave	Ironbound Rd	0.70	New Alignment	0	2
191	YC	14627	Ft Eustis Blvd Ext (Rte 1050)	Rte 17	Old York-Hampton Hwy	0.43	New Alignment	0	4
193	YC	60843	Rte 17 (York Co.)	Hampton Hwy	Goodwin Nk / Denbigh B	3.40	Widening	4	6

Notes

(1) UPC: VDOT's Universal Project Code

(2) "SP&G": Southeastern Parkway and Greenbelt

SP&G / Dominion Blvd design

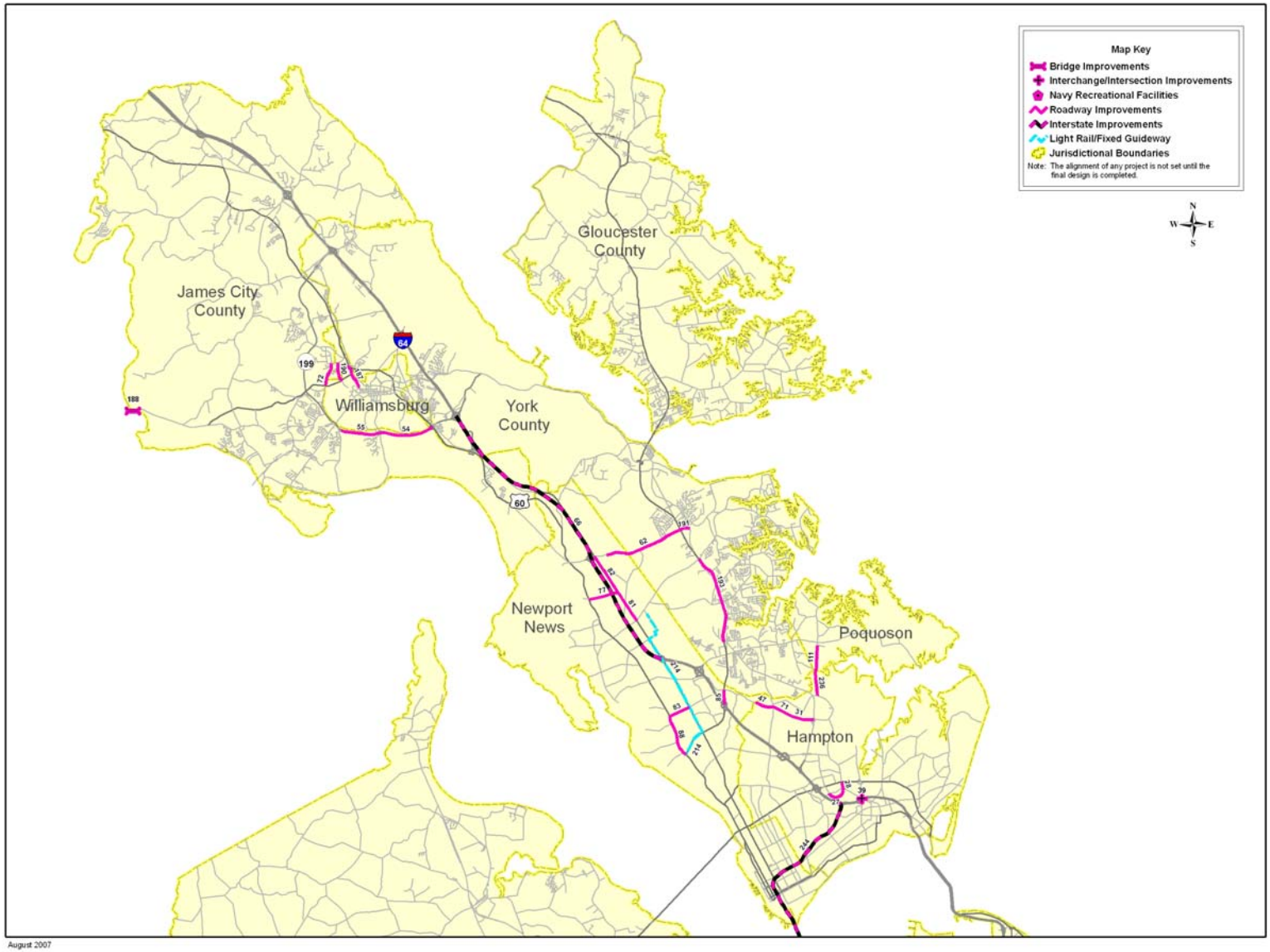
SP&G design: I-264 to Great Bridge Bypass: 4 lanes; Oak Grove Conn: 8 lanes;

Dom. Blvd design: GW Hwy to Cedar Rd: 4 ln arterial; Cedar Rd intersection: at-grade; Cedar Rd thru Great Bridge Blvd interchange: 4 ln fully-controlled access

(3) near Princess Anne Elementary School

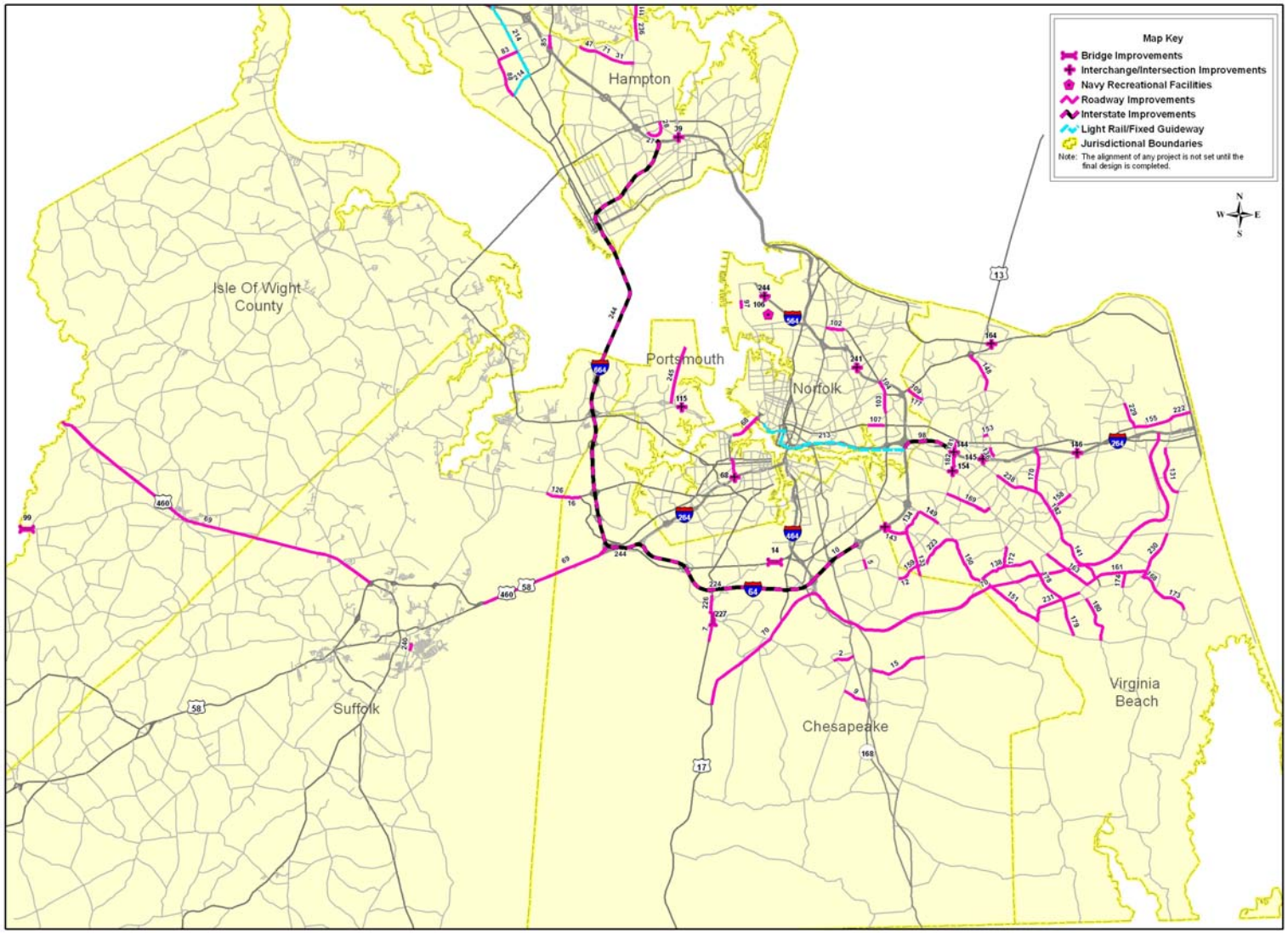
(4) Add interchanges on US 460/58 between I-664 and Suffolk Bypass; build new 4 lane highway west of Suffolk Bypass.

2030 Highway Projects- Peninsula Map



2030_Peninsula.jpg

2030 Highway Projects- Southside Map



2030_Southside.jpg

PLAN IMPLEMENTATION

POTENTIAL ENVIRONMENTAL MITIGATION ACTIVITIES

The following discussion and table were developed according to the SAFETEA-LU provision which states:

> "A long-range transportation plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.
>
> The discussion shall be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies."

For details on the development of the discussion below, see the "Consulting With Other Agencies Re: SAFETEA" section of this document.

Discussion

Metropolitan transportation planning is a regional process that is used to identify the transportation issues and needs in metropolitan areas. In metropolitan areas over 50,000 in population, the responsibility for transportation planning lies with designated Metropolitan Planning Organizations (MPO). This planning process is a collaborative effort between the member jurisdictions, the Virginia Department of Transportation, transit operators, and other modal representatives. During plan development, the MPO examines land development patterns, demographics, travel patterns and trends to identify existing and future transportation problems. The MPO then identifies alternatives to meet current and projected future demands that will provide a safe and efficient transportation system that meets the needs of the traveling public while limiting adverse impacts to the environment.

The jurisdictions in the region work together to develop a constrained long-range transportation plan. The constrained long-range transportation plan (LRP) for this region identifies and recommends a capital investment strategy to meet the existing and future transportation needs of the public over the next 20 years. The inclusion of a recommended improvement in the long-range transportation plan represents preliminary regional support for that improvement. The LRP is a decision-making tool to determine which projects should be implemented. However, transportation improvements go through several steps from conception to implementation and take many years to successfully complete.

The considerations and recommendations made during the planning process are preliminary in nature. Detailed environmental analysis conducted through the National Environmental Policy Act (NEPA) do not apply to long-range transportation plans. With

exceptions for regional ambient air quality, offsetting environmental impacts during the long-range planning process is not required. However, per SAFETEA-LU, the inclusion of a discussion regarding potential environmental mitigation activities, areas to provide the mitigation, and activities that may have the greatest potential to restore and maintain the environment is required.

Detailed environmental analysis of individual transportation projects occurs later in the project development process as the improvement approaches the preliminary engineering stage. At this stage, project features may be narrowed and refined, and the environmental impacts and environmental mitigation strategies can be appropriately ascertained. Virginia's State Environmental Review Process directs the project-by-project interagency review, study and identification of environmental concerns. Related requirements that typically apply at this stage involve public hearings, environmental permit-processing, and NEPA studies. A variety of environmental documentation, permit and mitigation needs are usually identified and environmental findings are closely considered and evaluated. Common project environmental mitigation measures (required silt-fence barriers, precautions to control dust, etc) are managed using Road and Bridge Standards that apply to all construction activities. Special environmental concerns, however, may differ widely by project and location. As environmental studies are conducted and undergo public and interagency review, needed mitigation plans are specified and committed to within the environmental documents on the particular transportation project or activity. Environmental management systems are then used to monitor, and ensure compliance with, the environmental mitigation commitments.

Potential environmental mitigation activities may include: avoiding impacts altogether, minimizing a proposed activity/project size or its involvement, rectifying impacts (restoring temporary impacts), precautionary and/or abatement measures to reduce construction impacts, employing special features or operational management measures to reduce impacts, and/or compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site. Where on-site mitigation areas are not reasonable or sufficient, relatively large off-site compensatory natural resource mitigation areas generally may be preferable, if available. These may offer greater mitigation potential with respect to planning, buffer protection and providing multiple environmental habitat value (example: wetland, plant and wildlife banks). Mitigation activities and the mitigation areas will be consistent with legal and regulatory requirements relating to the human and natural environment. These may pertain to neighborhoods and communities, homes and businesses, cultural resources, parks, and recreation areas, wetlands and other water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The following table illustrates some potential mitigation activities and potential mitigation areas for these resources.

Table of Potential Resource Mitigation Activities and Areas

Resource	Key applicable requirements	Potential mitigation activities for project implementation	Potential mitigation areas for project implementation
Neighborhoods and communities, and homes and businesses	Uniform Relocation Assistance and Real Property Acquisition Policy Act at 42 USC 4601 et seq.	Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and/or aesthetic design features)	Mitigation on-site or in the general community. (Mitigation for homes and businesses is in accord with 49 CFR 24)
Cultural resources	National Historic Preservation Act at 16 USC 470; State Environmental Review Process (SERP)	Avoidance, minimization; landscaping for historic properties; preservation in place or excavation for archaeological sites; Memoranda of Agreement with the Department of Historic Resources; design exceptions and variances; environmental compliance monitoring; DHR recommends keeping open all possibilities that produce the greatest public benefit.	On-site landscaping of historic properties, on-site mitigation of archeological sites; preservation in place
Parks and recreation areas	Section 4(f) of the U.S. Department of Transportation Act at 49 USC 303	Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring	On site screening or on-site replacement of facilities; in some cases, replacement of affected property adjacent to existing. DCR recommends maintaining access to Scenic Byways.
Wetlands and water resources	Clean Water Act at 33 USC 1251-1376; Rivers and Harbors Act at 33 USC 403	Mitigation sequencing requirements involving avoidance, minimization, compensation (could include preservation, creation, restoration, in-lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring	Based on on-site/off-site and in-kind/out-of-kind sequencing requirements; private or publicly operated mitigation banks used in accordance with permit conditions; DCR recommends purchase of acreage at Grafton Ponds, and maintaining access to Scenic Rivers.
Forested and other natural areas	Agricultural and Forest District Act (Code of VA Sections 15.2-4305; 15.2-4307-4309; 15.2-4313); Open Space Land Act (Section 10.1-1700-1705, 1800-1804)	Avoidance, minimization; Replacement property for open space easements to be of equal fair market value and of equivalent usefulness; design exceptions and variances;	Landscaping within existing rights of way; replacement property for open space easements to be contiguous with easement; replacement of forestry operation

		environmental compliance monitoring	within existing agriculture / forestal district
Agricultural areas	Farmland Protection Policy Act of 1981 at 7 USC 4201-4209, Agricultural and Forest District Act (Code of VA Sections 15.2-4305; 15.2-4307-4309; 15.2-4313)	Avoidance, minimization; design exceptions and variances; environmental compliance monitoring	Replacement of agricultural operation within existing agriculture / forestal district
Endangered and threatened species	Endangered Species Act at 16 USC 1531-1544	Avoidance, minimization; time of year restrictions; construction sequencing; design exceptions and variances; species research; species fact sheets; Memoranda of Agreements for species management; environmental compliance monitoring	Relocation of species to suitable habitat adjacent to project limits
Ambient air quality	Clean Air Act at 42 USC 7401-7671, and Conformity regulations at 40 CFR 93	Transportation control measures, transportation emission reduction measures	Within air quality non-attainment and maintenance areas

Source: Based on work by VDOT in August 2006 and reviewed by appropriate agencies per SAFETEA. Edited from Env_consultation_handout.pdf

FORECASTS OF FUTURE TRAVEL AND NEEDS

FREIGHT FORECAST

As part of a comprehensive freight study, PDC staff forecasted regional freight flows in "Intermodal Management System, Regional Freight Study" (HRPDC, April 2007). Key excerpts of the freight forecast follow:

- Since 1985, containerized cargo at the Port of Hampton Roads has grown 562% from 0.3 million annual TEUs to 1.98 million TEUs in 2005. As a result of the surge in world trade, particularly with Asian markets, containers are forecasted to double over the next 10 years from 2005 to 2015. By 2040, 10.56 million TEUs are expected to be transported through the Port of Hampton Roads, up a staggering 433% from 2005. Even with the additions of the new Maersk and Craney Island Marine Terminals, container demand will exceed port capacity by the year 2033.

- Freight shipments to, from, and within Virginia via rail are expected to increase 48% from 158 million tons in 1998 to 234 million tons by 2020. The commodity value of those goods transported by rail is expected to increase by 174% from $19 billion dollars in 1998 to $52 billion dollars by 2020.

- North American trade with Hampton Roads is expected to increase nearly 150% for all modes (2004 to 2035).

- Inbound and outbound freight tonnage is expected to more than double by the year 2035 for Hampton Roads; however, the modal splits are expected to remain about the same.

- The top 5 primary trading partners with Hampton Roads by total rail tonnage in 2004 were: 1) Lexington, KY (16 million tons) 2) Charleston, WV (13 million tons) 3) Richmond-Petersburg, VA (4 million tons) 4) Chicago, IL (3 million tons) 5) Louisville, KY (0.7 million tons). By 2035, rail trade is expected to increase significantly particularly in the Midwest and Middle Atlantic economic areas.

- In 2004, freight transported into Hampton Roads was primarily from Richmond Regional (28.7% and mostly by truck) and Cumberland Plateau (19.1% and mostly by rail). By 2035, Richmond Regional (26.4% and mostly by truck) is expected to remain the largest source of freight into the region followed by LENOWISCO (17.2% and mostly by rail).

- In 2004, freight transported out of Hampton Roads was primarily to Northern Virginia (35.3% and mostly by truck) and Richmond Regional (14.4% and mostly by truck). By 2035, Northern Virginia will remain the largest

destination (30.4% and mostly by truck) followed by the Northern Neck (19.9% and mostly by water).

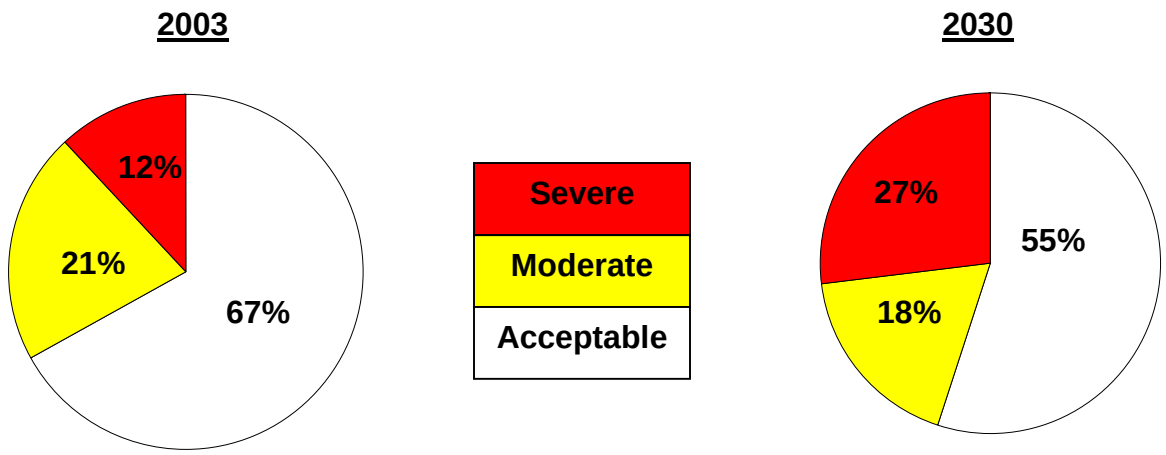
For more details on the regional freight forecast, see "Intermodal Management System, Regional Freight Study" (HRPDC, 2007).

2030 PLAN VEHICLE VOLUMES AND LEVEL OF CONGESTION FORECAST

Entering the 2030 Plan projects into the regional transportation model, PDC staff forecasted the vehicle volumes and level of congestion on regionally-significant roadways (arterial class and above) in Hampton Roads. See Appendix C for 2030 forecasts of volumes and congestion by highway segment.

Comparing the congested lane-miles in 2003 and 2030 indicates that the portion of lane-miles with acceptable congestion (LOS A-C) is expected to decrease by 12 percentage points, while the portion of lane-miles with severe congestion (LOS E-F) is expected to increase by 15 percentage points between 2003 and 2030. The portion of lane-miles with moderate congestion (LOS D) is expected to remain almost the same, decreasing just 3 percentage points.

Congestion by Lane-Mile, 2003 and 2030[21]



2030lrtp_forecast3.xls

[21] 2003 congestion data is from p. 90 of the "Congestion Management System for Hampton Roads, Part 2" report of April 2005 by HRPDC. For comparison to 2003 data, the "beyond severe" category found in Appendix C is included in the "severe" category in the 2030 pie chart.

2030 NEEDS ANALYSIS

After projects were selected for the 2030 Plan, PDC staff determined additional projects which are truly needed for mobility but which could not be included in the Plan due to financial constraints. Note that this is not a list of total needs—this list contains only those needs which are not included in the 2030 Plan.

Determination of Needed Projects

In order to obtain additional truly needed highway projects, PDC staff developed a list of needed projects which generally address Beyond Severe congestion expected on the 2030 Plan network. First, the regional model was used to develop a list of segments having Beyond Severe congestion in 2030 (demand exceeding capacity by 30% or more). Then this list was adjusted in order that the projects have logical termini and in order that the list contain only those projects which appear to be truly needed. PDC staff contacted local transit agencies for their aid in determining truly needed transit projects.

Project Descriptions and Costs

Because it would take until 2030 to construct all of these needed projects, costs have been inflated to year-of-expenditure dollars. In order to obtain a conservative estimate of needed dollars, costs were inflated using, on average, an 80% inflation (i.e. 1.8 factor), or 15 years at 3.89% per year.

When previously developed project cost figures were available, these were used in this analysis and sources were noted.[22] If existing cost estimates were not available, per-mile costs were applied to project lengths. Per-mile unit costs were developed by inflating generalized costs cited in the state's "VTrans 2025" report to year-of-expenditure dollars. For widening interstates (including necessary interchange improvements) a YOE cost of $100m per center-line mile was used. For widening arterials, a YOE cost of $50m per center-line mile was used.

Because financial and space constraints limit most actual projects to the addition of 2 or 4 lanes even when more lanes may be needed to meet forecasted demand, and because it is assumed that the cost of adding 4 lanes does not significantly differ from the cost of adding 2 lanes[23], this analysis publishes needed projects as simply "new alignments" or "widenings" (without proposed lane counts) and assigns the above per-mile costs to them.

The total cost, as shown below, of needed highway and transit projects not included in the 2030 Plan is approximately $8B.

[22] Sources of existing cost estimates: Regional Toll Study, HR Crossing Study, I-264 Corridor Study, candidates for the 2030 Plan, and cost developed for Downtown Tunnel bypass project from 2026 Plan.
[23] For example, it appears that the design and therefore the cost of the current I-64 project in Chesapeake would differ little if 4 thru lanes were being added instead of the 2 thru lanes currently being added.

Needed Highway and Transit Projects Not Included in the 2030 Plan

Costs are in millions of year-of-expenditure dollars.

SEGMENT	FROM	TO	COST
Naval Base LRT Extension	Minimum Operable Segment	Naval Base gate	$900
TOTAL, ADDITIONAL TRANSIT			**$900**
THIRD CROSSING, Phase 2	varies; see below	varies; see below	$2,470
(Phase 2 is East-West Conn. from I-564 to I-664, and Craney Island Connector from Western Fwy. to East-West Conn.)			
TOTAL, REMAINDER OF HRTA PROJECTS			**$2,470**
I-264	Newtown Rd interchange		$575
I-264	Newtown Rd to Witchduck Rd		$109
I-264	Witchduck Rd interchange		included in 2030 Plan
I-264	Witchduck Rd to Independence Blvd		$8
I-264	Independence Blvd interchange		included in 2030 Plan
I-264	Rosemont Rd interchange		$226
I-64	HRC Pkwy	Oyster Pt Rd	$478
I-64 (HRBT; reduced impact - 2 add'l lanes)	I-564	Mallory St	$1,000
I-64	I-264	I-564	$800
TOTAL, ADDITIONAL INTERSTATE PROJECTS			**$3,197**
BATTLEFIELD BLVD	Centerville Tpk	Hillcrest Pkwy	$103
CENTERVILLE TPK	SE Pkwy	Va Beach C.L.	$48
GW HWY (Deep Creek Bridge)	Moses Grandy Trl	Mill Creek Pkwy	$132
GREENBRIER PKWY	Eden Way	I-64	$35
LONGHILL RD	Centerville Rd	Rte 199	$153
J. CLYDE MORRIS BLVD	Warwick Blvd	Jefferson Ave	$56
OYSTER POINT RD	Warwick Blvd	Jefferson Ave	$33
WARWICK BLVD	Yorktown Rd	Oyster Point Rd	$360
WARWICK BLVD	Harpersville Rd	Main St	$75
NEWTOWN RD	I-264	Diamond Springs Rd	$77
NORTHAMPTON BLVD	I-64	Wesleyan Dr	$17
FIRST COLONIAL RD	I-264	Republic Rd	$24
GREAT NECK RD	I-264	Virginia Beach Blvd.	$10
INDIAN RIVER RD	I-64	Centerville Tpk	$29
MONTICELLO AVE	Ironbound Rd	Richmond Rd	$59
GW HWY	Hampton Hwy	Goosley Rd	$390
VICTORY BLVD	Hampton Hwy	East Yorktown Rd	$52
TOTAL, ADDITIONAL ARTERIAL PROJECTS			**$1,653**

TOTAL ADDITIONAL 2030 HIGHWAY AND TRANSIT NEEDS	**$8,220**

needs.xls

PUBLIC COMMENTS ON DRAFT PLAN DOCUMENT

One set of comments was received when the draft version of this document was made available for public review between Oct. 20 and Nov. 18, 2007. A summary of the comments and disposition of same follows.

1. Clarity of Terms

a. Concerning terms used in the draft document to refer to sets of projects ("MPO proposed a package of 6 toll projects", "MPO Toll Package projects", and "Long-Range Transportation Plan—approved by the MPO"), the commenter stated that "the usage of these terms is not clear". In response, revisions were made throughout the document resulting in consistent usage of the term "MPO Package of Toll Projects" (to refer to the 6 large toll projects) and the term "2030 Long-Range Transportation Plan" (to refer to the entire plan of projects).

b & c. The commenter stated that "other MPOs (including in Virginia) consciously differentiate between the "constrained" and "unconstrained" MPO-approved Plans, and most MPOs (including in Virginia) use the term CLRP (Constrained Long-Range Plan) to single out the one, final, fed-vetted fiscally constrained, programmatic plan required under federal law", stated that "something needs to be clarified", and suggested that terminology be "consistent with federal law". In response, the regulations resulting from the SAFETEA legislation and governing the preparation of MPO long-range plans (23 CFR Parts 450 and 500, and 49 CFR Part 613—as found in the February 14, 2007 Federal Register) were searched. Although the term "long-range transportation plan" is sometimes used, these regulations primarily use the term "metropolitan transportation plan" (no initials are used).

Also, the title used by various MPOs (on their websites) for their long-range plans were researched. In addition, the initials "LRP", "CLRP", "LRTP", and "RTP" were searched, by MPO, for frequency of usage. The name which each studied MPO uses for its long-range plan and the most frequently used initials are reproduced below:

Richmond Area MPO (www.richmondregional.org)
Long-Range Transportation Plan, LRTP

Tri-Cities Area MPO (Petersburg) (www.craterpdc.state.va.us)
Long-Range Transportation Plan, LRP & LRTP (used equally)

Charlottesville-Albemarle MPO (www.tjpdc.org)
Regional Transportation Plan, LRP

Roanoke Valley Area MPO (www.rvarc.org)
Long Range Transportation Plan, LRTP

National Capital Region Transportation Planning Board (www.mwcog.org)
Long Range Transportation Plan, CLRP

New York Metropolitan Transportation Council (www.nymtc.org)
Regional Transportation Plan, RTP

Chicago Metropolitan Agency for Planning (www.cmap.illinios.gov)
Regional Transportation Plan, RTP

Southern California Association of Governments (L.A.) (www.scag.ca.gov)
Regional Transportation Plan, RTP

Given the inconsistency of terminology used by MPOs around the country (and the fact that none of the researched MPOs use the term primarily used in the federal regulations, i.e. "metropolitan transportation plan"), in order not to confuse the hundreds of persons who have participated and continue to participate in the long-range transportation planning process in Hampton Roads, the Hampton Roads MPO will continue to use the term "Long-Range Transportation Plan" (a term sometimes used in the SAFETEA regulations) and will continue to designate the plan in simple terms using the initials it has used historically, i.e. "LRP".

In response to the commenter's concern for clarity, this plan document has, however, been revised so that the term "Long-Range Transportation Plan" (or "the Plan" or "the 2030 Plan", for short) is consistently used throughout the document.

It should be noted that the Hampton Roads MPO has historically produced only a constrained long-range plan. There being only one long-range plan, no need exists to differentiate between a constrained and unconstrained plan. Moreover, on the first page of this document it is stated that the "federal government requires that the Plan be fiscally constrained".

2. References to the New Transportation Bill (HB-3202)

a. The commenter stated that the usage, in the draft document, of phrases indicating that HB 3202 "requires" or "legislates" the construction of six projects is inaccurate. In response, the subject terminology has been changed (pp. 34, 69, 70, and 81) to remove from the document the concept of coercion re: construction of the subject projects.

3. Attributions

a. The commenter stated that "it is difficult to grasp what [the wording of the Acknowledgements] means", and that it should be clearly written that "the MPO staff prepared this report". In response, the Acknowledgements section has been rewritten in accordance with the acknowledgments language required by "An Agreement for the Utilization of Metropolitan Planning Funds in the Hampton Roads Area", dated 6-25-07 and signed by VDOT and HRPDC.