Long-Range Transportation Demand Management (TDM) Plan

TRAFFIX

Working Draft

report

prepared for

TRAFFIX

prepared by

Cambridge Systematics, Inc.

with

Center for Urban Transportation Research
LDA Consulting
Southeastern Institute of Research

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Document History

Date	Author(s)	Version/ Status	Description of Changes
2/28/10	Lead Authors: Southern Institute of Research (SIR)	Working Draft delivered to TRAFFIX	Draft content refined through several iterations based on agency comments

1.0 Purpose of the Plan

Transportation Demand Management (TDM), according to the U.S. Department of Transportation, is any program "designed to reduce demand for transportation through various means, such as use of transit and of alternative work hours."

TRAFFIX is the Hampton Roads region's designated Transportation Demand Management (TDM) agency. Like the other TDM agencies throughout Virginia, TRAFFIX promotes ridesharing and other transportation alternatives to single-occupancy vehicles (SOV) in order to assist individuals seeking transportation options to their workplaces and other destinations, to mitigate congestion on Virginia's roadways, and to reduce environmental impacts caused by vehicle emissions, roadway expansion, and other transportation-related factors. As the region's TDM agency, TRAFFIX provides TDM-related services to residents, employers, and employees in its service area, including commuter information, carpool ridematching, guaranteed ride home, telework assistance, and information and support for bicyclists and pedestrians. It also works with Hampton Roads Transit (HRT) to jointly promote the use of transit service, but does not directly operate any transit service.

TRAFFIX delivers its services through various methods, including a Web site, telephone contact, in-person assistance at worksites, two field service offices, and through mailed and e-mailed information distribution. Relative to other transportation programs, TRAFFIX has few large capital costs and operates using short-term (one to two year) funding horizons.

Beginning in 2009, the Virginia Department of Rail and Public Transportation (DRPT) required all of Virginia's TDM agencies to prepare and submit a long-range TDM Plan. The purpose of this Plan is to identify and detail the TDM programs currently provided in the region, to outline potential improvements to be carried out in the Plan's timeframe, and to illustrate the financial resources necessary to implement these programs and improvements.

This document is TRAFFIX's Long-Range TDM plan. It establishes the scope and benefits of TRAFFIX's programs and provides information for DRPT to incorporate TRAFFIX's TDM plan into the State's overall TDM plan, funding decisions, and programs.

More specifically, this document will:

- Serve as a management and policy document for TRAFFIX.
- Provide DRPT with information necessary to fulfill related planning and programming requirements.

- Document current and proposed future operating budgets for TRAFFIX.
- Provide information necessary to include TRAFFIX into Six-Year Improvement Program (SYIP), Statewide Transportation Improvements Program (STIP), Transportation Improvement Program (TIP), and Constrained Long-Range Plan (CLRP).

TRAFFIX's Long-Range TDM Plan is consistent with long-range plans prepared by local- and regional-level planning organizations such as the Hampton Roads Planning District Commission (HRPDC) and state-level planning organization such as the Virginia Department of Transportation (VDOT) and the Department of Rail and Public Transportation (DRPT). The strategic programs and budget requirements detailed in this Plan will be included in DRPT's statewide, Six-Year Improvement Program (SYIP), Statewide Transportation Improvements Program (STIP), Transportation Improvement Program (TIP), and Constrained Long-Range Plan (CLRP).

TRAFFIX's Long-Range TDM Plan incorporates relevant information from existing transportation planning documents and available TDM-related research studies and plans. Of all of the resources utilized, two major documents utilized in preparing TRAFFIX's Long-Range TDM Plan were the 2007 Virginia State of the Commute Survey (VSOC Survey) and the April 2009 Transit Vision Plan for Hampton Roads: Appendix document – Transportation Demand Management Report. The VSOC Survey was the Commonwealth's first statewide assessment of work-related commuting. This statewide study included a large number of residents from the Hampton Roads region. The Transportation Demand Management Report was a detailed landscape review of the rideshare market in the Hampton Roads region and also included potential market development strategies. TRAFFIX's Long-Range TDM Plan includes a considerable amount of information from these two excellent resources.

2.0 Overview of TRAFFIX

2.1 HISTORY OF TDM PROGRAM

TRAFFIX was established in 1995 as a commuter information and assistance service for the Hampton Roads region. In the early years of the program, TRAFFIX primarily focused on commuters and provided ridematching assistance and information on rideshare support facilities such as park and ride lots and the region's new HOV facilities.

In the mid-2000s, TRAFFIX's role and related services expanded to help the region address congestion and air quality issues. Today, TRAFFIX plays a prominent role in the region's formal traffic mitigation and air quality compliance programs. In fact, the Federal Transportation Administration has identified TRAFFIX as part of their certification of the Hampton Roads Planning District Commission's certification process.

TRAFFIX's major milestones during the last five-year expansion period include:

- **2004 –** Opened a service office in downtown Norfolk. Later added another at Navy Station-Norfolk.
- **2006 –** Began expanding its employer outreach effort. In 2006, 22 companies participated in TRAFFIX's congestion mitigation efforts. Today, there are over 100 large companies and over 200 NAVY Commands participating.
- **2007 –** Started expanding the Guaranteed Ride Program. Over the past two years, membership has grown from 950 to 2,789.
- **2008 –** Added Telework!VA and NuRide, two incentive-based TDM programs. TRAFFIX continues to fulfill all quota requirements of the Telework!VA goals. Over 3,000 new ridesharers have joined the NuRide.

Collectively, all of these expanded efforts are making an impact. TRAFFIX has generated growth in ridesharing by more than 10,000 new people who are now either carpooling, teleworking, or using bus transit operations (including the MAX – Metro Area Express). In its early years, TRAFFIX could only account for a thousand people who started ridesharing as a direct result of TRAFFIX's marketing efforts. As a result of TRAFFIX outreach efforts, over 150,000 additional MAX trips were recorded during the first nine months of the inception of the MAX operations.

TRAFFIX's recent success has been recognized by the TDM industry, marketing associations, and the local media. The organization has won four awards for its efforts to mitigate traffic congestion through its *"Cure SOV"* campaign. The awards include one national, two regional and one local award. TRAFFIX has been recognized in several local publications as an essential contributor to the Hampton Roads area's congestion reduction program.

As TRAFFIX looks to the future, it will stay "on mission" – to assist in the continued efforts to decrease traffic congestion in Southeastern Virginia by reducing the number of Single Occupancy Vehicles (SOVs) commuting to work by encouraging the usage of HOV lanes through ridesharing and by encouraging the usage of alternatives to driving such as public transportation and bicycling. A great example of this focus is TRAFFIX's current work with Williamsburg, James City County, and York County on Workforce 2012. This effort is focused around the possibility of a workforce shortage in that area and being able to move people from south Hampton Roads to this area on the Hampton Roads peninsula. Another example of the organization's hyper-focus on reducing the number of Single Occupancy Vehicles (SOVs) commuting is TRAFFIX's plans to open a third commuter service store in 2010 on the Peninsula.

2.2 GOVERNANCE AND ORGANIZATIONAL STRUCTURE

2.2.1 Governance

The Transportation District Commission of Hampton Roads administers TRAFFIX. It receives and administers program grants, which are directed through the Hampton Roads Transit (HRT), as HRT oversees the administration of the TRAFFIX program. TRAFFIX's staff are employees of HRT; however, the program has its own funding source.

The TRAFFIX Oversight Committee (TOC) provides policy guidance and program management. The TOC advisory board is comprised of representatives from each of the area's transportation planning groups: Hampton Roads Planning District Commission (HRPDC); Hampton Roads Transit (HRT); the Virginia Department of Transportation (VDOT); the Federal Highway Administrator; the Department of Rail and Public Transportation (DRPT); and the localities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Suffolk, and Virginia Beach. The TOC reviews TRAFFIX's annual work program, provides input, monitors budgets and implementation progress, evaluates program results, and suggests changes for more efficient and/or effective operation. The TOC meets quarterly.

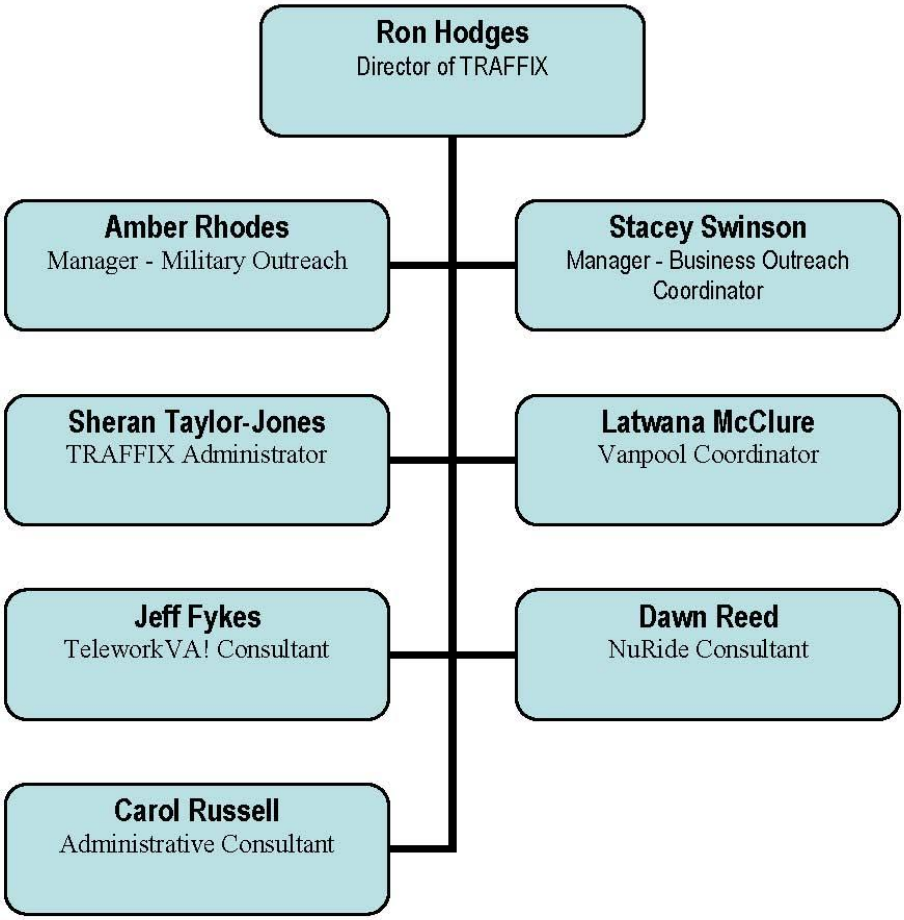
TRAFFIX program management includes organizational development, strategic planning, program budget/funding, program development, program implementation, coordination, and supervision. The TRAFFIX Program Director makes program updates to the MPO Transportation Technical Committee twice a year to present the annual work program and provide a progress update and a

final evaluation of the previous year's program. TRAFFIX's program goals and objectives must also be presented and approved by HRT's Commissioners.[1]

2.2.2 Organizational Structure

TRAFFIX's staff members are employees of HRT. Figure 2.1 below details the organizational hierarchy of TRAFFIX, while Table 2.1 outlines each staff position.

Figure 2.1 Organizational Chart



[1] TRAFFIX Planning Work Program Fiscal Year 2009 document.

Table 2.1 Staff Descriptions

Position	Job Description
TRAFFIX Program Director	Plan, monitor, facilitate, and establish goals/objectives, financial management, work with elected and high level government officials.
Private Sector Outreach Manager	Outreach efforts to all private sector employers/employees in an effort to convince them to participate in the traffic mitigation program.
Military Sector Outreach Manager	Outreach efforts to all sectors of the military and all bases throughout Hampton Roads. This person Coordinates with all commands in all Service Corridors.
TRAFFIX Administrator	The administrator offers the behind the scenes administrative support as well as management of the Commuter Computer, the Guaranteed Ride program, and the Park and Sail program. This person also performs research and quality management for our products and services as needed.
Van Pool Coordinator	The vanpool coordinator coordinates with van lease applicants to

	ensure proper leasing procedures. The coordinator is the contact person for lessees and serves as liaison between the lessees and the maintenance department; risk management, the insurance company, and financial institutions.
NuRide Coordinator/Program Manager	Responsible for the growth of NuRide ridesharing program. This was historically a contractor position. TRAFFIX has now taken the program under its wing and is administering it.
Telework!VA Program Manager	The Telework program is a state program that is administered by TRAFFIX. This position is designed to convince employers to consider having some of their staff Telework at least two days a week. It is a grant funded program that will expire in one year.
Administrative Consultant	The administrative consultant ensures the publication of TRAFFIX's quarterly newsletter, the availability of updated brochures, assist with the collection and submission of data to National Transit Database, as well as other requested duties by the Director.

Source: TRAFFIX.

2.2.3 Key Stakeholders

TRAFFIX's key stakeholders include:

- **Department of Rail and Public Transportation (DRPT).** DRPT is TRAFFIX's mentor in service delivery. As one of Virginia's TDM agencies, TRAFFIX looks to DRPT to support, guide, and promote TDM at the state and regional level.
- **Hampton Roads Transit (HRT).** TRAFFIX is part of HRT and is located in HRT's headquarters in Norfolk, Virginia.
- **Hampton Roads Planning District Commission (HRPDC).** TRAFFIX operates in the HRPDC region. HRPDC is the conduit for CMAQ funding that is directed to TRAFFIX. In addition, HRPDC serves as the mechanism for all of the local governmental jurisdictions to monitor TRAFFIX's activities.
- **Local Jurisdictions.** TRAFFIX currently serves the counties and independent cities that make up the Hampton Roads region. Each of these jurisdictions is independent of one another. They all have their own governments. Through their membership on the regional MPO, each jurisdiction has a direct input and influence on TRAFFIX.
- **TRAFFIX's Employer Clients**. TRAFFIX currently has 123 direct working "partner" relationships with employers across the region. These employers receive TDM support services from TRAFFIX.

It is important to recognize that all of these stakeholder groups have different levels of interactions with and expectations for TRAFFIX. The local governments, through the regional MPO, provide consistent funding to TRAFFIX. They view the agency as an extension of their work – a transportation

service provider that helps address local and regional transportation needs. Employers work directly with TRAFFIX as customers. These corporate clients expect and receive direct benefits from their relationship with TRAFFIX.

2.3 SERVICE AREA PROFILE

2.3.1 Description of Service Area

TRAFFIX*'s* program covers an extensive geographic area that includes the Hampton Roads region and beyond, including James City County, Eastern Shore, Isle of Wight and the northern counties of North Carolina. Currently ranked as the 31st largest metropolitan area in the country, the Hampton Roads region consists of seven cities with a combined population of 1.5 million, of which 1.3 million live in the 369 square miles served by HRT.

Table 2.2 lists the jurisdictions in TRAFFIX's service area. A map of the services area is shown in Source: TRAFFIX.

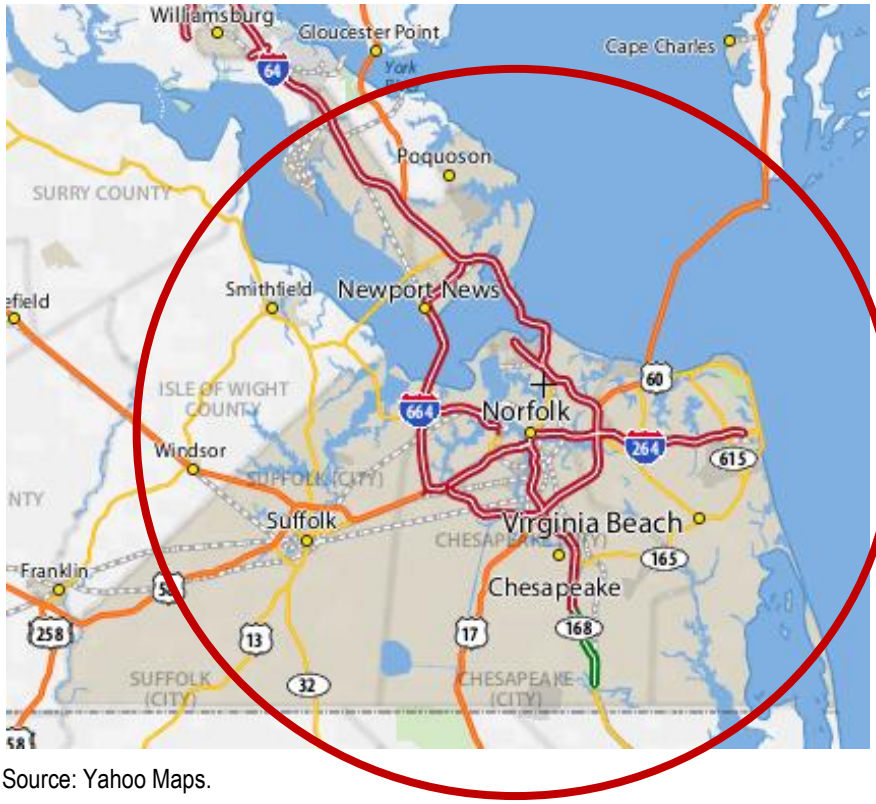
Figure 2.2.

Table 2.2 Jurisdictions in the TRAFFIX Service Area

Counties	Cities
1. Essex	1. Chesapeake
2. Gloucester	2. Hampton
3. Isle of Wight	3. Newport News
4. James City County	4. Norfolk
5. King and Queen	5. Portsmouth
6. King George	6. Suffolk
7. King William	7. Virginia Beach
8. Mathews	
9. Middlesex	
10. Surry	
11 York	
12. The Virginia Eastern Shore	
13. Counties of Northeastern N.C.	

Source: TRAFFIX.

Figure 2.2 Map of Service Area



Source: Yahoo Maps.

Two-thirds of Hampton Roads' population, retail sales and workforce reside in the five cities (Virginia Beach, Norfolk, Chesapeake, Portsmouth and Suffolk), appropriately named South Hampton Roads.

Transportation Facilities

Hampton Roads' transportation system is a network of local and regional roads, transit, rail, airport, and port services. The major parts of this network are listed below and point to one of the truly defining characteristics of the Hampton market and its transportation system – the need to move people and freight around, under, and over water. While the presence of water may offer wonderful scenic views, the bridges and tunnels that help people and freight traverse the waterways may inadvertently serve as traffic choke points – potential congestion-related hotspots.

Highways

- I-64 – The major U.S. interstate facility that runs right through the heart of the region, connecting many of Hampton Roads' communities and activity centers. HOV2 lane is part of this highway system.
- VA-164 – The Western Freeway in the Hampton Roads area is VA-164. It was opened in 1992, and runs from I-664 at Churchland to near the two-lane U.S. 58 Midtown Tunnel (which crosses the Elizabeth River).

- I-264 – The 26.1-mile-long east-west freeway through Portsmouth, Norfolk, and Virginia Beach (VA-44 was changed to I-264 in 1999). The originally designated 13.3-mile-long interstate was completed in 1972 between I-64 at either end (Bowers Hill and Military Circle), and it did not include the 2.2-mile-long Downtown Tunnel/Berkley Bridge complex (completed in 1952). The Downtown Tunnel crosses the Elizabeth River, South Branch, and it had a single two-lane tube. The Berkley Bridge crosses the Elizabeth River, East Branch, and it had a single undivided four-lane span.
- I-464 – The 5.7-mile-long north-south spur from I-64 in Chesapeake to I-264 in the Berkley section of Norfolk junctions I-264 between the Downtown Tunnel and the Berkley Bridge. It was completed in 1989.
- I-564 – The 2.8-mile-long spur from I-64 to the Norfolk U.S. Navy Base was completed in 1977. Widening to six lanes was completed in 1993. I-564 has a 680-foot-long tunnel that goes under a Naval Air Station runway.
- I-664 – The 20.7-mile-long north-south freeway extends from the I-64/I-264 interchange at Bowers Hill in the city of Chesapeake to I-64 in the city of Hampton near the Hampton Coliseum. This includes the Monitor-Merrimac Memorial Bridge-Tunnel (MMMBT).
- Hampton Roads Beltway – In January 1997, the 56-mile-long I-64/I-664 loop was designated and signed as the Hampton Roads Beltway. I-64 makes a huge arc around Norfolk and Portsmouth. The beltway has the clockwise direction (as looking down at a map of the area) signed as the Inner Loop, and the counter-clockwise direction signed as the Outer Loop (same concept as the I-495 Capital Beltway).
- VA-44 Virginia Beach-Norfolk Expressway – In July 1999, VDOT renumbered the Expressway to I-264. VA-44 was an eastward continuation of the original I-264, which runs through Portsmouth and Norfolk. VA-44 is built to Interstate standards. The Expressway opened in 1967, it runs 12.8 miles, from I-64 in Norfolk to the Virginia Beach oceanfront, and it was a toll road until 1995. It was widened to six lanes in the 1980s and to eight lanes in the early 1990s. The toll booths were removed soon after the tolls ceased. HOV2 lane is part of this Expressway.
- While HOV facilities are available on a number of local highways, there is a general consensus among local transportation planners and TDM experts that the array of HOV lanes are not effectively configured to affords significant time savings. Another consideration is enforcement. Historically, there has been relatively little enforcement of the HOV2 restriction on Hampton Roads' HOV facilities.

Tunnels

- Monitor Merrimac Memorial Bridge-Tunnel, Interstate 664 – The I-664 Monitor-Merrimac Memorial Bridge-Tunnel (MMMBT) opened in 1992. These four-lane twin tubes connect Newport News and Hampton to Suffolk

and Chesapeake. The MMMBT typically carries about half of the volume each day of the Hampton Roads Bridge-Tunnel and is a practical, less-congested alternative. The tunnel does not charge a toll.

- Hampton Roads Bridge-Tunnel (HRBT), I-64 – The Hampton Roads Bridge-Tunnel is the oldest tunnel on I-64 in Hampton Roads. It connects Hampton and Newport News to Norfolk and Virginia Beach. The first two-lane tunnel opened in 1957 and a second opened in 1976. Nearly three million vehicles use it each month. It carries more than 100,000 vehicles a day during the tourist season. During heavy traffic, many motorists use the MMMBT on I-664 instead. The HRBT does not charge a toll.
- Downtown Tunnel, I-264 – The Downtown Tunnel on I-264 is the older of two state-maintained tunnels crossing the Elizabeth River. The Downtown Tunnel links Norfolk and Portsmouth. The first of two two-lane tunnels opened in 1952 and the second in 1987. Along with the Berkley Bridge, which connects I-264 and I-464 on the Norfolk side of the tunnel, the Downtown Tunnel carries more than three million vehicles a month. The tunnel does not charge a toll.
- Midtown Tunnel, Route 58 – More than a million vehicles per month use the Midtown Tunnel. It opened in 1962 as the second tunnel connecting Norfolk and Portsmouth and carries two lanes of two-way traffic on Route 58 between the cities. The tunnel does not charge a toll.
- Chesapeake Bay Bridge-Tunnel, Route 13 – The Chesapeake Bay Bridge-Tunnel spans the mouth of the bay, connecting Virginia Beach to Cape Charles in Northampton County on the Eastern Shore. This is a time-saving shortcut for motorists traveling from Delaware, Maryland, Pennsylvania, and New York. Built in 1964, the 17.6-mile span is the world's largest bridge-tunnel complex. The bridge-tunnel is owned, operated, and maintained by The Chesapeake Bay Bridge and Tunnel Commission, not VDOT.

Bridges

- Hampton Roads' drawbridges open for water traffic according to Federal regulations issued by the Coast Guard. Some time-of-day restrictions may apply Monday through Friday, excluding Federal holidays.
- George P. Coleman Bridge, Route 17 – The George P. Coleman Bridge is a span that connects Gloucester Point and Yorktown. The bridge was constructed in 1952 as a two-lane bridge, designed to carry up to 15,000 vehicles a day. In 1995, the bridge was reconstructed with four lanes to handle increased traffic. Almost a million vehicles cross each month.

  Tolls (traveling south to north):

  – Commuters (E-Z Pass required): 85 cents;
  – Two axles: $2;
  – Three axles: $3; and

– Four or more axles: $4.

The Coleman Bridge opens upon vessel demand, according to Federal regulations. The bridge remains closed from 5-8 a.m. and 3-7 p.m., Monday through Friday, except Federal holidays. It does open for vessels in an emergency.

- James River Bridge, Routes 17/258/32 – The 4.5-mile James River Bridge, Virginia's longest state-maintained bridge, opened in 1928 as the first connector between the Peninsula and South Hampton Roads. The bridge carries Routes 17/258/32 between Newport News and Isle of Wight County. The original two-lane bridge was replaced in 1982 with a four-lane lift span bridge to handle increased traffic. Nearly one million vehicles use it each month. It is a smart alternative when the tunnels are congested. The bridge is free. The James River Bridge opens upon vessel demand, according to Federal regulations. It does not have any periods where openings are restricted.
- Berkley Bridge, I-264 – The Berkley Bridge opened in 1952 and is part of the I-264 Downtown Tunnel complex, connecting Portsmouth and Norfolk. The bridge was rebuilt in 1991 to handle increased traffic. The bridge merges I-464 traffic traveling from Chesapeake with I-264 traffic in Norfolk. The I-264 Berkley Bridge will open for maritime vessel signal at 9 a.m., 11 a.m., 1 p.m., and 2:30 p.m., Monday through Friday. The bridge will not open during these scheduled times when vessels have not signaled and are not waiting for passage. The duration of the traffic stops due to the bridge lifts are dependent on maritime traffic volumes. The bridge will remain in the close position during commute periods, from 5 a.m. to 9 a.m. and from 3 p.m. to 7 p.m., Monday through Friday, except during Federal holidays. The bridge can open upon request during the restricted hours for a vessel with a draft of at least 18 feet if at least six hours of notification has been given.
- High Rise Bridge, I-64 – This concrete and steel drawbridge was built in 1969 in Chesapeake. It crosses the South Branch of the Elizabeth River and carries more than two million motorists a month. The bridge opens upon vessel demand, according to Federal regulations. It remains closed from 6 a.m. to 9 a.m. and 3 p.m. to 6 p.m., Monday through Friday, except Federal holidays. If a vessel needs it to be opened during peak hours, three days notice is required. It does open for vessels in an emergency. Bridge openings occur only about once a week.
- Gilmerton Bridge, Routes 13/460 – Located on Military Highway west of Bainbridge Boulevard, the four-lane undivided twin bascule span crosses the Southern Branch of the Elizabeth River. The bridge was built in 1938 and is operated by Chesapeake. It currently carries about a million vehicles a month.
- Jordon Bridge – Until April of 2009, this bridge crossed the Elizabeth River from Chesapeake to the Norfolk Naval Shipyard in Portsmouth. This bridge

recently closed due to structural deficiencies. The TRAFFIX team worked to assure continued access by previous riders from their home to the NNSY through alternative options. A new span/bridge is being constructed.

Park and Ride Lots

The Hampton Roads area has a number of officially referenced park and ride lots. These lots are maintained by VDOT and HRT and are listed below in Table 2.3.

Table 2.3 TRAFFIX Facilities Park and Ride Locations

County	Location
Chesapeake	Greenbrier Mall – Mall Ring Road*
	Chesapeake Center (Kmart)
Essex	Route 17 and Route 654
	Route 360 and Route 620 (Watts Supermarket)
Gloucester	Route 17 Business and Route 3/14
	Route 216 and 17
	Route 1216 (Hayes Rescue Squad)
	Route 374 (Rappahannock Community College)
Hampton	Hampton Transit Center – King St. and Pembroke Avenue
Isle of Wight	Smithfield – Route 10/258**
	Bartlett – Rt. 669 and Smith's Neck Road
James City County	Rochambeau Boulevard and Rt. 30
King and Queen	Route 360 and Route 721 (Bradley Mart)
King George	Route 301 and Route 652
King William	Route 30 and Route 662
Mathews	Route 3/198 and Route 3
	Route 14 and Route 683
Middlesex	Route 33 and Route 703
	Route 3 and 33
Newport News	Rt. 60 and Old Courthouse Road
	Yorktown Road and Rt. 143
Portsmouth	Downtown Tunnel and Port Centre Pkwy (Park and Sail lot)
Suffolk	58 Bypass – Rt. F-675 and Rt. 10
	Rt. 337 and Rt. 58/460 Business (Magnolia Park and Ride)
Surry	Surry Park and Ride Lot – Rt. 10
Virginia Beach	18th Street and Arctic Avenue

County	Location
	Silverleaf Station – 4300 Commuter Road
	Indian River Park and Ride lot- Reon Dr. and Indian River Road*
York County	Rochambeau Boulevard and Route F-137

Source: TRAFFIX.

2.3.2 Demographic Profile

There are approximately 1.5 million people in the Hampton Roads region. Table 2.4 shows the historic (1990) and current population profile (estimated 2010) for TRAFFIX's service area.

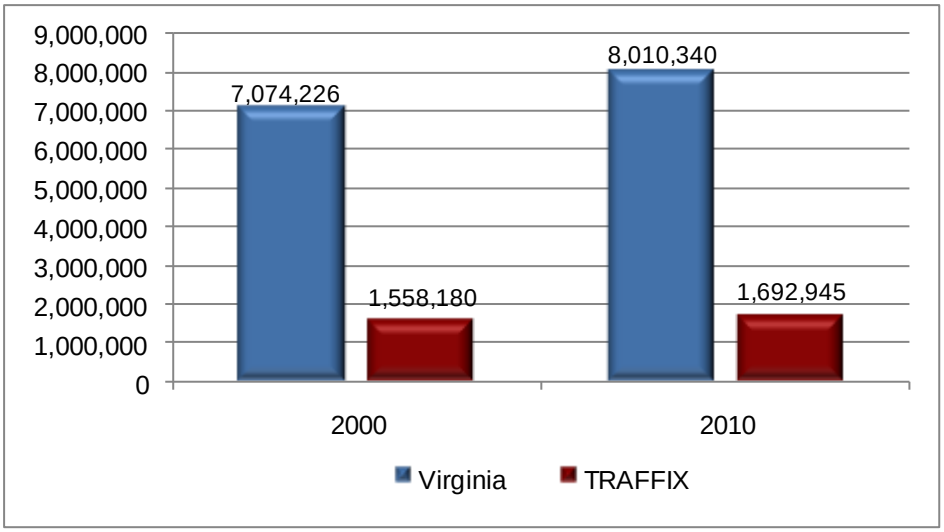
Table 2.4. Population in TRAFFIX Region 1990 to 2010

	1990	2000	2010
Population:			
Total Pop.	1,435,653	1,558,180	1,692,945
Percent Growth	–	8.5%	7.8%
Age Groups (Percent):			
Under 20			468,652 (28%)
30 to 64			1,034,591 (61%)
65 and Over			189,702 (11%)

Sources: Virginia Employment Commission and U.S. Census Bureau.

As depicted in Figure 2.3, since 2000, the population for the Commonwealth as a whole has grown at a faster rate (13%) than that of TRAFFIX's service area (8%).

Figure 2.3. Population Growth in TRAFFIX's Region and Virginia



Source: Virginia Employment Commission and U.S. Census Bureau.

Changing demographics impact the types of TDM services needed in an area. For example, rapidly growing areas expand programs and provide a wider range of transportation options (i.e., car-sharing, transit, bike/pedestrian, telework). Areas with growing senior populations may want to explore programs that serve non-work travel needs in addition to more traditional work-oriented commuter services.

Employment levels can also impact the types of TDM services demanded in an area. For example, areas with high levels of employment will have a greater focus on employer services than areas that are mainly residential.

TRAFFIX's service area is a major employment market. In 2008, total employment in the TRAFFIX's service area was approximately 883,000. The 20 largest employers in this service area are listed in Table 2.5.

Table 2.5 Top 20 Employers in TRAFFIX Service Area

Service Area	
1. U.S. Department of Defense	11. City of Norfolk
2. Newport News Shipbuilding	12. Food Lion
3. Sentara Healthcare	13. Hampton City School Board
4. City of Virginia Beach Schools	14. Farm Fresh
5. Wal-Mart	15. City of Chesapeake
6. Norfolk City School Board	16. City of Newport News
7. Chesapeake City Public School Board	17. Gwaltney of Smithfield
8. City of Virginia Beach	18. Postal Service
9. Riverside Regional Medical Center	19. City of Hampton
10. Newport News Public Schools	20. Old Dominion University, Norfolk

Source: Virginia Employment Commission, 2008. Virginia's New River Valley Regional Data Book, 2008.

2.3.3 Existing Travel Patterns

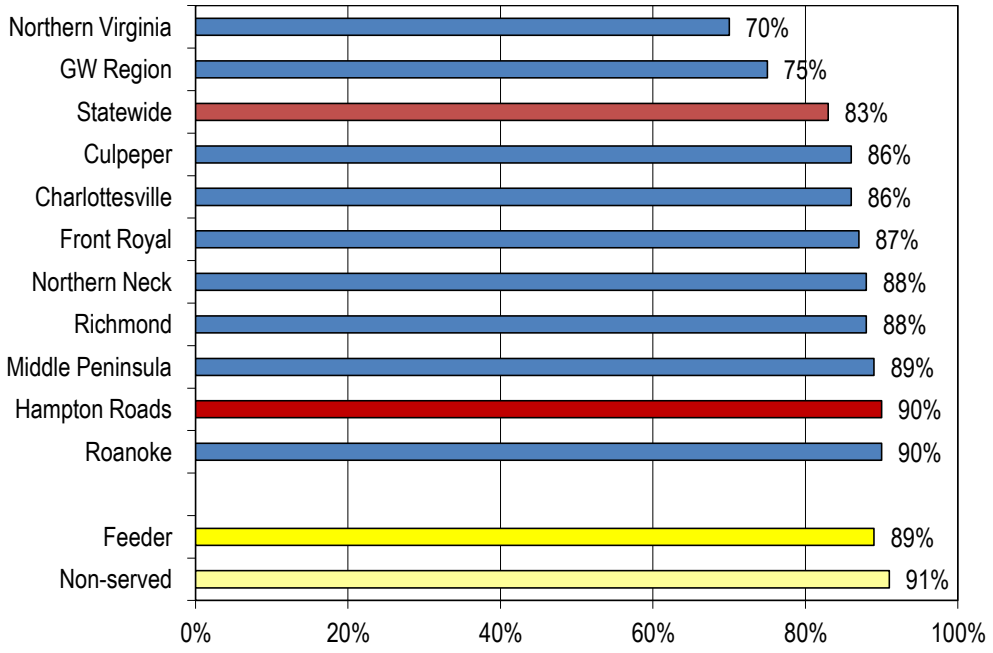
Mode Split

Mode split is commonly used as a performance measure for TDM agencies. The Hampton Roads region's work mode split is heavily weighted to drive alone or single occupancy vehicle (SOV) commute.

As depicted in Figure 2.4, the 2007 Virginia State of Commute Survey found that nine out of 10 Hampton Roads' residents (90 percent) who work outside of the home say their primary commute mode is in a single occupant vehicle (SOV). Among all major markets, this is the highest SOV or "drive alone" rate in the Commonwealth, a distinction shared with Roanoke.

Figure 2.4 also shows that the Hampton Roads region's work mode split is higher than the statewide average of 83 percent (83 percent), which is significantly influenced by the Northern Virginia market where the mode split is 70 percent (70 percent) drive alone.

Figure 2.4 Hampton Roads Mode Split, 2007

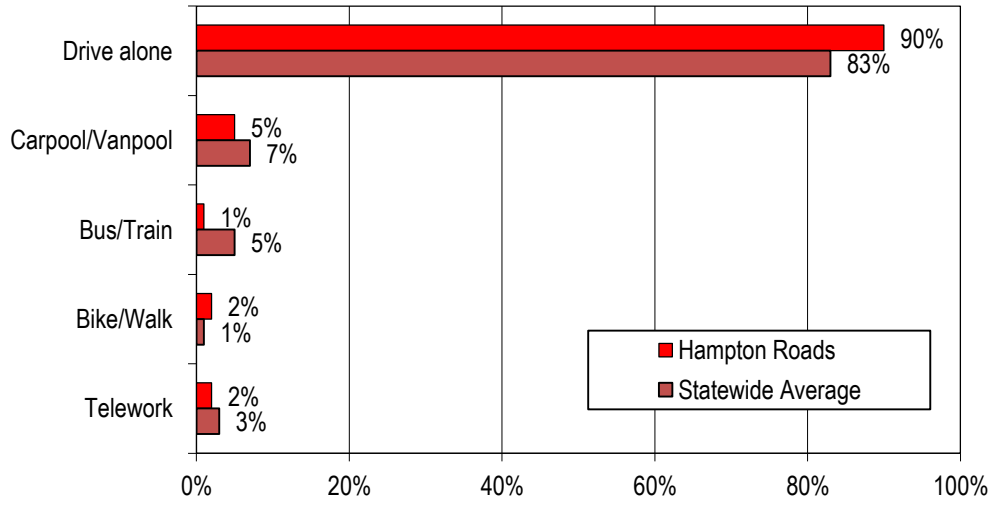


VASOC – question 15: Now thinking about LAST week, how did you get to work each day? Primary Commute Mode – Drive Alone

Source: 2007 Virginia State of the Commute.

As depicted in Figure 2.5, car and vanpooling make up the majority of non-SOV or alternate mode commute in the Hampton Road's region.

Figure 2.5 Hampton Roads Alternative Mode Use



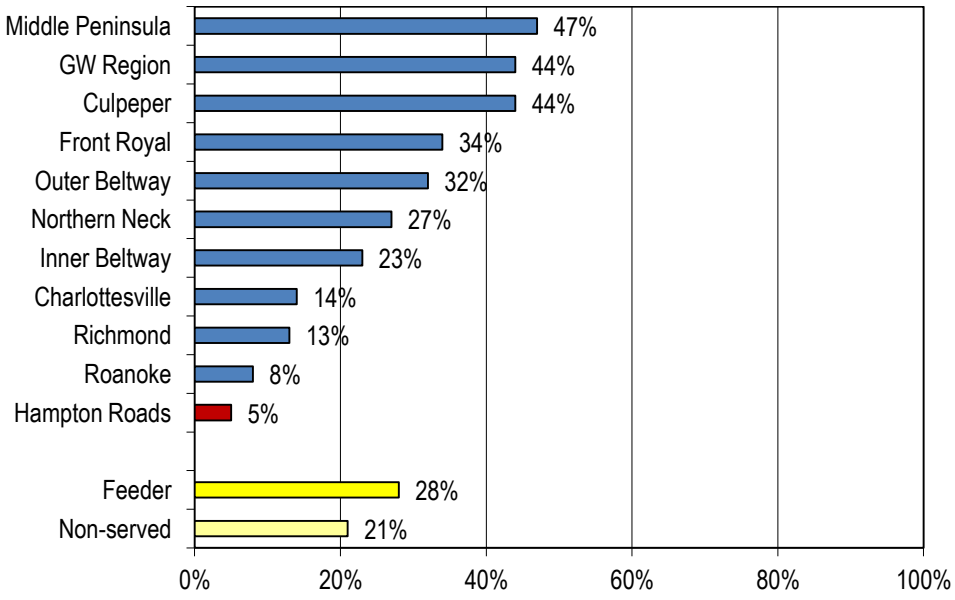
Source: 2007 Virginia State of the Commute.

Commuting Patterns

Commuting patterns are one of the largest influences on a TDM agency's programs and targeted customer segments. Areas with a large percentage of inbound commuters tend to emphasize employer services, while areas with a large percentage of outbound commuters tend to focus on residentially-based programs with vanpool/commuters bus services.

According to the 2007 Virginia State of Commute Survey, the vast majority of the Hampton Roads region's workforce lives and works in the area. As depicted in Figure 2.6, only five percent of the region's workforce commutes outside of area for employment.

Figure 2.6 Percent Commute Outbound



VASOC – question 2: In what county (or independent city) do you live? VASOC – question 3b: In what county (or independent city) do you work?

Source: 2007 Virginia State of the Commute.

Figure 2.6 also shows that the Hampton Roads region is the lowest level of work trip commuters who leave their home market. All other Virginia markets see a larger percentage of their residents leave their home region on what are long distant commutes to jobs in other areas of the state.

As listed in Table 2.6, the primary destinations of Hampton Roads' commuters are the major cities within TRAFFIX's service area.

Table 2.6 Top 10 Areas Residents Commute To

Residents Commuting To:	Residents (Percent)
Norfolk city	32%
Newport News city	13%
Virginia Beach city	12%
Chesapeake city	11%
Hampton city	11%
Portsmouth city	9%
York County	4%
Williamsburg city	3%
James City County	3%
Suffolk city	2%
Total	***100%***

Source: Virginia Employment Commission and U.S. Census Bureau.

Given the absence of long-distance commuters, work commuters in the Hampton Roads region enjoy one of the shortest commutes in the Commonwealth, both in terms of time and distance traveled as depicted in Figure 2.7.

Figure 2.7 Average Length of Trip in Minutes and Miles in Virginia

Region	Avg. Tip Time Minutes	Rank
GW Region	42	1
Culpeper	40	2
Northern Virginia	35	3
Middle Peninsula	33	4
Front Royal	32	5
Northern Neck	29	6
Statewide	28	7
Non-served	26	8
Charlottesville	26	8
Feeder	24	10
Hampton Roads	23	11
Richmond	23	11
Roanoke	20	13

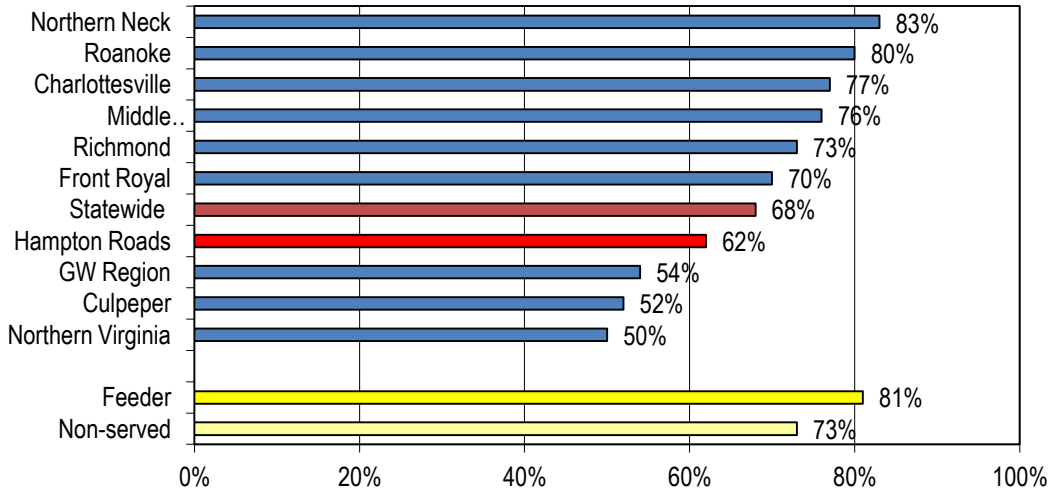
	Avg. Trip Length Miles	Rank
GW Region	30	1
Culpeper	29	2
Front Royal	25	3
Middle Peninsula	23	4
Northern Neck	22	5
Non-served	19	6
Charlottesville	18	7
Feeder	17	8
Statewide	17	8
Northern Virginia	16	10
Richmond	16	10
Hampton Roads	14	12
Roanoke	14	12

VASOC – questions 16-17: How long is your typical daily commute one way? Please tell me both how many minutes and how many miles. First, how many minutes? And how many miles?

Source: 2007 Virginia State of the Commute.

Even though Hampton Roads enjoys one of the shortest commutes in terms of time and distance, working residents across the region have a surprisingly low level of satisfaction with their work commute when compared to other regions in the state. Hampton Roads commuters' relative satisfaction level is depicted in Figure 2.8.

Figure 2.8 Commuter Satisfaction with Work Trip



VASOC Q56a. Overall, how satisfied are you with your trip to work?

Source: 2007 Virginia State of the Commute.

Given the region's relatively low commute distances and time, the relatively low level of commuter satisfaction may be more related to the perceived bottlenecks associated with the high number of bridges and tunnels across the region. These choke points and the unpredictable timing of congestion delays may be driving the perception of and related frustration with congestion.

2.4 CURRENT TDM SERVICES AND PROGRAMS

2.4.1 Customers

Today, TRAFFIX focuses on the work-related commute and, in so doing, serves two primary customer groups: commuters and employers.

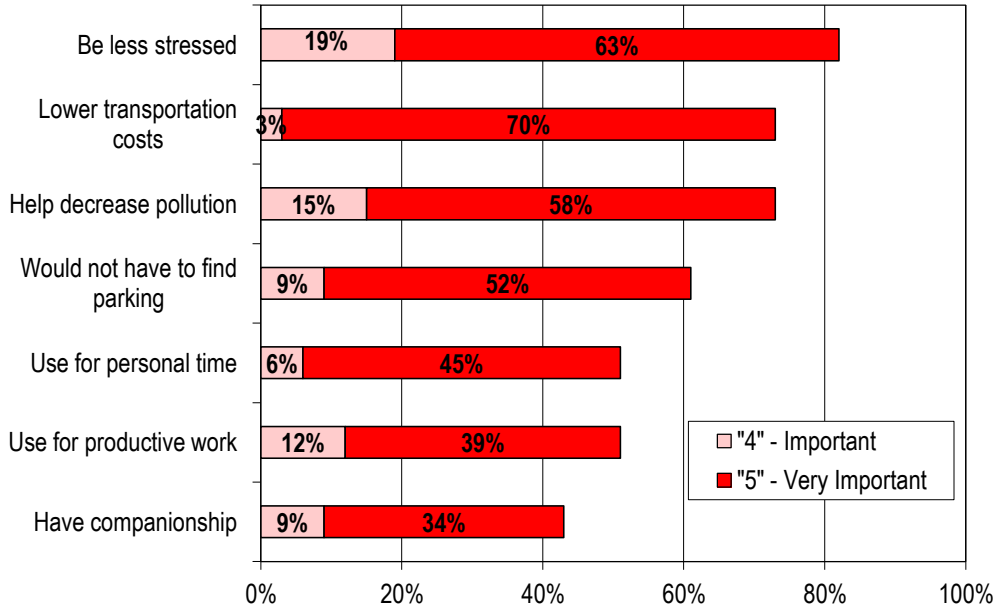
Commuters

TRAFFIX primarily serves commuters that work in the major activity centers.

The key benefits area commuters are seeking with alternative commute modes are depicted in Figure 2.10. According to the 2007 Virginia State of the Commute Survey, the current users of alternative commute modes in the Hampton Roads region cite reducing stress, reducing cost, helping to decrease pollution, and avoiding parking hassles as the four top benefits they derived from using alternatives to the signal occupancy vehicle commute.

An interesting point to note here is the degree Hampton Roads' existing ridesharers cite "helping to decrease pollution." In all other markets across Virginia except Roanoke, ridesharers rated "helping to decrease pollution" as a second tier benefit, way behind cost, time, and stress savings. One possible explanation for Hampton Roads and Roanoke's high ratings of "helping to decrease pollution" could be both region's constant visual reminders of their respective natural resources – the surrounding mountains for Roanoke and open water for Hampton Roads. Living in the middle of natural beauty may just make the environmental benefit of using alternative modes more important.

Figure 2.9 Reasons for Use of Alternate Transportation Modes among Hampton Roads Alternative Mode Users



VASOC – question 56e: How important were each of the following in your decision to use (carpool, vanpool, bus, train, ferry, bike, walk)? "1" means "not at all important" and "5" means "very important."

Source: 2007 Virginia State of the Commute.

Employers

Recognizing that direct employer involvement in supporting ridesharing lifts employees' use of ridesharing modes, TRAFFIX also targets area employers.

TRAFFIX's employer services are designed to encourage major employers in the service area to implement TDM services at their worksites. This outreach offers TRAFFIX an opportunity to reach commuters through worksite-based promotions. Employers can also offer TRAFFIX's services as benefits to their employees. The main services that TRAFFIX provides to employers include:

- On-site consultation, events, and presentations;
- Transit and ridematch materials for distribution to employees;

- Employee zip code density plots showing concentrations of residential locations of employees.
- Transportation Fairs at employers' worksites;
- Vanpool listings and information; and
- Incentive-based ridematching system.

Currently, over 120 employers work with TRAFFIX and offer an array of alternative transportation solutions at their sites, including transit/ridesharing subsidies to employees.

TRAFFIX uses a range of methods to identify potential new employer clients. The regional "Top 100 Employers" is a major source for potential high-impact clients. Other methods for attracting large employers includes participation in local Chambers of Commerce and local business associations, referrals from regional business magazines and publications, and event sponsorships and exhibits at local business expos. TRAFFIX also employs cold calling and worksite drop-in visits to introduce their services to employers.

2.4.2 Programs and Services

The TRAFFIX Planning Work Program Fiscal Year 2009 document highlights a full array of TDM programs and services. Some are designed to expand the availability of non-single-occupant vehicle (non-SOV) modes of travel – to offer commuters more alternatives to the SOV commute. Other programs and services are related to financial incentives – to stimulate trial and repeated use of non-SOV travel options such as NuRide. Other support programs and services help remove barriers to ridesharing by making non-SOV modes more convenient such as the Guaranteed Ride Home (GRH) service.

Perhaps the simplest way to appreciate TRAFFIX's entire portfolio of products and services is to view them across four broad areas: commuter services, employer services, regional partner planning services, and marketing outreach.

Commuter Services

TRAFFIX offers a number of services designed to support commuters across the Hampton Roads region. These include:

- Commuter Computer – TRAFFIX offers an on-line ridematching data base service called "Commuter Computer." Commuter Computer is provided through TRAFFIX's partnership with Metropolitan Washington Council of Governments (MWCOG). This self-directed on-line ridematching system allows individuals to input their criteria and preferences, decide what information they want others see of their profile, and how they can be contacted. Users are able to see their matches instantly along with their location using Google maps. This separate ridematching system is designed for commuters who are interested in ridesharing, but who may not have an

employer-issued e-mail address. Commuter Computer, through shared statewide database, also offers area commuters the opportunity to match up with long-distance commuters, those commuters who leave the region for work.

- Vanpooling/Van Leasing – TRAFFIX aggressively promotes vanpooling in the Hampton Roads region through its partnership with HRT. TRAFFIX currently has a total of 76 vans in its fleet of which 53 are leased to various individuals and employers. TRAFFIX supports both commuters and employers interested in forming a vanpool through the Van Lease Program made available through VPSI, the national vanpool company.
- Guaranteed Ride Program – TRAFFIX offers a Guaranteed Ride Program (GRH) where registered participants get a reliable ride back to their point of origin for $3.00 if they have to unexpectedly leave work early or stay late. Users register through TRAFFIX for the GRH service. Registered users receive a membership card and GRH vouchers that allow them to use a taxi to travel home in case of an unscheduled event. Users arrange their own trips and present a GRH voucher to the taxi driver before making the trip. When a used voucher is received from a taxi company, TRAFFIX checks the expense for approval, including that the trip was made from work to home, and not vice versa.
- Park and Sail – This service affords commuters the ability to park in Portsmouth and ride the ferry to Norfolk. Downtown Norfolk workers can be assigned a free parking space at the Park and Sail lot in Portsmouth.

Employer Services

TRAFFIX offers a number of services designed to support large employers across the Hampton Roads region. These include:

- NuRide – TRAFFIX recently launch an employer-based on-line incentive program called NuRide. NuRide is the nation's largest rewards program for individuals who take greener trips, which include carpooling, vanpooling, biking, walking, telecommuting, and taking public transportation. NuRide is a free service to users that is offered through employers. It is supported by local and national vendors who provide rewards and special offers to NuRide members for taking greener trips and reducing global warming, traffic congestion, and energy consumption.

  NuRide software tracks specific performance outcomes measures that are important to TRAFFIX. This includes reduced car trips, VMT reduced, tons of emissions saved, gallons of gas saved, and money saved by ridesharers. Employer involvement gives TRAFFIX the dual benefit of offering a valuable service to employers at no charge and provides a built in performance tracking and performance recording system that can be confirmed as only employees with employer-issued e-mail addresses can participate.

- Commuter Checks – TRAFFIX facilitates the use of commuter checks, tax-free vouchers area employees can use toward any HRT bus service, ferry, or vanpool. Employers can provide Commuter Checks as a pretax salary reduction, company benefit, incentive, or bonus.

  Commuter checks often give employees more and cost employers less than a comparable salary or bonus. Plus, commuter checks help improve employee morale, reduce absenteeism and turnover, solve parking problems, and make benefit packages environmentally friendly.

- Transportation Incentive Program – The Department of Transportation (DOT) purchases and distributes prepaid "fare media" (transit passes, fare cards, or vouchers) to the Department of Navy's (DON) members and employees to use on authorized mass transit systems. All Navy and Marine Corps military members and Federal DON civilian employees living in Hampton Roads are eligible to receive incentives up to $230 a month as long as they utilize a covered mode of transportation.

- Telework!VA – The Telework!VA program is designed to help employers understand and fund the program so that they may participate in a Telework program that is sanctioned by the Commonwealth of Virginia. This program offers grants of up to $35,000 to companies for consultant services and equipment purchases to develop or expand employee telework programs.

- Employer Outreach Efforts – This is the cornerstone of TRAFFIX's efforts. Staff schedule appointments with various employers and spend the day, half day, or once a week visits to employers and their employees to explain the program and how it works. They also answer various questions regarding the process of implementation of the TRAFFIX program. They explain all services associated with TRAFFIX and facilitation of the process of reducing the number of employee driving to work alone.

Regional Partner Planning Services

- As TRAFFIX's role in and contributions towards the region's traffic mitigation and air quality programs have expanded over the last five years, so, too, has TRAFFIX's participation in planning activities conducted by city and county-level planners across the region. This work has evolved to a point where TRAFFIX views this effort as a separate service category.

- TRAFFIX staff, when invited, assists city and county-level planners across the region plan for issues ranging from congestion mitigation to workforce transportation. Three examples of this kind of long-term planning assistance follow.

- TRAFFIX is working with one jurisdiction in planning for anticipated labor shortages in the years ahead as Baby Boomers retire. This challenge could be addressed by finding efficient, non-SOV ways to transport people from large

residential areas in Southside Hampton Roads to large employment centers in Northside Hampton Roads.

- Newport News has asked TRAFFIX to assist with their long-range planning in mitigating the potential long-term possibility of heightened congestion in the Oyster Point area of Newport News.
- Old Dominion University has asked TRAFFIX to create a Marketing Plan for their traffic congestion and anticipated parking problems and then to assist them with outreach to their students. Other colleges and universities in the area have engaged TRAFFIX for this task, too.

While all of this consulting work should ultimately help TRAFFIX achieve its long-term goal of increasing use of SOV alternatives, it has the short term impact of over-taxing TRAFFIX's human resources.

Marketing Outreach Services

Marketing alternatives to SOV commuting is challenging at best. There is no one silver bullet solution. Changing personal commuting behavior requires a personal mindset shift, and this requires a series of steps that cultivates a new way of thinking about personal trip planning. Rideshare prospects – Savers – have to first be aware of the cause – ridesharing. From here, they have to become more familiar with it – to understand the benefits of ridesharing. Once they are more familiar, prospects can be more easily convinced to try or test drive alternatives (experiment with ridesharing modes). For some, trial then leads to long-term behavioral change – prospects join a vanpool or starts riding the bus. This process is, in effect, the classic consumer behavior marketing model. It is the model TRAFFIX follows in crafting its marketing efforts targeting prospective employer partners and prospective ridesharers.

Highlights of TRAFFIX's marketing efforts, for both employers and commuters, include:

- TRAFFIX's employer marketing centers around four major phases of activities: Initial Contact Phase, Organizational Phase, Promotion/Publicity Phase, and Implementation Phase.

  The Initial Contact Phase is initiated when a TRAFFIX Commuter Transportation Coordinator meets with management of a major activity center (employer). The coordinator outlines the goals and objectives of decreasing "single occupancy vehicles" (SOV) on our roads and providing an alternative means of transportation. The employer is then informed how to perform a survey to determine employees' residences and ultimately how to match individuals to establish shared rides. If the employer does not wish to survey his employees, density plotting can be an alternative. The employer would provide the coordinator the street address, city, zip and work schedule of all employees in an Excel spreadsheet format. The coordinator would then use TRAFFIX's ArcView software program to perform density

plotting for "instant" identification of car and vanpools. Potential transit service and area park and ride locations could also be identified. Alternative strategies are based upon the employer's specific needs.

During the Organizational Phase, top management will usually designate an individual in middle management to act as an Employee Transportation Coordinator (ETC) for the employer. This individual is often in the personnel or data processing department.

Before providing rideshare publicity, the TRAFFIX coordinator will ask the employer what type of publicity is desired. Publicity can take the form of slide presentations, posters, fliers, and vehicle displays. TRAFFIX staff may assist the employer in developing advertisements and articles for employee newsletters.

During the implementation phase, a survey or density plotting is performed by the ETC and a TRAFFIX coordinator. The results can be computerized or "instant" depending on the choice of whether to survey or density plot. If a survey is performed, individuals who show interest in ridesharing are contacted by a computer generated match letter. Follow-up telephone calls are made by TRAFFIX personnel to see if the match letter was received, if they were able to join or form a car or vanpool, ride the bus and were knowledgeable of the Guaranteed Ride Program or additional programs available to them that were adopted by their employer (telecommuting, staggered or flexible work hours, etc.).

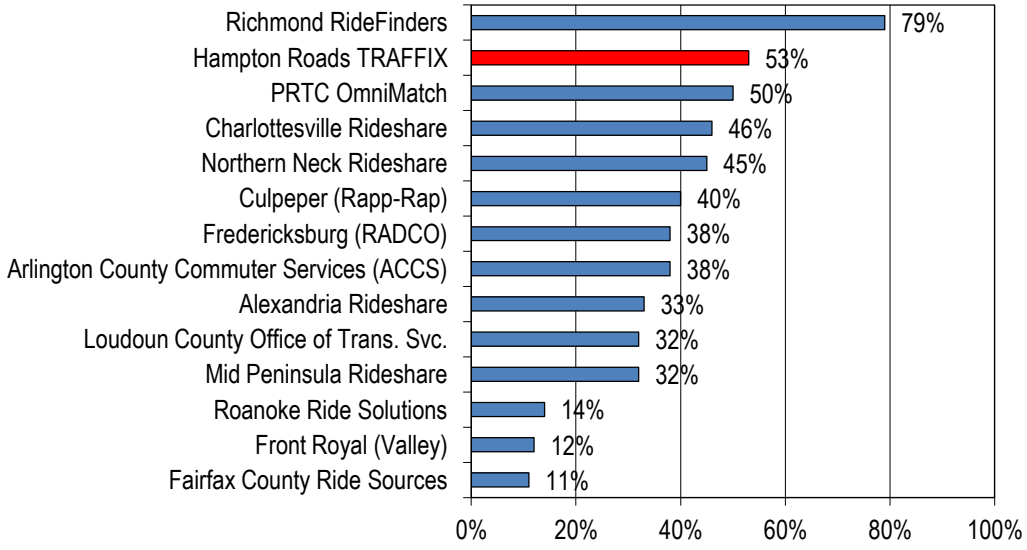
If interest is shown in becoming a vanpool driver, applicants are sent information on eligibility requirements, pricing and an application. Follow-up telephone calls are made by TRAFFIX Commuter Transportation Coordinators to encourage the formation of a vanpool program.

The TRAFFIX coordinator will maintain contact with the ETC to provide program updates, literature, etc., to company employees.

- TRAFFIX commuter marketing includes advertising, public relations, and Web-based outreach efforts targeting commuters across the Hampton Roads region. Advertising outreach includes radio, TV, billboards, web sites, TRAFFIX crawls with various media outlets, social media, high visibility publications, periodicals, public access TV channels, and earned media.

  TRAFFIX's consumer campaign appears to work. Based on the 2007 Virginia State of the Commute Survey, TRAFFIX enjoys one of the highest levels of name program name recognition in the state as depicted in Figure 2.10.

Figure 2.10 Awareness of TRAFFIX

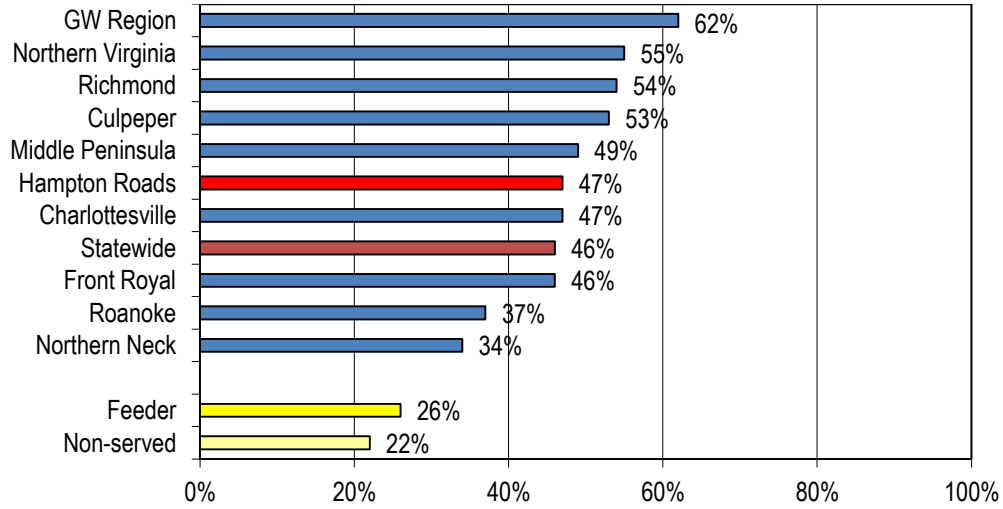


VASOC Q88d. Have you heard of an organization or service called TRAFFIX?

Source: Virginia State of the Commute Survey.

As shown in Figure 2.11, TRAFFIX's advertising recall is strong, too. At 46 percent, it is just above the average for all rideshare/TDM agencies across the state.

Figure 2.11 Advertising Awareness of TRAFFIX



VASOC Q61. Have you heard, seen, or read any advertising about commuting in the past year?

Source: Virginia State of the Commute Survey.

Maintaining TRAFFIX's high awareness and relatively high ad recall will be critical to the long-term success of advancing ridesharing and TDM across the

region. According to the Virginia State of the Commute Survey, the rideshare market is in constant motion – with residents coming into and out of rideshare arrangements. One in four current ridesharers (26 percent) in the Hampton Roads region report that they started using ridesharing modes within the past year. It's clear that decisions about mode choice are being made continuously. Thus, the need to encourage commuters to consider alternate modes and the responsibility of providing ongoing rideshare information is constant.

3.0 Future TRAFFIX Service Area Profile

3.1 EXPECTED AREAS OF GROWTH

Changes in the Hampton Roads region will impact how and where people choose to travel. Residential, commercial, and other developments will introduce new residents, employers, employees, and other potential TDM customers and partners. Similarly, changes such as highway improvements or development of new transit and light rail services will impact where people travel (activity centers) and what types of transportation options are available.

The following are the major transportation-related infrastructure improvements identified in local planning documents that may affect TRAFFIX's TDM program needs in the Hampton Roads market.

Transportation Facilities

There are many transportation facility projects currently under construction in the region related to maintenance and moderate improvements such as lane widening.

These expected improvements, however, pale in comparison to the planned introduction of the new Light Rail Connecting Norfolk and Virginia Beach. Already bestowed with the name "*The Ti*de," Norfolk's future 7.4-mile light rail transit system will run from the Eastern Virginia Medical Center through downtown Norfolk, and continuing along the Norfolk Southern right-of-way, adjacent to the I-264 corridor to Newtown Road.

According to PBSJ.com, 11 stations will be constructed along the route with three park-and-ride locations that provide access to major areas such as Norfolk State University, Tidewater Community College (Norfolk Campus), Harbor Park, City Hall, MacArthur Center, and the Sentara Norfolk General Hospital.

The system, which is located within a combination of city streets and an existing rail corridor purchased from Norfolk Southern, will carry approximately 11,500 people per day. The track will be both ballasted and track-in-concrete pavement. A yard and shop is included that will be expandable to meet future needs as the system grows. The construction of the alignment in the track-in-concrete sections is being performed in the traditional design-bid-build method with 12 separate contracts.

Activity Centers

Unlike many of the metropolitan areas across the country, Hampton Roads' population and employment opportunities are not concentrated around a city center, but rather spread broadly across the region around a half a dozen activity centers – Virginia Beach, Norfolk, Portsmouth, Newport News, Hampton, etc. Most of these traditional activity centers are projected to grow. The following overview, as presented on the Hampton Roads Economic Development Partnership's web site, details this growth.

- **Virginia Beach –** This area will experience the largest increase in activity with the build out of the new Virginia Beach Town Center, the region's newest downtown activity center. Over 100,000 new employees are expected.
- **Southside –** Both Suffolk and James City County are expected to have the largest rate increases in population of any of the localities over the next 20 years, with annual growth rates of 2.3 percent and 2.2 percent, respectively. The HRMPO area is expected to add an additional 243,000 employees between 2000 and 2030, an annual growth rate of 0.8 percent.
- **Chesapeake –** 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 two percent annual growth expected. The localities with the slowest expected growth rate in employment are Norfolk, Portsmouth, Hampton, and Poquoson, each with 0.3 percent or less annual employment growth.
- **Norfolk and Portsmouth –** Norfolk and Portsmouth are not projected to experience anywhere near the growth of Virginia Beach, Southside, or Chesapeake.
- **Outer Belt –** The dramatic growth, however, will come from newly emerging activity centers that will transform the area into a super-region. Using the region's Interstate "beltway" loop of I-64 and I-664 as a boundary, between 2000 and 2030, the activity centers inside the beltway are expected to grow at a much slower pace than the emerging centers outside the beltway. 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 percent versus a rate outside of one percent. 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 percent of the employment in 2030.

- **The East Southside –** 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 percent, 32 percent, and 32 percent, respectively), with the West Southside growing at the fastest annual rate of 1.3 percent. Both the Peninsula and West Southside are anticipated to have the largest portion of the employment growth (36 percent and 34 percent respectively) with West Southside having the higher annual growth rate of 1.6 percent. The Southside (East plus West) is expected to have 64 percent of the population growth and 64 percent of the employment growth between 2000 and 2030.

3.2 PROJECTED DEMOGRAPHICS

Hampton Roads' Projected Population

Today, the Hampton Roads region – HRMPO region – has over 1.6 million residents. As depicted in Table 3.1, the region is expected to increase to almost two million residents by 2030.

Table 3.1. Estimated Demographic Changes (2010 – 2030)

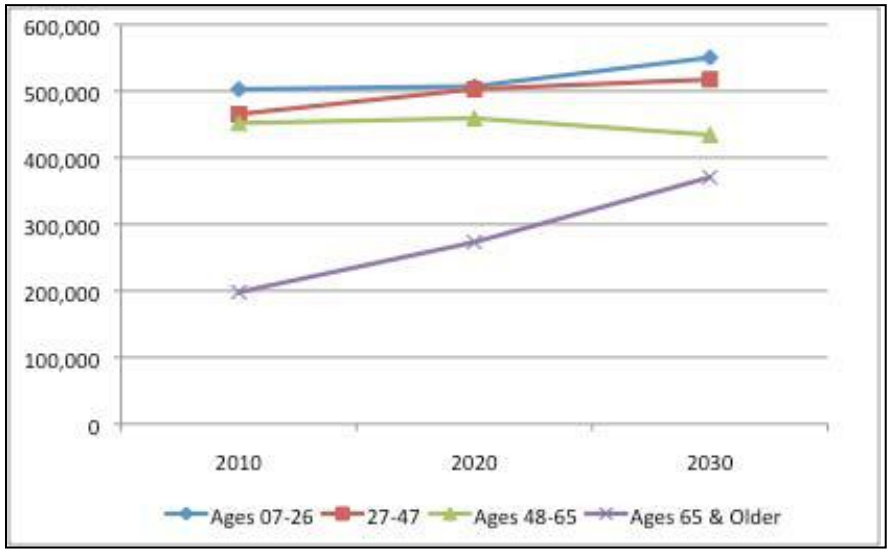
	2010	2020	2030
MSA Population:			
Total Pop.	1,692,945	1,822,160	1,956,013
Percent Growth		7.6%	7.3%
Virginia Population:			
Total Pop.	8,010,239	8,917,396	9,825,019
Percent Growth		11.3%	10.2%

Sources: Virginia Employment Commission and U.S. Census Bureau.

The number of individuals who are age 65 and older is expected increase significantly as the Baby Boomer generation ages. As depicted in Table 3.1, the population of individuals who are 65 years old and older shows considerable growth by 2030 compared to other three younger age segments. Demographers

are projecting the region's senior population will almost double by 2030, growing the 65+ age segment to where it makes up almost 20 percent of the region's population, as depicted in Figure 3.1.

Figure 3.1 Estimated Changes in Age Segments (2010 – 2030)



Source: Virginia Employment Commission.

The Hampton Roads region is projected to experience dramatic increases in employment through 2030. Isle of Wight, James City County, and Suffolk are projected to have the largest percent change in employment between 2000 and 2034 with over 100 percent change each. Additionally, the counties of James City and York and the city of Williamsburg, are expected to have an explosive concentration of new workers in the future.

3.3 PROJECTED TRAVEL PATTERNS

The dramatic growth of the new activity centers will transform the area into a super-region. This will, in turn, impact commuter travel patterns in two primary ways – greater number of commuters coming into the area for employment opportunities and a greater number of people moving between the activity centers.

Managing the congestion pressures that will result will be a major challenge for transportation experts. Solving this challenge by moving more people than cars into and around the area will be TRAFFIX's future opportunity to make a meaningful impact on the region.

TRAFFIX has already taken one step towards serving these evolving activity centers with HRT's new MAX (Metro Area Express) commuter bus service. MAX is the first regional express commuter service connecting all of Hampton Roads. MAX offers commuters an economical, stress-free, fast ride to work.

Plush, high-back seats, additional legroom, Wi-Fi, limited stops, and low fares make MAX a truly innovative and attractive option.

Figure 3.2 HRT MAX System Map

Source: HRT.

3.4 FUTURE EXTERNAL FORCES

In addition to projected new traffic patterns, there are many other transcendent trends shaping TRAFFIX's long-term future. A few of the major demographic and societal trends include:

- **Growth of Hampton Roads' Ports.** The Port of Virginia is the third largest container port on the U.S. east coast and is a hub for the world's leading international shipping companies. With global service from more than 75 international shipping lines and 3,000 sailings annually to 100 countries, the Port offers multiple direct sailings to and from Asia, Europe, South America, and the Indian subcontinent on a weekly basis. The Hampton Roads Port is slated for significant growth, which will add to the expected increase in commercial traffic driving through the Hampton Roads region.

In addition to anticipated facility-related challenges the Golden Crescent will create, the growth of the Golden Crescent will create greater demand on TRAFFIX. The Williamsburg economic development representatives have already contacted TRAFFIX about their anticipated needs. They are projecting a coming labor shortage in 2012 – projected at 50,000, and have asked TRAFFIX to start preparing support services for long-distance commuters.

Sources: Old Dominion University; State of the Region Report; Claritas iMark 2008, VA Employment Commission.

- **The Green/Sustainability Movement**. The green/sustainability movement has taken root. This trend includes both consumer and business-driven forces.

  According to Boomer Project Study, 80 percent of U.S. residents consider themselves green – they are concerned about the environment and they reflect this in their behavior. More and more people will come to appreciate alternative modes as a way to lower their personal greenhouse gas footprint dramatically.

  A related green trend is what's happening in corporate boardrooms. More and more companies want to be perceived as being green. In a recent SIR study for the Older Dominion Partnership (www.olderdominion.org), 50 percent of the CEOs in Virginia want their companies to be perceived as "being green." More and more companies will come to appreciate the impact their employees' commute has on their corporate greenhouse gas footprint.

- **Expected Increase in Conservation – Water Resources.** One environmental concern that may already be at work in TRAFFIX's region is the health of the Chesapeake Bay. The Bay remains exceptionally poor, despite the concerted restoration efforts of the past 25 years. It is now so heavily polluted that it ranks among the Environmental Protection Agency's (EPA) dirtiest waters. On a scale from 0 to 100, the Chesapeake Bay scores only a 27. While not the primary culprit, runoff pollution from traffic is an issue. In fact, urban and suburban runoff pollution is the fastest growing source of pollution to the Chesapeake Bay, while agricultural runoff is the largest.

  On May 12, President Obama issued Executive Order 13508 [PDF] on Chesapeake Bay Restoration and Protection, the first-ever presidential directive on the Bay. The order established a Federal Leadership Committee, chaired by the EPA, and with senior representatives from the departments of Agriculture, Commerce, Defense, Homeland Security, Interior, and Transportation.

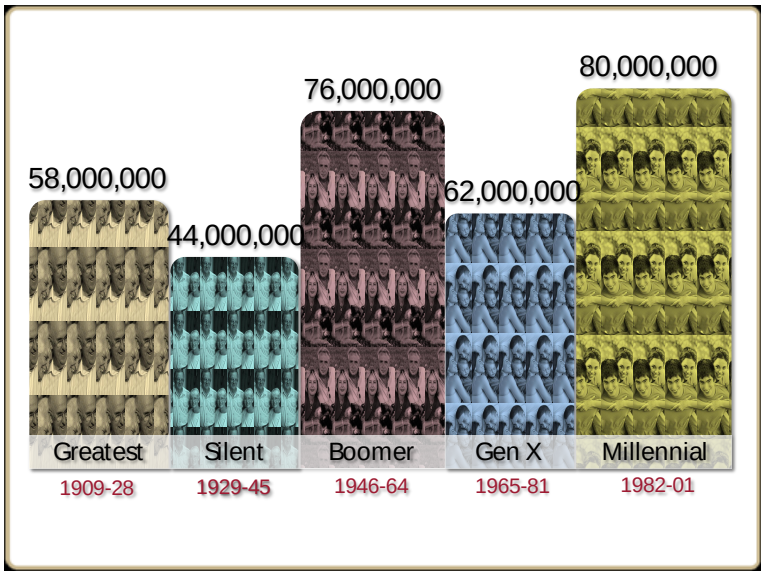
  The draft report on water quality includes some of the more significant potential changes to existing programs. In this report, the EPA proposes to develop new regulations for the Chesapeake Bay to reduce significantly runoff pollution from urban, suburban, and agricultural sources. The report also relays the EPA's intention to hold the states in the watershed more

accountable for controlling pollution, through increased oversight, enforcement activities, and new policies.

- **New Generation of Ridesharers on the Horizon – The Millennials.** America's youngest generation, the Millennials (sometimes called Gen Ys or Echo Boomers), are poised to make a huge impact on ridesharing modes and ridesharing support services for years to come. Two primary factors will fuel this prediction.

  First and foremost, the sheer size of the Millennial population suggests that they will influence society, just as the unusually large Baby Boomer generation did and still does. As illustrated in Figure 3.3, when compared to the other generations, Millennials represent the largest generation alive today – 80 million strong.

Figure 3.3 Size and Age Profile of U.S. Generations



Source: SIR Boomer Project.

The second factor is related to Millennials' innate generational traits that were influenced by the shared experiences of age cohort. When Millenials were coming of age, their daily life was immersed in technology. Many received their first personal cell phone at age 10. But they spent more time text messaging than talking. Unlike older generations, Millennials are a digital native nation. Their neural pathways are actually different from Baby Boomers. When Boomers came of age, their minds were shaped by print and standard broadcast media, and they consumed one medium at a time. Millennials hyper-exposure to technology has resulted in hyper-connectivity – they are always seeking personal connections and linkages.

Another important generational trait that Millennials have over older generations is their support for and active involvement in social causes.

Millennials are taught at an early age and through school to volunteer, and this whole person approach is the path to human development. Older generations had to figure this out on their own time. Consequently, Millennials are redefining social engagement and social movements. The election of President Obama is a case in point.

Given the cause-oriented generational values and sheer size of this generation, Millennials will have a big impact on ridesharing and may represent a tremendous opportunity to shift America's modal split significantly. There are already signs of this today. Over the past two years, Millennials, at a greater rate than older generations, have shifted to and remained in non-SOV work commute modes. Even the recent fall in gas prices has not reversed this promising trend among Millennials.

Millennials are also leading the way in reshaping rideshare support services. Just three years ago, most ridematching was done through large government-sponsored, centralized databases. Today, many commercial enterprises are tapping into commuters' need for hyper-social connectivity by offering ridematching as part of a social network – Craigslist, Facebook, Goloco.org, Ridebuzz.org, and Greenyour.com. Millennials (8-28 year olds) are leading the adoption curve of this new technology and new way to share a ride.

While Millennials, compared to Gen X and Boomers, make up a small percentage of the workforce now, they will make up the majority of the work force in years to come, surpassing the older generations ahead of them. It will be these future workers – 10 and 20 years from now – who will shape how our companies, cities, and transportation systems of the future will run.

3.5 FUTURE TRANSPORTATION AND TDM-RELATED TRENDS

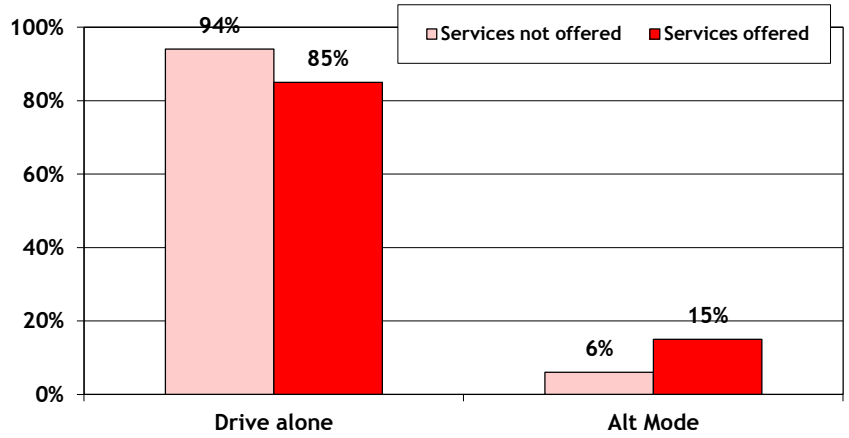
In addition to major demographic and societal trends, there are many transportation and TDM-related trends shaping TRAFFIX's long-term future. The major ones include:

- **Possibility of Stricter Clean Air Standards on the Horizon.** The Obama administration is also proposing new clean air and fuel economy (CAFE) standards for cars and trucks, including Federal limits for tailpipe emissions. Could any new standard impact the region's clean air attainment status over the long term?
- **Possibility of Higher Gas Prices on the Distant Horizon.** TRAFFIX, just like all rideshare agencies across the country, saw a dramatic increase in inquiries and ridematching activities when gas prices hit $4 per gallon. While prices have fallen way off this mark, most predictions on the long-term price of gas call for much higher prices.

- **Projected Growth of the I-64 Corridor.** The projected growth of East Southside, West Southside, and Peninsula areas over the next two decades is part of a larger demographic population trend that demographers say will create a Golden Crescent super region that will stretch from the Baltimore-Washington market down Interstate 95 to Richmond and then east along Interstate 64 to the Hampton Roads region. This corridor will ultimately "fill in" to become a megalopolis similar to the spiraling region of L.A. today. It will encompass the vast majority of the population and annual economic output of all three jurisdictions – Maryland, D.C., and Virginia. What does growth in the Golden Crescent means for TRAFFIX? In the future, East Southside, West Southside, and Peninsula areas will expand. These activity centers will grow the region's in-out daily commute patterns.
- **Growing Involvement of Employers in TDM – Offering TDM-Services.** Over the past few years, the labor shortage, green movement, and corporate experiences with TDM have helped the TDM cause reach the tipping point in employer appreciation and use. Corporate America has now realized that it is in their enlightened self-interest to embrace TDM programs to boost recruitment, retention, employee productivity, etc.

From a TDM effectiveness perspective, the direct involvement of employers in offering transportation-related commuter services has a positive and significant impact on employees' use of ridesharing modes. As shown in Figure 3.4, according to the 2007 Virginia State of the Commute Survey, those who live in the Hampton Roads area and who had employer-provided commuter benefits were less likely to drive alone and more likely to use alternate modes.

Figure 3.4 List of Employer Provided TDM Services



VASOC Q15. Primary mode defined as mode used most often versus VASOC Q89/92/93/94/95/96/97. Please tell me if your employer makes any of the following commute services or benefits available to you – Information, parking discounts, special parking spaces, subsidies, cash payments, bike/walk facilities, and guaranteed ride home?

Source: Virginia State of the Commute Survey.

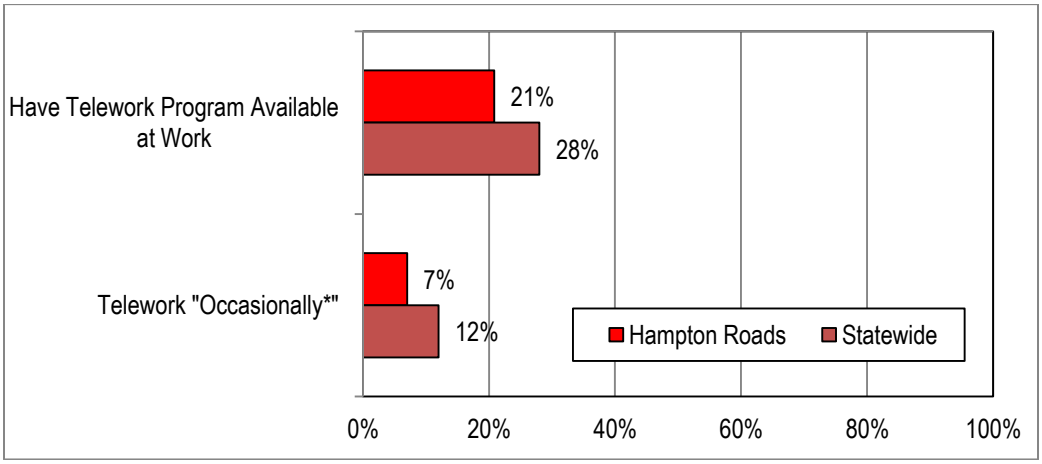
Consequently, more and more companies are offering TDM services and programs and/or considering launching additional TDM services in the future. This is true for many of the companies in TRAFFIX's service area.

- **Changing Nature of Work – Distributed Workforce.** One of the more subtle reasons behind employers' relatively recent acceptance of employer-based TDM services is the changing nature of work. More and more employers recognize that work is not some place you go, but rather something you do. Enlightened employers are measuring employee productivity not by time clocks but rather by outcomes – they are slowly evolving to a distributed workforce model.

  This realization has been fueled by the prerecession labor shortage and will be accelerated, again, by the significant labor shortages projected in the coming decade when millions of Baby Boomers slow down or exit the labor market altogether. Employers desire to cater to their labor forces' physical work space desires often translates into compressed work weeks, greater flexibility to come and go, and the ability to work from off site locations.

- **The Promise of Telework.** An early indicator of the powerful impact that the changing nature of work will have on the region's commute patterns is use of telework. One cannot discuss the future of the Hampton Roads region's work commute without including the current impact and future promise of telework. Depicted in Figure 3.5, today (2008), seven percent of the region's workers report they telework at least occasionally.

Figure 3.5 Hampton Roads Telework Programs at Work and Telework Participation



VASOC Q13. Telecommuters are defined as ''wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day instead of traveling to their regular workplace.'' Based on this definition, are you a telecommuter?

VASOC Q13a. / Q14d. Does your employer have a formal telecommuting program at your workplace or (do you/permit employees to) telecommute under an informal arrangement between you and your supervisor?

Source: Virginia State of the Commute Survey.

While Hampton Roads has a lower incidence rate of existing teleworkers, the promise of telework as an effective TDM strategy is significant. Based on the 2007 Virginia State of the Commute Survey, two in 10 Hampton Roads' workers who are not currently teleworking would do so if offered the opportunity. As shown in Figure 3.6, this equates to over 150,000 potential new teleworkers.

Figure 3.6 Telework Potential in Hampton Roads

Telework Potential in Hampton Roads

	Statewide	Hampton Roads
Non-teleworkers who ...		
Have TW-appropriate job responsibilities	31%	31%
Are interested in TW	24%	21%
- Occasional	15%	12%
- Regular	9%	9%
Potential New Teleworkers *(Not discounted)*	**751,000**	**152,200**

VASOC Q14e Would your job responsibilities allow you to work at a location other than your main work place at least occasionally?

VASOC Q14f Would you be interested in telecommuting on an occasional or regular basis?

Source: 2007 Virginia State of the Commute Survey.

- **Increased Tolls and/or Congestion Pricing.** Recognizing the impact $4/gallon gas prices had on driving interest in ridesharing, any potential cost increase in commuting should be included in TRAFFIX's assessment of potential long-term issues. One potential increase could come in the form of roadway user fees – increased tolls or a new revenue-generating user fee called congestion pricing or VMT tax. VMT tax, currently being discussed in transportation planning circles, is user fee based on specific road usage levels or vehicle miles traveled. If this fee is put in place on top of the current gas tax, it would increase the overall cost of operating an automobile and, consequently, make ridesharing look more appealing.

4.0 TRAFFIX Strategic Plan

This section outlines the strategic framework that will guide the growth and development of TRAFFIX's programs and services over the short, medium, and long terms. This section starts with an analysis of TRAFFIX's strengths and weaknesses and opportunities and threats. From there, TRAFFIX's vision and mission are reviewed. This is followed by the presentation of 10 core strategic imperatives that serve as the foundation for TRAFFIX's strategic plan – 10 action areas that lead to TRAFFIX's goals, objectives, and specific programming needs. These programming needs are laid out over the short, medium, and long-term planning horizons. This section concludes with a recommended program monitoring and evaluation plan to ensure TRAFFIX delivers a positive return on the resources invested.

4.1 STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT)

SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats. A SWOT analysis fosters recognition of strengths, or areas in which TRAFFIX excels and will want to continue those trends to help further its mission; and weaknesses, those areas in which TRAFFIX should strive to improve to reduce or eliminate their negative impact on the agency. Opportunities are factors or events that offer a strategic opportunity for TRAFFIX to take advantage and convert to strengths. Threats are areas that could have a negative impact unless addressed proactively.

Strengths

- Strong name recognition and identity for TRAFFIX, as defined by the 2007 Virginia State of the Commute (VASOC) Survey.
- Well qualified, dedicated, and enthusiastic staff. In particular, the Program Director has expertise in numerous functional areas that are needed for a TDM program with a small staff.
- Administrative support from HRT and HRPDC frees TRAFFIX's staff for service delivery.
- Willingness to be creative and explore innovative methods to reach potential customers.
- Generally viewed as an effective organization, with moderate support among local jurisdictions.

Weaknesses

- TRAFFIX's very limited staff resources are a weakness on several fronts. First, this limits TRAFFIX's ability to undertake new initiatives that could expand awareness, program participation, and overall impact of the agency on the Hampton Roads' area. Second, small staff resources is a weakness when it comes to one of the core practice areas – employer–based transportation programming. It takes significant time to identify and close a prospective client and then to develop a highly-customized program to meet the specific needs of their employees at each worksite.
- Funding is heavily drawn from a single source (CMAQ), making TRAFFIX vulnerable to financial crisis if this source of funding is disrupted.
- TRAFFIX's position as a program within HRT might suggest it does not have authority over its decision-making and budget, potentially restricting the roles it could adopt and the partnerships it could form.
- It is extremely challenging to work towards TRAFFIX goals when its financial stability is so fluid. As a result, there is a lack of established goals that can realistically be reached due to the lack of past financial stability. This also makes it difficult to prioritize resource allocation, document progress, and make the case for the agency's value to the region.

Opportunities

- The region is slated to grow in both population and employment and will increase commuters' VMT. In addition, increased freight traffic due to the Port's growth will increase commercial VMT in the region. The overall increase in VMT will, in turn, fuel the overall need for TDM and TRAFFIX to play an increasingly important role in maintaining and enhancing the efficiency of the region's transportation system.
- Growth in jobs will increase the number of commuters that will be traveling longer distances to reach the region's major activity centers. This translates into more opportunity for vanpool and carpool formation.
- Future growth of activity centers will place increasing demands on employer-based services. For example, the rapidly growing Virginia Beach Town Center development will benefit from TDM program support and a wider range of transportation options (i.e., car-sharing, transit, bike-pedestrian, etc.). The regions' new employment centers will also increase the demand for intraregion access and mobility movement with services such as *MAX*.
- Growing awareness and concern by local jurisdictions, employers, and residents of the problem of climate change, the benefits of "going green," and the links between transportation/SOV use and a sustainable environment. This awareness may be heightened among area residents as many see the areas waterways every day. Thus, using "reduce pollution" as a means to

build support for TDM options may be a big opportunity to make the ridesharing message more relevant and meaningful.

In January 2009, HRT became the first American transit agency to sign the American Public Transit Association (APTA) Sustainability Commitment. Signatories are responsible for measuring and communicating the results of their committed actions items, reductions targets, and long-term goals toward achieving economic, environmental, and social sustainability objectives. Can TRAFFIX leverage this?

- The effect of increased fuel costs on residents of the region will increase interest in and demand for TDM alternatives.
- In terms of savings money, parking costs are the primary consideration in the high density downtown areas such as Norfolk and Virginia Beach Town Center. These areas will have the most pressure on them as the region grows, increasing the availability and cost of parking. This, in turn will make the employers and workers in these areas the prime candidates for TRAFFIX's services.
- A growing, older population is expected, one that will be much healthier and more mobile than today's seniors. This will result in an increase in non-work related VMT. In addition, trip support for continuous access to healthcare providers and/or or coordinating human services and patient delivery will increase in importance and demand.
- The telework-related interest and subsequent demand trends among employers and workers will require TRAFFIX to develop and deliver greater telework-related expertise and portfolio of telework services.
- Bike and walking growth in popularity offers additional potential for TRAFFIX. The region already boasts significant bicycling opportunities along the greenway network, but additional bike lanes would support the growing popularity of bicycling as a commute mode.
- The TRAFFIX service area is a center for higher education. With the anticipated growth of individual institutions, this concentrated education presence is expected to become more pronounced in the future and present TDM service opportunities.
- The healthcare industry is spread all over the Hampton Roads region, and as such, incorporates numerous types of people from doctors to nurses, to staff, to students, to patients. There is a great opportunity especially in the employer services area to provide TDM solutions. Guaranteed ride home and ridematching may prove helpful. In more densely populated employment activity areas of the future, even bicycle and walking programs may be of interest, especially in the university and healthcare campus setting.
- Rising gas prices and enhanced employer awareness of environmental issues/sustainability, and appreciation of the business benefits of TDM (such

as retention, recruitment, and productivity enhancements) have raised employers' interest in employee transportation programs.

Challenges/Threats

- Current economic climate is affecting state budgets. Could cuts in Virginia's budget cause financial distress for TRAFFIX's current operations and future growth?
- Compared to other areas of the state, residents of TRAFFIX's service area have a relative short commute, both in terms of distance and time. Thus, commuters may be reluctant to consider, much less adopt, alternative to the SOV commute. Furthermore, the region's HOV system doesn't offer the time savings. And, with an abundance of free parking in the region, the savings benefit is substantially weakened. The bottom line is that it is hard to change commuter behavior in Hampton Roads.
- The number of new employer partners that can be recruited is limited by the amount of time TRAFFIX's staff has available after all of the other mandatory activities (such as ridematching, special events, grant reporting, etc.) have been completed. Thus, at a time of rising awareness and expectation of stakeholders, TRAFFIX's effectiveness and impact will be gated by the fact its services are extremely customized and labor-intensive.

4.2 TRAFFIX'S MISSION AND VISION

Hampton Roads' commuters enjoy the shortest average commute time and commute distance in the state. In addition, there is ample free or low cost parking in the areas' highest density employment centers. When it comes to modal split, the region enjoys the highest SOV rate in the state – 9 out 10 commuters commute alone to work. Hampton Roads, by almost all measures, is a model community for the single occupant vehicle (SOV) commute. So is it worth trying to convert more commuters to ridesharing? The answer is yes for many reasons.

First, cultivating and supporting the region's ridesharing market is a never ending process. The market is fluid with people shifting between SOV and alternative mode commuting behavior. According to the 2007 Virginia State of the Commute Study, every year one quarter (26 percent) of the ridesharing market started using their alternative mode. Thus, if new recruits were not recruited and converted, the 90 percent SOV/10 percent rideshare modal split would climb even higher and traffic could slow down even more.

Second, even maintaining the current 90/10 modal split, the region will likely experience an increase in congestion. Hampton Roads, as a region, is projected to grow in both population and jobs. Hampton Roads' related commercial truck freight is projected to grow, too. VMT on the region's roads will increase. Most

transportation experts agree that significantly expanding capacity – *more roads* – is cost prohibitive. Thus, congestion challenges will likely increase in the future.

Third, dramatic increases in VMT and related congestion could have a negative impact on the overall business vitality of the region. At best, congestion could reduce access to employees, suppliers, and customers. At worst, a dramatic increase in congestion could make attraction and retention of companies more challenging. As businesses contribute to the area's tax base and require less services in return than residents, business vitality is important to the region's ability to fund public services and infrastructure (safety, schools, utilities, recreation, etc.). This is especially true for regions with growing populations like Hampton Roads.

Lastly, the dramatic increases in VMT could also negatively impact both air quality and water quality through higher levels of emissions and automobile pollution run off. Challenges to the region's natural resources could, over time, negatively impact one of the region's greatest assets – the quality of life enjoyed by the people who call Hampton roads home.

In summary, increase in VMT and congestion levels could potentially impact the region more than just increased the levels of stress and frustration of the individual commuters. At risk are access and mobility for business community, the region's natural resources, and the overall quality of life enjoyed by people who call Hampton Roads home. So, again, is it worth trying to convert more commuters to ridesharing? The answer is definitely yes! And this answer leads to TRAFFIX's raison d'être and the core imperatives of TRAFFIX's TDM Plan.

TRAFFIX's Long-Term Strategic Imperatives

So what is TRAFFIX's raison d'être? Simply put, it is to be the central force in helping Hampton Roads deploy TDM strategies to help mitigate congestion and minimize congestion-related impact on the quality of life that everyone enjoys. This "congestion management" focus is advanced in TRAFFIX's official mission and vision statements:

> **Mission Statement:** It is TRAFFIX's mission to assist in the continued efforts to decrease traffic congestion in Southeastern Virginia by reducing the number of Single Occupancy Vehicles (SOVs) commuting to work by encouraging the usage of HOV lanes through ridesharing and by encouraging the usage of alternatives to driving alone such as public transportation and bicycling.
>
> **Vision Statement**: TRAFFIX's vision is to create a program with opportunities for people to obtain easy and convenient transportation access or travel options that is essential to maintaining quality of life.

4.3 TRAFFIX'S STRATEGIC IMPERATIVES

To accomplish this mission and move towards this long-term vision, TRAFFIX will enhance its current annual program, over time, through the deployment of 10 core strategic imperatives – the key program elements that make up TRAFFIX's Long-Range TDM Plan. These include:

- **Focus on the Greatest Point of Leverage – The Business Market, Not Residential Rideshare Market.** Given TRAFFIX's existing and anticipated future financial resources, or lack thereof, there is simply no way the agency can sustain a professional-level consumer-based marketing campaign and business to business campaign as it is currently doing. The agency will continue to shift resources, staff, and budget resources to more of a business-to-business marketing strategy.
- **Support Hampton Roads' Key Industries. Create a Targeted TDM Plan for Each Major Sector.** The core economic engines that will drive the region's long-term viability include education, military, healthcare, shipping and shipbuilding, retail, and tourism. A brief overview of each follows:
- **Education.** Hampton Roads is home to dozens of world-class educational institutions. The growth of these institutions creates an opportunity to expand on the success of *Campus Connect*, the bus transportation service that HRT-TRAFFIX created to connect ODU, CNU, TCC, Norfolk State, and other academic communities. *Campus Direct* service is funded by program participants.
- **Military.** In addition to being the home of the World's largest Naval Base, Hampton Roads also has one the nation's highest concentrations of active duty military. Specifically, Norfolk Naval Shipyard ranks as one of the state's largest Federal industrial employers. While the region's military presence is not projected to grow in sheer numbers of people, the potential for increase ridesharing is worth noting. For example, 80,000 people work on the Norfolk Naval Base. There are only 60,000 parking spaces. The 20,000 shortfall creates an opportunity to establish a dedicated rideshare transportation system like Campus Connect.
- **Healthcare.** The healthcare industry has been and will continue to be a major economic engine in the U.S. economy. One third of future job growth over the next 20 years will be related to the healthcare sector. Hampton Roads is well-positioned for this expected growth. The region is already home to several well-established and successful healthcare institutions: Sentara Health System, Bon Secours Health System, and the Eastern Virginia Medical School. Opportunities to support these sector leaders and others may involve transporting healthcare workers to institutional and home-based points of service.

- **Shipping and Shipbuilding.** The region employs approximately 75,000 shipyard workers. Large employers like Norfolk Grumman with 18,000 employees offer great points of leverage for employer-based TDM services.
  - **Retail –** Hampton Roads is the largest retail market between Washington, D.C. and Atlanta. Hampton Roads' annual consumer expenditures, in excess of $30 billion, exceed that of 12 states. New retail development continues to occur in Hampton Roads, giving residents and tourists more shopping options. There will be an increasing need in the future to provide shopping-related transportation services, especially during peak shopping periods.
  - **Tourism –** Tourism is an important part of the Hampton Roads economy. The region is blessed with a diversified product base in this area – beaches, historical parks, museums, cruise facilities, etc. Sizable convention facilities, and professional travel and tourism industry marketing attract business and pleasure travelers to the area, many who arrive by car. Services such as the Boomerang traveler bus service connecting Va. Beach-Norfolk-Williamsburg may grow in importance as the tourism sector grows.

To increase support and involvement in these key industries, TRAFFIX will deploy market research-inspired planning to formulate detailed targeted category TDM Plans. In all cases, TRAFFIX will develop these industry specific plans working closely with the respective leaders and largest members of each industry. Where possible, additional, non-TRAFFIX partnership funding from the industry will be explored as part of every plan as it was with the *Campus Connect* service. The approved plans will be subsequently incorporated into TRAFFIX's updates to this Long-Range TDM Plan.

- **Examine and Respond to Human Service Needs as Appropriate.** TRAFFIX's focus on serving targeted industries will not limit opportunities to support organizations that deliver human services. In the future, underserved population segments may need expanded mobility-oriented services. TRAFFIX will periodically scan the environment to identify any unmet needs and help formulate planning initiatives with appropriate organizational parties to evaluate and prepare formal plans for each. One example may be the emerging needs of the senior population as it doubles over the next 20 years due to aging Baby Boomers. TRAFFIX leases vans to several Virginia Beach's community centers, Portsmouth Redevelopment, and Pride Industries, all of whom provide services to specialize groups of individuals who do not drive. However, transporting these individuals does not decrease the numbers of cars on the road, emission, or their GHG contribution; it does however, increase VMT.
- **Create Third-party Business Development Partnerships to Efficiently Prospect for New TDM Clients.** TRAFFIX currently employs cold calling and worksite drop-in visits to introduce services to employers – prospective

TRAFFIX partners. Program staff has particularly targeted the areas' largest employers, both military and private-sector, and employers located in geographic areas with greater job density. While this targeting may be efficient, this approach is still too labor-intensive given TRAFFIX's limited staff resources.

In the future, TRAFFIX will move towards a partnership model with other organizations in the prospect identification and cultivation process – identifying and initially contacting potential prospects – new employer clients. This will enable TRAFFIX to better service the companies most interested in employer-based TDM services.

It should be noted that while this third-party business development is envisioned for the majority of TRAFFIX's prospects, the very largest employer prospects in the region would still be called on by TRAFFIX's senior staff.

TRAFFIX's potential business development business partners include the Hampton Roads Chamber of Commerce, the region's Economic Development Partnership, and the Society of Human Resources Managers. It is assumed that these probusiness groups will welcome a mutually supportive strategic alliance with TRAFIX as TRAFFIX demonstrates that TDM makes positive and significant contributions to business' operations – improve recruitment, increases retention, improves productivity, etc. and to the overall viability of the business community. In addition, the more TRAAFFIX directs its program support and expertise to the region's key industries, the more potential partners will want to help build political and financial support for TDM projects. This leads to the next core strategic initiative.

- **Secure More Funding Through Additional Sources.** Currently, funding for TRAFFIX and its TDM programs is provided from CMAQ (Congestion Mitigation and Air Quality) grant requests. TRAFFIX's reliance on this existing grant as its major source of funding could present a problem in the future if this funding stream were reduced or eliminated. Securing more funding from additional sources are two important issues that will be addressed to afford more rational and predictable planning of TRAFFIX's TDM services.

  To this end, TRAFFIX will formerly research opportunities for new sources of funding for operating purposes and/or for special projects. This includes working with TRAFFIX's Advisory Board and local transportation agencies to explore alternatives such as the potential for contributions from employer partners and non-governmental grant sources.

- **Continue to Build TDM Infrastructure.** There are significant gaps in the HOV lane system and shortages of park and ride lots. Continue to work with the Hampton Roads MPO to encourage the planning and future development of HOV lanes in the region. In addition, continue to work with VDOT, DRPT, and others to locate and establish additional informal and formal park-and-ride lots.

- **Build a TDM Advocacy Group to Advance TDM as a Major Component of the Region's Long-Range Transportation Plan.** In the TDM analysis portion of the 2009 Transit Vision Plan for Hampton Roads (prepared by RLS and Associates for HRT), stakeholders interviewed said that TDM strategies were logical and could have a much bigger local impact. Part of the problem, or rather challenge, is the low level of awareness and appreciation of TDM as a viable and cost-effective component of transportation and land use planning. To address this issue, TRAFFIX's Long-Range Plan includes the formation of an independent TDM advocacy group.

  As the 2009 Transit Vision Plan points out, the TDM program in Hampton Roads is a department of Hampton Roads Transit. Because of the program's organizational structure, TRAFFIX staff is not permitted to lobby. However, a trade association or advocacy group developed to represent TDM could help to make local elected officials aware of TDM, TDM initiatives, and encourage future support of TDM programs.

  It is envisioned that, once formed, this TDM advocacy group will make presentations to boards of supervisors, business groups, and other key publics to expand the concept of TDM beyond car and vanpools and mass transportation beyond public transit. The core message is that the future of transportation centers on a multimodal network of transportation options that range from walk able communities to carpools to buses and trains. This advocacy group will showcase how TDM works today, its impact on reducing VMT and emissions, and its promise for the region's future. Over time, this advocacy group may evolve into a force that can call for zoning codes to encourage TDM-friendly site plans and land use development and request additional investment in the region's TDM infrastructure – more park and ride lots and further improvements to the HOV system.

- **Measure and Package TDM Results.** In order to raise awareness of TDM successfully, TRAFFIX will change the way TDM programs are measured and related impacts are reported. Historically, TRAFFIX has measure outputs to its program – number of applicants, number of matches-carpools formed, etc. Recently, the agency has started to calculate VMT and related air quality emissions reduced. As the Long-Range TDM Plan is rolled out, this move to outcomes measurement will be further refined.

  This will require TRAFFIX to become an expert in assessing transportation-related impacts of individual and corporate-wide mode choices and behaviors. Additional training and more comprehensive and ongoing use of measurement tools, including the new GHG Calculators and NuRide software, will be advanced.

- **Over Time, Make TRAFFIX the Region's Green Mobility Expert.** Following the 2009-2010 recessions and the expected worsening of the Chesapeake Bay's health, the environmental-sustainability movement is expected to become a major concern and point of action for Hampton Roads'

business community. In the coming years, corporate greenhouse gas (GHG) footprints and environmental practices will take on greater awareness and importance in not only recruiting and retaining employees, but will also become the norm as smart cost-saving business practices, too.

TRAFFIX will start planning now to capitalize on these trends by becoming THE organization that specializes in transportation-related GHG issues and impacts and offers informed solutions. Activities in the long-rang plan will work towards making TRAFFIX the de facto "go to" community resource on employees' commutes and the GHG benefits that come with specific transportation choices and behaviors.

TRAFFIX will look for ways to be part of local corporate green certification audits, serving as a partner in evaluations – assessing GHG impact of employees' commutes and offering customized transportation solutions. Part of this may include the use of the GHG Calculator assessment tool that will be provided to TRAFFIX at no charge by DRPT in early 2010. Part of every audit would include specific recommendations on how to reduce a firm's corporate GHG footprint related to their employees commutes. For those companies who adopt recommended employer-based transportation solutions, TRAFFIX would then go on to service them.

The strength of cultivating this green mobility expert reputation and in-house expertise is that it will grow in importance to employers and it will help make TRAFFIX even more relevant to their daily business practices. In the future, it may also be the optimal way to get the most attention with TRAFFIX's limited resources. This stated, it is understood that this service does not preclude TRAFFIX from promoting its other benefits of employer-based TDM programs or working with employers on transportation solutions and programs that have little connection with or impact on environmental issues.

- **Study the Optimal Long-term Organizational Structure of TRAFFIX.** TRAFFIX's position as a program within HRT and funding from HRMPO appears to offer both advantages and disadvantages. On the plus side, TRAFFIX is relieved of administrative duties related to human resources and accounting, which are not part of its service mission. One significant disadvantage, however, is that TRAFFIX does not have complete authority in programmatic or budgetary decisions. While the HRMPO and HRT Board have not disapproved of any TRAFFIX's initiatives to date, the TDM agency has not proposed any services that are outside the traditional commuter and employer-service box. So this actually is untested.

  As part of the Long-Range Transportation Plan, TRAFFIX will hire a third-party management consultant to study and prepare a formal recommendation. This task will include recommendations on the optimal physical locations for TRAFFIX and the optimal makeup and strategic use of TRAFFIX's TDM advisory board.

Collectively, these 10 core strategic imperatives will enable TRAFFIX to become an integral community resource that makes the Hampton Roads' region one of the best places to live and work in America.

4.4 GOALS, OBJECTIVES AND STRATEGIES

4.4.1 Planning Horizons

To help organize and incorporate these 10 strategic imperatives, TRAFFIX has organized planning efforts across three planning horizons: near-, medium-, and long-term planning horizons. These there horizons are outlined in Table 4.1.

Table 4.1 Planning Efforts across Three Planning Horizons

Term	Timeframe	Years
Short-term:	The next six years	2010-2015
Medium-term:	7-15 years	2016-2025
Long-term	16-25 years	2025-2035

Source: TRAFFIX.

The remainder of this document presents the goals, objectives, strategies, and related program elements for each planning horizon.

4.4.2 Coordination with Other Plans and Programs

It is the intent of TRAFFIX's leadership to incorporate this TDM Plan into the region's Long-Range Transportation Plan (LRTP) at the next appropriate mid-term review or updated. It is recognized that this coordination and integration into the LRTP will take time and will follow the established process. To this end, TRAFFIX will work through its Advisory Board and staff at the HRPDC to map out the optimal review and approval process. The end goal is to align this Plan with the Six-Year Improvement Program (SYIP), Statewide Transportation Improvements Program (STIP), Transportation Improvement Program (TIP), and Constrained Long-Range Plan (CLRP).

Until that time, TRAFFIX will follow this Plan. Much of the program strategies detailed in this document have been submitted to the MPO in an outline work plan format for 2010. TRAFFIX has received approval on this current work plan and related budget. So, in effect, the immediate plans detailed in this document are, de facto, acceptable to the MPO.

4.4.3 Process for Developing Goals and Objectives

Prior to this long-range TDM planning effort, TRAFFIX has followed an annual plan with specific 12-month goals, objectives, and strategies. The goals and objectives contained in this Long-Range Plan build on this work. They were developed through a collaborative process involving TRAFFIX's staff with assistance and input from Cambridge Systematics, LDA Consulting, Southeastern Institute of Research (SIR), and Center for Urban Transportation Research (CUTR). The process to identify and refine programmatic goals, objectives, and performance measures included:

- Review of existing TRAFFIX documents to understand the role and services of the program;
- Interviews with TRAFFIX's staff to identify existing and future program needs;
- Review of all comprehensive plans and other documents created TRAFFIX and its member jurisdictions;
- Development of a SWOT analysis based on the reviewed documents;
- Formation of draft TDM goals based on:
  - Existing vision statements and transportation or TDM-related goals and objectives in reviewed documents;
  - Interviews and SWOT analysis; and
  - Review and revision of goals and objectives by TRAFFIX's staff.

During the development of goals, objectives, and performance standards for this plan, the following definitions were used:

- **Goal –** is a broad, qualitative statement of what the agency hopes to achieve.
- **Objective –** is a specific, measurable statement of what will be done to achieve goals.
- **Performance Standard (Measure) –** is a quantitative or qualitative characterization of performance that evaluates the efficiency or effectiveness in conducting business operations.
- **Strategy –** is a statement of the approach or method the program will pursue to attain goals and objectives.

Goals, objectives, and strategies for TRAFFIX over the short-term (over next six years) are listed below.

4.4.4 TRAFFIX's Goals

Following the process described above, five major overarching goals for this Long-Range Transportation Plan were developed. They include:

- **Goal 1: TRAFFIX Is a Model Transportation Agency in Organizational Structure, Leadership, and Impact**. Ensure that TRAFFIX has the expertise, resources, and capacity to be a leading transportation agency. Continue to build the TRAFFIX's Oversight Committee into a force that elevates the status of TDM as a transportation solution. Expand TRAFFIX's physical office presence. Maintain an organizational structure that encourages the most efficient and effective operation of TDM programs, services, and strategic goals as possible.
- **Goal 2: TDM is one of the Major Pillars of the Region's 21st Century Transportation System.** Elevate the importance and use of TDM. Position and promote TDM as a major tenet of the region's strategic transportation plan. Position and promote TDM's role in corporate environmental stewardship – air and water quality and sustainability.
- **Goal 3: TRAFFIX Is THE Recognized Regional TDM Expert.** As TDM will play an increasingly important role in the region's transportation system, TRAFFIX sees itself serving the region. Dramatically enhance TRAFFIX's awareness and familiarity in the regional transportation industry. Elevate the awareness and status of TRAFFIX in the regional business community. Elevate the awareness and status of TRAFFIX among third-party partners and organizations that have a stake in regional transportation and air quality issues. Position TRAFFIX as the expert and regional authority on corporate environmental GHG footprint assessments (run off issues and greenhouse gases related to employees' commutes) and TDM-related solutions.
- **Goal 4: TRAFFIX Offers an Innovative and Diverse Portfolio of Services and Programs Targeting Largest and Most Important Businesses and Organizations in Hampton Roads.** Increase number of business clients, and secure relationships with top 100. Support Hampton Roads' largest industry sectors. Build TRAFFIX's product and service offerings.
- **Goal 5: TRAFFIX Is the Model Transportation Agency When It Comes to Performance Measurement, Reporting, and Return on Investment/Impact.** Continually monitor and assess the performance impact and customer satisfaction of TRAFFIX's specific programs and services. Periodically report the performance impact and customer satisfaction of TRAFFIX's specific programs and services. Establish a formal process to periodically review and update TRAFFIX's annual and long-range plans based on market experience, new opportunities, and feedback from customers and stakeholders.

4.4.5 TRAFFIX's Objectives and Strategies

Table 4.2 outlines the specific objectives and strategies that TRAFFIX will pursue over the short-, medium-, and long-term planning horizons to meet its five goals.

In the short term (one to six years), TRAFFIX will continue to increase its capability, experience, and success with the employer market. In the medium term (7 to 15 years), TRAFFIX will expand the organization's ability to plan and service highly customized employer-based transportation programs through the development of greater in-house green-sustainability expertise. More substantial changes to the region are expected over the long-range timeframe (16 to 25 years). TRAFFIX's core customer groups will likely change as well. Over the long-term, the key to TRAFFIX's sustained growth and relevancy will be directly related to the organization's ability to serve non-employer segments, including the region's aging population.

Table 4.2 TRAFFIX's Objectives and Strategies

1. Goal: TRAFFIX Is a Model Transportation Agency in Organizational Structure, Leadership, and Impact on a Community.

1.1. Objective: TRAFFIX's Oversight Committee's presence and impact.

Short-term Strategies (1-6 years):

1.1.1. Actively recruit Oversight Committee members from the highest levels within organizations.

1.1.2. Develop the Oversight Committee membership to include representatives from TRAFFIX's key stakeholder and customer groups in the Hampton Roads region. For example, recruit Oversight Committee members with expertise and representation in environmental organizations, minority groups, aging, military, physically challenged, and geographic perspectives (Norfolk, Hampton, Virginia Beach, and outlying areas such as Williamsburg).

Medium-term and Long-term Strategy (7-25 years):

1.1.3. Continue to develop the expertise and related impact of the Oversight Committee.

1.2. Objective: Increase TRAFFIX's physical office presence.

Short-term Strategy (1-6 years):

1.2.1. Study the need for regional TRAFFIX service offices in Virginia Beach, Hampton, and Williamsburg.

Medium-term Strategy (7-15 years):

1.2.2. Based on the service office evaluation, open satellite offices as appropriate. Make TRAFFIX THE super-regional resource that is always relevant to local market business and residential needs.

Long-term Strategy (16-25 years):

1.2.3. Assess the value of service locations and make adjustments.

2. Goal: TDM Is One of the Major Pillars of the Hampton Roads Region's 21st Century Transportation System.

2.1 Objective 1: TDM becomes a major component of the region's transportation system.

Short-term Strategy (1-6 years):

2.1.1 Create an advocacy education program to advance TDM as a major component of the region's transportation system. Program components may include:

- Create comprehensive ''TDM Impact'' story that explains what TDM is, how it works, and the impact it makes.
- Include examples of TDM's success in other municipalities. Package case studies on how transportation infrastructure and transportation services, in combination with land use development, play an essential role in defining a community's mobility and accessibility opportunities and influencing travel choices. Also, show linkages to transportation and business vitality through access to materials, workers, customers, and services.
- Bring to life three core pillars of successful integration of land use and transportation:
  - High-density, pedestrian-focused, mixed-used ''Urban Villages'' development pattern
  - Multimodal transportation infrastructure
  - Comprehensive transportation information and assistance services
- Recognize local/regional TDM-related accomplishment and showcase outcomes – ROI. Showcase Hampton Roads' emerging multimedia transportation infrastructure – the MAX, the Tide, etc.
- Share ''TDM Impact'' story across all TRAFFIX's stakeholder groups using in person presentations and social media (Facebook, Twitter, etc.) as an effective and efficient way to communicate to and cultivate a growing supporter base.

Medium-term Strategies (7-15 years):

2.1.2 Continue the Advocacy Education Program. Over time, make the case that TDM is the most affordable and efficient way to maintain the region's mobility and access. Showcase the increasing number of examples of how TDM is helping the region achieve and sustain a comprehensive, safe, and efficient multimodal transportation system.

2.1.3 Identify and train a growing number of TDM ambassadors who can deliver TRAFFIX's TDM Impact Story.

Long-term Strategy (16-25 years):

2.1.4 Potentially, turn the growing number of TDM advocates into a formal association.

3. Goal: TRAFFIX Is THE Regional "Go To" TDM Expert.

3.1 Objective: TRAFFIX will be the principal agency and resource in the Hampton Roads' region for TDM-related planning and implementation. In doing so, TRAFFIX will continue to work closely with VDOT, DRPT, and the MPO to develop effective programs.

Short-term Strategies (1-6 years):

3.1.1 Position TRAFFIX as THE expert in TDM planning and implementation.

3.1.2 Use TRAFFIX's Long-Range TDM Plan as the first step in positioning TRAFFIX as THE expert in TDM planning. Present the TDM Plan to jurisdictions across Hampton Roads.

Medium-term Strategy (7-15 years):

3.1.3 Work with the MPO to incorporate TRAFFIX Long-Range TDM Plan into the region's Long-Range Transportation Plan.

Long-term Strategy (16-25 years):

3.1.4 Explore potential of bringing planning function to TRAFFIX staff.

3.2 Objective: Elevate the awareness and status of TRAFFIX as THE expert in TDM planning and implementation in the Hampton Roads business community.

Short-term Strategies (1-6 years):

3.2.1 Involve corporate senior management (CEO, COO, CFO) of the top 100 largest Hampton Roads employers in addition to human resource managers.

3.2.2 Quantify the bottom line "business impact" of TDM strategies with key partners.

3.2.3 Build an ongoing business-to-business campaign showcasing leading companies and CEOs embracing TRAFFIX/TDM.

3.2.4 Recognizing that population growth and related increase in VMT will continue to affect the region's air and water quality (run off), create programs to assess corporate GHG Footprint and offer TDM related assistance. Incorporate DATA's new GHG corporate calculator into employer outreach practice. Create partnerships with leading business associations and other regional stakeholder groups to advance corporate GHG Footprint assessments and solutions. Potential partners could include:

- Chamber of Commerce
- Society of Human Resource Managers
- Environmental and natural resources groups as appropriate

Medium-term Strategy (7-15 years):

3.2.5 Formulate and launch targeted plans to serve markets including:

- Healthcare
- Education
- Shopping/Retail
- Travel and Tourism
- Military
- Shipping and Shipbuilding

Long-term Strategy (16-25 years):

3.2.6 Evolved TRAFFIX into the optimal organizational structure to deliver TDM expertise to the business community. Evolve TRAFFIX's overall corporate program focus in relation to the relative importance of sustainability and green cause.

4. Goal: Offer an Innovative and Diverse Portfolio of TDM Services and Programs Targeting the Largest Business Organizations in the Hampton Roads Market.

4.1 Objective 1: Increase Teleworking.

Short-term Strategy (1-6 years):

4.1.1 Continue to support DRPT's Telework! VA program, the major telework initiative being implemented across the Hampton Roads region.

Medium-term and Long-term Strategies (7-25 years):

4.1.2 Buildup teleworking sales expertise/consultant resources.

4.1.3 Continue to provide appropriate teleworking program support and marketing.

4.2 Objective 2: Expand TRAFFIX's focus beyond commuter work trips using on-line, self-service trip planning tools and services available for all residents.

Short-term Strategy (1-6 years):

4.1.4 Implement real-time on-line ridematching through expanded use of NuRide. Explore the opportunity to take NuRide beyond employer confirmation requirements. Encourage residents to participate in the system for non-work trips.

Medium-term Strategy (7-15 years):

4.1.5 Introduce and support car sharing service (i.e.: Zip car).

Long-term Strategy (16-25 years):

4.1.6 Monitor customer needs for additional opportunities.

5. Goal: TRAFFIX Is a Model Transportation Agency When It Comes to Performance Measurement, Reporting, and Return on Investment / Impact.

5.1 *Objective 1: TRAFFIX has timely and actionable market-based data and information on the agency's overall and service level performance and impact.*

Short-term Strategies (1-6 years):

5.1.1 Establish overall corporate and service level goals.

5.1.2 Launch comprehensive Performance Evaluation Program.

5.1.3 Continually monitor and assess the overall performance – impact on VMT and emissions, customer satisfaction, and performance of TRAFFIX's specific programs and services.

5.1.4 Regularly report performance evaluation measures to TRAFFIX's stakeholders.

5.1.5 Establish a formal process to periodically review and update TRAFFIX's annual and long-range plans based on market experience, new opportunities, and feedback from customers and stakeholders.

Medium-term Strategy (7-15 years):

5.1.6 Create and maintain performance dashboard reporting system.

Long-term Strategy (16-25 years):

5.1.7 Continue to monitor, assess, and report performance and impacts.

Source: TRAFFIX.

4.4.6 Potential Partnerships

Short-, medium-, and long-term program enhancements will require sustaining relationships with existing transportation partners and building new relationships with a diverse network of partners. These include:

- Department of Rail and Public Transportation (DRPT): DRPT will continue to be an important partner for TRFFIX
- Telework!VA: As telework grows in TRAFFIX's service area, Telework!VA will become an even more important partner.
- HRPDC, MPO, and member jurisdictions: It will be critical to maintain great working relationships with all of the region's transportation network members and local jurisdictions.
- Business Associations: Partnerships will be continued and pursued with business and professional organizations in the community (e.g., Chamber of Commerce) to advance TDM.
- TDM Advocacy Groups: Partnerships should be aggressively pursued with third-party organizations focused on Hampton Roads transportation initiatives and sustainable transportation practices and solutions.

4.5 PROGRAM MONITORING AND EVALUATION

4.5.1 Overview of Past Evaluation

Program evaluation is a function that is often short-changed by TDM agencies, due to insufficient funding to conduct the research and data collection required for comprehensive evaluations. TRAFFIX's efforts to assess the performance of its services and understand customers' needs have been above average among many of the Commonwealth's other TDM agencies.

As noted earlier, TRAFFIX tracks participation in several of its services and solicits regular feedback from ridematching and guaranteed ride home participants through periodic surveys designed to assess the extent to which these services have influenced or assisted participants to start or increase their use of non-SOV modes. TRAFFIX also has conducted numerous periodic studies to assess marketing opportunities and track marketing program performance.

In most cases, these marketing research studies have explored transportation needs of residents and businesses; assessed the impact of TRAFFIX's marketing campaigns in building awareness and familiarity of the agency's services; explored how participants use TRAFFIX's services; measured the level of satisfaction with services; and probed for recommendations for service improvements.

These studies have informed TRAFFIX's marketing programs and led to service refinements and development of new service offers. The best example of this

"research in action" comes from the 2007 Virginia Beach Town Center Impact Study. This congestion mitigation study generated unassailable evidence that an express commuter bus service linking employment centers and park and ride lots held promise. This information helped to launch the MAX.

4.5.2 Current Performance Monitoring

TRAFFIX currently monitors program delivery and performance across a number of fronts. TRAFFIX tracks monthly activity in terms of calls and Web site visits, as well as participation across its services such as ridematching and GHR registrants. The addition of NuRide has brought even greater measurement in terms of match success rates. The goal of this base level performance tracking is to ascertain the number of individuals, companies, carpools, and vanpools served.

As considerable resources are expended in developing the employer market, TRAFFIX's current performance monitoring also includes ongoing assessment of the number of employer partners that fall within each classification and move up or down in engagement ratings.

These hard, ongoing performance measures like GRH registrants and number of employer partners are complemented with periodic assessments of market mindset and marketing performance in shifting that mindset. The current practice is to survey residents who work outside the home three or more days a week. Four waves of this market assessment research have been conducted over the past 10 years. Findings provide TRAFFIX's leadership with an efficient means of monitoring and assessing the effectiveness of TRAFFIX's communications efforts in building a rideshare climate of acceptance and consideration in the Hampton Roads market.

Table 4.3 lists all of the current performance measures that TRAFFIX monitors and evaluates to assess the performance of the Agency.

Table 4.3 TRAFFIX's Current Performance Measures

Resident-Commuter Activities
Total Calls
Total Unique Visitors to Web site
Total Database Matching Registrants
Total Store Visits
Total GRH Registrants
TransitCheck Sales
Employer Partner Activities
Total Employer Clients
4 Rated Employer Clients
3 Rated Employer Clients
2 Rated Employer
1 Rated Employer
Service Calls

Market Mindset – Awareness, Perceptions and Attitudes
Awareness of Rideshare Options
Awareness of TRAFFIX and Its Services
Ratings of Transportation Options and TRAFFIX's Services on Specific Attributes
Factors Influencing Mode Choice
Barriers to Trial
Consideration of Future Use
Service Usage
Usage of Specific Services
Frequency of Use
Length of Time Using

Source: TRAFFIX.

4.5.3 Future Performance Measures

While TRAFFIX's current performance evaluation efforts are helpful is assessing and evaluating program-related activities or outputs, TRAFFIX recognizes the time has come to evolve its overall performance evaluation program to include outcome measurement – the degree TRAFFIX makes a meaningful impact on the community. The need to calculate and report impacts – desired outcomes – will continue to become more and more important as governmental resources get stretched further and limited dollars gravitate to programs with a demonstrated ROI. To this end, TRAFFIX's program manager, the Southeastern Institute of Research (SIR) and LDA Consulting created TRAFFIX's multiyear evaluation program entitled "TRAFFIX's Strategy and Performance Evaluation Assessment Program – May 5, 2009."

TRAFFIX's Strategy and Performance Evaluation Assessment Program

This comprehensive evaluation program is modeled after Arlington County Commuter Services' impact assessment program, one of TRAFFIX's sister TDM agencies. ACCS' program has resulted in research-inspired claims that are now being shared with ACCS' stakeholders. An example of ACCS' research-supported community impact claims as stated in the ACCS 2008 Community Impact Report includes:

> *"Arlington County's TDM programs are directly responsible for eliminating 38,000 car trips every day and 542,000 vehicle miles driven. This reduction in driving translates into 32,000 gallons of gasoline not consumed each day. Conserving this fuel reduced air pollutants by the following daily amounts:*
>
> - *520 pounds of Volatile Organic Compounds (VOCs), a contributor to smog*
> - *318 pounds of Nitrogen Oxide (NO_x), also a contributor to smog*
> - *511,578 pounds of Carbon Dioxide (CO_2)*
>
> *On an annual basis, these numbers add up to a huge impact. During FY 2008, ACCS' TDM programs helped Arlington eliminate 105 tons of pollutants that are*

instrumental in forming smog. And ACCS' programs helped Arlington County residents and employees reduce 64,000 tons of carbon dioxide (CO_2), reducing both their individual carbon footprints and contributing to Arlington's countywide efforts to address global warming through the Fresh AIRE (Arlington Initiative to Reduce Emissions) initiative."

Program Objectives:

TRAFFIX's Strategy and Performance Evaluation Program has two primary objectives. First, assess and report the performance and impact of TRAFFIX's programs/services and document the impact of TRAFFIX's programs and services on eliminating SOV trips, reducing Vehicle Miles Traveled (VMT), and reducing emissions. Second, provide strategic input for TRAFFIX's overall services and program development and ongoing refinement. This includes identifying optimal prospects for individual programs/services; identifying areas for improvement; and identifying unmet needs and program/service development opportunities.

Program Target Audiences:

TRAFFIX's Strategy and Performance Evaluation Program measures program performance and impact across multiple audiences, including:

- Employers;
- Residents;
- Commuter Computer;
- Guaranteed Ride Program;
- NuRide;
- Carpoolers;
- Vanpooler;
- The MAX;
- Teleworker;
- Current Transit Fixed route riders – "Choice" riders and Transit dependent;
- Express service riders;
- TRAFFIX Employer Program;
- TRAFFIXonline.org Web site visitors; and
- Individuals requesting information/assistance.

Future Evaluation Criteria:

TRAFFIX's Strategy and Performance Evaluation Program builds on TRAFFIX's current measures – commuters and employer activities, market mindset and service usage by adding customer service measures and the important outcome measures of VMT and emissions reduction. The list of all key measures is detailed in Table 4.4.

Table 4.4 Future Evaluation Criteria

Resident-Commuter Activities
Total Calls
Total Unique Visitors to Web Site
Total Database Matching Registrants
Total Store Visits
Total GRH Registrants
TransitCheck Sales
Employer Partner Activities
Total Employer Clients
4 Rated Employer Clients
3 Rated Employer Clients
2 Rated Employer
1 Rated Employer
Service Calls
Market Mindset – Awareness, Perceptions and Attitudes
Awareness of Rideshare Options
Awareness of TRAFFIX and Its Services
Ratings of Transportation Options and TRAFFIX's Services on Specific Attributes
Factors Influencing Mode Choice
Barriers to Trial
Consideration of Future Use
Service Usage
Usage of Specific Services
Frequency of Use
Length of Time
Satisfaction
Overall Satisfaction Ratings for Transportation System and Support
Overall Satisfaction Ratings for TRAFFIX
Reasons Behind Ratings
Areas for Improvement
Unmet Needs
Overall Impact – Outcomes
Mode Split
Shifts to Non-SOV Modes Motivated by Use of Services – Trial and Continued
Perceived Benefits of Mode Change – Personal, Business, Societal
SOV Trips Eliminated – Cars Taken Off Road
Regionwide VMT Reduction
Regionwide Environmental Consequences

Source: TRAFFIX.

Phased Implementation Plan

The Strategy and Performance Evaluation Program will be phased in over three years. The initial work will focus on TRAFFIX's individual programs/services. This will include profiling existing users and identifying optimal prospects for individual programs/services, identifying any unmet needs and program/service development opportunities; creating in-depth user/target profiles (demographical and psycho-graphical), identifying barriers and benefits; and measuring performance impacts.

Collected data will then be used to calculate program impacts by specific TRAFFIX program/service and rolled-up into overall agency impact. If resources are available, the Strategy and Performance Evaluation Program will include an on-line "Dashboard" reporting system for internal and public review of TRAFFIX's ongoing performance and demonstrated community impacts.

The last step will involve the construction of an on-line Strategy and Performance Evaluation database for TRAFFIX and HRT – an easy venue to share research reports and program rationale with the general public, constituents, and stakeholders. Table 4.5 shows the components of the Strategy and Performance Evaluation Program.

Table 4.5 Strategy and Performance Evaluation Program Components

Task	Description	Approach	Deliverable
Gather and review all relevant existing "secondary" data	Collect existing research studies to inform TRAFFIX's Strategy & Performance Evaluation Program. Studies will be referenced in Impact report and "housed" on TRAFFIX online research database.	During executive interviews, explain database and ask for appropriate studies. Inventory all available studies. Mine reports for impact inputs and strategy inputs. Note : this initial review of secondary information does not include one page document executive summaries using VDOT-DRPT and ACCS (Arlington) research database format. See subsequent steps.	Inventory of all existing studies and report in PowerPoint chart all relevant impact and strategy insights.
Review VASOC Study for Hampton Roads Data	Review VASOC Study data related to Hampton Roads market	Consultant team will review Hampton Roads data from VASOC Study to identify relevant and meaningful data.	Memo on VASOC-related insights to inform the final Plan

Task	Description	Approach	Deliverable
Stakeholder Interviews & input	Gather input from 20 transportation industry stakeholders across the Hampton Roads region regarding TRAFFIX Strategy & Performance Evaluation Program.	Identify 20 interview targets. SIR schedules all interviews. SIR & LDA conduct 45-minute interviews using approved interview guide. During the interview, interviewer will explain that TRAFFIX is conducting a performance and impact assessment and that interviewee will receive a copy of the preliminary plan for comment/input.	Topline PowerPoint Report on key insights and suggestions from stakeholder interviewees.
HRT Rider Satisfaction & Impact Assessment	Assess HRT's riders satisfaction to gain preliminary assessment of HRT's impact and rider satisfaction, and performance gaps between expectation and actual service performance.	Analyze rider data recently collected by SIR during HRT's COA. See next page in this document for information collected.	A 30 page + PowerPoint Report – draft 1 by June 30
Formal Evaluation Plan Document	The formal document that lays out the details behind the TRAFFIX Strategy & Performance Evaluation Program.	Create formal Plan based on input from stakeholder interviews, availability of existing research, TRAFFIX's staff discussions on performance indicators, budgetary resources, and consultants recommendations. Send plan to all interviewees or present at PDC meeting	A 40 page + PowerPoint Report – Formal Plan draft submitted by August 31. Final Plan with TRAFFIX's staff input delivered by September 30.
Miscellaneous Expenses	Cost center for out-of-pocket expenses related to Evaluation Plan Development: May-September 2009.	Out-of-pocket expenses include minimal travel at DRPT's per diem rate, copies for deliverables/reports.	NA
Hampton Roads Business Leader TDM Impact Assessment	Assess region's business leaders' perceptions on the role and impact of TDM on their business and the overall business climate in Hampton Roads	Internet survey n=200 to 300 Partner with Chamber and/or other business group(s).	PowerPoint Report

Task	Description	Approach	Deliverable
Hampton Roads Resident Transportatio n/TDM Impact (on region's Quality of Life) Assessment	Assess region's residents' perceptions on the role and impact of transportation system, in general, and TDM, in particular, on the region's quality of life. Assess awareness, familiarity of TRAFFIX/HRT.	Telephone survey among 500 random sample of residents in the region (commuters who work outside the home 3 or more days a week) 15 minute n=500	PowerPoint Report
HRT Bus Riders Impact Assessment	Marketing information from latest HRT Study.	If adequate, use information collected from HRT's 2009 COA	PowerPoint Report
The MAX Service Riders Impact Assessment	Assessment of MAX program use, satisfaction, impact on mode choice, and conversion of SOV.	"Seat drop" – written survey distributed on buses	PowerPoint Report
TRAFFIX's Employer Outreach Program Impact Assessment	Assess usage - number and type of commute services offered by employer and satisfaction with TRAFFIX's employer programs. Measure impact on employees' commute. Translate into VMTs reduced and green house gases reduced.	Mail and online 12 minute survey to database of current program participants. Telephone follow-up to remind and encourage participation.	PowerPoint Report
Ridematching Services/Guar anteed Ride Program Impact Assessment	Will include both carpool and vanpool program use, satisfaction, impact on mode choice, and conversion of SOV.	Telephone/internet survey to database of current participants	PowerPoint Report
TRAFFIX Web site Impact Assessment	Use, satisfaction, impact on mode choice, and conversion of SOV.	Pop-up online survey of site visitors	PowerPoint Report

Task	Description	Approach	Deliverable
TRAFFIX Commuter Store Impact Assessment	Use, satisfaction, impact on mode choice, and conversion of SOV.	Intercepts at commuter store for 3 minute survey. Collect email addresses for online 10 minute survey follow-up	PowerPoint Report
TRAFFIX'S Impact Report	TRAFFIX Strategy & Performance Evaluation Program overall formal report – 16 page annual-report like document	Create 16-page formal document modeled of ACCS' formal report.	Formal report document copy, tables, and charts ready for graphic layout refinement and printing.
Online Research Database	Easily accessible online database of all research pertaining to TRAFFIX and HRT. Includes Knowledge Papers to show how entire program is research-based and constantly tracked to assess impact, return on investment, and offer insights into program refinement.	Model database after VDOT's and ACCS' online research databases. Executive Summaries crafted for every research report. Program whitepapers created to show research-supported program planning and refinement.	Fully operational Web site tied to TRAFFIX's site. Includes all Web site copy, design, writing of executive summaries/knowled ge papers ,and posting of all related documents (reports, questionnaires, etc.)
Making an Impact PowerPoint Presentation Roadshow	PowerPoint presentation for TRAFFIX's team to share TRAFFIX Strategy & Performance Evaluation Program (related research insights and impacts with key stakeholders).	Create this presentation deck as a multi-slide resource for TRAFFIX's staff to create mini-presentation based on audience needs. Update this master deck as new studies are finalized.	PowerPoint deck
Marketing Dashboard	Create systematic reporting system	Once performance indicators are agreed, set up an Excel spreadsheet with graphics to populate key measures. Populate and update Dashbaord as data becomes available.	Initial Dashbaord design and launch

Source: TRAFFIX.

In addition to these research-based program components, impact data from TRAFFIX's participation in the NuRide Program will be monitored, analyzed, and reported.

Evaluation Program Priorities and Resources

The scope of the TRAFFIX Strategy and Performance Evaluation Program should be viewed as a long-term, three-year program. Prioritization of evaluation performance data should be made based on the areas where the greatest impacts are expected and on the need to obtain strategy input to drive program development and refinement are needed most.

TRAFFIX's Strategy and Performance Evaluation Program is viewed as an investment in TRAFFIX's long-term ability to assess and demonstrate its community impact, as well as a way to continuously improve its programs and services. As such, the agency is funding this program at the appropriate level, but in keeping with the general rule of thumb followed by corporate marketing programs of allocating five percent to 10 percent of total marketing resources toward performance evaluation and service development.

5.0 Financial Plan

5.1 CURRENT FINANCIAL RESOURCES

This section presents the current and most recent budget and funding sources for the TRAFFIX TDM program.

5.1.1 TRAFFIX's Current Operating Budget

TRAFFIX's FY 2010 budget is detailed in Table 5.1. This budget covers the period September 2010 through August 2011.

Table 5.1 TRAFFIX's FY 2010 Operating Budget

Description	Proposed FY 09-10
Salaries and Wages	$450,000
Fringe Benefits	
Total Salaries and Benefits	**$450,000**
TDM Professional Services	$ 150,000
Total Services	**$150,000**
Materials and Supplies	$ 50,000
Total Materials and Supplies	**$50,000**
Phone Lines, Utilities	$21,000
Total Utilities	**$21,000**
Travel/Meetings	$15,000
Media Advertising Expense	$277,000
Computer Hardware	$3,500
Computer Software	$3,500
Guaranteed Ride	$ 30,000
TDM Guarantee Ride Commuter	
Total Miscellaneous	**$329,000**
Total Expenses	**$1,000,000**

Source: TRAFFIX.

As a result of being housed within HRT, TRAFFIX has benefited greatly from the shared resources such as overhead costs, human resources, facilities rent, and financial services support.

Table 5.2 shows the breakdown of TRAFFIX's operating budgets over the last two years by major category. The majority of funds are dedicated to program administration and marketing of non-SOV transportation options.

Table 5.2 TRAFFIX's FY 2009-2010 Operating Budgets

Expenses	FY 2009	FY 2010
Operations/Administration	$450,000	$450,000
Marketing	$537,000	$505,000
Incentives/Subsidies	$25,000	$30,000
Other	$13,000	$15,000
Total	**$1,000,000**	**$1,000,000**

Source: TRAFFIX.

5.1.2 TRAFFIX's Current and Historic Source of Funding

TRAFFIX's primary funding source has been Congestion Mitigation and Air Quality (CMAQ) grant funding. This grant is awarded to HRT and TRAFFIX through the HRPDC as a discrete annual project grant.

The grant amounts received from funding sources over the recent past are shown in Table 5.3. It is important to note that unlike most, if not all, TDM agencies across Virginia, TRAFFIX has not used the grant funding offered by the Department of Rail and Public Transportation – the annual grant program that requires a local 20 percent match grant.

Table 5.3 TRAFFIX's FY 2009-2010 Operating Revenue Sources

Income	FY 2009	FY 2010
CMAQ	$1,000,000	$1,000,000
State TDM Grant	$0	$0
Local Funds	$0	$0
Total	**$1,000,000**	**$1,000,000**

Source: TRAFFIX.

5.2 FUTURE FINANCIAL RESOURCES

The following section outlines TRAFFIX's potential funding sources for the short-, mid-, and long-term to fund the financial needs as identified in Table 4.2 – TRAFFIX's Objectives and Strategies.

For the purpose of this Long-Range TDM Plan, constrained and unconstrained funding scenarios are considered.

The constrained scenario assumes that CMAQ funding for the program will remain constant over the first six-year covered by this plan. This funding scenario will allow TRAFFIX to continue its current programs, but will not enable TRAFFIX to increase staff salary and benefits or to expand programs.

The unconstrained scenario considers funding requirements to enhance TRAFFIX's existing services and initiate new programs assuming additional funding sources can be identified and funds are secured.

Constrained Program Description

In the constrained scenario, TRAFFIX's annual budget will remain constant at approximately $1 million per year over the short-term. No expansion of existing programs or implementation of new programs will occur unless additional local funds are made available or new state and Federal funding sources are identified.

Table 5.4 shows TRAFFIX's expenses by functional area over the next one to six years given a constrained funding scenario – no annual increases.

Table 5.4 Constrained Short-Term Program Expenses ($000)

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
Program Operations/Admin	$450	$450	$450	$450	$450	$450	**$2,700**
Marketing	$505	$505	$505	$505	$505	$505	**$3,030**
Incentives/Subsidies	$30	$30	$30	$30	$30	$30	**$180**
Other	$15	$15	$15	$15	$15	$15	**$90**
Total	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$1,000**	**$6,000**

Source: TRAFFIX.

Table 5.5 shows the services that would be expanded and programs that would be added to TRAFFIX's baseline program over the short-term timeframe (one to six years) if additional grants and funding become available.

Programs are distributed over the six-year time period based upon priority and readiness for implementation. Improvements are also distributed to maintain a relatively stable increase in funding requirements.

Table 5.5 Unconstrained Short-Term Program Expenses ($000)

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
Program Operations/Admin	$450	$460	$550	$560	$570	$670	**$3,260**
Marketing	$505	$585	$685	$765	$895	$985	**$4,420**
Incentives/Subsidies	$30	$35	$40	$45	$50	$55	**$255**
Other	$15	$20	$25	$30	$35	$40	**$165**
Total	**$1,000**	**$1,100**	**$1,300**	**$1,400**	**$1,550**	**$1,750**	**$8,100**

Source: TRAFFIX.

The unconstrained budget calls for significant increases in operations, administration, and marketing resources. Major funding increases will be directed in the following manner.

Operations – Over the short-term, the primary focus of TRAFFIX will be the continued development of employer clients by focusing on the region's largest organizations. Staff will continue to advance the role of TDM in local and regional planning and development, as well as develop GHG-environmental impact expertise. Additional staff resources will be added as the program grows and becomes even more focused on green and sustainability solutions related to employer-based transportation programs. It is anticipated that an additional FTE staff member will be added in 2012 and another FTE added in 2015. These new staff members will have green-sustainability corporate audit expertise.

Marketing – Starting in FY 2112, the unconstrained funding scenario will afford significant *annual increases* in both business-to-business and direct to commuter marketing programs. However, as TRAFFIX will continue to market to the general public cultivating a greater understanding and support for TDM and ridesharing, more and more resources will shift to TRAFFIX's business-to-business marketing outreach efforts. The goal is to advance TDM as a key business "best practice" – one that not only helps business' bottom line, but also the entire community. This focus will further leverage TRAFFIX's limited financial resources and increase its overall impact.

5.3 FUTURE FUNDING SOURCES

The unrestrained budget represents a significant increase in TRAFFIX's financial resources. Where could these additional resources come from? The likely answer will be multiple sources; and the potential for this to develop will only happen if TRAFFIX explores the possibilities.

To this end, TRAFFIX's TDM Plan calls for a planning process to identify alternative future funding sources. As noted earlier in this document, in FY 2010, TRAFFIX will work with its Advisory Board, HRT, HRPDC, and other key stakeholders to formally discuss and explore possibilities. Examples of the kinds of potential funding sources that may be explored include:

Fees from TRAFFIX's Employer Services – Expanded employer services such as the GHG emissions footprint assessments could afford TRAFFIX a small, but long-term revenue source. This may become even more realistic as TRAFFIX adds the corporate GHG Footprint Calculator assessment tool and audit process to its toolbox. Potentially, TRAFFIX could partner with the Chamber to conduct a formal, fee-for-service environmental footprint audit for businesses similar to the program being conducted in Roanoke that includes RideSolutions, TRAFFIX's sister agency, as the transportation-related GHG footprint program expert.

Fees from TRAFFIX's Consulting Services – Over the past year, TRAFFIX has helped numerous public and private entities formulate transportation-related plans. There may be an opportunity in future relationships to garner an in-kind fee or reimbursement that could leverage TRAFFIX's resources. For example, direct and considerable assistance with colleges could be rewarded by free on-campus advertising for TRAFFIX's marketing efforts.

HRT-TRAFFIX Funding/Revenue-Sharing and Cost-Sharing Arrangements – Over the years, HRT and TRAFFIX have worked closely together in the implementation of TRAFFIX's overall program. Furthermore, there is obvious overlap of HRT's and TRAFFIX's programs and services such as the MAX commuter bus service. Accordingly, TRAFFIX subsidizes or directs program funding resources back to HRT. Many of these funding decisions, however, were made independent of one another and done so during dramatically different times of investment in TRAFFIX's overall operation. As this TDM Plan helps to move TRAFFIX to a more predictable and sustainable funding level, the task of identifying alternative funding sources should also include a re-examination of current HRT-TRAFFIX funding/revenue-sharing and cost-sharing arrangements.

As an example, one area to consider is the HRT-TRAFFIX's vanpool program. HRT and TRAFFIX both cover vanpool-related expenses, yet all of the vanpool-related revenue is directed to HRT. TRAFFIX's budget fully funds the one FTE position that manages the vanpool program, covers all wreck-related costs (clean up and administrative costs), and covers all costs related to customer-related request for van upgrades (like running boards, emergency cones, flashlights, etc.). While it may have made practical business sense when this cost-sharing arrangement was initially put in place (in this case, perhaps for insurance underwriting reasons), is this still the optimal way to handle the HRT-TRAFFIX vanpool funding/revenue and cost-sharing arrangement today?

Corporate Sponsorships – The potential of dramatically building TRAFFIX's value proposition for several of the largest employers in the region may present an opportunity to apply for grant funding from the employers' foundations.

These are just a few examples of potential revenue sources beyond CMAQ that TRAFFIX will explore with its Advisory Board, HRT, HRPDC, and other key stakeholders. Any new revenue sources that result will be incorporated into updates of this document – TRAFFIX's Long-Range TDM Plan.

6.0 Summary

The Planning Process

Since the program's inception in 1995, this Long-Range Transportation Demand Management Plan represents the first-ever attempt at a comprehensive review of the program, its role in the region, and vision for growth. The direction and focus this plans provides will be critical in helping the program improve its performance, service delivery, awareness in the community, and, most importantly, its impact.

At the same time, those qualities have allowed – one might say "forced" – TRAFFIX to be nimble and innovative in finding new avenues for promotion and innovative partnerships. In particular, TRAFFIX's advertising program has won numerous awards.

This plan, and subsequent revisions, will continue to refine and balance the need for a strong long-term vision, as well as provide the flexibility for the program to take advantage of new opportunities as they arise.

As TRAFFIX looks to the future, it will stay "on mission" – to assist in the region's collective efforts to decrease traffic congestion by reducing the number of Single Occupancy Vehicles (SOVs) commuting to work by encouraging greater use of ridesharing modes – transit, carpools, and vanpools – and by encouraging the use of alternatives to driving such as teleworking, compressed work weeks, walking and bicycling.

Given all of the long-term market trends, especially the heightened focused on transportation as a key sustainability strategy and TDM as a "best practice" business strategy, TRAFFIX is poised to make a significant impact on the Hampton Roads region for years to come.