

THE 2011-2014 TRANSPORTATION IMPROVEMENT PROGRAM



Bridging OUR COMMUNITIES

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The Transportation Improvement Program (TIP) is the implementation device for the Regional Transportation Plan (RTP). It identifies all regionally significant transportation projects proposed for implementation in the next four-years in the Houston region, project costs and federal, state and local funding sources. The TIP includes capacity expansion for roadway, transit and bike facilities, as well as operational and service improvements such as signal synchronizations, intersection reconfiguration, freeway ramp modifications, new bus routes, etc. The 2011-2014 TIP contains more than nine hundred transportation projects totalling over \$9.8 billion to maintain, enhance and expand the regional transportation system.

In developing the 2011-2014 TIP, the region's policy makers emphasized that the best projects are those that address a variety of transportation needs. Toward that end, projects were selected for inclusion in the TIP if the scope of work will result in traffic flow improvements, air quality benefits, enhanced multimodal options, and safety and security improvements for travelers. As a result, the 2011-2014 TIP is a priority list of projects that have the greatest impact on regional mobility and advance the five goals of the 2035 RTP.

SYSTEM EXPANSION AND PRESERVATION

TRANSIT

In a region with a population greater than 5 million residents and growing, there is an increasing need for reliable public transportation. A recurring comment from the public regarding transportation plans is the desire for more transit options across the region.

FOR MORE INFORMATION GO TO WWW.H-GAC.COM/TRANSPORTATION.

2035 RTP GOALS

- Improve mobility and reduce congestion
- Improve access to jobs, homes and services
- Increase transit options
- Coordinate transportation and land use plans
- Create a healthier environment

2011-2014 TIP PROGRAM AREAS

- System Expansion and Preservation
- Demand Management and Air Quality
- Operations Management

The 2011-2014 TIP programs over \$4.5 billion for projects that enhance and expand the existing public transportation service network. The most significant transit investment in the TIP will be the implementation of five light rail lines: the North, East End, Southeast, University and Uptown lines identified in METRO Solutions. Other important transit investments include additional service routes, more direct express services, and the initiation of an alternatives analysis for high-capacity transit services in the US 90A corridor south of the Texas Medical Center. This study

PROJECT SELECTION PROCESS

Projects in the 2011-2014 TIP have been identified as priorities for the Houston region through a cooperative transportation planning process. That federally mandated process and the role of various regional entities is generalized below:

1. Projects included in the Plan and subsequently in the TIP, are identified by projects sponsors, namely the state and local government entities. H-GAC assists sponsors in developing projects in a number of ways, including developing demographic forecasts for the region and conducting planning studies that identify infrastructure and service improvements needs.
2. Prior to inclusion in the Plan, H-GAC staff evaluates projects in terms of regional benefits and consistency with fiscal and air quality constraints. This effort is undertaken with various subcommittees and in conjunction with local governments.
3. Once a project is included in the Plan, it proceeds through the development process. This includes environmental review, design, preliminary engineering, and right-of-way acquisition, as appropriate. For any given project, a variety of agencies, as well as the public, are involved in reviewing plans, designs and funding strategies at various stages in the development process. Large infrastructure projects often have several sources of funding from all levels of government (federal, state and local).
4. H-GAC staff and TPC committees evaluate projects based upon criteria approved by the TPC. Projects selected by the Texas Transportation Commission, including transit projects, are included in the TIP subject to TPC concurrence.
5. Once the TIP is adopted, it is included in the Statewide TIP (STIP). The STIP is approved by federal agencies.
6. Public comment on the Plan, TIP and STIP are required prior to final adoption.

Transportation needs identified



Projects sponsored by cities, counties and transportation agencies



Regionally significant projects evaluated and included in the Regional Transportation Plan (RTP)



RTP adopted by the TPC



Highest priority projects evaluated and ranked for inclusion in the Transportation Improvement Program (TIP)



TIP is adopted by TPC



TIP is combined into the Statewide Transportation Program, approved by the Texas Transportation Commission

complements those already underway in the US 290 (Northwest) and SH3 (Southeast) corridors, and advances the vision of region-wide commuter rail service outlined in the 2035 RTP.

While METRO is the largest provider of public transportation in the region, other counties and service providers have been responding to the growing needs and requests for transportation beyond the METRO service area. The 2011-2014 TIP includes bus service expansion in Fort Bend, Brazoria, Galveston, Montgomery and Harris Counties.

ROADWAYS

This program area consists of all investments for construction, widening, rehabilitation and maintenance of the region's roadway system. At just over \$5.4 billion, it represents the largest program category in the 2011-2014 TIP.

PRESERVATION AND MAINTENANCE

Cost for maintaining and rehabilitating the roadway and transit systems continue to rise as facilities age. The 2035 plan indicates that, over time, added capacity projects will decrease as a share of total expenditures relative to system preservation costs. Routine maintenance of roadways, bridges, overpasses, transit stations and transit routes will also account for an increasingly greater share of expenditures as these systems expand.

MAJOR CORRIDOR PROJECTS

Transit & Livable Centers

- Transit Capital – \$4.6B
- Transit Service – \$53M
- Livable Centers – \$39M

Demand Management and Air Quality

- Clean Vehicles – \$25M
- Demand Management – \$11M
- Pedestrian/Bicycle Improvements – \$77.6M

Operations Management

- ITS (Regional) – \$143M

System Development and Preservation

SH 99 – \$1.6B

- Construct Segments E, F1, F2
- Construct grade separations and approaches along Segment D
- Design Segments C and G

Hempstead Hwy – \$965M

- Design and construct 4 managed lanes from Jones Rd. to Mangum, 2 lane frontage roads, and detention ponds
- Design 4 managed lanes from Huffmeister to Jones Rd.
- Widen segment from 12th to Washington to 6 lanes

Hardy Downtown Connector – \$423M

- Construct extension of Hardy toll Rd. from Loop 610 to US 59

BW 8 – \$120M

- Widen southwest segment From US59 S. to SH 288

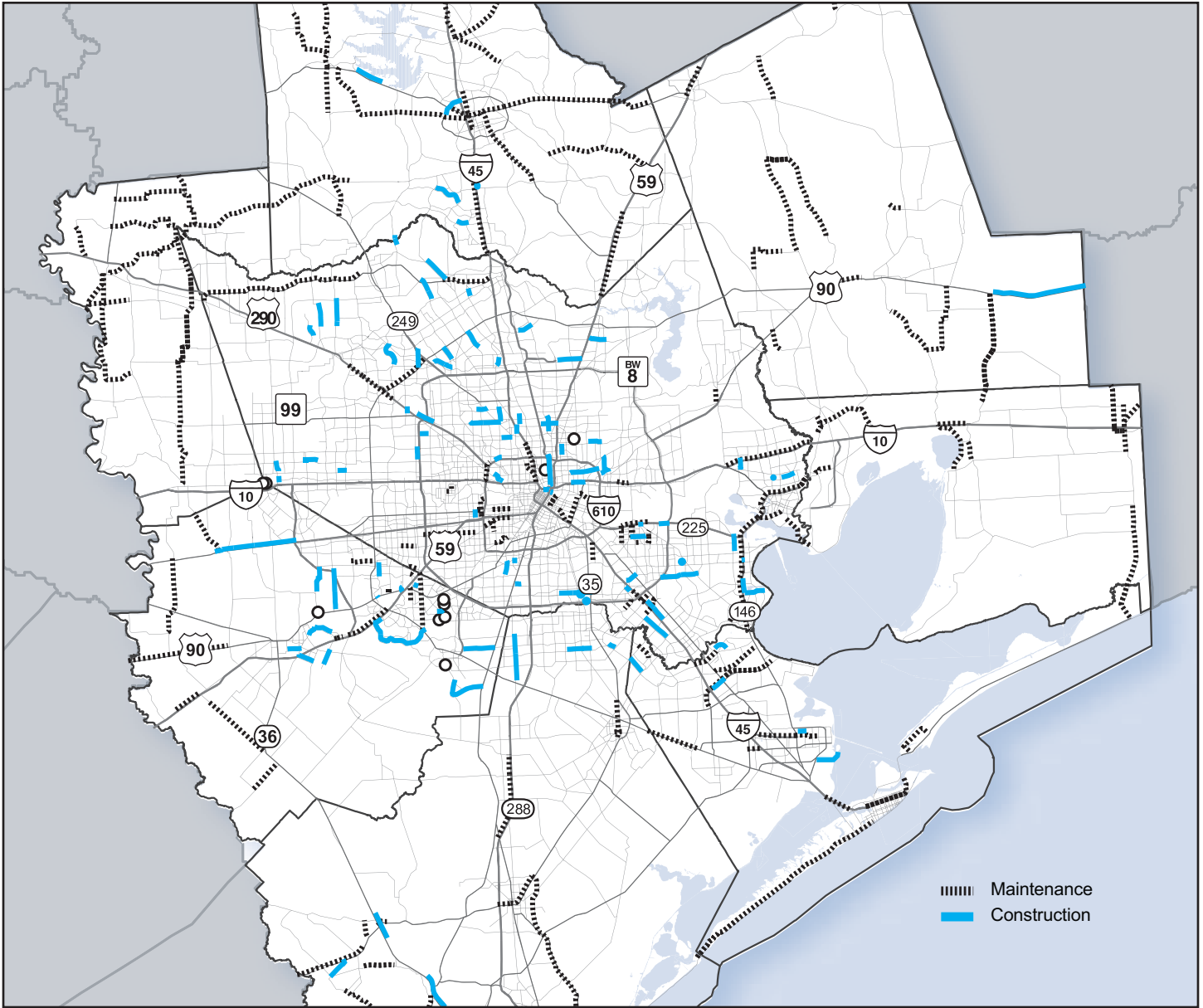
SH 36 – \$31.1M

- Widen sections in Brazoria County

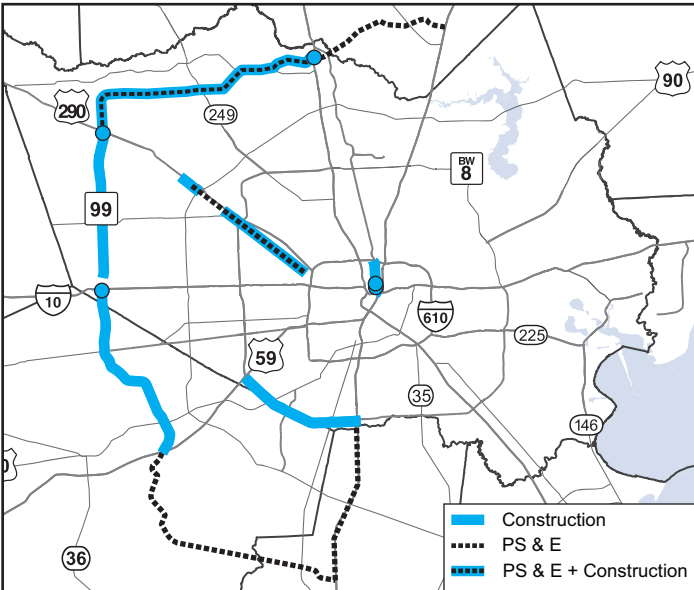


Photo: Courtesy of METRO

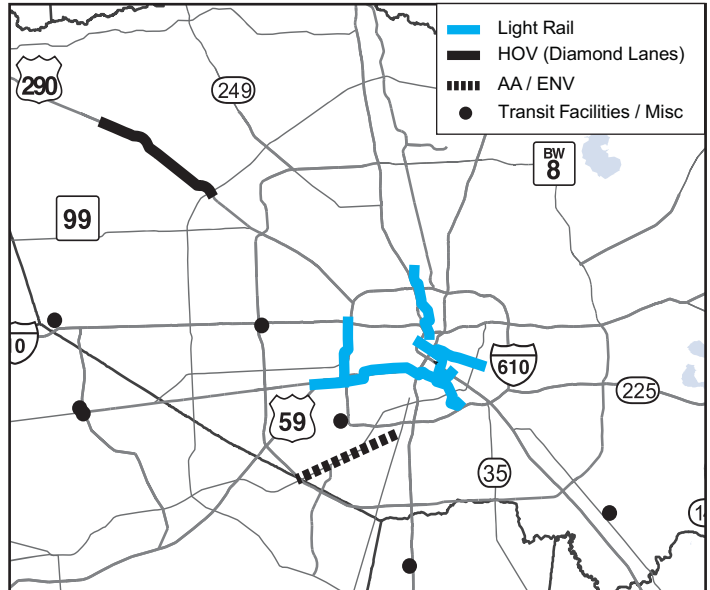
ROADWAY ADDED CAPACITY AND MAINTENANCE PROJECTS



TOLLWAY PROJECTS



TRANSIT PROJECTS





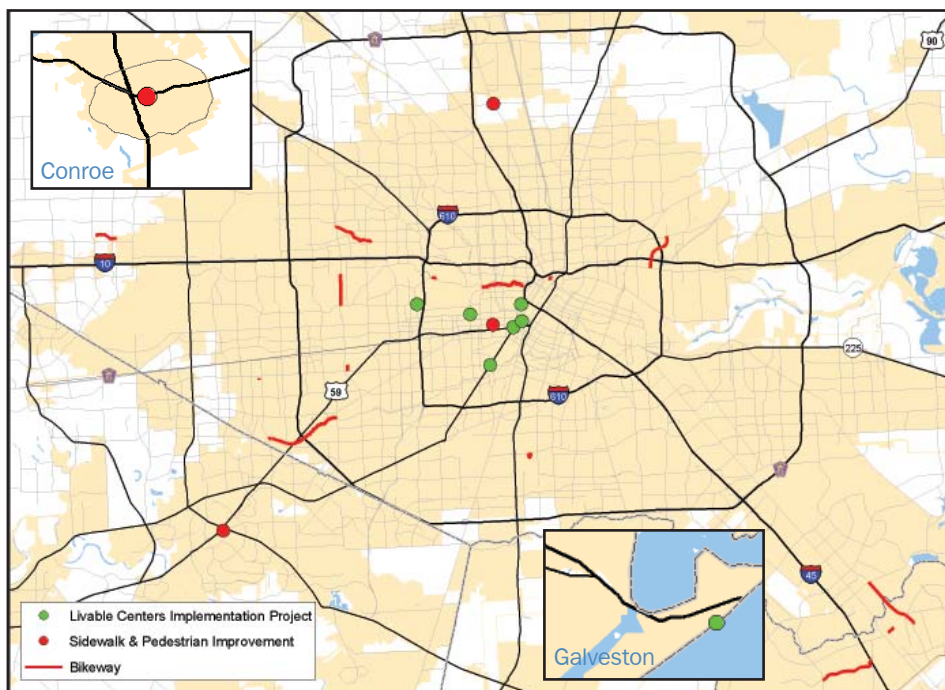
METRO's Bike on Buses program has seen a steady rise in activity over the last three years. Boarding for the first quarter of FY '10 increased by more than 34 percent over the same period last year.

BICYCLE AND PEDESTRIAN

Improving connections between modes of travel and destinations is a primary objective of the 2011-2014 TIP. The TIP invests \$77.6 million in bicycle and pedestrian improvements. Significant bicycle and pedestrian projects funded in the 2008 TIP include:

- Sugar Land Town Center: \$2.8 million
- Airline District: \$3.2 million
- Montrose Neighborhood: \$2.0 million
- Keegans Bayou trail: \$5.8 million
- Buffalo Bayou trail: \$5.4 million
- West White Oak Bayou trail: \$5.4 million
- Midtown Houston: \$2.5 million

PEDESTRIAN, BICYCLE AND LIVABLE CENTERS PROJECTS



LIVABLE CENTERS

Among the challenges in developing a regional transit system is the ability to establish service in areas that can generate consistent ridership. One of the solutions to that challenge is transit-oriented development known as Livable Centers. The 2011-2014 TIP invests \$39 million dollars for the implementation of Livable Centers. This investment will facilitate the creation of new town centers that will provide closer live-work-play options.

Examples of Livable Centers in our region include The Woodlands Town Center and Sugar Land Town Center, both described in national publications as "Best Places to Live."



These centers include bicycle, transit, and pedestrian elements that reduce the vehicle trips needed within local areas and reduce the demand on existing thoroughfares. Ideally, Livable Centers projects may be a part of a community's vision for itself helping define its identity and character.

- Uptown Pedestrian Streetscapes: \$18.5 million
- Seawall Blvd: \$7.7 million
- City of Conroe: \$12.4 million

DEMAND MANAGEMENT AND AIR QUALITY

Travel demand management projects are designed to reduce demand on our roadways during peak travel periods.

COMMUTE SOLUTIONS



The largest demand management program in the 2011-2014 TIP is called Commute Solutions. The Commute Solutions program offers incentives for individuals to use carpools and vanpools as an alternative to driving alone. Commute Solutions also offers incentives to employers to promote carpooling, vanpooling and teleworking for their employees. The 2011-2014 TIP invests \$11 million dollars in the Commute Solutions program.

CLEAN AIR ACTION

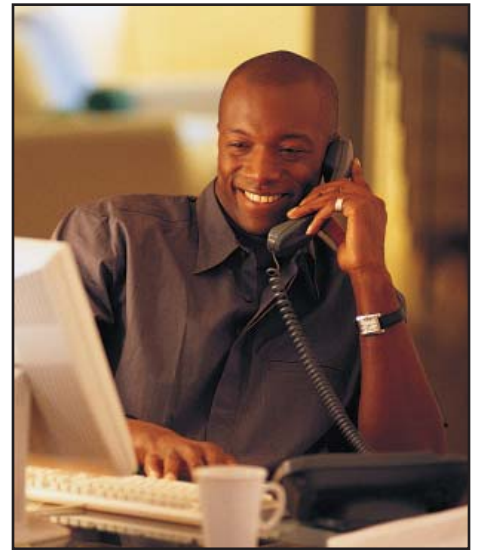


Clean Air Action is a federally funded public education program that focuses on the health hazards of exposure to ground level ozone, otherwise known as smog from on-road motor vehicles. The 2011-2014 TIP programs \$2.5 million for Clean Air Outreach.

CLEAN VEHICLES



The Clean Vehicles Program provides grant assistance to public and private fleet managers for the retrofit and replacement of older diesel engines. Over the past five years, H-GAC's Clean Vehicles Program has replaced over 2,045 heavy-duty engines and developed several alternative fueling stations while generating reductions of approximately 1,089 tons per year of NOx. The 2011-2014 TIP programs \$25 million for Clean Vehicles.



Starting and expanding a telecommuting program in your workplace can improve employee performance, reduce costs, and save valuable time.

Photo: H-GAC



The H-GAC Drayage Loan Program is a low interest loan program that enables eligible truck owners to finance the purchase of newer, cleaner and more environmentally-friendly trucks.

OPERATIONS MANAGEMENT

Operational projects aim to improve system efficiency. Operations management projects tend to be relatively low cost improvements that often have significant benefits in terms of improved traffic flow and safety. The 2011-2014 TIP programs over \$400 million dollars for projects designed to improve traffic flow on existing roadways.

ACCESS MANAGEMENT

Traffic flow strategies, often called access management, include synchronizing traffic signals, improving informational signs along roadways, extending turning bays, consolidating driveways and constructing raised medians. Access management is intended to reduce conflict points along thoroughfares and move traffic more efficiently without adding additional through lanes. These improvements benefit regional air quality by reducing delay and idling. They reduce vehicle conflict points thereby improving system safety.

GOODS MOVEMENT

The 2035 RTP forecasts a three-fold increase in the movement of goods through the region by 2035. In an effort to address this issue the TIP includes projects that will improve access to the region's marine ports. The 2011-2014 TIP funds freight traffic improvements into and out of the Port of Houston as well as improvements to the roads that access and connect



Photo: H-GAC

The purpose of the Regional Goods Movement plan is to enhance regional freight mobility, develop a safe and efficient goods movement system, and mitigate goods movement system impacts where possible.

the Port to neighboring communities. These improvements will reduce wear-and-tear on local streets and improve traffic safety in neighborhoods. Regionally significant operations management projects include:

- SH 6 Access Management Phase II Improvements: \$3.4 million
- FM 1093 Access Management treatments: \$5.6 million
- Traffic signal improvements, including \$120 million within Harris County: \$128 million
- Loop 610 and SH 288 construction of emergency connectors into the Texas Medical Center: \$4.2 million

FINANCING THE 2011-14 TIP

REVENUES

Projects in the 2011-2014 TIP are financed through a combination of federal, state, and local revenues. Each project included in the TIP must have an identified funding source. The funding must come from reasonably expected revenues available from federal, state and local sources. Local sources account for more than 70 percent of the revenue for projects in the 2011-2014 TIP. Local revenue sources include METRO's sales tax revenue, toll revenue, county and municipal property tax receipts, bond programs and user fees.

State funding comes from the state motor fuels tax, vehicle registration fees, pass-through financing agreements and other state allocations. Projects that are funded entirely with state funds are selected by the appropriate Texas Department of Transportation district or by the Texas Transportation Commission at the statewide level.

The federal dollars programmed in the 2011-2014 TIP are primarily derived from allocations from the Federal Highway Administration and Federal Transit Administration. The majority of the federal dollars programmed in the TIP require a local match from project sponsors. In most cases federal funds for projects require a minimum 20 percent local match.

EXPENDITURES

With a total cost exceeding \$9.8 billion and more than 900 projects, the 2011-2014 TIP is one of the largest TIPs in the nation. It surpasses the budgets of several state departments of transportation. The costs for the major state facilities programmed in the 2011-2014 TIP include right of way acquisition, environmental mitigation and other direct costs, as well as construction costs. Revenues and costs for the 2011-2014 TIP are also reported in year of expenditure dollars for the first time.

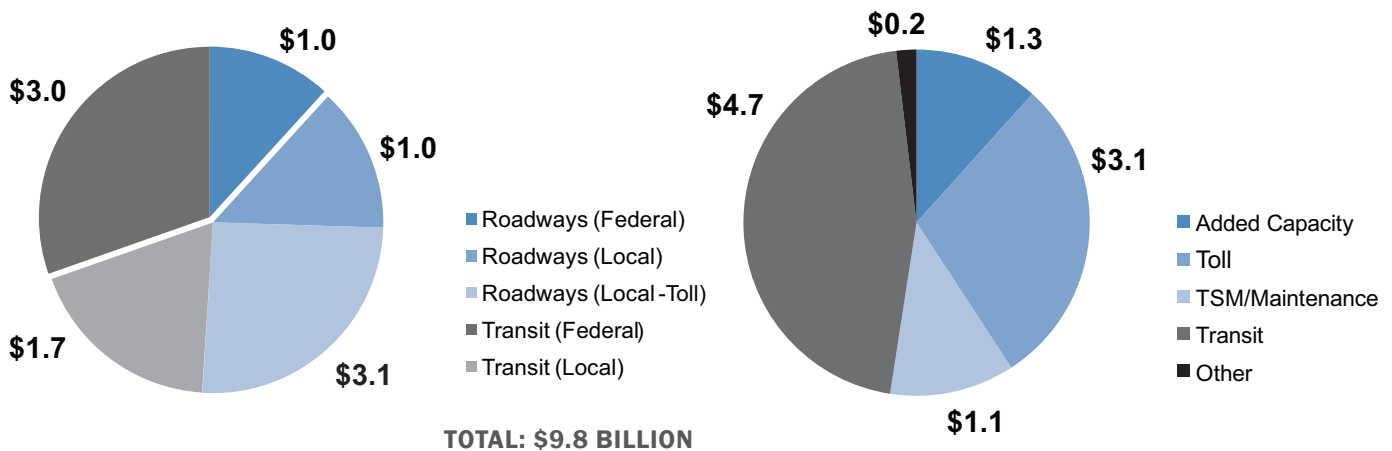
FUNDING OUTLOOK

At present, the revenue forecast has been revised downward due to the current economic recession. While this trend is not expected to continue indefinitely, its effect on the 2011-2014 TIP is pronounced. Beyond 2014, other factors are having a significant impact on revenue streams, most notable of which are the state and federal spending cuts due to the depletion of the Highway Trust Fund.

Beyond that, there are systemic problems in the way transportation expenditures are currently funded. The state and federal motor fuels taxes are the largest sources of transportation funding. However, rising fleet fuel efficiencies will significantly erode tax receipts in the future as less fuel is consumed. Also, the motor fuel taxes are static and lose purchasing power each year due to inflation. Action at both the state and federal levels is needed to overcome these funding obstacles. Two options for raising additional revenues that can be done locally are to increase user fees and toll rates, as well as miles of roadway subject to tolling.

A long-term, systemic solution for transportation funding is the adoption of a vehicle miles traveled tax (VMT tax) while eliminating the conventional motor fuels taxes. There are several obstacles that still need to be worked out before a VMT tax could be implemented, and overcoming these would likely require federal action.

Until new revenues sources are developed or the stability of current sources is improved, the long range outlook for transportation funding will continue to weaken.



The Houston-Galveston Area Council (H-GAC) is a voluntary association of local governments and local elected officials in the 13-county Gulf Coast Planning Region. The Gulf Coast Planning Region consists of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton counties. Organized in 1966, H-GAC provides a forum for the discussion of area-wide concerns, promoting regional cooperation through comprehensive planning and services to local governments.