

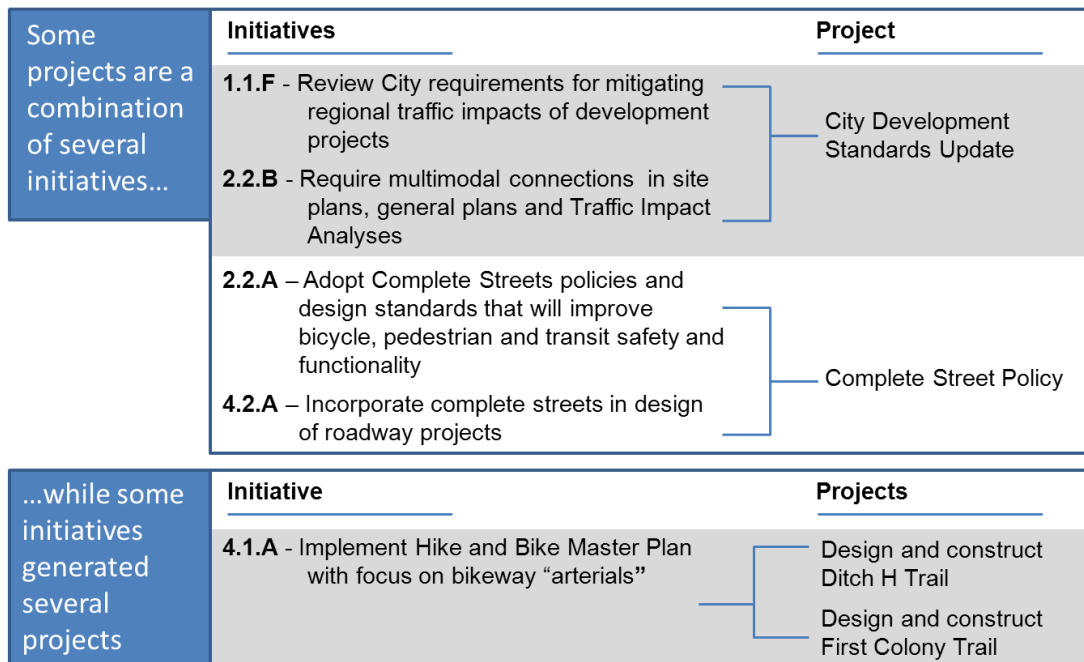


Implementation and Performance Management

Through an extensive process of public engagement and an analysis of current and future transportation challenges and opportunities for the City, a mobility implementation plan has been developed. This chapter outlines the approach to translating the mobility initiatives into actions through prioritization, funding strategies and the development of an implementation timeline. This chapter also identifies ongoing performance management of the implementation of the plan as well as performance metrics that will support the assessment of program effectiveness.

Prioritization

The development of the VG-SIM model for the City of Sugar Land has identified a portfolio of strategies and initiatives that, when taken together, are designed to deliver the goals for Superior Mobility now and in the future. To successfully address the initiatives, a set of recommended projects has been identified for implementation. These are specific, tangible projects that the City can pursue. As shown in the following examples, in some cases initiatives have been combined into projects and, in some cases, a single initiative generates several projects.



The identified projects are listed on the following page in **Figure 12.1**. They have been categorized by the primary mode of travel or content area (e.g. Land Use) so that related projects are grouped together. Detailed project descriptions for the projects are provided in tabular form in the Project Implementation Approach and Timeline section of this Chapter.



Figure 12.1 – List of Mobility Projects

Auto/Roadway

- Thoroughfare Plan Update (Underway) & Implementation
- Wayfinding Signage
- ITS (Intelligent Transportation Systems)
 - Expand/Install Traffic Signal Adaptive and Responsive Systems
 - Establish Regional Traffic Management Center (TMC)
 - Public Traffic Information
- Railroad Grade Separations
- Safety Program & Access Management Study & Implementation
- Parking Plan Development
 - Phase 1 – Parking Plan
 - Phase 2 - Implement Parking Plan

Pedestrian/Bicyclist

- Bicycle Arterial Design/Construction
 - Town Center Pedestrian/Bicycle Project
 - Brooks Street Project
 - First Colony Trail
 - Ditch H Trail
 - On Street & Other
- Multimodal Access Study
- Complete Street Policy
- Private Development Pedestrian & Bicycle Accessibility Improvements
- Updated Pedestrian & Bicycle Plan
 - Programs to Support Bicycle Culture
 - Safe Route to School (SRTS) Study
 - Revise to include new opportunity locations

Land Use

- Rail Based Light Industrial Facilities
- Development Standards Update
- Land Use Update for South of the Brazos
- Support City's Economic Development Plan

Transit

- Transit Operations
 - Alternate Commuting (TREK, Vanpool, Carpool) marketing program
 - Initiate direct service to Downtown
- Intracity Circulator
 - Phase 1 (Implementation)
 - Phase 2 (Expansion)
- Transit Feasibility and Planning Study
 - Park and Ride Study
 - High Capacity Transit (BRT/Rail) Feasibility Study
 - Transit Oriented Development (TOD) Study - Phase 1: Feasibility
 - Transit Oriented Development Study - Phase 2: Design
- High Capacity Transit Service
 - Identify and preserve alignment and station locations
 - Bus Rapid Transit (BRT)
 - High Capacity Rail Service
- Private Intracity Transit

Freight Rail

- Rail Route Bypass

Management

- Advocacy for Regional Projects (e.g., Rail bypass, I-69, 2 way HOT/HOV)
- Superior Mobility Performance Management
- Transportation Funding Strategy
 - Partnerships
 - Identify and implement funding guidelines
 - Consider establishing a dedicated revenue stream for mobility projects



Prioritization and Work Plan Formulation

The mobility projects have been assessed to develop a prioritized set of short/catalyst, medium and long term projects. Project prioritization was based on several inputs including public input from the Mobility Advisory Committee and stakeholders as well as an assessment of the mobility benefit for each project and the perceived ease of implementation for the project. Ease of implementation was factored based on cost, barriers and time to implement. As any organization has a certain level of capacity to implement projects, some care was taken to not overload the early stages of implementation.

The prioritization timeframe indicates when a project will be initiated, not implemented. The prioritizations are intentionally optimistic and reflect the importance that the City places in pursuing implementation of the identified mobility projects. However, the timeframes are “targets” that will be revisited on an annual, if not semiannual, basis based on the City’s capability to deliver the projects, including the funding capacity and the availability of staff resources.

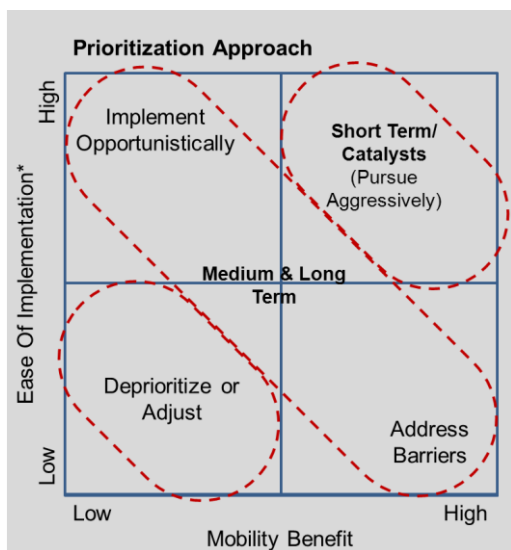


Figure 12.2 – Prioritization Matrix

Prioritization categories have been defined as:

Short Term/Catalyst Projects (0-2 years) – projects that have high level of mobility benefit and relative ease of implementation. This category would also include projects that serve as catalysts to enable significant mobility benefits to be captured in the future. Example projects in this category may include roadway projects that can address bottlenecks, major bike routes where right-of-way and environmental issues have been addressed or planning studies that will enable future capital investments to occur.

Medium Term Projects (3-5 years) and **Long Term Projects (5+ years)** – Projects in these categories may have significant mobility benefits (e.g., commuter rail) or be relatively easy to implement (planning studies) but typically face some challenge or barrier that makes them longer term in nature. This can include funding availability, right-of-way or environmental issues or the complexity of agencies and partnership involved to successfully execute. Some medium or long term projects may be able to be implemented opportunistically. An example of this occurred when “shovel ready” projects were prioritized for funding through the American Recovery and Reinvestment Act in 2009-2010.

Low Priority Projects – Over time projects that are both difficult to implement and lack significant mobility benefits will be identified. Effective program management of mobility projects will be required to either deprioritize these projects relative to other more beneficial projects, or to adjust these projects so that they deliver greater benefit to the City’s overall level of mobility.



Funding Strategy

A critical factor in the implementation of any mobility related project is funding availability. Funding for transportation projects typically comes from a mix of sources including local dollars, state and federal funding, user fees such as tolls or fares, private developer's fees and public private partnerships (PPPs). Funding sources will also vary by mode (e.g., transit vs. roadway) and are subject changes in Federal and State funding priorities. The City of Sugar Land has been able to maintain a strong financial record (e.g., an excellent bond rating) but currently there is a significant degree of uncertainty in funding on other levels due to economic and political circumstances. The City of Sugar Land will likely need to explore a combination of funding opportunities to successfully achieve its mobility objectives.

Dedicated Resources - To ensure that the City capitalizes on available funding opportunities aligned with high priority mobility projects, it is recommended that the City develop and implement a mobility funding strategy. Dedicating resources to developing and managing a financial strategy would have several benefits including:

- Focuses funding strategy on most important projects and sources
- Allows the City to leverage mobility investments with outside funding wherever possible
- Enable proactive planning for upcoming funding opportunities to develop project applications that are aligned with funding ranking criteria
- Ability to identify partners (e.g., other cities, agencies) to support highest priority projects increasing likelihood of developing projects that qualify for funding
- Potential to increase capture rate of available transportation funding

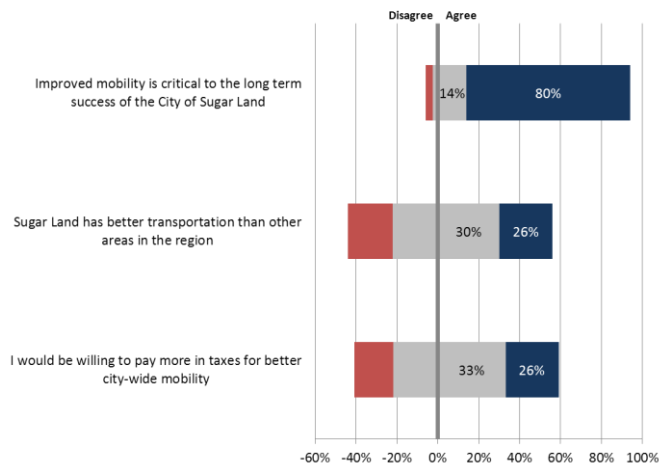
Federal & State Funding - The last federal Transportation funding and authorization bill - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59; SAFETEA-LU), was passed in 2005 and originally expired in Sept 2009. Federal transportation funding has continued through a series of short term reauthorizations continuing the current funding categories in SAFETEA-LU. At the time of this report, it is unclear when a new Transportation Bill will be passed, giving greater clarity on major funding opportunities available to state and local agencies. Significant issues exist with how the revenue to pay for future funding that supports mobility projects will be raised. Historically funding has been driven by fees (e.g., automobile registration) at the state level and gasoline taxes at the state and federal levels. Federal and state motor fuel (e.g., gasoline & diesel) tax revenue has declined relative to overall growth due to changes such as increased vehicle fuel efficiency and declining vehicle miles traveled, leading to less funding for future projects. These fuel taxes have not been increased since the early 90's and alternative funding sources have yet to be defined to pay for major projects. This may increase the burden on local agencies and cities to find creative approaches to fund critical mobility projects and increased competitiveness for scarce funding support across modes and projects.



Local Funding - Sugar Land’s citizens consistently see mobility as critical to the ongoing success of the region. They also have a mixed view as to whether the transportations system in Sugar Land is significantly better than other areas in the region with 44% of the survey respondents disagreeing with that statement and only 26% agreeing or strongly agreeing. On funding for transportation, they are also mixed on whether they would be willing to pay more in taxes to improve mobility citywide (See **Figure 12.2**). Therefore a thoughtful approach that leverages all available funding options and creates partnerships with other key agencies will likely be required to successfully implement major mobility initiatives.

Figure 12.2 – Survey Responses

Q11. & Q12. Please indicate your level of agreement with each of the following statements (Range: 1-Strongly Disagree; 6: Strongly Agree)



City of Sugar Land Funding Sources

Capital Projects Fund - The City typically funds major mobility projects through its Capital Projects Fund. The sources of these funds are varied and can include tax revenue (sales and ad valorem), developer fees, state and federal funding, user fees, grants and the issuance of debt. Capital projects are prioritized annually and capital funds are also used for projects related to drainage, water & wastewater, the Sugar Land Regional Airport, municipal projects including the planned minor league baseball stadium, and parks projects in addition to streets, traffic and transportation.

The City of Sugar Land maintains some funding opportunities for capital projects through dedicated funds. For example, water and wastewater are finance thought the City Utility Fund and solid waste is financed primarily through the Solid Waste Fund. These funds collect revenue primarily based on a usage fee for services provided. Other funding sources including debt issuances are utilized to pay for larger capital projects as well.

Unlike some of the dedicated utility funds, there is not a solely dedicated funding source for mobility projects. Mobility projects on the Capital Projects Plan including streets, sidewalks and traffic improvements typically are funded at least in part through the General Fund and leverage external funding sources to maximize the benefit of the use of City investments in a project. As general funds are also used to fund other city services (e.g., Police & Fire Services, Community Development), funding for projects can vary based on the needs and priorities of the City.

Dedicated Revenue Stream - To address the uncertain funding for mobility projects, it is recommended that the City of Sugar Land consider the creation of a dedicated revenue stream to finance the critical ongoing mobility projects for the City. This revenue stream could provide dedicate pay-as-you go funding for projects or serve as the local match for large projects in which external funding is required. Based on examples of existing and proposed funds in other cities, potential revenue sources for a mobility fund could include:

- Developer fees – currently the City utilizes traffic impact analyses to determine potential mobility mitigation requirements. An alternative approach, the Developer Impact Fee, development impact fee is



a charge imposed on new development to compensate for their impacts on the local transportation infrastructure.

- General Funds – The City can establish a set amount or rate of general funds that would go to the Mobility Fund every year.
- Local option gas tax – While the Texas legislature has not increased the state Fuel Tax since 1991 but there has been some discussion of increased local option fuel taxes or local vehicle registration fees. These increases which would need to be voted on by the public. This may provide local mobility funding, should the Fort Bend County region elect to add this tax.
- Drainage & Streets Fee – The City could establish a drainage and street infrastructure program funded based on estimated drainage impact the owner’s property has, as measure by impervious cover. This would be similar to the recent “Renew Houston” charter amendment effort in the City of Houston.
- Parking Fees – Parking fees can include revenue from City operated parking meters or parking garages as well as in-lieu of fund for developers
- Other fees that may be related to mobility improvements.

If the City elects to establish a dedicated Mobility Fund, guidelines will be needed to define eligible expenditures. The guidelines need to be broadly defined to give the City flexibility in using the funds and at the same time, they should clearly define eligible categories of expenditure. A decision should be made on whether the fund could be used for capital investments as well as ongoing operations. Funding both would typically provide maximum flexibility for the City to invest in highest priority projects so would be recommended.

Component Units - The City of Sugar Land can also fund some capital projects and ongoing operation though the use of one City’s Component Units. There are several existing structures in the City to do this and additional options may exist establish a funding mechanism through additional TIRZs, other tools such as a Business Improvement District (BID) or new structures that are allowed by the Legislature. The City currently utilizes some of these tools to support economic development including:

- Sugar Land Development Corporation - can invest in projects that are related to economic development in the City including business incentives that support economic growth and diversity. This corporation is funded through a quarter cent sales tax.
- Sugar Land 4B Corporation - can provide funding for quality of life projects such as parks and aesthetic improvements and support economic development effort. This corporation is funded through a quarter cent sales tax.
- Tax Reinvestment Zones (TIRZ) – the City has established TIRZs for major development areas including Town Square, Tract 5 and the area adjacent to the Imperial Sugar site. These TIRZs are funded based on incremental property tax revenue for the properties within the TIRZ relative to the base year value. The funds can be used for events and improvements within the TIRZ area and for debt repayment through transfer to the City Corporations.

There are certain requirements for these Component Units in terms of how funds may be allocated. For example, Economic Development funds like the Sugar Land Development Corporation, which are generated via a sales tax levy cannot be used to subsidize operating costs for transit. ED funds can, however, be used for capital improvements such as bus stops and shelters. General funds revenue of the City may be used to subsidize transit



operations and capital expenditures. At the current time, the City has dedicated a significant portion of future Development funds to the construction of a minor league baseball stadium to be opened in 2012. The 4B fund will also potentially be allocated towards the development of an entertainment venue in Tract 5 near US 59 at University Boulevard. These allocations will likely absorb a significant portion of the City’s Component Fund dollars for the next 10-15 years, limiting the use for mobility related projects.

External Funding Sources

The following is an overview of available external funding options at the time of this report. Changes in federal, state and local programs will influence the availability of these funding sources.

Roadway and Traffic

Fort Bend County Mobility Bonds - Fort Bend County has issued mobility bonds for the implementation of identified mobility projects that are a benefit to the county and the local cities within the county. They typically will issue a call for projects from across the county and include the highest priority projects within a referendum.

TxDOT “Pass Through” Toll projects - This program lets local agencies accelerate state highway improvements by locally funding the improvements up front, then receiving State reimbursement over time based on traffic volumes on the completed highway.

Transportation Improvement Program (TIP) - Within the state of Texas, the Texas Transportation Commission and Texas Department of Transportation (TxDOT) develop a document called the Unified Transportation Plan. This plan organizes the transportation spending for the state by category. These categories comply with the SAFETEA-LU requirements for which transportation systems federal funds can be allocated. There are 12 categories of funding in the UTP and are shown in the Table below. The projects in the Preservation & Safety categories are represented by projects in Categories: 1 - Preventative Maintenance & Rehab, 6 - Structures and Bridges, and 8 – Safety which are projects that preserve the existing transportation network. The projects in the Mobility categories are represented by system development projects funded in the other 9 categories shown in the Table. These funding projects are managed locally through the TIP at the Houston-Galveston Area Council (H-GAC) and the Transportation Policy Council. They typically funded 80% by the state with a 20% required local match. There is typically a long lead time of getting projects approved for State though the TIP so advanced planning and an understanding of what prioritization factor exist is critical.

A description of some of the major funding categories for roadways includes:

- *Category 2 - Metropolitan Area (TMA) Corridor Projects* - Mobility and added capacity projects on major state highway system corridors which serve the mobility needs of the Metropolitan Areas (TMA) Metropolitan Planning Organizations (MPOs such as H-GAC).

TABLE 2-1
2008-2011 TRANSPORTATION IMPROVEMENT PROGRAM
FEDERAL AND STATE FUNDING CATEGORIES

	CATEGORY
1	Preventative Maintenance & Rehabilitation
2	Metropolitan Area (TMA) Corridor Projects
3	Urban Area (Non TMA) Corridor Projects
4	Statewide Connectivity Corridor Projects
5	Congestion Mitigation Air Quality Improvement (CMAQ)
6	Structures Replacement & Rehabilitation
7	Surface Transportation Metropolitan Mobility/Rehabilitation (STP-MM)
8	Safety
9	Transportation Enhancements
10	Miscellaneous
11	District Discretionary
12	Strategic Priority
LOCAL	Locally Funded
TOLL	Toll Funded



- *Category 5 - Statewide Connectivity Corridor Projects* - Mobility and added capacity projects on major state highway system corridors which provide statewide connectivity between urban areas and corridors. Composed of a highway connectivity network which includes:
 - Texas Trunk System
 - National Highway System (NHS)
 - Connections from Texas Trunk System or NHS to major ports on international borders or Texas water ports
- *Category 5 – Congestion Mitigation and Air Quality Improvements* - Addresses attainment of national ambient air quality standard in the non-attainment areas (currently Dallas-Fort Worth, Houston, Beaumont and El Paso). Funds cannot be used to add capacity for single occupancy vehicles.
- *Category 7 – Metropolitan Mobility/Rehabilitation* - Transportation needs within the Transportation Management Areas (TMAs). Projects selected by the Metropolitan Planning Organizations (e.g., H-GAC).

Additional TIP categories including Category 9 – Transportation Enhancements provide funding for project “above and beyond what is normally expected for standard TxDOT roadway activities” including pedestrian and bicycle and landscaping improvements will be discussed in more detail in the section on other modes of travel.

Transit

Fare Revenue

Fare revenues cover a very small portion of operating costs of transit systems nationally, with very small or growing transit system generally covering an even smaller portion of the costs through the farebox than larger systems. Fare recovery of operating costs of less than 10 percent should be expected for very new and small operations. Fort Bend County Transportation currently charges \$1.00 per ride for local demand response service. Trek Express commuter rates from the Park & Rides at University of Houston-Sugar Land and the AMC movie theater are \$1.00 to the METRO W. Bellfort Park & Ride and \$2.25 to destinations in the Uptown/Galleria area and Greenway Plaza. Federal law requires that half-price fares be offered to certain groups (seniors, disabled, and those eligible for a Medicare card) during off-peak hours. In addition, many systems offer half-fares to students and offer the half-fares to other eligible groups during all hours of the day. Enforcing peak/off-peak fare differentials can be very difficult.

External Funding Sources and Grants

While Fort Bend County Transportation is comfortable with local cities within the county operating their own service or contracting with the County, the County would like to continue to be the coordinator and recipient for grant monies from the federal and state governments. Fort Bend County as a whole will likely be better served by negotiating for grants as one entity rather than having parts of the County competing with other parts of the County for limited funds.

Federal Transit Administration - The primary source of operating grants that will be applicable to Sugar Land will be its share of Section 5307 Urbanized Formula Funds from the Federal Transit Administration (FTA). This program can cover about 50 percent of the operating costs of transit service. The funds are allocated to an entire urbanized area based on a formula that includes urban population, miles of service provided, and passenger miles carried. The regional Metropolitan Planning Organization (in the Houston area’s case, H-GAC) is responsible for then allocating those funds to all transit providers in the region. Fort Bend County Transportation is currently receiving a share of these funds and would potentially receive more if Sugar Land expanded transit service offerings.



Federal funds are also available to help pay for bus acquisition and other capital needs. If wheelchair lift-equipped buses are purchased—as Fort Bend County uses now—the local share of the cost of buses would be only 17 percent. FTA funds will cover about 80 percent of shelters, benches, bus stop poles, and other passenger amenities.

The State of Texas does not provide operating assistance to systems in urban areas (Sugar Land is in the Houston urbanized area). The State does administer various special Federal grant programs, such as Job Access and Reverse Commute (JARC) and New Freedom. While New Freedom grants are focused on improving mobility for the disabled, the funds can be used to provide service for the general public as well on a space available basis.

Congestion Mitigation and Air Quality (CMAQ) grants are administered by H-GAC for this region and are available for projects that potentially decrease air pollution. Transit services, both operating and capital, are eligible for support under this program. Operating subsidies are only available for a particular service for up to three years, however. So the CMAQ program can be used to help launch services, but local sources must still be developed to keep the service operating.

Private Sector Sources

The private sector could help support transit services in a number of ways, including in-kind contributions, capital investments, and subsidized transit passes. Examples of in-kind contributions could include the provision of marketing materials and maintenance of bus stops and shelters. Local developers or property owners may consider paying for transit shelters, benches, or other amenities at bus stops on or near their properties if they perceived a potential benefit. And finally, local employers could support the service by paying for free or subsidized transit passes for employees. Transit pass programs can both increase ridership and create a more stable fare revenue stream on which the City can rely.

Pedestrian and Bicycle

There are a wide variety of external funding sources that the City may be able to use to fund pedestrian and bicycle improvements.

Transportation Enhancements Grants – Transportation Enhancement (TE) (TIP Category 9) activities offer funding opportunities to help expand transportation choices and enhance the transportation experience through 12 eligible TE activities related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation. TE projects must relate to surface transportation and must qualify under one or more of the 12 eligible categories.

Safe Routes to School – Safe Routes to School programs create practical projects to make school routes safer for children to walk and bicycle, such as sidewalks, crosswalks and bicycle facilities. Community leaders, parents and schools also use education programs to help children travel safely to and from school. TxDOT typically issues a call for projects approximately every two years.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) – The funds are mainly used to help communities in nonattainment areas and maintenance areas to reduce emissions. Pedestrian and bicycle



programs are two kinds of the many programs that can be funded using CMAQ funds. Pedestrian and bicycle programs that can be funded under this program can include trails or paths as well as education efforts and marketing efforts designed to encourage bike riding and walking as forms of transportation. Education and outreach programs are also eligible for CMAQ funds and could be used to increase public knowledge about the benefits of biking and walking. CMAQ funds are only released as reimbursement payments for completed work.

FHWA Recreational Trails Program - The Recreational Trails Program (RTP) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA) is overseen by the Texas Parks and Wildlife Department. Federal transportation funds can be tapped to benefit a variety of recreational activities. Grants are typically subject to an 80-20 funding match. Individual trail grants can range from \$4,000 (\$5,000 total project cost) to \$200,000 (\$250,000 total project cost).

Rail

Rail funding in the Houston region is largely supported through the TIP process. To generate meaningful funding sources, the regions will need to agree on redirecting some of the roadway funding sources to rail improvements as, currently, this is the only dedicated funding source for transportation improvements. This dedicated funding source can be successfully leveraged to build rail infrastructure through the **Rail Rehabilitation & Improvement Fund (RRIF)** program administered by the Federal Rail Administration under the SAFETEA-LU act. The RRIF program can provide direct federal loans as well as loan guarantees for programs that

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track components of track, bridges, yards, buildings and shops.
- Develop or establish new intermodal or railroad facilities.

The key component of this program is that it is a loan program and thus the City and the region must repay the loan and need a dedicated funding mechanism to provide the bondable finance for the application and program.



Recommended Project Implementation Approach & Timeline

Based on the approach for project prioritization and the development of the funding strategy, the Mobility projects that have been identified have been refined into an Implementation Plan. The Mobility Advisory Committee played a significant role in the development of the Implementation Plan through a workshop where projects were discussed, debated and prioritized.

The Implementation Plan (Work Plan) should be adjusted as project details are formulated, including the project feasibility, funding availability, cost refinement and partnership availability. Prioritization of mobility projects should be considered annually as the City develops its work plan and budget for the upcoming year. The prioritization years are intentionally optimistic “targets” that will need to be reevaluated on a regularly scheduled basis.

The Implementation Plan, which is detailed in **Figures 12.3-12.11**, represents the projects that this Comprehensive Mobility Plan recommends that the City pursue. The projects have been arranged based on the recommended implementation priority and grouped based on primary mode or content area. The projects have also been arranged based on implementation priority in **Appendix F**. For each project the following information has been provided:



- **Mode/Content:** Primary travel mode or major content area (e.g. Land Use or Management)
- **Priority:** Short Term/Catalyst, Medium Term, Long Term
- **Project Name:** Title of the proposed project
- **Project Description:** Detailed description of project objectives and activities
- **Planning Cost Estimates**
 - **Planning & Advocacy** - costs associated with planning advocacy projects. Will range from cost of staff time to the fees for consultants/ contractors to perform the work.
 - **Capital** – The costs incurred on the purchase of land, equipment, design and project construction to implement a mobility projects. Examples would include the construction of streets or bicycle paths or the acquisition of transit vehicles.
 - **Operations** – the cost for ongoing operations for a mobility project including labor costs, maintenance, fuel etc.

Cost estimates represent the total project costs – City of Sugar Land’s cost will vary based on inclusion of grants or other funding partners, potentially limiting the city cost to 20% or less of total project cost.

- **Goal:** Mobility Goal most affected by this project, with the understanding that many identified projects will have an impact on multiple goals
- **Mobility Factor:**

<input type="checkbox"/>	Infrastructure	<input type="checkbox"/>	Place	<input type="checkbox"/>	Planning	<input type="checkbox"/>	Culture	<input type="checkbox"/>	Performance Management
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Automobile/Roadway



Figure 12.3

Priority	Project	Description	Cost Estimates*	Goal	Factor
Underway	Thoroughfare Plan	Update of Thoroughfare Plan is underway to ensure multimodal thoroughfare network in City and ETJ; schedule for future Plan updates should be established	Planning: \$200,000	1	<input checked="" type="checkbox"/>
	Wayfinding Signage	Design and installation of distinctive wayfinding signage to guide motorists and establish brand identity.	Capital: \$460,000 - \$560,000	1	<input type="checkbox"/>
	ITS (Intelligent Transportation Systems)	Implement Traffic Responsive Signal System (TRSS) along US 90A, SH 6, First Colony/ Sweetwater and Williams Trace corridors	Capital: \$667,000	1	<input type="checkbox"/>
Short Term (Year 1)	Safety Program & Access Management Policy	Expand existing access management and safety program to systematically identify high crash locations (auto-auto, auto-ped, ped-bike)	Planning: Staff	2	<input checked="" type="checkbox"/>
Short Term (Year 2)	ITS (Intelligent Transportation Systems)	Evaluate effectiveness of TRSS; expand TRSS and/or implement Traffic Adaptive Signal System (TASS)	Capital: \$1-2 Million	1	<input type="checkbox"/>
	Safety Program Implementation	Provide real time travel information on major City streets to residents	TBD (Based on technology approach)	1	<input type="checkbox"/>
		Implement recommended improvements from expanded access management and safety programs.	Capital: \$100,000 - 400,000/yr	2	<input type="checkbox"/>

Factor
 Infrastructure
 Place
 Planning
 Culture
 Performance Management

Goal
 1 The Mobility Goal most aligned with project objectives

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)

Automobile/Roadway CONTINUED



Factor
 Infrastructure Place Planning Culture Performance Management
 Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.4

Priority	Project	Description	Cost Estimates*	Goal	Factor
Medium Term (Years 3-5)	Citywide Parking Plan Development - Phase 1	Evaluate current parking requirements, creation of Parking District to manage parking supply and demand and also source of funding for mobility improvements	Planning: Staff	7	<input checked="" type="checkbox"/>
	Citywide Parking Plan Development - Phase 2	Implement recommendations included in Parking Plan	Capital/Operations: TBD based on Plan Outcome	7	<input checked="" type="checkbox"/>
Long Term (Years 5+)	Railroad Grade Separations	Construct railroad grade separations at key locations, e.g., US 90A at Eldridge Parkway, US 90A at University Boulevard, potential future Industrial Park at FM 2759	Capital: \$10,000,000-25,000,000 each	1	<input type="checkbox"/>
	ITS (Intelligent Transportation Systems)	Establish City Traffic Management Center (TMC) for Fort Bend County Region.	Capital: TBD	1	<input type="checkbox"/>
Ongoing	Thoroughfare Plan Implementation	Implement Thoroughfare Plan in City and ETJ through construction of new streets by developers and City (through CIP) and widening and reconstruction of existing streets	Capital: Variable	1	<input type="checkbox"/>

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)

Pedestrian & Bicycle



Factor
 Infrastructure Place Planning Culture Performance Management
 Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.5

Priority	Project	Description	Cost Estimates*	Goal	Factor
Underway	Bicycle Arterial Design/ Construction	Design and construct Town Center Pedestrian/ Bicycle Project enabling greater pedestrian and bicycle access to/from and within the Town Center area	\$4,900,000	4	<input type="checkbox"/>
Short Term (Year 1)	Multimodal Access Study	Identify locations and improvements to address multimodal access across barriers, i.e., US 59, SH 6, US 90A, Brazos River (Incorporate into Hike & Bike Master Plan)	Planning: Staff	2	<input checked="" type="checkbox"/>
	Complete Street Policy	Institutionalize inclusion of pedestrian, bicycle and transit needs with construction of new/reconstructed streets	Capital: \$75,000	2	<input checked="" type="checkbox"/>
Short Term (Year 2)	Private Development Ped/Bike Accessibility Improvements	Educate/partner with private property owners in improving on-site ped/bike amenities/ access; ensure ped/bike amenities are included in new development. (Town Center Project is first phase)	Capital: TBD (By Others)	4	<input type="checkbox"/>
	Updated Pedestrian & Bicycle Plan (Schools)	Partner with FBISD, LCISD and private schools to conduct Safe Routes To School (SRTS) Study to develop recommendations for improving and encouraging ped/bike access to schools. Coordinate with school districts on operations and siting to improve mobility.	Capital: \$20,000 - \$25,000 per school	2	<input checked="" type="checkbox"/>
	Brooks Street Project	Construct combination on-street bike lane and shared use path from US 90A to SH 6.	Capital: \$365,000	4	<input type="checkbox"/>

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)

Pedestrian & Bicycle CONTINUED



Factor
 Infrastructure Place Planning Culture Performance Management
 Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.6

Priority	Project	Description	Cost Estimates*	Goal	Factor
Short Term (Year 2) Continued	Bicycle Arterial Design/ Construction	Design and construct Ditch H Trail connecting major current and planned activity centers and other trails (PER complete)	Capital: \$6,150,000	4	<input type="checkbox"/>
Medium Term (Years 3-5)	Updated Pedestrian & Bicycle Plan	Update plan (Revise name from Hike & Bike to Pedestrian and Bicycle Plan); Identify additional ped/bike facilities to serve non-recreational trips and additional origins and destinations, e.g., ballpark, employment centers	Planning: \$200,000	4	<input checked="" type="checkbox"/>
		Identify locations for on-street bike facilities to provide connectivity between neighborhoods, trails and destinations	Planning: \$100,000	4	<input checked="" type="checkbox"/>
		Develop Programs to Support Bicycle Culture, e.g., establish Bike-To-Work Day, create Bike Route Map, establish City/Resident Bicycle Committee	Capital: Staff	4	<input checked="" type="checkbox"/>
Long Term (Years 5+)	Bicycle Arterial Design/ Construction	Design and construct First Colony Trails Project	Capital: \$4,150,000	4	<input type="checkbox"/>
	Safe Routes to School (SRTS)	Apply for SRTS funding to implement recommendations in SRTS Study	Capital: Staff	4	<input checked="" type="checkbox"/>
	Bicycle Arterial Design/ Construction	Design and construct on-street and additional trails included in City CIP	Capital: TBD based on project	4	<input type="checkbox"/>

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)



Factor
 Infrastructure ■ Place ■ Planning ■ Culture ■ Performance Management

Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.7

Priority	Project	Description	Cost Estimates*	Goal	Factor
Short Term (Year 1)	Transit Operations	Develop and implement Park & Ride marketing program in conjunction with Fort Bend County to increase awareness and ridership	Planning: Staff	3	Red
	Intracity Circulator - Phase 1 (Implementation)	Develop and implement program in conjunction with H-GAC, METRO to increase awareness and use of Alternative Commute Strategies (Vanpool/Carpool)	Planning: Staff	5	Red
	Transit Feasibility and Planning Study	Refine approach (e.g., public/private partnership) and implement intracity circulator during high peak demand, such as holiday season, special events, ball games	Capital: \$100,000 Operations \$120,000	3	White
	Transit Feasibility and Planning Study	Conduct Park and Ride Study in coordination with Fort Bend County and METRO including evaluation of lot location and employment centers served by lots (e.g., Downtown, TMC) and preferential bus treatment	Planning: \$75,000	5	Green
	Transit Operations - Planning	Transit Oriented Development (TOD) Study - Phase 1: Assessment and preservation of TOD opportunities for active development projects: US 59 at University and Imperial Development.	Planning: \$50,000	5	Blue
	Transit Operations - Planning	Develop approach for direct service to downtown by Fort Bend County Transit	Planning: Staff	5	Green

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Factor
 Infrastructure Place Planning Culture Performance Management

Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.8

Priority	Project	Description	Cost Estimates*	Goal	Factor
Short Term (Year 2)	Transit Feasibility and Planning Study	Conduct High Capacity Transit (BRT/Rail) Feasibility Study in coordination with Fort Bend County and cities	Planning: \$200,000 - 300,000	5	<input checked="" type="checkbox"/>
	Transit Operations - Implementation	Initiation of direct service to downtown by Fort Bend County Transit	Capital: TBD (By Others)	3	<input type="checkbox"/>
Medium Term (Years 3-5)	High Capacity Transit Service	Implement Bus Rapid Transit (BRT) service linking Sugar Land to major destinations (e.g., Downtown, Medical Center)	Capital: \$24-33 Million Operations: \$0.6 -1.8 Million/year	5	<input type="checkbox"/>
	Intracity Circulator - Phase 2 (Expansion)	Transit Oriented Development - Phase 2: Implementation of TOD for active development projects (US 59 at University and/or Imperial Development)	Capital: By others may include city incentives	5	<input checked="" type="checkbox"/>
	Private Intracity Transit	Expand services to additional activity and employment centers and/or service times, i.e., Imperial Development, U of H, Tract 5	Capital: \$240,000 Operations: \$150,000/year	3	<input type="checkbox"/>
Long Term (Years 5+)	Private Intracity Transit	Engage private transit service providers (jitneys or private for profit companies) in implementing enhanced local transportation options	Capital: By others may include city incentives	3	<input type="checkbox"/>
	High Capacity Transit Service	Implement High Capacity Rail Service connecting Sugar Land to regional network of destinations	Capital: \$240-500 Million Operations: TBD based on approach	5	<input type="checkbox"/>

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Factor
 Infrastructure Place Planning Culture Performance Management

Goal
 1 The Mobility Goal most aligned with project objectives

Figure 12.9

Priority	Project	Description	Cost Estimates*	Goal	Factor
Underway	Rail Based Light Industrial Facilities	Study and potential development of current TDCJ's Central Prison Unit site (pending relocation) adjacent to Sugar Land Regional Airport	TBD	6	■
	Support City's Economic Development Plan	Implement initiatives to establish Sugar Land as a "Regional Business Center of Excellence", reducing demand for regional commute trips by residents	Included in Economic Development Plan	6	■
Medium Term (Years 3-5)	Development Standards Update	Revise current development standards, e.g., site plan review, design standards, TIA guidelines, to include multimodal analysis and mobility initiatives	Planning: \$100,000	7	■
	Rail Based Light Industrial Facilities	Develop industrial park with rail access on prison tract west of Airport by relocating existing UPRR Imperial Sugar rail spur	By others though may include City Incentives	6	■
Ongoing	Land Use Update for South of the Brazos (ETJ)	Develop and adopt a land use plan for the ETJ that identifies a mix of land uses, provides connections between neighborhoods, encourages short trips and reduces congestion	Planning: Staff	1	■

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)

Figure 12.10
Freight

Priority	Project	Description	Cost Estimates*	Goal	Factor
Long Term (Years 5+)	Relocation of Through Freight Rail	Implement relocation of through freight rail around Sugar Land; maintain existing access for Sugar Land businesses	TBD	1	<input type="checkbox"/>

Factor
 Infrastructure
 Place
 Planning
 Culture
 Performance Management

Goal
 1 The Mobility Goal most aligned with project objectives

Management

Priority	Project	Description	Cost Estimates*	Goal	Factor
Short Term (Year 1)	Transportation Funding Strategy	Develop funding policy guidelines: <ul style="list-style-type: none"> When to seek? Which grants/programs meet City criteria? What level of time and investment 	Staff	8	<input type="checkbox"/>
		Implement guidelines by continuously monitoring, identifying, applying and advocating for external funding for transportation projects	Staff	8	<input type="checkbox"/>
		Identify and form partnerships with other governmental entities and private entities to advocate for and fund transportation projects	Staff	8	<input type="checkbox"/>
	Superior Mobility Performance Management	Develop mobility scorecard to ensure ongoing implementation and reevaluation of mobility projects	Staff	A	<input type="checkbox"/>

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)



Factor
 Infrastructure
 Goal
 Performance Management
 Place
 Planning
 Culture
 Goal
1 The Mobility Goal most aligned with project objectives

Figure 12.11

Priority	Project	Description	Cost Estimates*	Goal	Factor
Short Term (Year 2)	Transportation Funding Strategy	Consider establishing a dedicated revenue stream for mobility projects with revenues from special tax/fees, portion of general revenues, overlay districts or other means to finance construction of transportation projects	Staff	A	
Ongoing	Advocacy for Regional Projects	Conversion of HOV/HOT lane from one-way to two-way, I-69 alternative alignment south/east of Sugar Land, UPRR rail relocation and implementation of passenger rail	Staff, City Leadership	5	

* Cost represents total project cost – Sugar Land portion will vary based on inclusion of grants or other funding partners (potentially limiting City cost to 20% of total)



Performance Management and Metrics

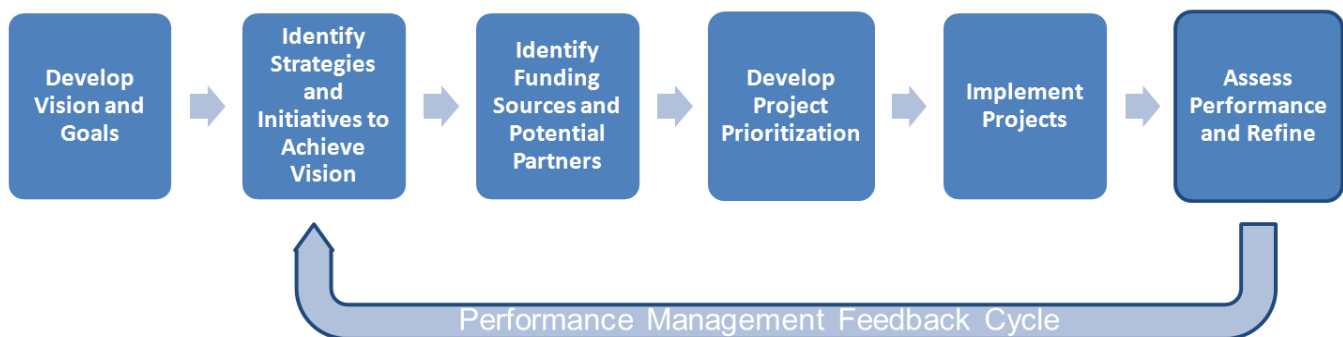
As the City of Sugar Land manages its portfolio of mobility projects and makes prioritization decisions about which project to implement at any time, it will be important to monitor and assess the impacts the projects are having towards achieving the vision of Superior Mobility. A well-defined performance management approach will support the City in decision making and resource allocation to continually improve against the City's eight Mobility Goals.

In high performing organizations, performance management is viewed as a way to work that enables the organization to consistently evaluate its performance against its goals. It gives the ability to monitor performance utilizing current, fact-based, prioritized data and identify areas to improve. In short, performance management helps us to answer two crucial questions:

- “How good of a job are we doing?”
- “What can we do better?”

The proposed performance management approach is shown in **Figure 12.12**.

Figure 12.12 – Performance Management Approach



Performance management allows an organization to ingrain a strategic vision into an ongoing approach that supports continuous improvement towards the vision. While creating a vision and goals and the strategies and initiatives to achieve them, there are critical on-going steps to implementing a performance management approach include the following important steps:

Metrics (Defining Success): Metrics are the measures against which performance can be assessed; targets will be established for each metric as a means to define success. Establishing metrics means having a common understanding of an organizations definition of success and how it can be quantified. Successful metrics should be linked to a Mobility Goal and be measurable with reasonable resources and effort. The most useful metrics will inform options on how to improve performance.

Assessing Performance: It is important to build into an organization planning cycle an assessment of how the organization is performing against goals. With time set aside for this activity, the City can ensure that resources such as capital funding and staff time are aligned against top priorities.



Refining Approach/Feedback Cycle: While a broad set of strategies and initiatives have been defined to achieve Superior Mobility in the City of Sugar Land, over time changes in the environment, technology or politics will influence the goals of the City and tools available to address them. Building and feedback cycle into the long term planning process allows the City to make adjustments and capture opportunities.

Performance Score Card

One tool that will support the City in on-going performance management on Mobility Goals is a performance scorecard. The scorecard provides a consolidated snapshot of performance in critical outcomes. A proposed scorecard for the City is shown in **Figure 12.13**. The metrics are aligned with each of the 8 Goals outlined in the VG-SIM Model with several metrics identified for each Goal. The metrics range from collection of travel times on Sugar Land Arterials to the feedback of Sugar Land residents through the biennial Citizens survey.

For each Metric the units have been defined and the scorecard allows for the comparison of current performance versus previous performance as well as percent change. This can support the identification of trends that can be addressed through future mobility projects. An example metric with columns descriptions is shown below.

Goal	Metric	Units	Target	Previous Year	Current Year	% Change	Status
Transportation choices that meet the needs of all City residents now and in the future	Boardings (Circulator)	Annual Count	750	500	550	+10%	

Mobility Goal metric supports	Metric Description	Unit of measurement	Metric objective	Value of previous assessment	Value of current assessment	Current vs. previous change	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"> Improving</div> <div style="display: flex; align-items: center;"> Neutral</div> <div style="display: flex; align-items: center;"> Declining</div> </div>
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Figure 12.13

Proposed Implementation Scorecard - City of Sugar Land Mobility

Goal	Metric	Units	Target	Previous Year	Current Year	% Change	Status
Predictable, acceptable travel times, increasing connectivity in the Sugar Land area	Travel Time on key arterials (e.g., SH 6, Dulles, University)	Hours					
	Corridors Operating Level of Service D or Better	%					
	Citizen Survey - Satisfaction with Traffic Management	% Excellent/Good					
Well-designed, well-maintained transportation infrastructure that is safe for all users	Vehicle Accident Frequency	Count					
	Ped/Bike Accident Frequency	Count					
	Serious Accidents	Count					
	Roadways in Good Condition	%					
	Citizen Survey - Satisfaction with Mobility Safety	% Excellent/Good					
	Citizen Survey - Satisfaction with Street Maintenance and Repair	% Excellent/Good					
	Complete Street Projects	Arterial/Collector Miles					
Transportation choices that meet the needs of all City residents now and in the future	Boardings (Demand Response)	Count					
	Boardings (Circulator)	Count					
	Citizen Survey - Satisfaction with Transportation Options/Balance	% Agree/Strongly Agree					
Transportation choices that promote a healthy, active lifestyle	Population with 1/4 mile of a Trail/Path	%					
	Off Road Trail Miles	Miles					
	Trail Utilization (Selected Locations)	Count					
	Bike Racks	Count					
	Sidewalks in Good Condition	%					
	Pedestrian/Bicycle Mode Share (ACS)	%					
	Children walking/biking to school	%					
Integrated regional transit services connecting to and from Sugar Land via convenient, efficient trips	Trek Ridership from Sugar Land Park & Rides	Count					
	High Capacity Transit Boardings (BRT or Rail)	Count					
	Cost per Trip	\$					
	Vanpool Ridership	Count					
	Mode Share - Commuter	%					
Transportation infrastructure that supports the continued economic vitality of the city	Employment Base	Count					
	Sales Tax	\$					
Coordinated land use development and mobility planning that supports the preservation of neighborhood integrity	Residents within 1/4 mile walk to retail	%					
	Average City Walkscore (Walkscore.com)	#					
	Citizen Survey - Availability of Mixed Use Destinations	% Agree/Strongly Agree					
	Citizen Survey - Level of Citizen Involvement	% Agree/Strongly Agree					
Effective partnership with other agencies to address mobility issues	3 Year Average Funding Awarded	\$					
	Grant Application Success Rate	%					



Implementation Summary

While the City of Sugar Land's Comprehensive Mobility Plan defines a path forward for the City to achieve its Vision for Superior Mobility, many factors will impact the City's ability to achieve its goals. The major drivers of the pace of project implementation will be funding availability, City capacity to manage and execute projects and the coordination and cooperation of partners for projects that are beyond the limits of control for the City. Successful implementation of the plan will be driven by the City's ability to focus on defining and executing priority projects and on capturing available funding opportunities.

Pace of implementation is important as Sugar Land and Fort Bend County are expected to see continued economic and population growth and therefore continued demand on the mobility infrastructure. As funding will be a critical requirement to implementation, development of a funding strategy that continually identifies opportunities aligned with goals and allocates sufficient staff resources to address funding proposal requests will be critical. The consideration of the creation of a dedicated funding source for City mobility projects can create a resource that the City can leverage to implement high priority projects and address the needs of the growing community.

As many of the mobility challenges the City is likely to face are regional in nature, engaging with other cities and agencies will be critical. The Comprehensive Mobility Plan allows Sugar Land to proactively engage others in discussion on these issues. By being proactive Sugar Land can take a leadership role in advocating for the outcomes that work within the context of the region and provide the greatest benefit to the City's long term mobility needs.