



Bicycling and walking are important components of an efficient transportation system. Having a connected network of well-designed bicycle and pedestrian facilities will enable access to these modes of transportation, allowing more choices in how citizens of Sugar Land get around and improving mobility across all modes of transportation.

The Pedestrian and Bicycle Master Plan will guide City leaders and staff to develop and enhance the environment for walking and bicycling in Sugar Land. The Plan was developed with extensive engagement with the citizens of Sugar Land, key stakeholders, and City staff, which helped make it a feasible and achievable plan for increasing bicycling and walking.

# CHAPTER 1

## INTRODUCTION

### Purpose of the Master Plan

The need to develop a Pedestrian and Bicycle Master Plan was generated through a series of other visioning and planning processes through which emerged a desire for improved mobility for bicyclists and pedestrians. In particular, the City's Comprehensive Mobility Plan recommended the development of this update. The Comprehensive Mobility Plan encouraged the development of a plan for non-recreational/utilitarian trips along with recreational trips, as well as the development of a plan for crossing barriers. This Plan will serve as an update to the 2007 Hike and Bike Trails Master Plan and identifies strategies for achieving pedestrian and bicycle related goals found in the Comprehensive Plan, particularly Goal G: Superior Mobility (see Figure 1-1). This Plan is needed to revisit the 2007 Hike and Bike Trails Plan for the purpose of mobility and also barriers.

#### *Comprehensive Mobility Plan*

The City of Sugar Land embarked on a planning process to develop a comprehensive mobility strategy that balanced mobility issues and future growth and identified specific improvements to achieve superior mobility. In April 2011, the City adopted the Comprehensive Mobility Plan.

Through this process, the Comprehensive Mobility Plan identified eight goals and a series of strategies and initiatives including:

1. Predictable, acceptable travel times; increasing connectivity within Sugar Land area;
2. Well-designed, well-maintained transportation infrastructure that is safe for all users;
3. Transportation choices that meet the needs of all City residents now and in the future;
4. Transportation choices that promote a healthy, active lifestyle;
5. Integrated regional transit services connecting to and from Sugar Land via convenient, efficient trips;

#### Comprehensive Plan Goal G: Superior Mobility

1. Effective traffic management signal system facilitating predictable, acceptable travel times within Sugar Land
2. Effective intra-city public transportation system linking activity centers: trolley, electric bus, monorail, water taxi
3. North/south mobility with several corridors
4. Interstate and U.S. highways efficiently moving traffic through and to/from Sugar Land (US 59, SH 6, US 90A)
5. Major corporate airport for businesses and general aviation
6. Commuter rail serving to link Sugar Land to the Greater Houston Metro Area and Fort Bend County/Southwest with relocation of freight rail
7. Pedestrian-friendly community with multi use trails network for bikes and pedestrians connecting neighborhoods and the community
8. Well-designed, well-maintained streets, sidewalks and multi-use trails

*City of Sugar Land,  
Comprehensive Plan 2012*

*Figure 1-1*



6. Transportation infrastructure that supports the continued economic vitality of the City;
7. Coordinated land use development and mobility planning that supports the preservation of neighborhood integrity; and
8. Effective partnerships with other agencies to address mobility issues within and beyond the City's borders.

Many of the strategies and initiatives outlined to achieve these goals point to improving bicycling and walking in Sugar Land.

The goals of the 2007 Hike and Bike Trails Plan were also used as a basis for this Master Plan's goals:

1. **Provide trails that link all parts of the City** - Ensure the development of a balanced system that ultimately allows access from all parts of the city;
2. **Provide a variety of trail opportunity types** - Provide trails that are suitable for a variety of activities, including running, walking, cycling and in-line skating. Provide nature trail opportunities and equestrian facilities where feasible. Consider facilities for water trails along the Brazos River corridor;
3. **Compatibility with adjacent private properties** - Create trails that respect and preserve the rights of adjacent homeowners, but that provide access to as many residents of the City as possible;
4. **Create multiple neighborhood access points** - Encourage use of the trail system by creating easy access to the system;
5. **Focus on connectivity** - Create routes that link to multiple destinations, including schools, parks, commercial areas and other civic facilities;
6. **Include interpretive facilities** - Where feasible, incorporate signs and features that provide opportunities for learning about Sugar Land and its cultural and ecological heritage;
7. **Consider both transportation and recreational use of trail corridors** - Create facilities that can allow for commuting and short trips to retail and civic destinations; and
8. **Create aesthetically pleasing trail corridors that enhance Sugar Land** - Include enhancements along trail corridors that beautify the City. Incorporate these as a standard feature in every trail, so that trails become signature features of the City.

## Organization of This Master Plan

This Master Plan document includes six key sections, along with appendices, that provide design guidance and a more detailed summary of the input that has been received throughout the planning process. The six key sections are:



**Chapter 1: Introduction** This chapter gives an overview of the purpose and need for the Pedestrian and Bicycle Mobility Master Plan, a review of the plan process, and description of the vision and goals for bicycling and walking in Sugar Land.

**Chapter 2: Background & Existing Conditions** This chapter reviews the existing context and conditions of Sugar Land that may impact bicycling and walking. It also sets up the planning framework and gives an overview of public feedback.

**Chapter 3: Facility Standards** This chapter presents the methodology for determining current and future pedestrian and bicycle facilities based on established standards.

**Chapter 4: Network Recommendations** This chapter outlines the facility recommendations to develop a network of on-street bicycle facilities and off-street shared use facilities to meet the needs of bicyclists and pedestrians in the community.

**Chapter 5: Program Recommendations** This chapter discusses the non-infrastructure recommendations including programs that educate and encourage bicycling and walking.

**Chapter 6: Implementation Strategy** This chapter focuses on developing a strategy to implement the Pedestrian and Bicycle Master Plan, including project prioritization, funding opportunities, and policy considerations.

## The Case for Bicycling and Walking

As evidenced by the 2007 Hike and Bike Trail Master Plan and 2011 Comprehensive Mobility Master Plan, Sugar Land values bicycling and walking both as a mode of travel as well as a form of recreation and exercise. Goal #4 of the Comprehensive Mobility Plan makes the connection between transportation and its impact on having a healthy lifestyle.

**Bicycling and Walking are Economical** - In the United States, car ownership is on average the second-highest household expense, following housing itself.<sup>1</sup> The cost of owning a vehicle including insurance, maintenance, and fuel adds up. The American Automobile Association estimates that the average American spends an estimated \$8,776 per year<sup>2</sup> to own and operate a car, while bicyclists typically spend less than \$120 per year<sup>3</sup>, and walking is free. This cost savings can improve the mobility of residents that do not have access to a car,

### Methodology Used to Develop This Plan



Figure 1-2

1 Surface Transportation Policy Project. 2004. Housing and Transportation. Online at [www.transact.org/library/factsheets/housing.asp#\\_ednref1](http://www.transact.org/library/factsheets/housing.asp#_ednref1).  
 2 Estimated for an average sedan driving 15,000 miles annually. AAA Exchange. 2009. Your Driving Costs 2009. Online at <http://newsroom.aaa.com/wp-content/uploads/2011/08/YourDrivingCosts2011.pdf>.  
 3 As estimated by the League of American Bicyclists





the conditions for walking and bicycling to increase physical activity in Sugar Land can help combat this epidemic.

***Bicycling and Walking Improve the Quality of Life*** - Bicycling and walking enables socialization and interaction between neighbors and other residents, helping to build a stronger sense of community and identity. Moreover, having transportation choices improves the mobility of the aging population, allowing residents to stay in their neighborhood and in Sugar Land as they age.

## Vision & Goals

This Plan is both visionary and practical. The visionary component foresees a network of on-street and off-street corridors that seamlessly allow a user to easily go anywhere in Sugar Land by riding or walking. The practical side envisions connections to all neighborhoods via readily accessible, safe and attractive facilities.

The following guiding goals were developed through the master planning process, using public feedback and Task Force input. The goals serve to guide the on-street facilities and off-street pathways proposed in this document, as well as additional facilities proposed in the future. These principles build upon the goals already established in the 2007 Trails Master Plan and the 2011 Mobility Plan which were shown on pages 1 and 2.

1. Develop an exemplary network of facilities for walking and bicycling throughout Sugar Land that is actively utilized;
2. Incorporate the most current standards and best practices for safety, and provide facility options for all ages and skill levels;
3. Along major roadways in the City, emphasize off-street facilities, but if feasible, also provide on-street facilities for experienced riders;
4. Measurably increase the use of the network for both transportation and recreational uses as it is implemented;
5. Provide a variety of off-street opportunities for all types of activities, both active and passive;
6. Maintain compatibility with adjacent private properties by creating trails that respect and preserve the rights of adjacent homeowners but that provide access to as many residents of the City as possible;
7. Actively seek partnerships with other governmental entities, Homeowner Associations, private property owners and developers to expedite and enhance the creation of the network envisioned by this Plan; and



*Figure 1-5 Bicyclists and pathway users in Sugar Land today.*



8. Identify ways in which to accelerate the development of the network, so that much of the system is in place within a decade.

## Who Will Implement This Plan?

The City of Sugar Land will lead the implementation of the Sugar Land Pedestrian and Bicycle Master Plan. Other key implementers and their partners will include:

- Primary responsibility – the City of Sugar Land’s Transportation & Long-Range Planning and Parks & Recreation Departments;
- Other area governmental entities, including Fort Bend County, the Houston-Galveston Area Council (H-GAC), area school districts, TxDOT, and levee improvement districts;
- Many departments within the City of Sugar Land, including Public Works, Planning, Budget and Research, and the Police and Fire Departments will support the implementation of the Plan;
- The business community of Sugar Land, including property owners, developers, commercial entities and others;
- Community Homeowner Associations (HOAs and POAs) as representatives of the residents who live and work in their neighborhoods;
- Citizens of Sugar Land; and
- Adjacent jurisdictions and their residents, encouraging connections and building “bridges” to other adjacent systems.

This Pedestrian and Bicycle Master Plan follows the general guidelines for local master plans established by the Texas Parks and Wildlife Department (TPWD). This document will be filed with the Texas Parks and Wildlife Department so that the City can better qualify for trail grant opportunities as they become available.

### *Timeframe for the Plan*

The Plan is formulated to address the City’s ultimate condition, requiring possibly 20 years or more to fully implement. High priority recommendations are targeted for completion within ten years. Periodic review is recommended to provide an opportunity for citizen feedback and to adjust for any major events or occurrences that may significantly alter the recommendations of the Plan.

### *Planning Jurisdiction*

The Pedestrian and Bicycle Master Plan includes areas both within the current City limits and in Sugar Land’s extra territorial jurisdiction (ETJ) shown in Figure 2-2. Facilities recommended for the ETJ will generally be considered longer range and lower priority. These facilities should be reconsidered in coordination with input from the annexed communities after annexation occurs.