

FY18 MASTER PLANS ANNUAL REPORTS

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COMPREHENSIVE MOBILITY PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

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COMPREHENSIVE MOBILITY PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The Comprehensive Mobility Plan was adopted in April of 2011 as a result of the Superior Mobility goal adopted in the City's "Vision 2025", which outlined the eleven basic principles and actions that needed to take place for the City to achieve its long-range goals. The Superior Mobility objective focused on a variety of modes of transportation, including enhanced traffic operations, roadway connections for automobiles, improved infrastructure, and expansion of service for other transportation modes—such as transit, bicycles and pedestrian movements.

This vision provided the framework for creating superior mobility in Sugar Land and the Comprehensive Mobility Plan was the next step in realizing the vision by identifying specific improvements and programs for implementation. The Comprehensive Mobility Plan provides a detailed, balanced, and prioritized plan to address mobility issues and plan for the future growth and development in the City.

The Comprehensive Mobility Plan is not one of the City's eight 'official' master plans, however, it was developed utilizing a robust public input process, it further defined the vision and goals of the Comprehensive Plan, and it identified a set of projects and efforts that the City could pursue to help achieve the goal of superior mobility in the City of Sugar Land. Instead, it is a building block for various other City master plans, including the Master Thoroughfare Plan and the Pedestrian and Bicycle Master Plan, as well as operational plans—such as the ITS Master Plan.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The Comprehensive Mobility Plan was adopted by City Council seven (7) years ago. Assumptions for which the plan was based on have not changed. Policy direction has not changed. However, some policy items have been identified and will either be addressed by staff or incorporated in a future update. Overall, the direction of the Plan is still appropriate and relevant today. The percentage of projects implemented went from 38% (FY17) to 43% (FY18).

As the City has implemented the Comprehensive Mobility Plan, the Thoroughfare Master Plan, and the Pedestrian & Bicycle Master Plan, conflicts between the policy direction established in each of these Plans have arisen. In order to address these inefficiencies and improve coordination between these three mobility-related plans, staff recommends an update and consolidation of the Comprehensive Mobility Plan, the Pedestrian and Bicycle Master Plan, and the Master Thoroughfare Plan into one comprehensive document in FY20.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
ITS			
1.	ITS (Intelligent Transportation Systems)	Optimize the roadway network to meet the continued City and regional needs. Continue to actively manage Traffic Management/ITS systems.	In FY 18, installed seven Dynamic Message Signs at six locations.
2.	ITS (Intelligent Transportation Systems)	Optimize the roadway network to meet the continued City and regional needs. Continue to actively manage Traffic Management/ITS systems.	In FY 18, continued the evaluation of the adaptive traffic signal system on SH6 (between Brooks and Dulles).
3.	ITS (Intelligent Transportation Systems)	Optimize the roadway network to meet the continued City and regional needs. Continue to actively manage Traffic Management/ITS systems. Implement Adaptive Traffic Signal System. Leverage ITS system for performance measurement.	In FY19, staff will evaluate the implementation of Adaptive Traffic Signal System on University Blvd.
4.	ITS website integration with Waze	ITS website established a two-way communication with Waze, receiving traffic alerts posted on Waze and sending our own Traffic alerts back to Waze. Improve amount of traffic events displayed in ITS website, as well as reducing response times for Traffic Management Center Operators.	In FY18, staff concluded such upgrade.
5.	Connected-Vehicles program (Audi)	Using the existing ITS infrastructure, vehicles can receive and send valuable data to the traffic system, providing more information to the driver and, eventually, the City.	In FY18, staff supported Audi developing such Connected Vehicles program.
Transit			
6.	Transit Feasibility and Planning Study	Conduct high capacity transit (BRT/Rail) feasibility study in coordination with Fort Bend county and cities	In FY 17, H-GAC established a regional High Capacity Transit Task Force to investigate opportunities and make recommendations for priority implementation (8 county region). Study is anticipated to be completed in late FY18. Staff will continue monitoring. (The Mayor and staff have participated in meeting throughout FY18).
Management			
7.	Creation of Transportation & Mobility Innovations Program	The new organizational structure allows to have staff dedicated to refocus on transportation and mobility planning and work towards data-driven decisions.	

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
ITS			
1.	ITS Master Plan Update	Continue to expand/improve ITS infrastructure	Staff will work to update the ITS Master Plan in FY19.
Pedestrian & Bicycle			
2.	Complete Street Policy	Institutionalize inclusion of pedestrian, bicycle and transit needs with construction of new/reconstructed streets.	Staff will start process to create a Complete Street Policy. The initial work will focus on how to implement on existing roadways.
Transit			
3.	Transit Operations	Develop and implement Park & Ride marketing program in conjunction with Fort Bend County to increase awareness and ridership.	In FY 19, the city will partner with Fort Bend County Transit to bring awareness of the transit options available to residents, employers and employees.
Freight			
4.	Relocation of Through Freight Rail	Monitor the progress and completion of Gulf Coast Rail District US 90A Freight Rail Bypass Study.	In FY19, staff will remain monitoring progress of the study.
Management			
5.	Superior Mobility Performance Management	Develop mobility scorecard to ensure ongoing implementation and reevaluation of mobility projects.	In FY19, staff will develop a scorecard to monitor transportation and mobility improvement.
6.	Transportation Funding Strategy	Develop funding policy guidelines: When to seek? Which grants/programs meet City criteria? What level of time and investment?	In FY19 staff will propose a funding guideline: identifying common criteria required by Grant programs; and proposing a minimum threshold for scope or investment or timeframe.

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

No policy issues have been identified at this time.

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Wayfinding Policy for Ped/Bike	Develop a Wayfinding Policy (Ped/Bike) defining minimum requirements for Wayfinding signage implementation.	

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
Automobile/Roadway			
1.	Citywide Parking Plan Development - Phase 1	Not Initiated	Evaluate current parking requirements, creation of Parking District to manage parking supply and demand and also source of funding for mobility improvements.
2.	Citywide Parking Plan Development - Phase 2	Not Initiated	Implement recommendations included in Parking Plan
3.	Railroad Grade Separations	Not Initiated	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
4.	ITS (Intelligent Transportation Systems)	Not Initiated	Establish City Traffic Management Center (TMC) as regional TMC
Pedestrian & Bicycle			
5.	Bicycle Arterial Design/Construction	Design and construct First Colony Trail	In FY18 this project has been placed on hold. The voter-approved park bond program has been suspended until tax revenues can be generated to fully fund the projects. With the FY19 budget discussion, the parks bond projects will be postponed to FY20 to be considered by the City Council.
6.	Bicycle Arterial Design/Construction	Design and construct Ditch H Trail	In FY18 this project has been placed on hold. The voter-approved park bond program

			has been suspended until tax revenues can be generated to fully fund the projects. With the FY19 budget discussion, the parks bond projects will be postponed to FY20 to be considered by the City Council.
7.	Updated Pedestrian & Bicycle Plan (Schools)	Not Initiated	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.
8.	Safe Routes to School (SRTS)	Not Initiated	Apply for SRTS funding to implement recommendations in SRTS Study
Transit			
9.	Intra-city Circulator – Phase 1 (Implementation) Demonstration Project	Suspended	Implement intra-city circulator during high peak demand, such as holiday season, special events, ball games
10.	Transit Operations - Planning	Not Initiated	Develop approach for direct service to downtown by Fort Bend County Transit
11.	Transit Operations - Implementation	Not Initiated	Implement direct service to downtown by Fort Bend County Transit
11.	High Capacity Transit Service (Includes Stations)	Not Initiated	Implement Bus Rapid Transit (BRT) service linking Sugar Land to major destinations (e.g., Downtown, Medical Center)
12.	Intra-city Circulator - Phase 2 (Expansion)	Not Initiated	Expand services to additional activity and employment centers and/or service times, i.e., Imperial Development, U of H, Tract 5
13.	High Capacity Transit Service	Not Initiated	Destination Activity Centers Study - Phase 2: Implementation of transit for active development projects (US 59 at University and/or Imperial Development)
14.	Private Intra-city Transit	Not Initiated	Engage private transit service providers (jitneys or private for profit companies) in implementing enhanced local transportation options
15.	High Capacity Transit Service (Includes Stations)	Not Initiated	Implement High Capacity Rail Service connecting Sugar Land to regional network of destinations
16.	Transit Feasibility and Planning Study	Not Initiated	Transit Oriented Development (TOD)/Destination Activity Centers Study - Phase 1: Assessment and preservation of mobility opportunities for activity centers: US 59 at University and Imperial Development, Town Square & FC Mall, Lake Pointe
Freight			

17.	Relocation of Through Freight Rail	Inactive	Implement relocation of through freight rail around Sugar Land; maintain existing access for Sugar Land businesses
Land Use			
18.	Rail Based Light Industrial Facilities	Not Initiated	Develop industrial park with rail access on prison tract west of Airport by relocating existing UPRR Imperial Sugar rail spur
Management			
19.	Transportation Funding Strategy	Not Initiated	Implement guidelines by continuously monitoring, identifying, applying and advocating for external funding for transportation projects
20.	Transportation Funding Strategy	Not Initiated	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
21.	Advocacy for Regional Projects - Conversion of HOV/HOT lane from oneway to two-way, I69 alternative alignment south/east of Sugar Land, UP RR rail relocation and implementation of passenger rail	Ongoing	I69 corridor implemented. Monitor Gulf Coast Rail District efforts related to freight rail relocation.

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
Automobile/Roadway			
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)	In FY15, Traffic Engineering and Operations installed delineators at the exit side of the US 59 u-turn at SH 6 and the Costco road exit to US 59. The delineators helped separate the US 59 u-turn traffic from the SH 6 northbound left turns (to the US 59 frontage road), while adding delineators at the Costco exit kept drivers from making unsafe double right turns onto the frontage road. TR 1405 funds were also used for a safety evaluation study of the Sweetwater, Lexington, Williams Trace, and Austin Parkway corridors (which resulted in

			three improvement locations for FY 2016). Traffic studies were also completed for the Bayview approach at US 90A (which recommended signal operations improvement) and the US 59 at 90A interchange. TR 1405 funds were used to add turn lanes to the Gillingham at Lakeview intersection.
2.	ITS (Intelligent Transportation Systems)	Evaluate effectiveness of TRSS; expand TRSS and/or implement Traffic Adaptive Signal System (TASS)	Approved ITS Master Plan in FY14; implementation started in FY15 (TR1503) for funding in CIP for FYs 15, 16, and 17.
Pedestrian & Bicycle			
3.	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 (e.g. sidewalks along SH 6 associated with the SH 6 widening project).	In FY17, this project was completed. (PK1103)
4.	Bicycle Arterial Design/Construction	Imperial Connector Trail (Brooks Street Project)	In FY 16, this project was completed.
5.	Bicycle Arterial Design/Construction	Design and construct First Colony Trail	In FY 17, project undergoing design review and refinement based on public input.
6.	Bicycle Arterial Design/Construction	Design and construct Ditch H Trail.	In FY 17, project design underway.
Management			
7.	Transportation Funding Strategy	Identify and form partnerships with other governmental entities and private entities to advocate for and fund transportation projects	This is being done on an ongoing basis with the County and State agencies, as well as Imperial, Riverstone and Telfair Developments.
8.	Superior Mobility Performance Management	Develop mobility performance scorecard to help monitor transportation system performance.	In FY 17, drafted initial performance scorecard.
9.	Transportation Funding Strategy	Implement guidelines by continuously monitoring, identifying, applying and advocating for external funding for transportation projects.	FY14 - Budget form includes grant application requirements. In FY 16, Inter-Departmental Grant Application, Acceptance, and Reporting Policy No. AC 104 enacted.
Freight			
10.	Relocation of Through Freight Rail	Implement relocation of through freight rail around Sugar Land; maintain existing access for Sugar Land businesses.	In FY 17, the Gulf Coast Rail District commenced a US 90A corridor freight rail relocation study in Fort Bend County.

DRAINAGE MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

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DRAINAGE MASTER PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The City's Master Drainage Plan (MDP) is a planning document that was last updated and adopted in fall 2014. The primary objective of the MDP is to establish the roles and responsibilities for various drainage entities with jurisdiction over drainage and flood control in the City as well as providing a basis (ranking criteria) for formulating the City's drainage Capital Improvement Program (CIP).

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The City's Drainage Master Plan (MDP) was updated in 2014. The 2014 MDP builds upon the work of the 2007 MDP by reviewing and confirming asset ownership, the criteria for evaluation of acceptable street ponding and duration, the scoring and ranking of drainage problems based on structural flooding, street ponding and quality of life factors and updates by using field work evaluation score sheets. Since the MDP was established in 2007, the policy direction related to drainage has not changed. The policy direction for the master plan needs to be adjusted to include new relevant issues related to new Brazos Levees, retrofitting areas not built to current City Standards and the inclusion of Atlas 14 rainfall.

The MDP was updated in 2014 and 60% of the projects have been completed. Majority of the projects included in the master plan has been implemented as originally scheduled, with only few projects that have been delayed to include other priorities due to drainage concerns after the 2015, 2016 and 2017 Hurricane Harvey storm events. Over \$ 9 million in drainage improvement projects were completed in 2017 and 2018. This FY18 Annual Report documents new proposed projects within the CIP to address issues that came up during the Hurricane Harvey, and other flood events in 2016 and 2015. Three unanswered policy questions have been identified in the master plan since it was adopted in 2014.

It has been 4 years since the MDP was adopted. Staff does not recommend a comprehensive update of the drainage master plan at this time. During the FY19 annual report, staff will re-evaluate the need and timeline for the next comprehensive update. However, at this time, staff tentatively recommends the next update occur in FY 21, upon completion of the major drainage projects that are planned for the FY19-21 CIP and those that are currently underway.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	Sugar Creek Drainage Improvements - Longview Dr. and Golf Course.	Installation of new reinforced concrete box culverts extending south on Longview Dr. and diversion of flow through Sugar Creek Golf Course to outfall into the existing East Sugar Creek Drainage System. Replacement of inlets and storm sewer improvements to address sheet flow and minimize street ponding.	Project construction was completed in November 2017.
2.	Lexington Blvd. and Highlands Section III Drainage Improvements	Installation of drainage improvements along Lexington Blvd. within the limits of Coles Farm Drive and Oyster Creek, and outfall improvements into Oyster Creek. Drainage improvements in Highlands section III subdivision along Fort Settlement, Pecan Point Dr. and Vincennes Bridge Street and Sugarwood subdivision along Deer Creek Drive.	Project construction was completed in February 2018
3.	Covington Woods Drainage Improvements. A22 Bournewood Trunk Line	Design and construction of a new efficient stormwater outfall and new trunk line to extend north from Ditch A-22 along Bournewood Dr. to Bramblebury Drive to mitigate subdivision and street flooding impacts.	Project construction was completed in April 2018.
4.	SH-6 Stormwater Flap Gates Evaluation	Repair of upstream of the State Highway 6 (SH-6) flap gates located across Ditch H. These flap gates are designed to offer protection from the Brazos River backwater.	An assessment of the flap gates was completed in 2017. Public Works Department implemented the recommended repairs in 2018.
5.	Business Park Pump Station Improvements	Rehabilitation of the Business Park storm water pump station that the City acquired after the dissolution of MUD 21. Project included the rehabilitation of the electrical controls, pumps, and intake screen.	Project will be completed in September 2018
6.	FY18 Drainage Studies for Neighborhoods and Major Roads and Intersections	Completion of a comprehensive 2D hydraulic analysis was performed in these seven areas to determine the root cause of the ponding issues and possible feasible solutions due to previous storm events in 2015, 2016, and 2017 Harvey event. The study evaluated improvements necessary to alleviate flooding concerns at these locations.	This project was completed in June 2018. Results of the project were presented to City Council on June 5, 2018.

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	Covington Woods Drainage Improvements – Jess Pirtle Side Streets & Greywood Dr.	Installation of inlets and storm sewer improvements to address sheet flow and minimize street ponding.	Project design was completed in April 2018. Construction will start in August 2018.
2.	Covington Woods Drainage Improvements – Sugar Land MS Relief Line	Replacement of inlets and storm sewer improvements, to minimize street ponding, along Muirwood Lane and Seven St.. The project includes replacement of the outfall passing thorough the City owned park property and the reconstruction of Seventh St. between West of Wood St. and Eldridge Road.	This project is currently at 30% design and its scheduled for construction in FY 19 onwards.
3.	Riverbend Control Structure replacement (with sluice gate) at Dulles Av.	Replace the existing sheet pile structure with a sluice gate control structure that allows to lower the water level downstream of Dam III by two feet during major storm events.	Project Design is scheduled for FY 19.
4.	Riverbend Drainage Improvements - Inlets and pipe replacement	Replacement of stormwater conduits and inlets and upgrades along Plantation Bend Drive, Winding River Dr., Cannons Point Drive, and Randall Oak Dr. and outfall replacement at Laurel Hill.	Project Design scheduled for FY 19.
5.	Settler Park Greenfield West Drainage Improvements	Replacement of the existing Stormwater system along Greenfield drive with new 60-in and 72-in RCP and the replacement of the outfall into the LID#2 Ditch C. This project will reduce the ponding depth and duration in the Settlers Park.	Project Design scheduled for FY 19.

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	Lower Brazos River watershed development issues.	Brazos River Authority (BRA) continue working on studies and projects that may impact the City and the Levee Improvement Districts within city limits. Legislation regarding development in the watershed needs to be addressed at the State level.
2.	NOAA Atlas 14 Update	Fort Bend County and other counties and cities in the area will adopt the new NOAA Atlas 14 - Precipitation Frequency Data. City of Sugar Land must define a policy to adopt the NOAA Atlas 14 or to continue

		using the current Precipitation Frequency data. This Policy will have a direct impact in the development of new residential and commercial properties.
3.	Brazos River Bank Erosion	The Brazos River is experiencing noticeable bank erosion. It is necessary to work with Fort Bend County, the LIDS , the State of Texas and USACE to coordinate and develop mitigation projects along the Brazos River.

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Flood Early Warning System Upgrades	Flow Monitors are used to measure rainfall and flood stages in receiving streams at various locations within the City. Harris County Flood Control District (HCFCD) services City's gauge stations through an inter-local agreement. HCFCD has upgraded their system to the New Alert 2 technology, which is available to the City pending system upgrades. Upgrading the City's gauge stations will enable compatibility with HCFCD system, as well as ensure accurate data transmission.	City of Sugar Land applied in 2017 for a 75/25 grant with the Hazard Mitigation Grant Program (HMGP) to install 27 Flood Early Warning gauges around the City.
2.	Brazos River Erosion Study	Following the flooding events in 2015 and 2016, up to 100 feet of the bank along the Brazos River at several locations has been lost due to erosion. With the recent record flood of the River due to Hurricane Harvey in 2017, it is anticipated that a similar rate of erosion, if not greater, has occurred in the past few months. These rates of erosion are significantly higher than what has been experience on the River in the past 30 years. The City of Sugar Land has determined that is important to monitor and assess the projected loss of river bank and how this loss will threaten infrastructure within the City such as bridges, levees, parks, roads and utilities.	Huitt-Zollars and TAMU completed a study in June 2018 to assess the probability and cost of failure at 8 critical locations along the Brazos River within City boundaries. Results were presented in a workshop to Fort Bend County, LIDs, and other stakeholders.
3.	Lower Brazos River Watersheds Study	Communities on the Lower Brazos River have suffered from multiple floods over the last century. Hurricane Harvey, resulted in major flooding along the lower Brazos River.	Halff Associates will complete the study in December 2018. The completed scope included: Updated H&H modeling and detailed flood elevations along Brazos River from above Hempstead to Gulf of Mexico

		In 2014, the Brazos River Authority (BRA) applied for a Flood Protection Planning Grant (FPPG) from the Texas Water Development Board (TWDB) to perform a \$1.6 million detailed engineering study of the Brazos River below the Hempstead Gage to the Gulf of Mexico, including portions of Washington, Austin, Waller, Fort Bend and Brazoria Counties.	<p>Flood inundation mapping</p> <p>Flood reduction alternative recommendations for reduced future flood damages</p> <p>Consistent flows and models across county boundaries</p> <p>Improved NWS flood forecasts</p> <p>Development of tools to facilitate land use planning, emergency response and sound floodplain management</p>
4.	Dam III - Flood Control Improvements	In 2015, a study performed by Freeze and Nichols, Inc. determined that Dam III is hydraulically inadequate in its current condition to meet the Texas Commission of Environmental Quality (TCEQ) mandated flood control requirements. Dam III is required to pass 75% of the Probable Maximum Flood (PMF). This 2015 study proposed improvements to comply with this new TCEQ Dam Safety criteria.	Design was completed in 2018. Construction is scheduled for 2022.
5.	Master Drainage Plan (MDP) Update	Staff recommends an update in FY 21, upon completion of the major drainage improvements that are currently underway.	

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1.	Sugar Creek Drainage Improvements – Chevy Chase Dr.	Inlet and storm sewer improvements to address sheet flow and minimize street ponding.	CIP DR 2102 – Scheduled 2021 onwards.
2.	Sugar Creek Drainage Improvements – Brunswick and Fairway Dr.	Inlet and storm sewer improvements to address sheet flow and minimize street ponding.	CIP DR1901 – Scheduled 2021 onwards.
3.	Drainage Improvements – Covington West & Imperial Woods	Inlet and storm sewer improvements to address sheet flow and minimize street ponding.	CIP DR2002 – Scheduled 2021 onwards.
4.	Sugar Creek Drainage Improvements – East Ditch	Add capacity to the ditch along with structural improvements.	CIP DR2001 – Scheduled 2022 onwards.

5.	Covington Woods Drainage Improvements – Jess Pirtle Side Streets & Greywood Dr.	Inlet and storm sewer improvements to address sheet flow and minimize street ponding.	Project design was completed in April 2018. Construction will start in August 2018. Project is scheduled to be completed in FY 19.
6.	Sugar Creek Drainage Improvements – Montclair Drive.	Inlet and storm sewer improvements to address sheet flow and minimize street ponding.	Project design was completed in FY 18. Construction is anticipated to be completed in FY 22.
7.	Covington Woods D. I. B.P. Ditch & J.P Bridge	The Business Park Ditch will serve as a secondary outfall to the Eldridge Road storm sewer system to help reduce water elevations. The Jess Pirtle Bridge will include a new storm water conveyance pipe to reduce backwater flooding.	This project is anticipated to be completed in FY 23.

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
1.	Sugar Creek Drainage Improvements – Phase II	Inlet and storm drain improvements in the western sections of Sugar Creek neighborhood.	CIP DR1001 – Construction was completed in FY 15.
2.	Public participation to identify drainage issues	Engage the public to assist the City in identifying locations of drainage problems, especially during major and historic rain events.	Following the 2015 Memorial Day rain event, City staff reached out to the public via Online Town Hall to solicit their feedback in identifying problem areas and completing an assessment. Completed in FY 15.
3.	Update International Property Maintenance Code (IPMC)	Includes regulations pertaining to weeds and offensive conditions around storm water detention facilities.	The new (2013) IPMC was adopted by the City in 2015.
4.	Ditch H Model Update	Updates to Hydrologic and Hydraulic Model of Ditch H, a major drainage outfall to the Brazos River.	Update was completed in FY 16, with input from other stakeholder' such as FBCDD, FBC LID 2, and FBC LID 17.
5.	DR1505- Localized Drainage Improvements	Inlet and outfall improvements Citywide, to address failure in drainage infrastructure as and when they occur.	Inlet repairs/improvements at Sweetwater, Dulles, Settlers Way and Austin Parkway were completed in FY16.
6.	Covington Woods Drainage Improvements – Offline Pond	Improvements to existing detention pond to add capacity in order to facilitate future drainage improvement project within Covington Woods.	CIP DR1505 – Construction was completed in Summer of FY 16.
7.	Update City's Development Code	Updated regulatory standards for flood damage reduction, identified standards for utilizing detention ponds as recreational amenities, and codified City's role in inspection of privately-owned detention facilities. Included regulations that pertain to weeds and	Completed in FY 16.

		offensive conditions around storm water detention facilities.	
8.	Update Design Standards	To incorporate easement and access related issues related to maintenance; and to identify standards for utilizing detention facilities as recreational amenities.	Completed in FY 16.
9.	Major Flood Event Analysis (2016)	During the 2016 Memorial Day Rain Event, the Brazos River peaked at historic crest levels, which was last documented in 1922. Although no major flooding issues were reported within the City, some instances of street flooding due to backwater impacts were documented.	A detailed assessment of this event was performed and completed in FY16-FY17 to assist in emergency preparedness.

FACILITIES MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

Stacie R. Henderson

Abimbola Fadimu

FACILITIES MASTER PLAN FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The goal of the Facilities Master Plan Update is to identify the space needs for each department of the City of Sugar Land and to create a municipal facilities plan to satisfy these needs. The Facilities Master Plan will enable the City of Sugar Land to continue providing high quality services to the citizens of Sugar Land at a level established by the City Council. On April 21, 2015, City Council approved the 2015 Facilities Master Plan update, the first since 2005. This update focused on needs based requirements and documents the current staff and space allocation. Needs based requirements are defined as facility requirements based on department growth generated by population growth or another City Council approved program.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The Facilities Master Plan was last updated in 2015. The assumptions and policy direction provided within the plan are still appropriate and relevant for implementation. The Facilities Master Plan identifies the staff and space requirements for the City's expected ultimate build-out of 145,000 residents but also assesses interim staff and space needs for a population of 100,000 and 125,000 residents. With the recent annexation of Greatwood and New Territory in December 2017, the City's 2018 population is estimated at 117,869 residents. This population level is included within the expected projections of the Facilities Master Plan, and the existing assumptions are still adequate to meet the City's needs. To date, approximately 80 percent of the plan has been completed. Upon completion of the upcoming facilities assessment, staff will evaluate whether an amendment or update to the Master Plan is needed, and will make a recommendation as to the timing of the next update.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	Animal Shelter Expansion	Temporary expansion space occupied in December 2017	Temporary expansion projects to be fully completed in FY18
2.	Design and Construct the Airport Maintenance replacement building	Design documents completed in FY17 / Construction underway with anticipated completion in FY18	
3.	PER for Animal Shelter	In progress and estimated for completion in early FY19	Permitted Expansion. PER in progress, estimated completion in FY'19.

4.	Annexation - Accommodate other City buildings as needed for additional staffing and parking	Renovation of Public Works Building B completed in FY18 to accommodate annexation staff growth. Parking lot expansion at Public Works Service Center underway with expected completion in FY18	
5.	Annexation – Accommodate additional staff at PD/Courts Building	Interior build out of lease space and relocation of staff completed in early FY18	
6.	City Hall Annex Foundation Repair	Installation of steel helical piles to underpin and re-align the ground floor concrete slab	Project initiated in FY18 with an estimated completion in FY19

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	Facilities Condition Assessment Update	Assessment to evaluate current facility conditions, document an inventory of facility infrastructure, identify existing deficiencies and forecast capital funding requirements. The Water Facility Condition Assessment Update originally scheduled for completion in FY18 was placed on hold to combine the assessment with the overall Facility Condition Assessment in FY19	
2.	Roof replacement at City facilities	Roof Replacement/Reconstruction at various city facilities	

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	N/A	

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Annexation - Modify Fire Station #6 to include EMS unit	Modifications completed in FY18	
2.	Interior Build-Out of Visitor Center and Heritage Museum	Construction and interior build-out completed in early FY18	
3.	Roof Replacement at Public Works Building B	Replacement of roofing system	Construction process underway with estimated completion in FY19

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1.	Facilities Master Plan Update	Estimated for FY20 CIP	
2.	Citywide Storage Strategy	Not Yet Scheduled	
3.	PER for Fire Station No. 8	Not Yet Underway	Monitor residential development in Riverstone/MUD 128 Area to trigger PER
4.	City Hall Renovation	Not Yet Scheduled	
5.	EOC/Dispatch Building	Design and construct a new Emergency Management Center to host emergency operation and public safety dispatch staff. The project will include building programming and security elements.	Scheduled to begin in FY21
6.	Animal Shelter Expansion	Design and construct expansion of animal shelter	Design is scheduled for FY21 and Construction for FY22

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
1.	Building Assessment for City Hall Annex	Foundation evaluation completed FY17	
2.	Annexation - Accommodate additional	Lease of temporary office space approved in FY17 for a 3-year period	

	staff at PD/Courts Building		
3.	Determine Future Use of Head Start Building in Mayfield Park	Building relocated to Public Works Service Center in FY17 for Temporary Animal Services Expansion	
4.	New Public Works Service Center	Relocation of staff completed in FY16	
5.	Design and Construct the Airport Maintenance replacement building	Schematic Design Completed FY16	
6.	PER for Police and Courts Building expansion	Completed FY16	
7.	PER for Public Safety Training Facility	Completed FY16	
8.	Purchase Site for Public Safety Training Facility and Central Unit Property	Completed FY16	
9.	Demolish the Old Post Office Building	Completed FY15	

PARKS, RECREATION & OPEN SPACE MASTER PLAN FY 2018 ANNUAL REPORT

May 25, 2018

PREPARED BY:

Joe A. Chesser

Fenglin du

PARKS, RECREATION & OPEN SPACE MASTER PLAN FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The City of Sugar Land 2018 Parks, Recreation and Open Space Master Plan (2018 PROSMP) was adopted on February 20, 2018 by City Council. This plan lays out the vision, goals and recommendations for Sugar Land parks, recreation and special events for the next 10 years. About 97% of the recommended projects in the 2005 PROSMP have been completed.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

Since this master plan was just completed in FY18, the department will provide annual report each year and conduct another update between 2023 and 2028.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	Mayfield Park	Mayfield Park is redesigned with the additional land dedicated by Johnson Development. The project amenities include loop trails, a playground, a basketball court, a picnic pavilion, signage, picnic tables with BBQ grills, drinking fountains, bike racks and landscaping.	Land acquisition was completed in Spring, 2017 via Sugar Land 4B Corporation funds. The new park was constructed in FY 18 and is open since Spring, 2018. A restroom will be installed when funding is available.
2.	The Municipal Pool Renovation in City Park	The Municipal Pool was due for renovation to keep it safe and functional for the users in the summer. The pool is one of the elements that need significant renovation in City Park.	While a City Park Renovation Master Plan is needed to address the need for maintenance, replacements, retrofits and additional facilities, staff had to hire a contractor to perform the pool renovation

			including the deck, plaster and drainage repair for immediate uses and safety of the community. The project started in early spring of 2018 and completed by April, 2018 to be ready for the swimming season.
3.	Community Events	Continue to evaluate opportunities for community events in the City's parks and event facilities.	Events Strategic Project evaluated existing events for evolution of the program to better serve Sugar Land residents (e.g. evolving Eggstravaganza and IFest into a springtime arts focused event.) The July 4th event is proposed as a regional event in partnership with a private promotion company.
4.	Cullinan Park Development Phase 1	Implementation of the Cullinan Park Master Plan Phase 1 to make it a true regional destination park.	<p>Staff work with Cullinan Park Conservancy to develop Cullinan Park with the funding raised by CPC. We are currently in Phase 1 Development construction documentation phase. The construction is expected to start in the fall, 2018. Staff also are helping with the research of a potential nature play area in the next phase.</p> <p>One of the policy items that were studied during the 2018 PROSMP process is, should the City consider any additional funding for the enhanced development or only continue to provide funding for security and operations. This policy item is addressed by PARCS Board and is reflected in the master plan that the Cullinan Park Conservancy is responsible for funding the capital improvements of this park.</p>
5.	Playscape Upgrade at Eldridge Park	Develop and implement a phasing plan to upgrade playscapes for those in need of replacement.	Eldridge Park playground is reaching its life expectancy. The renovation project started in May 2018 and expect to finish in August 2018.
6.	Improvement of Splash Pad at River Park	The existing splash pad in RiverPark was acquired in the 2009 annexation of the community. The original construction was poorly executed and has led to poor drainage with expensive repairs and maintenance. It is recommended that the City consider a full renovation of the paving	Parks staff hired a contractor to repair the splash pad by fixing the existing floor and sealing with new colors in Spring, 2018.
7.	Public Art Projects at Settlers Way Park and Brazos River Park	Pursue additions of public art in the City's parks system to further define Sugar Land as a culturally engaging destination city.	Staff collaborated with Cultural Art Manager to implement the tile mosaic projects on the existing restroom/storage building (in conjunction with Settlers Way Elementary School art program) and the Brazos River Park Overlook. The Settlers Way Park art project was completed in July 2018. The Brazos River Park art project is expected to complete in October 2018.

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1. Destination Activity Center Actions			
1.	Facility Deficiencies Evaluation	Evaluate opportunities to address facility deficiencies.	Staff have been evaluating the facility deficiencies and concluded that some key facilities that need renovation, including City Park parking lots, skate park/pavilion, field lighting, electrical; Memorial Park parking lot, First Colony Park fence, sidewalks, field sport lighting; Cullinan Park fishing pier/boardwalk; Oyster Creek Park pedestrian bridge. FY20 and beyond rehab budget priorities.
2.	Brazos River Corridor Master Plan	Prepare an update to the Brazos River Corridor Master Plan	Parks staff will work on an update in house. The update scope includes site visits, preliminary site analysis, literature review, public outreach, preliminary site design for key areas and master plan graphics update. FY20 and beyond CIP and possible bond election consideration.
2. Outstanding Cultural Arts, Educational, and Recreational Opportunities Actions			
1.	T.E.Harman Senior Center Study Phase 1	Perform a study of the T.E.Harman Senior Center facility to determine if it can be enlarged or expanded to increase space and programming opportunities.	Staff to conduct demographics studies, public engagement and other internal analysis to understand the specific needs requirements in terms of building capacity, function, location preferences, etc. It is a potential FY19 Strategic project for FY 20 and beyond budget considerations.
2.	Memberships of IPRC and T. E. Harman Center	Evaluate the feasibility of discontinuing non-resident memberships, as attendance increases and space decreases, in the City's recreation and senior centers.	
3.	Public Arts in Parks	Pursue further additions of public art in the City's parks system to further define Sugar Land as a culturally engaging destination city.	Staff are working with Cultural Arts Manager on Memorial Park Eagle Plaza, Lonnie Green Park Art and Dillidiidae Art location.
4.	Sponsorship Program for Special Events	Identify opportunities to grow the Sponsorship Program for special events.	
3. Great Neighborhood Actions			
1.	Partnership between the City and ISDs	Evaluate and update joint use policies to strengthen the partnership between the City and ISDs.	FBISD and Parks and Recreation Department are working on a facility usage agreement.
4. Environmentally Responsible Community Actions			
1.	Sustainability in Parks and Open Space	Partner with local advocates/volunteers to establish or enhance habitat and sustainability in parks and open space.	In FY 18, Parks staff collaborate with Keep Sugar Land Beautiful to improve the reforestation area in Brazos River Park,

			and a few companies such as Fairmount Santrol and HLU Landscapes to add more reforestation in Brazos River Park and Memorial Park. Parks staff are working with Monarch Gateway to start a prairie restoration project with a grant Monarch Gateway obtained for Sugar Land.
5. Beautiful Community Actions			
1.	Food Access and Safety in parks	Evaluate opportunities to increase food access and safety in parks and during special events.	Parks staff is participating in the food truck ordinance strategic project.
2.	Beautification and Naturalization	Evaluate opportunities for the beautification and naturalization of existing park areas to reduce continual long-term maintenance burdens on staff.	Parks staff adjust mowing schedule in order to promote wildflowers in Brazos River Park. Additional wildflower seeds were also installed in the park in winter, 2017.
6. Policy Issues for Review			
1.	Athletic Facilities Use Considerations	Evaluate athletic field use policy, as it relates to residents and non-residents.	There are non-profit youth sports associations utilizing Sugar Land Parks. While the City provides the same base level of service throughout the park system, the leagues are responsible for the upkeep and appearance of the fields and facilities they use. Therefore, those fields and facilities are not maintained to the same level. In the meanwhile, the leagues' participants include both Sugar Land residents and non-Sugar Land residents. Should we consider a non-resident fee for league participants that are not SL Residents? Should the City provide an increased level of service at leagues facilities if the league serves a higher percentage of Sugar Land residents?
2.	Impact of Identified Demographics Trends	Evaluate Sugar Land's changing demographics and consider how these changes impact the parks system.	The SL population is getting older, there are fewer young children to fill up the rosters of the youth sports leagues. Also the demographic information shows more cultural diversity in the population. Do we reuse/retrofit existing facilities for teenager sports, senior sports and other adult sports, or create new facilities? What additional multicultural programming shall we provide in Sugar Land?
3.	Public/Private Dynamic	Evaluate opportunities to establish public/ private partnerships for community amenities and destination venues.	The City is looking to strengthen public/private partnership for community amenities/destination venue. What are the existing and future areas in the parks system for the creation of amenities that will enhance its appeal to visitors (also increase number of visitors) while engaging people to stay longer and generating revenue?

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

No new policy issues have been identified since the adoption of the Master Plan.

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
Great Neighborhood Actions			
1.	ADA Compliance in All Park Facilities	Working with Public Works and Public Affair departments, evaluate and inventory all park facilities to prepare an ADA compliance work plan. Implement the work plan once it is approved by City Council.	The Americans with Disabilities Act (ADA), enacted on July 26, 1990, provides comprehensive civil rights protections to individuals with disabilities in the areas of employment, public accommodations, State and local government services, and telecommunications. Various departments will work together to start complying with the regulation.

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1. Destination Activity Center Actions			
1.	Parks Projects Bond Election	Consider approaching the citizens with a bond election to fund identified larger-scale capital improvements for Brazos River Park, the 65 Acre Community Park, Gannoway Lake Park, Imperial Park, City Park, and First Colony Park.	

2.	65-acre Community Park at Telfair	Prepare a revised master plan for the 65-Acre Community Park to include family-friendly, passive (e.g., trails) and active (e.g., athletic fields) recreation amenities supported by the community.	
3.	Gannoway Lake Park	Continue to pursue land acquisition adjacent to Gannoway Lake Park and implement the Gannoway Lake Park Master Plan.	
4.	Public-private Partnership in Parks	Evaluate and pursue public-private partnerships for development of parks and recreation facilities.	
5.	Revenue-generating amenities in Parks	Evaluate and maximize opportunities for the development of revenue-generating amenities in the parks system.	
6.	Duhacsek Park Event Venue	Conduct a feasibility study for a high-quality rentable event space at Duhacsek Park.	
7.	Adult Sports Facilities	Evaluate feasibility of retrofitting existing athletic fields, or developing new fields, to meet the need for adult sports facilities.	
8.	Athletic League Fees Re-evaluation	Evaluate athletic league fees to ensure they are adequately offsetting costs.	
9.	Sugar Land Memorial Park Improvement	Evaluate opportunities and implement improvements to Sugar Land Memorial Park.	
10.	Brazos River Park Next Phases	Evaluate opportunities and implement improvements to Brazos River Park (Mid-lake and North Lake areas).	Mid-lake project is on hold due to the budget cut in FY18.
11.	City Park Renovation	Implement renovation improvements to City Park.	
12.	Duhacsek Park Improvements	Evaluate opportunities to expand and improve Duhacsek Park.	
13.	Brazos River Corridor Land Acquisition	Continue to pursue land acquisition in the Brazos River corridor.	
14.	Signage and Wayfinding System in Parks	Develop a signage and wayfinding master plan with the Public Works Department to achieve a unified, creative, and unique Sugar Land parks signage and wayfinding system.	
15.	City Park Renovation Master Plan	Prepare a City Park Renovation Master Plan to address the need for maintenance, replacements, retrofits (e.g., adult softball field) and additional facilities (e.g., tennis courts).	City Park was the first park established in Sugar Land in 1964. As the staff make repairs to critical amenities such as the pool, the bathroom, etc., it is the best long-term solution to prepare a renovation master plan to determine the best potential use of the site and plan for implementation over time. Staff identified this item to be on the FY19 budget wish list.

2. Outstanding Cultural Arts, Educational, and Recreational Opportunities Actions			
1.	Programming Improvements at IPRC and T.E. Harmman Center	Review current program offerings at the recreation and senior centers to determine appropriate future programming to best meet demands and use of resources.	
2.	Supporting Leagues	Continue to support leagues and their economic impact on the City.	
3.	New Year's Eve Special Event	Evaluate the New Year's Eve special event and see if there are creative ideas to maintain and enhance the main attraction.	The event was cut in FY18 due to budget constraints. It is not proposed in FY19. Addressed in FY18 Events Strategic Project.
4.	IPRC Membership Fees	Consider altering the Imperial Park Recreation Center membership fee structure to allow for greater revenue while still providing a cost effective recreation option for users.	
5.	iFest Live Special Event	Evaluate and implement opportunities to improve the iFest Live special event.	Addressed in FY18 Events Strategic Project.
6.	Star Spangled Spectacular Special Event	Evaluate opportunities for the Star Spangled Spectacular special event.	The event was cut in FY18 due to budget constraints. Addressed in FY18 Events Strategic Project.
7.	Recreation Reservation Process Enhancement	Identify opportunities to streamline the recreation reservation process.	
8.	Partnership Responsibilities with Local Youth Sports Leagues	Initiate discussions with local youth sports leagues to reevaluate partnership responsibilities.	
9.	Cultural Kite Festival Special Event	Evaluate opportunities and implement improvements to the Cultural Kite Festival special event.	Addressed in FY18 Events Strategic Project.
10.	Eggstravaganza Special Event	Evaluate opportunities and implement improvements to the Eggstravaganza special event.	Addressed in FY18 Events Strategic Project.
11.	Halloween Town Special Event	Evaluate opportunities and implement improvements to the Halloween Town special event.	Addressed in FY18 Events Strategic Project.
12.	Imperial Park Recreation Center Improvements	Evaluate opportunities to increase recreation space and improve amenities at the Imperial Park Recreation Center.	
13.	Staff Needs for Special Events	Evaluate the need for full- or part-time personnel or contracted services for special events.	
14.	Passive Recreation Amenities in Parks	Evaluate additional opportunities to increase multigenerational passive recreation amenities in existing and future City parks.	
15.	Staff Needs for IPRC and Senior Center	Evaluate the need for additional recreational personnel as part of new development or expansion of the recreation and senior centers.	

16.	Special Event Programming in Oyster Creek Park	Consider adding additional special event programming to Oyster Creek Park.	
17.	Special Event Programming in the Dog Park	Consider adding special event programming to the Pawm Springs Dog Park.	
18.	Environmental Education Center	Develop an Environmental Education Center.	
19.	Public/Botanic Garden	Develop a Public/Botanic Garden.	
3. Great Neighborhood Actions			
1.	Collaboration with HOAs	Evaluate opportunities for increased communication and sharing of resources with the areas' homeowner associations.	
2.	Sugar Creek Neighborhood Park	Evaluate opportunities to add a new neighborhood-scale park in the Sugar Creek neighborhood.	
3.	Land Dedication Ordinance Update	Update the City's Park Land Dedication ordinance.	PARCS Board addressed during the master plan process that the City's Park Land Dedication ordinance needs to be updated to increase the money in lieu of land fee. The fee was set when the ordinance was originally established in early 1980's. The Parkland Dedication Fee shall be reevaluated based on the land value, not just comparison with some other cities.
4.	Sugar Mill Park Playground and Mesquite Park Playground	The playground that is due for renovation in the next couple of years is Sugar Mill Park playground. We will start that project when the funding is available. After Sugar Mill Park playground, Mesquite Park would be the next one due for renovation.	
5.	Increase community-scale park facilities in regional parks	Evaluate opportunities to increase community scale park facilities during master planning for regional parks.	
6.	Social Gathering Space in each Sugar Land park	Evaluate each park in the system to increase the use of social gathering space and associated infrastructure for the Sugar Land community.	
7.	Parkland Acquisition for Greatwood area	Evaluate opportunities for land acquisition to meet community parkland needs for the Greatwood area.	
8.	Cross-utilizing Facilities for Recreation	Identify opportunities to cross-utilize existing City property for recreational facilities and programming.	
9.	Imperial Park Master Plan	Continue to implement the Imperial Park Master Plan.	
10.	Technologies in Parks	Evaluate opportunities to make Sugar Land parks more technologically engaging.	

11.	Mesquite Park Improvements	Evaluate opportunities and implement improvements to Mesquite Park.	
12.	Lost Creek Park Improvements	Evaluate opportunities and implement improvements to Lost Creek Park.	
13.	First Colony Park Improvements	Evaluate opportunities and implement improvements to First Colony Park.	
14.	Land Acquisition in the Southeast of the City	Evaluate opportunities for land acquisition in the southeastern portion of the City to help meet community parkland needs.	
15.	Oyster Creek Park Improvements	Evaluate opportunities and implement improvements to Oyster Creek Park.	
16.	Mayfield Park Historic Elements	Evaluate opportunities and implement historic elements to Mayfield Park.	
4. Environmentally Responsible Community Actions			
1.	Recycling Program in Parks and during special events	Consider establishing and implementing a recycling program and associated amenities in the City's park system and during special events.	
2.	Parks Design and Equipment Guidelines	Establish or expand existing park design and equipment guidelines to improve environmental compatibility.	
3.	Resiliency of the Canoe Launch	Evaluate design solutions to improve the resiliency of the canoe/kayak launch located underneath Highway 59/Interstate 69 along the Brazos River.	
5. Beautiful Community Actions			
1.	Park Activity Monitoring and Enforcement	Consider additional operational support for the monitoring and enforcement of park activity.	
2.	Additional Maintenance Personnel and Resources	Evaluate the need for additional maintenance personnel and resources.	
3.	Maintenance Equipment Acquisition	Consider acquisition of additional equipment to increase efficiencies with regard to park maintenance operations.	
4.	Additional Visually Appealing park amenities	Evaluate opportunities to create visually appealing park amenity areas, entrances, parking, and other publicly accessible areas at all City parks.	
5.	Park Forester or Horticulturist	Consider adding a park forester or horticulturist to improve the diversity and quality of the City's plant species.	
6.	Maintenance Facility Upgrades	Consider upgrades to the City's park maintenance facilities.	

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
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N/A

PEDESTRIAN & BICYCLE MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

Marcello Victorino

Eric C. Oscarson

PEDESTRIAN & BICYCLE MASTER PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

In 2013, the City adopted the Pedestrian and Bicycle Master Plan, which serves as an update to the 2007 Hike and Bike Trails Master Plan. This comprehensive document provides direction and clear goals for the implementation of a network of bikeways, trails, and paths residents can use for recreation and personal transportation. The Plan envisions connections to all neighborhoods via readily accessible, safe and attractive facilities, developed over time in a way that is efficient, cost effective and that focuses on providing facilities to residents, visitors, and tourists to use. Since the adoption of the 2013 Pedestrian and Bicycle Master Plan, the City has expanded its pedestrian and bicycle network by adding approximately 23 miles of pedestrian and bicycle facilities.

Utilizing feedback from the City's residents and constituents, the plan incorporates the following goals:

- Develop a complete network of facilities for walking and bicycling throughout Sugar Land that is actively utilized;
- Incorporate the most current standards and best practices for safety, and provide facility options for all ages and abilities;
- Along major roadways in the city, emphasize off street facilities, but if feasible also provide on street facilities for experienced riders;
- Measurably increase the use of the network for both transportation and recreational uses as it is implemented;
- Provide a variety of off-street opportunities for active and passive activities;
- 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;
- 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
- Identify ways in which to accelerate the development of the network so that much of the system is in place within a decade.

With these goals in mind, the Pedestrian and Bicycle Master Plan aims to serve the citizens of Sugar Land by addressing important issues in personal transportation and making the City of Sugar Land a leader in being a fun and safe place to walk and bike.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The following is an assessment of when an update to the master plan is necessary. The Pedestrian and Bicycle Master Plan was last updated in 2013. Although the master plan identifies specific projects the recommendations are presented at a city-wide level and do not consider implications at the neighborhood level. The master plan currently identifies projects by facility type and prioritizes projects based on ease of implementation. However, there are instances where the recommended facilities may not be the best option for the roadway which forces the City to do additional studies to determine if another type of facility is appropriate. In situations where the recommended facility or route is not supported by residents, staff is tasked with reevaluating the facility type, develop an alternative route,

or cancel the project. There are even some instances where the City has cancelled projects after investing funds into design. Since the plan's adoption, implementation has also been very challenging due to funding. In previous fiscal years, the master plan assessment measured the percentage of completion based on all of the recommended projects within the master plan. The assessment for this year measures the percentage of completion by focusing only on the high priority infrastructure recommendations, and all programming and policy recommendations. The master plan recommends a total of 202 projects. Of these projects, there are 169 high priority pedestrian and bicycle infrastructure projects, totaling over \$26 million recommended for implementation within four to six years of adoption. Overall, 23% of the projects identified in the Pedestrian and Bicycle Master Plan have been implemented. Projects include high priority pedestrian and bicycle infrastructure as well as programs and policies. Below is a percentage breakdown of each type of project that has been implemented:

- 20% of the infrastructure projects are complete
- 54% of the programming projects have been put into place and are on-going
- 30% of the policy projects have been adopted

The City is currently making efforts to expand the public input process by reaching out to stakeholders at the neighborhood level during the planning, design, and construction phases of projects. Below are some considerations for the next master plan update:

- Identify facility recommendations by subareas or neighborhoods so that the City can prioritize projects based on connectivity and include them in the next 5-year CIP.
- Provide guidance on alternative routes and facility types which will help address concerns that may arise while still fulfilling the ultimate goal of connectivity.
- With the annexation of Greatwood and New Territory and the passing of HB 931, which will allow for municipalities to negotiate using electrical utility easements for hike and bike trails, identify utility and drainage easements that can serve as potential trail connectors to key destinations for Greatwood and New Territory residents.

As the City has implemented the Comprehensive Mobility Plan, the Thoroughfare Master Plan, and the Pedestrian & Bicycle Master Plan, conflicts between the policy direction established in each of these Plans have arisen. In order to address these inefficiencies and improve coordination between these three mobility-related plans, staff recommends an update and consolidation of the Comprehensive Mobility Plan, the Pedestrian and Bicycle Master Plan, and the Master Thoroughfare Plan into one comprehensive document in FY20.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	Williams Trace Sidepath	A 10-foot sidepath connecting from SH 6 to Austin Parkway.	Construction Completed in April 2018.
2.	Stadium Drive	A 10-foot wide sidepath from Old Imperial Blvd to US 90A East Side of St	Completed as part of the University Blvd North Extension Phase II (ST1701) 1,300 ft.
3.	Mesquite Trail	Easement acquisition	
4.	First Colony Trail from Sweetwater Blvd to Austin Parkway	Proposing reroute to connect from Woodstream trail along Sweetwater Blvd & Austin Pkwy to Mesquite Trail	3,700 ft.

5.	Education Recommendation 5: Provide information to promote safe walking.	Pamphlets and online information can be distributed to Sugar Land residents to help promote safe walking habits.	Staff distributed information at the Earth Day Event, Bike to Work/School Day Event, and the open houses for Greatwood and New Territory. The City also published an educational video on how to use the newly installed midblock crossing near City Hall.
6.	First Colony Trail from Lexington Blvd to Sweetwater Blvd	Proposing reroute to connect from Lexington Blvd to Woodstream trail and from Ditch A to Austin Parkway.	2,500 ft.
7.	Education Recommendation 1: Actively distribute information on the proper use of bicycle facilities.	Education efforts to increase biking and walking, while maintaining a safe environment for all users.	Staff distributed information at the Earth Day Event, Bike to Work/School Day Event, and the open houses for Greatwood and New Territory.
8.	Lake Pointe Trails Extension	A 10-foot shared-use path connecting from Creekbend Dr. to Whimbrel Dr.	Easement Acquired through parking lot from First Colony MUD 10
9.	Encouragement Recommendation 3: Encourage walking and bicycling commuting by City leaders, local employees, and area employers	Promoting Sugar Land residents to walk and bike more often.	The City partnered with Shape Up Fort Bend to celebrate National Bike Month with the annual Bike to Work and Bike to School Day Event on May 11, 2018.

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	Mesquite Trail Repairs	Repair areas of Mesquite Trail to address safety hazards.	Budget Request Submitted
2.	University Blvd Bike Route	Install signage to identify University Blvd as an official bike route.	Coordinate with Traffic Division in FY19.
3.	Pedestrian & Bicycle Counters	Research options for permanent pedestrian and bicycle counters.	Currently investigating whether the best strategy is to have a permanent or a mobile counter. There is a funding opportunity with H-GAC (cost-sharing)

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	Change Project prioritization methodology to focus on Connectivity and Accessibility	Instead of ease of implementation, projects should be prioritized based on improvements to network connectivity and accessibility.
2.	Combining Thoroughfare Plan, Pedestrian Bicycle Master Plan and Comprehensive Mobility Plan	Establish one cohesive master plan to address mobility related infrastructure to ensure consistency in implementation and a comprehensive approach to mobility planning.
3.	Evaluate implementation of 3 feet safe passing law	Require motor vehicles to keep at least 3-feet distance to safely passing bicyclists.

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Wayfinding Policy for Ped/Bike	Develop a Wayfinding Policy (Ped/Bike) defining minimum requirements for Wayfinding signage implementation.	

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
Shared-Use Paths			
1.	Clements High School from Ditch A Trail to Elkins Rd	Not Implemented.	Funding Not Identified, 1,900 ft.
2.	Eldridge Park Connection	Not Implemented.	Funding Not Identified, 400 ft.
3.	First Colony Powerline Trail from State Hwy 6 to Austin Pkwy	PER Complete	6,600 ft.
4.	First St from Main St to Wood St	Not Implemented	Funding Not Identified, 1000 ft.
5.	Highland Area Neighborhood Trail from	Not Implemented.	Funding Not Identified, 3700 ft.

	Lexington Blvd/State Hwy 6 to Williams Trace Blvd		
6.	Kensington to Meadow Lake Park Connection from Kensington Dr. to existing Trail at Meadow Lake Park	Not Implemented	Funding Not Identified, 500 ft.
7.	North Detention Pond Trail from West Airport Blvd to Retention Ponds in Reserve at Glen Laurel	Not Implemented	Funding Not Identified, 1600 ft.
8.	River Park Trail from Grand Parkway to US 59	Not Implemented	Funding Not Identified, 6000 ft.
9.	Settlers Way Blvd Ditch Trail from Mesquite Dr. to Ditch A Trail	Not Implemented	Funding Not Identified, 400 ft.
10.	Settlers Way Blvd Ditch Trail from Austin Pkwy to Existing Ditch Trail	Not Implemented	Funding Not Identified, 300 ft.
11.	Sugar Land Memorial Park Trail from Sugar Land Memorial Park to Brazos River	Not Implemented	Funding Not identified 2,700 ft.
12.	Ditch H Trail	Approx. 5-mile, 10-foot wide trail along Ditch H connecting from Imperial Park to Clements High School	Design contract awarded in FY 17 (PK1702) (on hold)
13.	First Colony Area Trails	Under Redesign	F Election (PK1506) (on hold)
Sidepaths			
12.	Brooks St from Bridge to State Hwy 6 – East Side	Not Implemented	Funding Not Identified 1,100 ft.
13.	Burney Road from West Airport Blvd to Seventh St	Not Implemented	Funding Not Identified 8,700 ft.
14.	Colonist Park Dr. from Pecan Point Dr. to Edgewater Dr. – West Side	Not Implemented	Funding Not Identified 1,000 ft.
15.	Dairy Ashford Rd from US 90A to US 59 - East Side of St	Under Design	ST1405 1,500 ft.
16.	Edgewater Dr. from Williams Trace Blvd to Colonist Park Dr. - North Side of St	Not Implemented	Funding Not Identified 700 ft.
17.	Elkins Rd from Alcorn Oaks Dr. to University Blvd - West Side of St	Not Implemented	Funding Not Identified 4,000 ft.
18.	Elkins Rd from Sweetwater Blvd to	Not Implemented	Funding Not Identified, 3,700 ft.,

	Colony Crossing Dr. North/West Side		
19.	First Colony Blvd From State Hwy 6 to Colony Lakes Dr. - East Side of St	A portion of this project is under design as part of the SH6 @ First Colony Blvd intersection improvements	ST1704, 2,600 ft.
20.	Fluor Daniel Dr. from Lake Point Trail to Soldiers Field Dr. South / East Side, South Side of St	Not Implemented	Funding Not Identified 1,500 ft.
21.	Imperial Development from Imperial Blvd to North Oyster Creek Trail, Both Sides of St	Not Implemented	Funding Not Identified 1,000 ft.
22.	Kempner from Ulrich St to Main St	Under Design	Funded by developer. Originally recommended as bike lane in Master Plan 1,600 ft.
23.	Lexington Blvd from Sweetwater Blvd to State Hwy 6 – North Side	Not Implemented	Funding Not Identified 6,700 ft.
24.	Lexington Blvd from Ditch A to Austin Pkwy – North Side	Not Implemented	Funding Not Identified 1,000 ft.
25.	Lowe's Connection from US 59 to Soldiers Field Dr. – South Side of St	Not Implemented	Funding Not Identified 300 ft.
26.	Mall Ring Rd from Town Center Blvd to Lexington Blvd West Side	Not Implemented	Funding Not Identified 1,000 ft.
27.	Meadowcroft Blvd from University Blvd to Ditch H	Not Implemented	Funding Not Identified 2,700 ft.
28.	Settler's Way Blvd from Lost Creek Blvd to Edgewater Dr. - West Side	Not Implemented	Funding Not Identified 400 ft.
29.	Stadium Drive from Burney Rd to Imperial Bridge, North Side of St.	Not Implemented	Funding Not Identified 2,000 ft.
30.	Stadium Drive from Imperial Bridge to Imperial Blvd.	Under Design	Part of University Blvd Extension Phase 11 (ST1701) 2,000 ft.
31.	Sugar Creek Blvd from US 59 to Country Club Blvd, North/East side of St.	Not Implemented	Funding Not Identified 1,100 ft.
32.	Sugar Lakes Dr. From Creek Bend Dr. to US 59, North Side of St	Not Implemented	Funding Not Identified 800 ft.
33.	Sugar Lakes Dr. From Creek Bend Dr. to US 59, South Side of St	Not Implemented	Funding Not Identified 800 ft.

34.	Sweetwater Blvd from Lexington Blvd to Ditch A Trail, West Side of St.	Not Implemented	Funding Not Identified 2,100 ft.
35.	Sweetwater Blvd from Ditch A Trail to Palm Royale Blvd - South/West Side of St	Not Implemented	Funding Not Identified 2,800 ft.
36.	Ulrich St from Avenue A to US 90A, East Side of St.	Not Implemented	Funding Not Identified 1,300 ft.
37.	University Blvd from US 59 to North of Wentworth Ave - East Side of St	Not Implemented	Funding Not Identified 3,500 ft.
38.	US 59 from Town Center Dr. to Williams Trace Blvd - South Side of St	Not Implemented	Funding Not Identified 2,900 ft.
39.	US 59 from Lake Pointe Pkwy to Sugar Lakes Dr. - North Side of St	Not Implemented	Funding Not Identified 3,000 ft.
40.	US 59 from Commerce Green Blvd to Dairy Ashford Rd - North Side of St	Not Implemented	Funding Not Identified 2,100 ft.
41.	US 59 from Brazos River to Brazos River Park - South Side of St	Not Implemented	Funding Not Identified 1,800 ft.
42.	Voss Rd from State Hwy 6 to Burney Road	Not Implemented	Funding Not Identified 3,900 ft.
43.	Williams Trace Blvd to US 59 from Lexington Blvd South/West Side of St	Not Implemented	Funding Not Identified 2,900 ft.
44.	Williams Trace Blvd from Lexington Blvd to Ferry Landing - South/West side of St	Not Implemented	Funding Not Identified 1,200 ft.
Sidewalks			
45.	Brooks St from Guenther St to Azalea	Not Implemented	Requires easement acquisition from property owners, 2,200 ft.
46.	Fluor Daniel Drive from SH 6 to Lake Point Trail North Side	Not Implemented	Funding Not Identified, 600 ft.
47.	State Hwy 6 from Settlers Way Blvd to Powerline Trail Corridor South Side	Not Implemented	Funding Not Identified, 1,900 ft.
48.	US 59 from Lowe's to State Hwy 6 North Side	Not Implemented	Funding Not Identified 2,900 ft.
49.	US 59 from Mall Ring Rd to State Hwy 6 South Side	Not Implemented	Funding Not Identified 1,300 ft.

50.	US 59 from State Hwy 6 to Town Center Blvd South Side	Not Implemented	Funding Not Identified 1,100 ft.
51.	US 59 from State Hwy 6 to Lake Pointe Parkway North Side	Not Implemented	Funding Not Identified 1,100 ft.
52.	West Airport Blvd from Drainage to West of Eldridge Rd. North Side	Not Implemented	Funding Not Identified 1,600 ft.
53.	West Airport Blvd from Sidewalk to Dairy Ashford Rd. North Side	Not Implemented	Funding Not Identified 700 ft.
54.	West Airport Blvd from East of Eldridge Rd to Stancliff Oaks North Side	Not Implemented	Funding Not Identified 1,200 ft.
Shared Lanes			
55.	Branford Place from University Blvd to Westcott Ave	Not Implemented	Funding Not Identified 1,500 ft.
56.	Colonist Park Dr. from Lexington Blvd to Edgewater Dr.	Not Implemented	Funding Not Identified 1,700 ft.
57.	Commonwealth Blvd from University Blvd to Scenic Rivers Dr.	Not Implemented	Funding Not Identified 21,500 ft.
58.	Edgewater Drive from Williams Trace Blvd to Waters Way Dr.	Not Implemented	1,500 ft. Component of TR1408
59.	Green Fields Dr. from Pecan Ridge Dr. to Settler's Way Blvd	Not Implemented	Funding Not Identified 2,400 ft.
60.	Greenway Dr. from Hanbury Ct to Eldridge Rd	Not Implemented	Funding Not Identified 5,200 ft.
61.	Knightsbridge Blvd from Palm Royale Blvd to Commonwealth Blvd	Not Implemented	Funding Not Identified 2,500 ft.
62.	Palm Royale Blvd from Sweetwater Blvd to Commonwealth Blvd	Not Implemented	Funding Not Identified 12,800 ft.
63.	Pecan Ridge Dr. from Planters St to Green Fields Dr.	Not Implemented	Funding Not Identified 400 ft.
64.	Planters St from Williams Grant to Pecan Ridge Dr.	Not Implemented	Funding Not Identified 4,000 ft.
65.	Williams Grant from North of Sugar Mill Dr. to Planters St	Not Implemented	Funding Not Identified 1,200 ft.

Bike Lanes			
66.	Alcorn Oaks Dr. from Sweetwater Blvd to Elkins Rd	Not Implemented	Bike Lane, Funding Not Identified 4,400 ft.
67.	Chatham Ave From Easton Ave to Telfair Ave	Not Implemented	Buffered Bike Lane, Funding Not Identified, Lane Diet, 9,100 ft.
68.	Chatham Ave from Easton Ave to University Blvd	Not Implemented	Bike Lane, Funding Not Identified, Lane Diet 2,400 ft.
69.	Commerce Green Blvd from Fort Bend Chamber of Commerce to Fort Bend Chamber of Commerce	Not Implemented	Bike Lane, Funding Not Identified, Road Diet, 400 ft.
70.	Commerce Green Blvd from US 90A to South of Sugar Creek Center Blvd	Not Implemented	Buffered Bike Lane, Funding Not Identified, 1,600 ft.
71.	Commerce Green Blvd from South of Sugar Creek Center Blvd to US 59	Not Implemented	Buffered Bike Lane, Funding Not Identified 1,000 ft.
72.	Cottonwood Ct From West Airport Blvd to Greenway Dr.	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 1,900 ft.
73.	Country Club Blvd. from Sugar Creek Blvd to Williams Trace	Design Complete	Project cancelled due to concerns from residents (TR1408).
74.	Edgewater Drive from Waters Way Drive to Settlers Way Blvd	Not Implemented	Buffered Bike Lane, Road Diet, Funding Not Identified, 2,400 ft.
75.	Gillingham Ln from West Airport Blvd to US 90A	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 8,600 ft.
76.	Hetherington Ave from Chatham Ave to Telfair Lakes	Not Implemented	Bike Lane, Funding Not Identified 1,100 ft.
77.	Kensington Drive from SH6 to Cul-De-Sac	Not Implemented	Bike Lane, Funding Not Identified 1,800 ft.
78.	Lakeside Plaza Drive from Kensington Dr. to US 59 / Southwest Freeway	Not Implemented	Bike Lane, Funding Not Identified 800 ft.
79.	Longview Dr. from Amesbury Ct to Dulles Ave	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 5,100 ft.
80.	Lost Creek Blvd from Settlers Way Blvd to Oyster Creek Park	Not Implemented	Buffered Bike Lane, Road Diet, Funding Not Identified, 1,400 ft.
81.	Main St from Imperial Blvd to US 90 A	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 600 ft.

82.	Parkway Blvd from David Searles Blvd. to Williams Trace Blvd.	Design Complete	Project cancelled due to concerns from residents (ST1606).
83.	Soldiers Field from Fluor Daniel Dr. to Soldiers Field Ct Cul-de-Sac	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 2,400 ft.
84.	Soldiers Field from First Colony Blvd to Fluor Daniel Drive	Not Implemented	Buffered Bike Lane, Funding Not Identified Lane Diet 1,600 ft.
85.	Summit Creek from East Riverpark Dr. to US 59	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 2,600 ft.
86.	Town Center Blvd from SH 6 to US 59	Not Implemented	Buffered Bike Lane, Funding Not Identified 1,600 ft.
87.	University Blvd from US 59 to Commonwealth Blvd	Not Implemented	Bike Lane, Funding Not Identified Shift Shoulder to Outside Lane 8,300 ft.
88.	Williams Grant from North of Sugar Mill Drive to Williams Trace Blvd	Not Implemented	Bike Lane, Funding Not Identified Lane Diet 1,800 ft.
Barrier Improvements			
89.	Ditch H Trail at US 59 Security lighting, trail connections to east and west bound frontage road	Not Implemented	Include as part of Ditch H Trail project.
90.	SH 6 at US 59 (west side) Relocate US 59 U-turn to provide 12' wide pedestrian zone with pavers, protective wall, enhanced lighting, landing and sidewalks on north side	Not Implemented	Funding Not Identified
91.	Sweetwater/First Colony at US 59 (west side) Enhanced pedestrian area with pavers, lighting, landing and ramp widening	Not Implemented	Funding Not Identified
92.	University (both sides) Ramp widening, paver walking areas, long term relocate U-turn	Not Implemented	Funding Not Identified
93.	SH 6 Pedestrian Bridge at Oyster Creek Park Near Oyster Creek Park, 250' span + approach ramps	Not Implemented	Funding Not Identified
94.	Enhanced Crossing at Ulrich/ US 90A Enhanced pavement crosswalk, sidepath w/ diverter fencing & pedestrian level RR warning signals	Not Implemented	Funding Not Identified

95.	US 90A at Brooks/ Main Install crosswalks, use dashes to indicate bicycle route across the intersection	Not Implemented	Funding Not Identified
96.	SH 6 at Town Center Blvd. Replace crosswalks and ramps, widen median refuge, relocate crosswalk signal location in median	Not Implemented	Funding Not Identified
97.	SH 6 at Lexington Replace crosswalks and ramps; increase size of waiting space at each corner, relocate crosswalk signal location in median, install wider median refuge	Not Implemented	Funding Not Identified
98.	SH 6 at Fluor Daniel Reduce curve radii to reduce ped/bike crossing distance, replace crosswalks and ramps, increase size of waiting space, relocate crosswalk signal location in the median, install signage, adjust median size and signal timing	Not Implemented	Funding Not Identified
99.	Williams Trace at US 59 (west side) Widen pedestrian zone on SB side of Williams Trace under bridge, add paver walkways, enhanced lighting, ramp widening	Not Implemented	Funding Not Identified
100.	Dairy Ashford at US 59 (west side) Widen pedestrian zone on SB side of Dairy Ashford under bridge, add paver walkways, enhanced lighting, ramp widening	Not Implemented	Funding Not Identified
101.	Pedestrian Bridge over Brazos River at US 59 At US 59 – span length approximately 800 to 900' +/- assumes use of US 59 bridge as supports for pedestrian bridge, include minor U-turn area improvements	Not Implemented	Funding Not Identified

102.	SH 6 at Williams Trace Extend median to create refuge, replace ramps and increase size of landing area at each corner	Not Implemented	Funding Not Identified
103.	SH 6 at Kensington Install dashed bicycle lane chevrons, relocate crosswalk to allow for median refuge, replace crosswalks and ramps, increase size of waiting space, adjust push button locations	Not Implemented	Funding Not Identified
104.	US 90A at University Blvd. Use smaller corner radii to reduce the pedestrian crossing distance, include median refuge with push button actuators, include crosswalks, include ten foot (10') wide paved crossing over the existing railroad tracks.	Not Implemented	Funding Not Identified
105.	US 90A at Dairy Ashford Complete sidewalk connections, replace crosswalks and ramps	Not Implemented	Funding Not Identified
106.	US 90A at Gillingham Widen pavement to accommodate bicycle lanes	Not Implemented	Funding Not Identified
107.	SH 6 at University Blvd. Adjust location of south/east U-turn to create wider pedestrian zone, install decorative pavement, replace existing crosswalks and ramps, increase size of waiting area	Not Implemented	Funding Not Identified
Programming Projects			
108.	Education Recommendation 2: Temporary police patrols after implementation of new facilities to educate Sugar Land residents on safe bicycle riding.	Not Implemented	Requires coordination with Police Department.
109.	Education Recommendation 3: Promote Safe Routes to School efforts in all	Not Implemented	Requires coordination with FBISD.

	primary schools in Sugar Land.		
110.	Education Recommendation 4: Provide youth and adult bicycle education opportunities.	Not Implemented	
111.	Encouragement Recommendation 4: Conduct a detailed school by school analysis to improve walking and bicycling routes to that school as part of any future Safe Routes to School Plan.	Not Implemented	Requires coordination with FBISD
112.	Enforcement Recommendation 5: Work with local advocacy groups to encourage a volunteer bicycle fleet to offer group rides.	Not Implemented	
Policy Projects			
113.	Policy Recommendation 1: Require that new developments provide sidewalks along all freeway frontage roads.	Not Implemented	Funding not identified for costsharing. Policy Recommendation 1: Modify the Development Code and/or Design Standards
114.	In higher density areas of the City, consider encouraging the inclusion of on-street parking to help create a more pedestrian friendly environment	Not Implemented	Policy Recommendation 1: Modify the Development Code and/or Design Standards
115.	Require Traffic Impact Analysis (TIAs) to incorporate an assessment of pedestrian and bicycle needs.	Not Implemented	Policy Recommendation 1: Modify the Development Code and/or Design Standards
116.	Operations Recommendation 1: Maintenance of on-street bicycle lanes	Not Implemented	A commitment to more frequent sweeping of bicycle lanes is needed to keep them free from debris, stones and gravel that can impede the use of the lane.
117.	Operations Recommendation 2: Trash bins in bicycle lanes	Not Implemented	The City should work with citizens and its waste pickup provider to avoid the placement of trash bins in bicycle lanes.
118.	Operations Recommendation 3: Staffing for promotion and encouragement efforts	Not Implemented	Hire staffing person for promotion and encouragement efforts.

119.	HOA Recommendation 1: Adopt policies that guide where the City should take over the maintenance of HOA-built paths	Not Implemented	To ensure a consistent highquality network and public accessibility citywide, Sugar Land should develop agreements to incorporate some association built paths into the City's public pathway network.
120.	HOA Recommendation 2: Seek partnerships	Not Implemented	Seek partnerships to accelerate construction of some trails by soliciting matching funds from HOAs.
121.	Enforcement Recommendation 1: Increase enforcement of bicycling related infractions.	Not Implemented	Requires direction from City Council and police enforcement.
122.	Enforcement Recommendation 3: Evaluate whether a helmet use law for young bicyclists is appropriate for Sugar Land.	Not Implemented	Requires direction from City Council and police enforcement.
123.	Enforcement Recommendation 4: Consider adopting an ordinance that prohibits vehicles from driving in the bicycle lanes.	Not Implemented	Requires direction from City Council and police enforcement.

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
Shared-Use Paths			
1.	Imperial Connector Trail (Imperial Park)	A 10-foot shared-use path, approximately 4,800 feet within Imperial Park.	Completed in FY16 (PK 1505)
Sidepaths			
2.	Imperial Blvd	An 8-foot sidepath from SH 6 to Ulrich St	Partial completion by developer
3.	Town Center Pedestrian Improvements	Town Center Blvd - Installation of a mid-block crossing and an 8-foot sidepath on the north side and a 6-foot sidewalk on the south side of the street.	Completed in FY 17 (PK1103)
4.	University Boulevard	A 10-foot sidepath from Aberfeldy to the existing bike lane on the east side, approximately 150 linear feet.	Completed in FY 16 (ST1606)
5.	Wimberley Canyon Drive Sidewalk	Sidewalk installed to connect to Riverpark Dog Park	Completed in FY 17 (ST 1606)

6.	Creekbend Drive Sidewalk	Replaced gravel path with sidewalk from Sugar Lakes Drive to bridge.	Completed in FY 17 (ST 1606)
7.	University Boulevard Sidepath	A 10-foot sidepath from existing bike lane on the west side to Lexington Blvd, approximately 150 linear feet.	Completed in FY 17 (ST1606)
Shared Lanes			
8.	Imperial Connector Trail	Shared lane markings along Guenther Street from Ulrich Street to Brooks Street, approximately 900 linear feet on both sides; and along Brooks Street from Guenther Street to Matlage Way, approximately 2,200 linear feet on both sides.	Completed in FY 16 (PK1505)
9.	Fluor Daniel Drive	Shared lane markings and signs from Creekbend Drive to SH 6 on both sides, approximately 1,000 linear feet.	Completed in FY 16 (ST1606)
10.	Lakeview Drive	Shared lane markings and signs from Main Street to Gillingham Lane on both sides, approximately 6,300 linear feet.	Completed in FY 16 (ST1606)
11.	Sugar Mill Drive	Shared lane markings and signs from Williams Grant to Williams Trace Boulevard on both sides, approximately 1,700 linear feet.	Completed in FY 16 (ST1606)
12.	State Highway 6	Design complete for 14-foot shared lane	
Study			
13.	Mid-Block Crossing Study	Development of a set of design standards to be applied citywide. This project also developed mid-block crossing concepts for the First Colony Trail project.	Completed in FY 17 (PK1506)
Programming Projects			
14.	Education Recommendation 1: Actively distribute information on the proper use of bicycle facilities.	Education efforts to increase biking and walking, while maintaining a safe environment for all users.	On-going effort. Printed information about safety tips for bicyclists and motorists is available in the City Hall foyer. Digital information and videos are available on the City's website.
15.	Education Recommendation 5: Provide information to promote safe walking.	Pamphlets and online information can be distributed to Sugar Land residents to help promote safe walking habits.	On-going effort. The City continues to distribute printed information at events and make information available in the foyers of various City buildings. Digital information is also available on the City's website.
16.	Encouragement Recommendation 1: Seek Bicycle Friendly Community Status	The League of American Bicyclists (LAB) recognizes and ranks communities based on their level of bicycle friendliness.	The City applied to be recognized as a Bicycle Friendly Community and received Honorable Mention status from the LAB.
17.	Encouragement Recommendation 3: Encourage walking and	Promoting Sugar Land residents to walk and bike more often.	The City partnered with Shape Up Fort Bend to celebrate National Bike Month

	bicycling commuting by City leaders, local employees, and area employers		with the annual Bike to Work and Bike to School Day.
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THOROUGHFARE MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

Jessie Li

Timothy W. Jahn

THOROUGHFARE MASTER PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The Master Thoroughfare Plan was updated in June 2012 and adopted in September 2012. The update at that time was a complete restructuring of the existing plan and focused on the development of a collaborative master plan that identified issues that might impact thoroughfares in the City. The Master Thoroughfare Plan provided a comprehensive update to the City's major street network that included major and minor collectors, arterials, state highways, and freeways. It looked at growth in the City as well as the region and the impact that growth will have on the City in both the short and long term. The plan identified alternate cross sections for streets that have been utilized as well as a toolbox for context sensitive design components to be used on projects moving forward to accommodate multiple forms of mobility.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

Of the top three projects identified in the 2012 Master Thoroughfare Plan, two are underway at various phases. The first project is identified as Williams Trace Blvd. Reconstruction Phase I. Design was completed in FY17 and construction was completed in March 2018. The second project is identified as the SH 6 Phase III project (widening with two new lanes between Brooks St. and Lexington Blvd.). Right-of-way acquisition and design were both completed in Jan 2018 by the City. Construction is anticipated in late summer 2018 (TxDOT-led construction). The third project identified was an analysis of West Airport Blvd. from Eldridge Road to the east city limits. This project has not begun and there is no plan to look at this due to the continued acceptable level of operation.

For the development community, significant progress has been made on a number of projects identified in the thoroughfare plan. A number of these are located in the Riverstone, Imperial Tract 3 and Greatwood Lakes developments. Many of these have been completed through construction phase as indicated in the tables below.

In November 2017, voters in Fort Bend County passed a roadway bond election which will impact three existing roadways and create a new roadway in the City: 1) Williams Trace Blvd. reconstruction of the existing four lanes with intersection improvements (from SH6 northward to Lexington Blvd.); 2) Industrial Blvd intersection at Reed Road.; 3) University Blvd. additional lanes (one in each direction in the median) from 1,000-ft north of Lexington Blvd. to New Territory Blvd.; and 4) Owens Road (from Hwy 90A westward to the city limits). These improvements will yield additional capacity or create new connectivity and City-funding for these projects will be determined at future fiscal years. These roadways are included as "Additional Projects". Two other "Additional Projects" include proposed public roadways as follows:

1) Fluor Corporation is in the process of completing a Final Development Plan (FDP) for the undeveloped property in Tract 5. If approved, Fluor Corporation will donate a new public 4-lane collector road to extend south from the existing Lexington Blvd., along the Flour Campus, to connect to University Blvd. This public roadway is not currently shown in the Thoroughfare Master Plan and will be included once the Fluor FPD is approved.

2) NNP-Telfair, LLC (Newland) is in the process of completing a General Development Plan for the undeveloped property in Tract 5. If approved, Newland will donate a new public 2-lane local road to extend from Taborwood Ave. to Aberfeldy St. This public roadway is not currently shown in the Thoroughfare Master Plan and will be included once the Newland development is approved.

Since the adoption of the 2013 Pedestrian and Bicycle Master Plan, challenges have been encountered to implement the Ped Bike Master Plan recommendations within public ROW corridors that are already fully established and built out. These challenges include finding ways to install sidepaths and other pedestrian and bike mobility infrastructure while maintaining traffic through-put capacity of the corridors and minimizing impacts to existing landscaping environment, and addressing resident requests for safe mid-block crossings without significant impacts to vehicles level of service. In order to address these inconsistencies between these mobility-related plans, staff recommends consolidation of the Comprehensive Mobility Plan, the Pedestrian and Bicycle Master Plan, and the Thoroughfare Master Plan into one comprehensive document in FY 20.

It is also recommended to complete a minor amendment to the Thoroughfare Master Plan to update the map exhibit to depict progress made to date and depict pending changes such as the addition of new public roads mentioned previously. The minor amendment is recommended in FY19.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	University Blvd. extension (north of US90A) Phase II (South Stadium Drive)	4-lane divided major collector over Oyster Creek to Stadium Drive through Imperial Tract 3	Construction completed Jun 2018 by City;
2.	Williams Trace Blvd. Reconstruction Phase I	4-lane arterial reconstruction from Austin Pkwy to Hwy 6; reduced median width and inclusion of 10-ft sidepath	Construction completed Feb 2018 by City;
3.	Industrial Blvd. Reconstruction	Improvements needed to widen Industrial Blvd. from Reed Rd. to US90A to accommodate growth at the industrial business park.	Construction completed Feb 2018 by City;
4.	SH6 Widening	6-lane divided state highway widening of Hwy 6 (from six to eight lanes) at Brooks St. to Lexington Blvd.; additional lanes increase capacity	Design and Right-of-Way acquisition completed by City; Tx-DOT led construction expected fall 2018 to fall 2019.
5.	US90A Widening	4-lane divided state highway widening of US 90A(to a total of 6 lanes) from Hwy 6 to Grand Parkway (US99)	Construction completed Mar 2018 by TxDOT;
6.	Extension of Cabrera Road to University Blvd. (East of LJ Parkway)	4-lane divided minor collector road to connection University Blvd. to LJ Parkway	Construction completed in FY18 by the developer;

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	SH6 Widening	6-Lane arterial widening of Hwy 6 to 8lanes from Brooks St. to Lexington Ave.; additional lanes increase capacity	TxDOT-led bidding /construction expected to begin late summer 2018 with completion in FY19.
2.	Dairy Ashford Widening	Addition of thru-lanes along Dairy Ashford from Parklane Blvd. to Julie Rivers Drive and addition of turn lanes at the intersection of Dairy Ashford and US90A.	Design and right-of-way acquisition was completed in FY18; construction is expected to commence in FY19.
3.	Owens Road	Approved in the Fort Bend County Nov 2017 mobility bond election to increase capacity of road networks within the County. Improvements include construction of 6,500 feet of 4-lane and 2-lane collector roadway form Hwy 90A to the city limits.	City-led Capital Improvement Project will include design in FY19.

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	Combining Thoroughfare Plan, Pedestrian Bicycle Master Plan and Comprehensive Mobility Plan	Establish one cohesive master plan to address mobility related infrastructure to ensure consistency in implementation and a comprehensive approach to mobility planning.
2.	Complete Streets Policy	Establish a policy to incorporate roadway design cross sections to include additional modes of transportation including pedestrian and bicycle accommodations per the Pedestrian and Bicycle Master Plan recommendations.

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Williams Trace Blvd. (SH6 to Lexington Blvd.)	Approved in the Fort Bend County Nov 2017 mobility bond election to increase capacity of road networks within the	City-led Capital Improvement Project will be considered in future fiscal years

		County. Improvements include reconstruction of the existing 4-lanes plus intersection improvements.	
2.	Industrial Blvd. at Reed Road intersection	Approved in the Fort Bend County Nov 2017 mobility bond election to increase capacity of road networks within the County. Improvements include intersection geometry and lane improvements.	City-led Capital Improvement Project will be considered in future fiscal years
3.	Owens Road	Approved in the Fort Bend County Nov 2017 mobility bond election to increase capacity of road networks within the County. Improvements include construction of 6,500 feet of 4-lane and 2-lane collector roadway from Hwy 90A to the city limits.	City-led Capital Improvement Project will be considered in future fiscal years; design to commence in FY19.
4.	University Blvd. (New Territory Blvd. to Lexington Blvd.)	Approved in the Fort Bend County Nov 2017 mobility bond election to increase capacity of road networks within the County. Improvements include construction of two lanes in each direction (within the median) between New Territory Blvd. and 1,000-ft north of Lexington Blvd.	City-led Capital Improvement Project will be considered in future fiscal years
5.	Fluor Sugar Land Campus public road	Fluor Corporation is completing a Final Development Plan (FDP) on their undeveloped Tract 5 property and, if approved, will include a new public 4-lane divided collector road to extend from the existing Lexington Blvd. southward through Fluor property to University Blvd.	This public road is not currently shown in the Master Thoroughfare Plan. This project will be funded by Fluor Corporation and donated to the City.
6.	Industrial Blvd. Reconstruction	Improvements needed to widen Industrial Blvd. from 2-lane undivided to 4-lane divided roadway between US90A and Reed Road to accommodate growth at the industrial business park.	Design completed FY17 and construction completed Feb 2018 by City;

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1.	Extension of Shadow Bend Dr. to FM 2759	TBD	Demand not present;
2.	Extension of Winding Brooks E. Dr. to FM 2759	TBD	Demand not present;

3.	Burney Road efficiency imp. (Voss Rd. to Jess Pirtle Dr.)	TBD	Demand not present;
4.	Settlers Way Blvd. Reconstruction (Austin Pkwy to SH6)	TBD	Demand not present;
5.	Eldridge Road (W. Airport Blvd. to US90A)	TBD	Demand not present;
6.	West Airport Analysis (Eldridge Road to east City limits)	TBD	Demand not present;

8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
1.	Closing of Union Pacific Railroad (UPRR) crossings	Agreement with UPRR to close two at-grade crossings (Wood St. & Nalco) along US90A for a new at-grade crossing. (University Blvd. extension north of US90A into Imperial Tract 3)	Agreement completed by City; Nalco drive closed FY 16 and Wood St. closed FY17 by City;
2.	University Blvd. extension (north of US90A) Phase II (South Stadium Drive)	4-lane divided major collector over Oyster Creek to Stadium Drive through Imperial Tract 3.	Design completed by City;
3.	Williams Trace Blvd. Reconstruction Phase I	4-lane arterial reconstruction from Austin Pkwy to Hwy 6; reduced median width and inclusion of 10-ft sidepath.	Design complete by City;
4.	Industrial Blvd. Reconstruction	Improvements needed to widen Industrial Blvd. from Reed Rd. to US90A to accommodate growth at the industrial business park.	Design completed by City;
5.	SH6 Widening	6-Lane arterial widening of Hwy 6 to 8-lanes from Brooks St. to Lexington Ave.; additional lanes needed to increase capacity.	Environmental assessment, and preliminary engineering report completed by City;
6.	US90A Widening	4-lane divided state highway expansion to 6 lanes west of Hwy 6 to Grand Parkway.	Design completed by TxDOT;
7.	Taborwood Ave.	4-lane minor collector between US90A and Lexington Ave. within TxDOT Tract 5	Design and construction completed by developer;
8.	Wentworth Ave.	4-lane minor collector from University Blvd. through Avalon at Telfair – TxDOT Tract 5	Design and construction completed by developer;
9.	Turn bay storage at US59 / SH6	US59 north bound frontage road turn bay storage length increase (at Hwy 6)	Design and construction completed by City;

10.	Stadium Dr.	4-lane major collector from future University North Extension to Main Street through Imperial Tract 3.	Design and construction completed by developer;
11.	Imperial Blvd.	4-lane major collector from Hwy 6 to Ulrich St. through Imperial Tract 3.	Design and construction completed by developer;
12.	Winding Waters Ln.	4-lane minor collector from University Blvd. to LJ Parkway through Riverstone.	Design and construction completed by developer;
13.	Addison Ave.	4-lane minor collector from University Blvd. to Telfair Ave. – TxDOT Tract 4	Design and construction completed by developer;
14.	Wallingford Ave.	4-lane minor collector from University Blvd. to Wescott Ave. – TxDOT Tract 4	Design and construction completed by developer;
15.	Lake Riverstone Dr.	4-lane minor collector from LJ Parkway to Winding Waters Ln. in Riverstone	Design and construction completed by developer;
16.	Magnolia Trail Lane (Macek Road extension)	2-lane minor collector extending Macek Road through Greatwood Lakes subdivision	Design and construction completed by developer;
17.	Arbor Ranch Drive (minor collector to Macek Road)	2-lane minor collector extending Macek Road through Greatwood Lakes subdivision	Design and construction completed by developer;
18.	University Blvd. extension (north of US90A) Phase I	4-lane divided major collector from US90A up to Oyster Creek	Design and construction completed by City;
19.	University Blvd. extension (south of US90A)	4-lane divided major collector from University Blvd. to US90A.	Design and construction completed by City;
20.	Meadowcroft Blvd. connection	4-lane major collector from University Blvd. to First Colony Blvd. including bridge section over Ditch H	Road design and construction completed by the City / bridge design and construction completed by developer;
21.	LJ Parkway Blvd. connection Phase III	4-lane major collector including roundabout at intersection of Commonwealth Blvd. and LJ Parkway	Design completed by developer; construction completed by developer;
22.	East / West Avalon Dr.	4-lane minor collector from University Blvd. through Riverstone PUD 2	Design and construction completed by developer;
23.	Collector road to access future park along Brazos River (Riverstone Dev.)	2-lane minor collector from University Blvd. to the dedicated park land in Riverstone PUD 2	Design and construction completed by developer;
24.	LJ Parkway Blvd. connection Phase III	4-lane major collector including roundabout at intersection of Commonwealth Blvd. and LJ Parkway	Design and construction completed by developer;
25.	University of Houston Road (US59 into Festival Site)	Road section from US 59 to the LID 17 Ditch to service the Festival Site and BRP.	Design and construction completed by City;
26.	Crown Garden Trail Dr.	4-lane major collector from Hwy 6 to Ulrich St. through Imperial Tract 3	Design and construction completed by developer;

WASTEWATER MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

Robert O. Valenzuela

Brian J. Butscher

Katie R. Clayton

WASTEWATER MASTER PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The purpose of the Wastewater Master Plan is to provide the City with a tool for timing and planning of the construction of needed wastewater system infrastructure to assure adequate collection and treatment capacity is built to accommodate growth and development. The plan was last updated in 2012.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The following is an assessment of whether or not an update to the master plan is necessary. The Wastewater Master Plan was updated in 2012 and the previous direction is still relevant and appropriate. The City is currently developing an Integrated Water Resource Plan that will help lay the foundation for the future of reuse in the City and ETJ. The IWRP will help in identifying wastewater reuse investment strategies. The IWRP will be completed in FY 18 and the information developed through the IWRP will be incorporated into future Wastewater Master Plans.

Thirteen of the fifteen projects identified in the most current update of the Wastewater Master Plan have not been implemented to date, while two development-driven projects have had some progress. Three of the fifteen recommended projects have been included in the proposed FY19-FY23 CIP. While only 2 of the 15 recommended projects have been completed (13%), the projects are focused on undeveloped portions of the service area. The exact timing of the remaining projects is dependent on developer demand.

The Wastewater Master Plan was updated in 2012 and the next update is budgeted in FY19. Because the direction outlined in the 2012 Wastewater Master Plan is still appropriate, the FY19 update should focus on incorporating recommended policy issues.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	West WWTP Flow Diversion Easements	Divert flow from North WWTP to West WWTP; acquire necessary easements for diversion from New Territory Residential Community Association, LID #7, Telfair Community Association, and CenterPoint	Work with several entities to acquire necessary easements is underway and about 90% complete.

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	West WWTP Flow Diversion	Divert flow from North WWTP to West WWTP; acquire necessary easements for diversion. Finalize easement acquisition, including payment (by Newland) for portion crossing CenterPoint easement in Telfair.	

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	Development guidance for non-MUD annexation areas	Wastewater infrastructure guidelines
2.	Infrastructure Ownership	Policy defining the private vs. public infrastructure for commercial developments.
3.	Integrated Water Resource Plan Policy	Policies related to wastewater from the Integrated Water Resource Plan

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Asset Management	The City is currently working on an Asset Management initiative designed to right size the investment in existing assets based on defined Risk and Levels of Service. Recommendations from this initiative may affect the schedule for some of the proposed programs.	
2.	Integrated Water Resource Plan	Wastewater projects recommended from the Integrated Water Resource Plan	
3.	Expansion of Wastewater Master Plan to reflect annexation.	Water Master Plan should be expanded to incorporate newly annexed neighborhoods of Greatwood and New Territory.	

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1.	University of Houston - Lift Station 141 Expansion	Not needed within next year's CIP. U of H not expected to grow within the near future.	Project implementation dependent upon development. 0% of completion
2.	Regional Lift Station 142 Expansion – Phase II	Not needed within the next year's CIP. TXDOT Tract 5 growth is slower than expected.	Project implementation dependent upon development. 0% of completion
3.	Imperial Lift Station 60 Improvements	Not needed within the next year's CIP. The pumps within Imperial Lift Station 60 are adequate at this time.	Project implementation dependent upon development. 0% of completion
4.	Airport Lift Station 33 Improvements	Not needed in next year's CIP. Due to acquisition of prison property next to the Airport, it is uncertain at this time how the remaining Airport property will develop.	Project implementation dependent upon development. 0% of completion
5.	Lift Station 48 (Telfair) Expansion	Not needed in next year's CIP. Development within Imperial Redevelopment District and TXDOT Tract 4 has occurred slower than expected.	Project implementation dependent upon development. 0% of completion In the proposed CIP for FY 22
6.	Tract 2 Lift Station 63 – Phase I	Not needed within next year's CIP. No development has occurred within Tract 2.	Developer-driver project. 0% of completion
7.	Tract 2 Lift Station 63 – Phase II	Not needed within next year's CIP. No development has occurred within TXDOT Tract 2.	Developer-driver project. 0% of completion
8.	Expansion of West WWTP	Not needed in next year's CIP. Expansion of the West WWTP expected to occur in FY19 or later.	Project implementation dependent upon development. 0% of completion In the proposed CIP for FY 22
9.	Phase I Diversion Force Main	Not needed in next year's CIP. Expansion of the West WWTP expected to occur in FY19 or later.	Project implementation dependent upon development. 0% of completion In the proposed CIP for FY 22
10.	Optional Interim Diversion Force Main	Not needed in next year's CIP. Forcemain will be dependent upon West WWTP expansion	Ultimate CIP 0% of completion
11.	Expansion of West WWTP to 10.0 MGD	Not needed in next year's CIP. Expansion of the West WWTP to 10 MGD expected to occur in FY30 or later.	Ultimate CIP 0% of completion
12.	Improvements to the North WWTP L.S. and Decommission of North WWTP	Not needed in next year's CIP. Decommissioning of the North WWTP expected to occur in FY24 or later.	Ultimate CIP 0% of completion

13.	Phase II Diversion Force Main	Not needed in next year's CIP. Forcemain Phase II will be dependent upon West WWTP final expansion.	Ultimate CIP 0% of completion
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8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
1.	Regional Lift Station 142 Expansion - Phase 1	Expansion of the lift station 142 to accommodate continued growth in Telfair area	Completed in 2014
2.	Lift Station 52 expansion	Expansion of the HEB Lift Station @ SH6 and 90A	Completed in 2014

WATER MASTER PLAN FY 2018 ANNUAL REPORT

PREPARED BY:

Robert O. Valenzuela

Brian J. Butscher

Katie R. Clayton

WATER MASTER PLAN

FY 2018 ANNUAL REPORT

1. INTRODUCTION

Provides a brief introduction covering the history of the master plan (most recent approval date, the purpose of the master plan, etc.).

The Water Master Plan is one of the City's eight official master plans and was updated and approved by City Council on May 5, 2015. The Water Master Plan is an implementation tool that describes the infrastructure and policies necessary to accomplish the water-related goals of the City's Comprehensive Plan. The update was necessary to revise the development projections created in 2007 as well as meet current regulatory requirements, integrate surface water conservation, and provide water resource planning for future growth.

The process to update the Water Master Plan occurred in a two phase approach:

Phase I

Phase I included "traditional" master planning functions relating to planning for growth and regulatory requirements. This planning involved the development of growth projections and a water system model. Phase I also addressed regulatory requirements imposed by governmental agencies such as the Texas Commission on Environmental Quality (TCEQ) and Fort Bend Subsidence District (FBSD).

Phase II

Phase II addressed long term policy issues surrounding the City's long term water supply and demand. Phase II developed a recommended action plan that reflects the Vision and Goals of the City's Comprehensive Plan. The 2015 Water Master Plan Update followed a dynamic process focused on providing data, results, and recommendations in a series of interim action deliverables. This approach allowed the City to take results and implement projects throughout the planning process.

2. MASTER PLAN ASSESSMENT

The following is an assessment of when an update to the master plan is recommended.

The following is an assessment of whether or not an update to the master plan is necessary. The City Council approved minor modifications to the 2012 Water Master Plan in May 2015 and the plan's direction is still relevant and appropriate. In accordance with the requirement to update each master plan every five to ten years, this plan will be revisited for applicable updates in 2020. Phase I in the most current update of the Water Master Plan identifies eight projects. To date, one is complete, two are under construction, and four have been programmed in to the 5 year CIP. Phase II in the most current update of the Water Master Plan identifies twenty projects. Three projects are complete and approximately seven other will be resolved through the IWRP process.

In total 4 of the 28 projects are complete (15%). In the next year an additional two projects will be finished. The City anticipates the completion of the IWRP in FY 18. The IWRP will provide guidance on the long range planning strategies for water supply. The Water Master Plan is a key input to the IWRP for forecasting the ultimate demand of the system. While the exact impact on the water master plan is unknown, staff does anticipate incorporating the IWRP recommendations into future Water Master Plan Updates. Given the recent approval of the

2012 Water Master Plan update on May 5, 2015, no further update is warranted at this time. However, staff recommends an amendment to the Water Master Plan be initiated in FY 21 in order to incorporate Greatwood and New Territory into the water model and incorporate recommendations from the Integrated Water Resources Plan.

3. SUMMARY OF FY 18 ACCOMPLISHMENTS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in the current year.

	Project Name	Description	Comments
1.	Automated Meter Reading Feasibility Study	Conduct a study to investigate the feasibility of automatic meter reading, advanced meter infrastructure, and advanced meter analytic.	Completed.
2.	Riverstone Surface Water Pipeline Connections	Project to extend surface water transmission pipeline to Riverstone Groundwater Plant.	Design 100% Construction 100%
3.	Riverstone Groundwater Plant Improvements	Project to make improvements to the Riverstone Groundwater Plant.	Design 100% Construction 90%
4.	Water Line Asset Management	Project to create a Water Line Asset Management Prioritization Program.	Complete
5.	Integrated Water Resource Plan	The completion of this project in FY 18 will clear up a large number of policy and planning questions included in the recommendations of the current master plan	In progress.
6.	Automated Meter Reading Feasibility Study	Expand the feasibility study to include the Greatwood and New Territory service area	Completed.

4. FY19 OUTLOOK PROJECTS

Below is a list of projects identified for next year.

	Project Name	Description	Comments
1.	Groundwater Credit Policy	Amend the GRP Policy and Drought Contingency Plan to outline a process that defines how credits are banked and when they are used.	Included in IWRP.
2.	FBSD Credit Policy Recommendations	Make recommendations to the FBSD on enacting a conservation credit policy that awards conservation credits for a decrease in water use, i.e. per capita water demand. Push for the elimination of the 20 year expiration date on FBSD conservation credits.	Included in IWRP.

3.	Surface Water Reliability	Pursue/ support measures to increase the reliability of existing water rights and contracted water.	Included in IWRP.
4.	Alternative Water Strategies	Develop a process to incorporate water considerations in design requirements and engineering and development plan review to identify water sources or alternative water	Included in IWRP.
5.	Water Conservation Plan	Revise the Water Conservation Plan goals and strategies to incorporate results of the Water Master Plan	Included in IWRP.
6.	Development Standards and Wasteful Water	Amend the Development Code and Code of Ordinances to: Establish standards for the construction and maintenance of amenity lakes and other aesthetic water features. Define Wasteful water use and create a program to reduce wasteful water use.	Included in IWRP.

5. POLICY ISSUES IDENTIFIED

Below is a list of related policy projects, policy direction and/or unanswered policy question that were not addressed in the master plan that are necessary as a result of unanticipated events or changes that have occurred since the master plan was adopted.

	Policy Issue	Description
1.	Development guidance for non-MUD annexation areas	Water infrastructure guidelines
2.	Infrastructure Ownership	Policy defining the private vs. public infrastructure for commercial developments.
3.	Integrated Water Resource Plan	Policies related to water from the Integrated Water Resource Plan

6. ADDITIONAL PROJECTS NOT IDENTIFIED IN THE MASTER PLAN

Below is a list of related projects that were not included in the master plan that are necessary as a result of policy direction changes that were made since the master plan was adopted.

	Project Name	Project Justification (ex. Explain new policy direction)	Comments
1.	Asset Management	The City is currently working on an Asset Management initiative designed to right size the investment in existing assets based on defined Risk and Levels of Service. Recommendations from this initiative may affect the schedule for some of the proposed programs.	

2.	Expansion of Water Master Plan to reflect annexation.	Water Master Plan should be expanded to incorporate newly annexed neighborhoods of Greatwood and New Territory.	
3.	Integrated Water Resource Plan Recommendations	Water projects recommended from the Integrated Water Resource Plan	

7. MASTER PLAN PROJECTS NOT YET IMPLEMENTED

Below is a list of the recommended projects/actions in the current master plan that have not yet been fully implemented.

	Project Name	Project Status (ex. under design, designed, under constructed)	Comments (ex. funding not identified)
1.	Build Uni-directional Flushing (UDF) Exercise Program	Not Applicable.	Will be implemented at a future date.
2.	New Territory Interconnections	Not Applicable.	Will be implemented at a future date.
3.	New Territory Chloramine Disinfection at Three Groundwater Plants	Not Applicable.	Included in FY19 -23 CIP.
4.	New Territory Groundwater Plant No. 2 Ground Storage Tank and Surface Water Blending Facilities	Not Applicable.	Included in FY19 -23 CIP.
5.	New Territory Groundwater Plant No. 2 Surface Water Pipeline Connection	Not Applicable.	Included in FY19 -23 CIP.
6.	Source Water Protection Plan Update	Update and Expand the City's Source Water Protection Plan to include wellhead protection plan to include changes to the system and review the quantity of elemental chlorine stored at each treatment site.	Will be implemented at a future date.
7.	Emergency Response Plan Updates	Update the City's vulnerability and Emergency Response Plans to include changes to the system and review the quantity of elemental chlorine stored at each treatment site.	Will be implemented at a future date.
8.	Water Rate Study	Conduct a comprehensive Rate Study to evaluate the City's Residential and Commercial Water Rate Structure to promote water conservation	Will be implemented at a future date.
9.	Energy Conservation Program Update	Expand City's Current Energy Conservation Program.	Will be implemented at a future date.

10.	Emergency Interconnect Study	Conduct a study to investigate the feasibility of developing a two-way emergency water interconnection with neighboring area utilities.	Will be implemented at a future date.
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8. PROJECT PROGRESS IN PREVIOUS FISCAL YEARS

Below is a list of projects identified in the current master plan that were completed or for which significant progress has occurred in previous fiscal years.

	Project Name	Description	Comments
1.	Austin Parkway Groundwater Plant Booster Pump Rehabilitation	PER 100% Design 100% Construction 100%	Complete.
2.	West WWTP Reclaimed Plant	Work with LID 7 to utilize reclaimed water at the West WWTP.	90% Complete
3.	Wastewater Treatment Plant Water Re-use Meters	Install Meters at all existing and future WWTP non-potable water systems to monitor and track the volume of water re-sued at the City's WWTPs (i.e. wash down, process, etc.)for the purpose of gaining conversion credits.	Meters installed at the North and South WWTP. Being evaluated in the IWRP for the West and Greatwood WWTP.
4.	Monitor Subsidence District	Monitor subsidence district model/data and challenge assumptions as appropriate.	Will be occurring on a constant basis.
5.	South WWTP Reclaimed Plant	Work with MUD 128 to utilize reclaimed water at the South WWTP.	Completed.
6.	Surface Water Treatment Plant Recertification	Recertify the City's Surface Water Treatment Plant to the plant's full production capability.	Completed.

