



STORM DRAINAGE SYSTEM

Storm Drainage System

The Storm Water Drainage Program designs and constructs drainage improvement projects in areas of the City with a demonstrated need in order to provide increased levels of flood protection for Houston and its citizens. The Storm Water Drainage System consists of sheet flow of rainfall runoff overland to the street, street conveyance to an inlet, inlet interception to underground pipe (storm sewer), and pipe conveyance to project outfall at receiving system. The receiving system can be a bayou, tributary channel, or another storm sewer. The Program consists of the following major components:

Capital Improvement Projects: –

- The City has developed and is now using a tool that is based on a Geographic Information System (GIS) to evaluate and compare information citywide. This tool is named the Storm Water Enhanced Evaluation Tool or SWEET.
- The SWEET uses objective criteria to develop a ranked list of the highest priority need areas across the city and is also used to prioritize candidate storm drainage projects based on the benefit/cost. The projects selected for funding have the highest numbers of benefited users for the least amount of cost. Each project will be designed to convey the 2-year rainfall event in the storm sewer and reduce the risk of structural flooding during the 100-year storm event. Properties within a special flood hazard area or 100-year flood zone will be protected from localized event flooding, but may not be protected from flooding related to inadequate level of service of the receiving system.

Local Drainage –

- The Local Drainage Projects (LDP) Program is required to address localized storm water drainage system problems identified by the owner/ operator including inadequate level of service due to underground storm sewer capacity, inlet capacity, and/ or structural failure of the storm sewer or outfall where a simple solution will resolve the problems of an otherwise adequate storm water drainage system.

Storm Drainage System

Local Drainage – continue

- Engineering and construction are accomplished by work order contracts, in order to address these problems quickly and cost effectively. The FY2015-2019 program totals approximately \$25 million.

In summary, the FY2015-2019 Capital Improvement Plan for the Storm Water Drainage Capital Improvements Program totals \$539 million that is funded primarily by the Dedicated Drainage and Street Renewal Fund (DDSRF) as approved by the voters on November 2, 2010.

2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CITY OF HOUSTON - STORM DRAINAGE SYSTEM

Project Allocation	Fiscal Year Planned Appropriations					2015-2019
	2015	2016	2017	2018	2019	
Planning						
Acquisition-Land			451			451
Design	12,554	19,796	6,666	7,062	7,474	53,552
Construction	89,189	82,477	87,223	85,273	130,523	474,685
Equipment Acquisition	362					362
Salary Recovery						
Other	1,019	1,557	3,174	3,234	1,099	10,083
Total Allocation	103,124	103,830	97,514	95,569	139,096	539,133
Source of Funds						
4042 - Street & Trfc Control & Strm Drain DDSRF	101,047	95,935	74,061	81,746	96,007	448,796
8500 - PWE-W&S Syst Consolidated Constr Fd	2,077	7,895	23,453	13,823	43,089	90,337
Total Funds	103,124	103,830	97,514	95,569	139,096	539,133
Fund 8500 Contribution to Rebuild Houston Adjustment	(2,077)	(7,895)	(23,453)	(13,823)	(43,089)	(90,337)
Total Funds	101,047	95,935	74,061	81,746	96,007	448,796

**STORM DRAINAGE SYSTEM - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project	Fiscal Year Planned Appropriations					2015-2019
		2015	2016	2017	2018	2019	
M-0000NA	Contingencies						
	4042 - Street & Trfc Control & Strm Drain DDSRF		-2,205	6,548	3,867	-4,829	3,381
	Project Total		-2,205	6,548	3,867	-4,829	3,381
M-000247	Nottingham & Yorkshire Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF				12,818		12,818
	Project Total				12,818		12,818
M-000261	Buffalo Bayou Detention Basin						
	4042 - Street & Trfc Control & Strm Drain DDSRF			3,555			3,555
	Project Total			3,555			3,555
M-000263	Sherwood Forest Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	9,065					9,065
	Project Total	9,065					9,065
M-000265	Rampart Street Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF	17,578					17,578
	Project Total	17,578					17,578
M-000277	Southpark and Southcrest Drainage						
	4042 - Street & Trfc Control & Strm Drain DDSRF	5,696					5,696
	Project Total	5,696					5,696
M-000284	Airline Dr. Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF		15,453				15,453
	Project Total		15,453				15,453
M-000285	Garden Oaks and Shepherd Forest Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	21,011					21,011
	8500 - PWE-W&S Syst Consolidated Constr Fd	1,011					1,011
	Project Total	22,022					22,022

STORM DRAINAGE SYSTEM - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project						2015-2019
		2015	2016	2017	2018	2019	
M-000286	Pleasantville Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	10,764					10,764
	8500 - PWE-W&S Syst Consolidated Constr Fd	1,066					1,066
	Project Total	11,830					11,830
M-000287	Wirt Road Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF	5,220					5,220
	Project Total	5,220					5,220
M-000288	Easthaven Blvd(Bryant to Ledge) Drainage						
	4042 - Street & Trfc Control & Strm Drain DDSRF		4,663				4,663
	Project Total		4,663				4,663
M-000289	Minnetex/Almeda Genoa Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF		6,282				6,282
	8500 - PWE-W&S Syst Consolidated Constr Fd		2,039				2,039
	Project Total		8,321				8,321
M-000293	Binglewood, Inwood Forest, & Oak Forest						
	4042 - Street & Trfc Control & Strm Drain DDSRF		10,129				10,129
	Project Total		10,129				10,129
M-000294	Cullen Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF		11,356				11,356
	8500 - PWE-W&S Syst Consolidated Constr Fd		2,710				2,710
	Project Total		14,066				14,066
M-000295	Scott Street Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF		9,309				9,309
	8500 - PWE-W&S Syst Consolidated Constr Fd		1,478				1,478
	Project Total		10,787				10,787

**STORM DRAINAGE SYSTEM - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2015-2019
		2015	2016	2017	2018	2019	
M-001010	Wycliffe Drive (Chatterton to Melronome)						
	4042 - Street & Trfc Control & Strm Drain DDSRF	207	2,644				2,851
	8500 - PWE-W&S Syst Consolidated Constr Fd		955				955
	Project Total	207	3,599				3,806
M-410001	Woodshire Area Drainage and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF	779		12,728			13,507
	8500 - PWE-W&S Syst Consolidated Constr Fd			9,610			9,610
	Project Total	779		22,338			23,117
M-410002	Potomac & Nantucket Area Drng and Paving						
	4042 - Street & Trfc Control & Strm Drain DDSRF	562		8,731			9,293
	8500 - PWE-W&S Syst Consolidated Constr Fd			2,429			2,429
	Project Total	562		11,160			11,722
M-410003	Roosevelt, Edel Plaza, Little York Acres						
	4042 - Street & Trfc Control & Strm Drain DDSRF	248		2,194			2,442
	8500 - PWE-W&S Syst Consolidated Constr Fd			823			823
	Project Total	248		3,017			3,265
M-410004	Little York, Courlandt Mdws, York Mdws						
	4042 - Street & Trfc Control & Strm Drain DDSRF	338		4,487			4,825
	8500 - PWE-W&S Syst Consolidated Constr Fd			2,223			2,223
	Project Total	338		6,710			7,048
M-410005	Spring Shadows (North)						
	4042 - Street & Trfc Control & Strm Drain DDSRF	468		8,560			9,028
	8500 - PWE-W&S Syst Consolidated Constr Fd			709			709
	Project Total	468		9,269			9,737

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2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project						2015-2019
		2015	2016	2017	2018	2019	
M-410006	Arlington Heights Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	1,491		9,084		7,808	18,383
	8500 - PWE-W&S Syst Consolidated Constr Fd			7,659		7,552	15,211
	Project Total	1,491		16,743		15,360	33,594
M-410007	Gulf Terrace Sec 1, Acre Homes Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	675	687	219	8,319		9,900
	Project Total	675	687	219	8,319		9,900
M-410008	Freeway Manor: South of Edgebrook Dr.						
	4042 - Street & Trfc Control & Strm Drain DDSRF	680	692	116	9,320		10,808
	8500 - PWE-W&S Syst Consolidated Constr Fd				4,625		4,625
	Project Total	680	692	116	13,945		15,433
M-410009	Briar Meadow Subdivision Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF	552	563		8,260		9,375
	8500 - PWE-W&S Syst Consolidated Constr Fd				3,071		3,071
	Project Total	552	563		11,331		12,446
M-410010	Freeway Manor: North of Edgebrook						
	4042 - Street & Trfc Control & Strm Drain DDSRF	905	922	116	13,329		15,272
	8500 - PWE-W&S Syst Consolidated Constr Fd				5,239		5,239
	Project Total	905	922	116	18,568		20,511
M-410013	Melrose Park Sec 2 Area						
	4042 - Street & Trfc Control & Strm Drain DDSRF		343			3,522	3,865
	Project Total		343			3,522	3,865

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CIP No.	Project						2015-2019	
		2015	2016	2017	2018	2019		
M-410014	Winnewood Acres Area							
	4042 - Street & Trfc Control & Strm Drain DDSRF		902			3,959	4,861	
	8500 - PWE-W&S Syst Consolidated Constr Fd					5,305	5,305	
	Project Total		902			9,264	10,166	
M-410015	Magnolia Park Sec 2 Area							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,881			13,719	15,600	
	8500 - PWE-W&S Syst Consolidated Constr Fd					5,596	5,596	
	Project Total		1,881			19,315	21,196	
M-410016	Westridge and Braes Terrace Area							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,711			7,104	8,815	
	8500 - PWE-W&S Syst Consolidated Constr Fd					10,460	10,460	
	Project Total		1,711			17,564	19,275	
M-410017	Garden Oaks Area 2							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,373			16,511	17,884	
	8500 - PWE-W&S Syst Consolidated Constr Fd					1,240	1,240	
	Project Total		1,373			17,751	19,124	
M-410021	Pinewood Village Area 2							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,381			7,852	9,233	
	8500 - PWE-W&S Syst Consolidated Constr Fd					6,323	6,323	
	Project Total		1,381			14,175	15,556	
M-410022	Garden Oaks Area 3							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,200			17,358	18,558	
	8500 - PWE-W&S Syst Consolidated Constr Fd					553	553	
	Project Total		1,200			17,911	19,111	

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CIP No.	Project						2015-2019	
		2015	2016	2017	2018	2019		
M-410023	Richmond Plaza Area 2							
	4042 - Street & Trfc Control & Strm Drain DDSRF		1,466			8,990	10,456	
	8500 - PWE-W&S Syst Consolidated Constr Fd					6,060	6,060	
	Project Total		1,466			15,050	16,516	
M-410290	Gillette Trunk-line Improvements							
	4042 - Street & Trfc Control & Strm Drain DDSRF	762	11,362		10,200		22,324	
	8500 - PWE-W&S Syst Consolidated Constr Fd		713		888		1,601	
	Project Total	762	12,075		11,088		23,925	
M-420126	Local Drainage Program (LDP)							
	4042 - Street & Trfc Control & Strm Drain DDSRF	13,452	5,191	5,291	5,391	5,495	34,820	
	Project Total	13,452	5,191	5,291	5,391	5,495	34,820	
M-430004	Rehab of City Owned Drainage Channels							
	4042 - Street & Trfc Control & Strm Drain DDSRF	306	1,557	1,587	1,617	1,649	6,716	
	Project Total	306	1,557	1,587	1,617	1,649	6,716	
M-430005	Roadside Drainage Improvements							
	4042 - Street & Trfc Control & Strm Drain DDSRF	500	500				1,000	
	Project Total	500	500				1,000	
M-430100	Pre-Engineering for Storm Water Drainage							
	4042 - Street & Trfc Control & Strm Drain DDSRF	2,038	2,336	2,645	2,965	3,297	13,281	
	Project Total	2,038	2,336	2,645	2,965	3,297	13,281	
M-430220	Storm Drainage Program Support							
	4042 - Street & Trfc Control & Strm Drain DDSRF	1,529	1,557	1,587	1,617	1,649	7,939	
	Project Total	1,529	1,557	1,587	1,617	1,649	7,939	

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CIP No.	Project						2015-2019	
		2015	2016	2017	2018	2019		
M-430241	Stormwater Pump Station & Flood Warning							
	4042 - Street & Trfc Control & Strm Drain DDSRF	4,438	344	2,645			7,427	
	Project Total	4,438	344	2,645			7,427	
M-430296	Mitigation Program for Capital Imp.							
	4042 - Street & Trfc Control & Strm Drain DDSRF	764	779	794	809	824	3,970	
	Project Total	764	779	794	809	824	3,970	
M-430800	Developer Participation							
	4042 - Street & Trfc Control & Strm Drain DDSRF	1,019	1,557	3,174	3,234	1,099	10,083	
	Project Total	1,019	1,557	3,174	3,234	1,099	10,083	
	Total Appropriations:	103,124	103,830	97,514	95,569	139,096	539,133	