

# **FY 2019 Interim Capital Improvements Program**



February 26, 2019



# Summary of Interim CIP (Capital Improvements Program)

## CIP CATEGORIES

### Flood Resiliency: \$496M



The Flood Control District provides flood damage reduction projects that work, with appropriate regard to community and natural values. Capital funding for flood control has more than quadrupled through a voter-approved \$2.5B bond program with an additional \$3B in outside funding.

### New Facilities/ Expansion: \$187M



Replacement and additional facilities are needed as County services grow to meet the needs of its rapidly expanding population. This includes beginning phases of projects such as the replacement of the HCJPD Youth Village facility and consolidation of Engineering, Public Health, and HCFCF facilities.

### Capital Repair & Maintenance: \$120M



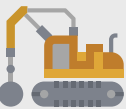
Focuses on deferred maintenance and lifecycle management of current facilities to extend the useful life. A significant portion of this category is for public safety, including improvements to detention facilities and security infrastructure at other County facilities.

### Equipment & Technology: \$104M



For materials critical to Harris County operations, including specialized programs, medical equipment, and electronic health infrastructure and records at the detention center facilities to improve care coordination among health care providers.

### Renovation & Demolition: \$55M



Improvements to existing County facilities to meet the County's changing needs. Includes the downtown central plant and renovation of Ben Taub facility's operating rooms and emergency center.

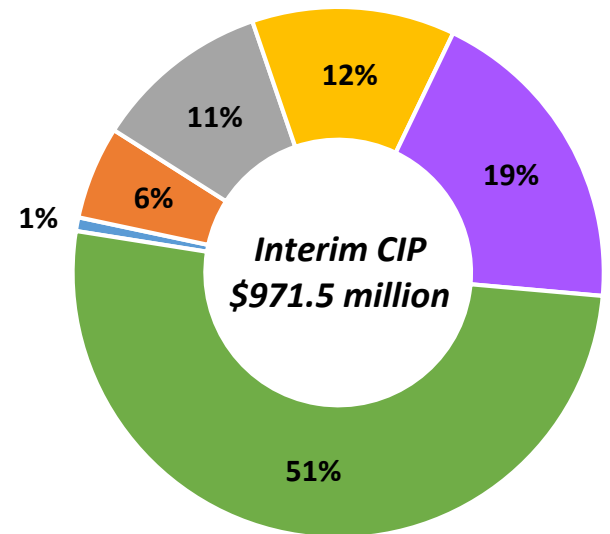
### Disaster Recovery, Studies, & Other: \$8M



Includes projects related to Hurricane Harvey damages, masterplans, studies, and property acquisitions for future projects.

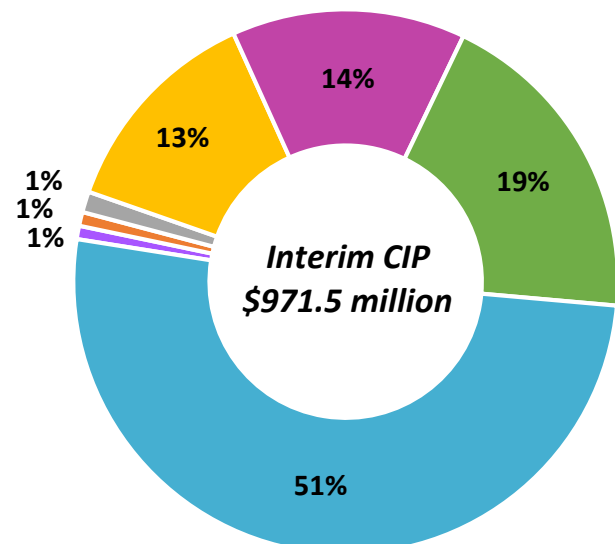
## CIP AT A GLANCE

### CIP by Project Category



Disaster Recov., Studies, & Other    Renovation and Demo.  
Equipment & Technology    Capital Repair and Maint.  
New Facilities / Expansion    Flood Resiliency

### CIP by Managing Department



Miscellaneous    HC Sports & Convention Corp.  
Universal Services    HC Hospital District  
Office of County Engineer    HC Toll Road Auth.  
HC Flood Control District

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## **March – September 2019 Interim Capital Improvements Program**

### **Executive Summary**

Maintaining and expanding Harris County's facilities and infrastructure to serve our rapidly growing population is essential. The Capital Improvements Program (CIP) is intended to provide capital project information in one planning document so Court Members can review the county's infrastructure needs and provide direction to establish a program that balances these needs with fiscal constraints. Specific projects and related funding sources will be brought back on regular Court agendas for consideration and approval on an individual basis.

This Interim CIP is presented to bridge the gap between the June 2018 CIP and the next full CIP that will be presented in conjunction with or immediately following the Mid-Year Review in September. Though many of the projects have been presented before, this Interim CIP allows the Court to review these, and any new, proposals since June 2018. The Interim CIP will be transmitted in conjunction with a public meeting immediately following the February 26<sup>th</sup> Commissioners Court meeting to allow for input and discussion similar to the budget hearings.

The following is a discussion of the capital improvements program representing \$971.5 million of expenses between now and September:

#### **Harris County Flood Control District (HCFCD)**

Historically, the HCFCD has operated on a \$120 million annual budget split evenly between capital projects and operating and maintenance expenditures. Moving forward, a larger percentage of the \$120 million will be dedicated to operating expenses as the HCFCD significantly increases its annual project list as a result of new resources available through Federal grants and the local bond funding related to Hurricane Harvey.

The bonds are expected to be issued over the next several years. The cost to repay the bonds for the average county homeowner is expected to start at \$5 per year in 2020, growing to just over \$50 per year by the time all the bonds have been issued, which is expected to be by 2035. This increase in HCFCD taxes is less than 1% for the next several years, reaching a high of less than 1.4% increase for most county taxpayers by 2035. Homeowners with an over-65 or disabled exemption with a home valued at \$200,000 or less, pay no county property taxes now and wouldn't see any increase related to the bonds.

<b>HCFCD Watersheds</b>	<b>Interim CIP</b>
Addicks Reservoir	\$37,454,000
Armand Bayou	\$5,620,000
Barker Reservoir	\$8,634,000
Brays Bayou	\$28,970,000
Buffalo Bayou	\$9,120,000
Carpenters Bayou	\$1,330,000
Cedar Bayou	\$12,100,000
Clear Creek	\$63,192,000
Cypress Creek	\$42,118,000
Galveston Bay	\$2,520,000
Goose Creek	\$1,730,000
Greens Bayou	\$23,128,000
Halls Bayou	\$22,400,000
Hunting Bayou	\$16,000,000
Jackson Bayou	\$1,500,000
Little Cypress Creek	\$20,268,000
Luce Bayou	\$400,000
San Jacinto River	\$7,940,000
Sims Bayou	\$7,076,000
Spring Creek	\$10,157,000
Vince Bayou	\$400,000
White Oak Bayou	\$41,030,000
Willow Creek	\$17,800,000
Countywide	\$115,500,000
<b>Total</b>	<b>\$496,387,000</b>

### **Office of the County Engineer**

The Engineering Department works on a number of infrastructure projects each year, typically funded with long-term debt. The current focus is a combination of deferred maintenance projects for existing county facilities including a large detention facility repair, new facility proposals including a new Juvenile Probation Department building replacement, and continued disaster recovery from Harvey.

<b>County Engineer Project Types</b>	<b>Interim CIP</b>
Capital Repair & Maintenance	\$54,800,000
Renovation & Demo	\$25,500,000
New Facilities	\$51,000,000
Studies	\$500,000
Disaster Recovery	TBD
Other	\$3,000,000
<b>Total</b>	<b>\$134,800,000</b>

A report prepared by the County Engineer listing plans to improve and maintain existing buildings and related infrastructure is included. The project expenses between now and September are estimated to cost approximately \$135 million, but does not include many of the undetermined expenses related to disaster recovery from Harvey.

### **Harris County Universal Services (HCUS)**

HCUS has many projects in progress or planned for the next several years. The primary items of focus for this CIP are security and county-wide document and digital asset management. HCUS is also continuing its rolling five-year repair and replacement program to address aging technological infrastructure.

<b>HCUS Project Types</b>	<b>Interim CIP</b>
Repair & Replace	\$7,408,744
Active Projects	\$3,398,530
New Projects	\$1,226,194
<b>Total</b>	<b>\$12,033,468</b>

### **Harris County Sports & Convention Corporation (HCSCC)**

A report showing the HCSCC repair and replacement needs related to the operation of NRG Park facilities is included. The NRG Center is in the process of a phased renovation and upgrade plan. Phase 1 targets meeting room upgrades, as well as updating carpet, paint, and installing energy-efficient lighting throughout the complex. Harris County's cost share of this \$8 million project is \$6.5 million.

### **Harris County Toll Road Authority (HCTRA)**

The HCTRA capital program priorities focus on roadway projects, toll system infrastructure improvements, and facility improvements. The largest project is the continued work on the new toll road bridge over the Sam Houston Ship Channel, which is expected to take several years to complete.

<b>HCTRA Project Types</b>	<b>Interim CIP</b>
Roadway Projects	\$ 130,000,000
Roadway Improvements	\$ 28,000,000
Toll System Projects	\$ 29,400,000
<b>Total</b>	<b>\$ 187,400,000</b>

### **Harris County Hospital District (HCHD)**

HCHD continues to work on modernizing and renovating the Ben Taub facility's operating rooms and emergency center. HCHD will also be working to improve Electronic Health Record (EHR) infrastructure at the Harris Center and Jail Health facilities to improve care coordination and collaboration among County related health care providers. Harris County's portion of these costs is estimated at \$41 million. This portion of EHR infrastructure would also act as a catalyst for future discussions between Harris County, The Harris Center, and HCHD on detention care.

<b>Hospital District Project Types</b>	<b>Interim CIP</b>
Capital Repair & Maintenance	\$ 12,620,358
Renovation & Demo	\$ 19,585,956
New Facilities/ Expansion	\$ 6,306,000
Studies	\$ 213,000
Medical Equipment	\$ 18,155,000
Other	\$ 5,040,000
Information Technology Refresh	\$ 12,608,728
Information Technology Active Projects	\$ 267,191
Information Technology New Projects	\$ 9,129,310
<b>Total</b>	<b>\$ 83,925,543</b>

### **Port of Houston Authority**

Harris County continues to support the Port of Houston by allocating part of the property tax rate to pay approximately \$50 million of annual debt service payments.

### **Miscellaneous Projects**

A total of \$7,709,422 has been requested for the Interim CIP period for miscellaneous projects. These projects include equipment for the Institute of Forensic Sciences, replacement of a ferry, and tunnel maintenance.

<b>Miscellaneous Projects</b>	<b>Interim CIP</b>
Active Projects	\$1,250,000
New Projects	\$6,459,422
<b>Total</b>	<b>\$7,709,422</b>

**Debt and Financing** – This Interim CIP covering four county entities represents a combined total of \$971.5 million in estimated project expenses between now and September 2019. Not all of these project expenses will ultimately end up as long-term debt for Harris County taxpayers, as a portion of these projects are potentially reimbursable through other governmental agencies at various cost shares. It is however too early to quantify those shares, and as most cost shares are on a reimbursement basis (Harris County governmental entities pay the initial full cost and await repayment), it is prudent to quantify the total capital cost for planning purposes. Similarly, not all of the projects in this CIP represent Harris County Property Tax Obligations, as other legal entities and financing mechanisms (revenue bonds) are represented within this CIP. Because of this, below is a breakdown of expenditures and potential debt additions based on four separate responsible entities contained within the CIP:

### Capital Spending by Legal Entity

	Interim CIP
<b>Entity 1. Harris County (Property Tax)</b>	
County Engineering Department	\$134,800,000
Universal Services	\$12,033,468
Miscellaneous	\$7,709,422
Harris County Sports & Convention Corporation (HC Portion)	\$6,500,000
Harris County Hospital District (HC Portion)*	\$41,278,418
<b>Harris County (Property Tax) Subtotal</b>	<b>\$202,321,308</b>
<b>Entity 1. Harris County (Revenue)</b>	
Harris County Toll Road Authority	\$187,400,000
<b>Harris County (Revenue) Subtotal</b>	<b>\$187,400,000</b>
<b>Entity 2. Harris County Flood Control District Subtotal</b>	<b>\$496,387,000</b>
<b>Entity 3. Harris County Sports &amp; Convention Corp. Subtotal</b>	<b>\$1,500,000</b>
<b>Entity 4. Harris County Hospital District Subtotal</b>	<b>\$83,925,543</b>
<b>Total</b>	<b>\$971,533,851</b>

*\*The Harris County portion of the HCHD's five-year capital plan is \$41,278,418 out of \$454,484,218. It is possible that Harris County could advance their portion of the funding this year instead of a portion each year over the next five years.*

Budget Management Department recommends that Harris County should limit its portion of new property tax debt to approximately \$221 million this fiscal year. This number is a combination of debt principal retirement and anticipated growth of population and taxable value. Though the project expense for this category is only \$202 million, this amount is projected to be spent between now and September 2019 and does not include road borrowing and disaster recovery expense from the Office of the County Engineer for undetermined projects such as the Criminal Justice Center.

The most important variable in the fiscal constraint of \$221 million is time. Historically, the County realizes financial impacts from a proposed CIP (receives an expense it must borrow against) at a much lesser rate than the value proposed on the CIP in any given fiscal year. This is due to the complexity, duration, and limited market resources (professional services, contractors, materials, and project managers) to execute the projects proposed. Because of this, variables such as road bond allocation, project expense timing, and cash financing will all determine the affordability and impacts to borrowing capacity of this plan moving forward. Budget Management will monitor the progress of individual project approvals and requests for financing to ensure we advise the court appropriately on the financial impact.





# FY2019 Interim Capital Improvements Program

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Harris County Flood Control District

A handwritten signature in blue ink, reading 'Russell A. Poppe'.

Russell A. Poppe, P.E.

*Executive Director*

February 26, 2019

## **Executive Summary**

The Harris County Flood Control District (District) is a special purpose district created by the Texas Legislature in 1937 and governed by Harris County Commissioners Court. The mission of the District is to **“provide flood damage reduction projects that work, with appropriate regard for community and natural values.”** The District accomplishes its mission for the residents of Harris County by:

1. Devising flood damage reduction plans
2. Implementing the plans
3. Maintaining the infrastructure

While the District does not have sole jurisdiction over all drainage and flood-related issues in the county, we partner with other agencies and municipalities to devise and implement more comprehensive plans to reduce flood risk. The scale of this mission is large, and covers:

- 22 watersheds, some of which originate outside of Harris County
- Approximately 1,500 channels totaling more than 2,500 miles in length
- 34 incorporated cities
- 1,777 square miles of territory with more than 443 square miles of defined 1% (100-year) floodplain (25% of the area of Harris County). The amount of area in the county covered by the 1% floodplain is expected to increase when new data from Atlas 14 is taken into consideration.

## **FLOODING**

Flooding is our region's number one natural threat. Devastating floods have impacted Harris County every decade after the District was established. Since 2000, Harris County has experienced more than three dozen floods estimated to have flooded more than a quarter of a million homes including Tropical Storm Allison, Hurricane Ike, Memorial Day Flood 2015 and Tax Day Flood 2016. In 2017, Hurricane Harvey set a new record in Harris County's history of flooding, and had the following impacts:

- Estimated number of homes flooded: 154,170.
- Maximum recorded rainfall: 25.6 inches in 24 hours and 47.4 inches in four days
- Total rainfall: Could cover Harris County's 1,777 square miles with an average of 33.7 inches of water.

## **CAPITAL IMPROVEMENT PROGRAM**

One year after Harvey, Harris County voters approved \$2.5 billion in bonds to finance flood damage reduction projects. The bond program list of projects contains 237



individual items at an estimated value of \$5.51 billion. This includes up to \$2.39 billion in potential partnership funding that could leverage \$2.74 dollars for every one dollar invested by the District, which is an important part of implementing the bond program. This list of projects was developed with significant community engagement in the summer of 2018, and includes 38 projects that were a direct result of public input.

Since the August 28, 2018, bond election, the District has focused on implementing the bond program list of projects, a task that is expected to take 10-15 years. Current activities include:

- 36 projects underway before the bond election are now fully funded for construction
- 71 new bond projects have been initiated since August 28, 2018
- Approximately \$1.8 billion worth of effort associated with projects is “in motion”

The District’s Five-Year Capital Improvement Program (CIP) submitted to Commissioners Court in January 2019 outlines an aggressive program to implement more than \$3.6 billion in projects (\$1.58 billion in anticipated partnership funding and \$2.02 billion in District funding). Types of projects funded in this Capital Improvement Program include:

- Channel modifications to improve stormwater conveyance
- Regional stormwater detention basins
- Major repairs to flood-damaged drainage infrastructure
- Removing large amounts of sediment and silt from drainage channels
- Voluntary buyouts of flood-prone properties
- Wetland mitigation banks
- Property acquisition to preserve the natural floodplains
- Drainage improvements in partnership with other cities, other local government agencies, and the federal government
- Upgrading the Harris County Flood Warning System

Each project will continue to include providing community information and engagement via our website, [www.hcfcd.org](http://www.hcfcd.org) and through public meetings. The actual rate at which the projects listed in the Five-Year CIP can be executed is dependent on many factors including partnership funding, available construction and professional service resources which effects market prices for goods and services provided, and environmental permitting.



The District will continue to receive approximately \$120 million per year in cash from our base tax rate, which is currently set at \$0.02877 (out of a maximum of \$0.30). These funds will be primarily directed toward our operations and maintenance costs, such as employee salaries and benefits, maintenance activities, and infrastructure repairs. The Budget Management Department has recommended that the District reserve \$30 million of these funds for contingency, and to assist in the cash flow of capital projects that have federal reimbursements. Once the Federal reimbursements begin to materialize, an assessment will be made to grow operations and maintenance into the full \$120 million. The majority, if not all, of District capital projects are anticipated to be funded out of the \$2.5 billion in available bonds.

## 2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023	
Addicks Reservoir											
	1	C-36 (Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Bypass Channel for South Mayde Creek)	\$ 10,000,000	\$ 9,000,000	\$ 1,000,000	\$ -	\$ 2,500,000	\$ 3,000,000	\$ 3,000,000	\$ 1,500,000	\$ -
	2	C-37 (Design and Construction of Little York Stormwater Detention Basin)	\$ 3,000,000	\$ 2,500,000	\$ 500,000	\$ -	\$ 100,000	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 400,000
	3	C-38 (Design and Construction of Dinner Creek Stormwater Detention Basin)	\$ 15,000,000	\$ 11,250,000	\$ 3,750,000	\$ -	\$ 1,800,000	\$ 7,500,000	\$ 5,700,000	\$ -	\$ -
	4	C-46 (Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek)	\$ 16,000,000	\$ 14,400,000	\$ 1,600,000	\$ -	\$ 3,700,000	\$ 4,900,000	\$ 4,600,000	\$ 2,800,000	\$ -
	5	C-47 (Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek)	\$ 15,000,000	\$ 13,500,000	\$ 1,500,000	\$ -	\$ 400,000	\$ 4,700,000	\$ 7,000,000	\$ 2,900,000	\$ -
	6	C-48 (Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway)	\$ 28,200,000	\$ 25,380,000	\$ 2,820,000	\$ -	\$ 1,200,000	\$ 2,000,000	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000
	7	E-01 (Addicks Reservoir Subdivision Drainage Improvements)	\$ 83,917,229	\$ 62,827,500	\$ 21,089,729	\$ 147,229	\$ 16,754,000	\$ 16,754,000	\$ 16,754,000	\$ 16,754,000	\$ 16,754,000
	8	F-112 (Right-Of-Way Acquisition, Design, and Construction of Wetland Mitigation Bank)	\$ 20,050,000	\$ -	\$ 20,050,000	\$ 50,000	\$ 4,600,000	\$ 5,800,000	\$ 5,800,000	\$ 3,800,000	\$ -
	9	F-53 (Rehabilitation of Channels Upstream of Addicks Reservoir to Restore Channel Conveyance Capacity)	\$ 35,019,300	\$ -	\$ 35,019,300	\$ 5,019,300	\$ 2,000,000	\$ 8,000,000	\$ 12,000,000	\$ 7,000,000	\$ 1,000,000
	10	F-54 (Right-Of-Way Acquisition, Design and Construction of Control Structures and Stormwater Quality Features for the Upper Langham Creek Program)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 3,000,000	\$ 3,000,000
	11	F-55 (Planning, Right-Of-Way Acquisition, Design, and Construction for Ultimate Conveyance on Bear Creek)	\$ 25,000,000	\$ -	\$ 25,000,000	\$ -	\$ 900,000	\$ 4,500,000	\$ 5,400,000	\$ 7,900,000	\$ 6,300,000
	12	F-56 (Right-Of-Way Acquisition, Design, and Construction of a Retention Area)	\$ 15,000,000	\$ -	\$ 15,000,000	\$ -	\$ 500,000	\$ 2,500,000	\$ 5,000,000	\$ 7,000,000	\$ -
	13	F-83 (Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin North of John Pauls Landing for the Upper Langham Creek Program)	\$ 21,000,000	\$ -	\$ 21,000,000	\$ -	\$ 2,500,000	\$ 5,000,000	\$ 7,500,000	\$ 5,500,000	\$ 500,000
	14	F-84 (Design and Construction of Secondary Outfall for John Pauls Landing for the Upper Langham Creek Program)	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ 500,000	\$ 2,000,000	\$ 2,000,000	\$ 500,000	\$ -
	Sub-Total (Addicks Reservoir)	\$ 302,186,529	\$ 138,857,500	\$ 163,329,029	\$ 5,216,529	\$ 37,454,000	\$ 69,154,000	\$ 82,754,000	\$ 69,654,000	\$ 37,954,000	
Armand Bayou											
	1	C-06 (Right-Of-Way Acquisition, Design and Construction of B112-00-00 and Tributaries Conveyance Improvements)	\$ 3,000,000	\$ 2,400,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 2,000,000
	2	C-07 (Design and Construction of the B509-04-00 Stormwater Detention Basin)	\$ 15,000,000	\$ 11,250,000	\$ 3,750,000	\$ -	\$ 500,000	\$ 5,000,000	\$ 5,000,000	\$ 4,500,000	\$ -
	3	C-44 (Armand Bayou Right-of-Way Acquisition and Floodplain Preservation)	\$ 4,000,000	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
	4	CI-023 (Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Horsepen Bayou)	\$ 6,810,161	\$ -	\$ 6,810,161	\$ 810,161	\$ 500,000	\$ 1,400,000	\$ 2,200,000	\$ 1,500,000	\$ 400,000
	5	F-72 (Design and Construction of the Baywood Stormwater Detention Basin)	\$ 2,588,957	\$ -	\$ 2,588,957	\$ 588,957	\$ 620,000	\$ 930,000	\$ 450,000	\$ -	\$ -
	6	F-96 (Investigations of General Drainage Improvements in Armand Bayou Watershed)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ 400,000	\$ 100,000	\$ -	\$ -	\$ -
	7	F-99 (Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ 3,600,000	\$ 3,500,000	\$ 2,900,000	\$ -	\$ -
	Sub-Total (Armand Bayou)	\$ 41,899,118	\$ 15,650,000	\$ 26,249,118	\$ 1,399,118	\$ 5,620,000	\$ 11,930,000	\$ 11,550,000	\$ 8,000,000	\$ 3,400,000	
Barker Reservoir											
	1	E-02 (Barker Reservoir Subdivision Drainage Improvements)	\$ 33,219,080	\$ 24,877,500	\$ 8,341,580	\$ 49,080	\$ 6,634,000	\$ 6,634,000	\$ 6,634,000	\$ 6,634,000	\$ 6,634,000
	2	F-52 (Rehabilitation of Approximately 20 Miles of Channels Upstream of Barker Reservoir to Restore Channel Conveyance Capacity)	\$ 34,606,000	\$ -	\$ 34,606,000	\$ 4,606,000	\$ 2,000,000	\$ 8,000,000	\$ 12,000,000	\$ 7,000,000	\$ 1,000,000
		Sub-Total (Barker Reservoir)	\$ 67,825,080	\$ 24,877,500	\$ 42,947,580	\$ 4,655,080	\$ 8,634,000	\$ 14,634,000	\$ 18,634,000	\$ 13,634,000	\$ 7,634,000

## 2019 Interim CIP - Harris County Flood Control District

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## 2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Cedar Bayou										
1	E-04 (Cedar Bayou Subdivision Drainage Improvements)	\$ 2,048,000	\$ 1,500,000	\$ 548,000	\$ 48,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
2	F-41 (Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Clawson Ditch and Q124-00-00)	\$ 19,000,000	\$ -	\$ 19,000,000	\$ -	\$ -	\$ 1,700,000	\$ 4,400,000	\$ 7,300,000	\$ 5,600,000
3	F-42 (Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Magee Gully)	\$ 27,000,000	\$ -	\$ 27,000,000	\$ -	\$ -	\$ 2,500,000	\$ 7,500,000	\$ 8,000,000	\$ 9,000,000
4	F-43 (Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Adlong Ditch)	\$ 23,000,000	\$ -	\$ 23,000,000	\$ -	\$ 5,300,000	\$ 6,500,000	\$ 6,600,000	\$ 4,600,000	\$ -
5	F-44 (Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Q130-00-00)	\$ 18,750,000	\$ -	\$ 18,750,000	\$ 750,000	\$ 1,600,000	\$ 4,100,000	\$ 7,000,000	\$ 4,900,000	\$ 400,000
6	F-45 (Planning, Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements on Q134-00-00)	\$ 11,750,000	\$ -	\$ 11,750,000	\$ 750,000	\$ 300,000	\$ 1,800,000	\$ 2,400,000	\$ 3,700,000	\$ 2,800,000
7	F-46 (Design and Construction of the Q500-01 Stormwater Detention Basin)	\$ 5,500,000	\$ -	\$ 5,500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 5,000,000
8	F-47 (Right-Of-Way Acquisition, Design and Construction of Stormwater Detention Basins near Coastal Water Authority canals and IH 10)	\$ 5,500,000	\$ -	\$ 5,500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 5,000,000
9	F-48 (Design and Construction of Crosby Eastgate Environmental Mitigation Bank)	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ 200,000	\$ 300,000	\$ 250,000	\$ 250,000
10	F-68 (Right-Of-Way Acquisition, Design and Construction of channel conveyance improvements on Q134-01-00 - Part of the Upstream Cedar Bayou Project)	\$ 11,000,000	\$ -	\$ 11,000,000	\$ -	\$ 2,500,000	\$ 3,400,000	\$ 3,200,000	\$ 1,900,000	\$ -
11	F-69 (Right-Of-Way Acquisition, Design and Construction of channel conveyance improvements on Q136-00-00 - Part of the Upstream Cedar Bayou Project)	\$ 10,500,000	\$ -	\$ 10,500,000	\$ -	\$ 1,000,000	\$ 2,400,000	\$ 4,300,000	\$ 2,800,000	\$ -
12	F-70 (Upstream Cedar Bayou Project - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Stormwater Detention Basin Upstream of FM 1960)	\$ 30,200,000	\$ -	\$ 30,200,000	\$ -	\$ 1,000,000	\$ 2,000,000	\$ 6,800,000	\$ 11,900,000	\$ 8,500,000
	Sub-Total (Cedar Bayou)	\$ 165,248,000	\$ 1,500,000	\$ 163,748,000	\$ 1,548,000	\$ 12,100,000	\$ 25,000,000	\$ 42,900,000	\$ 46,750,000	\$ 36,950,000
Clear Creek										
1	C-03 (Design and Construction of Corps of Engineers Clear Creek Federal Flood Risk Management Project)	\$ 190,000,000	\$ 190,000,000	\$ -	\$ -	\$ 40,000,000	\$ 40,000,000	\$ 40,000,000	\$ 40,000,000	\$ 30,000,000
2	C-05 (Construction of South Belt Stormwater Detention Basin and Channel Conveyance Improvements Along Beamer Road Ditch (A120-00-00))	\$ 16,138,180	\$ 11,962,500	\$ 4,175,680	\$ 188,180	\$ 9,000,000	\$ 6,950,000	\$ -	\$ -	\$ -
3	CI-001 (Rehabilitation of the Clear Creek channel to Restore Channel Conveyance Capacity)	\$ 25,200,000	\$ -	\$ 25,200,000	\$ 200,000	\$ 5,500,000	\$ 10,600,000	\$ 7,400,000	\$ 1,500,000	\$ -
4	CI-003 (Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity)	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ -	\$ 530,000	\$ 470,000	\$ -	\$ -	\$ -
5	CI-013 (Restore Channel Conveyance Capacity on A104-00-00)	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ 500,000	\$ 4,500,000	\$ -	\$ -	\$ -
6	CI-039 (Partnership Project with Nassau Bay to Reduce the Risk of Flooding)	\$ 150,000	\$ 25,000	\$ 125,000	\$ -	\$ 30,000	\$ 80,000	\$ 40,000	\$ -	\$ -
7	CI-62 (Construction of Stormwater Detention Basin Near FM 528 in Friendswood)	\$ 10,285,000	\$ 7,500,000	\$ 2,785,000	\$ 285,000	\$ 250,000	\$ 2,200,000	\$ 3,900,000	\$ 2,800,000	\$ 850,000
8	CI-63 (Construction of Stormwater Detention Basin Near Dixie Farm Road in Friendswood)	\$ 10,000,000	\$ 7,500,000	\$ 2,500,000	\$ -	\$ 670,000	\$ 2,200,000	\$ 3,700,000	\$ 2,700,000	\$ 730,000
9	E-05 (Clear Creek Subdivision Drainage Improvements)	\$ 12,060,000	\$ 9,045,000	\$ 3,015,000	\$ -	\$ 2,412,000	\$ 2,412,000	\$ 2,412,000	\$ 2,412,000	\$ 2,412,000
10	F-01 (Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on A135-00-00)	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	\$ 200,000	\$ 400,000	\$ 500,000	\$ 1,000,000	\$ 400,000
11	F-02 (Design and Construction of Hughes Stormwater Detention Basin)	\$ 6,100,000	\$ -	\$ 6,100,000	\$ -	\$ 2,800,000	\$ 3,100,000	\$ 200,000	\$ -	\$ -
12	F-03 (Design and Construction of Dagg Road Stormwater Detention Basin on Clear Creek)	\$ 7,828,051	\$ -	\$ 7,828,051	\$ 428,051	\$ 1,000,000	\$ 3,700,000	\$ 2,700,000	\$ -	\$ -
13	F-76 (Identification, Design and Construction of the A700-01 Environmental Mitigation Bank)	\$ 6,050,000	\$ -	\$ 6,050,000	\$ 50,000	\$ 300,000	\$ 1,100,000	\$ 1,400,000	\$ 1,800,000	\$ 1,400,000
	Sub-Total (Clear Creek)	\$ 292,311,231	\$ 226,532,500	\$ 65,778,731	\$ 1,151,231	\$ 63,192,000	\$ 77,712,000	\$ 62,252,000	\$ 52,212,000	\$ 35,792,000

## 2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Cypress Creek										
1	CI-012 (Major Maintenance of Cypress Creek and Tributaries)	\$ 60,000,000	\$ -	\$ 60,000,000	\$ -	\$ 1,000,000	\$ 19,000,000	\$ 20,000,000	\$ 15,000,000	\$ 5,000,000
2	CI-020 (Investigation of Potential Detention Sites Around Cypress Creek and Stuebner Airline)	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 80,000	\$ 20,000	\$ -	\$ -	\$ -
3	CI-035 (Update to 2003 Texas Water Development Board Cypress Creek Tributary Study)	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 600,000	\$ 400,000	\$ -	\$ -	\$ -	\$ -
4	CI-036 (Investigation of Additional Detention Volume at K500-01-00 Stormwater Detention Basin)	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -
5	E-06 (Cypress Creek Subdivision Drainage Improvements)	\$ 135,280,000	\$ 101,205,000	\$ 34,075,000	\$ 340,000	\$ 26,988,000	\$ 26,988,000	\$ 26,988,000	\$ 26,988,000	\$ 26,988,000
6	F-20 (Cypress Creek Right-of-Way Acquisition and Floodplain Preservation)	\$ 60,000,000	\$ -	\$ 60,000,000	\$ -	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000	\$ 12,000,000
7	F-22 (Restore Channel Conveyance Capacity Along Pillot Gully)	\$ 2,200,000	\$ -	\$ 2,200,000	\$ -	\$ -	\$ -	\$ 550,000	\$ 1,100,000	\$ 550,000
8	F-23 (Construction of Channel Conveyance Improvements Along K163-00-00)	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ 300,000	\$ 900,000	\$ 1,200,000	\$ 600,000	\$ -
9	F-24 (Identification, Design and Construction of the K700-01 Environmental Mitigation Bank)	\$ 9,300,000	\$ -	\$ 9,300,000	\$ -	\$ 500,000	\$ 1,700,000	\$ 2,100,000	\$ 2,900,000	\$ 2,100,000
10	F-88 (Design and Construction of Stormwater Detention Basins in Large Buyout Areas)	\$ 25,000,000	\$ -	\$ 25,000,000	\$ -	\$ 800,000	\$ 2,000,000	\$ 5,500,000	\$ 10,200,000	\$ 6,500,000
	Sub-Total (Cypress Creek)	\$ 295,980,000	\$ 101,205,000	\$ 194,775,000	\$ 940,000	\$ 42,118,000	\$ 62,658,000	\$ 68,338,000	\$ 68,788,000	\$ 53,138,000
Galveston Bay										
1	C-58 (Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00)	\$ 8,500,000	\$ 1,700,000	\$ 6,800,000	\$ -	\$ 500,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
2	E-07 (Galveston Bay Subdivision Drainage Improvements)	\$ 10,227,280	\$ 7,575,000	\$ 2,652,280	\$ 127,280	\$ 2,020,000	\$ 2,020,000	\$ 2,020,000	\$ 2,020,000	\$ 2,020,000
	Sub-Total (Galveston Bay)	\$ 18,727,280	\$ 9,275,000	\$ 9,452,280	\$ 127,280	\$ 2,520,000	\$ 4,020,000	\$ 4,020,000	\$ 4,020,000	\$ 4,020,000
Goose Creek										
1	E-08 (Spring Gully & Goose Creek Subdivision Drainage Improvements)	\$ 9,004,814	\$ 6,487,500	\$ 2,517,314	\$ 354,814	\$ 1,730,000	\$ 1,730,000	\$ 1,730,000	\$ 1,730,000	\$ 1,730,000
2	F-109 (Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements on Spring Gully)	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ -	\$ -	\$ 1,100,000	\$ 1,900,000	\$ 2,000,000
3	F-120 (Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements in Goose Creek watershed)	\$ 22,000,000	\$ -	\$ 22,000,000	\$ -	\$ -	\$ 2,000,000	\$ 5,000,000	\$ 8,000,000	\$ 7,000,000
4	F-121 (Investigations of General Drainage Improvements in Goose Creek watershed)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ -
	Sub-Total (Goose Creek)	\$ 36,504,814	\$ 6,487,500	\$ 30,017,314	\$ 354,814	\$ 1,730,000	\$ 3,730,000	\$ 8,080,000	\$ 11,880,000	\$ 10,730,000
Greens Bayou										
1	C-20 (Mid-Reach Greens Bayou Project - Design and Construction of Channel Conveyance Improvements along Greens Bayou)	\$ 20,000,000	\$ 18,000,000	\$ 2,000,000	\$ -	\$ -	\$ 1,800,000	\$ 5,000,000	\$ 7,500,000	\$ 5,700,000
2	C-31 (Design and Construction of the Smith Road Channel Diversion)	\$ 8,000,000	\$ 7,200,000	\$ 800,000	\$ -	\$ 1,000,000	\$ 4,000,000	\$ 3,000,000	\$ -	\$ -
3	C-32 (Design and Construction of the Cutten Road Basin)	\$ 15,739,525	\$ 13,500,000	\$ 2,239,525	\$ 739,525	\$ -	\$ 1,800,000	\$ 7,500,000	\$ 5,700,000	\$ -
4	C-33 (Design and Construction of Aldine-Westfield Stormwater Detention Basin Improvements)	\$ 23,350,225	\$ 13,590,000	\$ 9,760,225	\$ 8,250,225	\$ -	\$ 1,800,000	\$ 7,600,000	\$ 5,700,000	\$ -
5	C-34 (Design and Construction of Lauder Stormwater Detention Basin Improvements)	\$ 16,000,000	\$ 14,400,000	\$ 1,600,000	\$ -	\$ 500,000	\$ 9,000,000	\$ 6,500,000	\$ -	\$ -
6	C-43 (Potential CDBG-DR (2017) - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01)	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -	\$ 200,000	\$ 900,000	\$ 1,200,000	\$ 1,600,000	\$ 1,100,000
7	CI-022 (ROW, Design, and Construction of Stormwater Detention Basin Near P130-05)	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ 400,000	\$ 500,000	\$ 580,000	\$ 800,000	\$ 720,000
8	E-09 (Greens Bayou Subdivision Drainage Improvements)	\$ 93,459,593	\$ 69,480,000	\$ 23,979,593	\$ 819,593	\$ 18,528,000	\$ 18,528,000	\$ 18,528,000	\$ 18,528,000	\$ 18,528,000
9	F-40 (Repairs and Enhancements to the Lower Greens Bayou Regional Detention Embankment and Control Structure)	\$ 8,592,921	\$ -	\$ 8,592,921	\$ 3,592,921	\$ 2,500,000	\$ 2,500,000	\$ -	\$ -	\$ -
	Sub-Total (Greens Bayou)	\$ 193,142,264	\$ 141,170,000	\$ 51,972,264	\$ 13,402,264	\$ 23,128,000	\$ 40,828,000	\$ 49,908,000	\$ 39,828,000	\$ 26,048,000



## 2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Halls Bayou										
1	C-02 (CDBG-DR (2016) - Aldine Westfield Stormwater Detention Basin and Channel)	\$ 14,000,000	\$ 10,000,000	\$ 4,000,000	\$ -	\$ 1,800,000	\$ 7,000,000	\$ 5,200,000	\$ -	\$ -
2	C-21 (Local Cost Share for Corps of Engineers Halls Bayou Study)	\$ -	\$ 1,500,000	\$ (1,500,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	C-23 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00)	\$ 16,000,000	\$ 22,500,000	\$ (6,500,000)	\$ -	\$ -	\$ -	\$ 2,000,000	\$ 6,000,000	\$ 8,000,000
4	C-24 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00)	\$ 12,000,000	\$ 10,800,000	\$ 1,200,000	\$ -	\$ 3,000,000	\$ 3,500,000	\$ 3,500,000	\$ 2,000,000	\$ -
5	C-25 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00)	\$ 14,604,471	\$ 12,600,000	\$ 2,004,471	\$ 604,471	\$ 3,200,000	\$ 4,300,000	\$ 4,000,000	\$ 2,500,000	\$ -
6	C-26 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00)	\$ 16,900,000	\$ 14,400,000	\$ 2,500,000	\$ 900,000	\$ 3,700,000	\$ 4,900,000	\$ 4,600,000	\$ 2,800,000	\$ -
7	C-27 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-02)	\$ 12,000,000	\$ 10,800,000	\$ 1,200,000	\$ -	\$ 2,700,000	\$ 3,700,000	\$ 3,500,000	\$ 2,100,000	\$ -
8	C-28 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00)	\$ 18,900,000	\$ 16,200,000	\$ 2,700,000	\$ 900,000	\$ 1,600,000	\$ 4,100,000	\$ 7,000,000	\$ 4,900,000	\$ 400,000
9	C-29 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-01)	\$ 6,000,000	\$ 5,400,000	\$ 600,000	\$ -	\$ 600,000	\$ 1,500,000	\$ 2,400,000	\$ 1,500,000	\$ -
10	C-30 (Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00)	\$ 12,000,000	\$ 10,800,000	\$ 1,200,000	\$ -	\$ 1,100,000	\$ 2,800,000	\$ 4,800,000	\$ 3,300,000	\$ -
11	C-35 (Design and Construction of Stormwater Detention Basin and Associated Channel Improvements)	\$ 8,000,000	\$ 7,200,000	\$ 800,000	\$ -	\$ 500,000	\$ 2,000,000	\$ 3,500,000	\$ 2,000,000	\$ -
12	CI-006 (Design and Construction of a Stormwater Detention Basin in Brock Park)	\$ 10,000,000	\$ 5,000,000	\$ 5,000,000	\$ -	\$ 2,300,000	\$ 2,900,000	\$ 2,900,000	\$ 1,900,000	\$ -
13	E-11 (Halls Bayou Subdivision Drainage Improvements)	\$ 9,547,730	\$ 7,125,000	\$ 2,422,730	\$ 47,730	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000	\$ 1,900,000
	Sub-Total (Halls Bayou)	\$ 149,952,201	\$ 134,325,000	\$ 15,627,201	\$ 2,452,201	\$ 22,400,000	\$ 38,600,000	\$ 45,300,000	\$ 30,900,000	\$ 10,300,000
Hunting Bayou										
1	C-18 (Design and Construction of Corps of Engineers Hunting Bayou, Section 211(f) Project)	\$ 80,840,000	\$ 80,000,000	\$ 840,000	\$ 840,000	\$ 16,000,000	\$ 16,000,000	\$ 16,000,000	\$ 16,000,000	\$ 16,000,000
2	CI-031 (HCFCD Cost Share of Study with the City of Houston on Wallisville Outfall)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000
3	CI-59 (Planning, Right-Of-Way, Design and Construction of a Diversion Channel from H102-00-00 to H100-00-00 through Galena Park)	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 2,000,000
4	F-17 (Right-Of-Way Acquisition, Design and Construction of Wallisville Outfall)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
	Sub-Total (Hunting Bayou)	\$ 84,340,000	\$ 80,000,000	\$ 4,340,000	\$ 840,000	\$ 16,000,000	\$ 16,000,000	\$ 16,000,000	\$ 16,750,000	\$ 18,750,000
Jackson Bayou										
1	E-12 (Jackson Bayou Subdivision Drainage Improvements)	\$ 3,045,220	\$ 2,250,000	\$ 795,220	\$ 45,220	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
2	F-107 (Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Jackson Bayou Watershed)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ 900,000	\$ 2,300,000	\$ 4,100,000	\$ 2,700,000	\$ -
	Sub-Total (Jackson Bayou)	\$ 13,045,220	\$ 2,250,000	\$ 10,795,220	\$ 45,220	\$ 1,500,000	\$ 2,900,000	\$ 4,700,000	\$ 3,300,000	\$ 600,000

## 2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Little Cypress Creek										
1	C-19 (Frontier Program Downstream of Cypress Rosehill)	\$ 32,500,000	\$ 18,375,000	\$ 14,125,000	\$ 8,000,000	\$ 2,000,000	\$ 8,000,000	\$ 10,000,000	\$ 4,500,000	\$ -
2	E-13 (Little Cypress Creek Subdivision Drainage Improvements)	\$ 14,639,955	\$ 10,942,500	\$ 3,697,455	\$ 49,955	\$ 2,918,000	\$ 2,918,000	\$ 2,918,000	\$ 2,918,000	\$ 2,918,000
3	F-26 (Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program)	\$ 37,600,000	\$ -	\$ 37,600,000	\$ 14,600,000	\$ 1,000,000	\$ 1,000,000	\$ 6,000,000	\$ 8,000,000	\$ 7,000,000
4	F-27 (Design and Construction of Zube Park Stormwater Detention Basin)	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ 30,000	\$ 500,000	\$ 470,000	\$ -
5	F-28 (Right-Of-Way Acquisition, Design, and Construction of Kluge Stormwater Detention Basin)	\$ 11,000,000	\$ -	\$ 11,000,000	\$ -	\$ 1,000,000	\$ 2,500,000	\$ 4,500,000	\$ 3,000,000	\$ -
6	F-29 (Right-Of-Way Acquisition, Design, and Construction of Mueschke East Stormwater Detention Basin)	\$ 15,900,000	\$ -	\$ 15,900,000	\$ -	\$ 400,000	\$ 3,500,000	\$ 6,200,000	\$ 4,400,000	\$ 1,400,000
7	F-30 (Right-Of-Way Acquisition, Design, and Construction of Schiel Stormwater Detention Basin)	\$ 7,600,000	\$ -	\$ 7,600,000	\$ 7,600,000	\$ -	\$ -	\$ -	\$ -	\$ -
8	F-31 (Construction of Mueschke West Stormwater Detention Basin Improvements)	\$ 15,100,000	\$ -	\$ 15,100,000	\$ 4,500,000	\$ 5,300,000	\$ 5,300,000	\$ -	\$ -	\$ -
9	F-32 (Construction of Hegar Stormwater Detention Basin Improvements)	\$ 11,800,000	\$ -	\$ 11,800,000	\$ -	\$ -	\$ 5,900,000	\$ 5,900,000	\$ -	\$ -
10	F-33 (Construction of Kleb Woods Stormwater Detention Basin Improvements)	\$ 3,700,000	\$ -	\$ 3,700,000	\$ -	\$ 600,000	\$ 1,200,000	\$ 1,200,000	\$ 650,000	\$ 50,000
11	F-34 (ROW, Design, and Construction of Mason Stormwater Detention Basin in Little Cypress Creek watershed)	\$ 19,450,000	\$ -	\$ 19,450,000	\$ 6,450,000	\$ 1,100,000	\$ 3,000,000	\$ 5,400,000	\$ 3,500,000	\$ -
12	F-35 (Construction of Bauer-Hockley Stormwater Detention Basin Improvements)	\$ 7,735,432	\$ -	\$ 7,735,432	\$ 3,885,432	\$ 650,000	\$ 1,200,000	\$ 2,000,000	\$ -	\$ -
13	F-89 (Design and Construction of Additional Volume in Little Cypress Creek Stormwater Detention Basins)	\$ 25,000,000	\$ -	\$ 25,000,000	\$ -	\$ 5,300,000	\$ 6,500,000	\$ 7,600,000	\$ 5,600,000	\$ -
	Sub-Total (Little Cypress Creek)	\$ 203,025,387	\$ 29,317,500	\$ 173,707,887	\$ 45,085,387	\$ 20,268,000	\$ 41,048,000	\$ 52,218,000	\$ 33,038,000	\$ 11,368,000
Luce Bayou										
1	F-108 (Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Luce Bayou Watershed)	\$ 8,000,000	\$ -	\$ 8,000,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 2,500,000	\$ 4,500,000
2	F-51 (Luce Bayou Right-of-Way Acquisition and Floodplain Preservation)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000	\$ 5,000,000
3	F-85 (Planning, Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Luce Bayou Watershed)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ 400,000	\$ 100,000	\$ -	\$ -	\$ -
	Sub-Total (Luce Bayou)	\$ 18,500,000	\$ -	\$ 18,500,000	\$ -	\$ 400,000	\$ 100,000	\$ 1,000,000	\$ 7,500,000	\$ 9,500,000
San Jacinto River										
1	C-17 (San Jacinto River Watershed Study)	\$ 2,500,000	\$ 1,875,000	\$ 625,000	\$ -	\$ 350,000	\$ 450,000	\$ 600,000	\$ 600,000	\$ 500,000
2	C-50 (Funding for Future Partnership Projects Based on Results of Study - for Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements in San Jacinto River Watershed Study)	\$ 32,500,000	\$ 24,375,000	\$ 8,125,000	\$ -	\$ 1,500,000	\$ 3,000,000	\$ 8,000,000	\$ 12,000,000	\$ 8,000,000
3	CI-019 (Investigations of Potential Detention Sites Around Glendale Dredge Site in Partnership with the City of Houston)	\$ 100,000	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 30,000	\$ 50,000	\$ 20,000	\$ -
4	CI-028 (Design and Construction of Additional Gates on Lake Houston in Partnership with the City of Houston)	\$ 40,100,000	\$ 28,642,857	\$ 11,457,143	\$ -	\$ 1,800,000	\$ 4,700,000	\$ 9,800,000	\$ 11,900,000	\$ 11,900,000
5	CI-60 (Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Panther Creek)	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ 2,000,000
6	CI-61 (East Fork, West Fork and Lake Houston Dredging)	\$ 22,250,000	\$ 17,800,000	\$ 4,450,000	\$ -	\$ -	\$ 450,000	\$ 2,200,000	\$ 7,700,000	\$ 11,900,000
7	E-14 (San Jacinto River Subdivision Drainage Improvements)	\$ 6,499,990	\$ 4,837,500	\$ 1,662,490	\$ 49,990	\$ 1,290,000	\$ 1,290,000	\$ 1,290,000	\$ 1,290,000	\$ 1,290,000
8	F-110 (Planning , Right-Of-Way Acquisition, design and Construction of General Drainage Improvements Near Huffman)	\$ 10,400,000	\$ -	\$ 10,400,000	\$ 400,000	\$ 700,000	\$ 2,200,000	\$ 3,700,000	\$ 2,700,000	\$ 700,000
9	F-111 (Planning , Right-Of-Way Acquisition, design and Construction of General Drainage Improvements East of Lake Houston)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ 700,000	\$ 2,200,000	\$ 3,700,000	\$ 2,700,000	\$ 700,000
10	F-14 (Planning , Right-Of-Way Acquisition, design and Construction of General Drainage Improvements Near Kingwood)	\$ 10,300,000	\$ -	\$ 10,300,000	\$ 300,000	\$ 900,000	\$ 2,300,000	\$ 4,100,000	\$ 2,700,000	\$ -
11	F-15 (Planning , Right-Of-Way Acquisition, design and Construction of General Drainage Improvements Near Atascocita)	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ 700,000	\$ 2,200,000	\$ 3,700,000	\$ 2,700,000	\$ 700,000
	Sub-Total (San Jacinto River)	\$ 147,149,990	\$ 77,580,357	\$ 69,569,633	\$ 749,990	\$ 7,940,000	\$ 18,820,000	\$ 37,140,000	\$ 44,810,000	\$ 37,690,000

## 2019 Interim CIP - Harris County Flood Control District

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2019 Interim CIP - Harris County Flood Control District

Watershed	Project Name (Map ID and Project Title)	Total Project Estimate	Reimbursements	HC Capital Funding	Funded to Date	Mar 2019 - Sep 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023	
White Oak Bayou											
1	C-14 (Design and Construction of Corps of Engineers White Oak Bayou Section 211(f) Project)	\$ 100,797,011	\$ 95,000,000	\$ 5,797,011	\$ 5,797,011	\$ 19,000,000	\$ 19,000,000	\$ 19,000,000	\$ 19,000,000	\$ 19,000,000	
2	C-15 (Design and Construction of Arbor Oaks Stormwater Detention Basin)	\$ 2,000,000	\$ 1,500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	
3	C-16 (Design and Construction of Woodland Trails Stormwater Detention Basin)	\$ 29,750,000	\$ 21,750,000	\$ 8,000,000	\$ 750,000	\$ -	\$ 1,700,000	\$ 7,600,000	\$ 11,800,000	\$ 7,900,000	
4	C-39 (Right-of-Way Acquisition, Design and Construction of the North Canal)	\$ 42,100,000	\$ 33,680,000	\$ 8,420,000	\$ -	\$ 6,000,000	\$ 12,000,000	\$ 12,000,000	\$ 8,600,000	\$ 3,500,000	
5	C-59 (Construction of Inwood Forest West Stormwater Detention Basin)	\$ 18,000,000	\$ 13,500,000	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000	\$ 12,000,000	
6	C-60 (Construction of Inwood Forest East Stormwater Detention Basin)	\$ 6,000,000	\$ 4,434,783	\$ 1,565,217	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000	
7	CI-010 (Partnership Project with Jersey Village on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E127-00-00)	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ -	\$ 400,000	\$ 500,000	\$ 580,000	\$ 760,000	\$ 760,000	
8	CI-011 (Partnership Project with the City of Houston for Feasibility Study of General Drainage Improvements around Hidden Lake Townhomes)	\$ 525,000	\$ 175,000	\$ 350,000	\$ 175,000	\$ 180,000	\$ 170,000	\$ -	\$ -	\$ -	
9	CI-030 (Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Turkey Gully)	\$ 40,000,000	\$ 30,000,000	\$ 10,000,000	\$ -	\$ 6,200,000	\$ 8,500,000	\$ 8,500,000	\$ 10,800,000	\$ 6,000,000	
10	CI-032 (Investigation of Additional Stormwater Detention Basins in the White Oak Bayou Watershed)	\$ 250,000	\$ 125,000	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	
11	CI-033 (Partnership Project with City of Houston on Planning, Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E105-00-00)	\$ 1,300,000	\$ 1,000,000	\$ 300,000	\$ -	\$ -	\$ 200,000	\$ 300,000	\$ 400,000	\$ 400,000	
12	E-17 (White Oak Bayou Subdivision Drainage Improvements)	\$ 36,546,605	\$ 27,187,500	\$ 9,359,105	\$ 296,605	\$ 7,250,000	\$ 7,250,000	\$ 7,250,000	\$ 7,250,000	\$ 7,250,000	
13	F-09 (Planning, Right-Of-Way Acquisition, Design and Construction of Little White Oak Bayou Channel Conveyance Improvements)	\$ 28,500,000	\$ -	\$ 28,500,000	\$ -	\$ 1,000,000	\$ 5,000,000	\$ 6,500,000	\$ 8,000,000	\$ 8,000,000	
14	F-10 (Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Brickhouse Gully)	\$ 30,500,000	\$ -	\$ 30,500,000	\$ -	\$ 1,000,000	\$ 5,000,000	\$ 7,500,000	\$ 8,000,000	\$ 9,000,000	
	Sub-Total (White Oak Bayou)	\$ 339,268,616	\$ 229,852,283	\$ 109,416,333	\$ 7,018,616	\$ 41,030,000	\$ 59,320,000	\$ 69,230,000	\$ 80,610,000	\$ 82,060,000	
Willow Creek											
1	F-106 (Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Willow Creek Watershed)	\$ 15,000,000	\$ -	\$ 15,000,000	\$ -	\$ -	\$ -	\$ 6,000,000	\$ 7,500,000	\$ 1,500,000	
2	F-36 (Willow Creek Right-of-Way Acquisition and Floodplain Preservation)	\$ 30,000,000	\$ -	\$ 30,000,000	\$ -	\$ 12,000,000	\$ 12,000,000	\$ 6,000,000	\$ -	\$ -	
3	F-37 (Design and Construction of Channel Conveyance Improvements on M124-00-00)	\$ 22,201,245	\$ -	\$ 22,201,245	\$ 1,201,245	\$ 5,400,000	\$ 10,200,000	\$ 5,400,000	\$ -	\$ -	
4	F-71 (Investigations of General Drainage Improvements in Willow Creek Watershed)	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ 400,000	\$ 100,000	\$ -	\$ -	\$ -	
	Sub-Total (Willow Creek)	\$ 67,701,245	\$ -	\$ 67,701,245	\$ 1,201,245	\$ 17,800,000	\$ 22,300,000	\$ 17,400,000	\$ 7,500,000	\$ 1,500,000	
Countywide											
1	CI-026 (Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins)	\$ 500,000	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000	
2	Z-01 (Countywide Floodplain Preservation and Right of Way Acquisition)	\$ 25,000,000	\$ -	\$ 25,000,000	\$ -	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	
3	Z-02 (Partnership Projects with Municipalities, Authorities, and Other Districts in Harris County)	\$ 67,000,000	\$ -	\$ 67,000,000	\$ 2,000,000	\$ 5,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	
4	Z-03 (Countywide Ongoing Planning)	\$ 6,000,000	\$ -	\$ 6,000,000	\$ -	\$ 1,500,000	\$ 1,500,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	
5	Z-04 (Partnership Projects with the Harris County Engineering Department)	\$ 50,000,000	\$ -	\$ 50,000,000	\$ -	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	
6	Z-05 (Advanced Emerging Technologies for Flood Damage Reduction)	\$ 25,100,000	\$ -	\$ 25,100,000	\$ 100,000	\$ 3,000,000	\$ 3,000,000	\$ 12,000,000	\$ 6,500,000	\$ 500,000	
7	Z-06 (Bond Administration)	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	
8	Z-07 (Contingency)	\$ 380,000,000	\$ -	\$ 380,000,000	\$ -	\$ 60,000,000	\$ 80,000,000	\$ 80,000,000	\$ 80,000,000	\$ 80,000,000	
9	Z-09 (Upgrades and Expansion of the Harris County Flood Warning System)	\$ 5,000,000	\$ 3,750,000	\$ 1,250,000	\$ -	\$ 4,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	
10	Z-10 (Harris County Floodplain Mapping Updates)	\$ 25,000,000	\$ 12,500,000	\$ 12,500,000	\$ -	\$ 6,000,000	\$ 12,000,000	\$ 6,500,000	\$ 500,000	\$ -	
11	Buyouts	\$ 100,000,000	\$ 90,000,000	\$ 10,000,000	\$ -	\$ 20,000,000	\$ 20,000,000	\$ 20,000,000	\$ 20,000,000	\$ 20,000,000	
	Sub-Total (z.Countywide)	\$ 688,600,000	\$ 106,500,000	\$ 582,100,000	\$ 2,100,000	\$ 115,500,000	\$ 148,500,000	\$ 150,500,000	\$ 139,250,000	\$ 132,750,000	
Total			\$ 3,607,120,945	\$ 1,577,893,890	\$ 2,029,227,055	\$ 89,765,945	\$ 496,387,000	\$ 749,037,000	\$ 854,537,000	\$ 791,537,000	\$ 625,857,000

**Total Project Estimate** - Total estimated funding required over the next 5 fiscal years.

**Reimbursements** - Anticipated Federal, State, or other funding that can offset the potential debt incurred from the project. This could include proceeds from the sale of other assets.

**HC Capital Funding** - The remaining cost of the project after reimbursements are realized.

**Funded to Date** -Total funding the project has received in prior fiscal years.





# **FY2019 Interim Capital Improvements Program**

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**Office of the County Engineer**

**John R. Blount, P.E.**  
*County Engineer*

**HARRIS COUNTY**  
**OFFICE OF THE COUNTY ENGINEER**

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1001 Preston, 5<sup>th</sup> Floor  
Houston, Texas 77002  
(713) 755-5370

February 11, 2019

Honorable County Judge  
& Commissioners

**Subject: Interim Capital Improvements Program FY 2019 and Funding Recommendations**

Dear Court Members:

The Office of the County Engineer (OCE) has coordinated with the Budget Office and other County Departments to prepare Harris County's FY 2019 Interim Capital Improvements Program. OCE is recommending the approval of the attached program including authorizing the Budget Office to fund up to 134.8 Million. Individual projects will be presented at future Commissioners Court sessions for approval.

Should you have any questions, please contact my office.

Sincerely,



John R. Blount, P.E.  
County Engineer

cc: William J. Jackson, Executive Director, HCBMD

2019 Interim CIP - Engineering Department 5 Year Funding Plan

Project Category	Project Name/Description	Total Project Estimate	Reimbursements	HC Capital Funding	Funded To Date	Mar 2019 - Sept 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
<b>Capital Repair and Maintenance</b>										
1	Elevator projects - 5 Year Plan	\$ 30,000,000	\$ -	\$ 30,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
2	Roofing Projects - 5 Year Plan	\$ 30,000,000	\$ -	\$ 30,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
3	Heating Ventilation Air Conditioning (HVAC) projects - 5 Year Plan	\$ 27,000,000	\$ -	\$ 27,000,000	\$ 2,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
4	Fire, Life Safety and Electrical Systems - 5Year Plan	\$ 25,000,000	\$ -	\$ 25,000,000	\$ 1,500,000	\$ 3,500,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
5	Plumbing Systems - 5 Year Plan	\$ 25,000,000	\$ -	\$ 25,000,000	\$ 1,500,000	\$ 3,500,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
6	Parking Lots - 5 Year Plan	\$ 15,000,000	\$ -	\$ 15,000,000	\$ 1,000,000	\$ 2,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
7	Painting and Flooring - 5 Year Plan	\$ 25,000,000	\$ -	\$ 25,000,000	\$ 3,000,000	\$ 2,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
8	Juvenile Probation Department Facility Repairs	\$ 6,000,000	\$ -	\$ 6,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
9	Countywide Annex Security Upgrades	\$ 4,000,000	\$ -	\$ 4,000,000	\$ 1,000,000	\$ 2,000,000	\$ -	\$ -	\$ 1,000,000	\$ -
10	County Detention Facility Repairs/Upgrades	\$ 80,000,000	\$ -	\$ 80,000,000	\$ -	\$ 20,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000
11	Countywide Facility LED Lighting Conversion	\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
12	Countywide Traffic Signal Repairs and Upgrades	\$ 15,000,000	\$ -	\$ 15,000,000	\$ -	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
13	Facilities Management System (Tririga) Inventory of Precinct Facilities	\$ 3,600,000	\$ -	\$ 3,600,000	\$ 3,000,000	\$ 500,000	\$ -	\$ 100,000	\$ -	\$ -
14	Engineering Management System E-Builder Maintenance Agreement	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
	<b>Sub-Total (Capital Repair and Maintenance)</b>	<b>\$ 297,100,000</b>	<b>\$ -</b>	<b>\$ 297,100,000</b>	<b>\$ 24,000,000</b>	<b>\$ 54,800,000</b>	<b>\$ 54,300,000</b>	<b>\$ 54,400,000</b>	<b>\$ 55,300,000</b>	<b>\$ 54,300,000</b>
<b>New Facilities</b>										
1	Juvenile Probation Department Replacement Facility	\$ 85,825,000	\$ 20,000,000	\$ 65,825,000	\$ 7,825,000	\$ 25,000,000	\$ 30,000,000	\$ 23,000,000	\$ -	\$ -
2	Flood Control, Public Health, Engineering Replacement Facility	\$ 76,000,000	\$ 30,000,000	\$ 46,000,000	\$ 1,000,000	\$ 10,000,000	\$ 35,000,000	\$ 30,000,000	\$ -	\$ -
3	PETS Facility furniture, fixture & equipment Phase II	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -
4	CTS Radio Network Core Building	\$ 1,750,000	\$ -	\$ 1,750,000	\$ 250,000	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -
5	Tax Office Buildout replacing Annex 17	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ 1,000,000	\$ 2,000,000	\$ -	\$ -	\$ -
6	CSCD Phase II Administrative Area Upgrades, Atascocita	\$ 10,000,000	\$ 3,000,000	\$ 7,000,000	\$ -	\$ 10,000,000	\$ -	\$ -	\$ -	\$ -
7	Riverside Hospital Site Future Project	TBD	\$ 4,000,000	\$ (4,000,000)	\$ -	TBD	TBD	TBD	TBD	TBD
8	Atascocita Complex Ground Water Conversion	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -
	<b>Sub-Total (New Facilities)</b>	<b>\$ 184,575,000</b>	<b>\$ 57,000,000</b>	<b>\$ 127,575,000</b>	<b>\$ 9,075,000</b>	<b>\$ 51,000,000</b>	<b>\$ 68,500,000</b>	<b>\$ 56,000,000</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Renovation and Demo</b>										
1	Expansion of Commissioners Court	TBD		TBD	TBD	TBD	TBD	TBD	TBD	TBD
2	Upgrade Preston Street Central Plant	\$ 60,000,000	\$ -	\$ 60,000,000	\$ -	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ -
3	Annex 18, 406 Caroline, Mech. Elect. Plumbing Repairs	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
4	Demolition of Lomas Nettleton / Coffee Pot Buildings	\$ 7,000,000	\$ -	\$ 7,000,000	\$ -	\$ -	\$ -	\$ 7,000,000	\$ -	\$ -
5	Navigation Property , HCSO and other County Departments New Facilities	\$ 25,000,000	\$ -	\$ 25,000,000	\$ 5,000,000	\$ 5,000,000	\$ 10,000,000	\$ 5,000,000	\$ -	\$ -
6	Expedited Buildouts and Upgrades of County Facilities	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	TBD	TBD	TBD	TBD
	<b>Sub-Total (Renovation and Demo)</b>	<b>\$ 98,000,000</b>	<b>\$ -</b>	<b>\$ 98,000,000</b>	<b>\$ 5,500,000</b>	<b>\$ 25,500,000</b>	<b>\$ 25,000,000</b>	<b>\$ 27,000,000</b>	<b>\$ 15,000,000</b>	<b>\$ -</b>
<b>Studies</b>										
1	Court Directed Masterplans and Studies	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
	<b>Sub-Total (Studies)</b>	<b>\$ 2,500,000</b>	<b>\$ -</b>	<b>\$ 2,500,000</b>	<b>\$ -</b>	<b>\$ 500,000</b>	<b>\$ 500,000</b>	<b>\$ 500,000</b>	<b>\$ 500,000</b>	<b>\$ 500,000</b>

2019 Interim CIP - Engineering Department 5 Year Funding Plan

Project Category	Project Name/Description	Total Project Estimate	Reimbursements	HC Capital Funding	Funded To Date	Mar 2019 - Sept 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Disaster Recovery Hurricane Harvey Event										
1	Criminal Justice Center	TBD	\$ -	\$ -	\$ -	TBD	TBD	TBD	TBD	TBD
2	Jury Assembly	TBD	\$ -	\$ -	\$ -	TBD	TBD	TBD	TBD	TBD
3	Baldwin Boettcher Library	TBD	\$ -	\$ -	\$ -	TBD	TBD	TBD	TBD	TBD
4	Downtown Complex Tunnel System	TBD	\$ -	\$ -	\$ -	TBD	TBD	TBD	TBD	TBD
5	Peden Building	TBD	\$ -	\$ -	\$ -	TBD	TBD	TBD	TBD	TBD
	Sub-Total (Disaster Recovery)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other										
1	Misc. Property Acquisitions	\$ 14,000,000	\$ -	\$ 14,000,000	\$ -	\$ 2,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
2	Engineering Records Management (Open Text) Implementation	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -
	Sub-Total (Other)	\$ 15,000,000	\$ -	\$ 15,000,000	\$ -	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Total		\$ 597,175,000	\$ 57,000,000	\$ 540,175,000	\$ 38,575,000	\$ 134,800,000	\$ 151,300,000	\$ 140,900,000	\$ 73,800,000	\$ 57,800,000
<p>Total Project Estimate - Total estimated funding required over the next 5 fiscal years.</p> <p>Reimbursements - Anticipated Federal, State, or other funding that can offset the potential debt incurred from the project. This could include proceeds from the sale of other assets.</p> <p>HC Capital Funding - The remaining cost of the project after reimbursements are realized.</p> <p>Funded to Date - Total funding the project has received in prior fiscal years.</p>										





# FY2019 Interim Capital Improvements Program

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**Harris County Universal Services**

**Bruce High**  
*Executive Director – Chief Information Officer*

February 26, 2019



## Executive Summary

In partnership with the departments we support, Elected Officials of Harris County, and the Technology Committees recognized by Commissioners Court, Harris County Universal Services appreciates the opportunity to participate in the Capital Improvement Program (CIP) to address critical information technology, facility security technology, and water rescue initiatives.

A funding summary for our CIP projects is reflected in the table below. Eight of the projects have sufficient funding through September 2019. Any additional funding needs for these eight projects will be included in the Universal Services CIP submission for consideration as part of the 2019 CIP scheduled for September 24, 2019. Projects in need of funding prior to the September 24, 2019 CIP are as follows:

- Security Infrastructure Installation & Upgrades:
  - Partial funding expected to be requested in March 2019. Includes funding for two PCNs.
- Enterprise Document & Digital Asset Management:
  - Partial funding expected to be requested in March 2019. Includes funding for one PCN.
- Pet Care Center:
  - Funding expected to be requested in March 2019.
- PreTrial Case Management System:
  - Funding expected to be requested before September 2019.

Project Category	Project Name	Committed in FY2019	Remaining 02/01/19 - 09/01/19	Operational Budget Impact
Capital Repair and Maintenance	Device Enhancements - Replacements	\$ 740,000	\$ -	\$ -
	Infrastructure Enhancements - Replacements	\$ 870,000	\$ -	\$ 106,480
	Networking Repair Replace	\$ 2,100,000	\$ -	\$ 100,000
	Security Infrastructure Installation & Upgrades	\$ -	\$ 7,408,744	\$ 294,761
	Telephone System Repair Replace	\$ 2,540,000	\$ -	\$ 251,500
Active Projects	Cyber Security	\$ 1,120,000	\$ -	\$ 727,892
	Data Center Expansion	\$ 880,000	\$ -	\$ -
	Enterprise Document & Digital Asset Management	\$ -	\$ 3,398,530	\$ 97,240
	Flood Water Rescue	\$ 950,000	\$ -	\$ 136,000
	Infrastructure Uninterrupted Power Supply (UPS) Replacement	\$ 315,000	\$ -	\$ -
New Projects	Pet Care Center	\$ -	\$ 639,190	\$ 127,838
	PreTrial Case Management System (CMS)	\$ -	\$ 587,004	\$ 85,140
Total:		\$ 9,515,000	\$ 12,033,468	\$ 1,926,851

Universal Services will also require an adjustment to our operational budget to accommodate the ongoing costs associated with the human resources and hardware/software maintenance fees added as a result of completing some of these projects. Those costs are reflected in the table above under the column heading 'Operational Budget Impact'.

The table below reflects a brief description of each project:

Project Name	Description
<b>Repair &amp; Maintenance:</b>	
Device Enhancements - Replacements	The objective of this project is to provide an efficient and cost effective PC replacement strategy for departments supported by Universal Services. As a part of this program, Universal Services will 1) conduct an inventory of PC computing devices, 2) assist in developing a replacement plan and 3) provide a standard PC image (hardware/software configuration). The focus of this year's project funding is the Harris County Juvenile Probation Department.
Infrastructure Enhancements - Replacements	This project is for the ongoing refresh, replacement, and expansion of our compute, storage, and backup IT infrastructure that supports all of our enterprise class services.
Networking Repair Replace	The objective of this project is to address the ongoing repair, replacement and refresh of core data center and perimeter networking components. It also includes provisions for the support of various microwave and wireless links that have been used over the past several years for remote site connectivity. The funding will be used to refresh equipment that is already end of life or near end of life initially and then will continue to be leveraged to keep Harris County on a regular asset replacement lifecycle that makes sense by network equipment type.
Security Infrastructure Installation & Upgrades	The objective of this project is the repair, replacement, upgrade, and installation of new cameras, access control, intrusion, control center surveillance equipment and other physical security related infrastructure throughout Harris County facilities. This is a rolling five year repair and replace program that is intended to address security infrastructure in all County Annexes over time.
Telephone System Repair Replace	The objective of this project is to support the ongoing repair, replacement and refresh of business telephone systems throughout the county and the core telephony infrastructure that supports them.
<b>Active Projects:</b>	
Cyber Security	The objective of this project is to enhance Harris County's overall cyber security posture and focus on development of a formal cyber security organization complete with people, policy, process and technology. This project includes the design and implementation of new protective controls and the expansion of existing security services, such as identity/access management, mobile device management, advanced malware protection, advanced authentication, security education and awareness and network access controls. It also includes implementation and maturation of threat assessment tools and governance solutions that will improve the County's ability to proactively monitor, detect and address threats as they occur.
Data Center Expansion	The objective of this project is to expand and reconfigure the data center managed by Universal Services. The current phase will repurpose existing space to be utilized for enhanced monitoring capabilities and staff in a hardened facility. When all phases are complete, the project will provide additional rack space for servers, data storage devices, switches and routers. This project will also enhance our infrastructure management capabilities and enable continued growth of requested IT services as well as allow for greater efficiencies in the delivery of these services.
Enterprise Document & Digital Asset Management	The objective of this project is to enable the implementation of the Harris County enterprise document and digital asset management strategy. The strategy includes document and image management, records management and information archiving, search and content analytics and video content management. This project is a multiphase project that includes the roll-out of various components of the approved strategy to various county departments. A more detailed cost analysis will be performed on a departmental level as we work with departments having a business need to leverage this technology in streamlining their business processes.
Flood Water Rescue	The objective of this project is to provide processes, procedures, equipment, training, and maintenance support of equipment to enhance the capability of Harris County to evacuate residents in the event of major flooding events.
Infrastructure Uninterrupted Power Supply (UPS) Replacement	The objective of this project is to replace batteries and UPS (Uninterrupted Power Supply) systems throughout Harris County. Current UPS's support voice systems and network switches at critical locations within the county. The UPS acts as a power conditioner/surge protector as well as mechanism to protect equipment from brief power outages. Part of this project is to put an annual monitoring plan in place from a third party to ensure proactive battery maintenance and troubleshooting as well as to provide the labor to replace/repair defective units when issues occur. The UPS program also includes installation of new/replacement UPS's by the monitoring partner. Please note this project only covers the core network and phone gear at each site. It will not cover replacing/maintaining all UPS's that reside on each floor of a particular building.
<b>New Projects:</b>	
Pet Care Center	This project includes the acquisition, installation, and configuration of technical infrastructure for the new pet care center for Public Health. IT infrastructure requested includes networking equipment, security system, telephones, and AV equipment.
PreTrial Case Management System (CMS)	The objective of this project is to license and implement a Case Management System (CMS), including a fee accounting/reporting module, for use by Pretrial Services. The CMS is used to support department efforts to monitor supervisee compliance with standard and court-ordered release conditions related to release on a personal bond. The fee module will replace the dated module currently used to receipt and account for fees collected by Pretrial Services, and may offer an opportunity for integration with the County's financial accounting system.

2019 Interim CIP - Universal Services

Project Category	Project Name	Total Project Estimate	Reimbursements	HC Capital Funding	Funded To Date	Mar 2019 - Sept 2019	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Capital Repair and Maintenance										
1	Device Enhancements - Replacements	\$ 4,240,000	\$ -	\$ 4,240,000	\$ 740,000	\$ -	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
2	Infrastructure Enhancements - Replacements	\$ 5,508,040	\$ -	\$ 5,508,040	\$ 870,000	\$ -	\$ 1,434,180	\$ 902,000	\$ 1,434,180	\$ 867,680
2	Networking Repair Replace	\$ 9,477,144	\$ -	\$ 9,477,144	\$ 2,100,000	\$ -	\$ 1,844,286	\$ 1,844,286	\$ 1,844,286	\$ 1,844,286
3	Security Infrastructure Installation & Upgrades	\$ 13,616,703	\$ -	\$ 13,616,703	\$ -	\$ 7,408,744	\$ 2,823,758	\$ 2,430,760	\$ 476,722	\$ 476,719
3	Telephone System Repair Replace	\$ 12,811,400	\$ -	\$ 12,811,400	\$ 2,540,000	\$ -	\$ 2,568,870	\$ 2,566,830	\$ 2,568,870	\$ 2,566,830
	Sub-Total (Repair and Maintenance)	\$ 45,653,287	\$ -	\$ 45,653,287	\$ 6,250,000	\$ 7,408,744	\$ 9,171,094	\$ 8,743,876	\$ 7,324,058	\$ 6,755,515
Active Projects										
1	Cyber Security	\$ 8,470,392	\$ -	\$ 8,470,392	\$ 1,120,000	\$ -	\$ 2,350,392	\$ 1,500,000	\$ 2,000,000	\$ 1,500,000
2	Data Center Expansion	\$ 2,640,000	\$ -	\$ 2,640,000	\$ 880,000	\$ -	\$ 440,000	\$ 440,000	\$ 440,000	\$ 440,000
2	Enterprise Document & Digital Asset Management	\$ 30,180,780	\$ -	\$ 30,180,780	\$ -	\$ 3,398,530	\$ 5,561,830	\$ 6,754,660	\$ 6,817,800	\$ 7,647,960
3	Flood Water Rescue	\$ 2,666,000	\$ -	\$ 2,666,000	\$ 950,000	\$ -	\$ 701,000	\$ 747,000	\$ 132,000	\$ 136,000
3	Infrastructure Uninterrupted Power Supply (UPS) Replacement	\$ 667,000	\$ -	\$ 667,000	\$ 315,000	\$ -	\$ 352,000	\$ -	\$ -	\$ -
	Sub-Total (Active Projects)	\$ 44,624,172	\$ -	\$ 44,624,172	\$ 3,265,000	\$ 3,398,530	\$ 9,405,222	\$ 9,441,660	\$ 9,389,800	\$ 9,723,960
New Projects										
1	PreTrial Case Management System (CMS)	\$ 587,004	\$ -	\$ 587,004	\$ -	\$ 587,004	\$ -	\$ -	\$ -	\$ -
2	PETS Facility Security and Technology	\$ 639,190	\$ -	\$ 639,190	\$ -	\$ 639,190	\$ -	\$ -	\$ -	\$ -
	Sub-Total (New Projects)	\$ 1,226,194	\$ -	\$ 1,226,194	\$ -	\$ 1,226,194	\$ -	\$ -	\$ -	\$ -
Total		\$ 91,503,653	\$ -	\$ 91,503,653	\$ 9,515,000	\$ 12,033,468	\$ 18,576,316	\$ 18,185,536	\$ 16,713,858	\$ 16,479,475

**Total Project Estimate** - Total estimated funding required over the next 5 fiscal years.

**Reimbursements** - Anticipated Federal, State, or other funding that can offset the potential debt incurred from the project. This could include proceeds from the sale of other assets.

**HC Capital Funding** - The remaining cost of the project after reimbursements are realized.

**Funded to Date** - Total funding the project has received in prior fiscal years.





## Interim Capital Improvement Program Funding Request

Fiscal Year  
2019-2020

**PRESENTED TO:**

**HARRIS COUNTY COMMISSIONERS COURT**



Lina Hidalgo, Harris County Judge  
Rodney Ellis, Commissioner, Precinct 1  
Adrian Garcia, Commissioner, Precinct 2  
Steve Radack, Commissioner, Precinct 3  
R. Jack Cagle, Commissioner, Precinct 4

HARRIS COUNTY  
**SPORTS & CONVENTION**  
C O R P O R A T I O N



January, 2019

Harris County Commissioners Court  
Interim Capital Improvement Project  
Fiscal Year 2019-2020  
Executive Summary

832.667.1841

Fax: 832.667.1410

Members of Commissioners Court:

NRG Park has become a destination for gatherings big and small throughout Harris County and our region. Our diverse range of events brought almost 4.5 million people through the gates in 2018 with more expected in the coming year. We're also looking ahead to the College Football Playoffs in 2023, a NCAA Men's Final Four in 2024 and the potential for an integral role in the 2026 FIFA World Cup.

As the number of guests continue to grow and our facilities continue to age, the priority of the Harris County Sports & Convention Corporation (HCSCC) is to continue to maintain NRG Park as an industry leader and keep us as a competitive, marketable sports and entertainment complex.

We are grateful for our continued collaboration with Harris County in maintaining NRG Park. This coming Fiscal Year, we're planning to refresh NRG Center with updated carpet, fresh paint, energy-efficient lighting and other much-needed projects that will keep our guests coming back for years to come. HCSCC has discussed these projects with the Harris County Budget Management Department and the Harris County Public Infrastructure Department.

Included in this request you'll find a preliminary overview of the projects we'd like to accomplish including budgetary estimates. HCSCC has engaged a design consultant to create a comprehensive vision and updated pricing that will be submitted for review as soon as it's complete.

Thank you in advance for your consideration. We're committed to NRG Park being "The Place For All." Please don't hesitate to contact me should you have any questions.

Sincerely,



Ryan M. Walsh  
Executive Director

2019 Interim CIP - Harris County Sports & Convention Corporation - NRG Park

Project Category	Project Name	Total Project Estimate	Reimbursements	HCSCC Funding	HC Capital Funding	Funded To Date	Jan 2019 - Sept 2019	CIP 2019-2020	CIP 2020-2021	CIP 2020-2022	CIP 2020-2023
Capital Repair and Maintenance	NRG Center Renovation Project - Estimated*	\$ 8,000,000	\$ -	\$ 1,500,000	\$ 6,500,000	\$ 1,500,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -
	Sub-Total (Repair and Maintenance)	\$ 8,000,000	\$ -	\$ 1,500,000	\$ 6,500,000	\$ 1,500,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -
Total		\$ 8,000,000	\$ -	\$ 1,500,000	\$ 6,500,000	\$ 1,500,000	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -

\*HCSCC has engaged a design consultant and more specific budget estimates will be availabe once that review is complete. (est. Jan/2019)

FUNDED TO DATE: HCSCC has a budgeted line item of \$1.5M designated for the NRG Center Renovation Project

# Project Budget

Description	Budget	Running Total
<b>Base Project</b>		
Carpet Replacement	\$ 689,609	
Ceiling Tile Replacement	\$ 442,500	
Lighting & Lighting Controls	\$ 2,063,780	
Painting, Chair Rail & Base	\$ 382,838	
Tasting Kitchen (Aramark Capital Grant)	\$ 0	
Video Displays (Ground & Mezzanine Levels)	\$ 268,000	
Design Services (5% of above)	\$ 192,336	
Contingency (10% of above excluding Architectural Services)	\$ 384,673	
<b>Total Base Project</b>	\$ 4,423,736	
<b>Enhancements (Prioritized) [ 1 ]</b>		
01. Sound System	\$ 644,000	\$ 5,067,736
02. Consolidate Electrical Outlets and Data/Voice Connections	\$ 368,000	\$ 5,435,736
03. Air-wall add Wainscot and Chair Rail	\$ 794,200	\$ 6,229,936
04. Acoustical Wall Treatments & Decorative Lighting	\$ 410,550	\$ 6,640,486
05. Solid Surface Band	\$ 121,268	\$ 6,761,754
06. Furrdown/Lighting Soffit	\$ 264,684	\$ 7,026,438
07. Counter/Accent Wall	\$ 266,800	\$ 7,293,238
08. Access Control	\$ 174,900	\$ 7,468,138
09. Digital Meeting Room Signage	\$ 469,200	\$ 7,937,338
10. Motorized Blinds in Meeting Rooms overlooking Exhibit Hall	\$ 51,743	\$ 7,989,081
<b>Total Options</b>	\$ 3,565,345	
<b>Total Project</b>	\$ 7,989,081	

[1] Budget pricing for Enhancements includes 10% contingency and 6% Architectural Services if needed





**Harris County Sports & Convention Corporation - NRG Park**  
**Capital Project and R&R Expenditures - FY 2018-2019**  
**-as of January 31, 2019-**



Facility	Project Description	Project Cost	Funding Source	NRG Park Funding	Harris County Funding	Other Funding
<b>Exterior</b>						
	Parking/Security Signage - Blue 19	\$10,565.00	HCSCC	\$10,565.00	\$0.00	\$0.00
	Exterior Light Poles (419) - Repair/Replacement	\$87,895.00	HCSCC	\$87,895.00	\$0.00	\$0.00
	LED Marquee Board Replacement 610 at Kirby	\$853,500.00	Tenant	\$853,500.00	\$0.00	\$0.00
	Static Wayfinding Message Boards	\$219,975.00	HCSCC	\$219,975.00	\$0.00	\$0.00
	Parking and Paving repairs - various locations	\$29,575.00	HCSCC	\$29,575.00	\$0.00	\$0.00
	Blue Lot parking/paving repairs - discovered through GPR scan	\$25,000.00	HCSCC	\$25,000.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$1,226,510.00</b>		<b>\$1,226,510.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Park-Wide</b>						
	Wired and Wireless Intercom System Replacement	\$210,527.00	HCSCC	\$210,527.00	\$0.00	\$0.00
	Event Stage Replacement	\$44,015.00	HCSCC	\$44,015.00	\$0.00	\$0.00
	Uninterruptable Power Supply (UPS) - replacement	\$54,007.00	HCSCC	\$54,007.00	\$0.00	\$0.00
	Banquet and Folding Chair - replacement	\$399,936.00	HCSCC/SMG	\$399,936.00	\$0.00	\$0.00
	NRG Park CATV Head-End System Replacement	\$393,934.00	HCSCC	\$393,934.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$1,102,419.00</b>		<b>\$1,102,419.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>NRG Stadium</b>						
	"Action Seat" event seating replacement	\$570,664.00	HLSR/HCSCC	\$570,664.00	\$0.00	\$0.00
	Air Handling Unit (AHU) fan repair - various	\$14,752.00	HCSCC	\$14,752.00	\$0.00	\$0.00
	Operable Airwall System repair - Stadium Greenroom	\$1,458.00	HCSCC	\$1,458.00	\$0.00	\$0.00
	Building Automation System (BAS) Network Switches - replacement	\$7,173.00	HCSCC	\$7,173.00	\$0.00	\$0.00
	CATV System assessment and repair - Stadium	\$23,032.00	HCSCC	\$23,032.00	\$0.00	\$0.00
	South Endzone 100 Level Concourse - Audio System Replacement	\$40,623.00	HCSCC	\$40,623.00	\$0.00	\$0.00
	Electrical outlets - Repair and Replacement - Various locations	\$19,886.00	HCSCC	\$19,886.00	\$0.00	\$0.00
	Stadium Electrical System - repair and replacement - various locations	\$108,335.00	HCSCC	\$108,335.00	\$0.00	\$0.00
	Stadium Field Turf System	\$416,326.00	HCSCC	\$416,326.00	\$0.00	\$0.00
	Turf Management Equipment	\$37,895.00	HCSCC	\$37,895.00	\$0.00	\$0.00

Facility	Project Description	Project Cost	Funding Source	NRG Park Funding	Harris County Funding	Other Funding
	Stadium Exhaust Ventilation System - Emergency Repair	\$54,471.00	HCSCC	\$54,471.00	\$0.00	\$0.00
	Large Capacity Passenger Elevator - Stadium SE Corner	\$1,148,486.00	HCSCC/HLSR/Texans	\$1,148,486.00	\$0.00	\$0.00
	Irrigation Line - repair	\$11,763.00	HCSCC	\$11,763.00	\$0.00	\$0.00
	Replacement of Caulk Joints in precast concrete - Stadium bowl	\$137,246.00	HCSCC	\$137,246.00	\$0.00	\$0.00
	Security Doors and Hardware - replacement	\$5,850.00	HCSCC	\$5,850.00	\$0.00	\$0.00
	Roofing Repairs (discovered through annual inspection)	\$15,165.00	HCSCC	\$15,165.00	\$0.00	\$0.00
	Event seating - Stadium Bowl - repair	\$130,001.00	HCSCC	\$130,001.00	\$0.00	\$0.00
	Stadium Suite Renovations - Levels 200/300/400/800	\$1,235,798.00	HCSCC	\$1,235,798.00	\$0.00	\$0.00
	Stadium Suite trash receptacles - replacement	\$73,800.00	HCSCC	\$73,800.00	\$0.00	\$0.00
	Stadium Suite Water Damage Mitigation and Reconstruction - emergency repair	\$108,853.00	HCSCC	\$108,853.00	\$0.00	\$0.00
	Stadium Satellite Ticket and Box office AC unit replacement	\$63,500.00	HCSCC	\$63,500.00	\$0.00	\$0.00
	Stadium Domestic Water Ballast Tanks - replacement	\$17,831.00	HCSCC	\$17,831.00	\$0.00	\$0.00
	South Endzone 100 Level Concourse - Champions Club	\$909,916.00	Aramark Capital	\$909,916.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$5,152,824.00</b>		<b>\$5,152,824.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>NRG Center</b>						
	Building Automation System (BAS) Network Switches - replacement	\$10,994.00	HCSCC	\$10,994.00	\$0.00	\$0.00
	ADA-compliant Water Fountain repair	\$5,116.00	HCSCC	\$5,116.00	\$0.00	\$0.00
	Operable Airwall System repair	\$46,971.00	HCSCC	\$46,971.00	\$0.00	\$0.00
	Food Service-Concession Area Improvements	\$975,887.00	Aramark Capital	\$975,887.00	\$0.00	\$0.00
	Hot water piping - repair	\$38,500.00	HCSCC	\$38,500.00	\$0.00	\$0.00
	Roofing Repairs (discovered through annual inspection)	\$29,680.00	HCSCC	\$29,680.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$1,107,148.00</b>		<b>\$1,107,148.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>NRG Arena</b>						
	Repair of AHU Valves	\$207,660.00	HCSCC	\$207,660.00	\$0.00	\$0.00
	Building Automation System (BAS) repair and upgrade	\$19,088.00	HCSCC	\$19,088.00	\$0.00	\$0.00
	Food Service-Concession Area Improvements	\$125,195.00	Aramark Capital	\$125,195.00	\$0.00	\$0.00
	Roofing Repairs (discovered through annual inspection)	\$36,740.00	HCSCC	\$36,740.00	\$0.00	\$0.00
	Pavilion Telescopic Seating System Repairs	\$188,492.00	HCSCC	\$188,492.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$577,175.00</b>		<b>\$577,175.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>NRG Central Plant</b>						

Facility	Project Description	Project Cost	Funding Source	NRG Park Funding	Harris County Funding	Other Funding
	Repair of Central Plant cooling towers	\$7,825.00	HCSCC	\$7,825.00	\$0.00	\$0.00
	Refrigerant Monitor - replacement	\$15,200.00	HCSCC	\$15,200.00	\$0.00	\$0.00
	<b>FACILITY TOTAL</b>	<b>\$23,025.00</b>		<b>\$23,025.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
	<b>NRG Park Capital Project Expenditures - FY 2018-2019</b>	<b>\$9,189,101.00</b>		<b>\$9,189,101.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Current CIP Funding Request</b>	NRG Center Renovations	\$8,000,000.00	HCSCC/SMG/Harris County	\$1,500,000.00	<b>\$6,500,000.00</b>	\$0.00
	<b>Total Harris County CIP Request</b>				<b>\$6,500,000.00</b>	





# Capital Improvement Program

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**Harris County Toll Road Authority (HCTRA)**

**Gary K. Trietsch, P.E.**  
*Executive Director*

January 29, 2019

# EXECUTIVE SUMMARY

## Introduction

The Harris County Toll Road Authority's (HCTRA) Capital Improvement Program (CIP) is designed to reflect the agency's willingness to undertake bold initiatives to address the Greater Houston region's growing transportation challenges. The CIP's goals aim to improve mobility with minimal disruptions in traffic flow while maintaining a financially healthy portfolio of infrastructure improvements. HCTRA's Capital Improvement Program supports the responsible development of projects while maintaining, improving, and developing Harris County's current toll road system.

## Financial Priorities

HCTRA's ongoing system-wide improvements have significantly contributed to the region's sustained growth and economic sustainability. To ensure the agency continues to deliver results, a combination of fiscal prudence and long-term strategic thinking is necessary.

**Debt Structure:** Recent credit ratings reflect the authority's robust financial metrics with a very high average 10-year gross senior debt service coverage ratio (DSCR) of 5.3x, and senior leverage (net debt to cash flow) averaging 1.5x over the next 10 years<sup>1</sup>. These strengths allow for the sustainability of the authority's large capital plan, that is expected to require additional debt issuances.

**Aggressive Infrastructure Renewal and Replacement:** The maintenance of our assets is handled promptly after identification, either by annual inspection or by daily maintenance observations, in order to maximize the life of the system. Items involving public safety are addressed immediately. Others are grouped together and repaired as part of larger maintenance construction packages. As a general rule HCTRA does not defer maintenance, rather, the Authority opts for an aggressive annual maintenance schedule based on inspections of all HCTRA roads and facilities.

**Toll System Revenues:** Projected stable revenues combined with conservative project development provide HCTRA with the short and long-term flexibility to undertake projects without relying solely on debt financing.

**Toll Rate Policy:** The County has had a toll policy in place since 2007, which establishes a process for the adjustment of toll rates based on changes to the consumer price index ("CPI") that correlates with the Greater Houston region's economy. HCTRA recommends that toll rate adjustments based on measured changes in inflation continue which allow for prudent financial planning and project development in the future. Each spring, a recommendation on toll rate adjustments will be made to the Commissioners Court based on existing HCTRA financial conditions.

## Capital Program Priorities

HCTRA's capital program priorities include Roadway Projects, Toll System Infrastructure Improvements, and Facility Improvements. The cornerstone of HCTRA's Capital Improvement Program is predicated on several factors:

A) Harris County continues to authorize the responsible funding of operations, maintenance, and expansion of the toll road system at levels which maintain a responsible leverage ratio (outstanding debt to annual gross revenue). This allows HCTRA to develop new projects and maintain the existing toll road system—an aging urban highway system—in superior condition, with a strong emphasis on capital maintenance requirements, and keep pace with the information technology and customer service demands of the growing EZ TAG program, without an over-reliance on debt.

B) HCTRA's mobility transfer for funding of the Harris County road and bridge program will continue at a minimum of \$120 million dollars (annually) for the foreseeable future. This annual allotment provides substantial funding for transportation improvements throughout Harris County without the need to support these improvements through the use of tax dollars.

C) Not every regional mobility problem is best served with a toll road. Development of toll roads requires extensive use of public funds, and Harris County is best served by having HCTRA develop enterprising projects that have an expectation of support for the HCTRA system.

## Future Outlook

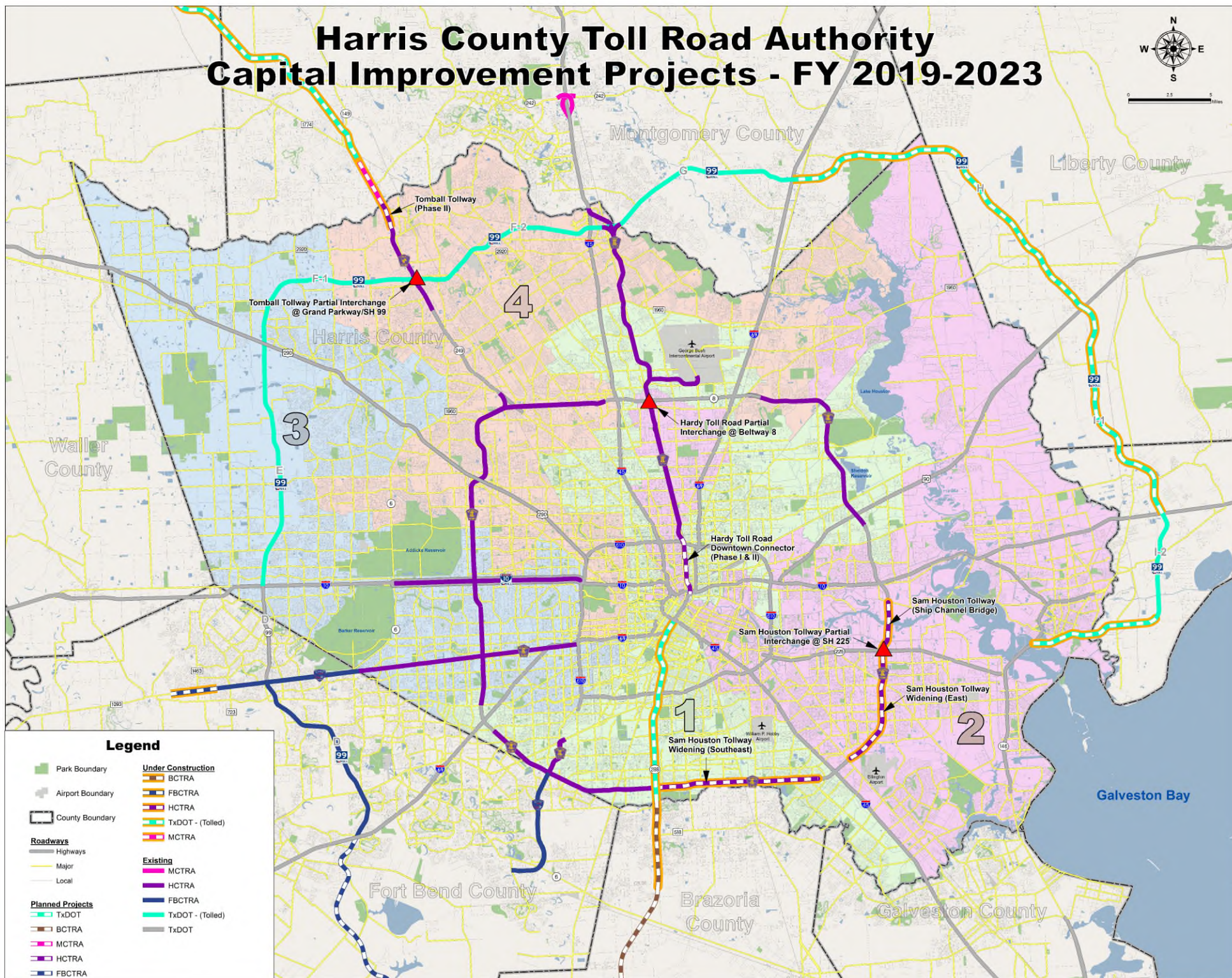
As HCTRA continues to deliver its ambitious Capital Improvement Program, we recommend a measured approach that balances HCTRA's project planning with county needs that will benefit the region as a whole. Prudent planning and prudent fiscal stewardship will allow Harris County to deliver on its promise to improve mobility in the Greater Houston region.

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<sup>1</sup> Fitch Ratings, August 2018. "Fitch Rates Harris County, TX's Sr. Toll Revs 2012B-2 'AA'; Outlook Stable.



# Harris County Toll Road Authority Capital Improvement Projects - FY 2019-2023





## 2019 Interim CIP - Harris County Toll Road Authority

Project Category	Project Name	Total Project Estimate	Funded to Date <sup>1</sup>	Mar 2019 - Sept 2019 <sup>2</sup>	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023	Anticipated Additional Project Costs
Roadway Projects									
1	Hardy Toll Road Downtown Connector (Phase I)	\$ 180,000,000	\$ 141,000,000	\$ 4,000,000	\$ 31,100,000	\$ -	\$ -	\$ -	\$ 7,900,000
2	Hardy Toll Road Downtown Connector (Phase II) <sup>3</sup>	\$ 240,000,000	\$ 15,000,000	\$ -	\$ 160,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 59,000,000
2	Tomball Tollway (Phase II)	\$ 200,000,000	\$ 173,000,000	\$ -	\$ 16,500,000	\$ 5,000,000	\$ -	\$ -	\$ 5,500,000
3	Sam Houston Tollway Widening (Southeast)	\$ 235,000,000	\$ 226,000,000	\$ 3,000,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 6,000,000
3	Sam Houston Tollway Widening (East)	\$ 275,000,000	\$ 256,000,000	\$ -	\$ 12,000,000	\$ 300,000	\$ 3,000,000	\$ -	\$ 3,700,000
4	Sam Houston Tollway (Ship Channel Bridge) <sup>4</sup>	\$ 962,000,000	\$ 482,000,000	\$ 120,000,000	\$ 120,000,000	\$ 75,000,000	\$ 115,300,000	\$ 90,000,000	\$ 79,700,000
4	Hardy Toll Road Partial Interchange at Beltway 8	\$ 110,000,000	\$ 700,000	\$ 3,000,000	\$ 12,000,000	\$ 86,300,000	\$ -	\$ -	\$ 11,000,000
5	SH225 Partial Interchange at the Sam Houston Tollway	\$ 135,000,000	\$ 130,000	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 120,000,000	\$ -	\$ 10,870,000
5	Tomball Tollway Partial Interchange at the Grand Parkway	\$ 75,000,000	\$ 1,600,000	\$ -	\$ 65,000,000	\$ -	\$ -	\$ -	\$ 8,400,000
	Sub-Total (Roadway Projects)	\$ 2,412,000,000	\$ 1,295,430,000	\$ 130,000,000	\$ 421,600,000	\$ 170,600,000	\$ 240,300,000	\$ 92,000,000	\$ 192,070,000
Roadway Improvements <sup>5</sup>									
1	Toll Plaza Conversion(s) and Improvements	\$ 44,000,000	\$ -	\$ 13,000,000	\$ 13,000,000	\$ 6,000,000	\$ 25,000,000	\$ -	\$ -
2	System-wide Roadway Improvements	\$ 86,000,000	\$ -	\$ -	\$ 26,000,000	\$ 20,000,000	\$ 20,000,000	\$ 20,000,000	\$ -
3	County-wide Traffic Safety Improvements	\$ 60,000,000	\$ -	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ 15,000,000	\$ -
	Sub-Total (Roadway Improvements)	\$ 190,000,000	\$ -	\$ 28,000,000	\$ 54,000,000	\$ 41,000,000	\$ 60,000,000	\$ 35,000,000	\$ -
Toll System Projects <sup>5</sup>									
1	Toll System Upgrades, Maintenance, and Capital Support	\$ 67,300,000	\$ -	\$ 24,900,000	\$ 28,900,000	\$ 15,400,000	\$ 8,400,000	\$ 14,600,000	\$ -
2	HCTRA Facility Improvements	\$ 101,000,000	\$ -	\$ 4,500,000	\$ 42,000,000	\$ 8,000,000	\$ 46,000,000	\$ 5,000,000	\$ -
	Sub-Total (Toll System Projects)	\$ 168,300,000	\$ -	\$ 29,400,000	\$ 70,900,000	\$ 23,400,000	\$ 54,400,000	\$ 19,600,000	\$ -
	Total	\$ 2,770,300,000	\$ 1,295,430,000	\$ 187,400,000	\$ 546,500,000	\$ 235,000,000	\$ 354,700,000	\$ 146,600,000	\$ 192,070,000

**Total Project Estimate** - Total estimated funding required.

**1. Funded to Date** - Estimate of total project expenditures and encumbrances.

**2. Mar 2019 - Sept 2019** - These encumbrances are included in CIP 2019-2020.

**3. Hardy Downtown Connector (Phase II)** - Future costs contingent upon TxDOT's North Houston Highway Improvement Project (IH45).

**4. Ship Channel Bridge** - Programmed future costs beyond FY 2023.

**5. Roadway Improvements and Toll System Projects** - These are perennial projects.





# FY2019 Interim Capital Improvements Program

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**Harris County Hospital District  
d/b/a Harris Health System**

**George Masi**

*President and Chief Executive Officer*

**Michael Norby**

*Executive Vice President and Chief Financial Officer*

**David Attard**

*Associate Administrator – Health Care System Engineering*

February 26, 2019

## **Harris Health System**

### **FY 2019 Interim Capital Improvements Program**

**Executive Summary:** The foundation for Harris Health System's Annual Capital Budget is a continuous assessment of facilities, equipment and technology to determine the priorities for replacement, repair and any new acquisitions. The quarterly review process includes representatives of the medical staff from both Baylor College of Medicine and UT Health. Assessment and prioritization address patient safety, obsolescence, new technology, building safety and code compliance requirements. The approved capital budget for Fiscal Year 2019 is \$77.5 million, about 143 percent of the prior year depreciation expense of \$54.0 million. The proposed capital budget for Fiscal Year 2020 is \$81.5 million. Project and cash flow projections beyond Fiscal Year 2020 are based on estimates related to specific projects identified needs, or in the case of general replacement and refresh projects, are based on a combination of projected needs and historical expenditures. Key projects are summarized below.

**New Ben Taub Operating Rooms:** The Ben Taub operating room (OR) project, which was funded by a 2016 bond issue, is in the final stages of construction. The \$70 million project provides the necessary expansion of operative suites and supporting services on the second floor to support Level 1 trauma services at Ben Taub Hospital. The construction of 7 new rooms will be completed in 2019, with the projected opening in September. Most of the purchasing commitments for construction and equipment have already been made. The remaining bond project fund at November 30, 2018, is \$39.7 million, reflecting the remaining expected cash outflows to complete the OR project, with any remaining funds to be used for the Ben Taub Emergency Center renovation project.

**Renovation of Ben Taub Emergency Center:** The architectural and engineering planning has begun to modernize and renovate the emergency center at Ben Taub Hospital. This project is the next step in the continuing effort to improve emergency and trauma services at Ben Taub. Harris Health and the Harris County Hospital District Foundation are working on a \$25 million philanthropic funding campaign to support most of the cost of the project, planned to begin in Fiscal Year 2020.

**Renovation of Quentin Mease:** After evaluating the cost to renovate the inpatient floors at Quentin Mease Hospital to bring them into compliance with current inpatient codes and retain an appropriate number of licensed inpatient beds, it was decided that Quentin Mease is best suited to be programmed and designated as an outpatient facility. As a result, Physical Medicine & Rehabilitation and Skilled Nursing inpatient services will be coordinated through community partners and outside medical services contracts, and 49 inpatient beds decommissioned. Construction is expected to occur over a 12-24 month period, and cost about \$42.5 million. There are no changes planned for the outpatient Physical Therapy and Occupational Therapy service at Quentin Mease. After completion of construction, in addition to physical therapy and occupational therapy, the facility will become home to the services currently provided at the Riverside Dialysis Center and Thomas Street Health Center.

**EPIC Electronic Medical Record (EMR) Implementation at Harris Center and Harris County Jail Health:** The Information Technology team at Harris Health will be working to extend the Epic EMR to the Harris Center and Jail Health facilities during FY 2020, bringing more of the electronic health infrastructure on to the same EMR platform, substantially improving care coordination and collaboration among the County related health care providers. The estimated capital cost of both projects is \$23.2 million.

## 2019 Interim CIP - Harris Health System

Project Category	Project Name	Total Project Estimate	Reimbursements	HC Capital Funding	Harris Health Capital Funding	Funded to Date	CIP 2018-2029	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
<b>Capital Repair and Maintenance</b>											
1	Hospitals/Clinics Repair and Maintenance/Replacement : MEP	\$ 10,207,100	\$ -	\$ -	\$ 10,207,100	\$ -	\$ 3,427,100	\$ 3,110,000	\$ 1,670,000	\$ 1,200,000	\$ 800,000
2	Hospitals/Clinics Repair and Maintenance: Vertical Transport	\$ 5,187,000	\$ -	\$ -	\$ 5,187,000	\$ -	\$ 750,000	\$ 2,345,000	\$ 500,000	\$ 1,500,000	92000
3	Hospitals Glazing System Replacement	\$ 16,040,200	\$ -	\$ -	\$ 16,040,200	\$ -	\$ 40,200	\$ 5,000,000	\$ 4,000,000	\$ 4,000,000	\$ 3,000,000
4	Hospitals/Clinics Repair and Maintenance/Replacement: Other	\$ 7,497,565	\$ -	\$ -	\$ 7,497,565	\$ -	\$ 5,326,887	\$ 1,362,540	\$ 608,138	\$ 200,000	0
5	Central Plant Conversion Thermal Energy (TECO) - Ben Taub	\$ 3,299,511	\$ -	\$ -	\$ 3,299,511	\$ -	\$ 2,406,171	\$ 893,340	\$ -	\$ -	\$ -
6	Hospitals Repair and Maintenance: Roofing	\$ 1,801,224	\$ -	\$ -	\$ 1,801,224	\$ -	\$ 350,000	\$ 50,000	\$ 1,401,224	\$ -	0
7	Hospitals/Clinics Emergency Power	\$ 1,170,000	\$ -	\$ -	\$ 1,170,000	\$ -	\$ 320,000	\$ 850,000	\$ -	\$ -	\$ -
	<b>Sub-Total (Capital Repair and Maintenance)</b>	<b>\$ 45,202,600</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 45,202,600</b>	<b>\$ -</b>	<b>\$ 12,620,358</b>	<b>\$ 13,610,880</b>	<b>\$ 8,179,362</b>	<b>\$ 6,900,000</b>	<b>\$ 3,892,000</b>
<b>Renovation and Demo</b>											
1	BT OR Upgrade and Tower Renovation	\$ 39,700,000	\$ 39,700,000	\$ -	\$ -	\$ -	\$ 8,400,000	\$ 31,300,000	\$ -	\$ -	\$ -
2	BT Pharmacy USP 800	\$ 4,350,000	\$ -	\$ -	\$ 4,350,000	\$ -	\$ 4,350,000	\$ -	\$ -	\$ -	0
3	BT Bronchoscopy Suite	\$ 1,032,000	\$ -	\$ -	\$ 1,032,000	\$ -	\$ 910,000	\$ 122,000	\$ -	\$ -	\$ -
4	BT 3rd Floor Modernization	\$ 8,200,000	\$ -	\$ -	\$ 8,200,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	7000000
5	BT EC Renovation Project	\$ 40,794,400	\$ 25,000,000	\$ 10,000,000	\$ 5,794,400	\$ -	\$ 1,494,400	\$ 12,300,000	\$ 24,000,000	\$ 3,000,000	\$ -
6	BT Renovation ICU Modernization	\$ 3,400,000	\$ -	\$ -	\$ 3,400,000	\$ -	\$ -	\$ -	\$ -	\$ 400,000	3000000
7	BT Semi-Private Room Conversion	\$ 1,700,000	\$ -	\$ -	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -
8	Holly Hall Demo and Build-Out	\$ 4,600,000	\$ -	\$ -	\$ 4,600,000	\$ -	\$ -	\$ 500,000	\$ 2,100,000	\$ 2,000,000	0
9	LBJ Lab Renovation	\$ 3,352,542	\$ -	\$ -	\$ 3,352,542	\$ -	\$ 1,951,556	\$ 1,400,986	\$ -	\$ -	\$ -
10	LBJ Optimization/Redesign	\$ 13,500,000	\$ -	\$ -	\$ 13,500,000	\$ -	\$ -	\$ 1,500,000	\$ 3,500,000	\$ 2,500,000	6000000
11	LBJ Pharmacy USP 800	\$ 4,465,000	\$ -	\$ -	\$ 4,465,000	\$ -	\$ 465,000	\$ 4,000,000	\$ -	\$ -	\$ -
12	Hospital/Clinics Entrance/Access Redesign and Clinic Moves	\$ 200,000	\$ -	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	0
13	Smith Clinic Pharmacy USP 800	\$ 1,355,000	\$ -	\$ -	\$ 1,355,000	\$ -	\$ 115,000	\$ 1,240,000	\$ -	\$ -	\$ -
	<b>Sub-Total (Renovation and Demo)</b>	<b>\$ 126,648,942</b>	<b>\$ 64,700,000</b>	<b>\$ 10,000,000</b>	<b>\$ 51,948,942</b>	<b>\$ -</b>	<b>\$ 19,585,956</b>	<b>\$ 52,362,986</b>	<b>\$ 29,600,000</b>	<b>\$ 9,100,000</b>	<b>\$ 16,000,000</b>
<b>New Facilities / Expansion</b>											
1	Casa de Amigos Clinic Expansion	\$ 10,000,000	\$ -	\$ -	\$ 10,000,000	\$ -	\$ -	\$ 2,000,000	\$ 8,000,000	\$ -	\$ -
2	Danny Jackson Clinic Specialty Clinic Expansion	\$ 4,100,000	\$ -	\$ -	\$ 4,100,000	\$ -	\$ 850,000	\$ 3,250,000	\$ -	\$ -	0
3	LBJ New SICU	\$ 2,425,000	\$ -	\$ -	\$ 2,425,000	\$ -	\$ 2,425,000	\$ -	\$ -	\$ -	\$ -
4	Holly Hall Patient Center - Population Health	\$ 750,000	\$ -	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	750000
5	QM Redesign	\$ 42,531,000	\$ -	\$ -	\$ 42,531,000	\$ -	\$ 3,031,000	\$ 10,000,000	\$ 22,000,000	\$ 7,500,000	\$ -
6	Strawberry Clinic/Pasadena Pedi	\$ 4,000,000	\$ -	\$ -	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	0
7	Vallbona Annex -Purchase; Infrastructure	\$ 5,000,000	\$ -	\$ -	\$ 5,000,000	\$ -	\$ -	\$ 3,000,000	\$ -	\$ 2,000,000	\$ -
	<b>Sub-Total (New Facilities / Expansion)</b>	<b>\$ 68,806,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 68,806,000</b>	<b>\$ -</b>	<b>\$ 6,306,000</b>	<b>\$ 18,250,000</b>	<b>\$ 30,000,000</b>	<b>\$ 13,500,000</b>	<b>\$ 750,000</b>
<b>Studies</b>											
1	Hospitals/Clinics Infrastructure Assessments	\$ 1,150,000	\$ -	\$ -	\$ 1,150,000	\$ -	\$ 150,000	\$ 400,000	\$ 300,000	\$ 300,000	\$ -
2	System Master Plan	\$ 713,000	\$ -	\$ -	\$ 713,000	\$ -	\$ 63,000	\$ -	\$ -	\$ 650,000	0
	<b>Sub-Total (Studies)</b>	<b>\$ 1,863,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,863,000</b>	<b>\$ -</b>	<b>\$ 213,000</b>	<b>\$ 400,000</b>	<b>\$ 300,000</b>	<b>\$ 950,000</b>	<b>\$ -</b>
<b>Medical Equipment</b>											
1	New	\$ 6,575,000	\$ -	\$ -	\$ 6,575,000	\$ -	\$ 1,375,000	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000
2	Routine Replace	\$ 52,997,411	\$ -	\$ -	\$ 52,997,411	\$ -	\$ 15,045,000	\$ 6,200,811	\$ 9,881,500	\$ 10,307,000	11563100
3	Strategic	\$ 27,782,589	\$ -	\$ -	\$ 27,782,589	\$ -	\$ 1,735,000	\$ 7,799,189	\$ 4,118,500	\$ 6,693,000	\$ 7,436,900
4	Harris County Jail Health - CT Scanner and Other	\$ 8,060,000	\$ -	\$ 8,060,000	\$ -	\$ -	\$ -	\$ 8,060,000	\$ -	\$ -	0
	<b>Sub-Total (Medical Equipment)</b>	<b>\$ 95,415,000</b>	<b>\$ -</b>	<b>\$ 8,060,000</b>	<b>\$ 87,355,000</b>	<b>\$ -</b>	<b>\$ 18,155,000</b>	<b>\$ 23,360,000</b>	<b>\$ 15,300,000</b>	<b>\$ 18,300,000</b>	<b>\$ 20,300,000</b>
<b>Other</b>											
1	HHS Vehicle Replacement	\$ 6,271,900	\$ -	\$ -	\$ 6,271,900	\$ -	\$ 640,000	\$ 3,141,500	\$ 2,080,400	\$ 410,000	\$ -
2	HHS Non-clinical Other	\$ 5,462,500	\$ -	\$ -	\$ 5,462,500	\$ -	\$ 4,400,000	\$ 247,500	\$ 165,000	\$ 650,000	0
	<b>Sub-Total (Other)</b>	<b>\$ 11,734,400</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11,734,400</b>	<b>\$ -</b>	<b>\$ 5,040,000</b>	<b>\$ 3,389,000</b>	<b>\$ 2,245,400</b>	<b>\$ 1,060,000</b>	<b>\$ -</b>

2019 Interim CIP - Harris Health System

Project Category	Project Name	Total Project Estimate	Reimbursements	HC Capital Funding	Harris Health Capital Funding	Funded to Date	CIP 2018-2029	CIP 2019-2020	CIP 2020-2021	CIP 2021-2022	CIP 2022-2023
Information Technology Tech Refresh											
1	Server technology refresh	\$ 17,522,804	\$ -	\$ -	\$ 17,522,804	\$ -	\$ 3,522,804	\$ 3,500,000	\$ 3,500,000	\$ 3,500,000	\$ 3,500,000
2	Storage technology refresh	\$ 4,462,004	\$ -	\$ -	\$ 4,462,004	\$ -	\$ 662,004	\$ 700,000	\$ 700,000	\$ 1,700,000	700000
3	Network technology refresh	\$ 2,834,000	\$ -	\$ -	\$ 2,834,000	\$ -	\$ 435,000	\$ 450,000	\$ 762,000	\$ 388,000	\$ 799,000
4	Nurse Call System	\$ 2,550,000	\$ -	\$ -	\$ 2,550,000	\$ -	\$ 2,550,000	\$ -	\$ -	\$ -	0
5	Telephone System	\$ 6,238,920	\$ -	\$ -	\$ 6,238,920	\$ -	\$ 5,438,920	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
	Sub-Total (Repair and Maintenance)	\$ 33,607,728	\$ -	\$ -	\$ 33,607,728	\$ -	\$ 12,608,728	\$ 4,850,000	\$ 5,162,000	\$ 5,788,000	\$ 5,199,000
Information Technology Active Projects											
1	ForcePoint Web and Data Loss Prevention expansion	\$ 129,047	\$ -	\$ -	\$ 129,047	\$ -	\$ 129,047	\$ -	\$ -	\$ -	\$ -
2	FireEye Network Protection expansion	\$ 138,144	\$ -	\$ -	\$ 138,144	\$ -	\$ 138,144	\$ -	\$ -	\$ -	0
	Sub-Total (Active Projects)	\$ 267,191	\$ -	\$ -	\$ 267,191	\$ -	\$ 267,191	\$ -	\$ -	\$ -	\$ -
Information Technology New Projects											
1	IT Infrastructure	\$ 21,398,416	\$ -	\$ -	\$ 21,398,416	\$ -	\$ 3,163,877	\$ 6,371,202	\$ 2,500,513	\$ 4,034,338	\$ 5,328,486
2	Health Information System	\$ 20,497,423	\$ -	\$ -	\$ 20,497,423	\$ -	\$ 5,280,533	\$ 8,278,700	\$ 6,488,190	\$ 250,000	200000
3	Harris Center Epic Electronic Health Record Implementation	\$ 16,680,389	\$ -	\$ 16,680,389	\$ -	\$ -	\$ -	\$ 16,680,389	\$ -	\$ -	\$ -
4	Harris County Jail Epic Electronic Health Record Implementation	\$ 6,538,029	\$ -	\$ 6,538,029	\$ -	\$ -	\$ -	\$ 6,538,029	\$ -	\$ -	0
5	Financial & Admin System	\$ 5,825,100	\$ -	\$ -	\$ 5,825,100	\$ -	\$ 684,900	\$ 2,800,200	\$ 340,000	\$ 1,000,000	\$ 1,000,000
	Sub-Total (New Projects)	\$ 70,939,357	\$ -	\$ 23,218,418	\$ 47,720,939	\$ -	\$ 9,129,310	\$ 40,668,520	\$ 9,328,703	\$ 5,284,338	\$ 6,528,486
Total		\$ 454,484,218	\$ 64,700,000	\$ 41,278,418	\$ 348,505,800	\$ -	\$ 83,925,543	\$ 156,891,386	\$ 100,115,465	\$ 60,882,338	\$ 52,669,486

**Total Project Estimate** - Total estimated funding required over the next 5 fiscal years.

**Reimbursements** - Anticipated Federal, State, or other funding that can offset the potential debt incurred from the project. This could include proceeds from the sale of other assets.

**HC Capital Funding** - The remaining cost of the project after reimbursements are realized.

**Funded to Date** - Total funding the project has received in prior fiscal years.





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Port Houston currently has ad valorem tax bonds outstanding with a principal balance of \$594 million and total debt service of \$970 million over the next 21 years. Harris County collects property taxes to cover these debt service payments of about \$50 million for the current fiscal year, declining to approximately \$46-49 million annually until retired in 2039. The Port executed a bond refunding in 2018 which generated net present value debt service savings of almost \$48 million for the benefit of Harris County taxpayers.

In recent years, Port Houston has been able to generate strong cash flows from its operations. For the period 2019-2023, it projects cash flows sufficient to fund the capital program associated with its revenue-generating operations. This excludes major construction projects stemming from the Port's responsibilities as local or nonfederal sponsor of the Houston Ship Channel as described below.

The U.S. Army Corps of Engineers is currently conducting a study to explore the benefits of further widening and deepening of the Houston Ship Channel. In the event such a project proceeds, as local sponsor of the Channel, Port Houston would be called upon to provide a cost-sharing portion, which could total several hundreds of millions of dollars. In such a case, it would be necessary for Port Houston to seek incremental financing, potentially including taxpayer-supported debt, to fund such a project within the next 2 calendar years. This expansion project will facilitate commerce and economic growth in the region, benefitting all industry and community partners along the Ship Channel.





# HARRIS COUNTY, TEXAS

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## BUDGET MANAGEMENT DEPARTMENT

*Administration Building*

1001 Preston, Suite 500

Houston, TX 77002

(713) 274-1100

February 26, 2019

To: County Judge Hidalgo and  
Commissioners Ellis, Garcia,  
Radack, and Cagle

Subject: Miscellaneous Capital Projects

The Budget Management Department is submitting for review and discussion the attached miscellaneous capital projects in the amount of \$7,709,422. These miscellaneous capital projects are initiatives that do not fall within the framework of the departments that normally participate in CIP.

2019 Interim CIP - Miscellaneous

Project Category	Project Name	Total Project Estimate	Reimbursements	HC Capital Funding	Funded To Date	Mar 2019 - Sept 2019	CIP 2019-2020	CIP 2020-2021	CIP 2020-2022	CIP 2020-2023
Active Projects										
1	Washburn Tunnel - Generator Replacement	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -
2	Washburn Tunnel - Pump Replacement	\$ 900,000	\$ -	\$ 900,000	\$ -	\$ 900,000	\$ -	\$ -	\$ -	\$ -
	Sub-Total (Active Projects)	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
New Projects										
1	HCPC Software	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
2	Equipment, Institute of Forensic Sciences	\$ 1,200,000	\$ -	\$ 1,200,000	\$ -	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -
3	Washburn Tunnel - Structural Evaluation/ Analysis/ Monitoring	\$ 906,035	\$ -	\$ 906,035	\$ -	\$ 906,035	\$ -	\$ -	\$ -	\$ -
4	Washburn Tunnel - Electrical Distribution Replacement	\$ 1,617,919	\$ -	\$ 1,617,919	\$ -	\$ 1,617,919	\$ -	\$ -	\$ -	\$ -
5	Washburn Tunnel - Traffic Control Improvements	\$ 1,035,468	\$ -	\$ 1,035,468	\$ -	\$ 1,035,468	\$ -	\$ -	\$ -	\$ -
6	Washburn Tunnel - Lighting & Lighting Control Replacement	\$ 2,259,715	\$ -	\$ 2,259,715	\$ -	\$ -	\$ -	\$ 2,259,715	\$ -	\$ -
7	Washburn Tunnel - Ventilation Fan Replacement or Refurbishment	\$ 1,373,160	\$ -	\$ 1,373,160	\$ -	\$ -	\$ -	\$ -	\$ 1,373,160	\$ -
8	Lynchburg Ferry Boats Replacement	\$ 10,000,000	TBD	TBD	\$ -	\$ 1,500,000	\$ 4,250,000	\$ 4,250,000	\$ -	\$ -
	Sub-Total (New Projects)	\$ 18,592,297	\$ -	\$ 8,592,297	\$ -	\$ 6,459,422	\$ 4,250,000	\$ 6,509,715	\$ 1,373,160	\$ -
Total		\$ 19,842,297	\$ -	\$ 9,842,297	\$ -	\$ 7,709,422	\$ 4,250,000	\$ 6,509,715	\$ 1,373,160	\$ -

Total Project Estimate - Total estimated funding required over the next 5 fiscal years.

Funded to Date - Total funding the project has received in prior fiscal years.

## **HCIFS FY 19-20 GF Interim CIP Executive Summary**

### **Requested Funding**

A total of \$1,135,061 is being requested for capital improvement projects (see attachment A). Funding requests consist of crime laboratory and medical examiner services equipment and a system-wide software upgrade.

#### *Crime Laboratory*

A total of \$448,000 is being requested for the replacement of existing equipment that has reached its useful lifecycle. In Toxicology, the LC/MS/MS (\$340,000) is used to detect drugs in postmortem examinations and DUI testing. This equipment is critical to achieve completion of 90% of ML cases in 45 days as required by accreditation standards. The timely completion of testing effects the pathologists' ability to complete 90% of all ML cases in 60 days. The headspace autosamplers are used for alcohol detection in DUI's and necessary to reach 30 day TAT as requested by Harris County.

#### *Medical Examiner Services*

A total of \$206,688 is being requested for the medical examiner services. Major equipment items are for replacement in the Histology section. Equipment such as the slide-scanner, glass cover shipper, and the tissue processor are necessary to preserve tissue specimens for the pathologists' microscopic review. Timely completion of the slides is critical in helping the forensic pathologists' complete 90% of ML cases in 60 days as required by accreditation standards.

#### *Systems*

The upgraded version of the Laboratory Information Management System (LIMS) has a projected cost of \$378,661 and it allows for system information integration of the Medical Examiners information to the Crime Laboratory. This system upgrade will allow information to move more expediently amongst the forensic disciplines resulting in improved service levels and turnaround times for report results. JusticeTrax vendor (creator of PathAssist and LIMS) has discontinued its' support of PathAssist, which supports the medical examiner service.



## Attachment A

HCIFS FY2020 GENERAL FUND Equipment Requests						
Item #	Section	Equipment Description	Qty	Unit Cost	Total Cost	
1	Drug Chemistry	Replacement Instrument Computers	4	2550	10200	
2	Forensic Genetics	Three Door Freezer Unit	1	6000	6000	
3 a	Toxicology	LC/MS/MS	1	340000	340000	
b	Toxicology	Headspace Autosamplers	2	45000	90000	
c	Toxicology	Hamilton Basic Dual Syringes	2	5000	10000	
4	Trace Evidence	Replacement Instrument Computers	2	2550	5100	
5 a	Firearms	Trigger Scan System	1	4040	4040	
b	Firearms	Long Gun Lockers	1	2000	2000	
6	Pathology	Olympus CX43 Microscopes	3	1846	5538	
7 a	Anthropology	Specimen rack and trays	1	300	300	
b	Anthropology	Photography Stand	1	500	500	
c	Anthropology	Self Contained Steam Kettle	1	10000	10000	
8 a	Forensic Imaging	PR Camera (Nikon D850), Wide Angle & Telephoto Lens	1	6150	6150	
b	Forensic Imaging	Auditorium AV Upgrades	1	4800	4800	
c	Forensic Imaging	D850 Filmmaker's Kit	1	2200	2200	
d	Forensic Imaging	Portable Laser Projector	1	3000	3000	
9	Investigations	DTS Stretchers	6	2100	12600	
10 a	Histology	Excelsior Tissue Processor Replacement	1	49500	49500	
b	Histology	Sakura G2 Glass Coverslipper	1	72100	72100	
c	Histology	Motic Slide Scanner	1	40000	40000	
11	Systems	LIMS v3.8 Upgrade:	1	378661	378661	
a	Pathology	Medical mobile carts	7			34300
	Pathology	Barcode scanners wireless	14			11200
	Pathology	Barcode printer	14			7000
	Pathology	Wireless Barcode Scanners	25			20000
	Pathology	Barcode Printers	25			12500
b	Forensic Evidence	Wireless Scanners	3			2400
	Forensic Evidence	Desktop Flattop Scanners	7			1750
c	Systems	Virtual Server	1			35000
	Systems	RFID for Records	1			52411
	Systems	Onsite Vendor Hands-on Training	1			32500
	Systems	Report Creation Database Support	1			20000
	Systems	Replacement Computers (86)	1			111800
	Systems	Project Contingency	1			37800
12	Administration	Facility Projects:	1	82372.45	82372.45	
a		8th Floor SW8 Conference Room	1			30013.5
b		8th Floor Breaftroom Overflow	1			33657.1
c		Patio Awning	1			12175
d		Contingencies	1			6526.87
Total					1,135,061	

## Project

## Description

Washburn Tunnel - Generator Replacement	Replace and relocate existing emergency generator system.
Washburn Tunnel - Pump Replacement	Replace and modernize mid-channel pump systems to include 4 pumps, remote monitoring, discharge piping, and relocating electrical control panels and circuits to control building.
Washburn Tunnel - Structural Evaluation/Analysis/Monitoring	Structural evaluation of the tunnel; including subsurface and material testing to determine remaining service life of tunnel and monitoring to track any unknown movement of the tunnel overtime.
Washburn Tunnel - Electrical Distribution Replacement	Replace electrical and emergency electrical distribution equipment to include automatic transfer switch, transformers, switchgears, breakers, and voltage distribution equipment
Washburn Tunnel - Traffic Control Improvements	Design and implement an automatic traffic control system to monitor, manage, and communicate to traffic entering tunnel and prevent restricted vehicles from entering tunnel.
Washburn Tunnel - Lighting & Lighting Control Replacement	Replace existing sodium vapor lamps in tunnel with LED fixtures along with new switches, breakers, coverings, conduit, and wiring.
Washburn Tunnel - Ventilation Fan Replacement or Refurbishment	Evaluate service life, refurbish and/or replace existing ventilation system including fans, motors, fan housing, and louvers.
Lynchburg Ferry Boat Replacement	Build two new ferries to replace the existing vessels which were built in 1964. The ferries will be capable of the same or greater vehicular/passenger capacity. The project will also include all necessary communications, navigation and miscellaneous equipment required for operation.