

CDBG-MIT Grant Application TC Jester Detention Basin

Harris County Flood Control District is seeking assistance through the *2015 Floods State Mitigation Competition* under the Community Development Block Grant Mitigation (CDBG-MIT) program for the following flood risk reduction project. The CDBG-MIT program is funded through the United States Department of Housing and Urban Development (HUD) and administered at the state level by the Texas General Land Office (GLO). Applications are due to GLO by October 28, 2020 and awards are expected in 2021.

I. SCOPE:

TC Jester Detention Basin is a stormwater detention mitigation project within the Cypress Creek Watershed that is intended to address current flood damage reduction needs within the Cypress Creek Watershed and serve LMI (Low to Moderate Income) areas. This project is a functionally independent first phase of a multi-phase project that will ultimately, upon its completion, remove 271 structures from the existing floodplain and benefit 598 structures within the LMI block group.

The benefit of this project is to mitigate the risk of future riverine flooding in the project area by providing a storm water detention basin that will retain storm runoff and reduce the limits of the floodplain and lower the water level within the floodplain.

There are approximately 2689 structures located in the 100-year existing floodplains that are at risk of experiencing inundation due to riverine flooding. Approximately 479 of those structures are within an LMI block group.

This proposed project will utilize an existing Harris County detention pond with an additional 0.18 acres of delineated wetlands to create a basin footprint of 25 acres. The proposed project will mitigate against the risk of flooding by creating a detention basin to capture the overbank volume in the project area so that the benefits provided by the additional pond volumes can be quantified. The proposed detention basin will achieve a maximum WSEL reduction of 0.49 feet for the 100-year storm event. This proposed project will remove 87 structures from the existing 100-year floodplain.

This proposed detention basin is the first phase of a detention basin that will ultimately expand to encompass the entire 93 acres site and provide an estimated WSEL reduction of 0.62 feet. When complete, the full detention basin will remove 271 structures from the existing floodplain and 598 structures within the LMI block group will benefit.

II. COST ESTIMATE:

Total Estimated Cost of this proposed project is \$10,244,200.00.

\$10,000,000.00 of this cost will be funded by a CDBG-MIT Grant. The remaining \$244,200.00 will be funded by HCFCF.

See the attached "CDBG-MIT: Budget Justification of Retail Costs (Former Table 2)" for a detailed breakdown of the estimate construction cost.

III. CDBG NATIONAL OBJECTIVE

Urgent Needs Mitigation (UNM)

IV. ATTACHMENTS

CDBG-MIT: Budget Justification of Retail Cost (Former Table 2)

Project Area Map

Project Beneficiary Map



**CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)**

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.


Applicant/Subrecipient:	Harris County Community Services Department (on behalf of Harris County Flood Control District)						
Site/Activity Title:	TC Jester Stormwater Detention Basin						
Eligible Activity:	Flood Control and Drainage Improvements						
	Materials/Facilities/Services	\$/Unit	Unit	Quantity	Construction	Acquisition	Total
	GENERAL CIVIL						
1	MOBILIZATION (NOT TO EXCEED 5% OF TOTAL CONSTRUCTION COST)	\$ 460,000.00	LS	1	\$ 460,000.00	\$ -	\$ 460,000.00
2	CARE OF WATER (NOT TO EXCEED 2.5% OF TOTAL CONSTRUCTION COST)	\$ 230,000.00	LS	1	\$ 230,000.00	\$ -	\$ 230,000.00
3	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	\$ 20,515.00	LS	1	\$ 20,515.00	\$ -	\$ 20,515.00
4	TRAFFIC CONTROL	\$ 40,000.00	LS	1	\$ 40,000.00	\$ -	\$ 40,000.00
5	CLEARING AND GRUBBING	\$ 175,500.00	LS	1	\$ 175,500.00	\$ -	\$ 175,500.00
6	FINAL GRADING, HYDROMULCH, CLEAN UP	\$ 112,500.00	LS	1	\$ 112,500.00	\$ -	\$ 112,500.00
	CONSTRUCTION						
7	EXCAVATION AND OFF-SITE DISPOSAL	\$ 10.50	CY	847,720	\$ 8,901,060.00	\$ -	\$ 8,901,060.00
8	BACKSLOPE SWALE SYSTEM	\$ 6.50	LF	2,250	\$ 14,625.00	\$ -	\$ 14,625.00
9	CONCRETE INTERCEPTOR STRUCTURES	\$ 150.00	SY	40	\$ 6,000.00	\$ -	\$ 6,000.00
10	24" DIAMETER CMP	\$ 70.00	LF	100	\$ 7,000.00	\$ -	\$ 7,000.00
11	REINFORCED CONCRETE PILOT CHANNEL (4" THICK)	\$ 55.00	SY	2,300	\$ 126,500.00	\$ -	\$ 126,500.00
12	72" DIAMETER CMP OUTFALL	\$ 205.00	LF	400	\$ 82,000.00	\$ -	\$ 82,000.00
13	CHECK VALVE FOR 72" DIAMETER CMP OUTFALL	\$ 20,000.00	EA	2	\$ 40,000.00	\$ -	\$ 40,000.00
14	REINFORCED CONCRETE PAVEMENT FOR OUTFALL (6" THICK)	\$ 75.00	SY	380	\$ 28,500.00	\$ -	\$ 28,500.00
	TOTAL				\$ 10,244,200.00	\$ -	\$ 10,244,200.00

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.
 This project along with all HCFCDBG-MIT projects will be included in the Annual Operational and Maintenance Budget prepared and funded by the HCFCDB. All costs associated with the successful maintenance and operation of this project as well as all other projects under the responsibility of HCFCDB are included in this budget.

2. Identify and explain any special engineering activities.



Seal

Date:	9/24/2020
Phone Number:	713-600-6805
 Signature of Registered Engineer/Architect Responsible For Budget Justification:	



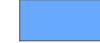
**PROJECT AREA
MAP**



25 Ac. Detention Basin (\$10M)
 Volume = 525 ac-ft
 TOB = 102.0' to 99.8'
 TOE = 76.0'
 Latitude: 30.01744°
 Longitude: -95.49350°

Existing Harris County Basin

Legend

-  HCFC D Channels
-  HC Detention Basin
-  Detention Basin

PROJECT NO: SC017357
 DATE CREATED: 7/28/2020
 DTDUM & COORDINATE SYSTEM: NAD83 State Plane (feet) Texas South Central
 FILE NAME: Name: Attachment_1_ProjectAreaMap
 PREPARED BY: P.A.C.



Harris County Flood Control District
TC Jester Detention Basin
Project Area Map



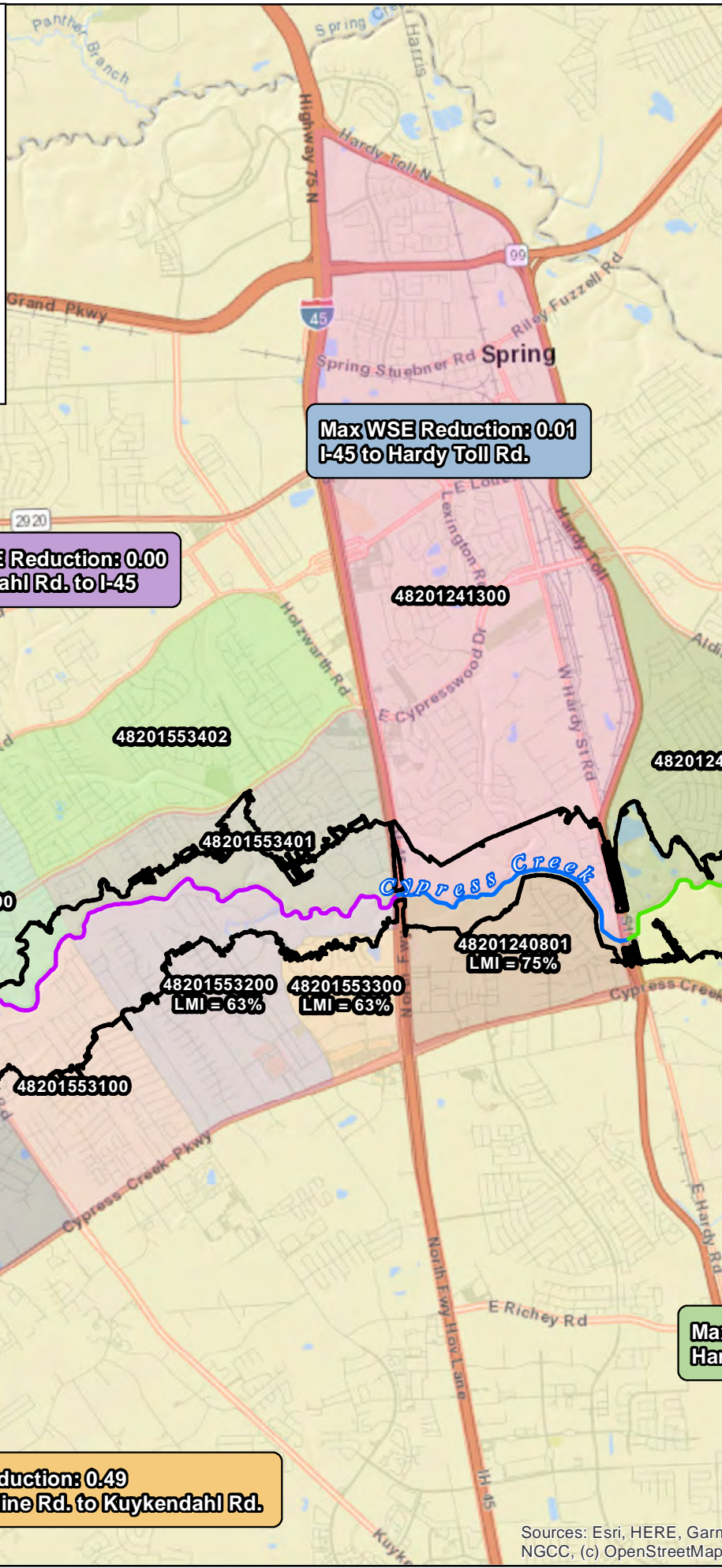
**PROJECT BENEFICIARY
MAP**

Legend

GEOID

48201240801	48201553100
48201240802	48201553200
48201241000	48201553300
48201241102	48201553401
48201241103	48201553402
48201241200	48201553500
48201241300	48201553600
48201553001	48201553700

Beneficiary Service Area
TC Jester Detention Basin



Census Block	# of Structures in Service Area	# of Structures in Census Block	% in Service Area
48201240802	935	2569	36.4%
48201553700	560	1626	34.4%
48201553200	398	1712	23.2%
48201553100	518	2513	20.6%
48201553002	273	1894	14.4%
48201553401	282	2228	12.7%
48201553300	37	419	8.8%
48201241300	286	5562	5.1%
48201553600	54	2341	2.3%
48201241200	51	2971	1.7%
48201241103	27	1695	1.6%
48201241000	44	3302	1.3%
48201553001	19	2554	0.7%
48201240801	1	907	0.1%
48201553500	3	2924	0.1%
48201241102	4	4825	0.1%
48201553402	1	3743	0.0%

SCG17357
Date: 8/2/2020
DATE CREATED
DATUM & COORDINATE SYSTEM
NAD83 State Plane (feet) Texas South Central
FILE NAME
Name: Exhibit_TCJester_100yr_AreaofBenefit
PREPARED BY
RCA

HARRIS COUNTY FLOOD CONTROL DISTRICT

Harris County Flood Control District
TC Jester Detention Basin
Project Beneficiary Map

FRESE NICHOLS
STUART CONSULTING GROUP

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS user Community