Community Development Block Grant - Mitigation Application



Texas General Land Office, P.O. Box 12873, Austin, Texas 78711-2873 1-844-893-8937 or 512-475-5000, cdr@glo.texas.gov

FLOOD AND DR	AINAGE IMPROVEMENTS
P	ROJECT TITLE
OR	ANGE COUNTY
AP	PPLICANT NAME
ORANGE	SETRPC
COUNTY	COG/Regional Planning Commission

Application for funding through:

HURRICANE HARVEY STATEWIDE COMPETITION

Project Description:

During Hurricane Harvey and other recent storm events, flooding of evacuation routes and arterial roads prevented the safe evacuation of residents. Many high-water rescues have been required as roads have become inundated with water during periods of significant precipitation, presenting an immediate and imminent threat to public health and safety.

Following these periods of significant rainfall, the drainage system often remains overwhelmed for anywhere from days to several weeks, preventing the safe transport of supplies and volunteers to the County. Residents throughout the County have been without access to food, water, or first responders.

To mitigate loss of life and suffering during future events, the County proposes to build a series of detention ponds to prevent flooding along IH-10, Hwy 12, Hwy 62, and Hwy 87 – the County's evacuation routes. Removing the risk of flooding along these roadways will ensure residents may safely evacuate and further ensure that the supply chain remains open for those unable to do so.

Construction will consist of the channel construction, excavation, inlet/outlets, swale drains, and all-weather access roads each location. Embankment construction and a pump station will be installed at the Cole Creek Ponds. These improvements will provide approximately 650 acres of surface water detention.

The proposed project benefits all 84,047 residents of the County.

Total Project Costs: \$40,516,125.00

Local Funds: \$ 405,162.00

Engineering: \$ 4,516,125.00

Administration: \$ 2,400,000.00

Construction: \$30,107,500.00

Acquisition: \$ 3,492,500.00



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:	Ora	nge County								
Site/Activity Title:	Orange County Orange County Detention Ponds									
Eligible:	0.0	inge county be		10111 01103						
Materials/Facilities/Services		\$/Unit	Unit		Quantity	Construction		Acquisition		Total
Claiborne North Pond									-	
Mobilization (insurance, payment and performance bonds,										
moving equipment) (3%)	\$	355,000.00	EA		1	\$	355,000.00	\$	-	\$ 355,000.00
Property Acquisition	\$	5,500.00			240		-		1,320,000.00	\$ 1,320,000.00
Channel Construction	\$	80.00	LF		780	\$	62,400.00	\$	-	\$ 62,400.00
Detention Pond Construction (including excavation and										
embankment)	\$	2.90	CY		3150000	\$	9,135,000.00	\$	-	\$ 9,135,000.00
All weather access road (including base and surface around										
perimeter of pond)	\$	36.00	LF		14000	\$	504,000.00	\$	-	\$ 504,000.00
Inlet Structure (including concrete structure and rip-rap for										
erosion control)	\$	55,000.00	EA		1	\$	55,000.00	\$	-	\$ 55,000.00
Outlet Structure (including concrete structure and outlet										
control)	\$	50,000.00	EA		1	\$	50,000.00	\$	-	\$ 50,000.00
Swale Drain	\$	30.00	LF		6400	\$	192,000.00	\$	-	\$ 192,000.00
Construction Material Testing	\$	25,000.00	EA		1	\$	25,000.00	\$	-	\$ 25,000.00
SWPPP (Including NOI, Installation, Maintenance, Inspection,										
NOT)	\$	20,000.00	EA		1	\$	20,000.00	\$	-	\$ 20,000.00
Claiborne South Pond										
Mobilization (insurance, payment and performance bonds,										
moving equipment) (3%)	\$	250,000.00	EA		1	\$	250,000.00	\$	-	\$ 250,000.00
Property Acquisition	\$	5,500.00	AC		155	\$	-	\$	852,500.00	\$ 852,500.00
Channel Construction	\$	80.00	LF		1095	\$	87,600.00			\$ 87,600.00
Detention Pond Construction (including excavation and										
embankment)	\$	2.90	CY		2015000	\$	5,843,500.00			\$ 5,843,500.00
All weather access road (including base and surface around										
perimeter of pond)	\$	36.00	LF		15125	\$	544,500.00			\$ 544,500.00
Inlet Structure (including concrete structure and rip-rap for										
erosion control)	\$	55,000.00	EA		1	\$	55,000.00			\$ 55,000.00
Outlet Structure (including concrete structure and outlet										
control)	\$	50,000.00			1	\$	50,000.00			\$ 50,000.00
Swale Drain	\$	30.00			6360		190,800.00			\$ 190,800.00
Construction Material Tesiting	\$	25,000.00	EA		1	\$	25,000.00			\$ 25,000.00
SWPPP (Including NOI, Installation, Maintenance, Inspection,										
NOT)	\$	20,000.00	EA		1	\$	20,000.00			\$ 20,000.00
Little Cypress Pond										

Name Section	Mobilization (insurance, payment and performance bonds,]						
Property Acquisition		Ś	200.000.00	EA	1 \$	\$ 200.000.00			Ś	200.000.00
Channel Construction S S S S S S S S S			•			,	Ś	780.000.00	-	,
Detention Pond Construction (including excavation and embankment) \$ 2.90 C	. , .		•			'	т		•	
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All weather access road (including base and surface around perimeter of pond) Sacratic Structure (including concrete structure and rip-rap for erosine control)		Ś	2.90	CY	1550000 \$	\$ 4.495.000.00			Ś	4.495.000.00
Sacro Sacr	,	7			7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			т	.,,
Inlet Structure (including concrete structure and rip-rap for erosisn control) Outlet Structure (including concrete structure and outlet control) System Frain S 50,000,00 EA 1 S 50,000,00 S 50,000,00 System Frain S 30,00 F 3840 S 115,000,00 S 155,000,00 System Frain S 25,000,00 EA 1 S 25,000,00 S 25,000,00 System Frain S 20,000,00 EA 1 S 25,000,00 S 25,000,00 System Frain S 20,000,00 EA 1 S 20,000,00 S 25,000,00 Adams Bayou Pond S 20,000,00 EA 1 S 20,000,00 S 20,000,00 Adams Bayou Pond S 160,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 S 160,000,00 Adams Bayou Pond S 55,000,00 EA 1 S 160,000,00 S 160,000,00 S 160,000,00 Channel Construction (including excavation and enhance) S 55,000,00 EA 1 S 55,000,00 S 3,117,500,00 S		Ś	36.00	l F	10300 \$	\$ 370.800.00			Ś	370.800.00
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Outlet Structure (including concrete structure and outlet control)		Ś	55.000.00	FA	1 5	\$ 55,000,00			Ś	55,000,00
S 50,000.00 S 50,000.0	,	7	33,000.00		- +	φ 25)000.00			7	33,000.00
Swale Drain	_	Ś	50 000 00	FΔ	1 5	\$ 50,000,00			Ś	50 000 00
Construction Material Tesiting \$ 25,000.00 EA 1 \$ 25,000.00 \$ 25,000.00	,					·				,
SWPPP (Including NOI, Installation, Maintenance, inspection, NOT) \$ 20,000.00 EA 1 \$ 20,000.00 \$ 20,000.00 Addams Bayou Pond S 160,000.00 EA 1 \$ 160,000.00 \$ 20,000.00 Mobilization (insurance, payment and performance bonds, moving equipment) (13%) \$ 160,000.00 EA 1 \$ 160,000.00 \$ 160,000.00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>•</td></t<>									-	•
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Mobilization (insurance, payment and performance bonds, moving equipment) (3%) \$ 160,000.00		Ş	20,000.00	LA	1 3	20,000.00			Ş	20,000.00
Moving equipment) (3%) \$ 160,000.00 EA 1 \$ 160,000.00 \$ 160,000.00 \$ 160,000.00 \$ 160,000.00 \$ 160,000.00 \$ 160,000.00 \$ 140,000.00	•									
Property Acquisition										
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Swale Drain \$ 30.00 LF 3700 \$ 111,000.00 \$ 111,000.00 Construction Material Testing \$ 25,000.00 EA 1 \$ 25,000.00 \$ 25,000.00 SWPPP (Including NOI, Installation, Maintenance, Inspection, NOT) \$ 20,000.00 EA 1 \$ 20,000.00 \$ - \$ 20,000.00 Cole Creek West Pond \$ 90,000.00 EA 1 \$ 90,000.00 \$ 90,000.00 Mobilization (insurance, payment and performance bonds, moving equipment) (3%) \$ 90,000.00 EA 1 \$ 90,000.00 \$ 90,000.00 Property Acquisition (Drainage Easements) \$ 50,000.00 LF \$ 50,000.00 \$ 50,000.00 \$ 50,000.00 Channel Construction \$ 80.00 LF 250 \$ 20,000.00 \$ 20,000.00 \$ 20,000.00 Pump Station \$ 900,000.00 EA 1 \$ 900,000.00 \$ 900,000.00 \$ 900,000.00 \$ 348,000.00 \$ 348,000.00 Embankment Construction and Detention Pond Reshaping perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ 169,200.00 All weather access road (including base and surface around perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ 169,200.00	Outlet Structure (including concrete structure and outlet									
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Property Acquisition (Drainage Easements) \$ 50,000.00 LS 1 \$ - \$ 50,000.00 \$ 50,000.00 \$ 50,000.00 Channel Construction \$ 80.00 LF 250 \$ 20,000.00 \$ 20,000.00 \$ 20,000.00 Pump Station \$ 900,000.00 EA 1 \$ 900,000.00 \$ 900,000.00 \$ 900,000.00 Embankment Construction and Detention Pond Reshaping Perimeter of pond (including base and surface around perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ 169,200.00 Inlet Structure (including concrete structure and rip-rap for The property Acquisition (LT and the property of the proper		Ś	90.000.00	EA	1 5	\$ 90.000.00			\$	90.000.00
Channel Construction \$ 80.00 LF 250 \$ 20,000.00 \$ 20,000.00 Pump Station \$ 900,000.00 EA 1 \$ 900,000.00 \$ 900,000.00 Embankment Construction and Detention Pond Reshaping \$ 2.90 CY 120000 \$ 348,000.00 \$ 348,000.00 All weather access road (including base and surface around perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ - \$ 169,200.00 Inlet Structure (including concrete structure and rip-rap for \$ 169,200.00 \$ - \$ 169,200.00	9 1 1 7 7						Ś	50.000.00	\$	50,000.00
Pump Station \$ 900,000.00 EA 1 \$ 900,000.00 \$ 900,000.00 \$ 900,000.00 Embankment Construction and Detention Pond Reshaping \$ 2.90 CY 120000 \$ 348,000.00 \$ - \$ 348,000.00 All weather access road (including base and surface around perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ - \$ 169,200.00 Inlet Structure (including concrete structure and rip-rap for \$ 0.00			•		250 \$	\$ 20.000.00		,	\$	
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All weather access road (including base and surface around perimeter of pond) \$ 36.00 LF 4700 \$ 169,200.00 \$ - \$ 169,200.00 Inlet Structure (including concrete structure and rip-rap for	·	\$,		·		\$	-	\$	•
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Inlet Structure (including concrete structure and rip-rap for	, ,	\$	36.00	LF	4700 \$	\$ 169,200.00	\$	-	\$	169,200.00
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	erosion control)	\$	55.000.00	EA	1 \$	\$ 55,000.00	\$	_	Ś	55,000.00

Outlet Structure (including concrete structure and outlet												
control)	\$	50,000.00	EA	1	\$	50,000.00	\$	-	\$	50,000.00		
Construction Material Testing	\$	25,000.00	EA	1	\$	25,000.00	\$	-	\$	25,000.00		
SWPPP (Including NOI, Installation, Maintenance, Inspection,												
NOT)	\$	20,000.00	EA	1	\$	20,000.00	\$	-	\$	20,000.00		
Cole Creek East Pond												
Mobilization (insurance, payment and performance bonds,												
moving equipment) (3%)	\$	90,000.00	EA	1	\$	90,000.00			\$	90,000.00		
Property Acquisition	\$	50,000.00	LS	1	\$	-	\$	50,000.00	\$	50,000.00		
Channel Construction	\$	80.00	LF	150	\$	12,000.00			\$	12,000.00		
Pump Station	\$	900,000.00	EA	1	\$	900,000.00			\$	900,000.00		
Embankment Construction and Detention Pond Reshaping	\$	2.90	CY	120000	\$	348,000.00			\$	348,000.00		
All weather access road (including base and surface around	Ť					,				•		
perimeter of pond)	\$	36.00	LF	5000	\$	180,000.00			\$	180,000.00		
Inlet Structure (including concrete structure and rip-rap for						,				,		
erosion control)	\$	55,000.00	EA	1	\$	55,000.00	\$	-	\$	55,000.00		
Outlet Structure (including concrete structure and outlet						·				·		
control)	\$	50,000.00	EA	1	\$	50,000.00	\$	-	\$	50,000.00		
Construction Material Testing	\$	25,000.00			\$	25,000.00	\$	-	\$	25,000.00		
SWPPP (Including NOI, Installation, Maintenance, Inspection,	Ť	,				,				•		
NOT)	\$	20,000.00	EA	1	\$	20,000.00	\$	-	\$	20,000.00		
,	\$	-	LS		\$	-	\$	-	\$	-		
	\$	-		0	\$	-	\$	-	\$	-		
	\$	-			\$	-	\$	-	\$	-		
TOTAL	Ś	3,968,823.40			\$	30,107,500.00	Ś	3,492,500.00		33,600,000.00		
1. Identify and explain the annual projected operation and n	nain	tenance costs	associated wit	h the proposed acti	vities.							
2. Identify and explain any special engineering activities. NA												
					Date:							
						Phone Number:						
							<u> </u>					
					Signa	ature of Registered	Fngi	neer/Architect	Respo	nsible For Budget		
Seal					Justification:							
J-041						Justincation:						



Google Maps

Orange County

Flood & Drainage Improvements Beneficiary Map

