

September 24, 2020

Honorable Jimmy Sylvia and Chambers County Commissioners Court  
Honorable Jay H. Knight and Liberty County Commissioners Court  
James Gibson and Trinity Bay Conservation District (TBCD) Board

RE: PROPOSED CDBG-MIT JOINT APPLICATION & PROJECT FOR CONSIDERATION  
BETWEEN CHAMBERS COUNTY, LIBERTY COUNTY, AND TRINITY BAY  
CONSERVATION DISTRICT

Dear Judge Sylvia, Judge Knight, and Mr. Gibson:


Please allow this letter, and the detail contained within, to serve as the basis for discussion of a proposed project between Chambers County, Liberty County, and Trinity Bay Conservation District for consideration in the upcoming Community Development Block Grant – Mitigation (CDBG-MIT) competition. The project consists of major drainage improvements within the Spindletop Bayou Watershed to include a diversion channel and road crossings. The enclosed documents detail the project area, project scope, proposed budget, project beneficiaries, project schedule, and preliminary application score. Current estimated project costs are defined below:

<u>Activity</u>	<u>Total</u>
Construction	\$28,607,617.00
Engineering	\$4,291,142.55
Administration	\$1,973,925
<b>Total</b>	<b>\$34,872,685.12</b>

This project is being proposed as a multijurisdictional application between Chambers County, Liberty County, and Trinity Bay Conservation District (TBCD) due to the regional impact and location of project beneficiaries. The Application will be led by Chambers County with the support of Liberty County and TBCD. A jurisdictional cost-share will be applied to cover the 1% match/local leverage for the proposed project at approximately 33% from each entity based on the budget detail outlined above.

This material is to guide discussion about this proposed project and not intended to serve as the final authorization of the project. This information will serve as a substantially complete application and will be posted for a minimum 14-day public comment period prior to the official authorization and submission of an application.

Respectfully,



Patrick K. Wiltshire  
President and CEO

clearing and grubbing of 425 acres of land. Road crossings shall have 5'x12' RCB or equivalent capacity (13 barrels per crossing) with 5'x12' headwalls on both sides.

September 24, 2020

Patrick Wiltshire  
President and CEO  
Public Management, Inc.  
15355 Vantage Parkway W. Suite 108  
Houston, Tx 77032

RE: Spindletop Diversion Channel – Channel and Road Crossing Improvements Project

To whom it may concern:

This memorandum shall serve as a detailed justification for CDBG funding for the implementation of the Spindletop Diversion Channel and how it will mitigate flooding within Chambers County, Texas and the surrounding area.

The drainage system in the county is owned and maintained by the Trinity Bay Conservation District (TBCD) and encompasses over 1,400 miles of drainage ditches and channels. The drainage operations of the TBCD greatly benefit the residents of Chambers County, Texas and the surrounding area which includes parts of Liberty County, Texas. Due to the low elevation of the region and the history of flooding from major storm events in the past, storm water drainage ditches and channels have always been a necessity within Chambers County for the safety of life and property. Unfortunately, the recent events have shown that the current drainage system is in need of expansion if it is to continue in effectively combating flood events. The need for additional drainage channels/ditches and other major improvements to the drainage system was made evident during Hurricane Harvey where some areas within Chambers County, Texas took almost two full weeks for the drainage system to fully accommodate the water received during the event. With the unparalleled flooding and damage caused by Hurricane Harvey, Tropical Storm Imelda, and other major storm events, Chambers County, Texas has proposed to expand the current drainage system by excavating a new drainage channel just south of the community of Winnie, Texas.

Beginning at approximately latitude 29.774494 and longitude -94.400086 along the Spindletop Bayou waterway, the proposed channel will divert storm water from Spindletop Bayou south to approximately latitude 29.641153 and longitude -94.403449 where it would then flow into Elm Bayou, which flows into the Gulf Intracoastal Waterway (GIWW). The physical description of the proposed drainage channel is a channel with a depth of 10' with a top width of 100 LF with an additional 50' right-of-way (ROW) along both sides of the channel. The proposed drainage channel will be approximately 49,188 LF in length.

The proposed channel has been estimated to reduce flood waters within the region by an average of 4'. While this reduction in storm water levels may not stop flooding in the most severe of circumstances, it will significantly reduce the environmental impact of any storm event in the area. In addition to reducing storm water levels and the environmental impact caused by flooding, the proposed channel would significantly reduce the amount of time that flood waters would stay in an area before draining. This reduction in time would have an enormous impact on the response time of first responders and relief aid to move into areas impacted by major storm events faster. Home and business-owners alike would also benefit greatly from the proposed channel by allowing them, in the worst-case scenarios, to return to areas impacted by storm events and to start assessing any damage caused by storm events and rebuild.



## 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.

<b>Applicant/Subrecipient:</b>	Trinity Bay Conservation District					
<b>Site/Activity Title:</b>	Spindletop Bayou Watershed Study					
<b>Eligible Activity:</b>	Spindletop Diversion Channel, Channel and Road Crossing Improvements					
Materials/Facilities/Services	\$/Unit	Unit	Quantity	Construction	Acquisition	Total
Mobilization	\$ 2,601,000.00	LS	1	\$ 2,601,000.00	\$ -	\$ 2,601,000.00
Section 404 Permitting Assessment	\$ 10,000.00	LS	0	\$ -	\$ -	\$ -
Coordination with USACE	\$ 10,000.00	LS	0	\$ -	\$ -	\$ -
Storm Water Pollution Prevention Plan(SW3P)	\$ 5,000.00	LS	1	\$ 5,000.00	\$ -	\$ 5,000.00
SW3P Implementation	\$ 10,000.00	LS	0	\$ -	\$ -	\$ -
Establish Grass Cover	\$ 1.00	SY	1443617	\$ 1,443,617.00	\$ -	\$ 1,443,617.00
Excavation	\$ 5.00	CY	3250000	\$ 16,250,000.00	\$ -	\$ 16,250,000.00
Clearing and Grubbing	\$ 1,000.00	Acre	425	\$ 425,000.00	\$ -	\$ 425,000.00
5'x12' RCB or equivalent capacity (13 barrels per xing)	\$ 1,000.00	LF	5100	\$ 5,100,000.00	\$ -	\$ 5,100,000.00
Trench Safety	\$ 10.00	LF	800	\$ 8,000.00	\$ -	\$ 8,000.00
2 - 5'x12' Headwall	\$ 325,000.00	EA	2	\$ 650,000.00	\$ -	\$ 650,000.00
Acquire Drainage Easement	\$ 5,000.00	Acre	425	\$ 2,125,000.00	\$ -	\$ 2,125,000.00
Engineering (15%)	\$ 4,291,142.55	LS	1	\$ 4,291,142.55	\$ -	\$ 4,291,142.55
<b>TOTAL</b>	\$ 7,259,158.55			\$ 32,898,759.55	\$ -	\$ 32,898,759.55

**1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.**

Annual operation and maintenance costs will include mowing and herbicide control (\$15,000/year).

**2. Identify and explain any special engineering activities.**

Environmental permitting, topographic surveying, construction surveying, and construction administration (all included within engineering service).

9/23/2020



Date:	9/23/2020
Phone Number:	(409) 893-4125

Signature of Registered Engineer/Architect Responsible  
For Budget Justification:

## CHAMBERS COUNTY, TEXAS

### SPINDLETOP DIVERSION CHANNEL

#### CHANNEL AND ROAD CROSSING IMPROVEMENTS PROJECT

Chambers County, Texas has suffered from the recent increase of major flood events in and around the county. Storm events such as Hurricane Harvey and Tropical Storm Imelda have put severe strain on the drainage capabilities of Chambers County, and the system is in dire need of expansion in order to effectively combat future storm events of great magnitude. During storm events such as these, they have inundated the regions water drainage capabilities due to the sheer amount of water needed to be removed from the area which has caused repeated flooding of homes and businesses within the county at an enormous cost to the State of Texas and homeowners. The County of Chambers, Texas is proposing the construction of a new storm water drainage channel just outside of the community of Winnie, Texas on the south side of the city beginning at a point along the Spindletop Bayou waterway. This project would significantly increase the county's capability to handle major flood events. This project would reduce the amount of time that flood waters stay within the region before draining off. While this channel may not stop flooding in the most severe storm events, it will significantly decrease the amount of time that flood waters stay within the flooded areas therefore reducing the amount of time that first responders and relief aid can move into an area. The channel would also allow evacuees to return to their homes faster after a major storm event. The water drainage system is owned by the Trinity Bay Conservation District (TBCD) and the population within the County of Chambers, Texas and by extension the County of Liberty, Texas will benefit greatly from this drainage project.

The Spindletop Diversion Channel, Channel and Road Crossing Improvements Project will provide for approximately 49,188 LF for a storm water drainage channel that will reduce the water level during a flood event by an estimated 4' within the region. This reduction in water level will reduce the overall environmental impact due to storm events within Chambers County, Texas and the surrounding area. The proposed channel would begin at a point along the Spindletop Bayou waterway. The current starting point is located at approximately latitude 29.774494 and longitude -94.400086 and the proposed channel would divert storm water from Spindletop Bayou south, crossing under both Fairview Rd and Hwy 1985 where it would flow into Elm Bayou at approximately latitude 29.641153 and longitude -94.403449. Elm Bayou drains into the Gulf Intracoastal Waterway (GIWW). The channel alignment is not fixed as of yet but will travel in a relatively straight line south from beginning to end with approximately five road crossings needing to be installed to accommodate the proposed channel. The project will require coordination and cooperation between Chambers County, TBCD, the United States Army Core of Engineers (USACE), local landowners and local authorities alike for acquiring necessary permitting and drainage easements.

After approval of the erosion control plan, all necessary permits and drainage easements have been secured, the channel may begin construction. The design of the drainage channel is for it to have a depth of 10' with a top width of 100 LF with an additional 50' right-of-way (ROW) on both sides of the channel. Approximate excavation for the channel is 3,250,000 cubic yards of earth with the additional



# SPINDLETOP CHANNEL AND ROAD CROSSING IMPROVEMENTS PROJECT

- 1) FAIRVIEW ROAD CROSSING
  - 2) FM 1941 ROAD CROSSING
  - 3) ROAD CROSSING
  - 4) ROAD CROSSING
  - 5) FM 1985 ROAD CROSSING
- (SEE "SPINDLETOP BAYOU PROPOSED ROAD CROSSING" FOR DETAILS ON CROSSINGS)

See Typical Diversion Channel

Fairview Road Crossing

FM 1941 Road Crossing

Road Crossing

FM 1985 Road Crossing

Road Crossing

124

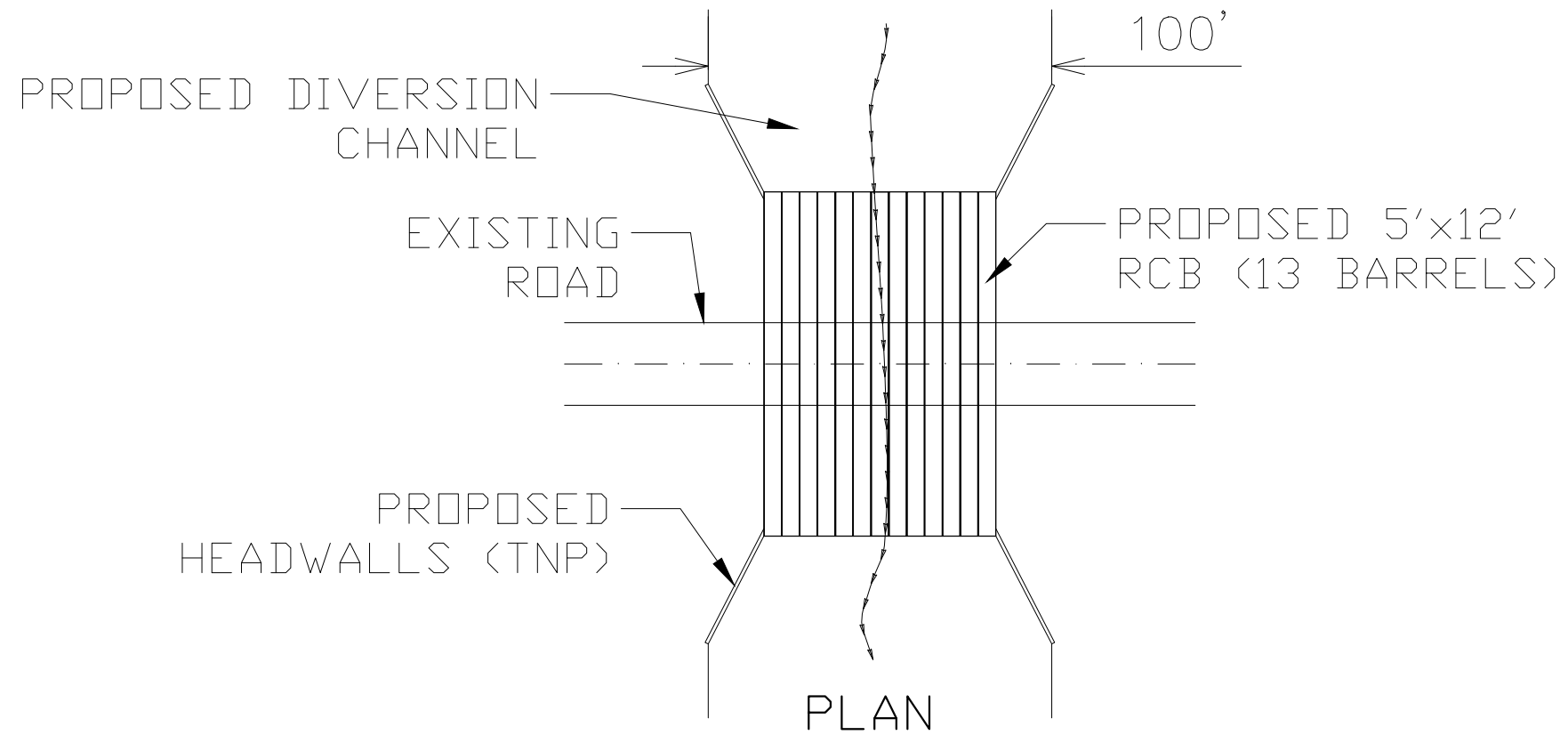
See Typical Diversion Channel



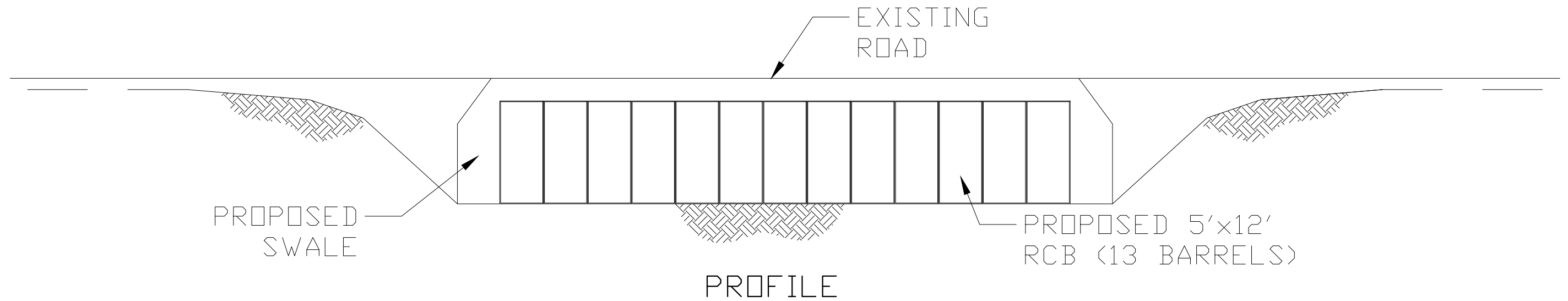
3 mi



# SPINDLETOP BAYOU PROPOSED ROAD CROSSING



**SCALE: NTS**



**LJA Engineering, Inc.**



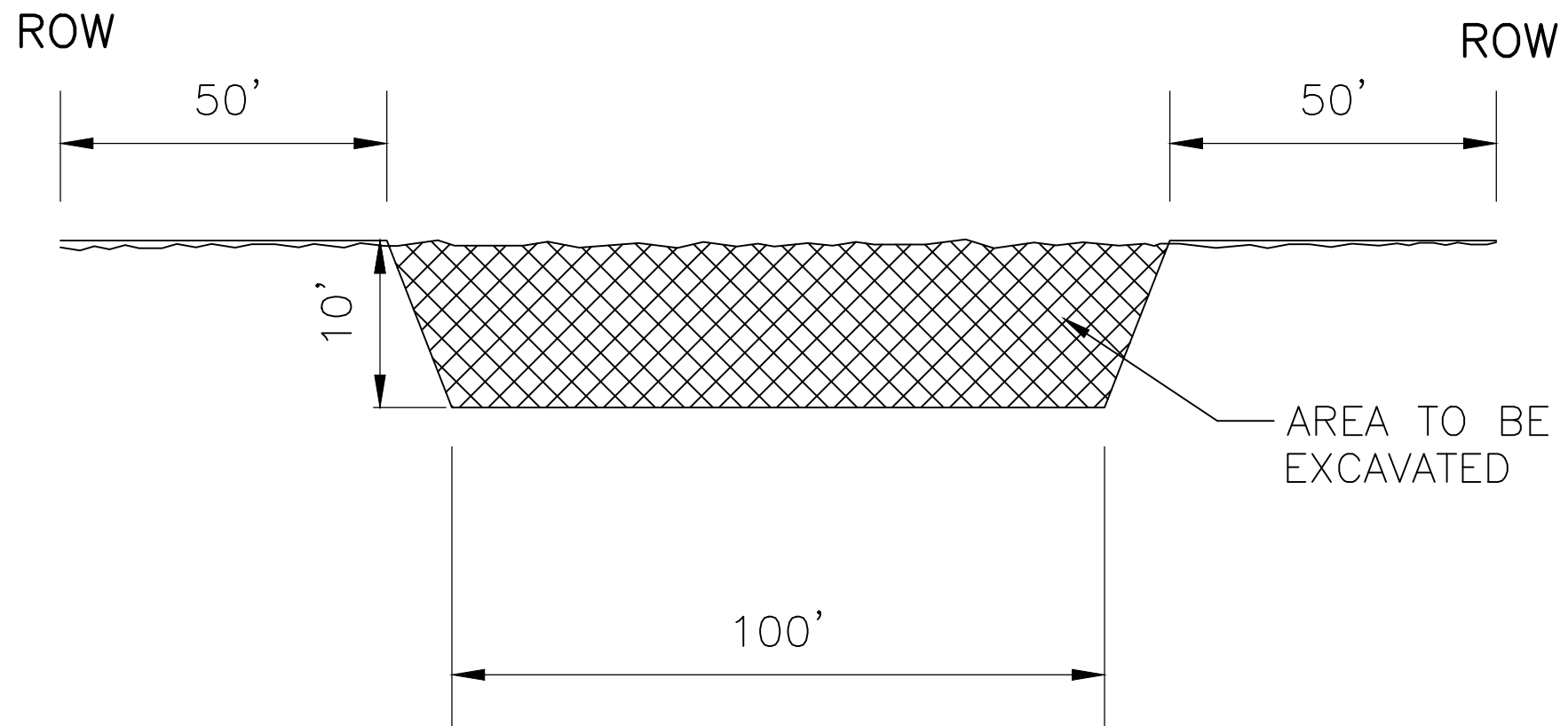
2615 Calder Avenue, Suite 500

Phone 409.833.3363

Fax 409.833.0317

FRN - F-1386

SPINDLETOP BAYOU  
PROPOSED DIVERSION CHANNEL



SCALE: NTS

**LJA Engineering, Inc.**



2615 Calder Avenue, Suite 500  
Beaumont, Texas 77702

Phone 409.833.3363  
Fax 409.833.0317  
FRN - F-1386

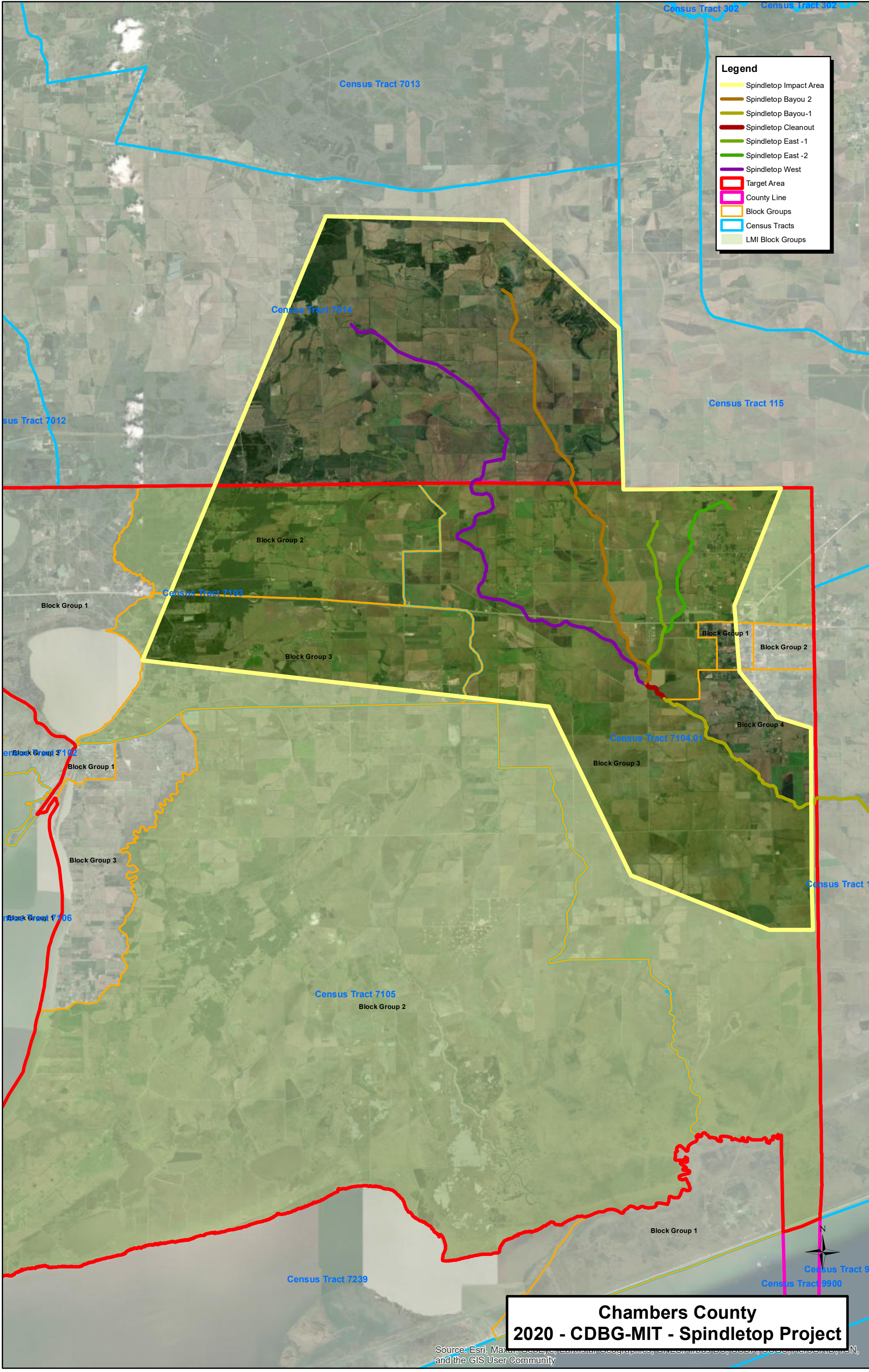




TRINITY BAY CONSERVATION DISTRICT  
SPINDLETOP DIVERSION CHANNEL  
CHANNEL AND ROAD CROSSING IMPROVEMENTS PROJECT SCHEDULE  
JUSTIFICATION

The construction of the Spindletop Diversion Channel is estimated to take approximately five years to complete from the time of starting engineering for the channel to the time of construction to be completed on the channel. The channel will be approximately 49,188 LF in length with a depth of 10' and a top width of 100 LF with an additional right-of-way (ROW) of 50' along both sides of the channel. Included within the project are approximately five road crossings that will need to be created to allow the steady flow of traffic to cross over the proposed channel. Engineering for such a project is expected to take 10 months in order for plans to be drawn up due to the length of the channel, the amount of land needed to be acquired for the project, time needed to develop the Storm Water Pollution Prevention Plan (SW3P), and to properly coordinate with the United States Army Core of Engineers (USACE). Permitting is expected to take a full year (12 months) in order to acquire all necessary permits and approvals for the channel and will begin at the third month of engineering which will coincide with the needed coordination with the USACE. Once all necessary permits and approvals have been acquired, the bidding process for the project will commence and need an estimated two months to acquire bids and vet the bidders. After a bidder who meets all the necessary requirements has been selected, construction of the project will commence on an agreed upon date after the bidding phase has ended. Construction of the project will last approximately three full years (36 months) which includes a grace period for rain-days, holidays, and for construction delays to completion.





**Legend**

- Spindletop Impact Area
- Spindletop Bayou 2
- Spindletop Bayou-1
- Spindletop Cleanout
- Spindletop East - 1
- Spindletop East - 2
- Spindletop West
- Target Area
- County Line
- Block Groups
- Census Tracts
- LMI Block Groups

**Chambers County  
2020 - CDBG-MIT - Spindletop Project**

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



<b>Spindletop Bayou Diverson Channel</b>												
<b>GEOID</b>	<b>geoname</b>	<b>Stusab</b>	<b>Countyname</b>	<b>State</b>	<b>County</b>	<b>Tract</b>	<b>Blckgrp</b>	<b>Low</b>	<b>Lowmod</b>	<b>Lowmodun</b>	<b>Lowmod_</b>	<b>f</b>
15000US480717103002	Block Group 2, Census Tract 7103, Chambers County, Texas	TX	Chambers County	48	71	710300	2	190	370	660	56.06%	
15000US480717103003	Block Group 3, Census Tract 7103, Chambers County, Texas	TX	Chambers County	48	71	710300	3	355	580	860	67.44%	
15000US480717104011	Block Group 1, Census Tract 7104.01, Chambers County, Texas	TX	Chambers County	48	71	710401	1	705	905	1,850	48.92%	
15000US480717104013	Block Group 3, Census Tract 7104.01, Chambers County, Texas	TX	Chambers County	48	71	710401	3	425	925	1,140	81.14%	
15000US480717104014	Block Group 4, Census Tract 7104.01, Chambers County, Texas	TX	Chambers County	48	71	710401	4	435	605	1,505	40.20%	
15000US482917014006	Block Group 6, Census Tract 7014, Liberty County, Texas	TX	Liberty County	48	291	701400	6	365	570	1,145	49.78%	
<b>Totals</b>								<b>2,475</b>	<b>3,955</b>	<b>7,160</b>	<b>55.24%</b>	



## C) Hurricane Harvey State Mitigation Competition Scoring Criteria

Chambers County - Spindletop Diversion

Question(s)	Criteria	Maximum Points	Self-Score
What is the project service area's Composite Disaster Index?	<b>County Composite Disaster Index</b>	<b>10 Points Possible</b>	<b>8.32</b>
	<i>Top 10%</i>	<i>10 Points</i>	
	<i>Top 25%</i>	<i>8 Points</i>	
	<i>Top 75%</i>	<i>5 Points</i>	
	<i>Bottom 25%</i>	<i>2 Points</i>	
	<i>Bottom 10%</i>	<i>0 Points</i>	
	<i>Prorated CDI rank</i>	<i>Calculated Points</i>	X
What is the project service area's Social Vulnerability Index (SoVI)?	<b>Social Vulnerability Index</b>	<b>10 Points Possible</b>	<b>5.80</b>
	<i>High</i>	<i>10 Points</i>	
	<i>Medium High</i>	<i>8 Points</i>	
	<i>Medium</i>	<i>5 Points</i>	
	<i>Medium Low</i>	<i>2 Points</i>	
	<i>Low</i>	<i>0 Points</i>	
	<i>Prorated SoVI rank</i>	<i>Calculated Points</i>	X
What is the project service area's Per Capita Market Value?	<b>Per Capita Market Value</b>	<b>10 Points Possible</b>	<b>2</b>
	<i>Less than \$40,000.00</i>	<i>10 Points</i>	
	<i>\$40,000.01 - \$65,000.00</i>	<i>8 Points</i>	
	<i>\$65,000.01 - \$100,000.00</i>	<i>5 Points</i>	
	<i>\$100,000.01 - \$250,000.00</i>	<i>2 Points</i>	X
	<i>\$250,000.01 or greater</i>	<i>0 Points</i>	
Does the project meet the low-to moderate-income (LMI) HUD National Objective?	<b>LMI National Objective</b>	<b>20 Points Possible</b>	<b>20</b>
	Project meets LMI national objective	<i>20 Points</i>	X
	Project does not meet LMI national objective	<i>0 Points</i>	
Is the project type identified in a Local Adopted Plan?	<b>Project type Identified in Local Adopted Plan</b>	<b>5 Points Possible</b>	<b>5</b>
	Project type identified in local adopted plan	<i>5 Points</i>	X
	Project type not identified	<i>0 Points</i>	
What is the applicant's management capacity?	<b>Management Capacity</b>	<b>15 Points Possible</b>	<b>11.25</b>
	No CDBG-DR contracts with GLO (management capacity assessment)	<i>Up to 15 Points</i>	



Question(s)	Criteria	Maximum Points	Self-Score
	Performance on GLO CDBG-DR contract(s), programs and/or projects	<i>Up to 15 Points</i>	X
What is the total project application amount per total project beneficiaries?	<b>Project Impact</b>	<b>25 Points Possible</b>	<b>6.59</b>
	Total project application amount per total project beneficiaries	<i>15 Points</i>	<b>6</b>
What is the percentage of project beneficiaries out of the total population within the applying jurisdiction(s)?	Percentage of total project beneficiaries out of the total population within a jurisdiction(s)	<i>10 Points</i>	<b>.59</b>
What percentage of project costs being requested are coming from non-CDBG funding sources?	<b>Leverage</b>	<b>5 Points Possible</b>	<b>5</b>
	Non-CDBG Leverage (a minimum value of 1% of the CDBG-MIT funds requested)	<i>5 Points</i>	X
What mitigation or resiliency measures have been taken by the applicant(s)?	<b>Mitigation/Resiliency Measures</b>	<b>5 Points Possible</b>	<b>5</b>
	Measures taken by the applicants(s)	<i>5 Points</i>	X
<b>Total Possible Points</b>		<b>105 Possible Points</b>	<b>68.96</b>
Tie: Breaker: Higher Poverty Rate			

\$34.8M

\*Applications that do not score a minimum of 65 points will only be considered after all applications scoring greater than this amount have been funded.