

MINUTES

FORT BEND COUNTY LEVEE IMPROVEMENT DISTRICT NO. 19

July 6, 2018

The Board of Directors (the "Board") of Fort Bend County Levee Improvement District No. 19 ("LID 19") met in special session, open to the public, on July 6, 2018, at The Muller Law Group, PLLC, 202 Century Square Boulevard, Sugar Land, Texas 77478, outside the boundaries of the District, and the roll was called of the members of the Board:

James Dean	President
Kalapi D. Sheth	Vice President
Radhika Iyer	Secretary
John Arndt	Assistant Secretary
Dean Cooper	Assistant Vice President

and all of the above were present except Director Iyer, thus constituting a quorum.

Also present at the meeting were: Darrell Groves, Rohit Sankholkar, and Girish Misra of Fort Bend County Levee Improvement District No. 15 ("LID 15"); Chris Hill of 180 Messaging, Inc.; Jeff Perry and Ross Awtry of Levee Management Services, LLC; Chad Hablinski of Costello, Inc. ("Costello"); Pamela Lightbody of AVANTA Services; and Nancy Carter and Tara Miles of The Muller Law Group, PLLC ("MLG").

REGIONAL DRAINAGE PROJECTS AND IMPROVEMENTS

STEEP BANK CREEK PUMP STATION

Mr. Perry reported that all temporary pumps had been delivered by Barco Pumps and that LMS tested their engines upon delivery. He confirmed that LMS has contracts with multiple fuel companies to deliver fuel cells during usage of the pumps.

Ms. Carter distributed and reviewed a term sheet, a copy of which is attached, for cost sharing options for the Steep Bank Creek temporary pumps, noting that the Board of Directors of LID 15 and LID 19 (the "Boards") previously discussed their intention to proceed with Option 2 on the term sheet, reflecting a pro rata split of the minimum shortfall of capacity and all remaining discretionary capacity to be owned by LID 19. Discussion ensued regarding cost sharing options, and the Boards directed MLG to draft a cost sharing agreement reflecting Option 2.

Ms. Carter distributed and reviewed a Service Area Map for LID 15 and LID 19 (the "Districts"), a copy of which is attached, noting that the acreage serviced by the Districts has been updated to reflect annexations and other adjustments recommended by Costello. She recommended updating the Maintenance Agreement for Regional Pump Station (the "Agreement") between the Districts to reflect i) the updated cost share percentages based on such map and ii) additional recommended changes to address emergency operating needs. Mr. Hablinski noted that the pro-rata cost share difference is approximately 0.9%, with LID 19 at 44.7% and LID 15 at 55.3%. After discussion, the Boards directed MLG to draft an Amended and Restated Agreement for consideration at a future meeting.

EMERGENCY ACTION PLAN

Mr. Hablinski reviewed a revised Joint Emergency Action Plan (the “Plan”) of the Districts. Ms. Carter encouraged the Boards to review and comment on the Plan prior to the next regular Board meetings.

Discussion ensued regarding alert levels and evacuation protocols addressed in the Plan. Director Arndt recommending using the Army Corps of Engineers or Fort Bend County Office of Emergency Management standards for alert levels and protocols for communicating to residents.

Following review and discussion, the Boards requested that Costello create separate Emergency Action Plans for the Districts and to make revisions discussed by the Board, including clearer provisions related to evacuation recommendations and procedures for review.

COMMUNICATION MATTERS

Ms. Carter reviewed the communications protocols for the Districts. The Boards expressed their intent to continue separate communications for each district, in order to accurately report to their respective residents.

Ms. Carter reported on the Districts’ recent community meetings.

EMERGENCY INTERCONNECTS

The Boards discussed the proposed Emergency Interconnects between Snake Slough and Steep Bank Creek and between Steep Bank Creek and Alcorn Bayou. Mr. Hablinski discussed how the interconnects would function to provide drainage relief between the districts and reviewed maps of the proposed drainage projects in each district, copies of which are attached. Both Boards concurred to consider participation at a future meeting. No action was taken.

LOST CREEK PUMP STATION

Discussion ensued regarding participation in and financing of the proposed Lost Creek Pump Station. The Board discussed possible phasing of the project and different ways to allocate costs among the entities within the Steep Bank Creek watershed. Director Green stated that he has met with staff from Representative Pete Olson’s office to discuss possible federal funding assistance with the project. Both Boards concurred to continue discussions on participations in the project at their respective next meeting. Director Green requested LID 15’s expedited consideration of participation to allow LID 19 to appropriately communicate to its residents and prepare financing options. No action was taken.

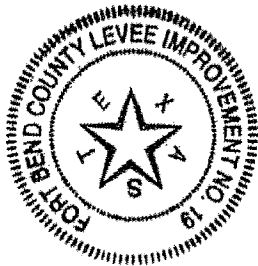
CONVENE IN EXECUTIVE SESSION PURSUANT TO SECTION 551.072, TEXAS GOVERNMENT CODE, TO CONSULT WITH ATTORNEY ABOUT PENDING OR CONTEMPLATED LITIGATION

The Board convened in Executive Session, and Director Green announced the date and time to be 7:00 p.m. on July 6, 2018.

RECONVENE IN OPEN SESSION

The Board reconvened in regular session, and Director Green announced the date and time to be 7:42 p.m. on July 6, 2018. The Board directed Ms. Carter to request Costello to provide plans and specifications for Steep Bank Creek pump station modifications at no additional expense to the District.

There being no further business to come before the Board, the Board concurred to adjourn the meeting.



A handwritten signature in black ink, appearing to be "John", written over a horizontal line.

Secretary, Board of Directors

LIST OF ATTACHMENTS TO MINUTES

Minutes
Page

term sheet for cost share of temporary pumps1
Service Area Map for LID 15 and LID 191
maps of the proposed drainage projects2

Steep Bank Creek Temporary Pump - Cost Sharing Analysis (June 2018)

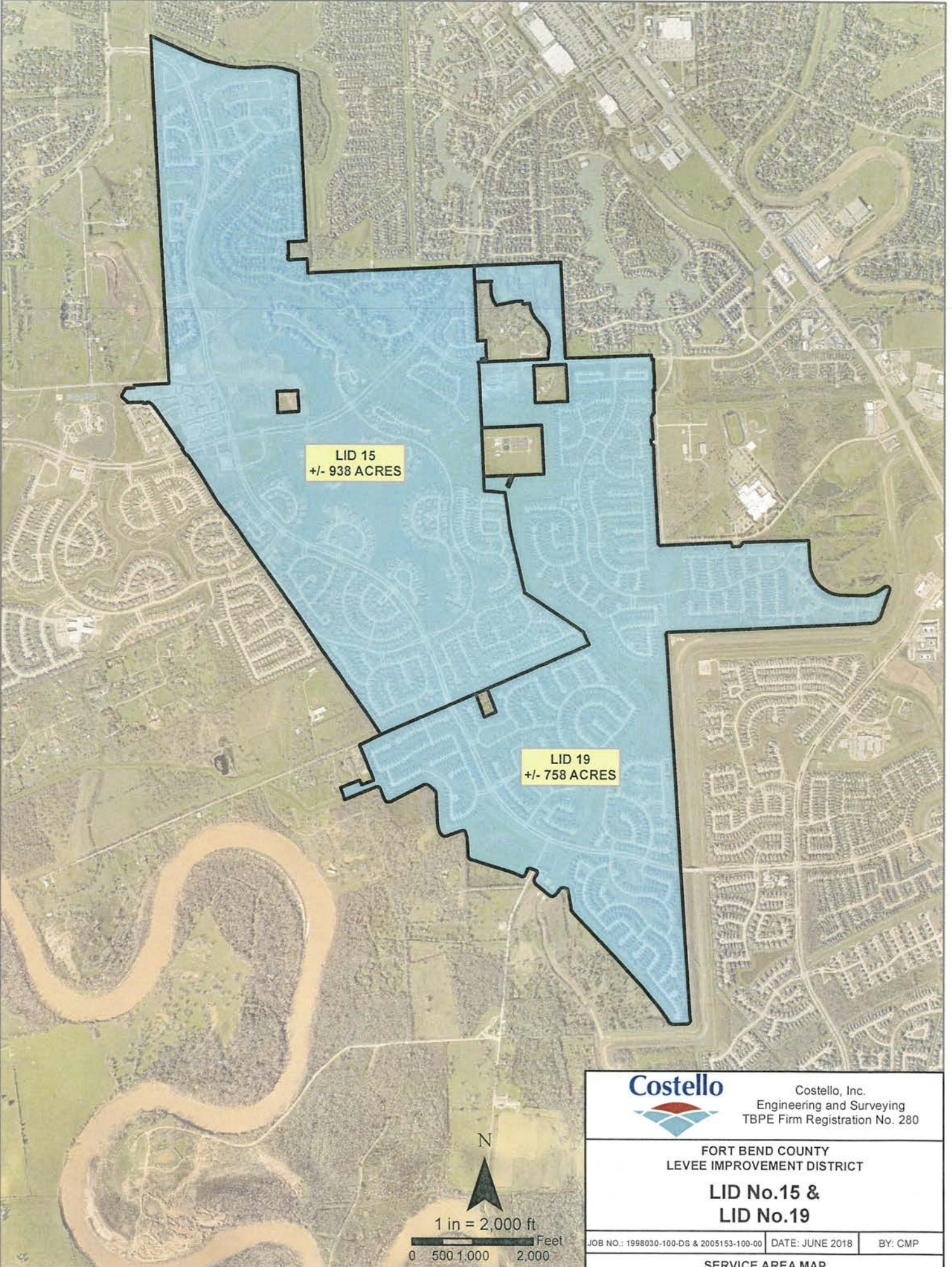
Current Pump Station			
	Existing Capacity (gpm)	Aptim Design Min. (gpm)	Shortfall (gpm)
Design	60,000	100,000	(40,000)
Backup Pump	20,000	20,000	-
Total	80,000	120,000	(40,000)

Temporary Pumps - Capacity			
	Capacity per pump type	Quantity Purchased	Total Capacity
Type A Pump	5,000	5	25,000
Type B Pump	8,000	7	56,000
Total			81,000
Shortfall Capacity (gpm)		40,000	
Discretionary Capacity (gpm)		41,000	
Total			81,000

Temporary Pumps - Cost Information	
Total Pump Purchase Price (including add'l equipment)	\$ 1,265,763.19
Cost per gpm	\$ 15.63

Cost Share Option 1			
LIDs 15 and 19 Share All Costs on Pro Rata Basis. Shortfall capacity must stay at SBC site. For discretionary capacity, each LID (subject to engineer and operator concurrence) may use its pro rata share offsite if needed.			
Pro Rata	LID 19	45.6%	\$ 577,188.01
	LID 15	54.4%	\$ 688,575.18
Total			\$ 1,265,763.19
Maximum Out of SBC (gpm) (Pro Rata Discretionary Capacity)			
	LID 19	45.6%	18,696
	LID 15	54.4%	22,304
Total			41,000

Cost Share Option 2			
LID 15 and 19 share only Minimum Shortfall on Pro Rata basis. All remaining discretionary capacity is owned by LID 19.			
Shortfall Capacity			40,000
Cost for Shortfall Capacity (40,000 x \$15.63/gpm)			\$ 625,068.24
Pro Rata	LID 19	45.6%	\$ 285,031.12
	LID 15	54.4%	\$ 340,037.12
Total			\$ 625,068.24
Cost for Discretionary Capacity			\$ 640,694.95
Total Contribution			
	LID 19		\$ 925,726.07
	LID 15		\$ 340,037.12
			\$ 1,265,763.19

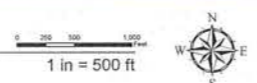


		Costello, Inc. Engineering and Surveying TBPE Firm Registration No. 280
FORT BEND COUNTY LEEVE IMPROVEMENT DISTRICT		
LID No.15 & LID No.19		
JOB NO.: 1998030-100-DS & 2005153-100-00	DATE: JUNE 2018	BY: CMP
SERVICE AREA MAP		



Project 1:	Staff Gauges at District Outfalls
Scope/Benefit:	Allow for direct measurement of water levels inside and outside the levee and compare those elevations to Mean Sea Level, the River Gauge at Richmond and water depth.
Total Cost:	\$20,500
FBCLID 19 Share of Cost:	\$4,500 (Steep Bank Creek Outfall is shared)
FBCLID 15 Share of Cost:	\$16,000
Bas of Cost Share:	The only outfall staff gauge that is shared is the one located at Steep Bank Creek. The other staff gauges are 100% LID 15. The Steep Bank Creek staff gauge is shared based on the proportion of the District in the watershed.
Estimated Schedule:	The staff gauges will be installed in the within the first two weeks of June.
Status of Project:	Staff gauges have been ordered and will be installed once they arrive.
Project 2:	Pipeline Drainage Ditch (East of Prestwick)
Scope/Benefit:	Provides a drainage path for water that could flow over University Boulevard to be conveyed to the detention pond system between Prestwick and Providence
Construction Cost:	\$408,610
FBCLID 15 Share of Cost:	100% (\$408,610)
Status of Project:	Project is complete except for establishing grass.
Project 3:	Proposed Snake Slough Pump Station (aka Hagerson Road Pump Station)
Scope/Benefit:	Provides a storm water pump station for the Snake Slough watershed. Oversizing of this pump station is proposed to provide additional capacity to the Snake Slough watershed if necessary and provide redundancy to both the Snake Slough pump station and the Steep Bank Creek pump station should an event cripple one of those facilities. The pump station would be sized for 30,000 gallons per minute without FBCLID 19 participation, but with their participation, it will be sized for 50,000 gallons per minute.
Total Cost:	\$2,700,000
FBCLID 19 Share of Cost:	40% (\$1,080,000)
FBCLID 15 Share of Cost:	60% (\$1,620,000)
Bas of Cost Share:	The cost share is based on the oversizing of the pump station available for FBCLID 19 flows. The outfall for the pump station is an existing 5'x5' box culvert under the levee. This box culvert is the limiting factor for the pump station size.
Estimated Schedule:	Construction will take approximately 9 months to complete once started and should be complete summer 2018.
Status of Project:	Engineering design is nearing completion for City/County review and approval.
Project 4:	Watershed Interconnect on University Boulevard
Scope/Benefit:	Connects the Steep Bank Creek watershed to the Alcorn Bayou watershed with an underground storm sewer line that is normally valved closed. This pipe can provide drainage relief to either watershed in the event that one system has surplus capacity. It also provides redundancy to the Alcorn Bayou pump station and the Steep Bank Creek pump station should an event cripple one of those facilities.
Total Cost:	\$590,000
FBCLID 19 Share of Cost:	50% (\$295,000)
FBCLID 15 Share of Cost:	50% (\$295,000)
Bas of Cost Share:	The facility provides equal benefit to each of the watersheds and associated pump stations.
Estimated Schedule:	Construction will take approximately 60 days to complete once started and should be complete fall 2018.
Status of Project:	Construction plans are under review by City/County.
Project 5:	Proposed Watershed Interconnect on Hagerson Road
Scope/Benefit:	Connects the Steep Bank Creek watershed to the Snake Slough watershed with an underground storm sewer line that is normally valved closed. This pipe can provide drainage relief to either watershed in the event that one system has surplus capacity. It also provides redundancy to the Snake Slough pump station and the Steep Bank Creek pump station should an event cripple one of those facilities.
Total Cost:	\$1,230,000
FBCLID 19 Share of Cost:	38% (\$467,000)
FBCLID 15 Share of Cost:	38% (\$467,000)
FBCLID 149 Share of Cost:	24% (\$296,000)
Bas of Cost Share:	The storm sewer located along Hagerson Road would have been built to service that road by FBCLID 149. The associated oversizing of that storm sewer line and its extension is shared equally by FBCLID 19 and FBCLID 15 as it provides equal benefit to the associated pump stations and watersheds.
Estimated Schedule:	Construction will take approximately 6 months to complete once started and should be complete early in 2019.
Status of Project:	Engineering design is nearing completion for City/County review and approval.
Project 6:	Proposed Watershed Interconnect South of Auburn Manor
Scope/Benefit:	Connects the Alcorn Bayou watershed to the Snake Slough watershed with an underground storm sewer line that is normally valved closed. This pipe can provide drainage relief to either watershed in the event that one system has surplus capacity. It also provides redundancy to the Snake Slough pump station and the Alcorn Bayou pump station should an event cripple one of these facilities.
Total Cost:	\$75,000
FBCLID 15 Share of Cost:	100% (\$75,000)
Estimated Schedule:	Construction will occur during the development of the Hagerson Road tract. It is anticipated that the connection will be constructed in phase 2 of the development (2019).
Status of Project:	Project is in planning phase.
Project 7:	Future Lost Creek Pump Station
Scope/Benefit:	Increases the overall pumping capacity within the Steep Bank Creek watershed to remove 10" of rainfall from the entire watershed on a daily basis.
Total Cost:	\$14,500,000
FBCLID 19 Share of Cost:	27.4% (\$3,973,000)
FBCLID 15 Share of Cost:	34.1% (\$4,945,000)
FBCLID 115 Share of Cost:	12.0% (\$1,740,000)
FBCLID 2 Share of Cost:	22.4% (\$3,248,000)
FBCLID 2 Share of Cost:	4.1% (\$595,000)
Bas of Cost Share:	Pro-rated based on the area of the District located within the Steep Bank Creek watershed.
Estimated Schedule:	TBD (2 years to complete construction once design is started)
Status of Project:	Planning phase and working on getting commitments from other Districts.
Project 8:	Future All Weather Surface on Levee Top
Scope/Benefit:	Provides the District's consultants a path, regardless of weather, to monitor and perform inspections during river events. Additionally, it provides the District's operator to mobilize equipment around the levee and outfalls in the event of street flooding.
Total Cost:	\$1,300,000
FBCLID 19 Share of Cost:	100% (\$1,300,000)
Estimated Schedule:	TBD (likely to be completed in phases once authorized and funded)
Status of Project:	Planning phase.
Project 9:	Future Emergency Operations Center During River Events (Located at Alcorn Bayou Pump Station)
Scope/Benefit:	Provides the District's consultants a central location adjacent to the District to monitor the pump stations, monitor river levels, and provide inspections from during a river event. It also provides a place for rest and a shower for employees who may be working extreme hours during a river event (they may be unable to go home during the event). This would be located at the Alcorn Bayou pump station site due to its close proximity to water and sewer facilities.
Total Cost:	\$600,000
FBCLID 19 Share of Cost:	50% (\$300,000)
FBCLID 15 Share of Cost:	50% (\$300,000)
Estimated Schedule:	TBD (Not yet authorized)
Status of Project:	Planning phase.

FORT BEND COUNTY LEVEE IMPROVEMENT DISTRICT NO. 15 DRAINAGE PROJECTS



- Legend**
- Bank House
 - River Gauge
 - Pump Station
 - Interconnect
 - Pipe
 - Fort Bend County LID No. 15 Levee
 - Parcels
 - Fort Bend County LID No. 15 Area

Costello, Inc.
 Engineering and Surveying
 Texas Board of Professional Engineers Firm Registration No. 240

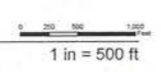
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Project 1:	Mobile Pumps
Scope/Benefit:	Purchase and deployment of 80,000 gallons per minute of mobile pumps at the Steep Bank Creek pump station to provide double the pumping capacity of the existing pumps
Total Cost:	\$1,200,000
FBCLD 19 Share of Cost:	40% (\$480,000)
FBCLD 15 Share of Cost:	55% (\$660,000)
Basis of Cost Share:	Proportioned based on the area of FBCLD 15 and FBCLD 19 in the Steep Bank Creek watershed.
Estimated Schedule:	All pumps will be on site by the third week of June.
Status of Project:	Pumps have been purchased and 5 of the 12 pumps are on site. The other 7 will be delivered the third week of June.
Project 2:	Staff Gauges at Steep Bank Creek Outlet
Scope/Benefit:	Allow for direct measurement of water levels inside and outside the levee and compare those elevations to Mean Sea Level, the River Gauge at Richmond and water \$10,000
Total Cost:	\$10,000
FBCLD 19 Share of Cost:	45% (\$4,500)
FBCLD 15 Share of Cost:	55% (\$5,500)
Basis of Cost Share:	Proportioned based on the area of FBCLD 15 and FBCLD 19 in the Steep Bank Creek watershed.
Estimated Schedule:	The staff gauges will be installed in the within the first two weeks of June.
Status of Project:	Staff gauges have been ordered and will be installed once they arrive.
Project 3:	Watershed Interconnect on University Boulevard
Scope/Benefit:	Connects the Steep Bank Creek watershed to the Alcorn Bayou watershed with an underground storm sewer line that is normally closed. This pipe can provide drainage relief to either watershed in the event that one system has surplus capacity. It also provides redundancy to the Alcorn Bayou pump station and the Steep Bank Creek.
Total Cost:	\$190,000
FBCLD 19 Share of Cost:	50% (\$95,000)
FBCLD 15 Share of Cost:	50% (\$95,000)
Basis of Cost Share:	The facility provides equal benefit to each of the watersheds and associated pump stations.
Estimated Schedule:	Construction will take approximately 90 days to complete once started and should be complete fall 2018.
Status of Project:	Engineering design is nearing completion for City/County review and approval.
Project 4:	Proposed Snake Slough Pump Station (aka Higginson Road Pump Station)
Scope/Benefit:	Provides a storm water pump station for the Snake Slough watershed. Oversizing of this pump station is proposed to provide additional capacity to the Snake Slough watershed if necessary and provide redundancy to both the Snake Slough pump station and the Steep Bank Creek pump station should an event exceed one of those facilities. The pump station would be sized for 30,000 gallons per minute without FBCLD 19
Total Cost:	\$2,700,000
FBCLD 19 Share of Cost:	40% (\$1,080,000)
FBCLD 15 Share of Cost:	60% (\$1,620,000)
Basis of Cost Share:	The cost share is based on the oversizing of the pump station available for FBCLD 19 flows. The outfall for the pump station is an existing 14\"/>

**FORT BEND COUNTY LEVEE IMPROVEMENT
DISTRICT NO. 19
DRAINAGE PROJECTS**



- Legend**
- Bunk House
 - River Gauge
 - Pump Station
 - Pipe
 - Fort Bend County LID No. 19 Levee
 - Fort Bend County LID No. 19 Area

Costello, Inc.
Engineering and Surveying
Texas Board of Professional Engineers Firm Registration No. 292

DATE: JUNE 2018 JOB NO. 2005153-100 BY CMP

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