Appendix F

Construction Change Orders RFI's and Work Directives

CHANGE ORDER NO. 1

OWNER:	Coastal Protection and Restoration Authority (CPRA)
CONTRACTOR	Great Lakes Dredge & Dock, LLC (GLDD)
PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)

The following changes are hereby made to the Contract Documents:

- 1. Decrease in Contract Quantity due for Bid Item No. 8, "Earthen Containment Dikes (TS-300)." Due to realignment of the earthen containment dike near Bay Champagne as shown on the revised Plans, the total length of earthen containment dike shall be reduced from 48,138 to 44,691 linear feet.
- 2. Decrease in Contract Quantity due for Bid Item No. 10, "Hydraulic Dredging and Marsh Creation (TS-400)." Due to realignment of the earthen containment dike near Bay Champagne as shown on the revised Plans, the total quantity of marsh fill shall be reduced from 2,624,810 to 2,470,200 Cubic Yards.

Change in Contract P	rice	Change in Contract Time		
Original Contract Price	\$31,590,506.00	Original Contract Time (calendar days)	548	
Net Increase /(Decrease) from		Net Increase /Decrease from previous		
previous Change Orders	\$0	Change Orders (days)	0	
Contract Price prior to this Change		Contract Time prior to this Change Order		
Order	\$ 31,590,506.00	(calendar days)	548	
Net Increase/(Decrease) of this		Net Increase (Decrease) of this Change		
Change Order	(\$ 1,502,334.00)	Order (days)	0	
		Contract Time with this Change Order		
Contract Price with this Change Order	\$ 30,088,172.00	(calendar days)	548	

SUMMARY OF CHANGES TO CONTRACT

This change order does not release the Contractor from any of his contract obligations.

RECOMMENDED:

RECOMMENDED:

ACCEPTED:

By: Shan Iltry Engineer, CPRA

By: <u>Ren Bernett</u> By: <u>Project Manager, CPRA</u>

UNCO

Contractor, GLDD

Date: 2 19 2026

Date: 2-19-20 Date: 24-FEB-2020

CAMINADA BACK BARRIER MARSH CREATION PROJECT (BA-0171)

ITEM	DESCRIPTION	UNIT	ORIGINAL	REDUCED	UNIT	REDUCED
NO			OLIANTITA		DDICD	CONTRACT
NO.			QUANTITY	QUANTITY	PRICE	COST
	Earthen Containment	Linear				
8	Dikes	Foot	48,138	4,047	\$142.00	\$574,674.00
10	Hydraulic Dredging and Marsh Creation	Cubic Yard	2,624,810	154,610	\$6.00	\$927,660.00
Net De	crease of this Change Ord	ler				\$1,502,334.00

SUMMARY OF CHANGE ORDER NO: 1

Justification:

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1,

• The reduction in earthen containment dike and marsh fill is necessary to award the project given the available funding.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	2
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price and to add Bid Item No. 11, "No-Work Zone (TS-511)" to restrict work or access of the Contractor within the No-Work Zone located within the Project limits but outside of the limits of the Marsh Creation Area. The perimeter of the No-Work Zone shall be protected by the installation of sand fencing within the marsh and oil containment boom in the water. The limits of the No-Work Zone shall be as designated on the revised plan sheet no. 17 of 53.

The following changes are hereby made to the Contract Documents:

- 1) Increase in Contract Price due to the addition of the lump sum Bid Item No. 11, "No-Work Zone (TS-511)." The No-Work Zone is located to the north of the earthen containment dike associated with increment 3 starting near stations 302+00 as designated on the revised plan sheet.
- 2) No additional contract time is being allotted for this item.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) Sheet 17 of 53 (Rev. A) dated May 8, 2020

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

2) TS-511 No-Work Zone

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	2
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER	2000487379

SUMMARY OF CHANGES TO CONTRACT

Change in Contract I	Change in Contract Tim	e	
Original Contract Price	\$31,590,506.00	Original Contract Time	
	\$51,390,300.00	(calendar days)	548
Not Ingrange ((Decrease) from		Net Increase / (Decrease)	
Net Increase / (Decrease) from previous Change Orders	(\$ 1,502,334.00)	from previous Change	
previous Change Orders		Orders (days)	0
Contract Drice price to this		Contract Time prior to this	
Contract Price prior to this	\$30,088,172.00	Change Order (calendar	
Change Order		days)	548
Net Increase / (Decrease) of this	\$ 63,900.00	Net Increase / (Decrease) of	
Change Order	\$ 03,900.00	this Change Order (days)	0
Contract Price with this Change		Contract Time with this	
Contract Price with this Change	\$30,152,172.00	Change Order (calendar	
Order		days)	548

RECOMMENDED:

RECOMMENDED:

ACCEPTED:

CPRA Engineer

By: Sigma Consulting Group

Date: 7/15/2026

Date: July 15, 2020

Date: July 14, 2020

CHANGE ORDER NO: 2	
OWNER: Co	astal Protection & Restoration Authority (CPRA)
CONTRACTOR: Gr	eat Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO: 20	00487379

Project N	ame: Caminada Back Barrier Marsh Creation	Project (BA-0	171)												
Contractor: Great Lakes Dredge & Dock, LLC (GLDD)				Change Order 1			Change Order 2			r 2	Revised Contract					
PO #: 20	000487379															
BID ITEMS:	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00						1 ····			1	\$3,000,000.00	\$3,000,000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	3	LS	\$4,500,000.00	\$4,500,000.00									1	\$4,500,000.00	\$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000,00	1								1	\$600,000.00	\$600,000.00
4	Surveys (TS-210)	1	L\$	\$285,000.00	\$285,000.00									1	\$285,000.00	\$285,000.00
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00									226	\$800.00	\$180,800.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00			112-12-1						50	\$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00						1			17	\$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF.	\$142.00	\$6,835,596.00	(4 047)	ᆙ	\$142.00	(\$574 674 00)					44,091	\$142.00	\$6,260,922.00
ġ	Priority Earthen Dike (TS-301)	1	L\$	\$350,000.00	\$350,000,00									1	\$350,000.00	\$350,000.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2 624 810	CY	\$6.00	\$15,748,860.00	(154,610)	ĊY	\$6.00	(\$927.660.00)	-				2,470,200	\$6.00	\$14,821,200.00
11	No Work Zone (TS-511)	-								1	LS	\$63,900.00	\$63,900.00	1	\$63,900.00	\$63,900.00
																_
					-											
					-											
	TOTAL				\$31,590,506.00				(51,502,334 00)				\$63,900-00			\$30,152,072.00

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	2
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379



PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	2
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

TS-511 NO-WORK ZONE

511.1 <u>Scope</u>: No work or access is permitted by the Contractor within the No-Work Zone shown on the Plans. The perimeter of the No-Work Zone shall be protected by the installation of sand fencing within the marsh and oil containment boom in the water.

511.2 Materials:

- 511.2.1 <u>Oil Boom</u>: The oil containment boom (Boom) shall consist of PVC fabric that is yellow or orange in color. The boom shall also include a 3/8 inch galvanized chain ballast embedded into the bottom, steel cable embedded into the top, and a flexible foam float log embedded above the skirt. The boom shall be fitted with brass grommets, quick latches or slide couplers for deployment. The boom shall be fastened at all points of intersection to #4 steel rebar that is embedded into the ground to a depth sufficient to maintain stability. The boom shall have the following minimum dimensions:
 - 511.2.1.1 Overall height = 6 inches;
 - 511.2.1.2 Float freeboard = 2 inches;
 - 511.2.1.3 Skirt draft = 4 inches;
 - 511.2.1.4 Length. = 695 linear feet.
- 511.2.2 <u>Sand Fence</u>: The sand fence shall consist of the same components as standard snow fence. Slats shall be weather treated aspen or spruce being three-eights (3/8) inch thick, one and one-half (1 1/2) inch wide, and four (4) feet long. Fence wire shall be 13 gauge galvanized steel that affixes the slats in place. Each section of the sand fencing shall be fastened at the top, middle, and bottom to #4 rebar that is embedded into the ground to a depth sufficient to maintain stability. The wire shall be corrosion resistant and affixed with no less than three (3) tie clips around the rebar. The total length of sand fence is one-thousand, one hundred (1,100) linear feet.
- 511.2.3 <u>Installation</u>: The sand fencing and booms shall be installed during the preconstruction survey at the coordinates of the alignment shown on the Plans. Installation shall be performed in a manner that causes no impacts to the No-Work Zone. The coordinates of all rebar shall be surveyed after installation.
- 511.2.4 <u>Removal</u>: All components of the sand fencing and booms shall be removed after the Work is Accepted. The Engineer may require the Contractor to temporarily remove and re-install the sand fencing and booms in preparation for major storms.
- 511.2.5 <u>Measurement and Payment</u>: Payment for the No-Work Zone shall be included in the Contract Lump Sum price for Bid Item No. 11, "No-Work Zone (TS-511)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	3
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to decrease the Contract Price and to remove Bid Item No. 09, "Priority Earthen Dikes (TS-301)". Dike Coordinate Point Number #13 as shown on the table on plan sheet 5 of 53 from Change Order #01 is deleted to remove the "V" shape in the dike (Reference RFI #08). Additional quantity of Bid Item No. 08 Earthen Containment Dikes (TS-300) is added to replace the priority dike section here. Also, there are several changes to the dike alignment due to constructability that reduces the linear footage of dike construction (Reference RFI #11, 20 and 21), however, overall Change Order #03 increases the linear footage from 44,091 ln ft to 44,442 ln ft. The revised dike alignment as well as the removal of the priority dike is shown on the marked plan sheets no. 2, 3, 5, 6, 7, 10, 16, and 17 of 53.

The following changes are hereby made to the Contract Documents:

- Increase in Contract Price due to the addition of 351 linear feet of Bid Item No. 08, "Earthen Containment Dikes (TS-300)." This change is due to adjustments to the realignment in the field for the purpose of constructability as well as replacing the priority dike section with this bid item.
- 2) Deletion of Bid Item No. 09, "Priority Earthen Dike (TS-301).

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) Sheet 2, 3, 5, 6, 7, 10, 16, and 17 of 53

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) None

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	3
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

SUMMARY OF CHANGES TO CONTRACT										
Change in Contract l	Price	Change in Contract Time								
Original Contract Price	\$31,590,506.00	Original Contract Time (calendar days)	548							
Net Increase / (Decrease) from previous Change Orders	(Decrease) from (\$ 1,438,434.00) Net Increase from previou Orders (\$ 1,438,434.00)		0							
Contract Price prior to this Change Order	\$30,152,072.00	Contract Time prior to this Change Order (calendar days)	548							
Net Increase / (Decrease) of this Change Order	(\$ 300,158.00)	Net Increase / (Decrease) of this Change Order (days)	0							
Contract Price with this Change Order	\$29,851,914.00	Contract Time with this Change Order (calendar days)	548							

SUMMARY OF CHANGES TO CONTRACT

ACCEPTED: Distance by Christ Am DN C-US Christ Ameika By:______ Contractor, GLDD

RECOMMENDED: By: Ala Heli By: Sost Regard CPRA Engineer Sigma Consulting Group

Date: December 10, 2020

Date: 12/11/2020

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	3
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project N	ame: Caminada Back Barrier Marsh Creation Pi	roject (BA	-0171	1)																
Contracto	Contractor: Great Lakes Dredge & Dock, LLC (GLDD)			Change Order 1			Change Order 2			Change Order 3			er 3	Re	vised Cor	ntract				
PO #: 20	00487379																			
BID ITEMS:	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00													1	\$3,000,000.00	\$3,000,000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00													1	\$4,500,000.00	\$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00													1	\$600,000.00	\$600,000.00
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00													1	\$285,000.00	\$285,000.00
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00													226	\$800.00	\$180,800.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00													50	\$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00													17	\$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)					351	LF	\$142.00	\$49,842.00	44,442	\$142.00	\$6,310,764.00
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00									(1)	LS	\$350,000.00	(\$350,000.00)	-	\$350,000.00	\$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00)									2,470,200	\$6.00	\$14,821,200.00
11	No Work Zone (TS-511)									1	LS	\$63,900.00	\$63,900.00					1	\$63,900.00	\$63,900.00
	TOTAL				\$31,590,506.00				(\$1,502,334.00)				\$63,900.00				(\$300,158.00)			\$29,851,914.00

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	3
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Revised Plan Sheets

GENERAL NOTES:

- THE CONTRACTOR SHALL NOT, AT ANY TIME, TREAD ON EXISTING MARSH OR VEGETATED WETLANDS UNLESS OTHERWISE 1. DIRECTED BY THE ENGINEER.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT SITE. THE ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE CONTRACTOR'S LOCATION DURING CONSTRUCTION.
- 3. PLANS AND SPECIFICATIONS ARE COMPLEMENTARY; WHAT IS REQUIRED BY ONE IS BINDING AS IF REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF, OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS, WILL BE ISSUED BY THE ENGINEER.
- 4. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
- 5. THE MARSH CREATION AREA, BORROW AREAS, AND CONTAINMENT DIKES MAY BE REVISED BY THE ENGINEER THROUGHOUT THE WORK TO REFLECT CHANGES IN FIELD CONDITIONS.
- 6. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY OF THE DREDGE PIPELINE CORRIDOR, BORROW AREAS, AND MARSH CREATION AREA PRIOR TO EXCAVATION. DRAWINGS SHOWING THE TRACK LINES, ANY MAGNETOMETER HITS, COORDINATES, AMPLITUDE, SIGNATURE TYPE, AND SIGNATURE WIDTH OF ALL MAGNETOMETER HITS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO EXCAVATION.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL HYDRAULICALLY DREDGED MATERIAL WITHIN THE BOUNDARIES 7 OF THE MARSH CREATION AREA.
- 8. BACKGROUND IMAGERY WAS TAKEN IN 2016.
- 9. THE PIPELINE AND UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. PIPELINES LOCATED WITHIN 150' OF THE WORK SHALL BE MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUOYS DURING CONSTRUCTION AND HAVE ADEQUATE NAVIGATIONAL EQUIPMENT ON THE DREDGE TO AVOID DREDGING IN RESTRICTED AREAS.

NOTIFICATIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE FOLLOWING PIPELINE AND UTILITY OPERATORS AT LEAST 1. FIVE (5) WORKING DAYS IN ADVANCE OF THE WORK. CALL LOUISIANA ONE CALL AT 1-800-272-3020 5 DAYS PRIOR TO ANY EXCAVATION AND/OR DREDGING TO LOCATE ALL PIPELINES OR UTILITIES.

CHEVRON USA, INC. CONTACT: TODD DORE PHONE: (985) 773-6389

ARROWHEAD/HARVEST PIPELINE CONTACT: ANTHONY ARELLANO PHONE: (504) 912-4426

LOOP, LLC CONTACT: CINDY GARDNER-LEBLANC PHONE: (985) 276-6299

XTO OFFSHORE, INC./XTO ENERGY, INC. CONTACT: DAVID DUFOUR PHONE: (817) 870-2800 EMAIL: DAVID_DUFOUR@XTOENERGY.COM

TRANSCANADA/ANR PIPELINE CO. RICARDO "RICK" LOPEZ PHONE: (337) 266-4695 EMAIL: RICARDO LOPEZ@TRANSCANADA.COM

2. THE CONTRACTOR SHALL NOTIFY THE LANDOWNERS LISTED BELOW AT LEAST FIVE (5) WORKING DAYS PRIOR TO PERFORMING THE WORK.

EDWARD WISNER DONATION CO. CONTACT: AMANDA PHILIPS PHONE: (504) 210-1152

CAILLOUET LAND, LLC CONTACT: JAY CAILLOUET PHONE: (985) 665-2123

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES CONTACT: JULIA LIGHTNER PHONE: (504) 286-4041

> GEOID 12A

DESIGN NOTES:

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) U.S. SURVEY FEET. ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD 83, LOUISIANA STATE PLANE SOUTH ZONE U.S. FEET). ALL ELEVATIONS ARE BASED ON THE FOLLOWING:

SECONDARY SURVEY MONUMENT	ELEVATION	NORTHING	EASTING
CRMSBA-SM-19	2.45'	250,130.9	3,674,132.84

2. THE EXISTING ELEVATIONS SHOWN ON THE PLANS ARE BASED ON THE SURVEYS PERFORMED FROM MAY 2015 THROUGH JULY 2015 BY MORRIS P. HEBERT AND FROM FEBRUARY 2017 THROUGH MARCH 2017 BY HYDROTERRA TECHNOLOGIES FOR THE CPRA. ELEVATIONS ARE REFERENCED TO NAVD88, US FEET, GEOID 12A.

							2	y y	Ŷ	¥C	JK	84
4.	NAVD 88, US FEET, GEOID 12A. MHW = +0.84' AND MLW = -0.59'									REVISED ESTIMATED QUANTITY FOR BID ITEMS 8 & 9.	sed for cont us	DESCRIPTION
EN	VIR	ONMENTAL NOTES:						REVISED THE ESTIMATED QUANTITY FOR BID ITEM 8. REVISED THE ESTIMATED QUANTITY FOR BID ITEM 10	ADDED BID ITEM 11	ISED E	Re'	
		CONTRACTOR SHALL COMPLY WITH THE S RONMENTAL REQUIREMENTS IN THE SPEC			3 BIRDS AND AM	IY OTHER		2/18/2020 REV 2/18/2020 REV		7/14/2020 REV	cuart/2	DATE
<u>su</u>	MM/	ARY OF ESTIMATED QUANT	ITIES	2			<	<	0	4		čEV.
		BA	SE BI	D					27		Z.	
		Γ				ESTIMATED			ECTION AND	-		
ITE	M No.	DESCRIPTION			UNIT	QUANTITY ¹		2	Zã	5	2	
	1	HYDRAULIC DREDGE MOBILIZATION AND			LUMP SUM	1		S	2 H	Ě	70802	
	2	DREDGE PIPELINE MOBILIZATION, INST			LUMP SUM	1		Ę	JE	50 TERRACE AVENUE	BATON ROUGE, LOUISIANA 70802	
	3	GENERAL MOBILIZATION & DEMOBILIZA	TION (18	5-102)	LUMP SUM	1		Ê		Z A	NUISI	
	4	SURVEYS (TS-210)			LUMP SUM	1		5			E, LC	
	5	DAILY BIRD ABATEMENT (TS-211)			DAY	226		6		TER	000	
	6	GRADE STAKES (TS-220)			EACH	50				K 2	NO	
	7	INSTRUMENTED SETTLEMENT PLATES (EACH	17		, r	A G	5	BAT	
ļ	8	EARTHEN CONTAINMENT DIKES (TS-300)		LINEAR FOOT	44,442		Ś	3E	-		
ļ	9	PRIORITY EARTHEN DIKE (TS-301)			LUMP SUM			2	DESTORA	ğ		
	10	HYDRAULIC DREDGING AND MARSH FIL	L (TS-40	0)	CUBIC YARD	2,470,200		ζ	م ر	4		
	11	NO-WORK ZONE (TS-511)			LUMP SUM	1	ŀ				Т	-
1. 2.	FRO THI WI	E QUANTITIES SHOWN WERE CALCULATE OM MAY 2015 THROUGH JULY 2015 AND F E OWNER RESERVES THE RIGHT TO ADJU THOUT ADJUSTMENT OF THE UNIT PRICE. JANTITY IS BASED ON THE BORROW AREA SED ON PROCESS SURVEYS OF THE BOR	ROM FEI IST QUA	BRUARY 2017 THROUGH NTITIES 25% HIGHER OR DLUMES. PAYMENT QUAN	MARCH 2017. LOWER			GENERAL NOTES			<	SY S. HAYNES, P.E.
AC	RON	NYMS & ABBREVIATIONS:						0			DESIGNED BY	APPROVED BY
BA	в	ORROW AREA	INC	INCREMENT							SIG	PRO'
CMF CPT CY DPC		CONSTRUCTED MARSH FILL CONE PENETRATION TEST CUBIC YARD DREDGE PIPE CORRIDOR	ISP LF LS MCA	INSTRUMENTED SETTL LINEAR FOOT LUMP SUM MARSH CREATION ARE	A			<u> </u>	SH	+		AP
EAC ECD EL FT	E E	QUIPMENT ACCESS CORRIDOR ARTHEN CONTAINMENT DIKE ELEVATION OOT	MNA PL SF TS	MARSH NOURISHMENT PIPELINE SQUARE FOOT TEMPORARY SPOIL	AREA	OF LOUIS NON MCCLAIN HAYNES TESSIONAL ENGINEER			BACK BARRIER MARSH CREATION PROJECT		STATE PROJECT NUMBER BA-0171	DRAWN BY: K. CANTU
					114	ENGINEERIN						
								SHEE	Τ 2	OF :	53	



	KC	KC	SR			BY
ST 72 ELMER'S ISLAND ROAD	REVISED THE EARTHEN CONTAINMENT DIKE CENTERLINE ALIGNMENT IN INC. 1.	REVISED THE EARTHEN CONTAINMENT DIKE CENTERLINE ALIGNMENT IN INC. 1.	PRUTER CO #03			DESCRIPTION
	2/18/2020	7/13/2020	202/2/21			DATE
NSTRUCTED DUNE ROJECT BA-45 & BA-143)		Ø	Ś			REV.
NG DIKE T 10)			UTHORITY	NUE	ANA 70802	
		COASTAL BROTE	RESTORATION AUTHORITY	150 TERRACE AVENUE	BATON ROUGE, LOUISIANA 70802	
BA BA SHANNON MCCLAIN HAYNES License No. 30552 PROFESSIONAL ENGINEER IN CONTRACTOR		PROJECT LAYOUT			DESIGNED BY: A. TAYLOR, P.E. 041999	APPROVED BY: S. HAYNES, P.E.
LEGEND N AREA EA/POTENTIAL MARSH NOURISHMENT AREA		ADLAND	MARSH		BA-0171	
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PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	3
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

RFI Backup Documents

Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: June 15, 2020

RFI Number: 08

Summary of RFI by Contractor

Harvest Pipeline has expressed its concern with operating a tug and barge within close proximity to its pipeline for the transport of sands from the Priority Earthen Containment Dike Borrow Area to Priority Earthen Containment Dike. In an effort to avoid the route adjacent to this pipeline, we propose an alternative borrow area situated to the east of the priority earthen containment dike and within the marsh creation area. The attached drawing shows our proposed borrow area limits for this borrow area which is based on an exploratory probing campaign for sands suitable for the base of the priority earthen dike. This area is wider than necessary in order to give the CPRA a larger area to core sample. Similar to the initial design, suitable sands shall be loaded on barges and towed via an access route to the Priority Earthen Dike. Due to shallow waters in the marsh area, the tug/barge will transit along an access route create by from the borrow area for the earthen containment dikes. Please confirm if CPRA will permit the use of this alternate priority earthen containment dike borrow area. GLDD and Wilco are available to further discuss if you have any questions. Attachment: Drawing of Proposed Alternate Priority Borrow Source (date: 6/10/20)

Signature:	Date:	6/15/2020

Response to RFI by Engineer

Based on the pre-construction survey, field observations, sampling and testing, we have determined that there is no need to construct the priority dike section specified by Bid Item #9. Therefore, we propose that this bid item be removed from the contract and replaced with the standard geometry for ECDs. We also propose that PI 13 located in the middle of the priority section be removed and the ECD alignment straightened out in that area. As discussed in the progress meeting on 7/7/2020, proceed with an updated Increment 1 pre-con survey showing the straightened dike here.

We plan to install piezometers near this location, coordinate the mob of excavators to this area with myself 3 days prior so that we can plan to be onsite.

Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: July 8, 2020

RFI Number: 11

Summary of RFI by Contractor
A deep canal is located to the west of the Earthen Containment Dike between Stations 38+00 to 41+00. Wilco
would like to request a realignment of this vertical section to the east by at least 100' – 200' in order to avoid
building the dike into the deep canal.
Signature: Date: 7/8/2020
Signature: Date: 7/8/2020

 Response to RFI by Engineer

 CPRA is not opposed to this proposed change. Before proceeding, provide a revised survey of this proposed alignment, including CAD files. Also perform a Magnetometer survey along this alignment like the one required along existing alignment to ensure that there are no conflicts. Once these are provided/performed and no conflicts are found authorization can then be given to proceed with this change in alignment.

 Note: Based on phone call with Manny V. the "vertical" section realignment mentioned above is referring to horizontal changes and NOT vertical.

 Note 2: The contractor's sketch that was provided with this RFI is included below for reference.

 Signature: Josh Renard



Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: September 4th, 2020

RFI Number: 20

Summary of RFI by Contractor		
We have identified two areas of concern with current EC 4. Our concern in INC 3 is the proximity of the borrow ar in the area of STA 308+00 to STA 323+00. In this area we away from Chevron due to the No Work Zone. We would resulting in a 25' offset from the current centerline alignr	ea to the rig are limited like to requ	sht of way for the adjacent Chevron pipeline as to how far we can shift the alignment
In INC 4 the current alignment WILL encroach the Chevro the map and bridges bend between STA359+00 to STA 35 ECD alignment away from the Chevron line which will res overall project. Attached is a map showing the proposed alignment modi	55+00. There olve this iss	e is sufficient space in this area to shift the sue without any significant impact to the
Signature:	Date:	9/04/2020

Response to RFI by Engineer

The proposed increment 3 alignment shift moves the dike 25 feet closer to the No-Work Zone, however, it appears that you still have sufficient clearance here and should not impact the No-Work Zone. Ensure that equipment and personnel stay out of this Zone and approved equipment access corridors are used. This alignment shift is acceptable.

We take no exception to the proposed increment 4 alignment shift.

Regarding both of these shifts, ensure that all plan and specifications requirements are followed. Also, proper coordination with the pipeline companies must be continued.

	sed that Item number s further refined and			this RFI.	
nature: Josh Rer	 Digitally signed by Josh Forward	Data	9/4/2020		



Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: September 15th, 2020

RFI Number: 21

Summary of RFI by Contractor

After reviewing the last RFI 020 for Increment 4, Wilco is proposing to remove Points of Inflection (P.I.) close to the Chevron pipeline and straight-line the ECD from the existing P.I. at STA 349+10 to the existing P.I. at STA 355+41. From a constructability standpoint this will result in fewer unnecessary P.I.'s in the ECD and will result in faster construction time in this area.

Attached is an Increment 4 specific map showing the proposed change.

9/15/20: Wilco performed additional surveys in the area that we proposed the change to the dike alignment. According to their data the elevation goes to -1' to -2'. Because of this, Wilco does not see any issue with deep water while constructing the dike if the proposed dike realignment is approved.

	-	
Signature:	Date:	09/15/2020

Response to RFI by Engineer

9/10: Per our phone conversation earlier today, advise on and provide the additional survey or other methods used/information gathered to ensure that this alignment change can be constructed as proposed with the standard dike section.

9/17: Based on the contractor's description of the additional surveying performed in this area we take no exception to the revised alignment change proposed above. Note that this does not nullify any of the contractor's responsibilities from following and abiding by the plans and specs.

Signature: Jos	sh Renard
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CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) INCREMENT 4 PROPOSED ALIGNMENT MODIFICATION (REV. 09/05/2020)



PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	4
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price due to the reinstallation of the No Work Zone post- Hurricane Zeta, as well as the addition of survey points to the southwest end of the Marsh Creation Area Preconstruction Survey.

The following changes are hereby made to the Contract Documents:

- 1) Increase in Contract Price by \$57,145.00 due to the reinstallation of Bid Item No. 11, "No Work Zone (TS-511)." This change is due to the destruction of the previously installed sand fencing and oil boom, which will be reinstalled with this change order.
- 2) Increase in Contract Price by \$4,117.60 due to addition of more survey points to the southwest end of the Marsh Creation Area Preconstruction Survey.

The following plan sheet from the Contract Plans is hereby revised:

1) None

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) None

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	4
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

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Change in Contract Price		Change in Contract Time	
Original Contract Price	\$31,590,506.00	Original Contract Time	
Original Contract Price	φ51,570,500.00	(calendar days)	548
Net Increase / (Decrease) from previous Change Orders		Net Increase / (Decrease)	
	(\$ 1,738,592.00)	from previous Change	
		Orders (days)	0
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Contract Price prior to this Change Order	\$29,851,914.00	Change Order (calendar	
		days)	548
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Change Order	\$ 61,262.60	this Change Order (days)	0
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		Change Order (calendar	
		days)	548

SUMMARY OF CHANGES TO CONTRACT

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PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	4
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Date: 1/4/2021

Project Name: Caminada Back Barrier Marsh Creation Project (BA-0171)				Change Order 1				Change Order 2				Change Order 3				Change Order 4				Revised Contract				
Contractor: Great Lakes Dredge & Dock, LLC (GLDD) PO #: 2000437379																								
																							BID ITEMS:	DESCRIPTION
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00																	1	\$3,000,000.00	\$3,000,000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00									-								1	\$4,500,000.00	\$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00							-							-	1		1	\$600,000.00	\$600,000.00
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00							0			1			1	1 LS	\$4,117.60	\$4,117.60	1	\$289,117.60	\$289,117.60
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																	226	\$800.00	\$180,800.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00	1												Ű.	1			50	\$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00										1							17	\$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)					351	LF	\$142.00	\$49,842.00					44,442	\$142.00	\$6,310,764.00
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00	1								(1)	LS	\$350,000.00	(\$350,000.00)		-				\$350,000.00	\$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00))					2,470,200	\$6.00	\$14,821,200.00
11	No Work Zone (TS-511)				i i i i i i i i i i i i i i i i i i i					1	LS	\$63,900.00	\$63,900.00					1	1 LS	\$57,145.00	\$57,145.00	1	\$121,045.00	\$121,045.00
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TOTAL \$31,590,506.00					\$31,590,506.00				(\$1,502,334.00)				\$63,900.00				\$300,158.00				\$61,262.60	1		\$29,913,176.60

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	4
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

RFI Backup Documents



2122 YORK ROAD OAK BROOK, IL 60523 P 630.574.3000 F 630.574.3007

December 2, 2020

GLDD_84768_RFP_002B

Submitted via email

Sigma Consulting Group 10305 Airline Highway Baton Rouge, LA 70816

Attn: Joshua Renard, P.E., (jrenard@sigmacg.com) Project Manager

GREAT LAKES DREDGE

& DOCK COMPANY, LLC

RE: CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) GLDD Proposal for Re-installation of Barrier Around The No Work Zone near Increment No. 3

Dear Mr. Renard,

Great Lakes Dredge and Dock Company, LLC (GLDD) is pleased to submit our proposal for the reinstallation of the physical barrier around the No-Work Zone that was damaged due to Hurricane Zeta.

Our proposal includes a one-time installation and removal of sand fence and oil boom at the location shown on the RFP drawing Sheet 17 for a lump sum price of \$57,145. A breakdown of price is attached.

Our proposal is in accordance with the specifications and drawing provided with Sigma's RFP emailed on May 21, 2020 and includes the following clarifications:

- 1. A one-time installation and removal of 1,100-lf of sand fence and re-installation of the existing 695-ft oil boom. Final removal of these items is included in Item No. 3 of our proposal GLDD_84768_RFP002 dated June 29, 2020.
- 2. Line Item No. 3 in our proposal includes time for periodic maintenance and of the sand fence and oil boom. We estimate an additional 60 hours for utilizing (1) marsh buggy with operator, (1) tug/barge and shoreman.
- 3. The temporary removal and re-installation of the sand fence and oil boom in the event of a storm was not included in our proposal. If removal and reassembly is required, the price to perform this is \$60,700 per event.

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

Please contact me if you have any questions or concerns, I can be reached at <u>CAmeika@gldd.com</u> or 346.271.7707.

Sincerely,

GREAT LAKES DREDGE & DOCK COMPANY, LLC

Chris Ameika Project Sponsor

Cc: Adam Ledet – CPRA (<u>Adam.Ledet@LA.GOV</u>) Manny Vianzon – GLDD (<u>MVianzon@gldd.com</u>) Mitchell Quakkelaar – GLDD (<u>MAQuakkelaar@gldd.com</u>)

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.
CONFIDENTIAL

Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 GLDD Proposal for RFP2B – Re-install Barrier Around No Work Zone near Increment No. 3

	Proposal Breakdown Summary									
Line Item	Description	Quantity	Unit	Unit Price	Amount					
1	Procure and Install Sand Fence	1,100.00	LF	\$17.25	\$18,975.00					
2	Re-Install existing 6" Oil Boom	695.00	LF	\$19.38	\$13,467.36					
3	Maintainence of sand fence and oil boom during ECD construction and marsh creation activities. (Includes: Rental Marsh Buggy w/Operator, Rental Barge, and 2x GLDD shoremen)	60.00	HRS	\$411.71	\$24,702.600					
	Total Proposal			-	\$57,144.96					
	Total Cost				\$49,710.75					
	Total Profit		15%	-	\$7,434.21					

Confidential Information: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

WILCO MARSH BUGGIES & DRAGLINES, INC.



P.O. BOX 710 MARRERO, LA 70073 PHONE: (504) 341-3409 FAX: (504) 341-8487

Great Lakes Dredge Attn: Chris Ameika December 1, 2020

Re: Great Lakes Dredge & Dock Company, LLC - Caminada Headlands

Mr. Ameika,

On behalf of Wilco Marsh Buggies and Draglines, Inc. I would like to thank you for the opportunity to provide a proposal for the above referenced project. Wilco's price to perform the following items of work is as follows:

Description	Quantity	Unit Price	Amount
Sand Fence	1100	\$15.00	\$16,500.00
6" Oil Boom	695	\$16.85	\$11,710.75

Please note the following clarifications:

- 1) This price is based on a one-time installation only.
- 2) Prices are based on quantities provided in spec.
- 3) This price is based on purchasing/using new sand fence.
- 4) This price is based on using the existing oil boom.

If you need any additional information or have questions please call me anytime at (225) 999-8318 or email me at <u>llemoine@wilcomarshbuggies.com</u>.

Sincerely,

Michael Levi Lemoine



When There Is No Road To The Job ... All Roads Lead To WilcoTM

HYDRO	HYDROTERRA							
	Surveying Quote Schedule							
Attn:	Chris AmeikaDate:Great Lakes Dredge and Dock2122 York Road, Suite 2002122 York Road, Suite 200Request No:Oak Brook, IL 60523(630) 574-3778CAmeika@gldd.comCameika@gldd.com		11/17/2020 2020-226					
From:	Keith J. Roberts							
Project: Location:	CPRA - Caminada Headland Back Barrier Marsh Creation Additional Surveying : Jefferson and Lafourche Parishes, Louisiana							
	Description							
	Marsh Creation Area Additional Survey Points (Certified Deliverables Included)	-	Lump Sum					
	al Pre Construction Topographic Survey Marsh Creation Area TS 210.7.13 - Two additional points added, to the southeast end of the Marsh Creation Area (MCA) Survey. The 2 points e added at +50' and +100' to the end of each transect M1 through M47.	\$	4,117.60					
HydroTe Notes: 1) 2) 3) 4) 5) Sincerely	Additional Pre construction topographic survey is a lump sum proposal. Personnel required to attend a safety/orientation class will be invoiced per the attached rate schedule. Additional Pre Construction surveys includes 2 person crew, RTK System, airboat w/fuel and operator, meals/lodging, travel and incidentals. Third party charges will be invoiced at cost +15%. All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.							
HydroTei 212 Jaco Scott, LA Phone: (3								

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	5
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price due to the addition of a southern dike. The existing Caminada Headland dune was to be used as the southern containment; however, areas along the approximately 8-mile stretch of the project was destroyed by Hurricane Zeta in October 2020 to an elevation not conducive to contain the dredged slurry for the project.

The following changes are hereby made to the Contract Documents:

- 1) Increase in Contract Price by \$23,550.00 due to addition of southern dike mobilization/demobilization item #12.
- 2) Increase in Contract Price by \$411,000.00 due to the addition of southern dike construction item #13.
- 3) Increase in Contract Price by \$18,330.00 due to the addition of southern dike equipment access corridor via canal dredging item #14.
- 4) Increase in Contract Price by \$458,131.00 due to the addition of southern dike sand fence installation item #15.
- 5) Increase in Contract Price by \$122,570.00 due to addition of southern dike pre-construction & process survey item #16.
- 6) Increase in Contract Price by \$95,000.40 due to addition of airboat operations for the southern dike work item #17.

The following plan sheet from the Contract Plans is hereby revised (see attached):

 Sheets 9, 10, 16, 17. Note that these were created for the RFP dated February 2, 2021. The alignment has been revised since and is expected to be further revised during construction.

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) TS-512. Note that the alignment points shown here was updated based on the contractor's preconstruction survey of the dune dated April 23, and April 27, 2021.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	5
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change in Contract I	Change in Contract Time		
Original Contract Price	\$31,590,506.00	Original Contract Time	Ĩ
	\$51,590,500.00	(calendar days)	548
Net Increase / (Decrease) from		Net Increase / (Decrease)	
previous Change Orders	(\$ 1,677,329.40)	from previous Change	
previous change Orders		Orders (days)	0
Contract Drice price to this		Contract Time prior to this	
Contract Price prior to this Change Order	\$29,913,176.60	Change Order (calendar	
Change Order		days)	548
Net Increase / (Decrease) of this	\$ 1,128,581.40	Net Increase / (Decrease) of	
Change Order	\$ 1,120,301.40	this Change Order (days)	0
Contract Drice with this Change		Contract Time with this	
Contract Price with this Change Order	\$31,041,758.00	Change Order (calendar	
Older		days)	548

SUMMARY OF CHANGES TO CONTRACT

RECOMMENDED: RECOMMENDED; ACCEPTED: Josh Renard Digitally signed by Thomas R. Salter Date: 2021.06.15 11:00:35 -05'00' her Ho By:_ By: CPRA Engineer Contractor, GLDD Date: 6/15/21Date: 6/15/21 Date:__15JUN21_____

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	5
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Date: 5/5/2021

Project N	Jame: Caminada Back Barrier Marsh Creation P	roject (B	A-017	'1)																					
Contract	or: Great Lakes Dredge & Dock, LLC (GLDD)						Cha	nge Orde	er 1		Chang	ge Orde	er 2	C	hange Ord	ler 3	Cha	nge Ord	er 4	Ch	ange Ord	er 5	Rev	ised Con	tract
PO #: 20	000487379										-	-			-			-			-				
BID ITEMS:		QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	U/M Unit Price	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY U/	M Unit Price	Amount	QUANTITY	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3.000.000.00	\$3.000.000.00		67.11				•7						Quinter of a			201011110			1	\$3.000.000.00	\$3.000.000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00																		1	\$4,500,000.00	\$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																		1	\$600,000.00	\$600,000.00
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00												1 LS	\$4,117.60	\$4,117.60				1	\$289,117.60	\$289,117.60
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																		226	\$800.00	\$180,800.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																		50	\$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00																		17	\$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)					351	LF \$142.00	\$49,842.00							44,442	\$142.00	\$6,310,764.00
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00									(1)	LS \$350,000.00	(\$350,000.00)							-	\$350,000.00	\$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00)														2,470,200	\$6.00	\$14,821,200.00
11	No Work Zone (TS-511)									1	LS \$	\$63,900.00	\$63,900.00				1 LS	\$57,145.00	\$57,145.00				1	\$121,045.00	\$121,045.00
12	South Dune Mob/Demob																			1 L	\$23,550.00	\$23,550.00	1	\$23,550.00	\$23,550.00
13	South Dune Construction																			60,000 C	\$6.85	\$411,000.00	60,000	\$6.85	\$411,000.00
14	South Dune Equipment Access Canal Dredging																			1 L!	\$18,330.00	\$18,330.00	1	\$18,330.00	\$18,330.00
15	South Dune Sand Fence Installation																			47,230 LI	\$9.70	\$458,131.00	47,230	\$9.70	\$458,131.00
16	South Dune Surveys																			1 L!	\$122,570.00	\$122,570.00	1	\$122,570.00	\$122,570.00
17	South Dune Airboat w/ Operator							-												90 E/	\$1,055.56	\$95,000.40	90	\$1,055.56	\$95,000.40
					1			-				-						-						-	
	TOTAL				\$31,590,506.00				(\$1,502,334.00)				\$63,900.00			(\$300,158.00]			\$61,262.60			\$1,128,581.40			\$31,041,758.00

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	5
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Revised Plan Sheets









PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	5
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Revised Technical Specifications

Caminada BA-0171

TS-512 Southern Dune Improvements

512.0 Southern Dune Improvements

512.1 Background BA-171 project intended to use a previously constructed beach dune to serve as containment for marsh fill. Hurricane Zeta over washed that dune and deposited its sediment into the fill site. Presently some elevations along that dune are no longer suitable to serve as containment. Work herein will restore the dune.

512.2 Scope of Work/Services

- **512.2.1 Mobilization-** Mobilization of all equipment and personnel to complete the improvements shall use existing equipment access corridors in the project area. Contractor will provide an updated schedule showing this mobilization and demobilization. Payment will be made at 60% for mobilization of all south dike equipment and 40% for all equipment demobilized from the site.
 - **512.2.2** Cross Section- The dune improvements shall be constructed to dimensions shown below by recapturing suitable sediment inside of the project area. The recaptured material shall be free of unsuitable materials and debris as stipulated TS 300 section .3.1 The specified geometry of the dune shall be maintained throughout construction of the MCA at no expense to the owner. Provide updated schedule showing this work.



512.2.3 Alignment- The dune improvements should be along the alignment shown in the table below. All work shall be done inside of the project area as shown on the plans. Note that these points are based on the contractor's pre-construction survey provided on 4/23 and 4/27/21. Some variations will be permissible based on the current conditions on site however any variation must be coordinated with and approved by CPRA in advance of construction. Sheet 16 of 53 and 17 of 53 included attached provides a preliminary assessment of the dune containment improvements.

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15 241,404.72 3,673,16 16 241,246.72 3,672,98 17 240,682.52 3,672,26 18 240,681.91 3,672,26 19 240,257.64 3,671,64 20 239,820.93 3,671,03 21 239,740.16 3,670,95	13.24
16 241,246.72 3,672,98 17 240,682.52 3,672,26 18 240,681.91 3,672,26 19 240,257.64 3,671,64 20 239,820.93 3,671,03 21 239,740.16 3,670,95	22.95
17240,682.523,672,2618240,681.913,672,2619240,257.643,671,6420239,820.933,671,0321239,740.163,670,95	56.72
18 240,681.91 3,672,26 19 240,257.64 3,671,64 20 239,820.93 3,671,03 21 239,740.16 3,670,95	30.97
19 240,257.64 3,671,64 20 239,820.93 3,671,03 21 239,740.16 3,670,95	52.93
20 239,820.93 3,671,03 21 239,740.16 3,670,95	52.15
21 239,740.16 3,670,95	42.62
	35.70
22 239,659.38 3,670,87	56.33
	76.96
23 239,373.33 3,670,43	32.22
24 238,773.17 3,669,73	36.37
25 238,148.42 3,668,98	37.98
26 238,047.25 3,668,78	38.76
27 237,632.87 3,668,29	92.38
28 237,052.11 3,667,59	90.03
29 236,937.14 3,667,48	37.57
30 236,561.22 3,666,81	18.97
31 235,958.51 3,666,12	24.78
32 235,828.86 3,665,92	23.11
33 235,717.88 3,665,65	58.02
34 235,457.34 3,665,25	52.76
35 234,879.04 3,664,44	40.91
36 234,329.29 3,663,59	98.08
37 234,326.02 3,663,59	93.07
38 233,833.42 3,663,04	42.24
39 233,455.50 3,662,40)1.84
40 233,038.46 3,661,78	33.80
41 232,472.85 3,661,07	
42 232,065.82 3,660,52	71.95

43	231,919.96	3,660,412.23
44	231,890.07	3,660,372.03
45	231,585.73	3,659,937.21
46	231,420.47	3,659,613.90
47	230,931.42	3,658,915.18
48	230,776.35	3,658,729.92
49	230,628.81	3,658,592.60
50	230,564.62	3,658,515.92
51	230,393.41	3,658,272.43
52	229,880.90	3,657,619.56
53	228,927.56	3,656,063.28
54	228,369.58	3,655,348.09
55	228,364,.87	3,655,342.06
56	227,880.17	3,654,723.98
57	227,423.79	3,654,086.32
58	226,986.92	3,653,434.96
59	226,370.15	3,652,622.32
60	225,772.45	3,651,793.46
61	225,213.56	3,650,938.18
62	224,585.22	3,650,171.39
63	223,211.43	3,648,728.10
64	222,664.62	3,648,289.50
65	222,205.48	3,647,792.60
66	221,656.02	3,647,138.29

512.3 Sand Fence- Sand fence shall be installed as shown below along the alignment referenced above. Provide an updated schedule showing installation of the sand fencing. The fencing shall be maintained throughout construction of the marsh creation area. Any portion of fence damaged by the contractor or construction related activities shall be replaced at no expense to the owner.





512.4 Survey- Surveys shall be taken of the preexisting and as-built conditions through the entire dune improvement construction limits. A pre-construction survey and progress surveys shall be required. Specification section TS-210 shall apply. The surveys must extend perpendicular across the full construction limits of the reclaimed material and the dune improvements with sections taken at 100ft intervals along the designated dune alignment.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	6
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price due to the addition of the build up of the Caillouet Road via hauling and sand placement. The road is located in the southwest portion of the project site. Existing elevation of this road is not conducive to contain the dredged slurry for the project. Reference the attached survey of the Caillouet Road, as well as GLDD's REV2 proposal, option C. Note that additional sand will be used to build road in excess of +5-ft for use in final grading subsequent to demobilization of equipment and pipe off of the project site via the road.

The following changes are hereby made to the Contract Documents:

- 1) Increase in Contract Price by \$44,950.00 due to addition of Caillouet road construction mobilization/demobilization via Elmer's road access item #18.
- 2) Increase in Contract Price by \$79,356.00 due to the addition of Caillouet road construction haul and build road up to 1,275 CY item #19.
- 3) Increase in Contract Price by \$19,800.00 due to the addition of Caillouet road construction haul and build road over 1,275 CY item #20.
- 4) Increase in Contract Price by \$14,588.00 due to the addition of Caillouet road construction additional airboat item #21.
- 5) Increase in Contract Price by \$31,626.00 due to addition of Caillouet road construction site overhead item #22.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) None

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

- 1) None.
- Note that the following original contract technical specifications also apply for this work: TS-102.6 regarding ratio of effort for mob/de-mob, TS-210 regarding surveying, and 300.3.3.1 regarding tolerances.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	6
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTR ACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

SUMMART	JF CHANGES I	UCUNIKACI	
Change in Contract I	Price	Change in Contract Tim	e
Original Contract Price	\$31 500 506 00	Original Contract Time	_
	\$31,390,300.00	(calendar days)	548
Net Increase / (Decrease) from		Net Increase / (Decrease)	
	(\$ 548,748.40)	from previous Change	
previous change orders		Orders (days)	0
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Net Increase / (Decrease) of this	\$ 100 320 00	Net Increase / (Decrease) of	
Change Order	\$ 190,520.00	this Change Order (days)	0
Contract Price with this Change		Contract Time with this	
Order	\$31,232,078.00	Change Order (calendar	
		days)	548

SUMMARY OF CHANGES TO CONTRACT

ACCEPTED: Draw of the commentation Christ America Christ Am **RECOMMENDED: RECOMMENDED:** Josh Renard Difference of the series of the CPRA Engineer By:_ By Contractor, GLDD Date: 8/17/21 Date: August 13, 2021 Date: August 13, 2021

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	6
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project Name: Caminada Back Barrier Marsh Creation Pr	oject (BA	-0171))																									
Contractor: Great Lakes Dredge & Dock, LLC (GLDD)						Chang	ge Orde	er 1	(Change Ord	er 2	(Change O	rder 3		Chan	ge Orde	er 4	0	Change Ord	er 5		Char	nge Orde	r 6	Re	vised Cor	ntract
PO #: 2000487379																												
														-														
BID ITEMS: DESCRIPTION	QUANTITY		UNIT PRICE	Amount	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M Unit Price	Amount	QUANTITY	U/M Unit Pri	e Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	U/M Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	Unit Price	Amount
 Hydraulic Dredge Mobilization and Demobilization (TS-100) 	1	LS	\$3,000,000.00	\$3,000,000.00																						1	\$3,000,000.00	\$3,000,000.00
2 Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00																						1	\$4,500,000.00	\$4,500,000.00
3 General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																						1	\$600,000.00	\$600,000.00
4 Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00											1	LS	\$4,117.60	\$4,117.60								1	\$289,117.60	\$289,117.60
5 Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																						226	\$800.00	\$180,800.00
6 Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																						50	\$105.00	\$5,250.00
7 Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00																						17	\$5,000.00	\$85,000.00
8 Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)				351	LF \$142.0	\$49,842.0												44,442	\$142.00	\$6,310,764.00
9 Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00								(1)	LS \$350,000	00 (\$350,000.0	D)											-	\$350,000.00	\$0.00
10 Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00)																		2,470,200	\$6.00	\$14,821,200.00
11 No Work Zone (TS-511)									1	LS \$63,900.00	\$63,900.00				1	LS !	\$57,145.00	\$57,145.00								1	\$121,045.00	\$121,045.00
12 South Dune Mob/Demob																			1	LS \$23,550.00	\$23,550.00					1	\$23,550.00	\$23,550.00
13 South Dune Construction																			60,000	CY \$6.85	\$411,000.00					60,000	\$6.85	\$411,000.00
14 South Dune Equipment Access Canal Dredging																			1	LS \$18,330.00	\$18,330.00					1	\$18,330.00	\$18,330.00
15 South Dune Sand Fence Installation																			47,230	LF \$9.70	\$458,131.00					47,230	\$9.70	\$458,131.00
16 South Dune Surveys																			1	LS \$122,570.00	\$122,570.00					1	\$122,570.00	\$122,570.00
17 South Dune Airboat w/ Operator																			90	EA \$1,055.56	\$95,000.40					90	\$1,055.56	\$95,000.40
18 Callouet Road Construction: Mob/Demob via Elmer's Rd																						1	LS	\$44,950.00	\$44,950.00	1	\$44,950.00	\$44,950.00
19 Callouet Road Construction: Haul and Build Rd up to 1,275 CY																						1,275	CY	\$62.24	\$79,356.00	1,275		\$79,356.00
20 Callouet Road Construction: Haul and Build Rd over 1,275 CY																						400	CY	\$49.50	\$19,800.00	400	\$49.50	\$19,800.00
21 Callouet Road Construction: Additional Airboat																						14	Day	\$1,042.00	\$14,588.00	14	\$1,042.00	\$14,588.00
22 Caillouet Road Construction: Site Overhead																						14	Day	\$2,259.00	\$31,626.00	14	\$2,259.00	\$31,626.00
TOTAL				\$31,590,506.00				(\$1,502,334.00)			\$63,900.00			(\$300,158	00)			\$61,262.60			\$1,128,581.40				\$190,320.00			\$31,232,078.00

Date: 8/6/2021



FILE: F:\CAD\21-2710 CLC WEEKS MARINE\CLLLC LINE MAP FINAL AS OF 8 3 2021.dwg

CONFIDENTIAL

Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 West Marsh Creation Alternate Closure Options

	•		Summary_REV2										
Line Item	Description	Quantity	Unit		Price	Amount							
OPT A	Closure from ECD (STA 38+00) to South Dune (STA 30+00)												
	Surveys	1.00	LS	\$	12,151.00	\$12,151.00							
	Construction of Dike to +5-ft, 13-ft crown width using a marsh excavator.	610.00	LF	\$	97.68	\$59,584.80							
	Installation of 4x 30-in weir pipes in ECD	1.00	LS	\$	30,757.00	\$30,757.00							
	Additional Airboat	18.00	Days	\$	1,059.88	\$19,077.84							
	Site Overhead	18.00	Days	\$	2,299.00	\$41,382.00							
	Total					\$162,952.64							
OPT C	Build up Caillouet Road by Hauling and Placing Sand from Beach (less than 3,000-ft haul distance)												
	Mob/Demob via Elmer's Island Road	1.00	LS	\$	44,950.00	\$44,950.00							
	Haul and Build Road - Up to 1,275cy	1,275.00	CY	\$	62.24	\$79,356.00							
	Haul and Build Road - Over 1,275cy	400.00	CY	\$	49.50	\$19,800.00							
	Additional Airboat	14.00	Days	\$	1,042.00	\$14,588.00							
	Site Overhead	14.00	Days	\$	2,259.00	\$31,626.00							
	Total		-			\$190,320.00							

OPTION C - Mob/Demob via Elmer's Island Road

OPTION C - Unit Rate applies to a minimum 1,200cy. If volume is below, Wilco has right to adjust unit rate.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	7
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price for work performed due to Hurricane Zeta. The storm made landfall on October 28, 2020 and negatively impacted the site, including but not limited to, degrading parts of already-built sections of the northern earthen containment dike. Reference the attached REV3 proposal provided by GLDD for services rendered. This Change Order is an equitable adjustment for post storm damages, is inclusive of all costs and expenses related to the fulfillment of services rendered, and represents final compensation for all work performed. Other than the payment obligations in this Change Order, CPRA shall have no other payment obligations to GLDD for any work associated with Hurricane Zeta.

The following changes are hereby made to the Contract Documents:

1) Increase in Contract Price by \$837,855.80 due to addition of Post Storm Zeta Damages Item #23.

The following plan sheet from the Contract Plans is hereby revised:

1) None

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents:

1) None.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-017))
CHANGE ORDER NO:	7	
OWNER:	Coastal Protection & Restoration Authority (CPRA)	
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)	
PURCHASE ORDER NO:	2000487379	ä

SUMMARY OF CHANGES TO CONTRACT

Change in Contract I	Price	Change in Contract Tim	ie
Oniginal Contract Drive	\$21 500 506 00	Original Contract Time	
Original Contract Price\$31,390,506.00Net Increase / (Decrease) from previous Change Orders(\$ 358,428.00)Contract Price prior to this Change Order\$31,232,078.00Net Increase / (Decrease) of this Change Order\$ 837,855.80Contract Price with this Change Order\$ 32,069,933.80	(calendar days)	548	
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	iginal Contract Price\$31,590,506.00Original Contract Time (calendar days)tt Increase / (Decrease) from evious Change Orders(\$ 358,428.00)Net Increase / (Decrease) from previous Change Orders (days)ntract Price prior to this ange Order\$31,232,078.00Contract Time prior to th Change Order (calendar days)t Increase / (Decrease) of this ange Order\$ 837,855.80Net Increase / (Decrease) this Change Order (days)ntract Price with this Change\$ 32,069,933,80Contract Time with this Change Order (calendar		
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	\$32,069,933.80	Change Order (calendar	
Older		days)	548

RECOMMENDED:	RECOMMENDED:	ACCEPTED:
By: Adam lett	Josh Renard Brits your is at the second seco	By:
By: CPRA Engineer	Sigma Consulting Group	Contractor, GLDD
Date: 9/20/21	Date: 9/9/2021	Date: 9/9/2021

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PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	7
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

TOTAL.				\$31,590,506.0	•			(\$1,502,334.0	0			503, MM.	*			(\$344),158,00	0		540				\$1,136,541.40			\$180.520.00			\$437,463.90			132,043.5
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Hipity Fanten Dies (T&301)	1	1.3	\$350,000.00	\$3,50,000.00			- : ·	1	· • · · · · · · · · · · · · · · · · · ·	<u> </u>	t	1			1100.000.00		1		<u> </u>	-					• • •		∳ ↓			- 44,442		56.2
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Instrumental Betternerd Pates (19-251)	17	EA.	\$5,000.00	\$\$5,000.00	-1-		1	-	+	-	+	+		++			1		+			· · · · · · · · · · · · · · · · · · ·					↓ ↓	- · · ·		<u>i</u> %	\$105.00	55
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Daily Bird Assessment (19231)	208		\$800.00	8100.800.00	,		1		+	-	t		-			+	+*		10 241	17.60		+		↓						1 1	\$239,117.60	
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ractor: Great Lakes Dredge & Dock, LLC (GLDD) : 2000487379							ange Ori						Change Order 3			Change Order 4				Change Order 5			Change Order 6				hange Or	der 7	Re	evised Co	ntract	

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GREAT LAKES DREDGE & DOCK COMPANY, LLC

GULF REGIONAL OFFICE 2 RIVERWAY SUITE 1130 HOUSTON, TX 77056 P 346.271.7701 F 346.271.7713

GLDD_84768_PostZeta_REV3

June 2, 2021

Submitted via email

Sigma Consulting Group 10305 Airline Highway Baton Rouge, LA 70816

Attn: Joshua Renard, P.E., (jrenard@sigmacg.com) Project Manager

RE: CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) POST ZETA DAMAGE REA – REVISION 3

Dear Mr. Renard,

Great Lakes Dredge and Dock Company, LLC (GLDD) submits our Revision 3 proposal for the request for equitable adjustment related to post-hurricane Zeta storm damage.

This latest revision addresses items discussed in the meeting between GLDD/Wilco and CPRA/Sigma held on May 13th, at CPRA's offices in Lafayette, Louisiana.

The following are changes made from our previous Revision 2 proposal:

- 1. Reduction of HydroTerra hours to process Submittals 11 & 12;
- 2. Updated Wilco survey pricing and a copy of the invoice from Providence Engineering and Environmental;
- 3. Updated volume and unit pricing for the ECD re-work for Lifts 1 & 2;
- 4. Updated Wilco pricing for the Loop Line Crossing;
- 5. Removal for equipment standby costs and site overhead costs for equipment during the weather event;
- 6. The inclusion of equipment costs during delays due to the post-storm assessment surveys.
- 7. GLDD reduction of profit and overheads.

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part – for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

Considering the aforementioned updates, our proposal is now \$837,856, a 22% reduction from our previous proposal. Based on our conversations, we trust that CRPA will find this reduction to be agreeable.

Please contact me if you have any questions or concerns, I can be reached at <u>CAmeika@gldd.com</u> or 312.933.8723.

Sincerely,

GREAT LAKES DREDGE & DOCK COMPANY, LLC

Chris Ameika Project Sponsor

Cc: Adam Ledet – CPRA (<u>Adam.Ledet@LA.GOV</u>) Tom Salter – GLDD (<u>TSalter@gldd.com</u>)

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

CONFIDENTIAL

Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 Post-Zeta Storm Damage Request for Equitable Adjustment

	Proposal Breakdo	REV2	VAR					
Line Item	Description	Quantity	Unit		Unit Price	Amount	Amount	Amount
TS-210	Surveys							
210.2	Magnetometer Surveys associated with alternative ECD borrow areas (RFI 29 and RFI 30)	1	LS	\$ 32	2,542.00	\$32,542.00	\$34,376.00	(\$1,834.00)
210.3	HydroTerra Submittals 11 & 12 - Post Hurricane Volume Calcs	50	HRS	\$	159.90	\$7,995.00	\$10,134.60	(\$2,139.60)
210.4	Post-Zeta Survey of ECDs	1	LS	\$238	3,722.00	\$238,722.00	\$297,263.00	(\$58,541.00)
TS-300	Earthen Containment Dikes							
300.1	Lift 1 (Increments 1 - 4)	38,482.00	CY	\$	4.98	\$191,640.36	\$202,605.30	(\$10,964.94)
300.2	Lift 2 (Increments 1 & 2)	23,398.00	CY	\$	4.98	\$116,522.04	\$123,188.85	(\$6,666.81)
300.3	Loop Line Crossing	1.00	LS	\$42	2,898.00	\$42,898.00	\$50,390.00	(\$7,492.00)
300.5	Wilco Equipment Standby Costs - REMOVED						\$ 140,874.93	(\$140,874.93)
300.6	Wilco Delays/Impacts due to Post-Storm Assessment Surveys	16	DAYS	\$ 7	7,398.15	\$118,370.40	\$0.00	\$118,370.40
GLDD Site	он	1	LS	\$89	,166.00	\$89,166.00	\$152,568.00	(\$63,402.00)
	Total Proposal				-	\$837,855.80	\$1,072,663.28	(\$234,807.48)
	- Total Cost					\$779,361.66	\$994,370.16	(\$215,008.50)
	Total Profit		7.5%		-	\$58,494.14	\$78,293.12	(\$19,798.98)

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	7
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project Name: Caminada Back Barrier Marsh Creation Project (BA-0171)																														
Contractor: Great Lakes Dredge & Dock, LLC (GLDD)			Change Order 1		Change Order 2		Change Order 3			Change Order 4			Change Order 5			Change Order 6					Chang	e Orde	er 7	Revised Contract						
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PO #: 2000487379																														
BID ITEMS: DESCRIPTION	QUANTITY U/M UNIT PR		QUANTITY U	/M UNIT PRICE	Amount	QUANTITY U	/M Unit Price	Amount	QUANTITY	U/M U	Jnit Price Amount	QUANTITY	/U/M	Unit Price	Amount	QUANTITY	U/M Unit Pi	ice Amount	QUANTI	TY U/M	Unit Price	Amount	QUANTITY	U/M I	Jnit Price	Amount	QUANTITY			
 Hydraulic Dredge Mobilization and Demobilization (TS- 	100) 1 LS \$3,000,00	.00 \$3,000,000.00																									1	\$3,000,000.00	\$3,000,000.00	
2 Dredge Pipeline Mobilization, Installation and Demobiliz																											1	\$4,500,000.00	\$4,500,000.00	
3 General Mobilization and Demobilization (TS-102)	1 LS \$600,000																										1	\$600,000.00	\$600,000.00	
4 Surveys (TS-210)	1 LS \$285,000											1	LS	\$4,117.60	\$4,117.60												1	\$289,117.60	\$289,117.60	
5 Daily Bird Abatement (TS 211)	226 EA \$800.0																										226		\$180,800.00	
6 Grade Stakes (TS-220)	50 EA \$105.0																										50	\$105.00	\$5,250.00	
7 Instrumental Settlement Plates (TS-251)	17 EA \$5,000.0																										17	\$5,000.00	\$85,000.00	
8 Earthen Containment Dikes (TS-300)	48,138 LF \$142.0		(4,047)	F \$142.00	(\$574,674.00)				351		\$142.00 \$49,842.00																44,442		\$6,310,764.00	
9 Priority Earthen Dike (TS-301)	1 LS \$350,000								(1)	LS \$35	50,000.00 (\$350,000.0)																\$350,000.00	\$0.00	
10 Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810 CY \$6.00	\$15,748,860.0	0 (154,610) 0	Y \$5.00	(\$927,660.00)																						2,470,200	\$6.00	\$14,821,200.00	
11 No Work Zone (TS-511)						1 1	LS \$63,900.00	\$63,900.00				1	LS	\$57,145.00	\$57,145.00												1	\$121,045.00	\$121,045.00	
12 South Dune Mob/Demob																1	LS \$23,550	.00 \$23,550.00									1	\$23,550.00	\$23,550.00	
13 South Dune Construction																60,000	CY \$6.8	\$411,000.00									60,000	\$6.85	\$411,000.00	
14 South Dune Equipment Access Canal Dredging																1	LS \$18,330										1	\$18,330.00	\$18,330.00	
15 South Dune Sand Fence Installation																47,230	LF \$9.7										47,230		\$458,131.00	
16 South Dune Surveys																1	LS \$122,57	\$122,570.00									1	\$122,570.00	\$122,570.00	
17 South Dune Airboat w/ Operator																90	EA \$1,055	\$95,000.40									90	\$1,055.56	\$95,000.40	
18 Callouet Road Construction: Mob/Demob via Elmer's I	d																				\$44,950.00	\$44,950.00					1	\$44,950.00	\$44,950.00	
19 Callouet Road Construction: Haul and Build Rd up to 1																			1,27			\$79,356.00					1,275		\$79,356.00	
20 Callouet Road Construction: Haul and Build Rd over 1	275 CY																			00 CY		\$19,800.00					400		\$19,800.00	
21 Caillouet Road Construction: Additional Airboat																				L4 Day		\$14,588.00					14	\$1,042.00	\$14,588.00	
22 Callouet Road Construction: Site Overhead																			3	L4 Day	\$2,259.00	\$31,626.00					14	92,235.00	\$31,626.00	
23 Post Storm Zeta Damages																							1	LS \$8	37,855.80	\$837,855.80	1	\$837,855.80	\$837,855.80	
					1																	1								
TOTAL		\$31,590,506.0	D		(\$1,502,334.00)			\$63,900.00			(\$300,158)	00)			\$61,262.60			\$1,128,581.4	0			\$190,320.00				\$837,855.80			\$32,069,933.80	

Date: 8/27/2021



GULF REGIONAL OFFICE 2 RIVERWAY SUITE 1130 HOUSTON, TX 77056 P 346.271.7701 F 346.271.7713

June 2, 2021

GLDD_84768_PostZeta_REV3

Submitted via email

Sigma Consulting Group 10305 Airline Highway Baton Rouge, LA 70816

Attn: Joshua Renard, P.E., (jrenard@sigmacg.com) Project Manager

GREAT LAKES DREDGE

& DOCK COMPANY, LLC

RE: CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) POST ZETA DAMAGE REA – REVISION 3

Dear Mr. Renard,

Great Lakes Dredge and Dock Company, LLC (GLDD) submits our Revision 3 proposal for the request for equitable adjustment related to post-hurricane Zeta storm damage.

This latest revision addresses items discussed in the meeting between GLDD/Wilco and CPRA/Sigma held on May 13th, at CPRA's offices in Lafayette, Louisiana.

The following are changes made from our previous Revision 2 proposal:

- 1. Reduction of HydroTerra hours to process Submittals 11 & 12;
- 2. Updated Wilco survey pricing and a copy of the invoice from Providence Engineering and Environmental;
- 3. Updated volume and unit pricing for the ECD re-work for Lifts 1 & 2;
- 4. Updated Wilco pricing for the Loop Line Crossing;
- 5. Removal for equipment standby costs and site overhead costs for equipment during the weather event;
- 6. The inclusion of equipment costs during delays due to the post-storm assessment surveys.
- 7. GLDD reduction of profit and overheads.

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

Considering the aforementioned updates, our proposal is now \$837,856, a 22% reduction from our previous proposal. Based on our conversations, we trust that CRPA will find this reduction to be agreeable.

Please contact me if you have any questions or concerns, I can be reached at <u>CAmeika@gldd.com</u> or 312.933.8723.

Sincerely,

GREAT LAKES DREDGE & DOCK COMPANY, LLC

Chris Ameika Project Sponsor

Cc: Adam Ledet – CPRA (<u>Adam.Ledet@LA.GOV</u>) Tom Salter – GLDD (<u>TSalter@gldd.com</u>)

Confidential Information

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

CONFIDENTIAL

Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 Post-Zeta Storm Damage Request for Equitable Adjustment

	Proposal Breakdov	Γ	REV2	VAR					
l ine Item	Unit n Description Quantity Unit Price Amount						E	Amount	Amount
TS-210	Surveys	Quantity	Unit		r nce	Amount	_	Amount	Amount
210.2	Magnetometer Surveys associated with alternative ECD borrow areas (RFI 29 and RFI 30)	1	LS	\$ 3	32,542.00	\$32,542.00		\$34,376.00	(\$1,834.00)
210.3	HydroTerra Submittals 11 & 12 - Post Hurricane Volume Calcs	50	HRS	\$	159.90	\$7,995.00		\$10,134.60	(\$2,139.60)
210.4	Post-Zeta Survey of ECDs	1	LS	\$23	38,722.00	\$238,722.00		\$297,263.00	(\$58,541.00)
TS-300	Earthen Containment Dikes								
300.1	Lift 1 (Increments 1 - 4)	38,482.00	CY	\$	4.98	\$191,640.36		\$202,605.30	(\$10,964.94)
300.2	Lift 2 (Increments 1 & 2)	23,398.00	CY	\$	4.98	\$116,522.04		\$123,188.85	(\$6,666.81)
300.3	Loop Line Crossing	1.00	LS	\$4	12,898.00	\$42,898.00		\$50,390.00	(\$7,492.00)
300.5	Wilco Equipment Standby Costs - REMOVED							\$ 140,874.93	(\$140,874.93)
300.6	Wilco Delays/Impacts due to Post-Storm Assessment Surveys	16	DAYS	\$	7,398.15	\$118,370.40		\$0.00	\$118,370.40
GLDD Site	ОН	1	LS	\$8	39,166.00	\$89,166.00		\$152,568.00	(\$63,402.00)
	Total Proposal				-	\$837,855.80	-	\$1,072,663.28	(\$234,807.48)
	Total Cost					\$779,361.66	-	\$994,370.16	(\$215,008.50)
	Total Profit		7.5%		-	\$58,494.14	-	\$78,293.12	(\$19,798.98)

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	8
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price due to the addition of Post Hurricane Ida surveying. The Caminada Headland Project was affected by Hurricane Ida which made landfall at Port Fourchon on August 29, 2021. The RTK and Lidar surveying will provide information to assess damages caused by the hurricane. Attached are the work directives dated September 9, 2021 and September 14, 2021 for each survey. Also attached are the cost proposals associated with each.

The following changes are hereby made to the Contract Documents:

- 1) Increase in Contract Price by \$26,737.76 due to addition of Post Ida Lidar Survey item #24.
- 2) Increase in Contract Price by \$7,009.26 due to addition of Post Ida RTK Survey item #25.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) None.

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) None.

This Change Order does not release the Contractor from any of their contract obligations.
PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	8
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

S CHININI V	JF CHANGES I	<u>o contrator</u>			
Change in Contract I	Change in Contract Time				
Original Contract Price	\$31,590,506.00	Original Contract Time			
Original Contract Price	\$31,390,300.00	(calendar days)	548		
Net Ingrassa / (Dearange) from		Net Increase / (Decrease)			
Net Increase / (Decrease) from previous Change Orders	\$ 479,427.80	from previous Change			
previous Change Orders		Orders (days)	0		
Contract Drice price to this		Contract Time prior to this			
Contract Price prior to this Change Order	\$32,069,933.80	Change Order (calendar			
		days)	548		
Net Increase / (Decrease) of this	\$ 33,747.02	Net Increase / (Decrease) of			
Change Order	\$ 55,747.02	this Change Order (days)	0		
Contract Price with this Change		Contract Time with this			
Order	\$32,103,680.82	Change Order (calendar			
		days)	548		

SUMMARY OF CHANGES TO CONTRACT

ACCEPTED:

 RECOMMENDED:
 RECOMMENDED:

 By:
 Josh Renard

 CPRA Engineer
 By:

 Consulting Group

Dipitally signed by Chris Arreins Dir Gells Ensammend görde com Chris Ameika Company LLC One CLOV Christ

America Dete: 2021 09 21 11 19 07-05-00

By:

Date: 9/21/2021 Date: 9/21/2021 Date: 9/21/2021

Contractor, GLDD

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	8
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project Name: Caminada Back Barrier Marsh Creation Pro	ject (BA-	0171)																															
Contractor: Great Lakes Dredge & Dock, LLC (GLDD)					Cha	nge Ord	ler 1	Ch	ange Ord	er 2	C	hang	ge Order 3		C	hange	Order 4		Chai	nge Orde	er 5		Change Orde	er 6	Change	Order 7	,		Change	Order 8		Revised Cor	ntract
PO #: 2000487379									-			-				-				-			-		_				-				
BID ITEMS: DESCRIPTION	QUANTITY	U/M L	UNIT PRICE	Amount	QUANTITY U/M	UNIT PRICE	Amount	QUANTITY U/I	/M Unit Price	Amount	QUANTITY	U/M U	Unit Price An	nount	QUANTITY	U/M Unit	t Price Amou	nt QU	ANTITY U/M	Unit Price	Amount	QUANTITY	Y U/M Unit Price	Amount	QUANTITY U/M Unit	Price A	mount	QUANTITY	U/M	Unit Price	Amount	QUANTITY Unit Price	Amount
 Hydraulic Dredge Mobilization and Demobilization (TS-100) 	1	LS \$3	0.000,000.00	\$3,000,000.00																												1 \$3,000,000.00	\$3,000,000.00
2 Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS \$4	,500,000.00	\$4,500,000.00																												1 \$4,500,000.00	\$4,500,000.00
3 General Mobilization and Demobilization (TS-102)	1	LS \$	600,000.00	\$600,000.00																												1 \$600,000.00	\$600,000.00
4 Surveys (TS-210)	1	LS \$	285,000.00	\$285,000.00											1	LS \$4,1	\$4,117.60	60														1 \$289,117.60	\$289,117.60
5 Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																												226 \$800.00	\$180,800.00
6 Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																												50 \$105.00	\$5,250.00
7 Instrumental Settlement Plates (TS-251)	17	EA :	\$5,000.00	\$85,000.00																												17 \$5,000.00	\$85,000.00
8 Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047) LF	\$142.00	(\$574,674.00)				351	LF \$	\$142.00 \$49,	842.00																		44,442 \$142.00	\$6,310,764.00
9 Priority Earthen Dike (TS-301)	1	LS \$	350,000.00	\$350,000.00							(1)	LS \$3	350,000.00 (\$350	0,000.00)																		- \$350,000.00	\$0.00
10 Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610) CY	\$6.00	(\$927,660.00)																									2,470,200 \$6.00	\$14,821,200.00
11 No Work Zone (TS-511)								1 LS	S \$63,900.00	\$63,900.00					1	LS \$57,1	145.00 \$57,145	.00														1 \$121,045.00	\$121,045.00
12 South Dune Mob/Demob																			1 LS	\$23,550.00	\$23,550.00											1 \$23,550.00	\$23,550.00
13 South Dune Construction																			60,000 CY	\$6.85	\$411,000.00											60,000 \$6.85	\$411,000.00
14 South Dune Equipment Access Canal Dredging																			1 LS	\$18,330.00	\$18,330.00											1 \$18,330.00	\$18,330.00
15 South Dune Sand Fence Installation																			47,230 LF	\$9.70	\$458,131.00											47,230 \$9.70	\$458,131.00
16 South Dune Surveys																			1 LS	\$122,570.00	\$122,570.00											1 \$122,570.00	\$122,570.00
17 South Dune Airboat w/ Operator																			90 EA	\$1,055.56	\$95,000.40											90 \$1,055.56	\$95,000.40
18 Caillouet Road Construction: Mob/Demob via Elmer's Rd																						1	1 LS \$44,950.00	\$44,950.00								1 \$44,950.00	\$44,950.00
19 Caillouet Road Construction: Haul and Build Rd up to 1,275 CY																						1,275	5 CY \$62.24	\$79,356.00								1,275 \$62.24	\$79,356.00
20 Caillouet Road Construction: Haul and Build Rd over 1,275 CY																						400	D CY \$49.50	\$19,800.00								400 \$49.50	\$19,800.00
21 Caillouet Road Construction: Additional Airboat	-		_																			14	4 Day \$1,042.00	\$14,588.00								14 \$1,042.00	\$14,588.00
22 Caillouet Road Construction: Site Overhead			-																			14	4 Day \$2,259.00	\$31,626.00			-	-	-			14 \$2,259.00	\$31,626.00
23 Post Storm Zeta Damages																									1 LS \$837,	855.80 \$83	7,855.80					1 \$837,855.80	\$837,855.80
24 Post Hurricane Ida Lidar Survey																												1	LS	\$26,737.76	\$26,737.76	1 \$26,737.76	\$26,737.76
25 Post Hurricane Ida RTK Survey	-																											1	LS	\$7,009.26	\$7,009.26	1 \$7,009.26	\$7,009.26
	_																																
TOTAL				\$31,590,506.00			(\$1,502,334.00)			\$63,900.00			(\$3	00,158.00)			\$61,2	62.60			\$1,128,581.40	0		\$190,320.00		\$8	837,855.80				\$33,747.02		\$32,103,680.82

Date: 9/20/2021

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	8
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Work Directives



September 9, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 03- Post Ida Lidar Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida lidar survey discussed in the 3:30 pm meeting on 9/8/21 between CPRA & GLDD. This discussion was based on GLDD's September 8th, 2021 revision 1 proposal (attached) that was included in the meeting invite. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this. Note the following clarification to the proposal:

- Scope includes the entire project limits, including all the following: the Caillouet road, south dune, north ECD, training dikes, no work zone.
- The surveying deliverable will include different color designations at 1' elevation increments.
- The raw survey data and AutoCAD files will be submitted as part of the deliverable along with a brief letter or memo describing methods, metadata, etc., as needed.
- The survey will be tied to the project survey control.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Lidar Survey of Project	1	LS	\$26,737.76	\$26,737.76

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV1 Proposal for Lidar Survey.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, Chris Ameika

\\scgbrfs02\scg business\02020\191102\01600\change orders\co xx\210909_ ba-0171 work directive 03- post ida lidar survey.doc



September 14, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 04- Post Ida RTK Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida revised RTK survey proposal provided on September 13, 2021. Approximate ECD Stations 35+00, 145+00, 206+00 to 208+00, 231+00, 242+00 to 243+00, and 261+00 to 263+00 were degraded by Hurricane Ida and are to be surveyed. Further details are noted on the attached proposal. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	RTK Survey of ECD	1	LS	\$7,009.26	\$7,009.26

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV1 Proposal for Topo & Batymetric Survey.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, Chris Ameika

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	8
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Cost Proposals

HYDRO			
	Surveying Quote Schedule		
Attn:	Tom Salter Date Great Lakes Dredge and Dock 9811 Katy Freeway, Suite 1200 Request # Houston, TX 77024		/8/2021 021-161
	(252) 342-4971 <u>trsalter@gldd.com</u>		
From:	Keith J. Roberts		
Project: Location:	Post IDA Lidar Flight Caminada Back Barrier Jefferson and Lafourche Parishes, Louisiana		
	Description	Та	sk Cost
	LIDAR and Topographic Survey (Includes Certified Deliverables)		
Project Se	tup	\$	1,041.40
Preparatio	n of Final Survey Report	\$	1,330.24
•	rvey (Includes Project Setup, Mobilization, Demobilization, Data Acquisition and Data Processing)	\$	18,083.20
LIDAR SU	vey (includes Project Setup, Mobilization, Demobilization, Data Acquisition and Data Processing)	\$	18,083.20
	ound Truth Topographic Survey (Includes Project Setup, Mobilization, Demobilization, Data Acquisition, Data Processing and Certified Data es and Drawings)	\$	6,282.8
TOTAL LI	JMP SUM LIDAR SURVEY	\$	26,737.70
Notes: 1) 2) 3) 4) 5) 6)	a Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project. Lidar and topographic survey is a lump sum proposal. Lidar and topographic survey includes 2 person crew, RTK System, Airborne Lidar System, UTV, data acquisition, data processing and data deliver certified deliverables. Deliverables Include: •LiDAR collection will be done at an aggregate average of 10 points per square meter •Post-processed, calibrated LiDAR strips in LAS1.4 format verified against client control •Bare-earth classified point cloud in tiling scheme provided by Buyer (if provided). •Bare-earth DEM in 32bit floating point format ESRI Ascii Grid (.asc) •LiDAR control report •All Topographic data will be produced per the "ASPRS Positional Accuracy Standards for Digital Geospatial Data". LIDAR survey coverage will be from the shoreline of the Gulf of Mexico and extend north approximately 3500° and include the earthen containment southern dune. Third party charges will be billed at cost All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.		
Keith J. Ro HydroTerr 212 Jacob Scott, LA Phone: (3			

HYDRO	HYDROTERRA		
	Surveying Quote Schedule		
Attn:	Tom Salter Date: Great Lakes Dredge and Dock		9/13/2021
	9811 Katy Freeway, Suite 1200 Request #: Houston, TX 77024 (252) 342-4971 trsalter@gldd.com Kernel (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252) (252)		2021-164
From:	Keith J. Roberts		
Project: Location:	Post IDA Topographic and Bathymetric Survey Caminada Back Barrier Revised 09-13-2021 Jefferson and Lafourche Parishes, Louisiana		
	Description		Task Cost
	Bathymetric and Topographic Survey (Includes Certified Deliverables)		
Project Se	stup	\$	1,041.40
242+00 to containme	hic and Bathymetric Survey - Sta 35+00, Sta 145+00 (Bayou Moreau), Sta. 206+00 to 208+00 (5 Cross Sections Spaced 50'), Sta. 231+00, Sta 243+00 (3 Cross Section), Sta. 261+00 to 263+00 (5 Cross Sections Spaced 50'), cross sections will extend 100' on both sides of the earthen ant dike centerline, Stationing as provided by GLDD and Sigma Consulting Group (Includes Project Setup, Mobilization, Demobilization, Data n and Data Processing)	\$	5,967.86
	UMP SUM TOPOGRAPHIC AND BATHYMETRIC SURVEY	\$	7,009.26
		Ψ	7,005.20
HydroTern Notes: 1) 2)	ra Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project. Topographic and bathymetric survey is a lump sum proposal. Topographic and bathymetric survey includes 2 person crew, RTK System, UTV, airboat w/operator and fuel, data acquisition, data processing and deliverables.	certifi	ed data
3) 4)	Third party charges will be billed at cost All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.		
Sincerely,	Q-Robest		
HydroTen 212 Jacob Scott, LA Phone: (3			

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	9
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to add the enhanced bird abatement effort for south containment dike item to the contract. On October 28, 2020, Hurricane Zeta destroyed the existing south dune, which served as a tie-in point to the project's newly constructed and partially complete northern containment dike. Change Order #05 was added to the project to rebuild approximately 8 miles of the south dune. This additional work included several large dozers, large fuel trucks, and UTV's working and traversing directly on the beach during the 2021 bird nesting season. Due to the direct impacts of the added construction activities to the bird nesting area, additional bird abatement effort was necessary. The quantity of enhanced bird abatement effort for the south containment dike will be taken from the existing daily bird abatement item #5. Attached is the recommendation letter associated with this enhanced effort.

The following changes are hereby made to the Contract Documents:

- 1) Decrease in Contract Price by \$62,400.00 due to removal of 78 days of Daily Bird Abatement item #5.
- 2) Increase in Contract Price by \$62,026.36 due to addition of Enhanced Bird Abatement Effort for Southern Containment Dike item #26.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) None.

The following specification is hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) None.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	9
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

SUMMARY OF CHANGES TO CONTRACT **Change in Contract Price Change in Contract Time Original Contract Time** \$31,590,506.00 **Original Contract Price** 548 (calendar days) Net Increase / (Decrease) Net Increase / (Decrease) from \$ 513,174.82 from previous Change previous Change Orders 0 Orders (days) Contract Time prior to this Contract Price prior to this \$32,103,680.82 Change Order (calendar Change Order 548 days) Net Increase / (Decrease) of this Net Increase / (Decrease) of (\$373.64) this Change Order (days) 0 Change Order Contract Time with this Contract Price with this Change \$32,103,307.18 Change Order (calendar Order 548 days)

RECOMMENDED:

RECOMMENDED:

Josh Renard

ACCEPTED:

Digitally signed by Thomas

CPRA Engineer By:

Sigma Consulting Group

Contractor, GLDD

By: Anna R. Sulter Date: 2021.11.16 13:15:31-06'00'

Date: 11/17/21

Date: 11/16/21

Date: 16NOV214_____

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	9
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project N	Name: Caminada Back Barrier Marsh Creation Pr	roject (BA	-0171	.)																				
Contract	tor: Great Lakes Dredge & Dock, LLC (GLDD)						Cha	nge Ord	er 1		Cha	nge Ord	er 2		Cha	nge Orde	er 3	Cha	inge Ord	er 4		Chan	ige Orde	er 5
								0				0				0			0				0	
	000487379																							
BID ITEMS:		QUANTITY	U/M		Amount	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	′ U/M	Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00																			
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00																			l
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																			
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00													1 LS	\$4,117.60	\$4,117.60				
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																			
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																			
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00																			·
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)					351	LF	\$142.00	\$49,842.00							·
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00									(1)	LS	\$350,000.00	(\$350,000.00)							·
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00)															
11	No Work Zone (TS-511)									1	LS	\$63,900.00	\$63,900.00					1 LS	\$57,145.00	\$57,145.00				
12	South Dune Mob/Demob																				1	LS	\$23,550.00	\$23,550.00
13	South Dune Construction																				60,000	CY	\$6.85	\$411,000.00
14	South Dune Equipment Access Canal Dredging																				1	LS	\$18,330.00	\$18,330.00
15	South Dune Sand Fence Installation																				47,230	LF	\$9.70	\$458,131.00
16	South Dune Surveys																				1	LS	\$122,570.00	\$122,570.00
17	South Dune Airboat w/ Operator														1						90	EA	\$1,055.56	\$95,000.40
18	Caillouet Road Construction: Mob/Demob via Elmer's Rd														1									·
19	Caillouet Road Construction: Haul and Build Rd up to 1,275 CY														1									·
20	Caillouet Road Construction: Haul and Build Rd over 1,275 CY														1									
21	Caillouet Road Construction: Additional Airboat																							
22	Caillouet Road Construction: Site Overhead																							
23	Post Storm Zeta Damages																							
24	Post Hurricane Ida Lidar Survey																							
25	Post Hurricane Ida RTK Survey																							
26	Enhanced Bird Abatement Effort for Southern Containment Dike																							
	TOTAL				\$31,590,506.00				(\$1,502,334.00)				\$63,900.00				(\$300,158.00)			\$61,262.60				\$1,128,581.40

	Jame: Caminada Back Barrier Marsh Creation P	roject (BA	-0171	L)					6				_		-		0				0			
Contract	or: Great Lakes Dredge & Dock, LLC (GLDD)						Chai	nge Ord	er 6		Char	nge Ord	er /		han	ge Order	8		har	nge Order	9	Re	vised Co	ntract
PO #: 20	000487379																							
BID ITEMS:	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	7 U/M	Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00																	1	\$3,000,000.00	\$3,000,000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS- 101)	1	LS	\$4,500,000.00	\$4,500,000.00																	1	\$4,500,000.00	\$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																	1	\$600,000.00	\$600,000.00
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00																	1	\$289,117.60	\$289,117.60
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00													(78) EA	\$800.00	(\$62,400.00)	148	\$800.00	\$118,400.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																	50	\$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00																	17	\$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00																	44,442	\$142.00	\$6,310,764.00
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00																	-	\$350,000.00	\$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00																	2,470,200	\$6.00	\$14,821,200.0
11	No Work Zone (TS-511)																					1	\$121,045.00	\$121,045.00
12	South Dune Mob/Demob																					1	\$23,550.00	\$23,550.00
13	South Dune Construction																					60,000	\$6.85	\$411,000.00
14	South Dune Equipment Access Canal Dredging																					1	\$18,330.00	\$18,330.00
15	South Dune Sand Fence Installation																					47,230	\$9.70	\$458,131.00
16	South Dune Surveys																					1	\$122,570.00	\$122,570.00
17	South Dune Airboat w/ Operator																					90	\$1,055.56	\$95,000.40
18	Caillouet Road Construction: Mob/Demob via Elmer's Rd					1	LS	\$44,950.00	\$44,950.00													1	\$44,950.00	\$44,950.00
19	Caillouet Road Construction: Haul and Build Rd up to 1,275 CY					1,275	CY	\$62.24	\$79,356.00													1,275	\$62.24	\$79,356.00
20	Caillouet Road Construction: Haul and Build Rd over 1,275 CY					400	CY	\$49.50	\$19,800.00													400	\$49.50	\$19,800.00
21	Caillouet Road Construction: Additional Airboat					14	Day	\$1,042.00	\$14,588.00													14	\$1,042.00	\$14,588.00
22	Caillouet Road Construction: Site Overhead					14	Day	\$2,259.00	\$31,626.00													14	\$2,259.00	\$31,626.00
23	Post Storm Zeta Damages									1	I LS	\$837,855.80	\$837,855.80									1	\$837,855.80	\$837,855.80
24	Post Hurricane Ida Lidar Survey													1	LS	\$26,737.76	\$26,737.76					1	\$26,737.76	\$26,737.76
25	Post Hurricane Ida RTK Survey													1	LS	\$7,009.26	\$7,009.26					1	\$7,009.26	\$7,009.26
26	Enhanced Bird Abatement Effort for Southern Containment Dike										\square							1	LS	\$62,026.36	\$62,026.36	1	\$62,026.36	\$62,026.36
																								<u> </u>
	TOTAL				\$31,590,506.00				\$190,320.00				\$837,855.80				\$33,747.02				(\$373.64)			\$32,103,307.1

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	9
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Recommendation Letter and Backup



10305 Airline Highway Baton Rouge, LA 70816 Phone (225) 298-0800 Fax (225) 208-1699 www.sigmacg.com

November 10, 2021

Mr. Adam Ledet, PE Coastal Protection & Restoration Authority of Louisiana 1440 Tiger Dr., Suite B Thibodaux, LA 70301

RE: Caminada BA-0171 Enhanced Bird Abatement

Dear Adam:

Bird abatement was included as part of the original BA-0171 contract as a per-day item. The purpose of the bird abatement was to discourage birds from nesting near construction activities. For this project's habitat, nesting was expected on the beach and dune area. Per the contract specifications and permit, there is a 650' nesting buffer that goes into effect once a protected bird builds a nest during the nesting season. Prior to Hurricane Zeta, the contractor's work in the beach/dune area was limited to two fifty-foot-wide beach and dune crossings, which were constructed outside of bird nesting season.

On October 28, 2020, Hurricane Zeta destroyed the existing south dune, which served as a tie-in point to the project's newly constructed and partially complete northern containment dike. Change Order #05 was added to the project to rebuild approximately 8 miles of the south dune. This additional work included several large dozers, large fuel trucks, and UTV's working and traversing directly on the beach during nesting season. Due to the direct impacts of the added construction activities to the bird nesting area, additional bird abatement effort was necessary. The contractor advised that this effort was greater than the original contract item, and in an effort to ensure that construction was not delayed CPRA directed the contractor to proceed, and the enhanced cost would be negotiated later. Additional wildlife biologists, abatement equipment, access vehicle, and survey gear were utilized for this enhanced effort. Over 230 nests were discovered, documented, and/or buffered on the south beach.

On August 10, 2021 GLDD provided backup Norman Wildlife invoices for April through June 2021 and requested \$65,681.00 for the enhanced abatement efforts as shown in the attached documents. Sigma and GLDD agree on 43 days of enhanced bird abatement effort. Some of these days had multiple wildlife biologist personnel. The personnel are shown in the Norman invoice backup. A breakdown of GLDD's request is as follows with my comments in italics:

- \$54,460.00 extra cost for personnel. (80 people at \$680.75/per person). Referencing our daily reports, GLDD's daily reports, and other documentation, Sigma reviewed the backup invoices and GLDD's request. Sigma initially recorded 82 additional personnel*days onsite, however concurs with 80. The three months of Norman Wildlife backup invoices had a revised invoice for June with revised personnel rates. Sigma applied these revised rates to all months and obtained an average personnel rate of \$639.22 per person*day. Using this rate at 80 days yields <u>\$51,137.60</u> revised cost. GLDD concurs with this change.
- **\$5,250.00 cost for 3 month lease of UTV.** A four seat, four-wheel drive diesel UTV was brought onsite for bird abatement use for approximately three months. I obtained a rental quote for a similar UTV for \$4,050. This did not include fuel, so \$5,250.00 does not seem unreasonable. Before the addition of the south dune work, the single wildlife biologist was

dropped off and picked up once per day via airboat. The addition of the UTV was necessary to cover the 8 mile stretch of beach for several reasons. It was used to deploy different personnel to multiple locations, effectively monitor the large number of active nesting colonies, handle the additional abatement materials, and the UTV was used as its own form of abatement.

• **\$5,971.00 for GLDD overhead.** This is 10% of the above two items. Using the revised personnel cost above this overhead would be <u>\$5,638.76</u>.

In conclusion, Sigma recommends payment of the amount of \$62,026.36 for enhanced bird abatement efforts. GLDD concurs with this.

Sincerely, SIGMA CONSULTING GROUP, INC.

off Renard

Josh Renard, PE Project Engineer

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, \\scgbrfs02\\scg business\02020\191102\01600\change orders\co yy\211108_ ba-0171 enhanced bird abatement rec.doc

attachments: NWC backup invoices April - June, Sigma Abatement Documentation, GLDD/Sigma Email Correspondence

Norman Wildlife Consulting Wildlife Toxicology and Monitoring 2112 NW 199th St. Shoreline WA 98177

320 W Beach Pkwy18 E 45th StMandeville, LA 70448Savannah GA 31405

Invoice #8 April 2021 Invoice BA-0171 P.O. 106233 Caminada Back Barrier Marsh Creation

Vendor #206508

Task	Hours	Rate	Total	Notes
Biologist Eric Ripma	1 day	\$812	\$812	April 2nd
Biologist Dennis Clutter	1 day	\$812	\$812	April 6th
Biologist Eric Ripma	1 day	\$812	\$812	April 6th
Biologist Eric Ripma	4 days	\$812	\$3248	Apr 15-18
Biologist Dennis Clutter	2 Days	\$812	\$1624	Apr 19-20
New Abatement Plan	4 Hours	\$100	\$400	Apr 22-23
Biologist Eric Ripma	4 Days	\$812	\$3248	Apr 22-25
Biologist Dennis Clutter	2 Days	\$812	\$1624	Apr 26-27
Mileage Don Norman	640 mi	0.575	\$368	GA to LA
Biologist Don Norman	3 Days	\$812	\$2436	Apr 27-29
Biologist Sarah Bolinger	1 day	\$812	\$812	Apr 29
Biologist Sarah Bolinger	1 day	\$812	\$812	Apr 30
Travel Don Norman	Airfare	4/30	\$193	LA to GA
TOTAL			\$17201	



Norman Wildlife Consulting Wildlife Toxicology and Monitoring 2112 NW 199th St. Shoreline WA 98177

320 W Beach Pkwy18 E 45th StMandeville, LA 70448Savannah GA 31405

Invoice #9 May 2021 Invoice Caminada Back Barrier P.O. 106233

Vendor #206508

Task	Hours	Rate	Total	Notes
Biologist Eric Ripma	2 days	\$812	\$1624	May 1-2
Biologist Sarah Bolinger	1 day	\$812	\$812	May 1
Biologist Dennis Clutter	2 Days	\$812	\$1624	May 3-4
Biologist Eric Ripma	3 Days	\$812	\$2436	May 5-7
Biologist Sarah Bolinger	2 Days	\$812	\$1624	May 8-9
Biologist Dennis Clutter	2 Days	\$812	\$1624	May 10-11
Biologist Don Norman	5 Days	\$812	\$4060	May11-14,17
Biologist Justin Gott	3 Days	\$575	\$1725	May11,13-14
Biologist Jason Arena	4 days	\$575	\$2300	May 11-14
Biologist Taylor Beck	3 days	\$812	\$2436	May 11-13
Biologist Justin Gott	5 Days	\$575	\$2875	May 17-21
Biologist Dennis Clutter	2 Days	\$812	\$1624	May 18-19
Biologist Grace Gleason	2 Days	\$575	\$1150	May 18-19
Biologist Sarah Bolinger	3 Days	\$812	\$2436	May 21-23
Biologist Justin Gott	4 Days	\$575	\$2300	May 24,26-28
Biologist Dennis Clutter	2 Days	\$812	\$1624	May 24-25
Biologist Taylor Beck	3 Days	\$812	\$2436	May 26-28
Biologist Grace Gleason	2 Days	\$575	\$1150	May 26-27
Biologist Jake Warren	5 Days	\$812	\$4060	May 26-30
Biologist Jason Arena	6 Days	\$575	\$3450	May 25-30
Biologist Dennis Clutter	1 day	\$812	\$812	May 31
Biologist Justin Gott	1 day	\$575	\$575	May 31
TOTAL			\$44757	



Norman Wildlife Consulting Wildlife Toxicology and Monitoring 2112 NW 199th St. Shoreline WA 98177

320 W Beach Pkwy18 E 45th StMandeville, LA 70448Savannah GA 31405

Invoice #10 June 2021 Invoice BA-0171 P.O. 106233 Caminada Back Barrier Marsh Creation

Vendor #206508

Task	Hours	Rate	Total	Notes
Biologist Dennis Clutter	9 days	\$704	\$6,336	June 1, 7-8, 14-15, 21-22, 28-29
Biologist Justin Goff	18 days	\$558	\$10,044	June 1-3, 7-11, 14-17, 21-25, 30
Biologist Taylor Beck	3 days	\$623	\$1,869	June 2-4
Biologist Jake Warren	17 days	\$704	\$11,968	June 2-6,9-13, 16- 17, 23-27
Biologist Jason Arena	13 Days	\$558	\$7,254	June 3-7, 10-14, 25-27
Biologist Grace Gleason	8 Days	\$558	\$4,464	June 7-9, 14-16,21-22
Biologist Donald Norman	4 Days	\$785	\$3,140	June 16-17, 20-21
Biologist Sarah Bolinger	5 days	\$704	\$3,520	June 4-6, 26-27
TOTAL			\$48,595	

Sigma's Abatement Documentation

	-	outh Dune Enhanced Bird			T = ·
Date	Activity Occurred	Description	Additional Personnel	Notes	Enhanced Effort
3/25/2021	Activity Occurred	Description	Personnei	Notes	Effort
3/26/2021		One person			+
3/27/2021					1
3/28/2021					
3/29/2021	No				
3/30/2021	No				
3/31/2021					
4/1/2021					
4/2/2021		One person			
4/3/2021					
4/4/2021					
4/5/2021					
4/6/2021					
4/7/2021					
4/8/2021					
4/9/2021 4/10/2021					+
4/11/2021					
11/2021 1/12/2021					+
/13/2021		1			1
/14/2021					
\$\15/2021		One person			
1/16/2021	Yes	One person			
4/17/2021		One person			
4/18/2021		One person			
4/19/2021		One person			
4/20/2021 4/21/2021		One person			
+/21/2021	Tes	One person One person, Today was the first day			
		any abatement (mylar ribbon and			
		cane poles) installed. *Start of			
4/22/2021	Yes	Dune work			
4/23/2021		One person. First nests found.			
4/24/2021	Yes	One person			
4/25/2021	Yes	One person			
4/26/2021		One person			
1/27/2021		Two person crew	1		Enhanced
4/28/2021		One person	1		Fahaaad
4/29/2021		Two person crew	1		Enhanced
4/30/2021 5/1/2021		One person Two person crew	1		Enhanced
5/1/2021	163	One person, no new abatement	1		Limanceu
5/2/2021	Yes	installed			
-7 7 -		One person, no new abatement			
5/3/2021	Yes	installed, UTV used.			
		One person, no new abatement			
5/4/2021	Yes	installed, UTV used.			
		One person, no new abatement			
5/5/2021	Yes	installed, 2 UTV's onsite.			───
F / C / 2024	Voc	One person, no new abatement			
5/6/2021	105	installed, 2 UTV's onsite. One person, no new abatement			+
5/7/2021	Yes	installed, 2 UTV's onsite.			1
-1.12021		One person, no new abatement		1	+
5/8/2021	Yes	installed, 2 UTV's onsite.			
5/9/2021		One person, 2 UTV'S onsite.			
5/10/2021		One person, 2 UTV'S onsite.			
		5 person crew (training), 2 UTV's			
5/11/2021		used.	4		Enhanced
5/12/2021		3 person crew, 2 UTV's used.	2		Enhanced
/13/2021		4 person crew, 2 UTV's used.	3		Enhanced
/14/2021		3 person crew, 2 UTV's used.	2		Enhanced
/15/2021		<u> </u>		l	+
5/16/2021 5/17/2021		2 person crew, 2 UTV's onsite.	1		Enhanced
5/17/2021 5/18/2021		2 person crew, 2 UTV's onsite. 3 person crew, 2 UTV's onsite.	2		Enhanced Enhanced
5/18/2021		3 person crew, 2 UTV s onsite.	2		Enhanced
5/20/2021		1 person crew, 1 UTV used.	2		Limanced
5/20/2021		2 person crew, 1 UTV used.	1	1	Enhanced

Date	Activity Occurred	Description	Additional Personnel	Notes	Enhance Effort
5/22/2021	Yes	1 person crew, 1 UTV used.			
	Yes	1 person crew, 1 UTV used.			
	Yes	2 person crew, 1 UTV used.	1		Enhanced
	Yes	3 person crew, 1 UTV used.		NWC shows 2 people onsite	Enhanced
	Yes	5 person crew, 1 UTV used.	4		Enhanced
	Yes	4 person crew, 1 UTV used.	3		Enhanced
	Yes	3 person crew, 1 UTV used.	2	NWC shows 4 people onsite	Enhanced
	Yes	2 person crew, 1 UTV used.	1		Enhanced
	Yes	2 person crew, 1 UTV used.	1		Enhanced
	Yes	2 person crew, 2 UTV's onsite.	1		Enhanced
	Yes	2 person crew	2		Enhanced
	Yes Yes	3 person crew 4 person crew	3		Enhanced Enhanced
	Yes	4 person crew	3		Enhanced
	Yes	3 person crew	2		Enhanced
6/6/2021		3 person crew	2		Enhanced
	Yes	4 person crew	3		Enhanced
6/8/2021		3 person crew	2		Enhanced
	Yes	3 person crew	2		Enhanced
	Yes	3 person crew	2		Enhanced
	Yes	3 person crew	2		Enhanced
	Yes	2 person crew	1		Enhanced
	Yes	2 person crew	1		Enhanced
	Yes	4 person crew	3		Enhanced
6/15/2021		3 person crew	2		Enhanced
	Yes	3 person crew		NWC shows 4 people onsite	Enhanced
6/17/2021		3 person crew	2		Enhanced
	No		1 -		
6/19/2021		1	1		1
	No		1	NWC shows 1 person onsite	1
	Yes	4 person crew	3		Enhanced
	Yes	4 person crew	3	NWC shows 3 people onsite	Enhanced
	Yes	2 person crew	1		Enhanced
	Yes	2 person crew	1		Enhanced
	Yes	3 person crew	2		Enhanced
	Yes	2 person crew	1	NWC shows 3 people onsite	Enhanced
	Yes	2 person crew	1	itte shours a people clisite	Enhanced
	Yes	One person	-		Lindificed
	Yes	One person			
	Yes	One person			
	Yes	One person			
	Yes	One person			
7/3/2021					
	No				
	Yes	One person in field, one in office			
	Yes	One person			
	Yes	One person			
	Yes	One person			
7/9/2021	Yes	One person			
7/10/2021		One person			
7/11/2021	No	· ·			
	Yes	One person			
7/13/2021		One person			
7/14/2021	Yes	One person			
7/15/2021	Yes	One person, half day		1	1
7/16/2021		One person, half day		1	1
7/17/2021		One person, half day			
7/18/2021		One person, half day			
7/19/2021		One person			
7/20/2021	Yes	One person			
7/21/2021	Yes	One person, half day			
7/22/2021		One person			
7/23/2021		One person			
7/24/2021	Yes	One person			
		One person Nesting Survey			
7/25/2021	No	cancelled due to weather			
7/26/2021		Two people, half day		İ	İ
7/27/2021		One person, half day			1
7/28/2021	Yes	Two people, half day			
7/29/2021		One person			
7/30/2021		1		1	1
7/31/2021		1		1	1
8/1/2021				İ	İ
8/2/2021		1	1		1
8/3/2021		One person, half day	1		1
		one person, nan day	1	<u> </u>	1
8/4/2021			1		-
8/5/2021		One person	+		+
8/6/2021		One person			_
8/7/2021	No		1		
8/8/2021	Yes	One person			
8/9/2021	No				
0/ 5/ 2021					

Original Bird abatement item is at \$800 per day for up to 226 days, for a potential total of \$180,800.00 Bird abatement started on the dune on 4/22/21. Previous to 4/22/21, 42 bird abatement days were performed totaling \$33,600 earned. Notes:

Joshua Renard

From:	Salter, Thomas R <trsalter@gldd.com></trsalter@gldd.com>
Sent:	Monday, November 8, 2021 5:03 PM
То:	Joshua Renard
Cc:	Quakkelaar, Mitchell A
Subject:	RE: BA-0171: Enhanced Bird Abatement Efforts

Josh,

This is acceptable, I concur.

Tom



TOM SALTER

Senior Project Manager Great Lakes Dredge & Dock Company, LLC 9811 Katy Freeway | Suite 1200 | Houston, TX 77024 | USA +1 (252) 342-4971 trsalter@gldd.com website | linkedin | vCard

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From: Joshua Renard <jrenard@sigmacg.com>
Sent: Monday, November 8, 2021 4:04 PM
To: Salter, Thomas R <TRSalter@gldd.com>
Cc: Quakkelaar, Mitchell A <MAQuakkelaar@gldd.com>
Subject: [EXTERNAL] BA-0171: Enhanced Bird Abatement Efforts

Tom,

The backup NWC invoices show different personnel rates for each month. If I recall correctly, the revised rates in June should be used. Below, your extra cost of \$54,460.00 has an average personnel rate of \$680.75 for 80 days. Using the revised rates for April through June I am getting an average personnel rate of \$639.22. At 80 days this totals \$51,137.60. The grand total with UTV and markup would be \$62,026.36. I am proposing to recommend this amount to CPRA for payment. Do you concur?

Sincerely,



Joshua K. Renard, PE Project Manager Cell: (337) 519-3151 10305 Airline Highway, Baton Rouge, LA 70816 jrenard@sigmacg.com | www.sigmacg.com

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From: Salter, Thomas R <<u>TRSalter@gldd.com</u>> Sent: Tuesday, August 10, 2021 12:13 PM To: Joshua Renard <<u>irenard@sigmacg.com</u>> **Cc:** Ameika, Chris <<u>CAmeika@gldd.com</u>>; Quakkelaar, Mitchell A <<u>MAQuakkelaar@gldd.com</u>>; Chambers, William H <<u>WHChambers@gldd.com</u>>

Subject: RE: Caminada Bird Abatement Suspension

Josh,

Please find attached the abatement invoices with extra abatement efforts, starting April 27th and ending June 27th.

Eighty (80) extra man days were added to the original scope, reflected on the attached spreadsheet, at a cost of:

April – 2 extra personnel cost: \$1,600.00 (2@800) May – 30 extra personnel cost: \$20,950.00 (19@800/10@575) June – 48 extra personnel cost: \$31,910.00 (26@704/3@623/14@558/5@785)

 Extra Cost –
 \$54,460.00

 UTV rental Cost –
 \$5,250.00 (3 months lease)

 10% overhead –
 \$5,971.00

Grand Total – \$65,681.00

×	Ta hily years yar yilang. Historiak Difesy wantat akonto dan katal af titu pinan harita Gun dan dinigi a kata Gongang, Ali

TOM SALTER

Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive | Suite 1130 | Houston, TX 77056 | USA +1 (252) 342-4971 trsalter@gldd.com website | careers | linkedin | vCard

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From: Joshua Renard <<u>jrenard@sigmacg.com</u>> Sent: Tuesday, August 10, 2021 8:41 AM To: Salter, Thomas R <<u>TRSalter@gldd.com</u>>

Cc: Ameika, Chris <<u>CAmeika@gldd.com</u>>; Quakkelaar, Mitchell A <<u>MAQuakkelaar@gldd.com</u>>; Chambers, William H <<u>WHChambers@gldd.com</u>>; Pearse, Keith <<u>KPearse@gldd.com</u>>; Adam Ledet <<u>Adam.Ledet@LA.GOV</u>>; Renee Bennett <<u>renee.s.bennett@la.gov</u>>; Shannon Haynes <<u>Shannon.Haynes@LA.GOV</u>> **Subject:** [EXTERNAL] RE: Caminada Bird Abatement Suspension

Tom,

Can you provide bird abatement invoices to date, as well as your proposal for reimbursement? I am waiting to hear back from W&F with concurrence on the end of abatement, however, I would like to be prepared to wrap this up when they respond.

Sincerely,



Joshua K. Renard, PE Project Manager Cell: (337) 519-3151 10305 Airline Highway, Baton Rouge, LA 70816 jrenard@sigmacg.com | www.sigmacg.com Disclaimer/Confidentiality Statement: The information contained in this e-mail, including any accompanying documents or attachments, is intended solely for the use of the individual(s) or entity to which it is addressed, and may contain information that is PRIVILEGED, CONFIDENTIAL and exempt from disclosure under applicable law. Unless otherwise stated herein, Sigma Consulting Group, Inc. makes no expressed or implied warranties as to the suitability of the information contained in this e-mail for any specific purpose not explicitly stated. If you are not the intended recipient, you are hereby notified that any disclosure, distribution, copying or the taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this transmission in error, please notify us immediately and delete this e-mail. Thank you for your cooperation

From: Salter, Thomas R <<u>TRSalter@gldd.com</u>>
Sent: Sunday, August 8, 2021 1:49 PM
To: Joshua Renard <<u>irenard@sigmacg.com</u>>; Adam Ledet <<u>Adam.Ledet@LA.GOV</u>>; Donald Norman
<<u>normanwildlifeconsulting@gmail.com</u>>
Cc: Ameika, Chris <<u>CAmeika@gldd.com</u>>; Quakkelaar, Mitchell A <<u>MAQuakkelaar@gldd.com</u>>; Chambers, William H
<<u>WHChambers@gldd.com</u>>; Pearse, Keith <<u>KPearse@gldd.com</u>>
Subject: Caminada Bird Abatement Suspension
Importance: High

Josh,

See attached from Norman Wildlife Consultants. This final abatement cessation document from Don suggests that no further abatement will be required this season.

Please advise if CPRA is ok with ceasing normal bird abatement activities. Of course Don's group would be on standby in the case of any uptick in bird activities. If CPRA is agreeable to this, we can square up our extra abatement days on the August or September invoices.

Thank you for your continued support.

Tom

Best regards,



TOM SALTER Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive | Suite 1130 | Houston, TX 77056 | USA +1 (252) 342-4971 trsalter@gldd.com website | careers | linkedin | vCard

Economic Growth, Coastal Resilience, and Natural Infrastructure, IT ALL STARTS WITH DREDGING®

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PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to increase the Contract Price and Contract Time due to the addition of several restoration items to restore the project to pre- Hurricane Ida conditions. As this project is a marsh creation project, the dredge fill is held in place by earthen containment dikes, weirs and a southern containment dike. Hurricane Ida made impact to the project site on August 29th 2021, damaging many of these key project features needed for dredging to commence.

Great Lakes Dock and Dredge (GLDD), the current contractor on project provided a proposal dated January 28, 2022, to repair these project features, add surveying to quantify the extent of the damages, survey the repair work once repairs are complete, as well as other work associated with the restoration of this project to enable successful completion of the project. The added items are further described in GLDD's proposal attached as a reference to this Change Order. Other than the payment obligations in this Change Order, CPRA shall have no other payment obligations to GLDD for any work associated with Hurricane Ida.

The following changes are hereby made to the Contract Documents:

- 1) Decrease in Contract Price by \$49,700.00 due to removal of 350 LF of original contract ECD Construction item #8. This was the portion of the ECD not built before Hurricane Ida.
- 2) Decrease in Contract Price by \$106,442.15 due to removal of 15,539 CY of South Dune Construction item #13. This was the leftover cubic yardage amount not used to rebuild the dune post-Zeta and before Hurricane Ida.
- 3) Decrease in Contract Price by \$335,232.00 due to removal of 34,560 LF of South Dune Sand Fence Installation item #15. This was the amount of sand fencing not installed post-Zeta and before Hurricane Ida.
- 4) Decrease in Contract Price by \$10,555.60 due to removal of 10 EA of South Dune Airboat item #17. These were days of airboat operation for South Dune Construction not used post-Zeta and before Hurricane Ida.
- 5) Decrease in Contract Price by \$22,475.00 due to removal of 50% of the Caillouet Road Construction Mob/De-mob item #18. The construction equipment for this work was demobed in preparation for storm Zeta prior to completion of the work.
- 6) Decrease in Contract Price by \$16,929.00 due to removal of 342 CY of Caillouet Road Construction item #20. This was the leftover cubic yardage amount not used to rebuild the road post-Zeta and before Hurricane Ida.
- 7) Decrease in Contract Price by \$9,378.00 due to removal of 9 Days of Caillouet Road Airboat item #21. These were days of airboat operation for South Dune Construction not used post-Zeta and before Hurricane Ida.
- 8) Decrease in Contract Price by \$20,331.00 due to removal of 9 Days of Caillouet Road Overhead item #22. These were not used post-Zeta and before Hurricane Ida.

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PURCHASE ORDER NO:	2000487379

- 9) Increase in the Contract Price by \$55,735.90 due to addition of Post Ida Pre-construction MCA Survey item #27.
- 10) Increase in the Contract Price by \$51,092.93 due to addition of Post Ida South Dune Mobilization item #28.
- 11) Increase in the Contract Price by \$596,621.82 due to addition of 84,451 CY for Post Ida South Dune Construction Rebuild item #29.
- 12) Increase in the Contract Price by \$156,314.49 due to addition of Post Ida Earthen Containment Dike (ECD) Mobilization item #30.
- 13) Increase in the Contract Price by \$2,186,187.95 due to addition of Post Ida ECD Construction Rebuild item #31.
- 14) Increase in the Contract Price by \$174,576.20 due to addition of Post Ida ECD Maintenance item #32.
- 15) Increase in the Contract Price by \$45,332.92 due to addition of 3,300 LF of Post Ida Internal Training Dike Construction Rebuild item #33.
- 16) Increase in the Contract Price by \$15,693.21 due to addition of Post Ida Caillouet Road Construction Mobilization item #34.
- 17) Increase in the Contract Price by \$42,332.78 due to addition of 677 CY for Post Ida Caillouet Road Construction item #35.
- 18) Increase in the Contract Price by \$60,927.54 due to addition of Post Ida Reinstallation of the No Work Zone item #36.
- 19) Increase in the Contract Price by \$26,445.51 due to addition of Post Ida Readjustment of Primary Weirs item #37.
- 20) Increase in the Contract Price by \$39,789.45 due to addition of Post Ida Readjustment of Secondary Weirs item #38.
- 21) Increase in the Contract Price by \$37,302.61 due to addition of Post Ida Reinstallation of Primary Weir Filters/Boards item #39.
- 22) Increase in the Contract Price by \$528,540.65 due to addition of Post Ida Sand Fence Installation item #40.
- 23) Increase in the Contract Price by \$26,750.01 due to addition of Post Ida Instrument Settlement Plates (ISP) Replacement item #41.
- 24) Increase in the Contract Price by \$15,816.31 due to addition of Post Ida ISP Readjustment item #42.
- 25) Increase in the Contract Price by \$5,617.46 due to addition of Post Ida Grade Stakes Replacement item #43.
- 26) Increase in the Contract Price by \$539,843.60 due to addition of Post Ida Combined Surveying item #44.
- 27) Increase in the Contract Price by \$5,135.97 due to addition of Post Ida Tier 1 Bird Abatement Effort item #45.
- 28) Increase in the Contract Price by \$160,285.80 due to addition of Post Ida Tier 2 Bird Abatement Effort item #46.
- 29) Increase in the Contract Price by \$37,664.07 due to addition of Post Ida Tier 3 Bird Abatement Effort item #47.

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PURCHASE ORDER NO:	2000487379

- 30) Increase in the Contract Price by \$408,403.22 due to addition of Post Ida Airboats, UTV, and GLDD Site Personnel item #48.
- 31) Increase in the Contract Price by \$234,714.49 due to addition of Post Ida Repair Support item #49.
- 32) Increase in the Contract Price by \$33,663.27 due to addition of Post Ida Security and Elmer's Island Rd Escort item #50.
- 33) Increase in the Contract Price by \$108,664.12 due to addition of Post Ida Elmer's Island Rd Improvement item #51.
- 34) Increase in the Contract Price by \$80,723.27 due to addition of Post Ida Shore Pipeline Repair/Reinstallation item #52.
- 35) Increase in the Contract Price by \$84,046.70 due to addition of Post Ida Submerged Pipeline Repair/Reinstallation item #53.

The following days were modified to the Contract:

- 1) 134 days are added to account for the contractor's demobilization from the site on August 27th, 2021 in preparation for Hurricane Ida to the return to site on February 7, 2022.
- 2) 55 days are added to account for time between the Hurricane Ida demobilization on August 27th, 2021 and the remaining days left in the original contract ending on October 20th, 2021.
- 3) 20 days are added for critical path Earthen Containment Dike Surveying.
- 4) 180 days are added for critical path Earthen Containment Dike Construction.
- 5) In total, 389 days added to the Contract with the new project end date as November 12, 2022.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) None.

The following specifications are hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

- 1) Item #27 MCA Preconstruction: This item shall adhere to existing TS-210. Work Directive 05 dated December 3, 2021 is attached and further describes this work.
- 2) Item #28 South Dune Mobilization: 60% of this item will be paid when all equipment described in the attached proposal is mobilized onsite. The remaining 40% will be paid once the South Dune Construction is complete & accepted, all associated equipment is demobilized from the site & Elmer's Island Road, and Elmer's Island Road is returned to pre-project conditions.
- Item #29 South Dune Construction: TS-512 attached applies as previously included in Change Order #5.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
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CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

- 4) Item #30 ECD Mobilization: 60% of this item will be paid when all equipment described in the attached proposal is mobilized onsite. The remaining 40% will be paid once the ECD is complete and all associated equipment is demobilized from the site.
- 5) Item #31 ECD Construction: TS-300 applies as included in the original specifications.
- 6) Item #32 ECD Maintenance: Payment for this item will be made in full after acceptance of all as-built surveys on the project. Note that per TS-300.5 maintenance on the dike shall be required for nonconformance based on inspections or process surveys. Payment may be withheld for nonconformance.
- 7) Item #33 Internal Training Dike Construction: TS-300 applies as included in the original specifications. Payment for this item will be made per linear foot after acceptance of the internal training dike as-built survey.
- 8) Item #34 Caillouet Rd Construction Mobilization: 60% of this item will be paid when all equipment described for this item in the attached proposal is mobilized onsite. The remaining 40% will be paid once the Caillouet Rd Construction is complete & accepted, all associated equipment is demobilized from the site & Elmer's Island Road, and Elmer's Island Road is returned to pre-project conditions.
- 9) Item #35 Caillouet Rd Construction: GLDD must locate suitable material from inside the project area while adhering to all land rights agreements. The road shall be built to a +5 elevation at a 20' top width with 3:1 side slopes. A map with the cross section as provided by GLDD is attached. The alignment of Caillouet Road is as follows:

POINT NUMBER	NORTHING	EASTING	DESCRIPTION
20000	221615.1063	3647166.5852	Caillouet Rd
20001	221682.9082	3647237.4282	Caillouet Rd
20002	221760.7325	3647323.9894	Caillouet Rd
20003	221909.0883	3647491.2144	Caillouet Rd
20004	222156.2082	3647701.3532	Caillouet Rd
20005	222315.7227	3647780.1589	Caillouet Rd

- 10) Item #36 Reinstallation of No Work Zone: TS-511 first provided in Change Order #2 is attached and applies.
- 11) Item #37 Re-Adjustment of Primary Weirs: TS-510 applies. This item will be constructed if needed. The contractor will assess the existing field conditions of the weirs and

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CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
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PURCHASE ORDER NO:	2000487379

determine with CPRA's concurrence if adjustment is needed. Payment shall be made on a per each basis once completed.

- 12) Item #38 Re-Adjustment of Secondary Weirs: TS-510 applies. This item will be constructed if needed. The contractor will assess the existing field conditions of the weirs and determine with CPRA's concurrence if adjustment is needed. Payment shall be made on a per each basis once completed.
- 13) Item #39 Re-Installation of Primary Weir Filter/Boards: TS-510 applies. Payment shall be made on a per each basis after final acceptance of the MCA.
- 14) Item #40 Sand Fence Installation: TS-512 first provided in Change Order #5 is attached and applies. Payment shall be made on a linear foot basis after installation.
- 15) Item #41 ISP Replacement: TS-251 applies. This item will be constructed if needed. The contractor will assess the existing field conditions of the ISP's and determine with CPRA's concurrence if replacement is needed. Payment shall be made on a per each basis once completed and installed.
- 16) Item #42 ISP Re-Adjustment: TS-251 applies. This item will be constructed if needed. The contractor will assess the existing field conditions of the ISP's and determine with CPRA's concurrence if adjustment is needed. Payment shall be made on a per each basis once completed.
- 17) Item #43 Grade Stakes Replacement: TS-220 applies.
- 18) Item #44 Combined Surveying: TS-210 applies. All surveying items described as Preconstruction (10.1 through 10.14) in GLDD's attached proposal shall be paid at 100% their corresponding total costs once the preconstruction is accepted. Surveying items identified as Process (10.15 through 10.17) shall be paid at 100% their corresponding total costs once all process surveys are 100% complete and accepted for that project feature. All surveying items described as as-built (10.18 and 10.19) shall be paid once asbuilt surveying is completed and the entire project is accepted.
- 19) Items #45-47 Bird Abatement Tier 1 through 3 Effort: TS-211 applies. These items will be paid on a per day basis for bird abatement effort as described in GLDD's proposal. Note that Tier 3 indicates that maximum daily cost that will be reimbursed, regardless of effort required.
- 20) Item #48 Airboat, UTV, GLDD Site Personnel: This item will be reimbursed on a per day basis for ECD and South Dune construction, not to exceed 120-day reimbursement regardless of actual construction duration.
- 21) Item #49 Repair Support: This item will be reimbursed on a per day basis for ECD and South Dune construction, not to exceed 120-day reimbursement regardless of actual construction duration.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
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- 22) Item #50 Security and Escort for Elmer's Island Road: This item will be reimbursed on a per day basis for security and escort for Elmer's Island Road access, not to exceed 120-day reimbursement regardless of actual construction duration.
- 23) Item #51 Elmer's Island Road Improvements: This is a lump sum item that includes both pre-use and post-restoration inspection reports with pictures. This item assumed roughly 1,500 tons of 610 gravel and is to be reimbursed after final demobilization of the project and full restoration of Elmer's Island Road back to pre GLDD use.
- 24) Item #52 Shore Pipeline Repair/Reinstallation: This will be paid on a per day basis not to exceed 10 days, regardless of actual re-installation/repair efforts.
- 25) Item #53 Submerged Pipeline Repair/Reinstallation: This will be paid on a per day basis not to exceed 6 days, regardless of actual re-installation/repair efforts.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

JUNIMANI	OF CHANGES I	<u>o confinaci</u>					
Change in Contract I	Price	Change in Contract Time					
Original Contract Price	\$31,590,506.00	Original Contract Time					
Original Contract Price	\$51,590,500.00	(calendar days)	548				
Nat Ingrassa / (Decrease) from		Net Increase / (Decrease)					
Net Increase / (Decrease) from previous Change Orders	\$ 512,801.18	from previous Change					
previous Change Orders		Orders (days)	0				
Contract Drice price to this		Contract Time prior to this					
Contract Price prior to this Change Order	\$32,103,307.18	Change Order (calendar					
Change Order		days)	548				
Net Increase / (Decrease) of this	\$5,187,179.50	Net Increase / (Decrease) of					
Change Order	\$5,187,179.50	this Change Order (days)	389				
Contract Price with this Change		Contract Time with this					
Contract Price with this Change Order	\$37,290,486.68	Change Order (calendar					
Order		days)	937				

SUMMARY OF CHANGES TO CONTRACT

RECOMMENDED: RECOMMENDED: ACCEPTED: By: CPRA Engineer Sigma Consulting Group By: CPRA Engineer Sigma Consulting Group By: CPRA Engineer Consulting Group CPRA Engineer Consulting Group CONTRACTOR GLDD Date: 2/4/2022 Date: 2/4/2022 Date: 2/4/2022

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

	Name: Caminada Back Barrier Marsh Creation Projec	t (BA-017:	1)				Cha	ngo Ord	or 1		Cha	ngo Ord	~ 7		Cha	nge Ord	or 7		Cha	nge Orde			Cha	ngo Ord	
	tor: Great Lakes Dredge & Dock, LLC (GLDD) 000487379					Change Order			er 1 Change Order 2				er z		Chai	nge Ora	er 3		nge Orae	er 4	Change Order 5				
BID ITEMS		QUANTITY	111/64	UNIT PRICE	é mount	QUANTITY	11764	UNIT PRICE	Amount	QUANTITY	11764	Unit Price	Amount	QUANTITY	11764	Unit Price	Amount	OUANTITY	11764	Unit Price	Amount	QUANTITY	111764	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	4	1.5	\$3,000,000,00	\$3,000,000,00									-				-							1
-																									1
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)	1	LS	\$4,500,000.00	\$4,500,000.00																				1
а	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																				
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00													1	LS	\$4,117.60	\$4,117.60				1
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																				1
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																				1
7	Instrumental Settlement Plates (TS-251)	17	EA		\$85,000.00																				1
8	Earthen Containment Dikes (TS-300) Priority Earthen Dike (TS-301)	48,138		\$142.00	\$6,835,596.00	(4,047)	LF	\$142.00	(\$574,674.00)					351		\$142.00	\$49,842.00								
9		1	LS				_							(1)	LS	\$350,000.00	(\$350,000.00)								
10	Hydraulic Dredging and Marsh Creation (TS-400) No Work Zone (TS-511)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610)	CY	\$6.00	(\$927,660.00)				\$63,900.00							\$\$7.145.00	\$\$7.145.00		_		ł
11	No Work Zone (TS-511) South Dune Mob/Demob		-				-			1	LS	\$63,900.00	\$64,900.00					1	LS	\$57,145.00	\$57,145.00			\$23,550.00	\$23,550.00
12	South Dune Mob/Demob South Dune Construction	_	-				_				_												CY		\$411.000.00
14	South Dune Equipment Access Canal Dredging	-	-				-			-	-				-				-			30,000		\$6.85	\$18,330.00
14	South Dune Equipment Access Canal Dredging South Dune Sand Fence Installation	-	-				-			-	-				-				-			47.220	LS		\$18,440.00
15	South Dune Sand Fence Installation South Dune Surveys	-	-				-				-				-				-					\$122,570.00	
15	South Dune Surveys South Dune Airboat w/ Operator	-	+				-			-	-				-				+					\$122,570.00	
18	Callouet Road Construction: Mob/Demob via Elmer's Rd	_	_				-				_								-			95		31,033.30	393,000.40
19	Callouet Road Construction: Hour Daniab Via Enhance Rd	_	_				-				_								-				_		t
20	Callouet Road Construction: Haul and Build Rd op to 1,275 CY	-	-				-				-				-				-				-		
20	Callouet Road Construction: Additional Airboat		-				-												-				-		1
22	Callouet Road Construction: Site Overhead																								
23	Post Storm Zeta Damages																								
24	Post Hurricane Ida Lidar Survey																								
25	Post Hurricane Ida BTK Survey																								1
26	Enhanced Bird Abatement Effort for Southern Containment Dike																								
27	Post Ida Pre-con Survey of MCA																								(
28	Post Ida South Dune Mobilization																								
29	Post Ida South Dune Construction Rebuild																								
30	Post Ida Earthen Containment Dike (ECD) Mobilization																								
31	Post Ida Earthen Containment Dike (ECD) Construction Rebuild																								
32	Post Ida Earthen Containment Dike (ECD) Maintenance																								
33	Post Ida Internal Training Dike Construction Rebuild																								
34	Post Ida Caillouet Road Construction Mobilization																								
35	Post Ida Callouet Road Construction Road Improvements																								1
36	Post Ida Re-installation No Work Zone																								1
37	Post Ida Re-Adjustment of Primary Weirs																								1
38	Post Ida Re-Adjustment of Secondary Weirs																								1
39	Post Ida Re-Installation of Filters/Boards	-	_				_				_												_		I
40	Post Ida Sand Fence Installation along South Dune	-	_				_				_												_		I
41	Post Ida ISP Replacement	-	_				_				_												_		I
42	Post Ida ISP Re-Adjustment Post Ida Grade Stakes Replacement		-				-				-								-				-		4
43			-				-			-	-								-				_		4
	Post Ida Combined Surveying		-								-				-				-				_		+
45	Post Ida Bird Abatement- Tier 1 Effort Post Ida Bird Abatement- Tier 2 Effort		-								-				-				-				_		4
46	Post Ida Bird Abatement- Tier 2 Effort Post Ida Bird Abatement- Tier 2 Effort		-								-				-				-				_		4
47		-	+				-			-	-				-				-			-			t
48	Post Ida Air Boats, 01V's and GLDD Site Personnel Post Ida Repair Support- 966 FEL & 4x4 Pick-up w'Operators	-	+				-			-	-				-				-			-			t
49	Post Ida Repair Support- 966 FEL & 4x4 Pick-up WOperators Post Ida Security and Escort for Elmer's Island Rd.	-	+	1	1	-	-			-	-				-			1	+			-	-		1
50	Post ida Security and Escort for Eimer's Island Rd. Post ida Eimer's Island Rd. Improvements	-	+	1	1	-	-			-	-				-			1	+			-	-		1
51	Post Ida Limer's Island Rd. Improvements Post Ida Shore Pipeline Repairs / Re-Installation		+	1			+	1			1				-			1	+				+		1
52	Post Ida Submerged Pipeline Repairs / Re-Installation		+	1			+	1			1				-			1	+				+		1
	· · · · · · · · · · · · · · · · · · ·	1	1	1	1		1	1			1			1			1	1	1				-	1	1
	1	1	1	1	1	1	1	1	1	1	1	1			1			1	1			1	-	1	· · · · · ·
-			-		1					1				1			1	1							
1	TOTAL				\$31,590,506.00				(\$1,502,334.00)				\$63,900.00				(\$300,158.00)				\$61,262.60	1			\$1,128,581.4
1						1				1								1				1			1

Contrac	Name: Caminada Back Barrier Marsh Creation Projec :tor: Great Lakes Dredge & Dock, LLC (GLDD)	t (BA-017	1)			Cha	ange Ord	er 6		Change Orde	er 7	с	hange Or	der 8		Char	nge Order	9	c	Chang	ge Order :	10	Revised Con	ntract
	2000487379	QUANTITY	LUZM I							QUANTITY U/M Link Price Amount			QUANTITY U/M Linit Price Amount			OUANTITY U/A4 Unit Online Amount								
BID ITEM!		QUANTITY		UNIT PRICE \$2.000.000.00	Amount \$3.000.000.00	QUANTITY U/M	Unit Price	Amount	QUANTITY	U/M Unit Price	Amount	QUANTITY	U/M Unit P	rice Amount	QUANTIN	0/M	Unit Price	Amount	QUANTITY	0/M	Unit Price	Amount	QUANTITY Unit Price 1 \$3,000,000,00	
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1														_				_				
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)	1	LS	\$4,500,000.00	\$4,500,000.00																		1 \$4,500,000.00	\$4,500,000.0
a	General Mobilization and Demobilization (TS-102)	1	LS	\$600.000.00	\$600.000.00																		1 \$600.000.00	\$600.000.00
4	Surveys (TS-210)	1		\$285,000,00	\$285,000,00																		1 \$289,117.60	\$289,117.60
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00											(78) EA	\$800.00	(\$62,400,00)					148 \$800.00	\$118,400.00
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00												4000.00						50 \$105.00	\$5,250.00
7	Instrumental Settlement Plates (TS-251)	17		\$5,000.00	\$85,000.00																		17 \$5,000.00	\$85,000.00
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00														(350)	LF	\$142.00	(\$49,700.00)	44,092 \$142.00	\$6,261,064.0
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00																		- \$350,000.00	\$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00																		2,470,200 \$6.00	\$14,821,200
11	No Work Zone (TS-511)																						1 \$121,045.00	\$121,045.0
12	South Dune Mob/Demob																						1 \$23,550.00	\$23,550.00
13	South Dune Construction																		(15,539)	CY	\$6.85	(\$106,442.15)	44,461 \$6.85	\$304,557.81
14	South Dune Equipment Access Canal Dredging																						1 \$18,330.00	\$18,330.00
15	South Dune Sand Fence Installation																		(34,560)	31	\$9.70	(\$335,232.00)	12,670 \$9.70	\$122,899.0
16	South Dune Surveys																						1 \$122,570.00	\$122,570.0
17																			(10)	A3	\$1,055.56	(\$10,555.60)	80 \$1,055.56	\$84,444.80
18	Callouet Road Construction: Mob/Demob via Elmer's Rd					1 LS		\$44,950.00											-50%	23	\$44,950.00	(\$22,475.00)	0.50 \$44,950.00	
19	Callouet Road Construction: Haul and Build Rd up to 1,275 CY					1,275 CY																	1,275 \$62.24	\$79,356.00
20	Callouet Road Construction: Haul and Build Rd over 1,275 CY					400 CY	\$49.50	\$19,800.00											(342)	CY	\$49.50	(\$16,929.00)	58 \$49.50	\$2,871.00
21	Callouet Road Construction: Additional Airboat					14 Day	\$1,042.00	\$14,588.00											(9)	DAY	\$1,042.00	(\$9,378.00)	5 \$1,042.00	\$5,210.00
22	Callouet Road Construction: Site Overhead					14 Day	\$2,259.00	\$31,626.00											(9)	DAY	\$2,259.00	(\$20,331.00)	5 \$2,259.00	\$11,295.0
23	Post Storm Zeta Damages								1	LS \$837,855.80	\$837,855.80												1 \$837,855.80	\$837,855.8
24	Post Hurricane Ida Lidar Survey												LS \$26,73										1 \$26,737.76	\$26,737.70
25	Post Hurricane Ida RTK Survey											1	LS \$7,005	.26 \$7,009.20									1 \$7,009.26	\$7,009.26
26	Enhanced Bird Abatement Effort for Southern Containment Dike															1 15	\$62,026.36	\$62,026.36					1 \$62,026.36	\$62,026.34
27	Post Ida Pre-con Survey of MCA																		1	LS	\$\$\$,735.90	\$55,735.90	1 \$55,735.90	\$55,735.90
28	Post Ida South Dune Mobilization																		1	LS	\$51,092.93	\$51,092.93	1 \$51,092.93	\$51,092.93
29	Post Ida South Dune Construction Rebuild																		84,451	CY	\$7.05	\$596,621.82	84,451 \$7.06	\$596,621.8
30	Post Ida Earthen Containment Dike (ECD) Mobilization																		1	LS	\$156,314.49	\$156,314.49	1 \$156,314.49	\$156,314.4
31	Post Ida Earthen Containment Dike (ECD) Construction Rebuild																		44,442	LF	\$49.19	\$2,186,187.95	44,442 \$49.19	\$2,186,1873
32	Post Ida Earthen Containment Dike (ECD) Maintenance																		1	LS .	\$174,576.20	\$174,576.20	1 \$174,576.20	
23	Post Ida Internal Training Dike Construction Rebuild																		3,300	LL LL	\$13.74	\$45,332.92	3,300 \$13.74	\$45,332.93
34	Post Ida Callouet Road Construction Mobilization																		1	21	\$15,693.21	\$15,693,21	1 \$15,693.21	\$15,693.21
35	Post Ida Callouet Road Construction Road Improvements															_			677	CY	\$62.53	\$42,332.78	677 \$62.53	\$42,332.78
36	Post Ida Re-installation No Work Zone															_			1	LS.	\$60,927.54	\$60,927.54	1 \$60,927.54	\$60,927.54
37	Post Ida Re-Adjustment of Primary Weirs Post Ida Re-Adjustment of Secondary Weirs															_			4	A3	\$6,611.38	\$26,445.51	4 \$6,611.38 16 \$2,486.84	\$26,445.53
																_			16					
39	Post Ida Re-Installation of Filters/Boards	-	-													_			1	15	\$37,302.61	\$37,302.61	1 \$37,302.61	\$37,302.6
40	Post Ida Sand Fence Installation along South Dune Post Ida ISP Replacement	-	-													_			47,230	LF EA	\$11.19 \$5.350.00	\$528,540.65 \$26,750.01	47,230 \$11.19 5 \$5.350.00	\$528,540.6
41	Post Ida ISP Replacement Post Ida ISP Re-Adjustment	-	-													_			5	EA EA	\$5,350.00	\$26,750.01	5 \$5,350.00 12 \$1.318.03	\$26,750.03
42		-	-													_			12	EA EA	\$1,318.03	\$15,816.31 \$5,617.40		
43	Post Ida Grade Stakes Replacement Post Ida Combined Surveying	-	-													_			50	EA LS	\$112.35 \$539.843.60	\$5,617.46	50 \$112.35 1 \$529.843.60	\$5,617.46
44	Post Ida Combined Surveying Post Ida Bird Abatement- Tier 1 Effort		-						-						_	_			1	LS	\$539,843.60	\$539,843.60	1 \$539,843.60 6 \$856.00	\$539,843.6
45	Post Ida Bird Abatement- Tier 1 Effort Post Ida Bird Abatement- Tier 2 Effort		-						-						_	_			6	DAY	\$856.00	\$5,135.97 \$160,285.80	6 \$856.00 107 \$1.498.00	\$5,135.97
46	Post Ida Bird Abatement- Tier 2 Effort Post Ida Bird Abatement- Tier 2 Effort	-	+ +				-		-							_			107	DAY	\$1,498.00	\$160,285.80	107 \$1,498.00 22 \$1.712.00	\$160,285.8
47		-					-									_			120	DAY	\$1,712.00	\$408.403.22	120 \$3,403.36	\$408,403,2
48	Post Ida Air Boats, 01Vs and GLDD Site Personnel Post Ida Repair Support- 966 FEL & 4x4 Pick-up w/Operators	-					-									_			120	DAY	\$3,403.36	\$234.714.49	120 \$4,404.46	\$408,404.2
50	Post ida Repair support- 966 FEL & 4x4 Pick-up WOperators Post ida Security and Escort for Elmer's Island Rd.	-	+ +				-		-								1		120	DAY	\$1,955.95	\$234,714.49	120 \$1,955.95	\$244,714.4
50	Post ida Security and Escort for Eimer's Island Rd. Post ida Eimer's Island Rd. Improvements	-	+ +				-		-								1		120	DAY	\$108.664.12	\$10,663.27	120 \$280.54	\$108.664.1
52	Post ida Limers Island Rd. Improvements Post ida Shore Pipeline Repairs / Re-Installation	-	+ +				-		-								1		1	DAY	\$108,664.12	\$108,664.12	10 \$8.072.33	\$108,664.1
52	Post ida Submerged Pipeline Repairs / Re-Installation	-	+ +				-		-								1		10	DAY	\$8,072.33	\$84.046.70	6 \$14.007.78	
58	Post oa auomergeu e penne roparts / Re-Installation	-	+ +				-		-								1		6	JAY	a 14,007.78	404,046.70	u \$14,007.78	284,046.7
			+ +						-											+			+	+
								-	-											-			t	+
	TOTAL				\$31,590,506.00			\$190,320,00	1		\$837,855,80			\$33.74	.02			(\$373,64)				\$5,187,179.50	d l	\$37,290,486

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

GLDD RFP 04 Proposal

GLDD's Proposal (8 sheets)



GREAT LAKES DREDGE & DOCK COMPANY, LLC

9811 Katy Freeway Suite 1200 Houston TX 77024 P 346.359.1010

January 28, 2022

GLDD_84768_RFP_004_Rev2

Submitted via email

Sigma Consulting Group 10305 Airline Highway Baton Rouge, LA 70816

Attn: Joshua Renard, P.E., (jrenard@sigmacg.com) Project Manager

RE: CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) GLDD Proposal for RFP_004 – Post Ida Hurricane Repairs

Dear Mr. Renard,

Great Lakes Dredge and Dock Company, LLC (GLDD) is pleased to submit the following Cost Proposal in response to RFP_004 Post Ida Hurricane Repairs. Hurricane Ida made landfall on August 28th, 2021 and severely impacted the Project Site just prior to commencing dredging operations. As a result of this storm event, several Project Features are now required to be restored so that dredge filling can commence. This Cost Proposal focuses on all the items listed below with a brief explanation as to why the work is required, including assumptions.

1. South Dune (SD). The South Dune has been re-aligned slightly north from the previous Post-Hurricane Zeta alignment as a result of Hurricane Ida. This new alignment is intended to provide an optimized path for the required rebuild. The dune containment rebuild will follow the template dimensions as specified in the original Contract to +5.0' NAVD-88 with a 50-foot top width and 5:1 side slopes down to meet the existing ground. All borrowed material will be taken north of this optimized dune alignment. The length of the dune is 41,531 LF (STA 0+00 to STA 415+31) with approximately 85,000 CYS of material required to fill the template.

Assumptions. There are areas along the new alignment that have potential to be problematic due to unsuitable material availability on the northern side. Based on field conditions at the time of construction, and in an effort to maximize availability of suitable material and avoid hauling costs, GLDD may request a variation to the alignment at that time. Hauling of materials is not anticipated and will require additional equipment and personnel if areas are deficient of necessary quantity within a reasonable distance off any given Station (i.e. 200'). Elmer's Island Road is required for all Mobilization of the Heavy Equipment needed for the construction of the

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This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used or disclosed -- in whole or in part -- for any purpose other than to evaluate this proposal. If, however a modification is awarded to this offer or as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract or modification. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in each of the attached pages.

South Dune. Mobilization costs are necessary for this Rebuild effort since the South Dune was completed prior to Hurricane Ida making landfall and all applicable equipment had already been demobilized. Equipment expected to be brought to the site for this work is: (4) D6N Dozers, Kubota SxS, Yanmar Tracked Fuel Buggy, and Crew Boat.

2. Earthen Containment Dike (ECD). The ECD from STA 0+00 to STA 444+41 (44,441 LF) will be brought back up to the Required 2nd Lift Elevation of +5.0' NAVD-88. Additional material (+/-) 1.0' above Elevation +5.0' will be placed to account for settlement during the drying period. Although this additional material meets the Optional 3rd Lift Elevation to +6.0', it is expected to settle over time; therefore, the Required +5.0' will be maintained throughout the course of the project. A top width of 5-feet and 4:1 side slopes down to meet the existing ground will be met. Approximately 160,000 CYS of material is required to fill to this specification.

Assumptions. There are areas along the ECD alignment that have potential to be problematic due to unsuitable material availability in the Borrow Areas, particularly in areas that have endured severe washouts due to Hurricane Ida. Relaying material may be required and these risk areas are built into the Subcontractors Cost. Elmer's Island Road is only required for Mobilization of a small portion of the Heavy Equipment needed for the construction of the ECD's. All Marsh Buggy's will be brought in by their working barge platforms via waterway entrance near Port Fourchon. Mobilization costs are necessary for this Rebuild effort since the ECD was near completion prior to Hurricane Ida making landfall and a portion of the applicable equipment had already been demobilized. Furthermore, it is the Subcontractors intent to bring a different spread of equipment for this Rebuild effort (i.e. Spud Mounted Marsh Buggy and Barge Mounted 336 and 390 Excavators) to properly construct several areas of the ECD that have been severely damaged by Hurricane Ida. Equipment expected to be brought to the site for this work is: Up to (2) Conventional Long Reach Marsh Buggy's, (1) Conventional Short Reach Marsh Buggy, (1) Spud Mounted Marsh Buggy, Up to (2) Barge Mounted 336 Excavator's, (1) Barge Mounted 390 Excavator, Crew Boat, and Airboat(s).

- 3. Internal Training Dikes. The (3) Internal Training Dikes that separate INC. 1, INC. 2, INC. 3, and INC. 4 will be brought back up to the required elevation to +3.0' NAVD-88. A top width of 5-feet and 4:1 side slopes down to meet the existing ground will be met. Approximately <1,000 CYS of material is required to fill the template.
- 4. **Caillouet Road Construction.** Caillouet Road is located at approximately STA 0+00 to STA 9+00 of the South Dune and does require re-build to bring it back up to the template as specified in CO #06. Approximately 700 CY is required to be hauled onto location and placed. Borrowed material will come from the approved locations within the Wisner property.

Elmer's Island Road is required for all Mobilization of the Heavy Equipment needed for the construction of the Caillouet Road. Mobilization costs are necessary for this Rebuild effort since the Caillouet Road was completed prior to Hurricane Ida making landfall and all applicable equipment had already been demobilized. Equipment expected to be brought to the site for this

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work is: (1) D6N Dozer, 320 Class Land Excavator, and (2) Low Ground Pressure Articulated Dump Trucks.

Note: The deficiencies occurred last season at Caillouet Road are currently being analyzed by GLDD using the Pre-Construction Survey (04-20-21), the As-Built Pre-Hurricane Ida Survey (08-20-21), and the LiDAR Post-Hurricane Ida Survey (09-25-21). GLDD will remediate these deficiencies by restoring the elevations of the affected areas to essentially their pre-construction state. Due to Hurricane Ida, it has been agreed with the Caillouet Land Owner to abide by the (4) criteria remediation guidelines set forth in the January 5, 2022 executed Lease Agreement. The cost to restore the property will not be passed onto to CPRA, nor the BA-0171 project.

- 5. No Work Zone. Re-installation of the physical barriers around the No Work Zone will be reinstalled as scoped in CO #4. This will include a one-time installation and removal of sand fence and oil boom at the location shown in in CO #4.
- 6. **Primary/Secondary Weir System.** All Weir locations, Primary (4), and Secondary (16) are expected to need minor repairs and/or adjustments in order to be re-placed back into the design elevations in order to achieve the proper flow dynamics. Weir boards and filters were either lost or damaged and will have to be replaced.
- 7. **Sand Fence.** Sand Fencing will need to be purchased for a complete re-install along the entire South Dune.

Assumptions. Elmer's Island Road is required for Mobilization of the Equipment and Supplies needed for the installation of the Sand Fence. Up to (4) separate mobilizations (i.e. 12k feet of fencing materials at a time) are expected.

- 8. MCA Instrumented Settling Plates (ISP). All (17) ISP's will either need to be replaced, reinstalled and/or repaired.
- 9. MCA Grade Stakes. All Grade Stakes (50) will need to be purchased and reinstalled with the MCA.
- 10. Survey Requirements. All listed survey components that are required for the Rebuild construction.

Assumptions. The As-Built Survey for the South Dune and Caillouet Road has been included in this Proposal as these were not part of the original Base Bid.

11. **Bird Abatement.** Bird Nesting Season along the Caminada Headlands Back Barrier is extremely popular for Wilson's Plovers, Least Tern's, and Common Nighthawk, just to name a few. Mid-April through Mid-July are the busiest nesting months of the year. Extensive Bird Abatement must begin in Mid-March to prepare for this nesting and to avoid any construction downtime as a

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result. GLDD intends on using Norman Wildlife Consulting for all Bird Abatement efforts similar as in past seasons. Don Norman has extensive experience and local knowledge to this area.

Assumptions. Bird Abatement efforts are broken out into Tier level efforts (Tier 1-3). Depending on the time during the nesting season will depend on what efforts are expected. An estimate of this is shown here:

Feb 01 – Mar 15	6 Days	Tier 1	Weekly Monitoring
Mar 16 – Apr 15	31 Days	Tier 2	Bird Abatement
Apr 16 – Jun 30	76 Days	Tier 2	Bird Abatement/Nesting Monitor
Jul 1 – Jul 15	15 Days	Tier 3	Bird Abatement/Nesting Monitor/Season End
Jul 16 – Aug 14	5 Days	Tier 1	Weekly Monitoring

A 2-day Initial Assessment Site Visit (Tier 3 Level) at the start of the rebuild construction is necessary to visually survey the project area, prioritize potential habitat areas, and formulate an abatement plan.

Tier 1 consists of 1 Biologist and bird abatement materials. Tier 2 consists of 2 Biologists and bird abatement materials. Tier 3* consists of 3 Biologists and bird abatement materials.

*Tier 3 is considered the max effort and daily costs will not exceed this level.

12. **Transportation, Site Personnel, and Site Access.** Transportation and Site Management required during all Rebuild Construction. This includes the use of Air Boats and UTV's for GLDD Personnel, Client RPR, ISP and Grade Stake Installation efforts, Bird Abatement, Sand Fencing, or any other transportation needs to support the Rebuild construction. A 966 Front End Loader and a 4x4 Vehicle is also needed to support smaller equipment, supplies, and consumable movements for the duration of the Rebuild.

Assumptions. GLDD will ingress/egress all necessary equipment via Elmer's Island Road in Grand Isle during the entire Rebuild portion of the BA-0171 project. This includes equipment needed for the South Dune, the entire perimeter of the ECD, Caillouet Road construction, and Sand Fencing. Such access will eliminate the need to transfer the required equipment and supplies using a Ramp Barge to enter the Caminada Headlands Back Barrier by water from Port Fourchon.

GLDD will visually survey Elmer's Island Road prior to the first entrance of construction equipment and obtain photos and report out the existing conditions. At the conclusion of demobilization from the project, GLDD will perform the same visual survey and report. Then formulate a plan to repair any necessary areas that were damaged (i.e. ruts). The cost associated with this line item are based on a local contractor bringing in 1,500 tons of LA 610 gravel to resurface the road in areas that will require it.

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GLDD will strategically schedule access times in an effort to minimize and manage the amount of through travel. This access through Elmer's Island Road is not intended to be used daily for any crew members. It will only be used to mobilize and demobilize any equipment or supplies that cannot be brought in by Air Boat from the Port Fourchon side. GLDD Site Management will strictly enforce this plan. It is difficult to estimate the number of usage times that will be required throughout the project, but GLDD understands the sensitivity of using this access, and will ensure it is managed properly to the satisfaction of CPRA, Sigma, and the applicable Property Owner(s). Sufficient notice will be provided to inform CPRA on all major move dates through this access. Beyond major Mobilization and Demobilization moves, daily project support access, if needed on any given day, will be published and will occur at a specific scheduled time. This schedule will be updated as necessary. Security and Escort will be provided to ensure the usage of Elmer's Island Road is strictly enforced.

The intention is for all construction equipment passing through to be rubber-tired. Any excavator or dozer will be trucked down to the beach, if possible, then offloaded. Tracking a machine down Elmer's Island Road would only be necessary if the hauling truck is not capable of making a turn-around down at the southern end of the road.

13. Shore Pipeline Repairs. 10,000 feet of steel shore pipe (250 x 40' pcs) and 4,000 feet of HDPE pipe in longer lengths had been previously placed in preparation of dredge filling prior to Hurricane Ida. All this pipeline has been broken apart and shifted out of place as a result of the storm, and now requires a substantial amount of effort to retrieve all the pieces and properly replace back into position along the approved corridor.

Assumptions. GLDD considers this pipeline repair and replacement effort as part of a rebuilding project feature for BA-0171. At minimum, a 966 FEL and 336 Excavator, or similar, will be mobilized to the site to perform this work. Note that Mobilization costs were eliminated in this Rev 1 Proposal. The Total Cost shown on this proposal will not exceed that amount.

14. **Submerged Pipeline Repairs**. 11,500 feet of steel submerged pipeline (various lengths) in the Western Corridor and 9,100 feet of steel submerged pipeline (various length) in the Eastern Corridor had been placed in preparation for dredge filling prior to Hurricane Ida. It is not fully understood at this time the extents of the damage to this submerged pipeline. However, the beach landing sections are already known to have separated and that repairs are required to re-connect, and line buoys along the pipeline corridor missing.

Assumptions. GLDD considers this pipeline repair and replacement effort as part of a rebuilding project feature for BA-0171. At minimum, an Anchor Barge and two Tug Boats will be mobilized offshore to the site to perform this work. There is a possibility that a Derrick Barge will be needed and also the use of Divers to re-rig pickup lines onto the submerged pipe connections. It is expected that several areas of the pipeline will need to be raised and brought back to the water's surface to inspect, particularly at each connection. Note that Mobilization costs were eliminated in this Rev 1 Proposal. The Total Cost shown on this proposal will not exceed that amount.

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The construction schedule of the rebuild is estimated to be 120 days after mobilization. The rebuild of the ECD is the critical path for timing as there is potential for this particular Project Feature Rebuild to go beyond the 120 day schedule estimate (i.e. 180 days). It is GLDD's intention to focus on the South Dune, Shore Pipeline, and Sand Fencing and work towards completion in order to minimize construction during Bird Nesting Season. The ECD work will be ongoing simultaneously during this time. All quantities in this proposal are estimated. Actual quantities will be billed at the Unit Rate.

Please contact me if you have any questions or concerns. I can be reached at <u>dmills@gldd.com</u> or (630) 209-1874.

Sincerely,

GREAT LAKES DREDGE & DOCK COMPANY, LLC

burl Mille

David Mills Project Sponsor, Gulf

Cc: Renee Bennett – CPRA (<u>renee.s.bennett@la.gov</u>) Adam Ledet – CPRA (<u>adam.ledet@la.gov</u>)

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Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 GLDD Proposal for RFP_004 – Post Ida Hurricane Repairs

Proposal Breakdown Summary_Rev0

				11	Tatal
Line Item	Description	Quantity	Unit	Unit Price	Total Amount
1	South Dune (SD)	4		¢54,000,00	¢54,000,00
1.1	Mobilization	1	LS	\$51,092.93	\$51,092.93
1.2	Construction Rebuild	84,451	CY	\$7.06	\$596,621.82
2	Earthen Containment Dike (ECD)				
2.1	Mobilization	1	LS	\$156,314.49	\$156,314.49
2.2	Construction Rebuild	44,442	LF	\$49.19	\$2,186,187.95
2.3	Maintenance	1	LS	\$174,576.20	\$174,576.20
3	Internal Training Dikes				
3.1	Construction Rebuild	3,300	LF	\$13.74	\$45,332.92
4	Caillouet Road Construction				
4.1	Mobilization	1	LS	\$15,693.21	\$15,693.21
4.2	Road Improvements	677	CY	\$62.53	\$42,332.78
1.2		011	01	\$62.00	\$12,002.1°C
5	No work Zone		1.0	* 00.007.54	* 00.007.54
5.1	Re-installation of Physical Barrier	1	LS	\$60,927.54	\$60,927.54
6	Primary/Secondary Weir System				
6.1	Re-Adjustment of Primary Weirs	4	EA	\$6,611.38	\$26,445.51
6.2	Re-Adjustment of Secondary Weirs	16	EA	\$2,486.84	\$39,789.45
6.3	Re-Installation of Filters/Boards	1	LS	\$37,302.61	\$37,302.61
7	Sand Fence				
7.1	Purchase and Re-Installation along South Dune	47,230	LF	\$11.19	\$528,540.65
8	MCA Instrumented Settling Plates (ISP)				
8.1	Assume needs Complete Replacement	5	EA	\$5,350.00	\$26,750.01
8.2	Assume needs Re-Adjustment	12	EA	\$1,318.03	\$15,816.31
9	MCA Grade Stakes				
9.1	Replacement	50	EA	\$112.35	\$5,617.46
9.1	Replacement	50	LA	φ112.55	\$5,017.40
10	Survey Requirements				
10.1	Pre-Construction Survey (ECD)	1	LS	\$42,441.04	\$42,441.04
10.2	Pre-Construction Layout/Staking (ECD 1st Lift)	1	LS	\$77,254.32	\$77,254.32
10.3	Pre-Construction Layout/Staking (ECD 2nd Lift)	1	LS	\$39,113.65	\$39,113.65
10.4	Pre-Construction Survey (South Dune)	1	LS	\$16,771.25	\$16,771.25
10.5	Pre-Construction Layout/Staking (South Dune)	1	LS	\$49,543.96	\$49,543.96
10.6	Pre-Construction Survey (Caillouet Road)	1	LS	\$5,243.50	\$5,243.50
10.7	Pre-Construction Survey (Equipment Access Corridor)	1	LS	\$14,185.57	\$14,185.57
10.8	Pre-Construction Survey (Dredge Borrow Area)	1	LS	\$22,002.32	\$22,002.32
10.9	Pre-Construction Survey (Dredge Pipeline Corridor)	1	LS	\$16,968.96	\$16,968.96
10.10	Pre-Construction Magnetometer (ECD)	1	LS	\$24,180.79	\$24,180.79
10.11	Pre-Construction Magnetometer (MCA*)	1	LS	\$35,642.64	\$35,642.64
10.12	Pre-Construction Magnetometer (Equipment Access Corridor)	1	LS	\$35,642.64	\$35,642.64
10.13	Pre-Construction Magnetometer (Dredge Borrow Area)	1	LS	\$33,065.03	\$33,065.03
10.14	Pre-Construction Magnetometer (Dredge Pipeline Corridor)	1	LS	\$20,901.27	\$20,901.27
10.15	Process Survey (ECD)	1	LS	\$51,100.72	\$51,100.72
10.16	Process Survey (South Dune Road)	1	LS	\$28,527.67	\$28,527.67
10.17	Process Survey (Caillouet Road)	1	LS	\$5,243.50	\$5,243.50
10.18	As-Built Survey (South Dune)	1	LS	\$16,771.25	\$16,771.25
10.19	As-Built Survey (Caillouet Road)	1	LS	\$5,243.50	\$5,243.50

*Includes the South Dune and Caillouet Road

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Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation **Coastal Protection and Restoration Authority (CPRA)** Contract No: BA-0171 GLDD Proposal for RFP_004 – Post Ida Hurricane Repairs

Proposal Breakdown Summary_Rev0

Line Item	Description	Quantity	Unit	Unit Price	Total Amount
44	Died Abstancest				
11	Bird Abatement	0	DAVO	()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()(()()()(()()(()(()()(()(()()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()(()()(()(()(()()(()(()()(()()()(()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()()	¢5 405 05
11.1	Tier 1 Effort	6	DAYS	\$856.00	\$5,135.97
11.2	Tier 2 Effort	107	DAYS	\$1,498.00	\$160,285.80
11.3	Tier 3 Effort	22	DAYS	\$1,712.00	\$37,664.07
12	Transportation, Site Personnel, and Site Access				
12.1	Air Boats, UTV's and GLDD Site Personnel	120	DAYS	\$3,403.36	\$408,403.22
12.2	966 FEL w/Operator and 4x4 Pick-up w/Operator	120	DAYS	\$1,955.95	\$234,714.49
12.3	Security and Escort for Elmer's Island Rd.	120	DAYS	\$280.53	\$33,663.2
12.4	Elmer's Island Rd. Improvements	1	LS	\$108,664.12	\$108,664.12
13	Shore Pipeline Repairs				
13.1	Repairs / Re-Installation of Pipeline	10	DAYS	\$8,072.33	\$80,723.27
14	Submerged Pipeline Repairs				
14.1	Repairs / Re-Installation of Pipeline	6	DAYS	\$14,007.78	\$84,046.70
	Total Proposal (Rounded)			=	\$5,702,486
	Total Cost (Rounded)				\$5,329,426
	Total Profit (Rounded)				\$373,060

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

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RFP 04 Proposal Subcontractor Price Quotes

WILCO MARSH BUGGIES & DRAGLINES, INC.



P.O. BOX 710 MARRERO, LA 70073 PHONE: (504) 341-3409 FAX: (504) 341-8487

Great Lakes Dredge & Dock Company Attn: David Mills January 12, 2022

Re: Caminada Headland Back Barrier Marsh Creation Project - Post Hurricane Ida Rebuild REV3

Mr. Johanson,

On behalf of Wilco Marsh Buggies and Draglines, Inc. I would like to thank you for the opportunity to provide a proposal for the above referenced project. Wilco's price to perform the following items of work is as follows:

	Item	Quantity	Unit	Unit Price	Total
1	ECD Mobilization	1	LS	\$209,522.20	\$209,522.20
2	ECD Surveying	1	LS	\$134,683.90	\$134,683.90
3	Weir Box Reset	4	EA	\$5,317.09	\$21,268.35
4	Secondary Weir Reset	18	EA	\$2,000.00	\$36,000.00
5	Earthen Containment Dike	44442	LF	\$39.56	\$1,758,205.20
6	ECD Maintenance	1	LS	\$140,400.00	\$140,400.00
7	Dune Mobilization	1	LS	\$68,484.40	\$68,484.40
8	Dune Surveying	1	LS	\$62,787.80	\$62,787.80
9	Dune Construction	84451	CY	\$5.68	\$479,823.15
10	Caillouet Mobilization	1	LS	\$21,035.00	\$21,035.00
11	Caillouet Road Improvements	677	CY	\$50.29	\$34,045.43
12	No Work Zone	1	LS	\$48,999.96	\$48,999.96
13	Internal Training Dike	3300	LF	\$11.05	\$36,458.24
	Total				\$3,051,713.62

Please note the following clarifications:

- 1) Estimated project duration is 180 days.
- 2) This proposal is based on Wilco utilizing Elmer's Island Road for mobilization and demobilization of any heavy equipment as well as emergency uses.
- 3) ECD Surveying Breakdown:
 - a. Initial Layout Cost: \$62,130.50
 - b. Capping Layout Cost: \$31,456.50



When There Is No Road To The Job ... All Roads Lead To Wilco™

- c. As-Builts: \$41,096.90
- 4) Dune Surveying Breakdown:
 - a. Construction Layout: \$39,844.90
 - b. As-Builts: \$22,942.90
- 5) Shore pipe recovery and ECD maintenance to be performed on a hourly basis at the unit rates in the existing contract.
- 6) Dune construction price is based on utilizing dozers to push material from the North side of the dune, material hauling is not included in the proposal. The price is also based on having enough suitable material opposite station along the entire project length to construct the dune to grade. If there is not enough material to simply push up adjacent to the dune, the price will have to be revised to include hauling equipment.
- 7) ECD price based on floating a barge over the Loop pipelines. Wilco received verbal permission prior to completing this proposal. The completion of all ECD East of Loop pipelines is dependent upon receiving a written approval from Loop.
- 8) The existing borrow ditch may not be wide enough in some areas for barge mounted excavators. Digging the borrow ditch wider may be required in those areas.
- 9) ECD price is based on relaying borrow material in some areas but may still need outside borrow in areas with large washouts.
- 10) ECD maintenance obligations are to end upon completion of all contract work items.
- 11) Caillouet Road Improvements price based on hauling material from CPRA approved location off Caillouet property near project site.
- 12) Performance bond to be charged at 2% of contract, if required.

If you need any additional information or have questions please call me anytime at (225) 999-8318 or email me at <u>llemoine@wilcomarshbuggies.com</u>.

Sincerely,

Levi Lemoine



January 7, 2022

Great Lakes Dredge & Dock 2122 York Road Oak Brook, IL 60523 Attn: David Mills

RE: Caminada BA -0171

Price Quote - Updated

Sand Fence

47,230 lnft

\$9.00/lnft

- SES, LLC will be responsible for moving all equipment, material and labor to the job site as long as we have access to enter through Elmer's Island
- Mobilization will occur for every 12,000 lnft of fence installation
- SES, LLC currently has 11,000 lnft of material in stock to begin installation
- New material is 16-18 weeks from order date

We appreciate the opportunity to quote you on the above referenced project. Please let us know if there is any additional information that is needed.

Sincerely,

Stanley Bordelon

Stanley Bordelo SES, LLC

Sub Backup- Norman Wildlife

Mills, David

From:Donald Norman <normanwildlifeconsulting@gmail.com>Sent:Friday, January 7, 2022 3:13 PMTo:Mills, DavidSubject:[EXTERNAL] Proposed Draft BudgetAttachments:NWC Caminada 2022 Proposed Budget.xlsx

This budget includes the following:

Labor (2 rates) FICA/Med/Unemployment Taxes Workman's Comp (LWCC) Abatement Costs Lodging PerDiem Daily Travel Out of State Travel for Jake and Don Office Costs Overhead (we are a small shop) Payroll

I will send you some background materials on the birds also. don

--Donald Norman Norman Wildlife Consulting 320 W Beach Pkwy Mandeville, LA 70448

In Washington State 2112 NW 199th Shoreline, WA 98177

Mobile 206.719-3849

		Days	Rate	Total	
Jan/Feb	Project Man	Plan 4hrs	\$100	\$400	_
Site Visit	Biologist 2	1	\$704	\$704	Site Assessment
	Biologist 1	1	\$558	\$558	Site Assessment
	Travel	mileage	500 RT	\$250 \$250	Don from NOLa, Justin Baton Rouge
	Huver	micage	Jan Total	\$1,912	
			Jun rotar	ŶI,JIZ	1
		Days	Rate	Total	
March	Biologist 2	4	\$704	\$2,816	Don on site, review Abatement Setup
	Biologist 1	15	\$558	\$8,370	ECD Abatement
Employee	Biologist 1	15	\$558	\$8,370	ECD Abatement
	-		March Total	\$19,556]
		Days	Rate	Total	
April	Biologist 2	3	\$704	\$2,112	Don on site, review Abatement Setup
	Biologist 1	30	\$558	\$16,740	ECD Abatement
	Biologist 1	30	\$558	\$16,740	Track Berm Construction, if needed
			April Total	\$35,592	_
		Days	Rate	Total	
May	Biologist 2	3	\$704	\$2,112	Don on site, review Abatement Setup
	Biologist 1	31	\$558	\$17,298	ECD Abatement
	Biologist 1	31	\$558	\$17,298	ECD Abatement
			May Total	\$36,708	_
		Days	Rate	Total	
June	Biologist 2	2	\$704	\$1,408	Don on site, review Abatement Setup
	Biologist 1	30	\$558	\$16,740	ECD Abatement
	Biologist 1	30	\$558	\$16,740	ECD Abatement
			June Total	\$34,888	
		Days	Rate	Total	
July	Biologist 2	2	\$704	\$1,408	Don at site at end of July
	Biologist 1	15	\$558	\$8,370	Both working 15 days
	Biologist 1	15	\$558	\$8,370	
	Biologist 1	15	\$279	\$4,185	One bio for the last 15 days
		Davis	July Total	\$22,333 Tatal	
A	Dialaciat 1	Days	Rate	Total	
August	Biologist 1	5	\$279	\$1,395	If needed
		Cease Memo	\$2	\$200	
				\$1,595	
		83700		\$152,584	1
		63700		SIS2,584 Est Total	
					1

NWC Proposed Budget for Bird Abatement of the ECD Fill Area and Nest Monitoring

	Surveying Quote Schedule		
	David Mills Date:		12/21/2021
9 F (!	Areat Lakes Dredge and Dock 811 Katy Freeway, Suite 1200 Request No: Iouston, TX 77024 630) 209-1874 Imilis@gldd.com		2021-208
From: K	Keith J. Roberts		
	SPRA - Caminada Headland Back Barrier Marsh Creation efferson and Lafourche Parishes, Louisiana		
	Description	L .	_
	Pre-Construction Bathymetric, Topographic and Magnetometer Surveys (Certified Deliverables Included)		Lump Sum
Project Set	up	\$	994.00
Pre Constru	uction Submittals (Survey Plan - GP-8.H and SP-7.1)	\$	1,011.00
Mobilization	n/Demobilization Scott Louisiana - Fourchon Louisiana - Scott Louisiana	\$	1,387.00
	uction Single Beam Bathymetric and Topographic Survey Equipment Access Corridors TS 210.7.8 - 50' Long Perpendicular Cross Sections Every 1000' Along the Centerline d Profile Line. (Includes Data Acquisition, Data Processing, Certified Data and Drawings)	\$	11,408.51
	uction Topographic Survey Centerline of Earthen Containment Dike TS 210.7.11 and Stakeout Inside Toe and Centerline of Containment Dike, Outside Toe of Containment Dike a TS 210.7.11.1 Every 100' and PI's (Includes Data Acquisition, Data Processing, Certified Data and Drawings)	\$	34,132.50
Pre Constru	uction Existing Dune Topographic Survey TS 210.7.12. (Includes Data Acquisition, Data Processing, Certified Data and Drawings)	\$	13,488.00
Topographi	ic Survey Caillouet Road ROW (With Colored Elevations/Template Quantities) (Includes Data Acquisition, Data Processing, Certified Data and Drawings)	\$	4,217.00
Access Cor	uction Magnetometer Survey Equipment Access Corridors TS 210.7.8 - Three Magnetometer Tracklines Shall be Surveyed. One Along the Proposed Centerline of the Equipment ridors and One on Each Side of the Proposed Centerline of The Equipment Access Corridors, In Addition 50' Long Perpendicular Cross Sections Every 1000' Along the of the Equipment Access Corridor Will be Surveyed (Includes Data Acquisition Verify and Probe, Data Processing, Certified Data and Drawings)	\$	28,665.00
	uction Magnetometer Survey Earthen Containment Dike TS 210.7.11 - One Magnetometer Trackline Along the Centerline of the Borrow Area (Includes Data Acquisition Verify and a Processing, Certified Data and Drawings)	\$	19,447.00
	uction Magnetometer Survey Marsh Creation Area TS 210.7.13 - Magnetometer Tracklines as Shown on the Plans Shall be Surveyed (Includes Data Acquisition Verify and Probe, ssing, Certified Data and Drawings)	\$	28,665.00
TOTAL PR	E CONSTRUCTION BATHYMETRIC, TOPOGRAPHIC AND MAGNETOMER SURVEYS LUMP SUM COST	\$	143,415.01
	Day Rate Surveys		Task Cost
Dav Bate P	lus Cost of Certified Submittals - Initial Topographic Survey Primary and Secondary Dewatering Weirs TS 210.7.10 - CLIENT TO SUPPLY AIRBOAT/MARSH BUGGY/HOVER		
	REQUIRED	\$	2,871.00
	lus Cost of Certified Submittals Initial Instrumented Settlement Plate Survey (Each Survey) - TS 210.8.6 After Installation, 30 Days Prior to Dredging and Daily During Dredging - D SUPPLY AIRBOAT/MARSH BUGGY/HOVER CRAFT IF REQUIRED	\$	2,871.00
	lus Cost of Certified Submittals Initial Grade Stake Surveys (Each Survey) - TS 210.7.6 and TS 210.8.7 After Installation, 2 Weeks Prior to Commencement of Dredging and Daily Placement - CLIENT TO SUPPLY AIRBOAT/MARSH BUGGY/HOVER CRAFT IF REQUIRED	\$	2,871.00
	lus Cost of Certified Submittals Slurry Head Wave Survey (Each Survey) - TS 210.8.8 After Installation, Prior to Dredging and During Dredging - CLIENT TO SUPPLY MARSH BUGGY/HOVER CRAFT IF REQUIRED	\$	2,871.00
Louisiana F	PLS Review, Certify And Prepare Certified Drawings of Day Rate Surveys (Per Submittal)	\$	1,011.00
Client/Own	er Requested Changes to Drawings (\$134/Hour)	\$	134.00
Notes:	Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project. The construction bathymetric, topographic and magnetometer surveys are a lump sum proposal. Settlement plate, grade stake and slurry head surveys are a day rate cost. Louisiar refitly and prepare certified drawings is a per submittal proposal. Client owner requested changes to drawings is an hourly proposal.	na PL	S review,

Pre Construction survey includes 2 person crew, HTK System, 26-28 twin engine boat writer, airboat writer, airboat writer, and operator, magnetometer, HYPACK software, meals/lodging, traver, incidentais and certified deliverables. Day Rate initial instrumented settlement plate survey, initial grade stake survey, and initial slurry head wave survey include 2 person crew, RTK System, HYPACK software, travel and incidentals. Client to supply airboat/marsh buggy/hover craft for initial instrumented settlement plate survey, initial grade stake survey, and initial slurry head wave survey if necessary. Third party charges will be invoiced at cost +15%. All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.

4) 5) 6) 7)

Sincerely, Ketth J-ColorS-

Keith J. Roberts, PLS, RPLS HydroTerra Technologies, LLC 212 Jacobs Run Scott, LA 70583 Phone: (337) 517-3373 Email: keithr@hydroterratec.com

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	10
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Revised Technical Specifications and Backup



10305 Airline Highway Baton Rouge, LA 70816 Phone (225) 298-0800 Fax (225) 208-1699 www.sigmacg.com

December 3, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 05- Post Ida MCA Pre-Construction Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida MCA Pre-Con Survey proposal provided on November 24, 2021. Further details are noted on the attached proposal. Access for this work shall be via airboat and not through Elmer's Road. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
27	Pre-Con Survey of MCA	1	LS	\$55,735.90	\$55,735.90

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

f henard

Josh Renard, PE Project Engineer

Attachments: GLDD Proposal for MCA Survey email dated 11/24/21.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, \\scgbrfs02\scg business\02020\191102\01600\change orders\co 10\211202_ba-0171 work directive 05- post ida mca pre-con survey.doc Joshua Renard

From: Sent:	Salter, Thomas R <trsalter@gldd.com> Wednesday, November 24, 2021 1:40 PM</trsalter@gldd.com>
To:	Joshua Renard; Renee Bennett
Cc:	Johanson, David J; Auernhamer, Steven R; Quakkelaar, Mitchell A; Perrine, Kenneth (Kenny) R
Subject:	Requested Proposal for MCA Survey
Importance:	High

Josh,

Per our discussion on November 23rd at the Caminada bi-weekly meeting, I am pleased to provide CPRA with the following MCA survey quote:

- <u>\$55,735.90</u>
 - o Includes Pre-Construction Submittals:
 - Post Ida Topographic Survey Marsh Creation Area TS 210.7.13 Cross Sections as Shown on the Plans
 - Includes Project Setup
 - Project Control
 - Locate/Verify/Establish, Mobilization, Demobilization, Data Acquisition, Data Processing
 - Certified Data And Drawings
 - Any CPRA requested changes to the drawings after delivery would be billed additionally, at \$134/man hour.

Thank you for your continued support.

Best regards,



TOM SALTER Senior Project Manager Great Lakes Dredge & Dock Company, LLC 9811 Katy Freeway | Suite 1200 | Houston, TX 77024 | USA +1 (252) 342-4971 trsalter@gldd.com website | linkedin | vCard

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Caminada BA-0171

TS-512 Southern Dune Improvements

512.0 Southern Dune Improvements

512.1 Background BA-171 project intended to use a previously constructed beach dune to serve as containment for marsh fill. Hurricane Ida over washed that dune and deposited its sediment into the fill site. Presently some elevations along that dune are no longer suitable to serve as containment. Work herein will restore the dune.

512.2 Scope of Work/Services

- **512.2.1 Mobilization-** Mobilization of all equipment and personnel to complete the improvements shall use existing equipment access corridors in the project area. Contractor will provide an updated schedule showing this mobilization and demobilization.
- **512.2.2 Cross Section** The dune improvements shall be constructed to dimensions shown below by recapturing suitable sediment inside of the project area. The recaptured material shall be free of unsuitable materials and debris as stipulated TS 300 section .3.1 The specified geometry of the dune shall be maintained throughout construction of the marsh creation area at no expense to the owner. Provide an updated schedule showing this construction.



512.2.3 Alignment- The dune improvements should be along the alignment shown in the table below. All work shall be done inside of the project area as shown on the plans. Note that these points are based on the contractor's Post Ida pre-construction survey provided on 10/21/21. Some variations will be permissible based on the current conditions on site however any variation must be coordinated with and approved by CPRA in advance of construction. Sheet 16 of 53 and 17 of 53 previously included in Change Order 5 provides a preliminary assessment of the dune containment improvements.

POINT NUMBER	NORTHING	EASTING	
20006	222315.7227	3647780.1589	U= uth Dune Post Ida
20007	222386.6645	3647815.2067	South Dune Post Ida
20008	222631.0561	3648099.3680	South Dune Post Ida
20009	223008.3127	3648444.5153	South Dune Post Ida
20010	223565.1583	3648807.1593	South Dune Post Ida
20011	224280.8939	3649572.4080	South Dune Post Ida
20012	226067.8675	3651848.8687	South Dune Post Ida
20013	226570.2242	3652602.2478	South Dune Post Ida
20014	227099.2525	3653322.0493	South Dune Post Ida
20015	227605.7051	3654053.2344	South Dune Post Ida
20016	228299.4630	3655039.4583	South Dune Post Ida
20017	229036.7090	3656151.5372	South Dune Post Ida
20018	230280.4654	3657808.2308	South Dune Post Ida
20019	230659.2574	3658462.0862	South Dune Post Ida
20020	231563.7377	3659697.0651	South Dune Post Ida
20021	232985.5729	3661666.3981	South Dune Post Ida
20022	234702.3305	3664072.0668	South Dune Post Ida
20023	236046.7959	3666056.7889	South Dune Post Ida
20024	237088.1849	3667463.9356	South Dune Post Ida
20025	238019.7521	3668535.5469	South Dune Post Ida
20026	238560.9165	3669400.0528	South Dune Post Ida
20027	238882.3093	3669818.2809	South Dune Post Ida
20028	239158.8439	3670147.5140	South Dune Post Ida
20029	239663.0207	3670647.2072	South Dune Post Ida
20030	240190.8531	3671125.9851	South Dune Post Ida
20031	241285.8069	3672666.0234	South Dune Post Ida
20032	242063.4923	3673912.1456	South Dune Post Ida
20033	242531.9924	3674379.2061	South Dune Post Ida
20034	243050.1127	3674900.4973	South Dune Post Ida
20035	243650.7952	3675528.8018	South Dune Post Ida
20036	244295.8914	3676299.0796	South Dune Post Ida
20037	244639.8967	3676789.4450	South Dune Post Ida
20038	244790.9781	3677321.7479	South Dune Post Ida
20039	245048.7735	3677719.0887	South Dune Post Ida
20040	245434.9979	3678068.0777	South Dune Post Ida
20041	245633.9045	3678699.1155	South Dune Post Ida
20042	246153.9389	3679396.4756	South Dune Post Ida
20043	246654.0875	3679987.3011	South Dune Post Ida

512.3 Sand Fence- Sand fence shall be installed as shown below along the alignment referenced above. Provide an updated schedule showing installation of the sand fencing. The fencing shall be maintained throughout construction of the marsh creation area. Any portion of fence damaged by the contractor or construction related activities shall be replaced at no expense to the owner.



UNITED STATES OF AMERICA STATE OF LOUISIANA

AGREEMENT

BE IT KNOWN THAT ON THE DATES SET FORTH BELOW, APPEARED:

CAILLOUET LAND, LLC, a Limited Liability Company organized under the Louisiana Limited Liability Company Law, with Articles of Organization filed in the Office of the Secretary of State for the State of Louisiana, its present mailing address being 405 West Third Street, Thibodaux, Louisiana 70301 with its mailing address at P.O. Box 292, Thibodaux, Louisiana 70302(sometimes herein called OWNER or LESSOR), represented by Robert Bond, its duly authorized Vice-President; (hereinafter referred to as Caillouet)

AND

GREAT LAKES DREDGE & DOCK COMPANY, LLC, A Limited Liability Company authorized to do and doing business in the State of Louisiana, having its domicile and principal place of business in at 2122 York Road, Oak Brook, Illinois 60523, (sometimes herein referred as Lessee) represented by _______ its duly authorized______, by the Limited Liability Certification attached hereto and made a part here of; (hereinafter referred to as GLDD)

This agreement is being entered into between Caillouet Land, LLC and Great Lakes Dredge & Dock Company, LLC, who with respect represents.

That Caillouet Land, LLC and Great Lakes Dredge & Dock Company, LLC entered into an Exclusive Right-of-Way Agreement executed by the parties on April 30 2021 and May 3, 2021, respectively.

That by Amendment to Exclusive Right-of-Way Agreement signed by the parties on August 5, 2021, the original Right-of-Way Agreement was amended. Contained in the Amendment to the Exclusive Right-of-Way Agreement was a specific agreement that prohibited GLDD from using any sand, dirt or other material from Caillouet's property to construct or maintain the said road, levy or earth embankment that GLDD was completing with the agreement and that all fill for the project would have come from property off the Caillouet's property.

Notwithstanding this agreement that was executed on August 5, 2021, GLDD and its contractors notified Caillouet on August 19, 2021 that GLDD failed to abide by the condition set forth in the Amendment to Exclusive Right-of-Way Agreement. GLDD through its subcontractor erroneously extended beyond the specific right of way over Caillouet's property and additionally used materials taken from Caillouet's property to continue the right-of-way.

Before remedial measures were taken to try and correct the breach of the said agreement Hurricane Ida hit the coast of Louisiana and the property referred to in this agreement.

That Caillouet in consultation with CPRA has confirmed that the original project is tentatively scheduled to go forward with GLDD still being the contractor of choice. That GLDD does hereby bind and obligate itself to correct the issues that it has caused in fulfillment of their current obligation.

GLDD states they shall correct the error caused by their contractor by restoring the elevations of the affected areas (those in error) to essentially their pre-construction state (see dune survey 4/21/21 attached as Exhibit "A"). The pre-Ida survey (8/20/21 attached as Exhibit "A") sets forth the delta at various point across the site showing the results of the errors. After Hurricane Ida, the elevations shifted and the current survey (9/25/21 attached as Exhibit "B") reflects such.

That GLDD does hereby agree, bind and obligate itself to correct the deficiencies that it has caused and agrees to restore the agreed upon heights to the roadway, levee, or earth embankment that it was building and restore the fill that was on Caillouet's land that was used. The deficiencies are as follows:

- Where the current elevation equals or exceeds the pre-construction elevation, Ida took care 1.
- Where the current elevation is between the pre-construction elevation and pre-Ida elevation, Ida took care of some and GLDD will remediate the balance so that the resulting elevation 2.
- is at or above pre-construction elevations; Where the current elevation is below the pre-Ida elevation, Ida cause more loss and GLDD will remediate only the positive delta amount of fill (pre-construction elevations less pre-Ira 3.
- Where the current elevation is below the pre-Ida elevation and the delta is negative, Ida elevations); and
- caused more loss but GLDD has no remediation requirement. 4.

That at the completion of the remediation GLDD agrees to notify Caillouet to verify that the road, levee, earth embankment has been constructed pursuant to the terms and conditions of their previous agreements and pursuant to the surveys referred to above and attached hereto. GLDD further agrees that the soil and earthen materials that was used by GLDD in August of 2021 prior to Hurricane Ida will be restored to its elevation prior to the disturbance by GLDD.

That GLDD in further consideration of this agreement agrees to reimburse Caillouet of any

costs incurred by it as a result of this breach including any engineering, surveying or legal fees within

30 days of the submission of the invoices to GLDD.

Both parties agree to continue the Exclusive Right-of-Way Agreement dated April 30, 2021 and May 2, 2021 and the Amendment to the Exclusive Right-of-Way dated August 5, 2021 as long as these obligations are fulfilled at no additional cost or expense to Caillouet.

That the failure to complete these conditions shall constitute a breach of the contract and a termination of the Exclusive Right-of-Way Agreement and the Amendment and expose GLDD to any and all remedies afforded under the Exclusive Right-of-Way Agreement and the Amendment to the Exclusive Right-of-Way Agreement.

THUD DONE AND SIGNED in multiple originals by:

WITNESSES: Print name: Print name:_

CAILLOUET LAND.

By: Robert Bond, Vice-President DATE 12 - 17 - 21

WITNESSES:

GREAT LAKES DREDGE & DOCK COMPANY, LLC

Print name:_____

Print name:

BY:	
Title	
DATE	







CAILLOUET ACCESS ROAD ALIGNMENT COORDINATES TABLE								
STATION	NORTHING	EASTING	DISTANCE	BEARING				United and the second s
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CAILLOUET ROAD PROPOSED VOLUME			
Station	Area (Sq. Ft.)	Volume (Cu. Yds.)	Cum. Vol. (Cu. Yds.)
-1+63	5.60	0.00	0.00
-1+00	3.64	10.75	10.75
0+00	27.68	58.02	68.77
1+00	7.59	65.28	134.05
2+00	0.38	14.77	148.82
3+00	0.08	0.86	149.68
4+00	2.34	4.49	154.17
5+00	0.00	4.34	158.51
6+00	0.00	0.00	158.51
7+00	39.10	72.40	230.91
8+00	54.80	173.88	404.80
9+00	45.86	186.40	591.20
10+00	0.00	84.92	676.12





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PART III TECHNICAL SPECIFICATIONS

TS-100 HYDRAULIC DREDGE MOBILIZATION AND DEMOBILIZATION

- 100.1 <u>Scope</u>: The Contractor shall furnish all labor and equipment required to mobilize a hydraulic dredge and, if necessary, a booster pump to perform the Work at the Project Site. The Contractor shall demobilize the equipment from the Project Site upon Acceptance of the marsh creation area. This Bid Item shall exclude the Work and cost of operating and maintaining the hydraulic dredge and booster pump, and all items specified in TS-101, TS-102, and TS-400.
- 100.2 <u>Arbitrary Mobilization by Contractor</u>: The Owner shall pay for only one mobilization and demobilization of the hydraulic dredge and booster pump. Should the Contractor demobilize this equipment prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.
- 100.3 <u>Utilization</u>: The Contractor shall utilize an appropriate hydraulic cutter head dredge and, if necessary, a booster pump to perform the Work within the Contract Time. This equipment shall have sufficient draft to access the Project Site without excavating water bottoms or causing damage to existing infrastructure. This equipment shall be sized such that the production capacity will not overwhelm the earthen containment dikes and weirs during fill placement. This equipment shall remain in satisfactory working condition and be subject to inspection by the Engineer or Resident Project Representative throughout the duration of the Work.
 - 100.3.1 <u>Booster Pump</u>: If utilized, the booster pump shall be positioned within the limits of the marsh creation borrow area or dredge pipeline corridor at all times during the Work. The booster pump shall remain floating and not be anchored within five-hundred (500) feet of infrastructure or pipelines throughout the duration of the Work.
- 100.4 <u>Data Sheets</u>: The Data Sheets in Appendices K and L shall be included in the Bid for the dredge and booster pump proposed to perform the Work. The Data Sheets shall serve as certification that the equipment is under the control of the Contractor and is capable of performing the Work. The Contractor may omit information deemed proprietary from the Data Sheets. The Data Sheets shall be updated and submitted to the Engineer prior to mobilizing different equipment.
- 100.5 <u>Ratio of Effort</u>: Sixty percent (60%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization of the hydraulic dredge and booster pump. Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor after the hydraulic dredge is removed from the marsh creation borrow area and after Acceptance of the marsh creation area.
- 100.6 <u>Justification of Costs</u>: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit prices in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 2 and 3 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 100.7 <u>Measurement and Payment</u>: Payment shall be made at the Contract Lump Sum price for Bid Item No. 1, "Hydraulic Dredge Mobilization and Demobilization (TS-100)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work.

TS-101 DREDGE PIPELINE MOBILIZATION, INSTALLATION AND DEMOBILIZATION

- 101.1 <u>Scope</u>: The Contractor shall furnish all of the labor, equipment and materials necessary to mobilize, install, remove and demobilize the dredge pipeline and associated appurtenances which will be utilized to perform the Work. The Contractor shall utilize the most appropriate type, diameter and length of the dredge pipeline which will efficiently perform the Work. The dredge pipeline shall be subject to inspection by the Engineer or Resident Project Representative at all times. This Bid Item shall exclude the Work and cost associated with all items specified in TS-100, TS-102 and TS-400.
- 101.2 <u>Conveyance to the Marsh Creation Area</u>: The dredge pipeline shall be installed from the marsh creation borrow area to the marsh creation area along the corridors shown on the Plans. Proposed modifications to the corridors shall be submitted in the Work Plan and approved by the Engineer.
 - 101.2.1 <u>Floating or Trestle-Supported Pipelines</u>: Dredge pipelines that are floating or supported on trestles shall display appropriate lights at night and in periods of restricted visibility in accordance with Title 33 CFR 88.15 regulations.
 - 101.2.2 <u>Submerged Dredge Pipeline</u>: Submerged dredge pipelines shall be secured with anchors that are sufficient to maintain the pipeline on the water bottom at all times. These pipelines shall be marked with fluorescent orange buoys with signs stating "DANGER SUBMERGED PIPELINE" in accordance with local USCG requirements at both ends, changes in the corridor, all pipeline crossings and at one-hundred fifty (150) foot intervals along the dredge pipeline corridor. Signs shall also be installed anywhere the charted depth is reduced more than ten (10) percent. The depth to the top of pipe of any submerged pipeline which crosses a navigation channel shall be submitted to the USCG for Notice to Mariners as specified in SP-16.
 - 101.2.3 <u>Beach and Dune Crossing</u>: The dredge pipeline shall be conveyed on top of the existing dune along the headland. Excavation of the dune is prohibited. The Contractor shall install the dredge pipeline along the beach and dune prior to the start of bird nesting season.
 - 101.2.3.1 <u>Beach and Dune Crossing Photography</u>: The Contractor shall photograph the beach and dune crossing prior to installing the dredge pipeline, and then again after demobilization of the dredge pipeline.
 - 101.2.4 <u>Infrastructure Dredge Pipeline Crossings</u>: The dredge pipeline shall remain floating at all times across all other infrastructure pipelines. The Contractor may submit any alternative option for crossing any of these pipelines in the Work Plan. However, the Contractor shall obtain written approval from the pipeline operator(s) for any option that could cause impacts (weight, vibrations, etc.) to the pipeline(s). The following pipelines exist within the marsh creation borrow areas and dredge pipeline corridor:
 - 101.2.4.1 <u>LOOP Pipeline</u>: Three (3) Louisiana Offshore Oil Port (LOOP) Pipelines cross the marsh creation area and the dredge pipeline corridor as shown on the Plans.
 - 101.2.4.2 <u>XTO Offshore Inc.</u>: One (1) XTO Offshore Inc. Pipeline crosses the marsh creation area and the dredge pipeline corridor as shown on the Plans.
 - 101.2.4.3 <u>TransCanada/ANR Pipeline</u>: One (1) TransCanada/ANR Pipeline crosses the dredge pipeline corridor as shown on the Plans.

- 101.3 <u>Conveyance Within the Marsh Creation Area</u>: The dredge pipeline shall be installed within the marsh creation area between the existing dune and the Chevron pipeline. Proposed modifications to the alignment shall be submitted in the Work Plan and approved by the Engineer. Lateral lines may be installed from the trunk line to the dredge outfall as deemed necessary.
 - 101.3.1 <u>Dredge Pipeline Outfalls</u>: Each outfall location of the dredge pipeline shall be placed a sufficient distance away from the instrumented settlement plates and earthen containment dikes such that the integrity of the dikes and instrumented settlement plates are maintained during fill placement.
 - 101.3.2 <u>Infrastructure Dredge Pipeline Crossings</u>: All dredge pipeline which crosses infrastructure pipelines within the marsh creation area shall be HDPE (shore) pipe. The dredge pipeline shall remain floating at all times across all other infrastructure pipelines. The Contractor may submit any alternative option for crossing any of these pipelines in the Work Plan. However, the Contractor shall obtain written approval from the pipeline operator(s) for any option that could cause impacts (weight, vibrations, etc.) to the pipeline(s). The following pipelines exist within the marsh creation area:
 - 101.3.2.1 <u>Chevron Pipeline</u>: One (1) Chevron Pipeline exists within the marsh creation area as shown on the Plans.
 - 101.3.2.2 <u>Arrowhead/Harvest Pipeline</u>: Two (2) Arrowhead/Harvest Pipelines exist within the marsh creation area as shown on the Plans.
 - 101.3.2.3 <u>LOOP Pipeline</u>: Three (3) Louisiana Offshore Oil Port (LOOP) Pipelines exist within the marsh creation area as shown on the Plans.
 - 101.3.2.4 <u>XTO Offshore Inc.</u>: One (1) XTO Offshore Inc. Pipeline exists within the marsh creation area as shown on the Plans.
- 101.4 <u>Maintenance</u>: The Contractor shall maintain a stable and non-leaking dredge pipeline at all times during dredging and placement of fill. If a leak does occur, dredging shall cease, the Engineer shall be notified, and the leak shall be repaired. If requested by the Engineer, the Contractor will transport the Engineer or Resident Project Representative to the location of the leak for a visual inspection. The Engineer may require the Contractor to survey and remove all material deposited as a result of a pipeline leak at no cost to the Owner.
- 101.5 <u>Removal</u>: The Contractor shall re-grade to pre-project conditions those portions of the water bottom along the dredge pipeline corridor and at all crossings that have been disturbed in excess of +0.5 feet from original grade after removal of the dredge pipeline.
- 101.5.1 <u>Beach and Dune</u>: The beach and dune shall be re-graded to pre-project conditions after removal of the dredge pipeline.
- 101.6 <u>Ratio of Effort</u>: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization and installation of all dredge pipeline to the Project Site. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after complete removal of the dredge pipeline and Acceptance of all of the marsh creation areas.

- 101.7 <u>Justification of Costs</u>: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 1 and 3 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 101.8 <u>Measurement and Payment</u>: Payment shall be made at the Contract Lump Sum price for Bid Item No. 2, "Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of Work.

TS-102 GENERAL MOBILIZATION AND DEMOBILIZATION

- 102.1 <u>Scope</u>: The Contractor shall furnish all of the material, labor and equipment necessary to mobilize and demobilize personnel, equipment, supplies, sanitary accommodations, incidentals, offices, buildings and other facilities necessary for the Work at the Project Site, obtain bonds, required insurances and other pre-construction expenses necessary to perform the Work. This Bid Item shall exclude the Work and cost associated with all items specified in TS-100, TS-101, and TS-400.
- 102.2 <u>Arbitrary Mobilization by Contractor</u>: The Owner shall pay for only one mobilization and demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no expense to the Owner.
- 102.3 <u>Equipment</u>: All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications and shall be subject to inspection by the Engineer or Resident Project Representative at all times.
 - 102.3.1 <u>Equipment Data Sheet</u>: The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all heavy equipment proposed to perform the Work other than the hydraulic dredge (I.E. marsh buggies, tenders, etc.)
- 102.4 Equipment Access: All proposed routes for equipment access are provided in the Plans. Proposed alternative routes shall be provided in the Work Plan. Equipment access shall be limited to open water and the equipment access routes to the greatest extent possible. Any impacts to wetlands or water bottoms located external to the Project Site shall be repaired prior to demobilization at no direct pay. The Contractor shall re-grade those portions of the equipment access routes that have been disturbed in excess of plus one-half (+0.5) feet from original grade. Channel excavation shall only be allowed as specified on the Plans and these Specifications. The Contractor shall not traverse across any pipeline with equipment which could damage the pipeline.
- 102.5 <u>Infrastructure Pipeline Crossings</u>: Equipment shall remain floating at all times when crossing the pipelines found in the vicinity of the Project Area as shown on the Plans. The Contractor shall submit a detailed pipeline crossing plan in the Work Plan for crossing pipelines over land. The following pipelines exists within the Project Area:
 - 102.5.1 <u>Chevron Pipeline Crossing</u>: One (1) Chevron pipeline crosses the marsh creation area as shown on the Plans.

- 102.5.2 <u>Arrowhead/Harvest Pipeline Crossing</u>: Two (2) Arrowhead/Harvest pipelines cross the marsh creation area as shown on the Plans.
- 102.5.3 <u>Louisiana Offshore Oil Port (LOOP) Pipeline Crossing</u>: Three (3) LOOP pipelines cross the marsh creation area and dredge pipeline corridor as shown on the Plans.
- 102.5.4 <u>XTO Offshore Inc. Pipeline Crossing</u>: One (1) XTO Offshore Inc. pipeline crosses the marsh creation area as shown on the Plans.
- 102.6 <u>Ratio of Effort</u>: Sixty percent (60%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization of all equipment and materials other than those specified in TS-100 and TS-101 to the Project Site. Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor upon final Acceptance of the marsh creation area and weirs, and after all equipment and unused materials have been removed from the Project Site.
- 102.7 <u>Justification of Costs</u>: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Items Nos. 1 and 2 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 102.8 <u>Measurement and Payment</u>: Payment shall be made at the Contract Lump Sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of the Work.

TS-210 SURVEYS

- 210.1 <u>Scope</u>: The Contractor shall furnish all of the material, labor and equipment necessary to perform the Pre-Construction, Process, and As-Built Surveys of the Work in compliance with the Plans and these Specifications. All surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional engineer or surveyor licensed in the state of Louisiana. The Contractor shall provide the schedule for the surveys and deliverables in the Work Plan.
- 210.2 <u>Notifications to the Engineer</u>: The Contractor shall notify the Engineer a minimum of two (2) working days prior to performing the Pre-Construction, Process and As-built Surveys. The Contractor shall also notify the Engineer immediately after field data collection for each survey is complete. The Owner may stop the respective portions of the Work if the notifications are not made. The Contractor shall not submit a Claim for this type of Work stoppage.
- 210.3 <u>Reference and Control</u>: Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U. S. Survey Feet, and the North American Vertical Datum of 1988 (NAVD 88), U. S. Survey Feet Geoid 12A-Epoch2010.00. Horizontal and vertical control shall be established by using the CPRA monument provided in Appendix G. Temporary Bench Marks (TBMs) shall be installed as deemed necessary by the Contractor to perform all surveys.
- 210.4 <u>Survey Equipment</u>: Surveys shall utilize conventional RTK surveying methods or an appropriate GNSS or GPS Real Time Network such as the Gulfnet Virtual Real-Time Network (VRS). The Contractor shall utilize appropriate equipment to survey the Work as follows:

- 210.4.1 <u>Topographic Surveys</u>: Topographic survey equipment shall have a minimum vertical and horizontal accuracy of one-tenth (0.1) of a foot. A six (6) inch diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking below ground level. In vegetated areas, the survey rod shall rest among living vegetative stems and be supported by soil containing living vegetative roots. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.4.2 <u>Bathymetric Surveys</u>: Bathymetric survey equipment shall have a minimum vertical accuracy of one-tenth (0.1) of a foot $\pm 0.1\%$ of depth. Bathymetric surveys collected on board vessels must be differentially corrected to the referenced datum for tidal fluctuations and vessel pitch, roll and heave. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.4.3 <u>Magnetometer Surveys</u>: Magnetometer survey equipment shall have a minimum accuracy of 3 gammas throughout its operational range.
- 210.4.4 <u>Stake Out</u>: Survey stakes utilized for topographic stakeout shall consist of forty-eight (48) inch long survey laths and be composed of #1 grade pine wood or approved equal. Survey Stakes utilized for bathymetric stakeout shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level. Survey stakes shall be removed after completion of the project unless otherwise directed by the Engineer.
- 210.4.5 <u>Grade Stakes</u>: Refer to TS-220
- 210.5 <u>Design Survey</u>: The design survey report in Appendix I is for informational purposes only.
- 210.6 <u>Construction Survey</u>: The construction survey layout for the Work is provided in the Plans and shall be used to perform the Pre-Construction, Process and As-Built Surveys. Any modifications to the construction survey layout shall require approval from the Engineer.
- 210.7 <u>Pre-Construction Survey</u>: The Pre-Construction Survey shall be used to verify the existing conditions at the Project Site, modify the bid items as deemed necessary by the Engineer, and lay out and stake out the Work. The Pre-Construction Survey shall show the existing bathymetry, topography, existing infrastructure and magnetic detections in plan and profile using markers, spot elevations, coordinates, contours, lines and grades. The Pre-Construction Survey shall be consistent with the Construction Survey Layout shown on the Plans and shall include the following items:
 - 210.7.1 <u>Quantities</u>: The Pre-Construction Survey shall provide the projected quantities of all the bid items and shall not include contingencies for bulking, losses, etc. The methodology or software that is proposed to be used to calculate quantities shall be provided in the Work Plan.
 - 210.7.2 <u>Temporary Bench Marks</u>: The Contractor may install temporary bench marks at any location within the Project Site as necessary to perform the Work. All temporary bench marks shall be repaired and resurveyed if disturbed or damaged during construction.
 - 210.7.3 <u>Temporary Aids to Navigation</u>: All temporary aids to navigation shall be surveyed after installation.

- 210.7.4 <u>Existing Infrastructure</u>: All infrastructure (pipelines, power lines, etc.) that is located within one-hundred-fifty (150) feet of the marsh creation borrow areas, earthen containment dikes, earthen containment dike borrow areas, marsh creation area, dredge pipeline corridors and equipment access corridors shall be surveyed and marked at a minimum of fifty (50) foot intervals. The proposed methods for marking the infrastructure shall be included in the Work Plan. Pipelines shall also be probed for depth of cover (top of pipe to existing ground) at fifty (50) foot intervals.
- 210.7.5 <u>Significant Magnetometer Detections</u>: For anomalies that exhibit amplitudes greater than fifty (50) gammas, the depth and source of the anomalies shall be determined by running a thirty (30) foot closed loop path and by probing. The Contractor shall determine if the sources of all anomalies will interfere with the performance of the Work and provide proposed corrective measures in the Progress Schedule. Failure by the Contractor to identify the source of anomalies and provide corrective measures shall not provide grounds for any Claims against the Owner.
- 210.7.6 <u>Grade Stakes</u>: All grade stakes shall be surveyed after installation and two (2) weeks prior to the commencement of dredging. The identification number, existing ground elevation, coordinates and numerical elevation of the top of the gauge sign shall be recorded.
- 210.7.7 Dredge Pipeline Corridor: A topographic/bathymetric and magnetometer survey shall be performed along the entire corridor of the dredge pipeline prior to installation. Three-hundred-fifty-foot-long (350) perpendicular transects shall be surveyed at one thousand (1000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. These surveys shall extend from the marsh creation borrow areas to the marsh creation area. Bottom elevations and coordinates shall be recorded along the centerline of the corridor at one hundred (100) foot intervals and at all points of inflection. Bottom elevations and coordinates shall be recorded along the stationing along the entire corridor of the trunk and lateral pipelines. Stationing for the trunk pipeline corridor shall begin at the intersection with the trunk pipeline corridor. The locations of all wye valves shall also be surveyed.
 - 210.7.7.1 <u>Beach and Dune</u>: On hundred (100) foot long perpendicular transects shall be surveyed at fifty (50) foot intervals along the centerline corridors crossing the existing beach and dune. Bottom elevations and coordinates shall be recorded along the perpendicular transect at ten (10) foot intervals and at all points of inflection.
- 210.7.8 Equipment Access Corridors: A topographic, bathymetric and magnetometer survey shall be performed along the centerlines of the equipment access corridors shown on the Plans. Perpendicular transects that are fifty (50) foot wide shall be surveyed at one thousand (1000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. Bottom elevations and coordinates shall be recorded at one hundred (100) foot intervals along the centerline and all points of inflection. Bottom elevations and coordinates shall be recorded along the perpendicular transects at twenty-five (25) foot intervals and at all points of inflection.

- 210.7.9 <u>Marsh Creation Borrow Areas</u>: A bathymetric and magnetometer survey shall be performed on the borrow areas. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects and extend fifty (50) feet beyond the boundaries of the marsh creation borrow areas. The projected quantity available for dredging from the borrow areas shall be calculated based on this survey and the design dimensions shown on the Plans.
- 210.7.10 <u>Dewatering Weirs</u>: The existing topography of the dewatering weirs and outfall areas shall be surveyed. Transects shall extend along the centerline of each conduit for each dewatering weir to fifty (50) feet beyond the entrance and one-hundred (100) feet beyond the outfall. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects.
- 210.7.11 Earthen Containment Dikes: A magnetometer survey shall be performed along the centerline of the borrow areas for the earthen containment dikes and internal training dikes. A topographic/bathymetric survey shall also be performed along the centerline of the dikes. Ground elevations and coordinates shall be recorded at one-hundred (100) foot intervals along the centerline or where there is a change in grade greater than plus or minus one-half (± 0.5) feet and at all points of inflection. The projected quantity needed for construction of the dikes shall be calculated based on this survey and the dike dimensions shown in the Plans. Stationing shall be established along the centerline of the dike within the marsh creation area.
 - 210.7.11.1 <u>Stake Out</u>: Survey stakes shall be placed at one-hundred (100) foot intervals and at all points of inflection along the centerline of the dike, inside toe of the earthen containment dike, and outside toe of the associated borrow area.
 - 210.7.11.2 <u>Earthen Containment Dike Realignment</u>: If the Engineer realigns any portion of the earthen containment dike and associated borrow area, the Contractor shall re-survey the realigned portion of the earthen containment dike and borrow area and recalculate projected quantities.
- 210.7.12 <u>Existing Dune</u>: The topography of the existing dune shall be surveyed along the centerline of the dune crest and extend from the eastern and western boundaries of the Project Site. Ground elevations and coordinates shall be recorded at one-hundred (100) foot intervals along the centerline or where there is a change in grade greater than plus or minus one-half (± 0.5) feet and at all points of inflection.
- 210.7.13 <u>Marsh Creation Area</u>: A topographic/bathymetric and magnetometer survey shall be performed within the marsh creation area. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects and where there is a change in grade greater than one-half (0.5) feet. Transects shall extend fifty (50) beyond the Arrowhead/Harvest pipeline canal. The projected quantity needed to fill the marsh creation area shall be calculated based on this survey. This survey shall not be performed until the earthen containment dike has been constructed and accepted by the Engineer.

- 210.8 <u>Process Surveys</u>: The Process Surveys shall be used to verify payment, determine Acceptance and modify the bid items as deemed necessary by the Engineer. The Process Surveys shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Pre-Construction Survey. The Process Surveys shall also include the following items:
 - 210.8.1 <u>Quantities</u>: The Process Survey shall show the constructed quantities for each bid item. The calculation methodology used to determine the quantities shall be consistent with the Pre-Construction Survey.
 - 210.8.2 <u>Marsh Creation Borrow Area:</u> The bathymetry of those portions of the marsh creation borrow area which have been dredged shall be surveyed consistent with the Pre-Construction Survey. If the Contractor remobilizes to any portion of the borrow area which has been previously dredged, that portion of the borrow area shall be resurveyed before and after it is re-dredged. The dredge quantity (in cubic yards) shall also be calculated.
 - 210.8.3 <u>Marsh Creation Area Increments</u>: The topography of each increment within the marsh creation area shall be surveyed one (1) week after marsh fill placement is complete consistent with the Pre-Construction Survey. The in-place fill quantities (in cubic yards) for each increment shall also be calculated and recorded on the daily report.
 - 210.8.4 <u>Dewatering Weirs</u>: The following attributes of the primary and secondary dewatering weirs shall be surveyed:
 - 210.8.4.1 After Installation:
 - 210.8.4.1.1. The identification of each weir within an increment shall include the increment number and weir number;
 - 210.8.4.1.2. Location and invert elevations of the entrance and outfall;
 - 210.8.4.1.3. Diameter of the weir conduit;
 - 210.8.4.1.4. Total wetted perimeter (length) of the entrance on the primary weir;
 - 210.8.4.1.5. The location and geometry of the primary weir trench.
 - 210.8.4.2 <u>During Placement of Marsh Fill</u>: The invert elevation of the entrance to each secondary weir(s) within each increment that marsh fill is being placed shall be surveyed and recorded on the daily progress report data spreadsheet. Secondary weirs within increments that have been Accepted or being placed with marsh fill are not required to be surveyed.
 - 210.8.4.3 <u>Completion of Marsh Fill Placement</u>: The topography of the weir outfall areas within each increment shall be surveyed after placement of marsh fill is complete and shall be consistent with the Pre-Construction Survey.

210.8.5 <u>Earthen Containment Dikes</u>: The topography of the dike and associated borrow area shall be surveyed after being fully constructed and prior to placement of the fill material into the marsh creation area. Ground elevations and coordinates shall be recorded for the inside and outside crests and toes of the dikes, the inside and outside troughs of the associated borrow areas at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection. The total length (in feet) and in-place fill quantity (in cubic yards) for the dikes around each marsh creation area shall also be calculated, and the marsh creation area estimated quantity shall be recalculated to include this quantity.

The dikes shall be surveyed every month beginning with placement of fill material into the marsh creation area, and ending with Acceptance of the marsh creation area. Ground elevations and coordinates shall be recorded for the inside crest, inside top at interface with marsh fill, outside crest, and outside (opposite marsh creation) toe of the dikes. These measurements shall be repeated at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection.

The Engineer may require the Contractor to re-survey portions of the earthen containment dikes and associated borrow areas if any of the following conditions are met:

- 210.8.5.1 Dikes are reworked due to exceedance of the specified tolerances;
- 210.8.5.2 Maintenance is performed on the dikes after Acceptance;
- 210.8.5.3 The time between Acceptance of the dikes and beginning of fill placement into the marsh creation area is sixty (60) calendar days or longer.

The Contractor shall perform a Process Survey and provide updated quantities on all reworked portions of the earthen containment dike and borrow area.

- 210.8.6 Instrumented Settlement Plates:
 - 210.8.6.1 <u>Installation</u>: The elevation and location of the base plate on each incremented settlement plate shall be surveyed during installation in the marsh creation area.
 - 210.8.6.2 <u>Prior to Dredging</u>: The location and elevation of the base plate shall be recorded every thirty (30) days prior to fill placement in the marsh creation area.
 - 210.8.6.3 <u>During Dredging</u>: During marsh fill placement into each increment, the elevation of the top of each instrumented settlement plate within that increment shall be surveyed daily until the increment is accepted. This survey data shall be included in the daily progress report.
- 210.8.7 <u>Grade Stakes</u>: The fill slurry elevation at each grade stake within each increment being filled shall be observed and recorded on a daily basis throughout fill placement and until the marsh creation area is accepted. Check surveys of the grade stakes shall be performed every two (2) weeks during fill placement consistent with the Pre-Construction Survey.
- 210.8.8 <u>Slurry Head Wave</u>: The location of the advancing slurry head wave shall be surveyed daily during fill placement into the marsh creation area. Horizontal coordinates shall be recorded at one-hundred (100) foot intervals along the edge of the head wave. This survey shall be included in the daily progress report KMZ.

- 210.8.9 <u>Dredge Pipeline Outfall</u>: The location for the dredge pipeline outfall shall be surveyed after being positioned or repositioned within the marsh creation area. Horizontal coordinates of the outfall shall be reported on the daily progress report KMZ.
- 210.9 <u>As-Built Survey</u>: The As-Built Survey shall be used to verify final payment and Acceptance of all Work. Accepted Process Surveys may be included as part of the As-Built Survey. The As-Built Survey shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Process Surveys unless stated otherwise. The As-Built Survey shall also include the following items:
 - 210.9.1 <u>Quantities</u>: The As-Built Surveys shall show the constructed quantities for each bid item.
 - 210.9.2 <u>Dredge Pipeline Corridor</u>: The bathymetry of the dredge pipeline corridor shall be resurveyed consistent with the Pre-Construction Survey after the dredge pipeline has been removed. Those portions of the corridor which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
 - 210.9.2.1 <u>Beach and Dune</u>: The topography of the dredge pipeline corridor which crossed the existing beach and dune shall be resurveyed consistent with the Pre-Construction Survey after the dredge pipeline has been removed.
 - 210.9.3 <u>Existing Dune</u>: The topography of the dune used for Southern containment shall be resurveyed consistent with the Pre-Construction Survey.
 - 210.9.4 <u>Equipment Access Corridors</u>: The topography/bathymetry of the equipment access corridors shall be resurveyed consistent with the Pre-Construction Survey after all equipment has been demobilized.
 - 210.9.5 <u>Marsh Creation Area</u>: Those portions of the marsh creation area which has been reworked due to exceedance of the specified fill elevation tolerances shall be resurveyed for Acceptance.
 - 210.9.6 <u>Dewatering Weirs</u>: The dewatering weirs and outfall areas shall be resurveyed consistent with the Pre-Construction Survey after all equipment has been demobilized.
 - 210.9.7 <u>Earthen Containment Dikes</u>: The earthen containment dike shall be surveyed after being degraded.
- 210.10 <u>Deliverables</u>: The Contractor shall submit all survey data and drawings to the Engineer for review and Acceptance by the dates specified in SP-3. The Owner may stop the respective portions of the Work if the surveys are not submitted by the specified date. The Contractor shall not submit a Claim for an adjustment to either the Contract Time or Price on any bid item for failure to submit the surveys by the specified date.
 - 210.10.1 <u>Survey Data</u>: Survey data shall be provided in Microsoft Excel, or approved equal using the file share platform specified in SP-20. Survey data shall be presented as follows:
 - 210.10.1.1 Bathymetry and topography data shall be provided in tables and include separate columns for the transect number, point number, point description, northing coordinate, easting coordinate and elevation. Bathymetric survey data shall be corrected for tidal fluctuations and vessel pitch, roll and heave.

- 210.10.1.2 Magnetometer detections shall be provided in tables and include separate columns for the transect number, point number, northing coordinate, easting coordinate, sensor height, signature type, amplitude and duration. Elevations and depth of cover shall be provided for all pipelines and magnetic detections higher than fifty (50) gammas. Descriptions shall also be provided for the probable causes of all magnetic detections higher than fifty (50) gammas.
- 210.10.1.3 Elevation data for the instrumented settlement plates, grade stakes, earthen containment dikes, slurry, and dewatering weirs shall be provided in separate tables.
- 210.10.2 <u>Survey Drawings</u>: Surveys shall be provided in the latest version of AutoCAD and Adobe Acrobat, or approved equal. All survey drawings shall conform to CPRA drafting standards and be presented as follows:
 - 210.10.2.1 All sheets shall include the Project name, number and seal of a professional engineer or surveyor licensed in the State of Louisiana
 - 210.10.2.2 The location of all earthen containment dikes, marsh fill, survey monuments, temporary benchmarks, grade stakes, instrumented settlement plates, dredge pipeline crossings, and dewatering weirs shall appear in plan view;
 - 210.10.2.3 Transects and profiles shall be shown in plan and profile view and include spot elevations, contours in \pm 1.0 foot increments, and mean high and mean low water levels;
 - 210.10.2.4 Magnetometer anomalies and infrastructure (pipelines, power lines, etc.) shall be shown in plan view. Probed infrastructure and magnetic anomalies higher than fifty (50) gammas shall also be shown in profile;
 - 210.10.2.5 All plan views shall be overlaid onto the most recent geo-rectified Digital Orthophoto Quarter Quadrangle aerial color photographs;
 - 210.10.2.6 Revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.
- 210.11 <u>Acceptance</u>: The Contractor shall request for Acceptance after completion of the Pre-Construction, Process and As-Built Surveys. The Engineer shall determine Acceptance of the Work based on these surveys and conformance to the Plans and Specifications. The Engineer shall be afforded seven (7) working days from the date of receipt to review and determine Acceptance of each survey.
 - 210.11.1 <u>Pre-Construction Survey</u>: The Contractor may mobilize equipment but shall not start construction until Acceptance of the Pre-Construction Survey. The Pre-Construction survey for the dikes must gain Acceptance prior to construction of the dikes.
 - 210.11.2 <u>Process Surveys</u>: Payment for bid items shall not be made until Acceptance of the associated Process Surveys. Those portions of the Work which are required to be reworked, repaired or replaced due to non-compliance with the Plans and these Specifications shall be resurveyed for Acceptance.

- 210.11.3 <u>As-Built Survey</u>: A draft of the As-Built Survey shall be submitted to the Engineer for review prior to the Final Inspection as per SP-3. A final version of the As-Built Survey shall be submitted to the Engineer for Acceptance after the Final Inspection as per SP-3. Final payment for this bid item will not be received until the As-Built Survey has gained Acceptance from the Engineer.
- 210.12 <u>Ratio of Effort</u>: Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor upon completion of the Pre-Construction Survey. Forty percent (40%) shall be paid to the Contractor upon Acceptance of all Process Surveys. The remaining twenty percent (20%) shall be paid to the Contractor upon Acceptance of the As-Built Survey.
- 210.13 <u>Measurement and Payment</u>: The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made at the Contract lump sum price for Bid Item No. 4, "Surveys (TS-210)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work.

TS-211 DAILY BIRD ABATEMENT

- 211.1 Scope: The Contractor shall furnish all of the materials, labor, and equipment necessary to monitor and abate all nesting birds within the Work Areas and the required buffer areas required for each bird species around the Work Areas per Appendix N. If no birds are found to be present, no abatement measures are required. The Contractor and subcontractors shall comply with all requirements under the terms and conditions set out in permits or certifications, including but not limited to and USACE 404 and Section 10 permits, Coastal Use Permit (CUP) by Louisiana Department of Natural Resources (LDNR), Water Quality Certification from Louisiana Department of Environmental Quality (LA DEQ), and Bureau of Ocean and Energy Management (BOEM) Memorandum of Agreement if applicable. Additionally, the Contractor shall comply with the provisions in applicable State and Federal laws and regulations, including but not limited to the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, Fish and Wildlife Coordination Act (FWCA), and/or any conditions established by the Louisiana Department of Wildlife and Fisheries (LDWF) and the United States Fish and Wildlife Services (USFWS) provided in Appendix N.
- 211.2 <u>Nesting Bird Abatement Plan</u>: The Contractor shall include in his Work Plan the names and qualifications of the biologists, along with proposed monitoring and abatement actions planned within authorized Work Areas. The Nesting Bird Abatement Plan (NBAP) shall be included in the required Work Plan submittal to the Engineer for review and approval prior to the commencement of Work. The NBAP will include a plan of work, personnel, required materials, work crew coordination activities, and reporting formats for any required monitoring and abatement activities. The Contractor shall meet with the Engineer before the commencement of Work to coordinate and discuss the protocols for monitoring and abatement.
- 211.3 Work Area, Site Buffer, and Nesting Buffer Staking: The Contractor shall carefully mark and stake the boundaries of the Work Area and necessary site buffer areas. Survey stakes and flag-ging utilized for nesting buffers shall consist of sufficient length to remain a minimum of two (2) feet above mean water level. The Contractor shall submit within the Work Plan the materials proposed for the construction of the markers for approval by the Engineer. The Contractor shall maintain the markers in good order for the duration of construction. All markers shall be removed from the Project Site and properly disposed by the Contractor prior to demobilization.

- 211.4 <u>Nesting Bird Surveys</u>: To minimize impacts to birds, the Contractor shall employ a qualified biologist to allow for accurate identification of birds encountered during the execution of Work under this Contract. The qualified biologist shall survey the Work Areas and buffers to determine signs of breeding or nesting activities from birds as necessary. The nesting period for bird species varies, however, February 15th through September 15th is a conservative timeframe for consideration. Evidence of forthcoming nesting such as territory defense, courtship behavior, or nest building by any bird species shall be noted. GPS coordinates and a brief description of the location, number, and type of birds involved in the nesting activity shall be recorded. The Contractor shall use this information to determine if and when abatement actions should be implemented, as well as coordinate with the Engineer.
- 211.5 <u>Abatement Methods for Birds</u>: Abatement methods are recommended to prevent nesting activities. The Contractor shall use the nesting survey information to determine and implement approved abatement actions within the work and buffer areas. There is the potential for nocturnal species; therefore, it is recommended that some or all abatement activities could take place twenty-four (24) hours a day, seven (7) days a week if necessary and allowed. It is advised that passive and/or active abatement techniques be deployed before the onset of the nesting season regardless of whether any active bird use is observed.

All abatement techniques/methods should be coordinated with the Engineer prior to use. To increase the effectiveness of the efforts, a combination of abatement measures should be employed. Additionally, the types of abatement measures, as well as their spatial and temporal deployment, should be changed frequently to reduce the chances that birds become habituated to the abatement measures.

Passive measures such as scare eye balloons or predator decoys may deter birds from nesting. In the event that initiation of nesting birds is discovered, then the Engineer shall be contacted and abatement measures should be altered to include more active methods such as continual human presence. More aggressive methods of hazing (i.e. cannons, flares, etc.) could also be used if necessary. Timing, persistence, organization, and diversity of abatement measures are crucial in deterring birds from establishing active nests. All abatement measures should be conducted by qualified biologists who are familiar with the proposed abatement methods.

In the event that an egg is spotted, the Engineer should be contacted immediately. The required buffer area around the nest shall be established and all activities within the buffer area, including abatement, must cease.

- 211.6 <u>Nesting Activities</u>: If nesting occurs within the construction or Project Site buffer areas, the Contractor shall, establish a necessary buffer and maintain a crew and visitor notification system including the location of the Project Site showing the bird nesting buffers, approved travel corridors, and any avoidance areas. Notifications should clearly indicate the current status of avoid-ance areas, any marking schemes, and any other information needed to insure Work continues without disturbance to nesting birds. Observations of any nest(s) by the qualified biologist, maintenance of nest buffers, and notification systems shall remain in place until the nesting activities have ceased.
- 211.7 <u>Notification</u>: In the event that the Contractor discovers the initiation of bird nesting within 1,000 feet of the Work Area or discovers an egg then the Engineer should be contacted immediately, required nest buffers established, and more aggressive survey and abatement measures should be deployed outside the nest buffer, within the remaining Work Area.

The Contractor should evaluate impacts to construction activities, if applicable, and inform the Engineer of plans to adjust construction activities. For situations that may require temporary adjustments, the Contractor can make a recommendation of what potential encroachment is needed to ensure the birds are not disturbed or harassed from their nest, but still allows the continuation of Work. Justification should be documented and sent to the Engineer as soon as possible.

- 211.8 <u>Nest Buffer Encroachment</u>: Determination and approval of any nest buffer encroachments are at the Engineer's discretion and will be based on coordination with LDWF and USFWS.
- 211.9 <u>Deliverables</u>: The Contractor shall submit daily reports for all activities at the Project Site including, but is not limited to, bird surveys, nest locations, weather conditions, abatement activities, manpower, equipment, abatement techniques, etc. In addition, photographs and GPS coordinates shall be provided for each identified nest. Maps should include, but are not limited to, identified bird nests, aerial extent of abatement activities, required buffer of identified bird nests, location of pre-nesting activities, GPS coordinates of bird nests or other pertinent features, etc.

Deliverable of an excel spreadsheet with nest location coordinates, species, individual nest ID, dates of nest discovery, dates of nest examinations including the last date checked, and nest fate shall be provided at the end of each nesting season.

211.10 <u>Measurement and Payment</u>: Payment for daily bird abatement shall be made at the Contract unit price per Each for Bid Item No. 5, "Daily Bird Abatement (TS-211)". Price and payment shall constitute full compensation for furnishing all equipment, labor, and other incidentals related to this item of work.

TS-220 GRADE STAKES

- 220.1 <u>Scope</u>: Grade stakes shall be installed within the marsh creation fill area in order to measure the elevation of the fill slurry during placement. The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, maintain and inspect the grade stakes in accordance with the Plans and these Specifications. Construction sequencing of this item shall be included in the Work Plan.
- 220.2 <u>Materials</u>: Each gauge sign shall be supported by one (1) 2" x 4" untreated pine lumber of sufficient length to be embedded a minimum of six (6) feet below existing grade. The top of the gauge sign shall be fastened flush with the top of the lumber using three (3) #8 galvanized or zinc-coated wood screws and washers. Holes shall be drilled through the lumber and gauge sign before the fasteners are installed.

The gauge sign shall be composed of sheeting applied to a rigid substrate of 4" x 0.120" x 60" fiberglass reinforced thermoset polyester laminate using a pressure sensitive urethane adhesive. The sheeting shall be engineer grade Avery Dennison T1500 that is white in color and reflective. The substrate shall be gray in color, dielectric, non-conductive, acrylic, UV stabilized and possess a tensile strength which exceeds 0.005' aluminum. Border lines shall be applied every one-half (0.5) foot using 1/8" thick Avery 7TS black ink.

- 220.3 <u>Installation</u>: All grade stakes shall be installed prior to placing the fill into the marsh creation area. One (1) grade stake shall be installed near the center of each transect as shown on the construction survey in the Plans. The Contractor may install additional grade stakes as deemed necessary to perform the Work. The grade stakes shall be installed vertically and embedded at least six (6) feet below existing grade. All gauge signs within the marsh creation fill area shall be oriented in the same direction to aid observation.
- 220.4 <u>Maintenance</u>: The grade stakes shall be maintained by the Contractor until the marsh creation increment receives acceptance from the Engineer. Grade stakes shall be repaired and resurveyed if damaged or the plumb angle varies by more than fifteen (15) degrees from vertical.
- 220.5 <u>Inspection</u>: An initial inspection of the grade stakes shall be performed no more than seven (7) days prior to placing dredge material into the marsh creation fill area. Inspections of the grade stakes within each increment shall be performed daily during fill placement within that increment. These inspections shall record the top numerical elevation, distance from the top of the stake to the existing ground (tape down distance), the stake identification number, Northing coordinate and Easting coordinate for each grade stake. A final inspection shall be performed to verify that all stakes have been properly removed. The results of all inspections shall be included in the Daily Progress Reports. The inspections may be witnessed by the Engineer or Resident Project Representative.
- 220.6 <u>Removal</u>: The grade stakes shall be removed prior to demobilization of equipment. The grade stakes shall either be removed in their entirety or cut off at marsh grade. Impacts to the marsh creation fill areas shall be minimized during removal of the grade stakes.
- 220.7 <u>Measurement and Payment</u>: Payment shall be made for the Contract unit price per Each for Bid Item No. 6, "Grade Stakes (TS-220)". Payment shall constitute full compensation for furnished material, labor, equipment and other incidentals related to this item of the Work. No payment shall be made for grade stakes that are rejected or damaged due to fault or negligence of the Contractor.

TS-251 INSTRUMENTED SETTLEMENT PLATES

- 251.1 <u>Scope</u>: The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, survey and maintain the instrumented settlement plates (ISPs) in accordance with the Plans and these Specifications.
- 251.2 Materials and Fabrication:
 - 251.2.1 <u>Instrumentation</u>: All instrumentation for the ISPs shall be procured by the Owner and is not part of the Contract.
 - 251.2.2 <u>Base Plate</u>: The base plate for each settlement plate shall be fabricated with a six (6) foot by six (6) foot by one-fourth (1/4) inch thick steel plate. A two and seven-eighths (2-7/8) inch diameter hole shall be drilled or cut through the center of the base plate for installation of the riser pipe and stand pipe.

- 251.2.3 <u>Riser Pipe</u>: The riser pipe for each settlement plate shall be two and one-half (2-1/2) inch nominal diameter Schedule 40 steel pipe that is ten (10) feet long. The riser shall be inserted two (2) feet through the hole in the center of the base plate and welded on both sides of the plate using a 3/16" continuous fillet. The stand pipe shall be one and one-half (1-1/2) inch nominal diameter Schedule 40 steel pipe that is twelve (12) feet long.
- 251.2.4 <u>Instrument Housing</u>: Six (6)-twelve (12) by twelve (12) by three-sixteenth (3/16) steel plates shall be provided as an instrument housing for each ISP. Five (5) of the plates shall be welded together at the edges in the shape of a box as shown on the Plans. The bottom plate of the housing shall be welded to the top of the riser pipe using a one-quarter (1/4) inch continuous fillet. A one and one-half (1-1/2) inch diameter hole shall be drilled into the bottom plate two (2) inches from the riser pipe for conduit access. A one and one-half (1-1/2) inch diameter hole shall be drilled into the center of the top plate for conduit access.
 - 251.2.4.1 <u>Instrument Housing Door</u>: One plate shall function as the housing door and shall be affixed to the housing by two (2) steel welded-on hinges. A one-half (1/2) inch diameter hole shall be drilled through the door and adjacent plate located one (1) inch from the bottom corner to allow for a padlock.
- 251.2.5 <u>ISP Number</u>: The instrument housing shall have the identification number of the ISP painted on all four (4) sides using galvanized compound paint that is white in color. The numbering of the ISPs shall increase from west to east within the marsh creation area. The paint may be applied using stencils or other approved application. The number shall be ten (10) inches high.
- 251.2.6 <u>Antennae Extension</u>: One (1) Schedule 40 steel pipe shall be provided as an antennae extension for each ISP. The pipe shall be two (2) feet long and have a nominal diameter of one and one-half (1-1/2) inches. The pipe shall be welded to the center of the top of the instrument housing using a one-quarter (1/4) inch continuous fillet. A steel cap shall be welded onto the top of the pipe. One (1)- one-half (1/2) inch diameter through hole shall be drilled through the center and middle of the pipe.
- 251.2.7 <u>Anchor Pipe</u>: One (1) Schedule 40 steel stand pipe shall be provided to anchor each ISP. The stand pipe shall be ten (10) feet long and have a nominal diameter of one and one-quarter (1-1/4) inches.
- 251.2.8 <u>Zinc Coating</u>: A zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where the zinc coasting becomes damaged, the damaged area shall be re-galvanized with a suitable low-melting zinc base alloy as recommended by the American Hot-Dip Galvanizers Association. One coat of vinyl wash primer followed by a red top coat shall be applied over the zinc coat. All painting shall conform to the latest edition of the LA DOTD Standard Specification Section 811 and 1008, or approved equivalent.
- 251.3 <u>Installation</u>: The instrumented settlement plates shall be installed at locations shown on the Plans or as directed by the Engineer within two (2) months after the start of the Contract Time. The anchor pipe shall be driven to a depth determined by the Engineer during installation of each ISP. The Engineer shall install all instrumentation during installation of the ISPs with the assistance of the Contractor.

- 251.4 <u>Monitoring</u>: The Engineer shall be responsible for monitoring the equipment on the ISPs. The Contractor shall provide the Engineer with boat transportation to access ISPs at all times during construction.
- 251.5 <u>Maintenance</u>: The Contractor shall maintain all ISPs until Acceptance of the marsh creation areas. Damages to ISPs shall be immediately repaired or replaced and resurveyed by the Contractor at no expense to the Owner.
- 251.6 <u>Ratio of Effort</u>: Ninety percent (90%) of the Contract cost for this bid item shall be paid to the Contractor after installation of the instrumented settlement plates. The remaining ten percent (10%) shall be paid to the Contractor upon Acceptance of the marsh creation area.
- 251.7 <u>Measurement and Payment</u>: Payment shall be made for the Contract unit price for Each for Bid Item No. 7, "Instrumented Settlement Plates (TS-251)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work. No payment shall be made for instrumented settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

TS-300 EARTHEN CONTAINMENT DIKES

- 300.1 <u>Scope</u>: The Contractor shall furnish all of the material, labor and equipment necessary to construct an earthen containment dikes (Dike) around the perimeter of the marsh creation area in accordance with these Specifications, the Plans, or otherwise directed by the Engineer. Construction sequencing of this item shall be included in the Work Plan.
- 300.2 <u>Equipment</u>: Dike construction and borrow area excavation shall be performed using mechanical equipment. The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all mechanical equipment that is proposed to perform the Work. The mechanical equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 300.3 <u>Construction</u>: The Dike shall be constructed using borrow that is excavated from either the interior or the exterior of the marsh creation area as shown on the Plans.
 - 300.3.1 <u>Borrow Properties</u>: A geotechnical investigation of the marsh creation area was performed by the Engineer and is provided in Appendix H of the Specifications. The in-situ soil properties may vary along the alignment of the dike. All unsuitable organic debris such as logs, stumps, snags, etc. greater than two (2) inches in diameter or two (2) feet in length that is encountered in the dike borrow area shall remain and not be used to construct the dikes. All unsuitable inorganic debris such as tires, scrap, etc. greater than five (5) pounds that is encountered in the dike borrow areas shall be disposed off-site in an approved waste disposal facility.
 - 300.3.2 <u>Alignment</u>: The Dike shall be aligned around the perimeter of the marsh creation area except along the southern boundary where the existing sand dune shall serve as containment. The borrow area shall be aligned along the Dike and beyond the minimum offset distance shown on the Plans.

- 300.3.3 <u>Geometry</u>: The Dike shall be constructed within the tolerances and to the lines, grades, and elevations shown on the Plans. The borrow area shall be excavated within tolerances and to the lines, grades, and elevations shown on the Plans. Any portion of the constructed dike and borrow area that does not comply with the specified geometry shall not be accepted by the Engineer until being reworked and resurveyed by the Contractor.
 - 300.3.3.1 <u>Crest Elevation Tolerance</u>: The Contractor is allowed to construct the Dike to any crest elevation as long as it is within the elevation tolerance shown on the Plans. The Contractor shall determine the optimal crest elevation based on the projected concentration of the dredge slurry. The Contractor shall provide for a minimum freeboard of one (1) foot from the projected slurry elevation to the crest elevation of the Dike.
- 300.3.4 <u>Construction</u>: The Dike shall be constructed in a minimum of two (2) lifts to the geometries and within the tolerances shown on the Plans. Construction of the earthen containment dike may require double handling of material. Depending on the predicted concentration of the dredge slurry, the Contractor may construct a third lift to the geometry and within the tolerances shown on the Plans.

The Contractor may construct each lift of the Dike in individual segments. The lengths and locations of the segments shall be provided in the Work Plan. Each lift of the Dike must achieve compliance with the following requirements:

- 300.3.4.1 Process Survey of each lift and each segment shall be performed and approved by the Engineer;
- 300.3.4.2 The Contractor shall delay the construction of each subsequent lift of the Dike by a minimum of thirty (30) calendar days after completion of the previous lift. The Engineer will install piezometers into portions of the Dike during construction to monitor the soil strength gain in each lift. If the Engineer determines that the necessary strength gain is achieved less than 30 days after construction of each lift, the Engineer shall notify the Contractor that construction of the subsequent lift can commence.
- 300.3.4.3 Those segments of the Dike that do not comply with the specified geometries and tolerances shall be reworked and resurveyed for compliance.
- 300.3.5 <u>Pipeline Crossings</u>: Borrow shall not be excavated within the fifty (50) feet of existing pipelines. The dike shall be constructed in a manor such that impacts to pipelines are minimized. Construction at the pipeline crossings may require double handling of borrow.
- 300.4 <u>Internal Training Dikes</u>: The Contractor shall construct internal training dikes at the locations shown on the Plans and as necessary as deemed by the Contractor. The geometry of the internal training dikes shall be consistent with the lines, grades and elevations shown on the Plans.
- 300.5 <u>Maintenance</u>: The specified geometry of the Dike shall be maintained throughout construction of the marsh creation area at no expense to the Owner. Maintenance on the Dike shall be required for nonconformance based on inspections or Process Surveys.
- 300.6 <u>Dike Failures</u>: The Contractor shall immediately stop dredging and placement of marsh fill, notify the Engineer and initiate repairs if any portion of the Dike fails during construction. The Contractor shall include a detailed protocol for reporting and repairing failures of the Dike in the Work Plan.

- 300.7 <u>Gapping</u>: Portions of the Dike shall be gapped after Acceptance of the marsh creation area and prior to demobilization. The gaps shall be twenty-five (25) feet long and spaced at five-hundred (500) foot intervals along the alignment, or as directed by the Engineer. Gaps shall be constructed by degrading the crown elevation of the dike to the construction marsh creation elevation for the associated marsh creation area. Spoil shall be spread evenly on top of the adjacent dike borrow area.
- 300.8 <u>Acceptance</u>: The Contractor shall request for Acceptance of the Dike after construction and approval of the As-Built Survey.
- 300.9 <u>Ratio of Effort</u>: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after construction and approval of the Process Survey of the first lift. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after Acceptance of the constructed dike.
- 300.10 <u>Measurement and Payment</u>: Payment shall be made at the Contract unit price per Linear Foot for Bid Item No. 8, "Earthen Containment Dikes (TS-300)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on a monthly basis based on the linear feet of dike constructed.

TS-301 PRIORITY EARTHEN DIKE

- 301.1 <u>Scope</u>: The Contractor shall furnish all of the material, labor and equipment necessary to construct the priority earthen dike in accordance with these Specifications, the Plans, or otherwise directed by the Engineer. Construction sequencing of this item shall be included in the Work Plan.
- 301.2 <u>Equipment</u>: Priority earthen dike construction and borrow area excavation shall be performed using mechanical equipment. The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all mechanical equipment that is proposed to perform the Work. The mechanical equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 301.3 <u>Construction</u>: The base of the priority earthen dike shall be constructed using sand excavated from the priority earthen dike borrow area. The remainder of the priority earthen dike shall be constructed using borrow excavated from the exterior of the marsh creation area.
 - 301.3.1 <u>Borrow Properties</u>: A geotechnical investigation of the marsh creation area is provided in Appendix H of the Specifications. The in-situ soil properties may vary along the alignment of the Dike. All unsuitable organic debris such as logs, stumps, snags, etc. greater than two (2) inches in diameter or two (2) feet in length that is encountered in the dike borrow area shall remain and not be utilized to construct the dikes. All unsuitable inorganic debris such as tires, scrap, etc. greater than five (5) pounds that is encountered in the dike borrow areas shall be disposed off-site in an approved waste disposal facility.

- 301.3.1.1 <u>Sand Base</u>: The Contractor shall excavate sand from the priority earthen containment dike borrow area shown on the Plans, or as directed by the Engineer. Overburden material shall be temporarily stockpiled on either side of the sand borrow area and returned to the borrow area after the sand is excavated. The Contractor shall excavate borrow material that has a majority fraction of sand. The Engineer shall observe the excavation to ensure the borrow material contains a majority fraction of sand and is suitable for construction of the containment dike. The borrow material shall be transported using floating equipment to the priority earthen dike.
- 301.3.2 <u>Geometry</u>: The priority section of the Dike shall be constructed within the tolerances and to the lines, grades, and elevations shown on the Plans. The borrow area shall be excavated within the tolerances and to the lines, grades, and elevations shown on the Plans. Any portion of the constructed dike and borrow area that does not comply with the specified geometry shall not be accepted by the Engineer until being reworked and resurveyed by the Contractor
 - 301.3.2.1 <u>Crest Elevation Tolerance</u>: The Contractor shall construct the priority earthen dike to the elevations and tolerances of the earthen containment dikes. The Contractor shall provide for a minimum freeboard of one (1) foot from the projected slurry elevation to the crest elevation of the priority earthen dike.
- 301.3.3 <u>Sand Base</u>: The Contractor shall place sand along the alignment of the priority earthen dike to the base elevation shown on the Plans.
- 301.3.4 <u>Construction Lifts</u>: The priority section of the Dike shall be constructed on top of the sand base using the same methodology as the earthen containment dikes specified in TS-300.
- 301.4 <u>Maintenance</u>: The geometry of the priority earthen dike shall be maintained throughout construction of the marsh creation area at no expense to the Owner. Maintenance on the priority earthen dike shall be required for nonconformance based on inspection or Process Surveys.
 - 301.4.1 <u>Dike Failures</u>: The Contractor shall immediately notify the Engineer and initiate repairs if any portion of the priority earthen dike fails during construction. The Contractor shall include a detailed protocol for reporting and repairing failures of the priority earthen dike in the Work Plan.
- 301.5 <u>Gapping</u>: Portions of the priority earthen dike shall be gapped after Acceptance of the marsh creation area and prior to demobilization. The gaps shall be twenty-five (25) feet long and spaced at five-hundred (500) foot intervals along the alignment, or as directed by the Engineer. Gaps shall be constructed by degrading the crown elevation of the dike to the construction marsh creation elevation for the associated marsh creation area. Spoil shall be spread evenly on top of the adjacent dike borrow area.
- 301.6 <u>Acceptance</u>: The Contractor shall request for Acceptance of the priority section of the priority earthen dike after construction of all lifts and approval of the As-Built Survey.
- 301.7 <u>Ratio of Effort</u>: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after construction and approval of the Process Survey of the first lift. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after Acceptance of the constructed dike.
301.8 <u>Measurement and Payment</u>: Payment shall be made at the Contract Lump Sum price for Bid Item No. 9, "Priority Earthen Dike (TS-301)." Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work.

TS-400 HYDRAULIC DREDGING AND MARSH FILL

- 400.1 <u>Scope</u>: The Contractor shall furnish all of the materials, labor and equipment necessary to hydraulically dredge the marsh creation borrow areas and place the dredge quantity as shown in the Plans into the marsh creation area in accordance with these Specifications. The borrow material must be dredged, conveyed and placed in such a manner to ensure that negative impacts caused by the project are minimized. This section shall include the operation and maintenance of the hydraulic dredge and booster pump. Construction sequencing of this item shall be included in the Work Plan.
- 400.2 <u>Borrow Area Dredging</u>: The Contractor shall dredge the marsh creation borrow area using the hydraulic dredge specified in TS-100 and transfer the dredged material to the marsh creation area using the dredge pipe specified in TS-101.
 - 400.2.1 <u>Borrow Material</u>: The material to be dredged from the borrow areas may consist of gravel, sand, silt, clay, muck or shell. Soil boring logs for the borrow area are provided in Appendix H. Additional materials such as logs, stumps, snags, tires, scrap and other debris which are encountered shall be removed and properly disposed of by the Contractor.
 - 400.2.2 <u>Progression</u>: The Contractor shall dredge all of the Contract quantity from either marsh creation borrow area shown on the Plans.
 - 400.2.3 <u>Cut and Fill Sequence</u>: The Contractor shall provide a proposed cut and fill sequence for each marsh creation borrow area and each increment within the marsh creation area. All proposed modifications to the sequence shall require prior approval from the Engineer.
 - 400.2.4 <u>Dredging Limits</u>: The marsh creation borrow area shall be dredged in conformity with the lines, grades, and elevations shown on the Plans. The Contractor shall immediately notify the Engineer if an infraction of borrow area limits does occur. The Contractor shall also pay all permit fines and other expenses related to dredging beyond the limits of the marsh creation borrow areas.
 - 400.2.5 <u>Dredge Location Control</u>: The Contractor is required to utilize a differential global positioning system (DGPS) to accurately and continuously track and record the position and depth of the dredge and cutter head while dredging the borrow area. The position of the dredge and cutter head shall by recorded in Louisiana South State Plane Coordinate System, NAD 1983 with an accuracy of fifteen (15) feet. The Engineer or Project Representative shall be allowed to board the dredge and observe dredging operations from the bridge. The Contractor is required to calibrate the DGPS equipment per manufacturer's specifications. The position data and calibration records shall be included in the Daily Progress Reports. The proposed type of positioning equipment shall be included in the Work Plan.
 - 400.2.6 <u>Slurry Specific Gravity</u>: The Contractor shall maintain the dredge slurry at the highest specific gravity (density) possible during dredging operations in order to not exceed the crest elevation of the earthen containment dikes.

- 400.2.7 <u>Slurry Production Rate</u>: The production of slurry by the hydraulic dredge shall be maintained at a rate such that the crest elevation of the earthen containment dikes is not exceeded.
- 400.3 <u>Marsh Creation</u>: The Contractor shall convey the material dredged from the marsh creation borrow areas into the marsh creation area. Placement shall only occur after construction and Acceptance of all earthen containment dikes.
 - 400.3.1 <u>Marsh Fill Quantity</u>: The Contract quantity for marsh fill shall be uniformly placed within the marsh creation area. The Owner reserves the right to adjust the Contract quantity plus or minus (+/-) twenty-five (25) percent at the Contract Unit Price.
 - 400.3.2 <u>Marsh Fill Elevation and Tolerance</u>: Dredged material shall be placed into the marsh creation fill areas after construction and Acceptance of the earthen containment dikes. The constructed marsh fill elevation shall be +3.0 ft. NAVD88 with a tolerance of plus or minus (±) one (1) foot. The Owner reserves the right to adjust the constructed marsh fill elevation or tolerances based on field observations.
 - 400.3.3 <u>Marsh Creation Area Increments</u>: The marsh creation area is divided into four (4) increments that are approximately two (2) miles in length from west to east as shown on the Plans.
 - 400.3.4 <u>Progression</u>: Placement of the marsh fill shall progress in an easterly direction starting in Increment One (1) and ending in Increment Four (4).
 - 400.3.5 <u>Instrumented Settlement Plates</u>: The instrumented settlement plates will continuously measure the characteristics of the dredge slurry. The Engineer shall monitor this data real-time via a cloud-based internet platform. In order to aid the Contractor with attaining the Contract quantity for marsh fill, the Engineer will inform the Contractor when the optimum constructed marsh fill elevation has been attained within the tolerance range through monitoring of the ISPs.
 - 400.3.6 <u>Dike Breaches, Overtopping, and Unregulated Releases</u>: The Contractor shall cease dredging operations if dredge slurry breaches or overtops the Dike or Weir. The Contractor shall be responsible for the restoration of all damages to adjacent wetlands or water bodies.
- 400.4 <u>Acceptance</u>: The Contractor shall request for Acceptance after construction of the marsh creation area. Acceptance shall be determined from the Process Surveys and compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material dredged or placed beyond the specified tolerances.
- 400.5 <u>Measurement and Payment</u>: Payment shall be made at the Contract unit price per cubic yard (Dredged from the borrow area / Payment on the Cut) for Bid Item No. 10, "Hydraulic Dredging and Marsh Fill (TS-400)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on the monthly basis based on the cubic yards dredged from the marsh creation borrow area(s).

TS-510 WEIRS

- 510.1 <u>Scope</u>: The Contractor shall furnish all of the materials, labor and equipment necessary to fabricate, install, monitor and manage weirs in the marsh creation area. The weirs shall be operated to ensure that water decantation, solids detention and effluent quality are maximized. Location and sequencing of weirs during construction and operation shall be included in the Work Plan.
- 510.2 <u>Fabrication</u>: Primary and secondary weirs shall be fabricated in accordance with these Specifications. Any proposed modifications shall be approved by the Engineer.
 - 510.2.1 <u>Primary Weirs</u>: Primary weirs shall be rectangular metal-framed inlets or half-cylindrical corrugated metal pipe risers. Wooden slats shall be slotted horizontally into the inlets to control the invert elevation. The lumber slates shall be sized such that the invert elevation can be adjusted in increments of six (6) inches.
 - 510.2.2 <u>Primary Weir Length</u>: The total weir length (I.E., wetted perimeter) for all weirs shall comply with the following minimum values during construction such that the approach velocity is maintained below two (2) feet per second:

Dredge Pipe Diameter (in)	Minimum Total Weir Length (ft)
18	50
24	100
30	150

The secondary weirs shall not be accounted for in the required minimum weir length.

- 510.2.3 <u>Secondary Weirs</u>: Secondary weirs shall be steel pipe having a maximum diameter of eighteen (18) inches and sufficient length to penetrate through the dike. The pipe shall be slotted twelve (12) inches deep within six (6) inches of the end of the pipe. The slot shall be sufficient width to allow for two (2) inch thick lumber slats to be installed to adjust the invert elevation in increments of six (6) inches.
- 510.3 <u>Installation</u>: Weirs shall be installed and operable prior to placement of slurry into the marsh creation area. Decanted water shall only be allowed to discharge from the marsh creation area through the weirs.
 - 510.3.1 <u>Primary Weir</u>: The primary weir shall be installed within the earthen containment dike along the eastern boundary of the marsh creation area north of the dune and south of the right-of-way of the Chevron Pipeline.
 - 510.3.1.1 <u>Drainage Trench</u>: The Contractor shall maintain a continuous drainage path of ponded water from the marsh creation area to the primary weir during dredging operations. The drainage path shall be constructed and maintained by mechanical excavation. The proposed geometry of the drainage trench shall be provided in the Work Plan and approved by the Engineer. The drainage trench shall not be located within the right-of-way of the Chevron Pipeline.

- 510.3.1.2 <u>Filter</u>: Clogging of the primary weir by organics and debris shall be prevented at the entrance through the installation of a weir filter. The primary weir filter shall consist of a contiguous set of cattle gates, fences, etc. The primary weir filter shall surround the full perimeter of the entrance to the weir inlet at a minimum offset distance of ten (10) feet from the inlet. The primary weir filter shall not be located within the right-of-way of the Chevron Pipeline.
- 510.3.2 <u>Secondary Weirs</u>: Secondary weirs may be installed within the earthen containment dike along the northern boundary of the marsh creation area as deemed necessary by the Contractor. Secondary weirs shall not be installed within the earthen containment dike along the eastern or western boundaries of the marsh creation area. The obvert of the secondary weirs shall be set at the top of the earthen containment dike.
- 510.4 <u>Operation, Monitoring and Maintenance</u>: The weirs shall be continuously operated, monitored and maintained and adjusted to control the release of ponded water and the resuspension and withdrawal of settled solids. All adverse consequences during dredging operations that are caused by failure to monitor, operate and maintain the weirs shall be rectified by the Contractor at no cost to the Owner.
 - 510.4.1 <u>Monitoring</u>: All weirs shall be continuously monitored for proper operation, damage and clogging. The invert elevation of the primary weir shall be recorded on the Daily Progress Report data spreadsheet.
 - 510.4.2 <u>Operations</u>: The primary weir shall be operated with the invert set at two (2.0) feet below the crest elevation of the earthen containment dike during placement of slurry into the marsh creation area. All secondary weirs shall remain closed during placement of slurry into the marsh creation area. The invert elevation of the weirs may only be lowered during emergencies such as dike breaches or extreme precipitation events, or to decant water from the marsh creation area after placement of slurry has ceased.
 - 510.4.3 <u>Maintenance</u>: Clogs and debris shall be immediately removed from the primary weir such that the slurry elevation and water level in the marsh creation area do not increase. All damages to the primary weir shall be immediately repaired.
- 510.5 <u>Measurement and Payment</u>: Payment for dewatering weirs shall be included in the Contract Lump Sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work.

END OF PART III - TECHNICAL SPECIFICATIONS

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	11
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Overview:

The purpose of this Change Order is to decrease the Contract Price due to end of project overrun/underrun pay item rectification and increase the Contract Time due to adverse weather days affecting critical path work. The previous change order #10 included several pay item quantities that were good faith estimates that all parties negotiated and agreed to. Now that the work is completed, these quantities require minor adjustments. Additionally, there were several storms and other weather events that stopped critical path work on the project yielding contract days added to the project in accordance with GP-7.

The following changes are hereby made to the Contract Documents:

- 1) Decrease in Contract Price by \$9,600.00 due to removal of 12 EA of original contract Daily Bird Abatement item #05.
- 2) Decrease in Contract Price by \$123,072.00 due to removal of 20,512 CY of Hydraulic Dredging and Marsh Creation item #10.
- 3) Increase in Contract Price by \$59,732.12 due to addition of 8,455 CY of Post Ida South Dune Construction Rebuild item #29.
- 4) Decrease in Contract Price by \$5,247.63 due to removal of 382 LF of Post Ida Internal Training Dike Construction item #33.
- 5) Increase in Contract Price by \$1,750.84 due to addition of 28 CY of Post Ida Caillouet Road Construction Road Improvements item #35.
- 6) Decrease in Contract Price by \$29,890.58 due to removal of 2,671 LF of Post Ida Sand Fence Installation along South Dune item #40.
- 7) Increase Contract Price by \$10,700.00 due to addition of 2 EA of Post Ida ISP Replacement item #41.
- 8) Decrease in Contract Price by \$2,636.05 due to removal of 2 EA of Post Ida ISP Re-Adjustment item #42.
- 9) Decrease in Contract Price by \$337.05 due to removal of 3 EA of Post Ida Grade Stakes Replacement item # 43.
- 10) Increase in Contract Price by \$18,831.90 due to addition of 22 Days of Post Ida Bird Abatement Tier 1 Effort item #45.
- 11) Increase in Contract Price by \$14,979.98 due to addition of 10 Days of Post Ida Bird Abatement Tier 2 Effort item #46.
- 12) Decrease in Contract Price by \$35,952.07 due to removal of 21 Days of Post Ida Bird Abatement Tier 3 Effort item #47.
- 13) Decrease in Contract Price by \$28,333.26 due to reduction of 101 Days of Post Ida Security and Escort for Elmer's Island Road #50.
- 14) Decrease in Contract Price by \$89,062.12 due to reduction of level of effort associated with Post Ida Elmer's Island Road Improvements item #51. This item was initially estimated in Change Order #10 at a time when the level of effort was unknown. Once the

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	11
OWNER:	Coastal Protection & Restoration Authority (CPRA)
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PURCHASE ORDER NO:	2000487379

work was completed it was found that a much lower level of effort was needed to restore the road to the owner's satisfaction.

15) Increase in Contract Price by \$44,684.00 due to addition of Post Ida Pre-Con Survey of ECD new item #54. While the previous change order included precon surveys, additional data was needed for storm damage rebuild efforts. The contractor's subcontractor provided quote is for this work is included herein.

The following days were modified to the Contract:

1) 9 days are added to account for storms and adverse weather or critical path work.

The following plan sheet from the Contract Plans is hereby revised (see attached):

1) None.

The following specifications are hereby incorporated into the Part III Technical Specifications of the Project Contract Documents (see attached):

1) None.

This Change Order does not release the Contractor from any of their contract obligations.

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	11
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

	JI CHANGES I		
Change in Contract 1	Price	Change in Contract Tim	e
Original Contract Price	\$31,590,506.00	Original Contract Time	
	\$31,570,000.00	(calendar days)	548
Net Increase / (Decrease) from		Net Increase / (Decrease)	
previous Change Orders	\$ 5,699,980.68	from previous Change	
previous change orders		Orders (days)	389
Contract Price prior to this		Contract Time prior to this	
Change Order	\$37,290,486.68	Change Order (calendar	
		days)	937
Net Increase / (Decrease) of this	(\$173,451.92)	Net Increase / (Decrease) of	
Change Order	(\$175,451.92)	this Change Order (days)	9
Contract Price with this Change		Contract Time with this	
Order	\$37,117,034.76	Change Order (calendar	
		days)	946

SUMMARY OF CHANGES TO CONTRACT

RECOMMENDED:

RECOMMENDED:

ACCEPTED:

Contractor, GLDD

By: CPRA Engineer By: Josh Renard Sigma Consulting Group

By: David Mille

Digitally signed by David Mills, Project Sponsor Gulf Region Date: 2023.01.24 13:31:18 +06'00'

Date: 1-24-2023 Date: _____

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	11
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Change Order Summary Table

Project N	Jame: Caminada Back Barrier Marsh Creation Project	t (BA-0171	1)			_				_						_				_	
Contract	or: Great Lakes Dredge & Dock, LLC (GLDD)					Ch	ange Ord	er 1	Ch	ange Ord	er 2	Cha	ange Ord	er 3	Cha	nge Ord	er 4		Char	nge Orde	er 5
PO #: 20	000487379																				
BID ITEMS:	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	Amount	QUANTITY U/I	A UNIT PRICE	Amount	QUANTITY U/I	V Unit Price	Amount	QUANTITY U/N	/ Unit Price	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY	Y U/M	Unit Price	Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1	LS	\$3,000,000.00	\$3,000,000.00																
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)	1	LS	\$4,500,000.00	\$4,500,000.00																
3	General Mobilization and Demobilization (TS-102)	1	LS	\$600,000.00	\$600,000.00																
4	Surveys (TS-210)	1	LS	\$285,000.00	\$285,000.00										1 LS	\$4,117.60	\$4,117.60				
5	Daily Bird Abatement (TS 211)	226	EA	\$800.00	\$180,800.00																
6	Grade Stakes (TS-220)	50	EA	\$105.00	\$5,250.00																
7	Instrumental Settlement Plates (TS-251)	17	EA	\$5,000.00	\$85,000.00																
8	Earthen Containment Dikes (TS-300)	48,138	LF	\$142.00	\$6,835,596.00	(4,047) LF	\$142.00	(\$574,674.00)				351 LF	+ · · ·	\$49,842.00							
9	Priority Earthen Dike (TS-301)	1	LS	\$350,000.00	\$350,000.00							(1) LS	\$350,000.00	(\$350,000.00)							
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810	CY	\$6.00	\$15,748,860.00	(154,610) CY	′\$6.00	(\$927,660.00)													
11	No Work Zone (TS-511)								1 LS	\$63,900.00	\$63,900.00	_			1 LS	\$57,145.00	\$57,145.00				
12	South Dune Mob/Demob														_					\$23,550.00	\$23,550.00
13	South Dune Construction		+			\mathbf{I}			+ - +			╉───┤──						60,000	D CY	\$6.85	\$411,000.00
14	South Dune Equipment Access Canal Dredging		+						+ - +			┫────┤───			- I			1	1 LS	\$18,330.00	\$18,330.00
15	South Dune Sand Fence Installation		+			╉────┼──			+ + -			╉───┤──						47,230		\$9.70	\$458,131.00
16	South Dune Surveys	-				\mathbf{I}			+ $+$			+		-				1	1 LS	\$122,570.00	\$122,570.00
17	South Dune Airboat w/ Operator	-			1	\mathbf{I}			+ $+$			+		-				90) EA	\$1,055.56	\$95,000.40
18	Caillouet Road Construction: Mob/Demob via Elmer's Rd		+ +						╉───┤──										+ +		
19	Caillouet Road Construction: Haul and Build Rd up to 1,275 CY		+ +						+										+ +		
20	Caillouet Road Construction: Haul and Build Rd over 1,275 CY Caillouet Road Construction: Additional Airboat	_	+			╉───┤──			+			╉───┤──						1			
21		_	+ +			\mathbf{H}			+			╉────┤───									
22	Caillouet Road Construction: Site Overhead																		_		
23	Post Storm Zeta Damages Post Hurricane Ida Lidar Survey											_							_		
24 25	Post Hurricane Ida Eldar Survey Post Hurricane Ida RTK Survey											-							_		
25	Enhanced Bird Abatement Effort for Southern Containment Dike	-	+ +												-			1			
26	Post Ida Pre-con Survey of MCA		+ +									+ +									
27	Post Ida South Dune Mobilization		+ +												-						
29	Post Ida South Dune Construction Rebuild																				
30	Post Ida Earthen Containment Dike (ECD) Mobilization																				
31	Post Ida Earthen Containment Dike (ECD) Mobilization																				
32	Post Ida Earthen Containment Dike (ECD) Construction Rebaild																				
33	Post Ida Internal Training Dike Construction Rebuild		1 1									-						1			
34	Post Ida Caillouet Road Construction Mobilization		1 1																		
35	Post Ida Caillouet Road Construction Road Improvements																				
36	Post Ida Re-installation No Work Zone																				
37	Post Ida Re-Adjustment of Primary Weirs																				
38	Post Ida Re-Adjustment of Secondary Weirs																				
39	Post Ida Re-Installation of Filters/Boards																				
40	Post Ida Sand Fence Installation along South Dune																				
41	Post Ida ISP Replacement																				
42	Post Ida ISP Re-Adjustment																				
43	Post Ida Grade Stakes Replacement																				
44	Post Ida Combined Surveying																				
45	Post Ida Bird Abatement- Tier 1 Effort																				
46	Post Ida Bird Abatement- Tier 2 Effort																				
47	Post Ida Bird Abatement- Tier 3 Effort																				
48	Post Ida Air Boats, UTV's and GLDD Site Personnel																				
49	Post Ida Repair Support- 966 FEL & 4x4 Pick-up w/Operators																	I			
50	Post Ida Security and Escort for Elmer's Island Rd.	1												1				I			
51	Post Ida Elmer's Island Rd. Improvements																	I			
52	Post Ida Shore Pipeline Repairs / Re-Installation																				
53	Post Ida Submerged Pipeline Repairs / Re-Installation		+						<u> </u>						_ I			<u> </u>			
54	Post Ida Pre-con Survey of ECD														_ _						
															_ _			I			
	TOTAL				\$31,590,506.00			(\$1,502,334.00)			\$63,900.00			(\$300,158.00	0)		\$61,262.60				\$1,128,581.

Contract	Jame: Caminada Back Barrier Marsh Creation Projec or: Great Lakes Dredge & Dock, LLC (GLDD) 000487379	ct (BA-0171)				Cha	nge Orde	er 6	Cha	nge Ordeı	r 7	Char	ge Order	8	Cha	inge Orde	r 9	c	hang	ge Order	10	Change Orde	er 11	Revised Contract
BID ITEMS:	DESCRIPTION	QUANTITY U	M UNIT	PRICE	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY U/M	Unit Price	Amount	QUANTITY U/N	V Unit Price	Amount	QUANTITY	U/M	Unit Price	Amount	QUANTITY U/M Unit Price	Amount	QUANTITY Unit Price Amount
1	Hydraulic Dredge Mobilization and Demobilization (TS-100)	1 L	S \$3,000,	,000.00	\$3,000,000.00																			1 \$3,000,000.00 \$3,000,000.00
2	Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)	1 L	S \$4,500,	,000.00	\$4,500,000.00																			1 \$4,500,000.00 \$4,500,000.00
3	General Mobilization and Demobilization (TS-102)	1 L	S \$600,0		\$600.000.00					ł – – – – – – – – – – – – – – – – – – –						-			+					1 \$600.000.00 \$600.000.00
4	Surveys (TS-210)		S \$285,0		\$285.000.00					<u> </u>														1 \$289,117.60 \$289,117.60
5	Daily Bird Abatement (TS 211)	226 E	A \$800		\$180.800.00										(78) EA	\$800.00	(\$62,400.00)					(12) EA \$800.00	(\$9,600,00)	136 \$800.00 \$108.800.00
6	Grade Stakes (TS-220)		A \$105		\$5,250.00										(70) LA	φ000.00	(302,400.00)						(\$5,000.00)	50 \$105.00 \$5.250.00
7	Instrumental Settlement Plates (TS-251)		A \$5,00		\$85,000.00																			17 \$5.000.00 \$85.000.00
8	Earthen Containment Dikes (TS-300)	48,138 L	F \$142		\$6.835.596.00													(350)	LF	\$142.00	(\$49,700.00)			44.092 \$142.00 \$6.261.064.00
9	Priority Earthen Dike (TS-301)	1 L	S \$350,0		\$350,000.00																			- \$350,000.00 \$0.00
10	Hydraulic Dredging and Marsh Creation (TS-400)	2,624,810 C	Y \$6.0	.00	\$15,748,860.00																	(20,512) CY \$6.00	(\$123,072.00)	2,449,688 \$6.00 \$14,698,128.00
11	No Work Zone (TS-511)																							1 \$121,045.00 \$121,045.00
12	South Dune Mob/Demob																							1 \$23,550.00 \$23,550.00
13	South Dune Construction																	(15,539)	CY	\$6.85	(\$106,442.15)			44,461 \$6.85 \$304,557.85
14	South Dune Equipment Access Canal Dredging																							1 \$18,330.00 \$18,330.00
15	South Dune Sand Fence Installation			[(34,560)	LF	\$9.70	(\$335,232.00)			12,670 \$9.70 \$122,899.00
16	South Dune Surveys									\vdash								 			ļ	ļ		1 \$122,570.00 \$122,570.00
17	South Dune Airboat w/ Operator																	(10)	EA	\$1,055.56	(\$10,555.60)			80 \$1,055.56 \$84,444.80
18	Caillouet Road Construction: Mob/Demob via Elmer's Rd						\$44,950.00	\$44,950.00		\vdash					↓			-50%	LS	\$44,950.00	(\$22,475.00)	↓		0.50 \$44,950.00 \$22,475.00
19	Caillouet Road Construction: Haul and Build Rd up to 1,275 CY					1,275 CY		\$79,356.00											+					1,275 \$62.24 \$79,356.00
20	Caillouet Road Construction: Haul and Build Rd over 1,275 CY						\$49.50	\$19,800.00										(342)	CY	\$49.50	(\$16,929.00)			58 \$49.50 \$2,871.00
21	Caillouet Road Construction: Additional Airboat					,	\$1,042.00	\$14,588.00										(9)	DAY	\$1,042.00	(\$9,378.00)			5 \$1,042.00 \$5,210.00
22	Caillouet Road Construction: Site Overhead					14 Day	\$2,259.00	\$31,626.00	1 10	4007.055.00	¢007.055.00							(9)	DAY	\$2,259.00	(\$20,331.00)			5 \$2,259.00 \$11,295.00
23	Post Storm Zeta Damages								1 LS	\$837,855.80	\$837,855.80	1 10	\$26,737.76	\$26,737.76										1 \$837,855.80 \$837,855.80 1 \$26,737.76 \$26,737.76
24	Post Hurricane Ida Lidar Survey Post Hurricane Ida RTK Survey												\$7,009.26											1 \$7,009.26 \$7,009.26
20	Enhanced Bird Abatement Effort for Southern Containment Dike											1 LS	\$7,009.26	\$7,009.26	1 15	\$62,026.36	\$62,026.36		+					1 \$7,009.26 \$7,009.26
<u>26</u> 27	Post Ida Pre-con Survey of MCA														1 L3	\$02,020.30	\$02,020.50	1	15	\$55,735.90	\$55,735.90			1 \$55,735.90 \$55,735.90
28	Post Ida South Dune Mobilization																	1	15	\$51.092.93	\$51,092.93			1 \$51,092.93 \$51,092.93
28	Post Ida South Dune Construction Rebuild																	84.451	CY	\$7.06	\$596.621.82	8,455 CY \$7.06	\$59,732.12	92,906 \$7.06 \$656,353.94
30	Post Ida Earthen Containment Dike (ECD) Mobilization																	1	LS	\$156.314.49	\$156.314.49	0,100 01 01100	<i>\$55,752.112</i>	1 \$156.314.49 \$156.314.49
31	Post Ida Earthen Containment Dike (ECD) Construction Rebuild																	44,442	LF	\$49.19	\$2,186,187.95			44,442 \$49.19 \$2,186,187.95
32	Post Ida Earthen Containment Dike (ECD) Maintenance																	1	LS	\$174,576.20	\$174,576.20			1 \$174,576.20 \$174,576.20
33	Post Ida Internal Training Dike Construction Rebuild																	3,300	LF	\$13.74	\$45,332.92	(382) LF \$13.74	(\$5,247.63)	2,918 \$13.74 \$40,085.29
34	Post Ida Caillouet Road Construction Mobilization																	1	LS	\$15,693.21	\$15,693.21			1 \$15,693.21 \$15,693.21
35	Post Ida Caillouet Road Construction Road Improvements																	677	CY	\$62.53	\$42,332.78	28 CY \$62.53	\$1,750.84	705 \$62.53 \$44,083.62
36	Post Ida Re-installation No Work Zone																	1	LS	\$60,927.54	\$60,927.54			1 \$60,927.54 \$60,927.54
37	Post Ida Re-Adjustment of Primary Weirs																	4	EA	\$6,611.38	\$26,445.51			4 \$6,611.38 \$26,445.51
38	Post Ida Re-Adjustment of Secondary Weirs																	16	EA	\$2,486.84	\$39,789.45			16 \$2,486.84 \$39,789.45
39	Post Ida Re-Installation of Filters/Boards									\vdash					↓			1	LS	\$37,302.61	\$37,302.61			1 \$37,302.61 \$37,302.61
40	Post Ida Sand Fence Installation along South Dune									\vdash					┣─────┤──			47,230	LF	\$11.19	\$528,540.65	(2,671) LF \$11.19	(\$29,890.58)	44,559 \$11.19 \$498,650.07
41	Post Ida ISP Replacement	_ _								$ \downarrow $					┨────┤──			5	_	\$5,350.00	\$26,750.01	2 EA \$5,350.00	1 1, 11 11	7 \$5,350.00 \$37,450.01
42	Post Ida ISP Re-Adjustment									+					\mathbf{I}		_	12	EA	\$1,318.03	\$15,816.31	(2) EA \$1,318.03	(\$2,636.05)	10 \$1,318.03 \$13,180.25
43	Post Ida Grade Stakes Replacement									├					╂────┤──			50	EA	\$112.35 \$539,843.60	\$5,617.46 \$539.843.60	(3) EA \$112.35	(\$337.05)	47 \$112.35 \$5,280.41
44	Post Ida Combined Surveying									┝────┝					╉────┤──	_		1	-			22 DAY \$856.00	\$18,831.90	1 \$539,843.60 \$539,843.60
45 46	Post Ida Bird Abatement- Tier 1 Effort Post Ida Bird Abatement- Tier 2 Effort									┼───┼					╂────┼──			6 107	DAY		\$5,135.97 \$160,285.80	22 DAY \$856.00 10 DAY \$1,498.00	. ,	28 \$856.00 \$23,967.87 117 \$1,498.00 \$175,265.78
46	Post Ida Bird Abatement- Tier 3 Effort									┼──┼						-		22		\$1,712.00	\$160,285.80	(21) DAY \$1,498.00 (21) DAY \$1,712.00		1 \$1,498.00 \$175,265.78 1 \$1,712.00 \$1,712.00
47	Post Ida Bird Abatement- Tier 3 Effort Post Ida Air Boats, UTV's and GLDD Site Personnel									┼──┼	 	 						120		\$1,712.00	\$37,664.07	(21) DAT \$1,712.00	(10.266,664)	1 \$1,712.00 \$1,712.00 120 \$3,403.36 \$408,403.22
48	Post Ida Repair Support- 966 FEL & 4x4 Pick-up w/Operators									+ +								120	DAY	\$1,955.95				120 \$3,403.36 \$408,403.22
50	Post Ida Security and Escort for Elmer's Island Rd.									<u>├</u>					<u>∤</u>	1		120	DAY	\$280.53	\$33,663.27	(101) DAY \$280.53	(\$28.333.26)	19 \$280.53 \$5,330.02
51	Post Ida Elmer's Island Rd. Improvements						1			<u>∤</u>					∤ ────┤──	1	1	120	LS	\$108,664.12	\$108,664.12	(101) DAT \$200.33 (0.820) LS \$108,664.12	(+==)====)	0.180 \$108,664.12 \$19,602.00
52	Post Ida Shore Pipeline Repairs / Re-Installation					1 1				<u>├</u>	1				t I		1	10	DAY		\$80,723.27		(+33)002.127	10 \$8,072.33 \$80,723.27
53	Post Ida Submerged Pipeline Repairs / Re-Installation					1 1				<u>├</u>	1				t – †			6	DAY	\$14,007.78	\$84,046.70			6 \$14,007.78 \$84,046.70
54	Post Ida Pre-con Survey of ECD					1 1				<u> </u>								-		. ,		1 LS \$44,684.00	\$44,684.00	1 \$44,684.00 \$44,684.00
				[1						
	TOTAL		•		\$31,590,506.00	1		\$190,320.00	•		\$837,855.80			\$33,747.02		•	(\$373.64)		• •		\$5,187,179.50		(\$173,451.9	2) \$37,117,034.76

PROJECT:	Caminada Back Barrier Marsh Creation Project (BA-0171)
CHANGE ORDER NO:	11
OWNER:	Coastal Protection & Restoration Authority (CPRA)
CONTRACTOR:	Great Lakes Dredge & Dock, LLC (GLDD)
PURCHASE ORDER NO:	2000487379

Post Ida Pre-Con ECD Survey Item #54 Backup Documentation- Quote

HYDROTERRA Surveying Quote Schedule Attn: David Mills Date: 2/25/2022 Great Lakes Dredge and Dock 9811 Katy Freeway, Suite 1200 Houston, TX 77024 2022-030 Request No: (630) 209-1874 dmills@gldd.com From: Keith J. Roberts Project: CPRA - Caminada Headland Back Barrier Marsh Creation Earthen Containment Dike, Training Dike and Southern Dune Cross Sections Location: Jefferson and Lafourche Parishes, Louisiana Description Topographic Survey of Earthen Containment Dike, Training Dike and Southern Dune (Certified Deliverables Included) Lump Sum Not used-Mobilization/Demobilization Scott Louisiana - Fourchon Louisiana - Scott Louisiana 1,387.00 \$ Topographic Survey Earthen Containment Dike and Training Dike - Cross Sections Every 100' (Includes Data Acquisition, Data Processing, Certified Data and Drawings) 44,684.00 Topographic Survey Southern Dune - Cross Sections Every 100' (Includes Data Acquisition, Data Processing, Certified Data and Drawings) 31,209,00 Not used \$ TOTAL TOPOGRAPHIC SURVEYS EARTHEN CONTAINMENT DIKE, TRAINING DIKE AND SOUTHERN DUNE LUMP SUM COST Not used 77,280.00 \$ Client/Owner Requested Changes to Drawings (\$134/Hour) Not used 134.00 \$ HydroTerra Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project.

Notes:

Topographic survey of earthen containment dike, training dike and southern dune are a lump sum proposal. Client owner requested changes to drawings is an hourly proposal. 1)

2)

Personnel required to attend a safety/orientation class or COVID testing will be invoiced at \$134/hour Topographic survey includes 2 person crew, RTK System, airboat w/fuel and operator, UTV, meals/lodging, travel, incidentals and certified deliverables. 3)

Third party charges will be invoiced at cost +15%. 4)

5) All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.

Sincerely Keile J. Lot

Keith J. Roberts, PLS, RPLS HydroTerra Technologies, LLC 212 Jacobs Run Scott, LA 70583 Phone: (337) 517-3373 Email: keithr@hydroterratec.com Updated: 11/28/2022

		pa	eq			ed	ed		pa	ed				ed	pa	eq		ed
	Closed	d Closed	Closed), Closed	Closed	<u>N</u>	Closed	Closed		s H		Closed	Closed	Closed		Closed
L	Clarified project control discrepancy via email dated 5/14/2020 with formal response provided 5/20/2020. D COM4 revised plans she(2.3.5.6.16.42. and 43) provided to address dike re-alignment ruisation in RFI	If the contractor wants to install and maintain additional stakes on the outside toe of dike and bottom toe of borrow, we take no exception to that. It would appear, however, that borrow excavation would be in conflict and damage additional stakes placed at the bottom toe of borrow.	 Correct, the value should be -2.0'. 	The total length of earthen containment dike was 48,138tt however the total alignment is made up of 2 bid		dre augment includes both components (standard E-LUS plus Priorty E-LUS (60011 Sta 94746) to Sta 95746), the total alignment length will be 44,091 + 600– 44,691 ft which is consistent with the alignment survey so no change is required.	Due to the close proximity to the multiple pipelines running longitudinally to the ECD's, the potential high risk associated with dike and foundation failures, and the problems associated with attempting to rebuilding dikes after foundation failures. these ECD's must be constructed utilizing the 2 lift method as required in the Contract Documents.	Since the training dives provide internal flow control associated with the phased construction of the increments for the single large marsh creation area, and not for external hydraulic dredge material containment, your request to construct these internal dikes in one lift shall be allowed.		Ty the following: Bobby Stark Bobb to Streenergy.com XTO Energy. Inc. 6141 Paluxy Drive Tylet, Texas 75703		After Based on the pre-construction survey, field observations, sampling and testing, we have determined that there is no need to construct the priority dike section specified by Bid Item #9. Therefore, we propose that this bid item be removed from the contract and replaced with the standard geometry for ECDs. We also propose that P1 31 located in the middle of the priority section be removed and the ECD alignment straightened out in	that area. As discussed in the progress meeting on 7/7/2020, proceed with an updated increment 1 pre-con survey showing the straightened dike here.	We plan to install piezometers near this location, coordinate the mob of excavators to this area with myself 3 days prior so that we can plan to be onsite.	Contact Scott (Homeland Security) at 985-291-2006 regarding aerial photography as required per SP-20. Separately, Sigma is in contact with Scott regarding their inspection related drone operations and will be in 0 contact with him throughout the project.	As long as 25 ^r minimum distance to the toe is maintained and minimum clearance requirements with the pipeline is maintained we do not object to borrowing from the outside at STA 71+00 to 90+00.	CPRA is not opposed to this proposed change. Before proceeding, provide a revised survey of this proposed alignment, including CAD files. Also perform a Magnetometer survey along this alignment like the one required along existing alignment to ensure that there are no conflicts. Once these are provided performed and no conflicts are found authorization can then be given to proceed with this change in alignment.	Nex: Based on phone call with Mamy V. the "vertical" section realignment mentioned above is referring to horizontal changes and NOT vertical. vertical. 0 Note 2: The contractor's stetch that was provided with this RF1 is included below for reference.
	5/20/2020	6/2/2020	6/7/2020		6/17/2020				6/7/2020	6/12/2020				7/8/2020	6/22/2020			7/14/2020
de Received en de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la	۵	Requesting modification to TS 210.7.11.1 ECD Stake out pr	With respect to the Findity Earthen Containment Dike Detail shown on sheet 10 of 53 of the plans (see attached image), the elevation shown for the top of the sand fill is 2.0.; which is also the elevation shown for the of the required 1 st lift for the contrainment dike material. Based on the elevation scale shown on the detail it 20 appears that the po elevation the sand fill should be -2.0. Please contim	The first paragraph in Change Order No. 1 ($CO\#1$) states that the total length of the containment dike shall be freduced from 48.138-H to 44.691-H equating to a dike reduction of 3.447-H.	Also in CO#1, within the Summary of Change Order table, Item 8 – Earthen Containment Dikes, the dike reduction is identified as 4,047-If. This revised length is also identified on Sheets 2 & 5 of the CO#1 plans.	Using the coordinates provided in the CO#1 plans, we calculate that the total distance of the dikes equals 20 44,691-If, not 44,091-If. Please clarify the appropriate reduction of dike length in CO#1.	Based on previous experience, tidal currents in areas similar to this project site pose a risk of deteriorating and destabilizing the integrity of the earthen containment dikes (ECDs) within deep waters during construction. In an effort to mitigate this risk, we request that ECDs in deep canal crossings be constructed in one lift, rather than 20 lwo, to minimize the risk of erosion from tidal currents over a 30 days period.		Detail ID 5.6 on Sheet 10 of the plans show that internal dikes be built in two lifts. The first lift is shown to be built to belevation +1.0.1t, an elevation next, into theleval we were surfaces. Since these dikes are training dikes 30 and do not act as constimment dikes, we propose that these dikes be complete in one lift.	GLDD has attempted to contact XTO Offshore using the contact information shown on Sheet 2 of the plans (shown below). Additional attempts were made through Louisiana One Call. To date, we have been unsuccessful in contacting this company. Please advise if this pipeline is under new ownership and if there is additionate contract information.	Harvest Ppeline has expressed its concern with operating a tug and barge within close proximity to its pipeline for the transport of sands from the Priory Earthein Containment Die Borrow Area to Proving Earthein Constantient Die In an effort cus orbite runa date actual shapeline, we propose an alternative brows areas tarted to be east of the priority earthen container to be and which the mars creation area.	The attrached drawing shows our proposed borrow area limits for this borrow area which is based on an exploratory probing campaign for sands suitable for the base of the priority earthen diae. This area is which than necessary in order to give the CPRA, a larger area to core sample. Similar to the hillial design, suitable sends shall be bodied on bargers and break and an and an access route to the Priority Earthen Diae. Due to studiow waters in the mash area the tugginge will transit along an access route oreate by from the borrow area for the earthen containment drives.	Please continu if CPRA will permit he use of this alternate priority earlien containment dike borrow area.		GLDD is responsible to contact the Department of Homeland Security to give them a heads up whenever eareful photography is going to be used to track the progress of the work being done. Is there a specific point of contact with the DHS mat/CPA/Sigma would like GLDD to reach out to let them know when aerial shots will be 20 performed? If so please provide.	In order to reach grade on the outer bes of the ECD we would like to propose using a machine on the outside of the ECD to dig material. If we are able to construct the dikes from the outside, Wilco will still follow the 25 minimum distance from the tea when digging for material outside of the dike. Otherwise, if Wilco is not able to dig from the outside they would need to dig material from the middle of the dike itself to be able to reach the outer toe with a mach bugst which would need to be replaced with material from the middle of the dike. This outer toe with a mach bugst which would need to be replaced with material from the middle of the dike. This of method of digging will only be necessary in deeper water such as STAs 71+00 – 90+00.		A deep canal is located to the west of the Earthen Containment Dike between Statons 38+00 to 41+00. Wilco would like to request a realignment of this vertical section to the east by at least 100' – 200' in order to avoid 7/8/2020 building the dike into the deep canal.
4	5/1	out 5/20/2020	ECD 6/3/2020			CD th 6/10/2020	ater e lift ution 6/10/2020	ច	ng in .ift 6/10/2020	0 1e 1ct 6/10/2020				il Of Dike 6/15/2020	al aphy 6/19/2020	de 7/6/2020		
	Survey	Stake out	Priority ECD			CO 1 ECD Length	Deep Water ECD One lift Constrcution	Internal	Training Dikes in One Lift	XTO Pipeline Contact				Removal Of Priority Dike	Aerial Photography Contact	Outside ECD Borrow		ECD Re- alignment
	#	#2	#3			#4	#5		9#	2#				8#	6#	#10		#11

RFI Log

Here Due to the discovery of the 4* Calco line #12 STA 99+00 7/9/2020 99+00 in the east and would line #13 Buffer 7/9/2020 99+00 in the east and would line #13 Buffer Torrow and a for his area, we are proposin areas. #13 Buffer Torrow and a for his area, we are proposin areas. #14 A* Calco line Torrow and a for his area, we are proposin areas. #13 Buffer Torrow and a for his area, we are proposin areas. #14 XTA 99+00 Tritached are relevant drawings fr in regards to the 4* Calco line the bandoned. #13 Buffer Torrow and a for his area. #14 Nakring Tritached are relevant drawings fr in regards to the 4* Calco line the bandoned. #14 Nakring Tritached are relevant drawings fr in regards to the 4* Calco line tha additional areas that is crossed that is could be any number of potential areas to the found at the stand frame or area or and approval frame frame or area or and approval in the pipe now that its indue stand consisting to the stand frame at a trite stand frame at a line scale frame at a trise stand frame at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a line scale at a trise stand at a li				
4'Calco line 5TA 98-00 Buffer 7/14/2020 Buggy 7/14/2020 Buggy Creation line 7/15/2020 Creasing Alternate LOOP and Cressing Reduced Reduced Reduced Reduced Buffer Buffer	Due to the discovery of the 4" Calco line we were able to get old pipeline drawings from Chevron that showed the 4" pipeline as well as a possible 6" pipeline east of the 4" pipeline at approximately STA 99-00. After performing magnetometer surveys around the possible location of this 6" pipeline and receiving no "hits" we are led to believe that this 6" pipeline is not present in the area. Because of this we would like to proceed from STA 90+00 to the east and would like acknowledgement from Sigma/CPRA to proceed.	7/10/2020	As your mentioned this line was first discovered on an antiquated mapprovided by Chevron. You have advised that nothing was marked or to not from the One-Call tester and you have performed additional maperiometer runs to attempt to becate this fine. Also, your additional mage contimed the previous ang ours. You can proceed with calation as respected, which interment 1, provided in email on 7/32/2020.	Closed
4" Calco line 573 95+00 St73 95+00 Fad 95+00 Reduced 7/14/2020 Buggy 7/14/2020 Chevron 7/15/2020 Crossing 7/15/2020 Altermate 7/15/2020 Crossing 7/15/2020 Pipeline 8/5/2020 Buffer 8/5/2020	Currently, the 4" Calco Pipeline sits exposed within the Borrow Area near STA90+00, and to proceed with work east of this area, we are proposing to reduce the 50° buffer to 20° for the BA on either side of the pipe in that area.			
Buffer 7/14/2020 4" Calco line 7/14/2020 8TA 98+00 7/14/2020 Marking 7/14/2020 Buggy 7/15/2020 Chevron 7/15/2020 Crosslings 7/15/2020 Reduced 7/2020 Pipeline 8/5/2020 Buffer 8/5/2020	ther to mark the pipeline every 25' in so out of commission as well as		Advise the RPR when planning to work within this reduced buffer.	
4" Calco line 5TA 9800 T/14/2020 Marking Chevron Crossing Altermate LOOP and Crossings Altermate LOOP and Crossings Pipeline Buffer Buffer	Attached are relevant drawings from Wilco of the newly proposed buffer, with additional information provided. 7 In regards to the 4" Calco line that was found; This pipeline is exposed (above water at low tide). It is within the	7/14/2020	All work here shall be witnessed by RPR.	Closed
Buggy Crossing Alternate LOOP and Crossings Reduced XTO Pipeline Buffer 8/5/2020	t the pipe is in the fill site, and there kes is requesting direction on what to do owned by anyone registered on the One adure/action moving forward regarding	7/14/2020	Ensure that the pipe stays marked and avoid it with your equipment throughout the project. Don't disturb it further and we will plan to cover it with marsh fill. We will notify you if we decide to take further action.	Closed
Alternate Alternate Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Chevrand Sigo2020 Buffer Buffer Buffer Buffer	Due to poor material condition on STA11-50, Wito feels it is best to left condense and settle in that area before proceeding work. In the meantime, that specific marsh buggy would like permission to move directly from STA05-60 to 31+00 in a straight line, rather than poing "around" and having to cross the Chevron Ppeline multiple times. Hydrof Fram has agreed to MAG the area when they come out to survey today. A drawing of the proposed path, as well as a KMZ file, are attached to this email for clarification.	7/16/2020	We are not opposed to the use of this route. Ensure that it is not in conflict with any potential pipelines. Once it is in use make every effort to minimize impacts to the nearby mangroves.	Closed
Alternate LOOP and Chevron Crossings 7/28/2020 Reduced XTO Pipeline 8/5/2020 Buffer 8/5/2020	1. After discussion and approval from Loop and Chevron, Wilco has generated a proposed tracking route for its equipment to cross both adrementioned pipelines, and would like approval by 1970m at od so. Loop expressed concern refra probing the area in question) that the Specified access corridor has areas over their pipeline with institicient coverage to safely allow marsh buggies to track over. The water is too shallow and pipeline with institicient coverage to safely allow marsh buggies to track over. The water is too shallow and	<u>1</u>	1.1 would be difficult to obtain permit modifications and revised landowner agreements to allow equipment to track outside of the project area. Consider revising the alignment to within the project limits. (7/20/2020)	
Alternate LCOP and Chevron Crevron Reduced XTD Pipeline Buffer 8/52020	their treat would be founded to read on the ground, explosing the time to structure expresses treat are uncomfortable with. Attached is an additional map displaying the proposed route. (7/23/2020)	<u>5 5</u>	2.A) Provide a fully revised map that does not show a path outside of the project area. Also address the following: B) Provide confirmation/documentation LOOP is in agreement with crossing. C) Provide LOOP	
Alternate LOOP and Chevron Cressings 7/28/2020 Reduced XTD Pipeline 8/5/2020 Buffer 8/5/2020	2. Whice has since revised their proposed route and we would like approval from Sigma for this revised route. I have attached this route with this RF1 as well as the Wilco/Loop crossing agreement. Whico plans to cross the Loop pipeline on bare ground. With this proposed route, Wilco will stay within the project boundaries and this will not allevisha any contract oblinations. Wilco sultoxeurs, with white flaroinn have staked nut the markh	5 8 8	crossing details (using mats? bare ground? etc.). D) Ensure bird abatement is conducted and route is not in conflict with restrictions in specifications and permit. E) This route adjustment does not alleviate any other contract obligations. (7/27/2020)	
LODP and Chevron Cressings 7/28/2020 Reduced XTO Pipeline 8/5/2020 Buffer 8/5/2020	eŝ. (1/28/2020)	<u></u>	3. Provide documentation of LOOP communication and understanding of this revised crossing. Also, address comment above in 2.D regarding bird abatement. (7/28/2020)	
Reduced XTO Pipeline 8/5/2020 Buffer 8/5/2020	rail regarding the communication between Loop and Wilco about this twised 221, Norman Wildlife Rep walked the area of this proposed pipeline crossing and e nesting in the area. The Norman Wildlife Rep will also be present in the moming of	4. di 7/28/2020 in	41 have included GLDD's provided tracking route, LOOP agreement, Chevron Agreement, and backup documentation regarding LOOP correspondence. We take no exception to this route. Ensure that the project inspector is notified of these pipeline crossings.	Closed
8.55/2020: The origina area to ensure that no instead of the sand fe acceptable change. In addition, when we is 877/2020: Willoc plans scheduled to begin in maddition. Willoc plans perimeter at all times in addition. Willoc would fence is being install fence is being installe	amail chain between Robert Manthei from XTO and Levi Lemoine from Wilco. ds, the pipeline that Wilco needs to cross has been abandoned and flushed as well as findoned to Levi that there is no danger or concern to XTO about how close Wilco . Due to his, we would like to propose the buffer be reduced from 50' to 25' for cutar pipeline. Please advise on the width of the buffer zone.	lt 8/5/2020 e:	It appears that the contractor performed the necessary coordination efforts with the pipeline company. No exception is taken to the reduced buffer of 25.	Closed
8/7/2020: Wilco plans 8/7/2020: Wilco plans machinery will need to perimeter at all times in addition. Wilco wou Sigma, which should fence is being installed fence is being installed fence is being installed	8/5/2020: The original plan at the "No. Work Zone" located in Increment 3 was to install Sand Fence around the area to ensure that nothing would interfere with this area. We would like to propose using orange safety fence instead of the sand fence, which would still keep people out of the no work zone. Please advise if this is an acceptable change. In these fences would it be acceptable if we use a machine to help with install.			
	8/7/2020: Wilco plans on installing sand fence rather than the orange safety fence. The fence contractor is scheduled to begin installing this fence on Norday, 8/10, and it should take about a week to complete. Heavy machinery will need to be used to bring the sand fence out to the 'No Work Zone' but will remain outside of the perimeter at all times and will not interfere with the no work zone. Please advise if this is acceptable. The addition, Winto would like to start work as soon as we receive the approved "Ferco increment 3 survey from Sigma. Winto should like to start work as soon as we receive the approved "Ferco increment 3 while the sand fence is being installed. It is understood that we must remain a safe distance from the NO Work Zone until the fence is being installed. It is understood that we must remain a safe distance from the NO Work Zone until the fence is one would like to propose that we should be able to work up to STA 235-00. This would give Wilco at 1,000 fourfer from the start of the no work zone at STA 305-00. Please advise if this is	₹ O ‰	86/2020: We would consider using orange fencing, however, please provide the cost savings amount to CPRA for this proposed change. Using heavy machinery would defeat the purpose of the no work zone. It would seem that using the orange fencing would not require heavy machinery.	
acceptable. 8/10/20: Per our phon Burge and a flatboart materials and installin with the Marsh Mastellin with the Marsh Mastellin thermonent 3 shurver.	acceptable. B/10/20: Per our phone discussion on the moming of 8/10/20. Witco is planning to use a Marsh Master, a slide barge and a linst boat for the send boom. This equipment teaduse impacts to the Nork Zome while bringing materials and a linstalling the read boom. This equipment teaduse impacts to the Nork Zome while bringing with the Mash Master and bring the installal lation, the crew is planning to utilize one track route with the Mash Master and bring the materials to the install locations around the Nork Zome. Installation of the sand fees will begin on 2/11 and is estimated to take 2.3 days. To new are one the approved Pre-Con Increment 3. Structor. Norwill homine FCD on the western name of Increment 3. A reacealuration of Increment 3.	<u> </u>	88/2020: Once Pre-Con Survey of Increment 3 is accepted, ECD construction can start on the wast end of Increment 3, however, a 5,000 ft buffer around the Novek Zone must be maintained until the No Work Zone for and and bown are installed. This buffer starts at 255+00 intrough 370+00. The intent of the stand fencing of orange fance was to keep heavy machinery out and not disturb adjacent vegetable. We understand that the fencing is heavy and may require equipment transportation to the area: however, current permitting and land dight will not allow vacavators to track here. Consider ways to minimize these effects and advise on planned equipment and impacts.	
No Work progress of the Sand Ferree install Zone 255+00. #18 Installation 8/5/2020 Please advise if this is acceptable	ation and approval by Sigma/CPRA will be done prior to working past STA	8, 8/10/2020 au	8/10/2020: Based on our meeting this moming and the clarification provided above it appears that your path will minimize impacts to the surrounding vegetation. Proceed with the installation of the No-Work Zone fencing and born.	Closed

RFI No.	Key Words	Received	d Description	Responded	Response Summary	Stitipedated: 11/28/2022
#19	Outside ECD Borrow		From STA 166+36 to STA 174+00 and STA 176+00 to 185+00, which is located by the Loop Pipeline, there is an existing canal at the ouside beo of the ECD. Due to this existing canal, the base of the ECD is wider at these locations and is preventing Wilco from getting metical to grade at the outside crown as well as preventing them to existelish the proper slope at the the Outside crown as well as preventing them to existelish the proper slope at the the Outside crown as well as Because of this we would like to propers using borrow material from outside of the ECD across the Loop Pipeline Wilco provide the additional material that will be needed to construct the ECD across the Loop Pipeline advise if this is acceptable.	8/17/2020	8/17/2020 As long as all pipeline restrictions are maintained we take no objection to this request.	C C
#20	ECD Re- alignment (SEE RFI	9/4/2020	We have identified two areas of concern with current ECD alignment; one in Increment 3 and one in Increment 4. Our concern in NC3 is the proximity of the borrow area to the right of way for the adjacent Chevron pipeline in the area of STA 333-601 of STA 323-601. In this area wa are limited as to how far we can shift the alignment away from Chevron due to the No. Work Zone. We would like to request an alignment modification at this location resulting in a 25 offset from the current centerline alignment. In INC 4 the current alignment WILL encreach the Chevron right of way. The proposed realignment is denoted in the map and bridges bend between STA350-00 to STA 355-00. There is sufficient space in this area to shift the ECD alignment away from the Chevron line which will resolve this issue without any significant impact to the overalt project.	9/4/2020	The proposed increment 3 alignment shift moves the dike 25 feet closer to the No-Work Zone, however, it appears that you still have sufficient clearance here and should not impact the No-Work Zone. Ensure that equipment and personel stay out of this Zone and approved equipment access corridors are used. This alignment shift is acceptable. We take no exception to the proposed increment 4 alignment shift. Regarding both of these shifts, ensure that all plan and specifications requirements are followed. Also, proper Regarding both of these shifts, ensure that all plan and specifications requirements are followed. Also, proper ordination with the pipeline comparies must be confined.	Note that the Incr 4 poprion referenced further turther RF121.
#21	ECD Re- alignment	9/5/2020		9/17/2020	9/10: Per our phone conversation earlier today, advise on and provide the additional survey or other methods used/information gathered to ensure that this alignment change can be constructed as proposed with the standard dike section. 9/17: Based on the contractor's description of the additional surveying performed in this area we take no extractor's description of the padditional surveying performed in this area we take no extractor's description of the padditional surveying performed in this area we take no extractor's description of the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in this area we take no extractor's description to the padditional surveying performed in the surveying and the padditional surveying performed in the survey of the surveying to the paddition to the paddition of the paddition and the paddition to the surveying performed in the surveying performance.	Closed
#22	Outside ECD Borrow		Whice was granted permission to dig outside of the ECD from STA 71400 – 914-000 in RFI 010 due to the area area having deeper water. CLD and Witco would like to request permission to extend that area to include STA 44400 – 71400 and STA 91400 – 916+00 as well for the same reasons. In trait, Witco would be digging outside of the ECD from STA 44400 – 96+00 aue to deep water in this area. Witco will continue to keep the 25' minimum distance from the bused to the reconstruction from storm damage as well as for the 26' ginging method will active from the bused to repair lift 1 dike reconstruction from storm damage as well as for the 910/2020 construction of lift 2.	9/11/2020	We take no exception to the contractor digging on the outside from STA 44+00 to 96+00 for the reasons member of the contractor digging on the outside from STA 44+00 to 96+00 for the reasons member and a statistic statistic and the value that moves away from the Chevron pipeline, the Harvest 9/11/2020 pipelines are to the north and must be avoided and coordination efforts with Harvest must be continued.	Closed

RFI No.	 Key Words 	Received Description	Responded	Response Summary	Stubedated: 11/28/2022
#24 #24	ECD First Lift Overbuild Cutside ECD Borrow	 GLDD and Wilco would like to request building the ECD to Elevation 3.0' + .5' in areas where existing ground is higher for the following reasons. 1.Material consistency is soft and we are allowing for settlement. (Surveys performed prior to settlement period) 3.More material above water to dry before second lift. This will help stabilize the second lift. 2.More material above water to dry before second lift. This will help stabilize the second lift. 3.Much of existing ground is already near grade. The placement to 3.0' provides consistent elevation to work with for placement of the second lift. The following area's is where we would like to propose this elevation change (19.242'): 3.STA 329-00 to 339-00 (11.000') 3.STA 329-00 to 339-00 (10.00') 5.STA 409+00 to 417+00 (800') 5	9/28/2020 10/28/2020	The request to <i>or</i> higher. Based on my review of GLDD's preconstruction and more recent process surveys with the mange requested above this change is acceptable within the following areas totaling 18,500°: with the mange requested above this change is acceptable within the following areas totaling 18,500°: a surveys at the ensity requested above this change is acceptable within the following areas totaling 18,500°: a surveys surveys as the ensity requested above this change is acceptable within the following areas totaling 18,500°: a surveys surveys as the ensity of 23,9400 to 23,9400 (5,600) b 22,9400 to 23,9400 (5,600) b 22,9400 to 23,9400 (1,000) c 33,2400 to 23,9400 (1,000) c 33,2400 to 317,400 (5,000) c 33,2400 to 317,400 (5,000) b 31,2400 to 317,400 (5,000) c 32,2400 to 317,400 (5,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 32,400 (1,000) c 32,2400 to 500 to 32,400 (1,000) c 32,2400 to 500 to 32,400 (1,000) c 32,2400 to 42,400 (700) c 32,2400 to 42,400 (700) c 32,400 (700) c 32,400 (700) c 42,400 (7	C Cosed
#25	Alternate Equipment Acces Route	CD from cD from evron aliminating aliminating ing possible ing possible rin order to e dune ossible, this or result in	11/24/2020	11/18: please address the following concerns: 1. Confirm that this route stays within the project limits. 2. Impacts to vegetation must be minimized. Does this path stay on bare sand and avoid the remaining vegetation? Please confirm. 3. The use of this route must be minimized. Does this path stay on bare sand and avoid the remaining vegetation? Please confirm. 3. The use of this route must be minimized or permanent channel or otherwise destroy the beach/dune. Confirm that the route can be utilized without creating a depression or destroying the beach/dune. 4. Confirm that the pipeline companies have been provided proper notice of these proposed crossings and are in agreement with this proposed route. 11/24: We take no exception to this proposed route. Note that if CPRA reserves the right to have the 10/24: We taken on other previously agreed route if any vegetation is excessively harmed, dune damaged, or other concerns are noticed.	Gosed
9 7 *	Outside ECD Borrow (SE RT 129	Creation Area and parallel to the ECD. The area's that GLDD and Wilco are requesting are below: STA 41+00 to 72+00 STA 43+00 to 164+00 STA 43+00 to 144+00 STA 43+00 to 144+00 STA 43+00 to 144+00 STA 23+00 to 249+00 STA 23+00 to 237+00 STA 23+00 to 249+00 STA 23+00 to 249+00 to 249+00 STA 240+00 to 249+00 to 249+00 to 249+00		This, unlike previous requests for digging outside the MCA, is expansive and projectivide. CPRA is working on a modification to the permit, as well as acquiring approval from the landowners. Will advise <i>illon</i> ce this is obtained. Deleted, Replaced with FR129 and 30.	Gosed

Post.Zeta Cone Lift 11/122020 Reduced	Whice has completed Lift 1 across increment 1, 2, 3, and 4 with exception of the area between the Chevron pipeline and the end of the ECD in Increment 4 (ST x 934-001 ot 422-42). It is Wincos assessment that are still foundation for the Lift 1 and 1			
-	1/124: 1. The clarification showing lift one constructed throughout all increments is shown through the submittal of Post Zerla cross sections.			
Reduced	for approval to build to the final elevation of 5.0° in sections of the dike that were ation before Hurricane Zeta due to minimal recovery. We understand a review of the to be elong from post storm surveys.	12/7/2020	Areas that have been built to lift one and approved prior to Storm Zeta can now be built up to lift two elevation. This allowance due to storm damage does not relieve the contractor from other contractual obligations.	Closed
Process Survey 11/13/2020	survey after the completion of Lift 1. In the stability berm is present after the present between the ECD for and the dike side top-of-cut to document that dike side top-of-cut to document that ompletion of Lift 2 which we will submit	11/18/2020	CPRA finds the survey information in the borrow area useful as it provides information on dike stability, among other things. It will also provide info to both CPRA and GLDD regarding a rough quantity of material that may have been deposited in this trench from the storm. It is not acceptable to forgo the borrow area survey. Proceed with providing complete surveys as required per the plane and specifications.	Closed
Outside ECD Barrow 12/92020	tission to build ECDs using material from alternate borrow areas outside of osed borrow areas span between STA 97+00 to 105+00 and between STA to bi-weeky meeting held on 12/8, we understand that requests for d west of STA 211+00 and that these areas can receive approval from out additional permitting.		As long as minimum clearance requirements with nearby pipelines are maintained we do not object to borrowing from the outside here. This outside borrow must follow all lines, shapes and grades as shown in the	Dosed C
	ission to build ECD's using material from alternate borrow areas outside of osed borrow areas span between STA 215+00 to 229+00 and between STA to be between STA 215+00 to 229+00 and between STA to be between the state of the state and additional permit sion for alternate borrow sources for the ECD east of STA 211+00. tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out initial requests in RFI 26 and replace it with this RFI in hopes of tract out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the state out the		tice to proceed with ECD borrowing on the outside of the MCA. As long as the nearby professiones are maintained we do not object to borrowing from the	
Outside ECD Borrow 12/9/2020	12/9/2020 Please confirm if this is acceptable. 12/9/2020 Please confirm if this is acceptable. Sigma/CPRA have already accepted 2nd Lift Process Surveys at STA 0+00 to 10+00, STA 135+00 to 143+00, and STA 146+00 to 168+00. Some of these areas experienced damaged from Hurricane Zeta and have since been reworked and rought up to the lift Z inta leivation again. GLDB and Wito are both avare that each station	2/1/2021	2 -	Closed
ECD As- Built & Process Surveys 12/17/2020		12/22/2021	after degrading the ECD.	Closed
Dredge Pipe Install (See RFI 33) 1/7/2021	GLDD requests to temporarily store (submerged) preline in the areas indicated on the attached map. The submerged pipeline will be used on the Caminada Project. The pipeline consists of two 3000' strings of dredge pipe Please see attached pdf for possible locations for dredge pipe.	1/12/2021	This RFI has been replaced with RFI 33.	Closed
			The MAG and TOPO Dredge Pipeline Preconstruction Survey Revision1 submitted 1/26/2021 was reviewed in association with this RFI. Some MAG hits were simply identified as "Anomaly". Further investigations of these hits are necessary as described in the survey review transmittal. Besed on a 1/20 on-me conversion, GLDD is having Hedrobrate further investigate incomentation.	
Dredge Pipe Install (See RFI 33) 1/27/2021	GLDD requests to place submerged pipeline into the "Dredge Pipeline Corridor South" as well as "Dredge Pipeline Corridor North" as stated in the 210122 Canadad (BA-V17) 15-2:01.7. DPC Pre-Con and adgenetionered Suppress. This submerged pipeline will be used for the Carniadar Headands Project, which consists of three (3) strings of submerged dredge 30° pipeline. The lengths of the strings of pipeline will be 3,120°, 2340°, and 2,340°. This RFI replaces RFI 32. Please advise if this is acceptable	1/29/2021	as Note	Closed
Internal Training Dikes Borrow 2/10/2021	GLDD and Wilco would like to start the planning and layout process to construct the Internal Training Dikes that go between each increment. Looking at the plans as well as the specifications, neither give GLDD/Wilco a clear direction which side of the dike the material that will be used for construction will come from. Should Wilco have the borrow area staked out for these dikes on the east or west side of the internal training dike?	2/11/2021	Either side can be utilized for borrow as long as it's inside the fill area.	Closed

RFI No.	Key Words	Received	Description	Responded	Response Summary	Stitutostated: 11/28/2022	1/28/2022
			ATV use is being requested for the specific purpose of construction layout and dure construction for the Dune Improvements, and for that purpose ONLY. Witco will utilize this equipment to hau/transport survey personnel, construction layout supplies (grade states, care poles, pin flags, etc.), water, and energency supplies. This equipment may also be necessary for emergency transportation of personnel if a medical emergency were to occur. Witco will traverse only bare sand, and will avoid existing vegetation at all times. While establishing the loop into the Dune, we will also delineate the project boundary to account withor bart and and energency at Elmer's stand for the Dune, we will also delineate the project boundary to account without the permitted project limits. Our preterence would be to access the Dune Improvement and all Elmer's adminin the permitted project limits. Our preterence would be to access the Dune Improvements, and non-firme access to provide hydration (the required tasks. It would also be preterable to use this equipment to "line out" the dune prior to submitting the proposal for the reasons listed above. Particularly, to increase state? Factors for the personnel responsible for the 8 miles of layout ty providing state ingress/egress each day execute the required tasks.				
			We appreciate your consideration of this matter and understand the nature of this sensitive environment. We feel this request is necessary to provide the most accurate cost estimate for the Dune Improvements and will expedite that process.				
			The easiest way to access the project area for these activities is Elimer's Island Road on the East side of the project site. Recognizing this request was denied by CPRA last year, we again submit our request to use Elimer's Road with consideration to the introduction of the new dune work.				
			If use of Elmer's Road is not permitted, Wilco will barge in ATV and equipment onto the beach.				
#35	Use	2/15/2021	rine Ari Y will entain on the peach during the layour and construction of the durie and will be taken on the peach using Elmer's Island Rd. or by other means once the south durie is complete	2/18/2021	2/10. A ty use is permitted out must study writing the project immis and writing the educements of the permiss Ensure that impacts to the environment are minimized. Elmer's Island Rd cannot be utilized.	Closed	
			Wilco is in the process of determining if shore equipment can be used to rebuild the front dune and requests the following clarification regarding shore equipment access onto the beach. The damage created by Hurricane Zeta is inhibiting access to the beach via the Equipment Access Corridor (EAC). In order to make the EAC usable, dredging will be necessary allow for floatation for a tug and ramp beach.				
			As an alternative to dredging, GLDD/Wilco has identified two alternate access routes: i) Elmer's Island Road to the Eland bill Hwy 3000 (A C Rappeter RO) to the Nest. The mast time and cost effective approach to again gacess to the island is Elmer's Island Road. however, CPRA has made it clear that this route is prohibited. The Hwy 3090 route is a viable access point onto the island is adapered to the event provident and a short distance to the western proincited. The Hwy 3090 route is a viable access point onto the island and a short distance to the western project rate aboundary. This would equiver invite the abge from our current staging area accoss access the project area at the west boundary. The work and travel - 2,500-H down Hwy 3090 and then eastward access the project area at the west boundary. Additoration from the 2,000-and back and a construction of the project area at the west boundary. Additoration from the 2,000-h down Hwy 3090 and then a current is a routed access the project area at the west boundary. Additoration from the 2,000-h down Hwy 3,000 and then a current access the routed access the project area at the west boundary. Additional transport equipment would the current of the current is a function of access the project area at the west boundary. This would access the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the current of the curent of the current of the c		During Tuesday's bi-weekly meeting CPRA advised that they do not have any agreements in place for either alternatives mentioned above. The contractor requested to be allowed to contract the adjacent landowners to adject their own agreement. CPRA advised that they would let the contactor know after they had internal discussions.		
#36	Alternate Access For Dune Work	2/26/2021	arrows for same crossing or the existing piperines (Arrownead and Crevion). The adactive unawing industates the alternative croutes. The alternative croutes. Please confirm that GLDD/Mico will be permitted to use our proposed access route #2 so we may consider this in our proposed access route #2 so we may consider this in our proposed access route #2 so we may consider this in our proposed access route #2 so we may consider this area.	3/5/2021	On 3/4/21, as a follow up to the discussion in the bi-weekly meeting. Josh advised Mitchell that they are clear to proceed with discussions with adjacent landowners for alternate site access. Any alternative access agreenters between the contractor and others must not hold CPRA responsible for any damages. Contractor to submit any proceed agreents to CPRA for review.	Closed	
			3/1/12:1: Specification section TS-101.2.2 calls out for a fluorescent orange buoy to be install at 150' intervals along the dredge pipeline corridor for this to Navigation. Such close spacing of buoys is typical for installation is submerged pipeline within an infland waterways or channel crossing but excessive for offshore subline installation. Attended is a corpy of the subline buoy and lighting requirement standard typical for US Amy Corps of Engineers dredging projects. GLDD requests that CPRA modify its submerged dredge pipeline requirement to be similar to the attached. As noted in the document, GLDD will submit a project specific marking plan to the Cost Gland.				
#37 rev1	Reduced Signage & Buoys on Dredge Pipelines	3/1/2021 3/4/2021		3/8/2021	38/21: The contractor can proceed with the plan provided on 3/4/21 and accepted by the USCG. If, at any time CPRA feels necessary, they will instruct the contractor to revert to following TS-101.2.2.	Closed	
#38	Primary Weir Invert	3/4/2021	TS 510.4.2 identifies that the primary weir shall be operated with the invert set at two (2.0) feet below the crest elevation of the ECD during placement of stury into the marsh oraciano area. GLDD intends to utilize weir box structures for the primary weirs as identified in our Weir Placement Drawing and General Arrangement Submittal dated SU220. Please confirm our interpretation that the 'invert' is considered the top of the weir (weir board) and not the invert of the outfall pipe. Please find below illustration.	3/8/2021	The invert mentioned in TS 510.42 refers to the weir box board top.	Closed	
			Wilco is set to commence construction of the Interior Training Dikes (ITD) that separate increments. Due to the depth of the water created by the ECD borrow sources (~10-tt in depth), the design of the ITD as shown on Sheet 10 will require a significant amount of material to fill the borrow source and cannot be constructed as shown. CLDDM/lico propose to leave out the sections of ITD at the ECD borrow areas.				
#39	Internal Training Dike modification	4/8/2021	This leave-out along with the (3) 30-in weir pipes on the opposite end of the ITD will allow (2) avenues of flow between increments. The 30-in pipe weirs will relieve some flow at the leave-out and reduce any scour on the ECD at the leave-out.	4/15/2021	This was discussed in the bi-weekly meeting on 4/13. Due to concerns about ension to the ECD as well as concerns about this not slowing the dredge material for proper settlement, this is not approved.	Closed	

REINO	Kev Words	Received	l Decrintion	Resnonded	Recorded Summan	Sthindated 11/28/2022	CCUC18C1
			GI DD requests a realignment to be made to the south dune on the east	nemiodeeu			7707/07/
			a reargiment of be made to me sound our e				
			In this proposed realignment, there is a gap of 25' between the ECD and the centerline of the dune to allow Wilco to construct the 50' crown as shown in the RFP plans.				
#40	ECD/South Dune Tie-in	ת 4/15/2021	I have attached a pol' as well as an AutoCAD file to this email showing the original revised alignment as well as the proposed alignment. In the drawings, the proposed new alignment is red while the existing drawing is blue.	4/15/2021	GLDD is authorized to proceed with the alignment shift as described above and shown on the attached sketch.	Closed	
			4/15/21: GLDD and HydroTerra requests approval to use Lidar survey techniques to perform the South Dure Pre-Construction Survey. We request this due to the time and cost savings using Lidar rather than topographic or other survey techniques to collect the data points. If this survey technique receives approval, the data contertor will only take 2-3 days rather than the 6-10 days as previously stated which will ultimately save -\$12,000.				
			The Lidar method that HydroTerra will use to collect the data will be mounted on an ATV. GLDD and HydroTerra both understand that Lidar does not perform well while being used to survey in areas that have dure grass and mangroves. Because of this, in areas that will be unable to collect data using Lidar. Wilco surveyors will collect that data using bopgraphic survey techniques. Once complete, Wilco will send the data that they collected to HydroTerra who will then the topographic data into the Lidar data.		416.Pri - Elsens annidad, shaifi antas an the followings:		
141	Southern Dune Precon via	4/16/2021	4/16/21: Revol responses. Ludar sensors are able to achieve range accuracy of 0.5 to 10mm relative to the sensor and a mapping accuracy of us to tem horizontal (x), yand 2cm vertical (z). E. The system will obtain data 10, yand according to the project. They will use filtering in the grassy are and marge data from Witco. HydroTerra will ground truth using RTK the entire length of the project. They will use filtering in the grassy at data marge data form Witco. 	4/16/2021		Closed	
747	Bird Nesting Shutdown Compensati	g ti 4/16/2021		4/22/2021		Closed	
#43	Outside Borrow	4/23/2021	GLDD and Witco is requesting permission to build ECDs using material the Marsh Creation Area. The proposed outside borrow area spans from open canal is located. We are requesting this because the material locat very deep and contains soft material that will not be enough to build the source.	4/28/2021		Closed	
#44	Bird Colony Crossing	/ 5/4/2021		5/4/2021	Any nests must be marked clearly. Have your wildlife personnel point out the nests during the dozer crossings to ensure that they are not affected. This crossing request is acceptable	Closed	
			15/21/15. As stated in FFP of and the meeting between CPRA/Sigma/GLDD on May 20, 2021, the sand fence its to be installed along the centerline of the constructed south dune. GLDD is requesting a realignment of the stand fences to be alphaced along the southern toe of the dune rather than the centerline. This realignment can be seen in the pof attached to this RFI email				
			GLDD has discussed this realignment internally as well as with the subcontractor that will be installing the sand fence (soil Erosion Services) and all prates agree that installing the almost the subcontractor that will be more anerdical than if the subcontractor that will be more allorg the southern to sub the sand fence is installed along the southern to set in the more along the southern to set will not only help maintain the constructed dure but it will also help build the dure well along the southern to set will not only help maintain the constructed dure but it will also help build the dure we were time. In our experience, GLDD and SES soprement, it will also help build the dure but encoretime. In our experience, GLDD and SES thinks that installing the sand fence at the southern to will the sand fence with CPRA/Sigma.				
#45	Sand Fence Alignment	e 5/26/2021	5/26/21: As per the bi-weeky meeting held on 5/25. GLDD is requesting that the sand fence alignment be moved within 10 feet of the southern top of slope, rather than the centerline, as shown in the pdf attached to this RFI email. This will utilimately help build up the sand dure while also allowing more room for GLDD equipment and pipeline to access the project area while maintaining the 5' elevation.	5/27/2021	It is acceptable to install the sand fence on the dune crest, 10 feet from the south crest edge	Closed	
			Specification Section TS-220 Grade States states the gauge sign shall be composed of sheeting applied to a rigid substrate of 4' x 0.120' x 60' fiberglass reinforced thermoset polyester laminate using a pressure sensitive urethane adhesive.				
#46	Grade Stake modification	e 6/5/2021	Great Lake Dredge & Dock proposes to use a laminated section of 3/16-inch x 4-inch x 60-inch waterproof foam board secured with screws to 2" x 4" untreated pine lumber board. See attached photographs. The gauge is graduated in 0.5-inch increments and is available for inspection at the Great Lakes office at 318 AJ Estay Road, Golden Meadow, LA. See attached photographs.	6/11/2021	This is acceptable for use.	Closed	

Bereived Description	Description		Deponded	Daenniso Siimmani	Sthind the 11/20/2022
Storm Claudett	Storm Claudett	storm Claudette as well other recent heavy rain events.	namindeau		
Reference: (MONUMEN' or private pr due to unfor including bu	Reference: (MONUMEN ⁻ or private pr due to unfor including bu	Reference: GENERAL PROVISIONS-22 PRESERVATION AND RESTORATION OF PROPERTY. MONUMENTS, ETC. states that The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, magled, or missionduct in the sectorian of the Work unless it is due to untoresseate causes beyond the control of and without the fault or megligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities.			
QUESTION: Since Tropic erosion dam this work?	QUESTION: Since Tropic erosion dam this work?	QUESTION: Since Tropical Storm Claudette and the recent rain events were an act of God and caused this erosion, and the erosion damage is not a result of GLDD omission, neglect, or misconduct, how will GLDD be compensated for this work?			
Sigma has 101-00. Gl recently on There is no Contractor specified ir	Sigma has 101+00. Gl recently on There is nc Contractor. specified ir	Sigma has stated that GLDD is responsible for building up low sections of the dune at station 100+00 to 101+00. GLDD has provided CPRA with the Process Survey for the South Dune. The Wilco surveyors were recent to a site to collect additional data on sections of the South Dune. The will see nervey were included in the nervey of the South Dune. The will be survey strates were missed. There is no language in Change Order#05 stating the maintenance or repair of the dune is at the cost of the Contractor. If the final survey shows areas of the dune are low, the dune will be built up to the elevation specified in the Plans and Specifications at no additional cost to the Owner.			
QUESTION: If the Proces time, does Si	QUESTIOI If the Proc time, does	QUESTION: If the Process Survey shows the dure constructed to the elevation specified, but the dure has eroded over time, does Sigma direct GLDD to repair these areas, and if so, how will GLDD be compensated for this work?			
6/29/2021			7/9/2021	Per the 6/30 conference call, situations of large settlement or dune destruction as described above will be brought to the attention of CPRA. CPRA will advise GLDD to survey the affected area. CPRA will then advise GLDD to repair the area. A follow up survey will then be performed to capture the cubic yard amount for reimbursement. The repair will be reimbursed per the unit item in included in CO405. GLDD will advise of the add post survey costs before preforming. Once authorized, these survey costs will be reimbursed via additional change order.	Cosed
In previc (attache (LDWF) (LDWF) premit ti Inmited t Project s project s	In previc (attache (LDWF) permit is Ilimited tu LDWF, t project 8	In previous meetings between GLDD/CPRA/Sigma it was stated that the EIR permit that was issued to CPRA (attached) to use Elmer's Island Rd was for a one time use. Witco and subsen in contact with Julie Lightner (LDW) about receiving their own permit to access the project from Elmer's Island Rd. she pointed out that the termit is not limited to a one time use of Elmer's Island Rd. she pointed out that the termin is not limited to a one time use of Elmer's Island Rd. She pointed out that the termit is not limited to a one time use of Elmer's Island Rd she project the requested access will be limited and utilized only for matinization of equipment in and out of the project area. "LDWF, the requested access will be limited and utilized only for most instance of equipment in and out of the necessary, if the guidelines that are set forth by LDWF permit are followed.		CPRA holds the permit and based on communications between CPRA and LDWF, a one-time demobilization was communicated. That is the intert of the permit.	
It is Gre howevei 7/3/2021 follow th		It is Great Lakes Dredge and Dock's intent to use Elmer's Island Road per the specifications of the permit, however GLDD submitted for this permit through LDWF but is not the permit holder. Is CPRA allowing GLDD to follow the guidelines of the permit, or restricting GLDD use of the permit to a single use?	7/9/2021	IF -CLUD or virtio would rike to ordari mitrio vim permiti win LUVF, CFCA does not opect, i me agreenterit mus tindo mitiy CFRA from any damages to the road, parking area dune and any other potition of Elmer's Island property. The agreement must indemnify CFRA from any environmental damages, including but not limited to bird nests, as well as indemnify CFRA from any impacts to public use of the property.	Closed
On she require the re- materi 7/4/2021 a tolers		On sheet 6 of 11 in the RFP 01 Dune Improvements (attached to RFI email) it shows the sand fence posts are required to be driven 4 into the constructed grade of the dune with 4 being above constructed grade. Due to the re-handling of the dune material. SEG is finding it difficult to install these posts 4 below grade because the material is caving into the posthole before the post is able to be installed. Because of this, GLDD is requesting a biefarce of 12 - diving the frence post to be driven at a minimum of 3 below the constructed grade.	7/9/2021	A 6° +or tolerance is allowable for the sand fence post installation.	Closed
On Aug access area. D Materia furtherr furtherr	On Aug access area. D Materia manage furtherr	On August 4, a Wilco marsh buggy with an Operator with 30 years of experience placed dry fill material over the access crossing a rea. Once the dry material was extraused, the operator reviewed the overall condition of the area. Due to the hot, dry weather he placed a second thin lift, approximately 6-10 inches, over the dry material Material was also stockplied on the interior beach to dry for future use. After evenwing the area with Wilco management and the Signam inspector, well apree that no wishle damage was done to the ECD, and furthermore, it appears that another layer of material would be able to be supported relatively soon.			
1. More borrow of a. GLDb Marsh C the mac	1. More borrow a a. GLDI Marsh C the mac	 More day material will be necessary for a final lift, and possibly for future use. We have identified a possible borrow are closes to the access constituent or write area (attached pic). QUESTION: CLDDWitco requests additional material be borrowed from the south side of the access crossing with the attach. Creation Area be stocklytical and spread to dry, and then handled across to the dike area to use as fill by the machines. Does CPRA approve of this borrow area and stockpiling? 			
2. There benches attachee the front a. GLDE material	2. There benches attacheo the front a. GLDD material	2. There is old sloughed material that previously migrated from the top of the ECD down to the front and rear benches on the north side of the access crossing. Some of this material remains above water level, is dry (see attached pics), and the access crossing. The machine has a 60-dox mach, but needs to reposition to the front of the ECD to sudding. The machine has a 60-dox reach, but needs to reposition be the front of the ECD to sudding. The machine has a 60-dox reach, but needs to reposition to the front of the ECD to sudding the proving the reporting the access the reposition be attached press; and needs the machine to the north side of the ECD wide press the area attached press that any other machine to the north side of the ECD and push the dry sloughed material to have prove the waterline up onto the slope of the ECD and push the dry sloughed material located above the waterline up onto the slope of the ECD.			
8/8/2021 Please rev	Please rev	8/8/2021 Please review the above; we respectfully request review by EOD 8/9/21 for time & progress purposes.	8/9/2021	U-KT-N takes no exception to #1 or #2 above, twole mat borrow shall not be excavated within 5∪ of existing pipelines (TS300.3.5). Also, excavation is only allowed up to -10' elevation.	Closed

RFI No.	Kev Words		Received Description	Responded	Response Summary	Sthinstated	Sthinglated: 11/28/2022
			ests permission to install a relief line on the beach within the dredge pipeline corridors. This pipeline ad parallel to the already installed submerged dredge pipeline in both corridors. This relief line will return water back to the Gulf as necessary, while the dredge is not actively pumping fill material;				
			 -to allow the dredge to pump water only, keep constant pressure in the floating portion of the pipeline and where the rubber float hose and steel pipe meet (required for pipeline joint integrity) -to prevent pumping excess water into the MCA during non-production -emergency water discharge 				
			GLDD will only have one relief line at one time on the side of the pipeline that we are pumping towards (if pumping west, relief line will be on the west side of dredge pipeline corridor). Once GLDD flips the pipeline to start nearing east, the relief line will be broken down and reinstalled on the east side of dredge pipeline corridor. A Y- Valve will control the discharge line.	2 10	While a relief line may be acceptable to use on this project, we need clarification' additional information addressing scour and material monitoring. GLDD is proposing discharging at MHV which will likely scour the		
4 1 1	Dredge Delief Line		If unable to install this relief line, pumping large amounts of excess water could be detrimental to the Marsh Creation Area containment dike and south dune due to unnecessary water elevation/flow.		shore lace and destraiging inside are planie scinnor which is required by contract to remain unbisurboe or shore lace. Also, we used require that GLDD monitor that only water is being discharged, but we need a mechanism for Sigma to QC that none of the dredged material is escaping through the relief. Please revise and resubmit addressing concerns of scourt, restoration, and 3rd party material monitoring and we will nonconstant addressing concerns of scourt, restoration, and 3rd party material monitoring and we will	No longer	
- - - - -	Float Barge over XTO		It to construct a temporary containment area within Increment 3 that will be barged machines over the XTO line. In principle, the training dite on the rg with an existing earthen ridge and a newly constructed training dite on the e hydraulically little with water to provide sufficient clearance for the barge. Incom this will be constructed. In obe this will be constructed the excavated beside the proposed rend dirk. The current elevation of the earthen the less are provintally if to be brought up to approximately. Z to ensure the necessary clearance at the KTO line. Thes care to be accorded and confirmed that the 2 of a confirm of this is accordable.		ease advise on the following: an board with this? Do they concur this will create enough clearance to float over and is af citcal/possible to build containment through existing borrow? av raining dike in conflict with mag hits? av training dike in conflict with mag hits? av training dike in conflict with mag hits? the bat strategy? Is the barge coning from? Acress/through the existing training dike? have to excarate the existing training dike? Is the barge coning from? Acress/through the existing training dike? Is the barge coning from? Acress/through the existing training dike? Is the barge coning from? Acress/through the existing training dike? The work trategy? Is no how the contractor's response to them #2 above. It appears that this is the requested path notestand the contractor's response to them #2 above. It appears that this is the requested path indensitiand the contractor's response to them #2 above. It appears that this is the requested path indensitiand the contractor's response to them #2 above. It appears that this is the requested path indensitiand the contractor's response to them #2 above. It appears that this is the requested path indensitiand the contractor's response to them #2 above. It appears that this is the requested path indensitiand the contractor's response to them #2 above. It appears that this is the requested path indensitient of the contractor's response to them #2 above. It appears that this is the requested path indensitient of the contractor's response to the m #2 above. It appears that this is the requested path is no longer necessary. A separate RFI #53 will be sent in detailing a different path forward. It is no longer necessary. A separate RFI #53 will be sent in detailing a different path forward.	No longer replaced Nr efelaced	
	-		4/13/32: Wilco: After investigation and probing of the XTO pipeline it has been determined that there is not sufficient water depth for safe floation of the barge mouthed excavator over the XTO pipeline. Wilco is proposing to pump water into the entirety of increment 3 to raise the water level to provide sufficient water depth for safe floation of the barge mounded excavator over the XTO pipeline. Wilco is proposing to pump water into the entirety of increment 3 to raise the water level to provide sufficient water depth for safe floation across the pipeline. To the barge mounded excavator will be mobilized to the increment 2.3 training dike where it will open the borrow ditch at the training dike just enough to float the equipment through (the base will not be removed and therefore this strond orobe an susce to patch up once complete). The material removed from the training dike back closed. Two hydraulic pumps will then be used to pump water from the borrow ditch the training dike back closed. Two hydraulic pumps will then be used to pump water from the borrow ditch. The barge will hen move into increment 3 and patch the training dike to use affect organized to then be used to pump water from the borrow ditch. The barge will then move into increment 3 and patch the training dike back closed. Two hydraulic pumps will then be used to pump water from the borrow ditch. The section be used to pump water from the borrow ditch increment 3. Increment 3. Anot he water has reached bevalon. Will be berge will be propositioned by the float the section pump water from the borrow ditch increment 3. Increment 3. Choe the water has the water and provide borrow the section between the section borrow the section be and and the section burble.			, ,	
			barge across the XTO pipeline to begin work on the East side. The barge equipment will then work increment 3 and 4 as needed. Once complete with increment 3 and 4, the same method as described above will be utilized to cross back over XTO to demobilize.				
	Flood Incr 3 to Float	m	4/14/22: Please advise on the following: Where will hydraulic pumps discharge? We need to ensure that they do not erode the containment structures. Will hydraulic pumps discharge? We need to ensure that a way from the ECD to word any erosion. The discharge mays also beplace under water to limit the tublidy. Additionally, these will be only 8'-10' erosion. The discharge mays also beplace under water to limit the tublidy. Additionally, these will be only 8'-10' erosion. The discharge mays also beplace under water to limit the tublidy. Additionally, these will be only 8'-10' erosion. The discharge mays also beplace under water to limit the tublidy. Additionally, these will be only 8'-10' erosion. The discharge for the MCA erosion and a way from the ECD. What is the dath on the barge? The barge drafts approximately 2'. We moved the equipment around on the barge to balance the draft as much as possible. Euromation with XTO. Will obtain an OK from them prior to beginning this work. The current consensus from XTO is that the pipeline has been decommissioned, flushed, and obtain conturrence on both ends. Wailing for continuation on this as well. 		4/13/22: Please advise on the following: 1.Where will hydraulic pumps discharge? We need to ensure that they do not erode the containment structures. Ustuatiss are draft on the barge? 3.Ensure that all known/provided XTO contacts are contacted to attempt to obtain concurrence for this plan. 4.It appears that several sections of the ECD within increment 3 are not currently at elevation +1.5.		
#53	Barge over XTO pipeline	r 4/13/2022 4/14-2022	4. It appears that several sections of the ECD within increment 3 are not currently at elevation +1.5. We currently have a marsh buggy making its way East through increment 3 patching up low spots to raise these low spots and facilitate this crossing method.		4/15/22: It appears that contact was made with XTO, and the previous questions answered. CPRA takes no objection to this plan.	Closed	

/ed	Received Description	d Description		Responded	Response Summary	St ulpsdate d: 11/28/2022
water. The steel shore pipe displaced from its onginal position by Hurricane dia even after being recovered is most times full of sand/mud. The current method of cleaning this material is to use a 336 Excavator with a pip clamp and attempt to stand the pipe up and the material subsequently fall out. To date, 4 total pipes have bee cleaned over a 3-day period due to a number of issues associated with trying to stand the pipe up considering each pipe is roughly 40° long.	water. The steel shore pipe displaced from its orginal r most times tuil of sand/mud. The current method of cle clamp and attempt to stand the pipe up and the materia cleaned over a 3-day period due to a number of issues each pipe is roughly 40° long.	water. The steel shore pipe displaced from its orginal prost times full of sand/mud. The current method of cle clamp and attempt to stand the pipe up and the materia cleaned over a 3-day period due to a number of issues each pipe is roughly 40° long.	water. The steel shore pipe dispaced from its original position by Hurricane ida even after being recovered is most times full of sand/mud. The current method of cleaning this material is to use a 336 Excavator with a pipe clamp and attempt to stard the pipe up and the material subsequently fall out. To date, 4 forlat pipes have been cleaned over a 3-day period due to a number of issues associated with trying to stand the pipe up considering each pipe is roughly 40° long.			
There are 35 stacks of pipe totaling 199 pieces of pipe that need to be addressed. Pipe is staged throughout Increment 1 and is anywhere from 100 to 8000° any form the pipeline control, where approved access to the water is allowed. Based on experience from numerous other propietis curritor, where approved access to the water is allowed. Based on experience from numerous other propietis curritor where approved access to the water is allowed. The or experience from numerous other propietis way to clear the pipe will be to take it directly from the pipe stack straight to the water line with the ubber thied from the pipe stack in the suff allowing for natural wave action to empty the pipe. This processes have worked many times in the part. Unforturately, due to the soft future of the material and lack of wave action, the water located in the MCA would not provide the sufficient disturbance power needed to complete this process. In addition, if access is granted is stores with resting pitting as well as draging the traffic area following the completion of each stack of pipe to smooth it out back to pre-existing conditions.	There are 35 stacks of pipe totaling 199 pieces of pipe that Increment 1 and is anywhere from 1000 8000 way fror water is allowed. Based on experience from nor 8000 water lis to take it directly from the pipe stack straight to the water lin in the surf allowing for matual wave action to empty the pip Unfortunately, due to the soft nature of the material and las would not provide the sufficient disturbance power needed granted to travers directly from pipe as well as dragging the pipe to smooth it out back to pre-existing conditions.	There are 35 stacks of pipe totaling 199 pieces of pipe that increment 1 and is anywhere from 1000.000 away fror water is allowed. Based on experience from numerous of to take it directly from the pipe stack straight to the water lit in the surd allowing for natural away eaction to empty the pip Unfortunately, due to the soft nature of the material and ta would not provide the sufficient disturbance power needed granted to traverse directly from pipe stack to water, we wo possible issues with neeting birds as well as dragging thet pipe to smooth it out back to pre-existing conditions.	need to be addressed. Pipe is staged throughout in the pipeline contridor where approved access to the er projects, the quickest way to clear the pipe will be the with the tubber titled from-end loader and place it is This process has worked many times in the past. Is of work action, the weller located in the MCA to complete this process. In addition, if access is ud coordinate with Norman Consulting to ensure no afficiance tollowing the completion of each stack of afficiance tollowing the completion of each stack of			
The feasibility to do all of this work within the pipeline corridor is not realistic due to the time needed to complete the task. With pipes full of material, the front-end loader can only handle 1 pipe at a time. To tack 199 pipes so fipe would take an inordinate amount of time and would put the completion the pipe feating operation on the order of the continued use of the excavator with minimal daily progress. We feel with the approval to use the surf zone and traverse between the pipe stack and the water, we could clear 1-2 pipe stacks a day as compared to 1-2 pipe.	The feasibility to do all of this work within the pipeline corrido complete the task. With pipes full of material, the front-end l. 199 piecess of piece would take an involutionate amount of time operation on the order of the continued use of the scavator approval to use the surf zone and traverse between the pipe stacks a day as compared to 1.2 pipe.	The feasibility to do all of this work within the pipeline corrido complete the task. With pipes full of material, the front-end l- presens of the would task an inordiante amount of time a operation on the order of the communed use of the excavator approval to use the surf zone and traverse between the pipe stacks a day as compared to 1-2 pipe.	ris not realistic due to the time needed to oader can only handle 1 pipe at a time. To track not would put the completion of the pipe clearing thim minimal daity progress. We feel with the stack and the water, we could clear 1.2 pipe			
Shorepipe Additionally, using the dredge upon arrival is not a feasible option as it would 1, be extremely difficult to clearing on construct the line with material in it and 2, the line would very likely break apart due to the added pressure and take additional time to be rebuilt and continually flush. 4/18/2022 Please confirm if this is acceptable.				4/20/2022	The proposed methods described above are outside of the permitted project area and land rights agreements. Additionally, repeated tracking across the remnants of the dune was specifically avoided during design to educe the impacts to the existing dune structure as well as minimize habitat destruction. Consider other options to emove the debits form the pipe.	Not approved
Whice is requesting information and direction in regards to several sections of dure which are listed in the table below. These sections do not have enough in-situ borrow available within the allotted borrow area and will require for additional borrow material to be hauled in to complete construction of the dure section to design grade. This list is not comprehensive of all areas needing hauled material. The additional sections will be adde as they are discovered and investigated.	Wilco is requesting information and direction in regards to sev below. These sections do not have enough in-situ borrow avain reque to radional borrow material to be hauled in to compli- grade. This list is not comprehensive of all areas needing hau as they are discovered and investigated.	Writco is requesting information and direction in regards to sev below. These sections do not have enough in-situ borrow avain the energine for additional borrow material to be hauled in to compli- grade. This list is not comprehensive of all areas needing hau as they are discovered and investigated.	eral sections of dure which are listed in the table lable within the allotted borrow area and will set construction of the dure section to design led material. The additional sections will be added			
GAP IDSTATION RANGESES(MATED LENGTH (FTJESTIMATED VOLUME (CY)CY/FT SDGAP-144+00-30+00603,439.55.73 SDGAP-2106+00-109+00030891.92.97 SDGAP-2106+00-109+0030891.92.97	GAP IDSTATION BARDAGESEGMATED LENGTH (FTJESTIMATED VOLUME (CY)CV/FT SDGAP-144+00-30+000803,439.55.73 SDGAP-3106+00 - 109+00300891,92.97 SDGAP-3106+00 - 109+00300891,92.97	GAP IDSTATION RANGESEGMENT ENGRESEGMENT LENGTH (FTJESTIMATED VOLUME (CYCY/FT SIGGAP-144-00-147-00300824.32.75 SIGGAP-264-00-904-00300891.92.97 SIGGAP-3106+00-109+0030081.92.97				
Witco has located several potential dure borrow locations which are listed below. However, additional borrow locations may be required to avoid excessively long hauling distances as that would increase the hauling price. Potential Borrow Locations 0ocations may be required to avoid excessively long hauling distances as that would increase the hauling price. Potential Borrow Locations 0otation and prover (avoid excessively long hauling distances as that would increase the hauling price. Potential Borrow Locations 00-00-01 - 103-000 (smail armount) 0-4+00 - 95+00 (smail armount) 0-4+00 - 95+00 (smail armount) 0-5+00 (smai	47902022		d below. However, additional borrow is that would increase the hauling price. enough suitable material opposite erie is not conogh material to simply hauling equipment. "We are material to avoid any issues as ed upon and approved prior to Wilco	5(2)2002	CPRA does not have objections to borrowing within the project footprint north of the south dune. Please advise on proposed cost as mentioned above. Additionally. Can shifting the alignment reduce or remove the need for hauling at any of these locations? Further runa formation is needed on the proposed borrow locations. Provide a sketch. Are these north or south of	COssed
			g		5/23: As discussed last week, update the sketch to show project boundary. The alignment shift must stay inside the permitted project boundary.	
5/24: Whico has updated the stetch to show the project boundary with the addition of the following statement. The proposed realignment will parallel the Optimized South Dune Alignment at a SOFT offset as shown in the provided stetch. The proposed shift remains within the original project permit limits. The use of some borrow material from the North AND South Side Borrow area will eliminate the need for	5/24. Whice has updated the sketch to show the project boundary. The proposed realignment will parallel the Optimized South Dune, provided setch. The proposed shift remains within the original pro The use of some borrow material from the North AND South Stole	5/24: Wilco has updated the sketch to show the project boundary. The proposed realignment will preadle the optimized South Dune. provided sketch. The proposed shift remains within the original pre provided sketch. The proposed shift remains within AND South Stole The use of some borrow material from the North AND South Stole.	with the addition of the following statement. Alignment at a 50FT offset as shown in the sject permit limits. Borrow area will eliminate the need for		5/25: CPRA takes no exception to the proposed alignment shift of the South Dune from approximate station 309+00 to 322+00. It is permissible to borrow material from south of the South Dune alignment and north of the South Project	
					Boundary in the area designated on the revised sketch, with the following requirements: 1.The contractor must exhaust all posted sketch, with the following requirements: 1.The contractor must exhaust all posted such borrow in this area first before resorting to south borrow. 3.It borrowing south of the dune is necessary, ensure that cuts are not drastic or deep. Minimize impacts to the existing topography as much as possible. 5.All approval of the RF and F56 eliminates all proposed hauling costs.	
Obside Description Description <thdescriprint< th=""> <thdescription< th=""> <thd< td=""><td>5/17/2022</td><td>There worring wirm internet area entroloutienty. Attached as part of RFI 057 is the Calilouet Rd alignment as agreed drawing is a proposed alignment shift that ties in the new Calilouet durine alignment. 2 Please confirm if this alignment shift is acceptable.</td><td>Provided within the optimizing south</td><td>5/19/2022</td><td>orzorzuzz ann terming eruntu. 5/19/2022 CRPA takes no exception to this alignment tie-in.</td><td>Closed</td></thd<></thdescription<></thdescriprint<>	5/17/2022	There worring wirm internet area entroloutienty. Attached as part of RFI 057 is the Calilouet Rd alignment as agreed drawing is a proposed alignment shift that ties in the new Calilouet durine alignment. 2 Please confirm if this alignment shift is acceptable.	Provided within the optimizing south	5/19/2022	orzorzuzz ann terming eruntu. 5/19/2022 CRPA takes no exception to this alignment tie-in.	Closed

RFI No.	Key Words	Received	Received Description	Responded	Response Summary	Stuppedated:	Stubpedated: 11/28/2022
#58	Sand Fence Staples		SES is requesting a variation to the material used to attach wooden sand fence to wooden posts. Currently, they are using a 15-gauge wire to attach sand fence to the post atthough northing is specified from the detail provided in COM56 which was used for their proposal. SES requests the use of 27 galvanized saptes to attach fence to post and fell this method and material variation would speed the installation process and help the crew during the rising temperatures of summer. REX fequests the use of a 70-gauge wire to their proposal. SES requests the use of 27 galvanized saptes to attach fence to post and fell this method and material variation would speed the installation process and help the crew during the rising temperatures of summer. REX has provided a detail from another CPAA propert where an other on the drawings specifies that in leu of the S202022 WW e. 27 galvanized stables may be used (see detail below), Also attached is the detail from COA65 RFP.	6/29/2022	The use of the 2" staples provided for review and attached are acceptable with the following stipulation: 659/2022 [Staples must be affixed at all horizontal runner locations where the slat meet each post.	Closed	
#59	Sand Fence alignment at Caillouet Road		Attached as part of RF1059 is a map detailing the proposed modification for sand fence layout within the Callouet property limits. The primary reason for devation centres around the reaction that has already occurred within the approved ROW. This encosion will require a shift in sand fence alignment. This proposal is accurate for the current conditions and will likely need to be revisited at a time closer to install which would be planned post project completion to allow continue unfeitered access within the ROW during the pumping and demokilization phases of the project.		Confirm that this plan has been communicated with the Calilouets and they are in agreement. Please advise. GLDD provided PDF's from concurrance meeting with Calilouets agreeing on alignment. This is closed out as 6/29/2022 lagreed to during progress meetings #62 and 63.	Closed	
09#	SES Dune Crossings and Mobilitization Route		Attached as part of RF10601s a map requesting additional access points south of the dune. The intent of the access corridors as shown on the attached map would be for SES to traverse at the water line from EIR and cut onto the dune at the designated points on the south dune at the following stations. 375-400. 325-400. 255-400. 2094-00. 175-00. 105-400. and 500. The access corridors at Sta 209-400 and 267-400 utiliza the existing dedge pipeline corridor. The access corridors at Sta 205-400 allow safe access. ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO on the dune and the corridor at Sta 155-400 and 170-400 allow safe access ver XTO and the dune with material being delivered for SE would allow for a britter statego fuely and instatution which would aid in expedining the install. By traversing at the waterline, this allow for minimally invasive access down the Wister properity with the least amount of disturbance to the existing beach as well as any potential impact to widdle in the area.	6/2022	All travel should take place inside the project limits, with the only exception being the 5/11 agreed dune crossing at approximate south dune station 375-90. Neither the additional locations above nor the pipeline corridors are acceptable for traversing to the south shoreline for equipment or material mobidemob. Please easure that all project personnel including subcontractors are avere and use the 5/11 (attached). These additional crossing locations are not approved.	Not approved	
#61	ECD Lift 1 / 2 wait time variance		Wilco Marsh Buggies has requested a variance to the required days between lifts of material on the ECD. Wilco had removed material to create a gap on the ECD at approximate stations 176-400 to 178-400 to allow transfer of equipment. The first lift to close the gap was placed on June 114.2022, seveneen days gap cloady. Wilco feels that lift one has dufficiently enough to begin lift two and the quality will meet contract standards. Lift wo material has been stacked near the placement area and they are ready to proceed with filling the gap at the earliest convenience. This will also benefit the deegge arrival as the required thing day wait period would expire 37/1/2022 the day before Droge Alassia is to due to arriva.	7/6/2022	A variance will be granted for this location only. You can proceed with lift 2, however, note that it is the contractor's responsibility to maintain the ECD during the construction.	Closed	
#62	Primary Weir Removal	10/4/2022	OLDD would like to propose an acceptable fmelline for the emoval of primary weirs at the far eastern boundary of increment 4. GLDD is requesting concurrence the removal of primary weirs 14 days after the conclusion of dredging activities in increment 4 or at the completion of gapping of the earthen containment dike's, 10/4/2022 whichever comes first. Please advise if this timeframe is acceptable.		10/12/2022 We take no exception to removing the primary weirs no sooner than 14 days after all dredging is complete.	Closed	

DATE:

RFI Number: 01

Summary of RFI by Contractor	
1 / 2	y control is to be used. In Change Order No. 1, ed is CRMSBA-SM-19. However, Appendix G in ion TE23 SM-01. Please clarify the correct survey
 Change Order 001, Plan Sheets 43 through 47 id dike re-alignment area in increment 1. Please con containment dikes only occur within the area ide revise cross sections accordingly. 	
Signature:	Date: 5/13/2020

Response to RFI by Engineer

- 1. My email response on 5/14/2020 addressed the survey monument discrepancies: CRMS monument was incorrectly identified as control on sheet 2 (not sheet 1) in the plans. It should be identified as the TE23-SM-01 as provided in the specs and on the design survey on sheet 14.
- 2. Attached are revised plan sheets 2, 3, 5, 6, 16, 42, and 43. These cover Change Order #01.

GENERAL NOTES:

- THE CONTRACTOR SHALL NOT, AT ANY TIME, TREAD ON EXISTING MARSH OR VEGETATED WETLANDS UNLESS OTHERWISE 1= DIRECTED BY THE ENGINEER.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT SITE. THE ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE CONTRACTOR'S LOCATION DURING CONSTRUCTION.
- 3. PLANS AND SPECIFICATIONS ARE COMPLEMENTARY: WHAT IS REQUIRED BY ONE IS BINDING AS IF REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF, OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS, WILL BE ISSUED BY THE ENGINEER.
- ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE 4 CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
- 5. THE MARSH CREATION AREA, BORROW AREAS, AND CONTAINMENT DIKES MAY BE REVISED BY THE ENGINEER THROUGHOUT THE WORK TO REFLECT CHANGES IN FIELD CONDITIONS.
- 6. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY OF THE DREDGE PIPELINE CORRIDOR, BORROW AREAS, AND MARSH CREATION AREA PRIOR TO EXCAVATION. DRAWINGS SHOWING THE TRACK LINES, ANY MAGNETOMETER HITS, COORDINATES, AMPLITUDE, SIGNATURE TYPE, AND SIGNATURE WIDTH OF ALL MAGNETOMETER HITS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO EXCAVATION.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL HYDRAULICALLY DREDGED MATERIAL WITHIN THE BOUNDARIES OF THE MARSH CREATION AREA.
- 8 BACKGROUND IMAGERY WAS TAKEN IN 2016.
- THE PIPELINE AND UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. PIPELINES LOCATED WITHIN 150' OF THE 9. WORK SHALL BE MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUOYS DURING CONSTRUCTION AND HAVE ADEQUATE NAVIGATIONAL EQUIPMENT ON THE DREDGE TO AVOID DREDGING IN RESTRICTED AREAS.

NOTIFICATIONS:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE FOLLOWING PIPELINE AND UTILITY OPERATORS AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF THE WORK, CALL LOUISIANA ONE CALL AT 1-800-272-3020 5 DAYS PRIOR TO ANY EXCAVATION AND/OR DREDGING TO LOCATE ALL PIPELINES OR UTILITIES.

CHEVRON USA, INC. CONTACT: TODD DORE PHONE: (985) 773-6389

ARROWHEAD/HARVEST PIPELINE CONTACT: ANTHONY ARELLANO PHONE: (504) 912-4426

LOOP, LLC CONTACT: CINDY GARDNER-LEBLANC PHONE: (985) 276-6299

XTO OFFSHORE, INC./XTO ENERGY, INC. CONTACT: DAVID DUFOUR PHONE: (817) 870-2800 EMAIL: DAVID_DUFOUR@XTOENERGY.COM

TRANSCANADA/ANR PIPELINE CO. RICARDO "RICK" LOPEZ PHONE: (337) 266-4695 EMAIL: RICARDO LOPEZ@TRANSCANADA.COM

THE CONTRACTOR SHALL NOTIFY THE LANDOWNERS LISTED BELOW AT LEAST FIVE (5) WORKING DAYS PRIOR TO 2 PERFORMING THE WORK.

EDWARD WISNER DONATION CO.	
CONTACT: AMANDA PHILIPS	
PHONE: (504) 210-1152	

CAILLOUET LAND, LLC CONTACT: JAY CAILLOUET PHONE: (985) 665-2123

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES CONTACT: JULIA LIGHTNER PHONE: (504) 286-4041

DESIGN NOTES:

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) U.S. SURVEY FEET, ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD 83, LOUISIANA STATE PLANE SOUTH ZONE U.S. FEET). ALL ELEVATIONS ARE BASED ON THE FOLLOWING:

SECONDARY SURVEY MONUMENT	ELEVATION	NORTHING	EASTING	GEOID
CRMSBA-SM-19	2.45'	250,130.9	3,674,132.84	12A

2. THE EXISTING ELEVATIONS SHOWN ON THE PLANS ARE BASED ON THE SURVEYS PERFORMED FROM MAY 2015 THROUGH JULY 2015 BY MORRIS P. HEBERT AND FROM FEBRUARY 2017 THROUGH MARCH 2017 BY HYDROTERRA TECHNOLOGIES FOR THE CPRA. ELEVATIONS ARE REFERENCED TO NAVD88, US FEET, GEOID 12A.

- 3. DATA FROM STATION CRMS0292 WAS USED TO CALCULATE THE MHW AND NAVD 88, US FEET, GEOID 12A. MHW = +0.84' AND MLW = -0.59'
- 4. A GEOTECHNICAL INVESTIGATION WAS PERFORMED ON THE BORROW AR 2015 AND BY ARDAMAN AND ASSOCIATES IN AUGUST 2017 AND ON THE MA MAY 2015 AND BY ARDAMAN AND ASSOCIATES IN AUGUST 2017. THE BOR PLANS. THE GEOTECHNICAL INVESTIGATION REPORT IS PROVIDED IN THE

ENVIRONMENTAL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH THE SPECIAL PROVISION FOR NE ENVIRONMENTAL REQUIREMENTS IN THE SPECIFICATIONS.

SUMMARY OF ESTIMATED QUANTITIES

BASE BID

ITEM No.	DESCRIPTION
1	HYDRAULIC DREDGE MOBILIZATION AND DEMOBILIZATION (TS-100)
2	DREDGE PIPELINE MOBILIZATION, INSTALL, & DEMOBILIZATION (TS-
3	GENERAL MOBILIZATION & DEMOBILIZATION (TS-102)
4	SURVEYS (TS-210)
5	DAILY BIRD ABATEMENT (TS-211)
6	GRADE STAKES (TS-220)
7	INSTRUMENTED SETTLEMENT PLATES (TS-251)
8	EARTHEN CONTAINMENT DIKES (TS-300)
9	PRIORITY EARTHEN DIKE (TS-301)
10	HYDRAULIC DREDGING AND MARSH FILL (TS-400)

- THE QUANTITIES SHOWN WERE CALCULATED ACCORDING TO CONDITI-1 FROM MAY 2015 THROUGH JULY 2015 AND FROM FEBRUARY 2017 THRO THE OWNER RESERVES THE RIGHT TO ADJUST QUANTITIES 25% HIGHE WITHOUT ADJUSTMENT OF THE UNIT PRICE.
- 2. QUANTITY IS BASED ON THE BORROW AREA CUT VOLUMES. PAYMENT BASED ON PROCESS SURVEYS OF THE BORROW AREA.

ACRONYMS & ABBREVIATIONS:

- BORROW AREA RΔ CMF CONSTRUCTED MARSH FILL
- CONE PENETRATION TEST CPT
- CY CUBIC YARD
- DPC DREDGE PIPE CORRIDOR
- EAC EQUIPMENT ACCESS CORRIDOR ECD EARTHEN CONTAINMENT DIKE
- EL ELEVATION
- FΤ FOOT

SF ΤS TEMPORARY SPC

INC

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LF

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DATE:

RFI Number: 02

Summary of RFI by Contractor

Please consider revising TS 210.7.11.1 – Stake Out for surveyor to stake out the centerline and both toes of the containment dike and the centerline of the point of inflections every 100-ft so that dike volumes can be computed more accurately. Wilco will stake out the inside toe of borrow area for constructability and the width of their machine (~22-ft) which will be situated between the toe of the dike and the dike borrow, will make it difficult to excavate less than the minimum 25-ft buffer width.



Response to RFI by Engineer

1. Stake out as identified in original TS-210.7.11.1 and sketched as "Current in Spec" above must be performed at a minimum. Stakes at the toe of the dike and borrow area will designate the 25' minimum clearance between the dike and borrow. This clearance is critical to the stabilization of the dike.

If the contractor wants to install and maintain additional stakes on the outside toe of dike and bottom toe of borrow, we take no exception to that. It would appear, however, that borrow excavation would be in conflict and damage additional stakes placed at the bottom toe of borrow.

DATE: June 3, 2020

RFI Number: 03

Summary of RFI by Contractor

With respect to the Priority Earthen Containment Dike Detail shown on sheet 10 of 53 of the plans (see attached image), the elevation shown for the top of the sand fill is 2.0', which is also the elevation shown for the top of the required 1st lift for the containment dike material. Based on the elevation scale shown on the detail it appears that the top elevation of the sand fill should be -2.0'. Please confirm.



Response to RFI by Engineer

Correct, the value referenced should be -2.0'.

Signature: Josh Renard	Date: 6/7/2020	

DATE: June 10, 2020

RFI Number: 04

Summary of RFI by Contractor

The first paragraph in Change Order No. 1 (CO#1) states that the total length of the containment dike shall be reduced from 48,138-lf to 44,691-lf equating to a dike reduction of 3,447-lf.

Also in CO#1, within the Summary of Change Order table, Item 8 – Earthen Containment Dikes, the dike reduction is identified as 4,047-lf. This revised length is also identified on Sheets 2 & 5 of the CO#1 plans.

Using the coordinates provided in the CO#1 plans, we calculate that the total distance of the dikes equals 44,691-lf, not 44,091-lf. Please clarify the appropriate reduction of dike length in CO#1.

Signature:	Date:	6//10/2020

Response to RFI by Engineer

The total length of earthen containment dike was 48,138ft, however this total length/alignment is made up of 2 bid item components consisting of:

- standard Earthen Containment Dike TS-300 (ECD)
- Priority Earthen Dike TS-301.

Each of these 2 components are valued differently so must be separated. Change Order 1 adjusted the overall length of the ECD going from 48,138 ft -4,047ft = 44,091 ft. However since the total containment dike alignment includes both components (standard ECD's plus Priorty ECD's (600lf from Sta 90+46 to Sta 96+46), the total alignment length will be 44,091 + 600= 44,691 ft.

As noted, this 44,691 ft is being paid for under the following bid items: Item 8 Earth Containment Dikes 44,091 lf Item 9 Priority Earthen Dikes Lump Sum (plan length = 600ft) Total length of compensation = 44,091 + 600= 44,691 ft

Therefore no adjustment in quantity as accounted for in the approved CO#1 is required.

Signature:

DATE: June 10, 2020

RFI Number: 05

Summary of RFI by Contractor

Based on previous experience, tidal currents in areas similar to this project site pose a risk of deteriorating and destabilizing the integrity of the earthen containment dikes (ECDs) within deep waters during construction. In an effort to mitigate this risk, we request that ECDs in deep canal crossings be constructed in one lift, rather than two, to minimize the risk of erosion from tidal currents over a 30 days period.

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Signature:	Date: 6/10/2020	

Response to RFI by Engineer

Due to the close proximity to the multiple pipelines running longitudinally to the ECD's, the potential high risk associated with dike and foundation failures, and the problems associated with attempting to rebuilding dikes after foundation failures, these ECD's must be constructed utilizing the 2 lift method as required in the Contract Documents.

Signature:

DATE: June 10, 2020

RFI Number: 06

Summary of RFI by Contractor

Detail ID 5.6 on Sheet 10 of the plans show that internal dikes be built in two lifts. The first lift is shown to be built to elevation +1.0-ft, an elevation near, if not below the water surface. Since these dikes are training dikes and do not act as containment dikes, we propose that these dikes be complete in one lift.



Response to RFI by Engineer

Signature:

Since the training dikes provide internal flow control associated with the phased construction of the increments for the single large marsh creation area, and not for external hydraulic dredge material containment, your request to construct these internal dikes in one lift shall be allowed.

However, if the construction of these dikes in this 1 lift manner proves to be inconsistent with the goals and objectives of the project, CPRA reserves the right to direct the Contractor to revert back to the construction methods as bid.
DATE: June 10, 2020

RFI Number: 07

Summary of RFI by Contractor

GLDD has attempted to contact XTO Offshore using the contact information shown on Sheet 2 of the plans (shown below). Additional attempts were made through Louisiana One Call. To date, we have been unsuccessful in contacting this company.

Please advise if this pipeline is under new ownership and if there is alternate contact information.

XTO OFFSHORE, INC./XTO ENERGY, INC. CONTACT: DAVID DUFOUR PHONE: (817) 870-2800 EMAIL: DAVID_DUFOUR@XTOENERGY.COM

Signature:

Date: 6/10/2020

Response to RFI by Engineer

Try the following contact for your XTO communication request:

Bobby Stark <u>Bobby_stark@xtoenergy.com</u> XTO Energy, Inc. 6141 Paluxy Drive Tyler, Texas 75703

Signature: 🧲

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Date: 6/22/2020 (responded 6/12)

DATE: June 15, 2020

RFI Number: 08

Summary of RFI by Contractor		
Harvest Pipeline has expressed its concern with operat	ing a tug and	barge within close proximity to its pipeline
for the transport of sands from the Priority Earthen Con	tainment Di	ke Borrow Area to Priority Earthen
Containment Dike. In an effort to avoid the route adja	cent to this p	pipeline, we propose an alternative borrow
area situated to the east of the priority earthen contain	ment dike ar	nd within the marsh creation area.
The attached drawing shows our proposed borrow are	a limits for t	his borrow area which is based on an
exploratory probing campaign for sands suitable for the	base of the	priority earthen dike. This area is wider
than necessary in order to give the CPRA a larger area to	o core sampl	е.
Similar to the initial design, suitable sands shall be load	led on barge	s and towed via an access route to the
Priority Earthen Dike. Due to shallow waters in the mai	rsh area, the	tug/barge will transit along an access route
create by from the borrow area for the earthen contain	ment dikes.	
Please confirm if CPRA will permit the use of this altern	nate priority	earthen containment dike borrow area.
GLDD and Wilco are available to further discuss if you h	nave any que	estions. Attachment: Drawing of Proposed
Alternate Priority Borrow Source (date: 6/10/20)		
Cienceture	Data	6/15/2020
Signature:	Date:	6/15/2020

Response to RFI by Engineer

Based on the pre-construction survey, field observations, sampling and testing, we have determined that there is no need to construct the priority dike section specified by Bid Item #9. Therefore, we propose that this bid item be removed from the contract and replaced with the standard geometry for ECDs. We also propose that PI 13 located in the middle of the priority section be removed and the ECD alignment straightened out in that area. As discussed in the progress meeting on 7/7/2020, proceed with an updated Increment 1 pre-con survey showing the straightened dike here.

We plan to install piezometers near this location, coordinate the mob of excavators to this area with myself 3 days prior so that we can plan to be onsite.

DATE: June 19, 2020

RFI Number: 09

GLDD is responsible to contact the Department of Homeland Security to give them a heads up whenever aerial photography is going to be used to track the progress of the work being done. Is there a specific point of contact with the DHS that CPRA/Sigma would like GLDD to reach out to let them know when aerial shots will be performed? If so please provide.

Signature:	Date:	6/19/2020	

Response to RFI by Engineer

Contact Scott (Homeland Security) at 985-291-2006 regarding aerial photography as required per SP-20. Separately, Sigma is in contact with Scott regarding their inspection related drone operations and will be in contact with him throughout the project.

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DATE: June 10, 2020

RFI Number: 10

Summary of RFI by Contractor	Summary	y of RF	I by Co	ntractor
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In order to reach grade on the outer toes of the ECD we would like to propose using a machine on the outside of the ECD to dig material. If we are able to construct the dikes from the outside, Wilco will still follow the 25' minimum distance from the toe when digging for material outside of the dike. Otherwise, if Wilco is not able to dig from the outside they would need to dig material from the middle of the dike itself to be able to reach the outer toe with a marsh buggy, which would need to be replaced with material from the inside of the dike. This method of digging will only be necessary in deeper water such as STA's 71+00 - 90+00.

Signature:

Date: 7/4/2020

Response to RFI by Engineer

As long as 25' minimum distance to the toe is maintained and minimum clearance requirements with the pipeline is maintained we do not object to borrowing from the outside at STA 71+00 to 90+00.

Signature: D	Date: 7/7/2020

DATE: July 8, 2020

RFI Number: 11

Summary of RFI by Contractor	
Summary of RFI by Contractor A deep canal is located to the west of the Earthen Conta would like to request a realignment of this vertical section building the dike into the deep canal.	
Signature:	Date: 7/8/2020

Response to RFI by Engineer

CPRA is not opposed to this proposed change. Before proceeding, provide a revised survey of this proposed alignment, including CAD files. Also perform a Magnetometer survey along this alignment like the one required along existing alignment to ensure that there are no conflicts. Once these are provided/performed and no conflicts are found authorization can then be given to proceed with this change in alignment.

Note: Based on phone call with Manny V. the "vertical" section realignment mentioned above is referring to horizontal changes and NOT vertical.

Note 2: The contractor's sketch that was provided with this RFI is included below for reference.



DATE: July 9, 2020

RFI Number: 12

Summary of RFI by Contractor

Due to the discovery of the 4" Calco line we were able to get old pipeline drawings from Chevron that showed the 4" pipeline as well as a possible 6" pipeline east of the 4" pipeline at approximately STA 98+00. After performing magnetometer surveys around the possible location of this 6" pipeline and receiving no "hits" we are led to believe that this 6" pipeline is not present in the area. Because of this we would like to proceed from STA 90+00 to the east and would like acknowledgement from Sigma/CPRA to proceed.

Signature: Date: 7/9/2020	

Response to RFI by Engineer

As you mentioned this line was first discovered on an antiquated map provided by Chevron. You have advised that nothing was marked or found from the One-Call ticket and you have performed additional magnetometer runs to attempt to locate this line. Also, your additional mags confirmed the previous mag runs. You can procced with caution as requested, within Increment 1. (provided in email on 7/9/2020)

Signature:	
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DATE: July 13, 2020

RFI Number: 13

Summary of RFI by Contractor

Currently, the 4" Calco Pipeline sits exposed within the Borrow Area near STA90+00, and to proceed with work east of this area, we are proposing to reduce the 50' buffer to 20' for the BA on either side of the pipe in that area.

The pipe is marked every 5' at the exposed section, and we propose further to mark the pipeline every 25' in additional areas that it crossed the ECD. We are confident the pipeline is out of commission as well as abandoned.

Attached are relevant drawings from Wilco of the newly proposed buffer, with additional information provided.

Signature: Date: 7/14/2020			
	Signature:	Date:	7/14/2020

Response to RFI by Engineer

Reducing the buffer to 20' is acceptable. Advise the RPR when planning to work within this reduced buffer. All work here shall be witnessed by RPR.

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CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) REDUCED R.O.W. REQUEST: UPL STA 93+00 & STA 96+00



DATE: July 14, 2020

RFI Number: 14

Summary of RFI by Contractor

In regards to the 4" Calco line that was found; This pipeline is exposed (above water at low tide). It is within the borrow area of the ECD at its exposed location. The exposed portion of the pipe is in the fill site, and there could be any number of potential of solutions to the situation. Great Lakes is requesting direction on what to do with the pipe now that it is found and partially exposed. The pipe is not owned by anyone registered on the One Call. Great Lakes is requesting direction from CPRA/Sigma as to procedure/action moving forward regarding this line.

	1	
Signature:	Date:	7/14/2020

Response to RFI by Engineer

Ensure that the pipe stays marked and avoid it with your equipment throughout the project. Don't disturb it further and we will plan to cover it with marsh fill. We will notify you if we decide to take further action.

Cianature	~ .
Signature	Ξ.

DATE: July 15, 2020

RFI Number: 15

Summary of RFI by Contractor

Due to poor material condition on STA11+50, Wilco feels it is best to let it condense and settle in that area before proceeding work. In the meantime, that specific marsh buggy would like permission to move directly from STA05+00 to 31+00 in a straight line, rather than going "around" and having to cross the Chevron Pipeline multiple times. HydroTerra has agreed to MAG the area when they come out to survey today. A drawing of the proposed path, as well as a KMZ file, are attached to this email for clarification.

Signature: Date:	7/15/2020

Response to RFI by Engineer

We are not opposed to the use of this route. Ensure that it is not in conflict with any potential pipelines. Once it is in use make every effort to minimize impacts to the nearby mangroves.

Nignatiira	
Signature:	



DATE: July 28, 2020

RFI Number: 16

Summary of RFI by Contractor	
its equipment to cross both aforementioned pi expressed concern (after probing the area in qu their pipeline with insufficient coverage to safe shallow and their tread would be forced to rest	nevron, Wilco has generated a proposed tracking route for belines, and would like approval by Sigma to do so. Loop lestion) that the Specified access corridor has areas over by allow marsh buggies to track over. The water is too on the ground, exposing the line to structural stresses Iditional map displaying the proposed route. (7/23/2020)
route. I have attached this route with this RFI a to cross the Loop pipeline on bare ground. Wit	d we would like approval from Sigma for this revised s well as the Wilco/Loop crossing agreement. Wilco plans h this proposed route, Wilco will stay within the project act obligations. Wilco surveyors, with white flagging, have 8/2020)
crossing. Last Tuesday, 7/21, Norman Wildlife F	unication between Loop and Wilco about this revised ep walked the area of this proposed pipeline crossing and The Norman Wildlife Rep will also be present in the
Signature:	Date: 7/28/2020

Response to RFI by Engineer

- 1. It would be difficult to obtain permit modifications and revised landowner agreements to allow equipment to track outside of the project area. Consider revising the alignment to within the project limits. (7/20/2020)
- 2. A) Provide a fully revised map that does not show a path outside of the project area. Also address the following: B) Provide confirmation/documentation LOOP is in agreement with crossing. C) Provide LOOP crossing details (using mats? bare ground? etc.). D) Ensure bird abatement is conducted and route is not in conflict with restrictions in specifications and permit.
 E) This route adjustment does not alleviate any other contract obligations. (7/27/2020)
- 3. Provide documentation of LOOP communication and understanding of this revised crossing. Also, address comment above in 2.D regarding bird abatement. (7/28/2020)
- 4. I have included GLDD's provided tracking route, LOOP agreement, Chevron Agreement, and backup documentation regarding LOOP correspondence. We take no exception to this route. Ensure that the project inspector is notified of these pipeline crossings.

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171)

PROPOSED TRACKING ROUTE CROSSING CHEVRON AND LOOP



Acknowledgment and Agreement

WHEREAS, the Louisiana Coastal Protection and Restoration Authority (CPRA) desires to perform a marsh restoration project at or near the location of the LOOP pipeline right-of-way corridor in Lafourche Parish, Louisiana, more particularly known as the BA-171 Caminada Back Barrier Marsh Creation Project (the "Work");

WHEREAS, CPRA has hired the undersigned to perform the Work.

NOW THEREFORE, for and in consideration of the mutual covenants and agreements contained herein, effective July 20, 2020 (the "Effective Date"), the Parties agree to the following (the "Agreement"):

1. The undersigned acknowledges that it has received, reviewed and will comply with the LOOPimposed obligations contained in the following documents:

- August 20, 2019 letter from Cindy Gardner-Leblanc of LOOP LLC to Renee Bennett of CPRA (attached Exhibit 1).
- September 9, 2019 email from Cindy Gardner-Leblanc of LOOP LLC to Renee Bennett; (attached Exhibit 2).

2. The undersigned acknowledges that it and its representatives, agents, and personnel will comply with the following special conditions, which shall supersede and control any conflicting provisions that may otherwise be stated in Exhibits 1 and 2:

- Undersigned shall not enter the LOOP Right of Way (ROW) or approach within 100 feet of LOOP's pipelines, without presence of a designated LOOP field representative and 72 hour prior notice to Mr. Matt Roberson at (985) 302-1063.
- During placement of soil material within the ROW, undersigned's equipment shall remain a minimum of: 1) 20 feet from the LOOP 4-inch diesel and the LOOP 30-inch brine pipelines and 2) 24 feet from the LOOP 48-inch Main Oil Line (MOL).
- Undersigned's equipment shall remain floating where possible or have minimal surface or subsurface contact.
- Excavation shall not occur within LOOP's ROW nor over or within 100 feet on either side of any LOOP MOL.
- Undersigned shall not transport equipment across the LOOP pipelines without a signed Access Agreement or written approval from LOOP, the form of which shall be determined by LOOP.

3. In consideration of the rights granted herein, undersigned covenants and agrees to fully defend, protect, indemnify, and hold harmless LOOP and its owners, owner representatives, officers, employees, and agents, insurers, and any third party that LOOP has contractually agreed to defend and/or hold harmless (all of the foregoing hereinafter individually and collectively "Indemnitees") from and against any and all claims, demands, causes of action, liabilities, judgments and/or court orders, penalties and fines, damages, expenses (including all court costs and attorney fees), and costs of every kind and character (hereinafter individually and collectively "Claims and Liabilities") which may be assessed or brought against the Indemnitees in any way arising out of, incidental to, or in connection with this Agreement, the Work and activities of undersigned or its contractors. Undersigned's duty to defend, protect, indemnify, and hold harmless shall extend to any and all Claims and Liabilities, including but not limited to:

- a. Claims and Liabilities arising on account of personal injuries, illness, death, loss of or damage to property, pollution and/or contamination claims of any type, damage to the environment, governmental agency action or order, consequential and/or exemplary damages, and any and all other damages or losses of any type or nature, regardless of whether such claim, demand, or action be brought by undersigned, LOOP, or any other Indemnitees, their employees, contractors, or any other person or entity; and
- b. Claims and Liabilities caused in whole or in part by the negligence, strict liability, or other legal fault of LOOP and/or Indemnitees, and/or by any defective condition, regardless of whether such negligence, strict liability, fault, or defective condition existed or arose prior to this Agreement excluding however, claims and liabilities caused solely by the negligence of LOOP or its contractors (including suppliers), or claims and liabilities caused solely by the concurrent negligence of LOOP and its contractors (including suppliers).

This Paragraph 3 shall survive termination of the Agreement.

4. Undersigned or its contractors shall supply LOOP with a Certificate of Insurance on a standard industry form (such as the ACORD form) evidencing the coverage set forth in Exhibit 3 attached hereto. Said certificates shall be returned to LOOP prior to the commencement of any work hereunder.

5. The rights granted to undersigned in this Agreement shall expire and terminate ninety (90) days from the Effective Date.

Executed to be effective on the date stated at the beginning of this Agreement.

WITNESSES:

WILCO MARSH BUGGIES AND DRAGLINES, INC.

Date: 7-20-2020



Acknowledgement of Line Crossing/Excavation Specifications Procedure



CALL TWO (2) WORKING DAYS BEFORE YOU DIG

Fax

Date 7/24/20

One Call Ticket #: 200383847

Applicant Representative: Wilco Marsh Buggies and Great Lakes Dredging

Address

City, State, Zip

Phone 3374122142/ 3129338723

Email jwilsonwmb@gmail.com/ cameika@gldd.com

Crossing/Exc	avation Location	Crossing/Excavation Description
State/County Section/Township/Range Lat/Long	LA/ Lafourche 8/ 23S/ 23E X: -90.154805591, Y: 29.128310886 and X: - 90.147776048 Y: 29.132824332	Wilco Marsh Biuggies currently under contract to Great Lakes Dredging, intends to cross an amphibious style excavator over CPP's LAL0501 at two locations approved by Chevron Pipeline and Power. At the western most crossing, the amphibious excavator will be floating and will be pushed across the line via outboard or airboat. At the Eastern most crossing, the applicant is responsible for constructing an air bridge to cross the amphibious excavator and then remove the air bridge once the crossings are complete.
Route Code/Mile Post	LAL0501/ 2.9 and 3.6	

Applicant hereby acknowledges that it has reviewed the requirements set forth on the reverse and agrees to the following said requirements accordingly, specifically item(s): 1A, 3, 4, 5

- 1. It is understood that Applicant will construct the Line Crossing/Excavation at no expense to Chevron Pipeline Company (CPL), or its affiliates.
- 2. Applicant is cautioned that the area around the pipeline may be impacted by petroleum hydrocarbons, which may affect excavation and
- disposal techniques, increase costs, require appropriate construction materials, and cause crossing delay.
- 3. This Acknowledgement does not change or modify any provision of CPL's right-of-way contracts or easements.
- 4. Concerning One-Calls, CHEVRON PIPE LINE COMPANY is a sole operator separate from CHEVRON USA.
- 5. Applicant agrees to supply plans and drawings to CPL, if requested.
- So that CPL may schedule its personnel and not delay your work please notify CPL 48 hours (excluding weekends and holidays) before work commences on or near its right-of-way.
- 7. Your local CPL representative is: _Jace Serigy_____ Cell Phone: _985-258-7618__

Site Drawing: This section will be for Special Provisions, not a site drawing

1) All crossing locations shall be approved in writing by Chevron. If a crossing location would need to be changed, written

notice shall be made at a minimum of 72 hours in advance of date of crossing (this notice should be made during normal

working hours (9am through 5pm, Monday through Friday excluding holidays).

2) Written notification shall be made at a minimum of 48 hours prior to crossing the Chevron's pipeline at the four approved

locations as depicted on the attached map. Notifications shall be made to Jace Serigny at jserigny@chevron.com. 3) No crossings shall occur without a Chevron representative on site to witness the crossing.

4) No excavation work shall take place within Chevron's 100' wide right of way, being 50' on either side of the pipeline.

5) All pipeline markers shall remain in place. In the event that any pipeline marker is damaged or moved, Chevron's representative shall be notified immediately, and applicant(s) will be required to replace the markers under the direct supervision of the Chevron representative.

6) Applicant(s) shall provide a before and after completion topographical survey showing the pipeline depth of cover.

7) During dike construction, any changes made to the design of the dike shall require written approval from Chevron.

Applicant(s) hereby agree to notify Chevron in writing with a detailed scope of work depicting any changes at least 5 working

days (9am-5pm Monday through Friday excluding holidays) prior to executing any changes to the design previously approved

by Chevron. Notifications consisting of a phone call and follow up email shall be made to Jace Serigny at (985) 258-7618

iseigny@chevron.com.

(8) There shall be no installations of pressure plates within Chevron's 100' right of way without Chevron's prior written approval

- Special Provisions: Before Western most crossing occurs, water depth is to be sounded at on either side perpendicular to crossing to ensure adequate depth of water, and crossings should only take place during daylight hours. At the Eastern most crossing, an air bridge shall be constructed by utilizing timber mats. Minimum requirements for the air bridge are:
- Matts should be placed on both side of pipe at least 10-ft or grater from centerline of pipeline.
- The layers of mats (height-stacked) will depend on soil compression. Therefore, matts should be • continued to be placed vertically until mats stops to subside with weight of anticipated loads. (basically, keep adding mats until they stop sinking).
- Then add span layer of matts across that will support weight of marsh excavator.

I acknowledge that I have received and reviewed with a CPL representative the specifications and requirements detailed in this document. Applicant Chevron Pipe Line Company Representative

Mitchell Quakkelaar

Ry kqbz, Jace Serigny Digitally signed by kqbz, Jace Serigny Date: 2020.07.28 06:20:32 -05'00'

Line Crossing/Excavation Specifications

1. BURIED LINE CROSSINGS

A. GENERAL REQUIREMENTS

- An Authorized CPL representative must be on-site at CPL's discretion during to occur on a Chevron Right Of Way.
 Metallic pine proside and the right-of-way.
- All buried lines crossing the right-of-way must cross such that the angle measured between the proposed buried line and the right-of-way is not less than 45 degrees.
- All buried lines should cross under the pipeline(s). If infeasible because of underground structures, heavy rock, or extreme depth of CPL's pipeline(s), approval must be granted by the Field Team Leader or designee.
- All buried lines crossing the pipeline must maintain a recommended separation of 24 inches but not less than 12 inches between the two lines, with the same grade depth carried across the entire right-of-way.
- 5. Backfill at crossing must be selected material (without rocks). Bedding material must be compacted to 95% of standard proctor density by hand methods (vibratory plate or hand whacker) between the CPL's and the Applicant's pipeline. Bedding material above the pipelines must be compacted to 90% of standard proctor density when not under a road where a compaction to 95% of standard proctor density is needed.
- 6. Backfilling must meet requirements of DOT 49 CFR 195.252.
- 7. Existing lines not in compliance with these requirements must be brought into compliance when any work or repair is done on the line.
- Signs must be placed at each edge of the right-of-way to mark the underground line and its angle of crossing. These signs are to be furnished and installed by the Applicant.
- Any exceptions will be considered on an individual basis by the Field Team Leader or designee.
- A vinyl direct buried warning tape must be placed 24 to 36 inches above the buried line and extended across the entire width of the right-of-way. The warning tape may be provided by CPL should the encroaching party not have access to such tape.

B. COMMUNICATION LINES (PHONE, TV, OTHER DATA LINES)

- Must be installed in accordance with guidelines of the National Electrical Safety Codes.
- Must be encased in a rigid nonmetallic conduit cross the full width of the right-of-way
- 3. Additional requirements for fiber optic installation To prevent severing of the fiber optic lines during pipeline maintenance or construction, a burial depth of no less than 24 inches below CPL's pipelines or the placing of a 4inch slab of concrete above and below the fiber optic across the entire with of the right-of-way is required. Discretion is given to Company field personnel for any additional requirements or variances.

C. POWER LINES

- Must be installed in accordance with guidelines of the National Electrical Safety Code (public utility power and light companies) or the National Electrical Code (private power and light companies).
- Must be encased in rigid nonmetallic conduit, and where voltage exceeds 600 volts must have 6 inches of red concrete over the top of the conduit for the full width of the right-of-way.
- Must have minimum ground cover as follows: 24 inches for 0 to 600 volts; 30 inches for 601 to 22,000 volts; 36 inches for 22,001 to 40,000 volts and 42 inches for 40,000 volts and above.
- If the power cable has a concentric neutral, a test point from the ground wire must be installed by the power company.

D. SEWER AND WATER LINES

- 1. Non-metallic pipes should be used.
- Consult with engineering and Field Cathodic Protection (CP) Specialist when reinforced concrete storm drainpipe will be installed
- Sewer line crossings are limited to tight lines only. Distribution lines for drain fields, perforated, or non-gasketed lines are not permitted within the right-of-way.

E. SUBSURFACE (PLASTIC) DRAIN TILE

These lines must have the express purpose of removing subsurface water and may not be used to infuse any type of water or product into the soil.

F. METALLIC PIPE CROSSINGS

- A company Facility Inspector must evaluate all foreign metallic pipe crossings. The evaluation must include installation drawing review and field inspection.
- 2. If the crossing pipeline is a directional drill, or the distance between the two pipelines is greater than 10 feet, no action is necessary. Explanation- Directional drill pipe has at least 15 mils of FBE, plus 25 mils of additional coating, such as powercrete, eliminating the possibility of interference, also, soil resistance is great enough at 10 feet to reduce interference.
 - 3. If the distance between pipelines is less than 5 feet, and a rectifier of either

party is visible within line of sight, the Facility Inspector shall notify the CP technician of the crossing, distance between lines, and coating condition of CPL line. Explanation- The concern when a crossing is near a deep well ground bed, is the added induced interference.

Note: A Chevron Pipe Line Company representative must be present when any work is to occur on a Chevron Right Of Way.

- Metallic pipe crossings must have an electrical insulation coating for the full width of the right-of-way and extend at least 200 feet on either side of CPL's pipeline.
- 2. The pipeline coating and method of application is subject to CPL's approval.

ABOVE GROUND LINE CROSSINGS

2.

3.

- 1. Must meet the requirements of DOT 49 CFR 195.254.
- 2. For high voltage power transmission lines, every effort shall be made to cross the company pipeline at or as close to 90 degrees as possible.
- 3. Must maintain a minimum of 30 feet of clearance across the right-of-way.
- Must have no poles or appurtenances located on the right-of-way if the width of the right-of-way is less than 90 feet. Wider right-of-ways may have poles located clear of the pipelines as determined by CPL.
- Above ground crossings must not be above or closer than 25 feet horizontally to any gas escape vent (e.g., relief valve vent, station blowdown vent).

UNDERWATER LINE CROSSINGS

- All underwater lines must cross the right-or-way such that the angle measured between the proposed buried line and the right-of-way is not less than 45 degrees.
- All lines should cross over CPL's existing pipelines if practical, as it is the customary practice in the Gulf of Mexico.
- 3. Applicant must locate and mark the existing CPL pipeline using current industry practices prior to commencing pipeline construction in the vicinity of CPL's pipeline. Applicant agrees to mark the location of the pipeline by buoys or by electronic location methods as approved by CPL's representative during all construction activity in the vicinity of CPL's pipeline.
- Applicant must place at CPL's disposal any diving inspectors Applicant may have retained for free and unobstructed use by CPL at this crossing. The divers will inspect the coating of CPL's line and evaluate the integrity of the line.
- Applicant must place sacks filled with sand and cement or install articulated concrete mats to provide and maintain a minimum separation of 18 inches between the outer edges of the two (2) lines. The elevation of CPL's pipeline must not be adjusted.
- Applicant must be responsible for any coating repair, pipe replacement, or product loss caused by any action by Applicant, its agents or employees during the construction, operation, or maintenance of the proposed pipeline.
- Applicant's pipeline must comply with the minimum cover requirements as set out in DOT 49 CFR 195.248 for the transportation of hazardous liquids by pipeline and DOT 49 CFR 192.327 for the transportation of natural and other gas by pipeline.
- Applicant must abide by all requirements set forth by the relevant pipeline crossing agreement.

EQUIPMENT

4.

5.

Normal loads acceptable to the State Highway Department may cross the pipeline where a minimum of 5.5 feet of cover is provided. Heavy equipment such as construction logging, etc., must cross pipeline only at approved crossing locations where the cover has been checked and determined adequate to meet bearing load requirements.

EXCAVATION

- 1. All excavation work within 2 feet of the pipeline must be approached with due caution regarding the safety and integrity of CPL's pipelines and related facilities. The soil surrounding the pipeline must be loosened with hand tools before it is removed by mechanical equipment as specified by the damage prevention laws of the State. Any heavy equipment used for excavation must be positioned so that no damage occurs to the pipeline.
- Bend areas and other changes in direction must be marked to clearly delineate the CPL's pipe location. Set markers on straight pipeline sections at appropriate intervals not to exceed 100 feet (closer in areas of heavy congestion)
- Facility marking should extend a reasonable distance beyond the bounds of the requested area.
- Company pipelines in the close proximity must be individually marked and identified.
- 5. For CPL originated excavations please refer to CPL Excavation Procedure HES-202
- Any plowing or ripping of soil on the right-of-way, including agriculture, at depths greater than 1 foot will be handled on an individual basis.

PIPELINE COVER

Any change in the amount of existing material (soil) on and over the right-ofway must be approved in advance.

6.



WILCMAR-01

CERTIFICATE OF LIABILITY INSURANCE

_	<u> </u>		FICATE OF LI					7	7/21/2020			
	THIS CERTIFICATE IS ISSUED AS A CERTIFICATE DOES NOT AFFIRMATI BELOW. THIS CERTIFICATE OF INS REPRESENTATIVE OR PRODUCER, AN	URANCI ID THE C	E DOES NOT CONSTIT CERTIFICATE HOLDER.	UTE A CON	TRACI	TER THE C	OVERAGE AFFORDED THE ISSUING INSURE	ATE HO BY TI R(S), A	OLDER. THIS HE POLICIES AUTHORIZED			
	IMPORTANT: If the certificate holder If SUBROGATION IS WAIVED, subject this certificate does not confer rights to	I TO THE	terms and conditions of	of the policy, such endorse	aartain	maliate -	NAL INSURED provisio y require an endorseme	nsorl nt.A:	be endorsed. statement on			
	RODUCER License # 231432			CONTACT NAME:								
35 [.] Su	Ib International Gulf South 10 N. Causeway Boulevard lite 300			PHONE (A/C, No, Ext): E-MAIL ADDRESS:	(800)	256-2842	FAX (A/C, No)	(504)	834-2995			
we	etairie, LA 70002				IN	SURER(S) AFFO	RDING COVERAGE		NAIC #			
				INSURER A : C			ecialty Insurance Com	pany	44520			
INS	SURED						Ity Insurance Compa		37745			
	Wilco Marsh Buggies & Drg Attn: John Wilson, Sr			INSURER C : Louisiana Workers Comp Corp (Preferred)				22350				
P.O. Box 710		INSURER D : L	loyd's	s of London		C	15792					
Marrero, LA 70073			INSURER E :									
				INSURER F :								
			ENUMBER:				REVISION NUMBER:					
C	THIS IS TO CERTIFY THAT THE POLICIES INDICATED. NOTWITHSTANDING ANY RE CERTIFICATE MAY BE ISSUED OR MAY F EXCLUSIONS AND CONDITIONS OF SUCH P	PERTAIN,	THE INSURANCE AFFOR	DN OF ANY C RDED BY THE E BEEN REDUC	POLIC CED BY	CT OR OTHER IES DESCRIB PAID CLAIMS	R DOCUMENT WITH RESP	FOT TO	NUMBER OF THE			
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^	CLAIMS-MADE X OCCUR		EPK131149	- 10.4			EACH OCCURRENCE	s	1,000,000			
			EFK131149	5/29	/2020	5/29/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	S	250,000			
							MED EXP (Any one person)	\$	25,000			
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	\$	1,000,000			
	POLICY PRO- DOLICY JECT LOC						GENERAL AGGREGATE	S	2,000,000			
	OTHER:						PRODUCTS - COMP/OP AGG	\$	2,000,000			
в	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	s s	1,000,000			
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C	AND EMPLOYERS' LIABILITY		85983				X PER OTH- STATUTE ER					
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	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below									E.L. DISEASE - EA EMPLOYEE	s	1,000,000
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5			1110403803	5129	/2020	5/29/2021	AOP/AOA		1,000,000			
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See	SCRIPTION OF OPERATIONS / LOCATIONS / VEHICLE attached for additional policy information BA-171 Back Carrier Marsh Creation Proj	1.	101, Additional Remarks Schedu	ule, may be attach	ed if mor	e space is require	ed)		-			
E	RTIFICATE HOLDER			CANCELLA	TION							
				SHOULDA				NOCU	ED DECODE			

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

c to lal

LOOP, LLC 137 Northpark Blvd Covington, LA 70433

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ACORD	į

AGENCY CUSTOMER ID: WILCMAR-01

LOC #: 1

DMOORE

ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

	57 9035 94-Y483604854	
AGENCY Lice Hub International Gulf South	ense # 23143	2 NAMED INSURED Wilco Marsh Buggies & Drg Attn:_John Wilson, Sr
POLICY NUMBER		P.O. Box 710 Marrero, LA 70073
SEE PAGE 1		Marielo, Ex 70075
CARRIER	NAIC CODE	
SEE PAGE 1	SEE P 1	EFFECTIVE DATE: SEE PAGE 1
ADDITIONAL REMARKS		
THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO AC	ORD FORM,	
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liabi	ility Insurance	
Additional Information: GENERAL LIABILITY:		
Contractors Pollution Liability Coverage includes sud Professional Liability Coverage - \$1,000,000 per claim Blanket additional insured where required by written of Blanket waiver of subrogation where required by writt Gulf of Mexico extension Blanket Primary and Non-contributory Endorsement w Blanket contractual Liability Blanket per project aggregate endorsement No exclusion for X,C & U Separation of Insureds as defined in GL form EN0021 30 days notice of cancellation except 10 days for non	contract en contract vhere requir	
COMMERCIAL AUTO: Blanket waiver of subrogation where required by writt Blanket additional insured where required by written of 30 days notice of cancellation) except 10 days for nor Primary and non-contributory where required by writte	contract n-payment	
WORKERS COMPENSATION/EMPLOYERS LIABILITY:		
USL&H Endorsement OCS Endorsement Gulf of Mexico extension Blanket waiver of subrogation where required by writt Blanket alternate employer where required by written 30 days notice of cancellation except 10 days for non-	contract	
UMBRELLA:		
Excess Liability follows form of primary General Liabi Workers Comp/Employers Liability insurance 30 days notice of cancellation as per form EN0028 exc Following form of primary with regards to blanket add	cept 10 day	tors Pollution Liability/Professional Liability, Auto Liability and s for non-payment red and waiver of subrogation

From:	llemoine@wilcomarshbuggies.com
То:	Quakkelaar, Mitchell A; Daisey, William
Subject:	[EXTERNAL:]FW: Wilco Acknowledgement of LOOP/CPRA Pre-Project Agreement
Date:	Tuesday, July 28, 2020 5:05:45 PM
Attachments:	<u>image001.png</u> <u>image002.png</u> MAP Caminada ProposedTrackingRoute Chevron Loop REV2.pdf

Mitch,

Loop did not respond to my email below.

I did want to mention here that I coordinated the route revision with Loop's help. Loop stated that their depth of cover survey which they went off of to approve the crossing was actually performed closer to the new crossing location. Thus, they verbally approved the new route. The attached is the route that I added the orange line to since I didn't have the native file to update. Loop said that this version is fine. They only wanted to make sure that the route is staked off, which was completed.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell <u>llemoine@wilcomarshbuggies.com</u> wilcomarshbuggies.com



From: llemoine@wilcomarshbuggies.com <llemoine@wilcomarshbuggies.com> Sent: Friday, July 24, 2020 3:27 PM

To: 'Busurelo, Kurt D.' <kdbusurelo@loopllc.com>

Cc: 'Ponder, James D. (Jim)' <jdponder@loopllc.com>; 'Roberson, Matthew W.'

<mroberson@loopllc.com>; 'Ryan, Sophia B.' <sbryan@loopllc.com>; 'Garrison, Mark C.'

<mcgarrison@loopllc.com>; 'Faucheux, Darren P.' <dpfaucheux@loopllc.com>; 'DeCuir, Joseph A.'

<jadecuir@loopllc.com>; 'LeNormand, Robert J.' <rjlenormand@loopllc.com>; 'John Wilson' <jwilsonwmb@gmail.com>

Subject: RE: Wilco Acknowledgement of LOOP/CPRA Pre-Project Agreement

All,

After submitting the previous crossing route to Sigma (project management firm) they expressed

some concerns with crossing outside of the project boundaries, which is the black line. We are proposing to move the crossing approximately 120' to the North and cross right on the inside of the project boundary line.

The attachment has been updated and the orange line represents the new proposed crossing location.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell Ilemoine@wilcomarshbuggies.com wilcomarshbuggies.com



From: llemoine@wilcomarshbuggies.com <llemoine@wilcomarshbuggies.com> Sent: Wednesday, July 22, 2020 1:56 PM To: 'Busurelo, Kurt D.' <<u>kdbusurelo@loopllc.com</u>> Cc: 'Ponder, James D. (Jim)' <<u>jdponder@loopllc.com</u>>; 'Roberson, Matthew W.' <<u>mroberson@loopllc.com</u>>; 'Ryan, Sophia B.' <<u>sbryan@loopllc.com</u>>; 'Garrison, Mark C.' <<u>mcgarrison@loopllc.com</u>>; 'Faucheux, Darren P.' <<u>dpfaucheux@loopllc.com</u>>; 'DeCuir, Joseph A.' <<u>jadecuir@loopllc.com</u>>; 'LeNormand, Robert J.' <<u>rjlenormand@loopllc.com</u>>; 'John Wilson' <<u>jwilsonwmb@gmail.com</u>>

Subject: RE: Wilco Acknowledgement of LOOP/CPRA Pre-Project Agreement

All,

Attached is a map showing our proposed route to crossing both Chevron and Loop's pipelines to access the East side of the project. We plan to cross your pipelines at the beach as suggested.

Please let me know if you have any questions.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell llemoine@wilcomarshbuggies.com wilcomarshbuggies.com



From: Busurelo, Kurt D. <kdbusurelo@loopllc.com>
Sent: Monday, July 20, 2020 1:13 PM
To: llemoine@wilcomarshbuggies.com
Cc: Ponder, James D. (Jim) <jdponder@loopllc.com>; Roberson, Matthew W.
<mroberson@loopllc.com>; Ryan, Sophia B. <sbryan@loopllc.com>; Garrison, Mark C.
<mcgarrison@loopllc.com>; Faucheux, Darren P. <dpfaucheux@loopllc.com>; DeCuir, Joseph A.
<jadecuir@loopllc.com>; LeNormand, Robert J. <rjlenormand@loopllc.com>
Subject: RE: Wilco Acknowledgement of LOOP/CPRA Pre-Project Agreement

Good Afternoon Levi,

As per our discussion last week, please see LOOP's updated Acknowledgment and Agreement with the conditions discussed in the 7/9 meeting between LOOP and Wilco.

Thanks,

Kurt Busurelo Supervisor Regulatory Affairs Louisiana Offshore Oil Port 985-276-6263 (office) 985-246-0784 (cell)



From: Busurelo, Kurt D.
Sent: Wednesday, July 1, 2020 8:35 AM
To: 'llemoine@wilcomarshbuggies.com' <<u>llemoine@wilcomarshbuggies.com</u>>
Cc: Ponder, James D. (Jim) <<u>idponder@loopllc.com</u>>; Roberson, Matthew W.
<<u>mroberson@loopllc.com</u>>; Ryan, Sophia B. <<u>sbryan@loopllc.com</u>>; Garrison, Mark C.

<mcgarrison@loopllc.com>

Subject: Wilco Acknowledgement of LOOP/CPRA Pre-Project Agreement

Good Morning Mr. Lemoine,

As you know, Wilco's contracted work with CPRA on the BA-171 Back Carrier Marsh Creation Project feet of the LOOP Right-of-Way was extended to 100 feet on either side in the email correspondence which resulted in some agreed upon conditions. Please see the conditions outlined in the attached Exhibits 1 and 2. Also, please note that the original condition in Exhibit 1 of no excavation within 50 contained in Exhibit 2. Finally, please see the attached acknowledgement and agreement drafted around damage prevention and the scheduled work in the proximity of our pipeline Right-of-Way, by our legal team for Wilco to review and sign. Please let me know if you are the right person to includes working near the LOOP LLC Right-of-Way. LOOP has had prior conversations revolving sign the acknowledgement, or if I need to forward this agreement to someone else. If you are, please sign along with two witnesses at your soonest convenience, and email the signed acknowledgement back to this email chain. Thank you in advance for your cooperation.

Much Appreciated,

Kurt Busurelo

Supervisor Regulatory Affairs Louisiana Offshore Oil Port 985-276-6263 (office) 985-246-0784 (cell)



DATE: August 5, 2020

RFI Number: 17

Summary of RFI by Contractor

Please see the attached email chain between Robert Manthei from XTO and Levi Lemoine from Wilco. According to XTO's records, the pipeline that Wilco needs to cross has been abandoned and flushed as well as capped. Robert also mentioned to Levi that there is no danger or concern to XTO about how close Wilco excavates to this pipeline. Due to this, we would like to propose the buffer be reduced from 50' to 25' for excavation near this particular pipeline. Please advise on the width of the buffer zone.

Signature: Date: 8/5/2020	Signature:	Date:	8/5/2020

Response to RFI by Engineer

It appears that the contractor performed the necessary coordination efforts with the pipeline company. No exception is taken to the reduced buffer of 25'.

Signature:	Date: 8/5/2020

From:	llemoine@wilcomarshbuggies.com
To:	<u> Ouakkelaar, Mitchell A; Vianzon, Manny</u>
Cc:	Ameika, Chris; jwilsonwmb@gmail.com
Subject:	[EXTERNAL:]FW: Survey work near pipeline near Port Fourchon
Date:	Tuesday, August 4, 2020 5:18:31 PM
Attachments:	image001.png

All,

We just received the email below from XTO. I also had a conversation with Bob over the phone and he mentioned that there is no danger or concern to them as far as how close we excavate to the pipeline. We would like to request to change the excavation buffer from 50' to 25' since this is a dead/flushed line.

He also said that he has no concerns or procedures for crossing the line and that we can cross in any location, as it is dead/flushed.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell Ilemoine@wilcomarshbuggies.com wilcomarshbuggies.com



From: Manthei, Robert <Robert_Manthei@xtoenergy.com>
Sent: Tuesday, August 4, 2020 3:35 PM
To: llemoine@wilcomarshbuggies.com
Cc: Johns, Daniel3 <Daniel3_Johns@xtoenergy.com>; jwilsonwmb@gmail.com
Subject: RE: Survey work near pipeline near Port Fourchon

Levi,

According to our records the line has been abandoned in place, flushed with inhibited sea water, and capped with a plumber's plug. Please let me know if you have any more questions, or need additional information.

Thanks,

Robert (Bob) Manthei Public & Government Affairs Manager Eastern and Central Business Units

XTO ENERGY INC., an ExxonMobil subsidiary | 110 West 7th St | Fort Worth, TX 76102 off: 817.885.3402 | cell: 817.739.5417 | robert_manthei@xtoenergy.com

From: llemoine@wilcomarshbuggies.com [mailto:llemoine@wilcomarshbuggies.com]
Sent: Monday, August 03, 2020 6:10 PM
To: Manthei, Robert <<u>Robert_Manthei@xtoenergy.com</u>>
Cc: Johns, Daniel3 <<u>Daniel3_Johns@xtoenergy.com</u>>; jwilsonwmb@gmail.com
Subject: RE: Survey work near pipeline near Port Fourchon

External Email - Think Before You Click

Bob,

The coordinates are below. LAT: 29° 8'30.52"N LONG: 90° 8'7.76"W

I have also attached the KMZ file for our project. This should give you an idea of what the layout looks like. XTO's pipeline is the red line located at Station 228+50.

I would like to speak with someone on the phone if possible so we can get the details lined out. I can be reached on my cell phone below at any time.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell <u>llemoine@wilcomarshbuggies.com</u> <u>wilcomarshbuggies.com</u>



From: Manthei, Robert <<u>Robert_Manthei@xtoenergy.com</u>>
Sent: Monday, August 3, 2020 5:22 PM
To: llemoine@wilcomarshbuggies.com
Cc: Johns, Daniel3 <<u>Daniel3_Johns@xtoenergy.com</u>>
Subject: FW: Survey work near pipeline near Port Fourchon

Levi,

Do you have coordinates of where you propose to cross our line?

Thanks,

Robert (Bob) Manthei

From: llemoine@wilcomarshbuggies.com [mailto:llemoine@wilcomarshbuggies.com]
Sent: Monday, August 3, 2020 3:10 PM
To: Dufour, David <<u>David_Dufour@xtoenergy.com</u>>
Cc: jwilsonwmb@gmail.com
Subject: RE: Survey work near pipeline near Port Fourchon

External Email - Think Before You Click

David,

Wilco Marsh Buggies is currently excavating and building levees on the Caminada Headlands Marsh Creation project in Port Fourchon. According to our plans, XTO has a pipeline that crosses our excavation. We are only about 2-3 days from approaching the XTO pipeline right of way. We are requesting information on this pipeline as well as crossing procedures and procedures for excavating near this pipeline.

I have attempted to reach you by phone with no luck. If you could please give me a call as soon as possible at the number listed below, I would appreciate it.

Thank you,

Levi Lemoine

Project Manager/Estimator Wilco Marsh Buggies & Draglines, Inc. (225) 999-8318 cell <u>llemoine@wilcomarshbuggies.com</u> wilcomarshbuggies.com



From: CAmeika@gldd.com <CAmeika@gldd.com> Sent: Friday, July 10, 2020 2:52 PM To: David_Dufour@xtoenergy.com Cc: wdaisey@gldd.com; MAQuakkelaar@gldd.com; MVianzon@gldd.com; jwilsonwmb@gmail.com; Ilemoine@wilcomarshbuggies.com Subject: RE: Survey work near pipeline near Port Fourchon

HI David,

Last week GLDDs subcontractor, Wilco Marsh Buggies, commenced its excavation activities on the western section of the marsh fill area, approximately west 2 of the XTO pipeline. Excavation is proceeding in an eastern direction and within 2-3 weeks activity will likely occur in the vicinity of XTO pipeline.

If you have any questions, or wish to further discuss, we kindly ask that you contact GLDD's Project Manager, Mr. Manny Vianzon, at (630) 209-6848.

Best Regards,

Chris



CHRIS AMEIKA

Project Sponsor Great Lakes Dredge & Dock Company, LLC Two Riverway | Suite 1130 | Houston, TX 77056 | United States +1 (346) 271-7707 | office +1 (312) 933-8723 | mobile cameika@gldd.com website | linkedin | vCard | map

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Sent: Friday, July 10, 2020 10:28 AM
To: Ameika, Chris <<u>CAmeika@gldd.com</u>>
Cc: Daisey, William <<u>wdaisey@gldd.com</u>>; Quakkelaar, Mitchell A <<u>MAQuakkelaar@gldd.com</u>>
Subject: [EXTERNAL:] RE: Survey work near pipeline near Port Fourchon

Chris,

Can you give me an update on the Caminada Headlands Project. Thanks.

Regards,

David

David V. Dufour | Land Representative | Gulf Coast / S. Texas Region XTO Energy Inc. | a subsidiary of EXXONMOBIL 22777 Springwoods Village Pkwy.| EMHC W4.3B.381|Spring, Texas 77389-1425 Direct: 832-624-8642 | Fax: 832-625-1977 | Mobile: 817-269-5306 Email: david_dufour@xtoenergy.com

From: CAmeika@gldd.com [mailto:CAmeika@gldd.com]
Sent: Friday, May 22, 2020 1:05 PM
To: Dufour, David <David_Dufour@xtoenergy.com>
Cc: wdaisey@gldd.com; MAQuakkelaar@gldd.com
Subject: Survey work near pipeline near Port Fourchon

External Email - Think Before You Click

Greetings David,

I work for Great Lakes Dredge and Dock Company and we have been contracted by CPRA to perform a marsh creation project at the Caminada Headlands near Port Fourchon, LA.

This work will include dredging from an offshore borrow source and filling in a ~950 acre area. Prior to dredging activities GLDDs subcontractor, Wilco, will excavate within the marsh areas to creation containment dikes for our dredge fill. We do not expect excavation to occur for several more weeks.

I do want to notify you that we will have our surveyor HydroTerra LLC, will commence with its surveys on 26th May. Please considering this as a notification that we will performing survey activities within the vicinity of your pipeline.

I believe GLDDs Bill Daisey called you yesterday and brought this to your attention and you were going to notify the appropriate individual within your organization. If you could kindly forward this email to that person and ask that they contact me if he or she has any questions.

Best Regards,

Chris



CHRIS AMEIKA

Project Sponsor

Great Lakes Dredge & Dock Company, LLC

2122 York Road | Suite 200 | Oak Brook, IL 60523 | USA

- +1 (630) 574-3486 | office
- +1 (312) 933-8723 | mobile

<u>cameika@gldd.com</u>

website | linkedin | vCard | map

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DATE: August 7, 2020 RFI Number: <u>18 Rev2</u>

Summary of RFI by Contractor

8/5/2020: The original plan at the "No Work Zone" located in Increment 3 was to install Sand Fence around the area to ensure that nothing would interfere with this area. We would like to propose using orange safety fence instead of the sand fence, which would still keep people out of the no work zone. Please advise if this is an acceptable change. In addition, when we install these fences would it be acceptable if we use a machine to help with install.

8/7/2020: Wilco plans on installing sand fence rather than the orange safety fence. The fence contractor is scheduled to begin installing this fence on Monday, 8/10, and it should take about a week to complete. Heavy machinery will need to be used to bring the sand fence out to the "No Work Zone" but will remain outside of the perimeter at all times and will not interfere with the no work zone. Please advise if this is acceptable.

In addition, Wilco would like to start work as soon as we receive the approved Pre-Con Increment 3 survey from Sigma, which should be soon. We would like to start work on the far west side of Increment 3 while the sand fence is being installed. It is understood that we must remain a safe distance from the No Work Zone until the fencing is complete so we would like to propose that we should be able to work up to STA 295+00. This would give Wilco a 1,000' foot buffer from the start of the no work zone at STA 305+00. Please advise if this is acceptable.

8/10/20: Per our phone discussion on the morning of 8/10/20, Wilco is planning to use a Marsh Master, a slide barge and a flat boat for the oil boom. This equipment will reduce impacts to the No Work Zone while bringing materials and installing the sand fence. During the installation, the crew is planning to utilize one track route with the Marsh Master and bring the materials to the install locations around the No Work Zone. Installation of the sand fence will begin on 8/11 and is estimated to take 2-3 days. Once we receive the approved Pre-Con Increment 3 Survey, Wilco will begin building ECD on the western part of Increment 3. A reevaluation of progress of the Sand Fence installation and approval by Sigma/CPRA will be done prior to working past STA 255+00. Please advise if this is acceptable.

Signature:

Response to RFI by Engineer

8/6/2020: We would consider using orange fencing, however, please provide the cost savings amount to CPRA for this proposed change. Using heavy machinery would defeat the purpose of the no work zone. It would seem that using the orange fencing would not require heavy machinery.

Date:

8/8/2020: Once Pre-Con Survey of Increment 3 is accepted, ECD construction can start on the west end of Increment 3, however, a 5,000 ft buffer around the No Work Zone must be maintained until the No Work Zone fencing and boom are installed. This buffer starts at 255+00 through 370+00. The intent of the sand fencing or orange fence was to keep heavy machinery out and not disturb adjacent vegetation. We understand that the fencing is heavy and may require equipment transportation to the area; however, current permitting and land rights will not allow excavators to track here. Consider ways to minimize these effects and advise on planned equipment and impacts.

8/10/2020: Based on our meeting this morning and the clarification provided above it appears that your path will minimize impacts to the surrounding vegetation. Proceed with the installation of the No-Work Zone fencing and boom.

Signature:

Date: 8/10/2020

8/10/2020

DATE: August 16, 2020

RFI Number: 19

Summary of RFI by Contractor

From STA 166+36 to STA 174+00 and STA 176+00 to 185+00, which is located by the Loop Pipeline, there is an existing canal at the outside toe of the ECD. Due to this existing canal, the base of the ECD is wider at these locations and is preventing Wilco from getting material to grade at the outside crown as well as preventing them to establish the proper slope at the toe.

Because of this we would like to propose using borrow material from outside of the ECD at these locations. This will also help Wilco provide the additional material that will be needed to construct the ECD across the Loop Pipeline.

Please advise if this is acceptable.

Signature:	Date:	8/16/2020

Response to RFI by Engineer

As long as all pipeline restrictions are maintained we take no objection to this request.

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DATE: September 4th, 2020

RFI Number: 20

Summary of RFI by Contractor		
We have identified two areas of concern with current ECI 4. Our concern in INC 3 is the proximity of the borrow are in the area of STA 308+00 to STA 323+00. In this area we away from Chevron due to the No Work Zone. We would resulting in a 25' offset from the current centerline alignr	ea to the rig are limited like to requ	ght of way for the adjacent Chevron pipeline as to how far we can shift the alignment
In INC 4 the current alignment WILL encroach the Chevro the map and bridges bend between STA359+00 to STA 35 ECD alignment away from the Chevron line which will res overall project. Attached is a map showing the proposed alignment modi	5+00. There olve this iss	e is sufficient space in this area to shift the ue without any significant impact to the
Signature:	Date:	9/04/2020

Response to RFI by Engineer

The proposed increment 3 alignment shift moves the dike 25 feet closer to the No-Work Zone, however, it appears that you still have sufficient clearance here and should not impact the No-Work Zone. Ensure that equipment and personnel stay out of this Zone and approved equipment access corridors are used. This alignment shift is acceptable.

We take no exception to the proposed increment 4 alignment shift.

Regarding both of these shifts, ensure that all plan and specifications requirements are followed. Also, proper coordination with the pipeline companies must be continued.

Note that GLDD advised that Item nun Item number two was further refined a	ber one above was built per this RFI.	
Signature:	Date: 9/4/2020	
CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) PROPOSED ALIGNMENT MODIFICATIONS (09/04/2020)



DATE: September 15th, 2020

RFI Number: 21

Summary of RFI by Contractor

After reviewing the last RFI 020 for Increment 4, Wilco is proposing to remove Points of Inflection (P.I.) close to the Chevron pipeline and straight-line the ECD from the existing P.I. at STA 349+10 to the existing P.I. at STA 355+41. From a constructability standpoint this will result in fewer unnecessary P.I.'s in the ECD and will result in faster construction time in this area.

Attached is an Increment 4 specific map showing the proposed change.

9/15/20: Wilco performed additional surveys in the area that we proposed the change to the dike alignment. According to their data the elevation goes to -1' to -2'. Because of this, Wilco does not see any issue with deep water while constructing the dike if the proposed dike realignment is approved.

Signature:	Date:	09/15/2020	

Response to RFI by Engineer

9/10: Per our phone conversation earlier today, advise on and provide the additional survey or other methods used/information gathered to ensure that this alignment change can be constructed as proposed with the standard dike section.

9/17: Based on the contractor's description of the additional surveying performed in this area we take no exception to the revised alignment change proposed above. Note that this does not nullify any of the contractor's responsibilities from following and abiding by the plans and specs.

Cignoturor
Signature:

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) INCREMENT 4 PROPOSED ALIGNMENT MODIFICATION (REV. 09/05/2020)



DATE: September 10, 2020

RFI Number: 22

Summary of RFI by Contractor

Wilco was granted permission to dig outside of the ECD from STA 71+00 – 91+00 in RFI 010 due to the area having deeper water. GLDD and Wilco would like to request permission to extend that area to include STA 44+00 – 71+00 and STA 91+00 – 96+00 as well for the same reasons. In total, Wilco would be digging outside of the ECD from STA 44+00 – 96+00 due to deep water in this area. Wilco will continue to keep the 25' minimum distance from the toe as well as keeping the minimum clearance requirements from the pipeline. This digging method will be used to repair lift 1 dike reconstruction from storm damage as well as for the construction of lift 2.

Signature:	Date:	9/10/2020

Response to RFI by Engineer

We take no exception to the contractor digging on the outside from STA 44+00 to 96+00 for the reasons mentioned above. Note that this does not nullify any of the contractor's responsibilities from following and abiding by the plans and specs. Also note that while this moves away from the Chevron pipeline, the Harvest pipelines are to the north and must be avoided and coordination efforts with Harvest must be continued.

C:		
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DATE: September 16, 2020

RFI Number: 23

Summary of RFI by Contractor

GLDD and Wilco would like to request building the ECD to Elevation 3.0' +- .5' in areas where existing ground is higher for the following reasons.

- 1. Material consistency is soft and we are allowing for settlement. (Surveys performed prior to settlement period)
- 2. More material above water to dry before second lift. This will help stabilize the second lift.
- 3. Much of existing ground is already near grade. The placement to 3.0' provides consistent elevation to work with for placement of the second lift.

The following area's is where we would like to propose this elevation change (19,242'):

- 1. STA 186+00 to 219+00 (3,300')
- 2. STA 229+00 to 339+00 (11,000')
- 3. STA 362+00 to 370+00 (800')
- 4. STA 374+00 to 389+00 (1,500')
- 5. STA 409+00 to 417+00 (800')
- 6. STA 426+00 to 444+42 (1,842')

Please advise if this is an acceptable change going forward.

Signature:

Date: 9/16/20

Response to RFI by Engineer

The request to overbuild the first lift to elevation 3.0 +- .5' will be permitted where the existing ground is at elevation 0.0 or higher. Based on my review of GLDD's preconstruction and more recent process surveys within the range requested above this change is acceptable within the following areas totaling 18,500':

- 1. Increment 2:
 - a. STA 186+00 to 219+00 (3,300')
- 2. Increment 3:
 - a. 238+00 to 242+00 (5,600')
 - b. 249+00 to 259+00 (1,000')
 - c. 263+00 to 288+00 (2,500')
 - d. 295+00 to 307+00 (1,200')
 - e. 312+00 to 317+00 (500')
 - f. 321+00 to 339+00 (1,800')
- 3. Increment 4:
 - a. 365+00 to 370+00 (500')
 - b. 376+00 to 382+00 (600')
 - c. 409+00 to 417+00 (800')
 - d. 429+00 to 436+00 (700')

Signature:

DATE: October 26, 2020

RFI Number: 24

Summary	of RFI by	Contractor
---------	-----------	------------

GLDD and Wilco would like to request digging on the outside of the ECD from STA 315+00 to 325+00. This section of ECD is in close proximity to the Chevron pipeline and Wilco wants to avoid having to dig deeper than needed by the Chevron Pipeline. Please advise if this is acceptable.

Signature:	Date:	10/26/20

Response to RFI by Engineer

As long as 25' minimum distance to the toe is maintained and minimum clearance requirements with the pipeline is maintained we do not object to borrowing from the outside here. This outside borrow must follow all lines, shapes and grades as shown in the plans for dike borrow typical section.

Signature:	Date: 10/26/2020

DATE: November 23, 2020

RFI Number: 25_REV1

Summa	Summary of RFI by Contractor			
11/12:	:			
1.				
11/23:	11/23:			
1.	. This track will stay within project boundaries as shown on the provided access route map.			
2.	Wilco will minimize environmental impacts as much as possible. Our plan is to track in the water in order to keep the machine's tracks cool to avoid breaking chains or other parts.			
3.	this route. As mentioned in my response to #2, we would like to track in the water anywhere possible, this could lead to some depressions in the marsh. Due to the route being straight (no turns) it should not result in excessive impacts or depressions.			
4.	The pipeline companies have been informed of this trac	racking route and are in agreement.		
Signatu	ture: Date	Date: 11/23/2020		

Response to RFI by Engineer

11/18: please address the following concerns:

- 1. Confirm that this route stays within the project limits.
- 2. Impacts to vegetation must be minimized. Does this path stay on bare sand and avoid the remaining vegetation? Please confirm.
- 3. The use of this route must not create a depression or permanent channel or otherwise destroy the beach/dune. Confirm that the route can be utilized without creating a depression or destroying the beach/dune.
- 4. Confirm that the pipeline companies have been provided proper notice of these proposed crossings and are in agreement with this proposed route.

11/24: We take no exception to this proposed route. Note that if CPRA reserves the right to have the contractor revert back to the previously agreed route if any vegetation is excessively harmed, dune damaged, or other concerns are noticed.

Signature:	Date: 11/24/2020
0	

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) PROPOSED ALTERNATE TRACKING ROUTE TO PROJECT END STATION

GENERAL PLAN VIEW After crossing the Chevron and Loop pipelines, along the approved alternate tracking route, this path would involve tracking east parallel to the beach within the marsh creation area. This proposed route would provide a direct path to the earthen containment dike area between STA 439+00 (at the Chevron R.O.W.) and the end of the project eliminating two crossings of the Chevron line, and provide more cover crossing the XTO lines than crossing along the MAP project designated access route. LOCATION PROJECT PROPOSED DESIGNATED ALTERNATE TRACKING TRACKING ROUTE ROUTE APPROVED ALTERNATE TRACKING ROUTE Image Source: Google Earth / Image Date 3/20/2019 Image Copyright: 2020 TerraMetrics / Data SIO, NOAA, U.S. Navy, NGA, GEBCO MAP LAYER LEGEND BORROW SIDE INDICATOR ECD CENTERLINE 1 inch = 4,000 feet PIPELINE (EXISTING) 4,000 8,000 0 12,000 TRACKING ROUTE (APPROVED) Feet TRACKING ROUTE (PROPOSED)

WMB 11/12/2020 (REV1) CS

DATE: November 12, 2020

RFI Number: 26

Summary of RFI by Contractor		
GLDD and Wilco request permission to excavate ECD material from borrow sources outside of the Marsh Creation		
Area and parallel to the ECD. The area's that GLDD and Wilco are requesting are below:		
STA 41+00 to 72+00		
STA 90+00 to 106+00		
STA 109+00 to 127+00		
STA 143+00 to 146+00		
STA 176+00 to 187+00		
STA 193+00 to 196+50		
STA 203+00 to 212+00		
STA 212+00 to 229+00		
STA 234+00 to 237+00		
STA 239+00 to 249+00		
STA 257+00 to 265+00		
STA 272+00 to 276+00		
STA 279+00 to 281+00		
STA 322+00 to 325+00		
STA 338+00 to 364+00		
STA 369+50 to 374+00		
STA 378+00 to 382+00		
STA 385+00 to 410+00		
STA 416+00 to 429+00		
STA 432+00 to 436+00		
STA 440+00 to 443+00		
Excavating material from outside of the MCA allows for easier access to suitable material whereas further removal of material from already excavated borrow sources runs the risk of over excavating beyond the design template potentially compromising dike stability. Additionally, a new borrow source reduces the risk of removing less suitable material that may filled into existing borrow areas as a result of Hurricane Zeta. Wilco will document in the Daily Reports and will survey all areas outside of the ECD used for borrow as part of the Lift 2 cross section data.		
Please confirm if this is acceptable.		
Signature: Date: 11/12/2020		

Response to RFI by Engineer

At the request of the contractor this RFI has been closed and replaced with RFI's 29 and 30.

Signature:

Date: 12/10/2020

DATE: November 24, 2020

RFI Number: 27_REV1

Summa	ary of RFI by Contractor
11/12:	
1.	1.Wilco has completed Lift 1 across Increment 1, 2, 3, and 4 with exception of the area between the Chevron pipeline and the end of the ECD in Increment 4 (STA 438+00 to 442+42). It is Wilco's assessment that sufficient base material was placed in these areas with at least a 14-day consolidation period. This provides a stable foundation for the Lift 1 and Lift 2 dike fill. As such, Wilco requests approval to construct the ECD with an existing base in one lift to the final design grade at EL. 5.0 for all portions of the ECD with a base built pre-Zeta. Wilco is currently performing a complete survey of the ECD construction in its entirety and will provide the dike base data and cross sections as soon as possible.
	Please confirm if Wilco has approval to build the ECD to the required second lift elevation if the base from the first lift is still present in the post storm cross sections that will be provided to CPRA/Sigma for final review.
11/24:	
-	The clarification showing lift one constructed throughout all increments is shown through the submittal of Post Zeta cross sections.
	To clarify: Wilco is asking for approval to build to the final elevation of 5.0' in sections of the dike that were already to the 1st lift elevation before Hurricane Zeta due to minimal recovery. We understand a review of

the remaining base will need to be done from post storm surveys.Signature:Date:11/24/2020

Response to RFI by Engineer

Areas that have been built to lift one and approved prior to Storm Zeta can now be built up to lift two elevation. This allowance due to storm damage does not relieve the contractor from other contractual obligations.

Signature:	Date: 12/7/2020

DATE: November 16, 2020

RFI Number: 28

Summary of RFI by Contractor

GLDD and Wilco would like to request approval to forgo the borrow area survey after the completion of Lift 1. We understand that the reason for this borrow area survey is to ensure that the stability berm is present after the completion of that station. To ensure that the 25' stability berm is still present between the ECD toe and the borrow area after Lift 1 completion, Wilco will provide survey data at the dike-side top-of-cut to document that the 25' minimum stability berm is still present.

Wilco plans to collect a full survey, including the borrow area, after the completion of Lift 2 which we will submit the data for final approval.

Please confirm if this is acceptable.

Signature:	Date:	11/13/2020

Response to RFI by Engineer

Si

CPRA finds the survey information in the borrow area useful as it provides information on dike stability, among other things. It will also provide info to both CPRA and GLDD regarding a rough quantity of material that may have been deposited in this trench from the storm.

It is not acceptable to forgo the borrow area survey. Proceed with providing complete surveys as required per the plans and specifications.

Date: 11/18/2020			
	nature:	Date:	11/18/2020

DATE: December 9, 2020

RFI Number: 29

Summary of RFI by Contractor

GLDD and Wilco is requesting permission to build ECDs using material from alternate borrow areas outside of the Marsh Creation Area. The proposed borrow areas span between STA 97+00 to 105+00 and between STA 110+00 to 120+00.

From information provided during the bi-weekly meeting held on 12/8, we understand that requests for additional permitting are not required west of STA 211+00 and that these areas can receive approval from Sigma/CPRA/Property Owners without additional permitting.

Please confirm if this is acceptable.

Signature:	Date:	12/9/20

Response to RFI by Engineer

As long as minimum clearance requirements with nearby pipelines are maintained we do not object to borrowing from the outside here. This outside borrow must follow all lines, shapes and grades as shown in the plans for dike borrow typical section.

Signature:	Date: 12/10/2020

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) RFI - OUTSIDE BORROW REQUEST - INCREMENT 1 - STA 97+00 - STA 105+00

GENERAL PLAN VIEW MAP VIEW ARROWHERD (HARVEST PIPELINES $\overline{\mathbf{N}}$ CHEVRON PIPE 1 inch = 200 feet MAP LEGEND APPROVED ALT. BORROW PROPOSED ALT. BORROW BORROW AREA INTERNAL TRAINING DIKE DEWATER / MARSH NOURISHMENT AREA MARSH CREATION AREA DREDGE PIPELINE CORRIDOR PIPELINE (EXISTING) EARTHEN CONTAINMENT DIKE EQUIPMENT ACCESS ROUTE PRIORITY EARTHEN CONTAINMENT DIKE Image Source: Google Earth / Image Date 3/20/2019 Image Copyright: 2020 TerraMetrics / Data SIO, NOAA, U.S. Navy, NGA, GEBCO

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) RFI - OUTSIDE BORROW REQUEST - INCREMENT 1 - STA 110+00 - STA 120+00



DATE: December 9, 2020

RFI Number: 30

Summary of RFI by Contractor

GLDD and Wilco is requesting permission to build ECD's using material from alternate borrow areas outside of the Marsh Creation Area. The proposed borrow areas span between STA 215+00 to 229+00 and between STA 349+00 to 362+00.

From information provided during the bi-weekly meeting held on 12/8, we understand that an additional permit process is required to attain permission for alternate borrow sources for the ECD east of STA 211+00. Because of this, we would like to retract out initial requests in RFI 26 and replace it with this RFI in hopes of expediting the approval process.

Please confirm if this is acceptable.

Signature:

Date: 12/9/20

Response to RFI by Engineer

The permit modification is now in place to proceed with ECD borrowing on the outside of the MCA. As long as minimum clearance requirements with nearby pipelines are maintained we do not object to borrowing from the outside as requested above. This outside borrow must follow all lines, shapes and grades as shown in the plans for dike borrow typical section.

Signature:	Date: 2/1/2021

DATE: December 17, 2020

RFI Number: 31

Summar	y of	RFI	by	Contractor
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Sigma/CPRA have already accepted 2nd Lift Process Surveys at STA 0+00 to 10+00, STA 135+00 to 143+00, and STA 146+00 to 168+00. Some of these areas experienced damaged from Hurricane Zeta and have since been reworked and brought up to Lift 2 final elevation again. GLDD and Wilco are both aware that each station needs a process survey for the first and second lift of the ECD and have done so for these areas already. In addition to these process surveys that GLDD/Wilco have already submitted, GLDD is planning to submit as-built drawings of the ECD, as it states in TS-300.8, at the end of the ECD construction. Is GLDD and Wilco able to forego the process surveys in these previously accepted 2nd Lift stations and submit the as-built for these stations in their place?

Please advise.

Signature:

Date: 12/17/20

Response to RFI by Engineer

In accordance with sections 210.8.5.2 and 210.8.5.3, these areas will require re-survey of the dikes and borrow areas due to maintenance performed after acceptance, as well as the time between acceptance and beginning of fill placement exceeds 60 calendar days. Note that 210.8.5 requires that the MCA estimated quantity be recalculated to account for the in-place dike fill quantity.

210.8.5 Earthen Containment Dikes: The topography of the dike and associated borrow area shall be surveyed after being fully constructed and prior to placement of the fill material into the marsh creation area. Ground elevations and coordinates shall be recorded for the inside and outside crests and toes of the dikes, the inside and outside troughs of the associated borrow areas at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection. The total length (in feet) and in-place fill quantity (in cubic yards) for the dikes around each marsh creation area shall also be calculated, and the marsh creation area estimated quantity shall be recalculated to include this quantity.

The dikes shall be surveyed every month beginning with placement of fill material into the marsh creation area, and ending with Acceptance of the marsh creation area. Ground elevations and coordinates shall be recorded for the inside crest, inside top at interface with marsh fill, outside crest, and outside (opposite marsh creation) toe of the dikes. These measurements shall be repeated at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection.

The Engineer may require the Contractor to re-survey portions of the earthen containment dikes and associated borrow areas if any of the following conditions are met:

- 210.8.5.1 Dikes are reworked due to exceedance of the specified tolerances;
- 210.8.5.2 Maintenance is performed on the dikes after Acceptance;
- 210.8.5.3 The time between Acceptance of the dikes and beginning of fill placement into the marsh creation area is sixty (60) calendar days or longer.

The Contractor shall perform a Process Survey and provide updated quantities on all reworked portions of the earthen containment dike and borrow area.

Per 210.9.7, the ECD As-Built Survey shall commence after degrading the ECD.

Signature:

DATE: January 7, 2021

RFI Number: 32

Summary of RFI by Contractor

GLDD requests to temporarily store (submerged) pipeline in the areas indicated on the attached map. The submerged pipeline will be used on the Caminada Project. The pipeline consists of two 3000' strings of dredge pipe.

Please see attached pdf for possible locations for dredge pipe.

Signature: Sahanna Krishnathasan Date: 01/07/21

Response to RFI by Engineer



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MARSH CREATION AREA BORROW AREA DREDGE PIPELINE CORRIDOR BORROW AREA BOTTOM OF CUT CONSTRUCTED DUNE (BA-45 & BA-143) CONTOUR EARTHEN CONTAINMENT DIKE	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	STATE PROJECT NUMBER: BA-0171	VBY: K. CANTU
EQUIPMENT ACCESS CORRIDOR		STA7	DRAWN BY:
	DATE: OCT		DRAW

DATE: February 5, 2021

RFI Number: 33

Signature:

Summary of RFI by Contractor	
"Dredge Pipeline Corridor North" as and Magnetometer Surveys." This s	omerged pipeline into the "Dredge Pipeline Corridor South" as well as stated in the "210122 Caminada (BA-0171) TS-210.7.7 DPC Pre-Con ubmerged pipeline will be used for the Caminada Headlands Project, submerged dredge 30" pipeline. The lengths of the strings of pipeline is RFI replaces RFI 32.
	n report of the magnetometer anomalies that are located in the DPC C Pre-Con and Magnetometer Surveys_Rev2", GLDD requests that the er hits be retracted.
Signature: Mitchell Quakkelaar	Date: 2/5/21

Re	sponse to RFI by Engineer
1.	 2/7/21: The MAG and TOPO Dredge Pipeline Preconstruction Survey Revision 1 submitted 1/26/2021 was reviewed in association with the RFI. Some MAG hits were simply identified as "Anomaly". Further investigations of these hits are necessary as described in the survey review transmittal. Based on a 1/29 phone conversation, GLDD is having HydroTerra further investigate the unknown Mag hits. However, GLDD requested to start installation utilizing a buffer around the unknown MAG hits until the Submittal is approved and unknown Mag hit are resolved. The contractor may proceed with pipeline installation utilizing a 300' buffer around the Magnetometer hits. Note the following: This early installation is covered under spec sections TS-101 Dredge Pipeline Mobilization, Installation, and Demobilization. The contractor must make all proper notifications prior to the work as well as install any necessary signage as required by the plans and specifications. All sections of TS-101 must be followed. See TS-101.2.2 on submerged pipeline and 101.2.3 concerning beach/dune crossings.
2.	2/8/21: Installation can proceed without the 300' buffer now that the anomaly mag hits have been adequately investigated.
Sig	Date: 2/8/21

DATE: February 10, 2021

RFI Number: 34

Summary of RFI by Contractor

GLDD and Wilco would like to start the planning and layout process to construct the Internal Training Dikes that go between each increment. Looking at the plans as well as the specifications, neither give GLDD/Wilco a clear direction which side of the dike the material that will be used for construction will come from. Should Wilco have the borrow area staked out for these dikes on the east or west side of the internal training dike?

Please advise what Sigma/CPRA requires.

Signature: Mitchell Quakkelaar

Date: 2/10/21

Response to RFI by Engineer

Either side can be utilized for borrow as long as it's inside the fill area.

Date: 2/11/2021

DATE: February 15, 2021

RFI Number: 35

Summary of RFI by Contractor

ATV use is being requested for the specific purpose of construction layout and dune construction for the Dune Improvements, and for that purpose ONLY. Wilco will utilize this equipment to haul/transport survey personnel, construction layout supplies (grade stakes, cane poles, pin flags, etc.), water, and emergency supplies. This equipment may also be necessary for emergency transportation of personnel if a medical emergency were to occur. Wilco will traverse only bare sand, and will avoid existing vegetation at all times. While establishing the footprint of the Dune, we will also delineate the project boundary so as to ensure all construction activities occur within the permitted project limits. Our preference would be to access the Dune Improvement area via Elmer's Island Road, park at the public parking area and utilize the ATV (ONLY) from that location directly into the permitted project boundary. We are requesting one-time access IN to facilitate the Dune Improvements, and one-time access OUT at the completion of the required tasks. It would also be preferable to use this equipment to "line out" the dune prior to submitting the proposal for the reasons listed above. Particularly, to increase safety factors for the personnel responsible for the 8 miles of layout by providing safe ingress/egress each day to a point of airboat access, to provide hydration [carry ice chest], and to transport the supplies required to execute the required tasks.

We appreciate your consideration of this matter and understand the nature of this sensitive environment. We feel this request is necessary to provide the most accurate cost estimate for the Dune Improvements and will expedite that process.

The easiest way to access the project area for these activities is Elmer's Island Road on the East side of the project site. Recognizing this request was denied by CPRA last year, we again submit our request to use Elmer's Road with consideration to the introduction of the new dune work.

If use of Elmer's Road is not permitted, Wilco will barge in ATV and equipment onto the beach.

The ATV will remain on the beach during the layout and construction of the dune and will be taken off the beach using Elmer's Island Rd. or by other means once the south dune is complete

Signature: Date: 2/15/21

Response to RFI by Engineer	
2/18: ATV use is permitted but must stay within the project that impacts to the environment are minimized. Elmer's la	ct limits and within the requirements of the permits. Ensure sland Rd cannot be utilized.
Signature:	Date: 2/18/2021

DATE: February 26, 2021

RFI Number: 36

Summary of RFI by Contractor

Wilco is in the process of determining if shore equipment can be used to rebuild the front dune and requests the following clarification regarding shore equipment access onto the beach.

The damage created by Hurricane Zeta is inhibiting access to the beach via the Equipment Access Corridor (EAC). In order to make the EAC usable, dredging will be necessary allow for floatation for a tug and ramp barge to shuttle shore equipment (LPG Dozer, Land-track excavator, rubber tracked haul vehicles, etc) onto the beach.

As an alternative to dredging, GLDD/Wilco has identified two alternate access routes: i) Elmer's Island Road to the East and ii) Hwy 3090 (A O Rappelet Rd) to the West. The most time and cost effective approach to gaining access to the island is Elmer's Island Road, however, CPRA has made it clear that this route is prohibited. The Hwy 3090 route is a viable access point onto the island and a short distance to the western project area boundary. This would require ferrying equipment via barge from our current staging area across the river and offloading on the island. Equipment would travel ~2,500-ft down Hwy 3090 and then eastward and access the project area at the west boundary. Additionally transporting equipment via the hard surface road allows for safer crossing of the existing pipelines (Arrowhead and Chevron). The attached drawing illustrates the alternative routes.

Please confirm that GLDD/Wilco will be permitted to use our proposed access route #2 so we may consider this in our proposal for the dune pair work. We are available to further discuss these alternatives.

Signature:	Date:	2/26/21
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Response to RFI by Engineer

During Tuesday's bi-weekly meeting CPRA advised that they do not have any agreements in place for either alternatives mentioned above. The contractor requested to be allowed to contact the adjacent landowners to acquire their own agreement. CPRA advised that they would let the contactor know after they had internal discussions.

On 3/4/21, as a follow up to the discussion in the bi-weekly meeting, Josh advised Mitchell that they are clear to proceed with discussions with adjacent landowners for alternate site access. Any alternative access agreements between the contractor and others must not hold CPRA responsible for any damages. Contractor to submit any proposed agreements to CPRA for review. CPRA will then advise on if the use of an alternative access will be allowed.

Signature:

DATE: March 4, 2021

RFI Number: 37

Summary of RFI by Contractor

3/1/21: Specification section TS-101.2.2 calls out for a fluorescent orange buoy to be install at 150' intervals along the dredge pipeline corridor for Aids to Navigation. Such close spacing of buoys is typical for installation of submerged pipeline within an inland waterways or channel crossing but excessive for offshore subline installation. Attached is a copy of the subline buoy and lighting requirement standard typical for US Army Corps of Engineers dredging projects. GLDD requests that CPRA modify its submerged dredge pipeline requirement to be similar to the attached. As noted in the document, GLDD will submit a project specific marking plan to the Coast Guard.

Please advise if this is acceptable.

3/4/21: GLDD has received confirmation from the USCG that they approve of the plan that we have sent them. I have included the email response from the USCG for your review as well as the marking plan that GLDD would like to use to mark the submerged dredge pipeline. GLDD requests that spec sections TS-101.2.2 be modified to reflect our proposed plan.

Please advise if this pipeline marking plan is acceptable.

Signature:

Date: 3/4/21

Response to RFI by Engineer

3/8/21: The contractor can proceed with the plan provided on 3/4/21 and accepted by the USCG. If, at any time CPRA feels necessary, they will instruct the contractor to revert to following TS-101.2.2.

Signature:	Date: 3/8/21

DATE: March 4, 2021

RFI Number: 38

Summary of RFI by Contractor

TS 510.4.2 identifies that the primary weir shall be operated with the invert set at two (2.0) feet below the crest elevation of the ECD during placement of slurry into the marsh creation area. GLDD intends to utilize weir box structures for the primary weirs as identified in our Weir Placement Drawing and General Arrangement Submittal dated 8/12/20. Please confirm our interpretation that the 'invert' is considered the top of the weir (weir board) and not the invert of the outfall pipe. Please find below illustration.



Response to RFI by Engineer

The invert mentioned in TS 510.4.2 refers to the weir box board top.

DATE: April 8, 2021

RFI Number: 039

Summary of RFI by Contractor

Wilco is set to commence construction of the Interior Training Dikes (ITD) that separate increments. Due to the depth of the water created by the ECD borrow sources (~10-ft in depth), the design of the ITD as shown on Sheet 10 will require a significant amount of material to fill the borrow source and cannot be constructed as shown. GLDD/Wilco propose to leave out the sections of ITD at the ECD borrow areas.

This leave-out along with the (3) 30-in weir pipes on the opposite end of the ITD will allow (2) avenues of flow between increments. The 30-in pipe weirs will relieve some flow at the leave-out and reduce any scour on the ECD at the leave-out.



Please confirm if the leave-outs in the ITDs are agreeable by CPRA.

Signature:	Date: 4/8/21

Response to RFI by Engineer			
This was discussed in the bi-weekly meeting on 4/13. Due to concerns about erosion to the ECD as well as concerns about this not slowing the dredge material for proper settlement, this is not approved.			
Signature:	Date: 4/15/21		

DATE: April 15, 2021

RFI Number: 40

Summary of RFI by Contractor

GLDD requests a realignment to be made to the south dune on the east end of the project at the end of Increment 4. This new alignment allows a more manageable tie-in to the existing ECD at the eastern increment boundary.

In this proposed realignment, there is a gap of 25' between the ECD and the centerline of the dune to allow Wilco to construct the 50' crown as shown in the RFP plans.

I have attached a pdf as well as an AutoCAD file to this email showing the original revised alignment as well as the proposed alignment. In the drawings, the proposed new alignment is red while the existing drawing is blue.

Please advise if this is acceptable.

Signature:

Date: 4/15/21

Response to RFI by Engineer

GLDD is authorized to proceed with the alignment shift as described above and shown on the attached sketch.

Date: 4/15/21

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2122 YORK ROAD, OAK BROOK IL 60523 CIVIL ENGINEERING / SURVEYING DIVISION Phone: (630) 574-3000 TITLE: 11x17 Marsh Creation Layout HOROLOGUE of the set o

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DATE: April 16, 2021 RFI Number: 41

Summary of RFI by Contractor

4/15/21

GLDD and HydroTerra requests approval to use Lidar survey techniques to perform the South Dune Pre-Construction Survey. We request this due to the time and cost savings using Lidar rather than topographic or other survey techniques to collect the data points. If this survey technique receives approval, the data collection will only take 2-3 days rather than the 8-10 days as previously stated which will ultimately save ~\$12,000.

The Lidar method that HydroTerra will use to collect the data will be mounted on an ATV. GLDD and HydroTerra both understand that Lidar does not perform well while being used to survey in areas that have dune grass and mangroves. Because of this, in areas that will be unable to collect data using Lidar, Wilco surveyors will collect that data using topographic survey techniques. Once complete, Wilco will send the data that they collected to HydroTerra who will then tie the topographic data into the Lidar data.

Please advise if it is acceptable for HydroTerra to use Lidar survey.

4/16/21: Rev0 responses.

- 1. Lidar sensors are able to achieve range accuracy of 0.5 to 10mm relative to the sensor and a mapping accuracy of us to 1cm horizontal (x, y) and 2cm vertical (z).
- 2. The system will obtain data 100 meters on each side provided there is no obstruction.
- 3. HydroTerra will ground truth using RTK the entire length of the project. They will use filtering in the grassy area and merge data from Wilco.
- 4. Lidar will be used for the Pre-Con survey only.

Signature:

Date: 4/16/21

Response to RFI by Engineer

4/16/21: Please provide clarification on the following:

- 1. What is the accuracy level on the Lidar?
- 2. What areas will be covered? Will this cover beyond the immediate dune?
- 3. What criteria will require traditional survey instead of Lidar? Vegetation type, thickness, etc.?
- 4. Confirm that this is for Pre-con survey only.

4/16/21: Proceed using lidar as proposed.

DATE: April 16, 2021

RFI Number: 42

Summary of RFI by Contractor

With the dune repair coinciding with the 2021 bird-nesting season there is greater risk of the project shutting down due to a bird nest in the work area. Because of this, GLDD/Wilco requests written confirmation from CPRA/Sigma that in the event of a project shut down due to environmental restraints (i.e. bird nests), GLDD/Wilco will be fully compensated for their daily costs for each day that the project is shut down.

Please confirm.

Signature:

Date: 4/16/21

Response to RFI by Engineer

Daily Bird Abatement is included in the current bid items and is part of the original scope of work of the project. The abatement success is based on the contractor's level of bird abatement effort. CPRA is not responsible for downtime based on contractor's discretionary level of effort. Because the project area and scope increased, GLDD can submit a proposed cost for increased bird abatement effort. It may be expedient to propose a percent increase in scope/effort, so that GLDD can be reimbursed for abatement during dune construction at a 1.xx per day with the existing contract item.

Please also provide an updated Bird Abatement Plan that includes monitoring and abatement of the additional southern dune work and changes to the existing dune due to the storm.

Signature:	Date: 4/22/21

DATE: April 23, 2021

RFI Number: 43

Summary of RFI by Contractor

GLDD and Wilco is requesting permission to build ECDs using material from alternate borrow areas outside of the Marsh Creation Area. The proposed outside borrow area spans from STA 142+00 to 146+00, where the open canal is located. We are requesting this because the material located in the designated borrow area is very deep and contains soft material that will not be enough to build the ECD in this area with only one borrow source.

Please confirm if this is acceptable.

Signature:

Date: 4/23/21

Response to RFI by Engineer

Ensure that minimum clearance of 50' is maintained with all structures within this area, including but not limited to the rock jetty, wooden piers and pipelines. GLDD can proceed with outside borrow within the stations requested above.

Signature:

DATE: May 4, 2021

RFI Number: 44

Summary of RFI by Contractor

Norman Wildlife has recently encountered a Least Tern colony that is between the south dune centerline and the water of the MCA at dune stations 45+00 to 75+00. Because of this, Wilco will be unable to track their dozers in the south dune template/MCA to pass this colony of nests.

On behalf of Wilco, GLDD requests permission to allow dozers to pass the colony 100-150' south (gulf side) of the dune centerline to avoid these nests.

Please confirm if this is acceptable.

Signature:

Date: 5/4/21

Response to RFI by Engineer	r
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Any nests must be marked clearly. Have your wildlife personnel point out the nests during the dozer crossings to ensure that they are not affected. This crossing request is acceptable.

Signature:	Date: 5/4/21

DATE: May 26, 2021

RFI Number: 45_Rev1

Summary of RFI by Contractor

5/21/21: As stated in RFP 01 and the meeting between CPRA/Sigma/GLDD on May 20, 2021, the sand fence is to be installed along the centerline of the constructed south dune. GLDD is requesting a realignment of the sand fence to be placed along the southern toe of the dune rather than the centerline. This realignment can be seen in the pdf attached to this RFI email

GLDD has discussed this realignment internally as well as with the subcontractor that will be installing the sand fence (Soil Erosion Services) and all parties agree that installing it along the southern toe will be more beneficial than if it was installed on the centerline. In GLDD and SES's experience, if the sand fence is installed along the southern toe it will not only help maintain the constructed dune but it will also help build the dune wider over time. In our experience, GLDD and SES thinks that installing the sand fence at the southern toe will be more beneficial rather than installing it at the dunes centerline. GLDD is open to discussing the alignment of the sand fence with CPRA/Sigma.

5/26/21: As per the bi-weekly meeting held on 5/25, GLDD is requesting that the sand fence alignment be moved within 10 feet of the southern top of slope, rather than the centerline, as shown in the pdf attached to this RFI email. This will ultimately help build up the sand dune while also allowing more room for GLDD equipment and pipeline to access the project area while maintaining the 5' elevation.

Date: 5/26/21

Response to RFI by Engineer

It is acceptable to install the sand fence on the dune crest, 10 feet from the south crest edge.

Date: 5/27/21



DATE: June 5, 2021 RFI Number: 46 Subject: Grade Stake Gauge

Summary of RFI by Contractor

Specification Section TS-220 Grade Stakes states the gauge sign shall be composed of sheeting applied to a rigid substrate of 4" x 0.120" x 60" fiberglass reinforced thermoset polyester laminate using a pressure sensitive urethane adhesive.

Great Lake Dredge & Dock proposes to use a laminated section of 3/16-inch x 4-inch x 60-inch waterproof foam board secured with screws to 2" x 4" untreated pine lumber board. See attached photographs. The gauge is graduated in 0.5-inch increments and is available for inspection at the Great Lakes office at 318 AJ Estay Road, Golden Meadow, LA. See attached photographs.

Is this procedure approved for use?

	\neg	
Signature:	Matt Jack	Date: June 5, 2021

Response to RFI by Engineer	
This is acceptable for use.	
Signature:	Date: 6/11/21


RFI 046: Fabricator's Mockup











DATE: June 29, 2021 RFI Number: 47 Subject: South Dune Repair and Routine Maintenance

Summary of RFI by Contractor

Erosion has been identified to the South Dune at multiple stations caused by the heavy rains during Tropical Storm Claudette as well other recent heavy rain events.

Reference: GENERAL PROVISIONS-22 PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC. states that The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, neglect, or misconduct in the execution of the Work unless it is due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities.

QUESTION:

Since Tropical Storm Claudette and the recent rain events were an act of God and caused this erosion, and the erosion damage is not a result of GLDD omission, neglect, or misconduct, how will GLDD be compensated for this work?

Sigma has stated that GLDD is responsible for building up low sections of the dune at station 100+00 to 101+00. GLDD has provided CPRA with the Process Survey for the South Dune. The Wilco surveyors were recently on site to collect additional data on sections of the South Dune where some survey shots were missed. There is no language in Change Order #05 stating that maintenance or repair of the dune is at the cost of the Contractor. If the final survey shows areas of the dune are low, the dune will be built up to the elevation specified in the Plans and Specifications at no additional cost to the Owner.

QUESTION:

If the Process Survey shows the dune constructed to the elevation specified, but the dune has eroded over time, does Sigma direct GLDD to repair these areas, and if so, how will GLDD be compensated for this work?

Signature:

Date: June 29, 2021

Response to RFI by Engineer

Per the 6/30 conference call, situations of large settlement or dune destruction as described above will be brought to the attention of CPRA. CPRA will advise GLDD to survey the affected area. CPRA will then advise GLDD to repair the area. A follow up survey will then be performed to capture the cubic yard amount for reimbursement. The repair will be reimbursed per the unit item in included in CO#05. GLDD will advise of the pre and post survey costs before preforming. Once authorized, these survey costs will be reimbursed via additional change order.

Signature:	Date: 7/9/2021

DATE: July 3, 2021

RFI Number: 48

Summary of RFI by Contractor

In previous meetings between GLDD/CPRA/Sigma it was stated that the EIR permit that was issued to CPRA (attached) to use Elmer's Island Rd was for a one time use. Wilco has been in contact with Julia Lightner (LDWF) about receiving their own permit to access the project from Elmer's Island Rd. she pointed out that the permit is not limited to a one time use of Elmer's Island Rd by LDWF. The permit does not state that this is limited to a one time mobilization/demobilization but instead says "As stated by CPRA in communications to LDWF, the requested access will be limited and utilized only for mobilization of equipment in and out of the project area." LDWF informed Wilco that they have no issues if GLDD/Wilco use Elmer's Island Rd as necessary, if the guidelines that are set forth by LDWF permit are followed.

It is Great Lakes Dredge and Dock's intent to use Elmer's Island Road per the specifications of the permit, however GLDD submitted for this permit through LDWF but is not the permit holder. Is CPRA allowing GLDD to follow the guidelines of the permit, or restricting GLDD use of the permit to a single use?

Signature:

Date: 7/3/21

Response to RFI by Engineer

CPRA holds the permit and based on communications between CPRA and LDWF, a one-time demobilization was communicated. That is the intent of the permit.

IF GLDD or Wilco would like to obtain their own permit with LDWF, CPRA does not object. The agreement must indemnify CPRA from any damages to the road, parking area, dune and any other portion of Elmer's Island property. The agreement must indemnify CPRA from any environmental damages, including but not limited to bird nests, as well as indemnify CPRA from any impacts to public use of the property.

Signature:	Date: 7/9/21

DATE: July 4, 2021

RFI Number: 49

Summary of RFI by Contractor

On sheet 6 of 11 in the RFP 01 Dune Improvements (attached to RFI email) it shows the sand fence posts are required to be driven 4' into the constructed grade of the dune with 4' being above constructed grade. Due to the re-handling of the dune material, SES is finding it difficult to install these posts 4' below grade because the material is caving into the posthole before the post is able to be installed. Because of this, GLDD is requesting a tolerance of 12" allowing the fence post to be driven at a minimum of 3' below the constructed grade.

Please confirm if this acceptable.

Signature:

Date: 3/1/21

Response to RFI by Engineer		
A 6" +or- tolerance is allowable for	the sand fence post installation.	
Signature:	Date: 7/9/21	

DATE: August 8, 2021

RFI Number: 50 Fill Area Bayou Moreau/Access Crossing Channel

Summary of RFI by Contractor

On August 4, a Wilco marsh buggy with an Operator with 30 years of experience placed dry fill material over the access crossing area. Once the dry material was exhausted, the operator reviewed the overall condition of the area. Due to the hot, dry weather he placed a second thin lift, approximately 6-10 inches, over the dry material. Material was also stockpiled on the interior bench to dry for future use. After reviewing the area with Wilco management and the Sigma inspector, we all agree that no visible damage was done to the ECD, and furthermore, it appears that another layer of material would be able to be supported relatively soon.

- 1. More dry material will be necessary for a final lift, and possibly for future use. We have identified a possible borrow area closes to the access crossing work area (attached pic). **QUESTION:**
 - a. GLDD/Wilco requests additional material be borrowed from the south side of the access crossing within the Marsh Creation Area, be stockpiled and spread to dry, and then handed across to the dike area to use as fill by the machines. Does CPRA approve of this borrow area and stockpiling?
- 2. There is old sloughed material that previously migrated from the top of the ECD down to the front and rear benches on the north side of the access crossing. Some of this material remains above water level, is dry (see attached pics), and is suitable for ECD building. The machine has a 60-foot reach, but needs to reposition to the front of the ECD to reach/push this material to the top/north slope of the ECD. QUESTION:
 - a. GLDD/Wilco requests that we move the machine to the north side of the ECD and push the dry sloughed material located above the waterline up onto the slope of the ECD. Does CPRA approve of this request?

Please review the above; we respectfully request review by EOD 8/9/21 for time & progress purposes.

Signature:			Date:	8/8/21	

Response to RFI by Engineer

CRPA takes no exception to #1 or #2 above. Note that borrow shall not be excavated within 50' of existing pipelines (TS300.3.5). Also, excavation is only allowed up to -10' elevation.

Signature:	Date: 8/9/21

DATE: August 21, 2021

RFI Number: 51

Summary of RFI by Contractor

GLDD requests permission to install a relief line on the beach within the dredge pipeline corridors. This pipeline will be placed parallel to the already installed submerged dredge pipeline in both corridors. This relief line will be used to return water back to the Gulf as necessary, while the dredge is not actively pumping fill material;

- to allow the dredge to pump water only, keep constant pressure in the floating portion of the pipeline and where the rubber float hose and steel pipe meet (required for pipeline joint integrity)
- to prevent pumping excess water into the MCA during non-production
- emergency water discharge

GLDD will only have one relief line at one time on the side of the pipeline that we are pumping towards (if pumping west, relief line will be on the west side of dredge pipeline corridor). Once GLDD flips the pipeline to start heading east, the relief line will be broken down and reinstalled on the east side of dredge pipeline corridor. This will require heavy equipment working south of the dune within the dredge pipeline corridor. A Y-Valve will control the discharge line.

If unable to install this relief line, pumping large amounts of excess water could be detrimental to the Marsh Creation Area containment dike and south dune due to unnecessary water elevation/flow.

Please advise if this is acceptable.

Signature:

Date: 8/21/21

Response to RFI by Engineer

While a relief line may be acceptable to use on this project, we need clarification/ additional information addressing scour and material monitoring. GLDD is proposing discharging at MHW which will likely scour the shore face and discharging inside the pipeline corridor which is required by contract to remain undisturbed or restored. Also, we would require that GLDD monitor that only water is being discharged, but we need a mechanism for Sigma to QC that none of the dredged material is escaping through the relief. Please revise and resubmit addressing concerns of scour, restoration, and 3rd party material monitoring and we will reassess.

Date: 8/24/21

DATE: April 5, 2022

RFI Number: 52

Summary of RFI by Contractor

4/5/22: Wilco is requesting approval to construct a temporary containment area within Increment 3 that will allow sufficient water depth to float the barged machines over the XTO line. In principle, the training dike on the boundary of Increment 2 and 3 along with an existing earthen ridge and a newly constructed training dike will be used to close off an area that will be hydraulically filled with water to provide sufficient clearance for the barge. The attached map lays out exactly how this will be constructed.

In addition, the material used to construct the temporary training dike would be excavated beside the proposed location for the temporary containment dike. The current elevation of the earthen ridge sits at approximately 2.5' and the water level would need to be brought up to approximately 2' to ensure the necessary clearance plus a margin of error to safely clear the XTO line. The XTO line has been probed and confirmed that the 2' of added water will be sufficient. Please confirm if this is acceptable.

Signature:

Date: 4/5/22

Response to RFI by Engineer

4/6/22: Please advise on the following:

- 1. Is XTO on board with this? Do they concur this will create enough clearance to float over and is acceptable?
- 2. Is it practical/possible to build containment through existing borrow?
- 3. Is the new training dike in conflict with mag hits?
- 4. Is the new training dike borrow far enough away from Chevron pipeline?
- 5. Where is the barge coming from? Across/through the existing training dike?
- 6. Will you have to excavate the existing training dike?
- 7. What is the exit strategy?
- 8. Will this be deconstructed prior to dredging? If so, when and to what extent?

Signature:	Date: 4/6/22

Response to RFI Engineer Questions

4/7/22: Please advise on the following:

- 1. Is XTO on board with this? Do they concur this will create enough clearance to float over and is acceptable? Wilco nor GLDD has been able to communicate with XTO since the beginning of this project. We have determined that the utility is inactive. However, we treat it as if it is active. Additionally, the reason we are proposing this method is to be certain that we have more than enough clearance to float over the line. We have determined that this method will be the only method to provide enough safety factor to float across the line. GLDD were provided with an XTO contact 4-7-22 and have reached out to begin a line of communication. We have not heard of back at this time.
- Is it practical/possible to build containment through existing borrow? It is technically possible, but certainly not practical. This would require relaying material up to 300°. We typically say something like that is impossible in the marsh.
- 3. Is the new training dike in conflict with mag hits? Will be confirmed
- Is the new training dike borrow far enough away from Chevron pipeline? During this operation we will not be excavating within 100' of the Chevron pipeline, as required by Chevron.
- Where is the barge coming from? Across/through the existing training dike? Through the existing training dike. We are going to open a gap to cross through.
- 6. Will you have to excavate the existing training dike? Yes.
- 7. What is the exit strategy? The exit strategy will be to repeat this process to exit the area.
- Will this be deconstructed prior to dredging? If so, when and to what extent? We do not intend to deconstruct the new training dike. We could do that if absolutely necessary. Being that this is all supposed to get filled back in, we did not anticipate a need to deconstruct.

Date: 4/7/22 Signature: ff Bradford

Response by Engineer

4/12/22: In Bi-weekly meeting:

1. Do not understand the contractor's response to Item #2 above. It appears that this is the requested path forward, however, response states that it is not possible?

Signature:	Date: 4/12/22

From Contractor			
4/13/22: Email from Jeff Bradford to Josh Renard:			
1. This RFI is no longer necessary. A separate RFI #53 will be sent in detailing a different path forward.			
Signature:	Date: 4/13/22		



WMB CS 03/31/2022

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) XTO CROSSING - ALTERNATIVE METHOD RFI MAP

Details: This map depicts the proposed alternate access route for ingress/egress of equipment across the XTO utility lines to access the east side of the project from within the marsh creation area.

This method proposes constructing a temporary training berm between the ECD [STA 231+00] and the existing earthen ridge parallel to the Chevron R.O.W.

This berm will be approximately 300 linear feet long and wildobetructed using side-cast material adjacent to the temporary training berm. After reconstructing the INC2/INC3 training dike, an area approximately 650' X 300' will be hydraulically filled allowing adequate floatation to safely cross equipment over the XTO utilities. PLAN VIEW





> EQUIPMENT ACCESS ROUTE (PROPOSED)



RFI Number: 52

Summary of RFI by Contractor

4/13/22: Wilco: After investigation and probing of the XTO pipeline it has been determined that there is not sufficient water depth for safe flotation of the barge mounted excavator over the XTO pipeline. Wilco is proposing to pump water into the entirety of Increment 3 to raise the water level to provide sufficient water depth for safe flotation across the pipeline.

The barge mounted excavator will be mobilized to the Increment 2/3 training dike where it will open the borrow ditch at the training dike just enough to float the equipment through (the base will not be removed and therefore this should not be an issue to patch up once complete). The material removed from the training dike will be placed on the adjacent training dike for use after crossing through. The barge will then move into increment 3 and patch the training dike back closed. Two hydraulic pumps will then be used to pump water from the borrow ditch in increment 2 into increment 3, raising the water level. The water will be pumped up to approximately +1.5' elevation within increment 3. Once the water has reached elevation, airboats will be used to push the barge across the XTO pipeline to begin work on the East side.

The barge equipment will then work increment 3 and 4 as needed. Once complete with increment 3 and 4, the same method as described above will be utilized to cross back over XTO to demobilize.

Signature:

Date: 4/13/22

Response to RFI by Engineer

1. Where will hydraulic pumps discharge? We need to ensure that they do not erode the containment structures.

- 2. What is the draft on the barge?
- 3. Ensure that all known/provided XTO contacts are contacted to attempt to obtain concurrence for this plan.
- 4. It appears that several sections of the ECD within increment 3 are not currently at elevation +1.5.

Signature: Josh Renard	Date: 4/13/22

Response to RFI Engineer Questions

4/13/22: Please advise on the following:

- 1. Where will hydraulic pumps discharge? We need to ensure that they do not erode the containment structures. The pumps will discharge toward the inside of the MCA and away from the ECD to avoid any erosion. The discharge may also be place under water to limit the turbidity. Additionally, these will be only 8"-10" discharge pumps which we do not believe will create enough current/flow to wash out the ECD when directed away from the ECD.
- 2. What is the draft on the barge? The barge drafts approximately 2'. We moved the equipment around on the barge to balance the draft as much as possible.
- 3. Ensure that all known/provided XTO contacts are contacted to attempt to obtain concurrence for this plan. . We are currently in communication with XTO. Will obtain an OK from them prior to beginning this work. The current consensus from XTO is that the pipeline has been decommissioned, flushed, and capped on both ends. Waiting for confirmation on this as well.
- 4. It appears that several sections of the ECD within increment 3 are not currently at elevation +1.5. We currently have a marsh buggy making its way East through increment 3 patching up low spots to raise these low spots and facilitate this crossing method.

Signature:	Date: 4/14/22

Response to RFI by Engineer
4/15/22:
It appears that contact was made with XTO, and the previous questions answered. CPRA takes no objection to this plan.
Signature: Date: 4/15/22

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171) RFI-53 MAP: FLOATION METHOD OVER XTO UTILITY

Details:

This map depicts the proposed access route to ingress/egress barge mounted equipment across the XTO utility lines to access the east side of the project.

This method proposes utilizing the existing training dikes to impound Increment 3 so it can be hydraulically filled. This should provide adequate floatation over XTO and increase safety factors while crossing. The same process will be used to egress the barge once work is complete.







SITE MAP

Image Source: Google Earth / Image Date 3/20/2019 Image Copyright: 2020 TerraMetrics / Data SIO, NOAA, U.S. Navy, NGA, GEBCO



DATE: April 18, 2022

RFI Number: 54

Summary of RFI by Contractor

GLDD is requesting temporary approval to utilize the beachfront within Increment 1 between the dune and water. The steel shore pipe displaced from its original position by Hurricane Ida even after being recovered is most times full of sand/mud. The current method of cleaning this material is to use a 336 Excavator with a pipe clamp and attempt to stand the pipe up and the material subsequently fall out. To date, 4 total pipes have been cleaned over a 3-day period due to a number of issues associated with trying to stand the pipe up considering each pipe is roughly 40' long.

There are 35 stacks of pipe totaling 199 pieces of pipe that need to be addressed. Pipe is staged throughout Increment 1 and is anywhere from 1000' to 8000' away from the pipeline corridor where approved access to the water is allowed. Based on experience from numerous other projects, the quickest way to clear the pipe will be to take it directly from the pipe stack straight to the water line with the rubber tired front-end loader and place it in the surf allowing for natural wave action to empty the pipe. This process has worked many times in the past. Unfortunately, due to the soft nature of the material and lack of wave action, the water located in the MCA would not provide the sufficient disturbance power needed to complete this process. In addition, if access is granted to traverse directly from pipe stack to water, we would coordinate with Norman Consulting to ensure no possible issues with nesting birds as well as dragging the traffic area following the completion of each stack of pipe to smooth it out back to pre-existing conditions.

The feasibility to do all of this work within the pipeline corridor is not realistic due to the time needed to complete the task. With pipes full of material, the front-end loader can only handle 1 pipe at a time. To track 199 pieces of pipe would take an inordinate amount of time and would put the completion of the pipe cleaning operation on the order of the continued use of the excavator with minimal daily progress. We feel with the approval to use the surf zone and traverse between the pipe stack and the water, we could clear 1-2 pipe stacks a day as compared to 1-2 pipe.

Additionally, using the dredge upon arrival is not a feasible option as it would 1, be extremely difficult to construct the line with material in it and 2, the line would very likely break apart due to the added pressure and take additional time to be rebuilt and continually flush.

Please confirm if this is acceptable.

Signature:

4/18/22

Date: 4/20/22

Response to RFI by Engineer

logh Renard

The proposed methods described above are outside of the permitted project area and land rights agreements. Additionally, repeated tracking across the remnants of the dune was specifically avoided during design to reduce the impacts to the existing dune structure as well as minimize habitat destruction. Consider other options to remove the debris from the pipe.

Date:

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DATE: April 29, 2022

RFI Number: 55

Summary of RFI by Contractor

Wilco is requesting information and direction in regards to several sections of dune which are listed in the table below. These sections do not have enough in-situ borrow available within the allotted borrow area and will require for additional borrow material to be hauled in to complete construction of the dune section to design grade. This list is not comprehensive of all areas needing hauled material. The additional sections will be added as they are discovered and investigated.

GAP ID	STATION RANGE	SEGMENT LENGTH [FT]	ESTIMATED VOLUME [CY]	CY/FT
SDGAP-1	44+00 - 47+00	300	824.3	2.75
SDGAP-2	84+00 - 90+00	600	3,439.5	5.73
SDGAP-3	106+00 - 109+00	300	891.9	2.97

Wilco has located several potential dune borrow locations which are listed below. However, additional borrow locations may be required to avoid excessively long hauling distances as that would increase the hauling price.

Potential Borrow Locations

- 99+00 103+00 (small amount)
- 94+00 95+00 (small amount)
- 75+00 82+50 (scattered)
- 62+00 70+00 (large amount)

As stated in Wilco's original proposal "The price is also based on having enough suitable material opposite station along the entire project length to construct the dune to grade. If there is not enough material to simply push up adjacent to the dune, the price will have to be revised to include hauling equipment." We are requesting specifically approved dune borrow from the Client for hauling material to avoid any issues as experienced previously, please advise. Borrow locations have to be agreed upon and approved prior to Wilco providing hauling prices as hauling distances may vary.

Sign	ature:
JIGII	ature.

Response to RFI by Engineer

With regards to the submitted cost breakdown of transporting material to designated incomplete gaps of South Dune Construction

- What is the cost breakdown for mobilization, survey, and unit price for sand transport? We need a full cost breakdown showing sub's cost, prime's cost, survey backup... all backup as per the previous change orders.
- Can mobilization be eliminated if approved quickly, while equipment is on site for Caillouet work? If it is only a reduction, how much and why?
- What does survey stakeout entail?
- How was unit price for sand transport derived? i.e. where/what distance is borrow coming from?
- What is the cost reduction if RFI 056 is approved?
- What is the cost reduction if we borrow from south of the current alignment within the permitted project limits? Would it eliminate the need for hauling completely?

Signature:	Date:

Response to RFI by contractor

After discussions, Wilco have introduced a plan that would eliminate the need of hauling material to skipped areas of the South Dune.

Please find attached sketches for each respectable section of incomplete dune. Wilco has requested the use of a borrow south of the dune but still within the project boundaries that would provide sufficient material to complete the dune sections. This will eliminate the prior request for adding monies through a contract modification. As mentioned in the Bi-Weekly Meeting on 5/24/22, Wilco will exhaust all possible material remaining on the north side of the dune before using any borrow from the south side. Due to current conditions and limited material on the north side of the dune they will have to borrow some of the material from the south borrow area as shown in the sketches. The north area of these sections are already at or below +1.5 elevation likely impeding sufficient material from the north borrow area as well as the concerns for mangroves and the ability to operate the dozer without sinking.

Signature:

eff Bradford

Date: 05/24/2022

Response to RFI by Engineer

It is permissible to borrow south of the Dune within the project boundary at stations 43+00 to 48+00, 83+00 to 91+00 and 105+00 to 110+00, as proposed on the attached three revised sketches. Note the following requirements:

- 1. The contractor must exhaust all possible north borrow in this area first before resorting to south borrow.
- NWC shall survey and identify nests in any south borrow area prior to excavation. NWC shall monitor during excavation to minimize nesting impacts.
- If borrowing south of the dune is necessary, ensure that cuts are not drastic or deep. Minimize impacts to the existing topography as much as possible.
- 4. The approval of this RFI and RFI 56 eliminates all proposed hauling costs.
- All associated work must stay within the project permitted boundary. This includes positioning the dozers and turning around.

Signature: Jogh Renard	Date: 5/25/22



RFI-55 MAP: SOUTH DUDE - SOUTH SIDE BORROW - STA 44+00 - 47+00



LEFT: OVERVIEW AND SITE MAP LOCATION

BELOW: RFI-55 - STA 44+00 - 47+00 SITE MAP The proposed south side borrow area will mimic the north side borrow area situation. The proposed borrow area remains within the original project permit limits.

The use of some borrow material from the North AND material from the proposed South Side Borrow area will elliminate the need for hauling material to this location.





RFI-55 MAP: SOUTH DUDE - SOUTH SIDE BORROW - STA 84+00 - 90+00



LEFT: OVERVIEW AND SITE MAP LOCATION

BELOW: RFI-55 - STA 84+00 - 90+00 SITE MAP The proposed south side borrow area will mimic the north side borrow area situation. The proposed borrow area remains within the original project permit limits.

The use of some borrow material from the North AND material from the proposed South Side Borrow area will elliminate the need for hauling material to this location.





RFI-55 MAP: SOUTH DUDE - SOUTH SIDE BORROW - STA 106+00 - 109+00



LEFT: OVERVIEW AND SITE MAP LOCATION

BELOW: RFI-55 - STA 106+00-109+00 SITE MAP The proposed south side borrow area will mimic the north side borrow area situation. The proposed borrow areas remain within the original project permit limits.

The use of borrow material from the South side will be required to eliminate the need for hauling material to this location. The Southside Dune Borrow Addition may be needed for required fill but will be used as a last resort only. The Addition is within the original dune alignment.



DATE: May 13, 2022

RFI Number: 56

Summary of RFI by Contractor

Based on the realigned south dune and the insufficient material for construction use located between South Dune Sta 308+00 and 327+00, Wilco and GLDD are proposing a 50' shift southward to accommodate the need for additional fill material. The proposed layout still falls within the permitted work area and each end transitions 50' out over a 200 LF stretch.

Please let us know if this is agreeable.

Signature:

Date: 5/13/2022

As discussed last week, update the sketch to show project boundary. The alignment shift must stay inside the permitted project boundary.

ignature:	Josh	Renard
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Date: 5/23/2022

Response to RFI by Contractor

Wilco has updated the sketch to show the project boundary with the addition of the following statement.

The proposed realignment will parallel the Optimized South Dune Alignment at a 50FT offset as shown in the provided sketch. The proposed shift remains within the original project permit limits. The use of some borrow material from the North AND South Side Borrow area will eliminate the need for hauling.

of material.

As mentioned in the Bi-Weekly Meeting on 5/24/22, Wilco will exhaust all possible material remaining on the North side of the dune before using any borrow from the south side. Due to tide conditions/water levels, the north side may not be excavated to the required +1.5' EL and there is also added risk of heavy equipment getting stuck in unstable soil due to the elevation of the water table. In addition, further realignment of the dune to the south is not agreeable due to the infiltration of migrant birds that have nested within this area impeding any practical means and methods to construct the berm further to the south. However, construction of the dune as proposed is feasible as we will be able to coordinate with Norman Construction and work around the nests that are currently within the construction area and boundary.

Signature:

re: Jeff Bradford

Date: 5/24/2022

Response to RFI by Engineer

CPRA takes no exception to the proposed alignment shift of the South Dune from approximate station 309+00 to 322+00.

It is permissible to borrow material from south of the South Dune alignment and north of the South Project Boundary in the area designated on the revised sketch, with the following requirements:

- 1. The contractor must exhaust all possible north borrow in this area first before resorting to south borrow.
- NWC shall survey and identify nests in any south borrow area prior to excavation. NWC shall monitor during excavation to minimize nesting impacts.
- If borrowing south of the dune is necessary, ensure that cuts are not drastic or deep. Minimize impacts to the existing topography as much as possible.
- 4. The approval of this RFI and RFI 55 eliminates all proposed hauling costs.

Loff Kenaz

 All associated work must stay within the project permitted boundary. This includes positioning the dozers and turning around.

Signature:

Date: 5/25/2022





RFI-56: SOUTH DUNE REALIGNMENT [DUNE STA. 308-322]



LEFT: OVERVIEW AND SITE MAP LOCATION

BELOW: RFI-56 SITE MAP LOCATION The proposed realignment will parallel the Optimized South Dune Alignment at a 50FT offset as shown below. The proposed shift remains within the original project permit limits.







RFI-56: SOUTH DUNE REALIGNMENT [DUNE STA. 308-322]



LEFT: OVERVIEW AND SITE MAP LOCATION

BELOW: RFI-56 SITE MAP The proposed realignment will parallel the Optimized South Dune Alignment at a 50FT offset as shown below. The proposed shift remains within the original project permit limits.

The use of some borrow material from the North AND South Side Borrow area will elliminate the need for hauling of material.



DATE: May 17, 2022

RFI Number: 57

Summary of RFI by Contractor

Attached as part of RFI 057 is the Caillouet Rd alignment as agreed to with Caillouet LLC. Provided within the drawing is a proposed alignment shift that ties in the new Caillouet ROW with the existing optimizing south dune alignment.

Please confirm if this alignment shift is acceptable.

Signature:

Date: 5/17/2022

Response to RFI by Engineer	
CRPA takes no exception to this alignment tie-in.	
Cianatura:	Date: 5/19/22
Signature: Josh Renard	Date. 3/19/22



DATE: June, 20 2022

RFI Number: 058

Summary of REL by Contractor

SES is requesting a variation to the material used to attach wooden sand fence to wooden posts. Currently, they are using a 13-gauge wire to attach sand fence to the post although nothing is specified from the detail provided in CO#05 which was used for their proposal. SES requests the use of 2" galvanized staples to attach fence to post and feel this method and material variation would speed the installation process and help the crew during the rising temperatures of summer.

SES has provided a detail from another CPRA project where a note on the drawings specifies that in lieu of the wire, 2" galvanized staples may be used (see detail below). Also attached is the detail from CO#05 RFP.

Signature: D	Date: 6	6/20/22

esponse to RFI by Engineer
ne use of the 2" staples provided for review and attached are acceptable with the following stipulation: Staples must e affixed at all horizontal runner locations where the slat meet each post.
gnature: Josh Renard Date: 6/29/22

O Q A D D ORGILL (/Default.aspx) Selected Customer# #078790 IRA'S HARDWARE, LLC Staples - Pkg - Fence # 0941039 ProFIT 0050138 Fence Staple, 1/4 in W Crown, 9 Gauge (3) (/index.aspx? tab=7&sku=0941039&qsPallet=&CostView=1)

′our Retail: USD 9.99/BX
PO#:
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To Favorites (/index.aspx?
&sku=0941039) 📿 Comments

Note: Any prices are subject to change without notice. We will bill you at current prices prevailing at the time of shipment.

Product Information Ordering Specifications Pricing Vendor Information Aveilable Codes Order History Item Restriction	Product Information	Ordering Specifications	Pricing	Vendor Information	Available	Codes	Order History	Item Restriction
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PRODUCT OVERVIEW

9 ga 1/4 in head. Use to fasten wire and fencing to wood posts.

Description du français:

AGRAFE CLOTURE GALV CHAUD 1 LB 2 PO

Descripción español:

GRAPA P/CERCOS GALV EN CAL 5,08 CM 0,454 KG

Product Details

Crown Width:	1/4 in
Finish:	Galvanized
Length:	2 in
Material Gauge:	9

Similar Items









DATE: June 22, 2022

RFI Number: 59

Summary of RFI by Contractor

Attached as part of RFI 059 is a map detailing the proposed modification for sand fence layout within the Caillouet property limits. The primary reason for deviation centers around the erosion that has already occurred within the approved ROW. This erosion will require a shift in sand fence alignment.

This proposal is accurate for the current conditions and will likely need to be revisited at a time closer to install which would be planned post project completion to allow continue unfettered access within the ROW during the pumping and demobilization phases of the project.

Please confirm if this alignment shift is acceptable.

Date: 6/22/2022

Response to RFI by Engineer

Signature:

Confirm that this plan has been communicated with the Caillouets and they are in agreement. Please advise.

Summary of RFI by Contractor

Please see attached updated cross sections and alignment for sand fence at the Caillouet property limits now that dredging operations have concluded. GLDD have contacted and received concurrence from representatives of the Caillouet Property this plan is satisfactory. I have included a copy of that email chain agreement in this package to resolve this RFI.

Signature: *Aff Bradford* Date: 11/10/2022



ME				PROJECT METADATA	LEGEND
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Headlands\04 Drawings\03 Beach\221026_Caminada Alignments And Stationing_HydroTerra_JLS.dwg					


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Bradford, Jeff

From:	Holderfield, Kyle J
Sent:	Thursday, November 10, 2022 9:09 AM
То:	Bradford, Jeff
Subject:	FW: [EXTERNAL] RE: Sand Fence Alignment

Kyle Holderfield Site Manager Great Lakes Dredge & Dock Company, LLC 9811 Katy Freeway, Suite 1200, Houston, TX 77024, USA office +1 (979) 308-7437 kjholderfield@gldd.com http://www.gldd.com

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-----Original Message-----From: Mills, David <DMills@gldd.com> Sent: Monday, November 7, 2022 6:48 AM To: Faught, Christopher <CFaught@gldd.com> Cc: Bradshaw, William <WBradshaw@gldd.com>; Holderfield, Kyle J <KJHolderfield@gldd.com>; Rodriguez, Ronald P <RPRodriguez@gldd.com> Subject: RE: [EXTERNAL] RE: Sand Fence Alignment

OK thanks

-----Original Message-----From: Faught, Christopher <CFaught@gldd.com> Sent: Friday, November 4, 2022 1:36 PM To: Mills, David <DMills@gldd.com> Cc: Bradshaw, William <WBradshaw@gldd.com>; Holderfield, Kyle J <KJHolderfield@gldd.com>; Rodriguez, Ronald P <RPRodriguez@gldd.com> Subject: FW: [EXTERNAL] RE: Sand Fence Alignment

David,

I just received confirmation from Calliouet Land, Tom Durell, that we are good on the Sand Fence Alignment through there property.

I will have Ronald send an email to Josh Renard confirming there agreement as well.

Thanks

Christopher Faught Site Manager Great Lakes Dredge & Dock Company, LLC 9811 Katy Fwy Suite 1200 Houston, TX 77024, US +1 (630) 632-2335 | mobile

Cfaught@gldd.com website | linkedin | vCard

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-----Original Message-----

From: Tom Durel <tomdurel@caillouetland.com> Sent: Friday, November 4, 2022 1:31 PM To: Faught, Christopher <CFaught@gldd.com> Cc: Christina Long <clong@caillouetland.com> Subject: RE: [EXTERNAL] RE: Sand Fence Alignment

Chris ... we are good.

Tom

From: Faught, Christopher <CFaught@gldd.com> Sent: Friday, November 4, 2022 2:21 PM To: Tom Durel <tomdurel@caillouetland.com> Subject: RE: [EXTERNAL] RE: Sand Fence Alignment

Tom

Good Afternoon

Just following up on the Sand Fence Alignment as I have the subcontractor arriving on Wednesday of next week.

Thanks

<http://www.gldd.com/>

Christopher Faught Site Manager

Great Lakes Dredge & Dock Company, LLC

9811 Katy Fwy Suite 1200

Houston, TX 77024, US

+1 (630) 632-2335 | mobile

Cfaught@gldd.com <mailto:Cfaught@gldd.com>

website <http://www.gldd.com> | linkedin <https://www.linkedin.com/in/tyler-drenth-245b781ab/> | vCard <https://dynasend.com/signatures/vcard/TDrenth-at-gldd.com.vcf>

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From: Tom Durel <tomdurel@caillouetland.com <mailto:tomdurel@caillouetland.com>> Sent: Thursday, November 3, 2022 11:12 AM To: Faught, Christopher <CFaught@gldd.com <mailto:CFaught@gldd.com>> Subject: [EXTERNAL] RE: Sand Fence Alignment

I think we are good. I am having our civil engineer take a look and expect that he will be fine. I will send you an email later today or in the morning.

Tom

From: Faught, Christopher <CFaught@gldd.com <mailto:CFaught@gldd.com> > Sent: Thursday, November 3, 2022 11:22 AM To: Tom Durel <tomdurel@caillouetland.com <mailto:tomdurel@caillouetland.com> > Subject: RE: Sand Fence Alignment

Tom

Good Morning,

Kyle is on time off, and I am onsite for the next week here on the Caminada Headlands Project.

We have the subcontractor lined up to commence repairs and installation of sand fence next week on the 9th, and would like to confirm if Caillouet Land group have any reservations or concerns with the new alignment.

I appreciate your time, and look forward to your reply.

Thanks

<http://www.gldd.com/>

Christopher Faught Site Manager

Great Lakes Dredge & Dock Company, LLC

9811 Katy Fwy Suite 1200

Houston, TX 77024, US

+1 (630) 632-2335 | mobile

Cfaught@gldd.com <mailto:Cfaught@gldd.com>

website <http://www.gldd.com> | linkedin <https://www.linkedin.com/in/tyler-drenth-245b781ab/> | vCard <https://dynasend.com/signatures/vcard/TDrenth-at-gldd.com.vcf>

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From: Holderfield, Kyle J <KJHolderfield@gldd.com <mailto:KJHolderfield@gldd.com >> Sent: Wednesday, November 2, 2022 9:08 AM To: Tom Durel <tomdurel@caillouetland.com <mailto:tomdurel@caillouetland.com >> Cc: Bradshaw, William <WBradshaw@gldd.com <mailto:WBradshaw@gldd.com >; Mills, David <DMills@gldd.com <mailto:DMills@gldd.com> >; Faught, Christopher <CFaught@gldd.com <mailto:CFaught@gldd.com> > Subject: Sand Fence Alignment

Tom,

Thanks for the call back. As discussed, here is the proposed revision to the send fence layout. Let us know if you have any questions or concerns.

Regards,

<http://www.gldd.com/>

KYLE HOLDERFIELD Site Manager

Great Lakes Dredge & Dock Company, LLC

9811 Katy Freeway | Suite 1200 | Houston, TX 77024 | USA

+1 (979) 308-7437

kjholderfield@gldd.com <mailto:kjholderfield@gldd.com>

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website <http://www.gldd.com> | linkedin <https://www.linkedin.com/company/55405/> | vCard
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<https://www.gldd.com/2022-gldd-calendar/>
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Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: June 22, 2022

RFI Number: 60

Summary of RFI by Contractor

Attached as part of RFI 060 is a map requesting additional access points south of the dune. The intent of the access corridors as shown on the attached map would be for SES to traverse at the water line from EIR and cut onto the dune at the designated points on the south dune at the following stations.

375+00, 325+00, 267+00, 225+00, 209+00, 170+00, 155+00, 100+00, and 50+00. The access corridors at Sta 100+00 and 267+00 utilize the existing dredge pipeline corridor. The access corridors at Sta 209+00 and 225+00 allow safe access over XTO on the dune and the corridor at Sta 155+00 and 170+00 allow safe access over the dune at LOOP.

The addition of the access corridors south of the dune with material being delivered for SES would allow for a better strategic layout and installation which would aid in expediting the install. By traversing at the waterline, this allow for minimally invasive access down the Wisner property with the least amount of disturbance to the existing beach as well as any potential impact to wildlife in the area.

Please confirm if these access corridors for SES are acceptable.

Signature:

Date: 6/22/2022

Response to RFI by Engineer

All travel should take place inside the project limits, with the only exception being the 5/11 agreed dune crossing at approximate south dune station 375+00. Neither the additional locations above nor the pipeline corridors are acceptable for traversing to the south shoreline for equipment or material mob/demob. Please ensure that all project personnel including subcontractors are aware and use the 5/11 (attached). These additional crossing locations are not approved.

Signature:

Jog Renard

Date: 6/29/22





Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: July 1, 2022

RFI Number: 61

Summary of RFI by Contractor

Wilco Marsh Buggies has requested a variance to the required days between lifts of material on the ECD. Wilco had removed material to create a gap on the ECD at approximate stations 176+00 to 178+00 to allow transfer of equipment. The first lift to close the gap was placed on June 14 2022, seventeen days ago today. Wilco feels that lift one has dried sufficiently enough to begin lift two and the quality will meet contract standards. Lift two material has been stacked near the placement area and they are ready to proceed with filling the gap at the earliest convenience. This will also benefit the dredge arrival as the required thirty day wait period would expire the day before Dredge Alaska is due to arrive.

Signature:

Date: 7/1/22

Response to RFI by Engineer

A variance will be granted for this location only. You can proceed with lift 2, however, note that it is the contractor's responsibility to maintain the ECD during the construction.

Signature: Cosh Kenard

Date: 7/6/22

Caminada Headland Back Barrier Marsh Creation Project (BA-0171) Request for Information (RFI)

DATE: October 4, 2022

RFI Number: 62

Summary of RFI by Contractor

GLDD would like to propose an acceptable timeline for the removal of primary weirs at the far eastern boundary of increment 4. GLDD is requesting concurrence for the removal of primary weirs 14 days after the conclusion of dredging activities in increment 4 or at the completion of gapping of the earthen containment dike's, whichever comes first. Please advise if this timeframe is acceptable.

Date:

Response to RFI by Engineer

Signature:

Jeff Bradford

We take no exception to removing the primary weirs no sooner than 14 days after all dredging is complete.

6 Kenard

10/04/22



April 13, 2021

Chris Ameika Project Sponsor Great Lakes Dredge & Dock Company, LLC 2 Riverway, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 01- Southern Dune Restoration

Dear Chris:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the dune restoration work discussed in the 11:30 am meeting on 4/12/21 between CPRA & GLDD. This discussion was based on GLDD's April 6th, 2021 revision 1 proposal (attached). GLDD is authorized to proceed with the following items at the below cost. A change order will follow to capture this.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Mob/Demobilization	1	LS	\$23,550.00	\$23,550.00
2	Dune Construction	60,000	CY	\$6.85	\$411,000.00
3	Equipment Access Canal Dredging	1	LS	\$18,330.00	\$18,330.00
4.1	Pre-Construction Survey	1	LS	\$45,415.00	\$45,415.00
4.2	Process Survey	1	LS	\$77,155.00	\$77,155.00
5	Sand Fence	47,230	LF	\$9.70	\$458,131.00
6	Airboat w/ Operator	90	Day	\$1,055.56	\$95,000.00

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV1 Proposal for Southern Dune Restoration.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Ignacio Harrouch \\scgbrfs02\scg business\02020\191102\01600\change orders\co 05\210412_ ba-0171 work directive 01- southern dune restoration.doc



August 4, 2021

Chris Ameika Project Sponsor Great Lakes Dredge & Dock Company, LLC 2 Riverway, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 02- Caillouet Corner

Dear Chris:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Caillouet Road Build Up (Option C) as proposed in your West Alternate Closures Proposal REV2 sent 8/4/21 and attached. GLDD is authorized to proceed with the following items at the below cost. A change order will follow to capture this. This work directive and the corresponding change order is contingent on GLDD signing the Caillouet ROW Agreement immediately. GLDD shall submit the signed agreement and workplan to CPRA for review.

Note the following: This work directive does not release the contractor from any of their other contractual obligations. All other contract provisions still apply, such as but not limited to original General Provisions, Special Provisions, and "Act of God" language included in GP-22.

Lastly, the equipment used for this work can be mobilized and demobilized via Elmer's Island Road through CPRA's existing permits with Louisiana Department of Wildlife and Fisheries. CPRA will coordinate with LDWF and requires 2 business days' notice for any proposed used of the road.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Mob/Demobilization	1	LS	\$44,950.00	\$44,950.00
2	Road Construction up to 1,275 CY	1,275	CY	\$62.24	\$79,356.00
3	Road Construction over 1,275 CY	400	CY	\$49.50	\$19,800.00
4	Additional Airboat	14	Day	\$1,042.00	\$14,588.00
5	Site Overhead	14	Day	\$2,259.00	\$31,626.00

Please proceed with this work once the agreement is signed. If you have any questions do not hesitate to contact me.

August 4, 2021 BA-0171 Work Directive 02 Page 2 of 2

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV2 Proposal for West Alternate Closures.

Copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Ignacio Harrouch, Jerry Carroll \\scgbrfs02\scg business\02020\191102\01600\change orders\co 06\210804_ba-0171 work directive 02- caillouet corner.doc

CONFIDENTIAL

Great Lakes Dredge & Dock Company, LLC Caminada Headlands Marsh Barrier Creation Coastal Protection and Restoration Authority (CPRA) Contract No: BA-0171 West Marsh Creation Alternate Closure Options

	Proposal Breakdow	n Summa	ry_RE	V2		
					Unit	
Line Item	Description	Quantity	Unit		Price	Amount
OPT A	Closure from ECD (STA 38+00) to South Dune (STA 30+00)					
	Surveys	1.00	LS	\$	12,151.00	\$12,151.00
	Construction of Dike to +5-ft, 13-ft crown width using a marsh excavator.	610.00	LF	\$	97.68	\$59,584.80
	Installation of 4x 30-in weir pipes in ECD	1.00	LS	\$	30,757.00	\$30,757.00
	Additional Airboat	18.00	Days	\$	1,059.88	\$19,077.84
	Site Overhead	18.00	Days	\$	2,299.00	\$41,382.00
	Total					\$162,952.64
OPT C	Build up Caillouet Road by Hauling and Placing Sand from Beach (less than 3,000-ft haul distance)					
	Mob/Demob via Elmer's Island Road	1.00	LS	\$	44,950.00	\$44,950.00
	Haul and Build Road - Up to 1,275cy	1,275.00	CY	\$	62.24	\$79,356.00
	Haul and Build Road - Over 1,275cy	400.00	CY	\$	49.50	\$19,800.00
	Additional Airboat	14.00	Days	\$	1,042.00	\$14,588.00
	Site Overhead	14.00	Days	\$	2,259.00	\$31,626.00
	Total		-			\$190,320.00

OPTION C - Mob/Demob via Elmer's Island Road

OPTION C - Unit Rate applies to a minimum 1,200cy. If volume is below, Wilco has right to adjust unit rate.



September 9, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 03- Post Ida Lidar Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida lidar survey discussed in the 3:30 pm meeting on 9/8/21 between CPRA & GLDD. This discussion was based on GLDD's September 8th, 2021 revision 1 proposal (attached) that was included in the meeting invite. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this. Note the following clarification to the proposal:

- Scope includes the entire project limits, including all the following: the Caillouet road, south dune, north ECD, training dikes, no work zone.
- The surveying deliverable will include different color designations at 1' elevation increments.
- The raw survey data and AutoCAD files will be submitted as part of the deliverable along with a brief letter or memo describing methods, metadata, etc., as needed.
- The survey will be tied to the project survey control.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Lidar Survey of Project	1	LS	\$26,737.76	\$26,737.76

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV1 Proposal for Lidar Survey.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, Chris Ameika

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So the second	Surveying Quote Schedule		
•			
Attn:	Tom Salter Date Great Lakes Dredge and Dock		9/8/2021
	9811 Katy Freeway, Suite 1200 Houston, TX 77024 (252) 342-4971 trsalter@gldd.com	:	2021-161
From:	Keith J. Roberts		
Project: Location:	Post IDA Lidar Flight Caminada Back Barrier Jefferson and Lafourche Parishes, Louisiana		
	Description		Task Cost
	LIDAR and Topographic Survey (Includes Certified Deliverables)		
Project Se	tup	\$	1,041.40
Preparatio	n of Final Survey Report	\$	1,330.24
LIDAR Su	vey (Includes Project Setup, Mobilization, Demobilization, Data Acquisition and Data Processing)	\$	18,083.26
	bund Truth Topographic Survey (Includes Project Setup, Mobilization, Demobilization, Data Acquisition, Data Processing and Certified Data		
	es and Drawings)	\$	6,282.86
TOTAL LI	JMP SUM LIDAR SURVEY	\$	26,737.76
Notes: 1) 2) 3) 4) 5) 6) Sincerely,	a Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project. Lidar and topographic survey is a lump sum proposal. Lidar and topographic survey includes 2 person crew, RTK System, Airborne Lidar System, UTV, data acquisition, data processing and data delive certified deliverables. Deliverables Include: •LiDAR collection will be done at an aggregate average of 10 points per square meter •Post-processed, calibrated LiDAR strips in LAS1.4 format verified against client control •Bare-earth classified point cloud in tiling scheme provided by Buyer (if provided). •Bare-earth DEM in 32bit floating point format ESRI Ascii Grid (.asc) •LiDAR control report •All Topographic data will be produced per the "ASPRS Positional Accuracy Standards for Digital Geospatial Data". LIDAR survey coverage will be from the shoreline of the Gulf of Mexico and extend north approximately 3500° and include the earthen containment southern dune. Third party charges will be billed at cost All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.		
HydroTerr 212 Jacob Scott, LA Phone: (33			



September 14, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 04- Post Ida RTK Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida revised RTK survey proposal provided on September 13, 2021. Approximate ECD Stations 35+00, 145+00, 206+00 to 208+00, 231+00, 242+00 to 243+00, and 261+00 to 263+00 were degraded by Hurricane Ida and are to be surveyed. Further details are noted on the attached proposal. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this.

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	RTK Survey of ECD	1	LS	\$7,009.26	\$7,009.26

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

Josh Renard, PE Project Engineer

Attachments: GLDD REV1 Proposal for Topo & Batymetric Survey.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, Chris Ameika

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HYDRO	HYDROTERRA		
	Surveying Quote Schedule		
Attn:	Tom Salter Date:		9/13/2021
	Great Lakes Dredge and Dock		
	9811 Katy Freeway, Suite 1200 Request #: Houston, TX 77024		2021-164
	(252) 342-4971		
	trsalter@gldd.com		
From:	Keith J. Roberts		
Project:	Post IDA Topographic and Bathymetric Survey Caminada Back Barrier Revised 09-13-2021		
Location:	Jefferson and Lafourche Parishes, Louisiana		
	Description	1	Task Cost
	Bathymetric and Topographic Survey (Includes Certified Deliverables)		
Project Se	stun	\$	1,041.40
1 10,000 00		Ψ	1,0+1.40
242+00 to containme	hic and Bathymetric Survey - Sta 35+00, Sta 145+00 (Bayou Moreau), Sta. 206+00 to 208+00 (5 Cross Sections Spaced 50'), Sta. 231+00, Sta 243+00 (3 Cross Section), Sta. 261+00 to 263+00 (5 Cross Sections Spaced 50'), cross sections will extend 100' on both sides of the earthen ent dike centerline, Stationing as provided by GLDD and Sigma Consulting Group (Includes Project Setup, Mobilization, Demobilization, Data n and Data Processing)	\$	5,967.86
		•	
TOTALL	UMP SUM TOPOGRAPHIC AND BATHYMETRIC SURVEY	\$	7,009.26
HydroTerr Notes: 1) 2)	ra Technologies, LLC (HydroTerra) appreciates the opportunity to submit a cost proposal to perform tasks on the above referenced project. Topographic and bathymetric survey is a lump sum proposal. Topographic and bathymetric survey includes 2 person crew, RTK System, UTV, airboat w/operator and fuel, data acquisition, data processing and	certifi	ed data
3)	deliverables. Third party charges will be billed at cost		
4)	All survey deliverables will be certified by a Professional Land Surveyor licensed in the State of Louisiana.		
Sincerely,	Q-RBS		
HydroTerr 212 Jacob Scott, LA Phone: (3			



December 3, 2021

Tom Salter Senior Project Manager Great Lakes Dredge & Dock Company, LLC Two Riverway Drive, Suite 1130 Houston TX 77056

RE: Caminada BA-0171 Work Directive 05- Post Ida MCA Pre-Construction Survey

Dear Tom:

The purpose of this letter is to direct the Great Lakes Dredge and Dock to proceed with the Post Ida MCA Pre-Con Survey proposal provided on November 24, 2021. Further details are noted on the attached proposal. Access for this work shall be via airboat and not through Elmer's Road. GLDD is authorized to proceed with the following item at the below cost. A change order will follow to capture this.

LINE TEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
27	Pre-Con Survey of MCA	1	LS	\$55,735.90	\$55,735.90

Please proceed with this work. If you have any questions do not hesitate to contact me.

Sincerely, SIGMA CONSULTING GROUP, INC.

f Renard

Josh Renard, PE Project Engineer

Attachments: GLDD Proposal for MCA Survey email dated 11/24/21.

copy: Bryan Harmon, Renee Bennett, Shannon Haynes, Adam Ledet, Patricia Taylor, Jerry Carroll, \\scgbrfs02\scg business\02020\191102\01600\change orders\co 10\211202_ba-0171 work directive 05- post ida mca pre-con survey.doc Joshua Renard

From:	Salter, Thomas R <trsalter@gldd.com></trsalter@gldd.com>
Sent:	Wednesday, November 24, 2021 1:40 PM
To:	Joshua Renard; Renee Bennett
Cc:	Johanson, David J; Auernhamer, Steven R; Quakkelaar, Mitchell A; Perrine, Kenneth (Kenny) R
Subject:	Requested Proposal for MCA Survey
Importance:	High

Josh,

Per our discussion on November 23rd at the Caminada bi-weekly meeting, I am pleased to provide CPRA with the following MCA survey quote:

- <u>\$55,735.90</u>
 - o Includes Pre-Construction Submittals:
 - Post Ida Topographic Survey Marsh Creation Area TS 210.7.13 Cross Sections as Shown on the Plans
 - Includes Project Setup
 - Project Control
 - Locate/Verify/Establish, Mobilization, Demobilization, Data Acquisition, Data Processing
 - Certified Data And Drawings
 - Any CPRA requested changes to the drawings after delivery would be billed additionally, at \$134/man hour.

Thank you for your continued support.

Best regards,



TOM SALTER Senior Project Manager Great Lakes Dredge & Dock Company, LLC 9811 Katy Freeway | Suite 1200 | Houston, TX 77024 | USA +1 (252) 342-4971 trsalter@gldd.com website | linkedin | vCard

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