COASTAL PLANNING & ENGINEERING OF NORTH CAROLINA, INC.

4038 MASONBORO LOOP ROAD, WILMINGTON, NC 28409 910-791-9494 PHONE 910-791-4129 FAX

July 21, 2017

Robert L. Outten
Dare County
954 Marshall C Collins Dr. Room 286
Manteo, NC 27954

Re: Dare County Beach Nourishment Project
Recommendation for Payment of Invoice 003 (Revised July 21, 2017)
Great Lakes Dredge and Dock (GLDD)

Dear Mr. Outten:

Attached is GLDD's invoice for work performed through July 10, 2017. **We recommend payment in the amount of $11,250,016.15.** The line items contained in the invoice are discussed below.

Item # II.A: Town of Duck Beach Fill

GLDD requested payment for an additional 728,551.16 cubic yards ($6,265,539.98) of beach fill for the Town of Duck, which brings the total volume to 1,129,747 cubic yards. We have reviewed the survey data and have verified that a minimum of 1,129,747 cubic yards have been placed within the dune and beach fill template between Stations 87+63 and 171+76 along the Town of Duck project at a cost of $8.60 per cubic yard. The 35 additional acceptance sections from Stations 113+00 to 147+00 have been accepted. Per GC-14.10, the contractor may request monthly progress payment based on completed acceptance sections, when a minimum of five (5) Acceptance Sections have been completed, surveyed and accepted. Therefore, we recommend payment of the requested amount, which is $6,265,539.98 less retainage.

Item # II.B: Staging Area Beach Access Mats

GLDD requested payment for the final 20% of the Staging Area Beach Access Mats. GLDD has removed the Staging Area Beach Mats along those portions of the staging area agreed to by GLDD and the USACE Field Research Facility. CPE-NC has verified that the mats have been removed and the mat footprint has been restored with the exception of those items included in the list of items to be corrected in the tentative certificate of Substantial Completion. GLDD previously submitted a survey of the centerline of the Staging Area Beach Access Mats, which has been verified by the Engineer. GLDD has met the specifications of GC-15 and is therefore eligible for payment of the final 20% of this item, not previously invoiced.

Therefore, we recommend payment in the requested amount of $15,435.00 less retainage.

Item # III.A: Town of Kitty Hawk Beach Fill

GLDD requested payment for 233,819.00 cubic yards ($1,788,715.35) of beach and dune fill. We have reviewed the survey data and have verified that a minimum of 233,819.00 cubic yards have been placed within the dune and beach fill template between Stations 163+00 and 189+00 along the Town of Kitty Hawk project at a cost of $7.65 per cubic yard. The acceptance sections from Stations 163+00 and 189+00 have been accepted. Per GC-14.10, the contractor may request monthly progress payment based on completed acceptance sections, when a minimum of five (5) Acceptance Sections have been completed, surveyed and accepted. Therefore, we recommend payment of the requested amount, which is $1,788,715.35 less 5% retainage.

Item # IV.A: Town of Kill Devil Hills Beach Fill

GLDD requested payment for 395,207.00 cubic yards ($2,924,531.80) of beach and dune fill. We have reviewed the survey data and have verified that a minimum of 395,207.00 cubic yards have been placed within the dune and beach fill template between Stations 189+00 and 199+00 and between Stations 288+00 and 325+66 along the Town of Kill Devil Hills project at a cost of $7.40 per cubic yard. The acceptance sections from Stations 189+00 to 199+00 and Stations 277+00 to 325+66 have been accepted. Per GC-14.10, the contractor may request monthly progress payment based on completed acceptance sections, when a minimum of five (5) Acceptance Sections have been completed, surveyed and accepted. Therefore, we recommend payment of the requested amount, which is $2,924,531.80 less 5% retainage.

Item # VII.D: Sea Turtle Relocation Trawling

GLDD has requested payment for 58 days of relocation trawling between June 11 and July 10, bringing the total number of days of trawling to 90.1625. During the 30 days from June 11 to July 10, two vessels were used to trawl in Borrow Area A and C, while the dredges Liberty Island, Padre Island, and Dodge Island were digging. We have verified that the trawlers were in operation for a minimum of 8 hours per day for days warranting the full day rate. GLDD has met the specification GC-13; therefore, we recommend payment in the requested amount of $263,900.00 less 5% retainage.

Retainage

The contract specifies a 5% retainage on all payments. The cost of the work performed during this pay period is $11,258,122.13, which would equate to retainage associated with this invoice of $562,906.11. Great Lakes has submitted a letter notifying CPE-NC that all work required for the Duck portion of the project is substantially complete and has requested a Certificate of Substantial Completion for this portion of the work in accordance with Paragraph 14.05 *Partial Utilization* and 14.04.A through D *Substantial Completion* in the Standard General Conditions of the Construction Contract (0700). CPE-NC and GLDD completed an inspection of the work on July 1, 2017 and July 7, 2017. A walkthrough is scheduled to be conducted with Town Staff on July 22, 2017. CPE-NC plans to issue a tentative certificate of Substantial Completion to the County and Towns on July 22, 2017 following the inspection. If issued, this tentative certificate of Substantial Completion will fix the date of Substantial Completion of the Duck project as July 22, 2017.

In accordance with Paragraph 6.02.B, Great Lakes is entitled to a payment amount sufficient to increase total payments to 100% of the Work Completed for Duck, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100% of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion. The total retainage for the Duck project reflective of Invoices 001, 002, and 003 totals $584,800.13. CPE-NC has estimated a cost of $30,000 to correct those items included in the tentative list of items to be completed. Therefore, we recommend payment of $554,800.13 of the retainage held for the project associated with the Duck portion of the Work. The balance of the retainage held by the County is $452,124.16

Payment Summary

Item No.	Item	Unit	Quantity	Unit Prices	CO#1 Cost	Invoice #3 Quantity	Invoice #3 Earnings
I. A.	Mobilization/Demobilization	L.S.	1	$8,150,000.00	$8,150,000.00	60.0%	$0.00
I. B.	Performance and Payment Bond	L.S.	1	$300,000.00	$300,000.00	1	$0.00
I. C.	Compliance Surveys of Borrow Area	L.S.	1	$64,000.00	$64,000.00	50.0%	$0.00
I. D.	Sea Turtle Abundance Trawling	Days	0	$4,600.00	$0.00	0	$0.00
II. A.	Hydraulic Beach Fill (Town of Duck)	C.Y.	1,180,000	$8.60	$10,148,000.00	1,129,747.00	$6,265,539.98
II. A-1.	Optional Additional 20% Beach Fill if only Borrow Area C is used to Construct the Town of Duck	C.Y.	236,000	$0.00	$0.00	39,145.5	$0.00
II. B.	Staging Area Beach Access Mats	L.F.	1,120	$105.00	$117,600.00	735	$15,435.00
III. A.	Hydraulic Beach Fill (Town of Kitty Hawk)	C.Y.	1,765,000	$7.65	$13,502,250.00	233,819.00	$1,788,715.35
IV. A.	Hydraulic Beach Fill (Town of Kill Devil Hills)	C.Y.	840,000	$7.40	$6,216,000.00	395,207.00	$2,924,531.80
	Additive Items						
V. A.	Sand Fencing (Kitty Hawk)	10 Ft Sections	1,900	$40.00	$76,000.00	0	$0.00
	Discretionary Items						
VI. A.	Mobilization/Demobilization for Beach Discharge Screening	L.S.	0	$70,000.00	$0.00	0	$0.00
VI. B.	Beach Discharge Screening	Days	0	$3,500.00	$0.00	0	$0.00
VI. C.	Removal of Screened Beach Discharge Material	C.Y.	0	$11.55	$0.00	0	$0.00
VI. D.	Dredge Intake Screening	C.Y.	0	$2.30	$0.00	0	$0.00
VI. E.	Mobilization for Removal of Oversized Material from Constructed Beach	L.S.	0	$8,000.00	$0.00	0	$0.00
VI. F.	Removal of Oversized Material from Constructed Beach	Days	0	$3,200.00	$0.00	0	$0.00
VII. A.	Turbidity Monitoring	Days	0	$2,250.00	$0.00	0	$0.00
VII. B.	Mobilization/Demobilization for Tilling	L.S.	0	$5,500.00	$0.00	0	$0.00

VII. C.	Beach Tilling	Acre	0	$585.00	$0.00	0	$0.00
VII. D.	Sea Turtle Relocation Trawling	Days	180	$4,550.00	$819,000.00	90.1625	$263,900.00
VII. E.	Hopper Dredge Standby Rate (Per Dredge)	Days	0	$210,000.00	$0.00	0	$0.00
VII. F.	Cutterhead Dredge Standby Rate (Per Dredge)	Days	0	$177,500.00	$0.00	0	$0.00
VIII. A.	Sand Fencing (Kill Devil Hills)	10 Ft Sections	0	$40.00	$0.00	0	$0.00
VIII. B.	Sand Fencing (Duck)	10 Ft Sections	0	$40.00	$0.00	0	$0.00

Total Earned To Date:	**$20,138,485.73**
Retainage (5%):	**$1,006,924.29**
Earnings Minus Retainage:	**$19,131,561.44**
Previous Paid:	**$8,436,345.42**
Earnings This Period:	**$11,258,122.13**
Retainage This Period:	**$562,906.11**
Retainage Released (Duck)	**$554,800.13**
Amount Due This Invoice:	**$11,250,016.15**

Note Quantities and Unit Price represent values established in CO #1.

The following table provides a breakdown of costs incurred for each Town's project based on Invoice 003. Items I.A through I.D are being paid for at a pro-rated basis by the Towns of Duck, Kitty Hawk and Kill Devil Hills with respect to the percent of the initial contract volume being placed in each Town. These pro-rated percentages are Town of Duck – 31.2%, Town of Kitty Hawk – 46.6%, and Town of Kill Devil Hills – 22.2%. The Town of Southern Shores has a separate mobilization and demobilization fee for which it will pay 100% of the cost.

Town	Item	Invoice #3 Total
Duck	Items I.A. - I.D.	$0.00
	Staging Areas Beach Access Mats	$15,435.00
	Hydraulic Beach Fill	$6,265,539.98
	Relocation Trawling	$127,400.00
	SUB TOTAL:	$6,408,374.98
	RETAINAGE (5%)	$320,418.75
	RETAINAGE RELEASED:	$554,800.13
	TOTAL DUE:	**$6,642,756.36**
Southern Shores	Items I.A. - I.D.	$0.00
	Hydraulic Beach Fill	$0.00
	Relocation Trawling	$0.00
	SUB TOTAL:	$0.00
	RETAINAGE (5%)	$0.00
	TOTAL DUE:	**$0.00**

Kitty Hawk	Items I.A. - I.D.	$0.00
	Hydraulic Beach Fill	$1,788,715.35
	Sand Fencing	$0.00
	Relocation Trawling	$63,700.00
	SUB TOTAL:	$1,852,415.35
	RETAINAGE (5%)	$92,620.77
	TOTAL DUE:	**$1,759,794.58**
Kill Devil Hills	Items I.A. - I.D.	$0.00
	Hydraulic Beach Fill	$2,924,531.80
	Relocation Trawling	$72,800.00
	SUB TOTAL:	$2,997,331.80
	RETAINAGE (5%)	$149,866.59
	TOTAL DUE:	**$2,847,465.21**
	Earnings This Period:	**$11,258,122.13**
	Retainage This Period:	**$8,105.98**
	Amount Due This Invoice:	**$11,250,016.15**

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Julien Devisse, P.E.
Project Manager

cc: Ken Willson, CPE-NC
Chris Layton, Town of Duck
Peter Rascoe, Town of Southern Shores
Andy Stewart, Town of Kitty Hawk
Debbie Diaz, Town of Kill Devil Hills

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