COASTAL PLANNING & ENGINEERING OF NORTH CAROLINA, INC.

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

August 24, 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 004 (Revised August 23, 2017)
Great Lakes Dredge and Dock (GLDD)

Dear Mr. Outten:

Attached is GLDD's invoice for work performed through August 10, 2017. **We recommend payment in the amount of $7,670,844.53.** The line items contained in the invoice are discussed below.

Item # I.A: Mobilization & Demobilization

GLDD has completed construction of the Duck portion of the project. A certification of substantial completions was issued on July 22, 2017. GLDD has met the specification SGC-10.2 requiring completion of the final demobilization of all equipment and personnel and is therefore eligible for payment of the remaining 40% of the lump sum price. Therefore, we recommend payment in the requested amount of $1,017,120.00. In accordance with Paragraph 6.02.B, no retainage is recommended given Great Lakes is entitled to a payment amount sufficient to increase total payments to 100%, of the Work Completed for Duck. Upon payment of this invoice, the County will still hold $30,000 in retainage to cover the amounts determined by the Engineer in accordance with Paragraph 14.02.B.5 of the General Conditions to cover the value of Work shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

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

GLDD requested payment for 330,682.00 cubic yards ($2,529,717.30) of beach and dune fill. We have reviewed the survey data and have verified that a minimum of 330,682.00 cubic yards have been placed within the dune and beach fill template between Stations -25+00 to -15+00, 0+00 to 17+00 and 147+00 to 163+00 along the Town of Kitty Hawk project at a cost of $7.65 per cubic yard. The acceptance sections from Stations -25+00 to -15+00, 0+00 to 17+00 and 147+00 to 163+00 have been accepted. Per SGC-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 $2,529,717.30 less 5% retainage.

Item # III.B: Town of Southern Shores Beach Fill

GLDD requested payment for 80,000.00 cubic yards ($776,000.00) of beach fill. We have reviewed the survey data and have verified that a minimum of 80,000.00 cubic yards have been placed within the dune and beach fill template between Stations 0+00 and -15+00 along the Town of Southern Shores project at a cost of $9.70 per cubic yard. The acceptance sections from Stations 0+00 to -15+00 have been accepted. Per SGC-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 $776,000.00 less 5% retainage.

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

GLDD requested payment for 422,152.00 cubic yards ($3,123,924.80) of beach and dune fill. We have reviewed the survey data and have verified that a minimum of 422,152.00 between Stations 189+00 to 199+00 and 288+00 to 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 288+00 to 325+66 have been accepted. Per SGC-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 $3,123,924.80 less 5% retainage.

Item # VII.D: Sea Turtle Relocation Trawling

GLDD has requested payment for 30 days of relocation trawling between July 11 and August 10, bringing the total number of days of trawling to 120.1625. On July 11 and 12, two vessels were used to Trawl in Borrow Area A, while the dredges Liberty Island and Padre Island were digging. For the rest of the month, only 1 trawler was necessary as the Liberty Island was the only dredge on site. We have verified that trawlers were in operation for a minimum of 8 hours per day for days warranting the full day rate. GLDD has met the specification SGC-13; therefore, we recommend payment in the requested amount of $136,500.00 less 5% retainage.

Retainage

The contract specifies a 5% retainage on all payments. The cost of the work performed during this pay period is $7,634,262.10; however, as previously stated, no retainage is recommended to be held for the demobilization of the Duck portion of the project. This results in an effective retainage for this invoice of $381,713.11. Great Lakes has submitted a letter notifying CPE-NC that all work required for the Kill Devil Hills 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, the Town of Kill Devil Hills and GLDD completed an inspection of the work on August 18, 2017. CPE-NC issued a tentative certificate of Substantial Completion to the County and Town on August 20, 2017 following the inspection, which fixed the date of Substantial Completion of the Kill Devil Hills project as August 18, 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 Kill Devil Hills, 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 shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion. The total retainage for the Kill Devil Hills project reflective of Invoices 001, 002, 003 and 004 totals $367,439.53. CPE-NC has not identified any estimated cost to correct those items included in the tentative list of items to be completed. Therefore, we recommend payment of $367,439.53 of the retainage held for the project associated with the Kill Devil Hills portion of the Work. The balance of the retainage held by the County is $415,541.73.

Payment Summary

Item No.	Item	Unit	Quantity	Unit Prices	CO#2 Cost	Invoice #4 Quantity	Invoice #4 Earnings
I. A.	Mobilization/Demobilization	L.S.	1	$8,150,000.00	$8,150,000.00	72.48%	$1,017,120.00
I.A-1	Mobilization/Demobilization (Southern Shores)	L.S.	1	$85,000.00	$85,000.00	60.0%	$51,000.00
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	$0.00
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	39,146.50	$0.00
II. B.	Staging Area Beach Access Mats	L.F.	1,120	$105.00	$117,600.00	735.00	$0.00
III. A.	Hydraulic Beach Fill (Town of Kitty Hawk)	C.Y.	1,765,000	$7.65	$13,502,250.00	564,501.00	$2,529,717.30
III. B.	Hydraulic Beach Fill (Southern Shores)	C.Y.	80,000	$9.70	$776,000.00	80,000.00	$776,000.00
IV. A.	Hydraulic Beach Fill (Town of Kill Devil Hills)	C.Y.	840,000	$7.40	$6,216,000.00	817,359.00	$3,123,924.80
	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	120.1625	$136,500.00
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:	**$27,772,747.83**
Total Retainage Withheld:	**$415,541.73**
Earnings Minus Retainage:	**$27,357,206.10**
Previous Paid:	**$19,686,361.57**
Earnings This Period:	**$7,634,262.10**
Retainage This Period:	**$330,857.11**
Retainage Released (KDH)	**$367,439.53**
Amount Due This Invoice:	**$7,670,844.53**

Note Quantities and Unit Price represent values established in CO #2.

The following table provides a breakdown of costs incurred for each Town's project based on Invoice 004. Items I.A through I.D, excluding item I.A-1, are being paid for at a pro-rated basis by the Towns of Duck, Kitty Hawk and Kill Devil Hills. These pro-rated percentages, which are based on the initial contract volume being placed in each Town, are Town of Duck – 31.2%, Town of Kitty Hawk – 46.6%, and Town of Kill Devil Hills – 22.2%. However, for this invoice, the only earnings that fall under this category is the demobilization of the Duck Project. For this reason, the entirety of that line item has been assigned to Duck. As established by CO#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 #4 Total
Duck	Items I.A. - I.D.	$1,017,120.00
	Staging Areas Beach Access Mats	$0.00
	Hydraulic Beach Fill	$0.00
	Relocation Trawling	$0.00
	SUB TOTAL:	$1,017,120.00
	RETAINAGE (5%)	$50,856.00
	RETAINAGE RELEASED:	$50,856.00
	TOTAL DUE:	**$1,017,120.00**

Southern Shores	Items I.A. - I.D.	$51,000.00
	Hydraulic Beach Fill	$776,000.00
	Relocation Trawling	$18,200.00
	SUB TOTAL:	$845,200.00
	RETAINAGE (5%)	$42,260.00
	TOTAL DUE:	**$802,940.00**
Kitty Hawk	Items I.A. - I.D.	$0.00
	Hydraulic Beach Fill	$2,529,717.30
	Sand Fencing	$0.00
	Relocation Trawling	$50,050.00
	SUB TOTAL:	$2,579,767.30
	RETAINAGE (5%)	$128,988.37
	TOTAL DUE:	**$2,450,778.94**
Kill Devil Hills	Items I.A. - I.D.	$0.00
	Hydraulic Beach Fill	$3,123,924.80
	Relocation Trawling	$68,250.00
	SUB TOTAL:	$3,192,174.80
	RETAINAGE (5%)	$159,608.74
	RETAINAGE RELEASED:	$367,439.53
	TOTAL DUE:	**$3,400,005.59**
	Earnings This Period:	**$7,634,262.10**
	Retainage This Period:	**$330,857.11**
	Amount Due This Invoice:	**$7,670,844.53**

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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