

## COASTAL PLANNING & ENGINEERING OF NORTH CAROLINA, INC.

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April 22, 2014

Christopher Layton  
Town Manager  
Town of Duck  
P.O. Box 8369  
Duck, NC 27949

**Subject: Invoices 1745591-R8-526 and 1745594-R8-526: Project Update**

Dear Mr. Layton:

This letter serves as an update to you and your staff on CPE-NC's progress with regards to the Permitting and Design Services for the Town of Duck Beach Nourishment Project.

Invoice 1745591-R8-526 reflects our efforts in completing 49.0% of the permitting and design scope of work as of April 1, 2014. The increase from the previously reported completion of 44.3% of the scope reflects CPE-NC's efforts during the month of March, 2014. These efforts are associated with coordination with Town staff and the engineering design of the beach fill.

Invoice 1745594-R8-526 reflects our efforts in completing 2.6% of the marine sand search investigation and borrow area design scope of work as of April 1, 2014. Note that the invoice distinguishes between the base cost of the sand search and the contingency associated with vibracores that may or may not be needed. The increase from the previously reported completion of 2.1% of the scope reflects CPE-NC's efforts during the month of March, 2014. These efforts were limited to internal coordination and coordination with subcontractors associated with planning for the offshore sand search.

### **Permitting and Design:**

Throughout the month of March we continued to coordinate with Town staff on the project. On March 27<sup>th</sup>, we held a conference call with Town staff (Chris Layton and Andy Garmin) to discuss the design status. A follow up conference call was held on April 3<sup>rd</sup> to further update staff on the design progress.

Most of our production efforts throughout the month concentrated on the beach fill design. Following an extensive assessment of a number of theoretical storms, we have settled in on using the storm parameters for Hurricane Isabel to develop our design storm. We have re-computed the number of structures impacted by the storm based on the September 2013 conditions. We are currently evaluating a number of different beach fill designs to determine the optimal fill to achieve maximum storm damage mitigation. With regards to the environmental documentation, minimal work was completed throughout March as our team is waiting on engineering and geotechnical data to be provided so that they can begin to assess environmental impacts of the project. As previously mentioned, an outline of the document and background information has been developed; however, at this time the team is waiting on additional project information from geologists and engineers.

### **Marine Sand Search and Borrow Area Design:**

Through the month of March, CPE-NC personnel continued coordination with BOEM following the issuance of the permits that were received at the end of March. We have also been coordinating with the University of North Carolina as they will be providing the survey vessel for the preliminary geophysical survey. Rough weather and the shoaling of Oregon Inlet have delayed our ability to begin the survey work to date. However, we have been working with UNCW to develop a contingency plan assuming Oregon Inlet will not be passable. We are hopeful that we will begin the survey as early as next week.

Please feel free to contact me anytime for further clarification or explanation of the project.

Very truly yours,

COASTAL PLANNING & ENGINEERING OF NORTH CAROLINA, INC.

A handwritten signature in black ink, appearing to read 'K. Willson', is written over a light gray rectangular background.

Kenneth Willson  
Project Manager