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August 1, 2016

Gregory W. Garis  
Florida Department of Environmental Protection  
Beaches, Inlets and Ports  
2600 Blairstone Road  
Tallahassee, FL 32399-3000

**Re: Response to Request for Additional Information No. 2 (RAI No. 2)**  
**Applicants: City of Sarasota and U.S. Army Corps of Engineers,**  
**Project Name: Big Sarasota Pass Dredging, Lido Key Beach Nourishment and Structures**  
**JCP File Number: 0333315-001-JC, Sarasota County**

Dear Mr. Garis:

This letter is in response to the Department's Request for Additional Information (RAI) No. 2 dated October 7, 2015. Please find an electronic copy of the complete RAI response and supporting attachments uploaded to the Department's FTP site. The attachments with original sign and seal are being provided in hardcopy under separate cover: legal descriptions (Attachment No. 17), topographic and bathymetric drawings (Attachment No. 20), and South Access Dune Restoration Planting Plan (Attachment No. 24). Please note that our responses and supporting attachments have been numbered to correspond with the numbers of the FDEP comments.

**FDEP Comment No. 5 - Describe in general terms the proposed activity including any phasing.**

*What volume of material will be removed from each borrow area during the first and subsequent events?*

*This information is required pursuant to Rule 62B-41.008(1)(f, l and q), F.A.C.*

Response to FDEP Comment No. 5 – Please see the updated project description in Attachment No. 5. The total estimated volume to be removed during the first event is 1,199,000 cubic yards (cy), with 900,000 cy from Borrow Area C and 299,000 cy from Borrow Area B. Subsequent events are anticipated to occur on a 5 year nourishment interval to replace the advanced nourishment, which is estimated to be 325,000 cy per event. The future use of the borrow areas is dependent on the project performance, borrow area re-filling rates, and the condition of the beach at the time of construction. The actual quantities are subject to change and will be determined by the annual physical monitoring data and analyses. The project description was also updated to include +/- 0.5 foot beach construction template tolerance, and notes that tolerances for the groin templates will be determined during final design and included in the plans and specifications.



Also, the Physical Monitoring Plan in Attachment No. 33a has been updated to include hydrodynamic measurement data collection and analysis to potential assess shoaling changes related to utilization of the borrow source.

**FDEP Comment No. 6 - Are you requesting any exemptions? If yes, provide an explanation and cite rule number(s).**

*For clarification, the responses that were submitted under this item are not exemptions. All details related to the mixing zone and turbidity have been moved to either Item #33d or #34.*

Response to FDEP Comment No. 6 – Acknowledged.

**FDEP Comment No. 11 - Have you obtained approval from the Department of State, Division of Historical Resources? If yes, provide a copy of the letter of approval.**

*Thank you for including most of the anomalies that were identified near or within the borrow areas in the permit drawings. However, 2 of the anomalies were excluded from permit drawings (Subbottom 1 and 5). Please include these 2 anomalies in the permit drawings, or indicate why they are being excluded.*

*The Department acknowledges that an investigation is underway to further evaluate the anomalies and will review the information once it has been submitted.*

*Your application will remain incomplete pending receipt of this information.*

*This information is required pursuant to Rule 18-21.004(2)(i), F.A.C., and Section 267.061, F.S.*

Response to FDEP Comment No. 11 – A draft report documenting additional evaluations of potentially significant anomalies in the project area has been submitted to the Corps, and consultation seeking approval from the Division of Historical Resources is currently ongoing. This report documents additional analyses of Subbottom Targets 1 and 5. Vibracore testing of these two targets indicated that the anomalies contained only marine sediments and so are no longer considered potentially significant. The targets have been excluded from the permit drawings for this reason.

**FDEP Comment No. 16 - The information in this item is only required if you are applying for a sovereignty submerged lands easement or lease. A list of the names and addresses of owners of all riparian property within 1,000 feet (and within a 500 ft radius) of the proposed sovereignty submerged lands easement or lease site from the latest county tax roll. If the property is under cooperative or condominium ownership, the name and mailing address of the cooperative or condominium association will be adequate. This would not apply to off-shore leases or easements that are not located within 1,000 feet of the shoreline.**



*Thank you for providing a photocopy of the certified mail receipts. Since some of the addresses provided in the original application's Attachment #16 do not appear to have been noticed, please confirm whether the notices were sent to all property owners within 500 feet of the easement boundaries. A graphical representation with the 500-foot boundary would be helpful.*

*It was brought to the attention of Department staff that the link on the original Notice of easement form (0905) was not working. Please re-send the revised notice (attached) to all property owners within 500 feet of the easements.*

*A photocopy of the return-receipt cards for all property owners within 500-feet of the public easement needs to also be submitted to the Department. For any return-receipt green cards that are not returned, the Applicants are responsible for requesting the postal authorities to trace the cards or contacting the individuals/entities to verify that the notice was received, then providing documentation to the Department. The application file will not be deemed complete until all the cards are accounted for and the response period has ended.*

*This information is required pursuant to Rules 62B-41.008(1)(b) and 18-21.005(3), F.A.C.*

Response to FDEP Comment No. 16 – The original notices were sent to all property owners within 500 feet of the easement boundaries on September 1, 2015. A graphical representation is provided in Attachment No. 16-1 to show the 500-foot boundary. The parcels that fall within the boundary are in black hatching. The revised notice with the corrected link was sent to all the property owners on February 1, 2016. Photocopies of the certified mail return-receipt cards for the revised notices are provided in Attachment No. 16-2.

**FDEP Comment No. 17 - A legal property description and acreage of any sovereign submerged land that would be encompassed by the requested lease or easement, plus two (2) prints of a survey prepared, signed and sealed by a person properly licensed by the Florida State Board of Land Surveyors.**

*The legal description for the northern of the two groins (Groin 1) was not provided. Please submit an electronic version of the legal description and two (2) hardcopies for the northern groin that is signed, sealed and dated by a surveyor.*

*Your application will remain incomplete pending the receipt of this information.*

*This information is required pursuant to Rules 62B-41.008(1)(d) and 18-21.009(1)(e), F.A.C.*

Response to FDEP Comment No. 17 – The legal description for the northern of the two groins (Groin 1) is provided electronically as Attachment No. 17. Two signed and sealed hard copies of the legal description are being provided under separate cover.



**FDEP Comment No. 20 – Topographic and bathymetric survey drawings of the proposed project site(s), including profiles and a contour map that reflect conditions within the past six (6) months, in accordance with Rule 62B-41.008(1)(h), F.A.C. Drawings shall meet the State’s minimum technical standards and shall be signed and sealed by the professional surveyor, duly registered pursuant to Chapter 472, Florida Statutes, who performed the survey.**

*The Department acknowledges that the Corps, as a federal agency, does not provide signed and sealed drawings or documents. However, the survey provided by CB&I was also not signed and sealed. Please provide this survey with the appropriate sign and seal.*

*Your application will remain incomplete pending receipt of this information. This information is required pursuant to Rule 62B-41.008(1)(h), F.A.C.*

Response to FDEP Comment No. 20 – The electronic copy of the Lido Key and New Pass survey done by CB&I is provided with this response as Attachment No. 20. The signed and sealed hardcopy is being provided under separate cover.

**FDEP Comment No. 23./24. - Complete sets of construction plans and specification for the proposed activity, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. The plans shall clearly distinguish between existing and proposed structures and grades, and shall include the information contained below. In addition to the full-size drawings requested above, the information required under Paragraphs (20), (22) and (23) shall be provided on 8 1/2- inch by 11-inch paper, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. Each drawing shall include an accurate scale or dimensions, and all information shown on the drawing shall be clearly legible.**

*For clarification, there is only one construction access and staging area identified on the drawing for the entire 1.6 miles of shoreline that will be nourished. Is this the intention of the Applicants, to utilize this as the sole access point for all construction- related activities, including the construction of the two groins? If additional access points are desired or necessary, that information needs to be provided to the Department for review prior to completeness of the application.*

*Your application will remain incomplete pending the receipt of this information. This information is required pursuant to Rules 62B-41.008(1)(k) and 62B-41.007(4), F.A.C.*

**b. A sufficient number of cross-section views of the proposed activity depicting the slopes, the MHWL, any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features and natural communities in the area of influence of the proposed activity. Elevations**



indicated on the cross-sections shall be referenced to the North American Vertical Datum of 1988 (NAVD 88).

*The Key Plan on sheets 23-27 do not show borrow area D. Please add that to the permit drawings.*

*This information is required pursuant to Rule 62B-41.008(1)(k)(2), F.A.C.*

Response to FDEP Comment No. 23./24. – The permit sketches have been updated to include a south staging area and access (Sheet 7, Attachment No. 24). The south portion of the project area may not be accessible from the north staging area along the beach depending on the condition of the beach remaining at the time of nourishment or groin construction. The south staging area is located in the parking lot of South Lido Beach, which is directly nearby the proposed groin locations. The access route from the staging area to the beach utilizes an existing pathway. In areas where the vegetation narrows the open pathway, vegetation on either side may be impacted. The attached South Access Dune Restoration Planting Plan sheet includes the area being requested and the planting details based on existing species. The estimated area of vegetation within the access is 3130 square feet. The dunes will be restored per the planting details and the conditions of the requested FDEP permit. The South Access Dune Restoration Planting Plan is being provided under separate cover.

Sheets 23-27 of the permit sketches have been updated to show borrow area D.

**FDEP Comment No. 28 - Using an established natural community classification system, describe each natural community within the area of influence of the proposed activity and include:**

- a. Acreage.
- b. Identification of the flora and fauna to the lowest taxon practicable.
- c. Characterization of dominant and important flora and fauna and estimates of percent biotic cover.
- d. Sampling locations, date of sampling or measurements and methods used for sampling.

*Please see Item #37 for additional information about the seagrass mitigation plan that the Department is requesting.*

*Your application will remain incomplete pending the receipt of this information.*

Response to FDEP Comment No. 28 – Acknowledged. Please see response to Item No. 37.

**FDEP Comment No. 33 - Analysis of the expected effect of the proposed activity on the coastal system including but not limited to:**



**d. Analysis of how water quality and natural communities would be affected by the proposed project. Provide graphic representation (depiction) of the area of direct and secondary influence of the proposed activity and delineate the natural communities within that area. All required surveys shall be representative of conditions existing at the time of submittal. Surveys of submerged aquatic vegetation (SAV) shall be conducted in the field during the growing season for a given climatic region such that they capture the full areal extent and biomass of the SAV community. Species composition and spatial distribution shall also be addressed by the survey. Estimate the affected acreage of each impacted community.**

**Note: If a mixing zone is proposed, provide a narrative description and graphic representation of the mixing zone. Identify any areas within the proposed mixing zone that contain significant submerged resources. Explain why the size of the proposed mixing zone is the minimum necessary to meet water quality standards and provide justification for that size.**

*Turbidity data from the recent Lido Key Beach Nourishment (0270032-001-JC) construction does not support the need for inclusion of provisions in the permit conditions to allow for an expanded mixing zone for this project.*

Response to FDEP Comment No. 33 – Based on the Department’s comment on the previous project’s turbidity data, the Applicant accepts the standard mixing zone with the allowance to expand during construction according to the procedure in the Water Quality Monitoring Plan (Attachment No. 34).

**FDEP Comment No. 34 - Describe the location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all other measures used to minimize adverse effects to water quality.**

*In the RAI #1 response, the Applicants requested the variability that was authorized for the Longboat Key and Lido Key Beach Nourishment (Permit No. 0039755-003-JC). Pursuant to Rule 62-4.242(2)(b)2., F.A.C., the natural background turbidity levels need to be measured throughout a normal tidal cycle for the specific sand dredging site. The 12.6 NTUs was based on samples collected at New Pass, and the data is not applicable for Big Sarasota Pass by Rule. If the Applicants intend to utilize the provisions of Rule 62-4.242(2)(b)2., F.A.C., the natural background variability for Big Sarasota Pass will need to be determined prior to the completeness of this application.*

*To determine the background variability:*

- *Sample in a location in the vicinity of the project area, over one tidal cycle.*
  - *Sampling can be done at multiple locations and over multiple tidal*



*cycles, but the Department will only use data from one location, within one tidal cycle.*

- *Sample at both mid and surface depth.*
- *Sample as frequently as possible for the best representation of natural conditions and note the time of day for each sample.*
- *No averaging or pooling data from different locations/tidal cycles to obtain the “optimal” variation.*
- *Include an aerial image with the location(s) where sampling occurred.*
- *Provide results from statistical analysis on the data collected to ensure that it is representative of natural variability at the measured site(s).*

*This information is required pursuant to Section 373.414(1), F.S., and Rule 62B- 41.008(f), F.A.C.*

Response to FDEP Comment No. 34 - In order to establish the compliance limit relating to the Outstanding Florida Waters (OFW) water quality, turbidity sampling was conducted within Big Sarasota Pass to determine the natural variability within the approximate mixing zone in the OFW. The following procedure was performed: samples were taken at surface and mid-depth during one tidal cycle which captured a high and low tide; samples were collected at the same location within the OFW and repeated as frequently as possible, which resulted in 63 samples taken at the location. Based on the maximum natural variability found at a single location during the sampling effort, the Applicant requests that the compliance value at the edge of the mixing zone within the OFW be 29 NTUs (34.3-5.07). The complete set of sampling data, the coordinates and map of the sampling location, and the tide data are provided in Attachments No. 34-1, 34-2, and 34-3, respectively. The revised Water Quality Monitoring Plan is also attached.

**FDEP Comment No. 37 - A narrative description of any proposed mitigation plans, pursuant to Rule 62-345, F.A.C., including purpose, a comparison between the functions of the impact site to the mitigation site, maintenance, monitoring, estimated cost, construction sequence and techniques. For proposed artificial reefs, indicate the water depth, depth of sand overlying bedrock, proposed relief and materials (type, size and shape).**

*Department staff have reviewed information submitted with the original application and the response to RAI #1 and have determined that seagrass resources will be impacted by the proposed dredging activities. The RAI response did not include a seagrass mitigation plan, as previously requested by the Department. Instead, the Applicants have proposed to establish a 100-foot buffer (no dredging / work zone) around seagrasses located within the borrow areas and to exclude seagrass from the mixing zone. After careful consideration, the Department has determined that these measures will not be sufficient to protect seagrass resources within the project area.*



***Seagrass surveys conducted in 2014 by CB&I documented at least 1.7 acres of seagrass habitat within the proposed borrow areas. Most of these resources are located in Borrow Area D, but resources were also documented in Borrow Areas B and C. All resources located within borrow areas are expected to be lost (directly impacted) due to dredging activities. The ebb shoal is dynamic, and sediments will equilibrate following dredging activities resulting in ebb shoal deflation, which was predicted to occur within 18-months post-construction. Dredging is reasonably expected to destabilize the substrate of seagrass habitats within the borrow area boundaries, which may result in the exposure of rhizomes or burial of short shoots. It is also necessary to consider that seagrass patches can be dynamic, shifting over time. The distribution of seagrasses documented during the 2014 survey may not reflect the distribution of seagrasses at the time of construction. Because the distribution of seagrasses is not static, the establishment of 100-foot buffers using seagrass distribution data from 2014 does not provide reasonable assurance that impacts to seagrasses will be avoided.***

***The Department requests a mitigation plan for impacts to seagrasses that may result from dredging activities. Specifically, the Department requests that the Applicants provide a detailed description of all seagrass mitigation activities (i.e., enhancement, restoration and / or creation) that will be undertaken to compensate for the direct impacts to at least 1.7 acres of seagrass habitat that are expected to result from the proposed dredging activities. The mitigation plan should also include a timeline for mitigation activities relative to the construction schedule (i.e., the timing of impacts). Department staff in the Beaches, Inlets and Ports (BIP) program welcome discussion regarding potential mitigation activities.***

Response to FDEP Comment No. 37 – The Lido Key Hurricane and Storm Damage Reduction Project Seagrass Mitigation and Monitoring Plan (including the UMAM evaluation) is provided as Attachment No. 37-1. Based on coordination with FDEP, FWC, USACE, NMFS, and USFWS, the applicants propose to mitigate for seagrass impacts by planting *Halodule wrightii* within 2.8 acres of Manatee County’s Perico Preserve Seagrass Basin. Attachment No. 37-2 provides additional information, including Perico Preserve permits, reports and drawings.

If you should have any questions, please contact me or Michelle Pfeiffer.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tom P.' followed by a stylized 'P'.

Thomas P. Pierro, P.E., D.CE  
Director of Operations  
CB&I Environmental & Infrastructure, Inc.

Enclosure





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