Technical Specifications

Whiskey Creek MSTBU
Entrance Channel Dredging Project

August 2023

TS-1.0 Mobilization and Demobilization

TS-1.1 Mobilization will include all activities and costs for transportation of personnel, equipment, and supplies/materials to the site, establishment of offices and other necessary facilities for the CONTRACTOR's operations at the site.

TS-1.2 Demobilization will include all activities and costs for transportation of personnel, equipment, and supplies/materials not used in the Contract, including the disassembly, removal, and site cleanup of any offices or other facilities assembled on the site for the construction. Upon demobilization, the CONTRACTOR will restore all access areas to the same condition as prior to mobilization. Demobilization will be complete prior to final payment and within two weeks of final clearance as certified by the CONSULTANT.

TS-1.3 This line item includes mobilization and demobilization required by the project at the time of award. If additional mobilization and demobilization is required during the performance of the work due to changed, deleted, or added items of work, compensation for such costs will be awarded to the CONTRACTOR by the OWNER if warranted. Additional mobilization and demobilization resulting from an error on the CONTRACTOR's part will be solely the responsibility of the CONTRACTOR.

TS-1.4 All equipment and materials will be mobilized and demobilized in accordance with all local, state, and federal laws related to transportation and safety.

TS-2.0 Dredging

TS-2.1 Due to the project being located adjacent to a residential neighborhood, equipment operation will be restricted to 8:00 am through 6:00 pm. Earlier or later presence on the project by crew is acceptable but all equipment shall be shut down outside of the hours of operation.

TS-2.2 The limits and cross sections of the proposed dredging will be as shown on the enclosed plans from Hans Wilson & Associates, Inc. and in compliance with the permits issued for the project. The CONSULTANT will supply the selected CONTRACTOR with an AutoCAD® .dwg of the dredge footprint in Florida West Zone Coordinate System for their use in establishing the dredge limits. The layout is to be done by a qualified surveyor licensed to practice in the State of Florida. It will be the responsibility of the CONTRACTOR to ensure that the limits of construction are staked out correctly and maintained during dredging. The CONTRACTOR will furnish such stakes, equipment, and tools as may be required to identify the stakeout of the construction area. Following the completion of construction, the CONTRACTOR shall be responsible for the removal of the staking and layout devices. It will be the CONTRACTOR's responsibility to ensure that all necessary approvals are in place prior to construction commencement.

TS-2.3 The CONSULTANT's quantity estimate is created from data collected and processed into contours using Hypack® software. The contours were imported into AutoCAD® and cross-sectional areas of the dredge template were generated at 50 intervals using AutoCAD® Civil 3D. The final calculation used the cross-sectional areas for an average end area volume calculation.

TS-2.4 The removal of material from within the dredge limits will be accomplished by mechanical excavation. A barge mounted excavator will place dredged material into sealed containers on the barge(s) for transport to the final material placement site.

TS-2.5 The dredge areas may be accessed by means of a barge or other vessels. Any barge or vessel may be kept in the construction area and can only be spudded in areas with no seagrasses or within marked navigational channels with appropriate vessel traffic control. The barge or vessels will have all navigational lights in place and operate according to federal standards. Ingress and egress of work personnel is to be accommodated through a CONTRACTOR secured access location. At no time may structures create a navigational hazard.

TS-2.6 Payment for the dredging line item is based upon full clearance of the dredge template. The volumes are the CONSULTANT'S best estimate using average end area volume calculations. It is the CONTRACTOR's responsibility to account for any material expansion that may occur during handling. Bin counts and trip counts will not be considered evidence of a greater volume than is listed in the bid form. If the CONTRACTOR feels that the material volume is greater than as shown on the bid form, a pre-dredge bathymetric survey signed and sealed by an engineer or surveyor registered in the State of Florida must be produced to promote the claim. See TS-2.3 for more detail regarding a minimum technical standard for a quantity challenge.

TS-2.7 Any CONTRACTOR requested adjustments to the dredge quantity or footprint shall be made prior to engaging a contract. Data is to be collected by a qualified land surveyor or professional engineer registered in the State of Florida. Data collection is to extend no less than 20' beyond the edge of the dredging footprint. Calculations are to be supplied in a format that can be reviewed manually along with plotted cross sections that include stationing consistent with the plan set and notated with cross-sectional areas. Cross sections are to be plotted at

intervals of no less than 100'. All data shall be represented in MLW as referenced to MLW = -0.71' NAVD88.

TS-3.0 Material Handling, Transportation, and Final Placement

TS-3.1 The dredged material handling, transport and placement will be the responsibility of the CONTRACTOR. The owner of Lofton Island has been coordinated with for the use of the property as the final material placement location. Use of the property will be per agreement between the owner of Lofton Island and the CONTRACTOR. The terms for use of the site include all delivered material is to be stockpiled within a footprint consistent with the current Site Improvement plan by Greensite Engineering that has been approved by the City of Fort Myers.

It will be the responsibility of the CONTRACTOR to establish any necessary interim handling sites, means and methods they may deem necessary for the dredged material. The CONTRACTOR will use best management practices when handling, transporting, and placement of the dredged material. It will be the responsibility of the CONTRACTOR to employ controls equal to or better in performance than the typical cross section shown for material placement.

TS-3.2 The dredged material will be transported by barge and transferred to the material placement site with CONTRACTOR supplied equipment. Once the dredged material has transferred to the island property, it will be transported to the final placement location as referenced in TS-3.1 by means and methods that are the responsibility of the CONTRACTOR. Aside from a Lee County Dock and Shoreline permit there are no other known permits required for the transportation of the dredged material to the island placement location.

TS-4.0 Agency Permits / Local Authorizations

TS-4.1 Federal and state agency permits are completed and are being made available as part of the bid package.

TS-4.2 All Local permit costs, application fees, and construction permit fees are the responsibility of the CONTRACTOR.

TS-4.3 The CONTRACTOR will provide a copy of each local authorization obtained for the project to Hans Wilson & Associates prior to the start of excavation.

TS-5.0 Turbidity Controls

TS-5.1 Turbidity monitoring is the responsibility of the CONTRACTOR. Turbidity controls will remain in place until all dredging activities are complete and the turbidity subsides to state standards. It will be the responsibility of the CONTRACTOR to assure that turbidity levels do

not exceed acceptable state standards of 29 NTU's above the background. If techniques employed for turbidity containment are insufficient, dredging is to be halted and additional turbidity controls to be put in place to prevent further violation of state standards. Any reporting requirements contained within the state or federal authorizations shall be the responsibility of the CONTRACTOR and required records will be maintained onsite and available for review by the CONSULTANT at all times.

TS-5.2 Floating turbidity screens with weighted skirts that extend to within 1 foot of the bottom at mean low water shall be deployed around the dredging areas, per the bid plans (Proposed Turbidity Controls Sheet). The CONTRACTOR shall be responsible for ensuring that all turbidity control devices are inspected daily and maintained in good working order. The deployment shown on the Proposed Turbidity Controls sheet is a minimum plan. If turbidity exceeds the allowed 29 NTU's above background then additional controls as determined by the CONTRCTOR are to be implemented.

TS-5.3 Turbidity barriers shall remain in place at all locations and be properly maintained until construction is completed. Following the completion of construction, the CONTRACTOR shall be responsible for the removal of the turbidity controls.

TS-6.0 Confirmation of Work

TS-6.1 The CONSULTANT will make occasional site visits during any and all phases of construction to observe progress and confirm compliance with the permits, plans, and specifications.

TS-6.2 Once the dredging has been completed the CONTRACTOR will request a post-dredge inspection from the CONSULTANT. The CONSULTANT will have 10 business days from that notification to complete the inspection. The CONTRACTOR may demobilize at their risk. Should the post dredge survey reveal incomplete work, the CONTRACTOR will remobilize at their expense to complete the work. Any determination of completeness is not official until such time as the CONSULTANT has provided written confirmation of acceptance of work.