Dredging Inspection Field Report

Site Observations

Date: 7/21/2021 Field Engineer: Mike Triano

Weather Conditions: Breezy, overcast, scattered Thunderstorms Temperature: 80s

Wood Project Number: 2402210005.01.01 Client: Isle of Palms

Contractor: Branch Diversified (BDI) Foreman Onsite: Lance Young

Item	Observations	Photo
Crew Size & Location	30' x 80' barge, moored off to the large Hopper barge in the intracoastal This barge is used to unload the smaller barges. One 26' Thruster Barge actively dredging within Baseline 1. Two 20' Wide push barge actively dredging Baseline 7. Lance advised that to. Two Tugs operating to move the 20' push barges. One large tug moving large Hopper barges to the DMMA One ~ 50' X 100'+ Hopper barge staged in intracoastal east of mooring canals used to transport material to DMMA. 20' aluminum boat	Photo: 1, 2, & 3 See Map
Equipment on Site	Same as Crew size, 4 mechanical dredges (excavators)	Photos: 1, 2, & 3
Work Completed	S Baseline 1 from POB to ~ Station 31 Majority of N Baseline 1 to terminus: Correction of High Spots within Baseline 1 was occurring at the time of this inspection with 26' Thruster Barge Mooring Canals Portions of N Baseline 2, 3, 4, 5, & 6 BDI advised dredging occurs in two phases: on the way in for access & removal of top layer of sediment and on the way out for getting canal to specified grade. This is true for all canals that barges cannot initially access.	See Map
Work Underway	Baseline 1 Baseline 7	See Map
Materials on Site	Stored in ~100'+ X 50' Hopper barge and One 30' x 80' barge. Both barges are moored in the intracoastal. Lance indicated that once dredging commences in the South IOP Canals, a second Large ~100'+ 50' will be stored on pilings east of the entrance to the southern canals.	Photo: 1, 2, 3, & 6 (Future)
Manatee Observer	All crew on barges were advised to keep eye out for Manatees - signs posted on northern and southern canals.	Photos: 4

Turbidity Monitoring	0800 reading was 15.8 NTU 1530 reading was 17.3 NTU	Photos: 4 & 5
Dewatering	Lance advised dewatering does not occur - drain holes are located in bottom of containers. Lance advised inner canals are mixing zones and therefore sediment/water returning to canals are not of concern.	
Dredging	Mechanical	
Offloading Location	Large ~50' -100'+ Hopper barge – east of the north IOP Canals. A second Large ~50' x 100'+ Hopper Barge will be staged east of the entrance to the south IOP Canals. One 30' X 80' Barge located in the Intracoastal east of the Mooring Canals, moored to the large Hopper. Both barges are moored in the intracoastal. Trips to the DMMA are taken once these large bargesare full, that usually occurs once a day – will resume once large tug is repaired.	Photo: 3 & 6 (Future)
Posted Permit	Permits are not posted. BDI was provided with additional copies.	
Other…	See Additional Comments Below	

Additional Notes

Projected Schedule:

- Lance Young indicated dredging of the wider entrances will begin in South IOP Canals next week with ~30' wide by 80' long barge.
- Dredging within Baseline 7 will continue for approximately 1-2 additional weeks.
- Lance Young indicated Arc will be coming out to stake identified areas that need touching up and/or areas that were missed within the Northern Canals. It is my understanding that one Barge will be dedicated to this effort while dredging begins in the south.

Anticipated Obstacles to Meeting Schedule:

- Equipment malfunctioning / no operator to dig.
- The very end of Baseline 3, 6 and 2 will have to be finished at a later time, current dredges do not have a long enough boom to reach past the two docks at the end of the canal. Lance Young indicated a smaller 15' barge will be utilized to reach these areas at a later time. He indicated that this sized barge is unavailable as a rental at the moment and is looking at additional options.
- Displaced material causing contractor to re-work areas to correct high spots.

Engineer's Notes:

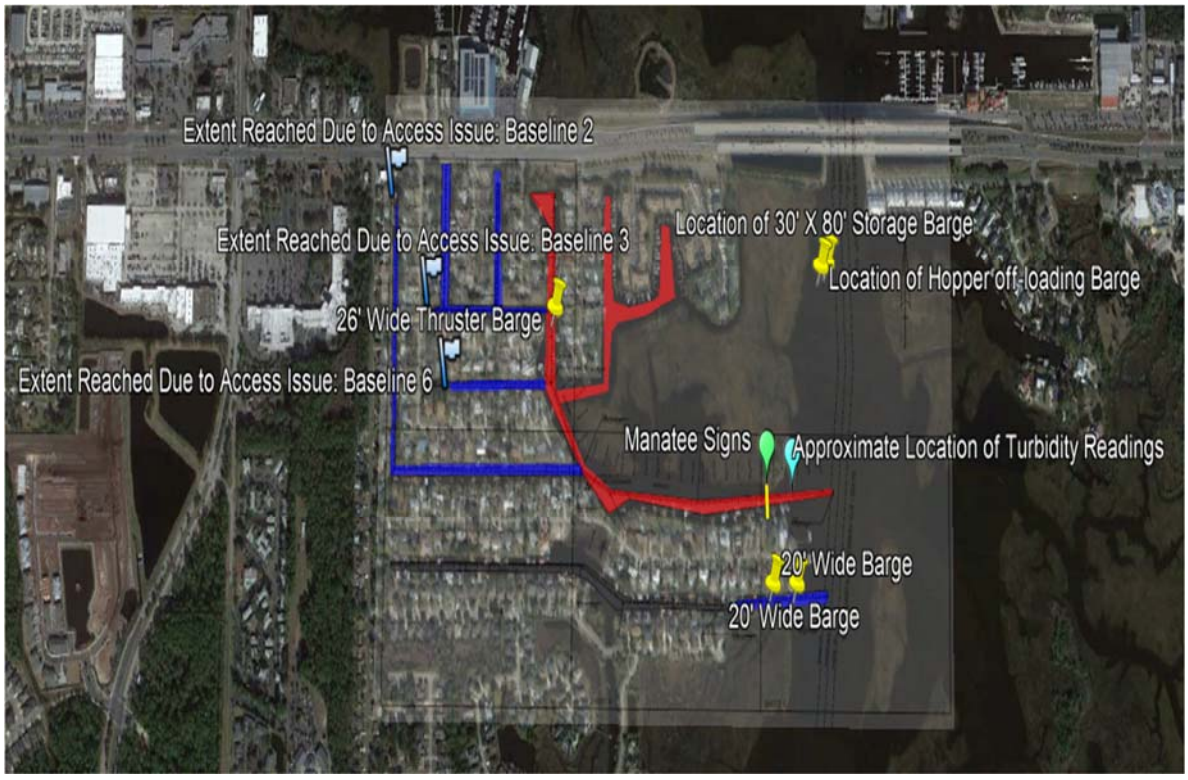
- Lance Young advised that final cleanup of North IOP Canals will coincide with Arc Surveying staking out areas that need to be re-worked. Correcting these areas will begin next week. Lance indicated that Arc would be on-site to perform this task late this week, early next week.
- Lance Young is the contact for weekly inspections.

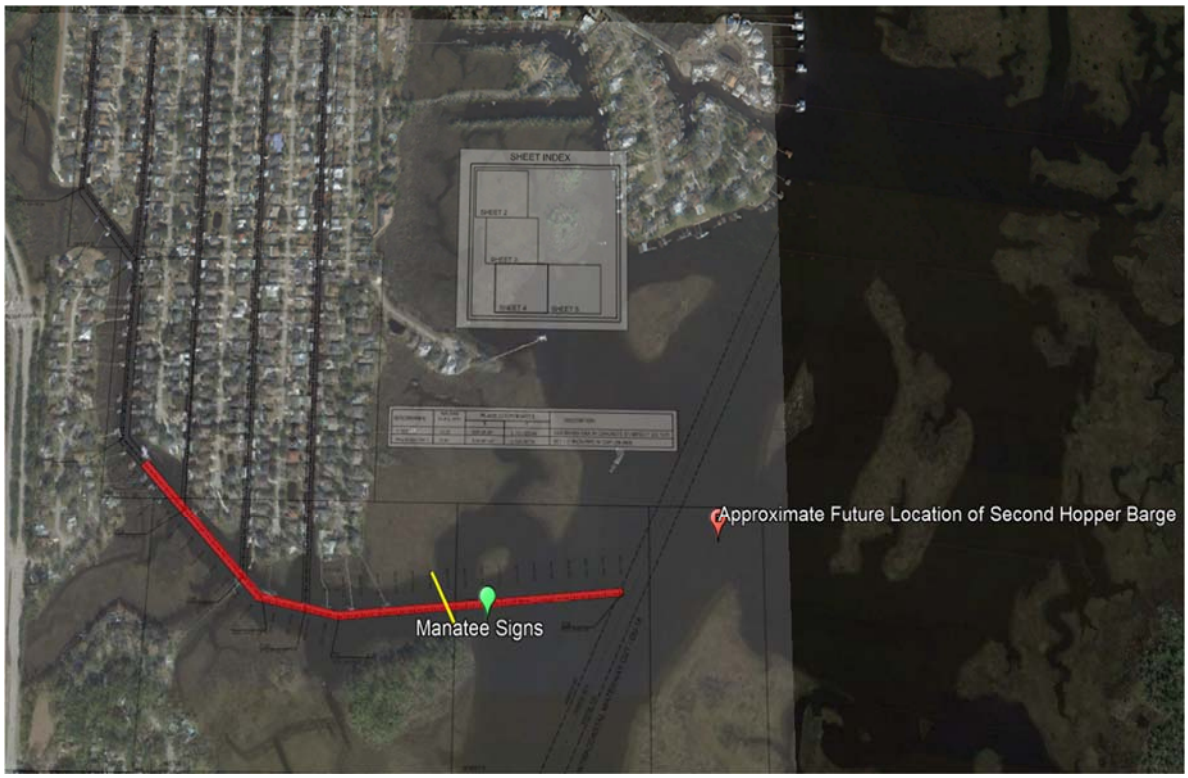
- Lance Young indicated that turbidity readings are being conducted daily by the job superintendent Anthony. BDI Provided the entire month of July's reading for review.

Field Engineer Signature: 

Date: 7/14/2021

Maps: Red is completed Work Blue is Work to be completed

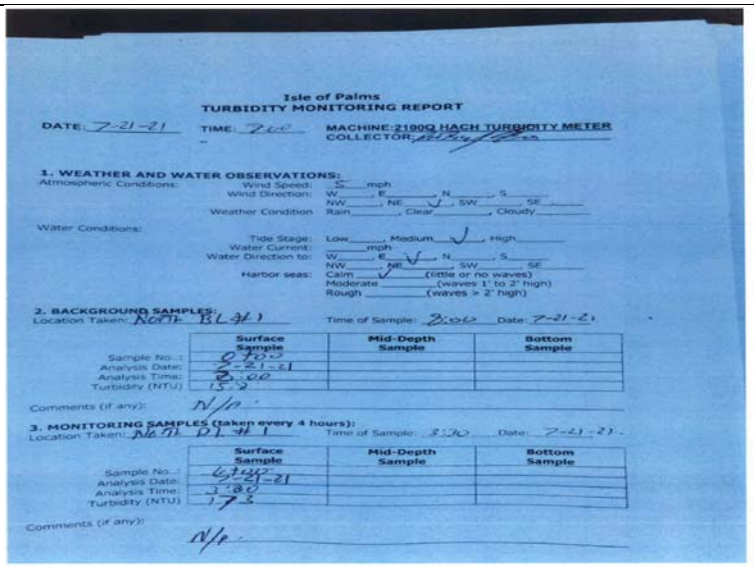




Photograph Log:

	**Photo 1:** View of two 20' wide Push Barges actively dredging Baseline 7.
	**Photo 2:** View of Thruster Barge (in the distance) heading back into Baseline 1 to continue re-work of high spots previously identified.

	**Photo 3:** View of 20′ Push Barge being off-loaded.
	**Photo 4:** Typical view of turbidity barrier and manatee signs.

 Isle of Palms TURBIDITY MONITORING REPORT DATE: 7-21-21 TIME: 7:00 MACHINE: 2100Q HACH TURBIDITY METER COLLECTOR: 1. WEATHER AND WATER OBSERVATIONS: Atmospheric Conditions: Wind Speed: S mph Wind Direction: W , E , N , S NW , NE ✓ , SW , SE Weather Condition: Rain , Clear , Cloudy Water Conditions: Tide Stage: Low , Medium ✓ , High Water Current: mph Water Direction to: W , E ✓ , N , S NW , NE , SW , SE Harbor seas: Calm ✓ (little or no waves) Moderate (waves 1' to 2' high) Rough (waves > 2' high) 2. BACKGROUND SAMPLES: Location Taken: North (BL#1) Time of Sample: 7:00 Date: 7-21-21 Surface Sample / Mid-Depth Sample / Bottom Sample Sample No.: 0722-2 Analysis Date: 7-21-21 Analysis Time: 8:00 Turbidity (NTU): 15.2 Comments (if any): N/A 3. MONITORING SAMPLES (taken every 4 hours): Location Taken: North DI #1 Time of Sample: 3:30 Date: 7-21-21 Surface Sample / Mid-Depth Sample / Bottom Sample Sample No.: 6140 Analysis Date: 7-21-21 Analysis Time: 3:30 Turbidity (NTU): 17.3 Comments (if any): N/A	**Photo 5:** 7/21/2021 Turbidity Form.
	**Photo 6:** Future location of ~50' Wide x 100' Long hopper barge. **Note**: Solar lights on the top of the pilings.