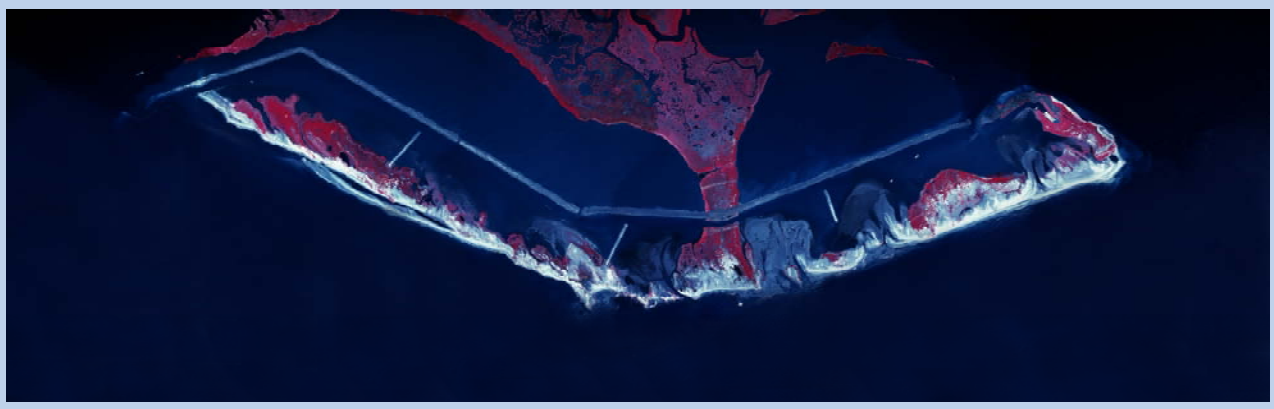
COASTAL PLANNING & ENGINEERING, INC.

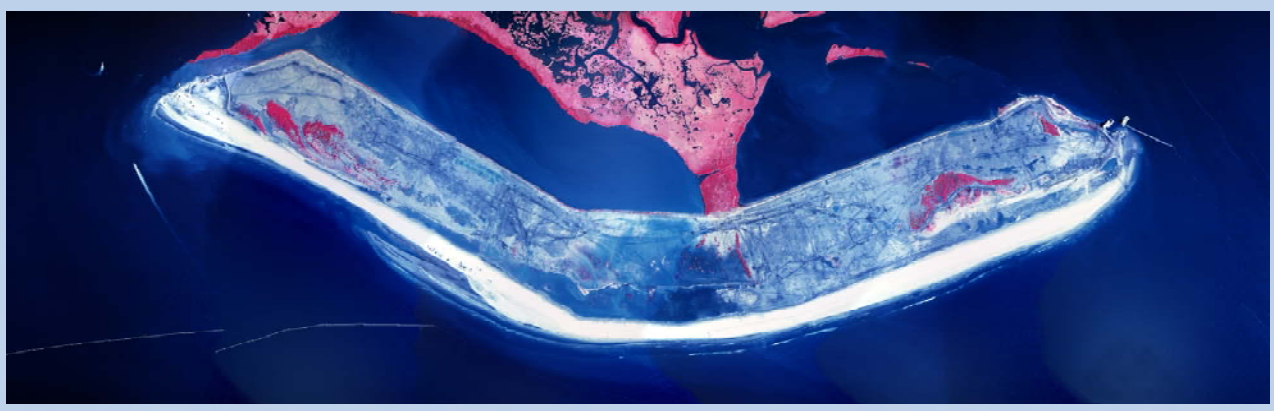
East Grand Terre Island Restoration (BA-30) CWPPRA Project: Project Completion Report

Prepared for:
Louisiana Office of Coastal Protection and Restoration

OFFICE OF Coastal Protection and Restoration

Submitted: January 2011





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PROJECT COMPLETION REPORT

Project Name: EAST GRAND TERRE ISLAND RESTORATION PROJECT

State Project No. BA-30

Report Date: January 14, 2011 **By: Coastal Planning & Engineering, Inc.**

1. Project Managers/Contracting Officer

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2. Location and Description of the Project as Contained in the Louisiana Coastal Impact Assistance Plan

The project area is located in the lower Barataria Basin and is part of that basin's barrier shoreline complex. East Grand Terre Island lies between Pass Abel and West Grand Terre Island to the west and Quatre Bayou Pass and Pointe Chenier Ronquille to the east, in southwestern Plaquemines Parish. The project will implement the restoration measures designed and engineered through the CWPPRA Program (CWPPRA project BA-30; project information available at www.lacoast.gov/projects/list.asp). This project was engineered, designed, and permitted and has received the necessary land rights for construction, through the CWPPRA program, in partnership with the NOAA Fisheries and LDNR.

Summary of Project Benefits:

- Restore 2.8 miles of barrier shoreline through construction of a 6 foot high dune with advanced nourishment.
- Construct a 450 acre marsh platform north of and contiguous to the beach and dune fill to provide the foundation for continued shoreline rollover and retreat.
- Create and restore 620 acres of barrier island immediately post-construction.
- Provide 335 net acres at 20 years following project construction.

The proposed project is very important within the context of barrier shoreline restoration. As identified through the Coast 2050 and CWPPRA programs, barrier islands are among the highest

ranked features to be restored, regarding area of need. Multiple other sections of the Plaquemines Parish barrier shoreline are being designed or constructed in a concerted effort to methodically and efficiently rebuild the degrading island segments. Also, millions of dollars and years of effort have already been dedicated to the project as it has progressed through the CWPPRA program.

3. Final As-Built Features, Boundaries, and Resulting Acreages

The Contractor, Weeks Marine, Inc., was paid for the placement of 2,179,039 cubic yards of beach fill and 965,211 cubic yards of marsh fill. However, the Contractor overfilled the beach and marsh templates and the total volumes placed were approximately 2,351,818 cubic yards of beach fill and 1,610,470 cubic yards of marsh fill. The total volumes of material excavated were approximately 2,965,700 cubic yards from the WGT Borrow Area, 1,184,100 cubic yards from the M1 and M2 Borrow Areas, and 395,800 cubic yards from the D1 Borrow Area to construct the beach and marsh templates. Summaries of the pit-to-fill ratio (Table 1) and pit-to-pay ratio (Table 2) for each of the borrow areas are shown below.

Table 1
Borrow Area Pit-to-Fill Ratios.

Borrow Area	Placement Area	Volume Excavated (cy)	Volume Placed (cy)	Pit-to-Fill Ratio
WGT	Beach	2,694,637	2,351,181	1.15
WGT	Marsh	271,077	236,526	1.15
M1 and M2	Marsh	1,184,096	1,057,302	1.12
D1 (Overburden)	Marsh	354,917	316,912	1.12
D1 (Sand)*	Beach	40,807	32,464	1.26

Table 2
Borrow Area Pit-to-Pay Ratios.

Borrow Area	Placement Area	Volume Excavated (cy)	Pay Volume (cy)	Pit-to-Pay Ratio
WGT	Beach	2,694,637	2,161,528	1.25
WGT	Marsh	271,077	236,526	1.15
M1 and M2	Marsh	1,184,096	560,641	2.11
D1 (Overburden)	Marsh	354,917	168,045	2.11
D1 (Sand)*	Beach	40,807	17,511	-

Beach fill was placed continuously along the length of the gulf shoreline of the project area. The fill had a berm crest elevation of +6.0 feet (NAVD) with a maximum berm crest width of 230 feet. The landward beach face was constructed with a slope of 1V:30H from the top of the berm

crest to the pre-construction grade. The seaward beach face was constructed with a slope of 1V:30H from the top of the berm to +1 feet (NAVD) and a slope of 1V:90H or 1V:75H from the +1 feet (NAVD) to the pre-construction grade. Specifically, an offshore slope of 1V:90H was constructed between Station 58+73 and Station 119+94, while a 1V:75H slope was constructed between Station 8+00 and Station 57+48 and between Station 121+19 and Station 154+94 (see Field Adjustment Report #7).

Marsh fill was placed between the constructed dune and primary dike along the length of the island to an elevation of approximately +2.3 feet (NAVD). Marsh fill material was placed after completion of the beach so that the beach fill could act as the southern containment dike. Due to existing terrain, a secondary containment dike was constructed along the existing dune (landward of the constructed dune) the length of the island. The containment dike acted to contain material placed during marsh construction to the north as the southern extent of the marsh footprint was filled with sandy material during beach construction. The maximum width of the constructed marsh platform was 1,530 feet which occurred near the east end of the island along Station 144+94.

Sand fencing was installed along the length of the constructed dune. A single row of fence centered along the berm crest was installed between Station 10+00 and Station 154+90. A second row of fence was installed approximately 16 feet landward of the first row between Station 93+30 and Station 103+90. The fence was comprised of 450-foot sections with 30 feet of overlap between adjacent sections. At the overlaps, the sections were offset 6 feet to allow passage through the fence from the Gulf shoreline to the backing marsh habitats. The total length of installed sand fence was approximately 16,623 feet.

A total of 14 settlement plates were installed to quantify the settlement and consolidation of the placed material on top of existing sediments. Five plates were installed along the dune crest centerline, seven plates were installed within the marsh footprint, and two plates were installed along the centerline of the primary containment dike. The plates were installed during construction, but prior to the placement of fill material.

The as-built drawings are attached. These drawings detail the elevation and location of the placed beach and marsh fill, borrow area surveys, the location of the installed sand fence and settlement plates, and location of the analyzed sand samples.

Beach and marsh acreages were computed to quantify project benefits. Along the landward boundary the most northern extents of the constructed toe of the primary dike and the construction template defined the northern horizontal limit used to quantify the project benefits. Along the seaward boundary the most southern extent of the constructed toe of the beach fill and the construction template defined southern horizontal limit. The intersection of the marsh and beach templates north of the landward dune crest defines the northern and southern extents of the beach and marsh, respectively. Land south of this contour with an elevation above 0.0 feet (NAVD) was considered beach, while land to the north with an elevation above -1.5 feet (NAVD) was considered marsh. Approximately 164.9 acres of beach an 455.6 acres of marsh existed within the project area immediately following construction.

Actual Benefited Acres: **164.9 acres of constructed beach**
455.6 acres of created marsh

4. Habitat Acreages

Barrier island shoreline projects are evaluated for environmental benefits using quantitative projections of plan form performance. Performance is quantified using habitat acreage descriptions for the wetland value assessment (WVA). The range of various habitat elevations and associated descriptions are defined in Table 3. The habitat acreages were calculated for the pre-construction, post-construction, and design template conditions to assist in future WVA calculations.

Table 3
Habitat Acreage Descriptions

Habitat	Description
Dune	≥ +5 feet, NAVD The portions of the dune platform anticipated to be within the elevation range.
Supratidal	≥ +2 feet to < +5 feet, NAVD Beach berms and portions of the fore and back slope of the dune within the elevation range. Also includes primary retention / containment dikes for the period anticipated to remain in the elevation range. Generally includes a major portion of the marsh platform until the time dewatering and consolidation reduce the elevation to intertidal.
Gulf Intertidal	≥ 0 feet to < +2.0 feet, NAVD Gulf side beach slope / shallow open water.
Bay Intertidal	≥ 0 feet to < +2.0 feet, NAVD Bayside elevations including vegetated wetlands, flats and bayside open water areas.
Subtidal	≥ -1.5 feet to < 0.0 feet, NAVD or 1,000 feet bayward of the 0.0 feet contour. Shallow Open water bayside area only.

The construction template (including beach and dune and marsh) defined the horizontal limits of the WVA. Intertidal acreages calculated north of the constructed dune were assumed to be Bay Intertidal. Intertidal acreages calculated south of the constructed dune along the Gulf shoreline were assumed to be Gulf Intertidal. The profile lines shown in the plans were used to develop the WVA acreages. The length of habitat elevation along each line was determined. This was then multiplied by the effective distance of that profile line to determine the area. The WVA acreages are shown in Table 4.

Table 4
Habitat Acreages

Habitat Type	Pre-Construction Acreage	Slope Adjustment Template Acreage	Post-Construction Acreage
Dune	0.0	59.1	72.0
Supratidal	83.4	466.3	456.3
Gulf Intertidal	7.8	34.2	38.2
Bay Intertidal	186.5	8.0	22.3
Subtidal	210.3	31.0	31.7
Total:	488.0	598.7	620.4

Assumptions:

1. The outer boundary of the construction footprint and construction template defines the WVA horizontal limits.
2. Intertidal acreages calculated north of the constructed dune are assumed to be Bay Intertidal.
3. Intertidal acreages calculated south of the constructed dune are assumed to be Gulf Intertidal.

5. Key Project Cost Elements

Table 5
Key Project Cost Elements

Project Element	Project Cost Estimate	Cost Incurred as of Construction Completion
Construction	$30,280,481.00	$29,801,700.75
Engineering & Design	$854,970.00	$871,229.09
Observation / Contract Administration	$750,000.00	$616,465.51
Total	$31,885,451.00	$31,289,395.35

Notes:

1. Engineering and design costs include the engineering and design cost for West Grand Terre, which was initially integrated with East Grand Terre.

6. Items of Work Construction, Final Quantities, and Monetary Amounts

Table 6
Items of Work Construction, Final Quantities, and Monetary Amounts

Item No.	Item	Bid Quantity	Unit	Construction Cost Estimate Unit Price	Construction Cost Estimate	Bid Unit Price	Bid Amount	Final Quantity	Final Amount	% Over / Under
1	Mobilization & Demobilization	1	Job	$4,000,000.00	$4,000,000.00	$2,750,000.00	$2,750,000.00	1	$2,750,000.00	-31%
2	Beach and Dune Fill	1,527,000	CY	$8.29	$12,658,830.00	$9.25	$14,124,750.00	2,179,039	$20,156,110.75	59%
3	Marsh Fill	1,817,000	CY	$4.95	$8,994,150.00	$5.50	$9,993,500.00	965,211	$5,308,660.50	-41%
4	Primary Containment Dikes	15,980	LF	$40.00	$639,200.00	$65.00	$1,038,700.00	15,210	$988,650.00	55%
5	Sand Fencing	16,910	LF	$12.50	$211,375.00	$16.50	$279,015.00	16,623	$274,279.50	30%
6	Settlement Plates	15	EA	$3,100.00	$46,500.00	$3,500.00	$52,500.00	14	$49,000.00	5%
7	Pre-Construction Survey	1	Job	$150,000.00	$150,000.00	$150,000.00	$150,000.00	1	$150,000.00	0%
8	As-Built Survey	1	Job	$250,000.00	$250,000.00	$125,000.00	$125,000.00	1	$125,000.00	-50%
	Sub-Total of Bid Items				**$26,950,055.00**		**$28,513,465.00**		**$29,801,700.75**	**11%**
9	Mod. 1 Project Redesign	1	Job	-	-	$1,536,342.75	$1,536,342.75	-	-	-
10	Mod. 2 Project Time Extension	-	-	-	-	-	-	-	-	-
11	Mod. 3 Final Change	1	Job	-	-	(248,107.00)	($248,107.00)	-	-	-
	Total				**$26,950,055.00**		**$29,801,700.75**		**$29,801,700.75**	**11%**

7. Construction and Construction Oversight

Prime Construction Contractor	Weeks Marine, Inc.
Subcontractor (Pre-Construction Survey)	Hydroterra Technologies, Inc.
Subcontractor (Post-Construction Survey)	Hydroterra Technologies, Inc.
Subcontractor (Sand Fence Installation)	Erosion Control Services, Inc.
Original Construction Contract	$28,513,465.00
Change Orders	$1,536,342.75
Cost Reduction due to Underfilling	($248,107.00)
Final Construction Contract	$29,801,700.75

8. Oversight and Administration for Construction

Construction Oversight Contractor	Coastal Planning & Engineering, Inc.
Final Amount	$616,465.51

9. Major Equipment Used

Weeks Marine, Inc.

- 30" Cutterhead Dredge "Capt. Frank" (previously named the "Tom James" prior to Oct. 2008)
- 4600 Manitowoc Bucket Dredge 542
- 4600 Manitowoc Bucket Dredge 646
- Quarters Barge
- Tug Boats
- 2 Crew Boats
- 1 Crane Barge
- 3 Survey Skiffs
- 6 D-6 Bulldozers
- 5 Marsh Buggies
- 1 Front End Loader

10. Construction Sequence

Pre-Construction Survey (June 15, 2009 – July 7, 2009)
Hydroterra Technologies, a subcontractor for Weeks Marine, surveyed the project area prior to construction. A total of 119 beach lines and 56 marsh lines were surveyed. The marsh lines were generally spaced 250 feet apart along the curved baseline with spacing ranging from 200 feet to 520 on select occasions. The beach lines were generally spaced 125 feet apart long the curved baseline with spacing ranging to 225 feet on select occasions. The beach lines extended 500 seaward of the seaward toe of the beach template and 100 feet north of the landward toe of the template. The marsh lines, which coincided with the beach lines, extended 100 feet north of

the northern toe of the primary dike template. The pre-construction survey data was used by the Government to update the construction plans and prepare the final cross-sections.

Hydrographic surveys of the West Grand Terre, S-1, S-2, M-1, and M-2 borrow areas were also conducted. The surveys were collected on a north-south and east-west grid pattern with 100-foot spacing between lines.

Primary Dike Construction (July 12, 2009 – November 18, 2009)
Access dredging at the east and west ends of the island were completed during primary dike construction to gain and maintain adequate draft required by the construction equipment. The bucket dredge 542 began dredging the west access channel on July 12 and commenced construction of the primary dike on July 14, 2009. The dike was constructed in an eastward direction from Station 8+00. The primary dike was constructed to an elevation of +5 feet (NAVD) with a crest width of 5 feet and side slopes of 1V:8H. Several lifts by the bucket dredge were required to achieve the designed elevation. Material used to construct the dike was excavated from within the flotation channel that paralleled the dike to the south. The flotation channel was located within the marsh footprint so that it would be filled during marsh creation.

Due to a Plains All American Pipeline crossing the project area near Station 64+96, the dredge could not excavate over the pipeline to achieve adequate draft to continue construction of the dike. The dredge was relocated to the east end of the island on August 1, 2009 and recommenced construction of the primary dikes starting at Sta 138+00.

The bucket dredge 542 was relieved by the bucket dredge 646 on August 11, 2009, which was used to complete the remainder of the dike. Once the primary dike was complete, the entrances to the flotation channels at either end of the project were closed. The bucket dredge was demobilized from the project site on November 18, 2009. Marsh buggies were used to cap and maintain the dike throughout the remainder of the project. The total length of the constructed primary dike was approximately 15,210 linear feet.

Beach and Dune Construction (December 16, 2009 – June 25, 2010)
The 30-inch cutterhead dredge "Capt. Frank" was used to construct the beach and marsh. The submerged pipeline came ashore at Station 57+00. A 90° dredge pipe elbow pointed upward at the end of the discharge pipe was used to reduce the flow velocity of the slurry. Y-valves were used to separate the single discharge pipe into to three outfalls to further reduce the discharge velocities at the end of the pipes. By using multiple outfalls the discharge pipeline could be extend without shutting the dredge down, thus increasing the operational time of the dredge. Two outfalls were located on the dune crest to construct the beach, while the third outfall was located in the marsh area that paralleled landward of the constructed dune and south of the existing dune. This portion of the marsh area was filled with sandy beach fill material during beach construction because the contractor determined that it would be difficult to fill the low lying area with marsh material after beach construction as the dune could experience significant channeling and rutting while draining the water from the discharge. With the agreement of the State, the contractor was permitted to fill the identified portion of the marsh template with beach material, but payment was made at the marsh fill unit price.

Beach construction started in an easterly direction from Station 61+22. Beach material excavated from the WGT Borrow Area was placed to approximately +6 feet (NAVD) as indicated in the plans. The beach was constructed eastward to Station 128+69 closing the four breaches. The Contractor then repositioned the subline to Station 61+50 and continued beach operations in a westerly direction, constructing the beach between Station 61+22 and Station 8+00. Prior to completing the west extent of the beach fill, Weeks Marine closed the west entrance to the flotation channel near Station 14+00 with a bucket dredge. The entrance was closed to prevent oil from the Deepwater Horizon Oil Spill from contaminating the marsh creation area. As a result, while completing the western terminus of the beach, the marsh area to the west of the closure was filled with beach fill material. After completing the beach to the west, the discharge pipeline was once again flipped to point east and finish construction of the eastern portion of the beach between Station 128+69 and Station 157+22.

Throughout construction, the material excavated had a grain size that was approximately 0.12 mm with less than 10% silt, which allowed construction of a steeper offshore slope than the designed template. To minimize the loss of material while filling the seaward toe, compensating slope, defined in Addendum No.1 Item No. 10, was relaxed on December 30, 2009 and applied seaward of the seaward dune crest up to +6 feet (NAVD). This change resulted in a wider constructed dune crest than included in the original design. The design engineers agreed to this change as it increased project acreage without impacting project performance. A flatter slope was included in the design to avoid non-pay offshore losses in order to minimize construction costs (CPE, 2005).

The gross production rate (total volume of material placed divided by total time including downtime) was approximately 13,800 cubic yards per day. The pay production rate (pay volume divided by total time) was approximately 12,800 cubic yards per day. The difference is due to over pumping by the Contractor. Production rates were estimated based on the total time within the WGT borrow area (187 days) from the start and end dates of beach construction and include delays such as mechanical break downs, weather and more regular down time such as resetting anchors. The average production rate while operational was approximately 25,600 cubic yards/day.

Delays were estimated based on the total beach construction time. In total, operational, mechanical, booster pump, and weather delays accounted for 46% of the construction time. Weather delays accounted for 23% of the construction time.

Marsh Creation (August 3, 2010 – September 28, 2010)

The marsh template was continuously filled westward from Station 154+94 to achieve the design grade elevation. Overburden material was excavated from the M1, M2, and D1 Borrow Areas and hydraulically placed within the marsh fill footprint using the 30-inch diameter pipeline and a diffuser at the end. The diffuser was used to reduce the flow velocity of the discharge. A majority of the pipeline consisted of steel pipe except for approximately 2,000 feet of rubber pipe. The rubber pipe was inserted into the line as it had been mobilized to the project site and it would reduce the length of steel pipe required. Prior to advancing the outfall westward, the marsh between Station 37+00 and Station 154+94 was filled to an elevation of ranging from 3.5

to 5.0 feet (NAVD). As Weeks Marine expected the fill to consolidate and achieve the design template elevation of +2.3 feet (NAVD).

The marsh template between Station 14+00 and Station 37+00 achieved a grade elevation between approximately 2.5 and 4.0 feet (NAVD). During construction while trying to achieve the designed grade elevation, material was discharged through the weirs in the primary dike near Station 14+00 and placed outside the marsh footprint within Bay Melville. Weeks Marine requested that the fill tolerance be removed west of Station 37+00 as silty/muddy material had accumulated at the west end of the marsh and they indicated that in order to achieve the designed grade after 30 days of settlement more material would have to be placed in the marsh. The State agreed to waive the fill tolerance as requested and pay for the material placed within the marsh creation area up to the template volume to avoid excess loss of material. Weeks Marine ceased dredging and after the required 30 day of settlement period, the as-built surveys showed that template grade elevation was achieved.

The marsh template between Station 8+00 and Station 14+00 was filled with sandy material during beach construction. The grade of the fill was approximately +2.3 feet (NAVD).

Production rates were estimated based on the total construction time (57 days) from the start and end dates of marsh construction inherently including any delays experienced. The gross production rate based on the total volume material placed was estimated at 24,000 cubic yards per day (inclusive of downtime). Based on the volume of material placed for payment, the pay production rate was estimated at 12,700 cubic yards per day. The average production rate while operational was approximately 41,000 cubic yards/day.

Delays were estimated based on the total marsh construction time. In total, operational, mechanical, booster pump, and weather delays accounted for 39.2% of the construction time. Weather delays accounted for 16.0% of the construction time.

Liquidated Damages (September 28, 2010 – September 30, 2010)
Weeks Marine did not complete construction of the project by the project completion date and was assessed liquidated damages. The project completion date was September 18 but completion of construction activities, including as-built surveys of the marsh, were not concluded until November 11, 2010. Liquidated damages were assessed at $3,000/day for 54 days which totaled $162,000. The State and Weeks Marine agreed to offset the monetary value of the damages by pumping an additional 17,513 cubic yards ($162,000 / $9.25 per cubic yard) of sandy material from the D1 Borrow Area to the project site. Beach fill material was pumped to the marsh area between the existing and constructed dunes between Station 104+94 and Station 124+94. The additional fill was placed to an elevation of between +4.0 and +5.0 feet (NAVD) and equated to a volume of approximately 32,464 cubic yards.

Sand Fence Installation (February 23, 2010 – June 30, 2010)
Sand fence was installed to aid in the stabilization and retention of sand within the project area. The sand fence consisted of 3/8-inch thick by 1½ -inch wide by 4-foot long wooden slats with 2¼-inch gaps between slats which were connected with five strands of wire. The slats were painted with a red iron oxide stain. The sand fence was attached to untreated round 4-inch

diameter by 8-foot long posts which extended approximately 4 feet above the ground. An auger was used to dig holes for the posts. The fence was secured to the posts with three wire twist ties.

The contractor installed a single row of sand fencing between Station 10+00 and Station 154+87 along the dune crest centerline. Between Station 93+32 and Station 103+90 a second row of fence was installed 16 feet landward of the first row. The second row was installed to meet the original bid quantity of sand fence as the subcontractor had mobilized the additional materials despite the redesigned length. Each section of fence was approximately 450 feet long. There was a 30-foot overlap between each section and the overlapped sections had a 6-foot gap between them to facilitate ATV travel between the sand fence rows during post-construction monitoring.

Settlement Plate Installation (August 28, 2009 – August 19, 2010)

A total of 14 settlement plates were installed to monitor the post-construction subsidence of the island and consolidation of the placed fill material. Five plates were installed along the dune crest centerline, seven plates were installed within the marsh footprint, and two plates were installed along the centerline of the primary containment dike. The settlement plates consisted of a 4-foot by 4-foot by ¼-inch steel plate with a three-inch galvanized capped riser pipe welded to the center of the plate. The settlement plates were installed such that the top of the riser pipe was between 3 and 8 feet above the designed grade. The installed settlement plate locations are shown in Table 7.

Table 7
Settlement Plate Locations

Settlement Plate Locations				
Designed		**Installed**		
Station	**Range**	**Station**	**Range**	**Location**
25+01	-2+59	21+26	-3+04	Berm
25+01	-7+93	25+01	-7+93	Marsh
45+03	-0+29	42+52	-0+56	Berm
45+03	-8+87	45+03	-8+87	Marsh
45+03	-14+59	45+03	-14+59	Center Line of Dike
64+96	0+67	64+96	0+67	Berm
64+96	-8+09	64+96	-8+09	Marsh
80+01	-8+46	80+01	-8+46	Marsh
89+71	1+19	Damaged; Not Installed (C.O. #3)		Berm
99+94	-6+51	99+94	-6+51	Marsh
119+94	1+84	119+94	1+84	Berm
119+94	-9+92	119+94	-9+92	Marsh
134+94	-14+58	134+94	-14+58	Center Line of Dike
144+94	1+77	144+94	1+77	Berm
144+94	-7+78	144+94	-7+78	Marsh

Dredge Release due to Deepwater Horizon Oil Spill Response (June 25, 2010 – August 3, 2010)
The Deepwater Horizon oil rig exploded on April 20. In response to oil washing ashore along Louisiana's coasts, the State developed a plan to construct sand berms along stretches of the coast. Given the need for a rapid response time to minimize intrusion of oil into interior marshes and the need for all available dredging equipment to construct the berms, the State temporarily released the cutterhead dredge and attendant equipment to participate in the Emergency Berm Project. The dredge was released after completing the beach on June 25, 2010 and returned to the project site on August 3, 2010.

11. Problems Encountered / Lessons Learned

Closure of Primary Dike
The bucket dredge accessed the flotation channel to construct the primary dike through two entrances at the east and west ends of the project area. The access and flotation channels were excavated to a depth of -6 feet (NAVD) to allow adequate draft during low tide events. Once the dike was completed the dredge stockpiled material near the entrances and double handled material to complete the closures with a crest elevation of +5 feet (NAVD). The bucket dredge stopped the tidal flow through the closure at the east entrance, but could not achieve designed crest elevation. Marsh buggies were used to cap the low portions of the dike and raise the crest elevation to +5 feet (NAVD).

The closure at the west entrance was constructed by the bucket dredge during construction of the primary dike, but it was breached during passage of Hurricane Ida which tracked east of the Mississippi River Delta on November 10, 2009. The closure was eroded and the marsh creation area was hydraulically reconnected to tidal flows. The west entrance remained open until May 30, 2010 when a bucket dredge return to the project to reconstruct the closure to prevent oil from the Deepwater Horizon Oil Spill from contaminating the marsh creation area.

Consideration should be given when designing the flotation channel and primary dike disposal area in the vicinity of the access channels. Due to the deep water depths, the footprint of the dike would be wider across the entrance as compared to the adjacent sections. A larger disposal and excavation areas should be considered to provide adequate volume to be excavated and stockpiled to complete the closure.

Primary Dike Construction across Pipeline
A pipeline owned by Plains All American Pipeline crossed the primary dike near Station 67+00. The primary dike crossed the pipeline at an angle of almost 45°. The bucket dredge had difficulties placing material to construct the dike near the pipeline due to the 50-foot excavation buffer on either side of the pipeline. The orientation of the pipeline with respect to the dike and flotation channel required the bucket dredge to stockpile and double handle material to construct the dike. The dike was constructed across the pipeline, but marsh buggies were required to raise and maintain the +5 feet (NAVD) crest elevation.

Consideration should be given to the orientation of the pipelines crossing the primary dike with respect to the flotation channel and the dike itself. If possible, the dike and flotation channel

should be designed so that the pipeline crosses perpendicular to these features. This would reduce the volume of material that would need to be double handled and allow the bucket dredge to reach across the pipeline to place material to construct the dike.

Marsh Construction
During marsh construction as the fill advanced toward the weir boxes at the west end of the fill area, material was discharged through the weirs outside the project footprint. The fill accumulated in Bay Melville on the north side of the primary dike. Weeks Marine indicated that the silty/muddy material from the fill had accumulated at the west end of the fill area, but had not consolidated to the point that the designed grade elevation would be achieved. Weeks Marine requested that the fill tolerance at the west end be relaxed in order to reduce the material discharged through the weirs and thus lost outside the project area. The State agreed to relax the required fill tolerances and pay for the material placed up to the template volume.

Consideration should be given when designing the marsh template and the required fill tolerances. In order to reduce the volume of material discharged and lost outside the project footprint, tolerance requirements defined in the specification may need to be adjusted with less stringent tolerances near the water control structures. Consideration should be given to permitting a fill area outside of the weir box. This will allow for any deposition of silts that may exit through the weir and be contained by the silt curtain.

Maximum Depth of Equipment of Dredge Cutterhead
During excavation with the cutterhead dredge, equipment was allowed to extend up to 3 feet below the permitted excavation depth. Throughout construction of the beach and marsh, Weeks Marine indicated that approximately 0.5 feet of material was being left behind due to the restrictions of the maximum depth of equipment. The project managers and dredge captains agreed that the borrow areas could be more completely excavated if cutterhead was permitted to extended deeper that the maximum depth of equipment specified in the plans.

Consideration should be given when designing the borrow areas and the respective maximum depth of equipment. The contractor suggested that if the cutterhead was allowed to extend 5 feet below the permitted excavation depth that the volume of material that remained in the borrow area would be reduced. This would maximize the volume of material removed from the permitted borrow areas and improve the sediment management for future projects. However, the depth that the cutterhead may be lowered beneath the sand must be balanced against the risk of introducing a higher percentage of fines (silts and clay) into the beach fill.

Submerged Pipeline Leak
Near the completion of beach construction, a leak was discovered in the submerged pipeline on June 22, 2010. Emergent material was observed approximately 400 yards offshore of the project area. The pipeline was repaired and Weeks Marine issued a notice to mariners about the shoal that was created in the area of the leak.

Deepwater Horizon Oil Spill
The Deepwater Horizon Oil Spill started on April 20, 2010 and leaked oil until July 15, 2010 when the well was capped. Oil was observed along the Gulf shoreline and offshore of the project

area starting on May 21, 2010. In response, Weeks Marine constructed sand berms with a crest elevation of +5 feet (NAVD) along the existing dune at reaches of the shoreline that the constructed beach had not been completed to prevent oil contaminated water from entering the marsh during high water level events. In addition, the closure at the west entrance to the flotation channel was completed with a bucket dredge and marsh buggies to prevent oil contaminated water from entering the marsh creation area during incoming tidal flows.

Beach construction continued while oil from the spill made landfall at the project site. To prevent oil from being buried, Weeks Marine pumped water through the discharge line to wash oil that had accumulated ahead of the fill from the placement areas. BP oil spill cleanup crews were onsite to assist in the removal and cleanup of the oil while working with Weeks Marine to reduce the delay times to construction activities due to the presence of oil.

12. Construction Change Orders

Change Order #1 - January 5, 2010
Change Order #1 was intended to adjust the project quantities when the bid template was overlayed on the July 2009 pre-construction survey. The quantities adjusted included the beach and dune, marsh, primary dike, and sand fence. The beach and dune fill quantity was increased from 1,527,000 to 2,195,605 cubic yards at a unit cost of $9.25 per cubic yard. The marsh fill quantity was reduced from 1,817,000 to 985,043 cubic yards at a unit cost of $5.50 per cubic yard. The length of the primary dike was reduced from 15,980 to 15,210 linear feet at a unit cost of $65.00 per linear foot. The length of sand fence was reduced from 16,910 to 15,550 linear feet at a unit cost of $16.50 per linear foot. The change order did not result in a change in unit costs, but the change in quantities resulted in a $1,536,342.75 increase in total project cost from $28,513,465.00 to $30,049,807.75. Due to the change in quantities, the change order extended the contract time 120 days from Marsh 26, 2010 to July 24, 2010.

Change Order #2 – August 20, 2010
Change Order #2 incorporated an extension of project completion date due to weather delays and the dredge being released from the contract to participate in Louisiana's Emergency Berm Project in response to the Deepwater Horizon Oil Spill. The contract time was extended 15 days due to unusually severe weather delays experienced between December 2009 and June 2010 and 39 days due to the suspension of work while the dredge was released from the contract between June 25 and August 3, 2010. The change order extended the project time a total of 54 days from July 24, 2010 to September 16, 2010. No change in total project cost resulted from this change order.

Change Order #3 – December 13, 2010
Change Order #3 was the final change order to adjust the contract completion date and quantities, including the beach fill volume, marsh fill volume, sand fence length, and the number of settlement plates installed. The change in project quantities resulted in a $248,107.00 reduction in the total contract cost from $30,049,807.75 to $29,801,700.75.

Due to weather delays unusually severe weather delays experienced during August 2010, the contract time was extended 2 days from September 16 to September 18, 2010.

The beach fill volume was reduced by 16,566 cubic yards from 2,195,605 cubic yards to 2,179,039 cubic yards. The beach fill placed during beach and dune construction was 2,161,525 cubic yards. The additional 17,514 cubic yards was included to offset the monetary value of liquidated damages that were assessed by the State. The contract completion date was September 18, but construction activities including as-built surveys were not completed until November 11, 2010. Liquidated damages were assessed for 54 days at $3,000/day per specification GP-41 which equated to $162,000. Based on the unit price of $9.25 per cubic yard of beach fill, the additional volume of 17,514 cubic yards was included in the final quantity. The volume of fill placed during beach construction was greater than the template volume, but material was placed above the template and not requested for payment by the contractor.

The marsh fill volume was reduced 19,832 cubic yards from 985,043 cubic yards to 965,211 cubic yards.

The length of sand fence was increased 1,073 linear feet from 15,550 linear feet to 16,623 linear feet. The quantity installed was greater than the contract quantity established in Change Order #1 as the subcontractor, Erosion Control Service, mobilized material to construct the original bid quantity of sand fencing. Despite this, construction of the fence exhausted the additional materials mobilized to the project site and the subcontractor elected not to install the total bid length of 16,910 linear feet.

The number of settlement plates was reduced from 15 plates to 14 plates. The contracted number of plates was not installed because one plate was damaged during construction. The plate along the constructed dune crest at Station 89+71 Range1+19 was installed, but damaged by a bulldozer. The plate was removed and a new plate installed along the dune crest at Station 104+94 Range 2+08 per Field Adjustment Report #6 to maintain the contract quantity. After being installed, the plate was again damaged during construction. Due to the proximity of adjacent plates and the east terminus of the beach and dune footprint, it was decided that no plate would be installed to replace the damaged plate thus reducing the contract quantity.

13. Construction Field Adjustments

Field Adjustment #1 – June 23, 2009
Field Adjustment #1 revised specification TS-16 to not require Weeks Marine to the install buoys around the perimeter of the borrow areas or overburden disposal areas.

Field Adjustment #2 – July 3, 2009
Field Adjustment #2 revised specification TS-26.7 to allow grade stakes used in the marsh area to be composed of cane poles. The field adjustment was in response to Weeks Marine's request that cane poles be used during construction of the primary dike.

Field Adjustment #3 – July 22, 2009
Field Adjustment #3 changed the location of the proposed east access channel and disposal area as requested by Weeks Marine due to two magnetic anomalies that were identified within the channel. The revised proposed east access channel and disposal area was chosen by Weeks Marine and it was their responsibility to ensure that all specifications were adhered to while dredging the channel. This included, but was not limited to bathymetric and topographic surveying, conducting a magnetometer survey, and dredging operations.

Field Adjustment #4 – August 20, 2009
Field Adjustment #4 adjusted the location of a portion of the primary dike at the northeast corner of the project area as requested by Weeks Marine. The designed dike location was located in water depths that would have made dike construction difficult. The revised dike location constructed the dike on existing marsh and would improve its ability to contain marsh fill during hydraulic placement.

Field Adjustment #5 – February 24, 2010
Field Adjustment #5 was not formally submitted as a field adjustment, but rather a letter from Weeks Marine indicating that the required beach fill volume had changed since the July 2009 pre-construction survey. Weeks Marine indicated that a new pre-construction survey would be completed in the areas that had not been filled and a slope adjustment would be requested to offset the additional volume required to fill the beach template. A field adjustment report was not finalized at this time, but the issues were addressed in a later field adjustment. See Field Adjustment #7 for details.

Field Adjustment #6 – March 12, 2010
Field Adjustment #6 changed a settlement plate location because installed plate was damaged during construction. The settlement plate installed at Station 89+71 Range 1+19 along the constructed dune crest was damaged by a bulldozer during construction and removed. Since beach fill material had been placed in the area the settlement plate location was change and a new plate was installed at Station 104+94 Range 2+08.

Field Adjustment #7 – June 14, 2010
Field Adjustment #7 applied a slope adjustment to portion of the beach template that had not been constructed when an updated pre-construction survey was conducted in March 2010 in order to maintain the template volume. The updated pre-construction survey was applied to the beach profile lines between Station 13+76 and Station 53+75 and between 96+16 and Station 154+94 and appended to the respective marsh profiles conducted in July 2009. The offshore slope below +1 feet (NAVD) of the beach template was revised from a slope of 1V:90H to a slope of 1V:75H between Station 8+00 and Station 57+48 and between Station 121+19 and Station 154+94.

Field Adjustment #8 – May 19, 2010
Field Adjustment #8 changed a settlement plate location due to beach fill material being placed prior to installation. The plate designed at Station 45+03 Range -0+29 along the constructed dune crest was installed at Station 42+52 Range -0+56.

Field Adjustment #9 – May 29, 2010
Field Adjustment #9 changed a settlement plate location due to beach fill material being placed prior to installation. The plate designed at Station 25+01 Range -2+59 along the constructed dune crest was installed at Station 21+26 Range -3+04.

Field Adjustment #10 – June 7, 2010
Field Adjustment #10 granted Weeks Marine permission not to grade temporary containment dikes erected during beach construction that would otherwise bury oil that impacted the project area from the Deepwater Horizon Oil Spill. Compensating slope was applied between Station 8+00 and Station 54+99 and between Station 128+69 and Station 154-94 to include material for payment that could not be graded and remained above the vertical tolerance of the template.

Field Adjustment #11 – June 29, 2010
Field Adjustment #11 incorporated the additional sand fence that had been mobilized to the project site based on the bid quantity. The fence length after the redesign was 15,550 linear feet and the bid quantity was 16,910 linear feet. The additional 1,360 linear feet of fence was installed as a second row of sand fencing approximately 16 feet landward of the original fence between Station 91+01 and Station 103+69.

Field Adjustment #12 – December 9, 2010
Field Adjustment #12 addresses gapping the primary dike for drainage and waiving the tolerance per specification TS4.5 for the constructed marsh between Station 14+00 and Station 37+00. Two gaps were created in the primary dike approximately 50 feet wide at Station 65+60 and Station 110+20. The dike was excavated to an elevation of +2.3 feet (NAVD) to allow water to drain and inundate the marsh during high tide events.

During construction silty/muddy marsh material had accumulated near the weir boxes at the western portion of the marsh. Material was discharged through the weirs and accumulated outside the project footprint while the contractor was attempting to achieve the template grade elevation. To reduce the volume of material placed outside the project area, the vertical tolerance of 0.3 feet above and below the template and the 95% fill requirement was removed in the marsh area between Station 14+00 and Station 37+00. The volume of material placed up to the template volume was eligible for payment.

14. Requests for Interpretation

Request for Interpretation #1 – January 14, 2010
Request for Interpretation #1 requested a change in quantity of the beach template volume due to a change in site conditions. This request was addressed by Field Adjustment #7.

Request for Interpretation #2 – August 18, 2009
Request for Interpretation #2 requested that the primary dike at the northeast corner of the marsh creation area be repositioned on existing marsh to avoid construction in deep water. The request was approved and addressed by Field Adjustment #4.

Request for Interpretation #3 – February 19, 2010
Request for Interpretation #3 requested to relocate the quarters barge to a site at the east end of the island as the site at the west end was to be filled during beach construction. Once permits were granted by the USACE on May 6, 2010, the request was granted.

Request for Interpretation #4 – May 24, 2010
Request for Interpretation #4 requested that temporary containment dikes erected during beach construction remain in place to avoid the burial of oil impacting the project from the Deepwater Horizon Oil Spill. The request was granted and addressed by Field Adjustment #10.

Request for Interpretation #5 – June 17, 2010
Request for Interpretation #5 requested that secondary containment dikes be constructed through vegetated areas to contain the marsh fill during hydraulic placement. The request was granted provided that the contractor attempt to limit negative impacts to existing vegetation.

Request for Interpretation #6 – June 23, 2010
Request for Interpretation #6 requested that temporary training dikes be left in place rather than leveled. This would avoid burying oil that washed ashore because of the Deepwater Horizon Oil Spill. The dikes were permitted to remain in place during surveys for payment. The request was granted as it was previously addressed by Field Adjustment #10.

Request for Interpretation #7 – August 4, 2010
Request for Interpretation #7 requested a three foot maximum depth of equipment buffer be applied to the M1 and M2 Borrow Areas as it was not indicated in the plans though it was listed in the specifications. The requested was granted provided the post-construction bathymetry was in accordance with the permitted dredge depths shown in the plans.

15. Pipeline and Other Utility Crossings

Please see the construction plans sheets 6 through 9 of 44 for the location and description of pipelines and other utility crossings within the project footprint. The table below provides contact information for the associated pipeline and utility crossing representatives.

Table 8
Pipeline and Utility Company Representatives

Company	Rep. to Contact	Phone
Chevron Pipeline	Thomas August, Jr.	(281) 596-2969
	Port Fourchon Office	(985) 396-3507
Plains All American Pipeline	Rusty Cavalier	(504) 393-6282
Tennessee Gas Pipeline	Kurt Cheramie	(985) 868-6785 ext. 2217
Gulf South Pipeline	Ed Droptini	(985) 705-6419
Columbia Gulf Pipeline	Nelson Kramer	(985) 879-3301

16. Safety and Accidents

No accidents were reported or observed.

17. Additional Comments Pertaining to Construction, Completed Project, etc.

The material placed on the beach and within the marsh fill matched expectations. The average beach fill grain size based on samples collected and analyzed by CPE is 0.12mm with a 6% silt content.

18. Significant Construction Dates

Table 9
Significant Construction Dates

Construction Item	Date
Bid Opening	March 12, 2009
Construction Contract Awarded	June 4, 2009
Notice to Proceed	June 4, 2009
Pre-Construction Conference	June 18, 2009
Start of Primary Dike Construction	July 12, 2009
Start of Settlement Plate Installation	August 28, 2009
Completion of Primary Dike Construction	November 18, 2009
Start of Beach and Dune Construction	December 16, 2009
Start of Sand Fence Construction	February 23, 2010
Completion of Beach and Dune Construction	June 25, 2010
Release of Dredge to Emergency Berm Project	June 25, 2010
Completion of Sand Fence Construction	June 30, 2010
Return of Dredge from Emergency Berm Project	August 3, 2010
Start of Marsh Construction	August 3, 2010
Completion of Settlement Plate Installation	August 19, 2010
Completion of Marsh Construction	September 28, 2010
Substantial Completion	October 2, 2010
Final Acceptance	November 11, 2010

Identified Other Submittals:

Appendix A	-	11x17" As-built Drawings (attached & on CD, pdf format) 8.5x11" As-built Beach Pay Profiles (on CD, pdf format) 8.5x11" As-built Marsh Pay Profiles (on CD, pdf format) Borrow Area Bathymetric Survey Data (on CD, ASCII format) Pre- and Post-Construction Survey Data (on CD, ASCII format)
Appendix B	-	Invoice Related Correspondence (on CD, pdf format)
Appendix C	-	General Correspondence (on CD, pdf format)
Appendix D	-	Deepwater Horizon Oil Spill Related Correspondence (on CD, pdf format)
Appendix E	-	Change Orders (attached and on CD, pdf format)
Appendix F	-	Field Adjustment Reports (attached and on CD, pdf format)
Appendix G	-	Requests for Interpretation (on CD, pdf format)
Appendix H	-	WMI Daily Quality Control Reports (on CD, pdf format)
Appendix I	-	CPE Daily Observation Reports (on CD, pdf format)
Appendix J	-	CPE Weekly Reports (on CD, pdf format)
Appendix K	-	Construction Meeting Minutes (on CD, pdf format)
Appendix L	-	Survey Certification Letters (on CD, pdf format)
Appendix M	-	Beach Fill Grain Size Analysis (on CD, pdf format)
Appendix N	-	Permit Sketches (on CD, pdf format)
Appendix O	-	Construction Plans and Specifications (on CD, pdf format)

Report prepared by:

Andrew Wycklendt, P.E.
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STATE OF LOUISIANA
GORDON G. THOMSON
License No. 31412
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
9/21/11

Gordon Thomson, P.E.
Engineer of Record, Reg No. 31412
Coastal Planning & Engineering, Inc.

Appendix A

As-Built Drawings and Pay Profiles

As-Built Drawings

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION

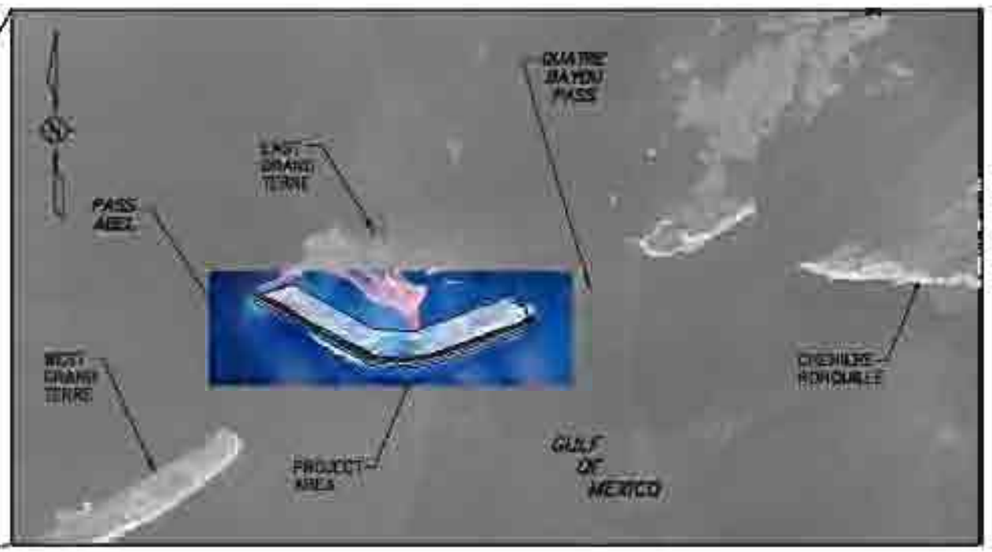
EAST GRAND TERRE ISLAND RESTORATION PROJECT AS-BUILT DRAWINGS

BA-30

JEFFERSON AND PLAQUEMINES PARISHES

INDEX TO SHEETS

STATE OF LOUISIANA
INSET MAP



TYPE OF CONSTRUCTION

CLASSIFICATION III (HEAVY CONSTRUCTION)
BARRIER ISLAND RESTORATION AND HYDRAULIC DREDGING

CPE PROJECT MANAGER – GORDON THOMSON, P.E.

OCPR CHIEF, ENGINEERING AND OPERATIONS

OCPR ENGINEER ADMINISTRATOR

OCPR ENGINEER MANAGER

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-9102
FAX (561) 391-9116
C.O.A. FL. 00028
C.O.A. LA. 30021

REV.	DATE	DESCRIPTION	BY

DRAWN BY: A. HELDEN | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT COVER SHEET
DATE: 01/06/11
SHEET 1 OF 45

GENERAL NOTES

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) U.S. SURVEY FEET (FEET). ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD '83, LOUISIANA STATE PLANE SOUTH ZONE U.S. FEET).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING FROM A NAVIGABLE WATER BODY TO THE PROJECT AREA. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT PLAN AREA AND DREDGING ONLY WITHIN THE LIMITS OF THE FLOTATION AND ACCESS CHANNELS. THE LDNR PROJECT ENGINEER OR REPRESENTATIVE SHALL MONITOR THE EQUIPMENT LOCATION DURING CONSTRUCTION.
3. ALL EQUIPMENT SHALL BE FLOATING AT ALL TIMES DURING THE TRANSIT TO AND FROM THE PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LANDOWNERS AND PIPELINE AND UTILITY OPERATORS 10 WORKING DAYS PRIOR TO MOBILIZATION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE MARKED WITH BUOYS OR FLAGGED STAKES BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUOYS OR FLAGGED STAKES DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE CLEARANCES FROM THE PIPELINES SET FORTH IN THE PLAN DRAWINGS OR IN THE BID DOCUMENTS. SEE SP-4 "LAND OWNER AND LEASEHOLDER REQUIREMENTS". NO EXCAVATION IS ALLOWED WITHIN 50 FEET OF A PIPELINE UNLESS OTHERWISE STIPULATED IN AGREEMENT. THE FOLLOWING IS A LIST OF UTILITIES AND PIPELINE OPERATORS KNOWN TO HAVE PIPELINES IN THE VICINITY. PIPELINE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATIONS; THE OWNER IS NOT LIABLE FOR EXACT LOCATIONS. THE CONTRACTOR MUST CALL LOUISIANA ONE CALL AT 1-800-272-3020 AT LEAST 5 WORKING DAYS PRIOR TO MOBILIZATION.

   TENNESSEE GAS
   CONTACT: KURT CHERAMIE
   PHONE: (985) 666-6785 EXT. 2217
   PIPE SIZE: 30" AND 36"

   CHEVRON PIPELINE COMPANY
   CONTACT: THOMAS AUGUST, JR.
   PHONE: (281) 596-2969
   PIPE SIZE: 20"

   ENTERPRISE PRODUCTS
   CONTACT: PAUL LAIR
   PHONE: (713) 880-6525

   GULF SOUTH PIPELINE
   CONTACT: ED DROPTINI
   PHONE: (985) 705-6419

   COLUMBIA GULF PIPELINE
   CONTACT: NELSON KRAMER
   PHONE: (985) 879-3301
   PIPE SIZE: 24"

   PLAINS ALL AMERICAN PIPELINE, L.P.
   CONTACT: RUSTY CAVALIER
   PHONE: (504) 393-6282
   PIPE SIZE: 2 - 12"

   MALCOLM MEYER
   PHONE: (504) 585-0196

5. PLANS AND BID DOCUMENTS ARE COMPLEMENTARY; WHAT IS REQUIRED IN ONE IS AS BINDING AS IF REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF, OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS WILL BE ISSUED BY THE ENGINEER.
6. ELEVATIONS SHOWN ON PLANS ARE BASED ON SURVEYS PERFORMED IN AUGUST 2002 BY MORRIS P. HEBERT FOR LDNR. AN UPDATED PRE-CONSTRUCTION SURVEY WILL BE PERFORMED AS PART OF THIS CONTRACT, SEE TS-8 AND TS-24.
7. THE ALIGNMENTS AND CONSTRUCTION VOLUMES MAY BE REVISED BY THE ENGINEER AT THE TIME OF CONSTRUCTION TO REFLECT CHANGES IN FIELD CONDITIONS.
8. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
9. MEAN HIGH WATER (MHW) AND MEAN LOW WATER (MLW) ARE BASED ON THE TIDE STATION AT GRAND ISLE, EAST POINT USING 1997 TO 2001 DATA. ELEVATIONS ARE REFERENCED TO NAVD '88, US FEET.
10. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY IN ALL AREAS OF EXCAVATION AND OTHER WORK THAT MAY POTENTIALLY DAMAGE OR INTERFERE WITH EXISTING INFRASTRUCTURE, PRIOR TO ANY WORK. LOCATION OF INFRASTRUCTURE (PIPELINES, WELL HEADS, ETC.) ARE PROVIDED IN THE CONTRACT DOCUMENTS FOR INFORMATIONAL PURPOSES ONLY.
11. THE CONTRACTOR SHALL NOTE THAT BAYS, WATER BOTTOMS, CREEKS, AND PONDS IN THE VICINITY OF THE PROJECT MAY INCLUDE PUBLICLY-ISSUED AND PRIVATELY-ISSUED LEASES FOR THE CULTIVATION AND HARVEST OF COMMERCIAL FISHERY RESOURCES. THE LOCATION OF THE PUBLICLY-ISSUED LEASES IN THE VICINITY OF THE PROJECT ARE SHOWN ON THE PLANS AND DEPICTED IN APPENDIX VI. THE CONTRACTOR SHALL CONDUCT ALL ASPECTS OF ITS OPERATION TO AVOID ANY AND ALL IMPACTS TO SUCH LEASES. THE CONTRACTOR MAY NOT CONSTRUCT WITHIN 150 FEET OF A PUBLICLY-ISSUED LEASE.
12. UPON COMPLETION OF THE PROJECT, THE PRIMARY DIKES SHALL BE LEFT IN PLACE BY THE CONTRACTOR. THE CONTRACTOR SHALL EXERCISE CARE TO MAINTAIN THE PRIMARY DIKES AT THE DESIGN ELEVATIONS DURING THE PROJECT AND SHALL PREVENT ANY BREACHES OF THE DIKES FOR THE DURATION OF THE PROJECT. THE GOVERNMENT MAY REQUEST SOME LOCALIZED DIKE DEGRADATION AT THE END OF THE PROJECT.
13. AVOIDING IMPACTS TO EXISTING VEGETATION: FOR PROTECTION OF EXISTING VEGETATION, ACCESS TO OR MOVEMENT ACROSS THE ISLAND OUTSIDE OF THE DEFINED PROJECT AREA SHALL GENERALLY BE PROHIBITED WITHIN VEGETATED AREAS FOR ALL PERSONNEL AND EQUIPMENT. VEGETATED AREAS SHALL NOT BE USED FOR EQUIPMENT, PERSONNEL OR MATERIAL ACCESS OR STORAGE. THE DREDGED FILL SHALL BE DISCHARGED WITHIN THE CONTAINED AREAS IN A MANNER THAT WILL MINIMIZE OVERFLOW OF THE DREDGED MATERIAL FROM THE BOUNDS OF ITS PLACEMENT AREA.
14. THE CONTRACTOR SHALL DREDGE BEACH FILL FROM WGT-A AND WGT-B BORROW AREAS AS COMPLETELY AS PRACTICAL PRIOR TO BEACH FILL DREDGING FROM OTHER BEACH FILL BORROW AREAS.
15. AS-BUILT SURVEY OF THE BEACH BETWEEN STATION 61+22 AND STATION 78+76 WAS CONDUCTED IN FEBRUARY 2010.
16. AS-BUILT SURVEY OF THE BEACH BETWEEN STATION 80+01 AND STATION 91+01 WAS CONDUCTED IN MARCH 2010.
17. AS-BUILT SURVEY OF THE BEACH BETWEEN STATION 92+31 AND STATION 114+94 WAS CONDUCTED IN APRIL 2010.
18. AS-BUILT SURVEY OF THE BEACH BETWEEN STATION 116+19 AND STATION 128+69 WAS CONDUCTED IN MAY 2010.
19. AS-BUILT SURVEY OF THE BEACH BETWEEN STATION 10+00 AND STATION 59+98 AND BETWEEN STATION 129+94 AND STATION 157+22 WAS CONDUCTED IN JUNE 2010.
20. AS-BUILT SURVEY OF THE MARSH BETWEEN STATION 87+53 AND STATION 154+84 WAS CONDUCTED IN OCTOBER 2010.
21. AS-BUILT SURVEY OF THE MARSH BETWEEN STATION 8+00 AND STATION 64+96 WAS CONDUCTED IN NOVEMBER 2010.

Benchmark Control Points

Monument	Easting	Northing	Elevation
MPH	3744661.38	297628.06	3.06

Tidal Datums at Grand Isle, Louisiana

Tidal Datum	Elevation
Mean Higher High Water (MHHW)	1.60
Mean High Water (MHW)	1.60
Mean Sea Level (MSL)	1.06
Mean Tide Level (MTL)	1.06
Mean Low Water (MLW)	0.55
Mean Lower Low Water (MLLW)	0.54

Source: NOAA (2000), http://www.co-ops.nos.noaa.gov/benchmarks/8761724.html.

SUMMARY OF ESTIMATED QUANTITIES

BASE BID

ITEM No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL PAY QUANTITY
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1	1
2	BEACH AND DUNE FILL	CUBIC YARDS	1,527,000	2,179,039
3	MARSH FILL	CUBIC YARDS	1,817,000	965,211
4	PRIMARY CONTAINMENT DIKES	LINEAR FEET	15,980	15,210
5	SAND FENCING	LINEAR FEET	16,910	16,623
6	SETTLEMENT PLATES	EACH	15	14
7	PRE-CONSTRUCTION SURVEY	LUMP SUM	1	1
8	AS-BUILT SURVEY	LUMP SUM	1	1

QUANTITIES SHOWN ARE FOR BID PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED IN AUGUST 2002. THE OWNER RESERVES THE RIGHT TO INCREASE OR DECREASE QUANTITIES BY 25% WITHOUT ADJUSTMENT OF THE UNIT PRICE. SEE GENERAL PROVISION 35.

COASTAL PLANNING & ENGINEERING, INC.
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www.CoastalPlanning.net

DRAWN BY: A. BELDEN | DESIGNED BY: G. THOMSON, P.E. | REV. | DATE | DESCRIPTION | BY

STATE OF LOUISIANA
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BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT GENERAL NOTES
DATE: 03/2011
SHEET 1 OF 43

EAST GRAND TERRE

SHEET 2

BEACH AND DUNE FILL AREA

SHEET 8

MARSH FILL AREA

SHEET 9

NOTES:
AERIAL PROVIDED BY PHOTO SCIENCE INC. FLOWN IN OCTOBER 2005.

COASTAL PLANNING & ENGINEERING, INC.

DRAWN BY: A. BELDEN | DESIGNED BY: S. THOMSON, P.E.

REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-36

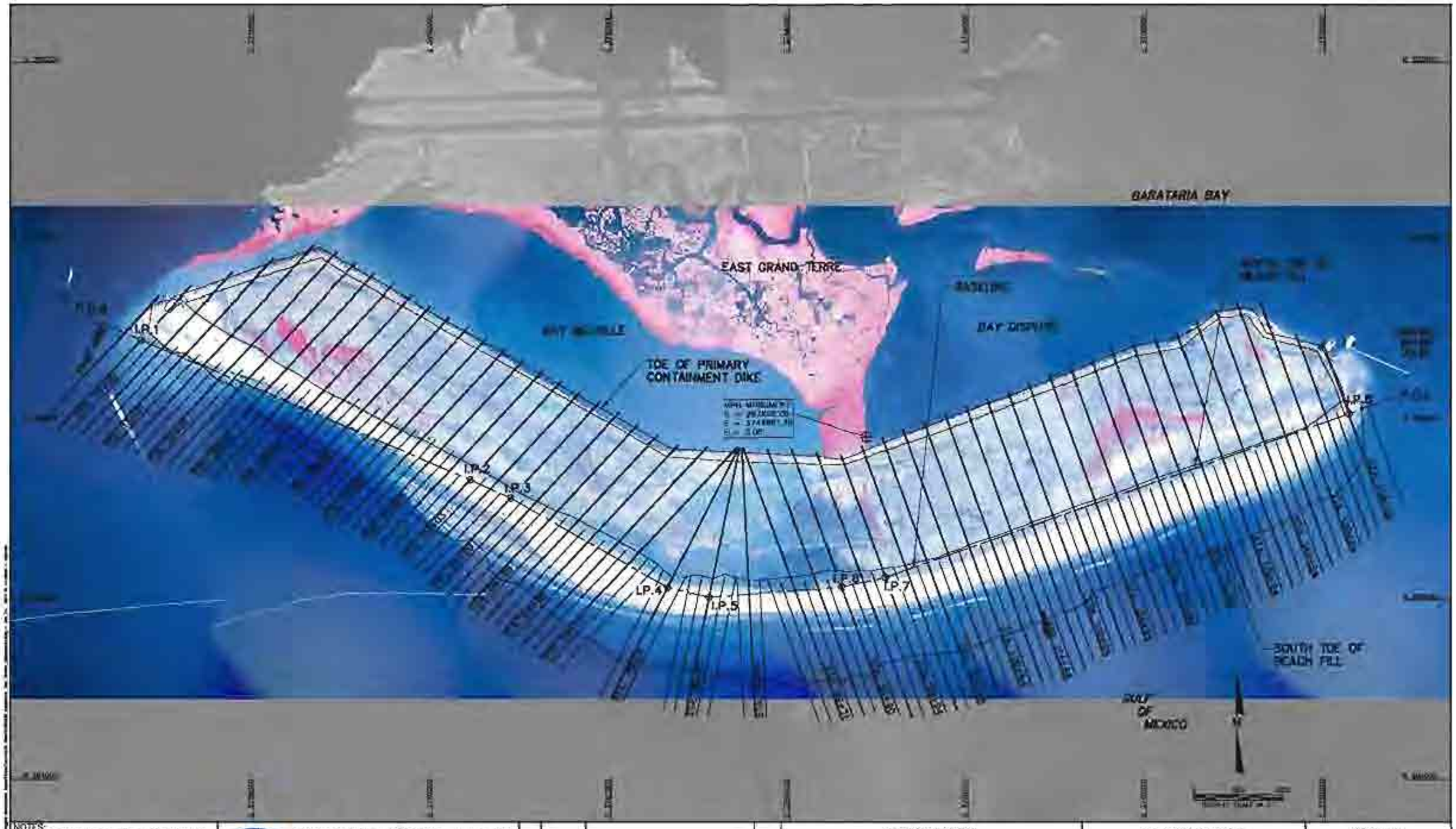
FEDERAL PROJECT NUMBER: BA-35

APPROVED BY: MARY CRISCILLIS, P.E.

AS-BUILT PROJECT OVERVIEW

DATE: 03/2011

SHEET 3 OF 45



NOTES:
1. AERIAL PROVIDED BY PHOTO SCIENCE INC. FLOWN IN OCTOBER 2005.
2. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.
3. THERE ARE CURRENTLY NO MONUMENTS IN PLACE, EXCEPT THE MPM MONUMENT THAT WAS LAST LOCATED 8/1/2002.

COASTAL PLANNING & ENGINEERING, INC.
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C.O.A. FL. #0000
C.O.A. LA. #0000

DRAWN BY: A. BELDEN | DESIGNED BY: G. THOMSON, P.E.

REV	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT PAY PROFILES PLAN VIEW

DATE: 03/09/12

SHEET 4 OF 45

Baseline Bend Points

Bend Point	Easting	Northing
P.O.B.	3736279.6	299105.0
I.P. 1	3736737.0	298910.4
I.P. 2	3740424.9	297350.7
I.P. 3	3740876.0	297146.4
I.P. 4	3742635.3	296144.3
I.P. 5	3743100.0	296035.0
I.P. 6	3744585.3	296142.3
I.P. 7	3745075.5	296257.1
I.P. 8	3750261.5	298090.1
P.O.E.	3751941.2	298685.9

Beach Pay Profiles

Station	Easting	Northing	Azimuth	Perpendicular Distance to Next Station
8+00	3736552.5	298988.1	223.0	188.0
10+00	3736737.1	298910.4	223.0	117.5
11+25	3736852.5	298861.8	223.0	117.5
12+50	3736967.9	298813.3	223.0	117.5
13+76	3737083.3	298764.7	223.0	117.5
15+01	3737198.7	298716.1	223.0	117.5
16+26	3737313.8	298667.3	223.0	117.5
17+51	3737429.0	298618.5	223.0	117.5
18+76	3737544.1	298569.7	223.0	117.5
20+01	3737659.2	298520.9	223.0	117.5
21+26	3737774.4	298472.1	223.0	117.5
22+51	3737889.5	298423.3	223.0	117.5
23+76	3738004.7	298374.5	223.0	117.5
25+01	3738119.8	298325.7	223.0	117.5
26+26	3738235.0	298276.8	223.0	117.5
27+51	3738350.1	298228.0	223.0	117.5
28+76	3738465.3	298179.2	223.0	117.5
30+01	3738580.4	298130.4	223.0	117.5
31+27	3738695.7	298081.7	223.0	117.5
32+52	3738811.0	298033.1	223.0	117.5
33+77	3738926.3	297984.4	223.0	117.5
35+02	3739041.5	297935.8	223.0	117.5
36+27	3739156.7	297887.0	223.0	117.5
37+52	3739271.8	297838.1	223.0	117.5
38+77	3739387.0	297789.3	223.0	117.5
40+02	3739502.1	297740.5	223.0	117.5
41+27	3739617.3	297691.8	223.0	117.5
42+52	3739732.5	297643.1	223.0	117.5
43+78	3739847.8	297594.3	223.0	117.5
45+03	3739963.0	297545.6	223.0	117.5
46+28	3740078.2	297496.9	223.0	117.5
47+53	3740193.4	297448.1	223.0	117.5
48+78	3740308.7	297399.4	223.0	117.5
50+03	3740423.9	297350.7	223.0	117.5
51+27	3740536.9	297299.8	223.0	117.5
52+51	3740650.0	297248.6	223.0	117.5
53+75	3740763.0	297197.5	223.0	117.5
54+99	3740876.0	297146.4	223.0	121.2
56+24	3740984.5	297084.8	223.0	121.3
57+48	3741092.6	297023.1	223.0	121.3
58+73	3741200.9	296961.4	223.0	121.2
59+98	3741309.1	296899.7	223.0	121.2
61+22	3741417.4	296838.1	223.0	121.3
62+47	3741525.7	296776.4	223.0	121.3
63+72	3741634.0	296714.7	223.0	121.2
64+96	3741742.2	296653.0	223.0	125.0
66+25	3741853.9	296589.4	223.0	125.0
67+53	3741965.5	296525.8	223.0	125.0
68+81	3742077.1	296462.3	223.0	125.0
70+10	3742188.7	296398.7	223.0	125.0
71+38	3742300.3	296335.1	223.0	125.0
72+67	3742412.0	296271.5	223.0	207.1
73+99	3742526.5	296206.3	207.0	125.0
75+24	3742635.2	296144.3	207.0	125.0
76+52	3742760.5	296114.9	207.0	159.2
77+51	3742856.5	296092.3	191.0	125.0
78+76	3742978.3	296063.6	191.0	125.0
80+01	3743100.0	296035.0	191.0	125.0
81+31	3743229.5	296044.3	191.0	125.0
82+61	3743358.9	296053.7	191.0	120.0

Notes:
1. Coordinates are in State Plane: NAD '83, Louisiana South Zone, U.S. Survey feet.

Beach Pay Profiles continued

Station	Easting	Northing	Azimuth	Perpendicular Distance to Next Station
83+26	3743423.7	296058.4	177.0	125.0
84+51	3743548.4	296067.3	177.0	125.0
85+76	3743673.1	296076.4	177.0	226.7
87+11	3743807.6	296086.1	160.0	125.0
88+41	3743937.2	296095.5	160.0	125.0
89+71	3744066.8	296104.8	160.0	125.0
91+01	3744196.5	296114.2	160.0	125.0
92+31	3744326.1	296123.6	160.0	125.0
93+60	3744455.7	296132.9	160.0	125.0
94+90	3744585.3	296142.3	160.0	125.0
96+16	3744707.9	296171.0	160.0	125.0
97+42	3744830.4	296199.7	160.0	125.0
98+68	3744953.0	296228.4	160.0	125.0
99+94	3745075.6	296257.1	160.0	125.0
101+19	3745193.4	296298.8	160.0	125.0
102+44	3745311.3	296340.5	160.0	125.0
103+69	3745429.1	296382.2	160.0	125.0
104+94	3745547.0	296423.9	160.0	125.0
106+19	3745664.9	296465.4	160.0	125.0
107+44	3745782.8	296506.9	160.0	125.0
108+69	3745900.7	296548.4	160.0	125.0
109+94	3746018.7	296589.8	160.0	125.0
111+19	3746136.5	296631.6	160.0	125.0
112+44	3746254.3	296673.4	160.0	125.0
113+69	3746372.1	296715.1	160.0	125.0
114+94	3746489.9	296756.9	160.0	125.0
116+19	3746607.8	296798.5	160.0	125.0
117+44	3746725.7	296840.0	160.0	125.0
118+69	3746843.6	296881.6	160.0	125.0
119+94	3746961.5	296923.1	160.0	125.0
121+19	3747079.4	296964.8	160.0	125.0
122+44	3747197.2	297006.5	160.0	125.0
123+69	3747315.1	297048.2	160.0	125.0
124+94	3747432.9	297089.9	160.0	125.0
126+19	3747550.8	297131.5	160.0	125.0
127+44	3747668.7	297173.1	160.0	125.0
128+69	3747786.5	297214.8	160.0	125.0
129+94	3747904.4	297256.4	160.0	125.0
131+19	3748022.2	297298.1	160.0	125.0
132+44	3748140.1	297339.8	160.0	125.0
133+69	3748257.9	297381.5	160.0	125.0
134+94	3748375.8	297423.2	160.0	125.0
136+19	3748493.6	297464.9	160.0	125.0
137+44	3748611.5	297506.6	160.0	125.0
138+69	3748729.3	297548.3	160.0	125.0
139+94	3748847.2	297590.0	160.0	125.0
141+19	3748965.1	297631.6	160.0	125.0
142+44	3749083.0	297673.1	160.0	125.0
143+69	3749200.9	297714.7	160.0	125.0
144+94	3749318.8	297756.2	160.0	125.0
146+19	3749436.6	297797.9	160.0	125.0
147+44	3749554.5	297839.6	160.0	125.0
148+69	3749672.3	297881.3	160.0	125.0
149+94	3749790.1	297923.0	160.0	125.0
151+19	3749908.0	297964.8	160.0	125.0
152+44	3750025.8	298006.6	160.0	125.0
153+69	3750143.6	298048.4	160.0	125.0
154+94	3750261.4	298090.1	160.0	277.6
157+22	3750476.0	298166.0	160.0	

Marsh Pay Profiles

Station	Easting	Northing	Azimuth	Perpendicular Distance to Next Station
8+00	3736552.5	298988.1	223.0	188.0
10+00	3736737.1	298910.4	223.0	235.0
12+50	3736967.9	298813.3	223.0	235.0
15+01	3737198.7	298716.1	223.0	235.0
17+51	3737429.0	298618.5	223.0	235.0
20+01	3737659.2	298520.9	223.0	235.0
22+51	3737889.5	298423.3	223.0	235.0
25+01	3738119.8	298325.7	223.0	235.0
27+51	3738350.1	298228.0	223.0	235.0
30+01	3738580.4	298130.4	223.0	235.0
32+52	3738811.0	298033.1	223.0	235.0
35+02	3739041.5	297935.8	223.0	235.0
37+52	3739271.8	297838.1	223.0	235.0
40+02	3739502.1	297740.5	223.0	235.0
42+52	3739732.5	297643.1	223.0	235.0
45+03	3739963.0	297545.6	223.0	235.0
47+53	3740193.4	297448.1	223.0	235.0
50+03	3740423.9	297350.7	223.0	235.0
52+51	3740650.0	297248.6	223.0	235.0
54+99	3740876.0	297146.4	223.0	242.5
57+48	3741092.6	297023.1	223.0	242.5
59+98	3741309.1	296899.7	223.0	242.5
62+47	3741525.7	296776.4	223.0	242.5
64+96	3741742.2	296653.0	223.0	250.0
67+53	3741965.5	296525.8	223.0	250.0
70+10	3742188.7	296398.7	223.0	279.0
75+24	3742635.2	296144.3	207.0	247.0
80+01	3743100.0	296035.0	191.0	248.2
84+51	3743548.4	296067.3	177.0	282.1
89+71	3744066.8	296104.8	160.0	250.0
92+31	3744326.1	296123.6	160.0	250.0
94+90	3744585.3	296142.3	160.0	250.0
97+42	3744830.4	296199.7	160.0	250.0
99+94	3745075.6	296257.1	160.0	250.0
102+44	3745311.3	296340.5	160.0	250.0
104+94	3745547.0	296423.9	160.0	250.0
107+44	3745782.8	296506.9	160.0	250.0
109+94	3746018.7	296589.6	160.0	250.0
112+44	3746254.3	296673.4	160.0	250.0
114+94	3746489.9	296756.9	160.0	250.0
117+44	3746725.7	296840.0	160.0	250.0
119+94	3746961.5	296923.1	160.0	250.0
122+44	3747197.2	297006.5	160.0	250.0
124+94	3747432.9	297089.9	160.0	250.0
127+44	3747668.7	297173.1	160.0	250.0
129+94	3747904.4	297256.4	160.0	250.0
132+44	3748140.1	297339.8	160.0	250.0
134+94	3748375.8	297423.2	160.0	250.0
137+44	3748611.5	297506.6	160.0	250.0
139+94	3748847.2	297590.0	160.0	250.0
142+44	3749083.0	297673.1	160.0	250.0
144+94	3749318.8	297756.2	160.0	250.0
147+44	3749554.5	297839.6	160.0	250.0
149+94	3749790.1	297923.0	160.0	250.0
152+44	3750025.8	298006.6	160.0	250.0
154+94	3750261.4	298090.1	160.0	

Notes:
1. Coordinates are in State Plane, NAD '83, Louisiana South Zone, U.S. Survey feet.

COASTAL PLANNING & ENGINEERING, INC.
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DRAWN BY: A. BELDEN	DESIGNED BY: G. THOMSON, P.E.	REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT PAY PROFILE TABLES
DATE: 03/06/11
SHEET 5 OF 43

NOTES:

1. AERIAL PHOTOGRAPH DATED OCTOBER 2010.
2. COORDINATES SHOWN ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.
3. ELEVATIONS ARE IN FEET BASED ON NAVD 1988.
4. POST-CONSTRUCTION SURVEY DATE: FEBRUARY 2010 – OCTOBER 2010
5. OIL AND GAS LINES SHOWN PROVIDED BY MORRIS P. HEBERT, INC.

N

0 200 400
FEET

BARATARIA BAY

EAST GRAND TERRE

L31340

24 INCH COLUMBIA GULF TRANSMISSION CO

36 INCH UNITED GAS PIPELINE CO

MATCHLINE SEE SHEET 7

COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33431 TEL (561) 391-9102 FAX (561) 391-9116 www.CoastalPlanning.com C.O.A. FL. 00026 C.O.A. LA. 29991						STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802		EAST GRAND TERRE ISLAND RESTORATION PROJECT
								STATE PROJECT NUMBER: BA-30
								FEDERAL PROJECT NUMBER: BA-30
DRAWN BY: A. BELDEN	DESIGNED BY: G. THOMSON, P.E.	REV.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MARY CHATELLIER, P.E.

AS-BUILT TOPOGRAPHY/ BATHYMETRY

DATE: 01/06/11

SHEET 6 OF 45

MATCHLINE SEE SHEET 6

EAST GRAND TERRE

MATCHLINE SEE SHEET 8

NOTES:

1. AERIAL PHOTOGRAPH DATED OCTOBER 2010.
2. COORDINATES SHOWN ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.
3. ELEVATIONS ARE IN FEET BASED ON NAVD 1988.
4. POST-CONSTRUCTION SURVEY DATE: FEBRUARY 2013 – OCTOBER 2013.
5. OIL AND GAS LINES SHOWN PROVIDED BY MORRIS P. HEBERT, INC.

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C.G.A. FL. #0000
C.G.A. LA. #0000

REV.	DATE	DESCRIPTION	BY

DRAWN BY: A. BOLDEN | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
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EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

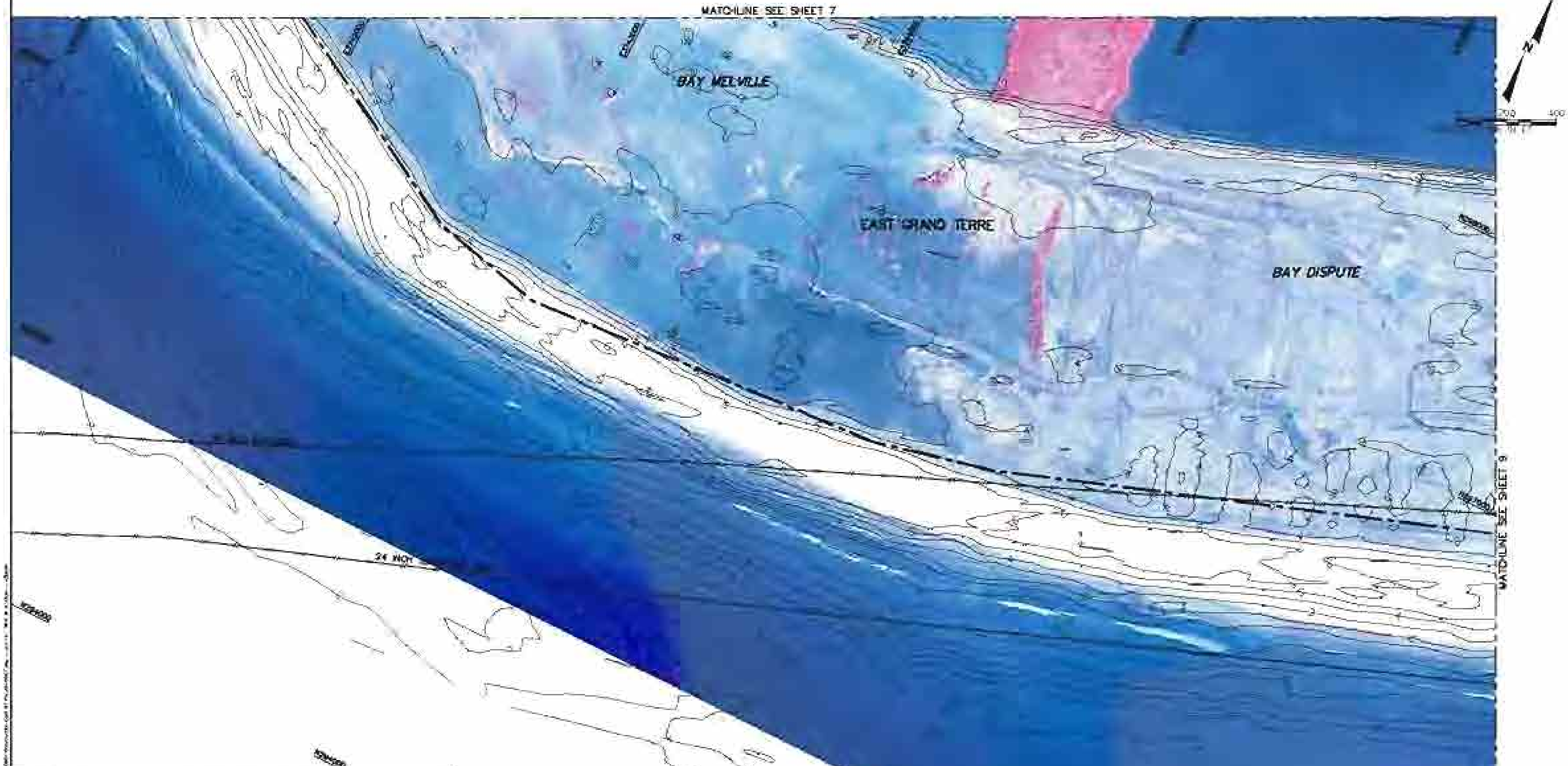
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELAIN, P.E.

AS-BUILT TOPOGRAPHY/ BATHYMETRY

DATE: 01/0621

SHEET 7 OF 45



NOTES:

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5. OIL AND GAS LINES SHOWN PROVIDED BY MORRIS P. HEBERT, INC.

COASTAL PLANNING & ENGINEERING, INC.

DRAWN BY: A. HELDIN — DESIGNED BY: G. THOMSON, P.E.

REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

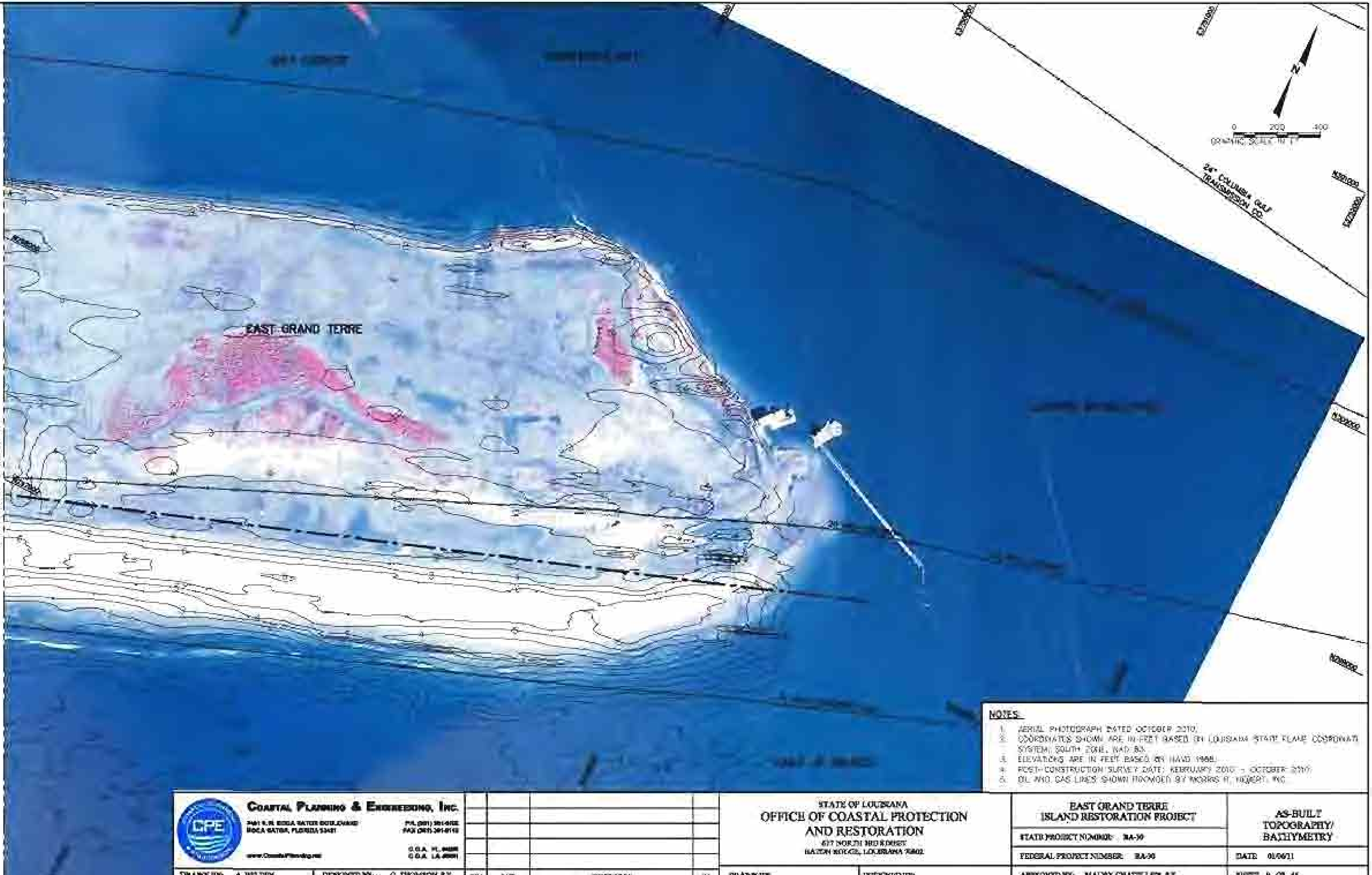
DRAWN BY: — DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT TOPOGRAPHY/ BATHYMETRY

DATE: 01/06/11
SHEET 8 OF 45



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COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DRAWN BY: A. HOLDEN | DESIGNED BY: G. THOMSON, P.E.

REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
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EAST GRAND TERRE ISLAND RESTORATION PROJECT

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FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT TOPOGRAPHY/ BATHYMETRY

DATE: 01/06/11

SHEET 9 OF 45

SIEVED SAND SAMPLES

ID#	SAMPLE	DATE	EASTING	NORTHING	GRAIN SIZE (mm)	SILT CONTENT (%)
1	EGT003	40167	3741026.9	298817.9	0.15	5.75
2	EGT005	40168	3741382.4	299404.2	0.12	5.32
3	EGT011	40175	3741895.3	299426.3	0.11	9.53
4	EGT020	40184	3742092.2	296122.2	0.13	6.91
5	EGT026	40191	3741640.8	296334.7	0.18	3.28
6	EGT033	40198	3742298.9	296161.2	0.16	4.09
7	EGT038	40205	3742827.0	296882.1	0.14	1.79
8	EGT046	40211	3743217.3	295877.0	0.13	3.04
9	EGT053	40218	3743072.8	295880.0	0.11	11.05
10	EGT060	40225	3743680.3	295736.2	0.12	10.24
11	EGT067	40232	3744101.8	296014.3	0.11	7.53
12	EGT074	40239	3744644.5	295954.5	0.12	7.46
13	EGT085	40250	3744816.3	295811.2	0.1	7.61
14	EGT088	40254	3745203.8	296232.5	0.11	5.6
15	EGT095	40260	3745784.6	296120.5	0.11	11.13
16	EGT101	40266	3746238.7	296338.4	0.12	5.58
17	EGT107	40272	3746714.5	296520.3	0.11	9.19
18	EGT112	40277	3746865.7	296376.4	0.11	11.65
19	EGT122	40293	3747068.9	296640.0	0.12	4.66
20	EGT149	40327	3739398.4	297840.0	0.12	5.18
21	EGT155	40333	3737181.7	299230.6	0.12	11.04
22	EGT166	40344	3748575.7	297210.6	0.12	2.94
23	EGT179	40357	3750081.2	297878.7	0.12	10.78
24	EGT180	40451	3747328.8	297085.8	0.12	9.11
25	EGT184	40451	3745576.6	296286.7	0.12	4.25

SETTLEMENT PLATES

ID#	STATION	EASTING	NORTHING	ELEVATION (FT, NAVD)	DATE PLACED
1	21+26	3737980.9	298699.3	10.0	5/27/2010
2	25+01	3738660.9	298905.0	9.6	8/19/2010
3	42+52	3739771.0	297683.5	9.1	5/20/2010
4	45+03	3740570.4	298188.7	6.5	8/19/2010
5	45+03	3740927.8	298582.4	7.3	12/6/2009
6	64+96	3741718.0	296593.5	10.7	12/17/2009
7	64+96	3742295.0	297244.9	8.8	8/19/2010
8	80+01	3743264.6	296806.4	8.7	8/15/2010
9	99+94	3744851.6	296871.5	10.0	8/19/2010
10	119+94	3747025.4	296755.3	10.2	2/28/2010
11	119+94	3746623.7	297855.3	9.0	6/19/2010
12	134+94	3747871.6	298763.1	8.6	8/28/2009
13	144+94	3749376.4	297592.7	10.7	6/8/2010
14	144+94	3749090.7	298486.5	8.4	6/19/2010

NOTES:

DATE OF AERIAL PHOTOGRAPHY: OCTOBER 5, 2010

LEGEND:

- PROJECT BASELINE
- AS-BUILT SAND FENCE LOCATION
- □9 AS-BUILT SETTLEMENT PLATE LOCATION & ID
- ⊕14 AS-BUILT SAND SAMPLE LOCATION & ID

COASTAL PLANNING & ENGINEERING, INC.
2481 NW. BOCA RATON BOULEVARD
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FAX (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL 26028
C.O.A. LA 29531

DRAWN BY: A. BELDEN | DESIGNED BY: G. THOMSON, P.E.

REV	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

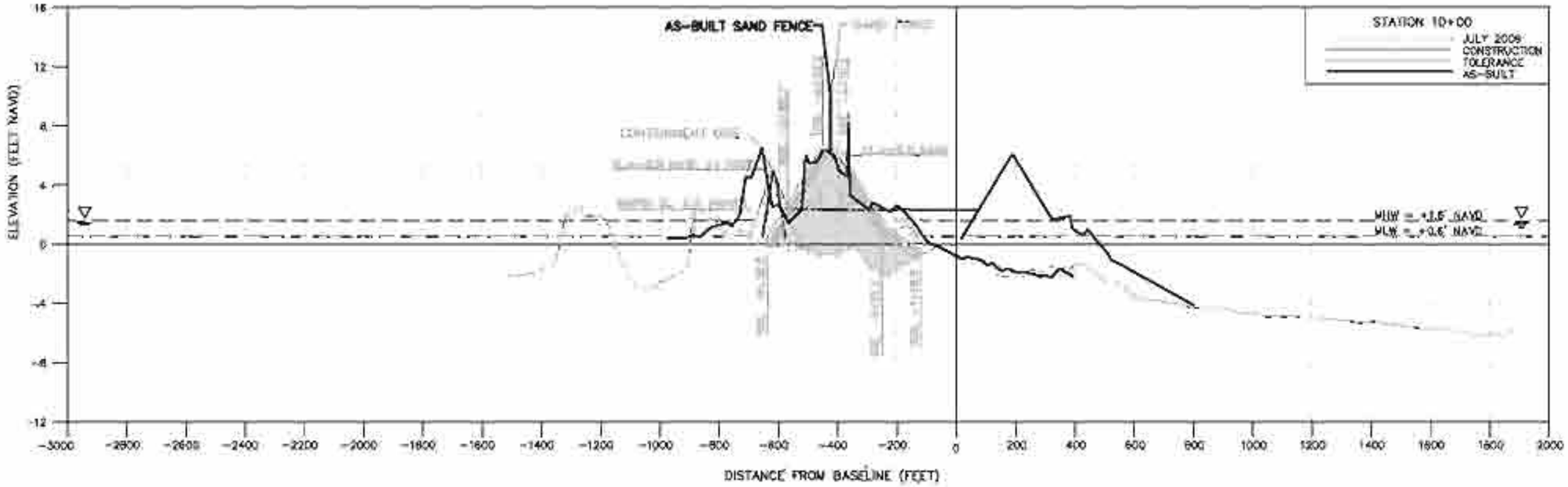
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT ISLAND FEATURES

DATE: 01/06/11

SHEET 10 OF 45



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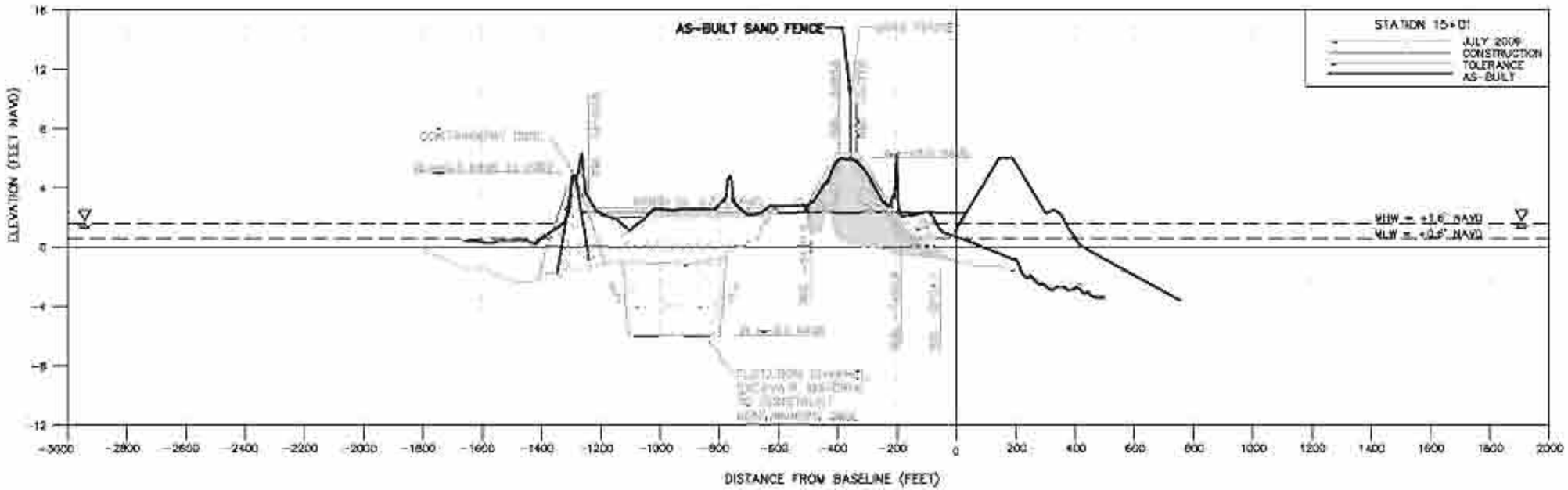
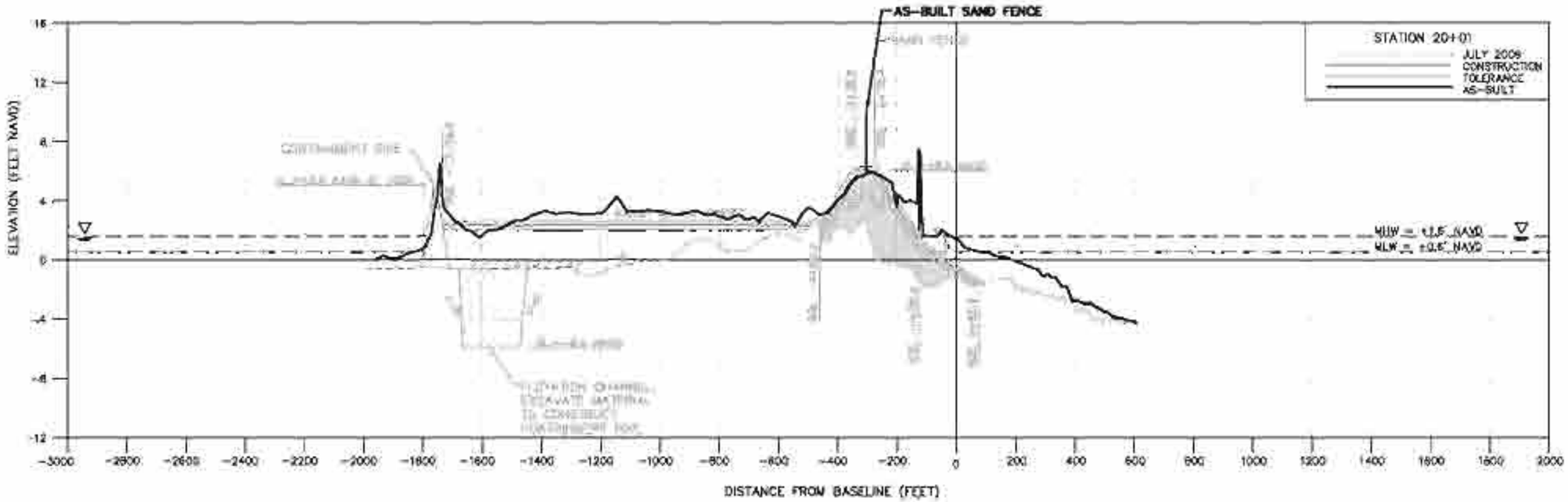


COASTAL PLANNING & ENGINEERING, INC.					STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	EAST GRAND TERRE ISLAND RESTORATION PROJECT	AS-BUILT CROSS-SECTIONS
						STATE PROJECT NUMBER: BA-30	
						FEDERAL PROJECT NUMBER: BA-30	DATE: 01/06/11
DRAWN BY: A. HELIDEN	DESIGNED BY: G. TEDESCO, P.E.	REV.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELLIER, P.E.	SHEET 11 OF 45



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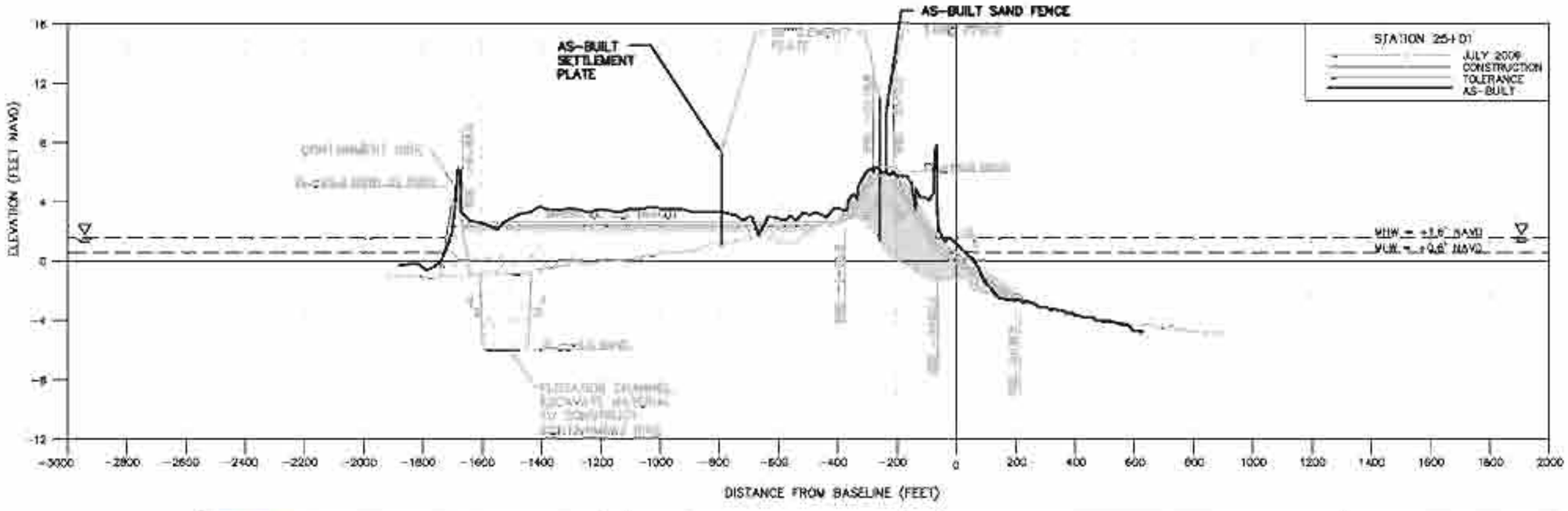

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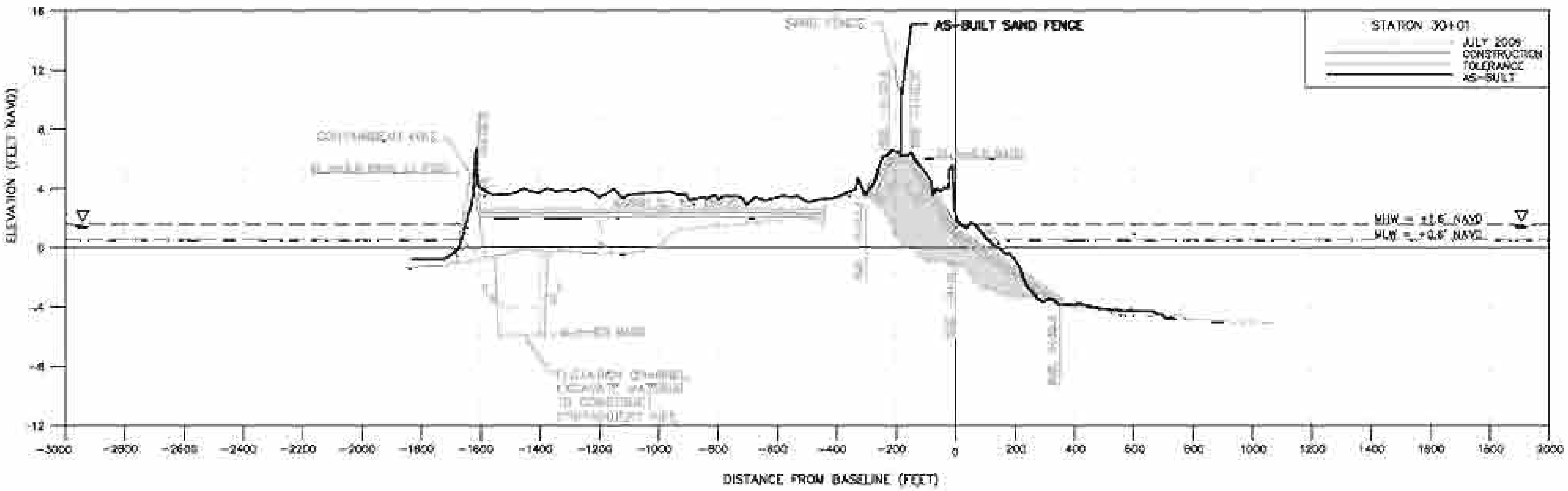
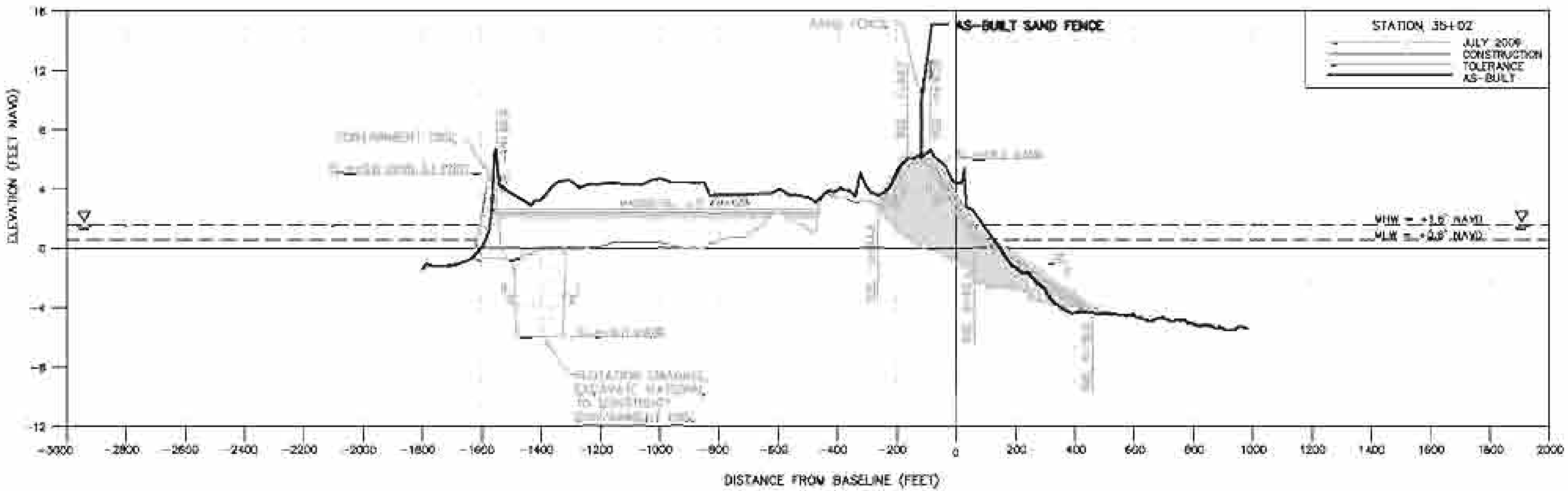
DRAWN BY: A. BERGEN	DESIGNED BY: G. THOMSON, P.E.	NO.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELAIN, P.E.	SHEET 12 OF 45





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C.O.A. LA #8531

DRAWN BY: A. BEILDEN | DESIGNED BY: G. DIKMSON, P.E. | REV. | DATE | DESCRIPTION | BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

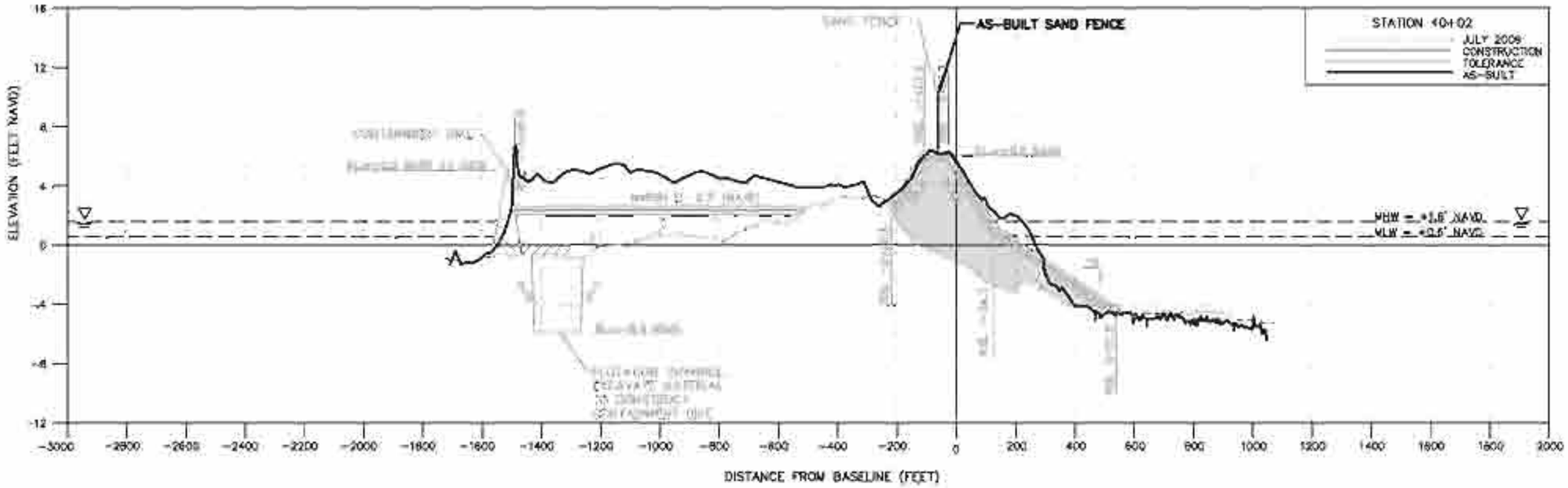
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 13 OF 45



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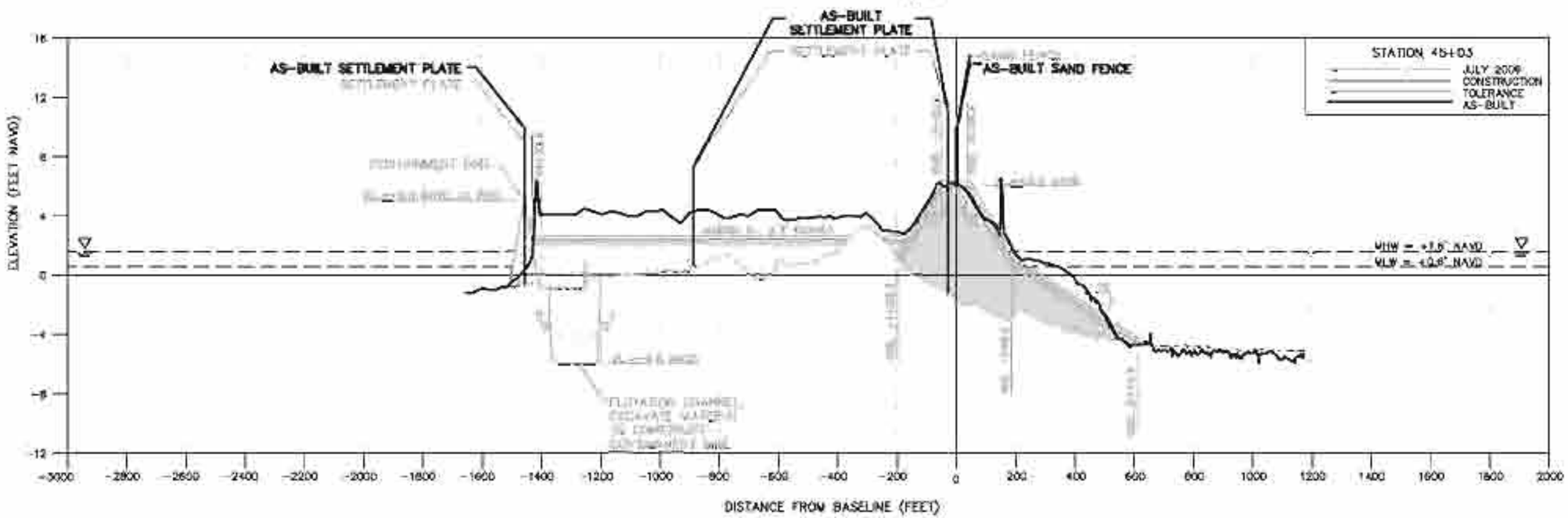

COASTAL PLANNING & ENGINEERING, INC.					STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802		EAST GRAND TERRE ISLAND RESTORATION PROJECT	AS-BUILT CROSS-SECTIONS	
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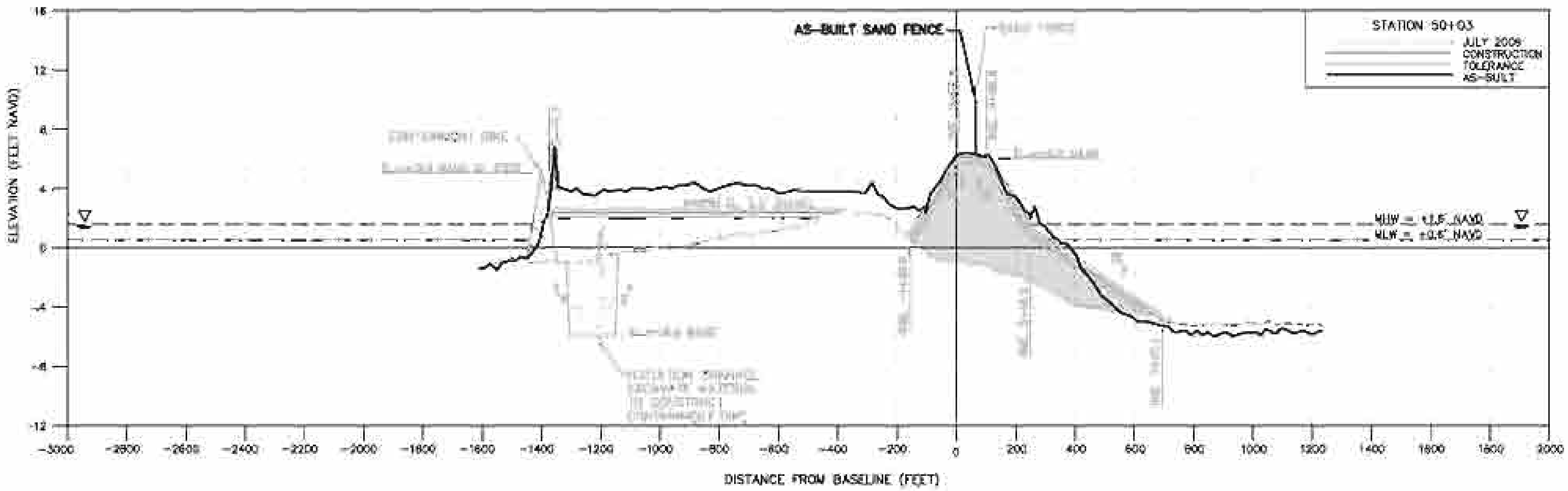
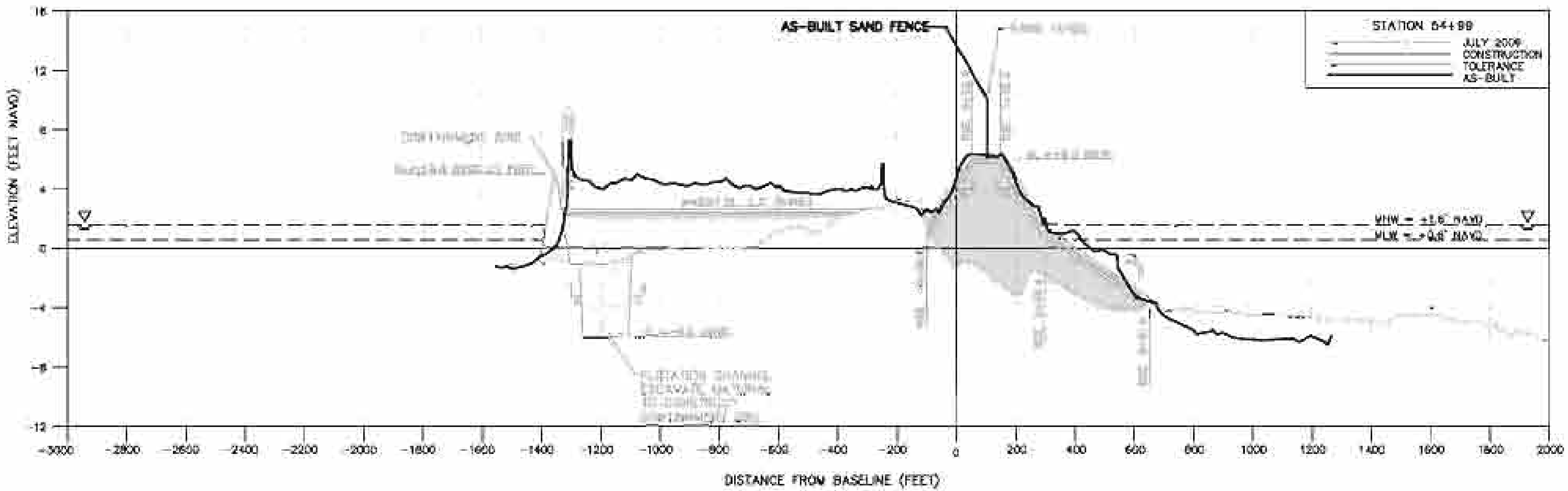
							FEDERAL PROJECT NUMBER: BA-30	DATE: 01/06/11	
DRAWN BY: A. HELIDEN	DESIGNED BY: G. TIDMORE, P.E.	NO.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELAIN, P.E.	SHEET 14 OF 45





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REV. | DATE | DESCRIPTION | BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

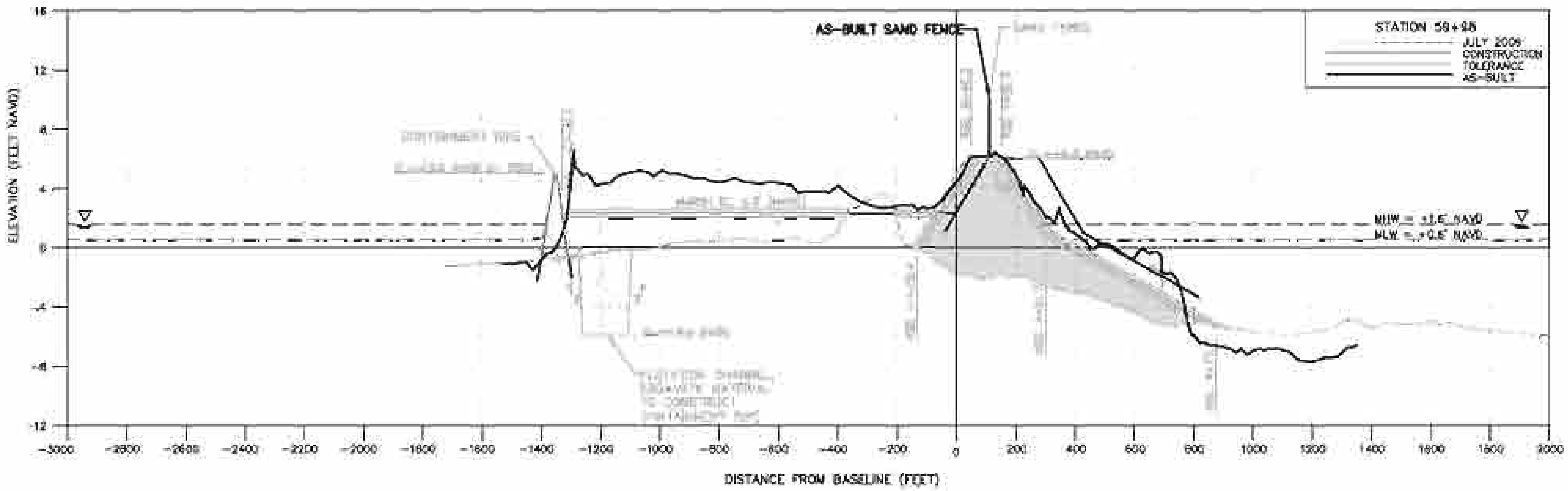
FEDERAL PROJECT NUMBER: BA-30

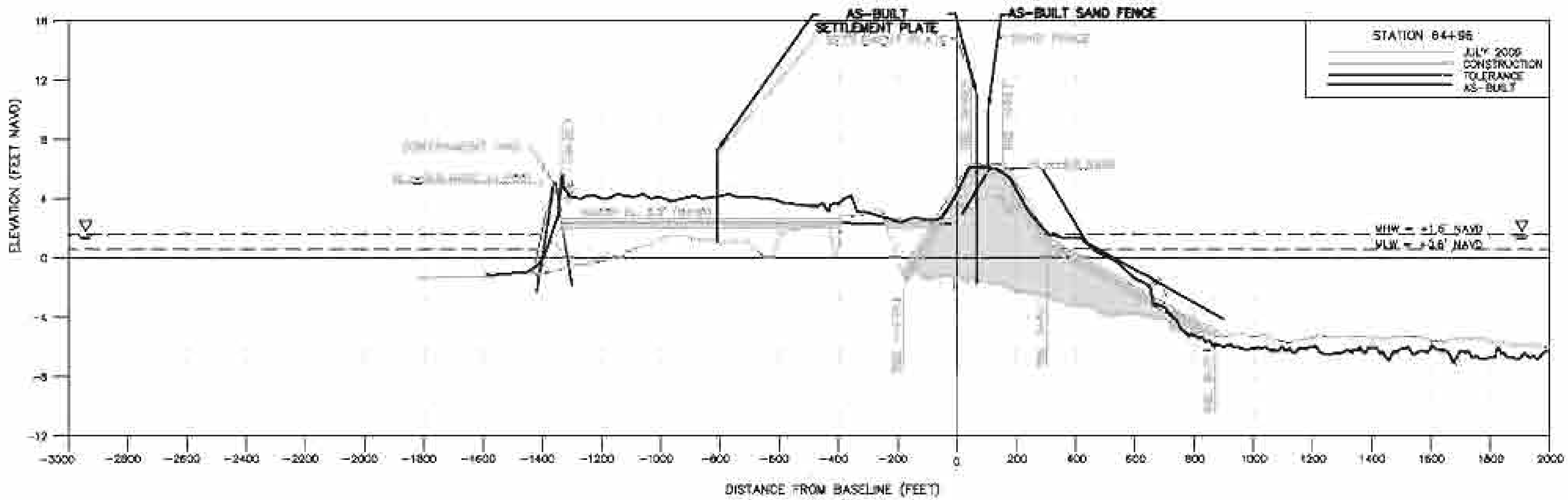
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 15 OF 45





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STATE OF LOUISIANA
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617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

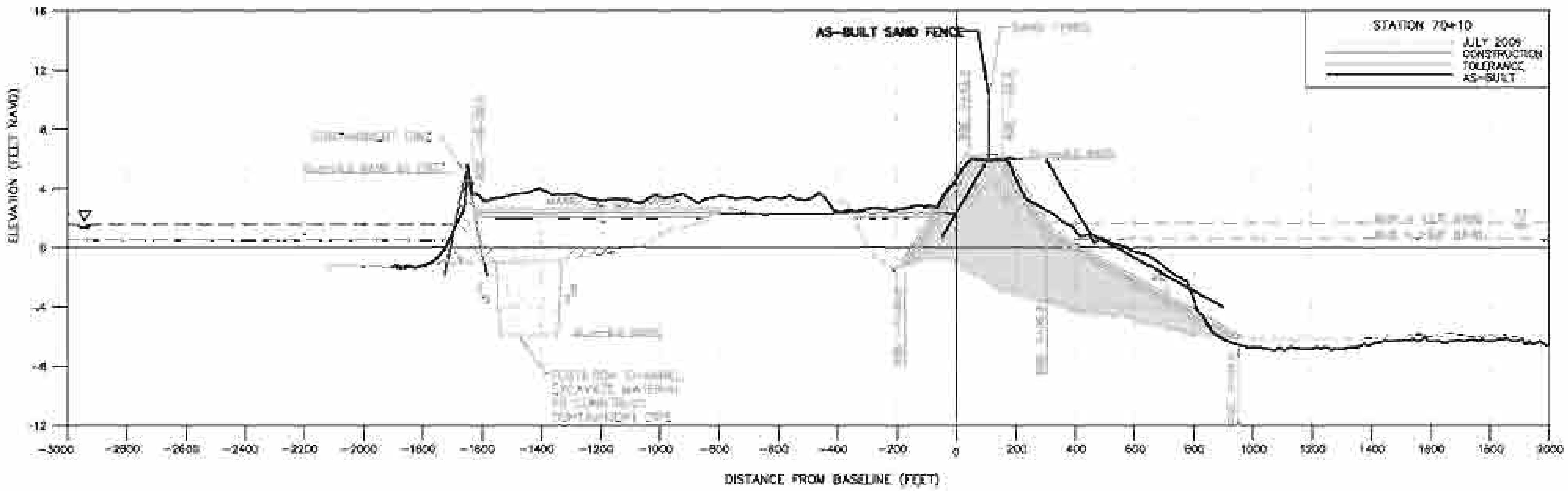
FEDERAL PROJECT NUMBER: BA-30

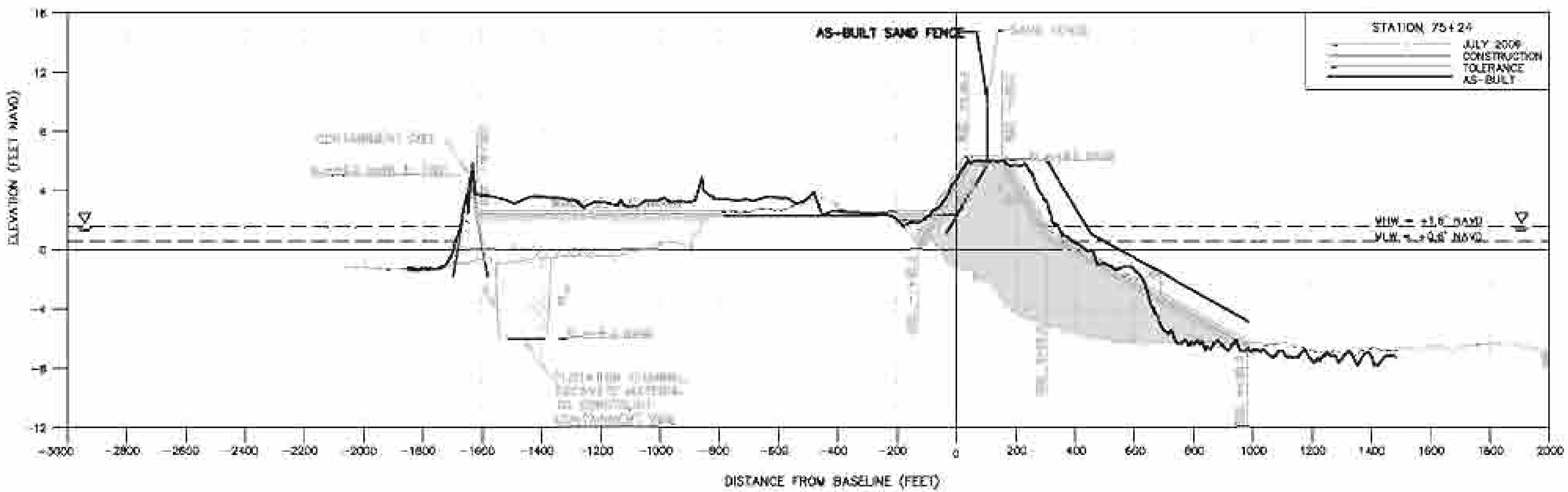
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 18 OF 45





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		STATE PROJECT NUMBER: BA-30	
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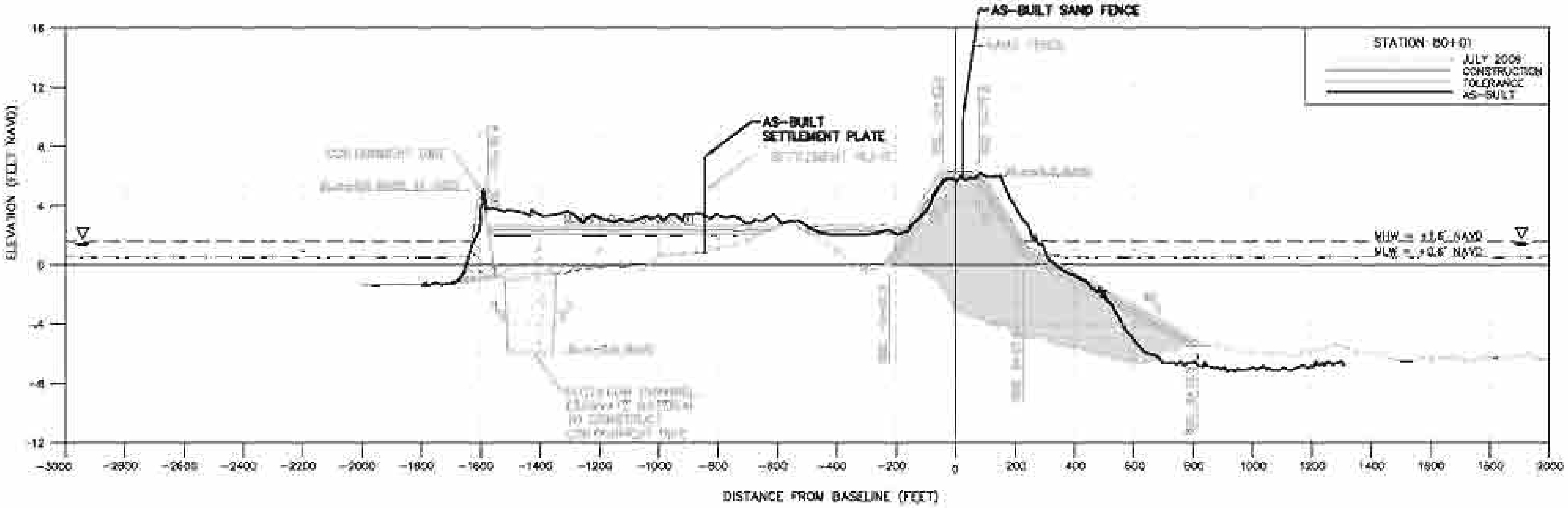
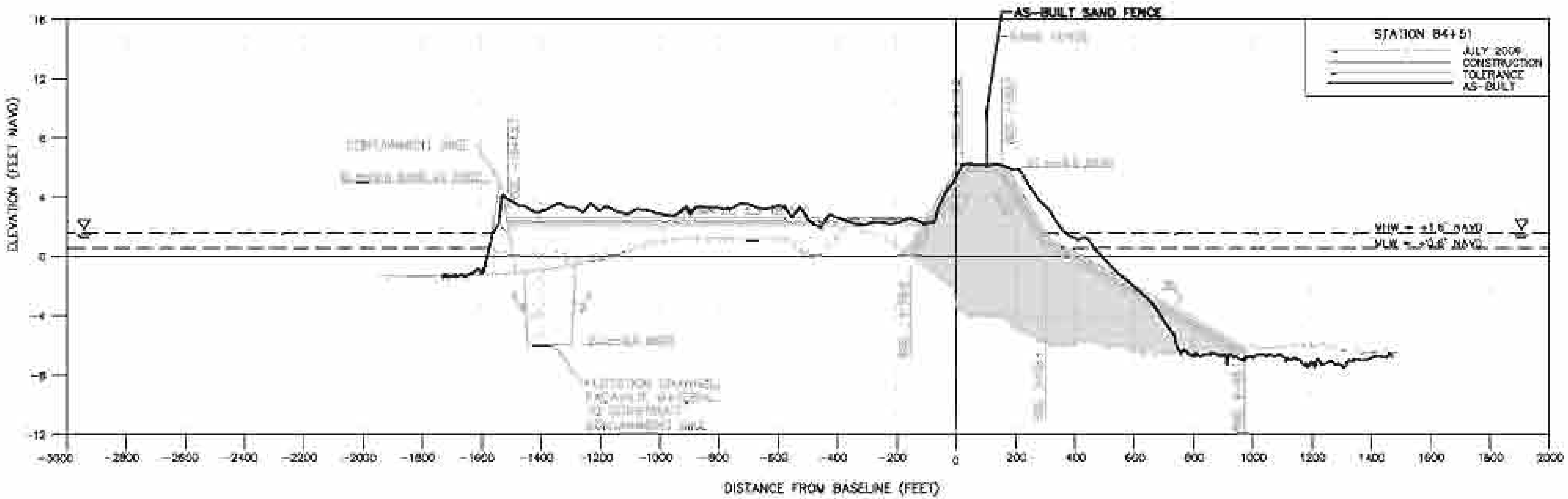
DRAWN BY: A. BEIDEN / DESIGNED BY: G. DIKMSON, P.E. / REV. / DATE / DESCRIPTION / BY	DRAWN BY: / DESIGNED BY:	APPROVED BY: MAURY CHATELLIER, P.E.	SHEET 17 OF 45





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DRAWN BY: A. BELDEN | DESIGNED BY: G. TIKINSON, P.E. | REV. | DATE | DESCRIPTION | BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

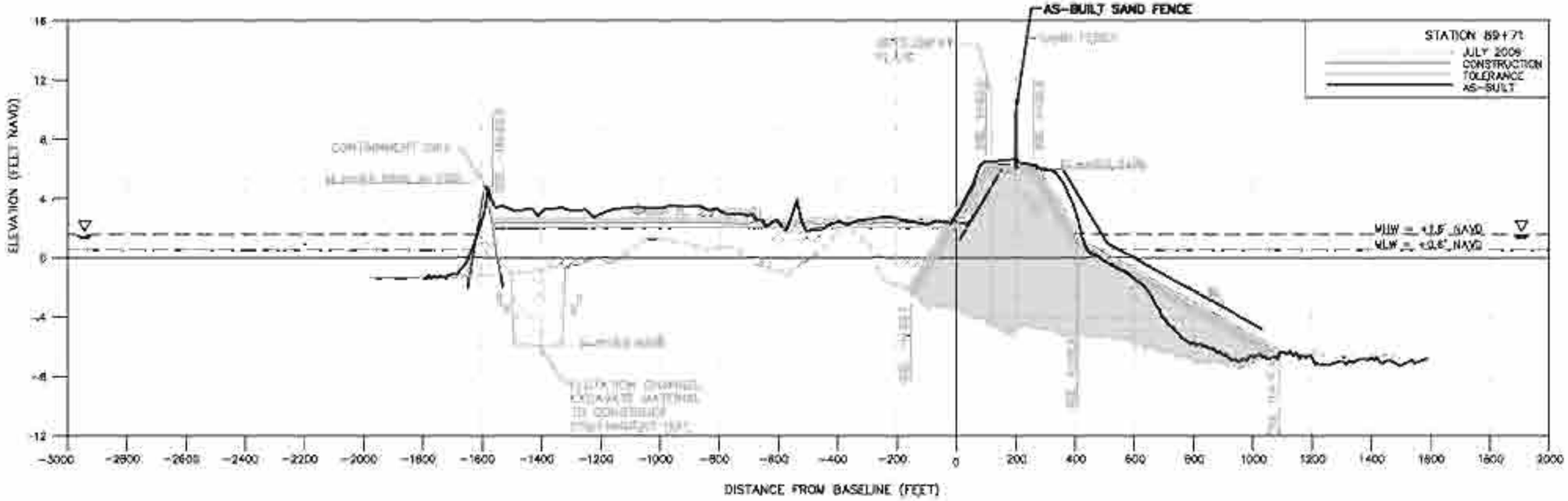
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 18 OF 45



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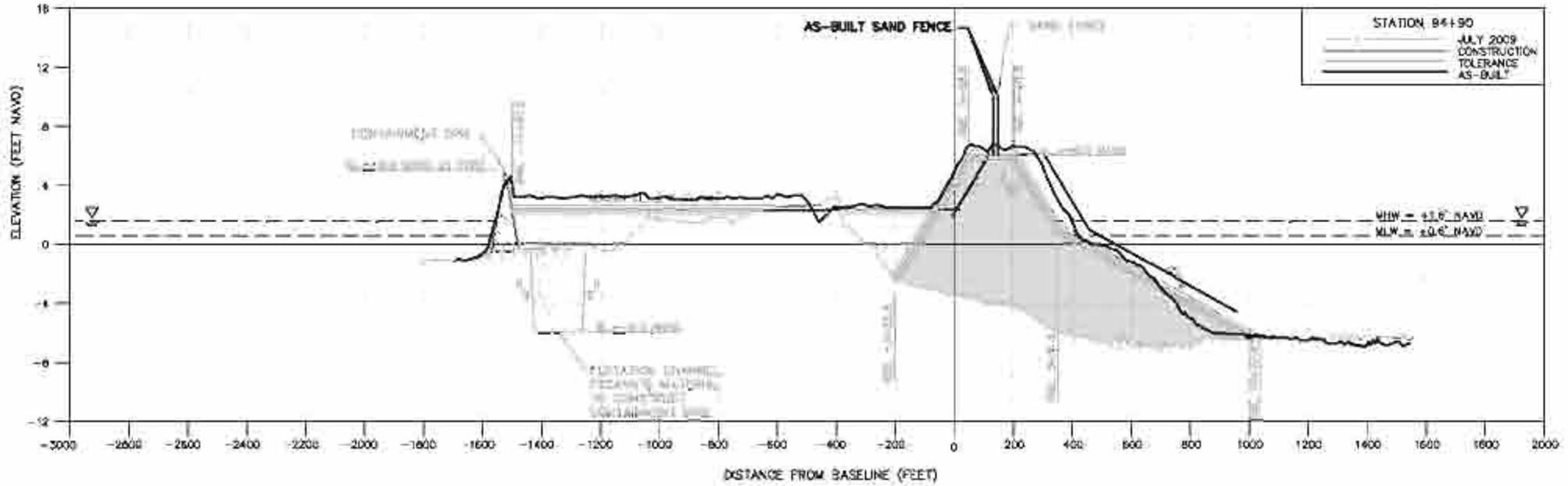

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www.CoastalPlanning.net
C.O.A. FL #4698
C.O.A. LA #8531

DRAWN BY: A. HELIDEN	DESIGNED BY: G. TEDESCO, P.E.

REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY:	DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30
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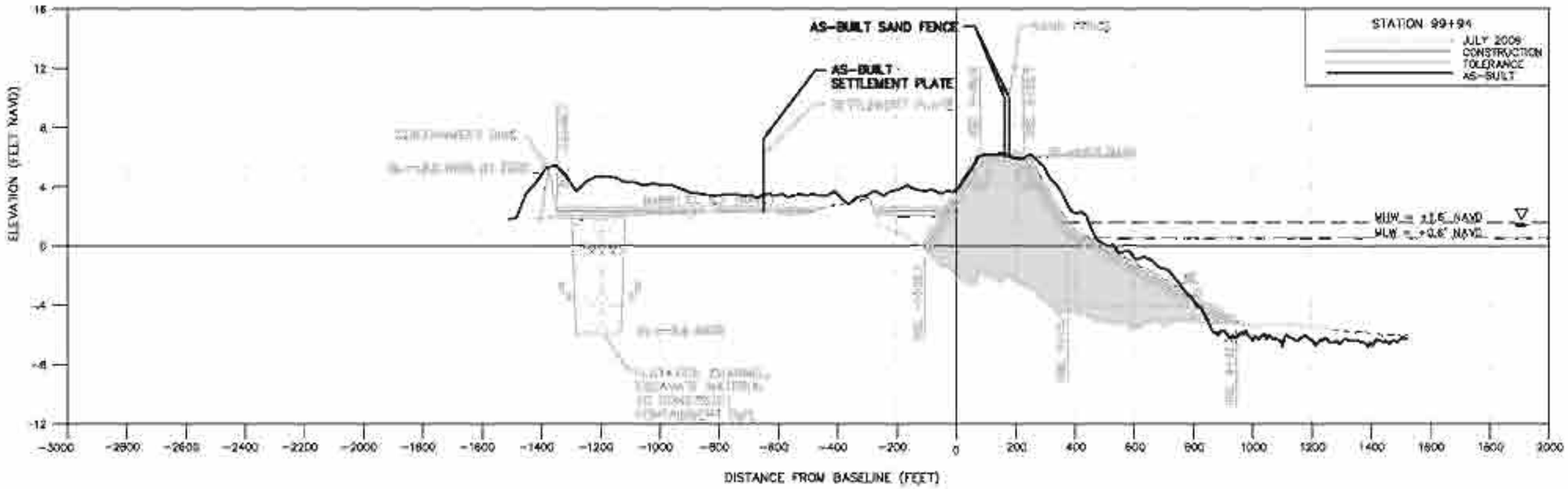
AS-BUILT CROSS-SECTIONS

DATE: 01/06/11
SHEET 19 OF 45



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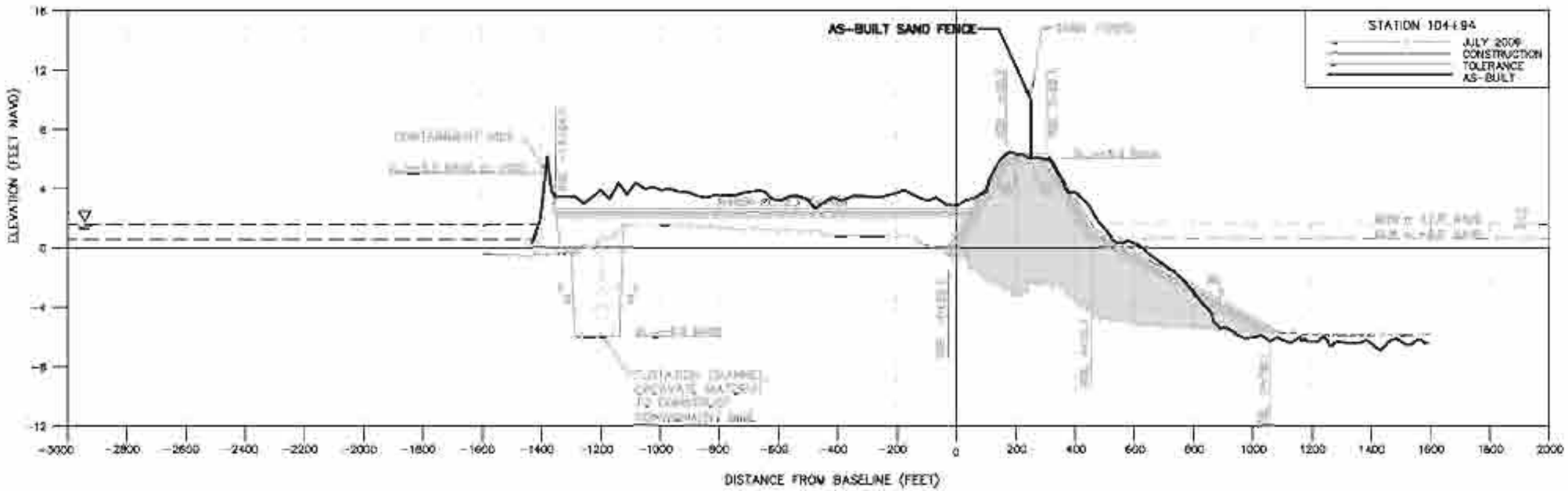

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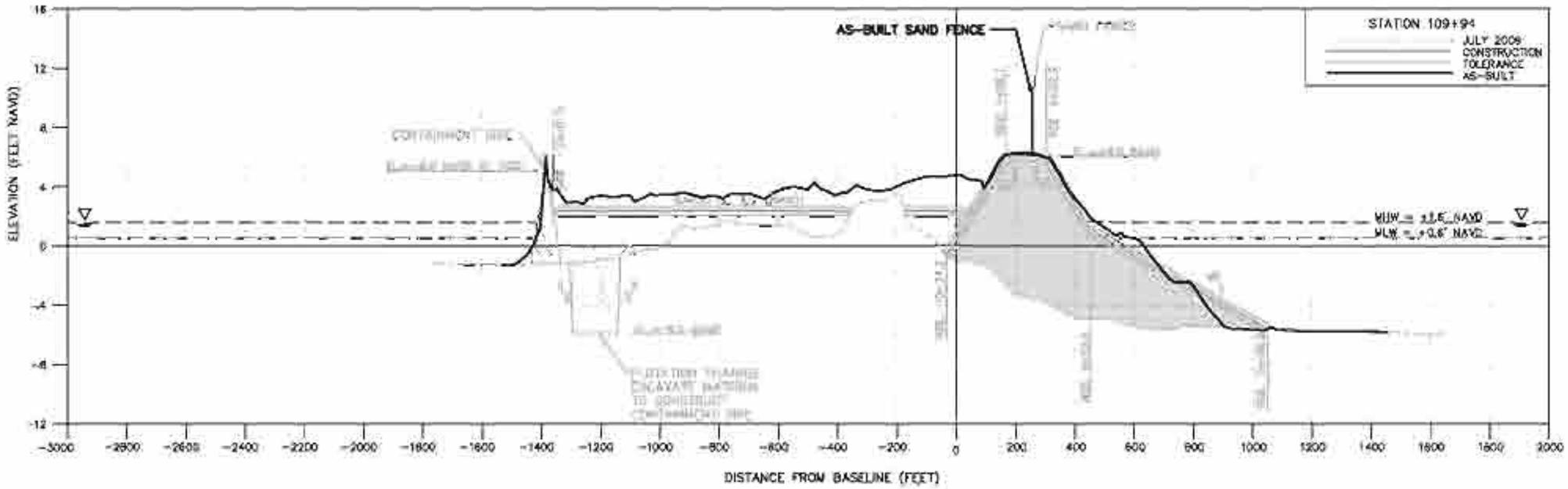
DRAWN BY: A. HELIDEN	DESIGNED BY: G. TEDESCO, P.E.	NO.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELAIN, P.E.	SHEET 30 OF 45



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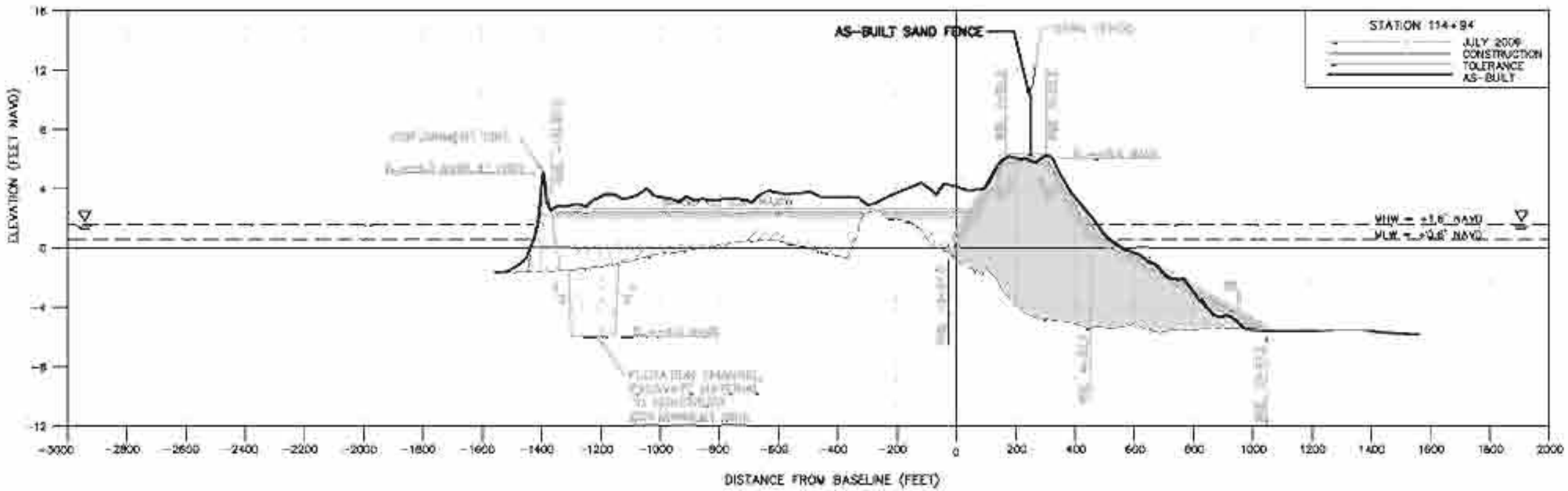

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REV.	DATE	DESCRIPTION	BY

DRAWN BY: A. HELIDEN | DESIGNED BY: G. TEDESCO, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

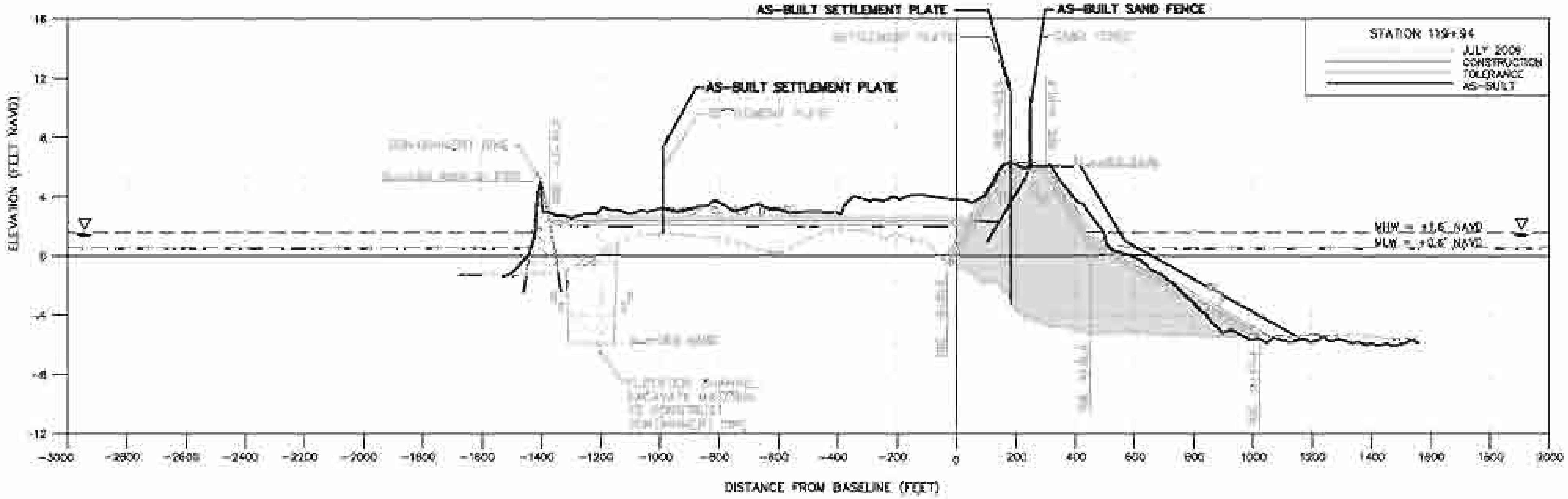
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELAIN, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 21 OF 45



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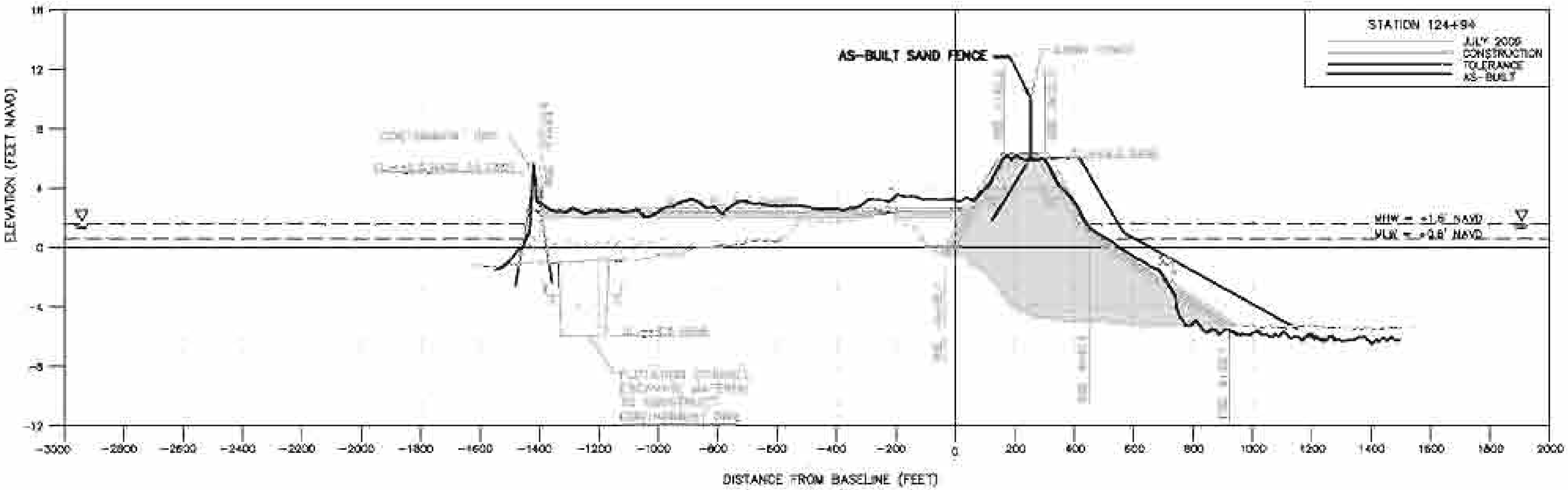

COASTAL PLANNING & ENGINEERING, INC.		STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802		EAST GRAND TERRE ISLAND RESTORATION PROJECT	AS-BUILT CROSS-SECTIONS
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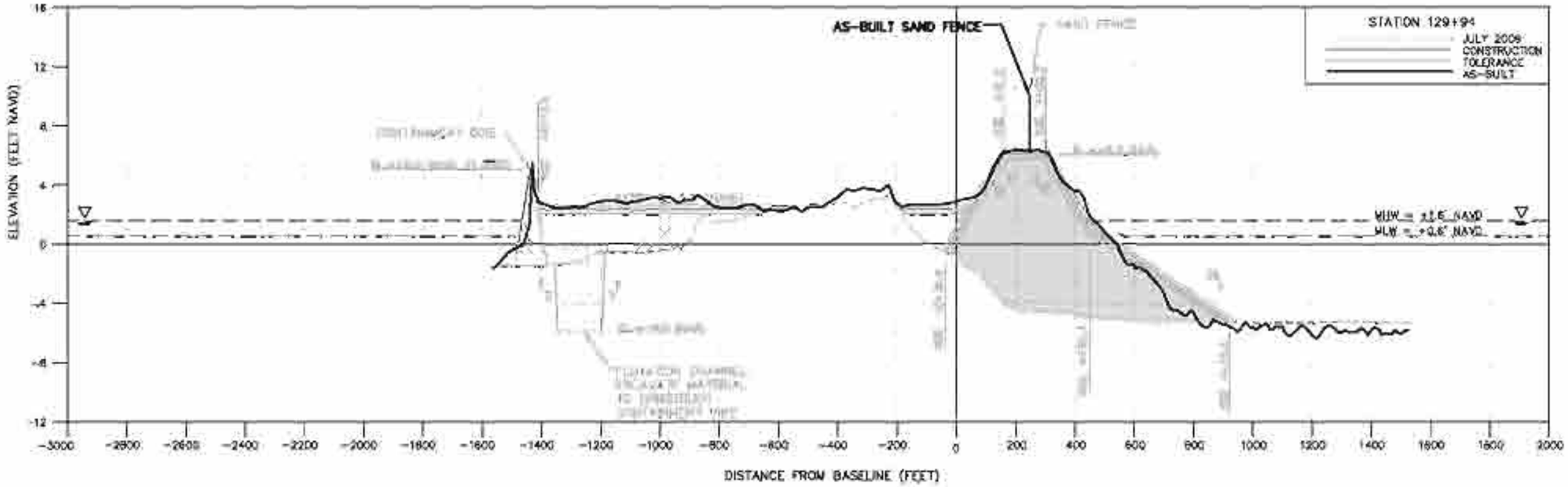
DRAWN BY: A. BELDEN	DESIGNED BY: G. THOMSON, P.E.	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELLIER, P.E.	SHEET 22 OF 45



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3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
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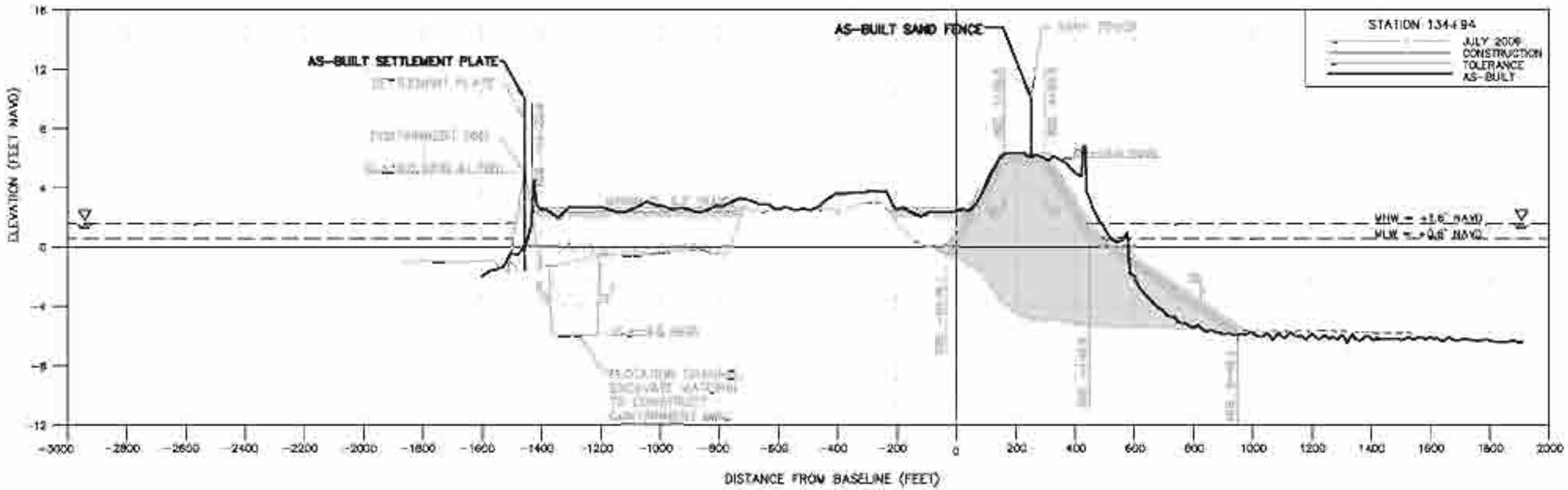
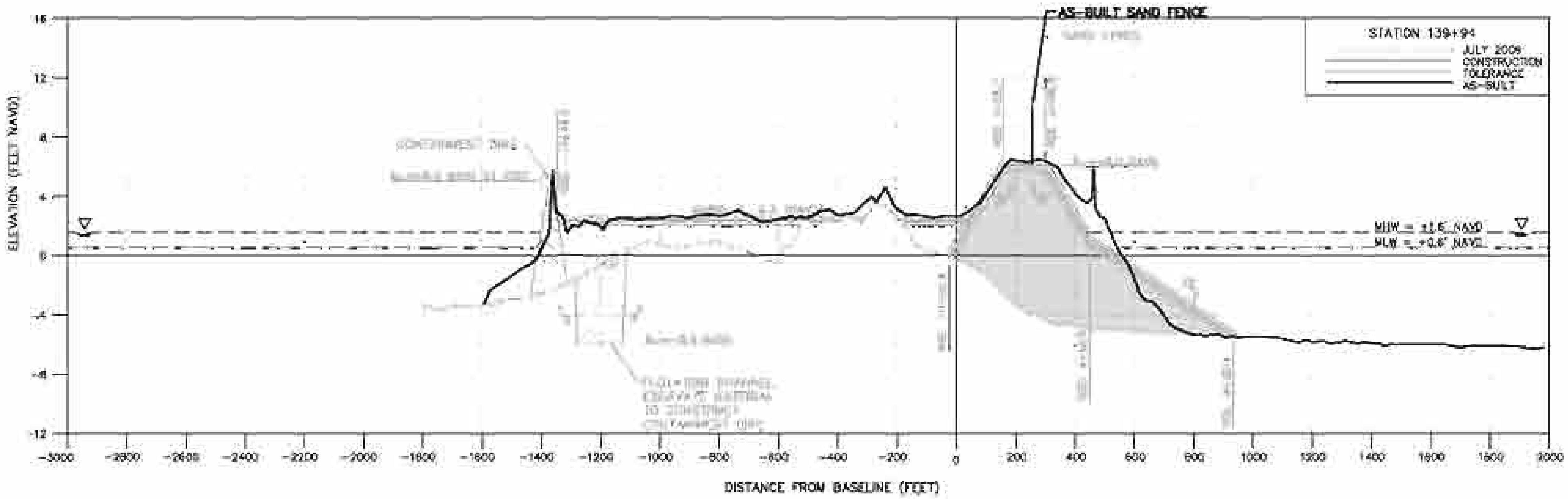
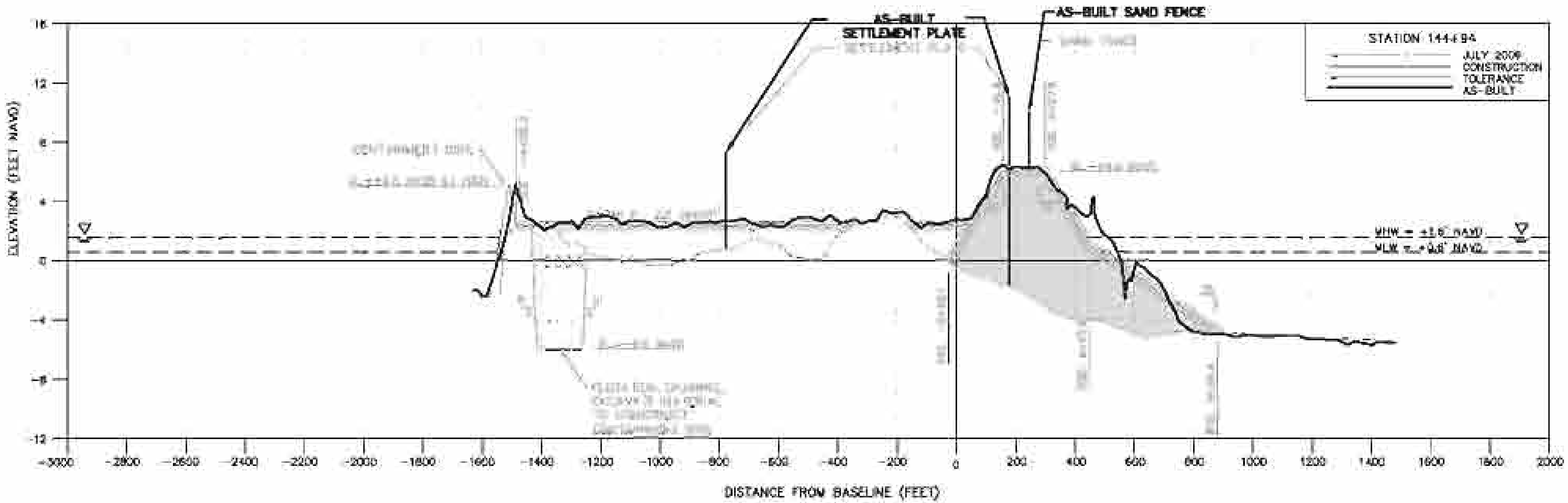
5. POSITIVE RANGES ARE SOUTH OF BASELINE, NEGATIVE RANGES ARE NORTH OF BASELINE.



COASTAL PLANNING & ENGINEERING, INC.				STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802		EAST GRAND TERRE ISLAND RESTORATION PROJECT	AS-BUILT CROSS-SECTIONS
						STATE PROJECT NUMBER: BA-30	
						FEDERAL PROJECT NUMBER: BA-30	DATE: 01/06/11
DRAWN BY: A. HELIDEN	DESIGNED BY: G. TEDESCO, P.E.	REV.	DATE	DESCRIPTION	BY	DRAWN BY:	DESIGNED BY:	APPROVED BY: MAURY CHATELAIN, P.E.	SHEET 23 OF 45





NOTES:

1. MARSH FILL TOLERANCE = ±0.5 FEET.
2. BEACH FILL TOLERANCE = ±0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
4. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
5. POSITIVE RANGES ARE SOUTH OF BASELINE, NEGATIVE RANGES ARE NORTH OF BASELINE.

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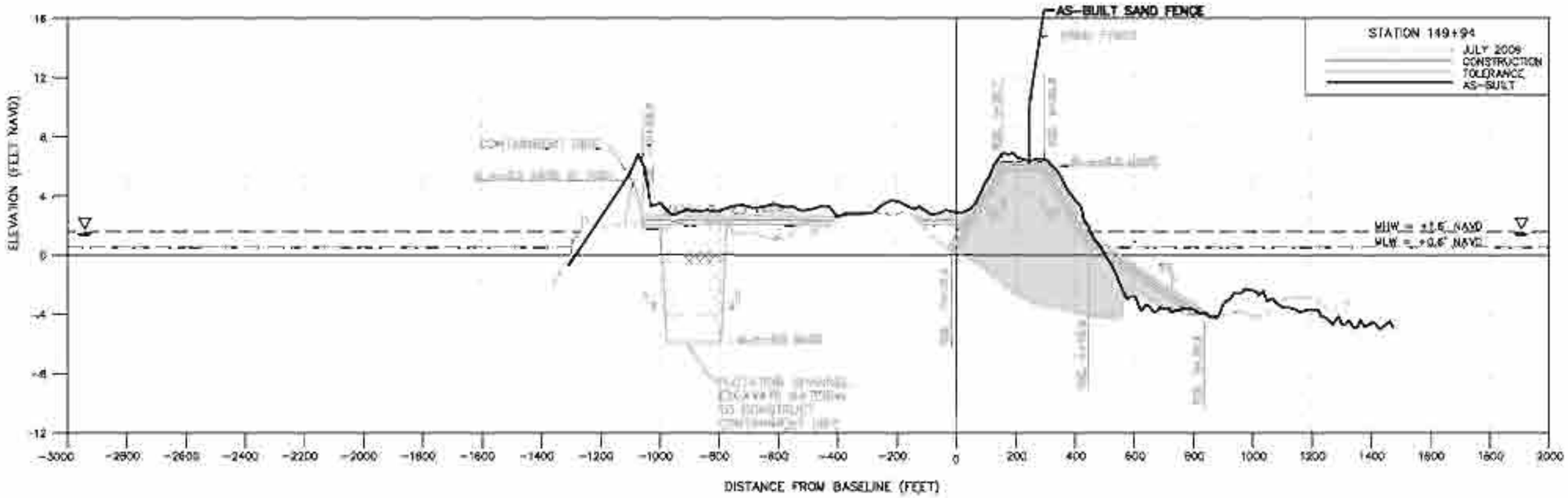
STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

EAST GRAND TERRE ISLAND RESTORATION PROJECT

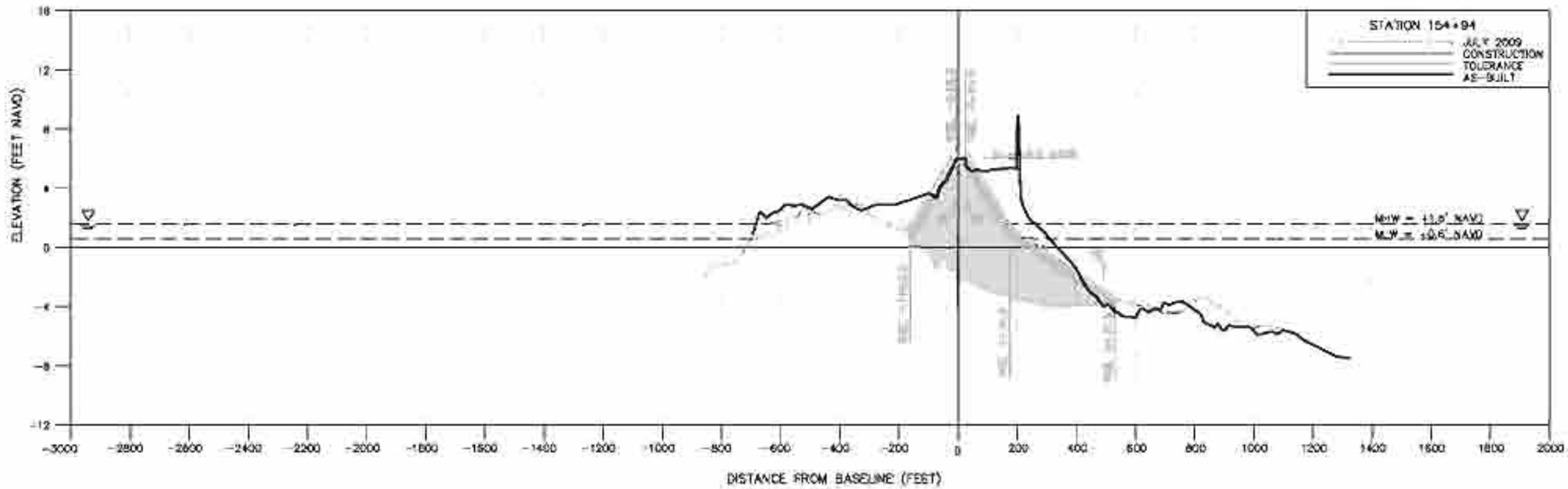
AS-BUILT CROSS-SECTIONS

DRAWN BY: A. BEIDEN	DESIGNED BY: G. DIKINSON, P.E.	DRAWN BY:	DESIGNED BY:	STATE PROJECT NUMBER: BA-30
REV.	DATE	DESCRIPTION	BY	FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.	DATE: 01/06/11	SHEET 24 OF 45		



NOTES:

1. MARSH FILL TOLERANCE = ±0.5 FEET.
2. BEACH FILL TOLERANCE = ±0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
4. LAYOUT ALL FILL AREAS BY CROSS SECTIONS.
5. POSITIVE RANGES ARE SOUTH OF BASELINE, NEGATIVE RANGES ARE NORTH OF BASELINE.



COASTAL PLANNING & ENGINEERING, INC.
2901 NW. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL #4600
C.O.A. LA #8531

REV.	DATE	DESCRIPTION	BY

DRAWN BY: A. HELIDEN | DESIGNED BY: G. TEDESCO, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

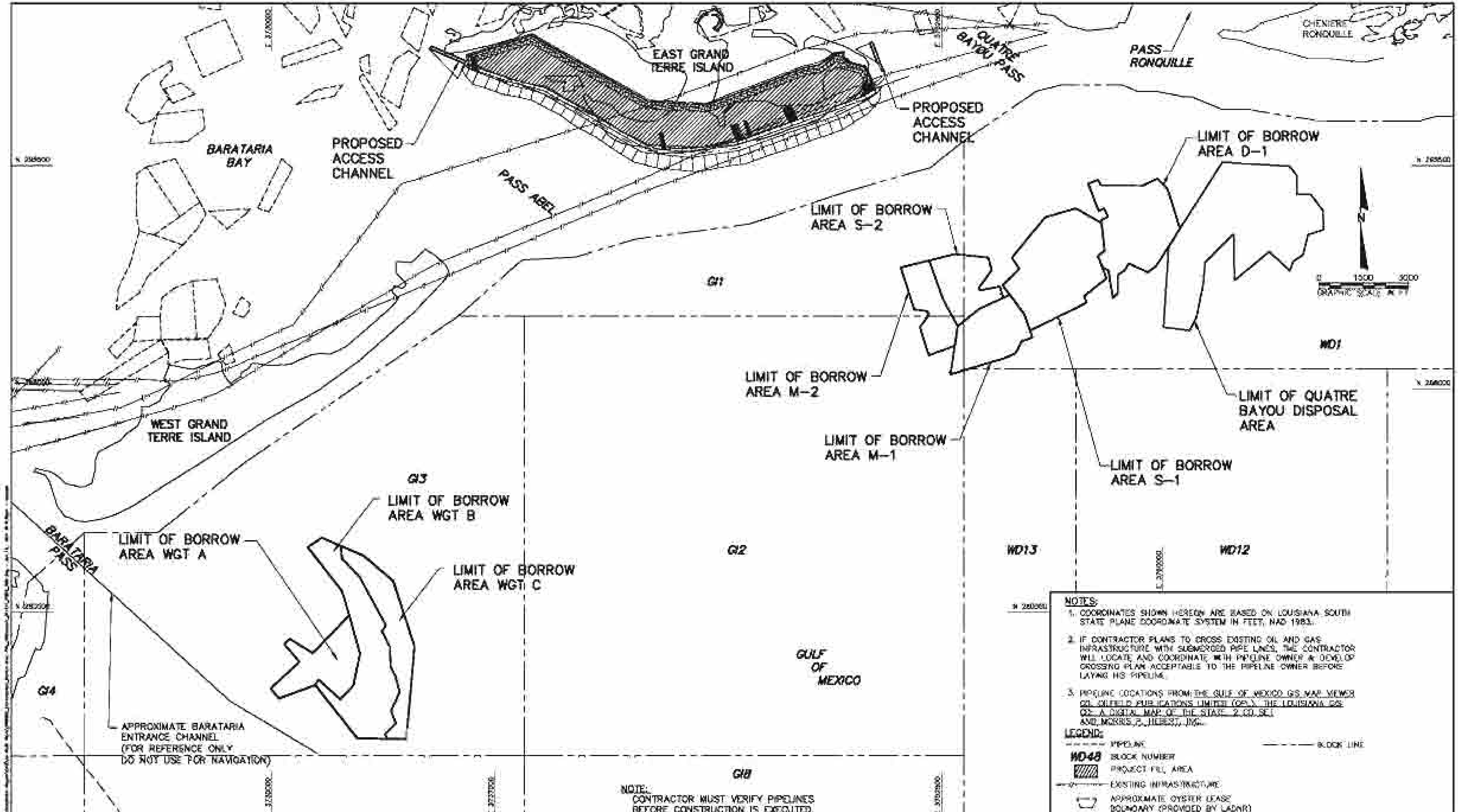
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELAIN, P.E.

AS-BUILT CROSS-SECTIONS

DATE: 01/06/11

SHEET 25 OF 45



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM IN FEET, NAD 1983.
2. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
3. PIPELINE LOCATIONS FROM: THE GULF OF MEXICO GIS MAP VIEWER CD, OILFIELD PUBLICATIONS LIMITED (OPL), THE LOUISIANA GIS CD: A DIGITAL MAP OF THE STATE, 2 CD SET AND MORRIS P. HEBERT, INC.

LEGEND:

- PIPELINE
- BLOCK LINE
- WD48 BLOCK NUMBER
- PROJECT FILL AREA
- EXISTING INFRASTRUCTURE
- APPROXIMATE OYSTER LEASE BOUNDARY (PROVIDED BY LADNR)

NOTE:
CONTRACTOR MUST VERIFY PIPELINES BEFORE CONSTRUCTION IS EXECUTED.

COASTAL PLANNING & ENGINEERING, INC.
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REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

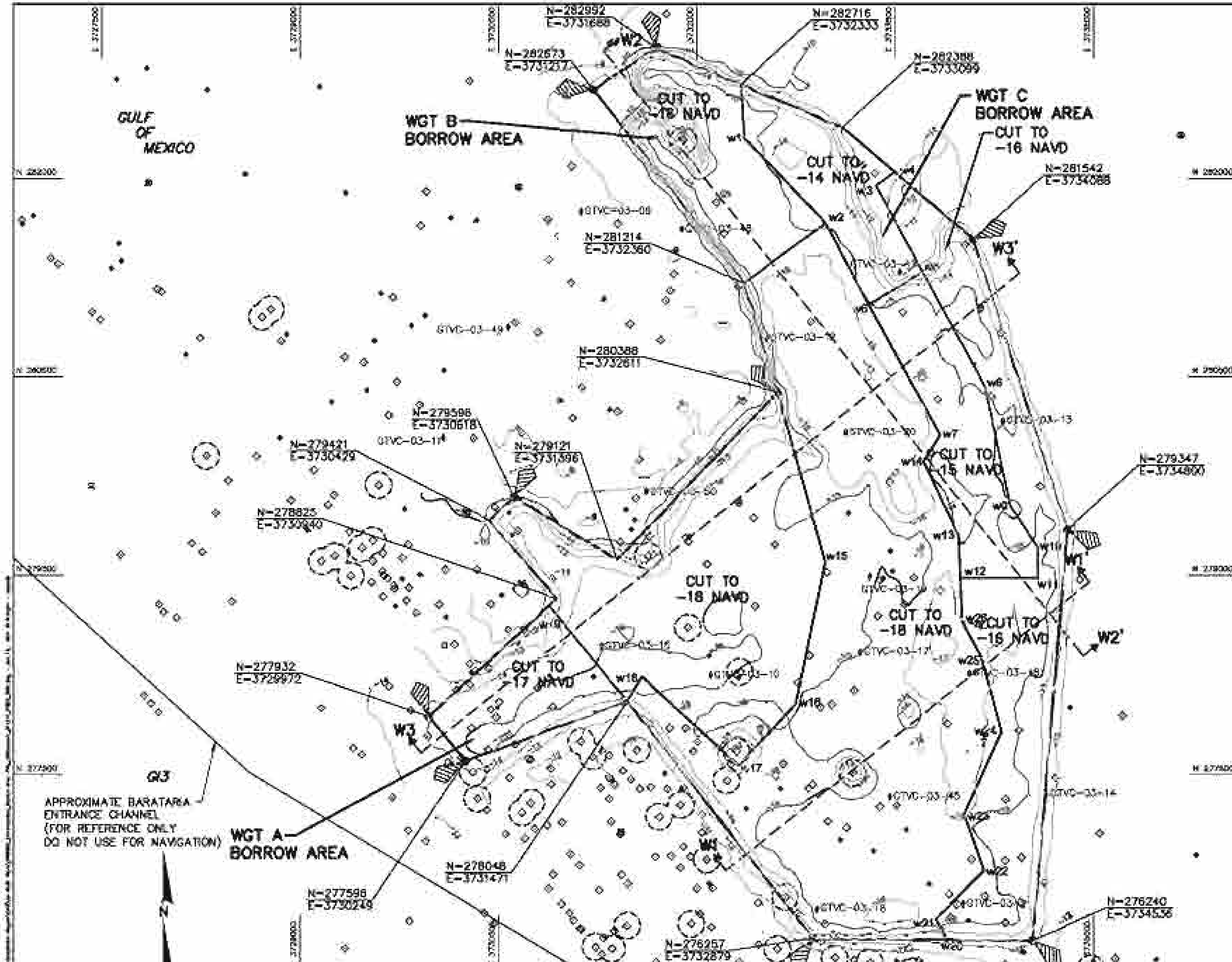
DRAWN BY: TRENT ROGERS
DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY:
DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT BORROW AREAS LOCATION MAP
DATE: 2/23/2007
SHEET 26 OF 45



BORROW AREA INTERIOR COORDINATE TABLE		
ID	X	Y
w1	3732360	282308
w2	3732671	281855
w3	3733354	281947
w4	3733494	282050
w5	3733704	281301
w6	3733298	281046
w7	3733839	280060
w8	3734177	280432
w9	3734367	279832
w10	3734575	279211
w11	3734575	278977
w12	3733991	278977
w13	3733677	279306
w14	3733713	279659
w15	3732969	279100
w16	3732748	278033
w17	3732314	277566
w18	3731586	278234
w19	3730682	278771
w20	3733591	276247
w21	3733609	276406
w22	3734169	276769
w23	3734019	277195
w24	3734305	277817
w25	3734149	278379
w26	3734004	278652

VOLUME SUMMARY			
	TOTAL VOLUME	SAND VOLUME	SILT VOLUME
WGT	3,964,000	3,395,000	569,000

VOLUMES CALCULATED TO CUT DEPTH.
SAND/SILT PERCENTAGE IS VARIABLE THROUGHOUT BORROW AREA. REFER TO VIBRACORES FOR SEDIMENT DISTRIBUTION WITHIN BORROW AREA.

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- 1999 MAGNETIC ANOMALY (GOODWIN & ASSOC., INC.)
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WO1 BLOCK NUMBER
- w22 BORROW AREA INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY
- BLOCK LINE

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY: JULY 2010, CONDUCTED BY HYDRO TERRA TECHNOLOGIES, LLC.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BATHYMETRIC ELEVATION.

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

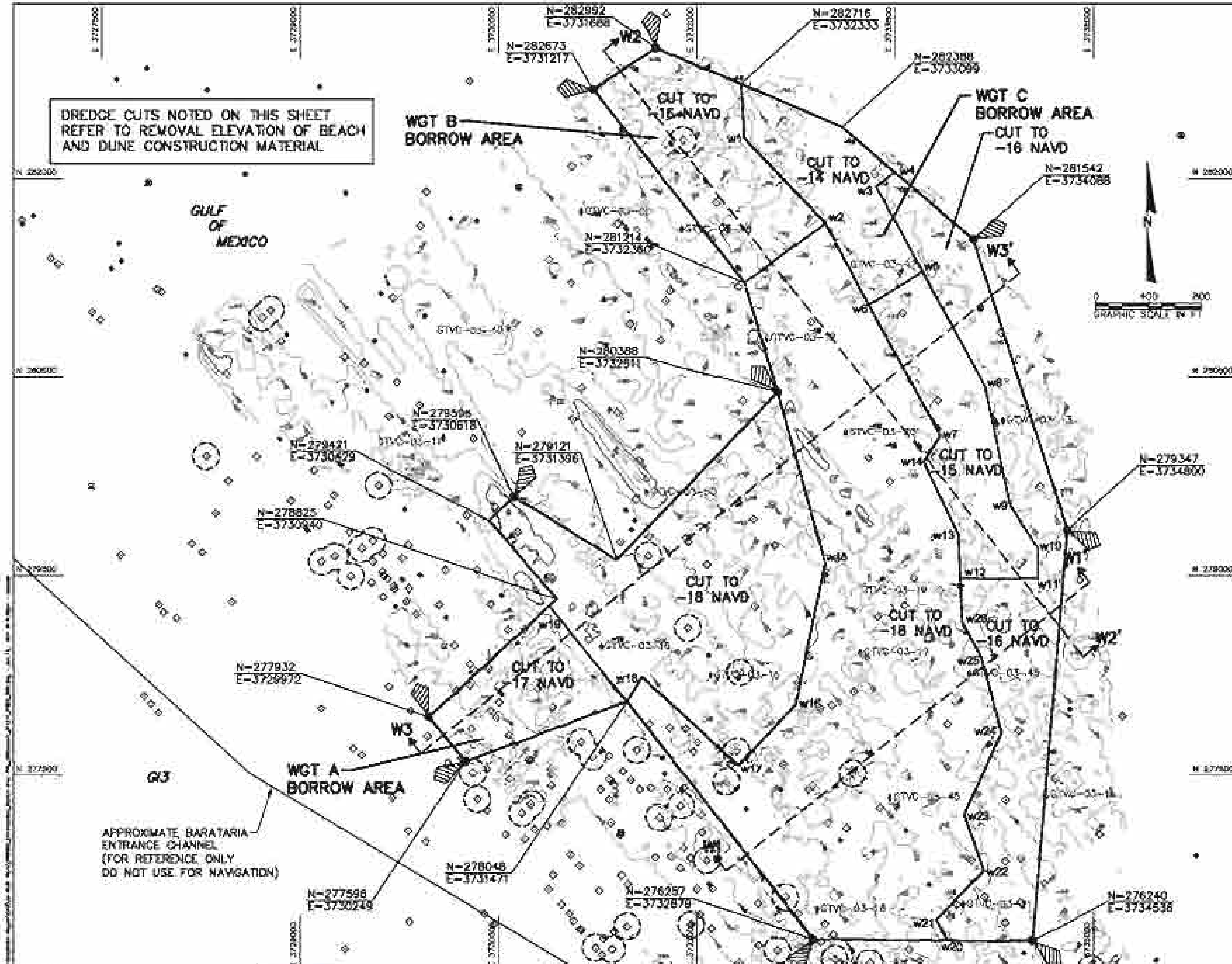
DRAWN BY: TRENT ROGERS DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
WGT BA A, B & C
BATHYMETRIC SURVEY
DATE: 2/23/2007
SHEET 22 OF 45



BORROW AREA INTERIOR COORDINATE TABLE		
ID	X	Y
w1	3732360	282308
w2	3732671	281855
w3	3733354	281947
w4	3733494	282050
w5	3733704	281301
w6	3733298	281046
w7	3733839	280060
w8	3734177	280432
w9	3734367	279532
w10	3734575	279211
w11	3734575	278977
w12	3733991	278977
w13	3733877	279306
w14	3733713	279659
w15	3732969	279100
w16	3732748	278033
w17	3732314	277566
w18	3731586	278234
w19	3730682	278771
w20	3733591	276247
w21	3733609	276436
w22	3734169	276769
w23	3734019	277195
w24	3734305	277817
w25	3734149	278379
w26	3734004	278652

LEGEND:

- ◊ CPE 2002 VIBRACORE LOCATION
- ⊡ WESTON 2001 VIBRACORE LOCATION
- ⊗ USGS VIBRACORE LOCATION
- ◇ MAGNETIC ANOMALY
- • 1992 MAGNETIC ANOMALY (GOODWIN & ASSOC., INC.)
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- W# BORROW AREA INTERIOR COORDINATE ID LABEL
- — — CROSS SECTION LINE LOCATION
- LIGHTED BUOY
- — - — BLOCK LINE

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BOTTOM OF SAND LAYER.
7. BORROW AREA HAS BEEN DREDGED AND THESE CONTOURS REPRESENT PRE-CONSTRUCTION CONDITIONS.

COASTAL PLANNING & ENGINEERING, INC.

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

DRAWN BY: TRENT ROGERS | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

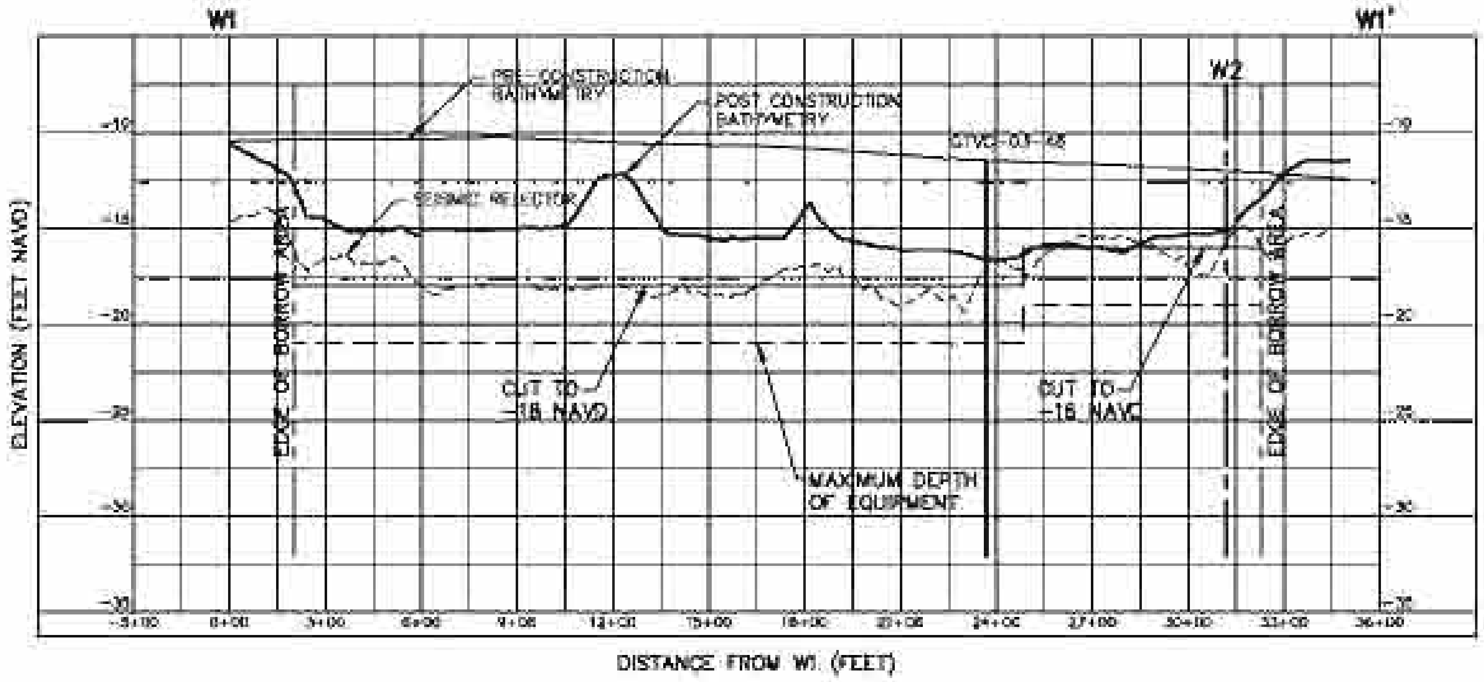
DRAWN BY: | DESIGNED BY:

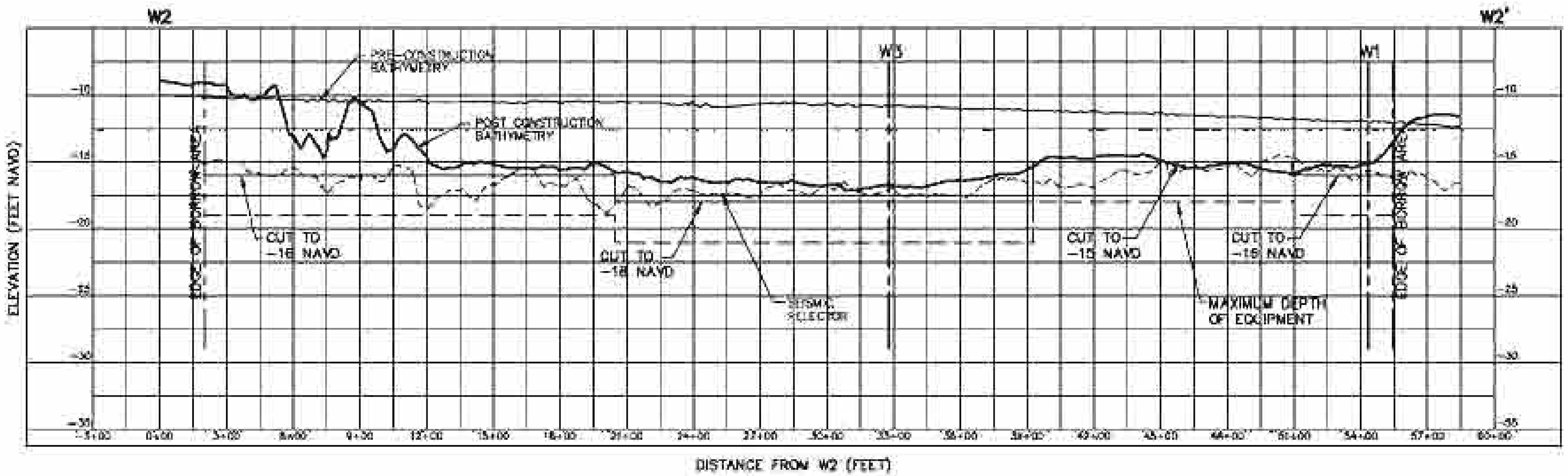
EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
WGT BA A, B & C
SAND SURFACE CONTOURS

DATE: 2/23/2007
SHEET 28 OF 45





LEGEND:

- SEISMIC REFLECTOR
- MAXIMUM DEPTH OF EQUIPMENT

NOTES:

1. SEE SHEETS 27 & 28 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

DRAWN BY: TRENT ROGERS — DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: — DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

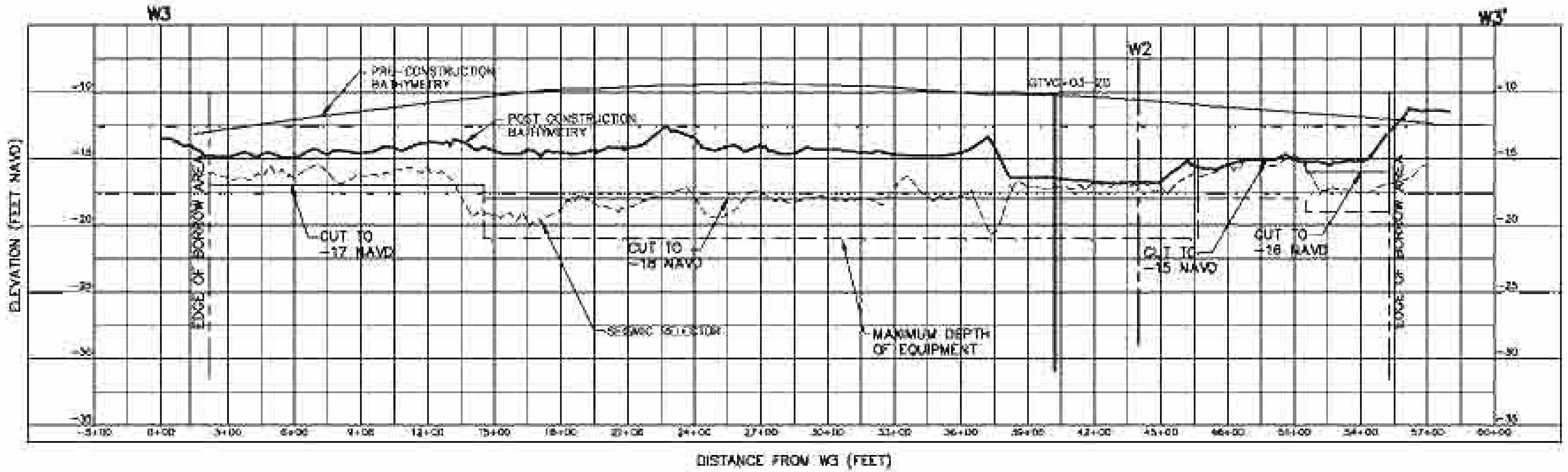
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
WOT BA A, B, & C
CROSS SECTIONS

DATE: 2/23/2007

SHEET 29 OF 45



LEGEND:

- - - - SEISMIC REFLECTOR
— - — MAXIMUM DEPTH OF EQUIPMENT

NOTES:

1. SEE SHEETS 27 & 28 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

DRAWN BY: TRENT ROGERS | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
WOT BA A, B, & C
CROSS SECTIONS

DATE: 2/23/2007

SHEET 30 OF 45

BORROW AREA S-1 INTERIOR COORDINATE TABLE		
ID	X	Y
a1	3756286	293839
a2	3756941	292591
a3	3757118	292568
a4	3757200	292030
a5	3757812	293166

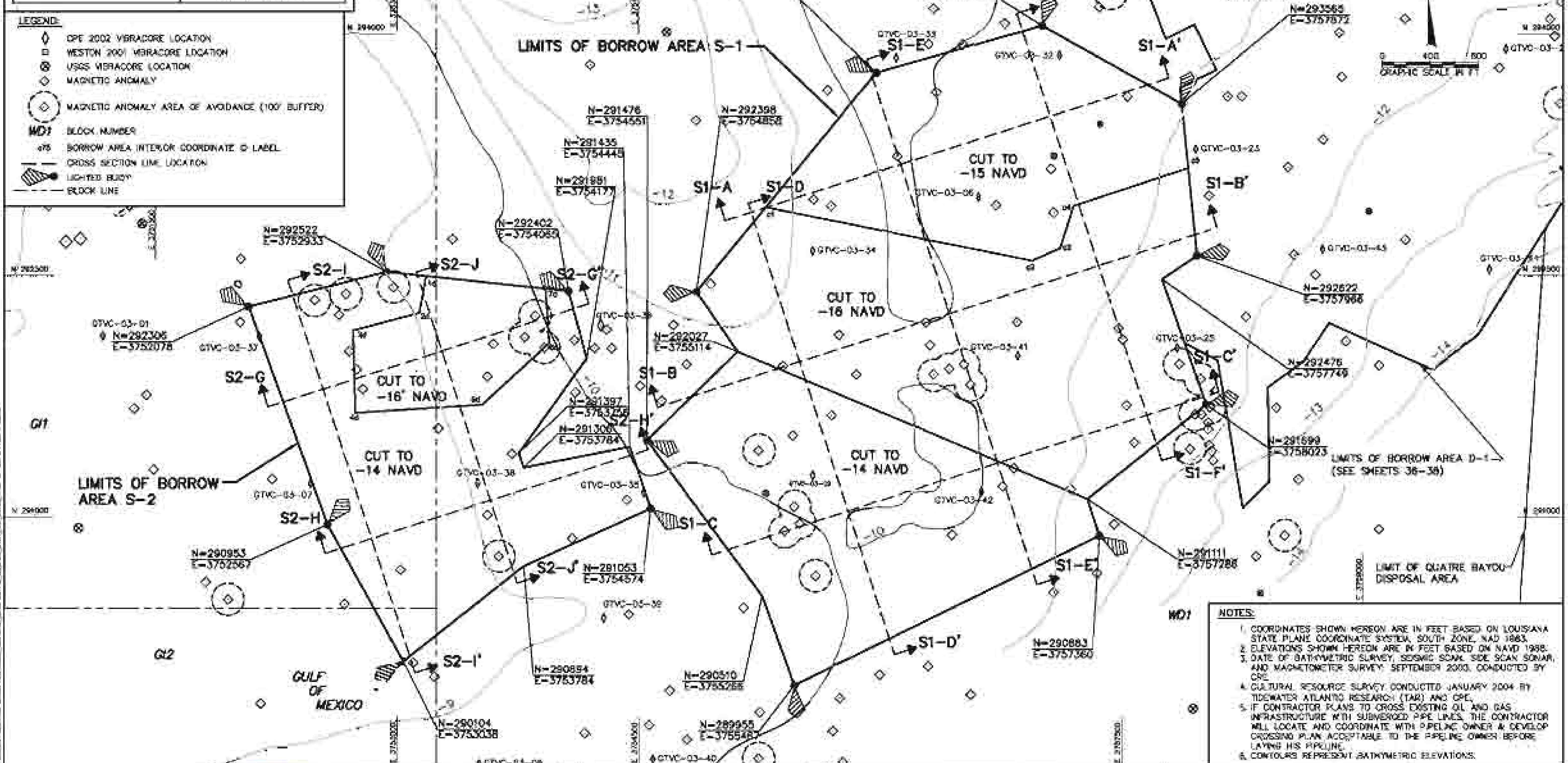
BORROW AREA S-2 INTERIOR COORDINATE TABLE		
ID	X	Y
1d	3753179	292490
2d	3753136	292267
3d	3752728	292158
4d	3752740	291646
5d	3753627	291898
6d	3753644	292079
7d	3753621	292417

VOLUME SUMMARY			
	TOTAL VOLUME	SAND VOLUME	SILT VOLUME
S1	1,543,000	1,312,000	231,000
S2	691,000	574,000	117,000

VOLUMES CALCULATED TO CUT DEPTH.
SAND/SILT PERCENTAGE IS VARIABLE THROUGHOUT BORROW AREA. REFER TO VIBRACORES FOR SEDIMENT DISTRIBUTION WITHIN BORROW AREA.

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- a75 BORROW AREA INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY
- BLOCK LINE



NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BATHYMETRIC ELEVATIONS.

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

DRAWN BY: TRENT ROGERS — DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: — DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA S1 & S2
BATHYMETRIC SURVEY
DATE: 2/23/2007
SHEET 31 OF 45

BORROW AREA S-1 INTERIOR COORDINATE TABLE		
ID	X	Y
a1	3760286	293839
a2	3760941	292961
a3	3757118	292668
a4	3757200	293830
a5	3757812	293166

BORROW AREA S-2 INTERIOR COORDINATE TABLE		
ID	X	Y
1a	3759178	293490
2a	3759136	292267
3a	3759728	292158
4a	3759740	291648
5a	3759327	291808
6a	3759044	290079
7a	3759621	289417

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- a75 BORROW AREA INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY
- BLOCK LINE

LIMITS OF BORROW AREA S-1

LIMITS OF BORROW AREA S-2

N=293757 E=3755277

N=294050 E=3757005

N=293565 E=3757872

N=292398 E=3754858

N=291476 E=3754551

N=291435 E=3754448

N=291951 E=3754177

N=292402 E=3754069

N=292522 E=3752933

N=292622 E=3757988

N=292476 E=3757749

N=292306 E=3752078

N=292027 E=3755114

N=291397 E=3753756

N=291306 E=3753784

N=291699 E=3758023

N=290953 E=3752567

N=291053 E=3754574

N=291111 E=3757286

N=290894 E=3753784

N=290510 E=3755266

N=290883 E=3757360

N=290104 E=3753038

N=289955 E=3755487

S1-A

S1-A'

S1-B

S1-B'

S1-C

S1-C'

S1-D

S1-D'

S1-E

S1-E'

S1-F

S1-F'

S1-G

S1-H

S2-G

S2-H

S2-I

S2-I'

S2-J

S2-J'

CUT TO -15 NAVD

CUT TO -16 NAVD

CUT TO -16' NAVD

CUT TO -14 NAVD

CUT TO -14 NAVD

GTVC-03-01 GTVC-03-02 GTVC-03-03 GTVC-03-04 GTVC-03-05 GTVC-03-06 GTVC-03-07 GTVC-03-08 GTVC-03-09 GTVC-03-10 GTVC-03-11 GTVC-03-12 GTVC-03-13 GTVC-03-14 GTVC-03-15 GTVC-03-16 GTVC-03-17 GTVC-03-18 GTVC-03-19 GTVC-03-20 GTVC-03-21 GTVC-03-22 GTVC-03-23 GTVC-03-24 GTVC-03-25 GTVC-03-26 GTVC-03-27 GTVC-03-28 GTVC-03-29 GTVC-03-30 GTVC-03-31 GTVC-03-32 GTVC-03-33 GTVC-03-34 GTVC-03-35 GTVC-03-36 GTVC-03-37 GTVC-03-38 GTVC-03-39 GTVC-03-40 GTVC-03-41 GTVC-03-42 GTVC-03-43 GTVC-03-44 GTVC-03-45 GTVC-03-46

GI1

GI2

WD1

GULF OF MEXICO

LIMITS OF BORROW AREA D-1 (SEE SHEETS 36-38).

LIMIT OF QUATRE BAYOU DISPOSAL AREA

N

0 300 600

GRAPHIC SCALE IN FT

DREDGE CUTS NOTED ON THIS SHEET REFER TO REMOVAL ELEVATION OF BEACH AND DUNE CONSTRUCTION MATERIAL

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BOTTOM OF SAND LAYER

COASTAL PLANNING & ENGINEERING, INC.
2481 NW BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH: (561) 391-9102
FAX: (561) 391-9116
www.CoastalPlanning.net
C.O.A. FL #4909
C.O.A. LA #8531

NO.	DATE	DESCRIPTION	BY
1	11/15/07	UPDATE BA DESIGN	STR

DRAWN BY: TERRY ROGERS | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30

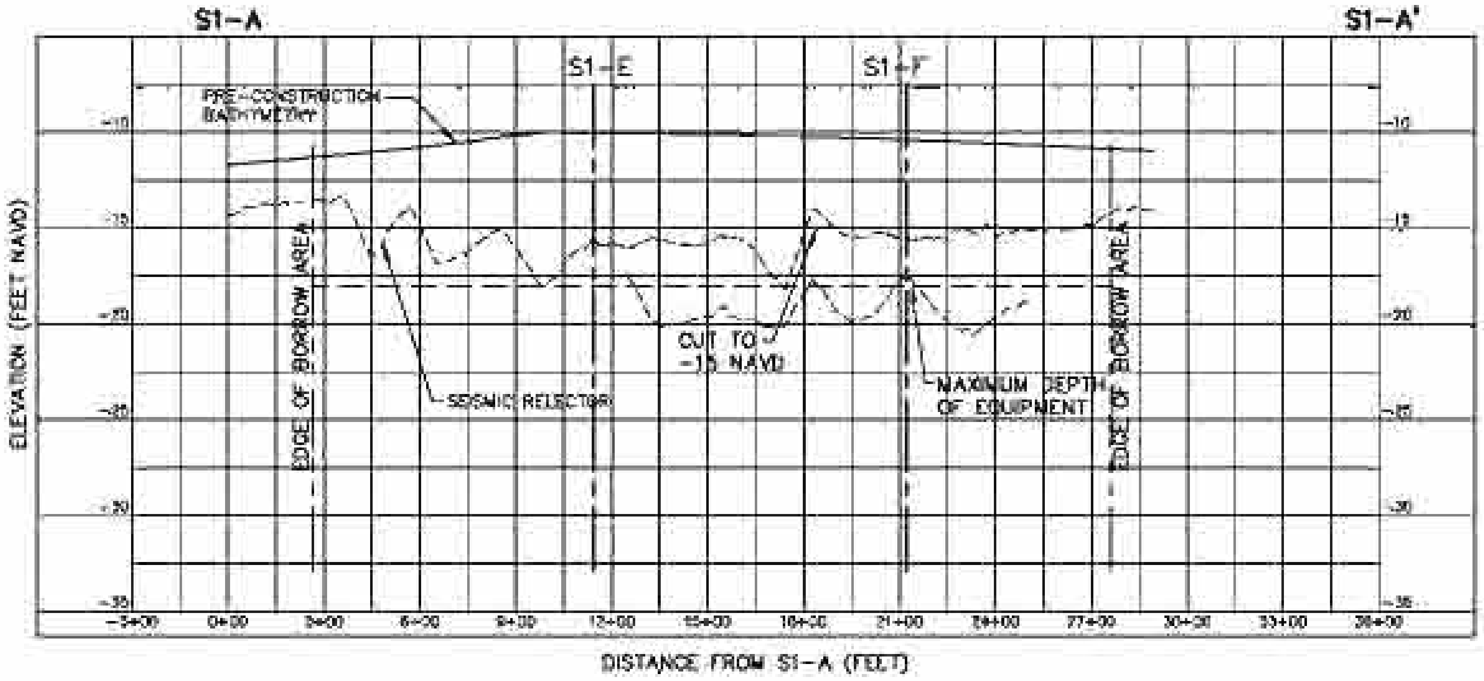
FEDERAL PROJECT NUMBER: BA-30

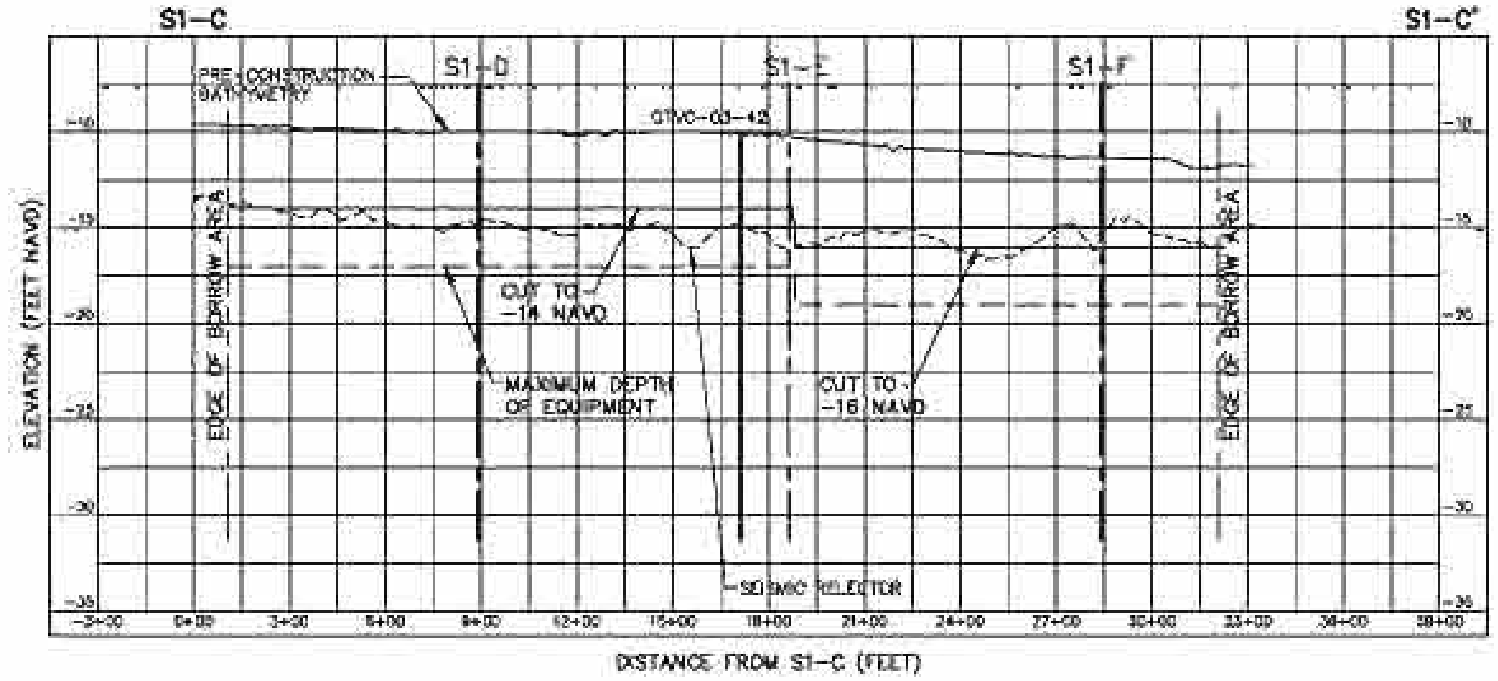
APPROVED BY: MAURY CHATELAIN, P.E.

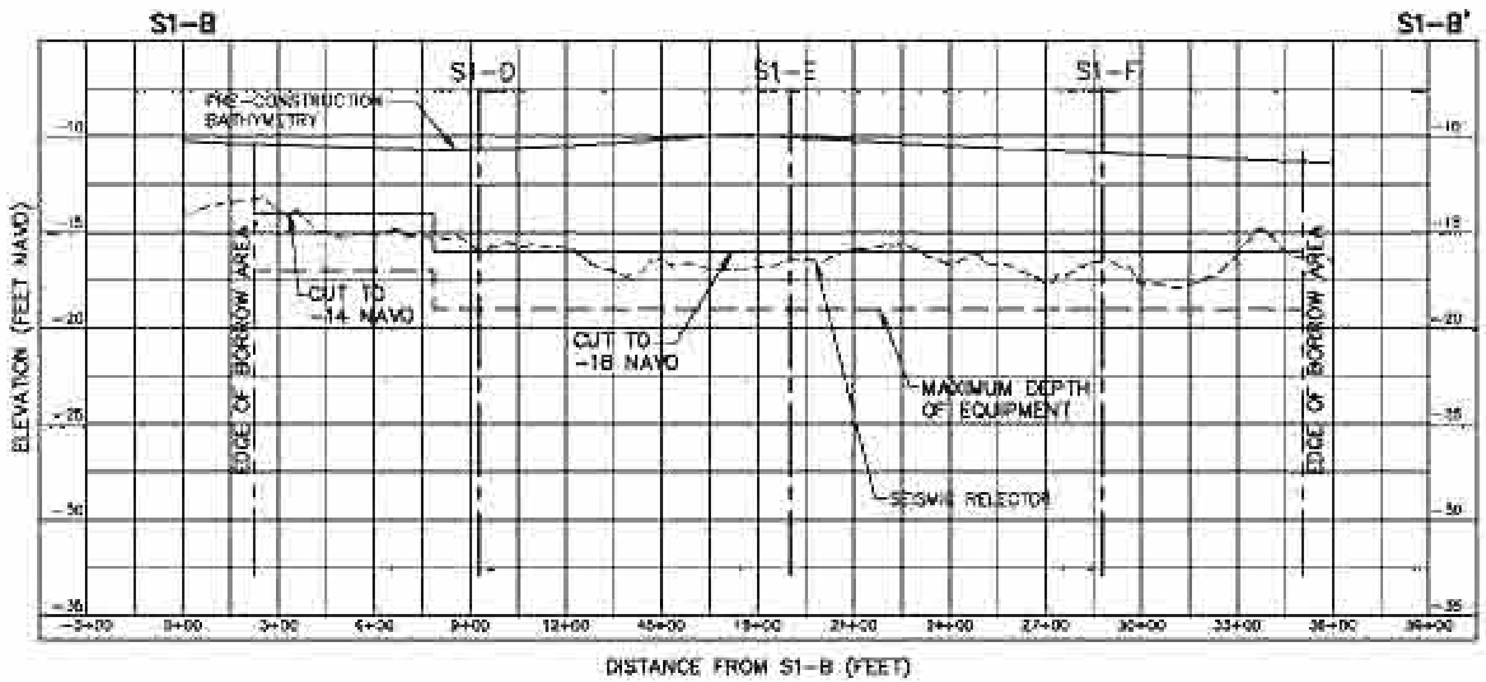
AS-BUILT BGT BA S1 & S2 SAND SURFACE CONTOURS

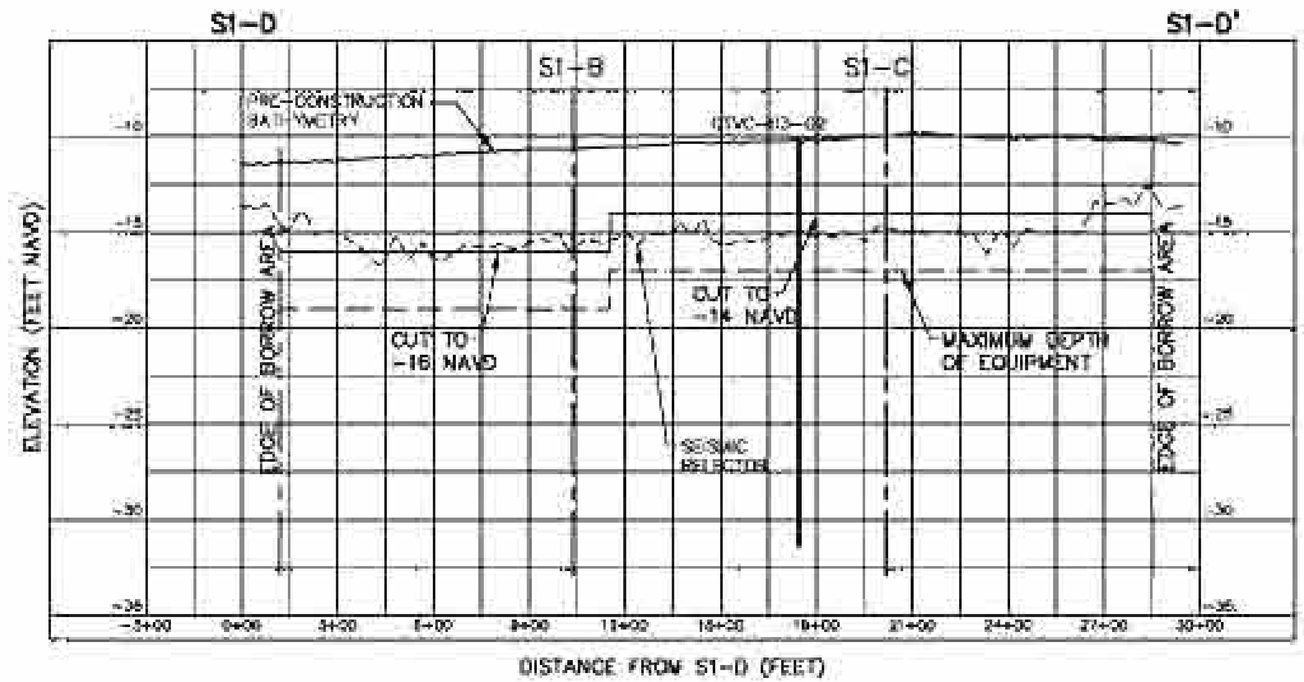
DATE: 2/20/2007

SHEET 32 OF 45









LEGEND:

- - - - SEISMIC REFLECTOR

— — — MAXIMUM DEPTH OF EQUIPMENT

NOTES:

1. SEE SHEETS 31 & 32 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DRAWN BY: TRENT ROGERS
DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

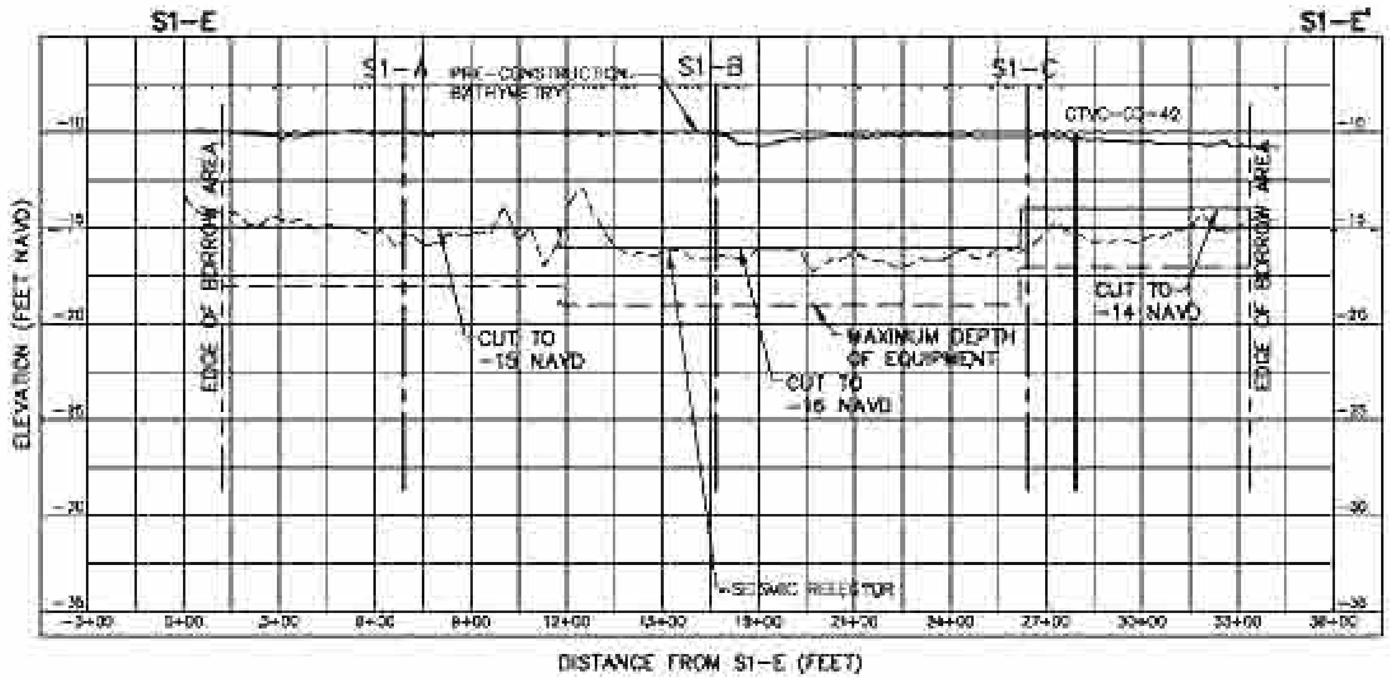
DRAWN BY:
DESIGNED BY:

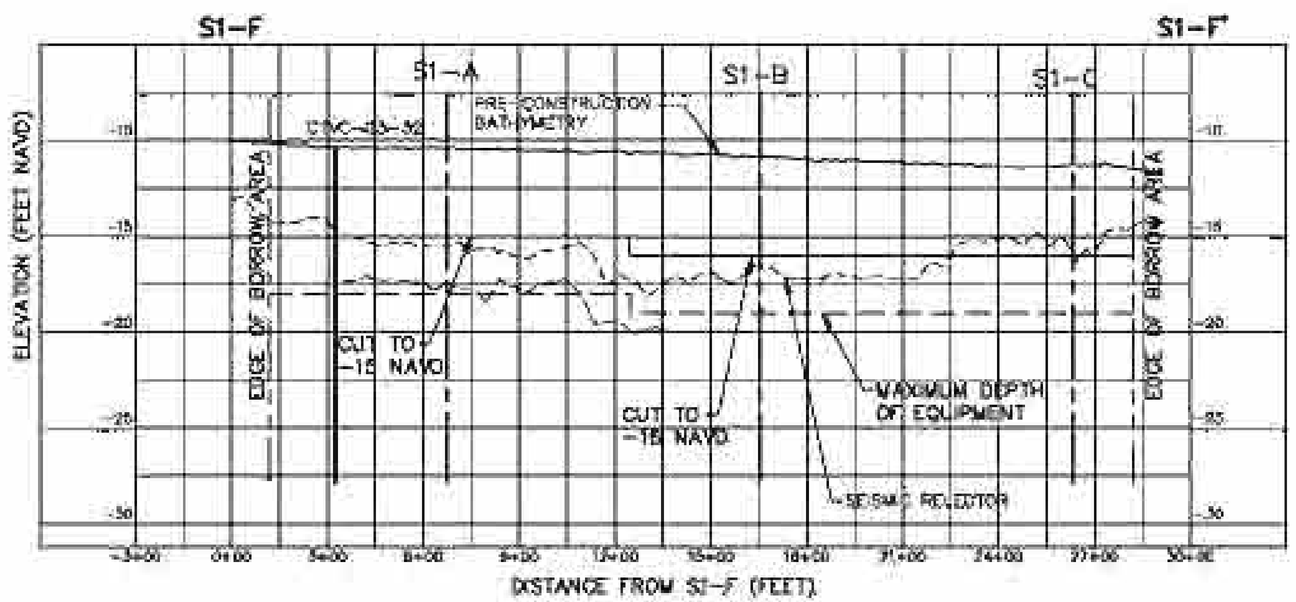
EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA S1
CROSS-SECTIONS

DATE: 2/23/2007

SHEET 33 OF 45





LEGEND:
- SEISMIC REFLECTOR
- MAXIMUM DEPTH OF EQUIPMENT

NOTES:
1. SEE SHEETS 31 & 32 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

DRAWN BY: TRENT ROGERS — DESIGNED BY: G. THOMSON, P.E.

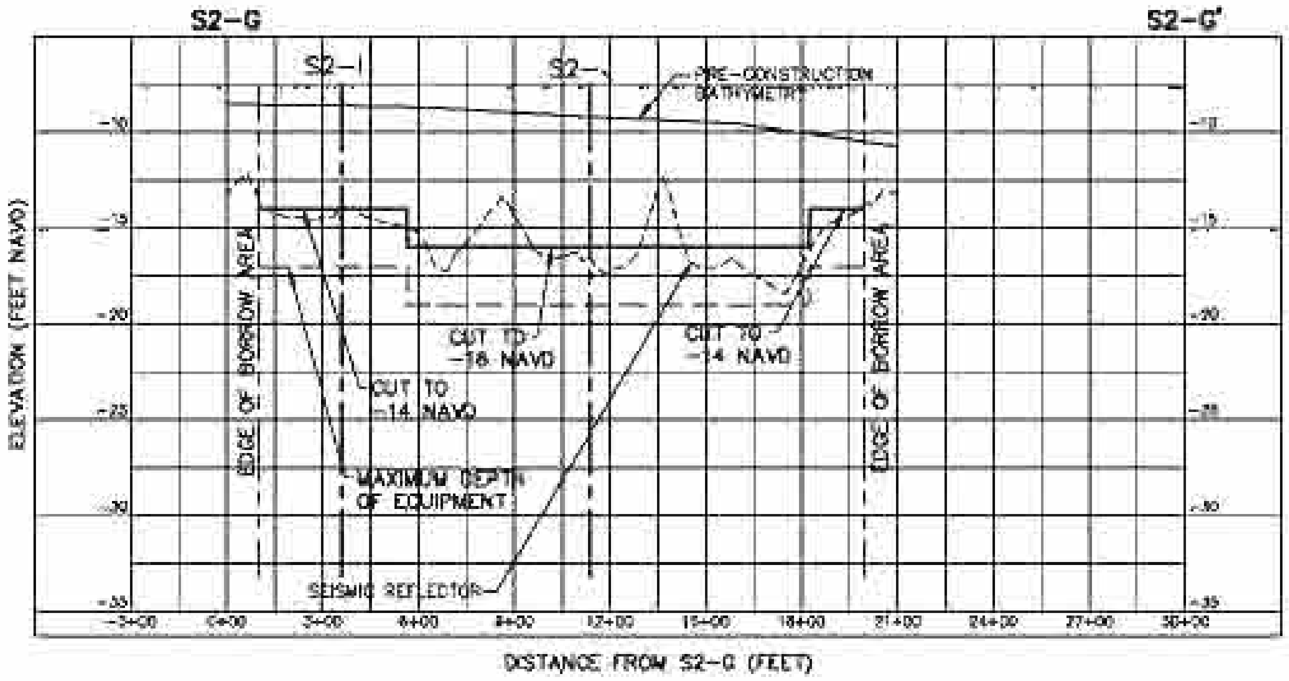
STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

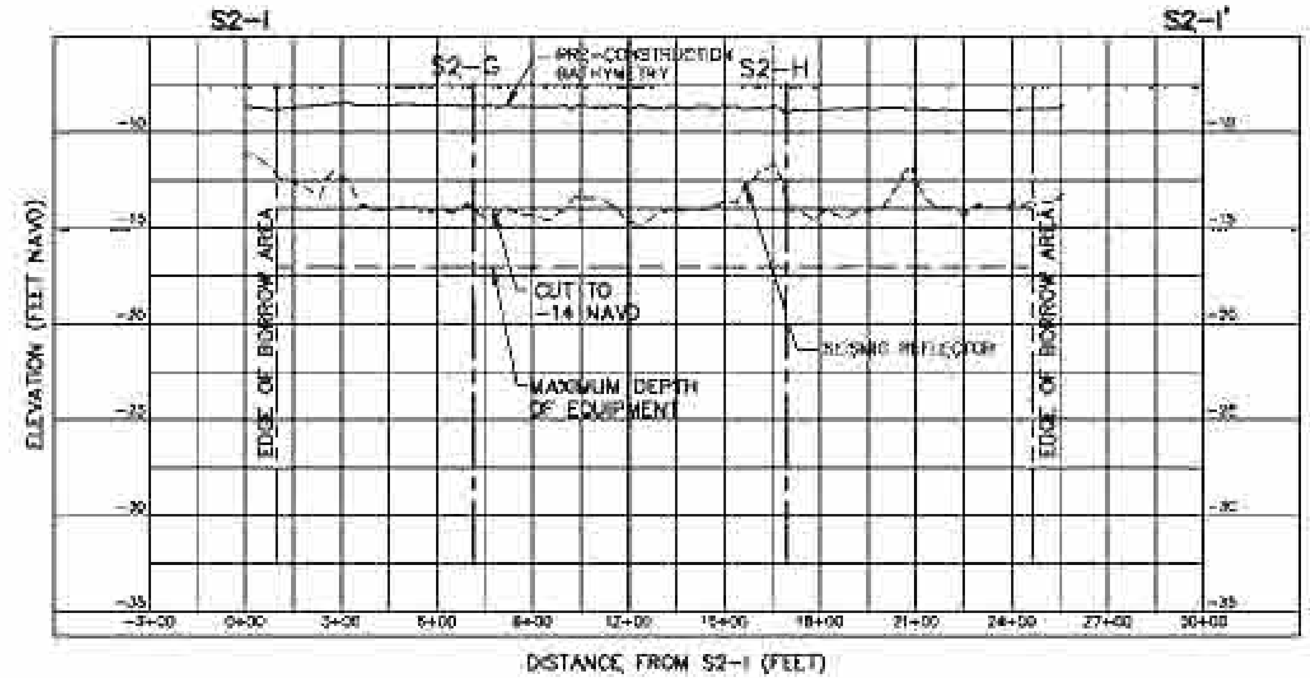
DRAWN BY: — DESIGNED BY:

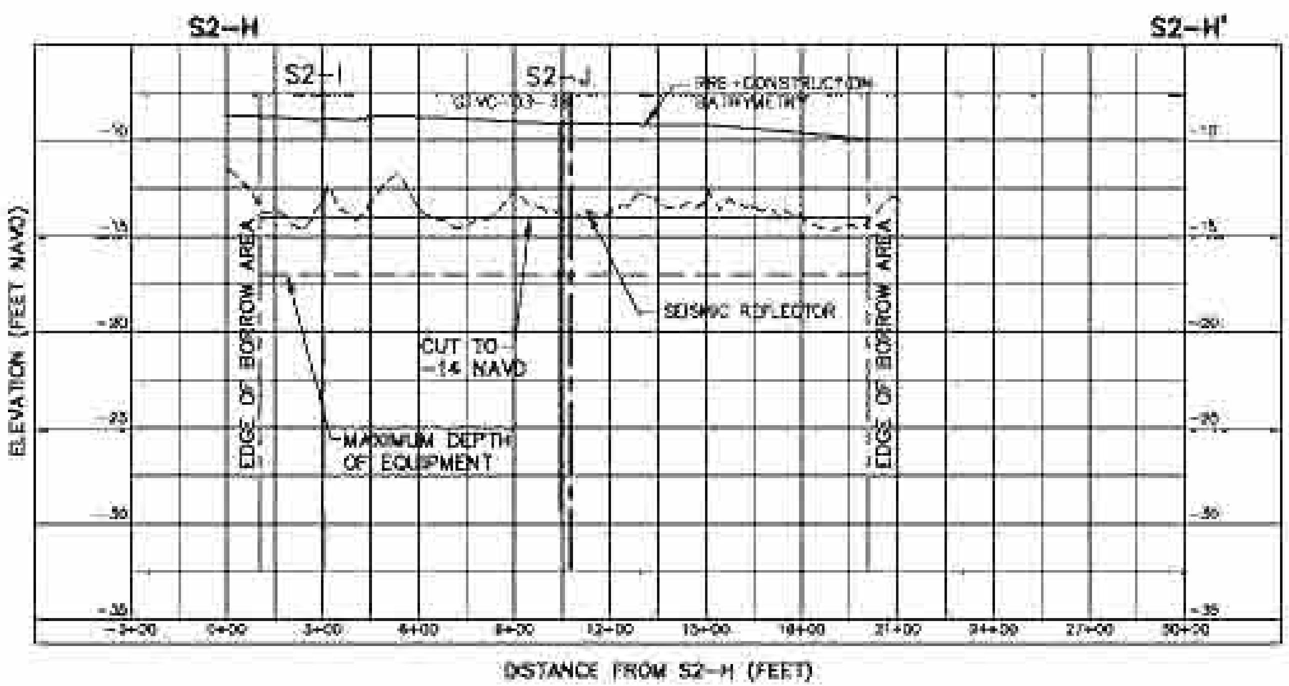
EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

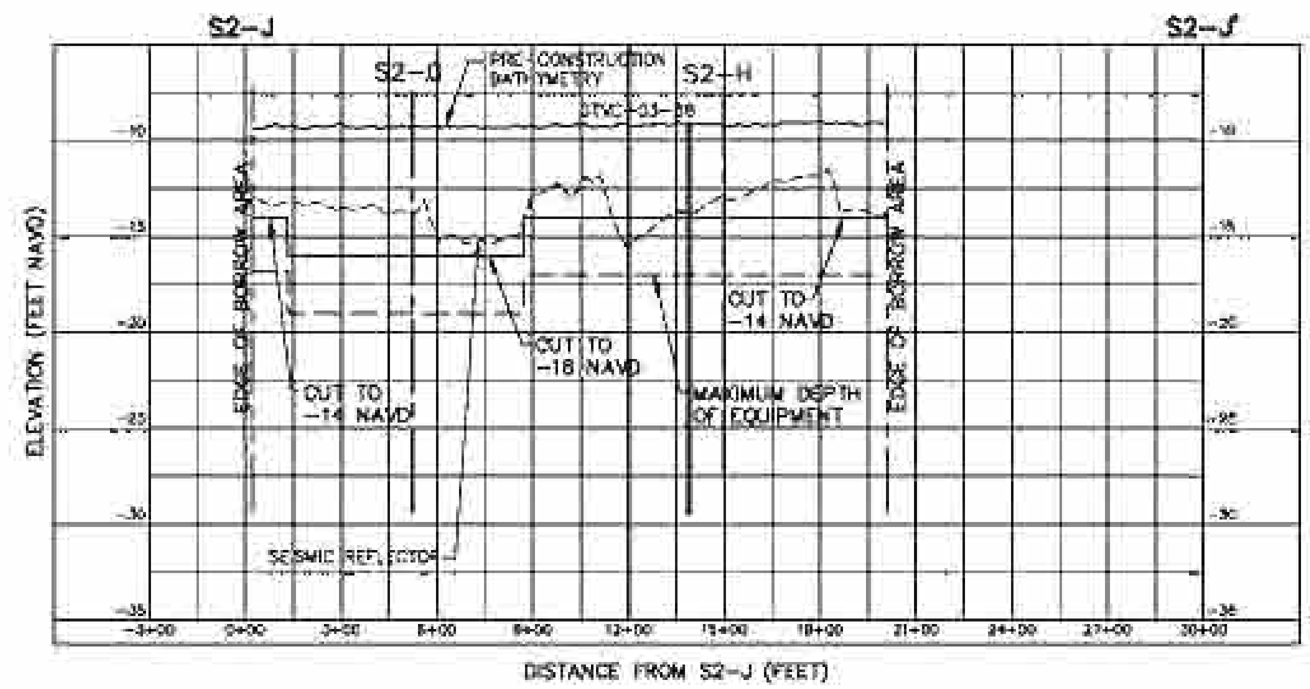
AS-BUILT
EGT BA S1
CROSS-SECTIONS

DATE: 2/23/2007
SHEET 34 OF 45









LEGEND:
- - - - SEISMIC REFLECTOR
— — — MAXIMUM DEPTH OF EQUIPMENT

NOTES:
1. SEE SHEETS 31 & 32 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.
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REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30

AS-BUILT EGT BA S2 CROSS-SECTIONS

DATE: 2/23/2007

DRAWN BY: TRENT ROGERS
DESIGNED BY: G. THOMSON, P.E.
DRAWN BY:
DESIGNED BY:
APPROVED BY: MAURY CHATELLIER, P.E.

LIMIT OF BORROW AREA D-1

LIMIT OF BORROW AREA S-1 (SEE SHEET 31 & 32).

GULF OF MEXICO

N=295008 E=3757762
N=294693 E=3757422
N=294831 E=3757851
N=294829 E=3758544
N=294799 E=3759207
N=295052 E=3759742
N=294698 E=3760086
N=294056 E=3757951
N=293968 E=3757773
N=293774 E=3758087
N=293867 E=3757862
N=293368 E=3760498
N=292621 E=3757717
N=292476 E=3757748
N=292080 E=3757889
N=291971 E=3758095
N=292132 E=3759712
N=291913 E=3759431
N=292204 E=3758788
N=291955 E=3758628
N=291806 E=3758407
N=291222 E=3758417
N=291057 E=3758250

D1-A
D1-A'
D1-B
D1-B'
D1-C
D1-C'
D1-D
D1-D'
D1-E
D1-E'
D1-F

CUT TO -26 NAVD
CUT TO -24 NAVD
CUT TO -29 NAVD
CUT TO -27 NAVD
CUT TO 26 NAVD

GTVC-03-30
GTVC-03-33
GTVC-03-32
GTVC-03-29
GTVC-03-06A
GTVC-03-34
GTVC-03-35
GTVC-03-41
GTVC-03-26
GTVC-03-42
GTVC-03-06

LIMIT OF QUATRE BAYOU DISPOSAL AREA (SEE SHEET 43)

N 296000
N 294000
N 292000
N 290000
E 3756000
E 3757500
E 3759000
E 3760500

0 300 600
GRAPHIC SCALE IN FT

BORROW AREA INTERIOR COORDINATE TABLE		
ID	X	Y
b1	3757856	294277
b2	3758465	294428
b3	3758331	294851
b4	3758675	293800
b5	3758183	293722
b6	3758415	292717
b7	3757961	292668
b8	3758596	292729
b9	3758965	292873
b10	3758748	293584
b11	3758869	293960
b12	3759811	294142
b13	3760208	294304
b14	3758632	292873

VOLUME SUMMARY			
	TOTAL VOLUME	SAND VOLUME	SILT VOLUME
D1 BEACH FILL	1,673,000	1,211,000	462,000
D1 MARSH FILL	1,927,000	0	1,927,000

VOLUMES CALCULATED TO CUT DEPTH.
SAND/SILT PERCENTAGE IS VARIABLE THROUGHOUT BORROW AREA. REFER TO VIBRACORES FOR SEDIMENT DISTRIBUTION WITHIN BORROW AREA.

LEGEND:
- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- MD1 BLOCK NUMBER
- 000 BORROW AREA INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY

NOTES:
1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY: OCTOBER 2010, CONDUCTED BY HYDRO TERRA TECHNOLOGIES, LLC.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BATHYMETRIC ELEVATIONS

COASTAL PLANNING & ENGINEERING, INC.
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FAX (561) 391-9116
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C.O.A. FL #4909
C.O.A. LA #8231

REV	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

DRAWN BY: TRENT ROGERS | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

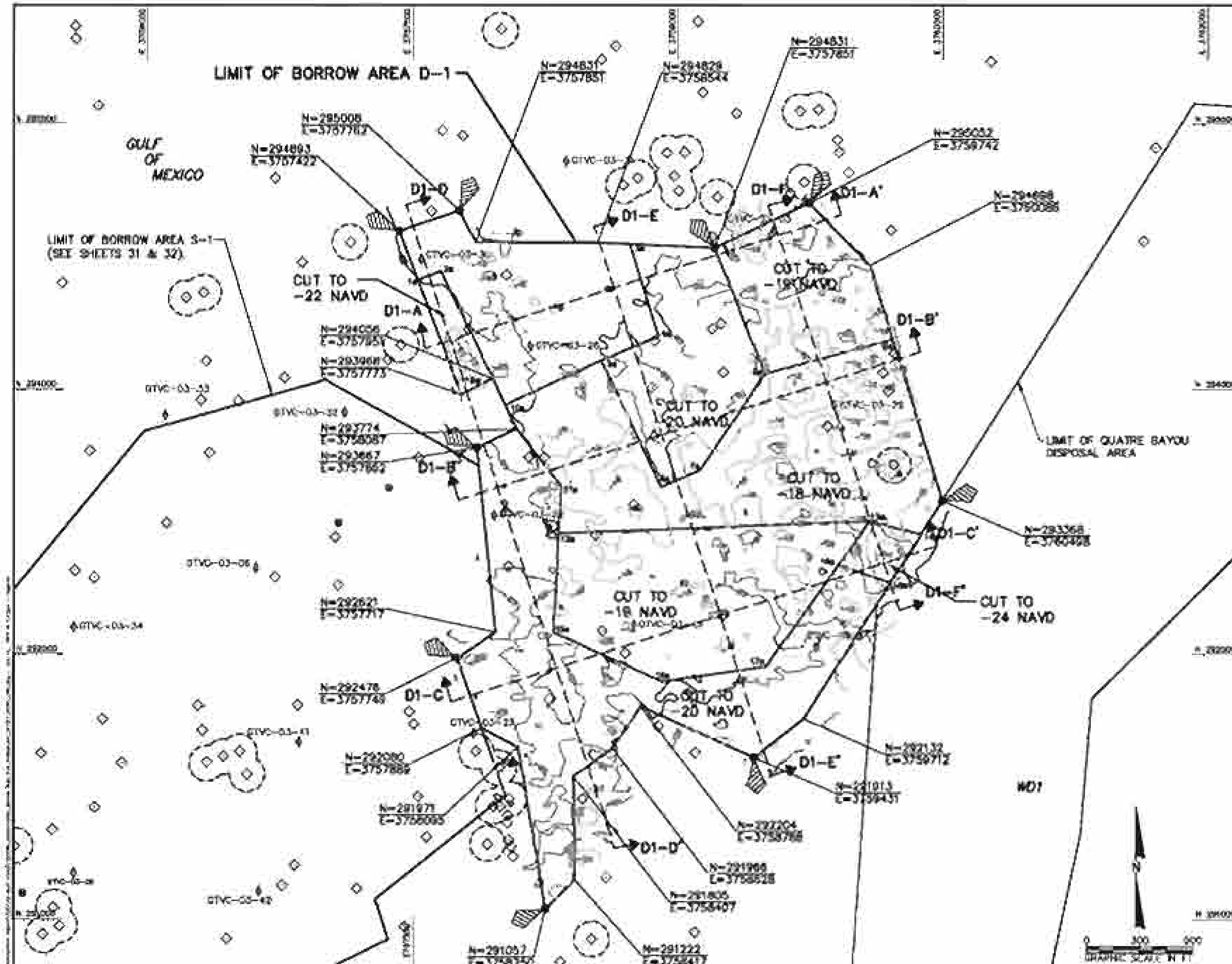
EAST GRAND TERRE ISLAND RESTORATION PROJECT

STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30

APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT EGT BA D-1 BATHYMETRIC SURVEY

DATE: 2/20/2007
SHEET 36 OF 45



BORROW AREA-INTERIOR COORDINATE TABLE

ID	X	Y
1a	3757528	294619
2a	3757626	294664
3a	3758727	294820
4a	3758888	294298
5a	3758650	294181
6a	3758908	293444
7a	3759126	293339
8a	3759490	294085
9a	3760215	294281
10a	3758022	293900
11a	3758338	283448
12a	3758324	293182
13a	3760086	293252
14a	3760377	293177
15a	3760204	292904
16a	3759907	293001
17a	3759497	292428
18a	3758912	292543
19a	3758293	292622

DREDGE CUTS NOTED ON THIS SHEET REFER TO REMOVAL ELEVATION OF MARSH CONSTRUCTION MATERIAL

LEGEND:

- CPE 2003 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- 500 BORROW AREA OVERBURDEN INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BOTTOM OF SILT/CLAY LAYER AND TOP OF SAND LAYER.
7. BORROW AREA HAS BEEN DREDGED AND THESE CONTOURS REPRESENT PRE-CONSTRUCTION CONDITIONS.

COASTAL PLANNING & ENGINEERING, INC.

REV.	DATE	DESCRIPTION	BY
1	1/18/07	UPDATE BA DESIGN	ETR

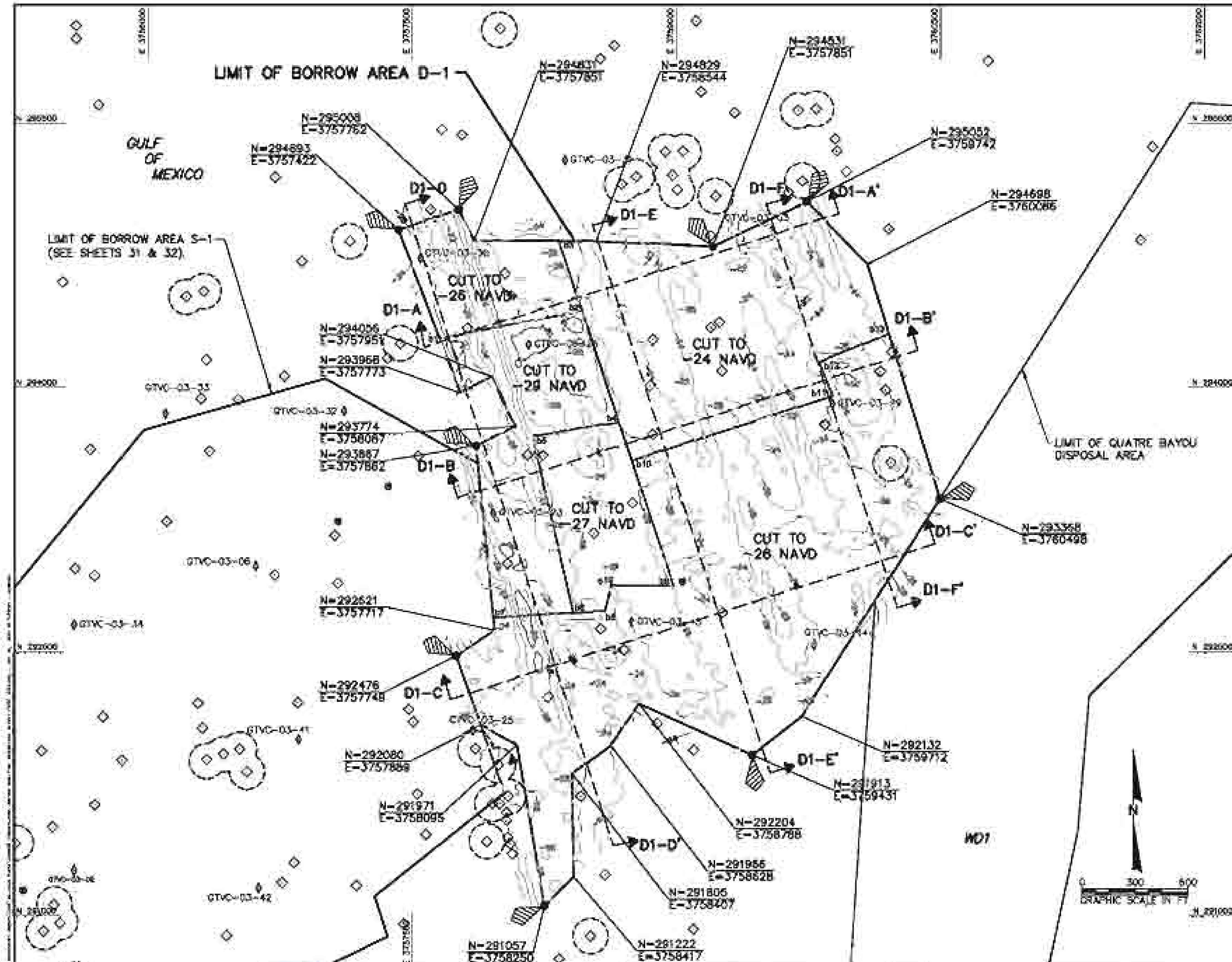
DRAWN BY: TRENT ROGERS — DESIGNED BY: G. DICKSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
BATON ROUGE, LOUISIANA

DRAWN BY: — DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA D-1 SILT/CLAY SURFACE CONTOURS
DATE: 2/23/2007
SHEET 37 OF 45



BORROW AREA INTERIOR COORDINATE TABLE		
ID	X	Y
b1	3757856	294277
b2	3758465	294428
b3	3758331	294831
b4	3758675	293800
b5	3758163	293722
b6	3758415	292717
b7	3757961	292668
b8	3758596	292729
b9	3758965	292873
b10	3758748	293584
b11	3759889	293950
b12	3759811	294142
b13	3760208	294304

DREDGE CUTS NOTED ON THIS SHEET REFER TO REMOVAL ELEVATION OF BEACH AND DUNE CONSTRUCTION MATERIAL

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- b30 BORROW AREA INTERIOR COORDINATE ID LABEL
- CROSS SECTION LINE LOCATION
- LIGHTED BUOY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BOTTOM OF SAND LAYER.
7. BORROW AREA HAS BEEN DREDGED AND THESE CONTOURS REPRESENT PRE-CONSTRUCTION CONDITIONS.

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD, BOCA RATON, FLORIDA 33431
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www.CoastalPlanning.net
C.O.A. FL #8898 C.O.A. LA #2531

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR

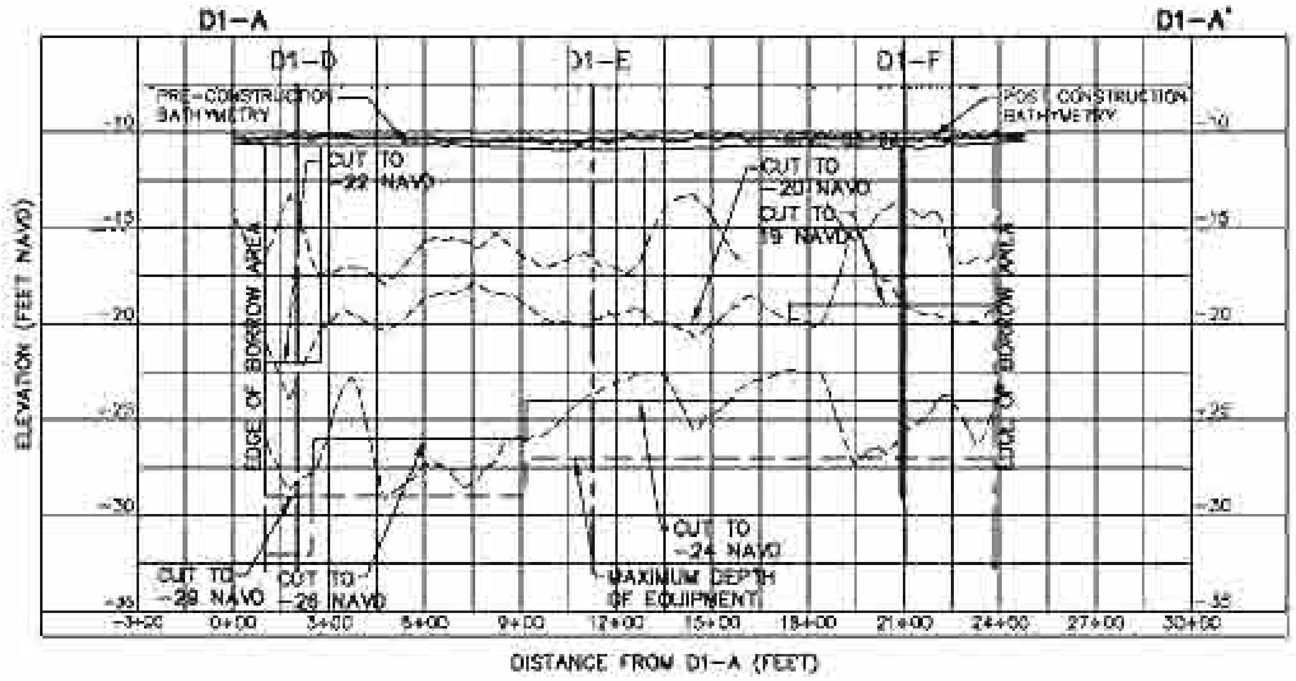
DRAWN BY: TRENT ROGERS — DESIGNED BY: G. THOMSON, P.E.

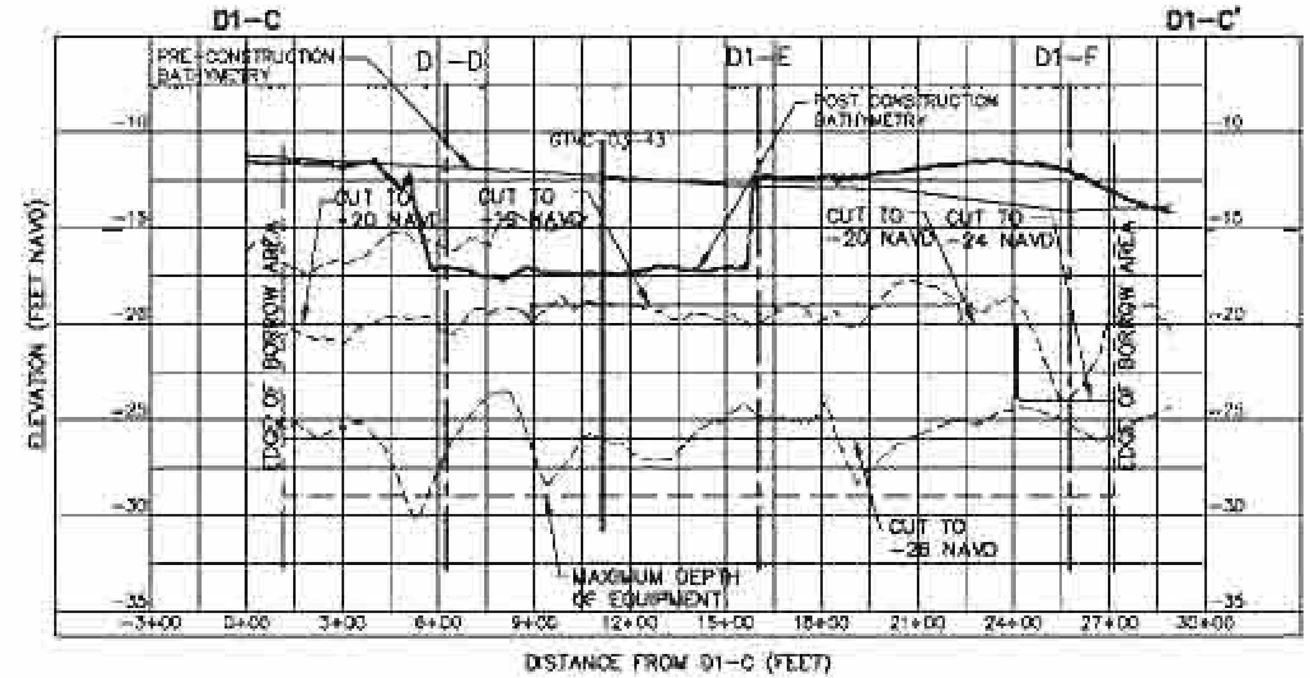
STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

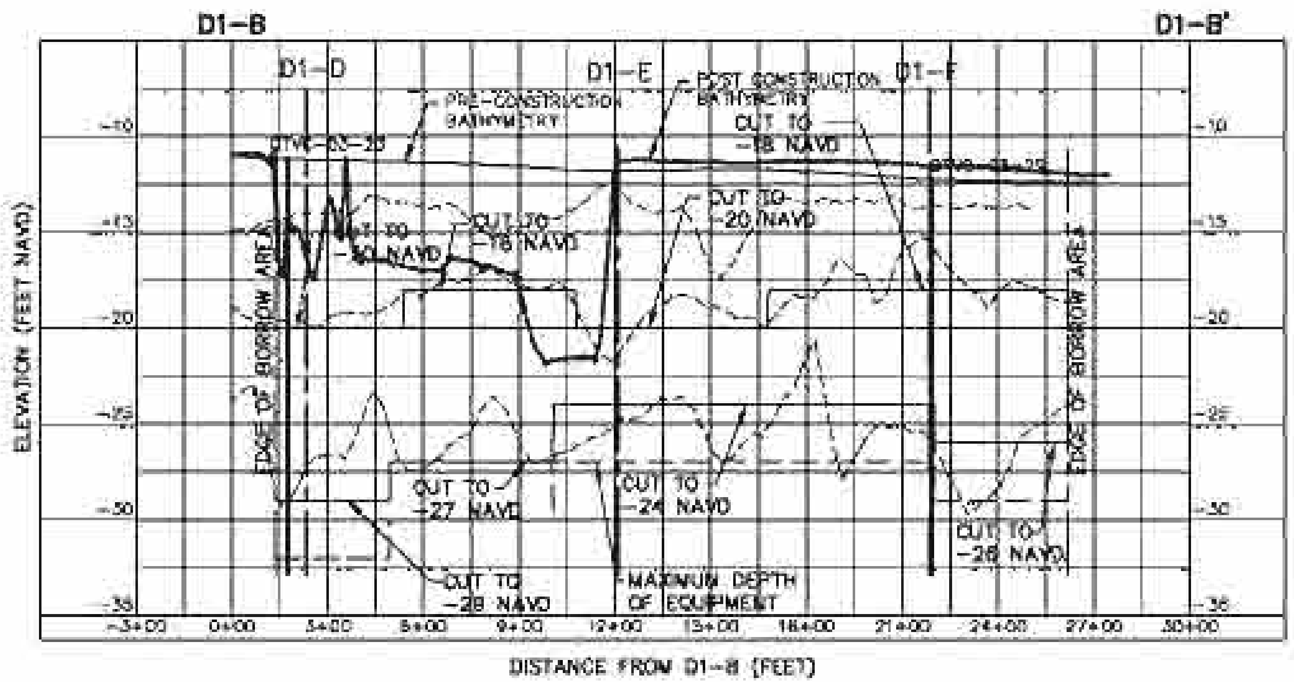
DRAWN BY: — DESIGNED BY:

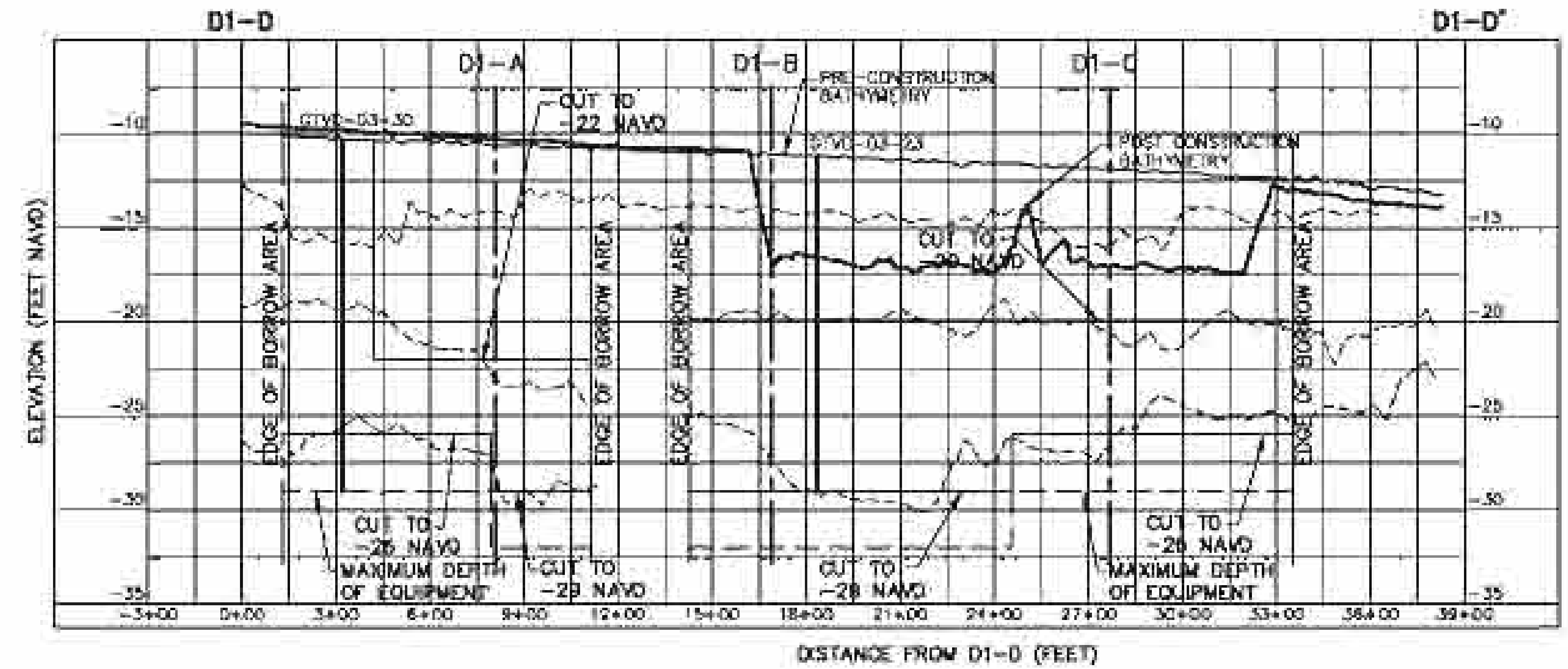
EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA D-1
SAND SURFACE CONTOURS
DATE: 2/23/2007
SHEET 36 OF 45









LEGEND:

- SEISMIC REFLECTOR
- MAXIMUM DEPTH OF EQUIPMENT

NOTES:

1. SEE SHEETS 36-38 FOR LOCATIONS OF CROSS SECTION LINES
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.

www.CoastalPlanning.net

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1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

DRAWN BY: TRENT ROGERS
DESIGNED BY: G. THOMSON, P.E.

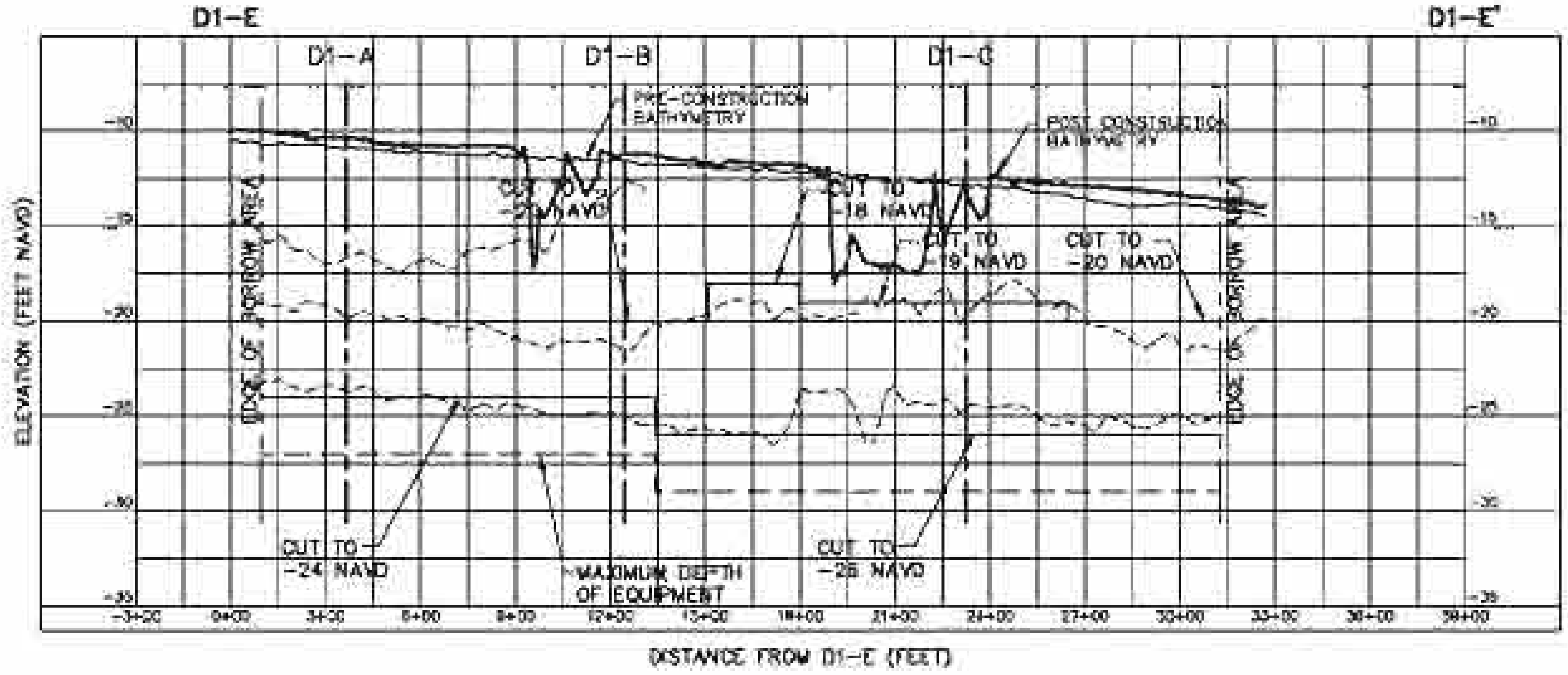
STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

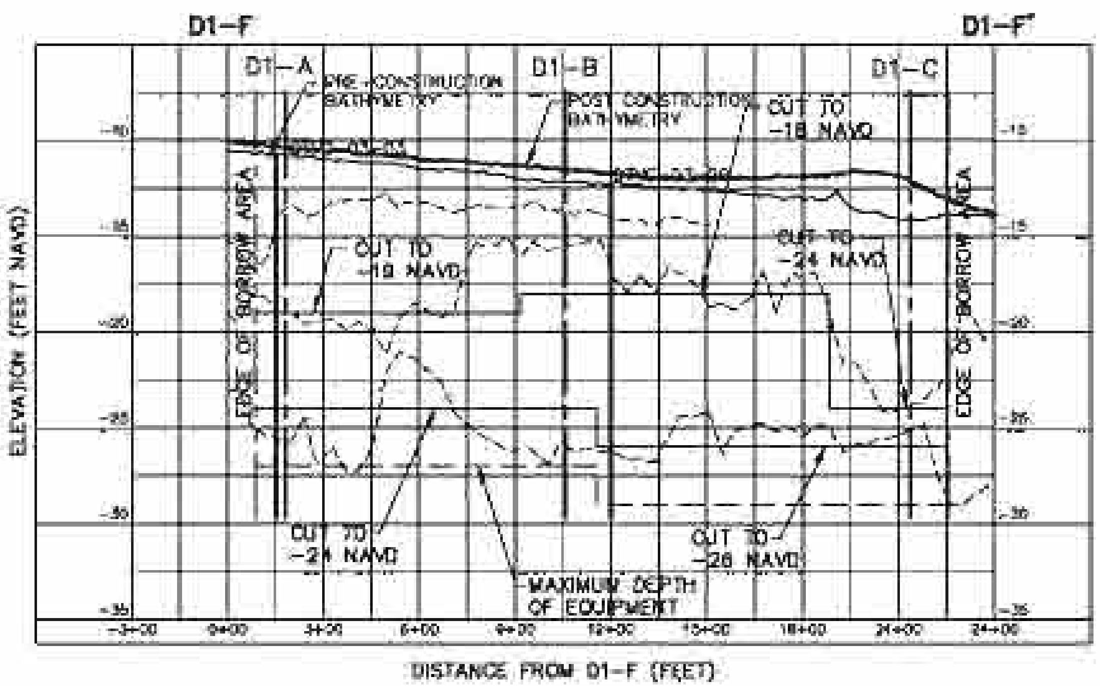
DRAWN BY:
DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA D1
CROSS-SECTIONS

DATE: 2/23/2007
SHEET 39 OF 45





LEGEND:

- SEISMIC REFLECTOR
- MAXIMUM DEPTH OF EQUIPMENT

NOTES:

1. SEE SHEETS 36–38 FOR LOCATIONS OF CROSS SECTION LINES
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COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD, BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
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C.O.A. FL #8228
C.O.A. LA #0054
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REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

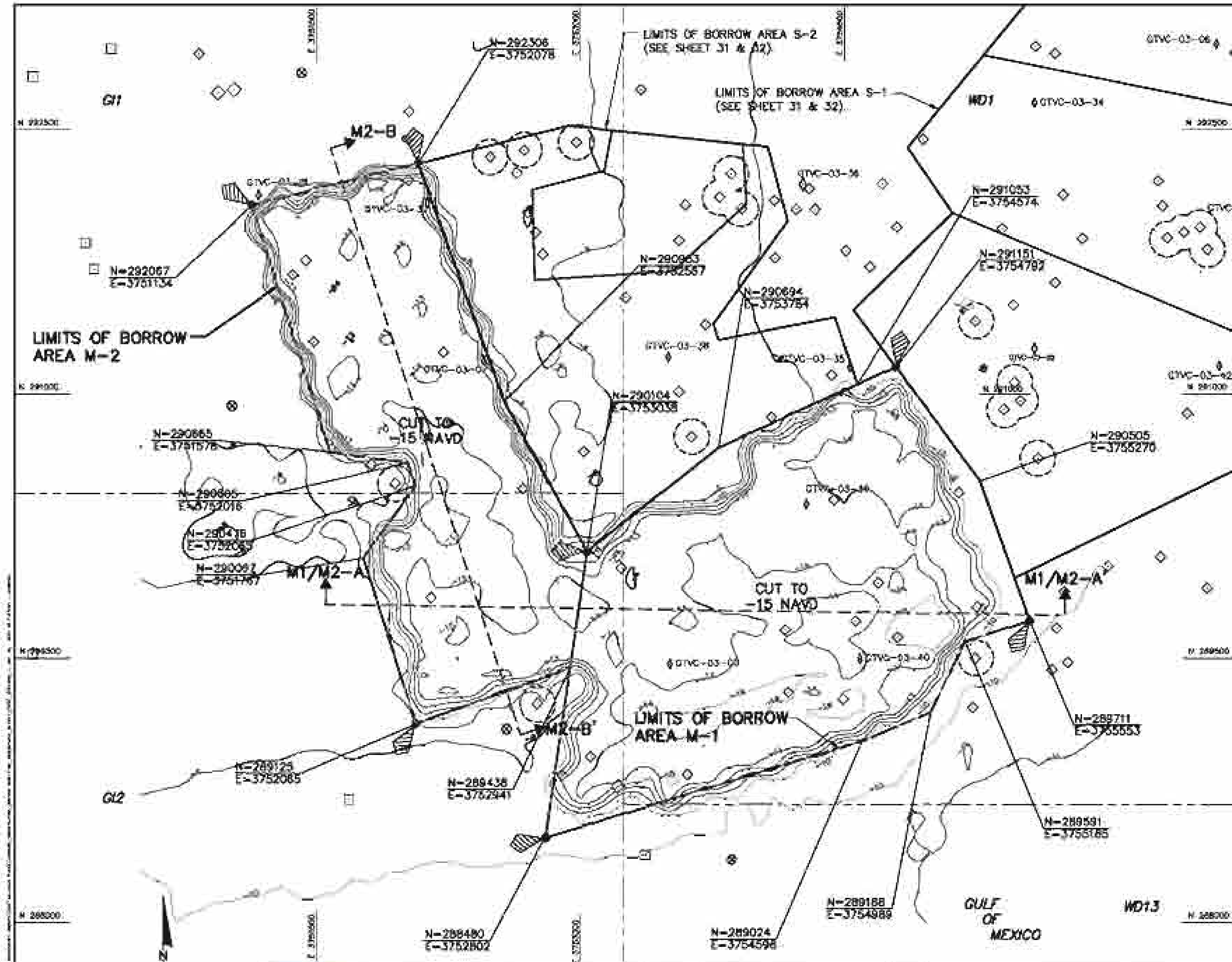
DRAWN BY: TRENT ROGERS | DESIGNED BY: G. THOMSON, P.E.

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: | DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA D1
CROSS-SECTIONS
DATE: 2/23/2007
SHEET 40 OF 45



VOLUME SUMMARY			
	TOTAL VOLUME	SAND VOLUME	SILT VOLUME
M1	713,000	0	713,000
M2	887,000	0	887,000

VOLUMES CALCULATED TO CUT DEPTH.
SAND/SILT PERCENTAGE IS VARIABLE THROUGHOUT BORROW AREA. REFER TO VIBRACORES FOR SEDIMENT DISTRIBUTION WITHIN BORROW AREA.

LEGEND:

- CPE 2002 VIBRACORE LOCATION
- WESTON 2001 VIBRACORE LOCATION
- USGS VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- LIGHTED BUOY
- BLOCK LINE

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY: SEPTEMBER 2010, CONDUCTED BY HYDRO TERRA TECHNOLOGIES, LLC.
4. CULTURAL RESOURCE SURVEY CONDUCTED JANUARY 2004 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. IF CONTRACTOR PLANS TO CROSS EXISTING OIL AND GAS INFRASTRUCTURE WITH SUBMERGED PIPE LINES, THE CONTRACTOR WILL LOCATE AND COORDINATE WITH PIPELINE OWNER & DEVELOP CROSSING PLAN ACCEPTABLE TO THE PIPELINE OWNER BEFORE LAYING HIS PIPELINE.
6. CONTOURS REPRESENT BATHYMETRIC ELEVATIONS.

COASTAL PLANNING & ENGINEERING, INC.
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C.O.A. FL #4000
C.O.A. LA #2531

REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

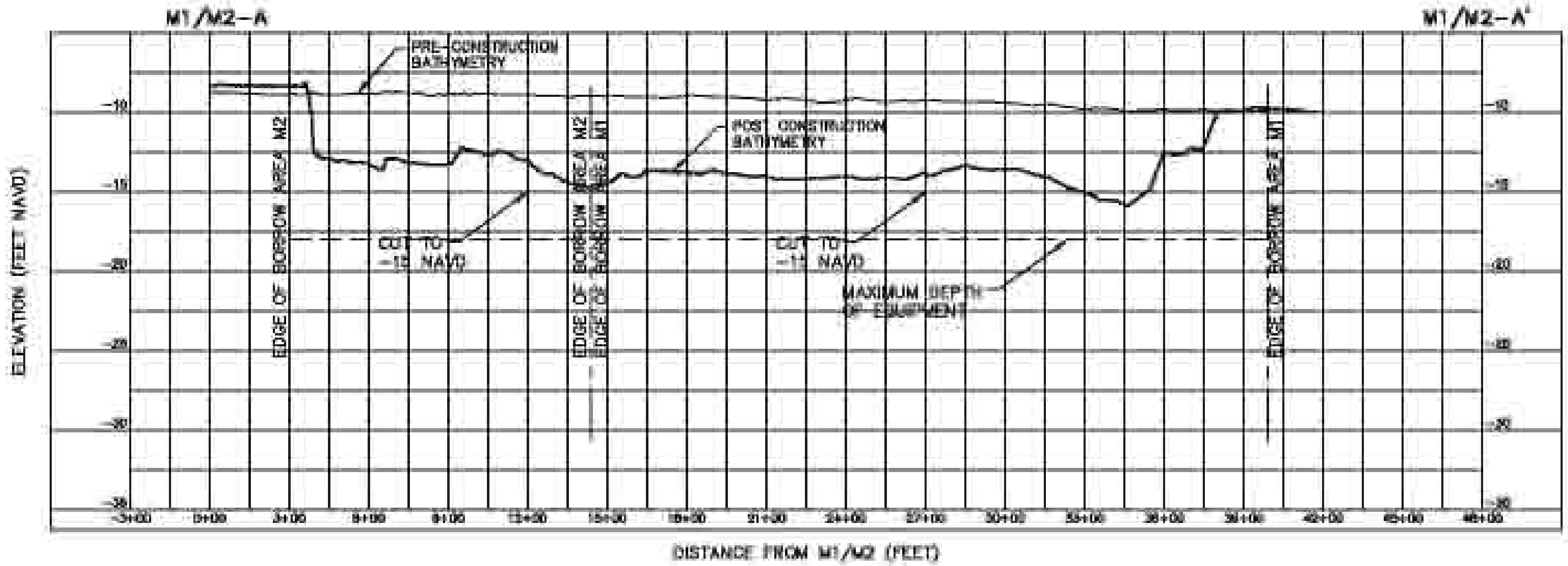
DRAWN BY: TRENT ROGERS
DESIGNED BY: G. THOMSON, P.E.

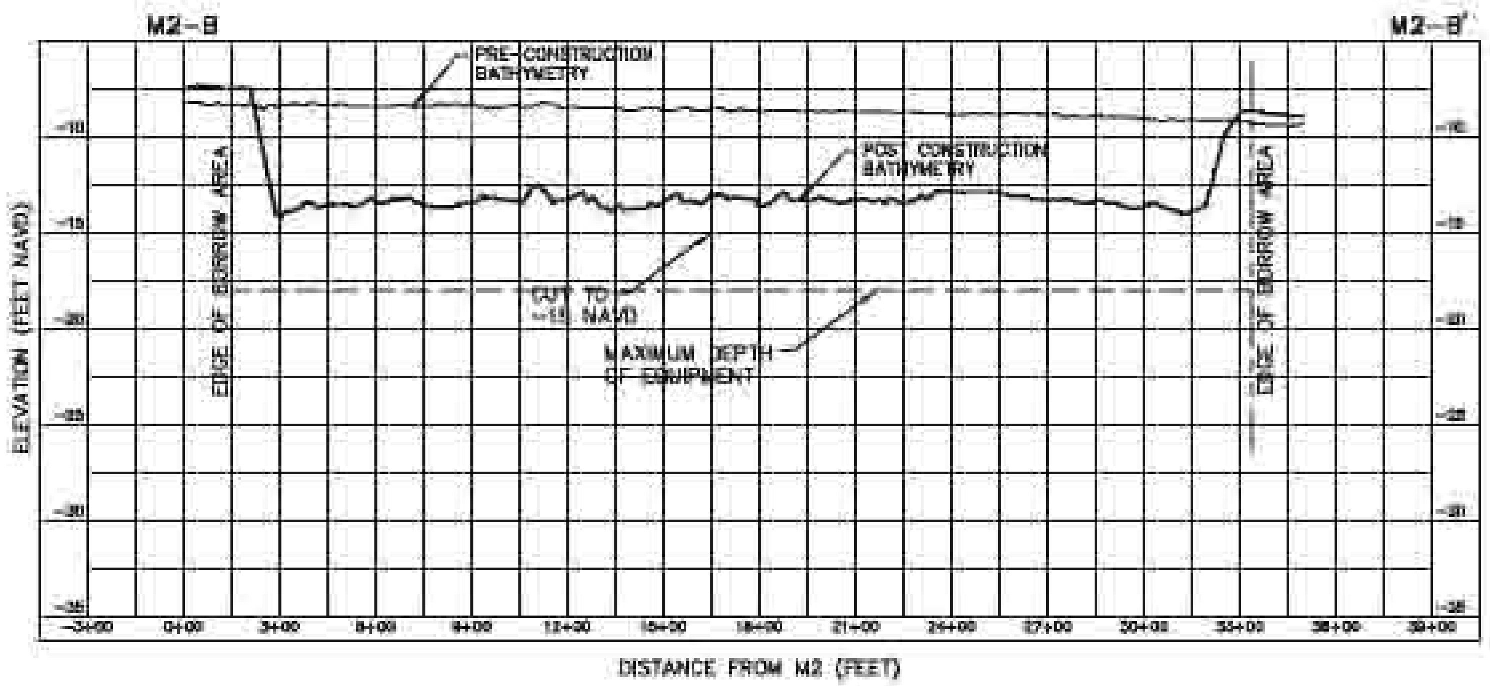
STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY:
DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT
EGT BA M-1 & M-2
BATHYMETRIC SURVEY
DATE: 2/23/2007
SHEET 41 OF 45





LEGEND:
- SEISMIC REFLECTOR
- MAXIMUM DEPTH OF EQUIPMENT

NOTES:
1. SEE SHEET 41 FOR LOCATIONS OF CROSS SECTION LINES.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).
3. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.

COASTAL PLANNING & ENGINEERING, INC.

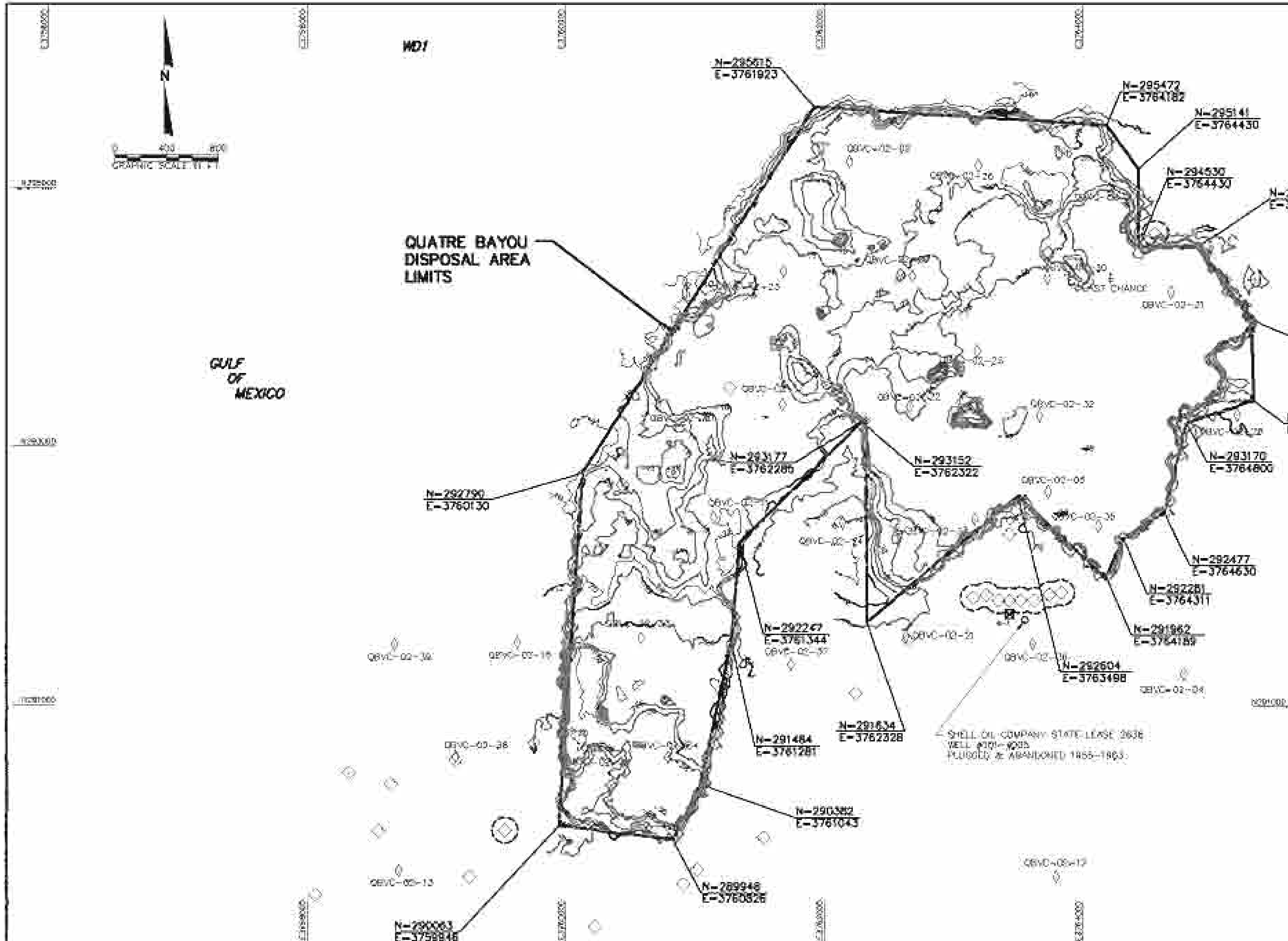
REV.	DATE	DESCRIPTION	BY
1	1/15/07	UPDATE BA DESIGN	STR
2	1/12/11	UPDATE WITH POST CON BATHY	KD

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION

EAST GRAND TERRE ISLAND RESTORATION PROJECT

AS-BUILT
EGT BA M1 & M2
CROSS-SECTIONS

APPROVED BY: MAURY CHATELLIER, P.E.



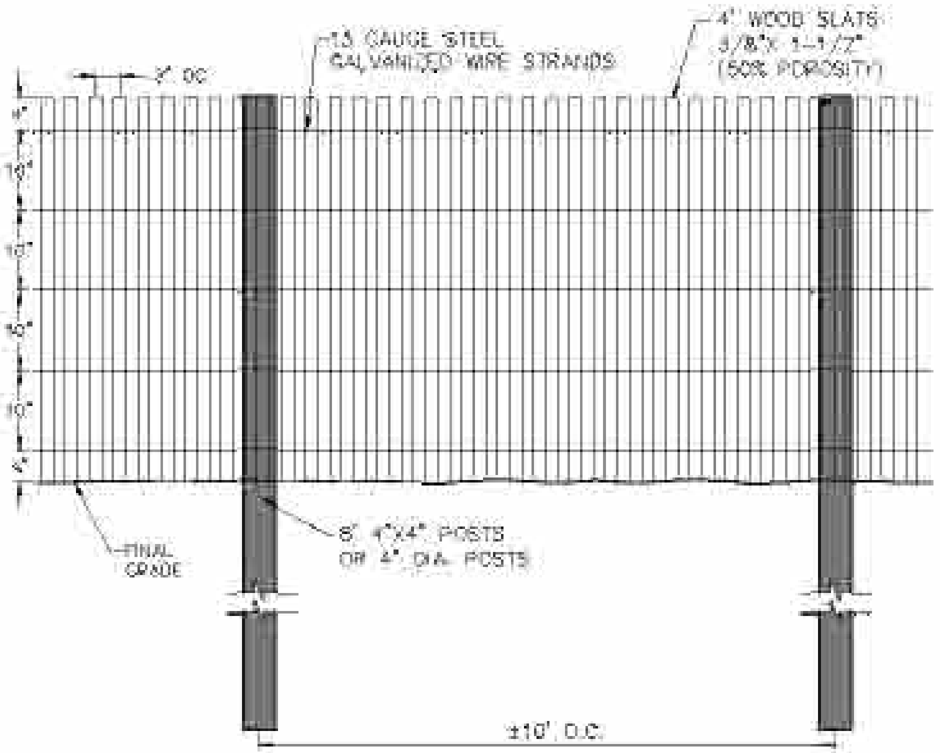
LEGEND:

- CPE 2002 VIBRACORE LOCATION
- MAGNETIC ANOMALY
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- WD1 BLOCK NUMBER
- SONAR CONTACT AND SITE REFERENCE NUMBER
- BORROW AREA INTERIOR COORDINATE ID LABEL
- WELL HEAD
- SHIP WRECK "LAST CHANCE" FROM NOAA CHART 11358 (NOT CONFIRMED BY CULTURAL RESOURCE SURVEY)

NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, DECEMBER 2006 CONDUCTED BY WEEKS MARINE, INC.
4. CULTURAL RESOURCE SURVEY CONDUCTED MAY 23–25, 2003 BY TIDEWATER ATLANTIC RESEARCH (TAR) AND CPE.
5. CONTOURS REPRESENT DEPTH OF WATER.
6. MAXIMUM ELEVATION OF PLACED DISPOSAL MATERIAL NOT TO BE ABOVE −14' NAVD.

COASTAL PLANNING & ENGINEERING, INC. www.CoastalPlanning.net	STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	EAST GRAND TERRE ISLAND RESTORATION PROJECT STATE PROJECT NUMBER: BA-30 FEDERAL PROJECT NUMBER: BA-30	AS-BUILT OVERBURDEN DISPOSAL SITE DATE: 2/23/2007
DRAWN BY: TRENT ROGERS · DESIGNED BY: G. THOMSON, P.E. · REV. · DATE · DESCRIPTION · BY	DRAWN BY: · DESIGNED BY:	APPROVED BY: MAURY CHATELLIER, P.E.	SHEET 43 OF 43

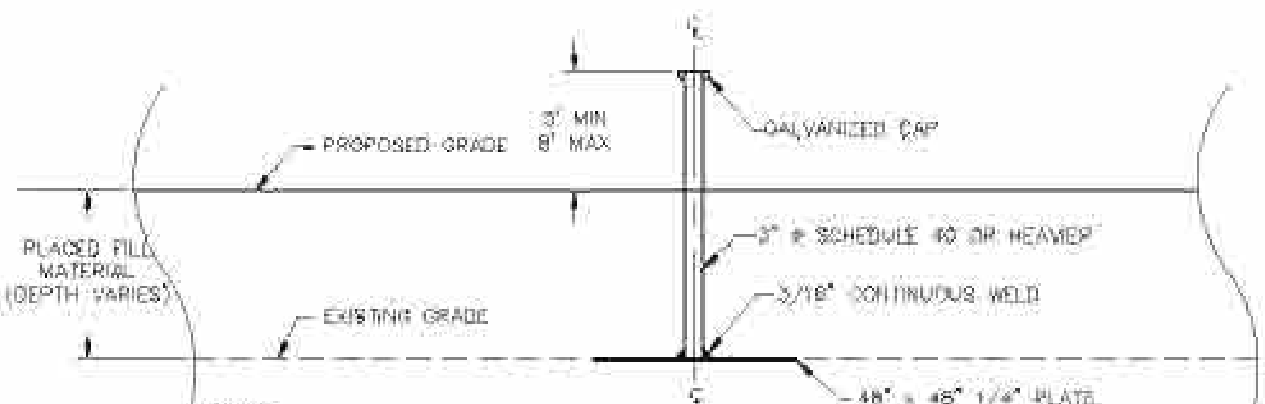


FENCING DETAILS

NOT TO SCALE

FENCE GAP DIMENSIONS

NOT TO SCALE



NOTE:

1. SETTLEMENT PLATES SHALL BE BUILT USING ASTM A36 STEEL AND HOT-DIPPED GALVANIZED AFTER FABRICATION.

SETTLEMENT PLATE DETAIL

NOT TO SCALE

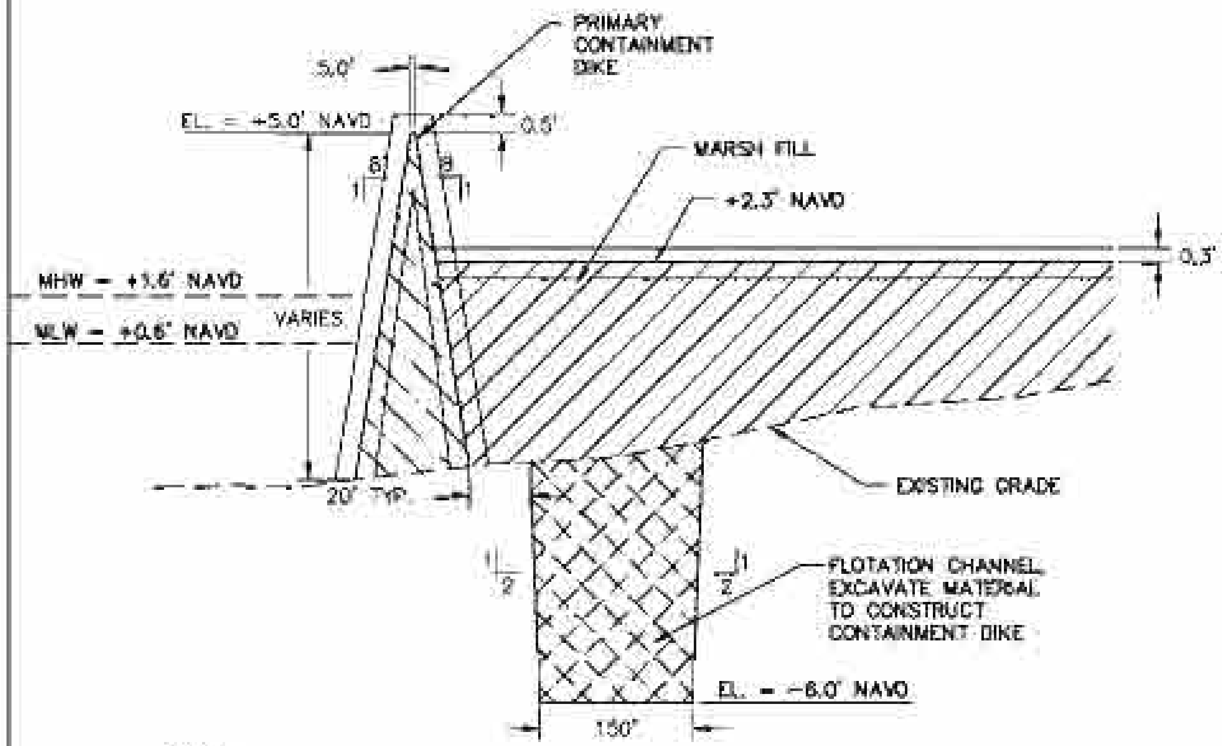
AS-BUILT SAND FENCE LAYOUT POINTS

EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING
3737026.5	299221.7	3741788.1	296514.8	3746990.5	296669.5
3737417.0	298898.7	3742159.7	296291.6	3747416.2	296819.5
3737388.7	299009.2	3742186.4	296311.3	3747388.9	296805.6
3737779.4	298786.9	3742527.2	296088.9	3747812.6	296955.7
3737756.4	298805.3	3742487.6	296097.6	3747785.5	296930.5
3738146.7	298583.4	3742578.0	296051.1	3748206.6	297101.8
		3742934.5	296010.0		
3738110.1	298591.8			3748180.6	297085.9
3738506.2	298368.9	3743005.3	296029.0	3748604.1	297236.0
		3743363.8	295958.1		
3738487.0	298390.2			3748574.6	297231.9
3738877.9	298167.5	3743322.5	295983.2	3748998.2	297382.7
		3743770.5	296043.9		
3738840.1	298176.2			3748972.1	297366.8
3739238.3	297953.4	3743741.9	295951.8	3749395.8	297517.7
		3744189.6	296028.8		
3739216.7	297974.6			3749780.9	297664.1
3739606.8	297751.3	3744160.5	295909.3	3749366.4	297516.4
		3744523.6	295897.2		
3739577.5	297761.2			3749763.6	297648.3
3739968.7	297538.8	3744572.3	296002.1	3749865.5	297684.3
		3745015.6	296073.7	3750108.1	297925.0
3739945.8	297558.9				
3740336.2	297336.2	3744986.1	296062.5	3750083.9	297908.8
		3745429.5	296143.7	3750257.7	298080.6
3740308.8	297348.6				
3740697.8	297122.1	3745399.1	296144.6	3744483.1	295985.5
		3745636.0	296188.9	3744701.2	296026.1
3740670.6	297148.1	3745832.1	296258.3		
3741058.2	296920.5			3744675.7	296025.8
		3745808.5	296241.7	3745113.0	296107.6
3741038.8	296928.7	3746230.8	296392.9		
3741229.2	296810.7			3745085.1	296096.6
		3746200.1	296301.5	3745535.0	296177.9
3741220.2	296819.7	3746619.2	296537.3		
3741428.6	296706.3				
		3746506.8	296525.3		
3741406.7	296728.9	3747021.0	296673.0		
3741796.7	296504.8				

NOTE:

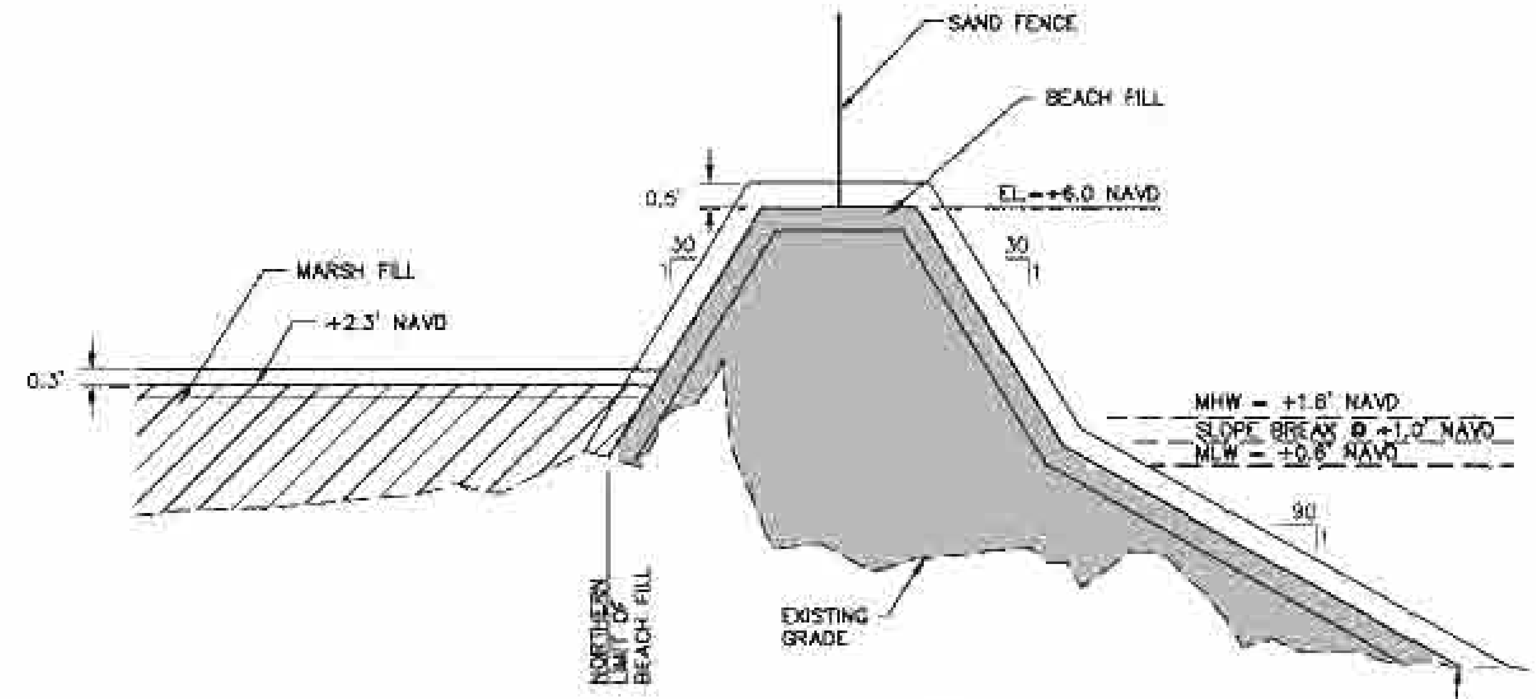
1. COORDINATES ARE IN STATE PLANE, NAD 83, LOUISIANA SOUTH ZONE, US SURVEY FEET.

COASTAL PLANNING & ENGINEERING, INC. 2481 N.W. BOCA RATON BOULEVARD BOCA RATON, FLORIDA 33431 www.CoastalPlanning.net PH (561) 391-8102 FAX (561) 391-9116 C.O.A. FL #8828 C.O.A. LA #2851	STATE OF LOUISIANA OFFICE OF COASTAL PROTECTION AND RESTORATION 617 NORTH 3RD STREET BATON ROUGE, LOUISIANA 70802	EAST GRAND TERRE ISLAND RESTORATION PROJECT STATE PROJECT NUMBER: BA-30 FEDERAL PROJECT NUMBER: BA-30	AS-BUILT CONSTRUCTION DETAILS DATE: 01/06/11
DRAWN BY: A.BRIZZIEN / DESIGNED BY: G. THOMSON, P.E. / REV. / DATE / DESCRIPTION / BY	DRAWN BY: / DESIGNED BY:	APPROVED BY: MAURY CHATELLIER, P.E.	SHEET 44 OF 45

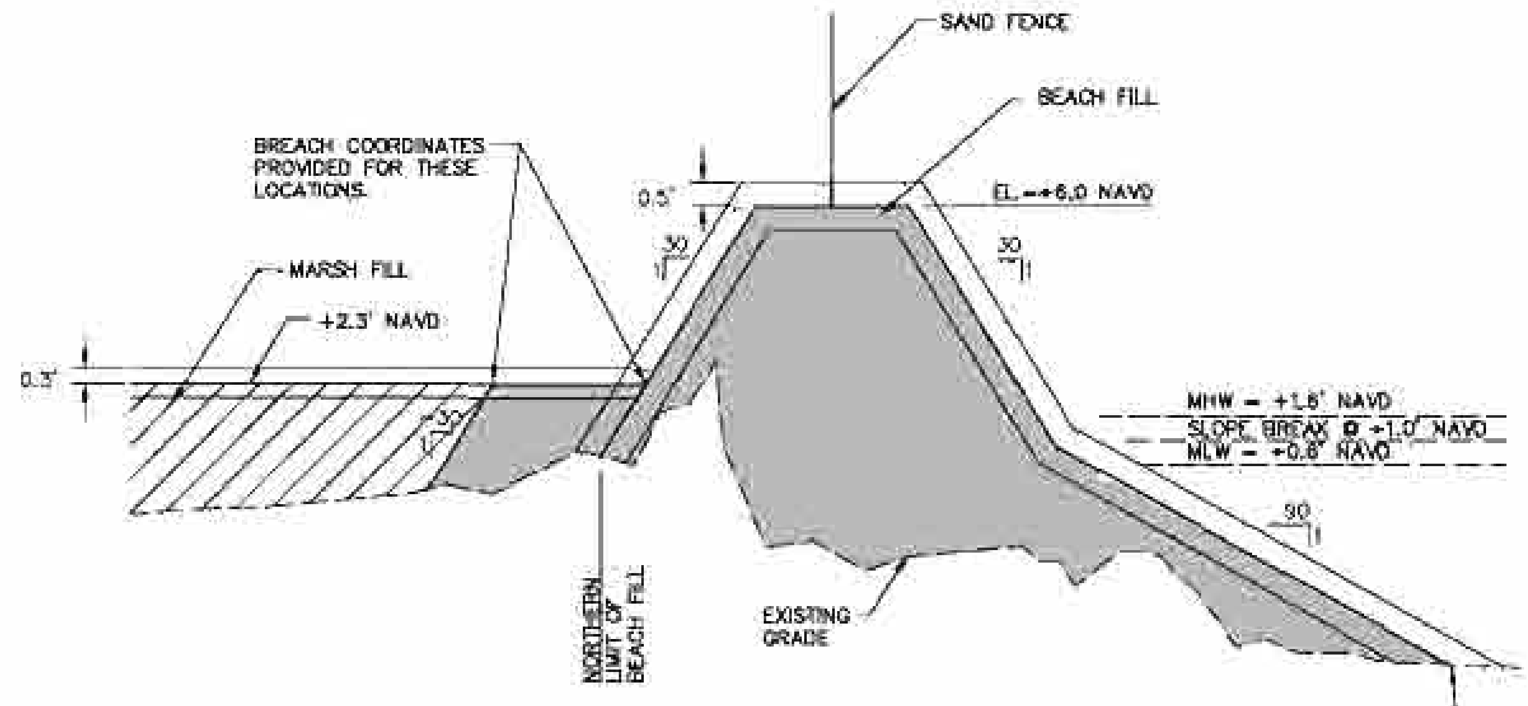


NOTE:
1. CONTRACTOR MAY PROPOSE DIFFERENT SIDE SLOPES.

PRIMARY CONTAINMENT DIKE & FLOTATION CHANNEL DETAIL
NOT TO SCALE



BEACH AND MARSH DETAIL
NOT TO SCALE



BREACH DETAIL
NOT TO SCALE

LEGEND:
- BEACH FILL
- CONTAINMENT DIKE FILL
- MARSH FILL

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
www.CoastalPlanning.net

DRAWN BY: A. BELDIN	DESIGNED BY: G. THOMSON, P.E.	REV.	DATE	DESCRIPTION	BY

STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY:
DESIGNED BY:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
STATE PROJECT NUMBER: BA-30
FEDERAL PROJECT NUMBER: BA-30
APPROVED BY: MAURY CHATELLIER, P.E.

AS-BUILT CONSTRUCTION DETAILS
DATE: 01/06/11
SHEET 45 OF 45

Appendix E

Change Orders

Change Order #1

Change Order

Change Order Number: 001

Contractor: Weeks Marine, Inc.
Purchase Order No: 3472868 File No.: P27312DL

Date: January 5, 2010

East Grand Terre Island Restoration Project (BA-30)

Description:

There has been a change in project quantities when the bid template was overlaid on the July 2009 pre-construction survey.

Purpose:

Account for the change of various line item quantities.

Contract Quantity:

The beach fill volume has increased 44% from 1,527,000 cy to 2,195,605 cy.
The marsh fill volume has decreased 46% from 1,817,000 cy to 985,043 cy.
The primary dike length has decreased 5% from 15,980 ft to 15,210 ft.
The sand fence length has decreased 8% from 16,910 ft to 15,550 ft.
The bid and redesign quantities are provided in the table below.

Contract Time:

Due to an increase in the quantity of dredging the contractor has requested that the contract time be increased by 120 days, from 280 days to 400 days. Given the June 19, 2009 Notice to Proceed, the contract completion date has changed from March 26, 2010 to July 24, 2010.

Contract Cost:

There has been no change in unit prices. The total contract cost has increased $1,536,339 from $28,513,465 to $30,049,804. The bid and redesign costs are provided in the table below.

Item	Unit	Bid Quantity	New Quantity	Unit Prices	Bid Cost	New Cost
Mob/Demob	LS	1	1	$2,750,000.00	$2,750,000.00	$2,750,000.00
Beach Fill	CY	1,527,000	2,195,605	$9.25	$14,124,750.00	$20,309,346.25
Marsh Fill	CY	1,817,000	985,043	$5.50	$9,993,500.00	$5,417,736.50
Primary Dikes	LF	15,980	15,210	$65.00	$1,038,700.00	$988,650.00
Sand Fencing	LF	16,910	15,550	$16.50	$279,015.00	$256,575.00
Settlement Plate	Each	15	15	$3,500.00	$52,500.00	$52,500.00
Pre-Con Survey	LS	1	1	$150,000.00	$150,000.00	$150,000.00
As-built Survey	LS	1	1	$125,000.00	$125,000.00	$125,000.00
Total					$28,513,465.00	$30,049,807.75

Recommended By:			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N): Y	Approved (Y/N): Yes
OCPR	[signature]		Signature/Title/Date: Homer Winkler 1-11-10	Signature/Title/Date: Shane J. Triche 1/12/2010
CPE	B. Thomson	1/5/10		
WMI	L. Windes	1/11/10		

COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431

561-391-8102 PHONE 561-391-9116 FAX
Internet: http://www.coastalplanning.net
e-mail: mail@coastalplanning.net

7900.24

November 24, 2009

Shane Triche
O&M Manager
Office of Coastal Protection & Restoration
Thibodaux Field Office
1440 Tiger Drive, Suite B
Thibodaux, Louisiana 70301

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Change Order #1 – Contract Time Extension and Volume Change

Dear Shane:

Please find attached a copy of Change Order #1 signed by Ely Mahan of Weeks Marine and me. I recommend that OCPR agree to this change order.

The change order alters the following project quantities:

- The beach fill volume has increased 44% from 1,527,000 cubic yards to 2,195,605 cubic yards.
- The marsh fill volume has decreased 46% from 1,817,000 cubic yards to 985,043 cubic yards.
- The primary dike length has decreased 5% from 15,980 feet to 15,210 feet.
- The sand fence length has decreased 8% from 16,910 feet to 15,550 feet.

The changes in project volume were merited due to erosion and overwash processes between the bid survey (August 2002) and pre-construction survey (July 2009). Changes in the primary dike and sand fence lengths were associated with the volumetric changes. There is no change to the unit cost.

This change order increases the contract amount by $1,536,339.00

Contract Time

Change Order #1 extends the contract time by 120 days, from 280 days to 400 days. Given the June 19, 2009 Notice to Proceed, the contract completion date changes from March 26, 2010 to July 24, 2010.

Weeks Marine indicated that this additional time is due to an increase in the project volume, pipeline needs, impacts to production rates, and plant availability. An increase in contract time is merited for the following reasons:

1. The redesign has increased the total project volume by 6.5%. An increase in total project volume necessitates an increase in contract time.

2. The redesign has increased the beach fill volume by 43%, while decreasing the marsh fill volume by 38%. This will negatively impact production rates because beach fill production rate is lower than that for marsh fill. Therefore, additional time will be required due to the change in type of material to be pumped.

3. Weeks Marine initially indicated that they were going to construct the marsh fill first, which allowed the 30-day marsh settlement period prior to surveying to occur while beach operations were ongoing. They indicated that the redesigned project will require them to construct the beach fill first. Thus, an additional 30 days of contract time is required to facilitate the marsh settlement period prior to surveying.

Comparing the revised schedule to the original schedule shows that Weeks Marine anticipates that only 30 additional days of dredging are required to complete the job due to volumetric changes within the redesigned project. This appears to be a fair assessment of the required increased dredge time. The additional 30 days due to waiting for the marsh to settle prior to surveying is also a reasonable request.

Thus, a 60-day contract is merited based solely on changes to the project area. Based on conversations with Weeks Marine, it appears that the additional 60 days is being requested due to delays experienced on other projects. Given that there are no limitations on the construction window due to permit requirements and that there is limited inconvenience due to the delay, I suggest that this additional time be approved in the spirit of cooperation with Weeks Marine.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Gordon G. Thomson, P.E.
Vice President

cc: Maury Chatellier, OCPR
Tom Campbell, CPE
Andrew Wycklendt, CPE
Dave Swigler, CPE

P:\Louisiana\790024 EGT Construction\Correspondence\Change Orders\Letter- Triche- CO#1 Recommendation - 11-24-09.Doc

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

Coastal Planning and Engineering, Inc.
2481 NW Boca Raton Blvd
Boca Raton, FL 33431

September 4th, 2009
Serial Letter: S-02

Attention: Mr. Gordon Thompson, P.E.

Reference: File Number: P 27312 DL
East Grand Terre Island Restoration Project (BA-30)

Subject: Proposal for Re-Design of Marsh and Beach Fill

Mr. Thompson:

Weeks Marine, Inc. (WMI) is in receipt of the information provided by Coastal Planning and Engineering, Inc. (CPE) for the above referenced project concerning the re-design (draft) of the alignment and templates for beachfill and marsh fill. As per the cross sections and supporting data that CPE has provided to WMI, the changes made as a result of current conditions on the island that differ from those in the plans have revised the beachfill quantity to approximately 2,175,000 cubic yards and the quantity for marsh fill to approximately 1,010,000 cubic yards.

WMI has completed its review of the re-design for the project and the resultant change in quantities that will need to be dredged and placed for final acceptance of required work. WMI notes that while the re-design will have an impact on the order of work, operational efficiency, and dredging production rates; WMI will perform the dredging and placement of the revised design quantities at the original contract unit prices (i.e. $9.25 per CYD of beachfill and $5.50 per CYD of marsh fill).

WMI hereby requests a time extension of 120 days for the completion of work under the re-design. This time extension is necessary as a result of the change in the order of work, pipeline needs, impacts to production rates, and plant availability for the completion of required work. WMI has attached a revised overall project schedule illustrating the required completion time for the re-design which includes an approximate schedule of values reflecting the changes in CLIN quantities for the work to be completed.

WMI hereby provides the aforementioned information and associated revised project schedule as our proposal for the completion of the revised scope of work for your review and acceptance. WMI will be happy to meet to discuss the specifics of the impacts of the changes in the work if you require any additional information concerning these issues. We will also revise the current formal schedule of values for the project upon acceptance of this proposal.

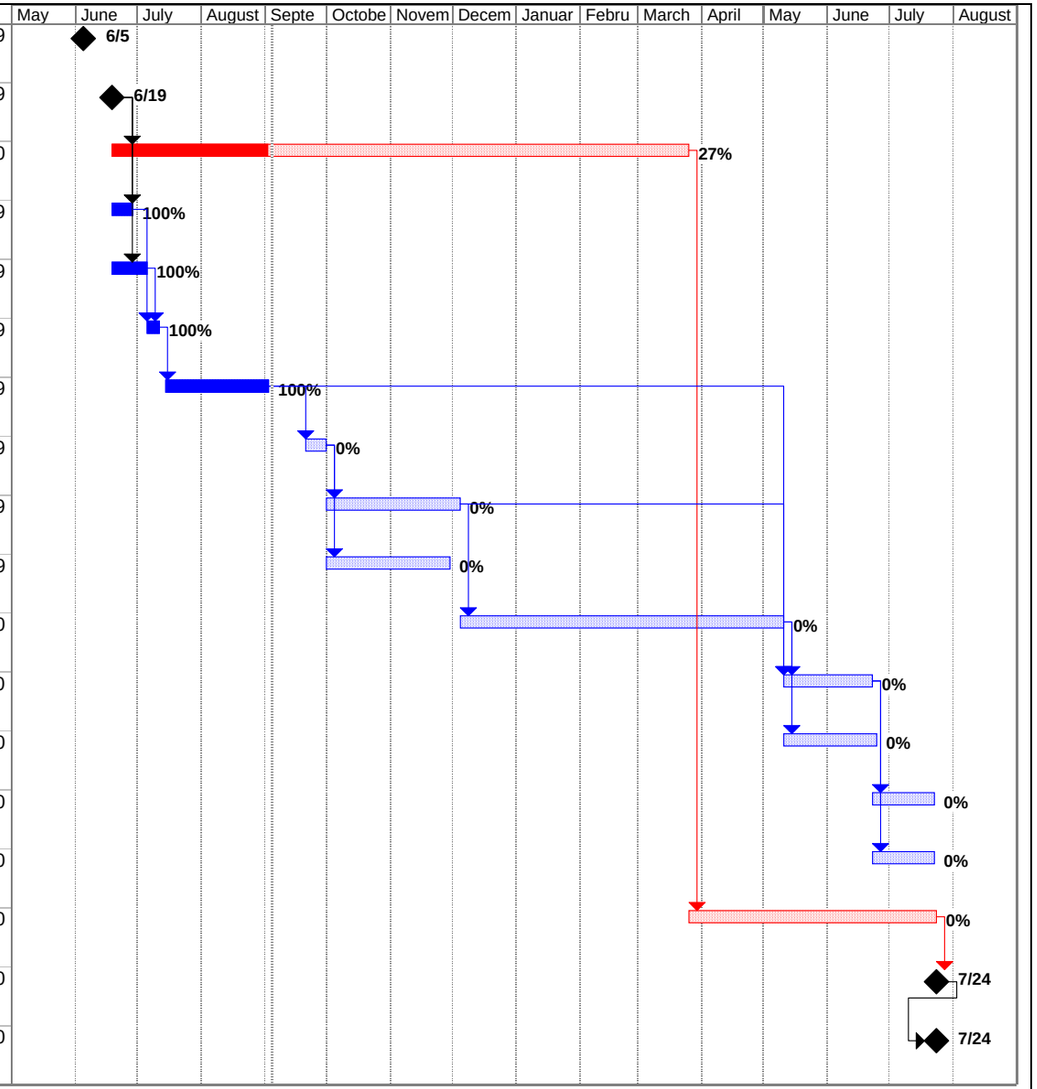
If you have any questions or require additional information, please do not hesitate to contact me at (985) 232-1277 or via email at ejmahan@weeksmarine.com.

Sincerely,

Ely Mahan
Project Manager
Weeks Marine Inc.

cc: Mike Ernst – WMI General Manager Hydraulic Group
Contract File

ID	CLIN No.	Quantity	Amount	Task Name	Duration	Start	Finish
1				Contract Award	0 days	Fri 6/5/09	Fri 6/5/09
2				Notice to Proceed	0 days	Fri 6/19/09	Fri 6/19/09
3				Project Performance Period	280 days	Fri 6/19/09	Fri 3/26/10
4				Pre-Construction Submittals	10 days	Fri 6/19/09	Mon 6/29/09
5	007	100%	$150,000	Pre-Construction Surveys	17 days	Fri 6/19/09	Mon 7/6/09
6	001 A			Mobilization for Dike Construction	6 days	Mon 7/6/09	Sun 7/12/09
7	004	15,980	$1,038,700	Dike Construction (Final Capping and Closures Excluded)	50 days	Wed 7/15/09	Thu 9/3/09
8				Dike Construction Final Capping and Closure	10 days	Mon 9/21/09	Thu 10/1/09
9	001 B	60%	$1,650,000	Mobilization for Beach and Marsh Fill	65 days	Thu 10/1/09	Sat 12/5/09
10	006	15	$52,500	Settlement Plate Installation	60 days	Thu 10/1/09	Mon 11/30/09
11	002	2,175,000	$20,118,750	Dredging for Beach and Dune Fill	157 days	Sat 12/5/09	Tue 5/11/10
12	003	1,010,000	$5,555,000	Dredging for Marsh Fill	43 days	Tue 5/11/10	Wed 6/23/10
13	005	16,910	$279,015	Sand Fencing	45 days	Tue 5/11/10	Fri 6/25/10
14	008	100%	$125,000	As Built Survey (Need to allow for 30 day Marsh Settlement)	30 days	Wed 6/23/10	Fri 7/23/10
15	001 C	40%	$1,100,000	Demobilization from Dredging Operations	30 days	Wed 6/23/10	Fri 7/23/10
16				Time Extension for Re-Design of Project	120 days	Fri 3/26/10	Sat 7/24/10
17				Required Contract Completion	0 days	Sat 7/24/10	Sat 7/24/10
18			$30,068,965	Sum of All Activities	0 days	Sat 7/24/10	Sat 7/24/10



Project: 09-04 East Grand Terre Sched
Date: Fri 9/4/09

Critical
Critical Split
Critical Progress
Task
Split
Task Progress
Baseline
Baseline Split
Baseline Milestone
Milestone
Summary Progress
Summary
Project Summary
External Tasks
External Milestone
Deadline

Change Order #2

Change Order

Field Adj Number: 002

Contractor: Weeks Marine, Inc.
Purchase Order No.: 3472868 File No.:P27312DL

Date: August 20, 2010

East Grand Terre Island Restoration Project (BA-30)

Description:

Due to weather delays exceeding the anticipated adverse weather days outlined by the specifications GP-39, a contract time extension was requested by Weeks Marine, Inc. In total, 15 weather delay days from December 2009 through June 2010 was determined to be reasonable. This would extend the contract time from July 24, 2010 to August 8, 2010.

On June 25, 2010, WMI was released from the contract to participate in Louisiana's Emergency Berm Project in response to the Deepwater Horizon oil spill. WMI returned to the East Grand Terre Island project on August 3, 2010 at which time a Notice to Proceed was issued and dredging operations resumed on this date. In total, 39 days were added to the contract time due to the suspension of work extending the contract time from August 8, 2010 to September 16, 2010.

Purpose:

Extend the contract time due to usually severe weather and suspension of work for Louisiana's Emergency Berm Project.

Contract Quantity:

The contract time extension will not result in a change in quantity for the line items denoted in the contract.

Contract Time:

The contract completion date was extend from July 24, 2010 to September 16, 2010.

Contract Cost:

The contract time extension will not result in a change in project cost.

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N): Yes	Approved (Y/N): Yes
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. J Thomson	8/20/10	General Manager 23 August 2010	Construction Manager 8/23/10
WMI				

Weeks Marine,Inc.

Adverse Weather Delay Tracking

East Grand Terre Contract No .BA-30

Date: 5/11/10

Month	Dates Down for Adverse Weather 50% or Greater	Anticipated Weather Days	Actual Weather Days	Variance (in Days)	Anticipated Weather Hours	Actual Weather Hours	Variance (in Hours)
December/2009	12/18/,12/23,12/24,12/25	4	4	0	96	96	0
January/2010	1/7,1/16,1/17,1/21,1/23,1/24,1/25,1/29,1/30	5	9	4	120	216	96
February/2010	2/4,2/5,2/9,2/10,2/12,2/21	5	6	1	120	144	24
March/2010	3/1,3/2,3/9,3/10,3/11,3/12,3/20,3/21,3/22,3/25	4	10	6	96	240	144
April/2010	4/23,4/24,4/25,4/29,4/30	4	5	1	96	120	24
May/2010		4	0	0	96	0	0
June/2010		5	0	0	120	0	0
July/2010		7	0	0	168	0	0
August/2010		7	0	0	168	0	0
September/2010		5	0	0	120	0	0
October/2010		3	0	0	72	0	0
November/2010		3	0	0	72	0	0
TOTAL		**56**	**34**	**12**	**1,344**	**816**	**288**

Note:

As per Specification GP-39, the provision specifies the procedure for determining time extension due to unusually severe weather. The listing above defines the monthly anticipated adverse weather for the contract time and will constitute the baseline monthly weather time for evaluations. The number of actual adverse weather days shall be calculated chronologically from the first to last day of each month. Adverse weather days must prevent work for fifty percent (50%) or more of the contractors work day and delay work critical to the timely completion of the project. If the number of actual adverse weather delays exceeds the number of days anticipated above, the Engineer will determine if the Contractor is entitled to time extension.

This chart reflects adverse weather delay days from the Notice to Proceed through April 30th.

COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431 561-391-8102 PHONE 561-391-9116 FAX
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e-mail: mail@coastalplanning.net

7900.24

May 25, 2010

Shane Triche
Construction Project Manager
Office of Coastal Protection & Restoration
Thibodeaux Field Office
1440 Tiger Drive, Suite B
Thibodeaux, Louisiana 70301

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Weather Delay Contract Time Extension

Dear Shane:

Weeks Marine has submitted a request for an extension of the contract time due to weather delays per specification GP-39. The request addresses weather delays that have been incurred by WMI from December 2009 and through April 2010. After reviewing the request, I am in agreement with the requested time extension of 12 days. Although the specification GP-37 states "the Contractor shall notify the Owner in writing within 15 days of the beginning of the event causing the delay, stating the reason therefore," I recommend extending the contract time accordingly because the request is reasonable and in agreement with field observations.

The extension can be processed in two manners. One option would be to process the request in conjunction with another change order at a later date prior to the contract expiration. The second option would be to process the request as an independent change order at this time.

Regardless of the option chosen, I recommend that we inform WMI that we will agree to the time extension of 12 days, but that we will officially process the request at a later date.

We may want to wait as additional weather delays may be incurred as the project progresses.

Please let me know how you would like to proceed and call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Gordon G. Thomson, P.E.
Vice President

cc: Maury Chatellier, OCPR
Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE

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WEEKS MARINE, INC.
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STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

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June 1st, 2010

Gordon G. Thomson, P.E.
Vice President
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd
Boca Raton, FL 33431

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: Second Request for Contract Performance Period Time Extension

Dear Sir:

Pursuant to contract specifications section GP-39 (Time Extension for Unusually Severe Weather); Weeks Marine Inc. is hereby requesting a time extension for the performance period for the above referenced contract. Weeks Marine Inc. has been subjected to unusual weather conditions in the form of ground swells and rough sea conditions that have been more severe than the adverse weather anticipated at the project site during the performance period to date.

These weather events have caused a direct delay to the completion of the project by delaying beachfill and marshfill operations that constitute the critical path for contract completion. These delays have been outside the control of Weeks Marine inc. and could not be anticipated in the development of the project schedule.

The State previously has granted a time extension to Weeks Marine, Inc. for the period on the project through the end of April. Therefore, the time extension that Weeks Marine, Inc. is requesting through this letter pertains to the month of May only.

The total weather (preventing 50% or more of the contractors work day) for May, equals 9 days. Weeks Marine Inc. is requesting a time extension of 5 days for the unusually adverse weather days that has been experienced on the project in May alone. This is a result of four of the weather delay days being anticipated adverse weather that was expected for the performance period.

Please note that this time extension only covers the period from the May 1st through May 31st, and Weeks Marine Inc. reserves the right to revise the request for additional time should more unusually severe adverse weather be encountered throughout the remainder of the project.

This time extension would effectively take the required completion date for the project from its current date of August 5th to August 10th.

Attached to this request is a tracking chart that displays the adverse weather delay days through May 31st that Weeks Marine Inc. has encountered throughout the course of the project. It states how many days for each month are anticipated adverse weather days, actual adverse weather days, variance between anticipated and actual adverse weather days, and the dates for each adverse weather days that has caused a delay of 50% or more to the contractors work day.

If you have any questions or require additional information, please contact me at (985) 705-1477 or email at cpgavrity@weeksmarine.com

Sincerely yours,

Chris Gavrity
Asst. Project Manager
Weeks Marine Inc.

cc: Mike Ernst, WMI
Lee Stelly, WMI
Tom Windes, WMI
Andrew Wycklendt, CPE
David Swigler, CPE

Weeks Marine,Inc.

Adverse Weather Delay Tracking

East Grand Terre Contract No .BA-30

Date: 5/30/10

Month	Dates Down for Adverse Weather 50% or Greater	Anticipated Weather Days	Actual Weather Days	Variance (in Days)	Anticipated Weather Hours	Actual Weather Hours	Variance (in Hours)
December/2009	12/18/,12/23,12/24,12/25	4	4	0	96	96	0
January/2010	1/7,1/16,1/17,1/21,1/23,1/24,1/25,1/29,1/30	5	9	4	120	216	96
February/2010	2/4,2/5,2/9,2/10,2/12,2/21	5	6	1	120	144	24
March/2010	3/1,3/2,3/9,3/10,3/11,3/12,3/20,3/21,3/22,3/25	4	10	6	96	240	144
April/2010	4/23,4/24,4/25,4/29,4/30	4	5	1	96	120	24
May/2010	5/1,5/2,5/3,5/4,5/12,5/13,5/14,5/15,5/16	4	9	5	96	216	120
June/2010		5	0	0	120	0	0
July/2010		7	0	0	168	0	0
August/2010		7	0	0	168	0	0
September/2010		5	0	0	120	0	0
October/2010		3	0	0	72	0	0
November/2010		3	0	0	72	0	0
TOTAL		**56**	**43**	**17**	**1,344**	**1,032**	**408**

Note:

As per Specification GP-39, the provision specifies the procedure for determining time extension due to unusually severe weather. The listing above defines the monthly anticipated adverse weather for the contract time and will constitute the baseline monthly weather time for evaluations. The number of actual adverse weather days shall be calculated chronologically from the first to last day of each month. Adverse weather days must prevent work for fifty percent (50%) or more of the contractors work day and delay work critical to the timely completion of the project. If the number of actual adverse weather delays exceeds the number of days anticipated above, the Engineer will determine if the Contractor is entitled to time extension.

This chart reflects adverse weather delay days from the Notice to Proceed through May 31st.

COASTAL PLANNING & ENGINEERING, INC.

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e-mail: mail@coastalplanning.net

7900.24

August 10, 2010

Shane Triche
Construction Project Manager
Office of Coastal Protection & Restoration
Thibodeaux Field Office
1440 Tiger Drive, Suite B
Thibodeaux, Louisiana 70301

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Contract Time Extension

Dear Shane:

This letter is to recommend that OCPR formalize a contract time extension with Weeks Marine, Inc (WMI) for the above referenced project. It is recommended that Change Order #2 extend the contract completion date from July 24, 2010 to September 16, 2010. The following paragraphs describe the basis for the recommendation of contract time extension.

WMI submitted a request for contract time extension on June 1, 2010 due to weather delays. They requested a 16 day time extension. CPE reviewed their submittal and recommended a 15 day time extension, as outlined in a letter to you dated June 8, 2010. This would extend the contract time from June 24 to August 8, 2010.

On June 25, 2010, WMI was released from the East Grand Terre project to work on the Louisiana Emergency Berm Project. WMI returned to East Grand Terre following completion of that work. A Notice to Proceed was issued to WMI on August 3, 2010 and dredging resumed on that date. It is recommended that 39 days be added to the contract time due to the approved suspension of work. This would extend the contract completion date from August 8 to September 16, 2010.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Gordon G. Thomson, P.E.
Vice President

cc: Maury Chatellier, OCPR
Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE
Ryan Gielow, CPE
Mike Ernst, WMI
Lee Stelly, WMI

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Change Order #3

Change Order

Change Order Number: 003

Contractor: Weeks Marine, Inc.
Purchase Order No.: 3472868 File No.:P27312DL

Date: December 13, 2010

East Grand Terre Island Restoration Project (BA-30)

Description:
Upon completion of construction activities, the quantities of the contract line items were revised to reflect final quantities placed/installed and eligible for payment. The quantities revised included the volume of beach fill, volume of marsh fill, length of sand fencing, and number of settlement plates.

The linear footage of sand fence was increased to allow for the installation of original bid quantity (16,910 feet), as material had were mobilized to the project site. The location of the additional fence was addressed in Field Adjustment Report #11.

Due to weather delays exceeding the anticipated adverse weather days outlined per specification GP-39, a contract time extension was requested by Weeks Marine, Inc. In total, 2 weather delay days for the month of August 2010 was determined to be reasonable. This extends the contract time from September 16 to September 18, 2010.

Purpose:
Revise the contract line item quantities to reflect constructed quantities that received payment.
Extend the contract time due to unusually severe weather conditions.

Contract Quantity:
The beach fill volume was reduced 0.8% from 2,195,605 cubic yards to 2,179,039 cubic yards.
The marsh fill volume was reduced 2.0% from 985,043 cubic yards to 965,211 cubic yards.
The length of sand fencing was increased 6.9% from 15,550 linear feet to 16,623 linear feet.
The number of settlement plates was reduced from 15 plates to 14 plates.

All other line items have been unchanged. The redesign and final quantities are provided in the table below.

Contract Time:
The contract completion date was extended from September 16 to September 18, 2010.

Contract Cost:
There has been no change in unit prices. The total contract cost has decreased $248,107.00 from $30,049,807.75 to $29,801,700.75. The redesign and final costs are provided in the table below.

Item	Unit	Redesign Quantity	Final Quantity	Unit Prices	Redesign Cost	Final Cost
Mob/Demob	LS	1	1	$2,750,000.00	$2,750,000.00	$2,750,000.00
Beach Fill	CY	2,195,605	2,179,039	$9.25	$20,309,346.25	$20,156,110.75
Marsh Fill	CY	985,043	965,211	$5.50	$5,417,736.50	$5,308,660.50
Primary Dikes	LF	15,210	15,210	$65.00	$988,650.00	$988,650.00
Sand Fencing	LF	15,550	16,623	$16.50	$256,575.00	$274,279.50
Settlement Plate	Each	15	14	$3,500.00	$52,500.00	$49,000.00
Pre-Con Survey	LS	1	1	$150,000.00	$150,000.00	$150,000.00
As-built Survey	LS	1	1	$125,000.00	$125,000.00	$125,000.00
Total					$30,049,807.75	$29,801,700.75

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N):
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. J Thomson	12/13/10	Project Manager	Construction Manager
WMI			12/14/10	12/13/10

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

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September 16th, 2010

Gordon G. Thomson, P.E.
Vice President
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd
Boca Raton, FL 33431

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: Third Request for Contract Performance Period Time Extension

Dear Sir:

Pursuant to contract specifications section GP-39 (Time Extension for Unusually Severe Weather); Weeks Marine Inc. is hereby requesting a time extension for the performance period for the above referenced contract. Weeks Marine Inc. has been subjected to unusual weather conditions in the form of ground swells and rough sea conditions that have been more severe than the adverse weather anticipated at the project site during the performance period to date.

These weather events have caused a direct delay to the completion of the project by delaying marshfill operations that constitute the critical path for contract completion. These delays have been outside the control of Weeks Marine inc. and could not be anticipated in the development of the project schedule.

The State previously has granted a time extension to Weeks Marine, Inc. for the period on the project through the end of May. Therefore, the time extension that Weeks Marine, Inc. is requesting through this letter pertains to the month of August only.

The total weather (preventing 50% or more of the contractors work day) for August, equals 9 days. Weeks Marine Inc. is requesting a time extension of 2 days for the unusually adverse weather days that has been experienced on the project in August alone. This is a result of seven of the weather delay days being anticipated adverse weather that was expected for the performance period.

Please note that this time extension only covers the period from the August 1st through August 31st, and Weeks Marine Inc. reserves the right to revise the request for additional time should more unusually severe adverse weather be encountered throughout the remainder of the project.

This time extension would effectively take the required completion date for the project from its current date of October 1st to October 3rd.

Attached to this request is a tracking chart that displays the adverse weather delay days through August 31st that Weeks Marine Inc. has encountered throughout the course of the project. It states how many days for each month are anticipated adverse weather days, actual adverse weather days, variance between anticipated and actual adverse weather days, and the dates for each adverse weather days that has caused a delay of 50% or more to the contractors work day.

If you have any questions or require additional information, please contact me at (985) 705-1477 or email at cpgavrity@weeksmarine.com

Sincerely yours,

Chris Gavrity
Asst. Project Manager
Weeks Marine Inc.

cc: Mike Ernst, WMI
Lee Stelly, WMI
David Swigler, CPE
Ryan Gielow, CPE

Weeks Marine,Inc.

Adverse Weather Delay Tracking

East Grand Terre Contract No .BA-30

Date: 5/30/10

Month	Dates Down for Adverse Weather 50% or Greater	Anticipated Weather Days	Actual Weather Days	Variance (in Days)	Anticipated Weather Hours	Actual Weather Hours	Variance (in Hours)
December/2009	12/18/,12/23,12/24,12/25	4	4	0	96	96	0
January/2010	1/7,1/16,1/17,1/21,1/23,1/24,1/25,1/29,1/30	5	9	4	120	216	96
February/2010	2/4,2/5,2/9,2/10,2/12,2/21	5	6	1	120	144	24
March/2010	3/1,3/2,3/9,3/10,3/11,3/12,3/20,3/21,3/22,3/25	4	10	6	96	240	144
April/2010	4/23,4/24,4/25,4/29,4/30	4	5	1	96	120	24
May/2010	5/1,5/2,5/3,5/4,5/12,5/13,5/14,5/15,5/16	4	9	5	96	216	120
June/2010	6/5	5	1	(4)	120	24	(96)
July/2010		7	0	0	168	0	0
August/2010	8/11,8/12,8/17,8/18,8/27,8/28,8/29,8/30,8/31	7	9	2	168	216	48
September/2010		5	0	0	120	0	0
October/2010		3	0	0	72	0	0
November/2010		3	0	0	72	0	0
TOTAL		**56**	**53**	**15**	**1,344**	**1,272**	**360**

Note:

As per Specification GP-39, the provision specifies the procedure for determining time extension due to unusually severe weather. The listing above defines the monthly anticipated adverse weather for the contract time and will constitute the baseline monthly weather time for evaluations. The number of actual adverse weather days shall be calculated chronologically from the first to last day of each month. Adverse weather days must prevent work for fifty percent (50%) or more of the contractors work day and delay work critical to the timely completion of the project. If the number of actual adverse weather delays exceeds the number of days anticipated above, the Engineer will determine if the Contractor is entitled to time extension.

This chart reflects adverse weather delay days from the Notice to Proceed through August 31st.

COASTAL PLANNING & ENGINEERING, INC.

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7900.24

December 13, 2010

Shane Triche
Construction Project Manager
Office of Coastal Protection & Restoration
Thibodeaux Field Office
1440 Tiger Drive, Suite B
Thibodeaux, Louisiana 70301

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Change Order #3 – Final Change

Dear Shane:

Upon completion of the construction activities, the quantities of the contract line items were revised to reflect the final quantities placed/installed and eligible for payment. The quantities revised included the volume of beach fill, volume of marsh fill, length of sand fencing, and number of settlement plates.

Weeks Marine has requested payment for 2,179,039 cubic yards of beach fill. Of that, 2,161,525 cubic yards was placed during beach construction. The additional 17,514 cubic yards was placed to offset liquidated damages assessed as a result of construction activities extending 54 days beyond the project completion date. This volume was less than the contract volume of 2,195,605 cubic yards by 16,566 cubic yards (~0.8%). Although more volume was placed than the contract quantity, Weeks Marine did not request the total volume as material was placed above the template grade elevation. Payment is recommended for the placement of 2,179,039 cubic yards of beach fill, as requested.

Weeks Marine has requested payment for 965,211 cubic yards of marsh fill. This volume was less than the contract volume of 985,043 cubic yards by 19,832 cubic yards (~2.0%). Although more volume was placed than the contract quantity, Weeks Marine did not request the total volume as material was placed above the template grade elevation. Payment is recommended for the placement of 965,211 cubic yards, as requested.

Weeks Marine has requested payment the placement of 16,623 linear feet of sand fencing. Due to the project redesign outlined in Change Order #1, the quantity of sand fence was reduced; however, additional fencing materials were mobilized to the island based on the original bid quantity of 16,910 linear feet. The location of the additional fence was addressed in Field

Adjustment #11. Upon project completion, the length of fence installed was 1,073 linear feet (~6.9%) greater than the redesign quantity of 15,550 linear feet. The contract quantity was not installed as the subcontractor, Erosion Control Service, exhausted the materials mobilized to the project site and elected not to install the remaining length of fence. Payment is recommended for the placement of 16,623 linear feet of sand fence, as requested.

Weeks Marine has requested payment for 14 settlement plates. This was one plate less than the contract amount of 15 plates. The contracted number of plates was not installed because one plate was damaged during construction. The plate along the constructed dune crest at Station 89+71 Range1+19 was installed, but damaged by a bulldozer. The plate was removed and a new plate installed along the dune crest at Station 104+94 Range 2+08 per Field Adjustment Report #6 to maintain the contract quantity. After being installed, the plate was again damaged during construction. Due to the proximity of adjacent plates and the east terminus of the beach and dune footprint, it was decided that no plate would be installed to replace the damaged plate thus reducing the contract quantity. Payment is recommended for the installation of 14 settlement plates, as requested.

The change in project quantities resulted in a reduction of the total contract cost of $248,107.00 from $30,049,807.75 to $29,801,700.75. The change in the contract quantities and costs are provided in the Table 1 below.

Table 1. Summary of Project Quantity and Cost

Item	Unit	Redesign Quantity	Final Quantity	Unit Prices	Redesign Cost	Final Cost
Mob/Demob	LS	1	1	$2,750,000.00	$2,750,000.00	$2,750,000.00
Beach Fill	CY	2,195,605	2,179,039	$9.25	$20,309,346.25	$20,156,110.75
Marsh Fill	CY	985,043	965,211	$5.50	$5,417,736.50	$5,308,660.50
Primary Dikes	LF	15,210	15,210	$65.00	$988,650.00	$988,650.00
Sand Fencing	LF	15,550	16,623	$16.50	$256,575.00	$274,279.50
Settlement Plate	Each	15	14	$3,500.00	$52,500.00	$49,000.00
Pre-Con Survey	LS	1	1	$150,000.00	$150,000.00	$150,000.00
As-built Survey	LS	1	1	$125,000.00	$125,000.00	$125,000.00
Total					$30,049,807.75	$29,801,700.75

In addition, Weeks Marine has submitted a request for an extension of the contract time due to unusually severe weather delays per specification GP-39. The request extends the contract completion date 2 days from September 16 to September 18, 2010 due to weather delays incurred during the month of August 2010. Approval of this request is recommended based on a review of the supporting data.

The recommended volumes in Table 1 reflect final project quantities for this project. The additional two days of contract time extend the project completion date to September 18, 2010.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

G. J Thomson

Gordon G. Thomson, P.E.
Vice President

cc: Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE
Ryan Gielow, CPE

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Appendix F

Field Adjustment Reports

Field Adjustment Report #1

Field Adjustment Report

Field Adj Number: 001

Contractor: Weeks Marine, Inc.

Date: June 23, 2009

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
TS16. Borrow Area and Submerged Pipeline Buoys.	

Description of Work Affected:

TS-16 required that the perimeter of the borrow area be buoyed. However, the United Stated Coast Guard has indicated that it will not require buoys around the borrow areas. Therefore, we are proposing to revise TS-16 to state the following:

> No lighting is required for the marking of the perimeter dredge area or any overburden disposal areas. The dredge, anchor buoys, and floating dredge lines in the area must be marked in accordance with U.S. Coast Guard Navigation Rules. Any submerged dredge pipeline not covered by at least 20 feet of water must be marked with yellow buoys displaying a yellow 2.5 second flashing light. The lights must have a one mile nominal range and should be set every half mile. The Contractor shall submit a Private Aids to Navigation Application for the required aids to navigation to Mr. Joe Vawters (504) 671-2117. Latitude and longitude coordinates for every mile of the submerged pipeline shall be submitted to the Engineer and USCG so that it can be charted.
>
> The lighted buoys shall be maintained by the Contractor in the proper location, floating, upright and with functioning lights throughout the duration of the project. Electronic positioning shall be employed to set the buoys, and to check the positional integrity of the buoys on a daily basis. The results of these checks shall be reported in the Daily Quality Control Reports. If any of the buoys are not maintained in the proper location, the Contractor shall cease dredging until the buoys are maintained, replaced, or repositioned as shown in the Plans. Failure to maintain buoys will result in a withholding of retainage from payments to the Contractor until the buoys meet permit, Coast Guard, and Contract Document requirements and are satisfactory to the Engineer.

Reason for Adjustment:

To simplify dredge operations by not requiring the perimeter of the borrow area to be buoyed.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N): Yes	Approved (Y/N): Yes
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. J Thomson	6/23/09	Ely Mahan - PM 6/24/09	Shane Triche - CM 10/27/09
WMI				

Field Adjustment Report #2

Field Adjustment Report	Field Adj Number:	002
Contractor: Weeks Marine, Inc	Date:	July 3, 2009

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number: TS-26.7 **Ref (Shop Drwg):**

TS-26.7 Grade Stakes

Description of Work Affected:

TS-26.7 required that any and all grade stakes used in the project area shall be composed of metal conduit pipe to facilitate recovery of the stakes. However, Weeks Marine requested permission to utilize cane poles as grade stakes for dike construction work layout. The use of cane poles in layout of the primary dike is approved. The first sentence in TS26.7 has been changed to state:

> *Any and all grade stakes used in the marsh area shall be composed of* ***cane poles or*** *metal conduit pipe to facilitate recovery of the stakes.*

All other statements in TS-26.7 still apply. The Contractor is required to remove all cane poles (or metal conduit pipe) following completion of the work and prior to acceptance of any marsh section. Given that cane poles cannot be relocated with a magnetometer, the Contractor shall exercise due diligence in maintaining and protecting the cane poles so that all cane poles can be recovered and disposed of appropriately.

Per Weeks Marine's letter, dated June 29, 2009, cane poles shall only be used in the layout of the primary dike.

Reason for Adjustment:

Weeks Marine proposed the use of cane poles as a less environmentally impactful alternative to metal conduit pipe in case of a washout of the primary dike.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: Gordon Thomson, P.E.			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N): Yes	Approved (Y/N): Yes
OCPR			Signature/Title/Date:	Shane J. Triche Shane Triche - CM 10/27/09
CPE		7/3/09		
WMI				

Field Adjustment Report #3

Field Adjustment Report

Field Adj Number: 003

Contractor: Weeks Marine, Inc.

Date: July 22, 2009

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
TS-31 Construction Access	

Description of Work Affected:

A magnetometer survey of the access channels was performed by HydroTerra Technologies as a sub-consultant to Weeks Marine. This magnetometer survey, conducted to satisfy TS-27, showed two magnetic anomalies within the access channel provided in the bid addendum. Weeks Marine has proposed a revision to the access channel alignment that would avoid the magnetic anomalies. This plan is attached.

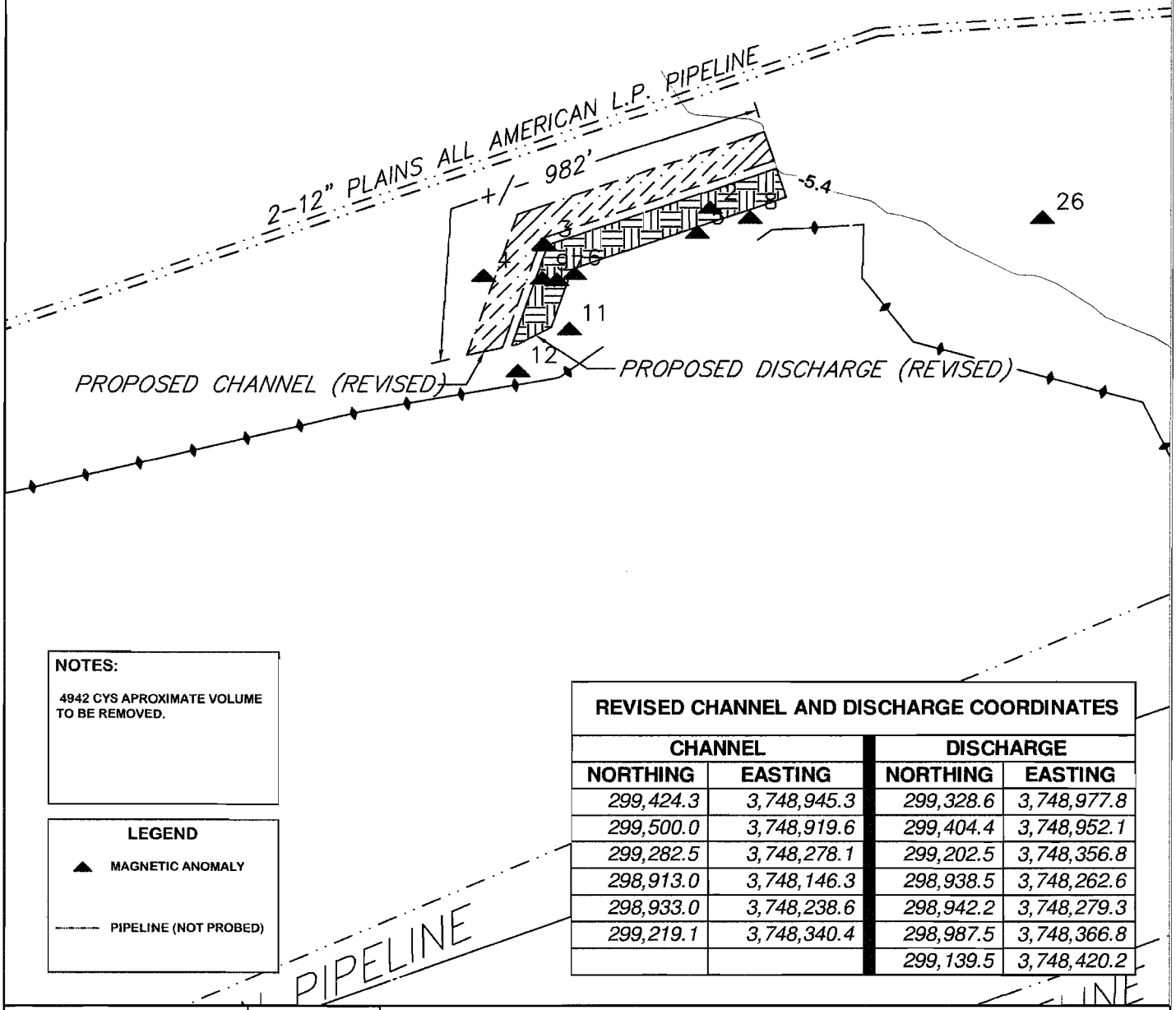
Weeks Marine may dredge within the access channel as proposed and dispose of the spoil material within the proposed discharge area. Weeks Marine accepts all responsibility for dredging within the revised access channel. Weeks Marine shall ensure that all specifications related to dredging of the original access channel are followed when dredging the proposed access channel including, but not limited to, bathymetric and topographic surveying, conducting a magnetometer survey within the proposed channel, and performance of dredging operations.

Reason for Adjustment:

The access channel is being revised to avoid magnetic anomalies.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Yes
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. Thomson	7/22/09	QC Manager 7/22/09	Shane J. Triche Shane Triche - CM 10/27/09
WMI				



NOTES:

4942 CYS APROXIMATE VOLUME TO BE REMOVED.

LEGEND

▲ MAGNETIC ANOMALY

PIPELINE (NOT PROBED)

REVISED CHANNEL AND DISCHARGE COORDINATES

CHANNEL		DISCHARGE	
NORTHING	EASTING	NORTHING	EASTING
299,424.3	3,748,945.3	299,328.6	3,748,977.8
299,500.0	3,748,919.6	299,404.4	3,748,952.1
299,282.5	3,748,278.1	299,202.5	3,748,356.8
298,913.0	3,748,146.3	298,938.5	3,748,262.6
298,933.0	3,748,238.6	298,942.2	3,748,279.3
299,219.1	3,748,340.4	298,987.5	3,748,366.8
		299,139.5	3,748,420.2

REVISED BY:	DATE:

PLAN SCALE
SCALE: 1"=400'

400' 0' 200' 400'

EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30)

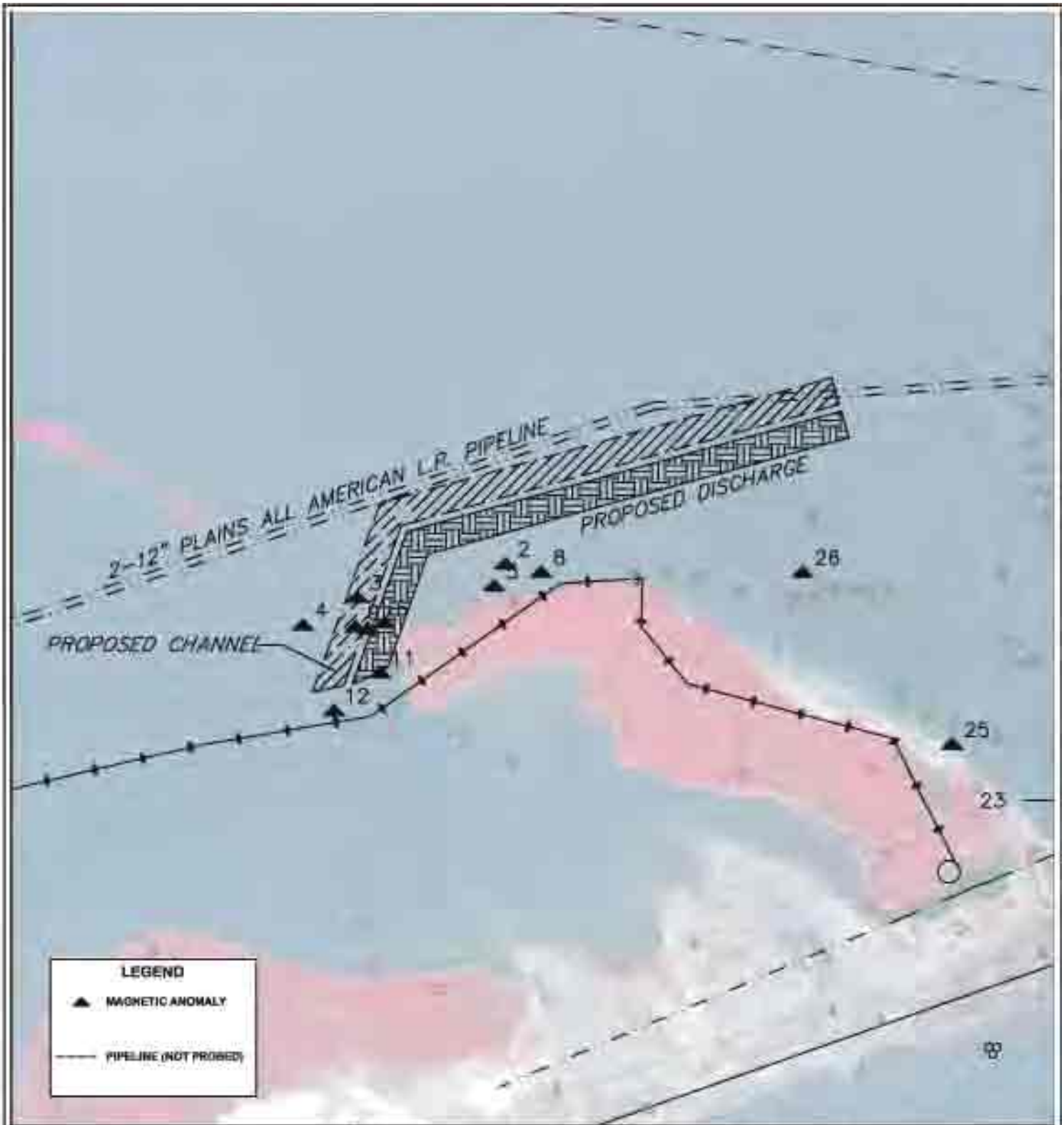
DETAIL MAP

REVISED PROPOSED ACCESS (OPTION 3)

MAGNETOMETER AND BATHYMETRIC SURVEY

PLAQUEMINES PARISH, LA.

DATE: 07/21/09	JOB# 2091019	FILE: PROPOSED ACCESS (OPTION 3).DWG	SHEET: 1 OF 1



REVISED BY:	DATE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30)

DETAIL MAP

PROPOSED ACCESS (OPTION 3)

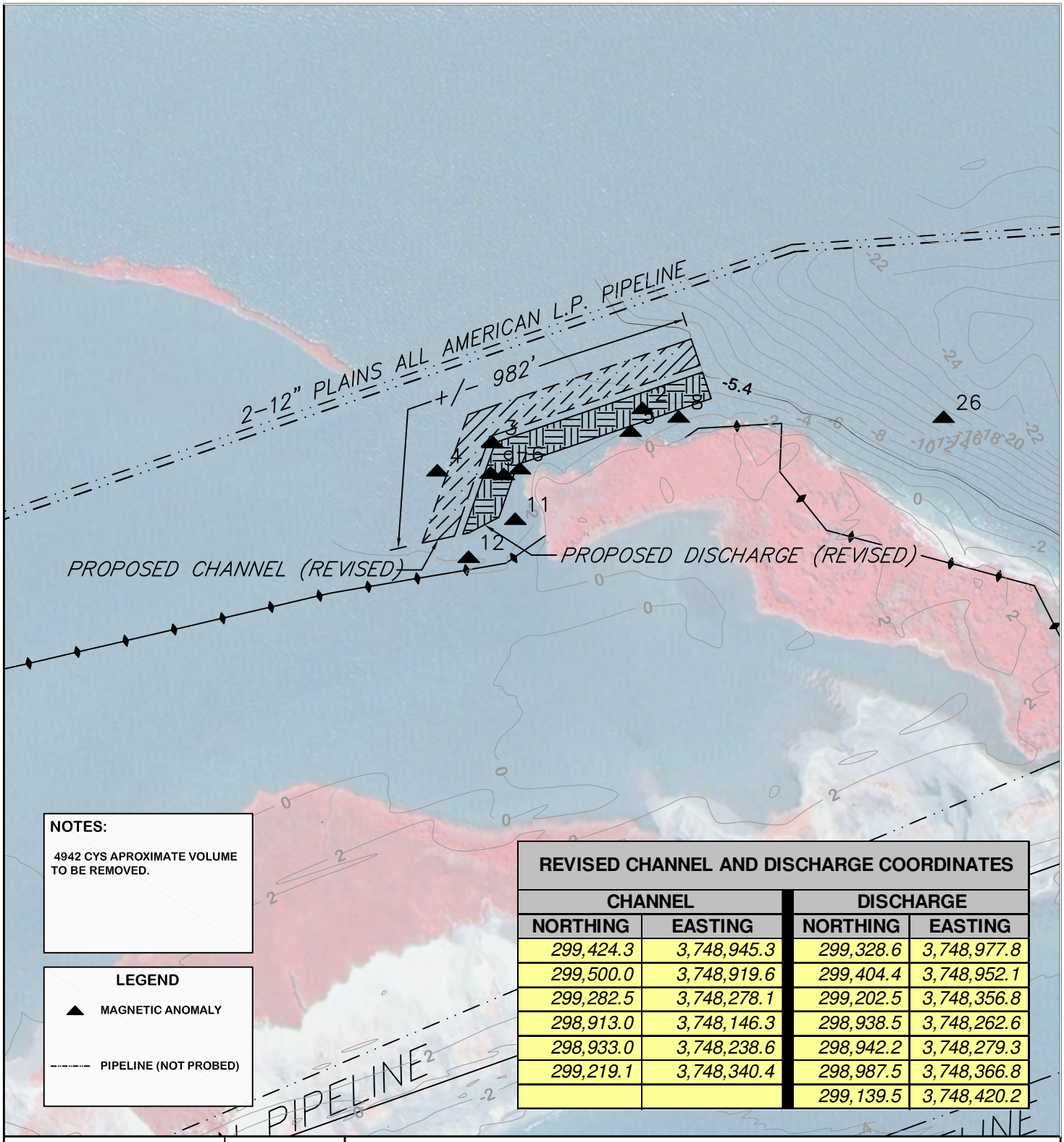
MAGNETOMETER AND BATHYMETRIC SURVEY

PLAQUEMINES PARISH, LA.

PLAN SCALE
SCALE: 1"=400'

400' 0 200' 400'

DATE: 07/20/09	JOB# 2091019	FILE: PROPOSED ACCESS (OPTION 3).DWG	SHEET: 1 OF 1



NOTES:

4942 CYS APROXIMATE VOLUME TO BE REMOVED.

LEGEND

▲ MAGNETIC ANOMALY

PIPELINE (NOT PROBED)

REVISED CHANNEL AND DISCHARGE COORDINATES

CHANNEL		DISCHARGE	
NORTHING	EASTING	NORTHING	EASTING
299,424.3	3,748,945.3	299,328.6	3,748,977.8
299,500.0	3,748,919.6	299,404.4	3,748,952.1
299,282.5	3,748,278.1	299,202.5	3,748,356.8
298,913.0	3,748,146.3	298,938.5	3,748,262.6
298,933.0	3,748,238.6	298,942.2	3,748,279.3
299,219.1	3,748,340.4	298,987.5	3,748,366.8
		299,139.5	3,748,420.2

REVISED BY:	DATE:

PLAN SCALE
SCALE: 1"=400'

400' 0' 200' 400'

EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30)

DETAIL MAP

REVISED PROPOSED ACCESS (OPTION 3)

MAGNETOMETER AND BATHYMETRIC SURVEY

PLAQUEMINES PARISH, LA.

DATE: 07/21/09	JOB# 2091019	FILE: PROPOSED ACCESS (OPTION 3).DWG	SHEET: 1 OF 1

Field Adjustment Report #4

Field Adjustment Report

Field Adj Number: 004

Contractor: Weeks Marine, Inc.

Date: August 20, 2009

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number: **Ref (Shop Drwg):**

Plan Sheet 9 of 44

Description of Work Affected:

Weeks Marine, Inc. has identified a section of the Primary Dike that is located in an area where water depths are approximately 6 to 8 feet deep. WMI has stated that the water depth will hamper their ability to build a primary dike that is substantial enough to hold marsh fill during hydraulic placement. WMI has identified an area of marsh that is more suitable for primary dike construction. The proposed re-alignment follows the existing marsh located in the area and has suitable existing elevations that are conducive to primary dike construction. WMI is requesting that the primary dike be re-aligned to the below listed locations:

West Dike to tie into existing primary dike: E 3748832.96, N 299167.33
PI #1: E 3748945.38, N 299167.33
PI #2: E 3749006.82, N 299180.77
PI #3: E 3749071.41, N 299192.15
PI #4: E 3749141.23, N 299173.69
East Dike to tie into existing primary dike: E 3749175.66, N 299136.34

Attached is a drawing that outlines the design dike layout and the proposed re-alignment of the primary dike.

Reason for Adjustment:

To facilitate easier construction of the primary dike by avoiding an area of deep water.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N): Yes	Approved (Y/N): Yes
OCPR			Signature/Title/Date: Ely Mahan - PM	Signature/Title/Date: Shane Triche - CM 10/27/09
CPE	G. J. Thomson	8/20/09		
WMI				

PROPOSED DIKE ALIGNMENT
DESIGN DIKE ALIGNMENT
PCE
PTB
157+22
153+94
153+69
152+44
151+19
149+94
148+69
147+44
146+19
144+94
143+69
142+44
141+19
139+94
138+69
137+44
136+19
134+94
133+69
132+44
131+19

Field Adjustment Report #5

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

0001

February 24, 2010

Gordon G. Thomson, P.E.
Vice President
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd
Boca Raton, FL 33431

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: Re-survey beach fill / slope change.

Dear Gordon:

Weeks Marine, Inc. has identified that the beach fill has eroded since the Pre-construction survey, done in July, 2009. Hydroterra and T.B. Smith ran conditional surveys on 1/12/10 and 1/26/10. These conditional surveys show that this area will need approximately 110,000 additional cyds to fill the designed template. Weeks Marine will direct Hydroterra to retake surveys in accordance with section 25.1 of the contract specifications. These surveys will be taken from Sta. 8+00 to Sta. 61+22. Stations that WMI have already pumped on will be skipped and they will resume from Sta. 94+90 to Sta. 157+22. WMI will submit this data to CP&E for review and request a slope change to offset the additional yardage.

Sincerely,

Lee Stelly
Project Manager
Weeks Marine Inc.

cc: Mike Ernst, WMI
Tom Windes, WMI
Andrew Wycklendt, CPE
David Swigler, CPE

Field Adjustment Report #6

Field Adjustment Report

Field Adj Number: 006

Contractor: Weeks Marine, Inc.

Date: March 12, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
Plan Sheets 8 and 43 of 44 TS-24	

Description of Work Affected:

Weeks Marine, Inc. damaged the settlement plate installed at Station 89+71 Range 1+19. TS-24.4 states the following: "Any damaged settlement plate shall be replaced by the Contractor at no expense to the Owner." However, since fill has already been placed at Station 89+71 Range 1+19, the installation location of this settlement plate has been changed to Station 104+94 Range 2+08.

Reason for Adjustment:

Weeks Marine, Inc. damaged the settlement plate installed at Station 89+71 Range 1+19.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: *Gordon Thomson, P.E.*			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Yes
OCPR			Signature/Title/Date: Joe Stelly Proj. Manager 3/12/10	Signature/Title/Date: Shane J. Trichel Construction Manager 3/15/10
CPE	G. J. Thomson	3/12/10		
WMI				

Field Adjustment Report #7

Field Adjustment Report

Field Adj Number: 007 (Revised)

Contractor: Weeks Marine, Inc.

Date: June 14, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
TS-12	

Description of Work Affected:

Weeks Marine Inc. has requested a slope adjustment and an updated pre-construction survey. Weeks Marine has requested that the offshore slope be changed from a 1V:90H to a 1V:75H between Station 8+00 and Station 57+48 and between Station 121+19 and Station 154+94. Weeks Marine has also requested that their pre-construction survey be updated due to variations observed between the pre-construction survey submitted on August 31, 2009 and the survey data submitted on March 31, 2010. It was decided that the revised pre-construction survey can be used in areas that have not been filled or altered by access channel dredging, specifically between Station 13+76 and Station 53+75 and between Station 96+16 and Station 154+94. However, the updated pre-construction survey did not extend across the marsh on the marsh profile lines. Therefore, the pre-construction survey data submitted on August 31, 2010 along marsh profile lines was appended to the pre-construction survey data submitted on March 31, 2010. Offset tables for the revised beach and marsh template are attached. Also, a table showing the range and elevation where the August 31, 2010 pre-construction survey data was appended to the March 31, 2010 pre-construction survey data is also attached.

Reason for Adjustment:

To reduce offshore losses and have the design profiles better represent as-built profiles.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: *Gordon Thomson, P.E.*			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Y
OCPR			Signature/Title/Date: Joe Stutes Project Manager 6/22/10	Signature/Title/Date: Shawn J. Talbot Construction Mgr 6/22/10
CPE	G. Thomson	6/22/10		
WMI				

EAST GRAND TERRE ISLAND RESTORATION PROJECT
BEACH TEMPLATE RANGES AND ELEVATIONS
Revised June 14, 2010

	Landward Toe of Fill		Landward Dune Crest		Seaward Dune Crest		Break in Slope		Seaward Toe of Fill	
Station	**Range**	**Elevation**	**Range**	**Elevation**	**Range**	**Elevation**	**Range**	**Elevation**	**Range**	**Elevation**
8+00	-	-	-	-	-	-	-	-	-	-
10+00	-638.5	-0.2	-452.5	6.0	-401.2	6.0	-251.2	1.0	-118.8	-0.8
11+25	-597.0	0.7	-437.8	6.0	-385.3	6.0	-235.3	1.0	-84.8	-1.0
12+50	-560.5	1.4	-423.2	6.0	-369.4	6.0	-219.4	1.0	-39.8	-1.4
13+76	-528.3	2.0	-408.6	6.0	-353.5	6.0	-203.5	1.0	-16.0	-1.5
15+01	-507.4	2.2	-394.0	6.0	-337.6	6.0	-187.6	1.0	-54.7	-0.8
16+26	-489.0	2.4	-379.7	6.0	-322.0	6.0	-172.0	1.0	-20.1	-1.0
17+51	-466.9	2.6	-365.4	6.0	-306.5	6.0	-156.5	1.0	2.1	-1.1
18+76	-461.5	2.3	-351.1	6.0	-290.9	6.0	-140.9	1.0	49.6	-1.5
20+01	-460.2	1.9	-336.9	6.0	-275.4	6.0	-125.4	1.0	82.2	-1.8
21+26	-448.1	1.8	-322.6	6.0	-259.8	6.0	-109.8	1.0	85.2	-1.6
22+51	-411.1	2.6	-308.3	6.0	-244.3	6.0	-94.3	1.0	93.2	-1.5
23+76	-384.0	3.0	-294.0	6.0	-228.7	6.0	-78.7	1.0	161.3	-2.2
25+01	-375.8	2.8	-279.8	6.0	-213.2	6.0	-63.2	1.0	206.8	-2.6
26+26	-363.2	2.7	-265.5	6.0	-197.6	6.0	-47.6	1.0	259.9	-3.1
27+51	-344.2	2.9	-251.2	6.0	-182.1	6.0	-32.1	1.0	306.6	-3.5
28+76	-320.9	3.2	-236.9	6.0	-166.5	6.0	-16.5	1.0	321.0	-3.5
30+01	-303.2	3.3	-222.6	6.0	-151.0	6.0	-1.0	1.0	350.5	-3.7
31+27	-292.4	3.2	-208.2	6.0	-135.2	6.0	14.8	1.0	389.8	-4.0
32+52	-288.6	2.8	-193.7	6.0	-119.5	6.0	30.5	1.0	401.1	-3.9
33+77	-278.1	2.7	-179.2	6.0	-103.7	6.0	46.3	1.0	428.8	-4.1
35+02	-263.6	2.7	-164.7	6.0	-87.9	6.0	62.1	1.0	459.6	-4.3
36+27	-252.1	2.6	-150.4	6.0	-72.4	6.0	77.6	1.0	475.1	-4.3
37+52	-241.0	2.5	-136.2	6.0	-56.8	6.0	93.2	1.0	485.4	-4.2
38+77	-230.8	2.4	-121.9	6.0	-41.3	6.0	108.7	1.0	521.2	-4.5
40+02	-220.5	2.2	-107.6	6.0	-25.7	6.0	124.3	1.0	551.8	-4.7
41+27	-213.1	2.0	-93.2	6.0	-10.1	6.0	139.9	1.0	574.3	-4.8
42+52	-211.6	1.6	-78.9	6.0	5.6	6.0	155.6	1.0	583.1	-4.7
43+78	-207.7	1.2	-64.5	6.0	21.2	6.0	171.2	1.0	583.7	-4.5
45+03	-198.6	1.1	-50.1	6.0	36.9	6.0	186.9	1.0	614.4	-4.7
46+28	-186.4	1.0	-35.7	6.0	52.5	6.0	202.5	1.0	622.5	-4.6
47+53	-183.3	0.6	-21.3	6.0	68.2	6.0	218.2	1.0	645.7	-4.7
48+78	-165.7	0.7	-6.9	6.0	83.9	6.0	233.9	1.0	653.9	-4.6
50+03	-156.9	0.5	7.5	6.0	99.6	6.0	249.6	1.0	707.1	-5.1
51+27	-145.5	0.5	18.7	6.0	112.0	6.0	262.0	1.0	727.0	-5.2
52+51	-130.7	0.6	29.9	6.0	124.5	6.0	274.5	1.0	724.5	-5.0
53+75	-114.9	0.8	41.1	6.0	137.0	6.0	287.0	1.0	744.5	-5.1
54+99	-98.9	1.0	52.3	6.0	149.4	6.0	299.4	1.0	651.9	-3.7
56+24	-105.1	0.8	51.5	6.0	150.0	6.0	300.0	1.0	667.5	-3.9
57+48	-115.9	0.4	50.8	6.0	150.6	6.0	300.6	1.0	705.6	-4.4
58+73	-122.4	0.3	50.1	6.0	151.2	6.0	301.2	1.0	832.2	-4.9
59+98	-132.9	-0.1	49.3	6.0	151.7	6.0	301.7	1.0	877.7	-5.4
61+22	-159.1	-0.9	48.6	6.0	152.3	6.0	302.3	1.0	869.3	-5.3
62+47	-171.9	-1.3	47.9	6.0	152.9	6.0	302.9	1.0	815.9	-4.7
63+72	-167.3	-1.1	47.1	6.0	153.5	6.0	303.5	1.0	832.3	-4.9
64+96	-177.1	-1.4	46.4	6.0	154.1	6.0	304.1	1.0	871.1	-5.3
66+25	-189.4	-1.8	45.7	6.0	154.7	6.0	304.7	1.0	907.7	-5.7
67+53	-181.3	-1.5	44.9	6.0	155.3	6.0	305.3	1.0	923.9	-5.9
68+81	-187.6	-1.7	44.2	6.0	155.9	6.0	305.9	1.0	944.6	-6.1
70+10	-184.0	-1.6	43.4	6.0	156.5	6.0	306.5	1.0	954.5	-6.2

(continued)

(continued)

71+38	-181.3	-1.5	42.6	6.0	157.1	6.0	307.1	1.0	964.1	-6.3
72+67	-167.1	-1.0	41.9	6.0	157.7	6.0	307.7	1.0	964.7	-6.3
73+99	-144.6	-0.2	40.0	6.0	154.4	6.0	304.4	1.0	988.4	-6.6
75+24	-130.3	0.3	39.3	6.0	155.0	6.0	305.0	1.0	980.4	-6.5
76+52	-156.9	0.2	16.2	6.0	135.7	6.0	285.7	1.0	969.7	-6.6
77+51	-191.0	-0.3	-1.3	6.0	112.8	6.0	262.8	1.0	883.8	-5.9
78+76	-218.7	-0.6	-22.1	6.0	95.3	6.0	245.3	1.0	875.3	-6.0
80+01	-207.8	0.5	-42.9	6.0	77.8	6.0	227.8	1.0	812.8	-5.5
81+31	-255.9	-1.7	-24.9	6.0	99.0	6.0	249.0	1.0	978.0	-7.1
82+61	-196.8	-0.3	-6.9	6.0	120.2	6.0	270.2	1.0	900.2	-6.0
83+26	-187.6	-0.3	2.0	6.0	131.5	6.0	281.5	1.0	965.5	-6.6
84+51	-158.6	0.1	19.3	6.0	152.1	6.0	302.1	1.0	968.1	-6.4
85+76	-150.6	-0.2	36.6	6.0	172.6	6.0	322.6	1.0	984.9	-6.4
87+11	-151.6	-1.1	60.0	6.0	213.1	6.0	363.1	1.0	1051.4	-6.6
88+41	-157.9	-1.9	79.5	6.0	236.5	6.0	386.5	1.0	1066.5	-6.6
89+71	-153.7	-2.4	99.0	6.0	259.8	6.0	409.8	1.0	1071.4	-6.4
91+01	-162.9	-2.3	86.4	6.0	245.3	6.0	395.3	1.0	1088.3	-6.7
92+31	-171.3	-2.2	73.9	6.0	230.7	6.0	380.7	1.0	1066.0	-6.6
93+60	-205.7	-2.9	61.3	6.0	216.2	6.0	366.2	1.0	1065.2	-6.8
94+90	-202.5	-2.4	48.8	6.0	201.6	6.0	351.6	1.0	1037.9	-6.6
96+16	-148.7	-0.8	56.8	6.0	207.7	6.0	357.7	1.0	924.7	-5.3
97+42	-139.0	-0.8	64.8	6.0	213.7	6.0	363.7	1.0	939.7	-5.4
98+68	-106.5	0.0	72.8	6.0	219.7	6.0	369.7	1.0	945.7	-5.4
99+94	-106.7	-0.3	80.9	6.0	225.7	6.0	375.7	1.0	942.7	-5.3
101+19	-83.3	-0.2	102.7	6.0	245.6	6.0	395.6	1.0	963.2	-5.3
102+44	-49.4	0.2	124.5	6.0	265.4	6.0	415.4	1.0	1000.4	-5.5
103+69	-47.0	-0.4	146.4	6.0	285.3	6.0	435.3	1.0	1038.3	-5.7
104+94	-28.3	-0.5	168.2	6.0	305.1	6.0	455.1	1.0	1058.1	-5.7
106+19	-13.6	0.0	167.7	6.0	304.7	6.0	454.7	1.0	1066.7	-5.8
107+44	-26.6	-0.5	167.2	6.0	304.3	6.0	454.3	1.0	1066.3	-5.8
108+69	-18.7	-0.2	166.7	6.0	303.9	6.0	453.9	1.0	1065.9	-5.8
109+94	-34.2	-0.7	166.1	6.0	303.5	6.0	453.5	1.0	1056.5	-5.7
111+19	-34.3	-0.7	165.9	6.0	303.4	6.0	453.4	1.0	1056.4	-5.7
112+44	-26.0	-0.4	165.7	6.0	303.3	6.0	453.3	1.0	1056.3	-5.7
113+69	-25.0	-0.4	165.5	6.0	303.3	6.0	453.3	1.0	1047.3	-5.6
114+94	-26.9	-0.4	165.3	6.0	303.2	6.0	453.2	1.0	1047.2	-5.6
116+19	-29.3	-0.5	164.9	6.0	302.8	6.0	452.8	1.0	1046.8	-5.6
117+44	-35.3	-0.7	164.4	6.0	302.5	6.0	452.5	1.0	1037.5	-5.5
118+69	-36.5	-0.7	164.0	6.0	302.2	6.0	452.2	1.0	1037.2	-5.5
119+94	-31.8	-0.5	163.6	6.0	301.9	6.0	451.9	1.0	1027.9	-5.4
121+19	-35.8	-0.6	163.3	6.0	301.7	6.0	451.7	1.0	936.0	-5.5
122+44	-41.0	-0.8	163.0	6.0	301.5	6.0	451.5	1.0	931.5	-5.4
123+69	-40.8	-0.8	162.6	6.0	301.3	6.0	451.3	1.0	946.3	-5.6
124+94	-35.7	-0.6	162.3	6.0	301.2	6.0	451.2	1.0	923.7	-5.3
126+19	-36.0	-0.6	162.0	6.0	300.9	6.0	450.9	1.0	923.4	-5.3
127+44	-31.1	-0.4	161.7	6.0	300.7	6.0	450.7	1.0	915.7	-5.2
128+69	-33.6	-0.5	161.3	6.0	300.5	6.0	450.5	1.0	915.5	-5.2
129+94	-36.9	-0.6	161.0	6.0	300.3	6.0	450.3	1.0	915.3	-5.2
131+19	-39.3	-0.7	160.7	6.0	300.1	6.0	450.1	1.0	922.6	-5.3
132+44	-42.0	-0.7	160.4	6.0	299.9	6.0	449.9	1.0	952.4	-5.7
133+69	-37.8	-0.6	160.1	6.0	299.8	6.0	449.8	1.0	943.7	-5.6
134+94	-36.1	-0.5	159.8	6.0	299.6	6.0	449.6	1.0	949.3	-5.7
136+19	-35.1	-0.5	159.5	6.0	299.4	6.0	449.4	1.0	944.4	-5.6
137+44	-28.0	-0.2	159.2	6.0	299.2	6.0	449.2	1.0	943.6	-5.6
138+69	-27.5	-0.2	158.9	6.0	299.1	6.0	449.1	1.0	936.6	-5.5
139+94	-25.9	-0.2	158.7	6.0	298.9	6.0	448.9	1.0	930.9	-5.4

(continued)

(continued)

141+19	-23.3	-0.1	158.2	6.0	298.6	6.0	448.6	1.0	928.6	-5.4
142+44	-23.5	0.0	157.8	6.0	298.3	6.0	448.3	1.0	933.1	-5.5
143+69	-19.2	0.1	157.3	6.0	297.9	6.0	447.9	1.0	912.9	-5.2
144+94	-28.1	-0.2	156.9	6.0	297.6	6.0	447.6	1.0	894.9	-5.0
146+19	-19.9	0.1	156.6	6.0	297.5	6.0	447.5	1.0	842.9	-4.3
147+44	-14.3	0.3	156.3	6.0	297.3	6.0	447.3	1.0	812.9	-3.9
148+69	-15.8	0.3	156.0	6.0	297.1	6.0	447.1	1.0	807.1	-3.8
149+94	-16.3	0.3	155.7	6.0	296.9	6.0	446.9	1.0	836.9	-4.2
151+19	-52.3	0.4	114.8	6.0	228.8	6.0	378.8	1.0	768.8	-4.2
152+44	-91.0	0.5	73.9	6.0	160.7	6.0	310.7	1.0	699.5	-4.2
153+69	-132.5	0.5	32.9	6.0	92.6	6.0	242.6	1.0	625.1	-4.1
154+94	-163.0	0.8	-8.0	6.0	24.5	6.0	174.5	1.0	531.0	-3.8
157+22	-	-	-	-	-	-	-	-	-	-

EAST GRAND TERRE ISLAND RESTORATION PROJECT
MARSH TEMPLATE RANGES AND ELEVATIONS
Revised April 10, 2010

Station	Northern Limit of Marsh Fill		Southern Limit of Marsh Fill	
	Range	Elevation	Range	Elevation
8+00	-	-	-	-
10+00	-568.7	2.3	-563.5	2.3
12+50	-905.9	2.3	-534.2	2.3
15+01	-1242.9	2.3	-505.0	2.3
17+51	-1581.0	2.3	-545.9	2.3
20+01	-1734.9	2.3	-448.2	2.3
22+51	-1700.9	2.3	-466.8	2.3
25+01	-1666.9	2.3	-468.6	2.3
27+51	-1637.9	2.3	-434.1	2.3
30+01	-1608.8	2.3	-442.3	2.3
32+52	-1579.9	2.3	-331.8	2.3
35+02	-1550.9	2.3	-465.6	2.3
37+52	-1521.4	2.3	-474.1	2.3
40+02	-1491.9	2.3	-218.6	2.3
42+52	-1462.9	2.3	-190.5	2.3
45+03	-1433.8	2.3	-162.2	2.3
47+53	-1404.3	2.3	-132.3	2.3
50+03	-1374.7	2.3	-103.5	2.3
52+51	-1352.4	2.3	-81.1	2.3
54+99	-1330.1	2.3	-59.6	2.3
57+48	-1330.5	2.3	-60.2	2.3
59+98	-1331.4	2.3	-61.7	2.3
62+47	-1332.4	2.3	-63.5	2.3
64+96	-1333.7	2.3	-65.3	2.3
67+53	-1479.9	2.3	-66.7	2.3
70+10	-1626.5	2.3	-67.6	2.3
75+24	-1616.1	2.3	-71.7	2.3
80+01	-1576.4	2.3	-153.9	2.3
84+51	-1513.7	2.3	-92.3	2.3
89+71	-1565.5	2.3	-12.3	2.3
92+31	-1531.3	2.3	-37.1	2.3
94+90	-1497.2	2.3	-62.2	2.3
97+42	-1423.1	2.3	-46.2	2.3
99+94	-1348.7	2.3	-30.1	2.3
102+44	-1351.5	2.3	13.5	2.3
104+94	-1354.0	2.3	56.3	2.3
107+44	-1357.5	2.3	56.2	2.3
109+94	-1361.0	2.3	55.1	2.3

(continued)

		(continued)		
112+44	-1363.9	2.3	54.7	2.3
114+94	-1367.0	2.3	54.2	2.3
117+44	-1370.4	2.3	53.4	2.3
119+94	-1374.0	2.3	52.4	2.3
122+44	-1383.9	2.3	52.0	2.3
124+94	-1393.7	2.3	51.3	2.3
127+44	-1403.3	2.3	50.2	2.3
129+94	-1412.9	2.3	50.0	2.3
132+44	-1422.9	2.3	48.6	2.3
134+94	-1432.9	2.3	48.3	2.3
137+44	-1389.4	2.3	47.5	2.3
139+94	-1346.0	2.3	47.7	2.3
142+44	-1415.6	2.3	46.0	2.3
144+94	-1485.2	2.3	45.9	2.3
147+44	-1437.7	2.3	45.3	2.3
149+94	-1058.6	2.3	44.1	2.3
152+44	-886.2	2.3	-37.1	2.3
154+94	-	-	-	-

EAST GRAND TERRE ISLAND RESTORATION PROJECT
MARSH SURVEY APPENDAGE LOCATIONS
Revised April 10, 2010

Station	Appendage Location	
	Range	Elevation
8+00	-	-
10+00	-	-
12+50	-	-
15+01	-669.0	0.5
17+51	-647.2	1.8
20+01	-478.3	2.9
22+51	-725.1	1.3
25+01	-370.3	2.8
27+51	-396.6	3.0
30+01	-438.9	3.1
32+52	-613.7	1.4
35+02	-431.3	3.4
37+52	-405.4	3.4
40+02	-273.5	3.3
42+52	-441.7	2.6
45+03	-235.8	2.2
47+53	-270.3	2.9
50+03	-233.3	2.0
52+51	-257.3	3.1
54+99	-	-
57+48	-	-
59+98	-	-
62+47	-	-
64+96	-	-
67+53	-	-
70+10	-	-
75+24	-	-
80+01	-	-
84+51	-	-
89+71	-	-
92+31	-	-
94+90	-	-
97+42	-274.3	0.8
99+94	-252.2	1.2
102+44	-271.7	1.9
104+94	-162.2	0.8
107+44	-208.0	1.7
109+94	-166.7	1.2

(continued)

	(continued)	
112+44	-175.5	1.6
114+94	-248.2	2.2
117+44	-115.5	0.4
119+94	-199.4	1.3
122+44	-218.6	1.5
124+94	-217.9	2.4
127+44	-189.2	3.1
129+94	-221.7	3.2
132+44	-253.2	3.0
134+94	-239.0	2.6
137+44	-243.0	3.2
139+94	-246.2	3.4
142+44	-245.4	3.4
144+94	-230.5	3.2
147+44	-178.9	3.1
149+94	-167.2	3.0
152+44	-245.6	3.3
154+94	-360.1	3.1

Field Adjustment Report #8

Field Adjustment Report	Field Adj Number: 008
Contractor: Weeks Marine, Inc.	Date: May 19, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	Ref (Shop Drwg):
Plan Sheets 8 and 43 of 44 and TS-24	

Description of Work Affected:

Weeks Marine, Inc. has placed beach fill material at Station 45+03 Range -0+29 prior to installation of the settlement plate. TS-24.4 states the following: "The settlement plates shall be installed…at the locations shown in the plans, prior to the placement of marsh or beach fill." As a result, the installation location of this settlement plate has been changed to Station 42+52 Range -0+56.

Reason for Adjustment:

Weeks Marine, Inc. placed beach fill material at Station 45+03 Range -0+29 prior to installation of settlement plate.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Yes
OCPR			Signature/Title/Date: Christopher P. Gaudin Assistant Proj. Manager 5/28/10	Signature/Title/Date: Shane J. Trichon Construction Manager 5/27/10
CPE	G. Thomson	5/22/10		
WMI				

Field Adjustment Report #9

Field Adjustment Report

Field Adj Number: 009

Contractor: Weeks Marine, Inc.

Date: May 29, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
Plan Sheets 8 and 43 of 44 and TS-24	

Description of Work Affected:

Weeks Marine, Inc. has placed beach fill material at Station 25+01 Range -2+59 prior to installation of the settlement plate. TS-24.4 states the following: "The settlement plates shall be installed…at the locations shown in the plans, prior to the placement of marsh or beach fill." As a result, the installation location of this settlement plate has been changed to Station 21+26 Range -3+04.

Reason for Adjustment:

Weeks Marine, Inc. placed beach fill material at Station 25+01 Range -2+59 prior to installation of settlement plate.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: *Gordon Thomson, P.E.*			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Y
OCPR			Signature/Title/Date: Jim Sadler Proj. manager 6/14/10	Signature/Title/Date: Shaun S. Fisher CONST. MANAGER 6/14/10
CPE	G. J Thomson	6/14/10		
WMI				

Field Adjustment Report #10

Field Adjustment Report

Field Adj Number: 010

Contractor: Weeks Marine, Inc.

Date: June 7, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number:	**Ref (Shop Drwg):**
ADDENDUM No.1 - Additional Items #10 TS-3.5 TS-11.6	

Description of Work Affected:

Due to the impacts from the Deepwater Horizon Oil Spill on the project area, grading/dressing requirements and template tolerances have been adjusted in an attempt to avoid entraining oil during beach construction.

WMI shall avoid degrading the temporary containment dikes until such time as there is no oil within the area to be covered. WMI shall grade and dress the beach to match the template as closely as possible per TS-11.6 without entraining oil within the beach fill. WMI may survey the beach for pay prior to degrading the containment dikes.

We will apply compensating slope for material placed above the construction template between Sta 54+99 and Sta 8+00 and between Sta 128+69 and Sta 154+94 so that fill included in the temporary containment dikes is eligible for payment. Given that we will allow the inclusion of material placed above the template 0.5 feet vertical fill tolerance in the pay volume, we will continue to require that at least 95% of the beach fill volume be placed, as required by TS-3.5.

Reason for Adjustment:

Avoid entraining oil during beach construction between Station 54+99 and Station 8+00 and between Station 128+69 and Station 154+94.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N): Y circled
OCPR			Signature/Title/Date: [signature] Proj. manager 6/14/10	Signature/Title/Date: [signature] CONST. MANAGER 6/14/10
CPE	G. Thomson	6/14/10		
WMI				

Field Adjustment Report #11

Field Adjustment Report

Field Adj Number: 011

Contractor: Weeks Marine, Inc.

Date: June 29, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number: Plan Sheets 8 and 43 of 44

Ref (Shop Drwg):

Description of Work Affected:

The length of sand fence was adjusted from the redesigned quantity of 15,550 L.F. to the bid quantity of 16,910 L.F. The additional length of fence (three 450 ft sections) shall be installed as a second row approximately 16 feet landward of the existing sand fence between Station 91+01 and Station 103+69. The layout of the second row of sand fence is provided in the table below.

SAND FENCE LAYOUT POINTS

EASTING	NORTHING
3744259.0	295943.8
3744701.5	296025.6
3744670.9	296026.1
3745113.4	296107.9
3745085.0	296096.6
3745527.5	296178.4

Notes:

1. COORDINATES ARE IN STATE PLANE, NAD '83, LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.

Reason for Adjustment:

Bid quantity of sand fence mobilized to the project area.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N):
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. J Thomson	12/13/10	Project Manager 12/14/10	Construction Manager 12/13/2010
WMI				

Field Adjustment Report #12

Field Adjustment Report

Field Adj Number: 012

Contractor: Weeks Marine, Inc.

Date: December 9, 2010

East Grand Terre Island Restoration Project (BA-30)

Spec Paragraph and/or Drawing Number: Plan Sheets 7 and 8 of 44

Ref (Shop Drwg):

Description of Work Affected:

To drain standing water and allow the constructed marsh to be inundated during tidal fluctuation, two gaps in the primary dike shall be created. The gaps in the primary dike shall be created near Station 65+60 and Station 110+20 so that the final grade elevation is approximately +2.3 feet (NAVD). Material excavated shall be place in piles to allow water to flow through the gaps. The coordinates of the gaps are provided in the table below.

Gap	Station	Coordinates		Length (ft)
		Easting	Northing	
1	65+60	3742761.2	297619.1	50
		3742711.1	297618.0	
		3742714.1	297646.1	
		3742762.4	297644.2	
2	110+20	3745598.7	297901.5	50
		3745548.9	297886.0	
		3745539.1	297907.7	
		3745588.5	297926.5	

Note: Coordinates are in State Plane, NAD '83, Louisiana South Zone, U.S. Survey Feet.

The marsh area between Station 14+00 and Station 37+00 contained a high percentage of silty/muddy material placed by the contractor. While attempting to achieve a final grade elevation of +2.3 feet (NAVD), material was observed being discharged through the weir boxes at the west end of the marsh into Bay Melville. To reduce the volume of material placed and lost outside the project area and to aid in construction, the fill tolerances per specification TS-4.5 were revised. The specification states "the maximum vertical tolerance above and below the template is 0.3 feet" and that "95% of the fill volume for the acceptance section" shall be filled. In the marsh creation area between Station 14+00 and Station 37+00, the contractor shall be paid for the volume of material placed up to the template volume.

Reason for Adjustment:

To drain standing water and allow the constructed marsh to be inundated during tidal fluctuations.

To aid in the constructability of the marsh area between Station 14+00 and Station 37+00, thus reducing volume of material placed outside the project area.

** THIS FIELD ADJUSTMENT SHALL NOT RESULT IN A CHANGE IN CONTRACT PRICE OR THE TIME FOR COMPLETION **

Recommended By: ***Gordon Thomson, P.E.***			***Prime CONTRACTOR Agreement:***	***OCPR Agreement:***
	Signature	Date	Agreed (Y/N):	Approved (Y/N):
OCPR			Signature/Title/Date:	Signature/Title/Date:
CPE	G. J Thomson	12/13/10	Project Manager 12/14/10	Construction Manager 12/13/2010
WMI				

Appendix G

Requests for Interpretation

Request for Interpretation #1

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

14 January 2010

Reference: Contract No. BA-30
East Grand Terre Island Restoration

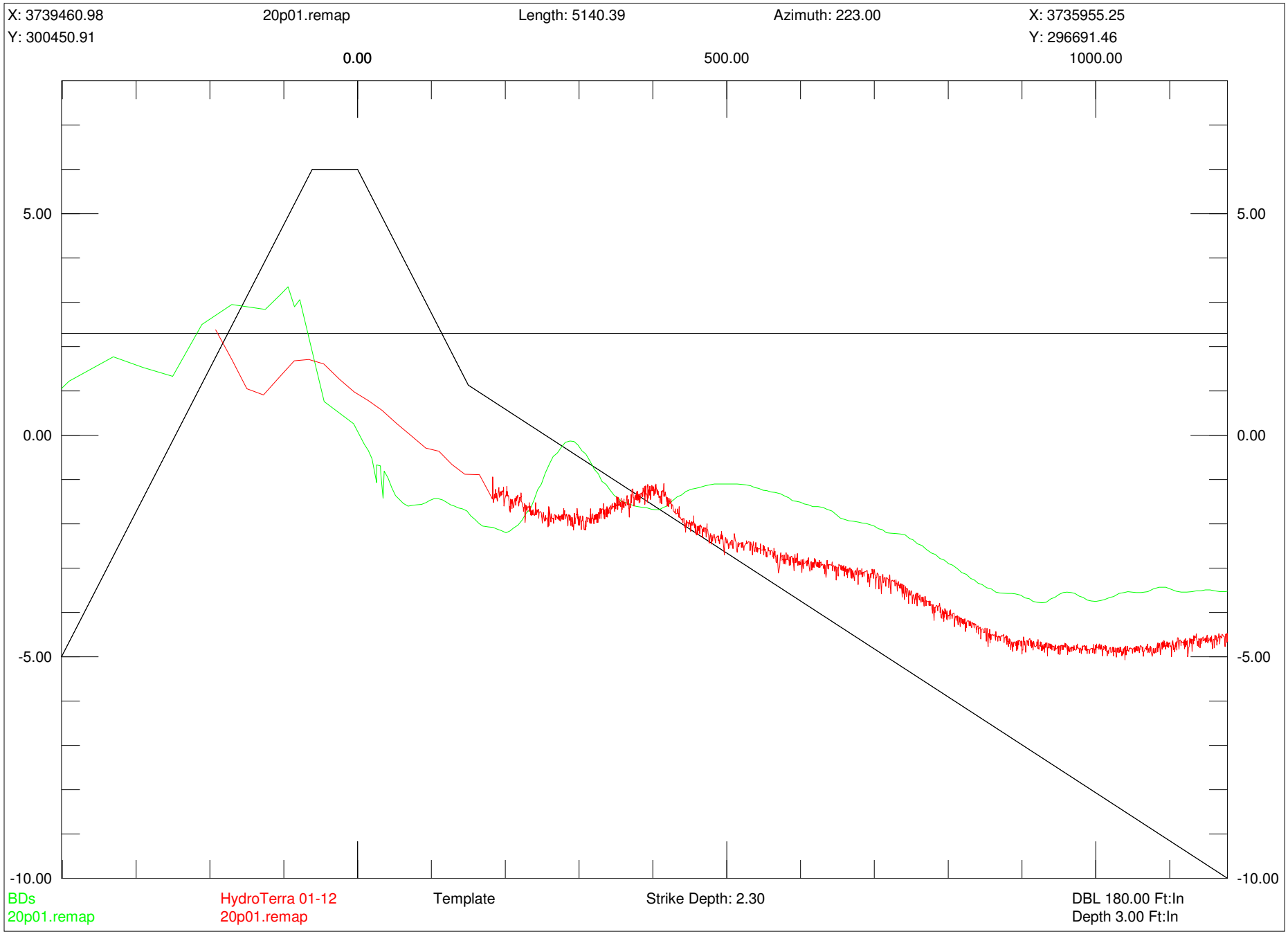
Subject: RFI regarding beach design quantity change.

Weeks Marine, Inc. has identified a site condition change for the beach fill. Hydorterra was on site 01/11/10 and ran conditional surveys, every 1000' feet, from Stations 20+01 to 149+94. Due to erosion from previous storms it shows that there is an additional 226,109 cyds needed to fill the beach design template. WMI is requesting a quantity change for the beach design.

Attached is a volume sheet and cross sections which show a difference between the Bd's and conditional surveys. Please review and notify Weeks Marine if this request is acceptable

Sincerely yours,

Lee Stelly
Project Manager
Weeks Marine Inc.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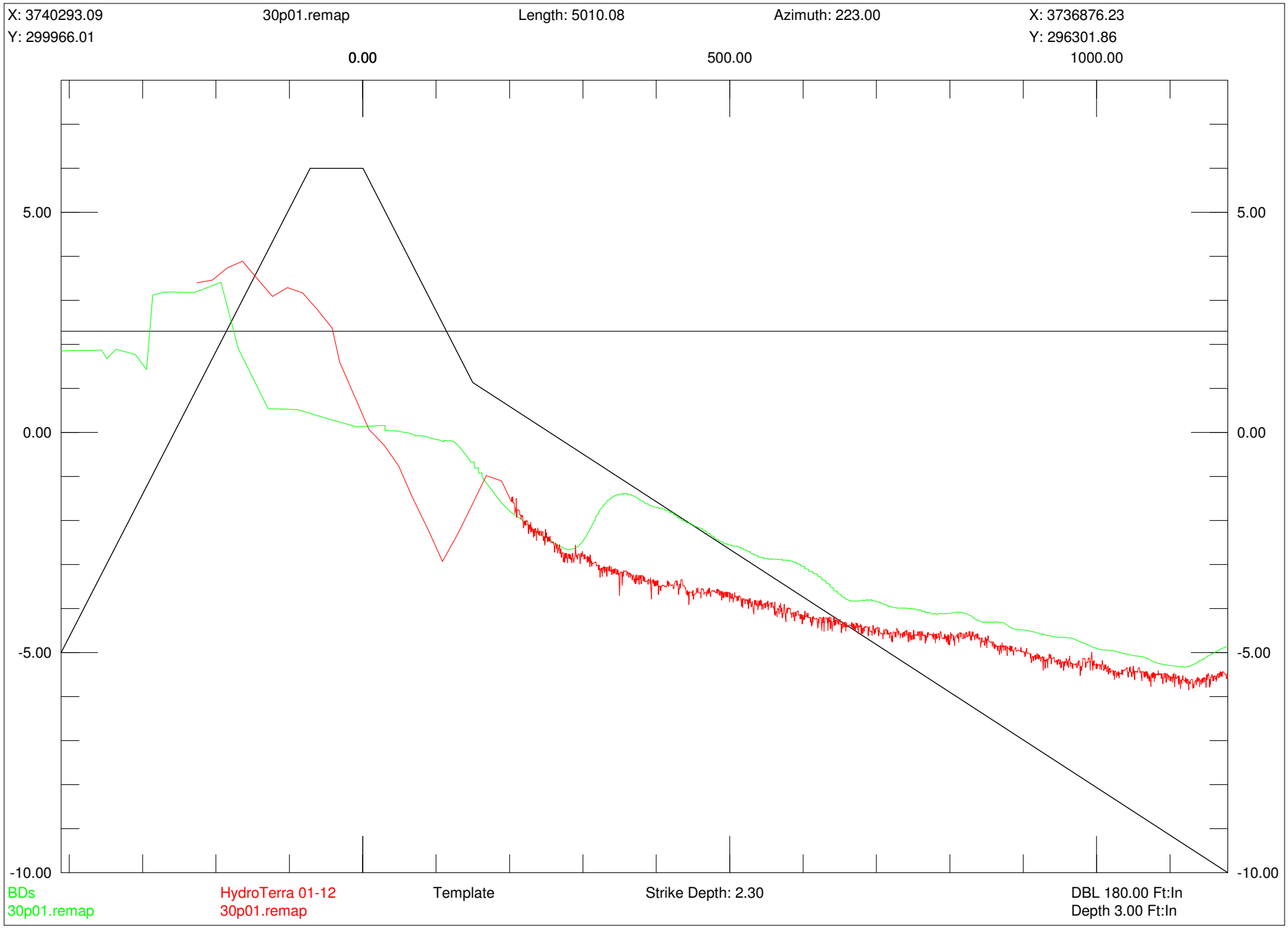
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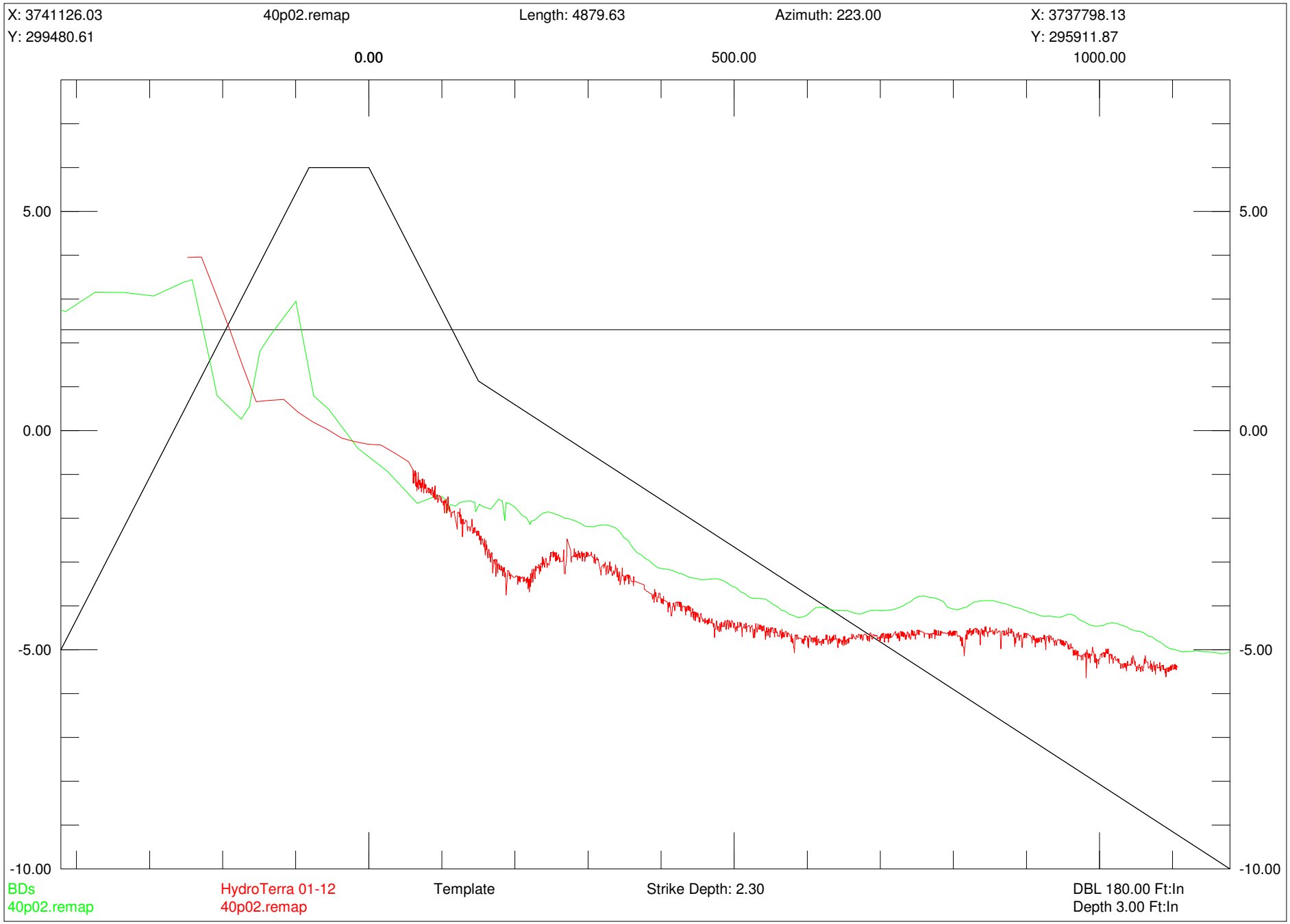
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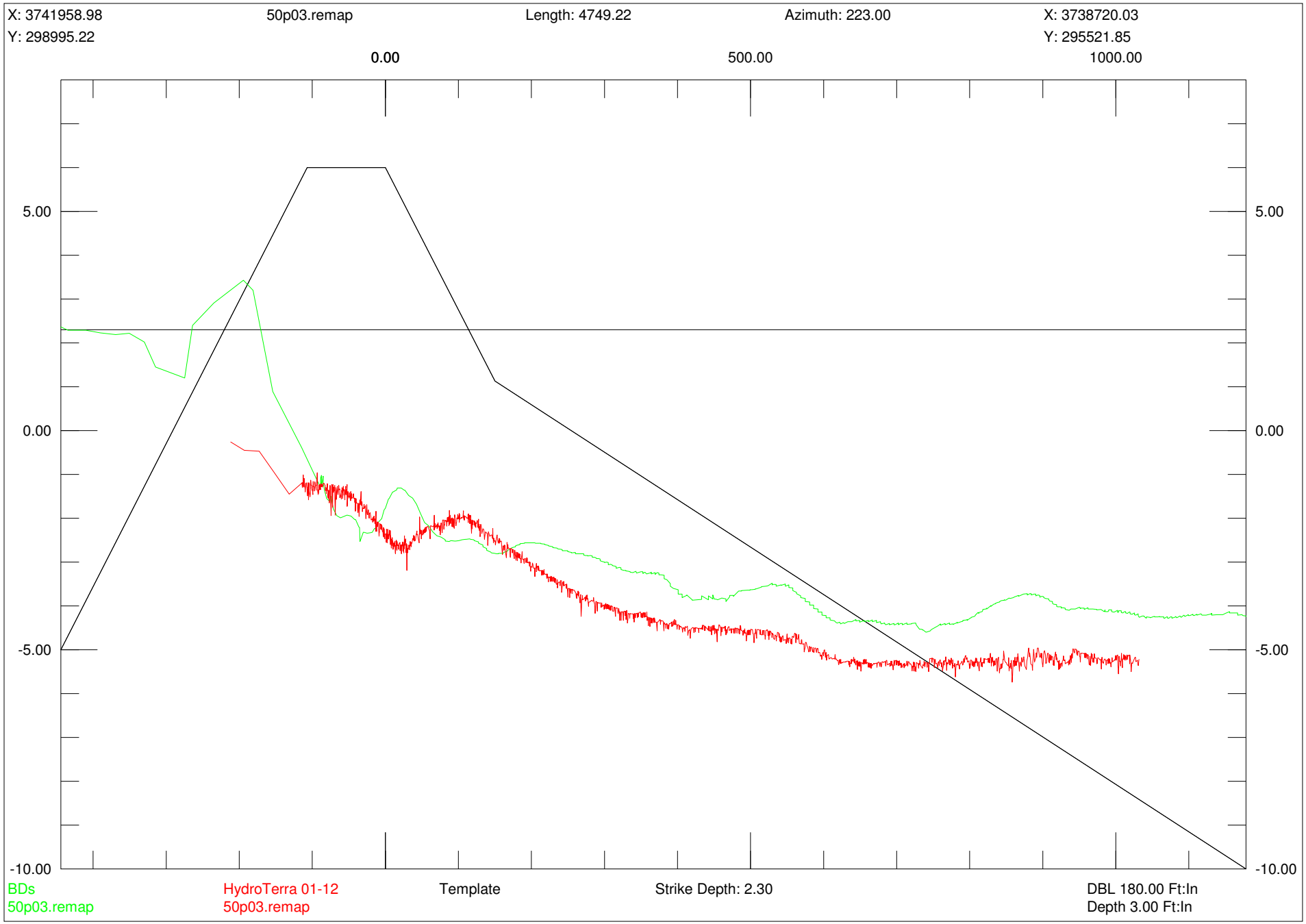
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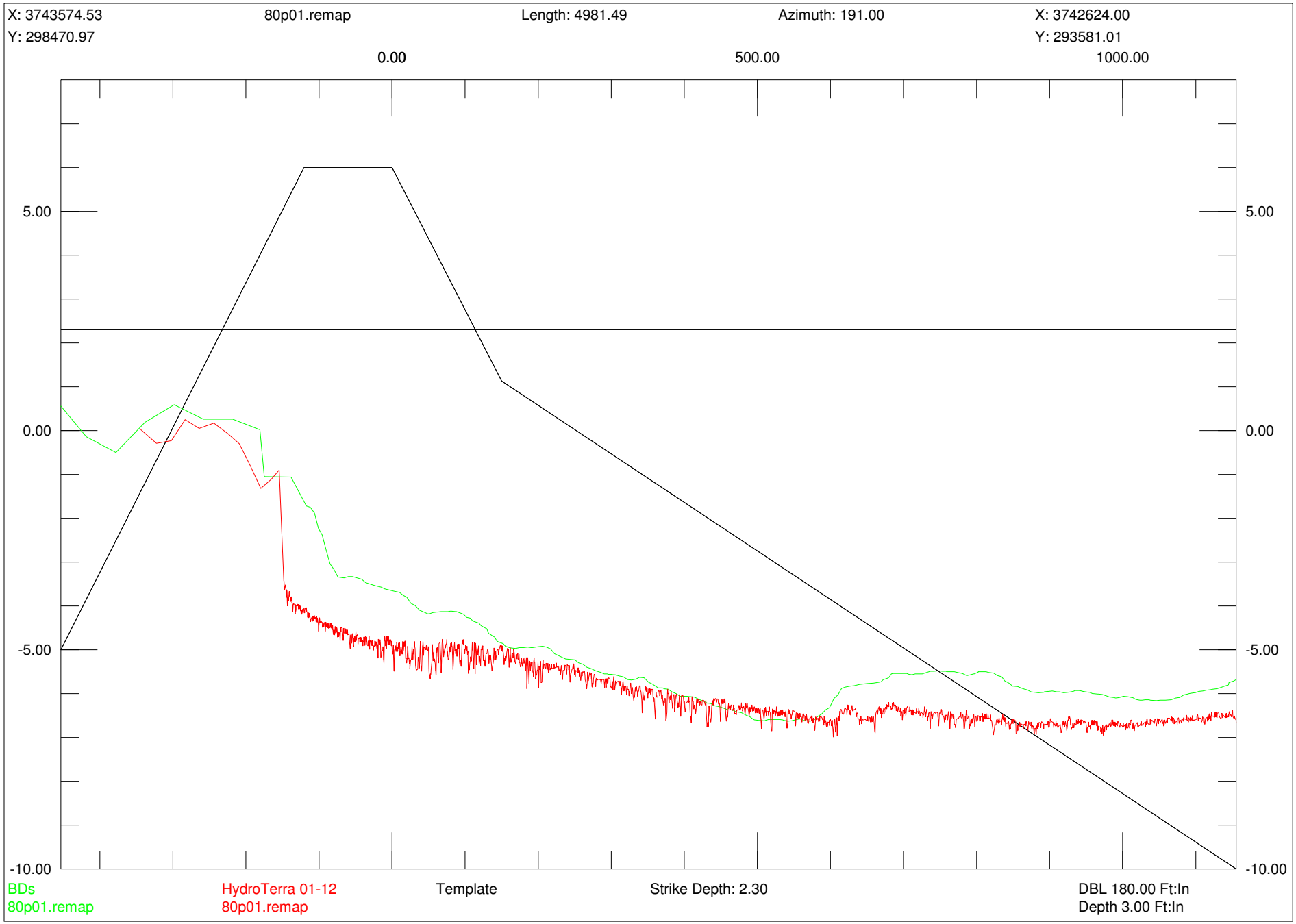
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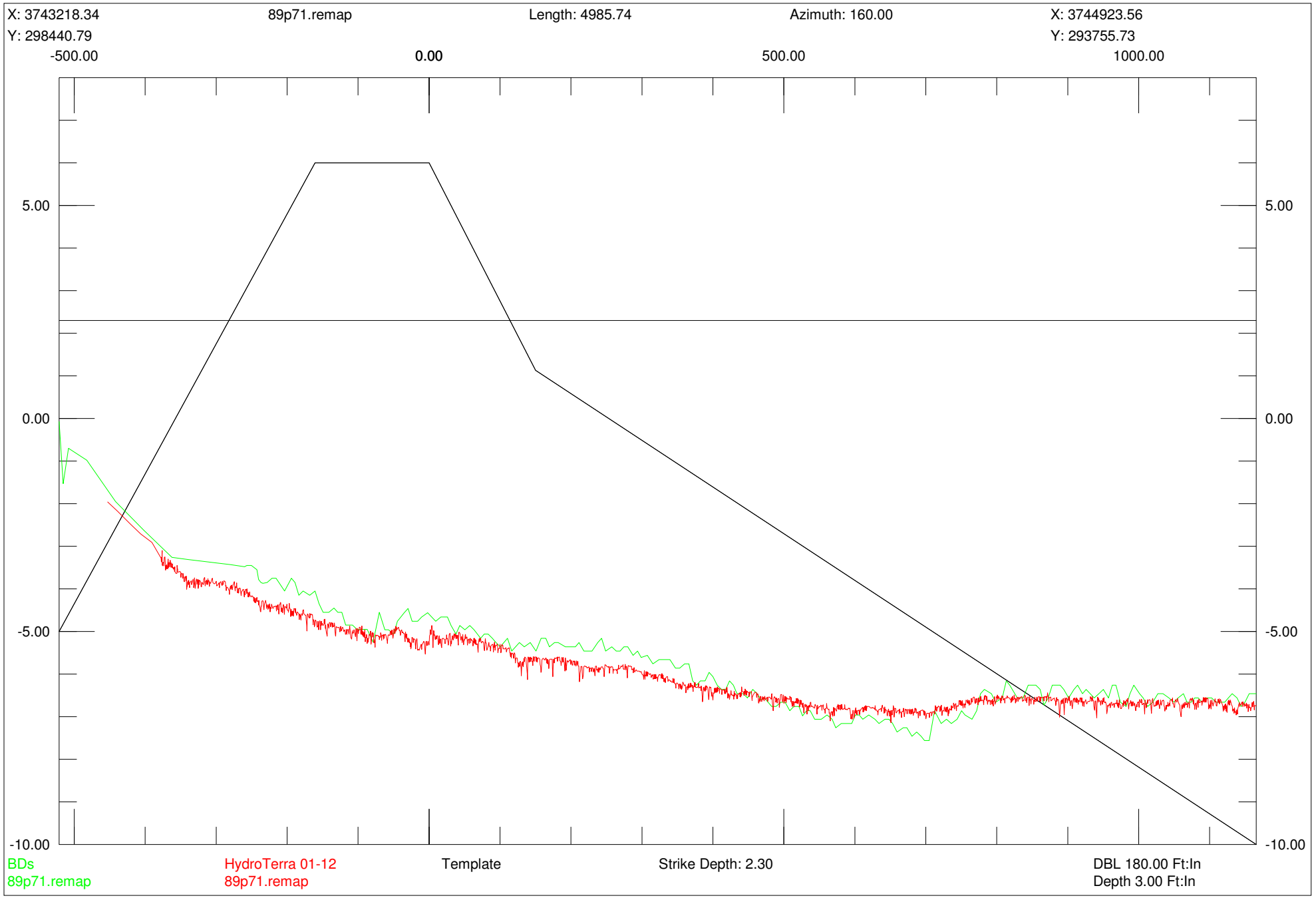
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Template
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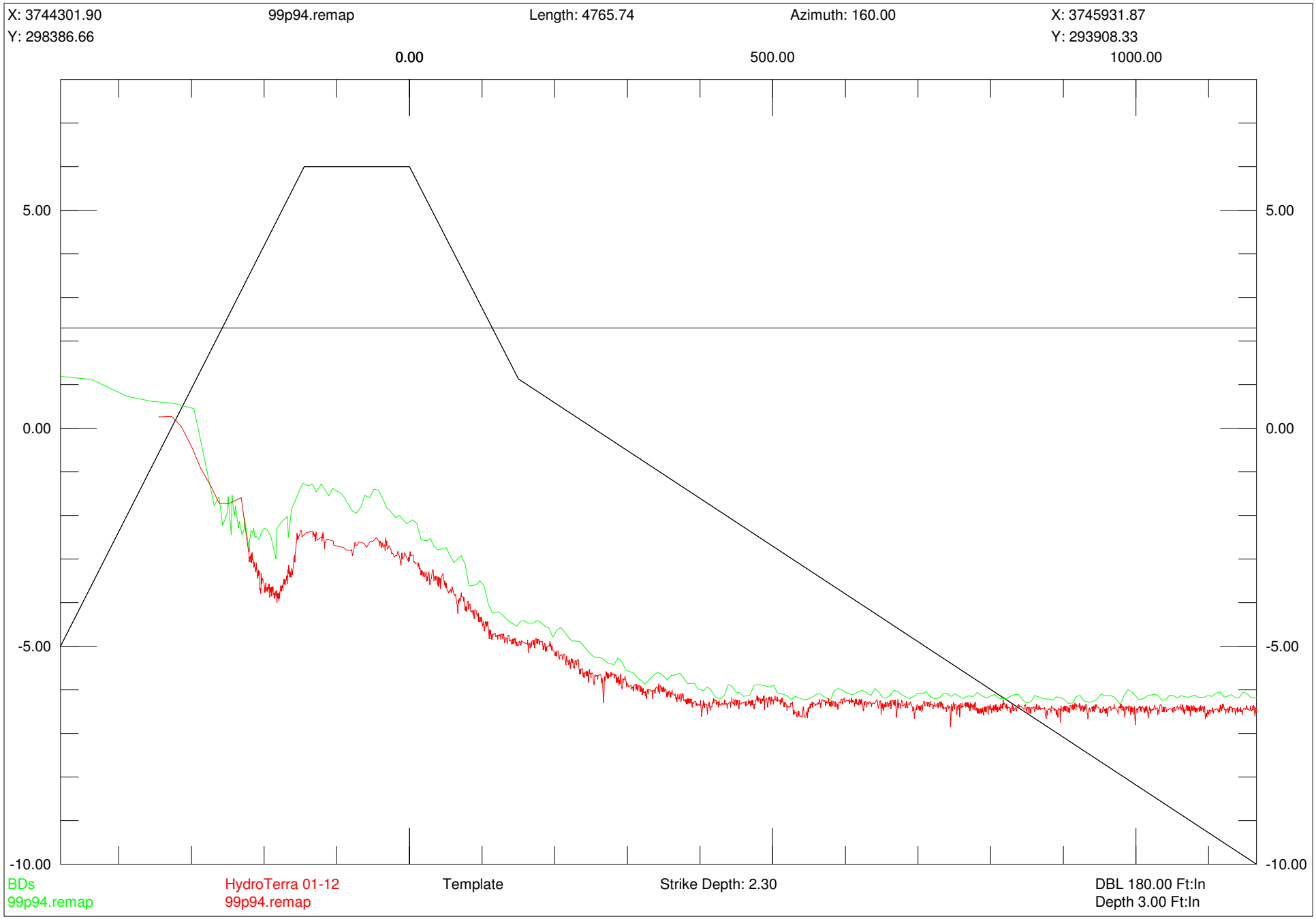
DBL 180.00 Ft:In
Depth 3.00 Ft:In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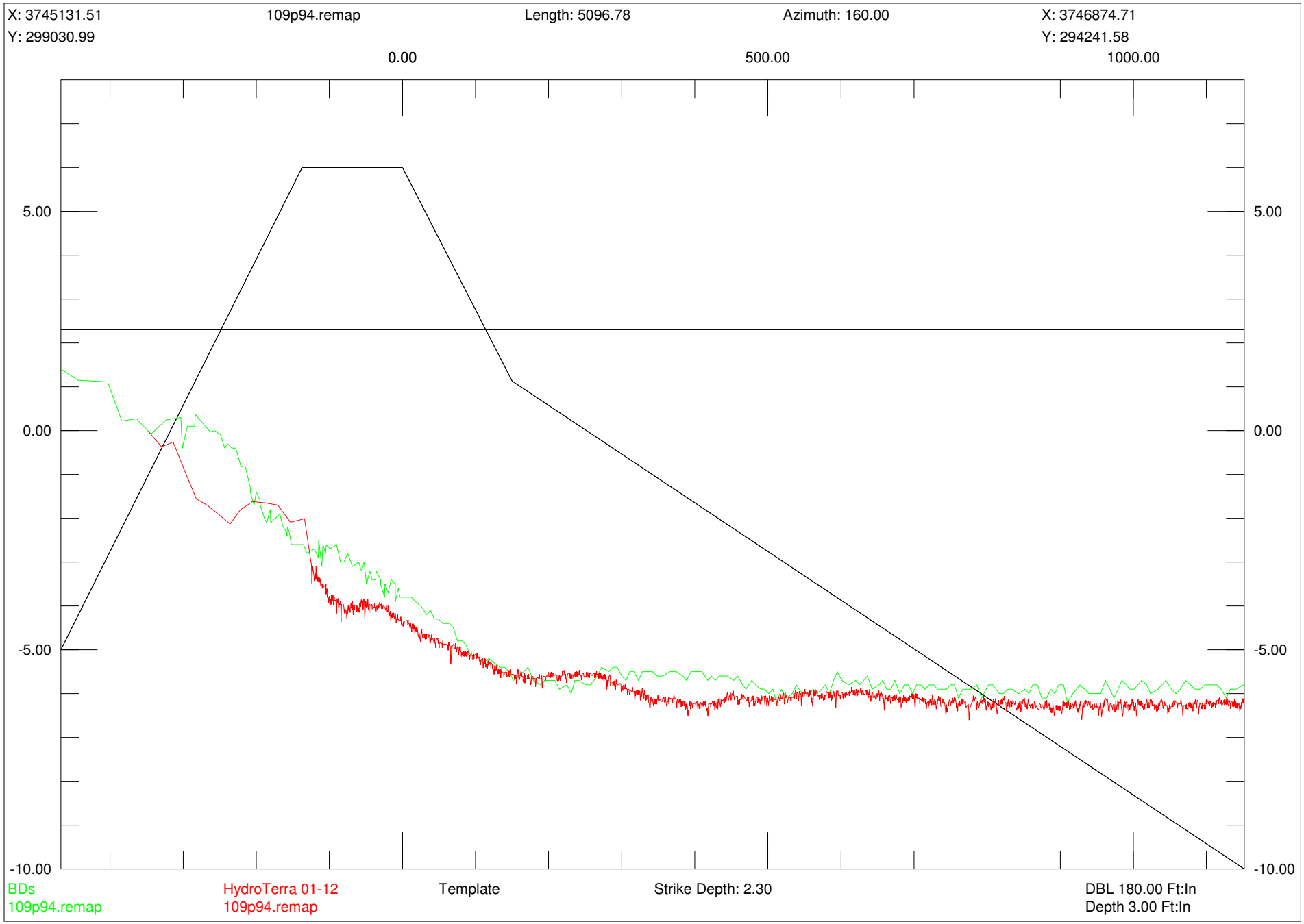
500.00
1000.00
5.00
0.00
-5.00
-10.00
BDs
99p94.remap
HydroTerra 01-12
99p94.remap
Template
Strike Depth: 2.30
DBL 180.00 Ft:In
Depth 3.00 Ft:In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500.00
1000.00
5.00
0.00
-5.00
-10.00
BDs
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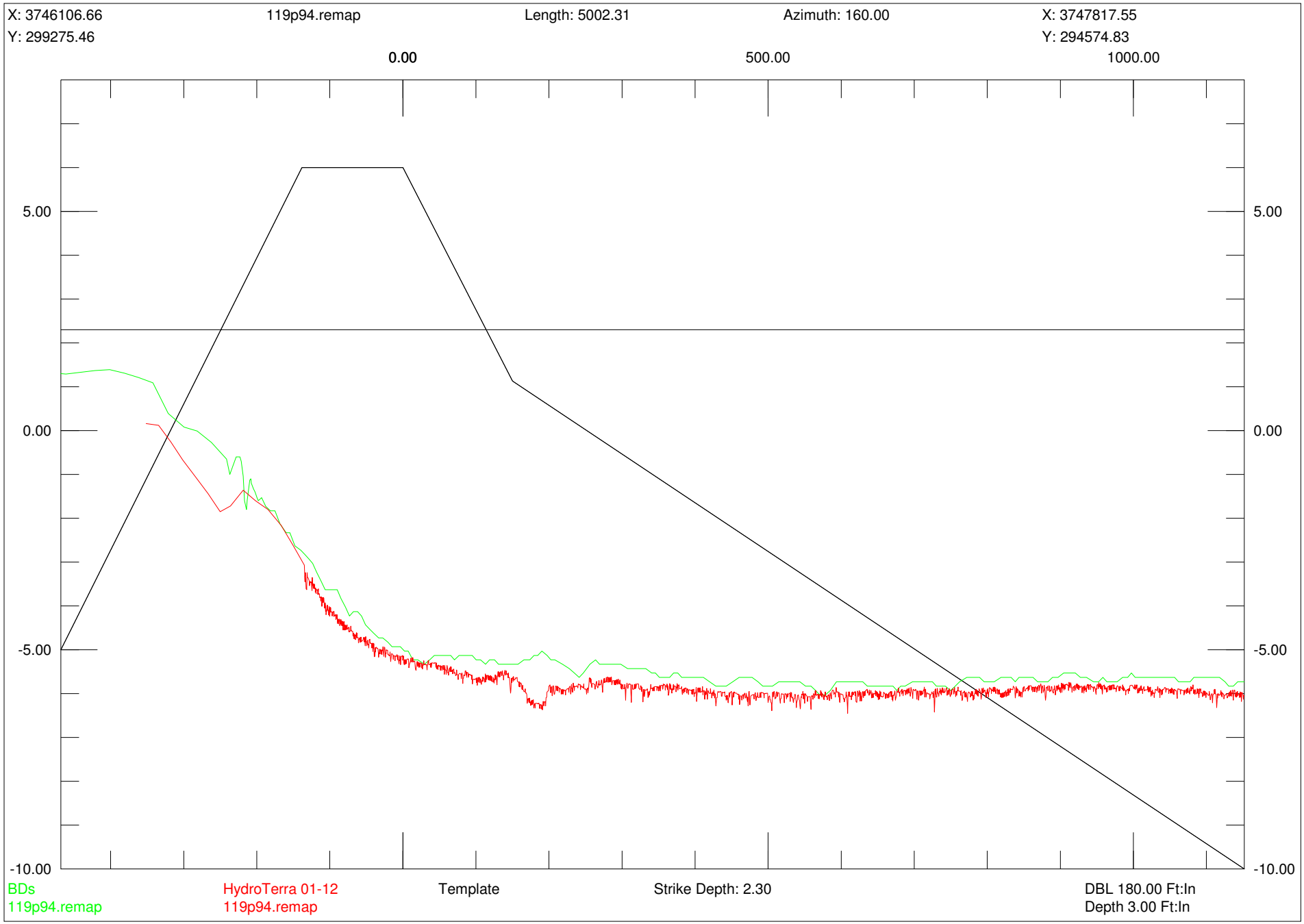
HydroTerra 01-12
109p94.remap
Template
Strike Depth: 2.30
DBL 180.00 Ft:In
Depth 3.00 Ft:In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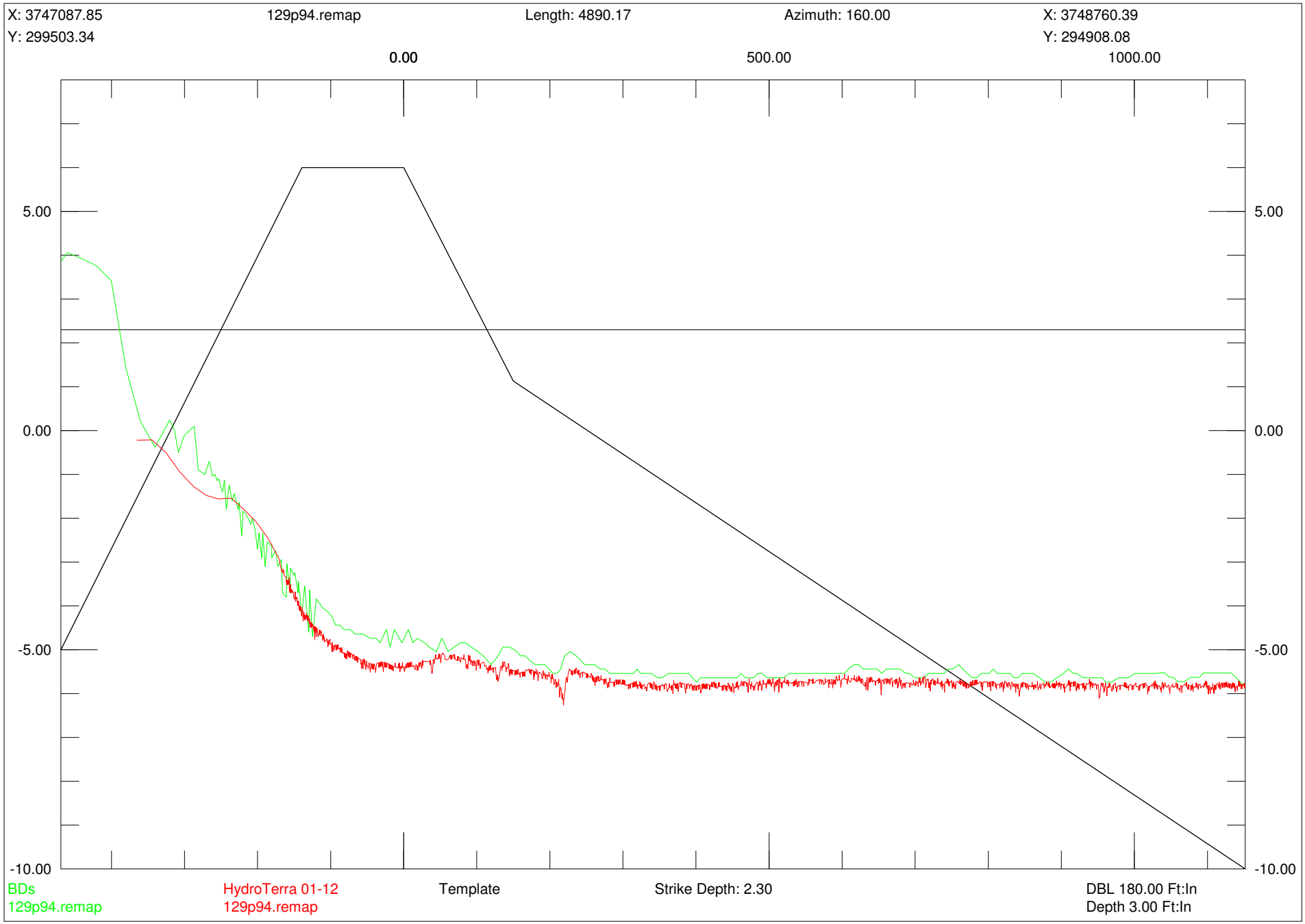
500.00
1000.00
5.00
0.00
-5.00
-10.00
BDs
119p94.remap
HydroTerra 01-12
119p94.remap
Template
Strike Depth: 2.30
DBL 180.00 Ft:In
Depth 3.00 Ft:In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BDs
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HydroTerra 01-12
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Template
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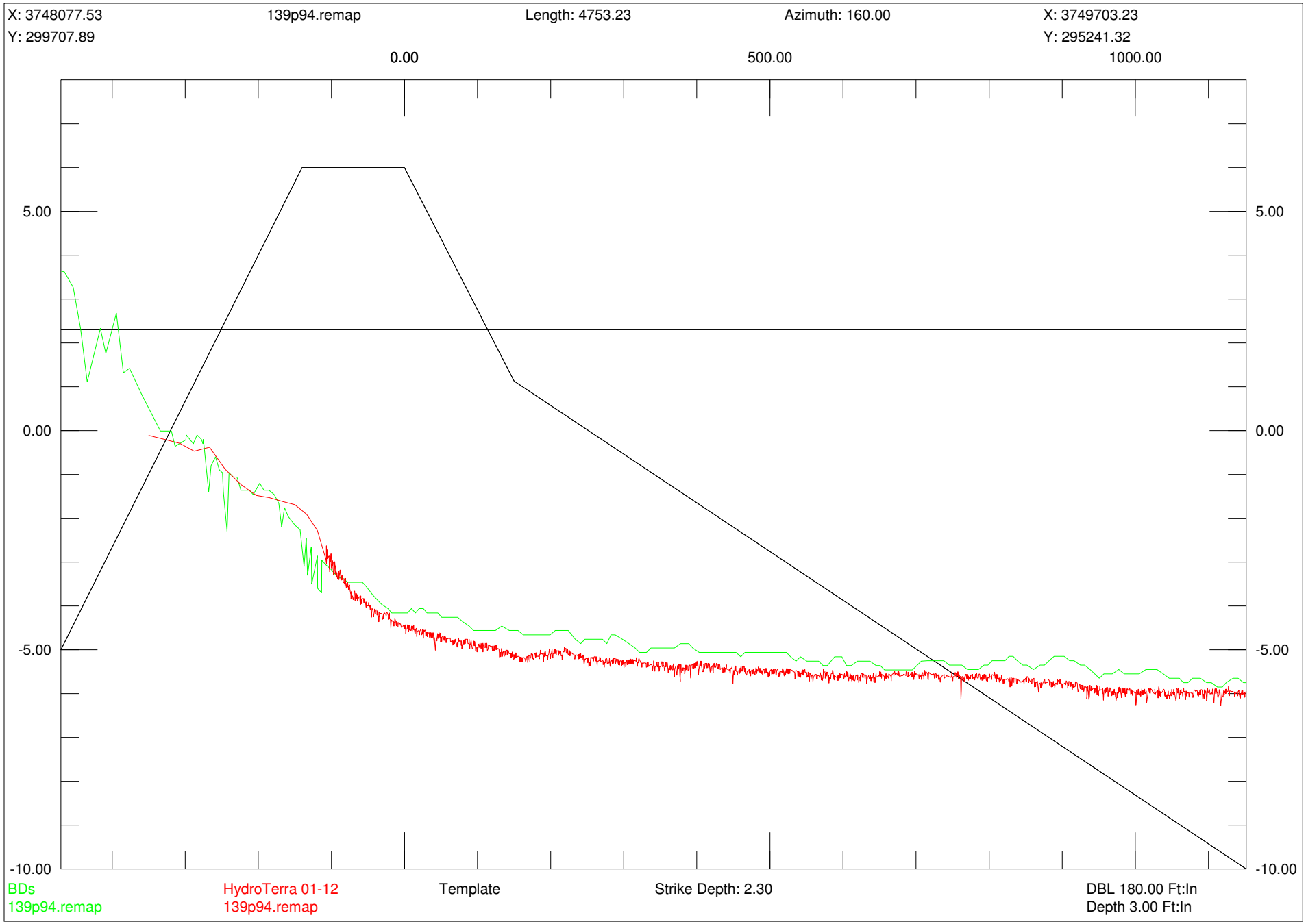
DBL 180.00 Ft:In
Depth 3.00 Ft:In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0.00
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-10.00
BDs
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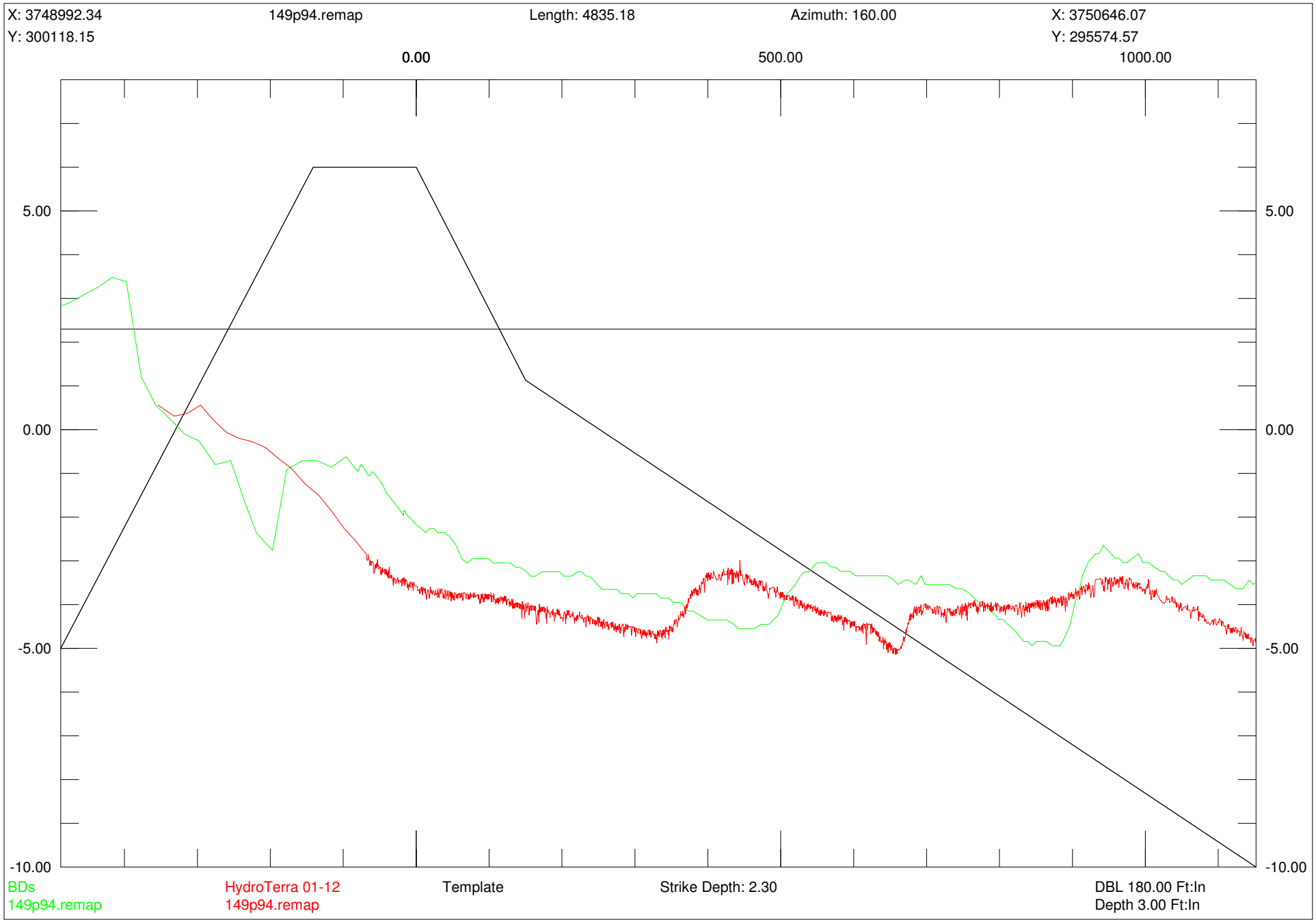
HydroTerra 01-12
139p94.remap
Template
Strike Depth: 2.30
DBL 180.00 Ft:In
Depth 3.00 Ft:In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0.00
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-10.00
BDs
149p94.remap
HydroTerra 01-12
149p94.remap
Template
Strike Depth: 2.30
DBL 180.00 Ft:In
Depth 3.00 Ft:In

Request for Interpretation #2

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

18 August 2009

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: RFI regarding Re-Alignment of Primary Dike.

Weeks Marine, Inc. has identified a section of the Primary Dike that is located in an area where water depths are approximately 6 ft. to 8 ft. deep. This will severely detriment WMI's ability to build a primary dike that is substantial enough to hold marsh fill during hydraulic placement. The current dike alignment is located in an unprotected reach of the project. This will leave the primary dike open to wave exposure as well. WMI has identified an area of marsh that is more suitable for primary dike construction. The proposed re-alignment follows the existing marsh located in the area and has suitable existing elevations that are conducive to primary dike construction. WMI is requesting that the primary dike be re-aligned to the below listed locations:

West Dike tie into existing primary dike: E 3748832.96, N 299167.33
PI #1: E 3748945.38, N 299167.33
PI #2: E 3749006.82, N 299180.77
PI #3: E 3749071.41, N 299192.15
PI #4: E 3749141.23, N 299173.69
East Dike tie into existing primary dike: E 3749175.66, N 299136.34

Attached is a drawing that outlines the design dike layout and the proposed re-alignment of the primary dike. Please review and notify Weeks Marine if this request is acceptable

Sincerely yours,

Will Magee
QC Manager
Weeks Marine Inc.

PROPOSED DIKE ALIGNMENT
DESIGN DIKE ALIGNMENT
PCE
PTB
157+22
153+94
153+69
152+44
151+19
149+94
148+69
147+44
146+19
144+94
143+69
142+44
141+19
139+94
138+69
137+44
136+19
134+94
133+69
132+44
131+19

Request for Interpretation #3

WEEKS MARINE, INC.

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: Relocating Living Quarters Barge

Weeks Marine, Inc. has located the area we would like to relocate the Quarters barge to, once the west borrow site is extinguished. The area is app. 100'x200' and water depths range from -3' to +2'. WMI is requesting permission to dig the proposed area to app. -6' which would be a total of app 3,000cy of material. This material would be placed on the south side for additional protection from the sea conditions. The proposed area will give access to deep water as well as land access for beach equipment. Below are the coordinates for the proposed area:

#1 E 3749939.28, N 298796.34
#2 E 3750012.41, N 298728.14
#3 E 3750076.90, N 298943.93
#4 E 3750150.04, N 298875.72

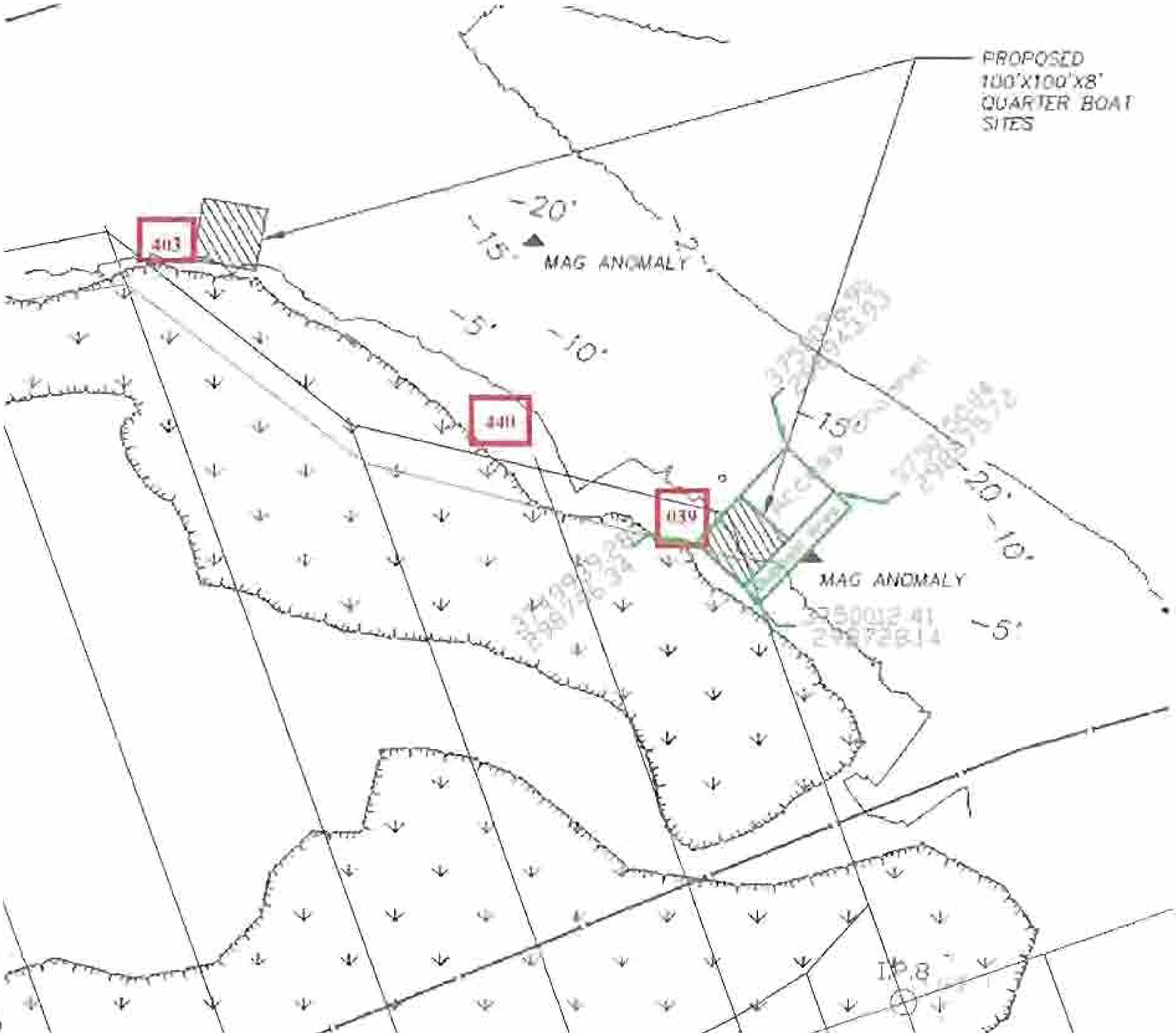
Disposal Area coordinates are:

#1 E 3750150.04, N 298875.72
#2 E 3750012.41, N 298728.14
#3 E 3750175.64, N 298851.85
#4 E 3750038.01, N 298704.27

Attached is a drawing that shows the proposed area. Please review and notify Weeks Marine if this request is acceptable.

Sincerely yours,

Dusty Price
Field Engineer
Weeks Marine, Inc.


PROPOSED
100'X100'X8'
QUARTER BOAT
SITES
-20'
-15'
MAG ANOMALY
-5'
-10'
-15'
-20'
-10'
MAG ANOMALY
-5'
I.P.8

1:196

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF
Operations Division
Eastern Evaluation Section

MAY 6 2010

Subject: MVN 2008-0334 EMM

Plaquemines Parish
8056 Highway 23, Suite 308
Belle Chasse, Louisiana 70037

Gentlemen:

The proposed work, to dredge for quarters barge access and mooring, near Grand Isle, Louisiana, in Plaquemines Parish, as shown on the enclosed drawings, is authorized under **Category II** of the **Programmatic General Permit**, provided that all conditions of the permit are met.

Prior to commencing work on your project, you must obtain approvals from state and local agencies as required by law and by terms of this permit. These approvals include, but are not limited to, a permit or waiver from the Coastal Management Division of the Louisiana Department of Natural Resources and a water quality certification from the Louisiana Department of Environmental Quality.

If the work is initiated within two (2) years of the date of this letter, the authorization remains valid for a total of five (5) years from the date of this letter. If the work is not initiated within two (2) years, this authorization becomes null and void.

The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete and return the attached Customer Service Survey or go to the survey found on our web site at http://per2.nwp.usace.army.mil/survey.html.

Permittee is aware that this office may re-evaluate its decision on this permit at any time the circumstances warrant.

Should you have any further questions concerning this matter, please contact Scott Kennedy of this office at (504) 862-2259.

Sincerely,

/Pete J. Serio
Chief, Regulatory Branch

Enclosure

Request for Interpretation #4

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

24 May 2010

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: RFI regarding compensating slope on seaward side and 50' overlap.

Weeks Marine, Inc. has identified a problem on the seaward slope. Due to the oil on the water's edge, the dozer operators cannot push containment dikes down to grade. We are requesting to be able to survey over these dikes and use compensating slopes in this area. By doing this, we're not able to control the fill as well and would like to have some leniency on the 95% required design, as per specification TS-3.5. Since the oil has reached the shoreline on EGT Weeks Marine will not put anyone in the water to survey or set grade. We also request that survey lines be accepted where there is not a 50' overlap between the hydro and land shots as per specification TS-25.1. Due to the oil spill, our construction method has to be modified, at no fault of our own, and we ask for your assistance on these requests to keep the project moving forward.

Sincerely yours,

Lee Stelly
Project Manager
Weeks Marine Inc.

COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431 561-391-8102 PHONE 561-391-9116 FAX
Internet: http://www.coastalplanning.net
e-mail: mail@coastalplanning.net

7900.24

June 7, 2010

Lee Stelly
Project Manager
Weeks Marine, Inc.
304 Gaille Drive
Covington, LA 70433

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Response to RFI #4: Oil Impacts to Operations

Dear Lee:

This letter is in response to your RFI regarding compensating slope on seaward side and the 50-foot survey overlap.

Per our previous oral directives, WMI shall conduct all construction operations to avoid the entrainment of oil within either beach or marsh fill sediment within the project area.

Your letter indicates that degrading the containment dikes may entrain oil within the beach fill. Therefore, WMI shall avoid degrading the temporary containment dikes until such time as there is no oil within the area to be covered. WMI shall grade and dress the beach to match the template as closely as possible without entraining oil within the beach fill. WMI may survey the beach for pay prior to degrading the containment dikes.

We will apply compensating slope for material placed above the construction template between Sta 54+99 and Sta 8+00 and between Sta 128+69 and Sta 154+94 so that fill included in the temporary containment dikes is eligible for payment. Given that we will allow the inclusion of material placed above the template in the pay volume, we will continue to require that at least 95% of the beach fill volume be placed, as required by TS-3.5.

We understand WMI's reluctance to have the surveyors wade too deeply into the Gulf given the current conditions. CPE is willing to relax the requirement for a 50-foot overlap of the hydrographic and topographic survey data, as required by TS-25.1, in order to respect the safety of the survey crew. However, we request that WMI consider alternate methods of collecting survey data within shallow water using topographic methods (RTK or total station and rod) such as employing a shallow draft vessel from which to employ the rod or conducting surveys when it is conducive with tidal fluctuations.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Gordon G. Thomson, P.E.
Vice President

cc: Tom Windes, WMI
Shane Triche, OCPR
Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE

Request for Interpretation #5

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

17 June 2010

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: RFI regarding building containment dikes in the marsh.

Weeks Marine, Inc. has identified a possible problem with the constructability of containment dikes in the marsh, at the 2.3' tie in. Weeks Marine would like additional direction on the construction of these dikes because there will be some impact on existing vegetation. In doing so, would WMI be in violation of specifications EP-6, 6.1. We ask for your assistance on this request so we can finish building these dikes to begin pumping the marsh. See attached photos.

Sincerely yours,

Lee Stelly
Project Manager
Weeks Marine Inc.

COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431 561-391-8102 PHONE 561-391-9116 FAX
Internet: http://www.coastalplanning.net
e-mail: mail@coastalplanning.net

7900.24

June 18, 2010

Lee Stelly
Project Manager
Weeks Marine, Inc.
304 Gaille Drive
Covington, LA 70433

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Response to RFI #5: Marsh Containment Dikes

Dear Lee:

This letter is in response to your RFI regarding the construction of containment dikes along the southern extent of marsh fill within vegetated areas.

Containment dikes can be constructed at WMI's discretion in order to contain marsh fill within the footprint of the project area denoted in the plans, per TP 11.3. CPE recognizes that the construction of the dikes may negatively impact existing vegetation, but it is expected that WMI will position the dikes in an attempt to minimize construction in sensitive areas per specification EP-6. The construction of secondary dikes will be at no cost to the Owner, per TP 5.1.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

G. J Thomson

Gordon G. Thomson, P.E.
Vice President

cc: Tom Windes, WMI
Shane Triche, OCPR
Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE

Request for Interpretation #6

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

23 June 2010

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: RFI regarding dike construction to keep material from covering vegetation.

Weeks Marine, Inc. has constructed containment dikes, from station 149+94-154+94, to keep material from covering vegetation that has been covered with oil. The material used for the dike will compensate for the area that has been left for cleanup. Due to the time it will take for ES&H to clean this area WMI request that CP&E accept our surveys with the dike in place.

Sincerely yours,

Lee Stelly
Project Manager
Weeks Marine Inc.

Request for Interpretation #7

WEEKS MARINE, INC.

DREDGING – MARINE CONTRACTORS
STEVEDORING – EQUIPMENT RENTALS
TOWING – HEAVY LIFT - SALVAGE

Dredging Division • 304 Gaille Drive • Covington, LA 70433 • (985) 875-2500 • Fax (985) 875-2578

4 August 2010

Reference: Contract No. BA-30
East Grand Terre Island Restoration

Subject: RFI regarding equipment depth in borrow areas M1, M2.

Weeks Marine, Inc. would like clarification on the allowed digging depth for borrow areas M1 and M2. The drawings do not show a three foot over dredge for equipment but in the plans and specifications (TS-17.2.2) it states that we are allowed to do so. Could you verify if we are allowed to use the 3' over dredge of equipment in these areas?

Sincerely yours,

Lee Stelly
Project Manager
Weeks Marine Inc.

COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431 561-391-8102 PHONE 561-391-9116 FAX
Internet: http://www.coastalplanning.net
e-mail: mail@coastalplanning.net

7900.24

August 5, 2010

Lee Stelly
Project Manager
Weeks Marine, Inc.
304 Gaille Drive
Covington, LA 70433

Re: East Grand Terre Island Restoration Project (BA-30)
Contract No. 3472868, File No. P27312DL
Response to RFI #7: Maximum Depth of Equipment in M1 and M2

Dear Lee:

This letter is in response to your RFI regarding the maximum depth of equipment in borrow areas M1 and M2.

Weeks Marine may apply a three-foot (3') maximum depth of equipment buffer to the permitted depth within borrow areas M1 and M2, per TS 17.2.2. While the cutterhead may extend into this over dredge area, WMI shall adjust their dredge operations to ensure that the post-construction bathymetry shall be no deeper than the permitted depth (the "cut to" depth) shown in the plans.

Please call me if you have any questions.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

G. J Thomson

Gordon G. Thomson, P.E.
Vice President

cc: Tom Windes, WMI
Shane Triche, OCPR
Robert Routon, OCPR
Andrew Wycklendt, CPE
Dave Swigler, CPE

Appendix M

Beach Fill Grain Size Analysis

COMPOSITE SUMMARY TABLE
EAST GRAND TERRE CONSTRUCTION MONITORING SAMPLES

VIBRACORE I. D.	MEDIAN (mm)	MEAN (mm)	PHI MEAN	PHI SORTING	% SILT	WET MUNSELL COLOR
EGT 003	0.13	0.15	2.74	0.95	5.75	4
EGT 005	0.12	0.12	3.05	0.43	5.32	4
EGT 011	0.11	0.11	3.14	0.36	3.53	4
EGT 020	0.11	0.12	3.09	0.42	6.91	4
EGT 026	0.14	0.18	2.46	1.29	3.28	4
EGT 033	0.14	0.16	2.68	0.97	4.09	4
EGT 038	0.14	0.14	2.88	0.35	1.79	4
EGT 046	0.13	0.13	2.94	0.31	3.04	4
EGT 053	0.10	0.11	3.22	0.48	11.05	4
EGT 060	0.11	0.12	3.08	0.34	10.24	3
EGT 067	0.11	0.11	3.19	0.34	7.53	4
EGT 074	0.12	0.12	3.03	0.39	7.46	4
EGT 085	0.10	0.10	3.26	0.30	7.61	4
EGT 089	0.11	0.11	3.20	0.32	5.60	4
EGT 095	0.10	0.11	3.20	0.36	11.13	4
EGT 101	0.11	0.12	3.11	0.37	5.58	4
EGT 107	0.10	0.11	3.25	0.36	9.19	3
EGT 112	0.10	0.11	3.25	0.37	11.65	4
EGT 122	0.12	0.12	3.05	0.36	4.66	3
EGT 149	0.11	0.12	3.08	0.70	5.18	4
EGT 155	0.11	0.12	3.11	0.37	11.04	4
EGT 166	0.11	0.12	3.07	0.49	2.94	4
EGT 179	0.11	0.12	3.10	0.62	10.78	4
EGT 180	0.11	0.12	3.06	0.79	9.11	4
EGT 184	0.12	0.12	3.07	0.34	4.25	4
POST-CON COMPOSITE	0.11	0.12	3.05	0.59	6.75	4

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 003

Analysis Date: 12-29-09

Analyzed By: TD

Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,741,026	296,818		

USCS:	Munsell:	Comments:
SW-SM	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-6/1	Station: 58+43 Range: 2+17

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
150.66	142.91	0.93	0.00	#200 - 8.24 #230 - 5.75			1

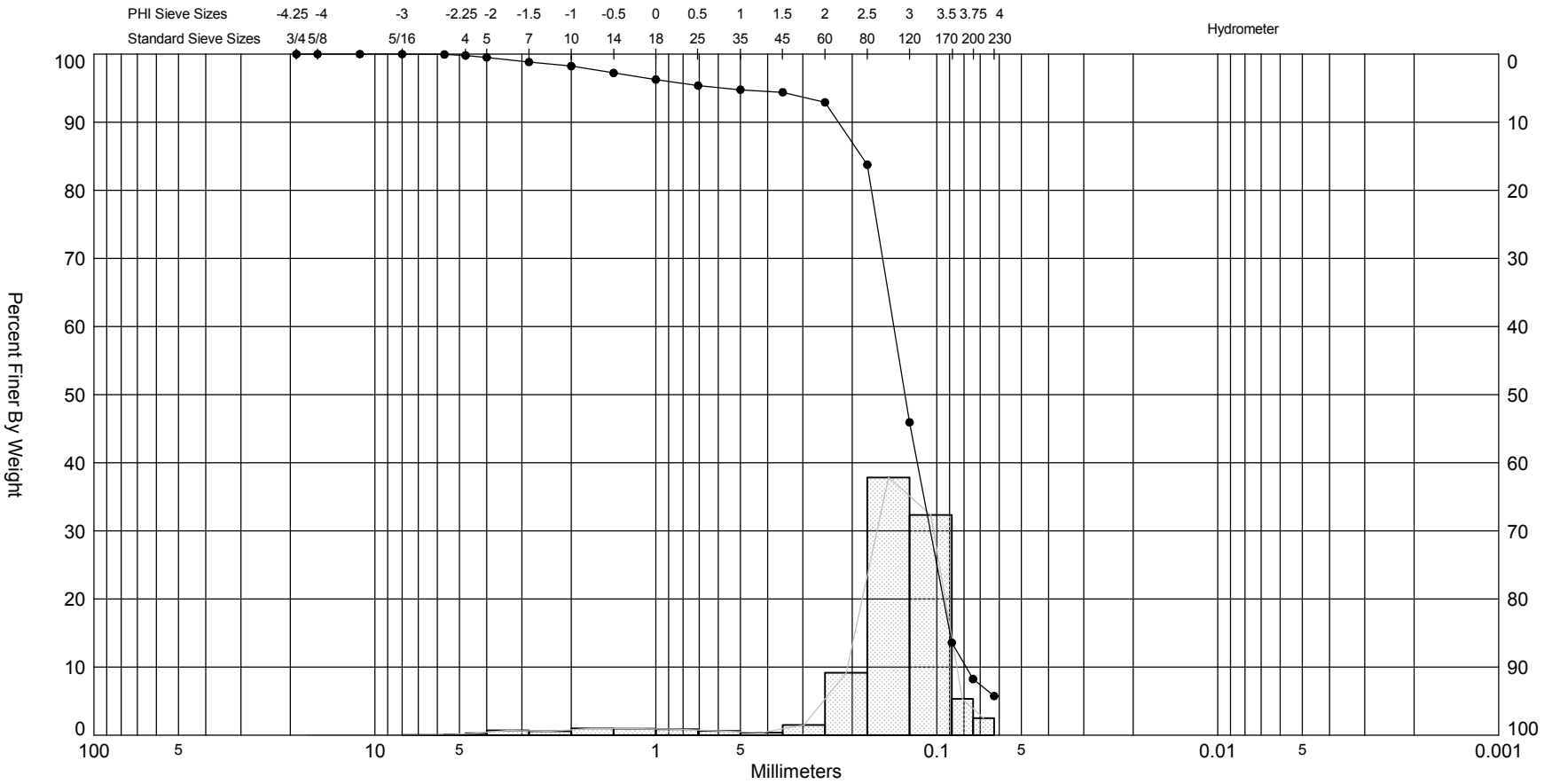
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.09	0.06	0.09	0.06
4	-2.25	4.76	0.21	0.14	0.30	0.20
5	-2.00	4.00	0.42	0.28	0.72	0.48
7	-1.50	2.83	1.04	0.69	1.76	1.17
10	-1.00	2.00	0.90	0.60	2.66	1.77
14	-0.50	1.41	1.50	1.00	4.16	2.77
18	0.00	1.00	1.46	0.97	5.62	3.74
25	0.50	0.71	1.33	0.88	6.95	4.62
35	1.00	0.50	0.93	0.62	7.88	5.24
45	1.50	0.35	0.55	0.37	8.43	5.61
60	2.00	0.25	2.23	1.48	10.66	7.09
80	2.50	0.18	13.78	9.15	24.44	16.24
120	3.00	0.13	57.00	37.83	81.44	54.07
170	3.50	0.09	48.74	32.35	130.18	86.42
200	3.75	0.07	8.05	5.34	138.23	91.76
230	4.00	0.06	3.75	2.49	141.98	94.25

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.46	3.32	2.95	2.62	2.49	0.81

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	2.74	0.15	0.95	-3.01	13.51

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 003	—●—		SW-SM	#200 - 8.24 #230 - 5.75			2.95	2.74	-3.01	13.51	0.95

Comments: Station: 58+43 Range: 2+17

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	12-29-09
Analyzed By:	TD
Easting (X, ft):	3,741,026
Northing (Y, ft):	296,818
Horizontal System:	NAD 1983
Vertical System:	

Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 005

Analysis Date: 12-29-09

Analyzed By: TD

Coastal Planning & Engineering
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FL 33431
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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,741,382	296,804		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-6/2	Station: 61+22 Range: -0+49

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
146.21	139.56	1.13	0.00	#200 - 9.40 #230 - 5.32			0

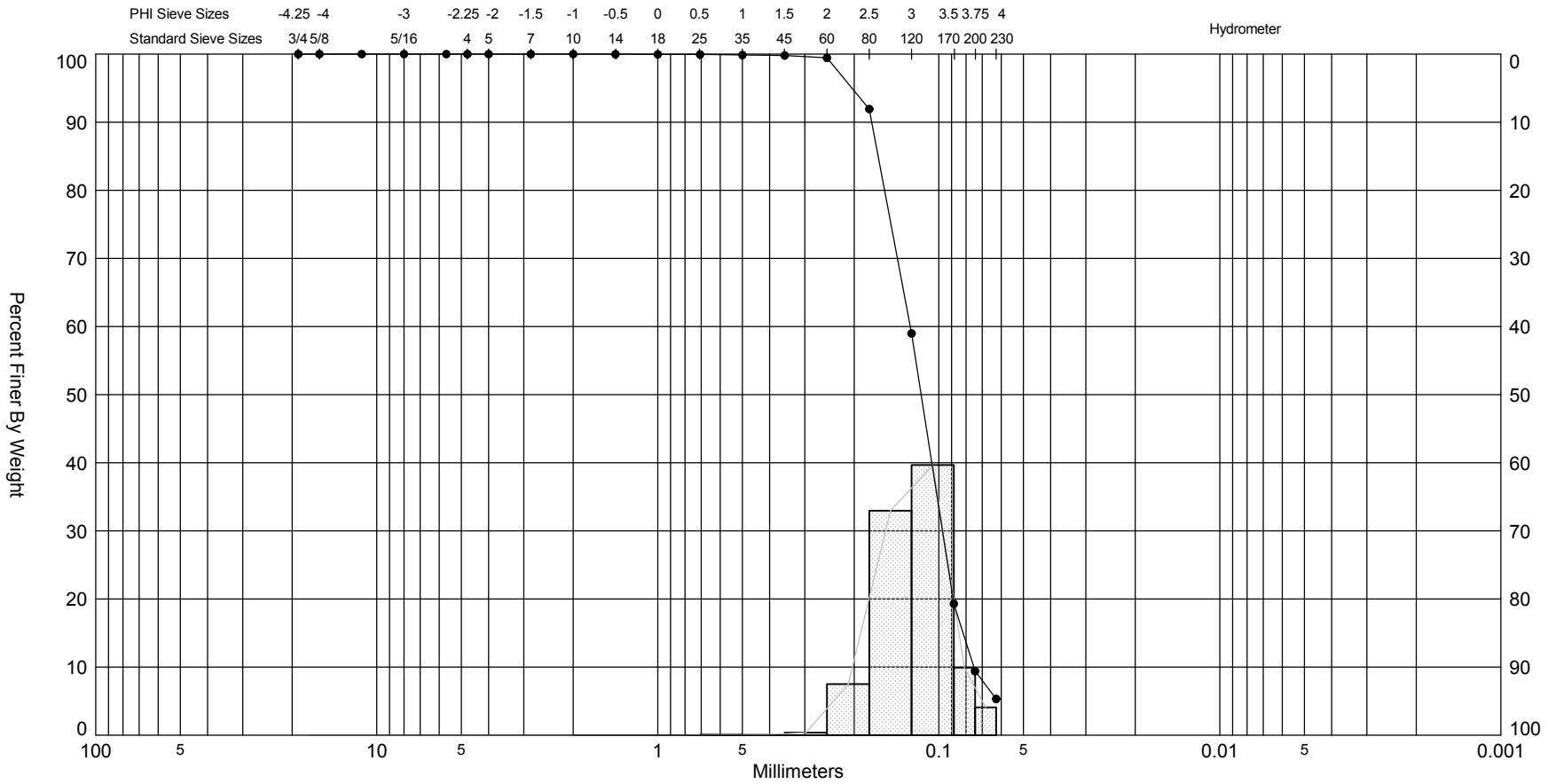
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.03	0.02	0.03	0.02
18	0.00	1.00	0.03	0.02	0.06	0.04
25	0.50	0.71	0.03	0.02	0.09	0.06
35	1.00	0.50	0.11	0.08	0.20	0.14
45	1.50	0.35	0.09	0.06	0.29	0.20
60	2.00	0.25	0.53	0.36	0.82	0.56
80	2.50	0.18	10.98	7.51	11.80	8.07
120	3.00	0.13	48.17	32.95	59.97	41.02
170	3.50	0.09	58.01	39.68	117.98	80.70
200	3.75	0.07	14.48	9.90	132.46	90.60
230	4.00	0.06	5.97	4.08	138.43	94.68

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.58	3.43	3.11	2.76	2.62	2.30

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	3.05	0.12	0.43	-0.64	5.75

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 005	—●—		SP-SM	#200 - 9.40 #230 - 5.32			3.11	3.05	-0.64	5.75	0.43

Comments: Station: 61+22 Range: -0+49

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	12-29-09
Analyzed By:	TD
Easting (X, ft):	3,741,382
Northing (Y, ft):	296,804
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 011

Analysis Date: 01-14-10

Analyzed By: PB

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,741,695	296,426		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-6/2	Station: 66+25 Range: 1+55

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
100.65	97.65	0.56	0.00	#200 - 6.43 #230 - 3.53			0

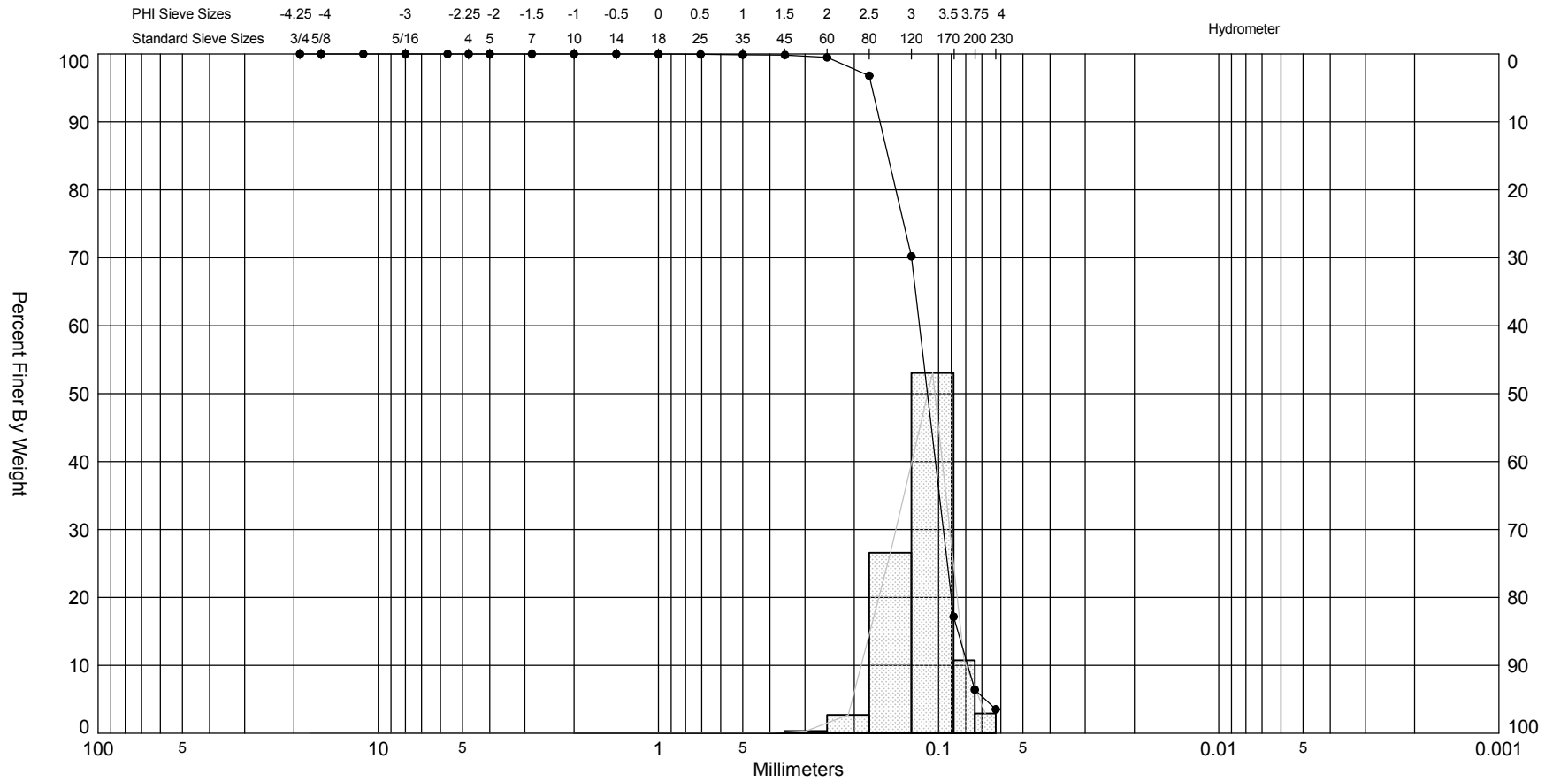
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.01	0.01	0.02	0.02
25	0.50	0.71	0.04	0.04	0.06	0.06
35	1.00	0.50	0.05	0.05	0.11	0.11
45	1.50	0.35	0.04	0.04	0.15	0.15
60	2.00	0.25	0.35	0.35	0.50	0.50
80	2.50	0.18	2.72	2.70	3.22	3.20
120	3.00	0.13	26.75	26.58	29.97	29.78
170	3.50	0.09	53.39	53.05	83.36	82.83
200	3.75	0.07	10.81	10.74	94.17	93.57
230	4.00	0.06	2.92	2.90	97.09	96.47

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.87	3.53	3.43	3.19	2.91	2.74	2.53

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.14	0.11	0.36	-1.02	8.16

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 011	—●—		SP-SM	#200 - 6.43 #230 - 3.53			3.19	3.14	-1.02	8.16	0.36

Comments: Station: 66+25 Range: 1+55

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	01-14-10
Analyzed By:	PB
Easting (X, ft):	3,741,695
Northing (Y, ft):	296,426
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 020

Analysis Date: 01-14-10

Analyzed By: PB

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FL 33431
ph (561) 391-8102
fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,742,092	296,122		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-6/2	Station: 71+38 Range: 3+07

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
110.52	104.16	1.27	0.00	#200 - 11.06 #230 - 6.91			0

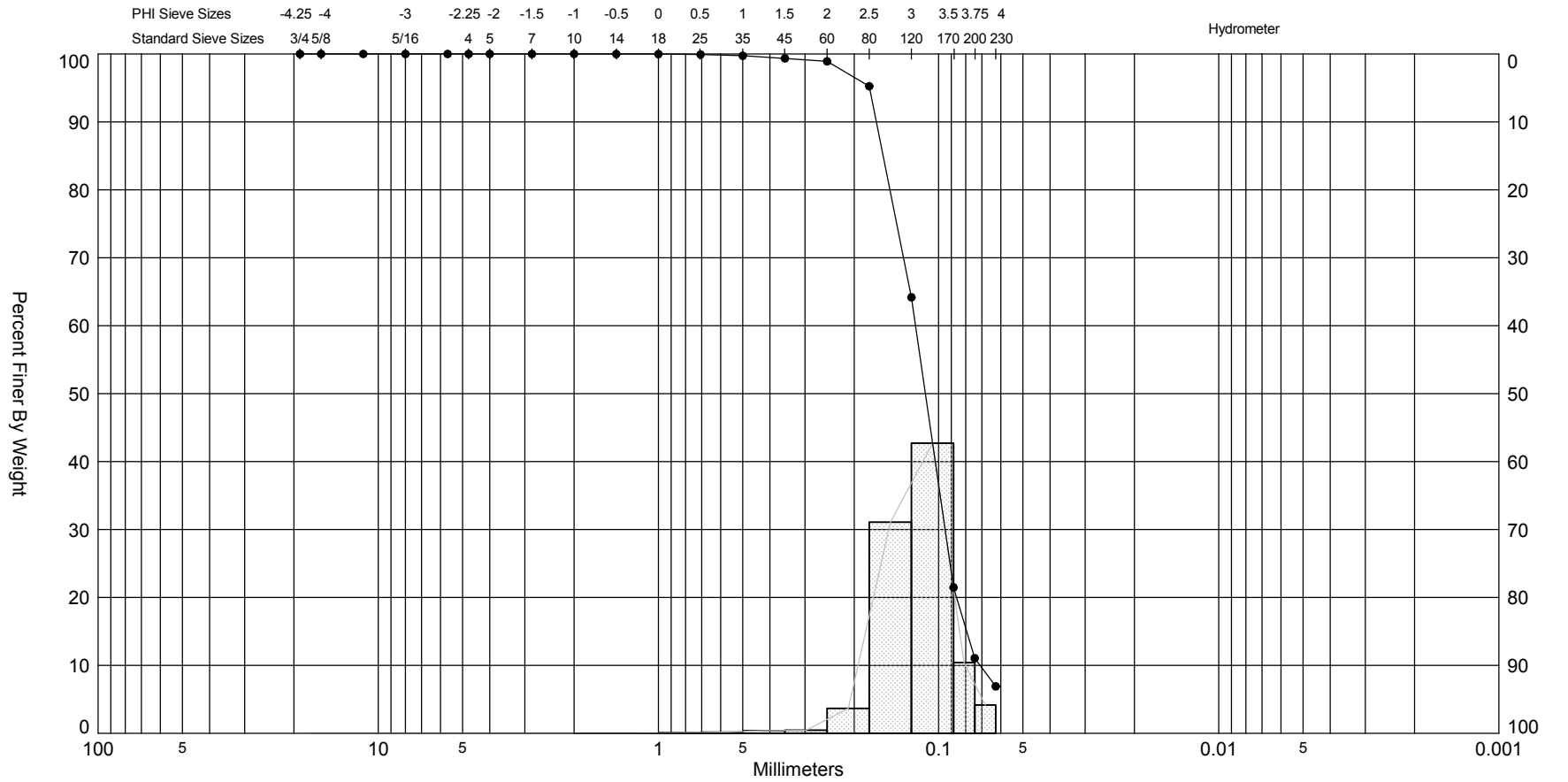
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.01	0.01	0.02	0.02
25	0.50	0.71	0.08	0.07	0.10	0.09
35	1.00	0.50	0.20	0.18	0.30	0.27
45	1.50	0.35	0.42	0.38	0.72	0.65
60	2.00	0.25	0.49	0.44	1.21	1.09
80	2.50	0.18	4.04	3.66	5.25	4.75
120	3.00	0.13	34.34	31.07	39.59	35.82
170	3.50	0.09	47.20	42.71	86.79	78.53
200	3.75	0.07	11.51	10.41	98.30	88.94
230	4.00	0.06	4.59	4.15	102.89	93.09

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.63	3.46	3.17	2.83	2.68	2.50

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.09	0.12	0.42	-1.12	7.92

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 020	—●—		SP-SM	#200 - 11.06 #230 - 6.91			3.17	3.09	-1.12	7.92	0.42

Comments: Station: 71+38 Range: 3+07

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	01-14-10
Analyzed By:	PB
Easting (X, ft):	3,742,092
Northing (Y, ft):	296,122
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 026

Analysis Date: 01-29-10

Analyzed By: TD

Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,741,641	296,535		

USCS:	Munsell:	Comments:
SW	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-6/2	Station: 64+96 Range: 1+54

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
123.39	119.52	0.18	0.00	#200 - 4.71 #230 - 3.28			2

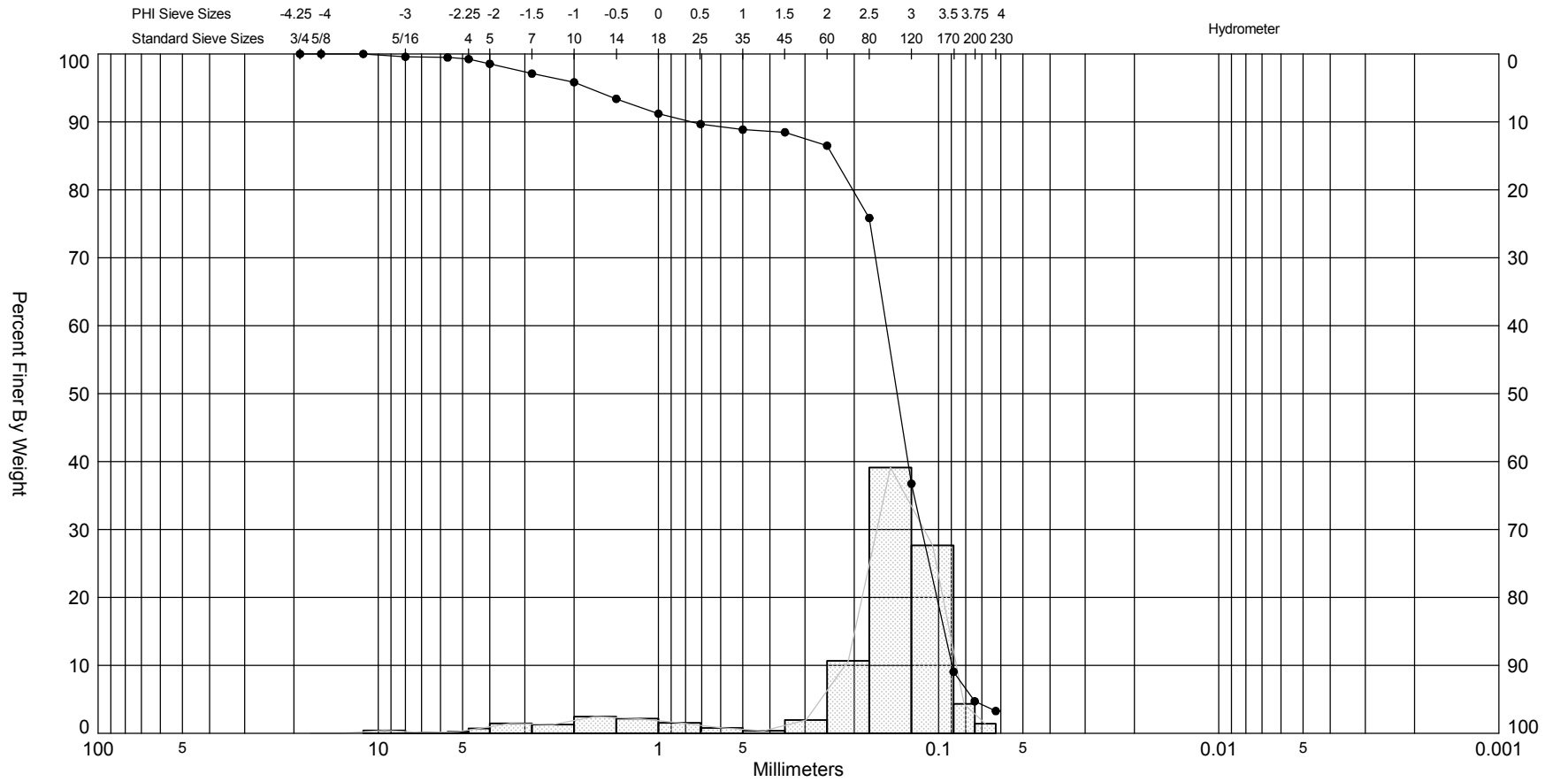
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.52	0.42	0.52	0.42
3.5	-2.50	5.66	0.12	0.10	0.64	0.52
4	-2.25	4.76	0.28	0.23	0.92	0.75
5	-2.00	4.00	0.86	0.70	1.78	1.45
7	-1.50	2.83	1.78	1.44	3.56	2.89
10	-1.00	2.00	1.58	1.28	5.14	4.17
14	-0.50	1.41	3.01	2.44	8.15	6.61
18	0.00	1.00	2.69	2.18	10.84	8.79
25	0.50	0.71	1.90	1.54	12.74	10.33
35	1.00	0.50	1.00	0.81	13.74	11.14
45	1.50	0.35	0.48	0.39	14.22	11.53
60	2.00	0.25	2.43	1.97	16.65	13.50
80	2.50	0.18	13.14	10.65	29.79	24.15
120	3.00	0.13	48.26	39.11	78.05	63.26
170	3.50	0.09	34.16	27.68	112.21	90.94
200	3.75	0.07	5.37	4.35	117.58	95.29
230	4.00	0.06	1.76	1.43	119.34	96.72

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.73	3.37	3.21	2.83	2.51	2.12	-0.83

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	2.46	0.18	1.29	-2.28	7.7

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 026	—●—		SW	#200 - 4.71 #230 - 3.28			2.83	2.46	-2.28	7.7	1.29

Comments: Station: 64+96 Range: 1+54

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	01-29-10
Analyzed By:	TD
Easting (X, ft):	3,741,641
Northing (Y, ft):	296,535
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 033

Analysis Date: 01-29-10

Analyzed By: TD

Coastal Planning & Engineering
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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,742,299	296,161		

USCS:	Munsell:	Comments:
SW-SM	Wet - 2.5Y-4/1 Dry - 5Y-5/1 Washed - 5Y-6/2	Station: 72+67 Range: 1+58

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
114.61	110.11	0.17	0.00	#200 - 5.55 #230 - 4.09			1

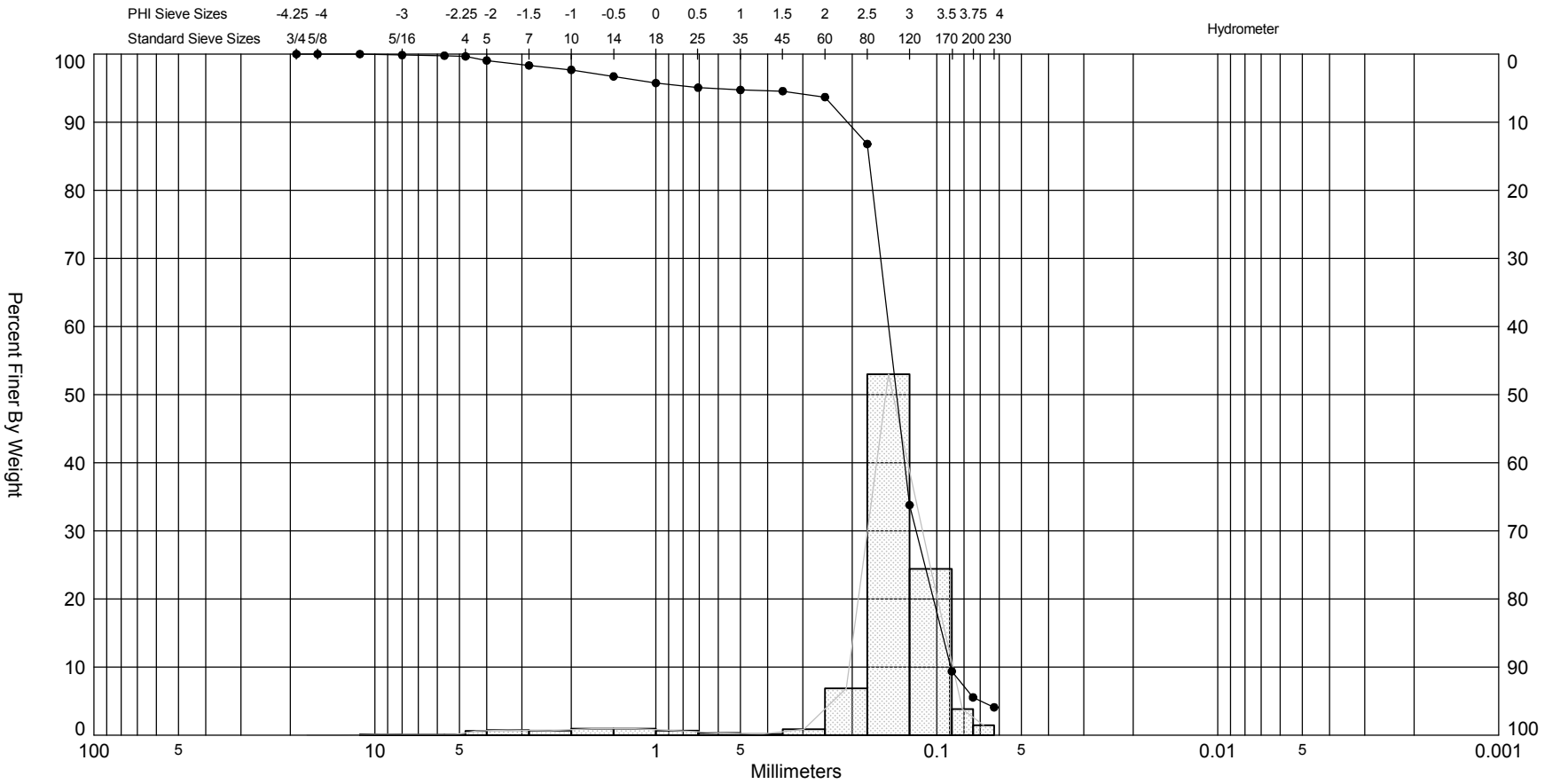
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.16	0.14	0.16	0.14
3.5	-2.50	5.66	0.10	0.09	0.26	0.23
4	-2.25	4.76	0.11	0.10	0.37	0.33
5	-2.00	4.00	0.70	0.61	1.07	0.94
7	-1.50	2.83	0.84	0.73	1.91	1.67
10	-1.00	2.00	0.75	0.65	2.66	2.32
14	-0.50	1.41	1.10	0.96	3.76	3.28
18	0.00	1.00	1.11	0.97	4.87	4.25
25	0.50	0.71	0.78	0.68	5.65	4.93
35	1.00	0.50	0.39	0.34	6.04	5.27
45	1.50	0.35	0.20	0.17	6.24	5.44
60	2.00	0.25	1.01	0.88	7.25	6.32
80	2.50	0.18	7.89	6.88	15.14	13.20
120	3.00	0.13	60.76	53.01	75.90	66.21
170	3.50	0.09	27.98	24.41	103.88	90.62
200	3.75	0.07	4.39	3.83	108.27	94.45
230	4.00	0.06	1.67	1.46	109.94	95.91

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.84	3.36	3.18	2.85	2.61	2.53	0.60

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	2.68	0.16	0.97	-3.39	15.78

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 033	—●—		SW-SM	#200 - 5.55 #230 - 4.09			2.85	2.68	-3.39	15.78	0.97

Comments: Station: 72+67 Range: 1+58

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	01-29-10
Analyzed By:	TD
Easting (X, ft):	3,742,299
Northing (Y, ft):	296,161
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 038

Analysis Date: 02-19-10

Analyzed By: GL

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Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,742,827	295,992		

USCS:	Munsell:	Comments:
SP	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-5/2	Station: 77+51 Range: 1+13

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
98.28	96.87	0.35	0.00	#200 - 2.88 #230 - 1.79			0

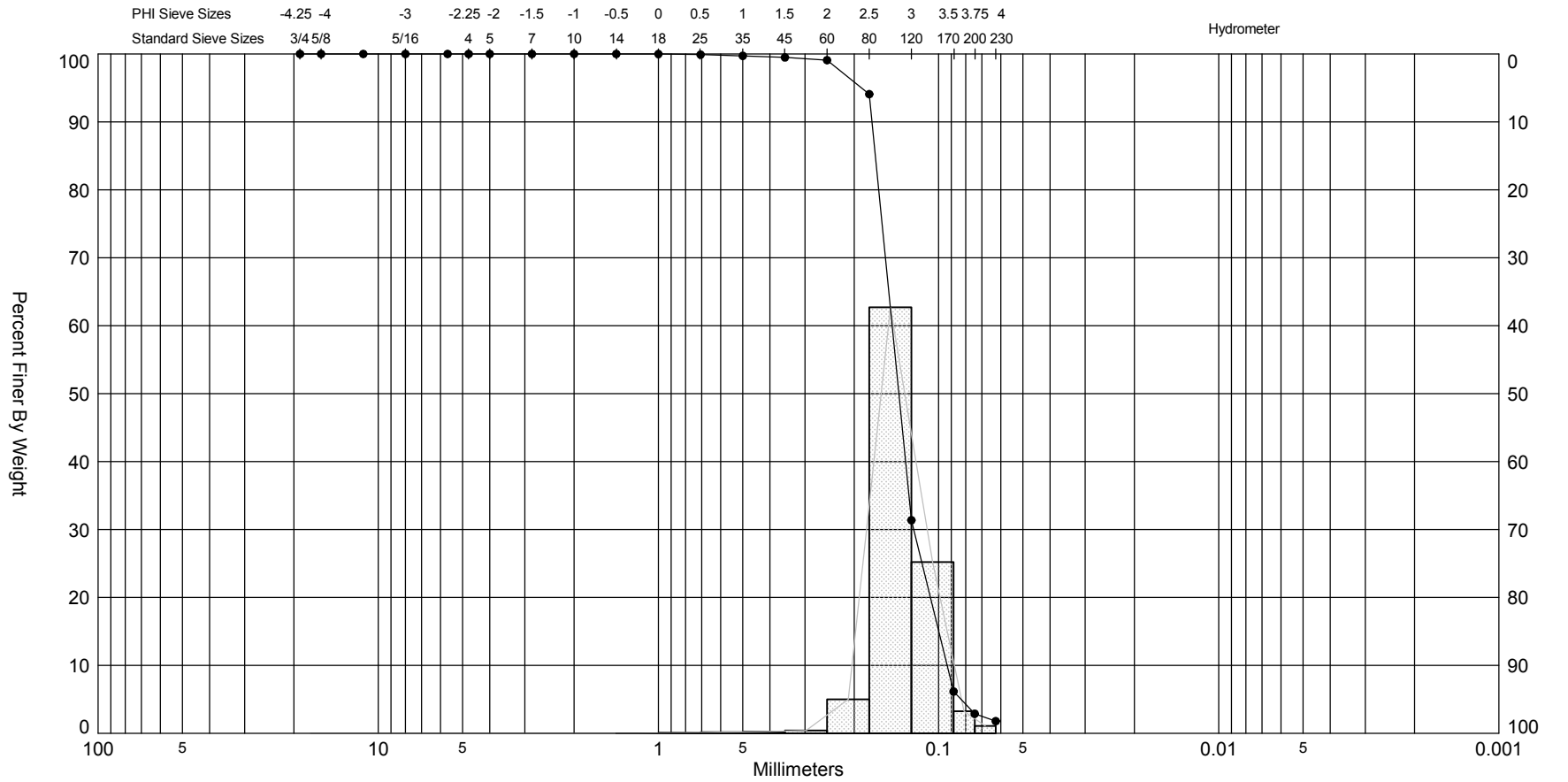
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.01	0.01	0.01	0.01
25	0.50	0.71	0.09	0.09	0.10	0.10
35	1.00	0.50	0.18	0.18	0.28	0.28
45	1.50	0.35	0.23	0.23	0.51	0.51
60	2.00	0.25	0.40	0.41	0.91	0.92
80	2.50	0.18	4.91	5.00	5.82	5.92
120	3.00	0.13	61.63	62.71	67.45	68.63
170	3.50	0.09	24.79	25.22	92.24	93.85
200	3.75	0.07	3.21	3.27	95.45	97.12
230	4.00	0.06	1.07	1.09	96.52	98.21

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.59	3.30	3.13	2.85	2.65	2.58	2.41

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	2.88	0.14	0.35	-0.72	9.94

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 038	—●—		SP	#200 - 2.88 #230 - 1.79			2.85	2.88	-0.72	9.94	0.35

Comments: Station: 77+51 Range: 1+13

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	02-19-10
Analyzed By:	GL
Easting (X, ft):	3,742,827
Northing (Y, ft):	295,992
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 046

Analysis Date: 02-19-10

Analyzed By: GL

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FL 33431
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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,743,317	295,877		

USCS:	Munsell:	Comments:
SP	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-5/2	Station: 82+61 Range: 1+90

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
98.70	95.89	0.19	0.00	#200 - 4.33 #230 - 3.04			0

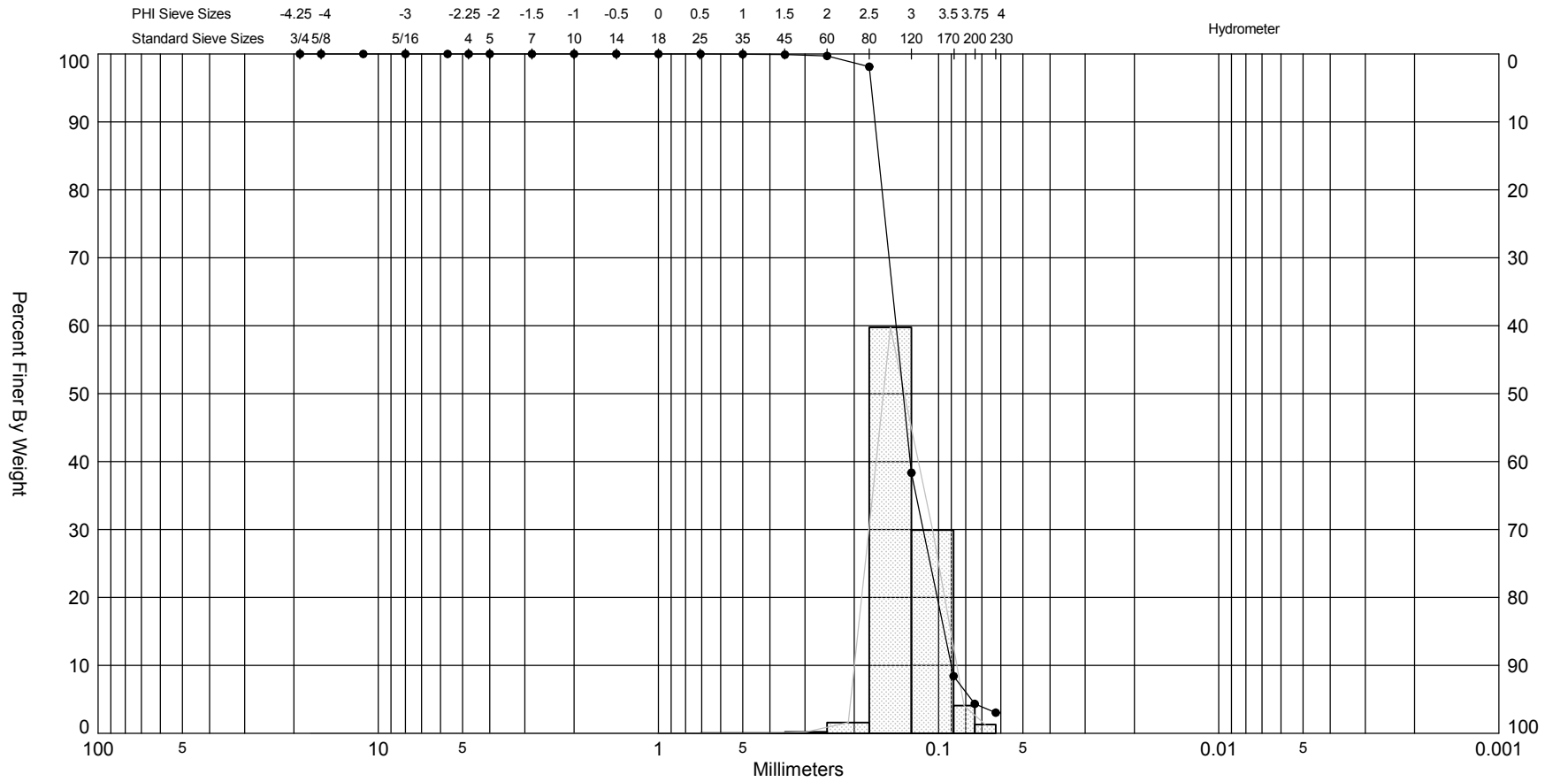
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.01	0.01	0.01	0.01
35	1.00	0.50	0.03	0.03	0.04	0.04
45	1.50	0.35	0.06	0.06	0.10	0.10
60	2.00	0.25	0.19	0.19	0.29	0.29
80	2.50	0.18	1.57	1.59	1.86	1.88
120	3.00	0.13	58.99	59.77	60.85	61.65
170	3.50	0.09	29.54	29.93	90.39	91.58
200	3.75	0.07	4.04	4.09	94.43	95.67
230	4.00	0.06	1.27	1.29	95.70	96.96

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.71	3.37	3.22	2.90	2.69	2.62	2.53

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	2.94	0.13	0.31	0.36	5.04

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 046	—●—		SP	#200 - 4.33 #230 - 3.04			2.9	2.94	0.36	5.04	0.31

Comments: Station: 82+61 Range: 1+90

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	02-19-10
Analyzed By:	GL
Easting (X, ft):	3,743,317
Northing (Y, ft):	295,877
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 053

Analysis Date: 03-15-10

Analyzed By: KG

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,743,073	295,880		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-5/1 Washed - 5Y-6/2	Station: 80+01 Range: 1+57

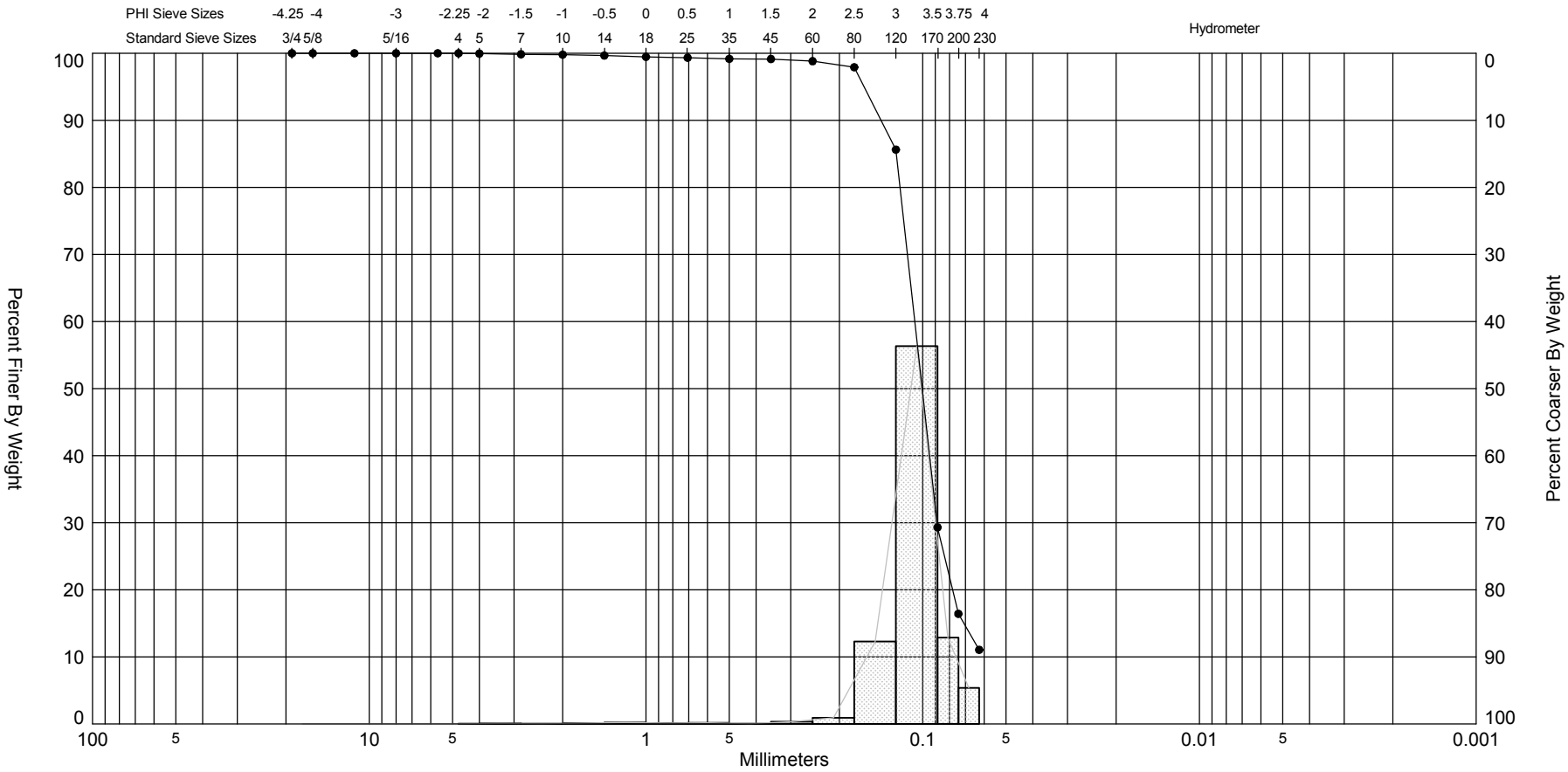
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
119.26	109.53	3.45	0.00	#200 - 16.42 #230 - 11.05			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.06	0.05	0.06	0.05
7	-1.50	2.83	0.12	0.10	0.18	0.15
10	-1.00	2.00	0.07	0.06	0.25	0.21
14	-0.50	1.41	0.16	0.13	0.41	0.34
18	0.00	1.00	0.23	0.19	0.64	0.53
25	0.50	0.71	0.16	0.13	0.80	0.66
35	1.00	0.50	0.20	0.17	1.00	0.83
45	1.50	0.35	0.03	0.03	1.03	0.86
60	2.00	0.25	0.38	0.32	1.41	1.18
80	2.50	0.18	1.07	0.90	2.48	2.08
120	3.00	0.13	14.66	12.29	17.14	14.37
170	3.50	0.09	67.17	56.32	84.31	70.69
200	3.75	0.07	15.37	12.89	99.68	83.58
230	4.00	0.06	6.40	5.37	106.08	88.95

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.77	3.58	3.32	3.09	3.01	2.62

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.22	0.11	0.48	-4.95	44



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 053	—●—		SM	#200 - 16.42 #230 - 11.05			3.32	3.22	-4.95	44	0.48

Comments: Station: 80+01 Range: 1+57

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	03-15-10
Analyzed By:	KG
Easting (X, ft):	3,743,073
Northing (Y, ft):	295,880
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 060

Analysis Date: 03-11-10

Analyzed By: PB

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,743,680	295,736		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-3/2 Dry - 5Y-5/1 Washed - 5Y-6/2	Station: 85+76 Range: 3+35

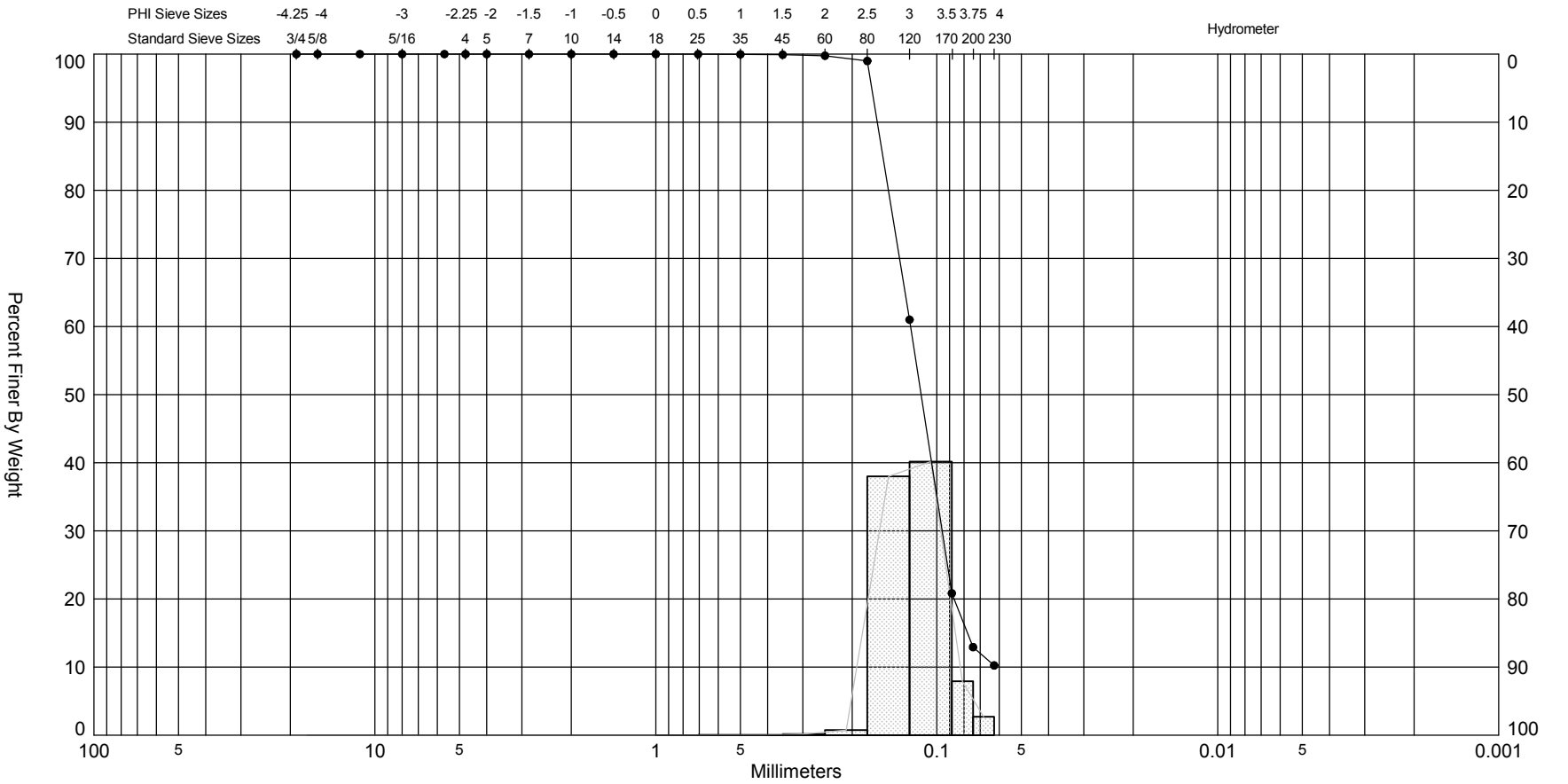
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
115.10	104.74	1.42	0.00	#200 - 12.93 #230 - 10.24			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.01	0.01	0.01	0.01
35	1.00	0.50	0.03	0.03	0.04	0.04
45	1.50	0.35	0.06	0.05	0.10	0.09
60	2.00	0.25	0.17	0.15	0.27	0.24
80	2.50	0.18	0.89	0.77	1.16	1.01
120	3.00	0.13	43.73	37.99	44.89	39.00
170	3.50	0.09	46.24	40.17	91.13	79.17
200	3.75	0.07	9.09	7.90	100.22	87.07
230	4.00	0.06	3.10	2.69	103.32	89.76

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.65	3.45	3.14	2.82	2.70	2.55

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.08	0.12	0.34	-0.02	4.05



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 060	—●—		SM	#200 - 12.93 #230 - 10.24			3.14	3.08	-0.02	4.05	0.34

Comments: Station: 85+76 Range: 3+35

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	03-11-10
Analyzed By:	PB
Easting (X, ft):	3,743,680
Northing (Y, ft):	295,736
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 067

Analysis Date: 03-15-10

Analyzed By: KG

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,744,102	296,014		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-5/1 Washed - 5Y-6/2	Station: 89+71 Range: 1+00

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
113.92	107.80	2.48	0.00	#200 - 12.61 #230 - 7.53			0

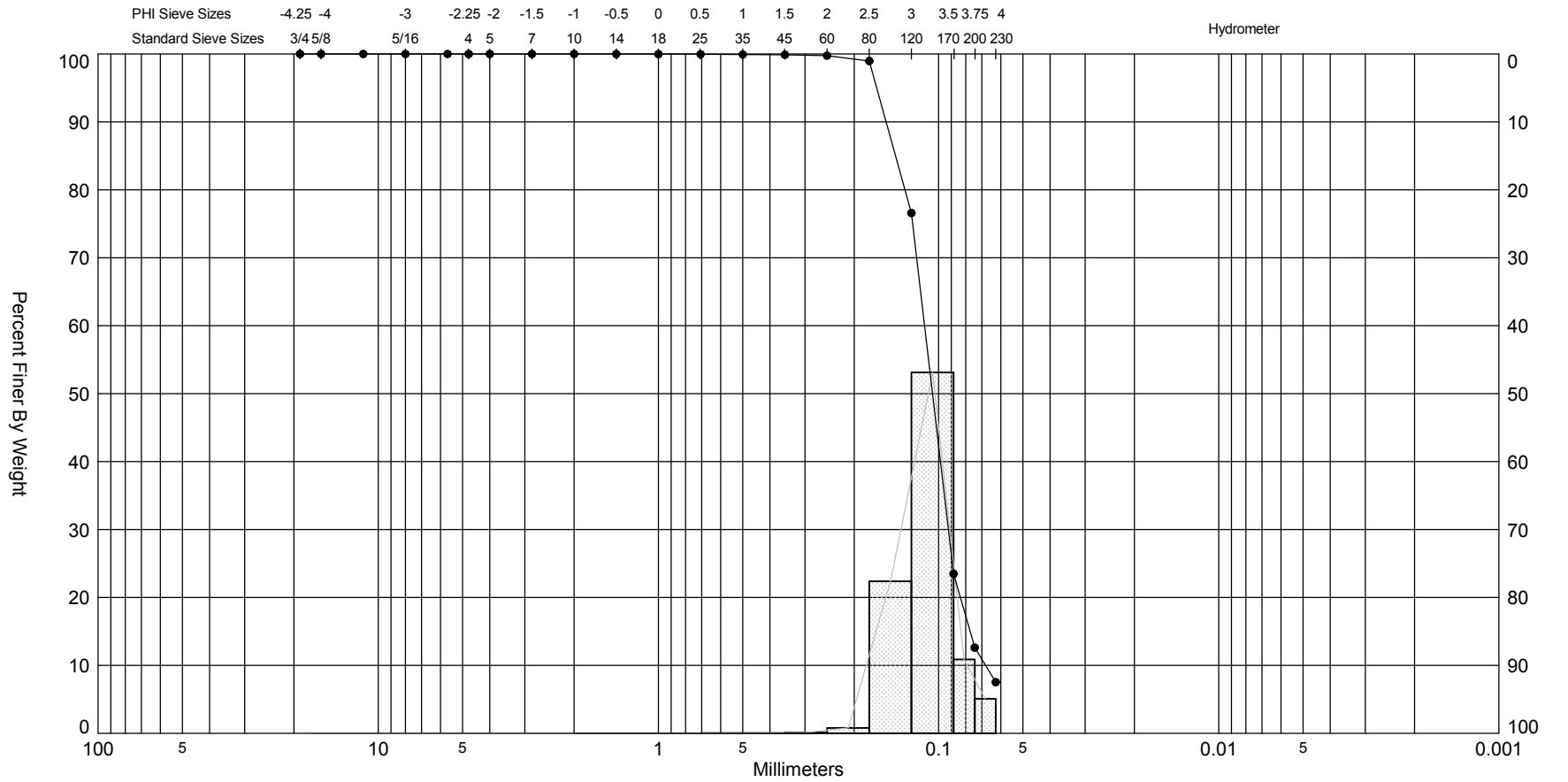
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.01	0.01	0.02	0.02
25	0.50	0.71	0.02	0.02	0.04	0.04
35	1.00	0.50	0.04	0.04	0.08	0.08
45	1.50	0.35	0.04	0.04	0.12	0.12
60	2.00	0.25	0.15	0.13	0.27	0.25
80	2.50	0.18	0.89	0.78	1.16	1.03
120	3.00	0.13	25.49	22.38	26.65	23.41
170	3.50	0.09	60.50	53.11	87.15	76.52
200	3.75	0.07	12.38	10.87	99.53	87.39
230	4.00	0.06	5.79	5.08	105.32	92.47

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.67	3.49	3.25	3.01	2.83	2.59

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.19	0.11	0.34	-0.73	8.11

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 067	—●—		SM	#200 - 12.61 #230 - 7.53			3.25	3.19	-0.73	8.11	0.34

Comments: Station: 89+71 Range: 1+00

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	03-15-10
Analyzed By:	KG
Easting (X, ft):	3,744,102
Northing (Y, ft):	296,014
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 074

Analysis Date: 03-15-10

Analyzed By: KG

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,744,645	295,955		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-5/1 Washed - 5Y-6/2	Station: 94+90 Range: 2+00

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
119.91	113.15	2.16	0.01	#200 - 10.74 #230 - 7.46			0

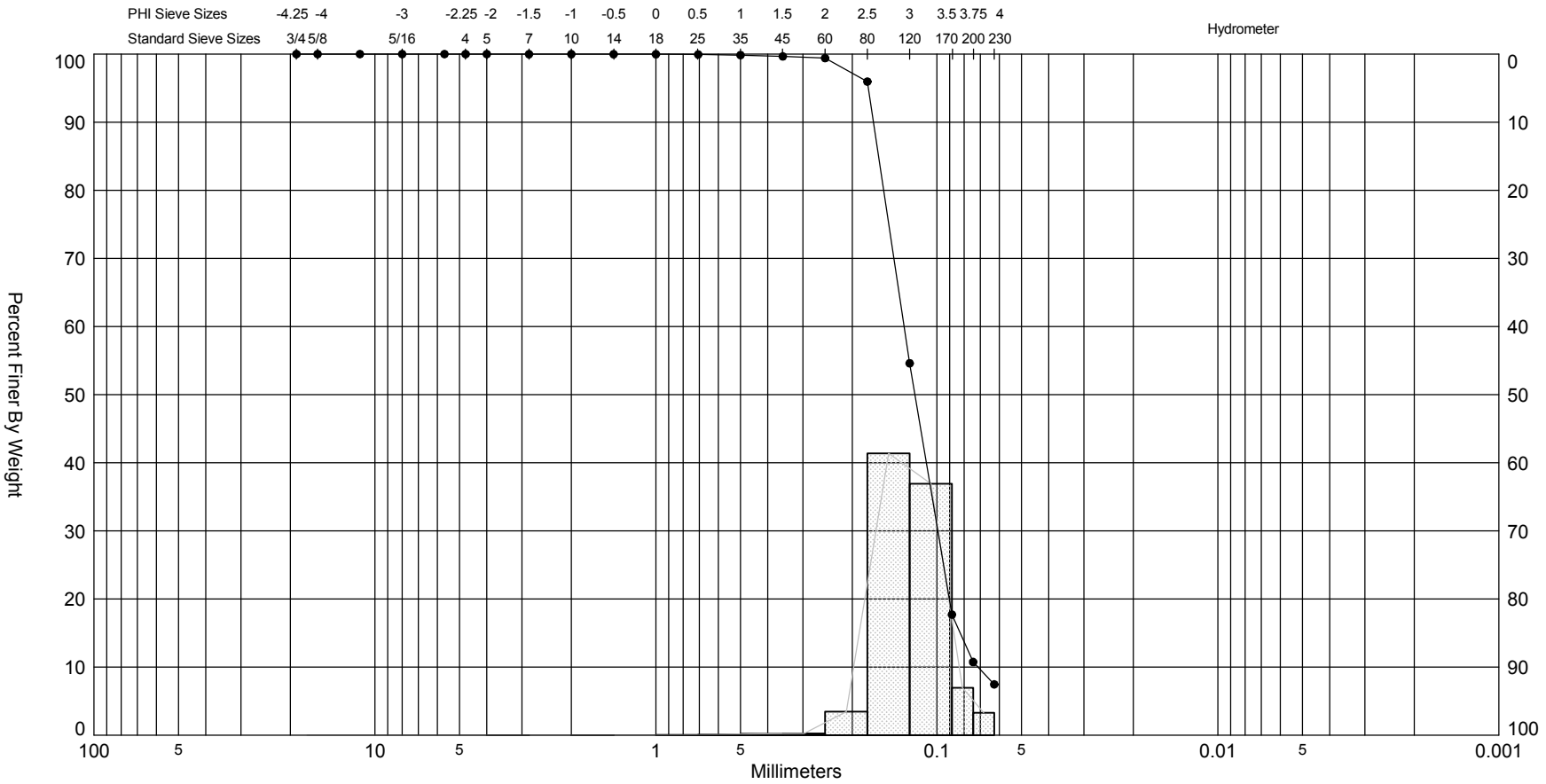
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.01	0.01	0.01	0.01
10	-1.00	2.00	0.00	0.00	0.01	0.01
14	-0.50	1.41	0.01	0.01	0.02	0.02
18	0.00	1.00	0.00	0.00	0.02	0.02
25	0.50	0.71	0.05	0.04	0.07	0.06
35	1.00	0.50	0.11	0.09	0.18	0.15
45	1.50	0.35	0.23	0.19	0.41	0.34
60	2.00	0.25	0.30	0.25	0.71	0.59
80	2.50	0.18	4.14	3.45	4.85	4.04
120	3.00	0.13	49.60	41.36	54.45	45.40
170	3.50	0.09	44.25	36.90	98.70	82.30
200	3.75	0.07	8.35	6.96	107.05	89.26
230	4.00	0.06	3.93	3.28	110.98	92.54

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.56	3.40	3.06	2.75	2.64	2.51

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	3.03	0.12	0.39	-0.64	8.3

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 074	—●—		SP-SM	#200 - 10.74 #230 - 7.46			3.06	3.03	-0.64	8.3	0.39

Comments: Station: 94+90 Range: 2+00

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	03-15-10
Analyzed By:	KG
Easting (X, ft):	3,744,645
Northing (Y, ft):	295,955
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 085

Analysis Date: 04-12-10

Analyzed By: KG

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,744,816	295,811		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-6/2 Washed - 5Y-6/2	Station: 96+16 Range: 3+70

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
79.20	74.51	1.34	0.00	#200 - 12.41 #230 - 7.61			0

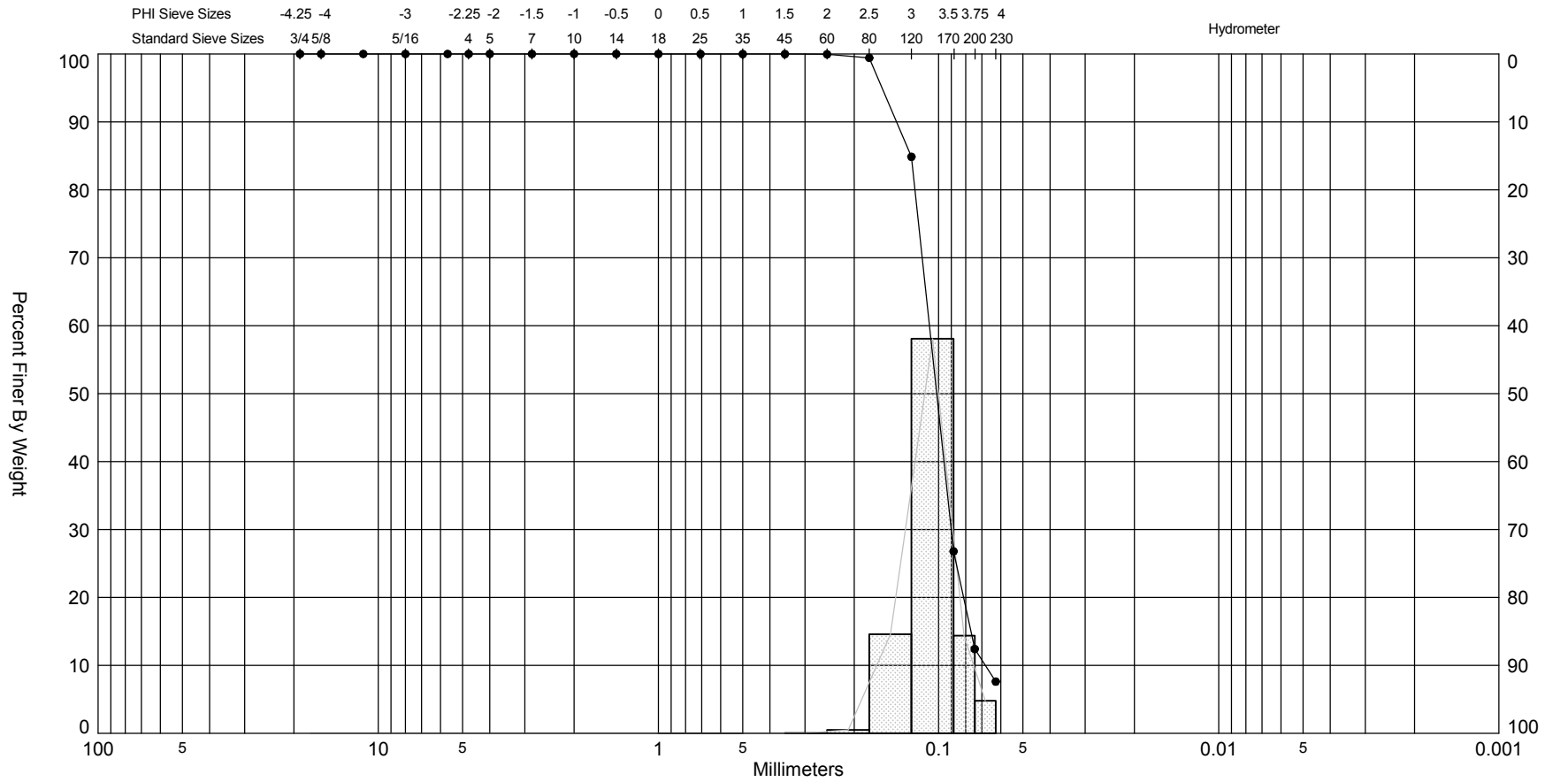
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.01	0.01	0.01	0.01
35	1.00	0.50	0.01	0.01	0.02	0.02
45	1.50	0.35	0.00	0.00	0.02	0.02
60	2.00	0.25	0.02	0.03	0.04	0.05
80	2.50	0.18	0.41	0.52	0.45	0.57
120	3.00	0.13	11.54	14.57	11.99	15.14
170	3.50	0.09	45.99	58.07	57.98	73.21
200	3.75	0.07	11.39	14.38	69.37	87.59
230	4.00	0.06	3.80	4.80	73.17	92.39

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.69	3.53	3.30	3.08	3.01	2.65

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.26	0.10	0.3	-0.47	5.51

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 085	—●—		SM	#200 - 12.41 #230 - 7.61			3.3	3.26	-0.47	5.51	0.3

Comments: Station: 96+16 Range: 3+70

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-12-10
Analyzed By:	KG
Easting (X, ft):	3,744,816
Northing (Y, ft):	295,811
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 089

Analysis Date: 04-12-10

Analyzed By: KG

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,745,204	296,253		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/2 Dry - 5Y-6/2 Washed - 5Y-6/2	Station: 101+19 Range: 0+45

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
81.50	77.58	0.64	0.00	#200 - 9.98 #230 - 5.60			0

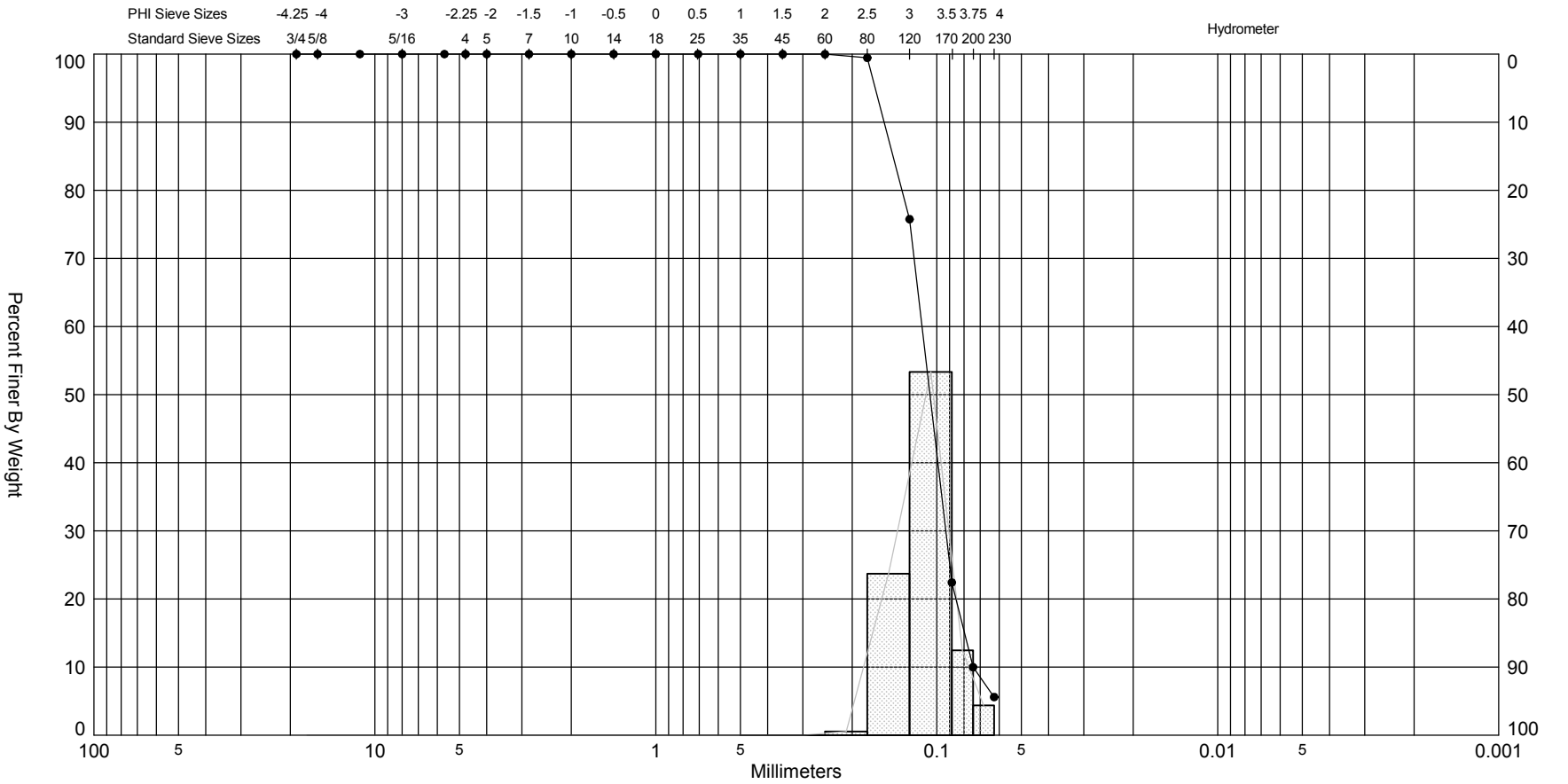
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.00	0.00	0.00	0.00
35	1.00	0.50	0.00	0.00	0.00	0.00
45	1.50	0.35	0.01	0.01	0.01	0.01
60	2.00	0.25	0.01	0.01	0.02	0.02
80	2.50	0.18	0.43	0.53	0.45	0.55
120	3.00	0.13	19.31	23.69	19.76	24.24
170	3.50	0.09	43.47	53.34	63.23	77.58
200	3.75	0.07	10.14	12.44	73.37	90.02
230	4.00	0.06	3.57	4.38	76.94	94.40

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.63	3.48	3.24	3.01	2.83	2.59

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.2	0.11	0.32	-0.11	2.94

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 089	—●—		SP-SM	#200 - 9.98 #230 - 5.60			3.24	3.2	-0.11	2.94	0.32

Comments: Station: 101+19 Range: 0+45

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-12-10
Analyzed By:	KG
Easting (X, ft):	3,745,204
Northing (Y, ft):	296,253
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 095

Analysis Date: 04-12-10

Analyzed By: KG

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Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,745,785	296,121		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-6/2 Washed - 5Y-7/2	Station: 106+19 Range: 3+75

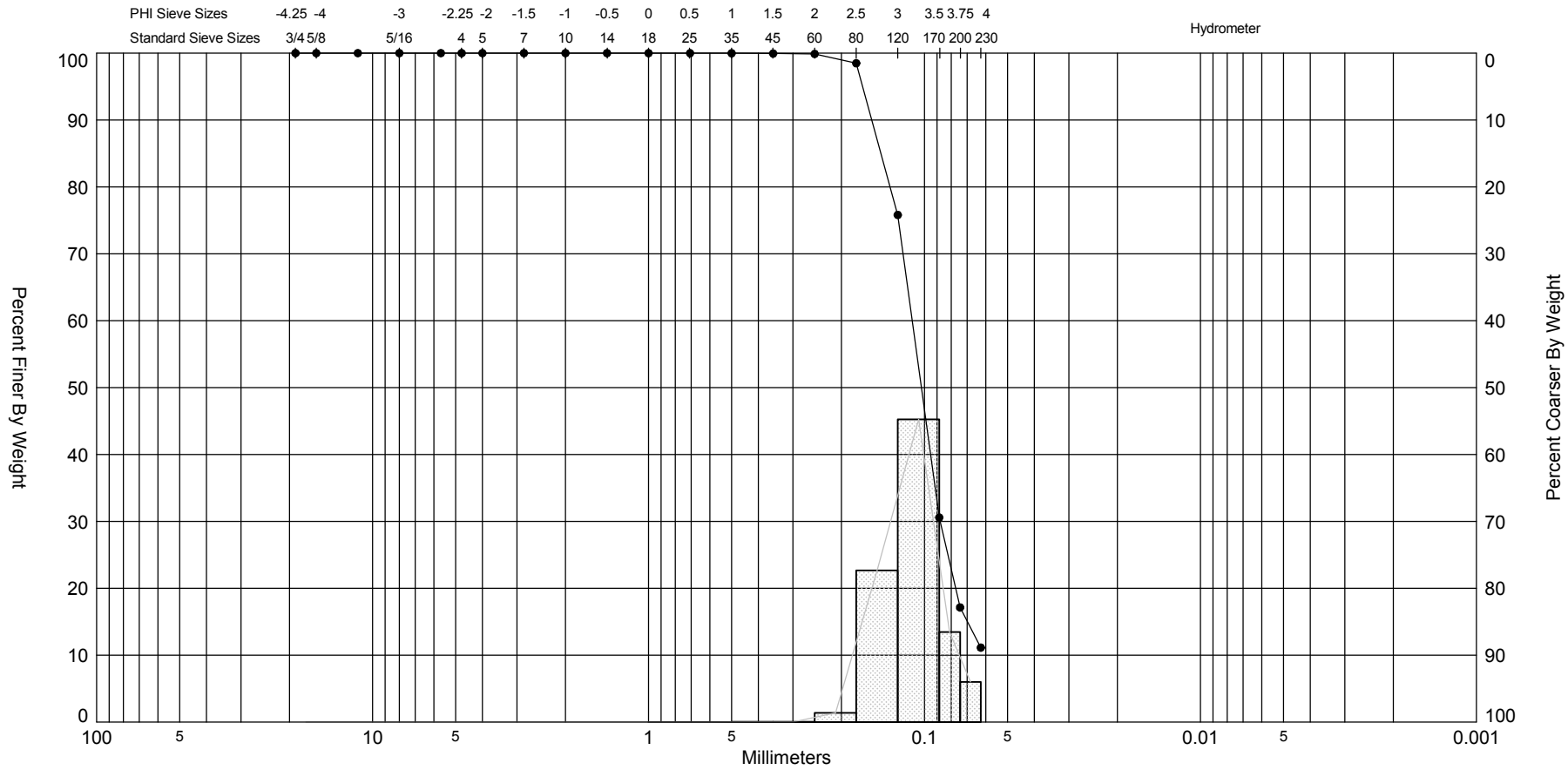
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
81.27	74.06	1.82	0.01	#200 - 17.13 #230 - 11.13			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.00	0.00	0.00	0.00
25	0.50	0.71	0.01	0.01	0.01	0.01
35	1.00	0.50	0.01	0.01	0.02	0.02
45	1.50	0.35	0.03	0.04	0.05	0.06
60	2.00	0.25	0.05	0.06	0.10	0.12
80	2.50	0.18	1.13	1.39	1.23	1.51
120	3.00	0.13	18.43	22.68	19.66	24.19
170	3.50	0.09	36.77	45.24	56.43	69.43
200	3.75	0.07	10.92	13.44	67.35	82.87
230	4.00	0.06	4.88	6.00	72.23	88.87

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.80	3.60	3.29	3.01	2.82	2.58

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.2	0.11	0.36	-0.34	3.95



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 095	—●—		SM	#200 - 17.13 #230 - 11.13			3.29	3.2	-0.34	3.95	0.36

Comments: Station: 106+19 Range: 3+75

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-12-10
Analyzed By:	KG
Easting (X, ft):	3,745,785
Northing (Y, ft):	296,121
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 101

Analysis Date: 04-12-10

Analyzed By: KG

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Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,746,239	296,338		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-6/2 Washed - 5Y-7/2	Station: 111+19 Range: 3+73

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
80.82	77.29	0.96	0.01	#200 - 9.71 #230 - 5.58			0

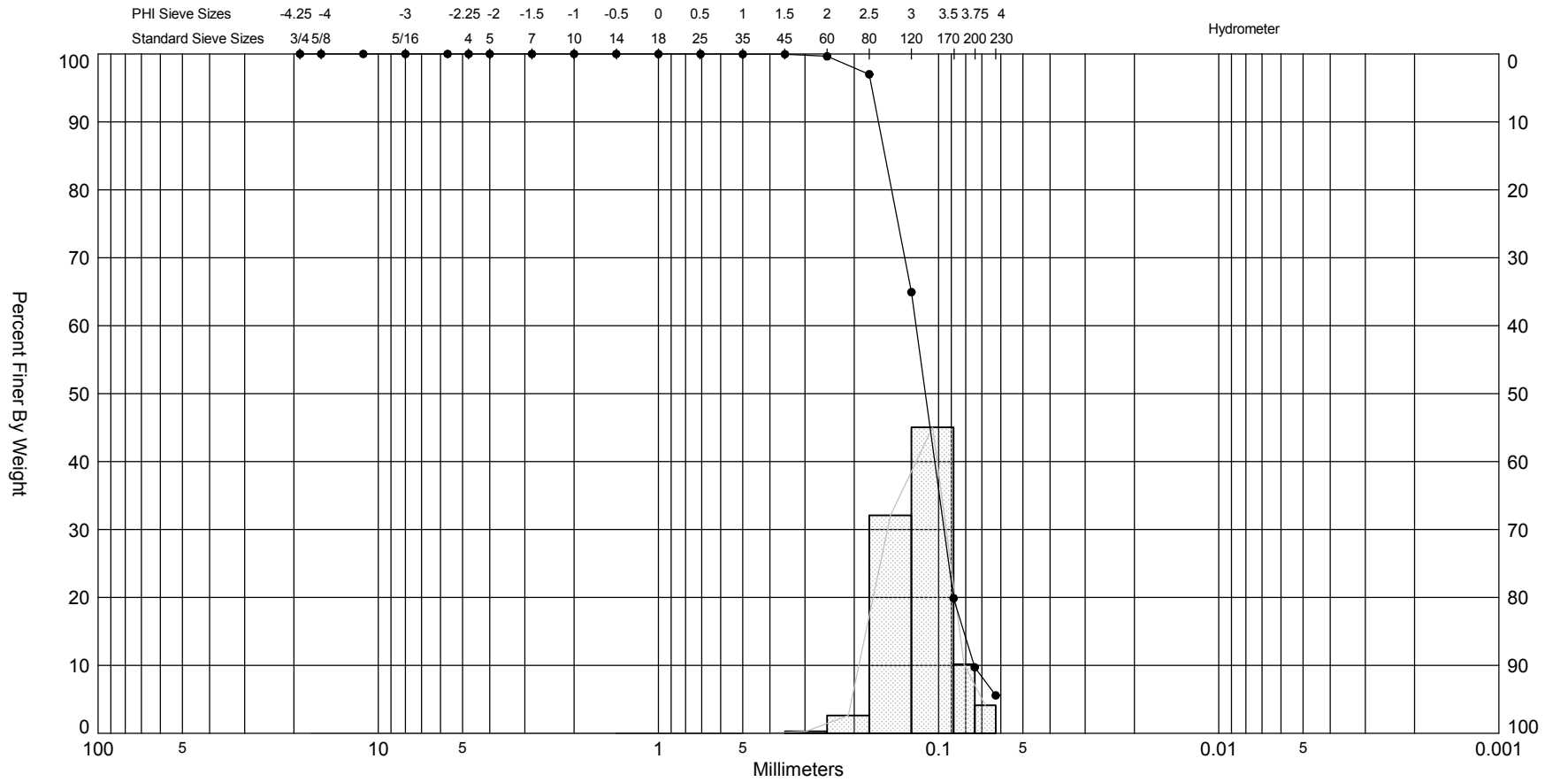
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.01	0.01	0.01	0.01
25	0.50	0.71	0.01	0.01	0.02	0.02
35	1.00	0.50	0.02	0.02	0.04	0.04
45	1.50	0.35	0.00	0.00	0.04	0.04
60	2.00	0.25	0.25	0.31	0.29	0.35
80	2.50	0.18	2.13	2.64	2.42	2.99
120	3.00	0.13	25.92	32.07	28.34	35.06
170	3.50	0.09	36.42	45.06	64.76	80.12
200	3.75	0.07	8.22	10.17	72.98	90.29
230	4.00	0.06	3.34	4.13	76.32	94.42

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.60	3.44	3.17	2.84	2.70	2.53

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.11	0.12	0.37	-0.37	4.65

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 101	—●—		SP-SM	#200 - 9.71 #230 - 5.58			3.17	3.11	-0.37	4.65	0.37

Comments: Station: 111+19 Range: 3+73

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-12-10
Analyzed By:	KG
Easting (X, ft):	3,746,239
Northing (Y, ft):	296,338
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 107

Analysis Date: 04-30-10

Analyzed By: TD

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Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,746,715	296,520		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-3/1 Dry - 5Y-5/2 Washed - 5Y-6/2	Station: 116+19 Range: 3+13

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
120.93	114.17	4.35	0.01	#200 - 15.01 #230 - 9.19			0

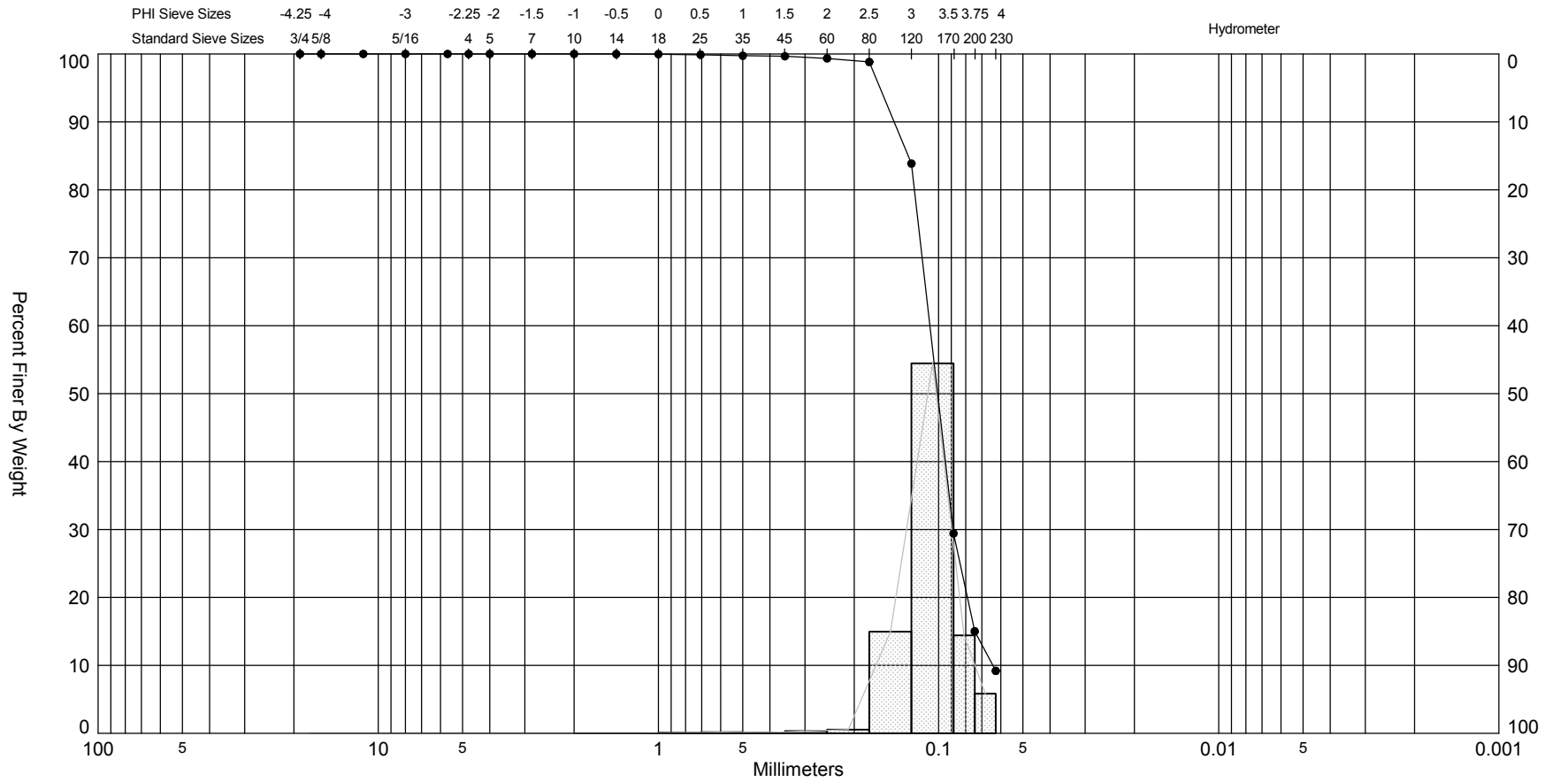
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.02	0.02	0.03	0.03
25	0.50	0.71	0.10	0.08	0.13	0.11
35	1.00	0.50	0.18	0.15	0.31	0.26
45	1.50	0.35	0.08	0.07	0.39	0.33
60	2.00	0.25	0.39	0.32	0.78	0.65
80	2.50	0.18	0.64	0.53	1.42	1.18
120	3.00	0.13	18.09	14.96	19.51	16.14
170	3.50	0.09	65.84	54.44	85.35	70.58
200	3.75	0.07	17.42	14.41	102.77	84.99
230	4.00	0.06	7.04	5.82	109.81	90.81

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.73	3.58	3.31	3.08	3.00	2.63

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.25	0.11	0.36	-1.82	15.16

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 107	—●—		SM	#200 - 15.01 #230 - 9.19			3.31	3.25	-1.82	15.16	0.36

Comments: Station: 116+19 Range: 3+13

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-30-10
Analyzed By:	TD
Easting (X, ft):	3,746,715
Northing (Y, ft):	296,520
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 112

Analysis Date: 04-30-10

Analyzed By: TD

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,746,366	296,376		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-5/2 Washed - 5Y-5/2	Station: 112+44 Range: 3+03

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
91.78	83.00	1.87	0.05	#200 - 17.97 #230 - 11.65			0

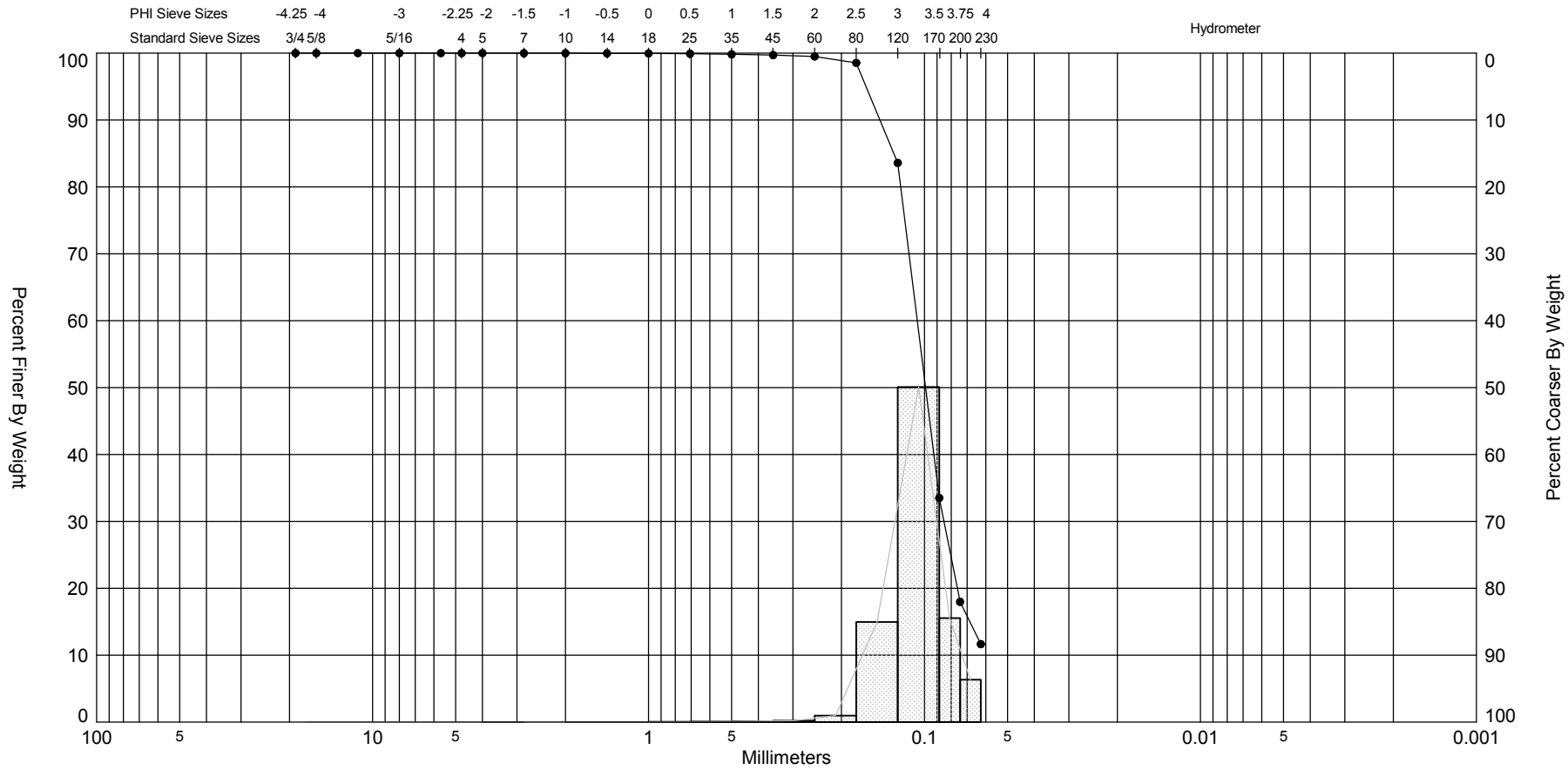
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.01	0.01	0.01	0.01
10	-1.00	2.00	0.00	0.00	0.01	0.01
14	-0.50	1.41	0.02	0.02	0.03	0.03
18	0.00	1.00	0.02	0.02	0.05	0.05
25	0.50	0.71	0.04	0.04	0.09	0.09
35	1.00	0.50	0.08	0.09	0.17	0.18
45	1.50	0.35	0.11	0.12	0.28	0.30
60	2.00	0.25	0.18	0.20	0.46	0.50
80	2.50	0.18	0.88	0.96	1.34	1.46
120	3.00	0.13	13.72	14.95	15.06	16.41
170	3.50	0.09	45.97	50.09	61.03	66.50
200	3.75	0.07	14.25	15.53	75.28	82.03
230	4.00	0.06	5.80	6.32	81.08	88.35

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.83	3.64	3.34	3.09	2.99	2.62

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.25	0.11	0.37	-1.88	17.37

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 112	—●—		SM	#200 - 17.97 #230 - 11.65			3.34	3.25	-1.88	17.37	0.37

Comments: Station: 112+44 Range: 3+03

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-30-10
Analyzed By:	TD
Easting (X, ft):	3,746,366
Northing (Y, ft):	296,376
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 122

Analysis Date: 04-30-10

Analyzed By: TD

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,747,069	296,640		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-3/1 Dry - 5Y-5/1 Washed - 2.5Y-6/2	Station: 119+94 Range: 3+23

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
92.46	88.72	0.56	0.00	#200 - 7.32 #230 - 4.66			0

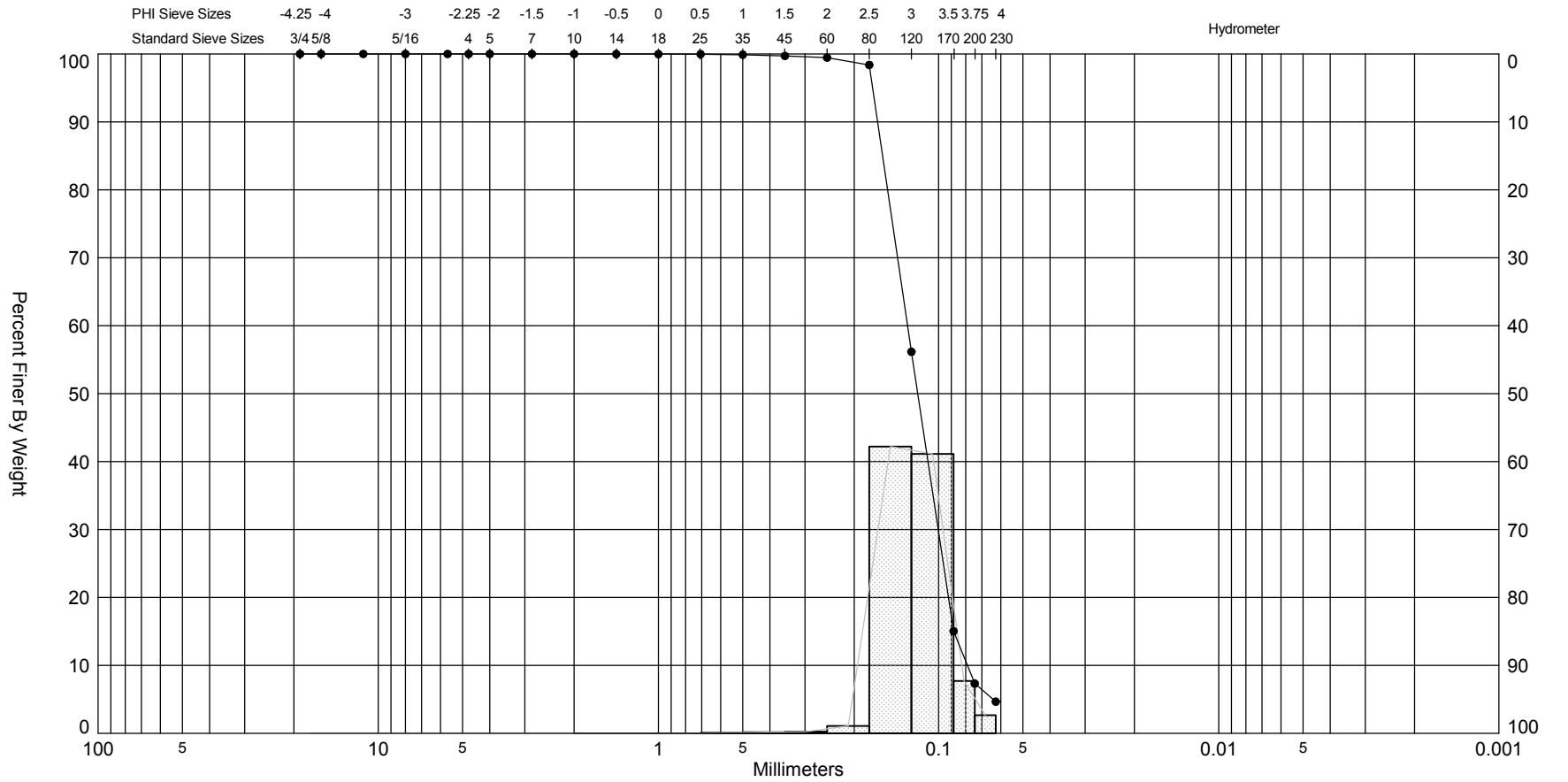
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.01	0.01	0.02	0.02
25	0.50	0.71	0.01	0.01	0.03	0.03
35	1.00	0.50	0.07	0.08	0.10	0.11
45	1.50	0.35	0.17	0.18	0.27	0.29
60	2.00	0.25	0.23	0.25	0.50	0.54
80	2.50	0.18	1.00	1.08	1.50	1.62
120	3.00	0.13	39.04	42.22	40.54	43.84
170	3.50	0.09	38.03	41.13	78.57	84.97
200	3.75	0.07	7.13	7.71	85.70	92.68
230	4.00	0.06	2.46	2.66	88.16	95.34

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.97	3.49	3.38	3.07	2.78	2.67	2.54

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.05	0.12	0.36	-0.53	7.55

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 122	—●—		SP-SM	#200 - 7.32 #230 - 4.66			3.07	3.05	-0.53	7.55	0.36

Comments: Station: 119+94 Range: 3+23

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	04-30-10
Analyzed By:	TD
Easting (X, ft):	3,747,069
Northing (Y, ft):	296,640
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 149

Analysis Date: 10-13-10

Analyzed By: JR

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,739,398	297,840		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-7/1 Washed - 5Y-7/2	Station: 38+77 Range: -0+41

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
102.48	98.10	0.91	0.02	#200 - 8.14 #230 - 5.18			1

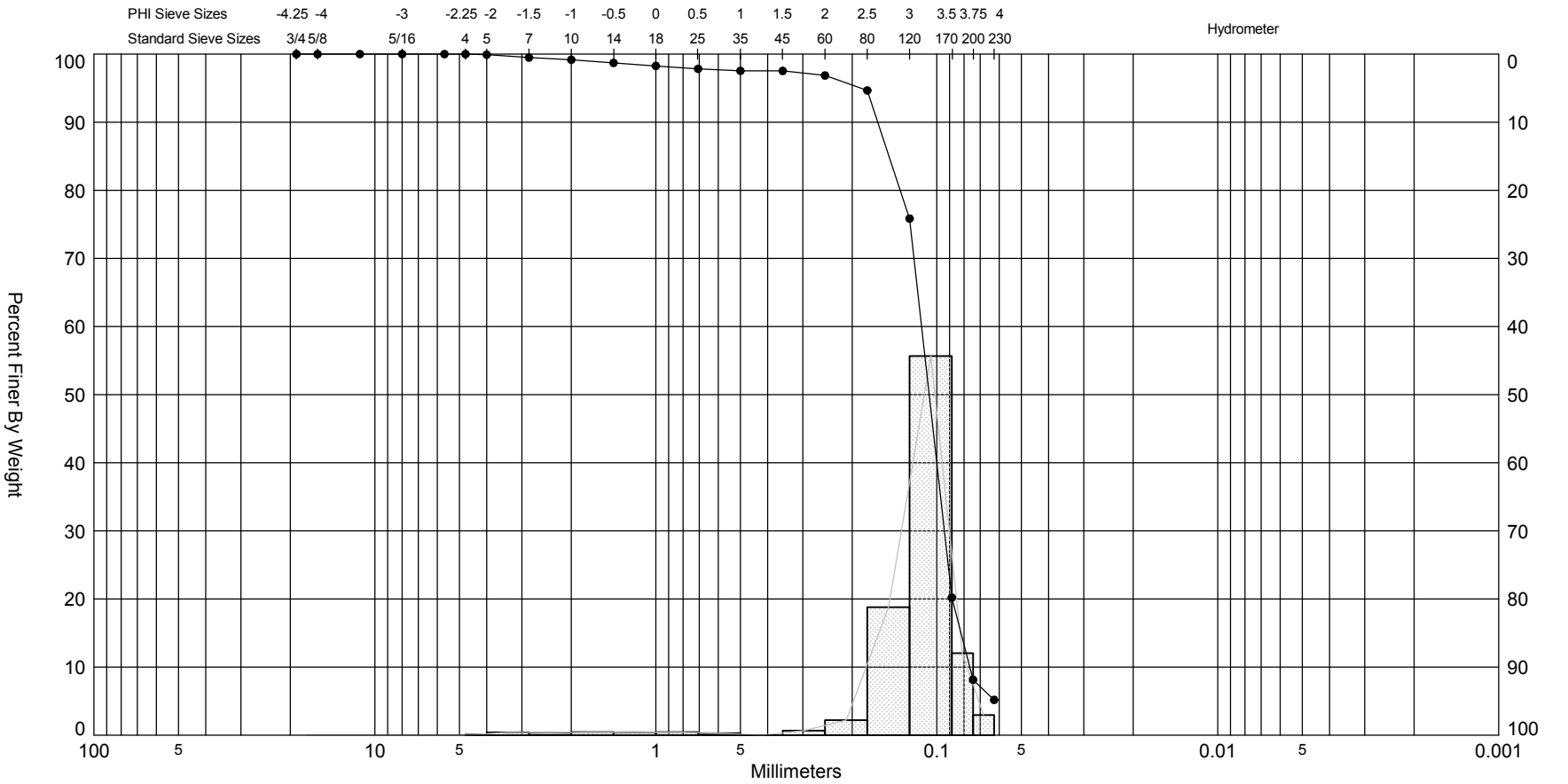
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.08	0.08	0.08	0.08
7	-1.50	2.83	0.44	0.43	0.52	0.51
10	-1.00	2.00	0.33	0.32	0.85	0.83
14	-0.50	1.41	0.48	0.47	1.33	1.30
18	0.00	1.00	0.44	0.43	1.77	1.73
25	0.50	0.71	0.45	0.44	2.22	2.17
35	1.00	0.50	0.30	0.29	2.52	2.46
45	1.50	0.35	0.01	0.01	2.53	2.47
60	2.00	0.25	0.69	0.67	3.22	3.14
80	2.50	0.18	2.25	2.20	5.47	5.34
120	3.00	0.13	19.28	18.81	24.75	24.15
170	3.50	0.09	57.03	55.65	81.78	79.80
200	3.75	0.07	12.36	12.06	94.14	91.86
230	4.00	0.06	3.03	2.96	97.17	94.82

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.59	3.46	3.23	3.01	2.78	2.42

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.08	0.12	0.7	-4.32	26.15

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 149	—●—		SP-SM	#200 - 8.14 #230 - 5.18			3.23	3.08	-4.32	26.15	0.7

Comments: Station: 38+77 Range: -0+41

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,739,398
Northing (Y, ft):	297,840
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 155

Analysis Date: 10-13-10

Analyzed By: JR

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,737,182	299,231		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-7/1 Washed - 5Y-7/2	Station: 11+25 Range: -4+93

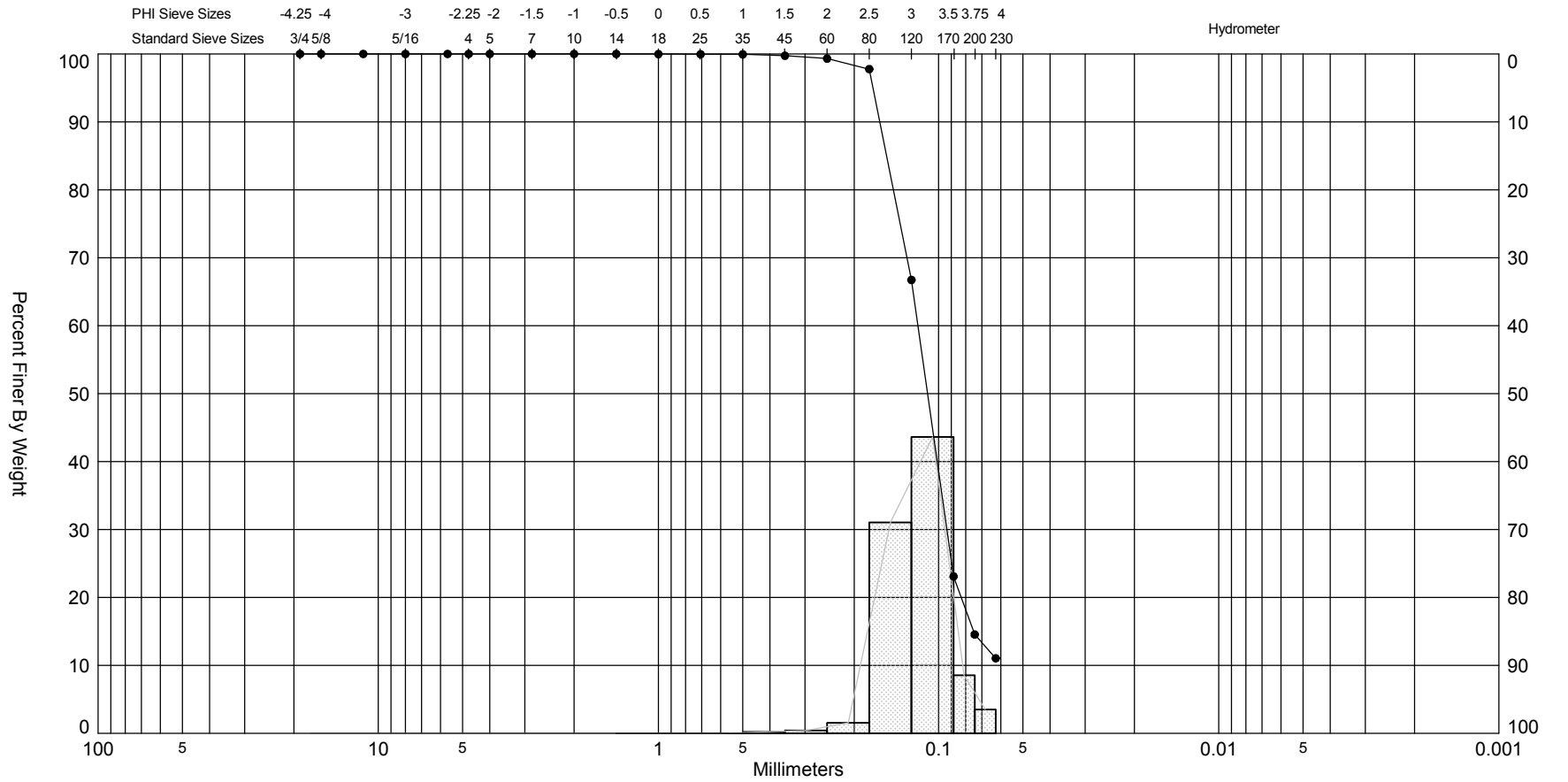
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
96.78	87.62	1.52	0.01	#200 - 14.54 #230 - 11.04			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.00	0.00	0.00	0.00
18	0.00	1.00	0.02	0.02	0.02	0.02
25	0.50	0.71	0.02	0.02	0.04	0.04
35	1.00	0.50	0.02	0.02	0.06	0.06
45	1.50	0.35	0.19	0.20	0.25	0.26
60	2.00	0.25	0.41	0.42	0.66	0.68
80	2.50	0.18	1.50	1.55	2.16	2.23
120	3.00	0.13	30.04	31.04	32.20	33.27
170	3.50	0.09	42.23	43.64	74.43	76.91
200	3.75	0.07	8.27	8.55	82.70	85.46
230	4.00	0.06	3.39	3.50	86.09	88.96

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.71	3.48	3.19	2.87	2.72	2.54

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.11	0.12	0.37	-0.71	6.79



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 155	—●—		SM	#200 - 14.54 #230 - 11.04			3.19	3.11	-0.71	6.79	0.37

Comments: Station: 11+25 Range: -4+93

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,737,182
Northing (Y, ft):	299,231
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 166

Analysis Date: 10-13-10

Analyzed By: JR

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Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,748,576	297,211		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-7/1 Washed - 5Y-7/2	Station: 136+19 Range: 3+39

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
110.71	108.15	0.70	0.01	#200 - 5.08 #230 - 2.94			0

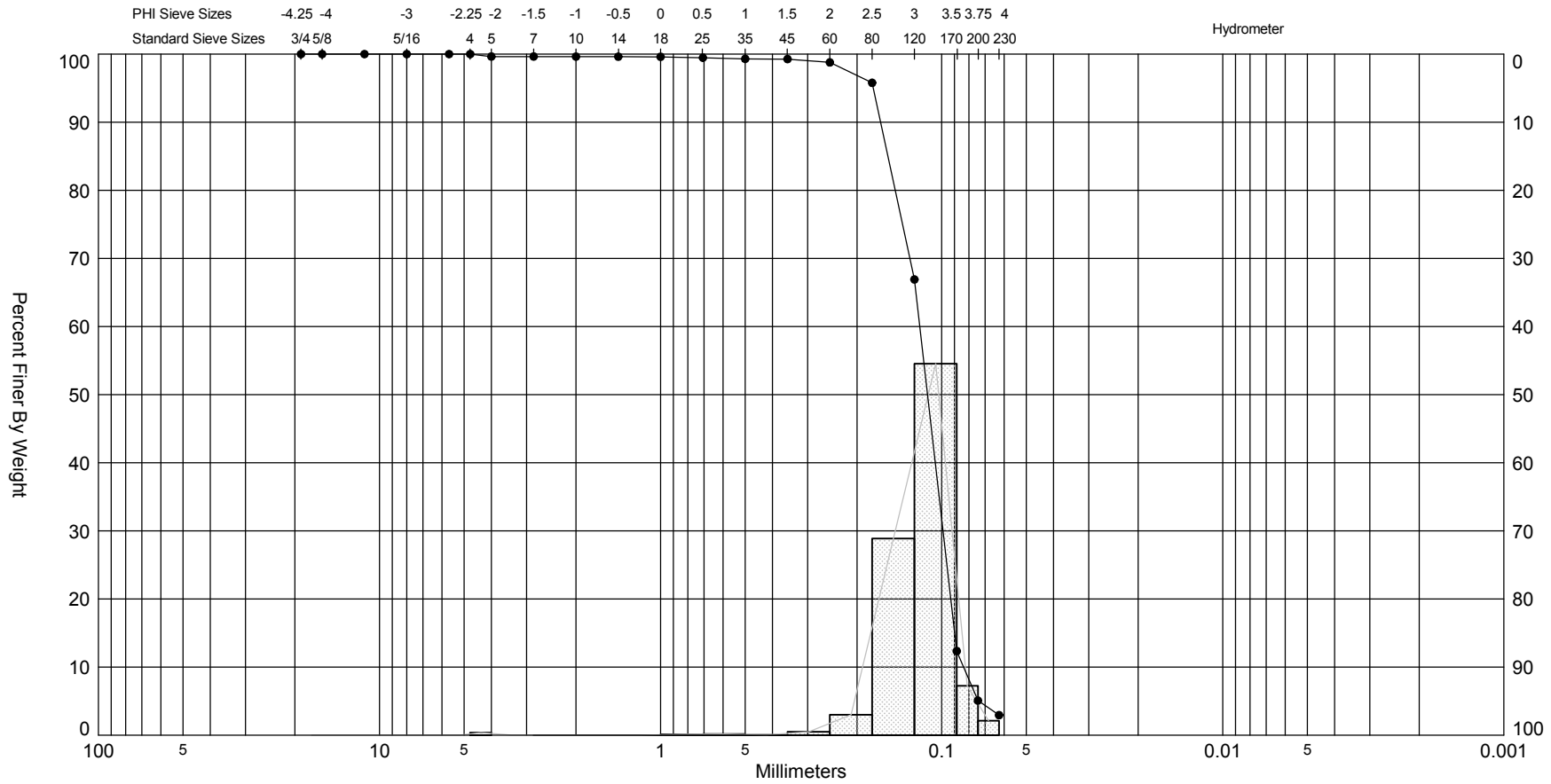
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.40	0.36	0.40	0.36
7	-1.50	2.83	0.00	0.00	0.40	0.36
10	-1.00	2.00	0.01	0.01	0.41	0.37
14	-0.50	1.41	0.01	0.01	0.42	0.38
18	0.00	1.00	0.02	0.02	0.44	0.40
25	0.50	0.71	0.14	0.13	0.58	0.53
35	1.00	0.50	0.19	0.17	0.77	0.70
45	1.50	0.35	0.03	0.03	0.80	0.73
60	2.00	0.25	0.54	0.49	1.34	1.22
80	2.50	0.18	3.32	3.00	4.66	4.22
120	3.00	0.13	31.96	28.87	36.62	33.09
170	3.50	0.09	60.40	54.56	97.02	87.65
200	3.75	0.07	8.05	7.27	105.07	94.92
230	4.00	0.06	2.37	2.14	107.44	97.06

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.76	3.47	3.38	3.15	2.86	2.70	2.51

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	3.07	0.12	0.49	-5.11	50.94

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 166	—●—		SP-SM	#200 - 5.08 #230 - 2.94			3.15	3.07	-5.11	50.94	0.49

Comments: Station: 136+19 Range: 3+39

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,748,576
Northing (Y, ft):	297,211
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 179

Analysis Date: 10-13-10

Analyzed By: JR

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,750,081	297,879		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-6/1 Washed - 5Y-6/2	Station: 152+44 Range: 1+39

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
98.28	90.16	2.40	0.07	#200 - 14.71 #230 - 10.78			0

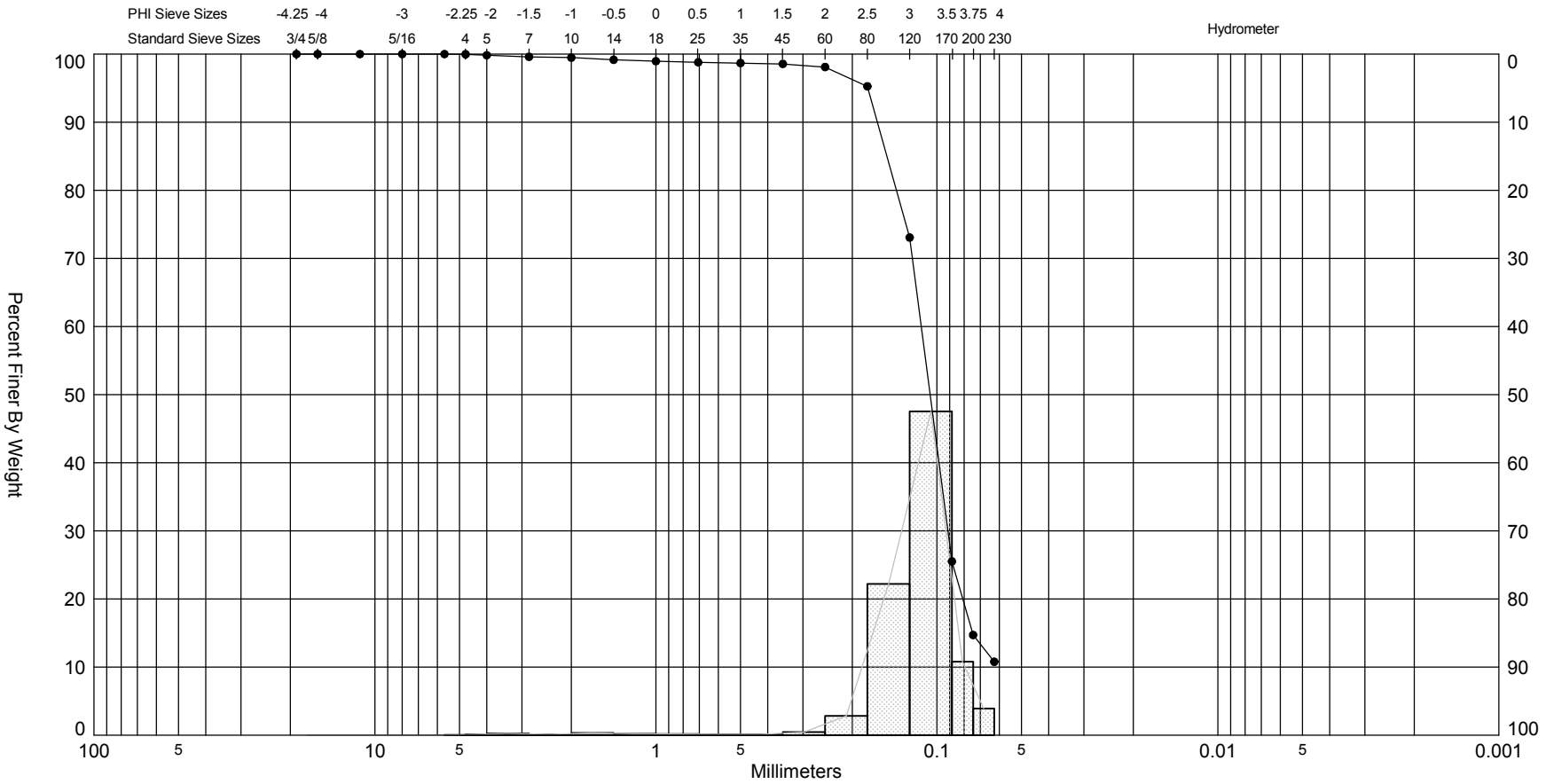
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.03	0.03	0.03	0.03
5	-2.00	4.00	0.14	0.14	0.17	0.17
7	-1.50	2.83	0.23	0.23	0.40	0.40
10	-1.00	2.00	0.12	0.12	0.52	0.52
14	-0.50	1.41	0.31	0.32	0.83	0.84
18	0.00	1.00	0.20	0.20	1.03	1.04
25	0.50	0.71	0.16	0.16	1.19	1.20
35	1.00	0.50	0.12	0.12	1.31	1.32
45	1.50	0.35	0.12	0.12	1.43	1.44
60	2.00	0.25	0.45	0.46	1.88	1.90
80	2.50	0.18	2.78	2.83	4.66	4.73
120	3.00	0.13	21.82	22.20	26.48	26.93
170	3.50	0.09	46.74	47.56	73.22	74.49
200	3.75	0.07	10.61	10.80	83.83	85.29
230	4.00	0.06	3.86	3.93	87.69	89.22

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.72	3.51	3.24	2.96	2.75	2.51

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.1	0.12	0.62	-4.46	32.55

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 179	—●—		SM	#200 - 14.71 #230 - 10.78			3.24	3.1	-4.46	32.55	0.62

Comments: Station: 152+44 Range: 1+39

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,750,081
Northing (Y, ft):	297,879
Horizontal System:	NAD 1983
Vertical System:	

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SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 180

Analysis Date: 10-13-10

Analyzed By: JR

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fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,747,329	297,086		

USCS:	Munsell:	Comments:
SM	Wet - 5Y-4/1 Dry - 5Y-6/1 Washed - 5Y-6/2	Station: 122+95 Range: -0+31

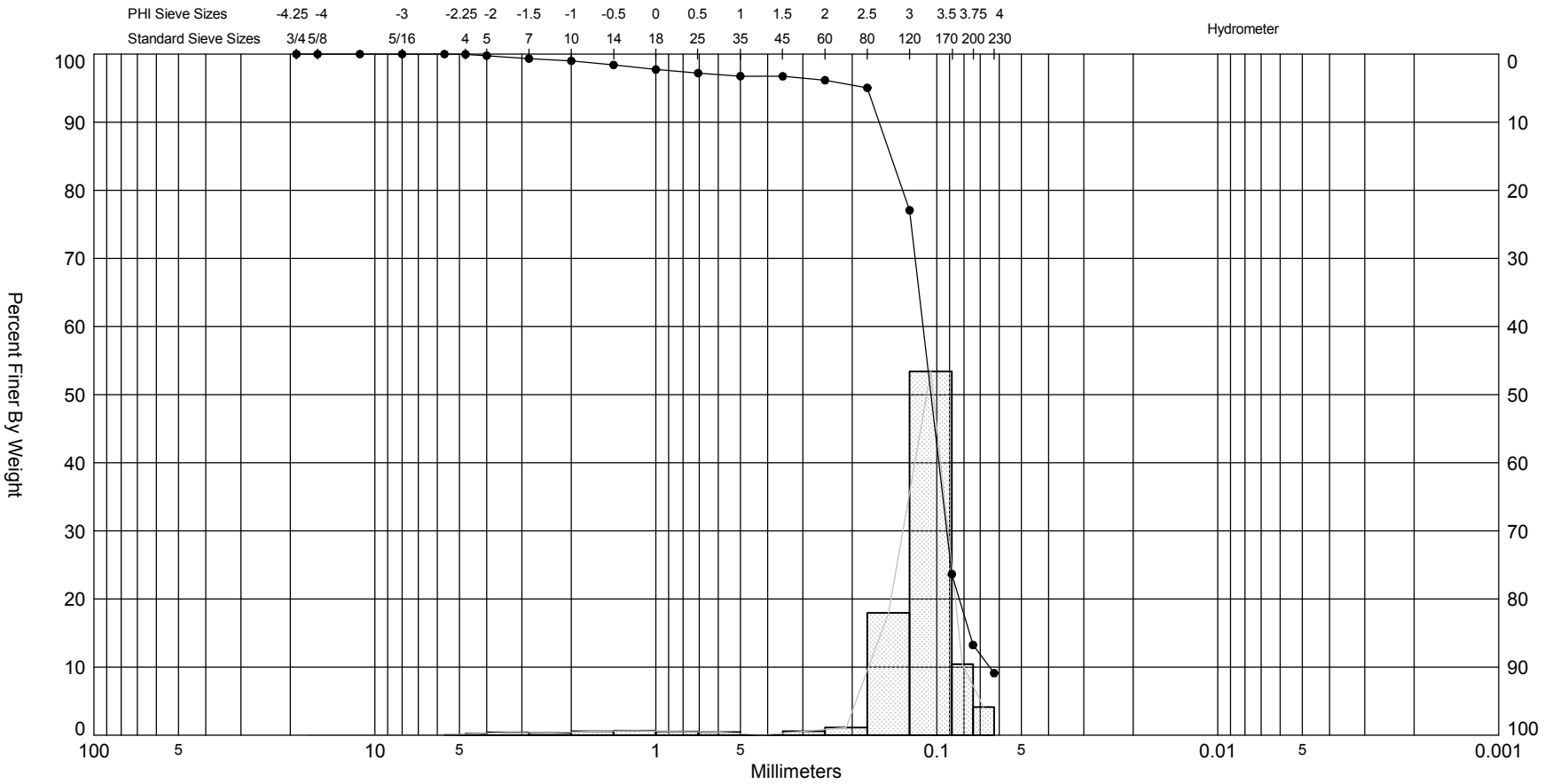
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
118.22	110.64	3.18	0.02	#200 - 13.23 #230 - 9.11			1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.03	0.03	0.03	0.03
5	-2.00	4.00	0.24	0.20	0.27	0.23
7	-1.50	2.83	0.51	0.43	0.78	0.66
10	-1.00	2.00	0.40	0.34	1.18	1.00
14	-0.50	1.41	0.71	0.60	1.89	1.60
18	0.00	1.00	0.78	0.66	2.67	2.26
25	0.50	0.71	0.64	0.54	3.31	2.80
35	1.00	0.50	0.52	0.44	3.83	3.24
45	1.50	0.35	0.02	0.02	3.85	3.26
60	2.00	0.25	0.68	0.58	4.53	3.84
80	2.50	0.18	1.32	1.12	5.85	4.96
120	3.00	0.13	21.24	17.97	27.09	22.93
170	3.50	0.09	63.17	53.43	90.26	76.36
200	3.75	0.07	12.31	10.41	102.57	86.77
230	4.00	0.06	4.87	4.12	107.44	90.89

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.68	3.49	3.25	3.02	2.81	2.50

Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
Statistics	3.06	0.12	0.79	-4.06	22.1



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 180	—●—		SM	#200 - 13.23 #230 - 9.11			3.25	3.06	-4.06	22.1	0.79

Comments: Station: 122+95 Range: -0+31

Depths and elevations based on measured values

Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,747,329
Northing (Y, ft):	297,086
Horizontal System:	NAD 1983
Vertical System:	

Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Granularmetric Report

Depths and elevations based on measured values

Project Name: E. Grand Terre Island Restoration

Sample Name: EGT 184

Analysis Date: 10-13-10

Analyzed By: JR

Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
3,745,577	296,597		

USCS:	Munsell:	Comments:
SP-SM	Wet - 5Y-4/1 Dry - 5Y-6/1 Washed - 5Y-6/2	Station: 105+81 Range: -1+53

Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
95.97	92.91	0.86	0.15	#200 - 6.50 #230 - 4.25			0

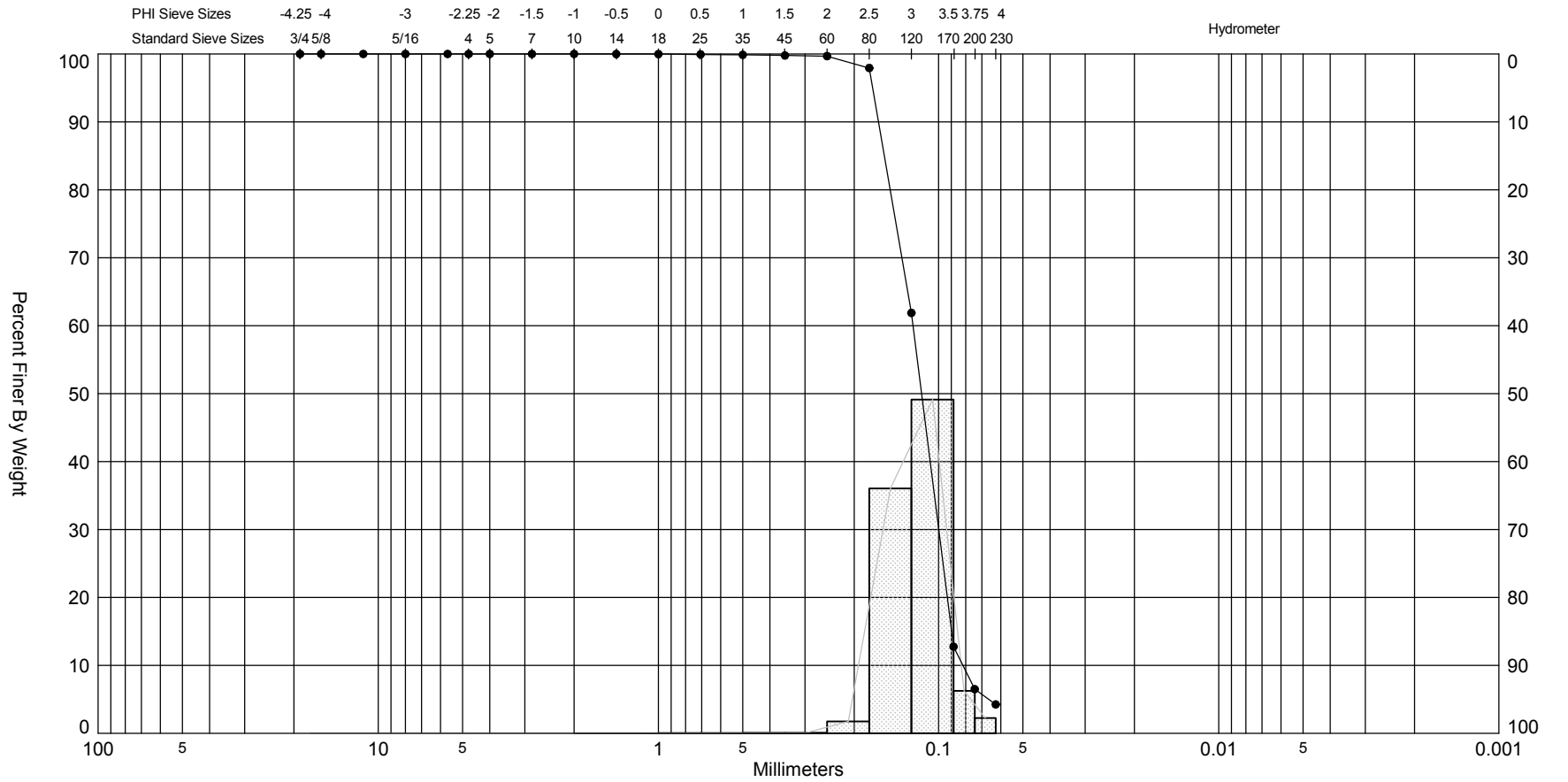
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.00	0.00	0.00	0.00
4	-2.25	4.76	0.00	0.00	0.00	0.00
5	-2.00	4.00	0.00	0.00	0.00	0.00
7	-1.50	2.83	0.00	0.00	0.00	0.00
10	-1.00	2.00	0.00	0.00	0.00	0.00
14	-0.50	1.41	0.01	0.01	0.01	0.01
18	0.00	1.00	0.01	0.01	0.02	0.02
25	0.50	0.71	0.05	0.05	0.07	0.07
35	1.00	0.50	0.06	0.06	0.13	0.13
45	1.50	0.35	0.09	0.09	0.22	0.22
60	2.00	0.25	0.10	0.10	0.32	0.32
80	2.50	0.18	1.68	1.75	2.00	2.07
120	3.00	0.13	34.60	36.05	36.60	38.12
170	3.50	0.09	47.15	49.13	83.75	87.25
200	3.75	0.07	6.00	6.25	89.75	93.50
230	4.00	0.06	2.16	2.25	91.91	95.75

Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.92	3.47	3.38	3.12	2.82	2.69	2.54

Moment Statistics	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis
	3.07	0.12	0.34	-0.9	9.48

GRANULARMETRIC REPORT EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort
EGT 184	—●—		SP-SM	#200 - 6.50 #230 - 4.25			3.12	3.07	-0.9	9.48	0.34

Comments: Station: 105+81 Range: -1+53

Depths and elevations based on measured values

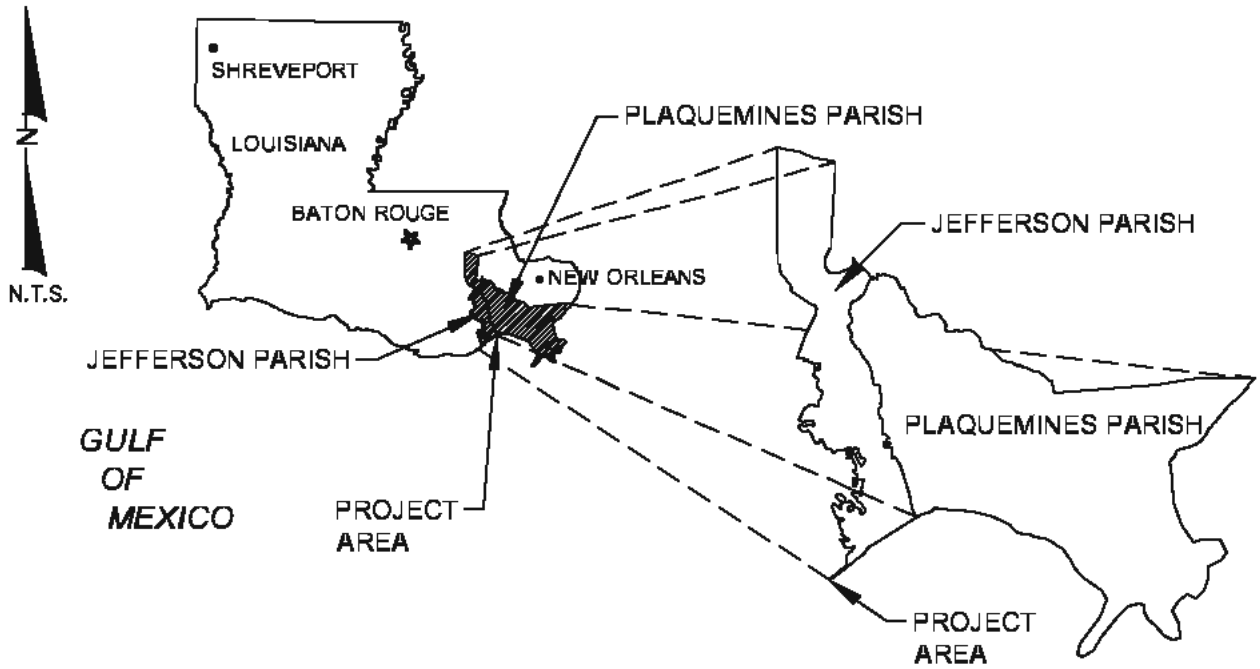
Sample Information	
Project Name:	E. Grand Terre Island Restoration
Analysis Date:	10-13-10
Analyzed By:	JR
Easting (X, ft):	3,745,577
Northing (Y, ft):	296,597
Horizontal System:	NAD 1983
Vertical System:	

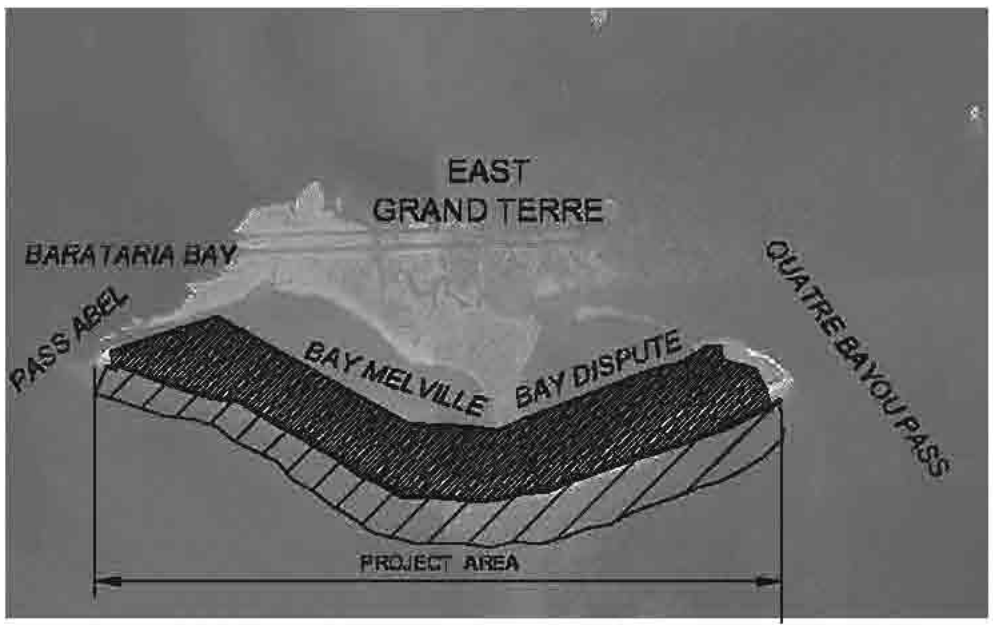
Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

SIEVE ANALYSIS EGT_SAND_SAMPLES.GPJ JPBRAZIL.GDT 10/13/10

Appendix N

Permit Sketches





SHEET INDEX

NO	TITLE
1	PROJECT LOCATION MAP
2-6	PROJECT FILL PLAN VIEWS
7-12	REPRESENTATIVE CROSS SECTIONS
13	BORROW AREAS LOCATION MAP
14-22	BORROW AREA WGT DESIGN PLANS
23-38	BORROW AREA S1 & S2 DESIGN PLANS
39-52	BORROW AREA D1 DESIGN PLANS
53-54	BORROW AREA M1 & M2 PLAN VIEW
55	QUATRE BAYOU DISPOSAL AREA COORDINATES
56	QUATRE BAYOU DISPOSAL AREA BATHYMETRIC SURVEY
57	VOLUME & ACREAGE SUMMARY
58	TYPICAL CHANNEL CROSS SECTION DETAIL
59	TYPICAL BREACH & SCRAPING DETAIL

GULF
OF
MEXICO

N

0 2000 4000

GRAPHIC SCALE IN FT

GORDON THOMSON P.E. NO. 31412

DATE

REVISIONS		
DATE	BY	DESCRIPTION

TITLE

EAST GRAND TERRE ISLAND
RESTORATION PROJECT (BA-30)
PROJECT LOCATION MAP

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

DATE 7/22/05

BY JRC

COMM NO 7900 05

SHEET 1

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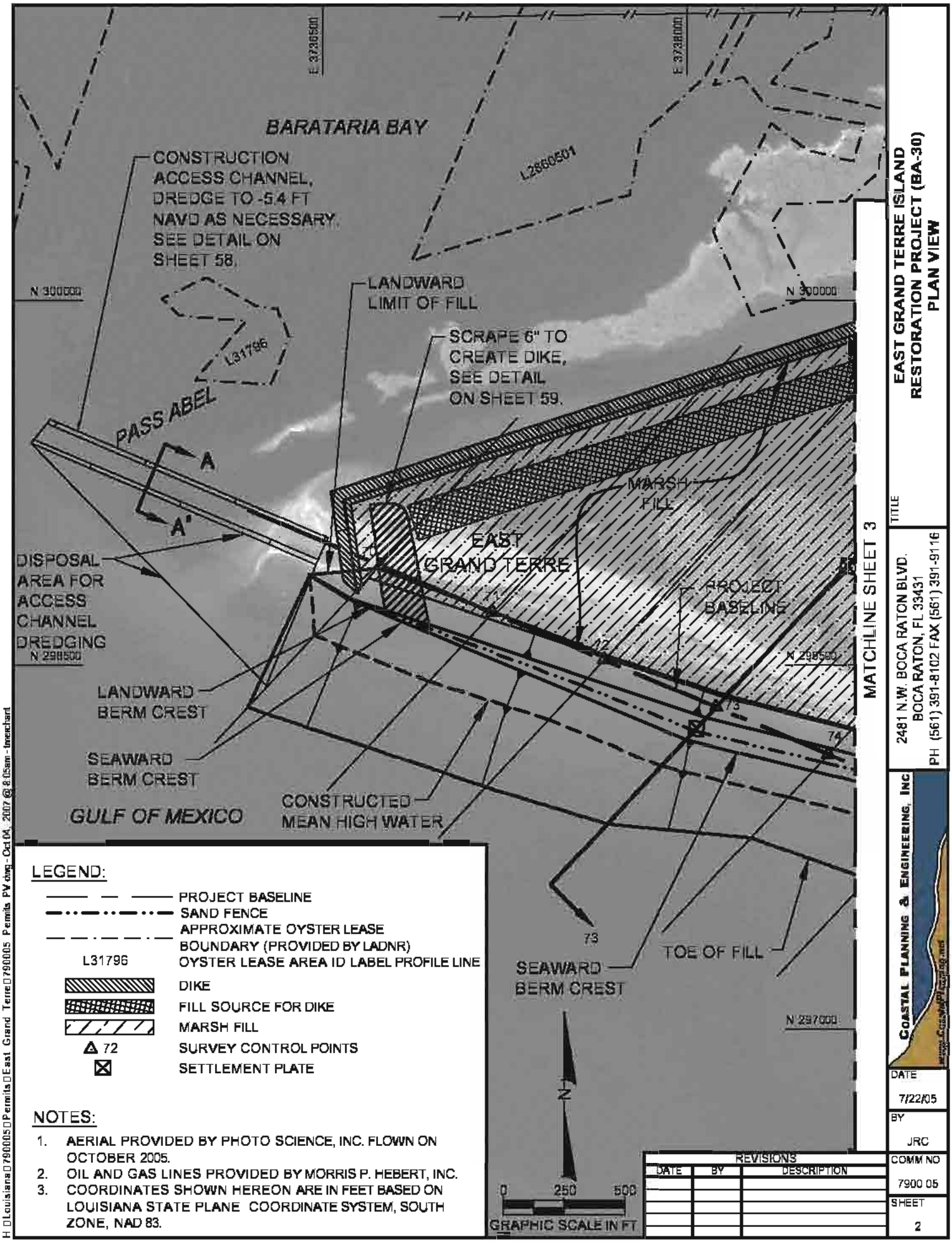

LEGEND:

- PROJECT BASELINE
- SAND FENCE
- APPROXIMATE OYSTER LEASE BOUNDARY (PROVIDED BY LADNR)
- L31796 — OYSTER LEASE AREA ID LABEL PROFILE LINE
- DIKE
- FILL SOURCE FOR DIKE
- MARSH FILL
- △ 72 — SURVEY CONTROL POINTS
- ⊠ — SETTLEMENT PLATE

NOTES:

1. AERIAL PROVIDED BY PHOTO SCIENCE, INC. FLOWN ON OCTOBER 2005.
2. OIL AND GAS LINES PROVIDED BY MORRIS P. HEBERT, INC.
3. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.

REVISIONS

DATE	BY	DESCRIPTION

TITLE

EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30)
PLAN VIEW

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH (561) 391-8102 FAX (561) 391-9116
COASTAL PLANNING & ENGINEERING, INC

DATE 7/22/05
BY JRC
COMM NO 7900 05
SHEET 2

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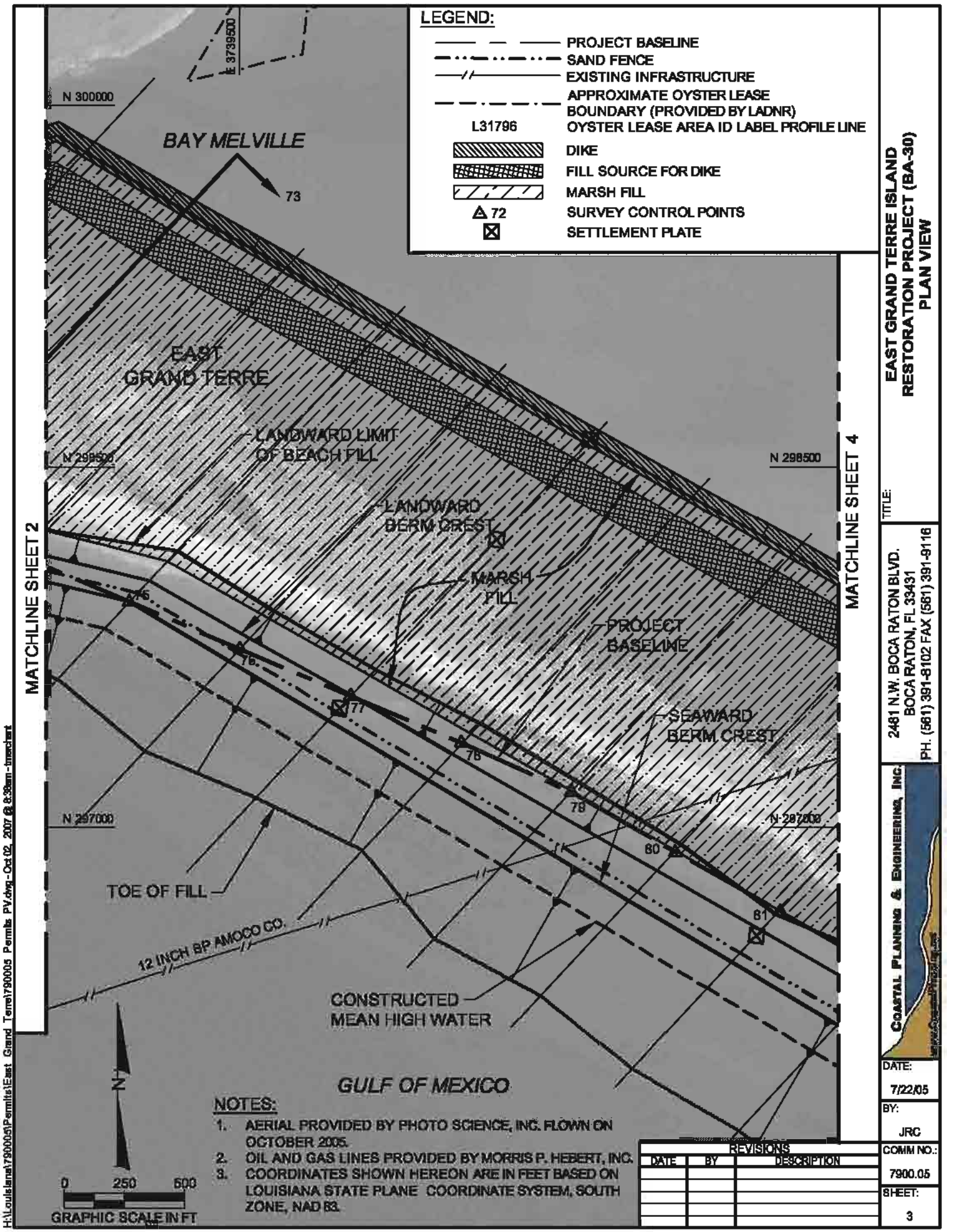
LEGEND:
PROJECT BASELINE
SAND FENCE
EXISTING INFRASTRUCTURE
APPROXIMATE OYSTER LEASE BOUNDARY (PROVIDED BY LADNR)
L31796 OYSTER LEASE AREA ID LABEL PROFILE LINE
DIKE
FILL SOURCE FOR DIKE
MARSH FILL
72 SURVEY CONTROL POINTS
SETTLEMENT PLATE
E 3739500
N 300000
BAY MELVILLE
73
EAST GRAND TERRE
LANDWARD LIMIT OF BEACH FILL
N 299500
N 298500
LANDWARD BERM CREST
MARSH FILL
PROJECT BASELINE
SEAWARD BERM CREST
MATCHLINE SHEET 2
MATCHLINE SHEET 4
N 297000
N 297000
TOE OF FILL
12 INCH BP AMOCO CO.
CONSTRUCTED MEAN HIGH WATER
GULF OF MEXICO
N
0 250 500
GRAPHIC SCALE IN FT
NOTES:
1. AERIAL PROVIDED BY PHOTO SCIENCE, INC. FLOWN ON OCTOBER 2005.
2. OIL AND GAS LINES PROVIDED BY MORRIS P. HEBERT, INC.
3. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.
REVISIONS
DATE BY DESCRIPTION
EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30)
PLAN VIEW
TITLE:
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116
COASTAL PLANNING & ENGINEERING, INC.
DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 3
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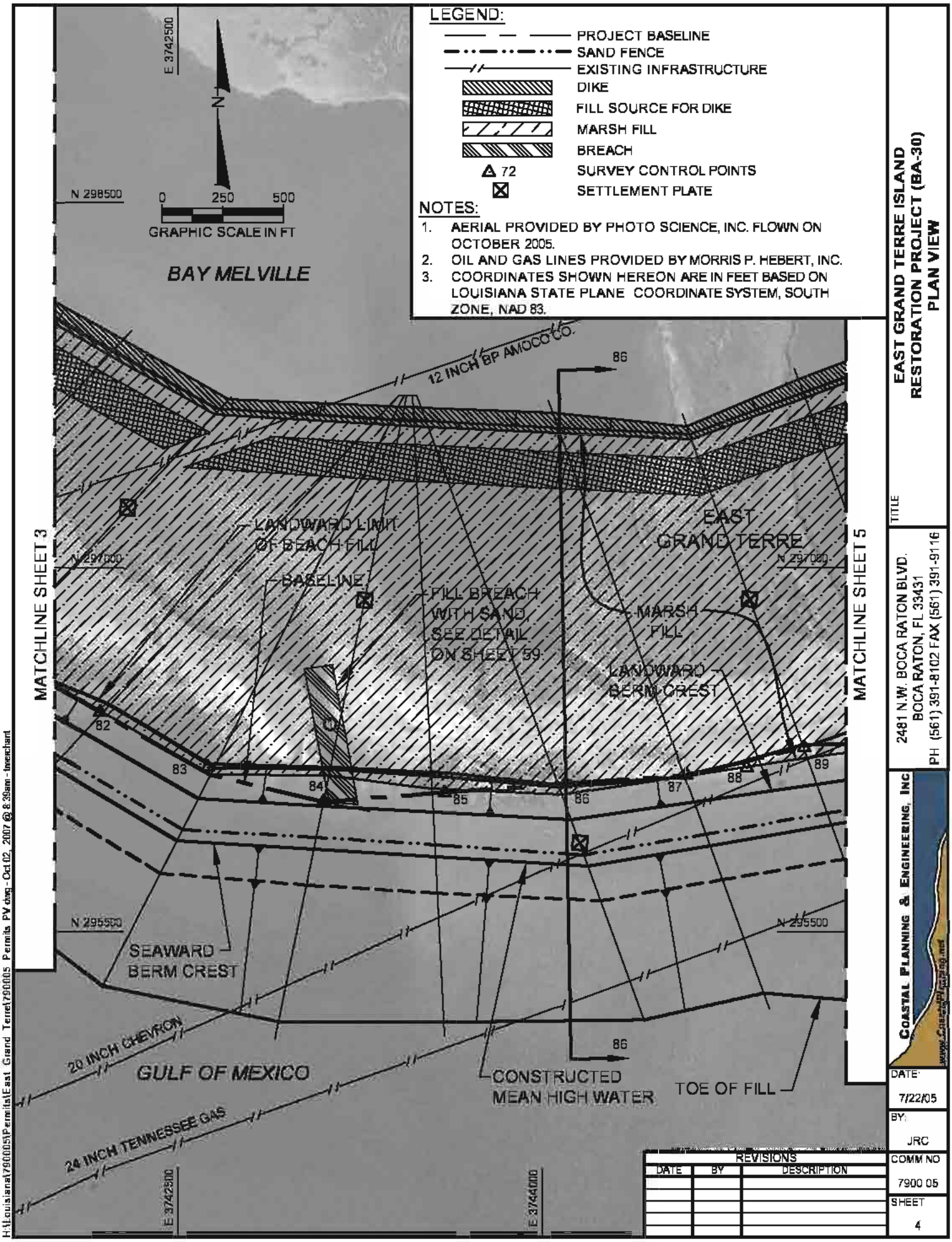

EAST GRAND TERRE ISLAND
RESTORATION PROJECT (BA-30)
PLAN VIEW

TITLE

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC

REVISIONS		
DATE	BY	DESCRIPTION

DATE: 7/22/05
BY: JRC
COMM NO: 7900 05
SHEET: 4

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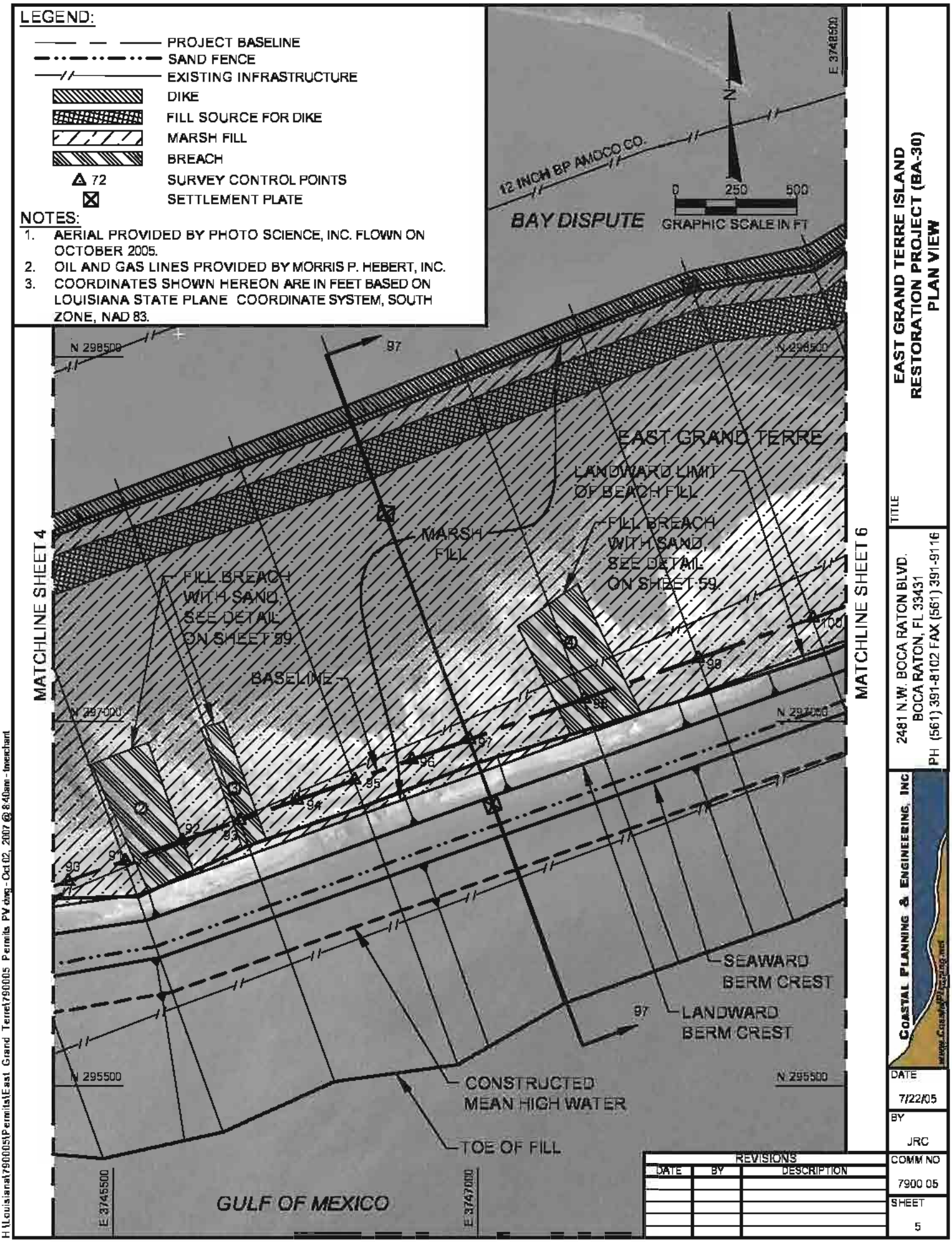

EAST GRAND TERRE ISLAND
RESTORATION PROJECT (BA-30)
PLAN VIEW

TITLE

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC

DATE 7/22/05

BY JRC

COMM NO 7900 05

SHEET 5

REVISIONS		
DATE	BY	DESCRIPTION

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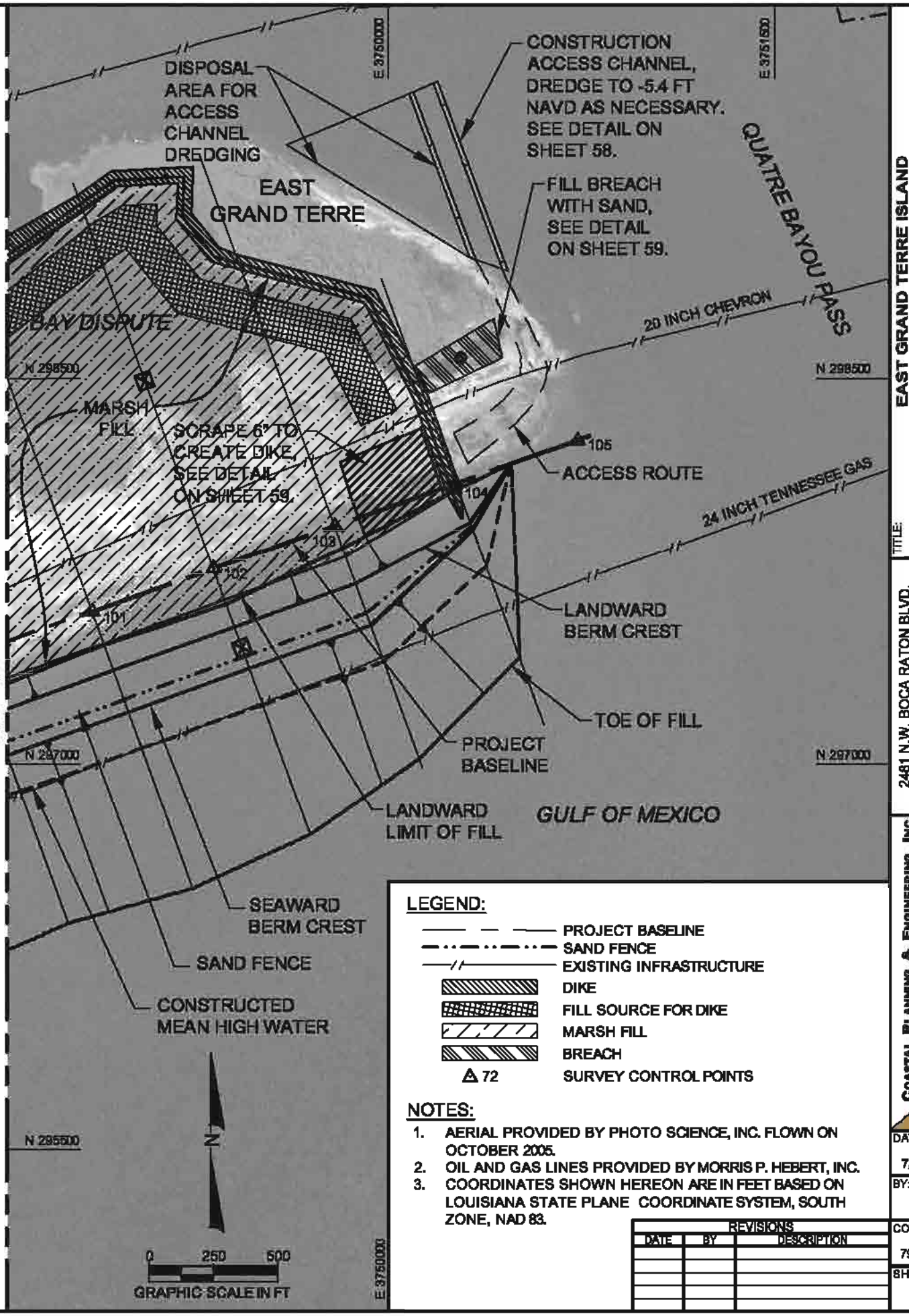

LEGEND:

- PROJECT BASELINE
- SAND FENCE
- EXISTING INFRASTRUCTURE
- DIKE
- FILL SOURCE FOR DIKE
- MARSH FILL
- BREACH
- △72 SURVEY CONTROL POINTS

NOTES:

1. AERIAL PROVIDED BY PHOTO SCIENCE, INC. FLOWN ON OCTOBER 2005.
2. OIL AND GAS LINES PROVIDED BY MORRIS P. HEBERT, INC.
3. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30) PLAN VIEW

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 6

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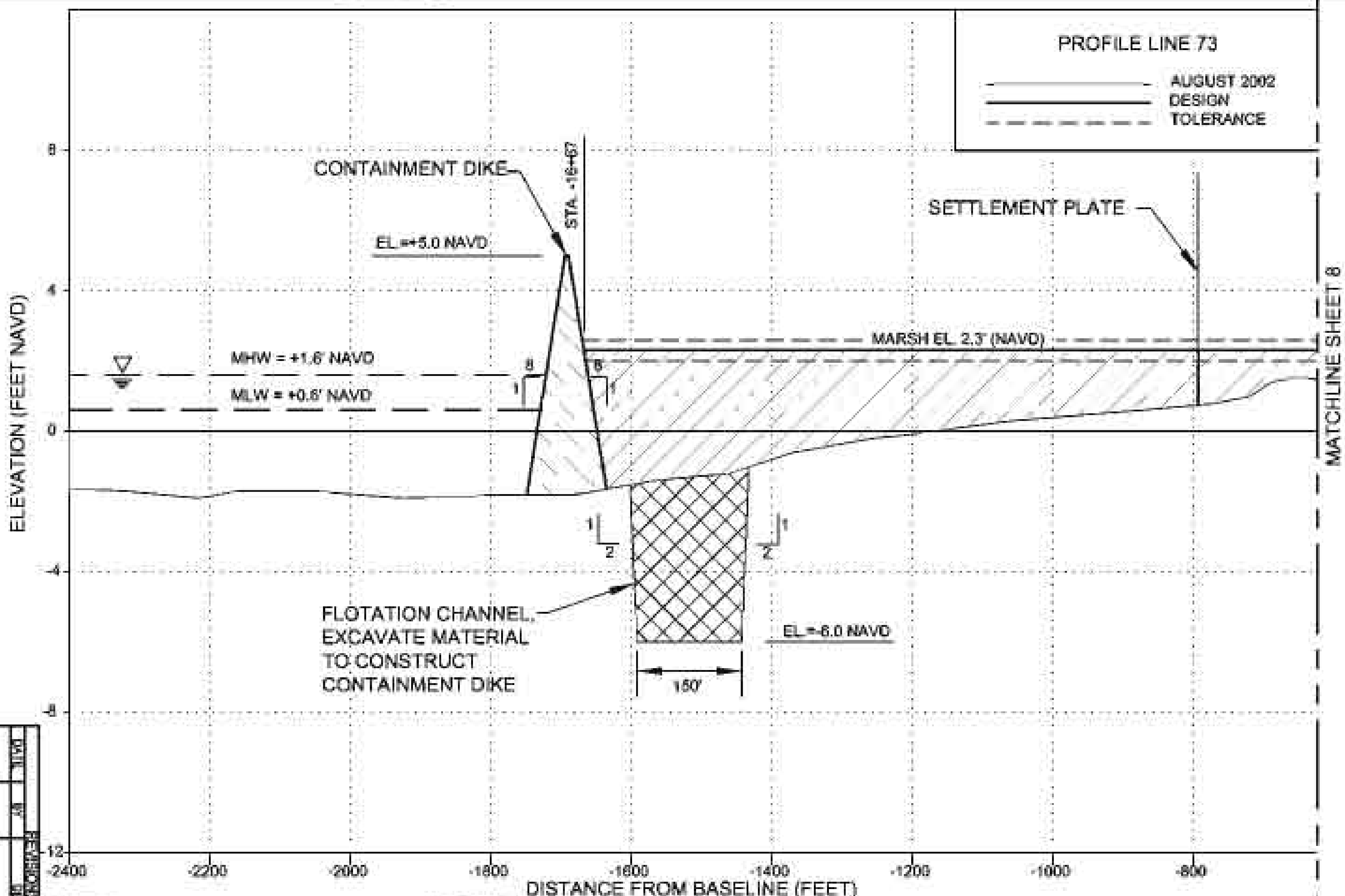


NOTES:

1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- CONTAINMENT DIKE FILL
- MARSH FILL
- EXCAVATED MATERIAL
- BEACH FILL

SCALE: HORZ. 1"=200'
VERT. 1"=4'

DATE	BY	REVISIONS

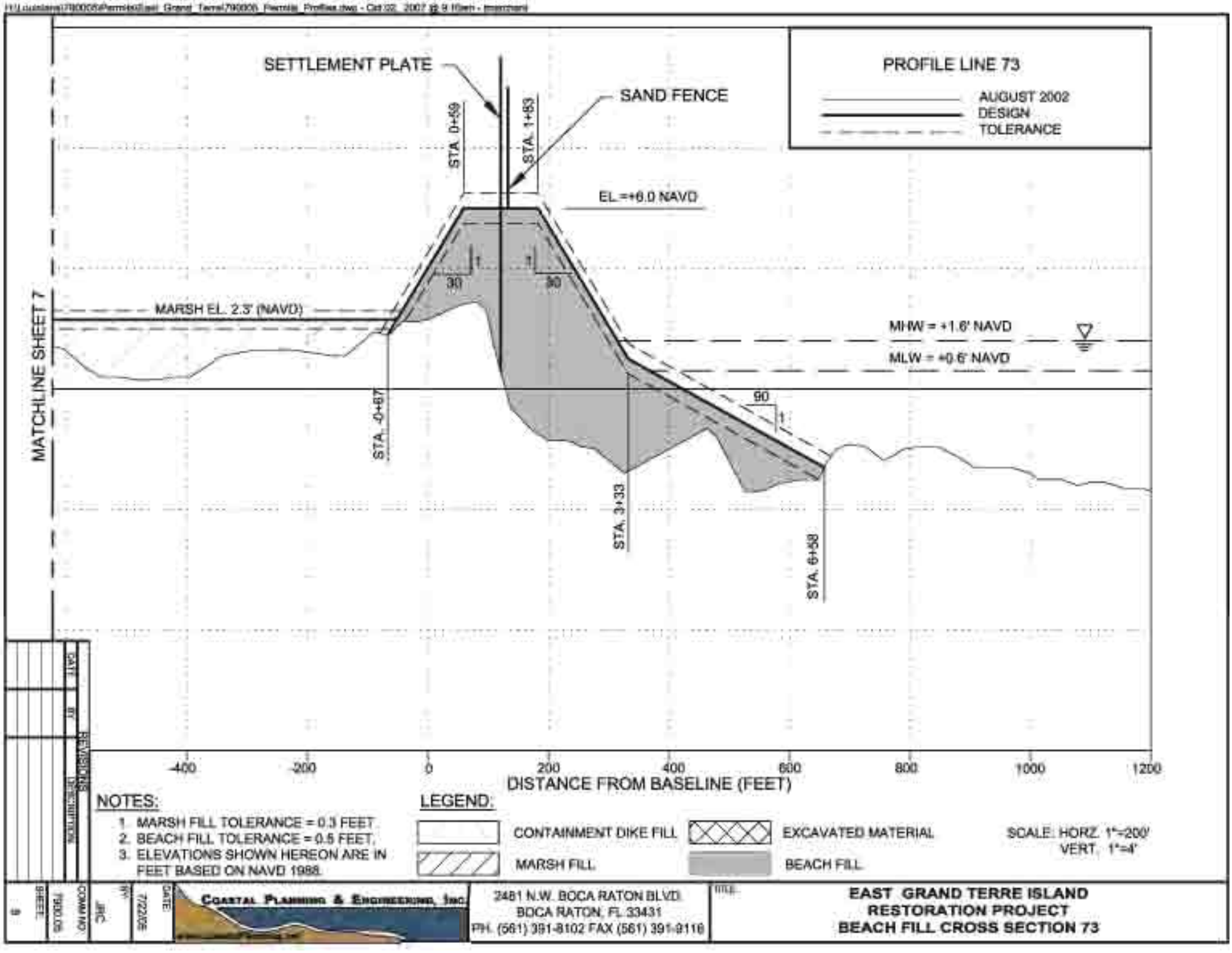
SHEET: 7 | COMM NO: 790005 | BY: JRC | DATE: 7/22/05

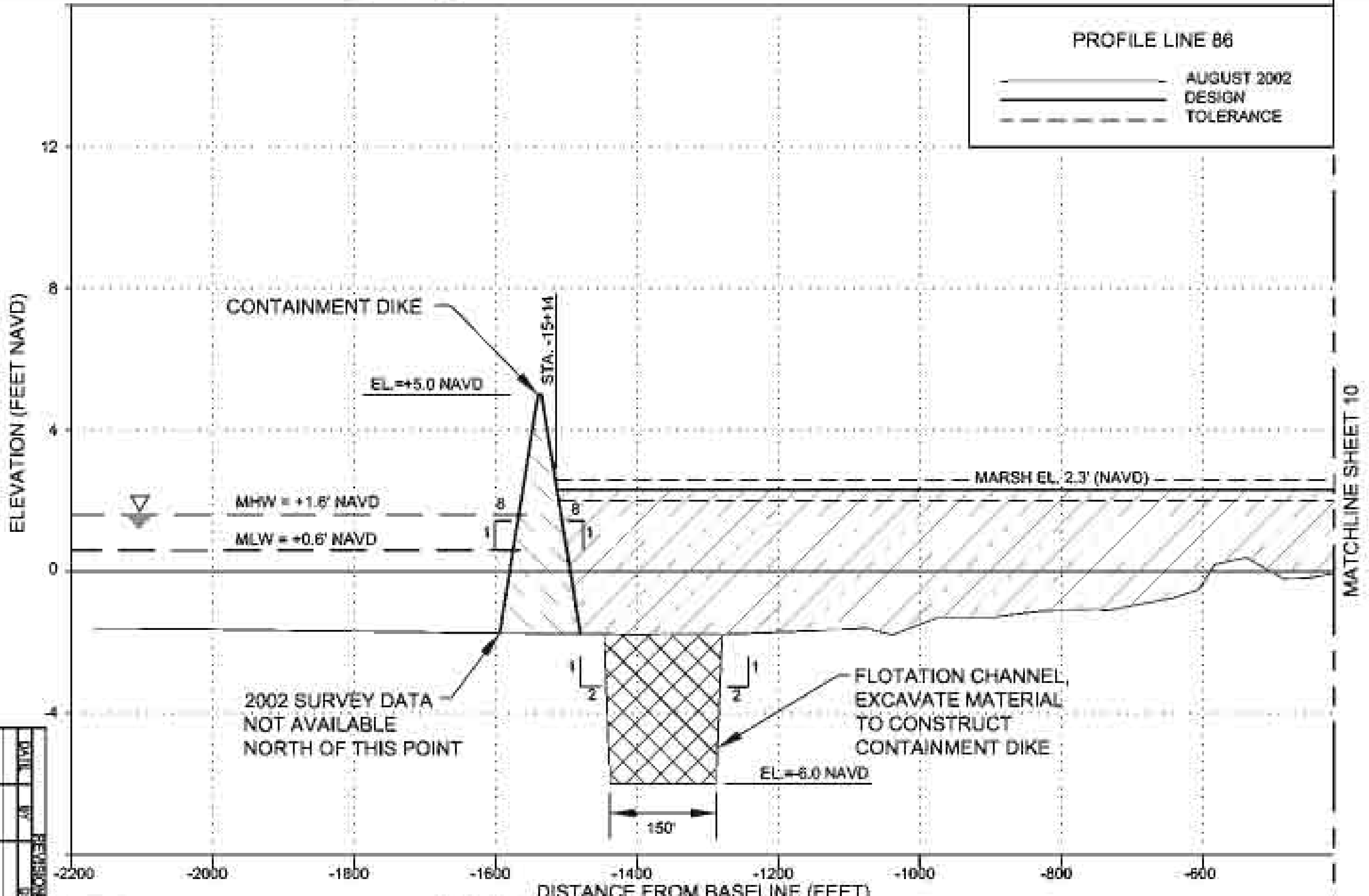
COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
BEACH FILL CROSS SECTION 73


SETTLEMENT PLATE
SAND FENCE
STA. 0+59
STA. 1+53
EL. =+6.0 NAVD
PROFILE LINE 73
AUGUST 2002
DESIGN
TOLERANCE
MATCHLINE SHEET 7
MARSH EL. 2.3' (NAVD)
MHW = +1.6' NAVD
MLW = +0.6' NAVD
STA. -0+67
STA. 3+33
STA. 6+58
30
1
90
-400
-200
0
200
400
600
800
1000
1200
DISTANCE FROM BASELINE (FEET)
NOTES:
1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
LEGEND:
CONTAINMENT DIKE FILL
EXCAVATED MATERIAL
MARSH FILL
BEACH FILL
SCALE: HORZ. 1"=200'
VERT. 1"=4'
DATE
BY
REVISIONS
DESCRIPTION
JRC
7/22/05
COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116
TITLE:
EAST GRAND TERRE ISLAND
RESTORATION PROJECT
BEACH FILL CROSS SECTION 73
SHEET
8



NOTES:

1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- CONTAINMENT DIKE FILL
- MARSH FILL
- EXCAVATED MATERIAL
- BEACH FILL

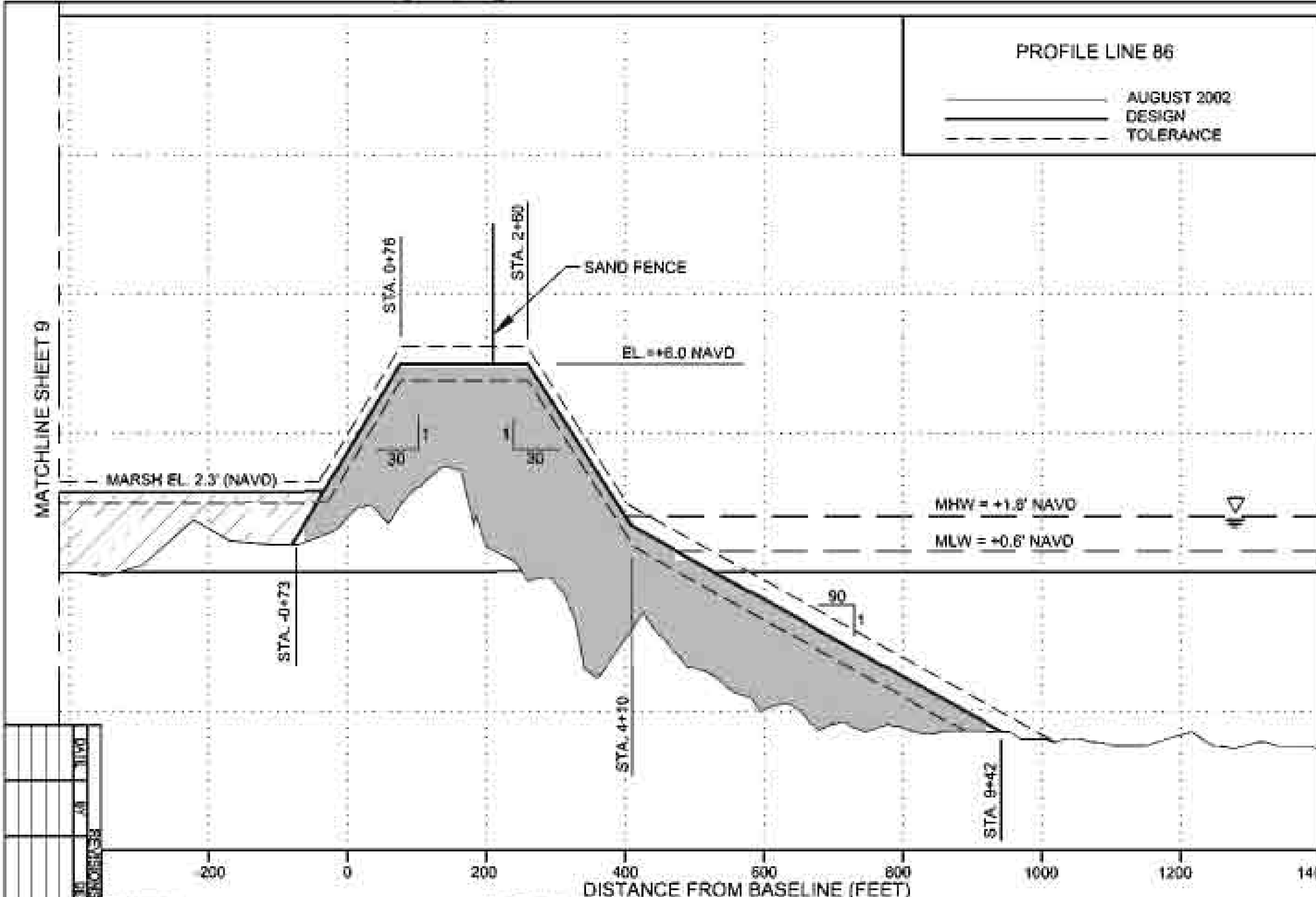
SCALE: HORZ. 1"=200'
VERT. 1"=4'

DATE	BY	REVISIONS DESCRIPTION

SHEET: 9 | COMM NO: 790005 | BY: JRC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:
EAST GRAND TERRE ISLAND RESTORATION PROJECT
BEACH FILL CROSS SECTION 86



NOTES:

1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

- CONTAINMENT DIKE FILL
- MARSH FILL
- EXCAVATED MATERIAL
- BEACH FILL

SCALE: HORZ. 1"=200'
VERT. 1"=4'

DATE	BY	DESCRIPTION

REVISIONS

SHEET: 10 | COMM NO.: 790005 | BY: JRC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT BEACH FILL CROSS SECTION 86

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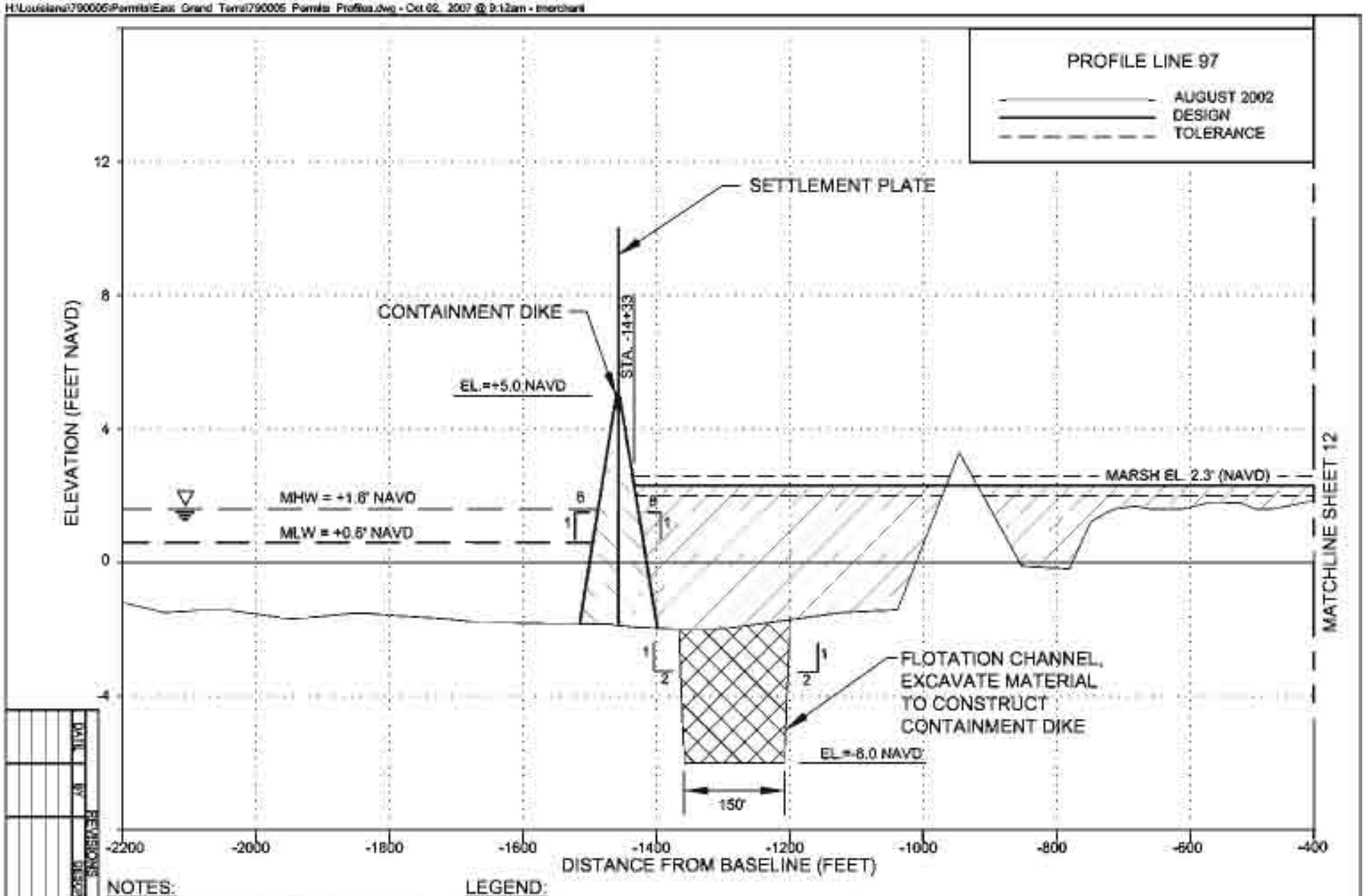

NOTES:

1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

CONTAINMENT DIKE FILL
EXCAVATED MATERIAL
MARSH FILL
BEACH FILL

SCALE: HORZ. 1"=200'
VERT. 1"=4'

SHEET: 11	COMM NO.: 790005	BY: JRC	DATE: 7/22/05	COASTAL PLANNING & ENGINEERING, INC.	2481 N.W. BOCA RATON BLVD. BOCA RATON, FL 33431 PH. (561) 391-8102 FAX (561) 391-9116	TITLE: EAST GRAND TERRE ISLAND RESTORATION PROJECT BEACH FILL CROSS SECTION 97

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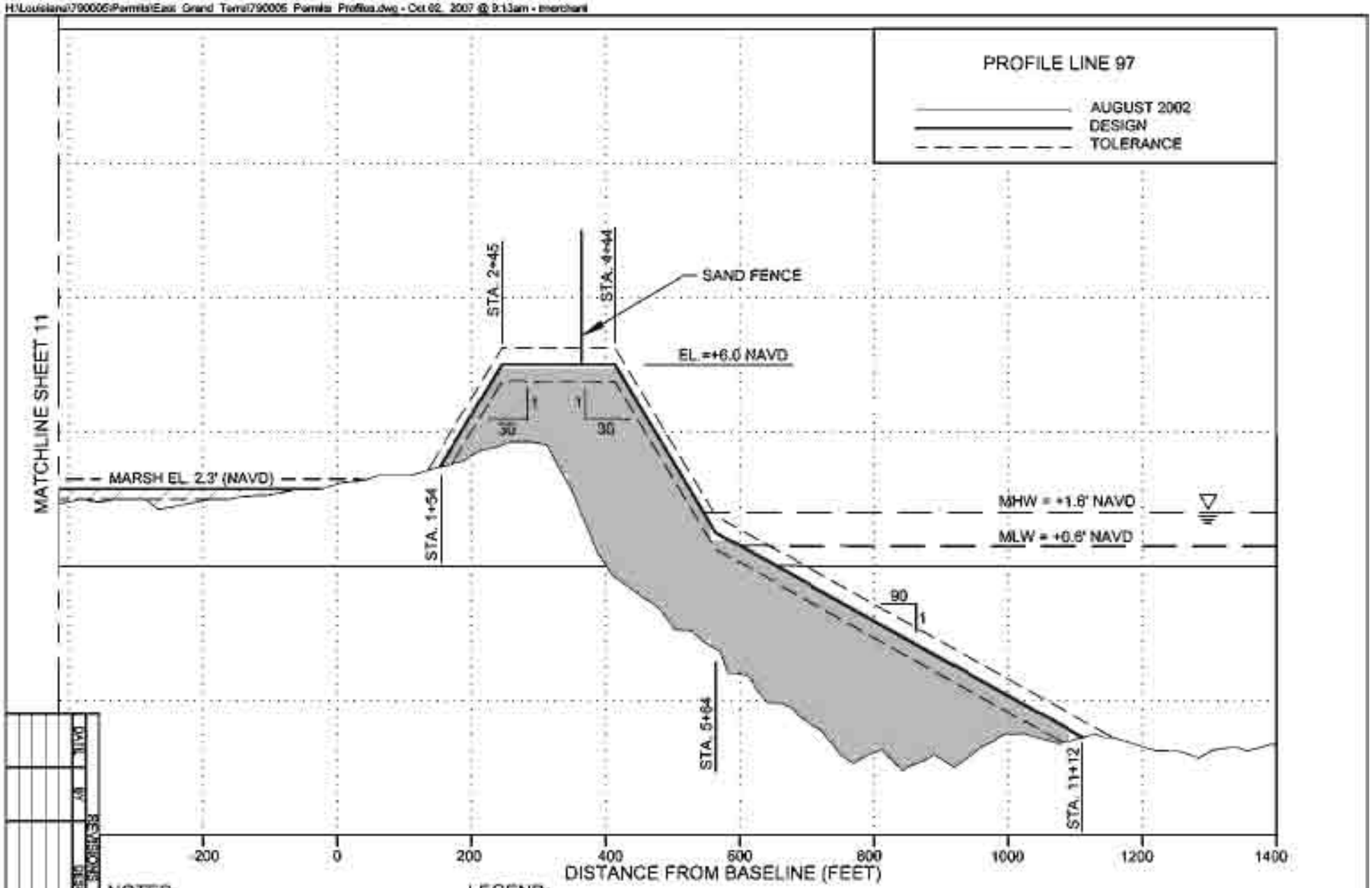


NOTES:

1. MARSH FILL TOLERANCE = 0.3 FEET.
2. BEACH FILL TOLERANCE = 0.5 FEET.
3. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.

LEGEND:

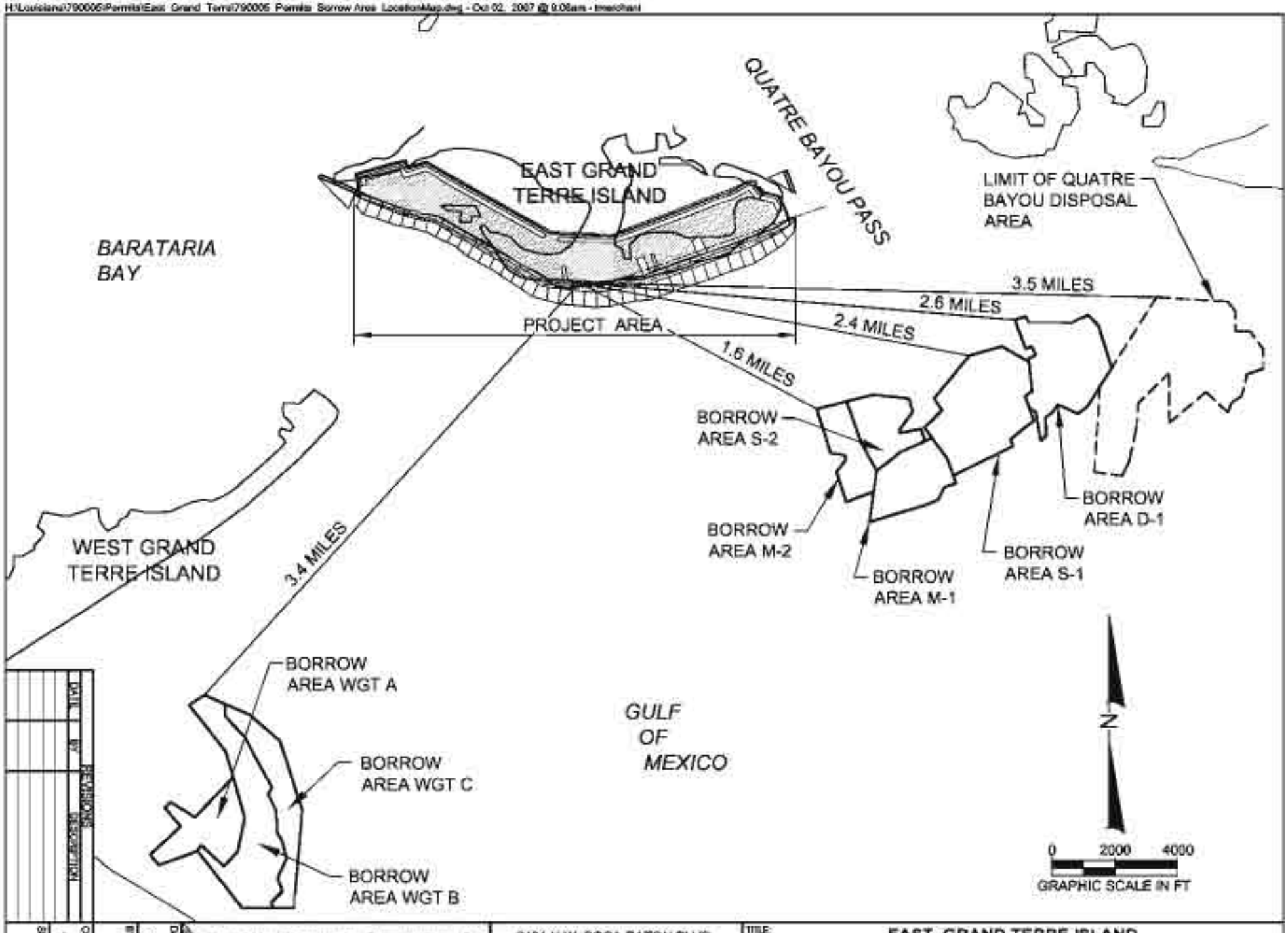
CONTAINMENT DIKE FILL
EXCAVATED MATERIAL
MARSH FILL
BEACH FILL

SCALE: HORZ. 1"=200'
VERT. 1"=4'

SHEET: 12	COMMENCED: 7/30/05	BY: JPC	DATE: 7/22/05	COASTAL PLANNING & ENGINEERING, INC.	2481 N.W. BOCA RATON BLVD. BOCA RATON, FL 33431 PH. (561) 391-8102 FAX (561) 391-9116

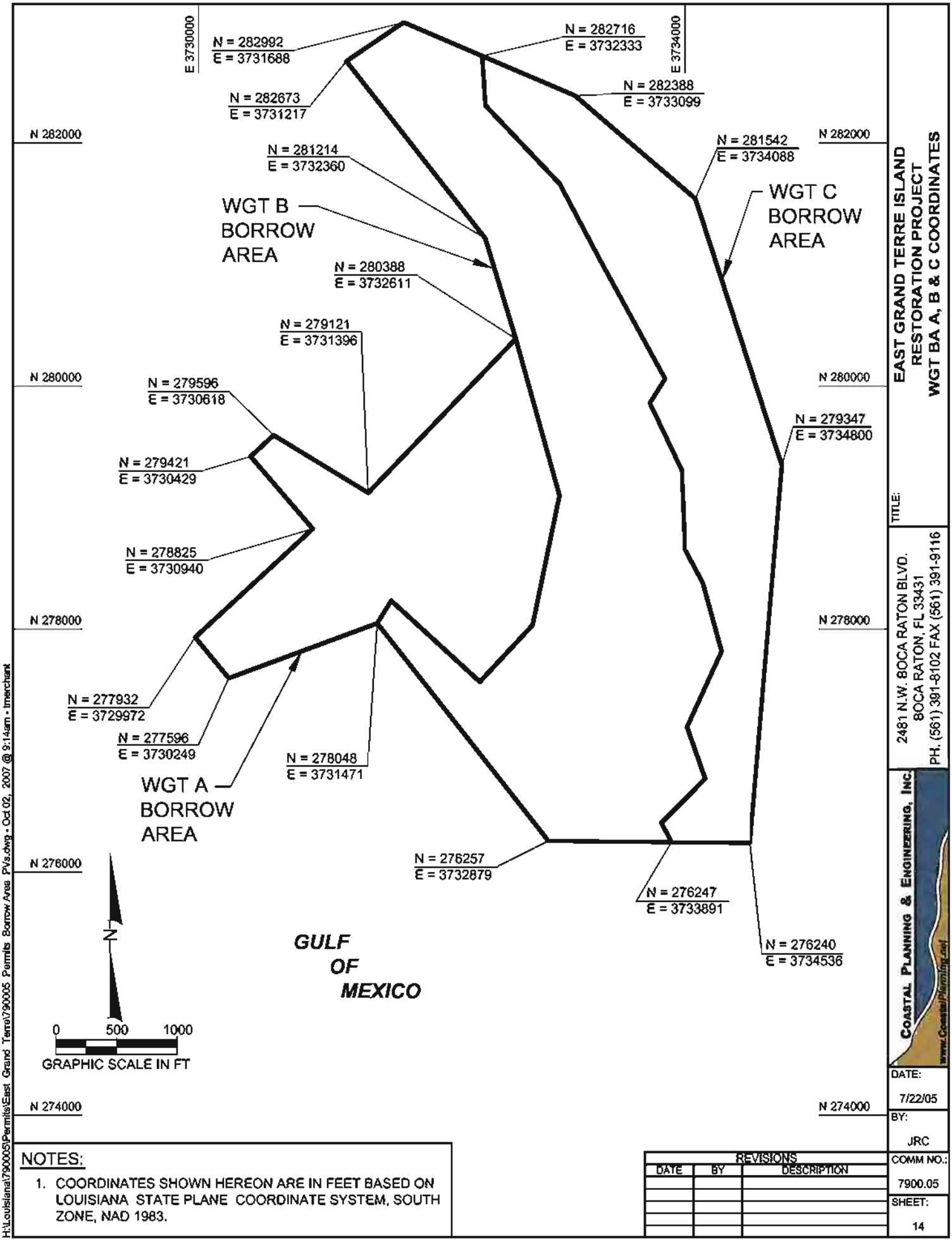
TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
BEACH FILL CROSS SECTION 97



DATE	BY	REVISIONS DESCRIPTION

SHEET: 13	COMM NO.: 790005	BY: JRC	DATE: 7/22/05	COASTAL PLANNING & ENGINEERING, INC.	2481 N.W. BOCA RATON BLVD. BOCA RATON, FL 33431 PH. (561) 391-8102 FAX (561) 391-8116	TITLE: EAST GRAND TERRE ISLAND RESTORATION PROJECT (BA-30) BORROW AREAS LOCATION MAP



NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
WGT BA A, B & C COORDINATES

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 14

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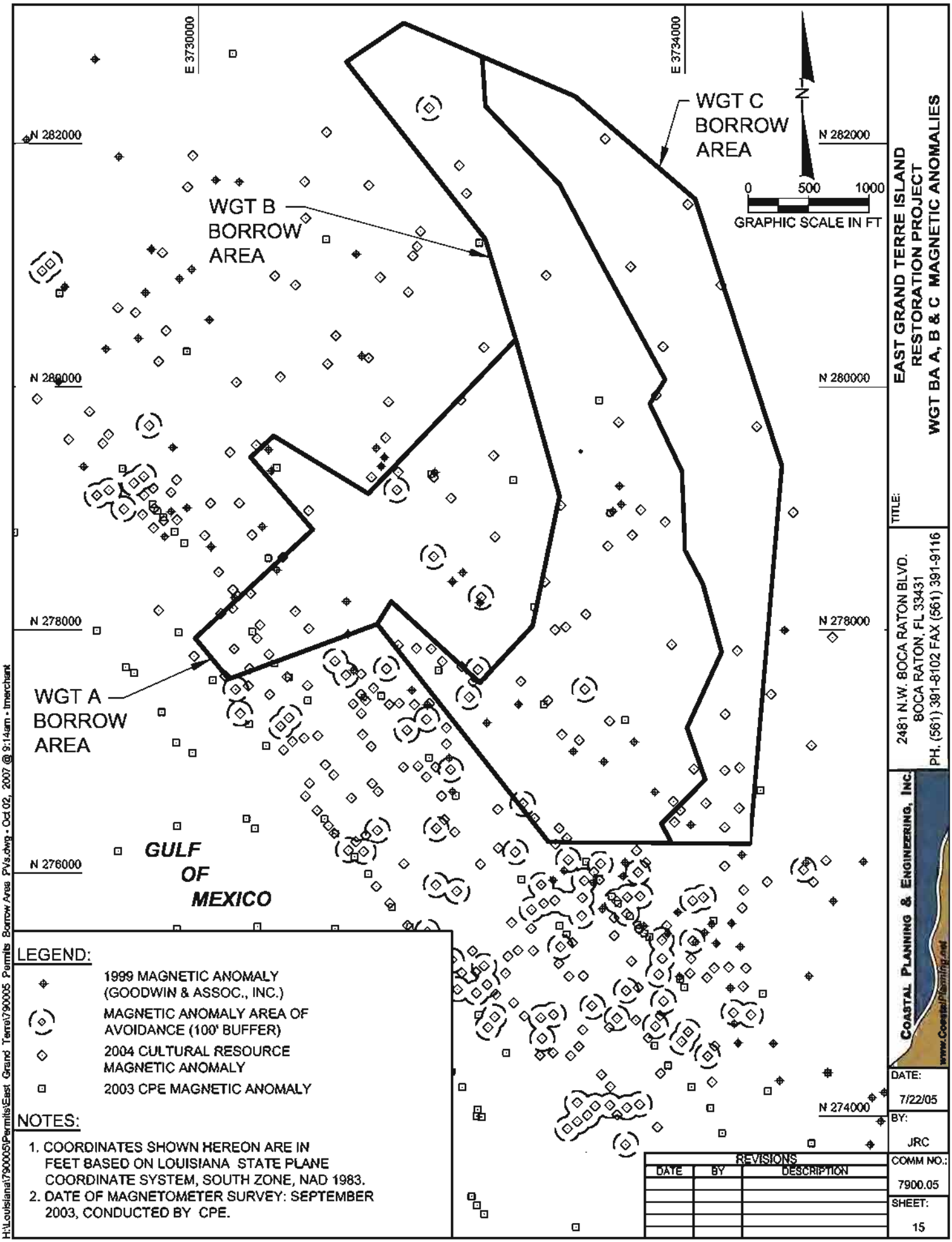

LEGEND:

- 1999 MAGNETIC ANOMALY (GOODWIN & ASSOC., INC.)
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- 2004 CULTURAL RESOURCE MAGNETIC ANOMALY
- 2003 CPE MAGNETIC ANOMALY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. DATE OF MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
WGT BA A, B & C MAGNETIC ANOMALIES

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 15

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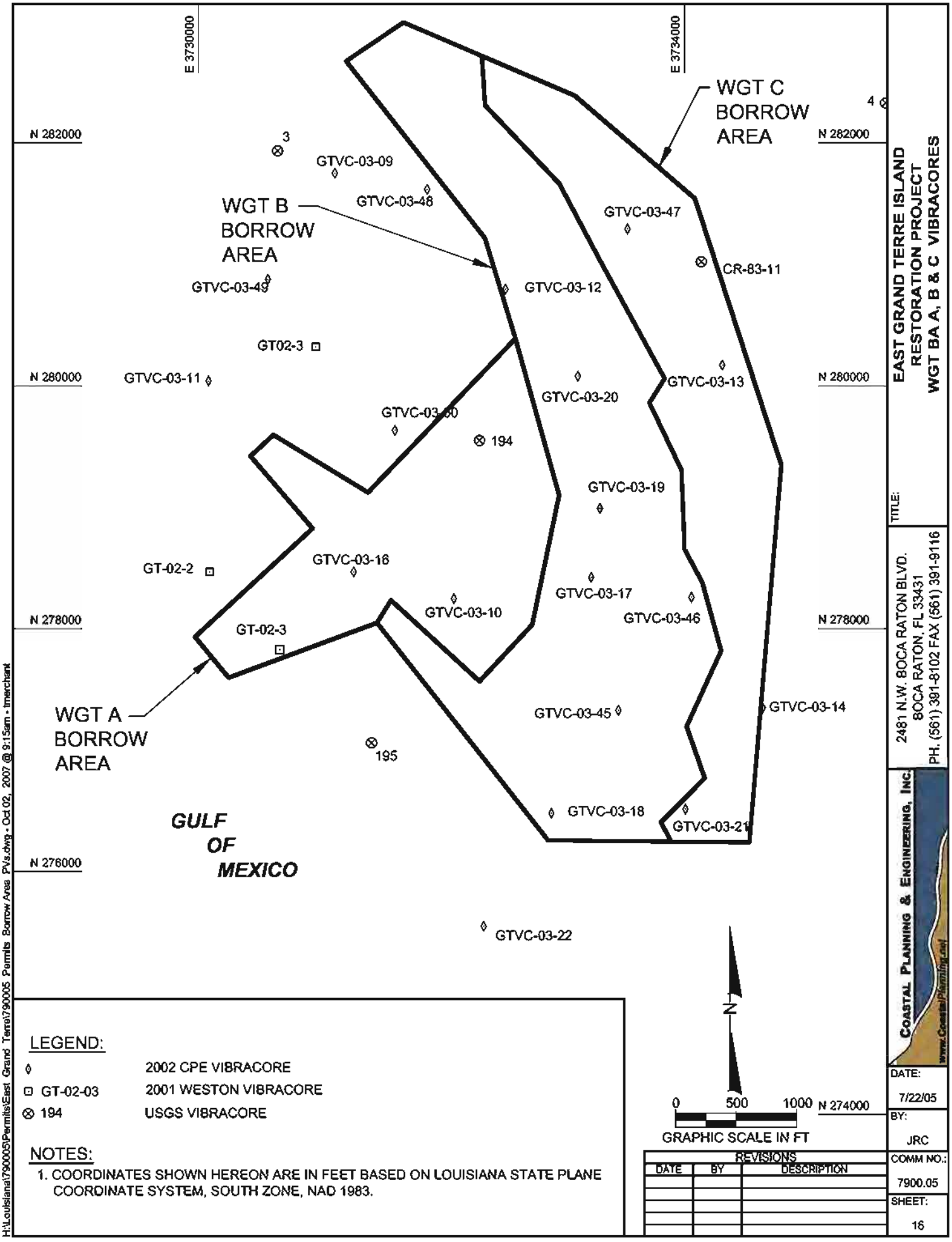


LEGEND:

◊	2002 CPE VIBRACORE
⊡ GT-02-03	2001 WESTON VIBRACORE
⊗ 194	USGS VIBRACORE

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
WGT BA A, B & C VIBRACORES

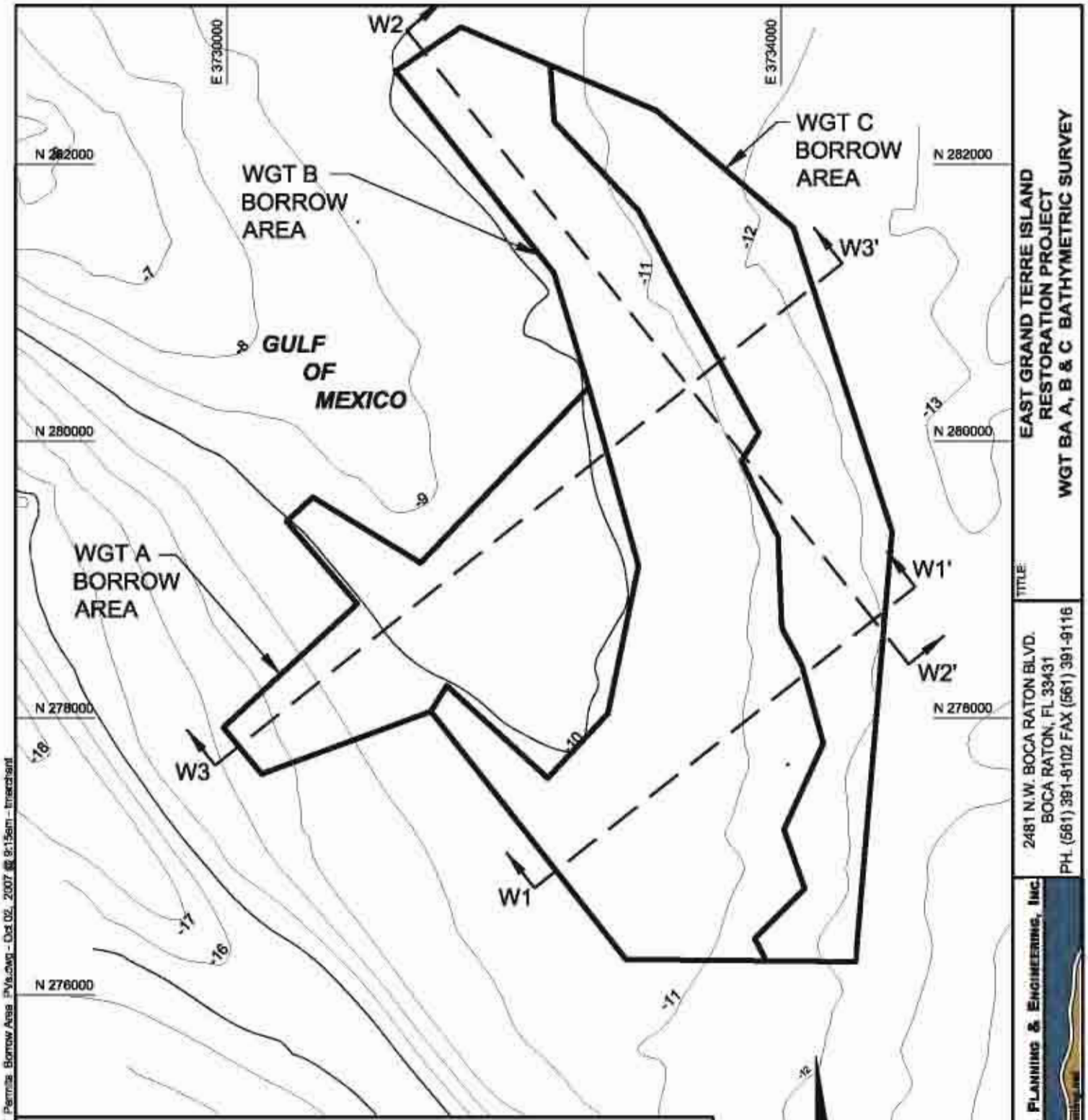
TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 16

H:\Louisiana\790005\Permits\East Grand Terre\790005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:15am - lmerchant



LEGEND:

W1 CROSS SECTON LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CONTOURS REPRESENT BOTTOM OF SILT/CLAY LAYER AND TOP OF SAND LAYER.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
WGT BA A, B & C BATHYMETRIC SURVEY

TITLE:

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-9102 FAX (561) 391-9116

DATE: 7/22/05
BY: JRC
COMM NO. 7900.05
SHEET: 17

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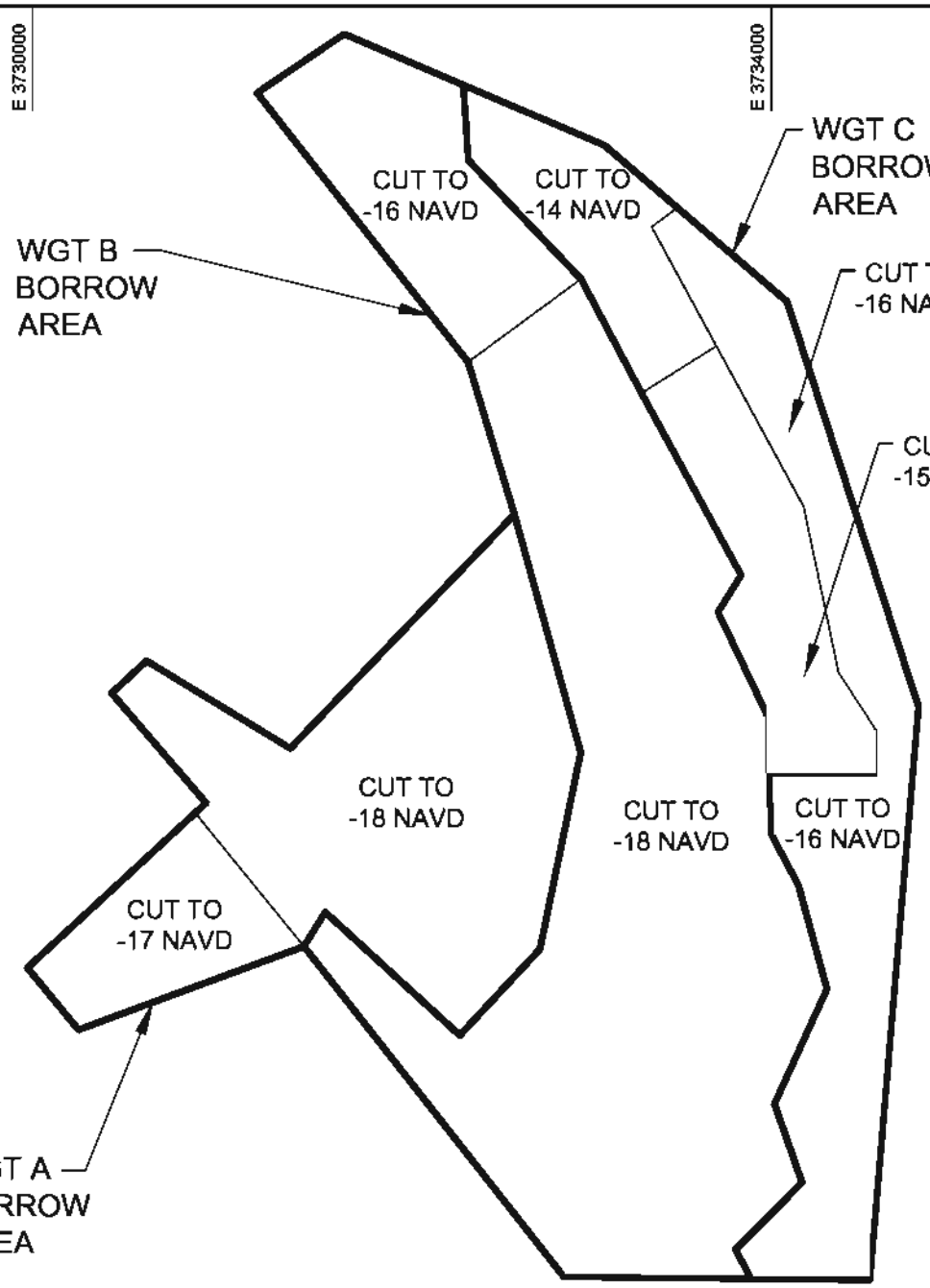


NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
   ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. CONTOURS REPRESENT BOTTOM OF SILT/CLAY LAYER AND TOP OF SAND LAYER.
3. ALLOWABLE OVER DREDGE IS 3' (FEET) BELOW DESIGN CUT.

REVISIONS		
DATE	BY	DESCRIPTION

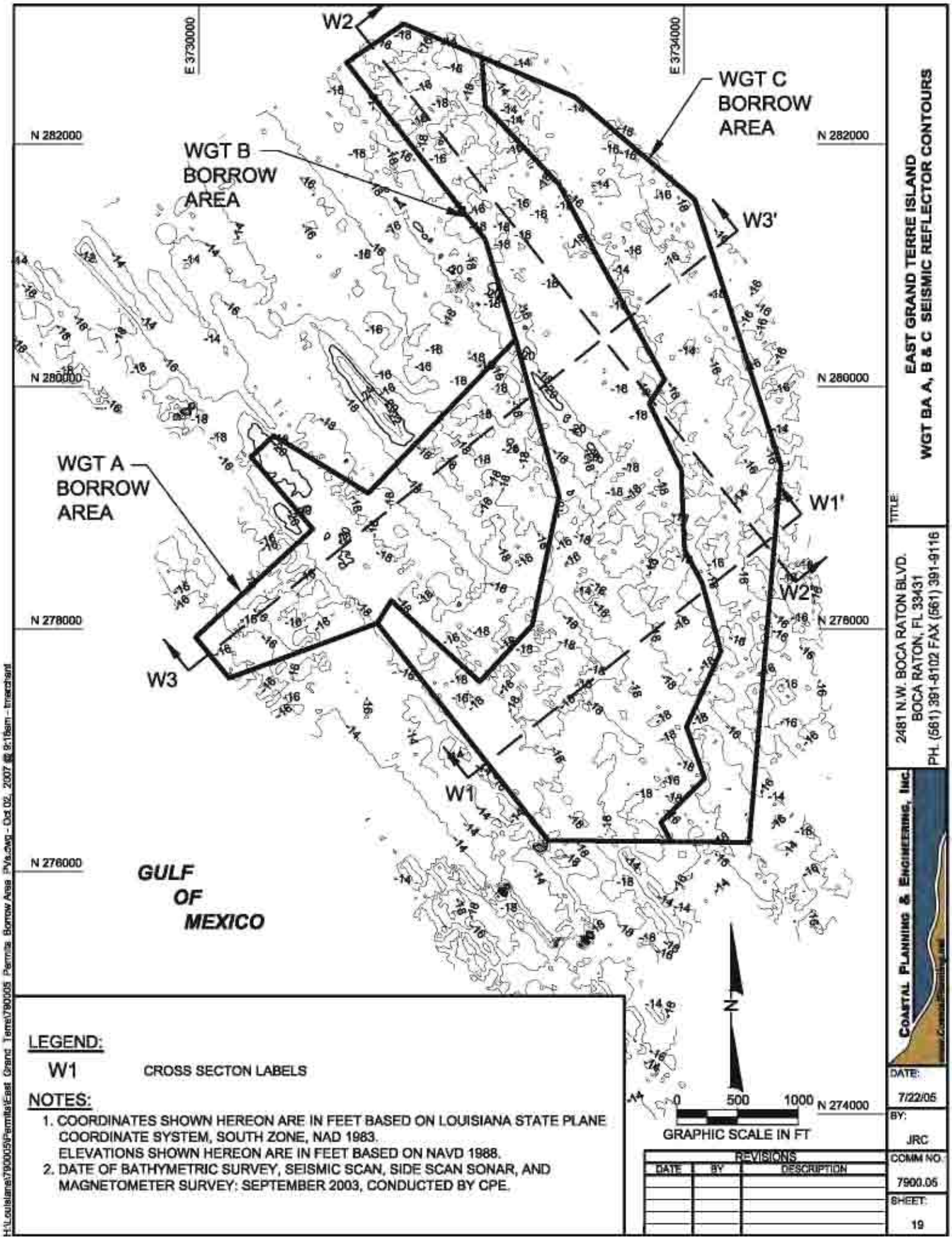
TITLE:
EAST GRAND TERRE ISLAND
WGT BA A, B & C CUT DEPTHS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 18

H:\Louisiana\790005\Permits\East Grand Terre\790005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:15am - lmerchant



LEGEND:

W1 CROSS SECTON LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
   ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
WGT BA A, B & C SEISMIC REFLECTOR CONTOURS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 19

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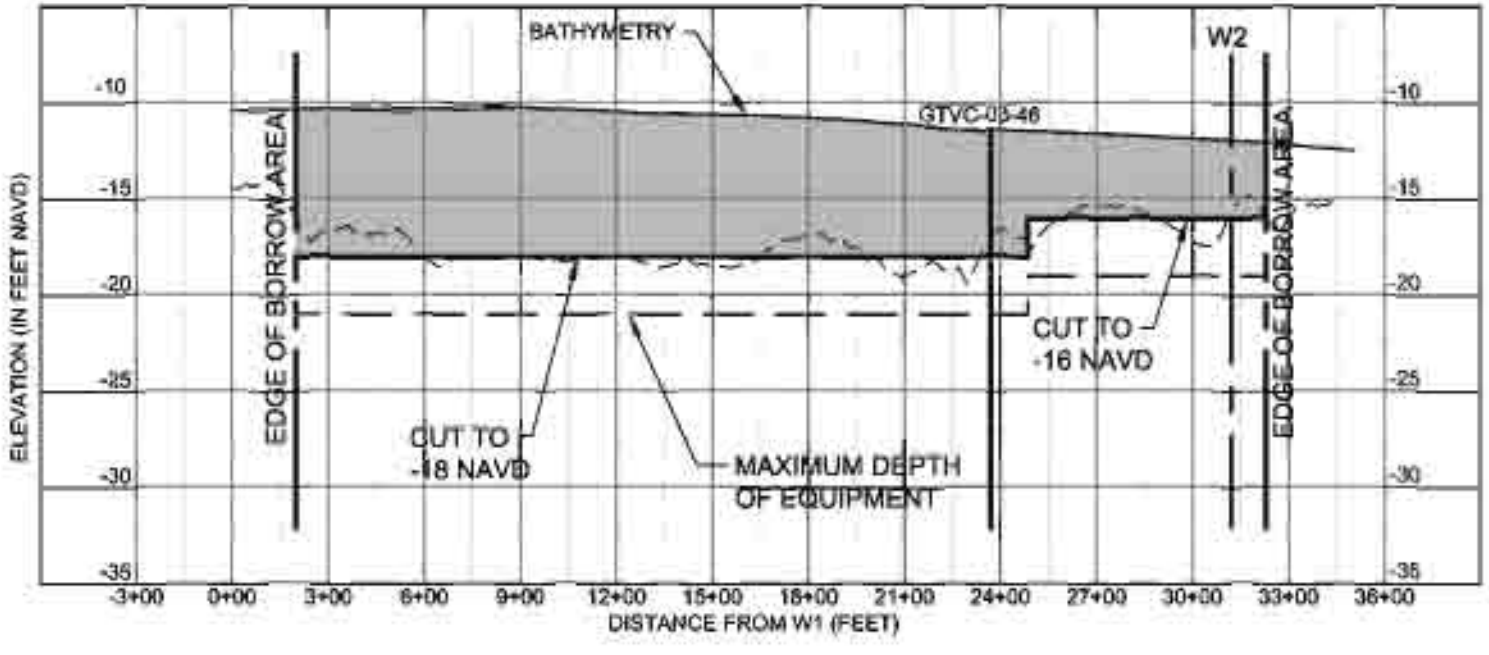
W1



DATE	BY	REVISIONS DESCRIPTION

LEGEND:

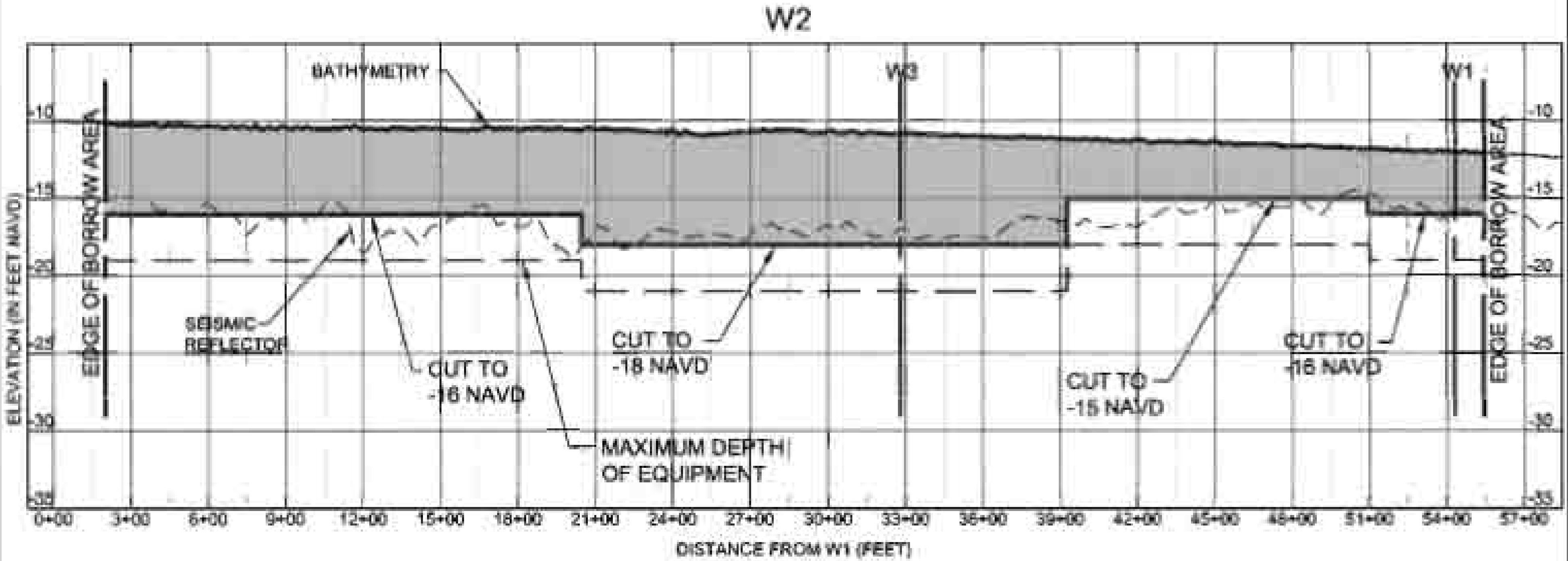
BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 17 & 19 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

SHEET:	COMM NO.:	BY:	DATE:	COASTAL PLANNING & ENGINEERING, INC.	2481 N.W. BOCA RATON BLVD. BOCA RATON, FL 33431 PH. (561) 391-8102 FAX (561) 391-9116	TITLE: EAST GRAND TERRE ISLAND RESTORATION PROJECT WGT BA A, B & C CROSS SECTION W1
20	790005	JRC	7/22/05			



LEGEND:

BEACH FILL MATERIAL

NOTES:

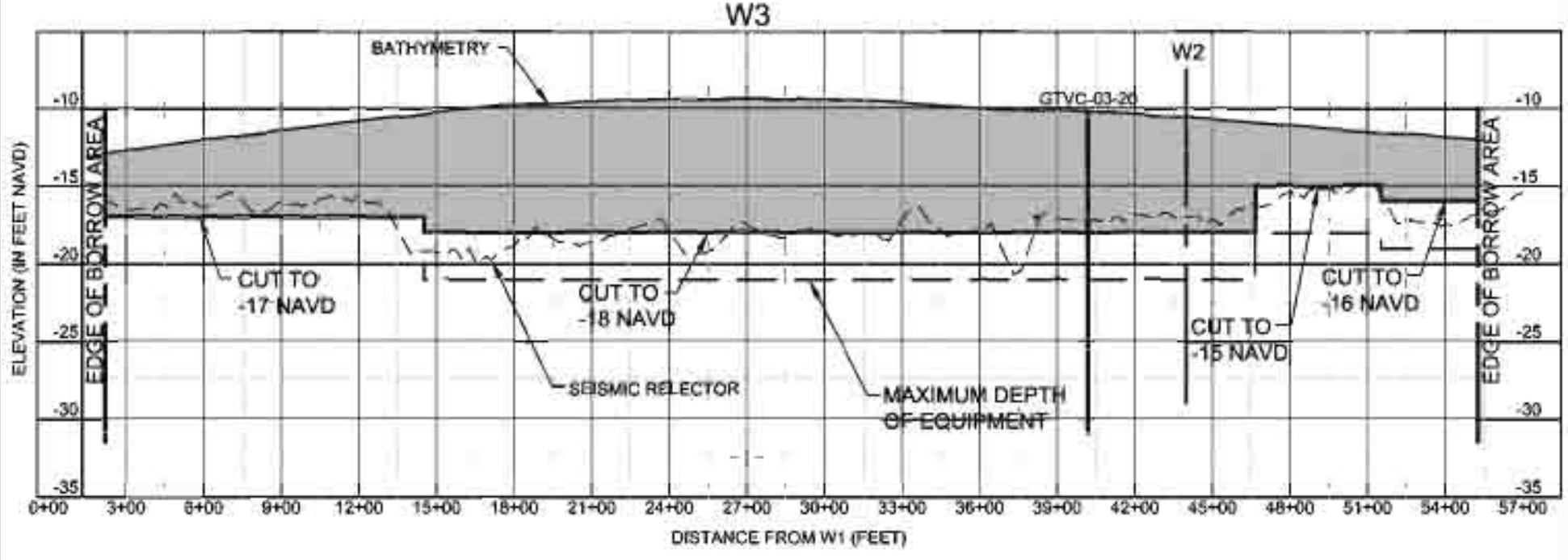
1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY, ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 17 & 19 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

Coastal Planning & Engineering, Inc.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE

EAST GRAND TERRE ISLAND RESTORATION PROJECT
WGT BA A, B & C CROSS SECTON W2



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY, ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 17 & 19 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

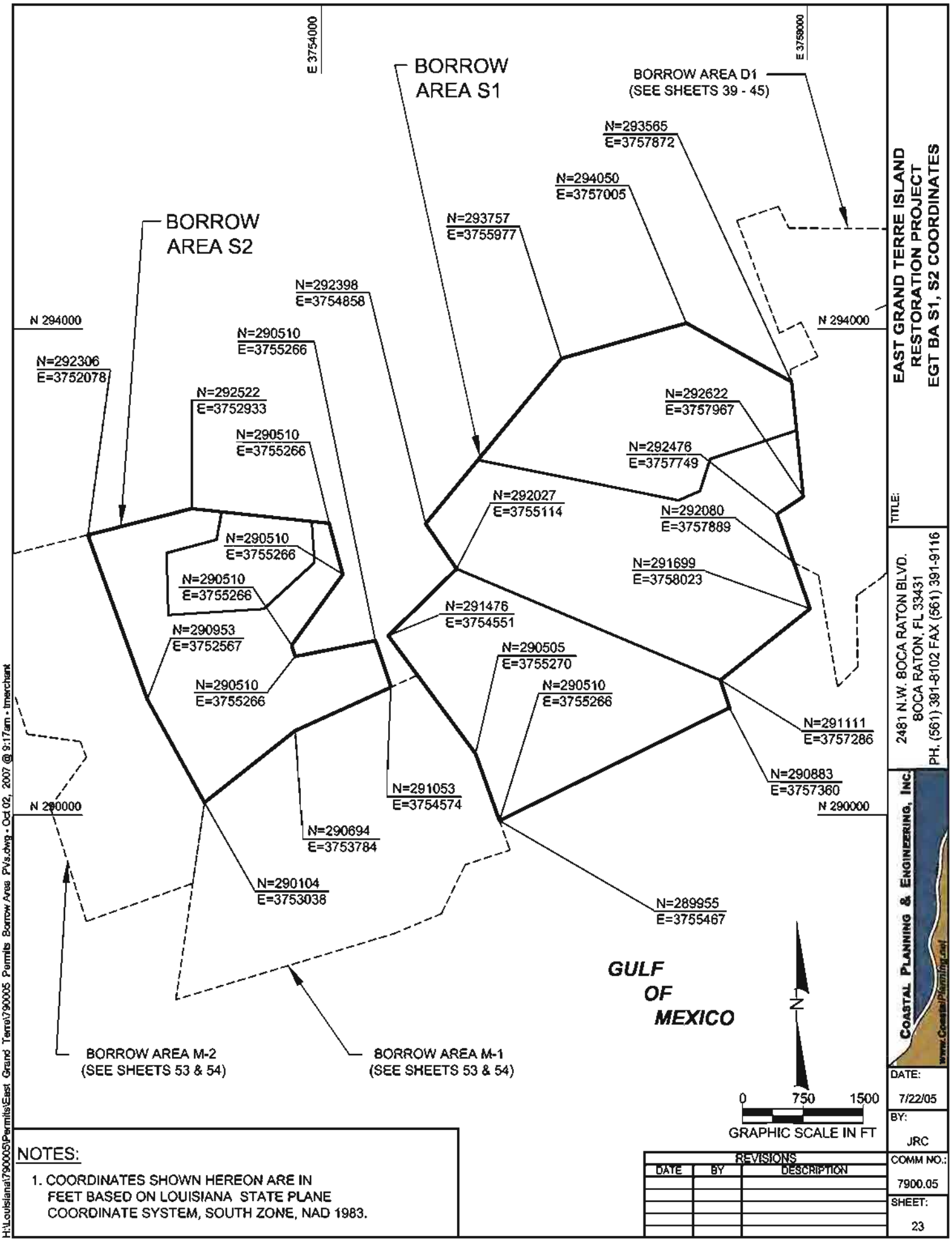
SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

SHEET: 22	790005	COMM NO.:	JPC	BY	7/22/05	DATE:	COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
WGT BA A, B & C CROSS SECTON W3



NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT EGT BA S1, S2 COORDINATES

2481 N.W. BOCA RATON BLVD.
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PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
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DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 23

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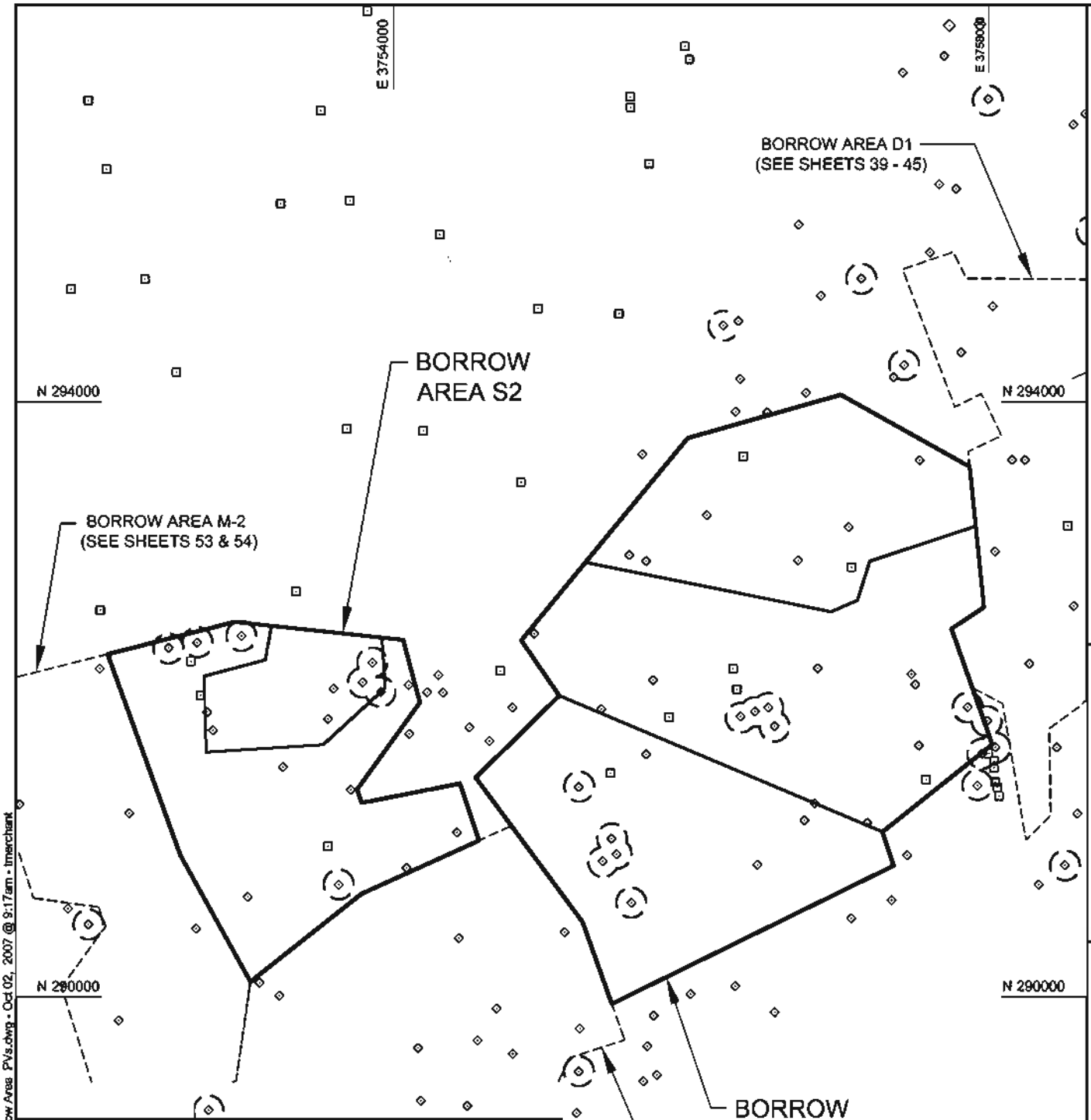

LEGEND:

- 1999 MAGNETIC ANOMALY (GOODWIN & ASSOC., INC.)
- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- 2004 CULTURAL RESOURCE MAGNETIC ANOMALY
- 2003 CPE MAGNETIC ANOMALY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. DATE OF MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

REVISIONS

DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1,S2 MAGNETIC ANOMALIES MAP

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 24

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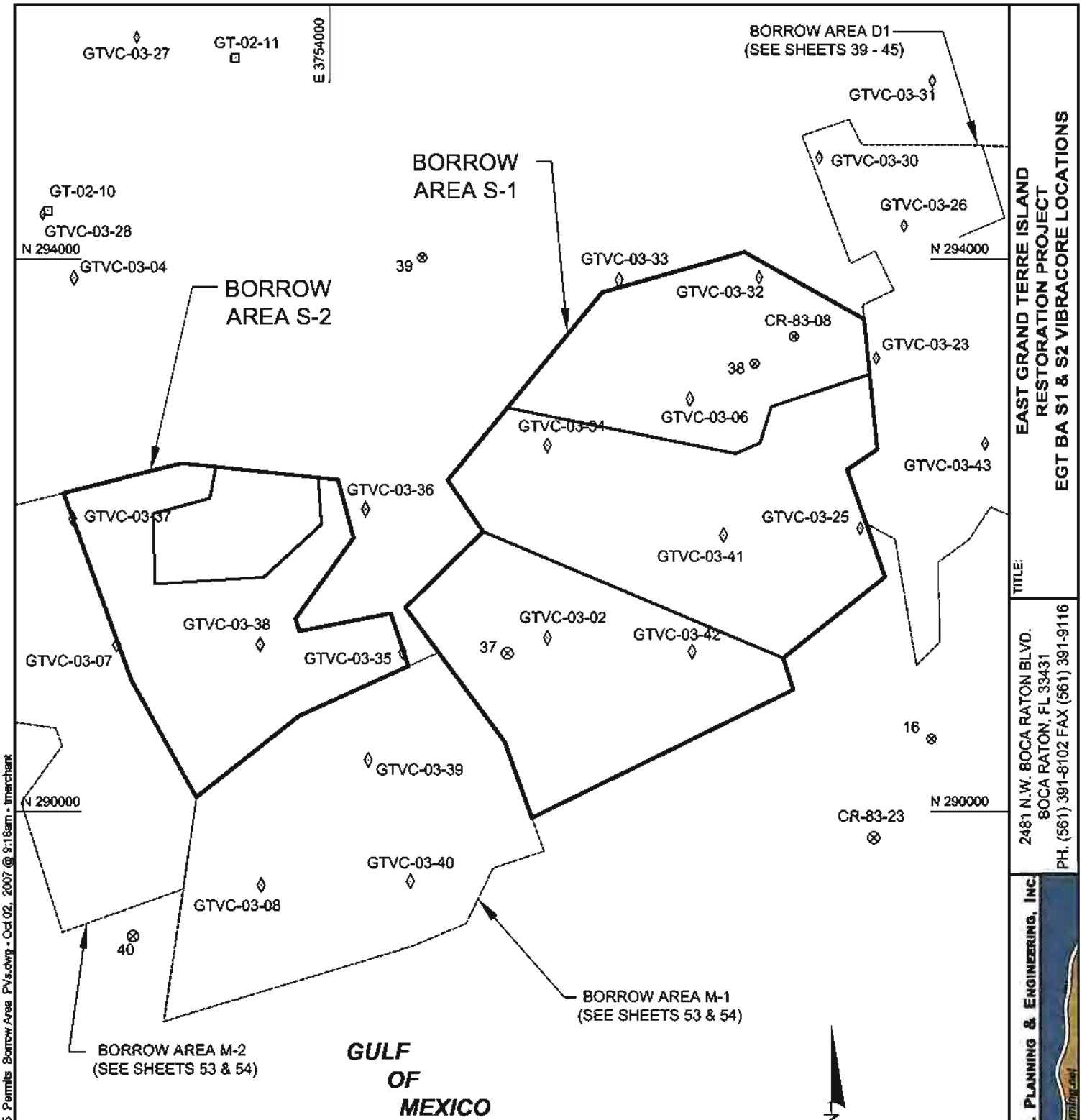

LEGEND:

◊ GTVC-03-08	2003 CPE VIBRACORE
⊡ CR-83-23	2001 WESTON VIBRACORE
⊗ 40	USGS VIBRACORE

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA S1 & S2 VIBRACORE LOCATIONS

TITLE:

2481 N.W. BOCA RATON BLVD.
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COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 25

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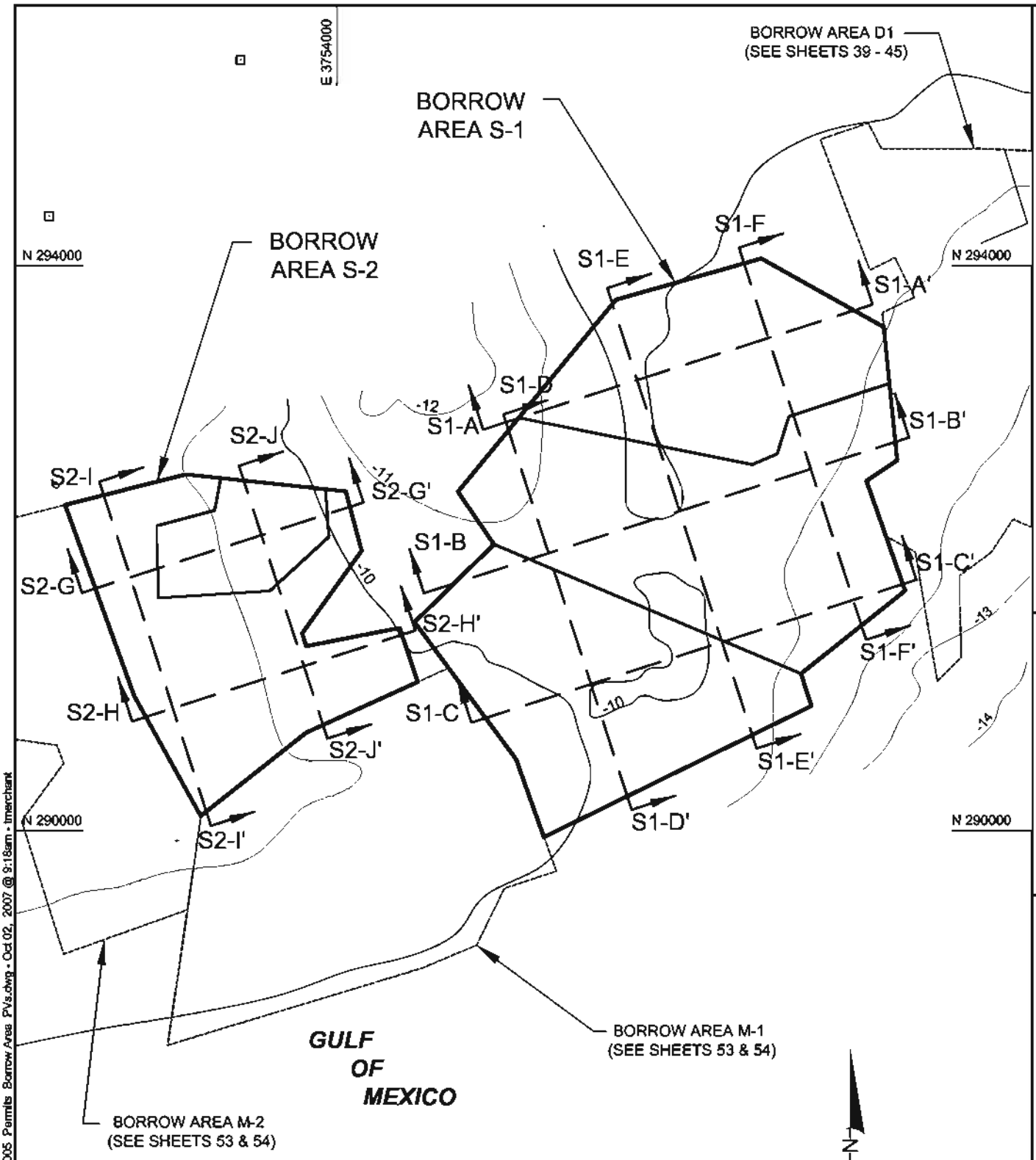

LEGEND:

S1-D' CROSS SECTON LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. ALLOWABLE OVER DREDGE IS 3' (FEET) BELOW DESIGN CUT.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 & S2 BATHYMETRIC SURVEY

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 26

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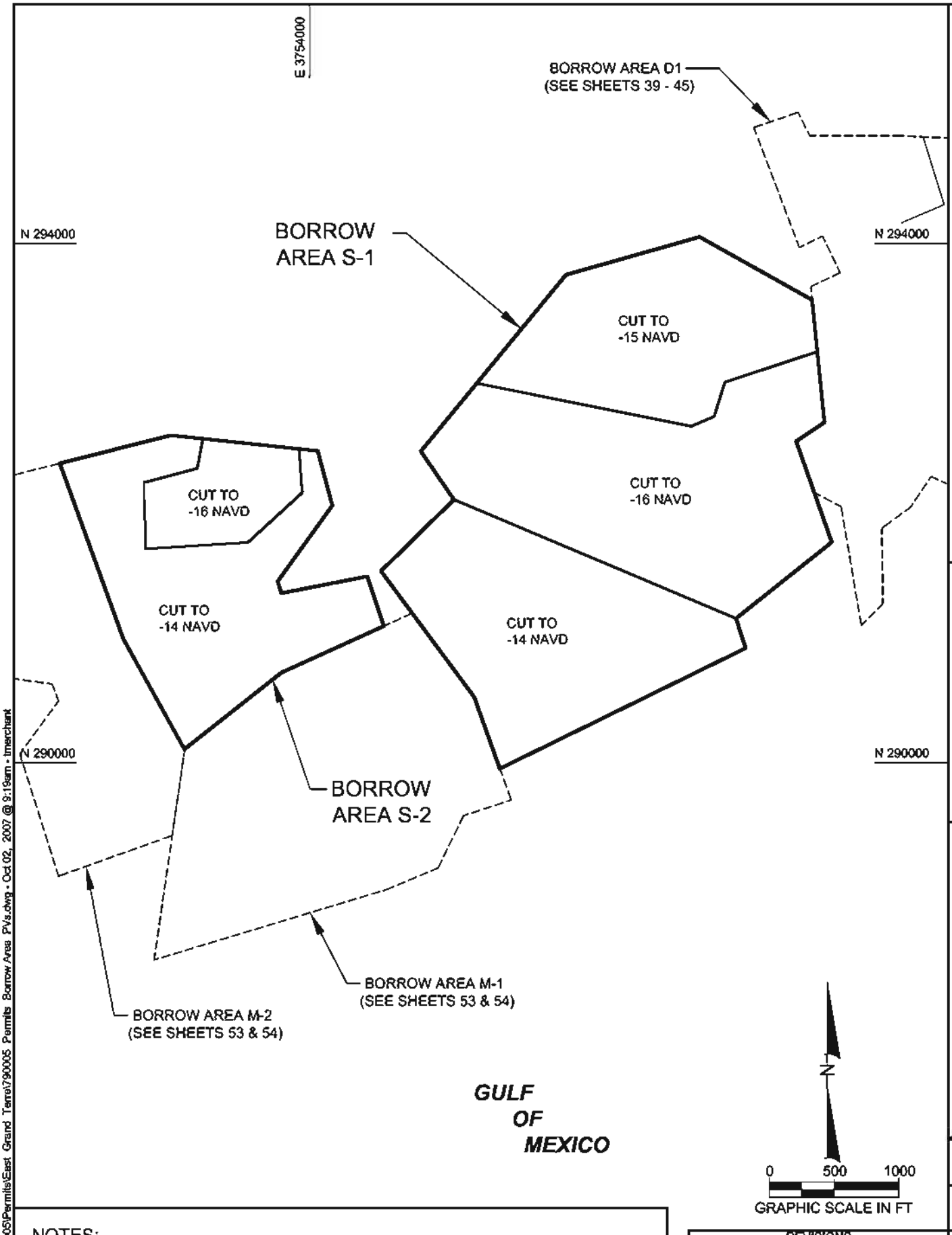

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ALLOWABLE OVER DREDGE IS 3' (FEET) BELOW DESIGN CUT.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT EGT BA S1 & S2 CUT DEPTHS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

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DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 27

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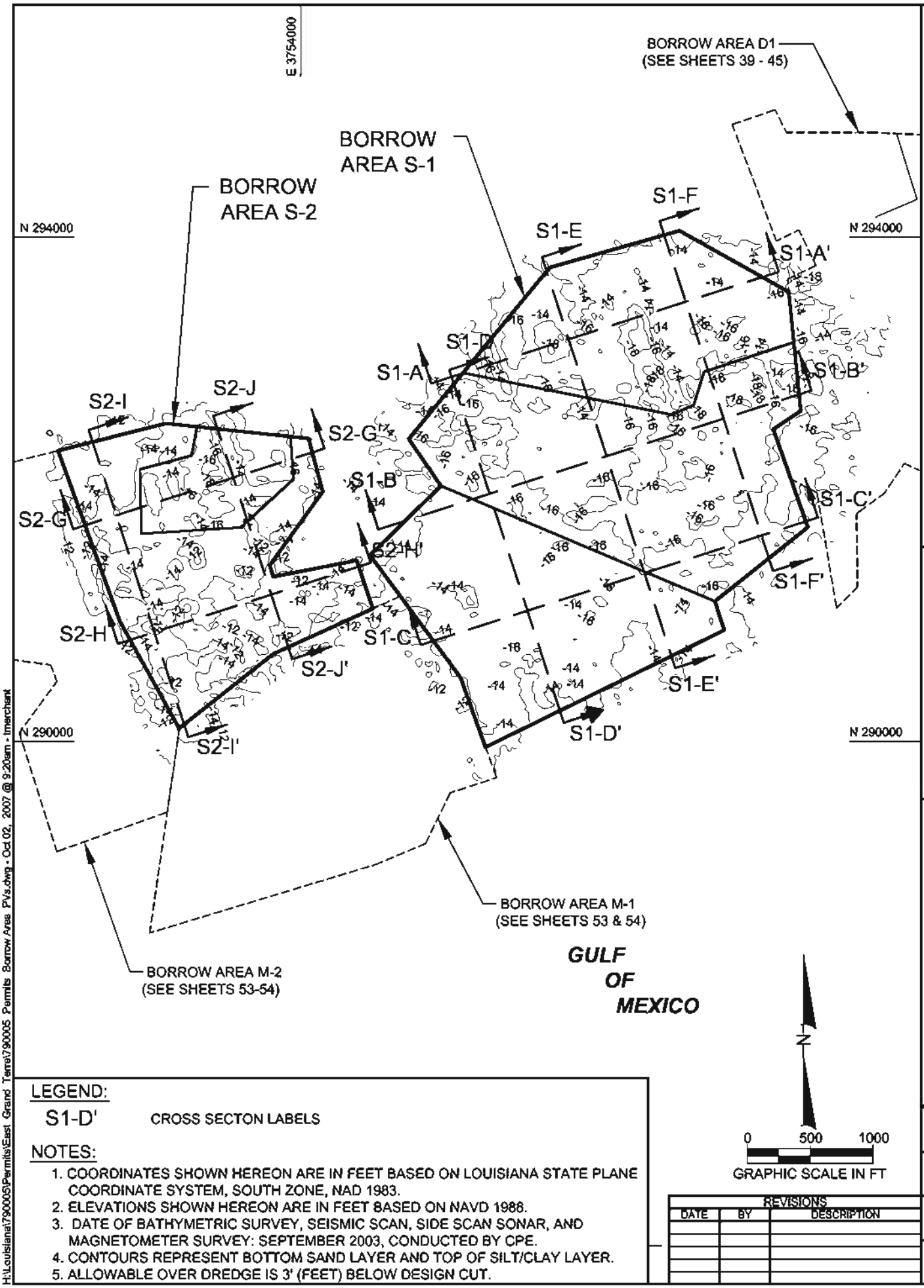


LEGEND:

S1-D' CROSS SECTON LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CONTOURS REPRESENT BOTTOM SAND LAYER AND TOP OF SILT/CLAY LAYER.
5. ALLOWABLE OVER DREDGE IS 3' (FEET) BELOW DESIGN CUT.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 & S2 SEISMIC REFLECTOR CONTOURS

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

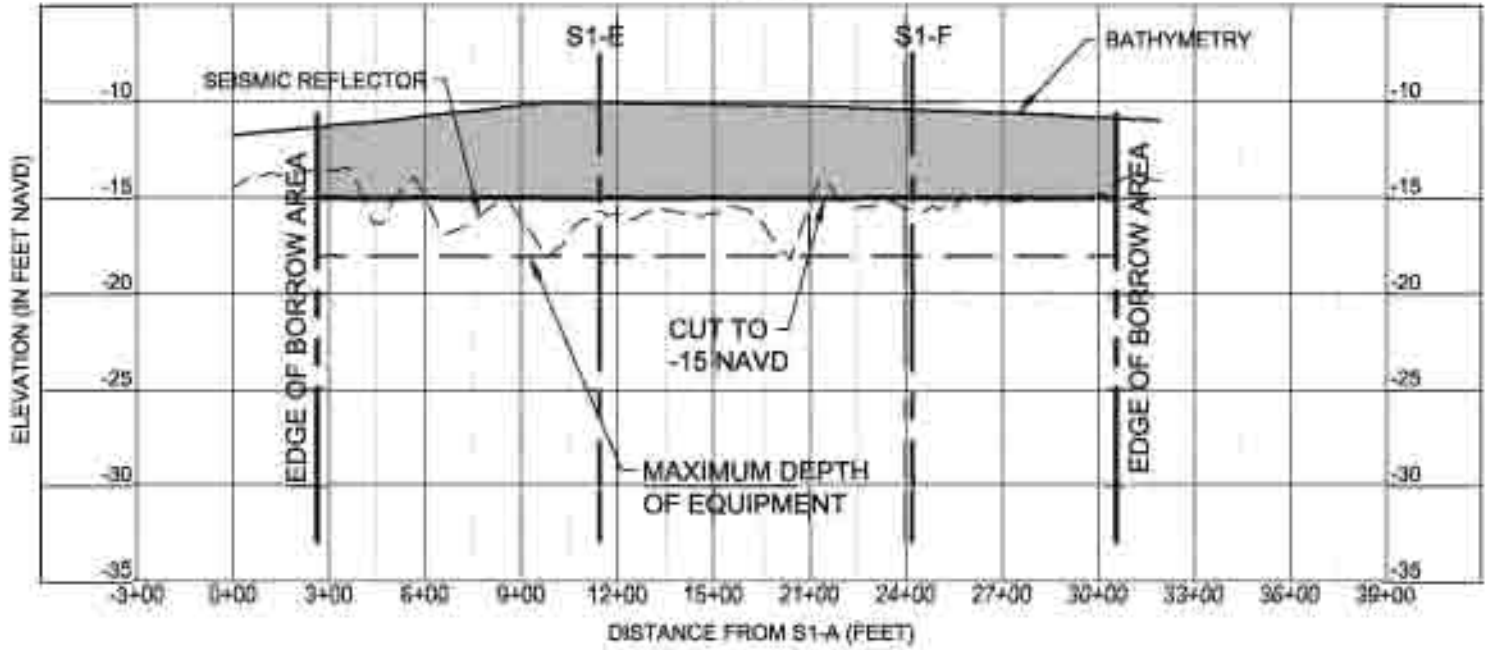
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 28

S1-A



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

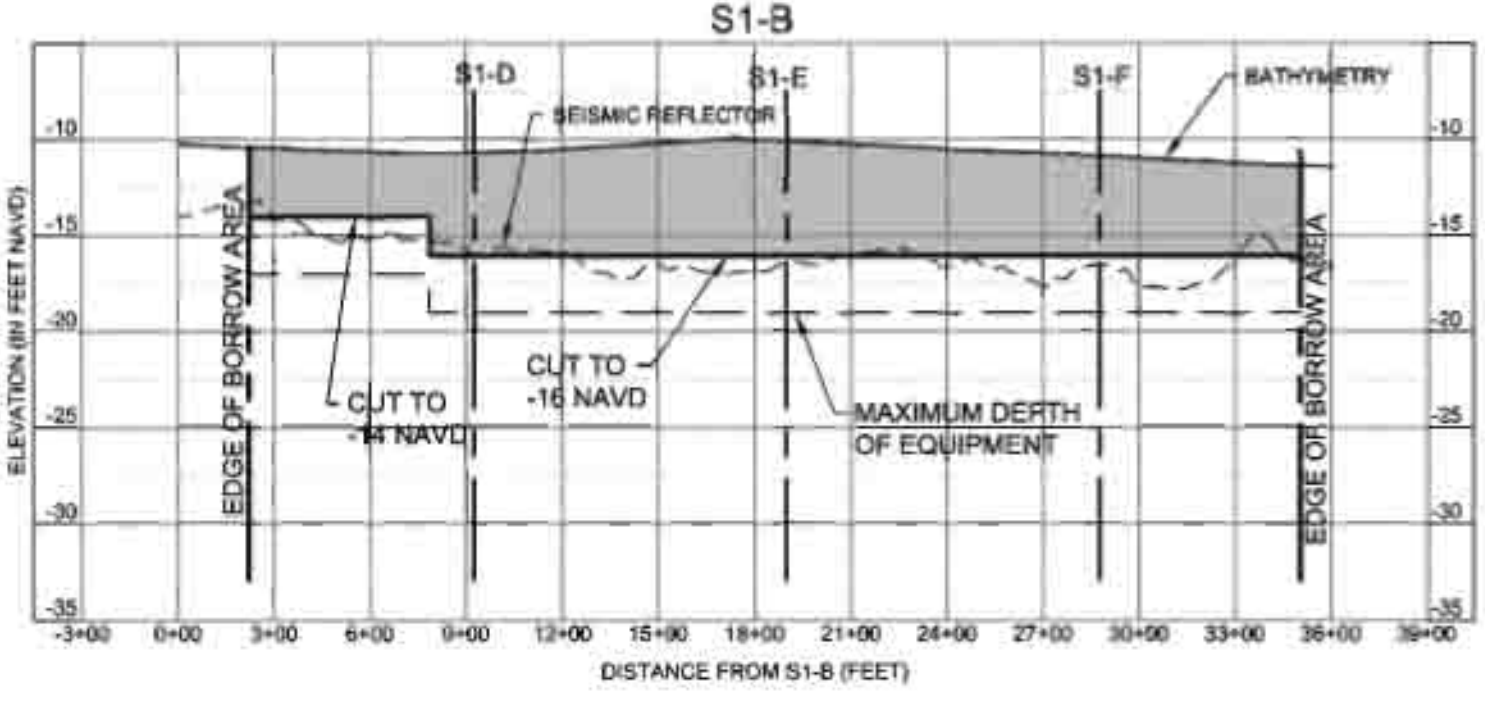
DATE	BY	REVISIONS DESCRIPTION

SHEET	FIGURE	DRAWN	BY	DATE
29		COMMON	JRC	7/22/08

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 CROSS SECTON S1-A



LEGEND:

BEACH FILL MATERIAL

NOTES:

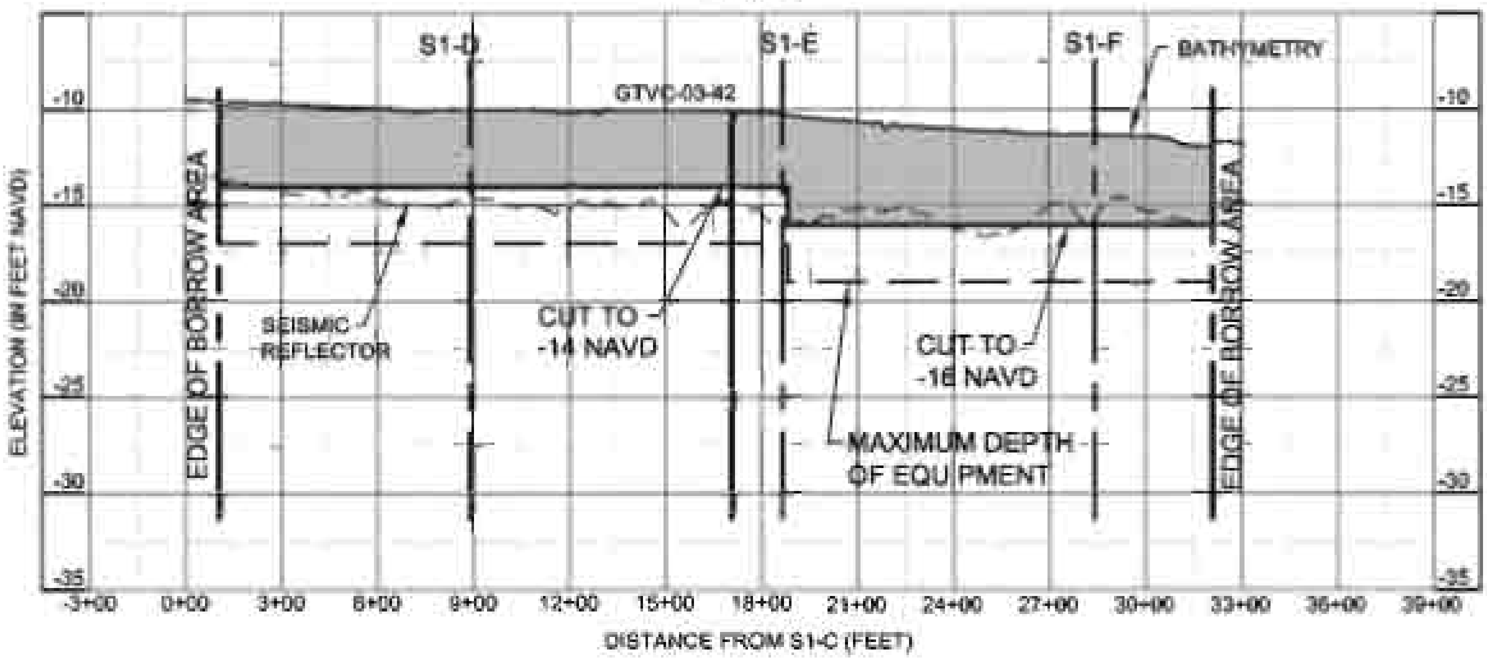
1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-6102 FAX (561) 391-6116

TITLE:
EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA 81 CROSS SECTON S1-B

S1-C



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 25 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

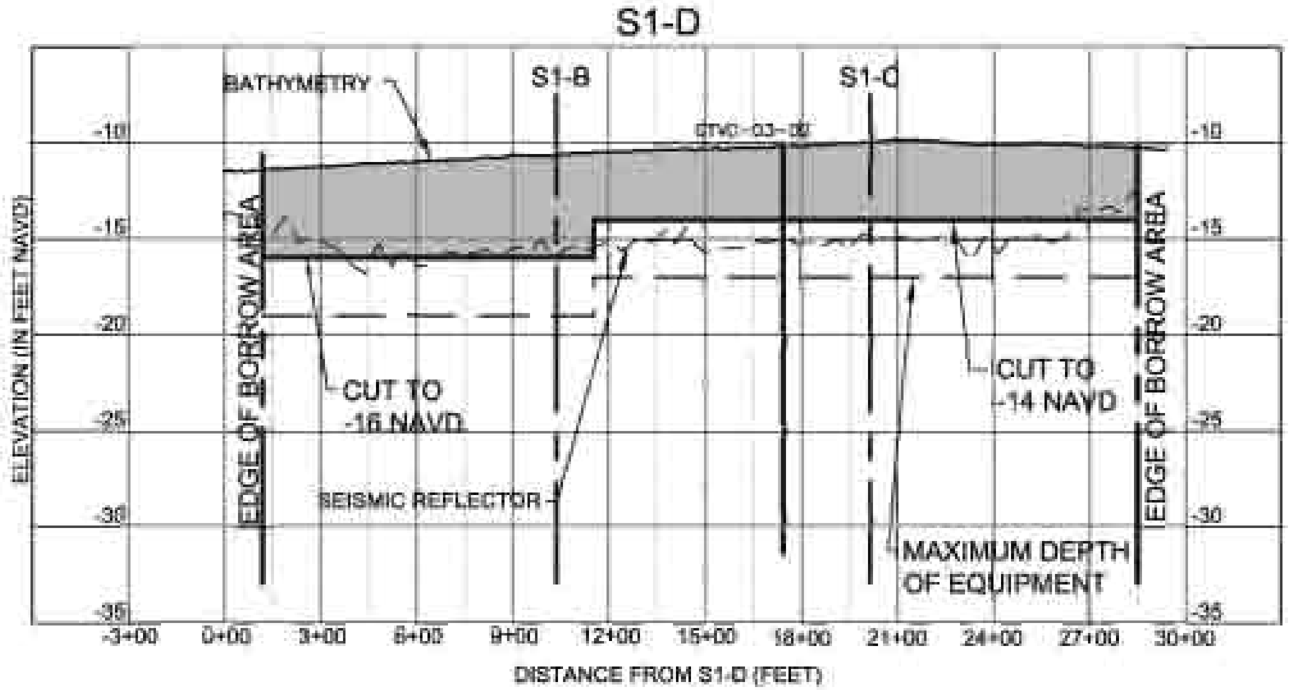
REVISIONS | DATE | BY | DESCRIPTION

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA S1 CROSS SECTON S1-C

SHEET 31



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

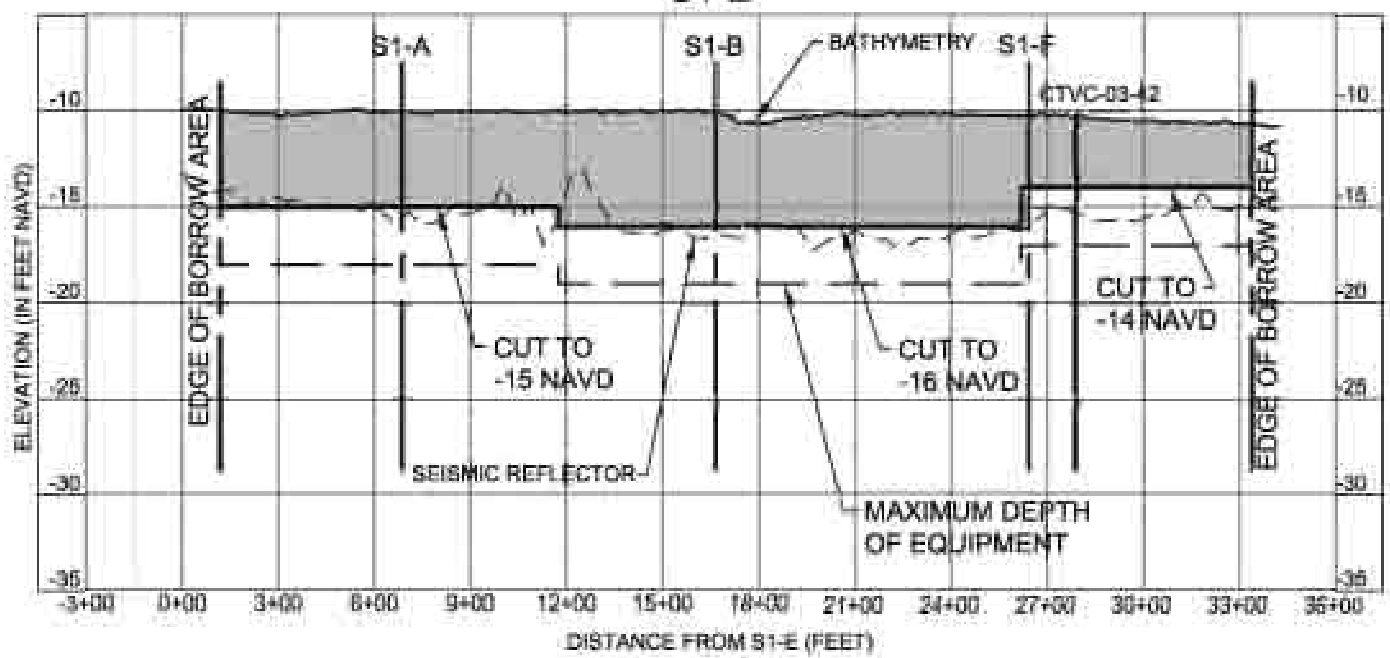
REVISIONS		
DESCRIPTION	BY	DATE

SHEET	COMM NO.	BY	DATE
32	790005	JRC	3/22/06

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:
EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 CROSS SECTON S1-D

S1-E



DATE	BY	REVISIONS DESCRIPTION

LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

COASTAL PLANNING & ENGINEERING, INC.
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PH. (561) 391-8102 FAX (561) 391-9116

SHEET 33 | COMM NO. 790605 | BY JRC | DATE 3/02/07

TITLE:
EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 CROSS SECTON S1-E

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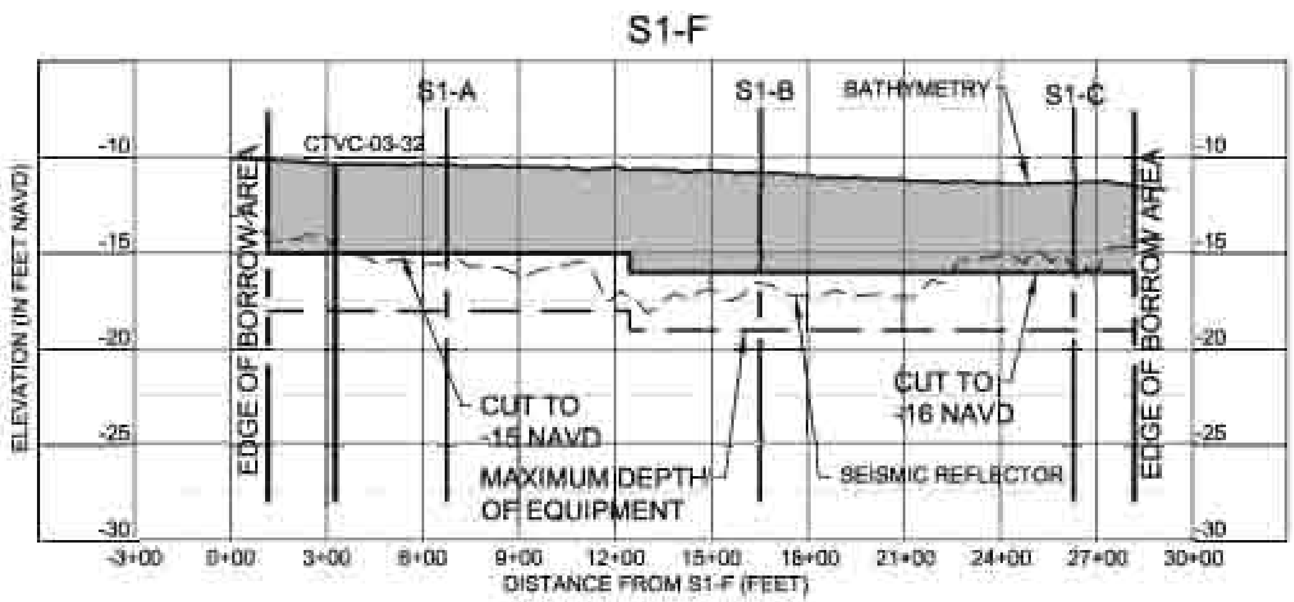


LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

REVISIONS		
DESCRIPTION	BY	DATE

SHEET 34 | COMM NO. 790005 | BY JRC | DATE 7/22/06

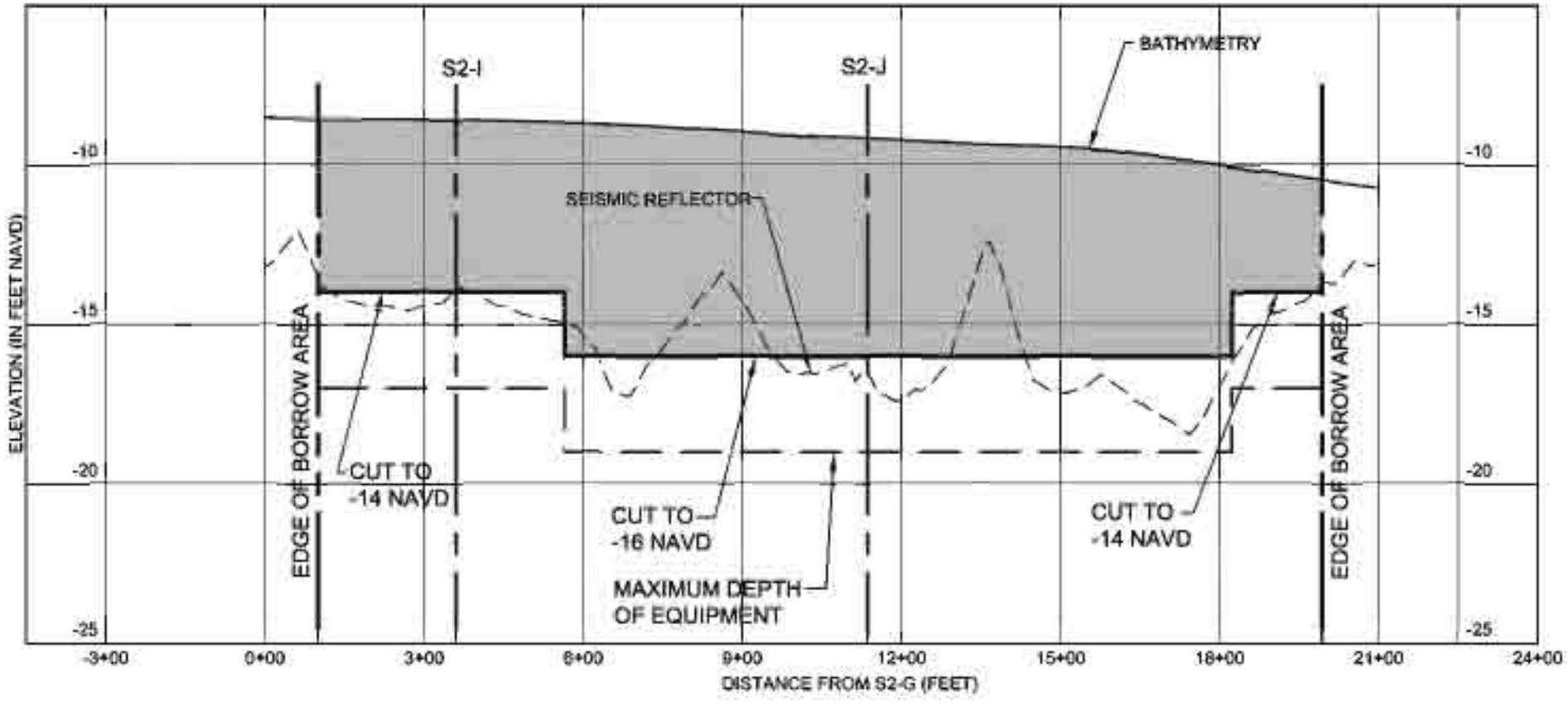
COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S1 CROSS SECTON S1-F

S2-G



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

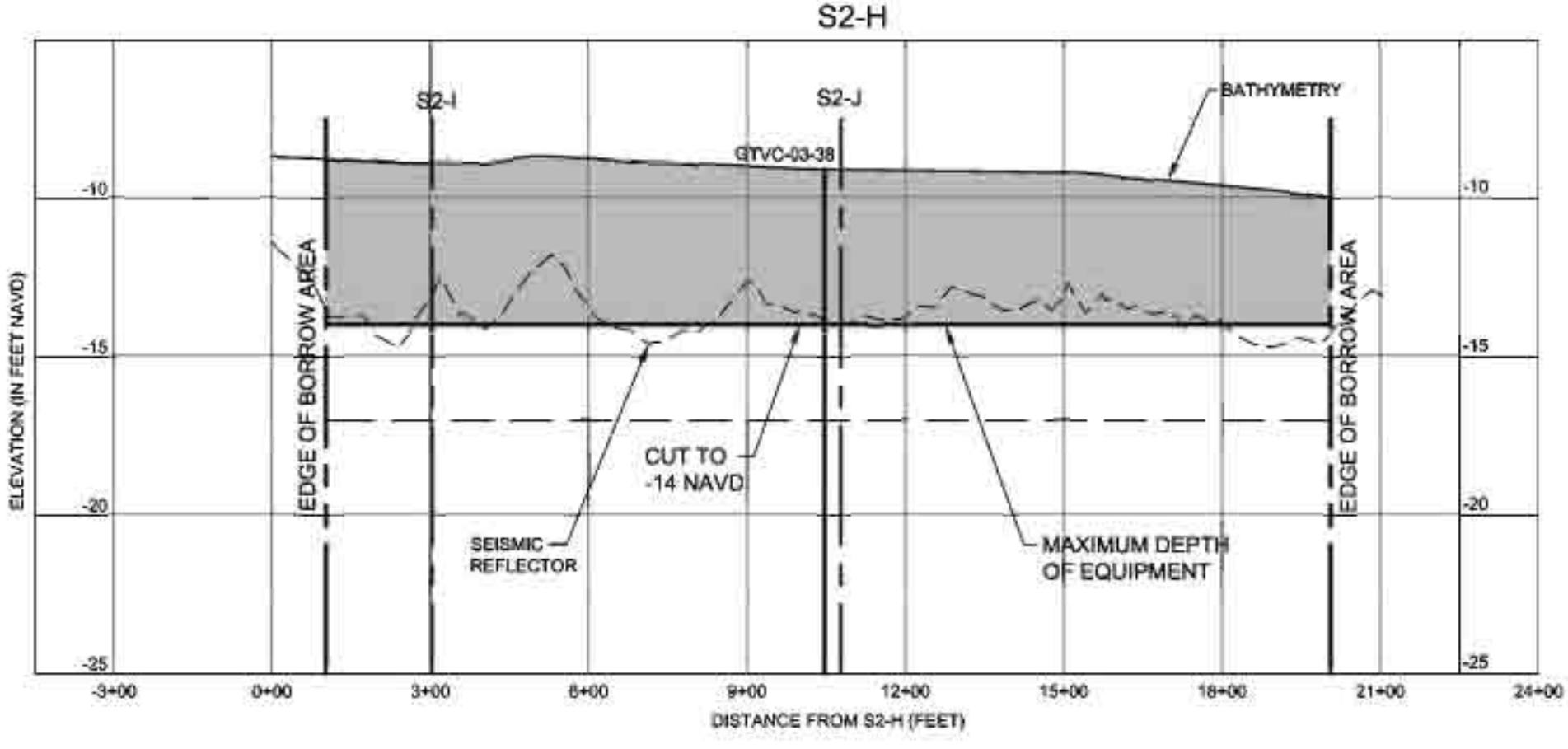
SCALE: HORZ. 1" =300'
VERT. 1" = 5'

DWG.	BY	REVISIONS DESCRIPTION

SHEET: 35 | COMM NO.: 790005 | BY: JBC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE: EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S2 CROSS SECTON S2-G



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

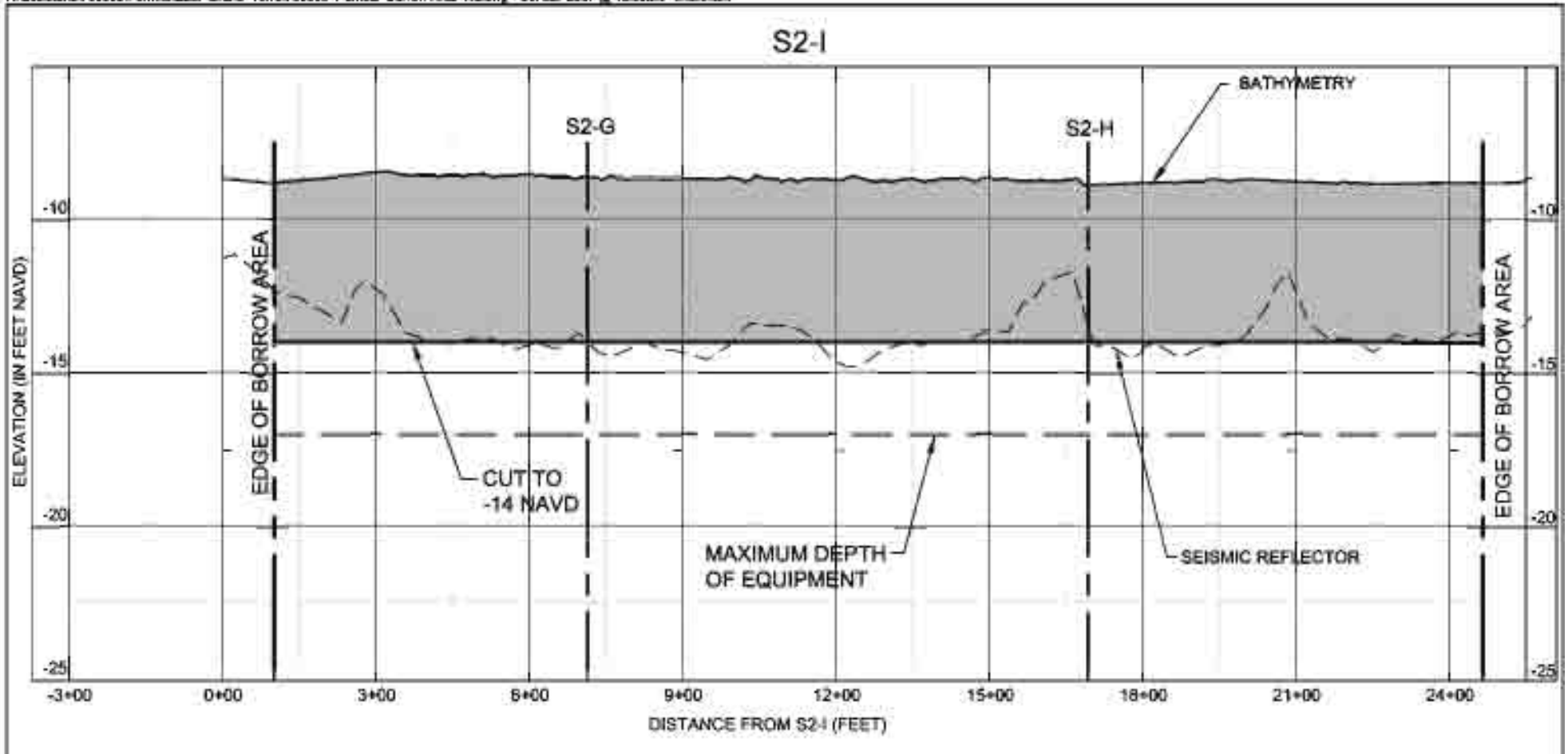
SCALE: HORZ. 1" = 300'
VERT. 1" = 5'

DATE	BY	REVISIONS DESCRIPTION

SHEET: 36
COMMESS: 790005
BY: JBC
DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

TITLE:
EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S2 CROSS SECTON S2-H



LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

SCALE: HORZ. 1" = 300'
VERT. 1" = 5'

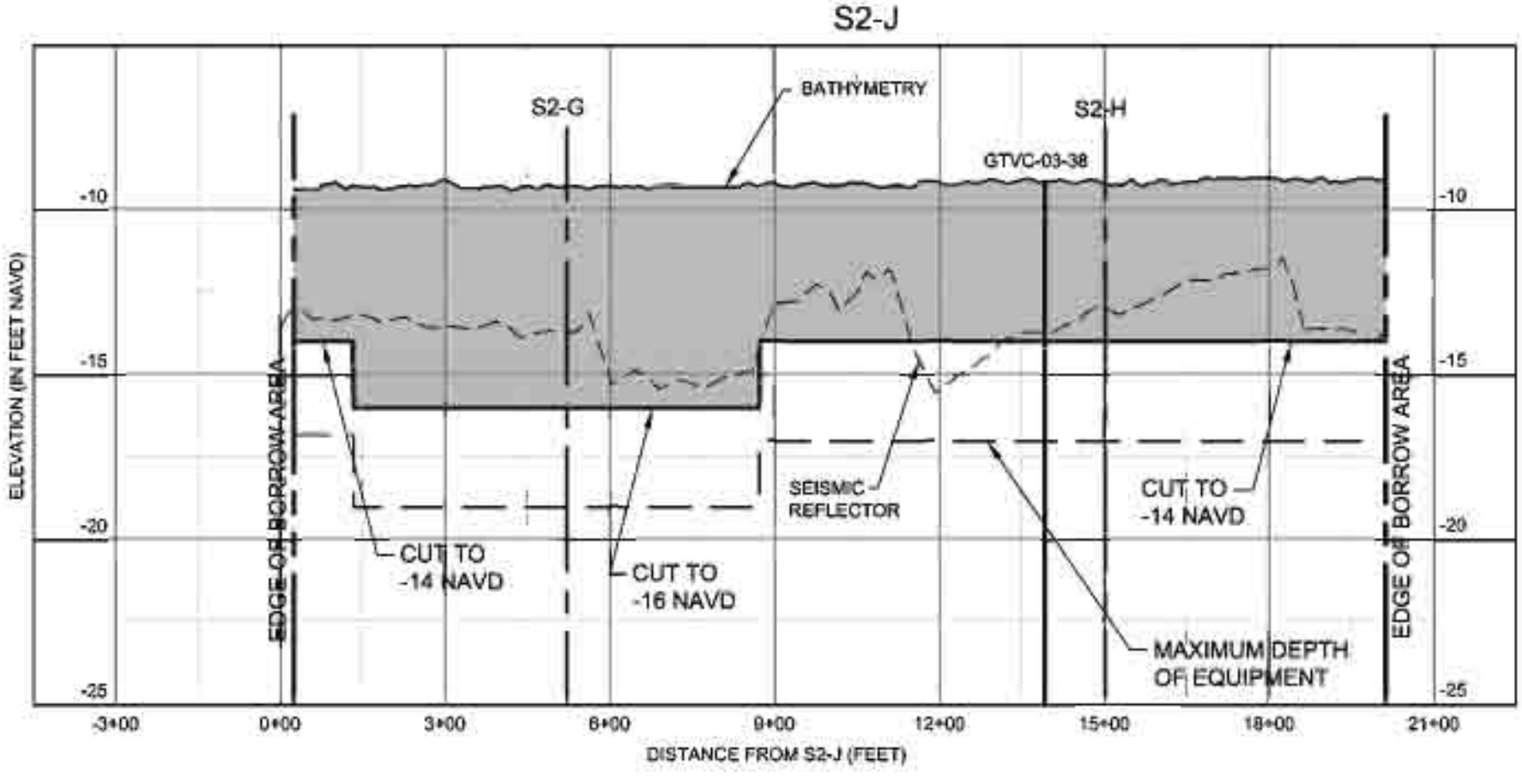
DATE	BY	REVISIONS DESCRIPTION

SHEET: 33 | COMM NO.: 790005 | BY: JBC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S2 CROSS SECTON S2-I



NO.	BY	DATE	REVISIONS DESCRIPTION

LEGEND:

BEACH FILL MATERIAL

NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 26 & 28 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

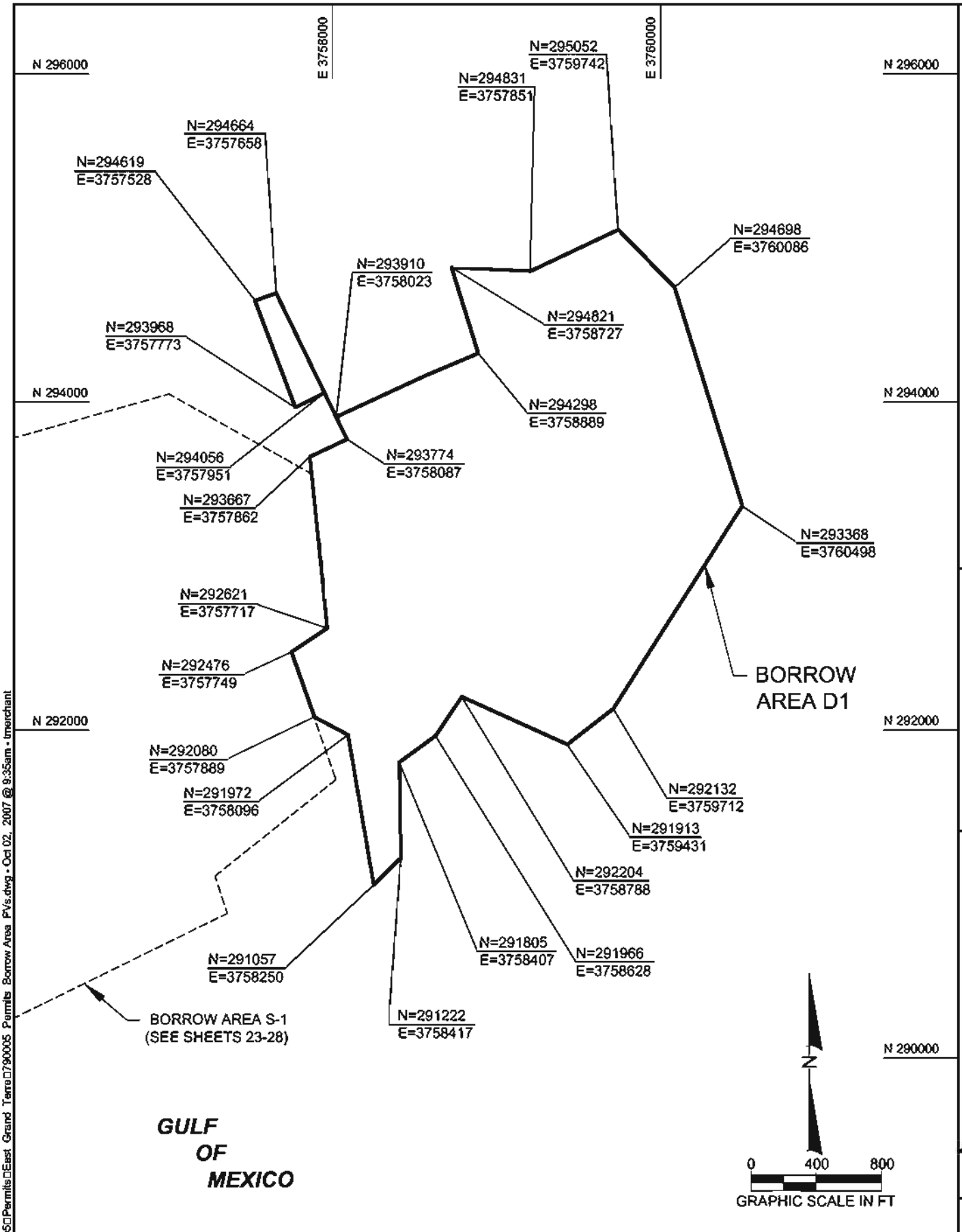
SCALE: HORZ. 1" = 300'
VERT. 1" = 5'

SHEET:	COMM NO.:	BY:	DATE:	
38	790005	JBC	7/22/05	COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA S2 CROSS SECTON S2-J



EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 COORDINATES

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 39

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

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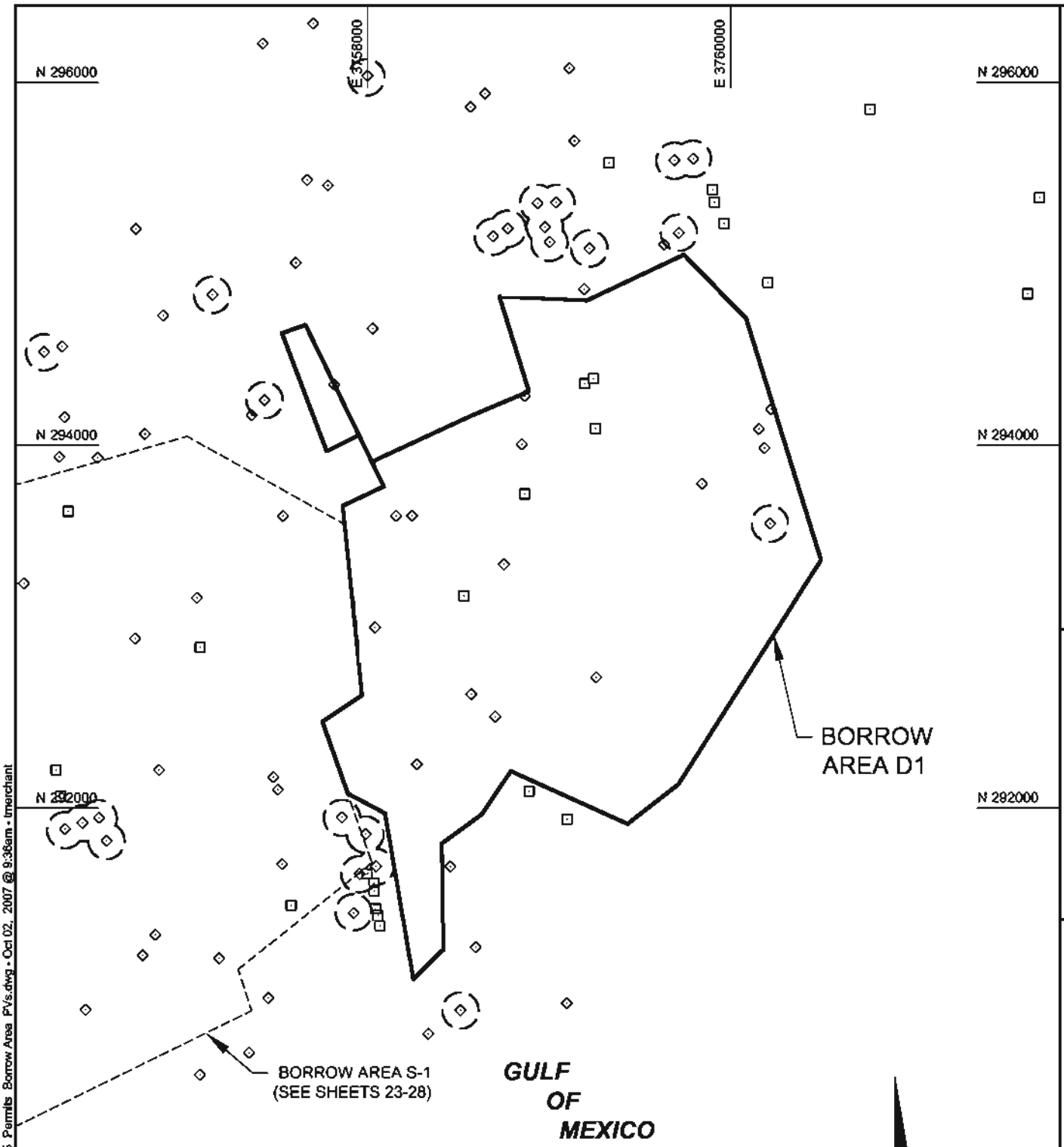

LEGEND:

- MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- 2004 CULTURAL RESOURCE MAGNETIC ANOMALY
- 2003 MAGNETIC ANOMALY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. DATE OF MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

N

0 400 800

GRAPHIC SCALE IN FT

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 MAGNETIC ANOMALIES

2481 N.W. BOCA RATON BLVD.
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PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
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DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 40

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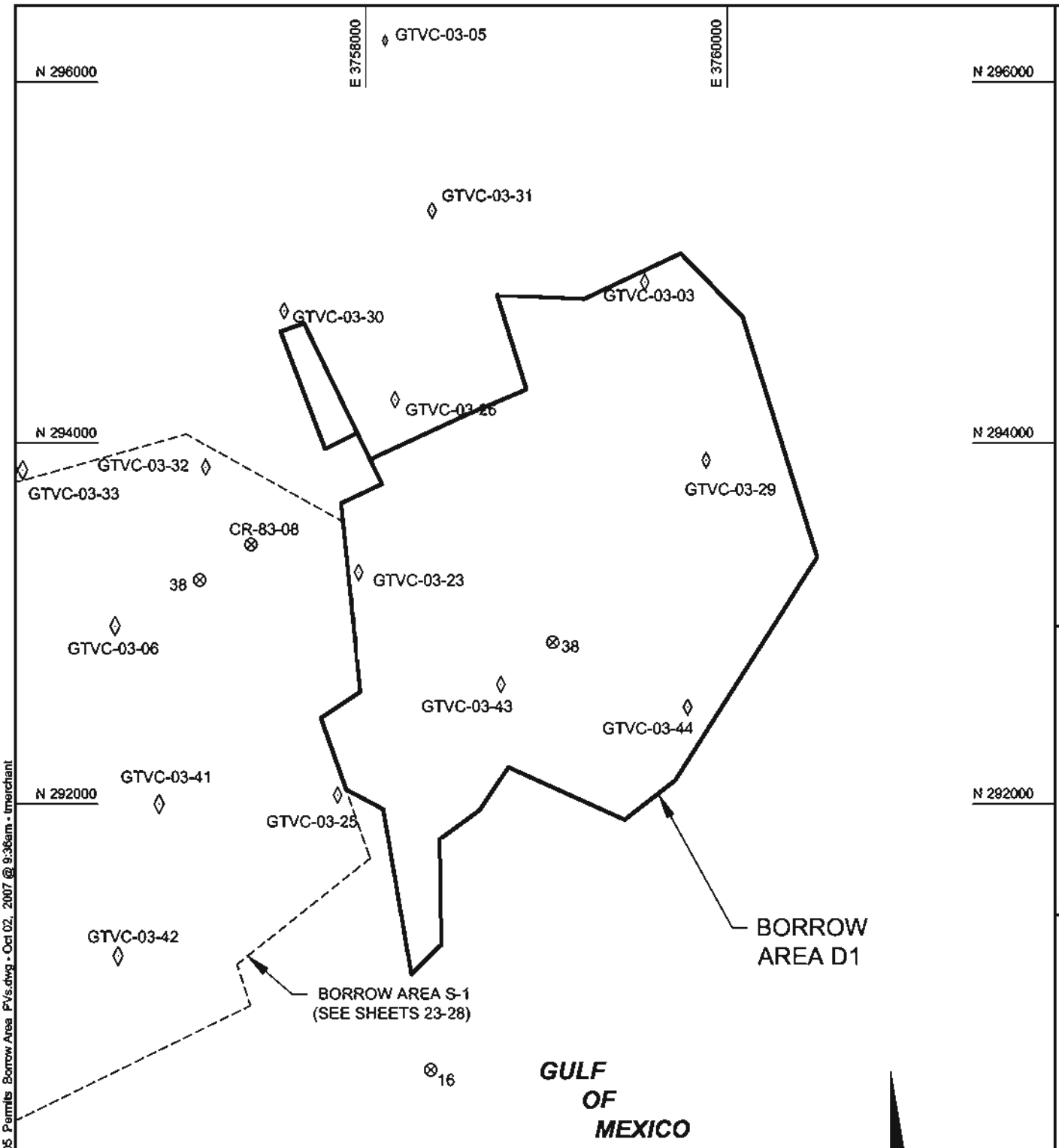


LEGEND:

◊ 2003 CPE VIBRACORE

⊗ USGS VIBRACORE

D1-E' CROSS SECTION LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 VIBRACORES

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

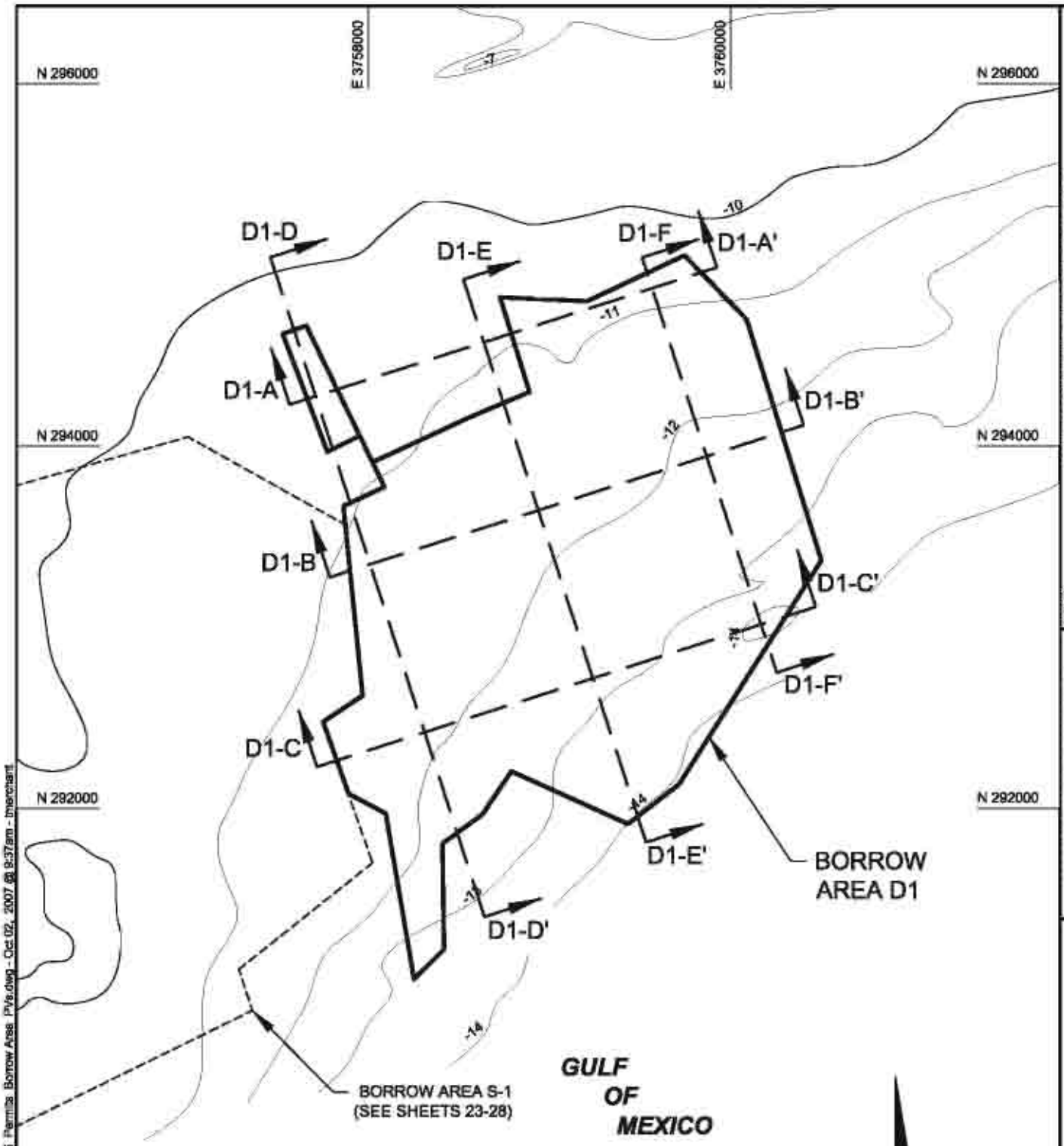
COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 41



LEGEND:

◊ 2003 CPE VIBRACORE

⊗ USGS VIBRACORE

D1-E' CROSS SECTION LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

N

0 400 800

GRAPHIC SCALE IN FT

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 BATHYMETRIC SURVEY

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 42

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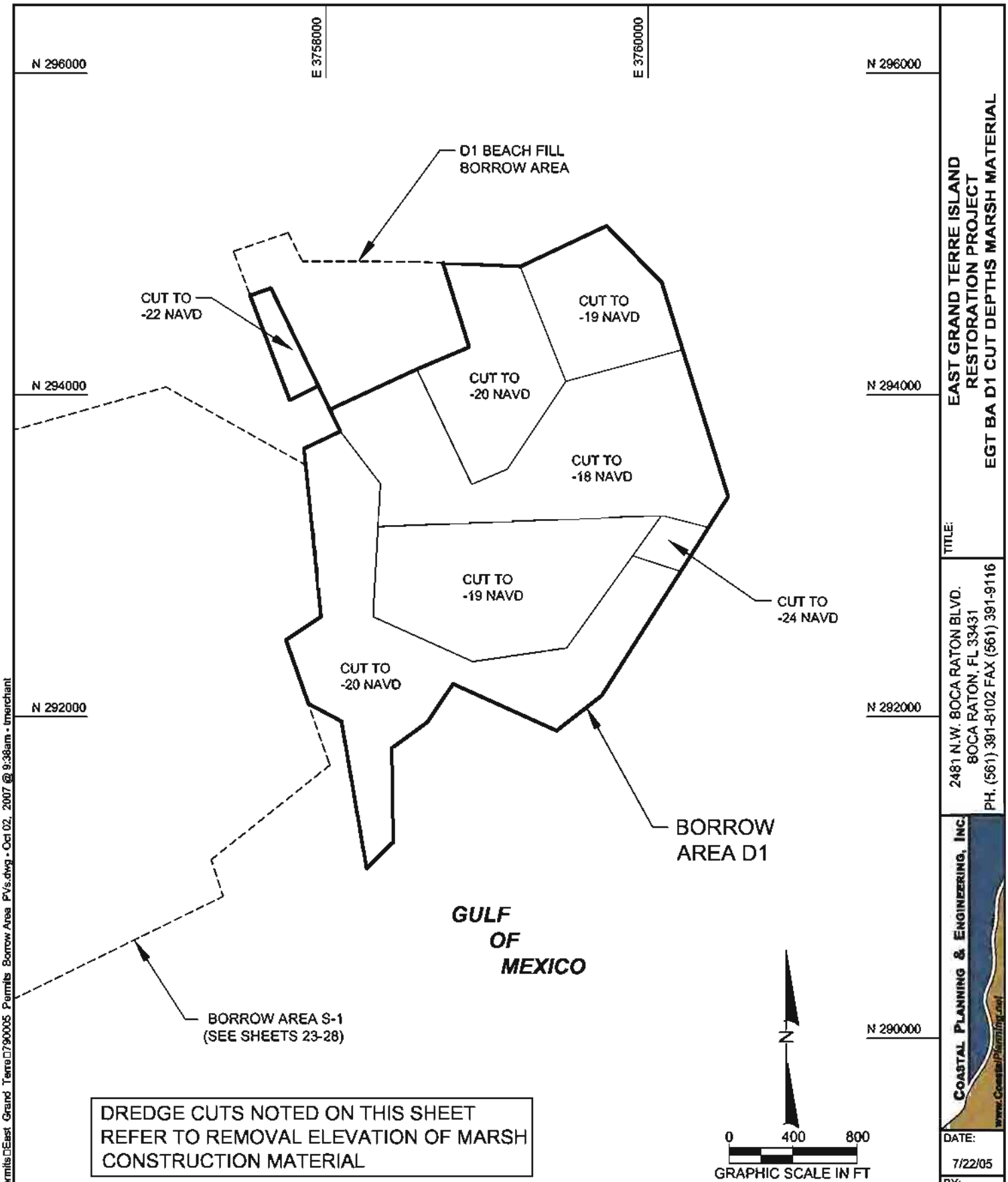


DREDGE CUTS NOTED ON THIS SHEET
REFER TO REMOVAL ELEVATION OF MARSH
CONSTRUCTION MATERIAL

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ALLOWABLE OVER DREDGE IS 3' (FEET) BELOW DESIGN CUT.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 CUT DEPTHS MARSH MATERIAL

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

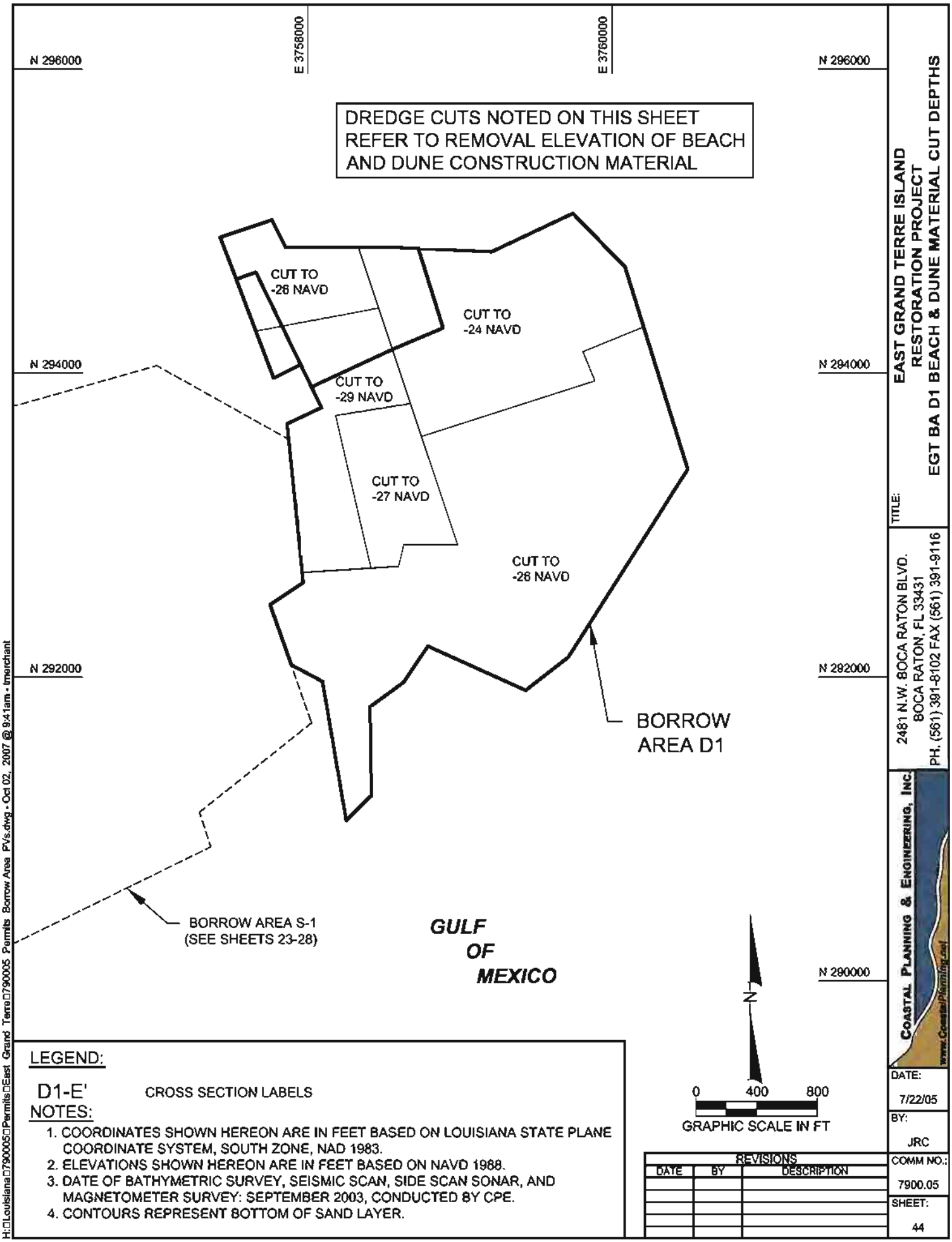
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 43

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:38am - tmerchant



LEGEND:

D1-E' CROSS SECTION LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CONTOURS REPRESENT BOTTOM OF SAND LAYER.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 BEACH & DUNE MATERIAL CUT DEPTHS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
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DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 44

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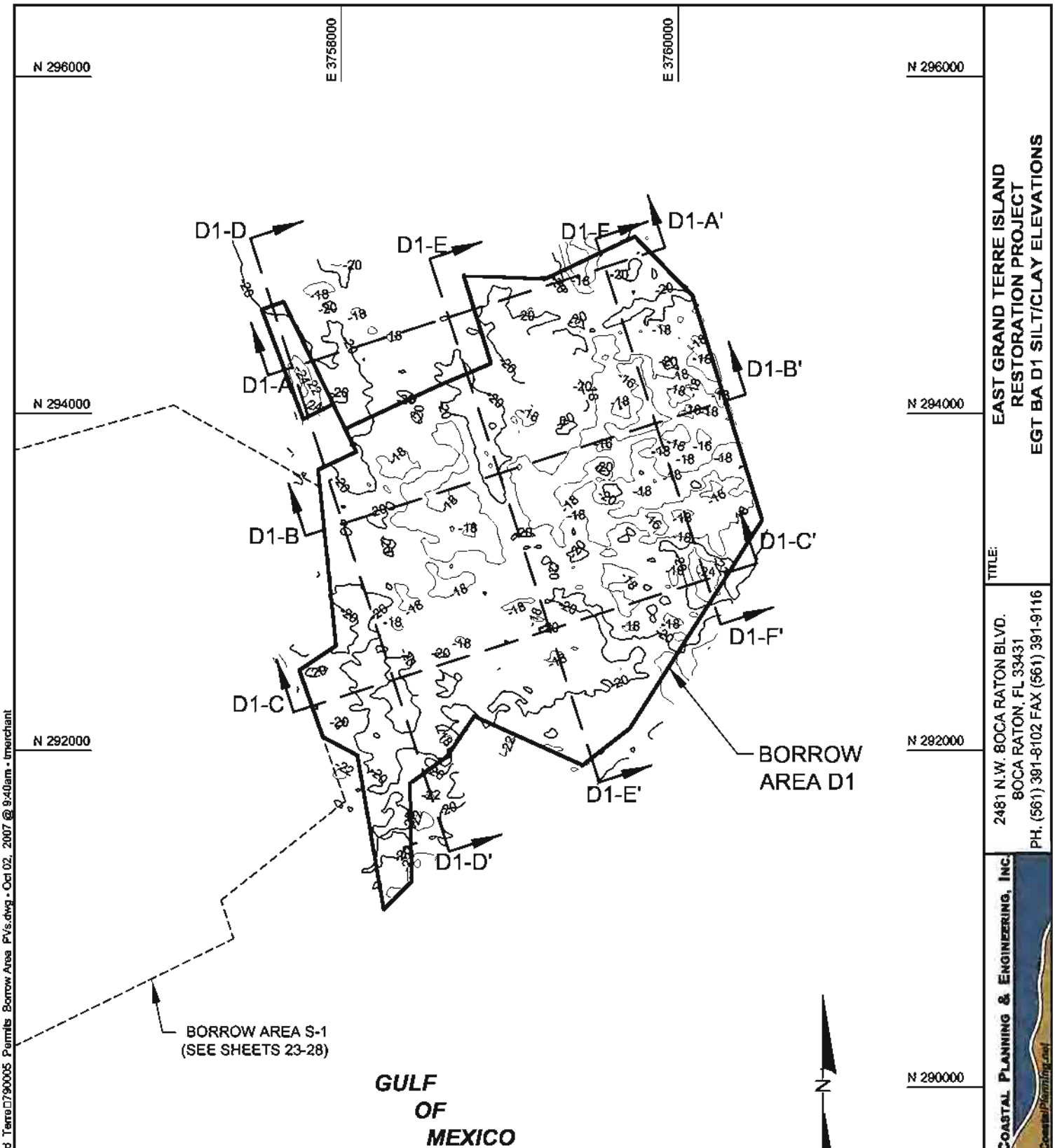

LEGEND:

D1-E' CROSS SECTION LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND
4. CONTOURS REPRESENT BOTTOM OF SILT/CLAY LAYER AND TOP OF SAND LAYER.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 SILT/CLAY ELEVATIONS

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
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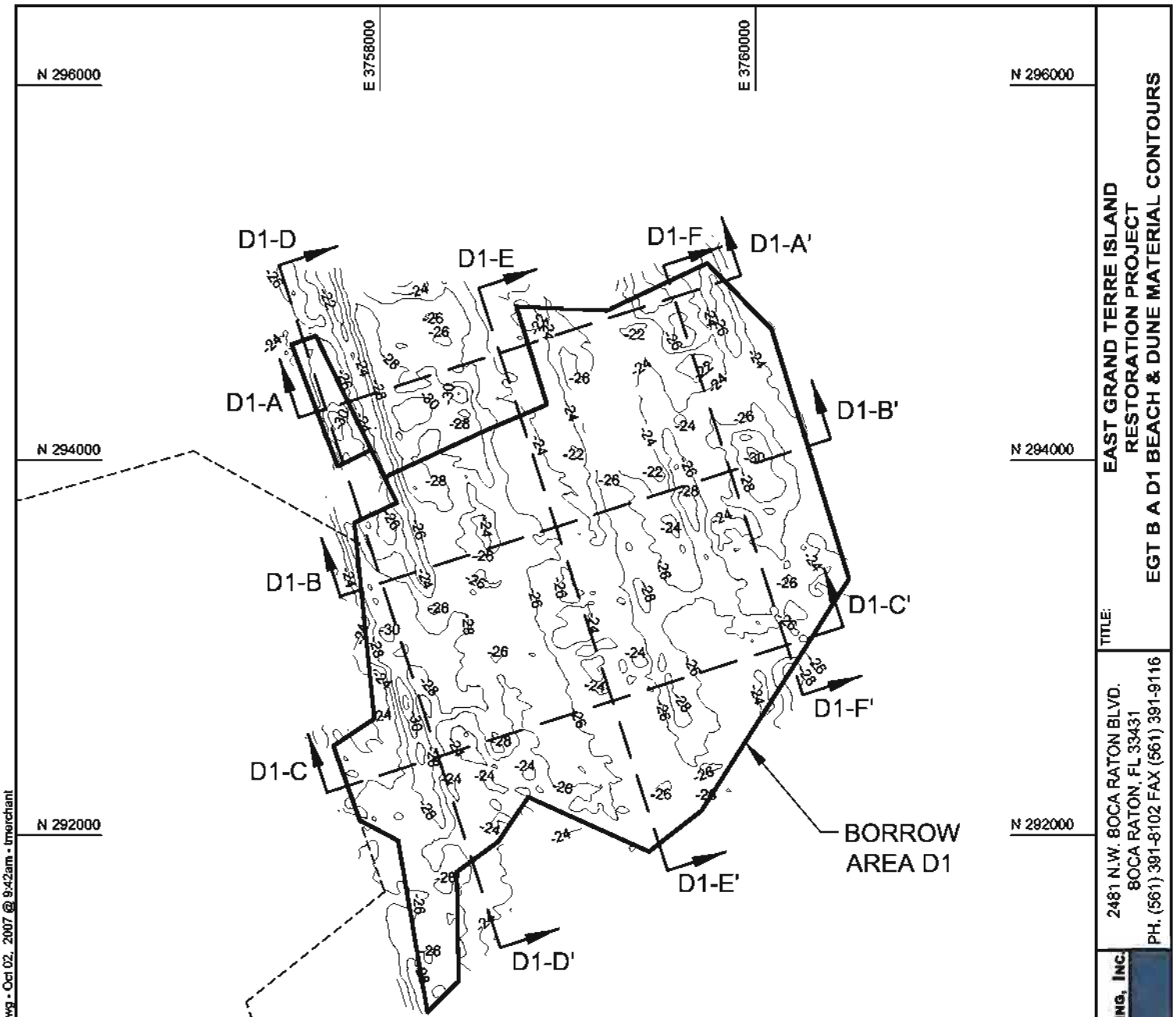
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 45

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:40am - tmerchant



LEGEND:

D1-E' CROSS SECTION LABELS

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.
4. CONTOURS REPRESENT BOTTOM OF SAND LAYER.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT B A D1 BEACH & DUNE MATERIAL CONTOURS

2481 N.W. BOCA RATON BLVD.
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PH. (561) 391-8102 FAX (561) 391-9116

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DATE: 7/22/05

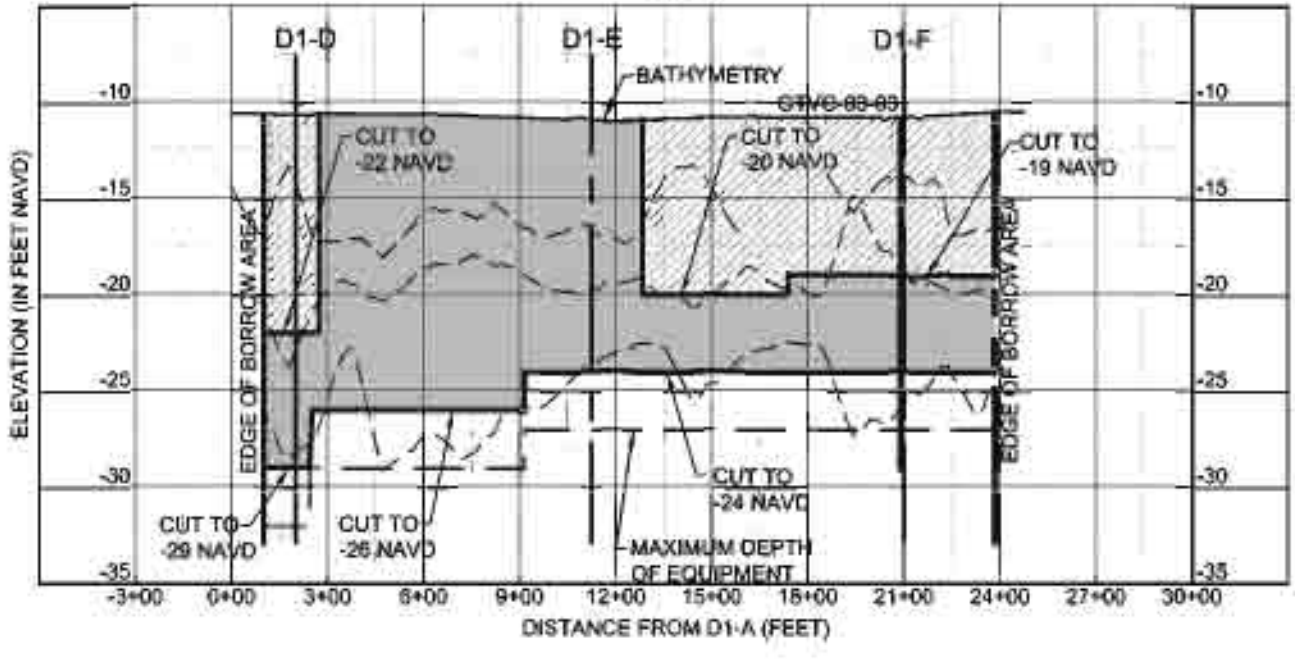
BY: JRC

COMM NO.: 7900.05

SHEET: 46

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:42am - lmerchant

D1-A



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

SEISMIC REFLECTOR

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

DATE	BY	REVISIONS DESCRIPTION

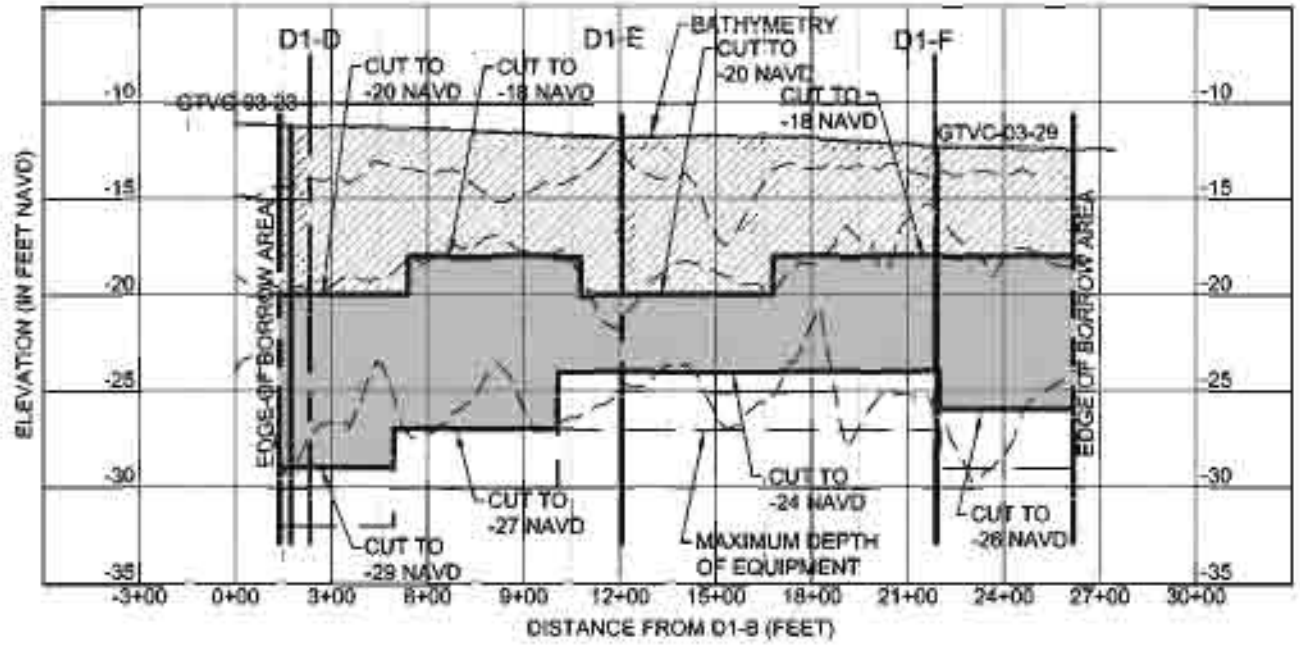
SHEET: 47 | COMM NO.: 790005 | BY: JRC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-A

D1-B



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

SEISMIC REFLECTOR

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

DWL	BY	REVISIONS DESCRIPTION

SHEET: 49 | COMM NO.: 790005 | BY: JRC | DATE: 7/22/05

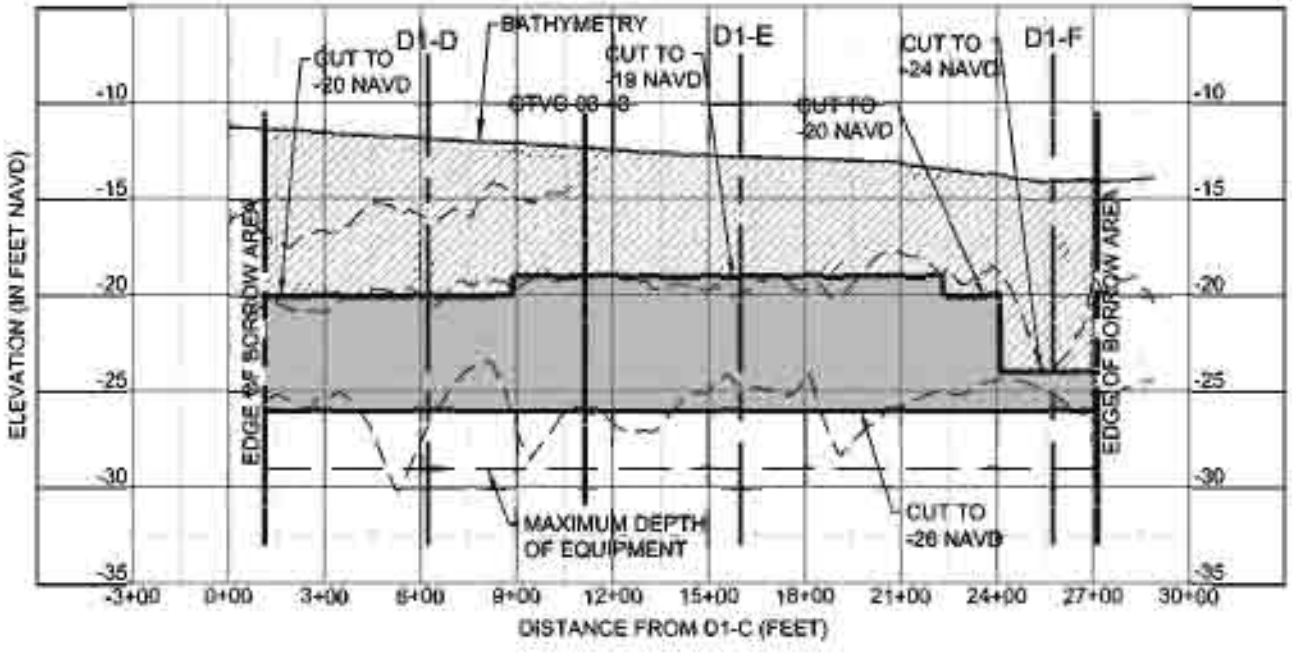
COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-B

D1-C



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

SEISMIC REFLECTOR

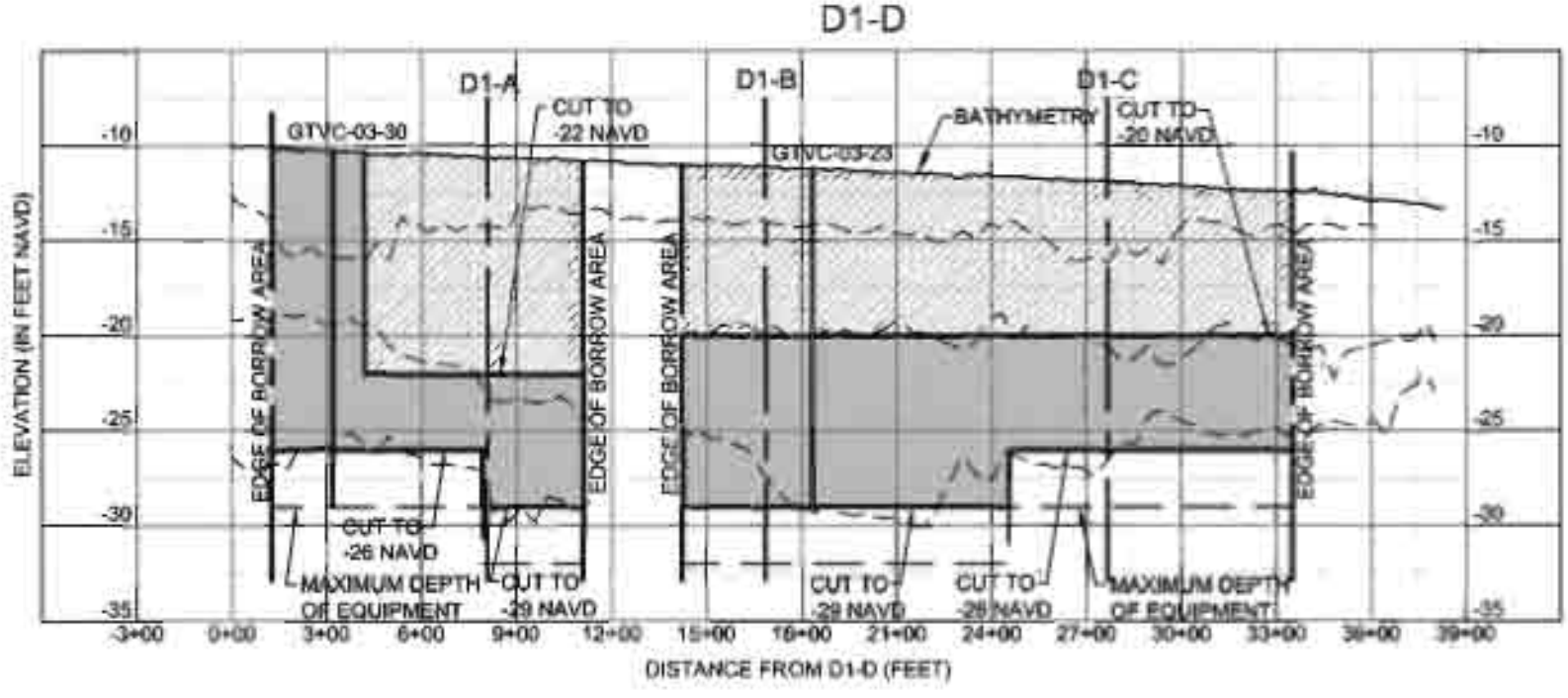
SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

DATE	BY	REVISIONS DESCRIPTION

SHEET:	COMM NO.:	BY	DATE:
49	790005	JBC	7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-C



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

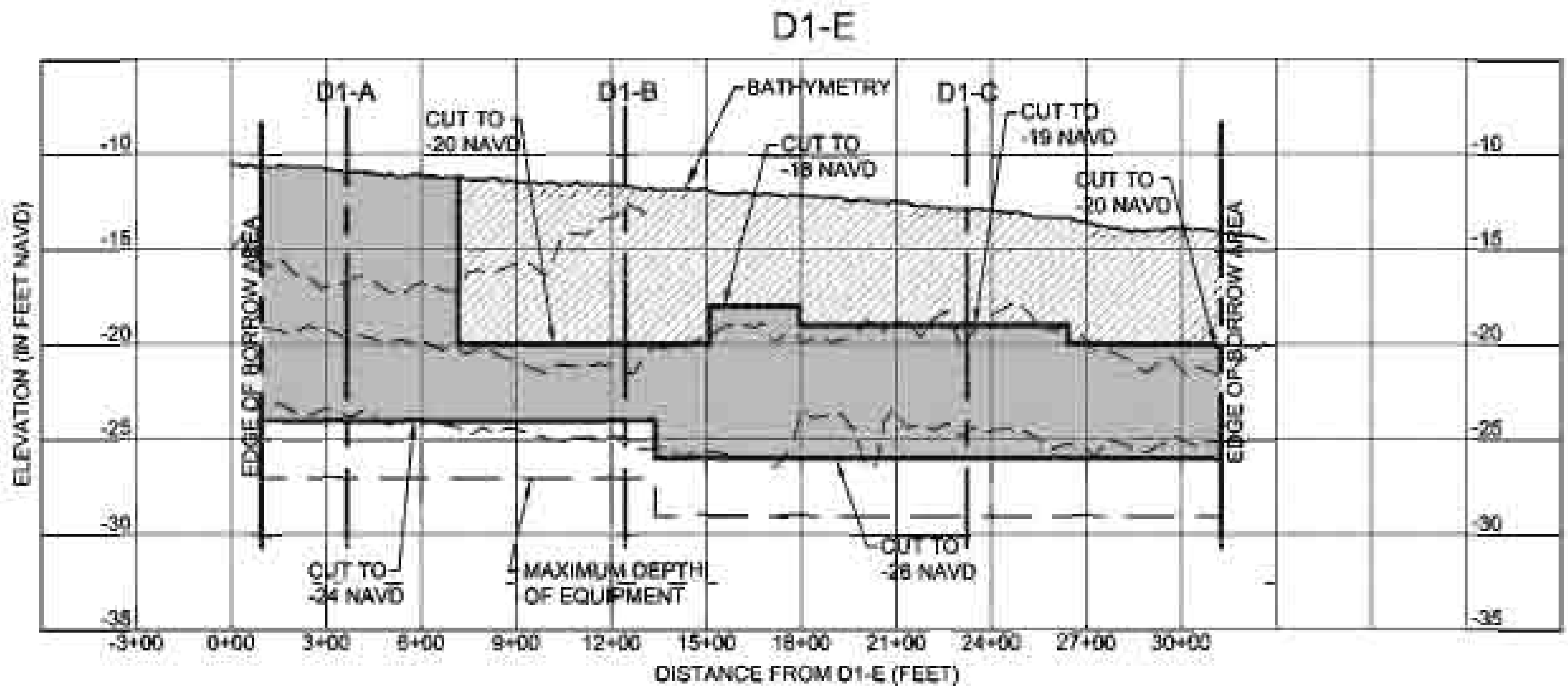
SEISMIC REFLECTOR

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:
EAST GRAND TERRE ISLAND
RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-D

H:\Louisiana\790005\Permits\East Grand Terre\790005 Permits Borrow Area XS.dwg - Oct 02, 2007 @ 10:07am - lmerchant



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

SEISMIC REFLECTOR

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

REVISIONS		
DATE	BY	DESCRIPTION

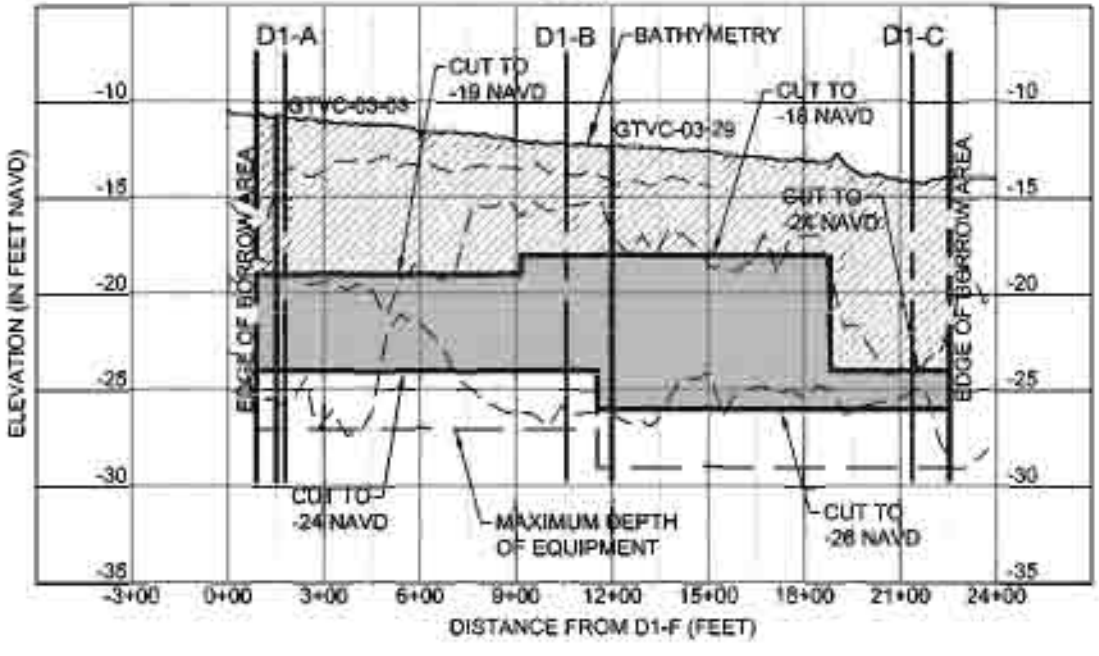
SHEET:	61
COMM NO.:	790005
BY:	JRC
DATE:	7/22/05

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-E

D1-F



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE LOCATED SUFFICIENTLY CLOSE TO REPRESENT SIMILAR MATERIAL.
2. WIDTH OF LAYERS IS REPRESENTATIVE ONLY. ACTUAL MATERIAL MAY VARY.
3. SEE PAGES 42, 44 & 45 FOR LOCATION OF CROSS SECTION LINE.
4. MAXIMUM DREDGE DEPTH 3 FEET BELOW DESIGN CUT DEPTH SHOWN.

LEGEND:

MARSH FILL MATERIAL

BEACH FILL MATERIAL

SEISMIC REFLECTOR

SCALE: HORZ. 1" = 600'
VERT. 1" = 10'

DATE	BY	REVISIONS DESCRIPTION

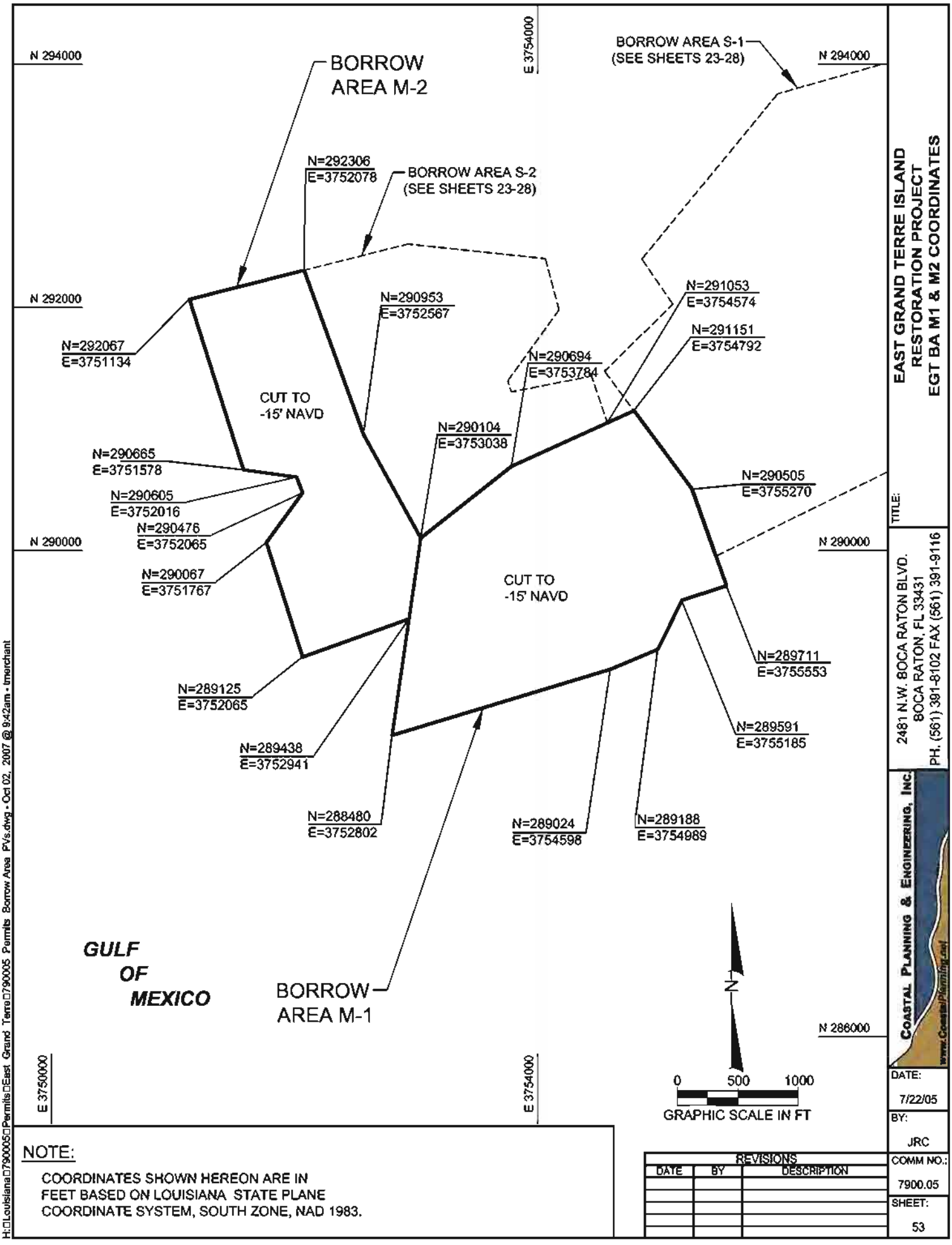
SHEET: 62 | COMM NO.: 790005 | BY: JBC | DATE: 7/22/05

COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

TITLE:

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA D1 CROSS SECTON D1-F



NOTE:

COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA M1 & M2 COORDINATES

TITLE:

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

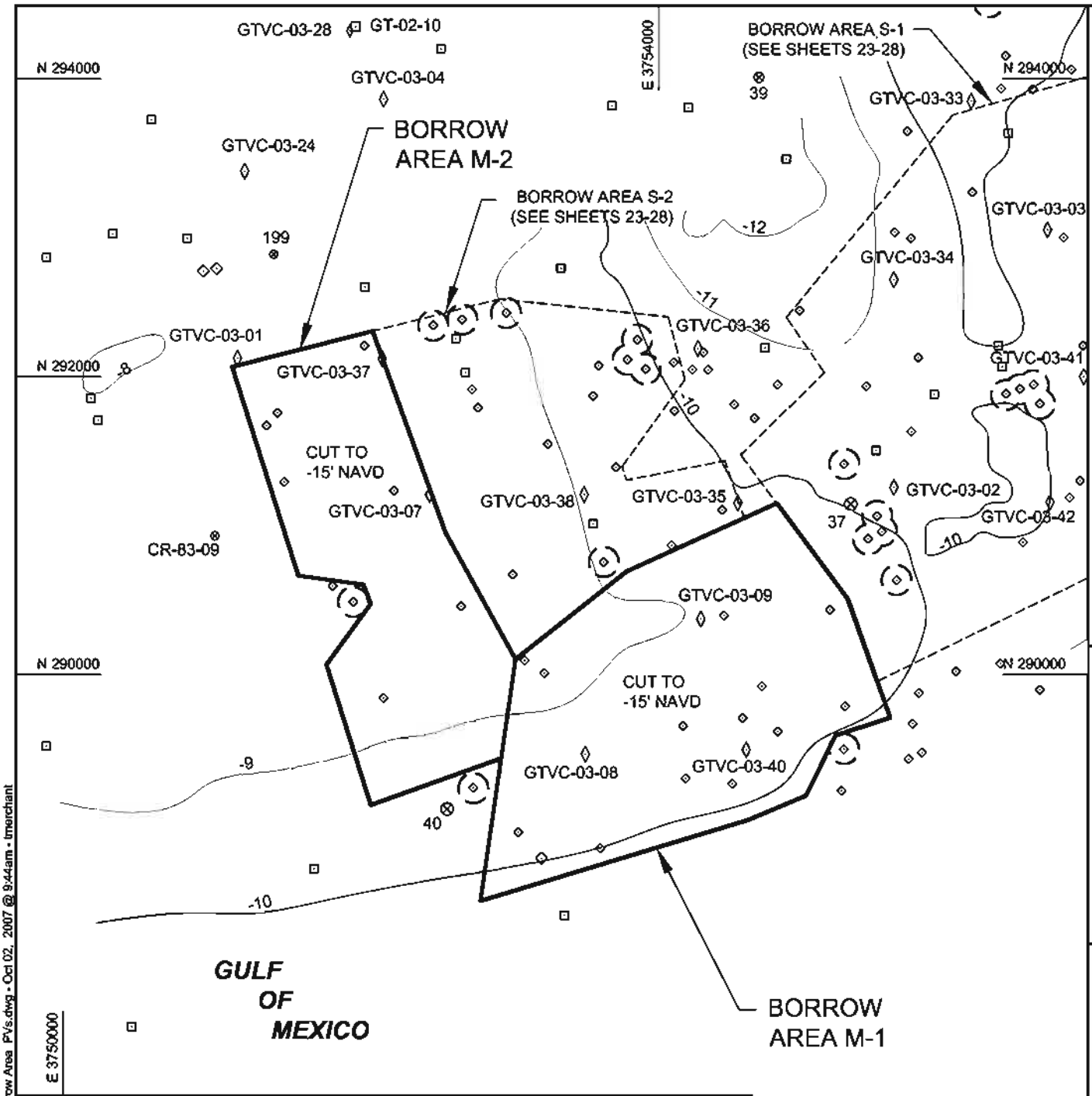
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 53

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:42am - tmerchant



LEGEND:

- ◊ 2003 CPE VIBRACORE
- ◘ 2001 WESTON VIBRACORE
- ⊗ USGS VIBRACORE
- (◊) MAGNETIC ANOMALY AREA OF AVOIDANCE (100' BUFFER)
- ◇ 2004 CULTURAL RESOURCE MAGNETIC ANOMALY
- ◘ 2003 CPE MAGNETIC ANOMALY

NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.
   ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
2. DATE OF BATHYMETRIC SURVEY, SEISMIC SCAN, SIDE SCAN SONAR, AND MAGNETOMETER SURVEY: SEPTEMBER 2003, CONDUCTED BY CPE.

N

0 500 1000

GRAPHIC SCALE IN FT

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND RESTORATION PROJECT
EGT BA M1, M 2 BATHYMETRIC SURVEY

TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.

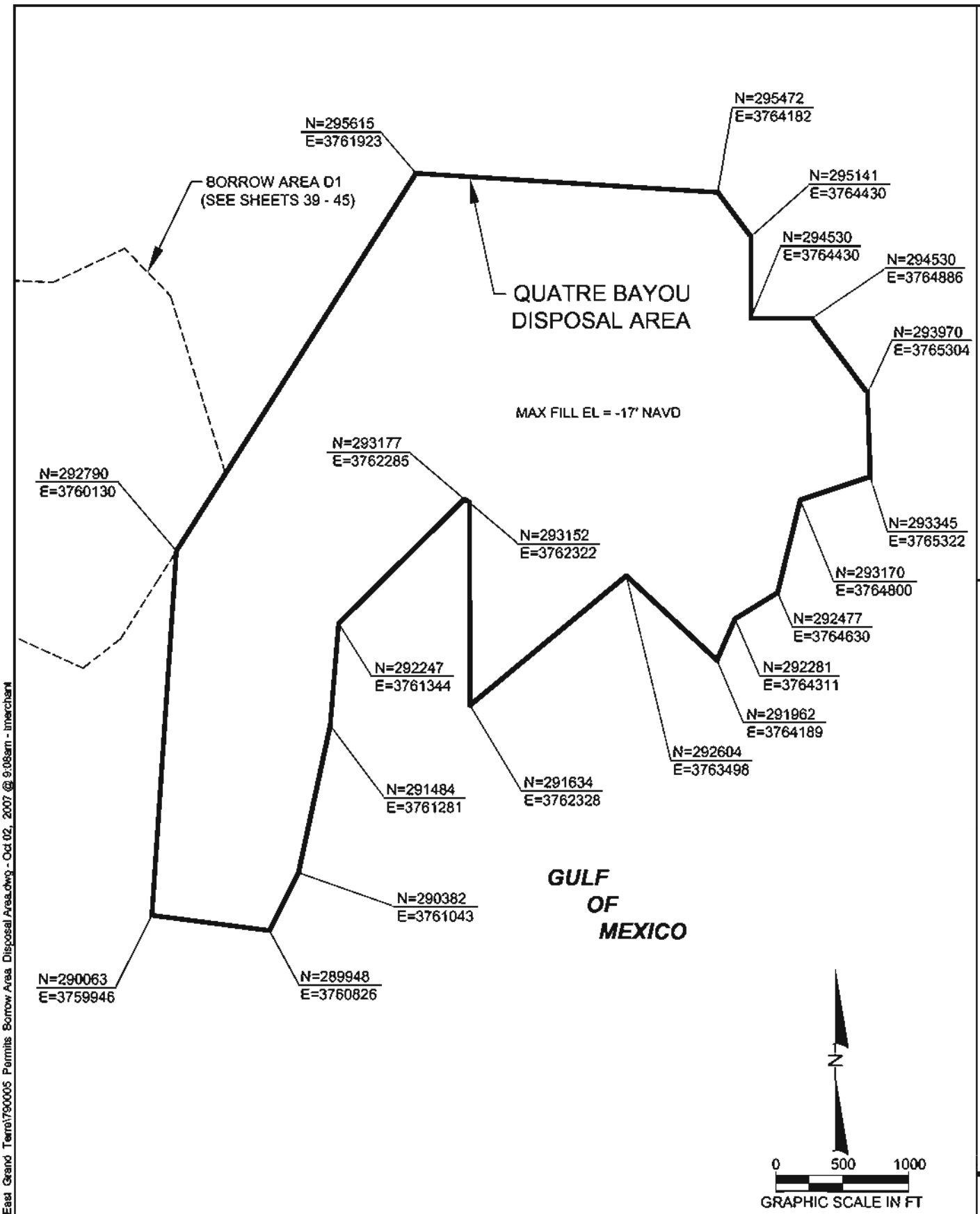
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 54

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area PVs.dwg - Oct 02, 2007 @ 9:44am - tmerchant



NOTES:

1. COORDINATES SHOWN HEREON ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
QUATRE BAYOU DISPOSAL AREA COORDIATES

TITLE:

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

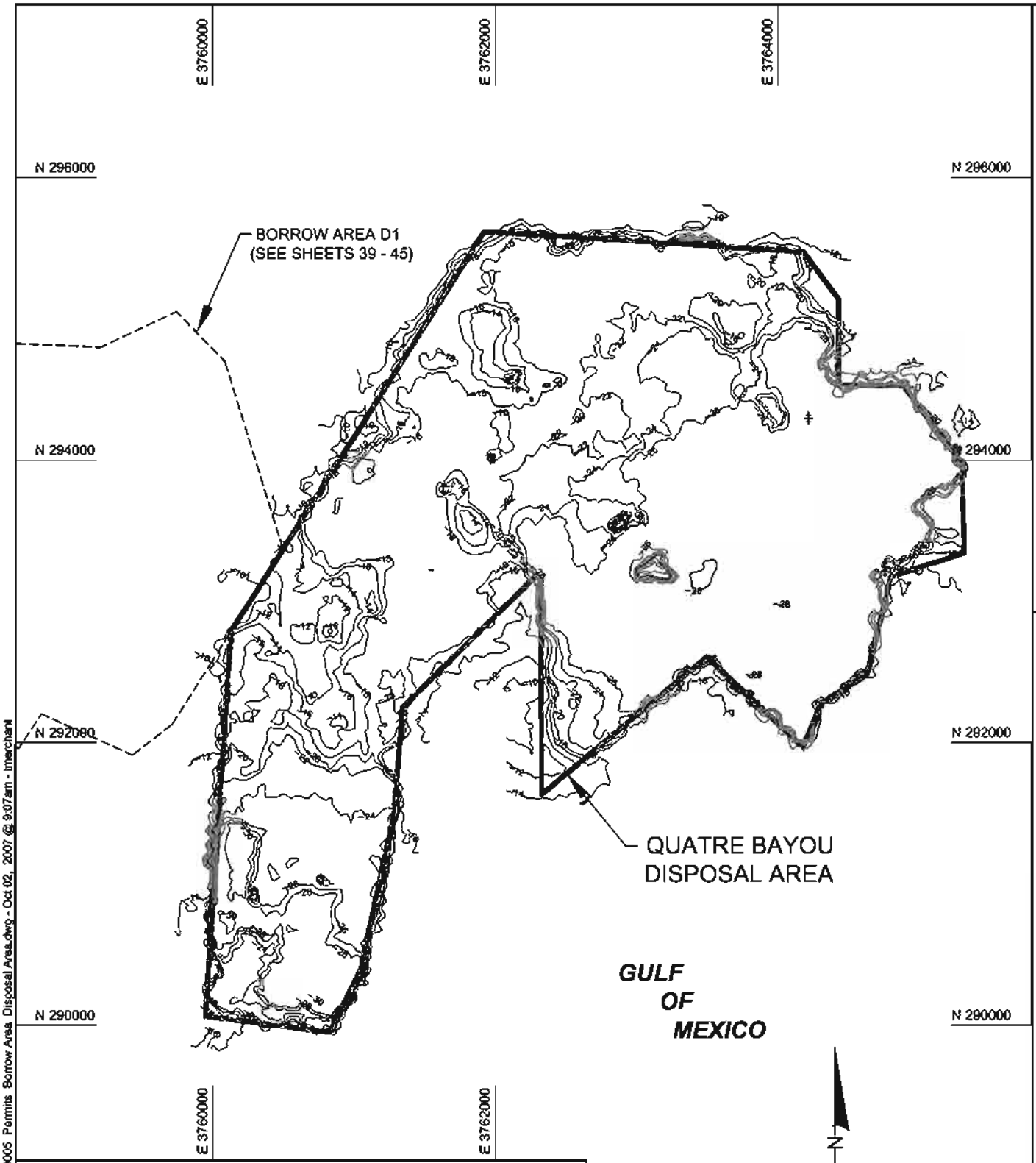
DATE: 7/22/05

BY: JRC

COMM NO.: 7900.05

SHEET: 55

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits Borrow Area Disposal Area.dwg - Oct 02, 2007 @ 9:08am - tmerchant



NOTES:

1. COORDINATES SHOWN HEREON ARE BASED ON LOUISIANA SOUTH STATE PLANE COORDINATE SYSTEM, NAD 1983.
2. ELEVATIONS SHOWN HEREON ARE IN FEET BASED ON NAVD 1988.
3. DATE OF BATHYMETRIC SURVEY, DECEMBER 2006 CONDUCTED BY WEEKS MARINE, INC.
4. CONTOURS REPRESENT DEPTH OF WATER.
5. MAXIMUM ELEVATION FOLLOWING DISPOSAL IS -17 NAVD.

REVISIONS		
DATE	BY	DESCRIPTION

TITLE:
EAST GRAND TERRE ISLAND RESTORATION PROJECT
QUATRE BAYOU DISPOSAL AREA BATHYMETRIC SURVEY

COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 56

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BORROW AREA	VOLUME	ACREAGE
WEST GRAND TERRE	5,857,724	391
EAST GRAND TERRE S1	2,540,498	206
EAST GRAND TERRE S2	1,075,059	79
EAST GRAND TERRE D1	4,271,591	159
EAST GRAND TERRE M1	713,000	99
EAST GRAND TERRE M2	887,000	70
QUATRE BAYOU DISPOSAL AREA	N/A	350

NOTE: VOLUMES ARE CALCULATED TO THE MAXIMUM DEPTH OF EQUIPMENT.

FILL AREA	VOLUME	ACREAGE
BEACH	1,527,000	307
MARSH	1,817,000	467

NOTE: ACREAGES ARE CALCULATED TO THE TOE OF FILL.

TITLE:
EAST GRAND TERRE ISLAND
RESTORATION PROJECT
VOLUME & ACREAGE SUMMARY

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.net

DATE: 7/22/05
BY: JRC
COMM NO.: 7900.05
SHEET: 57

REVISIONS

DATE	BY	DESCRIPTION

GORDON THOMSON P.E. NO. 31412

DATE

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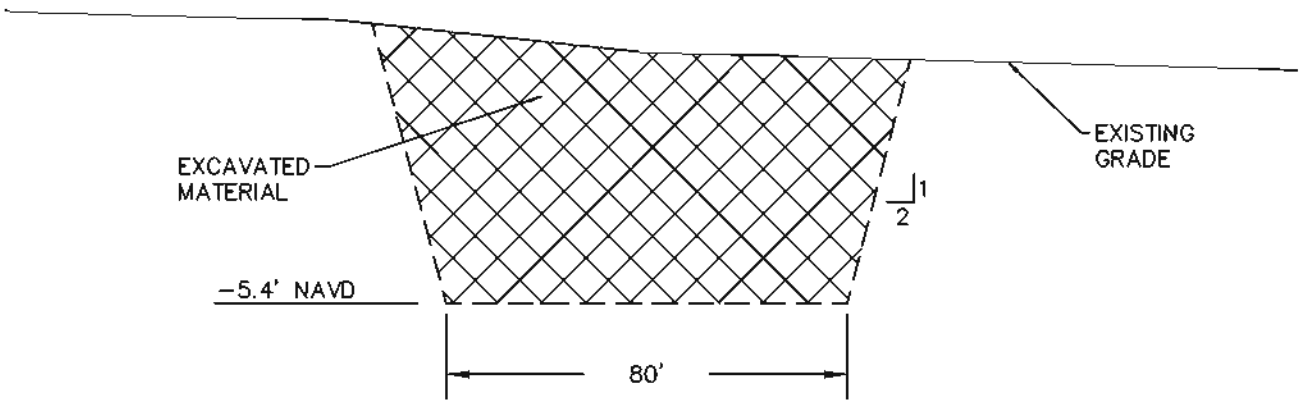


TYPICAL CHANNEL CROSS SECTION DETAIL

SCALE: N.T.S.

REVISIONS		
DATE	BY	DESCRIPTION

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
TYPICAL ACCESS CHANNEL CROSS SECTION

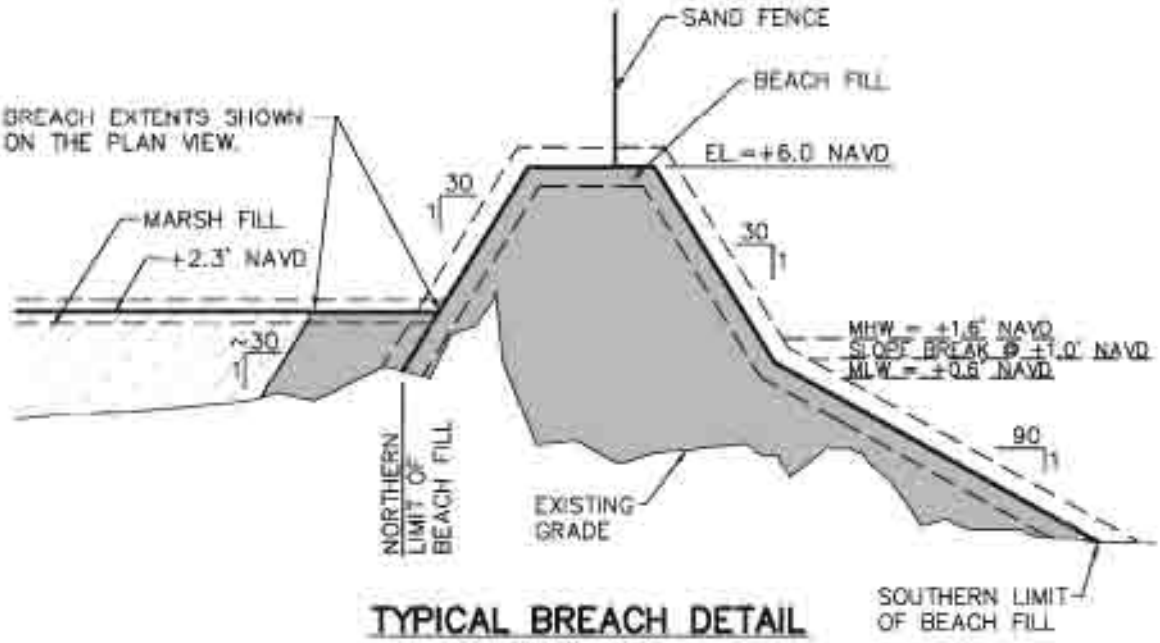
TITLE:

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-9116

COASTAL PLANNING & ENGINEERING, INC.
www.CoastalPlanning.com

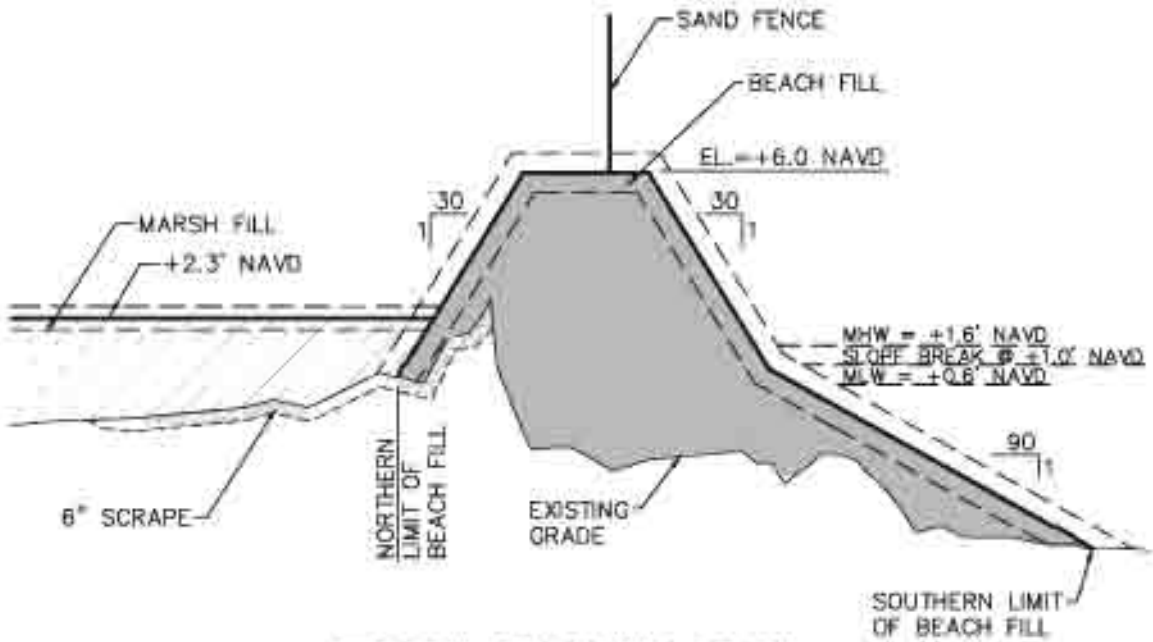
DATE: 9/28/07
BY: TM
COMM NO.: 7900.05
SHEET: 58

H:\Louisiana\7900005\Permits\East Grand Terre\7900005 Permits XS-Breach-Scrap Detail.dwg - Oct 04, 2007 @ 8:11am - tmerchant



TYPICAL BREACH DETAIL

SCALE: N.T.S.



TYPICAL SCRAPING DETAIL

SCALE: N.T.S.

EAST GRAND TERRE ISLAND
RESTORATION PROJECT
TYPICAL BREACH & SCRAPING DETAIL

TITLE

2481 N.W. BOCA RATON BLVD.
BOCA RATON, FL 33431
PH. (561) 391-8102 FAX (561) 391-8116

COASTAL PLANNING & ENGINEERING, INC.

DATE: 9/28/07

BY: TM

COMM NO.: 7900.05

SHEET: 59

REVISIONS		
DATE	BY	DESCRIPTION

GORDON THOMSON P.E. NO. 31412 DATE

H:\Louisiana\7900\05\Permits\East Grand Terre\790005 Permits_#3 Breach-Scrape Detail.dwg - Oct 02, 2007 @ 8:33am - jmarchant

APPENDIX IV

USACE PROJECT PERMINT AND

LDNR COASTAL USE PERMIT

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

AUG 1 2 2008

Operations Division
Eastern Evaluation Section

SUBJECT: MVN-2008-0344-EFF

Plaquemines Parish Government
8056 Hwy. 23, Suite 308
Belle Chase, Louisiana 70037

Gentlemen:

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Eastern Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of Page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

We ask that you utilize the following link to complete and submit a Customer Service Survey: http://per2.nwp.usace.army.mil/survey.html. The New Orleans District Regulatory Branch is committed to improving our service to you and would like your honest opinions of how we are doing. If you do not have internet access you may request a hard copy of the Customer Service Survey by calling (504) 862-2257. Your input is important to us, thank you for your time.

Sincerely,

Michael V. Farabee
Chief, Eastern Evaluation Section

Enclosure

DEPARTMENT OF THE ARMY PERMIT

Permittee: Plaquemines Parish Government

Permit No. MVN-2008-0334-EFF

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Excavate and deposit fill to implement the East Grand Terre Island Marsh Creation and Restoration Project for restoring integrity of the barrier island and re-establishing productive marsh habit, in accordance with the drawings enclosed in 60 sheets; 1 sheet dated February 7, 2008, 57 sheets dated July 22, 2005 and 2 sheets dated September 28, 2007.

Project Location: In Jefferson Parish, Section 26 and 7, T20 and 21, R21 and 26, Latitude 29°18' 39.04"and Longitude 89°52'38.56", located at East Grand Terre Island in the Gulf of Mexico, northeasterly of Grand Isle, Louisiana.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **AUGUST 31, 2013**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: Pages 4 & 5.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

X _____ AGENT FOR (PERMITTEE) X 08/11/2008 (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

_____ 12-August-2008

Michael V. Farabee, Chief Eastern Evaluation Section (DATE)

for Alvin B. Lee, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

(TRANSFEREE) (DATE)

SPECIAL CONDITIONS: MVN-2008-0344-EFF

7. The authorization does not obviate the permittee from obtaining other necessary approvals from pertinent federal, state, and/or local authorities.

8. This authorization allows for minor deviations in construction designs and project implementation. The permittee shall coordinate with this office prior to the initiation of any changes. Alterations or changes in scope of the proposed project which would have excessive or potentially unwarranted impacts to wetland areas not considered under this authorization may require permit modification or a separate Department of the Army permit review, prior to commencing that work. If minor deviations in project plans and/or design are allowed during construction, the applicant shall submit post-construction plats (as-built drawings) within 30-days of project completion depicting any changes.

9. The permittee shall provide this office with a copy of any post construction survey results derived after project completion.

10. In accordance with the permit drawings, dredge material deposited into existing vegetative wetland areas and/or tidal marsh shall be placed in a manner conducive to the re-establishment, nourishment, and/or enhancement of that habitat.

11. You shall notify this office in writing within five working days after construction has been completed.

12. The permittee shall assure that contractors, foremen, and/or workers associated with project implementation are equally cognizant of the conditions and restrictions associated with this approval.

13. If archaeological materials and/or human remains are discovered during ground disturbing activities you shall cease and desist all activities in the project area and contact this office and Mr. Philip Rivet of the Louisiana Office of Cultural Development, Division of Archaeology at (225) 342-8160.

14. The permittee is aware that future site visits and inspections may be conducted to the project area by this office and/or other resource agencies, to assess project compliance with this authorization and requirements associated herewith.

15. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

SPECIAL CONDITIONS: MVN-2008-0344-EFF

16. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

17. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on your authorized facilities.

18. If the proposed project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the U.S. Coast Guard so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the U.S. Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 846-5923.

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487
(225)342-7591
1-800-267-4019

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: **P20071419 (Revised, Revised)**

C.O.E. No.: **MVN 2008- 0334 EMM**

NAME: **PLAQUEMINES PARISH GOVERNMENT**
c/o LOUISIANA DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 44027
BATON ROUGE, LA 70804
Attn: Kristi Cantu

LOCATION: **Jefferson Parish, LA**
Lat 29º 18' 39.04"N and Long 89º 52' 38.56"W, barrier island approximately 5.0 miles northeast of Grand Isle, LA.

DESCRIPTION: Proposal to perform the East Grand Terre Island Marsh Creation and Restoration project to restore the integrity of the barrier island and reestablish productive habitat. Approximately 15.35 million cubic yards of non-vegetated waterbottoms will be excavated. Approximately 2.22 million cubic yards of fill material will be placed on non-vegetated waterbottoms. Approximately 1.12 million cubic yards of fill material will be placed in wetlands. A floatation channel will be dredged to accommodate equipment access and a temporary containment dike will also be constructed to accommodate fill material. The discrepancy between the excavation and fill volumes is explained on page 57 of the plats.

REVISION 1: The approved permit drawings include access channels located on the extreme western and eastern ends of East Grand Terre Island for equipment access onto the island. These access channels are approved to a maximum depth of -5.4' NAVD 88 and a bottom width of 80'. A revision to the approved permit is requested to include an additional access channel, also to a depth of -5.4' and a bottom width of 80'. This access channel, approximately 1,890 feet in length, will originate in Quatre Bayou Pass and intersect the island on the north shore (shown on sheets 5 and 6).

REVISION 2: Approximately 12,800 cubic yards of material will be dredged to create 1,890' x 80' construction access channel. Approximately 3,100 cubic yards of material will be dredged from a 200' x 80' area on the east side of East Grand Terre for quarters barge mooring.

This revised, revised permit supersedes the original permit which was issued February 11, 2008.

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 214.21 to 214.41, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
2. Comply with any permit conditions imposed by the Department of Natural Resources.
3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
8. This revised, revised permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by mailing the enclosed green initiation card on the date of initiation of the coastal use.
10. Unless specified elsewhere in this revised, revised permit, this revised, revised permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was February 11, 2008. If the coastal use is not initiated within this two (2) year period, then this

revised, revised permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.

11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:

a. This revised, revised permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to property.

b. All logs, stumps and other debris unearthed during dredging shall be buried a minimum of one (1) foot beneath the bottom of the waterway or removed to an approved disposal site on land.

c. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or, in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.

d. The area where the project is located is all part of the aboriginal homelands of the Chitimacha Tribe of Louisiana. As such, large villages, burial sites, and sacred sites were in place in that entire area. If at any time during the course of the work, any traditional cultural properties are discovered, Permittee shall immediately contact Kimberly S. Walden (Cultural Director) or Melanie Aymond (Research Coordinator) at (337) 923-9923 or (337) 923-4395. Office hours are Monday through Thursday from 7:30 A.M. - 5:00 P.M. and on Friday between 7:30 A.M. - 11:30 A.M. If traditional cultural properties are discovered on the weekend or after business hours, the notification shall be made the next business morning.

e. All structures, facilities, wells, and pipelines/flowlines occurring in open water areas or in oil field canals or slips shall be removed within 120 days of abandonment of the facilities for the herein permitted use unless prior written approval to leave such structures in place is received from the Coastal Management Division and the Louisiana Department of Wildlife and Fisheries. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.

Site clearance of abandoned oil and gas facilities located in Louisiana State waters is also subject to authorization by the Office of Conservation pursuant to La. R.S. 30:4(J). The Site Clearance and Verification for Abandoned Oil and Gas Structures Regulations became effective December 20, 1992. The Pipeline Division (225/342-5505) within the Office of Conservation is the designated regulatory agency for this regulation.

f. That should changes in the location or the section of the existing waterways, or in the generally prevailing conditions in the vicinity be required in the future, in the public interest, Permittee shall make such changes in the project concerned or in the arrangement thereof as may be necessary to satisfactorily meet the situation and shall bear the cost thereof. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for project modifications.

g. Special conditions contained in the Rules and Procedures for Coastal Use Permits Part III, I(1) are applicable to activities under this permit. This permit conveys no property rights or interest inconsistent with those currently in existence.

h. Applicant shall not discharge any drilling and/or workover effluent except for flocculated filtered water.

Applicant shall not discharge any human waste which does not meet or exceed the requirements of the Department of Health and Hospitals.

Applicant shall not discharge any produced waters.

Applicant is subject to all applicable state laws related to damages which are demonstrated to have been caused by this proposed action.

Applicant shall use any dredged material beneficially to create/restore emergent wetlands or place the material in open water in such a manner not to decrease the water depth greater than six inches.

Applicant shall provide to the LDWF a water bottom assessment (unless waived by LDWF) that meets LDWF protocol prior to commencement of the activity. A waiver request must be submitted to LDWF in writing and must state the justification for the request. Applicant may, at the request of LDWF and prior written approval of CMD, be required to modify the project if the proposed location unnecessarily impacts oyster reefs.

i. Permittee must install/maintain markers on the ends of each spoil mound (2/mound) meeting any applicable USCG requirements. These markers will be placed and maintained to avoid potential hazard to navigation until the spoil pile is no longer a hazard in the opinion of CMD. At a minimum, each marker will be at least eight feet (8 ft) above the maximum height of the piles and have signs indicating "Spoil Mound". The spoil pile markers must be checked a minimum of once a month to insure they are existing and visible. Permittee will provide a quarterly monitoring report of the spoil and markers until such time that the spoil is 0.5 feet high or less and in CMD's opinion no longer poses a hazard to navigation.

j. Our database indicates the presence of bird nesting colonies within one mile of this proposed project. Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries (LDWF). In addition, LDWF prohibits work within a certain radius of an active nesting colony.

Nesting colonies can move from year to year and no current information is available on the status of these colonies. LDWF prohibits work within certain parameters of an active nesting colony. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 400 meters (700 meters for brown pelicans) of the proposed project, no further consultation with LDWF for the project on this issue will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to LNHP
P.O. Box 98000
Baton Rouge, LA 70898-9000
To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

- For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, roseate spoonbills, anhingas, and/or cormorants), all project activity occurring within 300 meters of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).

- For colonies containing nesting gulls, terns, and/or black skimmers, all project activity occurring within 400 meters (700 meters for brown pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within 1/4 mile of the proposed project.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the State of Louisiana. LNHP reports summarize the existing information known at the time of the request regarding the location in question. LNHP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time LNHP tracked species are encountered within the project area, please contact our biologist at 225-765-2643.

k. As-built drawings shall be submitted within 90 days of completion of this project to the Louisiana Department of Natural Resources, Coastal Management Division, PO Box 44487, Baton Rouge, LA 70804-4487.

l. Ecological Studies:
For activities affecting state water bottoms under lease issued by LDWF to private parties for oyster production, the applicant will be required to provide notice of the activity to the current holders of those leases located within the applicable notification zone. In this case, the notification zone is within a 1,500' foot radius of the containment dike.

The applicant will also be required to provide to LDWF a water bottom assessment at least 10 days prior to commencement of the activity.

Please do not hesitate to contact LDWF if you have any questions.

Louisiana Natural Heritage Program:
The piping plover (Charadrius melodus) may occur within one mile of the project area. This species is federally listed as threatened an its critical habitat is designated along the Louisiana coast. Piping Plovers winter in Louisiana arriving in late July and remain for 8 to 10 months. Piping plovers feed on intertidal beaches, mudflats, and sandflats with sparse emergent vegetation and require unvegetated or sparsely vegetated areas for roosting. Primary threats to this species are destruction and degredation of summer and winter habitat, and habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. Work activities in the area should be conducted in such a manner as to minimize the disturbance of this habitat. for more information on piping plover critical habitat, visit the USFW website: http://endangered.fws.gov. Contact Bridgette Firmin with the US Fish and Wildlife service at 337-291-3132 to coordinate activity.

m. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.

n. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.

o. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.

p. This revised, revised permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was February 11, 2008. Initiation of the Coastal Use, for purposes of this revised, revised permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such

as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:I.723.D.). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

The expiration date of this revised, revised permit is five (5) years from the date of the signature of the Secretary or his designee on the original permit which was February 11, 2008.

Upon expiration of this revised, revised permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary. Other types of maintenance activities may also require a new Coastal Use Permit.

********** End of Conditions **********

By accepting this revised, revised permit the applicant agrees to its terms and conditions.

I affix my signature and issue this revised, revised permit this 13th day of May, 2010.

THE DEPARTMENT OF NATURAL RESOURCES

Karl L. Morgan, Acting Administrator
Office of Coastal Management

This agreement becomes binding when signed by Administrator of
the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments

Final Plats:

1) P20071419 Final Plats 05/10/2010
2) P20071419 Final Plats 05/10/2010

cc: Pete Serio, COE w/attachments
Dave Butler, LDWF w/attachments
George Robichaux, DHH w/attachments
Peggy Rooney, OCM w/attachments
Frank Cole, OCM/FI w/attachments
Jefferson Parish w/attachments

PLAQUEMINES PARISH GOVERNMENT w/attachments

APPENDIX V **DEQ PERMIT**

BOBBY JINDAL
GOVERNOR

HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

May 22, 2008

Louisiana Department of Natural Resources
P.O. Box 44027
Baton Rouge, LA 70804

Attention: Kristi Cantu, Agent for Plaquemines Parish Government

RE: Water Quality Certification (WW 080206-05/AI 156120/CER 20080001)
Corps of Engineers Permit (MVN-2008-0334-EFF
Coastal Management Permit (P20071419)
Jefferson Parish

Dear Ms. Cantu:

The Department has received your application on behalf of the Plaquemines Parish Government for a Corps of Engineers permit to excavate and deposit fill to implement the East Grand Terre Island Marsh Creation and Restoration Project in Jefferson Parish near Grand Island, Louisiana.

The requirements for Water Quality Certification have been met in accordance with LAC 33:IX.1507.A-E. Based on the information provided in your application, we have determined that the placement of the fill material will not violate the water quality standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the Department has issued a Water Quality Certification.

Sincerely,

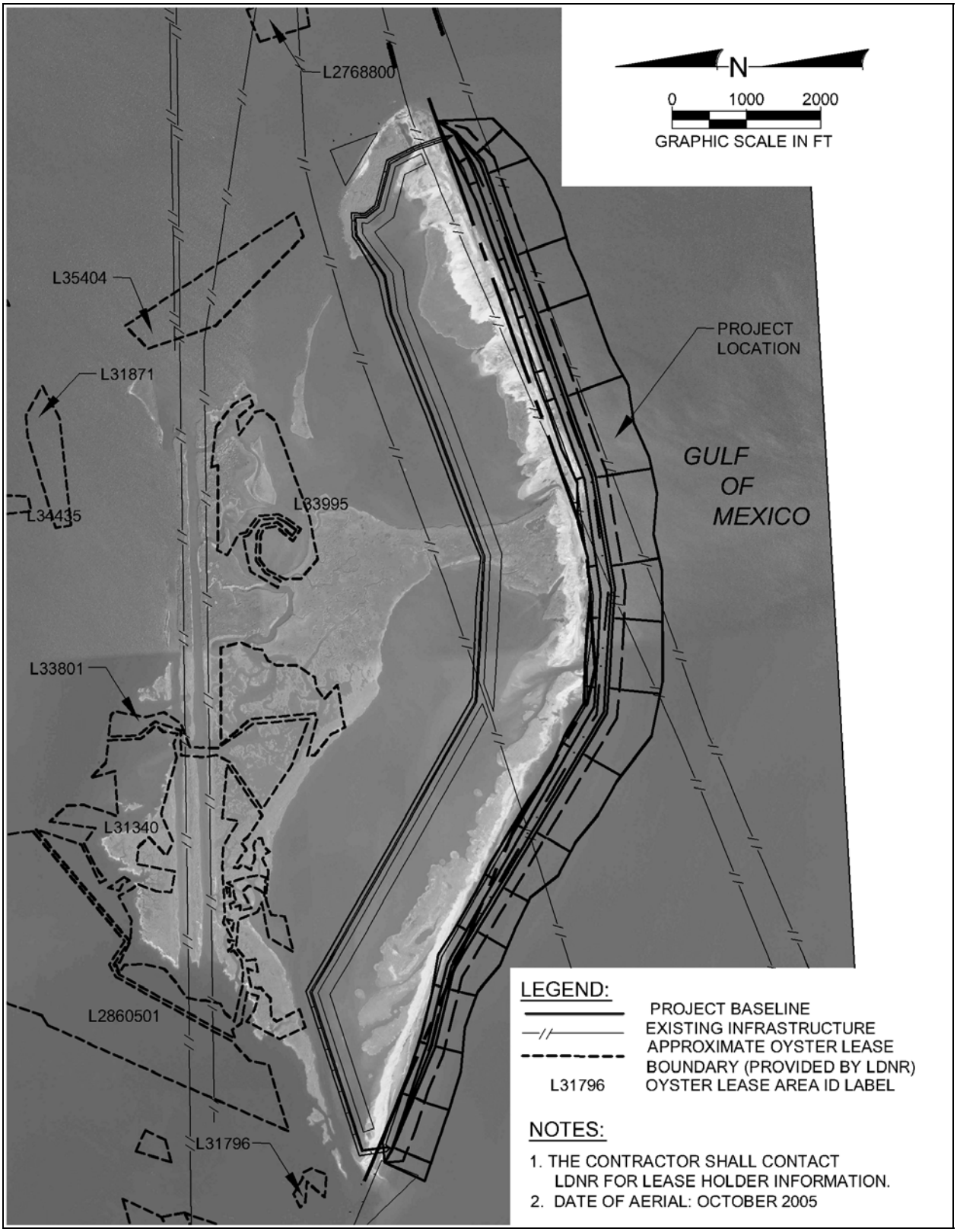
Thomas R. Griggs

Thomas R. Griggs
Engineer Manager

TRG/cww

c: Corps of Engineers, New Orleans, LA
Coastal Management Division

APPENDIX VI **OYSTER LEASE MAP**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GRAPHIC SCALE IN FT
L2768800
L35404
L31871
L34435
L33995
L33801
L31340
L2860501
L31796
PROJECT LOCATION
GULF OF MEXICO
LEGEND:
PROJECT BASELINE
EXISTING INFRASTRUCTURE
APPROXIMATE OYSTER LEASE BOUNDARY (PROVIDED BY LDNR)
L31796
OYSTER LEASE AREA ID LABEL
NOTES:
1. THE CONTRACTOR SHALL CONTACT LDNR FOR LEASE HOLDER INFORMATION.
2. DATE OF AERIAL: OCTOBER 2005