JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
1949 INDUSTRIAL PARK ROAD, ROOM 140
CONWAY, SOUTH CAROLINA 29526
and
THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Office of Ocean and Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

REGULATORY DIVISION
Refer to: P/N SAC-2017-01795 21 NOVEMBER 2017

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et.seq.), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

DeBordieu Colony
c/o Coastal Science & Engineering
P.O. Box 8056
Columbia, South Carolina 29202

for a permit to conduct beach nourishment and groin installation in the

ATLANTIC OCEAN

along a 1.5 mile (8,000 linear feet) section of Debidue Island beach located east of Luvan Boulevard, east of US Highway 17, south of Pawleys Island, Georgetown County, South Carolina (Latitude: 33.3671°N, Longitude: -79.1502°W), Waverly Mills Quad & North Island Quad.

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by the **Corps** and **SCDHEC** until

30 Days from the Date of this Notice

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed activity is a beach nourishment and groin installation project along Debidue Island beach. In detail, the proposed work consists of the placement of up to 650,000 cubic yards (cy) of beach compatible sand along approximately 1.5 miles (8,000 linear feet with approximately 500 to 1,000 linear feet of tapers) of shoreline and the installation of three sheet pile-type groins along the southern end of the project site. Sand will be obtained from two offshore borrow areas located 1.8 to 3.5 miles east of Debidue Island beach. The proposed work will be accomplished by either hydraulic (cutterhead) or hopper dredge and heavy machinery (bulldozers and loaders) shaping the fill on the beach.

Specific Project Details Provided by the Applicant:

Beach Nourishment

The proposed activity is a beach stabilization project along DeBordieu Colony in Georgetown County, SC. Work will include placement of up to 650,000 cubic yards (cy) of sand via dredge using beach compatible sediment from offshore borrow areas (Sheets 1-8) and installation of three (3) sheet pile-type groins along the southern (downcast) end of the project (Sheet 3). Sand will be placed along 9,000 linear feet (lf) of beach with a fill density ranging from 30 to 215 cy/ft (Sheets 3-4). Fill will be graded into a profile including a berm at +6 ft NAVD and a seaward slope at 1 on 15 (Sheets 9-10). A dune with elevation +12 ft NAVD and ~15 ft crest width will be included along up to 1,700 lf of beach around the south end of an existing seawall if no dune is present at the time of construction. The seaward dune slope will be constructed at a 1 on 4 slope according to USFWS recommendations for sea turtle nesting.

Nourishment fill sections will vary to account for installation of the groins and to provide excess sand for downcoast bypassing after the groins are in place. The majority of the fill will be placed in the groin area to satisfy groin trapping capacity and to facilitate construction using land-based equipment. Following completion of the groins, excess sand in the vicinity is expected to spread and be transported to the adjacent downcoast beach areas along the neighboring Hobcaw Tract owned by the Baruch Foundation. Tapers will extend to the north and south of full sections to provide a smooth transition between the nourished and unnourished areas. The contractor will grade the fill between the dune and the mid-tide level. Waves will redistribute the nourishment material into a natural beach slope.

Borrow Areas

Borrow areas for the project have been identified ~1.8 to 3.5 miles offshore of the south end of DeBordieu Colony within state waters (Sheet 1). One of the borrow areas (1B) has been utilized for a previous beach restoration project (2006) at DeBordieu, and a portion of a 2nd borrow area (1A) was utilized for a 2015 nourishment project by the applicant. The remaining unused portion of borrow area 1A, and a new borrow area 1C are proposed for the present project. Area 1A encompasses ~135 acres and area 1C encompasses ~165 acres (Sheets 5-8). The areas are located in water depths of ~25 to 35 ft. Borrow area sediment consists of predominately fine and medium sand with an average grain size of ~0.330 mm in 1A and 0.250 mm in 1C. Each area shows little silt or mud (<2%) in the upper ~4 ft of substrate at the core locations. Coarse material (>2mm diameter) comprises <~6% of the deposits, and shell content generally ranges between 15 and 25%. The majority of shell material is sand-sized crushed shell or small surf clams (donax variabilis).

Excavation within the borrow areas will be to a depth not to exceed 6 ft, or the limit of suitable material, whichever is shallower. No excavations will be performed deeper than 6 ft below the existing grade. The borrow areas are marginal for a hopper dredge (because of relatively shallow operational depths) and suitable for an ocean-certified cutterhead suction dredge. Combined, the areas can provide up to 1.9 million cy of beach compatible material for the project. The excess sand reserves above the permitted volume are intended to provide more flexibility in moving the dredge away from poor quality sediments that may be encountered during construction.

Groin Construction

Groin construction will include installation of three groins along the southern end of the project area. Each groin will be constructed of vertical sheet pile walls (sheets ~15-20 ft long, typical) and extend between 300 and 400 ft from the back beach/seawall to the low tide line (Sheets 11-12). Armor stone scour aprons will be installed along either side of the sheet piles at the seaward end of each structure (Sheets 3 and 11). Each scour apron will consist of approximately 1,500 tons of Class F armor stone (typically 2-3 ft diameter units) placed on 5,600 sq ft of marine mattresses. Mattresses will either be a special geotextile fabric or gabions up to 1 ft thick filled with 2-6" crushed stone. The armor stone apron will extend horizontally (at the same elevation as the cap) approximately 10 ft from the cap in the along-shore direction, then slope to grade at 1 on 2. The apron will extend horizontally ~15 ft seaward of the sheet piles and slope to grade at 1 on 2.

Groins will be constructed to a profile matching the native beach slope and desired berm width. Each structure will consist of a berm section sloping between +8 and +7 NAVD (landward to seaward), a beach face section sloping at 1 on 20, and a 60-80 ft-long low-tide section to hold the lower beach profile. Sheet piles will be made of steel or composite (reinforced fiberglass) material and capped with concrete or composite material. Groin profiles are shown in Sheet 11.

Project Purpose

The purpose of the project is for erosion control and beach stabilization, including:

- *Restore the recreational beach and protect associated infrastructure*
- *Protect homes and associated infrastructure from erosion and reduce potential storm damages*
- *Maintain property values and the community tax base which provide major funds to Georgetown County and the state.*
- *Maintain dry beach habitat for shorebirds and turtles where previous nourishment projects have not kept pace with erosion.*
- *Reduce the renourishment frequency and associated disruption to habitats and the community.*
- *Provide excess nourishment volume beyond the trapping capacity of each groin so that sand bypassing occurs to downcast areas and erosion rates are reduced below the background erosion rate for the area.*

The proposed activity will impact US waters because it is necessary to utilize dredges and supporting equipment to excavate sand from the ocean bottom and place it along the intertidal (wet-sand) beach and inshore (surf zone) ocean bottom.

As part of this permit application, the Applicant has prepared a comprehensive Downdrift Impacts report. The report provides a thorough review of the historical erosion rates at the project site and along adjacent areas of Debidue Island, reviews performance of past beach restoration and maintenance projects, and presents results of a morphodynamic modeling study of potential impacts with and without the project. The Downdrift Impacts report includes a summary of findings, proposed monitoring plan and recommendations for performance thresholds which would trigger remedial renourishment so that downcast areas do not erode at a greater rate than the historical average rate prior to nourishment.

The justification for the project is presented in the Downdrift Impacts report. The major theme in the findings is that mainly due to the influence of relict inlet deltas and washovers along Debidue spit, the southern end of Debidue Island experiences rapid and chronic erosion. The erosion rate precludes effective beach management along DeBordieu Colony through nourishment alone. Sediment transport analysis suggests that nourishment coupled with groins can reduce the long-term erosion rate and maintain a protective dry-sand beach where an existing seawall encroaches severely on the wet-sand beach. Studies have shown that encroaching structures reduce the supply of sand to the littoral zone (not necessarily accelerating erosion). By maintaining a beach on the updrift side of the structure, there is more sand in the system to move along shore relative to the volume in a degraded profile fronting a sea wall (Basco, DR, D Bellamo, J Hazelton, and B Jones. 1997. The influence of seawalls on subaerial beach volumes with receding shorelines. Coastal Engineering, Vol 30, pp 203-233.).

The analysis of Downdrift Impacts demonstrates that downcoast erosion will be worse and approach long-term (background) erosion rates if no action is taken. Downcoast erosion with the project (including the proposed nourishment volume that is estimated to be ~4 times the trapping capacity of the groins) will result in lower-than-background erosion rates along the Hobcaw Tract of the Baruch Foundation property. The project with groins is shown to increase erosion rates downcoast by <1.6 cy/ft/yr compared with the "Nourishment-only" alternative. The applicant has determined that "Nourishment-only", as implemented in 2006 and 2015 is not sustainable for the community over a 30-yr period. The analysis also finds that the cost of property abandonment would be roughly 5-10 times greater than the cost of nourishment-only or the cost of the proposed project over a 30-year period.

The monitoring plan specifies an objective method for determining when downcoast erosion triggers are met and when a renourishment project should be implemented to mitigate adverse downcoast impacts. The applicant is committed to maintaining a sand supply along DeBordieu Colony that will bypass the proposed groins and feed downcoast areas at historical rates. For full explanation, refer to Downdrift Impacts Analysis report prepared for the DeBordieu Beach Stabilization Project (CSE. 2017. Downdrift Impacts Analysis: DeBordieu Beach Stabilization Project, Georgetown County (SC). Prepared for US Army Corps of Engineers and the DeBordieu Colony Community Association. Coastal Science & Engineering, Columbia (SC), 08.2017: 111 pp + appendices.).

Describe Measures Taken To Avoid/Minimize Impacts To Waters Of The United States

The proposed project is anticipated to be constructed between 1 November and 1 May to minimize potential impacts to sea turtles; however, the final project schedule will be determined in coordination with environmental agencies with appropriate conditions in place for varying windows (ie – turtle monitoring). Construction will take place over an ~60-day to 120-day period, working 24 hours per day. Turbidity associated with the project will be localized and

short-term given the dominance of sand-sized material with <2 percent mud in the deposits. Turbid plumes are expected to dissipate in minutes to hours within ~500 ft of the discharge point based on prior experience.

The proposed project will result in excavation and mortality of ~100 acres of surficial benthic organisms in the borrow area. Filling operations will bury ~95 acres of shallow beach and inshore habitat (ocean shoreline), resulting in mortality and displacement of existing benthic populations. Nourishment will provide an additional ~10 acres of dry-sand beach (habitat for turtle nesting, shorebird roosting, and recreational area). A wider dry beach will allow natural expansion of the foredune and its associated vegetation. The post-project wet-sand beach will be similar to or greater in area than the previous wet-sand beach buried by the fill (Note: wet-sand beach area decreases as erosion encroaches on the seawall). It is expected that nourished areas will recolonize naturally and rapidly with a similar suite of species (Jutte, PC RF Van Dolah, and PT Gayes. 2002. Recovery of benthic communities following offshore dredging, Myrtle Beach, South Carolina. Jour Shore & Beach, Vol 70(3), pp 25-30.; CZR. 2014. Nags Head beach 2011 nourishment project. Post-Year 2 and Final Report for Town of Nags Head, North Carolina. CZR Incorporated (Wilmington NC) and CSE (Columbia SC), 65 pp + appendices.).

The applicant (through its agent) will provide all contractors associated with construction a copy of the permit and associated drawings. A copy of the permit will be kept at the construction site at all times.

Sea Turtles

The applicant intends to construct the project outside of sea turtle season (May-October). Should portions of the project overlap with turtle nesting season, standard protection and monitoring actions will be completed to minimize impacts to turtles. Action items include:

- *Daily early morning surveys for sea turtles.*
- *Nest relocation by qualified personnel for nests laid in areas where they may be impacted by construction activities.*
- *Equipment storage will be off the beach to the maximum extent practicable and as far landward as possible. Temporary fencing or other measures will be utilized to prevent turtles from being trapped by equipment.*
- *Direct night-time lighting of the beach will be limited to the immediate construction area and shielded according to USFWS recommendations. If any turtles are observed in the construction area, activities will cease until the turtle(s) returns to the water and any nest is marked.*
- *Tilling of the nourished beach and compaction monitoring for three years after nourishment.*
- *Escarpment monitoring and leveling for three years after nourishment.*

Sediment Quality

The Applicant has defined permitted borrow areas so as to reduce the amount of gravel and shell material placed on the beach. Specific monitoring of borrow areas will include:

1) *Collection of additional borings in Areas 1A and 1C; analysis of sediment quality; and preparation of maps of sediment grain size, percent mud, percent gravel, and percent shell material.*
2) *Review of borrow area geotechnical data with permitting agency officials and identification of priority sub-areas for excavation. The Applicant (through its Agent) will determine a dredging strategy to utilize the borrow areas in an efficient manner while maintaining sediment quality throughout the project.*
3) *Pre-construction, native-beach sand samples will be obtained at 1,000-ft intervals along the project area. At each location, samples will be taken at the toe of the dune, middle of the dry-sand berm, approximate mean sea level, and shallow subtidal zone (wading depth). Samples will be sieved at 0.25-phi intervals and acid-washed to determine shell content.*
4) *The Applicant (through its Agent) will have qualified personnel under the direction of a registered professional geologist monitoring sediment quality on the beach during construction and correlating it with the borrow area conditions.*
5) *During construction, samples of the beach fill will be obtained at 200-ft intervals and compared to the native and borrow area samples. Samples along one shore-perpendicular transect will be combined into one physical composite and sent to the laboratory for grain-size analysis. Samples will be analyzed as soon as possible but will not exceed five (5) days after collection. Sediment test results will be submitted weekly to USACE and SCDHEC-OCRM for review.*
6) *Additional sampling and frequent observation will be completed during the initial 4–6 hours of pumping when the dredge moves to a new borrow site until the on-site technical representative (OTR) and contractor are satisfied with the quality of sand. The contractor will also have observers monitoring sediment quality 24 hours per day and will immediately report any significant changes in the discharge to the OTR so that decisions to move the dredge can be accomplished in a timely manner.*
7) *Upon completion of construction, the Applicant (through its Agent) will re-sample the project area and obtain representative samples of the beach fill, using the same stations as the pre-project samples. Results will be compared with pre-project beach samples and borrow area sediment test results. Data will be submitted to the USACE and OCRM in a comprehensive final report.*
8) *The contractor in consultation with the owner's on-site technical representative will notify the Applicant, USACE, and OCRM if significant non-compatible material is encountered in the borrow area. The dredge will be relocated to other sub-areas within the permitted borrow area if the following conditions are encountered:*
    a. *Evidence of high concentrations of mud persisting for more than 30 minutes in the slurry based on visual observation at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.*
    b. *Evidence of high concentrations of nonshell gravel such as chunks of limestone, marl, or similar cemented sediments which persist for more than 30 minutes in the slurry based on visual observation at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.*
    c. *Evidence of high concentrations of coarse shell material exceeding pebble-sized clasts (eg – oyster shells, quahogs, etc) which persist for more than 30*

minutes in the slurry based on visual observations at the discharge pipe and monitoring of specific gravity of the slurry at the dredge.

9) *Because of the lag time between excavations in the borrow area and pump-out onto the beach, accumulations of mud rollers and coarse gravel material (ie – rock fragments, large shells) may occur before the dredge can be relocated. If such accumulations exceed the equivalent of one 15-cy dump truck per 100 linear feet of beach, the Applicant will arrange to pick up the coarse material using hand labor or a beach-sweeping device as soon as practicable upon completion of the section or upon completion of the project. To the extent practicable, such accumulations will be raked into stockpiles above the high-tide mark and will be removed prior to completion of the project.*

10) *The Applicant will perform tilling of the fill berm upon project completion as specified in the contract documents. Tilling will be accomplished to a depth of ~36 inches and will span the dry berm. The Applicant (through its Agent) will perform post-tilling compaction tests at ~500-ft intervals along the project area and will report the results to USACE and SCDHEC-OCRM following standard testing protocols.*

Monitoring and Mitigation

The applicant has provided a monitoring and mitigation plan in Section 6 of the Downdrift Impact Report. Specific monitoring tasks include:

1. Yearly controlled aerial photography at low tide of Debidue Beach and the shoals of North Inlet [via unmanned aerial vehicle (UAV) or fixed-wing aircraft].

2. Yearly profile surveys to beyond depth of closure (DOC) using existing profiles plus additional profiles on either side of each groin to monitor beach offsets and quantify sand trapping.

3. Yearly computation of volumetric changes by reach and groin compartment, and measurements of fillet geometrics and groin exposure at each structure.

4. Periodic surveys of washovers along Debidue Spit (Reach 5) to track the growth and landward limits of the deposits, particularly after storms.

5. Post-storm surveys after major events to evaluate short-term changes in relation to historical data along Debidue Island and representative data from nearby beaches having similar morphology and erosion signatures.

6. Periodic inspection of the groins to determine the condition of each structure and document deterioration, settlement, displacement, or other damage that might affect functionality.

Proposed Mitigation:

The applicant offered no compensatory mitigation for the proposed impacts.

Project Purpose:

The purpose of the project is storm damage reduction.

NOTE: This public notice and associated plans are available on the Corps' website at: http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices .

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 95 acres of intertidal beaches and 100 acres of adjacent subtidal ocean bottom utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the project area, examined all information provided by the applicant, and the District Engineer has determined that the proposed project will have no effect on Shortnose Sturgeon (*Acipenser brevirostrum*) or Atlantic Sturgeon (*Acipenser oxyrinchus*), and will not result in the destruction or adverse modification of their designated or proposed critical habitat. Additionally, the District Engineer has determined that the proposed project may affect, not likely to adversely affect Seabeach Amaranth (*Amaranthus pumilus*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), Green Sea Turtle (*Chelonia mydas*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), West Indian Manatee (*Trichechus manatus*), Humpback Whale (*Megaptera novaengliae*), and North Atlantic Right Whale (*Eubalaena glacialis*). This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on these determinations.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with Section 106 of the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(*l*)(1)), and has initially determined that no historic properties are present; therefore, there will be no effect on historic properties. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and any other interested parties to provide any information they may have with regard to historic properties. This public notice serves as a request for concurrence within 30 days from the SHPO (and/or Tribal Historic Preservation Officer).

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

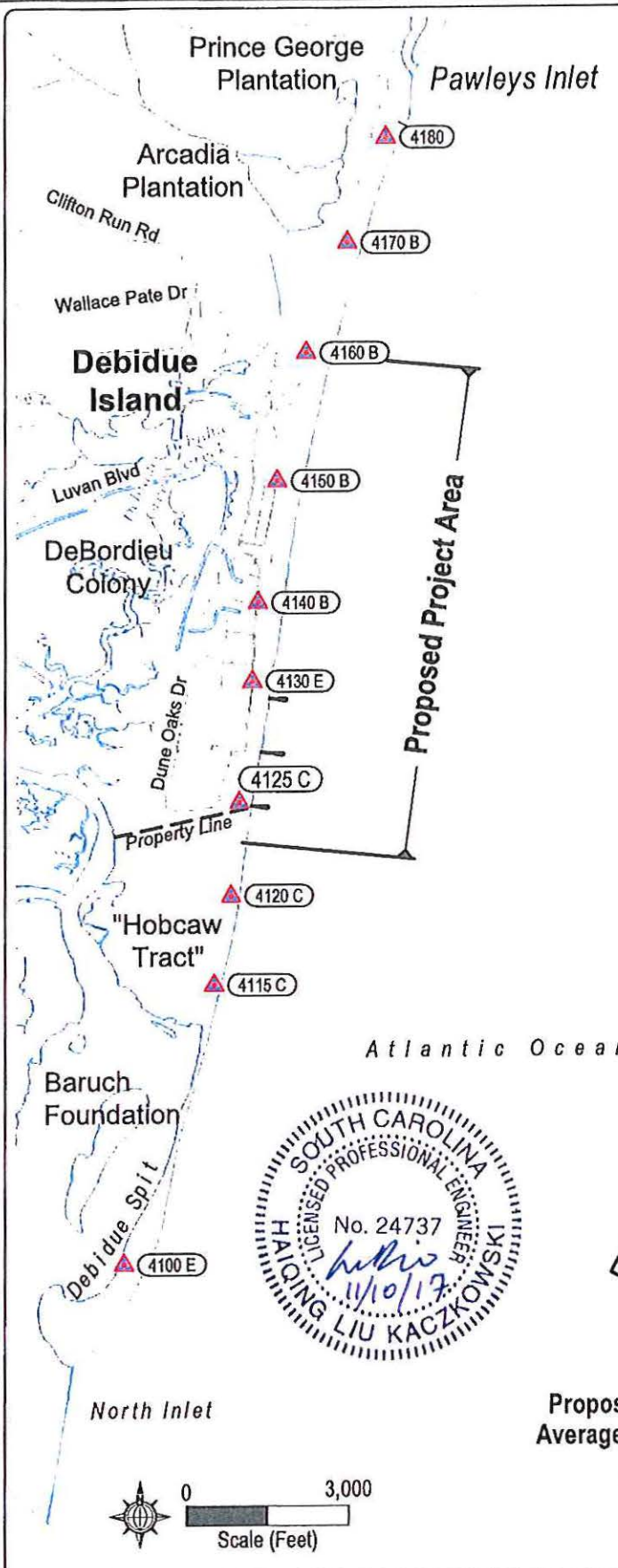
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

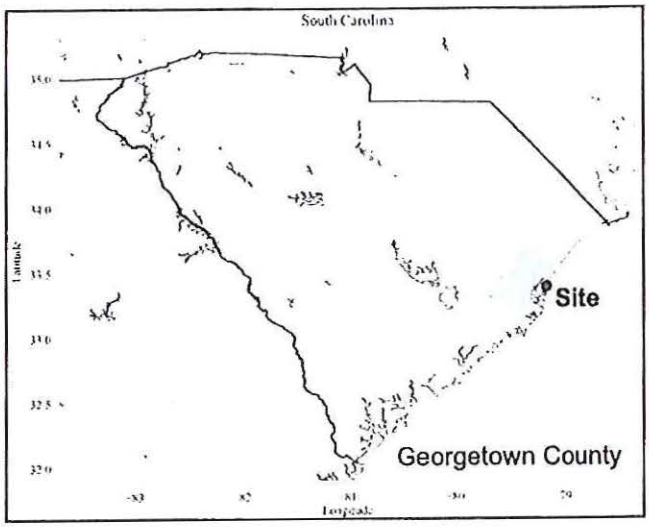
The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity. **Please submit comments in writing, identifying the project of interest by public notice number, to the following address:**

U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
1949 INDUSTRIAL PARK ROAD, ROOM 140
CONWAY, SOUTH CAROLINA 29526

If there are any questions concerning this public notice, please contact Ann Eaddy, Project Manager, at (843) 365-4239.





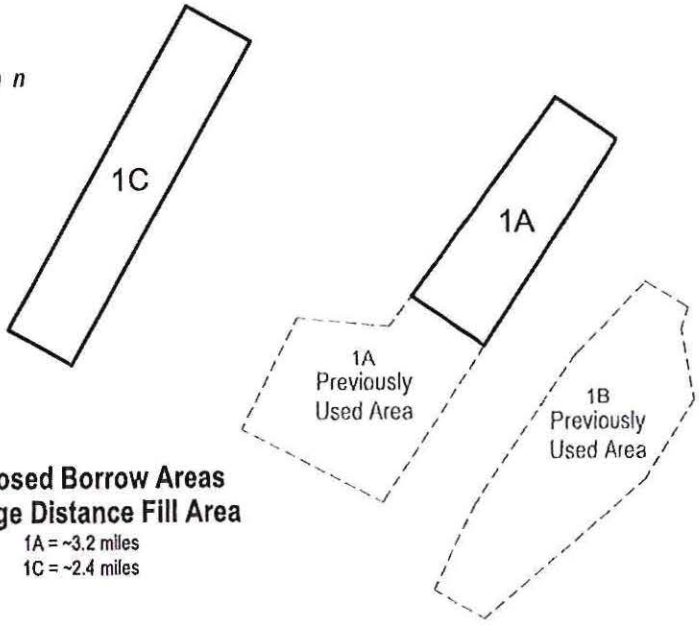
Project Location

N 33° 22' 02.76"
W 79° 09' 06.05"

Directions From US-17

Head northeast on US-17 N (3.7 mi)
Turn left onto County Rd S-22-255/Kings River Rd (0.7 mi)
Turn right onto County Rd S-22-758
Turn right onto Hagley Dr (0.5 mi)
Turn right at the 2nd cross street onto US-17 S (4.9 mi)
Turn left onto Luvan Blvd (4.1 mi)
Turn right onto Debordieu Blvd

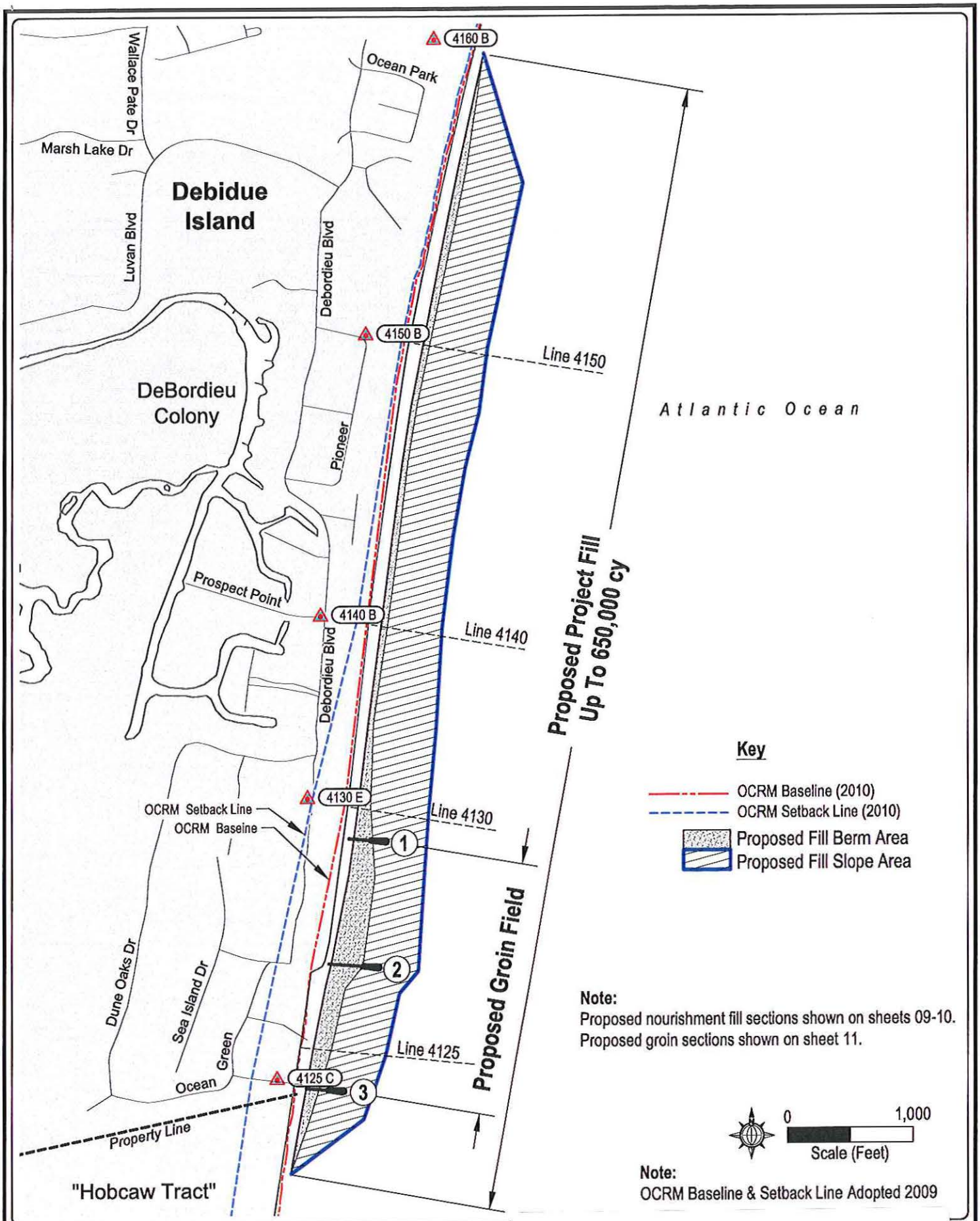
SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 24737
HAIQING LIU KACZKOWSKI
11/10/17



Proposed Borrow Areas
Average Distance Fill Area
1A = ~3.2 miles
1C = ~2.4 miles

PROJECT TITLE:	APPLICANT:
Beach Stabilization Project	DeBordieu Colony Community Association 181 Luvan Boulevard, Georgetown SC 29440

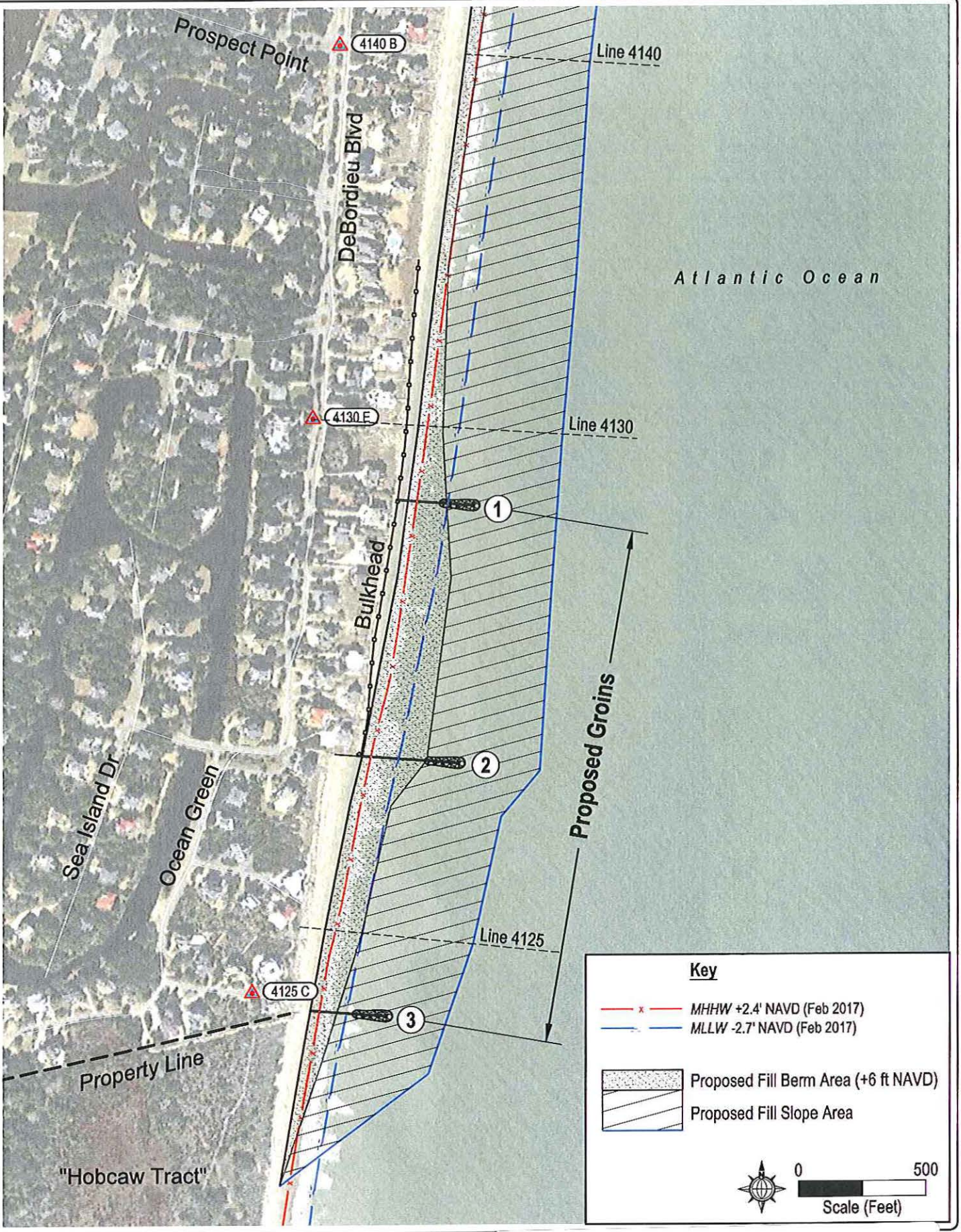
SAC 2017-01795
Debidue Island Beach Nourishment & Groin Installation Project
Georgetown County, South Carolina
Date: November 21, 2017 Sheet 1 of 12



PROJECT TITLE:
Beach Stabilization Project

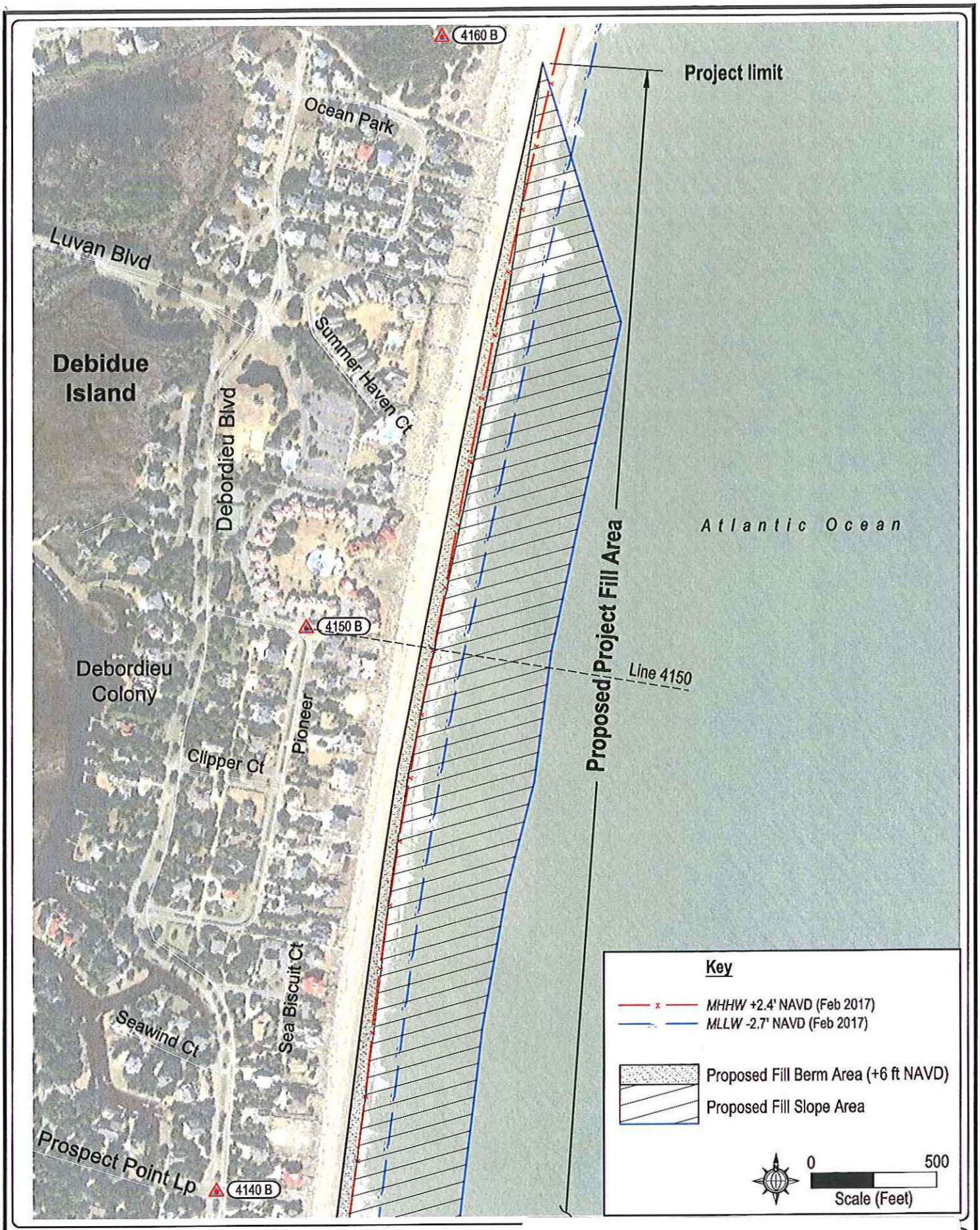
APPLICANT:
DeBordieu Colony Community Association
181 Luvan Boulevard, Georgetown SC 29440

SAC 2017-01795
Debidue Island Beach Nourishment &
Groin Installation Project
Georgetown County, South Carolina
Date: November 21, 2017 Sheet 2 of 12



PROJECT TITLE:	APPLICANT:
Beach Stabilization Project	**DeBordieu Colony Community Association** 181 Luvan Boulevard, Georgetown SC 29440

SAC 2017-01795
Debidue Island Beach Nourishment &
Groin Installation Project
Georgetown County, South Carolina
Date: November 21, 2017 Sheet 3 of 12



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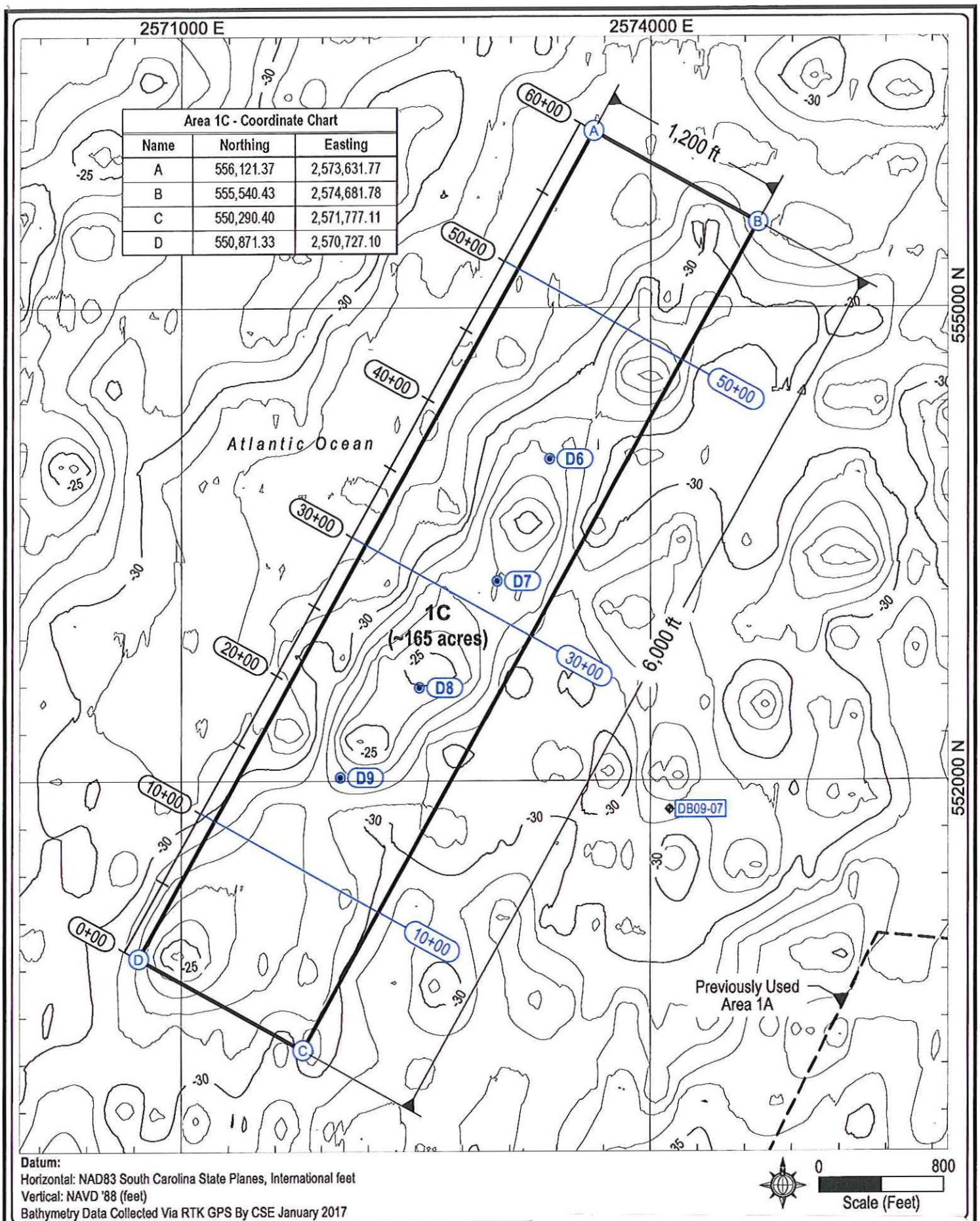
Beach Stabilization Project

APPLICANT:
DeBordieu Colony Community Association
181 Luvan Boulevard, Georgetown SC 29440

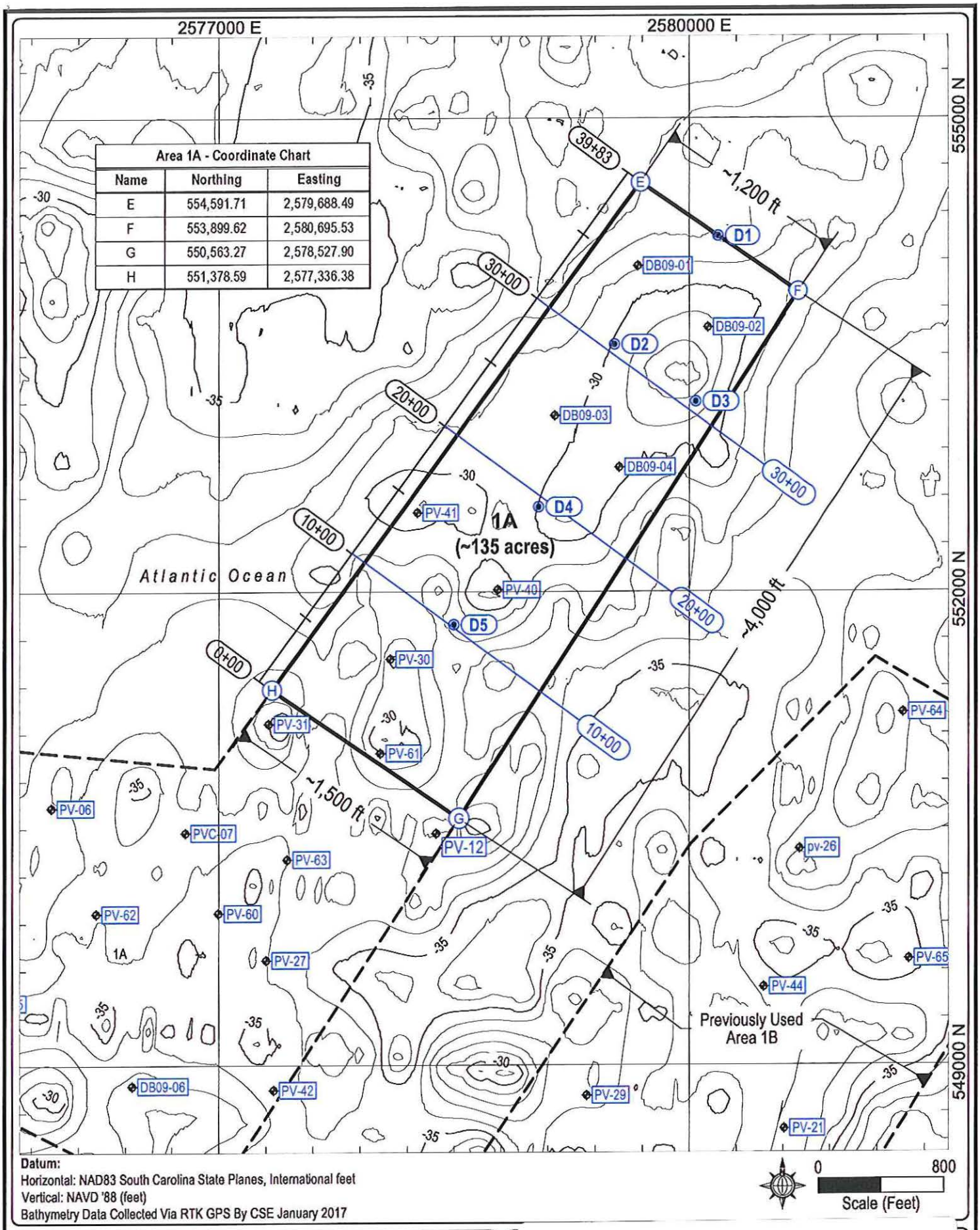
SAC 2017-01795
Debidue Island Beach Nourishment & Groin Installation Project
Georgetown County, South Carolina
Date: November 21, 2017 Sheet 4 of 12



Datum:
Horizontal: NAD83 South Carolina State Planes, International feet
Vertical: NAVD '88 (feet)
Bathymetry Data Collected Via RTK GPS By CSE January 2017

PROJECT TITLE:	APPLICANT:
Beach Stabilization Project	**DeBordieu Colony Community Association** 181 Luvan Boulevard, Georgetown SC 29440

SAC 2017-01795
Debidue Island Beach Nourishment &
Groin Installation Project
Georgetown County, South Carolina
Date: November 21, 2017 Sheet 5 of 12



Datum:
Horizontal: NAD83 South Carolina State Planes, International feet
Vertical: NAVD '88 (feet)
Bathymetry Data Collected Via RTK GPS By CSE January 2017

0 800
Scale (Feet)

PROJECT TITLE:	APPLICANT:
Beach Stabilization Project	**DeBordieu Colony Community Association** 181 Luvan Boulevard, Georgetown SC 29440

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Debidue Island Beach Nourishment &
Groin Installation Project
Georgetown County, South Carolina
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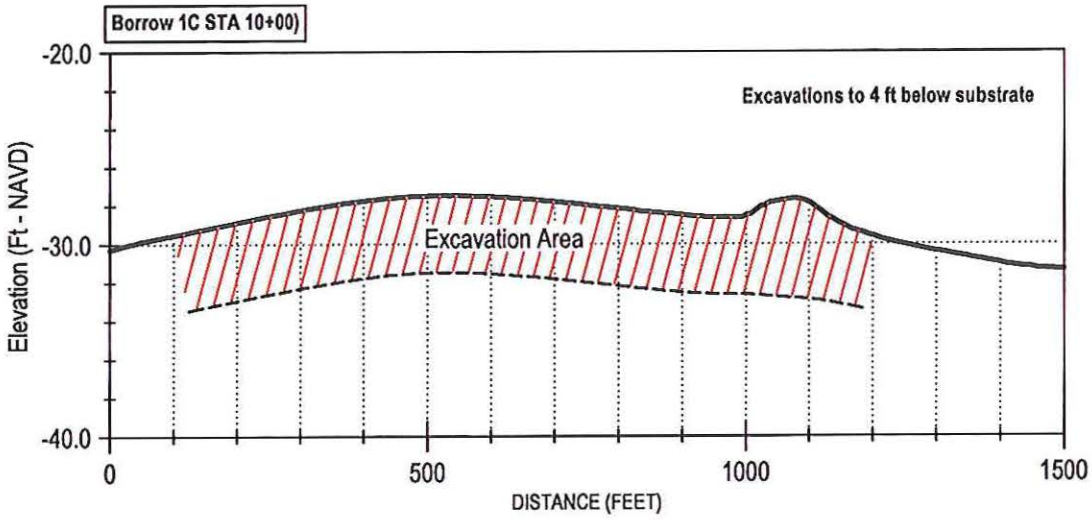

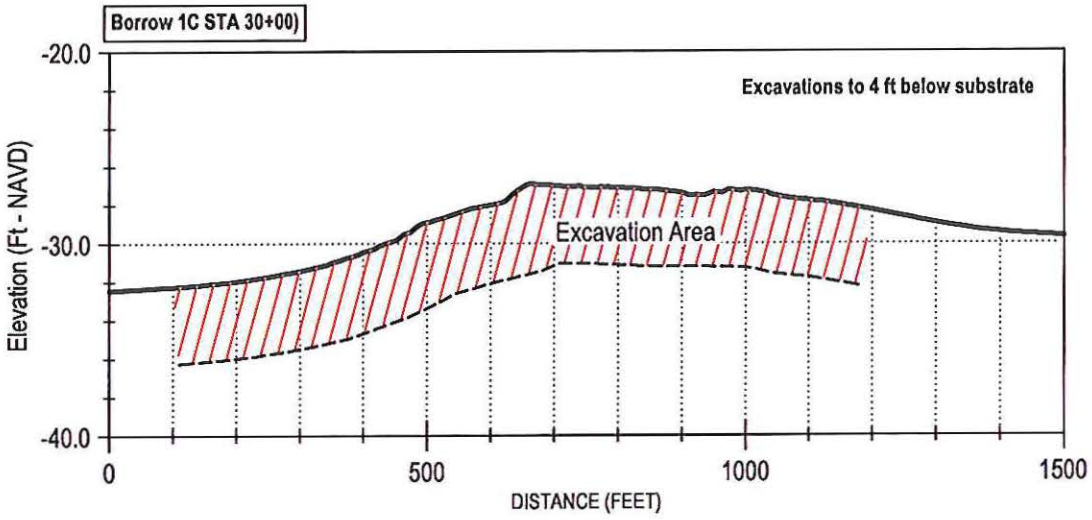

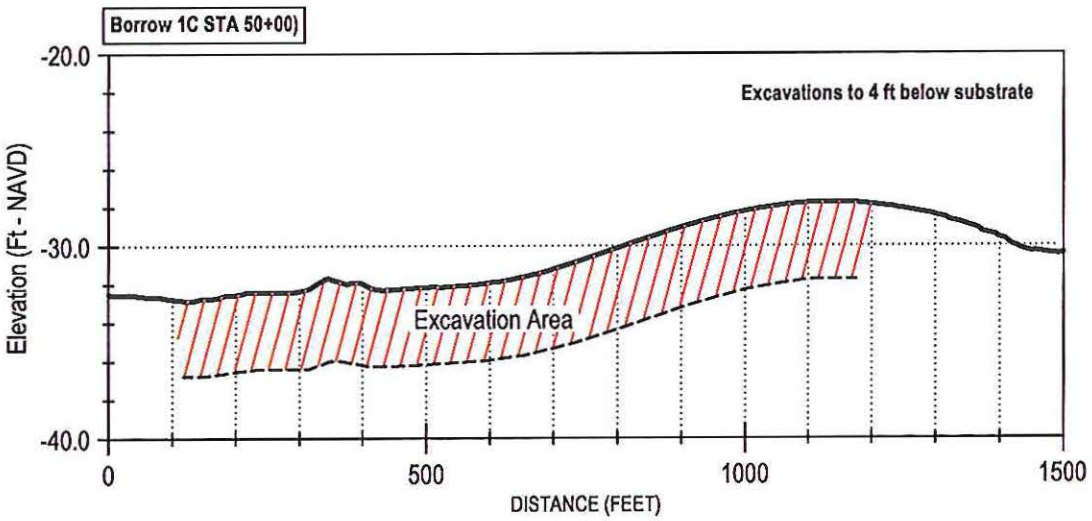

Datum:
Vertical: NAVD '88 (feet)
Bathymetry Data Collected Via RTK GPS By CSE January 2017

0 300
Scale (Feet)

PROJECT TITLE:	*APPLICANT:*
Beach Stabilization Project	**DeBordieu Colony Community Association** 181 Luvan Boulevard, Georgetown SC 29440

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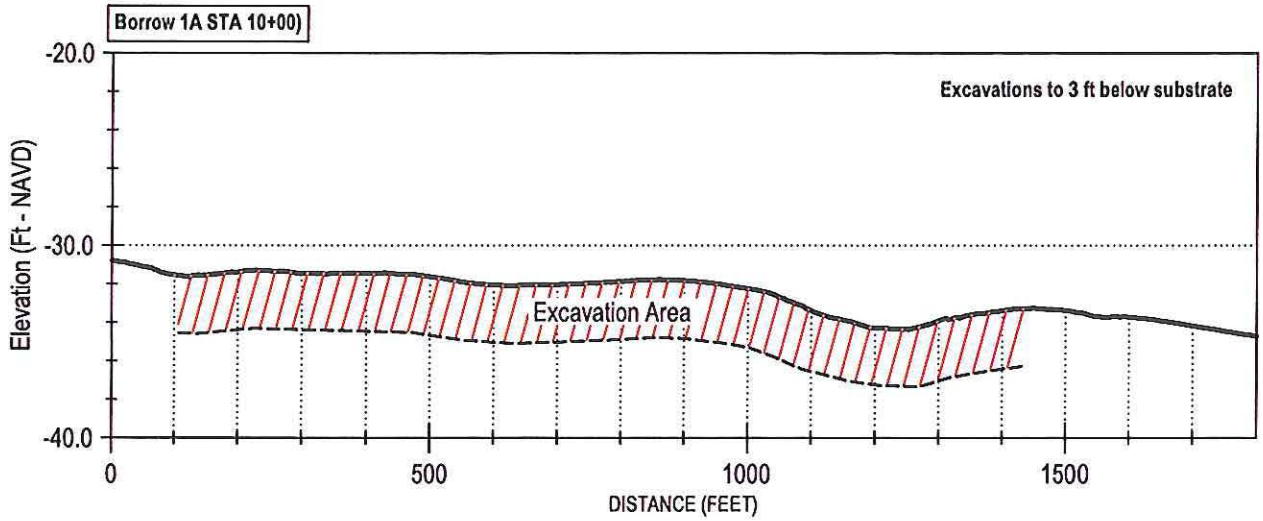

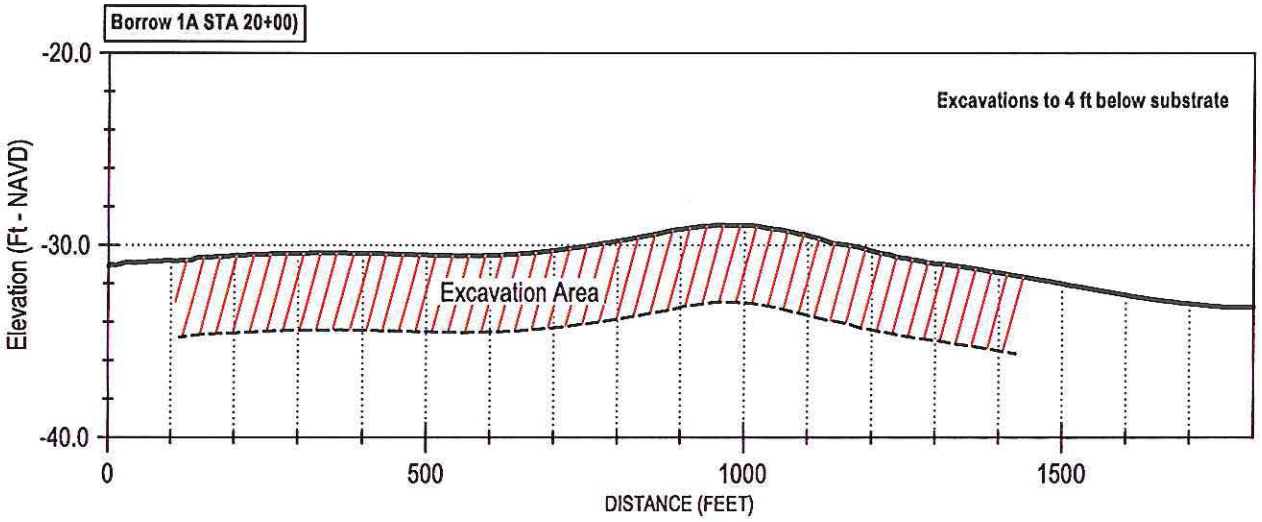

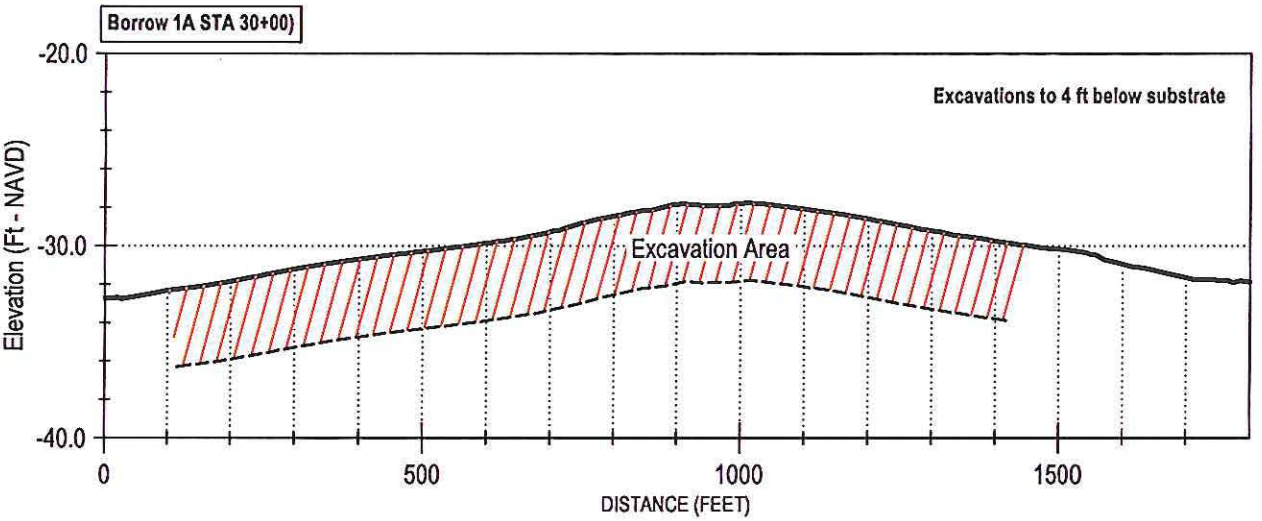

Datum:
Vertical: NAVD '88 (feet)
Bathymetry Data Collected Via RTK GPS By CSE January 2017

0 300
Scale (Feet)

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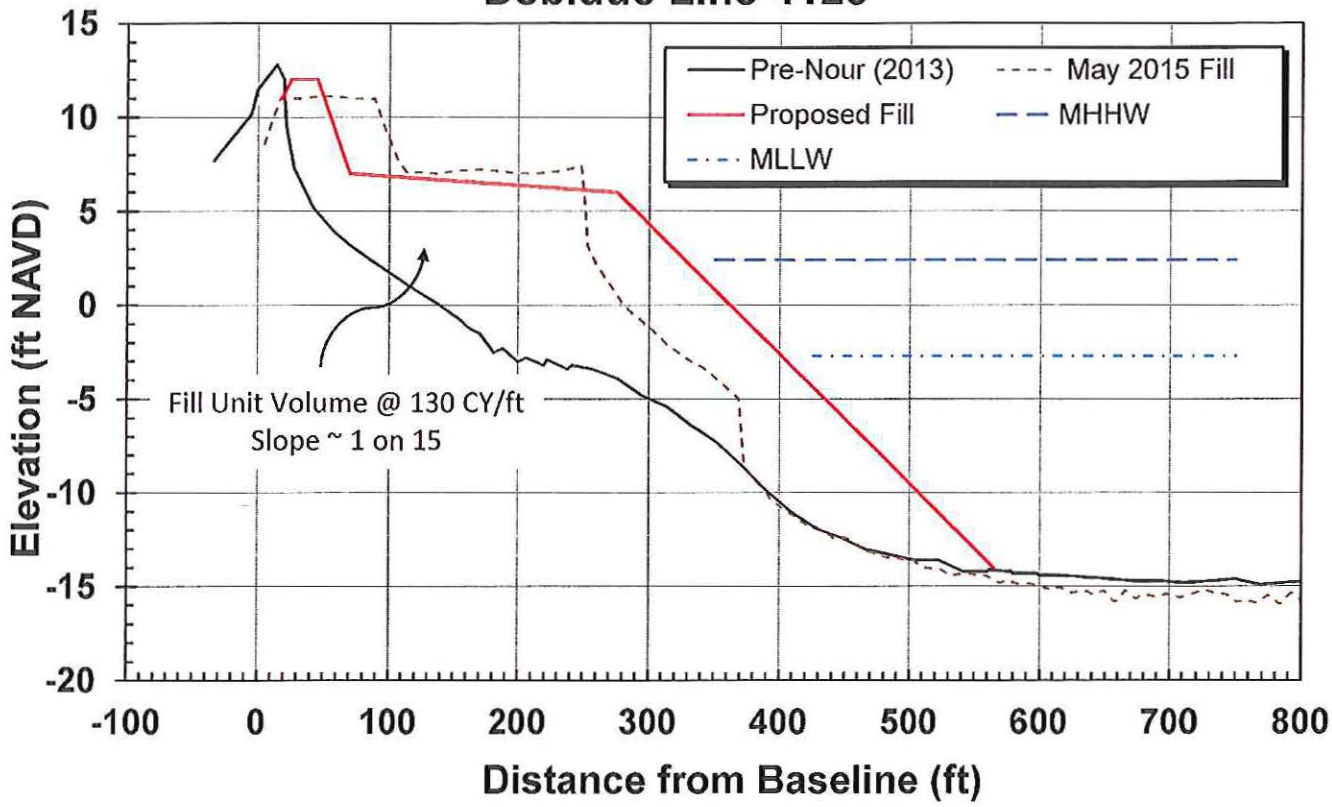
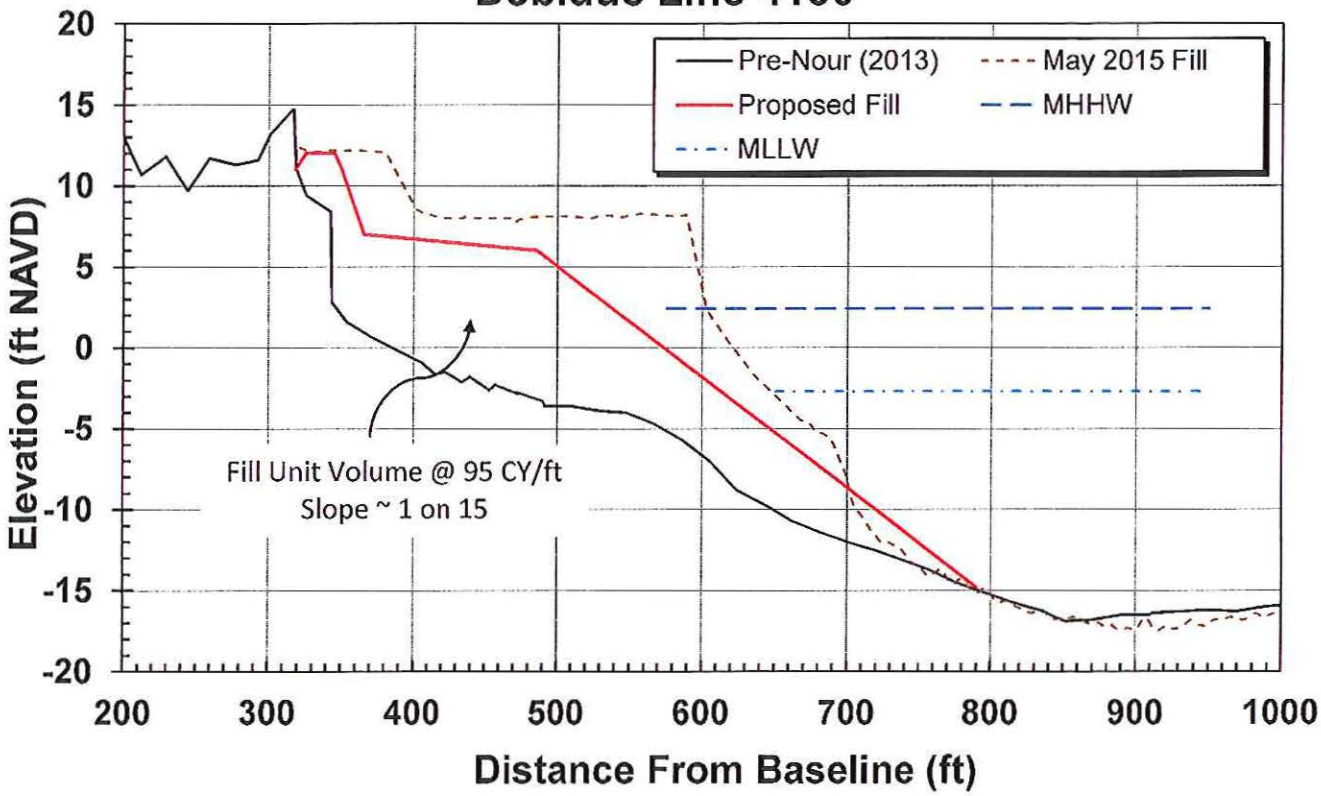
Debidue Line 4125



Debidue Line 4130



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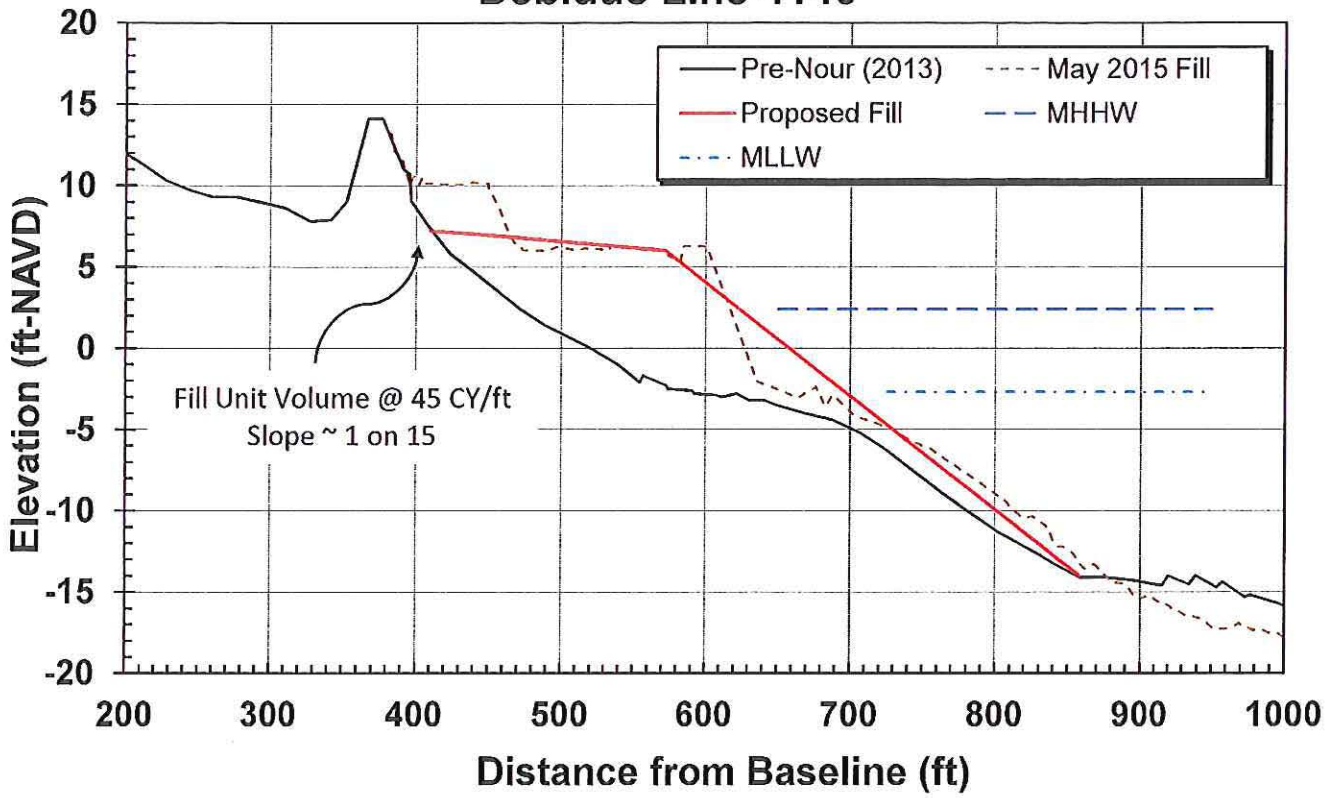
Debidue Line 4140



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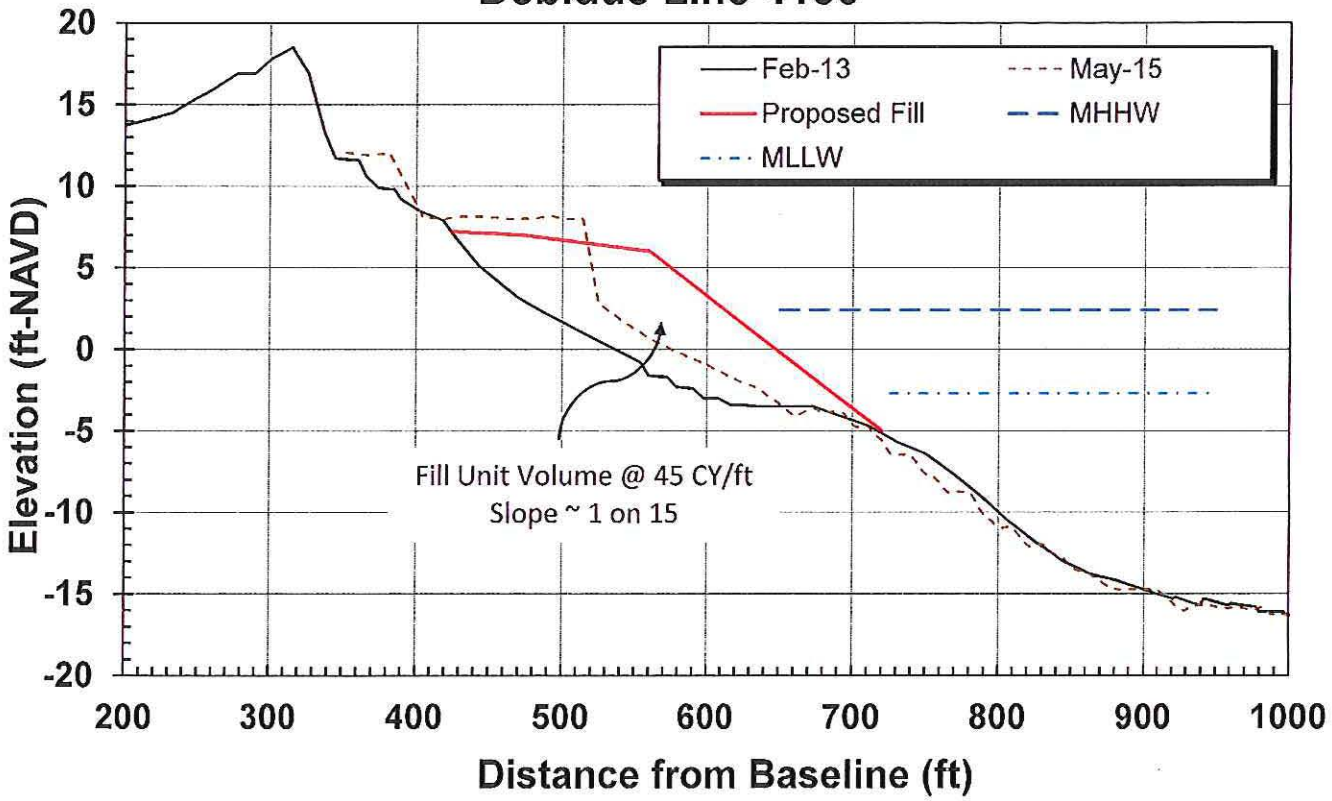

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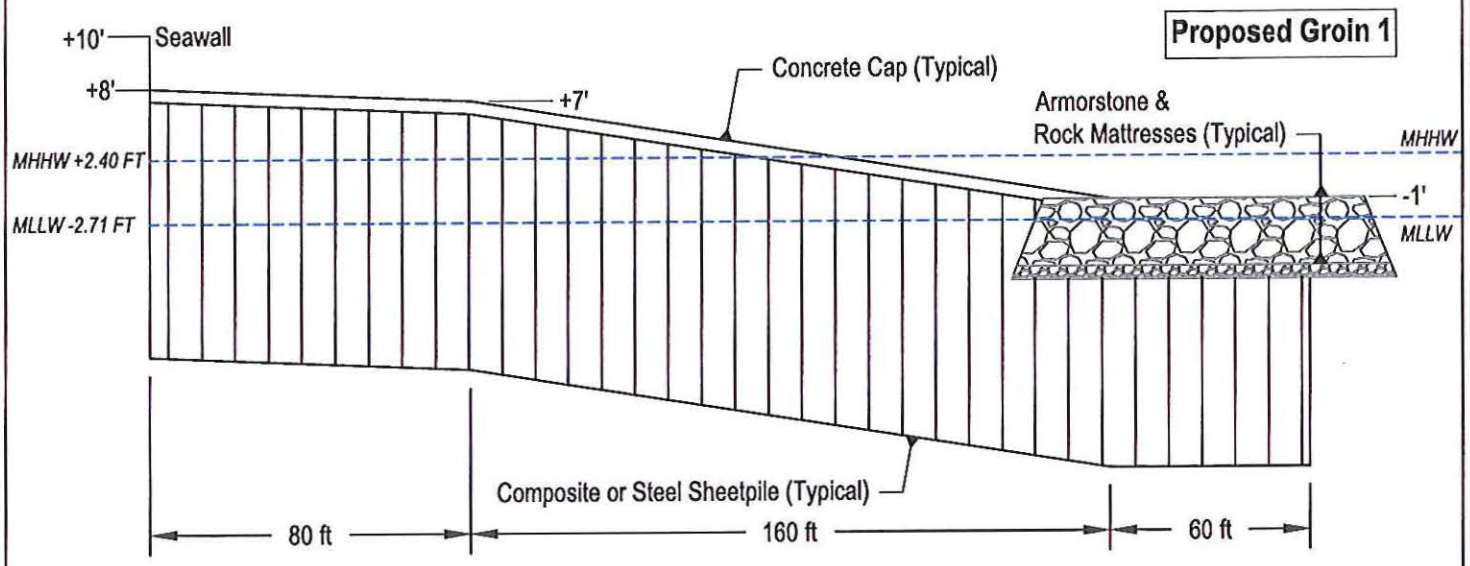

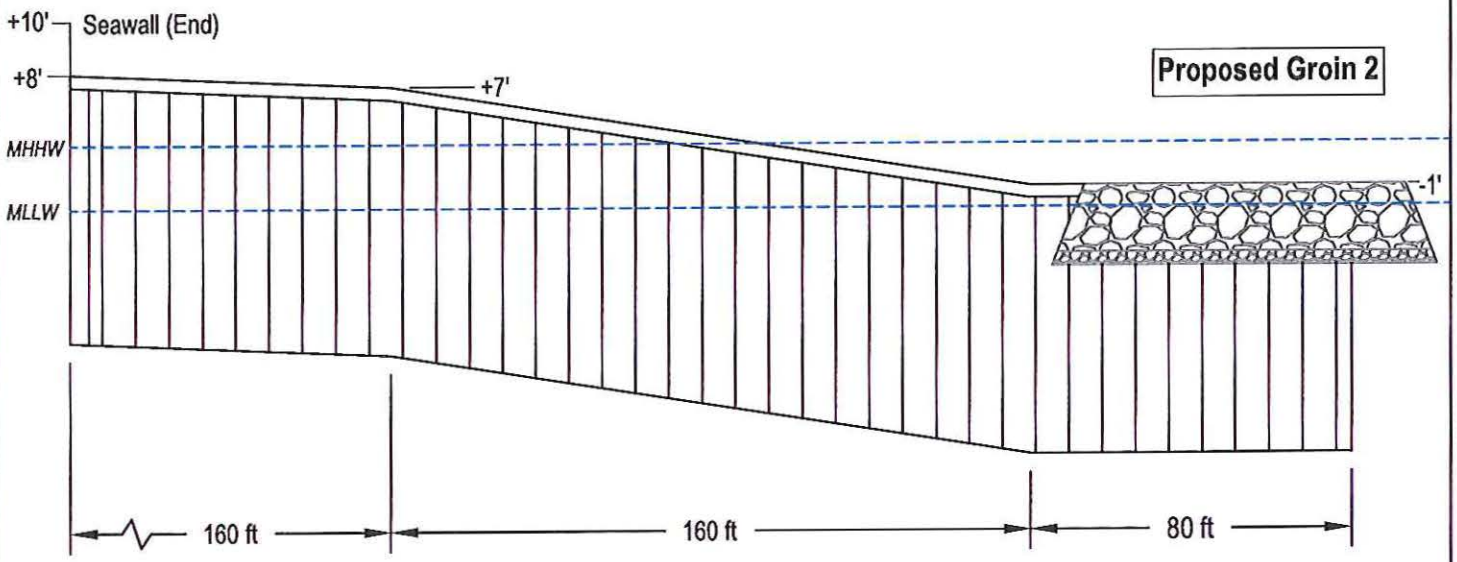

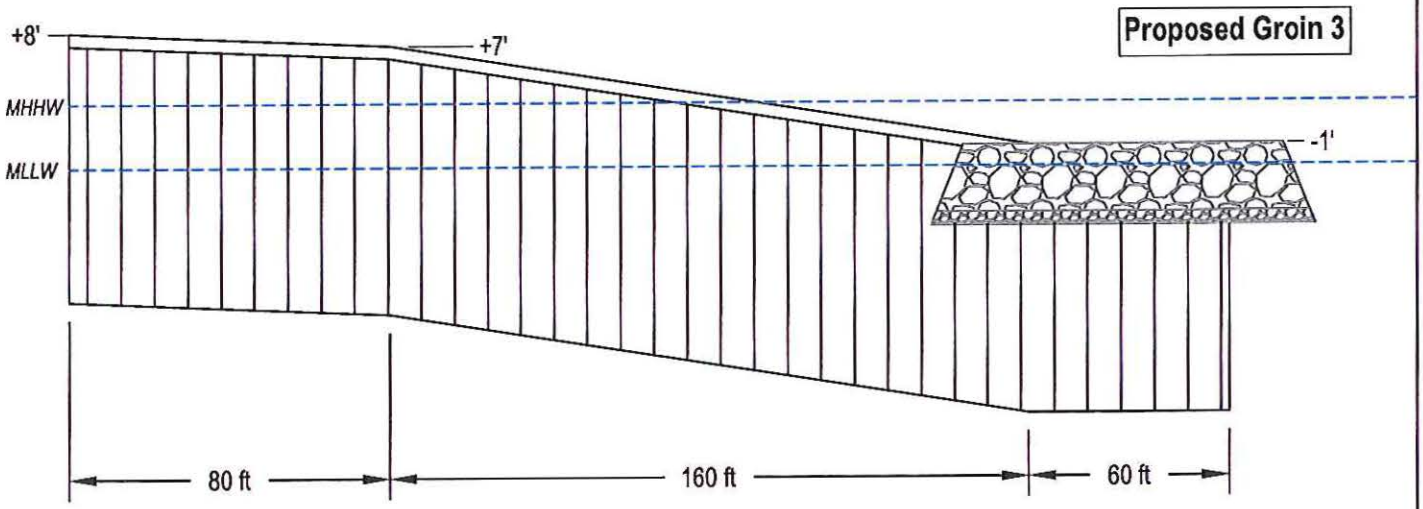

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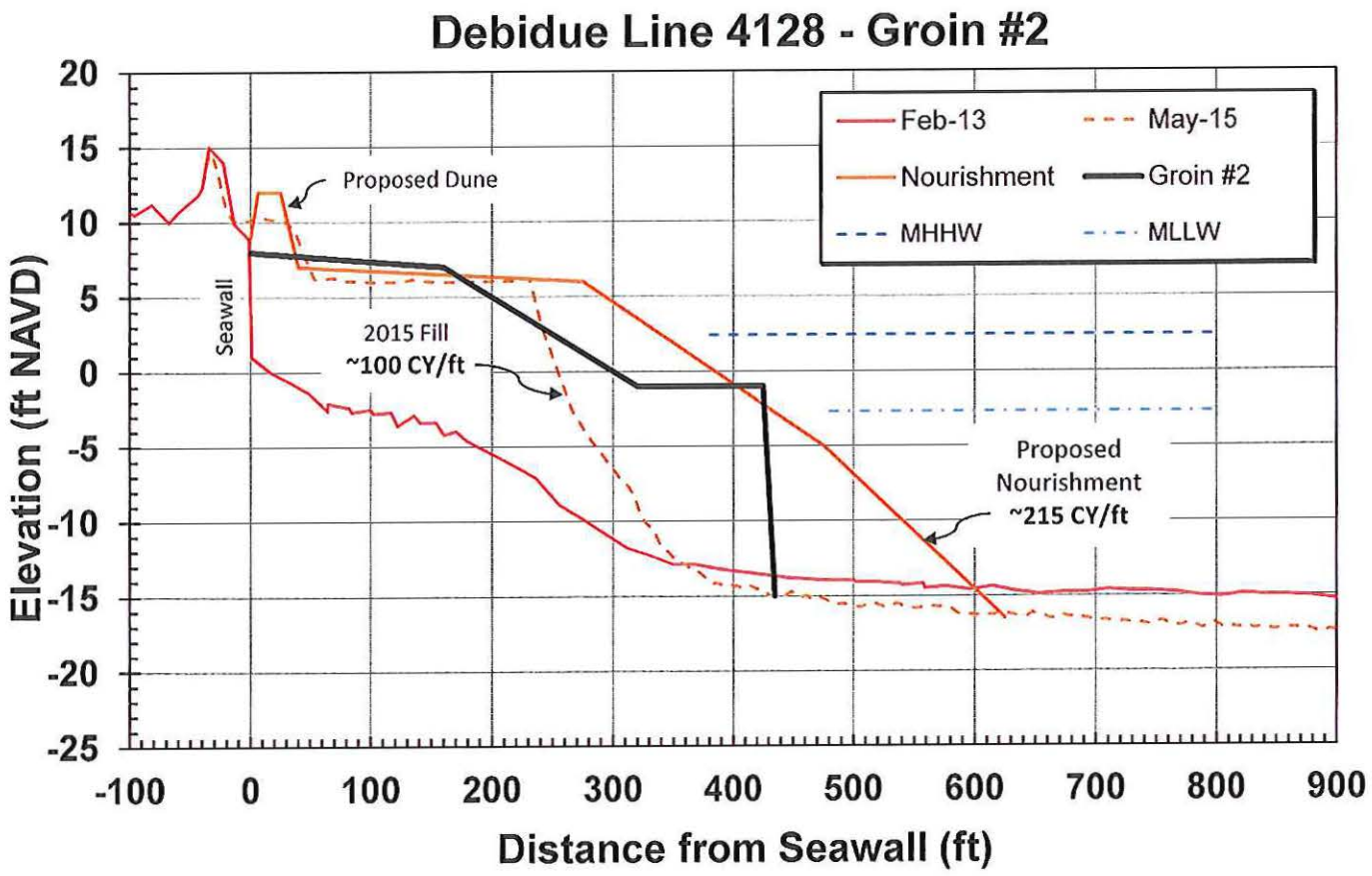

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