

**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  
North Charleston, South Carolina 29405**

REGULATORY DIVISION

Refer to: SAC-2024-00726

27 JUNE 2024

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

**Horry County Engineering  
c/o Coastal Science & Engineering  
160 Gills Creek Pkwy  
Columbia, South Carolina 29209  
patrick@coastalscience.com**

for a permit to conduct beach renourishment in the

**ATLANTIC OCEAN**

along 8,500 linear feet (lf) of beach between Bear Branch Swash (Latitude: 33.7494°N / Longitude: -78.8036°W) and Apache Pier (Latitude: 33.7633°N / Longitude: -78.7814°W), along Arcadian Shores, situated southeast of 8702 North Ocean Boulevard to 8500 Queensway Boulevard, in Myrtle Beach, Horry County, South Carolina (Latitude: 33.7565°N, Longitude: -78.7919°W), Hand 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.

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

### **Applicant's Stated Purpose**

The applicant has stated that the project purpose is storm damage reduction.

### **Project Description**

The proposed work would consist of beach renourishment activities along Arcadian Shores. In detail, the work would include placement of up to 450,000 cubic yards (cy) of beach-quality sediment along approximately 8,500 lf (1.6 miles) of shoreline. The project would include three reaches, with Reach "1" beginning in the vicinity of Bear Branch Swash and extending north ~2,000 lf. Reach "2" would extend 2,000 lf from the northern end of Reach "1" to the Sands Beach Club. Reach "3" would extend 4,500 lf north from the Sands Beach Club to Apache Family Campground Pier.

Sand for nourishment would be obtained via ocean-certified hopper dredge then transported and discharged onto the beach via a submerged pumpout line. The slurry would dewater naturally and then be shaped and graded to slopes and elevations similar to the existing beach by utilizing heavy machinery (e.g. bulldozers and loaders). A dune would be constructed along portions of Reach 3, and sand fencing and vegetation would be installed along as much of the reach as practicable. No fill would be placed landward of existing native beach vegetation. Most of the nourishment volume would be placed along reaches "1" and "3". In addition, Singleton Swash beach outlet would be excavated and allowed to flush using 3' diameter pipes positioned cross-shore between stations AS 15+00 and AS 16+00. The channel would then be temporarily filled to allow transport of sand via pipeline to the south end of the taper section. Upon completion of each reach the flushing pipes will be removed. An inlet pilot channel would be constructed between stations AS 15+00 and AS 16+00. The present channel discharges across the beach between stations AS 11+00 and AS 18+00.

The proposed borrow area is located, within South Carolina state waters, directly offshore, approximately 2.5 miles southeast of Arcadian Shores and is approximately 3,000 lf by 6,000 lf (~290 acres). It is situated on a low-relief sand sheet where natural bottom depths vary from 25 ft to 35 ft. The excavations would be of the order of 2–4 ft, which is comparable to the natural depth variation in the area, to minimize the creation of deep holes. Sediments in the available borings suggest the proposed borrow areas contain actively mobile sediments and anaerobic conditions were generally not detected within the upper 5 ft of the substrate for the cores in the proposed borrow area. Minute quantities of interstitial mud were detected in some samples.

The proposed project is anticipated to be conducted between 1 November and 30 April to minimize potential impacts to sea turtles; however, the final project schedule

would be determined in coordination with environmental agencies with appropriate conditions should an alternate window be prescribed (i.e. turtle monitoring after 1 May).

The applicant seeks to perform the work around the same time that ocean-certified dredging equipment is being mobilized in association with a Federal Project along the Grand Strand for similar work in Myrtle Beach, North Myrtle Beach, and/or Garden City/Surfside Beach. Construction would take place over a ~30-day to 45-day period, working 24 hours per day. The applicant stated that turbidity associated with the project would be localized and short-term, given the dominance of sand sized material in the proposed borrow sediments and that turbid plumes are expected to dissipate in minutes to hours within ~500 ft of the discharge point based on prior experience.

### **Avoidance and Minimization**

As stated by the applicant, the proposed project could result in the excavation and mortality of surficial benthic organisms in the borrow area. However, hopper dredging typically leaves undisturbed areas adjacent to each shallow cut. This would facilitate rapid recolonization of the borrow areas with a similar suite of benthic organisms. The applicant is proposing a larger area than necessary to accomplish the project so that ample undisturbed bottom is left within the borrow area. Typically, hopper dredging operations with shallow cuts over a broad area do not remove all sediments. Untouched areas then provide benthic organisms to quickly repopulate disturbed areas.

Filling operations would cover ~85 acres of shallow beach and inshore habitat (ocean shoreline), resulting in mortality and displacement of existing benthic populations. However, nourishment would provide ~10 acres of dune habitat (elevations above +6 NAVD) and an additional ~35 acres of dry-sand beach at +6 ft NAVD (habitat for turtle nesting, shorebird roosting, and recreational area). The fill will create an additional ~40 acres of intertidal and shallow subtidal habitat.

A wider dry beach would allow the natural expansion of the foredune and its associated vegetation. The recreated wet-sand beach would be similar to or greater in area than the previous wet-sand beach buried by the fill. It is expected that these areas would recolonize naturally and rapidly with a similar suite of species. The seaward slope of the storm berm would be 1 on 4 (or gentler) to provide a low slope negotiable by nesting sea turtles.

The proposed borrow area is situated on a low-relief sand sheet where natural bottom depths vary from 25 ft to 35 ft. The excavations would be of the order of 2–4 ft, which is comparable to the natural depth variation in the area. This would minimize the creation of deep holes.

The Applicant proposes to construct the project outside of sea turtle nesting and hatching season to the extent practicable (May–October). Should portions of the project overlap with turtle nesting season, standard protection and monitoring actions will be

completed to minimize impacts to sea turtles. Action items include:

- Follow operation protocols for hopper dredging as recommended under the 1997 South Atlantic Regional Biological Opinion issued by National Marine Fisheries Service.
- 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.

The Applicant is proposing a borrow area that contains low percentages of coarse- (>2 mm diameter) and finegrained (<0.0625 mm) material. Shell content (CaCO<sub>3</sub>) visibly constitutes <5 percent of the borrow sediments; statistical measures of shell content in the borrow sediments will be provided in a separate memorandum as soon as laboratory analysis is complete. The “native” shell percentage along the Arcadian Shores beach in January 2019 was <1 percent and has remained relatively constant year-to-year. The accompanying “Geotechnical Data Analyses” (CSE 2024) includes detailed comparisons between the native beach sediments and the proposed borrow sediments.

Specific monitoring during construction would include the following:

- 1) The Applicant (through there Agent) would have qualified personnel under the direction of a South Carolina-registered professional engineer and professional geologist monitoring sediment quality on the beach during construction and correlating it with the borrow area conditions.
- 2) During construction, samples of the beach fill would be obtained at ~100-ft intervals and compared to the native and borrow area samples. Samples along one shore-perpendicular transect would be combined into one physical composite and sent to the laboratory for grain-size analysis. Samples would be analyzed as soon as

possible but would not exceed five (5) days after collection. Sediment test results would be submitted monthly to USACE and SCDHEC–OCRM for review.

- 3) Additional sampling and frequent observation would be completed during the loading of the hopper dredge to check the quality of sand. The contractor would have observers monitoring sediment quality on board the dredge and at the beach discharge point and would immediately report any significant changes in the discharge to the on-site technical representative so that decisions to avoid certain portions of the borrow area can be accomplished in a timely manner.
- 4) Upon completion of construction, the Applicant (through its Agent) would resample the project area and obtain representative samples of the beach fill using the same stations as the pre-project samples. Results would be compared with pre-project beach samples and borrow area sediment test results. Data would be submitted to the USACE and SCDHEC–OCRM in a comprehensive final report.
- 5) Relocation of the dredge. The dredge would be relocated to other subareas 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 of the hopper bin or at the discharge pipe.
  - b. Evidence of high concentrations of non-shell gravel such as chunks of limestone, marl, or similar cemented sediments, which accumulate in the hopper bin based on visual observation on board the dredge and monitoring of the slurry at the beach discharge point.
  - c. Evidence of high concentrations of coarse shell material exceeding pebble-sized clasts (eg – oyster shells, quahogs, etc), which accumulate in the hopper bin based on visual observations on board the dredge and monitoring of the slurry at the beach discharge point.
- 6) Accumulations of mud rollers and coarse gravel material (ie – rock fragments, large shells). 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 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 would 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 would be raked into stockpiles above the high-tide mark and would be removed prior to completion of the project.
- 7) Beach compaction tilling –The Applicant would perform tilling of the fill berm upon project completion as specified in the contract documents. Tilling would be

accomplished to a depth of ~36 inches and would span the dry berm. The Applicant (through their Agent) would perform post-tilling compaction tests at ~500-ft intervals along the project area and would report the results to USACE and SCDHEC–OCRM following standard testing protocols.

The Applicant would establish and complete the following monitoring plan as part of the proposed project.

**Beach Surveys** – The Applicant would conduct topographic and bathymetric beach surveys before and after the project, and for a minimum of three years post project. Surveys would be conducted at profiles not to exceed 500 ft in spacing in the alongshore direction and would encompass the beach between a point landward of the stable dune and extend to depths of –25 ft NAVD, or a distance of ~2,500 ft from the shoreline, whichever is closer. Post construction surveys would compare beach volumes and contour positions to before-and-after project conditions to document beach volume changes and identify erosion hotspots. Annual reports would be submitted to USACE and SCDHEC–OCRM.

**Borrow Area Surveys** – The Applicant would conduct pre-project, post-project, and out-year bi-annual bathymetric surveys of the utilized dredge area. Surveys would encompass the boundaries of the dredge area and would include a minimum 400 ft buffer along the outside of the area. Surveys would be completed using track lines at a spacing not to exceed 100 ft. Out-year surveys would be completed in Years 1 and 3 following construction. Data would be used to determine infilling rates and topographical changes to the seafloor. Results would be included in annual monitoring reports in conjunction with the beach surveys.

**Sediment Monitoring** – **Beach** – Pre and post nourishment beach sediment samples would be taken at the same stations sampled before construction (see “Geotechnical Data Analyses”—CSE 2018). At each station, samples would be obtained using a push core at the toe of the dune, crest of the berm, mid beach face, and shallow underwater zone. Samples would be dried and tested for grain size distribution and shell content. Results would be included in a comprehensive project report.

**Artificial Illumination Monitoring** – **Beach** – Following project completion, a night-time survey would document artificial light sources along the project area. At each station, photographs would be obtained that note the type and location of any artificial light source shining towards the beach. Findings would be compiled into a memorandum-style report provided to relevant resource agencies for turtle nest monitoring efforts.

### **Proposed Compensatory Mitigation**

The applicant offered no compensatory mitigation for the proposed impacts.

### **South Carolina Department of Health and Environmental Control**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the certifying authority, South Carolina Department of Health and Environmental Control, in accordance with provisions of Section 401 of the Clean Water Act (CWA). The CWA Section 401 Certification Rule (Certification Rule, 40 CFR 121), effective September 11, 2020, requires certification, or waiver, for any license or permit that authorizes an activity that may result in a discharge. The scope of a CWA Section 401 Certification is limited to assuring that a discharge from a Federally licensed or permitted activity will comply with water quality requirements. The applicant is responsible for requesting certification and providing required information to the certifying authority. In accordance with Certification Rule part 121.12, the Corps will notify the U.S. Environmental Protection Agency Administrator when it has received a Department of the Army (DA) permit application and the related certification. The Administrator is responsible for determining if the discharge may affect water quality in a neighboring jurisdiction. The DA permit may not be issued pending the conclusion of the Administrator's determination of effects on neighboring jurisdictions.

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.

### **Essential Fish Habitat**

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 ~85 acres of intertidal beaches and ~290 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.

### **Endangered Species**

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the project and based on the location of the project and available information, the following species may be present in the County(s) where the work will occur: Northern Long-Eared Bat (*Myotis septentrionalis*), American Chaffseed (*Schwalbea*

*americana*), Canby's Dropwort (*Oxypolis canbyi*), Piping plover (*Charadrius melodus*), Red-cockaded woodpecker (*Picoides borealis*), Rufa red knot (*Calidris canutus rufa*), Pondberry (*Lindera melissifolia*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose sturgeon (*Acipenser brevirostrum*), Finback whale (*Balaenoptera physalus*), Humpback whale (*Megaptera novaeangliae*), North Atlantic Right Whale (*Eubalaena glacialis*), Sei whale (*Balaenoptera borealis*), Sperm whale (*Physeter macrocephalus*), West Indian manatee (*Trichechus manatus*), Green sea turtle (*Chelonia mydas*), Leatherback Sea Turtle (*Dermochelys coriacea*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Loggerhead sea turtle (*Caretta caretta*), Oceanic whitetip shark (*Carcharhinus longimanus*), and Giant Manta Ray (*Manta birostris*). .

Based on all information provided by the applicant and the most recently available information, the District Engineer has determined the following:

The project will have no effect on: Northern Long-Eared Bat (*Myotis septentrionalis*), American Chaffseed (*Schwalbea americana*), Canby's Dropwort (*Oxypolis canbyi*), Red-cockaded woodpecker (*Picoides borealis*), Pondberry (*Lindera melissifolia*), and will not result in the destruction or adverse modification of designated or proposed critical habitat.

The project is not likely to adversely affect Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose sturgeon (*Acipenser brevirostrum*), Finback whale (*Balaenoptera physalus*), Humpback whale (*Megaptera novaeangliae*), Sei whale (*Balaenoptera borealis*), Sperm whale (*Physeter macrocephalus*), Oceanic whitetip shark (*Carcharhinus longimanus*), and Giant Manta Ray (*Manta birostris*) or result in the destruction or adverse modification of designated or proposed critical habitat. 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 this determination.

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, based on the most recently available information, that the project may affect West Indian manatee (*Trichechus manatus*), Green sea turtle (*Chelonia mydas*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), Loggerhead sea turtle (*Caretta caretta*), Leatherback Sea Turtle (*Dermochelys coriacea*), Piping plover (*Charadrius melodus*), Rufa red knot (*Calidris canutus rufa*), and North Atlantic Right Whale (*Eubalaena glacialis*) and/or designated critical habitat of North Atlantic Right Whale (*Eubalaena glacialis*). A biological assessment (or other similar document) detailing our analysis of the potential effects of the action will be provided to the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service.

Consultation will be initiated with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) for any determinations made by the Corps, other than No Effect, and in the case of species under the purview of USFWS, where concurrence has not been obtained via the USFWS Information for Planning and



Consultation (IPaC) Tool (USFWS project code: 2024-0105298).

This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity.

### **Cultural Resources**

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)(/)(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.

### **Corps' Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed 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.

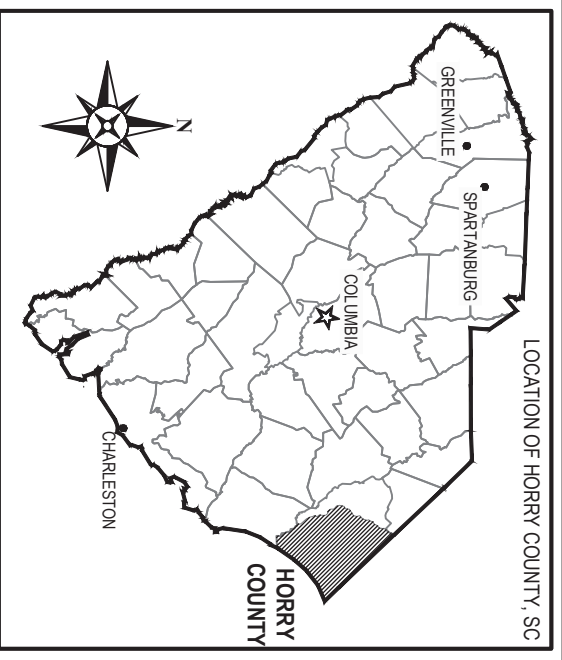
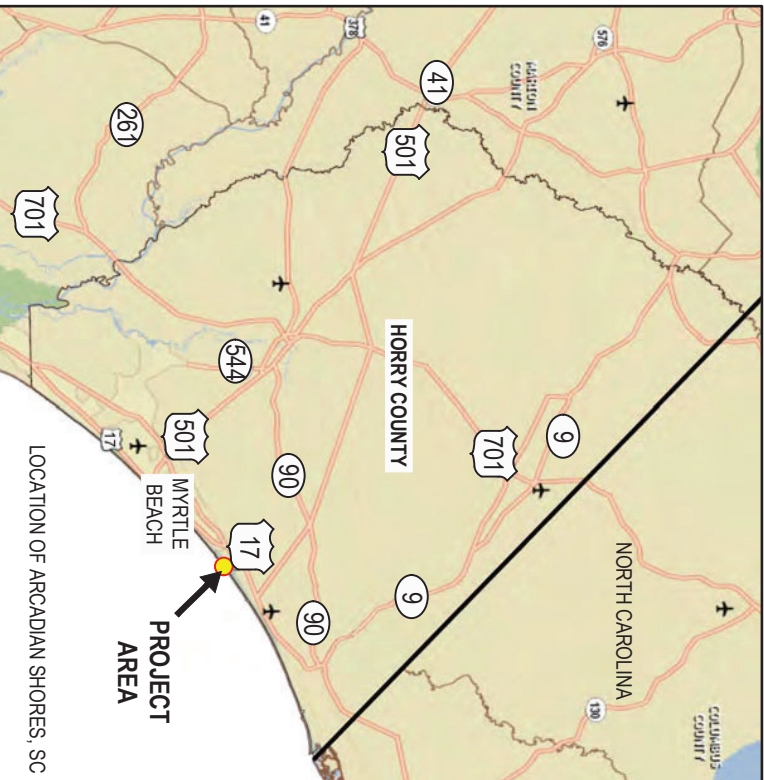
**Solicitation of Public Comment**

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. 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.

**Please submit comments in writing, identifying the project of interest by public notice/file number (SAC-2024-00726), to Robert.C.Huff@usace.army.mil or 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 Rob Huff, Team Lead, at (843) 365-4239, or by email at Robert.C.Huff@usace.army.mil.



**Directions:**  
Take U.S. Hwy 17 North from Charleston, S.C., through Myrtle Beach. Turn right onto Lake Arrowhead Road. Turn left on Kings Road, then turn right on Back Vale Drive. Back Vale Drive ends at the oceanfront 200 feet north of the Apache Campground Pier.



**Project Location**  
Latitude: 33°45'23.50" N  
Longitude: 78°47'35.40" W

SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 1 of 12  
Date: June 10, 2024

AGENT:  
Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

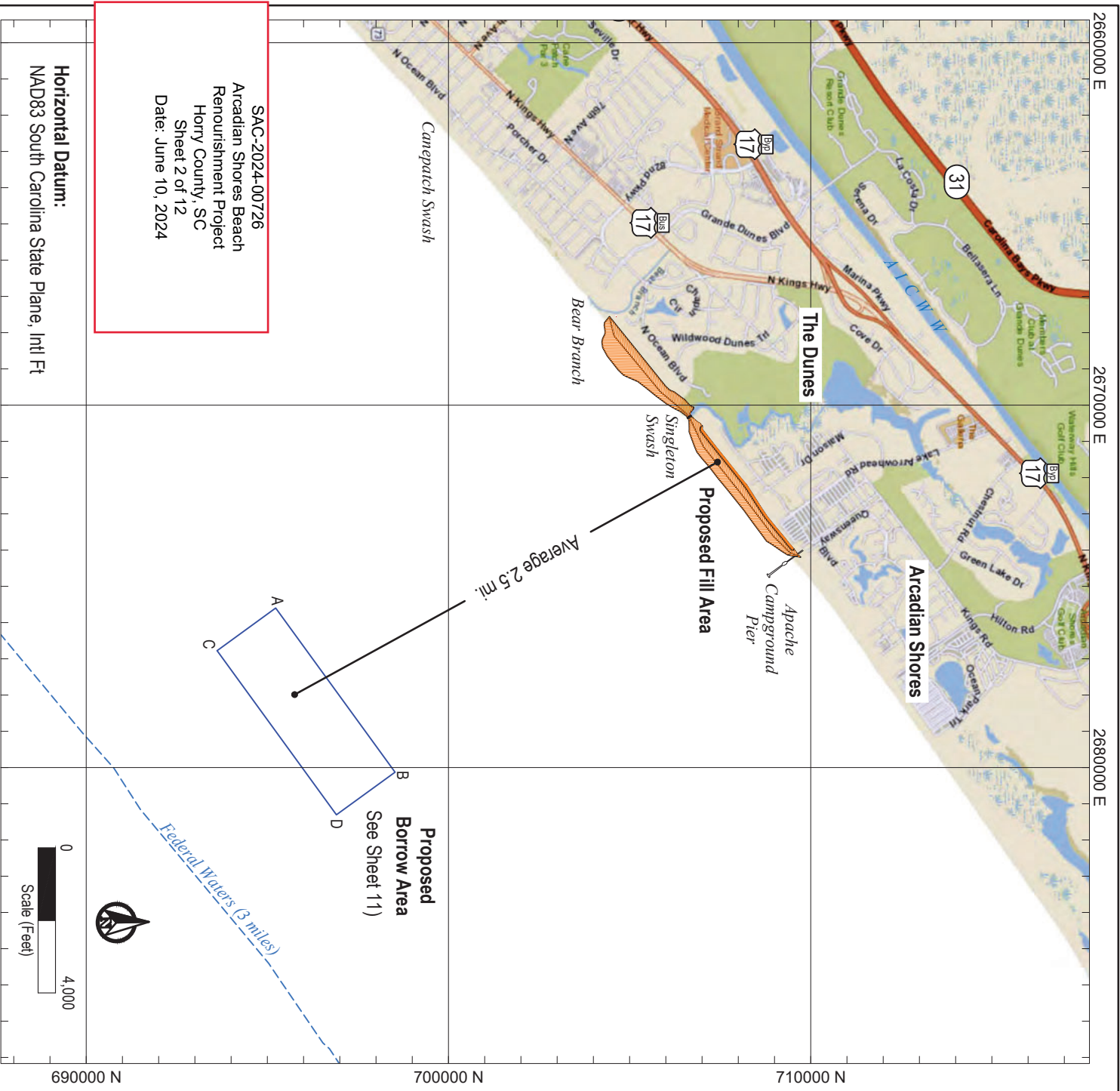
DRAWING TITLE:  
**BEACH RENOURISHMENT  
VICINITY MAP**

SCALE: AS SHOWN  
DATE: 10 June 2024  
TMS#  
PROJECT #: 2591

01



ARCADIAN SHORES  
BEACH RENOURISHMENT  
PROJECT



SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 2 of 12  
Date: June 10, 2024

**Horizontal Datum:**  
NAD83 South Carolina State Plane, Intl Ft

**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

**AGENT:**  
Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

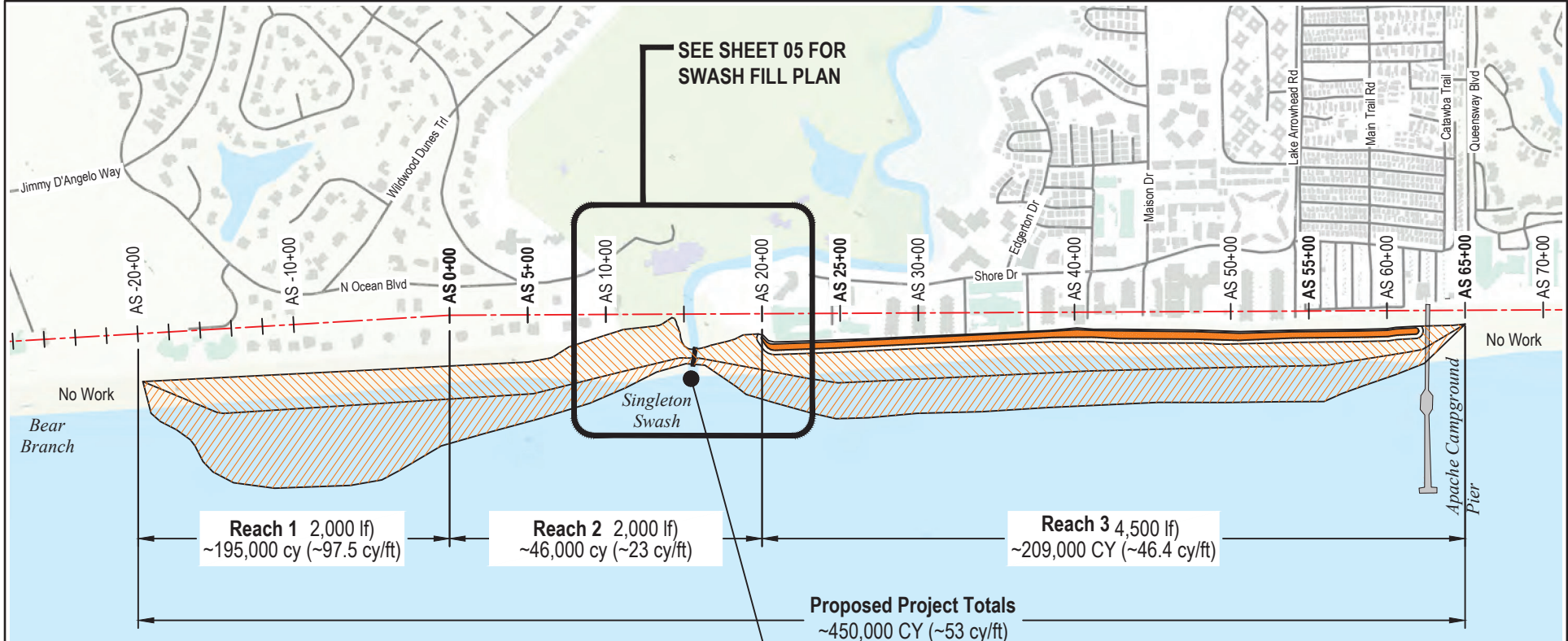
**DRAWING TITLE:**  
Overall Project Plan

SCALE:	AS SHOWN	SHEET #:
DATE:	10 June 2024	<b>02</b>
REVISION:		
PROJECT #:	2591	



ARCADIAN SHORES  
BEACH RENOURISHMENT  
PROJECT





**Note:**  
Sand fencing and vegetation may be installed according to DHEC-OCRM regulations along portions of reaches 1 and 2.

Final quantity and position of fencing will be determined in coordination with individual property owners.

**Note:** Singleton Swash to be excavated and allowed to flush using 3' diameter pipes positioned cross-shore between stations AS 15+00 and AS 16+00. The channel will then be temporarily filled to allow transport of sand via pipeline to the south end of the taper section. Upon completion of each reach and the taper sections the flushing pipes will be removed and the inlet pilot channel will be constructed between stations AS 15+00 and AS 16+00. The present channel discharges across the beach between stations AS 11+00 and AS 18+00.

**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 3 of 12  
Date: June 10, 2024

**DRAWING TITLE:**  
**BEACH RENOURISHMENT  
PROJECT FILL AREA**

SCALE:	AS SHOWN	SHEET #:	<b>03</b>
DATE:	10 June 2024		
REVISION:			
PROJECT #:	2591		





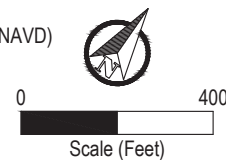
**Reach 1** 2,000 lf)  
Sta -20+00 to 0+00  
~195,000 cy (~97.5 cy/ft)

**Reach 2** 2,000 lf)  
Sta 0+00 to 20+00  
~46,000 cy (~23 cy/ft)

**Datum:**  
**Horizontal:** NAD83 South Carolina State Plane, Intl Foot  
**Verticle:** Feet NAVD  
**Data Source:** CSE via trimble RTK GPS 14 Feb 2024  
**Photo Source:** Esri World Imagery 2023

- OCRM Baseline
- OCRM Setback Line
- MHHW (+2.05 ft NAVD)
- MLLW (-2.97 ft NAVD)

- Proposed Dune (+14 ft NAVD)
- Proposed [Storm] Berm Fill (+8 to +6 ft NAVD)
- Proposed Slope Fill (Slope 1 on 20)



**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

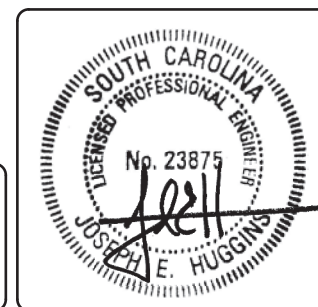
SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 4 of 12  
Date: June 10, 2024

**DRAWING TITLE:**  
**REACH 1 (City)**  
**Renourishment Fill**

SCALE: AS SHOWN  
DATE: 10 June 2024  
Revision: -  
PROJECT #: 2591

SHEET #:

**04**







**Reach 2** 2,000 lf)  
Sta 0+00 to 20+00  
~46,000 cy (~23 cy/ft)

**Reach 3** 4,500 lf)  
Sta 20+00 to 65+00  
~209,000 CY (~46.4 cy/ft)



**Datum:**  
**Horizontal:** NAD83 South Carolina State Plane, Intl Foot  
**Verticle:** Feet NAVD  
**Data Source:** CSE via trimble RTK GPS 14 Feb 2024  
**Photo Source:** Esri World Imagery 2023

- OCRM Baseline
- OCRM Setback Line
- MHHW (+2.05 ft NAVD)
- MLLW (-2.97 ft NAVD)

- Proposed Dune (+14 ft NAVD)
- Proposed [Storm] Berm Fill (+8 to +6 ft NAVD)
- Proposed Slope Fill (Slope 1 on 20)

**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 5 of 12  
Date: June 10, 2024

**DRAWING TITLE:**  
**REACH 2 (Swash)  
Renourishment Fill**

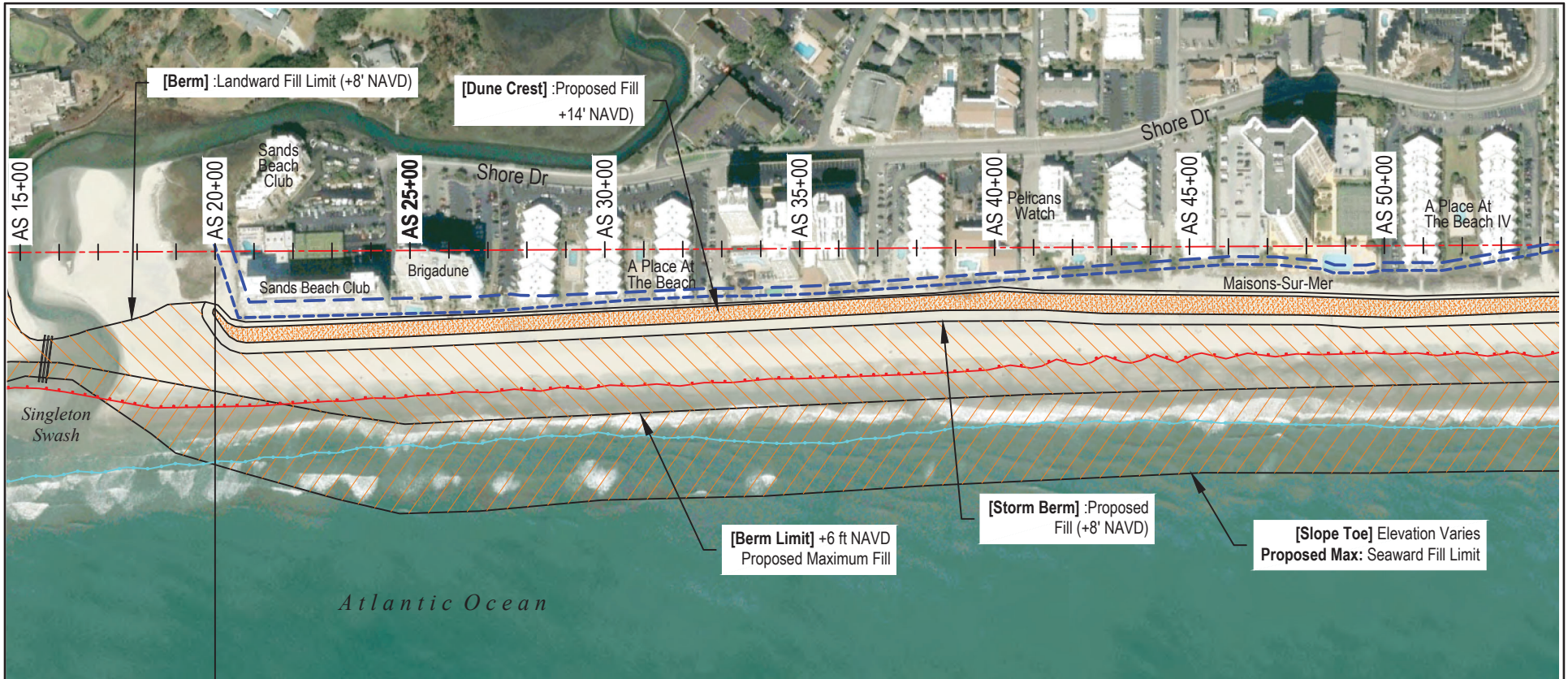
**SCALE:** AS SHOWN  
**DATE:** 10 June 2024  
**Revision:** -  
**PROJECT #:** 2591

**SHEET #:**

**05**



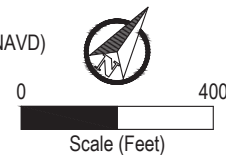




**Reach 3** 4,500 lf  
Sta 20+00 to 65+00  
~209,000 CY (~46.4 cy/ft)

**Datum:**  
**Horizontal:** NAD83 South Carolina State Plane, Intl Foot  
**Verticle:** Feet NAVD  
**Data Source:** CSE via trimble RTK GPS 14 Feb 2024  
**Photo Source:** Esri World Imagery 2023

- OCRM Baseline
- OCRM Setback Line
- MHHW (+2.05 ft NAVD)
- MLLW (-2.97 ft NAVD)
- Proposed Dune (+14 ft NAVD)
- Proposed [Storm] Berm Fill (+8 to +6 ft NAVD)
- Proposed Slope Fill (Slope 1 on 20)



**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

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Renourishment Project  
Horry County, SC  
Sheet 6 of 12  
Date: June 10, 2024

**DRAWING TITLE:**  
**REACH 3 (Dune)**  
**Renourishment Fill**

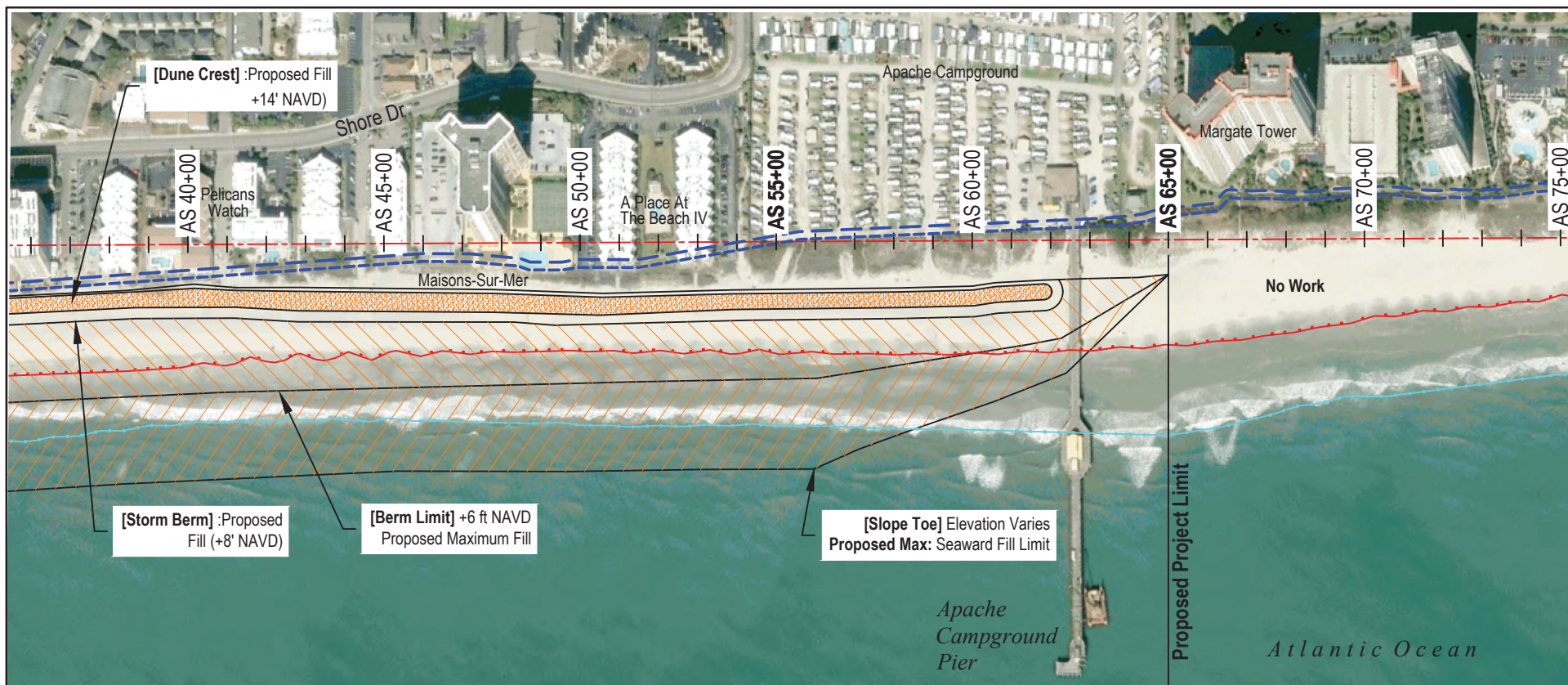
SCALE: AS SHOWN  
DATE: 10 June 2024  
Revision: -  
PROJECT #: 2591

SHEET #:

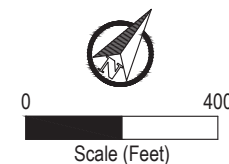
**06**







**Reach 3** 4,500 lf)  
Sta 20+00 to 65+00  
~209,000 CY (~46.4 cy/ft)



**Datum:**  
**Horizontal:** NAD83 South Carolina State Plane, Intl Foot  
**Vertice:** Feet NAVD  
**Data Source:** CSE via trimble RTK GPS 14 Feb 2024  
**Photo Source:** Esri World Imagery 2023

- OCRM Baseline
- OCRM Setback Line
- MHHW (+2.05 ft NAVD)
- MLLW (-2.97 ft NAVD)
- Proposed Dune (+14 ft NAVD)
- Proposed [Storm] Berm Fill (+8 to +6 ft NAVD)
- Proposed Slope Fill (Slope 1 on 20)

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Date: June 10, 2024

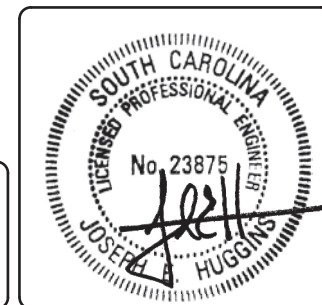
**AGENT:**  
Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

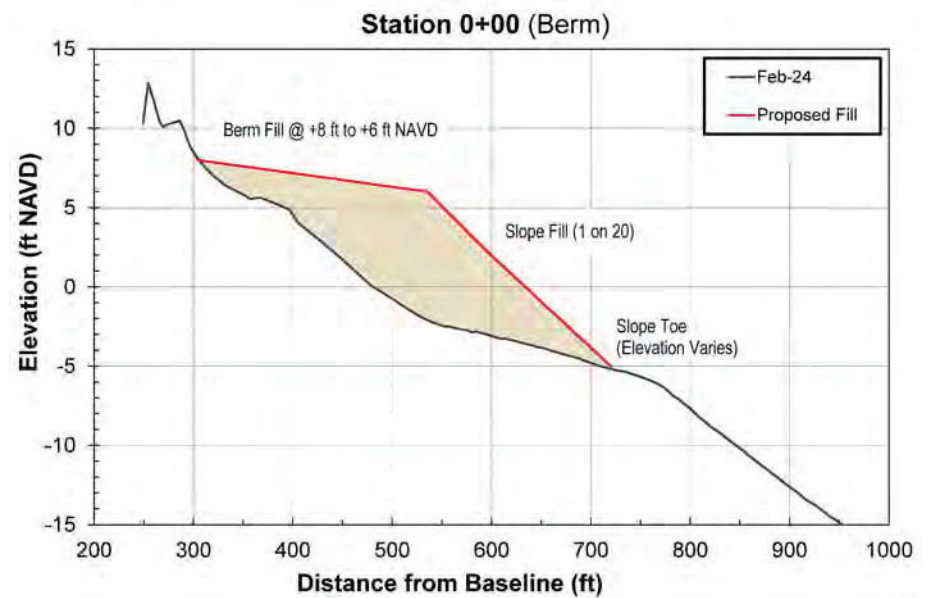
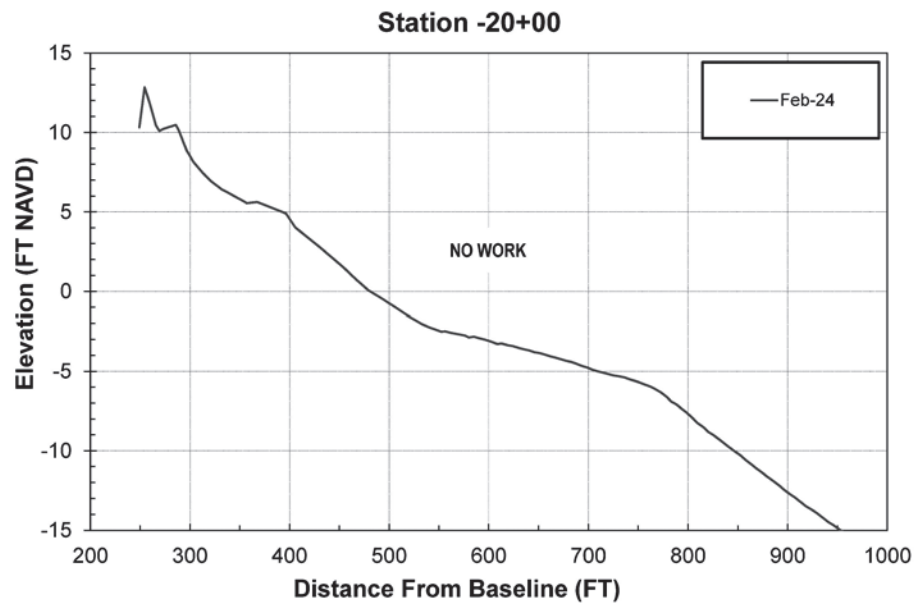
**DRAWING TITLE:**  
**REACH 3**  
**Renourishment Fill**

**SCALE:** AS SHOWN  
**DATE:** 10 June 2024  
**Revision:** -  
**PROJECT #:** 2591

**SHEET #:**

**07**





SAC-2024-00726  
 Arcadian Shores Beach  
 Renourishment Project  
 Horry County, SC  
 Sheet 8 of 12  
 Date: June 10, 2024

**APPLICANT:**  
 C/O ARCADIAN SHORES  
 HORRY COUNTY I & R DIVISION  
 4401 PRIVETTS RD CONWAY, SC 29526

**AGENT:**  
 Coastal Science & Engineering, Inc.  
 160 Gills Creek Parkway  
 Columbia, SC 29209

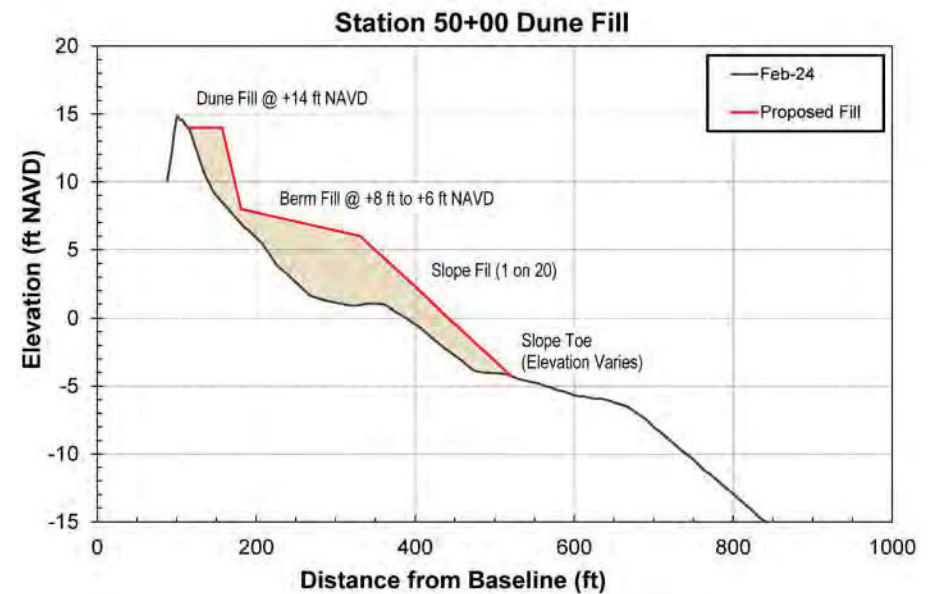
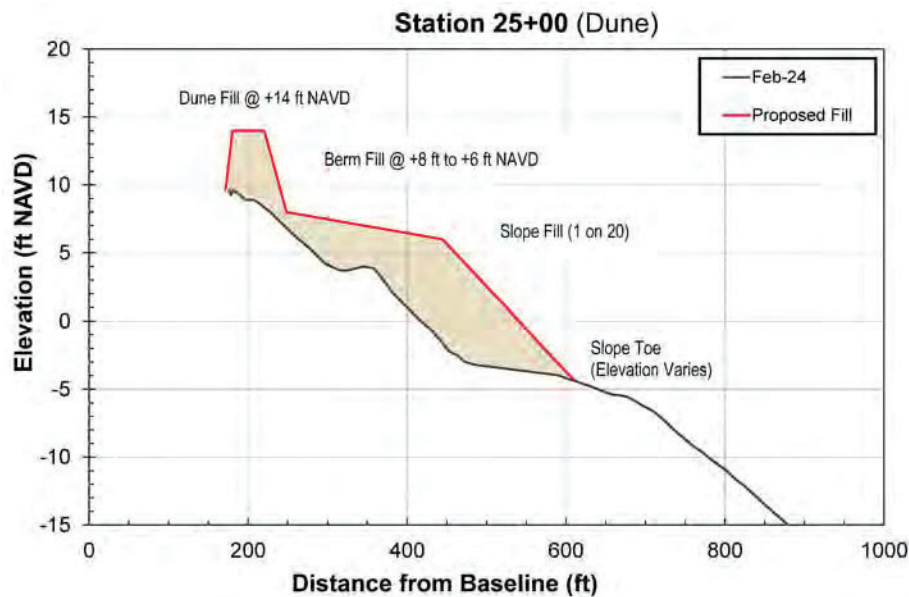
**DRAWING TITLE:**  
 Renourishment Fill Sections

SCALE: AS SHOWN  
 DATE: 10 June 2024  
 Revision: -  
 PROJECT #: 2591

SHEET #:

**08**





Typical dune crest width 20-40 ft may vary due to conditions at time of construction)  
Maximum crest width shown.

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Sheet 9 of 12  
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**APPLICANT:**

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HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

**AGENT:**

Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

**DRAWING TITLE:**

**Renourishment Fill Sections**

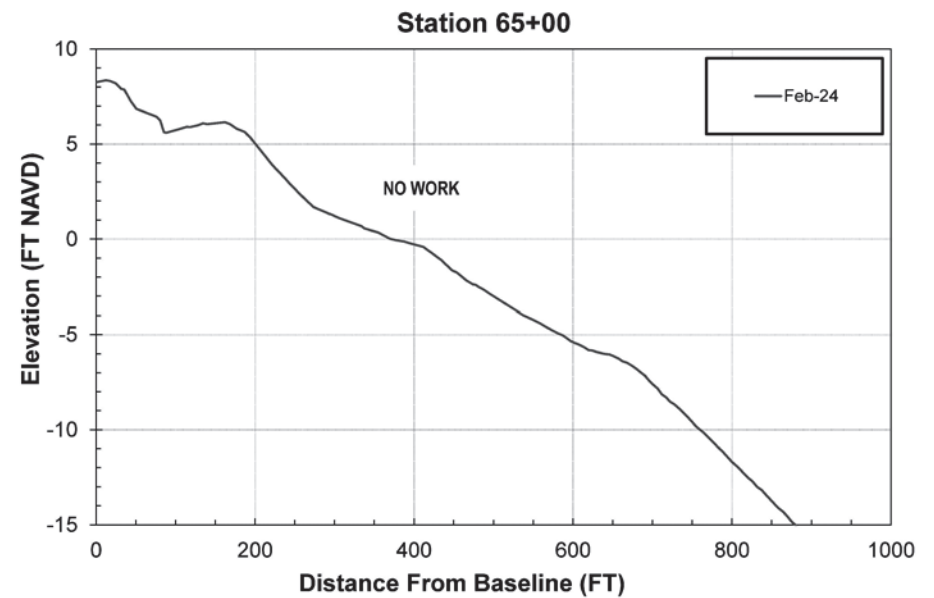
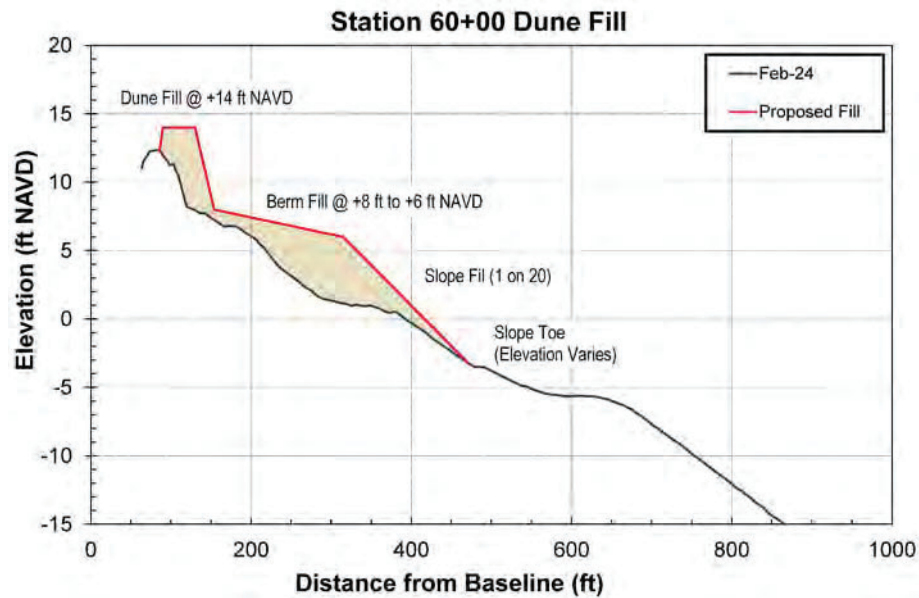
SCALE: AS SHOWN  
DATE: 10 June 2024  
Revision: -  
PROJECT #: 2591

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**09**







**Typical dune crest width 20-40 ft** may vary due to conditions at time of construction)  
Maximum crest width shown.

SAC-2024-00726  
Arcadian Shores Beach  
Renourishment Project  
Horry County, SC  
Sheet 10 of 12  
Date: June 10, 2024

**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

**AGENT:**  
Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

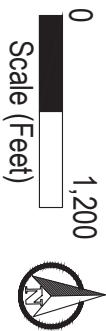
**DRAWING TITLE:**  
**Renourishment Fill Sections**

SCALE: AS SHOWN  
DATE: 10 June 2024  
Revision: -  
PROJECT #: 2591

SHEET #:

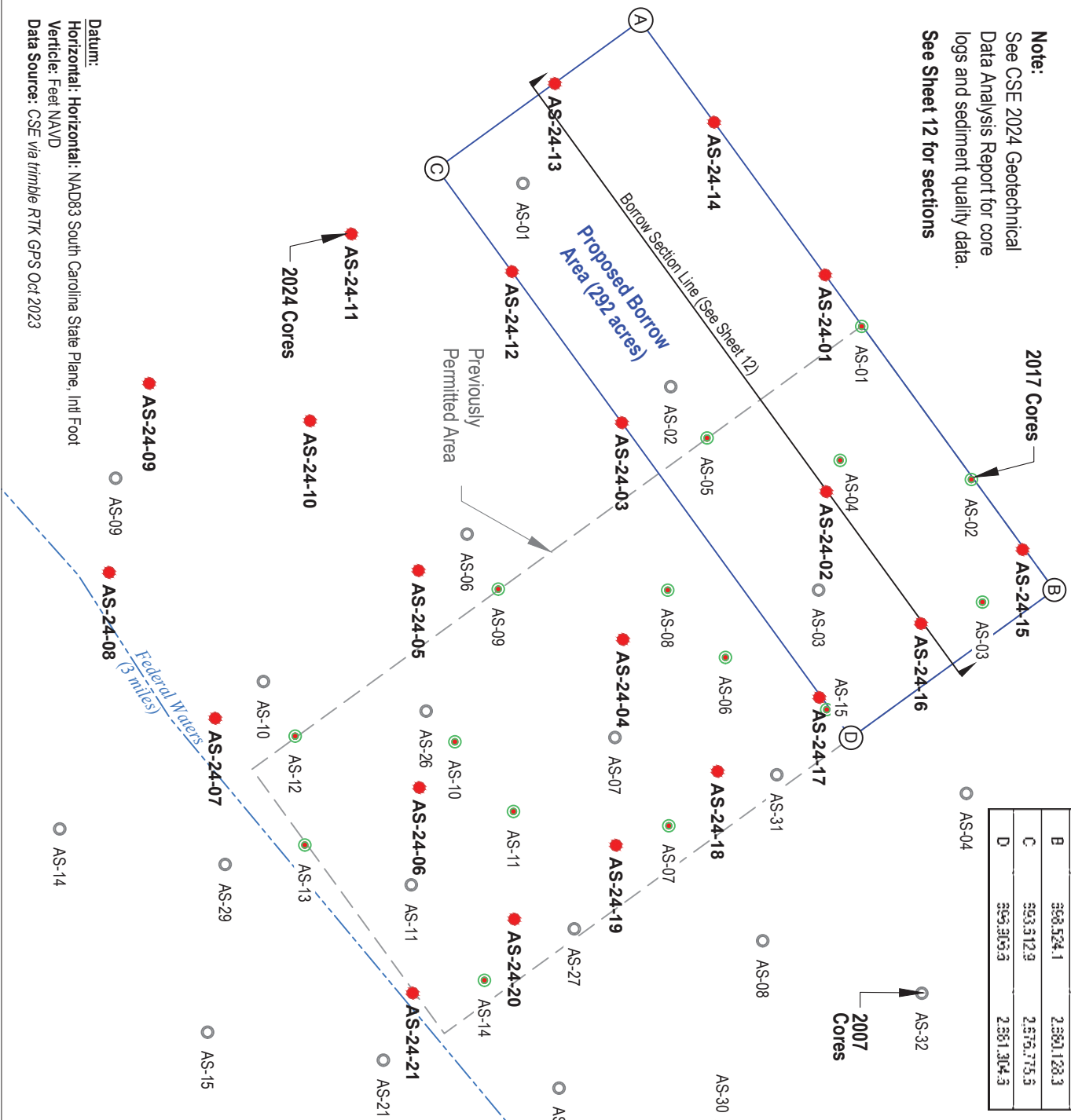
**10**





**Note:**  
See CSE 2024 Geotechnical  
Data Analysis Report for core  
logs and sediment quality data.  
**See Sheet 12 for sections**

Proposed Borrow Area Coordinates		
Name	Northing	Easting
A	395,234.0	2,375,554.0
B	398,524.1	2,380,128.3
C	393,312.9	2,375,775.5
D	395,305.5	2,381,304.5



**Datum:**  
**Horizontal:** NAD83 South Carolina State Plane, Intl Foot  
**Vertical:** Feet NAVD  
**Data Source:** CSE via Trimble RTK GPS Oct 2023

**APPLICANT:**  
C/O ARCADIAN SHORES  
HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

**AGENT:**  
Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

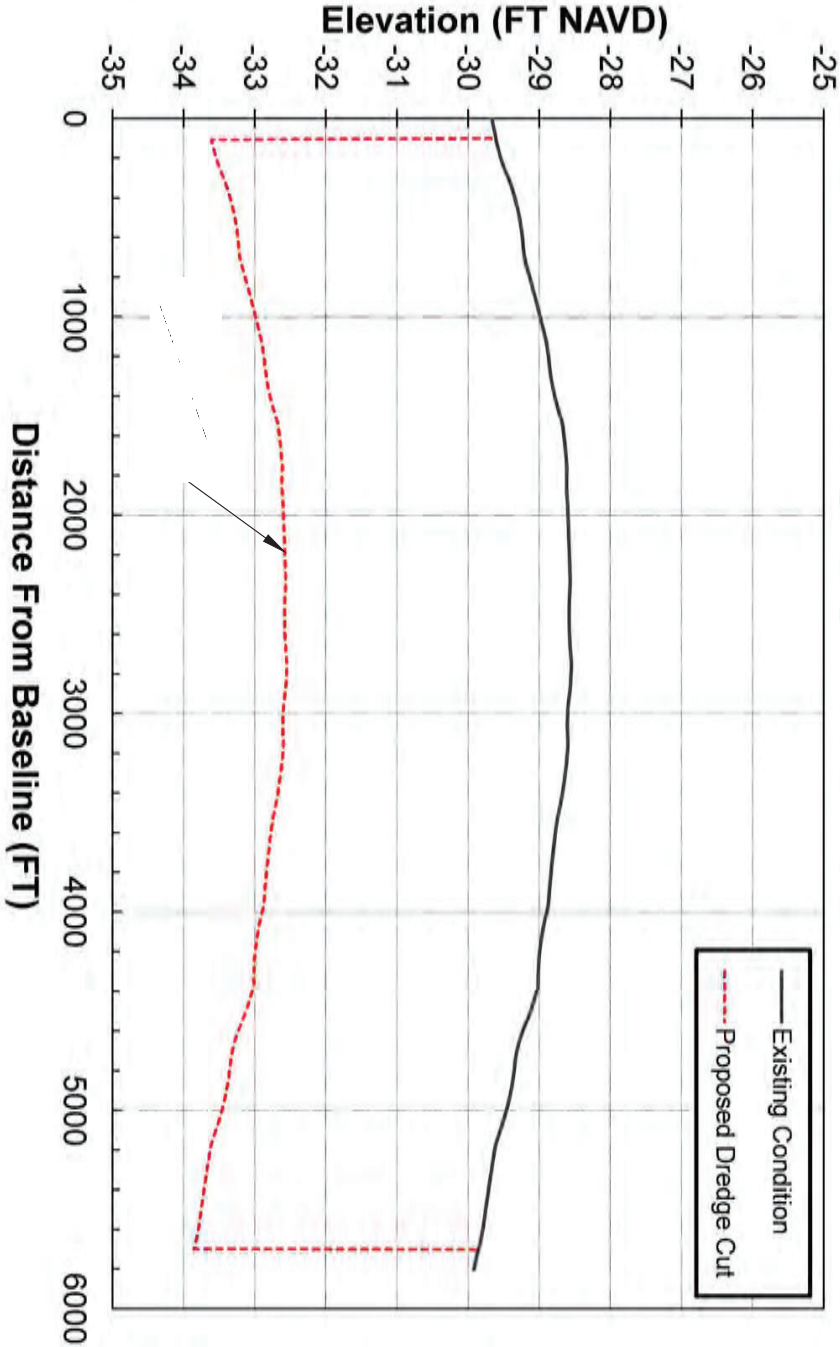
**DRAWING TITLE:**  
**Proposed Borrow Area**

**SCALE:** AS SHOWN  
**DATE:** 10 June 2024  
**Revision:**  
**PROJECT #:** 2591

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**SAC-2024-00726**  
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Renourishment Project  
Horry County, SC  
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Date: June 10, 2024

Proposed Borrow Area Profile



Datum:

Horizontal: NAD83 South Carolina State Plane, Intl Foot  
Vertice: Feet NAVD  
Data Source: U.S. Geological Survey 2007

Note:

Excavation limits indicated are the maximum cut depth after multiple passes.

See Sheet 11 for section location

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Sheet 12 of 12  
Date: June 10, 2024

APPLICANT:

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HORRY COUNTY I & R DIVISION  
4401 PRIVETTS RD CONWAY, SC 29526

DRAWING TITLE:

**Borrow Area Sections**  
Proposed Excavations

AGENT:

Coastal Science & Engineering, Inc.  
160 Gills Creek Parkway  
Columbia, SC 29209

SCALE:

AS SHOWN

SHEET #:

DATE:

10 June 2024

Revision:

-

PROJECT #:

2591

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ARCADIAN SHORES  
BEACH RENOURISHMENT  
PROJECT