



September 25, 2025

Josh Noble
Marsh and Shore Management Program Manager
Coastal Resources Division

RE: Revised Application for Issuance of a Shore Protection Act Permit – East Beach Water Impoundment Project, Glynn County, Georgia

Dear Mr. Noble,

On behalf of the applicant, Glynn County Engineering Services, we are submitting this package including an application for a Shore Protection Act (SPA) permit to authorize improvements to impounded open water areas associated with construction of the East Beach Water Impoundment Project (the Project) located near Massengale Park on East Beach, St. Simons Island, Georgia.

The information below details the project, its purpose and need, alternatives considered, location, and other information required for permit review and issuance. Please review the attached application, forms, plans, figures and supplemental information and contact me if you have any questions or need additional information.

Basic Project Details

The Project Area is located on East Beach, St. Simons Island, Glynn County, Georgia and consists of a portion of impoundment area, adjacent borrow site area and access corridor to the beach from Massengale Park. The Project Area is approximately 9.74 acres, and the center is located at 81.3795614°W, 31.1372264°N. Refer to Attachment A for a project location map, wetland and waters delineation map, and site photographs. Refer to Attachment C for the SPA jurisdictional line survey exhibit.

The purpose of the project is to improve and protect public safety. The need for the project is the risk to public safety from the current open water and limited, precarious crossing conditions. The need will be met by reducing public contact with open water areas to minimize drowning risk; alleviating safety concerns associated with public contact with potentially contaminated water; improving access for

emergency services vehicles in the Massengale Park Area; and to provide a safe, stable, and accessible connection to beach areas for all members of the public.

The proposed public and community project consists of restoration and filling of an area of East Beach that has developed a tidal pool complex over the past several years that is currently an impounded open water area. The project would fill part of the impounded area while avoiding wetland impacts. Native sand would be harvested onsite to provide clean fill material. Refer to Attachment B for Project Plans.

The project will minimize impacts to the sand sharing system by utilizing an approach of thin layer excavation of the borrow area on the lower beach. No sand will be removed from the sand sharing system. Sand will be added to part of the impounded area that is bordered by developing dunes. Filling of the open water in this area will accomplish the project goals and create additional dry beach that is likely to facilitate increased dune formation and continued establishment of beach vegetation and associated wildlife habitat.

Description of Alternatives Considered

Refer to Attachment B for Alternative schematic plans. Refer to the alternative descriptions and summary below. Refer to Attachment D – USACE Standard Permit Application for the full Alternatives Analysis.

Alternative 1

This alternative would fill the entire open water area with native sand from an onsite borrow area. Native sand would be harvested by shallow scraping of the beach throughout a 12.58-acre borrow area. To fill the 3.83-acre open water area, approximately 10,420 cubic yards of sand would be collected from the borrow area. Wetlands along the open water area would be avoided and protected with best management practices (BMPs). Newly formed dune areas would be impacted by sand harvesting. Alternative 1 would cost \$330,000 to \$525,000 and would be completed in approximately 60 to 90 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

Preferred Alternative 2

Alternative 2 would limit the fill to 2.07 acres of open water as shown on Attachment B– Alternative 2 Plan Sheet. Native sand would be harvested in a 4.87-acre borrow area that is outside of any dune formations or protected species habitats and above the mean high-water line. The borrow area would be excavated to a depth of 11 inches to provide approximately 8,940 cubic yards of sand to fill the impoundment area in front of Massengale Park and the dune breach area. This alternative would avoid impacts to 1.76 acres of open water, avoid impacts to any dunes and dune vegetation, and avoid all wetland impacts. Wetlands along the open water area would be avoided and protected with BMPs. In addition, the dune breach area will create dune habitat as well as improve storm resiliency for the area by creating a uniform dune elevation. Alternative 2 would cost \$300,000 to \$500,000 and would be completed in approximately 45 to

70 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

Alternative 3

Alternative 3 would span the existing open water with a permanent pile supported structure that would extend from Massengale Park to the lower beach area. This structure would consist of approximately 800-900 linear feet of vehicle-rated bridging and boardwalk (H-5 classification, weight rating of 10,000 lbs, 12 feet wide). Alternative 3 would require improvement of an access corridor from Massengale Park and would likely need to include pedestrian access from each side of the structure along the upper beach area. This alternative would impact open water areas with new piles (typically 10-14" treated timber or 8-12" coated steel pipe piles, spaced 6-10 ft on center). Alternative 3 would cost \$2,500,000 to \$3,500,000 and would be completed in approximately 80-120 days including time for mobilization, surveying, erecting silt fencing and BMPs, staging and laydown, construction, demobilization, and site cleanup.

No action Alternative

The No Action alternative is not viable or practicable as it does not satisfy the purpose and need for the project. Public safety will not be improved and protected by no action on the purpose and needs for the project.

Alternatives Summary

The No action Alternative is not practicable as it does not address the purpose and need of the project. Alternative 1 does address the purpose and need of the project; however, it is not the least impactful alternative due to the potential for impacts to protected habitats and it does not minimize impacts to regulated waters to the maximum extent practicable to accomplish project goals. Alternative 3 minimizes impacts to regulated waters; however, it does not meet the purpose and need of the project of public safety, would affect historic resources, and is not practicable due to cost. Based on this analysis, Preferred Alternative 2 is practicable, minimizes impacts to the sand sharing system, habitats, and waters and satisfies the purpose and will meet the needs of the project.

Landfill/Hazardous Waste Statement

Glynn County does not have any records of landfills or hazardous sites in the Project Area.

Public Interest Statement

Provide a statement demonstrating that **each** of the following public interests have been considered:

- 1. Whether or not unreasonably harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created**

The project will not harm and will have minimal effects on the sand sharing system. No sand will be removed from the sand sharing system. Sand will be excavated in a thin layer in the borrow area while avoiding all dune habitat impacts. All open water fill will be on the beach in the impoundment. No significant impacts to submerged lands are anticipated; any impacts in the borrow area would be minor and temporary. Creation of beach in the filled impoundment will potentially increase dune habitat and stability with increased areas for beach vegetation colonization. Access to the Project Area from Massengale Park will not impact dunes. All applicable BMPs will be used for project access and construction.

2. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of marine life, wildlife, or other resources

Impacts to marine life, wildlife, waters and wetlands have been minimized to the maximum extent practicable while designing and planning for the project goals of public safety and access. Preferred Alternative 2 preserves much of the existing impounded area and will not impact wetlands. Open water habitat will be left undisturbed that is adjacent to wetland areas and higher quality vegetated habitat areas to the northeast of the project area. The impoundment will be filled in front of Massengale Park to provide safe public access, emergency services access, and reduce public contact with impoundment water. This project will not unreasonably interfere with natural resources conservation and will provide natural beach areas that could increase available dune habitat.

3. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with access by and recreational use and enjoyment of public properties impacted by the project

The Project Area for this project is a highly used public beach. The impounded area is interfering with public enjoyment and recreational use by limiting stable and safe access to the beach. Granting of a permit for this project will facilitate increased public safety, enjoyment, and recreational use.

Glynn County appreciates your review of the enclosed information. Please review and contact me at (706) 614.4436 if you have any questions or need any additional information.

Best regards,



Stephen M. Bailey, PWS
Principal | Owner
Longleaf Consulting
www.longleafconsulting.com
706.614.4436

Enclosure(s)

Attachment A: Figures

- Figure 1 USGS 7.5 Minute Quadrangle Project Area Location Map
- Figure 2 Wetlands and Waters Delineation Map
- Figure 3 Resource Photos

Attachment B: Project Plans

- Alternative 1 Schematic Design Plans
- Alternative 2 Schematic Design Plans
- Project Design Plans
- Monitoring and Maintenance Plan

Attachment C: Shore Protection Act Application Form and JD Line Exhibit

- Shore Protection Act Permit Application Forms
- Shore Protection Act JD Line Survey Exhibit

Attachment D: USACE Standard Permit Application

Attachment A: Figures



Figure 1: USGS Project Location Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

Project Area



Figure 2: Wetlands and Waters Delineation Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

- | | |
|---|--|
|  Water Impoundment |  Project Area |
|  Wetlands |  Data Points |

Figure 3: Resource Photographs January 2025



Wetland 1



Wetlands 1 and 2 Soil



Wetlands 1 and 2



Wetland 3

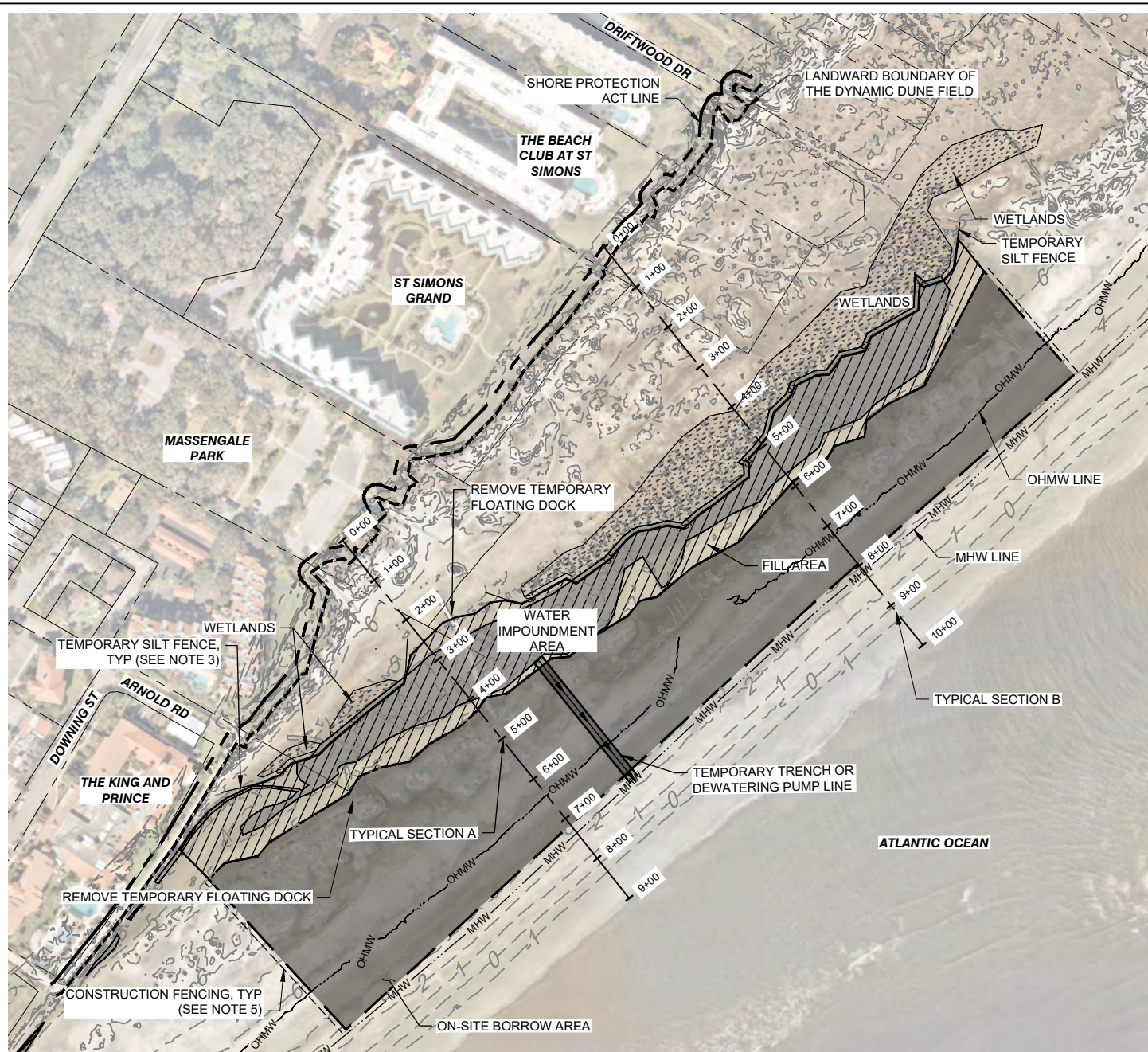


Wetland 3 Soil

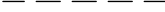
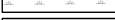


Water Impoundment 1

Attachment B: Project Plans

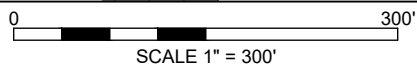


LEGEND

- | | |
|---|---|
|  | CONTOURS |
|  | MEAN HIGH WATER |
|  | LANDWARD BOUNDARY OF THE DYNAMIC DUNE FIELD |
|  | SPA LINE |
|  | ORDINARY HIGH WATER MARK |
|  | PARCEL LINES |
|  | SILT FENCE |
|  | CONSTRUCTION FENCE |
|  | DEWATERING PUMP LINE |
|  | WETLANDS |
|  | EXISTING WATER IMPOUNDMENT AREA |
|  | ON-SITE BORROW AREA |
|  | FILL AREA |

NOTES

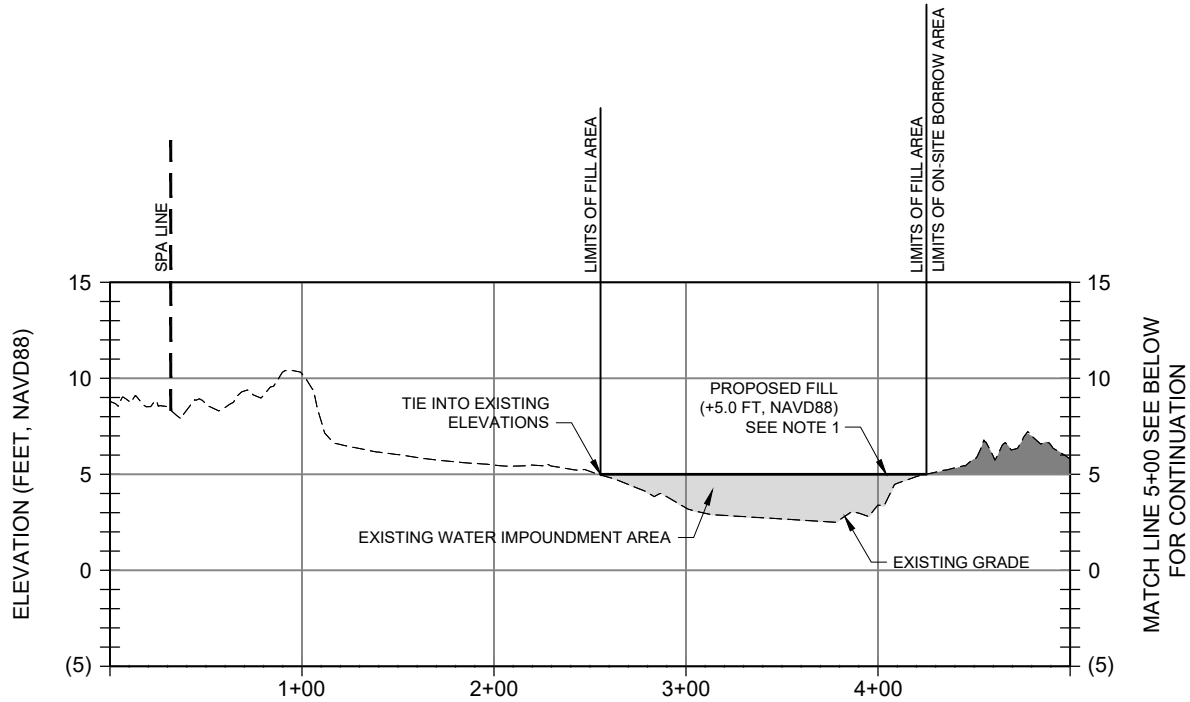
1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
6. SHORE PROTECTION ACT LINE IS 25 FT, AS MEASURED AT RIGHT ANGLES, FROM THE LANDWARD BOUNDARY OF THE DYNAMIC DUNE FIELD.



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MOFFATT NICHOL.COM



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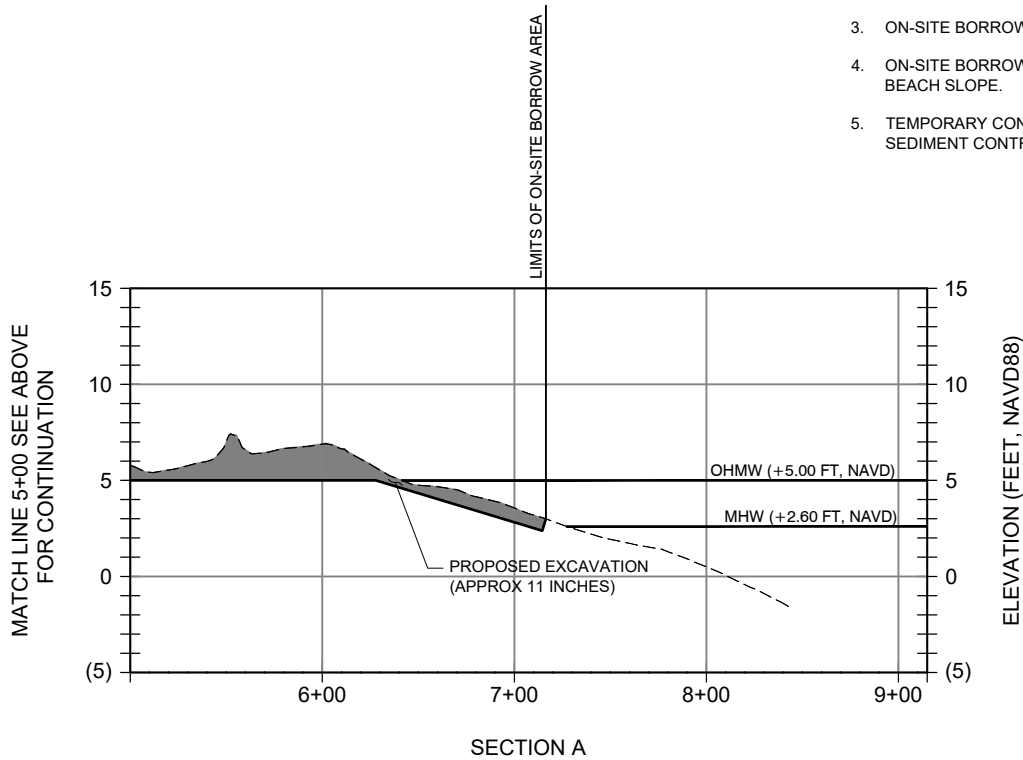
LEGEND

	EXISTING GRADE
	PROPOSED FILL
	ON-SITE-BORROW AREA
	FILL AREA

SECTION A

NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY.



SECTION A

0 10' 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'



moffatt & nichol

FIGURE 2 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

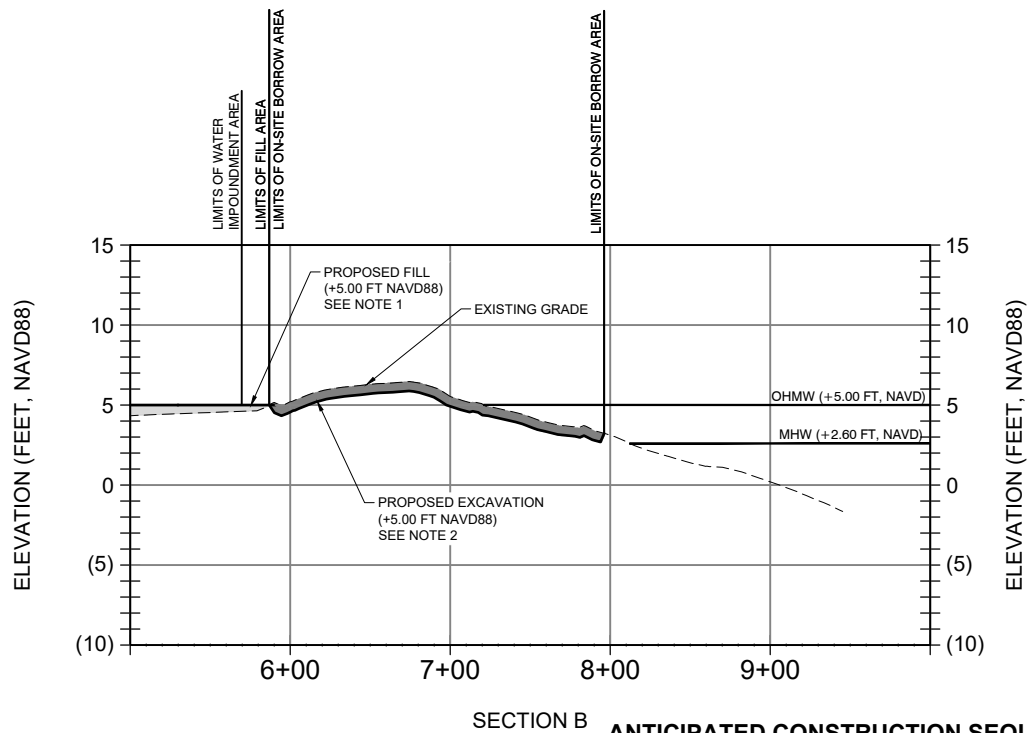
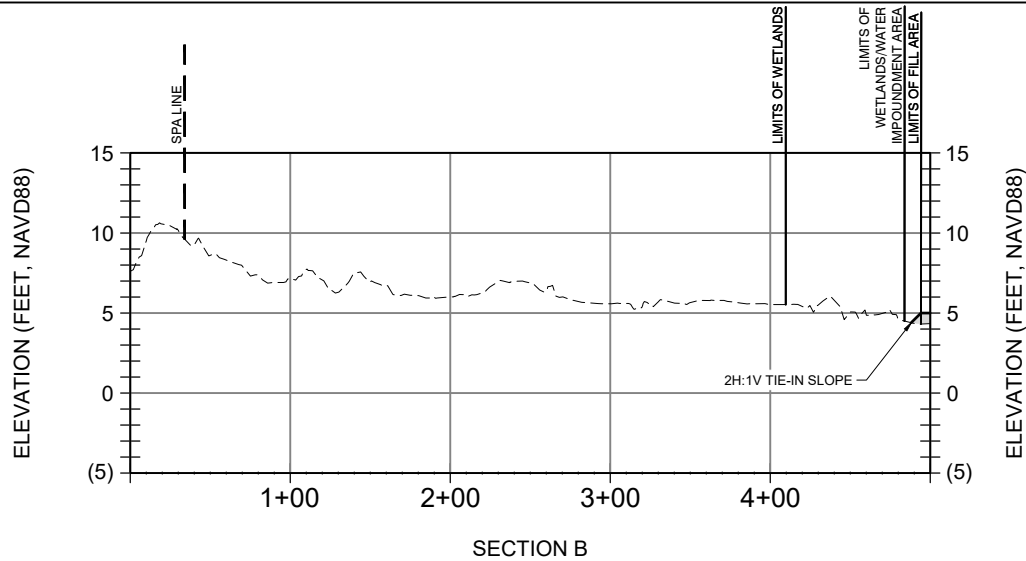
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025



INDEX 2 OF 8

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LEGEND

---	EXISTING GRADE
—	PROPOSED FILL
■	ON-SITE-BORROW AREA
■	FILL AREA

ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'

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FIGURE 3 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025



QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	18.67 Acres 813,316 SQ. FT.
Jurisdictional Footprint	18.67 Acres 813,316 SQ. FT.
Proposed Project Footprint within Jurisdiction	18.67 Acres 813,316 SQ. FT.
Open Water	3.83 Acres 166,560 SQ. FT.
Fill	5.38 Acres 234,325 SQ. FT.
Upper Beach Borrow	12.41 Acres 540,715 SQ. ST
Fill Volume	10,420 CU Yards

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MOFFATT NICHOL.COM



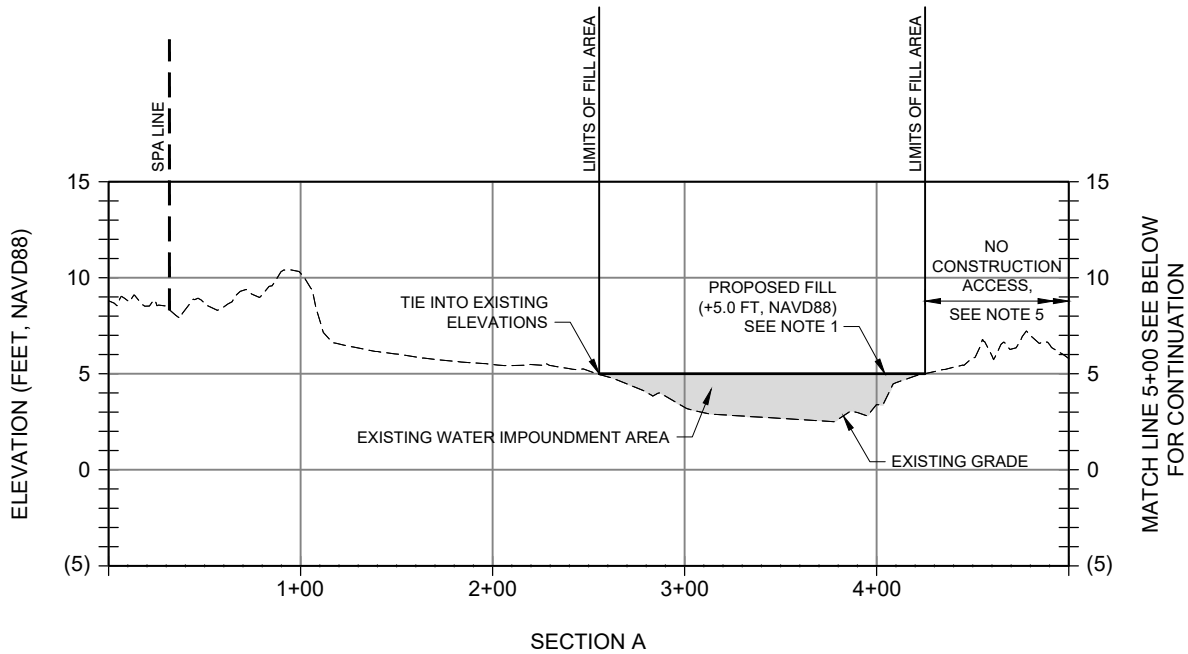
FIGURE 4 ALTERNATIVE 1 QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

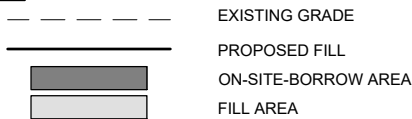
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025



INDEX 4 OF 8



LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY.

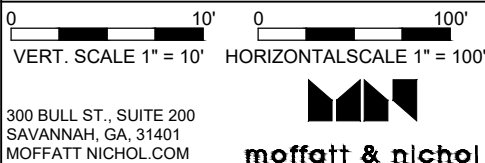
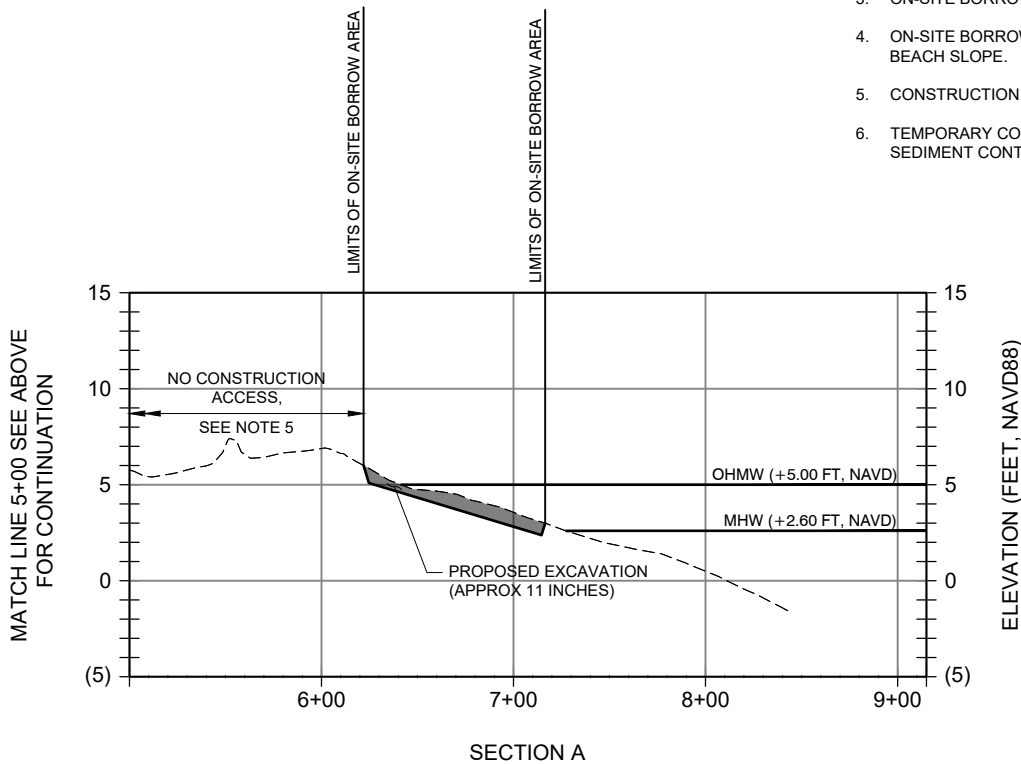
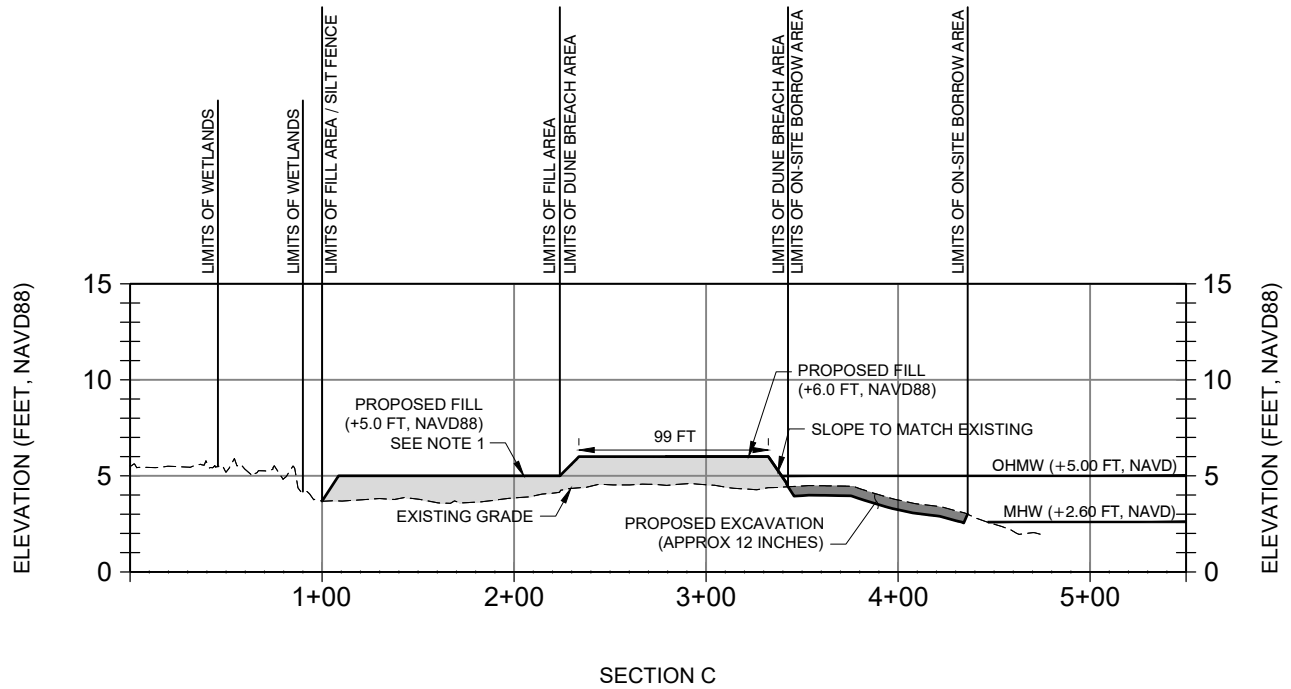
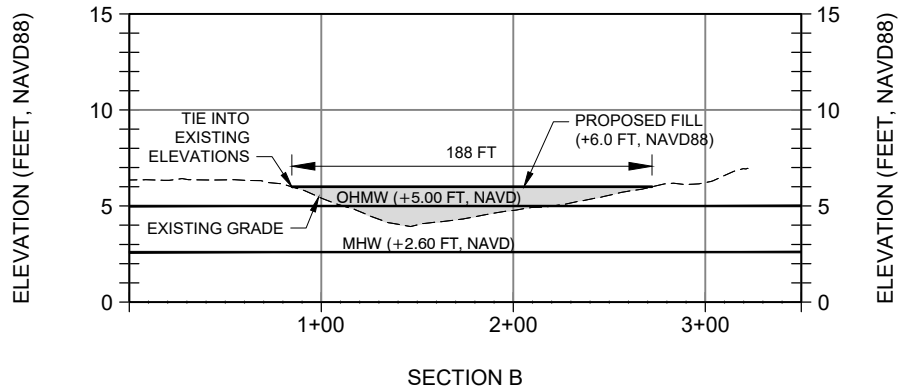


FIGURE 6 ALTERNATIVE 2 CROSS SECTIONS & DETAILS

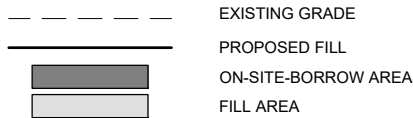
GLYNN COUNTY
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MOFFATT NICHOL
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LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'

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FIGURE 7 ALTERNATIVE 2 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

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MOFFATT NICHOL
PROJECT NUMBER: 240281-06
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INDEX 7 OF 8

QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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FIGURE 8 ALTERNATIVE 2 QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

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REVIEWED BY: CLC
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MOFFATT NICHOL
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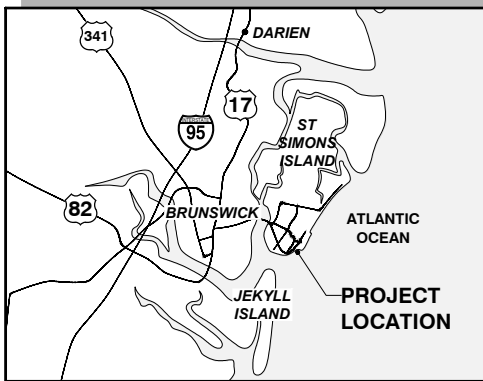
INDEX 8 OF 8

GLYNN COUNTY

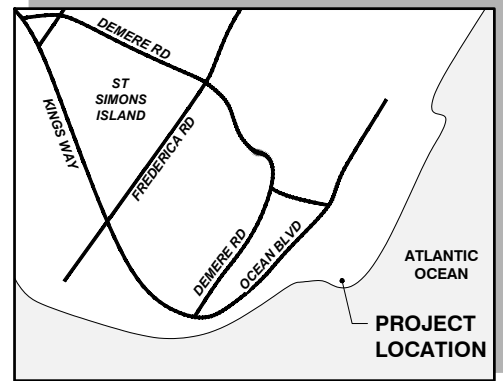
EAST BEACH WATER IMPOUNDMENT

ST. SIMONS ISLAND, GEORGIA

M&N JOB #: 240281-06



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: NTS

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	NOTES, ABBREVIATIONS & LEGENDS
G-003	NOTES, ABBREVIATIONS & LEGENDS
V-101	EXISTING CONDITIONS / CONSTRUCTION ACCESS
CS101	SCHEMATIC DESIGN PLAN
CS301	CROSS-SECTIONS & DETAILS
CS302	CROSS-SECTIONS & DETAILS
C-601	QUANTITIES

GOVERNING STANDARDS AND SPECIFICATIONS:
DESIGN STANDARDS AND APPLICABLE CODES USE
GA DNR, GEORGIA CODE, OCCUPATIONAL SAFETY
AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.



COVER SHEET

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. G-001



INDEX 1 OF 8

300 BULL ST., SUITE 200
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GENERAL NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES & AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO OWNER, LOCAL, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. ANY DISCREPANCY MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & ENGINEER OF RECORD.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT SITE & TO DETERMINE TOPOGRAPHIC OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN HIS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE OWNER IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN HIS BID PRICE.
3. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, & UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING UTILITIES NOT SPECIFIED FOR REMOVAL WHICH ARE DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF/HERSELF WITH CURRENT SITE CONDITIONS & SHALL REPORT ANY DISCREPANCIES TO THE OWNER & EOR PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL KEEP THE SITE REASONABLY FREE FROM DEBRIS, TRASH, & CONSTRUCTION WASTE. BUILDING MATERIAL AND/OR CONSTRUCTION DEBRIS STORED ADJACENT TO OR UPON THE ROADWAY SHALL BE ADEQUATELY MARKED AT ALL TIMES FOR PEDESTRIAN & TRAFFIC SAFETY.
6. CONTRACTOR SHALL CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
7. CONTRACTOR TO ADHERE TO APPLICABLE NOISE ORDINANCES THAT PROHIBIT ANY PLAIN AUDIBLE SOUND IN CONNECTION WITH CONSTRUCTION ACTIVITIES OUTSIDE OF PERMITTED HOURS.
8. ALL ENVIRONMENTAL REGULATORY PERMITS MUST BE OBTAINED. CONTRACTOR IS REQUIRED TO OBTAIN ALL OTHER NECESSARY PERMITS AND/OR APPROVALS PRIOR TO THE START OF CONSTRUCTION. COST OF ALL OTHER NECESSARY PERMITS IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL LANDSCAPED/OPEN AREAS, SIDEWALKS, PAVEMENTS & OTHER IMPROVEMENTS IMPACTED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
10. THE TRAFFIC CONTROL PLAN FOR THE PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN TRAFFIC CONTROL PLAN & MUST HAVE SAID PLAN APPROVED BY THE OWNER AND CITY PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE OWNER FOR TRAFFIC CONTROL COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. TRAFFIC CONTROL PLAN SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM EMERGENCY SERVICES WITHIN THE VICINITY OF THE PROJECT LIMITS ABOUT THE CONSTRUCTION SCHEDULE.
11. SURVEY MONUMENTS WITHIN THE LIMITS OF THE PROJECT ARE TO BE PROTECTED.
12. NO DEVIATIONS FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT THE OWNER AND GA DNR.
13. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL THE NECESSARY DOCUMENTS ARE RECEIVED BY THE OWNER.
14. ALL DEFECTIVE WORK NOT ACCEPTED BY THE OWNER, EOR OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
15. ALL EXISTING GRASSED OR LANDSCAPED AREAS, ALL DECORATIVE FEATURES (INCLUDING PAVERS) AND PAVED GROUND CONDITIONS DAMAGED AS RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED COMPLETELY AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
16. DAMAGED ITEMS SHALL BE RESTORED TO THEIR ORIGINAL DESIGN AND FUNCTION AT THE CONTRACTOR'S EXPENSE.
17. A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE TO VERIFY DETAILS AND METHODS OF CONSTRUCTION.
18. THESE PLANS ARE INCOMPLETE WITHOUT THE TECHNICAL SPECIFICATIONS.
19. CONTRACTOR SHALL NOT BLOCK OR OBSTRUCT PUBLIC BEACH ACCESS PARKING WITHOUT WRITTEN APPROVAL FROM THE OWNER.
20. CONTRACTOR WILL COORDINATE DAILY WITH THE OWNER'S ENVIRONMENTAL MONITOR AND WILL FOLLOW ALL REQUIRED ENVIRONMENTAL PERMIT CONDITIONS AND MANAGEMENT PRACTICES.
21. CONTRACTOR SHALL DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES (BMPs) IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
22. CONTRACTOR SHALL AVOID IMPACTS TO EXISTING DUNES AND DUNE HABITAT. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY DUNE HABITAT LOCATIONS AND ERECT AND MAINTAIN CONSTRUCTION FENCING OR SIMILAR TO PREVENT IMPACTS.

SURVEY NOTES

1. THE ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). THE CONVERSION BETWEEN NATIONAL GEODETIC VERTICAL DATUM (NGVD 29) AND THE NAVD 88 FOR THE PROJECT SITE IS APPROXIMATELY 0.97 FEET (EXAMPLE: 0.0 FEET NGVD = -0.97 FEET NAVD).
2. WETLAND SURVEY DATA PERFORMED BY LONGLEAF ENVIRONMENTAL CONSULTING DATED FEBRUARY 2025.
3. TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA PERFORMED BY ARC SURVEYING & MAPPING DATED FEBRUARY 2025.

NOTES, ABBREVIATIONS & LEGENDS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. G-002



INDEX 2 OF 8

300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



4. THE FOLLOWING TIDAL DATUM RELATIONSHIP IS BASED ON NOAA TIDE STATION 8677344 - ST. SIMONS, GA.
TIDAL DATA

MEAN HIGHER HIGH WATER (MHHW)	2.97' NAVD
MEAN HIGH WATER (MHW)	2.60' NAVD
NORTH AMERICAN VERTICAL DATUM	0.00' NAVD
MEAN LOW WATER (MLW)	-4.02' NAVD
MEAN LOWER LOW WATER (MLLW)	-4.23' NAVD

5. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, GEORGIA EAST ZONE, IN FEET.

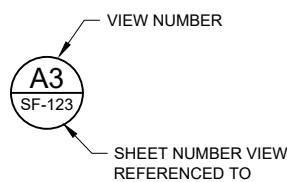
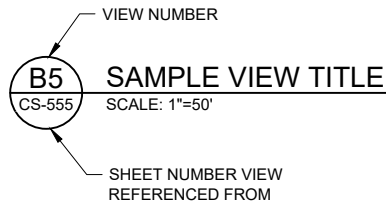
6. PARCELS BOUNDARIES BASED GIS FILES RECEIVED FROM GLYNN COUNTY GEOGRAPHIC INFORMATION SYSTEM DEPARTMENT.

AERIAL IMAGERY

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.

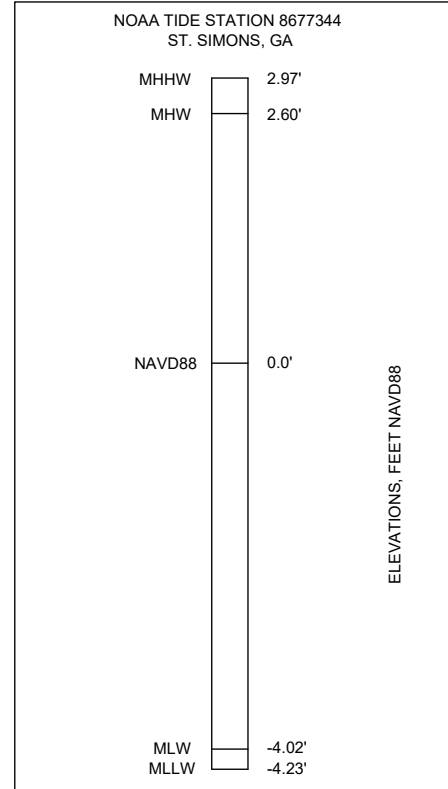
BEACH FILL NOTES

- FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
- PLACE FILL TO THE GRADES SHOWN.
- THE VERTICAL TOLERANCE FOR EACH FILL TEMPLATE IS ± 0.25 FEET.
- THE INTENT OF THE PROJECT IS TO PLACE THE REQUIRED VOLUME OF BEACH FILL WITHIN THE DESIGN TEMPLATE IN ACCORDANCE WITH ALL REQUIREMENTS.



VIEW TITLE

DETAIL CALLOUT

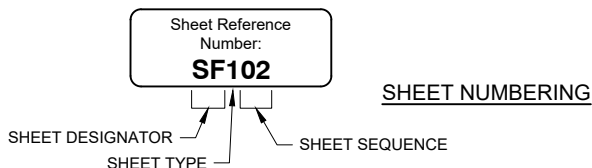


DISCIPLINE DESIGNATORS	
DISCIPLINE	DESIGNATOR
GENERAL	G
SURVEY/MAPPING	V
CIVIL	C

SECONDARY DESIGNATORS	
SITE	S

REVISION NUMBERING	
A00, A01...	PRE-BID SUBMITTALS
B00, B01...	BID SUBMITTALS
000, 001...	CONSTRUCTION SUBMITTALS

SHEET TYPE DESIGNATORS	
0	GENERAL (COVER SHEET, LEGEND, NOTES)
1	PLANS (HORIZONTAL VIEWS)
3	SECTIONS (OVERALL VIEWS)
5	DETAILS (MAY BE PLAN, SECT. OR ELEV. VIEWS)
6	SCHEDULES / TABLES



ABBREVIATIONS

CRD	COASTAL RESOURCE DIVISION
CY	CUBIC YARD
EOR	ENGINEER OF RECORD
FT(')	FEET
GA DNR	GEORGIA DEPARTMENT OF NATURAL RESOURCES
HORZ	HORIZONTAL
HTL	HIGH TIDE LINE
IN(")	INCHES
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
N	NORTH
NAD	NORTH AMERICAN DATUM OF 1983
NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NTS	NOT TO SCALE
OHWM	ORDINARY HIGH WATER MARK
OLWM	ORDINARY LOW WATER MARK
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
SPA	SHORE PROTECTION ACT
TYP	TYPICAL
USACE	US ARMY CORPS OF ENGINEERS
VERT	VERTICAL

**NOTES, ABBREVIATIONS
& LEGENDS**

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. G-003

INDEX 3 OF 8

300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
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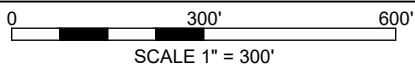


LEGEND

	CONTOURS
	MEAN HIGH WATER
	LANDWARD BOUNDARY OF DYNAMIC DUNE FIELD
	SPA LINE
	PARCEL LINES
	WETLANDS
	EXISTING WATER IMPOUNDMENT AREA
	CONSTRUCTION CORRIDOR
	ORDINARY HIGH WATER MARK
	ORDINARY LOW WATER MARK

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. WETLANDS WERE DELINEATED IN THE IMMEDIATE PROJECT VICINITY BY LONGLEAF ENVIRONMENTAL CONSULTING. ADDITIONAL WETLANDS ARE ANTICIPATED TO OCCUR BEYOND THE EXTENTS SHOWN.
3. ALL EQUIPMENT AND IMPORTED FILL TO ACCESS THE SITE THROUGH MASSENGALE PARK. EXACT LOCATION TO BE DETERMINED BY THE OWNER.
4. SHORE PROTECTION ACT LINE IS 25 FT, AS MEASURED AT RIGHT ANGLES, FROM THE LANDWARD BOUNDARY OF THE DYNAMIC DUNE FIELD



300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
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EXISTING CONDITIONS / CONSTRUCTION ACCESS

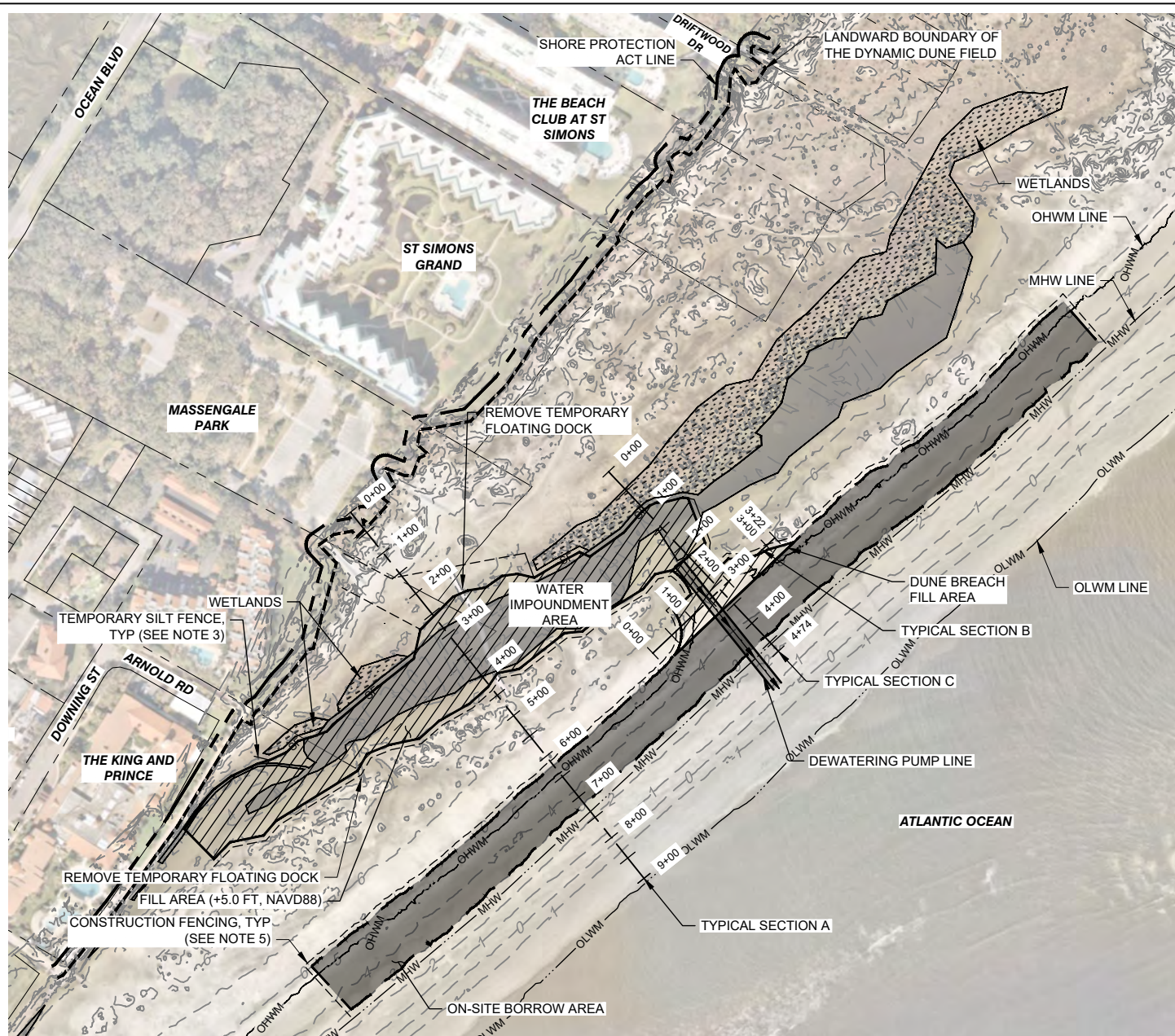
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. V-101



INDEX 4 OF 8

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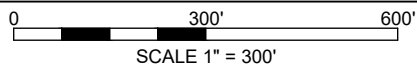


LEGEND

2	CONTOURS
MHW	MEAN HIGH WATER
---	LANDWARD BOUNDARY OF THE DYNAMIC FIELD
---	SPA LINE
---	PARCEL LINES
SF	SILT FENCE
---	CONSTRUCTION FENCE
→	DEWATERING PUMP LINE
WETLANDS	WETLANDS
EXISTING WATER IMPOUNDMENT AREA	EXISTING WATER IMPOUNDMENT AREA
ON-SITE BORROW AREA	ON-SITE BORROW AREA
FILL AREA	FILL AREA
OHWM	ORDINARY HIGH WATER MARK
OLWM	ORDINARY LOW WATER MARK

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.



SCHEMATIC DESIGN PLAN

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

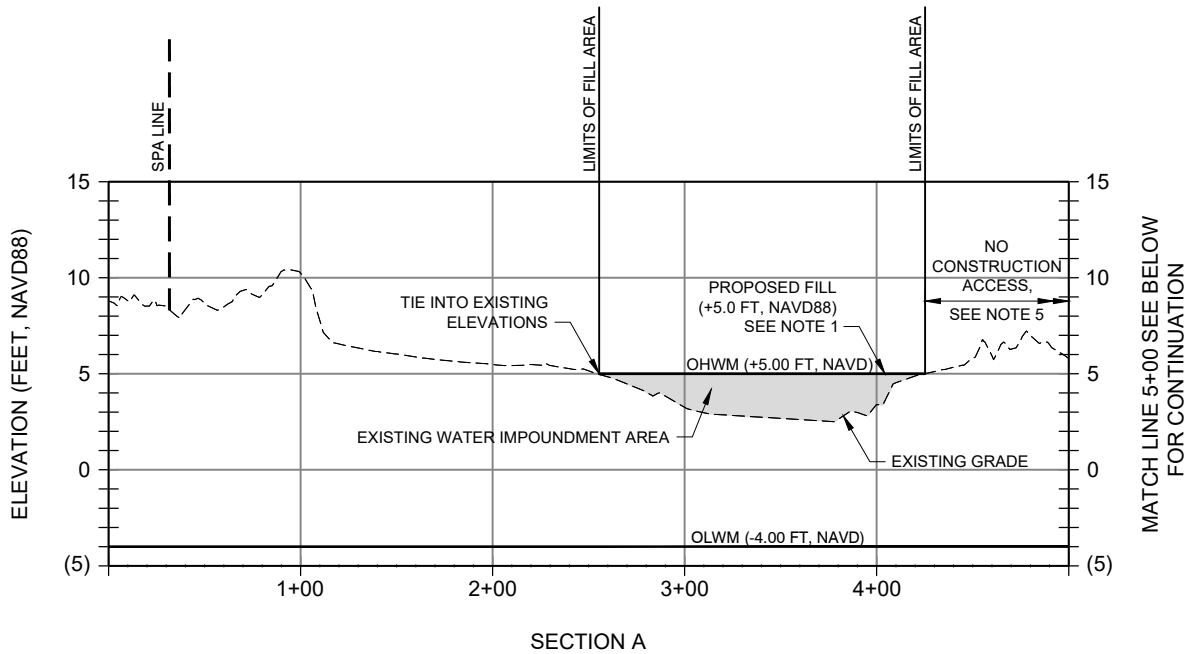
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. CS101



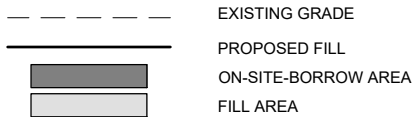
INDEX 5 OF 8

300 BULL ST., SUITE 200
SAVANNAH, GA. 31401
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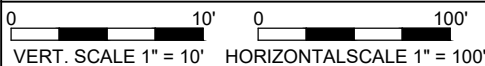
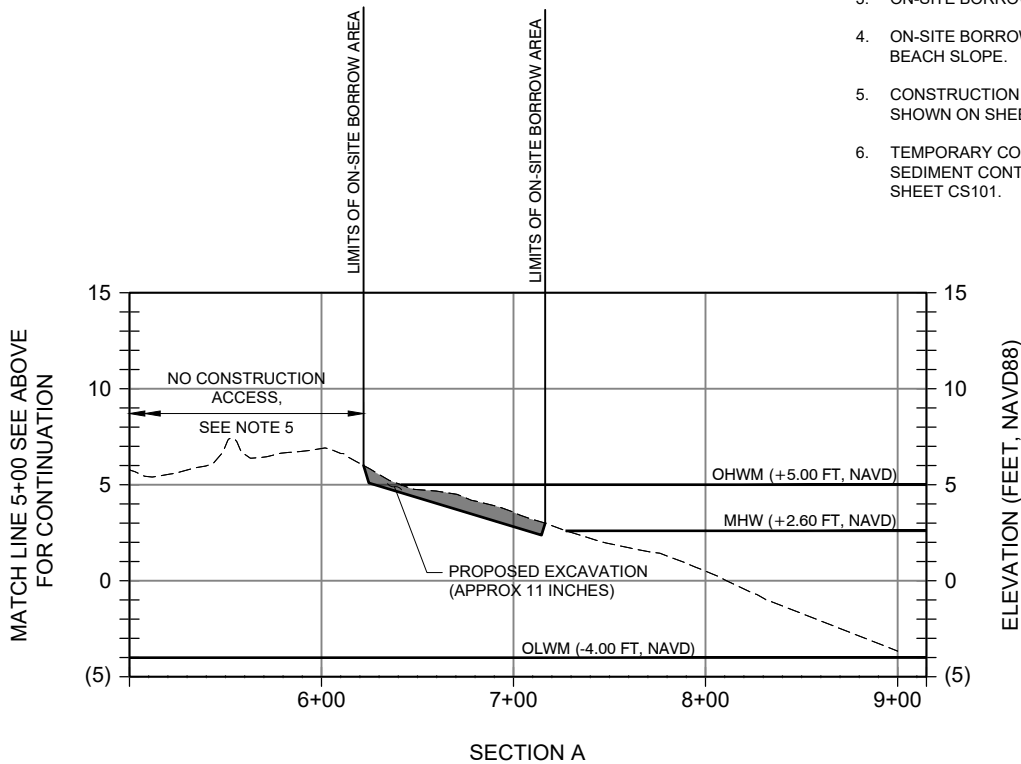


LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR SHOWN ON SHEET V-101.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY. SEE SHEET CS101.



300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



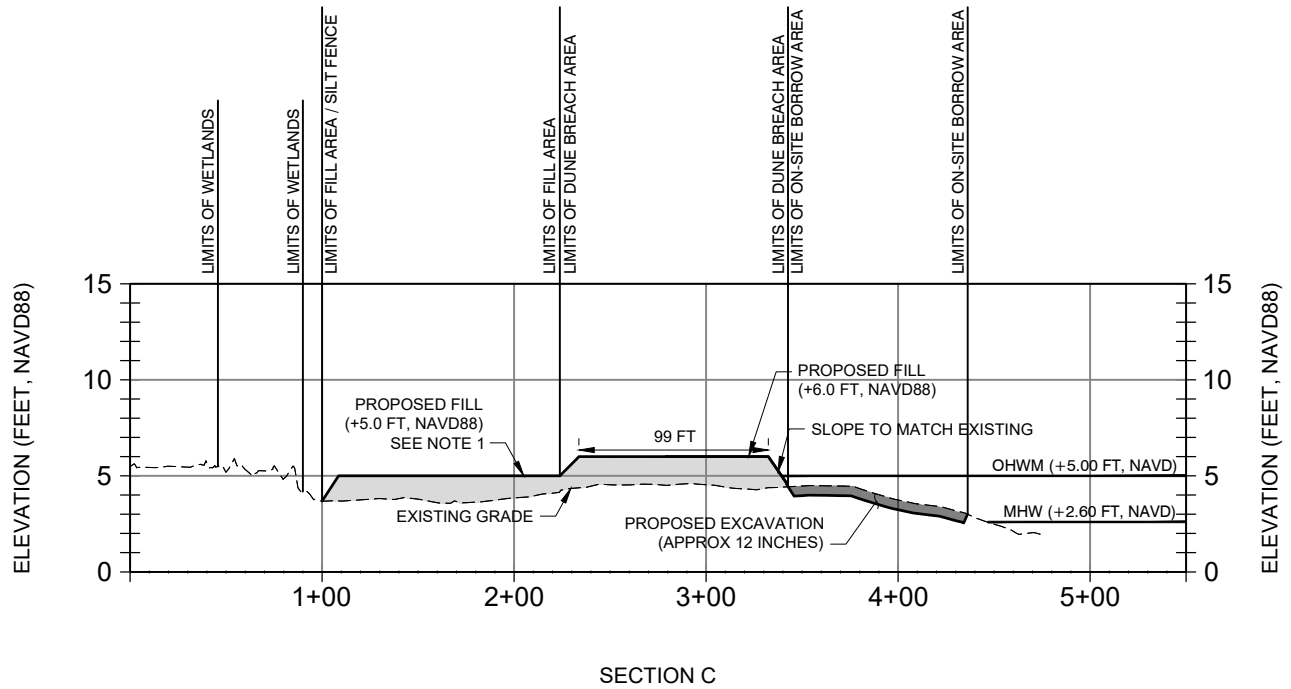
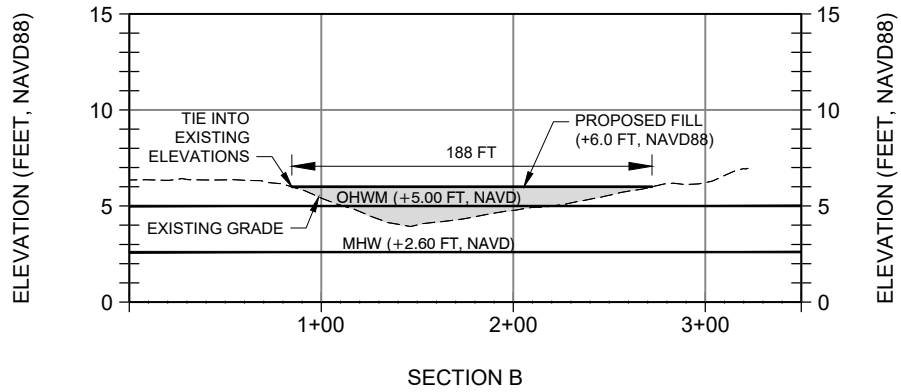
CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

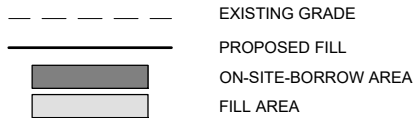
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-08
DATE: 09/26/2025
SHEET REF NO. CS301



INDEX 6 OF 8

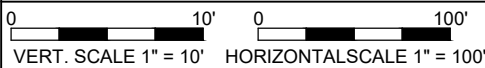


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
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CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. CS302



INDEX 7 OF 8

GA DNR QUANTITIES

Area of Property	N/A - This project site is located on the open beach	
Proposed Project Footprint	9.74 Acres	424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres	424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres	424,285 SQ. FT.
Open Water	2.07 Acres	90,049 SQ. FT.
Upper Beach Fill	1.91 Acres	83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres	212,265 SQ. FT.
Total Fill Volume	8,940 CU Yards	

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300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
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QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 09/26/2025
SHEET REF NO. C-601



INDEX 8 OF 8

Monitoring and Maintenance Plan

Project Location: East Beach, St Simons Island, Georgia

Site Description

Location: East Beach beach/dune system

Fill type: 100% of fill volume from onsite borrow area. All sand to be in accordance with GA DNR Requirements for Beach Nourishment Projects

- Sediment free of construction debris, rocks, or other foreign matter and shall not contain, on average, greater than 10% fines and shall not contain, on average, greater than 5% coarse gravel.
- Shell content should be below 15% of total weight
- Sediment color should be between 10YR 6.5/1 and 10YR 7.0/1 on Munsell soil color chart

Vegetation: three vegetative communities along landward fringe of proposed project.

Proposed Activity

The proposed Project includes on-site excavation and grading of existing sand from the on-site borrow area, and filling of an existing water impoundment located on East Beach. The proposed templates will avoid impacts to existing wetland areas, with a minimum 10-foot setback from the surveyed wetland boundary marked by temporary silt fences. The fill template will have a typical elevation of +5.00 feet (+1.52 meters) NAVD and tie into the existing beach grade on the landward side. The proposed fill will feature a 2H:1V landward slope in the areas adjacent to wetland habitat and a construction foreshore slope that matches the existing beach grade. All construction activity is proposed landward of the Mean High Water line. Contractor access to the Project area is anticipated to be through the public beach access at Massengale Park.

Construction Timing and Duration

Construction is proposed to occur outside of marine turtle nesting season (May 1 to October 31). Pending regulatory approvals, construction is anticipated to begin as early as November 1, 2025 and conclude prior to April 30, 2026.

Anticipated Construction Sequence

1. Contact Georgia 811 at least 3 business days prior to construction.
2. Install temporary silt fence and other sediment control measures.
3. Drain water from the impoundment.
4. Excavate and grade existing sand from the on-site borrow area in the fill area.
5. Perform final grading, ensuring finished grade slopes seaward and matches existing beach slope.
6. Remove temporary silt fence and other sediment control measures.

Monitoring Program

- Vegetation
 - o Method: visual inspection and photographic documentation from fixed locations
 - o Tools: Camera, plant identification guide, logbook
- Erosion and sedimentation
 - o Method: visual inspection of fill and borrow areas, inspecting slopes, drainage paths, and beach/dune interface
 - o Indicators: rills, gullies, sediment plumes, washouts
 - o Tools: Camera, tape reel, logbook
- Stormwater management
 - o Method: observe during/after rain
 - o Indicators: ponding, runoff channels, washouts
 - o Tools: Camera, logbook

Monitoring Schedule

Year	Monitoring Frequency	Monitoring Action
1	Quarterly (4x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
2	Semiannually (2x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
3	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
4	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
5	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.

Management Techniques

If a tidal pool is discovered during any monitoring event that has become impounded above the Mean High Water line, perform follow up monitoring event no more than 60 days later. If, after 60 days, a tidal pool remains impounded, implement a maintenance filling event. Maintenance events may only occur outside of marine turtle nesting season (May 1 to October 31).



*A Golden Past.
A Shining Future.*

PLANNING & ZONING DEPARTMENT

1725 Reynolds Street, Suite 200, Brunswick, GA 31520

Phone: 912-554-7428/E-mail: planningzoning@glynncounty-ga.gov

September 15, 2025

Josh Noble

Marsh and Shore Management Program Manager
Georgia DNR, Coastal Resources Division
One Conservation Way
Brunswick, GA 31520

RE: East Beach Water Impoundment
Glynn County

Dear Mr. Noble:

The above referenced project has been submitted by Glynn County to CRD for authorization under the requirements of the Shore Protection Act (SPA). The County proposes to conduct activities within SPA jurisdictional areas on East Beach, St. Simons Island. The project area is located on the beach and extends from the King and Prince hotel to the Driftwood Drive beach access.

All of the proposed activities are allowed under Glynn County Ordinances and do not conflict with any Zoning regulations. Attached is a copy of the signed and initialed concept plan that has been reviewed and approved by Glynn County staff.

Should you have any additional questions, please feel free to contact me at mpostal@glynncounty-ga.gov, (912) 554-7487.

Sincerely,

Maurice Postal

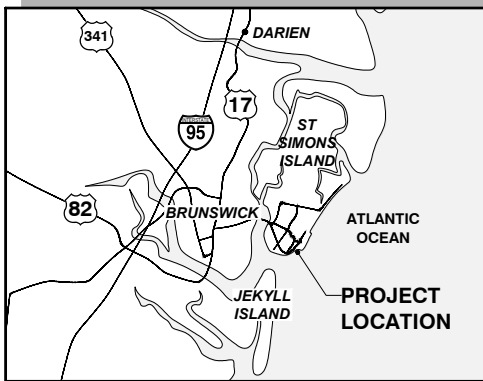
Maurice Postal, AICP
Development Review Manager

GLYNN COUNTY

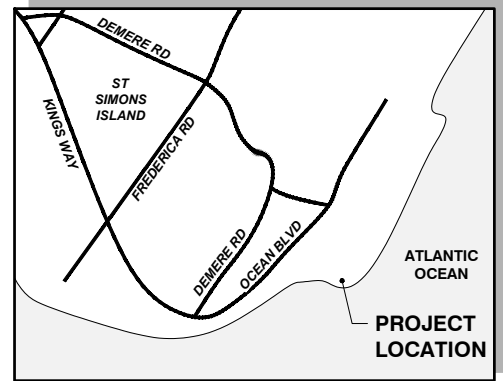
EAST BEACH WATER IMPOUNDMENT

ST. SIMONS ISLAND, GEORGIA

M&N JOB #: 240281-06



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: NTS

The construction project, as depicted in the attached plans, does not conflict with current Glynn County zoning laws.

Preliminary review of the proposed plans does not constitute approval of the project itself. All necessary permits and approvals for activities associated with this proposal will need to be obtained prior to project commencement.

Reviewed by Maurice Postal, Development Review Manager

Maurice Postal
Glynn County Planning & Zoning Department
September 12, 2025

GOVERNING STANDARDS AND SPECIFICATIONS:
DESIGN STANDARDS AND APPLICABLE CODES USE
GA DNR, GEORGIA CODE, OCCUPATIONAL SAFETY
AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.



DRAWING INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	NOTES, ABBREVIATIONS & LEGENDS
G-003	NOTES, ABBREVIATIONS & LEGENDS
V-101	EXISTING CONDITIONS / CONSTRUCTION ACCESS
CS101	SCHEMATIC DESIGN PLAN
CS301	CROSS-SECTIONS & DETAILS
CS302	CROSS-SECTIONS & DETAILS
C-601	QUANTITIES

COVER SHEET

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-001



INDEX 1 OF 8

300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



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GENERAL NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES & AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO OWNER, LOCAL, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. ANY DISCREPANCY MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & ENGINEER OF RECORD.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT SITE & TO DETERMINE TOPOGRAPHIC OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN HIS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE OWNER IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN HIS BID PRICE.
3. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, & UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING UTILITIES NOT SPECIFIED FOR REMOVAL WHICH ARE DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER .
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF/HERSELF WITH CURRENT SITE CONDITIONS & SHALL REPORT ANY DISCREPANCIES TO THE OWNER & EOR PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL KEEP THE SITE REASONABLY FREE FROM DEBRIS, TRASH, & CONSTRUCTION WASTE. BUILDING MATERIAL AND/OR CONSTRUCTION DEBRIS STORED ADJACENT TO OR UPON THE ROADWAY SHALL BE ADEQUATELY MARKED AT ALL TIMES FOR PEDESTRIAN & TRAFFIC SAFETY.
6. CONTRACTOR SHALL CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
7. CONTRACTOR TO ADHERE TO APPLICABLE NOISE ORDINANCES THAT PROHIBIT ANY PLAIN AUDIBLE SOUND IN CONNECTION WITH CONSTRUCTION ACTIVITIES OUTSIDE OF PERMITTED HOURS.
8. ALL ENVIRONMENTAL REGULATORY PERMITS MUST BE OBTAINED. CONTRACTOR IS REQUIRED TO OBTAIN ALL OTHER NECESSARY PERMITS AND/OR APPROVALS PRIOR TO THE START OF CONSTRUCTION. COST OF ALL OTHER NECESSARY PERMITS IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL LANDSCAPED/OPEN AREAS, SIDEWALKS, PAVEMENTS & OTHER IMPROVEMENTS IMPACTED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
10. THE TRAFFIC CONTROL PLAN FOR THE PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN TRAFFIC CONTROL PLAN & MUST HAVE SAID PLAN APPROVED BY THE OWNER AND CITY PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE OWNER FOR TRAFFIC CONTROL COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. TRAFFIC CONTROL PLAN SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM EMERGENCY SERVICES WITHIN THE VICINITY OF THE PROJECT LIMITS ABOUT THE CONSTRUCTION SCHEDULE.
11. SURVEY MONUMENTS WITHIN THE LIMITS OF THE PROJECT ARE TO BE PROTECTED.
12. NO DEVIATIONS FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT THE OWNER AND GA DNR.
13. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL THE NECESSARY DOCUMENTS ARE RECEIVED BY THE OWNER.
14. ALL DEFECTIVE WORK NOT ACCEPTED BY THE OWNER, EOR OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
15. ALL EXISTING GRASSED OR LANDSCAPED AREAS, ALL DECORATIVE FEATURES (INCLUDING PAVERS) AND PAVED GROUND CONDITIONS DAMAGED AS RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED COMPLETELY AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
16. DAMAGED ITEMS SHALL BE RESTORED TO THEIR ORIGINAL DESIGN AND FUNCTION AT THE CONTRACTOR'S EXPENSE.
17. A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE TO VERIFY DETAILS AND METHODS OF CONSTRUCTION.
18. THESE PLANS ARE INCOMPLETE WITHOUT THE TECHNICAL SPECIFICATIONS.
19. CONTRACTOR SHALL NOT BLOCK OR OBSTRUCT PUBLIC BEACH ACCESS PARKING WITHOUT WRITTEN APPROVAL FROM THE OWNER.
20. CONTRACTOR WILL COORDINATE DAILY WITH THE OWNER'S ENVIRONMENTAL MONITOR AND WILL FOLLOW ALL REQUIRED ENVIRONMENTAL PERMIT CONDITIONS AND MANAGEMENT PRACTICES.
21. CONTRACTOR SHALL DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES (BMPs) IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
22. CONTRACTOR SHALL AVOID IMPACTS TO EXISTING DUNES AND DUNE HABITAT. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY DUNE HABITAT LOCATIONS AND ERECT AND MAINTAIN CONSTRUCTION FENCING OR SIMILAR TO PREVENT IMPACTS.

SURVEY NOTES

1. THE ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). THE CONVERSION BETWEEN NATIONAL GEODETIC VERTICAL DATUM (NGVD 29) AND THE NAVD 88 FOR THE PROJECT SITE IS APPROXIMATELY 0.97 FEET (EXAMPLE: 0.0 FEET NGVD = -0.97 FEET NAVD).
2. WETLAND SURVEY DATA PERFORMED BY LONGLEAF ENVIRONMENTAL CONSULTING DATED FEBRUARY 2025.
3. TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA PERFORMED BY ARC SURVEYING & MAPPING DATED FEBRUARY 2025.

300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



NOTES, ABBREVIATIONS & LEGENDS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-002



INDEX 2 OF 8

4. THE FOLLOWING TIDAL DATUM RELATIONSHIP IS BASED ON NOAA TIDE STATION 8677344 - ST. SIMONS, GA.

TIDAL DATA

MEAN HIGHER HIGH WATER (MHHW)	2.97' NAVD
MEAN HIGH WATER (MHW)	2.60' NAVD
NORTH AMERICAN VERTICAL DATUM	0.00' NAVD
MEAN LOW WATER (MLW)	-4.02' NAVD
MEAN LOWER LOW WATER (MLLW)	-4.23' NAVD

5. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, GEORGIA EAST ZONE, IN FEET.

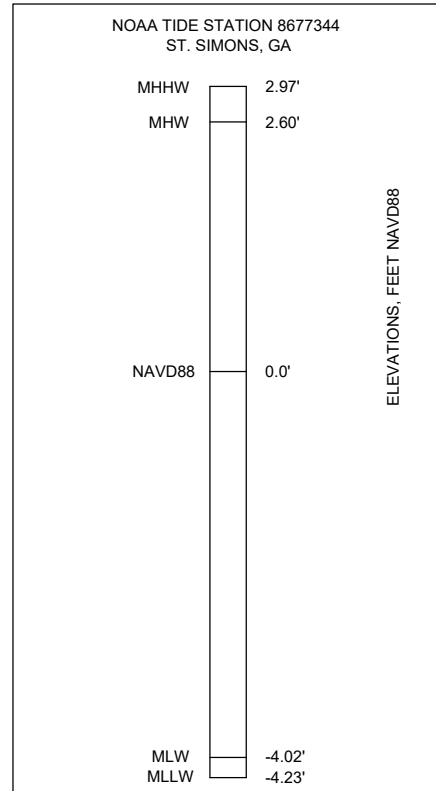
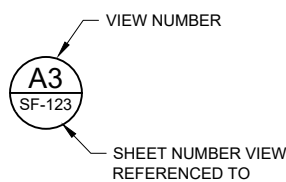
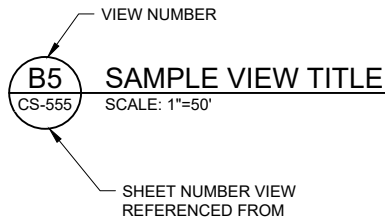
6. PARCELS BOUNDARIES BASED GIS FILES RECEIVED FROM GLYNN COUNTY GEOGRAPHIC INFORMATION SYSTEM DEPARTMENT.

AERIAL IMAGERY

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.

BEACH FILL NOTES

- FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
- PLACE FILL TO THE GRADES SHOWN.
- THE VERTICAL TOLERANCE FOR EACH FILL TEMPLATE IS ± 0.25 FEET.
- THE INTENT OF THE PROJECT IS TO PLACE THE REQUIRED VOLUME OF BEACH FILL WITHIN THE DESIGN TEMPLATE IN ACCORDANCE WITH ALL REQUIREMENTS.



VIEW TITLE

DETAIL CALLOUT

DISCIPLINE DESIGNATORS	
DISCIPLINE	DESIGNATOR
GENERAL	G
SURVEY/MAPPING	V
CIVIL	C

SECONDARY DESIGNATORS	
SITE	S

REVISION NUMBERING	
A00, A01...	PRE-BID SUBMITTALS
B00, B01...	BID SUBMITTALS
000, 001...	CONSTRUCTION SUBMITTALS

SHEET TYPE DESIGNATORS	
0	GENERAL (COVER SHEET, LEGEND, NOTES)
1	PLANS (HORIZONTAL VIEWS)
3	SECTIONS (OVERALL VIEWS)
5	DETAILS (MAY BE PLAN, SECT. OR ELEV. VIEWS)
6	SCHEDULES / TABLES

ABBREVIATIONS

CRD	COASTAL RESOURCES DIVISION
CY	CUBIC YARD
EOR	ENGINEER OF RECORD
FT(')	FEET
GA DNR	GEORGIA DEPARTMENT OF NATURAL RESOURCES
HORZ	HORIZONTAL
IN(")	INCHES
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
N	NORTH
NAD	NORTH AMERICAN DATUM OF 1983
NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NTS	NOT TO SCALE
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
TYP	TYPICAL
VERT	VERTICAL

Sheet Reference
Number:
SF102

SHEET NUMBERING

SHEET DESIGNATOR

SHEET TYPE

SHEET SEQUENCE

**NOTES, ABBREVIATIONS
& LEGENDS**

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-003



INDEX 3 OF 8

300 BULL ST., SUIT 200
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LEGEND

	CONTOURS
	MEAN HIGH WATER
	COASTAL RESOURCES DIVISION LINE
	PARCEL LINES
	WETLANDS
	EXISTING WATER IMPOUNDMENT AREA
	CONSTRUCTION CORRIDOR

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. WETLANDS WERE DELINEATED IN THE IMMEDIATE PROJECT VICINITY BY LONGLEAF ENVIRONMENTAL CONSULTING. ADDITIONAL WETLANDS ARE ANTICIPATED TO OCCUR BEYOND THE EXTENTS SHOWN.
3. ALL EQUIPMENT AND IMPORTED FILL TO ACCESS THE SITE THROUGH MASSENGALE PARK. EXACT LOCATION TO BE DETERMINED BY THE OWNER.

0 300'
SCALE 1" = 300'



moffatt & nichol

EXISTING CONDITIONS / CONSTRUCTION ACCESS

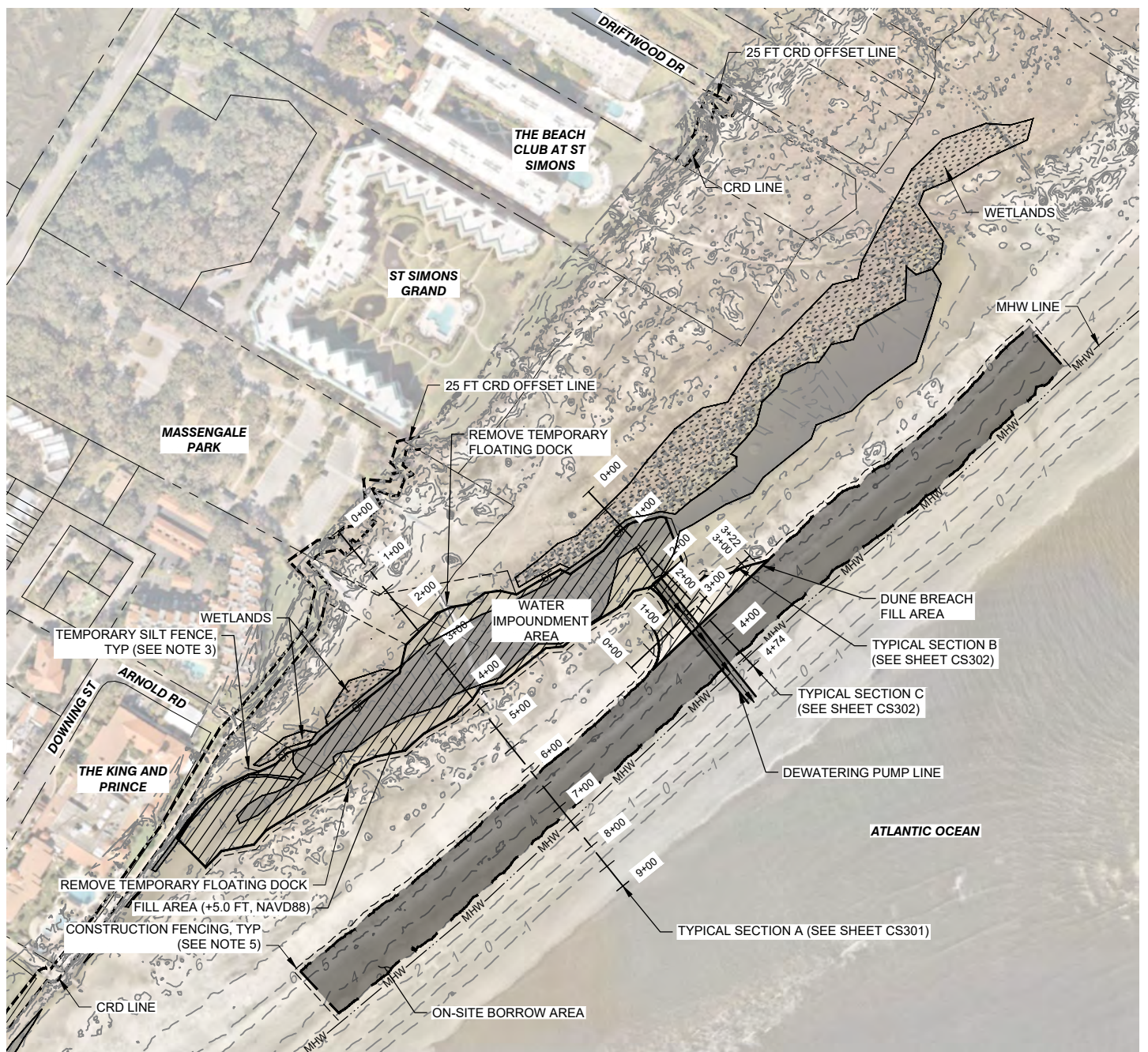
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. V-101



INDEX 4 OF 8

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LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
		COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.

0 300'
SCALE 1" = 300'

SCHEMATIC DESIGN PLAN

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

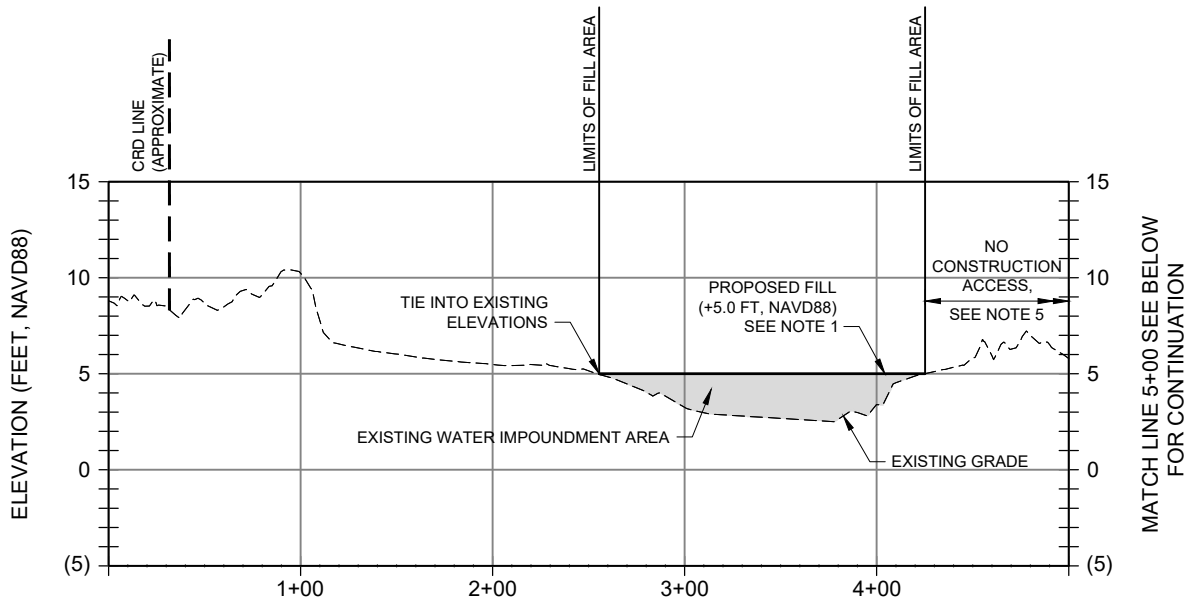
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CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS101



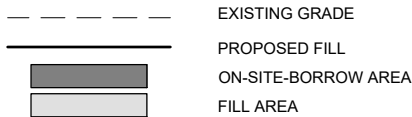
INDEX 5 OF 8

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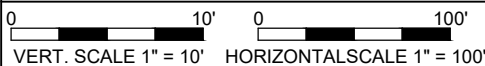
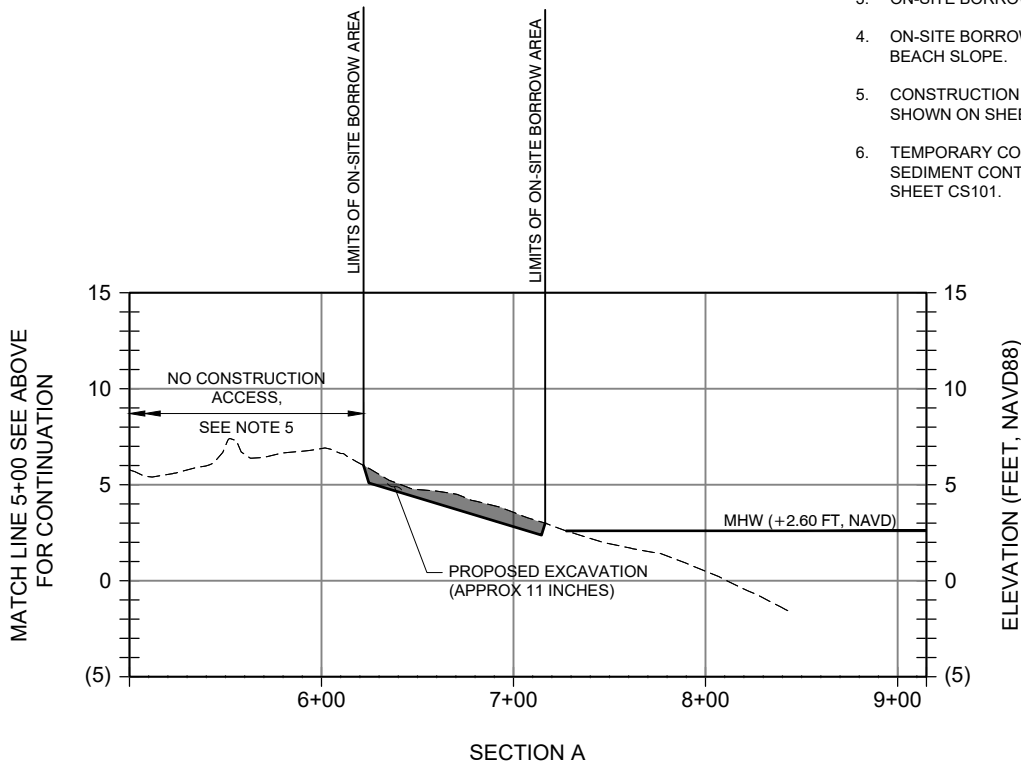


LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR SHOWN ON SHEET V-101.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY. SEE SHEET CS101.



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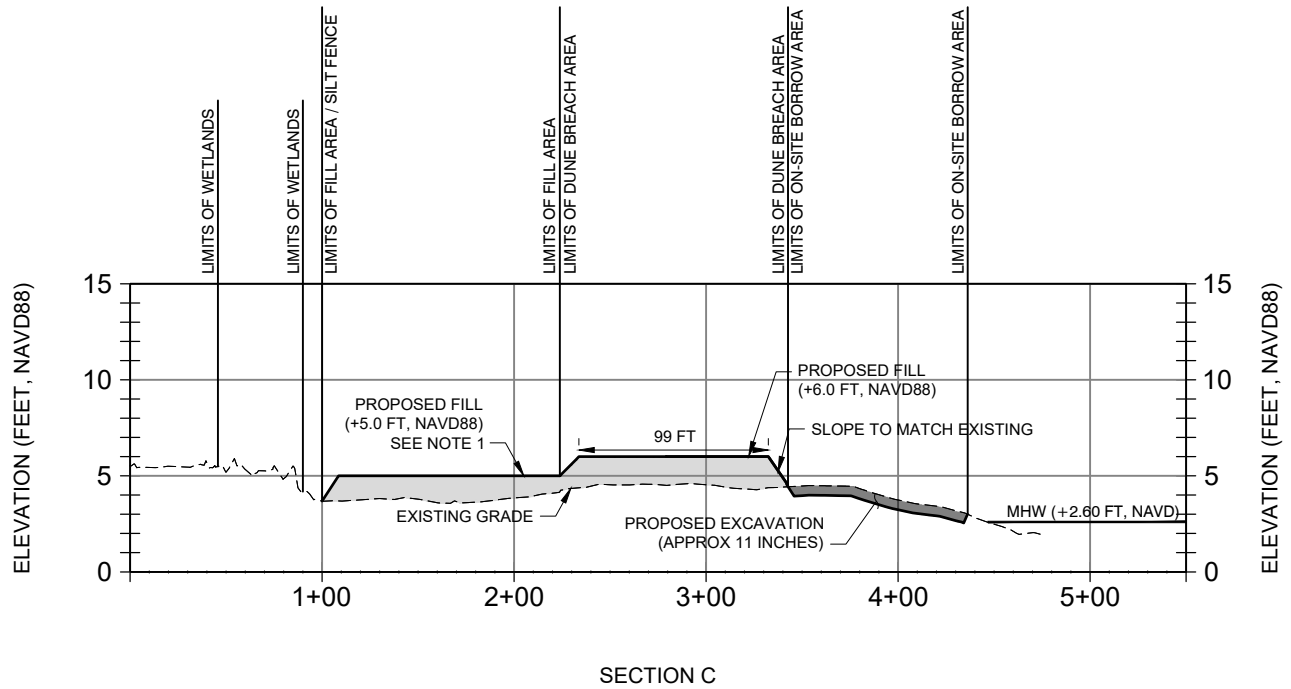
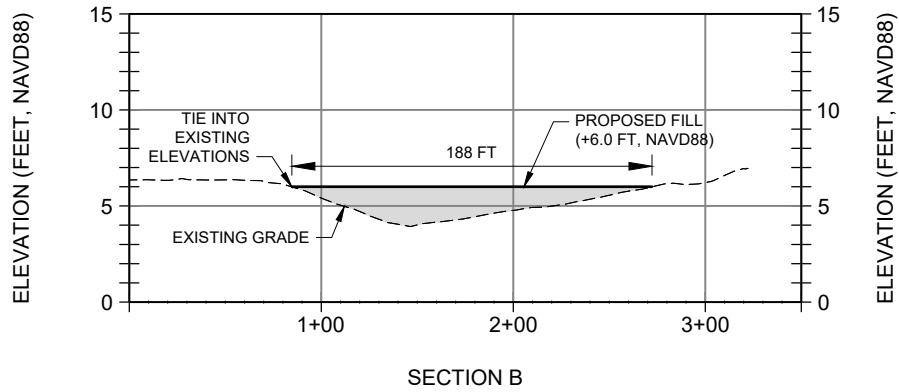
CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

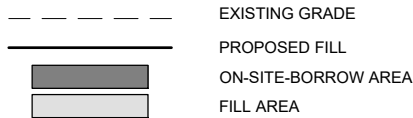
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS301



INDEX 6 OF 8

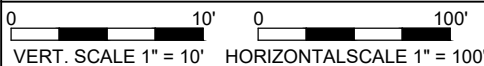


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



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CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS302



INDEX 7 OF 8

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QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
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SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. C-601



INDEX 8 OF 8

The King and Prince
CONDOMINIUM ASSOCIATION

August 26, 2025

To whom it may concern:

The King and Prince Board of Directors has reviewed the plan as attached and is in agreement to allow Glynn County to construct the project as designed.

Best,

A handwritten signature in black ink, appearing to read "John Paul Wade".

John Paul Wade
President
King and Prince Condominium Association

September 25, 2025

Josh Noble
Marsh and Shore Management Program Manager
Coastal Resources Division

RE: Additional project information provided in response to the GADNR-CRD Response Letter for a Shore Protection Act Permit – East Beach Water Impoundment Project

On behalf of the applicant, Glynn County Engineering Services, we are submitting the below additional information in response to the 2025.9.12 GADNR-CRD Response Letter to the application for a Shore Protection Act (SPA) permit to authorize the East Beach Water Impoundment Project. Please responses to each RFI item below:

5. Project Description, Alternative Site Description and Justification

a. Please provide description of why an upland sand source cannot be utilized to fill the project area thereby avoiding disturbance to sea turtle nesting habitat, migratory bird habitat, and intertidal beach which is known to be a vitally important foraging area for marine species.

- Construction would be outside of sea turtle nesting season and the borrow site will avoid all dry dune or similar areas that could be nesting habitat.
- Massengale Park would have to be closed to the public.
- Heavy loaded dump trucks are a safety hazard on the narrow and congested residential roads on St. Simons, especially the south end and beach area.
- Importing sand would take approximately 440-550 dump truck loads, each weighing over 10-18 tons, which could cause pavement failure at Massengale Park.
- Importing sand will impact the upper beach more as a stabilized haul road to the open water area would have to be constructed which will require widening of the beach access and impacts to vegetation.
- Recent dune development landward of the tidal impoundment would make dune impacts potentially unavoidable for imported sand and having to cross the upper beach for each truck load.
- The Massengale park boardwalk access to the beach is not designed for heavy equipment and would require reinforcement and reconstruction.
- The proposed use of the on-site borrow area uses native beach sand as fill material. This concept keeps native sediment within the local system, avoiding the introduction of fines or foreign materials that might increase turbidity, alter beach permeability, or negatively impact sea turtle habitat or dune vegetation habitats.

- Importing sand will cause unnecessary windblown dust within Massengale Park and the adjacent properties.

b. What impacts will the proposed borrow area have on the existing terrace of the beach, sand dunes, sand bars, and near shore shoals? Is erosion expected to occur, if so, to what extent?

- Impacts will be minor and temporary. The proposed borrow area is located between +3 ft (approximately MHW) and +6 ft NAVD88 and is limited to approximately 11 inches in depth. The tide range at the project site is approximately 7.2 ft (+2.97 ft to -4.2 ft NAVD), with two high tides and two low tides per day. During very high tides and/or appreciably high wave energy regimes, wave runup will transport and spread sediment-laden water across the proposed borrow area which will tend to infill and smooth the relatively thin excavation depth. This infilling and smoothing will occur most notably during full and new moons where the highest tide ranges (spring tide) are reached. Since the proposed borrow area is shallow (approximately 11 inches) and limited in areal extent, it is not expected to alter longshore transport or coastal processes in any measurable way.
- Any localized scarping or micro-depressions created by the excavation will be flattened by routine wave runup, returning the immediate project vicinity to natural elevations and slopes. This process of natural deposition and flattening of the borrow area is likely to occur within a few tidal cycles to weeks (depending on lunar cycle and wave climate).
- Due to the natural dune formation landward of the proposed borrow area, the relatively thin excavation is unlikely to impact wave runup characteristics including final runup elevation and frequency. Additionally, the proposed borrow area will provide much-needed sediment to fill the existing dune breach, improving the coastal resiliency of the project site as well as adding sea turtle habitat and dune vegetation.
- Given the shallow depth, limited extents of the proposed borrow area, and resulting volume proposed for borrow, the long-term beach profile and alongshore sediment transport regime are not expected to change measurably.
- Each day's excavation is expected to rapidly fill in during routine wave runup which is likely to minimize the footprint of the material excavated from the borrow area on any given day. Better put, the areal extents of the proposed borrow area were determined after assuming no infilling or smoothing during wave runup. Do note that the proposed borrow area may not be filled in on every single day – especially during neap tides (1st and 3rd quarter moons) or periods of low wave regimes.
- The *Feasibility Study of Glynn County, Georgia, Beach Restoration* (Olsen Associates, 1988) (<https://georgiawildlife.com/sites/default/files/crd/MarshandShore/PublicNotice/JIAPhase2/JIA-ErosionandSedimentTransport.pdf>) studied potential sediment transport rates along Jekyll Island. This study concluded that potential annual net

sediment transport rates along the island were estimated to range from 219,000 to 459,800 cy/yr. Shoreline erosion rates at Jekyll Island are similar in magnitude to those observed along St Simons Island. Additionally, nearshore slopes along Jekyll Island are similar to those at St Simons Island, suggesting similar net transport rates at the proposed project site. The proposed total borrow area (8,940 CY) is quite small relative to this net transport rate, demonstrating that the borrow volume's impact on coastal processes in the area are negligible and will not be detrimental to adjacent areas. Additionally, the proposed project is not removing the proposed 8,940 CY from the project site, but rather relocating it landward, resulting in a net 0 change in terms of sediment availability.

- Similar projects to the proposed project have been studied throughout the world where intertidal zones have been used as a borrow area for beach management. Notable excerpts include the following from <https://burleighphysio.com.au/wp-content/uploads/2018/09/Paper-Beach-Scraping.pdf> :
 - The intertidal zone is an area of high wave and tidal action. This high energy environment is less likely to be in a stable equilibrium assemblage structure under natural conditions, and it is believed species habituating this area recover from disturbance swiftly (Bolam and Rees, 2003 in Batton, 2007). Fast recovery is associated with sandy beach species as these species have adapted to a highly variable and dynamic environment which is often subject to large physical disturbances such as storms, wave action, tides, sediment transport and turbidity (Batton, 2007).
 - Bruun (1983) recommended responsible beach scraping with depths of 0.2 to 0.5 meters (0.7 to 1.6 feet) for coastal protection. Bruun noted that beach scraping is not always harmful and can be beneficial in certain applications.
 - McNinch and Wells (1992) reported on a project that utilized beach scraping at Topsail Beach, NC. The scraping rates were small, averaging 0.21 m³/m per day, using only a single piece of machinery to shallow scrape. The borrow area was below the high water mark. The report concluded that under certain conditions, beach scraping can be beneficial in coastal environments where scraping was recommended to be limited and only performed on the beach inundated by tidal activity. The proposed project would have a similar scraping rate, with an approximate average rate of 0.07 to 0.10 CY/ft per day.
 - Conaway and Wells (2005) reported on aeolian (wind-blown) dynamics on scraped shorelines in North Carolina. Their study notes beach scraping may encourage sand drying and subsequent movement due to aeolian processes. Wind directions at the project site are relatively consistent on-shore, which may result in the proposed project encouraging dune growth.
- Summary: Since excavation at the proposed borrow area is shallow (≤ 12 in), confined to a non-vegetated upper-beach zone between +3 ft NAVD (MHW) and +6 ft NAVD, and located in an area routinely reworked by wave runup and tidal activity (tide range ≈ 8 ft), coastal processes at the site will rapidly redistribute and smooth

the borrow area footprint. The work will not appreciably alter nearshore wave or longshore transport processes, nor is it expected to cause increased erosion of adjacent beach areas.

c. Please describe why the project cannot be accomplished with the construction of crosswalks such as the pending application for the Driftwood Beach Access which appears to cross the northern extent of the project area.

- The purpose and need of public safety would not be accomplished including drowning and water contact risk reduction.
- The Driftwood Beach Access boardwalk mentioned is being designed to accommodate standard Gator/UTV or similar loads.
- A boardwalk designed to accommodate the full range of emergency response vehicles over the tidal pool would require a substantial structure that would exceed standard timber boardwalk structural limitations. This structure would require large diameter, deeply embedded piles, structural concrete and steel members, and be designed to withstand hurricane conditions including storm surge and wave uplift. A structure of this magnitude would be cost prohibitive and may encourage development within the coastal zone.
- Permanent, above ground structures will impact the viewshed for the King and Prince hotel, a National Register of Historic Places listed resource (NRHP#04001465).

d. Please verify how the construction will be accomplished: equipment, access, etc.

- Access to the site is anticipated to occur through the southeast corner of Massengale Park, which has an approximate 10 ft wide corridor free of vegetation.
- The proposed project would be constructed using the lightest possible touch. The proposed construction duration of 45 to 70 days was developed using lightweight, smaller capacity equipment. Equipment would be parked and staged overnight in the Massengale Park parking lot, encompassed with fencing to protect the public. All fueling and maintenance operations needed would occur in the Massengale Park parking lot or other upland facility.
- The following construction sequence is anticipated:
 - Contact Georgia 811 at least 3 business days prior to performing any excavation/digging.
 - Install temporary construction fence, silt fence, and other sediment control measures.
 - Dewater proposed fill area. Construction equipment to traverse site only when sufficiently dewatered. Dewatering is anticipated to be performed using a submersible dewatering pump. Maintenance dewatering is likely to be performed routinely throughout construction. Wildlife (e.g. fish)

within the fill area will be relocated to the maximum extent practicable to the other tidal pool by environmental specialists.

- Excavate and grade existing sand from the on-site borrow area into the fill area. Material may be excavated, transported, and placed with a variety of scenarios. The most likely scenarios include using a bulldozer to push the material to the fill area, stockpiling as needed within the project footprint for efficiency. In this scenario, 2 or 3 bulldozers are likely. Another scenario includes using a front end loader, skid steer, or excavator to scoop material from the borrow area into an offroad truck or material carrier to transport the material to the fill area where a bulldozer would spread to final grade. In this scenario, one front end loader, skid steer, or excavator, 1 or 2 offroad trucks or material carriers, and 1 bulldozer are likely. Excavation operations would only occur when the tide and wave runup was sufficiently low enough to allow access. Construction operations would need to be staged and planned to allow at least 4 continuous hours of construction. Work would halt as soon as the tides and wave runup encroached on the active work area. This may require borrow operations to limit excavation to the highest elevations of the borrow area. Excavation will be limited to 11 inches (as shown on the plans). As mentioned above, each day's excavation is anticipated to rapidly fill in during routine wave runup which is likely to minimize the footprint of the material excavated from the borrow area on any given day. At the fill location, material will be placed and graded in a uniform manner, facilitating dewatering and wildlife removal. All equipment shall stay within the footprint of the proposed project. As such, any incidental spillage during excavation and movement operations will be contained within the proposed borrow and fill areas. Construction surveys will be performed regularly throughout construction to confirm excavation and placement limits and elevations.
- Perform final grading, ensuring finished grade slopes seaward and matches existing beach slope. Perform any final construction surveys to confirm excavation and placement limits and elevations.
- Remove temporary construction fence, silt fence, and other sediment control measures.
- Perform final cleanup and demobilization.

Glynn County appreciates your review of the enclosed information. Please review and contact me if you have any questions or need any additional information.

Stephen M. Bailey, PWS
Principal | Owner
Longleaf Consulting
www.longleafconsulting.com



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 12, 2025

c/o Stephen Bailey
Longleaf Consulting for:
Glynn County
113 Bellrain Lane
St. Simons Island, GA 31522

Re: Application for a Shore Protection Act for Glynn County Board of Commissioners, East Beach Water Impoundment Project within SPA Jurisdiction, From King and Prince North to Driftwood Beach Access, East Beach, St. Simons Island, Glynn County, Georgia

Dear Mr. Bailey:

The Department has reviewed the SPA application for the water impoundment project on East Beach from the King and Prince Hotel to the Driftwood Beach Access, St. Simons Island. The proposed project provides for the water impoundment project within SPA jurisdiction. To date, our files contain the following items:

1. A signed application and Revocable License
2. A designation of agent
3. Adjoining Property Owners
4. Public Interest Statements
5. Landfill/Hazardous Waste Statement
6. Project Description
7. Scaled Drawings
8. Letter from King and Prince Condominium Association

Staff has identified additional information that is needed before the application can be placed on public notice. Keep in mind that an application needs to be “substantially complete” before it can be presented to the Shore Protection Committee (SPC). The following items are required before the application can be placed on Public Notice:

1. Zoning Letter and Signed Plans by Local Government, if required.
2. A Verified SPA Jurisdictional Letter covering the entire project area
3. Application Fee of \$500
4. A 401 Water Quality Certification.
5. Project Description, Alternative Site Description and Justification
 - a. Please provide description of why an upland sand source cannot be utilized to fill the project area thereby avoiding disturbance to sea turtle nesting habitat, migratory bird habitat, and intertidal beach

which is known to be a vitally important foraging area for marine species.

- b. What impacts will the proposed borrow area have on the existing terrace of the beach, sand dunes, sand bars, and near shore shoals? Is erosion expected to occur, if so, to what extent?
- c. Please describe why the project cannot be accomplished with the construction of crosswalks such as the pending application for the Driftwood Beach Access which appears to cross the northern extent of the project area.
- d. Please verify how the construction will be accomplished: equipment, access, etc.

Our permitting and legal staff will be reviewing your application simultaneously. Our legal staff may contact you to clarify ownership interests or to request additional information prior to the public notice period. During the public comment period, the committee will be reviewing the project and may request additional information. Public comments and questions about your project will be forwarded to you for response. Staff will assist you throughout the process.

I appreciate your assistance in working with staff to provide a substantially complete permit application to the Shore Protection Committee for their consideration. Please feel free to contact me at 912-266-0277 with any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Beth Byrnes', with a stylized, cursive script.

Beth Byrnes
Coastal Permit Coordinator
DNR Coastal Resources Division

Appendix A
Erosion and Sediment Transport on Jekyll Island

Jekyll Island Phase 2 Shoreline Rehabilitation

Jekyll Island has a long history of erosion, particularly along the northern portion of the island. Exhibit 1 shows a graphic which illustrates the geologic makeup of this Pleistocene Barrier Island and how it has changed over more recent history due to sea level rise and erosion, noting net regional littoral transport. Historic erosion changes to the island shorelines between 1855 and 2004 are provided in a PhD Thesis by Jackson (2010), with a summary shown on Exhibit 2. The project area has undergone net erosion which triggered the placement of the revetment in the 1960s-1970s, following impacts of Hurricane Dora (1964). Since that time, the revetment has fixed the shoreline position along its length. The Driftwood Beach area has undergone erosion north of the revetment but overall been relatively stable in the long-term. The south tip of Jekyll Island has been largely accretional. Estimated erosion rates from Jackson for the oceanfront averages -1.5 ft/yr (1855-2004), while the north inlet (St Simons Sound) facing shoreline erosion averages -5 ft/yr.

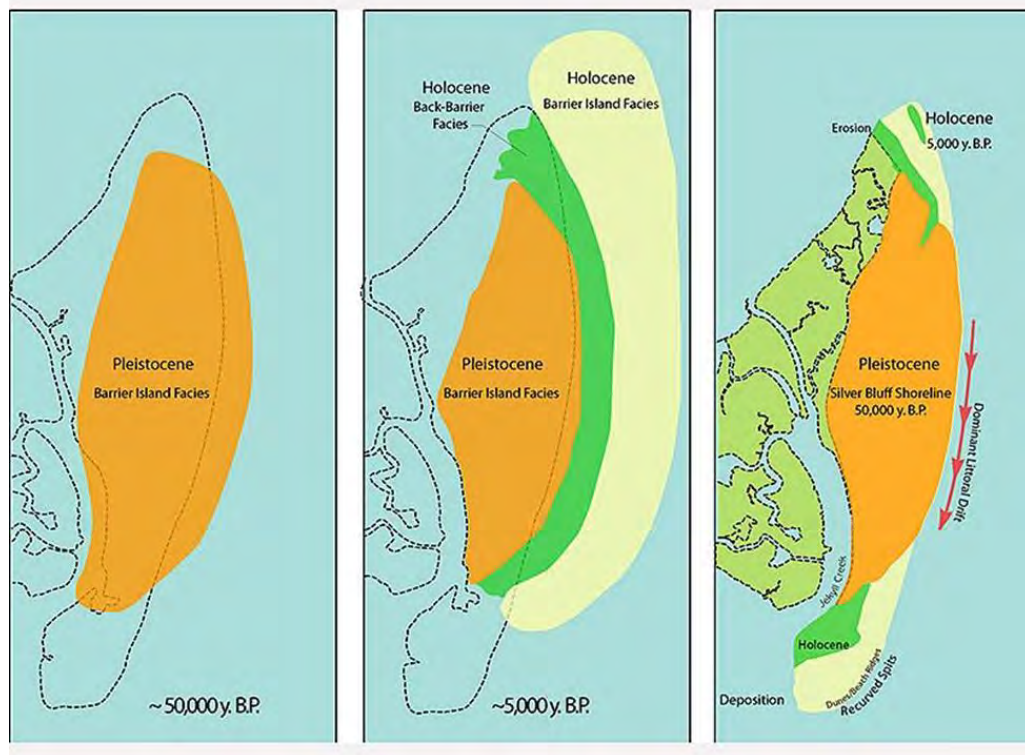


Exhibit 1. Geological Map of Jekyll Island over time
(source: <https://www.georgiaencyclopedia.org/articles/science-medicine/geology-georgia-coast>)

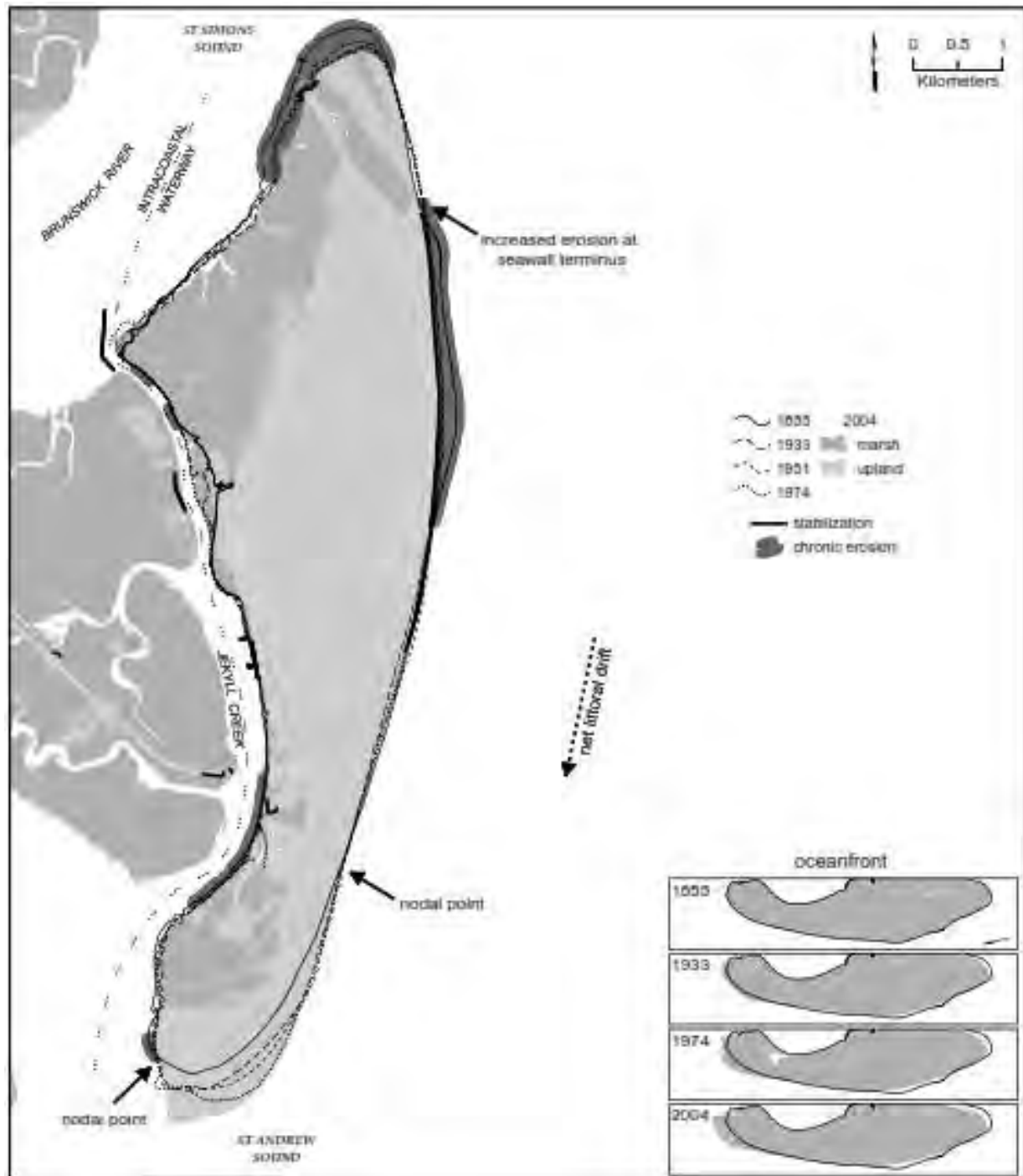


Exhibit 2. Long-term shoreline positions and erosion trends (source: Jackson, 2010)

The north tip of the island has undergone significant erosion and currently high-water conditions cut into the maritime forest in the Driftwood Beach area and north thereof (Exhibit 3). The northernmost approx. 9,800 LF of the revetment has undergone long-term general degradation due to settlement, beach erosion (profile deflation and erosion of fines) and overtopping and more direct damage during storm events.



Exhibit 3. Eroded conditions north of existing revetment limits at Driftwood Beach during King tide conditions

The *Feasibility Study of Glynn County, Georgia, Beach Restoration* (Olsen Associates, 1988) included a summary of erosion rates and numerical model studies which addressed potential sediment transport along Jekyll Island. Reported erosion rates for the project area ranged from -2.7 to -5.7 ft/yr with reduced erosion north of the Driftwood Beach area (until again reaching a peak of -6 to -10 ft/yr at the north tip facing St Simons Sound) and stability near the center of the island. Exhibit 4 shows the general littoral transport patterns along the island, based on numerical wave refraction modeling, which suggests a diverging transport along the center of the project area, with erosion potential increasing toward the north tip of the island and decreasing to a stable zone near the south limit below Capt Wyllly Rd (near the center of the island, and the south limit of the proposed Phase 2 project). This means that there is no natural sand supply to the project area (other than erosion of the shoreline itself) and that any sand placed in the Driftwood section of the project will naturally spread north from the placement area to adjacent areas over time. Potential annual net sediment transport rates along the island were estimated to range from 219,000-459,800 cy/yr. These values may be considered conservative based on the modeling conducted.

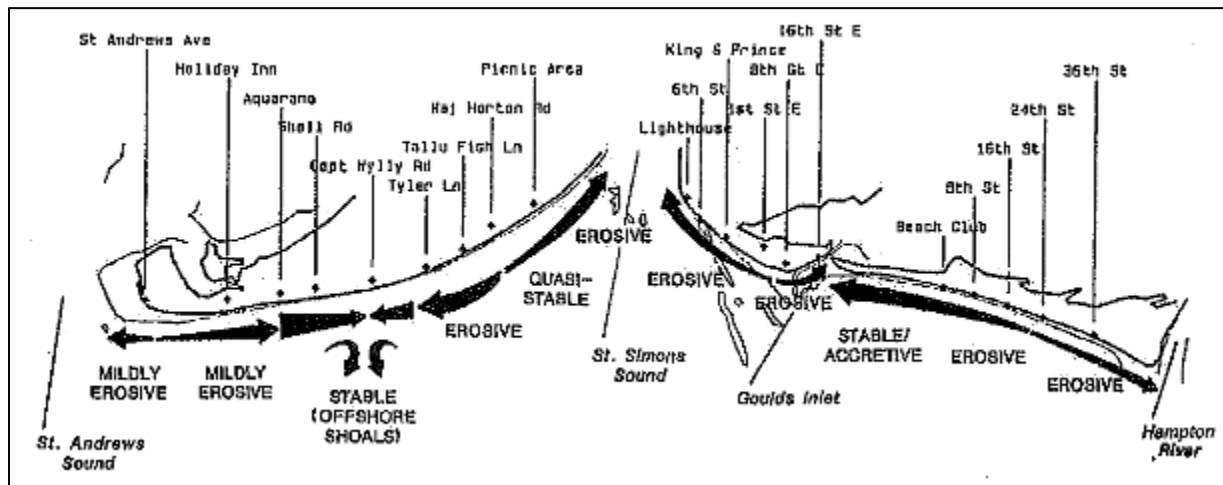


Exhibit 4. Sediment Transport along Glynn County Beaches (source: Olsen Associates, 1988)

Appendix B
Sand Source Supplementary Information

Jekyll Island Phase 2 Shoreline Rehabilitation

Overview

The primary preferred sand source for the proposed project is a USACE confined disposal facility (CDF) called the Jones-Oysterbed Island Disposal Area (herein referred to as Jones Island). The Jones Island sand source is located on the northern bank of the Savannah River, approximately 8.5 miles downriver of the city of Savannah. The Jones Island site has historically been used as a dredge disposal site for maintenance dredging of the federal channel along the Savannah River. Due to the proximity of the area to the inlet and open ocean/sand system, significant amounts of sandy beach quality material have been disposed of at the site during historic and recent dredging events. Ownership of the Jones Island site material is generally divided between two entities: Georgia Department of Transportation (GADOT) owning the northern part of the island and Dept. of Interior – Fish and Wildlife Service owning the southern portion. The proposed source material will be taken from the GADOT area. The JIA has completed initial coordination efforts with GADOT and USACE, including a kickoff coordination meeting on July 9, 2018 with Mr. R.B. “Trey” Daniel III, P.E. (GADOT’s Waterways Program Manager), Burton Moore (Chief of the USACE Dredging Section in Savannah District), and USACE regulatory staff. Following the kickoff meeting, ATM and USACE representatives conducted a field visit to the site to view existing conditions, estimate viable material areas/volumes, discuss logistics, and collect field samples of the preferred sand source material.

Sampling and Volume Estimates

The most recent Savannah River Channel dredging project disposed of quality sand material in two areas along the north/west end of Jones Island. ATM, accompanied by USACE representatives, visited Jones Island on July 18, 2018 to collect samples and estimate volumes of beach quality material available. The approximate locations and areas of quality sand material was estimated as shown in Figure 1 below. Numerous samples of the material were taken from both areas and three representative samples were sent for testing. Grab samples were taken 18 inches below the surface and tested samples were taken from approximate locations shown in Figure 1.

There is not a current detailed site topographic survey of the Jones Island site. However, ATM has estimated that approximately 175,000 CY of beach compatible material is available within the proposed two areas indicated on the Drawings. ATM’s volume estimate is based on site photographs, field GPS data, volume estimates from the recent dredge disposal operations, aerial imagery, and sediment sampling and testing. Height of sand material was determined by visual estimation of the existing surface elevation of the sand deposits and the USACE field representative’s description of elevations of the disposal area prior to the recent dredging operations. Representative observed sand material within the proposed borrow areas are illustrated in Photos 1-3.



Figure 1. Jones Island Sand Material Areas and Test Sampling Locations



Photo 1 – Typical sediment sampling observations, Jones Island.



Photo 2 – Representative view of Jones Island borrow area.



Photo 3 – Representative view of Jones Island borrow area.

Sediment Characteristics

GA DNR provides guideline sediment characteristics for “*beach nourishment*” projects. The purpose of these guidelines is to minimize the effects of beach nourishment projects on sea turtle reproduction and to ensure nourished beaches are compatible with native beaches. Table B.1 compares GA DNR sediment guidelines to the Jones Island and Jekyll Island native project area sediment sample test results.

ATM collected 5 representative sand samples (surface grabs) from the Jekyll Island beach within the limits of the proposed Phase 2 project sand fill for comparison purposes with proposed borrow site samples. Samples were collected landward of the rock revetment (in the proposed terrace berm and dune fill area), as well as samples from the south end of Driftwood Beach. The native beach sample locations are shown as GPS waypoints (WP-xx) on Figures 2 and 3. Sediment grain size distribution curves for both the borrow site and native beach samples, including Munsell Color characterization, are provided as an attachment.

Table B.1 – Sediment Characteristics Guidelines and Testing Results

Sediment Characteristics		GA DNR Guideline Language	Jones Island Sand Samples	Jekyll Island Native Project Area Samples
Grain Size	General	Fill material shall be free of construction debris, rocks, or other foreign matter	Within Guidelines	Generally, within guidelines but scattered rock present along revetment and Driftwood Beach
		Sand grain size on Georgia beaches is generally between 0.15 and 0.3 mm.	D ₅₀ Range: 0.39mm - 0.46mm Average D ₅₀ = 0.42mm	D ₅₀ Range: 0.17mm - .20mm Average D ₅₀ = 0.19mm
	Fines	Fill material...shall not contain, on average, greater than 10% fines (i.e. silt and clay; passing through a #200 sieve; approx. 0.075 mm)	Within Guidelines % fines range: 0.2% - 1.8% Average: 0.8%	Within Guidelines % fines range: 0.6% - 12.1% Average 3.2%
	Coarse Gravel	Fill material...shall not contain, on average, greater than 5% coarse gravel or cobbles (retained by #4 sieve; approx. 4.5 mm)	Within Guidelines 0.5 - 0.6% retained by #4 sieve	Within Guidelines 0 – 1.7% retained by #4 sieve
Composition	General	The sediment composition of Georgia beaches is generally fine-grained silica sand (>90%) with very little fragmented shell	Within Guidelines	Within Guidelines
	Shell Content	Shell content should remain below 15% of total volume.	Within Guidelines	Within Guidelines
Color		Sediment color should be between 10YR 6.5/1 and 10YR 7.0/1 on the Munsell soil color chart.	10YR 6/2 - 10YR 6/3	2.5YR 6/2 – 2.5YR 7/2 to 10YR 7/1 – 10YR 7/2

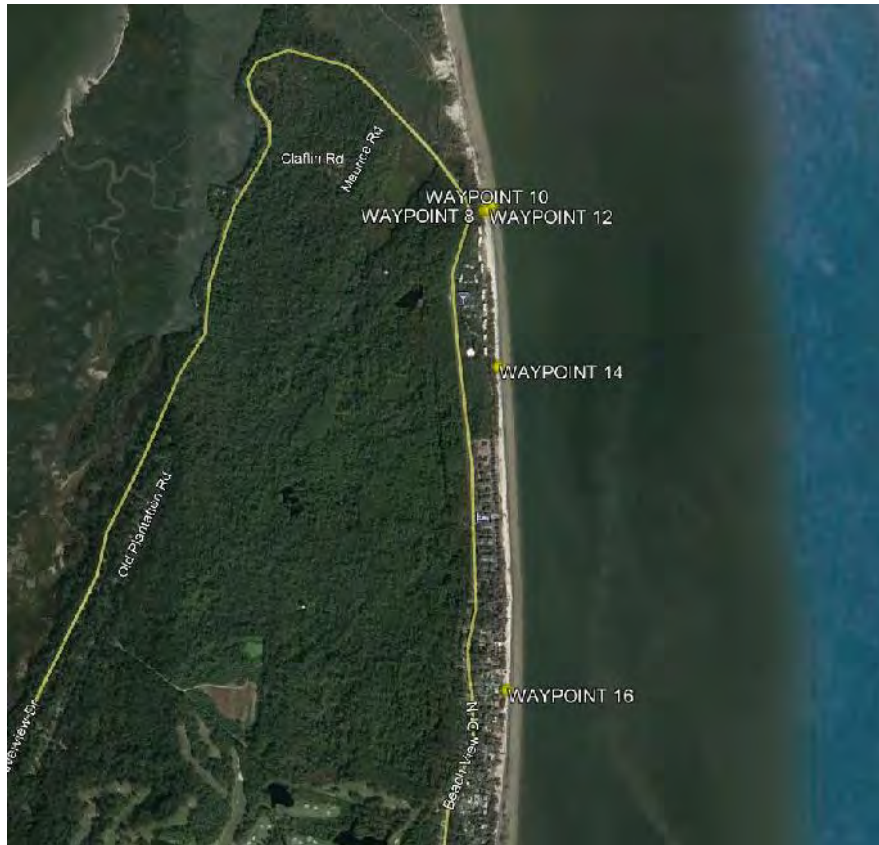


Figure 2. Jekyll Island Native Beach Sand Material Sample Locations

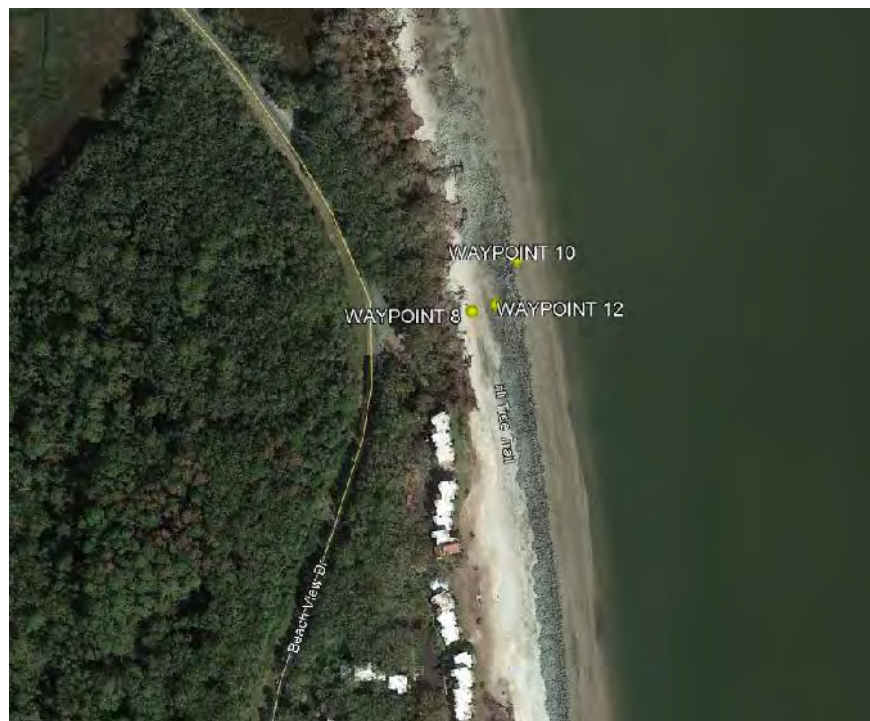


Figure 3. Jekyll Island Native Beach Sand Material Sample Locations – Driftwood Beach Large Scale

Table B.1 indicates that the proposed borrow area provides compatible material of suitable quality for beach and dune placement. All primary parameters are within the GA DNR guidelines, with the following minor deviations:

- Borrow sand grain size: the borrow area median grain size is slightly coarser than the native beach and typical GA beaches, averaging 0.42mm versus 0.19mm. The sand in the borrow source was previously dredged, therefore a portion of the finer materials (including the undesirable fines passing the #200 sieve) have already been washed out of the material, which results in a coarser mean grain size. From an engineering perspective, a larger mean grain size for the borrow material is preferable and typically a goal when performing sand searches. This material will be more stable and accept a somewhat steeper slope than the existing beach.
- Sand color: both the borrow and native beach sands fall slightly outside the very narrow color range indicated by the GA DNR guidelines, with the widest variation observed for the native beach materials. It is noted that color gradations per the Munsell color chart are somewhat subjective. Based on visual review of the sediment samples, it is ATM's opinion that the proposed borrow material is well within suitable ranges for the purposes of beach and dune placement.

In many cases, searching for upland and offshore sand sources is difficult due to finer grain sizes than the existing beach, high percentage fines (>10% passing the #200 sieve), and either large shell/gravel fractions and/or incompatible colors (often much darker than the existing beach). None of these are the case presented herein, and the borrow source represents an excellent source of sand for the intended purpose.

Proposed Project Sediment Use-Fate Details

Sand for the proposed project will generally be used for two major purposes:

- 1) as backfill to restore the terrace berm and dune areas landward of the rehabilitated rock revetment, and
- 2) to be placed along the northern shoreline (beyond the rehabilitated revetment), generally covering existing scattered granite rocks, to create a softer transition to the natural Driftwood Beach shoreline to the north.

While the above two uses differ from a traditional beach nourishment project, the ultimate purpose of the material is similar – to restore berm and dune features where long term and storm erosion has impacted environmental and historical resources, threatened infrastructure, and adversely affected recreational use. The samples collected and observations indicate that the Jones Island sand is considered quality, beach compatible material for the proposed Jekyll Island Phase 2 project. Additional considerations for the primary preferred Jones Island sand source include:

- From a coastal engineering perspective, slightly coarser beach sand provides a more resilient beach, less susceptible to erosive forces of wind, waves, and flowing water. The use of the proposed material would result in an overfill ratio greater than 1.0.

- Over ~75% of the total volume of fill placement is, from an engineering perspective, backfill landward of a retaining structure (the revetment).
 - This material will be retained (contained) by the rehabilitated revetment and filter layer designed for this exact purpose. While some material landward of the revetment can be expected to be lost during elevated water levels and/or extreme storm conditions, it is still considered quality beach sand and the diluted effects when mixed with existing material in the sand sharing system will be negligible. Other material sources introduced into the sand sharing system during extreme events (e.g. erosion of upland non-sandy soils and storm water runoff) would have greater impacts to the sediment characteristics of the overall sand sharing system and potential environmental quality.
- Sand fill placed on the transitional shoreline (~25% of the total project volume) is a vast improvement over existing native beach characteristic, which mainly consists of scattered granite rocks and an eroding maritime forest escarpment.
 - The proposed quantity of sand for this area (37,000 cy) is small relative to historically estimated annual potential net longshore transport rates for Jekyll Island (ranging from 219,000-460,000 cy/yr as described in Appendix A). Losses from natural erosion and spreading of the placed quality sand from this area to the surrounding shorelines/sand sharing system will not be detrimental to adjacent areas. Addition of this sand will be a “net positive” to the total volume of available sand in the local sand-sharing system (8-16% of the estimated annual potential longshore transport). The sand will blend with the existing sand materials in adjacent areas (primarily to the north along Driftwood Beach). Thus, the physical impacts on overall system sediment characteristics will be negligible.

Sand Delivery and Transport

Proposed sand transport from the borrow site to Jekyll Island is as follows. Sand will be excavated at the borrow site using typical earth moving equipment and conveyors, loaded onto the barge via temporary staging barges at the northwest access to Jones Island (refer to Drawings). These barges will be temporarily spudded down to minimize potential impacts to the riverbed. The filled barges will sail south along the Intracoastal Waterway to arrive at Jekyll Island. Similar temporary offloading operations will occur on the north end of Jekyll Island as indicated in the Drawings, at the Clam Creek parking area. Based on the locations of the temporary loading facilities, no impact to navigation or any Federal project is anticipated. The materials will be hauled via dump trucks from the offloading site to the project area for placement and grading, utilizing the access points indicated on the Drawings.

Borrow site operations for mining sand will be constantly monitored for strict control of sediment quality. If any unsuitable material is observed, operations will adjust to avoid unsuitable material. It is noted that since the proposed preferred borrow area is an upland source, all the sand excavated and loaded from the borrow site can be monitored. This is a large advantage over an offshore submerged borrow area, where the quality of the sediments cannot be observed until the material arrives via pipeline to the beach.

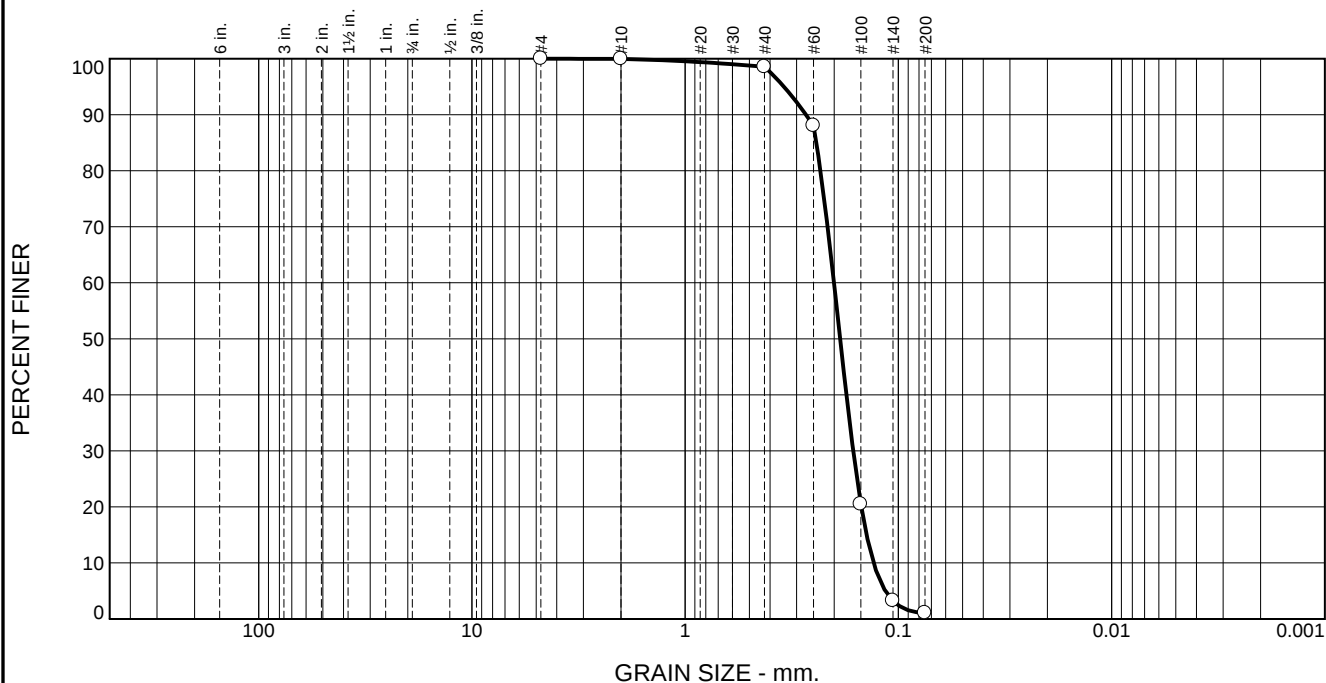
placement area. A sediment quality monitoring plan is provided in Appendix D, which would be incorporated into the project Plans and Specifications for construction.

Supplementary Sand Sources

At present time, a screening of potential sand sources in the region has been conducted. The Jones Island site is the preferred primary sand source and is anticipated to contain enough quality material for the project. Several additional upland sources have been investigated and initial sediment data indicates good potential for quality material. An alternate source could be requested if (1) additional compatible material is required for any reason, or (2) if alternate upland source(s) become more advantageous during bidding and contracting of the Phase 2 project. If any alternate source to the proposed Jones Island site is anticipated, sediment testing data to document compliance with the GA DNR guidelines would be submitted for approval prior to use.

Jekyll Island Native Samples
Sediment Testing Data

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.4	97.5	1.1	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	100.0		
#40	98.6		
#60	88.0		
#100	20.5		
#140	3.3		
#200	1.1		

* (no specification provided)

Material Description

Tan Fine Sand

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= SP AASHTO (M 145)=

Coefficients

D₉₀= 0.2713 D₈₅= 0.2425 D₆₀= 0.2006
D₅₀= 0.1876 D₃₀= 0.1629 D₁₅= 0.1411
D₁₀= 0.1307 C_u= 1.53 C_c= 1.01

Remarks

Date Received: 07.27.2018 Date Tested: 07.31.2018

Tested By: HBN

Checked By: HBN

Title:

Source of Sample: West Driftwood
Sample Number: WP-8

Depth: 0.00-0.10

Date Sampled:



ECS FLORIDA, LLC
7064 Davis Creek Road
Jacksonville, Florida 32256
Phone: (904) 880-0960
Fax: (904) 880-0970

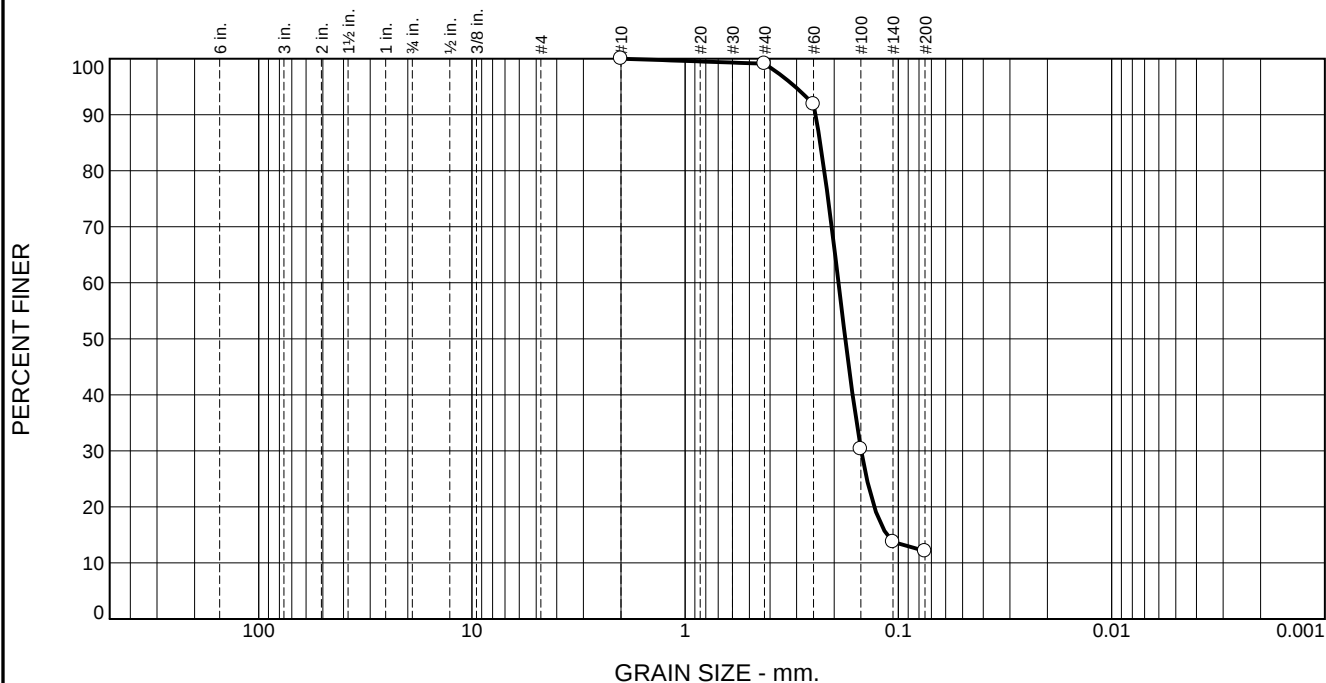
Client: ATM Inc.

Project: Jekyll Island Revetment Rehabilitation

Project No: 27243

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.9	87.0	12.1	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#10	100.0		
#40	99.1		
#60	91.9		
#100	30.3		
#140	13.7		
#200	12.1		

* (no specification provided)

Material Description

Gray Fine Sand

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)=

Coefficients

D₉₀= 0.2447 D₈₅= 0.2326 D₆₀= 0.1910
D₅₀= 0.1774 D₃₀= 0.1494 D₁₅= 0.1130
D₁₀= C_u= C_c=

Remarks

Date Received: 07.27.2018 Date Tested: 07.31.2018

Tested By: HBN

Checked By: HBN

Title: _____

Source of Sample: East Driftwood
Sample Number: WP-10

Depth: 0.00-0.10

Date Sampled:



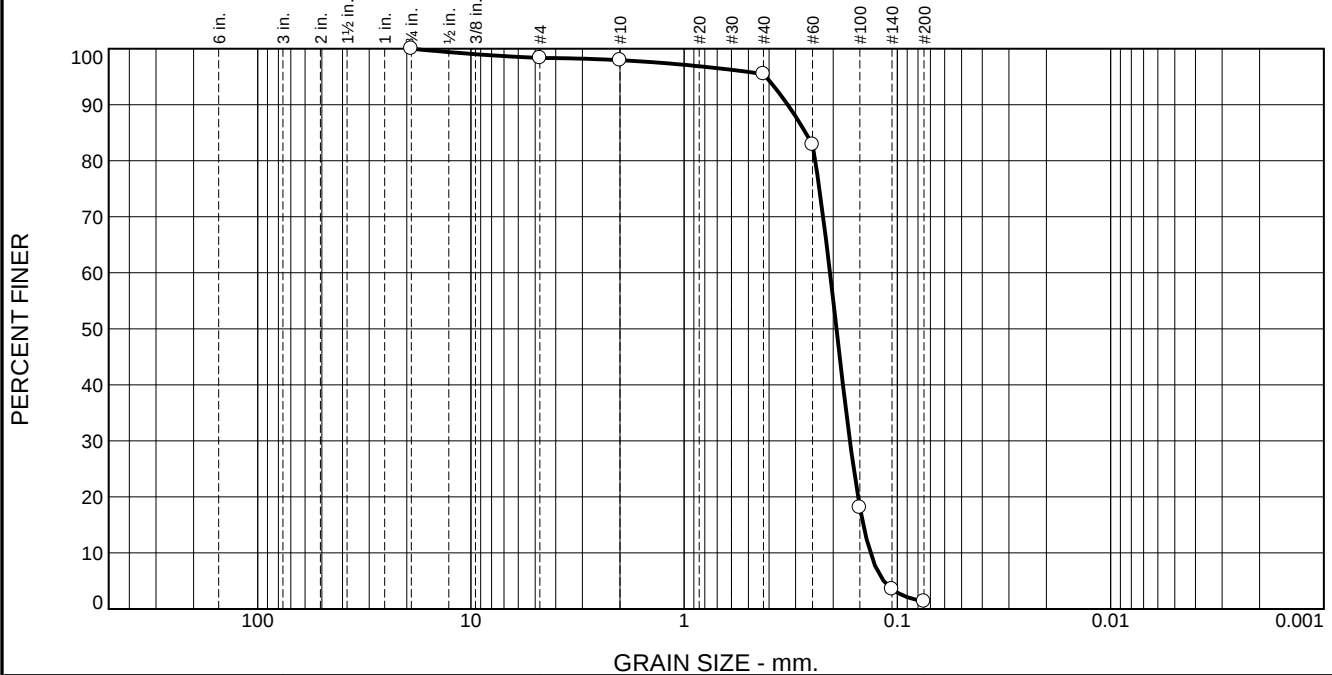
Client: ATM Inc.

Project: Jekyll Island Revetment Rehabilitation

Project No: 27243

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.7	0.4	2.4	94.1	1.4	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3/4"	100.0		
#4	98.3		
#10	97.9		
#40	95.5		
#60	82.9		
#100	18.1		
#140	3.5		
#200	1.4		

* (no specification provided)

Material Description		
Tan Fine Sand		
Atterberg Limits (ASTM D 4318)		
PL=	LL=	PI=
Classification		
USCS (D 2487)=	SP	AASHTO (M 145)=
Coefficients		
D ₉₀ = 0.3270	D ₈₅ = 0.2693	D ₆₀ = 0.2071
D ₅₀ = 0.1931	D ₃₀ = 0.1670	D ₁₅ = 0.1446
D ₁₀ = 0.1338	C _u = 1.55	C _c = 1.01
Remarks		
Date Received: 07.31.2018 Date Tested: 07.31.2018		
Tested By: HBN		
Checked By: HBN		
Title:		

Source of Sample: Mid Driftwood
Sample Number: WP-12

Depth: 0.00-0.10

Date Sampled:



ECS FLORIDA, LLC
7064 Davis Creek Road
Jacksonville, Florida 32256
Phone: (904) 880-0960
Fax: (904) 880-0970

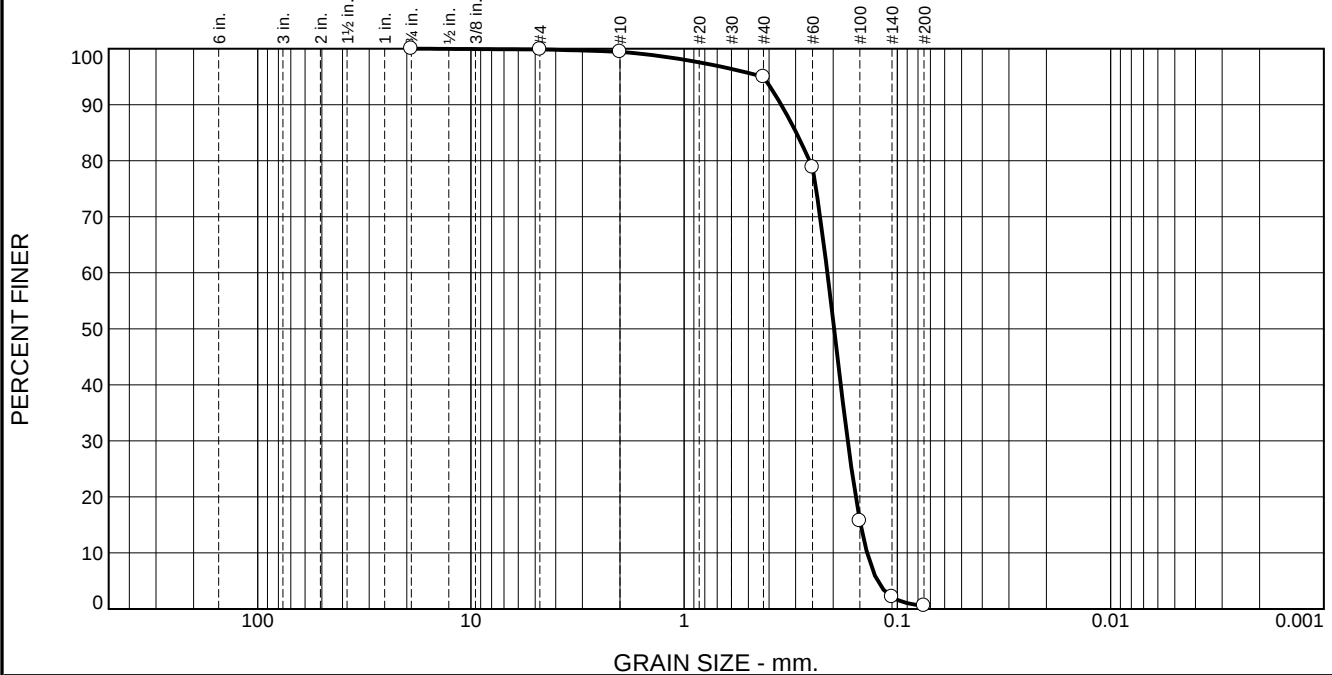
Client: ATM Inc.

Project: Jekyll Island Revetment Rehabilitation

Project No: 27243

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.5	4.4	94.4	0.6	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3/4"	100.0		
#4	99.9		
#10	99.4		
#40	95.0		
#60	78.8		
#100	15.7		
#140	2.2		
#200	0.6		

* (no specification provided)

Material Description

Tan Fine Sand

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= SP AASHTO (M 145)=

Coefficients

D₉₀= 0.3509 D₈₅= 0.2981 D₆₀= 0.2130
D₅₀= 0.1981 D₃₀= 0.1709 D₁₅= 0.1487
D₁₀= 0.1387 C_u= 1.54 C_c= 0.99

Remarks

Date Received: 07.27.2018 Date Tested: 07.31.2018

Tested By: HBN

Checked By: HBN

Title:

Source of Sample: East of Const Access Mid Upper Beach
Sample Number: WP-14

Depth: 0.00-0.10

Date Sampled:



ECS FLORIDA, LLC
7064 Davis Creek Road
Jacksonville, Florida 32256
Phone: (904) 880-0960
Fax: (904) 880-0970

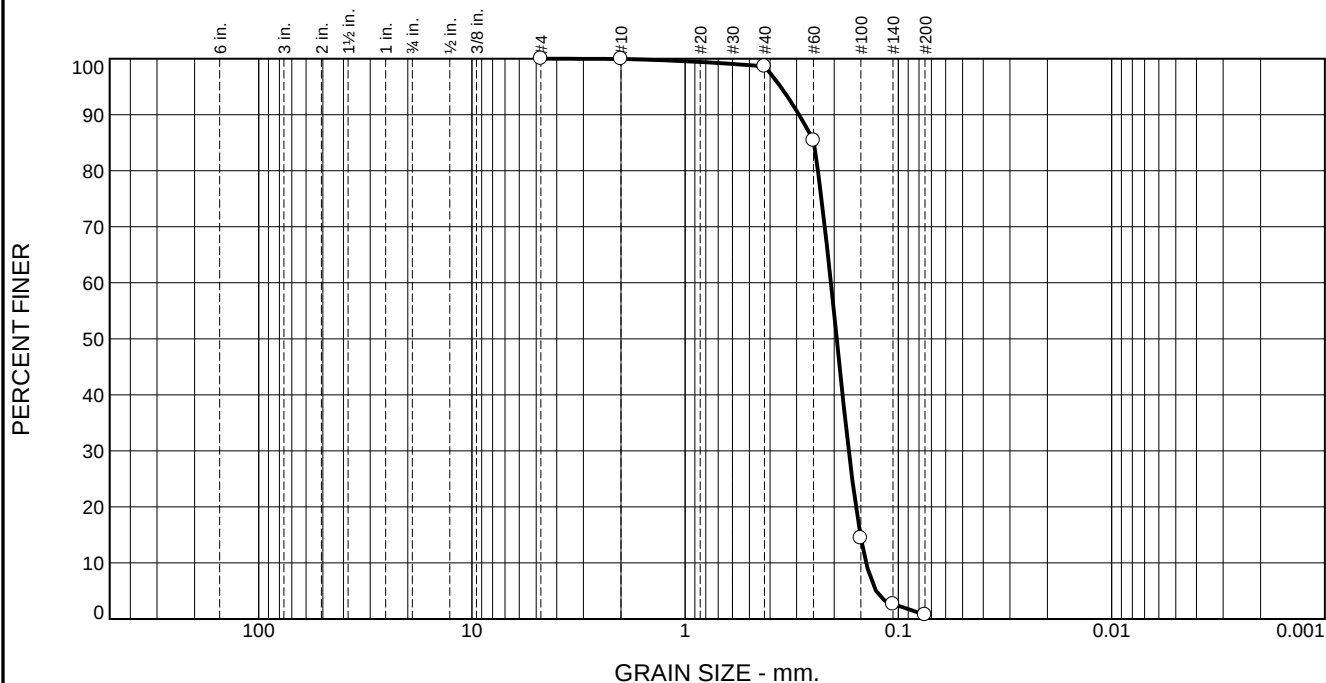
Client: ATM Inc.

Project: Jekyll Island Revetment Rehabilitation

Project No: 27243

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	1.3	97.9	0.7	

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	99.9		
#40	98.6		
#60	85.4		
#100	14.4		
#140	2.6		
#200	0.7		

* (no specification provided)

Material Description

Gray to Tan Fine Sand

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= SP AASHTO (M 145)=

Coefficients

D₉₀= 0.2926 D₈₅= 0.2490 D₆₀= 0.2073
 D₅₀= 0.1947 D₃₀= 0.1709 D₁₅= 0.1509
 D₁₀= 0.1418 C_u= 1.46 C_c= 0.99

Remarks

Date Received: 07.27.2018 Date Tested: 07.31.2018

Tested By: HBN

Checked By: HBN

Title:

Source of Sample: North Albright Mid Upper Beach
Sample Number: WP-16

Depth: 0.00-0.10

Date Sampled:



ECS FLORIDA, LLC
7064 Davis Creek Road
Jacksonville, Florida 32256
Phone: (904) 880-0960
Fax: (904) 880-0970

Client: ATM Inc.

Project: Jekyll Island Revetment Rehabilitation

Project No: 27243

Figure



ECS Florida, LLC
7064 Davis Creek Road
Jacksonville, FL 32097
Telephone: (904) 880 0960

Soil Descriptions and Munsell Color

Date: **07.31.2018**
Project Name: **Jeckyll Island Revetment Rehabilitation**
Project Number: **27243**

Sample	Description	Munsell Color
WP8	Tan Fine Sand	2.5 YR 7/2
WP16	Gray-Tan Fine Sand	10 YR 7/1
WP10	Gray Fine Sand	2.5 YR 6/2
WP14	Tan Fine Sand	10 YR 7/2
WP12	Tan Fine Sand	5 YR 6/2
24+00-39+00	Gray Fine Sand	5 YR 4/1

Jones Oysterbed Island
Sediment Testing Data

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	1.9	47.8	49.5	0.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	99.4		
#10	97.5		
#20	85.4		
#40	49.7		
#60	14.3		
#100	2.2		
#200	0.2		

* (no specification provided)

Soil Description

Light Brownish Gray to Pale Brown, Poorly Graded SAND, Trace Shell Fragments

Atterberg Limits

PL= LL= PI=

Coefficients

D₉₀= 1.0061 D₈₅= 0.8395 D₆₀= 0.4971
D₅₀= 0.4268 D₃₀= 0.3232 D₁₅= 0.2534
D₁₀= 0.2252 C_u= 2.21 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

Visual Estimate of Shell Content < 5%
F.M.=2.12

Location: WPLA 11
Sample Number: S-1

Date: 7/25/18



ECS SOUTHEAST, LLP
6714 Netherlands Drive
Wilmington, NC 28405
Phone: (910) 686-9114
Fax: (910) 686-9666

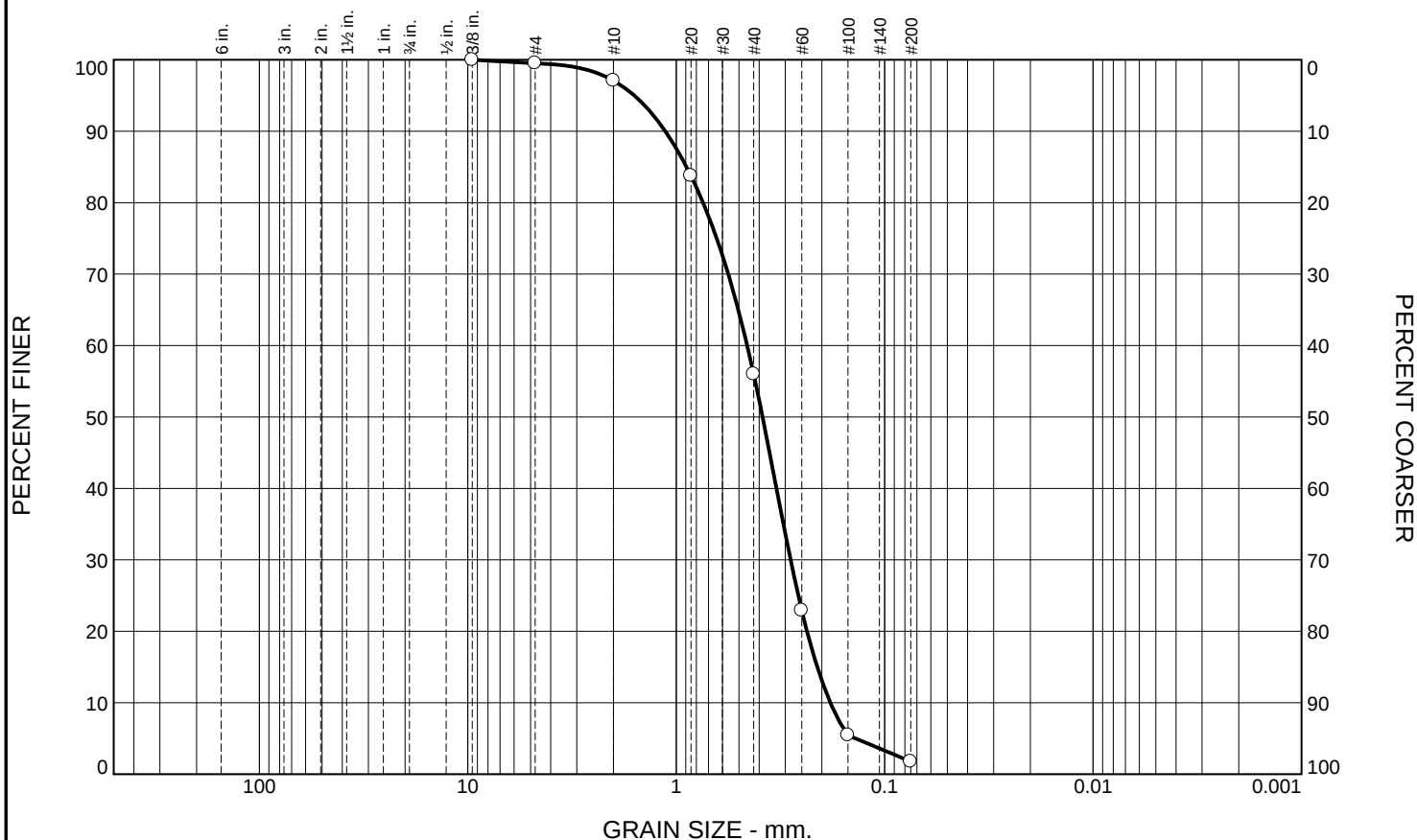
Client: Applied Technology & Management
Project: Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed

Project No: 26966

Figure

Tested By: EG Checked By: KEL

Particle Size Distribution Report



GRAIN SIZE - mm.

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.5	2.4	41.1	54.2	1.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	99.5		
#10	97.1		
#20	83.8		
#40	56.0		
#60	22.9		
#100	5.4		
#200	1.8		

* (no specification provided)

Soil Description

Light Brownish Gray to Pale Brown, Poorly Graded SAND, trace Shell Fragments

Atterberg Limits

PL= LL= PI=

Coefficients

D₉₀= 1.1279 D₈₅= 0.8930 D₆₀= 0.4565
D₅₀= 0.3852 D₃₀= 0.2827 D₁₅= 0.2106
D₁₀= 0.1822 C_u= 2.51 C_c= 0.96

Classification

USCS= SP AASHTO=

Remarks

Visual Estimate of Shell Content < 5%
F.M.=2.00

Location: WPLA 16
Sample Number: S-2

Date: 7/25/18



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Wilmington, NC 28405
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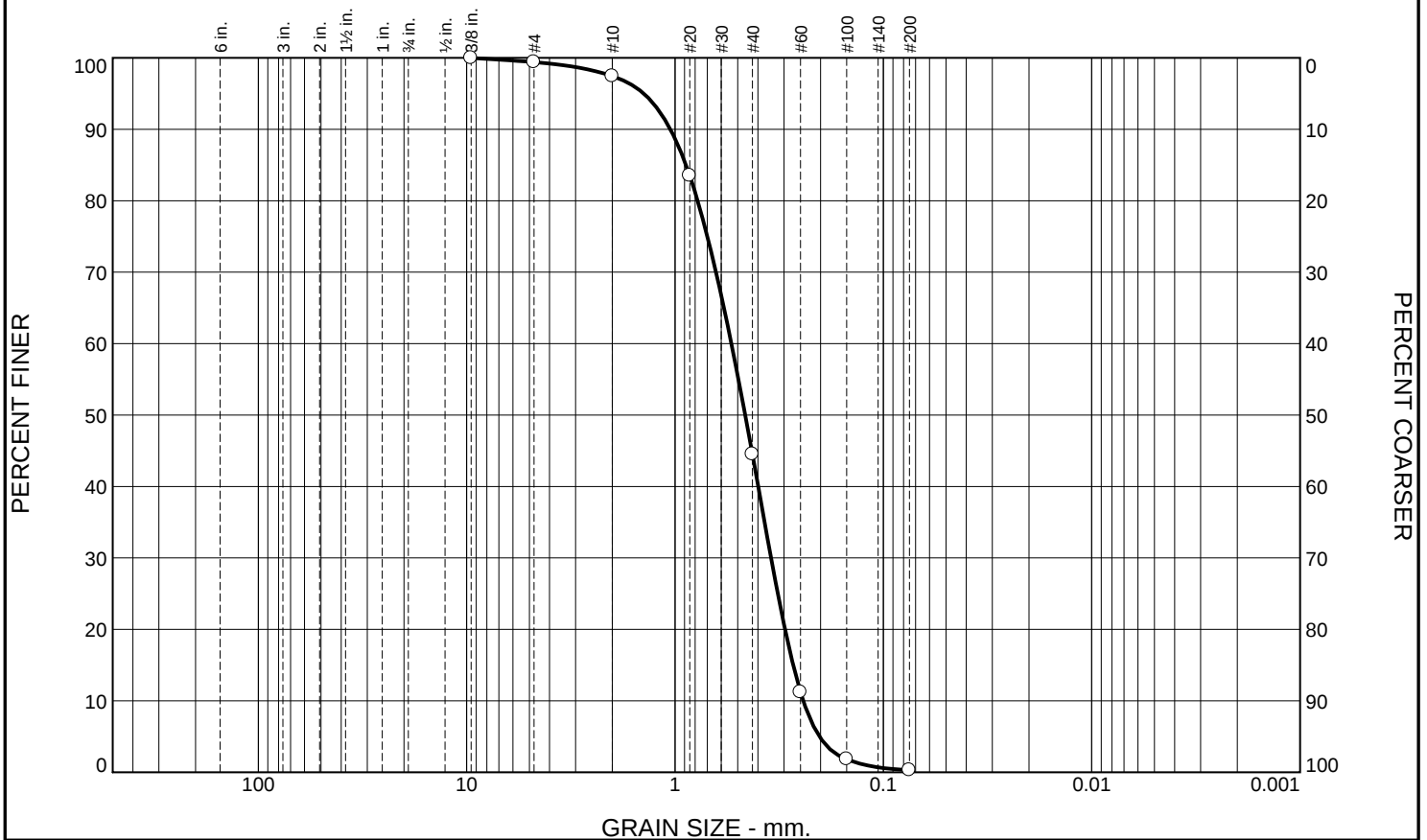
Client: Applied Technology & Management
Project: Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed

Project No: 26966

Figure

Tested By: EG Checked By: KEL

Particle Size Distribution Report



GRAIN SIZE - mm.

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	2.0	52.9	44.2	0.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	99.4		
#10	97.4		
#20	83.5		
#40	44.5		
#60	11.2		
#100	1.8		
#200	0.3		

* (no specification provided)

Soil Description

Light Brownish Gray to Pale Brown, Poorly Graded SAND, trace Shell Fragments

Atterberg Limits

PL= LL= PI=

Coefficients

D₉₀= 1.0523 D₈₅= 0.8857 D₆₀= 0.5362
D₅₀= 0.4601 D₃₀= 0.3458 D₁₅= 0.2711
D₁₀= 0.2424 C_u= 2.21 C_c= 0.92

Classification

USCS= SP AASHTO=

Remarks

Visual Estimate of Shell Content < 5%
F.M.=2.21

Location: WPLA 17
Sample Number: S-3

Date: 7/25/18



ECS SOUTHEAST, LLP
6714 Netherlands Drive
Wilmington, NC 28405
Phone: (910) 686-9114
Fax: (910) 686-9666

Client: Applied Technology & Management
Project: Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed

Project No: 26966

Figure

Tested By: EG Checked By: KEL



ECS Southeast, LLP
6714 Netherlands Dr.
Wilmington, NC 28405
Telephone: (910) 686-9114 Fax (910) 686-9666

Soil Descriptions and Munsell Color

Date: **7/25/2018**
Project Name: **Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed**
Project Number: **26966**

Sample	Description	Munsell Color
S-1	Light Brownish Gray to Pale Brown, Poorly Graded SAND	10YR 6/2 to 10YR 6/3
S-2	Light Brownish Gray to Pale Brown, Poorly Graded SAND	10YR 6/2 to 10YR 6/3
S-3	Light Brownish Gray to Pale Brown, Poorly Graded SAND	10YR 6/2 to 10YR 6/3

Appendix C
Monitoring and Potential Maintenance Plan

Jekyll Island Phase 2 Shoreline Rehabilitation

A physical monitoring plan is proposed to be implemented for the Jekyll Island transitional shoreline area of the Jekyll Island Phase 2 Shoreline Rehabilitation Project. Due to the unique nature of the existing transitional shoreline area (scattered revetment rock) and proposed sand placement combined with the lack of available historic data, physical monitoring will help observe and assess the performance of the placed sand for use in any future decision making. The goal of the physical monitoring plan is to observe the behavior of placed sand, including accretion and erosion patterns, along the transitional shoreline and areas north and south of this sand placement. No triggers or threshold requirements are incorporated into the monitoring since no baseline data exists.

Topographic & Wading Depth Surveys (Beach Profile Surveys)

Topographic profile surveys of the transitional shoreline area will be conducted within 60 days after completion of the project (post construction survey). Thereafter, surveys will be conducted annually for the next 3 years, unless the area is eroded to pre-project conditions before the third year. Monitoring surveys will be conducted during the summer months and repeated as close as practicable during the same month of the year.

The surveys will include the 8 transects shown on Figure 1 starting with station 96+00 and ending with station 110+00 at 200 ft spacing. The survey transects will begin at the landward edge of existing vegetation and extend waterward out to wading depth. Surveys will be conducted at low tide.

Engineering Monitoring Report

An engineering report will be generated within 90 days after survey completion to discuss the survey data, performance of the fill area, and identify erosion and accretion patterns. The report will include reference to pre-project conditions. The report shall specifically include:

- Survey profiles showing all monitoring surveys to date superimposed.
- Mean High Water Line position changes relative to pre-construction survey.
- Total measured remaining volume in project template relative to pre-construction survey.

Table 1: Monitoring Survey Schedule.

MONITORING EVENT	TOPOGRAPHIC SURVEY
Pre-Construction Survey	November 2017
Post-Construction Survey	60 days after project completion
Year 1	1 yr following post-con (2020)
Year 2	2 yr following post-con (2021)
Year 3	3 yr following post-con (2022)

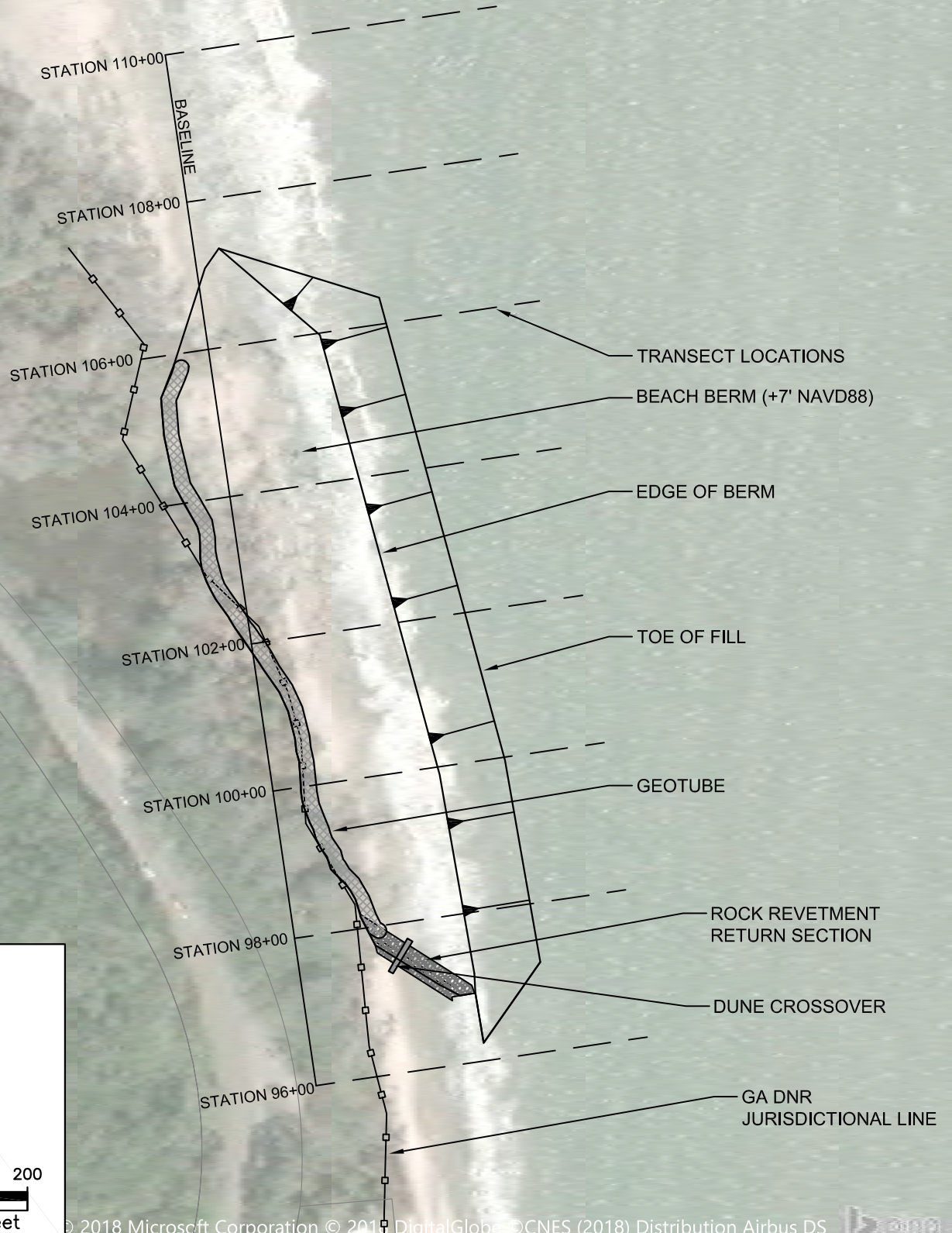
Note: Additional surveys may be collected following extreme storm events

Potential Maintenance

As desired by JIA and pending funding and material availability, after normal or extreme erosional events, potential maintenance of the project is proposed to restore any deficient areas to permitted conditions. Potential maintenance activities would generally be similar in nature, with volume placement requirements dictated by the results of the monitoring data.

SURVEY NOTES:

1. SURVEYS TO TAKE PLACE AT LOW TIDE.
2. SURVEYS TO BEGIN AT SCARP/VEGETATION LINE AND EXTEND WATERWARD TO WADING DEPTH.



North Beach Monitoring Plan
 Jekyll Island Phase 2 - Shoreline Rehabilitation
 August 8, 2018
 Figure 1

Appendix D
Sediment Quality Control/Quality Assurance Plan
For Beach or Dune Restoration Using an Upland Sand Source

Jekyll Island Phase 2 Shoreline Rehabilitation

A. INTRODUCTION

This plan outlines the responsibilities of each stakeholder in the project as they relate to the placement of beach compatible material in the terrace berm, dune, and/or on the beach. These responsibilities are in response to the possibility that non-beach compatible sediments may exist within the upland sand source(s) and could be unintentionally placed on the beach. The QC Plan specifies the minimum proposed construction management, inspection and reporting requirements to be placed on the Contractor and enforced by the JIA, to ensure that the sediment from the upland sand source(s) to be used in the project meet the compliance specifications. The QA Plan specifies the minimum construction inspection and reporting requirements to be undertaken by the JIA or the JIA's On-Site Representative to observe, sample, and test the placed sediments to verify the sediments are in compliance.

B. SEDIMENT QUALITY SPECIFICATIONS

The sediment from the upland sand source(s) has similar characteristics to the existing coastal system at the beach placement site but is slightly coarser in median grain size. As with all sand borrow sites, it is acknowledged that it is possible that discrete occurrences of non- beach compatible sediments may exist within upland sand source(s) that do not comply with the project sediment compliance requirements as indicated in Table 1.

The compliance specifications consider the variability of sediment on the native or existing beach and are values which may reasonably be attained given what is known about the upland sand source(s). Beach fill material which falls outside of these limits will be considered unacceptable and subject to remediation.

Table 1. Sediment Compliance Specifications

Sediment Parameter	Parameter Definition	Compliance Value*
Max. Silt Content	passing #200 sieve	10%
Max. Fine Gravel/Coarse Content	retained on #4 sieve	5%
Sediment Median Grain Size	D ₅₀	0.15 – 0.46 mm
Max. Carbonate (Shell) Content	Visual; confirm with lab test if required	15% by volume
Munsell Color Value	moist Value (chroma = 1)	10YR6/1 to 10YR7/1
The beach fill material shall not contain construction debris, toxic material, other foreign matter, coarse gravel, or rocks.		

* The above values are taken to be "on average" for materials considered.

C. QUALITY CONTROL PLAN

The Contractor selected for the project will be required to establish a Quality Control Plan and submit it for review and acceptance by the JIA. This Plan will address sediment quality assurance by including: (1) the specific sampling frequency and testing methodology to be provided by the Contractor, (2) the name, address and point of contact for the required collection of samples and Licensed Testing Laboratory to be used for the grain size analysis, and (3) how the Contractor intends to assess compliance with the Sediment Compliance Specifications as shown in Table 1 above.

1. Assessment at Borrow Source. The Contractor will have qualified personnel observing the material being loaded into the barges and/or trucks for transport to Jekyll Island, at all times that loading is occurring. The selected individual shall have training or experience in construction inspection and testing and be knowledgeable of these specifications for dune/beach sand. The Contractor will perform daily visual observation of the fill material with personnel who can identify obvious changes in borrow material quality and has the authority to reject material that does not visually match the acceptable quality requirements.

The Contractor will provide at least one benchmark sample labeled "Benchmark Sample", date collected, site name, and information on where the sample was attained. The Contractor shall also retain a portion of the benchmark sample for his personnel's reference on site. If any material appears to be non-compliant, it shall be set aside for testing and/or further processing and not transported from the borrow area.

The Contractor shall collect 3 representative samples from approximately every 5,000 cubic yards of stockpiled material to visually assess grain size, Munsell color, shell content, and silt content against the benchmark sample. The sample shall be a minimum of 1 U.S. pint (approximately 200 grams). This assessment will consist of handling the fill material to ensure that it is predominantly sand to note the physical characteristics and assure the material meets the sediment compliance parameters specified herein. If deemed necessary, quantitative assessments of the sand shall be conducted for grain size, silt content, visual shell content and Munsell color using the methods outlined in Section D.6.b. Each sample shall be archived with the date, time, and location of the sample. The results of these daily inspections, regardless of the quality of the sediment, shall be appended to or notated on the Contractor's Daily Report. All samples shall be stored until at least 30 days beyond project completion.

If a sample does not meet the Sediment Compliance Specifications in Table 1, then the 5,000 cubic yards of material represented by that sample shall not be transported to the Jekyll Island placement area or any interim storage and staging area(s). The material may undergo further processing to meet the Sediment Compliance Specifications with additional testing to verify the additional processing produce material that meets the Sediment Compliance Specifications, or the material shall be set aside and not used.

2. Beach Observation. The Contractor will continuously visually monitor the sediment being placed on the beach. An assessment will be made during placement at a minimum of once every day. This assessment will consist of handling the fill material to ensure that it is predominantly sand and to note the physical characteristics, and assure the material meets the Sediment Compliance Specifications in Table 1. If noncompliant sediment is placed on the beach, the Contractor will immediately cease placement until any stockpiled material at the beach construction staging area can be verified as beach compatible and verbally notify the JIA's On-site Representative, providing the time, location, and description of the noncompliant sediment. The Contractor will take the appropriate remediation actions as directed by the JIA or JIA's Engineer.

D. QUALITY ASSURANCE PLAN

1. **Construction Observation.** Construction observation by the JIA's On-Site Representative will be performed on a daily basis during periods of active construction. The JIA's On-Site Representative will visually assess grain size, color, shell content, and silt content against the benchmark sample. The observation will include handling the fill material to ensure that it is predominantly sand to note the physical characteristics and assure the material meets the sediment compliance parameter specified in this Plan. If deemed necessary, quantitative assessments of the sand will be conducted for grain size, silt content, shell content and Munsell color using the methods outlined in D.6.b.

2. **On-Site Representative.** The project Engineer will actively coordinate with the JIA's On-Site Representative. Communications will take place between the Engineer and the JIA's On-Site Representative on a weekly basis.

3. **Pre-Construction Meeting.** The project QC/QA Plan will be discussed as a matter of importance at the pre-construction meeting. The Contractor will be required to acknowledge the goals and intent of the above described QC/QA Plan, in writing, prior to commencement of construction.

4. **Contractor's Daily Reports.** The JIA's On-Site Representative will review the Contractor's Daily Reports which will characterize the nature of the sediments encountered at the upland sand source and placed along the project shoreline with specific reference to moist sand color and the occurrence of rock, rubble, shell, silt or debris.

5. **Addendums.** Any addendum or change order to the Contract between the JIA and the Contractor will be evaluated to determine whether or not the change in scope will potentially affect the QC\QA Plan.

6. **Post-Construction Sampling for Laboratory Testing.** To assure that the fill material placed on the beach was adequately assessed by the borrow area investigation and design, JIA will conduct assessments of the sediment as follows:

a. Post-construction sampling of each acceptance section and testing of the fill material will be conducted to verify that the sediment placed on the beach meets the expected criteria/characteristics. Upon completion of an acceptance section of constructed berm and/or dune, the JIA or project Engineer will collect two representative sand samples at approximately 1,000 ft intervals along the completed fill, to quantitatively assess the grain size distribution, moist Munsell color, shell content, and silt content for compliance. The Project Engineer will visually assess grain size, Munsell color, shell content, and silt content of the material by handling the fill material to ensure that it is predominantly sand, and further to note the physical characteristics. One sample will be sent for laboratory analysis while the other sample will be archived by the JIA.

b. The collected samples will be visually analyzed by a certified laboratory for carbonate/shell content and Munsell color and a sieve analysis performed to determine grain size distribution and percent fines. Gradation analysis shall be performed according to applicable sections of ASTM D422, ASTM D1140, and ASTM D2487. U.S. Standard sieve sizes shall include numbers 4, 10, 40, 60, 100, 140, and 200, at a minimum.

c. A summary table of the sediment samples and test results for the sediment compliance parameters will be prepared and indicate whether each sample MET or FAILED the compliance values found in Table 1. The sediment testing results will be certified by a P.E. or P.G. registered in the State of

Georgia. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the project design shall be included. The JIA will submit a sediment testing results and analysis report to the GA DNR and USACE within 90 days following completion of beach fill construction.

d. In the event that a section of fill contains material that is not in compliance with the sediment compliance specifications, then the GA DNR and USACE will be notified. Notification will indicate the volume, aerial extent and location of any unacceptable fill areas and remediation planned.

7. Remediation Actions. The JIA or JIA's Engineer shall have the authority to determine whether the material placed on the beach is compliant or noncompliant. If placement of noncompliant material occurs, the Contractor will be directed by the JIA or JIA's Engineer on the necessary corrective actions. Should a situation arise during construction that cannot be corrected by the remediation methods described within this QC/QA Plan, the GA DNR and USACE will be notified. The remediation actions for each sediment parameter are as follows:

a. Silt: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.

b. Shell: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.

c. Munsell color: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.

d. Coarse gravel: screening and removing the noncompliant fill material and replacing it with compliant fill material.

e. Construction debris, toxic material, or other foreign matter: removing the noncompliant fill material and replacing it with compliant fill material.

All noncompliant fill material removed from the beach will be transported to an appropriate upland disposal facility located landward of the GA DNR SPA line. Re-testing of any remediated sections will be conducted as outlined in Section D.6 above.

Beach scraping as a coastal management option

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¹Water Research Laboratory, School of Civil and Environmental Engineering, University of New South Wales

²Parsons Brinckerhoff, Sydney NSW

³Byron Shire Council, NSW

⁴Clarence City Council, TAS.

Abstract

This paper examines the feasibility of beach scraping as a coastal management option. Beach scraping has been and continues to be widely undertaken, but there is little published literature on it. Conversely, it has been discontinued in some locations due to environmental concerns.

Beach scraping is defined as the movement of sand from the intertidal zone to the dune or upper beach by mechanical means. It has also been called beach skimming, beach panning, nature assisted beach enhancement and assisted beach recovery. Beach scraping mimics natural beach recovery processes, but increases the recovery rate compared with natural processes. In combination with revegetation schemes, beach scraping has commonly been used for dune building.

The paper details case studies from two locations and addresses the following aspects of beach scraping:

- Literature review;
- International best practice;
- Design methodology;
- Target dune profile;
- Impacts of climate change;
- Seasonal factors;
- Approximate costs;
- Preliminary environmental effects;
- Precautions.

Beach scraping differs from beach nourishment in that nourishment involves sand being imported from outside the active littoral compartment, whereas with beach scraping, sand is redistributed within the littoral system. This redistribution used in scraping means that natural forces may do some of the work, potentially resulting in lower costs than nourishment.

Clearly, beach scraping is not a universal panacea for coastal management. This paper identifies the most suitable locations, criteria for suitability and the limitations of beach scraping.

Introduction

Beach scraping refers to the anthropogenic movement of small to medium quantities of sand from the lower part of the littoral beach system to the upper beach/dune system, thus mimicking the natural beach recovery processes (Figure 1), but at a greatly increased recovery rate. Beach scraping has been widely practised (Figure 2) but there is relatively little published literature on its application. Most work has been done without detailed environmental approvals or studies.

Other definitions include:

- “the removal of material from the lower part of the beach for deposition on the higher part of the beach or at the dune toe” (Bruun, 1983).
- “the transfer of sand from the lower beach to the upper beach (within the beach system), usually by mechanical equipment, to re-distribute the sand to parts of the beach above tide level” (BSC, undated).
- “the process of mechanically removing a layer of sand from the foreshore and transferring it to the backshore” (Clark, 2005).

Beach scaping has also been called:

- Beach skimming;
- Beach panning;
- Nature assisted beach enhancement (NABE);
- Assisted beach recovery;
- Beach recycling and re-profiling.

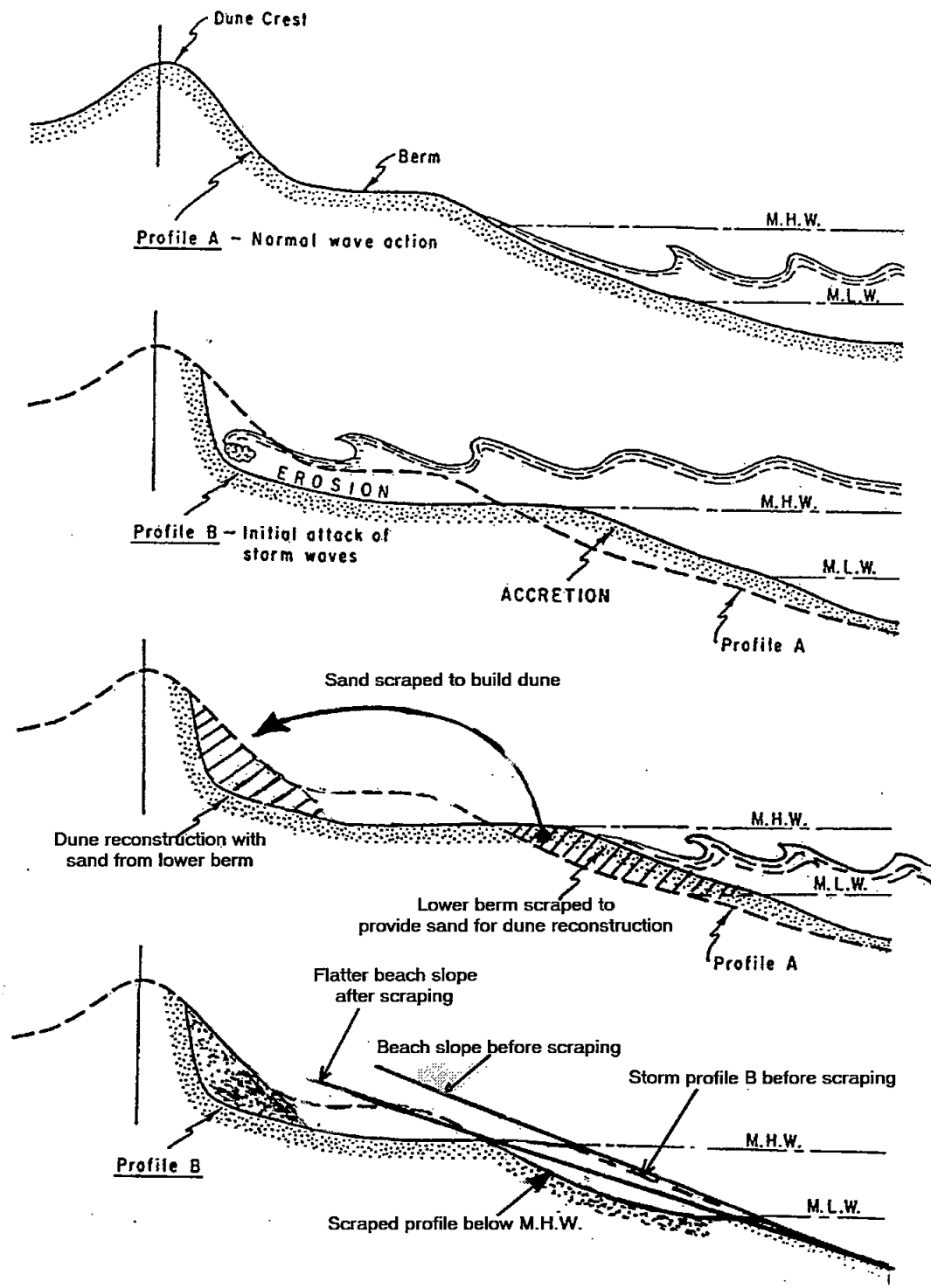


Figure 1: Beach scraping concept (Source: Lex Nielsen)



Gold Coast 1967



Sydney 2008

Figure 2: Photos of beach scraping

Literature Review

Physical Factors and Effects

Smutz, Griffith and Wang (1980)

Smutz et al. (1980) reasoned that by removing a small amount of sand from the lower beach and placing it above the wave run-up limit, accretion of the lower beach is accelerated because a flatter nearshore profile prevails. Flatter profiles promote accretion, whereas steeper profiles are more prone to erosion. Smutz et al. reported on physical model studies of this and also presented theoretical wave steepness calculations.

They acknowledged that their work was not based on field studies, but argued that beach scraping was more efficient than conventional nourishment because nature provides most of the energy (in accreting the lower beachface).

Bruun (1983)

Bruun (1983) commented on scraping practice in Denmark and the USA. He recommended “responsible scraping”, with scraping depths of 0.2 to 0.5 m and that placing material into the dune provided the best coastal protection. “Responsible scraping” did not have adverse effects on neighbouring beaches. He argued from his extensive observations that if material is removed from a seaward berm during accretionary conditions, another berm will form. Bruun concluded:

1. “Beach scraping is not harmful, but rather is beneficial as coastal protection of eroding dunes...
2. Undertaken in a technically responsible way, it also has beneficial rather than adverse effects on adjacent beaches.
3. Beach scraping is a way of organizing available beach material in a more sensible way – on a short term basis. But it is a temporary measure only. It does not replace artificial nourishment,...

Tye (1983)

Tye (1983) examined the seasonal effects, post storm recovery and the response of an eroded beach to scraping and artificial dune construction at Folly Beach, South Carolina, USA following a major hurricane. The analysis involved six beach profile transects at 1.6 km intervals along the beach. The scraping volumes averaged 28 m³/m (cubic metres of sand per metre of beach/coast). Tye found that this scraping rate was excessive on profiles which did not recover naturally, and resulted in additional erosion in subsequent storms .

Tye stated that a “well organized and prudently monitored beach scraping program can prove beneficial to dune and beach restoration.” He concluded that “By working in conjunction with the natural beach recovery cycle, beach recovery can be accelerated with minimal environmental damage.” This was predicated on scraping rates not exceeding natural recovery rates.

McNinch and Wells (1992)

McNinch and Wells (1992) reported on a scraping project at Topsail Beach, North Carolina, USA. The scraping rates in their project were small, averaging 0.21 m³/m per day over 3.5 weeks, scraping to a depth of 0.15 to 0.2 m, and using only a single piece of machinery. Their borrow area was below the high water mark. They cautioned that unsuccessful scraping projects involved scraping more sand than natural recovery rates, and that such excessive scraping may involve oversteepening of beaches and additional erosion. They quoted a project at Folly Beach, South Carolina, USA which used scraping rates of 5.2 m³/m/day which was considered unsuccessful, in that the lower beach borrow area had not recovered 5 weeks after scraping.

McNinch and Wells (1992) concluded that “under certain conditions, beach scraping can be beneficial in preventing overwash and preventing damage to backshore features..... we recommend limited scraping, only on that part of the beach inundated daily by tides....”

NSW Department of Land and Water Conservation (2001)

The NSW Coastal Dune Management Manual provides management and rehabilitation techniques for coastal dunes in NSW. The manual provides some guidance on dune reforming including suggested dune profiles, materials and position geometries. The manual states that “reconstructed dunes should vary in slope, size and shape just as natural dunes do. However unnatural protruding hummocks or steep-sided undulations that may interrupt or concentrate wind flow should be avoided.” The manual further states that “the height and width of a reconstructed dune depends on a number of factors including:

- the height and width of existing dune remnants
- the availability of sand
- available space
- the degree of landward protection required.

It may be desirable to reconstruct the dune to a height that will prevent wave overtopping during storms.”

Queensland BPA (2003)

The Queensland BPA (2003) suggested that dune heights on open coasts should be 5 to 7 m AHD. Dunes will ultimately develop their own profile, but they suggested a seaward design slope of 1V:5H for sand dune design.

Dare (2003)

Dare (2003) stated that a lack of research on beach scraping has led to differing opinions on its impact to the beach and its success in erosion control and prevention. A listing of the benefits and problems of beach scraping as a form of coastal erosion protection was compiled by Dare and is presented below with additional comments.

Positives:

- Widening of the beachfront enhances recreational use and tourism.
- Temporary coastal protection of infrastructure and housing is provided by increased beach (and dune) width.
- Scraping is aesthetically unobtrusive following the initial works period.
- An emergency response option which can be implemented rapidly without permanence.
- It utilises a natural and compatible sediment supply which is beneficial to beach flora and fauna rehabilitation and natural dune formation.

- There is minimal impact to the natural cycles of the coast.
- Temporarily increased defence without the need to expensively import volumes of sand.

Negatives:

- The temporary nature of beach scraping works for protection from coastal erosion may need to be repeated frequently in the future.
- Sediment supply is temporarily interrupted and has the potential to result in down-drift erosion.
- Modification and destruction of habitat and flora and fauna is inevitable.
- Disturbance of flora and fauna has a follow on effect to foraging patterns on species who feed on those organisms.
- Alteration to foraging, nesting and breeding patterns of avifauna and turtles.
- Erosion rates may initially be increased in the 'borrow' area.
- Beach profile has the potential to become adversely steepened depending on the size of the borrow area.

Conaway and Wells (2005)

Conaway and Wells (2005) reported on aeolian dynamics on scraped shorelines in North Carolina. Their study noted that as beach scraping increases the dry sediment volume above the high tide and increases the foredune surface area with loose, unconsolidated material, sand movement due to aeolian (wind-induced) processes is increased. This increased aeolian transport may result in in-situ dune growth but may also be lost from the active beach system completely if blown onshore. Mitigation of wind erosion was therefore suggested desirable, with wind fencing recommended as the most effective means.

Govarets (2009)

The work of Govarets was primarily focussed on ecological impacts, but also provided comments on physical impacts. Govarets (2009) stated that "soft" coastal erosion responses (such as beach nourishment and scraping) have less impact on the natural environment as they allow for the processes of sediment erosion, deposition and transportation to continue. As with any form of beach nourishment, beach scraping derives various environmental (physical) and ecological effects. However, if undertaken in accordance with appropriate site specific management techniques (e.g. scrape depth and sand placement technique) the severity of any detrimental impacts may be reduced. Reducing the severity of impacts may allow for more rapid recolonisation of beach macrofauna and provide for improved fauna and flora habitat.

Ecological Factors and Effects

Numerous studies have been undertaken on the ecological effects of beach nourishment (defined as importing sand into the littoral system), but few specifically address beach scraping.

Committee on Beach Nourishment and Protection (1995)

An improvement to the subaerial beach following scraping works can supply indigenous biota and other biota with appropriate foraging and nesting sites. In the longer term beach scraping can modify, enhance and provide new habitats in the form of enhanced dunes for beach flora and fauna.

Grain (1995)

Alterations to the natural beach system as resulting from beach nourishment, which can negatively affect sea turtles, include compaction, density, shear resistance, colour and gas exchange (Grain, 1995). Compaction and changes in density is thought to decrease nesting success, alter nest changing geometry and alter nest concealment (Grain, 1995). Gas exchange of the beach sands can influence the incubating environment of a nest which could in turn affect hatchling success and sex ratios (Nelson and Dickerson, 1988 in Speybroek et al. 2006).

Various other studies deduced no significant difference in hatching and emergence success of turtles on nourished as opposed to non-nourished beaches occurred (Raymond 1984, Nelson et al. 1987, Ryder 1992 in Committee on Beach Nourishment and Protection, National Research Council, 1995). The studies discussed above focused on the immediate impacts of beach nourishment practices during turtle nesting periods.

Henry (1999)

Henry (1999) undertook a B.Sc. thesis on the biological effects of beach scraping at Wooli, northern NSW, where beach scraping has been used primarily to improve pedestrian beach access. The following species of macrofauna were identified:

- *Crustacea* (crustaceans);
- *Ocypode cordimana* (ghost crab);
- *Gastrosaccus* sp.
- *Excirolana* sp.
- *Polychaeta* (beach worms)
- *Polychaeta* sp. A (cf. *Lumbrinereis* sp.)
- *Polychaeta* sp. B (cf. *Glycera* sp.)
- *Nephtys* sp.
- *Mollusca* (molluscs)
- *Donax deltoids* (pipi)
- *Insecta* (insects)
- *Bledius* sp. (shore beetle)
- *Coelopidae* sp. (kelp fly).

From a limited sampling scope and duration, Henry found that species abundance was less for the scraped sites than the unscraped, but there was no significant difference in

species diversity between sites. Henry found highly significant differences in populations of *Donax deltoids* (pipi) and significant differences in populations of *Ocypode cordimana* (ghost crab).

Though not mentioned by Henry, it may be that the scraped sites were subject to increased pedestrian traffic (since the scraping was undertaken to improve pedestrian access). This may be an alternative explanation for the observed differences between scraped and unscraped sites.

Erskine and Thompson (2003)

Erskine and Thompson (2003) suggested that pipis are migratory species; therefore timing beach scraping works to occur when pipis are absent will reduce the negative impacts to pipi populations.

Speybroek et al. (2006)

Speybroek et al. (2006) determined that re-colonisation processes and rates of recovery are species specific and can be determined by the duration and intensity of works. Research on sand nourished beaches (different to beach scraping) suggests that nourishment is a 'short-term pulse' disturbance and hence provokes a 'short-term pulse' response.

Batton (2007)

Benthic invertebrate community recovery is dependent on the size and arrangement of the disturbed zone (Batton, 2007). Invertebrate abundance is greatest in the top 30cm of sediment, therefore deeper areas of impact with a smaller surface area are preferred.

While it is generally considered that that the impacts are greatest where material is sourced (Batton, 2007), the impact to benthic invertebrate communities adjacent to the extraction site and at the replenishment site are generally perceived as short term (Van Dolah, 1996 in Batton, 2007).

The intertidal zone is an area of high wave and tidal action. This high energy environment is less likely to be in a stable equilibrium assemblage structure under natural conditions and it is believed species habituating this area recover from disturbance swiftly (Bolam and Rees, 2003 in Batton, 2007). Fast recovery is associated with sandy beach species as these species have adapted to a highly variable and dynamic environment which is often subject to large physical disturbances such as storms, wave action, tides, sediment transport and turbidity (Batton, 2007).

Defeo et al (2009)

Defeo et al stated that recovery of ecosystems is assumed to occur in matter of months as opposed to years. It is recognised that direct crushing of intertidal invertebrates occurs as a result of human trampling (Defeo et al. 2009, Moffett et al., 1998 in Defeo et al. 2009)

and the presence of humans has a negative effect on macrobenthic populations and communities (Veloso et al., 2006 in Defeo et al. 2009).

Defeo et al listed potential impacts on birds which include;

- Changes to foraging behaviour resulting in less feeding time, shifts in feeding times and decreased food intake;
- Decreased parental care when disturbed birds spend less time attending the nest, thus increasing exposure and vulnerability of eggs and chicks to predators;
- Decreased nesting densities in disturbed areas and population shifts to less impacted sites.

Parsons Brinckerhoff (PB, 2009)

PB undertook an extensive *Review of Environmental Factors* for proposed beach scraping at New Brighton in Byron Shire. Both Green and Loggerhead turtles have been recorded at New Brighton Beach (NPWS Wildlife Atlas) and generally nest between November and January (PB, 2009 in Carley et al. 2009). Limiting a trial scraping episode to extend no later than 30 September ensures that potential impact to nesting turtles is limited. Allowing time for natural beach profile accretion (approximately 4 weeks before the start of turtle nesting season) will further enhance the natural state of the beach allowing turtles to nest in relatively natural conditions.

Fitzgerald (2010)

Removal of sand by mechanical means is likely to cause direct mortality of benthic macrofauna, and deposits of sand on the foredune may smother fauna within this zone. Beach fauna such as ghost crabs, invertebrates, pipis, polychaete worms, crustaceans and molluscs are expected to be affected by beach scraping works.

Threatened species having the potential to be effected by a trial beach scraping episode at New Brighton Beach were identified in Fitzgerald (2010). "They include two littoral zone plant species: Sand Spurge (*Chamaesyce psammogeton*) and Dwarf Heath Casuarina (*Allocasuarina defungens*); Green Turtle (*Chelonia mydas*) and Loggerhead Turtle (*Caretta Caretta*). The latter species is known to nest at New Brighton Beach. Eight shorebirds are the remaining threatened species of concern. These are Beach Stone-curlew (*Esacus magnirostris*), Sooty and Pied Oystercatchers (*Haematopus fuliginosus* and *Haematopus longirostris*), Lesser Sand Plover (*Charadrius mongolus*), Terek Sandpiper (*Xenus cinereus*), Sanderling (*Calidris alba*), Great Knot (*Calidris tenuirostris*) and Little Tern (*Sternula albifrons*).

As with the sites identified in the Henry (1999) study, heavy pedestrian traffic and domesticated dog walking currently occurs throughout the proposed New Brighton Beach scraping site. For New Brighton, high levels of disturbance (by people and dogs), during both day night were identified by Fitzgerald, which could reduce the number of flora and fauna species present in the proposed works area. Undertaking a beach scraping episode within a high human use area has the potential for a relatively lower environmental impact than what may be observed in an undisturbed system.

Fitzgerald (2010) identified that food resource for littoral (seashore) birds may be temporarily diminished via temporary loss of intertidal benthic macrofauna. Disturbance to foraging, nesting and breeding shorebirds may occur during beach scraping works, however the construction phase can also attract species such as gulls through the supply of sediment, should it contain food (Govarets, 2009). Fitzgerald (2010) suggested that given the high use of New Brighton Beach, impacts to threatened avifauna as resulting from any beach scraping works (if undertaken before October) are not expected to be significant.

Aim and Scope of Beach Scraping

There are several possible aims and scopes of beach scraping, which could be attained either singly or as a combination. These are:

1. Restore and maintain pedestrian beach access following storm erosion.
2. Build a dune to a design profile by:
 - a. Raising low points of the dune to a design level.
 - b. Increasing the dune volume over the long term to meet storm demand.
3. Accelerating beach recovery following storm erosion.
4. Increase the dune volume to offset recession due to sea level rise (as a medium term measure).

Designing a beach scraping project

Coastal processes

Coastal processes which need to be considered in the design of a beach scraping project include:

- Water levels;
- Sea level rise;
- Wave climate;
- Wave setup;
- Wave runup;
- Littoral drift (net and gross);
- Beach erosion;
- Beach recovery;
- Beach recession;
- Wind blown sand;
- Beach rotation;
- Seasonality.

Project design

Factors which need to be considered include:

- Aim and scope of beach scraping;
- Sand borrow area;
- Design sand dune profiles;
- Existing representative profiles;
- Preferred profiles of deposited sand;
- Required sand volume;
- Quantity of sand gained per episode;
- Machinery to be used to scrape and transport sand;
- Estimates of machinery hours/days per scraping episode;
- Number of scraping episodes for present day hazards;
- Economics.

Some examples of coastal processes and project design are provided below, however, the scope exceeds the limitations of this paper. More detail is provided in Carley et al (2009).

An example of typical water levels for the NSW coast is shown in Table 1. These indicate a typical borrow area should extend between about -0.4 m AHD and 1 m AHD.

For a typical NSW site and a range of scraping depths between 0.1 and 0.5 m, the volume of material obtained per scraping episode is shown in Table 2. Indicative costs for beach scraping range from \$2/m³ to \$10/m³ (ex GST), with a value of \$7/m³ ex GST adopted. Costs are shown in Table 2. This compares with typical costs for beach nourishment of \$5/m³ to \$50/m³ (ex GST).

Design erosion volumes for the open NSW coast from Gordon (1987) are shown in Table 3. When erosion volumes from a major storm are compared with the volumes obtainable from a single scraping episode, it can be seen that the scraping volumes are small.

Table 1: Design water levels for operational scraping conditions

Parameter	Low Tide	High Tide
Spring Tide (MLWS & MHWS)	-0.6 m AHD	+0.7 m AHD
Wave Setup for Hs = 1.6 m	0.2 m	0.2 m
2 % Wave Run-up for Hs = 1.6 m, Tp = 10 s	0.7 m	0.7 m
Typical Nearshore Water Level	- 0.4 m AHD	+ 0.9 m AHD
Typical Nearshore Runup Level	+0.1 m AHD	+1.4 m AHD

Table 2: Typical scraping volumes per episode and costs

Scrape depth (m)	m ³ /m	\$/m @ \$7/m ³
0.1	4	28
0.2	8	56
0.3	12	84
0.4	16	112
0.5	20	140

Table 3: Design erosion volumes for NSW coast (Gordon, 1987)

ARI (years)	Erosion volume (m ₃ /m above AHD)	
	Low demand open coast	High demand rip heads
1	5	40
2	26	68
5	53	104
10	74	132
20	95	160
50	122	197
100	143	224

An example of dune crest levels relative to design wave runup (indicated as “target dune crest level”) is shown in Figure 3. Beach scraping may be feasible for raising the crest of dune areas with a crest below the runup level, to prevent dune overwash.

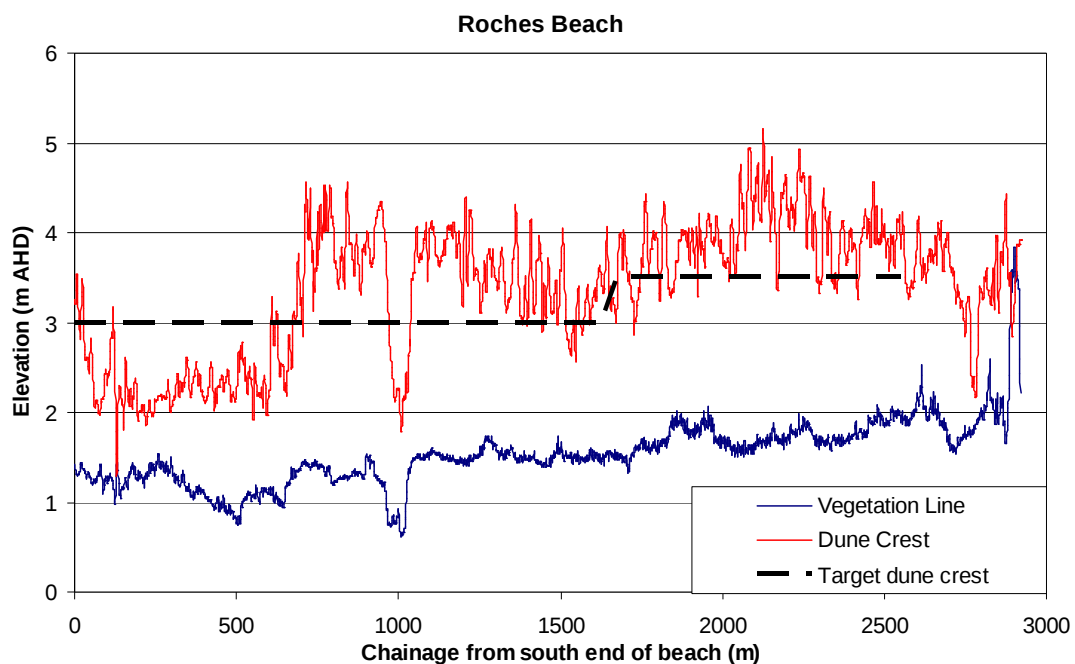


Figure 3: Dune crest level versus design wave runup level

An example of quasi-seasonal changes in beach width is shown in Figure 4. This figure (from Blacka et al, 2007) shows beach width on the northern Gold Coast. The beach width generally increased in spring and decreased during the first half of the year. Similar patterns are likely to occur in northern NSW.

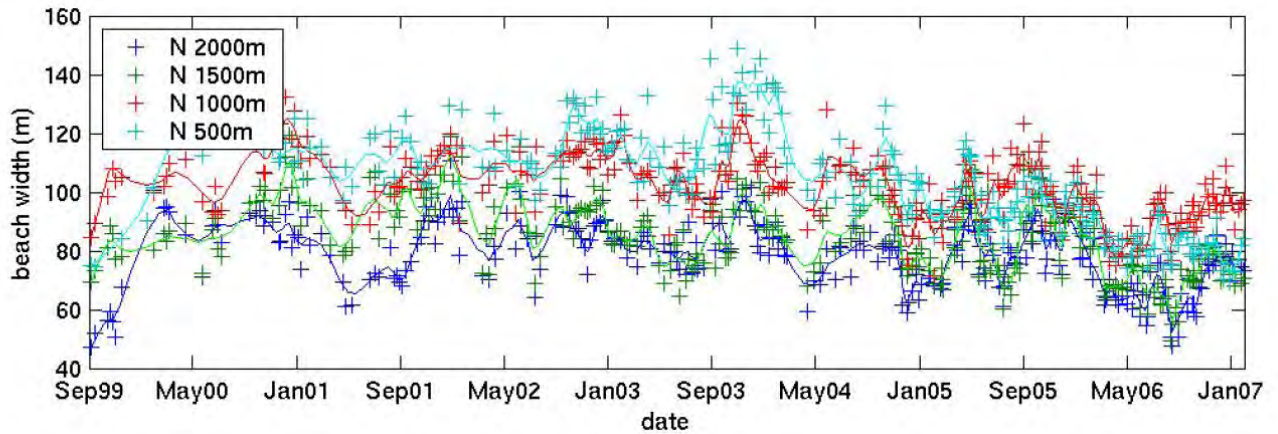


Figure 4: Seasonal change in beach width on northern Gold Coast (Blacka et al 2007)

Natural dune building occurs when the wind is onshore and exceeds a critical threshold to mobilise a given sand grain size. The threshold of motion for 0.22 mm beach sand due to wind has been calculated from the methods of CEM (2002), which yield:

- Dry sand: 6.8 m/s (13 knots, 25 km/hour);
- Wet sand: 11.9 m/s (23 knots, 43 km/hour).

The large difference in motion threshold between wet and dry sand shows the sensitivity to location on the beach face and tidal water level, as well as changes in rainfall, which may be due to natural variability, seasonality, cyclic patterns (el niño-southern oscillation and inter-decadal Pacific oscillation) and climate change. A plot (from Cape Byron) of the seasonal occurrence of winds at 3 PM which are favourable for dune building is shown in Figure 5. This plot shows that dune building through wind is least prevalent from May to August.

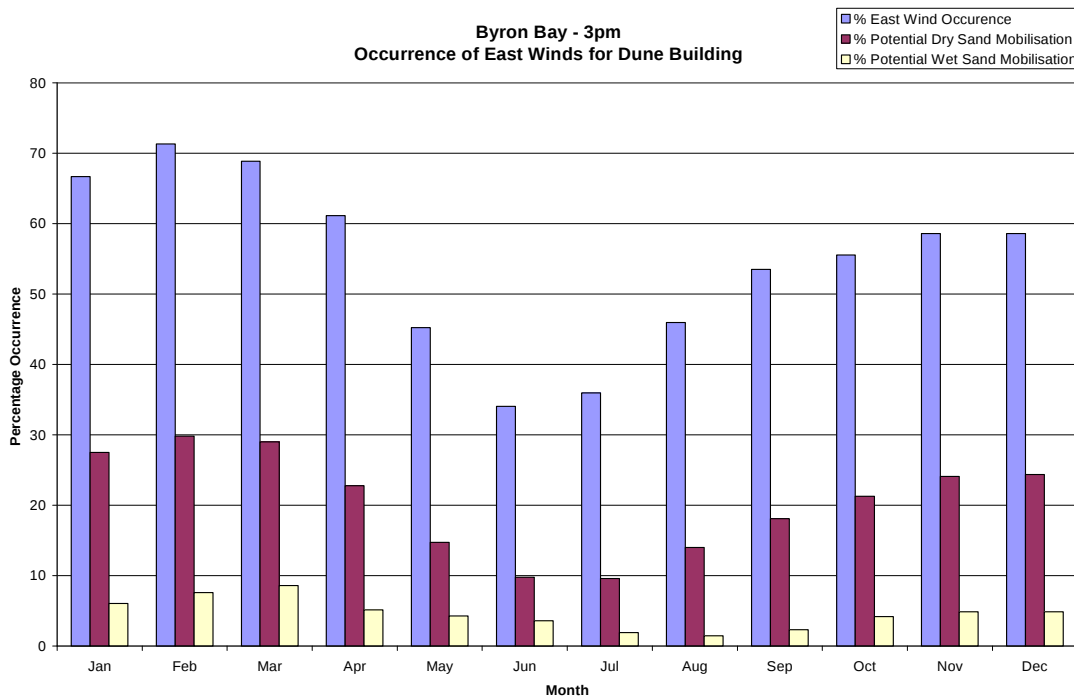


Figure 5: Seasonal winds (3 PM) favourable to dune building (Cape Byron data)

Economics

WBM (2003) estimated the cost of beach erosion on gross tourism receipts using limited data for Byron Shire. This was predominantly based on work undertaken by Raybould and Mules (1998) for the Gold Coast. It should be noted that the assumed revenue losses due to beach erosion are a small proportion of total tourism revenue. WBM (2003) presented four scenarios for tourism effects:

Scenario 1: revenue grows at 2% per annum, revenue losses with major erosion are 2%.

Scenario 2: revenue grows at 2% per annum, revenue losses with major erosion are 10%.

Scenario 3: revenue grows at 4% per annum, revenue losses with major erosion are 2%.

Scenario 4: revenue grows at 4% per annum, revenue losses with major erosion are 10%.

Rawlinsons (2007) provided the following quotation on Life Cycle Costing or Net Present Value Analysis: "Life Cycle Costing is best used in a comparative situation to provide an approximate answer to a precise question rather than a precise answer to an approximate question."

For Scenario 1 above, a discount rate of 7%, and combining the work of WBM (2003) and numerous assumptions presented in Carley et al (2009), the following benefit to cost ratios were estimated for beach scraping:

- Preserve/restore beach access following storm erosion (tourism only): 444
- Build a dune to a design profile to reduce erosion hazard (property benefits): 1.0

Site and project specific costing is needed. Furthermore, the economics is affected by the storm events and long term beach change. For the example cited, the benefit to cost ratio for restoring beach access is high, and justify beach scraping on economic grounds. This is predominantly because beach scraping is a potentially cheaper form of beach nourishment, whereby much of the work is performed by nature.

As discussed previously, beach scraping has higher uncertainty as a protection measure than other coastal management options, so should only be undertaken in conjunction with a comprehensive monitoring program. The monitoring program should encompass both physical and ecological surveys.

Summary

This paper examines the feasibility of beach scraping as a coastal management option. Beach scraping has been widely undertaken, but there is little practical guidance and published literature on its physical and ecological effects. Conversely, it has been discontinued in some locations due to environmental concerns.

Beach scraping is defined as the movement of sand from the intertidal zone to the dune or upper beach by mechanical means. Beach scraping mimics natural beach recovery processes, but increases the recovery rate compared with natural processes. In combination with revegetation schemes, beach scraping has commonly been used for dune building.

Beach scraping differs from beach nourishment in that nourishment involves sand being imported from outside the active littoral compartment, whereas with beach scraping, sand is redistributed within the littoral system. This redistribution used in scraping means that natural forces may do some of the work, potentially resulting in lower costs than nourishment.

Clearly, beach scraping is not a universal panacea for coastal management. Beach scraping is most feasible for improving or restoring beach access, and for raising low points in dunes. It is unlikely to be feasible as a primary coastal management option to offset sea level rise of 0.9 m.

The ecological impacts of minor scraping on beaches subject to high pedestrian and/or dog traffic are low. Ecological studies are needed before undertaking major scraping works. Appropriate timing of scraping can avoid or reduce impacts on seasonal nesting species. If scraping is undertaken, a comprehensive monitoring program encompassing both physical and ecological surveys is needed.

Acknowledgments

Funding for the investigations presented was contributed by Byron Shire Council (NSW) and Clarence City Council (TAS).

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COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 17, 2025

The Beach Club at St. Simons Island COA
520 Ocean Blvd.
St. Simons Island, GA 31522

RE: Shore Protection Act (SPA), Jurisdiction Determination Re-Verification, 1440 Ocean Boulevard, St. Simons Island, Glynn County, Georgia

Dear Beach Club at St. Simons COA:

Our office has received the survey plat dated November 8, 2024, prepared by Shupe Surveying Company, P.C., No. 3081 entitled "*A Shore Protection Act Jurisdiction Line Survey of: The Beach Club at St. Simons Island Condominium 25th G.M.D. St. Simons Island Glynn County, Georgia*" prepared for St. Simons Beach Club. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on July 2, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on July 2, 2026 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *A Shore Protection Act Jurisdiction Line Survey of: The Beach Club at St. Simons Island Condominium 25th G.M.D. St. Simons Island Glynn County, Georgia*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com
Jason Hartman, Glynn County, jhartman@glynncounty-ga.gov

Filename: JDS20250286



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 19, 2025

Glynn County
c/o Jason Hartman
1725 Reynolds Street
Brunswick, GA 31520

RE: Shore Protection Act (SPA), Jurisdiction Determination Verification, Driftwood Beach Access, St. Simons Island, Glynn County, Georgia

Dear Glynn County:

Our office has received the survey plat dated September 17, 2025, prepared by Jackson Surveying, Inc., No. 2804 entitled "*Map to Specific Purpose Survey of SPA Line at Driftwood Drive 25th G.M.D., Glynn County, Georgia*" prepared for Longleaf Consulting. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on June 11, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on June 11, 2026 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

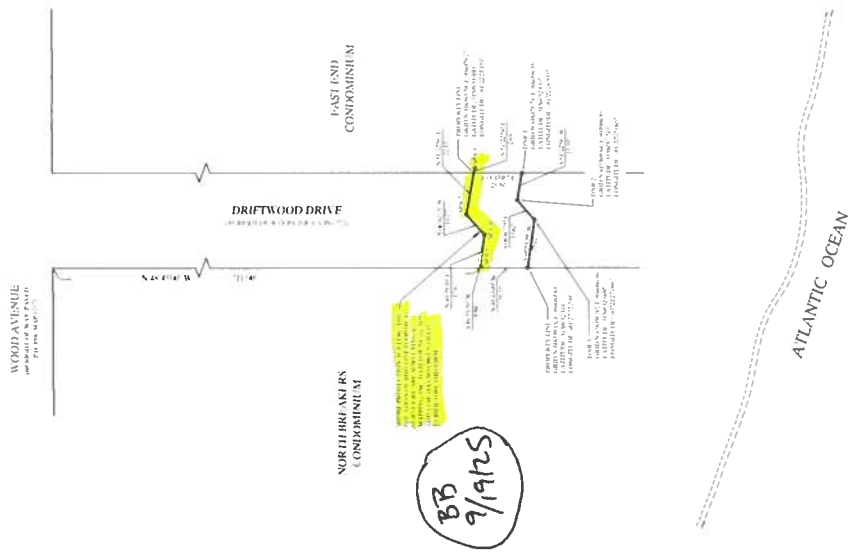
Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Specific Purpose Survey of SPA Line at Driftwood Drive 25th G.M.D., Glynn County, Georgia*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com

Filename: JDS20250182

MAP OF THE TRACT BEING SURVEYED
 SPA LINE AT DRIFTWOOD DRIVE
 25th G.M.D., GLYNN COUNTY, GEORGIA
 FOR CONVEYANCE



- NOTES:
1. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 2. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 3. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 4. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 5. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 6. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 7. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 8. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 9. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.
 10. THE SURVEY WAS MADE BY THE SURVEYOR, J. M. JONES, ON THE 19th DAY OF SEPTEMBER, 1925.



STATE OF GEORGIA

JACKSON SURVEYING, INC.

Surveyors and Engineers

Atlanta, Georgia

NO. 10000

THE SURVEYOR'S OFFICE

10000

1" = 20'

GRAPHIC SCALE

0 10 20 30 40 50 60 70 80 90 100

DATE OF PLAT: SEPTEMBER 19, 1925



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 19, 2025

Glynn County
c/o Jason Hartman
1725 Reynolds Street
Brunswick, GA 31520

RE: Shore Protection Act (SPA), Jurisdiction Determination Verification, 201 Arnold Road, King and Prince Beach and Golf Resort, St. Simons Island, Glynn County, Georgia

Dear Glynn County:

Our office has received the survey plat dated September 17, 2025, prepared by Jackson Surveying, Inc., No. 2804 entitled "*Map to Specific Purpose Survey of SPA Line at the King & Prince Hotel 25th G.M.D., Glynn County, Georgia*" prepared for Longleaf Consulting. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on May 21, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on May 21, 2026 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Specific Purpose Survey of SPA Line at the King & Prince Hotel 25th G.M.D., Glynn County, Georgia*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com

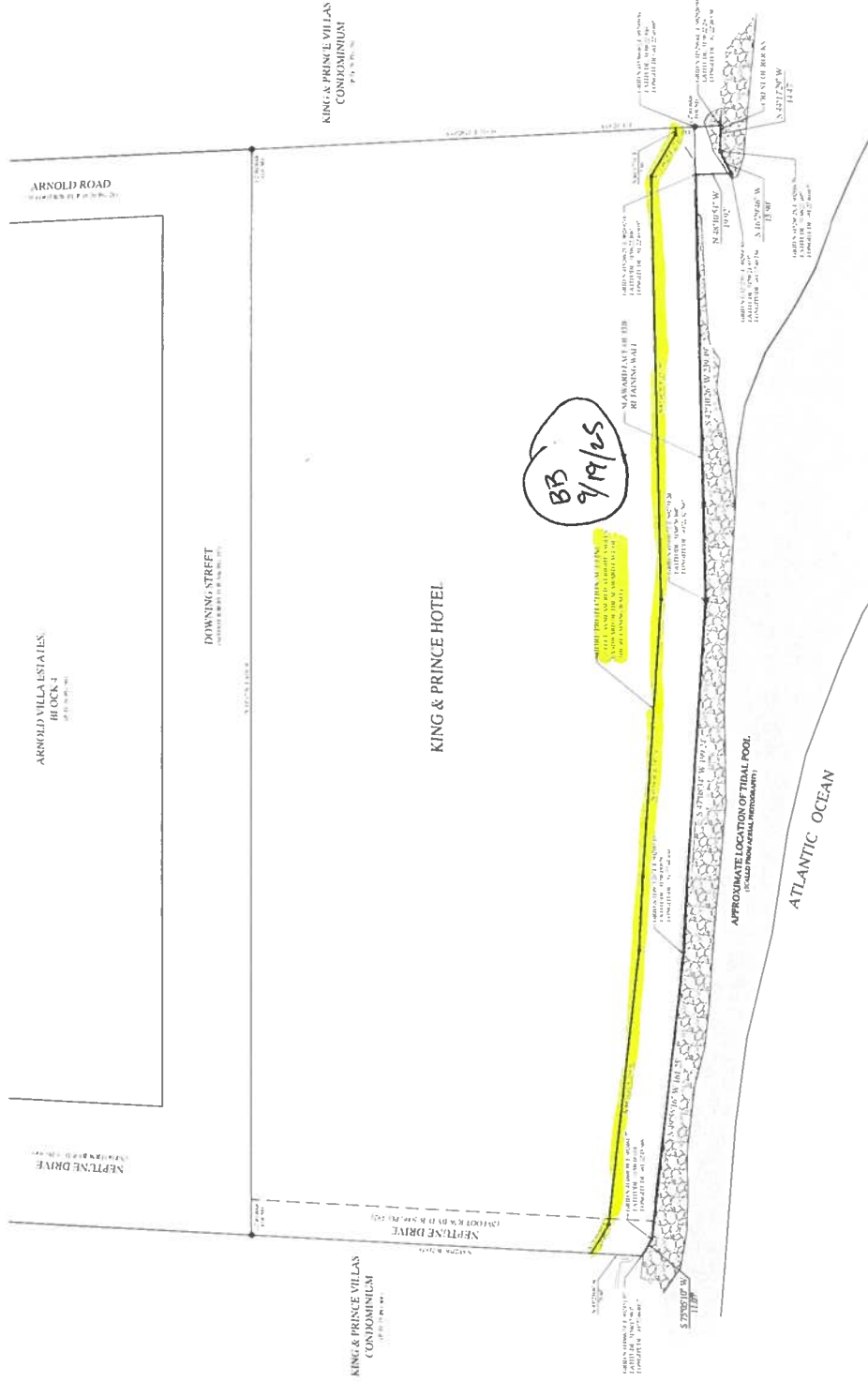
Filename: JDS20250152

MAILING ADDRESS: 10000 N. HIGHWAY 100
 SPALINE AT THE KING & PRINCE HOTEL
 25th G.M.D., GLYNN COUNTY, GEORGIA
 FOR TOWN OF COUNSELING



- NOTES:**
1. THIS PLAN IS A PRELIMINARY PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.
 2. THE PROPERTY IS SUBJECT TO A DEED OF TRUST DATED 10/1/00, RECORDED IN BOOK 10, PAGE 100, OF THE CLERK OF SUPERIOR COURT, GLYNN COUNTY, GEORGIA.
 3. THE PROPERTY IS SUBJECT TO A DEED OF TRUST DATED 10/1/00, RECORDED IN BOOK 10, PAGE 100, OF THE CLERK OF SUPERIOR COURT, GLYNN COUNTY, GEORGIA.
 4. THE PROPERTY IS SUBJECT TO A DEED OF TRUST DATED 10/1/00, RECORDED IN BOOK 10, PAGE 100, OF THE CLERK OF SUPERIOR COURT, GLYNN COUNTY, GEORGIA.

KING & PRINCE VILLAS
CONDOMINIUM



DATE OF PLAN: SEPTEMBER 17, 2005
 DATE OF REVISION: N/A

JACKSON SURVIVING, INC.
 Surveyors and Land Planners
 10000 N. HIGHWAY 100
 GLYNN COUNTY, GEORGIA 31520
 912.261.1000

0' 10' 20' 30' 40' 50' 60' 70' 80' 90' 100'
 GRAPHIC SCALE
 1" = 20'

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

July 11, 2022

King & Prince Villa Condo. Assoc.
c/o Kimbo McMinn
201 Arnold Road
St. Simons Island, GA 31522

**RE: Shore Protection Act (SPA), Jurisdiction Determination Verification, 1300
Downing St. #10000, King and Prince North Common, St. Simons Island, Glynn
County, Georgia**

Dear Mr. McMinn:

Our office has received the survey plat dated January 11, 2021 and revised July 5, 2022, prepared by Shupe Surveying Company, P.C., No. 2401 entitled "*SPA Jurisdiction Line Survey Of: King and Prince Villas North Condominium 25th G.M.D., St. Simons Island, Glynn County, Georgia*" prepared for King and Prince Villas North Property Owners Association. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on June 28, 2022.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on June 28, 2023 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any question, please contact me at (912) 264-7218.

Sincerely,

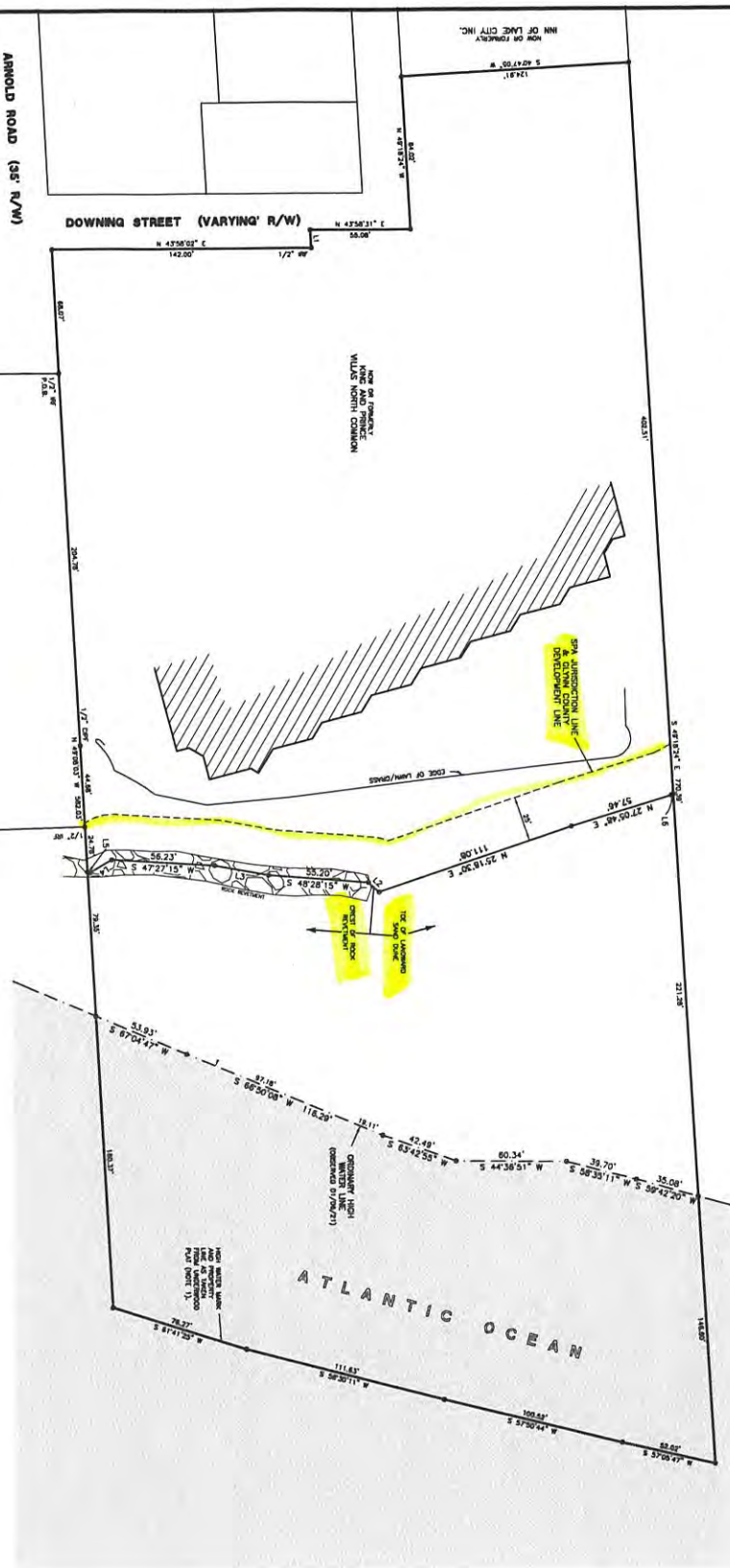


Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *SPA Jurisdiction Line Survey Of: King and Prince Villas North Condominium
25th G.M.D., St. Simons Island, Glynn County, Georgia*

cc: JDS20220140

574 JURISDICTION LINE SURVEY OF:
KING AND PRINCE VILLAS
NORTH CONDOMINIUM
25TH S.W.D., ST. SIMONS ISLAND, GILLYN COUNTY, GEORGIA



1. NAME DR. C. R. HENDERSON, JR., DO. B. 1/27/1917, TOLD TIME AND PRESENT ADDRESS 1000 N. 10TH ST., DULUTH, MINN. 55812, IN THE RECORDS PAGE 4.
2. EDUCATION ST. LOUIS, IN THE SOURCE HE STATED ON THE RECORDS PAGE 4.
3. REASON FOR INTEREST HE WAS THE SISTER'S GRAND FATHER.
4. RECORDS AND REFERENCES CONFIRMED BY THE ST. LOUIS OFFICE AND THE ST. LOUIS POLICE DEPARTMENT, ST. LOUIS, MO. 63101-21, IN THE RECORDS PAGE 4.
5. DATE OF BIRTH 1/27/1917, EDUCATION ST. LOUIS, RESIDENCE ST. LOUIS, DATE OF DEATH HE WAS KILLED ON 6/24/1971 (FOR SOURCE STATE CONFIRMED).
6. THE ADDRESS RECORDS REGISTRATION AND CURRENT RESIDENCE OF THE SUBJECT WAS 1000 N. 10TH ST., DULUTH, MINN. 55812 IN 1967 AND 1968 AND 1969 AND 1970 AND 1971 AND 1972 AND 1973 AND 1974 AND 1975 AND 1976 AND 1977 AND 1978 AND 1979 AND 1980 AND 1981 AND 1982 AND 1983 AND 1984 AND 1985 AND 1986 AND 1987 AND 1988 AND 1989 AND 1990 AND 1991 AND 1992 AND 1993 AND 1994 AND 1995 AND 1996 AND 1997 AND 1998 AND 1999 AND 2000 AND 2001 AND 2002 AND 2003 AND 2004 AND 2005 AND 2006 AND 2007 AND 2008 AND 2009 AND 2010 AND 2011 AND 2012 AND 2013 AND 2014 AND 2015 AND 2016 AND 2017 AND 2018 AND 2019 AND 2020 AND 2021 AND 2022 AND 2023 AND 2024 AND 2025 AND 2026 AND 2027 AND 2028 AND 2029 AND 2030 AND 2031 AND 2032 AND 2033 AND 2034 AND 2035 AND 2036 AND 2037 AND 2038 AND 2039 AND 2040 AND 2041 AND 2042 AND 2043 AND 2044 AND 2045 AND 2046 AND 2047 AND 2048 AND 2049 AND 2050 AND 2051 AND 2052 AND 2053 AND 2054 AND 2055 AND 2056 AND 2057 AND 2058 AND 2059 AND 2060 AND 2061 AND 2062 AND 2063 AND 2064 AND 2065 AND 2066 AND 2067 AND 2068 AND 2069 AND 2070 AND 2071 AND 2072 AND 2073 AND 2074 AND 2075 AND 2076 AND 2077 AND 2078 AND 2079 AND 2080 AND 2081 AND 2082 AND 2083 AND 2084 AND 2085 AND 2086 AND 2087 AND 2088 AND 2089 AND 2090 AND 2091 AND 2092 AND 2093 AND 2094 AND 2095 AND 2096 AND 2097 AND 2098 AND 2099 AND 2100 AND 2101 AND 2102 AND 2103 AND 2104 AND 2105 AND 2106 AND 2107 AND 2108 AND 2109 AND 2110 AND 2111 AND 2112 AND 2113 AND 2114 AND 2115 AND 2116 AND 2117 AND 2118 AND 2119 AND 2120 AND 2121 AND 2122 AND 2123 AND 2124 AND 2125 AND 2126 AND 2127 AND 2128 AND 2129 AND 2130 AND 2131 AND 2132 AND 2133 AND 2134 AND 2135 AND 2136 AND 2137 AND 2138 AND 2139 AND 2140 AND 2141 AND 2142 AND 2143 AND 2144 AND 2145 AND 2146 AND 2147 AND 2148 AND 2149 AND 2150 AND 2151 AND 2152 AND 2153 AND 2154 AND 2155 AND 2156 AND 2157 AND 2158 AND 2159 AND 2160 AND 2161 AND 2162 AND 2163 AND 2164 AND 2165 AND 2166 AND 2167 AND 2168 AND 2169 AND 2170 AND 2171 AND 2172 AND 2173 AND 2174 AND 2175 AND 2176 AND 2177 AND 2178 AND</



VICINITY MAP (NOT TO SCALE)

LEGEND

LEGEND

BY FROM RESER FOUND
CITY CAPTED FROM PIPE FOUND
(UNDERGROUND)
P.O.B. POINT OF BEGINNING
☒ BUILDING



AK 12.00

SP4 JURISDICTION LINE SURVEY OF:
**KING AND PRINCE
VILLAS NORTH
CONDOMINIUM**
25TH G.M.D., ST. SIMONS ISLAND,
CLAYTON COUNTY, GEORGIA

PREPARED FOR:
KING AND PRINCE VILLAS
NORTH PROPERTY OWNERS
ASSOCIATION



SHUPE SURVEYING COMPANY, P.C.
5005 NORTH HIGHWAY

912-265-0562

20' 0 15' 30' 60'

1000

BOOK	_____	DATE	_____
PAGE	21003	DRAWN BY	JOI

SHEET 1 OF 1



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 17, 2025

Glynn County
c/o Jason Hartman
1725 Reynolds Street
Brunswick, GA 31520

RE: Shore Protection Act (SPA), Jurisdiction Determination Verification, Massengale Park, St. Simons Island, Glynn County, Georgia

Dear Glynn County:

Our office has received the survey plat dated August 5, 2025, prepared by ARC Surveying & Mapping, Inc., No. 3011 entitled "*Map to Show Sketch of Massengale Park, Shore Protection Act Line, Glynn County, Georgia*" prepared for Moffatt & Nichol. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on May 20, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on May 20, 2026 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Show Sketch of Massengale Park, Shore Protection Act Line, Glynn County, Georgia*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com

Filename: JDS202400297



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 17, 2025

North Breakers Condominiums
520 Ocean Blvd.
St. Simons Island, GA 31522

RE: Shore Protection Act (SPA), Jurisdiction Determination Re-Verification, 1470 Wood Avenue, St. Simons Island, Glynn County, Georgia

Dear North Breakers Condominiums:

Our office has received the survey plat dated December 29, 2015, and revised on October 21, 2024 prepared by Jackson Surveying, Inc., No. 2804 entitled "*Map to Show Sketch of North Breakers Condominium, SPA Line 25th G.M.D., Glynn County, Georgia (According to Plat Recorded in P.D. 19A, Map 1257 of the Public Records)*" prepared for Hodnett Cooper. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on July 2, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on July 2, 2026 but may be voided should legal and/or environmental conditions change.

This letter does not relieve you of the responsibility of obtaining other state, local, or federal permission relative to the site. Authorization by the Shore Protection Committee or the Department is required prior to any construction or alteration in the shore jurisdictional area. We appreciate you providing us with this information for our records. If you have any questions, please contact me at (912) 264-7218.

Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Show Sketch of North Breakers Condominium, SPA Line 25th G.M.D., Glynn County, Georgia (According to Plat Recorded in P.D. 19A, Map 1257 of the Public Records)*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com
Jason Hartman, Glynn County, jhartman@glynncounty-ga.gov

Filename: JDS20250287



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 19, 2025

Glynn County
c/o Jason Hartman
1725 Reynolds Street
Brunswick, GA 31520

RE: Shore Protection Act (SPA), Jurisdiction Determination Verification, 1400 Ocean Boulevard, St. Simons Grand, St. Simons Island, Glynn County, Georgia

Dear Glynn County:

Our office has received the survey plat dated September 17, 2025, prepared by Jackson Surveying, Inc., No. 2804 entitled "*Map to Specific Purpose Survey of SPA Line at the St. Simons Grand Condominium 25th G.M.D., Glynn County, Georgia*" prepared for Longleaf Consulting. This plat and survey generally depicts the Jurisdiction Line under the authority of the Shore Protection Act O.C.G.A. 12-5-230 et seq. as verified by the Department on August 13, 2025.

The Shore Protection Act O.C.G.A. 12-5-230 et seq. delineation of this parcel is subject to change due to environmental conditions and legislative enactments. This jurisdiction line is valid for one year from date of the delineation. It will normally expire on August 13, 2026 but may be voided should legal and/or environmental conditions change.

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Sincerely,

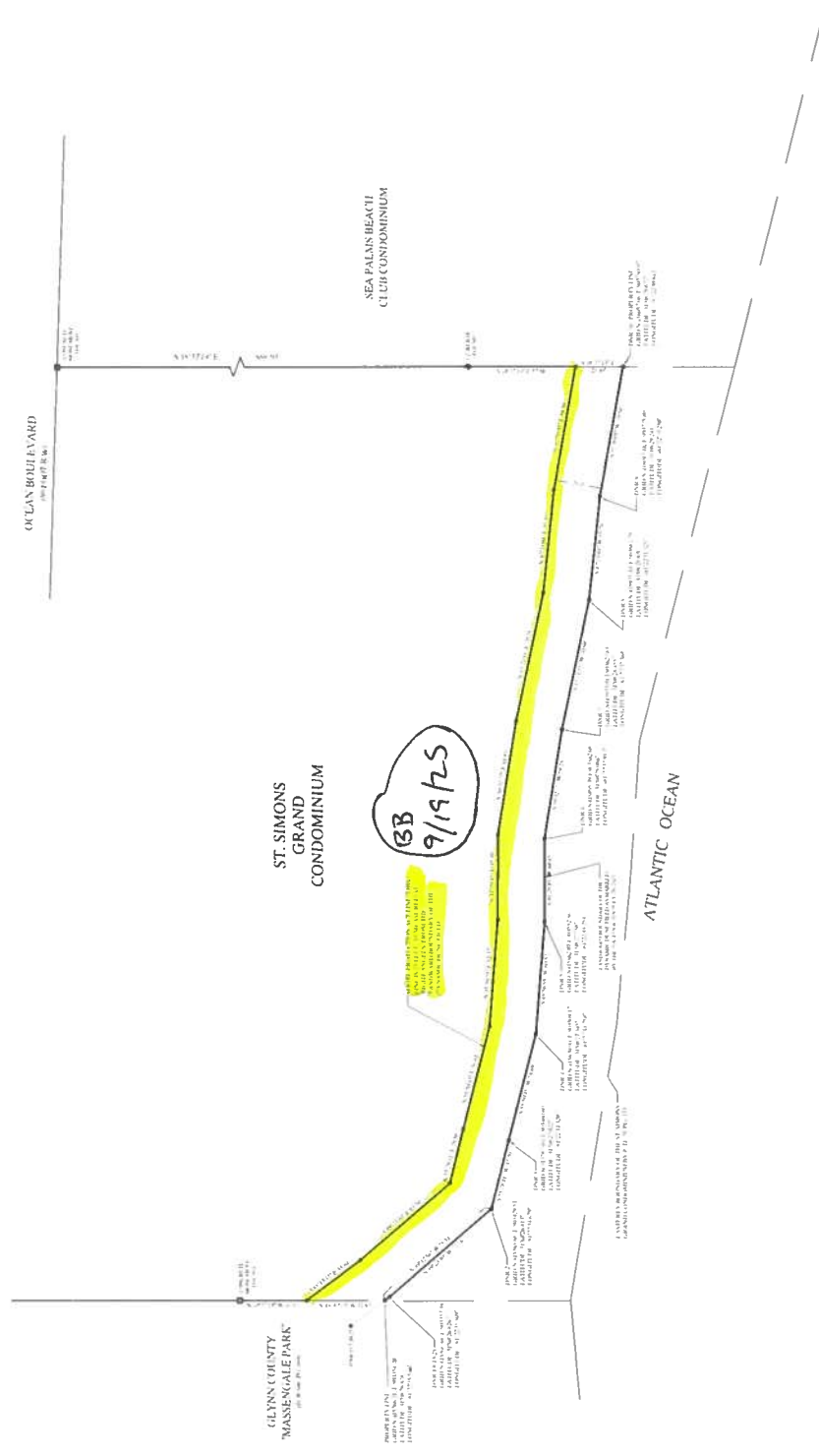
Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Specific Purpose Survey of SPA Line at the St. Simons Grand Condominium 25th G.M.D., Glynn County, Georgia*

Cc: Stephen Bailey, Longleaf Consulting, Stephen.bailey@longleafconsulting.com

Filename: JDS20250242

MAP DUNELAND PROPERTY SERVICE, LLC
 SPA LINE AT THE ST. SIMONS GRAND CONDOMINIUM
 25th G.M.D., GLYNN COUNTY, GEORGIA
 FOR THE CITY OF CUNNINGHAM



NOTES:
 1. THIS MAP WAS PREPARED BY THE SURVEYOR FROM A FIELD SURVEY OF THE PROPERTY.
 2. THE PROPERTY IS SHOWN AS BEING OWNED BY THE CITY OF CUNNINGHAM.
 3. THE PROPERTY IS SHOWN AS BEING OWNED BY THE CITY OF CUNNINGHAM.
 4. THE PROPERTY IS SHOWN AS BEING OWNED BY THE CITY OF CUNNINGHAM.

DATE OF SALE: SEPTEMBER 11, 2025
 DATE OF RECORDATION: MAY 15, 2025

SCALE: 1" = 100'

JACKSON SURVEYING, INC.
 Surveyors and Land Planners
 1400 N. 10th St., Suite 100
 Tallahassee, FL 32304
 Phone: 904.433.1111
 Fax: 904.433.1112
 Email: jackson@jacksonsurveying.com



July 31, 2025

Josh Noble
Marsh and Shore Management Program Manager
Coastal Resources Division

RE: Application for Issuance of a Shore Protection Act Permit – East Beach Water Impoundment Project, Glynn County, Georgia

Dear Mr. Noble,

On behalf of the applicant, Glynn County Engineering Services, we are submitting this package including an application for a Shore Protection Act (SPA) permit to authorize improvements to impounded open water areas associated with construction of the East Beach Water Impoundment Project (the Project) located near Massengale Park on East Beach, St. Simons Island, Georgia.

The information below details the project, its purpose and need, alternatives considered, location, and other information required for permit review and issuance. Please review the attached application, forms, plans, figures and supplemental information and contact me if you have any questions or need additional information.

Basic Project Details

The Project Area is located on East Beach, St. Simons Island, Glynn County, Georgia and consists of a portion of impoundment area, adjacent borrow site area and access corridor to the beach from Massengale Park. The Project Area is approximately 9.74 acres, and the center is located at 81.3795614°W, 31.1372264°N. Refer to Attachment A for a project location map, wetland and waters delineation map, and site photographs. Refer to Attachment C for the SPA jurisdictional line survey exhibit.

The purpose of the project is to improve and protect public safety. The need for the project is the risk to public safety from the current open water and limited, precarious crossing conditions. The need will be met by reducing public contact with open water areas to minimize drowning risk; alleviating safety concerns associated with public contact with potentially contaminated water; improving access for

emergency services vehicles in the Massengale Park Area; and to provide a safe, stable, and accessible connection to beach areas for all members of the public.

The proposed public and community project consists of restoration and filling of an area of East Beach that has developed a tidal pool complex over the past several years that is currently an impounded open water area. The project would fill part of the impounded area while avoiding wetland impacts. Native sand would be harvested onsite to provide clean fill material. Refer to Attachment B for Project Plans.

The project will minimize impacts to the sand sharing system by utilizing an approach of thin layer excavation of the borrow area on the lower beach. No sand will be removed from the sand sharing system. Sand will be added to part of the impounded area that is bordered by developing dunes. Filling of the open water in this area will accomplish the project goals and create additional dry beach that is likely to facilitate increased dune formation and continued establishment of beach vegetation and associated wildlife habitat.

Description of Alternatives Considered

Refer to Attachment B for Alternative schematic plans. Refer to the alternative descriptions and summary below. Refer to Attachment D – USACE Standard Permit Application for the full Alternatives Analysis.

Alternative 1

This alternative would fill the entire open water area with native sand from an onsite borrow area. Native sand would be harvested by shallow scraping of the beach throughout a 12.58-acre borrow area. To fill the 3.83-acre open water area, approximately 10,420 cubic yards of sand would be collected from the borrow area. Wetlands along the open water area would be avoided and protected with best management practices (BMPs). Newly formed dune areas would be impacted by sand harvesting. Alternative 1 would cost \$330,000 to \$525,000 and would be completed in approximately 60 to 90 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

Preferred Alternative 2

Alternative 2 would limit the fill to 2.07 acres of open water as shown on Attachment B– Alternative 2 Plan Sheet. Native sand would be harvested in a 4.87-acre borrow area that is outside of any dune formations or protected species habitats and above the mean high-water line. The borrow area would be excavated to a depth of 11 inches to provide approximately 8,940 cubic yards of sand to fill the impoundment area in front of Massengale Park and the dune breach area. This alternative would avoid impacts to 1.76 acres of open water, avoid impacts to any dunes and dune vegetation, and avoid all wetland impacts. Wetlands along the open water area would be avoided and protected with BMPs. In addition, the dune breach area will create dune habitat as well as improve storm resiliency for the area by creating a uniform dune elevation. Alternative 2 would cost \$300,000 to \$500,000 and would be completed in approximately 45 to

70 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

No action Alternative

The No Action alternative is not viable or practicable as it does not satisfy the purpose and need for the project. Public safety will not be improved and protected by no action on the purpose and need for the project.

Alternatives Summary

The No action Alternative is not practicable as it does not address the purpose and need of the project. Alternative 1 does address the purpose and need of the project; however, it is not the least impactful alternative due to the potential for impacts to protected species habitat in dune areas and it does not minimize impacts to regulated waters to the maximum extent practicable to accomplish project goals. Based on this analysis, Preferred Alternative 2 is practicable, minimizes impacts to the sand sharing system, habitats, and waters and satisfies the purpose and will meet the needs of the project.

Landfill/Hazardous Waste Statement

Glynn County does not have any records of landfills or hazardous sites in the Project Area.

Public Interest Statement

Provide a statement demonstrating that ***each*** of the following public interests have been considered:

1. Whether or not unreasonably harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created

The project will not harm and will have minimal effects on the sand sharing system. No sand will be removed from the sand sharing system. Sand will be excavated in a thin layer in the borrow area while avoiding all dune habitat impacts. All open water fill will be on the beach in the impoundment. No impacts to submerged lands are proposed. Creation of beach in the filled impoundment will potentially increase dune habitat and stability with increased areas for beach vegetation colonization. Access to the Project Area from Massengale Park will not impact dunes. All applicable BMPs will be used for project access and construction.

2. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of marine life, wildlife, or other resources

Impacts to marine life, wildlife, waters and wetlands have been minimized to the maximum extent practicable while designing and planning for the project goals of public safety and access. Preferred Alternative 2 preserves much of the existing impounded area and will not impact wetlands. Open water habitat will be left undisturbed that is adjacent to wetland areas and higher quality vegetated habitat areas to the northeast of the project area. The impoundment will be filled in front of Massengale Park to provide safe public access, emergency services access, and reduce

public contact with impoundment water. This project will not unreasonably interfere with natural resources conservation and will provide natural beach areas that could increase available dune habitat.

3. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with access by and recreational use and enjoyment of public properties impacted by the project

The Project Area for this project is a highly used public beach. The impounded area is interfering with public enjoyment and recreational use by limiting stable and safe access to the beach. Granting of a permit for this project will facilitate increased public safety, enjoyment, and recreational use.

Glynn County appreciates your review of the enclosed information. Please review and contact me at (706) 614.4436 if you have any questions or need any additional information.

Best regards,



Stephen M. Bailey, PWS
Principal | Owner
Longleaf Consulting
www.longleafconsulting.com
706.614.4436

Enclosure(s)

Attachment A: Figures

- Figure 1 USGS 7.5 Minute Quadrangle Project Area Location Map
- Figure 2 Wetlands and Waters Delineation Map
- Figure 3 Resource Photos

Attachment B: Project Plans

- Alternative 1 Schematic Design Plans
- Alternative 2 Schematic Design Plans
- Project Design Plans
- Monitoring and Maintenance Plan

Attachment C: Shore Protection Act Application Form and JD Line Exhibit

- Shore Protection Act Permit Application Forms
- Shore Protection Act JD Line Survey Exhibit

Attachment D: USACE Standard Permit Application

Attachment A: Figures



Figure 1: USGS Project Location Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

Project Area



Figure 2: Wetlands and Waters Delineation Map
 East Beach Water Impoundment Project
 Glynn County, Georgia



Legend

- | | |
|---|--|
| Water Impoundment | Project Area |
| Wetlands | Data Points |

Figure 3: Resource Photographs January 2025



Wetland 1



Wetlands 1 and 2 Soil



Wetlands 1 and 2



Wetland 3



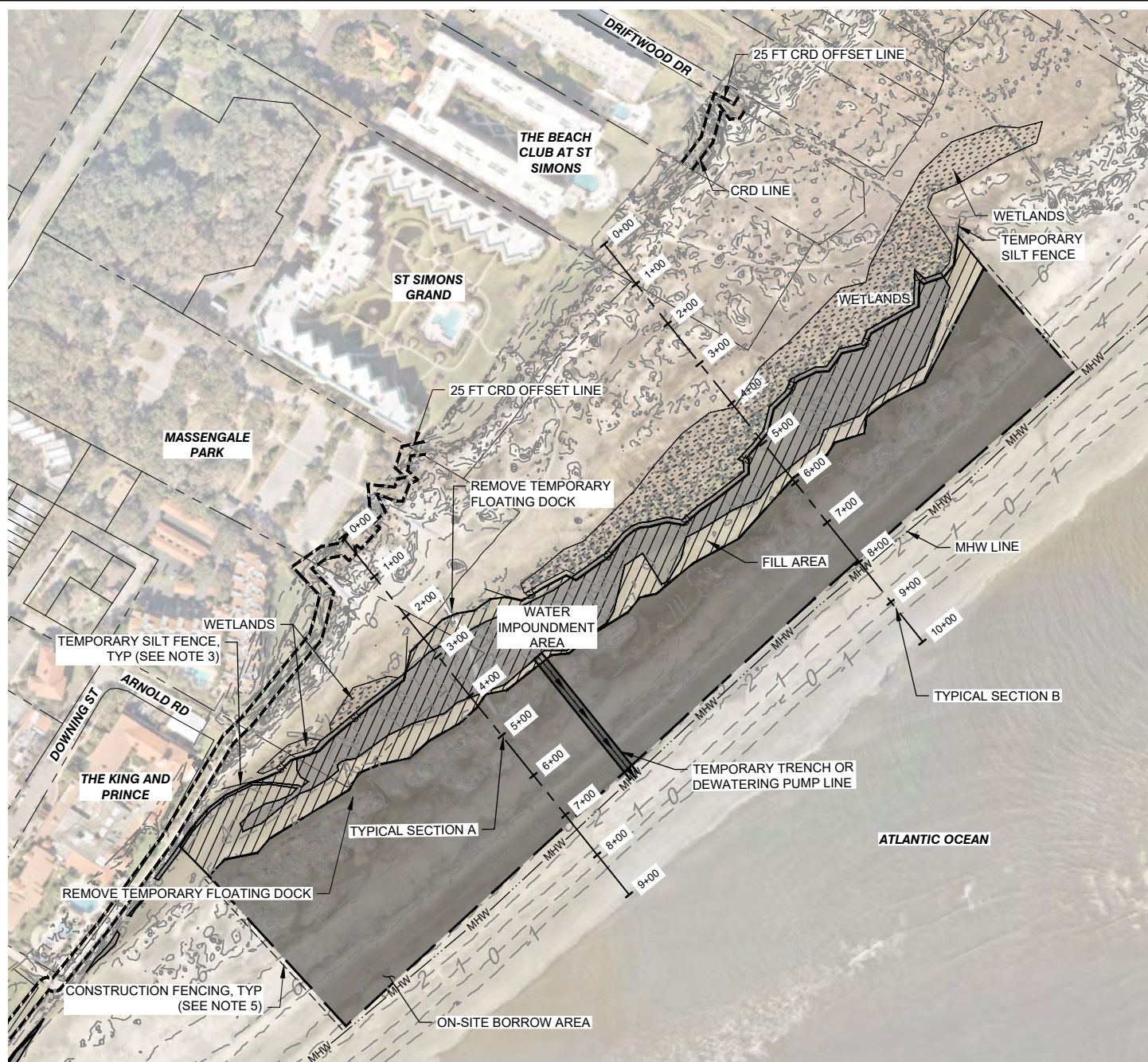
Wetland 3 Soil



Water Impoundment 1

Attachment B: Project Plans

Q:\SV\240281-06\20 CADD\ActiveAlternative Analysis Set\240281-06CS101; Plotted: 7/16/2025 2:03 PM by CCORNACCHIA



LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
		COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERRECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERRECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.

0 300'
SCALE 1" = 300'



moFFatt & nichol

300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT.NICHOL.COM

FIGURE 1 ALTERNATIVE 1 SCHEMATIC DESIGN PLAN

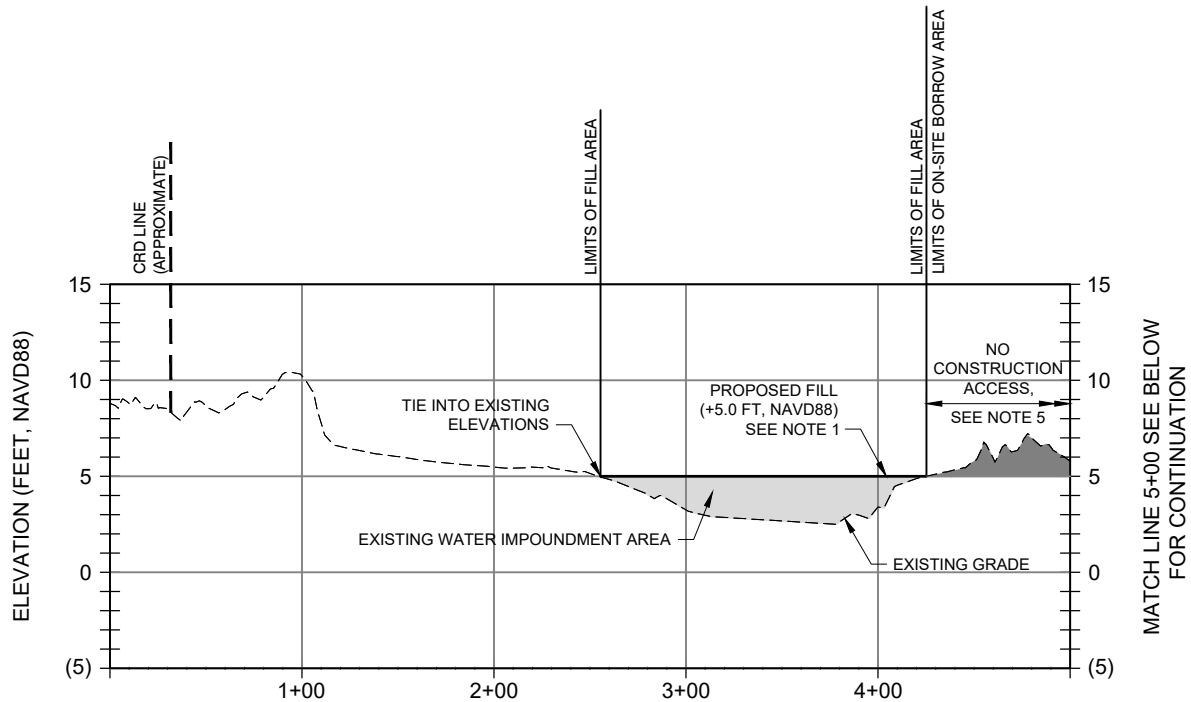
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



INDEX 1 OF 8

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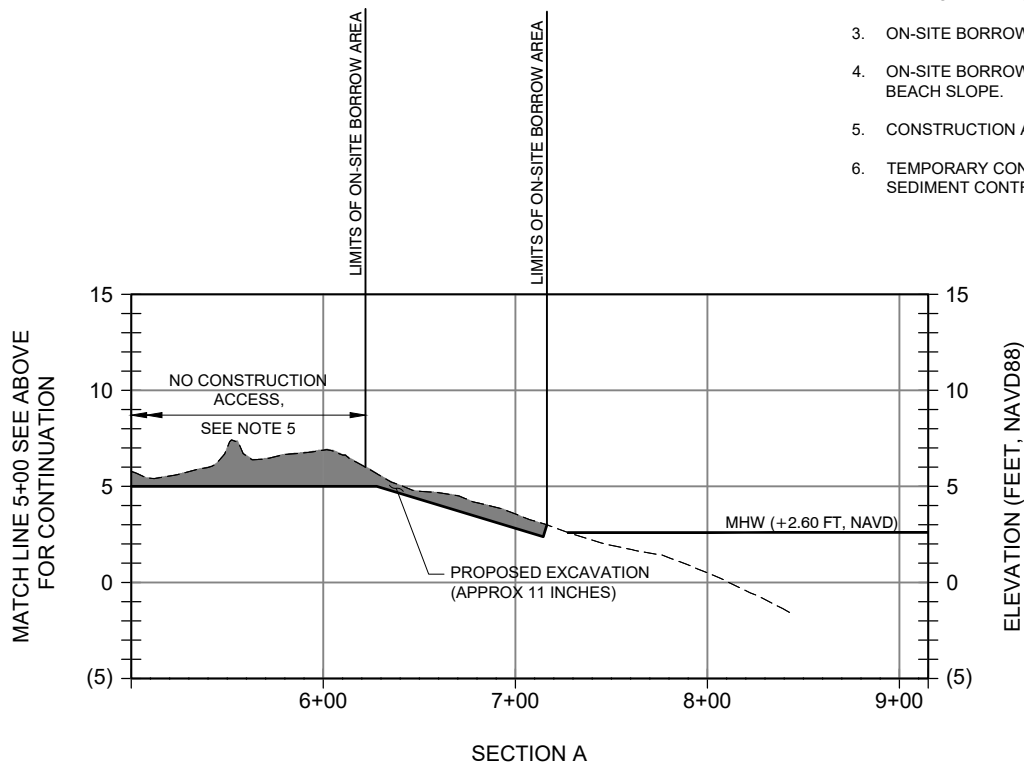
LEGEND

- EXISTING GRADE
- PROPOSED FILL
- ON-SITE-BORROW AREA
- FILL AREA

SECTION A

NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY.



SECTION A

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'



moFFatt & nIchol

FIGURE 2 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

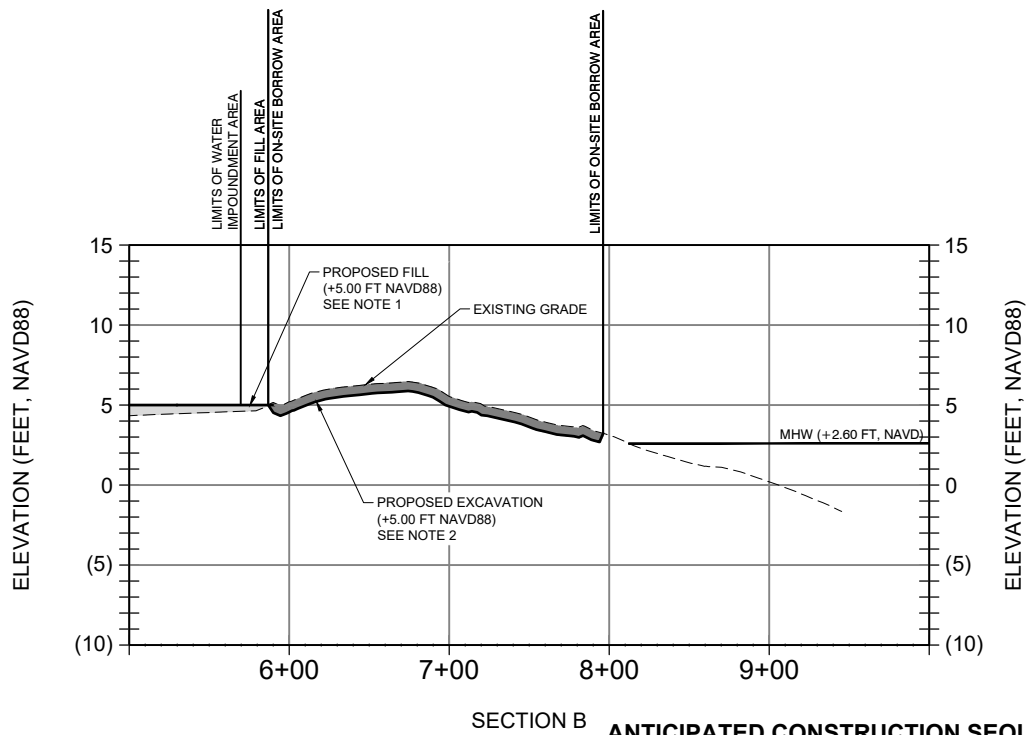
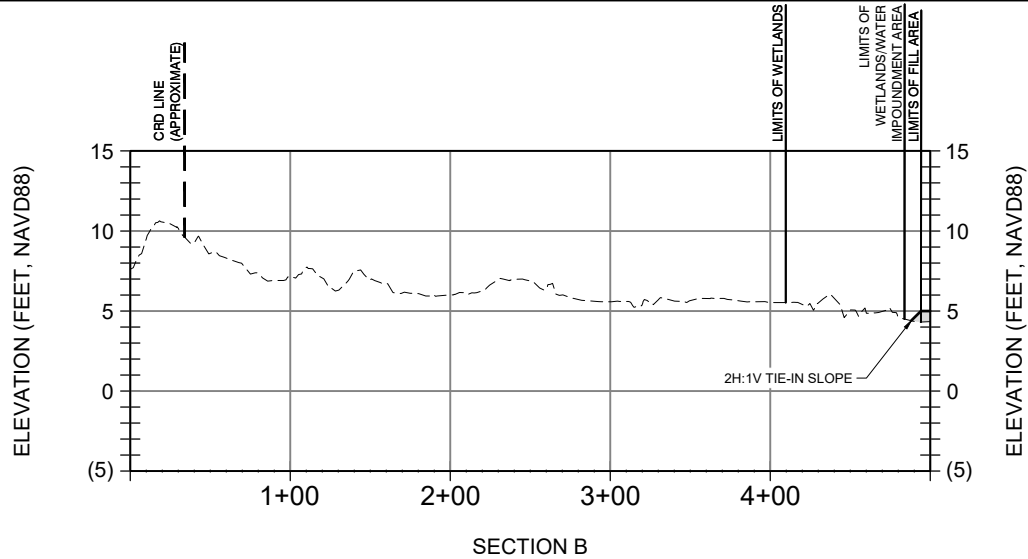
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025

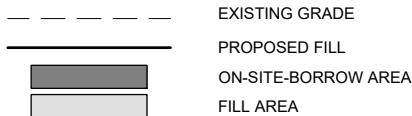


INDEX 2 OF 8

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LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'

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FIGURE 3 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



QUANITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	18.67 Acres 813,316 SQ. FT.
Jurisdictional Footprint	18.67 Acres 813,316 SQ. FT.
Proposed Project Footprint within Jurisdiction	18.67 Acres 813,316 SQ. FT.
Open Water	3.83 Acres 166,560 SQ. FT.
Fill	5.38 Acres 234,325 SQ. FT.
Upper Beach Borrow	12.41 Acres 540,715 SQ. ST
Fill Volume	10,420 CU Yards

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300 BULL ST., SUITE 200
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FIGURE 4 ALTERNATIVE 1 QUANTITIES

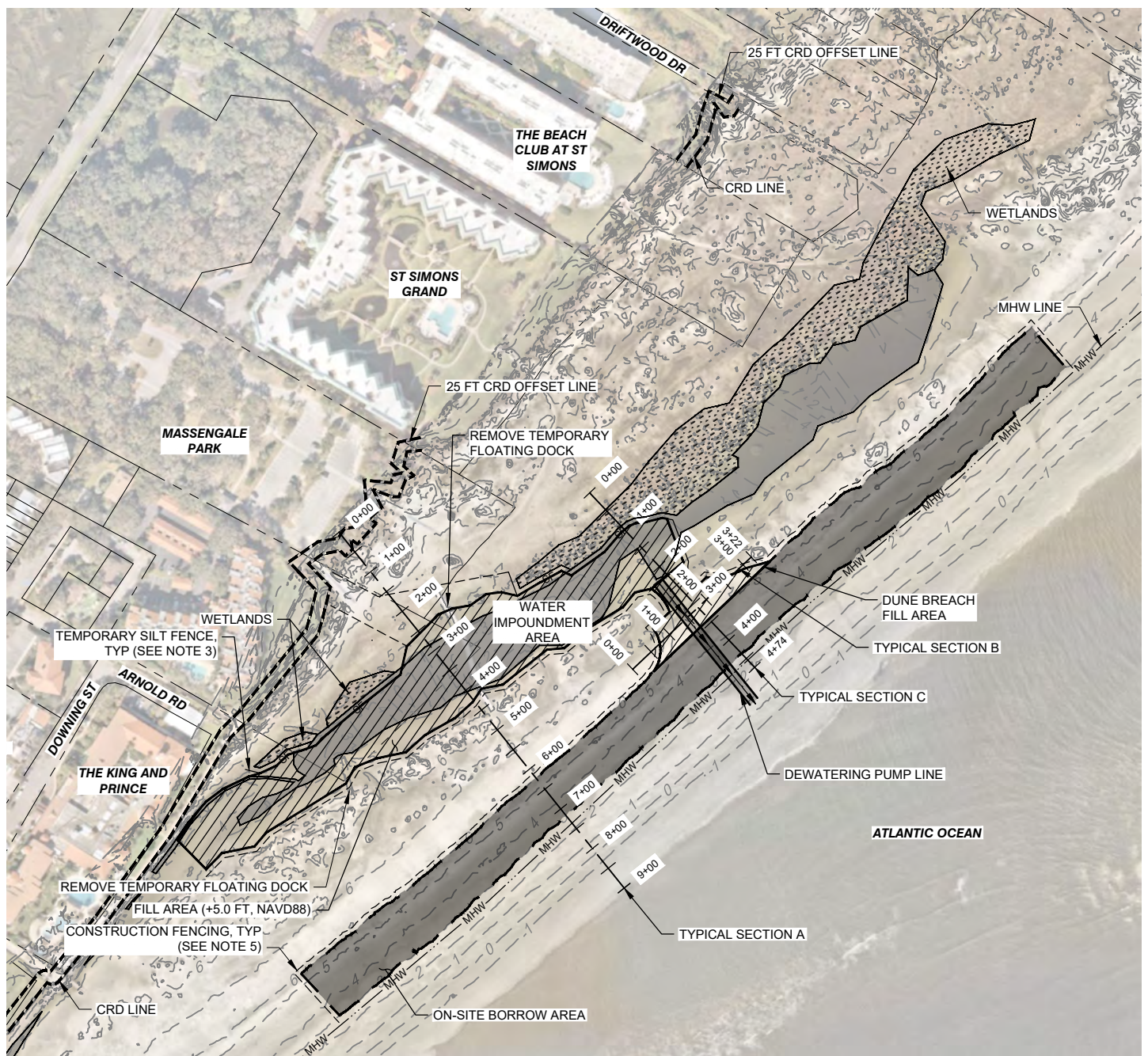
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



INDEX 4 OF 8

Q:\SV\240281-06\20 CADD\ActiveAlternative Analysis Set\240281-06CS102; Plotted: 7/16/2025 2:04 PM by CCORNACCHIA



LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
	CRD	COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.

0 300'
SCALE 1" = 300'



300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT.NICHOL.COM

moffatt & nichol

FIGURE 5 ALTERNATIVE 2 SCHEMATIC DESIGN PLAN

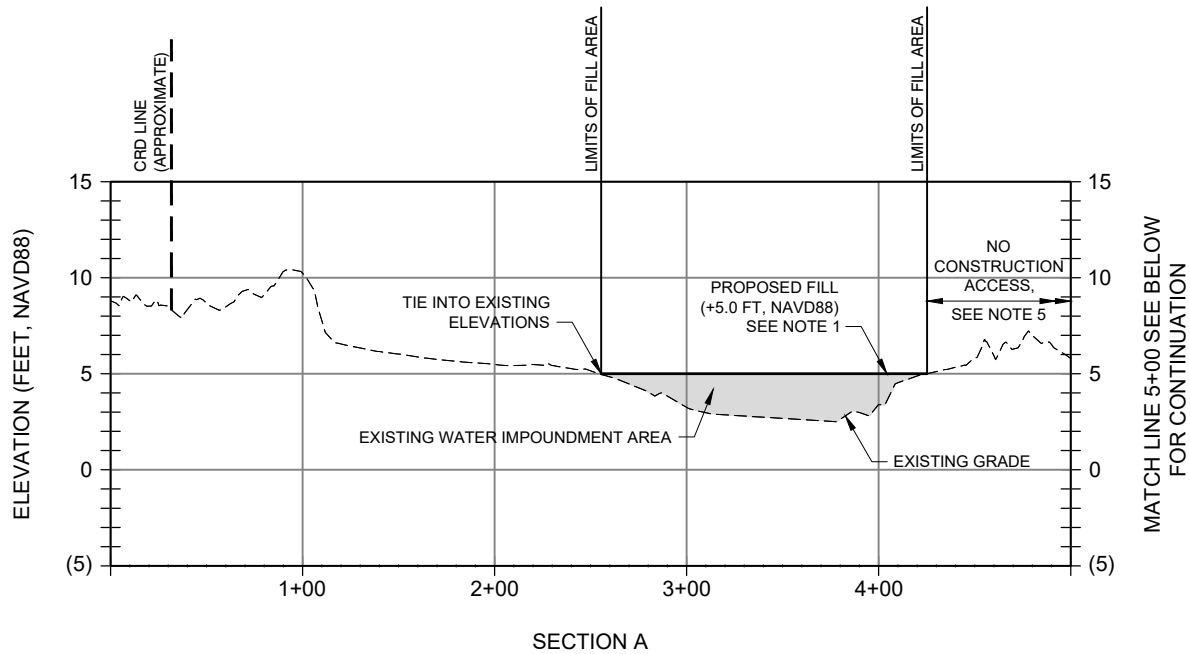
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025

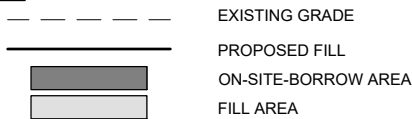


INDEX 5 OF 8

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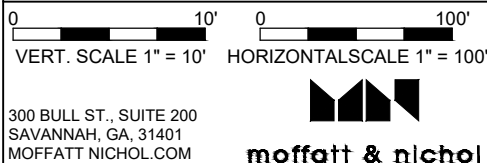
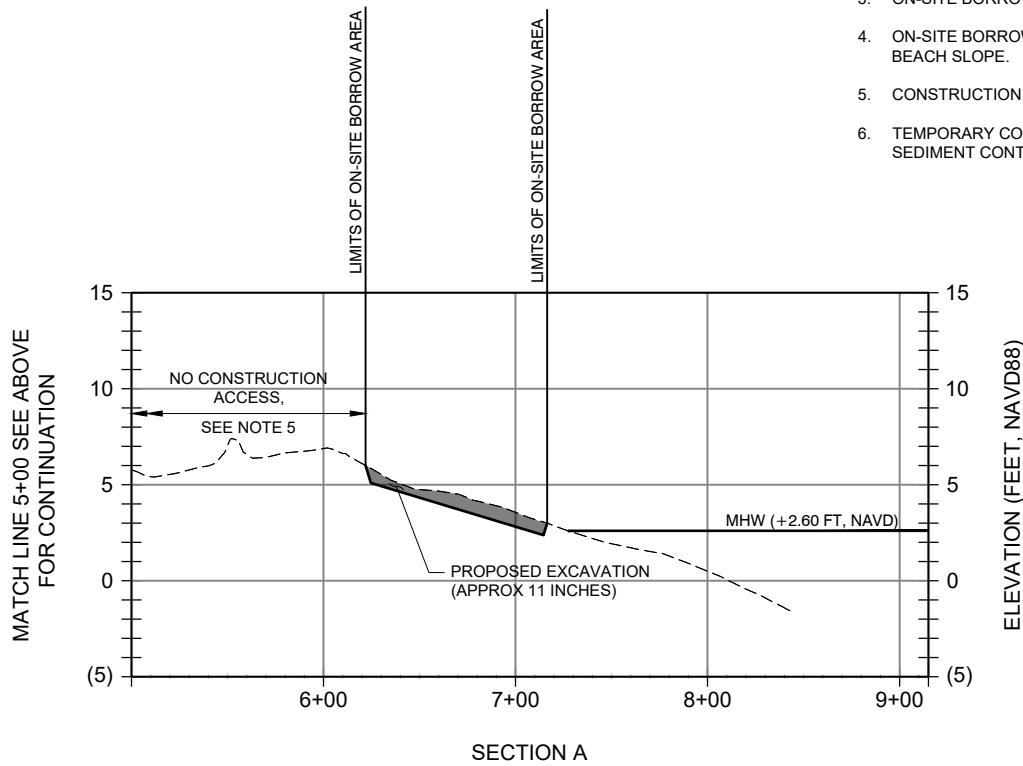


LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY.

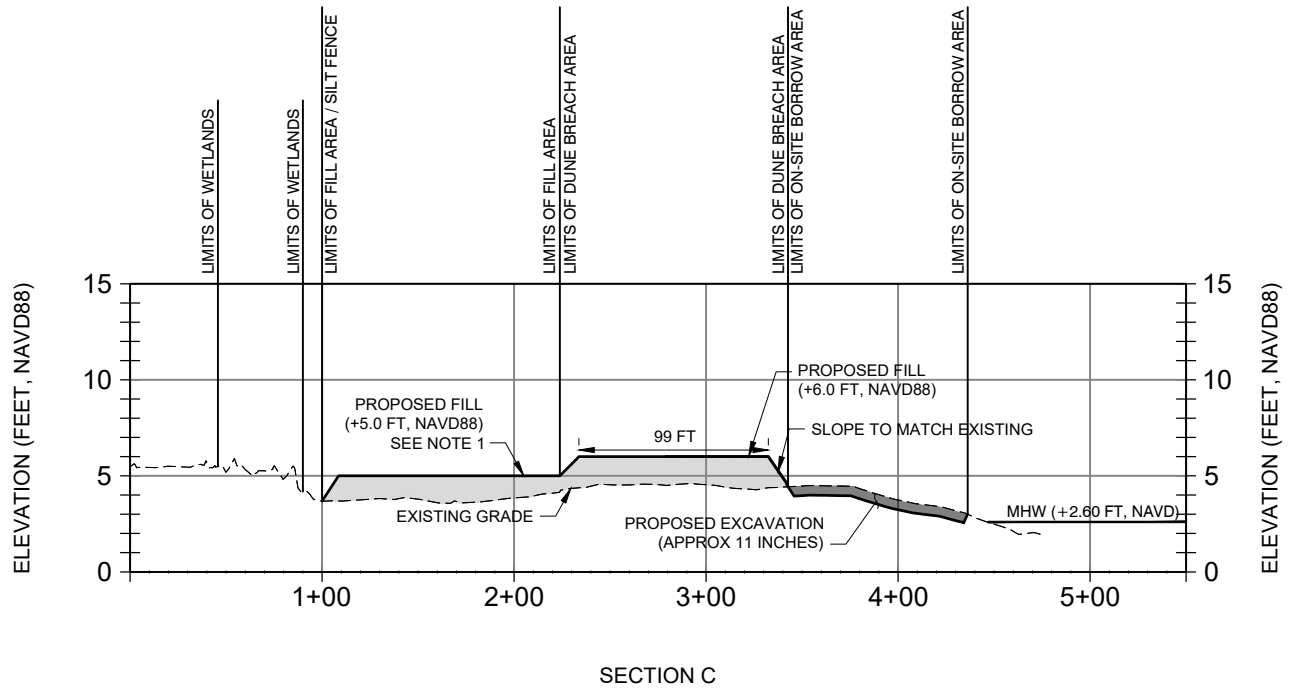
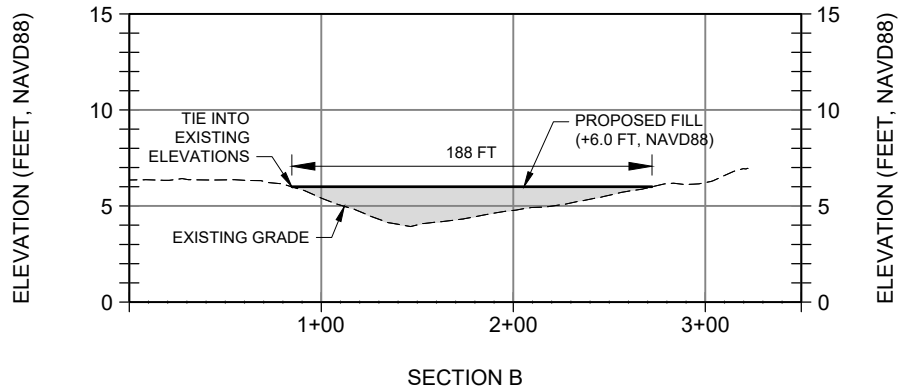


**FIGURE 6 ALTERNATIVE 2
CROSS SECTIONS & DETAILS**

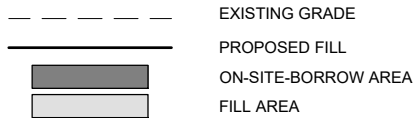
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



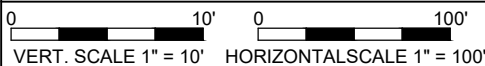


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



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FIGURE 7 ALTERNATIVE 2 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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300 BULL ST., SUITE 200
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FIGURE 8 ALTERNATIVE 2 QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



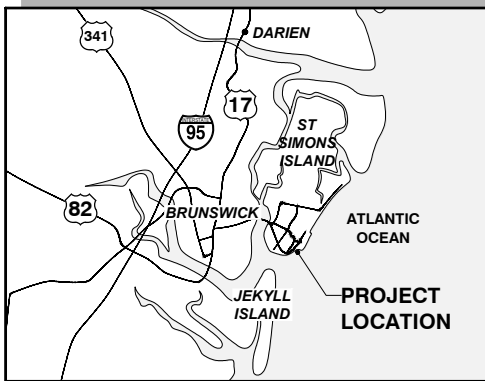
INDEX 8 OF 8

GLYNN COUNTY

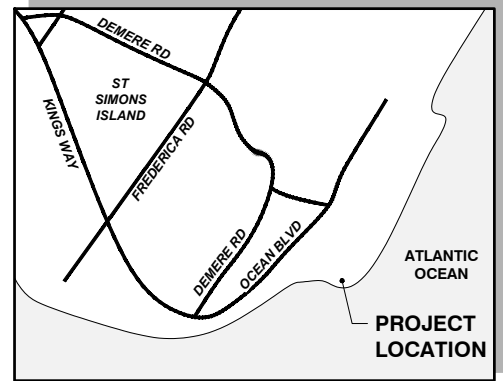
EAST BEACH WATER IMPOUNDMENT

ST. SIMONS ISLAND, GEORGIA

M&N JOB #: 240281-06



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: NTS

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	NOTES, ABBREVIATIONS & LEGENDS
G-003	NOTES, ABBREVIATIONS & LEGENDS
V-101	EXISTING CONDITIONS / CONSTRUCTION ACCESS
CS101	SCHEMATIC DESIGN PLAN
CS301	CROSS-SECTIONS & DETAILS
CS302	CROSS-SECTIONS & DETAILS
C-601	QUANTITIES

GOVERNING STANDARDS AND SPECIFICATIONS:
DESIGN STANDARDS AND APPLICABLE CODES USE
GA DNR, GEORGIA CODE, OCCUPATIONAL SAFETY
AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.



COVER SHEET

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-001



INDEX 1 OF 8

300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



Q:\SV\240281-06\20 CADD\Active\Permit_Set\240281-06-G-002; Plotted: 7/15/2025 3:52 PM by COORNACCHIA

GENERAL NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES & AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO OWNER, LOCAL, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. ANY DISCREPANCY MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & ENGINEER OF RECORD.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT SITE & TO DETERMINE TOPOGRAPHIC OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN HIS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE OWNER IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN HIS BID PRICE.
3. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, & UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING UTILITIES NOT SPECIFIED FOR REMOVAL WHICH ARE DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER .
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF/HERSELF WITH CURRENT SITE CONDITIONS & SHALL REPORT ANY DISCREPANCIES TO THE OWNER & EOR PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL KEEP THE SITE REASONABLY FREE FROM DEBRIS, TRASH, & CONSTRUCTION WASTE. BUILDING MATERIAL AND/OR CONSTRUCTION DEBRIS STORED ADJACENT TO OR UPON THE ROADWAY SHALL BE ADEQUATELY MARKED AT ALL TIMES FOR PEDESTRIAN & TRAFFIC SAFETY.
6. CONTRACTOR SHALL CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
7. CONTRACTOR TO ADHERE TO APPLICABLE NOISE ORDINANCES THAT PROHIBIT ANY PLAIN AUDIBLE SOUND IN CONNECTION WITH CONSTRUCTION ACTIVITIES OUTSIDE OF PERMITTED HOURS.
8. ALL ENVIRONMENTAL REGULATORY PERMITS MUST BE OBTAINED. CONTRACTOR IS REQUIRED TO OBTAIN ALL OTHER NECESSARY PERMITS AND/OR APPROVALS PRIOR TO THE START OF CONSTRUCTION. COST OF ALL OTHER NECESSARY PERMITS IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL LANDSCAPED/OPEN AREAS, SIDEWALKS, PAVEMENTS & OTHER IMPROVEMENTS IMPACTED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
10. THE TRAFFIC CONTROL PLAN FOR THE PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN TRAFFIC CONTROL PLAN & MUST HAVE SAID PLAN APPROVED BY THE OWNER AND CITY PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE OWNER FOR TRAFFIC CONTROL COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. TRAFFIC CONTROL PLAN SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM EMERGENCY SERVICES WITHIN THE VICINITY OF THE PROJECT LIMITS ABOUT THE CONSTRUCTION SCHEDULE.
11. SURVEY MONUMENTS WITHIN THE LIMITS OF THE PROJECT ARE TO BE PROTECTED.
12. NO DEVIATIONS FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT THE OWNER AND GA DNR.
13. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL THE NECESSARY DOCUMENTS ARE RECEIVED BY THE OWNER.
14. ALL DEFECTIVE WORK NOT ACCEPTED BY THE OWNER, EOR OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
15. ALL EXISTING GRASSED OR LANDSCAPED AREAS, ALL DECORATIVE FEATURES (INCLUDING PAVERS) AND PAVED GROUND CONDITIONS DAMAGED AS RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED COMPLETELY AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
16. DAMAGED ITEMS SHALL BE RESTORED TO THEIR ORIGINAL DESIGN AND FUNCTION AT THE CONTRACTOR'S EXPENSE.
17. A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE TO VERIFY DETAILS AND METHODS OF CONSTRUCTION.
18. THESE PLANS ARE INCOMPLETE WITHOUT THE TECHNICAL SPECIFICATIONS.
19. CONTRACTOR SHALL NOT BLOCK OR OBSTRUCT PUBLIC BEACH ACCESS PARKING WITHOUT WRITTEN APPROVAL FROM THE OWNER.
20. CONTRACTOR WILL COORDINATE DAILY WITH THE OWNER'S ENVIRONMENTAL MONITOR AND WILL FOLLOW ALL REQUIRED ENVIRONMENTAL PERMIT CONDITIONS AND MANAGEMENT PRACTICES.
21. CONTRACTOR SHALL DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES (BMPs) IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
22. CONTRACTOR SHALL AVOID IMPACTS TO EXISTING DUNES AND DUNE HABITAT. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY DUNE HABITAT LOCATIONS AND ERECT AND MAINTAIN CONSTRUCTION FENCING OR SIMILAR TO PREVENT IMPACTS.

SURVEY NOTES

1. THE ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). THE CONVERSION BETWEEN NATIONAL GEODETIC VERTICAL DATUM (NGVD 29) AND THE NAVD 88 FOR THE PROJECT SITE IS APPROXIMATELY 0.97 FEET (EXAMPLE: 0.0 FEET NGVD = -0.97 FEET NAVD).
2. WETLAND SURVEY DATA PERFORMED BY LONGLEAF ENVIRONMENTAL CONSULTING DATED FEBRUARY 2025.
3. TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA PERFORMED BY ARC SURVEYING & MAPPING DATED FEBRUARY 2025.

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SAVANNAH, GA, 31401
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NOTES, ABBREVIATIONS & LEGENDS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-002



INDEX 2 OF 8

4. THE FOLLOWING TIDAL DATUM RELATIONSHIP IS BASED ON NOAA TIDE STATION 8677344 - ST. SIMONS, GA.

TIDAL DATA

MEAN HIGHER HIGH WATER (MHHW)	2.97' NAVD
MEAN HIGH WATER (MHW)	2.60' NAVD
NORTH AMERICAN VERTICAL DATUM	0.00' NAVD
MEAN LOW WATER (MLW)	-4.02' NAVD
MEAN LOWER LOW WATER (MLLW)	-4.23' NAVD

5. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, GEORGIA EAST ZONE, IN FEET.

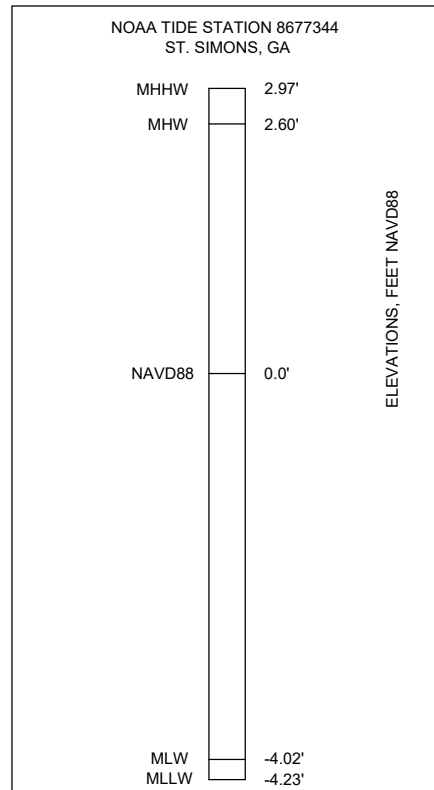
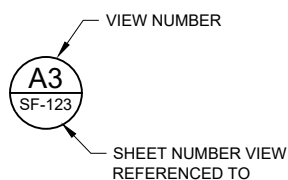
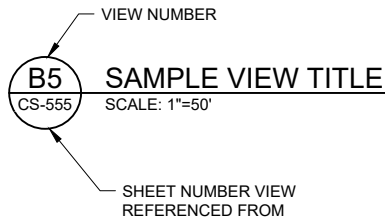
6. PARCELS BOUNDARIES BASED GIS FILES RECEIVED FROM GLYNN COUNTY GEOGRAPHIC INFORMATION SYSTEM DEPARTMENT.

AERIAL IMAGERY

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.

BEACH FILL NOTES

- FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
- PLACE FILL TO THE GRADES SHOWN.
- THE VERTICAL TOLERANCE FOR EACH FILL TEMPLATE IS ± 0.25 FEET.
- THE INTENT OF THE PROJECT IS TO PLACE THE REQUIRED VOLUME OF BEACH FILL WITHIN THE DESIGN TEMPLATE IN ACCORDANCE WITH ALL REQUIREMENTS.



VIEW TITLE

DETAIL CALLOUT

DISCIPLINE DESIGNATORS	
DISCIPLINE	DESIGNATOR
GENERAL	G
SURVEY/MAPPING	V
CIVIL	C

SECONDARY DESIGNATORS	
SITE	S

REVISION NUMBERING	
A00, A01...	PRE-BID SUBMITTALS
B00, B01...	BID SUBMITTALS
000, 001...	CONSTRUCTION SUBMITTALS

SHEET TYPE DESIGNATORS	
0	GENERAL (COVER SHEET, LEGEND, NOTES)
1	PLANS (HORIZONTAL VIEWS)
3	SECTIONS (OVERALL VIEWS)
5	DETAILS (MAY BE PLAN, SECT. OR ELEV. VIEWS)
6	SCHEDULES / TABLES

ABBREVIATIONS

CRD	COASTAL RESOURCES DIVISION
CY	CUBIC YARD
EOR	ENGINEER OF RECORD
FT(')	FEET
GA DNR	GEORGIA DEPARTMENT OF NATURAL RESOURCES
HORZ	HORIZONTAL
IN(")	INCHES
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
N	NORTH
NAD	NORTH AMERICAN DATUM OF 1983
NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NTS	NOT TO SCALE
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
TYP	TYPICAL
VERT	VERTICAL

Sheet Reference
Number:
SF102

SHEET NUMBERING

SHEET DESIGNATOR

SHEET TYPE

SHEET SEQUENCE

**NOTES, ABBREVIATIONS
& LEGENDS**

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-003



INDEX 3 OF 8

300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM





LEGEND

	CONTOURS
	MEAN HIGH WATER
	COASTAL RESOURCES DIVISION LINE
	PARCEL LINES
	WETLANDS
	EXISTING WATER IMPOUNDMENT AREA
	CONSTRUCTION CORRIDOR

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. WETLANDS WERE DELINEATED IN THE IMMEDIATE PROJECT VICINITY BY LONGLEAF ENVIRONMENTAL CONSULTING. ADDITIONAL WETLANDS ARE ANTICIPATED TO OCCUR BEYOND THE EXTENTS SHOWN.
3. ALL EQUIPMENT AND IMPORTED FILL TO ACCESS THE SITE THROUGH MASSENGALE PARK. EXACT LOCATION TO BE DETERMINED BY THE OWNER.

0 300'
SCALE 1" = 300'



moffatt & nichol

EXISTING CONDITIONS / CONSTRUCTION ACCESS

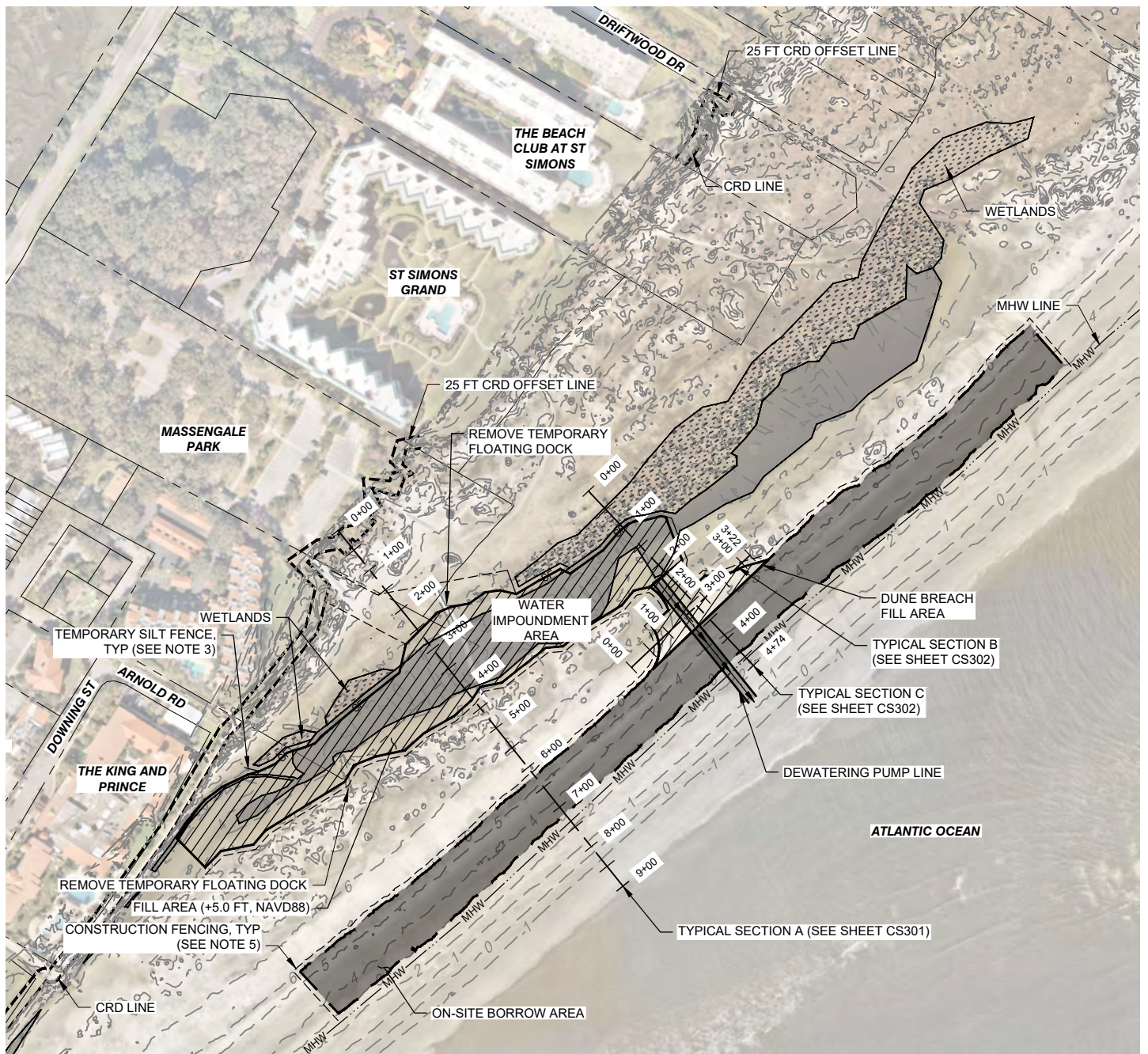
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. V-101



INDEX 4 OF 8

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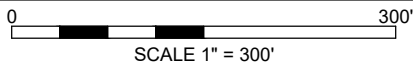


LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
	CRD	COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.



SCHEMATIC DESIGN PLAN

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

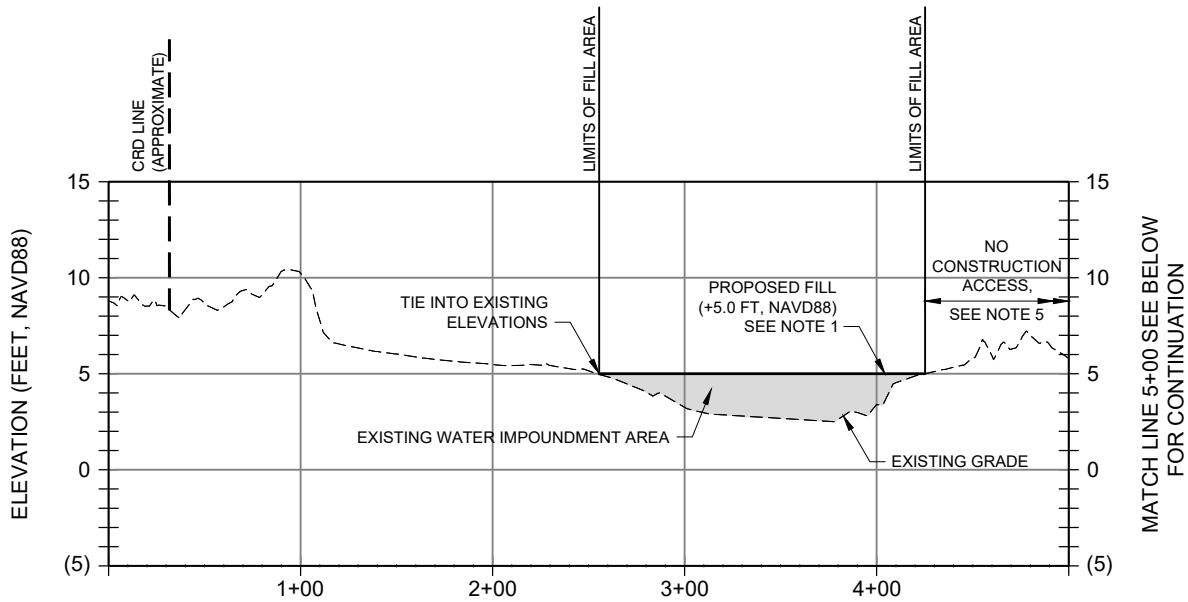
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CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS101



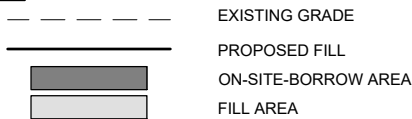
INDEX 5 OF 8

300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



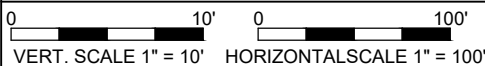
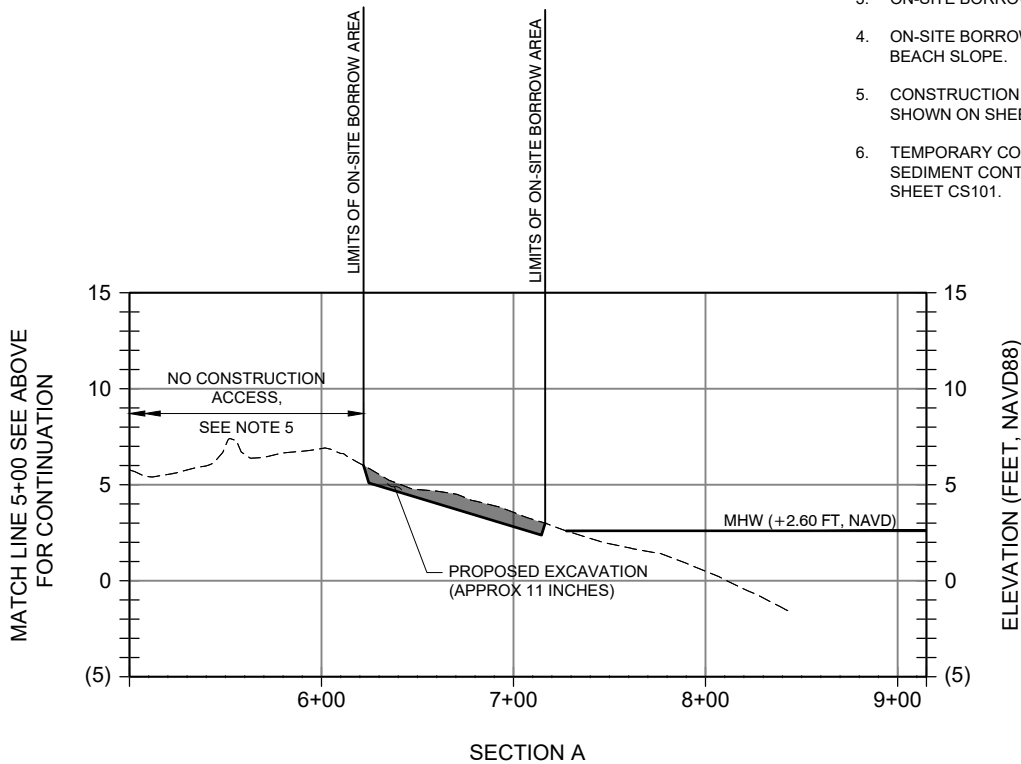


LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR SHOWN ON SHEET V-101.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY. SEE SHEET CS101.



300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
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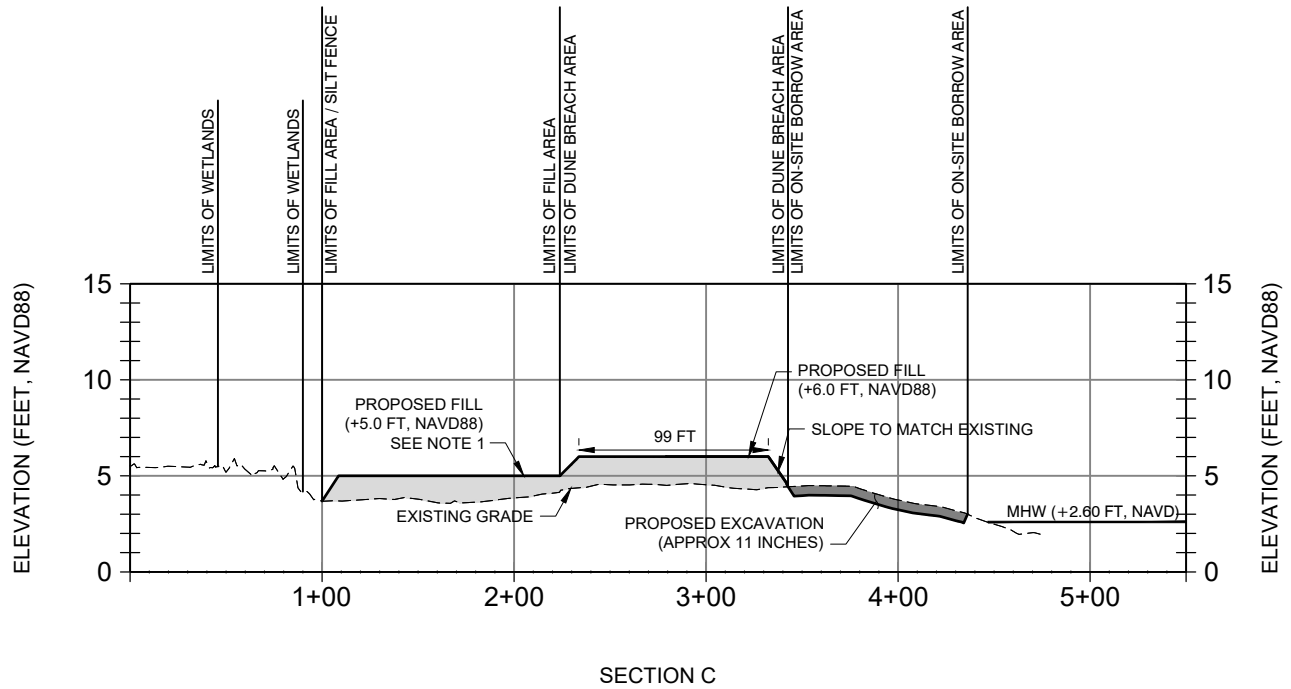
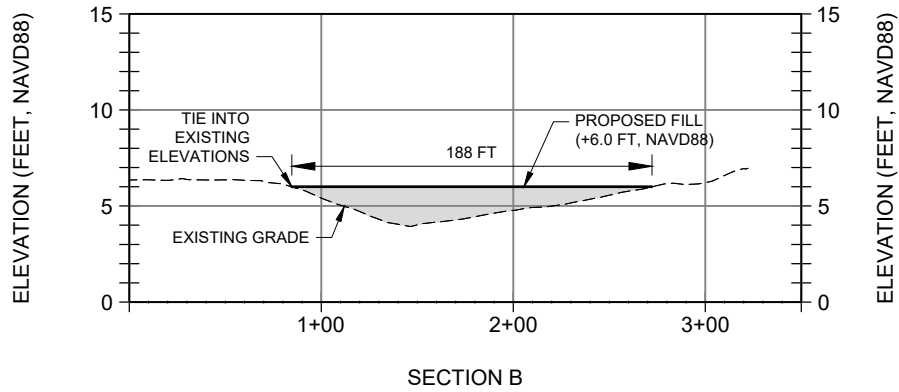
CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

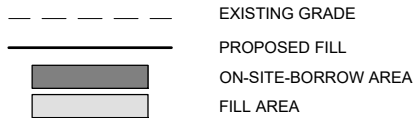
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS301



INDEX 6 OF 8

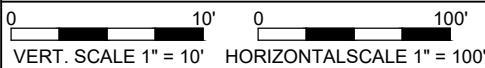


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
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CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS302



INDEX 7 OF 8

QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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300 BULL ST., SUIT 200
SAVANNAH, GA, 31401
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QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. C-601



INDEX 8 OF 8

Monitoring and Maintenance Plan

Project Location: East Beach, St Simons Island, Georgia

Site Description

Location: East Beach beach/dune system

Fill type: 100% of fill volume from onsite borrow area. All sand to be in accordance with GA DNR Requirements for Beach Nourishment Projects

- Sediment free of construction debris, rocks, or other foreign matter and shall not contain, on average, greater than 10% fines and shall not contain, on average, greater than 5% coarse gravel.
- Shell content should be below 15% of total weight
- Sediment color should be between 10YR 6.5/1 and 10YR 7.0/1 on Munsell soil color chart

Vegetation: three vegetative communities along landward fringe of proposed project.

Proposed Activity

The proposed Project includes on-site excavation and grading of existing sand from the on-site borrow area, and filling of an existing water impoundment located on East Beach. The proposed templates will avoid impacts to existing wetland areas, with a minimum 10-foot setback from the surveyed wetland boundary marked by temporary silt fences. The fill template will have a typical elevation of +5.00 feet (+1.52 meters) NAVD and tie into the existing beach grade on the landward side. The proposed fill will feature a 2H:1V landward slope in the areas adjacent to wetland habitat and a construction foreshore slope that matches the existing beach grade. All construction activity is proposed landward of the Mean High Water line. Contractor access to the Project area is anticipated to be through the public beach access at Massengale Park.

Construction Timing and Duration

Construction is proposed to occur outside of marine turtle nesting season (May 1 to October 31). Pending regulatory approvals, construction is anticipated to begin as early as November 1, 2025 and conclude prior to April 30, 2026.

Anticipated Construction Sequence

1. Contact Georgia 811 at least 3 business days prior to construction.
2. Install temporary silt fence and other sediment control measures.
3. Drain water from the impoundment.
4. Excavate and grade existing sand from the on-site borrow area in the fill area.
5. Perform final grading, ensuring finished grade slopes seaward and matches existing beach slope.
6. Remove temporary silt fence and other sediment control measures.

Monitoring Program

- Vegetation
 - o Method: visual inspection and photographic documentation from fixed locations
 - o Tools: Camera, plant identification guide, logbook
- Erosion and sedimentation
 - o Method: visual inspection of fill and borrow areas, inspecting slopes, drainage paths, and beach/dune interface
 - o Indicators: rills, gullies, sediment plumes, washouts
 - o Tools: Camera, tape reel, logbook
- Stormwater management
 - o Method: observe during/after rain
 - o Indicators: ponding, runoff channels, washouts
 - o Tools: Camera, logbook

Monitoring Schedule

Year	Monitoring Frequency	Monitoring Action
1	Quarterly (4x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
2	Semiannually (2x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
3	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
4	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
5	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.

Management Techniques

If a tidal pool is discovered during any monitoring event that has become impounded above the Mean High Water line, perform follow up monitoring event no more than 60 days later. If, after 60 days, a tidal pool remains impounded, implement a maintenance filling event. Maintenance events may only occur outside of marine turtle nesting season (May 1 to October 31).

Attachment C: SPA Application Form and JD Line Exhibit

Shore Protection Act Permit Application
O.C.G.A. 12-5-230

Date: 7/21/2025 _____

Mailing Address:

Jason Hartman
W. Harold Pate Building
1725 Reynolds Street
Brunswick, GA 31520

Project Location:

East beach area in front of Massengale Park
81.3795614°W, 31.1372264°N

Telephone: 912.554.7469

Fax: _____

Name, address, and title of authorized agent for application coordination (if desired):

Stephen M. Bailey
Owner
Longleaf Consulting
113 Bellrain Lane
St. Simons Island, GA 31522

Telephone: 706.614.4436

Fax: _____

Names and addresses of adjoining property owners (attach additional sheets as needed):

Crown K/P
201 Arnold Road
St. Simons Island, GA 31522

Glynn County
1350 Ocean Blvd #1
St. Simons Island, GA 31522

Describe the proposed activity (attach additional sheets as needed):

The proposed public and community project consists of restoration and filling of an area of East Beach that has developed a tidal pool complex over the past several years that is currently an impounded open water area with developing wetland areas. The project would fill part of the impounded area while avoiding wetland impacts. Native sand would be harvested onsite to provide clean fill material.

Statement: I have made inquiry to the appropriate authorities that the proposed project is not over landfill or hazardous waste site and that the site is otherwise suitable for the proposed project.

Signature of Applicant (not agent):

 Date: 7/20/2025

STATE OF GEORGIA

REQUEST FOR A REVOCABLE LICENSE FOR THE USE OF TIDAL WATERBOTTOMS

APPLICANT NAME(S): Jason Hartman (Glynn County)

MAILING ADDRESS: 1725 Reynolds Street, Brunswick, GA 31520
(Street) (City) (State) (Zip)

PROJECT ADDRESS/LOCATION: East Beach N 31.1372264 : W 81.3795614

COUNTY: Glynn WATERWAY: Atlantic Ocean

LOT, BLOCK & SUBDIVISION NAME FROM DEED: N/A

Georgia Department of Natural Resources
Coastal Resources Division
One Conservation Way
Brunswick, Georgia 31520-8687

I am requesting that I be granted a revocable license from the State of Georgia to encroach on the beds of tidewaters, which are state owned property. Attached hereto and made a part of this request is a copy of the plans and description of the project that will be the subject of such a license. I certify that all information submitted is true and correct to the best of my knowledge and understand that willful misrepresentation or falsification is punishable by law.

I understand that if permission from the State is granted, it will be a revocable license and will not constitute a license coupled with an interest. I acknowledge that this revocable license does not resolve any actual or potential disputes regarding the ownership of, or rights in, or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests. I acknowledge that such a license would relate only to the property interests of the State and would not obviate the necessity of obtaining any other State license, permit, or authorization required by State law. I recognize that I waive my right of expectation of privacy and I do not have the permission of the State of Georgia to proceed with such project until the Commissioner of DNR or his/her designee has executed a revocable license in accordance with this request.

Sincerely,

By: 
Signature of Applicant

Date: 7/28/25

ENGINEERING SERVICES DIRECTOR
Title, if applicable

By: _____
Signature of Applicant

Date: _____

Title, if applicable

Attachments

Attachment D: USACE Standard Permit Application



July 31, 2025

U.S. Army Corps of Engineers
ATTN: CESAS-RD-C
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3604
(912) 652-5242
CESAS-RD-C@usace.army.mil

Re: Standard Permit Application, Glynn County Engineering Services – East Beach Water Impoundment Project, St. Simons Island, Glynn County, Georgia

Dear USACE Project Manager:

On behalf of the applicant, Glynn County Engineering Services, we are submitting this package including an application for a Standard Individual Permit to authorize improvements to impounded open water areas associated with construction of the East Beach Water Impoundment Project (the Project) located near Massengale Park on East Beach, St. Simons Island, Georgia.

The information below details the project purpose and need, alternatives considered, location, and other information required for USACE Standard Permit issuance. Please review the attached application, forms, plans, figures and supplemental information and contact me if you have any questions or need additional information.

Project Purpose and Need

The purpose of the project is to improve and protect public safety. The need for the project is the risk to public safety from the current open water and limited, precarious crossing conditions. The need will be met by reducing public contact with open water areas to minimize drowning risk; alleviating safety concerns associated with public contact with potentially contaminated water; improving access for emergency services vehicles in the Massengale Park Area; and by providing a safe, stable, and accessible connection to beach areas for the public.

Project Description

The proposed project consists of restoration and filling of an area of East Beach that has developed a tidal pool complex over the past several years that is currently an impounded open water area with developing wetland areas. The project would fill the tidal pool area while avoiding wetland impacts. Native sand would be harvested onsite to provide clean fill material.

Site Location and Description

The Project Area is located on East Beach, St. Simons Island, Glynn County, Georgia and consists of the Water Impoundment, adjacent beach area and access corridor to the beach from Massengale Park. The Project Area is approximately 9.74 acres, and the center is located at 81.3795614°W, 31.1372264°N. The Project Area is located in the Blackbank River-Frontal Atlantic Ocean (HUC ID 030702030202) and Saint Simons Sound-Atlantic Ocean (HUC ID: 030702030204) sub-watersheds and is within FEMA Zone VE. Soils within the Project Area consist of two soil mapping units, Beaches (Be) and Cainhoy fine sand 0-5% slopes (CaB). Refer to Attachment A for all figures. Refer to Figure 1 for the USGS 7.5-minute topographic Project Location Map, Figure 2 for the Hydrologic Unit Code map, Figure 3 for the FEMA Flood Zone Map and Figure 4 for the Soils Map. Refer to Attachment B for project plans and Refer to Attachment C for the Application for Department of the Army Permit Form.

Jurisdictional Studies

Longleaf Consulting (Longleaf) conducted a wetland/waters delineation based on the methodology outlined in the July 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* on 1/12/2025 and 1/14/2025. The delineation consisted of identification, sub-meter GPS location, and mapping of jurisdictional resources. Refer to Figure 5 for a Wetlands and Waters Delineation Map and Figure 6 for resource photographs. Refer to Attachment D for USACE Wetland and Upland Data forms.

Wetland 1

Wetland 1 is approximately 0.05-acre and is a recently developed fringe wetland of Water Impoundment 1. Dominant vegetation includes saltgrass (*Distichlis spicata*) and saltmarsh fimbry (*Fimbristylis castanea*). Soils are gleyed, indicating long periods of saturation. Wetland 1 will be protected with appropriate best management practices (BMPs) and will not be impacted by the project.

Wetland 2

Wetland 2 is approximately 0.10-acre and is a recently developed fringe wetland of Water Impoundment 1. Dominant vegetation includes saltgrass and saltmarsh fimbry, Soils are gleyed, indicating long periods of saturation. Wetland 2 will be protected with appropriate BMPs and will not be impacted by the project.

Wetland 3

Wetland 3 is approximately 2.47 acres and is located along the northern area of Water Impoundment 1 and extends outside of the Project Area. Dominant vegetation includes saltmarsh fimbry and smooth cordgrass (*Spartina alterniflora*). Soils are reduced with prominent redox concentrations. Wetland 3 will be protected with appropriate BMPs and will not be impacted by the project.

Water Impoundment 1

Water Impoundment 1 is a recently formed open water impounded area and is approximately 3.83 acres. The impoundment is disconnected from daily tidal action and appears to be fed by interdunal flow in addition to very high tides and storm surges. To accomplish the purpose and need of the project, 2.07 acres of Water Impoundment 1 are proposed to be filled with native sand from the adjacent borrow area. For the Preferred Alternative 2, 1.76 acres of Water Impoundment 1 will be protected with appropriate BMPs and will not be filled.

Cultural Resources

In July 2025, Brockington & Associates (Brockington) conducted a cultural resources survey to identify archaeological sites and above-ground architectural properties within the East Beach Water Impoundment Project Area and its viewshed. No archaeological resources were identified during field survey.

Due to the limited above-ground impact of the project (filling in tidal pools within the beachfront) and limited visibility within the surrounding area due to intervening buildings and vegetation, the viewshed was determined to consist of parcels immediately adjacent to the project area. Brockington's survey identified one previously recorded resource (The King and Prince Hotel [NRHP#04001465]) within the viewshed of the proposed project. Full analysis of Brockington's survey and assessment of identified potential architectural resource is currently in progress; however, a preliminary summary of study findings is presented below.

The King and Prince Hotel (NRHP#04001465) is a previously recorded resource listed in the National Register of Historic Place (NRHP). The resource is a two- and three-story Spanish Colonial Revival-style hotel constructed in 1941, and it is located approximately 60 feet north of the project tract at its closest point. The King and Prince Hotel has been previously determined to be NRHP-Eligible, and Brockington's preliminary assessment has not identified any alterations or circumstances impacting on the integrity of the resource sufficient to render the resource no longer NRHP-eligible. However, due to the limited impact of the proposed project and minimal visibility of the ground-level alterations proposed, Brockington anticipates that the proposed project will have No Adverse Impact on the King and Prince Hotel (NRHP#04001465).

Based on the above findings, the project is not anticipated to affect or impact cultural resources. The Phase Cultural Resources Survey Report will be submitted for USACE review and use once completed.

Protected Species

A review of available resources was performed to develop a list of federally protected species of possible occurrence within or near the Project Area. The official species list for the project area was requested from the United States Fish and Wildlife Service Information, Planning and Conservation System (<https://ipac.ecosphere.fws.gov/>) (Attachment E).

The review indicated that 12 federally protected species have the potential to exist within or near the Project Area in Glynn County, GA. During field studies, the Project Area was assessed for the potential presence and location of federally threatened and endangered species and their respective habitats. Please refer to Table 1 for a summary of federally listed species of possible occurrence, the federal designation for each species, a brief description of their respective habitats and habitat presence in the Project Area.

Table 1: Federally Listed Species for Glynn County

Scientific Name	Common Name	Federal Status	Preferred Habitat	Habitat Present
<i>Calidris canutus rufa</i>	rufa red knot	T	breeding habitats are elevated and sparsely vegetated ridges or slopes often adjacent to wetlands and lake edges; wintering and migration habitats are often muddy or sandy coastal areas, such as the mouths of bays and estuaries, and tidal flats	yes
<i>Charadrius melodus</i>	piping plover	T	gently sloping foredunes and blow-out areas behind primary dunes of sandy coastal beaches; sparsely vegetated sandy beaches, gravel, or cobble; frequently near sand dunes. Wintering areas include beaches, mudflats, and tidal ponds that are periodically inundated by water from high tide.	yes
<i>Chelonia mydas</i>	green sea turtle	T	open ocean; sounds; coastal rivers; beaches	yes
<i>Danaus plexippus</i>	monarch butterfly	C	open habitats, emergent/scrub wetlands, old fields and other open habitats; relies heavily on a variety of native milkweed species and nectar producing plants.	no
<i>Dermochelys coriacea</i>	leatherback sea turtle	E	open ocean, seas, gulfs, bays, and estuaries	yes
<i>Drymarchon couperi</i>	eastern indigo snake	T	sandhill regions dominated by mature longleaf pines, turkey oaks, and wiregrass; flatwoods; most types of hammocks; coastal scrub; dry glades; palmetto flats; prairie; brushy riparian and canal corridors; and wet fields	no
<i>Eretmochelys imbricata</i>	hawksbill sea turtle	E	shallow coastal waters, coral reefs, beds of sea grass or algae, mangrove-bordered bays and estuaries, and submerged mud flats	yes

Table 1: Federally Listed Species for Glynn County

Scientific Name	Common Name	Federal Status	Preferred Habitat	Habitat Present
<i>Haliaeetus leucocephalus</i>	bald eagle	BGEPA	edges of lakes and large rivers; seacoasts	no
<i>Laterallus jamaicensis jamaicensis</i>	eastern black rail	T	herbaceous, persistent, emergent wetland plant cover with dense overhead cover and soils that are moist to saturated (occasionally dry) and interspersed with or adjacent to very shallow water	yes
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle	E	open ocean; sounds; coastal rivers; beaches	yes
<i>Mycteria americana</i>	wood stork	T	marshes, swamps, lagoons, ponds, flooded fields; also occurs in brackish wetlands. Nests mostly in upper parts of cypress trees, mangroves, or dead hardwoods over water or on islands along streams or adjacent to shallow lakes. Feeds in freshwater marshes, swamps, lagoons, ponds, flooded pastures and flooded ditches, depressions in marshes	yes
<i>Trichechus manatus</i>	West Indian manatee	T	estuaries, tidal rivers, nearshore ocean waters	no

T = Threatened, E = Endangered, C = Candidate, BGEPA = Bald and Golden Eagle Protection Act; habitat notes from USFWS, GA DNR, and <https://explorer.natureserve.org/>

Water Impoundment 1 and surrounding beach and dune areas are winter habitat for rufa red knot and piping plover. The impounded area could be used as foraging habitat for wood stork. Wetland areas of the Project Area are potential habitat for eastern black rail; however, no wetlands will be impacted by the project. A qualified environmental monitor will be onsite every day during construction to monitor for the presence of protected birds. Should protected birds enter the Project Area, work will be stopped until the birds are no longer in the project area.

The beach and dunes in the Project Area qualify as potential nesting habitat for sea turtles. Project construction will take place outside of sea turtle nesting season, no impacts are proposed seaward of the mean high-water mark, and dune habitat will be protected during construction. A qualified environmental monitor will observe the project area during each day of construction. Should a sea turtle enter the Project Area, work will be stopped until the turtle is no longer in the area.

Compensatory Mitigation

Project construction will avoid all wetland impacts and result in unavoidable impacts of 2.07 acres of open water only. Since impacts will occur to open water areas only and all wetland impacts will be avoided, mitigation is not proposed for this project.

Section 404(b)(1) Alternatives Analysis

Alternative 1

This alternative would fill the entire open water area with native sand from an onsite borrow area as shown on Attachment B – Alternative 1 Plan Sheets. Native sand would be harvested by shallow scraping of the beach throughout the 12.58-acre borrow area. To fill the 3.83-acre open water area, approximately 10,420 cubic yards of sand would be collected from the borrow area. Wetlands along the open water area would be avoided and protected with BMPs. Newly formed dune areas that could qualify as habitat for protected species would be impacted by sand harvesting. Alternative 1 would cost \$330,000 to \$525,000 and would be completed in approximately 60 to 90 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

Preferred Alternative 2

Alternative 2 would limit the fill to 2.07 acres of open water as shown on Attachment B– Alternative 2 Plan Sheet. Native sand would be harvested in a 4.87-acre borrow area that is outside of any dune formations or protected species habitats and above the mean high-water line. The borrow area would be excavated to a depth of 11 inches to provide approximately 8,940 cubic yards of sand to fill the impoundment area in front of Massengale Park and the dune breach area. This alternative would avoid impacts to 1.76 acres of open water, avoid impacts to any dunes and dune vegetation, and avoid all wetland impacts. Wetlands along the open water area would be avoided and protected with BMPs. In addition, the dune breach area will create dune habitat as well as improve storm resiliency for the area by creating a uniform dune elevation. Alternative 2 would cost \$300,000 to \$500,000 and would be completed in approximately 45 to 70 days including time for mobilization, surveying, erecting silt fencing and BMPs, dewatering, excavation and grading, demobilization, and site cleanup.

No action Alternative

The No Action alternative is not viable as it does not satisfy the purpose and need for the project. Public safety will not be improved and protected by no action for the purpose and need for the project.

Evaluation Criteria

The analysis uses the following criteria to determine if the alternatives are practicable.

- 1. Improvements to public safety**
- 2. Federal and state waters and wetlands impacts**
- 3. Impacts and affects to protected species, habitats, and other resources**
- 4. Logistics & constructability**
- 5. Cost**

1: Improvements to public safety

Improvements to public safety were assessed by comparing the current site conditions to potential site conditions by alternative. Public safety considerations included drowning risk, access of emergency services vehicles, pedestrian access safety, and public contact with potentially hazardous water.

2: Federal and state waters and wetlands impacts

Impacts to wetlands and waters were quantified using the project plans and the wetlands delineation. For each alternative, the project design team looked for ways to avoid and minimize impacts to regulated waters and wetlands.

For each alternative, this report will compare:

- Quantified area of direct permanent and temporary impacts on aquatic resources.
- Qualitative indirect impacts on aquatic resource functions.

3: Impacts and affects to protected species, cultural resources, and other resources

To determine if each alternative would have other significant adverse environmental consequences, the impacts to the following resources were considered:

- **Endangered species & their habitats** – How will the alternative affect federally listed threatened or endangered species?
- **Cultural Resources (Section 106)** - How will the alternative effect protected cultural resources and properties on or eligible for listing in the National Register of Historic Places? Would it result in an adverse effect that could not be mitigated?
- **Water Quality** – Will the alternative result in degradation to water quality.

4: Logistics & constructability

Each Alternative's logistics and constructability were evaluated including logistics and construction challenges and opportunities.

5: Cost

Total project costs for each alternative were evaluated using current costs for construction.

Alternative 1:

Improvements to public safety

Alternative 1 would address the purpose and need of public safety by entirely filling the open water area. This would fully mitigate drowning risk, allow for emergency services and public ingress/egress, and reduce public water quality concerns.

Federal and state waters and wetlands impacts

Alternative 1 would fill the 3.83-acre open water area with sand harvested from a 12.58-acre borrow area. This would result in permanent impacts to the entire open water area. No federal or state regulated wetland areas would be impacted. Function and habitat value of the impoundment area would be decreased as no open water habitat would remain.

Impacts and affects to protected species, cultural resources, and water quality

Alternative 1 would impact dune habitats located in the proposed borrow area that could affect sea turtles, rufa red knot, and piping plover. Water Impoundment 1 is habitat for protected birds;

filling the 3.83-acre impounded area would eliminate this habitat and may affect protected and non-protected bird species.

Alternative 1 would not impact or affect cultural resources.

Alternative 1 could affect water quality by removing dune vegetation which could cause beach erosion. The proposed borrow area could increase erosion and sedimentation by removing accreting dune areas and areas of stabilizing vegetation in the upper beach area. In addition, the proposed dewatering trench could contribute to erosion and sedimentation.

Logistics & constructability

Alternative 1 would be completed in approximately 60 to 90 days and include access from Massengale Park and work in the borrow area and entire extents of the open water impoundment. Alternative 1 would include the installation of BMPs along the access route and entire open water impoundment to protect wetland areas. The dewatering trench proposed would require BMPs and monitoring. The over 12-acre borrow area may need to be cordoned off during excavation for public safety.

Cost

Alternative 1 would cost \$330,000 to \$525,000.

Preferred Alternative 2:

Improvements to public safety

Alternative 2 would address the purpose and need of public safety by filling the open water area in the areas in front of Massengale Park where the impoundment is affecting public and emergency services access and where the public has the greatest potential for contact with the impounded water. This would reduce drowning risk, allow for public and emergency services ingress/egress, and reduce public water quality concerns.

Federal and state waters and wetlands impacts

Alternative 2 would fill 2.07 acres of the open water area with sand harvested from a 4.87-acre borrow area. This would result in permanent impacts to approximately 54% of existing open water area. No federal or state regulated wetland areas would be impacted. Function and habitat value of the impoundment area would be decreased; however, open water habitat and function would remain in the preserved impoundment area and its adjacent wetlands.

Impacts and affects to protected species, cultural resources, and water quality

Alternative 2 would not impact dune habitats. Water Impoundment 1 is habitat for protected birds and filling 2.07 acres of the impounded area may affect protected and non-protected bird species; however, much of the habitat would be left intact, allowing for continued wildlife use. In addition, dune habitat would be created and adjacent areas enhanced by creation of dunes in the dune breach area.

Alternative 2 would not impact or affect cultural resources.

Alternative 2 would have minimal impacts to water quality provided appropriate BMPs are used.

Logistics & constructability

Alternative 2 would be completed in approximately 45 to 70 days and include access from Massengale Park, work in the borrow area and a portion of the open water impoundment. Alternative 2 would include the installation of BMPs along the access route and partial areas of the open water impoundment to protect wetland areas. The dewatering pump proposed would require BMPs and monitoring but would not require a trench and associated stabilization efforts. The 4.87-acre borrow area may need to be cordoned off during excavation for public safety.

Cost

Alternative 2 would cost \$300,000 to \$500,000.

No action alternative:

Improvements to public safety

The no action alternative would not result in any improvement to public safety and is not practicable.

Federal and state waters and wetlands impacts

The no action alternative would not result in any impacts to federal and state waters and wetlands.

Impacts and effects to protected species, cultural resources, and water quality

The no action alternative would not result in any impacts to protected species or cultural resources and would result in continued public exposure to water quality hazards.

Logistics & constructability

The no action alternative would result in continued safety hazards and access issues for EMS and the public.

Cost

The no action alternative would have no immediate cost; however, could result in much higher direct and indirect costs due to the ongoing public safety hazards.

Least environmentally damaging practicable alternative

The No action Alternative is not practicable as it does not address the purpose and need of the project. Alternative 1 does address the purpose and need of the project; however, it is not the least impactful alternative due to the potential for impacts to protected habitats and it does not minimize impacts to regulated waters to the maximum extent practicable to accomplish project goals. Based on this analysis, Preferred Alternative 2 is the proposed least environmentally damaging practicable alternative.

Glynn County appreciates your review of the enclosed information. Please review and contact me at (706) 614.4436 if you have any questions or need additional information.

Best regards,

A handwritten signature in blue ink that reads "Stephen M. Bailey". The signature is written in a cursive, flowing style.

Stephen M. Bailey, PWS
Principal | Owner
Longleaf Consulting
www.longleafconsulting.com
706.614.4436

Enclosure(s)

Attachment A: Figures

- Figure 1 USGS Project Location Map
- Figure 2 Hydrologic Unit Code Map
- Figure 3 FEMA Flood Zone Map
- Figure 4 Soils Map
- Figure 5 Wetlands and Waters Delineation Map
- Figure 6 Resource Photos

Attachment B: Project Plans

- Alternative 1 Schematic Design Plans
- Alternative 2 Schematic Design Plans
- Project Design Plans
- Monitoring and Maintenance Plan

Attachment C: Application for Department of the Army Permit Form

Attachment D: USACE Wetland and Upland Data Forms

Attachment E: USFWS IPAC Species List

Attachment A: Figures



Figure 1: USGS Project Location Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

Project Area



Figure 2: Hydrologic Unit Code Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

- Hydrologic Unit 12 Subwatershed
- Project Area

National Flood Hazard Layer FIRMMette



81°22'49"W 31°8'39"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

81°22'11"W 31°8'8"N

Basemap Imagery Source: USGS National Map 2023

Figure 3: FEMA Flood Zone Map

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/30/2025 at 1:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 4:

Soil Map—Camden and Glynn Counties, Georgia



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Camden and Glynn Counties, Georgia

Survey Area Data: Version 18, Sep 10, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 9, 2022—Apr 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Be	Beaches	20.1	26.0%
CaB	Cainhoy fine sand, 0 to 5 percent slopes	6.8	8.8%
W	Water	32.3	41.6%
Totals for Area of Interest		77.5	100.0%



Figure 5: Wetlands and Waters Delineation Map
East Beach Water Impoundment Project
Glynn County, Georgia



Legend

- | | |
|---|--|
|  Water Impoundment |  Project Area |
|  Wetlands |  Data Points |

Figure 6: Resource Photographs January 2025



Wetland 1



Wetlands 1 and 2 Soil



Wetlands 1 and 2



Wetland 3



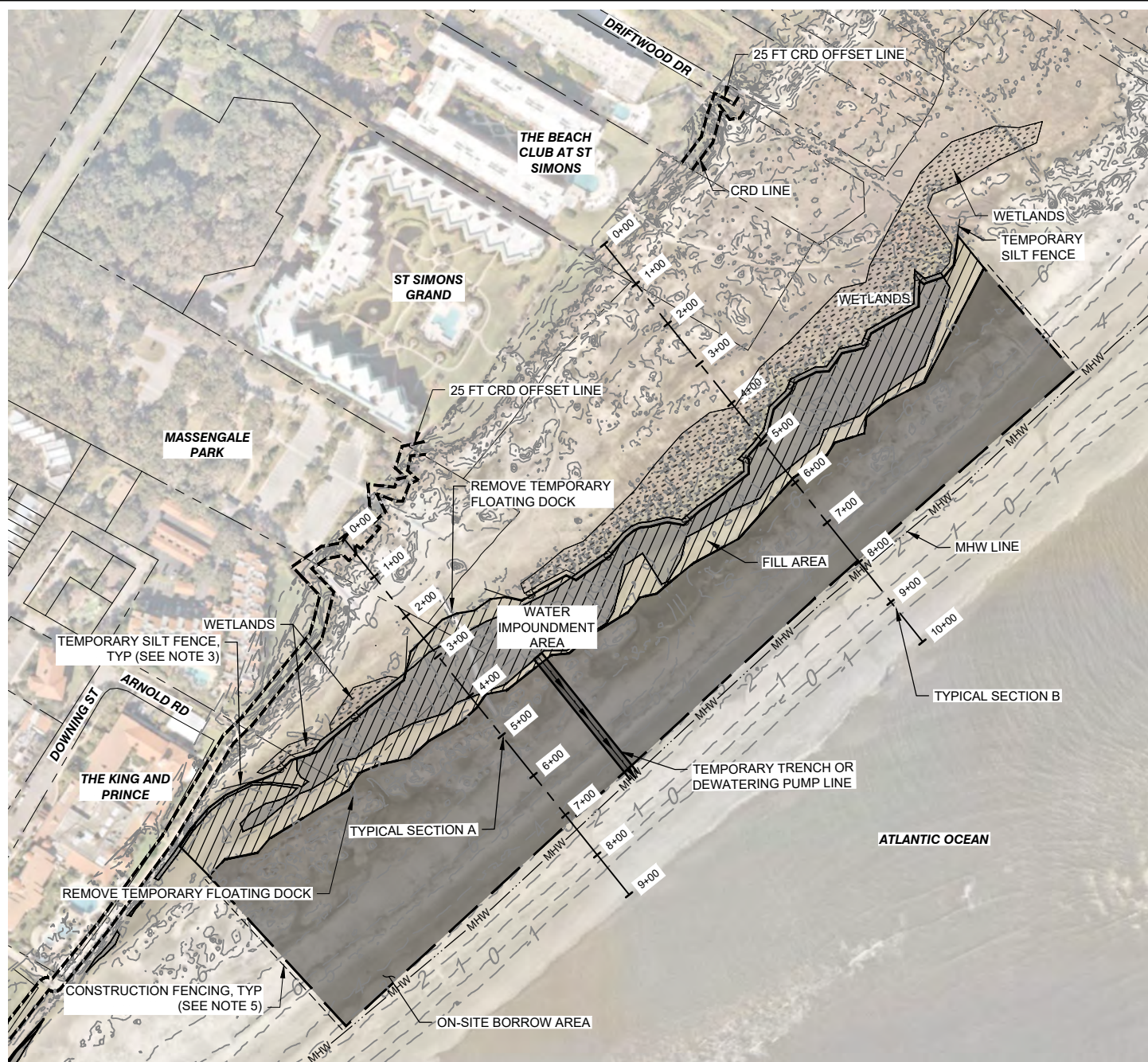
Wetland 3 Soil



Water Impoundment 1

Attachment B: Project Plans

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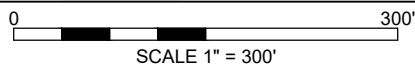


LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
		COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERRECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERRECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.



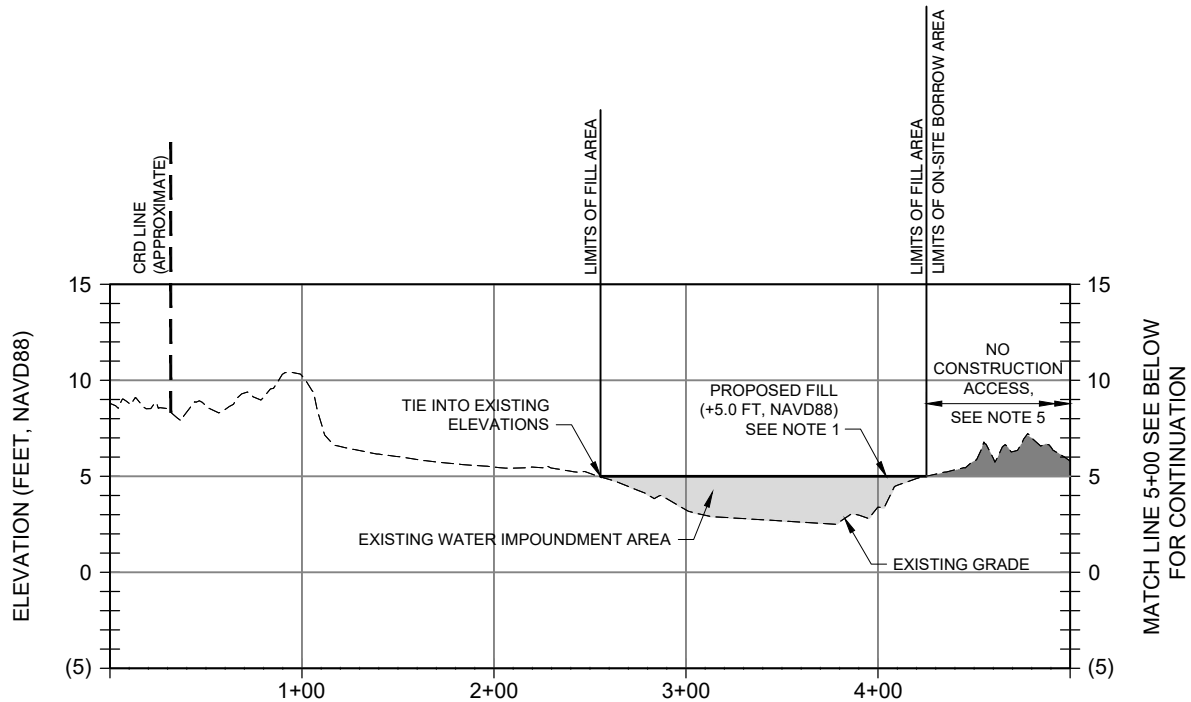
**FIGURE 1 ALTERNATIVE 1
SCHEMATIC DESIGN PLAN**

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



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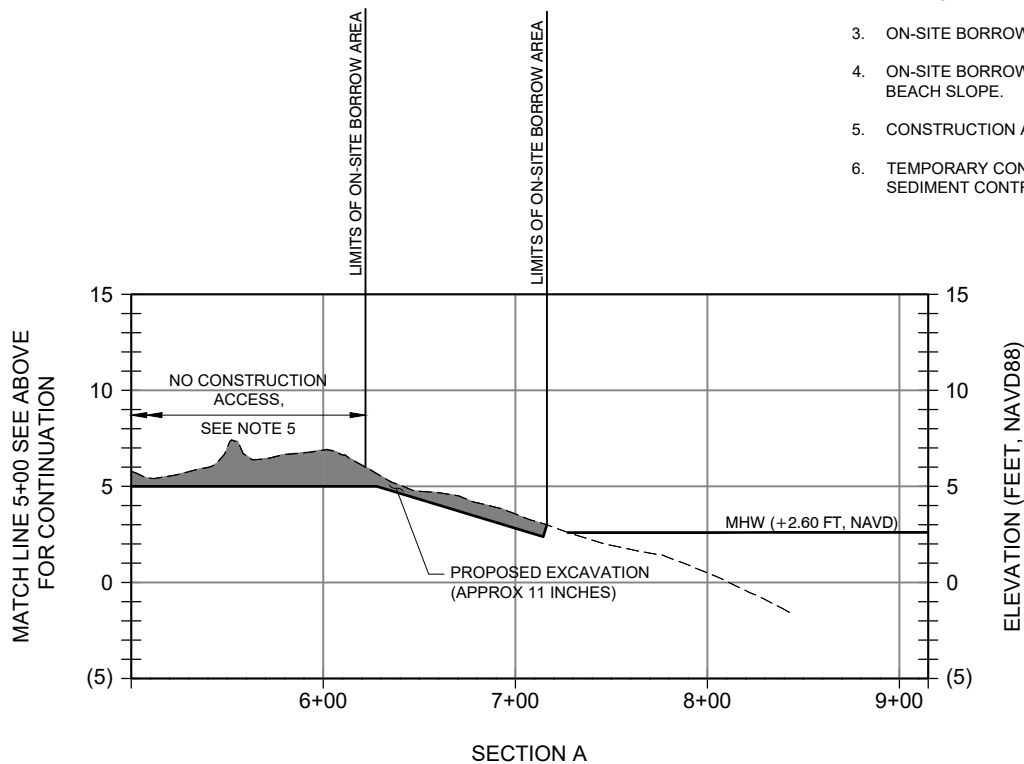
LEGEND

	EXISTING GRADE
	PROPOSED FILL
	ON-SITE-BORROW AREA
	FILL AREA

SECTION A

NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY.



SECTION A

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'



moffatt & nichol

FIGURE 2 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

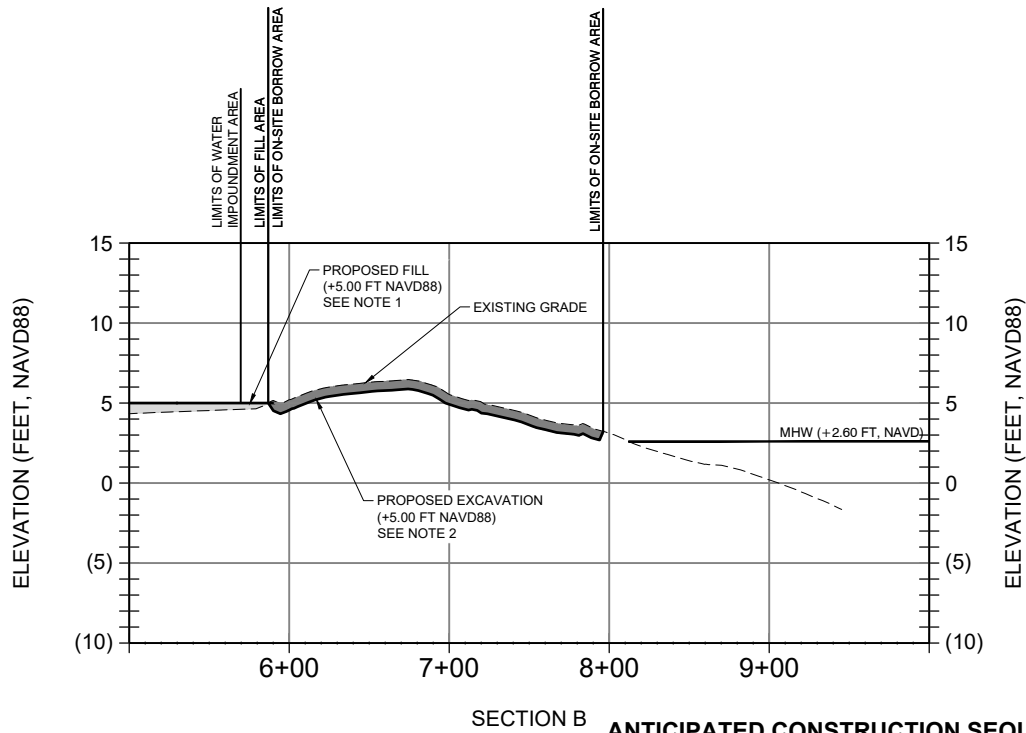
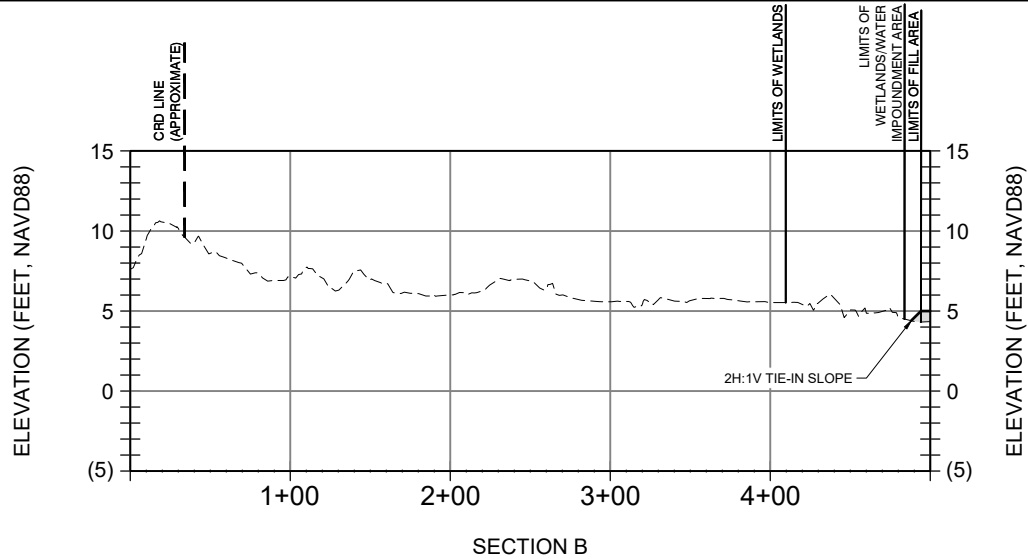
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



INDEX 2 OF 8

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LEGEND

---	EXISTING GRADE
—	PROPOSED FILL
■	ON-SITE-BORROW AREA
■	FILL AREA

ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.

0 10' 0 100'
VERT. SCALE 1" = 10' HORIZONTAL SCALE 1" = 100'

300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



FIGURE 3 ALTERNATIVE 1 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	18.67 Acres 813,316 SQ. FT.
Jurisdictional Footprint	18.67 Acres 813,316 SQ. FT.
Proposed Project Footprint within Jurisdiction	18.67 Acres 813,316 SQ. FT.
Open Water	3.83 Acres 166,560 SQ. FT.
Fill	5.38 Acres 234,325 SQ. FT.
Upper Beach Borrow	12.41 Acres 540,715 SQ. ST
Fill Volume	10,420 CU Yards

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300 BULL ST., SUITE 200
SAVANNAH, GA, 31401
MOFFATT NICHOL.COM



FIGURE 4 ALTERNATIVE 1 QUANTITIES

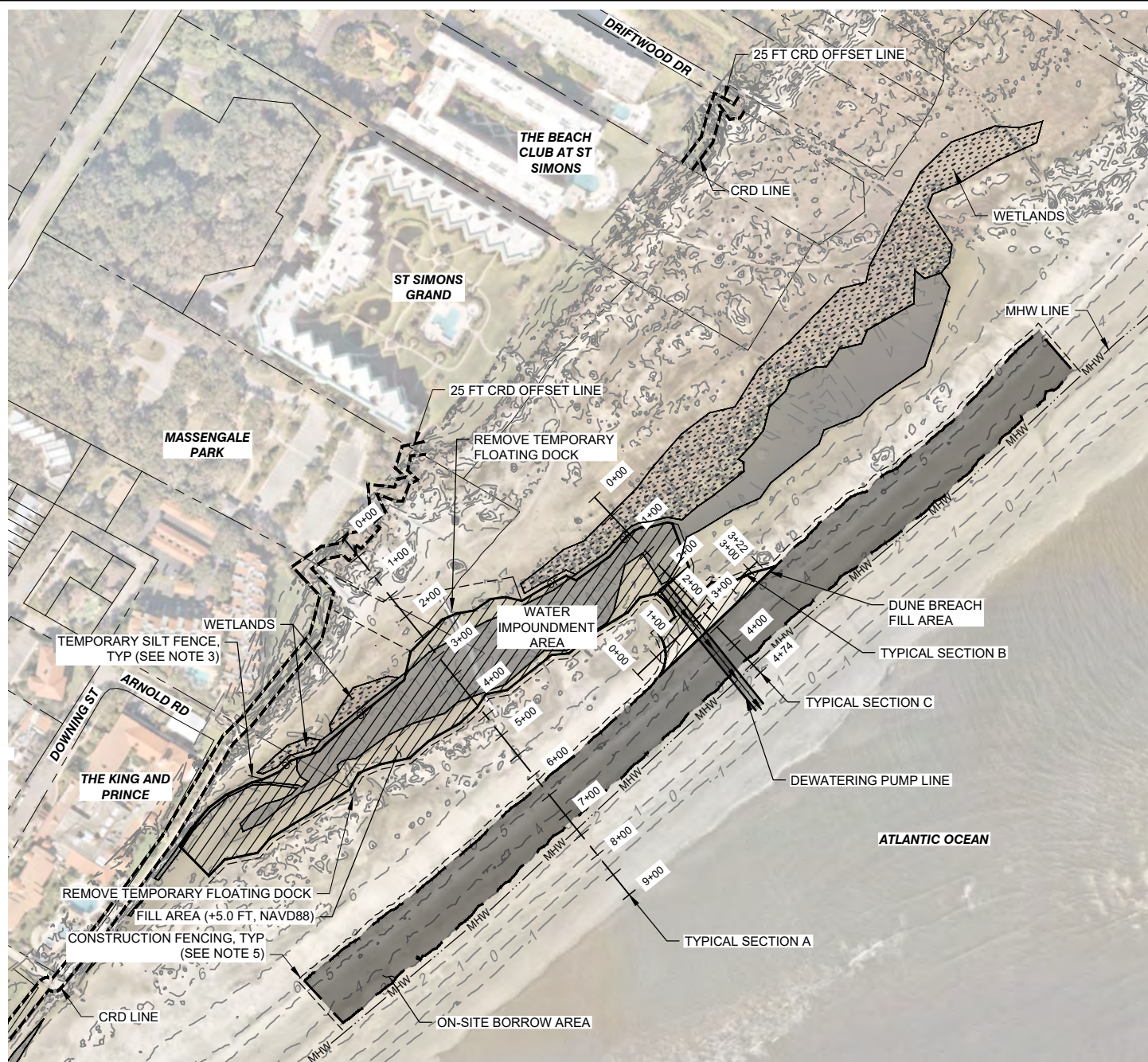
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



INDEX 4 OF 8

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LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
	CRD	COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

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0 300'
SCALE 1" = 300'



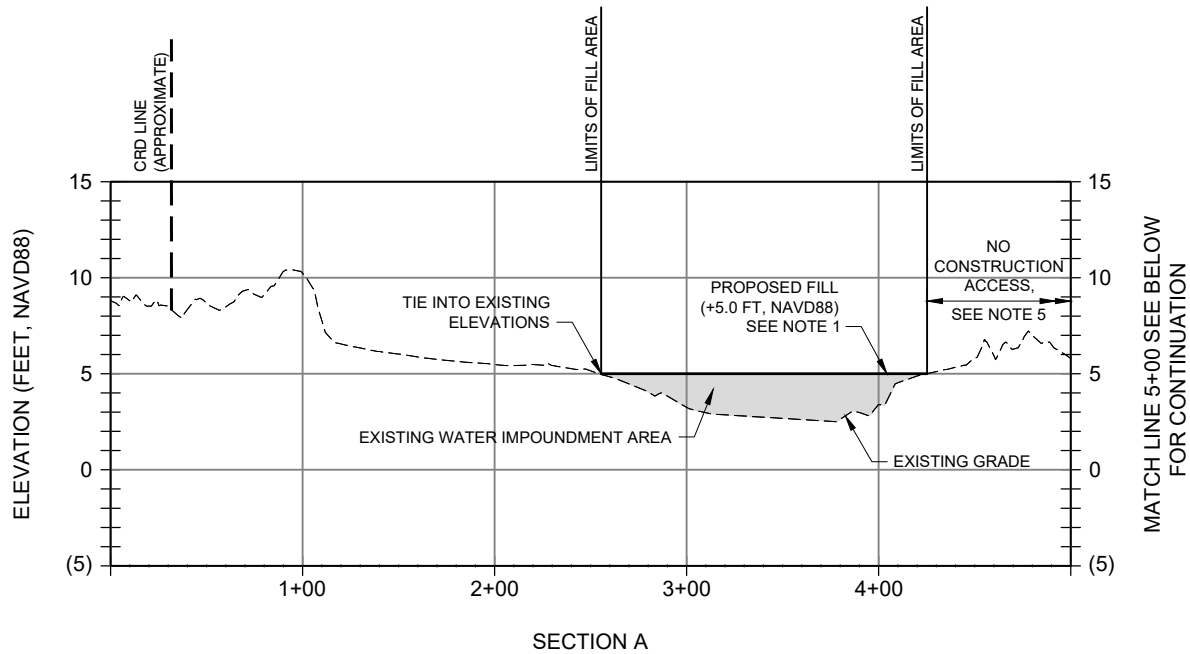
FIGURE 5 ALTERNATIVE 2 SCHEMATIC DESIGN PLAN

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

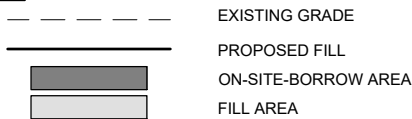
DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



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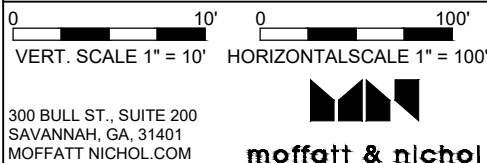
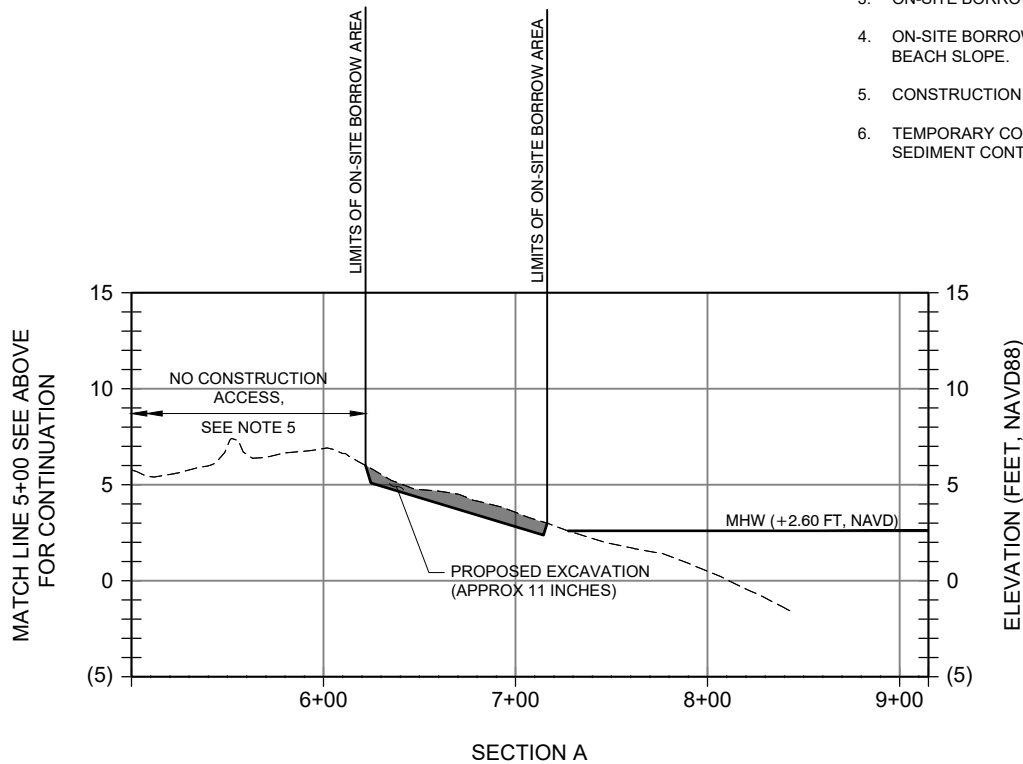


LEGEND



NOTES

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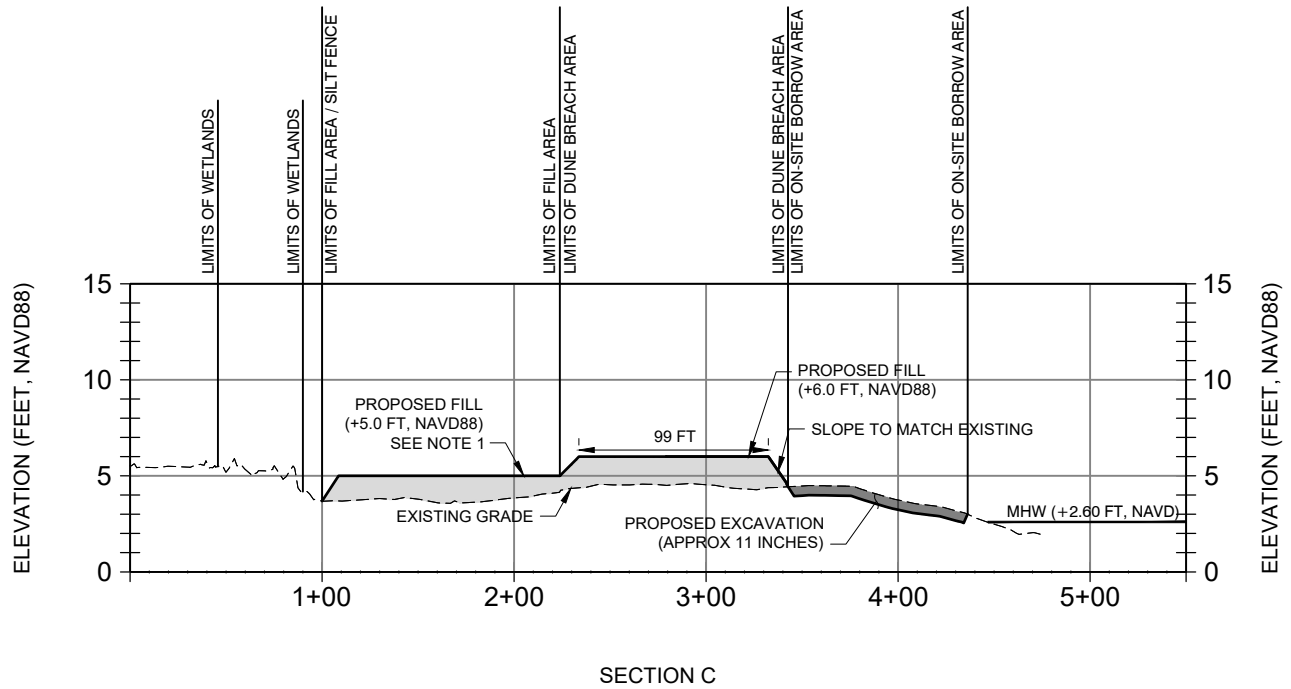
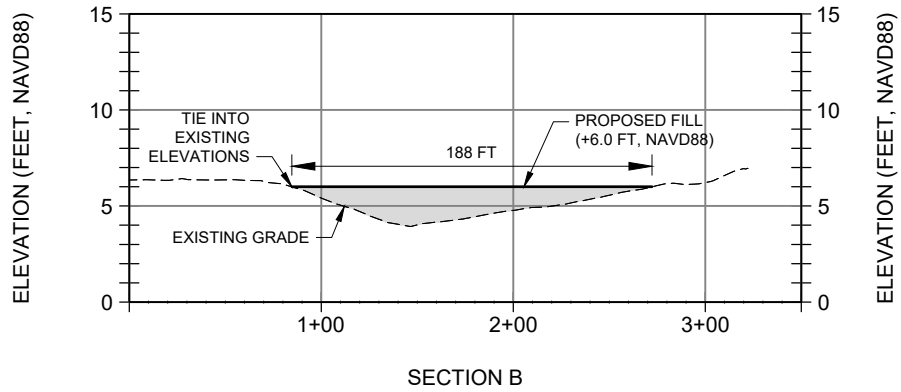


**FIGURE 6 ALTERNATIVE 2
CROSS SECTIONS & DETAILS**

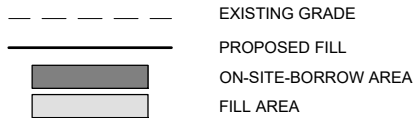
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
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SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



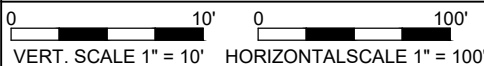


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



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SAVANNAH, GA, 31401
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FIGURE 7 ALTERNATIVE 2 CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/16/2025



QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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FIGURE 8 ALTERNATIVE 2 QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
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REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
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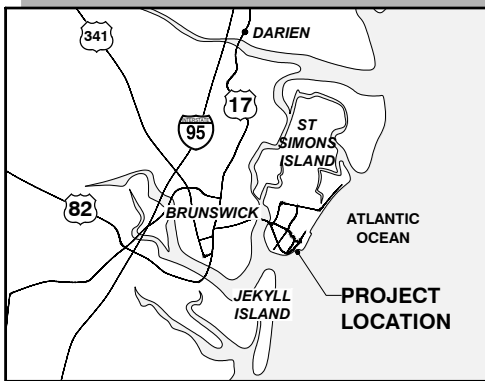


GLYNN COUNTY

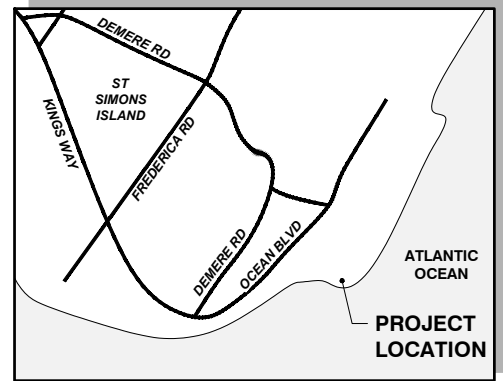
EAST BEACH WATER IMPOUNDMENT

ST. SIMONS ISLAND, GEORGIA

M&N JOB #: 240281-06



VICINITY MAP
SCALE: NTS



LOCATION MAP
SCALE: NTS

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
G-001	COVER SHEET
G-002	NOTES, ABBREVIATIONS & LEGENDS
G-003	NOTES, ABBREVIATIONS & LEGENDS
V-101	EXISTING CONDITIONS / CONSTRUCTION ACCESS
CS101	SCHEMATIC DESIGN PLAN
CS301	CROSS-SECTIONS & DETAILS
CS302	CROSS-SECTIONS & DETAILS
C-601	QUANTITIES

GOVERNING STANDARDS AND SPECIFICATIONS:
DESIGN STANDARDS AND APPLICABLE CODES USE
GA DNR, GEORGIA CODE, OCCUPATIONAL SAFETY
AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.



COVER SHEET

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-001



INDEX 1 OF 8

300 BULL ST., SUIT 200
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GENERAL NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES & AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO OWNER, LOCAL, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. ANY DISCREPANCY MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & ENGINEER OF RECORD.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT SITE & TO DETERMINE TOPOGRAPHIC OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN HIS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO HIS/HER PROPOSED METHOD OF CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE OWNER IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN HIS BID PRICE.
3. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, & UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING UTILITIES NOT SPECIFIED FOR REMOVAL WHICH ARE DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER .
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF/HERSELF WITH CURRENT SITE CONDITIONS & SHALL REPORT ANY DISCREPANCIES TO THE OWNER & EOR PRIOR TO STARTING WORK.
5. THE CONTRACTOR SHALL KEEP THE SITE REASONABLY FREE FROM DEBRIS, TRASH, & CONSTRUCTION WASTE. BUILDING MATERIAL AND/OR CONSTRUCTION DEBRIS STORED ADJACENT TO OR UPON THE ROADWAY SHALL BE ADEQUATELY MARKED AT ALL TIMES FOR PEDESTRIAN & TRAFFIC SAFETY.
6. CONTRACTOR SHALL CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
7. CONTRACTOR TO ADHERE TO APPLICABLE NOISE ORDINANCES THAT PROHIBIT ANY PLAIN AUDIBLE SOUND IN CONNECTION WITH CONSTRUCTION ACTIVITIES OUTSIDE OF PERMITTED HOURS.
8. ALL ENVIRONMENTAL REGULATORY PERMITS MUST BE OBTAINED. CONTRACTOR IS REQUIRED TO OBTAIN ALL OTHER NECESSARY PERMITS AND/OR APPROVALS PRIOR TO THE START OF CONSTRUCTION. COST OF ALL OTHER NECESSARY PERMITS IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ALL LANDSCAPED/OPEN AREAS, SIDEWALKS, PAVEMENTS & OTHER IMPROVEMENTS IMPACTED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
10. THE TRAFFIC CONTROL PLAN FOR THE PROJECT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN TRAFFIC CONTROL PLAN & MUST HAVE SAID PLAN APPROVED BY THE OWNER AND CITY PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE OWNER FOR TRAFFIC CONTROL COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. TRAFFIC CONTROL PLAN SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM EMERGENCY SERVICES WITHIN THE VICINITY OF THE PROJECT LIMITS ABOUT THE CONSTRUCTION SCHEDULE.
11. SURVEY MONUMENTS WITHIN THE LIMITS OF THE PROJECT ARE TO BE PROTECTED.
12. NO DEVIATIONS FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT THE OWNER AND GA DNR.
13. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL THE NECESSARY DOCUMENTS ARE RECEIVED BY THE OWNER.
14. ALL DEFECTIVE WORK NOT ACCEPTED BY THE OWNER, EOR OR BY ANY GOVERNMENT PERMITTING AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
15. ALL EXISTING GRASSED OR LANDSCAPED AREAS, ALL DECORATIVE FEATURES (INCLUDING PAVERS) AND PAVED GROUND CONDITIONS DAMAGED AS RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED COMPLETELY AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
16. DAMAGED ITEMS SHALL BE RESTORED TO THEIR ORIGINAL DESIGN AND FUNCTION AT THE CONTRACTOR'S EXPENSE.
17. A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE TO VERIFY DETAILS AND METHODS OF CONSTRUCTION.
18. THESE PLANS ARE INCOMPLETE WITHOUT THE TECHNICAL SPECIFICATIONS.
19. CONTRACTOR SHALL NOT BLOCK OR OBSTRUCT PUBLIC BEACH ACCESS PARKING WITHOUT WRITTEN APPROVAL FROM THE OWNER.
20. CONTRACTOR WILL COORDINATE DAILY WITH THE OWNER'S ENVIRONMENTAL MONITOR AND WILL FOLLOW ALL REQUIRED ENVIRONMENTAL PERMIT CONDITIONS AND MANAGEMENT PRACTICES.
21. CONTRACTOR SHALL DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION AND SEDIMENT CONTROL MEASURES (BMPs) IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".
22. CONTRACTOR SHALL AVOID IMPACTS TO EXISTING DUNES AND DUNE HABITAT. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY DUNE HABITAT LOCATIONS AND ERECT AND MAINTAIN CONSTRUCTION FENCING OR SIMILAR TO PREVENT IMPACTS.

SURVEY NOTES

1. THE ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). THE CONVERSION BETWEEN NATIONAL GEODETIC VERTICAL DATUM (NGVD 29) AND THE NAVD 88 FOR THE PROJECT SITE IS APPROXIMATELY 0.97 FEET (EXAMPLE: 0.0 FEET NGVD = -0.97 FEET NAVD).
2. WETLAND SURVEY DATA PERFORMED BY LONGLEAF ENVIRONMENTAL CONSULTING DATED FEBRUARY 2025.
3. TOPOGRAPHIC AND BATHYMETRIC SURVEY DATA PERFORMED BY ARC SURVEYING & MAPPING DATED FEBRUARY 2025.

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NOTES, ABBREVIATIONS & LEGENDS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-002



INDEX 2 OF 8

4. THE FOLLOWING TIDAL DATUM RELATIONSHIP IS BASED ON NOAA TIDE STATION 8677344 - ST. SIMONS, GA.

TIDAL DATA

MEAN HIGHER HIGH WATER (MHHW)	2.97' NAVD
MEAN HIGH WATER (MHW)	2.60' NAVD
NORTH AMERICAN VERTICAL DATUM	0.00' NAVD
MEAN LOW WATER (MLW)	-4.02' NAVD
MEAN LOWER LOW WATER (MLLW)	-4.23' NAVD

5. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, GEORGIA EAST ZONE, IN FEET.

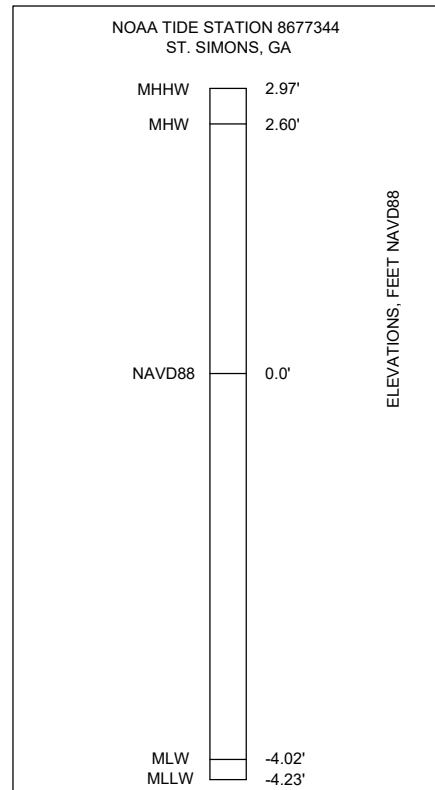
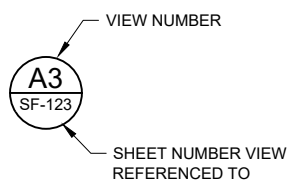
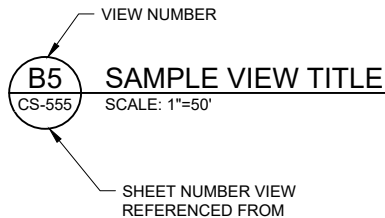
6. PARCELS BOUNDARIES BASED GIS FILES RECEIVED FROM GLYNN COUNTY GEOGRAPHIC INFORMATION SYSTEM DEPARTMENT.

AERIAL IMAGERY

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.

BEACH FILL NOTES

- FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
- PLACE FILL TO THE GRADES SHOWN.
- THE VERTICAL TOLERANCE FOR EACH FILL TEMPLATE IS ± 0.25 FEET.
- THE INTENT OF THE PROJECT IS TO PLACE THE REQUIRED VOLUME OF BEACH FILL WITHIN THE DESIGN TEMPLATE IN ACCORDANCE WITH ALL REQUIREMENTS.



VIEW TITLE

DETAIL CALLOUT

DISCIPLINE DESIGNATORS	
DISCIPLINE	DESIGNATOR
GENERAL	G
SURVEY/MAPPING	V
CIVIL	C

SECONDARY DESIGNATORS	
SITE	S

REVISION NUMBERING	
A00, A01...	PRE-BID SUBMITTALS
B00, B01...	BID SUBMITTALS
000, 001...	CONSTRUCTION SUBMITTALS

SHEET TYPE DESIGNATORS	
0	GENERAL (COVER SHEET, LEGEND, NOTES)
1	PLANS (HORIZONTAL VIEWS)
3	SECTIONS (OVERALL VIEWS)
5	DETAILS (MAY BE PLAN, SECT. OR ELEV. VIEWS)
6	SCHEDULES / TABLES

ABBREVIATIONS

CRD	COASTAL RESOURCES DIVISION
CY	CUBIC YARD
EOR	ENGINEER OF RECORD
FT(')	FEET
GA DNR	GEORGIA DEPARTMENT OF NATURAL RESOURCES
HORZ	HORIZONTAL
IN(")	INCHES
MAX	MAXIMUM
MHW	MEAN HIGH WATER
MHHW	MEAN HIGHER HIGH WATER
MLW	MEAN LOW WATER
MLLW	MEAN LOWER LOW WATER
N	NORTH
NAD	NORTH AMERICAN DATUM OF 1983
NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
NTS	NOT TO SCALE
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
TYP	TYPICAL
VERT	VERTICAL

Sheet Reference
Number:
SF102

SHEET NUMBERING

SHEET DESIGNATOR

SHEET TYPE

SHEET SEQUENCE

**NOTES, ABBREVIATIONS
& LEGENDS**

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. G-003



INDEX 3 OF 8

300 BULL ST., SUIT 200
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LEGEND

	CONTOURS
	MEAN HIGH WATER
	COASTAL RESOURCES DIVISION LINE
	PARCEL LINES
	WETLANDS
	EXISTING WATER IMPOUNDMENT AREA
	CONSTRUCTION CORRIDOR

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. WETLANDS WERE DELINEATED IN THE IMMEDIATE PROJECT VICINITY BY LONGLEAF ENVIRONMENTAL CONSULTING. ADDITIONAL WETLANDS ARE ANTICIPATED TO OCCUR BEYOND THE EXTENTS SHOWN.
3. ALL EQUIPMENT AND IMPORTED FILL TO ACCESS THE SITE THROUGH MASSENGALE PARK. EXACT LOCATION TO BE DETERMINED BY THE OWNER.

0 300'
SCALE 1" = 300'



moffatt & nichol

EXISTING CONDITIONS / CONSTRUCTION ACCESS

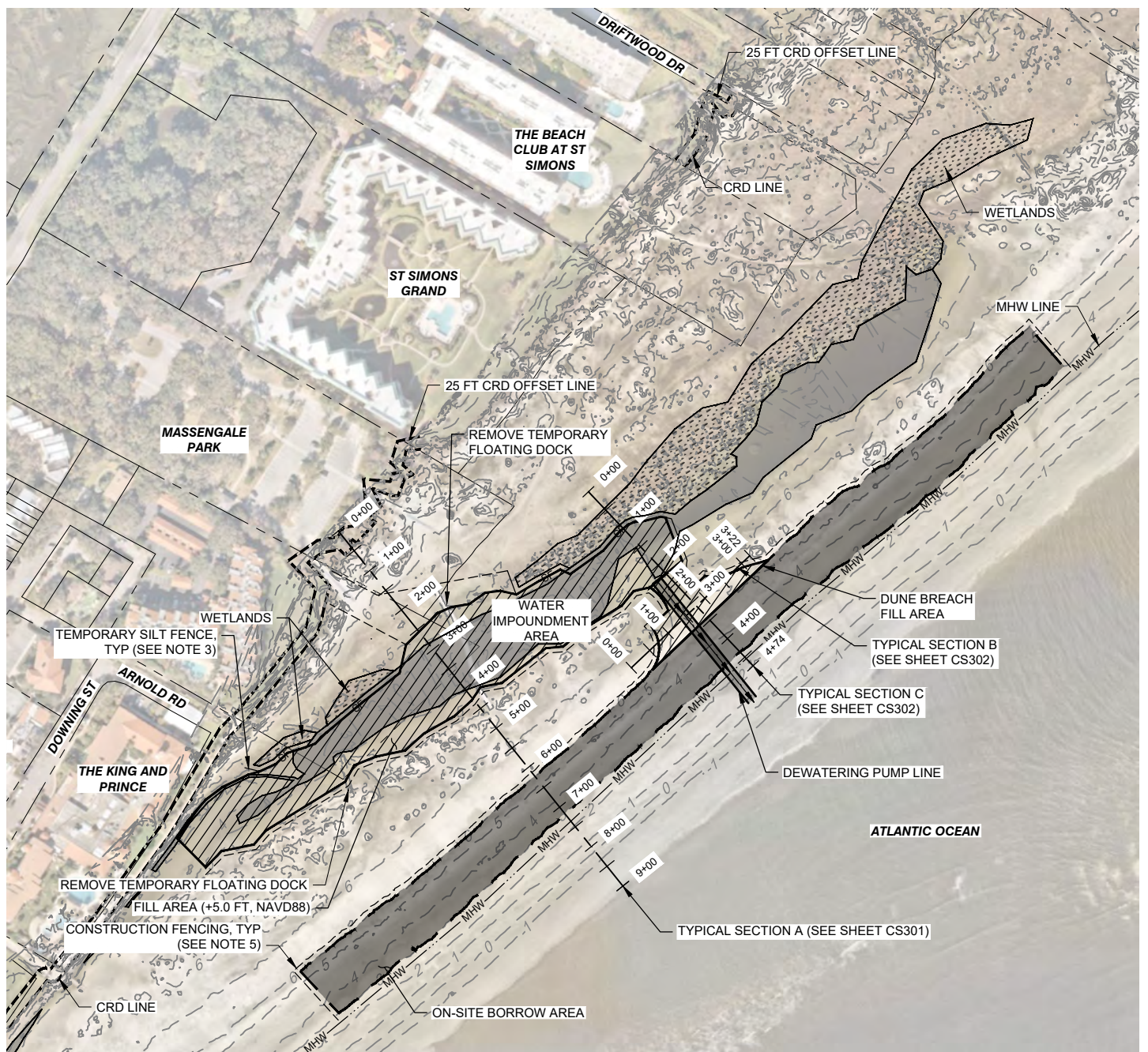
GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

DRAWN BY: CLC
CHECKED BY: ZRV
REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. V-101



INDEX 4 OF 8

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LEGEND

	2	CONTOURS
	MHW	MEAN HIGH WATER
	CRD	COASTAL RESOURCES DIVISION LINE
		PARCEL LINES
	SF	SILT FENCE
		CONSTRUCTION FENCE
		DEWATERING PUMP LINE
		WETLANDS
		EXISTING WATER IMPOUNDMENT AREA
		ON-SITE BORROW AREA
		FILL AREA

NOTES

1. AERIAL IMAGERY OBTAINED FROM NEARMAP DATED OCTOBER 2024.
2. CONTRACTOR TO PROVIDE MIN. 10' OFFSET BETWEEN WETLAND AREA AND FILL AREA.
3. TEMPORARY SILT FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, TEMPORARY SILT FENCES SHALL DELINEATE THE 10' OFFSET AND EXTEND BEYOND THE FILL AREA TO PREVENT FILL MATERIAL FROM SPREADING INTO ADJACENT WETLAND AREA. SILT FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.
4. ON-SITE BORROW AREA LOCATED IMMEDIATELY SEAWARD OF FILL AREA. ALL ON-SITE BORROW SHALL OCCUR LANDWARD OF MHW LINE.
5. CONSTRUCTION FENCE POSITIONING TO BE DETERMINED IN FIELD. AT A MINIMUM, CONSTRUCTION FENCE SHALL DELINEATE DUNE VEGETATION OR OTHER SENSITIVE HABITATS THAT ARE TO BE AVOIDED DURING CONSTRUCTION. CONSTRUCTION FENCE TO BE ERECTED PRIOR TO CONSTRUCTION AND REMOVED PROMPTLY AFTER CONSTRUCTION.

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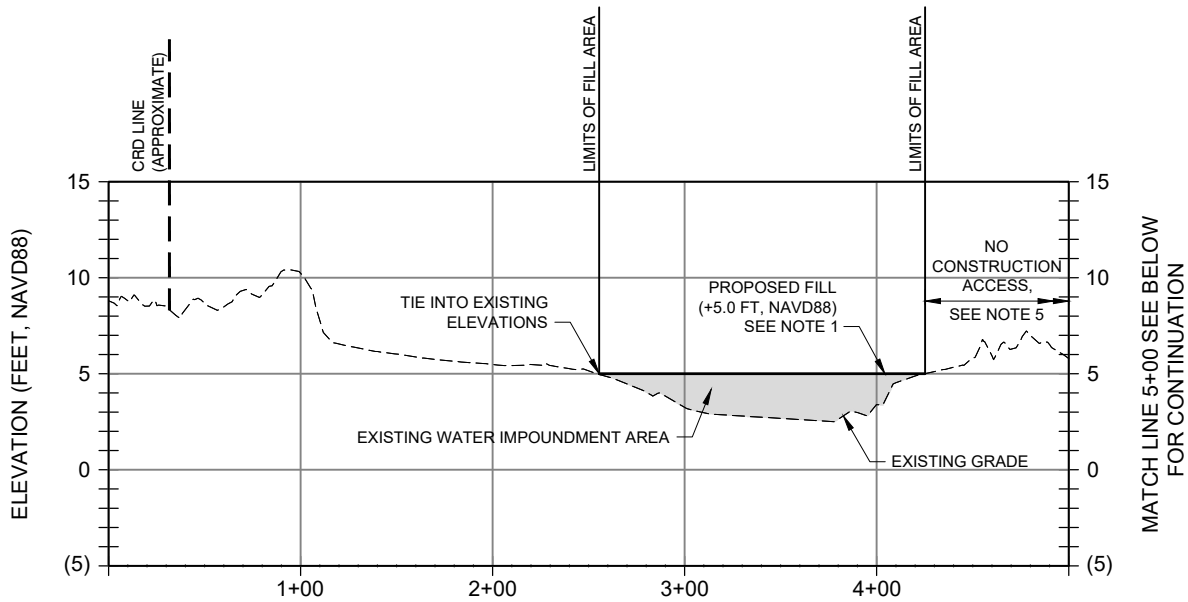
SCHEMATIC DESIGN PLAN

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
ST. SIMONS ISLAND, GEORGIA

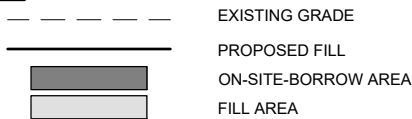
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REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS101



INDEX 5 OF 8

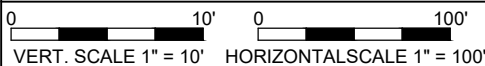
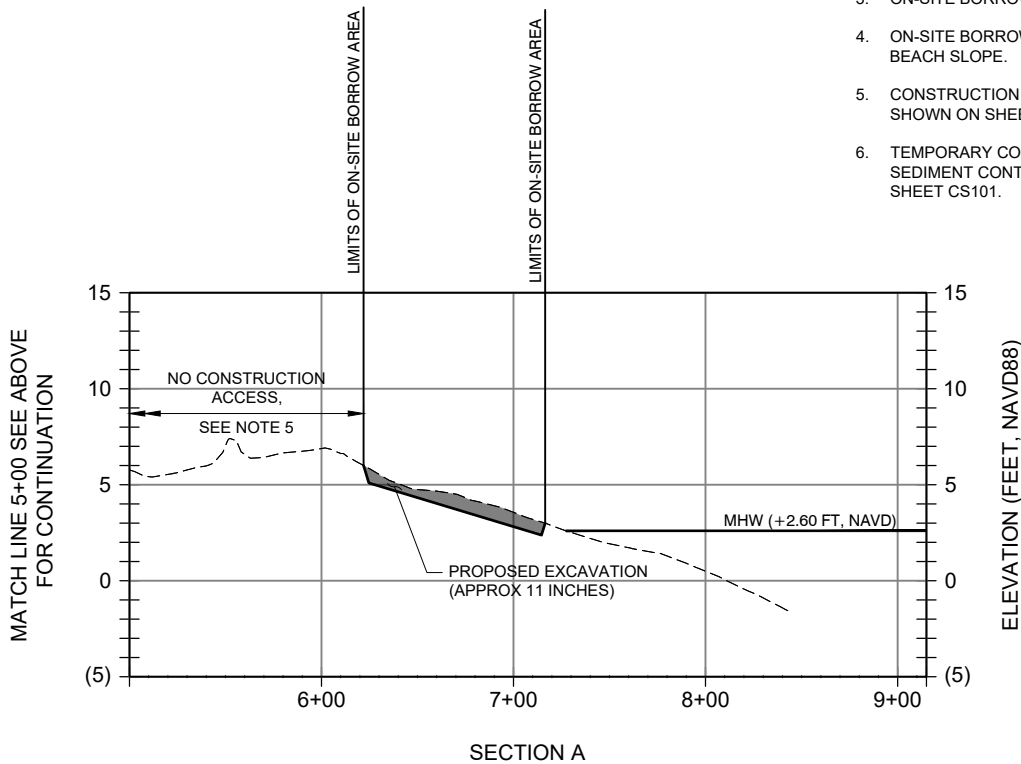


LEGEND



NOTES

1. FILL MATERIAL TO BE EXCAVATED MATERIAL FROM THE ON-SITE BORROW AREA.
2. PROPOSED EXCAVATION SHALL BE LIMITED TO THE MINIMUM PRACTICABLE TO FILL IN EXISTING WATER IMPOUNDMENT AREA AND DUNE BREACH AREA.
3. ON-SITE BORROW TO OCCUR LANDWARD OF +3.00 FT NAVD.
4. ON-SITE BORROW AREA TO BE GRADED TO MATCH EXISTING BEACH SLOPE.
5. CONSTRUCTION ACCESS TO BE THROUGH ACCESS CORRIDOR SHOWN ON SHEET V-101.
6. TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES NOT SHOWN FOR CLARITY. SEE SHEET CS101.



300 BULL ST., SUIT 200
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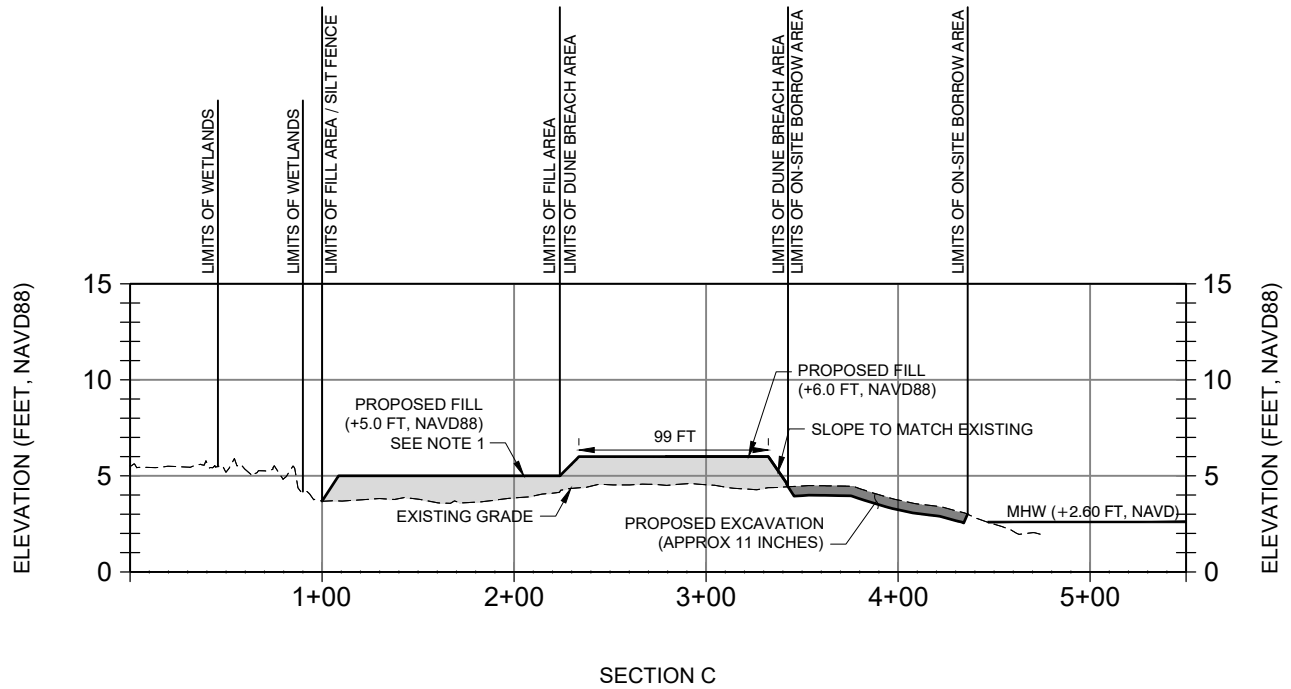
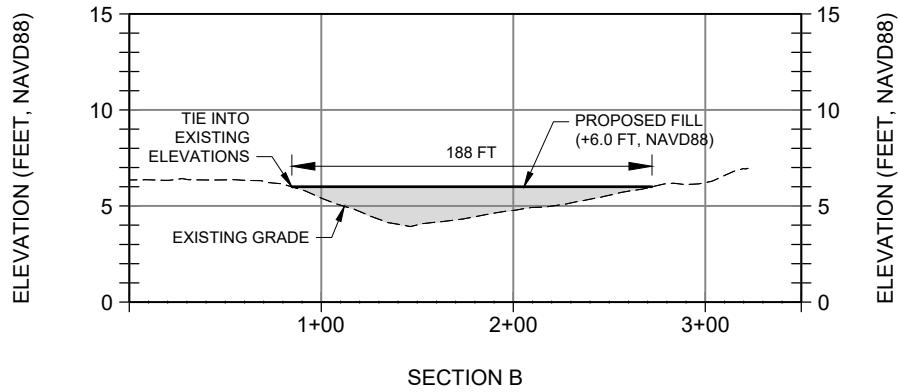
CROSS SECTIONS & DETAILS

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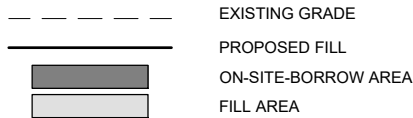
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REVIEWED BY: CLC
SUBMITTED BY: CASEY CONNOR
MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS301



INDEX 6 OF 8

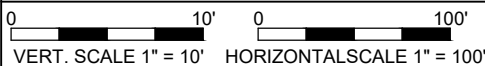


LEGEND



ANTICIPATED CONSTRUCTION SEQUENCE

1. CONTACT GEORGIA 811 AT LEAST 3 BUSINESS DAYS PRIOR TO PERFORMING ANY EXCAVATION/DIGGING.
2. INSTALL TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.
3. DEWATER PROPOSED FILL AREA. CONSTRUCTION EQUIPMENT TO TRAVERSE SITE ONLY WHEN SUFFICIENTLY DEWATERED.
4. EXCAVATE AND GRADE EXISTING SAND FROM THE ON-SITE BORROW AREA INTO THE FILL AREA.
5. PERFORM FINAL GRADING, ENSURING FINISHED GRADE SLOPES SEAWARD AND MATCHES EXISTING BEACH SLOPE.
6. REMOVE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, AND OTHER SEDIMENT CONTROL MEASURES.



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CROSS SECTIONS & DETAILS

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
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MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. CS302



INDEX 7 OF 8

QUANTITIES	
Area of Property	N/A - This project site is located on the open beach on public land
Proposed Project Footprint	9.74 Acres 424,285 SQ. FT.
Jurisdictional Footprint	9.74 Acres 424,285 SQ. FT.
Proposed Project Footprint within Jurisdiction	9.74 Acres 424,285 SQ. FT.
Open Water	2.07 Acres 90,049 SQ. FT.
Upper Beach Fill	1.91 Acres 83,696 SQ. FT.
Upper Beach Borrow	4.87 Acres 212,265 SQ. ST
Fill Volume	8,940 CU Yards

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QUANTITIES

GLYNN COUNTY
EAST BEACH WATER IMPOUNDMENT
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MOFFATT NICHOL
PROJECT NUMBER: 240281-06
DATE: 07/09/2025
SHEET REF NO. C-601



INDEX 8 OF 8

Monitoring and Maintenance Plan

Project Location: East Beach, St Simons Island, Georgia

Site Description

Location: East Beach beach/dune system

Fill type: 100% of fill volume from onsite borrow area. All sand to be in accordance with GA DNR Requirements for Beach Nourishment Projects

- Sediment free of construction debris, rocks, or other foreign matter and shall not contain, on average, greater than 10% fines and shall not contain, on average, greater than 5% coarse gravel.
- Shell content should be below 15% of total weight
- Sediment color should be between 10YR 6.5/1 and 10YR 7.0/1 on Munsell soil color chart

Vegetation: three vegetative communities along landward fringe of proposed project.

Proposed Activity

The proposed Project includes on-site excavation and grading of existing sand from the on-site borrow area, and filling of an existing water impoundment located on East Beach. The proposed templates will avoid impacts to existing wetland areas, with a minimum 10-foot setback from the surveyed wetland boundary marked by temporary silt fences. The fill template will have a typical elevation of +5.00 feet (+1.52 meters) NAVD and tie into the existing beach grade on the landward side. The proposed fill will feature a 2H:1V landward slope in the areas adjacent to wetland habitat and a construction foreshore slope that matches the existing beach grade. All construction activity is proposed landward of the Mean High Water line. Contractor access to the Project area is anticipated to be through the public beach access at Massengale Park.

Construction Timing and Duration

Construction is proposed to occur outside of marine turtle nesting season (May 1 to October 31). Pending regulatory approvals, construction is anticipated to begin as early as November 1, 2025 and conclude prior to April 30, 2026.

Anticipated Construction Sequence

1. Contact Georgia 811 at least 3 business days prior to construction.
2. Install temporary silt fence and other sediment control measures.
3. Drain water from the impoundment.
4. Excavate and grade existing sand from the on-site borrow area in the fill area.
5. Perform final grading, ensuring finished grade slopes seaward and matches existing beach slope.
6. Remove temporary silt fence and other sediment control measures.

Monitoring Program

- Vegetation
 - o Method: visual inspection and photographic documentation from fixed locations
 - o Tools: Camera, plant identification guide, logbook
- Erosion and sedimentation
 - o Method: visual inspection of fill and borrow areas, inspecting slopes, drainage paths, and beach/dune interface
 - o Indicators: rills, gullies, sediment plumes, washouts
 - o Tools: Camera, tape reel, logbook
- Stormwater management
 - o Method: observe during/after rain
 - o Indicators: ponding, runoff channels, washouts
 - o Tools: Camera, logbook

Monitoring Schedule

Year	Monitoring Frequency	Monitoring Action
1	Quarterly (4x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
2	Semiannually (2x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
3	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
4	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.
5	Annually (1x/year)	Visual site inspection. Photographic documentation of site to determine if a new tidal pool is forming as well as adjacent wetlands. Summarize findings in a brief technical memorandum.

Management Techniques

If a tidal pool is discovered during any monitoring event that has become impounded above the Mean High Water line, perform follow up monitoring event no more than 60 days later. If, after 60 days, a tidal pool remains impounded, implement a maintenance filling event. Maintenance events may only occur outside of marine turtle nesting season (May 1 to October 31).

Attachment C: Application for Department of the Army Permit Form

U.S. Army Corps of Engineers (USACE) APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT For use of this form, see 33 CFR 325. The proponent agency is CECW-COR.		Form Approved - OMB No. 0710-0003 Expires: 2027-10-31	
The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.			
PRIVACY ACT STATEMENT			
Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx			
(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)			
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
(ITEMS BELOW TO BE FILLED BY APPLICANT)			
5. APPLICANT'S NAME First - Jason Middle - Last - Hartman Company - Glynn County E-mail Address - jhartman@glynncounty-ga.gov		8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Stephen Middle - M Last - Bailey Company - Longleaf Consulting E-mail Address - stephen.bailey@longleafconsulting.com	
6. APPLICANT'S ADDRESS: Address- W. Harold Pate Building 1725 Reynolds Street City - Brunswick State - GA Zip - 31520 Country -USA		9. AGENT'S ADDRESS: Address- 113 Bellrain Lane City - St. Simons State - GA Zip - 31522 Country -USA	
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 912-554-7469		10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 706.614.4436	
STATEMENT OF AUTHORIZATION			
11. I hereby authorize, <u>Stephen M. Bailey</u> to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.  SIGNATURE OF APPLICANT <u>7/28/2025</u> DATE			
NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY			
12. PROJECT NAME OR TITLE (see instructions) East Beach Tidal Pools			
13. NAME OF WATERBODY, IF KNOWN (if applicable) Atlantic Ocean		14. PROJECT STREET ADDRESS (if applicable) Address N/A	
15. LOCATION OF PROJECT Latitude: °N 31.1372264 Longitude: °W 81.3795614		City - State - Zip -	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID NA Municipality Section - Township - Range -			

17. DIRECTIONS TO THE SITE

From I-95 take Exit 38 and go south on GA Spur 25 until it ends at US 17. Go south on US and turn left on the Torras Causeway to St. Simons Island. Stay right after coming on the island and stay on Kings Way, which turns into Ocean Blvd. Continue on Ocean Blvd until Massengale Park on the right. Access to the project area by either boardwalk from the park to the beach.

18. Nature of Activity (Description of project, include all features)

The proposed project consists of restoration and filling of an area of East Beach that has developed a tidal pool complex over the past several years that is currently an impounded open water area with developing wetland areas. The project would fill a portion of the open water impoundment while avoiding wetland impacts. Native sand would be harvested onsite to provide clean fill material.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to improve and protect public safety. The need for the project is the risk to public safety from the current open water and crossing conditions. The need will be met by controlling public contact with open water areas to limit drowning risk; alleviating safety concerns associated with public contact with potentially contaminated water; improving access for emergency services vehicles in the Massengale Park Area; and to provide a safe, stable, and accessible connection to beach areas for the public.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Fill of 54% of the impounded open water area is proposed accomplish project goals and address the purpose and need for the project. Clean sand harvested from an adjacent borrow area is proposed. No other fill is proposed.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
sand; 8,940		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 2.07
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Impacts to waters of the US have been avoided and minimized to the maximum extent practicable to accomplish the project goals and satisfy its purpose and need for public safety improvements. Compensatory mitigation is not proposed as all wetland impacts will be avoided and the only impacts will be for impounded open water areas that do not require mitigation.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- Crown K/P LLC 201 Arnold Road

City - Saint Simons Island

State - GA

Zip - 31522

b. Address- Glynn County 1350 Ocean Blvd #1

City - Saint Simons Island

State - GA

Zip - 31522

c. Address-

City -

State -

Zip -

d. Address-

City -

State -

Zip -

e. Address-

City -

State -

Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
GA-DNR CRD	SPA Permit				
GA-EPD	401 WQ Certification				

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

 7/20/2025
SIGNATURE OF APPLICANT DATE

SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Attachment D: USACE Wetland and Upland Data Forms

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: East Beach Water Impoundment City/County: Glynn Sampling Date: 1/12/2025
Applicant/Owner: Glynn County State: GA Sampling Point: Wetland 3
Investigator(s): S. Bailey; C. Bailey Section, Township, Range: _____
Landform (hillside, terrace, etc.): beach Local relief (concave, convex, none): none Slope (%): 0-1
Subregion (LRR or MLRA): LRR T, MLRA 153B Lat: 31.14021 Long: 81.37550 Datum: NAD 83
Soil Map Unit Name: Beaches (Be) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: 	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u>X</u> Aquatic Fauna (B13) <u>X</u> High Water Table (A2) <u> </u> Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Water Marks (B1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u>X</u> Sediment Deposits (B2) <u> </u> Presence of Reduced Iron (C4) <u>X</u> Drift Deposits (B3) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Algal Mat or Crust (B4) <u> </u> Thin Muck Surface (C7) <u> </u> Iron Deposits (B5) <u> </u> Other (Explain in Remarks) <u>X</u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: 	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Wetland 3

Tree Stratum (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		=Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____		20% of total cover: _____		
Sapling/Shrub Stratum (Plot size: <u>10</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		=Total Cover		Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: _____		20% of total cover: _____		
Herb Stratum (Plot size: <u>10</u>)				
1. <i>Fimbristylis castanea</i>	75	Yes	OBL	
2. <i>Spartina alterniflora</i>	25	Yes	OBL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
		100 =Total Cover		Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>		
Woody Vine Stratum (Plot size: <u>10</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		=Total Cover		
50% of total cover: _____		20% of total cover: _____		
Remarks: (If observed, list morphological adaptations below.)				

SOIL

Sampling Point: Wetland 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 8/2	100					Sandy	
4-20	10YR 6/1	80	10YR 8/6	20	C	M	Sandy	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☐ Histosol (A1)					☐ Thin Dark Surface (S9) (LRR S, T, U)			
☐ Histic Epipedon (A2)					☐ Barrier Islands 1 cm Muck (S12)			
☐ Black Histic (A3)					(MLRA 153B, 153D)			
☐ Hydrogen Sulfide (A4)					☐ Loamy Mucky Mineral (F1) (LRR O)			
☐ Stratified Layers (A5)					☐ Loamy Gleyed Matrix (F2)			
☐ Organic Bodies (A6) (LRR P, T, U)					☐ Depleted Matrix (F3)			
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)					☐ Redox Dark Surface (F6)			
☐ Muck Presence (A8) (LRR U)					☐ Depleted Dark Surface (F7)			
☐ 1 cm Muck (A9) (LRR P, T)					☐ Redox Depressions (F8)			
☐ Depleted Below Dark Surface (A11)					☐ Marl (F10) (LRR U)			
☐ Thick Dark Surface (A12)					☐ Depleted Ochric (F11) (MLRA 151)			
☐ Coast Prairie Redox (A16) (MLRA 150A)					☐ Iron-Manganese Masses (F12) (LRR O, P, T)			
☐ Iron Monosulfide (A18)					☐ Umbric Surface (F13) (LRR P, T, U)			
☐ Sandy Mucky Mineral (S1) (LRR O, S)					☐ Delta Ochric (F17) (MLRA 151)			
☐ Sandy Gleyed Matrix (S4)					☐ Reduced Vertic (F18) (MLRA 150A, 150B)			
☒ Sandy Redox (S5)					☐ Piedmont Floodplain Soils (F19) (MLRA 149A)			
☐ Stripped Matrix (S6)					☐ Anomalous Bright Floodplain Soils (F20)			
☐ Dark Surface (S7) (LRR P, S, T, U)					(MLRA 149A, 153C, 153D)			
☐ Polyvalue Below Surface (S8)					☐ Very Shallow Dark Surface (F22)			
(LRR S, T, U)					(MLRA 138, 152A in FL, 154)			
Restrictive Layer (if observed): Type: _____ Depth (inches): _____					Hydric Soil Present? Yes ☒ No _____			
Remarks:								

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 9/30/2027</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: East Beach Water Impoundment City/County: Glynn Sampling Date: 1/12/2025

Applicant/Owner: Glynn County State: GA Sampling Point: Upland 3

Investigator(s): S. Bailey; C. Bailey Section, Township, Range: _____

Landform (hillside, terrace, etc.): beach Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR or MLRA): LRR T, MLRA 153B Lat: 31.14015 Long: 81.37642 Datum: NAD 83

Soil Map Unit Name: Beaches (Be) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Is the Sampled Area within a Wetland? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>		
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> Wetland Hydrology Present? </td> <td style="width: 40%; padding: 5px;"> Yes _____ No <u>X</u> </td> </tr> </table>	Wetland Hydrology Present?	Yes _____ No <u>X</u>
Wetland Hydrology Present?	Yes _____ No <u>X</u>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: Upland 3

Tree Stratum (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		_____ = Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____		20% of total cover: _____		
Sapling/Shrub Stratum (Plot size: <u>10</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		_____ = Total Cover		
50% of total cover: _____		20% of total cover: _____		
Herb Stratum (Plot size: <u>10</u>)				
1. <u>Uniola paniculata</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		_____ = Total Cover		
50% of total cover: <u>18</u>		20% of total cover: <u>7</u>		
Woody Vine Stratum (Plot size: <u>10</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		_____ = Total Cover		
50% of total cover: _____		20% of total cover: _____		
Remarks: (If observed, list morphological adaptations below.)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

SOIL

Sampling Point: Upland 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 8/1	100					Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)
☐ Black Histic (A3)	(MLRA 153B, 153D)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)
☐ Organic Bodies (A6) (LRR P, T, U)	☐ Depleted Matrix (F3)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Redox Dark Surface (F6)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)
☐ 1 cm Muck (A9) (LRR P, T)	☐ Redox Depressions (F8)
☐ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)
☐ Iron Monosulfide (A18)	☐ Umbric Surface (F13) (LRR P, T, U)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Delta Ochric (F17) (MLRA 151)
☐ Sandy Gleyed Matrix (S4)	☐ Reduced Vertic (F18) (MLRA 150A, 150B)
☐ Sandy Redox (S5)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
☐ Stripped Matrix (S6)	☐ Anomalous Bright Floodplain Soils (F20)
☐ Dark Surface (S7) (LRR P, S, T, U)	(MLRA 149A, 153C, 153D)
☐ Polyvalue Below Surface (S8)	☐ Very Shallow Dark Surface (F22)
(LRR S, T, U)	(MLRA 138, 152A in FL, 154)

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Coast Prairie Redox (A16) (MLRA 149A)
☐ Reduced Vertic (F18)
(outside MLRA 150A, 150B)
☐ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Anomalous Bright Floodplain Soils (F20)
(MLRA 153B)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
(outside MLRA 138, 152A in FL, 154)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Attachment E: USFWS IPAC Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601-2523
Phone: (706) 460-7161 Fax: (706) 613-6059



In Reply Refer To:

05/14/2025 16:29:31 UTC

Project Code: 2025-0096698

Project Name: East Beach Tidal Pools

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for requesting information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668c). We provide the following guidance for determining which federally imperiled species may occur within your project area and to recommend conservation measures to consider for your project if you determine those species or designated critical habitats may be affected by the project activities.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency, their designated non-Federal representative, or a project proponent to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally listed threatened or endangered fish or wildlife species without the appropriate permit. If you need additional guidance to inform your effect determination, please contact the Service.

If you determine that your proposed action may affect federally listed species, please consult with the Service. Through the consultation (for projects seeking Federal funding or permitting) or technical assistance (for non-Federal projects) process, we will work with you to evaluate information contained in a biological assessment or equivalent documents that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a) (1)(B) of the ESA (also known as a Habitat Conservation Plan) may be necessary to exempt "take" of federally listed threatened or endangered fish or wildlife species when it cannot be avoided. For more information regarding formal consultation and HCPs, please see the Service's [Section 7 Consultation Library](#) and [Habitat Conservation Plans Library](#).

Action Area. The scope of ESA compliance includes direct and indirect effects of project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations). The "action area" is the spatial extent of an action's direct and indirect modifications or impacts to the land, water, or air (50 CFR 402.02). Large projects may have effects to land, water, or air outside the immediate footprint of the project, and these areas should be included as part of the action area. Effects to land, water, or air outside of a project footprint could include things like lighting, dust, smoke, and noise. To obtain a complete list of species, the action area should be uploaded or drawn in IPaC rather than just the project footprint. Please note that a lead federal agency may consider an action area that excludes portions of the project footprint. In these cases, further coordination with our office may be required to ensure compliance with the ESA. It is the responsibility of the project proponent to coordinate with the lead federal agency to understand the action and action area being reviewed as part of ESA Section 7 consultation.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. An updated list may be requested through IPaC.

HOW TO SUBMIT A PROJECT REVIEW PACKAGE

IF YOUR ACTION MAY AFFECT ANY FEDERALLY LISTED SPECIES AND YOU WOULD LIKE TECHNICAL ASSISTANCE FROM OUR OFFICE, PLEASE SEND US A COMPLETE PROJECT REVIEW PACKAGE. A STEP-BY-STEP GUIDE IS AVAILABLE BELOW AND SUPPLEMENTAL GUIDANCE IS AVAILABLE AT THE GEORGIA ECOLOGICAL SERVICES [PROJECT PLANNING AND REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review) PAGE ([HTTPS://WWW.FWS.GOV/OFFICE/GEORGIA-ECOLOGICAL-SERVICES/PROJECT-PLANNING-REVIEW](https://www.fws.gov/office/georgia-ecological-services/project-planning-review)).

REQUESTS FOR THREATENED AND ENDANGERED SPECIES PROJECT REVIEWS MUST BE SUBMITTED TO OUR OFFICE USING THE PROCESS DESCRIBED BELOW. ALL STEPS MUST BE COMPLETED TO ENSURE YOUR

PROJECT IS REVIEWED BY A BIOLOGIST IN OUR OFFICE AND YOU RECEIVE A TIMELY RESPONSE.

STEP 1. REQUEST AN OFFICIAL SPECIES LIST FOR YOUR PROJECT THROUGH IPAC. YOU HAVE JUST COMPLETED THIS STEP.

STEP 2. COMPLETE APPLICABLE DETERMINATION KEYS (DKEY'S, FOR SHORT)

STEP 3. SEND YOUR COMPLETE PROJECT REVIEW PACKAGE TO GAES_ASSISTANCE@FWS.GOV FOR REVIEW IF NO DKEY IS APPLICABLE OR CERTAIN PROJECT COMPONENTS HAVE NOT BEEN ADDRESSED (I.E. A SPECIES RETURNED BY IPAC DOES NOT HAVE A DKEY). A COMPLETE PROJECT REVIEW PACKAGE SHOULD INCLUDE:

- 1. A DESCRIPTION OF THE PROPOSED ACTION, INCLUDING ANY MEASURES INTENDED TO AVOID, MINIMIZE, OR OFFSET EFFECTS OF THE ACTION. THE DESCRIPTION SHALL PROVIDE SUFFICIENT DETAIL TO ASSESS THE EFFECTS OF THE ACTION ON LISTED SPECIES AND CRITICAL HABITAT, SUCH AS THE PURPOSE OF THE ACTION; DURATION AND TIMING OF THE ACTION; LOCATION (LATITUDE AND LONGITUDE); SPECIFIC ACTIVITIES INVOLVING DISTURBANCE TO LAND, WATER, AND AIR, AND HOW THEY WILL BE CARRIED OUT; CURRENT DESCRIPTION OF AREAS TO BE AFFECTED DIRECTLY OR INDIRECTLY BY THE ACTION; AND MAPS, DRAWINGS, OR SIMILAR SCHEMATICS OF THE ACTION. PLEASE SUBMIT ALL AREAS OF A PROJECT AS ONE SINGLE SUBMISSION AND DO NOT SEPARATE INTO SMALLER COMPONENTS/SUBMISSIONS.**
- 2. AN UPDATED OFFICIAL SPECIES LIST AND DETERMINATION KEY RESULTS**
- 3. BIOLOGICAL ASSESSMENTS (MAY INCLUDE HABITAT ASSESSMENTS AND INFORMATION ON THE PRESENCE OF LISTED SPECIES IN THE ACTION AREA);**
- 4. DESCRIPTION OF EFFECTS OF THE ACTION ON SPECIES IN THE ACTION AREA AND, IF RELEVANT, EFFECT DETERMINATIONS FOR SPECIES AND CRITICAL HABITAT;**
- 5. CONSERVATION MEASURES AND ANY OTHER AVAILABLE INFORMATION RELATED TO THE NATURE AND SCOPE OF THE PROPOSED ACTION RELEVANT TO ITS EFFECTS ON LISTED SPECIES OR DESIGNATED CRITICAL HABITAT (E.G., MANAGEMENT PLANS RELATED TO STORMWATER, VEGETATION, EROSION AND SEDIMENT PLANS). VISIT THE [GEORGIA CONSERVATION PLANNING TOOLBOX \(HTTPS://WWW.FWS.GOV/STORY/CONSERVATION-TOOLS-GEORGIA\)](https://www.fws.gov/story/conservation-tools-georgia) FOR INFORMATION ABOUT CONSERVATION MEASURES.**

6. IN THE EMAIL SUBJECT LINE, USE THE FOLLOWING FORMAT TO INCLUDE THE PROJECT CODE FROM YOUR IPAC SPECIES LIST AND THE COUNTY IN WHICH THE PROJECT IS LOCATED (EXAMPLE: PROJECT CODE: 2023-0049730 GWINNETT CO.). FOR GEORGIA DEPARTMENT OF TRANSPORTATION RELATED PROJECTS, PLEASE WORK WITH THE OFFICE OF ENVIRONMENTAL SERVICES ECOLOGIST TO DETERMINE THE APPROPRIATE USFWS TRANSPORTATION LIAISON.

THE GEORGIA ECOLOGICAL SERVICES FIELD OFFICE WILL SEND A RESPONSE EMAIL WITHIN APPROXIMATELY 30 DAYS OF RECEIPT WITH TECHNICAL ASSISTANCE OR FURTHER RECOMMENDATIONS FOR SPECIFIC SPECIES.

WETLANDS AND FLOODPLAINS

UNDER EXECUTIVE ORDERS 11988 AND 11990, FEDERAL AGENCIES ARE REQUIRED TO MINIMIZE THE DESTRUCTION, LOSS, OR DEGRADATION OF WETLANDS AND FLOODPLAINS, AND PRESERVE AND ENHANCE THEIR NATURAL AND BENEFICIAL VALUES. THESE HABITATS SHOULD BE CONSERVED THROUGH AVOIDANCE, OR MITIGATED TO ENSURE THAT THERE WOULD BE NO NET LOSS OF WETLANDS FUNCTION AND VALUE. WE ENCOURAGE YOU TO USE THE NATIONAL WETLAND INVENTORY (NWI) MAPS IN CONJUNCTION WITH GROUND-TRUTHING TO IDENTIFY WETLANDS OCCURRING IN YOUR PROJECT AREA. THE SERVICE'S [NWI PROGRAM WEBSITE \(HTTPS://WWW.FWS.GOV/PROGRAM/NATIONAL-WETLANDS-INVENTORY\)](https://www.fws.gov/program/national-wetlands-inventory) INTEGRATES DIGITAL MAP DATA WITH OTHER RESOURCE INFORMATION. WE ALSO RECOMMEND YOU CONTACT THE U.S. ARMY CORPS OF ENGINEERS FOR PERMITTING REQUIREMENTS UNDER SECTION 404 OF THE CLEAN WATER ACT IF YOUR PROPOSED ACTION COULD IMPACT FLOODPLAINS OR WETLANDS.

MIGRATORY BIRDS

THE MBTA PROHIBITS THE TAKING OF MIGRATORY BIRDS, NESTS, AND EGGS, EXCEPT AS PERMITTED BY THE SERVICE'S [MIGRATORY BIRDS PROGRAM \(HTTPS://FWS.GOV/PROGRAM/MIGRATORY-BIRDS\)](https://fws.gov/program/migratory-birds). TO MINIMIZE THE LIKELIHOOD OF ADVERSE IMPACTS TO MIGRATORY BIRDS, WE RECOMMEND CONSTRUCTION ACTIVITIES OCCUR OUTSIDE THE GENERAL BIRD NESTING SEASON FROM MARCH THROUGH AUGUST, OR THAT AREAS PROPOSED FOR CONSTRUCTION DURING THE NESTING SEASON BE SURVEYED, AND WHEN OCCUPIED, AVOIDED UNTIL THE YOUNG HAVE FLEDGED.

WE RECOMMEND REVIEW OF BIRDS OF CONSERVATION CONCERN TO FULLY EVALUATE THE EFFECTS TO THE BIRDS AT YOUR SITE. THIS LIST IDENTIFIES BIRDS THAT ARE POTENTIALLY THREATENED BY DISTURBANCE AND CONSTRUCTION. IT CAN BE FOUND AT THE SERVICE'S [MIGRATORY BIRDS](#)

CONSERVATION LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/MIGRATORY-BIRD-CONSERVATION-DOCUMENTS](https://fws.gov/library/collections/migratory-bird-conservation-documents)).

INFORMATION RELATED TO BEST PRACTICES AND MIGRATORY BIRDS CAN BE FOUND AT THE SERVICE'S **AVOIDING AND MINIMIZING INCIDENTAL TAKE OF MIGRATORY BIRDS LIBRARY COLLECTION ([HTTPS://FWS.GOV/LIBRARY/ COLLECTIONS/AVOIDING-AND-MINIMIZING-INCIDENTAL-TAKE-MIGRATORY-BIRDS](https://fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds))**.

BALD AND GOLDEN EAGLES

THE BALD EAGLE (*HALIAEETUS LEUCOCEPHALUS*) WAS DELISTED UNDER THE ESA ON AUGUST 9, 2007. BOTH THE BALD EAGLE AND GOLDEN EAGLE (*AQUILA CHRYSAETOS*) ARE STILL PROTECTED UNDER THE MIGRATORY BIRD TREATY ACT (MBTA) AND BALD AND GOLDEN EAGLE PROTECTION ACT (BGEPA). THE BGEPA AFFORDS BOTH EAGLES PROTECTION IN ADDITION TO THAT PROVIDED BY THE MBTA, IN PARTICULAR, BY MAKING IT UNLAWFUL TO “DISTURB” EAGLES. UNDER THE BGEPA, THE SERVICE MAY ISSUE LIMITED PERMITS TO INCIDENTALLY “TAKE” EAGLES (E.G., INJURY, INTERFERING WITH NORMAL BREEDING, FEEDING, OR SHELTERING BEHAVIOR NEST ABANDONMENT). FOR INFORMATION ON BALD AND GOLDEN EAGLE MANAGEMENT GUIDELINES, WE RECOMMEND YOU REVIEW INFORMATION PROVIDED AT THE SERVICE'S **BALD AND GOLDEN EAGLE MANAGEMENT LIBRARY COLLECTION**.

NATIVE BATS

IF YOUR SPECIES LIST INCLUDES INDIANA BAT (*MYOTIS SODALIS*), NORTHERN LONG-EARED BAT (*M. SEPTENTRIONALIS*), OR TRICOLORED BAT (*PERIMYOTIS SUBFLAVUS*) AND THE PROJECT IS EXPECTED TO IMPACT FORESTED HABITAT, TREE CLEARING SHOULD OCCUR OUTSIDE OF THE PERIODS WHEN BATS MAY BE PRESENT AND MOST VULNERABLE. FEDERALLY LISTED BATS COULD BE ACTIVELY PRESENT IN FORESTED LANDSCAPES FROM SPRING THROUGH FALL OF ANY YEAR. IN MUCH OF GEORGIA, OUR WINTERS ARE MILD ENOUGH THAT TRICOLORED BATS ARE LIKELY ACTIVE ON THE LANDSCAPE TO SOME EXTENT YEAR-ROUND. PUPS ARE INCAPABLE OF FLIGHT AND VULNERABLE TO DISTURBANCE FROM THE SPRING TO SUMMER. OUR RECOMMENDED SEASONAL CLEARING RESTRICTION WINDOWS DEPEND ON SPECIES AND REGION IN GEORGIA. PLEASE REACH OUT TO US FOR GUIDANCE.

INDIANA, NORTHERN LONG-EARED, TRICOLORED, AND GRAY (*M. GRISESCENS*) BATS ARE ALL KNOWN TO UTILIZE BRIDGES AND CULVERTS IN GEORGIA. IF YOUR PROJECT INCLUDES MAINTENANCE, CONSTRUCTION, OR ANY OTHER MODIFICATION OR DEMOLITION TO TRANSPORTATION STRUCTURES, A QUALIFIED INDIVIDUAL SHOULD COMPLETE A SURVEY OF THESE STRUCTURES FOR BATS AND SUBMIT YOUR FINDINGS VIA THE

“GADNR BATS IN BRIDGES” FORM IN THE SURVEY123 APP, FREE ON APPLE AND ANDROID DEVICES. PLEASE INCLUDE THESE FINDINGS IN ANY BIOLOGICAL ASSESSMENT(S) OR OTHER DOCUMENTATION THAT IS SUBMITTED TO OUR OFFICE FOR TECHNICAL ASSISTANCE OR CONSULTATION.

ADDITIONAL INFORMATION CAN BE FOUND AT GEORGIA ECOLOGICAL SERVICES' [CONSERVATION PLANNING TOOLBOX](#) AND [BAT CONSERVATION IN GEORGIA](#) PAGES.

MONARCH BUTTERFLY

ON DECEMBER 20, 2020, THE SERVICE DETERMINED THAT LISTING THE MONARCH BUTTERFLY (*DANAUS PLEXIPPUS*) UNDER THE ENDANGERED SPECIES ACT IS WARRANTED BUT PRECLUDED AT THIS TIME BY HIGHER PRIORITY LISTING ACTIONS. WITH THIS FINDING, THE MONARCH BUTTERFLY BECOMES A CANDIDATE FOR LISTING. THE SERVICE WILL REVIEW ITS STATUS EACH YEAR UNTIL WE ARE ABLE TO BEGIN DEVELOPING A PROPOSAL TO LIST THE MONARCH.

AS IT IS A CANDIDATE FOR LISTING, THE SERVICE WELCOMES CONSERVATION MEASURES FOR THIS SPECIES. RECOMMENDED, AND VOLUNTARY, CONSERVATION MEASURES FOR PROJECTS IN GEORGIA CAN BE FOUND AT THE [MONARCH CONSERVATION IN GEORGIA](#) PAGE.

EASTERN INDIGO SNAKE

OUR OFFICE HAS PUBLISHED GUIDANCE DOCUMENTS TO ASSIST PROJECT PROPONENTS IN AVOIDING AND MINIMIZING POTENTIAL IMPACT TO THE EASTERN INDIGO SNAKE. THE [VISUAL ENCOUNTER SURVEY PROTOCOL FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\) IN GEORGIA](#) IS RECOMMENDED FOR PROJECT PROPONENTS OR THEIR DESIGNEES TO EVALUATE THE POSSIBLE PRESENCE OF THE EASTERN INDIGO SNAKE AT A PROPOSED PROJECT SITE. THE [STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE \(*DRYMARCHON COUPERI*\)](#) INCLUDE EDUCATIONAL MATERIALS AND TRAINING THAT CAN HELP PROTECT THE SPECIES BY MAKING STAFF WORKING ON A PROJECT SITE AWARE OF THEIR PRESENCE AND TRAITS. IN GEORGIA, INDIGO SNAKES ARE CLOSELY ASSOCIATED WITH THE STATE-LISTED GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*), A REPTILE THAT EXCAVATES EXTENSIVE UNDERGROUND BURROWS THAT PROVIDE THE SNAKE SHELTER FROM WINTER COLD AND SUMMER DESICCATION.

SOLAR ENERGY DEVELOPMENT

THE [RECOMMENDED PRACTICES FOR THE RESPONSIBLE SITING AND DESIGN OF SOLAR DEVELOPMENT IN GEORGIA, VERSION 2.0](#) (PUBLISHED IN MAY 2024)

ARE INTENDED TO PROVIDE VOLUNTARY GUIDANCE TO SUPPORT CONSIDERATION OF NATURAL RESOURCES DURING THE DEVELOPMENT OF PHOTOVOLTAIC SOLAR IN GEORGIA. FURTHERMORE, THE [GEORGIA LOW IMPACT SOLAR SITING TOOL \(LISST\)](#) IS ALSO AVAILABLE AS A MAP LAYER IN IPAC (FIND IT IN THE "LAYERS" BOX > "ENVIRONMENTAL DATA") TO PROVIDE PROJECT MANAGERS WITH THE DATA TO IDENTIFY AREAS THAT MAY BE PREFERRED FOR LOW-IMPACT DEVELOPMENT. THE TOOL SEEKS TO SUPPORT THE ACCELERATION OF LARGE-SCALE SOLAR DEVELOPMENT IN AREAS WITH LESS IMPACT TO THE ENVIRONMENT.

STATE AGENCY COORDINATION

ADDITIONAL INFORMATION THAT ADDRESSES AT-RISK OR HIGH PRIORITY NATURAL RESOURCES CAN BE FOUND IN THE STATE WILDLIFE ACTION PLAN ([HTTPS://GEORGIAWILDLIFE.COM/WILDLIFEACTIONPLAN](https://georgiawildlife.com/wildlifeactionplan)), AT GEORGIA DEPARTMENT OF NATURAL RESOURCES, WILDLIFE RESOURCES DIVISION BIODIVERSITY PORTAL ([HTTPS://GEORGIAWILDLIFE.COM/CONSERVATION/SPECIES-OF-CONCERN](https://georgiawildlife.com/conservation/species-of-concern)), GEORGIA'S NATURAL, ARCHAEOLOGICAL, AND HISTORIC RESOURCES GIS PORTAL ([HTTPS://WWW.GNAHRGIS.ORG/GNAHRGIS/INDEX.DO](https://www.gnahrgis.org/gnahrgis/index.do)) PAGES.

THANK YOU FOR YOUR CONCERN FOR ENDANGERED AND THREATENED SPECIES. WE APPRECIATE YOUR EFFORTS TO IDENTIFY AND AVOID IMPACTS TO LISTED AND SENSITIVE SPECIES IN YOUR PROJECT AREA. FOR FURTHER CONSULTATION ON YOUR PROPOSED ACTIVITY, PLEASE EMAIL GAES_ASSISTANCE@FWS.GOV AND REFERENCE THE PROJECT COUNTY AND YOUR SERVICE PROJECT TRACKING NUMBER.

THIS LETTER CONSTITUTES GEORGIA ECOLOGICAL SERVICES' GENERAL COMMENTS UNDER THE AUTHORITY OF THE ENDANGERED SPECIES ACT.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Marine Mammals
- Coastal Barriers
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether

any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601-2523

(706) 460-7161

PROJECT SUMMARY

Project Code: 2025-0096698

Project Name: East Beach Tidal Pools

Project Type: Beach nourishment

Project Description: Glynn County is proposing to manage tidal pools on East Beach, SSI, GA.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@31.1475021,-81.36964199449653,14z>



Counties: Glynn County, Georgia

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469	Threatened

BIRDS

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

REPTILES

NAME	STATUS
Eastern Indigo Snake <i>Drymarchon couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3656	Endangered
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered

NAME	STATUS
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> https://ecos.fws.gov/ecp/species/6039#crithab	Final
Rufa Red Knot <i>Calidris canutus rufa</i> https://ecos.fws.gov/ecp/species/1864#crithab	Proposed

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

BALD & GOLDEN EAGLES INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

MIGRATORY BIRD INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

COASTAL BARRIERS

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

SYSTEM UNIT (SU)

*Most new Federal expenditures and financial assistance, including Federal flood insurance, are prohibited within System Units. **Federally-funded projects within System Units require consultation with the Service.** Consultation is not required for projects using private, state, or local funds.*

UNIT	NAME	TYPE	SYSTEM UNIT ESTABLISHMENT DATE	FLOOD INSURANCE PROHIBITION DATE
N04	Sea Island	SU	10/18/1982	10/1/1983

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The [Endangered Species Act](#) (ESA) of 1973.
 2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
 3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PSS1F

FRESHWATER POND

- PUBHx

ESTUARINE AND MARINE WETLAND

- M2US2P
- M2US2N

ESTUARINE AND MARINE DEEPWATER

- M1UBL

FRESHWATER EMERGENT WETLAND

- PEM1Fx

IPAC USER CONTACT INFORMATION

Agency: County of Glynn

Name: Stephen Bailey

City: St Simons Island

State: GA

Zip: 31522

Email: stephen.bailey@longleafconsulting.com

Phone: 7066144436

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Georgia Department of Natural Resources