



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

OCT 23 2020

Michael Mann
Applied Technology & Management, Inc.
P.O. Box 20336
Charleston, SC 29413-0336

Re: Letter of Permission (LOP), Maintenance and Rehabilitation of the Existing Revetment and Sand Dunes, Saint Simons Island, Glynn County, Georgia

Dear Mr. Mann:

This letter is in response to your request received October 13, 2020 for authorization to perform maintenance to the existing rock revetment within jurisdiction of the Shore Protection Act (SPA). A LOP was previously issued on November 7, 2019 and June 9, 2020 but work was delayed. The current request is to conduct maintenance and repairs along the existing revetment across approximately 5,641 linear feet (LF) of shoreline and to install sand fencing to help facilitate dune growth along approximately 2,500 LF of shoreline. The project will be conducted in 5 phases, where phases 1-2 include rock revetment maintenance and repair on public properties, phases 3-4 include rock maintenance and repair on or near private property, and phase 5 includes installing sand fencing to facilitate growth of sand dunes.

Repairs and maintenance to the existing rock revetment in phases 1-4 will rehabilitate and raise the crest elevation to one-foot above the original 1960's design elevation (raise to +8.5' NAVD88) within the existing footprint. The revetment repair and maintenance work include regions from Massengale Park to Gould Street and at Gould's Inlet. Phase 5 includes installing sand fencing from the Coast Guard Beach access to Massengale Park. Public access will be hindered for approximately one-week at each of the 26 identified staging sites.

Phases 1 & 2: Revetment Maintenance and Repair - Public Property

Phase 1 will rehabilitate revetment sections that front public road ends, public parks, and public beach accesses. Phase 1 stretches from Wyley Street to Arnold road and encompasses approximately 2,695 linear feet of revetment to be repaired requiring approximately 5,200 tons of armor stone. Armor stone will be trucked from a quarry to the site using dump trucks and flatbed trucks. The stone will be staged upland of the revetment until placed in the revetment template. Phase 1 will be completed from the upland or from a 30 ft. beach construction corridor (after November 1st) with the rock staging areas landward of the structure as indicated on the Drawings. Rock will be placed in the template with an excavator.

Phase 2 will rehabilitate a section of revetment that extends from 16th Street south to 15th street. The section of revetment to rehabilitate is approximately 330 feet long and is adjacent to a public parking lot. This section is expected to require approximately 350-tons of armor stone. The area seaward of the revetment is in known essential habitat. To avoid disturbing any habitat or vegetation all construction and staging will be from uplands in this area and strictly limited to areas of existing rock as indicated on the drawings. Armor stone will be trucked to the site with dump trucks and placed in a staging area landward of the existing revetment. An excavator will place rock in the revetment template from upland of the structure.

Phases 3 & 4: Revetment Maintenance and Repair - Private Property

Phase 3 will rehabilitate sections of revetment with footprints on public land and fronting private property. This phase reaches from Frazier Street north to Arnold Street and contains approximately 881 linear feet of revetment to be rehabilitated. The rehabilitation for Phase 3 will require approximately 1,784 tons of armor stone. Armor stone will be delivered to the site using dump trucks and flat-bed trucks and will be staged upland of the existing revetment. Construction may take place from the ocean side of the revetment to avoid disturbing private property, when outside of sea turtle nesting season. Access to the beach will be across the existing revetment at several different road ends. A 30-foot wide access/construction corridor will be required seaward of the revetment for off-road dump trucks to haul rock from the staging area and for an excavator to place rock in the template. All construction from the beach will take place at mid to low and no equipment or rock will be staged on the beach overnight.

Phase 4 will rehabilitate sections of revetment that are located on private property. This phase stretches from Gould Street north to Massengale Park and includes approximately 1,735 linear feet of revetment to be rehabilitated. No work will be completed by Glynn County without prior legal consent from the property owner. Approximately 2,540 tons of armor stone will be brought to the site by dump trucks and flatbed trucks and staged upland of the existing revetment. Construction for Phase 4 will take place from the ocean side of the revetment when outside of sea turtle nesting season. The beach will be accessed by crossing the revetment at street ends, and a 30 feet wide access/construction corridor seaward of the revetment will be required for the off-road dump truck to deliver rock to the excavator for placement. An excavator will work inside of the 30 feet wide corridor to place rock in the template. All work will take place at mid to low tide and no rock or equipment will be staged on the beach overnight.

Phase 5: Sand Fencing on Public Lands

Phase 5 will install sand fence along approximately 2,510 linear feet stretch of beach from Massengale Park to the United States Coast Guard Beach Access. The sand fence is proposed to facilitate growth of a dune along this stretch of beach. Sand fence will be installed in areas landward of Ordinary High-Water Line and in accordance with all Georgia Department of Natural Resources Sand Fence Guidelines. No dune planting is proposed. The sand fence installation will take place outside of turtle nesting season and posts will be set using a handheld auger or shovel.

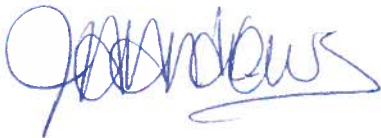
The Department authorizes the maintenance activities within SPA jurisdiction as depicted above and in the attached project description and drawings. **No unauthorized equipment, materials, or debris may be placed, disposed of, or stored in jurisdictional areas.** Any incidental damage to dunes or dune vegetation will require restoration to be coordinated through this office. The project will begin no sooner than 15 days from the date of this letter and be completed within six months.

During sea turtle nesting season, May 1st to October 31st, all work must be completed from the upland within the footprint of the existing revetment. All sea turtle nests must be avoided, and no activity may occur within 20ft. of a nest area. Furthermore, no artificial lights are permitted at nighttime during sea turtle nesting season.

This LOP is valid for the above referenced project. Any change in the use, location, dimensions, or configuration of the approved project, without prior notification from this office, could result in revocation of this permission and in the required removal of the related structures. Any incidental impacts to the beach, dunes, or vegetation must be restored to pre-activity vegetated and topographic conditions using hand-tools as determined by the Department. Public access may be temporarily affected in equipment staging areas and within the 30 ft. construction corridor.

This authorization does not relieve you from obtaining any other required federal, state, or local permits. If you have any further questions or concerns regarding this or any other projects, please feel free to contact Amy Flowers at (912) 262-3109.

Sincerely,



Jill Andrews
Chief, Coastal Management Section

Enclosures: Project Letter, Project Description, Project Drawings, Updated Table, Ga DNR Sand Fence Guidelines

Cc: Skye Stockel, US Army Corps of Engineers
Paul Andrews, Glynn County

File: LOP20200125 :



14-August-2020

Ms. Skye Stockel
Regulatory Specialist
United States Army Corps of Engineers, Savannah District
CESAS-RD-C
100 West Oglethorpe Avenue
Savannah, GA 31401

RE: NWP 3 Revetment Maintenance Request (SAS-2020-00157)
St. Simons Island, Glynn County, GA

Dear Mrs. Stockel:

On behalf of Glynn County, Georgia, we are submitting this request to modify the work area permitted under a Nationwide 3a for the St. Simons Revetment Maintenance Project on St. Simons Island. The original permit request was to complete revetment maintenance from the uplands during Phase 1 and then the beach for phases 2 and 3. Phase 1 includes Neptune Park and since the permit was issued more information regarding the upland amenities at the park were discovered.

The revetment maintenance project was awarded to The Industrial Company (TIC) in July 2020 and a pre-construction meeting was conducted on July 23, 2020. During the pre-construction meeting the Glynn County Representatives asked that the work at the popular public Neptune Park be completed from the beach side of the revetment due to a custom walkway that is not structurally able to handle large equipment and buried irrigation lines throughout the site. The new information on the base of the walkway along the revetment and the irrigation lines would prevent the work from being completed from the uplands for most of the park.

To avoid costly damages and repairs to the uplands of Neptune Park, we are asking to modify sheet 6 of the originally authorized permit plans to include a beach travel corridor 30 feet wide, similar to the other permitted project areas, extending the length of the park to Postel Avenue. All related permit conditions will be adhered to. The work will be conducted around lower tides to prevent equipment from encountering water and the work from the beach side of the revetment would not commence until post turtle nesting season (October 31).

Attached to this letter request is a modified Sheet 6 of the permitted plans requested for approval.

Please do not hesitate to call or contact me at mmann@appliedtm.com if you any questions or require further information to process the application.

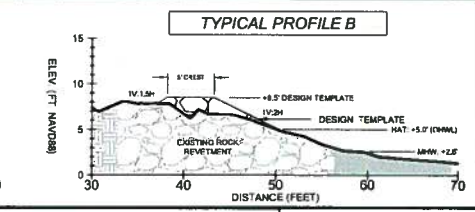
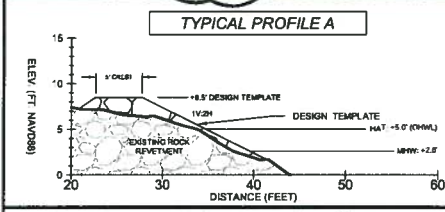
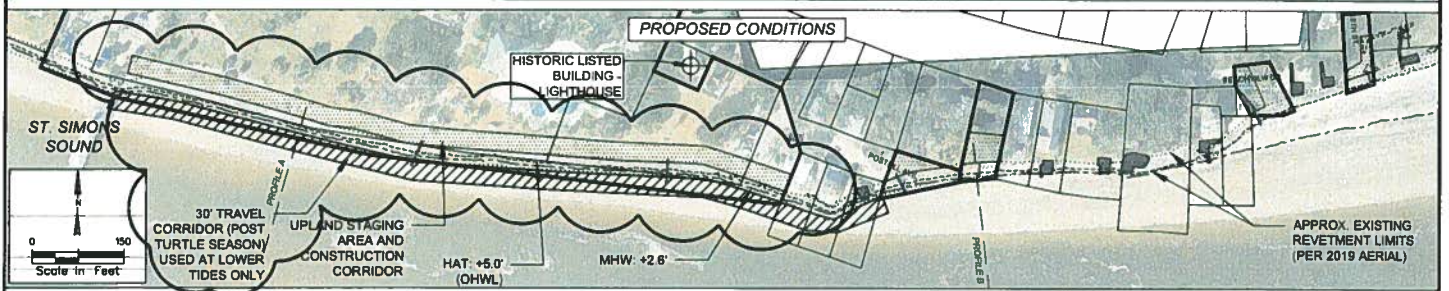
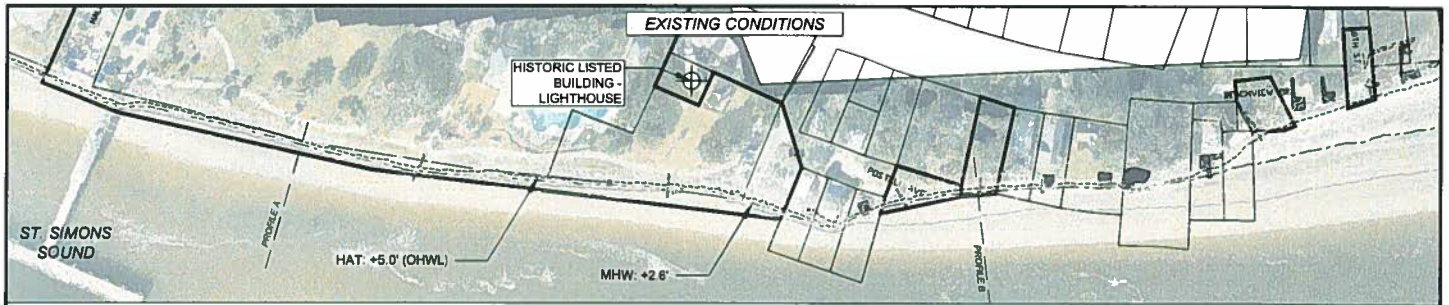
Sincerely,
APPLIED TECHNOLOGY & MANAGEMENT, INC.

A handwritten signature in blue ink that reads 'Michael W. Mann'.

Michael Mann, PE
Project Engineer

cc: Paul Andrews, Glynn County
Kathryn Downs, Glynn County
Josh Noble, Georgia Department of Natural Resources





LEGEND

--- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)	⊕ FEDERALLY REGISTERED HISTORIC BUILDING
--- MHW - MEAN HIGH WATER	▭ PROJECT FOOTPRINT
▭ EXISTING REVETMENT CROSSOVER	▭ STAGING AREA/WORK CORRIDOR
▭ PARCEL BOUNDARY (GLYNN COUNTY DATA)	▭ PARCEL REMOVED FROM PERMIT APPLICATION
▭ PROPERTY BEHIND REVETMENT	
▭ REHABILITATION THIS PHASE	

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
 Waterbody: Atlantic Ocean
 County: Glynn
 State: Georgia

Latitude: 31° 8' 2.55"N
 Longitude: 81° 23' 48.16"W
 Applicant: Glynn County
 Agent: Applied Technology & Management

PHASE 1
 PLAN VIEW & TYPICAL SECTIONS
 NEPTUNE PARK TO 10TH STREET

Revision: August 11, 2020
 Date: April 1, 2019





April 6, 2020

Ms. Amy Flowers
Coastal Permit Coordinator
Georgia Department of Natural Resources
Coastal Resources Division
1 Conservation Way, Suite 300
Brunswick, GA 31520

RE: LOP Revetment Maintenance Request
St. Simons Island, Glynn County, GA

Dear Ms. Flowers:

On behalf of Glynn County, Georgia, we are requesting another Letter of Permission to complete maintenance repairs on an existing rock revetment along St. Simons Island. A Letter of Permission was originally granted for this project on November 7, 2019 and is set to expire April 30, 2020. The project specifications and design have not changed from the original Letter of Permission received in November 2019 with the exception that we are requesting the ability for revetment construction to take place during turtle season from the upland.

The original project timeline intended bidding and construction to be complete by April 30, 2020, in accordance with OneGeorgia grant funding deadlines. The Federal permitting phase was extended due to the presence of historical resources on St. Simons Island, which required a thorough historical report and review. After historical resources completed their review, the USACE issued a Nationwide 3a Permit on January 24, 2020, leaving insufficient time to bid and construct the project prior to the grant deadline. Glynn County then initiated a grant extension request which was recently approved and extended until April 30, 2021.

Glynn County placed project bidding on hold during the grant extension process to ensure that the project would have the appropriate funding. The funding extension delayed bidding for several weeks. Now that the grant extension has been issued, the bid process has been restarted with a bid submittal due date of April 20, 2020.

With additional uncertainty due to the Coronavirus outbreak, the expected timeline for the project is necessarily a bit fluid. We estimate that after bids are received, the contractor selection, approval, and contracting will require another 3-4 weeks (i.e., complete by mid-May). Assuming an approximate 6 week lead time for materials to be onsite, this results in a likely construction start date in June/July 2020. Therefore, we are requesting a new Letter of Permission to allow construction to be completed from uplands during sea turtle nesting season and then from uplands or waterside of the revetment as required, following sea turtle nesting season. The new project anticipated timeline and the request to work from upland during sea turtle season are the only deviations from the November 2019 Letter of Permission.

ATM and Glynn County have received clarification from the USACE regarding the Nationwide 3a Permit conditions. The contractor can work during sea turtle nesting season with the requirement that all work is completed from upland, outside of sea turtle nesting habitat. After sea turtle nesting



Ms. Amy Flowers
April 2, 2020
Page 2 of 2


season is complete, the contractor may begin to work along the waterward side of the structure, if required, as indicated in the permitted plans. We estimate that construction should be completed within 4-6 months of contractor mobilization.

Attached to this cover letter is the additional below listed information:

- Original granted GADNR LOP
- USACE Nationwide 3a Permit

Please do not hesitate to call or contact me at mmann@appliedtm.com if you any questions or require further information to process the application.

Sincerely,
APPLIED TECHNOLOGY & MANAGEMENT, INC.



Michael Mann, PE
Project Engineer

cc: Paul Andrews, Glynn County
Kathryn Downs, Glynn County
Skye Stockel, USACE



St. Simons Revetment Rehabilitation
Supplemental Information to PCN Form
St. Simons, Glynn County, Georgia

Existing Site Conditions

The existing revetment fronting St. Simons was originally designed and constructed in the 1960's and 1970's and extends over 11,000 total linear feet of shoreline. The revetment is in two sections with the first stretch starting at Gould Street and heading northeast to Massengale Park and the second section starting near 10th Street and continuing north to Ocean Boulevard. The original revetment was constructed in response to Hurricane Dora which occurred in 1964. The existing revetment was originally designed with a 5 feet wide crest and crest elevation of 11.5 feet above Mean Low Water. When converting to North Atlantic Vertical Datum of 1988 and correcting for the most recent tidal epoch, this results in an original design crest elevation of 7.5' NAVD88. The seaward slope of revetment was designed for 1 vertical to 2 horizontal and the landward slope has a 1 vertical to 1.5 horizontal slope with a maximum width of revetment ~30 feet wide. The base of the structure and interior of the revetment had small core stone with a 2-foot-thick layer of armor stone on top. The core stone ranges in size from half a foot to 1 foot in diameter.

The existing revetment has been subject to settling, high tides, wave action, and storms for over 50 years, degrading the structure and lowering the crest elevation. Minimal to no beach berm remains at high tide between the ocean and the revetment exposing the revetment and upland infrastructure to higher tides and wave overtopping action on regular intervals. Higher tides and waves have scattered the existing revetment stone and exposed large sections of core stone which are susceptible to being dislodged from the revetment during storm activity. Various areas of upper (higher elevation/upland) revetment sections appear to have been supplemented with additional stone and/or restacked after storms for maintenance throughout the history of the structure.

Project Description

The purpose of the project is for coastal storm protection. The intent is to conduct maintenance on the existing structure with similar materials and construction methods to rehabilitate the revetment back to a condition that provides protection to the upland and upland infrastructure from wave attach during storms and high tide wave events. To accomplish this, the proposed design crest elevation for the revetment rehabilitation will be raised (to +8.5' NAVD88) one foot above the original 1960's design elevation (+7.5' NAVD88). The rehabilitated structure footprint



would remain within the footprint of the existing structure. Raising the crest elevation is necessary to increase the resiliency of the structure, account for sea level rise since original construction, and provide additional coastal storm protection. Armor stone will be a clean stone and have a median diameter of 2.5 feet and density equal to or greater than 160 pounds per cubic feet.

Typical Construction Methods

Armor stone will be trucked on-road to the site from upland sources to be added to the existing revetment template. Various staging and access areas have been identified on the Drawings throughout the project area. Along some portions of the revetment, armor stone will be placed from the upland side. Along other portions with restricted upland access corridors along the revetment, armor stone will be trucked off-road through identified accesses and along the shoreline for maintenance efforts. All work seaward of the revetment will be conducted during mid to lower tides. No excavation or rock placement will occur outside of the existing revetment footprint.

Construction Schedule

All work will be conducted outside of sea turtle nesting season. Anticipated commencement is October 2019 and anticipated completion of the project is April 2020.

Historic Structures and Other Properties

There are several historical structures in the general vicinity of the project area. Three federally listed buildings, The Lighthouse, King & Prince Hotel, and U.S. Coast Guard Station, are located nearby to the project areas. To prevent any negative effects to historic properties the revetment crest elevation is only being raised a minimal amount to not alter sites lines to the ocean from the historic properties, while still providing increased coastal storm protection for the significant structures. Sight lines along other areas will not be significantly impacted. Noise in project areas will only be temporary as it is expected the contractor will be able to complete 50 plus linear feet of revetment maintenance daily. Vibration monitoring and pre- and post- construction surveys of specific historical structures may also occur to document project conditions and avoid/minimize impacts.



The existing revetment is located on and fronts both private and public property (based on Glynn County GIS parcel data). Glynn County will directly acquire letters of permission and/or easements before any work is conducted on private property.

Phases

To facilitate project review, the project has been separated into phases based on the location and nature of maintenance proposed. It is the intent of Glynn County to conduct as much maintenance as possible within the project limits pending available budget and actual construction bid costs.

Phase 1

Phase 1 will rehabilitate revetment sections that front public road ends, public parks, and public beach accesses. Phase 1 stretches from Wyley Street to Arnold road and encompasses approximate 2,695 linear feet of revetment to be repaired requiring around 5,200 tons of armor stone. Armor stone will be trucked from a quarry to the site using dump trucks and flat bed trucks. The stone will be staged upland of the revetment until placed in revetment template. Phase 1 will be completed from the upland with the rock staging areas landward of the structure as indicated on the Drawings. Rock will be placed in the proposed rehabilitated template with an excavator.

Phase 2

Phase 2 will rehabilitate a section of revetment that extends from 16th Street south to 15th street. The section of revetment to rehabilitate is approximately 330 feet long and is adjacent to a public parking lot. This section is expected to require approximately 350 tons of armor stone. The area seaward of the revetment is in known essential habitat and to avoid disturbing any habitat or vegetation all construction and staging will be from uplands in this area and strictly limited to areas of existing rock as indicated on the Drawings. Armor stone will be trucked to the site with dump trucks and placed in a staging area upland of the existing revetment. An excavator will place rock in the revetment template from upland of the structure.

Phase 3

Phase 3 will rehabilitate sections of revetment with footprints on public land and fronting private property. This phase reaches from Frazier Street north to Arnold Street and contains approximately 3,210 linear feet of revetment to be rehabilitated. The rehabilitation for Phase 3 will require approximately 6,500 tons of armor stone. Armor stone will be delivered to the site using



dump trucks and flat-bed trucks and will be staged upland of the existing revetment. Construction will take place from the ocean side of the revetment to avoid disturbing private property. Access to the beach will be across the existing revetment at several different road ends. A 30 feet wide access/construction corridor will be required waterward of the revetment for off-road dump trucks to haul rock from the staging area and for an excavator to place rock in the proposed template. All construction from the beach will take place at mid to low tide outside of turtle nesting season. No equipment or rock will be staged on the beach overnight.

Phase 4

Phase 4 will rehabilitate sections of revetment that are located on private property. This phase stretches from Gould Street north to Massengale Park and includes approximately 3,245 linear feet of revetment to be rehabilitated. No work will be completed by Glynn County without prior legal consent from the property owner. Construction for Phase 4 will take place from the ocean side of the revetment. Approximately 4,750 tons of Armor stone will be brought to the site by dump trucks and flatbed trucks and staged upland of the existing revetment. The beach will be accessed by crossing the revetment at street ends and a 30 feet wide access/construction buffer seaward of the revetment will be required for the off-road dump truck to deliver rock to the excavator for placement. An excavator will work inside of the 30 feet wide buffer to place rock in the template. All work will take place at mid to low tide and will be completed outside of turtle season. No rock or equipment will be staged on the beach overnight.

Phase 5

Phase 5 will install sand fence along 2,510 linear feet stretch of beach from Massengale Park to the United States Coast Guard Beach Access. The sand fence is proposed to facilitate growth of a dune along this stretch of beach. Sand fence will be installed in areas landward of the Highest Astronomical Tide line (HAT, coincides with Ordinary High-Water Line) and in accordance with all Georgia Department of Natural Resources sand fence guidelines. No dune planting is proposed. The sand fence construction will take place outside of turtle nesting season and posts will be set using an auger or shovel.



Measures Taken to Avoid/Minimize Impacts to Water of U.S.

Measures taken to avoid/minimize impacts to Waters of the U.S. include:

- All work will take place outside of turtle nesting season.
- Construction completed from the beach will take place at low to mid tide only.
- The revetment rehabilitation will take place inside the existing revetment limits.
- No excavation will occur seaward of the existing revetment.
- All stone will be clean and free of fines.
- Rockwork on the seaward slope of the revetment below HAT will be timed to occur during lower tides.
- Appropriate erosion and sediment control measures will be implemented as required.

Additional measures include:

- No materials will be stored on the beach or in the sand dunes.
- All affected naturally vegetated areas upland of the revetment will be restored to pre-project conditions.
- Any staging and access improvements will be made with removeable materials such as timber crane mats.

Maps, Drawings, and Other Information

9. Are cultural resources located on or near the project site?

Three federally listed buildings are located adjacent to the project area. The Lighthouse, King & Prince Hotel, and U.S. Coast Guard Station. The revetment will be raised to approximately 8.5 feet NAVD88 which is only 1 to 2 feet above the upland existing elevations. The revetment rehabilitation will not block site lines to the Atlantic Ocean from any historic building. Construction is expected to move quickly, and the contractor should only be working near the Lighthouse for several days. No work will occur on the King & Prince property because all work will be completed from the beach for this section. No rock work will take place near the U.S. Coast Guard Station, but light machinery may be required to help install dune fence. Vibration monitoring and pre- and post- construction surveys of specific historical structures may also occur to document project conditions and avoid/minimize impacts.



SAINT SIMONS ISLAND

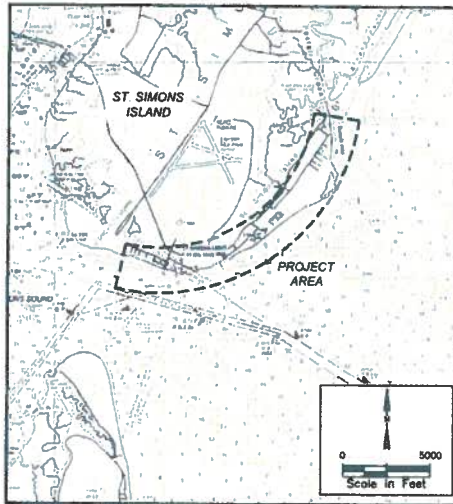
NWP 3(a)

REVTMENT MAINTENANCE

GEORGIA



GLYNN COUNTY



SHEET INDEX

1. COVER SHEET & LOCATION MAP
2. PROJECT OVERVIEW
3. ORIGINAL 1960'S REVTMENT DESIGN TEMPLATE
4. PHASE 1 OVERVIEW
5. PHASE 1 - PLAN VIEW & TYPICAL SECTIONS - WYLEY ST. TO FLOYD ST
6. PHASE 1 - PLAN VIEW & TYPICAL SECTIONS - NEPTUNE PARK TO 10TH ST
7. PHASE 1 - PLAN VIEW & TYPICAL SECTIONS - 9TH ST TO 3RD ST
8. PHASE 1 - PLAN VIEW & TYPICAL SECTIONS - 2ND ST TO MASSENGALE PARK
9. PHASE 2 - PLAN VIEW & TYPICAL SECTIONS - GOULDS INLET BEACH ACCESS
10. PHASE 3 OVERVIEW
11. PHASE 3 - PLAN VIEW & TYPICAL SECTIONS - FRAZIER ST. TO FLOYD ST.
12. PHASE 3 - PLAN VIEW & TYPICAL SECTIONS - 9TH ST TO 3RD ST
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14. PHASE 4 OVERVIEW
15. PHASE 4 - PLAN VIEW & TYPICAL SECTIONS - WYLEY ST. TO FLOYD ST
16. PHASE 4 - PLAN VIEW & TYPICAL SECTIONS - NEPTUNE PARK TO 10TH ST
17. PHASE 4 - PLAN VIEW & TYPICAL SECTIONS - 9TH ST TO 3RD ST
18. PHASE 4 - PLAN VIEW & TYPICAL SECTIONS - 2ND ST TO MASSENGALE PARK
19. PHASE 5 - PLAN VIEW & TYPICAL SECTIONS - MASSENGALE PARK TO US COAST GUARD BEACH ACCESS

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance Latitude: 31° 8' 2.55"N
 Waterbody: Atlantic Ocean Longitude: 81° 23' 48.18"W
 County: Glynn Applicant: Glynn County
 State: Georgia Agent: Applied Technology & Management

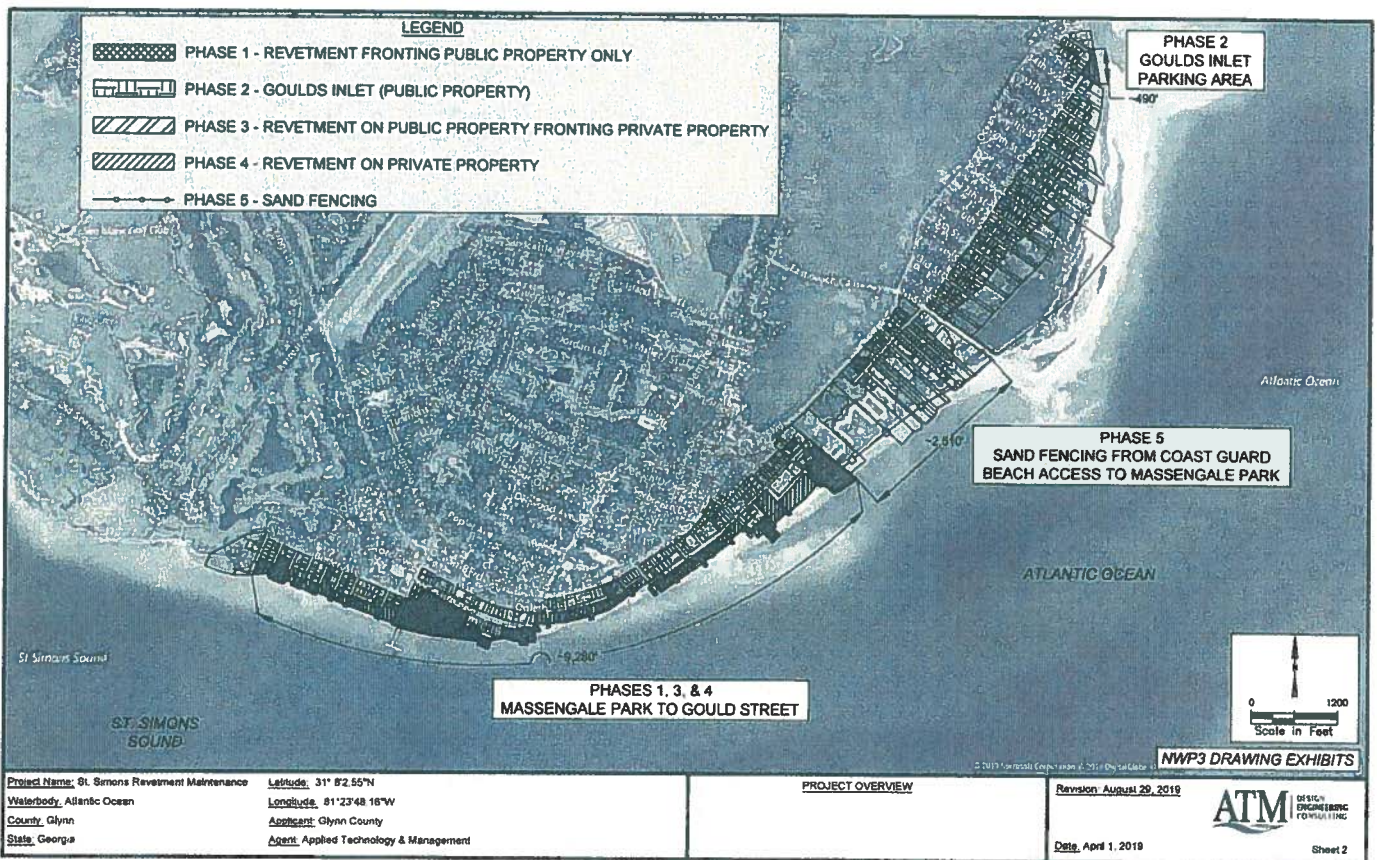
COVER SHEET &
LOCATION MAP

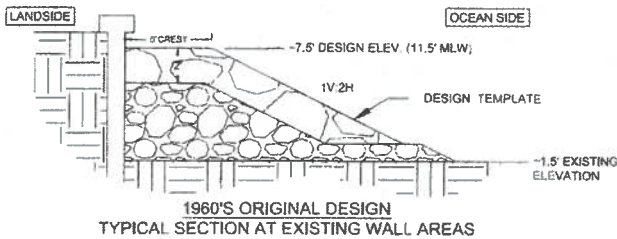
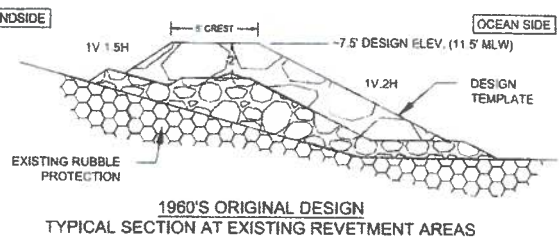
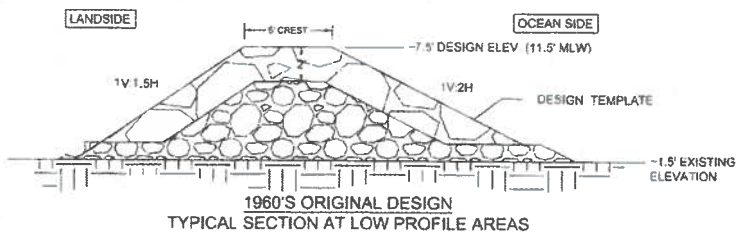
Revision: August 29, 2019



Date: April 1, 2019

Sheet 1





NOTE: ORIGINAL DESIGN BASED ON U.S. ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT PLANS FROM 1960'S. ELEVATIONS HAVE BEEN CONVERTED TO REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988.

NOAA STATION 8677944, ST. SIMONS ISLAND, GA		
DATUM	ABBREV.	ELEV. HANDBK (FEET)
HIGHEST ASTRONOMICAL TIDE**	HAT	5.0
MEAN HIGHER HIGH WATER	MHHW	3.0
MEAN HIGH WATER	MHW	1.6
NORTH AMERICAN VERTICAL DATUM, 1988	NAVD88	0.0
MEAN LOW WATER	MLW	-4.0
MEAN LOWER LOW WATER	MLLW	-4.2

**CORRIDGES WITH ORDINARY HIGH WATER LINE

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance
 Latitude: 31° 02.55'N
 Waterbody: Atlantic Ocean
 Longitude: 81° 23'48.16"W
 County: Glynn
 Applicant: Glynn County
 State: Georgia
 Agent: Applied Technology & Management

ORIGINAL 1960'S
 REVELTMENT DESIGN
 TEMPLATE

Revision: August 29, 2019



Date: April 1, 2019

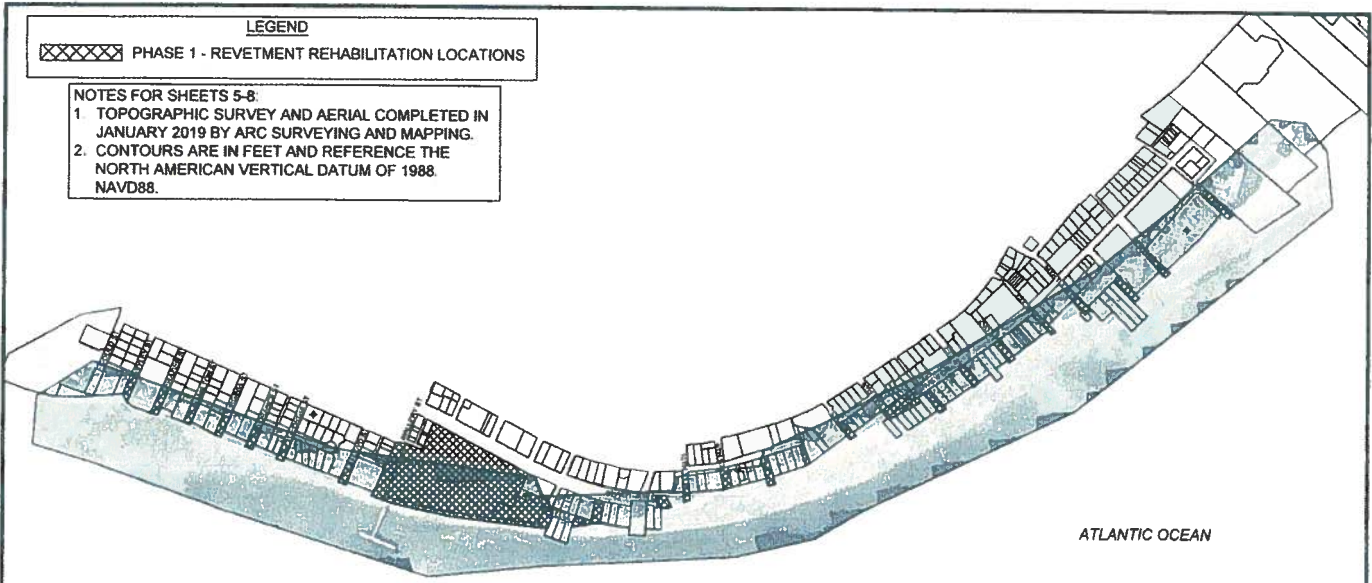
Sheet 3

LEGEND

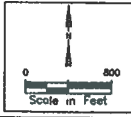
XXXXXX PHASE 1 - REVETMENT REHABILITATION LOCATIONS

NOTES FOR SHEETS 5-8:

- 1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
- 2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD88.



PHASE 1
REVETMENT FRONTING PUBLIC PROPERTY ONLY
(~2,695 LINEAR FEET OF REVETMENT REHABILITATION.
~5,200 TONS OF ROCK REQUIRED)



NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 02.55'N
Waterbody: Atlantic Ocean **Longitude:** 81° 23'48.16"W
County: Glynn **Applicant:** Glynn County
State: Georgia **Agent:** Applied Technology & Management

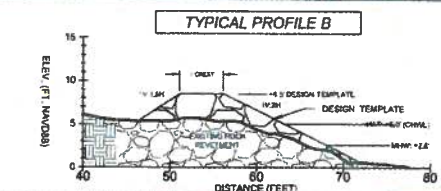
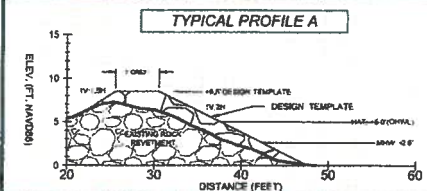
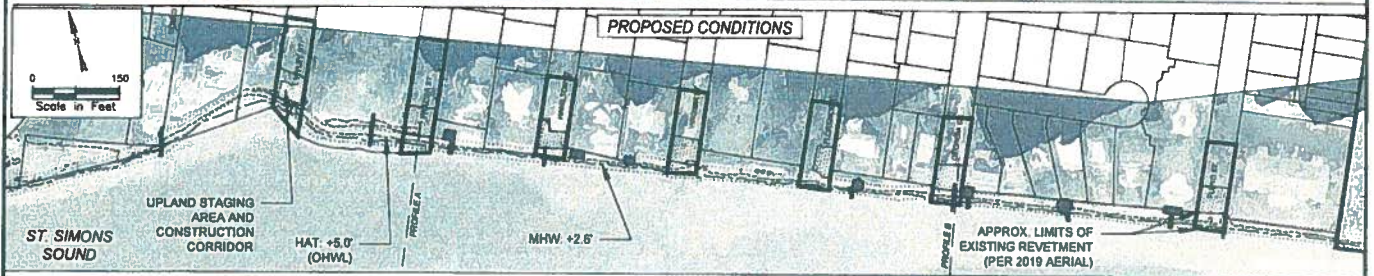
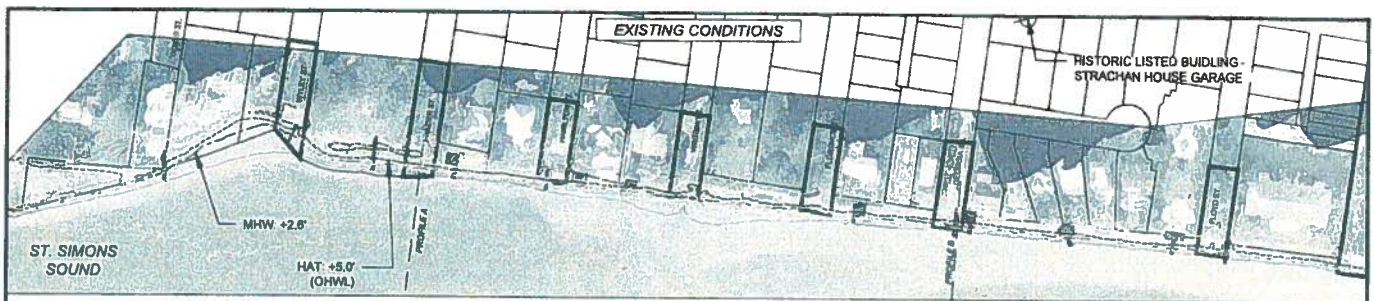
PHASE 1 OVERVIEW

Revision: August 29, 2019

Date: April 1, 2019

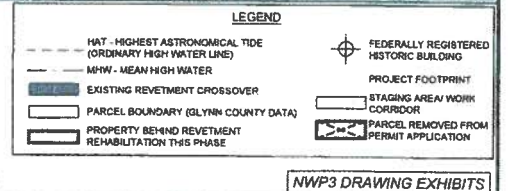
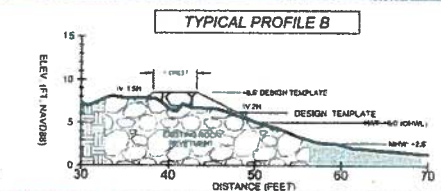
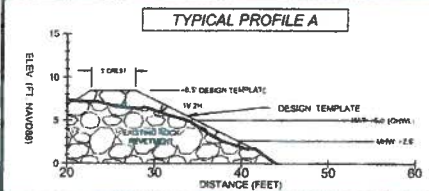
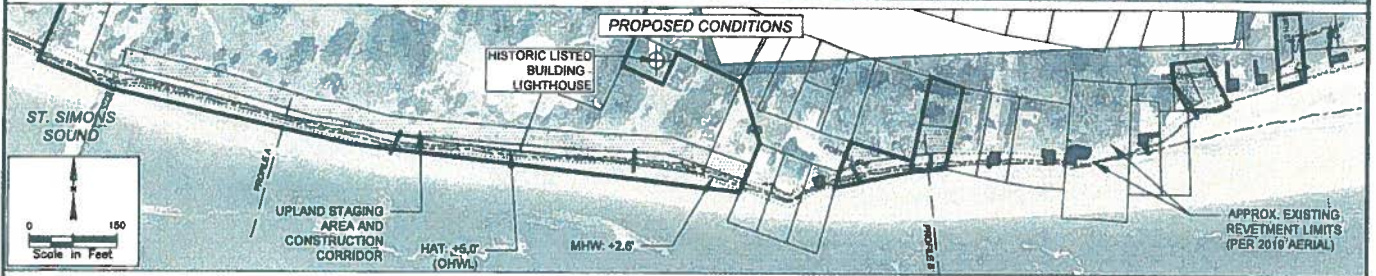
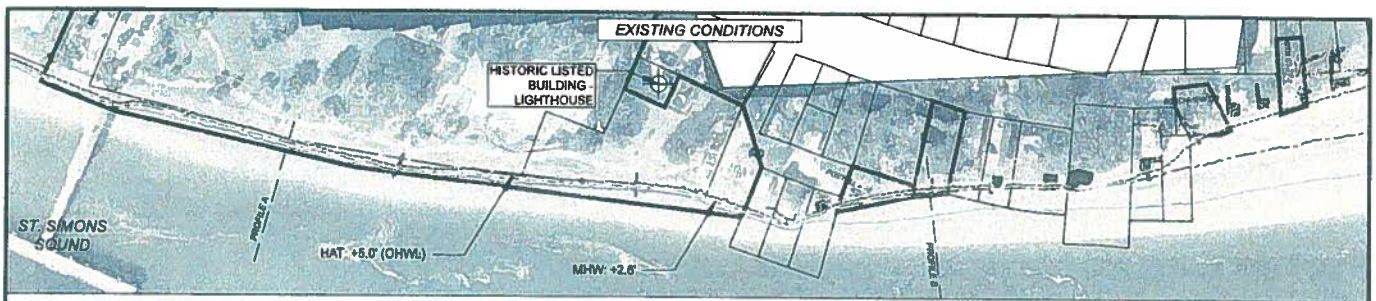


Sheet 4



LEGEND

- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)
- MHW - MEAN HIGH WATER
- EXISTING REVETMENT CROSSOVER
- PARCEL BOUNDARY (GLYNN COUNTY DATA)
- PROPERTY BEHIND REVETMENT REHABILITATION THIS PHASE
- FEDERALLY REGISTERED HISTORIC BUILDING
- PROJECT FOOTPRINT
- STAGING AREA WORK CORRIDOR
- PARCEL REMOVED FROM PERMIT APPLICATION



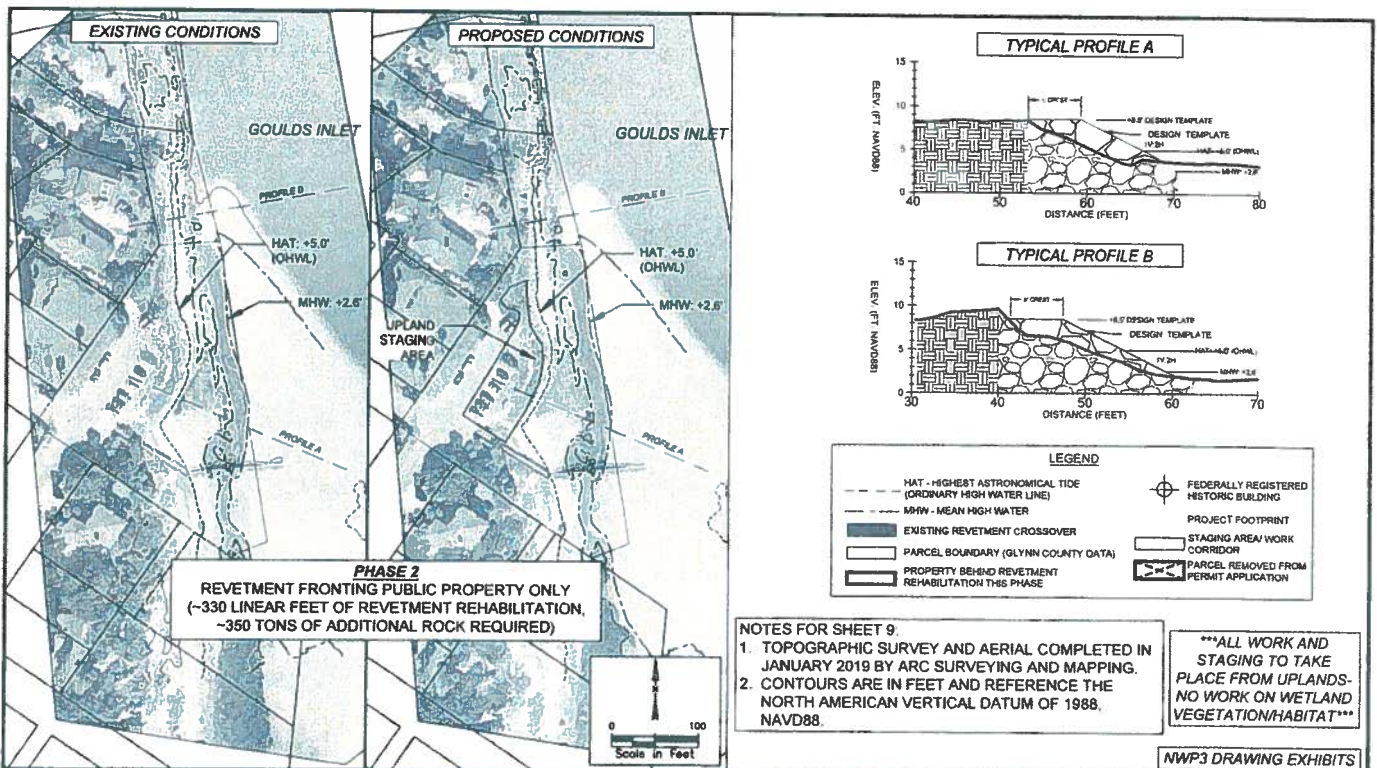
Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 02' 55" N
Waterbody: Atlantic Ocean **Longitude:** 81° 23' 48.16" W
County: Glynn **Applicant:** Glynn County
State: Georgia **Agent:** Applied Technology & Management

PHASE 1
PLAN VIEW & TYPICAL SECTIONS
NEPTUNE PARK TO 18TH STREET

Revision: August 28, 2019
Date: April 1, 2019

NWP3 DRAWING EXHIBITS
ATM ENGINEERING CONSULTANTS
 Sheet 6





Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 52' 55"N
Waterbody: Atlantic Ocean **Longitude:** 81° 23' 48.16"W
County: Glynn **Applicant:** Glynn County
State: Georgia **Agent:** Applied Technology & Management

PHASE 2
PLAN VIEW AND TYPICAL SECTIONS
GOULDS INLET BEACH ACCESS

Revision: August 29, 2019
Date: April 1, 2019
ATM APPLIED TECHNOLOGY & MANAGEMENT
ENGINEERING
Sheet 9

NOTES FOR SHEET 9:
 1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
 2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.

*****ALL WORK AND STAGING TO TAKE PLACE FROM UPLANDS- NO WORK ON WETLAND VEGETATION/HABITAT*****

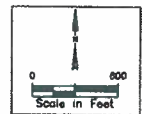
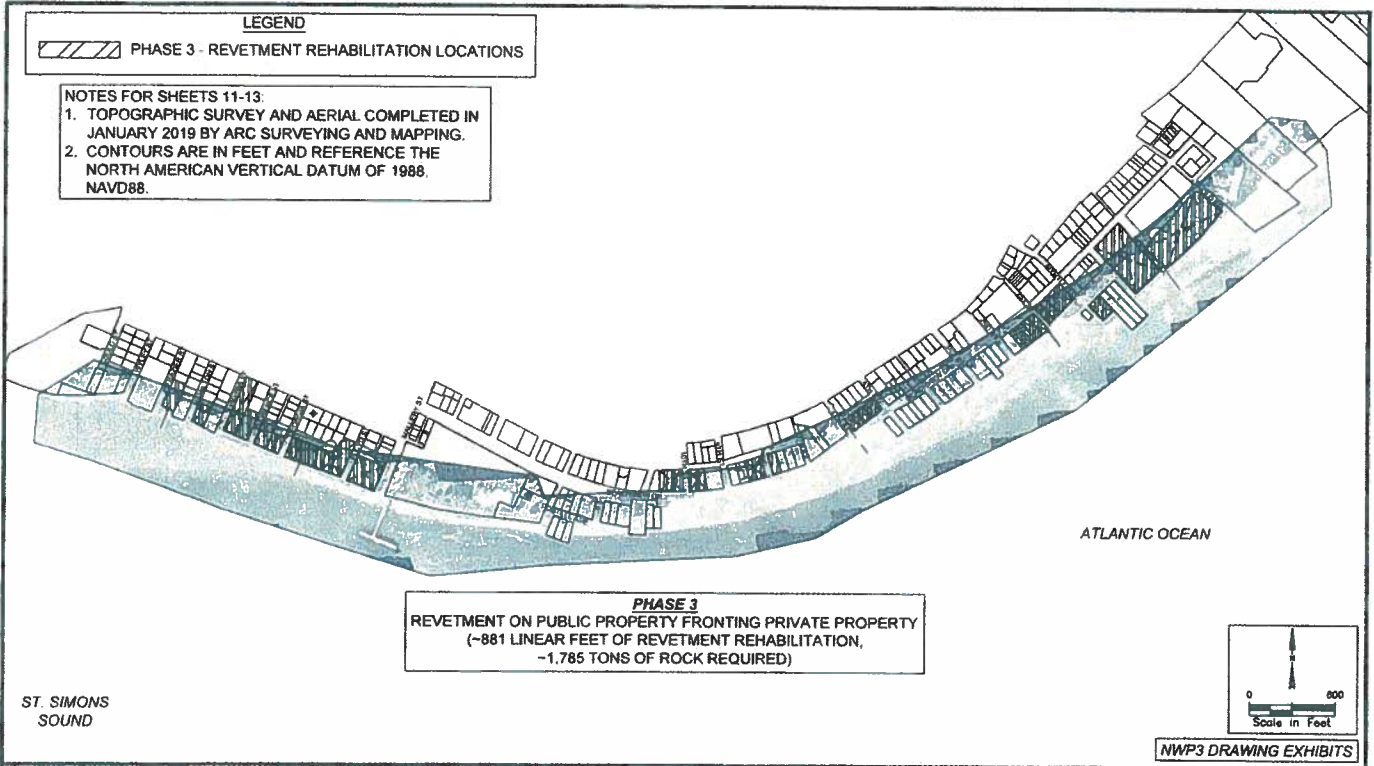
NWP3 DRAWING EXHIBITS

LEGEND

 PHASE 3 - REVETMENT REHABILITATION LOCATIONS

NOTES FOR SHEETS 11-13:

1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.



NWP3 DRAWING EXHIBITS

Project Name, St. Simons Revetment Maintenance **Latitude**, 31° 02' 55"N
Waterbody, Atlantic Ocean **Longitude**, 81° 23' 48" 18"W
County, Glynn **Applicant**, Glynn County
State, Georgia **Agent**, Applied Technology & Management

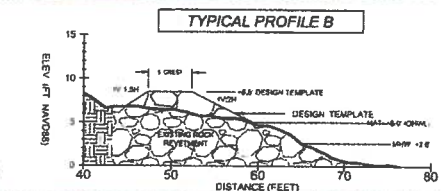
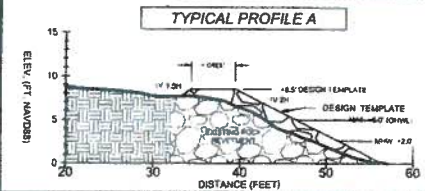
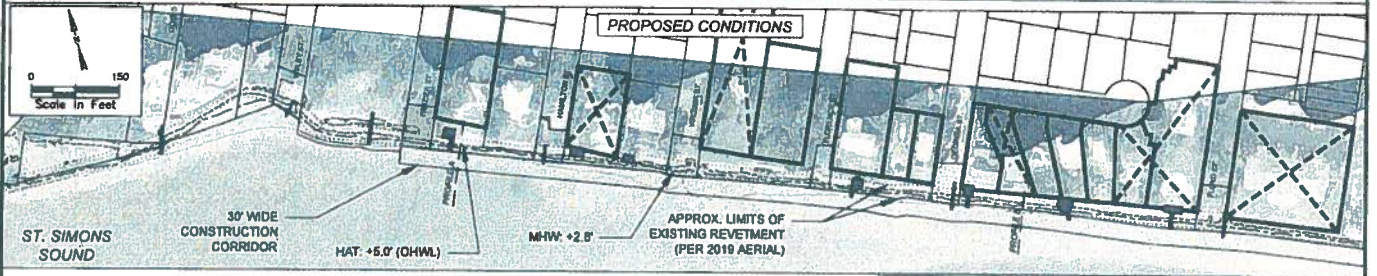
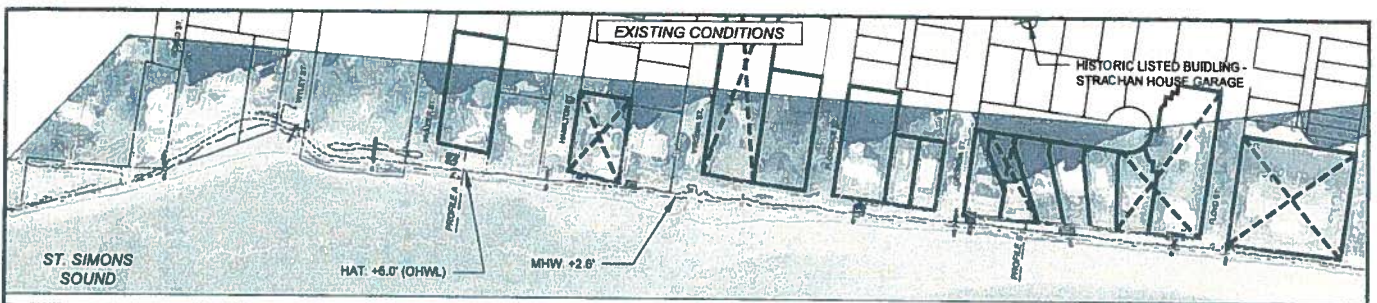
PHASE 3 OVERVIEW

Revision, August 29, 2019



Date, April 1, 2019

Sheet 10



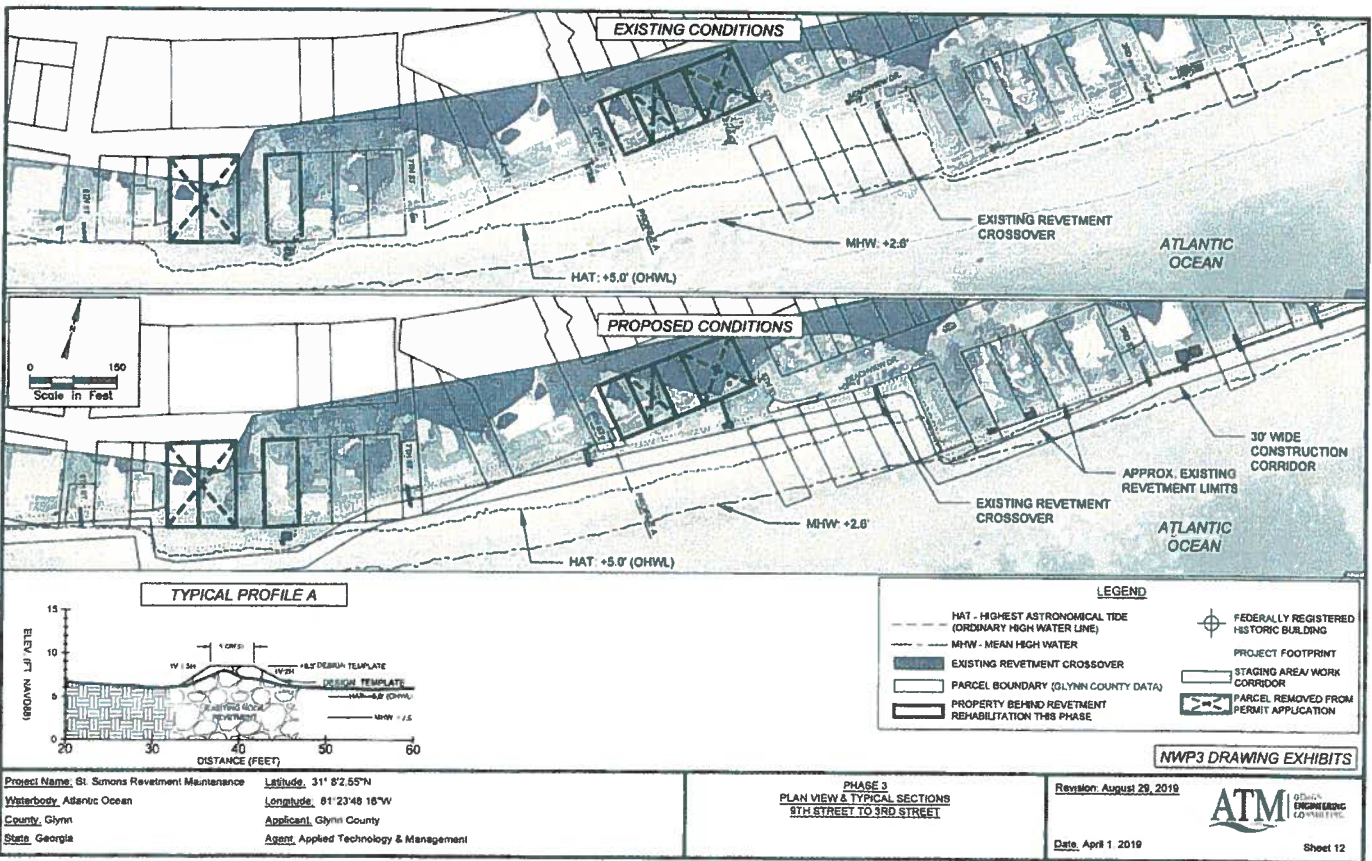
LEGEND	
--- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)	⊕ FEDERALLY REGISTERED HISTORIC BUILDING
--- MHW - MEAN HIGH WATER	▭ PROJECT FOOTPRINT
▭ EXISTING REVELTMENT CROSSOVER	▭ STAGING AREA/ WORK CORRIDOR
▭ PARCEL BOUNDARY (GLYNN COUNTY DATA)	▭ PARCEL REMOVED FROM PERMIT APPLICATION
▭ PROPERTY BEHIND REVELTMENT REHABILITATION THIS PHASE	

Project Name: St. Simons Revetment Maintenance
Waterbody: Atlantic Ocean
County: Glynn
State: Georgia
Latitude: 31° 02' 55"N
Longitude: 81° 23' 48" W
Applicant: Glynn County
Agent: Applied Technology & Management

PHASE 3
PLAN VIEW & TYPICAL SECTIONS
FRAZIER STREET TO FLOYD STREET

Revision: August 29, 2019
Date: April 1, 2019
ATM OFFICE ENGINEERING CONSULTING
 Sheet 11

NWP3 DRAWING EXHIBITS



Project Name: St. Simons Revetment Maintenance
 Waterbody: Atlantic Ocean
 County: Glynn
 State: Georgia
 Latitude: 31° 8' 2.55"N
 Longitude: 81° 23' 48.18"W
 Applicant: Glynn County
 Agent: Applied Technology & Management

PHASE 3
 PLAN VIEW & TYPICAL SECTIONS
 8TH STREET TO 3RD STREET

Revision: August 29, 2019

Date: April 1, 2019



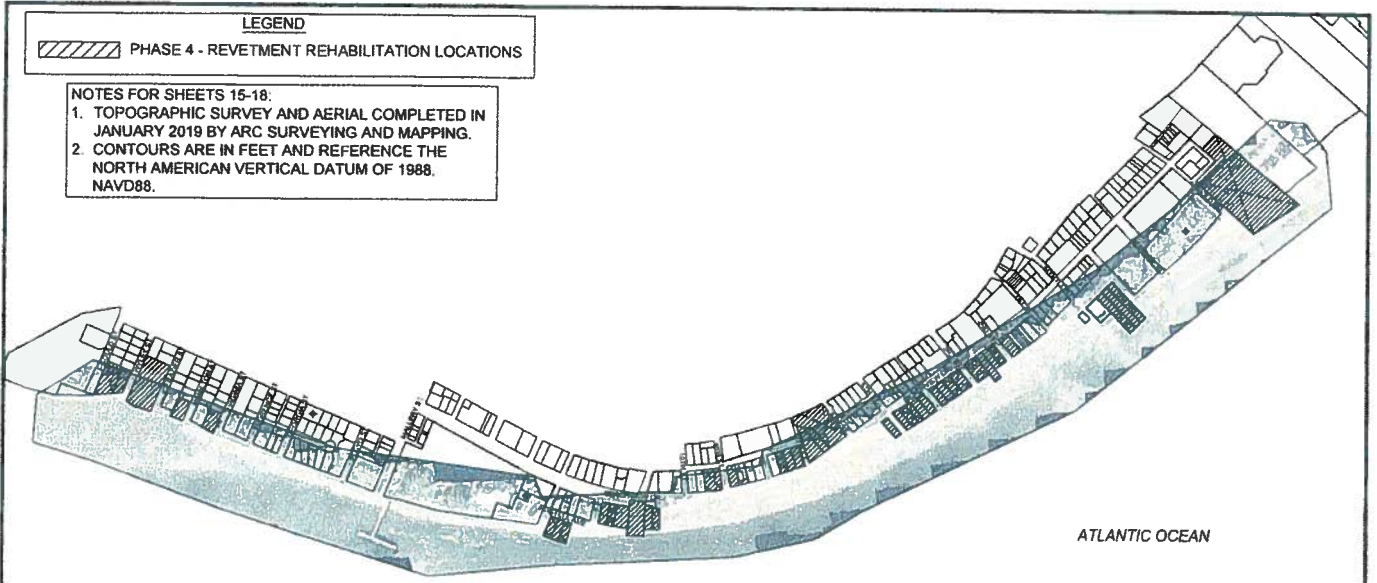
Sheet 12

LEGEND

 PHASE 4 - REVETMENT REHABILITATION LOCATIONS

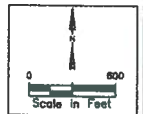
NOTES FOR SHEETS 15-18:

1. TOPOGRAPHIC SURVEY AND AERIAL COMPLETED IN JANUARY 2019 BY ARC SURVEYING AND MAPPING.
2. CONTOURS ARE IN FEET AND REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88.



ATLANTIC OCEAN

PHASE 4
REVETMENT ON PRIVATE PROPERTY
(~1,735 LINEAR FEET OF REVETMENT REHABILITATION,
~2,540 TONS OF ROCK REQUIRED)



ST SIMONS
SOUND

NWP3 DRAWING EXHIBITS

Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 02.55'N
Waterbody: Atlantic Ocean **Longitude:** 81° 23'48.18"W
County: Glynn **Applicant:** Glynn County
State: Georgia **Agent:** Applied Technology & Management

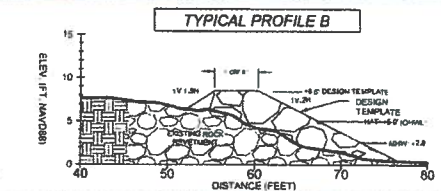
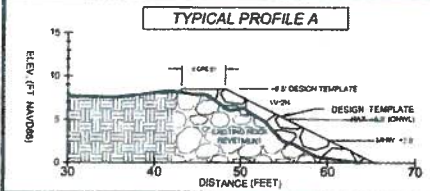
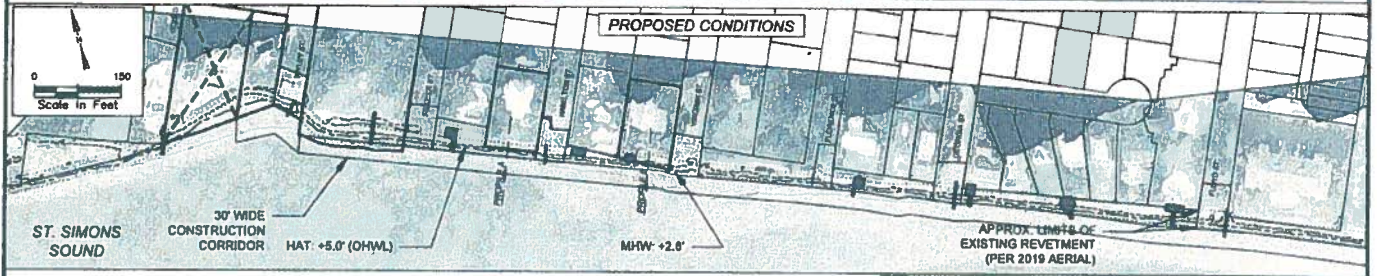
PHASE 4 OVERVIEW

Revision: August 28, 2019

Date: April 1, 2019

ATM SYSTEMS
ENGINEERING
PLANNING

Sheet 14



LEGEND

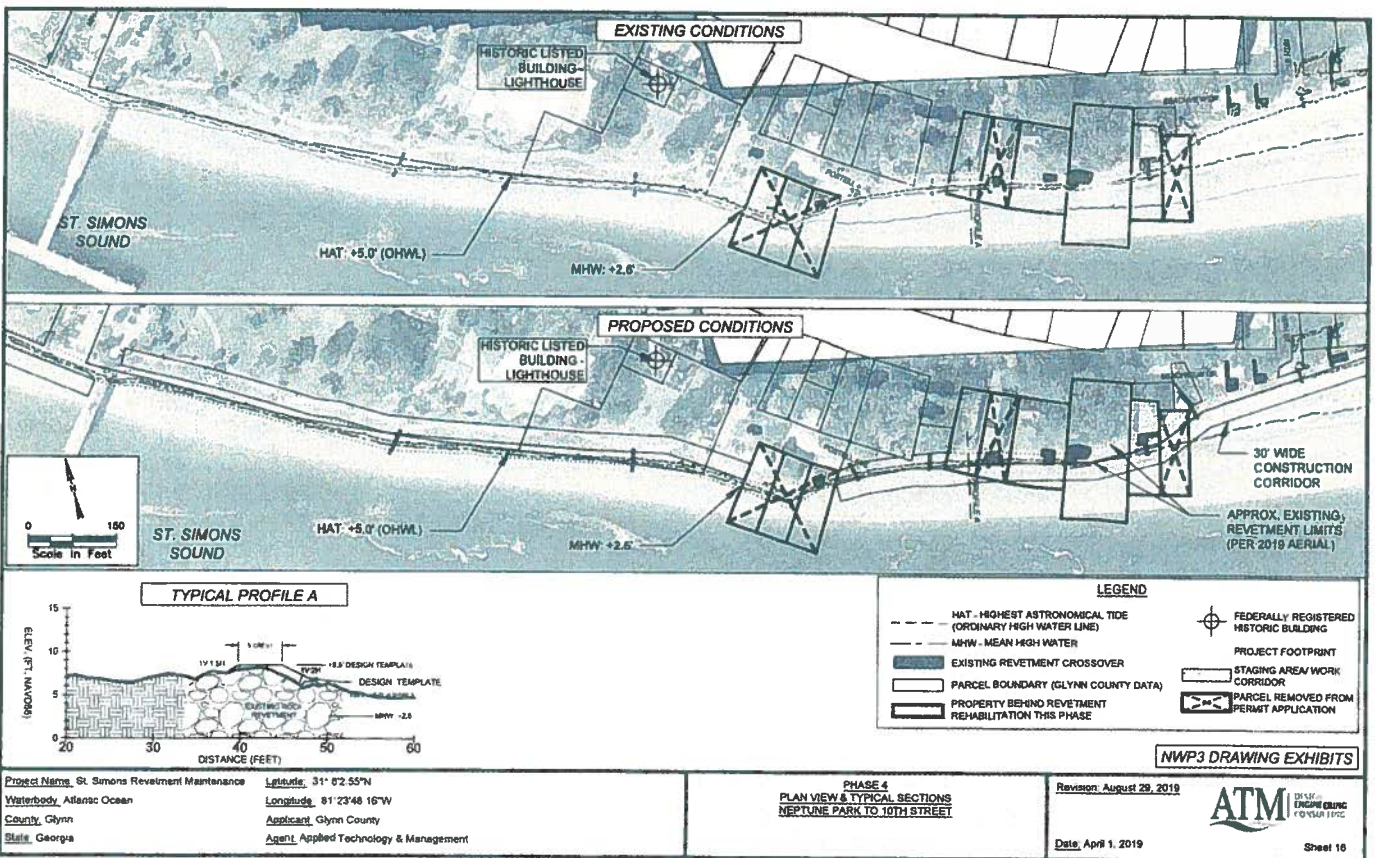
--- HAT - HIGHEST ASTRONOMICAL TIDE (ORDINARY HIGH WATER LINE)	⊕ FEDERALLY REGISTERED HISTORIC BUILDING
--- MHW - MEAN HIGH WATER	▭ PROJECT FOOTPRINT
▭ EXISTING REVELTMENT CROSSOVER	▭ STAGING AREA/ WORK CORRIDOR
▭ PARCEL BOUNDARY (GLYNN COUNTY DATA)	▭ PARCEL REMOVED FROM PERMIT APPLICATION
▭ PROPERTY BEHIND REVELTMENT REHABILITATION THIS PHASE	

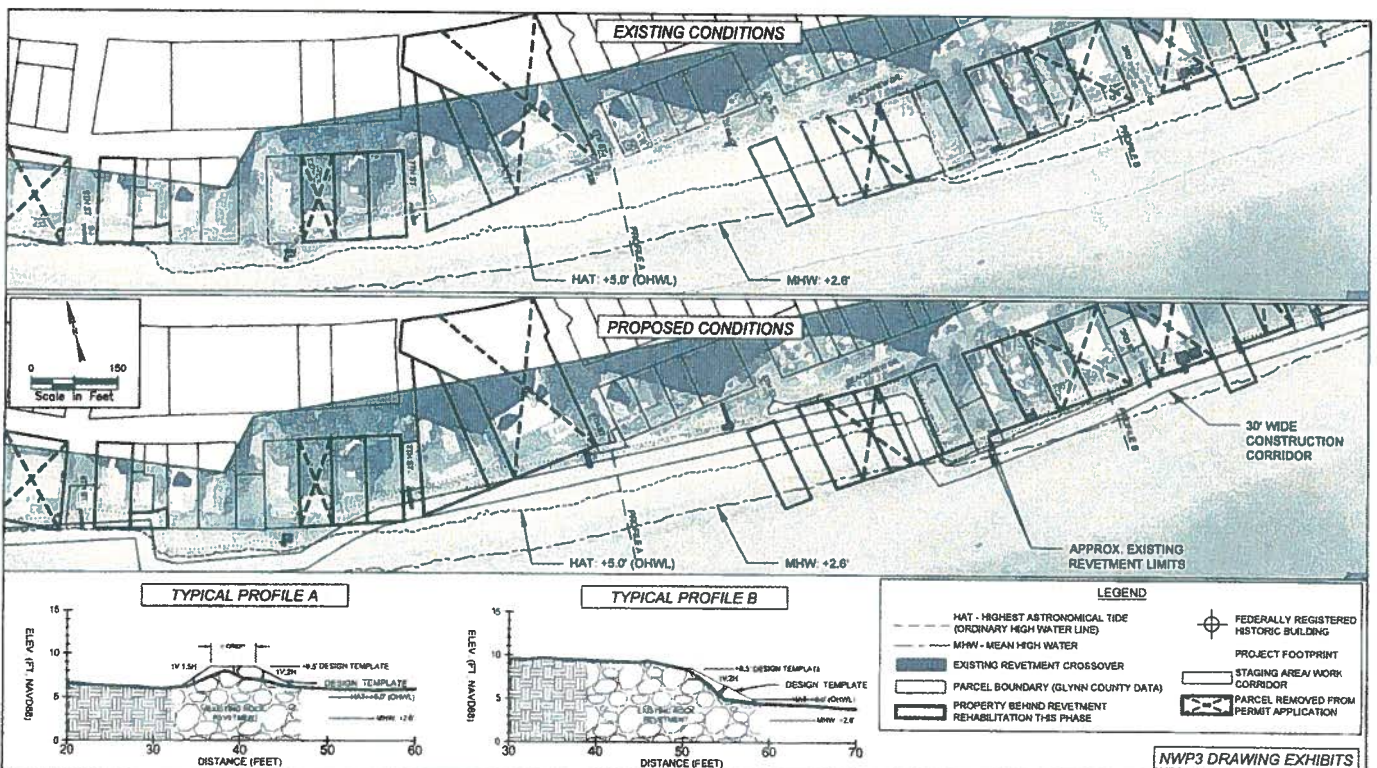
Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 02.55" N
Waterbody: Atlantic Ocean **Longitude:** 81° 23'48.15" W
County: Glynn **Applicant:** Glynn County
State: Georgia **Agent:** Applied Technology & Management

PHASE 4
PLAN VIEW & TYPICAL SECTIONS
WYLEY STREET TO FLOYD STREET

Revision: August 29, 2019
Date: April 1, 2019
ATM DESIGN ENGINEERING CONSULTING
Sheet 15

NWP3 DRAWING EXHIBITS





Project Name: St. Simons Revetment Maintenance **Latitude:** 31° 02.55'N

Waterbody: Atlantic Ocean **Longitude:** 81° 23'48.16"W

County: Glynn **Applicant:** Glynn County

State: Georgia **Agent:** Applied Technology & Management

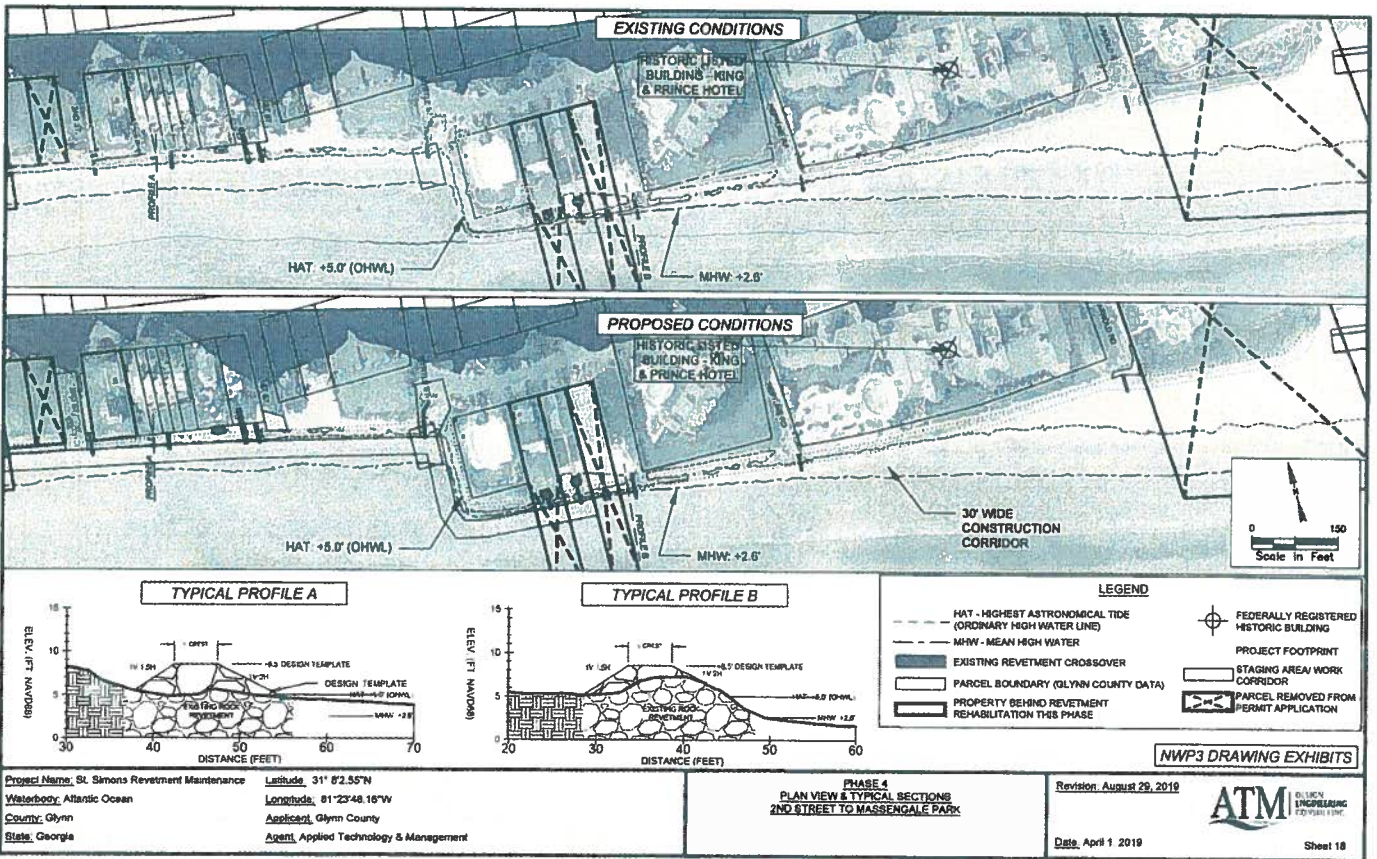
**PHASE 4
PLAN VIEW & TYPICAL SECTIONS
9TH STREET TO 3RD STREET**

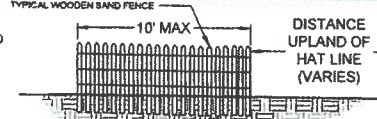
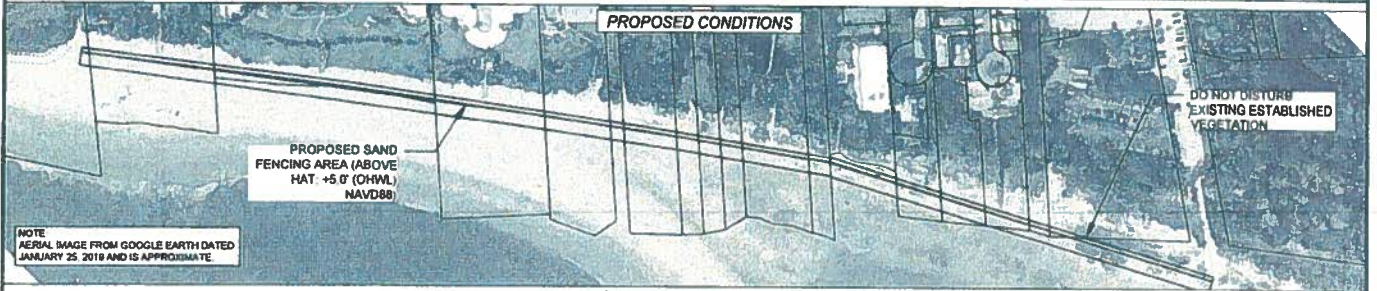
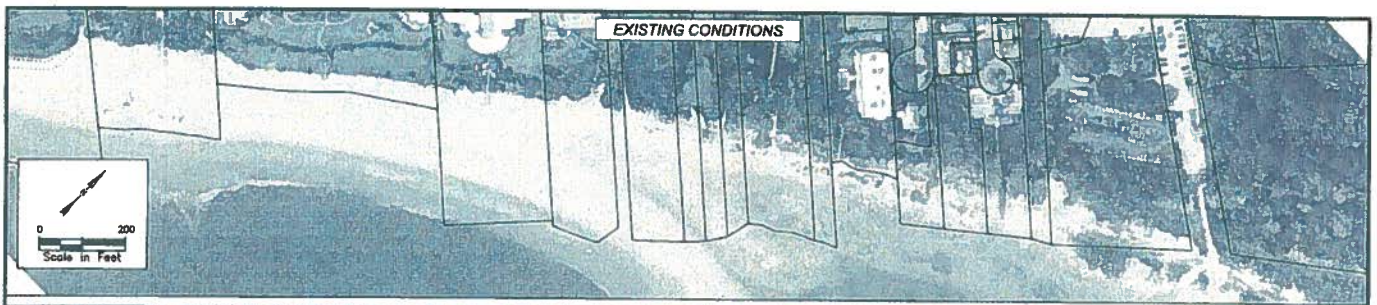
Revision: August 29, 2019

Date: April 1, 2019

ATM CIVIL ENGINEERING & SURVEYING

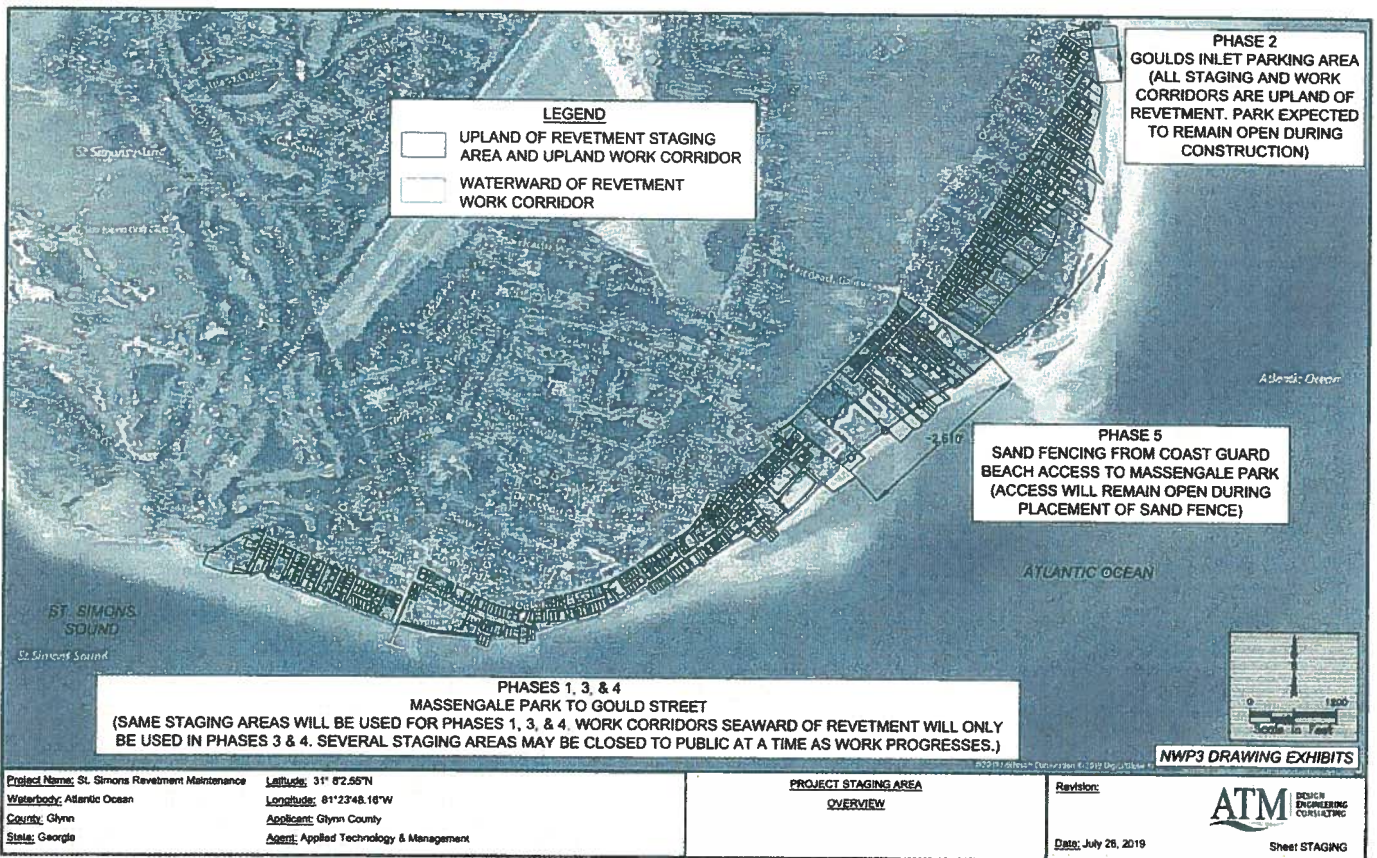
Sheet 17





- SAND FENCE NOTES**
1. SAND FENCE WILL NOT BE PLACED IN INTERTIDAL ZONE.
 2. SAND WILL NOT BE PLACED WITHIN 7' OF BEACH SCARP.
 3. SAND FENCE WILL NOT BE USED TO CONTROL PEDESTRIAN TRAFFIC.
 4. STANDARD 4" SAND FENCE WILL BE USED WITH WOODEN SLATS WIRED TOGETHER WITH SPACES BETWEEN SLATS.

<p>Project Name: St. Simons Revetment Maintenance</p> <p>Waterbody: Atlantic Ocean</p> <p>County: Glynn</p> <p>State: Georgia</p>	<p>Latitude: 31° 8' 2.55"N</p> <p>Longitude: 81° 23' 48.16"W</p> <p>Applicant: Glynn County</p> <p>Agent: Applied Technology & Management</p>	<p>PHASE 3</p> <p>PLAN VIEW AND TYPICAL SECTIONS</p> <p>MASSENGALE PARK TO US COAST</p> <p>GUARD BEACH ACCESS</p>	<p>Revision: August 29, 2019</p> <p>Date: April 1, 2019</p>	<p>NWP3 DRAWING EXHIBITS</p> <p>ATM CIVIL ENGINEERING & SURVEYING</p> <p>Sheet 18</p>
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Project Name: St. Simons Revetment Maintenance Latitude: 31° 02.557'N
 Waterbody: Atlantic Ocean Longitude: 81° 23'48.10"W
 County: Glynn Applicant: Glynn County
 State: Georgia Agent: Applied Technology & Management

PROJECT STAGING AREA
OVERVIEW

Revision:

Date: July 26, 2019



Sheet STAGING

Ms. Flowers,

Please see below table for tonnage estimates. It includes the original as well as the updated/revised tonnage. Please don't hesitate to contact me if you need anything further. Thank you.

Phase	Original Revetment Length (ft)	Revised Revetment Length (ft)	Original Revetment Tonnage	Revised Revetment Tonnage
1	2,695	2,695	5,200	5,200
2	330	330	350	350
3	3,210	881	6,500	1,784
4	3,245	1,735	4,750	2,540
Total	9,480	5,641	16,800	9,874



Georgia Department of Natural Resources Sand Fence Guidelines



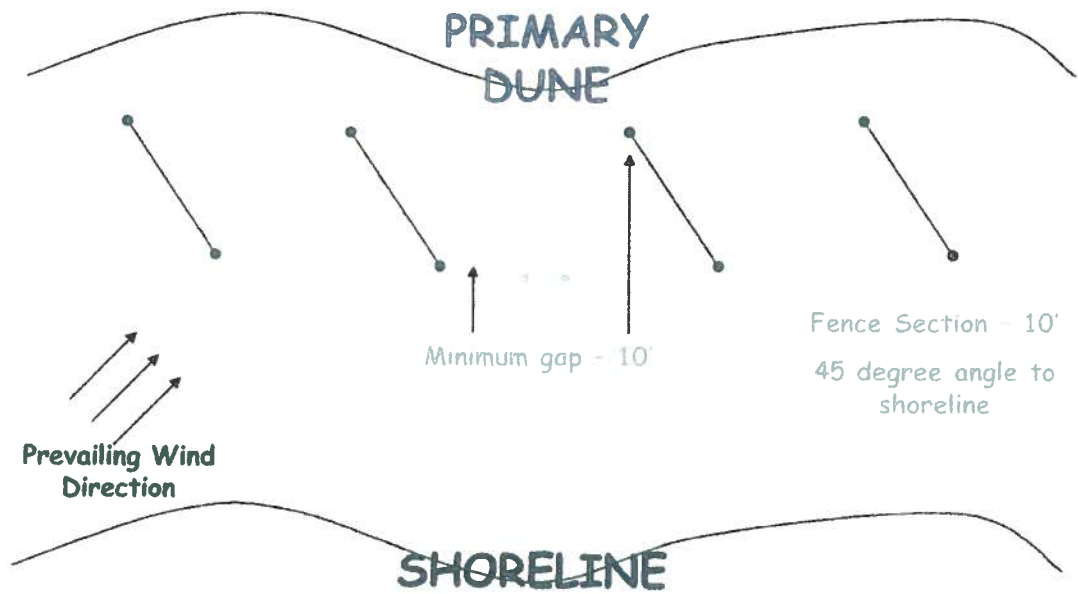
Sand fencing is used extensively along the Atlantic Coast to build and stabilize dunefields and control human access to the beach. Unfortunately, some sand fence configurations have been shown to restrict or inhibit sea turtle nesting. The **Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia** (II, B, 2, C) stipulates that "fencing must be placed so as not to deter turtles' access to nesting areas, and arranged to prevent trapping nesting turtles". The following sand fence guidelines are designed to provide good dune building and stabilization performance, while minimizing impacts to sea turtles.

Standard sand fencing consists of 4' wooden slats wired together with spaces between the slats. Woven fabric type fencing has also been successfully used in dune restoration projects. However, it is important that fabric fencing have a 40% to 60% open to closed space ratio to be effective. Fabric fencing is susceptible to ultraviolet degradation causing it to sag and lose its original shape. With sufficient maintenance, this problem may be avoided.

Guidelines for Sand Fence Placement:

1. Installation and repositioning of sand fences shall be conducted outside the marine turtle nesting season (May 1 – October 15) unless approved by the USFWS or GADNR Nongame-Endangered Wildlife Program.
2. Sand fence shall be installed in a temporary manner in accordance with the attached conceptual drawing. Configuration 1 consists of 10 foot sections of fence spaced at a minimum of 10 feet on a diagonal alignment to the shoreline (facing the prevailing wind). Configuration 2 consists of two 10 foot sections placed in an "open V" shape with the wider end facing the shoreline. Minimum space between ends of the "V" is 10 feet, and minimum width between the close ends of the "V" is 7 feet. For both configurations, the approximate angle of the fence to the shoreline is 45 degrees.
3. Sand Fence shall not be placed in the inter-tidal zone. Sand Fence must be placed above the highest spring high tide line, preferably adjacent to the primary dune.
4. Sand Fence shall not be placed within 7' of a beach scarp.
5. Sand Fence shall not be placed in front of an existing fence until the existing fence is completely buried.
6. Sand fences shall not be placed to control pedestrian traffic seaward of the secondary dunes. A post and rope fence may be used to restrict pedestrian access without impacting nesting marine turtles.
7. If fence material is damaged, debris must be removed from the beach area by the owner in an expeditious manner.

Configuration 1



Configuration 2

