

BROADLICK LIVING SHORELINE APPLICATION

April 24, 2024

James S. Broadlick & Martha G. Pilcher

Coastal Permitting Service

Tel (912) 977-5241
Fax N/A

256 S. Topi Trail
Hinesville, GA 31313

<https://coastalpermittingservice.com/>
coastalpermittinservice@gmail.com

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Broadlick Living Shoreline CMPA Permit & NWP 54 Request

Applicant Information

The applicants for the proposed project are James S. Broadlick & Martha G. Pilcher. The applicants are represented by Michael Moody of Coastal Permitting Service for this project.

James S. Broadlick & Martha G. Pilcher
1034 Heron Place
Townsend, Georgia 31331
Email: jbroadlick@gmail.com
Phone: (425) 248-3833

Michael Moody
Coastal Permitting Service
256 S. Topi Trail
Hinesville, Georgia 31313
Email: coastalpermittingservice@gmail.com
Phone: (912) 977-5241

Project Summary

The existing project location consists of a residential upland lot with an existing house and other improvements. The shoreline is currently unprotected and has sparse vegetation which has caused severe erosion and a steep, exposed bluff. The proposed project consists of installing an approximately 132.51 linear foot living shoreline at the marsh-upland interface to prevent further erosion and the enhance the local environment. The entire project area will be 5,597.6 SF, this includes both temporary and permanent impacts to the marsh and the 50-foot upland component. The permanent impacts to jurisdictional marsh and wetlands will be less than 0.1 acre.

Marshland Component of Project

The CMPA jurisdiction line was verified by DNR staff on March 6, 2024. The existing marsh vegetation on the shoreline consists solely of *Spartina alterniflora* and occurs in small patches that are vulnerable to erosion. The boundaries of the vegetation pockets represent approximately 433.17 SF of vegetated shoreline. This vegetation will be collected and stored in an upland receptacle to mimic the natural conditions and stored until it will be replanted into the living shoreline.

The shoreline will be graded to accomplish a slope of between 1.5/1 and 1.75/1. The new slope will begin approximately 10 feet landward and end approximately 20 feet seaward of the verified CMPA line. All fill below the CMPA jurisdiction line will be obtained from the upland directly adjacent to the site, no fill will be brought from offsite. The total fill transferred from the upland to below the marsh line is approximately 96.34 cubic yards.

Once the desired slope is established the shoreline will be stabilized with Flexamat (1,623.92 SF) which will be uniformly placed on the exposed shoreline. The Flexamat will be anchored to the shoreline based on the manufacturer's recommendations for the proposed slope. All anchoring will be in the form

“U” anchors (or similar product) and will not require timber or concrete deadman pilings. The toe of the slope and outer edges will be further protected by trenching the edges of Flexamat and adding a rip rap (336.25 SF) on top. The rip rap will overlap the edges of Flexamat, which will result in total impacts of 1,797.55 SF (36.17 cubic yards) for these two fill items.

Once the Flexamat and rip rap are installed the *Spartina alterniflora* collected pre-construction will be planted into the Flexamat. The original 433.17 SF of vegetation will be planted at uniform intervals throughout the shoreline for a total coverage of 1,245.51 SF. This spacing combined with the stabilized shoreline should promote vegetative rhizome growth to fill the entire area with *Spartina alterniflora*.

The footprint of the project area below the CMPA line consists of 2,172.72 SF (0.07 acre) of total impacts. 375.19 SF (0.008) of these impacts will be temporary around the perimeter of the living shoreline where men and light equipment will traverse during installation. The total permanent impacts below the CMPA line from fill, Flexamat, and rip rap will be 1,797.55 SF (0.04 acre). The total fill will be 132.51 cubic yards, or 1 cubic yard per linear foot.

Upland Component of Project

The upland component of the project as defined by the 50-foot CMPA buffer rule includes a total area of 5,781.40 SF (0.13 acres). The existing upland component of the project consists of an impervious porch of a residential home (52.66 SF) and pervious wooden stairs, walkway, and deck (421.45 SF). A portion of the wooden walkway is within the project area, but the home will be outside of the project area. The upland component is currently 9% impervious and 91% pervious.

The shoreline will be graded to accomplish a slope of between 1.5/1 and 1.75/1. The new slope will begin approximately 10 feet landward of the existing bluff. The existing bluff soil will be for fill below the CMPA line. The total fill transferred from the upland to below the marsh line is approximately 96.24 cubic yards.

Once the desired slope is established the shoreline will be stabilized with Flexamat (1,924.37 SF) which will be uniformly placed on the exposed shoreline. The Flexamat will be anchored to the shoreline based on the manufacturer's recommendations for the proposed slope. All anchoring will be in the form “U” anchors (or similar product) and will not require timber or concrete deadman pilings. The toe of the slope and outer edges will be further protected by trenching the edges of Flexamat and adding a rip rap (103.9 SF) on top. The rip rap will overlap the edges of Flexamat, which will result in total impacts of 1,979.24 SF. Due to the cut slope the total fill in the upland component will be -75.29 cubic yards.

Once the Flexamat and rip rap are installed the upland portion of the living shoreline will be planted with native salt tolerant plants to further stabilize the soil below the Flexamat. The vegetation will be monitored over time and supplemented with additional plants as needed. The total area to be planted above the CMPA line is 1,866.76 SF.

The footprint of the project area above the CMPA line consists of 3,425.35 SF (0.06 acre) of total impacts. 1,446.11 SF (0.03 acre) of these impacts will be temporary around the perimeter of the living shoreline where men and heavy equipment will traverse during installation. The total permanent impacts above the CMPA line from existing structures, grading, Flexamat, and rip rap will be 1,979.24 SF (0.045 acre). The impervious area will not change from 9% and the pervious area will also remain at 91%.

Needs Assessment

The existing shoreline is experiencing significant erosion which leads to increased sedimentation to the waterway and also the loss of upland land and property value. This property is adjacent to a rip rap shoreline to the west, which typically leads to erosion of neighboring properties if they are not properly armored as well. This project will protect the shoreline from further erosion in the most ecologically responsible way. The absorbent nature of the living shoreline should not create significant impacts to any neighboring properties.

The total volume of fill required is based on the required slope to stabilize the shoreline. The Georgia Soil and Water Conservation Commission (GSWCC) and the U.S. Army Corps of Engineers recommend a minimum slope of 1.5/1 for bank stabilizations in the Manual for Erosion and Sedimentation Control in Georgia and the Engineer Manual 1110-2-1601, respectively.

Alternative Analyses

The alternatives to the proposed living shoreline are a bulkhead or rip rap. A bulkhead is not desirable financially or ecologically. The cost is significantly higher for a bulkhead and it would bisect the marshland-upland interface which provides crucial access to and from the water for many organisms. A bulkhead typically does not support vegetation growth since the gradual slope which naturally provides favorable growing conditions for marsh vegetation is typically converted into a steep bluff with the upland on one side and open water on the other.

Rip rap could stabilize the shoreline as is evidenced by the neighbor's property. However, the neighboring rip rap requires very frequent maintenance which can lead to excess rip rap in the channel and result in higher costs for the property owner. While rip rap does not create an abrupt disconnect between the upland and wetland, it does not have the characteristics of a living shoreline which are meant to enhance the ecology of the area.

The living shoreline option is the most cost-effective and ecologically responsible way to stabilize the shoreline. The design consists of a mix of human ingenuity and natural intelligence to not only stop erosion, but to also support a diverse range of wildlife. Similar projects have resulted in a dense stand of *Spartina alterniflora*, new oyster recruitment, and an abundance of wildlife within 1 year of construction.

Adjoining Landowners

Jerry A. Loyd
2705 Julienton Drive
Townsend, GA 31331

Melissa Jenkins
417 Creek Wood Drive
Bloomingdale, GA 31302

Landfill/Hazardous Waste Statement

The Georgia Environmental Protection Division Hazardous Site Inventory indicates that the project location does not contain any landfills or hazardous waste sites.

Historic/Cultural Resources

A review of the published historic and cultural resources in Georgia does not indicate any known sites within the project area, nor within the immediate vicinity of the project area. The nearest published cultural/historical resources in St. Catherine's Island (6 miles east). This site will not be impacted by the proposed project. GNAHRGIS was also searched and did not indicate any eligible historic places within the project area or upland parcel.

Water Quality Certification

The Georgia Department of Natural Resources, Environmental Protection Division has issued a 401 WQC for use of Nationwide Permit 54. Please see the attached 401 WQC.

Soil and Erosion Control Statement

The proposed project will adhere to the soil and erosion control responsibilities, if required, for the proposed project.

Turbidity Statement

The proposed project will be performed in a manner to minimize turbidity in the stream. No excavation will be required and the intent of the project is to provide greater stability to the shoreline and reduce turbidity.

Oil & Pollutant Statement

The proposed project does not include vessel maintenance or fueling and will not result in the release of oils or other pollutants into the river.

Water Use Statement

The proposed project is located seaward of upland owned by the applicant. The project will not extend past the mean low water and will not cause an obstruction to the navigable channel.

Public Interest Statement

A. Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal.

The proposed project will not cause unreasonable harmful obstructions to or alteration of the natural flow of navigational water within the affected area to arise. The project will be located at the marsh-upland interface and will extend only 3 feet past mean low water.

B. Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created.

The proposed project will not create unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water. The purpose of this project is to stabilize the bank to prevent further erosion, shoaling of the channel, and stagnant areas of water.

C. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams,

or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

The proposed project will not unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply. The project will not result in a loss of aquatic habitat required for these species, nor will it impact the quality of the existing habitat. There are no existing oyster beds or marsh vegetation within the areas where the rip rap will be installed.

Michael Moody
Coastal Permitting Service
March 17, 2023

Appendix D: CMPA Jurisdiction Verification Letter



COASTAL RESOURCES DIVISION

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

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

April 1, 2024

James Broadlick and Martha Pilcher
100 E. 3rd Avenue Box 98
Ellensburg, WA 98926

Re: Coastal Marshlands Protection Act (CMPA), Jurisdictional Determination Verification, 1034 Heron Place NE, Lot 74, Springfield Plantation, Julienton River, McIntosh County, Georgia

Dear Mr. Broadlick and Ms. Pilcher:

Our office has received the survey and plat, dated March 1, 2024, prepared by Jackson Surveying, Inc., No. 3395 entitled "*Map to Show Boundary & Partial Topographical Survey of Lot 74, Phase II, Springfield Plantation, 22nd G.M.D., McIntosh County, Georgia (According to Plat Recorded in P.B. 3, PG. 291 of the Public Records of Said County)*" prepared for James S. Broadlick and Martha G. Pilcher Trust. Based on my site inspection, November 28, 2023, this plat and survey generally depict the delineation of the coastal marshlands boundary as required by the State of Georgia for jurisdiction under the authority of the Coastal Marshlands Protection Act O.C.G.A. § 12-5-280 et seq.

The Coastal Marshlands Protection Act O.C.G.A. § 12-5-280 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 November 28, 2024 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 Coastal Marshlands Protection Committee or this Department is required prior to any construction or alteration in the marsh 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.

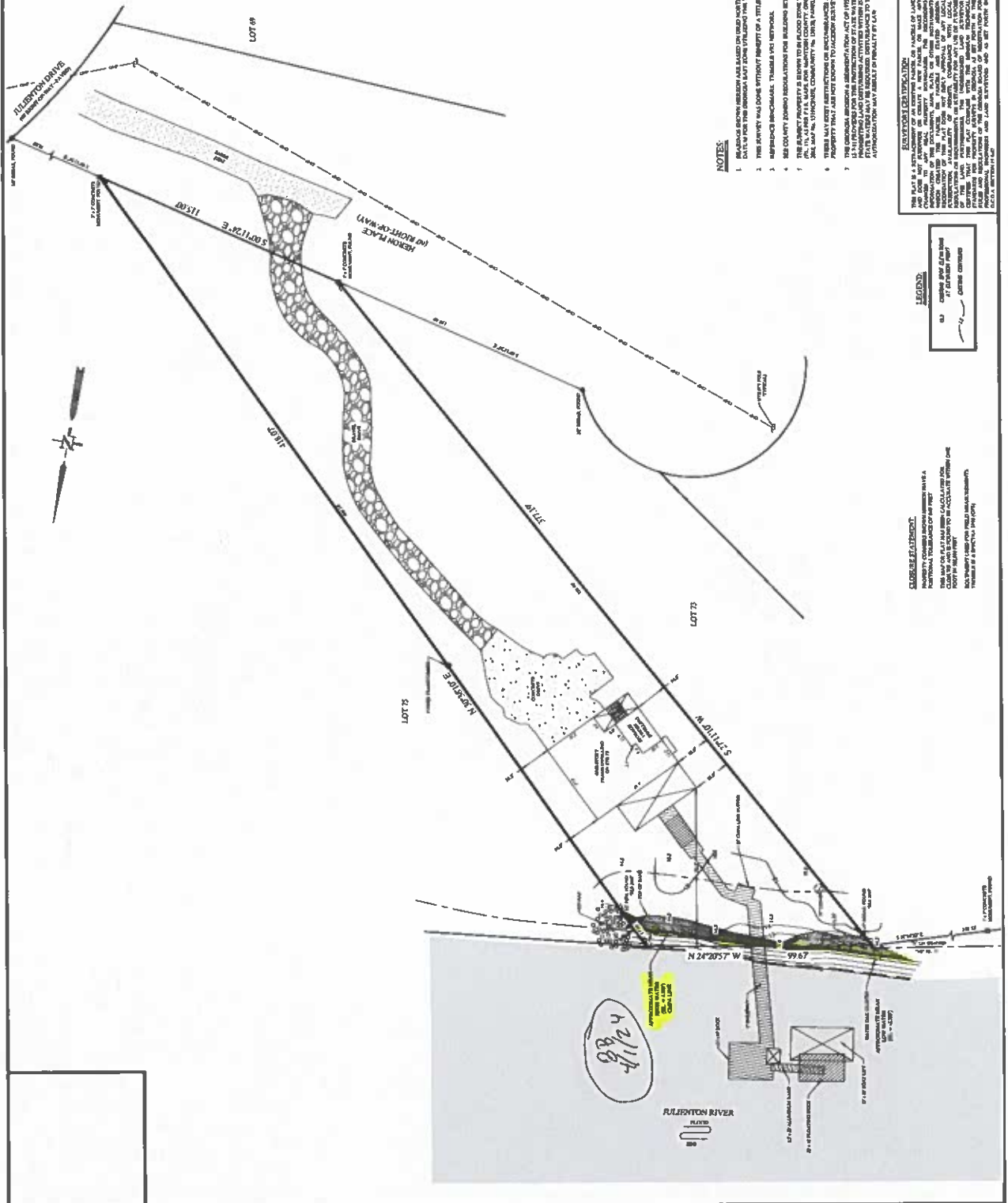
Sincerely,

Beth Byrnes
Coastal Permit Coordinator
Marsh and Shore Management Program

Enclosure: *Map to Show Boundary & Partial Topographical Survey of Lot 74, Phase II, Springfield Plantation, 22nd G.M.D., McIntosh County, Georgia (According to Plat Recorded in P.B. 3, PG. 291 of the Public Records of Said County)*

File: JDS20230338

HAYWOOD COUNTY ALABAMA GEOLOGICAL SURVEY
 LOT 7A, PHASE II, SPRINGFIELD PLANTATION,
 2nd G.M.D., MONTGOMERY COUNTY, GEORGIA
 ACCORDING TO PLAT RECORDED IN P. 8, 119, 120 OF THE PUBLIC RECORDS OF SAID COUNTY
 FOR JAMES S. BROADLUCK & MARTHA G. PILCHER TRUST
 TOTAL AREA: 9.31 ACRES



NOTES:

1. ALL SURVEYING MEASUREMENTS ARE BASED ON THE NATIONAL GRID COORDINATE DATA FOR THE BROADWAY BAY AREA (LITHIUM) TOWN & VILLAGE NETWORK.
2. THIS SURVEY WAS DONE WITHOUT BENEFIT OF A TITLE ABSTRACT.
3. REFERENCE BEING MADE TO THE TOWN & VILLAGE NETWORK.
4. SEE COUNTY ZONING REGULATIONS FOR BUILDING SETBACK REQUIREMENTS.
5. THE SUBJECT PROPERTY IS BEING SURVEYED AS A SINGLE LOT AND NOT AS PART OF A SUBDIVISION. THE SURVEYOR HAS NO KNOWLEDGE OF ANY OTHER INTERESTS IN THE SUBJECT PROPERTY THAT ARE NOT KNOWN TO JACKSON SURVEYING, INC.
6. THERE MAY BE OTHER INTERESTS OR ENCUMBRANCES AFFECTING THE SUBJECT PROPERTY WHICH ARE NOT KNOWN TO JACKSON SURVEYING, INC.
7. THE SURVEYOR'S REPRESENTATION OF THE LOCATION OF ANY ADJACENT PROPERTY IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A WARRANTY OF FACT OR OPINION. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEYING DATA AND THE PREPARATION OF THE SURVEY INSTRUMENTS.

JACKSON SURVEYING, INC.
 1000 W. BROADWAY, SUITE 100
 MONTGOMERY, ALABAMA 36102
 TEL: 334.266.1234
 FAX: 334.266.1235
 WWW.JACKSONSURVEYING.COM



LEGEND:

- (---) Center Line of Road
- (---) Easement
- (---) Survey Boundary

DISCLAIMER:

THIS PLAT IS A STATEMENT OF FACT AND NOT A WARRANTY OF TITLE. THE SURVEYOR HAS NO KNOWLEDGE OF ANY OTHER INTERESTS IN THE SUBJECT PROPERTY THAT ARE NOT KNOWN TO JACKSON SURVEYING, INC. THE SURVEYOR'S LIABILITY IS LIMITED TO THE ACCURACY OF THE SURVEYING DATA AND THE PREPARATION OF THE SURVEY INSTRUMENTS.

DATE OF PLAT: MARCH 11, 2024
 DATE OF FIELD SURVEY: FEBRUARY 11, 2024

Appendix M: County Zoning Letter



McIntosh County Building and Zoning Office

Post Office Box 2694
Darien, GA 31305

Bryan Boone, Administrator
Donna Moody, Inspector
Glenda Davis, Permit Technician

Phone: 912-437-6603
FAX: 912-437-5088

To whom it may concern,

The proposal at:

Parcel Number 0082C 0007
Location Address 1034 HERON PL NE
Legal Description LT 74 SPRINGFIELD

is consistent with all applicable zoning ordinances for this location, purpose and there are no known hazardous landfills.

Please feel free to contact us if further guidance or questions arise with this project.

Thank you,

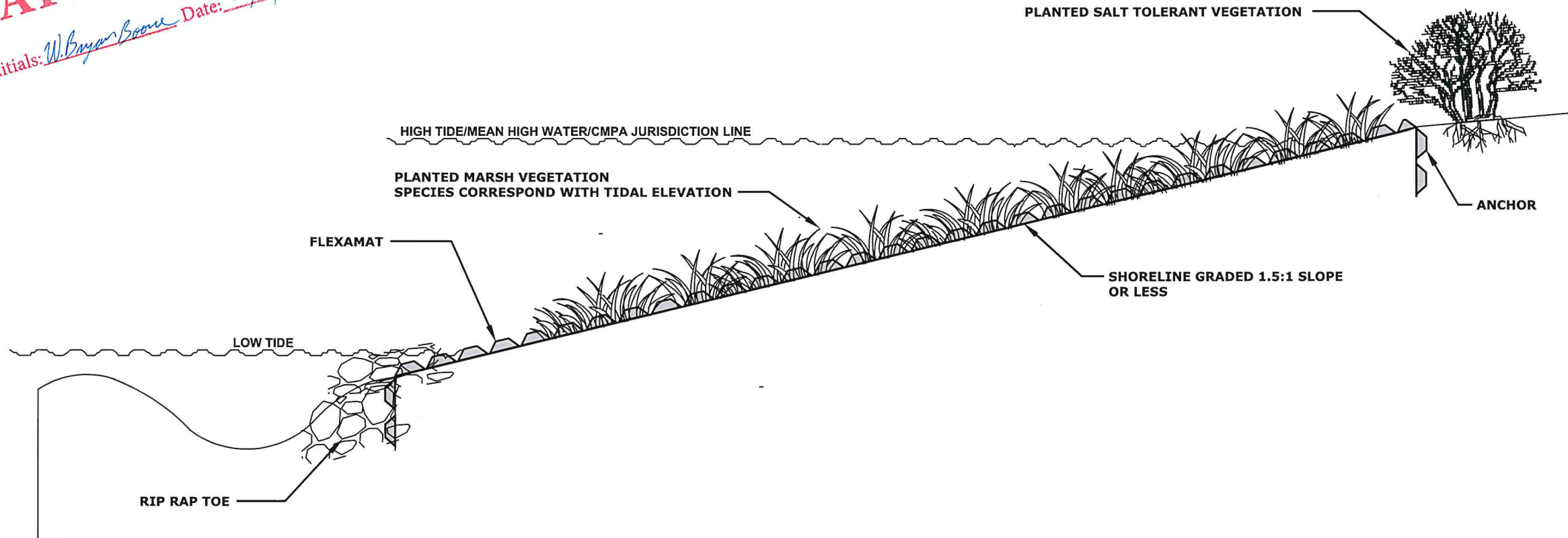
W. Bryan Boone

Bryan Boone
Building and Zoning Administrator
McIntosh County
(912)-437-1133

TYPICAL LIVING SHORELINE (NTS)

McIntosh County
Building & Zoning Department
APPROVED

Initials: W. Bryan Boone Date: 5/1/24

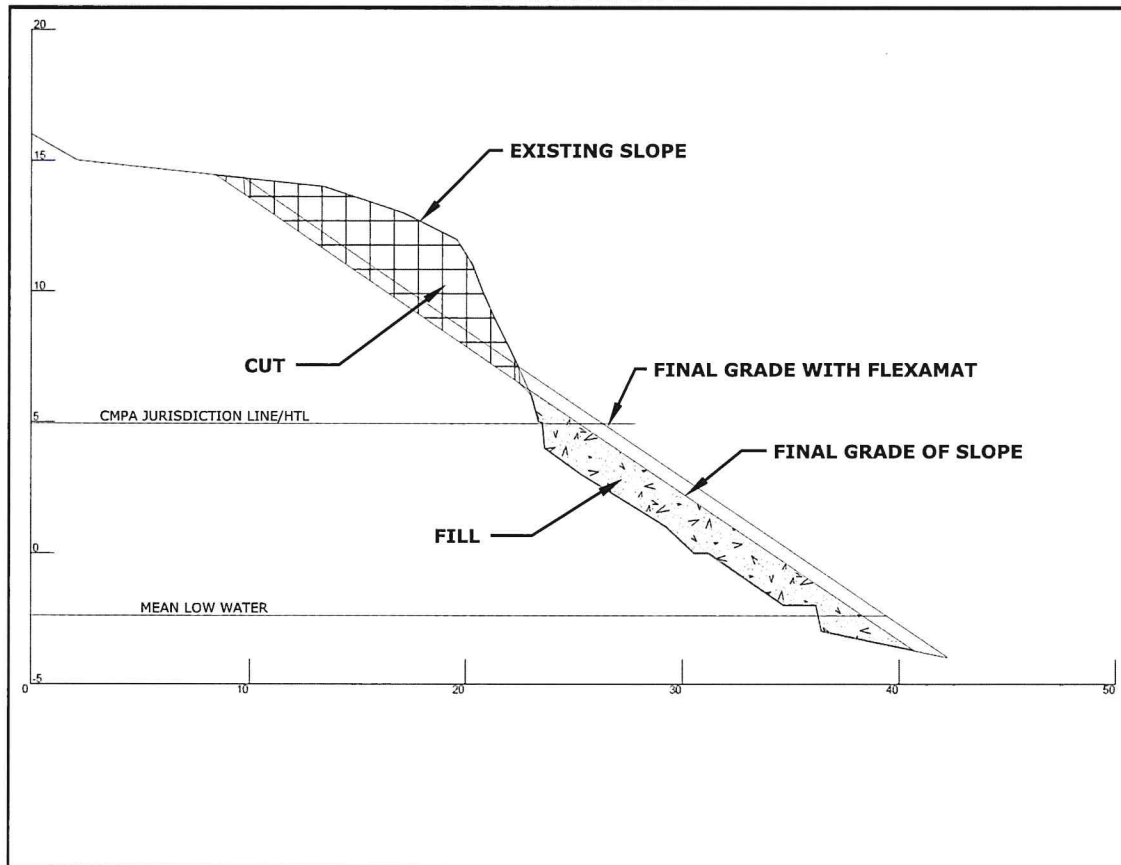


McIntosh County
Building & Zoning Department
APPROVED

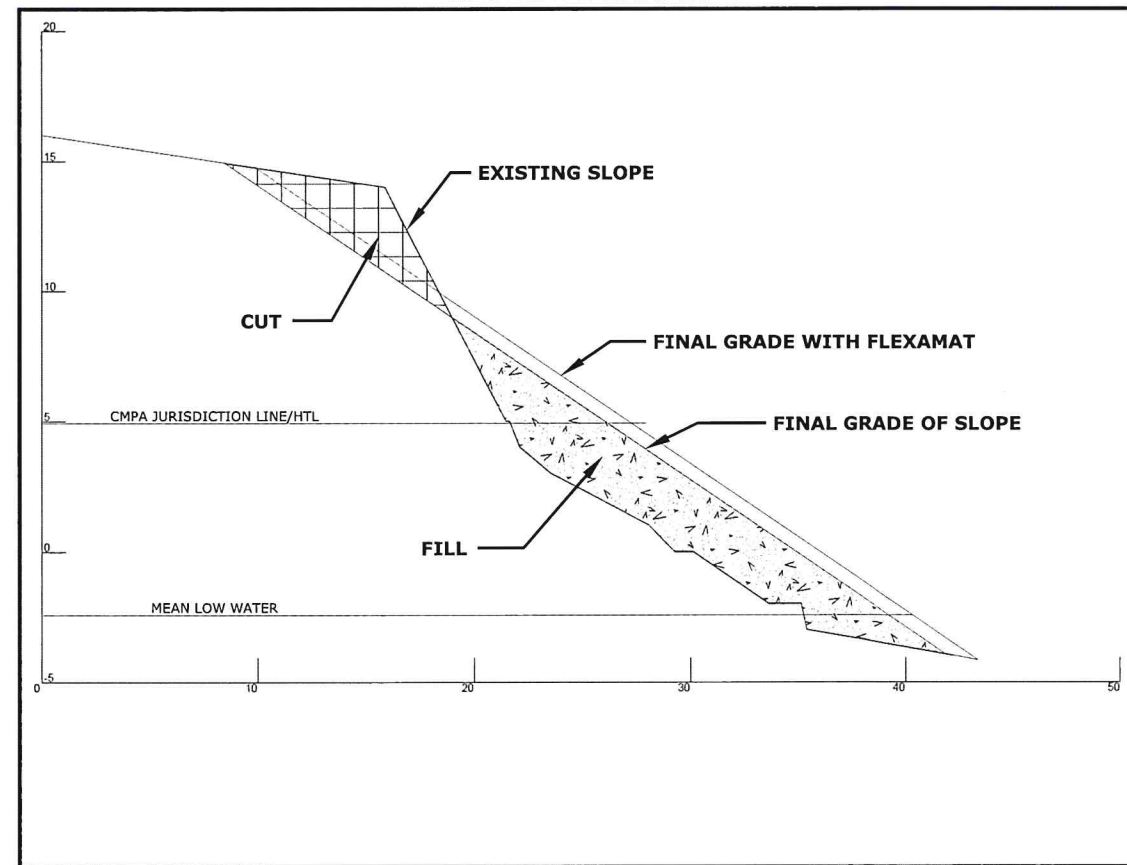
Initials: W. Bryan Zone Date: 5/1/24

GRADING (VARIES)

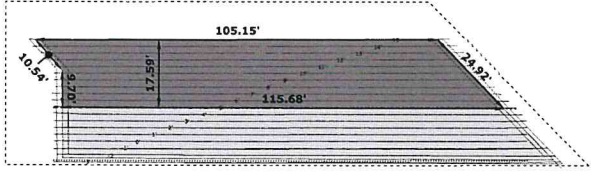
SECTION A SAMPLE



SECTION B SAMPLE

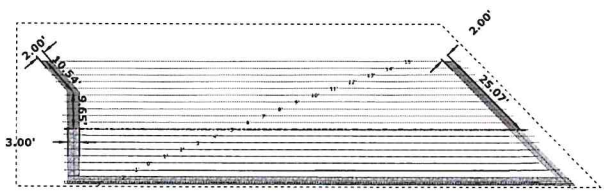


FLEXAMAT
 1,924.37 SF
 360.82 CF
 13.36 CY



SCALE: 1" = 50'

RIP RAP
 103.9 SF
 2' THICK
 207.8 CF
 7.69 CY

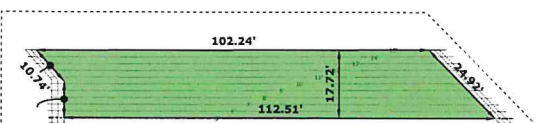


SCALE: 1" = 50'

PERMANENT VEGETATION
 1866.76 SF



*SPARTINA ALTERNIFLORA PLANTED
 FROM THE LOCAL VEGETATION GATHERED
 FROM THE PROJECT SITE PRIOR TO GRADING

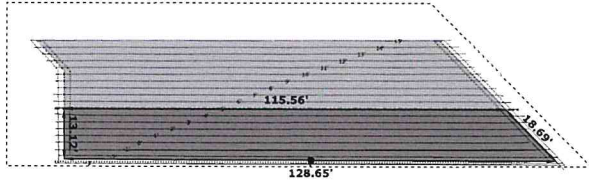


UPLAND COMPONENT
 TOTAL IMPACTS 3,425.35 SF
 TEMPORARY: 1,446.11 SF
 PERMANENT: 1,979.24 SF

McIntosh County
 Building & Zoning Department
APPROVED

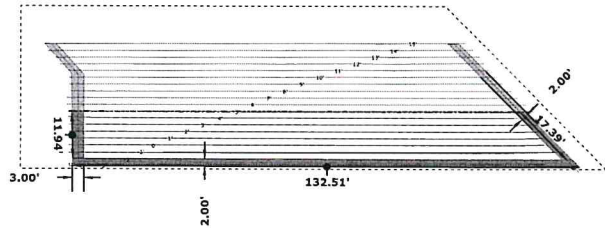
Initials: D. Bryan Boala Date: 5/1/24

FLEXAMAT
 1,623.92 SF
 304.29 CF
 11.27 CY



SCALE: 1" = 50'

RIP RAP
 336.25 SF
 2' THICK
 672.3 CF
 24.90 CY

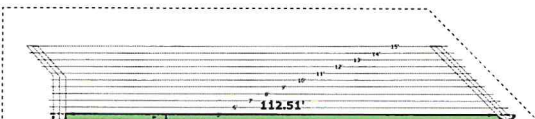


SCALE: 1" = 50'

PERMANENT VEGETATION
 1,245.51 SF



*SPARTINA ALTERNIFLORA PLANTED
 FROM THE LOCAL VEGETATION GATHERED
 FROM THE PROJECT SITE PRIOR TO GRADING



McIntosh County
 Building & Zoning Department
APPROVED
 Initials: *D. Bryan Boon* Date: *5/1/24*

McIntosh County
Building & Zoning Department
APPROVED

Initials: W. Bryan Bow Date: 5/1/27

EXISTING DOCK
NO CHANGES

PROJECT AREA

PROPOSED LIVING SHORELINE
SEE SHEET 4 & 5

PRE-CONSTRUCTION
APPROXIMATE MEAN
HIGH WATER
(EL. = 4.985')
CMPA LINE

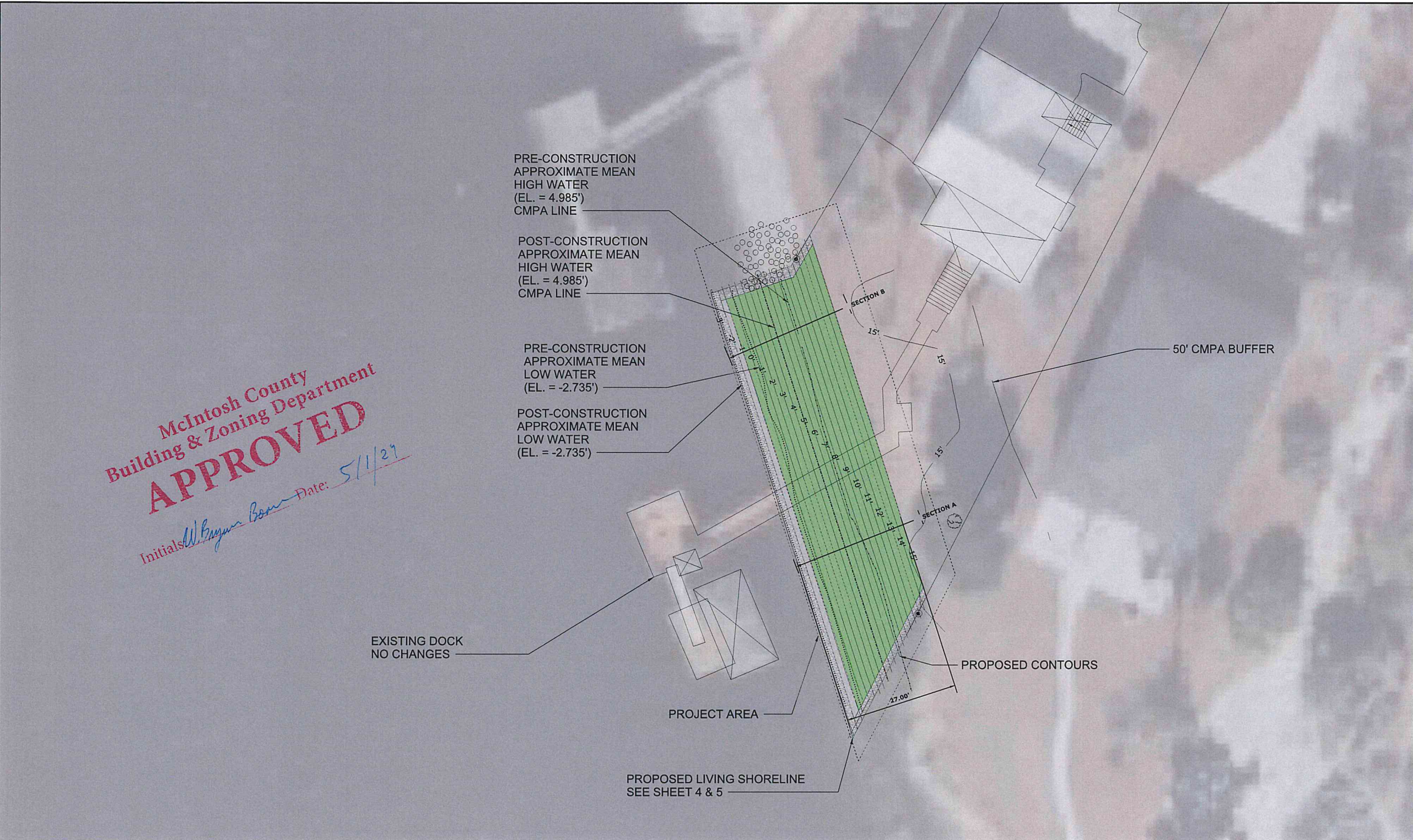
POST-CONSTRUCTION
APPROXIMATE MEAN
HIGH WATER
(EL. = 4.985')
CMPA LINE

PRE-CONSTRUCTION
APPROXIMATE MEAN
LOW WATER
(EL. = -2.735')

POST-CONSTRUCTION
APPROXIMATE MEAN
LOW WATER
(EL. = -2.735')

PROPOSED CONTOURS

50' CMPA BUFFER



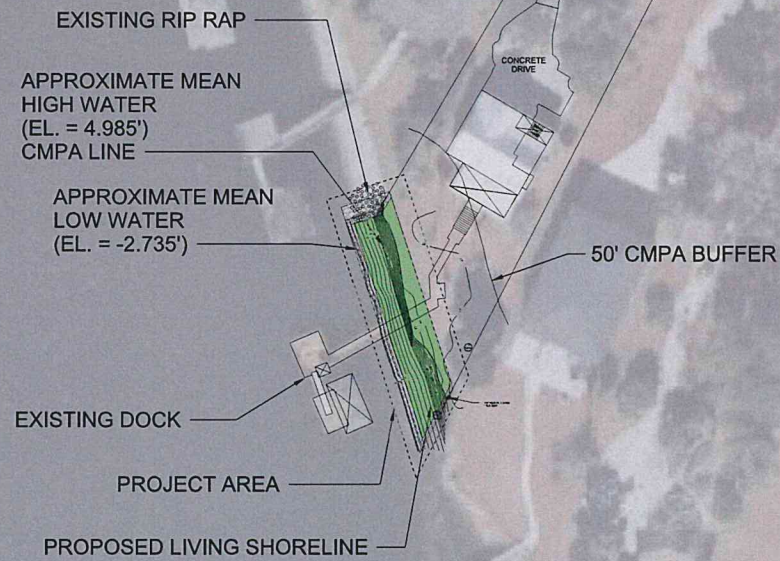
McIntosh County
Building & Zoning Department
APPROVED

Initials: W. Bryan Brown Date: 5/1/24



McIntosh County
Building & Zoning Department
APPROVED

Initials: W. Bryan Barr Date: 5/1/24













Appendix L: Historic/Cultural Resources

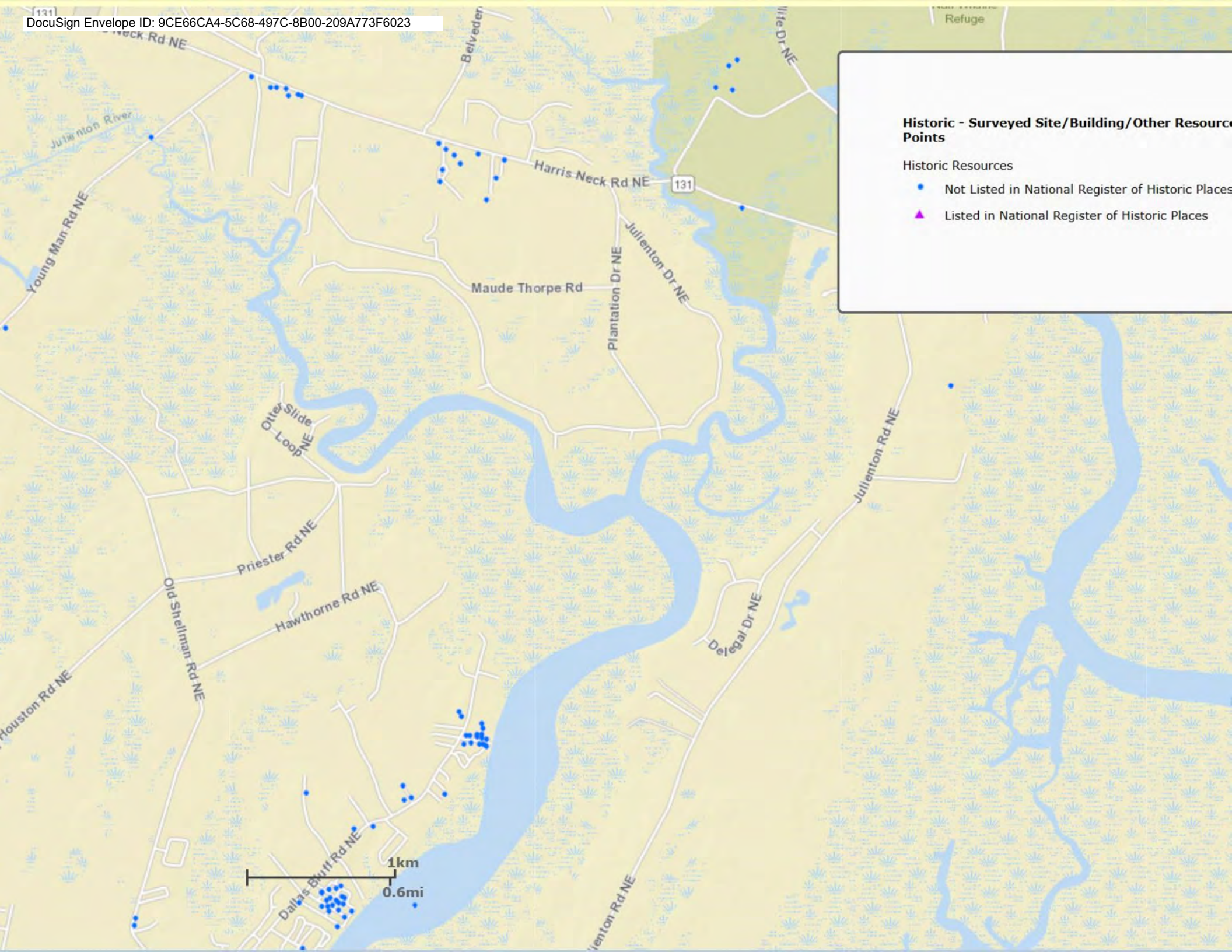


Broadlick - NRHP

11/09/2023

-  Building
-  District
-  Object
-  Site
-  Structure
-  Building
-  District
-  Object
-  Site
-  Structure





Historic - Surveyed Site/Building/Other Resource Points

Historic Resources

- Not Listed in National Register of Historic Places
- ▲ Listed in National Register of Historic Places

