

**U.S. Army Corps
of Engineers**
Baltimore District
PN-24-28

Public Notice

**In Reply to Application Number
NAB-2023-61655 M50 (MD Coastal Bays - Reedy Island)**

Comment Period: September 16, 2024 to October 15, 2024

THE PURPOSE OF THIS PUBLIC NOTICE IS TO INFORM INTERESTED PARTIES OF THE PROPOSED ACTIVITY AND TO SOLICIT COMMENTS. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), as described below:

APPLICANT:

Maryland Coastal Bays Program
8219 Stephen Decatur Highway
Berlin, Maryland 21811

WATERWAY AND LOCATION OF THE PROPOSED WORK:

The proposed project is located at Reedy Island in Sinepuxent Bay Wildlife Management Area, Isle of Wight Bay, Ocean City, Worcester County, Maryland. (38.379866, -75.073412)

OVERALL PROJECT PURPOSE:

Restore nesting habitat for colonial waterbirds dependent upon bay islands for breeding and conduct long-term management to ensure restored nesting habitat suitability.

PROJECT DESCRIPTION:

Restore Reedy Island within its 1962 footprint. Maryland Department of Natural Resource (MD DNR) manages the island to support nesting colonial waterbirds. The island presently consists of salt marsh, expanding interior open ponds formed by marsh failure, a sand berm with placed shell, and beach. The island lacks submerged aquatic vegetation (SAV).

The project would include (note: all lengths, areas, and material quantities approximate):

- To mechanically or hydraulically dredge a 250 ft long and 40 ft wide by 3-foot-deep mean low water (MLW) access channel on the south side of the island impacting 0.25 acres of bay bottom,
- To place 400 yd³ (CY) of access channel dredged material (sands, clays, and peat) onto Reedy Island and filling existing interior ponds with dredged material properly contained and capped with suitable material,
- To construct six headland breakwaters totaling 1,177 linear feet with an average width of 50 ft, utilizing 6,957 CY of mixed-size rock/sand fill material with boulder toe, impacting a total bottom area of 1.25 acres, and extending a maximum of 209 ft channelward from mean high water (MHW) on the island,
- To construct a living shoreline (beach and salt marsh [below]) that would be 1,222 ft long with an average width of 87 feet utilizing 14,172 CY of sand fill material, with a maximum distance channelward from MHW on the island of 138 ft, creating 1.91 acres of beach.
- The project would temporarily disturb 0.70 acres of existing salt marsh during construction which would be restored to salt marsh, convert 0.59 acres of existing salt marsh to other habitat types or headland breakwaters, restore 2.45 acres of salt marsh creating an increase in 1.86 acres of salt marsh,
- In future years, placing additional rock, shell, and suitable dredged material onto Reedy Island to complete/maintain restored habitats. No specific sources have been identified but required permits would be obtained separately,
- In future years, conducting hydraulic or mechanical maintenance dredging of the access channel.

All work is proposed in accordance with the attached plans prepared by Underwood & Associates, dated 24 February 2024, sheets 1 through 15, plus sheet 1 of prepared 20 April 2023.

A portion of the island would include a 4-foot high (mean water) upland habitat with oyster shell/cobble surface constructed on existing upland sand/shell. Placement of this material would not be regulated under the Clean Water Act.

EFFECTS ON AQUATIC RESOURCES:

Project would include permanent and temporary impacts to aquatic resources, including conversions of habitat type. Please refer to Table 1 for a summary of aquatic resource impacts.

Table 1: Effects on Aquatic Resources

Activity	Habitat Impact (acres)			Authority (Section 10/404)
	Bay Bottom	Beach (MLW to MHW)	Vegetated Wetland – Salt Marsh	
Dredging Access Channel	0.25 (permanent)	0	0	10
Island Construction Access, Staging	0	0.10 (temporary)	0.70 (temporary)	10/404
Breakwater	1.25 (permanent conversion to structure)	0	0	10/404
Living Shoreline	-1.91 (permanent conversion to beach)	+1.91 (permanent conversion from bay bottom)	+2.45* (permanent conversion from bay bottom and interior pond)	10/404
Supratidal Nesting Habitat	0	0	-0.59* (permanent conversion from salt marsh to supratidal)	404

* The project would produce a net gain of 1.86 acres of salt marsh

LEAD FEDERAL AGENCY:

The United States Army Corps of Engineers, as the lead federal agency, is responsible for all coordination pursuant to applicable federal authorities.

APPLICANT'S PROPOSED AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION:

As part of the planning process for the proposed project, in addition to the no action alternative, the applicant considered several alternative plans to meet the project's goals of restoring nesting habitat for colonial waterbirds (Table 2).

Table 2: Summary of Alternative Plans

Alternative Plan	Positive	Negative
No action	No impacts of dredging, filling	Loss of important nesting habitat for rare birds
Place material to fill interior pond without shoreline stabilization	Temporary island habitat restoration	Eventual loss of habitat to erosion
Construct a revetment to protect shoreline	Some habitat protected	Habitat protected not sustainable nor suitable for bird use over time
Vegetated headlands	Environmentally sensitive shoreline protection	Source material challenging to obtain

Coastal modeling was conducted to optimize design for wave protection while remaining environmentally sensitive. No navigation benefits from access channel which otherwise does not connect to any other navigation destination.

Island resiliency over time could be provided for by future material replenishment and or shoreline stabilization. The proposed design incorporates a channel to maintain island habitats over the long term.

No compensatory mitigation is proposed. The project would be self-mitigating for aquatic impacts.

CORPS EVALUATION REQUIREMENTS:

This project will be evaluated pursuant to Corps Regulatory Program Regulations (33 CFR Parts 320-332). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people.

The evaluation of the impact of this project will also include application of the Clean Water Act Section 404(b)(1) Guidelines promulgated by the Administrator, United States Environmental Protection Agency.

ENDANGERED SPECIES:

A preliminary review of this application indicates that the proposed work is not likely to adversely affect federally listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

ESSENTIAL FISH HABITAT:

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH), including species of concern, life cycle habitat, or Habitat Areas of Particular Concern. The project site lies in or adjacent to EFH as described under MSFCMA for managed species under the MSFCMA. The Baltimore District has made a preliminary determination that the project will not have a substantial adverse effect on EFH. The Baltimore District has made a preliminary determination that mitigative measures are required to minimize adverse effects on EFH at this time. This determination may be modified if additional information indicates otherwise.

HISTORIC RESOURCES:

Pursuant to Section 106 of the National Historic Preservation Act of 1966 and applicable guidance, the Corps has reviewed the latest published version of the National Register of Historic Places and initially determined that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. The Corps has made the preliminary determination that the proposed project has no potential to cause effects on historic properties. The Corps final eligibility and effect determination will be based on coordination with the State Historic Preservation Office as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps' identified permit area.

TRIBAL RESOURCES:

Section 106 of the National Historic Preservation Act also requires federal agencies to consult with federally recognized American Indian tribes that attach religious and cultural significance to historic properties that may be affected by the agency's undertaking. Corps Tribal Consultation Policy mandates an open, timely, meaningful, collaborative, and effective deliberative communication process that emphasizes trust, respect, and shared responsibility. The policy further emphasizes that, to the extent practicable and permitted by law, consultation works toward mutual consensus and begins at the earliest planning stages before decisions are made and actions taken. The Corps final eligibility and effect determination will be based on coordination with interested tribes, in accordance with the Corps current tribal standard operating procedures as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on tribal resources.

MODIFICATION OF CIVIL WORKS PROJECTS: 33 USC 408 (SECTION 408):

All Section 408 proposals will be coordinated internally at the United States Army Corps of Engineers. The Section 408 decision will be issued along with the Section 404 and/or Section 10 decision. Please see the following link for more information regarding Section 408: <https://www.nab.usace.army.mil/Missions/Regulatory/Section-408-Requests/>.

WATER QUALITY CERTIFICATION:

The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act.

COASTAL ZONE MANAGEMENT PROGRAMS:

Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management Program. By this public notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The applicant must obtain any state or local government permits which may be required.

SUBMISSION OF COMMENTS:

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action and are subject to release to the public through the Freedom of Information Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the United States Army Corps of Engineers, Baltimore District within the comment period specified above through postal mail at the address below or electronic submission to the project manager email address below. Written comments should reference the Application Number NAB-2023-61655.

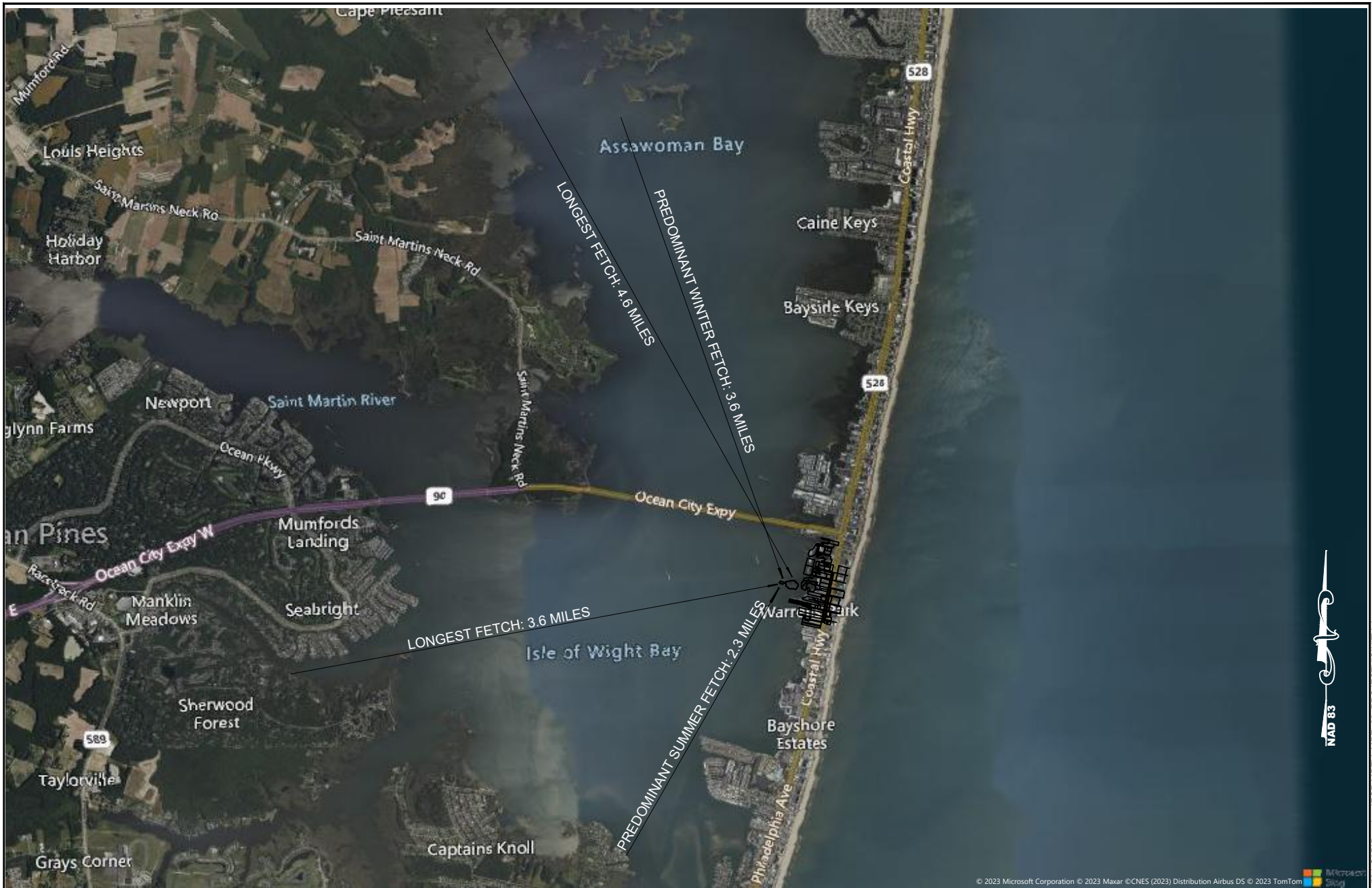
PUBLIC HEARING REQUESTS:

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received within the comment period as specified above to receive consideration. Also, it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected. The public hearing request may be submitted by electronic mail or mailed to the following address:

Mr. Chris Spaur
christopher.c.spaur@usace.army.mil
United States Army Corps of Engineers, Baltimore District
Regulatory Branch
2 Hopkins Plaza
Baltimore, Maryland 21201-2930

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested, who did not receive a copy of this notice.

General information regarding the Corps' permitting process can be found on our website at <https://www.nab.usace.army.mil/Missions/Regulatory.aspx>. This public notice has been prepared in accordance with Corps implementing regulations at 33 CFR 325.3. If you have any questions concerning this specific project or would like to request a paper copy of this public notice, please contact Mr. Chris Spaur at (443) 759-0680 or at christopher.c.spaur@usace.army.mil. This public notice is issued by the Chief, Regulatory Branch.



PLAN
SCALE: 1"=5000'

UNDERWOOD & ASSOCIATES
LANDSCAPE ARCHITECTURE ♦ ECOLOGICAL RESTORATION
A DESIGN/BUILD Co.
1753 EBLING TRAIL • ANNAPOLIS, MD 21401
tel. 410-849-9211 fax. 410-849-2196

FEBRUARY 24, 2024		PROJECT VICINITY CONDITIONS	
Scale	AS SHOWN	COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT OCEAN CITY, MARYLAND FORMERLY MAP 0113, GRID 0009, PARCEL 6704 1st ELECTION DISTRICT, WORCESTER COUNTY	
Drawn By	J.K./J.H.		
Approved By	K.B.		
Sheet No.	2 Of 15		
Project No.	21-032		
Proposal No.	---		

ISLE OF WRIGHT BAY

LEGEND

EXISTING FEATURES

MINOR CONTOUR	---
MAJOR CONTOUR	---
MEAN HIGH WATER	— MHW —
MEAN LOW WATER	— MLW —
<i>S. alterniflora</i> MARSH EDGE	~~~~~
PROPERTY LINE	---

NOTES:

NAVD88 = 0.5
MLW = 0
MHW = 1.52
MHHW = 1.7
1.5x TIDAL RANGE = 2.28
Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

SCALE: 1"=50'

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Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	4 Of 15
Project No.	21-032
Proposal No.	...

SCALE: 1"=50'

EXISTING CONDITIONS

**COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT**
OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

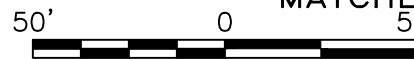
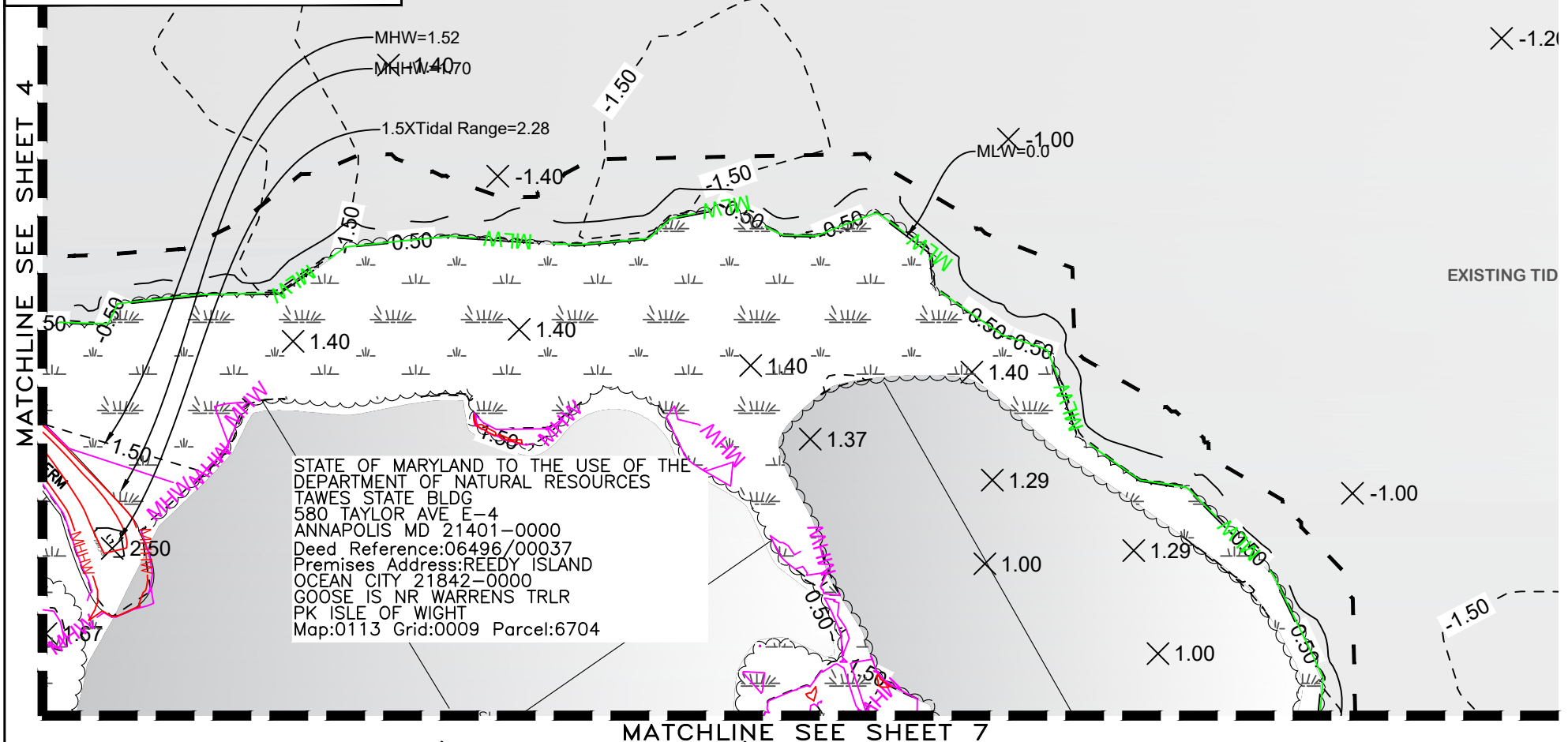
LEGEND

EXISTING FEATURES

MINOR CONTOUR	---
MAJOR CONTOUR	---
MEAN HIGH WATER	— MHW —
MEAN LOW WATER	— MLW —
<i>S. alterniflora</i> MARSH EDGE	~ ~ ~
PROPERTY LINE	---

WIGHT BAY

ISLE OF WRIGHT BAY



NOTES: SCALE: 1"=50'

NAVD88 = 0.5

MLW = 0

MHW = 1.52

MHHW = 1.7

1.5x TIDAL RANGE = 2.28

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SCALE: 1"=50'

Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	5 Of 15
Project No.	21-032
Proposal No.	...

EXISTING CONDITIONS

**COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT**

OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

MATCHLINE SEE SHEET 4

NAD 83

MATCHLINE SEE SHEET 7

ISLE OF WRIGHT BAY

LEGEND

EXISTING FEATURES

MINOR CONTOUR	---
MAJOR CONTOUR	---
MEAN HIGH WATER	— MHW —
MEAN LOW WATER	— MLW —
<i>S. alterniflora</i> MARSH EDGE	~~~~~
PROPERTY LINE	---

50' 0 50'

SCALE: 1"=50'

NOTES:

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MLW = 0

MHW = 1.52
MHHW = 1.7

1.5x TIDAL RANGE = 2.28

Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

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FEBRUARY 24, 2024

SCALE: 1"=50'

Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	6 Of 15
Project No.	21-032
Proposal No.	...

EXISTING CONDITIONS

**COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT**

OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

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MATCHLINE SEE SHEET 5

REEDY ISLAND

GRASSLINE

MLW=0.0

MLW=0.0

ISLE OF WRIGHT BAY

NAD 83

MATCHLINE SEE SHEET 6

LEGEND

EXISTING FEATURES

MINOR CONTOUR	---
MAJOR CONTOUR	---
MEAN HIGH WATER	— MHW —
MEAN LOW WATER	— MLW —
<i>S. alterniflora</i> MARSH EDGE	~~~~~
PROPERTY LINE	---

50' 0 50'

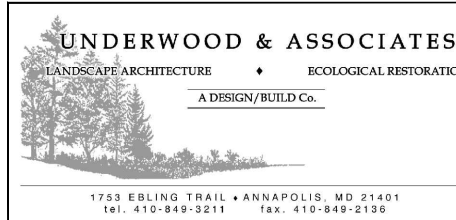
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NOTES:

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MLW = 0
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MHHW = 1.7
1.5x TIDAL RANGE = 2.28
Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

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FEBRUARY 24, 2024

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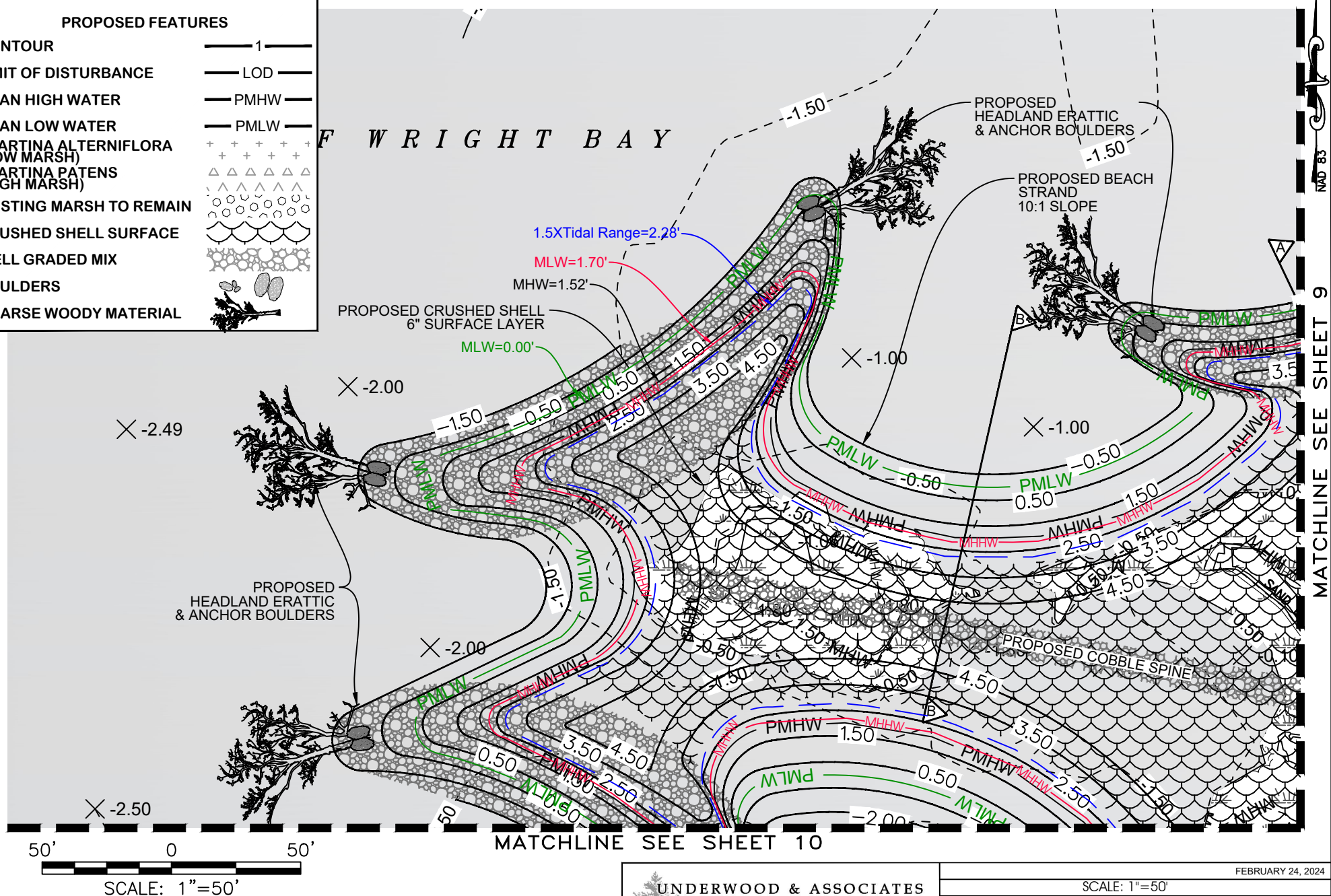
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Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	7 Of 15
Project No.	21-032
Proposal No.	...

EXISTING CONDITIONS

COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT

OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

CONTOUR	———— 1 ————
LIMIT OF DISTURBANCE	———— LOD ————
MEAN HIGH WATER	———— PMHW ————
MEAN LOW WATER	———— PMLW ————
SPARTINA ALTERNIFLORA (LOW MARSH)	+ + + + +
SPARTINA PATENS (HIGH MARSH)	△ △ △ △ △
EXISTING MARSH TO REMAIN	~~~~~
CRUSHED SHELL SURFACE	~~~~~
WELL GRADED MIX	~~~~~
BOULDERS	~~~~~
COARSE WOODY MATERIAL	~~~~~



NAVD88 = 0.5
MLW = 0
MHW = 1.52
MHHW = 1.7
1.5x TIDAL RA
Station 8570255,

Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

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tel. 410-849-3211 fax. 410-849-2136

SCALE: 1"=50'

Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	8 Of 15
Project No.	21-032
Proposal No.	...

PROPOSED CONDITIONS
COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT
OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

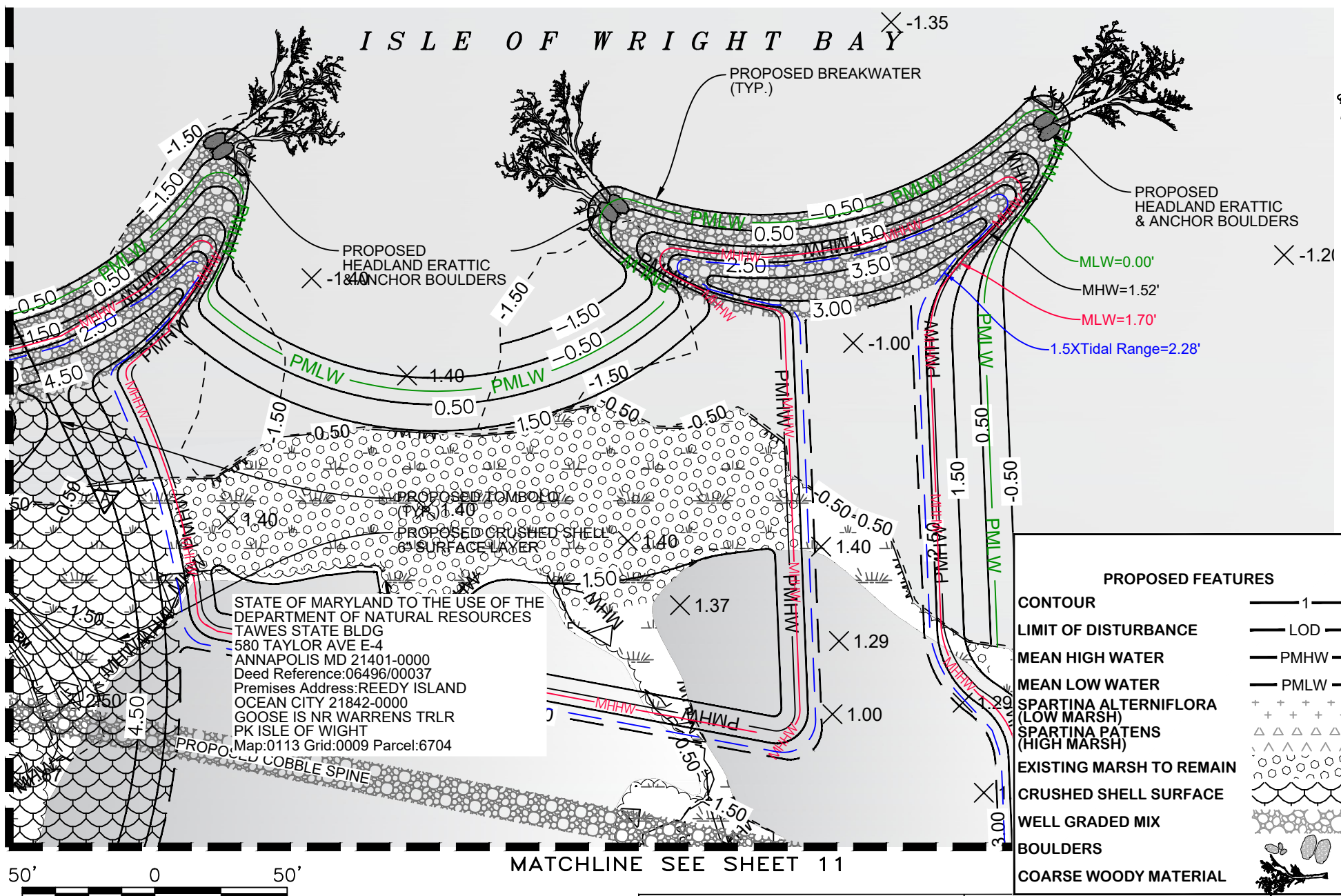
MATCHLINE SEE SHEET 9

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ISLE OF WRIGHT BAY

MATCHLINE SEE SHEET 8

NAD 83



STATE OF MARYLAND TO THE USE OF THE
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE BLDG
580 TAYLOR AVE E-4
ANNAPOLIS MD 21401-0000
Deed Reference:06496/00037
Premises Address:REEDY ISLAND
OCEAN CITY 21842-0000
GOOSE IS NR WARRENS TRLR
PK ISLE OF WIGHT
Map:0113 Grid:0009 Parcel:6704

PROPOSED FEATURES	
CONTOUR	1
LIMIT OF DISTURBANCE	LOD
MEAN HIGH WATER	PMHW
MEAN LOW WATER	PMLW
SPARTINA ALTERNIFLORA (LOW MARSH)	+
SPARTINA PATENS (HIGH MARSH)	△
EXISTING MARSH TO REMAIN	○
CRUSHED SHELL SURFACE	⬢
WELL GRADED MIX	⬢
BOULDERS	⬢
COARSE WOODY MATERIAL	⬢

NOTES:
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Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

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SCALE: 1"=50'	
Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	9 Of 15
Project No.	21-032
Proposal No.	...
PROPOSED CONDITIONS COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT OCEAN CITY, MARYLAND FORMERLY MAP 0113, GRID 0009, PARCEL 6704 1st ELECTION DISTRICT, WORCESTER COUNTY	

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MATCHLINE SEE SHEET 8

NAD 83

MATCHLINE SEE SHEET 11

ISLE OF WRIGHT BAY

PROPOSED FEATURES

CONTOUR	1
LIMIT OF DISTURBANCE	LOD
MEAN HIGH WATER	PMHW
MEAN LOW WATER	PMLW
SPARTINA ALTERNIFLORA (LOW MARSH)	+
SPARTINA PATENS (HIGH MARSH)	△
EXISTING MARSH TO REMAIN	○
CRUSHED SHELL SURFACE	~
WELL GRADED MIX	□
BOULDERS	●
COARSE WOODY MATERIAL	✕

50' 0 50'

SCALE: 1"=50'

NOTES:

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Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

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FEBRUARY 24, 2024

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Scale	AS SHOWN
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Sheet No.	10 Of 15
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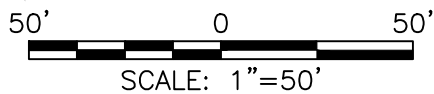
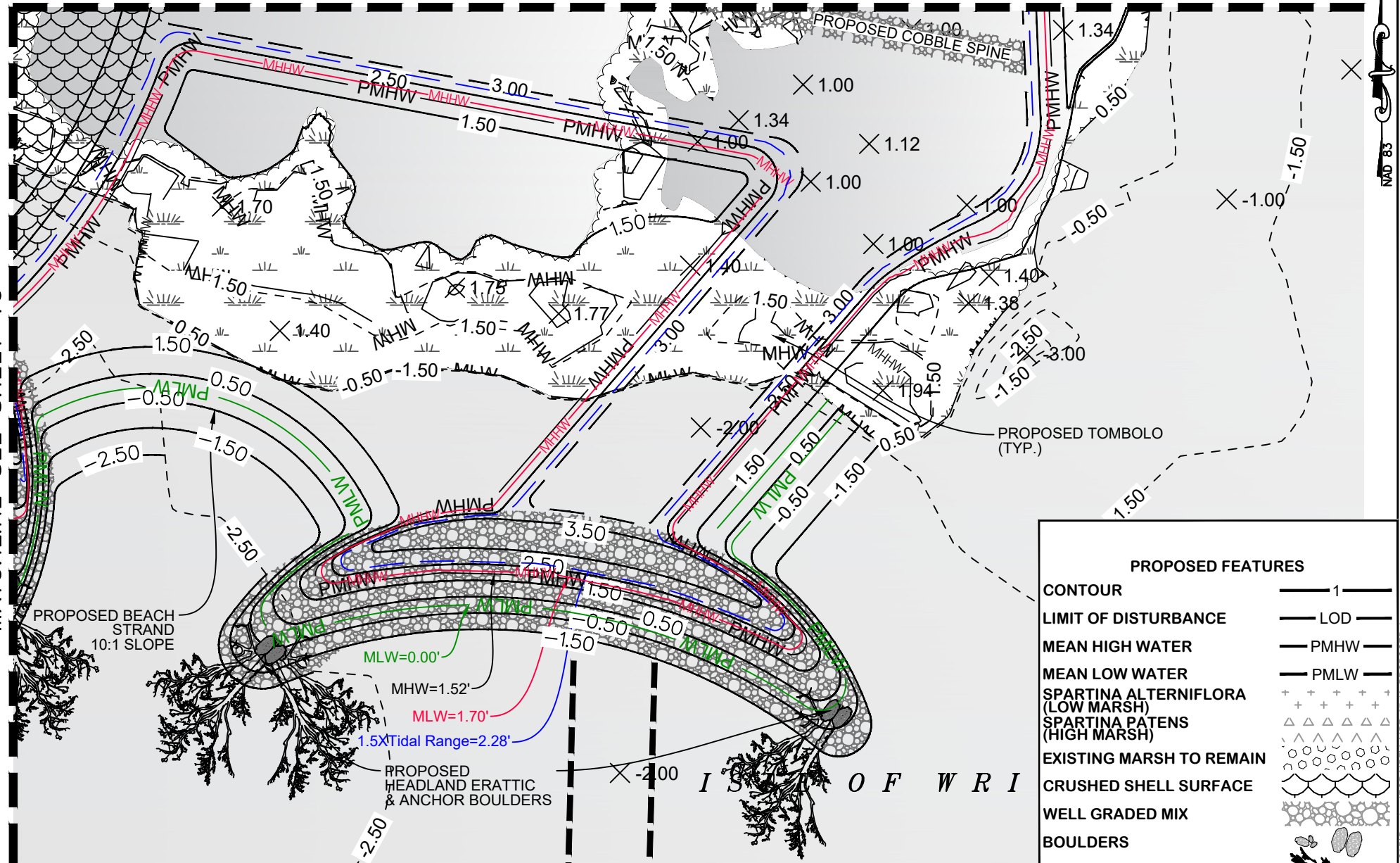
PROPOSED CONDITIONS
COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT

OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

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MATCHLINE SEE SHEET 9

MATCHLINE SEE SHEET 10



NOTES:

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 MHHW = 1.7
 1.5x TIDAL RANGE = 2.28
 Station 8570255, KEYDASH, ISLE OF WIGHT BAY, MD

PROPOSED FEATURES

CONTOUR	1
LIMIT OF DISTURBANCE	LOD
MEAN HIGH WATER	PMHW
MEAN LOW WATER	PMLW
SPARTINA ALTERNIFLORA (LOW MARSH)	+
SPARTINA PATENS (HIGH MARSH)	△
EXISTING MARSH TO REMAIN	○
CRUSHED SHELL SURFACE	⊞
WELL GRADED MIX	⊞
BOULDERS	⊞
COARSE WOODY MATERIAL	⊞

FEBRUARY 24, 2024

UNDERWOOD & ASSOCIATES

LANDSCAPE ARCHITECTURE ♦ ECOLOGICAL RESTORATION
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 Tel. 410-849-3211 Fax. 410-849-2136

SCALE: 1"=50'

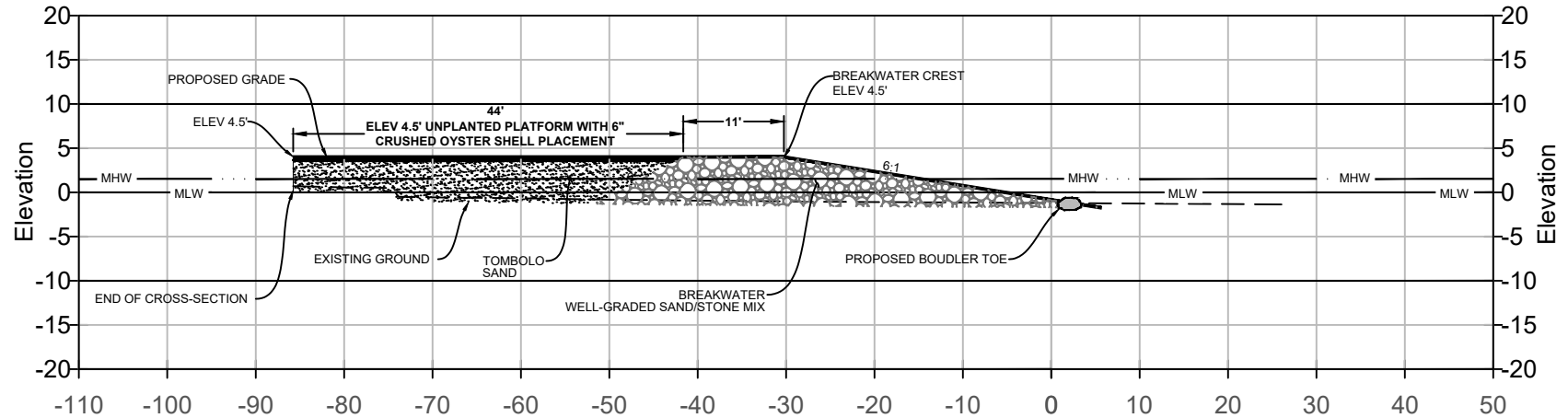
Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	11 Of 15
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PROPOSED CONDITIONS

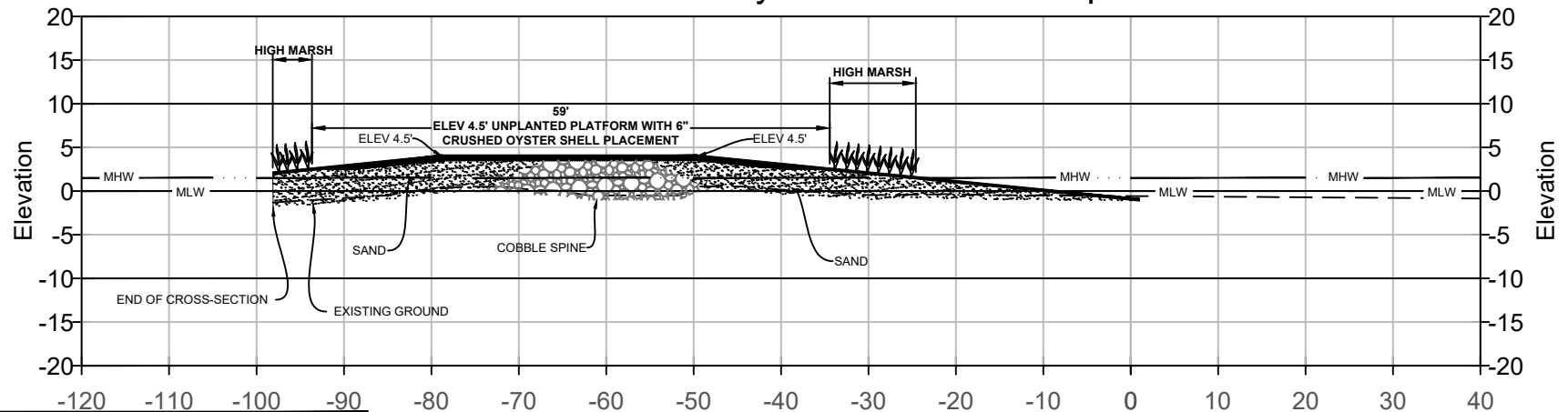
COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT

OCEAN CITY, MARYLAND
 FORMERLY MAP 0113, GRID 0009, PARCEL 6704
 1st ELECTION DISTRICT, WORCESTER COUNTY

Section A - A' - Breakwater and Tombolo



Section B - B' - Embayment and Cobble Spine



LEGEND

EXISTING GRADE	---
PROPOSED GRADE	—
MEAN HIGH WATER (MHW)	---
MEAN LOW WATER (MLW)	---
SAND/WOOD CHIP MIX	
SUBMERGED COBBLE	
BOULDER OUTCROP	
SPARTINA PATENS	
SPARTINA ALTERNIFLORA	

CROSS SECTIONS

SCALE: 1"=20'

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FEBRUARY 24, 2024	
Scale	AS SHOWN
Drawn By	J.K./J.H.
Approved By	K.B.
Sheet No.	12 Of 15
Project No.	21-032
Proposal No.	...
PROJECT CROSS SECTION COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT OCEAN CITY, MARYLAND FORMERLY MAP 0113, GRID 0009, PARCEL 6704 1st ELECTION DISTRICT, WORCESTER COUNTY	


WOODY MATERIAL ANCHORING (TYP.) - PLAN VIEW

TOMBOLO (TYP.)

EMBEDDED TREE
(EXPOSED CROWN)

BOULDER BURIED TO ANCHOR
DEBRIS AT TRUNK INTERSECTION

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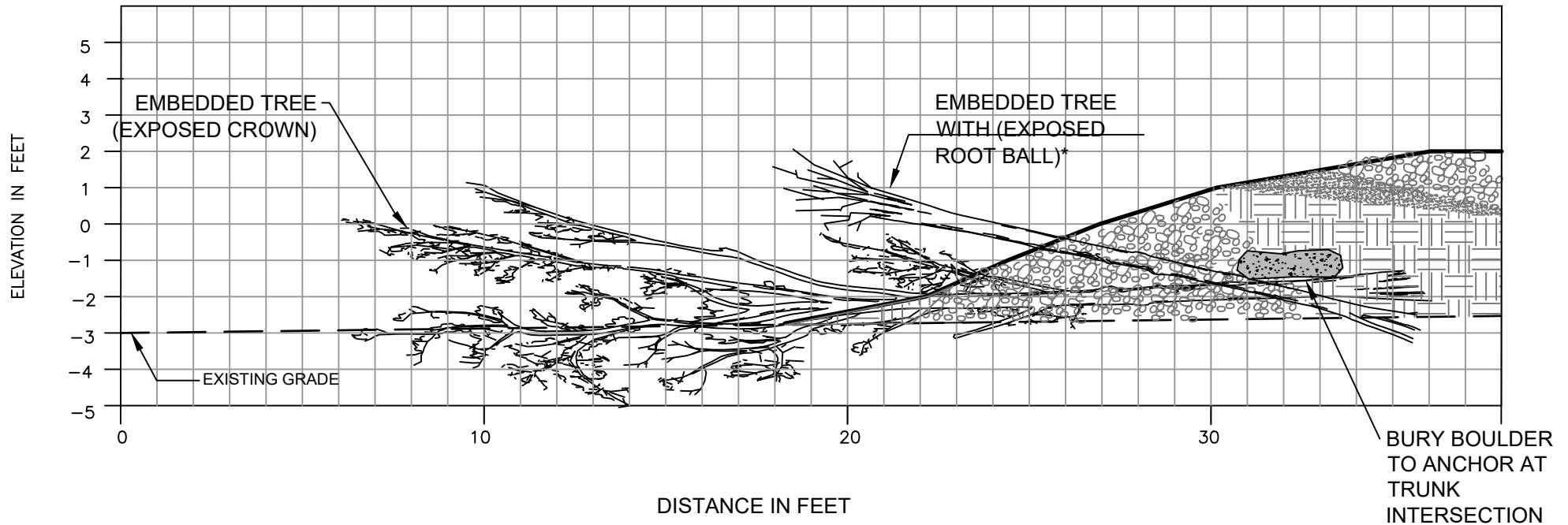
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Approved By	K.B.
Sheet No.	13 Of 15
Project No.	21-032
Proposal No.	...

PROJECT DETAILS
**COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT**
OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

WOODY MATERIAL ANCHORING (TYP.) - PROFILE VIEW



*NOTE: THE EMBEDDED TREE WITH EXPOSED ROOT BALL IS SET AT THE EXISTING GRADE. THIS DETAIL SHOWS THE ROOT BALL SLIGHTLY ELEVATED IN ORDER TO DISPLAY BOTH TREES. SEE PLAN VIEW FOR ALIGNMENT.

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Sheet No.	14 Of 15
Project No.	21-032
Proposal No.	...
PROJECT DETAILS COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT OCEAN CITY, MARYLAND FORMERLY MAP 0113, GRID 0009, PARCEL 6704 1st ELECTION DISTRICT, WORCESTER COUNTY	


PLANTING PLAN & CRITICAL AREA MITIGATION SCHEDULE

Planting Zone	Symbol	Total Area (Ft^2)	Common Name	Scientific Name	Type	Size	Distribution	Avg Spacing (ft)	Quantity	Credit Area (SF per plant)	Total Credit Area (SF)	Description
Lowmarsh Cordgrass	plus signs	25,975	Lowmarsh Cordgrass	<i>Spartina alterniflora</i>	Herbaceous	Gal	Random	2	6,494	2	12,988	Between MLW and MHW.
Highmarsh Cordgrass	triangles	80,787	Highmarsh Cordgrass	<i>Spartina patens</i>	Herbaceous	Gal	Random	2	20,197	2	40,394	Above MHW to elevation 2.5 ft.
Critical Area Mitigation Calculations			Total Area of Disturbed Tidal Marsh (SF)		In-Kind Mitigation Ratio		Total In-Kind Mitigation Credit Required (SF)			Total In-Kind Credit Area (SF)		Percent Mitigation (%)
			25,561		1:1		25,561			53,382		209%

HABITAT IMPACTS AND CREATION ANALYSIS

Zone	Impacted (sf)			Proposed (sf)			Proposed Gain/Loss (sf)		
	Unvegetated	Vegetated	Totals	Unvegetated	Vegetated	Totals	Unvegetated	Vegetated	Totals
Below MLW	126,853	0	126,853	31,753	0	31,753	-95,100	0	-95,100
MLW to MHW	66,242	41,712	107,954	18,079	74,208	92,287	-48,163	32,496	-15,667
MHW to MHHW	10,013	315	10,328	1,516	3,586	5,102	-8,497	3,271	-5,226
MHHW to ULW	954	2,575	3,529	6,418	11,901	18,319	5,464	9,326	14,790
Above ULW	328	0	328	57,275	44,256	101,531	56,947	44,256	101,203
Totals	204,390	44,602	248,992	115,041	133,951	248,992	-89,349	89,349	0

Note: the information presented in this table is based on tidal ranges and existing/proposed elevation



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Approved By	K.B.
Sheet No.	15 Of 15
Project No.	21-032
Proposal No.	...

PROJECT DATA TABLES

COLONIAL WATERBIRD
HABITAT AND ISLAND
RESILIENCY PROJECT

OCEAN CITY, MARYLAND
FORMERLY MAP 0113, GRID 0009, PARCEL 6704
1st ELECTION DISTRICT, WORCESTER COUNTY

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COLONIAL WATERBIRD HABITAT AND ISLAND RESILIENCY PROJECT

BEACH STRAND

- BEACH PROVIDES ADEQUATE SLOPE (1V:10H) FOR FULL WAVE ENERGY DISSIPATION
- GENTLE SLOPE MAXIMIZES INTERTIDAL HABITAT WHEREVER WAVE ENERGY IS MINIMAL

ROYAL TERN COLONY

- UNPLANTED AREA BETWEEN ELEVATIONS 2.5' AND 4' WILL BE TOPPED WITH 6" OF CRUSHED SHELL TO PROVIDE NESTING HABITAT FOR ROYAL TERN

RAISING THE ISLAND

- ALL OF THE ISLAND'S FLOODING CENTER WILL BE FILLED
- WILL BOLSTER THE ISLAND'S RESILIENCY IN THE FACE OF INCREASING STORM SEVERITY AND RSLR

THIN-SPREADING ON EXISTING MARSH

- OUTSIDE OF AREAS OF PROPOSED FILL, ALL OF THE EXISTING ISLAND IS TO BE RAISED BY 6 INCHES WITH CLEAN SAND FILL

COBBLE SPINE

- STRUCTURAL BACKSTOP TO MAINTAIN DUNE LOCATION AND TO LIMIT OVERWASH

LIVING HEADLANDS & TOMBOLOS

- WELL-GRADED MIX OF SAND THROUGH BOULDERS PROVIDES SUBSTRATE FOR MARSH HABITAT AND PROTECTS THE SHORELINE FROM EROSION
- MEDIAN ROCK SIZED TO WITHSTAND THE 100-YEAR STORM
- WILL CONTINUE TO ATTENUATE WAVES DURING THE 100-YEAR STORM, SIGNIFICANTLY REDUCING EROSION WAVE ENERGY
- GENTLE FORESHORE SLOPE (1V:6H) ABSORBS WAVE ENERGY RATHER THAN REFLECTING IT, ENCOURAGING SAV RECRUITMENT IN THE NEARSHORE ZONE
- DRESS HEADLANDS WITH OYSTER SHELL AND LIVING OYSTERS TO ENCOURAGE DEVELOPMENT OF OYSTER POPULATIONS ON THE HEADLANDS

PROPOSED DREDGE CHANNEL

- TO FACILITATE BARGE ACCESS FOR FUTURE PLACEMENT.
- DREDGED SAND WILL BE HYDRAULICALLY PLACED ON THE ISLAND

PLAN
SCALE: 1"=40'

SCALE: 1"=40'

Proposed Plan Marsh Totals			
	Low Marsh (SF)	High Marsh (SF)	Total (SF)
Existing Pre-Project	56,212	0	56,212
Existing to Remain	30,651	0	30,651
Proposed	25,975	80,787	106,762
Net Change	+4414	+80,787	+81,201

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April 20, 2023

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Drawn By	Joshua Hansen
Approved By	K.B.
Sheet No.	1 Of 1
Project No.	...
Proposal No.	...

CONCEPTUAL PLAN

COLONIAL WATERBIRD

HABITAT AND ISLAND

RESILIENCY PROJECT

FORMERLY MAP 0113, GRID 0009, PARCEL 6704

10TH ELECTION DISTRICT, WORCHESTER COUNTY

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