

MAYPORT VILLAGE

NAVAL STATION MAYPORT

PROJECT SITE

**NOAA SECART ALL-HAZARDS
WORKSHOP | 5/20/24**

MAYPORT RESILIENCE PROGRESS UPDATE



**UNIVERSITY OF
GEORGIA**

College of Engineering
Institute for Resilient Infrastructure Systems
Carl Vinson Institute of Government



WHERE WE ARE WORKING



ALABAMA

GEORGIA

SOUTH CAROLINA

NORTH CAROLINA

FORT MOORE

**MARINE CORPS
RECRUIT DEPOT
PARRIS ISLAND**

**MARINE CORPS
AIR STATION
BEAUFORT**

**FORT STEWART AND
HUNTER ARMY AIRFIELD**

**KINGS BAY NAVAL
SUBMARINE BASE**

**NAVAL STATION
MAYPORT**



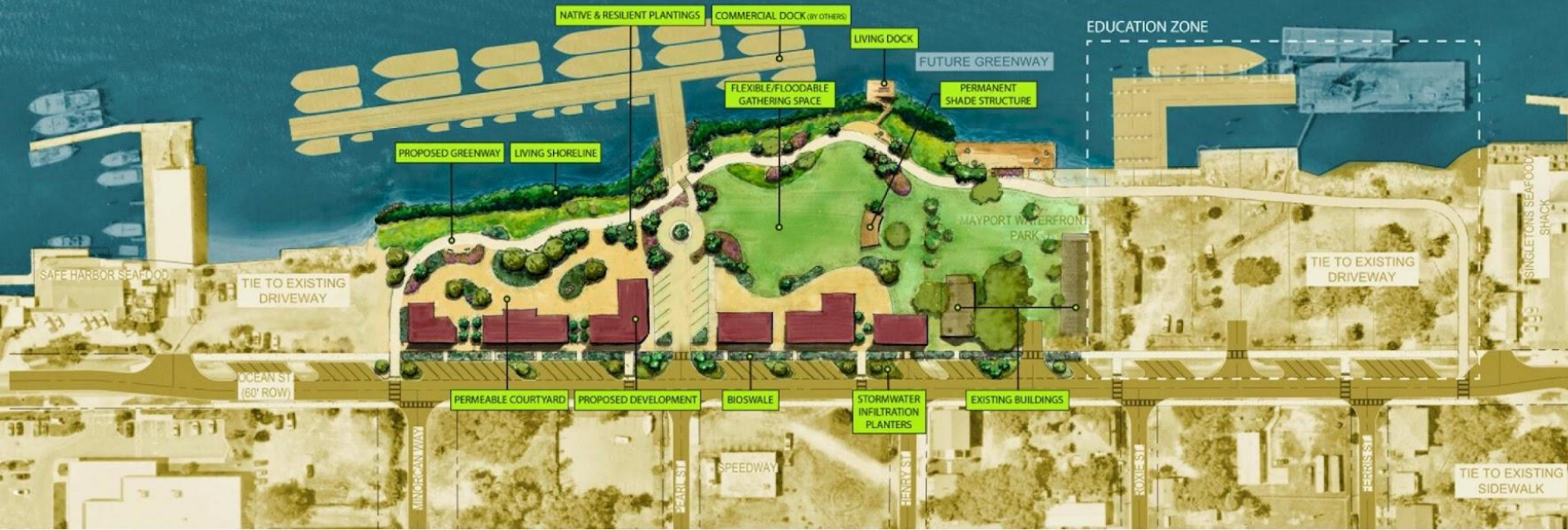
JOIN US ON APRIL 21

MAYPORT VILLAGE RESILIENCE WORKSHOP



NEWS AT JACKSONVILLE UNIVERSITY

OCEARCH LAUNCHES SHARK RESEARCH EXPEDITION FROM NEW HOME AT MAYPORT





NEWS

CULTURE

MUSIC

PODCASTS & SHOWS

NATIONAL

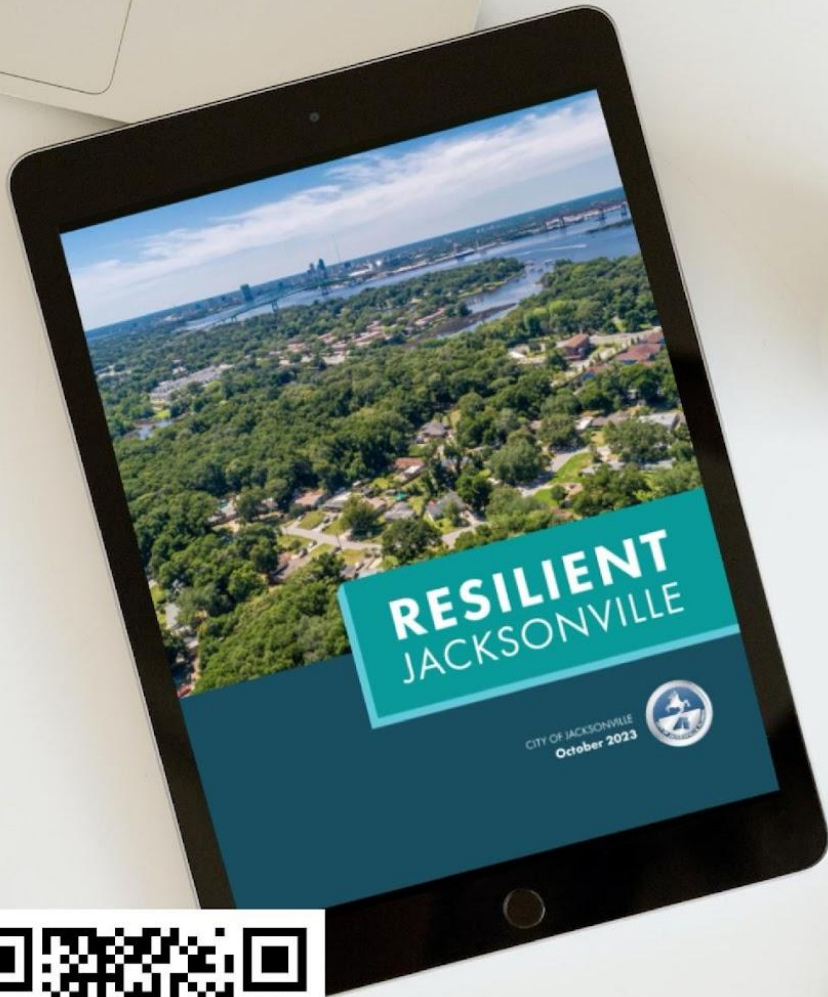
Hurricane Idalia shows nature may provide the best shoreline protection

FEBRUARY 15, 2024 · 5:00 AM ET

Maximum incident wave power and attenuation along G street kW/m

Direct comparison of the wave energy reduction of one living shoreline (left) and an adjacent seawall (right). (Credit: Mark Clark, UF/IFAS)





NFWF and NOAA Announce \$144 Million in Grants to Support Coastal Resilience Projects

Grants will benefit 31 coastal states and U.S. territories, increase future resilience and support important fish and wildlife habitat

Florida manatees

Designing Shoreline Restoration to Protect Waterfront and Navy Base at Mayport (FL)

Grantee: University of Georgia Research Foundation

Grant Amount:	\$539,400
Matching Funds:	\$28,900
Total Project Amount:	\$568,300

Develop preliminary designs to ecologically enhance and stabilize a St. Johns River shoreline protecting a singularly vital roadway sustaining Mayport Village and Naval Station Mayport in Jacksonville, Florida. Project will optimize social and ecological co-benefits through engineering with nature.

PROJECT SITE



PROJECT SITE



PROJECT STEPS

Community engagement

Data and Model Development

Collaborative Design Development and Selection

Implementation Roadmap



DESIGN CHALLENGES

Public vehicle access exacerbating erosion

Limited design space

Strong, turbulent currents

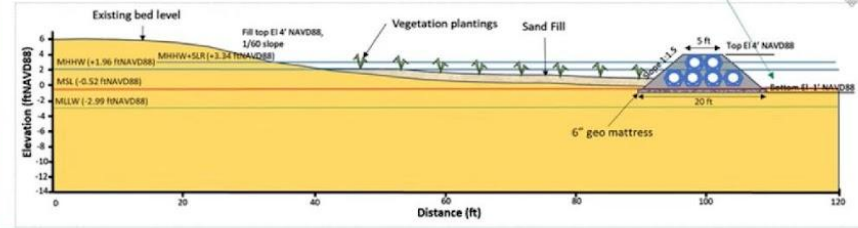
Complex multi-project landscape, with different institutional leads

LIVING SHORELINE DESIGN



Alternative 3: 3D printing concrete

1print concrete blocks



LEGEND

- Major Bathymetric Contours
- Approximate Footprint of Breakwaters
- Approximate footprint of sills
- Approximate footprint of sand backfill

NOTES:
1. Bathymetric and topographic contours are in feet references to NAVD88.



Coordinate System: NAD_1983 State Plane Florida East
FIPS 0901; Units: US Feet
Vertical Datum: Feet NAVD88
Scale: 1" = 75 Feet



REVETMENT:
560 ft or so
Around 10,000 ft²
Need to stack from 2ft to 7ft tall

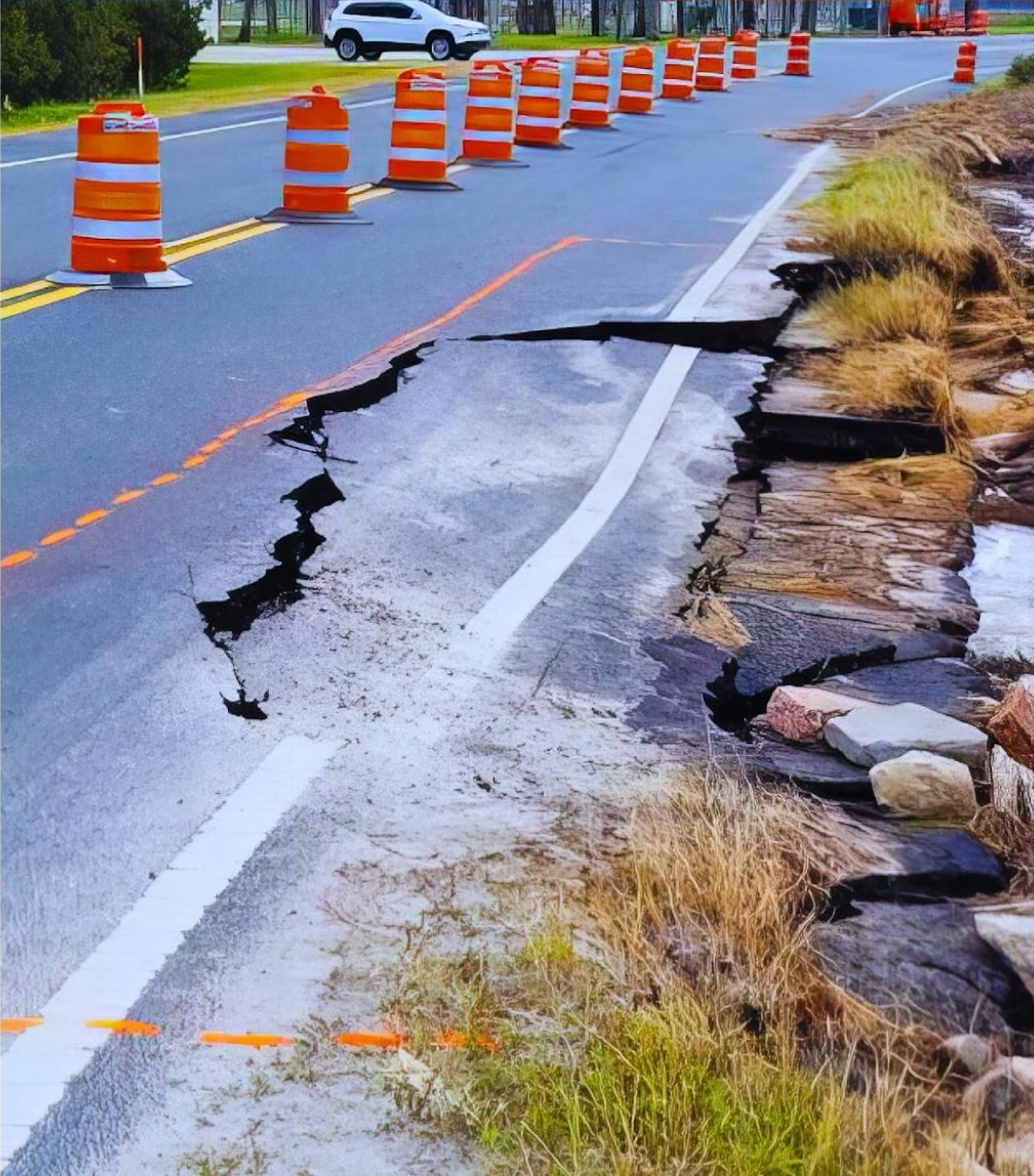
SILL:
250 ft of sill

FORTIFYING MAYPORT



Florida Department of Transportation District 2
SR A1A Mayport Resiliency Project

FPID: 210452-5



PROJECT DETAILS

Application/Project Sponsor
FDOT District 2

Project Location

From SR 116/Wonderwood Drive to the
US Coast Guard Sector Jacksonville
Duval County, Florida







DEFENSE COMMUNITY RESILIENCE PROGRAM

The DCRP partners with military installations to provide technical assistance focused on increasing defense community resilience.

The partnership includes UGA public service experts in Athens as well as resilience professionals stationed in partner defense communities.



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An aerial photograph of a coastal landscape. A narrow, winding path made of large, dark rocks leads through shallow, clear blue water. The path is flanked by lush green vegetation, including palm trees and other tropical plants. Several people are visible walking along the path. In the background, a small boat is on the water, and a few more people are seen near the shore. The overall scene is bright and scenic, suggesting a well-maintained and resilient coastal environment.

Questions?