RESILIENT RING'S ISLAND

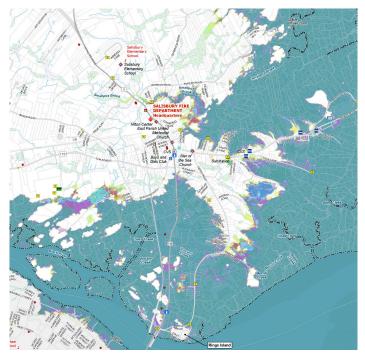
CLIMATE CHANGE IMPACTS





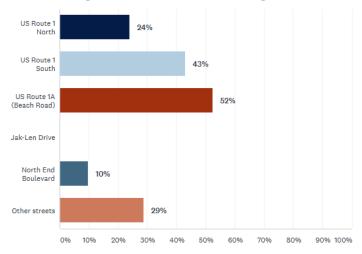
What Does Climate Change Look Like in Salisbury?

replacements at 1st Street, March Road and Ferry Road.



A map of inundation probability in Ring's Island by 2070

Have you been impacted by flooding on the following roads?





Aerial view and strategy for road raising near Ring's Island

Survey Results



Total survey responses

Key Findings and Concerns

Approx. half of respondents have considered local climate change impacts

Approx. one-third 1/3 are concerned about climate hazards causing property damage

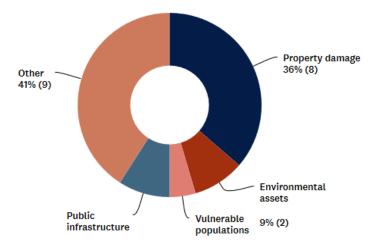


The aesthetic impact of the proposed design



The validity of climate change and flood risks in this area

What is your biggest concern regarding climate change?



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PRELIMINARY DESIGN







Mapping indicates that there is 100-year flood zone, NHESP Priority Habitats of Rare Species and NHESP Estimated Habitats of Rare Wildlife.



A total of nine Bordering Vegetated Wetlands series were delineated at the site, and the banks of two perennial streams were flagged.



Environmental mapping was conducted using MassGIS data layers and FEMA FIRM mapping.



Possible Required Permitting

- · MA Wetlands Protection Act Notice of Intent (NOI)
- MassDEP 401 Water Quality Certification (WQC)
- MassDEP Chapter 91 Submission
- · MEPA Environmental Notification Form (ENF)
- · Environmental Impact Report (EIR)
- · ACOE Individual Permit (IP)
- · Massachusetts Coastal Zone Management (CZM)
- Massachusetts Division of Marine Fisheries (DMF) Review
- · Massachusetts Endangered Species Act (MESA)

Permitting Evaluation

Road Design Options

Option 1 - Raised Berm Road



Option 2 - Sheet Pile Road



Option 3 - Elevated Road



The Resilient Ring's Island project proposes elevating Ferry Road, March Road, and 1st Street. The project also considers the addition of a sidewalk along the travel lane. The three options represent solutions for projected sea level rise and storm scenarios in Salisbury, and present unique benefits and challenges to implementation.

Evaluation Criteria	Option 1	Option 1 Without Sidewalks	Option 2	Option 2 Without Sidewalks	Option 3	Option 3 Without Sidewalks
Resource Area Impacts	1	2	4	6	3	5
Possible Permits	1	3	3	6	3	3
Possible Costs	1	3	3	6	3	3
Possible Permit Schedule	1	3	3	3	3	3
Total Rating Score	4	11	13	21	12	14

A lower score indicates a less preferred alternative.