



RESILIENT WILMINGTON

PREPARING TODAY FOR TOMORROW'S CLIMATE RISKS



City Council Resilient Wilmington Overview

June 4, 2025



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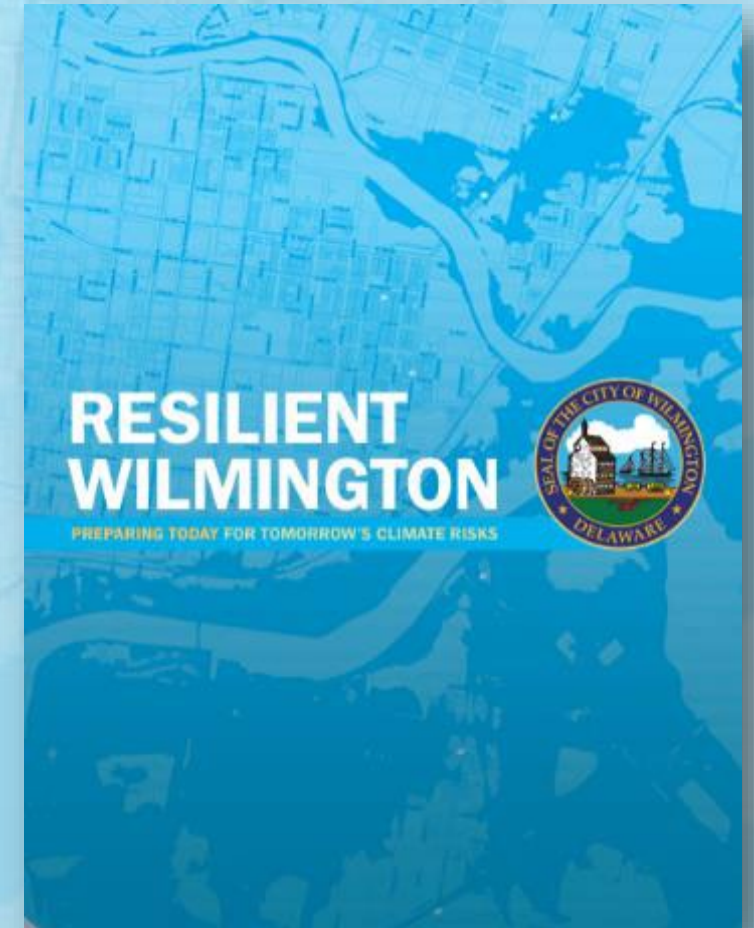


Resilient Wilmington Overview

Background

Resilience is the ability of systems and individuals to adapt to and withstand future shocks and stresses. It will mean modifying physical structures and embedding neighborhoods with the capacity to turn challenges into opportunities.

- Funded through a grant from Delaware Department of Natural Resources and Environmental Control (DNREC)
- Expands resilience efforts, building on momentum of the Southbridge Wilmington Wetlands Park
- Released in June 2022



View the plan here:

<https://www.wilmingtonde.gov/government/city-departments/public-works/resilient-wilmington>

How will climate change impact Wilmington?



- **Rising temperatures**, including Urban Heat Island effects
- **Daily tidal flooding**, acute and chronic storms, and groundwater table rise
- **Changing precipitation**, including trend towards more short, intense storms based on supplemental analysis



What did the Resilient Wilmington Plan do?

1. Assessed **current and future climate risk**.
2. Engaged **stakeholders** to help develop recommendations.
3. Developed **recommendations to mitigate and prepare** for climate changes while acknowledging other City priorities.
4. Identified opportunities to integrate resilience into City **planning and capital expenditure**.

Resilient Wilmington Working Group

- Interdepartmental group of City employees established in March 2023
- Advises on implementation of the Resilient Wilmington plan
- Ensures coordination between City Departments on resilience projects
- Meets roughly once per quarter





'23-'24 Priority Goals

- **Expand Green Infrastructure** for storage and conveyance
- **Further Education, Outreach, and Partnerships** to enhance community resilience
- **Raise Shorelines** in low-lying areas to prevent flooding
- **Enhance Resiliency of Food Systems**
- **Reduce the City's Carbon Footprint** by investing in and advocating for the City's greenhouse gasses to be reduced to 50% by 2030.
- **Improve Resiliency of Neighborhoods** through programs and infrastructure improvements
- **Incorporate Resiliency and Sustainability into the City's Codes** and planning and development review



Resilient Wilmington Progress



Project Timeline

2018

Received the
DNREC
Sustainable
Communities
Grant

2019

Received the
FEMA Flood
Mitigation
Assistance
Grant for the
South
Wilmington
Shoreline
Protection and
Drainage Study

2020

COVID Pause

2022

Completed
Construction on
the Southbridge
Wilmington
Wetlands Park
Phase 1

Released the
Resilient
Wilmington Plan

Received a
FEMA BRIC
Grant for Lower
Brandywine
River Flooding
Study

2023

Kicked Off the
Resilient
Wilmington
Working Group

Heat Resilience
Study with
University of
Delaware

Completed the
Tina Betz Urban
Arts
Amphitheater

2024

Started the
Lower
Brandywine
River Flooding
Study and
Mitigation
Strategy

Opened the
Cool Springs
Park Outdoor
Classroom

Procured Hybrid
Electric Vehicles
for DPW

2025

Applied for the
CZM Habitat
Protection and
Restoration
Bipartisan
Infrastructure
Law (BIL)
Competition

Releasing the
Resilient
Wilmington Plan
3-Year Update

Implementation
of 2nd Outdoor
Classroom at
Herman
Hollaway Park

Further Education, Outreach, and Partnerships

Earth and Arbor Day Celebrations

- Partnerships with Shortlidge, William Lewis Elementary, St. Anthony's, First State Montessori School and Kumba Academy.
- Over 500 Attendees
- 65 Participating Exhibitors
- 39 Responses to the 2025 Survey



Expand Green Infrastructure for Storage and Conveyance **Urban Arts Exchange Amphitheater**

- Created a stormwater storage and conveyance facility
- Hosts community events, including the CityFest Wednesday Summer Concert Series
- Repurposed a historic police horse barn



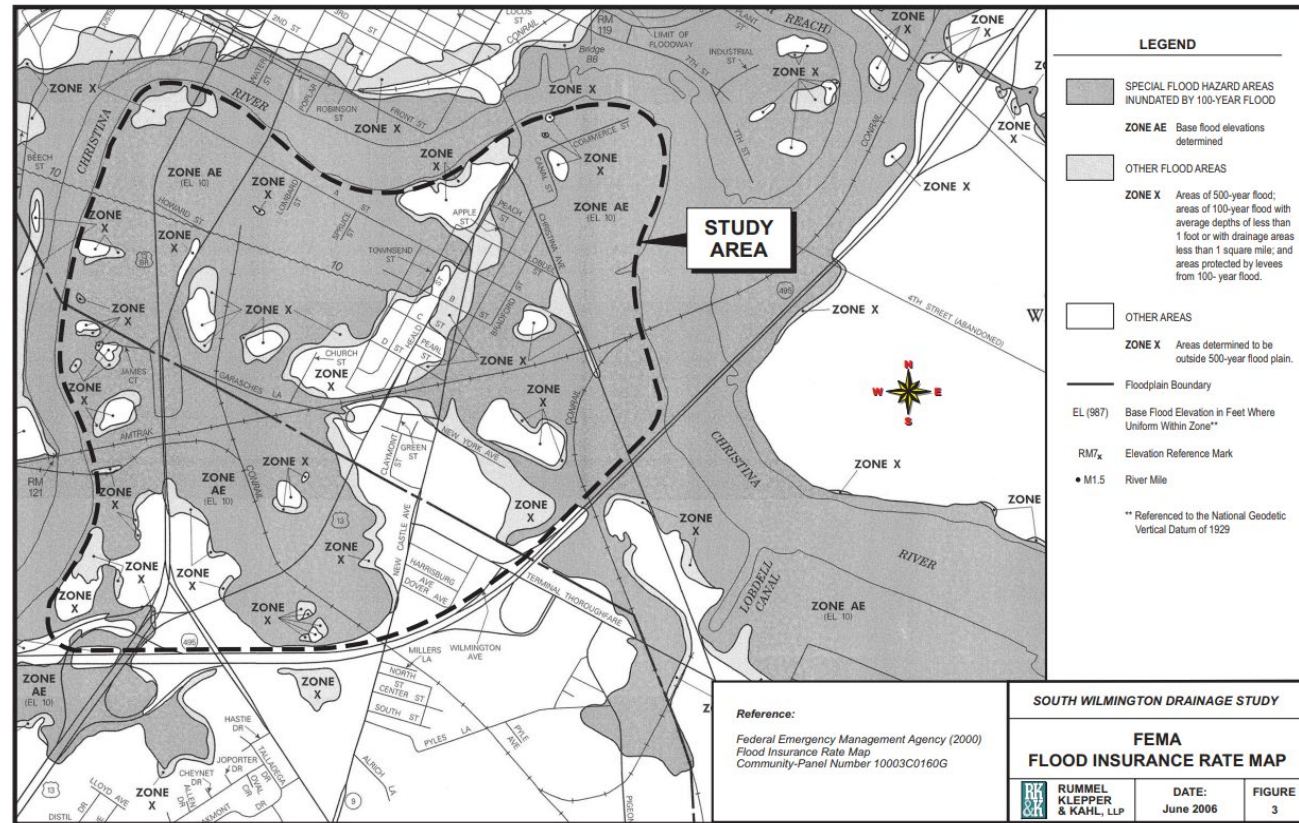


Expand Green Infrastructure for Storage and Conveyance **South Wilmington Wetlands Park**

- It's a park, a wetland, and a stormwater facility
- Separated combined sewers to reduce flooding in Southbridge



South Wilmington Drainage Study



SOUTH WILMINGTON DRAINAGE STUDY FLOODING & DRAINAGE PROBLEM QUESTIONNAIRE	
Name	
Street Address	
Home Phone	
Other Phone	
E-mail Address	
Would you like to be notified? How would you like to be notified?	
Location (if different than home address)	
Street Flooding?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is House or Building Flooded?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is Flooding Confined To The Basement?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Date and Time Observed	None
Frequency of Flooding	Times Per Year <input type="checkbox"/> /Decade <input type="checkbox"/>
How Long has the Problem Existed?	For a while
Does Problem Occur During Intense Rain	Storms <input checked="" type="checkbox"/> Tides <input type="checkbox"/> Both <input type="checkbox"/> Don't Know <input type="checkbox"/>
Extent and/or Depth of Flooding	2 ft to 4 ft
Apparent Cause of Flooding	Tidal <input type="checkbox"/> Blocked Pipe/Inlet <input type="checkbox"/> Don't Know <input checked="" type="checkbox"/>
Do You Have Photos Of The Flooding?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Please return the form by October 21st to the Neighborhood House or:

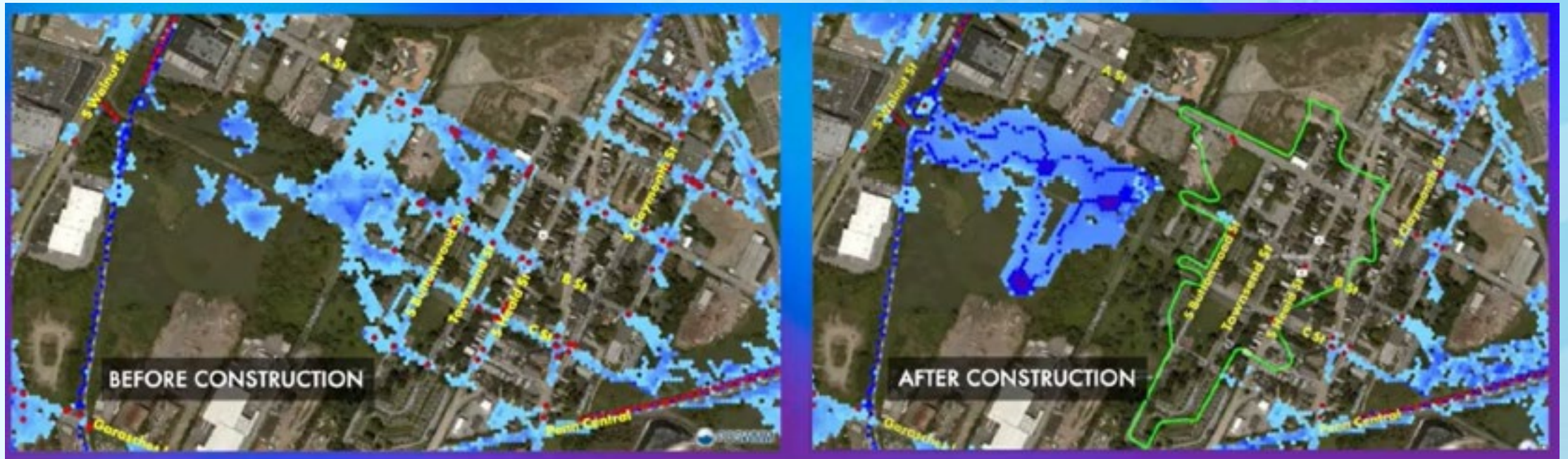
Fax: 301-571-4579 Attention: Mr. David Beattie

E-mail: dbeattie@ci.wilmington.de.us

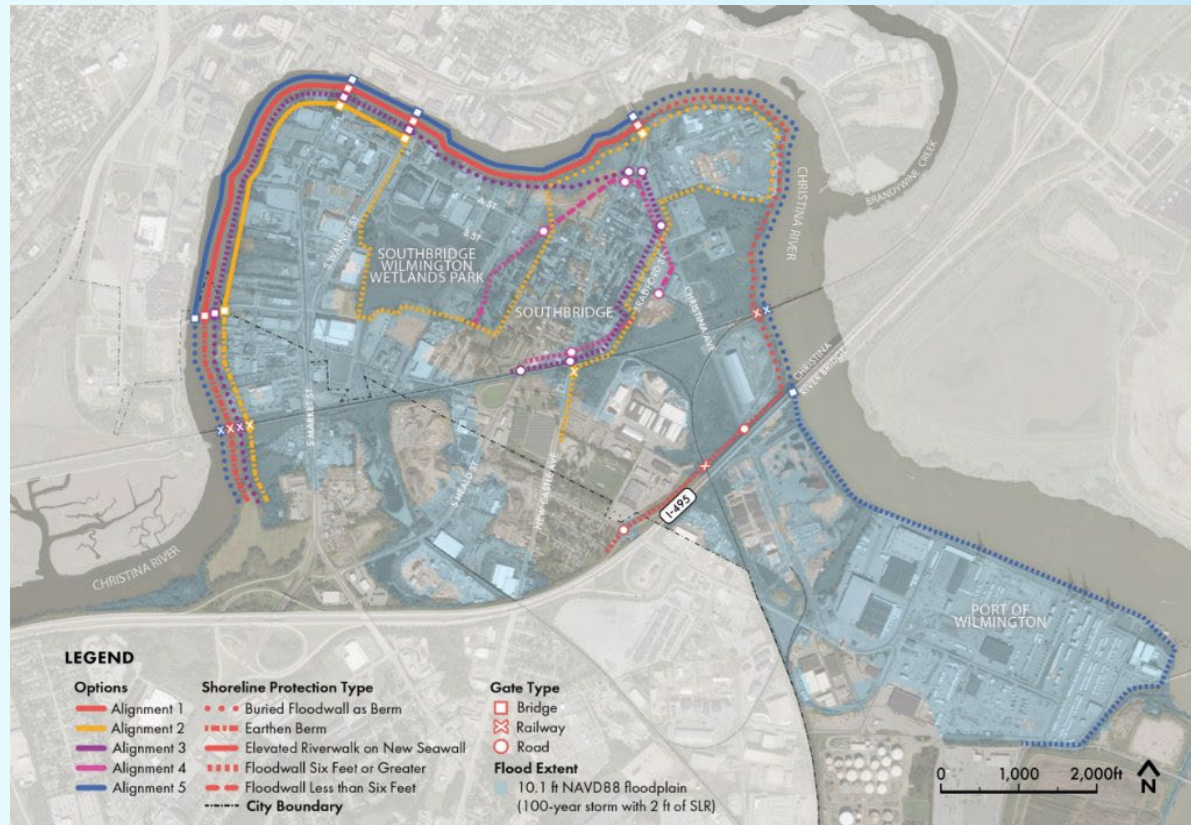
Mail: Mr. David Beattie
Louis L. Redding
City/County Building
800 French Street
Wilmington, DE 19801-3537

Please use the other side to provide additional information that you may have


Modeling Results



South Wilmington Shoreline Protection and Interior Drainage Study



- 38% of South Wilmington residents report seeing flooding once ever 4-6 weeks
- Five alignments were explored
- The costs of the alignments ranged from \$1.3 billion to \$3 billion
- The avoided losses from the alignments ranged from \$0.5 billion to \$2.7 billion
- FEMA FMA Grant
 - Total Cost: \$126,979.20
 - Federal Share: \$95,229.20
 - Match: \$31,750.00



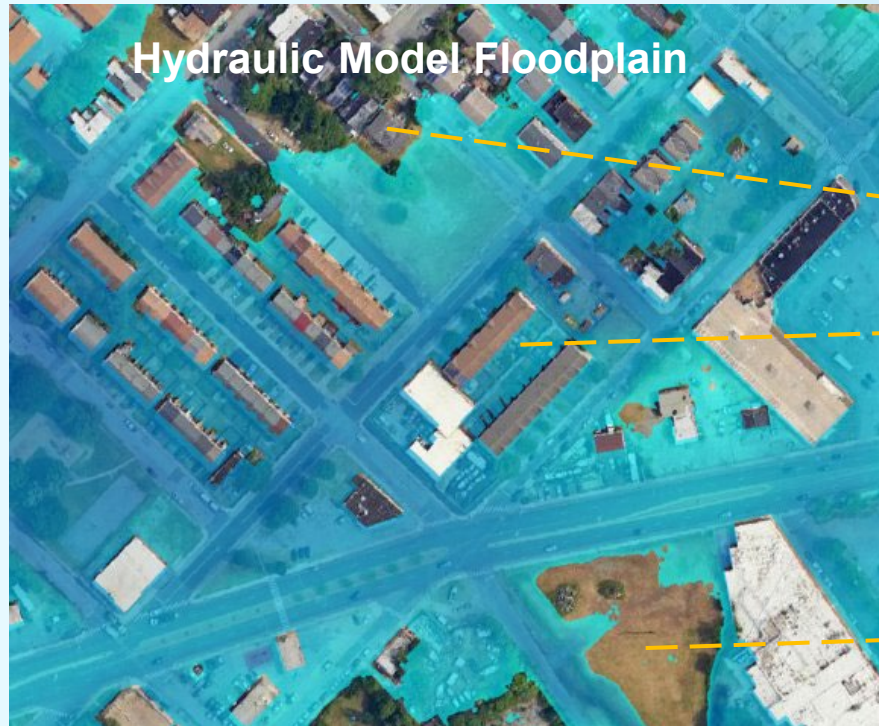
Improve Resiliency of Neighborhoods

Hurricane Ida Response and Recovery Efforts + Lower Brandywine River Flooding Study and Mitigation Strategy

- Efforts by the Fire Department, OEM, and DPW to address first response, near-term, and long-term needs
- FEMA BRIC Grant
 - Total Cost: \$666,667
 - Federal Share: \$500,000
 - Match: \$166,667



Lower Brandywine River Flooding Study and Mitigation Strategy



Lower Brandywine River Flooding Study and Mitigation Strategy



What programming would you enjoy?



What design features do you prefer?



Where do you live, work, and play in the community?

Lower Brandywine River Flooding Study and Mitigation Strategy

Alternative 1 – Water's Edge:

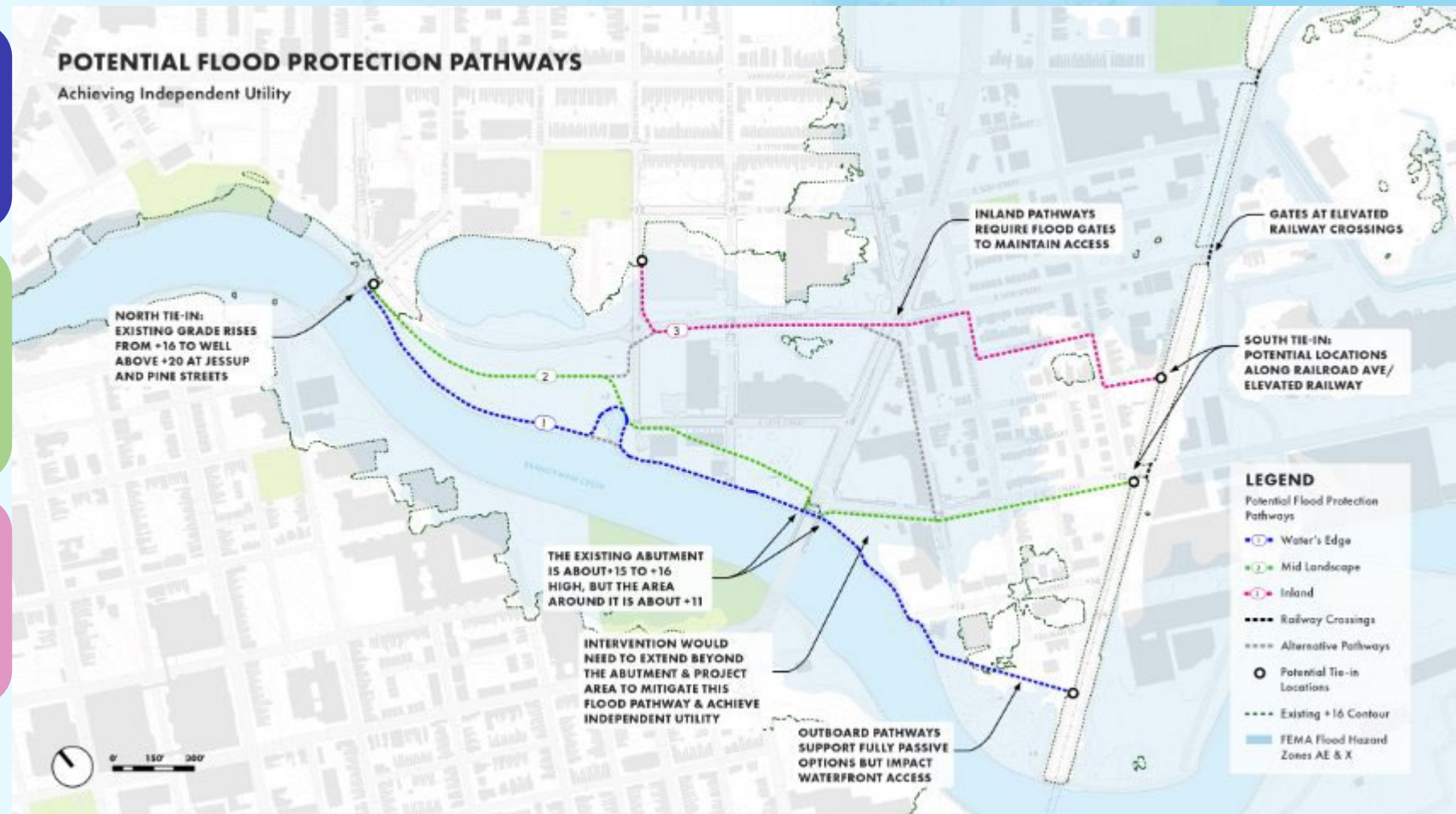
- Protects the most existing land uses (+)
- Inhibits waterside access (-)
- Requires the highest floodwall (-)

Alternative 2 – Mid-landscape:

- Mostly integrated into landscape (+)
- Allows waterside access (+)
- Leaves existing uses unprotected (-)

Alternative 3 – Inland:

- Leaves existing uses unprotected (-)
- Requires additional flood gates at roadway crossings (-)





Looking Forward



Looking Forward

- Complete Ongoing Projects:
 - Lower Brandywine River Flooding Study and Mitigation Strategy
 - Adams Street Green Infrastructure
 - Outdoor Classroom at Herman Holloway Park
- Strategically Expand Coordinated Resilience Efforts
- Identify opportunities to advance resilience in alignment with the Mayoral transition document



Thank You!

Contact Us

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