Agenda

Project Overview
  What is Resilient Connecticut
  Study Area
  What is a Resilient Community

Resilient Ansonia
  - Heat, Cooling and Flood
  - Applied Strategies
  - Creating a Kit of Parts

Discussion

Next Steps
Project Overview
What is Resilient Connecticut?

Resilient Connecticut Planning Framework

Resilient Connecticut Vulnerability Assessment Report

Fall 2021
Phase III - Resilient Ansonia Study Area Elements

Core of Downtown
- East Main
- West Main
- Main Street

Ansonia Brass and Copper

Route 8

East & West Sides of River

Train Station Area
What is a Resilient Community?

Focusing on Community Development
- Preserving and enhancing the quality of life of existing affordable communities

“Resilient Corridors”
- Creating accessible roadways resilient to climate change and increasing transit connectivity

Promote Healthy Ecosystems
- Protecting communities through healthy buffering ecosystems

Develop Energy, Economic, & Social Resilience
- Fostering independent development by encouraging green energy and economic growth

Promote Flood & Heat Resilient Infrastructure
- Adapting Critical Infrastructure to withstand Flood and Heat Risks
Resilient Ansonia

Part 1: Heat, Cooling and Flood
Part 2: Applied Strategies
Part 3: Creating a Kit of Parts
**PART I: Heat, Cooling and Flood**

- Regional Trends Heat Increase & Cooling Center Analysis
- Regional Tree Canopy & Impervious Surfaces
- Flood Protection System Analysis

**PART II: Applied Strategies**

- **Resiliency Strategies**
  1. Main St @ Ansonia Train Station
  2. East Main St @ Ansonia City Hall & Veterans’ Memorial Park
  3. Olson Drive @ Nolan Field Sports Center
  4. Riverside Drive @ Connection to Ansonia Copper & Brass Facility

**PART III: Creating a “Kit of Parts”**

How can climate resilient strategies serve future development in Ansonia?
PART I: Heat, Cooling and Flood
CCVI Scoring: Regionally

Components
- Exposure
- Sensitivity
- Adaptive Capacity

Indicators
- Social
- Built
- Eco.

Vulnerability Scores

Heat | Climate Change Vulnerability Score
CCVI Scoring: Ansonia & Derby

Areas demonstrating greatest heat vulnerability
What urban conditions contribute to rising temperatures in Ansonia?

- Temperature increase throughout Ansonia ranges from +16° east of the river and +8° west of the river.
HEAT RISK FACTORS

- Heavy vehicular traffic traps solar radiation
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- Large blocks of impervious pavement & darker surface colors create a heat island effect
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- Large buildings absorb heat & block out wind
HEAT RISK FACTORS

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- Reduced tree canopy along street & lack of shade structures lessens heat relief
HEAT RISK FACTORS

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- Increased atmospheric pollution VIA HVAC systems in commercial and residential areas
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- Water warms at a slower rate than land
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- Increased atmospheric pollution VIA HVAC systems in commercial and residential areas
- Water warms at a slower rate than land
- Increased green space & tree canopy
### Rational For Calculating Score:

- **Area:** above 10,000sqft (5), 5,000sqft (4), 1,000sqft (3)
- **Parking Area:** above 20,000sqft (5), 10,000sqft (4), 5,000sqft (3), 2,000sqft (2)
- **Public Transit Distance:** 0-250sqft (5), 500sqft (4), 750sqft (3), 1000sqft (2), 12500+ (1)
- **Cultural Neutrality:** Place of Worship/Police Station (3), Library/School/Community Center (5)

### Heat | Cooling Center Analysis

<table>
<thead>
<tr>
<th>Name</th>
<th>Area (sqft)</th>
<th>Area Ranking</th>
<th>Parking Lot Area (sqft)</th>
<th>Parking Rating</th>
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<th>Bus Route Ranking</th>
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Locations Ranking Over 4.5

- Ansonia Armory
- City Hall
- St. Mary St Michael School
- Irving School

Locations Ranking Over 4.0

- Ansonia High School/Middle School (Existing Cooling Center Location)
- Ansonia Arms Department
- Ansonia Police Department (Existing Cooling Center Location)
- The Boy's & Girls Club
- St. Mary's Church
Tree Canopy & Impervious Surfaces | Density of Coverage

*Land cover classifications are from the MRLC NLCD 2011 (mrlc.gov) and locally collected high resolution maps*
Tree Canopy & Impervious Surfaces | Density of Coverage

**Shade Canopy Covered**

*Density Scale*

**Impervious Surfaces**

*Density Scale*

**Proposed Green Corridors**

- Main Street
- East Main Street
- Pershing Drive/Olson Drive/Riverside Drive – 
  Naugatuck Greenway River Link

*Land cover classifications are from the MRLC NLCD 2011 (mrlc.gov) and locally collected high resolution maps*
100-Year Storm vs 500-Year Storm Risk

- Maps comparing 1% Storm event (100-Year Storm) to 0.2% Storm Event (500-Year Storm)

Existing Storm Protection System is appropriate

- This analysis revealed that the existing flood protection system will protect the city against future storm events, therefore we believe the existing storm protection system is appropriate.
PART II: Applied Strategies
Applied Resiliency Strategy

“KIT OF PARTS”
APPLIED RESILIENCY STRATEGIES

LINK
Link and enhance existing public parks through green infrastructure improvements and integration into green corridors

INFRAREDUCATION
Maintain existing flood protection system

Solar infrastructure and EV changing stations promotes green Ansonia

ACCESSIBILITY
Bike path enhances accessibility and creates missing link in Naugatuck River Greenway path network

ENGAGE
Engaging with river’s edge creates opportunity for new amenities, educational programming, and events

Planted bump-out and crossings for improved visibility and accessibility

MULTI-USE
Multi-use spaces in ROW & flexible public parks encourage vibrant and resilient downtown

Outlooks embrace Ansonia’s relationship to the Naugatuck River

Signage for public amenities & education
Main Street | Resilient Corridor Placed within the Cultural Hub

Existing Conditions
Main Street | Resilient Corridor Placed within the Cultural Hub

Resilient Strategies
Green Buffer visually connects existing green spaces and allows for additional street trees.
Main Street | Resilient Corridor Placed within the Cultural Hub

Green Buffer visually connects existing green spaces and allows for additional street trees.

Planted Bump-Out
And crossing for Improved visibility and accessibility.
Main Street | Resilient Corridor Placed within the Cultural Hub

Green Buffer
visually connects existing green spaces and allows for additional street trees

Planted Bump-Out
And crossing for Improved visibility and accessibility

Permeable Paving
To help absorb stormwater run-off during flooding events
Main Street | Resilient Corridor Placed within the Cultural Hub

Green Buffer
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And crossing for Improved visibility and accessibility

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To help absorb stormwater run-off during flooding events

Signage
Emphasizing resiliency awareness and public amenities
Main Street | Resilient Corridor Placed within the Cultural Hub

**Green Buffer**
visually connects existing green spaces and allows for additional street trees

**Planted Bump-Out**
And crossing for Improved visibility and accessibility

**Permeable Paving**
To help absorb stormwater run-off during flooding events

**Signage**
Emphasizing resiliency awareness and public amenities

**Solar Infrastructure**
EV Charging Stations make electric vehicles more accessible to public
GREEN CORRIDOR STUDY ZONES
EAST MAIN ST @ ANSONIA CITY
HALL & VETERANS’ MEMORIAL PARK
Existing Conditions
Resilient Strategies
Green Buffer visually connects existing green spaces and allows for additional street trees.
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Planted Bump-Out And crossing for Improved visibility and accessibility.
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Planted Bump-Out And crossing for Improved visibility and accessibility.

Rain Gardens in Public Park Or “bioretention beds” help absorb stormwater run-off.
Green Buffer
visually connects existing green spaces and allows for additional street trees

Planted Bump-Out
And crossing for Improved visibility and accessibility

Rain Gardens in Public Park
Or “bioretention beds” help absorb stormwater run-off

Shade Structures in Public Park
Provide additional cooling and creates more public use
Green Buffer visually connects existing green spaces and allows for additional street trees.

Planted Bump-Out And crossing for Improved visibility and accessibility.

Rain Gardens in Public Park Or “bioretention beds” help absorb stormwater run-off.

Shade Structures in Public Park Provide additional cooling and creates more public use.

Solar Infrastructure EV Charging Stations make electric vehicles more accessible to public.
GREEN CORRIDOR STUDY ZONES

OLSON DR @ NOLAN FIELD SPORTS CENTER
Existing Conditions
Nolan Field with Greenway Connection
Green Buffer
Preserve existing mature trees and create planted buffer
Green Buffer
Preserve existing mature trees and create planted buffer

Bike Path
Path enhances accessibility and creates missing link in Naugatuck River Greenway path network
Olsen Drive | Creating An Accessible & Resilient Waterfront Experience

Green Buffer
Preserve existing mature trees and create planted buffer

Bike Path
path enhances accessibility and creates missing link in Naugatuck River Greenway path network

Permeable Paving
Applied to new parking areas
Green Buffer
Preserve existing mature trees and create planted buffer

Bike Path
path enhances accessibility and creates missing link in Naugatuck River Greenway path network

Permeable Paving
Applied to new parking areas

Flood Barrier Awareness
Educate public on history of the flood barrier

Olsen Drive | Creating An Accessible & Resilient Waterfront Experience
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Outlooks
Outlook embraces Ansonia’s relationship to the Naugatuck River
Green Buffer
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Permeable Paving
Applied to new parking areas

Flood Barrier Awareness
Educate public on history of the flood barrier

Outlooks
Outlook embraces Ansonia’s relationship to the Naugatuck River

Engage
Ramp to lower ground creates opportunity for educational programming, water sports, and events

Olsen Drive | Creating An Accessible & Resilient Waterfront Experience
ROUTE 8 CONNECTION
RIVERSIDE DRIVE CONNECTION TO DOWNTOWN ANSONIA
ROUTE 8 CONNECTION
KEY EVACUATION CORRIDOR

Route 8

Existing roads on route

Proposed Roadway Construction

Option 1:
Proposed Bike Path/Greenway Link
*Following roadway construction

Option 2:
Proposed Bike Path/Greenway Link
*Referenced: Naugatuck River Greenway Routing Study, 2023

Bike Path unavailable and marked on main road

Ansonia Copper & Brass Mill Site Redevelopment
Existing Conditions
Route 8 Connection

To Route 8 Connection

To Copper and Brass Mill & Downtown Ansonia
Green Buffer visually connects existing green spaces and allows for additional street trees.
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Bike Path path enhances accessibility and creates missing link in Naugatuck River Greenway path network.
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Rain Gardens in Right of Way Or “bioretention beds” help absorb stormwater run-off.
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Signage Emphasizing resiliency awareness and public amenities.
PART III: Creating a "Kit of Parts"
Applied Resiliency Strategy

**LINK**
- Link and enhance existing public parks through green infrastructure improvements and integration into green corridors

**ACCESSIBILITY**
- Bike path enhances accessibility and creates missing link in Naugatuck River Greenway path network
- Planted bump-out and crossings for improved visibility and accessibility

**MULTI-USE**
- Multi-use spaces in ROW & flexible public parks encourage vibrant and resilient downtown

**INFRASTRUCTURE**
- Maintain existing flood protection system
- Solar infrastructure and EV changing stations promotes green Ansonia

**ENGAGE**
- Engaging with river's edge creates opportunity for new amenities, educational programming, and events
- Outlooks embrace Ansonia's relationship to the Naugatuck River
- Signage for public amenities & education
**Applied Resiliency Strategy**

**“KIT OF PARTS” APPLIED RESILIENCY STRATEGIES**

**LINK**
- Link and enhance existing public parks through green infrastructure improvements and integration into green corridors
- Bike path enhances accessibility and creates missing link in Naugatuck River Greenway path network
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**ENGAGE**
- Multi-use spaces in ROW & flexible public parks encourage vibrant and resilient downtown
- Signage for public amenities & education

**MULTI-USE**
- Multi-use spaces in ROW & flexible public parks encourage vibrant and resilient downtown
Participating in Zoom

Option 1:
- Raise your Zoom hand
- To raise your hand, click “Participants” then “Raise hand”
- On a telephone, press *9 to raise your hand
- A member of the Project Team will say your name and ask you to unmute so that you can state your question or comment

Option 2:
- Use the Zoom Q&A feature
- Type your questions in at any point during the meeting

After you speak, a member of the Project Team will lower your hand and you will once again be muted to allow the team to respond and to allow as many attendees as possible the opportunity to participate.
What do you think makes a climate resilient community?

How could these resiliency strategies improve connections for Ansonia?

What other strategies could be impactful for Ansonia?

What should be the top priorities?
Next Steps

Moving Forward:

• Incorporate comments and further develop resilient strategies with public feedback

• Schedule and prepare 2\textsuperscript{nd}, virtual community workshop

• Prepare existing conditions summary