



**AECOM**



# Resilient Portland

*Public Workshop*

December 12, 2024

- Please provide feedback after the presentation. You will find information on how to give feedback at the end of the presentation
- We will take comments in the order hands are raised
- If calling in, dial \*9 to raise your hand and \*6 to unmute
- In order to allow everyone to speak, please try to limit your time to 1 minute
- The meeting is scheduled to end at 8:00 PM

*Please note that this public meeting will be recorded, and the recording will be posted online shortly after.*

# Agenda

- 01 Welcome and Project Introduction
- 02 Adaption Options Design Toolkit
- 03 Design Recommendations
- 05 Implementation & Next Steps
- 06 Discussion

# 01 | Project Introduction

## **Town of Portland**

Ryan Curley, First Selectman

Dan Bourret, Town Planner

Margot Burns, RiverCOG

Ryan O'Halpin, Director, Public Works  
Department

Sarah Elliot, Director, Senior Center

Scott Cunningham, Captain, Police  
Department

Jennifer Billingsley, Director, Portland Public  
Library

## **CIRCA**

Mary Buchanan, Project Lead, Planner

John Truscinski, CFM, Director of Resilience  
Planning

Nicole Govert, Planner

## **AECOM**

Lorayne Black, RLA, Project Manager

Geoffrey Morrison-Logan, Lead Urban  
Planner and Community Outreach

Catherine Ellenberg, EIT, Stormwater  
Management

Ellie Peterson, Landscape Designer

## Phase I

Resilient Connecticut Planning Framework

January 2020

## Phase II

Resilient Connecticut Vulnerability Assessment Report

Fall 2021

## Phase III

RESILIENT PORTLAND

To be Completed January 2025

### Resilient Connecticut 2.0 Phase II

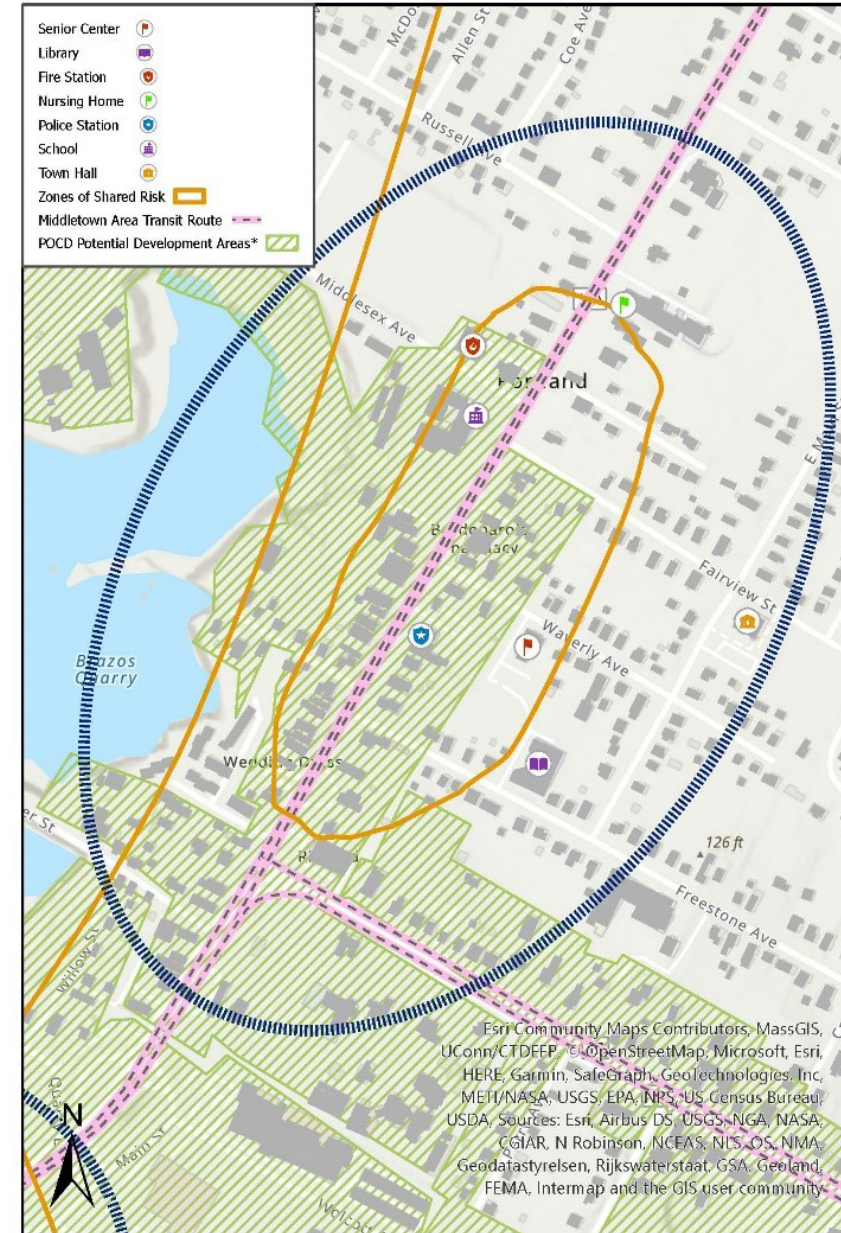
#### Regional Adaptation/Resilience Opportunity Areas

Name: Portland Critical Facilities  
Location: Portland

Consideration	Characteristics of Area				
Flood Vulnerability	●	●	●		
Heat Vulnerability	●	●	●	●	●
Social Vulnerability	●	●	●		

Three of Portland's critical facilities and associated parking lots -- the police department, the library, and the senior center -- experience shallow pluvial flooding after intense precipitation events. The senior center is the cooling center, warming center, and public food pantry for Portland. The area that floods is a topographic depression located on the east of Main Street and the south side of Waverly Avenue. Middletown Area Transit bus access is located on Main Street, Route 66, and High Street. Resiliency solutions for the town could have key co-benefits to advance cooling opportunities along the pedestrian accessways from transit lines to the senior center.

- |                            |                                |
|----------------------------|--------------------------------|
| Portland Senior Center     | Portland Care & Rehab Center   |
| Portland Police Department | Portland Company 1 Station     |
| Portland Public Library    | Brownstone Intermediate School |
| Portland Town Hall         |                                |



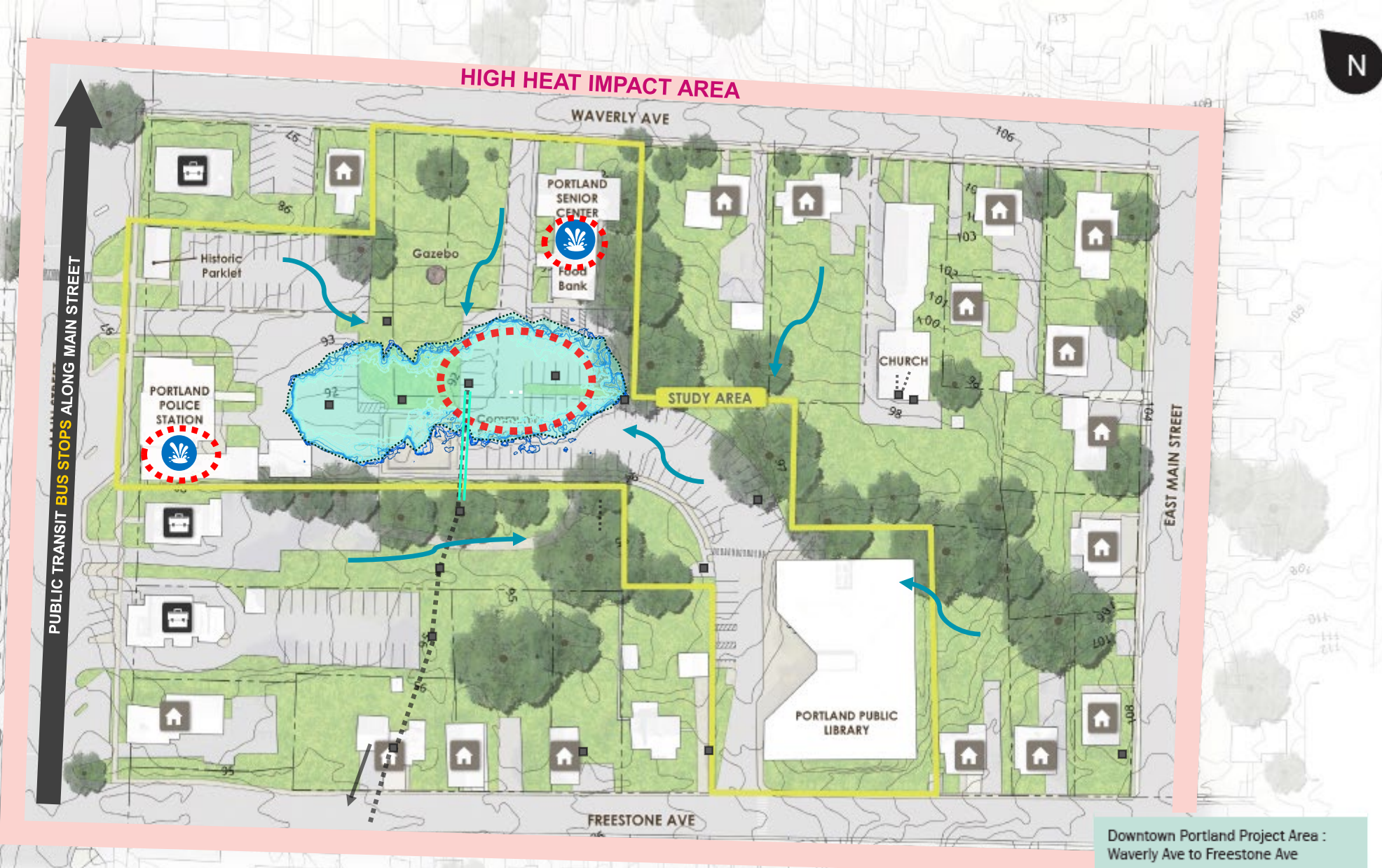
Esri Community Maps Contributors, MassGIS, UConn/CTDEEP, OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, Geotechnologies, Inc., MEI/NASA, USGS, EPA/INPS, US Census Bureau, USDA, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

\*Areas identified in POCDs as supporting development, redevelopment, or other types of economic activity



# Project Overview | Focus Area

- Observed Flooding Zone  
September 2023
- Modeled Flood Area  
(2 year to 100 year)
- Direction of Runoff
- Outlet Pipe Undersized
- Risk of Pipe Backflow
- RESIDENCE
- BUSINESS







**1** Lack of Shade | Few trees or shade structures were observed within the study area

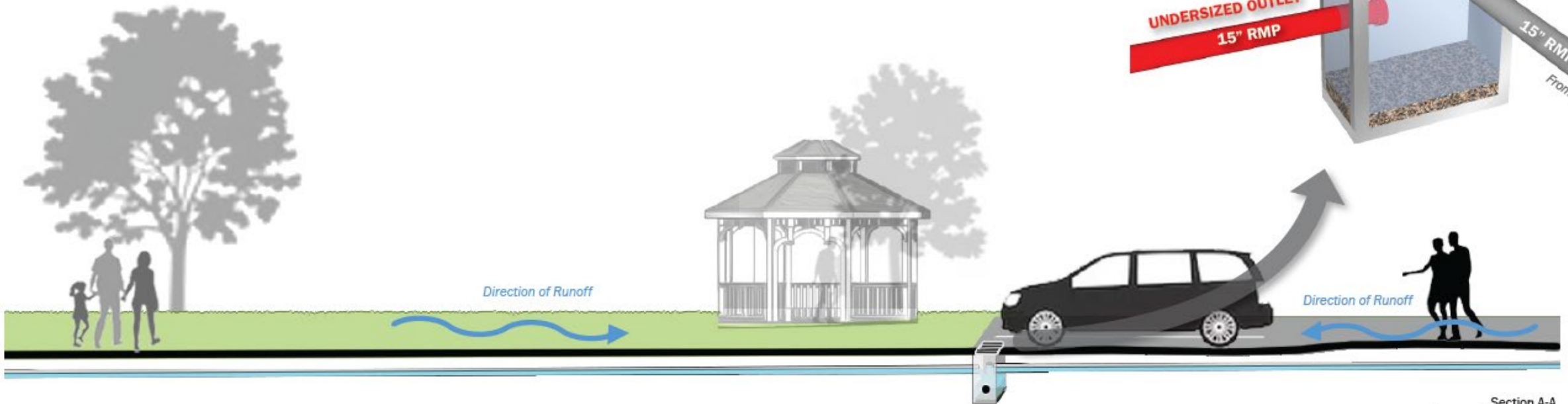
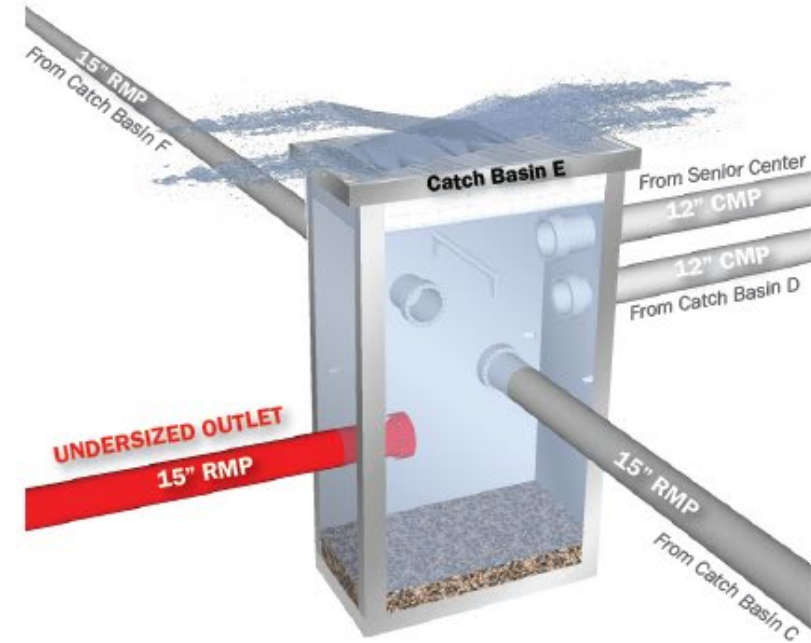
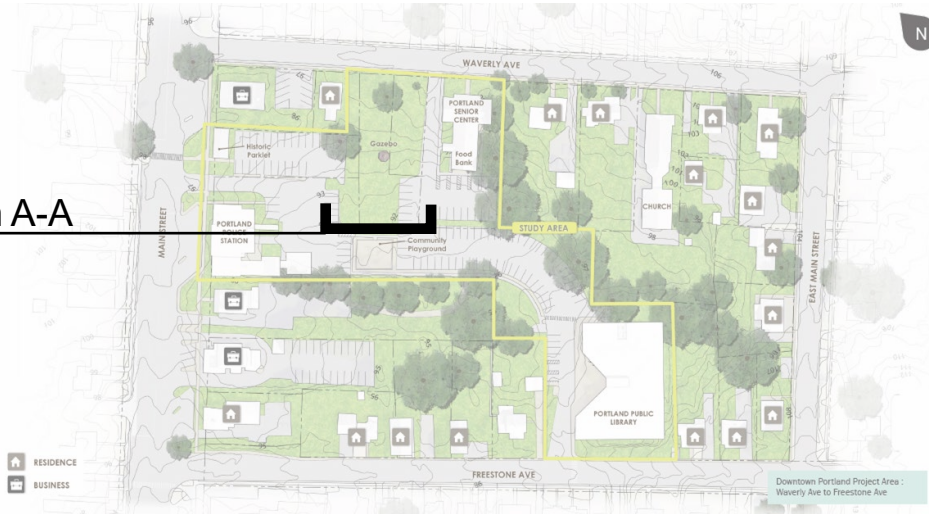


**2** Standing Water in Catch Basins | Catch basins in the parking lot were observed with standing water.








**3** Impervious Surface | Wide aisles and extensive asphalt within the parking lot

## Section A-A



Section A-A  
\*For diagrammatic purposes only

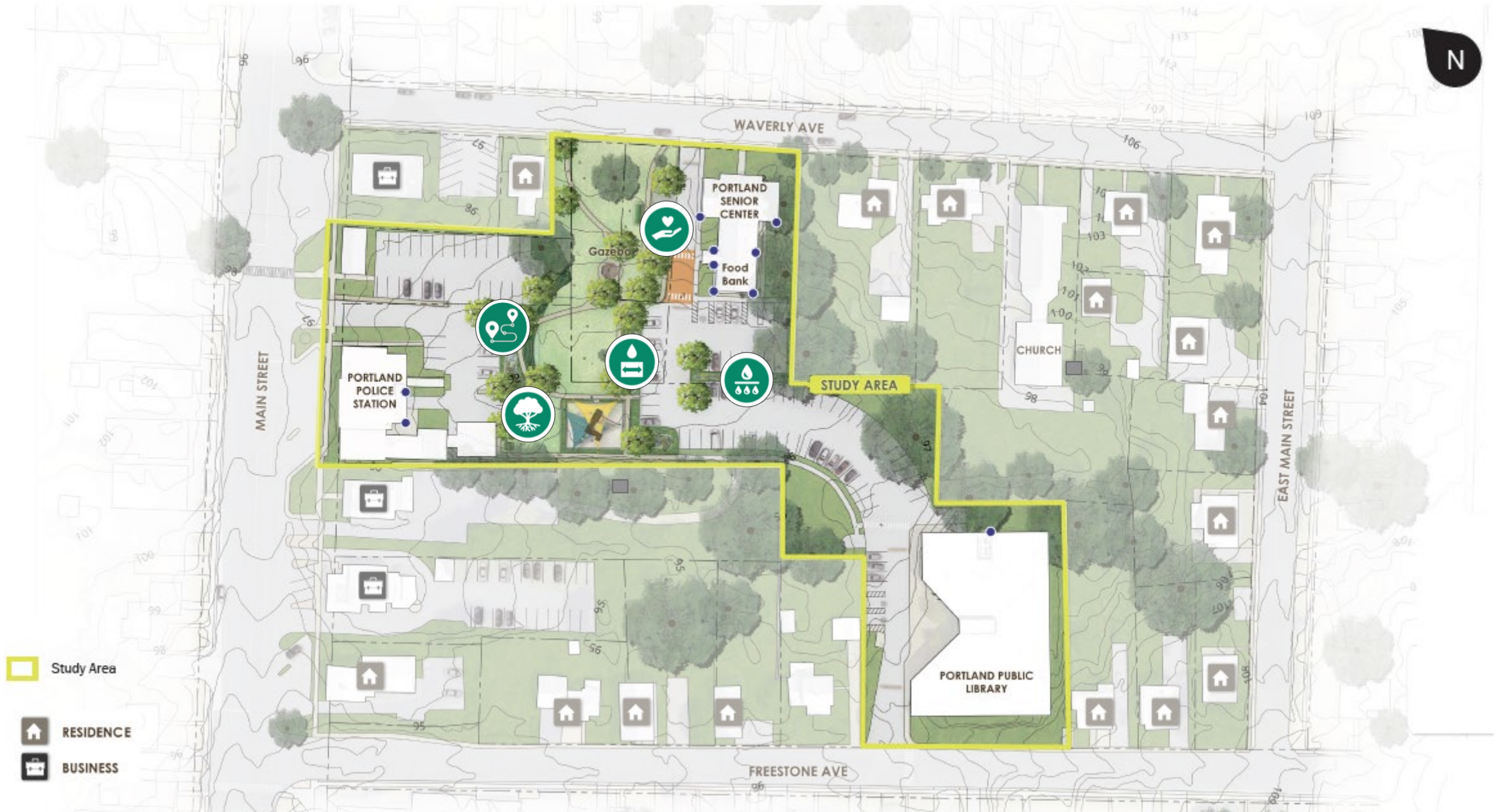
## Project Objectives:

-  Reduce flood impact on the critical facilities core of the Town of Portland from effects of excessive flooding and heat.
-  Community and stakeholder priorities should drive the selection of strategies and projects.
-  Develop plans to reduce the frequency, area and depth of flooding by reducing stormwater runoff
-  Apply future projections of precipitation events by years 2050 and 2100.
-  Reduce impacts of extreme heat for the community

## **02 | Adaption Options Design Toolkit**





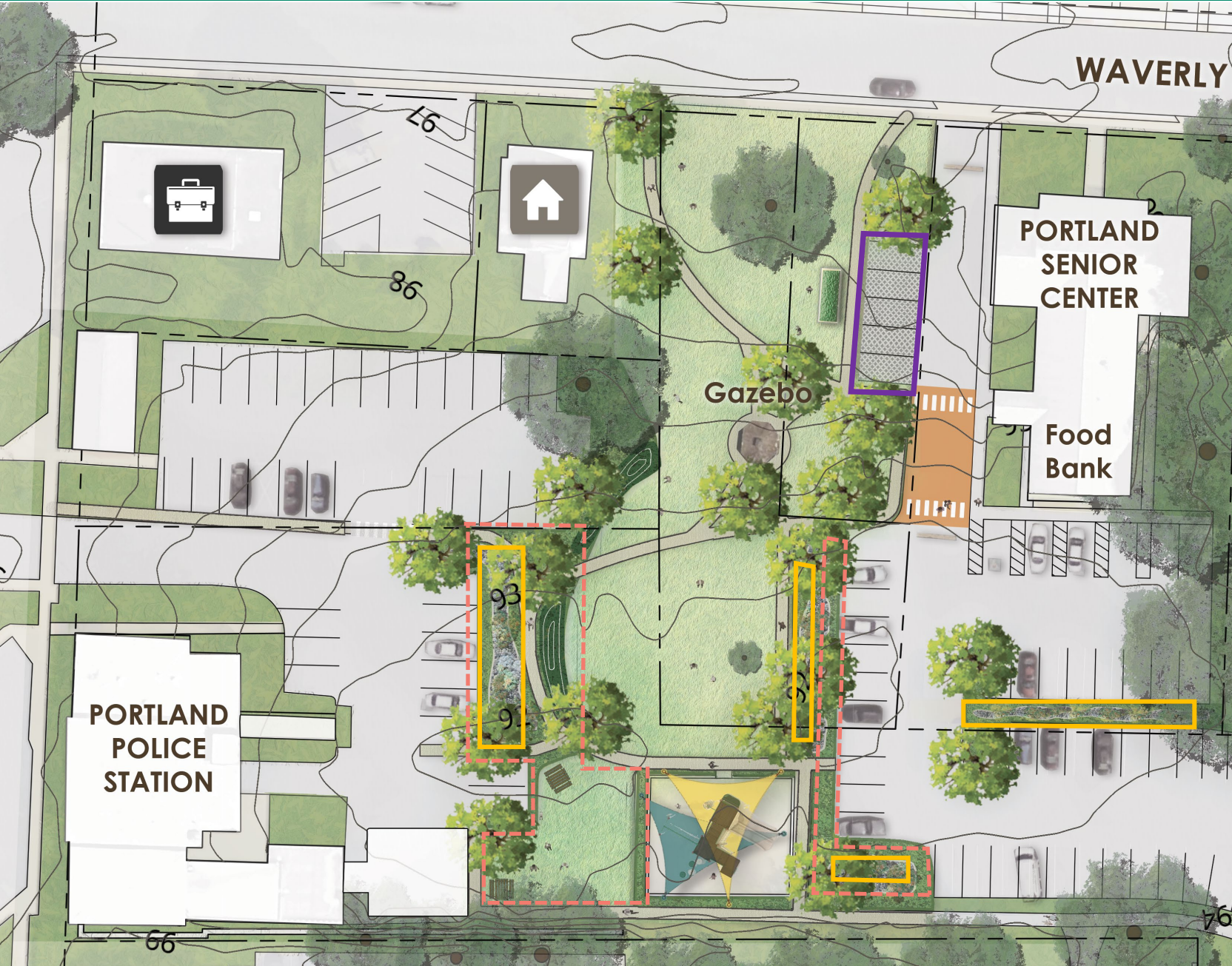




Increase capacity of stormwater system

Update flood modeling to address undersized pipe at **Catch Basin E** and conduct stormwater analysis to ensure optimal pipe configuration and materials

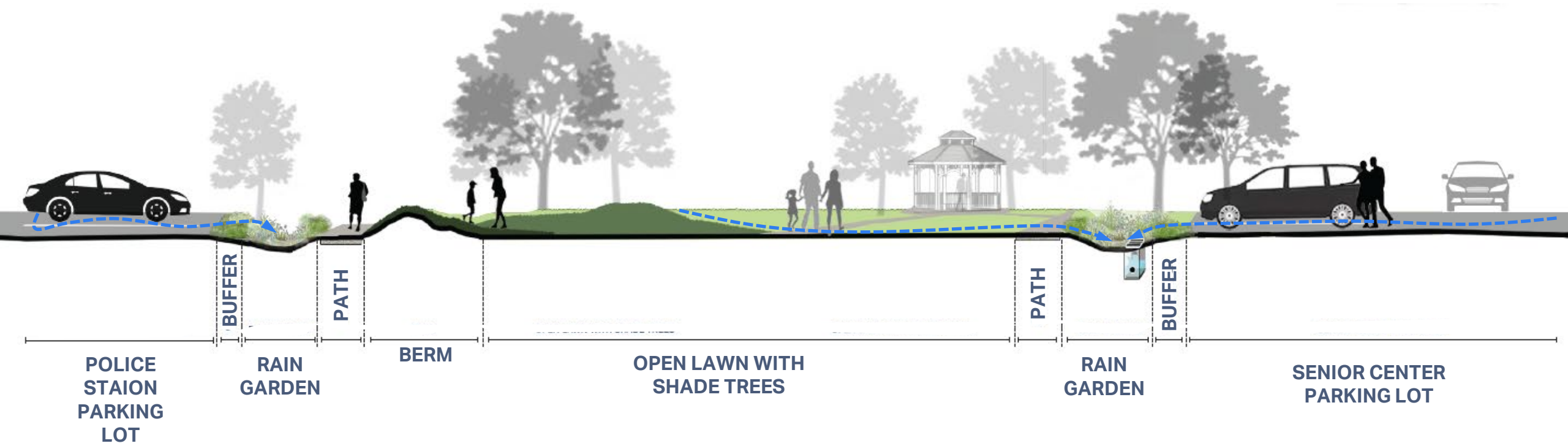
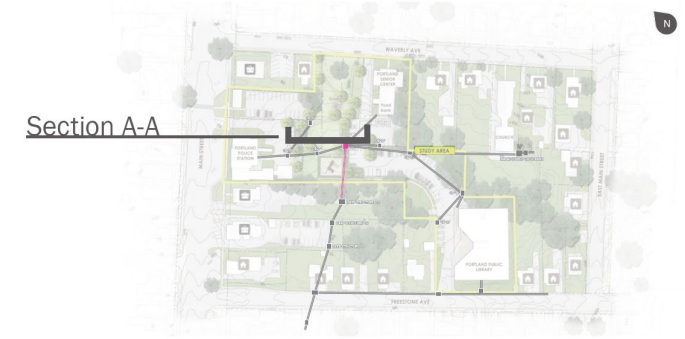


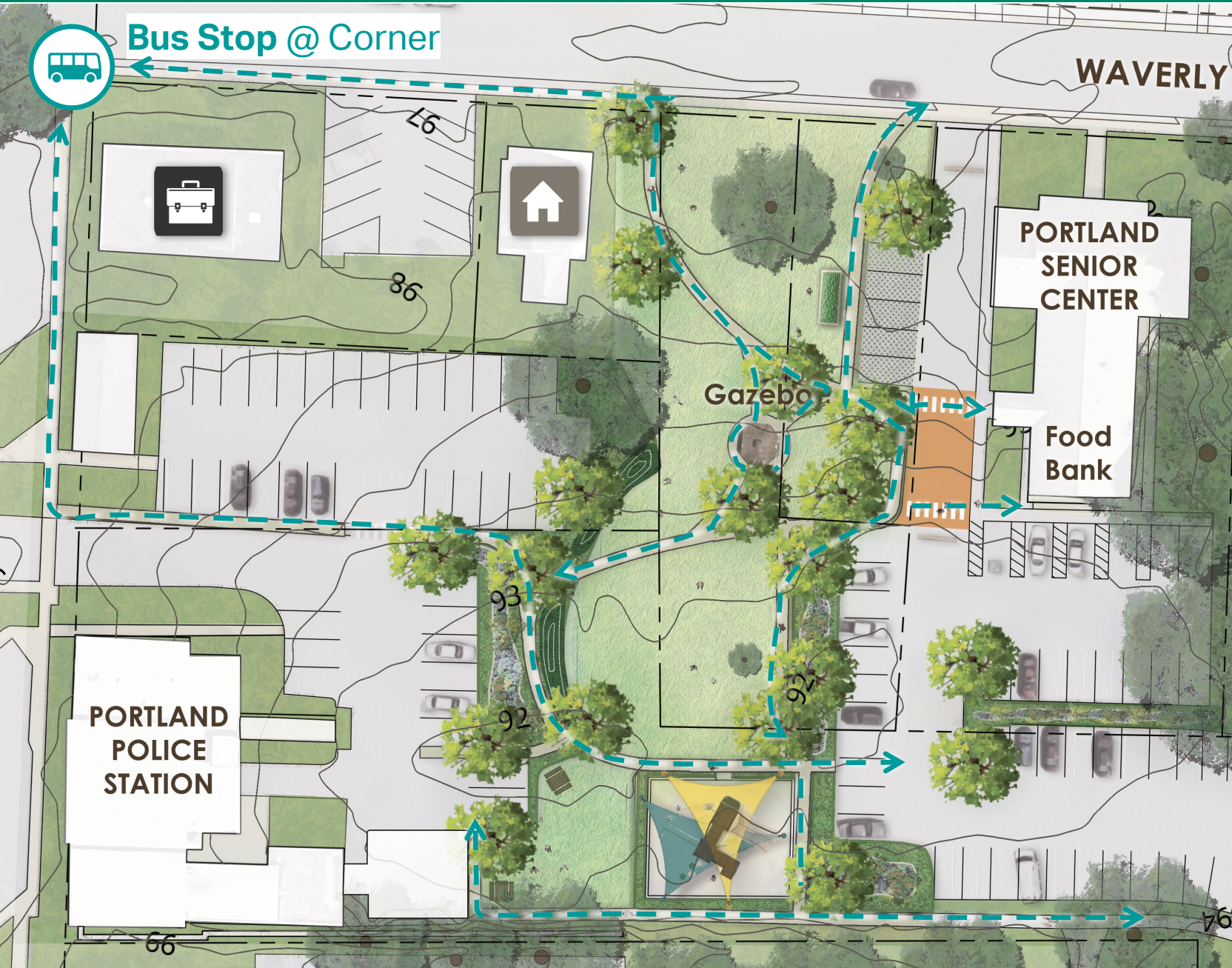


**Reduce runoff that contributes to flooding**

Provide additional strategies to manage stormwater through

-  permeable paving
-  bioretention beds
-  reduction of impervious paving in parking lots (added green space)





**Improve neighborhood connections**

Promote walkability through shaded pedestrian connections to neighborhood and transit

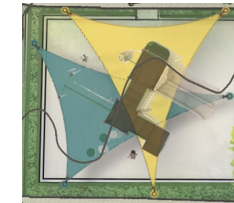
← -> Proposed Pathways



Reduce impact of extreme heat



Provide **additional shade canopy trees** for pedestrians in public park



Provide **shade structures** in playground areas

Providing a healthy and safe environment for the community

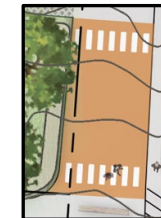


Educate community about resiliency

Incorporate interpretive signage and stewardship opportunities



Interpretive signage suggested location



Public art community crosswalk, encourages local engagement and serves as a traffic slowly device



*View from Senior Center looking toward Portland Police Station  
across public green space*  
Current Day View (left), Rendered Design Alternative (Right)



Rendered view from Senior Center looking toward Portland Library parking lot and community playground area

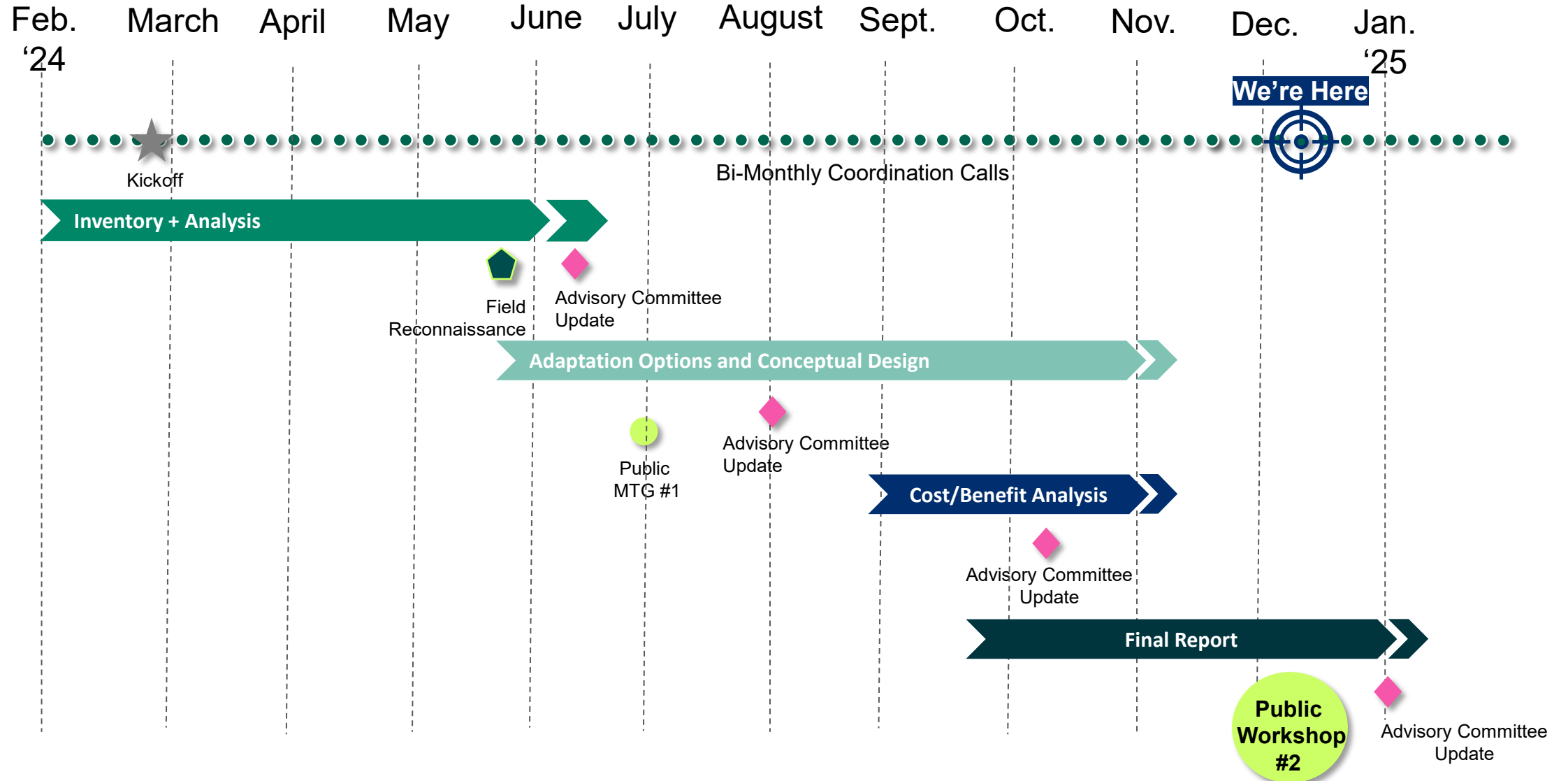


Rendered view from Police Station parking lot "Portland Fair" mural looking towards Senior Center



# 03 | Implementation

## Schedule + Next Steps








## Draft Actions

- 1) Finalize the Draft Report
- 2) Seek and secure funding to further develop the design
- 3) Update the future conditions flood model to right size the design elements by incorporating the recommendations from the draft flood modeling findings
- 4) Undertake schematic design and confirm project approach with Town Leadership and the Portland community
- 5) Refine costs and implementation steps
- 6) Advance the project through design development and construction documentation
- 7) Develop a plan to implement the project through construction

## 04 | Discussion



Toolkit	Design Challenge	Solution
	Increase capacity of stormwater system	Update flood modeling to address undersized pipe at Catch Basin E and conduct stormwater analysis to ensure optimal pipe configuration and materials
	Reduce runoff that contributes to flooding	Provide additional strategies to manage stormwater through permeable paving, bio-retention beds, and reduction of impervious paving in parking lots
	Improve neighborhood connections	Promote walkability through shaded pedestrian connections to neighborhood and transit
	Reduce impact of extreme heat	Provide additional shade canopy trees for pedestrians in public park and playground areas, providing a healthy and safe environment for the community
	Educate community about resiliency	Incorporate interpretive signage and stewardship opportunities

*Thank you!*