



Maryland Avenue Stormwater Project

Project Update And Construction Schedule

Shadyside Community

June 8, 2021

Agenda

- Welcome and Introductions
- Stormwater Overview
- Project Description
- Construction: What to Expect
- Question and Answer



Submitting Questions Using Zoom

- **During Presentation**

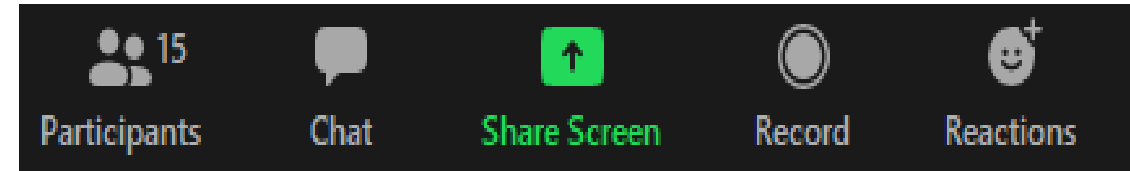
- Participants will be muted
- To ask a question use the chat box below

- **Click the Chat Icon**

- Located at bottom of screen
- Looks like a cartoon bubble
- Type question in dialogue box; press enter to send
- All attendees will receive your question

- **When Presentation Ends**

- We will respond to questions individually
- We will unmute microphones to enable verbal Q&A



For more information or to ask a question after the meeting, please visit

<https://www.pgh2o.com/maryland-ave>

Project Team

Project Owner: PWSA

- **Construction Project Manager:** Marco Sciulli
- **Design Project Manager:** Ryan Quinn


Project Designer: Buchart Horn, Inc.

- **Project Manager:** Ron Zagrocki

Construction Firm: Zottola Construction

- **Construction Manager:** TJ Johnson
- **Assistant Construction Manager:** Ryan Huber

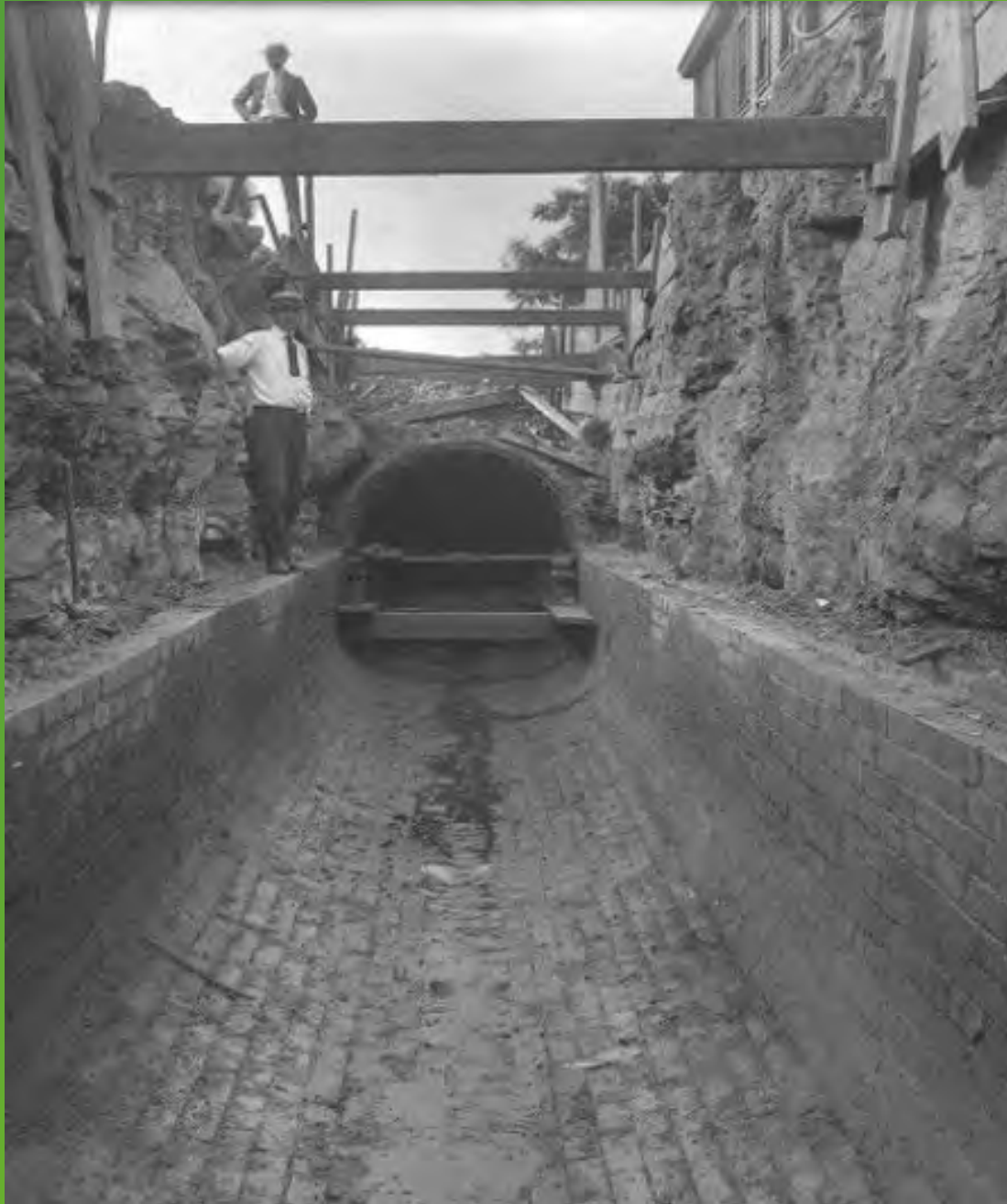
Construction Management Firm: Anser Advisory

- **Project Manager:** Bryan Martucci
 - **Project Manager:** Scott Hostetler
 - **Construction Inspector:** Nick Droz
- 



Stormwater Overview

*Pittsburgh has a stormwater
management problem.*



At Turn of 20th Century

Pittsburgh embarked on its biggest infrastructure improvement campaign, building sewers, water lines, roads, and power lines that created the city we know today.



We Have a Stormwater Management Problem

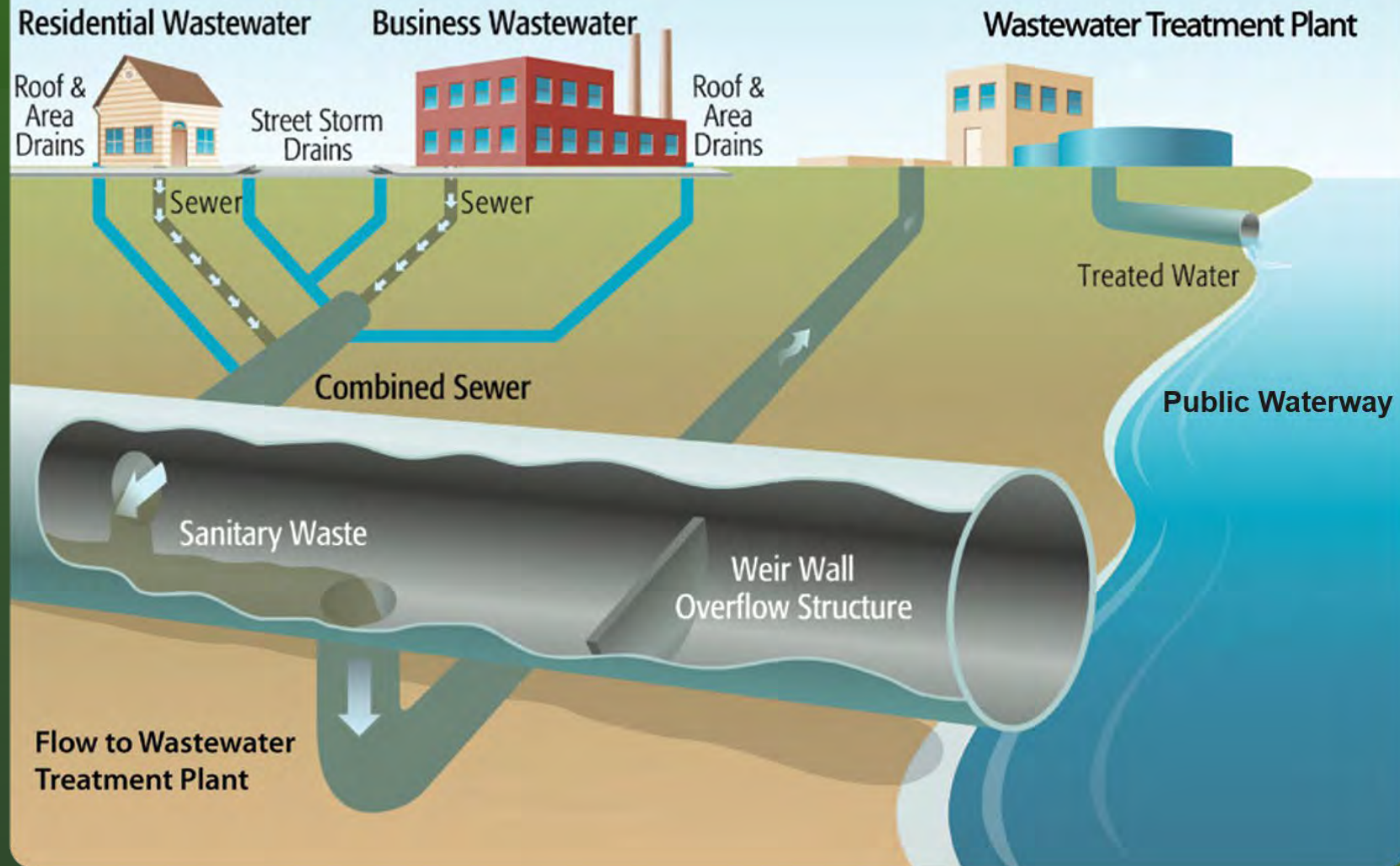
- Sewers that are 80 – 100+ years old
- Increasing severe and intense rainfall
- Poor water quality
- CSOs/SSOs
- Illicit discharges – sewage in storm sewers
- Surface flooding
- Basement sewage flooding

Stormwater Problems



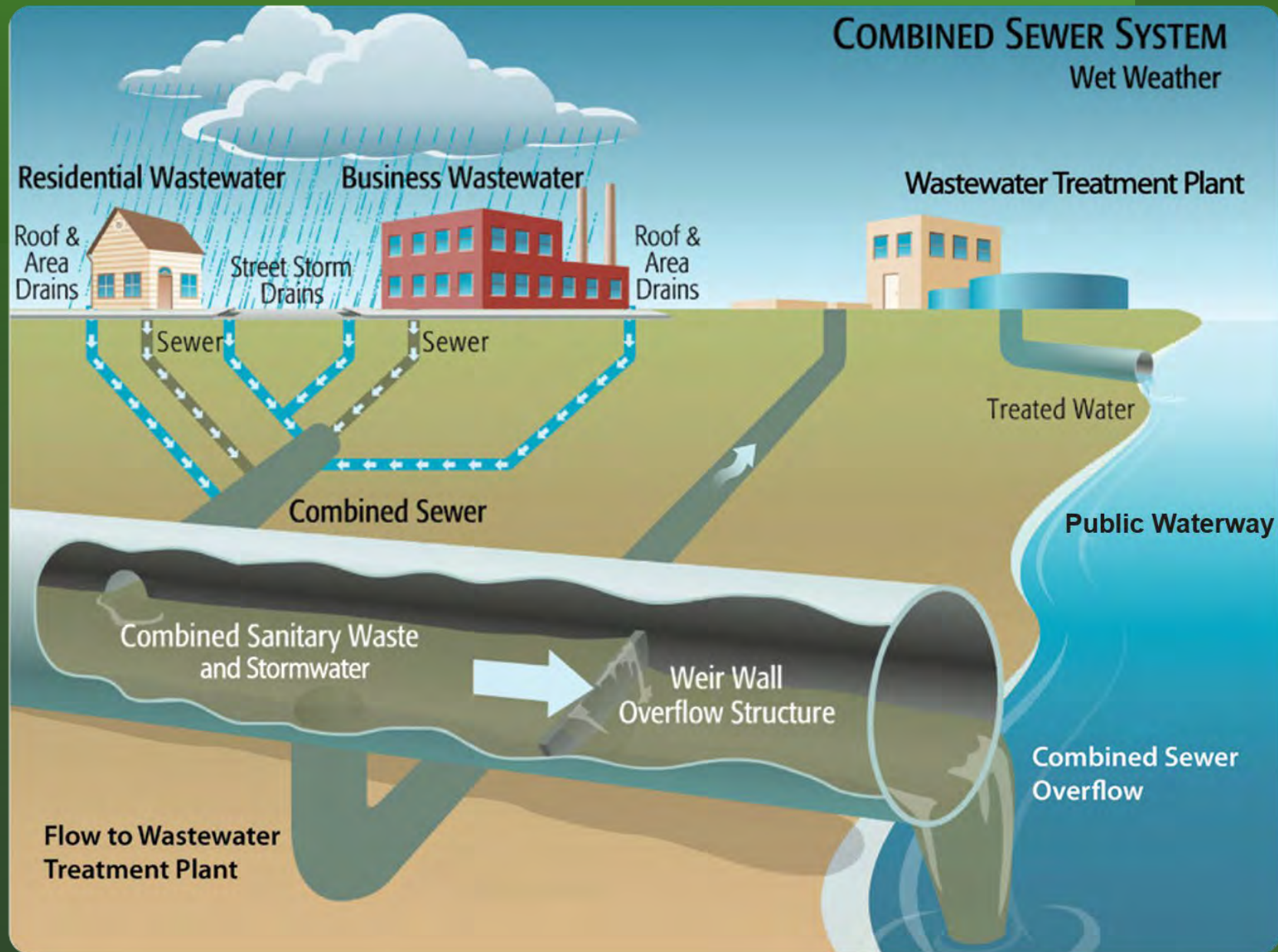
COMBINED SEWER SYSTEM

Dry Weather



COMBINED SEWER SYSTEM

Wet Weather

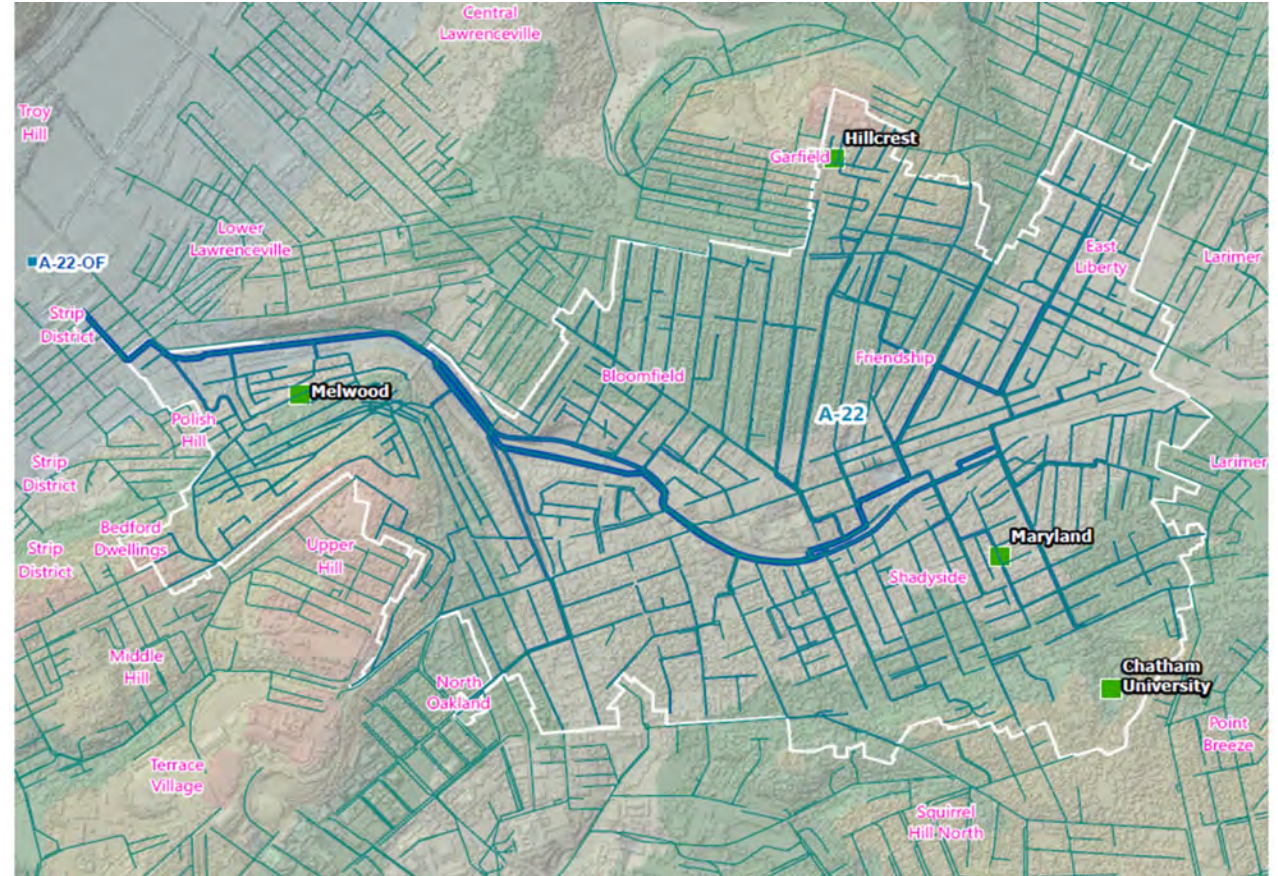




A-22 Sewershed

**Typical Year (TY) Overflow
volume, existing conditions**

Approximately **580 MG**, 3rd
largest CSO in PWSA system
(63% capture)



Flooding

August 31, 2014 – Extensive flooding due to 1” rain in 15 minutes

Resulted in large number of basement complaints along Maryland Ave and adjoining streets

October 2014 – 14 basement inspections and CCTV


Maryland Ave, S Negley Ave, Maryland Ave, Walnut St.

January 2015 – Homeowner Letters and Survey

PWSA sent over 1,800 letters to gather information from residents. Survey included questions on home structure, age of home, location of sanitary lateral, occurrence of basement flooding, and source of water, backflow preventer location.

February 2015 – Maryland Ave. Flooding Investigation Report

Included capacity profiles for four significant rain events between 2009 – 2014 to assess system performance

**Shadyside Basement Flooding Investigation**

8. Have you ever had sewage in your basement?

☐ Yes

☐ No

9. Have you reported all basement flooding occurrences to PWSA?
**If not, please notify PWSA of any future occurrences (412-255-2423). This helps PWSA identify areas that may have sewer problems.*

☐ Yes

☐ No

10. If yes, when did backups begin?

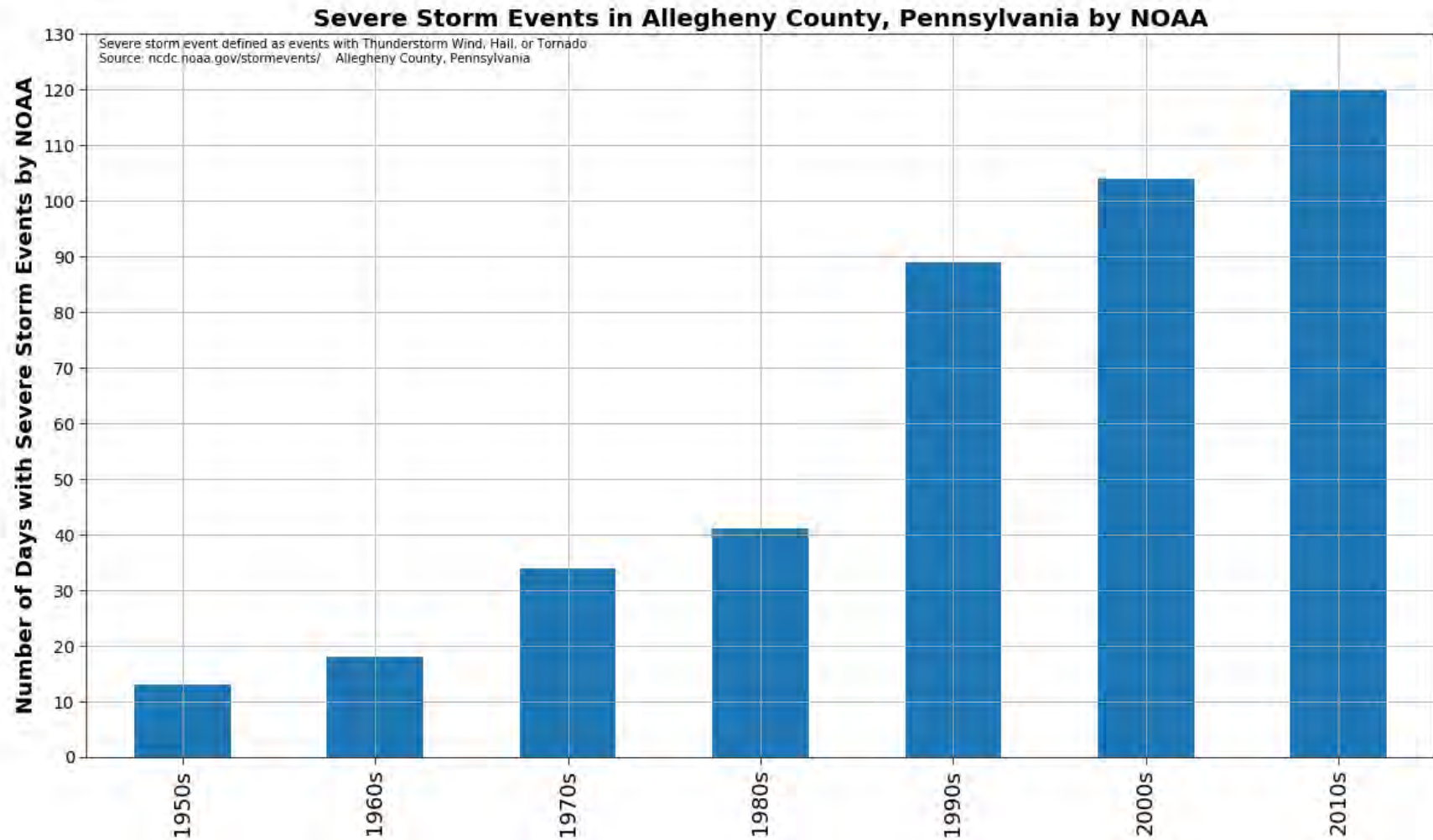
11. How often do they occur?

12. Source of water (i.e. windows, walls, floor drain, etc.)?

Prev

Next

Climate Change Historic Data



Project Planning

Project Goal #1

Maximize stormwater capture across the larger planning area, with a target of 6.5 to 13 acres cost effectively managed.

Project Goal #2

Use GSI technologies that will reliably manage intense rainfall, defined as 1.0" in 15 minutes, to positively impact flooding conditions at key sewer locations.

Project Goal #3

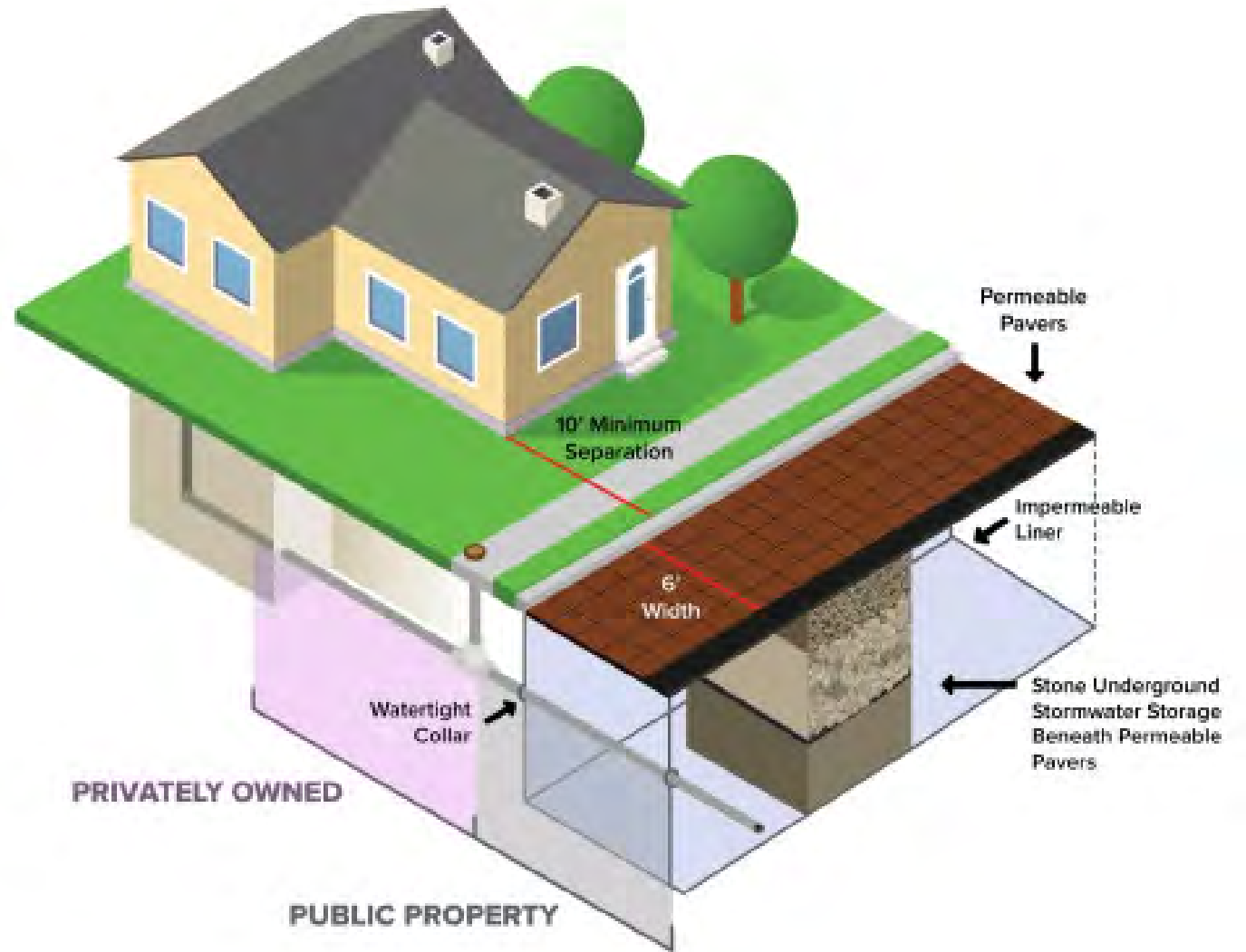
Engage residents on stormwater improvements that can be made on private property.



Maryland Ave. GI Community Meeting – July 27, 2017

Project Description

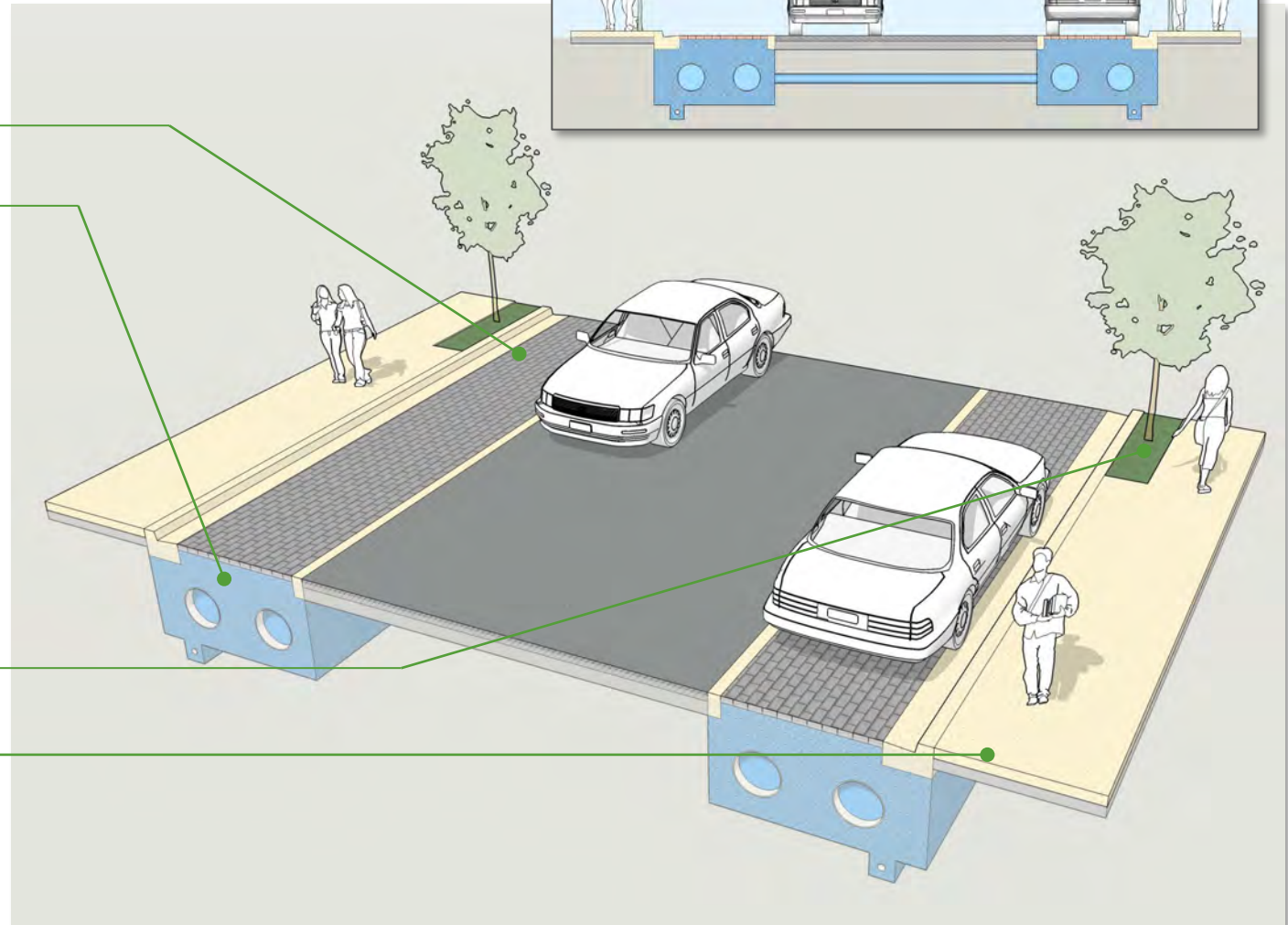
The Maryland Avenue Stormwater Project uses cost-effective green stormwater solutions throughout Shadyside to reduce runoff entering the combined sewer system.



Project Components

Project Parts

- Permeable Pavers
- Storage
 - Storage layers (#57 and Pipe)
 - Impermeable Liner
 - Underdrain Piping
 - Catch Basins/Manholes
- Tree Protection and Replacement
- Final Sidewalk and Street Restoration



Typical Section

Project Location

Four Project Areas

- Kentucky Ave. West (5700 Block)
- Kentucky Ave. East (5800 Block)
- Howe St. West (5700 Block)
- Howe St. East (5800 Block)

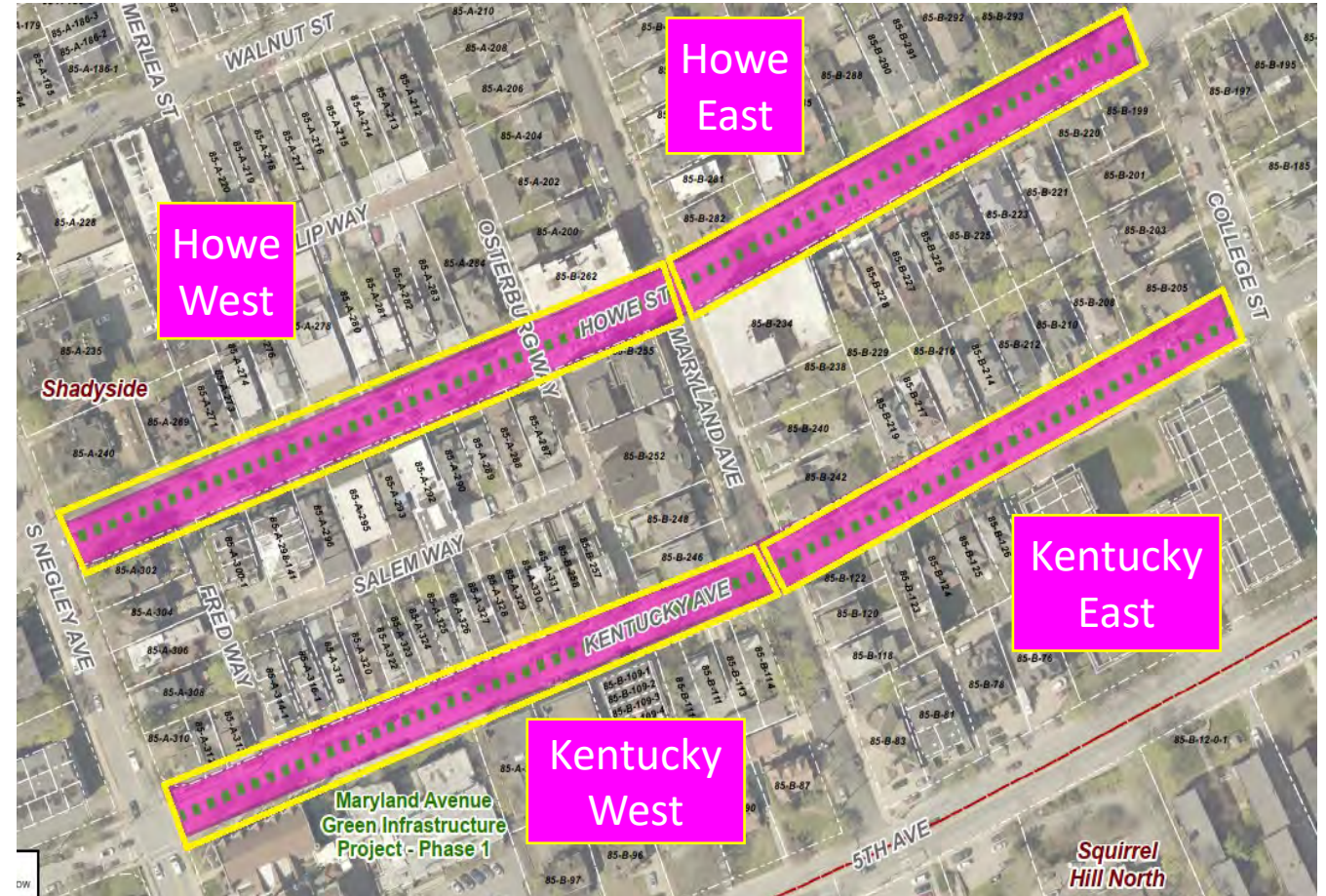







Figure: General Project Areas Location

Project Location

Four Project Areas

- **Kentucky Ave. West**
- Kentucky Ave. East
- Howe St. West
- Howe St. East

Legend

-  Permeable pavers
-  New concrete sidewalk
-  Protect existing tree
-  Tree removal
-  Tree replacement



1 KENTUCKY AVENUE WEST PLAN
SCALE: 1" = 20'



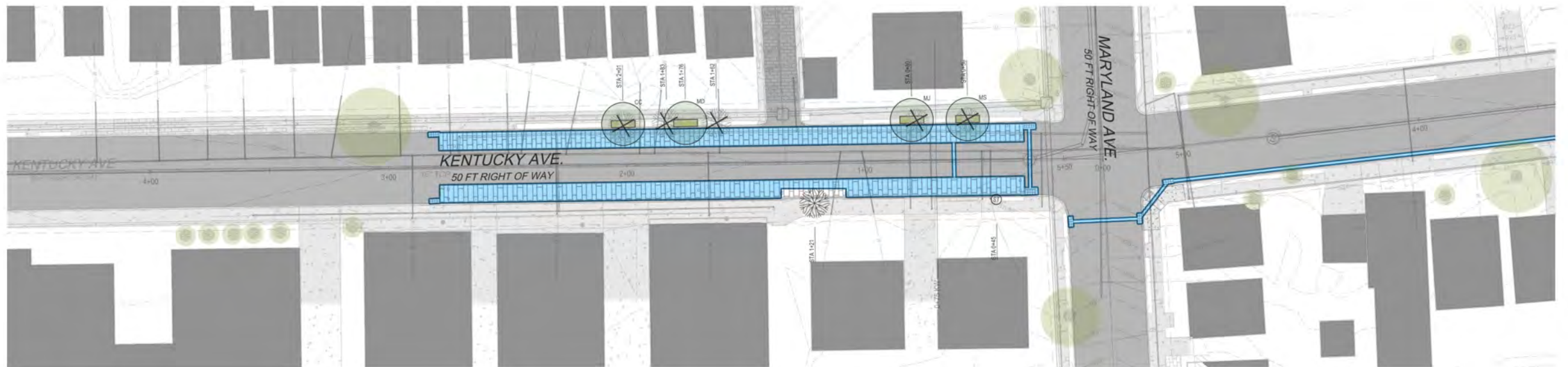
Project Impacts

Four Project Areas

- **Kentucky Ave. West**
- Kentucky Ave. East
- Howe St. West
- Howe St. East

Project Part

- Storage
 - Storage layers (#57 and Pipe)
 - Impermeable Liner
 - Underdrain Piping
 - Catch Basins/Manholes








1 KENTUCKY AVENUE WEST PLAN
SCALE: 1" = 20'

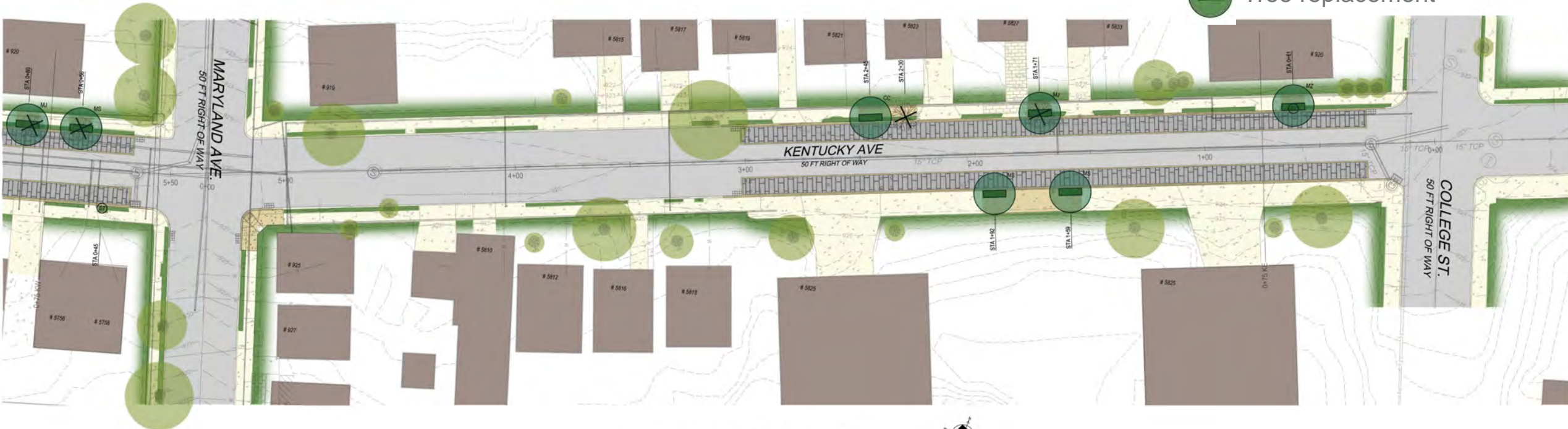
Project Location

Four Project Areas

- Kentucky Ave. West
- **Kentucky Ave. East**
- Howe St. West
- Howe St. East

Legend

-  Permeable pavers
-  New concrete sidewalk
-  Protect existing tree
-  Tree removal
-  Tree replacement



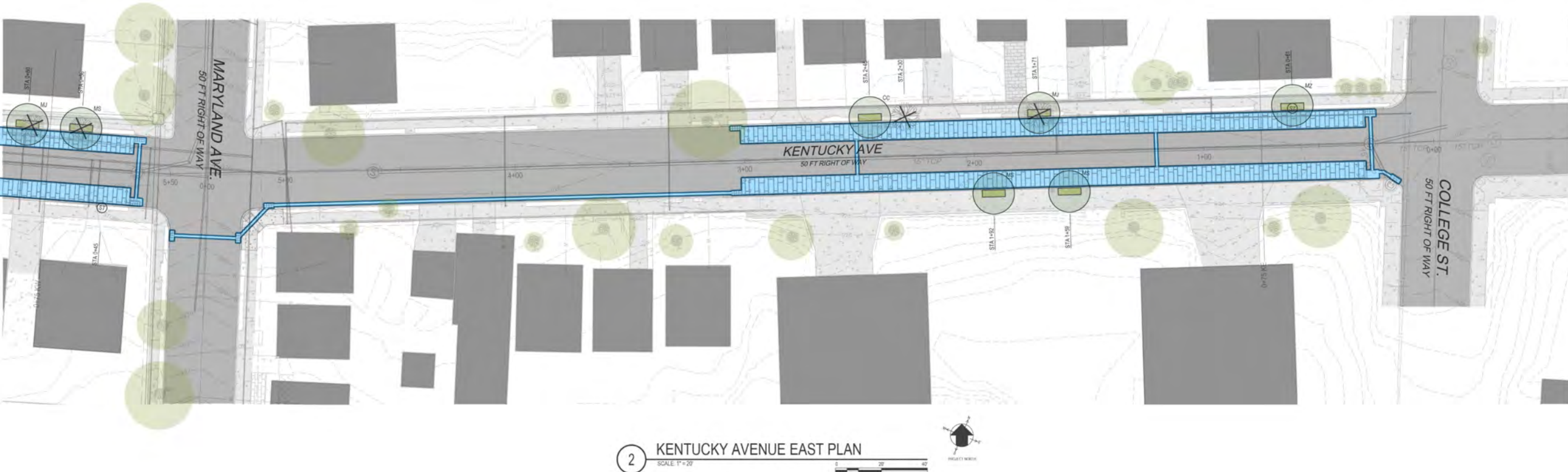
Project Impacts

Four Project Areas

- Kentucky Ave. West
- **Kentucky Ave. East**
- Howe St. West
- Howe St. East

Project Part

- Storage
 - Storage layers (#57 and Pipe)
 - Impermeable Liner
 - Underdrain Piping
 - Catch Basins/Manholes








Project Location

Four Project Areas

- Kentucky Ave. West
- Kentucky Ave. East
- **Howe St. West**
- Howe St. East

Legend

-  Permeable pavers
-  New concrete sidewalk
-  Protect existing tree
-  Tree removal
-  Tree replacement



1 HOWE STREET WEST PLAN
SCALE: 1" = 20'



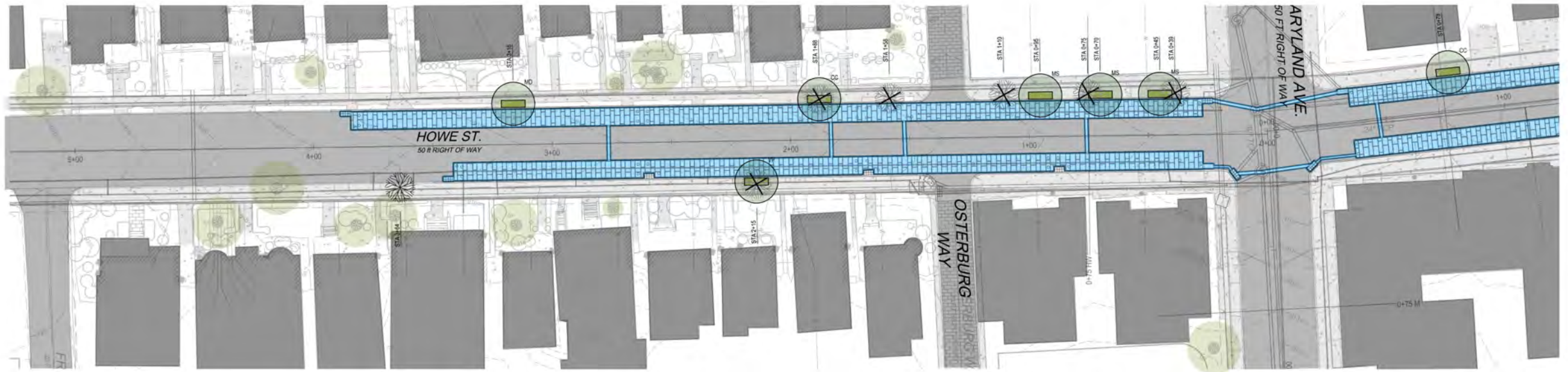
Project Impacts

Four Project Areas

- Kentucky Ave. West
- Kentucky Ave. East
- **Howe St. West**
- Howe St. East

Project Part

- Storage
 - Storage layers (#57 and Pipe)
 - Impermeable Liner
 - Underdrain Piping
 - Catch Basins/Manholes



1 HOWE STREET WEST PLAN
SCALE: 1" = 20'








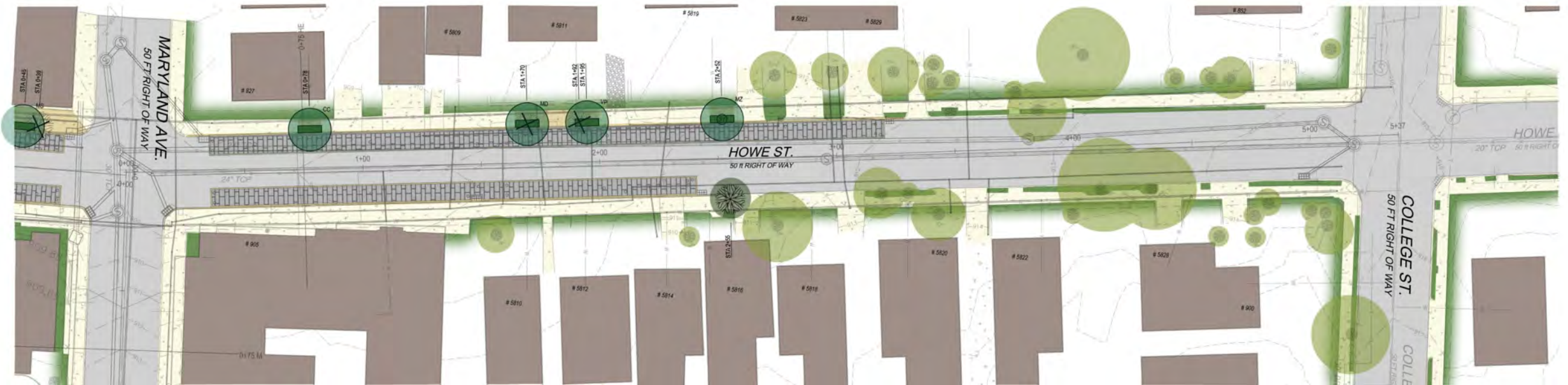
Project Location

Four Project Areas

- Kentucky Ave. West
- Kentucky Ave. East
- Howe St. West
- **Howe St. East**

Legend

-  Permeable pavers
-  New concrete sidewalk
-  Protect existing tree
-  Tree removal
-  Tree replacement



2 HOWE STREET EAST PLAN
SCALE: 1" = 20'



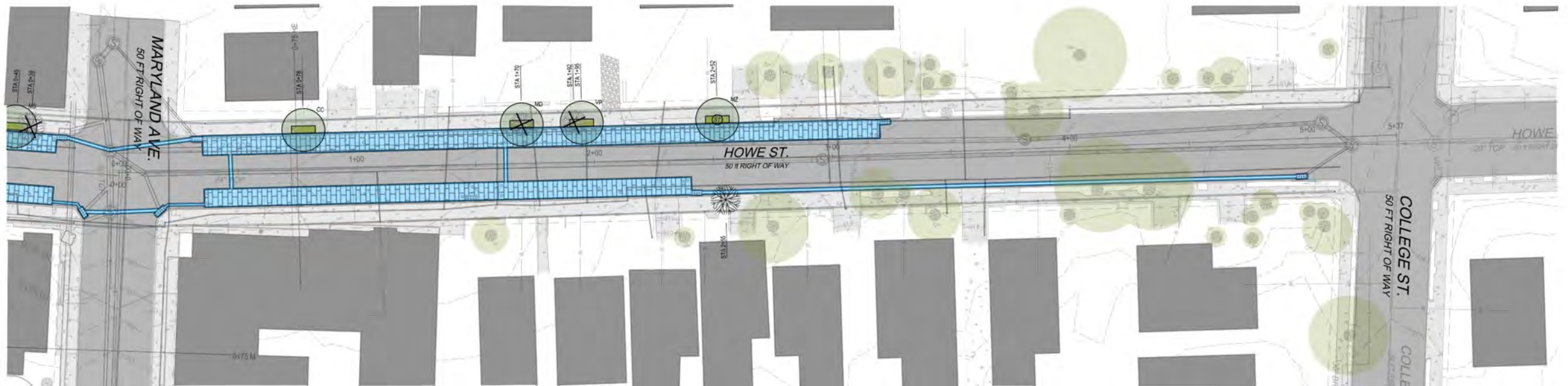
Project Impacts

Four Project Areas

- Kentucky Ave. West
- Kentucky Ave. East
- Howe St. West
- **Howe St. East**

Project Part

- Storage
 - Storage layers (#57 and Pipe)
 - Impermeable Liner
 - Underdrain Piping
 - Catch Basins/Manholes



Project Impact

Four Project Areas

- Kentucky Ave. West
- Kentucky Ave. East
- Howe St. West
- Howe St. East

Total Drainage Area in Street: 5.5 acres








Figure: Drainage Area Map

Downspout Disconnection

Howe St. West – Pilot Project Area

- Voluntary participation
- PWSA will pay the cost and construct improvements to manage a limited number of downspouts from private property and direct into the stormwater system as part of project
- Requires signed agreement with a temporary easement

Legend

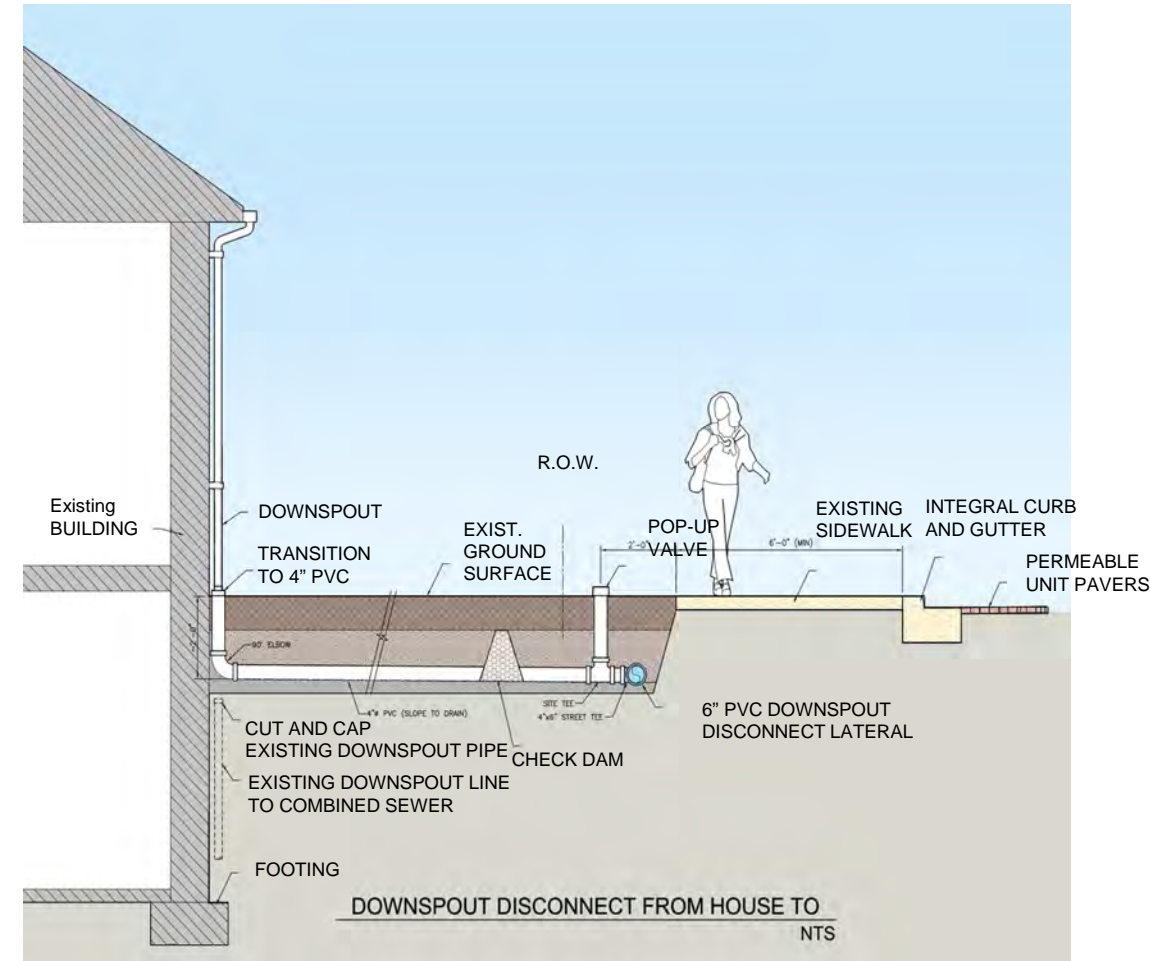
-  Permeable pavers
-  New concrete sidewalk
-  Protect existing tree
-  Tree removal
-  Tree replacement



Downspout Disconnection

Project Parts

- Downspout Disconnection (Private Property)
 - Cut and Cap Existing Downspout Pipe
 - 4" PVC Disconnection Pipe
 - Bentonite Check Dam
- Downspout Disconnection (Public Property)
 - Pop-up Valve
 - 6" PVC Disconnection Lateral Collection Pipe

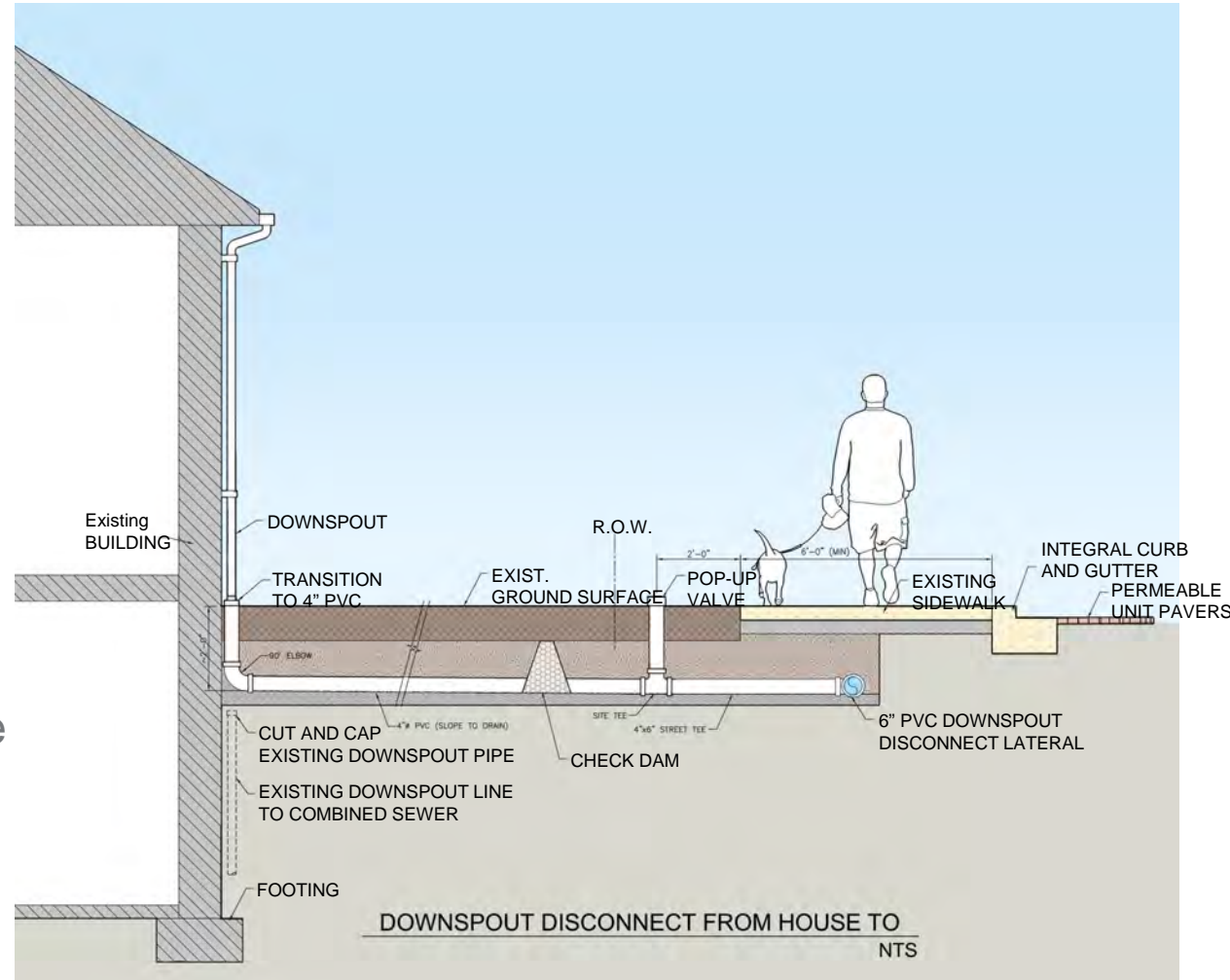


Typical Section – 6" Collection Pipe in Right-Of-Way under lawn

Downspout Disconnection

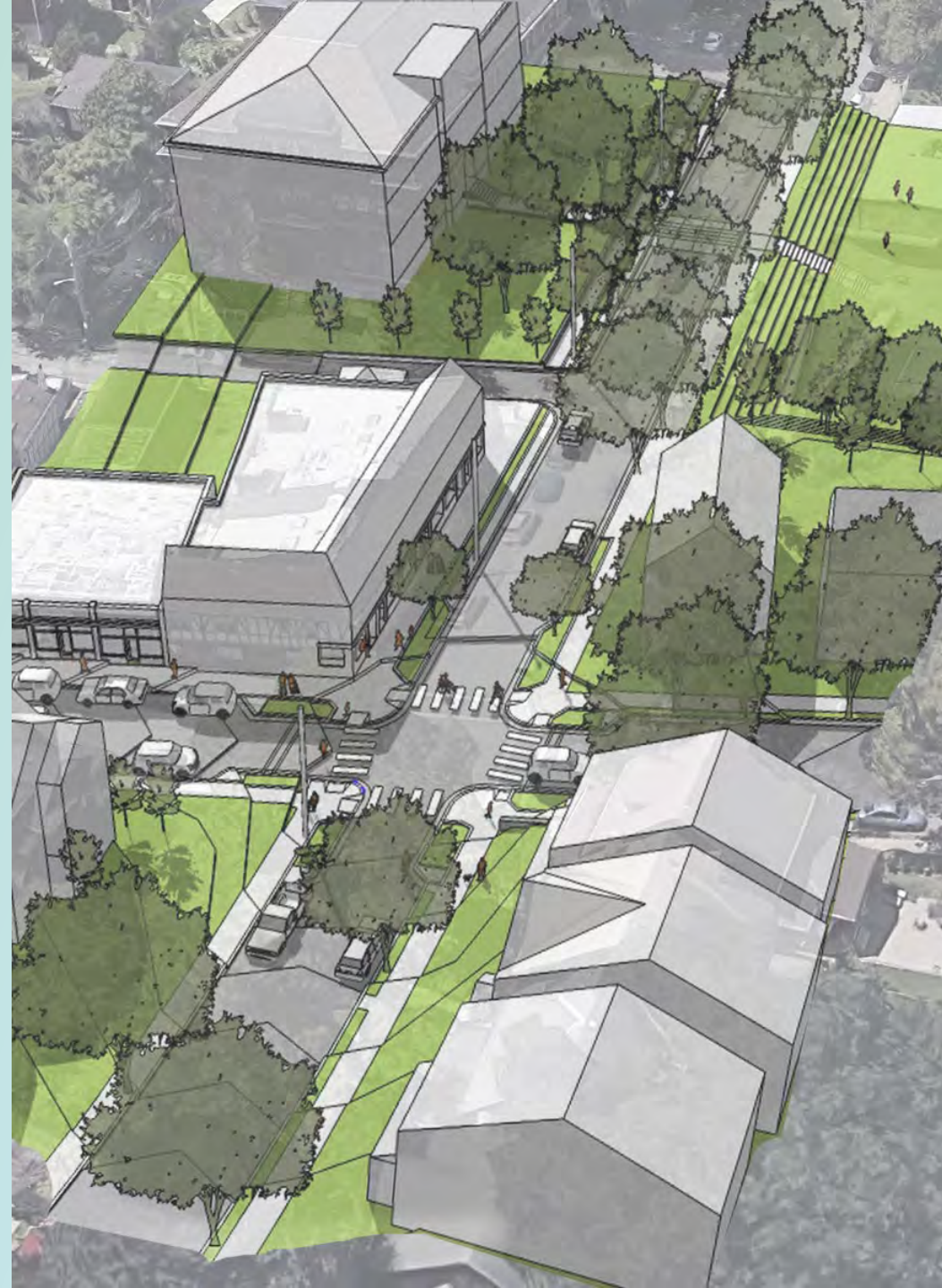
Project Parts

- Downspout Disconnection (Private Property)
 - Cut and Cap Existing Downspout Pipe
 - 4" PVC Disconnection Pipe
 - Bentonite Check Dam
- Downspout Disconnection (Public Property)
 - Pop-up Valve
 - 6" PVC Disconnection Lateral Collection Pipe



Typical Section – 6" Collection Pipe in Right-of-Way under sidewalk

Questions





Construction: What to expect


Our job is to efficiently construct the project with the least amount of disruption and keep you informed.

Project Timeline

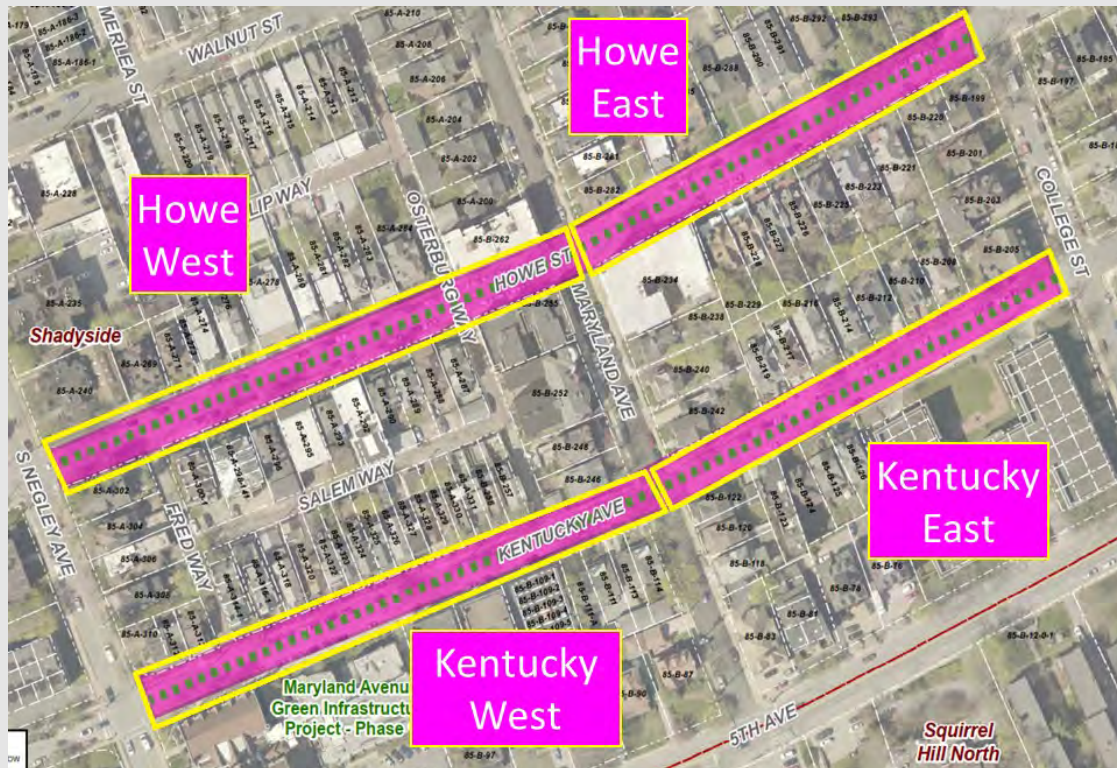
Construction Schedule

- **Anticipated Start:** June 28, 2021
- **Anticipated End:** May 2022

Phases

- Project completed in four phases
 - No more than 2 phases active at once
 - Begins on Kentucky Avenue
 - Final restoration of Kentucky Avenue in 2021
- 

Schedule and Phasing



- June 28: Construction begins at Kentucky Ave. East
- Summer 2021: Lead service line replacements within Kentucky Ave. West
- October 2021: Final restoration Kentucky Ave completed
- November 1 to March 1 : Winter Hiatus
- Spring 2022: Howe Street West Downspout disconnection on private property
- May 2022: Final restoration Howe St. East and West

Schedule could change due to weather, unforeseen site conditions, and other factors causing delays.

Process Steps

- Construction will begin at Kentucky Avenue between College Street and Maryland Avenue.
- Crews will work through each phase installing rock storage materials, check dams, PVC liner, underdrain, pipe, and constructing new concrete sidewalks and curbs.
- Work will take place in public right-of-way (streets and sidewalks). Stormwater improvements will reduce runoff entering the combined sewer system.
- **Timing of phasing:** Will take approximately 6 - 8 weeks to complete each phase.
- **Utility Coordination:** Relocating utility poles, gas line valves, water line valves and hydrants.
- **Tree Replacement:** Trees will be planted as part of final restoration at a time that promotes tree health.
- **Restoration:** Final restoration of Kentucky Avenue will take place this fall. Final restoration of Howe Street will take place next spring.

Daily Impacts

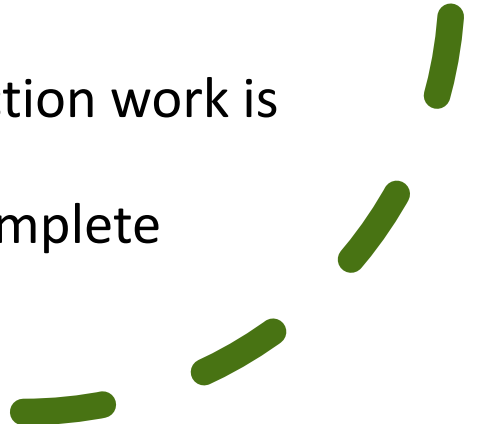
Typical Work Schedule

- Monday through Friday
- **Hours:** 7:00 AM to 5:00 PM

Traffic

- Traffic signs and detours will be posted
- Flaggers on site during active construction work
- Will not close streets during morning and afternoon commute

Parking

- Signs posted 48-hours in advance
 - Posted in areas where active construction work is taking place
 - Minimal parking loss when project complete
- 

Communication

- **Bi-weekly Construction Updates**
 - Post to webpage
 - <http://www.pgh2o.com/maryland-ave>
- **Construction Project Signs**
 - Post in project area
 - Includes project & contact information

Maryland Avenue Stormwater Improvement Project

In Planning

Stormwater

The Maryland Avenue Stormwater Improvement Project will use cost-effective green stormwater solutions throughout Shadyside to reduce runoff entering the combined sewer system.



Progress & Status

These stormwater solutions will be constructed within the public right of way (public streets and sidewalks). This project will help to reduce the ongoing issues of basement backups, neighborhood flooding, and combined sewer overflows that commonly occur during heavy rains.

The project goals are to:

- Capture and store stormwater runoff before it reaches our overwhelmed combined sewer system
- Reduce combined sewer overflows in the A-22 sewershed
- Reduce basement backups and neighborhood flooding



Project Team

Communications Manager

Rebecca Zito, PWSA

(412) 689-1462

rzito@pgh2o.com

Project Manager

Marco Sciulli, PWSA

msciulli@pgh2o.com

Construction Manager

Bryan Martucci, HR Gray

bmartucci@hrgray.com

<http://www.pgh2o.com/maryland-ave>



The background features a light blue gradient with stylized, layered wavy shapes in shades of green and light blue, primarily located in the top-left and bottom-right corners.

Questions

Thank you

For more information, please visit
<http://www.pgh2o.com/maryland-ave>

