



# **ARPA-Funded Stormwater Infrastructure Program**

SC Office of Resilience ARPA-funded

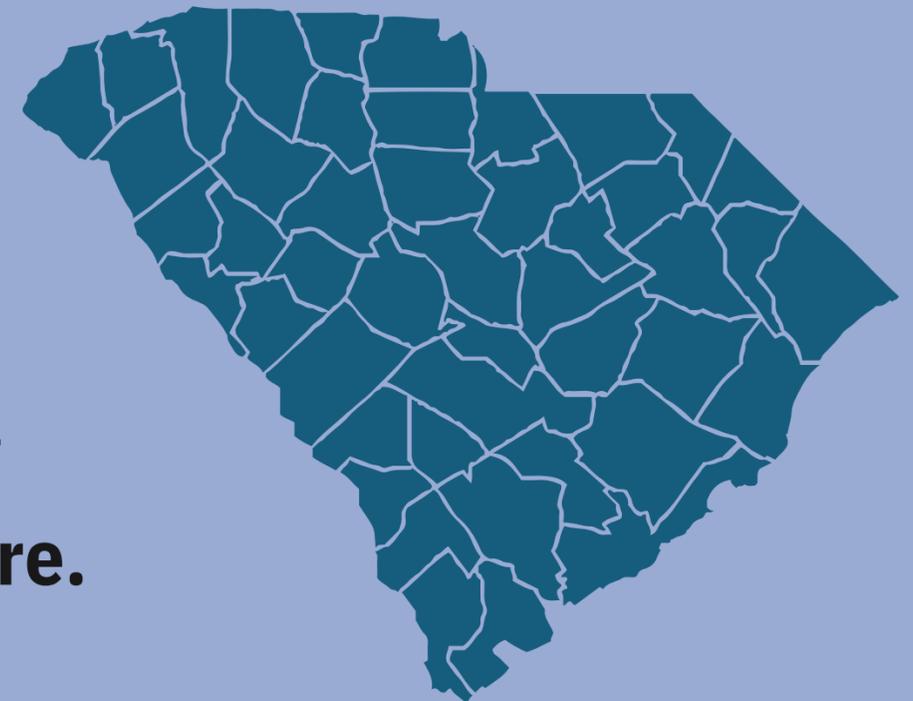


# Stormwater Infrastructure Program

The South Carolina General Assembly appropriated American Rescue Plan Act (ARPA) funding to the South Carolina Office of Resilience (SCOR) for projects that **will lessen the impact of flooding**. Through SCOR's Stormwater Infrastructure program, \$55 million is available to counties, cities, and towns to carry out stormwater infrastructure projects.

## Who can apply?

Counties, cities, and towns in **all 46 counties of South Carolina** are eligible to apply. Projects can be state-run or run by the subrecipient. **SCOR does not require a local cost share.**



# What types of projects are eligible?

## GREY INFRASTRUCTURE

- New storm sewer pipes
- Upsize/replace existing storm sewer pipes
- Culverts
- Ditches
- Curbing
- Catch Basins
- Other traditional conveyance solutions



# What types of projects are eligible?

## GREEN INFRASTRUCTURE



Rain Gardens  
Stormwater Planter Boxes  
Bioswales  
Stormwater Tree Trenches  
Infiltration Trenches  
Stormwater Wetlands  
Pervious Surfaces  
Other innovative nature-based solutions

# What is the timeline?

JANUARY '23 – DECEMBER '26  
Projects implemented and completed



2022

JULY –AUGUST  
Statewide outreach and informational meetings

**SEPTEMBER -OCTOBER**

Accepting applications

**NOVEMBER**

Project review and ranking

**DECEMBER**

Notification of awards

2024

DECEMBER '24  
All funds must be **allocated** by December 31, 2024.

2026

DECEMBER '26  
All funds must be **expended** by December 31, 2026.

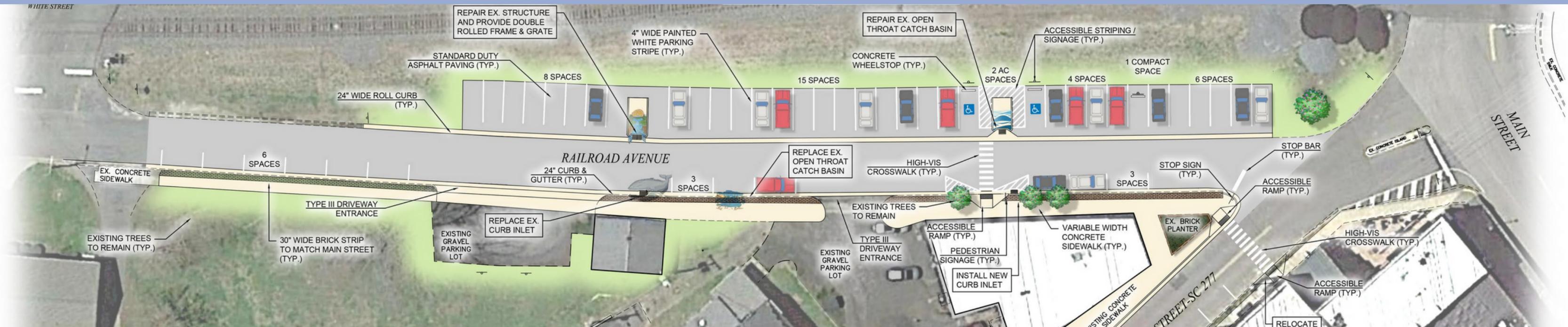


Grants are due Oct 31st, but we have an opportunity to work with the Catawba Regional Council of Government. This puts our deadline at October 10th.

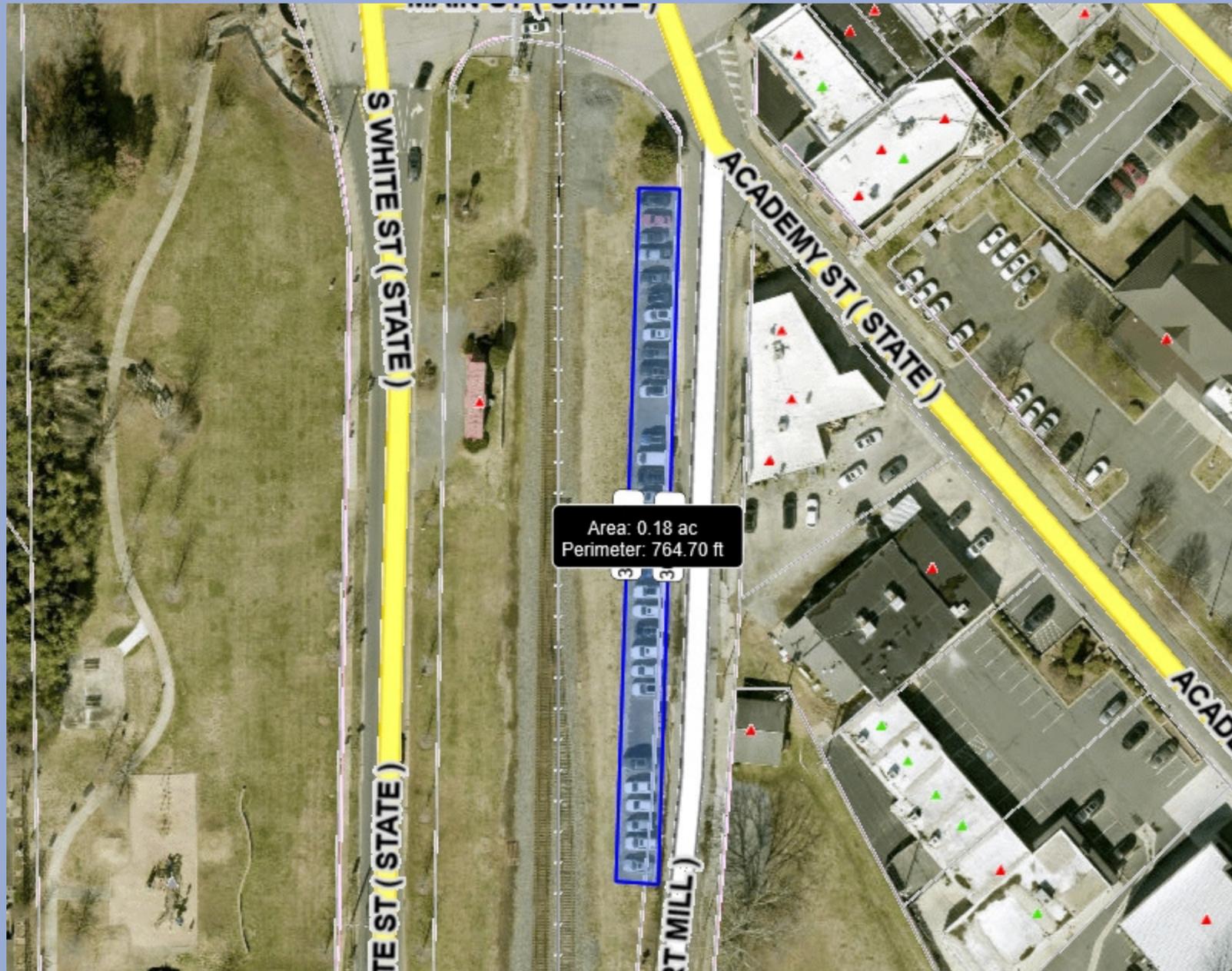
# Project Scoring Criteria

Criteria	Points available
Benefit Cost Analysis (BCA)	20
Low-to-moderate income (LMI) % served	20
Nature-Based Solutions (Green Infrastructure)	20
Permitting/Scheduling (timeframe)	10
Level of Flood Risk Reduction	10
Quantity of Flood Risk Reduction	10
Mobility Improvement	5
Environmental Impact	5
<b>Total</b>	<b>100</b>

# Railroad Avenue



# Railroad Avenue



Shovel Ready Project

Design plan created in 2020

Will update to include pervious pavement and green infrastructure

Project expanded to include repair/replacement of stormwater pipe under Railroad Avenue

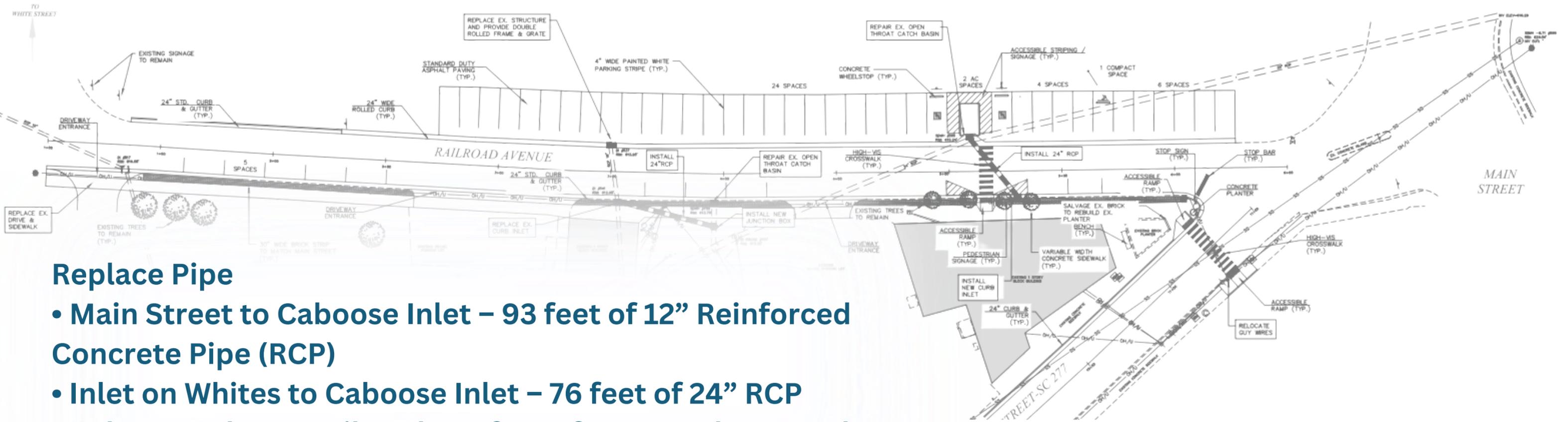
# Railroad Avenue Issues

## Failing infrastructure

- Joint separation
- Structural degradation (*egg-shaped pipes*)
- Junction boxes
- Sink holes
- Abandon pipe under liquor store



# Railroad Avenue Plan



## Replace Pipe

- Main Street to Caboose Inlet – 93 feet of 12” Reinforced Concrete Pipe (RCP)
- Inlet on Whites to Caboose Inlet – 76 feet of 24” RCP
- Caboose Inlet to Railroad - 75 feet of rectangular tunnel
- Railroad Behind Liquor Store – 248 feet of 24” RCP

## Address Flooding

- Replacing existing curb inlet
- Replace existing structure and provide double-rolled frame & grate
- Repair existing open throat catch basin (2)

## New Infrastructure

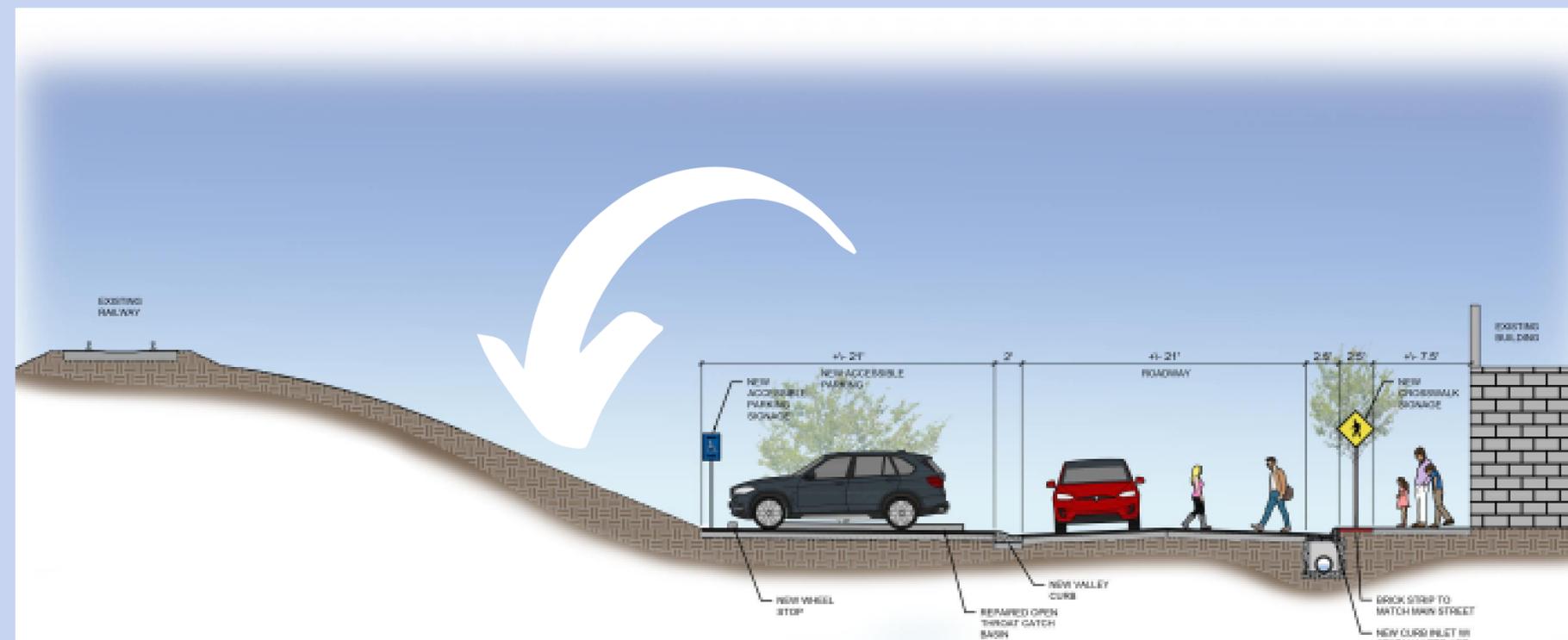
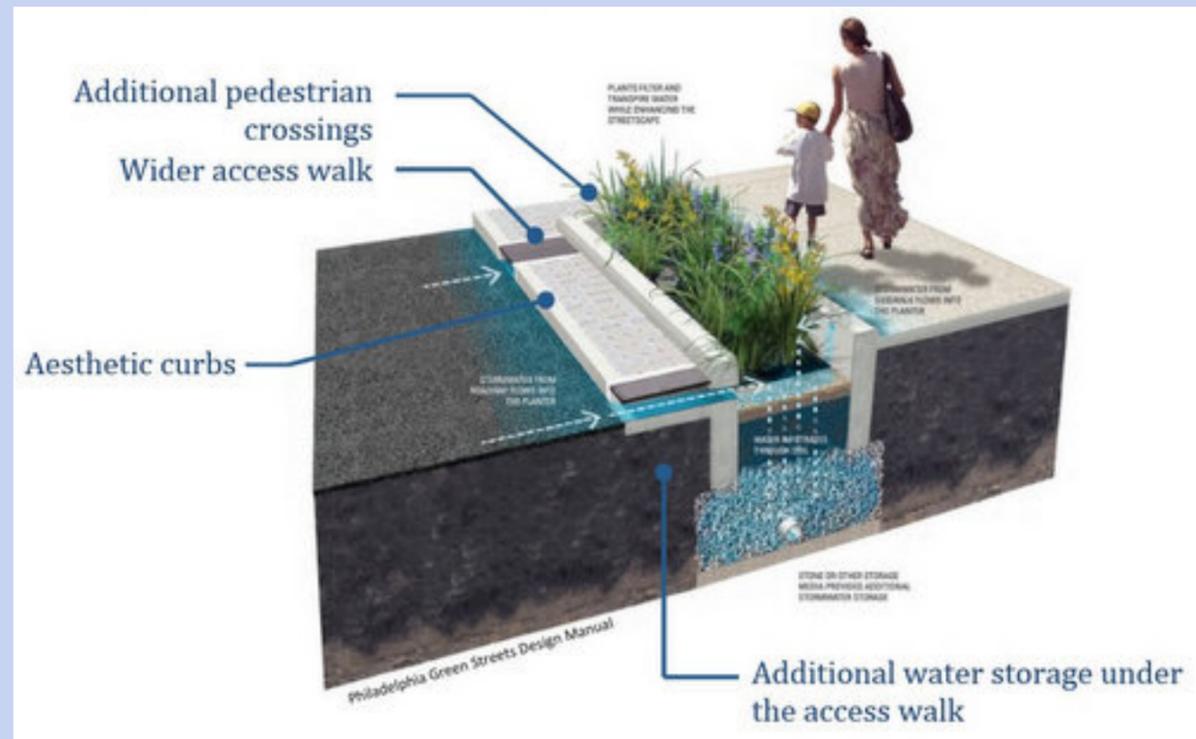
- 24” RCP (2 sections)
- Reroute of abandoned line under liquor store
- New inlet in front of Crossings on Main
- 2 crosswalks for ADA

# Railroad Avenue

Green Infrastructure will include:

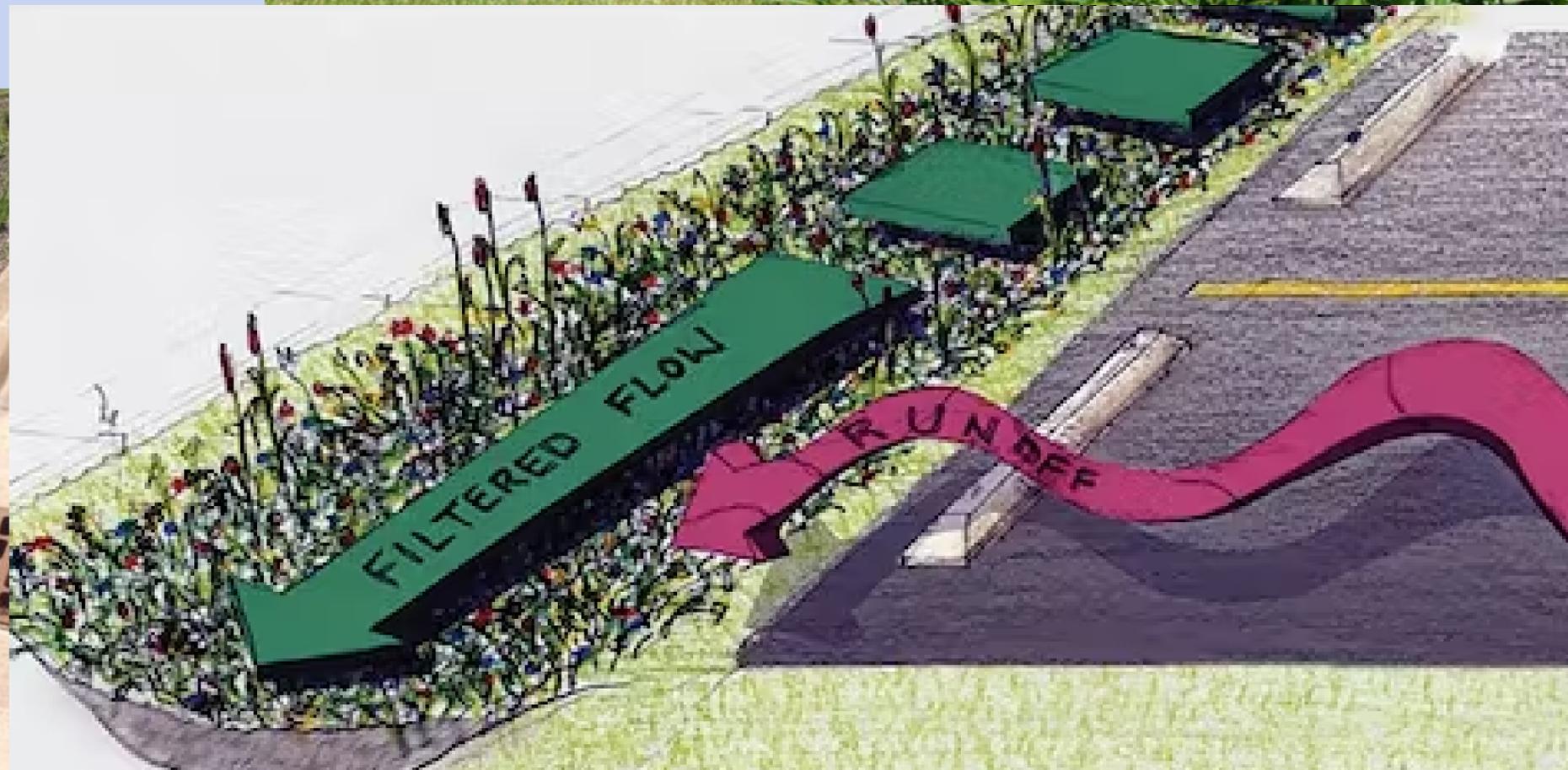
Pervious pavement in parking area

Addition of bioswales along hillside to capture runoff from railroad



# Bioswales

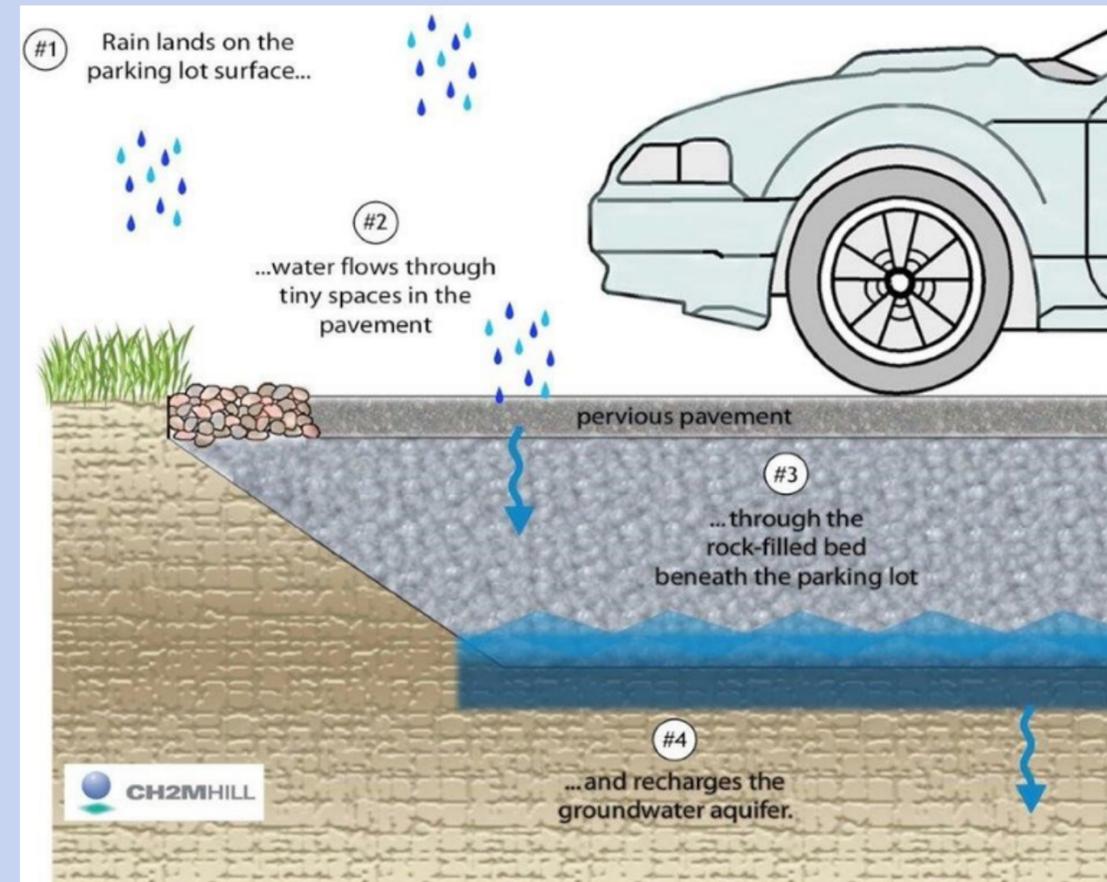
Bioswales naturally treat water as it is filtered through their sloped sides, which also slow down the flow of water so it doesn't overburden stormwater systems.



# Pervious Pavers

Pervious pavers, also known as porous concrete, porous pavement, gap-graded concrete, or enhanced porosity concrete, are comprised of concrete bricks, separated by joints, or gaps, filled with small stones or sand, which are laid over a bed of aggregate stones. Water is able to infiltrate through the joints in the pavers, and is stored in void space underneath the paver surface, where it is then filtered back into the soil.

Pervious pavers serve the same purpose as pavement- allowing people to walk, drive and park on them, but unlike impervious pavement- they can provide the environmental benefit of stormwater treatment and capture. By replacing existing concrete sidewalks and driveways, and also incorporating pervious pavers into new construction, communities can greatly improve their water quality.



Meet U.S. EPA stormwater performance criteria for a structural BMP

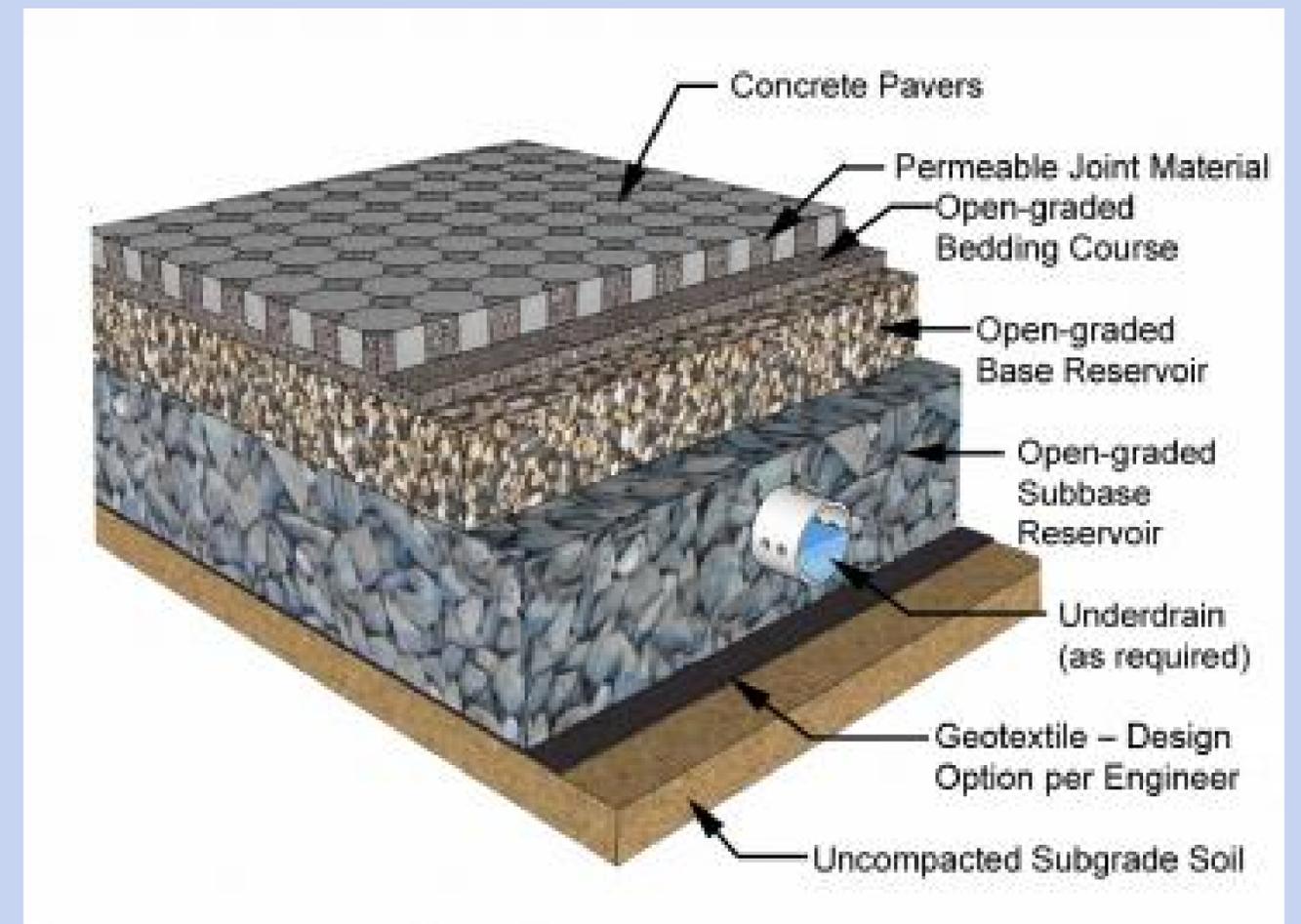
Reduce amount of nutrients entering the waterways

Reduce combined sewer system overflows by lessening the amount of water that enters combined sewers

Provide 100% pervious surface in up to 3 inch rain event

Trap vehicular and residential pollutants

Reduce heat island effect due to evaporation



## **Low maintenance**

Localized replacement of paving units with no unsightly patches.

Requires less salt to defrost ice and snow in the winter

Yearly upkeep is minimal

- Replenishing aggregate if necessary

- Removing debris from aggregate

## **Improved Safety**

Pavers allow melting snow and ice to infiltrate, lessening the probability of black ice.

Naturally brighter and reflects more light, increasing nighttime visibility.

Provides more traction for pedestrians and vehicles, especially in inclement weather.



# Veteran's Park Upgrades

In connection with the Railroad Avenue portion of this project, we are proposing to give a "green" facelift to the Veteran's Park gravel parking lot and event grounds. While the gravel parking lot is already a pervious surface, upfitting the parking lot with pervious pavers will improve the daily use of the area for residents.



## **Upgrades would include:**

Pervious pavers in parking area

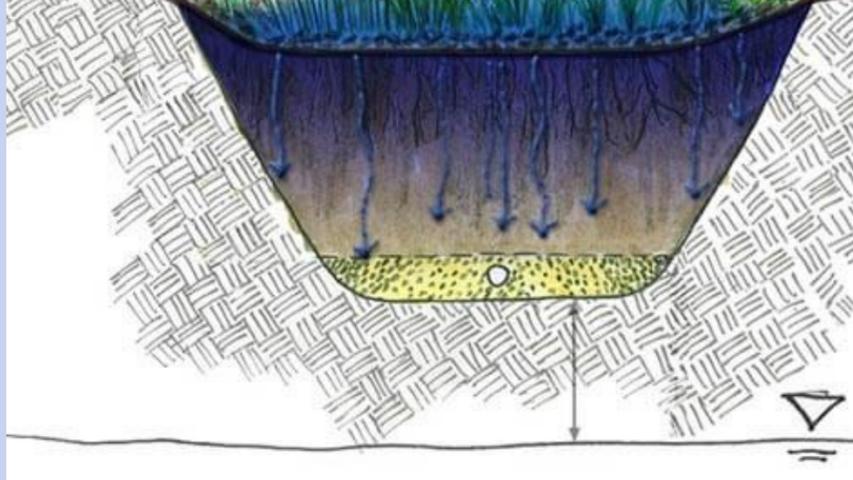
Rain garden with educational interpretive signage

Turf Stability improvements for festival/event area

# Veteran's Park Upgrades



# Rain Gardens



Runoff is collected from paved and other surfaces and directed into the garden

Native plants do not require fertilizer and help filter pollutants from the runoff

Native plants provide food and habitat for birds, butterflies, and other pollinators!



A depression in the earth is filled with a mixture of sand, topsoil, compost, and sometimes gravel, that filters runoff

A typical rain garden is between six and nine inches deep



Currently, Paul Silva and Mina McLean MacDonald are taking the Master Rain Gardener course from Clemson Extension. Once completed, staff will be able to site & design the rain garden in house.

We are working with Clemson Extension to host the 2023 Rain Gardener course workshop so that students will be able to install our garden in fall of 2023.

# Turf Stability

Product is placed in existing turf to help support the root structure of the grass.

This creates a more drivable surface for events, such as the Farmer's Market





Thank  
You!