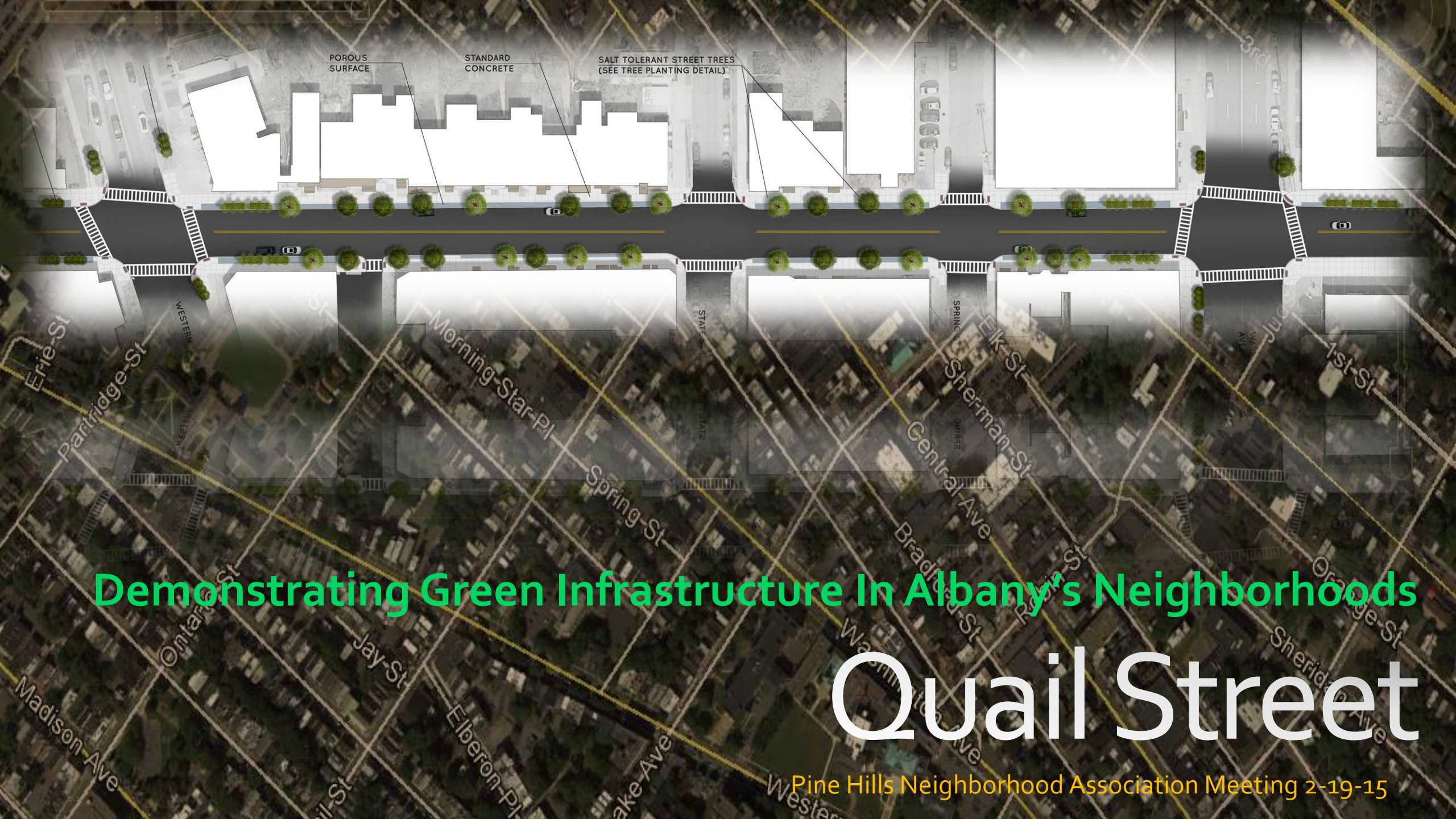


Demonstrating Green Infrastructure In Albany's Neighborhoods

Quail Street

Pine Hills Neighborhood Association Meeting 2-19-15

Thanks For Having Us…

City of Albany Staff:

- Mary Millus, Senior Planner, City of Albany
- William Simcoe, Albany Water Board

Consultants:

- Michael Miller, CHA
- Ian Law, Place Alliance
- Sara Bonacquist, Place Alliance
- Margaret Irwin, River Street Planning & Development

Funding Partners:

- Awarded funding through Environmental Facilities Corporation (EFC) Green Innovation Grant Program (GIGP)
- Albany Water Board
- City of Albany

Project Background

- **History and Scope**
  - Opportunity to model/demonstrate the use of green infrastructure within an *existing urban environment.*
  - Provide relief to the City's combined sewer system – reducing peak stormwater flows.
  - Project is part of the City of Albany's combined sewer overflow long-term control plan.
  - Improve neighborhood quality of life.
- **Other Efforts**
  - Coordination with Albany 2030.
  - Albany Education District Enhancement Study.
  - Additional feasibility study is ongoing to provide further relieve of flooding along Elberon Place.

Green Street Design: Above the Ground

The project will serve as a demonstration project, illustrating how green infrastructure works in a typical Albany neighborhood.

Current Conditions

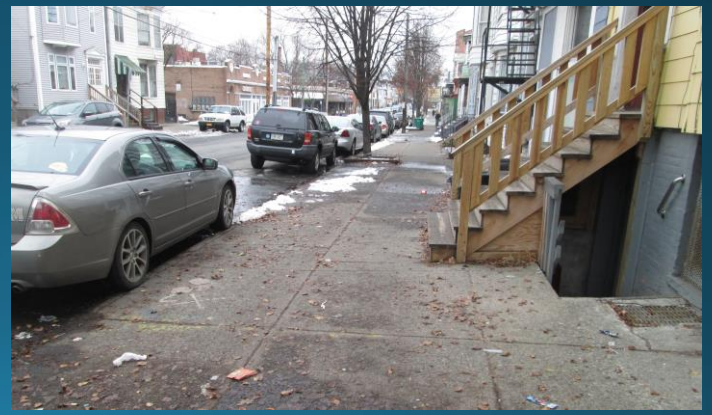
Observations

- Lacking continuity in trees and plantings leave large gaps, making it hotter in the summer.
- Sidewalk slope between building and curb is steep in areas.
- Crosswalks are weathered.

Current Conditions

Constraints

- Focus is on curb to buildings.
- Constrained sidewalk access at many points.
- Phased project requires future funding opportunities.
- Working with the street grade that exists – not repaving.



Elberon Place To Washington Avenue

Washington Avenue To Central Avenue

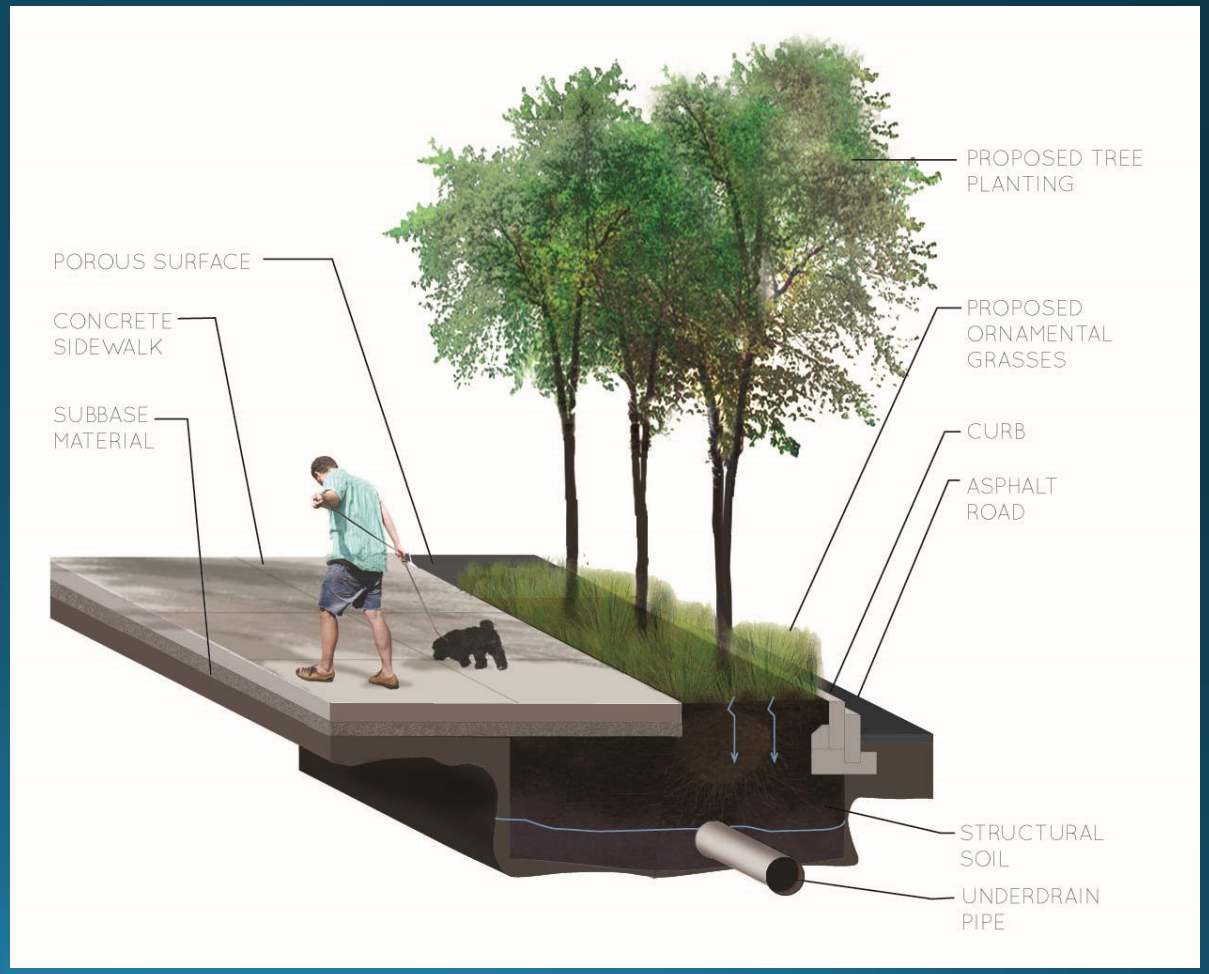
Green Street Design: Under The Ground

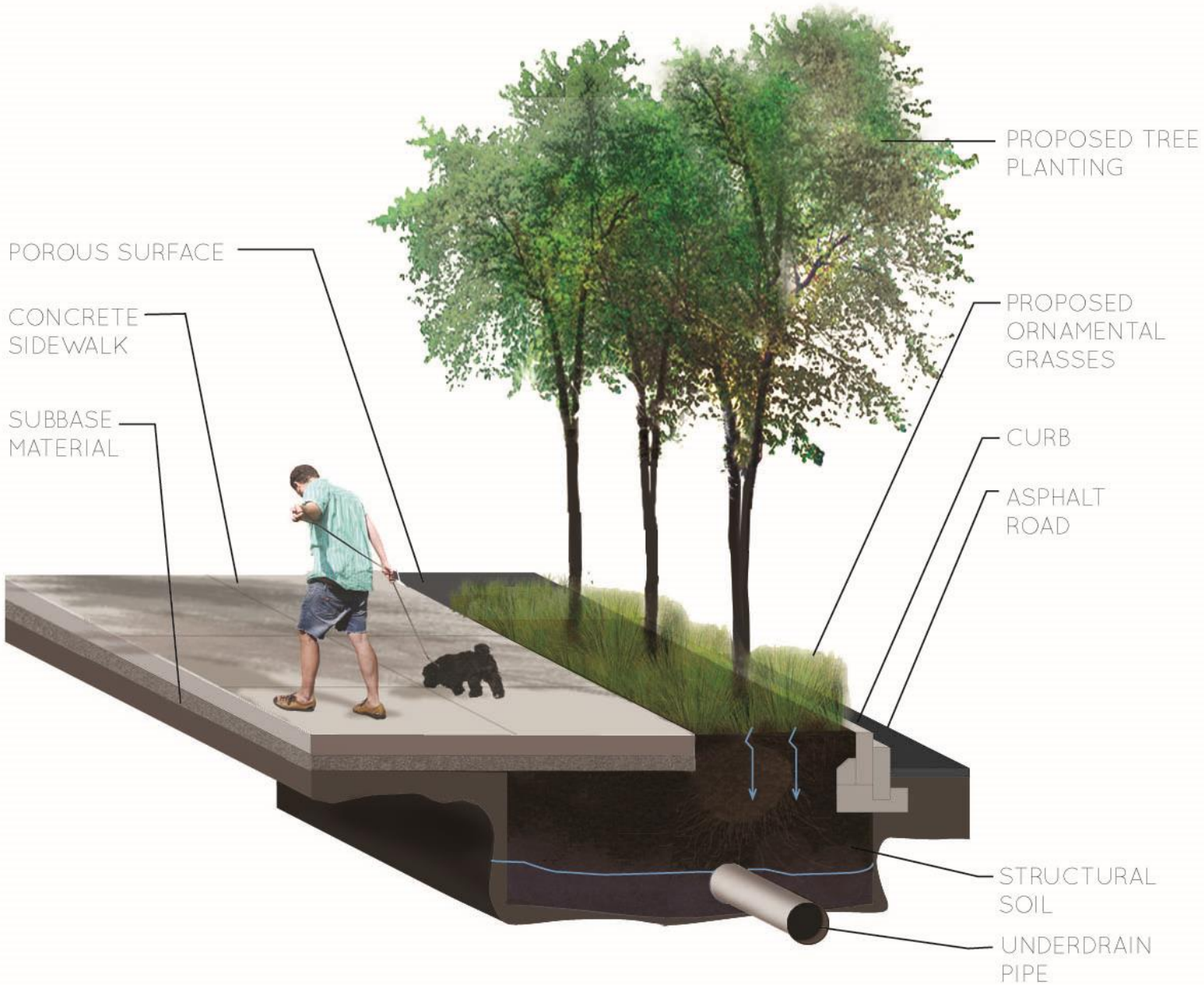
- Green infrastructure handles stormwater "drop-by-drop" at the source where it falls.
- System is designed to promote natural interception and infiltration of stormwater.
- Soil types vary across the City, requiring that a number of green techniques be considered.
- Green infrastructure practices are designed to work in conjunction with the existing system.

POROUS SURFACE
CONCRETE SIDEWALK
SUBBASE MATERIAL
PROPOSED TREE PLANTING
PROPOSED GROUND COVERING
CURB
ASPHALT ROAD
STRUCTURAL SOIL
UNDERDRAIN PIPE

Green Street Design: Under The Ground

- Porous areas within sidewalks serve to intercept and filter stormwater before it enters into the City system.
- Runoff from the street is intercepted and pre-treated to collect floatables and heavy sediment.
- Reservoir is constructed under both the sidewalk and planting strip.
- Series of smaller reservoirs hold and release water over time to reduce peak stormwater flows.




PROPOSED TREE PLANTING
POROUS SURFACE
CONCRETE SIDEWALK
PROPOSED ORNAMENTAL GRASSES
SUBBASE MATERIAL
CURB
ASPHALT ROAD
STRUCTURAL SOIL
UNDERDRAIN PIPE

Green Street Design: Above the Ground

- Rain garden planting zones at Washington, Western and Central Avenues.
- Careful selection of plant species.
- Approach slows traffic by using proper street trees that can be "limbed up" for clean canopy and visibility.
- Newly striped crosswalks.

Green Street Design: Above the Ground

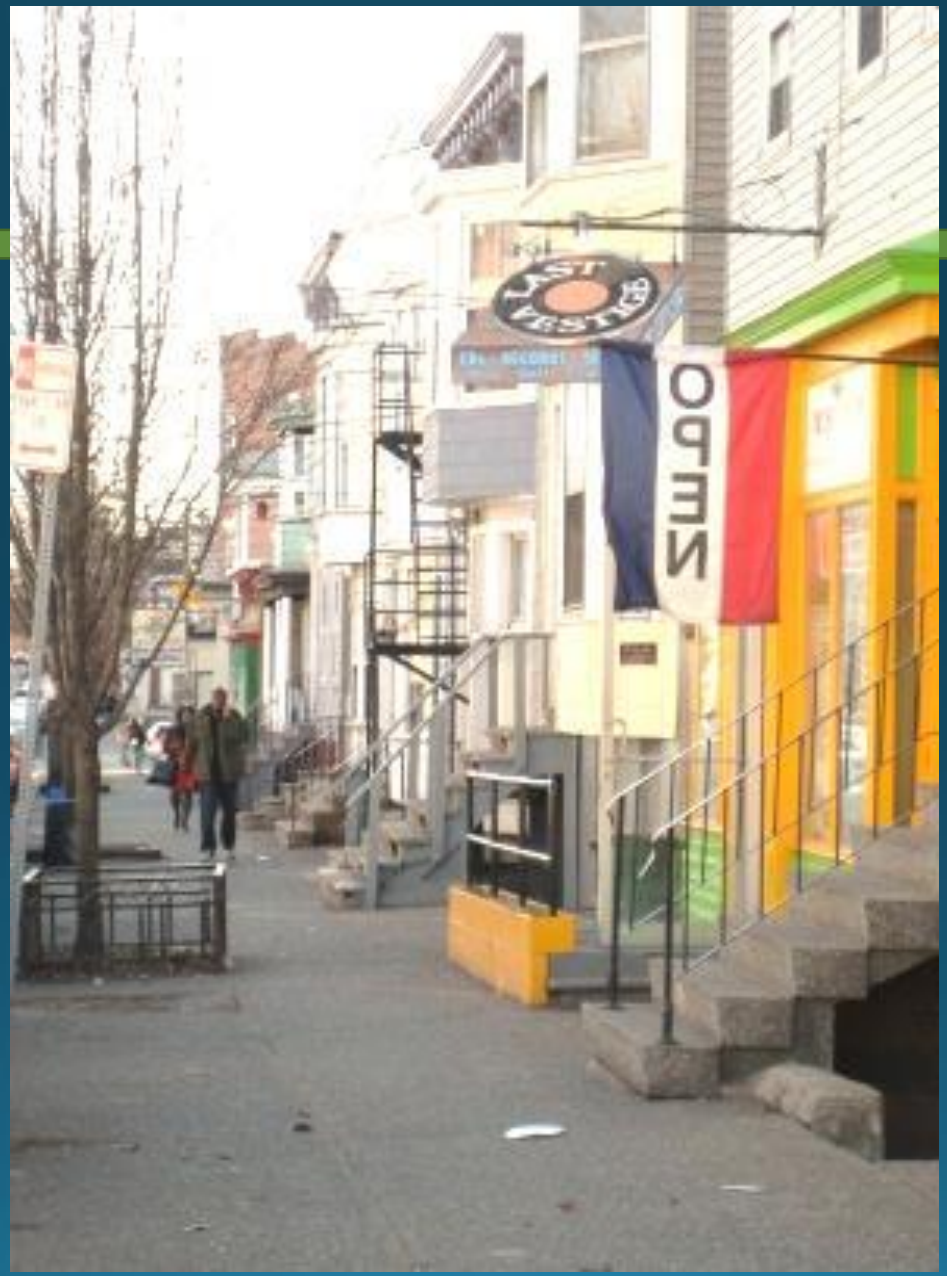
- The condition of sidewalks and curb line will be improved to increase accessibility.
- Primary sidewalk surface will be standard concrete.
- Porous surface to be installed along curb edge.
- Choices were made in consideration of the long-term operations and maintenance requirements.

Work Sequence

- Limit construction to two blocks, or 300-ft maximum to manage impact on the residents and businesses.
- Pedestrian passage will be maintained along the corridor.
- There will be coordination for disturbances to private and commercial building access.
- Two-way traffic will be maintained.
- Efforts will be made to limit parking and bus disruptions.

Next Steps

- Bid opening tomorrow.
- Notice to proceed by April 2015.
- Schedule driven by long term control plan/consent order.
- Best estimate for completion by summer 2016.



For More Information

Project Manager

William D. Simcoe, P.E.
Deputy Commissioner
Water & Water Supply
10 North Enterprise Drive
Albany, NY 12204
(518) 434-5300
wsimcoe@albanyny.gov

Summary of the Project

- Green infrastructure practices are designed to promote natural interception and infiltration of stormwater.
- Stormwater collected from the sidewalk will pass through the porous surface where it will be stored in the system's structural soil and stone reservoir.
- Additionally, runoff from Quail Street will be collected into catch basins and then pre-treated to remove floatables and heavy sediment before entering the green infrastructure system.
- This process will significantly reduce the impacts on the city's combined sewer system – reducing demands during heavy rainfall and subsequent combined sewer overflows to the Hudson River.
- The project will serve as a demonstration project, illustrating how green infrastructure works in a typical Albany neighborhood.