



200 – 400 Quannapowitt Parkway

Zoning Board of Appeals

May 26, 2021



MEETING AGENDA

INTRODUCTION Brian McGrail, *Law Offices of Brian D. McGrail*

ENVIRONMENTAL Scott Goddard, *Goddard Consulting*

- Current State of Lake Quannapowitt
- Existing Site Conditions
- Proposed Site Conditions

LANDSCAPE Ian Ramey, *Copley Wolff Design Group*

- Overview
- Proposed Lake Path and Expanded Parkland
- Creation of Permanently Protected Open Space
- Rain Gardens
- Tree Summary
- Landscape Design

MAIN STREET INFRASTRUCTURE PROJECT CONTRIBUTION Matt D'Amico, *Cabot Cabot & Forbes*

CONCLUSION Brian McGrail

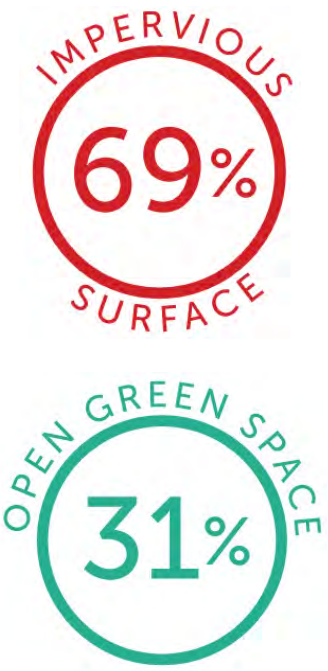
- Future Scheduling of Meetings

1. **Create conservation areas in perpetuity, develop and implement O&M plan.**
2. **Reduce impervious area (asphalt and concrete) and improve water quality by introducing stormwater management to the site.**
3. **Expand and enhance publicly accessible pathways and open space areas. Develop and implement O&M plan for private and public owned lakefront land.**
4. Provide dedicated interior facilities for public use.
5. Lower building height along lake-facing property line.
6. Position rear building to screen Route 128 noise and traffic.
7. Provide affordable housing to advance the town's housing goals.
8. Reconstruct perimeter driveway in existing location with granite curbing and drainage.
9. **Commit to the long-term improvement of water quality of Lake Quannapowitt.**
10. **Coordinate comprehensive on-site security.**



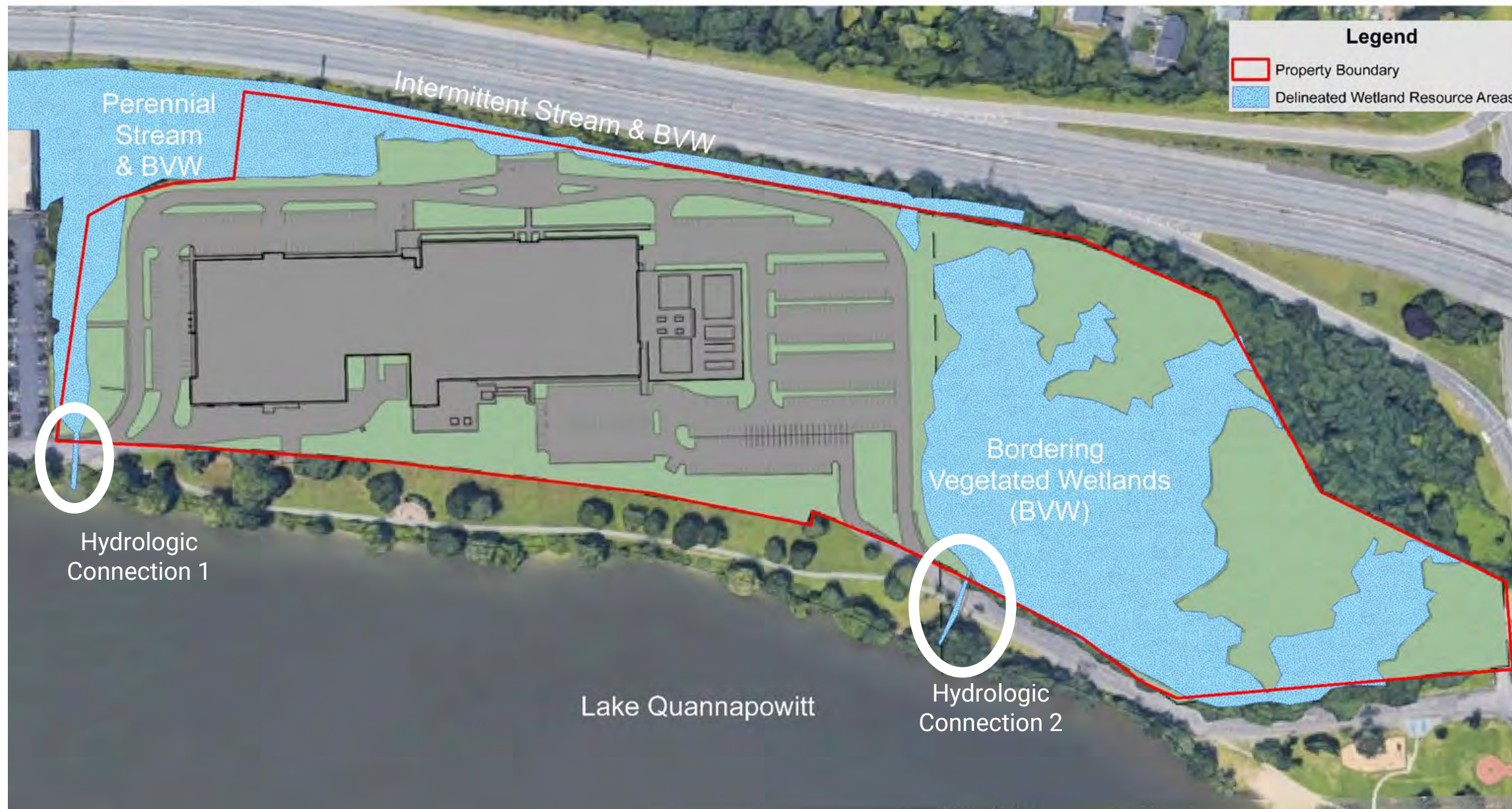


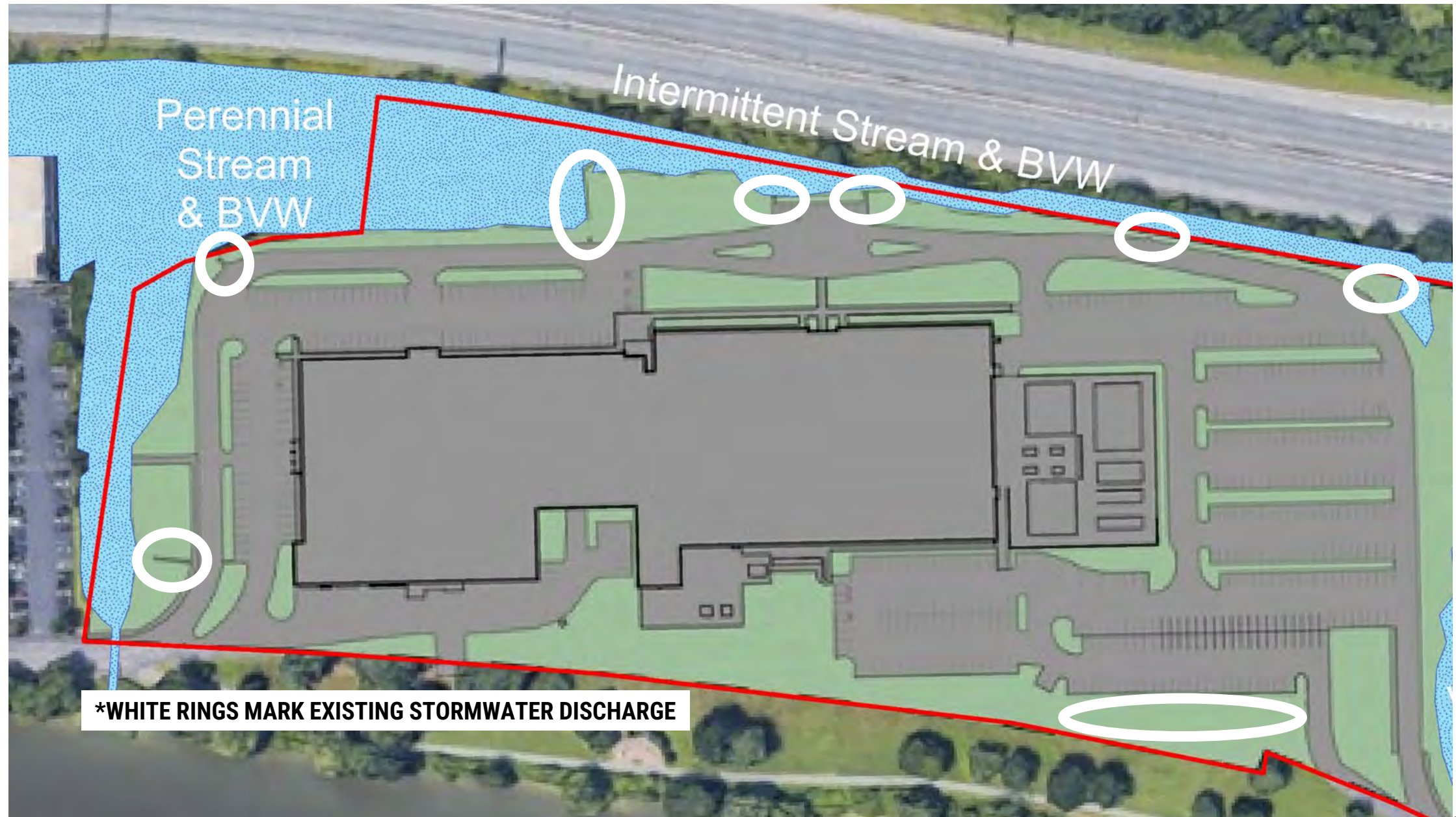
ENVIRONMENTAL



* Percent of Developable Area















Reduce impervious area and improve water quality with stormwater management.

Low Impact Development:

- Nature based solutions (green infrastructure)
- Ecologically restorative approach to replace lawn with native species

IMPERVIOUS
48%
SURFACE

OPEN GREEN SPACE
52%

REMOVE EXISTING BITUMINOUS CONCRETE AND PAVEMENT RESULTING IN AN ADDITIONAL 40,000 SQUARE FEET OF PERVIOUS SURFACE

TREATING 22,000 CUBIC FT OF STORMWATER ONSITE



- **Lakeshore invasive vegetation**
 - Oriental bittersweet, multiflora rose, garlic mustard, knotweed, glossy buckthorn
- **Proposed Invasive Species Management Plan (ISMP) along lakeshore near site**
- **Benefits:**
 - Removes undesirable invasive species
 - Spares native trees from girdling and competition
 - Encourages native species to re-establish
 - Increases aesthetics
 - Healthier/diverse lakeshore



- **Improved Stormwater Management**

- Increased Infiltration
- Reduced Nutrient Runoff
- Reduced Adverse Impacts to Wetland Resource Areas

- **Reduction of Impervious Surfaces within Riverfront Area**

- Reduced Stormwater Runoff and Water Pollution
- Increased Water Quality
- Slow-release Organic Fertilizer - low nitrogen and phosphorous





LANDSCAPE

Expand and enhance open spaces:

- Extensive public seating
- Accessible pathways
- Walking/Biking circuit
- Protection of existing path



PROPERTY EXTENDS BEYOND AREA SHOWN

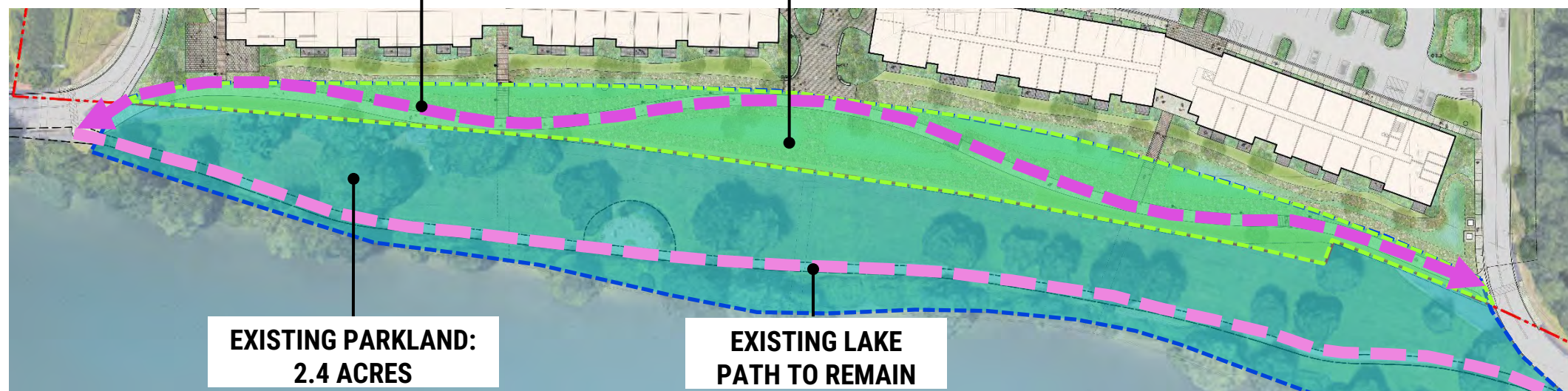
Low impact development:

- Nature based solutions (green infrastructure)
- Ecologically restorative approach
- Native shade trees and understory

EXISTING PARK PLAN

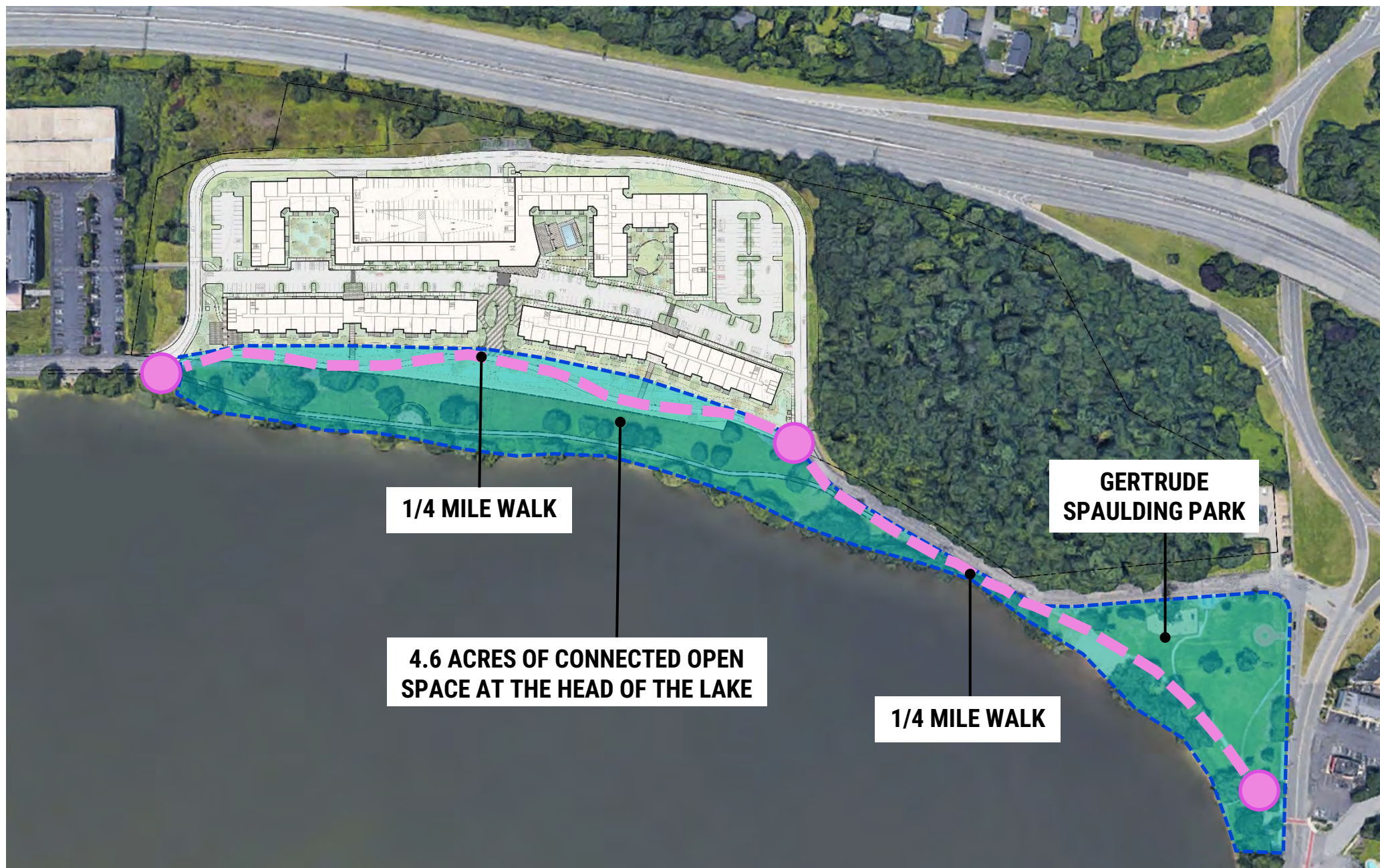


PROPOSED PARK PLAN

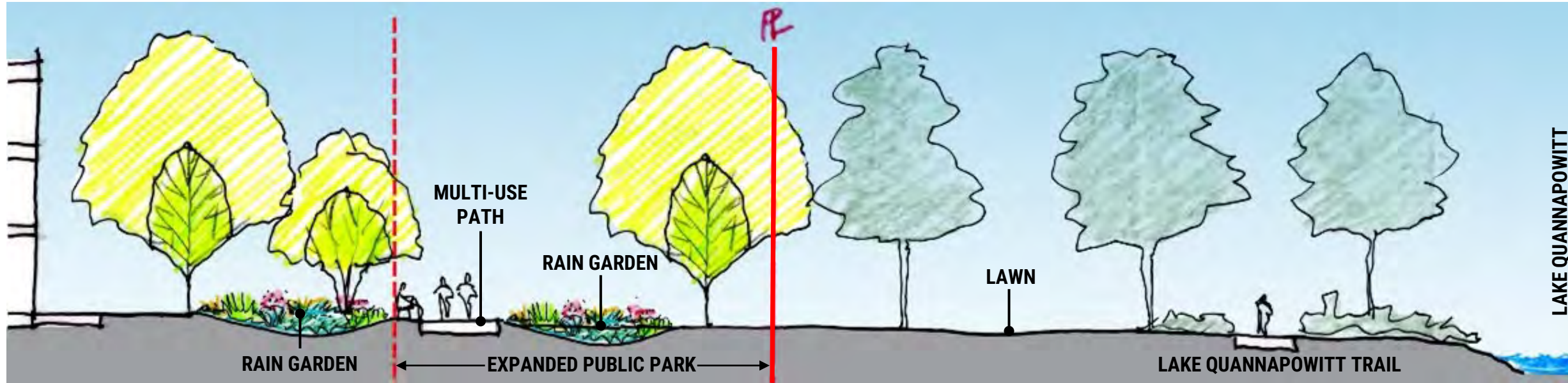


New Lake Path:

- Clear delineation of public space
- Alternate route for park users
- Accommodate bikers and walkers
- Public seating
- Integration with rain gardens
- 100% Pervious surface



SECTION SHOWING EXPANDED PARKLAND AND NEW LAKE PATH



RAIN GARDEN ALONG PATH



MULTI-USE PATH WITH LAWN



OPEN SPACE



Create conservation areas in perpetuity with agreement to maintain it.

Proponent to offer Town a conservation restriction.

Metrics:

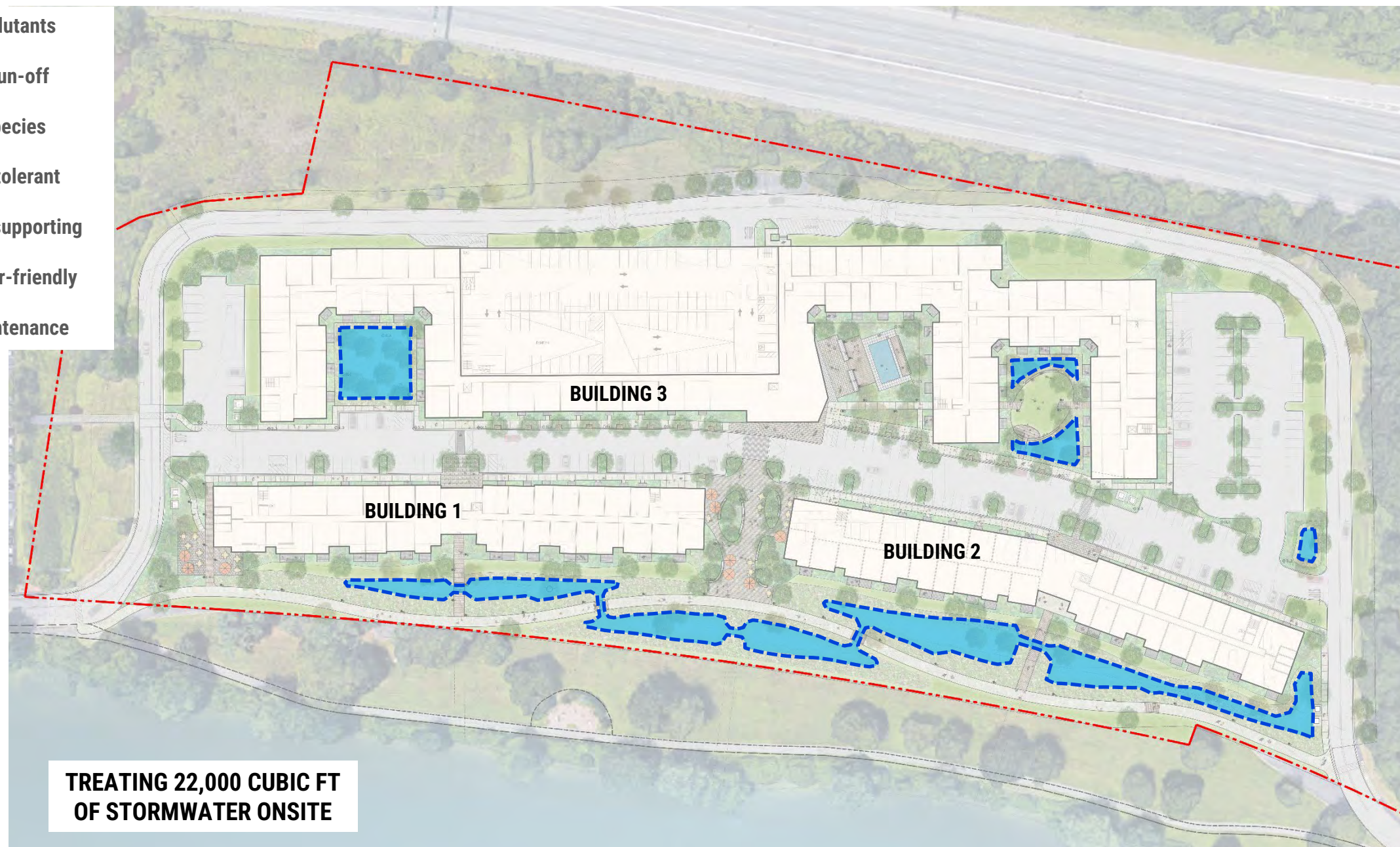
- 12.68 acres of site is protected

PROTECTED
53%
OPEN SPACE

SURFACE PARKING
485
SPACES REMOVED



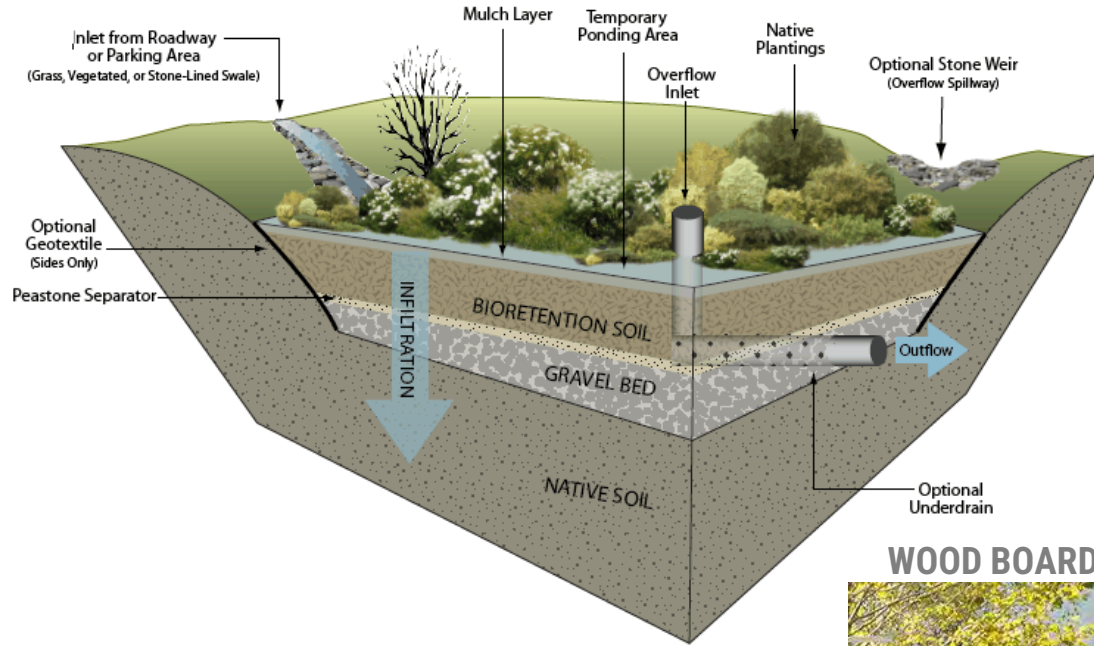
- Filter pollutants
- Reduce run-off
- Native species
- Drought tolerant
- Habitat-supporting
- Pollinator-friendly
- Low maintenance



PROPERTY EXTENDS BEYOND AREA SHOWN



RAIN GARDEN DIAGRAM



EXAMPLES OF PLANTING TEXTURE



WOOD BOARDWALK OVER RAIN GARDEN



BIORETENTION ALONG STREETScape



NATIVE POLLINATOR AND WATER PURIFYING PLANTS





Tree 4



Tree 14



Tree 21



Tree 29



Tree 40



Tree 3



Tree 8



Trees 8 & 9



Tree 16



Tree 18



Trees 34-38 - Potential Transplants

Follow-up site visit 5/18

- 42 existing trees on property
- 6 trees are dead
- Remaining 36 living trees:
 - 21 will be retained
 - 15 will be removed



PROPERTY EXTENDS BEYOND AREA SHOWN

- Of 15 removals 8 trees are in poor condition
- Potential transplant of 5 healthy trees
- Net reduction of trees removed from 22 to 15
- 191 new native trees proposed
- Tree care maintenance program





Pin Oak



Tupelo



Red Maple



River Birch



Swamp White Oak



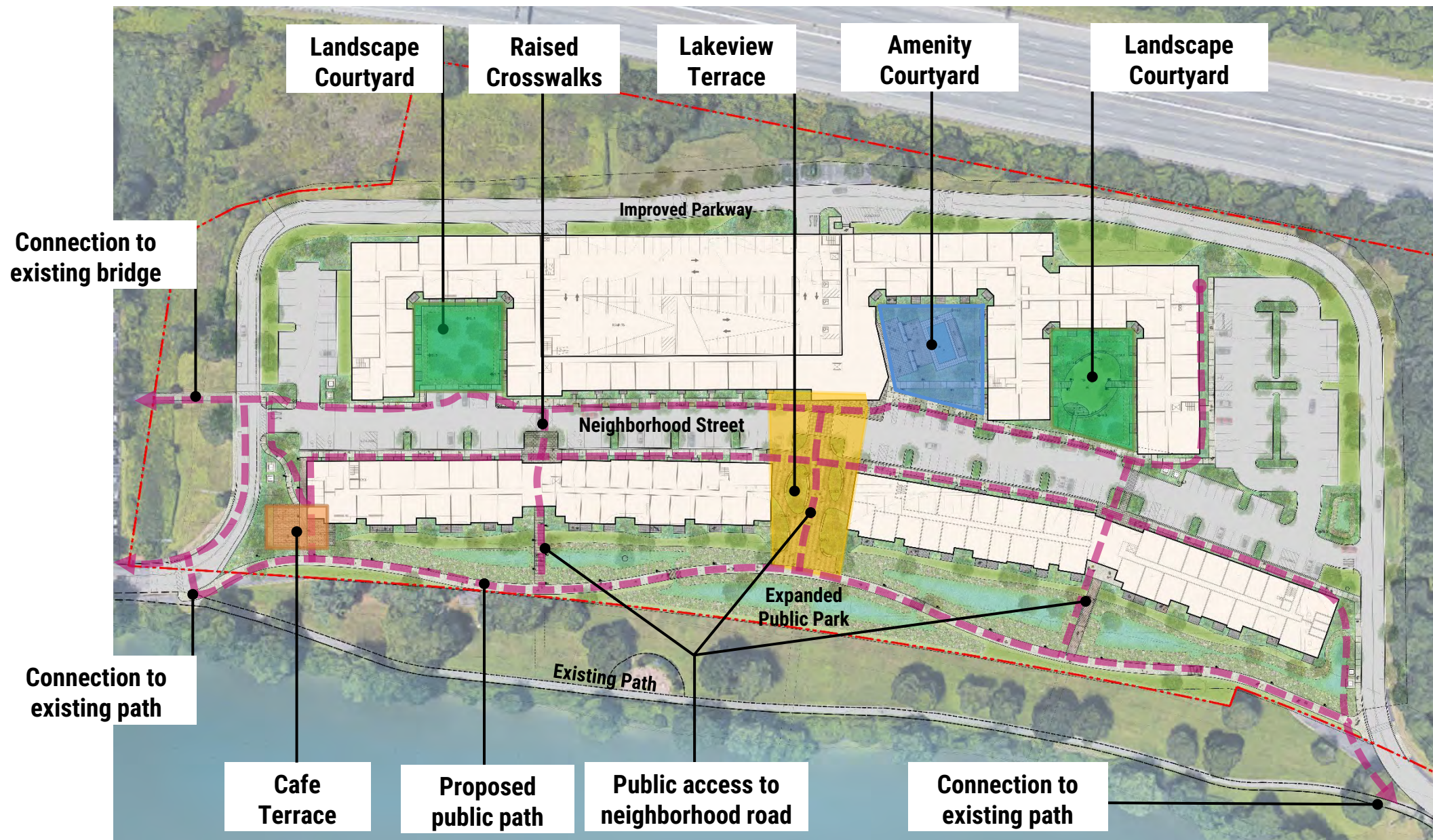
American Sweetgum



American Elm



Eastern White Pine



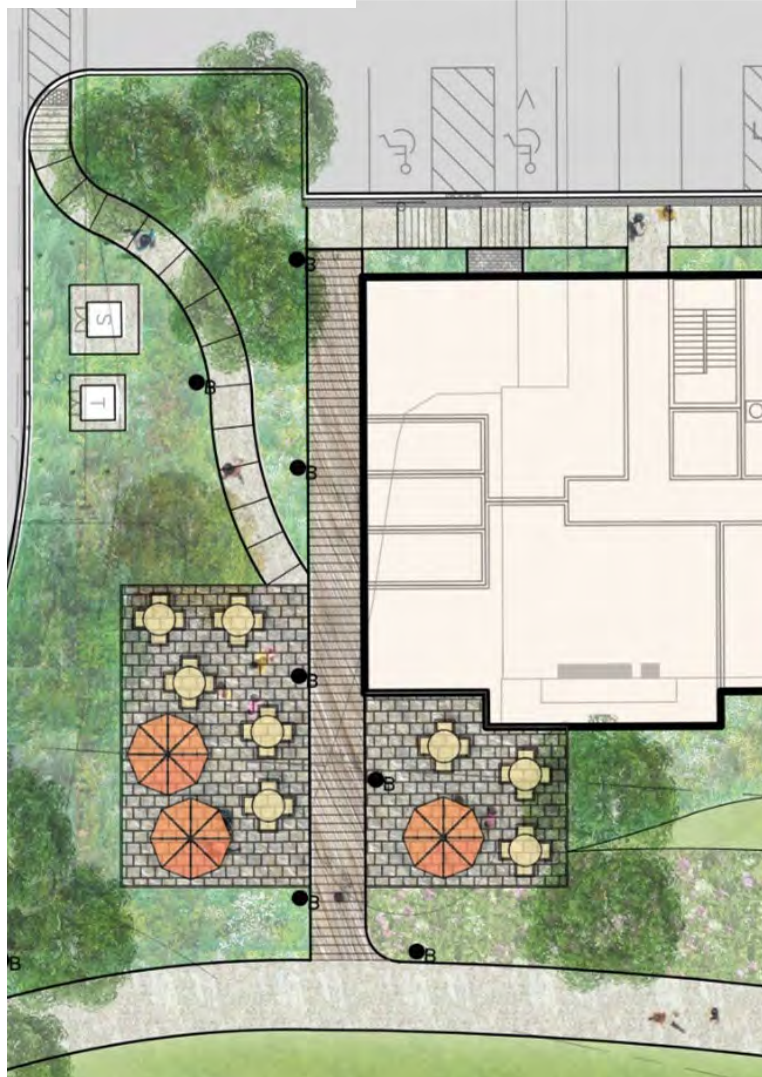
Lakeview Terrace

- Public seating - fixed and movable
- Shade trees
- Pervious pavement
- Activated first floor uses
- Raised pedestrian crossings



Cafe Terrace

- Public seating with shade
- Pervious pavement
- Restaurant use



Neighborhood Street

- “Slow” street with traffic calming
- Raised pedestrian crossings
- Street trees
- First floor unit access

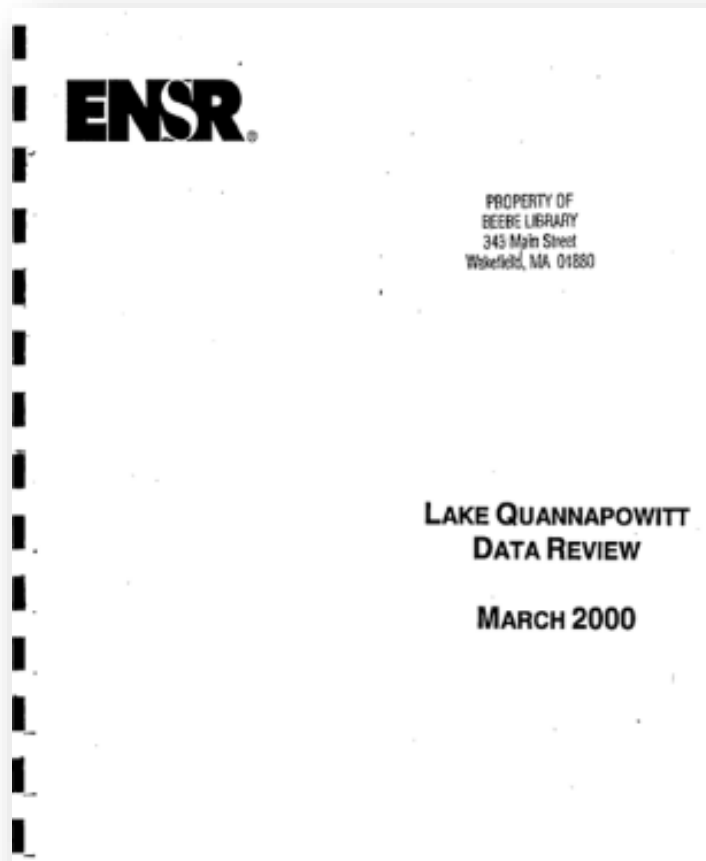




MAIN STREET CONTRIBUTION

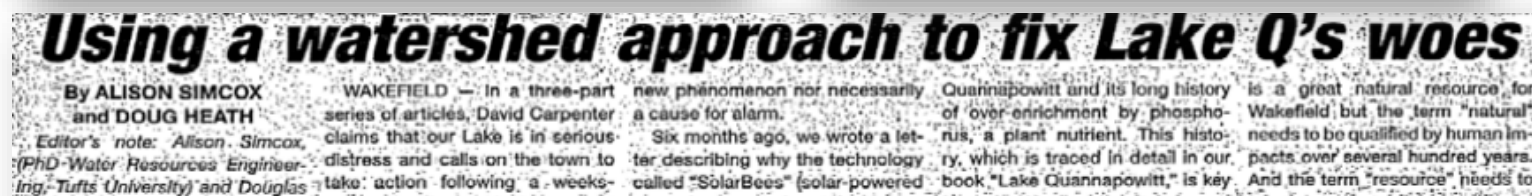
200-400 Quannapowitt Redevelopment Proposal - \$1.3 Million Contribution to Main Street Corridor Reconstruction

- Collaboration with Friends of Lake Quannapowitt + Wakefield Engineering Division to identify Lake Quannapowitt water quality projects
- Main Street Project top priority identified by Wakefield Clean Lake Committee
- 20+ years of planning



Main Street – Lake Quannapowitt
Water Quality Improvement Project

June 17, 2020

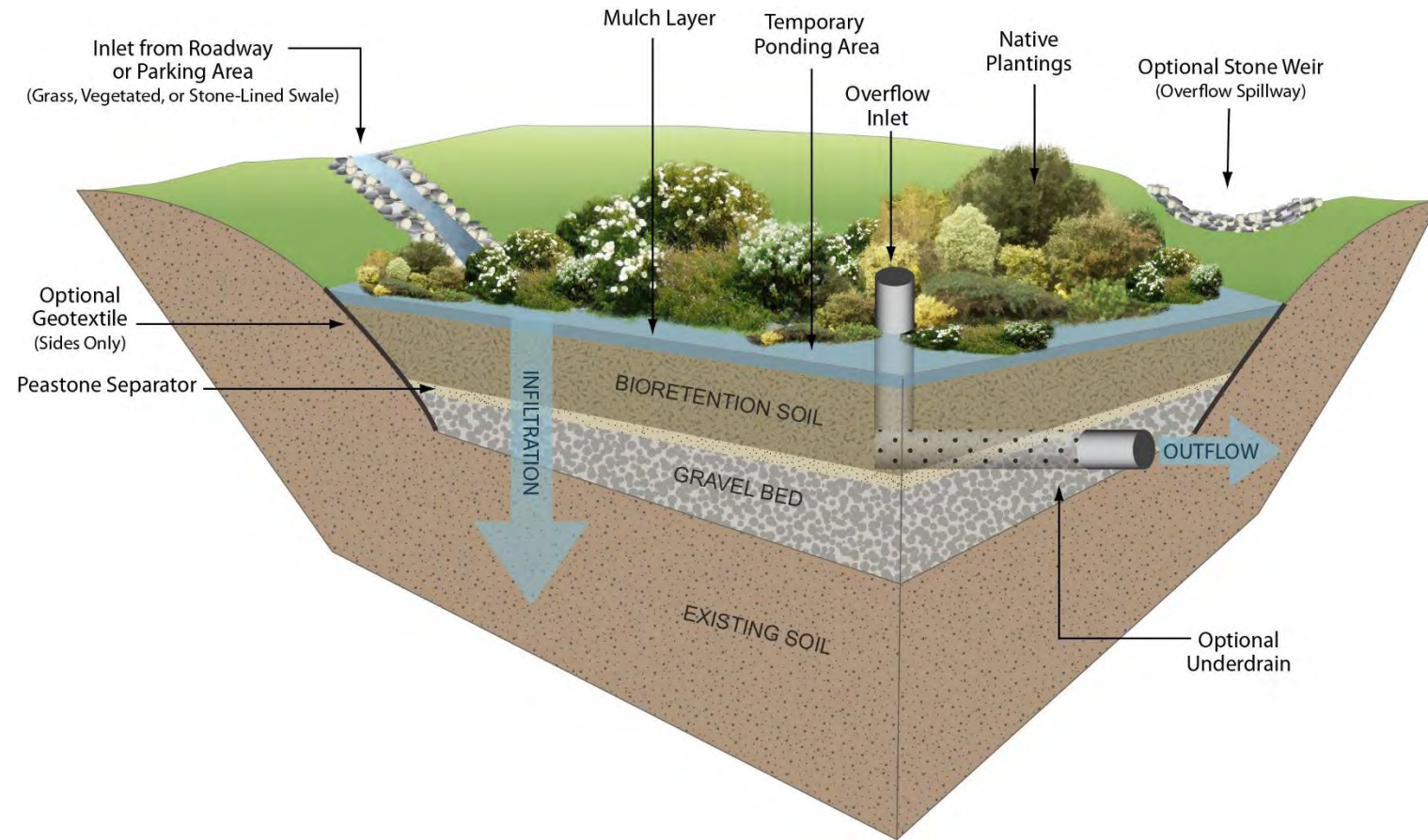


200-400 Quannapowitt Redevelopment Proposal - \$1.3 Million Contribution to Main Street Corridor Reconstruction

Infrastructure to treat over **68.1 acres** of watershed supplied to Lake Quannapowitt and treat over **68%** of area annual **nitrogen** and **phosphorus** load.

Work includes:

- Eliminates **18** untreated stormwater outfalls
- Installation of **11** bioretention areas
- **1,770ft** of new infiltration trenches
- **930ft** of new porous paver sidewalk
- **10** new tree box filters
- **25.7 acres** are directly connected impervious areas





THANK YOU