



Enhancing New York City's Public Properties with Stormwater Management

NEWEA/NYWEA Spring Meeting
June 6, 2016

Overview

- NYC's green infrastructure program
- Past projects on City properties
- Current on-site approach and opportunities

New York City's Green Infrastructure Plan

1. Build cost-effective grey infrastructure
2. Optimize the existing wastewater system
3. **Control runoff from 10% of impervious surfaces through green infrastructure and other source controls**
4. Institutionalize adaptive management, model impacts, measure CSOs, and monitor water quality
5. Sustain stakeholder engagement



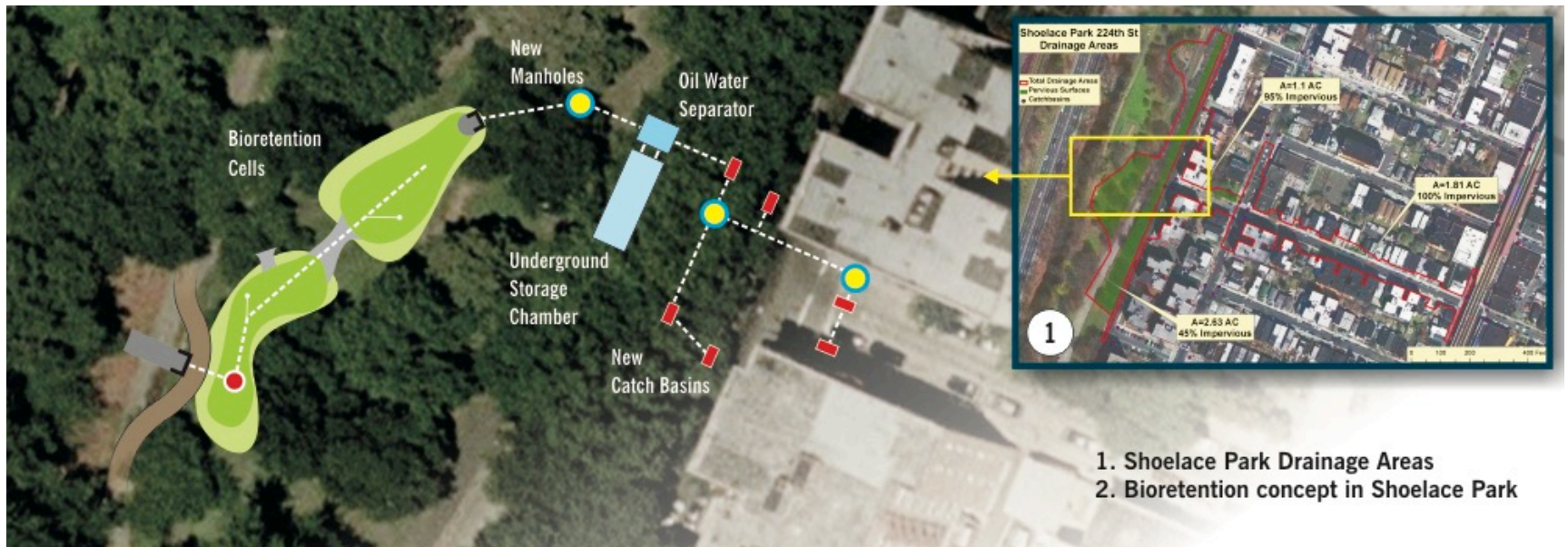
Consent Order

- DEP and DEC amended consent order to reduce CSOs in March 2012
- Included commitments to:
 - Manage runoff from 10% of impervious surfaces citywide by 2030 with green infrastructure
 - Incorporate green infrastructure into the LTCP
 - Construct three neighborhood demonstration areas of green infrastructure



Past Designs

Shoelace Park



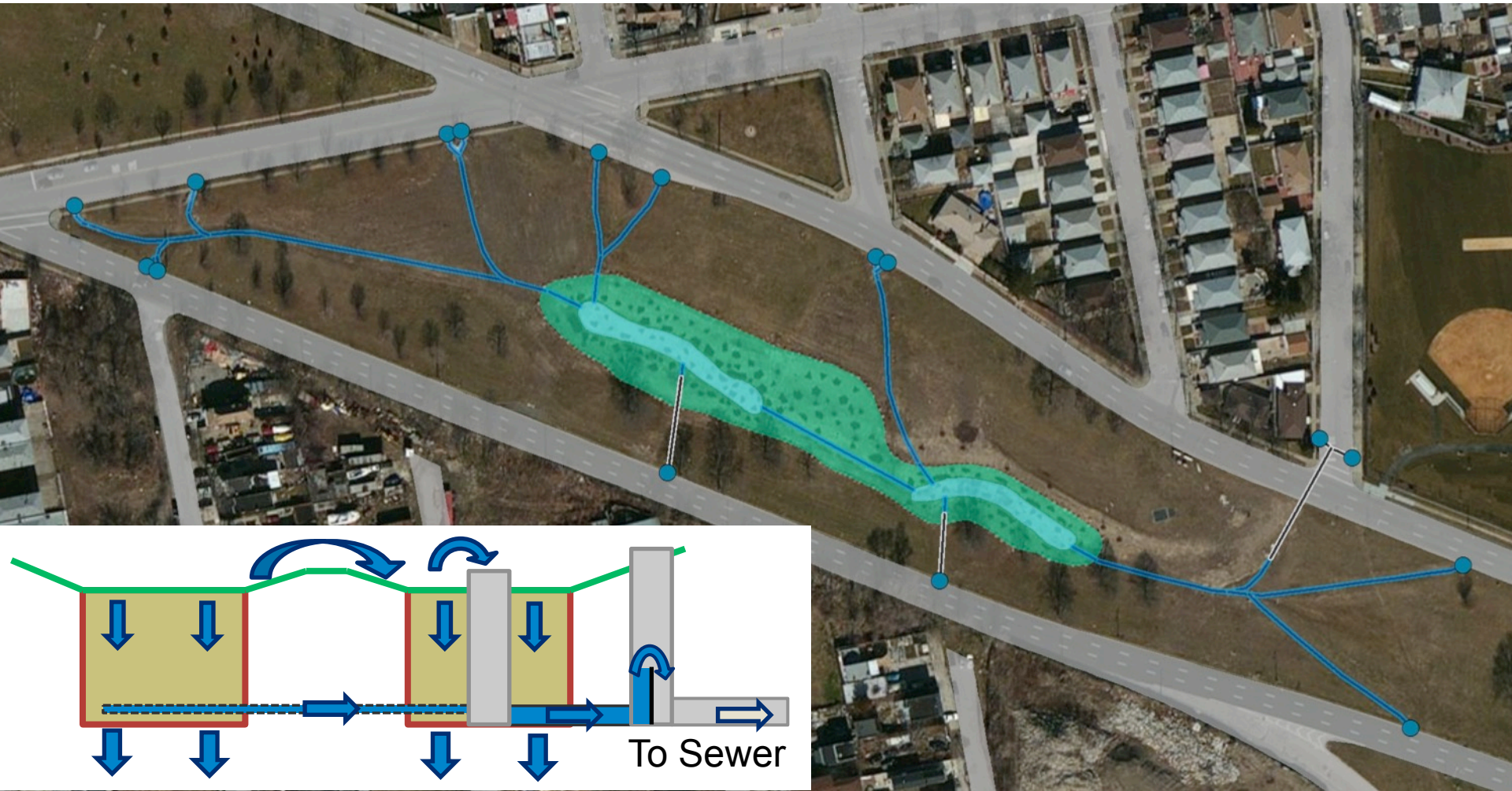
Past Designs

Shoelace Park



Past Designs

North and South Conduit



Hazen

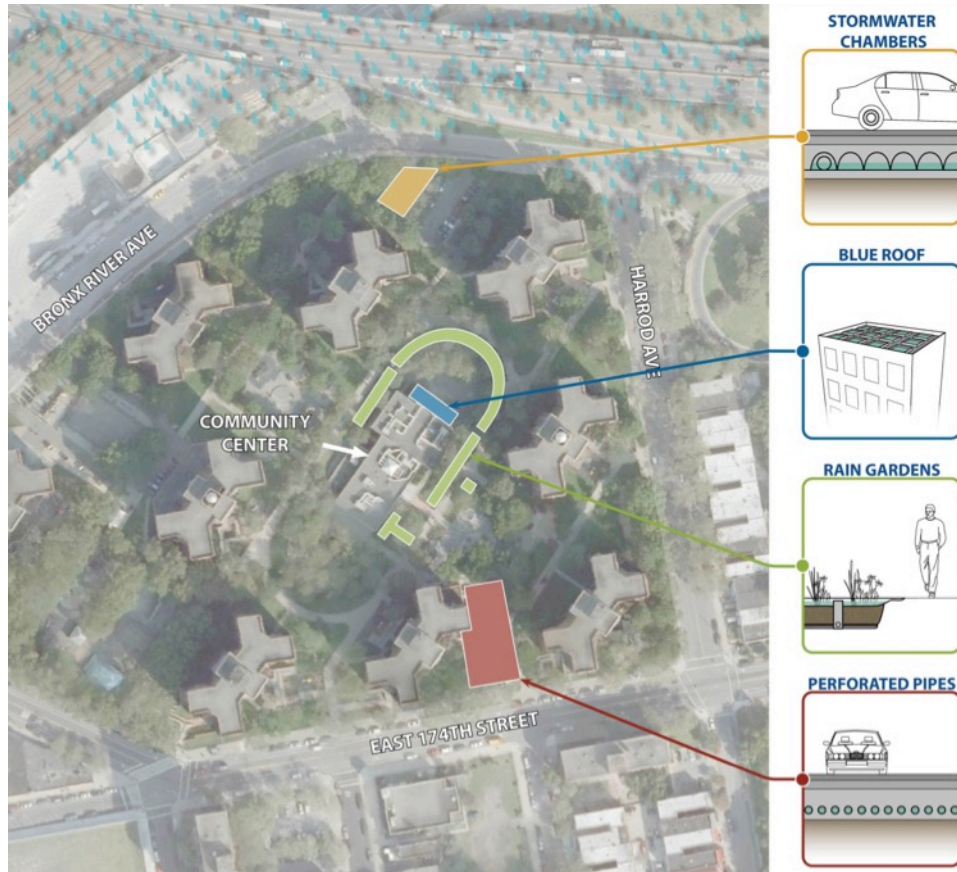
Past Designs

North and South Conduit



Past Designs

Bronx River Houses



Bioswales



Bioswales



On-Site Green Infrastructure Partners



Parks



Public Schools



Public Housing

On-Site Designs

Priorities are

- Maximizing effectiveness of green infrastructure
- Visibility to the public
- Ease of construction
- Maintenance of on-site programming
(unless partner is open to change)

What to Implement



Bioretention



Pervious Paving



Underground Storage



Turf Field

Schools

Focus is on schoolyards

- Avoids construction on buildings (limited construction window)
- Simpler access for site selection process
- Opportunities for education
- Co-benefits for the schools (new paving, fields, etc).



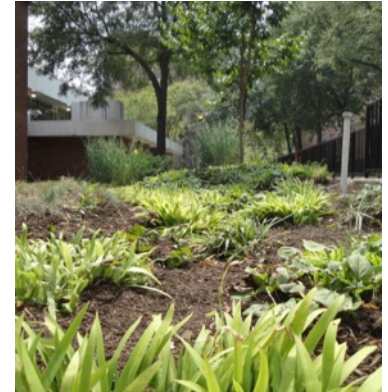
Public Housing

- Maximize use of existing pipe network
- Incorporate open space into green infrastructure



Parks

- Bioretention where feasible
- Porous paving where aesthetically cohesive with existing paving
- Proximity to existing trees/vegetation is important siting concern



Site Selection Process

Desktop analysis

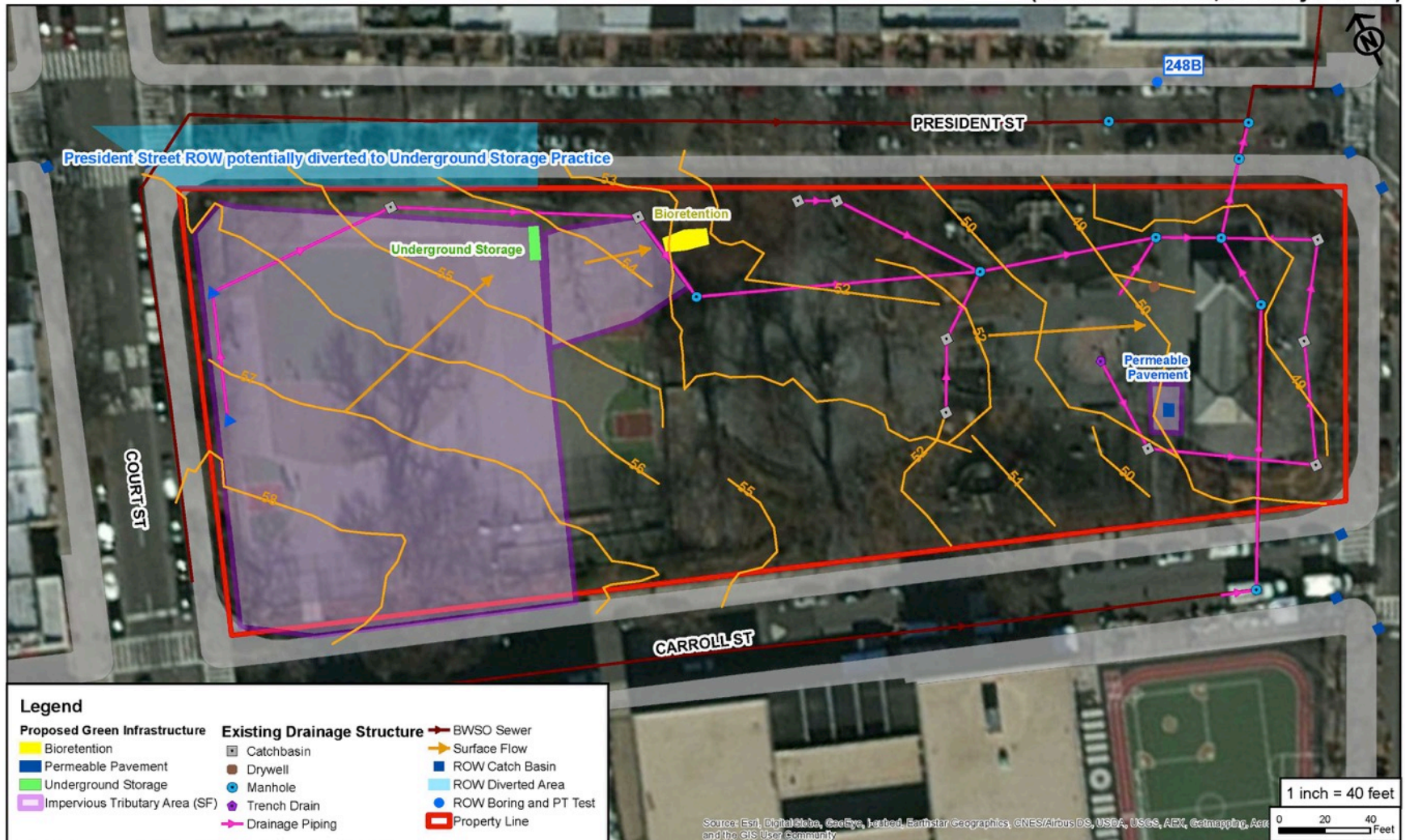
- Confirm sites are connected to combined sewers
- Review existing site plans for utility locations/topography
- Evaluate tree cover
- Develop concepts of potential GI for review in field



BBL: 3004420001
DPR Site ID: B019



On-Site Green Infrastructure Opportunities at Carroll Park (375 Court Street, Brooklyn 11231)



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DPR Site ID: B019

Site Selection Process

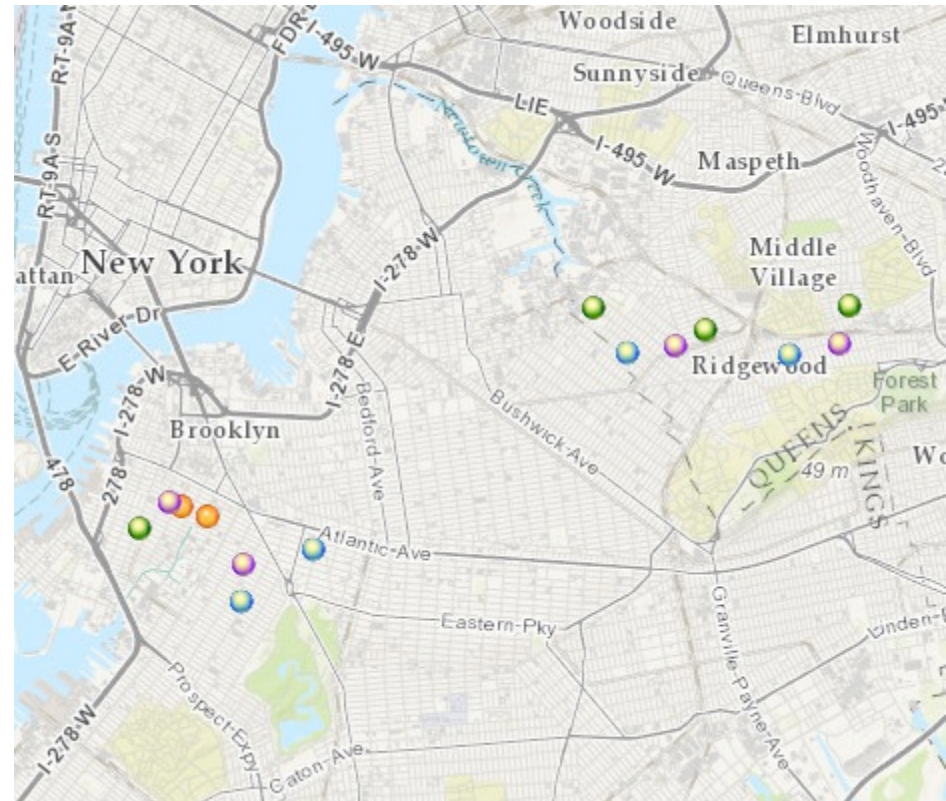
- Walkthrough with agency partners
- Revise conceptual designs after walkthrough
- Perform geotechnical investigations
- Update conceptual design sizing based on results
- Solicit survey for suitable sites



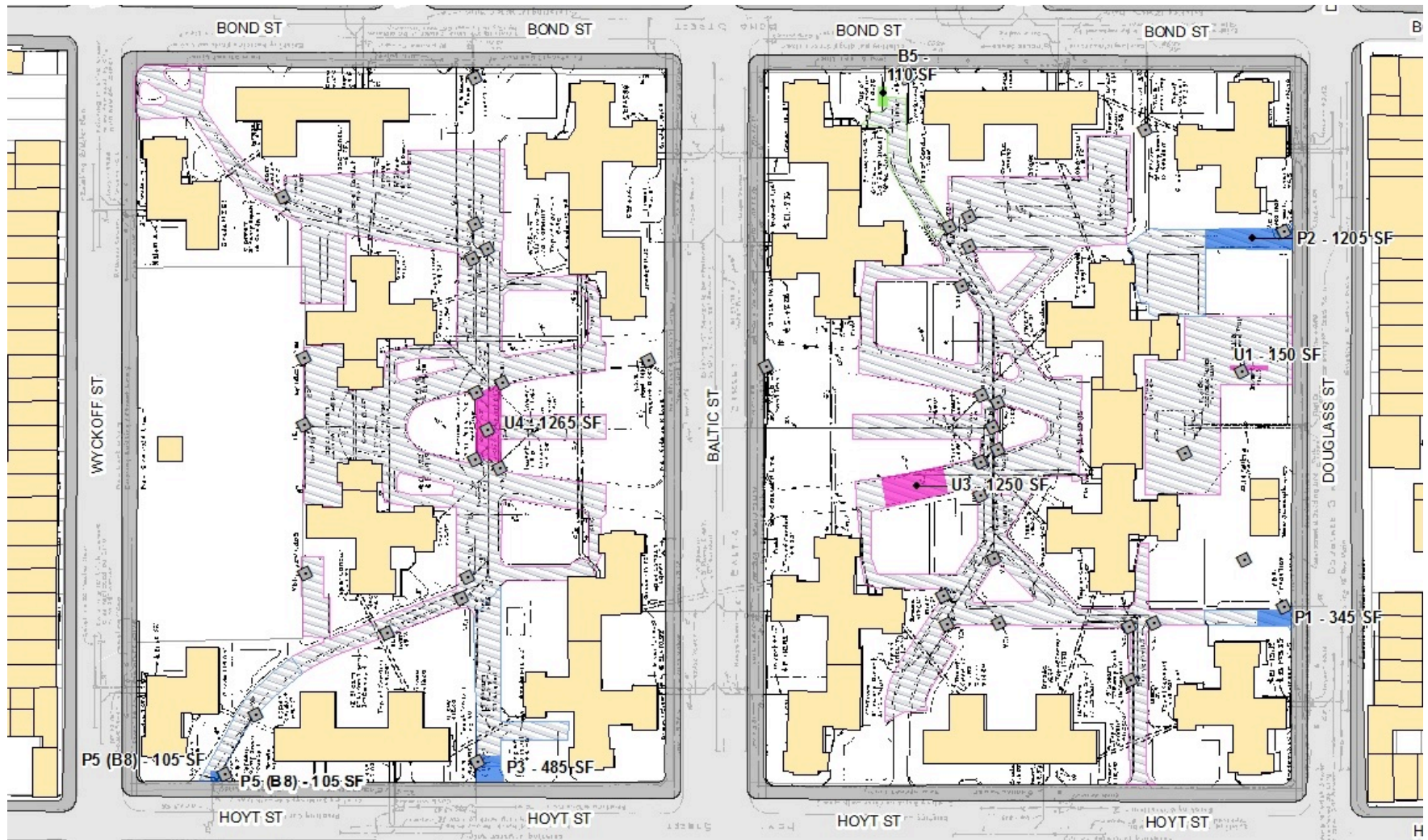
Current Designs

Currently in design at

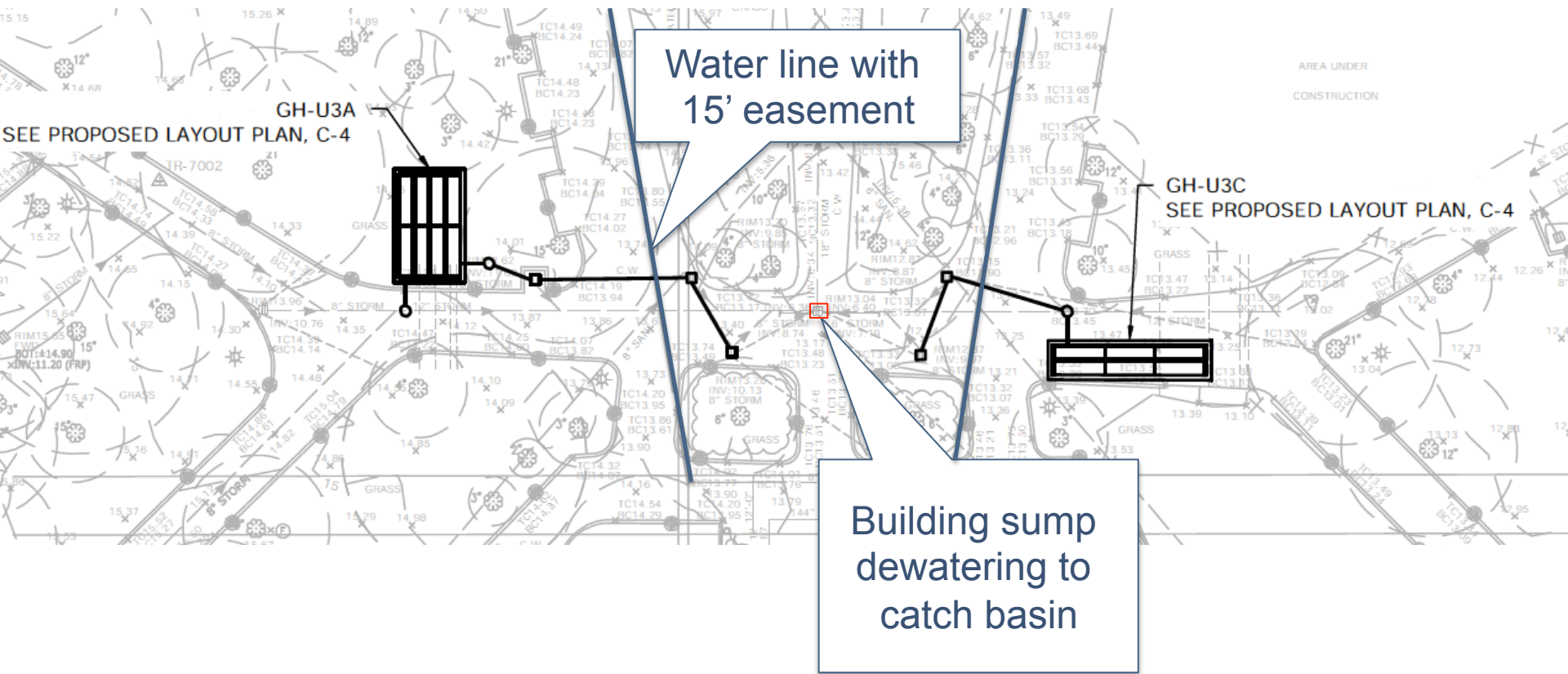
- 2 housing projects
- 4 schools
- 5 parks
- 3 jointly operated playgrounds (shared between school and park)



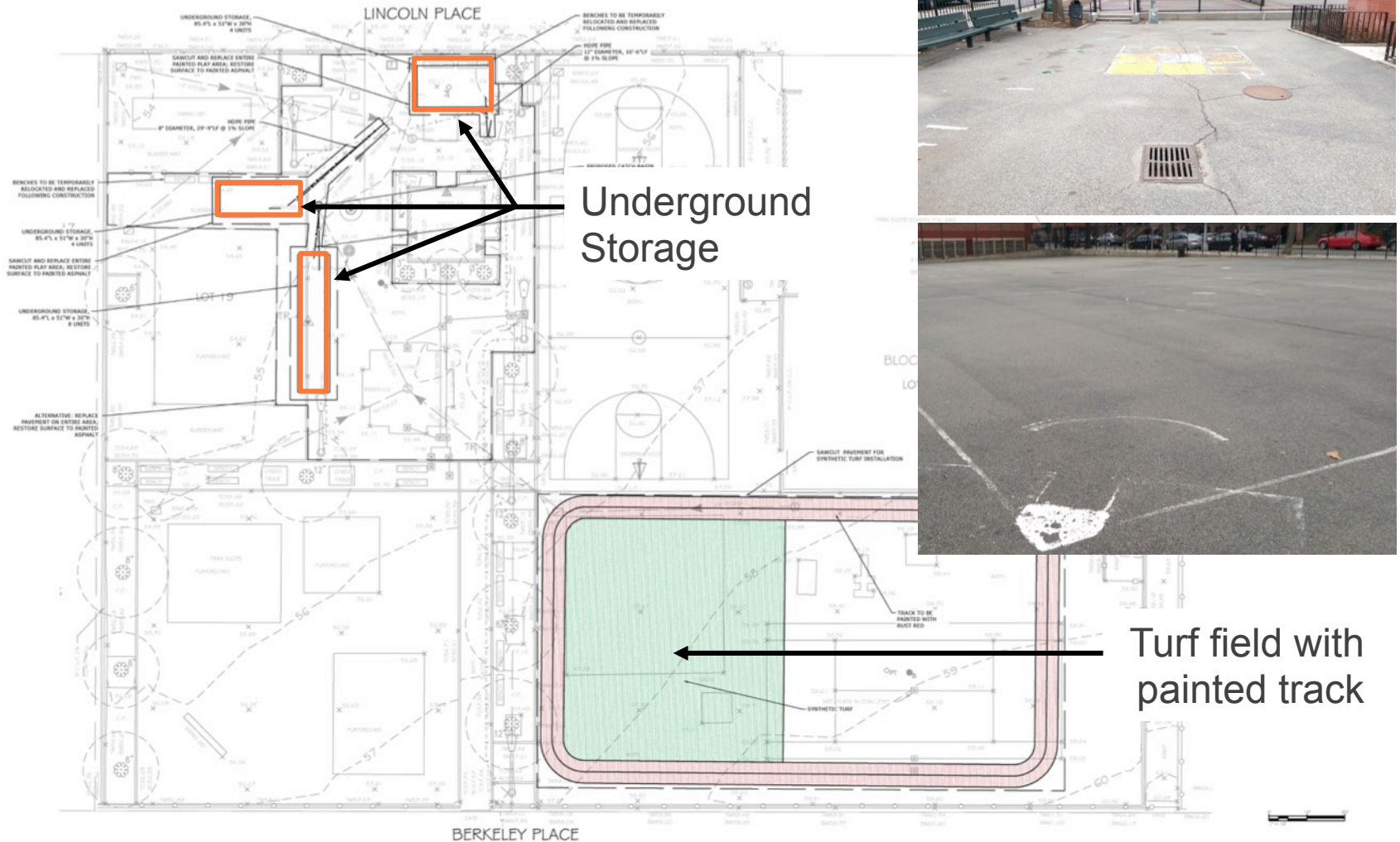
Gowanus Houses



Gowanus Houses



Park Slope Playground



Next Steps

- Complete site surveys
- Conduct tree surveys with arborists at parks
- Coordinate with School Construction Authority and Parks on schematic designs
- Advance designs at Gowanus Houses to 100% design in coordination with Sandy recovery work

Thank You

- DEP Office of Green Infrastructure
 - Magdi Farag, PE
 - Adriana Kocovic
 - Kevin Dahms
 - Kerry Lowe
 - Margot Walker

Questions?

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