





# **Project Team**

- Boston Parks and Recreation Department
  - Margaret Dyson, Director of Historic Parks
- Pressley Associates
  - Marion Pressley and Gary Claiborne
- Tree Specialists
  - Barbara Keene Briggs; David Ropes





# Meeting Agenda

- Project Goals
- Summary of Site History and Existing Conditions
- Key Project Issues
- Landscape Rehabilitation and Improvements Alternatives
- Discussion of Alternatives
- Next Steps





# **Project Area**







# **Project Goals**

- Take a landscape rehabilitation approach to address several key issues in the Ward's Pond and Nickerson Hill area of Olmsted Park (Project Site)
- Understand the historic design intent and landscape evolution of the project site in order to preserve and bring historic integrity back to the Project Site.
- Identify and implement opportunities to combine landscape preservation and environmental enhancement.
- As a pilot project, apply principles and lessons learned to future Emerald Necklace park improvement projects.

### \$575,000 Construction Budget





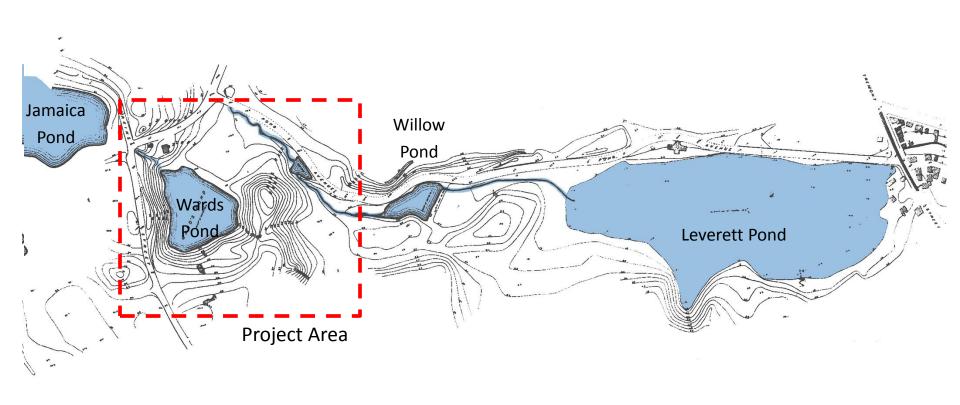
## **Historic Considerations**

# Secretary of the Interior's Standards for the Treatment of Historic Properties

- Preservation: the act or process of applying measures necessary to sustain the existing form, integrity, and material of a historic property, which includes initial stabilization work, where necessary, as well as ongoing preservation maintenance and repair of historic materials and features.
- Rehabilitation: the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.
- **Restoration:** the act or process of accurately depicting the form, features, and character of a **property as it appeared at a particular period of time** by removing features from other periods in its history and reconstructing missing features from the restoration period.
- Reconstruction: the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.



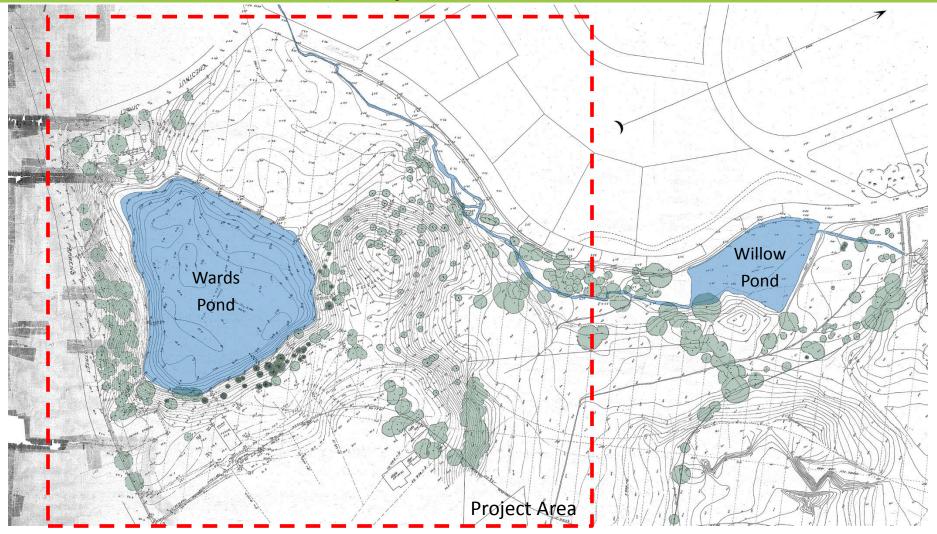




1881 Survey



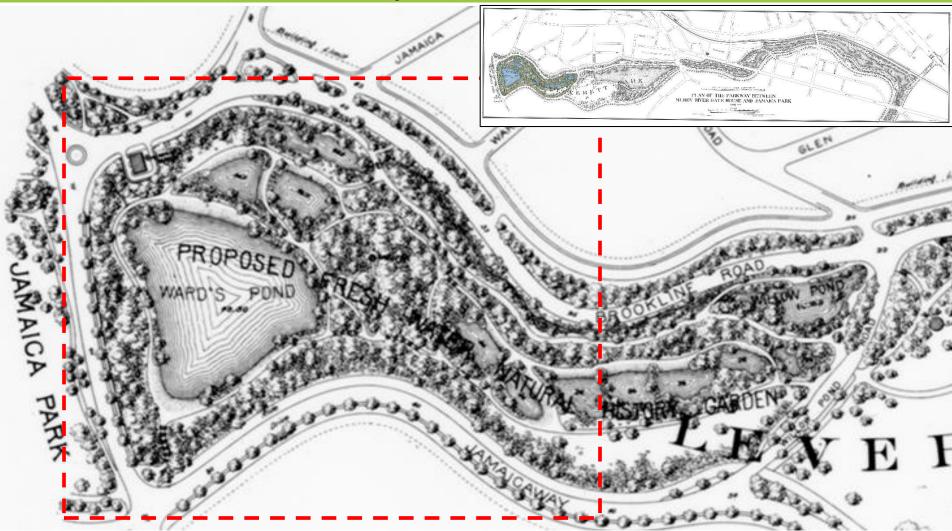




1890 Survey



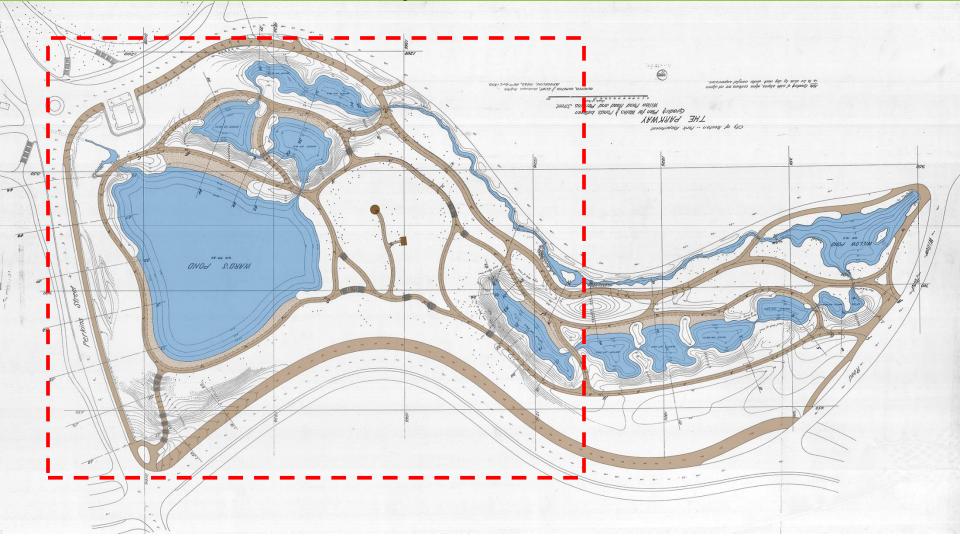




Plan of the Parkway Between Muddy River Gate House and Jamaica Park 1892, Frederick Law Olmsted



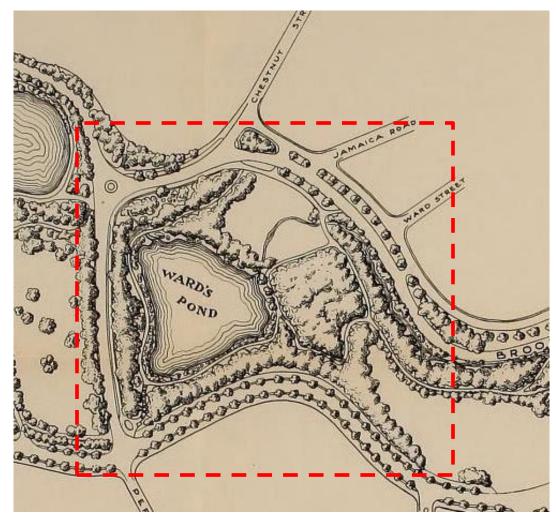




The Parkway – Grading Plan for Walks and Ponds between Willow Pond Road and Perkins Street 1893 Olmsted, Olmsted, and Eliot. (rotated)







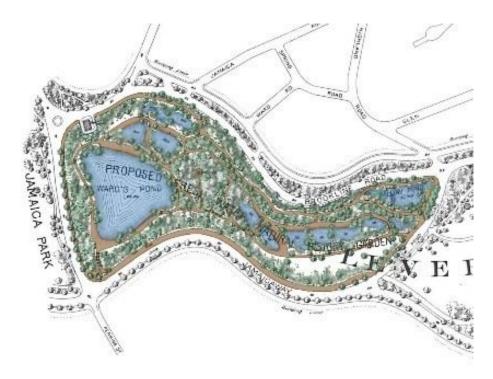
#### 1900 Olmsted Park Plan

- Two natural history pools at Willow Pond.
- Path from Ward's Pond to Chestnut

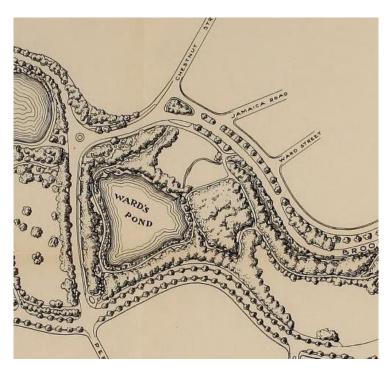
1900 Olmsted Park Plan







**1892 FLO Plan of Ward's Pond Area in Olmsted Park** 



1900 Olmsted Park Plan



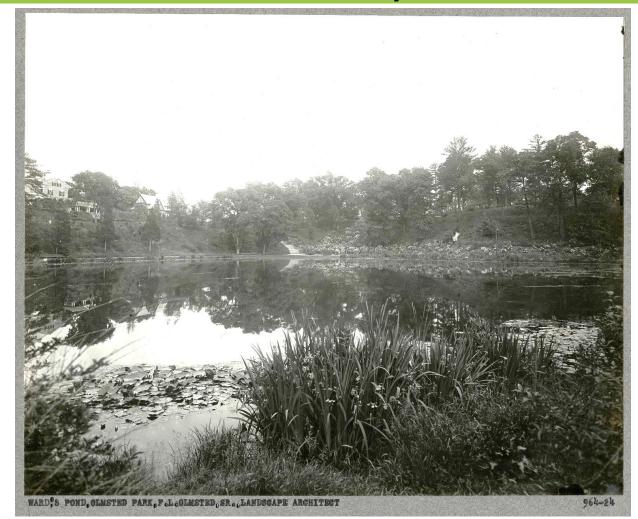




Wards Pond View from Jamaicaway 1901 (6 years after FLO)









Ward's Pond - May 2016



Ward's Pond – August 2016

Ward's Pond (FLONHS) – 1904 (9 years after FLO)



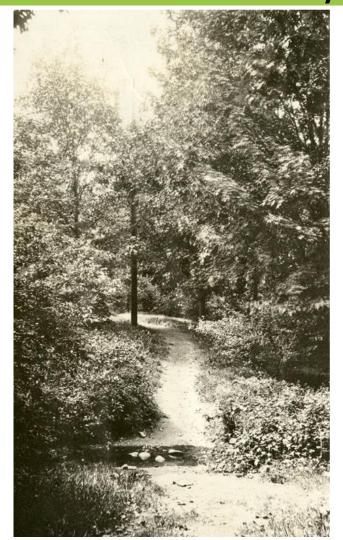




Ward's Pond looking down from stairs from Perkins Street Abdalian, Leon H. 1913-06-14 BPL (18 yrs. after FLO)









Sept 2016

Sept 1915 "The Outlet of Ward's Pond and Dense Grove Beyond" (H.H.

Olmsted Park Blossom)

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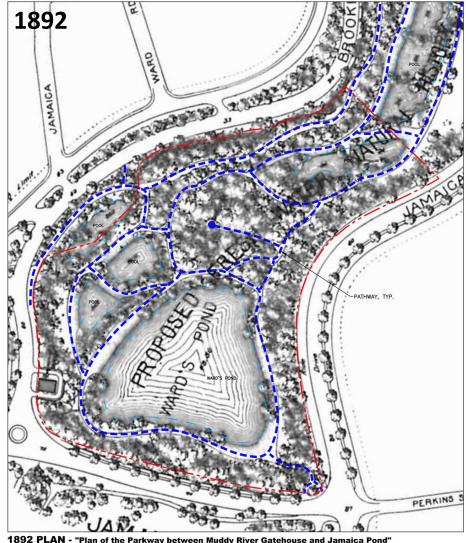


Ward's Pond down from Perkins Street Abdalian, Leon H., ca. 1920s BPL (25+ yrs. After FLO)





## Project Analysis – Historic and Existing Paths



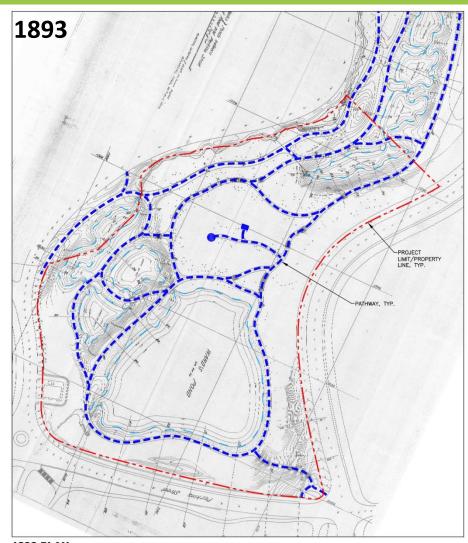
1892 PLAN - "Plan of the Parkway between Muddy River Gatehouse and Jamaica Pon

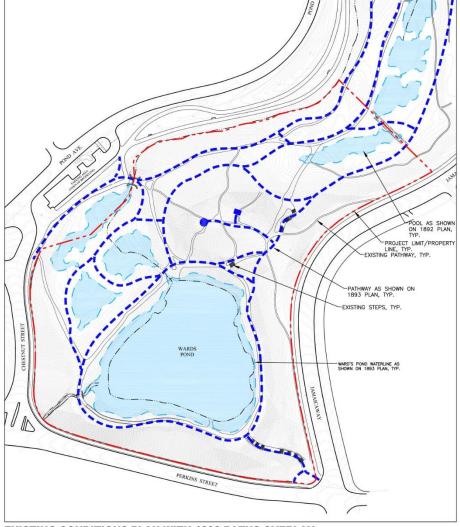
**EXISTING CONDITIONS PLAN WITH 1892 PATHS OVERLAY** 





## Project Analysis – Historic and Existing Paths





1893 PLAN - "The Parkway - Grading Plan for Walks and Ponds between Willow Pond Road and Perkins Street"

**EXISTING CONDITIONS PLAN WITH 1893 PATHS OVERLAY** 

# Olmsted Park

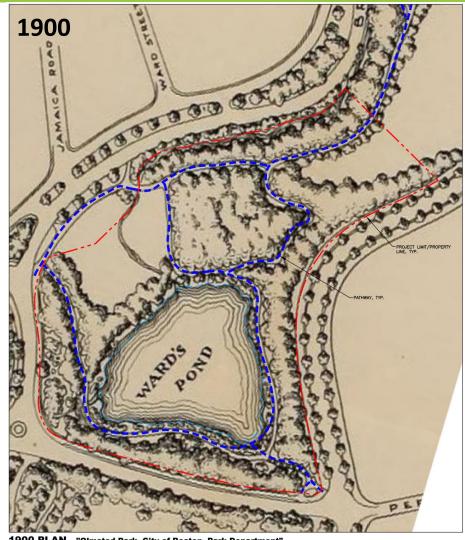
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# Project Analysis – Historic and Existing Paths



1900 PLAN - "Olmsted Park, City of Boston, Park Department"

**EXISTING CONDITIONS PLAN WITH 1900 PATHS OVERLAY** 





## **Project Key Issues**

#### Park Maintenance and Management

• Irregular site maintenance mainly performed for either emergency measures or by public/private partnerships with no guiding principles.

#### Landscape Rehabilitation

- Woodland has been allowed to naturally grow/regenerate without regard to historic integrity.
- Tree pruning/removals
  - Many trees need both emergency and structural pruning.
  - Some trees may need to be removed due to hazard conditions.
- Invasive vegetation
  - Understory dominated by variety of invasive plants.
  - Invasive tree species in canopy.
  - Invasive plan removal/maintenance program necessary
- Lack of new plantings and general woodlands improvements.
- Slope stabilization needed in eroded areas of hillside and along paths
- Site planting Understory planting needed to both stabilize slopes and replace invasive plants.

#### Views

- Many of the historic internal and external views have been lost and blocked by dense vegetation.
- Need to determine if any large trees or shrub overgrowth should be removed to open historic views.

#### Historic Stair Rehabilitation

- Most stairways require granite resetting and replacement.
- Must be reset for long-term stabilization.

#### Site Circulation

- · Entrances not well defined.
- Most paths are in fair to poor condition (path erosion; lack of edge definition; no maintenance of trail surfaces).
- Desire line trails that are not part of original design have turned into well-used trails (some are steep with major erosion issues).
- Vegetation encroaching along edge of paths.





#### **Key Question**

What are the most sustainable solutions to ensure continued landscape integrity?















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# Tree Assessment Methodology

#### **Data Collection**

- Inventoried and assessed 183 individual "Trees of Distinction"
  - Sizes ±30" Diameter at Breast Height (DBH)
  - Additional trees under 30" included if botanically significant or high resource value
- Assess the structural condition and overall vigor of trees
- Develop prioritized pruning or removal recommendations









# Tree Pruning Needs and Methods

- Safety and Risk Reduction
- Preservation and Stabilization
- Pruning Methods
  - Crown Cleaning removal of dead, dying, and structurally compromised limbs and stems
  - Crown Reduction removal of live and healthy limbs to reduce weight and strain on weak portions of tree

Total of 115 trees included in High Priority
Tree Pruning (1 recommended for removal)









- Invasive Species Inventory
- Evaluation of environmental impacts
- Management strategy specific to each invasive species

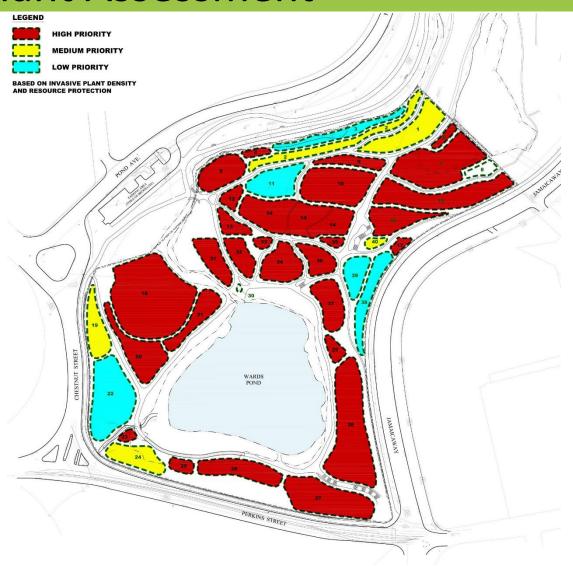
















**Norway Maple** *Acer platanoides* 



**Oriental Bittersweet** *Celastrus orbiculatus* 



**Tree of Heaven** *Ailanthus altissima* 



**Burning Bush** *Euonymous alatus* 



Amur Corktree Phellodendron amurense



Knotweed
Fallopia japonica



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**Japanese Barberry** *Berberis thunbergii* 



Multiflora Rose Rosa multiflora



Honeysuckles Lonicera sp.



**Garlic Mustard** *Alliaria petiolata* 



Common and Glossy Buckthorn Rhamnus cathartica & R. frangula



**Poison lvy** *Toxicodendron radicans* 







# **Invasive Plants Management Strategies**

#### Manual Control Methods

- Hand pulling (less than 1" stem); small tree saplings, most woody shrubs, and garlic mustard
- Cutting followed by Buckthorn Baggie installation



- Uprooter Small tree saplings and most woody shrubs (less than 2.5" stems); not recommended on steep hillsides
- Repeated mowing

#### **Chemical Control Methods**

- Cut and swipe method (systemic herbicide);
   larger stemmed woody trees and shrubs
- Only effective treatment for knotweed













# Site Rehabilitation – Understory Plantings



**Shadblow Serviceberry** 



Pagoda Dogwood



Witchhazel



Red Chokeberry



**Gray Dogwood** 



Nannyberry





# Site Rehabilitation – Understory Plantings



With a ward Vilanua waa



Witherod Viburnum

Smooth Sumac







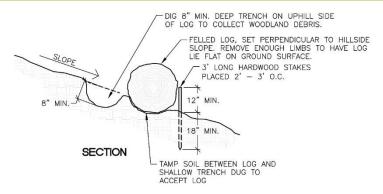
Summersweet

Sweetfern

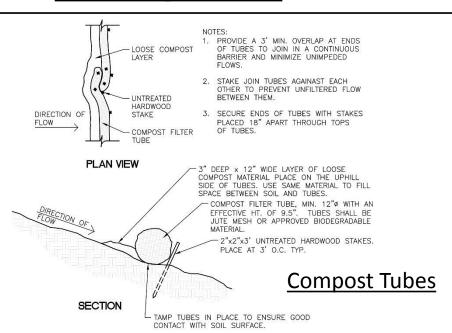




## Site Rehabilitation – Slope Stabilization



#### **Contour Log Placement**











# Site Rehabilitation – Infrastructure - Historic Stairways









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# Site Rehabilitation – Infrastructure - Historic Stairways





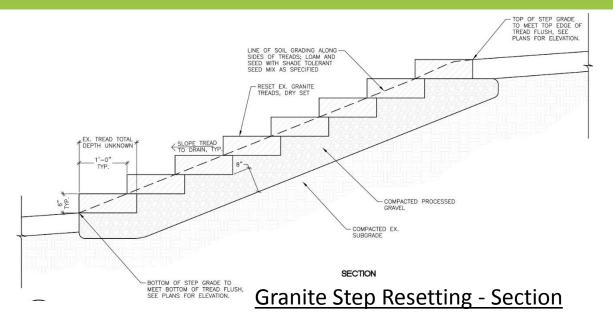


Steep Area of Path on north side of Nickerson Hill – Possible new steps





# Site Rehabilitation – Infrastructure -Historic Stairways















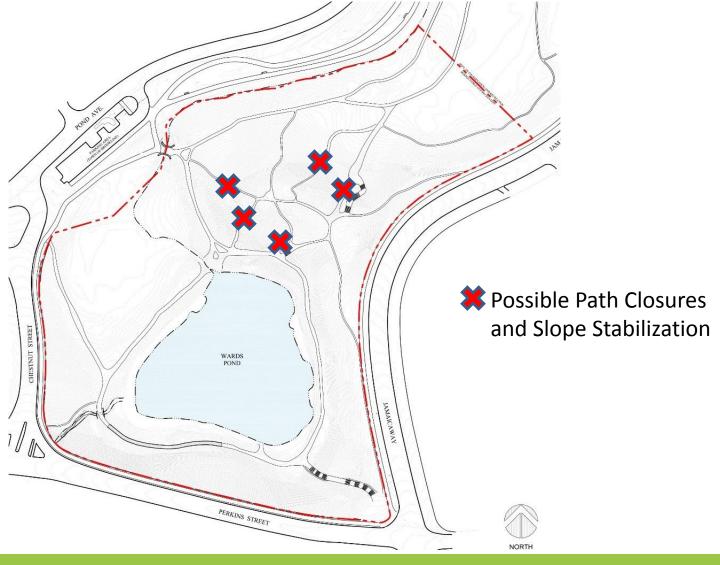
## Site Rehabilitation – Infrastructure - Paths







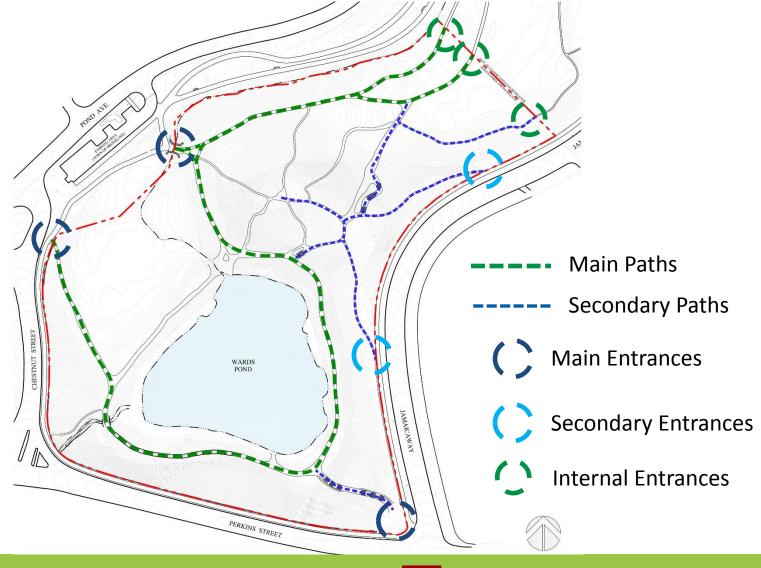
### Site Rehabilitation – Infrastructure - Paths







### Site Rehabilitation - Infrastructure - Paths







## Site Rehabilitation – Infrastructure – Path Accessibility

#### Massachusetts DCR Universal Access Program's SUMMARY OF GUIDELINES FOR ACCESSIBLE TRAILS

(Based on Forest Service Trail Accessibility Guidelines, May, 2006)

This chart should be used as a guide only. Contact DCR's Universal Access Program for assistance in evaluating, designing and developing new or altered trails.

#### **ACCESSIBLE TRAIL STANDARDS**

Trail Grade	e (max) (*1)	w/ resting intervals (*2)	Cross Slope (max)	Obstacle Height (max)	Trail Tread
<ul> <li>5% max. for any distance</li> <li>8.3% for 200 'max.</li> <li>10% for 30' max.</li> <li>12.5% for 10' max.</li> </ul>		N/A, not required @ 200' max. @30' max. @ 10' max.	5% (*2)	2" height max.	Firm & stable
Clear Width	Openings	Passing Space Interval	Edge Protection	Protruding Objects	Signs
36" (*3)	½" max. diameter	Every 1000' when clear width less than 60". 60"x60" min. or T-shape min. 48"	3" min. height (where edge protection provided)	80" min. clear head space (or provide barrier to warn blind)	At trailhead; identify total length of trail & first point of departure

- \*1 No more than 30% of the trail shall exceed 8.3%
- \*2 Resting interval: 60" minimum in length by minimum width of trail width, 3% max. grade. For routes: 5% max. cross slope allowed for proper drainage.
- \*3 May be reduced to 32" or less with allowable exceptions.
- \*4 May be no less than 32" for a distance of 24" max. with one of four conditions

DCR Trails Guidelines and Best Practices Manual

Updated March 2012

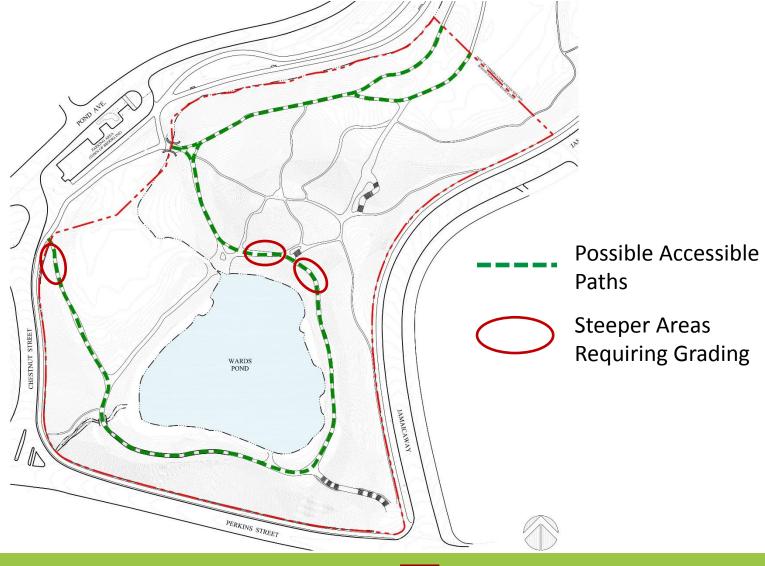
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### Site Rehabilitation – Infrastructure - Paths







#### **Site Rehabilitation Alternative A**

- High priority tree pruning
- Priority 2 tree pruning
- Focus on removal of invasive trees
- Infrastructure improvements based on remaining budget

#### **Site Rehabilitation Alternative B**

- High priority tree pruning
- Total removal of all invasive trees, shrubs, vines, and herbaceous plants
- New understory/tree plantings and slope stabilization in areas of invasive plant removals
- Infrastructure improvements based on remaining budget

#### Site Rehabilitation Alternative C

- High priority tree pruning
- Significant focus on infrastructure improvements





### Site Rehabilitation Alternative A

- High priority tree pruning
- Priority 2 tree pruning
- Focus on removal of invasive trees
- Infrastructure improvements
  - Historic granite steps resetting/replacement
  - Main path improvements in critical areas based on remaining budget,
     prioritizing stabilization and accessibility





### Site Rehabilitation Alternative B

- High priority tree pruning
- Total removal of all invasive trees, shrubs, vines, and herbaceous plants
- New understory plantings and slope stabilization in areas of invasive plant removals
- Infrastructure improvements
  - Historic granite steps resetting/replacement
  - Main path improvements in critical areas based on remaining budget,
     prioritizing stabilization and accessibility





### Site Rehabilitation Alternative C

- High priority tree pruning
- Significant focus on infrastructure improvements
  - Historic granite steps resetting/tread replacement plus addition of new risers to improve path grades at top and bottom of steps
  - New set of granite steps on north side of Nickerson Hill
  - Paths improvements (surfacing; grading; clearances; accessibility)
  - Partial path closures on Nickerson Hill
  - Improvements at Perkins St./Jamaicaway entrance (path surfacing; drainage)
  - New plantings as needed in areas of infrastructure improvements





# **Next Steps**

- Determine the best and most feasible site rehabilitation alternative
- Regulatory agency hearings (Boston Landmarks; Conservation Commission)
- Finalize plans and cost estimates
- Community Meeting 3
- Prepare and issue Bid Package
- Site construction





Discussion/Input











