



## Training Field/Winthrop Square Community Update

March 10, 2015

# Park elements addressed in project:

Drainage/Erosion

Vegetation

Hardscape

Fences and Curbs

Park Furnishings

Access

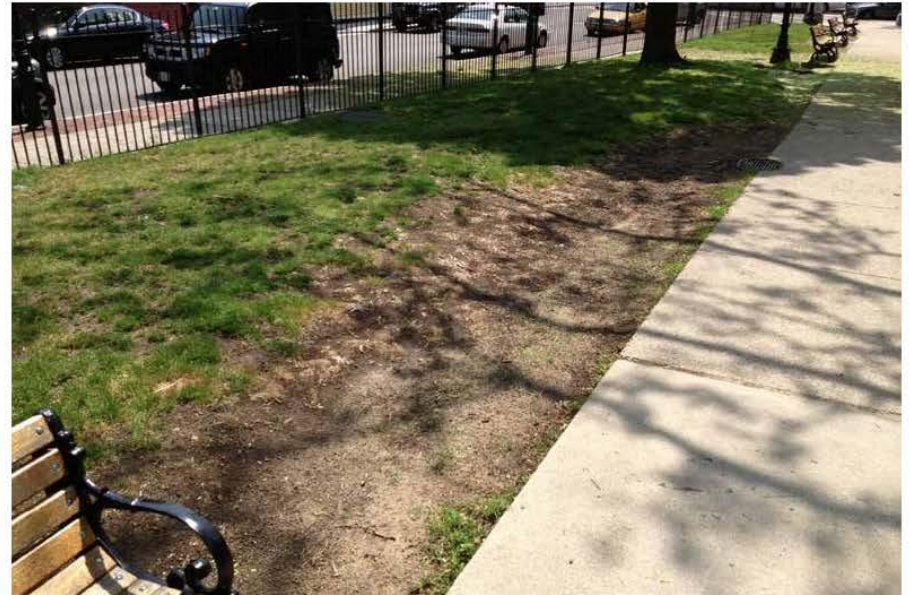
Infrastructure

New: Address winter damage



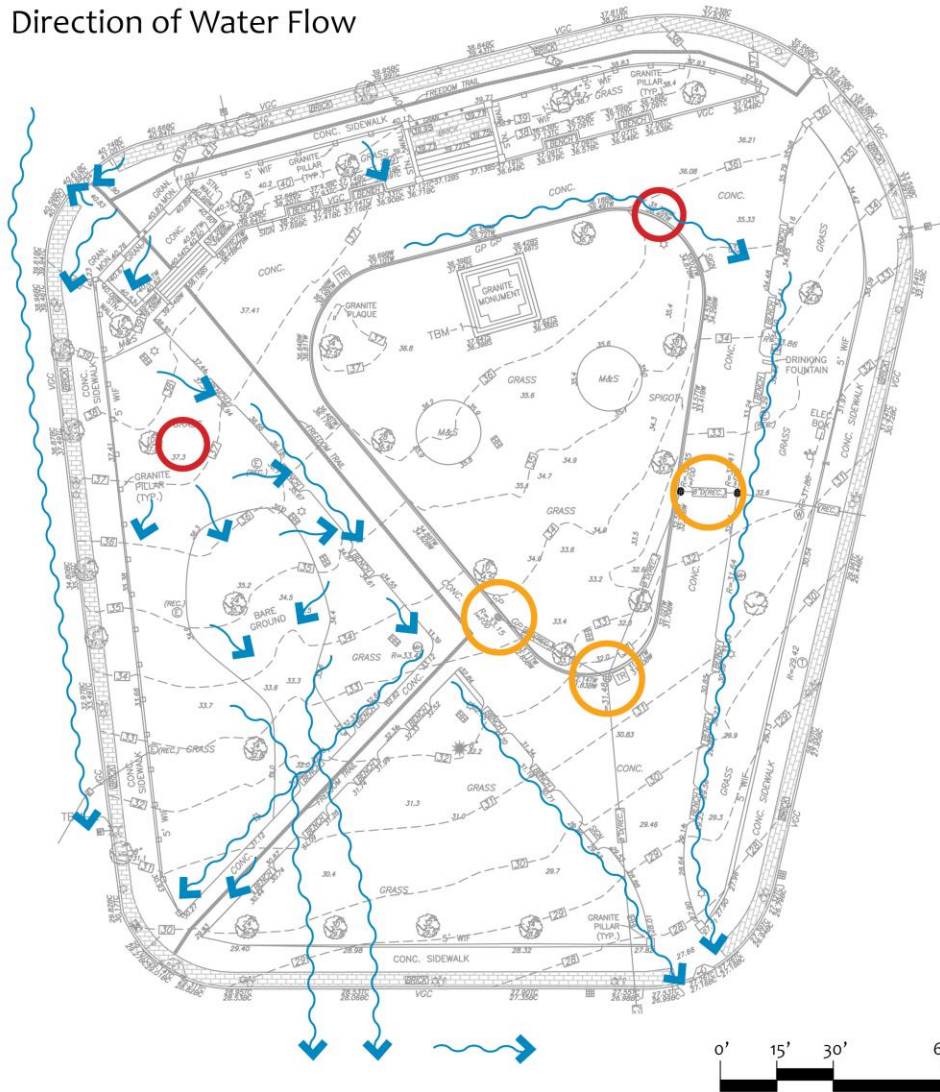
Winter damage





Site Analysis: Drainage/Erosion

Direction of Water Flow



- Add catch basins:
  - in key locations to capture stormwater before it causes erosion.
  - to prevent drainage across walks that causes icing problems.

○ Clean park catch basins.

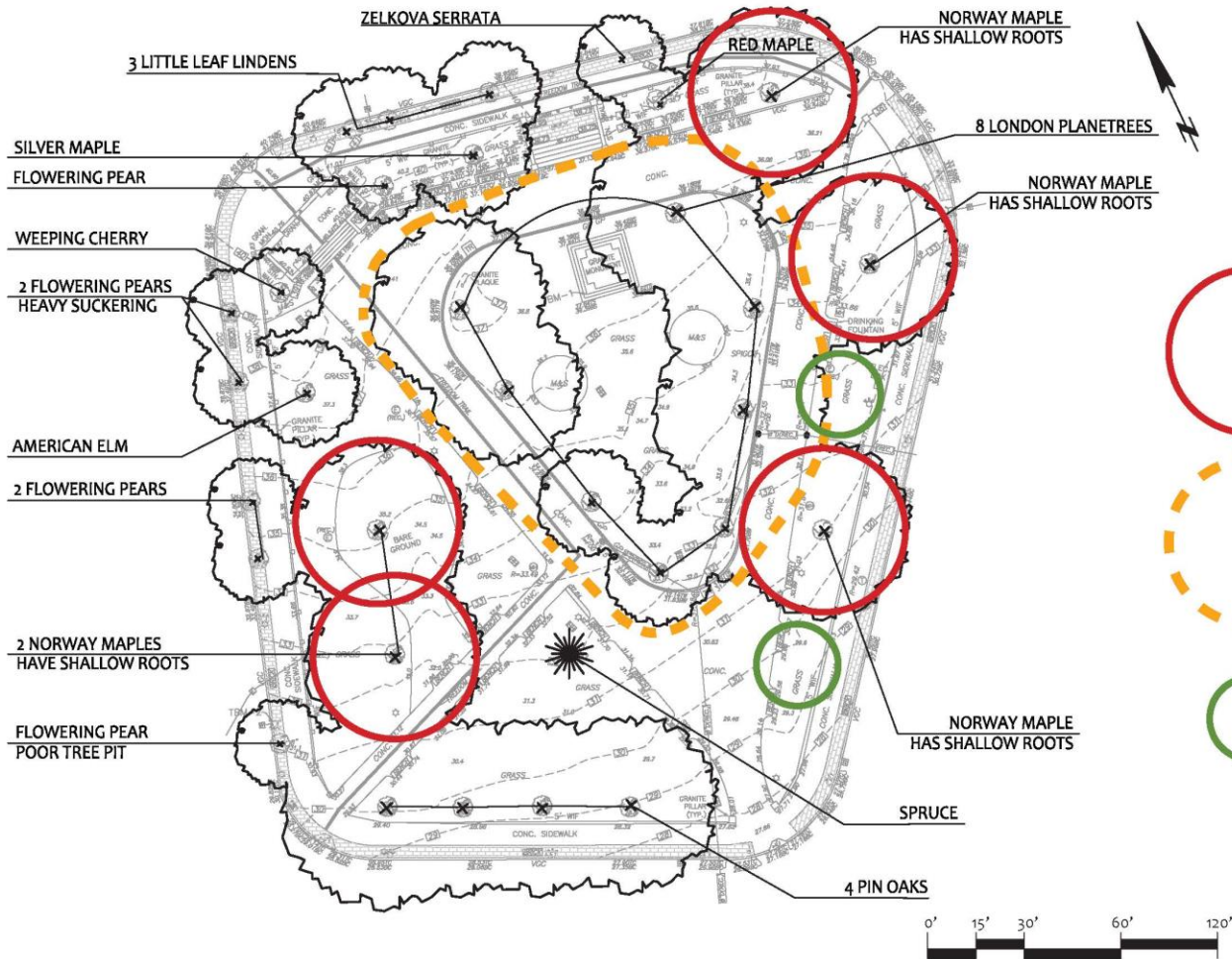
Recommendations: Drainage/Erosion





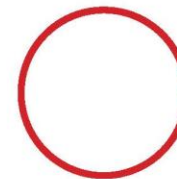
Site Analysis: Vegetation (trees, shrubs, turf)





## SOIL

- Aerate soil.
- Add soil amendments per soil study.
- Install irrigation system for turf areas.
- Re-seed turf.



Selectively prune Norway Maples to thin crown & allow more light to turf.



Continue to prune London Planes for protection of monument.

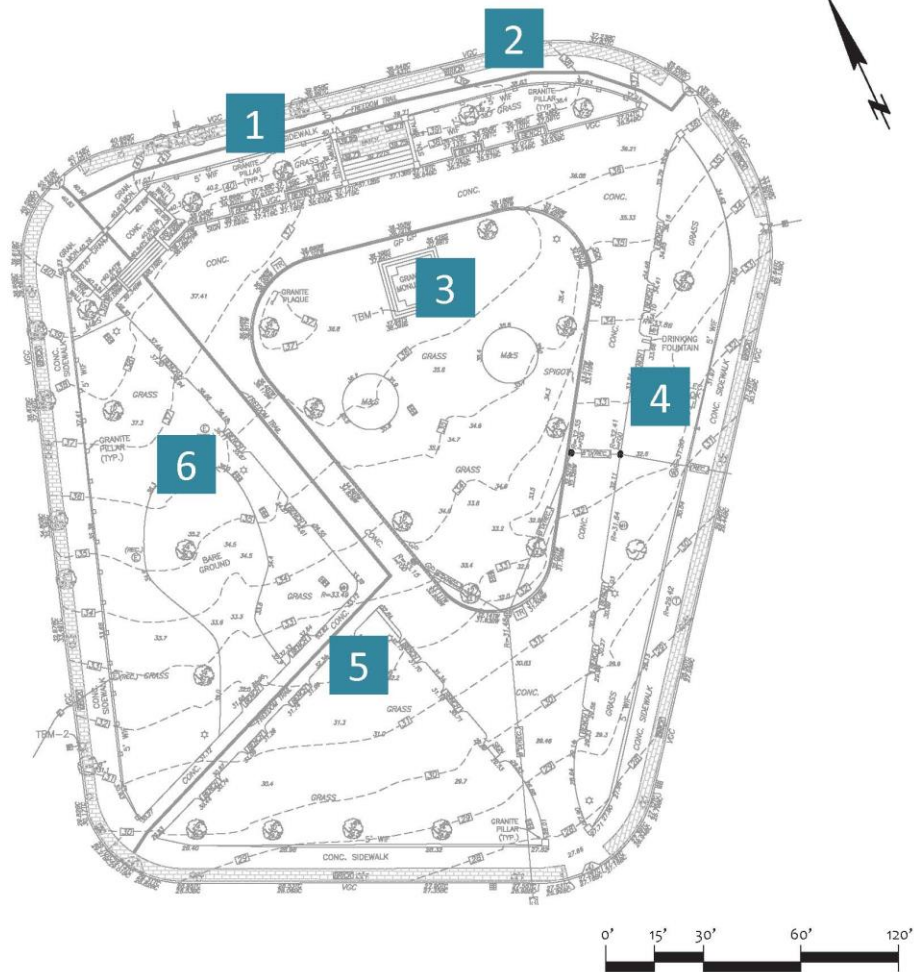


Deciduous trees have been planted to fill in holes on east side of Training Field.

\*All new trees should be large-scale deciduous shade trees.

# Recommendations: Vegetation

Boston Parks contracted with Dr. Charles D. Sherzi, Jr.  
to prepare a soil health assessment report.



## Soil Health Test Areas



1

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1056	
Location: One Cottage Rd., Andover, MA, 01810			Agent: 0	
Field Treatment: Sample-Area #1 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
Indicators		Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	65.9	95	
	Available Water Capacity (m/m)	0.25	95	
	Surface Hardness (psi)	475	0	rooting, water transmission
	Subsurface Hardness (psi)	518	2	Subsurface Pan/Deep Compaction
BIOLOGICAL	Organic Matter (%)	3.8	67	
	Active Carbon (ppm) [Permanganate Oxidizable]	482	38	
	Potentially Mineralizable Nitrogen (µgN/g soil/week)	4.4	1	N Supply Capacity
	Root Health Rating (1-9)	3.3	75	
CHEMICAL	pH (see Nutrient Analysis Report)	6.3	100	
	Extractable Phosphorus (see Nutrient Analysis Report)	17.2	100	
	Extractable Potassium (see Nutrient Analysis Report)	79.6	100	
	Minor Elements (see Nutrient Analysis Report)		100	
OVERALL QUALITY SCORE (OUT OF 100):			64.4	Medium
Soil Textural Class: <sup>USDA</sup> sandy loam				
SAND (%) 56.6 SILT (%) 35.9 CLAY (%) 7.5				

2

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1057	
Location: One Cottage Rd., Andover, MA, 01811			Agent: 0	
Field Treatment: Sample-Area #2 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
Indicators		Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	48.0	75	
	Available Water Capacity (m/m)	0.20	83	
	Surface Hardness (psi)	362	1	rooting, water transmission
	Subsurface Hardness (psi)	475	6	Subsurface Pan/Deep Compaction
BIOLOGICAL	Organic Matter (%)	3.8	67	
	Active Carbon (ppm) (Permanganate Oxidizable)	504	41	
	Potentially Mineralizable Nitrogen (µgN/gsoil/week)	6.5	8	N Supply Capacity
	Root Health Rating (1-9)	6.3	38	
CHEMICAL	pH (see Nutrient Analysis Report)	5.1	0	Toxicity, Nutrient Availability (for crop specific guide, see CNAL report)
	Extractable Phosphorus (see Nutrient Analysis Report)	20.6	100	
	Extractable Potassium (see Nutrient Analysis Report)	82.1	100	
	Minor Elements (see Nutrient Analysis Report)		11	More than one minor- or/and micro-nutrient deficient or excessive
OVERALL QUALITY SCORE (OUT OF 100):			44.1	Low
Soil Textural Class: <sup>www.ces.cornell.edu</sup> sandy loam				
SAND (%): 68.3      SILT (%): 32.3      CLAY (%): 7.5				

3

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1058	
Location: One Cottage Rd., Andover, MA, 01812			Agent: 0	
Field Treatment: Sample-Area #3 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
Indicators		Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	79.5	90	
	Available Water Capacity (m/m)	0.19	70	
	Surface Hardness (psi)	258	16	rooting, water transmission
	Subsurface Hardness (psi)	275	67	
BIOLOGICAL	Organic Matter (%)	4.8	86	
	Active Carbon (ppm) [Permanganate Oxidizable]	445	32	
	Potentially Mineralizable Nitrogen (µgN/g soil/week)	8.2	29	N Supply Capacity
	Root Health Rating (1-9)	5.0	50	
CHEMICAL	pH (see Nutrient Analysis Report)	4.7	0	Toxicity, Nutrient Availability (for crop specific guide, see CNAL report)
	Extractable Phosphorus (see Nutrient Analysis Report)	13.2	100	
	Extractable Potassium (see Nutrient Analysis Report)	92.9	100	
	Minor Elements (see Nutrient Analysis Report)		56	
OVERALL QUALITY SCORE (OUT OF 100):			59.5	Medium
Soil Textural Class: sandy loam				
SAND (%): 57.4 SILT (%): 35.6 CLAY (%): 7.0				

4

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1059	
Location: One Cottage Rd., Andover, MA, 01813			Agent: 0	
Field Treatment: Sample Area #4 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
Indicators		Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	66.9	95	
	Available Water Capacity (m/m)	0.19	52	
	Surface Hardness (psi)	295	8	rooting, water transmission
	Subsurface Hardness (psi)	337	41	
BIOLOGICAL	Organic Matter (%)	4.2	75	
	Active Carbon (ppm) [Permanganate Oxidizable]	382	23	Soil Biological Activity
	Potentially Mineralizable Nitrogen (µgN/g soil/week)	4.7	1	N Supply Capacity
	Root Health Rating (1-9)	5.7	50	
CHEMICAL	pH (see Nutrient Analysis Report)	5.3	0	Toxicity, Nutrient Availability (for crop specific guide, see CNAL report)
	Extractable Phosphorus (see Nutrient Analysis Report)	19.7	100	
	Extractable Potassium (see Nutrient Analysis Report)	80.3	100	
	Minor Elements (see Nutrient Analysis Report)		11	More than one minor- or/and micro-nutrient deficient or excessive
OVERALL QUALITY SCORE (OUT OF 100):			48.9	Low
Soil Textural Class=> sandy loam				
SAND (%): 59.9      SILT (%): 31.9      CLAY (%): 8.2				

5

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1060	
Location: One Cottage Rd., Andover, MA, 01814			Agent: 0	
Field/Treatment: Sample-Area #5 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
	Indicators	Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	70.9	97	
	Available Water Capacity (m/m)	0.21	85	
	Surface Hardness (psi)	452	0	rooting, water transmission
	Subsurface Hardness (psi)	505	2	Subsurface Pan/Deep Compaction
BIOLOGICAL	Organic Matter (%)	4.1	73	
	Active Carbon (ppm) [Permanganate Oxidizable]	456	33	
	Potentially Mineralizable Nitrogen (µgN/gsoil/week)	1.0	0	N Supply Capacity
	Root Health Rating (1-9)	5.0	50	
CHEMICAL	pH (see Nutrient Analysis Report)	4.7	0	Toxicity, Nutrient Availability (for crop specific guide, see CNAL report)
	Extractable Phosphorus (see Nutrient Analysis Report)	18.4	100	
	Extractable Potassium (see Nutrient Analysis Report)	62.1	72	
	Minor Elements (see Nutrient Analysis Report)		11	More than one minor- or/and micro-nutrient deficient or excessive
OVERALL QUALITY SCORE (OUT OF 100):			43.9	Low
Soil Textural Class: <sup>(NCEC)</sup> sandy loam				
SAND (%): 68.3      SILT (%): 31.9      CLAY (%): 7.8				

6

CORNELL SOIL HEALTH TEST REPORT				
Name of Farmer: Chuck Sherzi, Jr.			Sample ID: k1061	
Location: One Cottage Rd., Andover, MA, 01815			Agent: 0	
Field Treatment: Sample-Area #6 Winthrop Square, Charlestown			Agent's Email: 0	
Tillage: 0			Given Soil Texture: 0	
Crops Grown: 0			Date Sampled: 6/20/2013	
Indicators		Value	Rating	Constraint
PHYSICAL	Aggregate Stability (%)	59.2	90	
	Available Water Capacity (m/m)	0.21	87	
	Surface Hardness (psi)	420	0	rooting, water transmission
	Subsurface Hardness (psi)	510	2	Subsurface Pan/Deep Compaction
BIOLOGICAL	Organic Matter (%)	3.9	71	
	Active Carbon (ppm) [Permanganate Oxidizable]	238	9	Soil Biological Activity
	Potentially Mineralizable Nitrogen (µgN/g soil/week)	11.7	87	
	Root Health Rating (1-9)	5.3	50	
CHEMICAL	pH (see Nutrient Analysis Report)	4.6	0	Toxicity, Nutrient Availability (for crop specific guide, see CNAL report)
	Extractable Phosphorus (see Nutrient Analysis Report)	21.3	100	
	Extractable Potassium (see Nutrient Analysis Report)	77.7	100	
	Minor Elements (see Nutrient Analysis Report)		11	More than one minor- or/and micro-nutrient deficient or excessive
OVERALL QUALITY SCORE (OUT OF 100):			50.5	Low
Soil Textural Class: <sup>CMSC</sup> sandy loam				
SAND (%): 59.3      SILT (%): 31.9      CLAY (%): 8.8				

# Soil Health Test Areas

- Two of the areas (1 & 3) received an **overall quality score** of **medium** with the remaining four areas receiving a **low** quality score.
- All areas have **good stable aggregates** and high available water capacity.
- Surface (0 - 6" deep) and subsurface (6 – 18" deep) soils are **significantly compacted** around site.
- Soil **microbial activity** is **marginalized** around site due to low amount of active carbon (fresh organic residues).
- The **amount of heavy metals** in all areas is **below** the **maximum allowable concentrations** for garden soil.
- Many areas exhibit signs of **soil erosion and exposed roots**.

## Observations: Soil

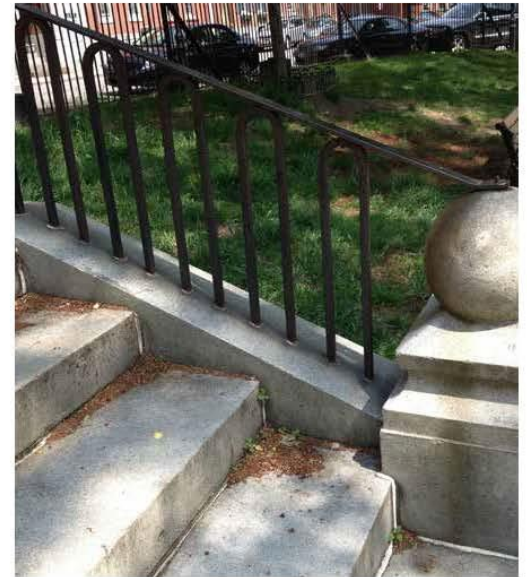


Address soil compaction issues through:

- Air spading
- Vertical composting
- Radial trenching
- Soil Amendments

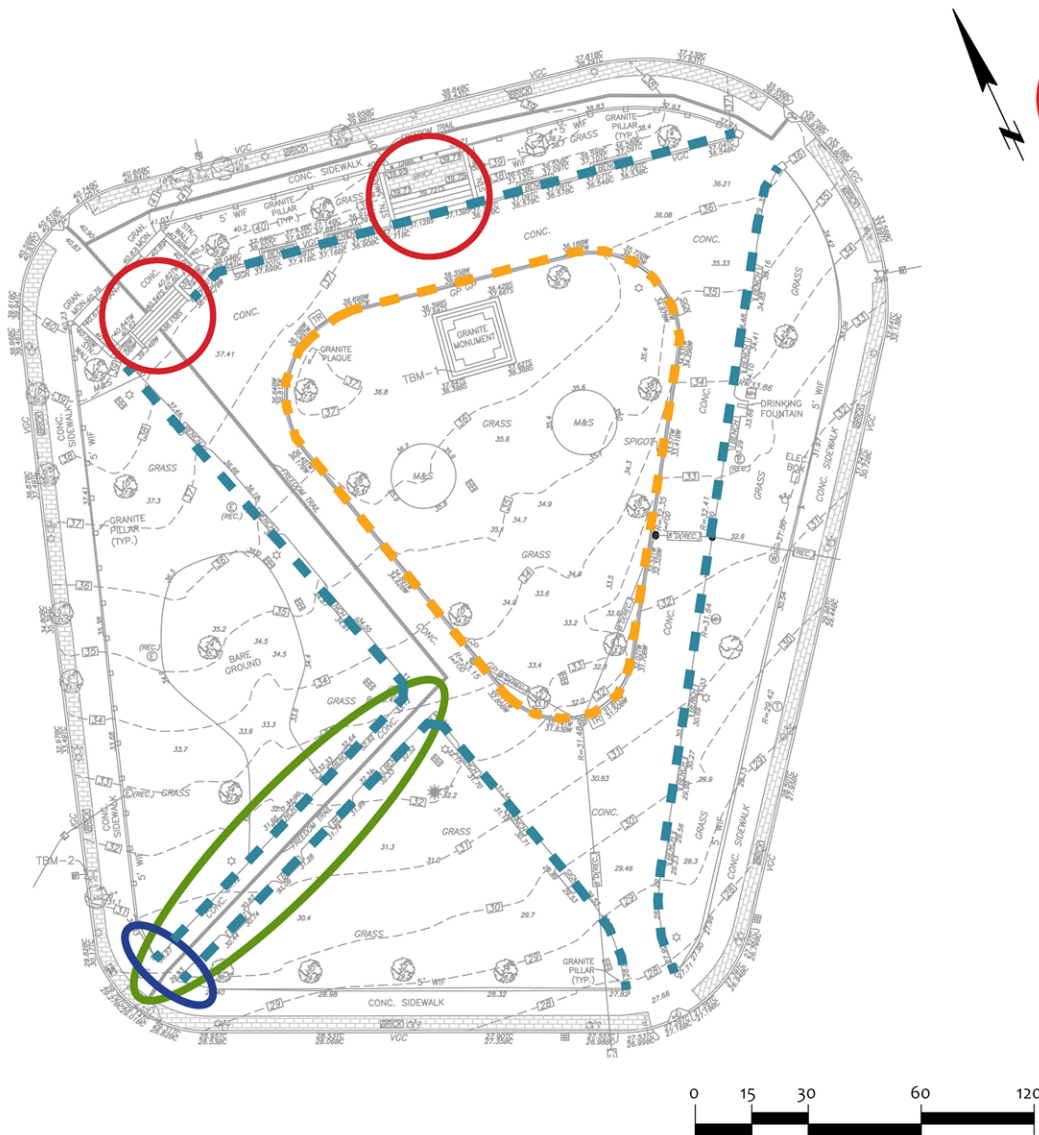


Recommendations: Soil



Site Analysis: Hardscape (pavement, curbs, steps)





## STEPS

- Study settlement & cracking at granite steps.
- Replace sealant on steps if required.



Replace interior fence concrete curb with granite.



Add low granite curb along walks to direct stormwater and define lawn edges.



Widen southwest diagonal path to 12' to allow snow plowing.



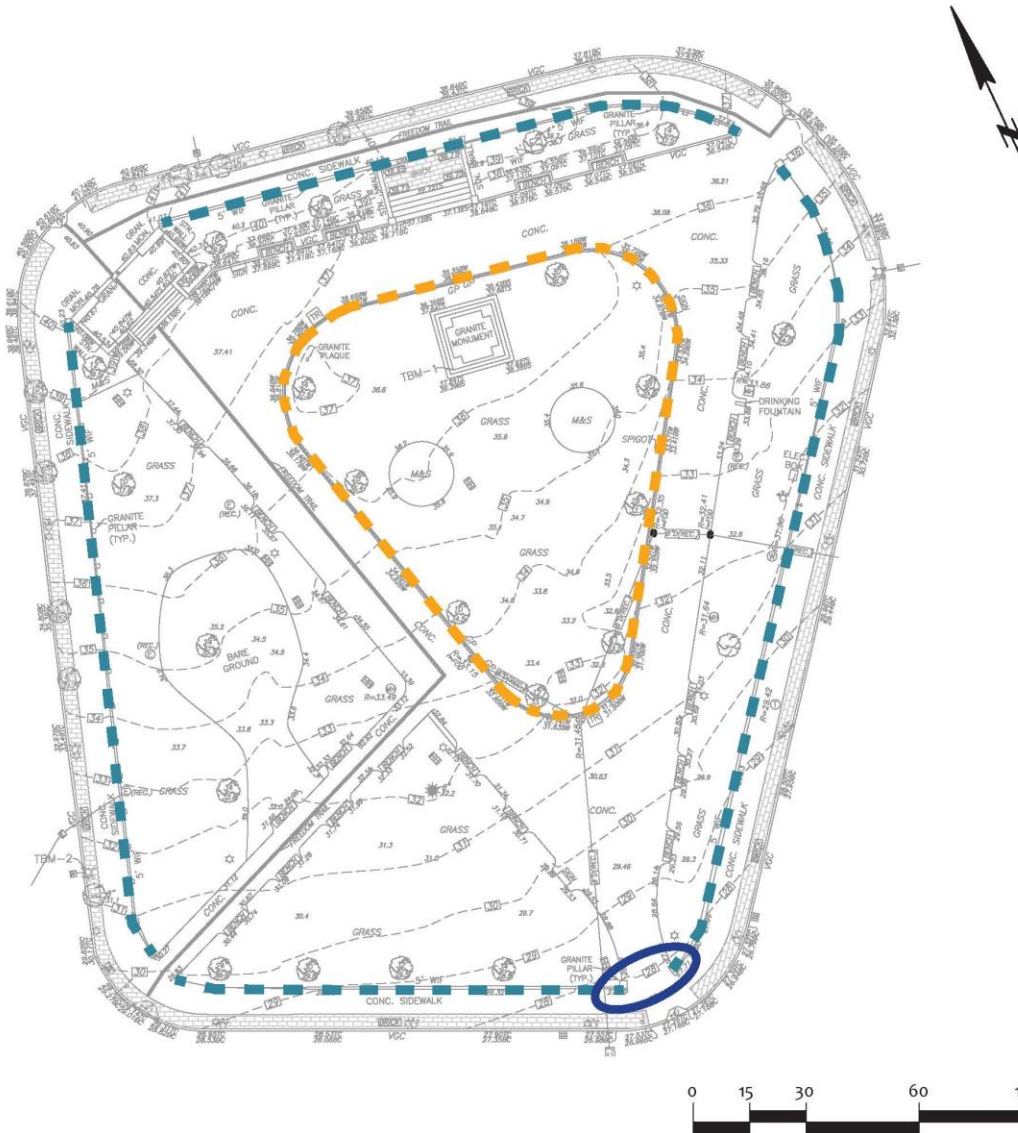
Add pillars to identify southwest entrance as similar to other entrances.

# Recommendations: Hardscape



Site Analysis: Historic Features (monuments, tablets, fencing)





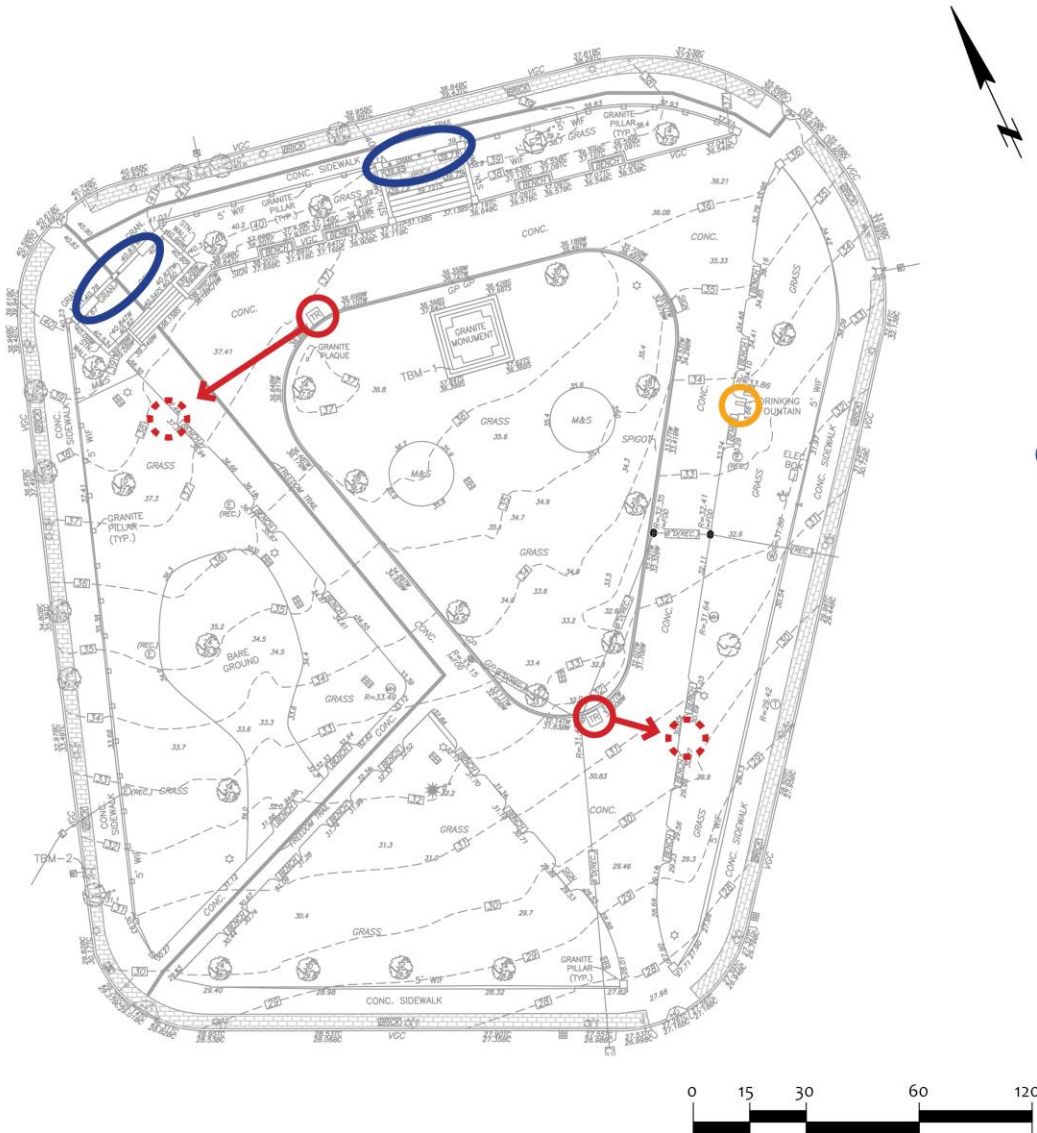
- Replace exterior fence with historically appropriate fence, and reconsider curb base in northeast corner of the park.
- Replace interior fence with historically appropriate fence: reconsider curb base.
- Replace missing granite urns on top of southeast pillars, and remove paint from base of pillars.

## Recommendations: Monuments, Tablets, Fencing & Curbs





Site Analysis: Park Furnishings (benches, trash receptacles, signage)






- Paint light poles black.
- Paint stair railings.
- Refinish wood slats on benches or consider replacement with wood that does not need varnish.

 Replace cast iron bollards near steps.

 Install new accessible drinking fountain: cast iron, painted black, drained to dry well or sewer.

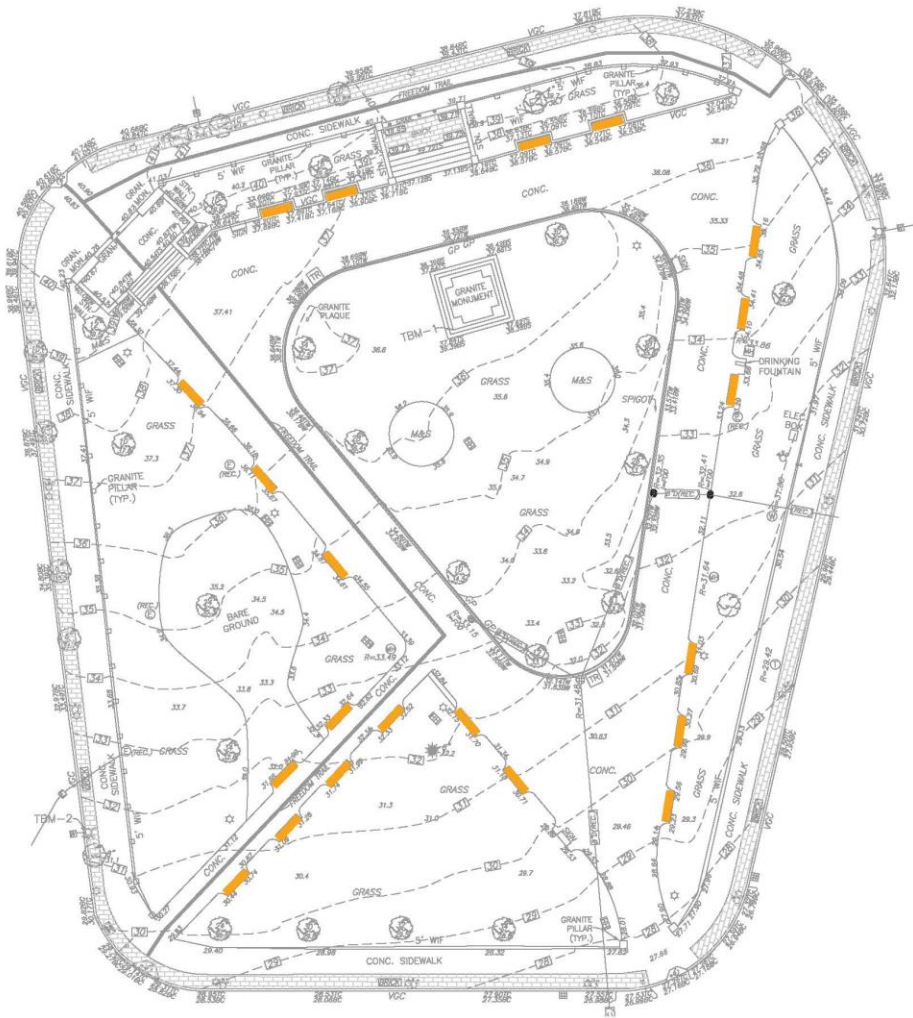
 Move trash receptacles to less visually prominent locations, and replace with new solar compacting models.

## Recommendations: Furnishings

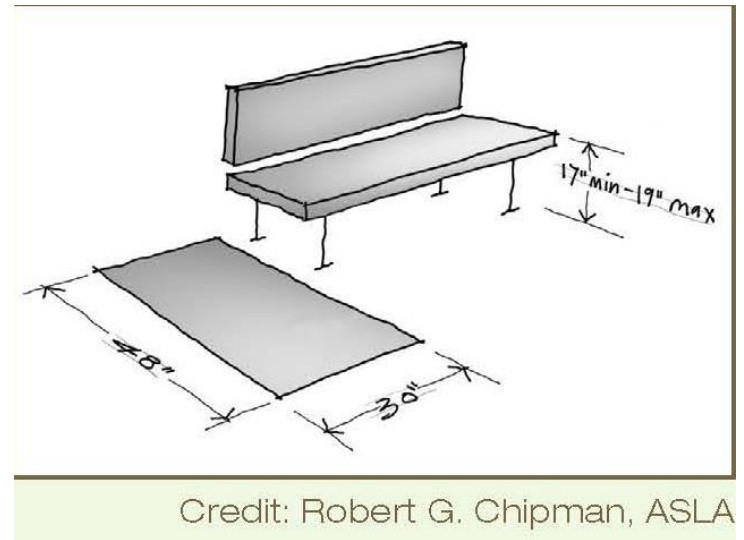


Site Analysis: Use, ADA Considerations



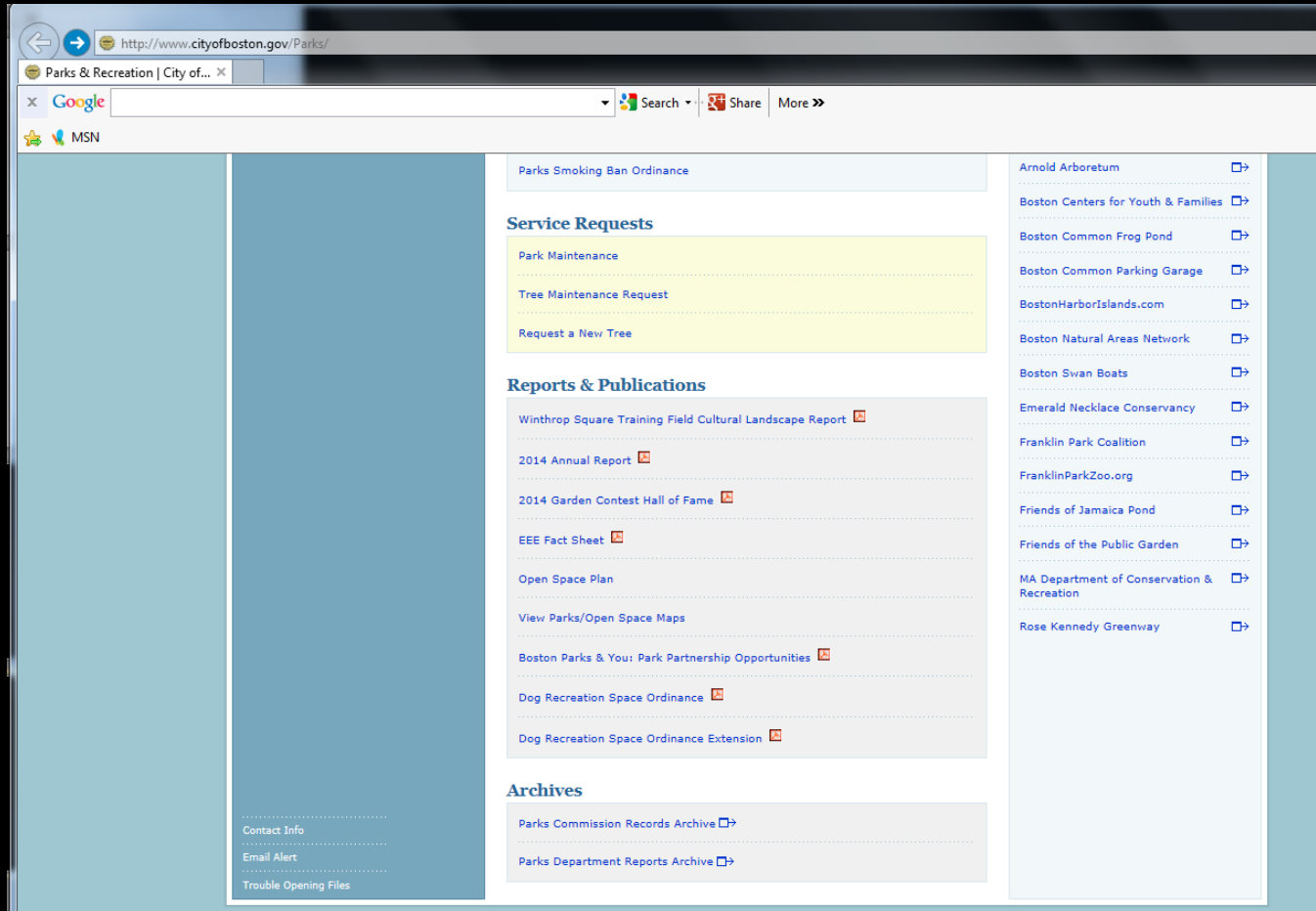


— Add companion wheelchair space beside benches.



Recommendations: Use, ADA Considerations

# Cultural Landscape Report



<http://www.cityofboston.gov/Parks/>  
Reports and Publications



# Project Schedule:

## Cultural Landscape Plan

Analysis and Community Meeting	Summer 2013
Archeological Survey	
Recommendations and Community Meeting	Fall 2014
Report available	February 2014
Budget Request	Winter 2014
Budget Approved	Summer 2014
(included in city's 5 year plan)	
Community Advocacy	Fall 2014
Designer Contract executed	Winter 2015
Construction Documents	Winter/Spring 2015
Construction Contract Bid	Late Spring 2015
Mobilization	Summer 2015

Typical duration of construction 4-6 months\*

\*Custom stonework and fence fabrication lead times may affect duration.

# Questions and Answers