



EF EDUCATION FIRST

Expansion Project at North Point (EF III)



FINAL DEVELOPMENT PLAN APPLICATION

8. GRAPHIC MATERIALS

VOLUME 2

24 July 2017

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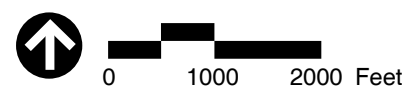
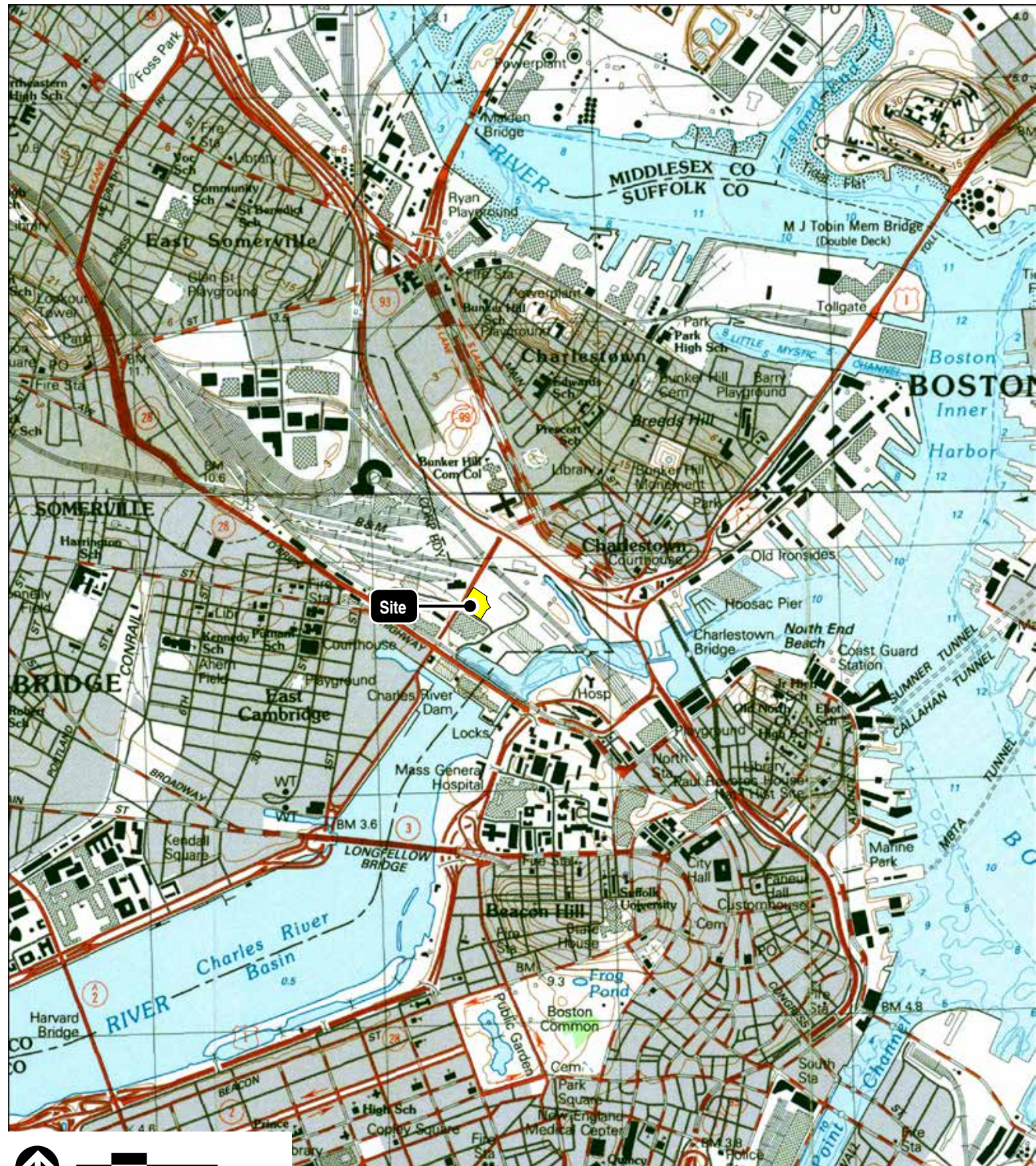
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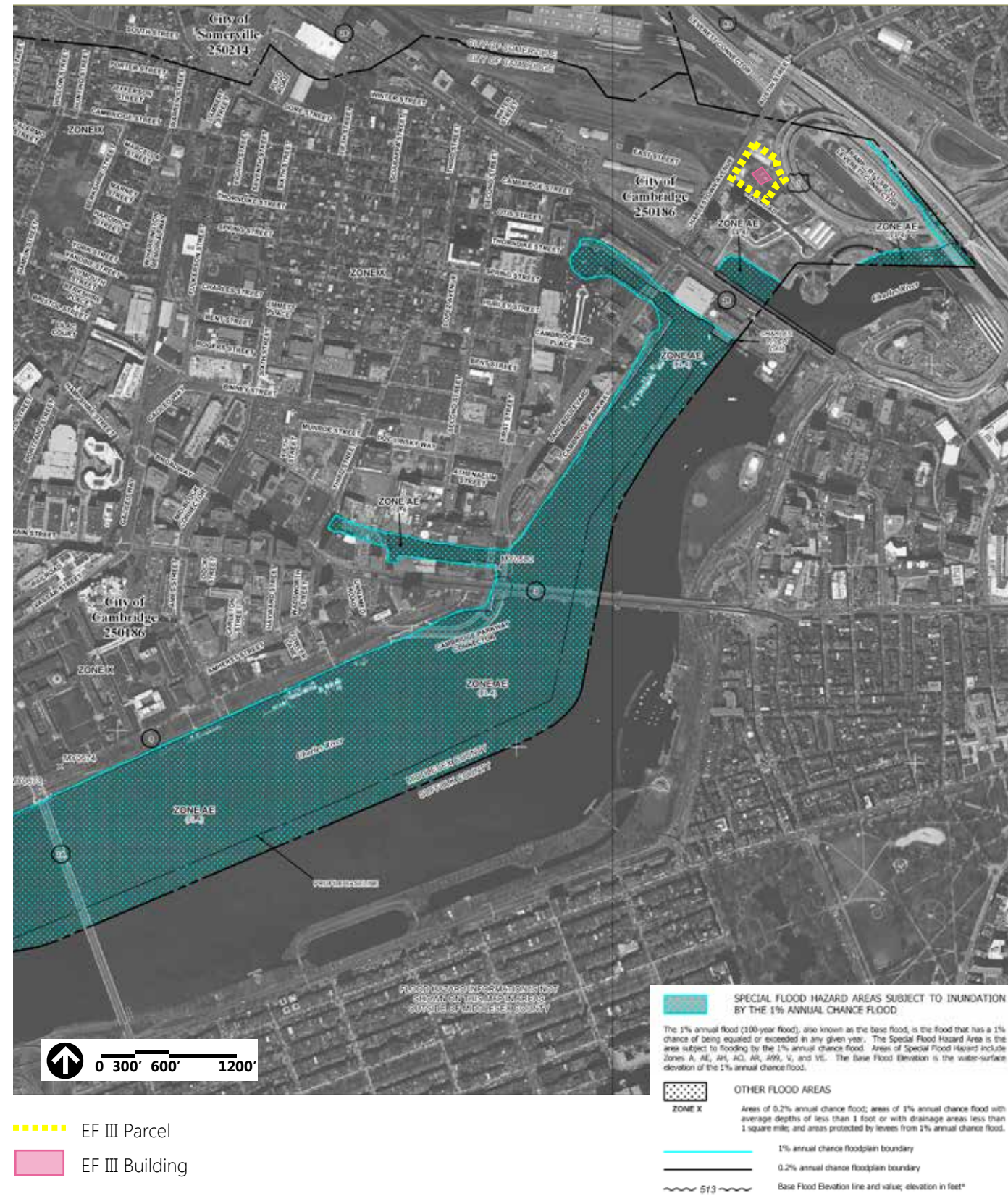
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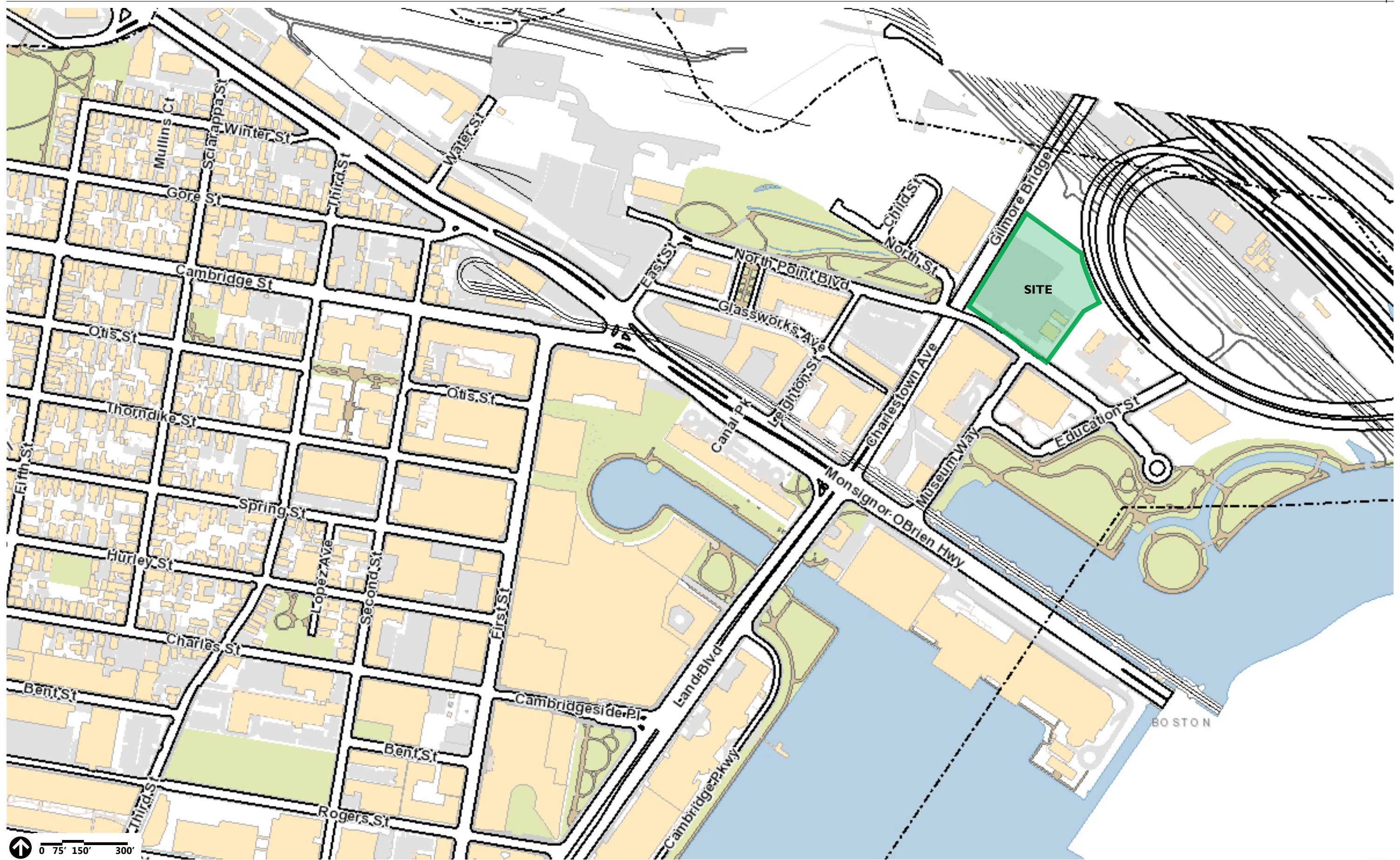


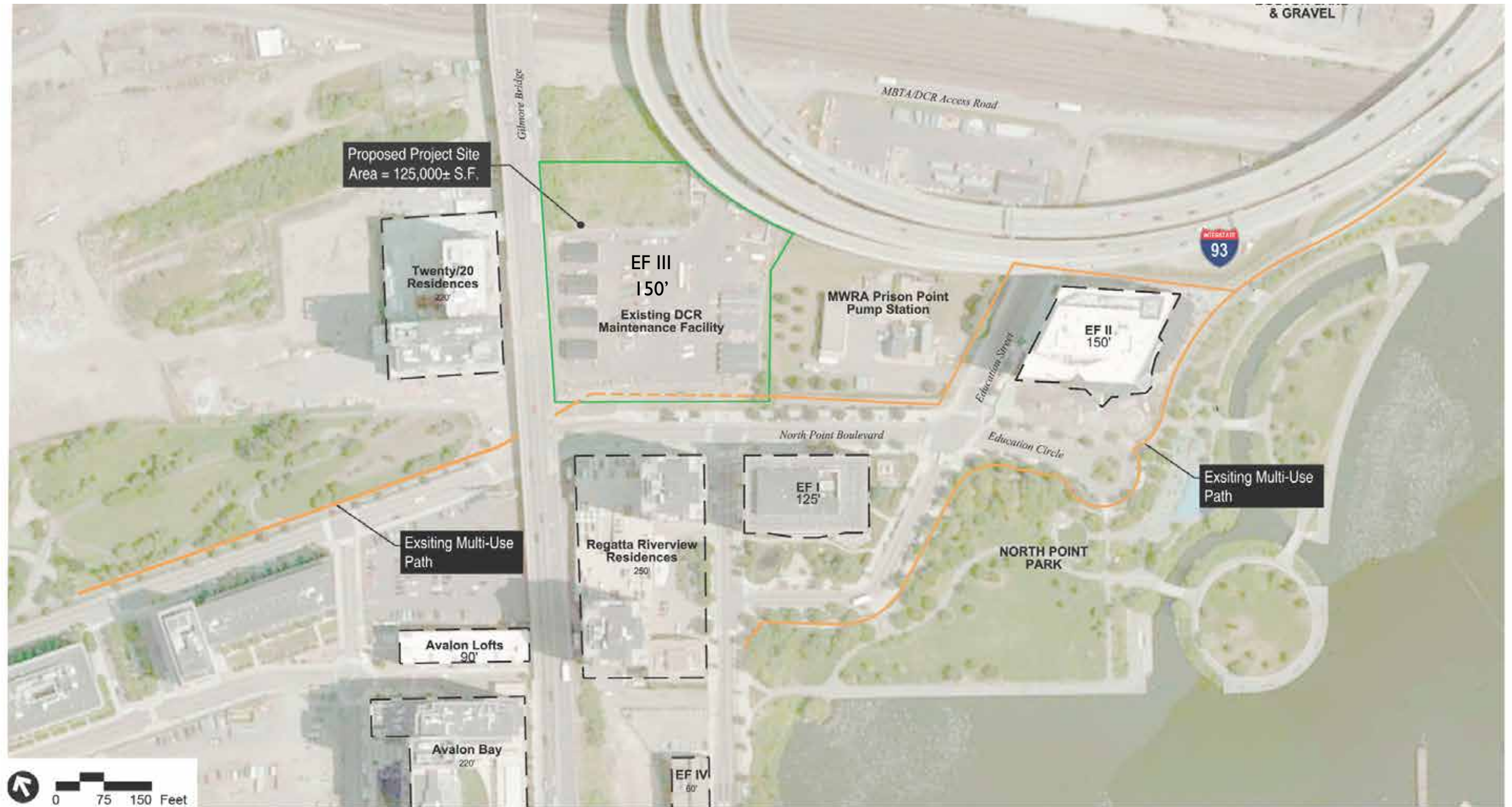
SOURCE: 2001 MASSGIS USGS DIGITAL RASTER QUADRANGLE, BOSTON, MASSACHUSETTS



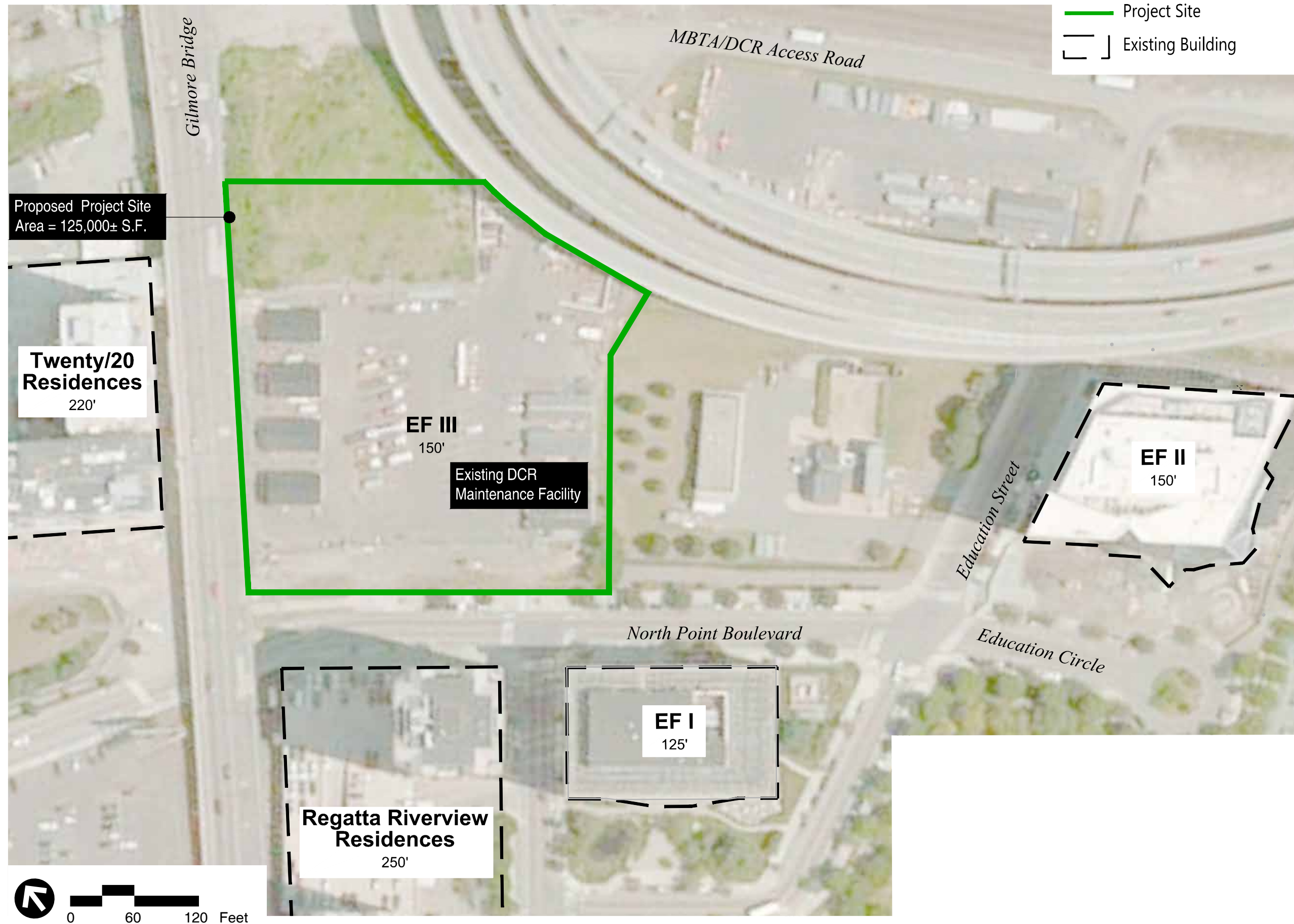
Source: National Flood Insurance Program

Note: This graphic is a modified version of the FEMA Flood Insurance Rate Map #25017C0577E, Panel 577 of 656, effective June 4, 2010





- PROJECT SITE
- PROPOSED MULTI-USE PATH
- EXISTING MULTI-USE PATH
- EXISTING BUILDING



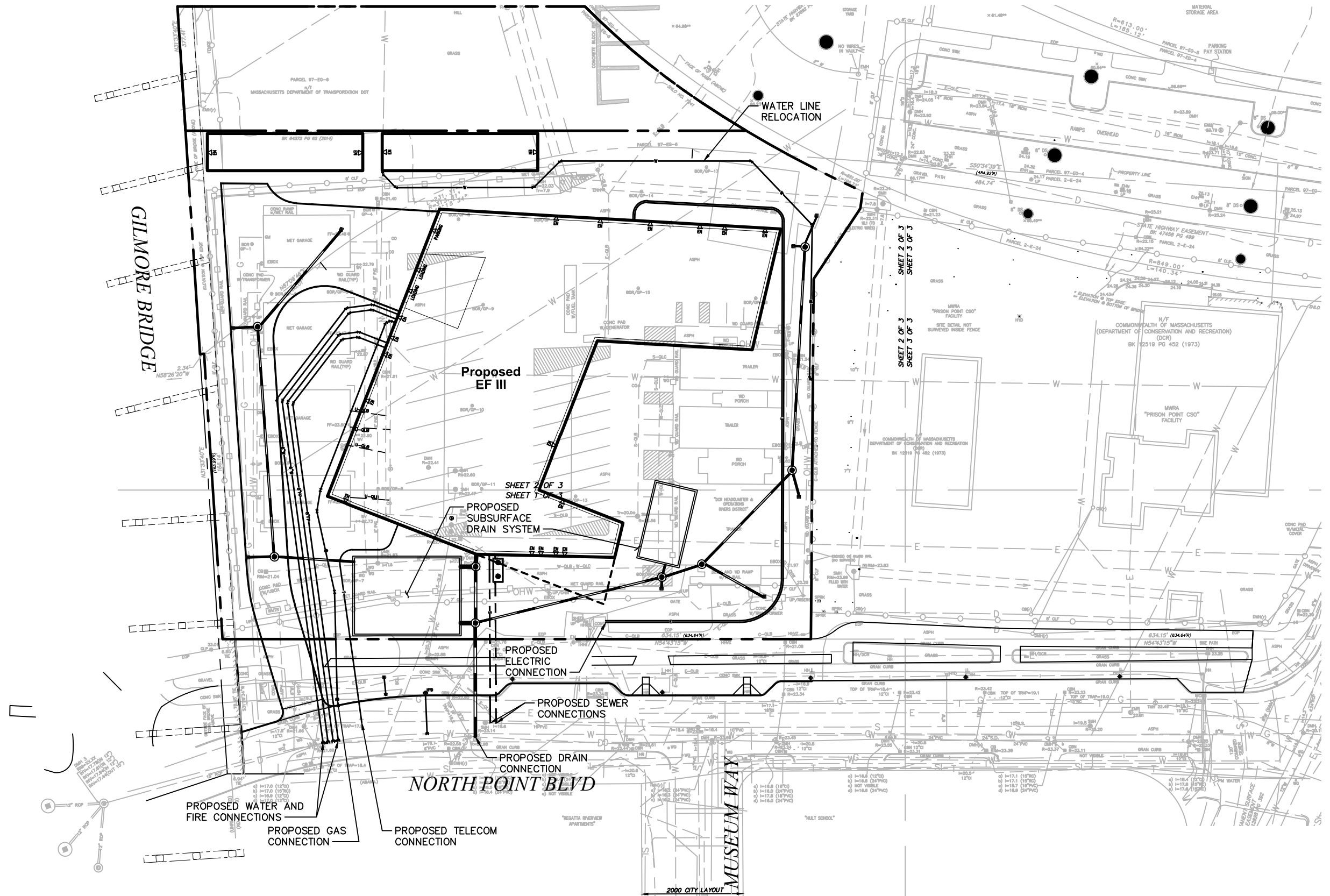


View of the Project Site looking North towards the Twenty/20 Residences



View of the Project to the East looking towards I-93







- Bench with back
- Concrete paving
- Bike rack
- Evergreen hedge
- Driveway
- Concrete paving
- Bike rack
- West Park - concrete pavers

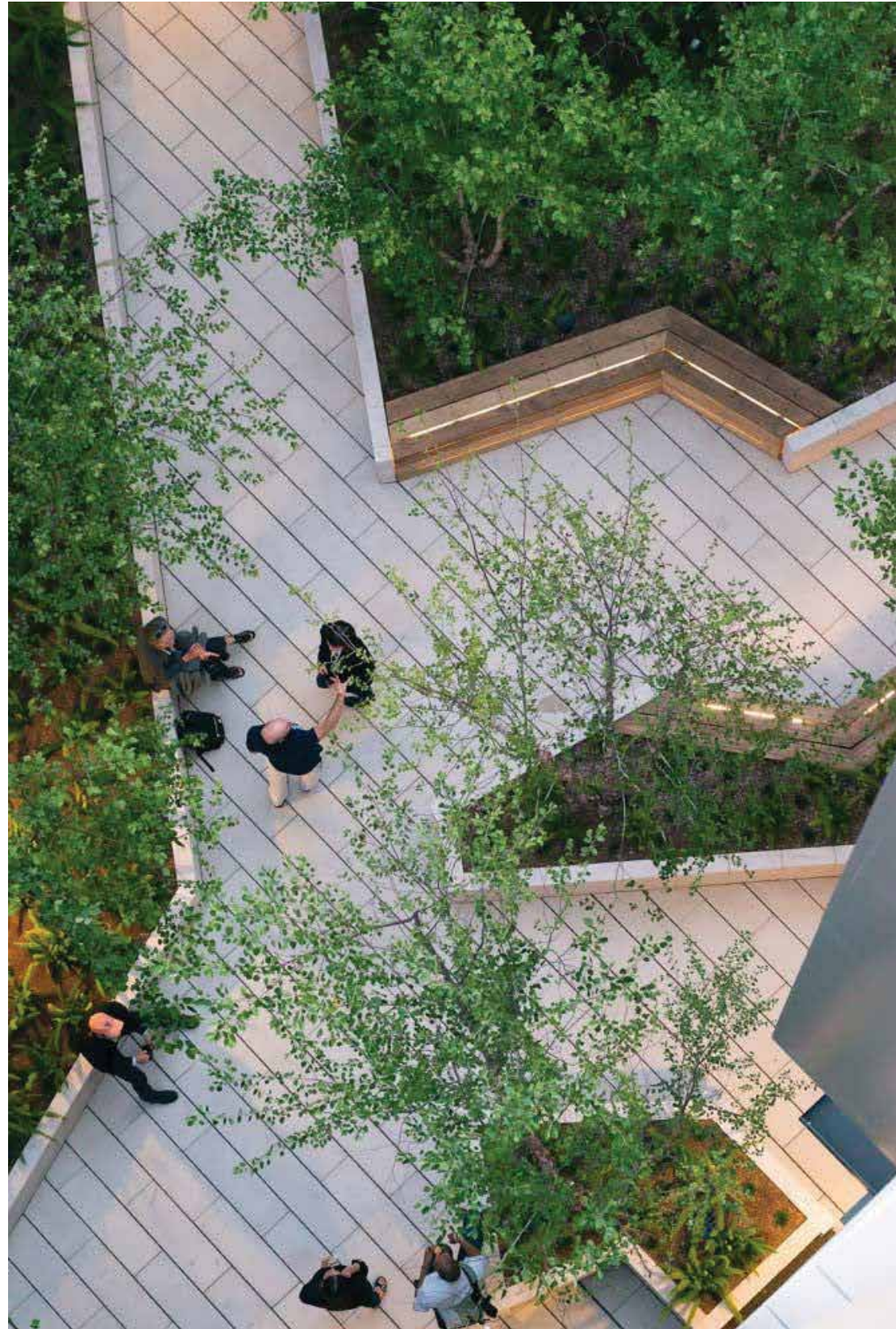
Multi-Use Path to remain flush as it crosses entry drive

- Bike Storage
- Concrete paving
- Sports track

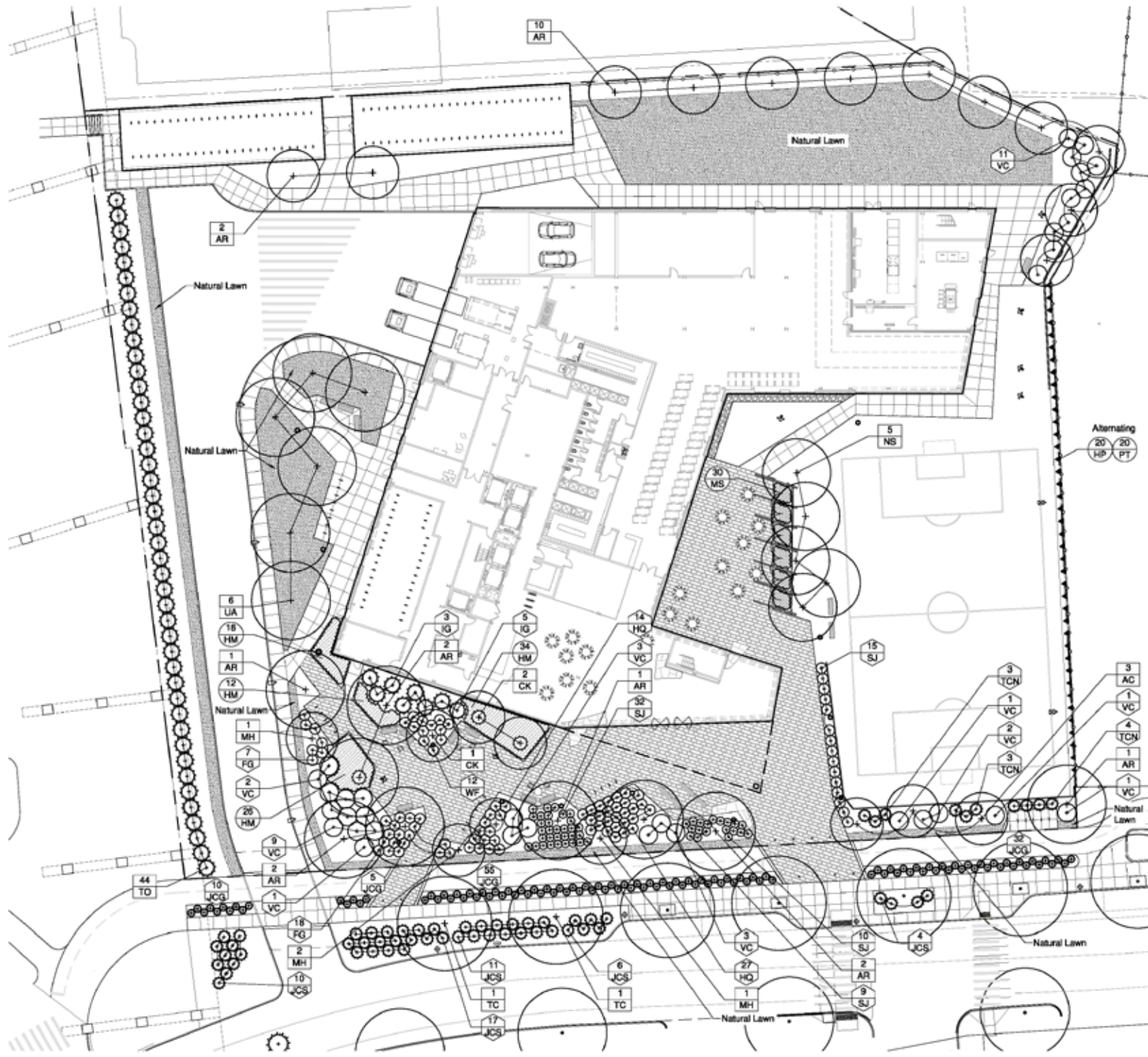
- Bench with back
- Concrete paving
- Fitness equipment
- Existing fence
- Shade trees
- Pole light
- Multi-use field
- Bench with back
- Bench without back
- Entry plaza concrete pavers
- Fence, 3.5' height

- Bike rack
- Bench with back
- Fitness equipment
- Bike rack
- Fitness equipment

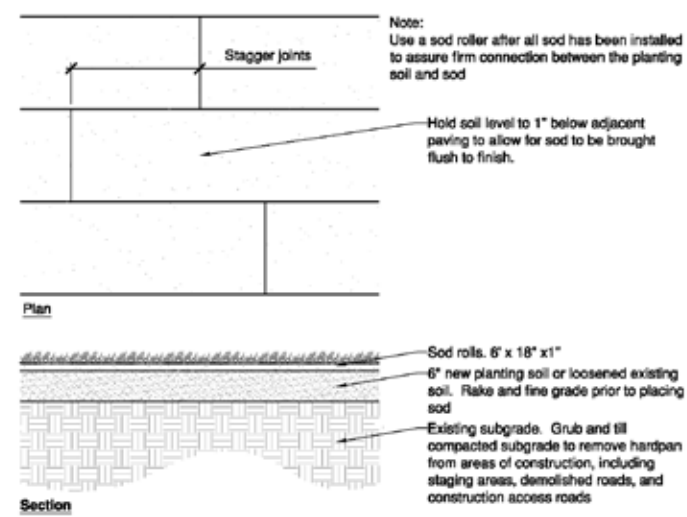
0 30 60
Graphic Scale (feet)



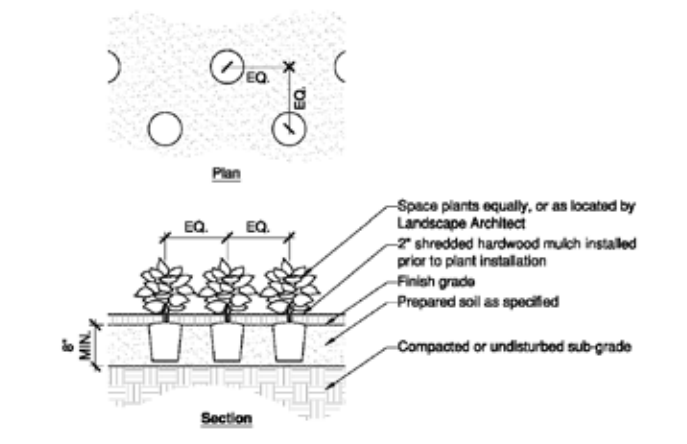




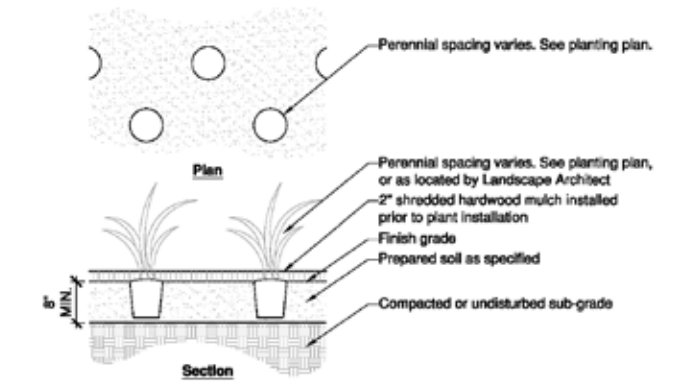
1 Site Planting Plan
Scale: 1"=20'



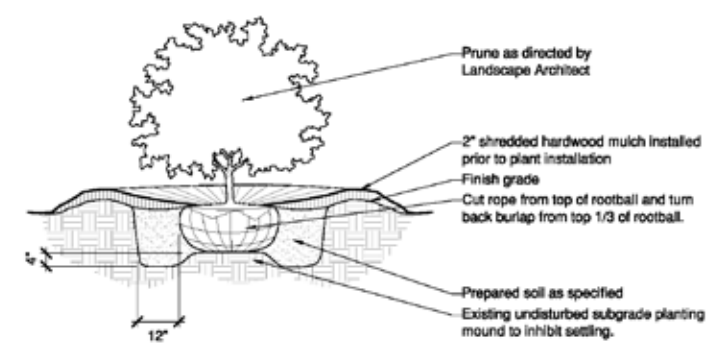
2 Natural Turf
Scale: 3/4"=1'-0"



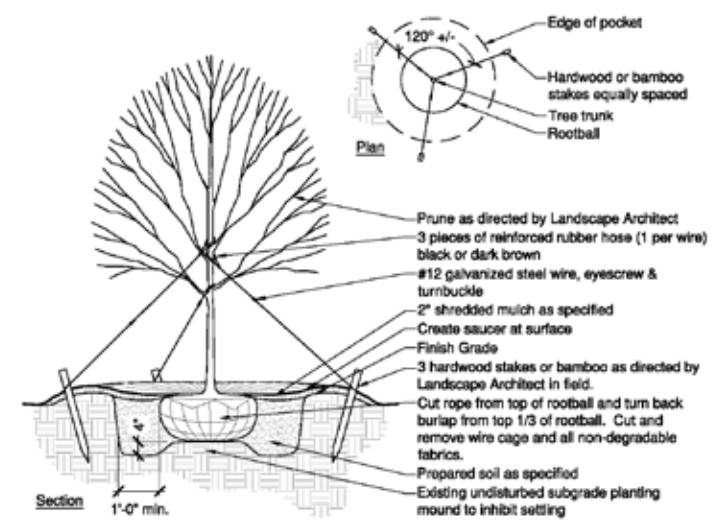
3 Groundcover
Scale: 3/4"=1'-0"



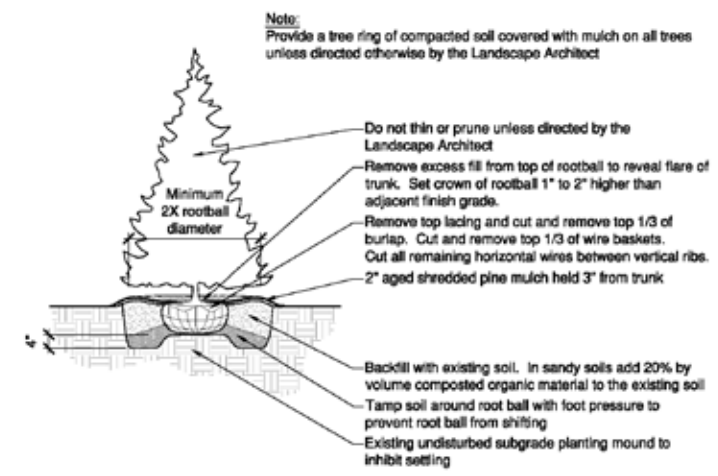
4 Perennial
Scale: 3/4"=1'-0"



5 Shrub
Scale: 3/4"=1'-0"



6 Deciduous Tree
Scale: 1/2"=1'-0"






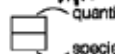
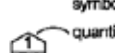
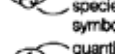




7 Evergreen Tree
Scale: 1/2"=1'-0"



Plant List

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
TREES						
21	AR	<i>Acer rubrum</i>	Red Maple	3" CAL.	B&B	AS SHOWN
3	AC	<i>Amelanchier canadensis</i>	Shadblow Serviceberry	3" CAL.	B&B	AS SHOWN
3	CK	<i>Cladrastis kantuckea</i>	American Yellowwood	3" CAL.	B&B	AS SHOWN
4	MH	<i>Malus 'Harvest Gold'</i>	Harvest Gold Crabapple	3" CAL.	B&B	AS SHOWN
5	NS	<i>Nyssa sylvatica</i>	Black Gum	3" CAL.	B&B	AS SHOWN
2	TC	<i>Tilia cordata</i>	Littleleaf Linden	3" CAL.	B&B	AS SHOWN
44	TO	<i>Thuja occidentalis 'Nigra'</i>	Dark American Arborvitae	6'-8' HT.	B&B	6' O.C.
6	UA	<i>Ulmus americana</i>	American Elm	3" CAL.	B&B	AS SHOWN
SHRUBS						
25	FG	<i>Fothergilla gardenii 'Suzanne'</i>	Suzanne Fothergilla	2'-2.5' HT.	B&B	
41	HQ	<i>Hydrangea quercifolia 'Munchkin'</i>	Munchkin Oakleaf Hydrangea	2.5'-3' HT.	CONT.	
8	IG	<i>Ilex glabra 'Compacta'</i>	Compact Inkberry	2.5'-3' HT.	CONT.	
102	JCG	<i>Juniperus chinensis 'Sargentii Glauca'</i>	Blue Sargent Juniper	1 GAL.	CONT.	
48	JCS	<i>Juniperus conferta 'Silver Mist'</i>	Silver Mist Juniper	1 GAL.	CONT.	
66	SJ	<i>Spirea japonica 'Lemon Princess'</i>	Lemon Princess Spirea	1 GAL.	CONT.	
10	TCN	<i>Taxus cuspidata 'Nana'</i>	Dwarf Japanese Yew	2'-2.5' HT.	B&B	
34	VC	<i>Viburnum carlesii 'Compacta'</i>	Dwarf Mayflower Viburnum	4' HT.	B&B	
12	WF	<i>Weigela florida 'Minuet'</i>	Minuet Weigela	#3	CONT.	
GRASSES						
90	HM	<i>Hakonechloa macra 'All Gold'</i>	All Gold Japanese Forest Grass	1 GAL.	CONT.	
30	MS	<i>Miscanthus sinensis 'Gracillimus'</i>	Maiden Grass	1 GAL.	CONT.	
VINES						
20	HP	<i>Hydrangea anomala subsp. Petiolaris</i>	Climbing Hydrangea	1 GAL.	CONT.	
20	PT	<i>Parthenocissus tricuspidata</i>	Boston Ivy	1 GAL.	CONT.	

LEGEND

-  Existing Deciduous Tree to Remain
-  Proposed Deciduous Tree
-  Proposed Evergreen Tree
-  quantity
species symbol
Tree Tag
-  quantity
species symbol
Shrub Tag
-  quantity
species symbol
Perennial Tag
-  Natural Sod Hatch
-  Perennial Hatch 1
-  Perennial Hatch 2
-  Perennial Hatch 3

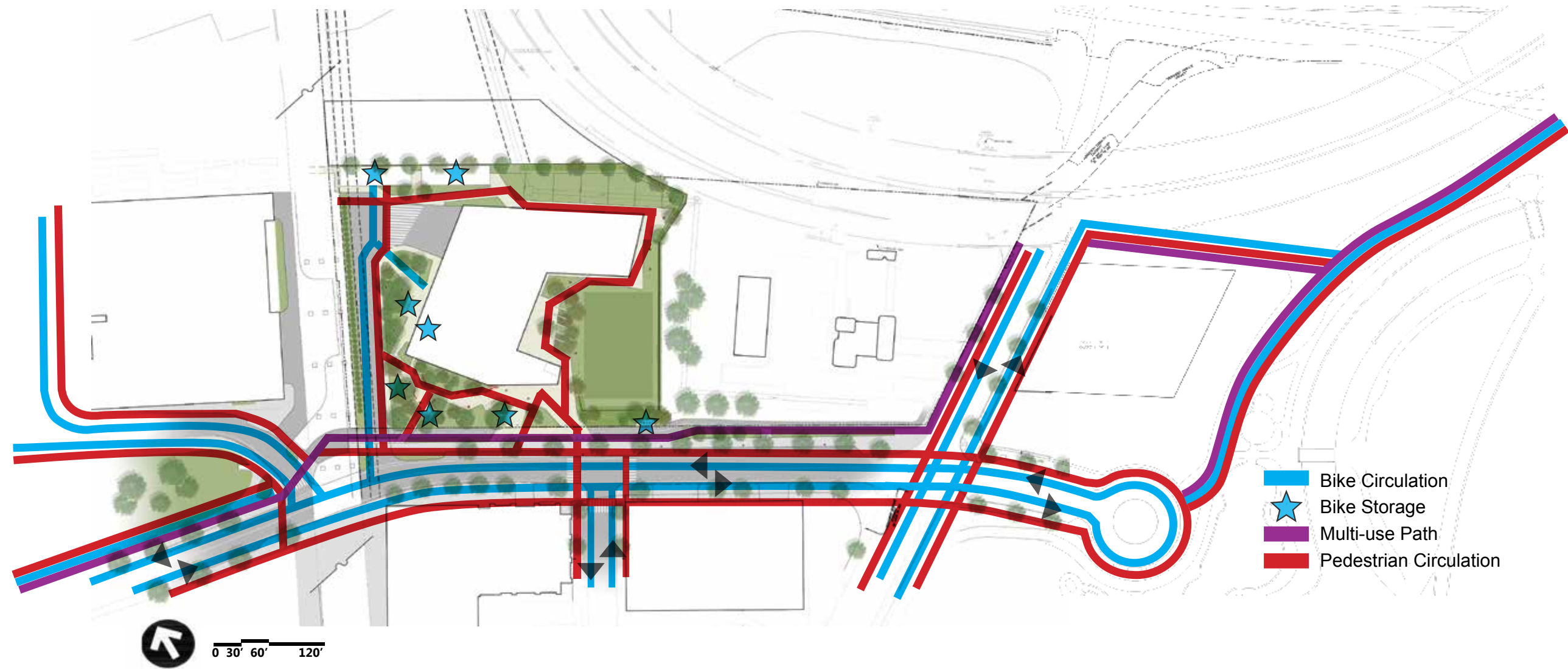
Planting Notes:

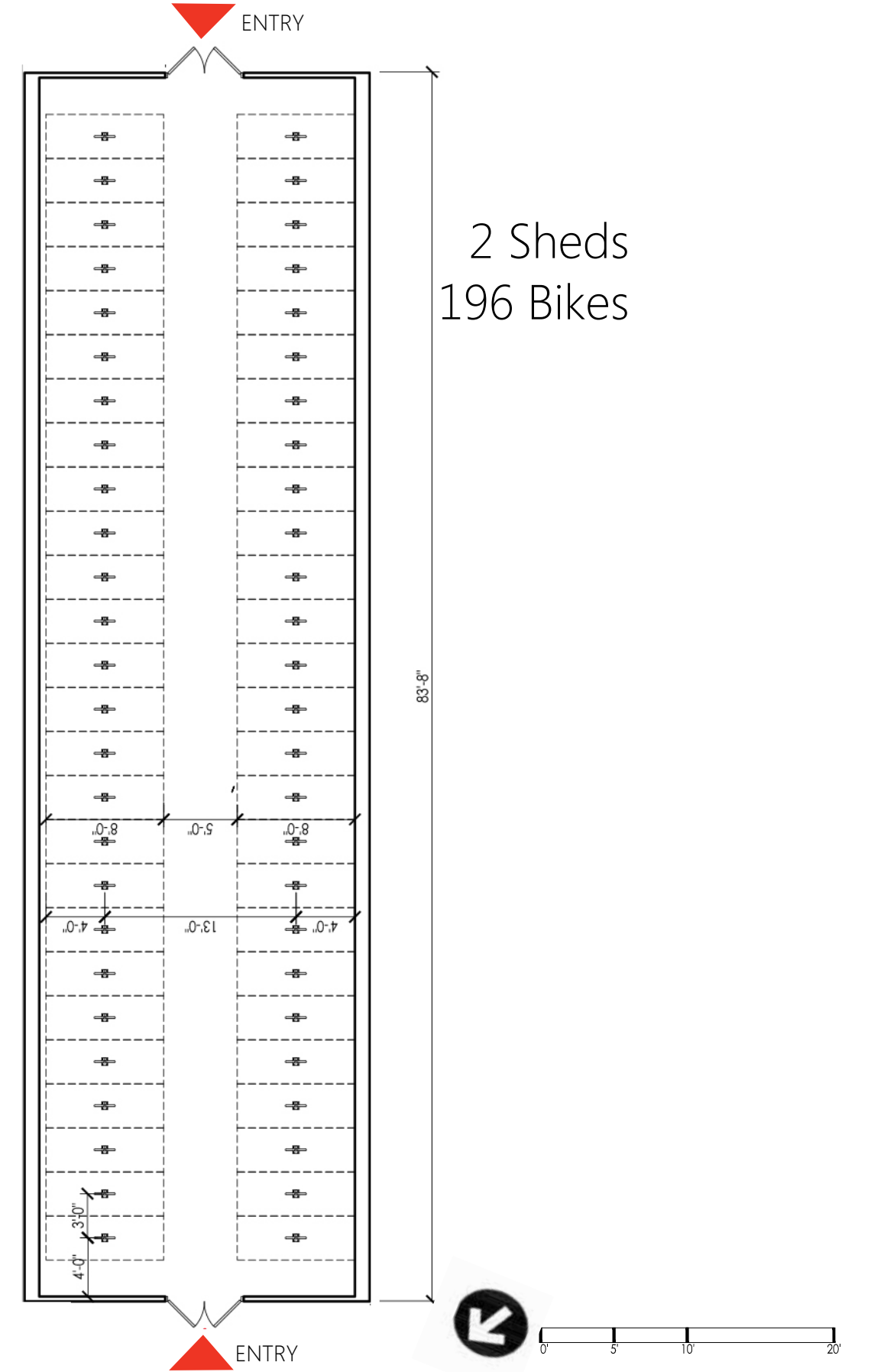
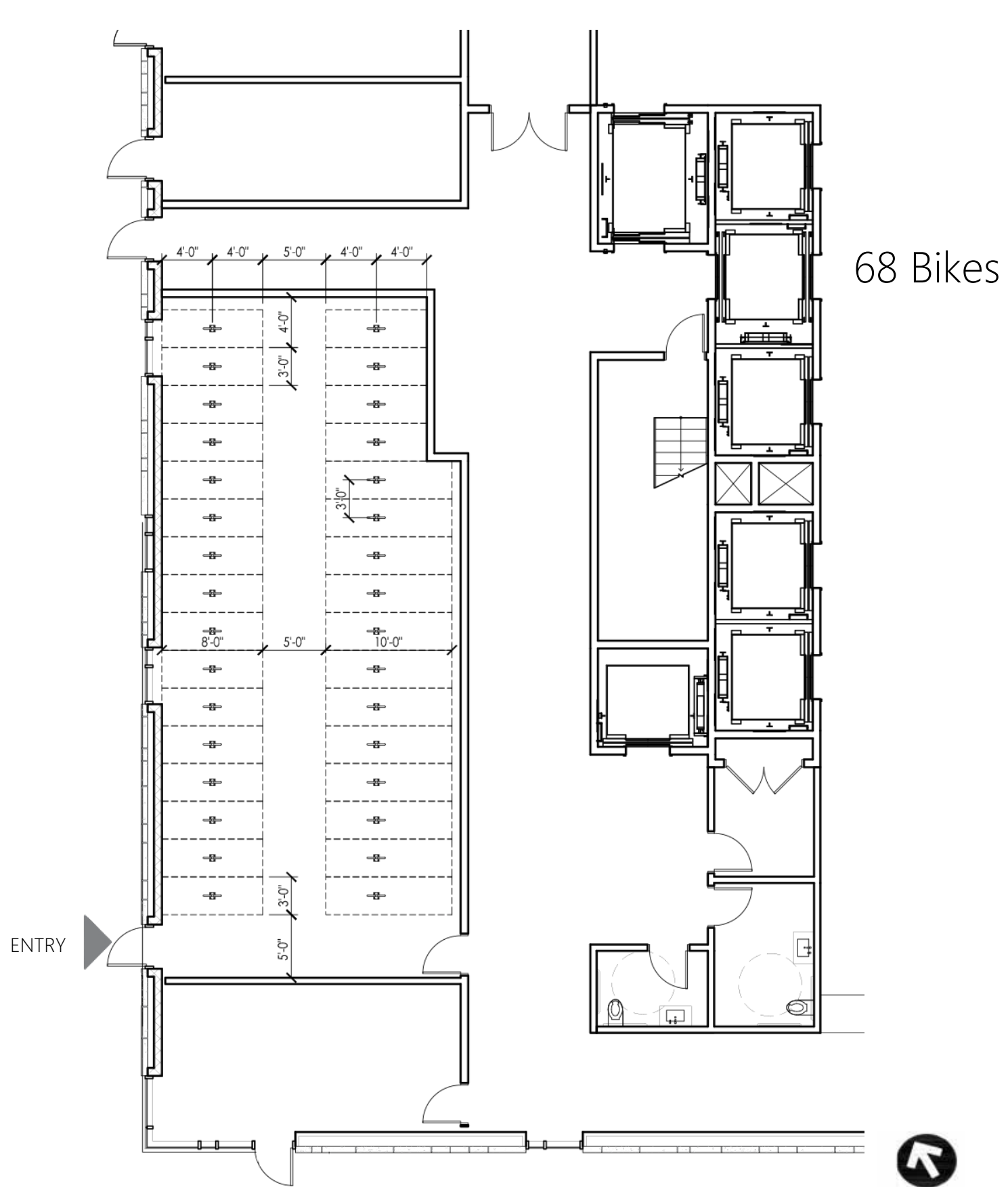
Planting Soil

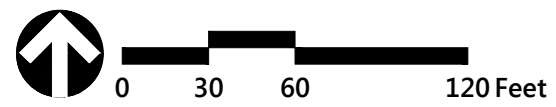
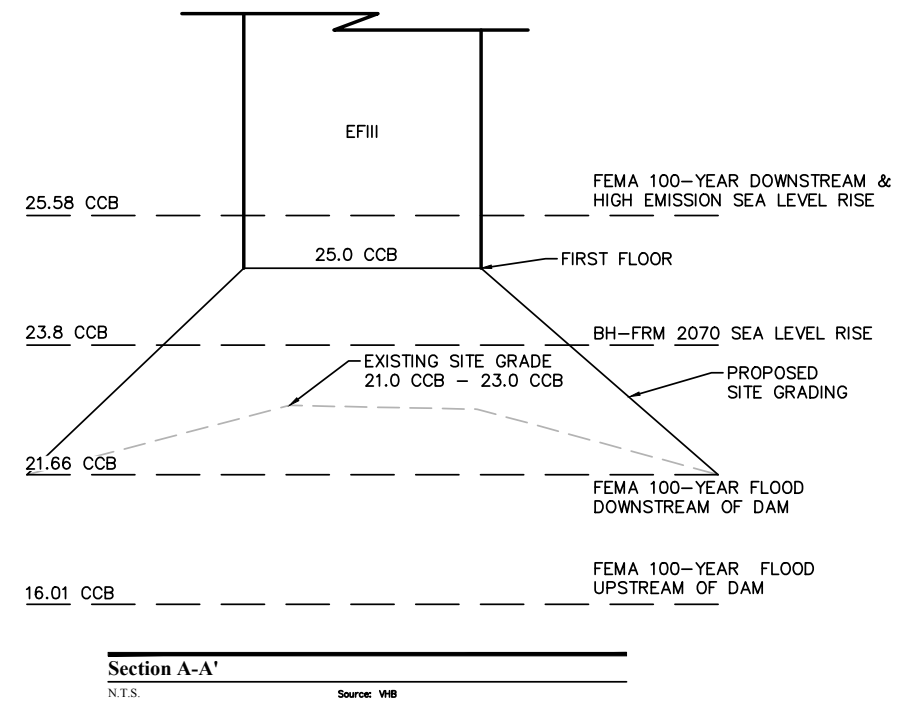
1. Subgrades and any subsurface drainage systems shall be approved by the Landscape Architect prior to placing and spreading loam.
2. Loam shall be uniform in composition, free of stones larger than 1/4", shall not contain toxic substances harmful to plant growth, and shall not be frozen.
3. Loam shall have a minimum 5% organic matter content. Add 2 inches of compost with 35%-60% organic matter per 8 inches of existing topsoil and incorporate by rototilling or mixing.
4. The Contractor is responsible for supplying loam as required to meet proposed grades. Tamp loam to eliminate air pockets and to control settling. Do not over compact; soil to drain properly. Overfill deep placements to allow for settlement.
5. Proposed lawn areas to receive 6" minimum planting soil depth; planting beds to receive 18" minimum planting soil depth, or as otherwise stated on the drawings.

Planting

1. The Contractor shall confirm that all planting soil preparation has been completed per the Subgrade Preparation and Planting Soil notes.
2. The Contractor shall supply all plant materials in quantities sufficient to complete the planting shown in the drawings.
3. All plant materials shall conform to the guidelines established by the American Standard for Nursery Stock published by the American Association of Nurserymen, Inc.
4. Branches shall be tied with rope or twine in such a manner that no damage will occur to the bark or branches.
5. During transportation of plant material, the Contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, the Landscape Architect may reject the injured tree(s) and order them replaced at no additional cost to the Owner. All loads of plants shall be covered at all times with tarpaulin or canvas. Loads that are not protected will be rejected.
6. The Contractor shall provide labor to care for trees, shrubs, perennials, ornamental grasses, and lawn areas until site is ready for installation. Plants that cannot be planted immediately after delivery shall be kept in the shade, well protected with soil, wet mulch, or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than three days after delivery. Plants shall be lifted and handled with suitable support of the soil ball to avoid damage.
7. See planting details for tree, shrub, perennial, bulb planting, and lawn specifications.
8. All plant material to be set plumb. Remove all girdling roots. The root flare of all trees shall be visible; the Contractor is to take great care in exposing the root flare of all trees, if the root flare is not visible upon inspection.
9. The top third of all burlap, string, rope, and wire baskets shall be removed during installation. Care shall be taken not to break or disturb the root ball of plants.
10. All plant tying material, tags, and marking tape shall be removed.
11. All plants shall be watered immediately after planting. Flood plants twice during the first 24 hour period of planting.
12. 3" of mulch shall be spread over all plant beds unless otherwise noted. Mulch shall not touch trunk of shrubs and trees. Mulch shall be aged pine bark.
13. The Contractor shall maintain all plants for thirty days after the completion of plant installation. Maintenance shall consist of keeping all plants in a healthy growing condition.
14. Plants shall be guaranteed for a period of 1 year after acceptance of the project and shall be alive and in satisfactory growth at the end of the guarantee period. The Contractor shall be responsible to remove all dead plant materials, and replace them with the same kind and size of material as specified in the plant list. The Contractor shall not be responsible for guaranteeing transplanted plants, or for defects resulting from neglect by the Owner, abuse or damage by others or incidents which are beyond the Contractor's control.







- - - - - EXISTING SITE BELOW 23.80 CCB
- - - - - PROPOSED SITE BELOW 23.80 CCB

NOTE: THE 100-YEAR FLOOD EVENT W/ SEA LEVEL RISE IN 2070 IS PROJECTED TO FLOOD UP TO ELEVATION 23.80 CCB, ACCORDING TO THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS



A: Flood Log

Source: Flood Panel



B: Flood Log

Source: Flood Panel

THESE PHOTOS REPRESENT DIFFERENT MEASURES THAT COULD BE EMPLOYED FOR PROTECTION. THE PRODUCT SHOWN IN A AND B REQUIRES A SMALL AMOUNT OF PERMANENT EQUIPMENT TO ACCEPT TEMPORARY BARRIERS. ITEMS C AND D ARE MORE TEMPORARY.



C: Portadam

Source: Portadam



D: Aquafence Flood Barrier System

Source: AquaFence