

# City Hall Park



Great Streets BTV

City Hall Park Landscape Plan – March 7, 2018

**suisman**  
URBAN DESIGN

**WAGNERHODGSON**  
LANDSCAPE ARCHITECTURE



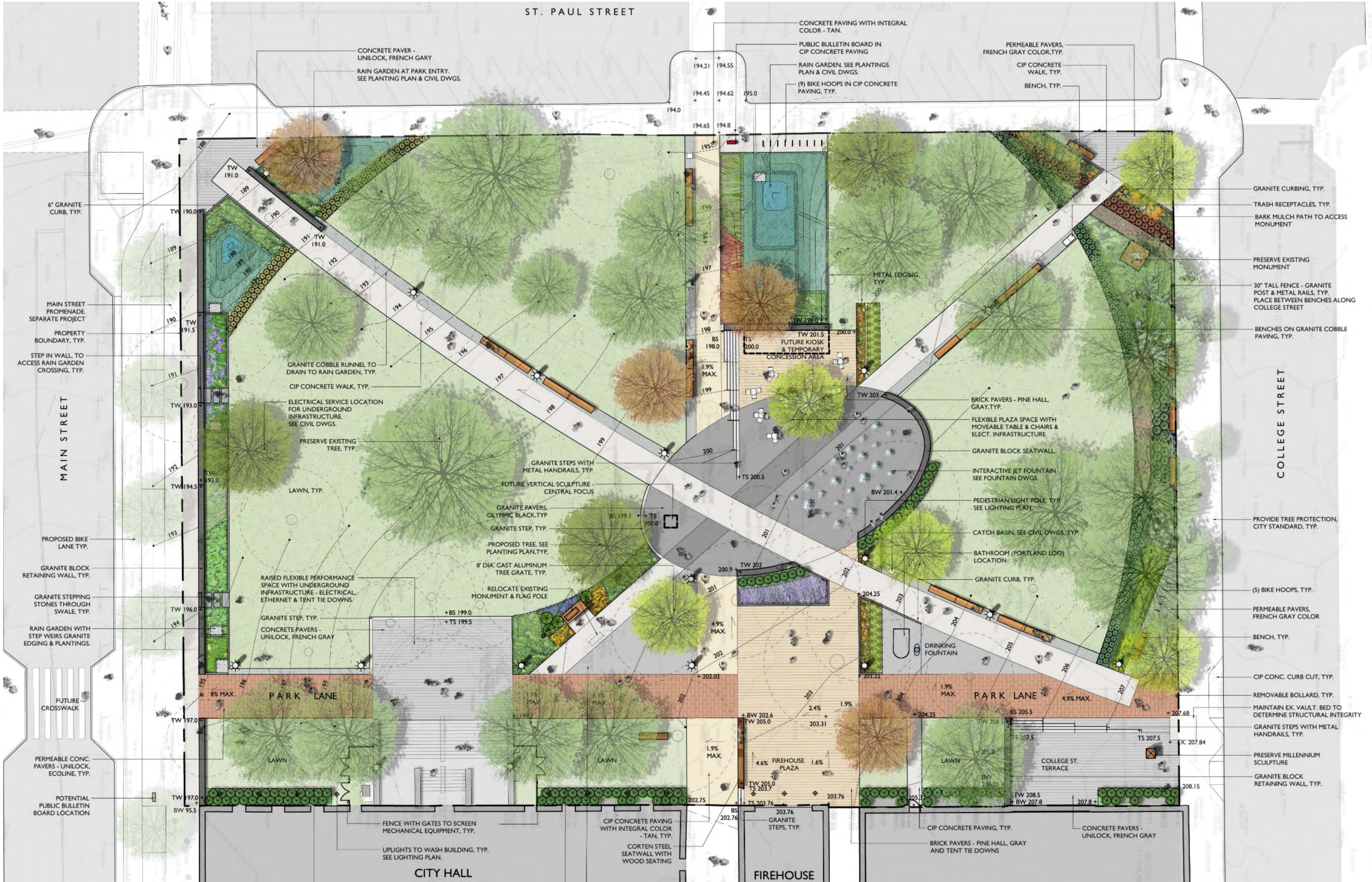
## Park Redesign Goals that influenced the tree plan

- **Create a more favorable and balanced growing condition for all vegetation.**
- **Remove trees which are becoming hazardous.**
- **Accommodate more storm water on the site by incorporating rain gardens and permeable paving in strategic locations.**
- **Move /relocate / widen walks & plaza areas to provide a more ADA compliant experience in Park as well as accommodate how the park is used today.**
- **Create a water feature that is safe and enjoyable for children and adults of all abilities. And that creates additional usable plaza space when turned off.**
- **Community engagement indicated that a balance between shaded spaces and sunny lawn was important for the future of the park.**





# 2018 City Hall Park Landscape Design – February 20<sup>th</sup> DRB





CITY HALL PARK EXISTING TREE MATRIX

LEGEND

	Design Goal
	Incompatible Species
	Poor Health
	Planned removal by Parks pending.
	Trees changed from Remove to Keep (since 2.20.18 DRB)

TREE #	SPECIES	KEEP OR REMOVE PER PLAN	DESIGN GOAL	APPROXIMATE CANOPY	WARREN SPINNER'S 2016 ASSESSMENT OF ALL PARK TREES	VJ COMAI'S 2018 TREE ASSESSMENT OF TREES IDENTIFIED TO REMOVE	LANDSCAPE ARCHITECT'S COMMENTS
907	Silver Maple	Keep		56'	Worst of the 3 older silver maple trees, but in good condition.	Good condition. Air spade roots and integrate into rain garden if possible.	
908	Silver Linden	Keep		32'	Struggling	Did not assess	Will benefit from walk moving away from it.
909	Littleleaf Linden	Keep		44'	Good condition	Did not assess	Will benefit from walk moving away from it.
910	Honeylocust	Keep		48'	Struggling, crowded - keep if possible.	Did not assess	Will benefit from walk moving away from it.
911	Silver Linden	Remove	Improving ecology of the Park by constructing a rain garden for infiltration.	36'	In decline, should be removed.	Fair to Poor Condition. Thin crown with evidence of dieback in upper crown.	
912	Red Oak	Remove	Improving ecology of the Park by constructing a rain garden for infiltration.	44'	Good condition. One of the older trees.	Fair Condition. Thin crown with some visible dieback in upper crown. Girdling roots.	*It is not possible to save a tree within a rain garden. The rain garden requires
914	Sliver Linden	Remove	For better pedestrian experience / walkway realignment and widening. New walkway location allows for larger lawn expanse at south side of Park.	40'	Struggling	Poor Condition. Significant crown decline. Structural defects with weak crotches and included bark.	excavating to a depth of2' - 3' in order to provide water storage volume.
915	Littleleaf Linden	Remove	For better pedestrian experience / walkway realignment and widening. New walkway location allows for larger lawn expanse at south side of Park.	36'	Good condition	Evidence of severe girdling roots and root rot. Fair condition. Severe girdling roots on east side of tree.	
916	Littleleaf Linden	Keep		40'	Good condition	Did not assess	
917	Japanese Zelkova	Keep		40'	Good condition	Did not assess	Barriers and planting will help reduce compaction along College street during events.
918	Japanese Zelkova	Keep		44'	Good condition	Did not assess	Barriers and planting will help reduce compaction along College street during events.
922	Japanese Zelkova	Keep		44'	Good condition	Did not assess	Barriers and planting will help reduce compaction along College street during events.
923	Japnaese Zelkova	Keep		48'	Good condition	Did not assess	Barriers and planting will help reduce compaction along College street during events.
924	Crabapple	Remove	Providing a more gracious entry to park with bike parking and seating.	28'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
925	Horsechestnut	Remove		32'	In decline, should be removed.	Poor Condition. Potential hazard. Severe decline and crown dieback.	
926	Sugar Maple	Remove	For construction of central gathering space, fountain, seatwall and central plaza.	44'	Struggling	Poor Condition. Hazard tree. Severe crown decline, evidence of goirdling roots and root rot. Significant dead wood in crown.	
928	Sugar Maple	Remove		20'	In decline, should be removed.	Poor Condition. Severe crown thinning and dieback. Evidence of old root rot cankers on trunk.	
929	Red Maple	Remove	For plaza expansion and east west walkway to St. Paul Street and ADA compliance grading.	40'	Struggling although keep if possible.	Fair Condition. Crown appears relatively healthy. Severe girdling root issues.	* Park Lane needs to be a minimum of 15' wide for emergency access and Farmer's Market. maintenance.
930	Ginkgo	Remove	For plaza expansion and main diagonal walk widening and ADA compliance grading.	24'	Good condition	Fair to poor Condition. Potential girdling roots. Bark missing at base of tree on east side with evidence of decay. Lack of response wood or callus growth around wouldnd at base of trunk indicates poor	
931	Japanese Zelkova	Remove	For better pedestrian experience / main diagonal walkway widening and ADA compliance grading.	36'	Good Condition.	Poor Condition. Thin crown with evidence of girdling roots. Tree is severely stressed.	
932	Red Maple	Remove	For better pedestrian experience / main diagonal walkway widening and ADA compliance grading.	36'	Good condition	Poor Condition. Thinning crown and weak new growth over past several years. Codominant stem with included bark raises potential for structural failure. Broken hanging 2 inch diameter limb in upper crown with small area of decay.	
933	Norway Maple	Remove	For plaza expansion and Park Lane widening.	48"	In decline, should be removed.	Poor Condition. Thin crown with dsignificant structural concerns with weak crotches and included bark. Evidence of girdling roots, root rot and decay	
934	Horsechestnut	Remove		32'	In Decline, removal recommended	Poor Condition. Potential hazard. Severe decline and crown dieback.	
936	Common Hackberry	Keep		36'	Good condition	Did not assess	
937	Norway Maple	Remove	Invasive species, in poor health. Allows for more direct path from Church Street.	40'	In Decline, removal recommended	Poor Condition. Stunted twig growth. Thinning and some dieback in upper crown. Severe root girdling issues.	
938	Norway Maple	Keep		36'	In Decline, removal recommended	Did not assess	
939	Norway Maple	Keep		36'	In Decline, removal recommended	Did not assess	
941	Crabapple	Remove	To provide open lawn area for viewing small performances and to visually connect City Hall with Park. Area requires re-grading.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
942	Crabapple	Remove	To provide open lawn area for viewing small performances and to visually connect City Hall with Park. Area requires re-grading.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
944	Crabapple	Keep	Is off to side and will not obstruct views to performance area. Out of area of grading.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
945	Crabapple	Remove	To provide open lawn area for viewing small performances and to visually connect City Hall with Park. Area requires re-grading.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
949	Green Ash	Remove		36'	In decline, Recommend Removal	Poor Condition. Thin crown with small annual growth increments of twigs. Evidence of possible root rot. Removal would favor the growth of adjacent Silver Maple and Ash on either side. Could be a possible replanting site for a medium sized tree.	
950	Green Ash	Keep		40'	Good Condition	Did not assess	
951	Red Oak	Keep		36'	Good Condition, older tree in Park, planted early 1970's	Did not assess	Will benefit from walk moving away from it.
952	Japanese Zelkova	Keep		24'	Worst tree condition in area, In Decline	Did not assess	Will benefit from walk moving away from it.
953	Japanese Zelkova	Keep		32'	Good Condition	Did not assess	Will benefit from walk moving away from it.
954	Japanese Zelkova	Keep		36'	Good Condition	Did not assess	Will benefit from walk moving away from it.
955	Silver Maple	Keep		52'	Second Best of older trees in Park, planted early 1970's	Did not assess	
956	Honeylocust	Remove	Realignment of diagonal / arc walk for orientation towards lake (Great streets goal), widening of walk and desire to move walks further from trees.	40'	Struggling but keep if possible, root issues	Fair Condition. Some deadwood in upper crown, likely due to shading.	
957	Red Oak	Remove	Realignment of diagonal / arc walk for orientation towards lake (Great streets goal), widening of walk and desire to move walks further from trees.	44'	Good Condition	Good condition. No apparent crown decline or root issues.	
958	Japanze Zelkova	Remove	Realignment of diagonal / arc walk for orientation towards lake (Great streets goal), widening of walk and desire to move walks further from trees.	30'	Good condition	Fair Condition. Appears in relatively good health. Good structure. Potential girdling roots as evidenced by lack of a prominent root flare.	



CITY HALL PARK EXISTING TREE MATRIX

959	Sugar Maple	Keep		20'	In Decline, removal recommended	Did not assess	
960	Sugar Maple	Remove	Improving ecology of the Park by constructing a rain garden for infiltration.	20'	In Decline, removal recommended	Poor condition. Thinning crowns. Twig growth indicates very poor health with minimal annual growth. Root collar issues, evidence of girdling roots and sienificant crown dieback	
961	Sugar Maple	Remove		32'	In Decline, removal recommended	Poor condition. Thinning crowns. Twig growth indicates very poor health with minimal annual growth. Root collar issues, evidence of eirdling roots and sienificant crown dieback. Remove for safety	
962	Sugar Maple	Remove		36'	Struggling but keep if possible.	Poor condition. Thinning crowns. Twig growth indicates very poor health with minimal annual growth. Root collar issues and evidence of girdling roots. Remove fore safety ASAF	
963	Sugar Maple	Remove	Improving ecology of the Park by constructing a rain garden for infiltration.	32'	Good condition	Poor Condition. Significant crown thinning and decline of crown. Signs of possible root rot. Lack of significant growth increments evident on twigs for the last several years. No response wood or callus forming around recent pruning cuts indicating lack of vigor.	
964	Sugar Maple	Remove		36'	In Decline, removal recommended	Poor Condition. Girdling roots with very thin crown. Noticeable die back in crown. Remove for safety ASAP	
965	Crabapple	Remove	To provide open lawn area for viewing small performances and to visually connect City Hall with Park. Area requires re-grading.	36'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
970	Princeton Elm	Remove	To facilitate alternative means of transportation by adding a bike lane to Main Street.	44'	Good condition	Good condition. This tree is encroaching on the crowns of younder elms planted along Main street. The tree has been tazed for removal to make room for Main street construction	
973	Silver Maple	Keep		52'	The best of the 3 older trees. Keep. From early 1970's.	Did not assess	
975	Crabapple	Remove	Park lane is being widened in antiapiation of the mid-block crossing that is a part of the Great Streets proiect.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
976	Crabapple	Remove	To provide open lawn area for viewing small performances and to visually connect City Hall with Park. Area requires re-grading.	32'	All Crabapples recommended for removal, low branches obscure views into Park, Safety concern	Good condition. These trees appear healthy with average annual growth and no major visible root collar issues.	
977	Norway Maple	Keep		32'	In Decline, removal recommended	Did not assess	
978	Norway Maple	Keep		32'	In Decline, removal recommended	Did not assess	
979	Norway Maple	Remove		28'	In Decline, removal recommended	Poor Condition. Severe thinning and dieback of crown. Exterior fruiting bodies of fungus on trunk and upperleaders indicate decav. Buried root flare with girdling roots. Remove for safety ASAP	
12226	Honeylocust	Keep		44'	Struggling but good form, keep.	Did not assess	

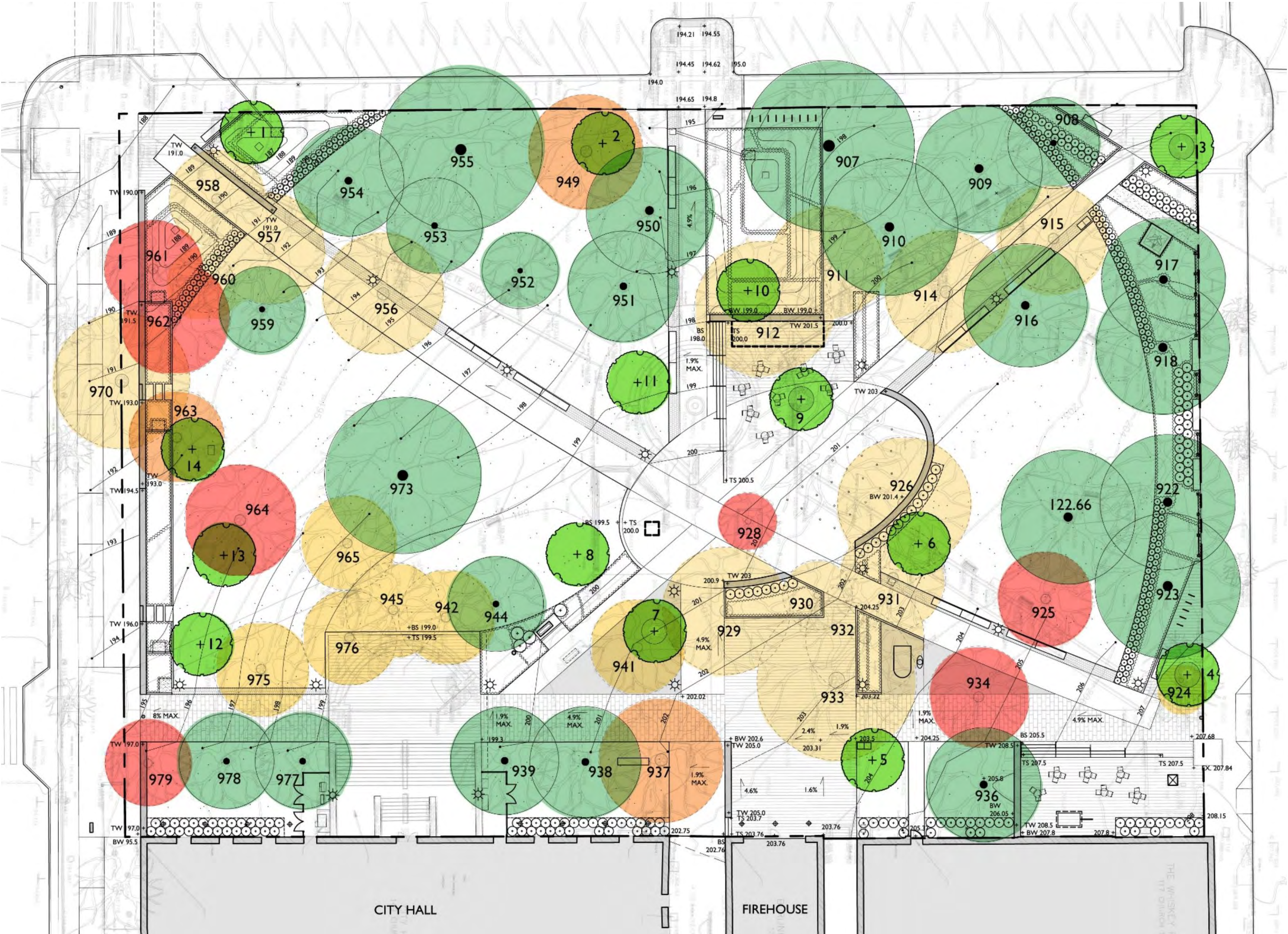
\* This tree matirx is a compilation of: tree numbers and species as listed in the Burlington Tree Inventory data base; whether each tree is identified to be retained or removed in the current plan; the design goal that requires it's removal; a field measurement of the tree's canopy; notes from Warren spinner's 2016 site walk with the design team; VJ Comai's 2018 assessment of the condition for all trees identified for removal and the Landscpae Architect's notes.



2018 City Hall Park Landscape Design . **Tree Status**

LEGEND

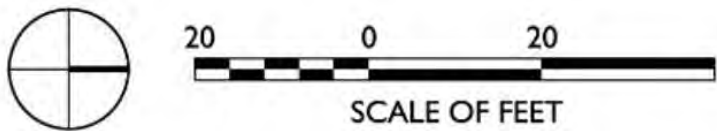
- 56 EX. TREES IN PARK
- 24 EX. TREES TO REMAIN
- 14 NEW TREES ADDED
- 32 TREES TO REMOVE
- 15 \* TO BALANCE DESIGN GOALS
- 7 \* INCOMPATIBLE SPECIES
- 3 \* POOR HEALTH
- 7 REMOVE ASAP., NOT PART OF PROJECT - POOR HEALTH/ LIABILITY
- 38 TREES IN PARK AFTER CONSTRUCTION



REVISED 02.27.18

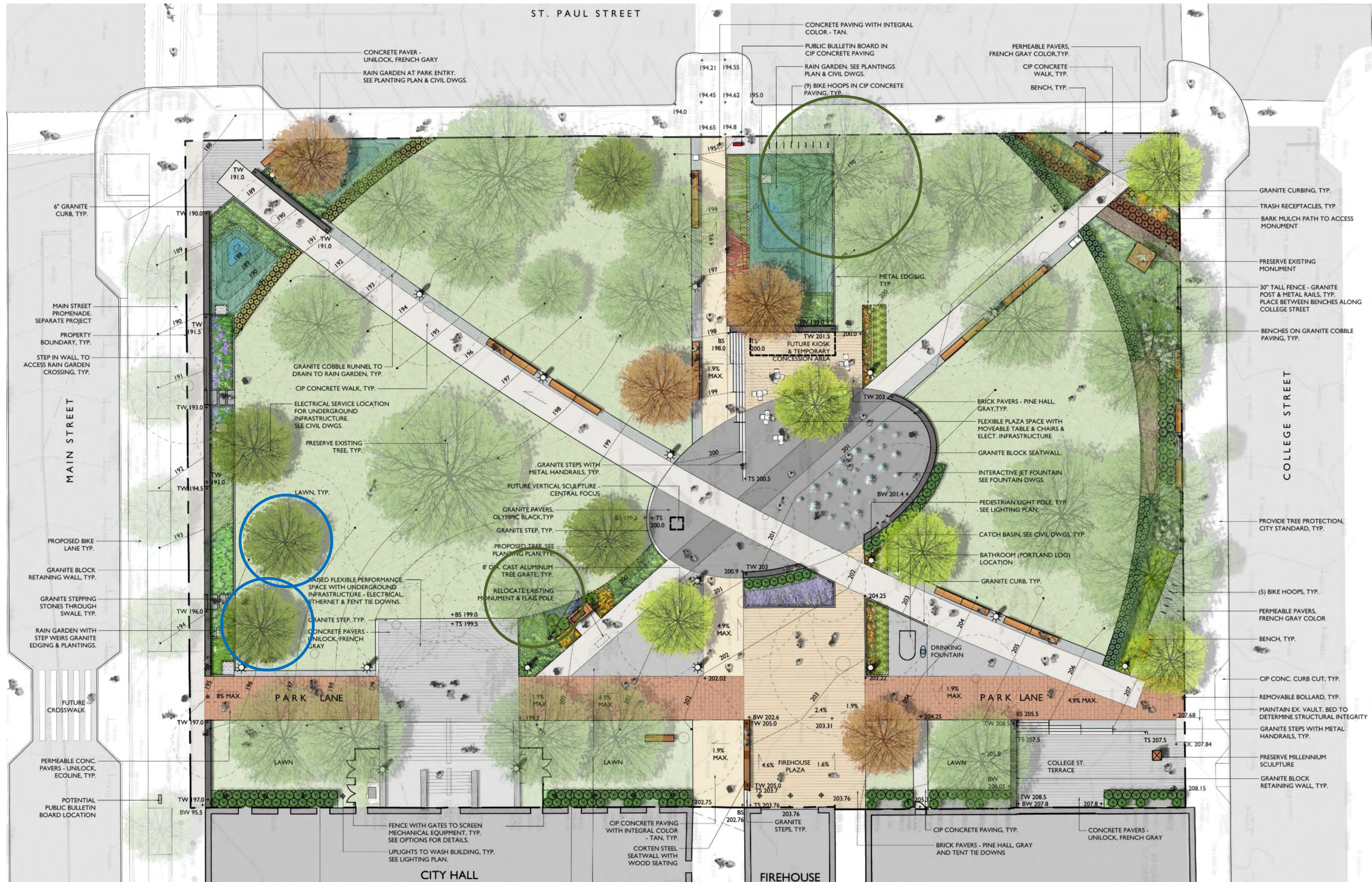
1. TREE REMOVAL DIAGRAM BASED ON SITE WALK THROUGH WITH CITY ARBORIST (2.22.18) & PARKS DEPT. TREE INVENTORY DATA. PREPARED BY WHLA.

2. ALL NEW TREE CANOPIES ARE REPRESENTED AT THE TIME OF INSTALLATION.



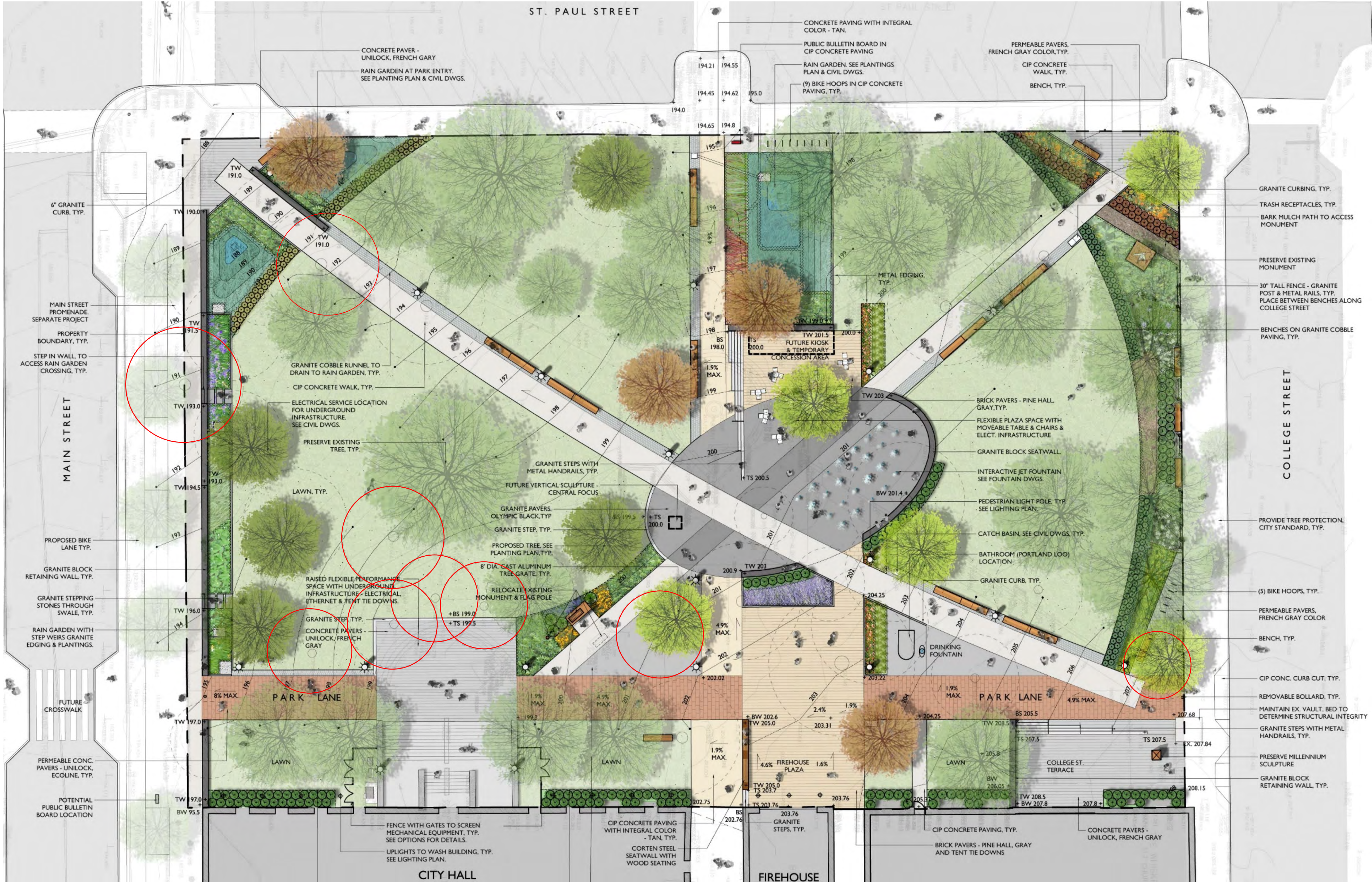


## 2018 City Hall Park Landscape Design - Additional trees saved and added





## 2018 City Hall Park Landscape Design - Trees in “Good” condition to be removed to balance Design Goals





## Trees to be added to City Hall Park – Supplied by Halka Nursery



2 Trees @ 4 – ½" to 5" Caliper size



8 trees @ 4" to 4-1/2" Caliper size



4 Trees @ 3 – ½" to 4" Caliper size



Existing Condition Shade Study . June 21 @ Noon





Existing Condition Shade Study . June 21 @ 4pm





Proposed Design Shade Study . June 21 @ Noon (New trees are shown at size at planting)

ST. PAUL STREET



**WAGNER**HODGSON  
LANDSCAPE ARCHITECTURE



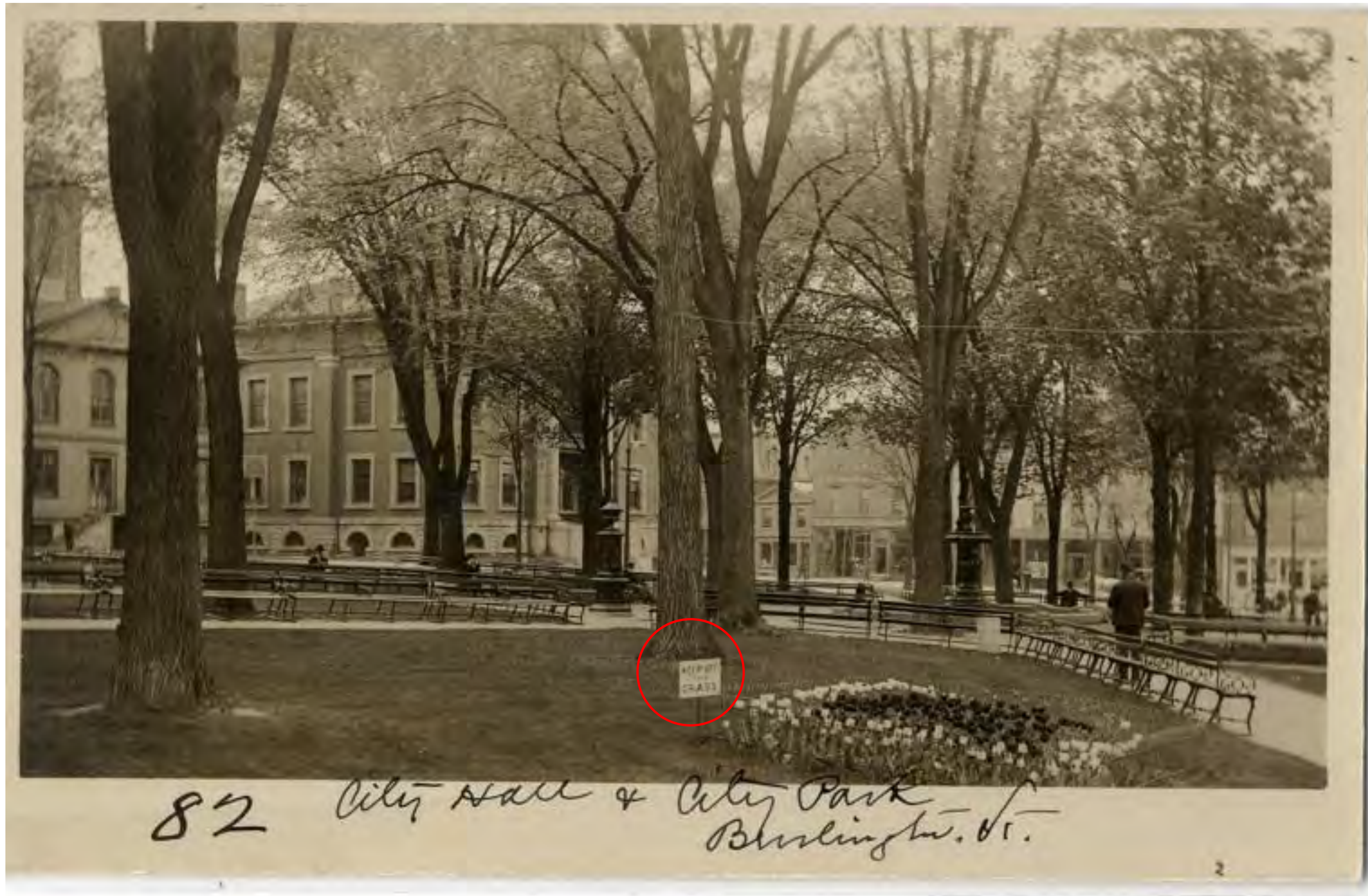
Proposed Design Shade Study . June 21 @ 4 pm (New trees are shown at size at planting)

ST. PAUL STREET





# Balance of Trees and Park Use



1904

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LANDSCAPE ARCHITECTURE





Spring 1983

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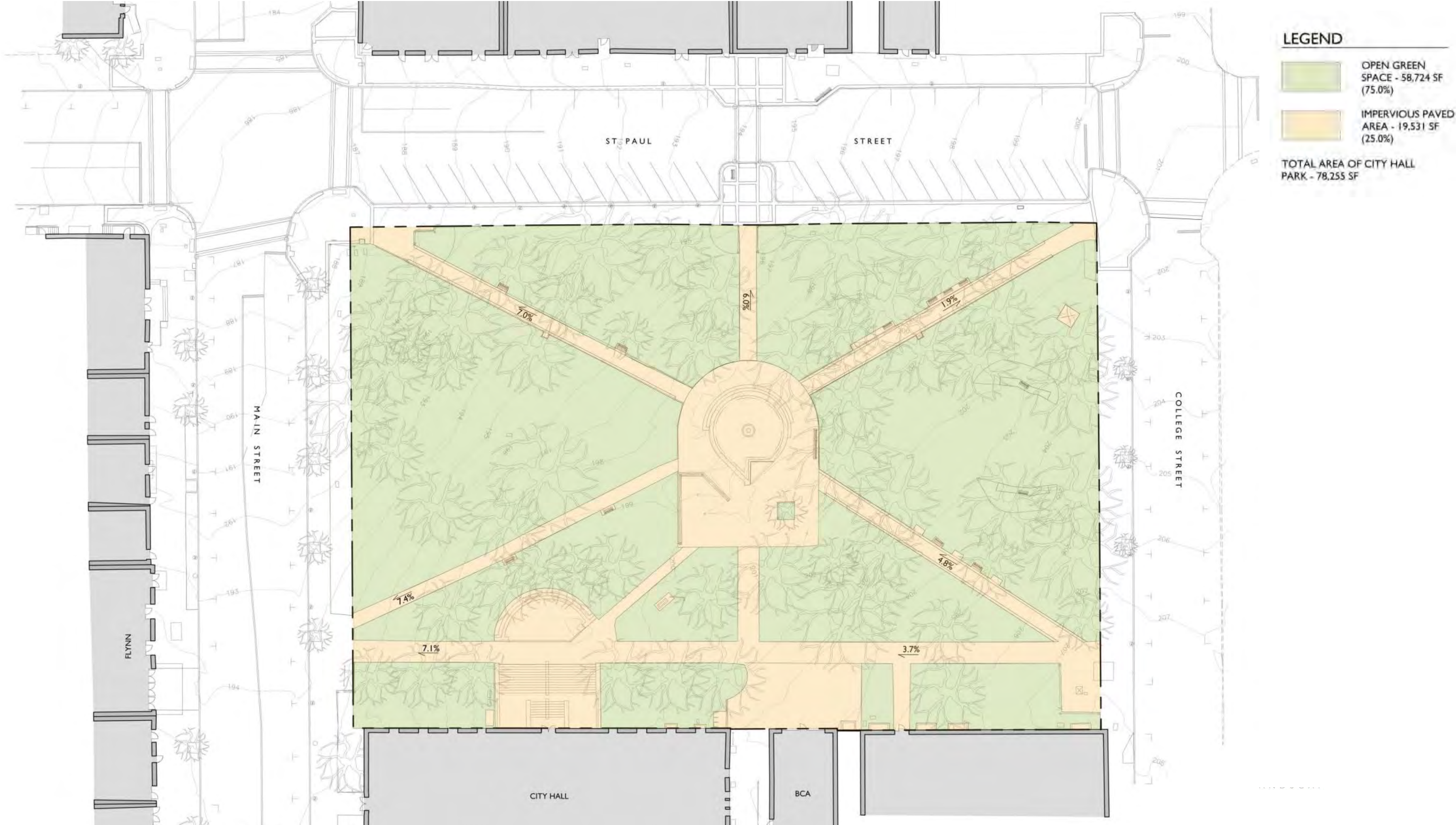
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LANDSCAPE ARCHITECTURE



2016 Site Analysis  
Green Open Space & Impervious Surfaces Comparison

Existing Site Plan





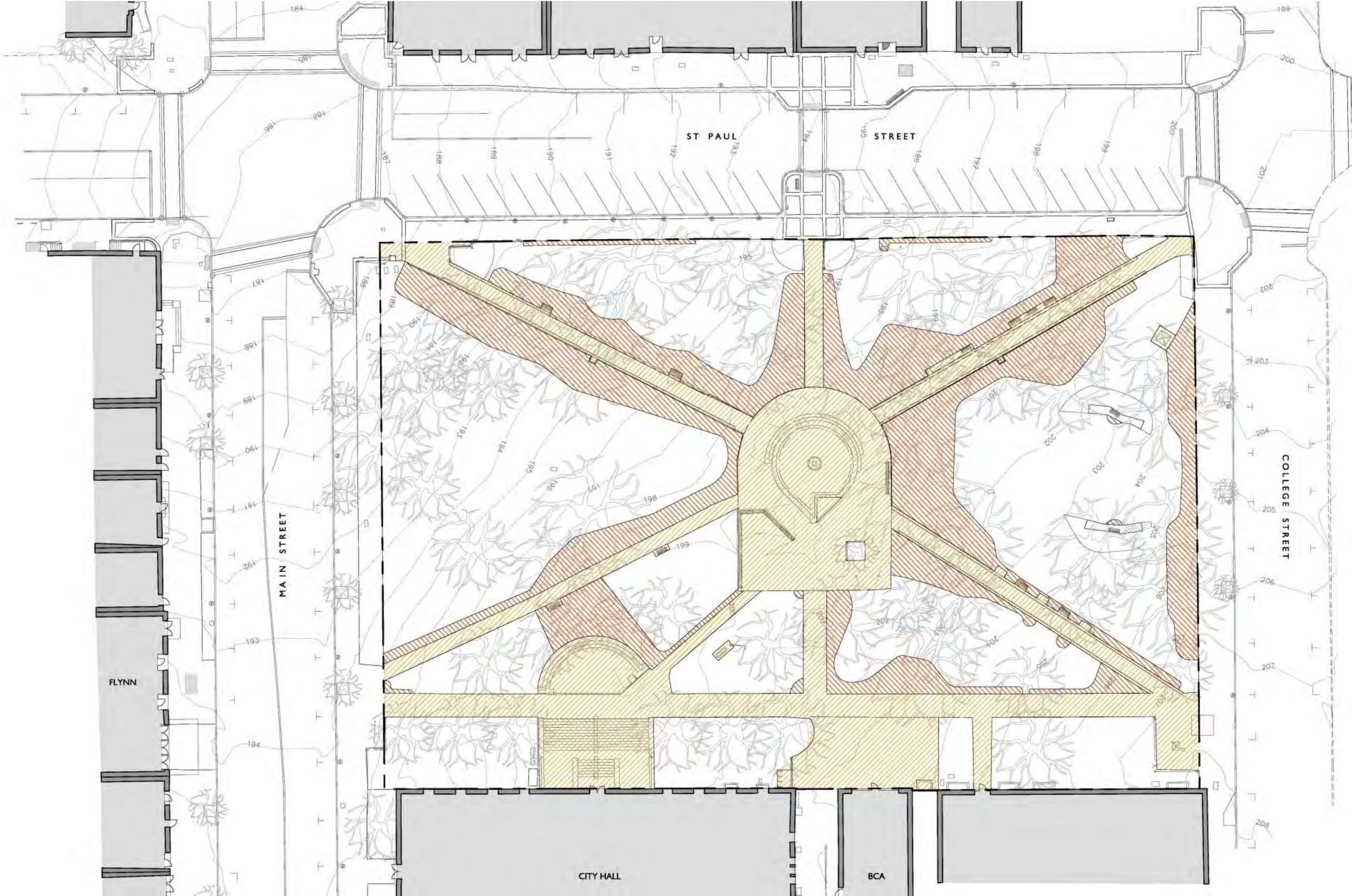
2016 Site Analysis

Compaction – Existing Lot Coverage

Impervious = 33,905 sf (43.8%)

Hardscape  
19,750 sf (25.2%)

Compacted Soils  
14,565 sf (18.6%)







Loss of turf grass due to foot traffic, compaction & heavy tree canopy / surface roots.





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## Burlington Parks / Annual Maintenance



1994 turf restoration



2012 turf restoration

City Hall Park requires \$4,000 - \$5,000 average turf restoration every year for aeration, topsoil, seed and erosion matting.



Burlington Parks / Annual Maintenance



June 2017



August 2017



## City Hall Park common tree health issues:



Girdling Roots



Lack of Visible Root Flare



City Hall Park common tree health issues:



Lack of Callus around old Wound



Declining Crown with Peeling Bark



# Palmer Z-Index

September, 2016

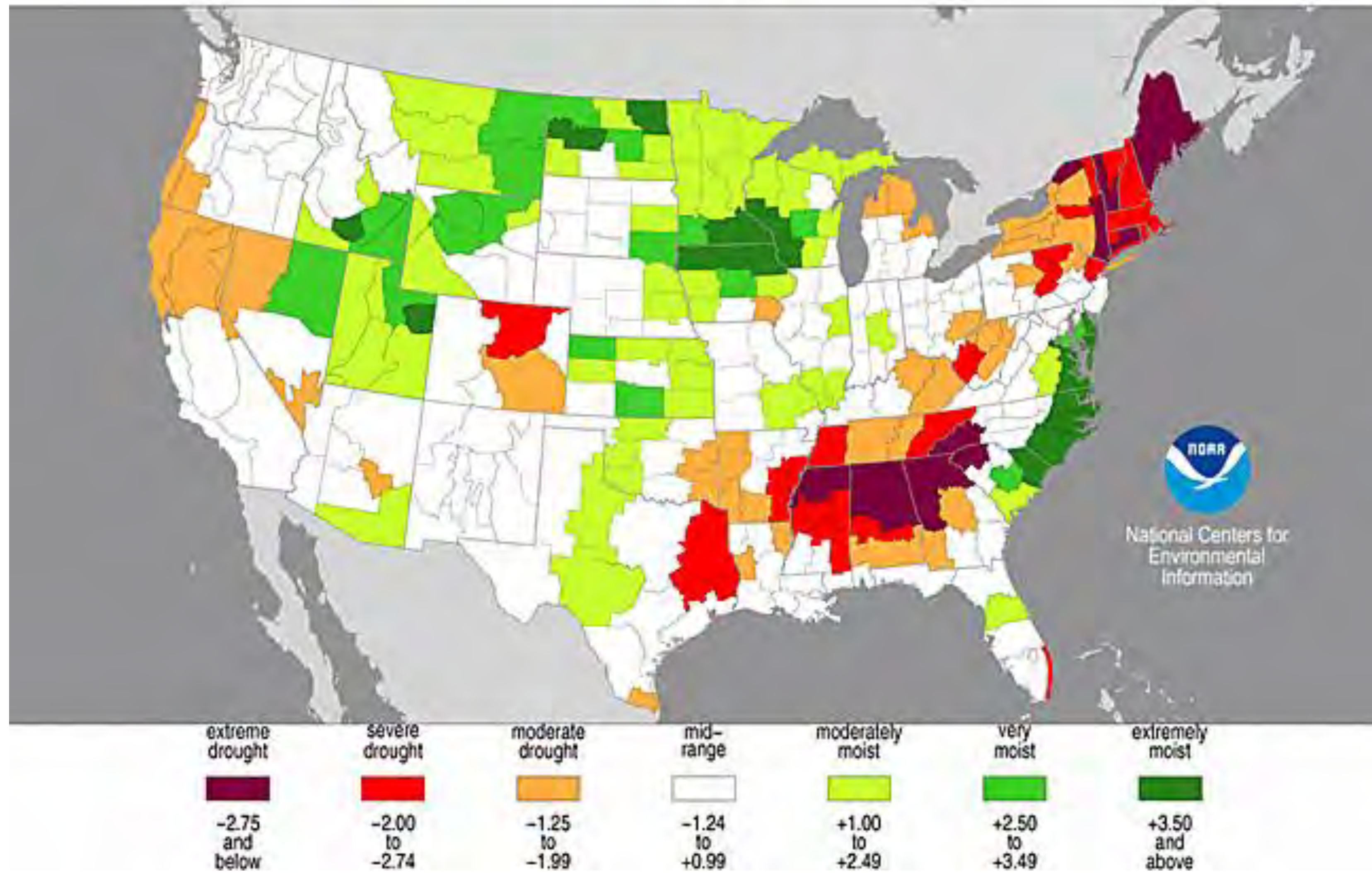
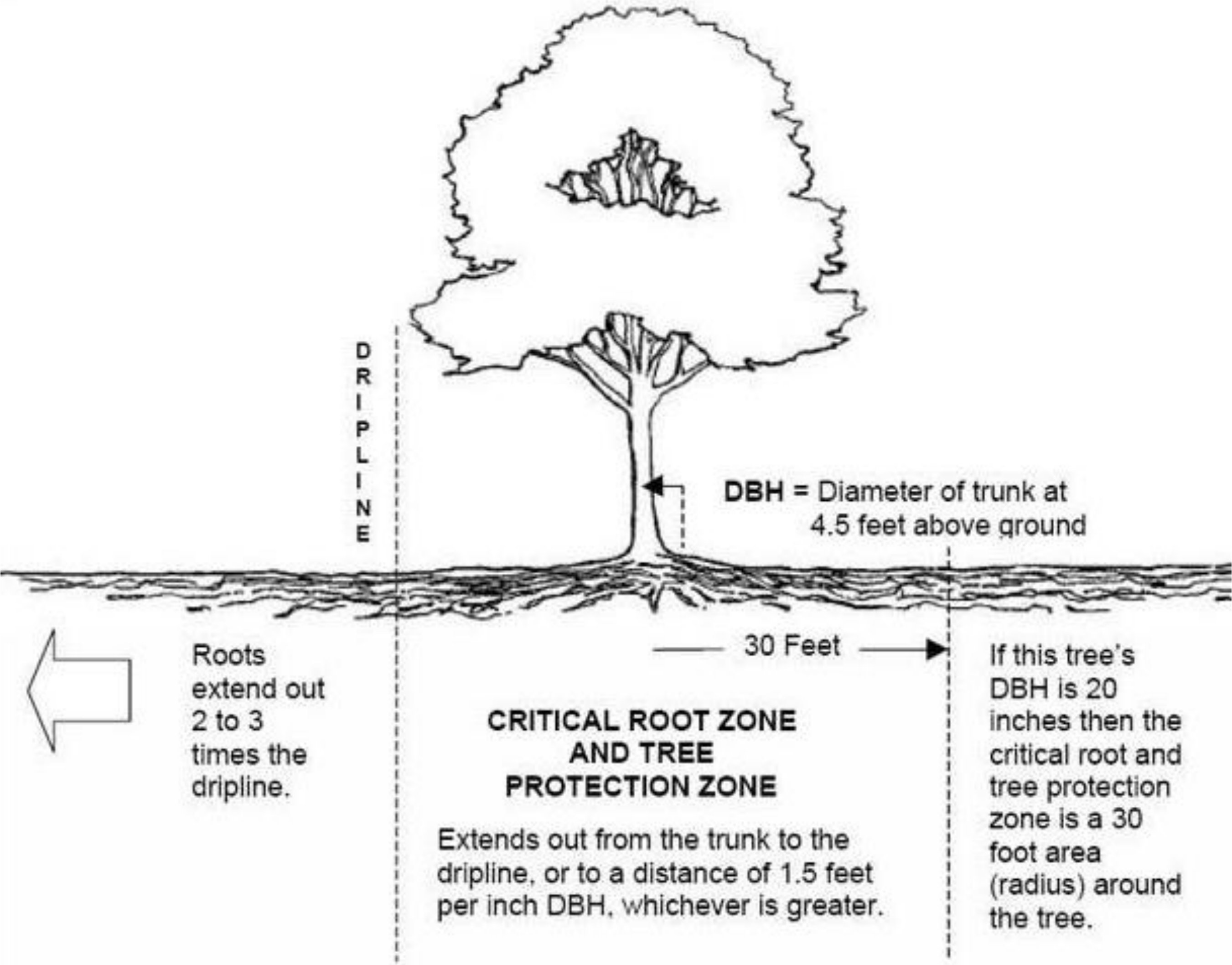
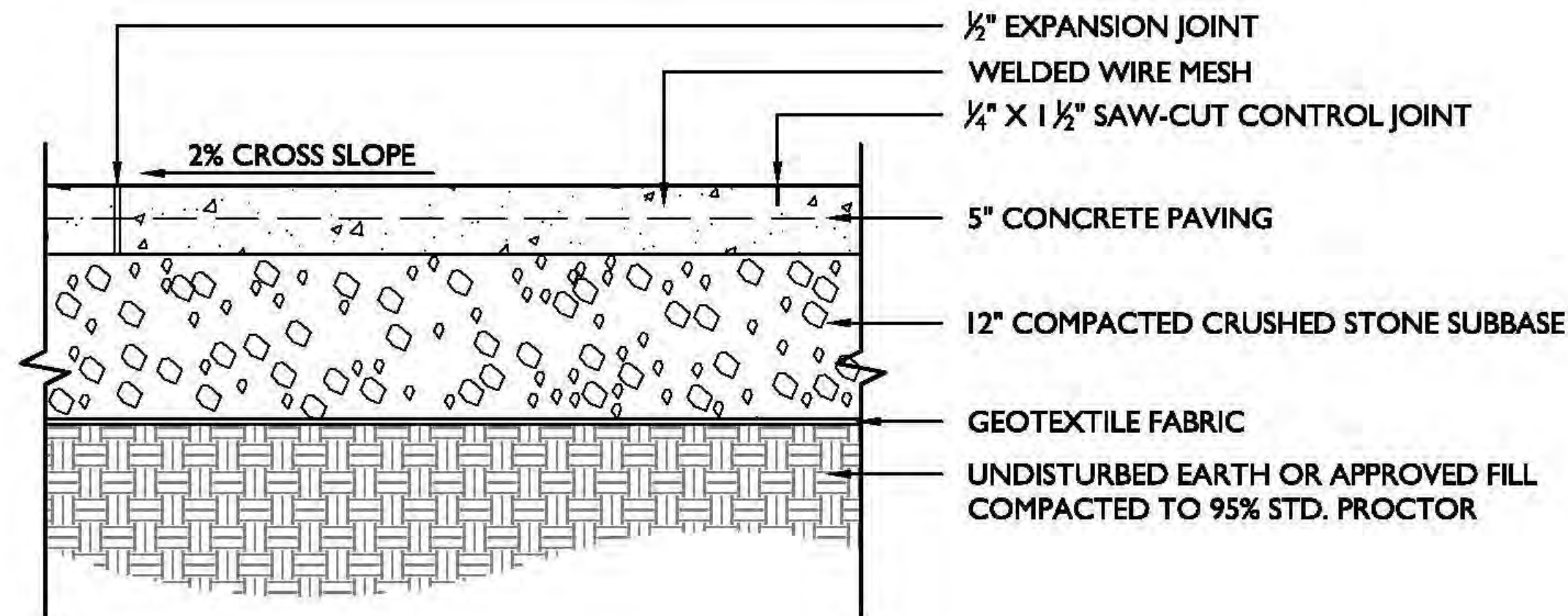




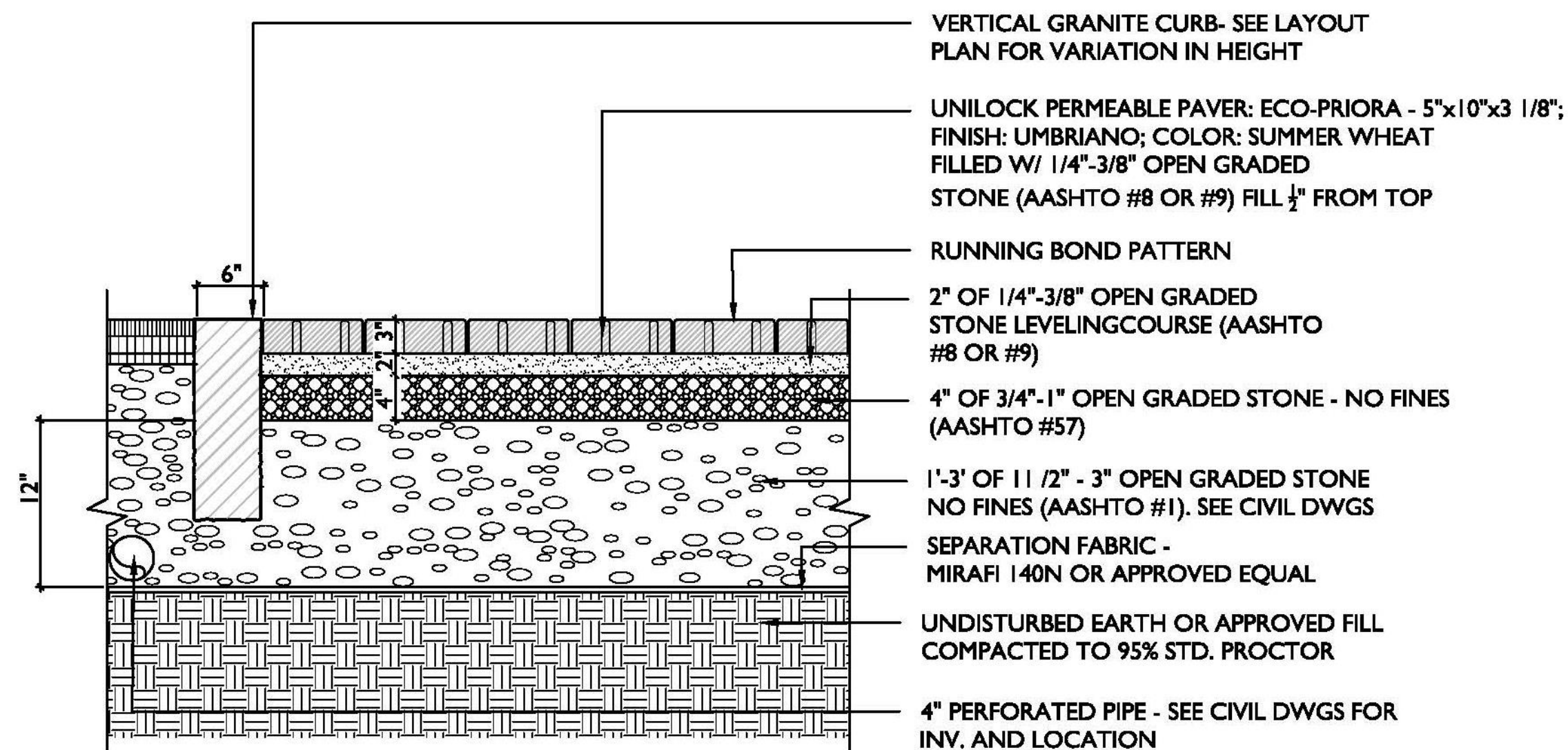
Figure 1. CRITICAL ROOT ZONE







CONCRETE PAVING SECTION - 17" DEEP

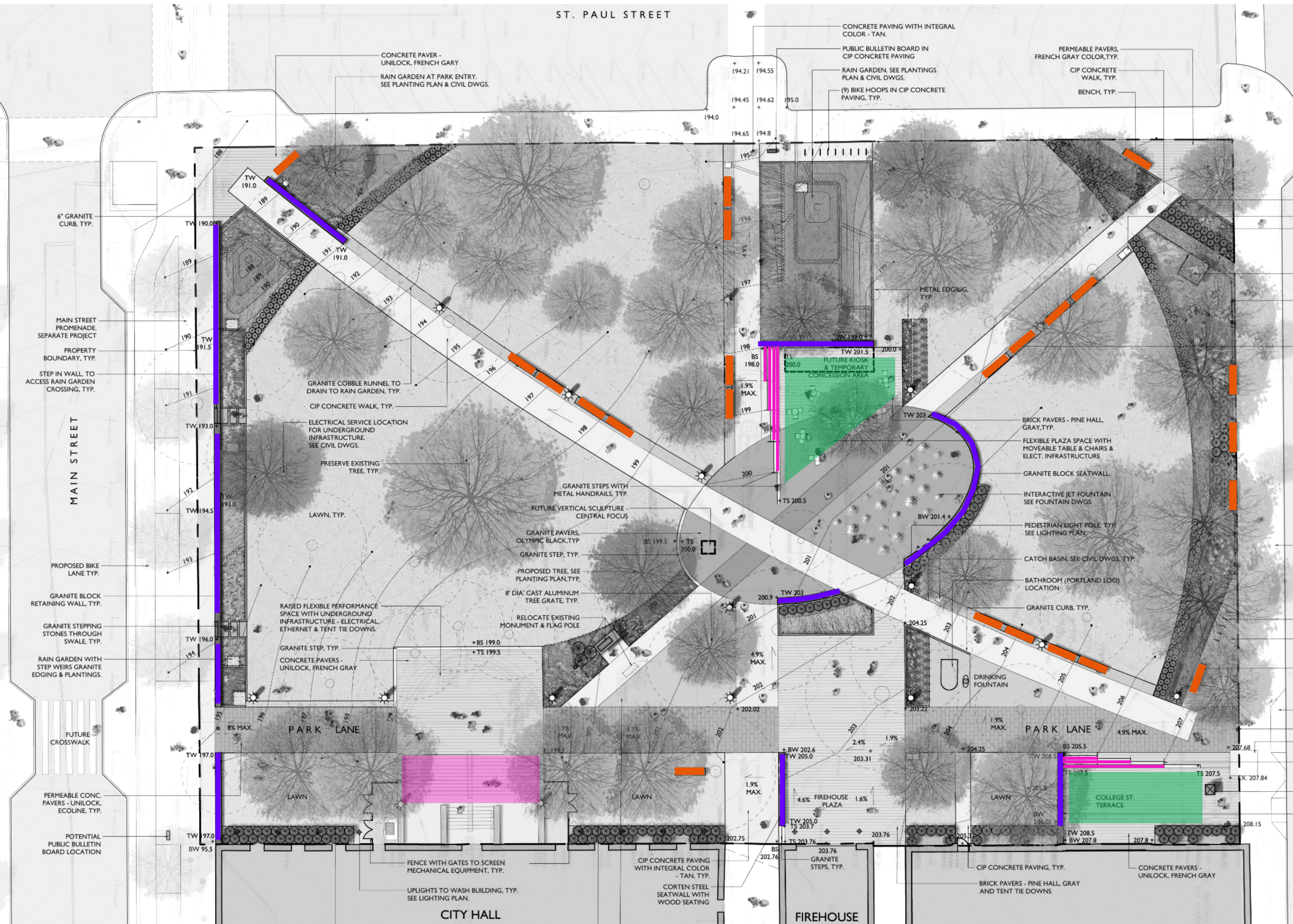


PERMEABLE PAVING SECTION - 22" DEEP MIN.



## 2018 City Hall Park Landscape Design

### Proposed Seating Capacity



Total Spaces - 314

## Bench Spaces - 92

Benches – 92 spaces  
(23 @ 9'-10" – 4 people/ bench)

## Steps & Wall Spaces - 222

Steps – 90 spaces  
169 lf @ 3 lf/person  
College St. Terrace – 66 lf  
Amphitheater - 103 lf

Seat Walls/ Retaining walls –  
132 spaces (397 lf @ 3'/person)

 Removeable tables and chairs  
zone - Quantity TBD

\* City Hall Steps not included





# Mechanical Equipment Screening at City Hall

