

**Minutes of the
City of Portsmouth's
Trees and Public Greenery Committee Meeting
July 8, 2026**

Present: Chair Patricia Bagley; Vice-Chair Michael Griffin; City Tree Supervisor/Arborist Maxwell Wiater; A. J. Dupere, Deborah Chag, and Ian Hanley.

Members Excused: Public Works Director Peter Rice, Dennis Souto, Assistant Mayor Joanna Kelley-Adams, and Scott McDermott.

Also Present: Stephanie Seacord

Chair Bagley called the meeting to order at 8:00 a.m.

1. Acceptance of the June 10 Meeting Minutes

The minutes were **approved** unanimously as amended, 5-0.

Note: Kyle VanAmberg's last name was changed to Lombard, and the phrase about Ms. Chag being a member of the City's Tree Walk was deleted.

2. Tree Removal Requests

- **67 Ridges Ct, revisiting from 6-10-26:** 1 Norway maple, good condition, removal requested by Eversource, removal recommended by the City. A new home construction has prompted an upgrade to Eversource infrastructure. Residents of Ridges Ct have accepted the tree removal request and are satisfied with the current proposed plan from Eversource.

Vice-Chair Griffin noted that the meeting with the City residents was very informative and that everyone offered suggestions. Resident Stephen Barndollar of 120 Ridges Ct was present and asked if there were options for removing the tree and whether there were options on where the light poles could go. Mr. Wiater said there were three options, two of which were not effective, so the third option was to remove the tree and replace the second pole in the same footprint as the current pole. He said the City would plant small ornamental trees in their right-of-way next spring. He said the new pole would be higher and the City had a legal easement. It was further discussed.

Resident Judy Miller of 77 Hanover St said she appreciated that the two mature trees in front of the Hanover St Garage would be replaced.

Chair Bagley asked for a motion. *Vice-Chair Griffin moved to accept the original request for removal of the Norway maple, seconded by Mr. Hanley. The motion passed unanimously, 5-0.*

- **270 South St:** 1 sugar maple, fair condition, removal requested by resident. Recent storm damage has prompted this request. A central leader failed from the top of the trunk and there is now a large wound exposing decayed wood. There are other cracks and cavities along the trunk. The crown of this tree has been raised several times, resulting in a canopy that will be difficult to effectively perform a retrenchment or end-weight reduction prune.

Mr. Wiater abstained from the vote. Resident Kim Schroeder of 280 South St said the tree provided a lot of cooling shade and a habitat and that she and her wife preferred that it remain. Mr. Wiater said there was a significant leader that was rotten and came out. He said normally a heavy reduction pruning would be done, but for that particular tree it was not the best option because it had already been pruned quite a bit for clearance. It was discussed and decided that it would be better to remove the tree, especially for safety reasons.

Chair Bagley asked for a motion. *Mr. Hanley moved to recommend removal of the tree, seconded by Mr. Dupere. The motion **passed** by a vote of 3-2, with Vice-Chair Griffin and Ms. Chag voting in opposition.*

Mr. Wiater then suggested getting another assessment and revisit this request in August.

Mr. Hanley, who made the original motion, then moved to reconsider the removal request, which passed unanimously.

There was further discussion about assessment. Mr. Dupere said the New Hampshire State community forest arborist Liz McKinley could do a tree risk assessment qualified (TRAQ) assessment and that the tree request could be revisited at the August meeting.

*Mr. Hanley then moved to **table** the removal request until August to allow for another assessment. Ms. Chag seconded. The motion passed unanimously, 5-0.*

- **Haven Park:** 1 eastern hemlock, fair condition, removal requested by resident. The tree located near the center walkway has a basal wound that is decayed, and the canopy is thinning throughout.

Mr. Wiater said the tree had foliage loss and decline throughout it, a basal wound with decay, and a lean. He said it could be monitored but thought it would continue to decline.

Chair Bagley asked for a motion. *Ms. Chag moved to **deny** the request to remove the tree and instead continue to **monitor** it. Vice-Chair Griffin seconded. The motion passed unanimously, 5-0.*

- **Hancock St at Marcy St:** 1 green ash, 1 black locust, 1 red maple, poor conditions, removals requested and recommended by the City. The ash is showing signs of EAB infestation. Over 12" of the 20" DBH black locust is dead including root damage and

decline, and there is some carpenter ant activity. The red maple has declined, and after clearance pruning for the parking lot there will not be much canopy left to sustain the declining tree.

Mr. Wiater explained each tree's decline, as noted in the above description.

Chair Bagley asked for a motion. *Vice-Chair Griffin moved to recommend removal of all three trees, seconded by Mr. Hanley. The motion passed unanimously, 5-0.*

- **Parrott Ave at Junkins Ave:** 2 red maple, poor-to-fair conditions, removals requested and recommended by the City. Both trees are exhibiting signs of decline, though one tree can be pruned and monitored, but the other has more significant deadwood and lower in vigor.

Mr. Wiater said one of the red maples could be pruned but recommended removing the other one.

Chair Bagley asked for a motion. *Ms. Chag moved to recommend removal of the maple that was in poor condition and prune the second maple, seconded by Vice-Chair Griffin. The motion passed unanimously, 5-0.*

- **Austin St at Union St:** 1 little-leaf linden, poor condition, removal requested and recommended by the City. Recent storm damage has prompted this request. The tree has significantly declined and suffered from a stem failure.

Mr. Wiater said the tree was in a harsh spot that had a lot of impervious surface and potential construction damage.

Chair Bagley asked for a motion. *Ms. Chag moved to recommend removal of the tree and replant with something more charming, seconded by Mr. Hanley. The motion passed unanimously, 5-0.*

- **165 Richards Ave:** 1 Norway maple, poor condition, removal requested and recommended by the City. Recent storm damage has prompted this request. This tree lost a significant leader resulting in 50% canopy loss, and a defect exists where the remaining leader is attached. The remaining leader has cracks along the stem.

Mr. Wiater recommended that the tree be removed because it lost 50 percent of its canopy and was completely off balance.

Chair Bagley asked for a motion. *Mr. Dupere moved to recommend removal of the tree, seconded by Vice-Chair Griffin. The motion passed unanimously, 5-0.*

- **224 Elwyn Ave (on Sherburne Ave):** 1 Norway maple, fair condition, removal requested and recommended by the City. Recent storm damage has prompted this

request. This tree is top heavy and weighted heavily over a structure. The absence of the neighboring tree may cause this tree to experience greater external forces due to the lack of protection.

Mr. Wiater explained that the tree on the right of the Norway maple was not removed because it added protection to the tree, but the other half of it failed in the storm. He said consequently, both trees were being considered for removal.

Chair Bagley asked for a motion. *Vice-Chair Griffin moved to recommend removal of the tree, seconded by Mr. Hanley. The motion passed unanimously, 5-0.*

3. New Business - Review of storm and damage that occurred on 6-18-26, including an optional site visit to Haven Park following the Committee meeting.

Mr. Wiater reviewed the trees that were lost in the storm, which included nine medium-to-large trees in Haven Park, three Norway maple and a large weeping willow in Wentworth Cemetery, and several residents' trees. Vice-Chair Griffin suggested that Haven Park be transformed into a park like Goodwin Park. He said he was concerned about the John Fitz monument that was blocked by two trees on Pleasant St and thought a professional could come up with a new landscape design so that the statue could be seen from the street. It was further discussed and decided that the suggestion would be reviewed with Mr. Rice when he returned.

Other New Business

Mr. Dupere said the catalpa tree on the corner of Spring and Broad Streets looked bad. Mr. Wiater said some compost tea application could be done. He said he did not think the crushed stone at the base of the tree was a problem and thought the damage was already done when the roots were cut. Vice-Chair Griffin asked if Mr. Rice sent the information to the Legal Department. Mr. Wiater said he had not followed up with him. Ms. Chag said she would follow up with that.

4. Public Comment

There was no public comment.

Next meeting: Wednesday, August 12, 2026

The meeting **adjourned** at 8:55 a.m.

Respectfully submitted,

Joann Breault

Trees and Greenery Committee Meeting Minutes Taker

Portsmouth Trees and Public Greenery Committee August 12, 2026

Prepared by Max Wiater
Public Works Arborist Foreman



Tree Removal Request: 270 South St



1 sugar maple, fair condition, removal requested by resident. Recent storm damage has prompted this request.

A central leader failed from the top of the trunk and there is now a large wound exposing decayed wood. There are other cracks and cavities along the trunk. The crown of this tree has been raised several times, resulting in a canopy that will be difficult to effectively perform a retrenchment or end-weight reduction prune.

Tree Removal Request: 270 South St continued



Sugar maple central leader failure
location.

Tree Removal Request: 270 South St continued



Sugar maple defects between
significant leaders on main stem of tree.

Tree Removal Request: 11 Oak St



1 silver maple, fair condition, removal requested by resident. Tree roots are exposed at the grade of the yard and is causing damage to the walkway. Mechanical damage to the roots has occurred, there is a cavity on the western side of the trunk, and there is minor canopy decline on small twigs.

Tree Removal Request: 11 Oak St continued



Surface-level roots are causing damage to the walkway making it difficult use, and roots in the grass are getting damaged.

Landscape Notes

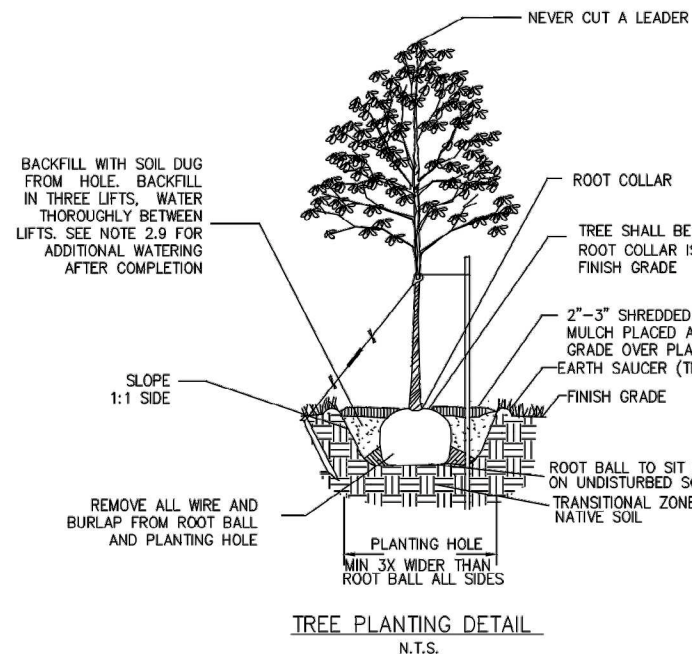
- Design is based on drawings by Tighe & Bond dated 6/22/2021 and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction.
- Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly tagged with proper botanical name.
- The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
 - Outside hose attachments spaced a maximum of 150 feet apart, and
 - An underground irrigation system, or
 - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the contractor.

PART 1 - GENERAL

1.1 THE BASE OF THE CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS IS THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTING AND ALSO PART 8 LAYS OUT TERMS AND BASIC STANDARDS AS SET FORTH BY INDUSTRY BUT IT IS NOT THE "END ALL" FOR THE CITY OF PORTSMOUTH. THE FOLLOWING ARE THE CITY OF PORTSMOUTH, NH TREE PLANTING REQUIREMENTS THAT ARE IN ADDITION TO OR THAT GO BEYOND THE ANSI A300 PART 6.

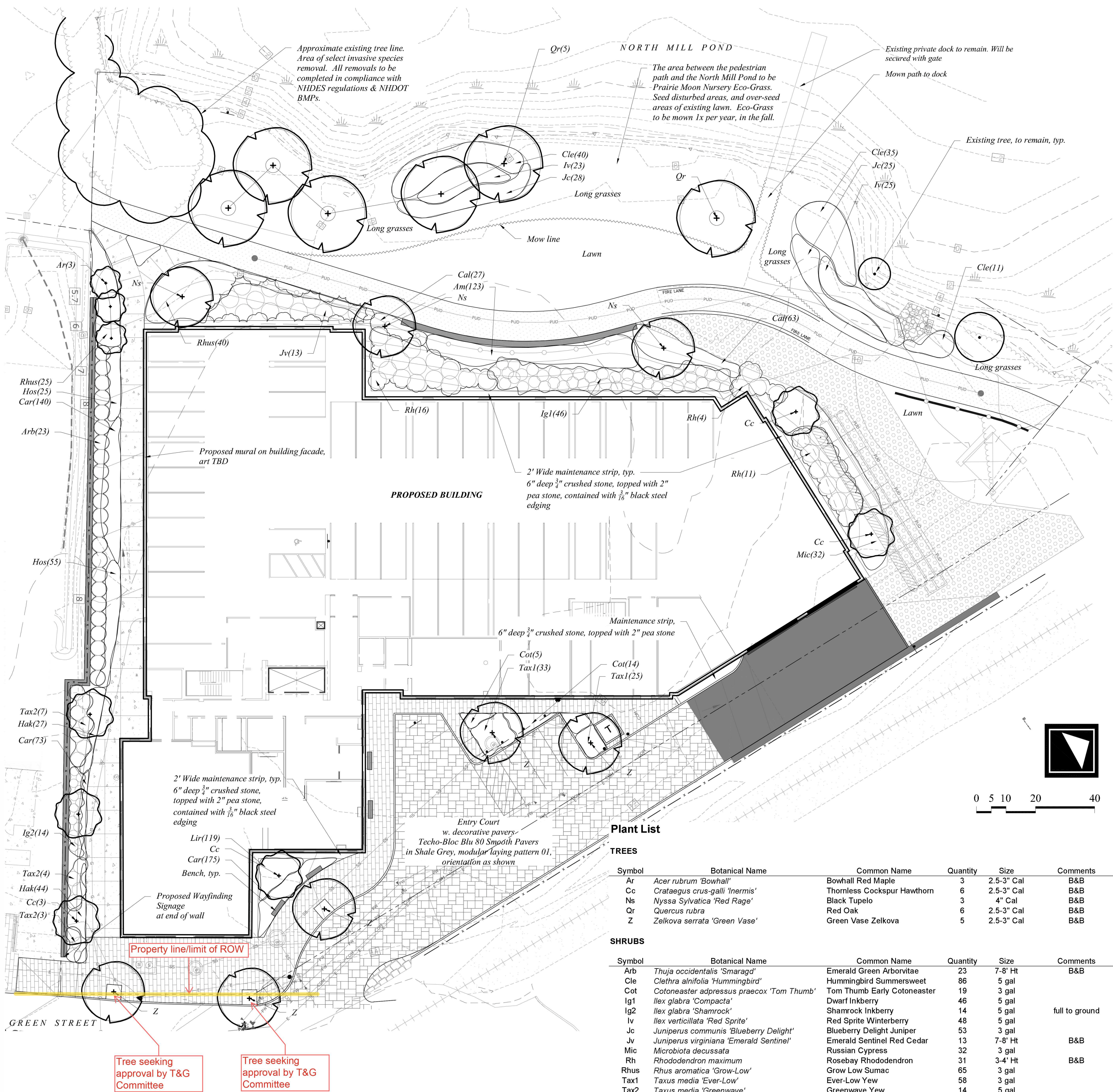
PART 2 - EXECUTION

- ALL PLANTING HOLES SHALL BE DUG BY HAND - NO MACHINES. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE NEW PLANTING PITS, PLANTING BEDS WITH GRANITE CURBING, AND PLANTING SITES WITH SILVA CELLS ARE BEING CREATED. IF A MACHINE IS USED TO DIG IN ANY OF THESE SITUATIONS PLANTING DEPTH NEEDS TO BE RAISED. THE MATERIAL IN THE BOTTOM OF THE PLANTING HOLE MUST BE FINED WITH MACHINE TO PREVENT SINKING OF THE ROOT BALL.
- ALL WIRE AND BURRAP SHALL BE REMOVED FROM THE ROOT BALL AND PLANTING HOLE.
- THE ROOT BALL OF THE TREE SHALL BE WORKED SO THAT THE ROOT COLLAR OF THE TREE IS VISIBLE AND NO GROUNDING ROOTS ARE PRESENT.
- THE ROOT COLLAR OF THE TREE SHALL BE 2"-3" ABOVE GRADE OF PLANTING HOLE FOR FINISHING DEPTH.
- ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH ORGANIC COMPOST. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE ENGINEERED SOIL IS BEING USED IN CONJUNCTION WITH SILVA CELLS AND WHERE NEW PLANTING BEDS ARE BEING CREATED.
- ALL PLANTINGS SHALL BE BACKFILLED IN THREE LIFTS AND ALL LIFTS SHALL BE WATERED SO THE PLANTING WILL BE SET AND FREE OF AIR POCKETS - NO EXCEPTIONS.
- AN EARTH BERM SHALL BE PLACED AROUND THE PERIMETER OF THE PLANTING HOLE EXCEPT WHERE CURBED PLANTING BEDS OR PITS ARE BEING USED.
- 2"-3" OF MULCH SHALL BE PLACED OVER THE PLANTING AREA.
- AT THE TIME OF PLANTING IS COMPLETE, THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE COMPLETE HYDRATION OF THE ROOTS. BACKFILL MATERIAL AND MULCH LAYER.
- STAKES AND QUYS SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. QUYS MATERIAL SHALL BE NON-DAMAGING TO THE TREE.
- ALL PLANTING STOCK SHALL BE SPECIMEN QUALITY, FREE OF DEFECTS, AND DISEASE OR INJURY. THE CITY OF PORTSMOUTH, NH RESERVES THE RIGHT TO REFUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANSI A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPORTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.



TREE PLANTING DETAIL
N.T.S.

City of Portsmouth Tree Planting Detail



Plant List

TREES

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ar	Acer rubrum 'Bowhall'	Bowhall Red Maple	3	2.5-3" Cal	B&B
Cc	Crataegus crus-galli 'Inermis'	Thornless Cockspur Hawthorn	6	2.5-3" Cal	B&B
Ns	Nyssa Sylvatica 'Red Rage'	Black Tupelo	3	4" Cal	B&B
Qr	Quercus rubra	Red Oak	6	2.5-3" Cal	B&B
Z	Zelkova serrata 'Green Vase'	Green Vase Zelkova	5	2.5-3" Cal	B&B

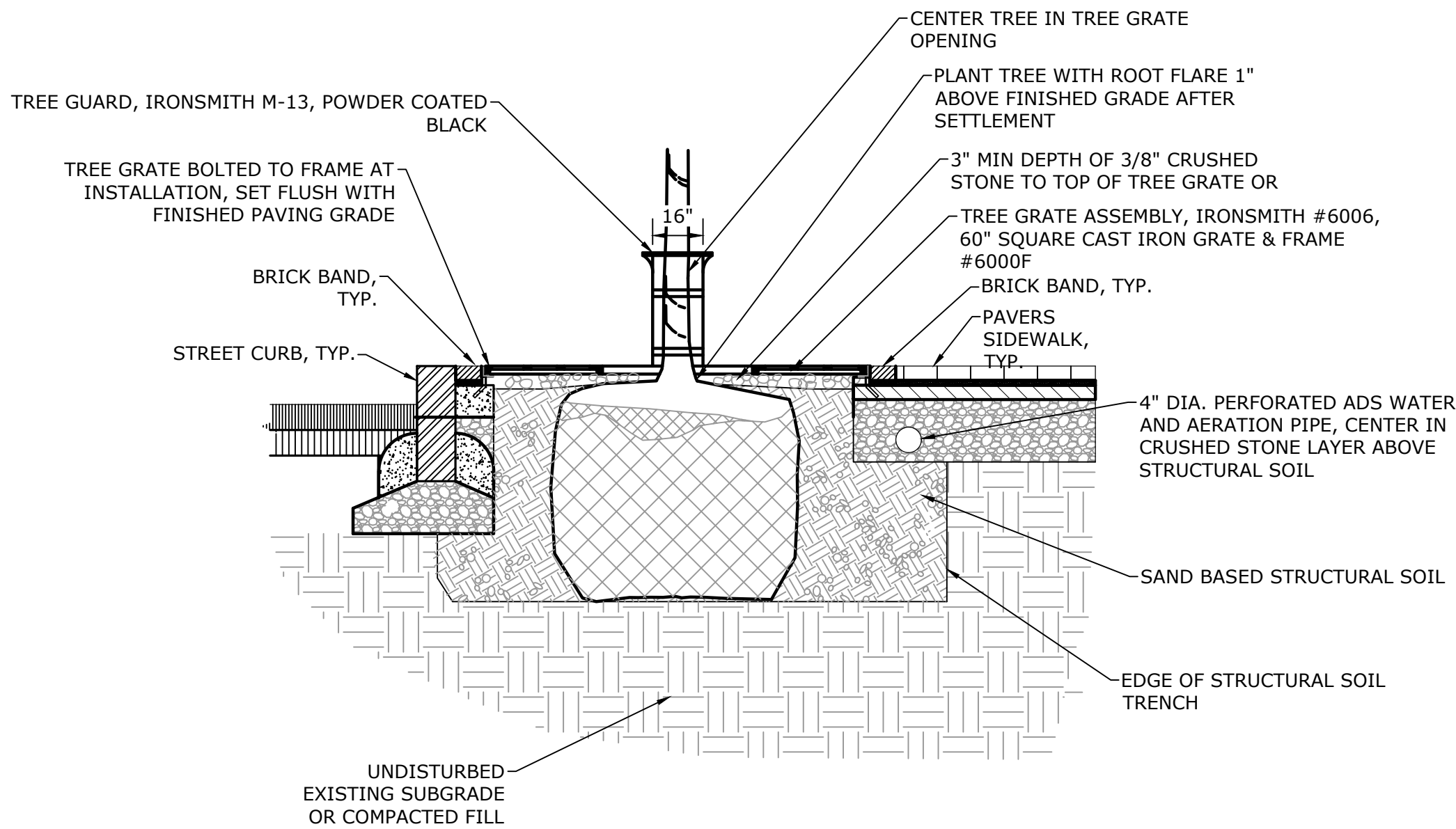
SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Arb	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	23	7-8" Ht	B&B
Cle	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	86	5 gal	
Cot	Cotoneaster adpressus praecox 'Tom Thumb'	Tom Thumb Early Cotoneaster	19	3 gal	
Ig1	Ilex glabra 'Compacta'	Dwarf Inkberry	46	5 gal	
Ig2	Ilex glabra 'Shamrock'	Shamrock Inkberry	14	5 gal	full to ground
Iv	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	48	5 gal	
Jc	Juniperus communis 'Blueberry Delight'	Blueberry Delight Juniper	53	3 gal	
Jv	Juniperus virginiana 'Emerald Sentinel'	Emerald Sentinel Red Cedar	13	7-8" Ht	B&B
Mic	Microbiota decussata	Russian Cypress	32	3 gal	
Rh	Rhododendron maximum	Rosebay Rhododendron	31	3-4" Ht	B&B
Rhus	Rhus aromatica 'Grow-Low'	Grow Low Sumac	65	3 gal	
Tax1	Taxus media 'Ever-Low'	Ever-Low Yew	58	3 gal	
Tax2	Taxus media 'Greenwave'	Greenwave Yew	14	5 gal	

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

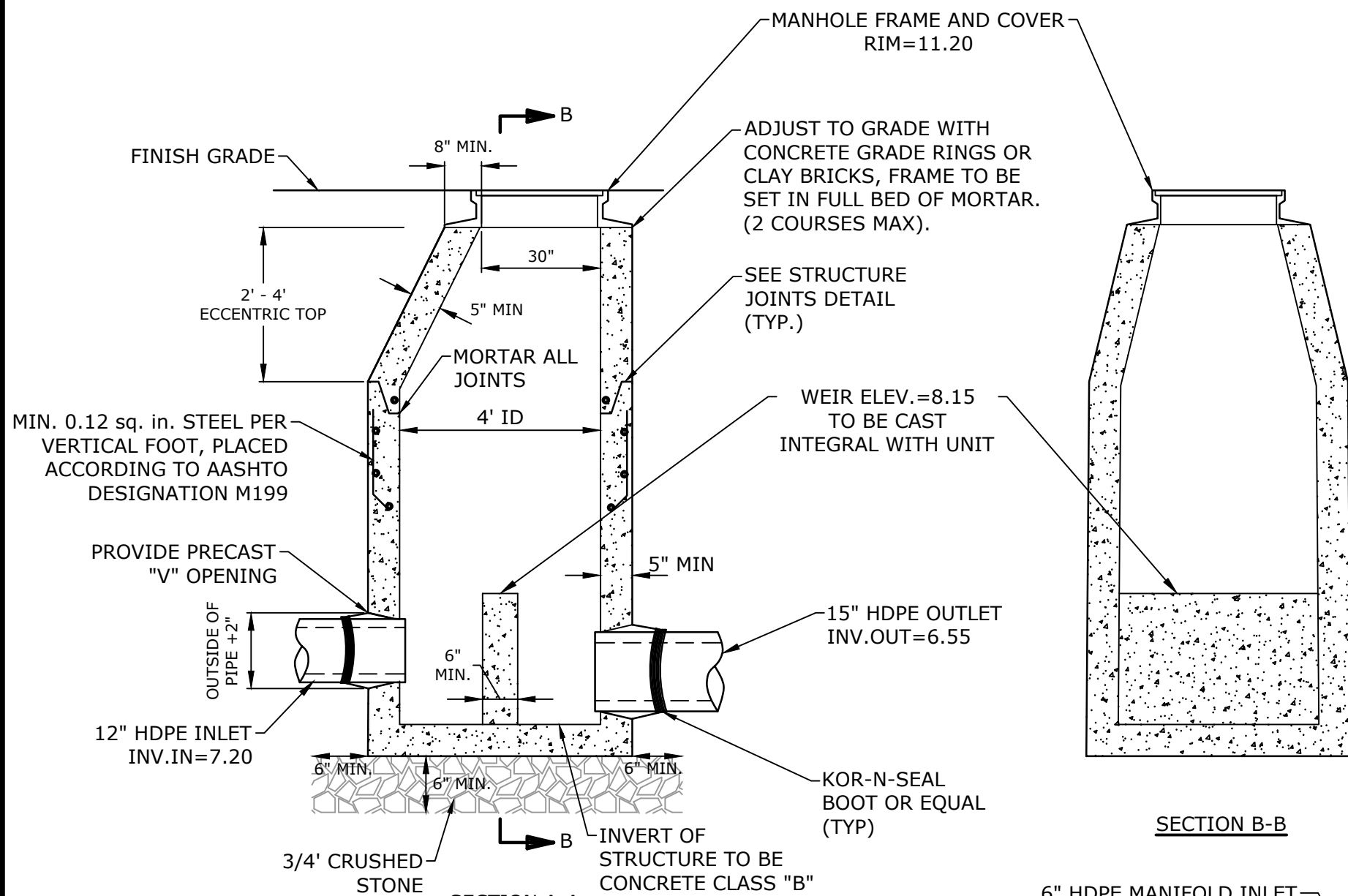
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Am	Amsonia hubrichtii	Blue Star Flower	123	1 gal	
Car	Carex appalachica	Appalachian Sedge	388	1 gal	
Cal	Calamagrostis acutifolia 'Karl Foerster'	Feather Reed Grass	90	1 gal	
Hak	Hakonechloa macra	Japanese Frost Grass	71	1 gal	
Hos	Hosta 'Guacamole'	Guacamole Hosta	80	1 gal	
Lir	Liriope spicata	Lily Turf	119	1 gal	
Lawn	Penninton Smartseed Tall Fescue Blend				

Last Saved: 11/17/2024
Plotted On: Dec 18, 2024 12:12:12pm By: NWilcox
File & Print Settings: C:\Users\NWilcox\OneDrive\Documents\C0960-011_53 Green St. Portsmouth, NH Drawings Figures\AutoCAD\C0960-011_C-DTLS.dwg



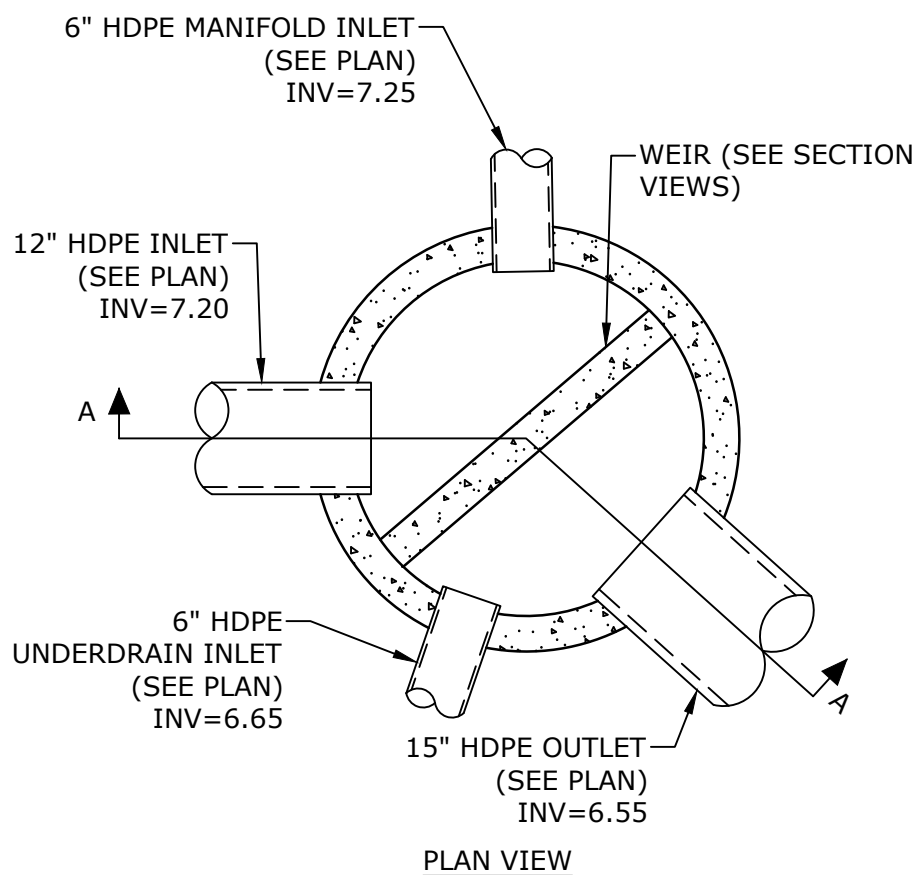
- NOTES:
1. PLANTING DETAILS ARE INTENDED TO INDICATE CONSTRUCTION RELATED TO VARIOUS STREETSCAPE ELEMENTS. ACTUAL LOCATIONS OF STREETSCAPE ELEMENTS MAY VARY FROM THOSE SHOWN. SEE PLANS.
 2. FINISHED GRADE OF TREE GRATES AND FRAMES SHALL BE FLUSH WITH SURROUNDING PAVEMENT.
 3. LIMB BRANCHES TO PROVIDE CLEAR PEDESTRIAN ZONE TO 7'-0" ABOVE FINISH GRADE.
 4. SCARIFY ALL SOIL MARGINS TO DEPTH OF 6".

TREE PLANTING AND TREE GRATE
NO SCALE



- NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 4. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)
 6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
 9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
 10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.
 11. SEE DRAINAGE MANHOLE DETAIL FOR MORE INFORMATION (CORE HOLE SIZE, MINIMUM FLOOR AND WALL THICKNESS, ETC.)

OUTLET STRUCTURE DETAIL (POS1)
NO SCALE

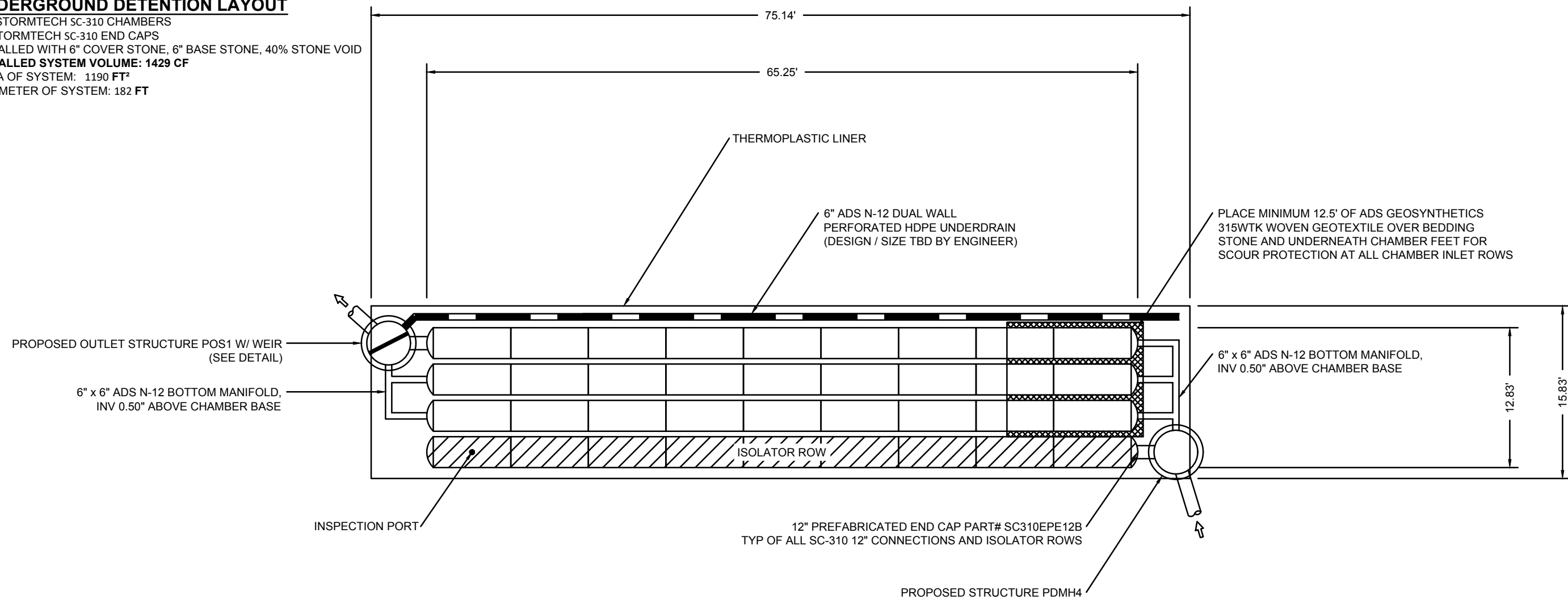


TYPICAL RETAINING WALL SECTION

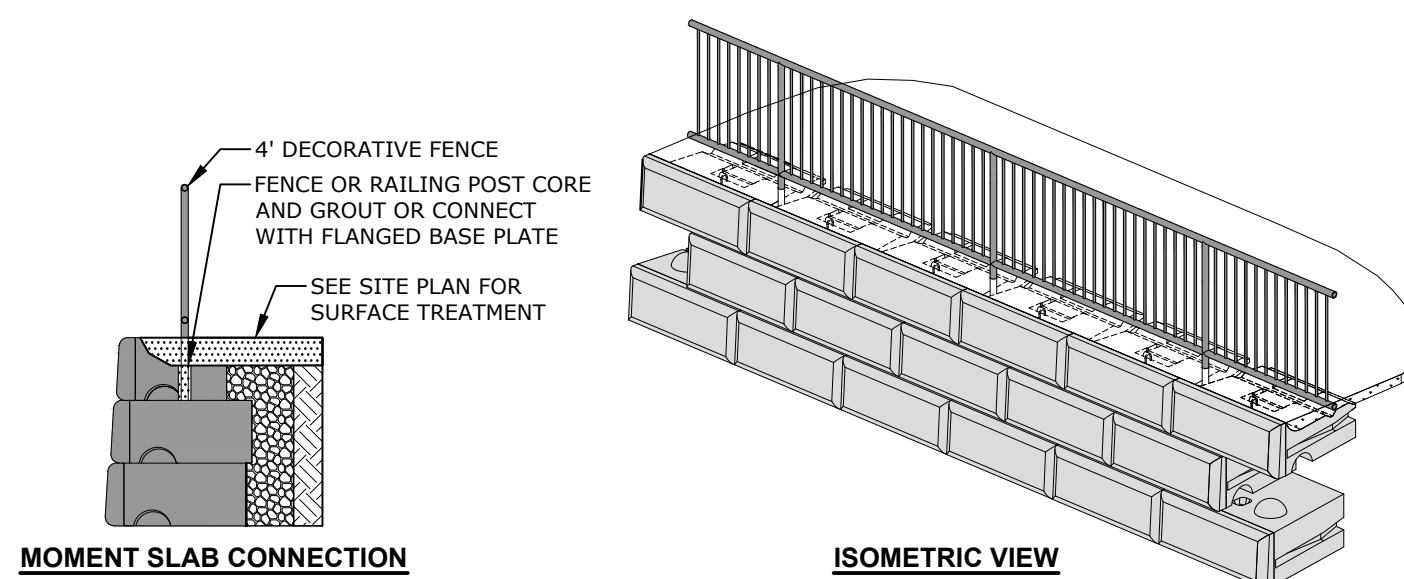
PROPOSED ELEVATIONS

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	16.53
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	10.53
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	10.03
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	10.03
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	10.03
TOP OF STONE:	9.03
TOP OF CHAMBER:	8.53
12" ISOLATOR ROW / BOTTOM CONNECTION INVERT:	7.28
6" BOTTOM CONNECTION INVERT:	7.24
BOTTOM OF CHAMBER:	7.20
BOTTOM OF STONE:	6.70

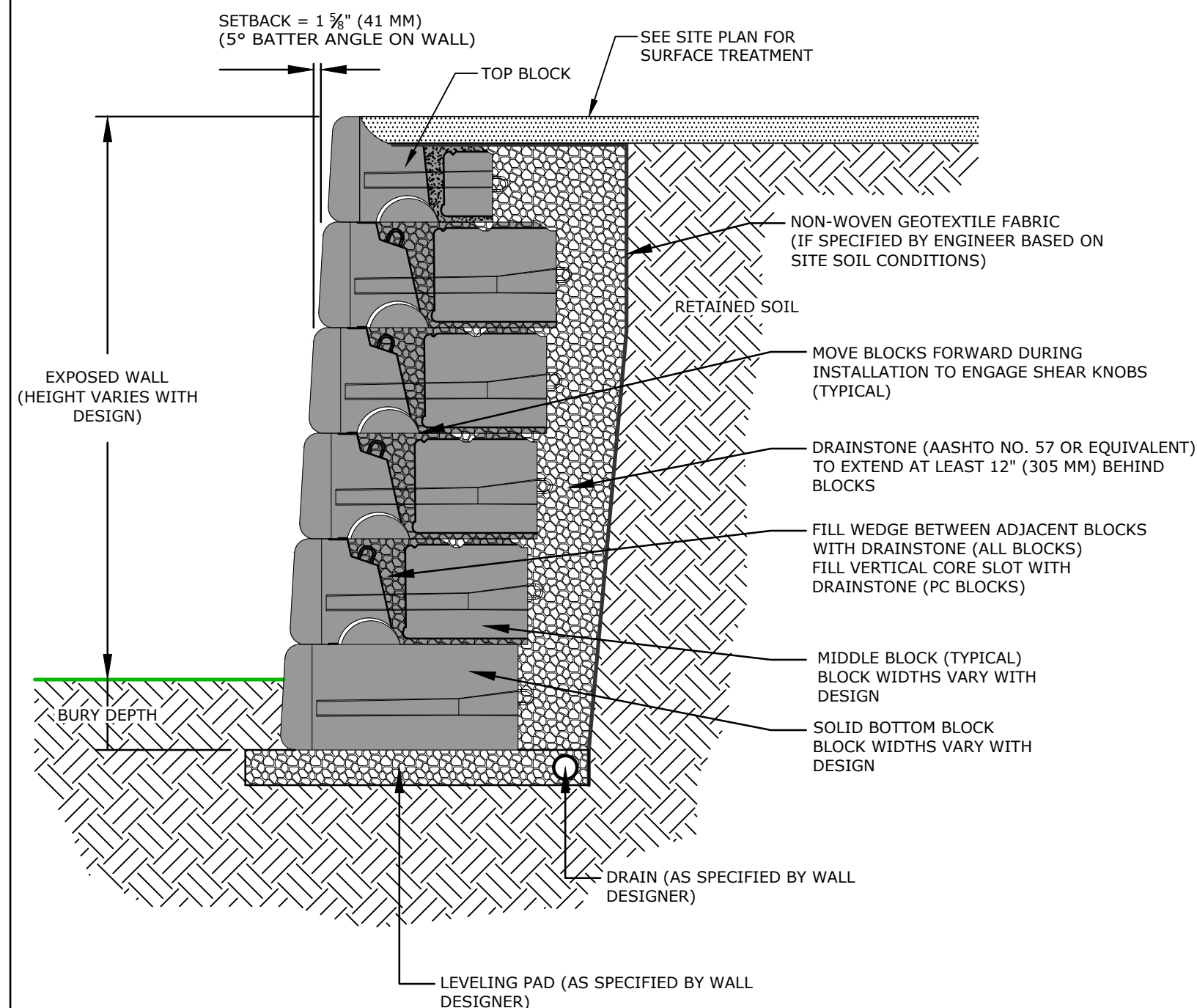
UNDERGROUND DETENTION LAYOUT
(36) STORMTECH SC-310 CHAMBERS
(8) STORMTECH SC-310 END CAPS
INSTALLED WITH 6" COVER STONE, 40% STONE VOID
INSTALLED SYSTEM VOLUME: 1429 CF
AREA OF SYSTEM: 1190 FT²
PERIMETER OF SYSTEM: 182 FT



STORMTECH SC-310 CHAMBER LAYOUT
NO SCALE



TYPICAL RETAINING WALL FENCE CONNECTION

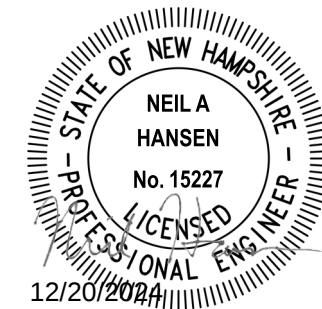
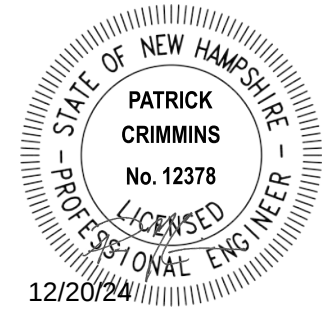


TYPICAL RETAINING WALL SECTION

TYPICAL GRAVITY RETAINING WALL
NO SCALE

- NOTES:
1. RETAINING WALL SHALL BE BY REDI ROCK LEDGESTONE OR APPROVED EQUAL.
 2. THE CONTRACTOR SHALL SUBMIT DESIGN AND CALCULATIONS FOR THE RETAINING WALL THAT SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
 3. MINIMUM DESIGN PARAMETERS:
 - GLOBAL STABILITY FACTOR OF SAFETY = 1.3
 - OVERTURNING FACTOR OF SAFETY = 1.5
 - SLIDING FACTOR OF SAFETY = 1.5
 - GEOGRID PULLOUT FACTOR OF SAFETY = 1.5
 - SEISMIC FACTOR OF SAFETY = 1.1
 4. WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, BUILDING LOADS, GUARDRAIL AND/OR FENCING AS REQUIRED.
 5. WALL DESIGN ENGINEER SHALL CONSIDER HEIGHT AND SPECIFY FENCE WHERE REQUIRED
 6. ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
 7. THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
 8. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS OF WALL WITH WALL DESIGNER'S CERTIFICATION TO OWNER.
 9. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
 10. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
 11. CONTRACTOR SHALL SUPPLY SAMPLE TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.
 11. FINAL DESIGN PLANS OF WALL SHOWING FENCING. SHALL BE SUBMITTED WITH THE FINAL DESIGN PLANS.
 12. CONTRACTOR SHALL VERIFY IF A BUILDING PERMIT IS REQUIRED ONCE DESIGN IS COMPLETE.
 13. FINAL RETAINING WALL MATERIAL AND STYLE SHALL BE REVIEWED AND APPROVED BY OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.

Tighe&Bond



**Proposed
Mixed Use
Development**

CPI
Management,
LLC

53 Green Street
Portsmouth, NH

S	12/20/2024	Issued For Construction
R	11/4/2024	75% GMP Set
Q	9/16/2024	75% CD DRAFT
P	7/10/2024	PB Conformed Set
O	6/28/2024	Revised NHDES Wetland Resubmission
N	6/11/2024	Revised NHDES Shorland Resubmission
M	5/1/2024	DD Submission
L	4/18/2024	City Sewer Comments
K	4/2/2024	Revised Sewer Connection Permit
J	2/16/2024	NHDES Wetland & Shorland Submission
MARK	DATE	DESCRIPTION
PROJECT NO:		C0960-011
DATE:		January 27, 2021
FILE:		C0960-011_C-DTLS.DWG
DRAWN BY:		CIK/AFS
CHECKED:		NAH
APPROVED:		PMC

DETAILS SHEET

SCALE: AS SHOWN

C-509