STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT AND
RELEASE FROM LIABILITY

IN CONSIDERATION OF Site Plan and Subdivision approval granted by the Planning Board of the City of Portland to a plan entitled 133 York Street, Site Plan prepared for 133 York LLC, 110 Marginal Way Suite 292, Portland, ME 04101 by Pinkham & Greer Consulting Engineers dated July 24, 2013 and revised July 16, 2014, recorded in the Cumberland County Registry of Deeds in Plan Book 214, Page 295 (the "Plan") and pursuant to a condition thereof, 133 York LLC having a mailing address of 110 Marginal Way Suite 292, Portland, ME 04101, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the "Owner"), as follows:

Maintenance Agreement

That it will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the stormwater drainage system, as shown on said plan, including but not limited to the catch basins, piping, tree box filter, stormwater chamber, valves, swales, paved surfaces, manholes, drain pipe, riprapped aprons, and level spreaders etc. in strict compliance with the Maintenance of Facilities as described in Stormwater Management Report in the Inspection and Maintenance of Stormwater Management Facilities section dated June 19, 2013 and revised October 21, 2013 and July 25, 2014 and Chapter 32 of the Portland City Code. Owner of the subject premises further agrees to keep a Stormwater Maintenance Log that will be made available for inspection by the City of Portland upon reasonable notice and request.

This Agreement is for the benefit of the said City of Portland and all persons in lawful possession of the property; further, that the said City of Portland may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice as described in this Agreement, and a stated time to perform, that the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon the property in question to maintain, repair, or replace said stormwater drainage system, including but not limited to the Tree Filter and Piping System thereon in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear. The Owner agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions.

For the purpose of this Agreement the real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and liened if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the Owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by this Agreement shall be complete on the date the notice is mailed to the owner of record as shown on the tax roles on file in the City Assessor's Office. If the property has more than one owner on said tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this Agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this 23 day of September, 2014.

By: Jeremy Benn
Its: Member

STATE OF MAINE
CUMBERLAND, ss.

Date: 9/23/14

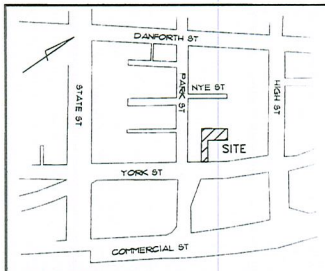
Personally appeared the above-named Jeremy Benn, and acknowledged the foregoing instrument to be his/his free act and deed in his/her said capacity, and the free act and deed of said Jeremy Benn.

Before me,

Notary Public/Attorney at Law

Print name: Dorothy West

DOROTHY E. WEST
Notary Public, Maine
My Commission Expires November 22, 2018



LOCATION PLAN

SCALE: 1"=250'±

LEGEND

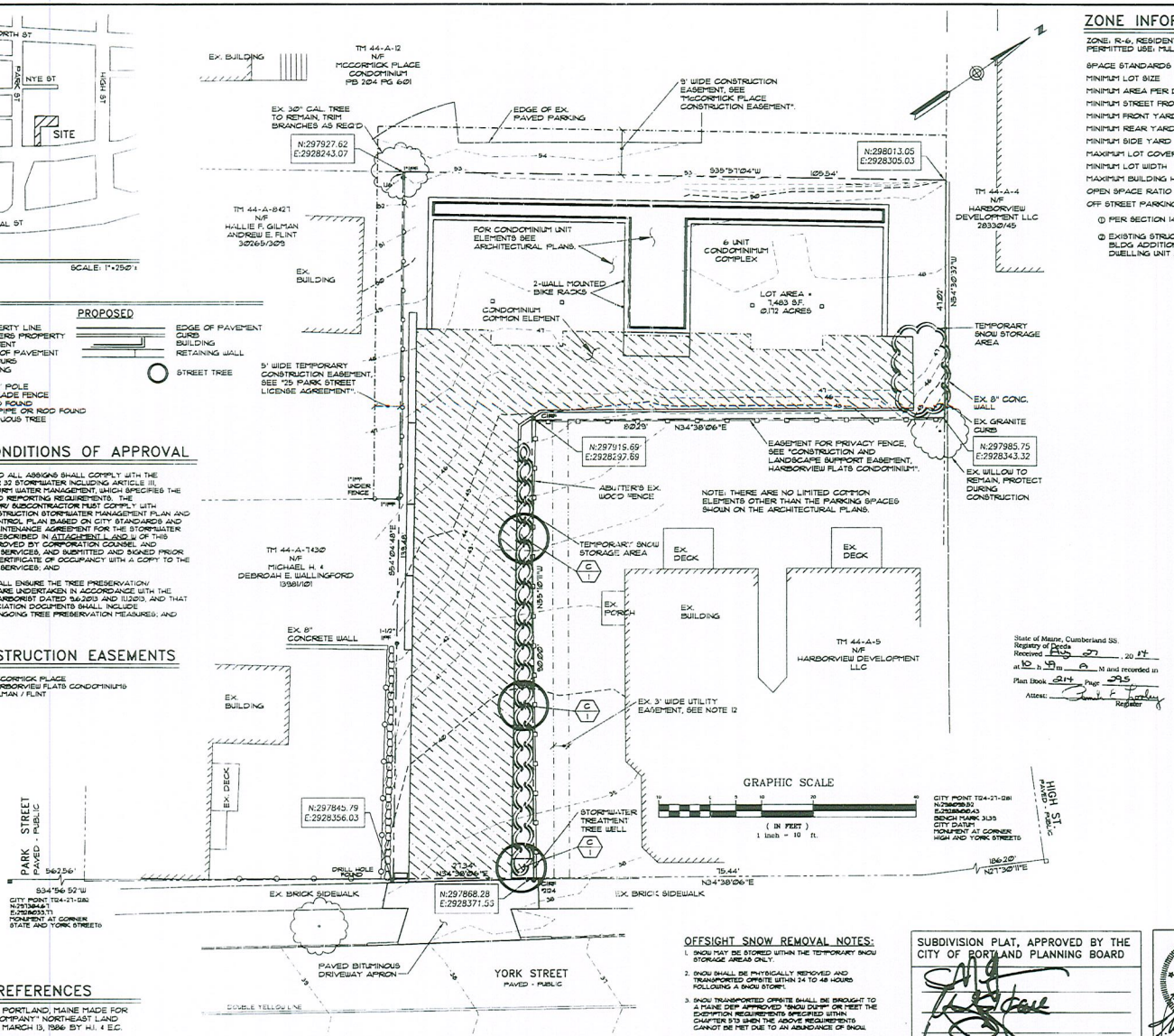
EXISTING		PROPOSED	
	PROPERTY LINE		EDGE OF PAVEMENT
	ABUTTERS PROPERTY		CURB
	EASEMENT		BUILDING
	EDGE OF PAVEMENT		RETAINING WALL
200	CONTOURS		STREET TREE
	BUILDING		
	CURB		
	UTILITY POLE		
	STOCKADE FENCE		
	BOUND FOUND		
	IRON PIPE OR ROD FOUND		
	DECIDUOUS TREE		

SUBDIVISION CONDITIONS OF APPROVAL

1. THAT THE APPLICANT AND ALL ASSIGNS SHALL COMPLY WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, POST-CONSTRUCTION STORM WATER MANAGEMENT, WHICH SPECIFIES THE ANNUAL INSPECTIONS AND REPORTING REQUIREMENTS. THE DEVELOPER/CONTRACTOR/ SUBCONTRACTOR MUST COMPLY WITH CONDITIONS OF THE CONSTRUCTION STORMWATER MANAGEMENT PLAN AND SEDIMENT & EROSION CONTROL PLAN BASED ON CITY STANDARDS AND STATE GUIDELINES. A MAINTENANCE AGREEMENT FOR THE STORMWATER DRAINAGE SYSTEM AS DESCRIBED IN ATTACHMENT I AND J OF THIS REPORT, SHALL BE APPROVED BY CORPORATION COUNSEL AND DEPARTMENT OF PUBLIC SERVICES, AND SUBMITTED AND SIGNED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY WITH A COPY TO THE DEPARTMENT OF PUBLIC SERVICES; AND
2. THAT THE APPLICANT SHALL ENSURE THE TREE PRESERVATION/ PROTECTION MEASURES ARE UNDERTAKEN IN ACCORDANCE WITH THE COMMENTS OF THE CITY ARBORIST DATED 5/6/2013 AND 11/2/13, AND THAT THE CONDOMINIUM ASSOCIATION DOCUMENTS SHALL INCLUDE RESPONSIBILITIES FOR ONGOING TREE PRESERVATION MEASURES; AND

RECORDED CONSTRUCTION EASEMENTS

BOOK 31936, PAGE 225	MCCORMICK PLACE
BOOK 31936, PAGE 235	HARBORVIEW FLATS CONDOMINIUM
BOOK 31936, PAGE 229	GILMAN / FLINT



SURVEY PLAN REFERENCES

1. "PLAN OF PROPERTY" IN PORTLAND, MAINE MADE FOR NATIONAL MORTGAGE COMPANY." NORTHEAST LAND TITLE COMPANY DATED MARCH 13, 1986 BY H.I. & E.C. JORDAN-SURVEYORS.
2. "STANDARD BOUNDARY SURVEY ON YORK STREET IN PORTLAND, MAINE MADE FOR MRS. GILLMORE L. NICHOLS" DATED MARY 8, 1989 BY OWEN HASKELL, INC.
3. "CONDOMINIUM PLAT 'MCCORMICK PLACE' IN PORTLAND, MAINE FOR SUAN PROPERTIES, LLC" DATED JULY 2004 BY DANIEL T.C. LAPOINT.
4. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY MADE FOR HARBORVIEW DEVELOPMENT LLC, NORTHWESTERLY SIDE OF YORK STREET, PORTLAND, MAINE" DATED DEC. 9, 2011 BY JAMES NADEAU, LLC.

WAIVERS GRANTED BY PLANNING BOARD ON JANUARY 28, 2014

1. STREET TREES: WAIVE THE ORDINANCE SECTION 14-526 (b) (2) (b) (iii) STREET TREES TO ALLOW FOR A CONTRIBUTION OF $6,000 TO THE CITY'S STREET TREE FUND TO BE SUBSTITUTED FOR THE PROVISION ON SITE OF THREE OF THE REQUIRED STREET TREES. GRANTED 1/28/14.
2. PARKING LOT AND PARKING SPACE DESIGN: WAIVE THE "TECHNICAL DESIGN STANDARD SECTION 1.14 PARKING LOT AND PARKING SPACE DESIGN TO ALLOW A DRIVE AISLE OF LESS THAN 24 FEET SUBJECT TO THE REQUIREMENT THAT THE BIKE RACK BE RELOCATED. GRANTED 1/28/14.

OFFSIGHT SNOW REMOVAL NOTES:

1. SNOW MAY BE STORED WITHIN THE TEMPORARY SNOW STORAGE AREAS ONLY.
2. SNOW SHALL BE PHYSICALLY REMOVED AND TRANSPORTED OFFSITE WITHIN 24 TO 48 HOURS FOLLOWING A SNOW STORM.
3. SNOW TRANSPORTED OFFSITE SHALL BE BROUGHT TO A MAINE DEP APPROVED "SNOW DUMP" OR MEET THE EXEMPTION REQUIREMENTS SPECIFIED WITHIN CHAPTER 573 WHEN THE ABOVE REQUIREMENTS CANNOT BE MET DUE TO AN ABUNDANCE OF SNOW.
4. THE SNOW CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO VEGETATION, LANDSCAPING, CURBING, LIGHTING, FENCING ETC. RESULTING FROM THEIR ACTIVITIES.
5. THE SNOW CONTRACTOR SHALL USE SALT OR CHLORIDE SUBSTITUTE TO DEICE THE PARKING LOT.
6. THE CONDOMINIUM ASSOCIATION IS RESPONSIBLE FOR SNOW REMOVAL BEING UNDERTAKEN IN A TIMELY FASHION.

SUBDIVISION PLAT, APPROVED BY THE CITY OF PORTLAND PLANNING BOARD

January 28, 2014
DATE

ZONE INFORMATION

ZONE: R-6, RESIDENTIAL
PERMITTED USE: MULTI-FAMILY DWELLING

SPACE STANDARDS	REQUIRED	PROVIDED
MINIMUM LOT SIZE	3,000 SQ. FT.①	7,483 SQ. FT.
MINIMUM AREA PER DWELLING UNIT	1,000/1,200 SQ. FT.②	7,483 SQ. FT.
MINIMUM STREET FRONTAGE	40 FEET	27.3 FEET
MINIMUM FRONT YARD	10 FEET	10.1 FEET
MINIMUM REAR YARD	5 FEET①	5 FEET
MINIMUM SIDE YARD	5 FEET①	5 FEET/11 FEET
MAXIMUM LOT COVERAGE	50%	31%
MINIMUM LOT WIDTH	40 FEET	105 FEET
MAXIMUM BUILDING HEIGHT	45 FEET	41 FEET
OPEN SPACE RATIO	20%	23.5%
OFF STREET PARKING	1 SPACE PER UNIT	1 PER UNIT

① PER SECTION 14-433

② EXISTING STRUCTURE: 1,000 SQ. FT. PER DWELLING UNIT
BLDG ADDITIONS/NEW CONSTRUCTION: 1,200 SQ. FT. FOR EACH DWELLING UNIT AFTER THE FIRST 3 UNITS. 6,000 REQUIRED

GENERAL NOTES

1. OWNER: 133 YORK, LLC, 110 MARGINAL WAY, SUITE 292, PORTLAND MAINE 04101, DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BK 30859, PG. 110, DATE JULY 22, 2013.
2. ENGINEER: PINKHAM & GREER CONSULTING ENGINEERS, 28 VANNAH AVENUE, PORTLAND, MAINE, 04103.
3. BOUNDARY INFORMATION PROVIDED BY OWEN HASKELL, INC. 390 US ROUTE ONE, FALMOUTH, MAINE. REFERENCE IS MADE TO "BOUNDARY & TOPOGRAPHIC SURVEY AT 133 YORK STREET, PORTLAND, MAINE MADE FOR JOE FLYNN REAL ESTATE" DATED 3/12/13 BY OWEN HASKELL, INC. FOR BOUNDARY INFORMATION.
4. ARCHITECT: HKTA ARCHITECTS, 482 CONGRESS STREET, PORTLAND, MAINE, 04101
5. ZONE: R-6, RESIDENTIAL, PROPOSED USE: MULTIFAMILY DWELLING
6. TAX MAP REFERENCE: MAP 44 / BLOCK A / LOTS 29 & 31.
7. TOTAL PARCEL = 0.172 acres
8. UNITS TO BE SERVICED BY PUBLIC WATER AND SEWER FROM YORK STREET. THESE SERVICES, INCLUDING HYDRANTS, ARE AS SHOWN ON SHEET C13, GRADING AND UTILITIES PLAN.
9. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND FROM YORK STREET. THESE SERVICES ARE SHOWN ON SHEET C13, GRADING AND UTILITIES PLAN.
10. EXISTING UTILITIES, INCLUDING SIZE AND VERTICAL AND HORIZONTAL LOCATIONS, ARE SHOWN ON SHEET C13, GRADING AND UTILITIES PLAN.
11. ALL WORK WITHIN THE RIGHT OF WAY IS TO MEET CITY OF PORTLAND STANDARDS.
12. THERE ARE NO APPARENT ONSITE EASEMENTS OR RESTRICTIONS BURDENING OR BENEFITING THE SUBJECT PROPERTY. A SEWER EASEMENT BENEFITS THE SUBJECT PROPERTY OVER THE PARCEL IDENTIFIED AS 121-123 YORK STREET AND DESCRIBED IN CCRD BOOK 22216, PAGE 211.
13. NO HISTORIC SITES OR STRUCTURES ON OR ADJACENT TO THIS SITE APPEAR ON OR ARE NOMINATED TO THE NATIONAL REGISTER.
14. PROPOSED PARKING SPACES: 6 SPACES.
15. THE SUBJECT PARCEL SHOWN AS 133 YORK STREET IS SUBJECT TO A CITY OF PORTLAND LEVEL III SITE PLAN AND SUBDIVISION PERMIT. APPROVAL GRANTED JANUARY 28th, 2014.
16. REFER TO THE 133 YORK STREET CONDOMINIUM DOCUMENTS FOR FURTHER INFORMATION REGARDING THE MAINTENANCE AND DESCRIPTION OF COMMON ELEMENTS AND LIMITED COMMON ELEMENTS AS RECORDED IN THE CCRD BOOK 31936 PAGE 229.
17. DETAILS OF STREET TREES ARE INCLUDED ON THE LANDSCAPE PLAN AS PART OF THE APPROVAL FOR 133 YORK STREET SITE PLAN.
18. FLOODPLAIN: THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 230051 0013 B, EFFECTIVE DATE JULY 17, 1986. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
19. SNOW REMOVAL REQUIREMENTS ARE AS NOTED ON THIS SHEET UNDER OFFSITE SNOW REMOVAL NOTES AND AS SPECIFIED IN THE CONDOMINIUM ASSOCIATION DOCUMENTS.
20. EXISTING TREE PRESERVATION AND PROTECTION MEASURES ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE CITY ARBORIST COMMENTS NOTED ON SHEET C1.4, EROSION CONTROL AND LANDSCAPE PLAN, AND AS SPECIFIED IN THE CONDOMINIUM ASSOCIATION DOCUMENTS.
21. NEW PROPERTY PINS TO BE SET AT THE EXPENSE OF THE DEVELOPER AT THE END OF CONSTRUCTION.

State of Maine, Cumberland SS.
Registry of Deeds
Received Aug 27, 2014
at 10 h 49 m A M and recorded in
Plan Book 214 Page 295
Attest: Register

THOMAS S. GREER No. 4208 REGISTERED PROFESSIONAL ENGINEER 7/22/14

JOHN W. SWAN No. 1036 REGISTERED LANDSCAPE ARCHITECT

REV.	DATE	DESCRIPTION
3	7/22/14	ISSUED FOR FINAL APPROVAL
2	1/7/14	REV'D PER STAFF REVIEW
1	12/9/13	REV'D PER CONDITIONS OF APPROVAL & STAFF COMMENTS

133 YORK, LLC
110 MARGINAL WAY, SUITE 292
PORTLAND, MAINE

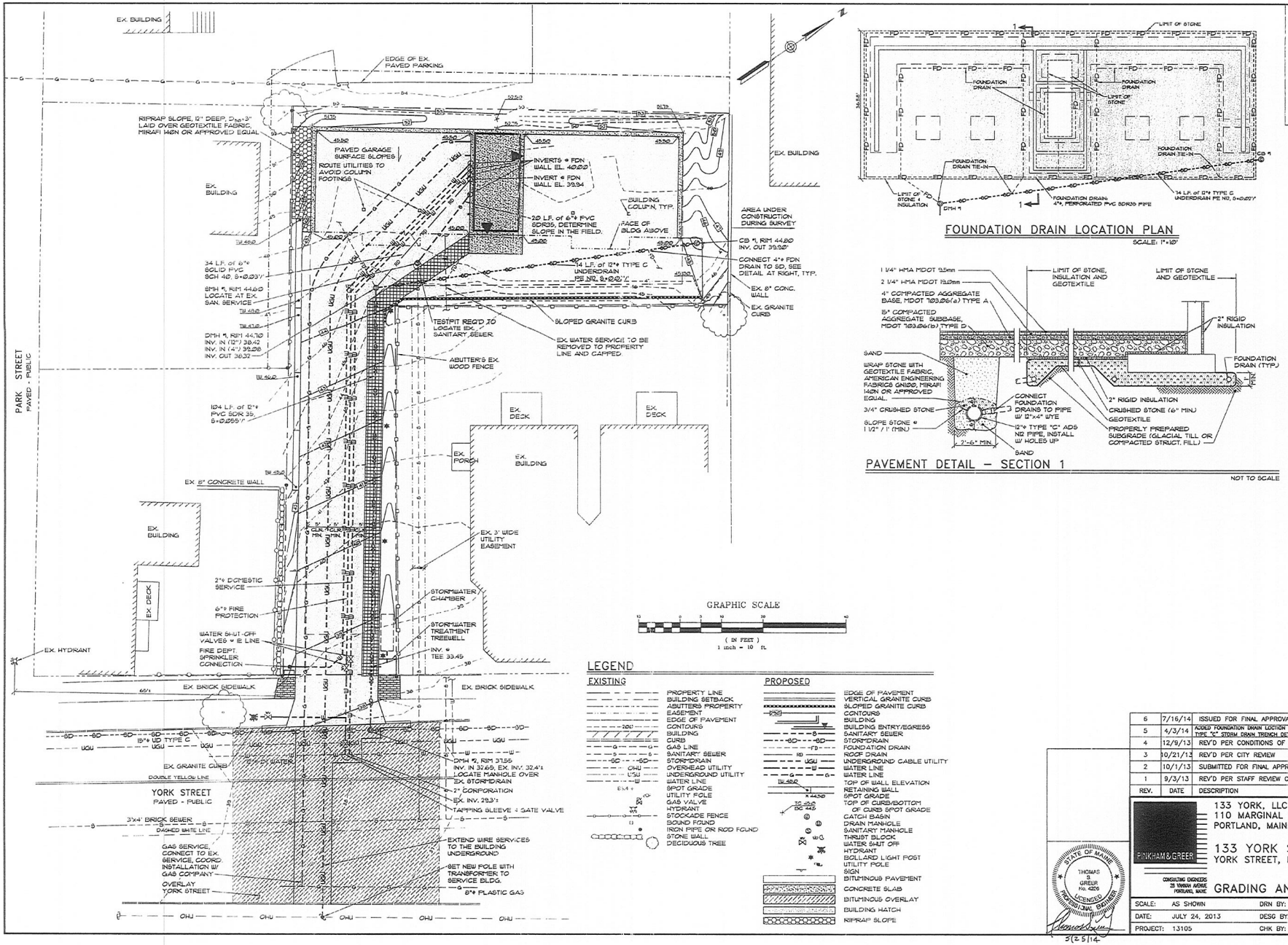
133 YORK STREET
YORK STREET, PORTLAND MAINE

CONSULTING ENGINEERS
28 VANNAH AVENUE
PORTLAND, MAINE

SUBDIVISION RECORDING PLAT

SCALE:	AS SHOWN	DRN BY:	
DATE:	OCTOBER 2, 2013	DESG BY:	TSG
PROJECT:	13105	CHK BY:	

C1.0



FOUNDATION DRAIN LOCATION PLAN

SCALE: 1"=10'

PAVEMENT DETAIL – SECTION 1

NOT TO SCALE

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

LEGEND

EXISTING

- PROPERTY LINE
- BUILDING SETBACK
- ABUTTERS PROPERTY
- EASEMENT
- EDGE OF PAVEMENT
- CONTOURS
- BUILDING
- CURB
- GAS LINE
- SANITARY SEWER
- STORMDRAIN
- OVERHEAD UTILITY
- UNDERGROUND UTILITY
- WATER LINE
- SPOT GRADE
- UTILITY POLE
- GAS VALVE
- HYDRANT
- STOCKADE FENCE
- SOUND FOUND
- IRON PIPE OR ROD FOUND
- STONE WALL
- DECIDUOUS TREE

PROPOSED

- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- SLOPED GRANITE CURB
- CONTOURS
- BUILDING
- BUILDING ENTRY/EGRESS
- SANITARY SEWER
- STORMDRAIN
- FOUNDATION DRAIN
- ROOF DRAIN
- UNDERGROUND CABLE UTILITY
- WATER LINE
- WATER LINE
- TOP OF WALL ELEVATION
- RETAINING WALL
- SPOT GRADE
- TOP OF CURB/BOTTOM OF CURB SPOT GRADE
- CATCH BASIN
- DRAIN MANHOLE
- SANITARY MANHOLE
- THRUST BLOCK
- WATER SHUT OFF
- HYDRANT
- BOLLARD LIGHT POST
- UTILITY POLE
- SIGN
- BITUMINOUS PAVEMENT
- CONCRETE SLAB
- BITUMINOUS OVERLAY
- BUILDING HATCH
- RIPRAP SLOPE

REV.	DATE	DESCRIPTION
6	7/16/14	ISSUED FOR FINAL APPROVAL
5	4/3/14	ADDED FOUNDATION DRAIN LOCTION PLAN, BITUMINOUS PARKING PAVING DETAIL & TYPE "C" STORM DRAIN TRENCH DETAIL
4	12/9/13	REV'D PER CONDITIONS OF APPROVAL & STAFF COMMENTS
3	10/21/13	REV'D PER CITY REVIEW
2	10/1/13	SUBMITTED FOR FINAL APPROVAL
1	9/3/13	REV'D PER STAFF REVIEW COMMENTS

133 YORK, LLC
110 MARGINAL WAY, SUITE 292
PORTLAND, MAINE

133 YORK STREET
YORK STREET, PORTLAND MAINE

PINKHAM & GREER
CONSULTING ENGINEERS
28 VAUGHN AVENUE PORTLAND, MAINE

GRADING AND UTILITIES PLAN

STATE OF MAINE — THOMAS S. GREER No. 4209 — LICENSED PROFESSIONAL ENGINEER

5/25/14

SCALE:	AS SHOWN	DRN BY:	JDC
DATE:	JULY 24, 2013	DESG BY:	TSG
PROJECT:	13105	CHK BY:	TSG

C1.3

DESIGN

TREE FILTER WELL BMP SIZING

DETERMINE WATER QUALITY VOLUME (WQV)
- TRIBUTARY IMPERVIOUS AREA (SF) _____ SF
- CRITICAL AREA USE 1.0"
- OTHER AREA USE 0.5"
- ENTER DECIMAL IN INCHES _____ DIRECT RUNOFF
- REQUIRED WQV _____ CF

TREE WELL WQV
- TREE WELL DIAMETER (4' OR 5') _____ FT. IN DIAMETER (*SEE DESIGN NOTE #8 BELOW)
- GROWTH MEDIUM (2' MIN.) DEPTH* _____ *15% VOIDS AVAILABLE ONLY STONE NOT GROWTH MEDIUM
- TREE WELL DEPTH (FT.) _____ FT. IN DEPTH
- WQV PROVIDED _____ CF

NUMBER OF TREE FILTER WELLS NEEDED _____

DETERMINE INFILTRATION CAPACITY

SELECT SOIL TYPE	
SOIL	INFILTRATION RATE (IN/HR)
SAND	8.27
LOAMY SAND	2.41
SANDY LOAM	1.02
LOAM	0.52
SILT LOAM	0.27
SANDY CLAY LOAM	0.17
CLAY LOAM	UNSUITABLE
SILTY CLAY LOAM	UNSUITABLE
SANDY CLAY	UNSUITABLE
SILTY CLAY	UNSUITABLE
CLAY	UNSUITABLE

- SPECIFY INFILTRATION RATE _____ IN/HR
- SPECIFY SURROUNDING STONE THICKNESS _____ FT

INFILTRATION FOR EACH TREE FILTER WELL
- BOTTOM INFILTRATION RATE _____ CFS
- SIDEWALL INFILTRATION RATE PER FOOT OF DEPTH _____ CFS
- TOTAL SIDEWALL INFILTRATION RATE** _____ CFS **ASSUMES 2 ADDITIONAL FEET OF SIDEWALL DUE TO GROWTH MEDIUM.
- TOTAL INFILTRATION RATE _____ CFS

INVERT SCHEDULE

DESCRIPTION		ELEVATION
TOP OF RISER	=	_____
BOTTOM OF MULCH	=	_____
BOTTOM OF MEDIA/RISER	=	_____
12" PERF PVC SUBDRAIN	=	_____
BOTTOM OF 1/2" WASHED STONE	=	_____
ESHGWE (2' MIN. SEPARATION)	=	_____

GREEN STREET SYSTEMS, LLC
427 COLUMBIA ROAD - HANOVER, MA 02339
TEL. (781) 312-7236 FAX (781) 826-6665
www.greenstreetsystems.com

TREE FILTER DESIGN GUIDE NOTES:

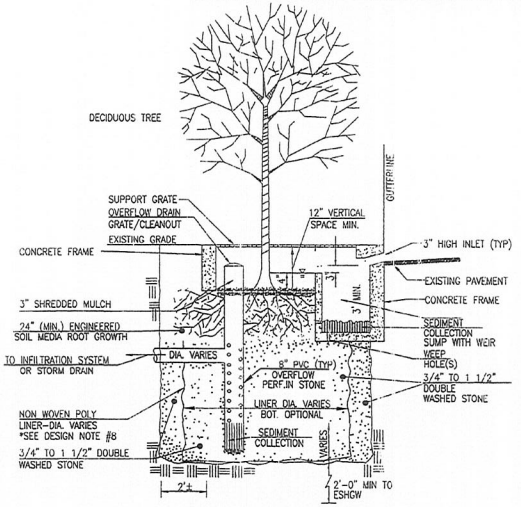
1. GREEN STREET SYSTEMS ARE INTENDED TO BE ECONOMICAL, LOW IMPACT DEVELOPMENT (LID), STORMWATER MANAGEMENT TREATMENT SYSTEM(S) TO ENHANCE A SITE'S OVERALL STORMWATER SYSTEM.
2. THE DESIGN ENGINEER IS RESPONSIBLE TO COMPLETE SUBSURFACE SOIL EXAMINATIONS CLASSIFICATIONS, PERMEABILITY RATES AND ESTIMATED SEASONAL HIGH GROUNDWATER ELEVATION DETERMINATIONS TO FACILITATE THE PROPER SIZING AND INSTALLATION OF THE SYSTEM(S).
3. DO NOT INSTALL THE SYSTEM AT LOW POINTS OR IN AREAS WHICH RECEIVE DIRECT SHALLOW CONCENTRATED OR CHANNEL FLOWS INTO THE SYSTEM. GRADING WILL ACCOMODATE LINEAR FLOWS INTO THE SYSTEM. GRADE FLOW IN ONE DIRECTION LINEARLY PAST THE THROAT INLET. OPPOSING FLOWS INTO THE THROAT INLET WILL CAUSE MAINTENANCE PROBLEMS AND DISTURBANCE OF THE MEDIA.
4. DESIGN SYSTEM TO RECEIVE INITIAL CRITICAL AREA RUNOFF, WITH BYPASS FLOWS INCORPORATED INTO THE DESIGN TO ACCOMODATE HIGHER FREQUENCY STORMS. ENSURE THE BYPASS ELEVATIONS ALLOW FOR POSITIVE FLOW PAST THE SYSTEM.
5. POSITIVE DRAINAGE IS REQUIRED FOR PROPER TREATMENT OF SURFACE RUNOFF ENTERING INTO THE SYSTEM. DESIGN FOR A 2 FOOT MINIMUM VERTICAL SEPARATION FROM ESTIMATED SEASONAL HIGH GROUNDWATER.
6. PROVIDE A 3" (MIN.) TRAP THROAT HEIGHT TO ENSURE SMALL DIMENSION FLOATABLES ARE CAPTURED IN THE ENTRANCE SUMP.
7. ENSURE OUTLET DRAINS ARE SIZED TO ACCOMODATE SEPARATION FROM GROUNDWATER. DESIGN STORM FLOWS AND POSITIVE DRAINAGE.
8. THE SHAPE AND SIZE OF THE LINER CAN VARY TO ACCOMODATE SITE CONSTRAINTS AND DRAINAGE AREAS.

MAINTENANCE SCHEDULE

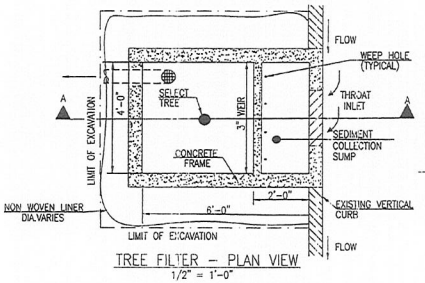
ACTIVITY	FREQUENCY
INSPECT/CLEANING	SURFACE CLEANING (TRASH (MONTHLY))
INSPECT/REPLENISH MULCH	ANNUALLY
REMOVE DEAD VEGETATION	ANNUALLY
REPLACE DEAD VEGETATION	AS NECESSARY
PRUNE	AS NECESSARY
SEDIMENT TRAP CLEANING	QUARTERLY
IRRIGATE	DURING TIMES OF EXTREME DROUGHT

ALL INSPECTIONS ARE TO BE PERFORMED AND DOCUMENTED IN ACCORDANCE WITH FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS. OWNER WILL KEEP PERMANENT RECORDS OF THE INSPECTIONS.

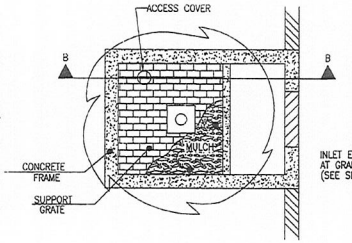
DETAILS AND SECTIONS



TREE FILTER – CROSS SECTION A-A
1/2" = 1'-0"

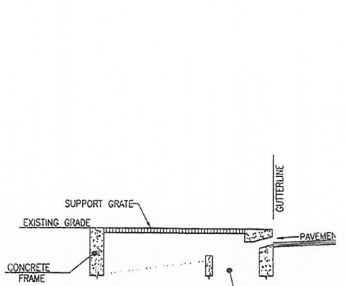


TREE FILTER – PLAN VIEW
1/2" = 1'-0"



TREE FILTER – SURFACE VIEW
1/2" = 1'-0"

INLET END OF FRAME SET AT GRADE TO MATCH EXISTING (SEE SECTION A-A)



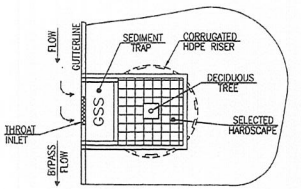
SURFACE – CROSS SECTION B-B
1/2" = 1'-0"

CONSTRUCTION NOTES AND SPECIFICATIONS

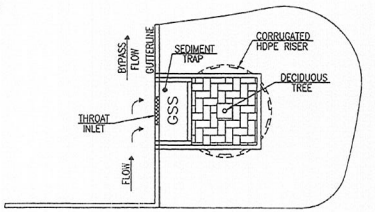
TREE FILTER CONSTRUCTION NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORD INFORMATION AND MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES CONFLICTING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SECURE ALL NECESSARY STATE, MUNICIPAL AND UTILITY PERMITS AND VERIFY THE PROPOSED LOCATION OF UTILITIES WITH UTILITY COMPANIES.
3. **GREEN STREET SYSTEMS, LLC. TREE FILTER** TO BE DESIGNED AND INSTALLED AS PER FEDERAL, STATE, LOCAL AND **GREEN STREET SYSTEMS, LLC.**, REQUIREMENTS.
4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED. ALL EROSION CONTROL MEASURES SHALL BE ROUTINELY INSPECTED, CLEANED AND REPAIRED/REPLACED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION.
5. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR BE SEEDED FOR TEMPORARY VEGETATIVE COVER.
6. DURING CONSTRUCTION OF THE TREE FILTER SYSTEM, THE FOLLOWING MEASURES SHALL BE TAKEN:
   A. ALL STOCKPILES SHALL BE STORED DOWN GRADIENT OF THE EXCAVATION TO ENSURE THAT ANY POTENTIAL SEDIMENT DOES NOT REACH THE LOW IMPACT DEVELOPMENT (LID) AREA.
   B. ALL WATER RESULTING FROM DEWATERING ACTIVITIES SHALL BE DIRECTED AWAY FROM THE LID AREAS TO AN AREA DETERMINED BY THE ENGINEER.
   C. NO STORMWATER SHALL BE DISCHARGED INTO THESE FACILITIES UNTIL THE CONTRIBUTING AREAS ARE FULLY STABILIZED WITH PAVEMENT, VEGETATION OR OTHER PERMANENT SURFACE.
7. SILT BAGS OR HAYBALES SHALL BE UTILIZED AT ALL EXISTING AND PROPOSED TREE FILTERS SUBJECT TO STORMWATER RUNOFF FROM PROPOSED FILL AREAS DURING CONSTRUCTION, OR AS DIRECTED BY THE OWNER/ENGINEER. NO SEDIMENT SHALL ENTER THE TREE FILTER OR EXCAVATION AREA.
8. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.
9. RUNOFF WILL NOT BE ALLOWED TO ENTER THE TREE FILTER SYSTEM UNTIL ALL AREAS ARE PAVED, LANDSCAPED AND PERMANENTLY STABILIZED OR VEGETATED.

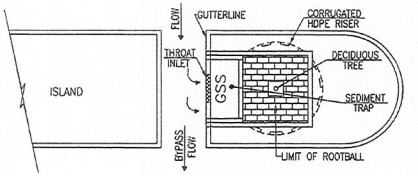
VARIOUS CONFIGURATIONS



GUTTER LINE FLOW
(NOT TO SCALE)



CORNER FLOWS
(NOT TO SCALE)



ISLAND FLOW
(NOT TO SCALE)

SIMILAR SYSTEM TO BE USED FOR 133 YORK STREET

IMPORTANT NOTES

1. THE PURPOSE AND INTENT OF THIS SHEET IS TO PROVIDE GENERAL DESIGN GUIDANCE, CONSTRUCTION DETAILS AND SPECIFICATIONS TO ASSIST IN THE PLANNING AND IMPLEMENTATION OF THE TREE FILTER.
2. USE OF THIS INFORMATION IS WITH THE SPECIFIC PERMISSION OF **GREEN STREET SYSTEMS, LLC.** (PATENT PENDING).
3. DESIGNER AND GENERAL CONTRACTOR SHOULD CONTACT GREEN STREET SYSTEMS, LLC FOR SITE

GREEN STREET SYSTEMS TREE FILTER

DRAWN BY: JR/SK/PI
DESIGNED BY: PI/RCM
CHECKED BY: RCM

GREEN STREET SYSTEMS, LLC
427 COLUMBIA ROAD - HANOVER, MA 02339
TEL. (781) 312-7236 FAX (781) 826-6665
www.greenstreetsystems.com

TREE FILTER
GENERAL DESIGN
CONSTRUCTION DETAILS
AND SPECIFICATIONS

VERSION 1.00
JUNE 26, 2009
SCALE: AS NOTED

GENERAL DESIGN DETAILS & SPECIFICATIONS
C2.4

133 YORK STREET
PORTLAND, MAINE
June 19, 2013
(Revised October 21, 2013)
(Revised July 25, 2014)

POST CONSTRUCTION MONITORING:

The Condominium Association is required to hire a qualified post construction stormwater inspector to inspect the stormwater system on an annual basis. This includes the sweeping of the parking lot, catch basin, and tree well system, in accordance with Section 32-38 of the City's Ordinance.

Based on the inspection, the Owners shall take corrective action on any systems requiring maintenance. A record of all inspections and corrective action must be kept.

Reporting: On or before June 30th of every year the qualified inspector shall file a report with DPS, of the City, noting the system's condition and any maintenance or corrective action that has been taken.

INSPECTION AND MAINTENANCE:

Stormwater Management Facilities include, but not limited to the catch basins, piping, tree box filter, stormwater chamber, valves, swales, paved surfaces, manholes, drain pipe, riprapped aprons, and level spreaders etc. Periodic inspection and maintenance of these site features and devices is necessary to prevent erosion, protect roadways and other paved areas, and remove pollutants from stormwater runoff.

SWALES, DITCHES, CURBS AND PAVED AREAS:

Swales, ditches, curbs and paved areas are easily inspected during a site walk or even a ride-by. Since visual inspection is easy, their condition should be assessed during and/or after significant rainfall events such as thunder showers and periods of heavy or extended rainfall and during periods of significant snowmelt. Any damage or unusual condition such as sedimentation of a ditch, erosion, damaged curb or dying vegetation should be recorded, dated and initialed by the inspector when observed. Even if there is no damage, the inspector should make record of these inspections at least twice annually.

Paved areas should be visually inspected monthly during the winter. The inspector should pay particular attention to the build up of sand around catch basin grates and remove accumulations that block the free flow of surface runoff to the catch basins. The date and initials of the inspector should be recorded on the forms provided as well as a notation of any cleanup effort that was made and the approximate volume of sand that was removed.

DRAIN PIPES:

Drain pipes are road culverts and pipes connecting drain manholes. Inspect drain pipes when inspecting other stormwater maintenance facilities. At least annually make a visual inspection of the pipe. During the daylight you should be able to see light through most pipes as they have been laid to a straight line and grade. In some cases (e.g. pipe runs to a drain manhole, or is blocked) you will need a light to inspect pipes.

Clean pipes as necessary. Record inspections on the forms provided noting condition of pipe and any maintenance procedures implemented.

TREE FILTER SYSTEM:

The tree filter system is located at the end of the driveway near York Street. The purpose of the system is to provide treatment of stormwater from the entire parking lot, roof, and other landscaped areas graded to drain to the parking area. It is important that proper maintenance is performed to insure the system is operating efficiently.

Maintenance of the tree filter system should optimally be performed on a twice yearly basis: in fall after leaves have fallen; in spring, following all winter sanding operations. If winter sanding operations are not customarily performed or impact the system, or minimal accumulation occurs, once yearly maintenance may only be necessary. Following are the appropriate maintenance and inspection procedures:

1. Remove any apparent diseased or damaged tree branches; prune tree for health and aesthetics as necessary.

2. Remove any debris or trash from the concrete surface and/or grating.

3. Remove any debris, trash or obstacles from curb inlet (throat) opening.

4. Remove surface grating surrounding the tree to access media (mulch) surface; remove any visible debris and trash. Should any accumulated sands or sediment be observed on the mulch surface, remove to assure a loose and unobstructed mulch layer. Replace or replenish hardwood mulch as necessary to maintain an optimum depth of three inches.

5. If overflow port and piping exist, remove any debris or obstruction surrounding the exposed inlet.

6. If separate, remove grating overlying pre-treatment sump (catch basin).

7. Remove any bottles, cans, or trash from the catch basin.

8. If a vactoring system is to be utilized, commence vacuuming sands and sediment from the interior of the catch basin. If hand tools are to be utilized, shovel out as necessary.

9. Replace all grating and securely fasten any hardware.

10. Complete any required maintenance logs or paperwork.

11. Properly dispose of sands, sediment, debris, and trash.

Inspect tree annually. Provided that it is not disturbed or physically damaged, under normal growing conditions, the tree should mature naturally such as other landscaped trees, and therefore, should not require replacement. If for any reason tree replacement is required, the trunk and associated root mass should be removed. The mulch and soil (engineered media), to a depth of approximately two feet, should also be removed. Although not a proprietary product, the engineered media is a specially blended mixture of several components formulated to maintain a specific infiltration capacity. Please consult Green Street Systems at 781-534-2218 directly regarding media replacement or for additional information.

133 YORK STREET
PORTLAND, MAINE

INSPECTION / MAINTENANCE LOG

SWALES, DITCHES, CURBS AND PAVED SURFACES

I: INSPECTED - C: CLEANED - S: SWEPT - R: REPAIRED

DATE	INITIALS	ACTION	COMMENT
12/3/12	RST	I, C	EXAMPLE: removed sand around CB's 1, 2 and 3. Heavy rain over the weekend.

133 YORK STREET
PORTLAND, MAINE

INSPECTION / MAINTENANCE LOG

DRAIN PIPES

I: INSPECTED - C: CLEANED - R: REPAIRED

DATE	INITIALS	ACTION	COMMENT
12/3/12	JKL	I, C	EXAMPLE: Called ACME to clean catch basins, cleaned debris from culvert inlets along access road.

133 YORK STREET
PORTLAND, MAINE

INSPECTION / MAINTENANCE LOG

TREE FILTER SYSTEM

I: INSPECTED - C: CLEANED - R: REPAIRED

DATE	INITIALS	ACTION	COMMENT
4/28/10	MNO	I, C	EXAMPLE: Removed debris from curb inlet opening. Trimmed dying branches from tree.

STORMWATER MANAGEMENT SYSTEM
MAINTENANCE PROGRAM
SUMMARY CHECKLIST

Item	Commentary	Frequency			
		Month	Semi-Annual	Annual	Long-Term
Pond side slopes	Inspect slopes for sloughing, erosion or undesirable tree growth. Mow slopes to control vegetation, repair any structure flaws identified	**X Mow Summer**		**X**	
Pond Sediment Removal	Remove sediment when it occupies 15% of volume.				**X 5 Years**
Open Swale, Ditches & Inlet Structures	Inspect for debris accumulation, erosion and excessive vegetation. Mow monthly, remove debris, repair and revegetate any area of erosion	**X Mow**		**X**	
Pavement	Review for damage and buildup of debris and sand.	**X**	**X Sweep**		
Catchbasin and Drain Manholes	Inspect grates to assure optimum water flows into the structures. Inspect sump and casco traps for blockage and sediment accumulation. Clean out sumps.	**X Inspect**		**X Sediment removal**	
Outlet Control Structures	Inspect inlet device, sump and control plates. Remove any blocking material. Clean sump.	**X**		**X Sediment removal**	
Pipelines	Inspect for sediment build-up in pipe. Flush and remove as required.			**X**	
Oil/Grit Separators	Inspect for debris and sediment accumulation. Remove as necessary.	**X Inspect**		**X Sediment removal**	
Wooded Buffer	Review and Inspect for erosion.			**X**	
Tree Filter	Checked sediment and tree health		**X**		