



**VIA: HAND DELIVERY**

January 10, 2018

Mr. Richard Canale, Chairman  
Lexington Planning Board  
Town Hall, 1625 Massachusetts Avenue  
Lexington, Massachusetts 02420

**Re: Preliminary Subdivision Plan Application  
1106 Massachusetts Avenue  
Lexington, Massachusetts  
MAI Project No. 6009**

Dear Chairman Canale and Members of the Board:

On behalf of Thomas J. Cataldo, Trustee of Vasiliki Realty Trust (Applicant), Meridian Associates, Inc. (MAI) is pleased to submit the accompanying Preliminary Subdivision Plan Set in accordance with Chapter 175-5.0 of the Town of Lexington Development Regulations. The site is comprised of one (1) existing property located within the Single-Family Residential Zoning District (RS).

The parcel is identified on the Town of Lexington Assessor's Map 30 as Lot 65. The lot has an area of 1.46 acres, and site features currently existing include a single-family dwelling, a gravel driveway, a brick patio, an in-ground pool, a wood shed, remains of a bituminous berm, and grassed and wooded areas. The properties abut land supporting single-family dwellings in a RS district in all directions.

This applicant is proposing a three (3) lot conventional subdivision.

In support of this filing we are providing the following information:

- One (1) original and two (2) copies of the Form B Application;
- One (1) original and two (2) copies of this Cover Letter;
- One (1) original and two (2) copies of the Designers Certificates (G-CE, G-LS and G-LA);
- Four (4) full size size copies of the Preliminary Subdivision Plan Set (set of seven sheets – (a) Cover Sheet / Locus Context Map, (b) Record Conditions, (c) Site Analysis Map, (d) Site Construction Plan, (e) Site Utility Plan, (f) Site Details and (g) Site Details)



- Four (4) copies of the “Stormwater Management Report”
- One (1) computer disk containing all documents and plans denoted above in a PDF format.

We look forward to meeting with the Board at a date and time yet to be determined to discuss the development options. Please do not hesitate to contact us in advance of the meeting date if you have questions or require additional information.

Sincerely,

**MERIDIAN ASSOCIATES, INC.**

Michael J. Novak., P.E.  
Senior Project Manager

P:\6009\_Lexington\_Mass Ave\_Maple St\ADMIN\Reports\Definitive\Applications & Certs\Planning-Definitive.doc

Enclosures

cc: Vasiliki Realty Trust, Thomas J. Cataldo, Trustee (1 Set)  
Lexington Town Clerk's Office (1 Set)  
Heath Department (1 Set)



### Town of Lexington PLANNING OFFICE

Land Use, Health and Development Department  
1625 Massachusetts Avenue  
Lexington, MA 02420

Tel: (781) 698-4560

### FORM B GENERAL APPLICATION FOR APPROVAL OF A PLAN FOR DEVELOPMENT

Date: 01/10/2018

To the Planning Board:

NAME OF PROJECT: 1106 Massachusetts Avenue

#### A. TYPE OF APPLICATION

- Preliminary or definitive subdivision plan, per §175-5.0 or §175-6.0
- Minor site plan review, per §176-9.0
- Major site plan review, per §176-9.0
- Special permit residential development, per §135-6.9
- Adequacy determination of an unaccepted street, per § 176-7.0
- Review of a zoning amendment for a planned development (PD) district, per §135-7.3

#### B. A. TYPE OF PLAN

The accompanying plan is a:

Sketch     Preliminary     Definitive

Extension     Rescission

For a:

Residential Development

Non-residential Development

Received by Planning Board:

Space for Town Clerk

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**B. DESCRIPTION OF LAND**

All property included in the plan:

- 1. Street Address: 1106 Massachusetts Avenue Map-Lot #: Map 30 - Lot 65
- 2. Street Address: \_\_\_\_\_ Map-Lot #: \_\_\_\_\_
- 3. Street Address: \_\_\_\_\_ Map-Lot #: \_\_\_\_\_

Please add more if necessary.

**C. COST ESTIMATE**

For projects filed under §135-6.9 please complete Form SC

**D. APPLICANT AND OWNER INFORMATION**

Note: The Zoning and Subdivision Regulations permit a person other than the owner to file an application, with the written permission of the owner, and if the applicant states the nature of their interest.\*

Applicant's Name: Vasiliki Realty Trust  
Thomas J. Cataldo, Trustee

Is the applicant also the owner?  Yes  No

Signature of Applicant: *Thomas J. Cataldo*

Applicant's Business address: 121 Marrett Road, Lexington, Massachusetts 02421

Applicant's Phone Number: (781) 861-1775

Applicant's Email Address: Shelcorp@aol.com

If the applicant is not the owner what is the nature of interest in the land?

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\*For projects filed under §135-6.9 if the applicant is not the owner the applicant must attach a copy of a purchase and sale agreement, or other instrument of future sale, to this application.

Note: The Planning Department requires that one-person act as coordinator/contact person for an application. That person is assumed the applicant unless a member of the development team is designated.

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**SIGNATURES OF OWNERS**

*Note: The owners of all land affected by this development must sign this application. If necessary, complete table two, or file a separate sheet, for multiple parcels/owners.*

Table 1

Map-Lot #: Map 30 - Lot 65	Map-Lot #:
Name of Owners (print)	
Owner 1: Vasiliki Realty Trust Thomas J. Cataldo, Trustee	
Owner 2:	
Signature of Owner 1	Signature of Owner 2
<i>Vasiliki Realty Trust</i>	

Table 2

Map-Lot #:	Map-Lot #:
Name of Owners (print)	
Owner 1:	
Owner 2:	
Signature of Owner 1	Signature of Owner 2

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**E. CALCULATION OF FEE**

Type of Application or Action:	Number of Lots	Rate per Lot	Sub Total	Fixed Rate	Total
Filing Fee:	3	* \$500	= \$1,500	+ \$1,000	= \$2,500
*Creditable Prior Payment					
Total Filing Fee due with application					\$2,500

Schedule of Administrative Fees. The following schedules apply to the types of applications to the Board:

Application Types	Fees
Residential Preliminary Subdivision	
1 to 3 Lots	\$1,000 plus 500 per lot
4 to 8 Lots	\$1,500 plus 500 per lot
More than 9	\$2,000 plus 500 per lot
Non-Residential Preliminary Subdivision	\$2,000 plus 500 per lot
Residential Definitive Subdivision	
1 to 3 Lots	\$2,000 plus 500 per lot
4 to 8 Lots	\$3,000 plus 500 per lot
More than 9	\$4,000 plus 500 per lot
Non-Residential Definitive Subdivision	\$4,000 plus 500 per lot
Modifications	\$1,500

Application Types	Fees
Unaccepted Street Determination, §176-7.0	\$2,000
Special Permitting, §176-6.0	
Residential Sketch Plan	\$1,500 plus \$500 per proof plan lot
Residential Special Permit	\$3,000 plus \$500 per proof plan lot
Nonresidential Sketch Plan	\$1,500 plus \$50 per 1,000 SF of GFA
Nonresidential Special Permit	\$3,000 plus \$50 per 1,000 SF of GFA
Site Plan Review, §176-9.0	
Minor site plan review	\$500
Major site plan review	\$1,500
PD rezoning, §176-8.0	
Sketch PSDUP	\$500
Final PSDUP	\$2,000

\*One payment of a fee for a residential preliminary plan is creditable to the initial fee for a definitive plan. If more than one fee is paid for a preliminary plan, only the first of those payments is creditable to the initial fee for a definitive plan.

**F. DEVELOPMENT TEAM**

	Landscape Architect	Civil Engineer	Land Surveyor	Attorney
Name	Jacqueline B. Trainer	Michael J. Novak, PE	Scott M. L'Italien, PLS	
Mass. Registration #	1526	50696	50815	N/A
Name of Firm	Meridian Associates, Inc.	Meridian Associates, Inc.	Meridian Associates, Inc.	
Mailing Address	500 Cummings Center, Suite 5960 Beverly, MA 01815	500 Cummings Center, Suite 5850 Beverly, MA 01915	600 Cummings Center, Suite 5850 Beverly, MA 01915	
Telephone #	(978) 299-0447	(978) 299-0447	(978) 299-0447	
FAX #	(978) 299-0567	(978) 299-0567	(978) 299-0567	
(If applicant is not coordinator/contact person, designate one person for that role) Project Contact - Michael Novak (978-299-0447 ext. 228)				



**Town of Lexington  
Planning Office**

Land Use, Health and Development Department  
1625 Massachusetts Avenue  
Lexington, MA 02420

Tel: (781) 698-4560

FORM G-CE

**DESIGNER'S CERTIFICATE  
CIVIL ENGINEER**

01/10/2017

(date)

To the Planning Board:

Assessor's map and lot #: 1106 Massachusetts Avenue: Assessor's Map 30 - Lot 65

Development application type: Preliminary Subdivision Plan

I hereby certify that: (Please fill in the relevant blanks.)

1. the accompanying plan, entitled Preliminary Subdivision Plan Set; 1106 Massachusetts Avenue, Lexington, Massachusetts

and dated 01/10/2018, is true and correct to the accuracy required by the Rules and Regulations of the Lexington Planning Board;

2. that the completed construction complies with the approved definitive subdivision plan, any written changes made after the approval of the plan and the Standard Specifications;

3. other: N/A

Identifying information of Civil Engineer:

Michael J. Novak, PE

Civil Engineer

500 Cummings Center, Suite 5950

Beverly, MA 01915

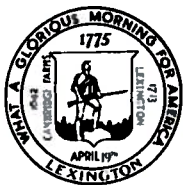
Address

(978) 299-0447

Phone







**Town of Lexington  
Planning Office**

Land Use, Health and Development Department  
1625 Massachusetts Avenue  
Lexington, MA 02420

Tel: (781) 698-4560

**FORM G-LS  
DESIGNER'S CERTIFICATE  
LAND SURVEYOR**

01/10/2018

(date)

To the Planning Board:

Assessor's map and lot #: 1106 Massachusetts Avenue: Assessor's Map 30 - Lot 65

Development application type: Preliminary Subdivision Plan

I hereby certify that: (Please fill in the relevant blanks.)

1. the accompanying plan, entitled: Preliminary Subdivision Plan Set; 1106 Massachusetts Avenue, Lexington, Massachusetts

and dated 01/10/2018, is true and correct to the accuracy required by the Rules and Regulations of the Lexington Planning Board;

2. all required bounds, monuments or markers delineating the right-of-way of any street, or of any easement, or any walk or path, or any lot, as shown on the approved definitive subdivision plan, have been correctly located and permanently set;

3. other N/A

Identifying information of Land Surveyor:

Scott M. L'Italien, PLS  
Land Surveyor

500 Cummings Center, Suite 5950

Beverly, MA 01915  
Address

(978) 299-0447  
Phone





**Town of Lexington  
Planning Office**

Land Use, Health and Development Department  
1625 Massachusetts Avenue  
Lexington, MA 02420

Tel: (781) 698-4560

FORM G-LA

**DESIGNER'S CERTIFICATE  
LANDSCAPE ARCHITECT**

01/10/2018

(date)

To the Planning Board:

Assessor's map and lot #: 1106 Massachusetts Avenue: Assessor's Map 30 - Lot 65

Development application type: Preliminary Subdivision Plan

I hereby certify that: (Please fill in the relevant blanks.)

1. the accompanying plan, entitled: Preliminary Subdivision Plan Set; 1106 Massachusetts Avenue, Lexington, Massachusetts

and dated 01/10/2018, is true and correct to the accuracy required by the Rules and Regulations of the Lexington Planning Board;

2. the planting of all trees and other plant materials complies with the approved definitive subdivision plan, any written changes made after the approval of the plan and the Standard Specifications;

3. other: N/A

Identifying information of Landscape Architect:

Jacqueline B. Trainer  
Landscape Architect

500 Cummings Center, Suite 5950

Beverly, MA 01915  
Address

(978) 299-0447  
Phone



Please fax the signed form to the Planning Department, (781) 861-2748. It must accompany the legal notice when we fax it to Community Classifieds.

Date: 01/10/2018

Legal Ads  
Community Newspaper Company  
P.O. Box 9113  
Needham, MA 02192-9113

To whom it may concern:

I hereby authorize Community Newspaper Company to bill me directly for the legal notice to be published twice in the Lexington Minuteman newspaper for a public hearing with the Lexington Planning Board in connection with the

Signed: \_\_\_\_\_



Name Printed: Todd Cataldo

Address 121 Marrett Road  
Lexington, MA 02421

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Phone #: 781-861-1775

# **STORMWATER MANAGEMENT**

*for a*

## **PRELIMINARY SUBDIVISION**

*at*

**1106 MASSACHUSETTS AVE  
LEXINGTON, MASSACHUSETTS**

### **Prepared for:**

Sheldon Corporation  
121 Marrett Road  
Lexington, Massachusetts 02421

### **Prepared by:**

Meridian Associates, Inc.  
500 Cummings Center, Suite 5950  
Beverly, Massachusetts 01915  
(978) 299-0447



## **Stormwater Management Standards**

### **Project Narrative:**

The project site is comprised of one (1) existing single-family lot. The parcel is identified on the Town of Lexington Assessor's Map 30 as Lot 65. The existing lot has an area of 1.46 acres, with existing site features currently including a single-family dwelling, a gravel driveway, an in-ground pool, a wood shed, stone walls, remains of a bituminous berm, and grassed and wooded areas. The properties abut land supporting single family dwellings in a RS district in all directions and an Historic District northwest and southeast of the site.

The applicant is proposing to subdivide the above-mentioned lot into a conventional subdivision with three (3) single-family dwellings.

This proposal will utilize conventional stormwater management techniques including water quality inlets, area drains and subsurface infiltration systems for the treatment and mitigation of stormwater.

The following is a summary of how the proposed preliminary subdivision project will meet the DEP Stormwater Standards:

#### **Standard 1: No new stormwater conveyances may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.**

There are no untreated stormwater conveyances proposed to discharge to wetlands or waters of the Commonwealth from the project.

#### **Standard 2: Peak Rate Attenuation - Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.**

For the purpose of analyzing pre- and post-development stormwater peak rates of runoff, four (4) design points will be selected based on existing topographic conditions which will be used for both the pre- and the post-peak rate calculations. The design points are the abutting property southeast of the site, the drainage system within Massachusetts Avenue, and an existing roof drain system on site.

The storm events that will be used to calculate peak runoff rates for pre- and post-construction conditions are compiled from the Northeast Regional Climate Center "Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada." A full detail of peak rate attenuation along with supplemental stormwater calculations utilizing HydroCAD as well as pre- and post-drainage site plans will be submitted with the Definitive Subdivision Application. The details of this report will show that the peak rates of runoff for the 2-year, 10-year and 100-year events have been either maintained or reduced from pre- to post-development conditions through the use of deep sump catch basins and subsurface infiltration systems.

For the purpose of this Preliminary Subdivision Application the Proposed Subsurface Infiltration System (PSIS) was sized to fully capture and infiltrate the impervious area from the right of way (this includes the roadways, sidewalks and driveway aprons) for up to, and including, the 100-year design storm event. A HydroCAD analysis has been attached illustrating the sizing of the infiltration basin for the 100-year design storm event. All proposed roof runoff will be captured and infiltrated on the individual lots.

**Standard 3: Recharge - Loss of annual recharge to groundwater shall be eliminated or minimized...at a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This standard is met when the stormwater management system is designed to infiltrate the required recharge volume in accordance with the Mass Stormwater Handbook.**

Loss of annual recharge to groundwater will be minimized through the use of stormwater Best Management Practices (BMP's), an infiltration basin, individual roof systems and an operation and maintenance program that are proposed for this project. Additionally, in accordance with the Stormwater Handbook, a capture area adjustment calculation will be provided to insure a minimum of 65% of the site impervious areas are directed into recharge facilities.

**Standard 4: Water Quality – Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). The standard is met with pollution prevention plans, stormwater BMP's sized to capture required water quality volume, and pretreatment measures.**

The stormwater management system will be designed to remove a minimum of 80% of the average annual post-construction load of Total Suspended Solids (TSS). These percentages will be achieved by the use of deep sump catch basins, water quality units and a subsurface infiltration system.

The utilization of pretreatment and treatment BMP's combined with the operation and maintenance plan provides compliance with this standard.

**Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs) – Source control and pollution prevention shall be implemented in accordance with the Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.**

Stormwater Standard 5 is not applicable to this project. The proposed development will not subject the site to higher potential pollutant loads as defined in the Massachusetts Department of Environmental Protection Wetlands and Water Quality Regulations.

LUHPPLs are identified in 310 CMR 22.20B(2) and C(2)(a)-(k) and (m) and CMR 22.21(2)(a)(1)-(8) and (b)(1)-(6), areas within a site that are the location of activities that are subject to an individual National Pollutant Discharge Elimination System (NPDES) permit or the NPDES Multi-sector General Permit; auto fueling facilities, exterior fleet storage areas, exterior vehicle service and equipment cleaning areas; marinas and boatyards; parking lots with high-intensity-use; confined disposal facilities and disposal sites.

**Standard 6: Critical Areas – Stormwater discharges to critical areas require the use of specific source control and pollution prevention measures and specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas.**

Stormwater Standard 6 is not applicable to this project given that proposed stormwater does not discharge near a critical area. Critical areas being Outstanding Resource Waters and Special Resource Waters as designated in 314 CMR 4.0, recharge areas for public water supplies as defined in 310 CMR 22.02, bathing beaches as defined in 105 CMR 445.000, cold-water fisheries and shellfish growing areas as defined in 314 CMR 9.02 and 310 CMR 10.04. The design points are not considered a critical area therefore Standard #6 does not apply to this project.

**Standard 7: Redevelopments – A redevelopment project is required to meet Standards 1-6 only to the maximum extent practicable. Remaining standards shall be met as well as the project shall improve the existing conditions.**

Stormwater Standard 7 is not applicable to this project. Within the Stormwater Management Handbook (volume 1 chapter 1 page 20), the definition of a redevelopment project includes, "development, rehabilitation, expansion and phased projects on previously developed sites, provided the redevelopment results in no net increase in impervious area".

This project will not result in a reduction of impervious area in the proposed conditions.

**Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan shall be implemented.**

*An Operation and Maintenance & Erosion and Sediment Control Program for a Proposed Stormwater Management System* is included with this report. The program details the construction period operation and maintenance plan and sequencing for pollution prevention measures and erosion and sedimentation controls. Locations of erosion control measures for the project are depicted on the site plan set accompanying this report.

**Standard 9: A long term Operation and Maintenance Plan shall be implemented.**

*An Operation and Maintenance & Erosion and Sediment Control Program for a Proposed Stormwater Management System* is included with this report. The long term operation and maintenance section of the program provides details and the schedule for routine and non-routine maintenance tasks to be implemented at the completion of the project.

**Standard 10: Prohibition of Illicit Discharges – Illicit discharges to the stormwater management system are prohibited.**

Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. Discharges to the stormwater management system from the following activities or facilities are permissible: Firefighting, water line flushing, landscape irrigation, uncontaminated groundwater, potable water sources, foundation

drains, air conditioning condensation, footing drains, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated water from swimming pools, water used for street washing and water used to clean residential buildings without detergents. All other illicit discharges are prohibited.

There are no known illicit discharges anticipated through the completion of this project. During construction and post construction procedures are provided to dissipate the potential for illicit discharges to the drainage system. Post construction preventions of illicit discharges are described in the Operation and Maintenance Program under the Good Housekeeping Practices section of the report.

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**OPERATION AND MAINTENANCE &  
EROSION AND SEDIMENTATION CONTROL PROGRAM**  
*for*  
**A PROPOSED STORMWATER MANAGEMENT SYSTEM**  
*located at*  
**1106 MASSACHUSETTS AVENUE  
LEXINGTON, MASSACHUSETTS**



**Applicant:**

Sheldon Corporation  
121 Marrett Road  
Lexington, Massachusetts 02421

**Prepared by:**

Meridian Associates, Inc.  
500 Cummings Center, Suite 5950  
Beverly, Massachusetts 01915  
(978) 299-0447

**January 10, 2018**

**Project Name:** 1106 Massachusetts Avenue

**Owner Name:** Vasiliki Realty Trust – Thomas J. Cataldo, Trustee

**Party Responsible for Maintenance**

**During Construction:** Contractor

**Party Responsible for Maintenance**

**After Construction:** Homeowner's Association

### **Erosion and Sedimentation Control Measures during Construction Activities**

#### **Filtermitt (or approved equal)**

Filtermitt (or approved equal) will be installed along the down gradient limit of work as depicted on the Site Plan. The FilterMitt shall be installed prior to the commencement of any work on-site and in accordance with the design plans. An additional supply of filtermitt shall be on-site to replace and/or repair any filtermitt that have been disturbed or are in poor condition. The line of FilterMitt shall be inspected and maintained on a weekly basis and after every major storm event (2-year) during construction. No construction activities are to occur beyond the FilterMitt at any time. Deposited sediments shall be removed when the volume of the deposition reaches approximately one-half the height of the filtermitt.

#### **Stockpiles**

All unused debris, soil, and other material shall be stockpiled in locations of relatively flat grades, away from any trees identified to be saved and upgradient of the filtermitt. Stockpile side slopes shall not be greater than 2:1. All stockpiles shall be surrounded by a row of filtermitt. Surrounding filtermitt shall be inspected and maintained on a daily basis.

#### **Surface Stabilization**

The surface of all disturbed areas shall be stabilized during and after construction. Disturbed areas remaining idle for more than 14 days shall be stabilized. Temporary measures shall be taken during construction to prevent erosion and siltation. No construction sediment shall be allowed to enter any infiltration system or formal drainage system. All disturbed slopes will be stabilized with a permanent vegetative cover. Some or all of the following measures will be utilized on this project as conditions may warrant.

- a. Temporary Seeding
- b. Temporary Mulching
- c. Permanent Seeding
- d. Placement of Sod
- e. Hydroseeding
- f. Placement of Hay
- g. Placement of Jute Netting

Dust shall be controlled at the site.

### **Tree Protection**

Existing trees to be saved shall be protected with orange construction fence (offset from the tree trunk by professional standard based on canopy).

### **Construction Tracking Pad**

A construction tracking pad shall be installed at the designated entrances/exits, as shown on the Site plans, to the site to reduce the amount of sediment transported off site. The construction tracking pad shall be inspected weekly.

### **Silt Sacks**

Silt Sacks shall be installed within the basins. The performance of the basins shall be checked after every major storm event during construction, in the event of clogging within the Silt Sack, it shall be removed and replaced with a clean Silt Sack. Stormwater quality unit shall be checked bi-weekly.

### **Inspection and Maintenance of Area Drain & Water Quality Units**

The performance of the area drain and water quality units shall be checked after every major storm event during construction.

### **Subsurface Infiltration Facilities**

Construction activity above and around the proposed location of the subsurface infiltration facility shall be limited to prevent compaction of the existing soil. Care shall be taken to redirect stormwater runoff from this area to prevent ponding. Installation of this system shall occur under dry weather conditions and system shall be backfilled immediately to prohibit the introduction of fines or other material that would compromise the functionality of this system.

### **Removal of Sediment and Erosion Controls**

At the completion of construction activities and after receiving approval from the Town of Lexington, all physical sediment and erosion controls shall be removed from the site per Town of Lexington. The areas where the controls have been removed shall be seeded and stabilized immediately upon removal.

## **Long-Term Inspection and Maintenance Measures after Construction**

### **Erosion Control**

Eroded sediments can adversely affect the performance of the stormwater management system. Eroding or barren areas should be immediately re-vegetated.

### **Storm Water Quality Inlets (CDS)**

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. At minimum, inspections shall be performed twice per year (e.g. spring and fall) and after every major storm. The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet or separation screen. The inspection shall also quantify the accumulation of hydrocarbons, trash and sediment in the system. The CDS system shall be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. Cleaning of a CDS unit shall be done during dry weather when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method. Simply remove the manhole covers and insert the vacuum hose into the sump. The system shall be completely drained down and the sump fully evacuated of sediment. The area outside the screen shall also be cleaned to ensure it is free of trash and debris. Manhole covers shall be securely seated following cleaning activities to prevent leakage of runoff into the system from above. Disposal of all material removed from the CDS system shall be done in accordance with local regulations.

### **Subsurface Infiltration Facility**

The infiltration system inspections should include inspections following the first several rainfall events or first few months after construction, after all major storms (3.2" inches of rain over a 24-hour period or greater), and on regular bi-annual scheduled dates, to ascertain whether captured runoff drains within 72 hours following the event. Pondered water inside the system (as visible from the observation well) after several dry days often indicates that the bottom of the system is clogged. If the water does not drain, then a qualified professional should be retained to determine the cause of apparent infiltration failure and recommend corrective action. Such corrective action should be immediately implemented by the homeowner. If depth of sediment is observed to be greater than 3" then the system should be cleaned. The homeowner shall contact a sewer and drain cleaning company to flood the system via pump truck so the water is forced back to the upstream cleanout where sediment can be vacuumed out.

### **Debris and Litter Removal**

Trash may collect in the BMP's, potentially causing clogging of the facilities. All debris and litter shall be removed when necessary, and after each storm event. Sediment and debris collected from vacuuming and/or sweeping should be disposed of at a permitted waste disposal facility. Avoid disposing of this material on site, where it could be washed into the proposed subsurface infiltration systems.

### **Lawn Mowing**

All lawn mowing to take place will be done with a mulch mower so grass clippings will not be an issue.

## **Good Housekeeping Practices (in accordance with Standard 10 of the Stormwater Management Handbook to prevent illicit discharges)**

### **Provisions for storing paints, cleaners, automotive waste and other potentially hazardous household waste products inside or under cover**

- All materials on site will be stored inside in a neat, orderly, manner in their appropriate containers with the original manufacturer's label.
- Only store enough material necessary. Whenever possible, all of a product shall be used up before disposing of container.
- Manufacturer, local, and State recommendations for proper use and disposal shall be followed.

### **Vehicle washing controls**

- A commercial car wash shall be used when possible. Car washes treat and/or recycle water.
- Cars shall be washed on gravel, grass, or other permeable surfaces to allow filtration to occur.
- Use biodegradable soaps.
- A water hose with a nozzle that automatically turns off when left unattended.

### **Requirements for routine inspection and maintenance of stormwater BMPs**

- See Inspection and Maintenance Measures after Construction.

### **Spill prevention and response plans**

- Spill Control Practices shall be in conformance with the guidelines set forth in the National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan (SWPPP)

### **Provisions for maintenance of lawns, gardens, and other landscaped areas**

- Grass shall not be cut shorter than 2 to 3 inches and mulch clipping should be left on lawn as a natural fertilizer.
- Use low volume water approaches such as drip-type or sprinkler systems. Water plants only when needed to enhance root growth and avoid runoff problems.
- The use of mulch shall be utilized where possible. Mulch helps retain water and prevents erosion.

### **Requirements for storage and use of fertilizers, herbicides and pesticides**

- Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.
- Do not fertilize before a rainstorm.
- Consider using organic fertilizers. They release nutrients more slowly.
- Pesticides shall be applied on lawns and gardens only when necessary and applied only in the minimum amounts recommended by the manufacturer.

### **Pet waste management**

- Scoop up and seal pet wastes in a plastic bag. Dispose of properly, in the garbage.

**Provisions for solid waste management**

- All solid waste shall be disposed of or recycled in accordance with local town regulations.

**Snow disposal and plowing plans relative to Resource Area**

- Snow shall be plowed and stored on gravel, grass, or other permeable surfaces to allow filtration to occur.
- Once snow melts all sand salt and debris shall be extracted from surface and properly disposed of.
- Snow shall not be disposed of in any resource area or waterbody.
- Avoid disposing snow on top of storm drain catchbasins or stormwater drainage swale.

**Winter Road Salt and/or Sand use and storage restrictions**

- Sand storage piles should be located outside the 100-year buffer zone and shall be covered at all times. No salt to be stored or used on site.
- Alternative materials, such as sand or gravel, should be used in especially sensitive areas.

**Roadway and Parking Lot sweeping schedule**

- Pavement sweeping shall be conducted at a frequency of not less than once per year.
- Removal of any accumulated sand, grit, and debris from driveway after the snow melts shall be completed shortly after snow melts for the season.

**Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL**

Not Applicable

**Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan**

To be determined by the owner.

**List of Emergency contacts for implementing Long-Term Pollution Prevention Plan**

To be determined by the owner.

**Applicant's Certification**

I certify under penalty of law that I have read, understand and agree to abide by the practices outlined in this document.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Sheldon Corporation

**Contractor's Certification**

I certify under penalty of law that I have read, understand and agree to abide by the practices outlined in this document.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor

**STORMWATER MANAGEMENT**  
**CONSTRUCTION PHASE**

**INSPECTION SCHEDULE AND EVALUATION CHECKLIST**

**PROJECT LOCATION:** 1106 Massachusetts Ave, Lexington, MA

**WEATHER:** \_\_\_\_\_

<i>Inspection Date</i>	<i>Inspector</i>	<i>Area Inspected</i>	<i>Required Inspection Frequency if BMP</i>	<i>Comments</i>	<i>Recommendation</i>	<i>Follow-up Inspection Required (yes/no)</i>
		<i>FilterMitt</i>	<i>Weekly and After Major Storm Events</i>			
		<i>Construction Tracking Pad</i>	<i>Weekly and After Major Storm Events</i>			
		<i>Silt Sack</i>	<i>Weekly and After Major Storm Events</i>			
		<i>CDS Treatment BMP's</i>	<i>Weekly and After Major Storm Events</i>			
		<i>Subsurface Infiltration Systems</i>	<i>Weekly and After Major Storm Events</i>			
		<i>Area Drain</i>	<i>Weekly and After Major Storm Events</i>			

(1) Refer to the Massachusetts Stormwater Handbook, Volume Two: Stormwater Technical Handbook (February 2008) for recommendations regarding frequency for inspection and maintenance of specific BMP's.

(2) Inspections to be conducted by a qualified professional such as an environmental scientist or civil engineer.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended.

Other notes: (Include deviations from: Con. Comm. Order of Conditions, PB Approval, Construction Sequence and Approved Plan)  
Stormwater Control Manager: \_\_\_\_\_



**STORMWATER MANAGEMENT**  
**AFTER CONSTRUCTION**

**INSPECTION SCHEDULE AND EVALUATION CHECKLIST**

**PROJECT LOCATION:** 1106 Massachusetts Ave, Lexington, MA

**WEATHER:** \_\_\_\_\_

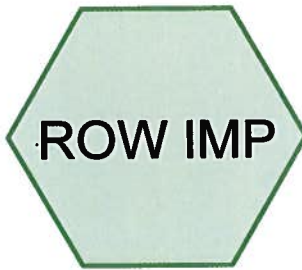
<i>Inspection Date</i>	<i>Inspector</i>	<i>Area Inspected</i>	<i>Required Inspection Frequency if BMP</i>	<i>Comments</i>	<i>Recommendation</i>	<i>Follow-up Inspection Required (yes/no)</i>
		<i>CDS Treatment BMP's</i>	<i>Bi-annually and After Major Storm Events</i>			
		<i>Subsurface Infiltration Systems</i>	<i>Bi-annually and After Major Storm Events</i>			

(3) Refer to the Massachusetts Stormwater Handbook, Volume Two: Stormwater Technical Handbook (February 2008) for recommendations regarding frequency for inspection and maintenance of specific BMP's.

(4) Inspections to be conducted by a qualified professional such as an environmental scientist or civil engineer.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended.

Other notes: (Include deviations from: Con. Comm. Order of Conditions, PB Approval, Construction Sequence and Approved Plan)  
Stormwater Control Manager: \_\_\_\_\_



ROW IMPERVIOUS



## Proposed Subsurface Infiltration System -



**6009-PRELIMINARY**

Prepared by Meridian Associates

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**Area Listing (all nodes)**

Area (sq-ft)	CN	Description (subcatchment-numbers)
13,000	98	IMPERVIOUS (ROW IMP)
<b>13,000</b>	<b>98</b>	<b>TOTAL AREA</b>

**6009-PRELIMINARY**

Prepared by Meridian Associates

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PSIS SIZING

Type III 24-hr 100-Year Design Storm Rainfall=8.76"

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**Summary for Subcatchment ROW IMP: ROW IMPERVIOUS**

Runoff = 2.51 cfs @ 12.09 hrs, Volume= 9,230 cf, Depth= 8.52"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-Year Design Storm Rainfall=8.76"

Area (sf)	CN	Description
* 13,000	98	IMPERVIOUS
13,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min. Engineering Practice

**Summary for Pond PSIS: Proposed Subsurface Infiltration System -**

Inflow Area = 13,000 sf, 100.00% Impervious, Inflow Depth = 8.52" for 100-Year Design Storm event  
 Inflow = 2.51 cfs @ 12.09 hrs, Volume= 9,230 cf  
 Outflow = 0.37 cfs @ 12.58 hrs, Volume= 9,230 cf, Atten= 85%, Lag= 29.6 min  
 Discarded = 0.37 cfs @ 12.58 hrs, Volume= 9,230 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 3.40' @ 12.58 hrs Surf.Area= 1,364 sf Storage= 2,704 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)  
 Center-of-Mass det. time= 47.2 min ( 787.4 - 740.1 )

Volume	Invert	Avail. Storage	Storage Description
#1A	0.00'	1,088 cf	<b>20.50'W x 66.52'L x 3.50'H Field A</b> 4,773 cf Overall - 1,665 cf Embedded = 3,108 cf x 35.0% Voids
#2A	0.50'	1,665 cf	<b>StormTech SC-740 x 36 Inside #1</b> Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 4 rows
		2,753 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	<b>8.270 in/hr Exfiltration over Wetted area</b>

Discarded OutFlow Max=0.37 cfs @ 12.58 hrs HW=3.39' (Free Discharge)

↑1=Exfiltration (Exfiltration Controls 0.37 cfs)