

LL1 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Applicant Information:

Name:	Lori Olinger
Address:	25 Deer Hills Drive
City/Township, State, Zip:	North Oaks, MN, 55127
Phone:	612-718-6412
Email:	olingers25@msn.com

Project Summary:

PROJECT TYPE:

ESTIMATED TOTAL PROJECT COST (\$)	\$21,714.00
AMOUNT REQUESTED (\$5,000 reg, \$7,500 curb cut)	\$5,000
EXPECTED PROJECT COMPLETION (Month, Year)	August, 2023

- Raingarden/Infiltration Basin: Curb cut
- Raingarden/Infiltration Basin: Regular
- Shoreline/Streambank Stabilization and/or Restoration
- Filtration
- Other

If other, please describe the proposed project: _____

raingarden/infiltration basin:regular(permeable paver driveway)

Project Background:

<p>Describe the project location.</p> <p>Does it connect to a lake, stream, ditch, or wetland in VLAWMO?</p> <p>What issues will be addressed with this project?</p>	<p>Project is replacing blacktop driveway with permeable pavers. Driveway is in the front yard and connects with the street. It drains to a stream on the east side of the property which ultimately connects to Black Lake. This project will also collect water from two roof drain spouts from the roof and garage. This project will reduce stormwater rate and volume and improve water quality.</p>
--	---

Project Background: Continued

<p>Describe how your project will support the goals of the Landscape Level 1 Grant Program. (See LL1 policy)</p>	<p>Reduce stormwater rate and volume by installing a permeable paver driveway which replaces blacktop driveway.</p>
<p>Briefly describe the planned installation and maintenance activities for your project.</p>	<p>Excavate, remove and dispose of 15" of existing material. Install Clear Rock chip bedding, edge restraint, Permeable Geotextile stabilization fabric, and PVC piping drainage system. The PVC piping will also be connected to two drain spouts and will drain into the yard for overflow.</p>

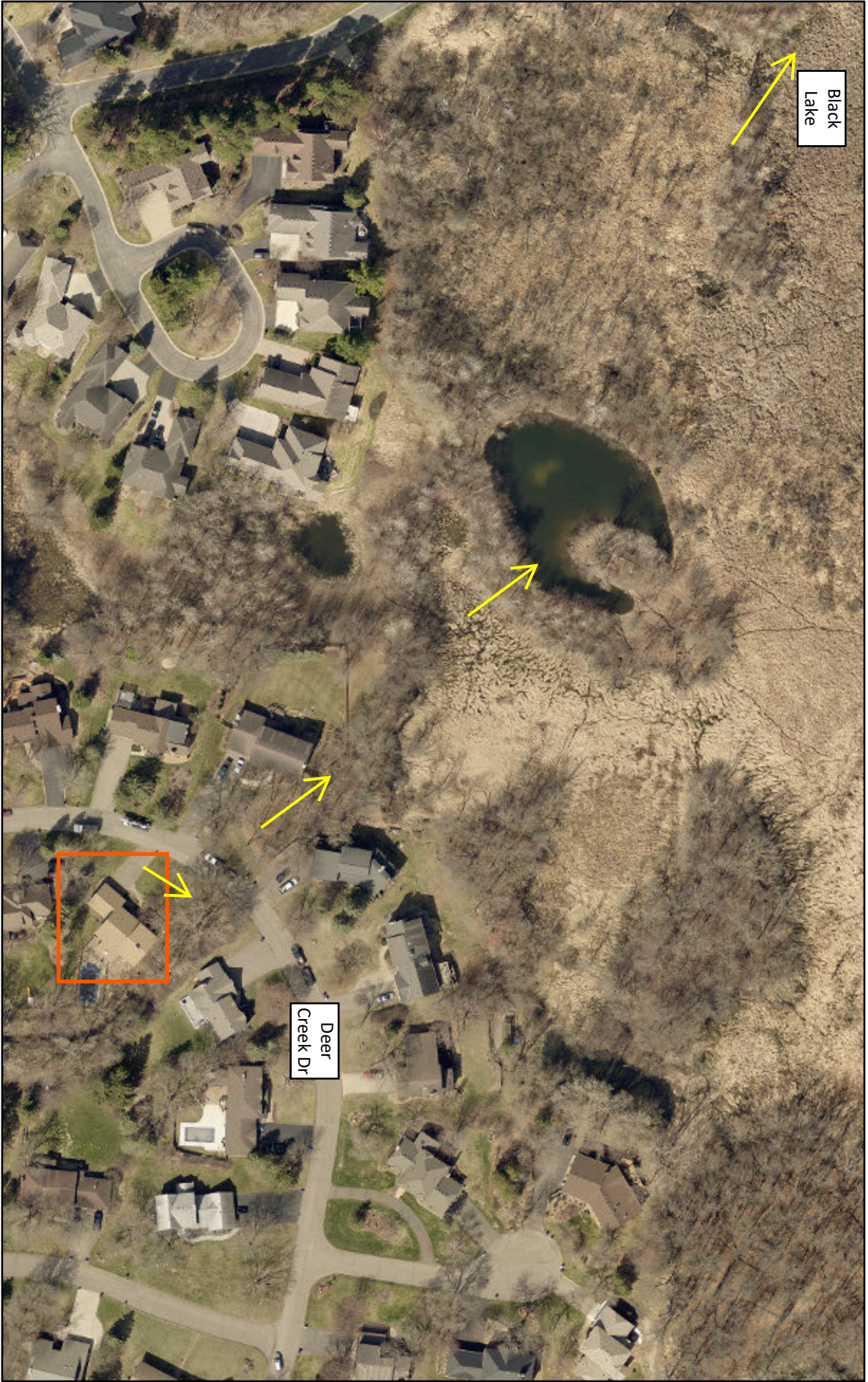
Project Specifications:

<p>TOTAL PROPERTY AREA (Acres)</p>	<p>¼ acre</p>	<p>Total PROJECT SIZE (Sq Ft)</p>	<p>1087 .</p>
<p>IMPERVIOUS (HARD) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>4985</p>	<p>PERVIOUS (GRASSY, NON-PAVEMENT) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>4277</p>
<p>DEPTH OF PRACTICE (In): <i>Provide if project includes infiltration/filtration</i></p>	<p>15 inches</p>	<p>BOTTOM SURFACE AREA (Sq Ft): <i>Provide if project includes infiltration/filtration</i></p>	<p>n/a</p>

Required Attachments:

- ⇒ Detailed drawing or plan of the proposed project. If project is complex, VLAWMO may require project final designs to be completed by a qualified professional or engineer. Drawing must include project dimensions that enable VLAWMO staff to model the project for estimated water quality benefits.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

LL1 2023-02 Olinger Permeable Pavement



Black Lake

Deer Creek Dr

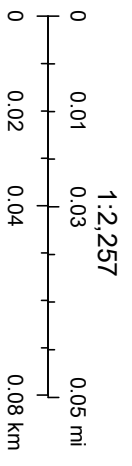
6/5/2023, 4:13:19 PM

VLAWMO Boundary 2020

Project Location



Flow Arrows



SCRUBTOWN BRICK PAVING

Responsible . Sustainable . Permeable



Proposal

Scrubtown Brick Paving, LLC
PO Box 113, Marine on St Croix, MN 55047

May 16, 2023

Submitted To:
Olingers
25 Deer Hills Rd.
North Oaks, MN 55127

Scope of Work

Scrubtown Brick Paving LLC shall provide all materials and labor required for the installation of roughly 1100 square feet of Borgert's DrenaPave paver in a 90 degree herringbone pattern as driveway according to ICPI recommendations for vehicular pavement.
Base material shall be 12 inches of #2 and #57 St. Cloud granite.
Setting bed and joint material shall be #8 St. Cloud granite.
This estimate includes all necessary excavation and hauling.
This estimate includes a 5x12 inch concrete curb as edge restraint/perimeter.
This estimate also includes installation of (2) NDS drain boxes and drain tile to incorporate downspouts into PICP base.

We propose to complete these specifications for the sum of: \$27,500

Terms and Conditions

Price subject to change if not accepted within 30 days of Proposal date.

Estimated Project Duration 6 days

Payments:

10% at signing of Proposal
40% at commencement of work
50% upon completion

By signing I hereby acknowledge the scope of work and accept the terms and conditions proposed by Scrubtown Brick Paving, LLC.

Christian Minich
Owner/Project Manager

_____ Date

_____ Client

_____ Date



May 30, 2023

Olinger Residence
25 Deer Hills Drive
North Oaks, Minnesota

INSTALLATION OF PERMEABLE PAVING STONE DRIVEWAY

Proposal: \$ 22,210.00

- [County Materials H2O Face mix Permeable Pavers](#) / 1087 square feet
- Excavation, removal & disposal of existing material / 15” from final grade
- No. 2 stone 1 ½” Limestone washed trap rock / 8”
- No. 57 ¾” Clear Rock / 4”
- 1/8” chip bedding and joint material
- Edge Crete edge restraint system / 110 linear feet
- FW404 Permeable Geotextile stabilization fabric
- PVC Piping- 4” perforated sock drain tile
- Labor of Installation

Option:

Belgard Aqualine Permeable Pavers	\$23,581.00
RCP Permeable Holland Pavers	\$21,714.00

Costs:

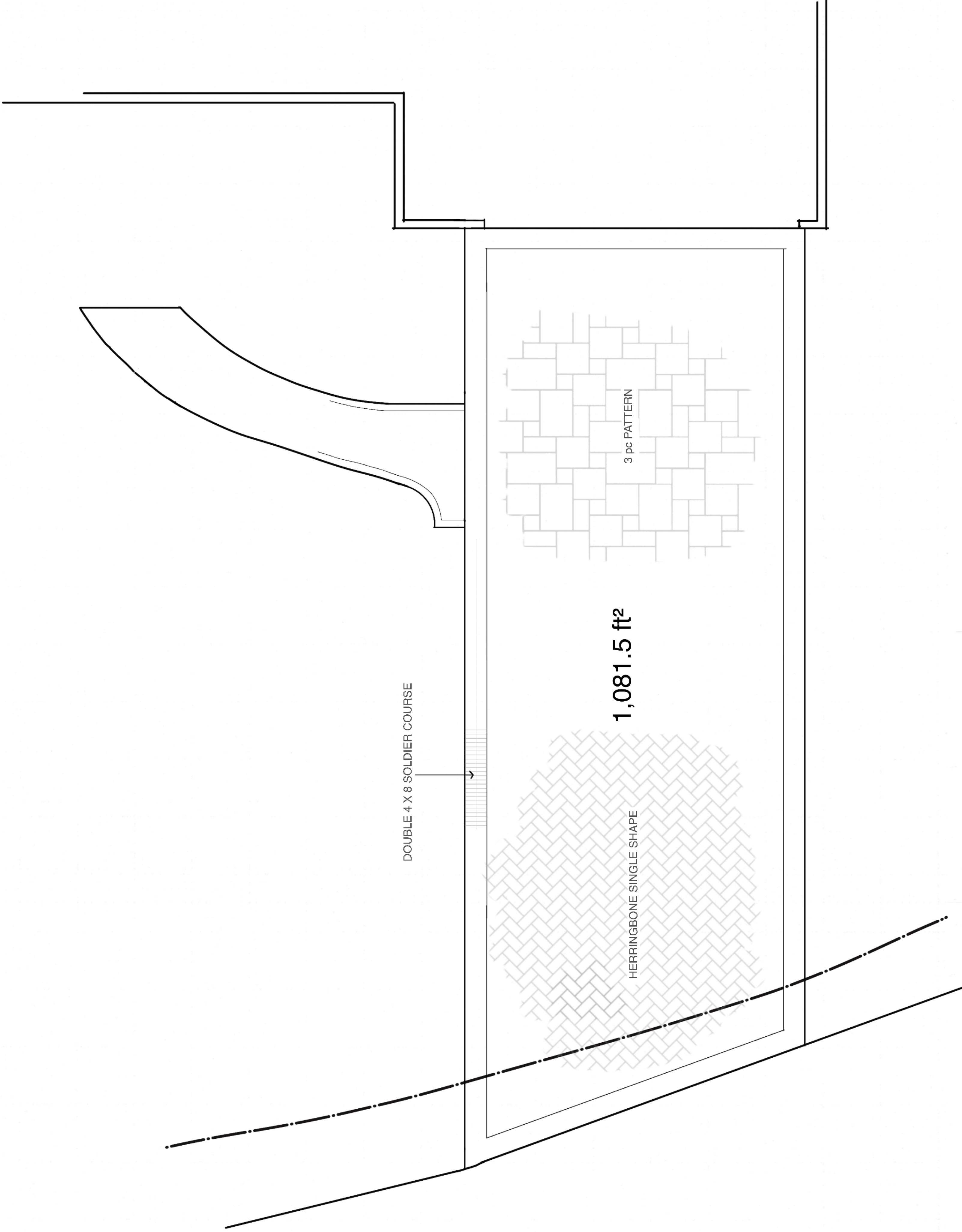
Material	\$10,649.00
Equipment	\$1,272.00
Labor	\$6,792.00
Sub Contractor (excavation)	\$3,202.00

* **Face-mix:** Face-mix pavers are manufactured in a two-step process which combines a base of coarser aggregates for a stronger foundation, with concentrated color and wear-resistant finer aggregates on top. Face-mix products are commonly marked as ‘fade-proof’ because the top layer of concentrated color prevents lighter color aggregates from ever showing through.

Respectfully submitted,

Joel Hedrick

Proposal price does not include landscape restoration



Project Information

Calculator Version: Version 4: July 2020
Project Name: Olinger Permeable Pavers
User Name / Company Name:
Date: 6/1/2023
Project Description: Proposed permeable paver driveway to replace existing blacktop driveway and capture runoff.
Construction Permit?: No

Site Information

Retention Requirement (inches): 1.1
Site's Zip Code: 55127
Annual Rainfall (inches): 31.8
Phosphorus EMC (mg/l): 0.3
TSS EMC (mg/l): 54.5

Total Site Area

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land	0.14				0.14
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed	0.19				0.19
				Impervious Area (acres)	0.2
				Total Area (acres)	0.53

Site Areas Routed to BMPs

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed	0.1				0.1
				Impervious Area (acres)	0.11
				Total Area (acres)	0.21

Summary Information

Performance Goal Requirement

Performance goal volume retention requirement:	799	ft ³
Volume removed by BMPs towards performance goal:	439	ft ³
Percent volume removed towards performance goal	55	%

Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	0.5278	acre-ft
Annual runoff volume removed by BMPs:	0.2729	acre-ft
Percent annual runoff volume removed:	52	%

Post development annual particulate P load:	0.2369	lbs
Annual particulate P removed by BMPs:	0.126	lbs
Post development annual dissolved P load:	0.194	lbs
Annual dissolved P removed by BMPs:	0.1	lbs
Total P removed by BMPs	0.226	lbs
Percent annual total phosphorus removed:	53	%

Post development annual TSS load:	78.2	lbs
Annual TSS removed by BMPs:	41.8	lbs
Percent annual TSS removed:	53	%

BMP Summary

Performance Goal Summary

BMP Name	BMP Volume Capacity (ft ³)	Volume Recieved (ft ³)	Volume Retained (ft ³)	Volume Outflow (ft ³)	Percent Retained (%)
1 - Permeable pavement	521	439	439	0	100

Annual Volume Summary

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
1 - Permeable pavement	0.285	0	0.2729	0.0121	96

Particulate Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Permeable pavement	0.1279	0	0.1265	0.0014	99

Dissolved Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Permeable pavement	0.1047	0	0.1003	0.0044	96

Total Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Permeable pavement	0.2326	0	0.2268	0.0058	98

TSS Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Permeable pavement	42.25	0	41.78	0.4699999999	99

BMP Schematic