

LL1 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Applicant Information:

Name:	North Oaks Home Owners Association (NOHOA)
Address:	100 Village Center Drive, Suite 240
City/Township, State, Zip:	North Oaks, MN 55127
Phone:	Kristie Elfering, NOHOA Engineer - 763-780-0450 Ext. 2
Email:	kelfering@elferingeng.com

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	\$12,072.00
AMOUNT REQUESTED (\$5,000 reg, \$7,500 curb cut)	\$5,000.00
EXPECTED PROJECT COMPLETION (Month, Year)	08/2023

PROJECT TYPE:

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

If other, please describe the proposed project: _____

Project Background:

Describe the project location.	Project is located on the SE shoreline of Pleasant Lake adjacent to 11 Skillman Lane.
Does it connect to a lake, stream, ditch, or wetland in VLAWMO?	Yes, adjacent to Pleasant Lake.
What issues will be addressed with this project?	Pleasant Lake shoreline will be stabilized by shoreline restoration with native plants to control erosion and sediment runoff into Pleasant Lake.

Project Background: Continued

<p>Describe how your project will support the goals of the Landscape Level 1 Grant Program.</p> <p>(See LL1 policy)</p>	<p>The project will stabilize and restore Pleasant Lake shoreline and address actively occurring erosion. The project is anticipated to reduce nutrient loading into Pleasant Lake.</p>
<p>Briefly describe the planned installation and maintenance activities for your project.</p>	<p>Non-native, invasive plants will be removed and replaced with an anticipated 975 native plants with the goal of shoreline stabilization.</p> <p>Maintenance will include watering, weeding, and replacement of plants that die.</p>

Project Specifications:

<p>TOTAL PROPERTY AREA (Acres)</p>	<p>1.91 acres total NOHOA Shoreline PID 183022120010</p>	<p>Total PROJECT SIZE (Sq Ft)</p>	<p>4,500 sf</p>
<p>IMPERVIOUS (HARD) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>Approx. 2,700 sf of gravel trail and 3,600 sf of adjacent roof runoff.</p>	<p>PERVIOUS (GRASSY, NON-PAVEMENT) AREA DRAINING TO PROJECT (Sq Ft):</p>	<p>Approx. 30,300 sf of adjacent property.</p>
<p>DEPTH OF PRACTICE (In): <i>Provide if project includes infiltration/filtration</i></p>	<p>N/A - Shoreline Restoration Project</p>	<p>BOTTOM SURFACE AREA (Sq Ft): <i>Provide if project includes infiltration/filtration</i></p>	<p>N/A - Shoreline Restoration Project</p>




Required Attachments:

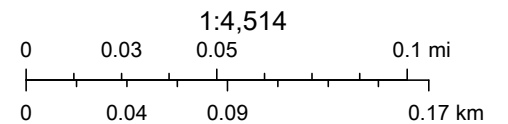
- ⇒ Detailed drawing or plan of the proposed project. If project is complex, VLAWMO may require project final designs to be completed by a qualified professional or engineer. Drawing must include project dimensions that enable VLAWMO staff to model the project for estimated water quality benefits.
- ⇒ 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 2023-03 NOHOA Pleasant Shoreline

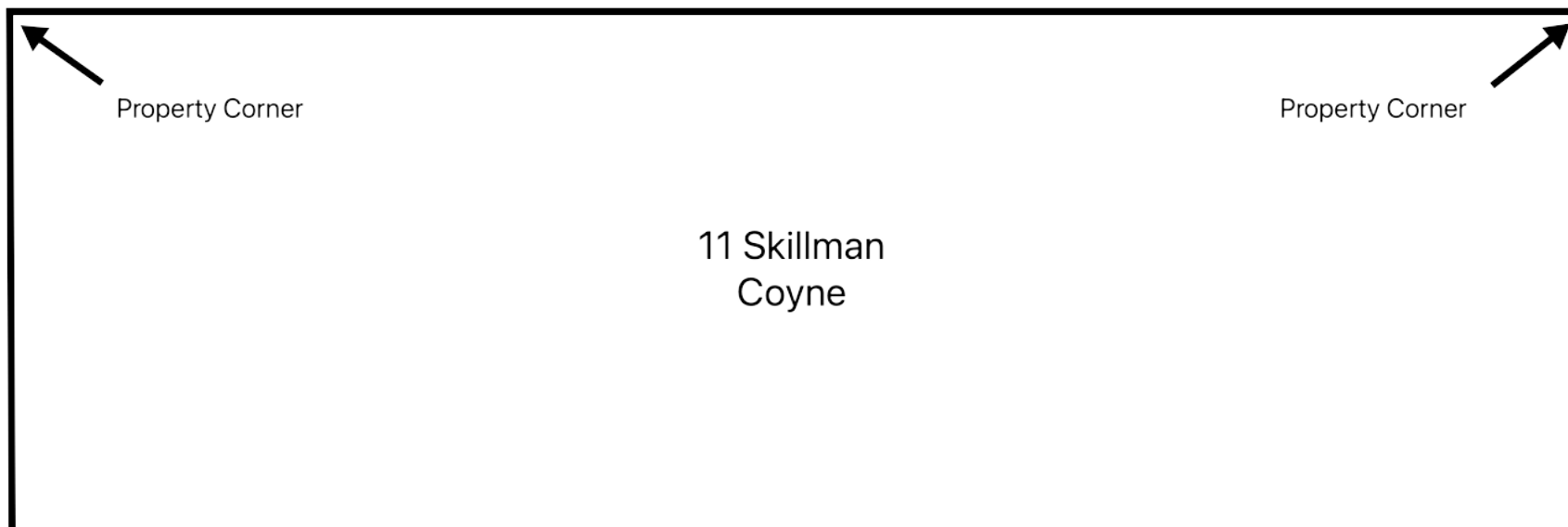
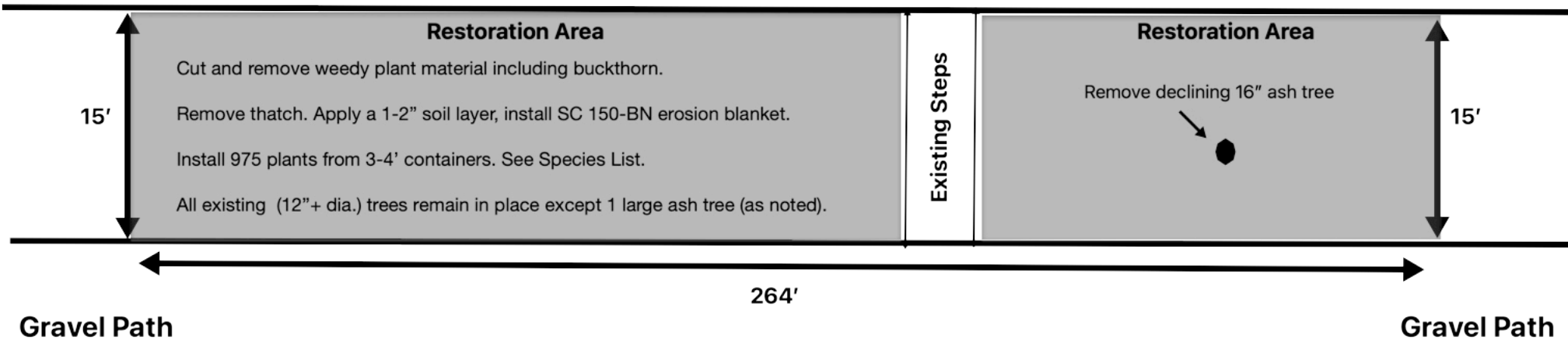


6/9/2023

-  VLawMO Boundary 2020
-  Project Location
-  VLawMO lakes



Pleasant Lake



Woodland Restorations, LLC
P.O. Box 396
Hugo, MN 55038
woodlandrestorations@yahoo.com



Estimate

ADDRESS

Joe Coyne
11 Skillman Lane
North Oaks, MN 55127

ESTIMATE # 1918
DATE 06/05/2023

DATE	DESCRIPTION	QTY	RATE	AMOUNT
	Shoreline Restoration Project Design and Plant List Provided By Customer			
	Estimate includes:			14,225.00T
	-Mobilization			
	-Site preparation			
	- Hauling debris away			
	-Grading			
	-Installation of erosion control			
	-Plant Material			

			SUBTOTAL	14,225.00
			TAX	1,049.09
			TOTAL	\$15,274.09

Accepted By

Accepted Date



Restoration Proposal for:

Mr. Joe Coyne
11 Skillman LN
North Oaks, MN 55127

Proposal Date: June 8, 2023

Prepared by:

Bill Bartodziej M.S., Senior Restoration Ecologist
Natural Shore Technologies, Inc.
612.730.1542 bill.b@naturalshore.com





USING ECOLOGY TO RESTORE LAND AND WATER

612.703.7581 | naturalshore.com | Office & Nursery 1480 County Rd 90 Independence, MN 55359

June 8, 2023

Dear Joe:

Thank you again for giving Natural Shore Technologies the opportunity to bid on your project. Below is a *Project Summary* which outlines our *restoration methods* and *cost breakdown*. We would like to emphasize that we tailor our restoration approach to fit your site characteristics and specific objectives. We look forward to developing a partnership with you to produce an exceptional restoration that exceeds your expectations.

We would enjoy the chance to answer any questions that you have regarding this restoration proposal. We take great pride in our reputation and attention to customer satisfaction. After you have read through and are comfortable with the proposed plan and specified cost, please sign the contract that is provided. A down payment and a signed contract are required to book your project.

Best regards,

Bill Bartodziej, M.S.
Senior Restoration Ecologist
Natural Shore Technologies, Inc.

Project Summary

1. Project site: shoreland – 260' total length, and width from pathway to water's edge
2. Site assessment and plan development include: detailed site preparation methods, plant selection, and a project timeline and work schedule for our staff. Because most of projects involve the establishment of natural buffers, site drawings and planting plans are not necessary. We have found that over time, native plants will seek out the optimal micro-habitats and flourish. However, project plan drawings can certainly be provided at an additional cost upon client request.
3. Delineate and verify total restoration project area.
4. Kill invasive weeds with an herbicide appropriate for upland or aquatic use. A licensed herbicide applicator from Natural Shore Technologies will apply the treatment.
5. Cut and remove any weedy plant material from planting area. Remove thatch from the ground layer.
6. Apply a 1-2" soil layer on the entire slope, seed, and harrow.
7. Cover entire site with SC150-BN erosion control blanket.
8. Lay out plants into plant zones per plan specifications and install at approximately 2' centers through the erosion control blanket.
9. Plant selections will provide flowering throughout the growing season, with at least 25 native plant species included in the plan.
10. We will use 975 – 3-4" containers for your planting.

Installation note: Prior to installation, please let us know of any underground utility lines, sprinkler lines, or other obstacles in the restoration area. It is the owner responsibility to clearly mark lines, and NST will not be held liable for any damages.

Preliminary Plant Species List

Common Name	Scientific Name	Height (ft)	Color	Bloom Time	Sun Exposure
WET MEADOW					
Grasses, Sedges, Rushes					
River bulrush	<i>Bolboschoenus fluviatilis</i>	4 to 6	Brown	June - July	S
Canada Blue Joint	<i>Calamagrostis canadensis</i>	3 to 6	Tan-Green	July - August	S PS
Bebb's Sedge	<i>Carex bebbii</i>	2 to 3	Green	May - June	S PS
Lake Sedge	<i>Carex lacustris</i>	2 to 4	Green	June - July	
Tussock Sedge	<i>Carex stricta</i>	2 to 3	Green	May - July	S PS
Prairie Cordgrass	<i>Spartina pectinata</i>	3 to 6	Green-Purple	August-October	S PS
Forbs					
Sweet flag	<i>Acorus calamus</i>	2	Green	May - July	S
Canada Anemone	<i>Anemone canadensis</i>	1 to 2	White	May - July	S PS
Swamp Milkweed	<i>Asclepias incarnata</i>	3 to 4	Lavender	June - August	S PS
Joe-Pye Weed	<i>Eutriochium maculatum</i>	3 to 6	Purple	June-July	S PS
Blue Bottle Gentian	<i>Gentiana andrewsii</i>	1.5 to 2.5	Blue	August - October	S PS
Blue Flag Iris	<i>Iris versicolor</i>	2 to 3	Blue	June - July	S PS
Meadow Blazing Star	<i>Liatris ligulistylis</i>	2 to 3.5	Purple	June - July	S PS
Cardinal Flower	<i>Lobelia cardinalis</i>	3 to 4	Red	June - October	S PS
PRAIRIE					
Grasses, Sedges					
Side Oats Grama	<i>Bouteloua curtipendula</i>	1.5 to 2.5	Red-green	July - September	S PS
Blue Grama	<i>Bouteloua gracilis</i>	.5 to 1	Green-purple	July-September	S PS
Plains oval sedge	<i>Carex brevior</i>	1 to 2	Green	June-July	S PS Sh
Canada Wild Rye	<i>Elymus canadensis</i>	3 to 4	Green	July - August	S PS
June grass	<i>Koeleria macrantha</i>	1 to 2	Amber	May-June	S
Little Bluestem	<i>Schizachyrium scoparium</i>	1.5 to 3	Amber	July - September	S PS
Indian Grass	<i>Sorghastrum nutans</i>	4 to 6	Amber	July - September	S PS
Prairie Dropseed	<i>Sporobolus heterolepis</i>	1.5 to 3	Green	August - October	S PS

Forbs

Anise Hyssop	<i>Agastache foeniculum</i>	2 to 4	Purple	June-October	S SH
Prairie Onion	<i>Allium stellatum</i>	1 to 1.5	Pink	July - September	S PS
Butterfly Milkweed	<i>Asclepias tuberosa</i>	1 to 2	Orange	June - September	S PS
Prairie Coreopsis	<i>Coreopsis palmata</i>	1.5 to 2.5	Yellow	June - September	S PS
White prairie clover	<i>Dalea candida</i>	2.0	White	June - September	S PS
Purple prairie clover	<i>Dalea purpurea</i>	2.0	Purple	July-September	S PS
Pale purple coneflower	<i>Echinacea pallida</i>	2 to 4	Lavender	June-July	S PS
Purple coneflower	<i>Echinacea purpurea</i>	4.0	Purple	July-September	S PS
Oxeye	<i>Heliopsis helianthoides</i>	5.0	Yellow	June-September	S PS
Rough Blazingstar	<i>Liatris aspera</i>	1.5 to 3	Purple	July - September	S PS
Wild bergamot	<i>Monarda fistulosa</i>	4.0	Pink-Purple	July-September	S PS
Horsemint	<i>Monarda punctata</i>	2.0	Purple	July-August	S PS
Prairie Phlox	<i>Phlox pilosa</i>	1.5 to 2	Pink	May - June	S PS
Mountain Mint	<i>Pycnanthemum virginianum</i>	2 to 3	White	July - September	S PS
Grey-headed Coneflower	<i>Ratibida pinnata</i>	5.0	Yellow	July-September	S PS
Black Eyed Susan	<i>Rudbeckia hirta</i>	2 to 3	Yellow	June - October	S PS
Heath aster	<i>Symphyotrichum ericoides</i>	2 to 4	White	August-September	S PS
Smooth blue aster	<i>Symphyotrichum laeve</i>	4	Blue	August-October	S PS
Aromatic aster	<i>Symphyotrichum oblongifolium</i>	2	Purple	August-November	S PS
Sky Blue Aster	<i>Symphyotrichum oolentangiense</i>	2 to 3.5	Purple	August-October	S PS
Ohio Spiderwort	<i>Tradescantia ohioensis</i>	2 to 4	Blue	July - October	S SH

SAVANNA - WLND

Thimbleweed	<i>Anemone virginiana</i>	1 to 2	white	June-August	PS SH
Wild Columbine	<i>Aquilegia canadensis</i>	1.5 to 3	Red	May - June	PS SH
Wild Ginger	<i>Asarum canadense</i>	0.5	Red	April-June	SH
Sprengel's sedge	<i>Carex sprengelii</i>	1 to 2	yellow	April-June	PS SH
Bottlebrush Grass	<i>Elymus hystrix</i>	2 to 3	Cream	July-September	PS SH
Large Leaf Aster	<i>Eurybia macrophylla</i>	.5 to 1.5	White	August - October	PS SH
Wild Strawberry	<i>Fragaria virginiana</i>	.4 to .8	White	April - June	S PS
Wild Geranium	<i>Geranium maculatum</i>	1.5	Pink	May - June	PS SH
Virginia bluebells	<i>Mertensia virginica</i>	1 to 2	blue	April-May	PS SH
Woodland Phlox	<i>Phlox divaricata</i>	1.0	Violet	April-June	PS SH
Jacobs Ladder	<i>Polemonium reptans</i>	0.5 to 1	blue	April-June	S SH
Zig Zag Goldenrod	<i>Solidago flexicaulis</i>	2.0	Yellow	August - September	PS SH

Project Cost

This bid includes project design and management, all materials, and labor. This is a comprehensive bid estimate and valid for thirty days. We require a 50% down payment to schedule your project.

Cost Breakdown

Site Design, Project Management, Mobilization		\$1,640.00
Site preparation, herb. trts, clearing, hauling, fine grading, soil 18 CY		\$3,636.00
Erosion Control - installed - NAG SC150BN		\$1,950.00
975 Plants - 3" and 4" - containers @ 2.0' spacing, custom seed mix		\$4,846.00
TOTAL =		\$12,072.00

Site maintenance (not included in bid)

Site maintenance includes at least 5 visits per year during the growing season to monitor and conduct activities that will ensure proper restoration establishment. We use the most appropriate, up-to-date maintenance techniques such as targeted herbicide application, hand pulling, mowing, and spot weed whipping to effectively control invasive weeds. Our lead maintenance supervisor has a B.S. in Biology and 10 years of field experience.

Watering – We will thoroughly water your site immediately after plant installation. Any necessary watering after installation is the responsibility of the owner. (Generally, normal rainfall during the growing season is adequate for native plant establishment.)

****Note we do offer long-term maintenance contracts. Over 90% of our clients use that service.***

Staff Qualifications

Our company has over 50 years of combined ecological restoration experience. We are a local company that focuses on quality ecological restoration in the Metro area. Our clients vary from private estates on Lake Minnetonka, to large corporate headquarters in Eden Prairie. We also work with many city and county governments and watershed management organizations. We are fully insured.

Our specialty is lakeshore and wetland restoration. We have restored many miles of lakeshore in Minnesota, more than any other company. Please see our portfolio for examples of our restoration projects that include; shorelines, wetlands, prairies, savannas, and rain gardens.

Please see our **project photo book** at: <http://www.blurb.com/books/6034090-natural-shore-technologies-inc-photobook>

Natural Shore Technologies Plant Material

We have commercial and retail greenhouses in Maple Plain. Our plants are Minnesota native perennials that will flourish year after year. Utilizing our own plant material in our projects assure quality control. Our wetland and prairie plants are guaranteed to establish during the first growing season. Perennial plants put most of their energy into establishing root systems so please keep in mind that the first year of growth will be mainly underground. You will see some flowering the first year, but significantly more flowering during the second year of establishment.

Information about our **retail native plant greenhouses** located in Maple Plain is also available at: www.naturalshore.com



Guarantee

We stand by our native plant material and our ecological restoration services.

Native plants that we install are guaranteed to establish during the first growing season. Any plant material that does not make it through the first growing season will be replaced at no charge to the client.

On projects that we install and manage, we will guarantee successful establishment of your ecological restoration within three full growing seasons. This proposal provides a plan for accomplishing the restoration of the project site. If successful establishment does not occur within three growing seasons, all necessary steps will be taken to ensure the eventual success of the project, at no additional charge. For purposes of this guarantee, successful establishment is defined as follows: That the presence of at least 80% of the original seeded or planted species can be found on the site, and that the overall density of vegetation is comprised of no less than 80% native species.

The only exceptions to this guarantee have to do with plant death due to acts of God (floods or drought) the actions of others (vandalism), or animal herbivory (e.g., geese, muskrats). Watering by the owner during dry periods is necessary, and the lack of adequate watering in this circumstance may nullify this guarantee.

If these extreme circumstances do happen to occur, we will work with the client at a reduced rate to make all necessary repairs.

Our goal will always be to create successful, long-term partnerships with our clients. Our guarantee is the best in the business, and provides you with a clear understanding that we are here to fully support your ecological restoration endeavor.

Contract

- A down payment of \$6,013.00 is required to schedule your project.
- The remainder of the project cost is due at project completion. Any unpaid amount beyond the 30 day period after billing will incur a 3% monthly finance charge.
- *Please note that this proposal is valid for 30 days from the date on this Contract.*

If you would like to proceed with the above outlined project, please sign the contract below.

Client name: _____

Contract Value: \$12,027.00

Signed: _____

Date _____

Contractor: **Natural Shore Technologies, Inc.**

Signed:

Contract Date: Contract Date for 30 Day term



William M. Bartodziej, M.S.

Senior Restoration Ecologist, Natural Shore Technologies

Please return a signed copy of this contract and a check to:

Natural Shore Technologies, Inc.
6275 Pagenkopf Rd.
Maple Plain, MN 55359



Using Ecology to Restore Land and Water

Stream & Ditch Bank Stabilization Estimator Version 2.1

SOIL = sand (1), silt (2), clay(3), peat(4) →

SD SOIL density	1	110
lbs/ft ³	2	85
tons/ft ³	3 X	0.0425
	4 X	

CF 1 0.85
2 1.00
3 X
4 X

VOLV volume voided (ft3) →

YR number of years to erode bank to current position →

SLB = SD*VOLV/YR
Soil Loss Before (Tons/yr) = **5.61**

SLR Soil Loss Reduction
Tons/yr

SEDR = SLB*SDR = SLB * 1 (= SLR) **5.61**
Sediment Reduction (Tons/yr)

→

PR = SEDR *(1.0 Lb/Ton)*CF **5.61**
P reduction (Lbs/yr)

= input

= calculated value

= result

ENTER THIS DATA ON eLINK INDICATORS TAB	
SEDIMENT (TSS) T/yr:	5.61
SOIL (estimated savings) T/yr:	5.61
PHOSPHORUS (est. reduction) lbs/yr:	5.61