PERMIT

PERMIT MUST BE POSTED AT PROJECT SITE, VISIBLE FROM ROAD

Permit Number:  15-34        Permit Date:  4/27/2015
Permit Granted To:  Dan Friesen
Project Address:  500 South Shore Drive
City, Street, Zip:  Detroit Lakes, MN 56501

Project Type:  Shoreline Restoration

Permit Granted with the Following Conditions to be Satisfied by the Permit Holder:
(1) Calculations and designs for Stormwater treatment measures (minimum 1 inch rain event) will be submitted to the District for approval prior to building construction. (2) Repair to damage within the Shore Impact Zone will be done as discussed (see attached restoration plan). (3) Erosion control measures will be installed and maintained until site is >70% re-vegetated. (4) Owner will plant three additional trees following any building construction. (5) The owner will obtain all required permits from the City of Detroit Lakes. (6) The owner will maintain all vegetation required for restoration.

This permit is valid for 18 months.

Permit may be revoked at any time upon violation of Pelican River Water Management Rules. Any changes to this site permit results in nullification of this permit and a new permit will have to be obtained.

Signature of Pelican River Watershed District Board of Managers or Designee (District Administrator)
PERMIT APPLICATION FORM

Property Owner(s): Dan Friessen
Mailing Address: 15336 Sunset Hill Drive
                Detroit Lakes, MN 56501
Phone: 218-234-1071    Cell: 218-234-1071
Email: dfriessen@friesseninc.com
Project Address: 520 South Shore Drive

Contractor Information (list all)
Name: Rick Nelson / Mike Hough
Company: Hough Inc
Phone: 218-849-5551
Cell: __________________________
Email: __________________________

*Attach additional information as needed.

PROJECT INFORMATION

PERMIT APPLICATION PURPOSE (indicate all which apply)

- A. Alteration to land, vegetation, and/or impervious surface within the Shore Impact Zone
- B. Rip-rap or beach sand blanket (installation, repair, replacement)
- C. Alteration to land, vegetation, and/or impervious surface within bluff impact zone or on steep slopes within the Shoreland District
- D. Retaining wall (installation, repair or replacement within the Shore and/or Bluff Impact Zones
- E. Impervious surface (cumulative) coverage more than 25% of lot area
- F. Subdivisions, plats, or Planned Unit Developments (PUD’s)
- G. Highway, road, street, parking lot or public water access (new or reconstruction)
- H. Bridges, culverts, inlets to waters of the state; storm sewers (new or replacement)
- I. Groundwater Dewatering (discharging to waters of the state)

Project Purpose/Description: (Please be specific)

Shoreline Restoration
Due to shoreline violation

Proposed start date: __________________________
Proposed completion date: __________________________

*Identify any work already completed on drawings

ADDITIONAL PERMITS

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If variances are required, the approved conditions need to be included for application to be received.

*Additional permits may be required in addition to Pelican River Watershed District Permit
Please attach copies of all permits and variances submitted and received
Restoration Narrative
April 20, 2015

Landowner: Paul and Daniel Friesen
Contractor: Mike Hough, Hough Inc.
Project Address: 500 South Shore Drive
Site Visit Date: 04/14/2015
Parties Present During visit: Dan Friesen (co-owner), Rick Nelson (Hough Inc.)

Restoration plans were discussed on-site with both the Dan Friesen (owner) and Rick Nelson (contractor) regarding the previously destroyed ice-pressure ridge, unauthorized tree removal, and shoreline damage as follows.

The ice pressure ridge will be re-constructed with the addition of clean fill to reach the elevation of the agreed upon benchmark elevation (see photograph). The grade will be set so that water is directed away from the lake without covering the root crown (with fill) of nearby trees. The re-constructed berm will be stabilized immediately with grass seed and straw blanket (or sod) to prevent erosion. Erosion control on the lakeward side of the constructed berm will be done with filter fabric covered with rip-rap.

Stabilization of sediment within the rip-rap will be done with live native grass plugs and/or 4” pot vines. The density of the plantings will be such that the grasses will establish between the rocks of the rip-rap to control erosion and remain in perpetuity. The contractor will consult with Becker County Soil Water Conservation District for planting recommendations (varieties, density, starter soils, etc.) and maintenance procedures.

Three trees will be planted (native varieties) and maintained within the Shore impact Zone as replacement. The owner and contractor have selected Maple and Basswood tree. The locations were discussed and are referenced on attached photos.

*The Pelican River Watershed District, Brent Alcott, will be notified following the restorative work for site inspection and final approval.

**The homeowner will maintain and care for all vegetation so that it establishes and serves as a replacement and mitigation for the destroyed naturally occurring ice-pressure ridge, damaged shoreline, and unauthorized tree removal.

Brent Alcott, Assistant Administrator
(218)846-0436; brent.alcott@arvig.net
Plant native grass plugs in rip-rap along length of shore to stabilize.

DETROIT LAKE

500 S SHORE DR. - DET. LCG.

Tie ice-ridge repair into existing pressure ridge (see photo).

Plant in large opening (see photo) INSTALL 3 (EA) MAPLE OF BASSWOOD TREES.

Flat rock within rip-rap.

Slope away from lake.

WATER LEVEL

PROPOSED SECTION AT SHORELINE

A

A'

1" = 20'