

Soil Erosion Permit

Antrim Conservation District

4820 Stover Road

Bellaire, MI 49615

231-533-8363

231-533-6388 fax

Permit No. 2020-13

Date Issued: 1/28/2020

Permit Expires: 1/28/2021

Under the provisions of Part 91 of PA 451 1994, authority is hereby granted to the owner:

Richard Buhl
10461 S. Elk Lake Rd.
Williamsburg, MI 49690

Zoned Community

to undertake the following earth changes in Antrim County:

install rip rap shoreline protection

Project located in:

Township Elk Rapids

Village:

property tax ID #: 05-06-028-025-00

Section: 34

T.29N, R.9W

Directions for finding location:

72 to Elk Lk. Rd., north to 10461, just before 31

Work to be done under authority of this permit is subject to the following special restrictions, limitations, and instructions:

- 1 It is the property owners responsibility to determine if other permits are needed: wetland, shoreline, critical dune, high risk erosion, zoning**
- 2 notify soil erosion officer when work begins and when site is stable
notify soil erosion officer if permit needs to be extended BEFORE it expires
- 3 follow standard instructions on back of permit and post site plan, permit and permit conditions: no sediment to move into lake or onto neighbors' property
- 4 Applicant must follow standards/specifications/manufacturers' recommendations when implementing soil erosion control practices.
- 5 Permit/permit conditions/site plan-soil erosion control plan must be posted on site before work begins

(NOTE - STANDARD INSTRUCTIONS ON BACK OF PERMIT)

**IT IS PROPERTY OWNER'S RESPONSIBILITY TO DETERMINE IF OTHER PERMITS ARE NEEDED
THIS PERMIT DOES NOT ALLEVIATE THE NEED FOR OTHER FEDERAL, STATE OR LOCAL PERMITS**

Project type: Shoreline

Permit fee: \$75

Responsible party: Wilhelm & Assoc.

6243 M-72

Williamsburg, MI 49690



Heidi L. Shaffer

Soil Erosion Officer

Notes

(231)944-9661

Antrim County

Permit Conditions

In accordance with Rule 1709 promulgated under the authority of Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and in addition to the information on the attached plans(s) and special conditions, the following general conditions apply to the earth change authorized by this permit.

1. The permitted activity shall be completed in accordance with approved plans and specification, and attached general and specific conditions.
2. This permit does not waive the necessity for obtaining all other required federal, state, or local permits.
3. Permittee shall notify permitting agency within one week after completion of permitted activity or one week prior to the permit expiration date, whichever comes first.
4. The earth change shall be designed, constructed and completed in a manner that limits exposed area for the shortest period of time.
5. Sediment caused by accelerated erosion from runoff water will be removed before it leaves the site of the earth change.
6. Control measures shall be designed and installed to convey water around, through or from the earth change at a non-erosive velocity.
7. Control measures shall be in place before any earth change begins.
8. Control measures shall be maintained on a daily basis and removed after permanent soil erosion measures are in place and area is stabilized. (Stabilized" means the establishment of vegetation or the proper placement, grading or covering of soil to ensure resistance to earth movement.)
9. Complete permanent soil erosion control measures within five calendar days after grading, or upon completion of the final earth change. If it is not possible to permanently stabilize earth change, maintain temporary measures until permanent control measures are in place.

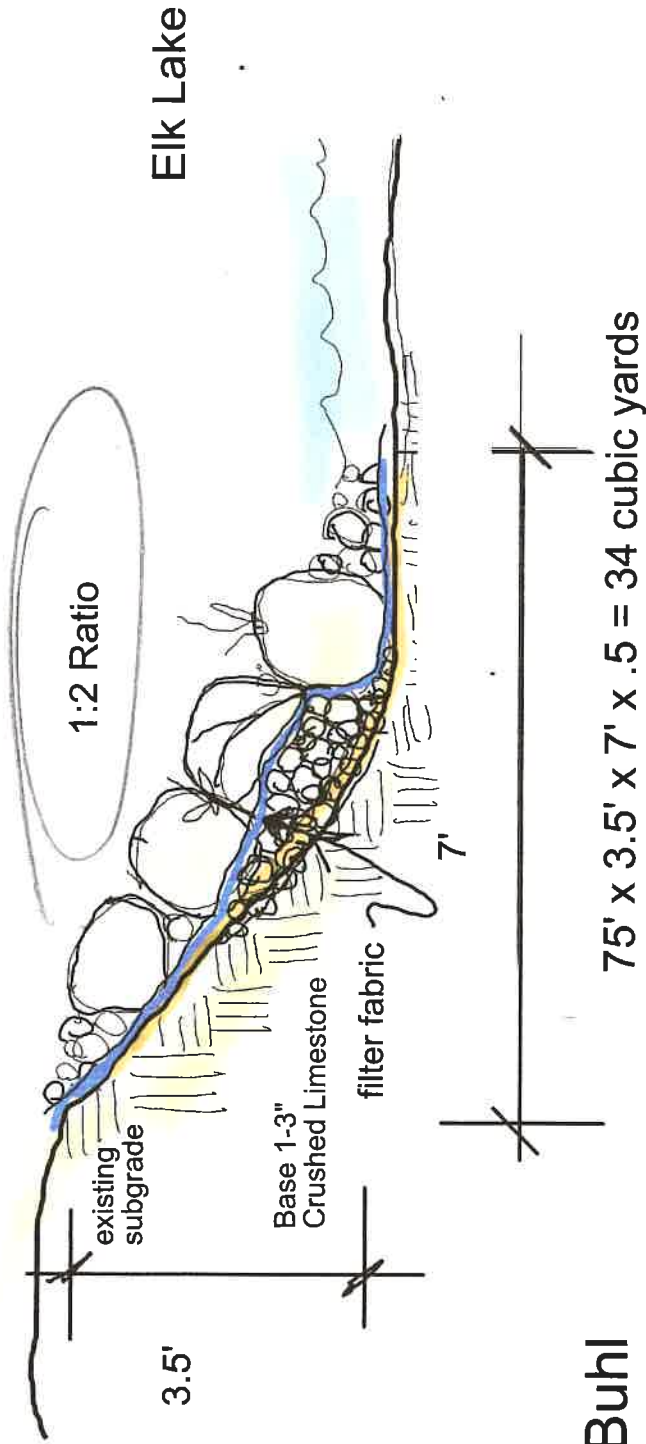
For information regarding the issuance of this permit contact: Antrim Conservation District;
533-8363.

This permit must be posted at the project site.

10461 S. Elk Lk Rd.

6-50" Dia. Max
Rip Rap Native
Michigan Boulders
for shoreline
protection

Plant or mulch
all disturbed areas



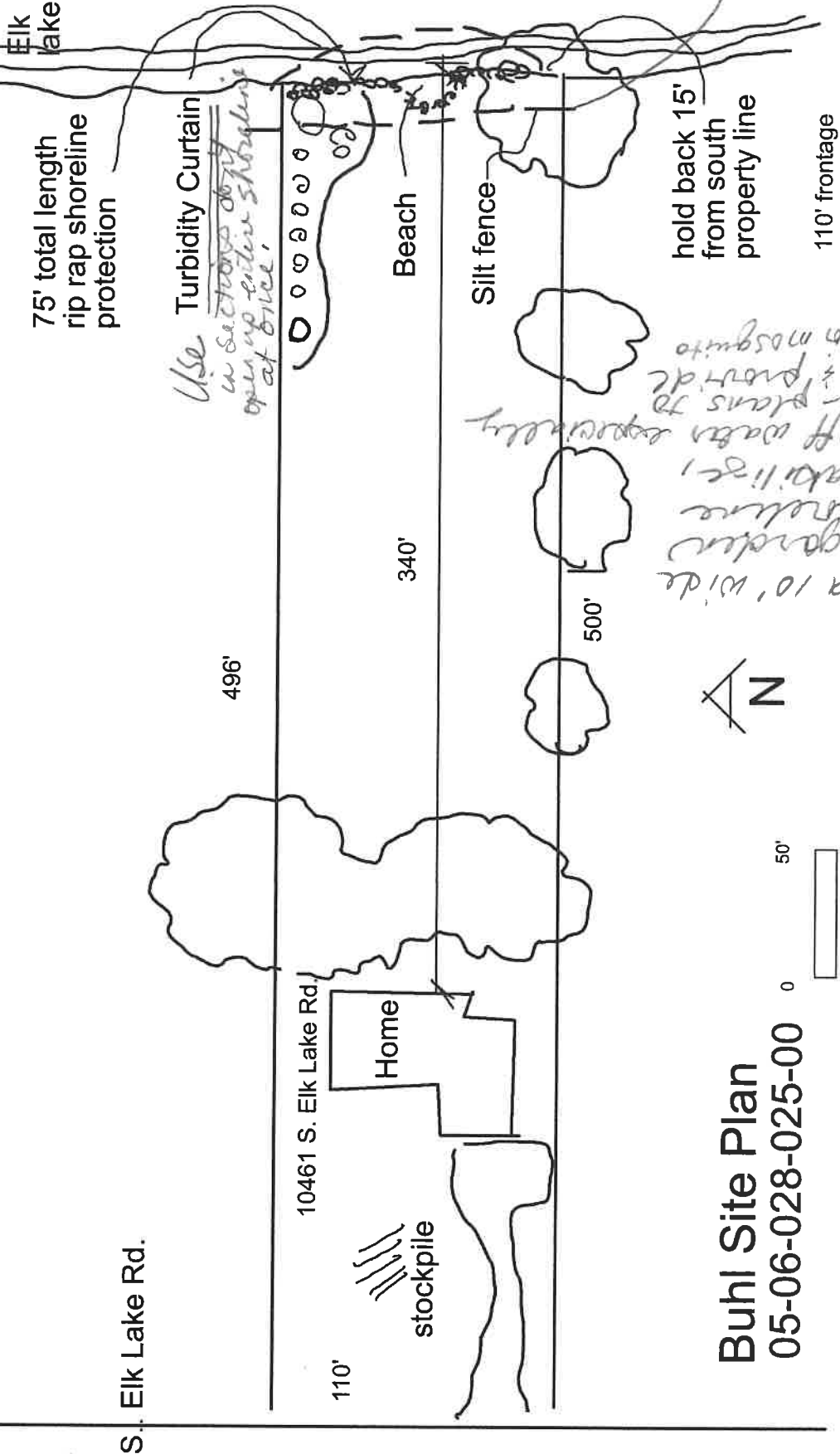
Elk Lake

1:2 Ratio

75' x 3.5' x 7' x .5 = 34 cubic yards

**Buhl
Rip Rap
Shoreline
Protection Section
View**

Schedule 3/1/20 day 1. Deliver materials, Install turbidity curtain and silt fence. Prep shoreline for rip rap and beach sanding (12' x 20'). Install 75' rip rap shoreline protection. day 2-7 complete rip rap intallation install upland beach sanding and planting beds. Seed and straw all disturbed areas. Future erosion responsibility to owner.



Buhl Site Plan

05-06-028-025-00

sandy soil

Put silt fence adjacent to rocks seed & mulch as soon as rock work is completed

Use Turbidity Curtain in sections down rip rap entire shoreline at once.

Plant a 10' wide flower garden at shoreline to help stabilize silt runoff water especially whenever plans to graze & provide habitat for mosquito eaters.

hold back 15' from south property line

110' frontage