



CONSTRUCTION PLAN

PRACTICE(S) STREAM BANK AND SHORELINE PROTECTION (580) July 1, 2016

LANDOWNER CORSTEN - LAKE TOMAHAWK BAYVIEW CONDOS 2016-01

ADDRESS 7305 HWY 47, LAKE TOMAHAWK WI 54539

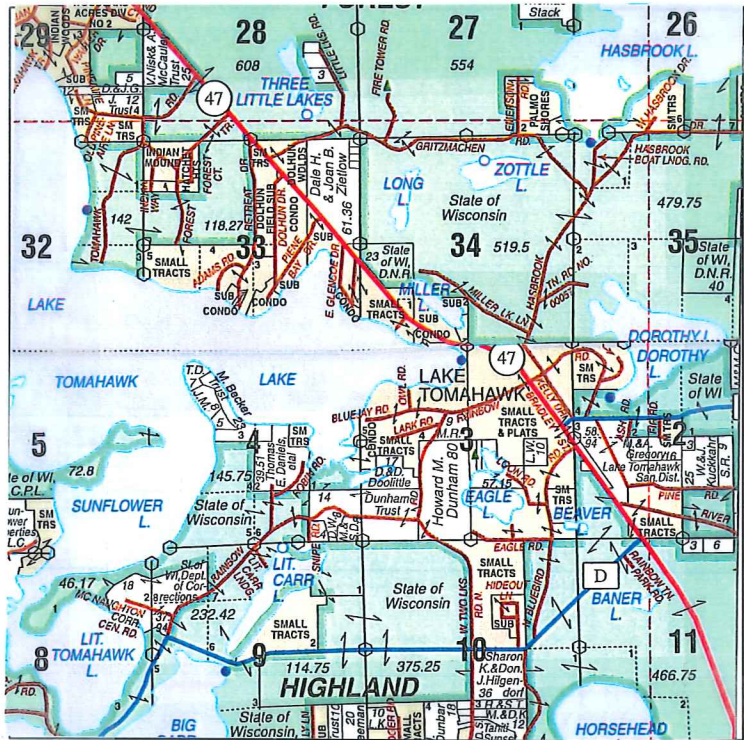
LANDOWNER PHONE NO. _____ COUNTY ONEIDA

TOWNSHIP LAKE TOMAHAARK T 38 N, R 7 E/W, Sec. 3

FIELD OFFICE _____ TELEPHONE NO. _____

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Toll Free 1-800-242-8511
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www.diggershotline.com



LOCATION MAP

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by the USDA, Natural Resources Conservation Service, or the ONEIDA County LCD, as to the approximate location or nonexistence of above or under ground hazards does not relieve the owner of the property or the excavator that is hired to complete construction, from notifying Diggers Hotline of the pending construction. You will be liable for damages resulting from construction activities. (Call Diggers Hotline) Ticket # _____

Landowner Acceptance: See WI Jobsheet 819

Designed by: _____ Date: _____

Checked by: _____ Date: _____

Approved by: _____ Date: _____

The installed practices comply with applicable NRCS technical standards and specifications. The "redlined" construction plans (as-built drawings) reflect changes made during construction.

Construction Approved by: _____ Date: _____

Job Approval Class _____ Sheet _____ of _____

TOMAHAWK LAKE PROJECT SUMMARY

Total Project Cost: \$20,305.14

BEFORE PLANTINGS



Project consisted of 250' of rip rap installation (after removal of existing wood/log seawall) and plantings. Project was completed in June, 2017.

AFTER PLANTINGS





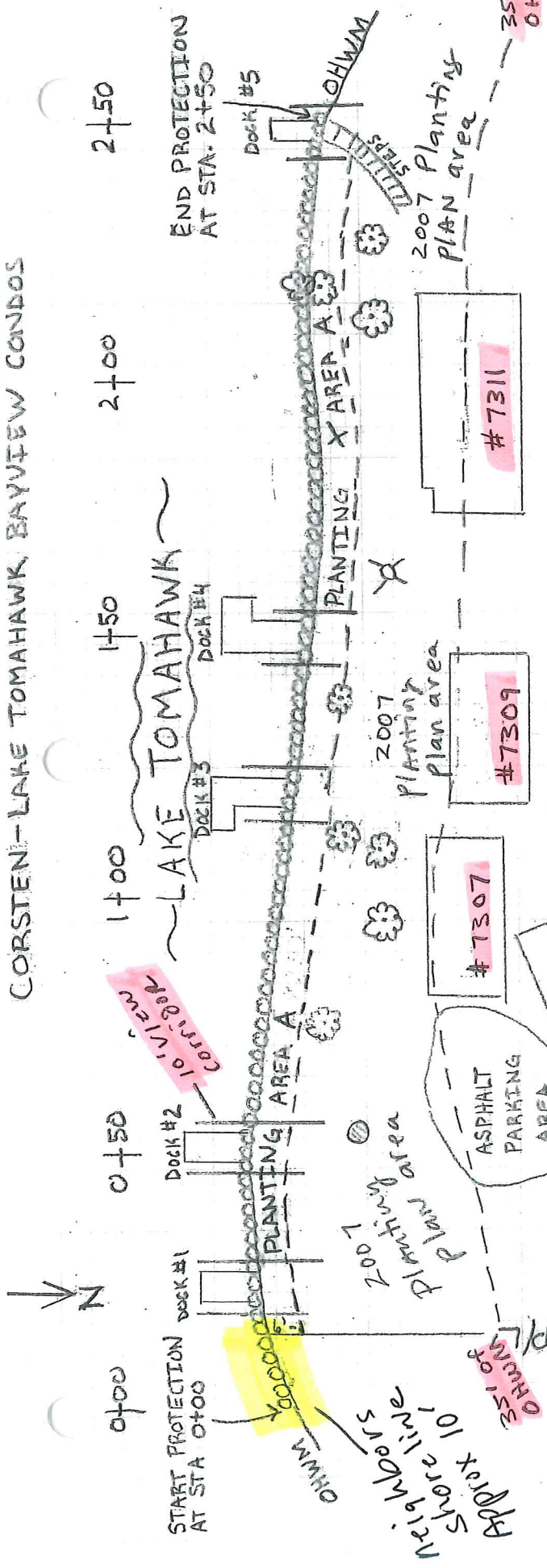
← BEFORE SEAWALL REMOVAL
↓

One hundred cubic yards of rock rip rap, 8 trees, 15 shrubs, 375 groundcover plants and 8 ounces of grass seed mix were used.



← ROCK RIPRAP AFTER
← SEAWALL REMOVAL

CORSTEN-LAKE TOMAHAWK BAYVIEW CONDOS



- KEY
- X STUMP
 - ⊗ SEPTIC COVER
 - ⊙ EXISTING FIRE RING
 - ⊕ EXISTING TREES
 - ROCK RIPRAP
- SCALE 1" = 30 FEET

CORSTEN-LAKE TOMAHAWK
BAYVIEW CONDOS

DRAWN BY: STEPH B.
DATE: NOVEMBER 25, 2015
ONEIDA COUNTY LAND &
WATER CONSERVATION

SHEET 12 OF —

- 1) EXISTING VEGETATION SHALL BE PRESERVED AS MUCH AS POSSIBLE.
- 2) ALLOW AQUATIC VEGETATION TO REMAIN. DO NOT REMOVE.

3) 250' ROCK RIPRAP PLACED ALONG NATURAL CONTOUR OF SHORELINE.

4) NATIVE NON INVASIVE VEGETATION MUST BE USED IN ALL PLANTING AREAS.
5) VEGETATION MUST BE PLANTED BEHIND ENTIRE RIPRAP AREA WITH EXCEPTION OF A 10 FOOT VIEWING OR ACCESS CORRIDOR AT EACH PIER.

6) VEGETATION MUST BEGIN AT THE TOP OF RIPRAP AND EXTEND LANDWARD FOR A MINIMUM OF 6 FEET (see sheet 9-9C for list).

7) REFER TO PLANTING PLAN NOTES AND VEGETATION LIST FOR ADDITIONAL PLANTING INSTRUCTIONS AND APPROPRIATE DENSITIES.

8) PLANTING AREA 250' X 6' = 1500 SQ FT

9) 2007 planting plan area to consist of 26 trees, 61 shrubs, 61 owners expense. This is non-cost shavable.

10) Land within 15' of principal structures may be excluded from plantings.
11) No mow within 35' of OHWM (2007 plan requirement).

* Revised *

9-28-16

ESTIMATED QUANTITIES				
ITEMS	Quantity	Units	Sheet number	WI Const. Spec. or Job Sheet No.
Mobilization	1	Job		WCS #7
Seawall Removal	1	Job		Per Plan
Erosion Control	1	Job		WCS #5
Excavation (lakebed toe)	19	CY		WCS #2
Earthfill	3	CY		WCS #3
Rock Riprap (11 inch D50)	100	CY		WCS #9
Class I Nonwoven Geotextile	278	SY		WCS #13
Compost (3" deep)	20	CY		WI Bio Tech Note 1
Trees (<i>Owner Expense. Non cost-sharable.</i>)	8	EA		WI Bio Tech Note 1
Shrubs (<i>Owner Expense. Non cost-sharable.</i>)	15	EA		WI Bio Tech Note 1
Ground Cover	375	EA		WI Bio Tech Note 1
Forbs Custom Native Seed Mix	4	OZ		WI Bio Tech Note 1
Grass/Sedge Seed Mix	8	OZ		WI Bio Tech Note 1
Nurse Crop Seed	1/4	Pound		WI Bio Tech Note 1
Excelsior net free erosion control blanket	167	SY		WI Bio Tech Note 1
Fencing: 2 year growing season max. Maximum \$1000 amount cost shared.	1	Job		WI Bio Tech Note 1
Watering system: 2 year growing season max. Maximum \$500 amount cost shared.	1	Job		WI Bio Tech Note 1
All quantities are measured to neat lines and grade. It is the contractors responsibility to supply the materials for the job and bid accordingly.				
Owner: CORSTEN LAKE TOMAHAWK BAYVIEW CONDOS				
Designed by: <u>jh & sb</u>				
Checked by: _____				
Sheet <u>1</u> of <u>1</u>				

**PLANTING PLAN NOTES
(CORSTEN LAKE TOMAHAWK BAYVIEW CONDOS)**

1. Location of vegetation will be above rock riprap. It must extend across the entire project area, with the exception of a 10 foot view/access corridor and extend landward for a minimum of 6 feet beginning at the top of the riprap. See Plan View – Planting Areas sheet for further details.
2. **At owner's expense**, 8 trees and 15 shrubs must be located in the planting area noted above in #1. **Not included** in cost-sharing amount.
3. Owner must also satisfy previous Oneida County zoning planting plan from 2007. **At owner's expense**, 26 trees and 61 shrubs must be installed in the area marked '2007 planting plan area'. **Not included** in cost-sharing amount.
4. Number 2 & 3 must be satisfied before Oneida County LWCD will sign off on project and reimburse landowner's deposit and cost-share amount.
5. All plants shall be native and chosen only from the Native Vegetation List provided in plan and chosen by exact scientific names. Use scientific names to purchase plants.
6. A list of the selected plants (scientific names) with individual amounts planted shall be submitted with paid invoice(s).
7. Labels from the annual seed packets must be submitted to Oneida County's Conservation Specialist for approval prior to planting.
8. Maximum size for vegetation cost share shall be the following: Trees – 7 gallon container; Shrubs – 2 gallon container; ground cover – 4.5 inch.
9. One plant per hole
10. Plants shall be evenly distributed in the areas designated for plantings and the correct plants placed in the correct habitat – i.e.: sun, shade, etc.
11. All plants shall be in good condition at time of planting.
12. Plant vegetation at the optimal time of the year
13. Annual rye grass for nurse crop not to be seeded after September 15
14. Newly planted areas will be covered with an excelsior net free erosion control blanket that has a 60 day protection unless otherwise noted
15. Water shall be provided to the newly planted vegetation on a regular basis. This may mean an irrigation system be installed temporarily, not to exceed two growing seasons. Thereafter, water when drought conditions exist
16. No substitutions unless prior approval by Oneida County Land & Water Conservation Dept and landowner.
17. Remember, this is a restoration of a shoreland area and the goal is to look like a natural area, not a landscape look!

**CORSTEN LAKE TOMAHAWK
BAYVIEW CONDOS**

ONEIDA COUNTY LWCD, WI

Designed: jh & sb

Checked:

Sheet of

NATIVE VEGETATION LIST

CORSTEN

Notes:

- Species with * are mandatory.
- Species with + are good for behind rock rip rap and must be planted directly above rock rip rap.
- Grass seeds must be a cultivar approved by UW-Madison for Northern WI.
- Labels from the annual seed packets must be submitted to Oneida County's Conservation Specialist for approval prior to planting.
- Nurse crops must be planted by September 15th.

TREES = 8

Notes: Choose a minimum of two (2) different species/varieties.

Common Name	<i>Scientific Name</i>
Balsam fir	<i>Abies balsamea</i>
Black cherry	<i>Prunus serotina</i>
Bur Oak	<i>Quercus macrocarpa</i>
Common Chokecherry	<i>Prunus virginiana</i>
Ironwood	<i>Ostrya Virginiana</i>
Northern Pin Oak	<i>Quercus ellipsoidalis</i>
Northern Red Oak	<i>Quercus rubra</i>
Northern White Cedar	<i>Thuja occidentalis</i>
Paper Birch	<i>Betula papyrifera</i>
Pin Cherry	<i>Prunus pennsylvanica</i>
Red Maple	<i>Acer rubrum</i>
Red Pine	<i>Pinus resinosa</i>
Serviceberry, Juneberry	<i>Amelanchier laevis</i>
Showy Mountain Ash	<i>Sorbus decora</i>
Swamp White Oak	<i>Quercus bicolor</i>
White Pine	<i>Pinus strobus</i>
Wild Plum	<i>Prunus Americana</i>

SHRUBS = 15

Notes: Choose a minimum of three (3) different species/varieties.

Plants with * are mandatory

Plants with + are good for directly above rock rip rap

Common Name	<i>Scientific Name</i>
Beaked Hazelnut	<i>Corylus cornuta</i>
*+ Blue Flag Iris	<i>Iris versicolor</i>
*+ Blueberry	<i>Vaccinium angustifolium</i>
*+ Bush Honeysuckle	<i>Diervilla lonicera</i>
Downy arrowwood	<i>Viburnum rafinesquianum</i>

NATIVE VEGETATION LIST

CORSTEN

Fragrant Sumac	<i>Rhus aromatic</i>
+ Glossy Black Chokecherry	<i>Aronia melanocarpa</i>
+ Gray dogwood	<i>Cornus racemosa</i>
Hazelnut	<i>Corylus Americana</i> or <i>Corylus cornuta</i>
*+ Highbush Cranberry	<i>Viburnum trilobum</i>
Maple Leaf viburnum	<i>Viburnum Acerifolium</i>
Meadowsweet	<i>Spirea Alba</i>
+ Nannyberry	<i>Viburnum lentago</i>
Nine Bark	<i>Physocarpus opulifolius</i>
Red Elderberry	<i>Sambucus pubens</i>
*+ Redosier/Red-Twig Dogwood	<i>Cornus stolonifera</i>
Smooth Rose	<i>Rosa blanda</i>
Snowberry	<i>Symphoricarpus albus</i>
Staghorn Sumac	<i>Rhus typhina</i>
+ Sweet Gale	<i>Myrica gale</i>
+ Sweet Fern	<i>Comptonia peregrine</i>
* Water Willow	<i>Decodon verticillatus</i>
Winterberry	<i>Ilex verticillata</i>

HERBACEOUS LAYER

GROUND COVER = 375

Notes: Choose a minimum of ten (10) different varieties.

Ground cover shall be comprised of a minimum of 30% grasses and/or sedges.

Plants with * are mandatory

Plants with + are good for directly above rock rip rap

Common Name	Scientific Name
*+ Barren Strawberry	<i>Waldsteinia fragarioides</i>
Bearberry	<i>Arctostaphylos uva-ursi</i>
Big-leaved Aster	<i>Aster macrophyllus</i>
* Black-eye Susan	<i>Rudbeckia hirta</i>
Blue Bead Lily	<i>Clintonia borealis</i>
Bunchberry	<i>Cornus Canadensis</i>
Butterfly Milkweed	<i>Asclepias tuberosa</i>
* Canada Goldenrod	<i>Solidago canadensis</i>
*+ Common Lake Sedge	<i>Carex lacustris</i>
Common Milkweed	<i>Asclepias syriaca</i>
Cranesbill, Wild Geranium	<i>Geranium bicknellii</i>
Culvers Root	<i>Veronicastrum virginicum</i>
Daisy Fleabane	<i>Erigeron glabellus</i>
Dogbane	<i>Apocynum androsaemifolium</i>

NATIVE VEGETATION LIST

CORSTEN

Downy Yellow Forest Violet	<i>Viola pubescens</i>
Early goldenrod	<i>Solidago juncea</i>
Early Meadow Rue	<i>Thalictrum Dioicum</i>
*+ Fireweed	<i>Epilobium angustifolium</i>
*+ Frost Aster	<i>Aster pilosus</i>
Giant, Late, or Smooth goldenrod	<i>Solidago gigantea</i>
Golden Alexander	<i>Zizia Aurea</i>
+ Heath Aster	<i>Aster ericoides</i>
+ Joe Pye Weed	<i>Eupatorium maculatum</i>
Labrador Violet, Dog or Alpine Violet	<i>Viola labradorica</i>
Lance Leaf Coreopsis	<i>Coreopsis lanceolata</i>
Marsh Blue or Hooded Violet	<i>Viola cucullata</i>
Meadowsweet	<i>Spirea Alba</i>
New England Aster	<i>Aster novae-angliae</i>
*+ Northern Blue Flag	<i>Iris versicolor</i>
* Northern Sweet Grass	<i>Hierochloe odorata</i>
Old Field Goldenrod	<i>Solidago nemoralis</i>
Ox-eyed Sunflower	<i>Heliopsis helianthoides</i>
Pale Purple Coneflower	<i>Echinacea pallida</i>
Pearly Everlasting	<i>Anaphalis margaritacea</i>
Purple Coneflower	<i>Echinacea purpurea</i>
* Pennsylvania Sedge	<i>Carex pensylvanica</i>
Purple Prairie Clover	<i>Dalea prupurea</i>
* Pussytoes	<i>Antennaria spp</i>
Red Baneberry	<i>Actaea rubra</i>
Rough Blazing Star	<i>Liatris aspera</i>
Rough Sunflower	<i>Helianthus hirsutus</i>
* Sensitive Fern	<i>Fern Onoclea Sensibilis</i>
Showy Blazing star	<i>Liatris ligulistylis</i>
Showy Goldenrod	<i>Solidago speciosa</i>
+ Sky-blue Aster	<i>Aster azureus</i>
+ Small White Aster	<i>Aster vimineus</i>
Smooth Aster	<i>Aster laevis</i>
White Baneberry	<i>Actaea pachypoda</i>
+ Wild Bergamot	<i>Monarda fistulosa</i>
Wild Columbine	<i>Aquilegia Canadensis</i>
Wild Lupine	<i>Lupinus perennis</i>
Wild Strawberry	<i>Fragaria virginiana</i>
Yarrow	<i>Achillea millefolium</i>
+ Zig zag Goldenrod	<i>Solidago flexicaulis</i>

NATIVE VEGETATION LIST

CORSTEN

FORBS CUSTOM SEED MIX = 4 ounces

Note: Plants with * are mandatory

Common Name	Scientific Name
*Lance Leaf Coreopsis 1 oz.	<i>Coreopsis lanceolata</i>
*New England Aster 1 oz.	<i>Aster novae-angliae</i>
*Purple Coneflower 1 oz.	<i>Echinacea purpurea</i>
*Wild Bergamot 1 oz.	<i>Monarda fistulosa</i>

GRASS/SEDGE SEED MIX = 8 ounces

Note: Choose a minimum of three (3) different varieties

Little blue-stem 2 oz.	<i>Schizachyrium scoparium</i>
Bottlebrush grass 1 ½ oz.	<i>Hystrix patula</i>
Indiangrass 1 oz.	<i>Sorghastrum nutans</i>
Pennsylvania sedge 1 oz.	<i>Carex pensylvanica</i>
Switch grass 1 ½ oz.	<i>Panicum virgatum</i>
Northern Sweetgrass 1 oz.	<i>Hierrochloe hirta</i> (seed may not be available. May substitute with plant plugs)

NURSE SEED = ¼ pound

Note: for temporary cover crop

*Annual Rye Grass Seed ¼ pound	<i>Lolium multiflorum</i>
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Notes: Seed label must be submitted to Conservation Specialist for approval **prior** to planting.

Caution: Do not use winter rye or perennial rye as nurse crop.

Nurse crops must be planted by September 15th.