

CONSTRUCTION PLAN

PRACTICE(S) 580 - Streambank Protection

LANDOWNER City of Richland Center

ADDRESS 450 S. Main Street, Richland Center, WI 53581

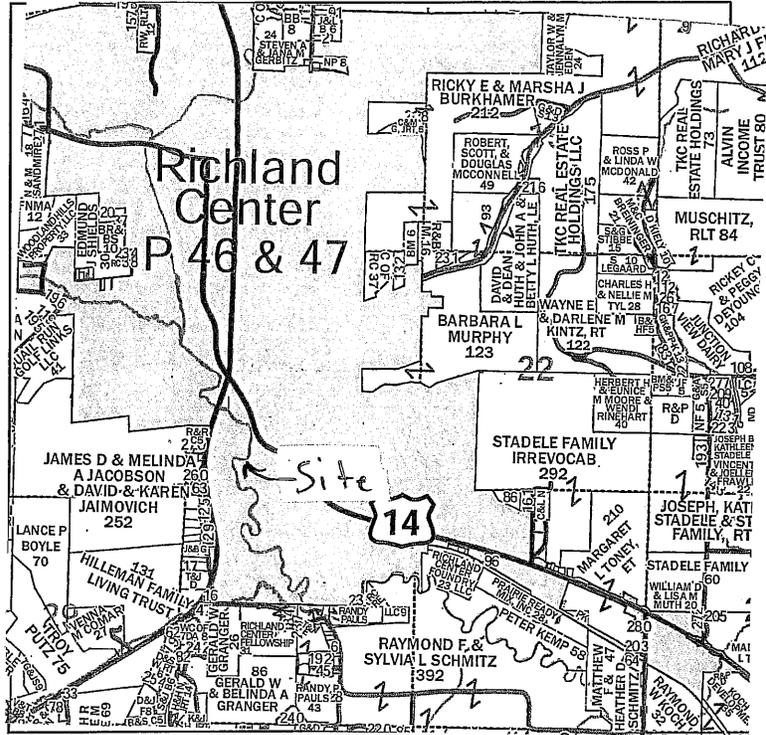
LANDOWNER PHONE NO. 608-647-3466 COUNTY Richland

TOWNSHIP Richland T 10 N, R 1 E/W, Sec. 21

FIELD OFFICE Richland County LCD TELEPHONE NO. 608-647-2100

DIGGERS HOTLINE
 Call 3 Work Days
 Before You Dig!

Nationwide
 811
 Toll Free
 1-800-242-8511
 TDD
 1-800-542-2289
 Website
 www.diggershotline.com



LOCATION MAP

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by the USDA, Natural Resources Conservation Service, or the Richland 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: Ken Anderson Date: 2/07/2019
 Checked by: Ken Anderson Date: 2/07/2019
 Approved by: *Ken Anderson* Date: 2-7-19

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

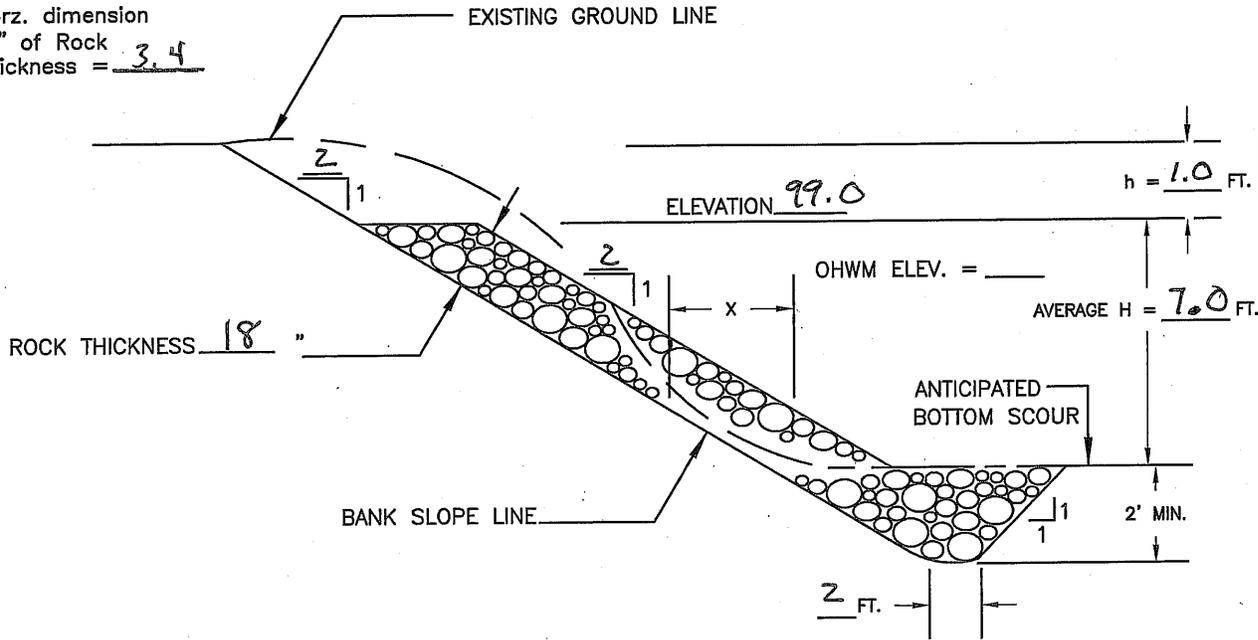
Construction Approved by: _____ Date: _____

Job Approval Class _____ Sheet 1 of 7

Construction Notes

1. Construction is not to be started until all needed permits and approval have been received. Contact Jeff Schure, DNR Water Specialist, at (608) 275-3228 for a permit. Richland County Zoning Dept. 608-647-2447.
2. It is the ~~Landowners~~ responsibility to secure a Diggers Hotline (1-800-242-8511) ticket number. Diggers will notify the owners of any utility, such as buried cable or pipelines that may be present in the construction area, before the start of construction, so that they may locate and stake such utilities.
3. This project must be staked by a Richland County LCD technician prior to the start of any construction. Technician will be present to assist with the installation of structures.
4. Use only rock that is approved by NRCS and meets criteria in Wisconsin Construction Spec.9.
5. Place rock and distribute sizes to assure a tight fit. Do not dump rock over the bank.
6. Spread spoil out in a layer of less than 6" and seed down. Do not spread spoil in wetlands.
7. All disturbed areas and spoil must be seeded and mulched.
8. The brush will be burned and/or buried.

Horz. dimension
"X" of Rock
Thickness = 3.4



TYPICAL CROSS SECTION

GRADATION OF ROCK

PERCENT PASSING BY WEIGHT	SIZE (INCHES)
100	12
60-85	9
25-50	6
5-20	3
0-5	1

QUANTITY ESTIMATE*

BANK SLOPING FOR RIPRAP	<u>500</u>	LIN. FT.
BANK SLOPING (SEEDING ONLY)	<u>500</u>	LIN. FT.
ROCK FOR RIPRAP (WI CONST. SPEC. 9)	<u>700</u>	CU. YD.
SEEDING	<u>1.0</u>	ACRES

*ESTIMATED TO THE NEAT LINES AND GRADE

NOTES:

- DOUBLE THE ROCK THICKNESS FOR A DISTANCE OF 5 FEET AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE RIPRAP. BLEND THE ROCK SURFACE TO MATCH THE EXISTING STABLE BANK SURFACE.

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE.

EXCAVATED KEYWAY

SITE 1



United States
Department of
Agriculture

Natural Resources
Conservation Service

STREAMBANK PROTECTION NO
FILTER OR GEOTEXTILE (PARTIAL
BANK HEIGHT)

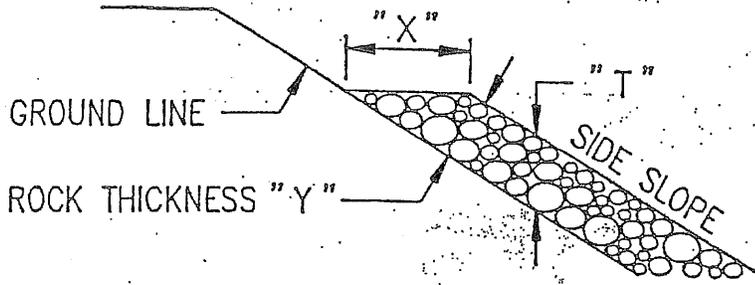
CLIENT: City of R.C.
COUNTY: Richland

Designed K. Anderson Date 2/4/19
Drawn K. Anderson Date 2/4/19
Checked _____
Approved _____

File Name
WI-404E
Date
07/14

Sheet 5 of 7

ROCK RIPRAP SECTION DIMENSIONS



VALUE OF ROCK TOP WIDTH "X" IN FEET

Rock Thickness "Y" inches	Side Slope		
	1-1/2:1	2:1	3:1
12	1.8	2.2	3.2
15	2.3	2.8	4.0
18	2.7	3.4	4.7
21	3.2	3.9	5.5
24	3.6	4.5	6.3
27	4.1	5.0	7.1
30	4.5	5.6	7.9
33	5.0	6.2	8.7
36	5.4	6.7	9.5
39	5.9	7.3	10.3
42	6.3	7.8	11.1
45	6.8	8.4	11.9
48	7.2	9.0	12.7

VERTICAL "T" VS NORMAL TO SLOPE "Y" THICKNESS DIMENSIONS

Rock Thickness "Y" inches	Side Slope		
	1-1/2:1	2:1	3:1
12	1.2	1.1	1.0
15	1.5	1.4	1.3
18	1.8	1.7	1.6
21	2.1	2.0	1.8
24	2.4	2.2	2.1
27	2.7	2.5	2.4
30	3.0	2.8	2.6
33	3.3	3.1	2.9
36	3.6	3.4	3.2
39	3.9	3.6	3.4
42	4.2	3.9	3.7
45	4.5	4.2	4.0
48	4.8	4.5	4.2

SEEDING DATES

TIME PERIOD	DATES			TYPE OF SEEDING
Spring	April 15	through	June 1	Permanent
Summer	June 2	through	July 31	Temporary *
Late Summer	August 1	through	August 21	Permanent
Fall	August 22	through	October 15	Temporary *
Late Fall	November 1	through	Snow Cover	Dormant
Winter	No snow cover	through	April 14	Frost Seed

MATERIALS

Apply Ag Lime (80-85) at the rate of 2 tons per acre.

Apply 150 pounds per acre of 20 - 10 - 10 fertilizer.

Mulch with 1-1/2 tons per acre of straw or hay reasonably free from grain and weed seed. If other mulch materials are used, the rate of application shall meet the manufacturer's recommendations.

* Seed a temporary cover crop of Annual Ryegrass at a rate of 25 pounds/acre.

A permanent seeding shall be completed during the next acceptable time period following a temporary seeding.

MINIMUM PURE LIVE SEED (PLS)¹ RATE PER ACRE AND TOTAL POUNDS OF SEED NEEDED

SEEDING MIX <u>Custom</u>			LOCATION <u>Disturbed Areas</u> ACRES <u>1.0</u>			SEEDING MIX _____			LOCATION _____ ACRES _____		
SPECIES	RATE	POUNDS	SPECIES	RATE	POUNDS	SPECIES	RATE	POUNDS	SPECIES	RATE	POUNDS
Alsike Clover	1.2	1.2									
Timothy	4.8	4.8									

1. PLS = (% Germination X % Purity)

SEEDBED PREPARATION

During the recommended seeding periods, seedbed preparation shall immediately follow construction activities. Prepare a fine, firm seedbed to a minimum depth of 3 inches.

SEEDING

Inoculate legumes with the specific inoculum for the species in accordance with the manufacturer's recommendations. When using a hydroseeder, five times the recommended rate of inoculant shall be added to the hydroseeder. Inoculant shall not be mixed with liquid fertilizer. Seed grasses and legumes no more than 1/4 inch deep. Seed may be broadcast or drilled as appropriate to the site. Seeding shall be done prior to mulching, except for dormant seedings.

MULCHING

Mulching shall be done prior to seeding and immediately after seedbed preparation when seeding is accomplished as a dormant seeding. Spread mulch uniformly. Straw mulch materials shall be stabilized by the use of a disk, by a suitable non-asphaltic tackifier, or by netting. A disk harrow shall have the disks set straight and the harrow shall be used to anchor the straw mulch into the soil. The tackifier shall be applied uniformly over the mulch material at the specified rate, or by injecting it into the mulch material as it is being applied. The netting shall be stapled per the manufacturer's recommendations.



INTRODUCED SPECIES SEEDING ESTABLISHMENT

CLIENT: City of R.C.
COUNTY: RICHLAND

Designed <u>K. Anderson</u>	Date <u>2-7-19</u>	File Name <u>WI-710</u>	Date <u>6/07</u>
Drawn <u>K. Anderson</u>	Date <u>2-7-19</u>		
Checked <u>K. Anderson</u>	Date <u>2-7-19</u>		
Approved <u>K. Anderson</u>	Date <u>2-7-19</u>		
			Sheet <u>7</u> of <u>7</u>