Agenda item: Town of Westport Erosion Control Project Funding Request

Attachment(s):

- Letter from Town Administrator
- Project summary from Town of Westport

Background: IGA member Town of Westport has requested that Yahara WINS fund up to $5,000 to help offset the costs for a streambank stabilization project. The project aims to control erosion and reduce the soil and phosphorus entering six mile creek. The project will result in 932 lbs./phosphorus reduced over a 20 year period (46.6 lbs./year) at a cost of $16 per pound.

This project is the same project that the Town of Westport submitted for a conventional WINS grant in 2018. [https://www.madsewer.org/Portals/0/ProgramInitiatives/YaharaWINs/Meetings/2018%20Jun%2012/2018%20P%20Grant%20recommendation%20to%20WINS%20Exec%20Comm.pdf](https://www.madsewer.org/Portals/0/ProgramInitiatives/YaharaWINs/Meetings/2018%20Jun%2012/2018%20P%20Grant%20recommendation%20to%20WINS%20Exec%20Comm.pdf). At that time the Town of Westport was seeking a grant for $20,000 to offset the cost of the project.

Alternative #1: Do not fund the project.

Recommendation: Fund the project using the $5,000 unencumbered carry over from the CLA 2018 MOU contribution to Yahara WINS.

Note: The 2018 MOU with CLA allocated $25,000 to be used in the upper part of the watershed. $20,000 has already been used to fund 2018 grant projects. $5,000 that was unencumbered in 2018 carried over in to 2019 to be used for a project in the upper part of the watershed (stream reaches 62, 63, and 64). The Town of Westport is located in stream reach 64.
From: Tom Wilson <twilson@townofwestport.org>
Sent: Wednesday, December 12, 2018 9:34 AM
To: Martin Griffin
Cc: Kevin and Leslie Even - Waunakee (kevin@waunakee.com); Robert Anderson; Jessica Frey; Tom Wilson; Barry Buckwalter
Subject: FW: Proposal for 2018 Yahara WINS Funding/Grant, Town of Westport, Six Mile Creek Stream Bank Stabilization project
Attachments: 2018-04-30 Yahara WINS Phosphorus Reduction Grant Submittal.pdf

Martye,

I wanted to follow up on discussions we have had at past Yahara WINS Executive Committee meetings about the funding of a phosphorous reduction, erosion control, and stream bank stabilization project we are undertaking here in Westport. I have attached the specific details here from a previous grant application the Town made to Yahara WINS. We have now obtained all permits and are ready to move forward this winter with the project, but still could use funding to make sure we can cover costs, and don’t have to cut corners. As we discussed, Yahara WINS does have other ways to fund a wonderful project like this outside of the previous grant process. I feel that the Yahara WINS relationship with Westport is a good one, especially considering that the Town is going above and beyond by supporting and being a part of the Yahara WINS partnership. With this in mind, I think it makes a lot of sense for Yahara WINS to assist the Town in helping to make the project successful. Therefore I am writing to obtain funding from Yahara WINS sources to support this much needed project in the Town.

Please reply and let me know if the partnership will agree to assist us with this project, or if there is anything further you need from me to obtain funding. The Town was hoping that Yahara WINS would fund up to $5,000.00, but of course if more is available and appropriate, that would be excellent!

Thank you very much for your consideration and support.

Tom

Thomas G. Wilson
Attorney/Administrator/Clerk-Treasurer
Town of Westport (Dane County, WI)
Population 4,018

5387 Mary Lake Road
Waunakee, WI 53597
twilson@townofwestport.org
www.townofwestport.org
http://twitter.com/TownofWestport
(608) 849-4372
(608) 849-9657 FAX
Hi Kathy,

Please see the attached grant application submittal for the Town of Westport Sixmile Creek Streambank Stabilization project. Please let me know if you have any questions during your review.

Thanks!

Justin Gutoski, P.E.
Strand Associates, Inc.
608.251.4843 ext. 1019
justin.gutoski@strand.com | www.strand.com

Excellence in Engineering Since 1946.
2018 Conventional Grants - Instructions

1. A total of $40,000 is available in 2018 to fund low-cost phosphorus reduction practices.
2. The maximum award for any single project is $20,000.
3. Projects shall be new or expanded efforts. The intent of this program is to increase phosphorus reduction efforts and not to provide redundant funding to existing activities.
4. The applicant must identify the pounds of phosphorus expected to be reduced each year due to the new or expanded effort, the number of years the practice will continue reducing phosphorus (for grant purposes, this will be capped at 20 years), the associated cost per pound of phosphorus controlled per year and the method(s) used to calculate and verify phosphorus reductions.
5. Applications will be accepted by email to kathyl@madsewer.org until May 18. Email subject shall be “Proposal for 2018 Yahara WINS Conventional Grant.”
6. If funding remains after the initial review, applications received after May 18, 2018 will be considered.
7. Projects will be ranked based on the grant amount per pound of phosphorus reduction credited to Yahara WINS per year and for projects requesting less than $100 per pound of phosphorus reduced, with the lowest cost per pound receiving highest ranking. Projects completed in 2018 will receive a 10% priority (evaluated cost/pound will be reduced by 10% for project comparison purposes).
8. Only phosphorus reductions credited to Yahara WINS will count toward the pounds reduced when developing the ranking.
9. Yahara WINS will prorate the award for projects that receive funding but are unable to meet their phosphorus reduction estimates. In these cases, the funding awarded will be reduced by the same percentage as the percent difference between estimated and actual phosphorus reduction. Awards will not be adjusted upward.
10. Yahara WINS reserves the right to consider application data including: strength of method of verifying phosphorus reductions and/or the longevity of practices to determine those applications that are in the best interest of Yahara WINS. Application(s) that would be partially-funded when all funds are exhausted will be offered the remaining funds (or an equal share of the remaining funds, in the case of a tie).
11. Since this program aims to transfer knowledge as well as increase phosphorus reduction, awardees will develop a short report on the project. Prior to final payment, funded entities will submit the following:
   • A description of challenges experienced with project planning, implementation and/or verification;
   • Verification/documentation of practice(s);
   • Revised calculation of phosphorus loss reduced and project cost; and
   • Photos of the project.
12. The first 50 percent of the awarded cost incurred will be reimbursed to applicants, based on copies of invoices for project expenses. The remaining reimbursement will be provided once the project report (including summary, verification and photos) is submitted to Yahara WINS (c/o Kathy Lake, kathyl@madsewer.org). Please contact Kathy Lake at 608-222-1201, ext. 278 with questions.
1. Organization: Town of Westport

2. Project description:
   See Attachment A

3. Project Location: Carriage Ridge Conservancy Park. Exact location shown in ________
   a. TMDL reach(es) (see Figure 1): 64

4. Will the project be completed by December 31, 2018? Yes [✓] No [ ]

5. Will the project be completed by December 31, 2019 Yes [✓] No [ ]

6. Total project cost: $123,600 dollars

7. Total dollars requested: $20,000 dollars

8. Total pounds of phosphorus reduced per year: 46.6 lbs.

9. Project life? 20 Years (for grant purposes, the maximum project life is 20 years).

10. Total pounds of phosphorus reduced over project life? 932 lbs.

11. Total pounds of phosphorus credited to Yahara WINS due to project? 932 lbs (total over the life of the project).

12. Method(s) used to calculate and verify phosphorus reductions:
   See Attachment F for calculations.

13. Is this project a new or expanded project? New [✓] Expanded [ ]
   If this is an expanded effort, how does this effort exceed existing efforts?

14. Have required permits been obtained for this project? Yes [ ] No [✓]
   If no, what is the anticipated date of the last permit needed to complete the project? 6/1/18

15. Would you accept partial funding? Yes [✓] No [ ]

16. Project contact information:
   a. Name: Jessica Frey
   b. Municipality or organization: Town of Westport
   c. Email address: jfrey@townofwestport.org
   d. Telephone number: 608-849-4372

Certification: The person noted below certifies that the information contained in this application is true and correct to the best of his/her knowledge. As a participant in a pilot project, the person noted below understands that the review committee reserves the right to work with applicants to develop a clearer understanding of the projects as well as cost opinions and projected phosphorus reductions.
Return completed applications by May 18, 2018 to Kathy Lake, kathy1@madsewer.org. Please include the email subject line, “Proposal for 2018 Yahara WINS Conventional Grant.”

**Figure 1 - TMDL Reaches in the Yahara Watershed**

**Additional Information or continuation of previous answers (attach additional pages as needed):**
Attachment A - Project Description
Project Name: Sixmile Creek Streambank Stabilization

The Sixmile Creek is a highly sinuous creek that flows from Village of Waunakee south through the Town of West Port eventually discharging into Lake Mendota. The Carriage Ridge Path in the Carriage Ridge Conservancy Park southwest of the existing wooden pedestrian bridge over the Sixmile Creek needs protection against erosion. At this location, the Sixmile Creek creates a narrow strip of land that is 25 feet or less between the meanders of the creek.

The storm events in 2017 have continued to erode the streambanks along the path and without streambank restoration this strip of land is at risk. This narrow strip of land between the Sixmile Creek connects the north side of the creek to the south side of the creek via the pedestrian bridge and is regularly used by members of the community.

To protect against the current eroding, 200-feet of the streambank on both sides of the path will be stabilized by boulder revetment. This will include geotextile fabric, 3” clear stone, medium riprap, compacted fill, and a turf reinforcement mat system. This design can be found in the details of the plan set in Attachment G.

The Town of Westport is proceeding on a schedule that includes final design completion in January 2018 and construction to occur in Spring/Summer 2018 with construction completion in Summer/Fall 2018.

Yahara WINs Grant funds for this project will be used for design and project construction.
SIXMILE CREEK STREAMBANK STABILIZATION
TOWN OF WESTPORT
DAE COUNTY, WISCONSIN

FIGURE 1
1139.010
### Sixmile Creek Streambank Stabilization

**Town of Westport, Wisconsin**

**ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST: 90% Construction Documents**

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>Quantity</th>
<th>Units</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobilization (2.5% of construction cost)</td>
<td>1</td>
<td>LS</td>
<td>$3,100.00</td>
<td>$3,100</td>
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<tr>
<td>2</td>
<td>Clearing and Grubbing</td>
<td>0.80</td>
<td>ACRE</td>
<td>$8,000.00</td>
<td>$6,400</td>
</tr>
<tr>
<td>3</td>
<td>Dewatering</td>
<td>1</td>
<td>LS</td>
<td>$10,000.00</td>
<td>$10,000</td>
</tr>
<tr>
<td>4</td>
<td>Dust Control</td>
<td>1</td>
<td>LS</td>
<td>$2,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>5</td>
<td>Stone Tracking Pad at Construction Entrances</td>
<td>1</td>
<td>EA</td>
<td>$3,800.00</td>
<td>$3,800</td>
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<tr>
<td>6</td>
<td>Erosion Control and Maintenance</td>
<td>1</td>
<td>LS</td>
<td>$3,500.00</td>
<td>$3,500</td>
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<tr>
<td>7</td>
<td>Turbidity Barrier</td>
<td>2</td>
<td>EA</td>
<td>$3,000.00</td>
<td>$6,000</td>
</tr>
</tbody>
</table>

**Streambank Restoration**

|   | Unclassified Excavation for Streambank Restoration               | 384      | CY    | $40.00      | $15,373   |
|   | Boulder Revetment                                               | 353      | LF    | $70.00      | $24,710   |
|   | Turf Reinforcement Mat System With Native Seed Mix              | 196      | SY    | $22.25      | $4,361    |

**Access Route Restoration**

|   | Access Route Stabilization                                     | 1        | LS    | $5,000.00   | $5,000    |
|   | Erosion Control Mat with Bromegrass Seed Mix                   | 3,000    | SY    | $7.75       | $23,250   |

**Total Project Cost** $123,600

**Construction Contingency (15%)** $16,100

**TOTAL PROJECT COST** $140,000

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Note: The project may be constructed by Town staff, in which case the cost would be more in the range of $65,000 with corresponding improvement cost-effectiveness ($/lbs. of TP).
Date: September, 2017
Time: 7:30 A.M.

Description:
Standing on the Carriage Ridge path looking towards the west bank of the Sixmile Creek where boulder revetment is proposed.
Date: September, 2017

Time: 7:30 A.M.

Description:
Standing on the Carriage Ridge path looking at the east bank of the Sixmile Creek where boulder revetment is proposed.

Date: September, 2017

Time: 7:30 A.M.

Description:
Standing on the Carriage Ridge path looking at the west bank of the Sixmile Creek where boulder revetment is proposed.
<table>
<thead>
<tr>
<th>Date:</th>
<th>September, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time:</td>
<td>7:30 A.M.</td>
</tr>
<tr>
<td>Description:</td>
<td>Standing on the Carriage Ridge path looking towards the west bank of the Sixmile Creek where boulder revetment is proposed.</td>
</tr>
</tbody>
</table>

Date: September, 2017
Time: 7:30 A.M.
Description: Standing on the Carriage Ridge path looking north to both the east and west banks of the Sixmile Creek where boulder revetment is proposed.

YAHARA WINS GRANT APPLICATION
SIXMILE CREEK STREAMBANK STABILIZATION
TOWN OF WEST PORT
WEST PORT, WISCONSIN
SITE PHOTOGRAPHS
### Sixmile Creek Streambank Stabilization

<table>
<thead>
<tr>
<th></th>
<th>Centerline Length (ft)</th>
<th>Streambank Length (ft)</th>
<th>Height of Erosion (ft)</th>
<th>Area of Erosion (sf)</th>
<th>Severity Index</th>
<th>Lateral Recession Rate (ft/year)</th>
<th>Soil Texture</th>
<th>Soil Density (pcf)</th>
<th>Erosion (Tons/Year)</th>
<th>P Concentration in Soil (ppm)</th>
<th>P Reduction (%)</th>
<th>P Reduction (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streambank Restoration east bank of Sixmile Creek</td>
<td>200</td>
<td>200</td>
<td>3</td>
<td>600</td>
<td>4</td>
<td>0.37</td>
<td>Silt Loam</td>
<td>90</td>
<td>10.0</td>
<td>1000</td>
<td>0.10%</td>
<td>29.98</td>
</tr>
<tr>
<td>Streambank Restoration west bank of Sixmile Creek</td>
<td>200</td>
<td>200</td>
<td>4</td>
<td>800</td>
<td>4</td>
<td>0.37</td>
<td>Silt Loam</td>
<td>90</td>
<td>13.3</td>
<td>2000</td>
<td>0.10%</td>
<td>26.64</td>
</tr>
</tbody>
</table>

**Total:** 46.62

---

**Per Stoughton 2016 Soil Sample**
Average Soil P Conc. Based on Lab Results

- **P Concentration in Soil:** 0.10%

---

*Lateral Recession Rate:*

- 26.3-20.0/17
- 0.37

---

2000 Aerial Photo Measurement of Carriage Ridge Path showing 26.3ft of bank

2017 Aerial Photo Measurement of Carriage Ridge Path showing 20.0ft of bank

---

*Adapted from USDA NRCS Streambank Erosion Field Office Technical Guide (11/2003)*

- 1-Stable: N/A
- 2-Slight: 0.01-0.05
- 3-Moderate: 0.06-0.2
- 4-Severe: 0.3-0.5
- 5-Very Severe: 0.5+
### 20 Year TP NPW Calculations

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost Total</th>
<th>P Reduction (lbs) Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$20,000</td>
<td>46.6</td>
</tr>
<tr>
<td>2</td>
<td>$0</td>
<td>46.6</td>
</tr>
<tr>
<td>3</td>
<td>$0</td>
<td>46.6</td>
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<tr>
<td>4</td>
<td>$0</td>
<td>46.6</td>
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<tr>
<td>5</td>
<td>$0</td>
<td>46.6</td>
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<td>6</td>
<td>$0</td>
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<td>7</td>
<td>$0</td>
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<td>20</td>
<td>$0</td>
<td>46.6</td>
</tr>
<tr>
<td>Total</td>
<td>$20,000</td>
<td>932</td>
</tr>
</tbody>
</table>

- Discount Rate: 4.375%
- Total Requested from MMSD: $20,000.00
- Present Value: $19,162
- Total P Reduction (lb): 932
- $/lb P: $20.56
SECTION A-A

- The width of erosion mat shall always equal existing slope and soil conditions so permit.
- Flood stakes for sod may be omitted if the only jute fabric will be permitted over sod.
- Erosion mat over sod shall be measured and paid for in accordance with the standard specifications.

5. Edges of the erosion mat shall be impressed in accordance with the standard specifications.

- Junction slots on adjacent strips of matting shall be staggered a minimum of 4 feet apart.
- V-junction slots on adjacent strips of matting shall be made the same as the standard 4-foot, 3-inch standard.
- Lap joints shall not be placed in the bottom of V-shaped ditches.
- Variations in the dimensions or materials shown hereon shall be permitted if they provide equivalent protection and material strength.

4. Details of construction, materials and notes:

- The width of erosion mat shall always equal existing slope and soil conditions so permit.
- Flood stakes for sod may be omitted if the only jute fabric will be permitted over sod.
- Erosion mat over sod shall be measured and paid for in accordance with the standard specifications.

3. Erosion mat shall be measured and paid for in accordance with the standard specifications.

2. Edges of the erosion mat shall be impressed in accordance with the standard specifications.

1. Junction slots on adjacent strips of matting shall be staggered a minimum of 4 feet apart.
- V-junction slots on adjacent strips of matting shall be made the same as the standard 4-foot, 3-inch standard.
- Lap joints shall not be placed in the bottom of V-shaped ditches.
- Variations in the dimensions or materials shown hereon shall be permitted if they provide equivalent protection and material strength.

NOTES:

- Contractor is responsible for controlling dust per any technical standard; dust control on construction sites is required.
- Proper disposal of all waste and unused building materials including gravel, gravel cleaning materials, or other construction materials and do not allow these materials to be carried off onto the receiving channel.
- Use of additional erosion and sediment control measures will not reduce required project costs and shall be as needed, as indicated by Dane County.
- Dust control on construction sites is required.
- Use of additional erosion and sediment control measures will not reduce required project costs and shall be as needed, as indicated by Dane County.
**TREATMENT POINT**

**BOTTOM OF**

**W/ 3" CLEAR STONE**

**EXCAVATE AND BACKFILL**

**TOP OF TREATMENT POINT**

**GEOTEXTILE FABRIC**

**NWL**

**SCALE: 1"=4'**

**ALONG RIP RAP**

**TUCK TRM 2 FT MINIMUM**

**18"**

**FILL**

**COMPACTED**

**3**

**B**

**MAT SYSTEM**

**TURF REINFORCEMENT**

**GROUND**

**EXISTING**

**SUBGRADE**

**5" SALVAGED TOPSOIL**

**SEED WITH NATIVE SEED MIX AND COVER CROP**

**1" SALVAGED TOPSOIL AND SEED**

**GUARD RAIL**

**EXISTING CULVERT**

**FENCE**

**NOTATION FOR COMBUSTIBLE FLUIDS**

**CAUTION**

**UNDERGROUND ELECTRIC CABLE**

**ORIGINAL GROUND IN PROFILE**

**E**

**G**

**2"**

**G**

**GAS MAIN**

**EXISTING SANITARY SEWER AND SAN**

**6"**

**MANHOLE**

**TELEPHONE OR TV CABLE**

**PAVED ROAD**

**SILT FENCE**

**CONTROL POINT**

**STORM SEWER**

**SANITARY SEWER**

**FORCE MAIN**

**WATER MAIN**

**F**

**W**

**SS**

**SAN**

**FO**

**FIBER OPTIC CABLE**

**GUY WIRE & ANCHOR**

**OBJECTS TO BE REMOVED**

**LIGHT POLE**

**BURIED TELEPHONE CABLE PEDESTAL**

**EXISTING UTILITY POLE**

**PRIVATE WELL**

**PROPERTY STAKE**

**BENCH MARK**

**SOIL BORING**

**SIGN**

**PROPERTY LINE AND/OR RIGHT OF WAY**

**ROAD SIGN**

**I.P.**

**IRON PIPE**

**MAIL BOX**

**INLET**

**CURB WATER BOX**

**EXISTING DECIDUOUS TREE**

**EXISTING CONIFEROUS TREE**

**TEMPORARY EASEMENT**

**WETLAND AREA**

**STANDARD SYMBOLS**

**PAPER ROAD**

**CASTING CLAY**

**NOTE: FOR INSPECTION PURPOSES**

**FORGE WIRE**

**TIME SERIES**

**SANITARY SEWER**

**EXISTING INFRASTRUCTURE AND APPURTENANCES**

**UNDERGROUND ELECTRIC CABLE**

**DRAINAGE GROUND IN PROFILE**

**FENCE**

**GUARD RAIL**

**SET FENCE**

**CONTROL POINT**

**SILT PIPE & MESH**

**NOTE:**

1. **NATIVE SEED MIX** REQUIRED: **LOW PROFILE MOIST MEADOW** SEED MIX AVAILABLE FROM CARDNO, **STREAMBANK STABILIZATION SEED MIX AVAILABLE FROM AGRECOL, STORMWATER SEED MIX AVAILABLE FROM ROLANKA, GEOCOIR 700 FROM BELTON INDUSTRIES, OR APPROVED EQUAL.**

2. **SEED WITH NURSERY SEEDMix AND COVER CROP**

3. **SEED COVER CROP AT A RATE OF 63 LF/ACRE.**

**TURF REINFORCEMENT MAT SYSTEM DETAIL**

**NO SCALE**
NOTES:

1. PROVIDE TURF SEED BAGGED FOR YOUR TECHNICAL
   STANDARDS OR ALONG ALL TURFED AREAS FOR
   EROSION CONTROL.

2. ALL SURFACES SHOWN ALONG CONSTRUCTION ACCESS
   ROUTES AND STORAGE AREAS SHALL BE COVERED
   WITH TRACKING PAD AT EXITING ONTO WOODLAND
   DRIVE. ON ACCESS ROUTE PRIOR TO CONSTRUCTION
   VEHICLES PLACE TRACKING PAD FOR CONSTRUCTION
   ENTRANCE.

3. PLACE TRACKING PAD FOR CONSTRUCTION EXITS
   USING HIPS TRENCH TO CONSTRUCTION VEHICLES
   DURING CONSTRUCTION PHASE.

LEGEND

WATER
EDGE OF
BOULDER REVETMENT
TRM SYSTEM
TOP OF BANK

DATE: 11/30/17, EL. = 850.50
SURFACE ELEVATION (SURVEY
APPROXIMATE NORMAL WATER
CREEK BOTTOM
APPROXIMATE EXISTING
CREEK BOTTOM

PROPOSED EAST
TOP OF BANK

APPROXIMATE NORMAL WATER
SURFACE ELEVATION SURVEY
DATE: 11/30/17, EL = 850.50

APPROXIMATE EXISTING
CREEK BOTTOM

13.2'

EXITING ONTO WOODLAND DRIVE.
ON ACCESS ROUTE PRIOR TO CONSTRUCTION
VEHICLES PLACE TRACKING PAD FOR CONSTRUCTION
ENTRY.

ALL DISTURBED AREAS ALONG CONSTRUCTION ACCESS
ROUTES AND STAGING AREAS SHALL BE COVERED
WITH TRACKING PAD AT EXITING ONTO WOODLAND
DRIVE. ON ACCESS ROUTE PRIOR TO CONSTRUCTION
VEHICLES PLACE TRACKING PAD FOR CONSTRUCTION
ENTRY.

1. PROVIDE TURF SEED BAGGED FOR YOUR TECHNICAL
   STANDARDS OR ALONG ALL TURFED AREAS FOR
   EROSION CONTROL.

2. ALL SURFACES SHOWN ALONG CONSTRUCTION ACCESS
   ROUTES AND STORAGE AREAS SHALL BE COVERED
   WITH TRACKING PAD AT EXITING ONTO WOODLAND
   DRIVE. ON ACCESS ROUTE PRIOR TO CONSTRUCTION
   VEHICLES PLACE TRACKING PAD FOR CONSTRUCTION
   ENTRANCE.

3. PLACE TRACKING PAD FOR CONSTRUCTION EXITS
   USING HIPS TRENCH TO CONSTRUCTION VEHICLES
   DURING CONSTRUCTION PHASE.
NOTES
1. PROVIDE TURBIDITY BARRIERS PER TECHNICAL STANDARDS AND ALONG ALL DISTURBED AREAS FOR EROSION CONTROL.
2. ALL DISTURBED AREAS ALONG CONSTRUCTION ACCESS ROUTES AND EXISTING PEDESTRIAN WALKS SHALL BE RESTORED TO THEIR PREVIOUS CONDITION. MINIMUM 10 FT. LAWNED BUFFER ZONE AT ALL LAWNED AREAS, AND CLASS II TYPE C EROSION CONTROL BERM.
3. PLACE TRACKING PAD FOR CONSTRUCTION ENTRANCE ON EXISTING DRIVE PRIOR TO CONSTRUCTION VEHICLES EXITING INTO WOODED AREA.

LEGEND
- TREE SYSTEM
- HOLDING TRENCH

SIXMILE CREEK STREAM BANK STABILIZATION TOWN OF WESTPORT DANE COUNTY, WISCONSIN

PROPOSED WEST
TOP OF BANK

APPROXIMATE NORMAL WATER SURFACE ELEVATION (SURVEY DATE: 6/30/17, EL= 850.00)

APPROXIMATE EXISTING CREEK BOTTOM

 DATE: 11/30/17, EL = 850.00

SURFACE ELEVATION (SURVEY APPROXIMATE NORMAL WATER EDGE OF BANK)

EXISTING PEDESTRIAN WALK NO TURF ACCESS

ACCESS)

BRIDGE (NO VEHICLE
EXISTING PEDESTRIAN
ROUTE PRIOR TO CONSTRUCTION VEHICLES EXITING INTO WOODED AREA.

PROVIDE TURBIDITY BARRIER PER WDNR TECHNICAL SPECIFICATIONS ALONG ALL DISTURBED AREAS FOR EROSION CONTROL.

NOTE:
1. ALL DISTURBED AREAS ALONG CONSTRUCTION ACCESS ROUTES AND EXISTING PEDESTRIAN WALKS SHALL BE RESTORED TO THEIR PREVIOUS CONDITION. MINIMUM 10 FT. LAWNED BUFFER ZONE AT ALL LAWNED AREAS, AND CLASS II TYPE C EROSION CONTROL BERM.
2. PLACE TRACKING PAD FOR CONSTRUCTION ENTRANCE ON EXISTING DRIVE PRIOR TO CONSTRUCTION VEHICLES EXITING INTO WOODED AREA.

LEGEND
- TREE SYSTEM
- HOLDING TRENCH

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CROSS SECTIONS
SIXMILE CREEK STREAMBANK STABILIZATION
TOWN OF WESTPORT
DADE COUNTY, WISCONSIN

EXISTING GROUND (TYP.)

TRM SYSTEM

TOP OF BANK (TYP.) 1:3

BOULDER REVETMENT (TYP.)

GROUND (TYP.)

846

850

852

2+92.54
CROSS SECTIONS
SIXMILE CREEK STREAMBANK STABILIZATION

TOWN OF WESTPORT
DADE COUNTY, WISCONSIN