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**VIRTUAL/TELECONFERENCE  
CEMETERY BOARD  
Virtual, 4822 Madison Yards Way, Madison  
Contact: Will Johnson (608) 266-2112  
September 20, 2023**

*The following agenda describes the issues that the Board plans to consider at the meeting. At the time of the meeting, items may be removed from the agenda. Please consult the meeting minutes for a description of the actions of the Board.*

**AGENDA**

**1:00 P.M.**

**OPEN SESSION – CALL TO ORDER – ROLL CALL**

- A. Adoption of Agenda (1-3)**
- B. Approval of Minutes of August 8, 2023 (4)**
- C. Introductions, Announcements, and Recognition
- D. Reminders: Conflicts of Interest, Scheduling Concerns
- E. Administrative Matters – Discussion and Consideration**
  - 1) Department, Staff and Board Updates
  - 2) Board Members – Term Expiration Dates
    - a. Grathen, Patricia A. – 7/1/2022
    - b. Porter, E. Glen – 7/1/2027
    - c. Reinemann, John – 7/1/2024
    - d. Schroedl, Bernard G. – 7/1/2022
- F. Erosion and Remediation Assistance for the De Pere Greenwood Cemetery – Discussion and Consideration of 2023 Wis. Act 19, Section 9138(1) provision. (5-290)**
- G. Administrative Rule Matters – Discussion and Consideration
  - 1) Pending or Possible Rulemaking Projects
- H. Discussion and Consideration of Items Added After Preparation of Agenda
  - 1) Introductions, Announcements and Recognition
  - 2) Administrative Matters
  - 3) Election of Officers
  - 4) Appointment of Liaisons and Alternates
  - 5) Delegation of Authorities
  - 6) Education and Examination Matters
  - 7) Credentialing Matters
  - 8) Practice Matters

- 9) Administrative Rule Matters
- 10) Legislative and Policy Matters
- 11) Liaison Reports
- 12) Public Health Emergencies
- 13) Board Liaison Training and Appointment of Mentors
- 14) Informational Items
- 15) Division of Legal Services and Compliance (DLSC) Matters
- 16) Presentations of Petitions for Summary Suspension
- 17) Petitions for Designation of Hearing Examiner
- 18) Presentation of Stipulations, Final Decisions and Orders
- 19) Presentation of Proposed Final Decision and Orders
- 20) Presentation of Interim Orders
- 21) Petitions for Re-Hearing
- 22) Petitions for Assessments
- 23) Petitions to Vacate Orders
- 24) Requests for Disciplinary Proceeding Presentations
- 25) Motions
- 26) Petitions
- 27) Appearances from Requests Received or Renewed
- 28) Speaking Engagements, Travel, or Public Relation Requests, and Reports

#### **I. Public Comments**

**CONVENE TO CLOSED SESSION to deliberate on cases following hearing (s. 19.85(1)(a), Stats.); to consider licensure or certification of individuals (s. 19.85(1)(b), Stats.); to consider closing disciplinary investigations with administrative warnings (ss. 19.85(1)(b), and 440.205, Stats.); to consider individual histories or disciplinary data (s. 19.85(1)(f), Stats.); and to confer with legal counsel (s. 19.85(1)(g), Stats.).**

#### **J. Deliberation of Items Added After Preparation of the Agenda**

- 1) Education and Examination Matters
- 2) Credentialing Matters
- 3) DLSC Matters
- 4) Monitoring Matters
- 5) Professional Assistance Procedure (PAP) Matters
- 6) Petitions for Summary Suspensions
- 7) Petitions for Designation of Hearing Examiner
- 8) Proposed Stipulations, Final Decisions and Orders
- 9) Proposed Interim Orders
- 10) Administrative Warnings
- 11) Review of Administrative Warnings
- 12) Proposed Final Decisions and Orders
- 13) Matters Relating to Costs/Orders Fixing Costs
- 14) Case Closings
- 15) Board Liaison Training
- 16) Petitions for Assessments and Evaluations
- 17) Petitions to Vacate Orders
- 18) Remedial Education Cases
- 19) Motions

- 20) Petitions for Re-Hearing
- 21) Appearances from Requests Received or Renewed

K. Consulting with Legal Counsel

**RECONVENE TO OPEN SESSION IMMEDIATELY FOLLOWING CLOSED SESSION**

L. Vote on Items Considered or Deliberated Upon in Closed Session, if Voting is Appropriate

M. Open Session Items Noticed Above Not Completed in the Initial Open Session

**ADJOURNMENT**

**NEXT MEETING: OCTOBER 31, 2023**

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MEETINGS AND HEARINGS ARE OPEN TO THE PUBLIC, AND MAY BE CANCELLED WITHOUT NOTICE.

Times listed for meeting items are approximate and depend on the length of discussion and voting. All meetings are held virtually unless otherwise indicated. In-person meetings are typically conducted at 4822 Madison Yards Way, Madison, Wisconsin, unless an alternative location is listed on the meeting notice. In order to confirm a meeting or to request a complete copy of the board's agenda, please visit the Department website at <https://dps.wi.gov>. The board may also consider materials or items filed after the transmission of this notice. Times listed for the commencement of disciplinary hearings may be changed by the examiner for the convenience of the parties. Requests for interpreters for the hard of hearing, or other accommodations, are considered upon request by contacting the Affirmative Action Officer, or the Meeting Staff at 608-267-7213.

**VIRTUAL/TELECONFERENCE  
CEMETERY BOARD  
MEETING MINUTES  
AUGUST 8, 2023**

**PRESENT:** Patricia Grathen, Izzy Marshall, E. Glen Porter, John Reinemann

**EXCUSED:** Bernard Schroedl

**STAFF:** Will Johnson, Executive Director; Joseph Ricker, Legal Counsel; Dana Denny, Administrative Rules Coordinator; Brenda Taylor, Board Services Supervisor; and other Department staff.

**CALL TO ORDER**

E. Glen Porter, Chairperson, called the meeting to order at 9:30 a.m. A quorum was confirmed with four (4) members present.

**ADOPTION OF AGENDA**

**MOTION:** Patricia Grathen moved, seconded by John Reinemann, to adopt the Agenda as published. Motion carried unanimously.

**APPROVAL OF MINUTES OF MAY 9, 2023**

**MOTION:** Izzy Marshall moved, seconded by John Reinemann, to approve the Minutes of May 9, 2023m as published. Motion carried unanimously.

**ADJOURNMENT**

**MOTION:** John Reinemann moved, seconded by Patricia Grathen, to adjourn the meeting. Motion carried unanimously.

The meeting adjourned at 9.36 a.m.



**State of Wisconsin**  
**DEPARTMENT OF NATURAL RESOURCES**  
2984 Shawano Ave.  
Green Bay, WI, 54313

Tony Evers, Governor  
Preston D. Cole, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



June 23, 2021

IP-NE-2020-5-01646

Greenwood Cemetery of De Pere (c/o Julie Sowers)  
PO Box 353  
De Pere, WI 54115  
[sent electronically]

Dear Ms. Sowers:

The Department of Natural Resources has completed its review of your application for a permit to install riverbank protection along Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County. You will be pleased to know your application is approved.

I am attaching a copy of your permit, which lists the many important conditions that must be followed to protect water quality and habitat. A copy of the permit must be posted for reference at the project site. **Please read your permit conditions carefully so that you are fully aware of what is expected of you.**

Please note you are required to submit photographs of the completed project within 7 days after you've finished construction. This helps both of us to document the completion of the project and compliance with the permit conditions.

Your next step will be to notify me of the date on which you plan to start construction and again after your project is complete.

If you have any questions about your permit, please call me at (920) 410-3181 or email [Crystal.VonHoldt@wisconsin.gov](mailto:Crystal.VonHoldt@wisconsin.gov).

Sincerely,

Crystal von Holdt  
Water Management Specialist

Email cc: Jessica Kempke, U.S. Army Corps of Engineers  
Matt Heyroth, Brown County Zoning Administrator  
Charlotte Nagel, Town of Ledgeview Clerk  
Amanda Kretschmer, WDNR Conservation Warden  
Pat Kuehl, Robert E. Lee & Associates  
Randy Lawton, Greenwood Cemetery of De Pere  
Kay Lutze, DNR Waterway Program – Regional Supervisor

**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES**

**RIVERBANK PROTECTION PERMIT  
IP-NE-2020-5-01646**

Julie Sowers on behalf of Greenwood Cemetery of De Pere is hereby granted under Section 30.12(3m), Wisconsin Statutes, to install riverbank protection along the Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County, subject to the following conditions:

PERMIT

1. You must notify Crystal von Holdt at phone (920) 410-3181 or email [Crystal.VonHoldt@wisconsin.gov](mailto:Crystal.VonHoldt@wisconsin.gov) before starting construction and again not more than 5 days after the project is complete.
2. You must complete the project as described **on or before June 23, 2024**. If you will not complete the project by this date, you must submit a written request for an extension prior to expiration of the initial time limit specified in the permit. Your request must identify the requested extension date. The Department shall extend the time limit for an individual permit or contract for no longer than an additional 5 years if you request the extension before the initial time limit expires. You may not begin or continue construction after the original permit expiration date unless the Department extends the permit in writing or grants a new permit.
3. This permit does not authorize any work other than what you specifically describe in your application and plans, as updated on October 23, 2020, and as modified by the conditions of this permit. If you wish to alter the project or permit conditions, you must first obtain written approval of the Department.
4. Before you start your project, you must first obtain any permit or approval that may be required for your project by local zoning ordinances and by the U.S. Army Corps of Engineers. You are responsible for contacting these local and federal authorities to determine if they require permits or approvals for your project. These local and federal authorities are responsible for determining if your project complies with their requirements.
5. Upon reasonable notice, you shall allow access to your project site during reasonable hours to any Department employee who is investigating the project's construction, operation, maintenance or permit compliance.
6. The Department may modify or revoke this permit for good cause, including if the project is not completed according to the terms of the permit or if the Department determines the activity is detrimental to the public interest.
7. **You must post a copy of this permit at a conspicuous location on the project site, visible from the waterway**, for at least five days prior to construction, and remaining at least five days after construction. You must also have a copy of the permit and approved plan available at the project site at all times until the project is complete.
8. Your acceptance of this permit and efforts to begin work on this project signify that you have read, understood and agreed to follow all conditions of this permit.
9. **You must submit a series of photographs to the Department, within one week of completing work on the site**. The photographs must be taken from different vantage points and depict all work authorized by this permit.

10. You, your agent, and any involved contractors or consultants may be considered a party to the violation pursuant to Section 30.292, Wis. Stats., for any violations of Chapter 30, Wisconsin Statutes, or this permit.
11. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters. Erosion control measures (such as silt fence and straw bales) must meet or exceed the technical standards of ch. NR 151, Wis. Adm. Code. The technical standards are found at: [http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html) .
12. All equipment used for the project including but not limited to tracked vehicles, barges, boats, hoses, sheet pile and pumps shall be de-contaminated for invasive and exotic viruses and species prior to use and after use. The following steps must be taken *every time* you move your equipment to avoid transporting invasive and exotic viruses and species. To the extent practicable, equipment and gear used on infested waters shall not be used on other non-infested waters.
  1. **Inspect and remove** aquatic plants, animals, and mud from your equipment.
  2. **Drain all water** from your equipment that comes in contact with infested waters, including but not limited to tracked vehicles, barges, boats, hoses, sheet pile and pumps.
  3. **Dispose** of aquatic plants, animals in the trash. Never release or transfer aquatic plants, animals or water from one waterbody to another.
  4. **Wash your equipment** with hot (>140° F) and/or high-pressure water,  
- OR -  
Allow your equipment to **dry thoroughly for 5 days**.

#### SPECIFIC RIVERBANK PROTECTION CONDITIONS

13. A filter cloth, or a gravel filter layer, must be placed under the riprap to extend the life of the structure and to reduce maintenance costs.
14. All grading and excavation must be confined to the square feet allowed by local ordinance.
15. Banks and other erodible areas must be riprapped, seeded, mulched or sodded to prevent erosion. Temporary and final erosion control measures are to be installed immediately and must be kept in place until site stabilization is completed. Temporary erosion control measures such as straw bales and silt fences must be put in place prior to any precipitation or if work ceases for longer than 24 consecutive hours.
16. Disturbance of bank vegetation must be kept to a minimum during construction. Any vegetative removal above the ordinary high-water mark must comply with local zoning regulations.
17. The project must be constructed in such a manner as to prevent upland soil losses and sediment deposition into surface waters.
18. You are hereby authorized to place clean, unpainted rounded or angular rock that is free of fines between 6"-14" in diameter, along 1,125 linear feet of the shoreline with 582ft for Type 1 Treatment and 543ft for Type 2 Treatment. This plans indicate the riprap toe is to extend 2.5ft into the water as measured from the ordinary high-water mark but stone may extend up to and not exceed an 8 ft toe length to achieve a 2:1 slope for a stable riprap structure.
19. To protect sensitive fish spawning, movement, and egg incubation time periods, you are not allowed to do in-water construction between **March 15<sup>th</sup> (or ice-out, whichever is earlier) and May 31<sup>st</sup>** of any calendar year.

20. A copy of plans and the permit are to be provided to each contractor working on the project.

#### FINDINGS OF FACT

1. Julie Sowers on behalf of Greenwood Cemetery of De Pere has filed an application with this Department under sections 30.12(1) and 30.208 Wisconsin Statutes, to place riverbank stabilization along the Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County.
2. The applicant's proposed design includes two different types of streambank erosion control treatment designs using rock riprap integrated with topsoil and native vegetation along 1,125 LF of riverbank. Type 1 (for areas of less erosion) consists of placing medium riprap over filter fabric from 2 feet below the ordinary high-water mark (OHWM) to 1 foot above the high-water mark for 582ft of bank. Type 2 (for areas of more severe erosion) will be used along 543ft of bank with riprap placed to a depth of 5 feet below the OHWM to three feet above the OHWM. The riverbank work is part of a larger concept to stabilize the steep hillside, minimize erosion, and protect the cemetery from future hillside and riverbank failures. Below the OHWM for both treatment types, the medium riprap will be top dressed with 4-inch stone and above the OHWM, 6 inches of topsoil will be placed over the riprap with erosion matting and native vegetation. The project will also include the construction of habitat structures consisting of large woody debris, rot wads, and rock piles.
3. The Department has completed an investigation of the project site and has evaluated the project as described in the application and plans.
4. The Fox River is a navigable water.
5. The proposed project, if constructed in accordance with this permit will not adversely affect water quality, will not increase water pollution in surface waters and will not cause environmental pollution as defined in s. 283.01(6m), Wis. Stats.
6. The proposed riverbank project will not impact wetlands if constructed in accordance with this permit.
7. The Department of Natural Resources has determined that the agency's review of the proposed project constitutes an equivalent analysis action under s. NR 150.20(2), Wis. Adm. Code. The Department has considered the impacts on the human environment, alternatives to the proposed projects and has provided opportunities for public disclosure and comment. The Department has completed all procedural requirements of s. 1.11(2)(c), Wis. Stats., and NR 150, Wis. Adm. Code for this project.
8. The Department of Natural Resources has completed all procedural requirements and the project as permitted will comply with all applicable requirements of Sections 30.12(1) and 30.208, Wisconsin Statutes and Chapters NR 102, 103, and 328 of the Wisconsin Administrative Code.

The applicant was responsible for fulfilling the procedural requirements for publication of notices under s. 30.208(5)(c)1m., Stats., and was responsible for publication of the notice of pending application under s.30.208(3)(a), Stats. or the notice of public informational hearing under s.30.208(3)(c), Stats., or both. S. 30.208(3)(e), Stats., provides that if no public hearing is held, the Department must issue its decision within 30 days of the 30-day public comment period, and if a public hearing is held, the Department must issue its decision within 20 days after the 10-day period for public comment after the public hearing. S.

30.208(5)(bm), Stats., requires the Department to consider the date on which the department publishes a notice on its web site as the date of notice.

9. The structure will not materially obstruct navigation because the riprap toe length into the river is minimized to only what is necessary to construct a 2:1 slope for a stable riverbank armoring structure.
10. The structure will not be detrimental to the public interest because the project has been reviewed and modified where needed to ensure that there is no net loss or detriment to fish and wildlife habitat, aquatic habitat, water quality, navigation, water quality/quantity, and natural scenic beauty.
11. The structure will not materially reduce the flood flow capacity of the navigable waterbody because the riprap toe length into the river is minimized to only what is necessary to construct a 2:1 slope for a stable riverbank armoring structure.

#### CONCLUSIONS OF LAW

1. The Department has authority under the above indicated Statutes and Administrative Codes, to issue a permit for the construction and maintenance of this project.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions shall be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing of any individual permit decision pursuant to section 30.209, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921. The petition shall be in writing, shall be dated and signed by the petitioner, and shall include as an attachment a copy of the decision for which administrative review is sought. If you are not the applicant, you must simultaneously provide a copy of the petition to the applicant. If you wish to request a stay of the project, you must provide information, as outlined below, to show that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment. If you are not the permit applicant, you must provide a copy of the petition to the permit applicant at the same time that you serve the petition on the Department.

**The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.**

A request for contested case hearing must meet the requirements of section 30.209, Wis. Stats., and sections NR 2.03, 2.05, and 310.18, Wis. Admin. Code, and if the petitioner is not the applicant, the petition must include the following information:

1. A description of the objection that is sufficiently specific to allow the department to determine which provisions of this section may be violated if the proposed permit or contract is allowed to proceed.
2. A description of the facts supporting the petition that is sufficiently specific to determine how the petitioner believes the project, as proposed, may result in a violation of Chapter 30, Wis. Stats.;
3. A commitment by the petitioner to appear at the administrative hearing and present information supporting the petitioner's objection.

If the petition contains a request for a stay of the project, the petition must also include information showing that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment.

Dated at the Green Bay, Wisconsin on June 23, 2021.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

By:

A handwritten signature in cursive script that reads "Crystal von Holdt".

Crystal von Holdt

Water Management Specialist

## Johnson, William H - DSPS

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**From:** De Pere Greenwood Cemetery <info@deperegreenwoodcemetery.org>  
**Sent:** Wednesday, September 6, 2023 12:08 PM  
**To:** Johnson, William H - DSPS; John Macco; Macco, John - LEGIS  
**Cc:** jill@castlesales.com; Karen Schmidt; maureen@gagnonclay.com; Mike Fleck (Board) (michael-fleck@att.net); Randall Lawton; s\_vaneyck@hotmail.com; smpasterski@gmail.com; stitcher@new.rr.com; Susan Pasterski (spasterski@ymail.com); wwoodward@vonbriesen.com  
**Subject:** Formal request  
**Attachments:** PR09062022A De Pere Greenwood Cemetery.pdf; Updated Woodland Restoration & Maintenance Proposal\_2023.pdf; DOC080223-08022023153625.pdf; Stabalization Expenses Quotes.xlsx; 01646 Greenwood\_permit.pdf; Greenwood Cemetery\_permit renewal\_78117.pdf  
**Sensitivity:** Personal

**CAUTION: This email originated from outside the organization.  
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

De Pere Greenwood Cemetery Association  
435 N. Broadway Street STE A2  
De Pere, WI 54115  
920-334-1859  
info@deperegreenwoodcemetery.org  
Deperegreenwoodcemetery.org

6-September-2023

Wisconsin Cemetery Board  
DSPS  
Company Name  
Madison, WI 53705  
608-261-5406  
[william.johnson@wisconsin.gov](mailto:william.johnson@wisconsin.gov)

Dear Wisconsin Cemetery Board:

We are requesting the Board to approve the 1-million-dollar “award” not a grant, to the De Pere Greenwood Cemetery Association for the Bank Stabilization & Invasive Species Management project as awarded by the 2023-2025 State Budget.

Please see attached supporting documentation.

Sincerely,

Jewels Sowers

President De Pere Greenwood Cemetery Association



## Johnson, William H - DSPS

---

**From:** De Pere Greenwood Cemetery <info@deperegreenwoodcemetery.org>  
**Sent:** Sunday, September 10, 2023 12:58 PM  
**To:** Johnson, William H - DSPS  
**Cc:** John Macco; Macco, John - LEGIS; William S. Woodward; rlawton  
**Subject:** RE: Formal request  
**Attachments:** JB Cemetery Bank Stabilization & Invasive Species Management.pdf

**Sensitivity:** Personal

**CAUTION: This email originated from outside the organization.  
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Dear Will,

Attached is the copy of our specific segregated account that was set up over 4 years ago. As you have also requested, we confirm that once the money is spent, we will submit a detailed description and accounting with supporting documentation of how all \$1,000,000 was spent once the funds are expensed. As you can see by the previous attachments that money already allotted for this project totaling over the \$1,000,00 needed for this desperately needed project. We look forward to the Zoom date to advise all those who are on our board and those involved in this project to be there.

Sincerely,

Jewels Sowers

---

**From:** Johnson, William H - DSPS <william.johnson@wisconsin.gov>  
**Sent:** Friday, September 8, 2023 01:36 PM  
**To:** De Pere Greenwood Cemetery <info@deperegreenwoodcemetery.org>  
**Subject:** RE: Formal request  
**Sensitivity:** Personal

Good afternoon, Jewels –

Thank you once again for sending the materials earlier. They were helpful and appreciated by the department and the board chair.

We are actively working to finalize a date and time for an emergency meeting. Currently, we are aiming for the middle of the week around September 18<sup>th</sup>. Once that is confirmed, I will let you know as soon as possible.

Before that meeting, I want to address two outstanding items from our previous request. Will you please affirm that the \$1,000,000 will be kept in a segregated account used solely for the purposes of this project. Also, will you please confirm

that once the money is spent you will submit a detailed description and accounting with supporting documentation of how all \$1,000,000 was spent once the funds are expended.

If you have any questions, please let me know.

Thank you,

Will



**Will Johnson | Executive Director | Policy Development**  
**Department of Safety and Professional Services**

4822 Madison Yards Way, Madison, WI 53705

[William.Johnson@wisconsin.gov](mailto:William.Johnson@wisconsin.gov) | 608.261.5406

[www.dps.wi.gov](http://www.dps.wi.gov) | Follow us @WI\_DSPS

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**From:** De Pere Greenwood Cemetery <[info@deperegreenwoodcemetery.org](mailto:info@deperegreenwoodcemetery.org)>

**Sent:** Wednesday, September 6, 2023 5:00 PM

**To:** Johnson, William H - DPS <[william.johnson@wisconsin.gov](mailto:william.johnson@wisconsin.gov)>

**Subject:** RE: Formal request

**Sensitivity:** Personal

**CAUTION: This email originated from outside the organization.**  
**Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Afternoon Will,

After your Board reviews the attachments sent before the meeting, if they have more questions please let us know. Would like to have all requests of documents sent before we meet. By providing all documents prior will hopefully expedite the award.

Sincerely

Jewels

On Sep 6, 2023 15:42, "Johnson, William H - DPS" <[william.johnson@wisconsin.gov](mailto:william.johnson@wisconsin.gov)> wrote:

Good afternoon –

I have received this message. We will be in touch soon with next steps.

Thank you,

Will



**Will Johnson | Executive Director | Policy Development**  
**Department of Safety and Professional Services**

4822 Madison Yards Way, Madison, WI 53705

[William.Johnson@wisconsin.gov](mailto:William.Johnson@wisconsin.gov) | 608.261.5406

[www.dps.wi.gov](http://www.dps.wi.gov) | Follow us @WI\_DSPS

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**From:** De Pere Greenwood Cemetery <[info@deperegreenwoodcemetery.org](mailto:info@deperegreenwoodcemetery.org)>

**Sent:** Wednesday, September 6, 2023 12:08 PM

**To:** Johnson, William H - DSPS <[william.johnson@wisconsin.gov](mailto:william.johnson@wisconsin.gov)>; John Macco <[john@johnmacco.com](mailto:john@johnmacco.com)>; Macco, John - LEGIS <[John.Macco@legis.wisconsin.gov](mailto:John.Macco@legis.wisconsin.gov)>

**Cc:** [jill@castlesales.com](mailto:jill@castlesales.com); Karen Schmidt <[schmidtkaren5791@icloud.com](mailto:schmidtkaren5791@icloud.com)>; [maureen@gagnonclay.com](mailto:maureen@gagnonclay.com); Mike Fleck (Board) ([michael-fleck@att.net](mailto:michael-fleck@att.net)) <[michael-fleck@att.net](mailto:michael-fleck@att.net)>; Randall Lawton <[rlawton2@me.com](mailto:rlawton2@me.com)>; [s\\_vaneyck@hotmail.com](mailto:s_vaneyck@hotmail.com); [smpasterski@gmail.com](mailto:smpasterski@gmail.com); [stitcher@new.rr.com](mailto:stitcher@new.rr.com); Susan Pasterski ([spasterski@ymail.com](mailto:spasterski@ymail.com)) <[spasterski@ymail.com](mailto:spasterski@ymail.com)>; [wwoodward@vonbriesen.com](mailto:wwoodward@vonbriesen.com)

**Subject:** Formal request

**Sensitivity:** Personal

**CAUTION: This email originated from outside the organization.  
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

De Pere Greenwood Cemetery Association  
435 N. Broadway Street STE A2  
De Pere, WI 54115  
920-334-1859  
[info@deperegreenwoodcemetery.org](mailto:info@deperegreenwoodcemetery.org)  
Deperegreenwoodcemetery.org

6-September-2023

Wisconsin Cemetery Board  
DSPS  
Company Name  
Madison, WI 53705  
608-261-5406  
[william.johnson@wisconsin.gov](mailto:william.johnson@wisconsin.gov)

Dear Wisconsin Cemetery Board:

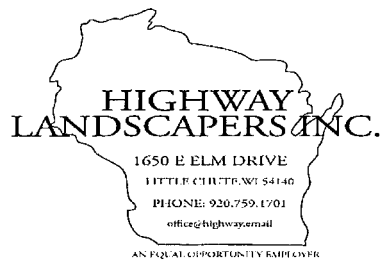
We are requesting the Board to approve the 1-million-dollar “award” not a grant, to the De Pere Greenwood Cemetery Association for the Bank Stabilization & Invasive Species Management project as awarded by the 2023-2025 State Budget.

Please see attached supporting documentation.

Sincerely,

Jewels Sowers

President De Pere Greenwood Cemetery Association



**Bank Stabilization and Invasive Species Management  
De Pere Greenwood Cemetery  
Town of Ledgeview, Brown County, Wisconsin  
Contract No. 6004-21-01**

Line	Code	Item Description	UOM	QTY	Unit Price	Extension
1	0157.04	Inlet Protection, Install and Maintain, Complete	EA	4	\$165.20	\$660.80
2	0157.05	Inlet Protection, Remove, Complete	EA	4	\$1.18	\$4.72
3	0157.30	Turtle Fence, Install and Maintain, Complete	LF	1,700	\$3.54	\$6,018.00
4	0157.31	Turtle Fence, Remove, Complete	LF	1,700	\$0.01	\$17.00
5	0157.10	Ditch Checks, Install and Maintain, Complete	LF	4	\$177.00	\$708.00
6	0157.11	Ditch Checks, Remove, Complete	LF	4	\$59.00	\$236.00
7	0157.13	Sediment Erosion Logs, Install and Maintain, Complete	LF	1,600	\$17.70	\$28,320.00
8	0157.14	Sediment Erosion Logs, Remove, Complete	LF	1,600	\$0.01	\$16.00
9	0157.22	Tracking Pad, Complete	EA	2	\$1,475.00	\$2,950.00
10	3105.11	Riprap, Heavy, 24-Inch Thick, Complete	SY	192	\$66.08	\$12,687.36
11	3105.12	Riprap, Medium, 12-Inch Thick, Complete	SY	75	\$38.94	\$2,920.50
12	3111.01	Site Clearing and Grubbing, Complete	LS	1	\$207,680.00	\$207,680.00
13	3111.02	Selective Tree Removal, Complete	Each	50	\$885.00	\$44,250.00
14	3123.02	Earthwork, Unclassified Excavation, Complete Landscaping Imported Pulverized Topsoil, 6-Inch	LS	1	\$50,032.00	\$50,032.00
15	3290.01.1	Depth, Complete	SY	4,500	\$10.92	\$49,140.00
16	3341.01	Storm Sewer Pipe, PVC, 12-Inch, Complete Storm Sewer Underdrain with Filter Fabric Sock, 6-	LF	133	\$84.96	\$11,299.68
17	3341.05.1	Inch, Complete	LF	80	\$23.60	\$1,888.00
17	3341.24	Storm Manhole Inlet, Type B, Complete	EA	2	\$1,475.00	\$2,950.00
18	3342.02	Apron Endwall, RCP, 12-Inch, Complete	EA	2	\$590.00	\$1,180.00
19	5000.01	Shoreland Stabilization Zone 1, Complete	LF	580	\$59.30	\$34,394.00
20	5000.02	Shoreland Stabilization Zone 2, Complete	LF	550	\$139.57	\$76,763.50
21	5000.03	Large Woody Debris, Complete	Each	19	\$2,183.00	\$41,477.00
22	5000.04	Root Wads, Complete	Each	13	\$1,298.00	\$16,874.00
23	5000.05	Rock Pile, Complete Remove fallen trees within project and trees nesarary	Each	3	\$4,956.00	\$14,868.00
Additional Items		for the additional grading areas near grave sites Building Pad: 40' x 40' (Excavate and Place Compacted	LS	1	\$135,110.00	\$135,110.00
Additional Items		Granular Backfill for Future Foundation Borrow/Grading Additonal Material for around Grave	LS	1	\$11,210.00	\$11,210.00
Additional Items		Sites Perimeter Access Road: Excavate and Place of 1-1/4-	LS	1	\$97,350.00	\$97,350.00
Additional Items		inch CABG and of 3/4-inch of CABG	LS	1	\$49,560.00	\$49,560.00

**Total: \$900,564.56**



August 29, 2023

Julie Sowers  
Greenwood Cemetery  
P.O. Box 333  
De Pere WI 54115  
Via email: [info@deperegreenwoodcemetery.org](mailto:info@deperegreenwoodcemetery.org)

SUBJECT: Coverage Under WPDES General Permit No. WI-S067831-06: Construction Site Storm Water Runoff  
Permittee Name: Greenwood Cemetery Site  
Site Name: Bank Stabilization and Invasive Species Management  
FIN: 78117

Dear Permittee:

The Wisconsin Department of Natural Resources received your Water Resources Application for Project Permits or Notice of Intent, on August 20, 2023, for the Bank Stabilization and Invasive Species Management site and has evaluated the information provided regarding storm water discharges from your construction site. We have determined that your construction site activities will be regulated under ch. 283, Wis. Stats., ch. NR 216, Wis. Adm. Code, and in accordance with Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit No. WI-S067831-06, Construction Site Storm Water Runoff. All erosion control and storm water management activities undertaken at the site must be done in accordance with the terms and conditions of the general permit.

The **Start Date** of permit coverage for this site is August 29, 2023. The maximum period of permit coverage for this site is limited to **3 years** from the **Start Date**. Therefore, permit coverage automatically expires and terminates 3 years from the Start Date and storm water discharges are no longer authorized unless another Notice of Intent and application fee to retain coverage under this permit or a reissued version of this permit is submitted to the Department 14 working days prior to expiration.

A copy of the general permit along with extensive storm water information including technical standards, forms, guidance and other documents is accessible on the Department's storm water program Internet site. To obtain a copy of the general permit, please download it and the associated documents listed below from the following Department Internet site:

<http://dnr.wi.gov/topic/stormwater/construction/forms.html>

- Construction Site Storm Water Runoff WPDES general permit No. WI-S067831-06
- Construction site inspection report form
- Notice of Termination form

If, for any reason, you are unable to access these documents over the Internet, please contact me and I will send them to you.

To ensure compliance with the general permit, please read it carefully and be sure you understand its contents. Please take special note of the following requirements (This is not a complete list of the terms and conditions of the general permit.):

1. The Construction Site Erosion Control Plan and Storm Water Management Plan that you completed prior to submitting your permit application must be implemented and maintained throughout construction. Failure to do so may result in enforcement action by the Department.

2. The general permit requires that erosion and sediment controls be routinely inspected at least every 7 days, and within 24 hours after a rainfall event of 0.5 inches or greater. Weekly written reports of all inspections must be maintained. The reports must contain the following information:

- a. Date, time, and exact place of inspection;
- b. Name(s) of individual(s) performing inspection;
- c. An assessment of the condition of erosion and sediment controls;
- d. A description of any erosion and sediment control implementation and maintenance performed;
- e. A description of the site's present phase of construction.

3. A **Certificate of Permit Coverage** must be posted in a conspicuous place on the construction site. The Certificate of Permit Coverage (WDNR Publication # WT-813) is enclosed for your use.

4. When construction activities have ceased and the site has undergone final stabilization, a Notice of Termination (NOT) of coverage under the general permit must be submitted to the Department.

It is important that you read and understand the terms and conditions of the general permit because they have the force of law and apply to you. Your project may lose its permit coverage if you do not comply with its terms and conditions. The Department may also withdraw your project from coverage under the general permit and require that you obtain an individual WPDES permit instead, based on the Department's own motion, upon the filing of a written petition by any person, or upon your request.

If you believe that you have a right to challenge this decision to grant permit coverage, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Thank you for your cooperation with the Construction Site Storm Water Discharge Permit Program. If you have any questions concerning the contents of this letter or the general permit, please contact Stormwater Specialist, Sarah Anderson at (920) 662-5441 or [sarah.anderson@wisconsin.gov](mailto:sarah.anderson@wisconsin.gov).

Sincerely,



BJ Mahon  
Stormwater Intake Specialist

ENCLOSURE: Certificate of Permit Coverage



# CERTIFICATE OF PERMIT COVERAGE

UNDER THE  
WPDES CONSTRUCTION SITE STORM WATER RUNOFF PERMIT  
Permit No. WI-S067831-06

Under s. NR 216.455(2), Wis. Adm. Code, landowners of construction sites with storm water discharges regulated by the Wisconsin Department of Natural Resources (WDNR) Storm Water Permit Program are required to post this certificate in a conspicuous place at the construction site. This certifies that the site has been granted WDNR storm water permit coverage. The landowner must implement and maintain erosion control practices to limit sediment-contaminated runoff to waters of the state in accordance with the permit.

## EROSION CONTROL COMPLAINTS

should be reported to the WDNR Tip Line at  
**1-800-TIP-WDNR (1-800-847-9367)**

Please provide the following information to the Tip Line:

WDNR Site No. (FIN): 78117

Site Name: Bank Stabilization and Invasive Species Management

Address/Location: The project is located along Fox River Drive, Town of LEDGEVIEW

Additional Information:

Landowner: Greenwood Cemetery Site

Landowner's Contact Person: Julie Sowers

Contact Telephone Number: (920) 621-0251

Permit Start Date: August 29, 2023

By:

*By Maho for Sarah Anderson*



# Bank Stabilization & Invasive Species Manage... \*\*\*\*6317

Last Updated: September 10, 2023 12:31 PM

<b>\$4,506.00</b>	<b>\$4,506.00</b>
Current Balance	Available Balance

Transactions    **Details & Settings**

## DETAILS

Account Number		Routing Number	
Available Balance	\$4,506.00	Current Balance	\$4,506.00
Interest Rate	0.00%	Year-to-Date Interest Amount	\$0.00
Previous Year-to-Date Interest Amount			\$0.00

## SETTINGS

Global Nickname

Bank Stabilization & Invasive Species Management

Personal Nickname



Visibility on Home



## Text Banking

You are not enrolled in Text Banking, enroll in Settings



September 6, 2022

Ms. Jewels Sowers  
DE PERE GREENWOOD CEMETERY  
P.O. Box 353  
De Pere, WI 54115-0353

RE: Greenwood Cemetery - Embankment Stabilization Construction Services Proposal

Dear Ms. Sowers:

Robert E. Lee and Associates, Inc. (REL) is pleased to provide this engineering services proposal for the construction services for the stabilization of the embankment along the Fox River in the City of De Pere. The following information is a description of the services to be provided with the estimated costs to complete the work.

#### **ADMINISTRATION AND COORDINATION**

1. Administer a pre-construction meeting with the contractor, owner, and approving authorities.
2. Work with De Pere Greenwood Cemetery staff to coordinate site visits.

#### **CONSTRUCTION PHASE**

1. Part-time construction inspection at critical construction operations.
2. Provide inspection guidance, as required.
3. Answer contractor's questions, as required.
4. Provide as-built information, if required.
5. Miscellaneous work activities that the De Pere Greenwood Cemetery requests, not stated above.

REL will complete the services as described above on a time-and-expense basis with an estimated fee of \$14,500. The cost is based upon providing approximately 100 hours by various REL staff to perform the services described. The actual cost will depend on the duration of the construction contract and direction provided by De Pere Greenwood Cemetery. REL will provide you with detailed billing statements of hours, work, and project costs.

Ms. Jewels Sowers  
DE PERE GREENWOOD CEMETERY  
RE: Greenwood Cemetery - Embankment Stabilization Construction Services Proposal


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Attached and made part of this proposal, are our Standard Terms and Conditions, dated June 2006. If this proposal is acceptable to you, please sign in the location below and return a copy for our files.

Please do not hesitate to call me if you have any questions.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.

  
Patrick H. Kuehl, P.E.  
Project Manager

  
Jared G. Schmidt, P.E., V.P.  
Civil / Municipal Engineering Manager

PHK/JGS/NJM

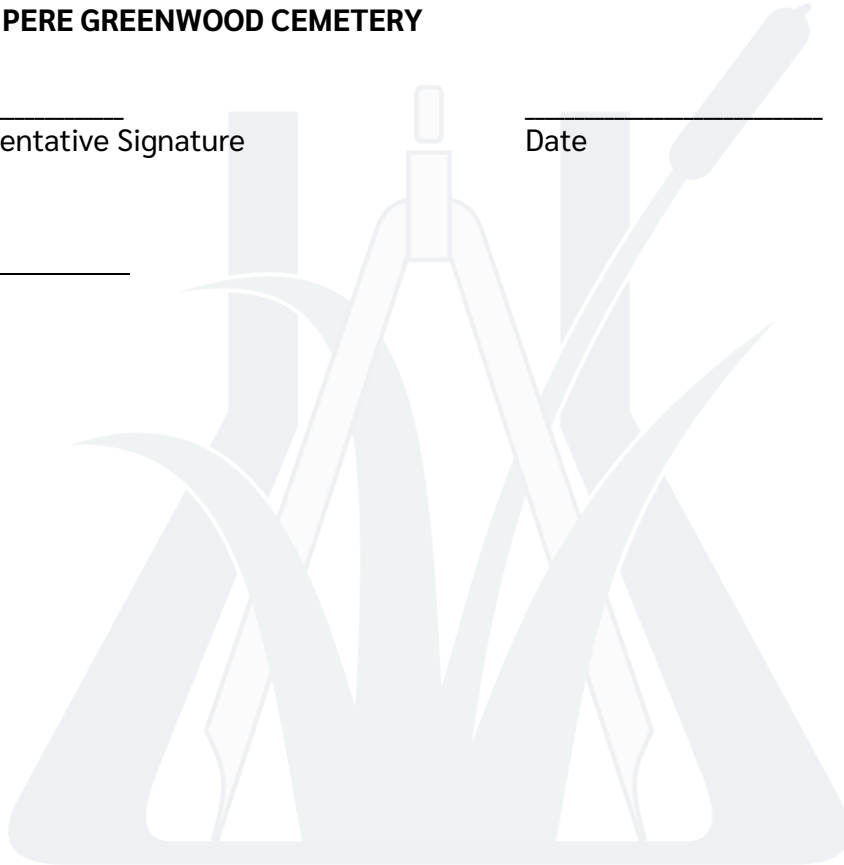
ENC.

**ACCEPTED BY DE PERE GREENWOOD CEMETERY**

\_\_\_\_\_  
Authorized Representative Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Please print name



# **ROBERT E. LEE & ASSOCIATES, INC.**

## **STANDARD TERMS AND CONDITIONS**

### **I. SCOPE**

Robert E. Lee & Associates, Inc. agrees to perform the engineering, surveying, and/or environmental services described in the proposal or agreement in which these standard terms and conditions are referenced and to which they are attached. Unless modified in writing by the parties thereto, duties of Robert E. Lee & Associates, Inc. shall not be construed to exceed those services specifically set forth in the proposal or agreement to which these standard terms and conditions are attached.

### **II. COMPENSATION**

Client agrees to pay for the services provided in accordance with the compensation provisions described in the proposal or agreement to which these standard terms and conditions are attached. Payment to Robert E. Lee & Associates, Inc. will be made within 30 days after the date of billing. For all amounts unpaid after 30 days from the invoice date, client agrees to pay Robert E. Lee & Associates, Inc. a finance charge of 1-1/2% per month.

For time and expense compensation, charges will consist of salary-related costs and nonsalary costs. Salary-related charges include, but are not limited to, the following:

1. Salaries paid employees for time spent working directly on the subject project.
2. Costs of employee fringe benefits attributable to the employee time spent working directly on subject project.
3. General and administrative overhead charges distributed on basis of employee time spent working directly on subject project.

Nonsalary costs cover items directly related to the project, other than those covered by salary-related costs. Such nonsalary costs shall be computed on the basis of actual purchase price for items and services obtained from commercial sources and outside consultants. Cost of items and services provided directly by Robert E. Lee & Associates, Inc. shall be in accordance with rate schedules based on normal charges of commercial sources. Nonsalary items and services include, but are not limited to, the following:

1. Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, environmental analyses, commercial printing and binding, and similar services that are not applicable to general overhead.
2. Identifiable reproduction services applicable to the project such as printing of drawings, photostating, multilithing, printing, and similar services.
3. Identifiable communication services such as long-distance telephone, telegraph, cable, express services, and postage other than for general correspondence.

4. Living and traveling expenses of employees when away from home office on business connected with the project.

5. Subcontracted services.

### **III. RESPONSIBILITY**

Robert E. Lee & Associates, Inc. is employed to render a professional service only, and any payments made by the client are compensation solely for such services rendered and recommendations made in carrying out the work. Robert E. Lee & Associates, Inc. shall follow the practice of the civil engineering, surveying, and/or environmental services professions to make findings, opinions, factual presentations, and professional advice and recommendations.

In performing construction management services, Robert E. Lee & Associates, Inc. review of work prepared or performed by other individuals or firms employed by the client shall not relieve those individuals or firms of complete responsibility for the adequacy of their work.

It is understood that any resident engineering or construction observation provided by Robert E. Lee & Associates, Inc. is for the purpose of determining compliance with the technical provisions of the project specifications and does not constitute any form of guarantee or insurance with respect to the performance of a contractor. Robert E. Lee & Associates, Inc. does not assume responsibility for methods or appliances used by a contractor, for safety of construction work, or for compliance by contractors with laws and regulations.

It is understood and agreed by both parties that Engineer, in performing professional services for Owner with respect to hazardous substances, will make recommendations to Owner with respect thereto, but does not have the authority or responsibility to decide where disposal or treatment takes place, nor to designate how or by whom the hazardous substances are to be transported for disposal or treatment.

### **IV. INSURANCE AND LIMITS OF LIABILITY**

Robert E. Lee & Associates, Inc. shall maintain during the life of the Agreement, the following minimum public liability and property damage insurance to cover claims for injuries, including accidental death, as well as from claims for property damages which may arise from the performance of work under the Agreement. The client agrees to limit the liability of Robert E. Lee & Associates, Inc. to the extent of Robert E. Lee & Associates, Inc. insurance or as otherwise stated below:

1. Comprehensive general liability insurance, including personal injury liability, blanket contractual liability, and broad form property damage liability. The combined single limit of liability for bodily injury and property damage shall be \$1,000,000.

2. Automobile bodily injury and property damage liability insurance covering owned, nonowned, rented, and hired cars. The combined single limit of liability for bodily injury and property damage shall be \$600,000.
3. Statutory workers compensation and employers' liability insurance as required by the state having jurisdiction.
4. Professional liability insurance covering damages resulting from errors and omissions of Robert E. Lee & Associates, Inc. The limit of liability shall be \$50,000.

**V. SUSPENSION OF WORK**

The client may suspend, in writing, all or a portion of the work under the Agreement in the event unforeseen circumstances beyond the control of the client make normal progress in the performance of the work impossible. Robert E. Lee & Associates, Inc. may request that the work be suspended by notifying the client, in writing, of circumstances which are interfering with normal progress of the work. The time for completion of the work shall be extended by the number of days the work is suspended. In the event that the period of suspension exceeds 90 days, the terms of the Agreement are subject to renegotiation and both parties are granted the option to terminate work on the suspended portion of the project.

**VI. TERMINATION OF WORK**

Either party may terminate work in the event the other party fails to perform in accordance with the provisions of the Agreement. Termination of the Agreement is accomplished by 15 days prior written notice from the party initiating termination to the other. Notice of termination shall be delivered by certified mail with receipt for delivery returned to the sender.

In the event of termination, Robert E. Lee & Associates, Inc. shall perform such additional work as is necessary for the orderly filing of documents and closing of the project. The additional time for filing and closing shall not exceed 10 percent of the total time expended on the terminated portion of the project prior to the effective date of termination.

Robert E. Lee & Associates, Inc. shall be compensated for the terminated portion of the work on the basis of work actually performed prior to the effective date of termination plus the work required for filing and closing. Charges for the latter work are subject to the 10 percent limitation described in this Article.

**VII. ASSIGNMENT**

These terms and conditions and the Agreement to which they are attached are binding on the heirs, successors, and assigns of the parties hereto. The Agreement is not to be assigned by either the client or Robert E. Lee & Associates, Inc. without the prior written consent of the other.

**VIII. INTEGRATION**

These terms and conditions and the Agreement to which they are attached represent the entire understanding of the client and Robert E. Lee & Associates, Inc. as to those matters contained herein. No prior oral or written understanding shall be of any force

or effect with respect to those matters covered hereunder. The Agreement may not be modified or altered except in writing signed by both parties.

**IX. JURISDICTION**

This Agreement shall be administered and interpreted under the laws of the state of Wisconsin. Jurisdiction of litigation arising from the Agreement shall be in the state of Wisconsin. If any part of the Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of the Agreement shall be in full force and effect.

**X. DISPUTE RESOLUTION**

In an effort to resolve any conflicts that arise during the design or construction of the project following the completion of the project, the Client and the Engineer agree that all disputes between them arising out of or relating to this Agreement shall be submitted to nonbinding mediation unless the parties mutually agree otherwise.

The Client shall make no claim for professional negligence, either directly or in a third-party claim, against the Engineer unless the Client has first provided the Engineer with a written certification executed by an independent engineer currently practicing in the same discipline as the Engineer and licensed in the state of Wisconsin. This certification shall: a) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of an Engineer performing professional services under similar circumstances; and b) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to the Engineer not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any mediation or judicial proceeding.

In the event of any litigation arising from or related to the services provided under this Agreement, the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees and other related expenses.

All legal actions by either party against the other arising out of or in any way connected with the services to be performed hereunder shall be barred and under no circumstances shall any such claim be initiated by either party after two (2) years have passed from the date of completion of construction phase services, unless the Engineer's services shall be terminated earlier, in which case the date of termination of this Agreement shall be used.

June 2006



**Specifications and  
Drawings For  
Bank Stabilization and Invasive  
Species Management  
REL Contract No. 6004-21-01**

***Private Bid***

*Prepared for:*  
De Pere Greenwood  
Cemetery Association  
Brown County, WI

December 2021

Project Manager: Patrick Kuehl, P.E.  
[pkuehl@releeinc.com](mailto:pkuehl@releeinc.com)  
920.662.9641  
[releeinc.com](http://releeinc.com)



# **INTRODUCTORY INFORMATION**

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## **DIVISION 00**

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### **PROCUREMENT AND CONTRACTING REQUIREMENTS**



**SECTION 00 11 13  
INVITATION TO BID**

DE PERE GREENWOOD CEMETERY ASSOCIATION  
P. O. BOX 353  
DE PERE, WI 54115

Sealed bids for **Bank Stabilization and Invasive Species Management, Contract Number 6004-21-01** will be received on behalf of the owner by the engineer until **December 21, 2021 at 1:00 p.m.** local time by e-mail to (Patrick Kuehl, P.E.) [pkuehl@releeinc.com](mailto:pkuehl@releeinc.com) and shall include the following:

- Bank stabilization and invasive species management. The project includes clearing and grubbing, excavation, shoreland stabilization, storm sewer, and habitat structures.

Paper bids will not be accepted. Bids will be opened privately. Prequalification of Bidders will not be required.

The Owner reserves the right to reject any or all bids or any part of a bid. Further, the Owner reserves the right to waive any informality in any bid. The Owner reserves the right to increase or decrease the quantity of any item or portion of the work, or to omit portions of the work as may be deemed necessary by the Owner; and the same shall in no way affect or make void the contract, except that the appropriate additions to or deductions from the contract price will be made.

A pre-bid meeting will not be held.

Complete digital project bidding documents are available at [www.releeinc.com](http://www.releeinc.com) or [www.questcdn.com](http://www.questcdn.com). You may download the digital plan documents for a non-refundable fee of \$30 by inputting Quest Project (**eBidDoc #8089059**) on the website's Project Search page on the website's Project Search page **and enter password: grencem**. Please contact QuestCDN.com at 952-233-1632 or [info@questcdninfo.com](mailto:info@questcdninfo.com) for assistance in free membership registration, downloading, and working with this digital project information.

The Bidding Documents may be examined for free at:

- QuestCDN.com or [www.releeinc.com/bid](http://www.releeinc.com/bid) list - enter **eBidDoc number 8089059**

If you are interested in purchasing a paper copy, you may do so by contacting Blue Print Service Company for paper sets (contact Appleton 920-733-4539 or Green Bay 920-494-4539). Downloaded plans are not scaleable, neither the owner nor the engineer shall be held responsible for the scale of downloaded plans. Only printed plans obtained from Blue Print Service Company shall be considered to be scaleable plans.

Contract documents for this project may be examined online or downloaded at [www.questcdn.com](http://www.questcdn.com).

Prospective bidders must be on the plan holders list through QuestCDN for bids to be accepted.

The owner encourages DBEs including MBEs and WBEs to submit bid proposals.

No Bidder may withdraw his bid within 90 days after the actual date of the opening thereof.

The letting of the work described herein is subject to the provisions of the Wisconsin State Statutes, in particular 62.15, 66.0901, and 66.0903.

**Jewels Sowers, President, Co-Treasurer  
De Pere Greenwood Cemetery Association**

**SECTION 00 21 13  
INSTRUCTIONS TO BIDDERS**

**ARTICLE 1 - DEFINED TERMS**

1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. Bidder--The individual or entity who submits a Bid directly to OWNER.
- B. Issuing Office--The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- C. Successful Bidder--The lowest responsible Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

**ARTICLE 2 - COPIES OF BIDDING DOCUMENTS**

2.01 Complete sets of the Bidding Documents in the number and for the sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Issuing Office. Authorized sets of the Bidding Documents may be obtained digitally or by paper copy as directed in the Advertisement for Bids.

2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

**ARTICLE 3 - QUALIFICATIONS OF BIDDERS**

3.01 Prequalifications are not required for this bid.

**ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE**

4.01 Subsurface and Physical Conditions

- A. The Supplementary Conditions may identify:
  - 1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Bidding Documents.
  - 2. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in paragraph 4.01.A, if any, will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as

provided in paragraph 4.02 of the General Conditions has been identified and established in paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings. Downloaded plans are not scaleable, neither the owner nor the engineer shall be held responsible for the scale of downloaded plans. Only printed plans obtained from Blue Print Service Company shall be considered to be scaleable plans.

#### 4.02 Underground Facilities

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities, including OWNER, or others.

#### 4.03 Hazardous Environmental Condition

- A. The Supplementary Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that ENGINEER has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in paragraph 4.03.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in paragraph 4.06 of the General Conditions has been identified and established in paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

- 4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.

- 4.05 On request, OWNER will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

- 4.06 A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by OWNER or others (such as utilities and other prime contractors) that relates to the Work for contemplated by these bidding documents (per 2007 version). On request, OWNER will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such other work.

- 4.06 B. Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.
- 4.07 It is the responsibility of each Bidder before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;
  - B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
  - C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;
  - D. Carefully study all reports of explorations and tests of subsurface conditions, if any, at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures, if any, at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;
  - E. Consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
  - F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
  - G. Become aware of the general nature of the work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents;
  - H. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
  - I. Promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder; and
  - J. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

## **ARTICLE 5 - PRE-BID CONFERENCE**

5.01 A pre-bid conference will not be held. All bidders are encouraged to visit the site to become acquainted with site conditions.

## **ARTICLE 6 - SITE AND OTHER AREAS**

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

## **ARTICLE 7 - INTERPRETATIONS AND ADDENDA**

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to ENGINEER in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda (**digitally downloaded from QuestCDN.com, or e-mailed to planholder**) to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received less than five days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Direct all questions to the project contact, Patrick Kuehl, P.E., at the office of the engineer at 920-662-9641. Questions may also be e-mailed to Patrick Kuehl, P.E., at [pkuehl@releecinc.com](mailto:pkuehl@releecinc.com).

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER.

## **ARTICLE 8 - BID SECURITY**

8.01 No bid security is required on this project.

## **ARTICLE 9 - CONTRACT TIMES**

9.01 The number of days within which, or the dates by which, [Milestones are to be achieved and] the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

## **ARTICLE 10 - LIQUIDATED DAMAGES**

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

## **ARTICLE 11 - SUBSTITUTE AND “OR-EQUAL” ITEMS**

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the General Conditions or the supplementary conditions.

11.02 The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or “or-equal” item.

11.03 Request for Engineer’s clarification of materials and equipment considered “or-equal” prior to the Effective Date of the Agreement must be received by the Engineer at least 4 days prior to the date for receipt of bids. No item of material or equipment will be considered by Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each request shall conform to the requirements of paragraph 6.05 of the General Conditions.

11.04 The burden of proof of the merit of the proposed item is upon the Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

## **ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and OWNER may consider such price adjustment in evaluating Bids and making the contract award.

12.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the General Conditions.

12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

## **ARTICLE 13 - PREPARATION OF BID**

13.01 The Bid form is included with the Bidding Documents.

13.02 ***No hard copy bids are accepted at this time due to the corona virus. all blanks on the Bid form shall be completed and the Bid signed. A Bid price shall be indicated and included with each submitted bid for each [section, Bid item, alternative, adjustment unit price item, and unit price item] listed therein for electronic submittal via e-mail.***

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form.

13.10 The address and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number for the state of the Project, if any, shall also be shown on the Bid form.

## **ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS**

14.01 Unit Price

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in Section 00 41 13, Bid Form.

B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions.

- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in paragraph 11.02 of the General Conditions.

## **ARTICLE 15 - SUBMITTAL OF BID**

15.01 Bids shall be made on the blank forms prepared by the Owner. The Bid is to be completed and submitted with the Bid security and the following data:

- A. Section 00 41 13, Bid Form and Section 00 41 13 Unit Price Bid Schedule.

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid. *No paper copy bids are accepted at this time due to the corona virus.*

## **ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID**

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

## **ARTICLE 17 - OPENING OF BIDS**

17.01 Bids will be opened privately. An abstract of the Bids will not be made available to Bidders after the opening of Bids.

## **ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

## **ARTICLE 19 - AWARD OF CONTRACT**

19.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, non-responsive, unbalanced, or conditional Bids. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. OWNER may also reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.



19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 OWNER may conduct such investigations as OWNER deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

19.06 If the contract is to be awarded by the Owner, it will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items, to the responsible Bidder whose bid, conforming with all the material terms and conditions of the Instructions to Bidders, is the lowest, price and other factors considered.

## **ARTICLE 20 - CONTRACT SECURITY AND INSURANCE**

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth OWNER’s requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by such Bonds.

## **ARTICLE 21 - SIGNING OF AGREEMENT**

21.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER. Within ten days thereafter, OWNER shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

- END OF SECTION -

**SECTION 00 41 13  
BID FORM**

**PROJECT IDENTIFICATION:**

**Client Name: De Pere Greenwood Cemetery**  
**Project Name: Bank Stabilization and Invasive Species Management**  
**Contract No. 6004-21-01**

**CONTRACT IDENTIFICATION AND NUMBER:**

**Contract No. 6004-21-01**  
**Client Name: De Pere Greenwood Cemetery**  
**Project Name: Bank Stabilization and Invasive Species Management**

**THIS BID IS SUBMITTED TO:**

<b>E-mail Delivery on Bid Date:</b>
- <a href="mailto:pkuehl@releeinc.com">pkuehl@releeinc.com</a>

- 1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
  
- 2.01 Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for **90** days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
  
- 3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:
  - A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

**Electronic or vBids need to acknowledge the addenda above.**

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
  
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- 4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- 5.01 Bidder will complete the Work in accordance with the Contract Documents in accordance with the submitted Lump Sum Price:

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\_\_\_\_\_ (words)

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\_\_\_\_\_ (figures)

All specific cash allowances are included in the price(s) set forth above and have been computed in accordance with paragraph 11.02 of the General Conditions.

- 6.01 Bidder agrees that the Work will be substantially completed and completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions on or before the dates or within the number of calendar days indicated in Section 00 52 00, Standard Form of Agreement between Owner and Contractor.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.
- 7.01 The following documents are attached to and made a condition of this Bid:
  - A. Section 00 41 13, Bid Form and completed 00 4 13 Unit Price Bid Schedule.
- 8.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

SUBMITTED on \_\_\_\_\_, 20\_\_.

State Contractor License No. \_\_\_\_\_ (If applicable)

If Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
*(Individual's signature)*

Doing business as: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
*(Signature of general partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
*(Signature -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_ (CORPORATE SEAL)

Attest \_\_\_\_\_  
*(Signature of Corporate Secretary)*

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Date of Qualification to do business is \_\_\_\_\_.

A Joint Venture

Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_

*(Signature of joint venture partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_

*(Signature -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Phone and FAX Number, and Address for receipt of official communications:

\_\_\_\_\_

\_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Owner: De Pere Greenwood Cemetery Association

Project: Bank Stabilization and Invasive Species Management

## **EXPANDED BID ITEM DEFINITIONS AND DESCRIPTIONS**

For Alternate Bid Items, the owner reserves the right to award or not award any items as part of the base bid.

The term “Complete” in the bid item description shall mean that all equipment, tools, materials and labor required for the item is included in the unit price.

0157

- The unit price for erosion control shall include the installation, maintenance and removal of all erosion control items needed for the project including, but not limited to, tracking pads, silt fence, inlet protection, dewatering baskets, erosion bags, sediment logs and ditch checks.
- The unit price for Turtle Fencing shall include the installation, maintenance and removal of all required turtle fencing in conformance with WDNR’s Amphibian and Reptile Exclusion Fencing Protocol and must be installed by March 4, 2022.

3105

- The unit price for riprap bid items shall include filter fabric or crushed stone and specified riprap.

3111

- The unit price for site clearing and grubbing and selective tree removal includes all tree removal, brush removal and stump grubbing within the work zone and shall include all disposal.

3123

- The unit price for Unclassified Excavation shall include the excavation of all in place materials
- The unit price of Topsoil Placement. Work shall include placement of on-site stockpiled or imported topsoil to a min. of 6-inch thickness, preparing for seeding by raking free of lumps and stones, preparing and placement of the specified seed mixture.

3341

- The unit price for all Storm Sewer Bid Items shall include all removals, bedding, fittings, castings, chimney seals, connections, disposal of all excavated trench material, backfilling, all appurtenances, all specified testing and all restoration.

5000.01

- The unit price for shoreland stabilization Zone 1 shall include furnishing filter fabric, medium riprap, 4-inch rocklayer, curltex II matting, topsoil, and coordination with native landscaping contractor for the installation of seeding and plant plugs.

5000.02

- The unit price for Shoreland Stabilization Zone 2 shall include furnishing filter fabric, medium riprap, 4-inch rocklayer, curltex II matting, topsoil, and coordination with native landscaping contractor for the installation of seeding and plant plugs.

5000.03

- The unit price for large woody debris shall include furnishing and installing logs, log cabling, concrete, anchoring rods, blocks, boulders, and appurtenances to install large woody debris as shown on the drawings.

5000.04

- The unit price for root wads shall include furnishing and installing logs with root wad as shown on the drawings.

5000.05

- The unit price for rock pies shall include furnishing and installing 6-inch to 36-inch rounded field stone as shown in the drawings.



## **LABELED TAB – BID SCHEDULE**

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**\*Place labeled tab before Section 00 41 13.**

Section Title	Line Item	Item Code	Item Description	UofM	Quantity	Unit Price	Extension	Section Totals
<b>BASE BID</b>								
	1	<b>0157.04</b>	Inlet Protection, Install and Maintain, Complete	EA	4		\$0.00	
	2	<b>0157.05</b>	Inlet Protection, Remove, Complete	EA	4		\$0.00	
	3	<b>0157.30</b>	Turtle Fence, Install and Maintain, Complete	LF	1,700		\$0.00	
	4	<b>0157.31</b>	Turtle Fence, Remove, Complete	LF	1,700		\$0.00	
	5	<b>0157.10</b>	Ditch Checks, Install and Maintain, Complete	LF	4		\$0.00	
	6	<b>0157.11</b>	Ditch Checks, Remove, Complete	LF	4		\$0.00	
	7	<b>0157.13</b>	Sediment Erosion Logs, Install and Maintain, Complete	LF	1,600		\$0.00	
	8	<b>0157.14</b>	Sediment Erosion Logs, Remove, Complete	LF	1,600		\$0.00	
	9	<b>0157.22</b>	Tracking Pad, Complete	EA	2		\$0.00	
	10	<b>3105.11</b>	Riprap, Heavy, 24-Inch Thick, Complete	SY	192		\$0.00	
	11	<b>3105.12</b>	Riprap, Medium, 12-Inch Thick, Complete	SY	75		\$0.00	
	12	<b>3111.01</b>	Site Clearing and Grubbing, Complete	LS	1		\$0.00	
	13	<b>3111.02</b>	Selective Tree Removal, Complete	Each	50		\$0.00	
	14	<b>3123.02</b>	Earthwork, Unclassified Excavation, Complete	LS	1		\$0.00	
	15	<b>3290.01.1</b>	Landscaping Imported Pulverized Topsoil, 6-Inch Depth, Complete	SY	4,500		\$0.00	
	16	<b>3341.01</b>	Storm Sewer Pipe, PVC, 12-Inch, Complete	LF	133		\$0.00	
	17	<b>3341.05.1</b>	Storm Sewer Underdrain with Filter Fabric Sock, 6-Inch, Complete	LF	80		\$0.00	
	17	<b>3341.24</b>	Storm Manhole Inlet, Type B, Complete	EA	2		\$0.00	
	18	<b>3342.02</b>	Apron Endwall, RCP, 12-Inch, Complete	EA	2		\$0.00	
	19	<b>5000.01</b>	Shoreland Stabilization Zone 1, Complete	LF	580		\$0.00	
	20	<b>5000.02</b>	Shoreland Stabilization Zone 2, Complete	LF	550		\$0.00	
	21	<b>5000.03</b>	Large Woody Debris, Complete	Each	19		\$0.00	
	22	<b>5000.04</b>	Root Wads, Complete	Each	13		\$0.00	
	23	<b>5000.05</b>	Rock Pile, Complete	Each	3		\$0.00	<b>\$0.00</b>

**SECTION 00 52 00  
STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND CONTRACTOR  
ON THE BASIS OF A STIPULATED PRICE**

**THIS AGREEMENT** is by and between De Pere Greenwood Cemetery Association

(hereinafter called OWNER) and \_\_\_\_\_

(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**ARTICLE 1 - WORK**

1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Bank Stabilization and Invasive Species Management

**ARTICLE 2 - THE PROJECT**

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Bank Stabilization and Invasive Species Management

**ARTICLE 3 - ENGINEER**

3.01 The Project has been designed by Robert E. Lee & Associates, Inc., who is hereinafter called ENGINEER and who is to act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 - CONTRACT TIMES**

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Project Milestones

A. None.

4.03 Substantial Completion and Final Completion/Payment

A. After the date when the contract times commence to run, as provided in paragraph 2.03 of the General Conditions and in accordance with paragraphs 14.04, 14.05, 14.06, and 14.07 of the

General Conditions; the milestone(s), substantial completion, final completion and final payment dates are as follows:

Substantial Completion:	<u>August 31, 2022</u>	Dates
Final Completion and Payment:	<u>November 21, 2022</u>	Dates

4.04 Liquidated Damages

- A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER **\$100.00** each day that expires after the time specified in paragraph 4.02 for Substantial Completion until the Work is substantially complete.
- B. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER **\$50.00** for each day that expires after the time specified in paragraph 4.02 for Final Completion and readiness for final payment until the Work is completed and ready for final payment. The owner reserves the right to deduct the amount of the liquidated damages from the final payment or retainage.

**ARTICLE 5 - CONTRACT PRICE**

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 5.01.A below:

A. For all Work other than Unit Price Work, a Lump Sum of:

---

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(words)

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(figure)

All specific cash allowance, if applicable, are included in the above price and have been computed in accordance with paragraph 11.02 of the General Conditions.

**ARTICLE 6 - PAYMENT PROCEDURES**

6.01 Submittal and Processing of Payments

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

#### 6.02 Progress Payments; Retainage

- A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment on or *before* the **1st day of each month** during performance of the Work as provided in paragraphs 6.02.A.1 and 6.02.A.2 below. **If the application for payment is not received by the date specified, the payment shall be delayed to the next scheduled approval date.** All such payments will be measured by the schedule of values established in paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions:
  - a. 95% of Work completed (with the balance being retainage). When the Work has been 50% completed as determined by ENGINEER, and if the character and progress of the Work have been satisfactory to OWNER and ENGINEER, OWNER, on recommendation of ENGINEER, may determine that as long as the character and progress of the Work remain satisfactory to them, there will be no retainage on account of Work subsequently completed, in which case the remaining progress payments prior to Substantial Completion will be in an amount equal to 100% of the Work completed less the aggregate of payments previously made; and
2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the Work completed, less such amounts as ENGINEER shall determine in accordance with paragraph 14.02.B.5 of the General Conditions.

#### 6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.

### **ARTICLE 7 - INTEREST**

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at a rate equal to the daily prime lending rate as published in the Wall Street Journal plus 1.5%.

### **ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS**

- 8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto
- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **ARTICLE 9 - CONTRACT DOCUMENTS**

9.01 Contents of Contract Documents

A. The Contract Documents consist of the following:

1. This Agreement (pages 00 52 00-1 to 00 52 00-7, inclusive);
2. General Conditions (pages 00 72 00-1 to 00 72 00-63, inclusive);
3. Supplementary Conditions (pages 00 73 00-1 to 00 73 00-7, inclusive);
4. Specifications as listed in the table of contents of the Project Manual;
5. Drawings consisting of a cover sheet and sheets numbered 1 through 22, inclusive, with each sheet bearing the following general title: Bank Stabilization and Invasive Species Management for De Pere Greenwood Cemetery Association, Village of Ledgeview, Brown County, Wisconsin, Contract No. 6004-21-01;
6. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive);
7. Exhibits to this Agreement (enumerated as follows):
  - a. CONTRACTOR's Bid (pages 00 41 13-1 to 00 41 13-5, inclusive);
  - c. Documentation submitted by CONTRACTOR prior to Notice of Award (pages 00 41 13-1 to 00 41 13-5, inclusive);
8. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
  - a. Written Amendments;

B. The documents listed in paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.05 of the General Conditions.

9.02 Legal Documents

A. The legal documents are a subset of the contract documents which form the Agreement for services by and between the Owner and Contractor.

B. The legal documents consist of the following:

1. This Agreement (Pages 00 52 00-1 to 00 52 00-7, inclusive).

## ARTICLE 10 - MISCELLANEOUS

### 10.01 Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions.

### 10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

### 10.03 Successors and Assigns

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

### 10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.



IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Agreement).

OWNER:  
DE PERE GREENWOOD CEMETERY  
ASSOCIATION

CONTRACTOR:  
\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest \_

Attest \_

Address for giving notices:  
De Pere Greenwood Cemetery Association  
1480 Fox River Drive; P. O. Box 353  
De Pere, WI 54115-0353

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of OWNER-CONTRACTOR Agreement.)

License No.  
\_\_\_\_\_  
(Where applicable)

Agent for service of process: \_\_\_\_\_

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

Designated Representative:

Designated Representative:

Name: Jewels Sowers

Name: \_\_\_\_\_

Title: President, Co-Treasurer

Title: \_\_\_\_\_

Address: 1480 Fox River Drive  
De Pere, WI 54115

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: 920-621-0251

Phone: \_\_\_\_\_

e-mail: info@deperegreenwoodcemetery.org

Facsimile: \_\_\_\_\_

## **LABELED TAB - BONDS**

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**\*Place labeled tab before Section 00 61 13.**

**THIS SECTION IS NOT APPLICABLE TO THIS PROJECT. THE LABEL WILL STILL BE CREATED**

**SECTION 00 62 76**

**APPLICATION FOR PAYMENT NO. \_\_\_\_\_**

To: De Pere Greenwood Cemetery Association

From: \_\_\_\_\_

Contract: 6004-21-01

Project: Bank Stabilization and Invasive Species Management

For work accomplished through the date of: \_\_\_\_\_

1. Original Contract Price:	_____
2. Add (Deduct) by Revised Quantities:	_____
3. Net change by Change Orders and Written Amendments (+ or -):	_____
4. Current Contract Price (1 plus 2 plus 3):	<u>\$0.00</u>
5. Total completed and stored to date:	_____
6. Retainage (per Agreement): * 5% of first 50% completed / 2.5% after 50% completed	
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_____ % of stored material:	<u>      \$ -</u>
Total Retainage:	<u>      #DIV/0!</u>
7. Total completed and stored to date less retainage (5 minus 6):	<u>      #DIV/0!</u>
8. Less previous Application for Payments:	<u>      \$0.00</u>
9. Due this Application (7 minus 8):	<u>      #DIV/0!</u>

**Record of Previous Payments:**

1. _____	4. _____
2. _____	5. _____
3. _____	6. _____

Sub-Total \$0.00

**Accompanying Documentation:**

SUBMITTED: \_\_\_\_\_

By: \_\_\_\_\_ Date: \_\_\_\_\_  
CONTRACTOR (Authorized Signature)

**RECOMMENDED:**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
ENGINEER (Authorized Signature)

**APPROVED:**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
OWNER (Authorized Signature)

REQUEST AND CERTIFICATE FOR PAYMENT, containing CONTRACTOR'S signed Certification is attached.

REQUEST NUMBER:

PROJECT NAME: Bank Stabilization and Invasive Species Management

ENGINEERS PROJECT NO: 6004-21-01

ITEM NO. (A)	DESCRIPTION OF WORK (B)	SCHEDULED QUANTITY (C)	UM	UNIT PRICE (D)	SCHEDULED Amount	Work Completed		Stored Materials (G)		Total Completed and Stored to Date (E+F+G)		Percent Completed	Scheduled Vs. Actual Add (Deduct)		
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Less Retainage															
<b>TOTAL</b>											\$ -				
Amount Previously Paid															
Amount Due This Request											\$ -				

## **LABELED TAB – GENERAL CONDITIONS**

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**\*Place labeled tab before Section 00 72 00 or C-700.**

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer’s written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an



addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

### B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

### C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

### D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

### E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### *2.01 Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### *2.02 Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

### *2.03 Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

## 2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

## 2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

## 2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### **3.02 *Reference Standards***

- A. Standards, Specifications, Codes, Laws, and Regulations
  1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

#### **3.03 *Reporting and Resolving Discrepancies***

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
  2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

### 4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.



#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 – BONDS AND INSURANCE

### 5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
  - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
  1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
  3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
  5. allow for partial utilization of the Work by Owner;
  6. include testing and startup; and
  7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.



5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

### 6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

### 6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that:
      - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
      - 3) it has a proven record of performance and availability of responsive service.
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:
    - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and
  - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 6.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.



## 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

## 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

#### 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

##### 1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

##### 2. *Samples:*

- a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
  - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
  1. observations by Engineer;
  2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

## 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## **ARTICLE 7 – OTHER WORK AT THE SITE**

### 7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
  - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
  - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

#### 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
  - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## ARTICLE 8 – OWNER’S RESPONSIBILITIES

### 8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

### 8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

### 8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws



and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

## **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,

and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

#### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
  - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

#### 10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

#### 10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
  - 1. deny the Claim in whole or in part;
  - 2. approve the Claim; or
  - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **11.01 *Cost of the Work***

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
  - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
  - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
  - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
  - g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
  2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
  3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
  4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
  5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

## 11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
    - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
    - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in



the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
    - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
    - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
    - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
    - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

## 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

## 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

**ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor’s safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
  - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner’s and Engineer’s acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor’s purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
  2. correct such defective Work; or
  3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.01 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### *14.02 Progress Payments*

#### *A. Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### *B. Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's



review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or
  - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 *Final Payment*

##### A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

*B. Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

*C. Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

*14.08 Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

#### 15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

### **ARTICLE 16 – DISPUTE RESOLUTION**

#### 16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or



2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 – MISCELLANEOUS

### 17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

### 17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

### 17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

## **LABELED TAB – SUPPLEMENTARY CONDITIONS**

**\*Place labeled tab before Section 00 73 00.**

**SECTION 00 73 00 (C-800)**

**SUPPLEMENTARY CONDITIONS**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

SC- 1.01.A.17 Add the following language at the end of paragraph 1.01.A.17:

The word Plans used in the specifications shall mean drawings as so defined.

SC-2.02 Delete paragraph A. in its entirety and insert the following in its place:

- A. The Owner shall furnish to Contractor printed copies of the following Conformed documents; up to (3) sets of the ½-size Drawings, (2) sets of the full-size Drawings and (3) Conformed Specifications. Additional copies will be furnished upon request at the cost of reproduction.

SC-2.03.A. Delete the last sentence of paragraph 2.03.A.

SC-5.03.A.,B. Delete paragraphs 5.03.A and B in their entirety and insert the following in its place.

- A. CONTRACTOR shall deliver with the executed Agreement to the OWNER, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which OWNER or any additional insured may reasonably request) which CONTRACTOR is required to purchase and maintain in accordance with Article 5.
- B. Before any work at the site is started, OWNER shall deliver to the CONTRACTOR certificates of insurance (and other evidence of insurance which CONTRACTOR or any additional insured may reasonably request) which is required to purchase and maintain in accordance with Article 5.

SC-4.02 Subsurface and Physical Conditions

Add the following new paragraph(s) immediately after paragraph 4.02.B3:

- 4. In the preparation of Drawings and Specifications, ENGINEER or ENGINEER's Consultants relied upon the following reports of explorations and tests of subsurface conditions at the Site:

**NOT APPLICABLE**

- 5. Copies of reports and drawings itemized in SC-4.02.4 and SC-4.02.5) if any, that are not included with Bidding Documents may be examined at Robert E. Lee & Associates, Inc., 1250 Centennial Centre Boulevard , Hobart, WI 54155, (920)662-9641 during business hours. These reports and drawings are not part of the Contract Documents, but the "technical data" contained

therein upon which CONTRACTOR may rely as identified and established above are incorporated therein by reference. CONTRACTOR is not entitled to rely upon other information and data utilized by ENGINEER and ENGINEER's consultants in the preparation of Drawings and Specifications.

SC-5.04 Add the following new paragraph immediately after paragraph 5.04.B.6:

7. Will contain waiver of subrogation provisions in accordance with paragraph 5.07.

SC-5.04 Add the following new paragraph immediately after paragraph 5.04.B:

C. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under paragraphs 5.04.A.1 and A.2 of the General Conditions:
  - a. State Statutory
  - b. Applicable Federal (e.g., Longshoreman's) Statutory
  - c. Employer's Liability:
    - 1) Each Accident \$500,000
    - 2) Policy Limit \$1,000,000
    - 3) Each Employee \$500,000
2. Contractor's General Liability under paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:
  - a. General Aggregate \$1,000,000
  - b. Products - Completed Operations Aggregate \$1,000,000
  - c. Personal and Advertising Injury \$1,000,000
  - d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
  - e. Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.
  - f. Excess or Umbrella Liability
    - 1) General aggregate \$2,000,000
    - 2) Each occurrence \$2,000,000
3. Automobile Liability under paragraph 5.04.A.6 of the General Conditions:
  - a. Combined Single Limit of \$1,000,000
4. The Contractual Liability coverage required by paragraph 5.04.B.3 of the General Conditions shall be provided by the CONTRACTOR as part of the CONTRACTOR's General Liability coverage.
5. The Owner and Engineer shall be listed as additional insureds on the Contractor's General Liability policy.

SC-5.06.A. Delete paragraph 5.06.A in its entirety and insert the following in its place:

- A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
  1. Include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER ENGINEER's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents and

- other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
2. Be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, false work, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
  3. Include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  4. Cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and
  5. Allow for partial utilization of the Work by OWNER;
  6. Include testing and startup; and
  7. Be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
  8. CONTRACTOR shall be responsible for any deductible or self-insured retention.
  9. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph SC-5.06 shall comply with the requirements of paragraph 5.06.C of the General Conditions.

SC-5.07 Add the following new paragraph immediately after Paragraph 5.07.A:

1. The Contractor's insurer hereunder waives all rights of subrogation against Owner and Engineer, any right of setoff and counterclaim, and any other right to deduction due to outstanding premiums, whether by attachment or otherwise with respect to insurance required under GC 5.04 and further under the supplementary conditions.

SC-6.02.B Delete paragraph 6.02B in its entirety and insert the following in its place.

B. Overtime and shift work may be established as a regular procedure by the Contractor with the written permission of the Owner. Such permission may be revoked at any time. No work other than overtime and shift work established as a regular procedure shall be done between the hours of 6:00 P.M. and 7:00 A.M., nor on Saturdays, Sundays, or legal holidays, except such work as is necessary for the proper care and protection of the work already performed or except in case of an emergency.

1. All costs for overtime incurred by the Engineer for construction observation, except those occurring as a result of overtime and shift work established as a regular procedure, shall be paid by the Contractor. Overtime observation shall include observation required during holidays, Saturdays, Sundays, and any weekday between the hours of 6:00 P.M. and 7:00 A.M. Such costs will include, but will not necessarily be limited to engineering, construction observation or administration, general supervision and other overhead expenses which are directly chargeable to the overtime work. All such charges shall be deducted by the Owner from payments due the Contractor.

SC-6.03 Add the following to 6.03:

- D. The equipment supplier must be an Authorized Distributor or Representative of the equipment being supplied in the designated territory. Authorized OEM is not acceptable.
- E. The equipment supplier shall submit certification of authorization by the equipment manufacturer to perform start-up and warranty repair services.
- F. The equipment supplier shall provide a statement from the manufacturer stating that their design and quality of workmanship is Factory approved and in no way will affect the new warranty provided by the manufacturer.
- G. The equipment supplier shall provide evidence of satisfactory performance on a minimum of ten (10) similar projects of equal service conditions for a minimum period of five (5) years.

SC-6.06.B Add the following language at the end of the second sentence of paragraph 6.06.B.:

- 1. Within five days of the Bid opening and before the Notice of Award, the apparent Successful Bidder is required to identify Subcontractors and Suppliers submitted to the ENGINEER and OWNER on the form provided in the Bidding Documents.

SC-6.06.C.3 Add the following sentence:

- 3. OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by a particular Subcontractor, Supplier, or other individual or entity.

SC-6.10 Add the following to 6.10 Taxes:

B. Waste Treatment Facilities

- 1. Exemption – Tangible personal property which becomes a component part of an industrial or governmental waste treatment facility is exempt from sales and use tax (sec. 77.54(26), Wis. Stats.).
- 2. Municipal (Government) Facilities – Construction materials which become a component part of a Wisconsin governmental waste treatment facility may be purchased without tax by contractors pursuant to the standards set forth in sec. Tax 11.11, Wis. Adm. Code. Governmental waste treatment facilities include:
  - a. Wastewater treatment facilities. In general terms, this is everything within the fence, except storm sewers, water supply systems, private domestic wastewater treatment facilities, and collection and discharge systems.
  - b. Sanitary landfills. This includes collection and burner systems, laboratory equipment, maintenance buildings, garages, office buildings, fences, and gates.
  - c. Groundwater facilities. These are municipal facilities constructed to treat hazardous or contaminated ground water and include oil and water separators, air strippers, aerators, blowers, filters, carbon units, controls, thermal oxidizers, and pumps. Not included within the exemption are the collection and discharge systems.
- 3. It is not necessary for a governmental unit or contractors engaged in constructing a waste treatment facility for a Wisconsin governmental unit to obtain Department of Revenue approval of the governmental unit's waste treatment facility to qualify for the waste

treatment facility exemption. Purchases by Contractors and Subcontractors - The sales tax exemption for waste treatment facilities includes the purchase of tangible personal property by a contractor who incorporates these purchases into a waste treatment facility.

- a. The contractor shall certify on an exemption certificate, Form S-211, the intended exempt use of the item and give the Form S-211 to its supplier. Suppliers of construction or repair materials for waste treatment facilities should not charge sales tax on such sales if they accept from the purchaser in good faith an exemption certificate (Form S-211).
- b. Purchase of items that do not become a part of the waste treatment facility are subject to the tax. This includes items but is not limited to such as industrial gases, form lumber, tunnel shields, and supplies used by the contractor during construction. Payments by a contractor for equipment purchased (or leased) to perform a construction job are also taxable.

C. Other Public Facilities

1. Exemption - The sales price from the sale of and the storage, use, or other consumption of tangible personal property, or items or property under s. [77.52 \(1\) \(b\)](#) or [\(c\)](#), Wis. Stats. sold to a construction contractor who, in fulfillment of a real property construction activity, transfers the tangible personal property, or items or property under s. [77.52 \(1\) \(b\)](#) or [\(c\)](#), to an entity described under s. 77.54 sub. [\(9a\) \(b\)](#), [\(c\)](#), [\(d\)](#), [\(em\)](#), or [\(f\)](#), Wis. Stats. if such tangible personal property, or items or property, becomes a component of a facility in this state that is owned by the entity. In this subsection, "facility" means any building, shelter, parking lot, parking garage, athletic field, athletic park, storm sewer, water supply system, and sewerage collection facility, but does not include a highway, street, or road.
2. Purchases by Contractors and Subcontractors - The sales tax exemption for other public facilities include the purchase of tangible personal property by a contractor who incorporates these purchases into public facilities as outlined above in C., 1.
  - a. The contractor shall certify on an exemption certificate, Form S-211, the intended exempt use of the item and give the Form S-211 to its supplier. Suppliers of construction or repair materials for public facilities should not charge sales tax on such sales if they accept from the purchaser in good faith an exemption certificate (Form S-211).
  - b. Purchase of items which do not become a part of the public facilities are subject to the tax. This includes but is not limited to items such as industrial gases, form lumber, tunnel shields, and supplies used by the contractor during construction. Payments by a contractor for equipment purchased (or leased) to perform a construction job are also taxable.

SC-6.19.D Add the following:

- D. The warranty period shall be 365 days from the date of substantial completion. All equipment shall be warranted for a period of 365 days from the date of substantial completion or 18 months from the date of delivery, whichever is longer. If the project requires a county right-of-way permit, the contractor shall provide the warranty as stated in the permit.

SC-7.02.A.1 Delete paragraphs 7.02.A. 1-3 in their entirety and insert the following:

1. The CONTRACTOR shall have the authority and be responsible for coordination of the activities among the other prime contractors and subcontractors on the Site to ensure a safe, efficient working environment. This authority covers scheduling delivery of

materials, storage of materials, sequencing of construction involving different crafts, resolving interface issues between crafts, scheduling testing, and all other aspects of the Work that do not impact the design or function of the Work.

SC-10.03.A.4 Add the following at the end of paragraph 10.03.A:

4. Change Orders shall be prepared on the form included in the General Requirements.

SC-11.01.A.5.b Add the following sentence: The cost of small tools, \$1,000 and less in value, and consumables shall be paid by adding 5% of the each employee's base hourly rate to the employee's payroll cost.

SC-11.01. Delete Paragraph 11.01.A.5.c in its entirety and insert the following in its place:

11.01.A.5.c. Construction Equipment and Machinery:

11.01.A.5.c(1) Rentals of construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. Such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work. Rental of construction equipment shall be considered subcontracted work and shall be subject to the 5 percent Contractor's Fee (12.01.C.2.b.).

11.01.A.5.c(2) Cost for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment in the Rental Rate Blue Book published by Equipment Watch. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools. Owned equipment costs shall be subject to the 15% Contractor's Fee (12.01.C.2.a.).

SC-11.01.B.1 Revise the first sentence of paragraph 11.01.B.1 to read as follows: 1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, *project managers*, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

SC-11.01.B Add 11.01.B.6 as follows: 6. The cost of company owned autos or trucks assigned to foremen, superintendents or project managers.



SC-11.02.B.1. Add 11.02 B.1.c. as follows: c. Contractor's cost for installation, labor and miscellaneous materials will be paid when specified in the specific allowance item. Payment will be in accordance with GC 11.01 cost of work.

SC-12.01.C.2 Revise the sentence to read: 2. If a fixed fee is not agreed upon, or permitted by the funding agency, then a fee based on the following percentages of the various portions of the Cost of the Work:

SC-12.01.C.2.a Delete paragraphs SC.12.01.C.2.a-c in their entirety and insert the following:

- a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;
- b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be 20 percent. The percentage adjustment for 11.01.A.3 shall include full compensation for general overhead and profit for the subcontractors and the CONTRACTOR's administrative costs including general supervision, overhead, profit, and any other expense required for the CONTRACTOR to administer the services of one of the subcontractors.

SC-14.02.A.1. Revise the first sentence of paragraph 14.02.A.1 to read as follows: 1. At least 10 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

SC-14.02.A.2. Delete this paragraph in its entirety and insert the following in its place:

2. Beginning with the second Application for Payment, each application shall include a partial waiver of lien from all subcontractors and suppliers for Work provided to discharge Contractor's legitimate obligations associated with prior Applications for Payments.

SC-14.02.C.1 Revise the first sentence of paragraph 14.02.C.1 to read as follows: 1. Thirty days after approval of the Application for Payment by the OWNER, the amount recommended by the engineer will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

SC-14.07.A.2.(i) Revise the following language at the end of (a) of paragraph 14.07.A.2:

- (a) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.6. and such other data and schedules as ENGINEER may reasonably require.

SC-17.07 Add the following paragraph 17.07:

17.07 Wage Rates

- A. State Wage Rates are not required. Section 66.0903 Wisconsin Statutes will prevail on the contracts in this project.

- END OF SECTION -

# Amphibian and Reptile Exclusion Fencing Protocols

Wisconsin Department of Natural Resources  
Endangered Resources Review Program



These Amphibian and Reptile Exclusion Fencing Protocols contain information regarding how to install fencing around areas of disturbance (e.g., maintenance activities, construction site, development project) in order to prevent amphibians and/or reptiles from entering a workspace. These protocols should be used when an Endangered Resources Review (<http://dnr.wi.gov/topic/ERReview/Review.html>) has required/recommended the use of exclusion fencing; these protocols are not meant to take the place of a full Endangered Resources Review. Amphibian and reptile exclusion fencing is standard silt fencing that is installed in the following manner:

## Timing of Fence Installation

- Fencing must be installed prior to any ground disturbing activities (including clearing and grubbing) and typically during the species' inactive period (see <http://dnr.wi.gov/topic/WildlifeHabitat/Herps.asp#regs> for commonly used inactive periods).

## Fencing Specifications

- Fencing should typically be installed around the entire disturbance area unless suitable habitat is not present around the entire disturbance area AND approval has been received from Endangered Resources Review staff ([DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)).
- Exclusion fencing must be installed with the fence stakes placed on the construction side of the fence (this is typically opposite the normal requirement for sediment control) to prevent animals from using the stakes to maneuver over the fencing and into the disturbance area. One exception to this is the Blanding's turtle; due to the mobility of this species, fence stakes can be placed on the non-construction side of the fence.
- Fencing must be at least 24 inches high, with at least 4 inches trenched into the soil and at least 20 inches exposed above ground. Soils must be carefully compacted against both sides of the fence for its entire length to prevent animals from passing under the fence (Figure 1). If trenching is not possible due to soil conditions (e.g., rocks, tree roots), sand bags or other anchors may be used with approval from Endangered Resources Review staff ([DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)).
- Fencing should be installed with turn-arounds at the ends and at any access openings needed in the fencing, in order to redirect animals away from openings (Figures 2, 3). Access openings should be tightly secured with hay bales when construction-related activities are not occurring.

## Fence Maintenance

- Fences must be inspected at least twice weekly on non-consecutive days AND after any significant rain event (defined as a ¾ inch downpour or 1.5 inches of rain in any 24-hour period). Repairs to the fencing must be made immediately and Endangered Resources Review staff should be contacted ([DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)).
- The non-construction side of the fence should be kept free of tall vegetation that could also allow animals to maneuver over the fencing.
- Fences must be maintained throughout the species' entire active period (typically outlined in the Endangered Resources Review) or until all construction related activities have been completed, whichever occurs first. If the project continues into more seasons, fencing must be maintained during the animal's active season until project completion.

## Additional Requirements

- Additional sediment control fencing may be required as part of other Wisconsin Department of Natural Resources permit conditions.

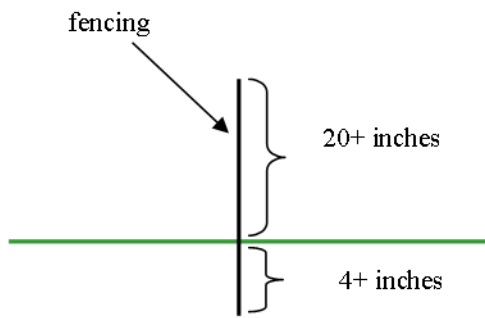


Figure 1. Side view of fencing

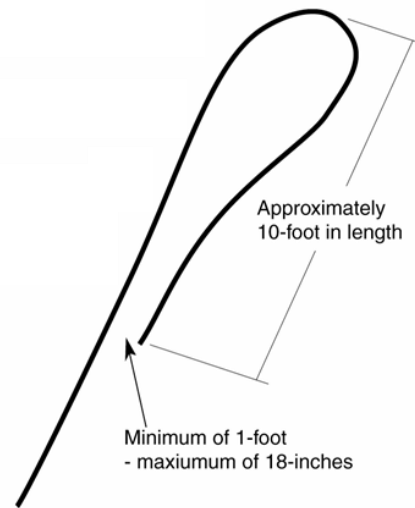


Figure 2. Overhead view of fence turn-around

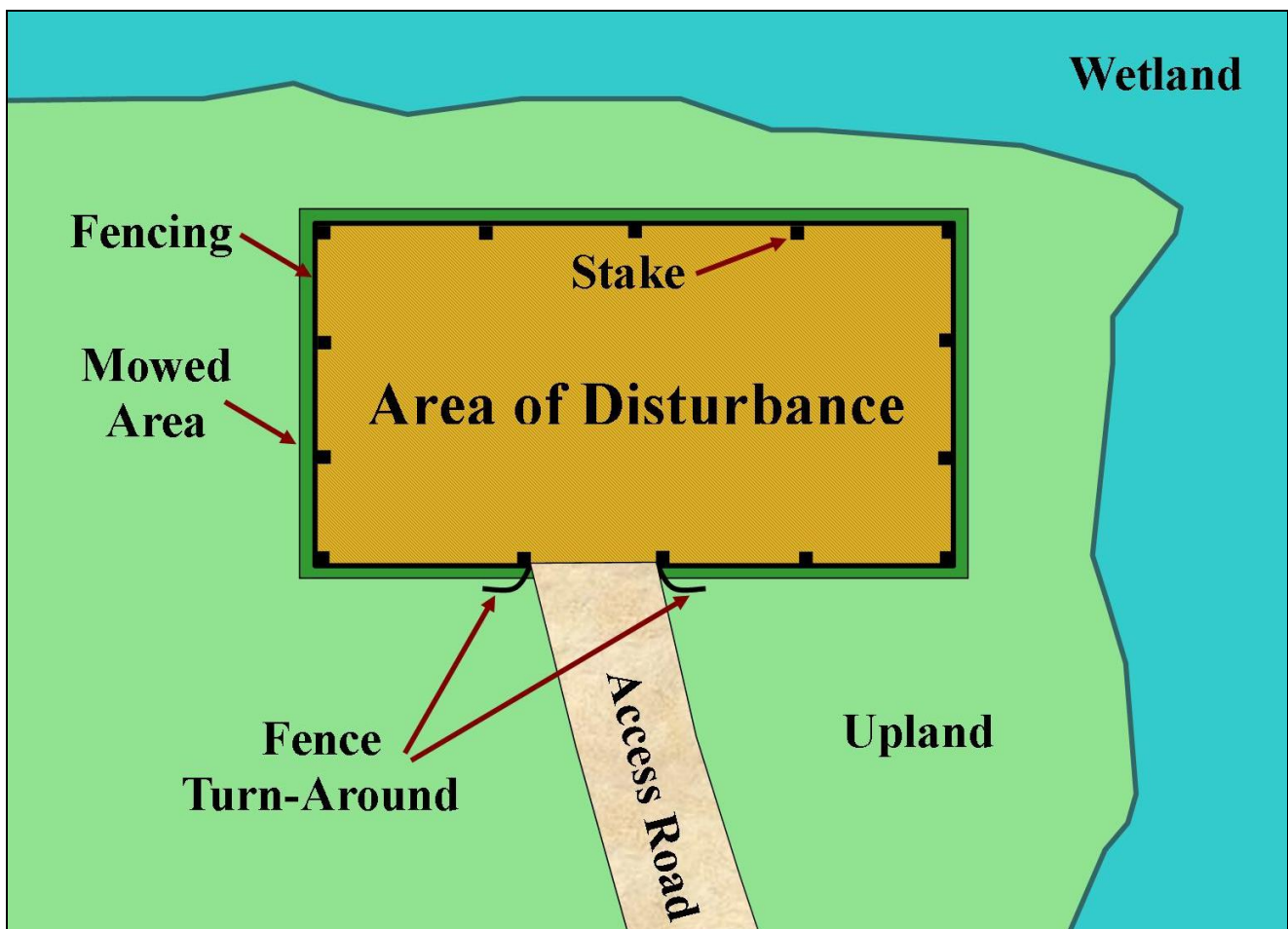


Figure 3. Site layout

**State of Wisconsin**  
**DEPARTMENT OF NATURAL RESOURCES**  
2984 Shawano Ave.  
Green Bay, WI, 54313

Tony Evers, Governor  
Preston D. Cole, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



June 23, 2021

IP-NE-2020-5-01646

Greenwood Cemetery of De Pere (c/o Julie Sowers)  
PO Box 353  
De Pere, WI 54115  
[sent electronically]

Dear Ms. Sowers:

The Department of Natural Resources has completed its review of your application for a permit to install riverbank protection along Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County. You will be pleased to know your application is approved.

I am attaching a copy of your permit, which lists the many important conditions that must be followed to protect water quality and habitat. A copy of the permit must be posted for reference at the project site. **Please read your permit conditions carefully so that you are fully aware of what is expected of you.**

Please note you are required to submit photographs of the completed project within 7 days after you've finished construction. This helps both of us to document the completion of the project and compliance with the permit conditions.

Your next step will be to notify me of the date on which you plan to start construction and again after your project is complete.

If you have any questions about your permit, please call me at (920) 410-3181 or email [Crystal.VonHoldt@wisconsin.gov](mailto:Crystal.VonHoldt@wisconsin.gov).

Sincerely,

Crystal von Holdt  
Water Management Specialist

Email cc: Jessica Kempke, U.S. Army Corps of Engineers  
Matt Heyroth, Brown County Zoning Administrator  
Charlotte Nagel, Town of Ledgeview Clerk  
Amanda Kretschmer, WDNR Conservation Warden  
Pat Kuehl, Robert E. Lee & Associates  
Randy Lawton, Greenwood Cemetery of De Pere  
Kay Lutze, DNR Waterway Program – Regional Supervisor

**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES**

**RIVERBANK PROTECTION PERMIT  
IP-NE-2020-5-01646**

Julie Sowers on behalf of Greenwood Cemetery of De Pere is hereby granted under Section 30.12(3m), Wisconsin Statutes, to install riverbank protection along the Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County, subject to the following conditions:

**PERMIT**

1. You must notify Crystal von Holdt at phone (920) 410-3181 or email [Crystal.VonHoldt@wisconsin.gov](mailto:Crystal.VonHoldt@wisconsin.gov) before starting construction and again not more than 5 days after the project is complete.
2. You must complete the project as described **on or before June 23, 2024**. If you will not complete the project by this date, you must submit a written request for an extension prior to expiration of the initial time limit specified in the permit. Your request must identify the requested extension date. The Department shall extend the time limit for an individual permit or contract for no longer than an additional 5 years if you request the extension before the initial time limit expires. You may not begin or continue construction after the original permit expiration date unless the Department extends the permit in writing or grants a new permit.
3. This permit does not authorize any work other than what you specifically describe in your application and plans, as updated on October 23, 2020, and as modified by the conditions of this permit. If you wish to alter the project or permit conditions, you must first obtain written approval of the Department.
4. Before you start your project, you must first obtain any permit or approval that may be required for your project by local zoning ordinances and by the U.S. Army Corps of Engineers. You are responsible for contacting these local and federal authorities to determine if they require permits or approvals for your project. These local and federal authorities are responsible for determining if your project complies with their requirements.
5. Upon reasonable notice, you shall allow access to your project site during reasonable hours to any Department employee who is investigating the project's construction, operation, maintenance or permit compliance.
6. The Department may modify or revoke this permit for good cause, including if the project is not completed according to the terms of the permit or if the Department determines the activity is detrimental to the public interest.
7. **You must post a copy of this permit at a conspicuous location on the project site, visible from the waterway**, for at least five days prior to construction, and remaining at least five days after construction. You must also have a copy of the permit and approved plan available at the project site at all times until the project is complete.
8. Your acceptance of this permit and efforts to begin work on this project signify that you have read, understood and agreed to follow all conditions of this permit.
9. **You must submit a series of photographs to the Department, within one week of completing work on the site**. The photographs must be taken from different vantage points and depict all work authorized by this permit.

10. You, your agent, and any involved contractors or consultants may be considered a party to the violation pursuant to Section 30.292, Wis. Stats., for any violations of Chapter 30, Wisconsin Statutes, or this permit.
11. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters. Erosion control measures (such as silt fence and straw bales) must meet or exceed the technical standards of ch. NR 151, Wis. Adm. Code. The technical standards are found at: [http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html) .
12. All equipment used for the project including but not limited to tracked vehicles, barges, boats, hoses, sheet pile and pumps shall be de-contaminated for invasive and exotic viruses and species prior to use and after use. The following steps must be taken *every time* you move your equipment to avoid transporting invasive and exotic viruses and species. To the extent practicable, equipment and gear used on infested waters shall not be used on other non-infested waters.
  1. **Inspect and remove** aquatic plants, animals, and mud from your equipment.
  2. **Drain all water** from your equipment that comes in contact with infested waters, including but not limited to tracked vehicles, barges, boats, hoses, sheet pile and pumps.
  3. **Dispose** of aquatic plants, animals in the trash. Never release or transfer aquatic plants, animals or water from one waterbody to another.
  4. **Wash your equipment** with hot (>140° F) and/or high-pressure water,  
- OR -  
Allow your equipment to **dry thoroughly for 5 days**.

#### SPECIFIC RIVERBANK PROTECTION CONDITIONS

13. A filter cloth, or a gravel filter layer, must be placed under the riprap to extend the life of the structure and to reduce maintenance costs.
14. All grading and excavation must be confined to the square feet allowed by local ordinance.
15. Banks and other erodible areas must be riprapped, seeded, mulched or sodded to prevent erosion. Temporary and final erosion control measures are to be installed immediately and must be kept in place until site stabilization is completed. Temporary erosion control measures such as straw bales and silt fences must be put in place prior to any precipitation or if work ceases for longer than 24 consecutive hours.
16. Disturbance of bank vegetation must be kept to a minimum during construction. Any vegetative removal above the ordinary high-water mark must comply with local zoning regulations.
17. The project must be constructed in such a manner as to prevent upland soil losses and sediment deposition into surface waters.
18. You are hereby authorized to place clean, unpainted rounded or angular rock that is free of fines between 6"-14" in diameter, along 1,125 linear feet of the shoreline with 582ft for Type 1 Treatment and 543ft for Type 2 Treatment. This plans indicate the riprap toe is to extend 2.5ft into the water as measured from the ordinary high-water mark but stone may extend up to and not exceed an 8 ft toe length to achieve a 2:1 slope for a stable riprap structure.
19. To protect sensitive fish spawning, movement, and egg incubation time periods, you are not allowed to do in-water construction between **March 15<sup>th</sup> (or ice-out, whichever is earlier) and May 31<sup>st</sup>** of any calendar year.

20. A copy of plans and the permit are to be provided to each contractor working on the project.

#### FINDINGS OF FACT

1. Julie Sowers on behalf of Greenwood Cemetery of De Pere has filed an application with this Department under sections 30.12(1) and 30.208 Wisconsin Statutes, to place riverbank stabilization along the Fox River located in the SE 1/4, SE 1/4, Section 28, Township 23, Range 20E, Town of Ledgeview, Brown County.
2. The applicant's proposed design includes two different types of streambank erosion control treatment designs using rock riprap integrated with topsoil and native vegetation along 1,125 LF of riverbank. Type 1 (for areas of less erosion) consists of placing medium riprap over filter fabric from 2 feet below the ordinary high-water mark (OHWM) to 1 foot above the high-water mark for 582ft of bank. Type 2 (for areas of more severe erosion) will be used along 543ft of bank with riprap placed to a depth of 5 feet below the OHWM to three feet above the OHWM. The riverbank work is part of a larger concept to stabilize the steep hillside, minimize erosion, and protect the cemetery from future hillside and riverbank failures. Below the OHWM for both treatment types, the medium riprap will be top dressed with 4-inch stone and above the OHWM, 6 inches of topsoil will be placed over the riprap with erosion matting and native vegetation. The project will also include the construction of habitat structures consisting of large woody debris, rot wads, and rock piles.
3. The Department has completed an investigation of the project site and has evaluated the project as described in the application and plans.
4. The Fox River is a navigable water.
5. The proposed project, if constructed in accordance with this permit will not adversely affect water quality, will not increase water pollution in surface waters and will not cause environmental pollution as defined in s. 283.01(6m), Wis. Stats.
6. The proposed riverbank project will not impact wetlands if constructed in accordance with this permit.
7. The Department of Natural Resources has determined that the agency's review of the proposed project constitutes an equivalent analysis action under s. NR 150.20(2), Wis. Adm. Code. The Department has considered the impacts on the human environment, alternatives to the proposed projects and has provided opportunities for public disclosure and comment. The Department has completed all procedural requirements of s. 1.11(2)(c), Wis. Stats., and NR 150, Wis. Adm. Code for this project.
8. The Department of Natural Resources has completed all procedural requirements and the project as permitted will comply with all applicable requirements of Sections 30.12(1) and 30.208, Wisconsin Statutes and Chapters NR 102, 103, and 328 of the Wisconsin Administrative Code.

The applicant was responsible for fulfilling the procedural requirements for publication of notices under s. 30.208(5)(c)1m., Stats., and was responsible for publication of the notice of pending application under s.30.208(3)(a), Stats. or the notice of public informational hearing under s.30.208(3)(c), Stats., or both. S. 30.208(3)(e), Stats., provides that if no public hearing is held, the Department must issue its decision within 30 days of the 30-day public comment period, and if a public hearing is held, the Department must issue its decision within 20 days after the 10-day period for public comment after the public hearing. S.

30.208(5)(bm), Stats., requires the Department to consider the date on which the department publishes a notice on its web site as the date of notice.

9. The structure will not materially obstruct navigation because the riprap toe length into the river is minimized to only what is necessary to construct a 2:1 slope for a stable riverbank armoring structure.
10. The structure will not be detrimental to the public interest because the project has been reviewed and modified where needed to ensure that there is no net loss or detriment to fish and wildlife habitat, aquatic habitat, water quality, navigation, water quality/quantity, and natural scenic beauty.
11. The structure will not materially reduce the flood flow capacity of the navigable waterbody because the riprap toe length into the river is minimized to only what is necessary to construct a 2:1 slope for a stable riverbank armoring structure.

#### CONCLUSIONS OF LAW

1. The Department has authority under the above indicated Statutes and Administrative Codes, to issue a permit for the construction and maintenance of this project.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions shall be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing of any individual permit decision pursuant to section 30.209, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921. The petition shall be in writing, shall be dated and signed by the petitioner, and shall include as an attachment a copy of the decision for which administrative review is sought. If you are not the applicant, you must simultaneously provide a copy of the petition to the applicant. If you wish to request a stay of the project, you must provide information, as outlined below, to show that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment. If you are not the permit applicant, you must provide a copy of the petition to the permit applicant at the same time that you serve the petition on the Department.

**The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.**

A request for contested case hearing must meet the requirements of section 30.209, Wis. Stats., and sections NR 2.03, 2.05, and 310.18, Wis. Admin. Code, and if the petitioner is not the applicant, the petition must include the following information:

1. A description of the objection that is sufficiently specific to allow the department to determine which provisions of this section may be violated if the proposed permit or contract is allowed to proceed.
2. A description of the facts supporting the petition that is sufficiently specific to determine how the petitioner believes the project, as proposed, may result in a violation of Chapter 30, Wis. Stats.;
3. A commitment by the petitioner to appear at the administrative hearing and present information supporting the petitioner's objection.



If the petition contains a request for a stay of the project, the petition must also include information showing that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment.

Dated at the Green Bay, Wisconsin on June 23, 2021.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

By:

A handwritten signature in cursive script that reads "Crystal von Holdt".

Crystal von Holdt

Water Management Specialist



October 13, 2021

Julie Sowers  
Greenwood Cemetery  
P.O. Box 333  
De Pere, WI 54115  
Via email: info@deperegwoodcemetery.org

SUBJECT: Coverage Under WPDES General Permit No. WI-S067831-06: Construction Site Storm Water Runoff  
Permittee Name: Greenwood Cemetery Site  
Site Name: Bank Stabilization and Invasive Spicies Management  
FIN: 78117

Dear Permittee:

The Wisconsin Department of Natural Resources received your Water Resources Application for Project Permits or Notice of Intent, on July 12, 2021, for the Bank Stabilization and Invasive Spicies Management site and has evaluated the information provided regarding storm water discharges from your construction site. We have determined that your construction site activities will be regulated under ch. 283, Wis. Stats., ch. NR 216, Wis. Adm. Code, and in accordance with Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit No. WI-S067831-06, Construction Site Storm Water Runoff. All erosion control and storm water management activities undertaken at the site must be done in accordance with the terms and conditions of the general permit.

The **Start Date** of permit coverage for this site is October 13, 2021. The maximum period of permit coverage for this site is limited to 3 years from the **Start Date**. Therefore, permit coverage automatically expires and terminates 3 years from the Start Date and storm water discharges are no longer authorized unless another Notice of Intent and application fee to retain coverage under this permit or a reissued version of this permit is submitted to the Department 14 working days prior to expiration.

A copy of the general permit along with extensive storm water information including technical standards, forms, guidance and other documents is accessible on the Department's storm water program Internet site. To obtain a copy of the general permit, please download it and the associated documents listed below from the following Department Internet site:

<http://dnr.wi.gov/topic/stormwater/construction/forms.html>

- Construction Site Storm Water Runoff WPDES general permit No. WI-S067831-06
- Construction site inspection report form
- Notice of Termination form

If, for any reason, you are unable to access these documents over the Internet, please contact me and I will send them to you.

To ensure compliance with the general permit, please read it carefully and be sure you understand its contents. Please take special note of the following requirements (This is not a complete list of the terms and conditions of the general permit.):

1. The Construction Site Erosion Control Plan and Storm Water Management Plan that you completed prior to submitting your permit application must be implemented and maintained throughout construction. Failure to do so may result in enforcement action by the Department.

2. The general permit requires that erosion and sediment controls be routinely inspected at least every 7 days, and within 24 hours after a rainfall event of 0.5 inches or greater. Weekly written reports of all inspections must be maintained. The reports must contain the following information:

- a. Date, time, and exact place of inspection;
- b. Name(s) of individual(s) performing inspection;
- c. An assessment of the condition of erosion and sediment controls;
- d. A description of any erosion and sediment control implementation and maintenance performed;
- e. A description of the site's present phase of construction.

3. A **Certificate of Permit Coverage** must be posted in a conspicuous place on the construction site. The Certificate of Permit Coverage (WDNR Publication # WT-813) is enclosed for your use.

4. When construction activities have ceased and the site has undergone final stabilization, a Notice of Termination (NOT) of coverage under the general permit must be submitted to the Department.

It is important that you read and understand the terms and conditions of the general permit because they have the force of law and apply to you. Your project may lose its permit coverage if you do not comply with its terms and conditions. The Department may also withdraw your project from coverage under the general permit and require that you obtain an individual WPDES permit instead, based on the Department's own motion, upon the filing of a written petition by any person, or upon your request.

If you believe that you have a right to challenge this decision to grant permit coverage, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with s. NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with s. NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Thank you for your cooperation with the Construction Site Storm Water Discharge Permit Program. If you have any questions concerning the contents of this letter or the general permit, please contact Sarah Anderson at (920) 662-5441.

Sincerely,



Sarah Anderson  
Northeast Region  
Storm Water Management Specialist

ENCLOSURE: Certificate of Permit Coverage



# CERTIFICATE OF PERMIT COVERAGE

UNDER THE  
WPDES CONSTRUCTION SITE STORM WATER RUNOFF PERMIT  
Permit No. WI-S067831-06

Under s. NR 216.455(2), Wis. Adm. Code, landowners of construction sites with storm water discharges regulated by the Wisconsin Department of Natural Resources (WDNR) Storm Water Permit Program are required to post this certificate in a conspicuous place at the construction site. This certifies that the site has been granted WDNR storm water permit coverage. The landowner must implement and maintain erosion control practices to limit sediment-contaminated runoff to waters of the state in accordance with the permit.

## EROSION CONTROL COMPLAINTS

should be reported to the WDNR Tip Line at  
**1-800-TIP-WDNR (1-800-847-9367)**

Please provide the following information to the Tip Line:

**WDNR Site No. (FIN): 78117**

**Site Name: Bank Stabilization and Invasive Species Management**

**Address/Location: The project is located along Fox River Drive, Town of LEDGEVIEW**


Additional Information:

**Landowner: Greenwood Cemetery Site**

**Landowner's Contact Person: Julie Sowers**

**Contact Telephone Number: (920) 621-0251**

**Permit Start Date: October 13, 2021**

By: 



**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT**  
**180 FIFTH STREET EAST, SUITE 700**  
**ST. PAUL, MN 55101-1678**

August 13, 2020

Regulatory File No. 2020-00656-JLK

Julie Sowers  
Greenwood Cemetery  
P.O. Box 353  
De Pere, Wisconsin 54115

Dear Ms. Sowers:

We are responding to your request for authorization for the Greenwood Cemetery Bank Stabilization project in the Town of Ledgeview. The proposed work is located in Section 28, Township 23 North, Range 20 East, Brown County, Wisconsin.

**Project authorization:**

The regulated activities associated with this project include the discharge of dredged or fill material along 1,200 linear feet of the Fox River for the purpose of stabilizing the bank. We have determined that these activities are authorized by a Nationwide Permit (NWP) or a Regional General Permit (RGP), specifically, NWP 13, Bank Stabilization. This work is shown on the enclosed figures, labeled 2020-00656-JLK Figures 1 of 3 through 3 of 3.

Your project exceeds the limitations established in the general permit related to the maximum amount of impact along a tributary. However, based on a case-specific review, we have determined the proposed activity will result in no more than minimal adverse effects and a waiver has been granted.

**Conditions of your permit:**

You must ensure the authorized work is performed in accordance with the enclosed General Permit terms, General Conditions, and St. Paul District Regional Conditions.

You are also required to complete and return the enclosed Compliance Certification form within 30 days of completing your project. Please email the completed form to the contact identified in the last paragraph.

A change in location or project plans may require re-evaluation of your project. Proposed changes should be coordinated with this office prior to construction. Failure to comply with all terms and conditions of this permit invalidates this authorization and could result in a violation of Section 301 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

**Water Quality Certification:**

You must also comply with the enclosed Water Quality Certification conditions associated with this General Permit.

**Permit expiration:**

This permit is valid until March 18, 2022, unless the general permit is modified, suspended, or revoked. If the work has not been completed by that time, you should contact this office to verify that the permit is still valid. Furthermore, if you commence or are under contract to

commence this activity before the date of General Permit expiration, modification, or revocation, you have 12 months to complete the activity under the present terms and conditions of the General Permit.

**Jurisdictional determination:**

No jurisdictional determination was requested or prepared for this project. While not required, you may request a jurisdictional determination from the contact identified in the last paragraph.

**Contact Information:**

If you have any questions, please contact me in our Green Bay office at (651) 290-5856 or by email at [Jessica.L.Kempke@usace.army.mil](mailto:Jessica.L.Kempke@usace.army.mil).

Sincerely,

A handwritten signature in black ink that reads "Jessica Kempke". The signature is written in a cursive, flowing style.

Jessica Kempke  
Project Manager

Enclosures

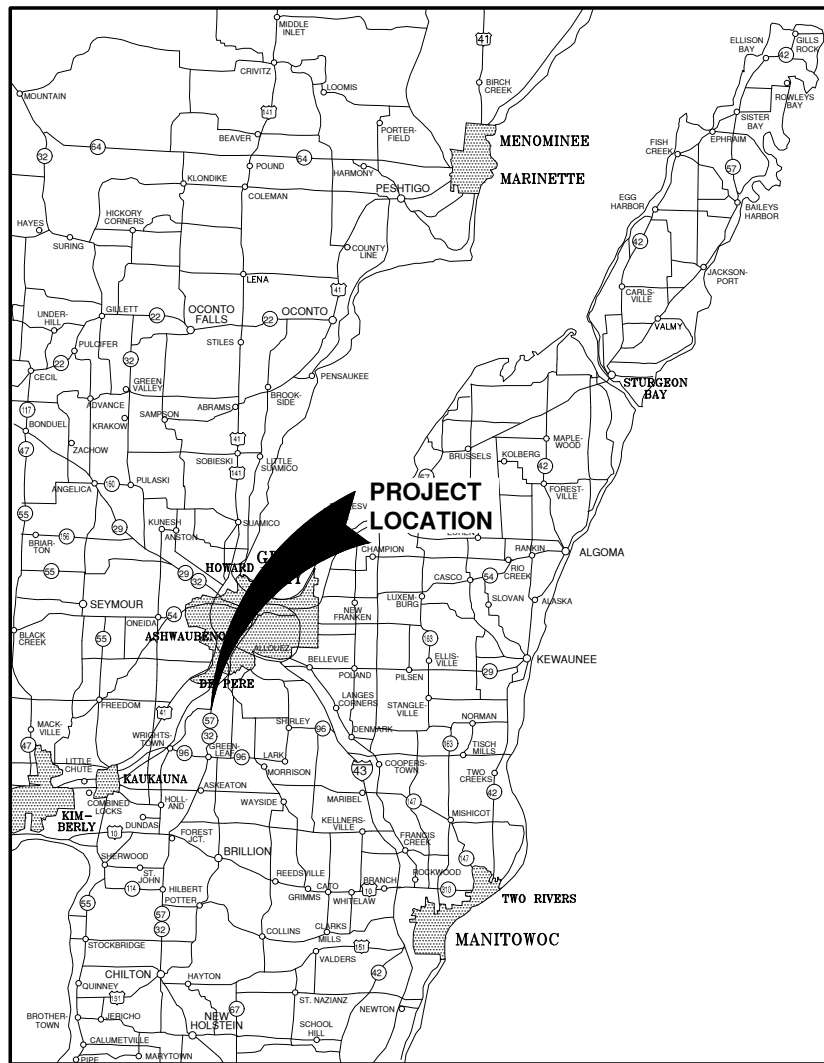
CC:

WDNR, Crystal von Holdt (Reference No. IP-NE-2020-5-01646)

Robert E. Lee & Associates, Patrick Kuehl

# BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT GREENWOOD CEMETERY TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

ATTENTION!  
DOWNLOADED PLANS ARE NOT SCALEABLE, NEITHER THE OWNER OR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR THE SCALE OR PRINT QUALITY OF DOWNLOADED PLANS. ONLY PRINTED PLANS FROM BLUE PRINT SERVICE CO., INC. SHALL BE CONSIDERED TO BE SCALEABLE PLANS.



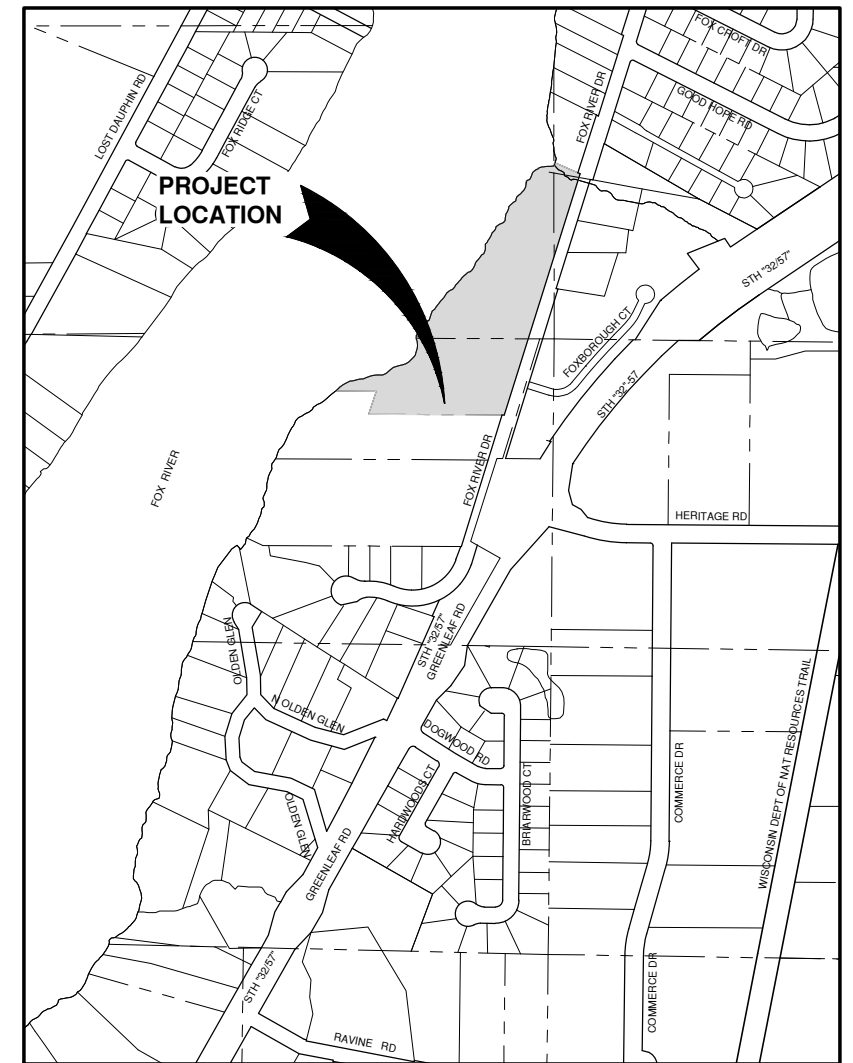
VICINITY MAP

NOTE:  
EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, WHETHER SHOWN OR NOT, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED FOR LOCATES BY THE CONTRACTOR 72 HOURS PRIOR TO EXCAVATION.

NOTE:  
ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION CONTROL AND TECHNICAL STANDARDS.

### INDEX TO DRAWINGS

SHT. NO.	DESCRIPTION
1	LOCATION MAPS AND INDEX TO DRAWINGS
2	EXISTING SITE CONDITIONS / DEMOLITION PLAN - (SOUTH)
3	EXISTING SITE CONDITIONS / DEMOLITION PLAN - (NORTH)
4	DETAILED SITE AND GRADING PLAN - (SOUTH)
5	DETAILED SITE AND GRADING PLAN - (NORTH)
6	DETAILED PLANTING PLAN - (SOUTH)
7	DETAILED PLANTING PLAN - (NORTH)
8	SECTION A-A <sub>1</sub> - SECTION B-B <sub>1</sub>
9	SECTION C-C <sub>1</sub> - SECTION D-D <sub>1</sub>
10	SECTION E-E <sub>1</sub> - SECTION F-F <sub>1</sub>
11	SECTION G-G <sub>1</sub> - SECTION H-H <sub>1</sub>
12	SECTION I-I <sub>1</sub> - SECTION J-J <sub>1</sub>
13	SECTION K-K <sub>1</sub> - SECTION L-L <sub>1</sub>
14	SECTION M-M <sub>1</sub> - SECTION N-N <sub>1</sub>
15	MISCELLANEOUS DETAILS
16	EROSION MAT - SLOPE APPLICATION DETAIL
17	EROSION CONTROL - SHEET FLOW DETAILS
18	EROSION CONTROL - TRACKOUT CONTROL PRACTICES



LOCATION MAP

File: R:\2020\0656\0656-001\_Vicinity\_060401.dwg  
Plot Date: Oct 24, 2019 10:58am

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN EMK	BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT GREENWOOD CEMETERY TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN	LOCATION MAPS AND INDEX TO DRAWINGS	DATE 10/20/19	Robert E. Lee & Associates, Inc. ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES 1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 53155 920-662-9641 www.releeinc.com	SHEET NO. 1
								CHECKED BBB			FILE 6004001C		
								DESIGNED PHK			JOB NO. 6004001		



FOX RIVER →

MEDIUM RIPRAP

EX. CONC. FOUNDATION

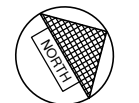
EX. CB 1  
RIM: 609.50  
D=2.09'  
INV: 607.41 (12" NW)

HEADSTONE (TYP.)

HEAVY RIPRAP

EX. CULVERT

LEGEND



File: R:\2020\0656\20200656\_VegPlan.dwg  
 Plot Date: Oct 15, 2019 10:18am  
 LAYOUT: PLANTING PLAN (1)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION

DRAWN: EMK  
 CHECKED: BBB  
 DESIGNED: PHK  
**BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT GREENWOOD CEMETERY**  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

PLANTING PLAN (SOUTH)  
 DATE: 10/20/19  
 FILE: 6004001D  
 JOB NO.: 6004001

**Robert E. Lee & Associates, Inc.**  
 ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES  
 1250 CENTENNIAL CENTRE BOULEVARD HOBBART, IN 4155  
 920-662-9641 www.releeinc.com

SHEET NO. **6**

2020-00656-JLK (Figure 2 of 3)



FOX RIVER →

EDGE OF WATER  
EL. 589.00'  
08/05/19

MEDIUM RIPRAP

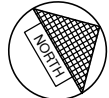
INV=607.08'

EX CB 2  
RIM:613.18  
D=2.00'  
INV:611.18 (12" NW)

HEADSTONE (TYP.)

HEAVY RIPRAP

LEGEND



SCALE IN FEET

FOX RIVER DRIVE

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION

DRAWN EMK
CHECKED BBB
DESIGNED PHK

BANK STABILIZATION AND  
INVASIVE SPECIES MANAGEMENT  
GREENWOOD CEMETERY  
TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

PLANTING PLAN  
(NORTH)

DATE 10/20/19
FILE 6004001D
JOB NO. 6004001



**Robert E. Lee & Associates, Inc.**  
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES  
1250 CENTENNIAL CENTRE BOULEVARD HOBBART, IN 4155  
920-662-9641 www.releeinc.com

SHEET NO.  
**7**

File: R:\2019\Greenwood\_Vegetation\_Veg\_Vegetation.dwg  
 Plot Date: Oct 15, 2019 - 10:15am  
 LAYOUT: PLANTING PLAN (2)

2020-00656-JLK (Figure 3 of 3)



13. Bank Stabilization. Bank stabilization activities necessary for erosion control or prevention, such as vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization techniques, provided the activity meets all of the following criteria:

(a) No material is placed in excess of the minimum needed for erosion protection;

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects (an exception is for bulkheads – the district engineer cannot issue a waiver for a bulkhead that is greater than 1,000 feet in length along the bank);

(c) The activity will not exceed an average of one cubic yard per running foot, as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(d) The activity does not involve discharges of dredged or fill material into special aquatic sites, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(e) No material is of a type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the United States;

(f) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored native trees and treetops may be used in low energy areas);

(g) Native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization;

(h) The activity is not a stream channelization activity; and

(i) The activity must be properly maintained, which may require repairing it after severe storms or erosion events. This NWP authorizes those maintenance and repair activities if they require authorization.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the bank stabilization activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the bank stabilization activity: (1) involves discharges into special aquatic sites; or (2) is in excess of 500 feet in length; or (3) will involve the discharge of greater than an average of one cubic yard per running foot as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line. (See general condition 32.) (Authorities: Sections 10 and 404)

## 2017 Nationwide Permits St. Paul District Regional and General Conditions

To qualify for NWP authorization, the prospective permittee must comply with the following regional and general conditions, as applicable, in addition to any regional or case specific conditions imposed by the division engineer or district engineer. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

### The following Regional Conditions are applicable to all NWPs:

#### Nationwide Permit (NWP) Limitations:

- A. **Discretionary authority:** As allowed under 33 CFR 330.1(d), the District retains discretionary authority to require an individual permit of any activity eligible for authorization by a NWP based on concern for the aquatic environment or for any other factor of the public interest.
- B. **Limit on Tributary Impacts:** Any regulated activity that would result in the loss of greater than 500 linear feet of a tributary in a single location is not authorized by a NWP with the exception of projects verified by NWPs 13, 27, 32, 37, 53 or 54 where the permanent alteration would have an overall beneficial effect on the aquatic ecosystem associated with discharges proposed. A waiver from the specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that permanent alteration of the tributary would have an overall beneficial effect on the aquatic ecosystem associated with the discharges proposed. This regional condition does not expand the limitations of a specific NWP where that NWP is more restrictive.
- C. **Linear Projects:** No linear utility or linear transportation projects are eligible for authorization by NWPs. These projects will be reviewed for authorization under the St. Paul District's regional or programmatic general permits or an individual permit.
- D. **Great Lakes Compact:** No project or part of a project that would divert more than 10,000 gallons per day of surface or ground water into or out of the Great Lakes Basin is authorized by NWPs.
- E. **Tribal Rights:** As stated in General Condition 17 of the NWPs, no activity may impair tribal rights, including treaty rights, protected tribal resources or tribal lands.
- F. **Areas under a Special Area Management Plan:** Regulated activities located within an area eligible for authorization under a valid Special Area Management Plan with an associated programmatic general permit are ineligible for authorization by NWPs.
- G. **Designated Critical Resource Water:** The Lake Superior National Estuarine Research Reserve is a designated critical resource water and is subject to the NWP limitations and PCN requirements described in General Condition #22 of the NWPs.
- H. **Calcareous fens:**  
WISCONSIN: No work in a calcareous fen is authorized by a NWP unless the Wisconsin Department of Natural Resources (WI DNR) has approved an individual permit for the proposed regulated activity. Project proponents must provide evidence of an approved individual permit to the District.  
MINNESOTA: No work in a calcareous fen is authorized by a NWP unless the Minnesota Department of Natural Resources (MN DNR) has approved a calcareous fen management plan specific to a project that otherwise qualifies for authorization by a NWP. Project proponents must provide evidence of an approved fen management plan to the District. A list of known Minnesota calcareous fens can be found at: [http://files.dnr.state.mn.us/eco/wetlands/calcareous\\_fen\\_list.pdf](http://files.dnr.state.mn.us/eco/wetlands/calcareous_fen_list.pdf).

#### Pre-Construction Notification (PCN) Requirements for Specific Water/Places

- I. **PCNs for Special Aquatic Resources:** A project proponent must notify the District by submitting a PCN if a regulated activity would occur in any of the following aquatic resources. **Prior to beginning work in these waters, a District NWP verification letter must be received.**

##### PROJECTS IN WISCONSIN:

- (1) state-designated wild rice waters (<https://data.glifwc.org/manoomin.harvest.info/>);
- (2) coastal plain marshes;
- (3) bog wetland plant communities;
- (4) interdunal wetlands;
- (5) Great Lakes ridge and swale complexes;

The complete Ramsar list is available at (<https://rsis Ramsar.org/>).

More information about plant community types 2-5 listed above, may be obtained from the Wisconsin Department of Natural Resources website at: <http://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=group&Type=Wetland>.

Additional information on identifying bog and fen communities can be found at: <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

##### PROJECTS IN MINNESOTA:

- (1) wild rice waters listed in Appendix A of these conditions and identified in Minn. R. 7050.0470, subpart 1;

Additional information on identifying bog and fen communities can be found at: <http://www.mvp.usace.army.mil/Missions/Regulatory.aspx> and at the MN DNR's Native Plant Community Classification's website: <http://www.dnr.state.mn.us/npc/classification.html>.

- J. **PCNs for Bridges, Structures, and Vessels more than 50 years old:** A project proponent must notify the District by submitting a PCN if work or fill requiring District authorization would affect a bridge, structure or permanently moored or sunken vessels more than 50 years old.
- K. **PCNs for Suspected Sediment or Soil Contamination:** A project proponent must notify the District by submitting a PCN if any regulated activity would occur in areas of known or suspected sediment or soil contamination, including but not limited to Superfund sites. Superfund sites in Minnesota or Wisconsin can be located by searching the EPA's website: <https://www.epa.gov/superfund/search-superfund-sites-where-you-live>. This condition does not apply to NWP 20. Response Operations for Oil or Hazardous Substances.
- L. **PCNs for the Apostle Islands National Lakeshore and Madeline Island:** A project proponent must notify the District by submitting a PCN if the regulated activity would result in the work, fill or placement of a structure within the boundaries of the Apostle Islands National Lakeshore or Madeline Island in Wisconsin. **Prior to beginning regulated activities in these waters, a District NWP verification letter must be received.**
- M. **PCNs for Temporary Impacts:** A project proponent must notify the District by submitting a PCN if temporary impacts would remain in place for longer than 90 days between May 15 and November 15. The PCN must specify how long the temporary impact will remain and include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions. See also Regional Condition Q.

#### Mitigation Requirements

- N. **Compensatory Mitigation:** Proposed projects that require a PCN must include a statement describing how permanent *and* temporary impacts to waters of the U.S. would be avoided and minimized. The PCN must also include either: (a) a statement describing how impacts to waters of the U.S. would be compensated in accordance with the Federal Mitigation Rule (33 CFR Part 332) and the current St Paul District Policies for Compensatory Mitigation or (b) a statement explaining why compensatory mitigation should not be required for the proposed impacts.

## Site Protection

- O. Site Inspection:** The permittee shall allow representatives from the District to inspect the proposed project site and the authorized activity to ensure that it is being, or has been, constructed and maintained in accordance with the NWP authorization.
- P. Restoration for Temporary Impacts:** All temporary impacts in waters of the U.S., including wetlands, that occur as a result of the regulated activity must be fully contained with appropriate erosion control or containment methods, be restored to preconstruction contours and elevations, and revegetated with native, non-invasive vegetation. A project proponent may request, in writing, a waiver from this condition from the District. An acceptable reason for a waiver to this condition may include, but is not limited to, the District allowing natural restoration of the site when the resulting grade and existing seed bank are sufficient for the site to restore to pre-construction conditions.
- Q. Duration of Temporary Impacts:** Temporary impacts in waters of the U.S., including wetlands, must be avoided and limited to the smallest area and the shortest duration required to accomplish the project purpose.
- PART A, ACTIVITIES WITHOUT PCN REQUIREMENTS:**  
Temporary impacts may not remain in place longer than 90 days between May 15 and November 15. Before those 90 days have lapsed all temporary discharges must be removed in their entirety. If the temporary impacts would remain in place for longer than 90 days between May 15 and November 15, a PCN is required and the activity is subject to the requirements and limitations described in part B of this regional condition.
- PART B, ACTIVITIES WITH PCN REQUIREMENTS:**  
The PCN must specify how long the temporary impact will remain and include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions. Temporary impacts are allowed to stay in place as long as specified in the PCN unless otherwise conditioned in a Corps NWP verification. All temporary impacts must be removed in their entirety in accordance with the plan described in the PCN unless otherwise conditioned in a NWP verification provided by the District.
- R. Culverts and Crossings:** Unless a NWP verification authorizes otherwise, replacement and installation of culverts or crossings authorized by a NWP are to follow (or be restored to) the natural alignment and profile of the tributary. The culvert(s) or bridge(s) must adequately pass bedload, sediment load, and provide site-appropriate fish and wildlife passage. Example design elements include recessing single culverts to accommodate natural bankfull width and adjusting additional culvert inverts at an elevation higher than the bankfull elevation.
- S. Best Management Practices:** To minimize adverse effects from soil loss and/or sediment transport that may occur as a result of the authorized discharge and associated earth work, appropriate best management practices shall be maintained and remain in place until the affected area is stabilized with vegetation or ground cover.
- T. Riprap:** For all NWPs that allow for the use of riprap material for bank stabilization, only rock shall be used and it must be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal or high flows. A project proponent may request from the District, in writing, approval to use alternative riprap materials.
- U. Pollutant or Hazardous Waste Spills:** If a spill of any potential pollutant or hazardous waste occurs, it is the responsibility of the permittee to immediately notify the National Response Center at 1-800-424-8802 or [www.nrc.uscg.mil](http://www.nrc.uscg.mil) AND  
**IN WISCONSIN:** the Wisconsin Department of Natural Resources' Spills Team at 1-800-943-0003  
**IN MINNESOTA:** the Minnesota State Duty Officer at 1-800-422-0798.  
The permittee is responsible for removing such pollutants and hazardous materials and for minimizing any contamination resulting from a spill in accordance with state and federal laws.
- V. Clean Construction Equipment:** All construction equipment must be clean prior to entering and before leaving the work site in order to prevent the spread of invasive species.
- W. Compliance:** The permittee is responsible for ensuring that whoever performs, supervises or oversees any portion of the physical work associated with the construction of the project has a copy of and is familiar with all the terms and conditions of the NWP and any special conditions included in any written verification letter from the District. The permittee is ultimately responsible for ensuring that all the terms and conditions of the NWPs are complied with.

## The following General Conditions are applicable to all NWPs:

### 1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**2. Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

**3. Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

**4. Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

**5. Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

**6. Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

**7. Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

**8. Adverse Effects from Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

**9. Management of Water Flows.** To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or

high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

**10. Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

**11. Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

**12. Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

**13. Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

**14. Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

**15. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

**16. Wild and Scenic Rivers.**

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or Study River (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

**17. Tribal Rights.** No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

**18. Endangered Species.**

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete preconstruction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their World Wide Web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

**19. Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to

determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

## **20. Historic Properties.**

(a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

**21. Discovery of Previously Unknown Remains and Artifacts.** If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

**22. Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

**23. Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns.

Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

**(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.**

**(1)** The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

**(2)** The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

**(3)** Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

**(4)** If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

**(5)** If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

**(6)** Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

**(g)** Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

**(h)** Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

**(i)** Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

**24. Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

**25. Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**26. Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

**27. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 **Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.**

**28. Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

**29. Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

\_\_\_\_\_  
(Transferee)

\_\_\_\_\_  
(Date)

**30. Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible

mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

- (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

**31. Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

**32. Pre-Construction Notification.**

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a preconstruction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed activity;
- (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;
- (4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);
- (5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;
- (6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.
- (7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;
- (8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;



**(9)** For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

**(10)** For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

**(c)** Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

**(d)** Agency Coordination:

**(1)** The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

**(2)** Agency coordination is required for:

**(i)** all NWP activities that require preconstruction notification and result in the loss of greater than 1/2-acre of waters of the United States;

**(ii)** NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed;

**(iii)** NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and

**(iv)** NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

**(3)** When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

**(4)** In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

**(5)** Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

## BEFORE THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Application of the United States Department of the Army,  
Corps of Engineers, for Water Quality Certification for the  
Final Regulations Pertaining to the Issuance, Reissuance, )  
and Modification of Nationwide Permits )

On January 6, 2017, the United States Department of the Army, Corps of Engineers (COE), published its final notice regarding the Issuance of Nationwide Permits (NWP) in the Federal Register (agency docket number COE-2015-0017). The publication includes new, existing, and modified NWPs. Publication of these NWPs serves as the Corps' application to the State for water quality certification (WQC) under Section 401 of the Federal Clean Water Act (CWA).

The Wisconsin Department of Natural Resources (WDNR) has examined the final regulations pursuant to Section 401, CWA, and Chapter NR 299, Wisconsin Administrative Code (Wis. Adm. Code).

The WDNR has determined the following conditions for the NWPs are required to ensure compliance with state water quality standards enumerated in s. 299.04, Wis. Adm. Code. The certification contained herein shall expire on March 19, 2022.

Section 401 Certification does not release the permittee from obtaining all other necessary federal, state, and local permits, licenses, certificates, approvals, registrations, charters, or similar forms of permission required by law. It does not limit any other state permit, license, certificate, approval, registration, charter, or similar form of permission required by law that imposes more restrictive requirements. It does not eliminate, waive, or vary the permittee's obligation to comply with all other laws and state statutes and rules throughout the construction, installation, and operation of the project. This Certification does not release the permittee from any liability, penalty, or duty imposed by Wisconsin or federal statutes, regulations, rules, or local ordinances, and it does not convey a property right or an exclusive privilege.

This Certification does not replace or satisfy any environmental review requirements, including those under the Wisconsin Environmental Policy Act (WEPA) or the National Environmental Policy Act (NEPA).

**Note:** The specific language in the NWPs is not included in this document. Copies of complete nationwide permits published in the Federal Register on January 6, 2017, may be obtained from your local COE field office.

### STATE CONDITIONS AND LIMITATIONS OF CERTIFICATION

#### GENERAL CONDITIONS:

1. The permittee shall allow the WDNR reasonable entry and access to the discharge site to inspect the discharge for compliance with the certification and applicable laws.

2. If any of these §401 water quality certification conditions are found invalid or unenforceable, the water quality certification is denied for all activities to which that condition applies.

3. Water quality certification is denied without prejudice for activities involving the temporary stockpiling of dredged or fill material in waters of the state, including wetlands.

4. No discharges of dredged or fill material below the ordinary high water mark of a navigable stream as defined by s. 310.03(5), Wis. Adm. Code, may take place during fish spawning periods or times when nursery areas would be adversely impacted. These periods are:

- September 15<sup>th</sup> through May 15<sup>th</sup> for all trout streams and upstream to the first dam or barrier on the Root River (Racine County), the Kewaunee River (Kewaunee County), and Strawberry Creek (Door County). To determine if a waterway is a trout stream, you may use the WDNR website trout maps at <http://dnr.wi.gov/topic/fishing/trout/streammaps.html>.
- March 1<sup>st</sup> through June 15<sup>th</sup> for ALL OTHER waters.

5. Unless specifically exempt from state statute and federal Pre-Construction Notification (PCN) requirements, Applicants seeking authorization under these NWP's shall complete the Joint State/Federal Permit Application on the department e-permitting site at <http://dnr.wi.gov/Permits/Water/>.

Nationwide Permits Granted Water Quality Certification:

- NWP 3 – Maintenance
- NWP 4 – Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
- NWP 5 – Scientific Measurement Devices
- NWP 6 – Survey Activities
- NWP 13 – Bank Stabilization
- NWP 15 – U.S. Coast Guard Approved Bridges
- NWP 16 – Return Water From Upland Contained Disposal Areas
- NWP 18 – Minor Discharges
- NWP 20 – Response Operations for Oil or Hazardous Substances
- NWP 22 – Removal of Vessels
- NWP 25 – Structural Discharges
- NWP 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities
- NWP 28 – Modifications of Existing Marinas
- NWP 30 – Moist Soil Management for Wildlife
- NWP 31 – Maintenance of Existing Flood Control Facilities
- NWP 35 – Maintenance Dredging of Existing Basins
- NWP 36 – Boat Ramps
- NWP 37 – Emergency Watershed Protection and Rehabilitation
- NWP 38 – Cleanup of Hazardous and Toxic Waste
- NWP 45 – Repair of Uplands Damaged by Discrete Events
- NWP 53 – Removal of Low-Head Dams
- NWP 54 – Living Shorelines

## Nationwide Permits for which Water Quality Certification is Partially Denied

WQC is certified or denied without prejudice as indicated below for the activities authorized by the following NWP. Certified activities are subject to WQC conditions 1-5 above. If activities are denied without prejudice, the applicant must apply to the WDNR for an individual 401 WQC.

- NWP 7 - Outfall Structures and Associated Intake Structures
  - WQC denied: Where the effluent from the outfall is not regulated under the WPDES permit program. WPDES permit information is available at: <http://dnr.wi.gov/topic/wastewater/PermitApplications.html>
  - WQC certified: All other NWP 7 activities.
- NWP 32 - Completed Enforcement Actions
  - WQC denied: If WDNR is not a party to the agreement or if WDNR has not concurred in writing with the settlement agreement.
  - WQC certified: All other NWP 32 activities.
- NWP 39 - Commercial and Institutional Developments
  - WQC denied: Discharges of dredged or fill material for the construction of the following attendant features: yards, recreation facilities, stormwater management facilities or wastewater management facilities.
  - WQC certified: All other NWP 39 activities.
- NWP 41 - Reshaping Existing Drainage Ditches
  - WQC denied: If any portion of the project will occur in or adjacent to a trout stream or any perennial tributaries to a trout stream. To determine if a waterway is a trout stream, you may use the WDNR website trout maps at <http://dnr.wi.gov/topic/fishing/trout/streammaps.html>.
  - WQC certified: All other NWP 41 activities.
- NWP 42 - Recreational Activities
  - WQC denied: If the project involves the placement of any dredged or fill material into Wisconsin navigable waters as defined in s. NR 310.03(5), Wis. Adm. Code.
  - WQC certified: All other NWP 42 activities.
- NWP 44 - Mining Activities
  - WQC denied: If the project involves the placement of any dredged or fill material into Wisconsin navigable waters as defined in s. NR 310.03(5), Wis. Adm. Code.
- NWP 46 - Discharges in Ditches
  - WQC denied: If the project involves the placement of any dredged or fill material into Wisconsin navigable waters as defined in s. NR 310.03(5), Wis. Adm. Code.
  - WQC certified: All other NWP 46 activities.
- NWP 51 - Land-Based Renewable Energy Generation Facilities
  - WQC denied: Discharges of dredged or fill material for the construction of the following attendant features: yards, recreation facilities, stormwater management facilities or wastewater management facilities.
  - WQC certified: All other NWP 51 activities.

Water Quality Certification Is Also Denied for the Nationwide Permits Revoked by the Corps of Engineers in Wisconsin and Listed Below:

- NWP 8 – Oils and Gas Structures on the Outer Continental Shelf
- NWP 12 – Utility Line Activities
- NWP 14 – Linear Transportation Projects
- NWP 15 – U.S. Coast Guard Approved Bridges
- NWP 21 – Surface Coal Mining Activities
- NWP 23 – Approved Categorical Exclusions
- NWP 24 – Indian Tribe or State Administered Section 404 Programs
- NWP 34 – Cranberry Production Activities
- NWP 49 – Coal Re-mining Activities
- NWP 50 – Underground Coal Mining Activities

Nationwide Permits Denied Water Quality Certification Without Prejudice At This Time:

The following NWP categories are denied Water Quality Certification (WQC) in their entirety and require an individual Section 401 WQC for all activities under these NWPs. In instances where a state has denied the 401 WQC for discharges under a particular NWP, permittees must furnish the District Engineer for the COE with an individual 401 WQC.

Each category was reviewed and it was determined that: potential water quality and beneficial use impacts would be beyond that considered minimal; the activity was not likely to occur in Wisconsin; the NWP doesn't align with state general permit standards required by statute (NWP 29, 40, 43); inadequate data was available for WDNR to fully evaluate potential water quality and beneficial use impacts; or the category was empty (Reserved).

- NWP 17 – Hydropower Projects
- NWP 19 – Minor Dredging
- NWP 26 – Reserved
- NWP 29 – Residential Developments
- NWP 33 – Temporary Construction, Access and Dewatering
- NWP 40 – Agricultural Activities
- NWP 43 – Stormwater Management Facilities
- NWP 47 – Reserved
- NWP 48 – Existing Commercial Shellfish Aquaculture Activities
- NWP 52 – Water-Based Renewable Energy Generation Pilot Projects

**Note:** State water quality certification is not required for the following Section 10 only NWPs: 1 – Aids to Navigation, 2 – Structures in Artificial Canals, 9 – Structures in Fleeting and Anchorage Areas, 10 – Mooring Buoys, 11 – Temporary Recreational Structures, 28 – Modifications of Existing Marinas, 35 – Maintenance Dredging of Existing Basins.

**NOTICE OF APPEAL RIGHTS**

If you believe that you have a right to challenge this decision, you should know that Wisconsin Statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

To request a contested case hearing pursuant to section 227.42, Wisconsin Statutes, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources.

This determination becomes final in accordance with the provisions of s. NR 299.05(7), Wisconsin Administrative Code, and is judicially reviewable when final. For judicial review of a decision pursuant to Sections 227.52 and 227.53, Wisconsin Statutes, you have 30 days after the decision becomes final to file your petition with the appropriate circuit court and to serve the petition on the Secretary of the Department of Natural Resources. The petition must name the Department of Natural Resources as the respondent.

Reasonable accommodation, including the provision of informational material in an alternative format, will be provided for qualified individuals with disabilities upon request.

This notice is provided pursuant to section 227.48(2), Wisconsin Statutes.

Dated at Madison, Wisconsin June 1, 2017

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By   
Cathy Stepp, Secretary



**US Army Corps  
of Engineers®**

St. Paul District

**COMPLIANCE CERTIFICATION**

Regulatory File Number: 2020-00656-JLK  
Name of Permittee: Greenwood Cemetery, Julie Sowers  
County/State: Brown County, Wisconsin  
Date of Issuance: August 13, 2020

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the Corps contact identified in your verification letter within 30 days.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

By signing below, the permittee is certifying that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the permit, and any required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

## **LABELED TAB –WAGE RATES**

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**\*Place labeled tab JUST AFTER Section 00 73 00 AND BEFORE any wage rate information from State of Wisconsin, Federal Davis Bacon.**



**THIS SECTION IS NOT APPLICABLE TO THIS  
PROJECT. THE LABEL WILL STILL BE CREATED**

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## **LABELED TAB – AVAILABLE PROJECT INFORMATION**

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**\*Place labeled tab AFTER any wage rate information from State of Wisconsin AND AFTER ANY SOIL REPORTS OR PERMITS.**

## **LABELED TAB – SPECIFICATIONS**

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**\*Place labeled tab BEFORE Division 1 divider page**

# 01

## DIVISION 01

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### GENERAL REQUIREMENTS

## SECTION 01 11 00

### SPECIAL PROVISIONS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

A. Work Included:

**BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT**

B. Related Sections and Divisions: Applicable provisions of the General Conditions and Supplementary Conditions shall apply to this section.

##### 1.02 CONTRACT DOCUMENTS—INTENT AND USE

A. Intent of Documents:

1. Singular notations and specifications shall be considered plural where application is reasonably inferred.
2. Mention or indication of extent of work under any work division or specification section is done only for convenience of Contractor and shall not be construed as describing all work required under that division or section.
3. Some individual sections may contain a list of related sections. The list of related sections in individual sections is provided for the convenience of Contractor and is not necessarily all-inclusive. Contractor may not rely upon this listing for determination of scope of work. Other sections of the specifications, not referenced in individual sections shall apply as required for proper performance of the work.
4. Command type sentences may be used in the Contract Documents. These sentences refer to and are directed to Contractor.
5. Symbols for various elements and systems are shown on the drawings. Should there be any doubt regarding the meaning or intent of the symbols used, a written interpretation shall be obtained from Engineer.

B. Use of Documents:

1. Contractor shall examine all specifications and drawings for the work, including those that may pertain to work Contractor does not normally perform with its own forces.
2. Contractor shall use all of the project drawings and specifications:
  - a. For a complete understanding of the project.
  - b. To determine the type of construction and systems required.
  - c. For coordination with other contractors.
  - d. To determine what other contractors.
  - e. To anticipate and notify others when work by others will be required.
  - f. And all other relevant matters related to the project.
3. Contractor is also bound by all requirements of the Contract Documents which are applicable to, pertain to, or affect its work, as may be shown or inferred by the entire set of project drawings and specifications.

##### 1.03 GENERAL WORK PROVISIONS

- A. Driveways and other access to residences, business, or other commercial properties shall be maintained at all times during construction. *At the time of the preconstruction meeting, the Contractor shall submit a proposed work sequence for Engineer/Owner approval.*
- B. All utilities aboveground or underground that need to be supported during the prosecution of this contract shall be coordinated with the utilities and the cost thereof shall be the sole responsibility of the Contractor.
- C. The Contractor shall maintain local traffic in areas not under immediate construction. The Contractor will be responsible for immediate local traffic control signage. The signage and traffic control shall be according to the “Manual on Uniform Traffic Control Devices for Streets and Highways”, latest edition. The associated cost shall be included in the appropriate bid item of the Contractor’s bid.
- D. Extreme care shall be taken to protect all trees designated to remain. For damaged trees and trees that die due to construction, the Contractor shall be responsible for the cost of tree replacement up to \$1,000 per tree. The total amount shall be deducted from final contract payment.
- E. The Contractor will furnish the Owner and Engineer with a telephone list, including cell or home phone numbers, of key personnel available for after hours and weekend emergencies.
- F. At all times, the Contractor shall see that affected work site areas shall be kept drained and free of groundwater and surface water. The Contractor shall dispose of the water so as not to cause injury to public or private property or to cause a nuisance or menace to the public. Additionally, the Contractor shall prevent excessive dust; and he shall, at his own expense, provide adequate dust control measures acceptable to the Engineer.
- G. The Contractor shall implement all erosion control in conformance with the WDNR Conservation Practice Standards (Latest Edition). All existing and installed inlets shall have erosion protection. These items shall be incidental to the project.
- H. Restoration
1. All damaged, disturbed, or removed surfaces, structures, or utilities, whether private or public, shall be repaired, restored, and/or replaced to a condition equal to or better than that which existed prior to the start of the work, including all ditches, culverts, roadways, alleyways, field lawns, walkways, retaining walls, fences, buildings, driveways, mailboxes, and any other items that may exist in the construction area.
  2. Following initial soil disturbance, all areas shall be restored within one month, weather permitting.
  3. All disturbed areas within the right-of-way and outside the paved streets and all easements shall be topsoiled to provide a minimum depth of 6 inches with salvaged topsoil, fine graded, raked free of lumps and stones, seeded and mulched. Any additional topsoil required to return the site to a condition as good as or better than existing condition shall be the responsibility of the Contractor.
  4. All restoration will be paid for at the contract unit price as specified.
- I. The contractor shall be totally responsible for obtaining a disposal site. **NO** material shall be disposed of in a flood plain, wetland, or waterway.
- J. Clearing, grubbing, and stripping of the topsoil will be the responsibility of the Contractor, and shall be considered incidental to the appropriate bid item.

- K. Submit list of subcontractors to Engineer.
- L. Contractor shall not commence work on-site until all materials are approved and are on-site.
- M. Contractor's insurance shall be provided as specified in the general & supplemental conditions. Builder's Risk, "All Risk" or open peril insurance shall be provided per SC-5.06A. There will be no exception to these requirements. Installation floaters in lieu of the Builder's Risk Insurance will not be accepted. The contractor shall coordinate with the insurance company to provide the required insurance.

#### 1.04 SPECIAL REQUIREMENTS

- A. All work included in the contract shall be performed in compliance with permits from the Wisconsin Department of Natural Resources (WDNR) and U.S. Army Corps of Engineers (ACOE).
  - 1. An individual permit has been submitted for the project. Approval is anticipated in August 2020, so no work on this section may commence until the permits have been issued.

#### 1.05 OWNER-FURNISHED PRODUCTS

- A. Owner is responsible for the following items when supplying material or equipment to Contractor for installation.
  - 1. Arrange for delivery of shop drawings, product data, samples, manufacturer's instructions, and certificates to Contractor.
  - 2. Delivery supplier's bill of material to Contractor.
  - 3. Arrange and pay for delivery to site.
  - 4. Inspect deliveries jointly with Contractor.
  - 5. Submit claims for transportation damage and arrange for replacement of damaged, defective or missing items.
- B. Contractor's responsibilities for Owner furnished new products are:
  - 1. Handle products at the site, including uncrating and storage.
  - 2. Inspect deliveries jointly with Owner.
  - 3. Protect products from damage and from exposure to the elements.
  - 4. Assemble, install, correct, adjust, and finish products in accordance with the appropriate section of these specifications.
  - 5. Contractor shall coordinate manufacturer's services in accordance with Section 01 75 00.
  - 6. Contractor shall coordinate start-up and training in accordance with Section 01 75 00.
  - 7. Contractor shall complete all checklists in accordance with Section 0178 43 and submit to the Engineer.
  - 8. Repair or replace items damaged by Contractor at no additional cost to Owner.
  - 9. Contractor's responsibility for materials and equipment furnished by Owner shall begin at the point of delivery to the site. Materials and equipment already on the site shall become Contractor's responsibility on date of Notice to Proceed with Contract.

#### 1.06 WORK BY OTHERS

- A. The contractor shall be responsible for placing 6-inches of topsoil, landscaping and restoration to include erosion mat shall be completed under a separate contract. The contractor shall coordinate with the restoration contractor to minimize the duration of exposed topsoil.

## 1.07 WORK SEQUENCE

- A. The Contractor shall submit a construction schedule documenting all phases of construction. The construction schedule shall be submitted in accordance with Section 01 32 19, Submittals.
- B. Final work to be completed will include site grading and landscaping.
- C. Operation and start-up of all equipment must be approved by the Engineer prior to proceeding. Start-up shall be in accordance with Section 01 75 00, Starting of Systems.

## 1.08 CONTRACTOR USE OF SITE

### A. General:

- 1. The “area of the site” referred to in these specifications shall be as shown on the drawings.
- 1. Construction activities shall be confined within the area of the site limits.
- 2. From the start of work to completion Contractor is responsible for the care of the site and the premises which are affected by operations of work of this Contract.
- 3. Except for permanent site improvements provided under the Contract, Contractor shall restore property disturbed during the work, to the conditions which previously existed.
- 4. Work in occupied spaces shall be restricted to specified work and essential activities, such as making necessary connections and extending services or constructing temporary access ways. Such work shall be scheduled in advance with Owner.

### B. Parking and Deliveries:

- 1. Contractor is responsible for control of traffic by vehicles and persons within the limits of its operations.
- 2. Parking for employees, subcontractors, and agents of Contractor shall be in areas subject to approval of Owner.
- 3. Access to the site for delivery of construction material or equipment shall be subject to approval of Owner.

### C. Work in Private Right-of-Way

- 1. Whenever the work is to be prosecuted through property for which the Owner has obtained a license, permit, or easement, the Contractor shall abide fully with the terms of the license, permit, or easement, a copy of which is on file with the Owner.
- 2. Prior to final payment, the Contractor shall send a notice to all easement grantors by certified mail, return receipt requested, a copy of which shall be filed with the Owner. Said notice to be similar to the following:

The undersigned Contractor has completed the restoration of the construction site on which you have granted an easement for installation of certain utilities and improvements. If said site restoration is not completed to your satisfaction, please contact the Engineer, Robert E. Lee & Associates, Inc., 1250 Centennial Centre Boulevard, Hobart, WI 54155-8995, in writing, and arrangements will be made immediately to view the site and restore the site in conformance with our contract obligations.

If the Engineer, Robert E. Lee & Associates, Inc., 1250 Centennial Centre Boulevard, Hobart, WI 54155-8995, does not hear from you in writing within 10 days from the above date, site restoration of your property will be deemed completed and approved by you.



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(Name of Contractor)

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(Address of Contractor)

Owner shall furnish contractor with names and addresses of easement grantors.

1.09 OWNER OCCUPANCY

- A. The Owner will occupy the site during construction.
- B. Provide access for state and local review agencies.

1.10 EXISTING SERVICES AND STRUCTURES

- A. Interruption of existing services shall be kept to a minimum and shall be limited to times approved by the Owner.
- B. The Contractor shall coordinate with Owner and local utility companies in keeping the services in operation and repair any damages to the satisfaction of the Owner and local utility.
- C. Contractor shall not interrupt any existing services until written approval is received from the Owner.
- D. In accordance with Wisconsin Statute 182, the Contractor shall contact Diggers Hotline prior to beginning any excavations. A call to Diggers Hotline does not absolve the Contractor of the requirements of this statute.
- E. Contractor shall proceed with caution in excavating and preparing the site so that the location of existing structures can be determined. Contractor shall keep an accurate record of existing services and structures and provide a copy to the Owner. The record shall include adequate measurements, depths, and conditions.

1.11 PROTECTION OF WORK

- A. Contractor shall protect the Owner's property from damage, dust, debris and other resulting construction activities.
- B. Contractor shall keep property free from dirt, dust and fumes from construction activities at all times.
- C. Property damaged by the Contractor shall be repaired or replaced by the Contractor to the satisfaction of the Owner.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 22 00

### MEASUREMENT AND PAYMENT UNIT PRICE BID ITEMS

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. This section specifies requirements for following:
1. Method of measurement.
  2. Method of payment.
- B. The supplemental bid items listed are in addition to the scope of work as shown on the drawings and described in the specifications.

##### 1.02 CONTRACT ITEMS

- A. Over excavation/Backfill
1. The unit price per cubic yard shall include all materials, labor, tools and equipment required for excess excavation, removal and off-site disposal of unsuitable soils and the placing, spreading and compacting of Class C- I fill material. Unsuitable soils shall be excavated to a depth as determined by the soils report and Engineer.
  2. Measurement for payment shall be made by the Engineer using appropriate volume calculations of the "cut" material, in-place.
  3. Payment shall be made per cubic yard of "cut" material, "in-place".
  4. The unit price payment shall be made for all excavation and backfill required per the soils report and as shown on the plans.
- B. Rock Removal
1. The unit price per cubic yard in addition to that shown in the soil boring, if applicable shall include all materials, labor, tools and equipment required for rock removal.
  2. Measurement shall be made by the Engineer using appropriate volume calculations of the "cut" material.
  3. Payment shall be made per cubic yard.

#### PART 2 - PRODUCTS

NOT APPLICABLE

#### PART 3 – EXECUTION

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 31 19

### PROJECT MEETINGS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This section includes all project meetings required during construction.

##### 1.02 RELATED SECTIONS AND DIVISIONS:

1. Applicable provisions of the General Conditions shall govern the work in this section.
2. Section 01 32 19 – Submittals.
3. All related equipment specifications.

##### 1.03 MEETINGS

- A. Project meetings will be held throughout the project at intervals agreed to by the Engineer, Owner and Contractor.
- B. Contractor's project manager, job superintendent, subcontractors and necessary equipment suppliers shall attend the project meetings, as appropriate. Contractor's representative shall have the authority to bind the Contractor to decisions at the meeting.
- C. The following meetings, at a minimum shall be attended by the Contractor representatives, Engineer, and Owner:
1. Preconstruction Meeting
  2. Monthly Progress Meeting
  3. Project Close-Out Meeting
- D. Notice of meetings shall be e-mailed to those required to attend and copies to interested parties such as suppliers and governmental agencies.
- E. The Engineer shall be responsible for the mailing of meeting notices, meeting agenda and meeting minutes.
- F. The Contractor shall submit typed reports detailing the project schedule, schedule compliance and future construction plans affecting the project schedule at the project meetings. The Contractor shall keep the project schedule updated throughout the construction period.

##### 1.04 EQUIPMENT INSTALLATION AND START-UP MEETINGS

- A. When required in the individual specification sections, the Contractor shall coordinate an equipment installation meeting prior to beginning the work.
- B. When required in the individual specification sections, the Contractor shall coordinate a start-up meeting prior to start-up of the equipment.
- C. Contractor shall be responsible for the mailing of meeting notice, meeting agenda and meeting minutes.

- D. Contractor shall be responsible for coordinating the attendance of all parties involved in the work.
- E. Contractor shall notify the Engineer at least 7 days prior to the meeting date.
- F. Contractor shall record the meeting minutes and distribute within 3 working days after the meeting.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 32 19

### SUBMITTALS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This Section includes administrative and procedural requirements for submittals required for performance of the work, including the following:
1. Contractor's progress schedule.
  2. Submittal schedule.
  3. Shop drawings.
  4. Submittal Transmittal Data Sheet.
  5. Product data.
  6. Samples.
  7. Quality assurance submittals.
  8. Submittal List
- B. Related Sections and Divisions:
1. Applicable provisions of the General Conditions shall govern the work in this section.
  2. Requirements for submittals are described in other sections of the specifications.

##### 1.02 IDENTIFICATION OF SUBMITTALS

- A. The Contractor shall mark each submittal and re-submittal by providing the information described in 1.06, Submittal Transmittal Data Sheet.
- B. The Contractor shall sign and date each submittal indicating that submittal was reviewed by the Contractor and meets the requirements of the plans and specifications. Unsigned submittals will not be reviewed by the Engineer and returned.

##### 1.03 CONSTRUCTION SCHEDULE

- A. The Contractor shall prepare and submit a detailed progress schedule in accordance with the General Conditions. The construction schedule shall be of sufficient detail to assure adequate planning and execution of the work and provide an appropriate basis for monitoring and evaluation of the progress of work.
- B. The progress schedule shall indicate the sequence of all work including the start date, completion date and duration.
- C. The progress schedule shall incorporate shop drawing and sample submittals schedule.
- D. If, at any time during the Project, Contractor fails to complete an activity by its latest scheduled completion date, Contractor shall, within 3 working days of notification by Engineer, submit to Engineer written statement as to how and when work force will be reorganized to return Contract to current schedule.

- E. When it becomes apparent from progress evaluation and updated schedule data that milestone completion or Contract completion dates will not be met, Contractor shall take some or all of following actions.
  - 1. Increase construction staffing in such quantities and crafts as shall substantially eliminate backlog of work.
  - 2. Increase number of working hours per shift, shifts per work day, work days per week, or amount of construction equipment, or combination thereof sufficient to substantially eliminate backlog of work.
  - 3. Reschedule work items to achieve concurrency of accomplishments.
- F. Addition of equipment or construction forces, increasing working hours or other method, manner or procedures to return to current Construction Progress Schedule will not be considered justification for amending Contract Documents or treated as acceleration.
- G. The progress schedule shall be updated throughout the construction period. The Contractor shall revise the schedule monthly and submit with the monthly payment request. The progress schedule will be reviewed at the monthly construction progress meetings.

#### 1.04 SUBMITTAL SCHEDULE

- A. Contractor shall make all submittals far enough in advance of scheduled installation dates to ensure adequate time for review and approval by the Engineer. This schedule shall also take into account possible revisions and resubmittals.
- B. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
  - 1. Allow 4 weeks for submittals.
  - 2. Allow 2 weeks for re-submittals.
  - 3. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the work to permit processing

#### 1.05 SHOP DRAWINGS

- A. All shop drawings shall be addressed to shop drawing coordinator at Robert E. Lee & Associates. The shop drawing coordinator will be identified at the pre-construction meeting.
- B. Shop drawings shall be submitted under a submittal transmittal data sheet as described in 1.06. An electronic copy of the submittal transmittal data sheet will be provided by e-mail.
- C. Shop drawings shall include technical data including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and other pertinent data. Shop drawings shall be submitted for all manufactured or fabricated items.
- D. Only shop drawings that are pertinent to the project for which they are submitted shall be provided to the Engineer for review. The Engineer reserves the right to reject any submittal containing extraneous information resulting in rejection of the entire submittal, and a new submittal shall be required which contains only pertinent project information.
- E. Shop drawings shall be checked, approved, signed, and dated by the Contractor in accordance with the General Conditions before submitting to the Engineer for review and comment.

- F. Do not use shop drawings without an appropriate final stamp indicating action taken.
- G. Except for submittals for the record or information, where action and return is required, the Engineer shall review each submittal, mark to indicate action taken, and return promptly. The Engineer/Architect will stamp each submittal with a uniform action stamp. The Engineer/Architect will mark the stamp appropriately to indicate the action taken, as follows:
1. "No Exceptions Taken": The work covered by the submittal may proceed provided it complies with requirements of the Contract Documents.
  2. "Make Corrections Noted": The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
  3. "Revise and Resubmit": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Revise and Resubmit" at the Project Site or elsewhere where work is in progress.
  4. "Rejected": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Rejected" at the Project Site or elsewhere where work is in progress.
  5. "Submit Specified Item": Item submitted does not meet specifications. Submit exact item specified.
- H. Shop drawings that require resubmission shall be revised as follows:
1. Revise initial drawings and data and resubmit as required.
  2. Provide an itemized list of all changes other than those requested by the Engineer in the cover letter.
- I. Submittal Format
1. Electronic for all submittals except the following:
    - a. Reinforcing steel, submit one (1) full size plan sheet.
    - b. Submittals normally requiring three-ring binders such as instrumentation & electrical equipment, submit one (1) copy for approval. Provide four (4) copies after approval.
- J. **Submittal Format During COVID-19**
1. Electronic submittals are **REQUIRED**. Submittals shall be e-mailed to the Shop Drawing Coordinator to be logged before forwarding to the Project Manager for review and approval.
  2. Absolutely **NO** physical dropping off of submittals or via USPS to our office is permitted.
  3. If a submittal is too large to e-mail, contact Lori Rogers for instructions to send via REL's FTP site.

#### 1.06 SUBMITTAL TRANSMITTAL DATA SHEET

- A. Shop drawings shall be submitted by specification section. The Contractor shall submit a submittal transmittal data sheet with each shop drawing; refer to the form at the end of this section. Include all required submittal information as indicated in the specification section. Combining specification sections on submittal sheets is **NOT PERMITTED**.
- B. The submittal transmittal data Sheet must be filled out correctly or the submittal will be returned. The following information **MUST** be included:
1. Date.
  2. Project Name.
  3. Contractor.
  4. Submittal Number.



5. Previous Submittal Number, if applicable.
6. Specification Section Number.
7. Submittal for.
8. Information Block.
9. Name and Signature of Contractor.

#### 1.07 PRODUCT DATA

- A. Contractor shall provide product data as required to supplement shop drawings.
- B. Submittal Transmittal Data Sheet shall be provided for each product data submittal.
- C. Product data shall include illustrations, schedules, installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
- D. Contractor shall mark each copy of the product data to identify products, models, options and other pertinent.
- E. Contractor shall include all Safety Data Sheets (SDS) required by OSHA.

#### 1.08 SAMPLES

- A. Contractor shall provide samples where noted or specified.
- B. Submittal Transmittal Data Sheets shall be provided for each sample submittal.
- C. Samples are physical examples which illustrate the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
- D. Samples shall have attached labels for identification bearing the following information:
  1. Project name.
  2. Description of sample.
  3. Contractor name.
  4. Standards met by the sample.
  5. Submit three samples for review.
- E. Approval of the samples shall be obtained before proceeding with the work relating to the sample.
- F. Samples not incorporated into the work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site.
- G. Field samples shall comply with submittal requirements to the fullest extent possible.

#### 1.09 QUALITY ASSURANCE SUBMITTALS

- A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other sections of the specifications.
- B. Submittal Transmittal Data Sheets shall be provided for each quality assurance submittal.

C. Inspection and Test Reports shall be submitted as required by other sections of the specifications.

1.10 SUBMITTAL LIST

A. To assist the Contractor with submittals, a Shop Drawing Submittal List is included at the end of this section. The list is considered to be a minimum submittal list and may not be all inclusive. All items incorporated into the work shall be submitted.

1.11 OPERATION AND MAINTENANCE MANUALS

A. Contractor shall furnish operation and maintenance manuals in accordance with Section 01 78 23, Operation and Maintenance Manuals.

1.12 INSTALLATION AND TRAINING CHECKLISTS

A. Contractor shall provide the Installation and Training checklists in accordance with Section 01 78 43, Installation and Training Checklists.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

# SUBMITTAL TRANSMITTAL DATA SHEET

(Attach to Each Submittal)

DATE: \_\_\_\_\_ PROJECT NAME: Bank Stabilization and Invasive Species Management

CONTRACTOR: \_\_\_\_\_ CONTRACT NO.: 6004-21-01

SUBMITTAL NO. \_\_\_\_\_ New Submittal \_\_\_\_\_ Resubmittal \_\_\_\_\_ Previous Submittal No. \_\_\_\_\_

SPECIFICATION SECTION NO. \_\_\_\_\_  
(Cover only one section with each transmittal)

SUBMITTAL FOR: \_\_\_\_\_ Shop Drawings \_\_\_\_\_ Product Data \_\_\_\_\_ Samples  
\_\_\_\_\_ O&M Information \_\_\_\_\_ Proposed Substitution \_\_\_\_\_ Other

Specifications Section	Number of Copies	Description ( )	Catalog Drawing or Brochure No.

I certify that the above submitted item has been reviewed in detail and is correct and in strict conformance with the contract drawings and specifications, except as otherwise stated, and is stamped accordingly.

\_\_\_\_\_  
Signature of Contractor

## SUBMITTAL REVIEW (**FOR ENGINEER'S USE ONLY**)

TO: \_\_\_\_\_ TARGET DATE: \_\_\_\_\_

REVIEWER INITIALS AND DATE: \_\_\_\_\_

COMMENTS \_\_\_\_\_

### DISPOSITION:

1. No Exceptions Taken.

2. Make Corrections Noted.

3. Revise and Resubmit.

4. Rejected.

5. Submit Specified Item.

### **Robert E. Lee & Associates, Inc.**

Checked for conformance with design concept of project and general compliance with information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for omissions. Quantities, environmental requirements, dimensions which shall be confirmed and correlated at job site, his work with that of all other trades and the satisfactory performance of his work.

Returned By: \_\_\_\_\_

Date: \_\_\_\_\_

## Shop Drawing Submittal List

General	Date Submitted to REL	Date Approved by REL	Not Applicable
Construction Schedule			
Pre-construction Photos			
<b>Miscellaneous</b>			
Silt Fence			
Erosion Mat			
Seed Mix			
Landscaping Fertilizer			

## SECTION 01 40 00

### FIELD ENGINEERING

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED

- A. Work under this section is associated with:
1. Staking.
  2. Profile and topography.
  3. Records and markers.

##### 1.02 STAKING PROVIDED BY OWNER'S REPRESENTATIVE

- A. Staking for utility construction shall include:
1. Location of construction limits.
  2. Original staking of line and grade and location of all structures.
  3. Benchmarks on site.

##### 1.03 STAKING TO BE PROVIDED BY CONTRACTOR

- A. Any staking work required to complete the work and not specifically provided by the Owner's representative.
- B. Contractor shall establish grade from stakes or benchmarks established by the Owner's representative.

##### 1.04 CONSTRUCTION STAKING

- A. The Contractor shall provide the Owner's representative an advance notification of three working days when requesting construction staking.
- B. All construction shall be completed by the Contractor according to the alignments, grades, and baselines as established and set by the Owner's representative.
- C. The Contractor shall be responsible for the cost of restaking baselines, line & grade, structures & benchmarks unnecessarily destroyed or altered as a result of his negligence during the construction period.

##### 1.05 PROFILE AND TOPOGRAPHY

- A. Contours or profiles of the ground are shown on the drawings. These profiles and contours are reasonably correct, but are not guaranteed to be absolutely so, and together with any schedule of quantities are presented only as an approximation.

##### 1.06 CONTRACTORS RECORDS AND MARKERS

- A. In addition to submittals and records required in other parts of the Contract Documents, Contractor shall record the following in such a manner that the Owner can locate same in the future by reference to recorded measurements:

1. Any deviations of underground covered work from contract drawings.
2. On pipeline construction, the exact location and depth below grade of all:
  - a. Valves and pipelines.
  - b. Changes in direction.
  - c. or "T" branches on sewers.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 40 01

### CONSTRUCTION STAKING

#### **PART 1 - GENERAL**

##### 1.01 WORK INCLUDED

- A. Work under this section is associated with:
  - 1. Construction staking.

##### 1.02 STAKING PROVIDED BY OWNER'S REPRESENTATIVE

- A. Base horizontal control.
- B. Base vertical control.

##### 1.03 STAKING TO BE PROVIDED BY CONTRACTOR

- A. Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. Make the survey notes and computations available to the engineer within 24 hours, upon request, as the work progresses.
- B. Furnish all surveying equipment, stakes, flags, pins, lath, whiskers, and other materials necessary to perform this work, subject to the engineer's approval.

#### **PART 2 – PRODUCTS – NOT USED**

#### **PART 3 - EXECUTION**

##### 3.01 CONSTRUCTION STAKING

- A. The Contractor shall provide the Owner's representative an advance notification of three working days when requesting construction staking.
- B. Construction Staking Subgrade. Set construction stakes or marks at a minimum of 50-foot intervals for urban sections including additional stakes necessary to achieve the required accuracy, and support the method of operations. Set and maintain stakes as necessary to establish horizontal and vertical position for intersecting road radii, auxiliary lanes, horizontal and vertical curves, and curve transitions. Locate stakes to within 0.25 feet to the true horizontal position, and establish the grade elevation to within 0.03 feet vertically.
- C. Construction Staking Slope Stakes. Verify the existing ground elevations as shown for all roadways on cross-section sheets for accuracy. Take and document a minimum of 5 shots per roadway section, one at the centerline or at an engineer approved offset from the centerline and 2 at each side of the roadway. For the shots at the roadway sides, take one shot at the slope stake and one shot at the slope intercept. If the elevation at the slope intercept is off by more than 0.4 foot, notify the engineer. Set and maintain slope stakes on each side of the road at each cross-section location the plans show. Locate stakes to within 0.25 feet horizontally and establish elevations to within 0.1 feet vertically.

- D. Construction Staking Supplemental Control. Set and maintain construction marks as required to support the method of operations consistent with third-order, class I horizontal and third-order vertical accuracy. Check the owner-provided horizontal and vertical control information and notify the engineer of any discrepancies. Provide marks to establish and maintain intermediate vertical and horizontal control for reference line alignment, side road alignments, radius points, bench level circuits, and offsetting the horizontal roadway alignment. These marks constitute the field control used to govern and execute the work. Document and provide to the engineer complete descriptions and reference ties of the control points, alignment points, and benchmarks to allow for quick reestablishment of the plan data at any time during construction and upon project completion.
- E. Construction Staking Sewer. Set construction stakes at manholes and along sewer pipe 50 feet upstream from manhole and at 100-foot intervals thereafter. Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations to install each individual catch basin, sewer pipeline, and manhole to the specified final elevations. Determine that the final elevations of sewer pipe outfalls and catch basins match the existing and proposed field elevations.

### 3.02 CONTRACTORS RECORDS AND MARKERS

- A. Contractor shall submit all survey notes and computations used to establish the required lines and grades to the engineer within ten (10) days of completing this work.

## **PART 4 – MEASUREMENT AND PAYMENT**

### 4.01 UTILITY STAKING

- A. Construction staking sewer system will be measured and paid for as each individual inlet catch basin, manhole, and endwall acceptably completed. Measurement and payment for construction staking sewer system also includes setting construction stakes as necessary for sewer pipeline structure and manhole staked.
- B. The contractor shall relocate and reset damaged or missing construction stakes without any additional compensation.

END OF SECTION



## SECTION 01 41 00

### REGULATORY REQUIREMENTS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This section includes regulatory requirements in regard to the project. Regulatory agency's requirements supersede this section.
- B. Related Sections and Divisions: Applicable provisions of the General Conditions shall govern the work in this section.

##### 1.02 OSHA REQUIREMENTS

- A. All work including site safety, equipment, materials and fabricated items provided by the Contractor shall comply with all OSHA requirements.

##### 1.03 PERMITS

- A. The Contractor shall obtain all permits required for this project. Where the permit requirements of any permit are more restrictive than the plans and specifications, the permit requirements shall govern.
- B. Contractor shall obtain required permits from all regulatory governmental agencies governing dewatering. Contractor shall be responsible to maintain existing private wells affected by dewatering activities. It shall be the responsibility of the Contractor to provide a water supply to the affected resident at no cost to the Owner. The Contractor shall be required to drill and close wells in accordance with WDNR requirement.

The governing agency in Wisconsin is:

Wisconsin Department of Natural Resources  
Private Water Supply Section  
P.O. Box 7921  
Madison, Wisconsin 53707

- C. Contractor shall comply with the WDNR requirements regulating the discharge of effluent from construction trenches. These provisions provide for the removal of suspended solids prior to direct discharge to surface water or wetlands. Contractor shall be responsible for obtaining any necessary permits.

##### 1.04 UNDERGROUND UTILITIES

- A. Under the provisions of Wisconsin Statutes, Section 182.0175, all contractors, subcontractors, and any firm or individual intending to do work on this contract shall contact all utility firms in the affected area of construction a minimum of three (3) working days prior to beginning construction so that affected utilities will be located and marked.

##### 1.05 WASTEWATER TREATMENT DURING CONSTRUCTION

- A. Maintain wastewater treatment during the construction period beginning with the effective date of the Agreement and ending at substantial completion. Wastewater treatment must achieve as a minimum the requirement of the Owner's WPDES Permit or be consistent with treatment plant performance within the previous 24 months, whichever is least stringent. Any damages assessed against the Owner as a result of the violation of these requirements and shown to be a result of the Contractor's failure to utilize accepted wastewater treatment plant operation and maintenance practices shall be paid in full by the Contractor.
- B. The Owner's operating personnel are on site intermittently. The contractor shall maintain sufficient plant operating automation to ensure that required wastewater treatment is maintained continuously. The contractor shall also maintain sufficient alarm condition monitoring equipment and response personnel to ensure that emergency conditions that may develop at the plant during construction do not result in damage, flooding or reduced treatment efficiency.
- C. The Contractor shall assume responsibility for any additional costs incurred by the owner as a result of the Contractor's failure to satisfactorily meet the requirements of the WPDES permit.

1.06 PROPERTY MONUMENTS

- A. It shall be the responsibility of the Contractor to protect iron pipe and survey monuments from movement where possible. The cost of replacement of any monuments moved or destroyed by the Contractor shall be assessed to him.

1.07 WAGE RATES

- A. State Wage Rates are not required. Section 66.0903 Wisconsin Statutes will prevail on the contracts in this project.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 50 00

### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This section includes providing temporary services. Temporary services and be included in total price of contract and maintained until final completion of project.
- B. Related Sections and Divisions: Applicable provisions of the General Conditions shall govern the work in this section.

#### PART 2 - PRODUCTS

NOT APPLICABLE

#### PART 3 - EXECUTION

##### 3.01 TEMPORARY HEAT

- A. Provide temporary heat required by construction activities for:
  - 1. Curing or drying of completed installations.
  - 2. Protection of installed construction from adverse affects of low temperatures or high humidity.
  - 3. Maintain a minimum temperature of 60°F in permanently enclosed portions of the building and areas where finished work has been installed.
- B. Select safe equipment that will not have harmful effects on completed installations or elements being installed.
- C. Coordinate ventilation requirements to produce ambient conditions required.
- D. Except where use of the permanent system is authorized, provide vented, self-contained LP gas or fuel oil heaters with individual space thermostatic control.
  - 1. Use of gasoline-burning space heaters, open flame or salamander type heating units or any units that discharge products of combustion into the space being heated is prohibited.
- E. When the permanent heating system is tested and ready for operation, it may be used on a temporary basis for heating and building until final acceptance:
  - 1. Contractor shall be responsible for cost of operation and fuel.
  - 2. The Owner will assume responsibility for operation and fuel costs on the date of final acceptance of the contract.
  - 3. Prior to final acceptance, clean entire unit and replace all filters.

##### 3.02 TEMPORARY ELECTRICAL SERVICE

- A. Provide a temporary, weatherproof, grounded electric service and distribution system of size and capacity needed for construction including:
  - 1. Meters.

2. Transformers.
3. Overload protected disconnects.
4. Automatic ground-fault interrupters.
5. Main distribution switchgear.

- B. Permanent service may be used during construction when available.
- C. Contractor shall be responsible for the costs of consumed power furnished through temporary or permanent service until final acceptance of project.

### 3.03 TEMPORARY WATER SERVICE

- A. Provide temporary water service for construction operations.
- B. If water service is available from the municipal water utility, the Contractor shall arrange for a temporary metered water service.
1. Size of temporary service shall be minimum of 1 inch.
  2. Provide hose bibs as needed.
  3. Provide backflow protection as required by WDSPPS plumbing code.
- C. If water service is not available from a public utility, the Contractor shall be responsible for providing water from some other source.
- D. The Contractor shall be responsible for costs of providing temporary service and water usage regardless of source.

### 3.04 SANITARY FACILITIES

- A. Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation or combustion type, properly vented and fully enclosed with a fiberglass reinforced polyester shell or similar non-absorbent material.
- B. Use of Owner's sanitary facilities is prohibited.

### 3.05 FIRST AID

- A. Provide first aid equipment complying with governing regulations.

### 3.06 FIRE EXTINGUISHERS

- A. Provide temporary fire extinguishers at project site until Owner occupation or final acceptance, whichever occurs first.
- B. Provide hand-carried, portable UL rated, Class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable UL rated, Class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classed for the exposures.
- C. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

### 3.07 REMOVAL OF TEMPORARY FACILITIES

- A. Contractor shall remove temporary materials, equipment, services and construction as soon as practicable but not later than final completion.
- B. Clean and repair damage caused by temporary facilities and restore to original condition.
- C. Temporary facilities, which interfere with Owner's operation, shall be removed at the end of each work period.

- END OF SECTION -

## SECTION 01 57 14

### EROSION CONTROL

#### **PART 1 - GENERAL**

##### 1.01 SUMMARY

- A. Work included: This section consists of construction and maintenance of temporary erosion and sediment control measures to be performed prior to and during construction.
- B. Related Sections and Divisions:
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. All related construction sections.
  - 3. Erosion Control and Storm Water Management Plan.
  - 4. Section 01 32 19, Submittals.
- C. Unless shown otherwise, the contractor shall be responsible for selecting method of erosion and sediment control.
- D. The Contractor's erosion control measures must comply with the approved Erosion Control and Storm Water Management Plan, Wisconsin Natural Resources Code NR 151, Wisconsin DNR Conservation Practice Standards, Latest Edition, WisDOT Product Acceptability List, Latest Edition, and local erosion control ordinances.

##### 1.02 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals:
  - 1. Material samples upon request or owner's representative.
  - 2. Manufacturer's certification that materials delivered comply with requirements of this section.

#### **PART 2 - PRODUCTS**

- A. Products used for implementing the Erosion Control and Storm Water Management Plan and for conformance to WDNR Conservation Practice Standards, Latest Edition shall conform to the WisDOT Product Acceptability List, Latest Edition.

#### **PART 3 - EXECUTION**

- A. All installations shall conform to requirements of the WDNR Conservation Practice Standards, Latest Edition.
- B. The Contractor shall maintain a written record of all implemented erosion control practices as required by the WDNR. A suggested format is WDNR Form 3400-187, latest revision (see attached). The written record shall be maintained throughout final completion. Copies shall be forwarded to the Engineer upon request and with each pay request.

- C. Inspections of implemented erosion and sediment control best management practices must be performed weekly and within 24 hours after a precipitation event 0.5 inches or greater which results in runoff.
- D. Installed erosion control measures shall be removed from the site after 70% revegetation has been achieved, and all remaining disturbed areas shall be seeded, fertilized, and mulched.

**PART 4 – PAYMENT**

- A. Payment shall be based on the following:
  - 1. Erosion Control shall be incidental to the appropriate bid item.

- END OF SECTION –

**Notice:** This form was developed in accordance with s. NR 216.48 Wis. Adm. Code for WPDES permittees' convenience; however, use of this specific form is voluntary. Multiple copies of this form may be made to compile the inspection report. Inspections of the construction site and implemented erosion and sediment control best management practices (BMPs) must be performed weekly and within 24 hours after a rainfall event 0.5 inches or greater.

<b>Construction Site Name and Location (Project, Municipality, and County):</b>	<b>Site/Facility ID No. (FIN):</b>
<b>Onsite Contact/Contractor:</b>	<b>Onsite Phone/Cell:</b>

**Note: Inspection reports, along with erosion control and storm water management plans, are required to be maintained on site in accordance with s. NR 216.48 (4) and made available upon request. PLEASE PRINT LEGIBLY.**

<b>Date of inspection:</b>	<b>Time of inspection:</b> Start: _____ <input type="radio"/> am <input type="radio"/> pm End: _____ <input type="radio"/> am <input type="radio"/> pm	<b>Type of inspection:</b> <input type="radio"/> Weekly <input type="radio"/> Precipitation Event <input type="radio"/> Other (specify)
----------------------------	--	---

<b>Weather/Site Conditions:</b> <input type="radio"/> Dry <input type="radio"/> Frozen or snow covered Temp. _____ °F <input type="radio"/> Antecedent <input type="radio"/> Variable <input type="radio"/> Frozen (Thaw predicted in next week) <input type="radio"/> Wet <input type="radio"/> Melting Snow/slush Last Rainfall Depth: _____ inches Last Rainfall Date: _____	<b>Describe current phase of construction:</b>  Scheduled Final Stabilization Date for Universal Soil Loss Equation (USLE) <sup>1</sup> : _____ Project on Schedule <sup>2</sup> ? <input type="radio"/> Yes <input type="radio"/> No
--	---

<b>Name(s) of individual(s) performing inspection:</b>	<b>Inspector Phone/Cell:</b>
--	------------------------------

I certify that the information contained on this form is an accurate assessment of site conditions at the time of inspection:

**Inspector Signature** \_\_\_\_\_ **Date:** \_\_\_\_\_

Inspection Questions:	Yes	No (Identify Actions Required):	Location/Comments:	Actions Completed by Date & Initials
1. Is the erosion control plan accessible to operators?	<input type="checkbox"/>	<input type="checkbox"/> Provide onsite copy		
2. Is the permit certificate posted where visible?	<input type="checkbox"/>	<input type="checkbox"/> Post certificate		
3. Is the current phase of construction on sequence with the site-specific erosion and sediment control plan, including installation/stabilization of ponds and ditches?	<input type="checkbox"/>	<input type="checkbox"/> Add sediment control <input type="checkbox"/> Install missing ditch/pipe/pond <input type="checkbox"/> Stabilize bare soil		
4. Are all erosion and sediment control BMPs shown on plan properly installed and in functional condition?	<input type="checkbox"/>	<input type="checkbox"/> Repair <input type="checkbox"/> Modify <input type="checkbox"/> Install/Replace		
5. Is inlet protection properly installed and functioning in all inlets likely to receive runoff from the site?	<input type="checkbox"/>	<input type="checkbox"/> Clean <input type="checkbox"/> Replace <input type="checkbox"/> Install		
6. Is the air free of fugitive dust resulting from construction activity and bare soil exposure?	<input type="checkbox"/>	<input type="checkbox"/> Apply water <input type="checkbox"/> Apply dust control product		

<sup>1</sup> The Universal Soil Loss Equation (USLE) model and the Construction Site Soil Loss and Sediment Discharge Guidance are available at: [http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html)

<sup>2</sup> If the project is not on schedule then the soil loss summary for the project should be reviewed and schedule, plan or practices modified accordingly.



Inspection Questions:	Yes	No (Identify Actions Required):	Location/Comments:	Actions Completed by Date & Initials
7. Is the public right of way curb line free of tracked soil and accumulation?	<input type="checkbox"/>	<input type="checkbox"/> Install tracking pad <input type="checkbox"/> Widen/lengthen pad <input type="checkbox"/> Amend stone/Add geotextile <input type="checkbox"/> Install wheel washing station <input type="checkbox"/> Close entrance/exit <input type="checkbox"/> Limit traffic across disturbed areas <input type="checkbox"/> Sweep road and curb line		
8. Are wetlands, lakes, streams, ditches, or storm sewers downstream of the site free of sedimentation and turbid water leaving the site? <sup>3</sup>	<input type="checkbox"/>	<input type="checkbox"/> Repair/Replace erosion control <input type="checkbox"/> Add sediment controls <input type="checkbox"/> Modify operations <input type="checkbox"/> Contact DNR to verify extent of cleanup required		
9. Is dewatering and/or vehicle and equipment washing being done in a manner that prevents erosion and sediment discharge?	<input type="checkbox"/>	<input type="checkbox"/> Install treatment train <input type="checkbox"/> Install energy dissipation <input type="checkbox"/> Modify discharge location <input type="checkbox"/> Modify intake to reduce sediment		
10. Are soil stockpiles existing for more than 7 days covered and stabilized?	<input type="checkbox"/>	<input type="checkbox"/> Seed <input type="checkbox"/> Install mat/mulch/polymer <input type="checkbox"/> Cover with tarp/plastic sheeting		
11. Are downstream channels and other downhill areas protected from scour and erosion?	<input type="checkbox"/>	<input type="checkbox"/> Install energy dissipation at outfall <input type="checkbox"/> Install ditch checks <input type="checkbox"/> Install slope interruption <input type="checkbox"/> Install onsite detention		
12. Are good housekeeping practices or treatment controls in place to prevent the discharge of chemicals, cement, trash, and other materials into wetlands, waterways, storm sewers, ditches, or drainage-ways? <sup>4</sup>	<input type="checkbox"/>	<input type="checkbox"/> Properly dispose of trash <input type="checkbox"/> Provide concrete washout station <input type="checkbox"/> Contact DNR to verify extent of cleanup required		
13. Is the plan reflective of current site operations and does it address all erosion and sediment control issues identified during the inspection?	<input type="checkbox"/>	<input type="checkbox"/> Revise sequence <input type="checkbox"/> Revise sediment control BMP <input type="checkbox"/> Revise erosion control BMP <input type="checkbox"/> Revise post-construction storm water BMP		
14. Are all areas where construction has temporarily ceased (and will not resume for more than 2 weeks) temporarily stabilized?	<input type="checkbox"/>	<input type="checkbox"/> Topsoil & seed <input type="checkbox"/> Install mat/mulch/polymer <input type="checkbox"/> Cover with tarp/plastic sheeting		
15. Are all areas at final grade permanently vegetated or stabilized with other treatments?	<input type="checkbox"/>	<input type="checkbox"/> Topsoil & seed <input type="checkbox"/> Install mat/mulch/polymer <input type="checkbox"/> Sod <input type="checkbox"/> Install stone base		
16. Have temporary sediment controls been removed in areas of the site that meet the permit definition of 'final stabilization'?	<input type="checkbox"/>	<input type="checkbox"/> Water to establish vegetation <input type="checkbox"/> Repair or reseed areas <input type="checkbox"/> Remove temporary practices		

<sup>3</sup> If sediment discharge enters a wetland or waterbody, the permittee should consult with DNR staff to determine if sediment cleanup and/or additional control measures are required.

<sup>4</sup> The permittee shall notify the DNR immediately via the spills hotline at (800)943-0003 of any release or spill of a hazardous substance to the environment in accordance with s. 292.11, Wis. Stats., and ch. NR 706, Wis. Adm. Code.

## SECTION 01 60 00

### MATERIALS AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. Related Sections and Divisions:
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. Section 01 32 19, Submittals.

##### 1.02 MATERIALS - QUALITY ASSURANCE

- A. It is the intent of these specifications to procure a quality product by an established manufacturer of the latest design. All components of systems shall be engineered for long, continuous, uninterrupted service. The cost of the equipment shall include all royalties and costs arising from patents and licenses associated with furnishing the specified equipment.
- B. All materials shall be designed to withstand stresses encountered in continuous operation, fabrication and erection. All equipment shall be of corrosion-resistant materials or shall be suitably protected by the supplier with corrosion-resistant industrial coatings. Provisions shall be made for ease of lubrication, adjustment and replacement of parts.
- C. Material for which no detailed specifications are given shall:
  - 1. Meet the particular industry standard for the material used.
  - 2. Meet the specifications of ASTM, ANSI or SAE for metals and plastics for the use intended.
  - 3. Not be used unless it has previously been used for a like purpose for a sufficient length of time in the field or under field-simulated laboratory conditions to demonstrate its successful use.
- D. Source Limitations  
To the fullest extent possible, provide products of the same kind from a single source.
  - 1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Engineer/Architect to determine the most important product qualities to consider before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.
- E. Compatibility of Options  
When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

### 1.03 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Provide equipment and personnel to handle products by methods that avoid soiling or damage.
  4. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  5. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that quantities are correct, products are undamaged, and properly protected. Inform the Engineer or Owner before the inspection occurs, so that they may participate in the inspection if so desired.
  6. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units. Seals and labels shall be intact and legible.
  7. Store products in accordance with manufacturer's instructions. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
  8. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
  9. Arrange for fabricated items or products stored outside to be placed on sloped supports above the ground. Items subject to deterioration shall be covered by weather proof sheet covering which is ventilated to prevent condensation.
  10. Store loose granular materials on solid surfaces which are well drained and prevent contamination by foreign matter.
  11. Arrange for periodic inspection of stored materials to insure that materials remain undamaged and are maintained under required conditions.
  12. All shipment, delivery and storage charges shall be at the expense of the contractor.

### 1.04 MAINTENANCE OF STORAGE

- A. Contractor shall periodically inspect stored products on a scheduled basis.
- B. Contractor shall verify that storage facilities comply with manufacturer's product storage requirements, and verify that manufacturer required environmental conditions are maintained continually.
- C. Contractor shall verify that surfaces of products exposed to the elements are not adversely affected and that any weathering of finishes is acceptable under requirements of Contract Documents.
- D. Contractor shall perform scheduled maintenance of equipment in storage as recommended by the manufacturer. A record of the maintenance shall be kept and turned over to Engineer when the equipment is installed.

## **PART 2 – PRODUCTS - NOT APPLICABLE**

## **PART 3 - EXECUTION**

### 3.01 INSPECTION

- A. Inspect materials and equipment for signs of pitting, rust decay, or other deleterious effects of storage. Do not install material or equipment showing such effects. Remove damaged material or equipment from the Site and expedite delivery of identical new material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays within Contractor's control.

### 3.02 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
  - 1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

### 3.03 INSTALLATION REQUIREMENTS

- A. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditions as directed by the respective manufacturers, unless otherwise specified.
- B. Erect equipment in neat workmanlike manner, align, level and adjust for satisfactory operation; install for easy maintenance, inspection, operation, and replacement.
- C. Mechanical equipment shall operate without objectionable noise or vibration. Piping shall be provided with flexible couplings to prevent noises or vibration transmission.
- D. After installation, Contractor shall protect all materials and equipment against weather, dust, moisture, and mechanical damage.
- E. Contractor shall be responsible for all damages that occur in connection with the care and protection of all materials and equipment until completion and final acceptance of the work by Owner. Damaged material and equipment shall be immediately removed from the site.

### 3.04 FIELD QUALITY CONTROL

- A. Qualifications of Manufacturers Field Personnel
  - 1. Personnel shall be authorized by the manufacturer to erect start-up and initiate warranty of the equipment provided.
  - 2. Personnel shall come to the site with the required tools and electrical instruments.
  - 3. Personnel shall have full knowledge of electrical controls pertaining to the equipment and control panels furnished.
  - 4. Failure to provide personnel with full qualifications shall be cause for service trip to be disqualified as part of the requirements and may because for reimbursement for costs incurred by the Owner due to services required for a qualified start-up inspection.

- END OF SECTION -

## SECTION 01 77 00

### CLOSEOUT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work included: This section includes project requirements for project completion, record document submittal and closeout procedures.
- B. Related Sections:
1. Applicable provisions of the General Conditions shall govern the work in this section.
  2. Section 01 32 19, Submittals.
  3. Specific requirements for individual units of work are included in appropriate technical sections.

##### 1.02 DEFINITIONS

- A. Time of Closeout:
1. Directly related to "Substantial Completion," may be either a single time period for entire work or series of time periods for individual elements of work that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to other provisions of this section.

##### 1.03 PREREQUISITES TO PARTIAL COMPLETION

- A. General Requirements:
1. Complete before requesting Engineer's inspection for certification of substantial completion for each phase of work. List known exceptions in request.
- B. Substantial Completion:
1. Administrative actions and submittals to precede or coincide with Substantial Completion include.
    - a. Incomplete Work:
      - 1) List of incomplete work.
      - 2) Value of incomplete work.
      - 3) Reasons for work being incomplete.
    - b. Monetary:
      - 1) Progress payment request coinciding with, or first request following date substantial completion is claimed showing 100 percent complete or list incomplete work.
      - 2) Submit statement of changes to contract sum.
    - c. Regulatory Requirements:
      - 1) Obtain, submit releases enabling Owners' full, unrestricted use of work and access to services and utilities. Where required, include occupancy permits, operating certificates, similar releases.
    - d. Bonding and Insurance:
      - 1) Request partial release of retainage.
      - 2) Advise Owner of pending insurance change-over-requirements (if

Builders Risk Insurance is provided by Contractor).

C. Inspection Procedures:

1. When prerequisites are complete, submit request in writing to Engineer stating that all requirements are satisfied, and requesting inspection. Upon receipt of Contractor's request for inspection, Engineer will either proceed with inspection or advise Contractor of unfilled prerequisites.
  - a. Following initial inspection, Engineer will either prepare certificate of substantial completion, or advise Contractor of work which must be performed before certificate will be issued. Engineer will repeat inspection when requested and when assured that work has been substantially completed.
  - b. Results of completed inspection will form initial "punch list" for final acceptance.

1.04 PREREQUISITES TO FINAL ACCEPTANCE

A. General Requirements:

1. Complete punch list items, before requesting Engineers inspection for final acceptance and final payment as required by General Conditions. List known exceptions, if any, in request.

B. Final Payment Application:

1. Administrative actions and submittals which must precede or coincide with submittal of final payment application for payment include:
  - a. Completion of Work:
    - 1) Completion of Project requirements.
    - 2) Completion of items specified for completion after Substantial Completion.
    - 3) Assurance that work not complete and accepted will be completed without undue delay.
    - 4) Final cleaning.
  - b. Transfer of Site to Owner:
    - 1) Removal of temporary facilities and services.
    - 2) Removal of surplus materials, rubbish, similar elements.
  - c. Submittals:
    - 1) Consent of Surety (if Performance Bond provided).
    - 2) Assurance that unsettled claims will be settled.
    - 3) Transmittal of required project construction records (as-built drawings, etc.) to Owner.
    - 4) Certified copy of Engineers final punch list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by Engineer.
    - 5) Evidence of final, continuing insurance coverage complying with insurance requirements.
  - d. Final payment request including certificates of insurance for products and completed operations where required.
    - 1) Updated final statement, accounting for final additional changes to Contract Sum.
    - 2) Final liquidated damages settlement statement, acceptable to Owner.

C. Reinspection Procedure:

1. Engineer will reinspect work upon receipt of notice that work, including punch list items resulting from earlier inspections, has been completed, except for items whose completion has been delayed because of circumstances that are acceptable to Engineer will either prepare a certificate of final acceptance, or will advise Contractor of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance. If necessary, reinspection procedure will be repeated.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

## SECTION 01 78 36

### WARRANTIES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. Work Included: This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers standard warranties on products and special warranties.
- B. Related Sections
1. Applicable provisions of the General Conditions shall govern terms of the Contractor's special warranty of workmanship and materials.
  2. Section 01 77 00, Closeout Procedures.
  3. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Divisions 2 through 46.
- C. Disclaimers and Limitations  
Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

##### 1.02 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

##### 1.03 WARRANTY REQUIREMENTS

- A. Starting date for all warranties shall be the date of Substantial Completion as indicated on Certificate of Substantial Completion, except that warranties for work completed after the date of substantial completion shall begin on date of acceptance of such work by the Owner.
- B. Related Damages and Losses  
When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- C. Replacement Cost  
Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Document. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.



- D. Owner's Recourse  
Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

1.04 SUBMITTALS

- A. When a special warranty is required to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Prepare warranties as various components of the project are completed.

**PART 2 - PRODUCTS**

NOT APPLICABLE

**PART 3 - EXECUTION**

NOT APPLICABLE

- END OF SECTION -

# 31

## DIVISION 31

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### EARTHWORK

## SECTION 31 05 13

### SOILS AND AGGREGATES

#### **PART 1 - GENERAL**

##### 1.01 DESCRIPTION OF WORK

###### A. Work Included:

This section includes all material, labor, and equipment necessary to produce, haul, place, and compact the specified soil or aggregate.

###### B. Related Sections and Divisions:

1. The applicable provisions of the General Conditions shall govern the work in this section.
2. Section 01 32 19, Submittals.
3. Section 31 23 33, Trenching, Backfilling and Compaction.

##### 1.02 REFERENCE STANDARDS

###### A. American Society for Testing and Materials (ASTM)

1. ASTM C33 Spec. for Concrete Aggregates.
2. ASTM C88 Test for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
3. ASTM C117 Test for Material Finer than No. 200 Sieve in Mineral Aggregates by Washing.
4. ASTM C131 Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
5. ASTM C136 Sieve Analysis of Fine and Coarse Aggregates.
6. ASTM C144 Spec. for Aggregate for Masonry Mortar.
7. ASTM C207 Spec. for Hydrated Lime for Masonry Purposes.
8. ASTM C535 Test for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
9. ASTM C602 Spec. for Agricultural Liming Materials.
10. ASTM D75 Sampling Aggregates.
11. ASTM D422 Particle Size Analysis of Soils.
12. ASTM D448 Spec. for Standard Sizes of Coarse Aggregate for Highway Construction.
13. ASTM D1140 Test for Amount of Material in Soils Finer than the No. 200 Sieve.
14. ASTM D1241 Spec. for Materials for Soil-Aggregate Subbase, Base, and Surface Courses.
15. ASTM D2216 Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil Aggregate Mixtures.
16. ASTM D2487 Classification of Soils for Engineering Purposes.
17. ASTM D4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity of Soils.

##### 1.03 QUALITY ASSURANCE

- ###### A. No soils and aggregates furnished under this section shall be frozen.

#### 1.04 MATERIAL TESTING

- A. Contract with an independent testing laboratory to provide testing services required by this section. Contractor shall be responsible for the cost of all testing required for submittals.
- B. To establish acceptability of material, tests shall be performed for each soils class in accordance to the following standards:
1. Soils Class A and C:
    - a. ASTM C88.
    - b. ASTM C131 (for coarse aggregates smaller than 1½ inches).
    - c. ASTM C136.
    - d. ASTM C535 (for coarse aggregates 1½ inches and larger).
    - e. ASTM C 117 (use when aggregate contains materials finer than No. 200 sieve).
  2. Soils Class B:
    - a. ASTM C88.
    - b. ASTM C117.
    - c. ASTM C136.
  3. Soils Class D:
    - a. ASTM C117.
    - b. ASTM C136.
    - c. ASTM D1241.
    - d. ASTM D2487.
  4. Soils Class E:
    - a. ASTM C136 (test when gravel content is present).
    - b. ASTM D422.
    - c. ASTM D1140.
    - d. ASTM D2216.
    - e. ASTM D4318
  5. Soils Class F:
    - a. ASTM D2487.
  6. Soils Class G:
    - a. ASTM D2487.
- C. In addition to the above, furnish a soil analysis of Soil Class F:
1. Analyze for the following:
    - a. pH
    - b. Phosphorus
    - c. Potassium
    - d. Soluble Salts
    - e. Calcium
    - f. Magnesium
- D. Source sample all soils and aggregates in accordance with ASTM D75.
- E. Perform one (1) acceptable test for each type of material at each source.

1.05 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals.
  - 1. Test reports.
  - 2. Soils analysis including recommendations for fertilizer type and application.
  - 3. Daily delivery tickets with each load.

**PART 2 - PRODUCTS**

2.01 ENGINEERED SOILS AND AGGREGATES (SOIL CLASS A)

A. General

- 1. Material shall be clean, sound, hard, dense, durable, field or quarry stone which is free from seams, cracks, or other structural defects. It shall be angular material from shot rock (blasted) or crushed rock having substantially all face of which have resulted from artificial crushing.
- 2. Loss due to sulfate soundness test shall not exceed 10 percent.
- 3. Loss due to abrasion test shall not exceed 40 percent.

B. Gradation

1. Extra-Heavy Riprap	<u>Average Dimension Range For Each Riprap Inches</u>	<u>Fraction of Gross In-Place Volume Occupied by Stones Inches</u>
	>30	0%
	22-25	10%-14%
	18-22	15%-21%
	8-18	20%-28%
	<8	5%-7%
	<1	2% or less
2. Heavy Riprap	<u>Average Dimension Range For Each Riprap Inches</u>	<u>Fraction of Gross In-Place Volume Occupied by Stones Inches</u>
	>25	0%
	18-20	10%-14%
	14-18	15%-21%
	6.5-14	20%-28%
	<6.5	5%-7%
	<1	2% or less
3. Medium Riprap	<u>Average Dimension Range For Each Riprap Inches</u>	<u>Fraction of Gross In-Place Volume Occupied by Stones Inches</u>
	>20	0%
	14-16	10%-14%
	11-14	15%-21%
	5-11	20%-28%
	<5	5%-7%
	<1	2% or less

4.	Light Riprap	<u>Average Dimension Range For Each Rip Rap Inches</u>	<u>Fraction of Gross In-Place Volume Occupied by Stones Inches</u>
		>16	0%
		11-13	10%-14%
		9-11	15%-21%
		4-9	20%-28%
		<4	5%-7%
		<1	2% or less
5.	Soil Class A-3 (Breaker Run Rock or 6" Crushed Rock)	<u>Sieve Size</u>	<u>% Passing by Weight</u>
		7-inch	100
		6-inch	90
		4-inch	75
		3-inch	10
6.	Soil Class A-5 (2½-inch Crushed Rock - ASTM D448-No.2)	<u>Sieve Size</u>	<u>% Passing by Weight</u>
		3-inch	100
		2½-inch	90-100
		2-inch	35-70
		1½-inch	0-15
		¾-inch	0-5
7.	Soil Class A-6 (1½-inch Crushed Rock - ASTM D448-No. 4)	<u>Sieve Size</u>	<u>% Passing by Weight</u>
		2-inch	100
		1½-inch	90-100
		1-inch	20-55
		¾-inch	0-15
		3/8-inch	0-5
8.	Soil Class A-7 (¾ -inch Crushed Rock - ASTM D448-No. 67)	<u>Sieve Size</u>	<u>% Passing by Weight</u>
		1-inch	100
		¾-inch	90-100
		3/8-inch	20-55
		No. 4	0-10
		No. 8	0-5
9.	Soil Class A-8 (3/8-inch Crushed Rock Chips - ASTM D448-No. 8)	<u>Sieve Size</u>	<u>% Passing by Weight</u>
		½-inch	100
		3/8-inch	85-100
		No. 4	10-30
		No. 8	0-10
		No. 16	0-5

## 2.02 ENGINEERED SOILS AND AGGREGATES (SOIL CLASS B)

### A. General

1. Shall be hard, strong, durable particles free from seams, cracks, and other structural defects.
2. Rounded to subangular.
3. Free from organic impurities and debris.

B. Gradation

1. Soils Class B-1 (Coarse Aggregate - ASTM C33 - No. 3)

<u>Sieve Size</u>	<u>% Passing by Weight</u>
2½-inch	100
2-inch	90-100
1½-inch	35-70
1-inch	0-15
½-inch	0-5

2. Soil Class B-2 (Coarse Aggregate - ASTM C33 - No. 7)

<u>Sieve Size</u>	<u>% Passing By Weight</u>
¾-inch	100
½-inch	90-100
⅜-inch	40-70
No. 4	0-15
No. 8	0-5

3. Soil Class B-3 (Fine Aggregate - ASTM C33)

<u>Sieve Size</u>	<u>% Passing by Weight</u>
⅜-inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	10-30
No. 100	2-10

4. Soil Class B-4 (Masonry Sand - ASTM C144)

Percent Passing

<u>Sieve Size</u>	<u>Natural Sand</u>	<u>Manufactured Sand</u>
No. 4	100	100
No. 8	95 to 100	95 to 100
No. 16	70 to 100	70 to 100
No. 30	40 to 75	40 to 75
No. 50	10 to 35	20 to 40
No. 100	2 to 15	10 to 25
No. 200	---	0 to 10

2.03 ENGINEERED SOILS AND AGGREGATES (Soil Class C)

A. General

1. Shall be hard, durable, granular material of uniform quality resulting from crushed rock or crushed bank run sand and gravel.
2. Shall be free from clay lump, organic matter, shale, excess, elongated, or flat pieces, and other deleterious substances.
3. Forty-five percent of the particles retained on a No. 4 sieve shall have at least one fractured face.
4. Wear shall not exceed 50 percent.
5. Loss due to sulfate soundness test shall not exceed 18 percent by weight.
6. Total moisture content shall not exceed 7 percent.
7. Filler for blending shall have a maximum liquid limit of 25 percent and a maximum plasticity index of six.

B. Gradation

1. Soil Class C-1 (Crushed Stone)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1½-inch	100
3/8-inch	30-65
No. 4	25-55
No. 10	15-40
No. 200	2-12

2. Soil Class C-2 (Crushed Stone)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1-inch	100
3/8-inch	40-75
No. 4	25-60
No. 10	15-45
No. 200	3-12

3. Soil Class C-3 (Crushed Stone)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1-inch	100
¾-inch	95-100
3/8-inch	50-90
No. 4	35-70
No. 10	15-55
No. 200	5-15

4. Soil Class C-4 (Crushed Gravel)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1½-inch	100
1-inch	75-100
3/8-inch	40-75
No. 4	30-60
No. 10	20-45
No. 40	10-30
No. 200	3-10

5. Soil Class C-5 (Crushed Gravel)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1-inch	100
3/8-inch	50-85
No. 4	35-65
No. 10	25-50
No. 40	10-30
No. 200	3-10

6. Soil Class C-6 (Crushed Gravel)

<u>Sieve Size</u>	<u>% by Weight Passing</u>
1-inch	100
¾-inch	95-100
3/8-inch	50-90
No. 4	35-70
No. 10	20-55
No. 40	10-35
No. 200	8-15



## 2.04 BANK RUN SOILS

### A. Soil Class D-1 and D-2

1. Shall be rounded or subangular material resulting from pit run or crushed material.
2. Shall be free from clay lumps, organic matter, and deleterious substances.
3. One hundred percent by weight shall pass a 3-inch sieve.
4. Maximum liquid limit shall be 25 percent and maximum plasticity index shall be six.
5. The portion of material, which passes a No. 4 sieve, shall conform to the following gradation:

<u>Sieve Size</u>	<u>Maximum % by Weight Passing</u>	
	<u>Grade D-1</u>	<u>Grade D-2</u>
No. 4	100	100
No. 40	75	---
No. 100	15	30
No. 200	8	15

### B. Soil Class D-3 (Sand)

1. Well graded, unwashed bank run or crushed bank run, which is free from clay lumps, organic matter, and other deleterious substances with gradation as follows:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
1/4-inch	100
No. 4	90-100
No. 10	45-90
No. 40	15-45
No. 200	0-10

### C. Soil Class E-1 (Clay Soil)

1. Minimum 50 percent by weight passing the No. 200 sieve.
2. For the fraction passing the No. 40 sieve, the minimum plasticity index shall be 15.
3. Minimum Atterberg liquid limit of 30.
4. Free from organic material, boulders, cobbles, excessive amounts of gravel (greater than 1/4-inch), and other deleterious substances.

### D. Soil Class F-1 (Topsoil)

1. Topsoil shall be defined as the upper soil horizon consisting of mineral layers of maximum humus (organic) accumulation.
2. Topsoil shall:
  - a. Have adequate mineral content to support the growth of the vegetation intended to be established.
  - b. Have one of the following SCS (Soil Conservation Service) soil textures: loam, sandy loam, silt loam, silty clay loam, or clay loam.
  - c. Be free from herbicides, which would be detrimental for the intended use.
  - d. Have adequate fertility for quick establishment of vegetation.
  - e. Shall be neither excessively acid nor excessively alkaline.
  - f. Shall be free from deleterious substances.

### E. Soil Class G-1 (Clean Earth Fill)

1. Soil Class G-1 shall be any soil material excavated on the project site or obtained from borrow areas.
2. Soil materials unsuitable and, therefore, not approved for this classification are:

- a. Soils with high organic contents such as: topsoil, peat, muck, organic silts, and clays, marls, etc.
- b. Macadam or rubble filled soils containing such materials as: foundry sand, fly ash cinders, asphalt, and concrete rubble, etc.
- c. Silty soils such as: rock flour, loess, etc.
- d. Soils with gravel larger than 3-inch.
- e. Silty clay or clays with a high plasticity (CH soils as defined in ASTM D2487).
- f. All soil contaminated with hazardous waste materials as defined by the EPA.

F. Soils Class G-2 (Clean Earth Fill)

1. Same as G-1 above except shall not contain gravel larger than 3-inch.

2.05 MANUFACTURED AND SPECIAL SOILS

A. Soil Class J-1 (Agricultural Limestone)

1. Conform to ASTM C602.
2. Ground or crushed limestone.
3. Neutralization index of not less than 40 or more than 109.
4. Meet the following gradation:
  - a. Passing a No. 4 sieve - 100 percent.
  - b. Passing a No. 10 sieve - 90 to 100 percent.
  - c. Passing a No. 50 sieve - 50 to 100 percent.

B. Soil Class J-2 (Hydrated Lime)

1. Shall consist of essentially calcium, hydroxide, or a mixture of calcium hydroxide, magnesium oxide, and magnesium hydroxide.
2. Dry powder obtained by treating quick lime with enough water to satisfy its chemical affinity for water under the conditions of its hydration.
3. Hydrated lime shall conform to the requirements of ASTM C207, Type N or S.

**PART 3 - EXECUTION**

3.01 APPLICATION

- A. Use the soil classification name as called for in specifications or on drawings.
- B. Place material in accordance with the plans and appropriate specification sections for the type of work being performed.

- END OF SECTION -

## SECTION 31 05 19.13

### NON-WOVEN GEOTEXTILE

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Work Included: This section consists of everything necessary to deliver and install a non-woven geotextile as specified in the contract documents.
- B. Related Sections:
1. Applicable provisions of the General Condition and Special Conditions of the Contract shall govern the work in this section.
  2. Section 01 32 19, Submittals
  3. Section 31 23 33, Trenching, Backfilling and Compacting
  4. Section 31 05 13.42, Earthwork
  5. Section 31 05 19.16.3, Linear Low Density Polyethylene Geomembrane
  6. (Project specific per Engineer/Designer)

##### 1.02 DELIVERY, STORAGE, AND PROTECTION

- A. Transportation of the geotextile is the responsibility of the Contractor. All handling on site is the responsibility of the Contractor. The Engineer will monitor the Contractor as it relates to:
1. The on-site handling equipment being sufficiently adequate to minimize risk of damage to the geotextile;
  2. The Contractor's personnel handling the geotextile with care.
  3. Upon delivery at the site, the Contractor, in the presence of the Engineer (acting as an observer), will inspect exposed roll surfaces for defects and/or damage. This visual observation should be conducted without unrolling (unfolding) rolls unless defects or damages are found on the surface or suspected. The Engineer will document the following:
    - a. That the rolls are tagged with the proper identification, including roll numbers and applicable testing methods;
    - b. Rolls or portions thereof, which in the opinion of the Engineer should be rejected and removed from the site because of visually obvious flaws;
    - c. Rolls that include flaws, which may be repairable.
- B. The Contractor will provide the Engineer with all relevant information from the tags that have been attached to each roll.
- C. On-site geotextile storage is the responsibility of the Contractor. Storage space will be reasonably protected from theft, vandalism, passage of vehicles, etc., but the Contractor is solely responsible for the security and quality of the geotextile until the geotextile is accepted by the Owner.
- D. During shipment and storage, geotextile shall be protected from ultraviolet light exposure, precipitation, mud, dirt, dust, puncture, cutting or any other damaging or deleterious conditions.
- E. Consistent with these objectives, geotextile rolls shall be shipped and stored in relatively opaque and watertight wrappings. The Contractor shall be responsible for proper on-site storage of geosynthetic materials.

### 1.03 WORK SEQUENCE

- A. The Contractor shall be responsible for determining the best sequence for installing the geotextile. The Contractor shall submit this sequence to the Engineer for review and approval a minimum of 30 days prior to installing the geotextile.

### 1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals:
1. Manufacturer technical and catalog data, including assembly procedure and materials of construction.
  2. Installation procedures
  3. Two (2) 8" x 10" samples of each type of geotextile fabric to be used.

## **PART 2 - PRODUCTS**

### 2.01 GEOTEXTILE

- A. Geotextile
1. Geotextile materials shall be the weights shown on the contract drawings and shall meet the requirements of Table 1.

**Table 1  
Geotextile Properties and Minimum Test Frequency**

<b>PROPERTY</b>	<b>TEST METHOD</b>	<b>Type DF Drainage Filtration</b>	<b>Type SAS Subgrade Aggregate Separation</b>	<b>Type R Rip Rap</b>	<b>Type HR Heavy Riprap</b>
<b>MECHANICAL</b>					
Tensile Strength (Grab)	ASTM D-4632	110 lbs.	170 lbs.	205 lbs.	305 lbs.
Elongation	ASTM D-4632	50%	50%	50%	50%
CBR Puncture	ASTM D- 6241	310 lbs.	460 lbs.	525 lbs.	825 lbs.
Trapezoidal Tear	ASTM D-4533	50 lbs.	75 lbs.	80 lbs.	115 lbs.
<b>ENDURANCE</b>					
UV Resistance % Retained at 500 hrs	ASTM D-4355	70%	70%	70%	70%
<b>HYDRAULIC</b>					
Apparent Opening Size (AOS) <sup>3</sup>	ASTM D-4751	70 US Std. Sieve	70 US Std. Sieve	80 US Std. Sieve	100 US Std. Sieve
Permittivity, Minimum	ASTM D-4491	1.7 sec <sup>-1</sup>	1.4 sec <sup>-1</sup>	1.35 sec <sup>-1</sup>	1.0 sec <sup>-1</sup>
Water Flow Rate, Minimum	ASTM D-4491	120 gpm/ft <sup>2</sup>	100 gpm/ft <sup>2</sup>	90 gpm/ft <sup>2</sup>	75 gpm/ft <sup>2</sup>

- B. Selected samples of the stored geotextile sheet material may be obtained by the Engineer for laboratory testing to document that the geotextile material tested satisfies the minimum material property requirements established in this section.

## **PART 3 – EXECUTION**

### 3.01 SURFACE PREPARATION

- A. The Contractor shall prepare the subgrade for the geotextile. Once complete, the Engineer shall examine the surface, and verify the adequacy of the subgrade. When the Engineer deems the surface acceptable, the Contractor may proceed with the placement of overlying materials.
- B. At any time during installation of the geotextile, the Engineer shall inform the Owner of any subgrade areas that are unacceptable. Such defects in the subgrade shall be promptly corrected by the Contractor such that repaired areas meet the project specifications and/or manufacturer's requirements.

### 3.02 ROLL INSPECTION

- A. Prior to placement, rolls shall be inspected for damage and defects by both the Engineer and Contractor.

### 3.03 ROLL DEPLOYMENT

- A. Geotextiles shall be handled in such a manner as to ensure they are not damaged. On slopes, geotextiles shall be anchored in the anchor trench; then rolled down the slope in such a manner as to minimize wrinkles.
- B. In the presence of wind, the materials shall be weighted with sandbags until final covers are installed. Care shall be taken to ensure that any underlying liners/layers are not damaged during placement of geotextiles.
- C. Care shall be taken to ensure that stones, mud, dirt and debris are not entrapped beneath the geotextile during placement and seaming operations that cause damage.
- D. The geotextile shall be placed over the entire area identified on the drawings.
- E. Geotextiles shall be cut using a geotextile cutter (hook blade) only. If in place, special care shall be taken to protect other materials from damage that could be caused by the cutting of the geotextiles.
- F. A visual examination of the geotextile shall be carried out over the entire surface, after installation, to verify that no potentially harmful foreign objects, such as needles, are present.

### 3.04 SEAMING

- A. Geotextile shall have a minimum 18-inch overlap.
- B. Contractor shall ensure that no earth cover material could be inadvertently inserted beneath the geotextile.
- C. The Engineer shall observe and document that the panel overlap meets the project specifications and that there are no excessive folds or wrinkles in the geotextile.

### 3.05 DAMAGE AND REPAIRS

- A. Any holes or tears in geotextiles shall be repaired by patching with the same geotextile materials. The patch shall be overlapped a minimum of 36 inches larger than the area to be repaired in all directions.

- B. Care shall be taken to remove any soil, object, or and other material which penetrated or tore the geotextile.
- C. The Contractor shall document that any holes or defects were repaired.

**PART 4 – MEASUREMENT AND PAYMENT**

4.01 GENERAL

- A. Work under this section shall be incidental to the project or paid for as shown in the bid schedule.

- END OF SECTION -

## SECTION 31 11 00

### SITE CLEARING

#### **PART 1 - GENERAL**

##### 1.01 SUMMARY

- A. Work Included: This section includes all work associated with site clearing.
- B. Related Sections and Divisions:
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. Section 01 32 19, Submittals.
  - 3. Section 01 57 14, Erosion Control.
  - 4. Section 31 05 13.20, Soils and Aggregates.

#### **PART 2 - PRODUCTS**

##### 2.01 MATERIALS

- A. Topsoil as referred to in this section shall be a soil material as defined by Soil Class F-1, in accordance with Section 31 05 13.20, Soils and Aggregates.

#### **PART 3 - EXECUTION**

##### 3.01 PREPARATION

- A. Contractor shall identify existing plant life to remain and tag accordingly in the presence of the Engineer.

##### 3.02 PROTECTION

- A. Contractor shall protect from damage utilities and structures that are to remain.
- B. Contractor shall protect all trees, plants and features designated to remain as final landscaping.
- C. Protect all survey monuments.

##### 3.03 CLEARING, GRUBBING, AND DISPOSAL

- A. Select Clearing  
Remove all brush, shrubs, stumps, and trees to within 4 inches of the existing ground surface where designated by the Owner's representative.
- B. Grubbing
  - 1. Remove all stumps, roots, logs, and timber.
  - 2. Grubbing shall be carried to a minimum depth of 12 inches.

C. Disposal

1. The Owner reserves right to all excess top soil, if desired.
2. Contractor is responsible for the following:
  - a. Disposal of all material removed under clearing and grubbing if not wanted by the Owner.
  - b. Furnishing of a disposal site.
  - c. Obtain and conform to all necessary, federal, state, and local permits for burning and/or burial of material.
  - d. Conform to all requirements for disposal of diseased trees.
  - e. If permits are not required, Contractor shall comply with the following requirements:
    - 1) Open burn in a manner as not to damage adjacent trees, shrubs, property, impede traffic, or create a nuisance.
    - 2) Cover disposal material in a manner that shall minimize future cover settlement.
    - 3) Maintain a minimum of 2 feet of soil cover.

D. Clearing operations shall be completed in a manner so as to prevent obstruction of traffic and to protect all remaining trees, shrubs, and other vegetation from injury.

3.04 TRIMMING

A. With permission from the Engineer, the Contractor may trim overhanging branches or limbs that interfere with the construction operation. All branches damaged during construction shall be neatly trimmed.

3.05 STRIPPING AND STOCKPILING TOPSOIL

A. Stripping

1. Remove all topsoil beneath:
  - a. Structures.
  - b. Roadways.
  - c. All paved areas.
2. Remove topsoil to a depth of 6 inches in:
  - a. Areas disturbed by utility construction.
  - b. Areas requiring cuts or significant fills (significant fills are fills which cannot be obtained by the addition of topsoil only).

B. Stockpiling

1. Contractor shall stockpile topsoil obtained in the stripping operation for replacement.
  - a. For areas where topsoil is to be replaced after underground utility construction.
  - b. For areas involving site grading where topsoil is to be replaced in order to sustain vegetative growth.
2. In areas where topsoil will not be required as specified above, Contractor shall remove and dispose of excess material as defined in other sections.

- END OF SECTION -



## SECTION 31 12 00

### WOODY DEBRIS

#### PART 1 – GENERAL

##### 1.01 DESCRIPTION OF WORK

- A. All reference to woody debris in these Special Specifications shall refer to logs and logs with root wads placed in the channel bed and banks.
  - 1. Woody debris shall be anchored as shown on the Plans and specified hereinafter.
  - 2. The Contractor shall provide all labor, materials, and equipment necessary for the installation of woody debris. Locations for woody debris shall be as indicated on the Plans.

##### 1.02 QUALITY CONTROL

- A. The number and location of logs and logs with root wads are indicated on the Plans. Trunk diameter shall range from 10-18 inches, and trunk length shall range from 15-25 feet. The root wad shall consist of stout roots, such that roots of minimum 2-inch diameter shall form a root wad at least 4 ft in diameter. All twigs and branches (except for the roots) shall be removed to stubs no longer than two inches. Woody debris shall consist of on-site or locally cleared tree species subject to approval by the Engineer. Large woody debris must be free from rot or decay.
- B. Notify the Engineer of the location of intended sources of materials at least 2 weeks before material is required for use.
- C. The Contractor shall submit the following information to the Engineer and gain approval prior to hauling large woody debris to the project site.
  - 1. Tree species and source of large woody debris.
  - 2. Diameter of woody debris.
  - 3. Length of woody debris.

##### 1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals including the following:
  - 1. Product literature and catalog cut sheets of materials to be supplied that relate to these specifications.
  - 2. One copy of all test reports.

#### PART 2 – MATERIALS

##### 2.01. LOGS AND LOGS WITH ROOTWADS

- A. Logs and rootwads shall be white pine, red pine, cedar or oak at least 30 feet in length measured from base to top. Alternative species must be pre-approved by the Engineer prior to acquisition.
- B. Diameter at breast height shall be a minimum of 15 inches.
- C. Logs should be cleaned of secondary branches and include only the main trunk and any associated forks.

- D. At least 50% of the total number of logs required must contain intact rootballs.
- E. Logs should be recently harvested or in a 100% rot free condition.
- F. Any deviation in size, species or quality must be pre-approved by the Engineer.
- G. Rootwads shall be a minimum of 4 feet in diameter.

#### 2.02. DEADMAN

- A. Buried Deadman shall be fabricated from either salvaged or imported logs, and shall be a minimum of 10 feet long and 10 inches in diameter.

#### 2.03. SNAGS

- A. Snags shall be fabricated from either salvaged or imported logs, and shall be a minimum of 15 feet long and 15 inches in diameter.

#### 2.04. CABLE AND CLAMPS

- A. Cable shall be ½ inch galvanized steel core cable. Clamps shall be standard U-shaped, double screw end galvanized steel clamps to fit ½” diameter steel cable.

### **PART 3 – INSTALLATION**

#### 3.01 GENERAL REQUIREMENTS

- A. Installation of Large Woody Debris will follow a “fit in the field” approach as assisted by the Engineer and in the Plans.
- B. Logs will be placed in two typical installations:
  - 1. Complexes of several logs will be buried in the bank toe and partially protrude from the bank into the stream. Placement shall be through excavating trenches or pushing the woody material directly into the soil. Placement will require consideration of cabling requirements.
  - 2. Individual logs will be partially buried into the floodplain surface. Placement will be through excavating a pit to place buried deadman or snags, or pushing the woody material directly into the soil. Placement will require consideration of cabling requirements.
- C. To facilitate efficient movement of logs, the contractor shall provide a track excavator with a hydraulic thumb attachment.
- D. Large Woody Debris will be placed and ballasted according to the Drawings and the direction of the Engineer. Ballast will consist of burial and embedment into soil, and cabling to other logs, buried snags and buried deadman anchors.

### **PART 4 – MEASUREMENT AND PAYMENT**

#### 4.01 UNIT COST BASIS

- A. Payment for the work described in this section will be made on the basis of per piece of large woody debris installed, which shall include excavation, subgrade preparation, deadman and buried snag installation, cabling and log installation, complete and in place. Payment shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing large woody debris completely as shown on the Drawings, and as specified in these specifications, and as directed by the Engineer.

- END OF SECTION -

## SECTION 31 23 16

### EARTHWORK

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Work in this section shall include but not be limited to the following:
1. Excavation.
  2. Test rolling.
  3. Filling and compacting.
  4. Backfilling around structures.
  5. Disposal of surplus materials.
  6. Finish grading.
- B. Related Sections & Divisions:
1. Section 31 11 00, Site Clearing
  2. Section 32 90 00, Landscaping

##### 1.02 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)
1. D4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
  2. D1140 Test for Amount of Material in Soils Finer than the No. 200 Sieve
  3. D1556 Test for Density of Soil in Place by the Sand-Cone Method
  4. D1557 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-Lb (4.54 kg) Rammer and 18 in. (457 mm) Drop
  5. D2216 Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures
  6. D2922 Test for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
  7. D3017 Test for Moisture Content of Soil and Soil-Aggregate by Nuclear Method (Shallow Depth)

##### 1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals:
1. Two (2) copies of testing data of laboratory tests to the owner's representative.
  2. Two (2) copies of testing data of tests performed by Contractor to the Owner's representative.

##### 1.04 DENSITY TESTING

- A. The Contractor shall secure the services of an established independent Soils Engineer/laboratory for services.
- B. The laboratory selection shall be subject to the approval of the Owner's Representative.
- C. Testing Requirements

1. Source Testing:
  - a. Test all select soils and aggregates for acceptance as required by Section 31 05 13, Soils and Aggregates.
2. Installation Testing:
  - a. Determine maximum density and optimum moisture content for compaction in accordance with ASTM D1557 (one test for each type of material for each source).
  - b. Conduct field density tests in accordance with ASTM D1556 and/or D2922 and D3017.
  - c. Minimum frequency for field density testing shall be two (2) acceptable tests per project or as follows, whichever number is greater:

<b>Fill Utilized For:</b>	<b>Number of Acceptable Tests for Each Class or Fill:</b>
Embankments, dikes or berms	1 test per 600 cubic yards
Structural or controlled fills	1 test per 1,500 square feet, minimum of 1 test per lift
Trench backfill under paved or surfaced areas greater than 15' depth	1 test per 100 feet of trench or any portion thereof, in the lower 1/4, each middle 1/4, and upper 1/4 of backfill
Trench backfill under paved or surfaced areas less than 15' depth	1 test per 100 feet of trench or any portion thereof, in the lower 1/3, middle 1/3, and upper 1/3 of backfill
Lateral trench backfill	1 test per 100 feet of trench with a minimum of 1 test location per trench in the lower 1/3, middle 1/3, and upper 1/3.
Non-structural fills	1 test per 2,000 cubic yards

3. Additional Density Testing:
  - a. Perform under following circumstances:
    - 1) Soil density does not meet project requirements.
    - 2) Change in method of compaction.
    - 3) Change in source or quality of soil or aggregate.
    - 4) Disturbed cut areas.

D. The Contractor shall be responsible for the cost of all testing.

E. When the testing results show that the work is of an acceptable nature, the acceptance of the work shall not relieve the Contractor from making corrections to the tested work during the warranty period.

## **PART 2 – PRODUCTS**

### 2.01 SOIL MATERIALS

- A. Soil used for borrow, fill, and backfilling shall meet the requirements of soil class as called for on plans or in specifications.
- B. As a minimum, all soil shall meet the requirements of Soil Class G-1.
- C. All soil classes shall be as per Section 31 05 13, Soils and Aggregates.

## **PART 3 – EXECUTION**

### 3.01 EXCAVATION

#### A. Excavation to Correct Grade

1. Excavate site of structures and pavements as follows:
  - a. To elevation shown on the plans.
  - b. To such additional width as necessary for erection and removal of forms, shoring or sheeting, and finishing of walls.
2. Excavation of unsuitable materials.
  - a. Excavate unsuitable soil materials under a proposed structure.
  - b. Excavation shall extend lateral a minimum of 5 feet beyond the building limits plus 1 foot for each foot of cut below the foundation.
  - c. Notify the Owner's project representative prior to proceeding with their removal of unsuitable material.

#### B. Borrow Excavation

1. Clear site in accordance with Section, 31 11 00, Site Clearing.
2. Strip and stockpile topsoil.
3. Excavate, haul, place, and compact borrow soil material.
4. Regrade borrow areas as shown on the plans or in an acceptable manner to facilitate proper site drainage.
5. Replace stockpiled topsoil.
6. Surplus topsoil may be utilized in borrow area regarding.
7. Seed and mulch in accordance with Section 32 90 00, Landscaping.

#### C. Rock Excavation

1. All hard, solid rock ledges, bedded deposits and unstratified masses and all conglomerate deposits or any other material so firmly cemented that, in the opinion of Engineer, it is not practical to excavate and remove same with a nominal 75,000 pound backhoe equipped with rock points or similar approved equipment, except after continuous drilling and blasting, mechanical hammer, or rock trenching. Soft or disintegrated rock, shales, hard pan, masonry and concrete rubble, boulders less than two (2) cubic yards, which can be removed with a pick; loose, shaken or previously broken rock; and rock which may fall into the excavation from outside the limits of excavation will not be classified as rock excavation.
2. Rock excavation shall also include removal and disposal of all boulders having a volume of two cubic yards or greater. Rock boulders two cubic yards or greater shall be paid for at the unit price of \$100.00 per cubic yard as measured by the Engineer or the Owners representative.

#### D. Excavation Precautions

1. Excavation slope stability.
  - a. Maintain excavation slope to ensure a stable excavation and prevent caving.
  - b. Provide and erect all timber work, shoring, sheeting, bracing, etc. necessary to prevent caving and displacement of adjacent property.
    - 1) Shoring shall be placed so as not to interfere with building work.
    - 2) Shoring shall be independent of footings.
2. Underpinning existing structures.
  - a. Underpin as necessary to protect existing structures and foundations.

- b. Furnish all material, labor, and equipment necessary to complete underpinning operations.
- 3. Dewatering of excavations.
  - a. Contractor shall provide and maintain all equipment necessary to keep excavated areas free of all groundwater, surface water, or precipitation.
  - b. Soil which becomes soft, yielding, or loses support due to inadequate dewatering efforts shall be dealt with as follows:
    - 1) Excavate disturbed soil materials for their entire depth.
    - 2) Replace excavated materials with an approved fill material.
- 4. Protect excavation from freezing.
  - a. Take precautions necessary to prevent frost from entering subgrade soils.
  - b. If subgrade becomes frozen, remove snow, ice, and frozen soil prior to placement of additional fill or finish surfacings.

3.02 FILLING AND COMPACTING

- A. Layer thickness for fill soil shall be as follows:
  - 1. Layer thickness shall be dependent on the soil classification type, weight, and soil contact pressure of compaction equipment being used.
  - 2. Layer thickness shall not exceed 8 inches.
- B. Compaction
  - 1. Compaction method for fill soils shall be appropriate for soil material being compacted and provide sufficient soil contact pressure to thoroughly compact entire lift thickness.
- C. Proper soil moisture contents for compaction shall be maintained in all soils.
  - 1. Optimum moisture content as determined by Modified (ASTM D1557) Proctor shall be used to determine acceptance moisture contents for soil compaction.
  - 2. Contractor shall scarify and compact existing ground prior to placing fill material.
- D. Compaction requirements for all fill soils unless specified elsewhere shall be as follows:

Class 1 -Fills supporting structures.  
 - Subgrade under pavements or floors.  
 - Backfill under piping and conduits.

Class 2- Fills which do not support structures.

**COMPACTION REQUIREMENTS FOR  
VARIOUS SOIL CLASSES**

Soil Class	Required Compaction (%) of Modified Proctor Density	
	Class 1	Class 2
B-3 through B-4	95	90
C-1 through C-6	95	90
D-1 through D-3, and G-1 and G-2	95	90
E-1	95	90

3.03 TEST ROLLING

- A. The following testing services shall be provided:
  - 1. The subgrade condition and elevation shall be checked by the Engineer prior to placement of fill material. The subgrade will be proof rolled using a tandem axle dump truck fully loaded with fill material to the maximum legal weight limit. The fill condition and elevation shall be checked by the Engineer prior to placement of subsequent courses.
- B. Treat areas showing yielding or rutting under test rolling as follows:
  - 1. Replace and/or recompact as necessary to stabilize the area.
  - 2. Retest soil areas replaced or recompact.

### 3.04 BACKFILLING AROUND STRUCTURES

- A. Do not backfill any foundation, wall, or structure prior to inspection by the Engineer.
- B. Backfilling under pipes or conduits in areas excavated due to construction.
  - 1. Contractor shall furnish and compact Soil Class A-7 under all piping or conduits.
    - a. Compact fill shall extend from undisturbed earth to grade.
    - b. Place and compact fill in all areas disturbed by construction.

### 3.05 DISPOSAL OF SURPLUS MATERIALS

- A. The Owner shall have prior claim to all surplus excavated material. If such claim is exercised by the Owner, the material shall be deposited at such points as may be directed by the Engineer at the expense of the Contractor, the haul not to exceed two (2) miles. If Owner does not desire to claim surplus excavated material, the Contractor shall be totally responsible for obtaining a disposal site. No material shall be disposed of in a floodplain, wetland or waterway.

After delivery to any designated location, such material shall be leveled off by the Contractor.

### 3.06 FINISH GRADING

- A. Grade, trim, and shape subgrade to required grade and section.
  - 1. Adjust slopes by grading so that transition is smooth and gradual.
  - 2. The crests of cut banks shall be rounded and shaped.
  - 3. Washouts and ruts shall be refilled, regarded, and properly compacted.
  - 4. Remove all stones 3 inches or larger from grading limits.
- B. Vertical Grading Tolerances
  - 1. Rough grading tolerance.
    - a. Areas to be topsoiled – rough grade to within 0.2 foot of finish grades.
  - 2. Areas having paved surfaces (i.e., concrete, asphalt, etc.).
    - a. Maximum allowable variation from correct profile and section shall not be more than ¼-inch in 10 feet.

- END OF SECTION -



## SECTION 31 23 16.20

### CUTTING AND PATCHING (ROADWAYS)

#### **PART 1 - GENERAL**

##### 1.01 SUMMARY

- A. Work included: This section shall consist of the replacement and repair of pavement, including any existing patching or surfacing materials disturbed by construction. Work covered by this section shall include but not limited to the following:
1. Sawcutting of pavement edges.
  2. Removal of sidewalks, driveways and curb and gutter.
  3. Excavation, removal, and disposal of pavement material.
  4. Replace and compact subbase material.
  5. Replacement of pavement material in kind.
- B. Related Sections and Divisions:
1. Applicable provisions of the general conditions shall govern the work in this section.
  2. Section 31 23 16.10, Earthwork (Roadway Construction).
  3. Section 32 11 23, Crushed Aggregate Base Course (Roadway Construction).
  4. Section 32 12 16, Asphaltic Concrete Pavement.
  7. Section 03 21 00, Concrete Reinforcement.
  8. Section 03 21 10, Expansion and Contraction Joints.
  9. Section 03 33 03, Cast-In-Place Concrete, Street Work.
- C. All replacement of pavement material shall be performed by a contractor whose primary business is concrete or bituminous roadwork. The contractor shall be listed on the subcontractor list, included with the bid & approved by the Owner.

#### **PART 2 - PRODUCTS**

##### 2.01 MATERIALS

- A. Bituminous pavement, concrete and base material shall be equal in quality and kind as to the materials removed, unless otherwise specified.
- B. Materials shall be approved prior to installation.

#### **PART 3 - EXECUTION**

##### 3.01 PREPARATION

- A. Perform cutting and patching without injury to remaining adjacent pavement and concrete
- B. Unless indicated otherwise, roadway shall be kept open to all traffic during performance of work.

- C. Remove pavements, sidewalks, driveways and curb and gutter to the construction limits.
- D. Sawcut vertically all pavement, sidewalks, and driveways to a minimum depth of 3 inches prior to breaking.
- E. Remove all curb and gutter and sidewalks to nearest joint outside work area, or as directed by the Engineer.
- F. Sheet and brace trench walls if necessary to maintain cutting and patching within limits.
- G. At a minimum, replacement shall be a full-lane width patch (unless indicated otherwise on the plans).
- H. Subbase, base, pavement, sidewalks, driveways, and curb and gutter shall be prepared and placed in accordance with the plans and applicable specifications.
- I. Minimum thickness shall be as follows:
  - 1. Bituminous pavement shall be 3” unless otherwise shown on plans.
  - 2. Concrete pavement in roadways shall be 6” unless shown otherwise on plans.
  - 3. Concrete pavement in sidewalks shall be 4” unless shown otherwise on plans.
  - 4. Crushed aggregate basecourse shall be 12” unless shown otherwise on plans.

#### **PART 4 – MEASUREMENT AND PAYMENT**

- A. Work under this section shall be incidental to the project or paid for as shown in the bid schedule.

- END OF SECTION -

# 32

## DIVISION 32

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### EXTERIOR IMPROVEMENTS

## SECTION 32 90 00

### LANDSCAPING

#### PART 1 -GENERAL

##### 1.01 SUMMARY

- A. Work Included: This section includes the following:
1. Preparation of subsoil.
  2. Placing topsoil.
  3. Testing and correcting soil pH, if necessary.
  4. Seeding, sodding, mulching and fertilizing.
  5. Maintenance.
- B. Related Sections and Divisions:
1. Applicable provisions of the General Conditions shall govern work in this section.
  2. Section 01 32 19, Submittals.

##### 1.02 REFERENCES

- A. FS O-F-241 - Fertilizers, Mixed, Commercial.
- B. Association of Official Seed Analysis (AOSA).

##### 1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals:
1. Fertilizer certification from supplier including brand name and chemical analysis.
  2. Certification of conformance with AOSA attesting to seed mix, age, weed content, purity, and germination.
  3. Sample of mulch material upon request of Owner's representative.
  4. Sample of erosion mat and certification of its properties.

##### 1.04 QUALITY ASSURANCE

- A. Provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.
- B. Sod: Minimum age of 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding the upper two corners. Submit sod certification for grass species and location of sod source.

##### 1.05 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- B. Deliver sod on pallets or in rolls. Protect exposed roots from dehydration. Do not deliver more sod than can be laid within 24 hours.

- C. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

**PART 2 - PRODUCTS**

2.01 TOPSOIL

- A. Topsoil shall consist of the natural loam, sandy loam, silt loam, silty clay loam or clay loam humus-bearing soils adapted to the sustenance of plant life, and such topsoil shall be neither excessively acid nor excessively alkaline.
- B. 100 percent of the topsoil shall pass a one-inch sieve and at least 90 percent shall be a No. 10 sieve.

2.02 FERTILIZER

- A. Type A fertilizer shall meet the following minimum requirements:
  - 1. Nitrogen, not less than ..... 16%
  - 2. Phosphoric Acid, not less than ..... 6%
  - 3. Potash, not less than ..... 6%
  - 4. Sum of nitrogen, phosphoric acid and potash shall be not less than 32 percent. Total nitrogen shall be not less than the sum of the phosphoric acid and soluble potash.
- B. Type B fertilizer shall meet the following minimum requirements:
  - 1. Nitrogen, not less than ..... 16%
  - 2. Phosphoric Acid, not less than ..... 6%
  - 3. Potash, not less than ..... 24%
  - 4. Sum of nitrogen, phosphoric acid and potash shall be not less than 50 percent.

2.03 SEED

- A. Conform with the requirements of the governing authority for seeding and for restrictions on noxious weed seed.

B. Seed mixture shall be composed of seeds of the purity, germination, and proportion by weight as follows:

Species	Purity Minimum %	Germination Minimum %	Mixture Proportions (In Percent)				
			No. 10	No. 20	No. 30	No. 40	No. 60
Kentucky Bluegrass	98	85	40	6	10	35	--
Red Fescue	97	85	25	--	35	20	--
Hard Fescue	97	85	--	24	30	20	--
Tall Fescue	98	85	--	40	--	--	--
Salt Grass	98	85	--	--	10	--	--
Redtop	92	85	5	--	--	--	--
Timothy	98	90	--	--	--	--	12
Canada Wild Rye		Pure Live Seed <sup>(1)</sup>	--	--	--	--	10
Perennial Ryegrass	97	90	20	30	--	--	--
Improved Fine Perennial Ryegrass	96	85	--	--	15	25	--
Annual Ryegrass	97	90	--	--	--	--	30
Alsike Clover	97	90	--	--	--	--	4
Red Clover	98	90	--	--	--	--	4
White Clover	95	90	10	--	--	--	--
Japanese Millet	97	85	--	--	--	--	20
Annual Oats	98	90 <sup>(1)</sup>	--	--	--	--	20

<sup>(1)</sup> Substitute winter wheat for annual oats in fall plantings started after September 1.

C. No Mow seed shall consist of a blend of Creeping Red Fescue, Hard Fescue, Sheep's Fescue and Chewing Fescue, blend selected by the seed vendor.

D. Add 1½ bushels of oats per acre if seeded before July 15<sup>th</sup> or 1½ bushels of winter wheat if seeded after July 15<sup>th</sup> for cover crop.

## 2.04 MULCH

A. Mulch shall consist of straw or wood chips, which are free of noxious weeds and other objectionable foreign matter.

1. If wood chips are used, the mulch area shall be treated with one (1) pound of available nitrogen per 1,000 square feet.

B. Mulch binder shall conform to one of the following:

1. Emulsified asphalt shall meet the requirements for Type SS-1 AASHTO M140.
2. Terra Tack 1, or equal.

## 2.05 SOD

A. The sod shall consist of a dense, well-rooted growth of permanent and desirable grasses, indigenous to the general locality where it is to be used.

B. Sod shall meet the following general requirements:

1. Free from weeds and undesirable grasses.
2. Grass length of two (2) inches.
3. Cut in uniform strips 18" x 72".
4. Uniform thickness of 1½-inch or more.

5. Adequately watered to prevent crumbling, breaking or tearing during handling and placement.

## 2.06 HYDROSEEDING

- A. Provide a mix design suitable for the soil type, soil pH and slope conditions to be seeded. The mix design shall include the specified seed, fertilizer, a binding agent and/or tackifier and mulch to be utilized.
- B. Manufacturer: Central Fiber Corporation, Second Nature Wood fiber blend mulch, or equal.
- C. Include specified seed: temporary seed of oats or winter wheat, as specified, fertilizer, and hydroseed mulch

## 2.07 TEMPORARY EROSION CONTROL BLANKET (ECRM)

- A. Manufacturer: North American Green; American Excelsior Company, or equal.
- B. Material Class
  1. Class I, Type A, Urban for slopes 4:1 or less.
  2. Class I, Type B, Urban for slopes 2.5:1 or less.
- C. Anchoring Device
  1. Biodegradable stake or staple

## 2.08 LONG-TERM EROSION CONTROL BLANKET (ECRM)

- A. Manufacturer: North American Green, American Excelsior Company or equal.
- B. Material Class
  1. Class I, Type B, for slopes 2:1 or less and ditch slopes <2% and not to exceed 4% and not to exceed a shear stress of 1.5 lbs/ft<sup>2</sup>.
  2. Class II, Type B or C, for slopes 2:1 or less and ditch slopes not to exceed 6% that do not exceed a shear stress of 2.0 lbs/ft<sup>2</sup>.
  3. Class II, Type B, Urban for slopes 2.5:1 or less.
- C. Anchoring Device
  1. Biodegradable stake or staple

## 2.09 PERMANENT EROSION CONTROL BLANKET (TRM)

- A. Manufacturer: North American Green, American Excelsior Company, or equal.
- B. Material Class
  1. Class III, Type B, for slopes 2:1 or less and ditch slopes not to exceed 10% and that do not exceed a shear stress of 2.0 lbs/ft<sup>2</sup>.
  2. Class III, Type C, for slopes 2:1 or less and ditch slopes not to exceed 10% and that do not exceed a shear stress of 3.5 lbs/ft<sup>2</sup>.
  3. Class III, Type D, for slopes 1:1 or less and ditch slopes in excess of 10% and that do not exceed a shear stress of 5 lbs/ft<sup>2</sup>.

- C. Anchoring Device
  - 1. Steel pin or staple

## 2.10 LIMESTONE

- A. Limestone shall be ground agricultural limestone containing not less than 90% calcium carbonate and shall be ground to such a fineness that 50% shall pass a U.S. Standard Sieve No. 96 and 90% shall pass a U.S. Standard Sieve No. 100.
- B. Rates of application shall be as specified or as requested by the Engineer as a result of periodic soil testing and consultation with the district Soil Conservation Service.

## 2.11 ALUMINUM SULFATE

- A. Aluminum sulfate shall be unadulterated and delivered to the site in the manufacturer's original containers with name of the material, manufacturer's name and net weight clearly marked on each container. Aluminum sulfate shall be used only in a dry powdery state.
- B. Rates of application shall be as specified or as requested by the Engineer as a result of periodic soil testing and consultation with the district Soil Conservation Service.

## **PART 3 - EXECUTION**

### 3.01 TOPSOILING

- A. Topsoil all areas which are required to be seeded. Place topsoil to the following depth:
  - 1. Seeded areas: 4 inches when settled.
- B. Topsoil Placement In Rural Areas
  - 1. Place to required depth.
  - 2. Remove all rocks larger than 1½ inches.
  - 3. Remove all debris.
  - 4. Mechanically break down all clods and lumps.
  - 5. Mechanically level and rake prior to applying seed.
- C. Topsoil Placement For Seeding Lawns
  - 1. Mechanically level subgrade to allow uniform placement of topsoil.
  - 2. Remove rocks, roots, clods and other foreign material.
  - 3. Place topsoil to required depth.
  - 4. Mechanically level topsoil.
  - 5. Rake topsoil smooth and remove all lumps.
  - 6. Seed as required.

### 3.02 FERTILIZING AND LIMING

- A. Fertilize all areas to be seeded.
- B. Apply any required fertilizer and lime uniformly onto the surface of the prepared seedbed.
- C. When hydroseeders are not used, the fertilizer and lime shall be incorporated into the top 3 inches of the soil with suitable tillage equipment.



- D. Apply fertilizer at a rate determined as a result of periodic soil testing and consultation with the district Soil Conservation Service.
- E. Use type of fertilizer best suited for area.

3.03 SEEDING

- A. Selection of seed mixtures, rate of seeding and intended use of the mixtures will be as follows:

<b>Seed Mixture</b>	<b>Rate of Seeding (Lbs. per 1,000 sq. ft.)</b>	<b>Intended Use</b>
No. 10	1½	Average loam or heavy clay soils. All ditches, inslopes grass areas.
No. 20	3	Light, sandy or gravelly soils. All ditches, inslopes.
No. 30	2	In rural areas on cut and fill slopes exceeding 6 to 8 feet.
No. 40	4	In urban area or other areas where a lawn type turf is desired.
No. 60	½	Critical area stabilization. May be used in con-junction with mixture No. 10 and No. 20 on steep slopes.
No Mow	4	As noted on the drawings and bid schedule

- B. Seeding period shall be as recommended by the seed supplier.

C. Seeding

1. Utilize a machine or combination of machinery, which will produce the following:
  - a. Apply seed uniformly at the rate specified.
  - b. Cover seed with approximately ½ inch of topsoil.
  - c. Roll lightly.
  - d. Apply seed at right angles to surface drainage.

3.04 HYDROSEEDING

- A. Minimum application rate shall be 1,500 lbs per acre.
- B. The hydroseed mixture shall be agitated in the mixing tank for a minimum of 3 minutes prior to application.
- C. The mixture shall be blown into place within 2 hours of mixing.

### 3.05 MULCHING

#### A. General

1. Place a straw or hay mulch within 72 hours after seeding.
2. Do not place during high winds.
3. Place loosely enough to allow some sunlight penetration and air circulation, but thickly enough to shade ground, conserve moisture and reduce erosion.

#### B. The Contractor may elect to perform mulching in accordance with one of the following methods:

1. Method "A"
  - a. Spread mulch material uniformly by blowing in place to a loose depth of ½ to 1½ inches.
  - b. Mulching shall begin at tops of slopes and proceed down.
  - c. Anchor mulch with a biodegradable netting or twine secured with pegs or staples forming a six (6) to ten (10) foot grid.
2. Method "B"
  - a. Mulch shall be treated with emulsified asphaltic material and blown in place in one operation.
  - b. Mulch shall be blown uniformly to a depth of ½ to one inch.
  - c. Mulch shall be treated with emulsified asphalt at a rate of 75 to 100 gallons per ton.
3. Method "C"
  - a. This shall be the same as Method "A" except mulch will be anchored by impressing into the soil to a depth of 1½ to 2½ inches with a tiller in a single pass.

### 3.06 SODDING

#### A. Placing Sod

1. Moisten topsoil to loosened depth of three (3) inches.
2. Place sod within 24 hours after initially cut.
3. Laying sod strips
  - a. Lay sod so abutting end joints are not continuous.
  - b. Sod strips shall abut snugly against each other.
  - c. Sod shall be level with adjoining turf or grade.
  - d. Water and roll or lightly tamp sod immediately after placement.
  - e. At the limits of the sodded area, end strips shall be staggered.
  - f. At the end of all sod strips, turn sod into soil, cover with topsoil, and compact.
4. Laying sod on slopes and in waterways.
  - a. In waterways, place sod with longer dimension perpendicular to water flow.
  - b. On slopes, place sod with longer dimension parallel to the contours the ground.

#### B. Staking Sod

1. Stake sod in all waterways and on all slopes steeper than one (1) foot vertical to two (2) feet horizontal.
2. Stakes shall be wood lath minimum of twelve (12) inches long.

### 3.07 EROSION CONTROL BLANKET

#### A. Installation on all established lawn areas is required (or where otherwise shown on the plans).

1. Prepare soil including lime, fertilizer, and seed.

2. Roll out blanket in the direction of the water flow and overlap ends six inches in a shingle style.
  3. Anchor edges and ends in a 6-inch x 6-inch trench. Backfill and compact trench after stapling.
  4. Staking or Stapling.
  5. Install per manufacturer's instructions.
- B. Installation in Ditches (where shown on the plans).
1. Prepare soil including lime, fertilizer, and seed.
  2. Place a eight (8) foot wide roll centered on ditch flowline.
  3. Roll out blanket in the direction of the water flow and overlap ends six inches in a shingle style.
  4. Anchor edges and ends in a 6-inch x 6-inch trench. Backfill and compact trench after stapling.
  5. Staking or Stapling.
  6. Install per manufacturer's instructions.
- C. Installation on Slopes (where shown on the plans).
1. Prepare soil including lime, fertilizer, and seed.
  2. Place blankets down or across the slope.
  3. Seams which run down the slope shall be lapped a minimum of two (2) inches.
  4. Seams running across the slope shall be lapped a minimum of four (4) inches shingle style.
  5. Anchor the edges of the blanket in a 6-inch x 6-inch trench. Backfill and compact trench after stapling.
  6. Staking or stapling.
  7. Install per manufacturer's instructions.

### 3.08 APPLICATION

- A. The Contractor shall landscape all areas disturbed by construction activities on and adjacent to the construction site including:
1. Earthen stockpiles.
  2. Equipment parking areas.
  3. Areas disturbed from transporting equipment.
  4. Areas disturbed from storing materials.
- B. Apply landscaping procedures as follows:
1. Lawns
    - a. Topsoil
    - b. Seed
    - c. Fertilize
    - d. Temporary erosion control blanket
  2. Rural and unmowed areas
    - a. Topsoil
    - b. Seed
    - c. Fertilize
    - d. Mulch and mulch binder
  3. Stockpiles:
    - a. Seed and mulch.

- C. Apply erosion control blankets to the following:
  - 1. Ditch lines disturbed by construction as shown on the plans.
  - 2. Slopes 2:1 or greater.
  - 3. All disturbed areas lawn areas.
- D. Sod areas as shown on plans.

### 3.09 MAINTENANCE

- A. Maintain all seeded and sodded areas until the following conditions are met:
  - 1. Seeding has established a stand of grass which is uniform in density and color.
  - 2. Sodding has established a root system in to the sod bed.
  - 3. Landscaping is capable of resisting erosion.
- B. Watering of turf and repairing erosion shall be included in maintenance.
- C. Where vegetation has not been satisfactorily established. CONTRACTOR shall reseed such areas until suitable vegetation has been established.

### 3.10 MEASUREMENT AND PAYMENT

- A. Landscaping shall be incidental to the project.

- END OF SECTION -

# 33

## DIVISION 33

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### UTILITIES

## SECTION 33 41 13

### STORM SEWER AND DRAINAGE

#### **PART 1 - GENERAL**

##### 1.01 SUMMARY

- A. Work Included: This section includes storm sewer installation, materials and restoration.
- B. Related Sections and Divisions:
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. Section 01 32 19, Submittals.
  - 3. Section 01 57 14, Erosion Control
  - 4. Section 01 45 24, Testing and Inspection of Pipeline Construction.
  - 5. Section 31 23 33, Trenching, Backfilling and Compaction.
  - 6. Section 31 05 13, Soils and Aggregates.
  - 7. Section 40 05 13.10, Buried Piping and Appurtenances.
  - 8. Section 40 05 13.73, PVC Plastic Pipe.
  - 9. Section 32 90 00, Landscaping.

##### 1.02 REFERENCE STANDARDS

- A. ASTM: American Society for Testing and Materials
- B. AASHTO: American Association of State Highway and Transportation Officials

##### 1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01 32 19, Submittals including the following:
  - 1. Product literature and catalog cut sheets of materials to be supplied that relate to these specifications.
  - 2. One copy of all test reports.

#### **PART 2 - PRODUCTS**

##### 2.01 PIPE MATERIAL

- A. PVC Sewer Main
  - 1. Sizes 8-inch through 15-inch: ASTM D3034, SDR 35.
  - 2. Sizes 18-inch through 27-inch: ASTM F679.
  - 3. Joints: Elastomeric conforming with ASTM D3212.
- B. PVC Sewer Service
  - 1. Conform with ASTM D1784 and D1785.
  - 2. Sizes 6-inch: Schedule 40.
  - 3. Joints: Solvent weld conforming to ASTM D2855.
- C. Concrete Reinforced Pipe Sewer Main
  - 1. Conform to ASTM C76.
  - 2. Class III

3. Use "B" wall.
4. Joints: Bell and spigot conforming to ASTM C443 with rubber O-ring or rubber profile gaskets.
5. Provide Inserta Tee, Kor-N-Tee or equal for lateral connections.

D. Flared End Sections

1. Conform with ASTM C76.

## 2.02 MANHOLES

A. Precast Manholes

1. Conform with ASTM C478 for precast components.
2. Joints: Conform with ASTM C443.
3. Gasket: 1¼-inch by 1¼-inch thick butyl preformed tape conforming with AASHTO M198 for barrel sections.
4. Pipe to manhole sealant shall be Leakmaster LV1 or equal.

B. Adjusting Rings

1. Concrete adjusting rings shall be:
  - a. Minimum 4 inches thick.
2. Rubber adjusting rings shall be Infra-Riser as manufactured by GNR Technologies or equal.
3. Adjusting Ring & Casting Sealant.
  - a. Gasket shall be ½ -inch thick butyl conforming with AASHTO M198.

C. Cast-In-Place Manholes

1. Conform with drawing details.
2. Use only where called for on drawings.

D. Manhole Steps

1. ½-inch diameter grade 60 steel reinforcement rod encapsulated in copolymer polypropylene.
2. As manufactured by M.A. Industries, Inc., or equal.

E. Castings

1. Conform to ASTM A48, Class 35.
2. Manhole castings
  - a. Use Neenah R-1500.
  - b. Lid shall be non-rocking with open pick holes.

F. Manhole components shall be suitable for AASHTO H-20 loadings.

G. Sewer Joint Compound

1. Sewer joint compound shall be as manufactured by Pure Asphalt Company or equal.

## 2.03 INLETS

A. Precast Components: Conform with ASTM C478.

B. Joints: Mortar conforming to ASTM C91, Type M.

- C. Castings
1. Conform to ASTM A48, Class 35
  2. Inlet grates shall be bicycle safe.
  3. Provide inlet castings as follows:
    - a. 2-foot x 3-foot rectangular: Neenah R-3246, or R3067 with Type L grate.
    - b. 30-inch interior diameter round, with curb & gutter: Neenah R3075 with type L grate. (At driveway openings, use Neenah NF 10996 grate).
    - c. 30-inch interior diameter round without curb & gutter: Neenah R2500.
    - d. 30-inch interior diameter round with mountable curb & gutter: Neenah R3501-L1A
    - e. Yard inlet: Neenah R4360-D.
    - f. Manhole inlets: Neenah R-3275 with Type A grate, or R3246A, or R3067 with Type L grate.
- D. Adjusting Rings
1. Concrete adjusting rings shall be:
    - a. Minimum 4 inches thick.
  2. Rubber adjusting rings shall be Infra-Riser as manufactured by GNR Technologies or equal.
  3. Adjusting Ring & Casting Sealant.
    - a. Gasket shall be ½-inch thick butyl conforming with AASHTO M198.
- E. Inlet components shall be suitable for AASHTO H-20 loadings.
- F. Underdrain
1. Drainage pipe, Corrugated polyethylene tubing, AASHTO designation M252.
  2. Tubing sock
    - a. Fabric: Knitted polyester
    - b. Mullen burst: 100 (lbs./ft<sup>2</sup>)
    - c. Water flow rate: 350 (gpm/min/ft<sup>2</sup> at 3-inch head)
  3. Filter fabric (stone wrap)
    - a. Fabric: Knitted, woven or non-woven fibers of polyester, polypropylene, stabilized nylons, polyethylene or polyvinylidene chloride (slit film woven fabrics shall not be used)
    - b. Mullen burst: 60 min (lbs/in<sup>2</sup>) (Method ASTM D3786)
    - c. Water flow rate: 100 min (gal/min/ft<sup>2</sup> at 50 mm constant head) (Method 2)
    - d. Grab tensile strength: 35 min (Method ASTM D4632)
    - e. Equivalent opening size: 30-140 (Method Corps of Engineers CW-02215-77)
    - f. Drainage pipe bedding and pipe cover: ASTM D448 - No. 67

## 2.04 FILTER FABRIC

- A. Conform with the following minimums:
1. Weight: 6 Oz./SY
  2. Thickness: 100 mils
  3. Grab strength/elongation: 175 Lbs./50%
  4. Puncture strength/burst strength: 95 Lbs./375 psi
  5. Permeability: 0.4 cm/sec.

## 2.05 RIPRAP

- A. As shown on plans and in accordance with Section 31 05 13, Soils and Aggregates.



## 2.06 SCOUR PROTECTION MAT

- A. As manufactured by American Green or equal.

## 2.07 PERMANENT TURF REINFORCEMENT MAT (TRM)

- A. North American Green SC 250, American Excelsior, Recylex TRM-V or equal.

## 2.08 PIPE BEDDING

- A. Pipe bedding shall be soil class A-7 compacted to 95% of Modified Proctor.
- B. Loss due to sulfate soundness test shall not exceed 10%.
- C. Loss due to abrasion test shall not exceed 40%.

## **PART 3 - EXECUTION**

### 3.01 SEWER MAIN INSTALLATION

#### A. Pipe Installation

1. Pipe installation shall conform with Section 31 23 33, Trenching, Backfilling and Compacting.
  - a. Lay pipe upgrade with spigot pointing in direction of flow.
  - b. Pipe bedding and backfilling shall conform with the standard details as shown on the drawings.

#### B. Grade and alignment shall be established with laser equipment.

1. Sewers shall be laid with straight alignment between manholes.
2. Slope between manholes shall be uniform with no ponding water.
3. Laser alignment shall be checked a minimum of every 100 feet.

#### C. Water/Sewer Line Crossing

1. Where ever the storm sewer crosses above water main with less than a clear vertical separation of 18 inches (outside of pipe to outside of pipe) or below the water main with less than a clear vertical separation of 6 inches (outside of pipe to outside of pipe), the sewer shall be constructed equal to water main pipe. One full pipe length shall be centered on the water main crossing.
2. The type of pipe material and/or joints shall not change between manholes.
3. When connecting a new pipe to an existing pipe, the connection shall be made utilizing Strong Back RC Couplings as manufactured by Fernco Inc., or equal.

### 3.02 SERVICE CONNECTIONS

- A. Unless indicated otherwise, terminate services at the property line.
- B. Services shall conform with all plumbing codes for depths and installation. Service depth shall be sufficient to accommodate the lowest service point.
- C. When a service is not immediately connected:

1. Mark in accordance with details. The Contractor shall record the location, length and depth for record drawings.
  2. Provide a watertight cap on end of service.
- D. Install wye or tee branches where directed.
1. New PVC sewers 6-inch through 15-inch: Utilize a factory made wye or tee.
  2. New PVC sewers 18-inch through 30-inch; Utilize a solvent welded saddle type wye or tee.
  3. Existing sewers: Utilize a solvent welded saddle type wye or tee.
  4. Wyes or tees connected to concrete pipe shall be core drilled and installed with a flexible watertight connector which can be mechanically expanded into the cored opening.

### 3.03 MANHOLES

#### A. Installation

1. Place manholes on a minimum of 6 inches soil class A-7, compacted to 95% Modified Proctor Density.
2. Establish flow line and rim elevations from grade stake provided.
3. Furnish manholes in 4-foot diameter (standard diameter) when dimensions are not shown.
4. Manholes shall be precast construction, unless shown otherwise.
5. Provide manhole riser sections in a combination of lengths which will minimize the number of joints.
6. Seal manhole joints with 1¼-inch butyl preformed tape or equal.
7. Adjusting rings:
  - a. Manhole casting shall be centered, brought to grade and embedded in a ¾-inch to 1-inch bead of adjusting ring and casting sealant.
  - b. A minimum of 4 inches of adjusting rings shall be used between the manhole cone and casting, and set in (2) rows of ½-inch Butyl-Lok preformed tape or equal, conforming the AASHTO M-198.
  - c. All adjusting rings less than four inches shall be rubber, a maximum of 3½-inch rubber rings shall be used, set in (2) rows of ½-inch, Butyl-Lok preformed tape or equal, conforming the AASHTO M-198.
  - d. Two-inch concrete adjusting rings are not allowed.
  - e. For manholes located in roadways, the upper two inches shall be rubber adjusting rings.
  - f. For manholes located in traffic lanes, use tapered rubber adjusting rings.
  - g. Maximum height of adjusting rings shall be 12 inches.
  - h. Coat outside of adjusting rings only with sewer joint compound per manufacturer's instructions and wrap the exterior surface with a min. 6 mil plastic covering.
8. Pipe shall enter manholes through a flexible, watertight gasket or connector manufactured in accordance with ASTM C443 or C923.
  - a. Whenever practical, pipe opening shall be factory made using A-Lok or equal.
  - b. Connections to manholes and inlets of all PVC or concrete storm sewer pipe less than or equal to 24-inch diameter shall be made with a flexible water tight seal such as A-Lock or equal.
  - c. Watertight connections to manholes and inlets of all PVC or concrete storm sewer pipe greater than 24-inch may be made utilizing a pipe opening with a nominal size not less than 2 inches and not to exceed 4 inches greater than the O.D. of the pipe being installed. The opening shall be sealed as follows:

- 1) Apply a ½-inch bead of specified sealant around the entire perimeter of the opening of the manhole, and around the entire circumference of the portion of the pipe that will align with the manhole opening.
- 2) Immediately upon application of the specified sealant, mortar the remaining cavity in a neat and workmanlike manner with non-shrink grout.
- 3) Specified sealant and mortar shall be installed following all manufacturer's instructions and shall be installed on clean and dry surfaces and shall not be installed in a submerged condition.

9. The following shall be filled with mortar and finished smooth:
  - a. Lift holes
  - b. Annular space around pipes: Interior bottom half only.

B. Inverts

1. Furnish precast manholes with shop manufactured inverts.
2. Shape and slope flowline of invert to match largest connecting pipe.
3. Slope invert bench upward to manhole wall.

C. Flared End Sections

1. Flared end sections shall be installed with splash pads constructed of riprap placed on filter fabric.
2. If a dimension is not shown on the drawings, the splash pad shall be a minimum of 10 feet by 10 feet.
3. End section restraints (where shown on the plans).
  - a. End sections shall be; anchored with two (2) three-quarter (3/4) inch rods and three-quarter (3/4) inch eye bolts.
  - b. End sections shall be anchored to the second pipe back.

- D. Contractor shall furnish the Owner two (2) manhole cover removing tools per contract.

3.04 INLETS

A. Installation

1. Place inlets on a minimum of six inches of soil class A-7, compacted to 95% Modified Proctor Density.
2. Establish line and grade from grade stakes provided.
3. Minimum inlet height from top of base to top of curb shall be four feet.
4. Provide type of inlet as shown on the plans.
5. Provide underdrains where shown on plans.
6. Underdrains shall be polyethylene tubing encased in a geo-textile sock and installed as follows:
  - a. Embed tubing in clean stone and wrap stone with filter so that no water can enter the stone without passing through the fabric.
  - b. Fabric shall not be exposed to direct sunlight more than 24 hours.
  - c. Dead ends of the tubing shall be tightly capped.
  - d. Discharge ends of tubing shall enter the inlet through a tight fitting penetration which was core-drilled or casted in the inlet wall.
7. Adjusting rings:
  - a. Inlet casting shall be centered, brought to grade and embedded in a 3/4-inch to 1-inch bead of adjusting ring and casting sealant.

- b. A minimum of 4 inches of adjusting rings shall be used between the manhole cone and casting, and set in (2) rows of ½-inch Butyl-Lok preformed tape or equal, conforming the AASHTO M-198.
  - c. All adjusting rings less than four inches shall be rubber, a maximum of 3½-inch rubber rings shall be used, set in (2) rows of ½-inch, Butyl-Lok preformed tape or equal, conforming the AASHTO M-198.
  - b. Two-inch concrete adjusting rings are not allowed.
  - c. For inlets located in roadways or driveways, the upper two inches shall be rubber adjusting rings.
  - d. For inlets located in traffic lanes, use tapered rubber adjusting rings.
  - e. Maximum height of adjusting rings shall be 12 inches.
  - f. Coat outside of adjusting rings only with sewer joint compound per manufacturer's instructions and wrap the exterior surface with a min. 6 mil plastic covering.
8. Internal Inlet Adjustment Ring Sealing System Installation
- a. Remove all loose protruding mortar, concrete, or brick that would interfere with the seal's performance.
  - b. Patching cement shall conform to requirements of the manufacturer. Any profiling cement work will require the contractor to contact the sealant manufacture to determine in writing the proper time required for the cement to completely cure prior to installing this item.
  - c. The surface shall be sandblasted (minimum of 70CFM) and an acetone wet wipe to ensure a clean surface, as required by manufacturer.
  - d. Active leaks (infiltration) shall be corrected by a method approved by the Engineer prior to installing an Internal Manhole Seal.
  - e. A blower or torch may be required to completely dry the substrate surface, or as recommended by manufacturer. Flex-Seal Utility Sealant or approved equal may require the proper mixing of agents, as recommended by the manufacturer's instructions.
  - f. Ensure casting and structure surfaces are clean and dry where the primer is intended to adhere. After allowing for proper drying of primer to occur, sealant may be applied by brush as evenly as possible over the entire chimney area that includes 2 inches above the frame joint area, 2 inches below the top of the manhole cone, and the area above the manhole cone, including all extensions to the chimney area.

### 3.05 FIELD QUALITY CONTROL

- A. Pipe testing shall be in accordance with Section 01 45 24, Testing and Inspection of Pipeline Construction.

## **PART 4 - MEASUREMENT AND PAYMENT**

- A. Storm Sewer
  - 1. Measurement shall be made along the centerlines of the pipeline actually installed with no deductions for manholes.
  - 2. Payment shall be made by the unit price per linear foot and include:
    - a. Pipe material, equipment and labor.
    - b. Clearing and grubbing.
    - c. Stripping and stockpiling topsoil.
    - d. Traffic, dust and erosion control.
    - e. Loading, hauling and disposal of street surfacing and curb & gutter in trench area.
    - b. Dewatering and excavation.

- c. Pipe bedding and initial cover material.
- d. Loading, hauling and disposal of surplus excavated material.
- e. Backfilling and compaction
- f. End caps (sewer services).
- g. Location markers (sewer services).
- h. Complete restoration and landscaping.
- i. Repair and maintenance of disturbed street surfaces.
- j. Field quality control.

B. Sewer Service Lateral

- 1. Measurement shall be based on each lateral installed.
- 2. Payment shall be made at the unit price per each and include:
  - a. Labor and material.
  - b. Adaptors if needed.
- 3. Service taps (in manholes and inlets)
  - a. Taps shall be incidental to sewer service laterals.
    - 1) Labor and material.
    - 2) Core drilling pipe, manholes or inlets
    - 3) Flexible watertight connector with adaptor

C. Manholes

- 1. Measurement shall be made from the lowest pipe invert to the rim as installed.
- 2. Payment shall be made by the unit price per vertical foot installed and include:
  - a. Dewatering and excavation.
  - b. All pre-cast components, steps and frame and cover.
  - c. Gasketed pipe openings and joint seals.
  - d. Adjusting rings and sewer joint compound.
  - e. Sump depth as shown on plans.
  - f. Internal Adjusting Ring Sealing System, when specified.

D. Inlets

- 1. Measurement shall be based on each inlet installed.
- 2. Payment shall be made at the unit price per each and include:
  - a. Dewatering and excavation.
  - b. Pre-cast components, frame and grate.
- 3. Payment for inlets with underdrains shall be made at the unit price per each and include:
  - a. Dewatering and excavation.
  - b. Pre-cast components, frame and grate.
  - c. Drain tubing with:
    - 1) Sock filter.
    - 2) Granular bedding and cover.
    - 3) Filter fabric wrapped around granular bedding and backfill.
    - 4) Tubing and caps.
  - d. Sump depth as shown on plans.
- 4. Internal Adjusting Ring Sealing System, when specified.

E. Inlet Lead

- 1. Measurement shall be made along the centerlines of the lead from center of structure to center of structure.
- 2. Payment shall be made at the unit price per linear foot and include:
  - a. Pipe material, equipment and labor.

- b. Traffic, dust and erosion control.
  - c. Loading, hauling and disposal of street surfacing and curb & gutter in trench area.
  - d. Loading, hauling and disposal of surplus excavated material.
  - e. Dewatering and excavation.
  - f. Pipe bedding and initial cover material.
  - g. Backfilling and compaction.
  - h. Repair and maintenance of disturbed street surfaces.
3. Perforated inlet lead shall be subject to the above and additionally include:
- a. Pipe perforations.
  - b. Filter fabric wrap.
  - c. Stone backfill to the road base course.

F. Flared End Sections

- 1. Measurement shall be based on each end section installed.
- 2. Payment shall be made at the unit price per each and include
  - a. Labor and material.
  - b. Riprap and filter fabric.
  - c. Restraint rods.

- END OF SECTION -

# 40

## DIVISION 40

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### PROCESS INTEGRATION

## SECTION 40 05 13.10

### BURIED PIPING AND APPURTENANCES

#### **PART 1 – GENERAL**

##### 1.01 SUMMARY

###### A. Related Sections and Divisions:

1. Applicable provisions of the General conditions shall govern the work in this section.
2. Section 01 32 19, Submittals.
3. Section 01 45 24, Testing and Inspection of Pipeline Construction.
4. Section 01 57 14, Erosion Control.
5. Section 02 41 00, Demolition.
6. Section 02 41 13.23, Abandonment and Grouting Existing Pipelines.
7. Section 03 33 03, Cast-in-place Concrete.
8. Section 31 23 33, Trenching, Backfilling and Compaction.
9. Section 32 12 16, Asphaltic Concrete Pavement.
10. Section 40 05 13.53, Ductile Iron Pipe.
11. Section 40 05 13.73, PVC Pipe.
12. Section 40 05 13.74, Polyethylene Pipe.
13. Section 40 05 13.76, PVC Lined R.C.P. Sewer.
14. Section 40 05 13.80, Centrifugally Cast Fiberglass Mortar Pipe.
15. Section 40 05 13.84, Polypropylene High Performance Sanitary Sewer Pipe.
16. Section 33 11 13, Water Main.
17. Section 33 33 13, Sanitary Sewer.
18. Section 33 41 13, Storm Sewer.

##### 1.02 SUBMITTALS

###### A. Submit shop drawings in accordance with Section 01 32 19, Submittals:

1. General arrangement drawings of 3-inch or larger piping shall be submitted to Engineer for approval. Drawings shall include proposed length, location and elevation of pipe, fittings, valves and appurtenances.

#### **PART 2 – PRODUCTS**

##### 2.01 MATERIALS OF CONSTRUCTION

###### A. Size and Type:

1. All materials shall conform to the size and type shown on the drawings or called for in the specifications.
2. In joining two dissimilar types of pipe, standard fittings shall be used when available.
  - a. For gravity pipelines connections shall be made utilizing shielded Fernco type couplings.
  - b. For pressurized pipelines connections shall be made with a solid body sleeve.
3. In the event standard fittings are not available, the method of joining shall be standard selected by Contractor and submitted for review and approval by Engineer.



- B. Piping appurtenances shall be made of the materials specified. All appurtenances not designated as to type shall be selected by Contractor and submitted for review and approval by Engineer.

## 2.02 CONCRETE

- A. All concrete work under this Contract, unless shown or specified otherwise, shall conform to the requirements of Section 03 33 03, Cast-in-Place Concrete.

## **PART 3 – INSTALLATION**

### 3.01 INSTALLATION

- A. Pipe bedding shall be in accordance with the standard details shown in the drawings.
- B. Thrust blocking shall be in accordance with the standard details shown in the drawings.

### 3.02 FIELD QUALITY CONTROL

- A. Contractor shall include the cost of all testing, cleaning and disinfection in the bid.
- B. All work shall be inspected, tested, and approved in accordance with federal, state and local rules and regulations. All work shall also be tested as specified in this section. Unless indicated in writing before testing begins, all tests shall be witnessed by Engineer and others as necessary. Test results shall be recorded and reports or appropriate certificates shall be submitted to Engineer in triplicate.
- C. All new piping shall be tested. All underground piping shall be backfilled or properly secured to avoid damage during testing. Should underground piping fail test, Contractor shall be responsible for removal and replacement of backfill. All piping, interior or exposed, shall be subject to test before being covered with insulation, or paint. All piping and appurtenances shall be watertight or airtight and free from visible leaks.
- D. All piping shall be flushed or blown out after installation prior to testing. Contractor shall provide all necessary piping connections, water, air, test pumping equipment, water meter, bulkheads, valves, pressure gauge and other equipment, materials and facilities necessary to complete the specified tests. Contractor shall provide all temporary sectionalizing devices and vents for testing.
- E. Pressure tests shall be performed in accordance with Section 01 45 24, Testing and Inspection of Pipeline Construction.

### 3.03 CLEANING AND DISINFECTION

- A. All equipment and materials shall be clean before installation. Contractor shall disinfect and flush the potable water system before it is put online. Water main shall be disinfected according to AWWA C651.

### 3.04 REPAIR AND RESTORATION

- A. Unless otherwise specified, Contractor shall replace all bituminous and concrete pavement removed or damaged during performance of the work. Concrete pavement replacement shall conform to Section 03 33 03, Cast-in-Place Concrete. Bituminous pavement replacement shall conform to Section 32 12 16, Asphaltic Concrete Pavement.
- B. Clean-up:
  - 1. Upon completion of the work, all improvements disturbed by Contractor's operations shall be repaired or replaced. Broken concrete, rubble fill, and other excess material shall be removed from the site and wasted.
  - 2. All areas for the storage of materials or the temporary deposit of excavated earth shall be leveled off and cleaned up. All surplus material, tools, and equipment shall be removed, and the premises shall be left free of everything of the kind.
  - 3. All pipes and manholes shall be flushed until clean and all debris and mud shall be removed.

### 3.05 CLEANING OF WORK

- A. Pipelines
  - 1. Interiors of all pipelines (including existing) affected by construction procedures shall be free of all extraneous materials.
  - 2. Pipelines shall be left clean at the completion of work.
- B. Final Clean up and Inspection
  - 1. Contractor shall remove all of the following:
    - a. Temporary offices and storage structures.
    - b. Temporary fencing and roads.
    - c. Surplus material and rubbish.
    - d. Material (liquid or solid) resulting from cleaning operations.
  - 2. The Engineer and Owner may make final inspection of the work during the progress of the final cleaning and repairing. Any portion of the work accepted by the Owner shall be kept clean by the Contractor until final acceptance of the entire project.
  - 3. When the contractor has completed the final cleaning operation, he shall notify the Engineer in writing that he is ready for final inspection.
  - 4. After written notification to the Contractor, the owner may elect to remove from the work site and/or adjacent properties, all rubbish, surplus or waste materials which the contractor has neglected or refused to remove, and deduct the costs of removal from any monies due the contractor.

### 3.06 DEMOLITION

- A. All exterior piping removals, including manholes and appurtenances and abandonment, shall be by Contractor. The locations and elevations of existing piping are approximate. Where necessary, existing piping shall be exposed prior to installing new piping. Any changes in pipe location or elevation shall be approved by Engineer.
- B. Contractor shall remove or abandon all existing piping and appurtenances as noted. Unless otherwise shown or specified, the owner shall have the right of first refusal for all, piping and appurtenances to be removed shall be removed from the site for salvage or disposal. Unless otherwise shown or specified, piping shown or specified to be abandoned shall be filled with a 3'

concrete plug. Concrete shall be as specified in Division 3. Wherever excavations cross piping to be abandoned, piping shall be removed to the limits of the excavation and the ends shall be filled as specified above.

- C. Valve boxes and exposed valves and operators on piping to be abandoned shall be removed. All concrete surfaces to remain shall be patched as required to provide a smooth surface. Re-piping and connections to new piping shall be as specified for new piping.
- D. It is the responsibility of the Contractor to remove or abandon all piping and appurtenances, as shown or specified, and patch all holes resulting therefrom unless specified or shown otherwise. The intent of these specifications is to require that the removal of materials, patching of all existing holes and repiping be done in a workmanline manner. All costs shall be included in the bid.

-- END OF SECTION --

## **LABELED TAB – DRAWINGS**

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**\*Place labeled tab BEFORE Drawing Division divider page**

## **DRAWING DIVISION**

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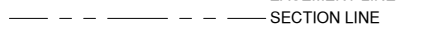
### **DRAWINGS**

**All drawings, which have been prepared on behalf of the Owner, are bound in this section and are hereby made part of this contract.**





**LEGEND**

-  TO BE CLEARED AND GRUBBED
-  TREE TO BE SAVED
-  HEADSTONE
-  R/W LINE
-  EASEMENT LINE
-  SECTION LINE

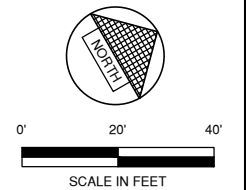
**DEMOLITION NOTES**

1. ALL MISCELLANEOUS STRUCTURES SHALL BE REMOVED.
2. ALL AREAS NOT INCLUDED IN THE AREA TO BE CLEARED AND GRUBBED SHALL INCLUDE SELECTIVE REMOVAL AND TREATMENT OF INVASIVE SPECIES (BY OTHERS).
3. PRIOR TO CLEARING AND GRUBBING THE CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY THE LOCATION OF TREES THAT SHALL REMAIN.
4. TREES LOCATED WITHIN THE SHORELAND STABILIZATION ZONE SHALL BE REMOVED AS REQUIRED FOR THE INSTALLATION OF THE STABILIZATION MEASURES. EXISTING TREES LOCATED IN THE WATER MAY REMAIN AND THE CONTRACTOR SHALL RELOCATED AS NECESSARY.
5. THE CONTRACTOR SHALL USE CARE WHEN GRADING AROUND TREES IDENTIFIED TO REMAIN. TREES TO REMAIN ARE APPROXIMATE, THE ENGINEER W/OWNER SHALL MARK ALL TREES TO REMAIN.

FOX RIVER →



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 Plot Date: Dec 22, 2021 - 12:55pm  
 Layer: EX. COND. 1



NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
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2	11/1/21	PHK	ISSUED FOR BID				

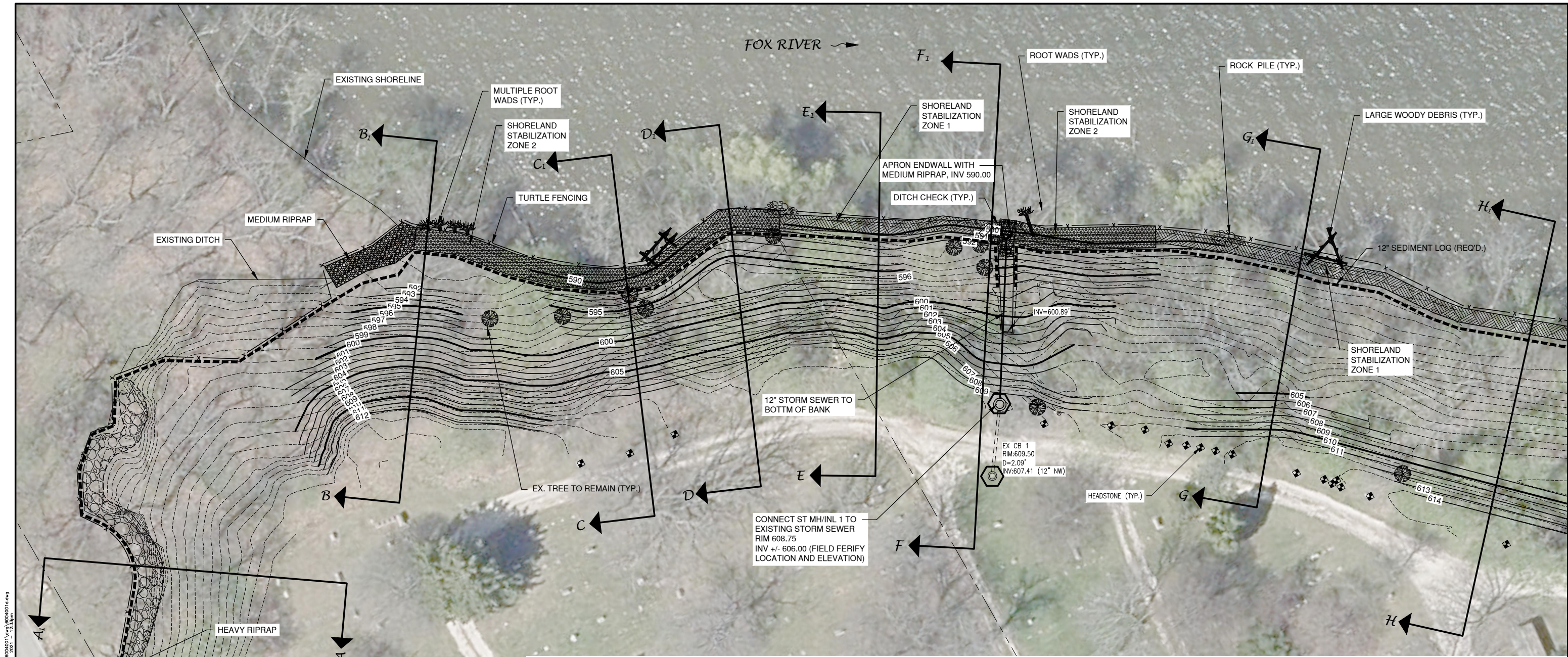
DRAWN EMK	<b>BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT DE PERE GREENWOOD CEMETERY TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN</b>	<b>EXISTING CONDITIONS / DEMOLITION PLAN (SOUTH)</b>
CHECKED JGS		
DESIGNED PHK		

DATE 04/29/21	<b>Robert E. Lee &amp; Associates, Inc.</b> ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES 1250 CENTENNIAL CENTRE BOULEVARD HOBART, IN 46342 920-662-9641 www.releeinc.com	SHEET NO. <b>2</b>
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 Plot Date: Dec 08, 2021 - 7:25am  
 SITE PLAN (1)  
 LAYOUT

**EROSION CONTROL**

ALL EROSION CONTROL PRACTICES INDICATED ON THIS PLAN ARE APPROXIMATE LOCATIONS ONLY. THE ACTUAL SITE MAY REQUIRE MORE OR LESS EROSION CONTROL DEPENDING ON THE CURRENT CONDITION OF THE SITE.

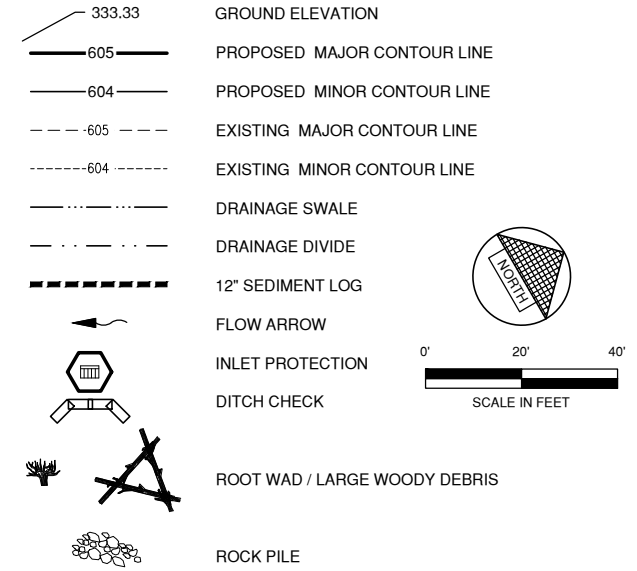
1. SILT FENCE / SEDIMENT LOG IS REQUIRED DOWNSLOPE OF ANY DISTURBED LAND THAT MAY CARRY SEDIMENTS OFF-SITE.
2. A TRACKING PAD IS REQUIRED AT ANY INGRESS/EGRESS LOCATION, WHERE SEDIMENT MAY BE TRACKED OFF-SITE.
3. PROPER INLET PROTECTION SHALL BE USED DEPENDING ON THE INLET TYPE.
4. ALL NECESSARY SITE DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061.
5. A NOTICE OF INTENT SHALL BE SUBMITTED TO THE WDNR FOR THE LAND DISTURBING ACTIVITY.
6. SEDIMENT LOGS SHALL BE LISTED ON WDOT PAL.
7. EROSION MAT AS SHOWN ON THE PLANTING PLAN SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF FINAL GRADING AND SEEDING.
8. ALL INCIDENTAL DISTURBED AREAS SHALL BE GRADED, SEEDED AND MULCHED TO MATCH EXISTING CONDITIONS.

**WOOD TURTLES BMP'S**

NESTING PERIODS FOR THIS TURTLE OCCUR IN LATE MAY OR JUNE AND NESTING TYPICALLY TAKES PLACE IN SANDY AREAS BUT CAN OCCUR IN OTHER SOILS. TO AVOID POTENTIAL IMPACTS TO NESTING TURTLES AND TURTLE NESTS IN AREAS THAT WILL BE DISTURBED BETWEEN MAY 25 AND SEPTEMBER 15, THE PERIMETER OF THE AREA TO BE DISTURBED SHOULD BE PROTECTED WITH PROPERLY TRENCHED SILT FENCE PRIOR TO MAY 25. THE SILT FENCE WILL PREVENT TURTLES FROM ENTERING THE WORK AREA AS THEY LOOK FOR NESTING SITES.

IF THE CONSTRUCTION AREA CANNOT BE SILT-FENCED BEFORE MAY 25, MINIMIZATION MEASURES WILL BE REQUIRED IN CONJUNCTION WITH AN INCIDENTAL TAKE AUTHORIZATION. SILT FENCE SHOULD STILL BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. THE AREA BEHIND THE SILT FENCE SHOULD BE SURVEYED AND ANY TURTLES CONFINED WITHIN THE PROJECT AREA SHOULD BE REMOVED PRIOR TO SITE DISTURBANCE. A DEPARTMENT-APPROVED HERPETOLOGIST FAMILIAR WITH THIS SPECIES AND ITS LIFE HISTORY MUST CONDUCT REMOVALS

**LEGEND**



NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	04/29/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

**BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT**  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

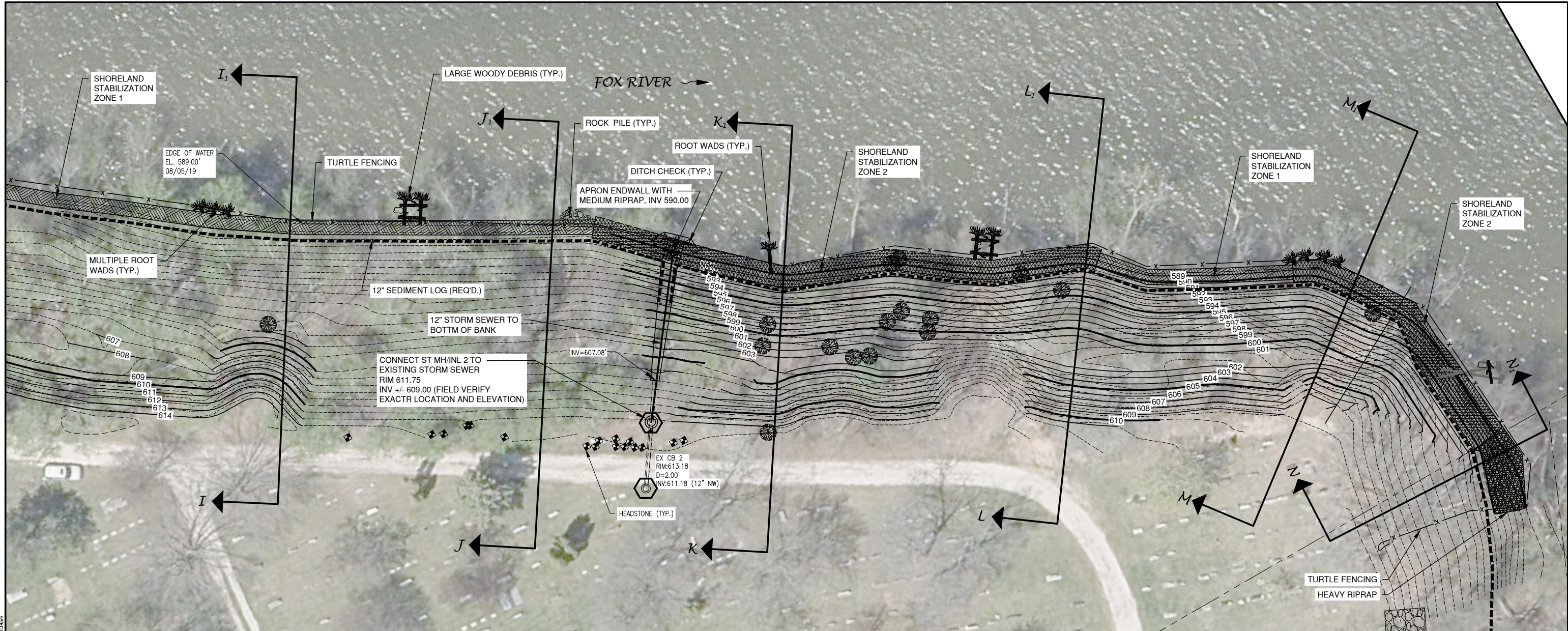
**DETAILED SITE, GRADING & EROSION CONTROL PLAN (SOUTH)**

DATE	04/29/21
FILE	6004001D
JOB NO.	6004001

**Robert E. Lee & Associates, Inc.**  
 ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES  
 1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 54155  
 920-662-9641 www.releeinc.com

SHEET NO. **4**





**LEGEND**

- 333.33 GROUND ELEVATION
  - 605 PROPOSED MAJOR CONTOUR LINE
  - 604 PROPOSED MINOR CONTOUR LINE
  - 605 EXISTING MAJOR CONTOUR LINE
  - 604 EXISTING MINOR CONTOUR LINE
  - DRAINAGE SWALE
  - DRAINAGE DIVIDE
  - 12" SEDIMENT LOG
  - FLOW ARROW
  - INLET PROTECTION
  - DITCH CHECK
  - ROOT WAD / LARGE WOODY DEBRIS
  - ROCK PILE
- NOTE: SEDIMENT LOGS SHALL BE LISTED ON WDOT PAL.

**WOOD TURTLES BMP'S**

NESTING PERIODS FOR THIS TURTLE OCCUR IN LATE MAY OR JUNE AND NESTING TYPICALLY TAKES PLACE IN SANDY AREAS BUT CAN OCCUR IN OTHER SOILS. TO AVOID POTENTIAL IMPACTS TO NESTING TURTLES AND TURTLE NESTS IN AREAS THAT WILL BE DISTURBED BETWEEN MAY 25 AND SEPTEMBER 15, THE PERIMETER OF THE AREA TO BE DISTURBED SHOULD BE PROTECTED WITH PROPERLY TRENCHED IN SILT FENCE PRIOR TO MAY 25. THE SILT FENCE WILL PREVENT TURTLES FROM ENTERING THE WORK AREA AS THEY LOOK FOR NESTING SITES.

IF THE CONSTRUCTION AREA CANNOT BE SILT-FENCED BEFORE MAY 25, MINIMIZATION MEASURES WILL BE REQUIRED IN CONJUNCTION WITH AN INCIDENTAL TAKE AUTHORIZATION. SILT FENCE SHOULD STILL BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES. THE AREA BEHIND THE SILT FENCE SHOULD BE SURVEYED AND ANY TURTLES CONFINED WITHIN THE PROJECT AREA SHOULD BE REMOVED PRIOR TO SITE DISTURBANCE. A DEPARTMENT-APPROVED HERPETOLOGIST FAMILIAR WITH THIS SPECIES AND ITS LIFE HISTORY MUST CONDUCT REMOVALS

**EROSION CONTROL**

- ALL EROSION CONTROL PRACTICES INDICATED ON THIS PLAN ARE APPROXIMATE LOCATIONS ONLY. THE ACTUAL SITE MAY REQUIRE MORE OR LESS EROSION CONTROL DEPENDING ON THE CURRENT CONDITION OF THE SITE.
- SILT FENCE / SEDIMENT LOG IS REQUIRED DOWNSLOPE OF ANY DISTURBED LAND THAT MAY CARRY SEDIMENTS OFF SITE.
  - A TRACKING PAD IS REQUIRED AT ANY INGRESS/EGRESS LOCATION, WHERE SEDIMENT MAY BE TRACKED OFF-SITE.
  - PROPER INLET PROTECTION SHALL BE USED DEPENDING ON THE INLET TYPE.
  - ALL NECESSARY SITE DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH WDNr TECHNICAL STANDARD 1061.
  - A NOTICE OF INTENT SHALL BE SUBMITTED TO THE WDNr FOR THE LAND DISTURBING ACTIVITY.
  - SEDIMENT LOGS SHALL BE LISTED ON WDOT PAL.
  - EROSION MAT AS SHOWN ON THE PLANTING PLAN SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF FINAL GRADING AND SEEDING.
  - ALL INCIDENTAL DISTURBED AREAS SHALL BE GRADED, SEEDED AND MULCHED TO MATCH EXISTING CONDITIONS.

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NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/29/21	PHK	REVISED PER WDNr COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN	EMK
CHECKED	JGS
DESIGNED	PHK

**BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT**  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

DETAILED SITE, GRADING & EROSION CONTROL PLAN (NORTH)

DATE	04/29/21
FILE	6004001D
JOB NO.	6004001

**Robert E. Lee & Associates, Inc.**  
 ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES  
 1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 53155  
 920-662-9641 www.releeinc.com



FOX RIVER →

MEDIUM RIPRAP

EX. CONC. FOUNDATION

EX CB 1  
RIM: 609.50  
D=2.09'  
INV: 607.41 (12" NW)

HEADSTONE (TYP.)

HEAVY RIPRAP

EX. CULVERT

**LEGEND**

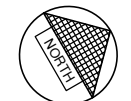


CONTRACTOR SHALL ADJUST GRADING AS REQUIRED TO PROTECT EXISTING TREES



TOPSOIL, SEED AND PLACE EROSION MAT

NOTE:  
ALL DISTURBED AREAS OUTSIDE OF GRADING LIMITS AND RIPRAP PLACEMENT SHALL BE TOPSOILED, SEEDDED WITH EROSION MAT TO MATCH AREA OF PROPOSED GRADING. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.



File: R:\Users\jlee\OneDrive\Working\6004001.dwg  
Plot Date: Dec 28, 2021 - 7:25pm  
LAYOUT: PLANTING PLAN (1)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN
1	11/01/21	PHK	ISSUED FOR BID					EMK
								CHECKED
								JGS
								DESIGNED
								PHK

**BANK STABILIZATION AND  
INVASIVE SPECIES MANAGEMENT  
DE PERE GREENWOOD CEMETERY  
TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

**PLANTING PLAN  
(SOUTH)**

DATE  
10/20/19  
FILE  
6004001D  
JOB NO.  
6004001



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SHEET NO.  
**6**



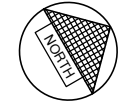


File: R:\Users\6004\OneDrive\OneDrive\My Documents\1.dwg  
 Plot Date: Dec 08, 2021 - 7:25am  
 PLANTING PLAN (2)  
 Layout:

**LEGEND**

-  CONTRACTOR SHALL ADJUST GRADING AS REQUIRED TO PROTECT EXISTING TREES
-  TOPSOIL, SEED AND PLACE EROSION MAT

**NOTE:**  
 ALL DISTURBED AREAS OUTSIDE OF GRADING LIMITS AND RIPRAP PLACEMENT SHALL BE TOPSOILED, SEEDED WITH EROSION MAT TO MATCH AREA OF PROPOSED GRADING. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

  
 0' 20' 40'  
 SCALE IN FEET

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	11/01/21	PHK	ISSUED FOR BID				

DRAWN  
EMK  
 CHECKED  
JGS  
 DESIGNED  
PHK

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

PLANTING PLAN (NORTH)

DATE  
10/20/19  
 FILE  
6004001D  
 JOB NO.  
6004001

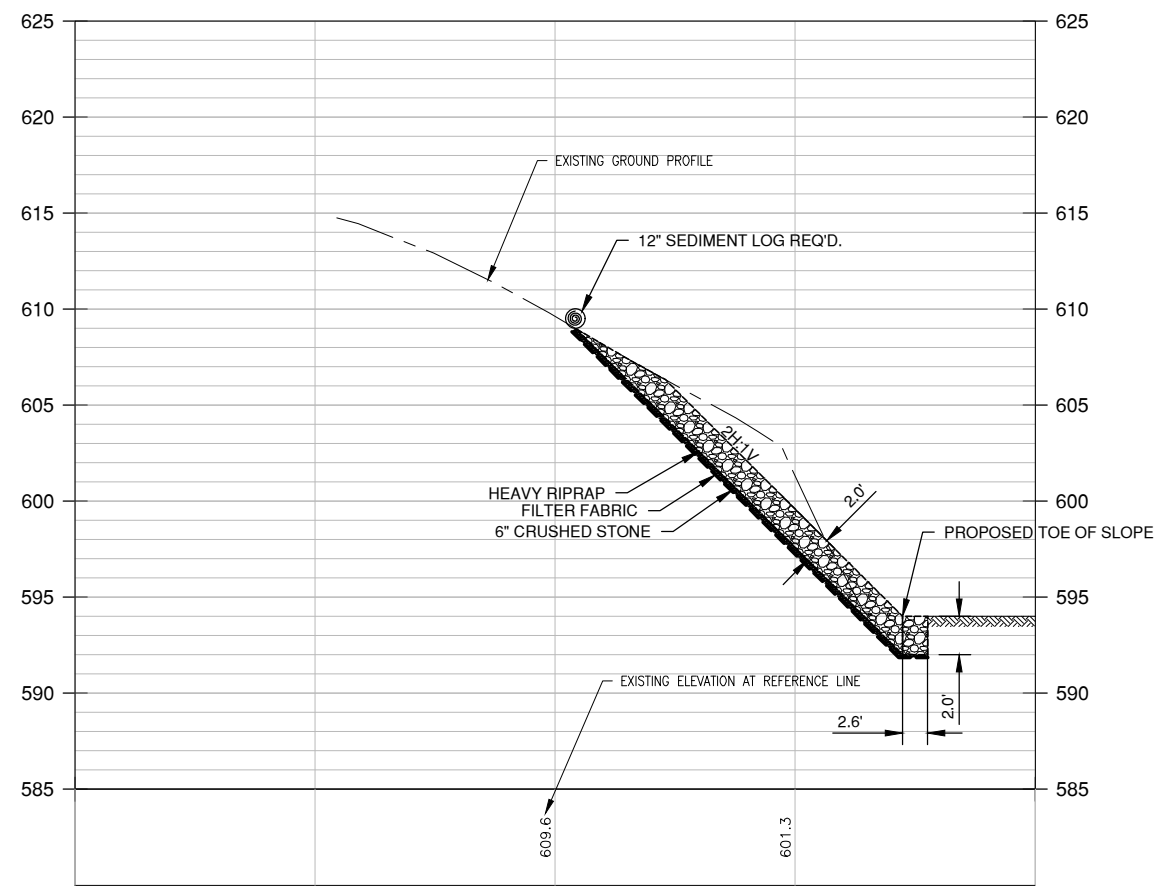


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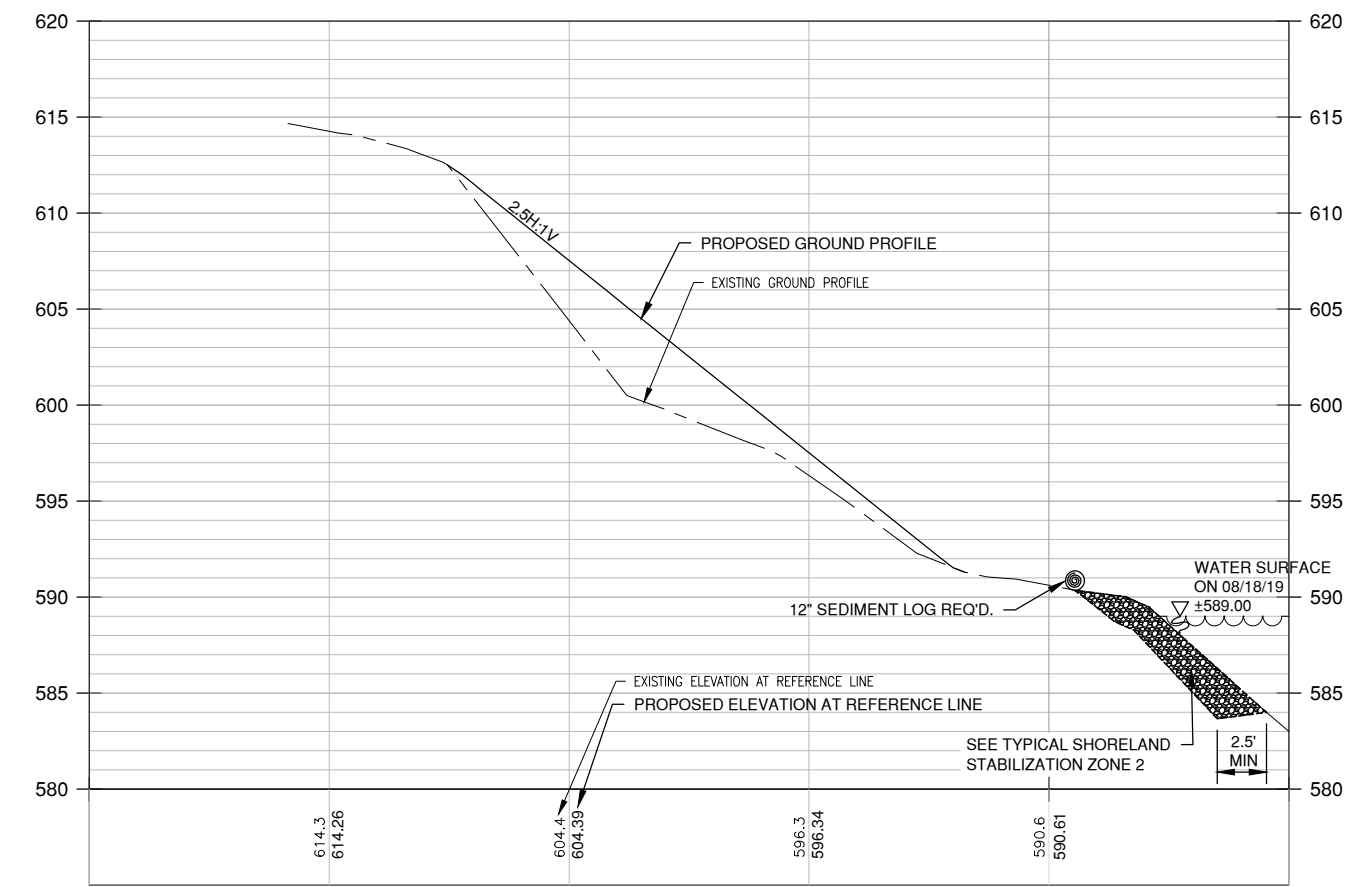
SHEET NO. **7**



File: R:\Users\leeca\workspace\1\work\10404011D\_SECTIONS.dwg  
 Plot Date: Dec 02, 2021 - 11:15am  
 LAYOUT: SECTIONS (1)



**SECTION A-A<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION B-B<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**  
 EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE. FIELD VERIFY EXACT LOCATION

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/29/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

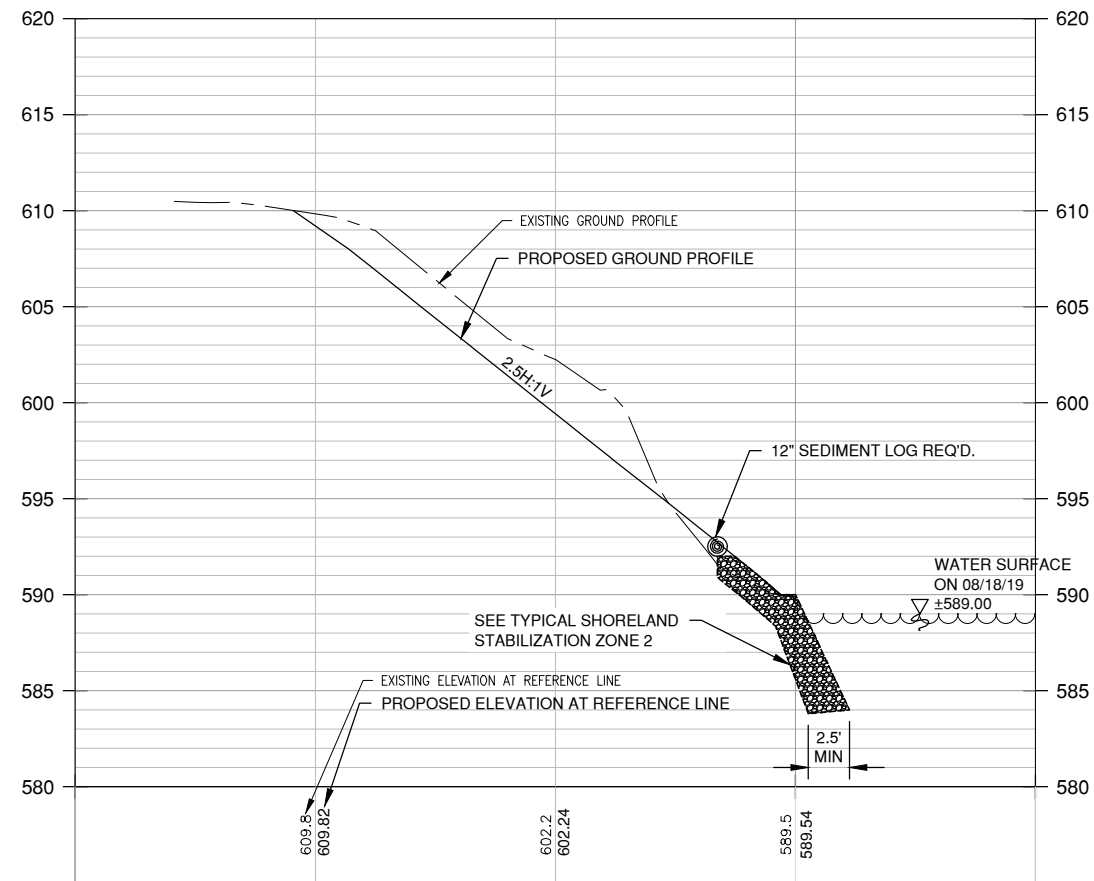
DRAWN: EMK  
 CHECKED: JGS  
 DESIGNED: PHK

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

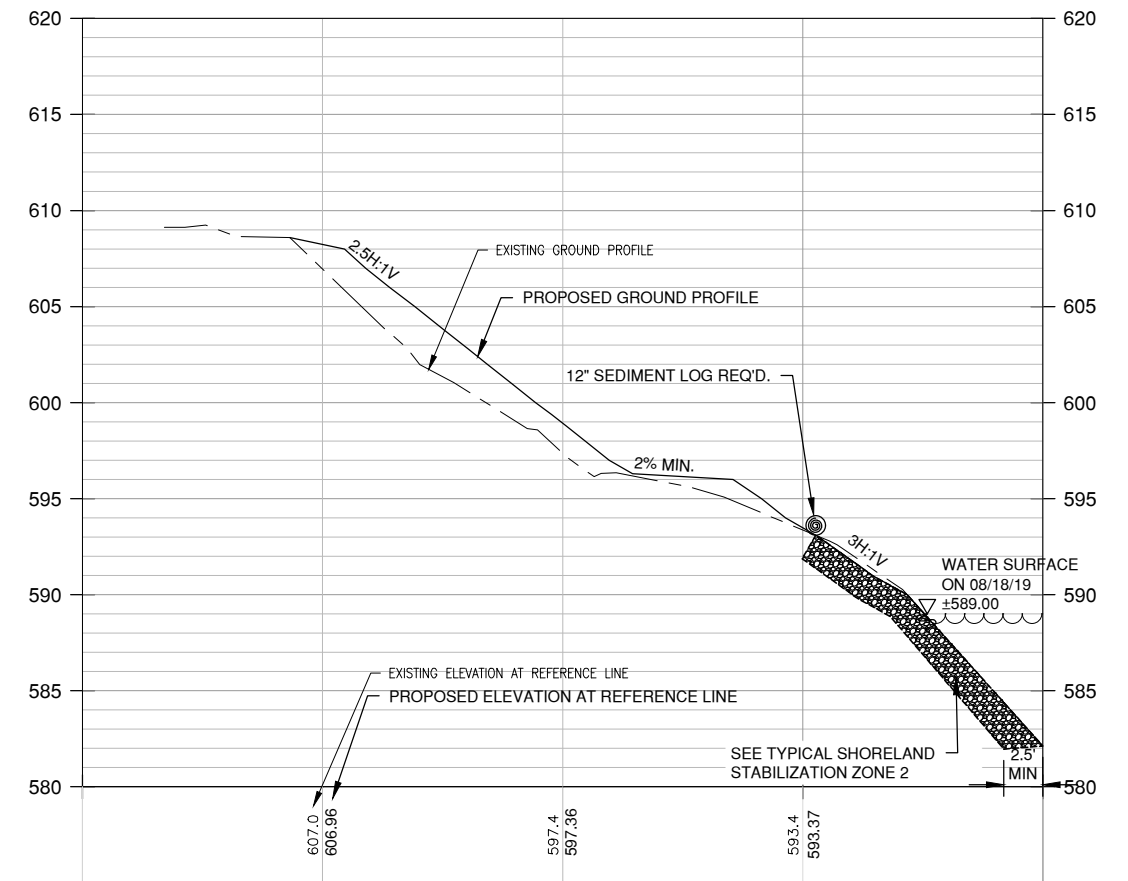
SECTION A - A<sub>1</sub>  
 SECTION B - B<sub>1</sub>

DATE	04/21
FILE	6004001D_SECTIONS
JOB NO.	6004001

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**SECTION C-C<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION D-D<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**  
 EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE, FIELD VERIFY EXACT LOCATION

File: R:\Users\leeca\OneDrive\OneDrive\My Documents\Sections\Sections.dwg  
 Plot Date: Dec 22, 2021 - 11:15am  
 LAYOUT: SECTIONS (2)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/29/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN: EMK  
 CHECKED: JGS  
 DESIGNED: PHK  
**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

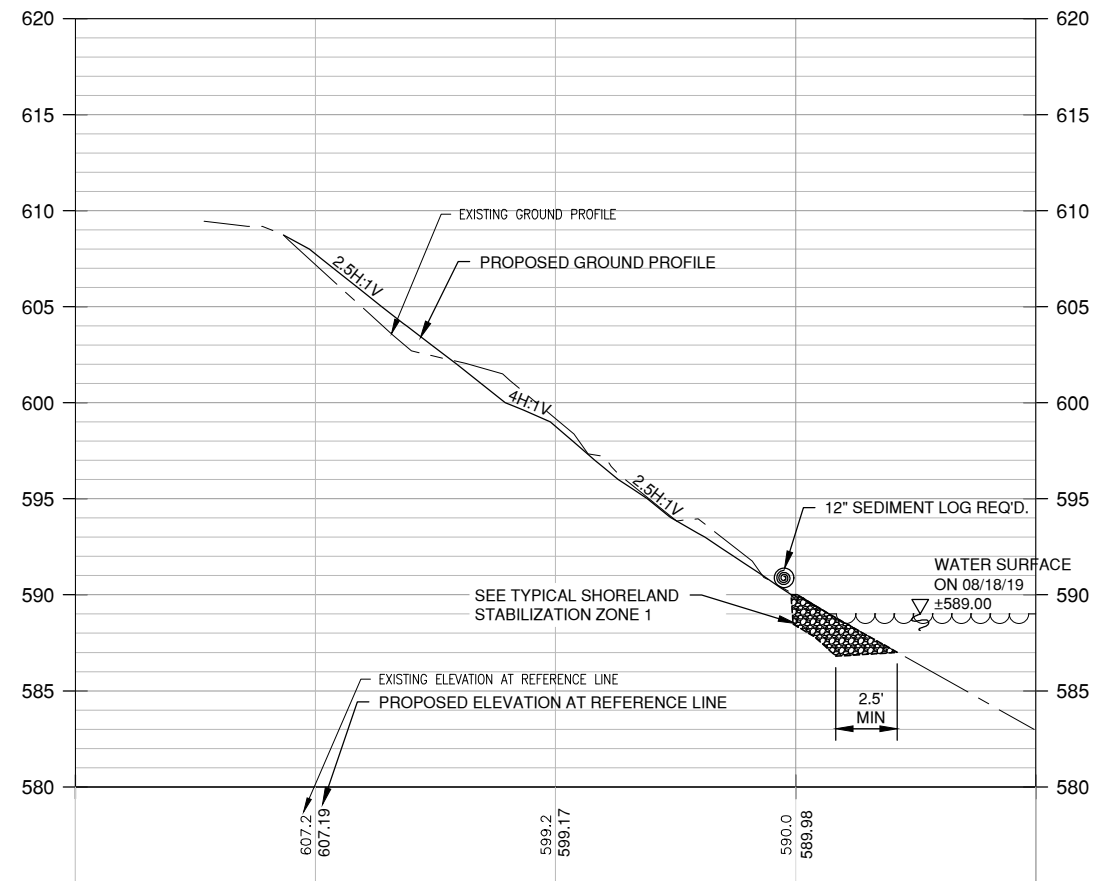
SECTION C - C<sub>1</sub>  
 SECTION D - D<sub>1</sub>

DATE	04/29/21
FILE	6004001D_SECTIONS
JOB NO.	6004001

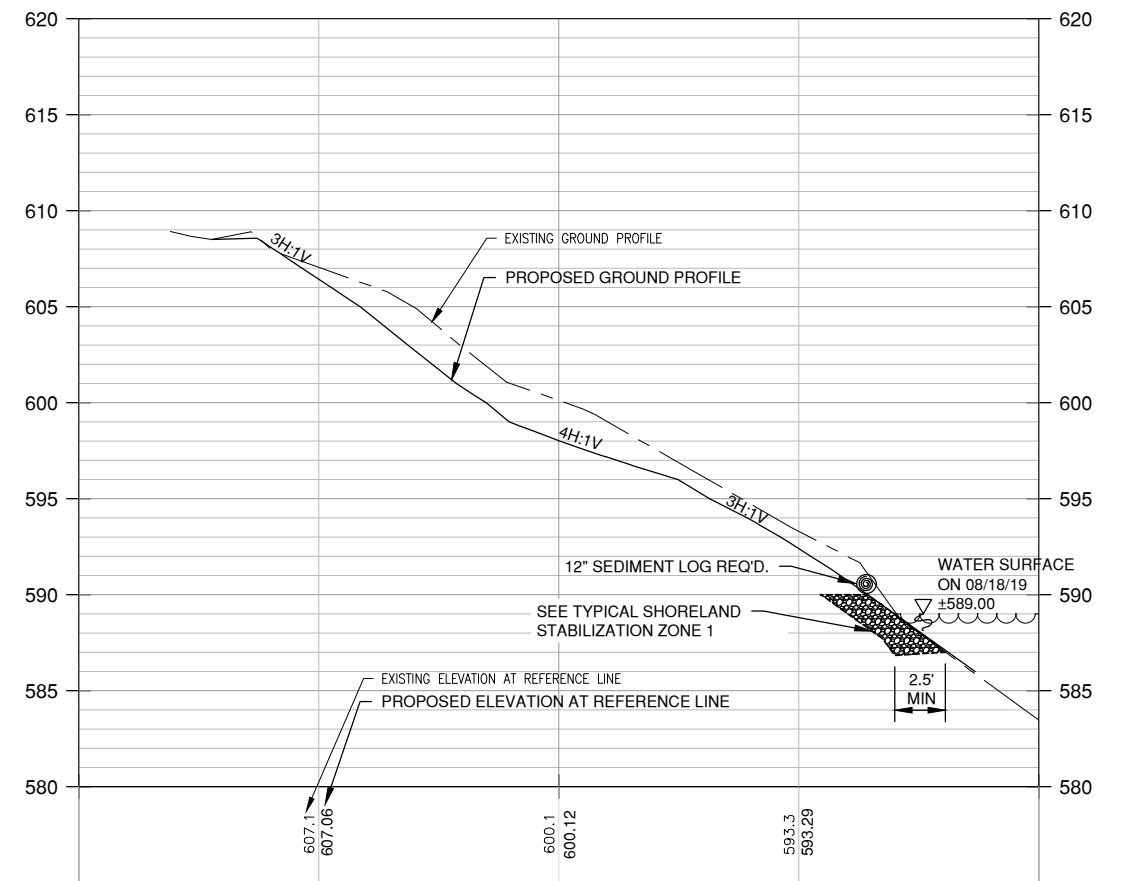


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SHEET NO. **9**



**SECTION E-E<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION F-F<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**

EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE, FIELD VERIFY EXACT LOCATION

File: R:\Vero\Ver04\_Ver04001\_Ver04001\Ver04001.d\_sections.rvt  
 Plot Date: Dec 02, 2021 11:15am  
 LAYOUT: SECTIONS (3)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN
1	4/29/21	PHK	REVISED PER WDNR COMMENTS					EMK
2	11/01/21	PHK	ISSUED FOR BID					JGS
								DESIGNED
								PHK

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PER GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

SECTION E - E<sub>1</sub>  
 SECTION F - F<sub>1</sub>

DATE	04/29/21
FILE	6004001D_SECTIONS
JOB NO.	6004001

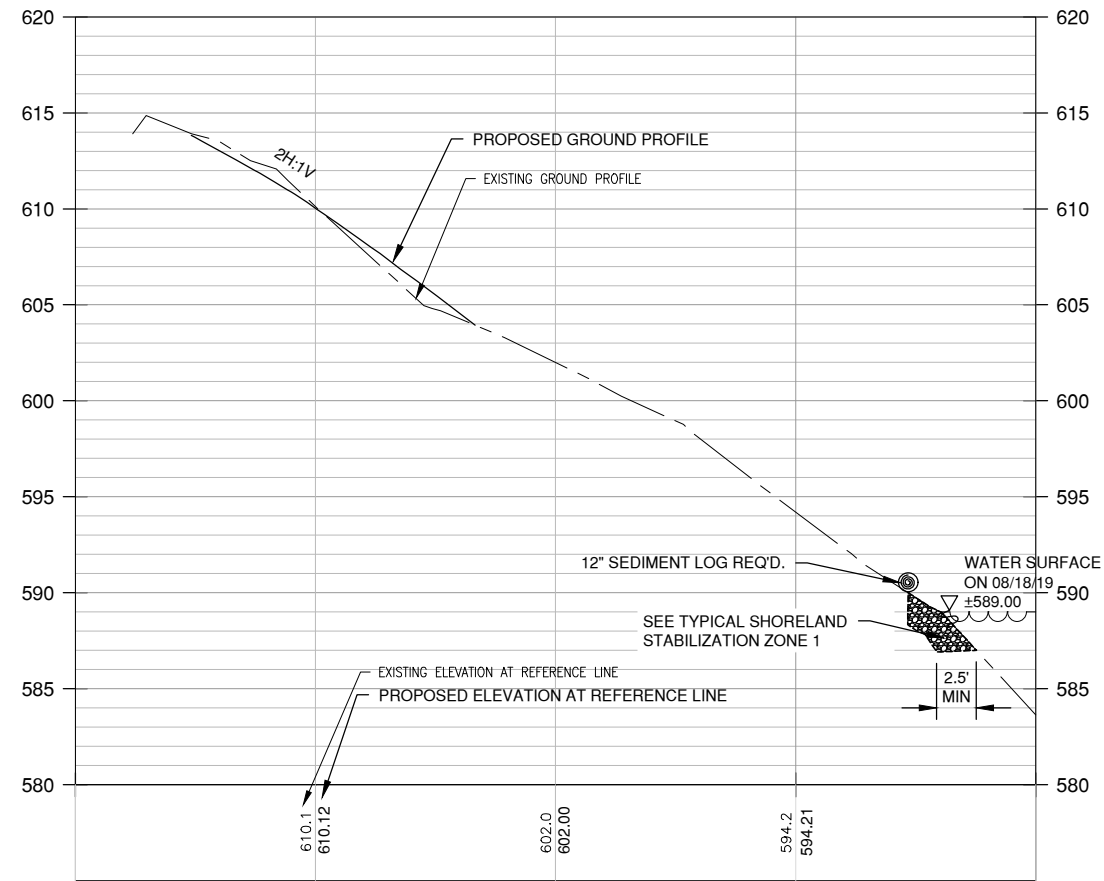


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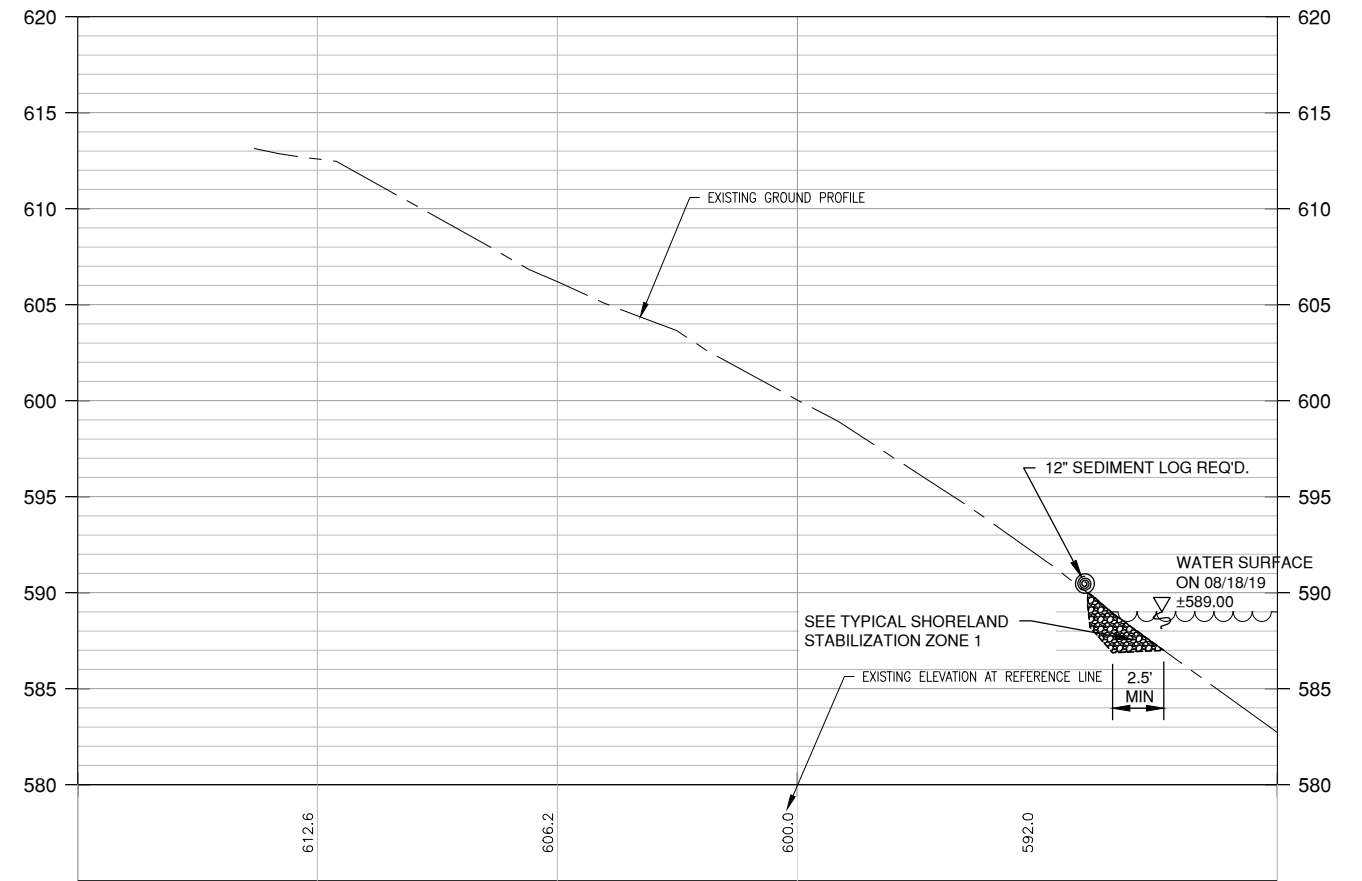
SHEET NO.  
**10**







**SECTION I-I<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION J-J<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**

EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE, FIELD VERIFY EXACT LOCATION

File: R:\Users\leeca\OneDrive\My Documents\Sections\Sections.dwg  
 Plot Date: Dec 02, 2021 11:14am  
 LAYOUT: SECTIONS (3)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/29/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN EMK
CHECKED JGS
DESIGNED PHK

BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

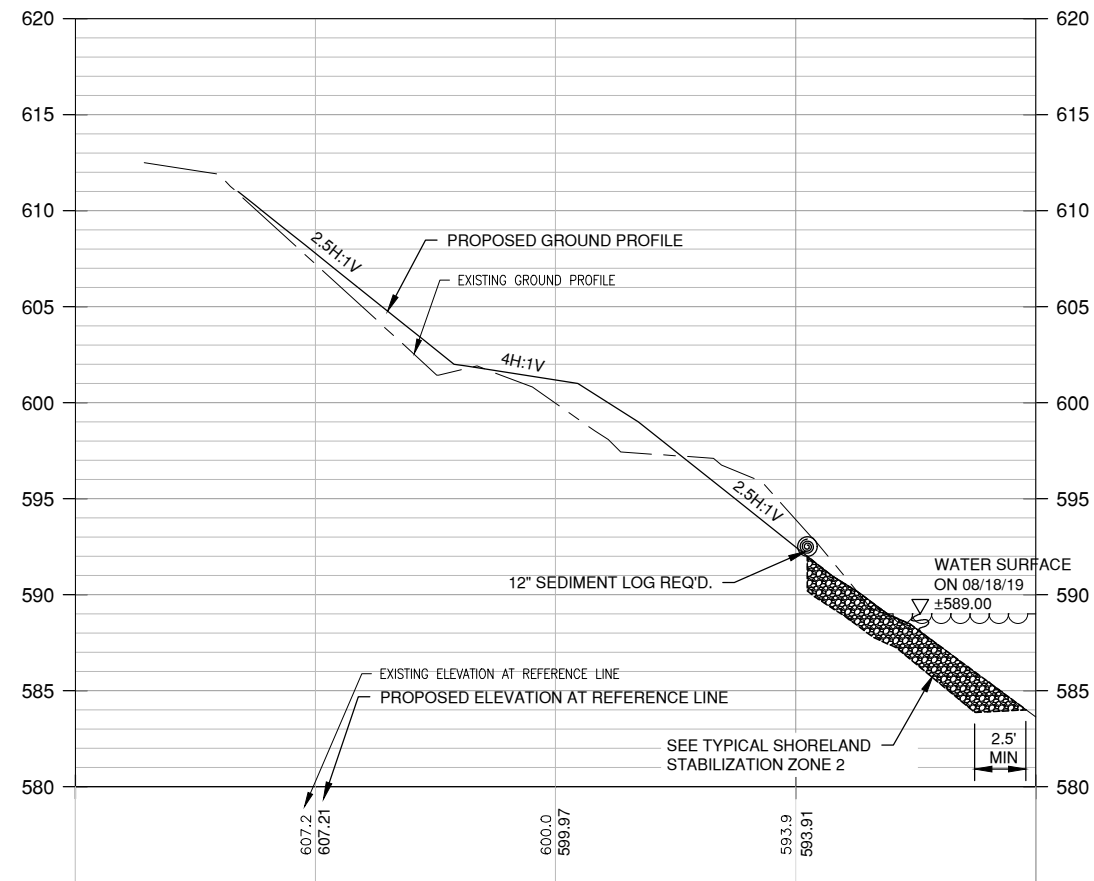
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 SECTION J - J<sub>1</sub>

DATE 04/29/21
FILE 6004001D_SECTIONS
JOB NO. 6004001

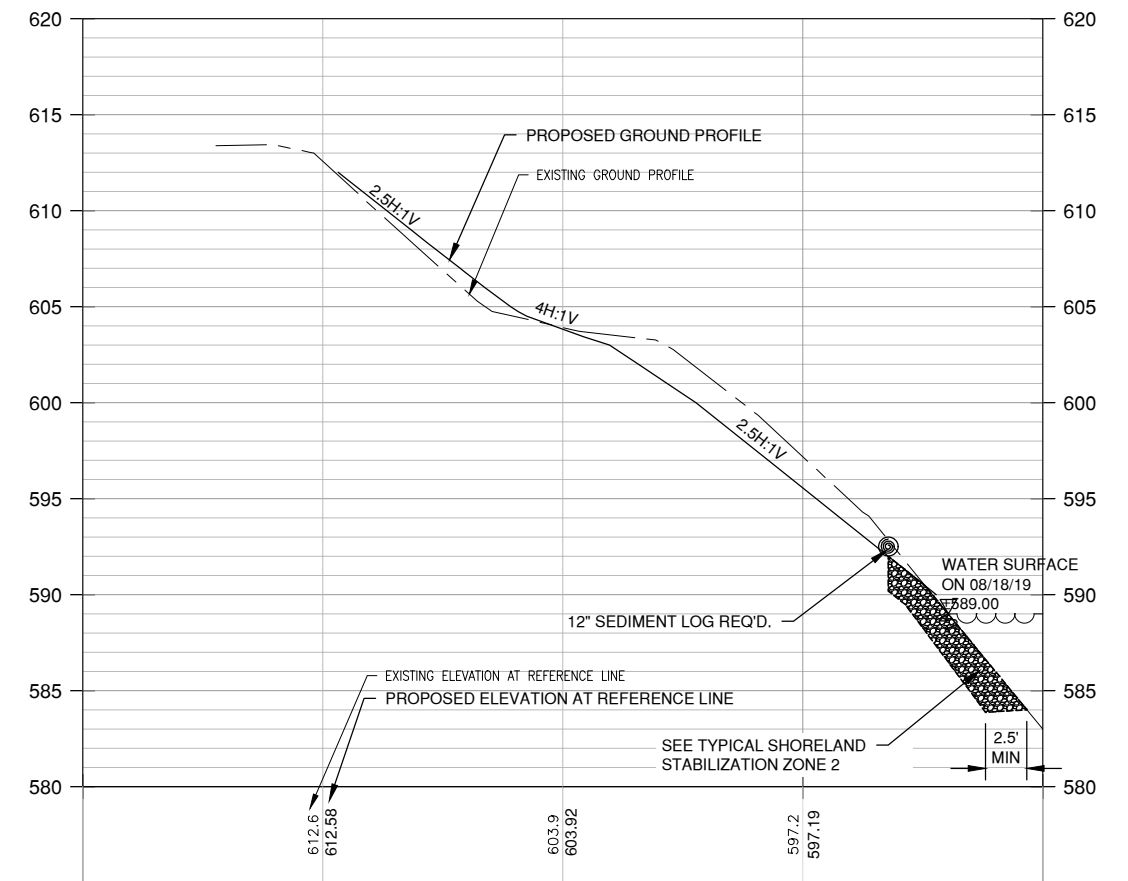


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SHEET NO.  
**12**



**SECTION K-K<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION L-L<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**

EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE, FIELD VERIFY EXACT LOCATION

File: R:\Users\leeca\OneDrive\OneDrive\Projects\2021\11\15\2021\_11\_15\SECTIONS.dwg  
 Plot Date: Dec 02, 2021 11:15am  
 LAYOUT: SECTIONS (6)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/29/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21		SUED FOR B...				

DRAWN	EMK
CHECKED	JGS
DESIGNED	PHK

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

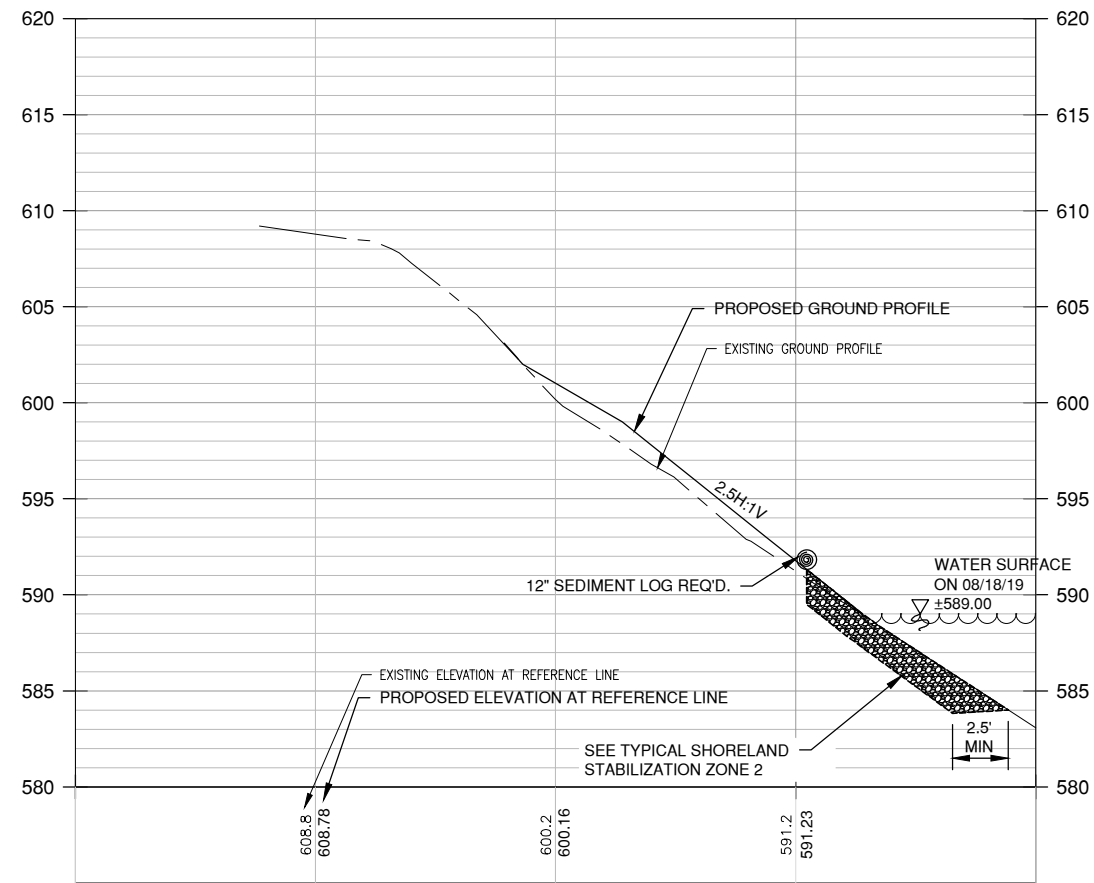
SECTION K - K<sub>1</sub>  
 SECTION L - L<sub>1</sub>

DATE	04/29/21
FILE	6004001D_SECTIONS
JOB NO.	6004001

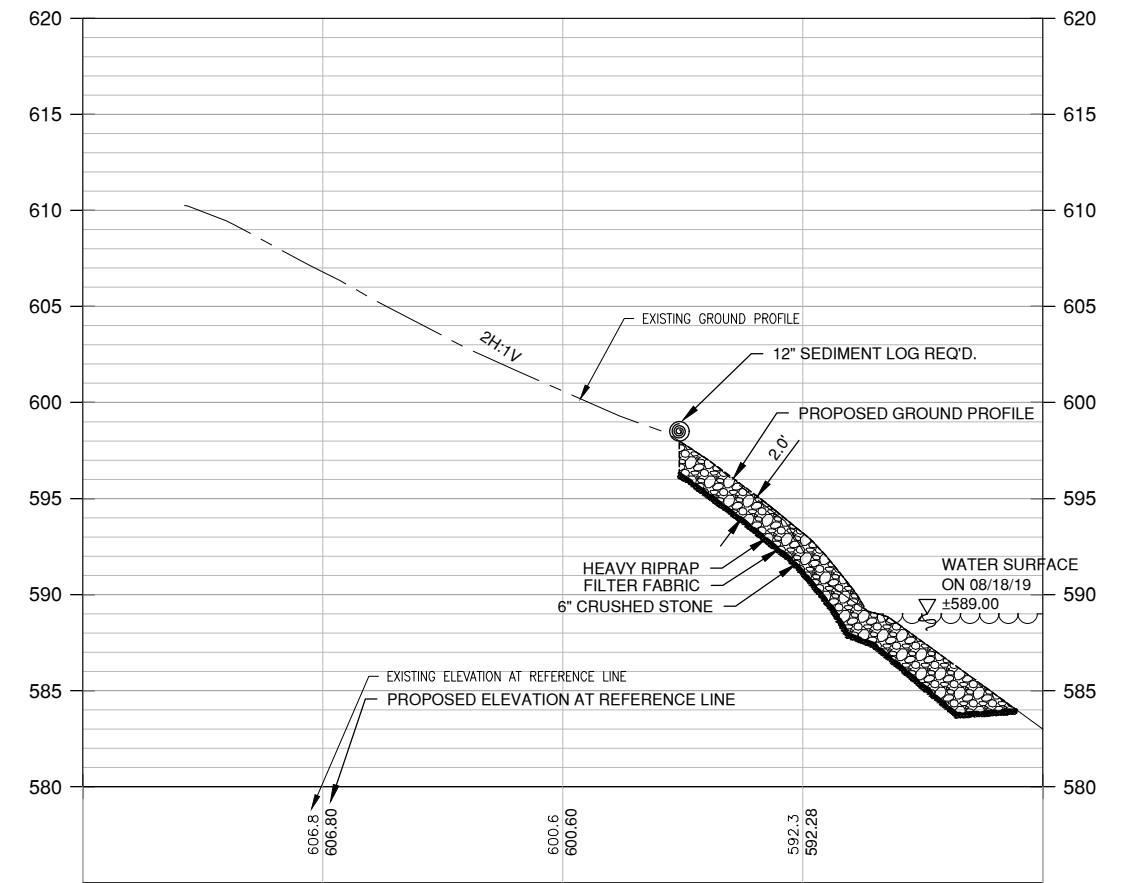


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SHEET NO.  
**13**



**SECTION M-M<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'



**SECTION N-N<sub>1</sub>**  
 HORIZ. SCALE: 1" = 10'  
 VERT. SCALE: 1" = 5'

**NOTE**

EXISTING GROUND BELOW WATER SURFACE IS APPROXIMATE, FIELD VERIFY EXACT LOCATION

File: F:\Users\leeca\OneDrive\OneDrive\My Documents\Sections\Sections.dwg  
 Plot Date: Dec 22, 2021 11:15am  
 LAYOUT: SECTIONS (7)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN
1	4/29/21	PHK	REVISED PER WDNR COMMENTS					EMK
2	11/01/21	PHK	ISSUED FOR BID					JGS
								DESIGNED
								PHK

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

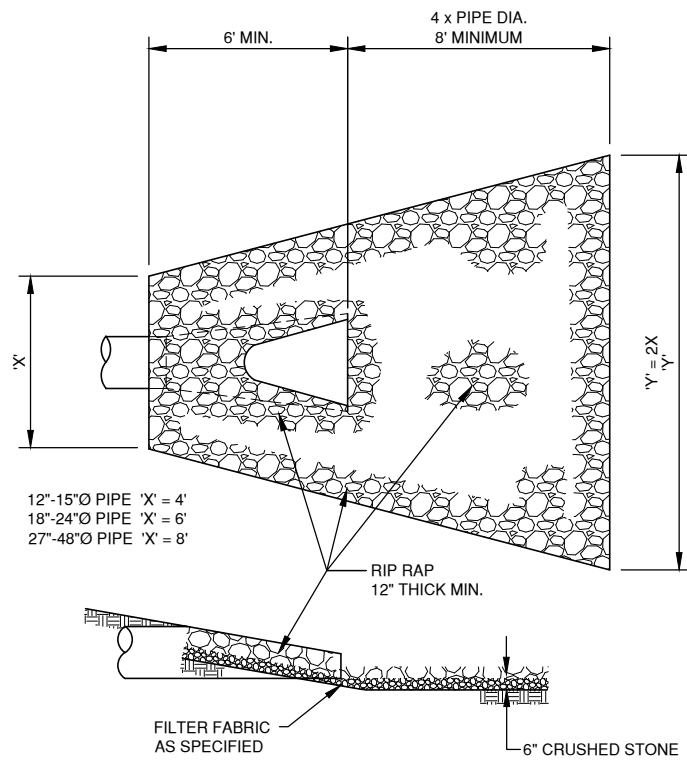
SECTION M - M<sub>1</sub>  
 SECTION N - N<sub>1</sub>

DATE	04/29/21
FILE	6004001D_SECTIONS
JOB NO.	6004001

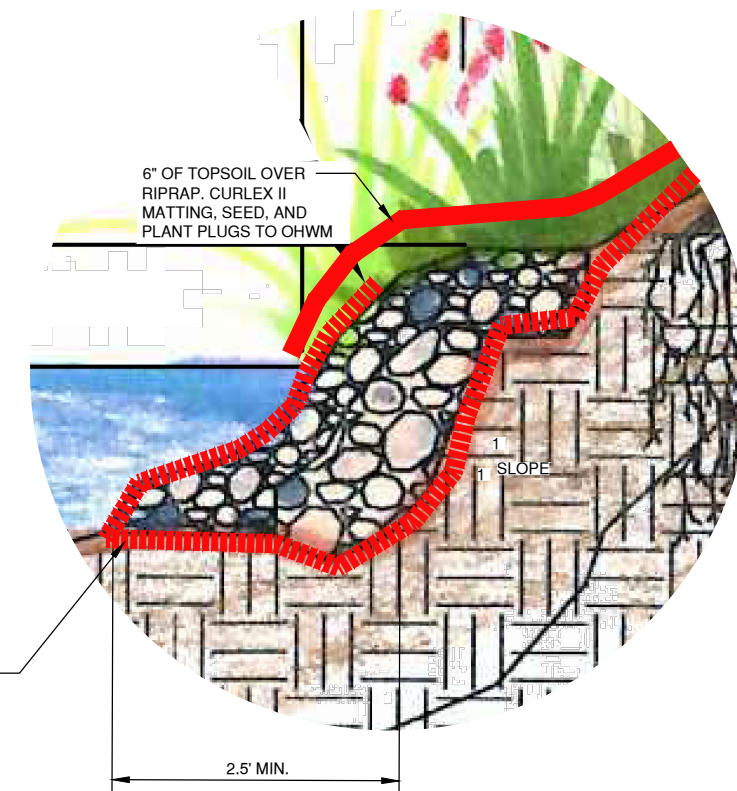


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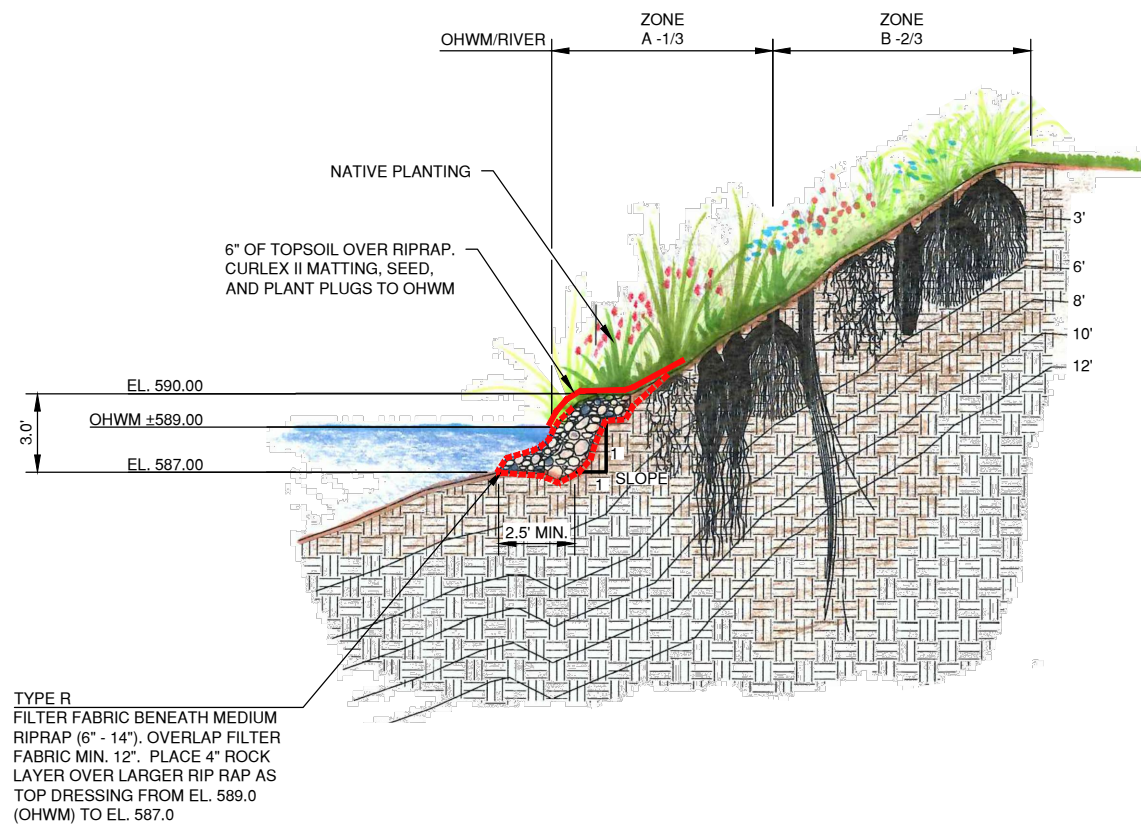
SHEET NO.  
**14**



ENDWALL RIP RAP DETAIL

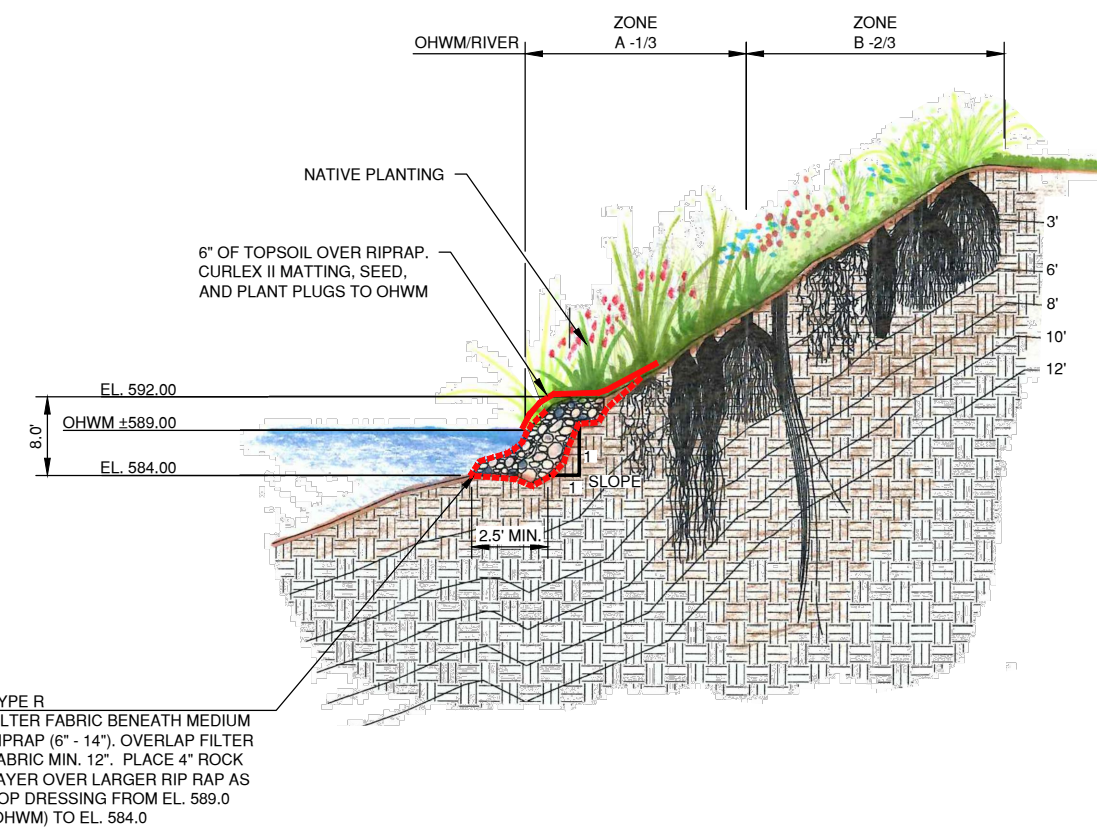


TYPICAL SHORELAND STABILIZATION RIP RAP DETAIL



TYPE R  
 FILTER FABRIC BENEATH MEDIUM  
 RIPRAP (6" - 14"). OVERLAP FILTER  
 FABRIC MIN. 12". PLACE 4" ROCK  
 LAYER OVER LARGER RIP RAP AS  
 TOP DRESSING FROM EL. 589.0  
 (OHWM) TO EL. 587.0

TYPICAL SHORELAND STABILIZATION ZONE 1



TYPE R  
 FILTER FABRIC BENEATH MEDIUM  
 RIPRAP (6" - 14"). OVERLAP FILTER  
 FABRIC MIN. 12". PLACE 4" ROCK  
 LAYER OVER LARGER RIP RAP AS  
 TOP DRESSING FROM EL. 589.0  
 (OHWM) TO EL. 584.0

TYPICAL SHORELAND STABILIZATION ZONE 2

File: R:\V000\1600\1600\0001\Drawings\DETAILS.dwg  
 Plot Date: Dec 2021  
 11:55am  
 LAYOUT: DETAILS 1

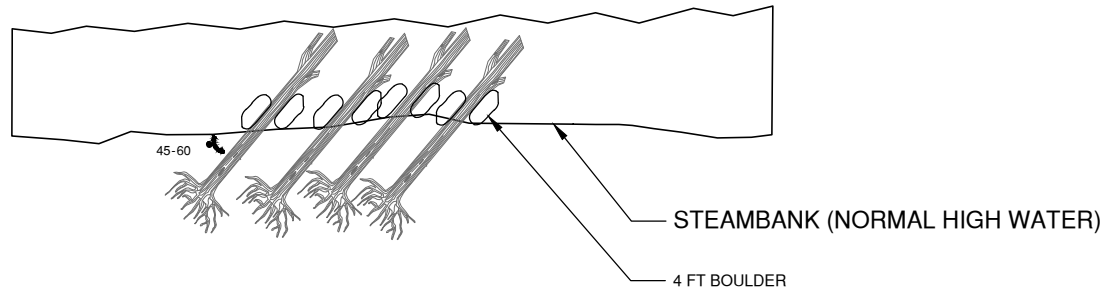
NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/30/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN EMK	BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT DE PERE GREENWOOD CEMETERY TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN
CHECKED JGS	
DESIGNED PHK	

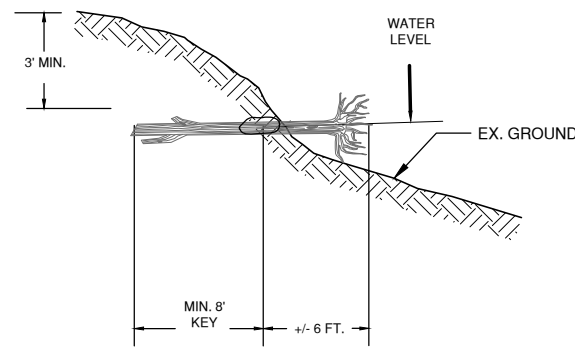
MISCELLANEOUS DETAILS

DATE 04/20/21	<b>Robert E. Lee &amp; Associates, Inc.</b> ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES 1250 CENTENNIAL CENTRE BOULEVARD HOBBART, IN 47333 920-662-9641 www.reeinc.com
FILE DETAILS	
JOB NO. 6004001	





PLAN

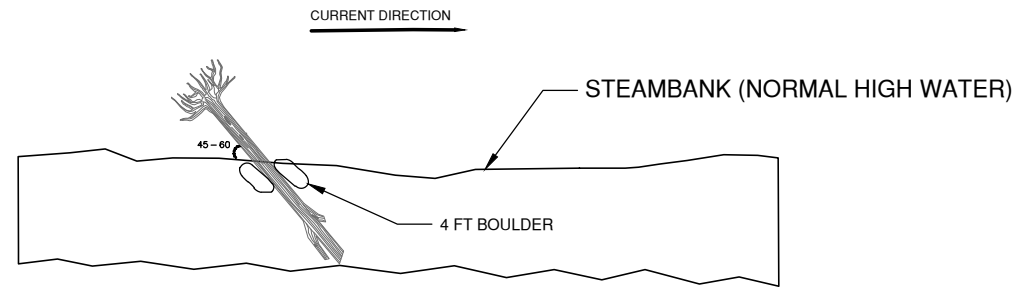


CROSS SECTION

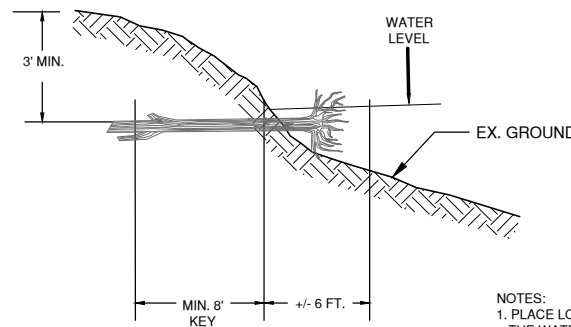
### MULTIPLE ROOT WAD DETAIL

**NOTES:**

1. ROOT WADS MUST BE PRESENT ON EACH LOG.
2. THE MULTIPLE ROOT WAD STRUCTURE SHALL CONSIST OF THREE TO FIVE LOGS AT A MIN 24" DIAMETER AT BREAST HEIGHT
3. THE MAJORITY OF THE LOG SHALL BE SUBMERGED WITH APPROX. 15% OF THE LOG EMERGED. CARE SHALL BE TAKEN TO KEEP THE LOG BELOW THE ORDINARY HIGH WATER MARK (OHWM).
4. PROVIDE MINIMUM 4' X3'X3' BOULDERS WITH CABLE ANCHORS TO SECURE LOGS IN EMBANKMENT.



PLAN



CROSS SECTION

### ROOT WAD DETAIL

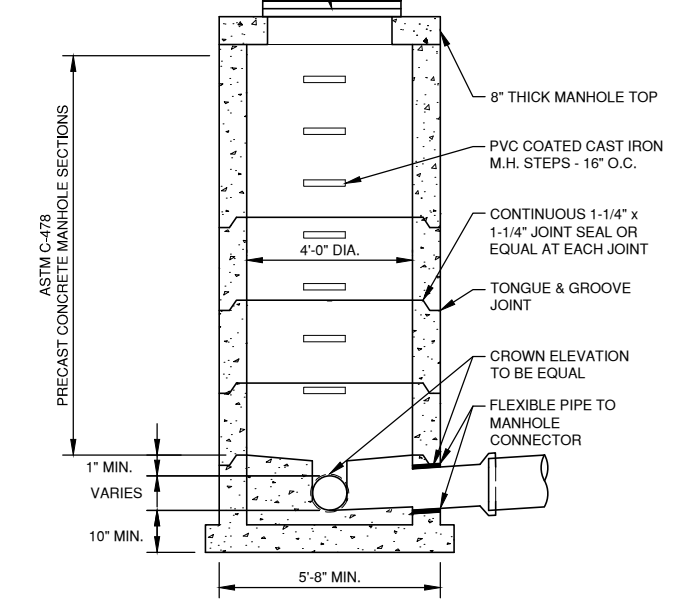
**NOTES:**

1. PLACE LOG AT LEAST 6 INCHES BELOW THE WATERLINE.
2. PLACE LOG AT A 45-60 DEGREE ANGLE UPSTREAM FROM BANK.

TWO CONTINUOUS STRIPS OF 1/2" JOINT SEAL OR EQUAL BETWEEN ADJUSTING RINGS AND CASTING. COAT OUTSIDE OF ADJUSTING RINGS ONLY WITH SEWER JOINT COMPOUND AND WRAP WITH MIN. 6 MIL POLYETHYLENE.

CONCRETE ADJUSTING RINGS AS REQUIRED. (4" MIN. AND 12" MAX. UNLESS OTHERWISE NOTED. ALL ADJUSTING RINGS LESS THAN 4" SHALL BE RUBBER.)

CASTING REQUIREMENTS:  
**IN STANDARD CURB AND GUTTER:**  
 NEENAH R-3075 WITH TYPE L GRATE (NEENAH 10996 GRATE AT DRIVEWAYS)  
**IN MOUNTABLE CURB AND GUTTER:**  
 NEENAH R-3501-L1A IN PAVED AREAS (NO CURB AND GUTTER);  
 NEENAH R-2500 IN GRASS AREAS;  
 NEENAH R-2561 WITH BEEHIVE GRATE

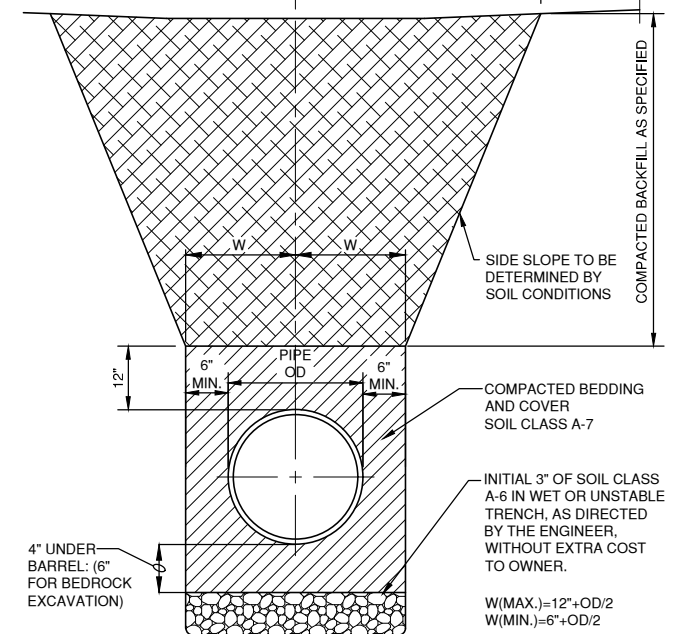


### STORM INLET MANHOLE TYPE "B"

NOTE: SURFACE RESTORATION REQUIREMENTS PER THE SPECIFICATIONS.

SOIL CLASS G-1 OR C-3 / C-6 IF REQUIRED PER SPECIFICATIONS

PROPERTY LINE OR EASEMENT LINE 1'-0" MIN.



### HDPE /PVC SEWER, WATERMAIN AND FORCEMAIN BEDDING AND TRENCH DETAIL

File: E:\VADO\LECA\WORK\01\Drawings\DETAILS.dwg Plot Date: Dec 2021 - 11:58am LAYOUT: DETAILS 2

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN
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2	11/01/21	PHK	ISSUED FOR BID					PHK

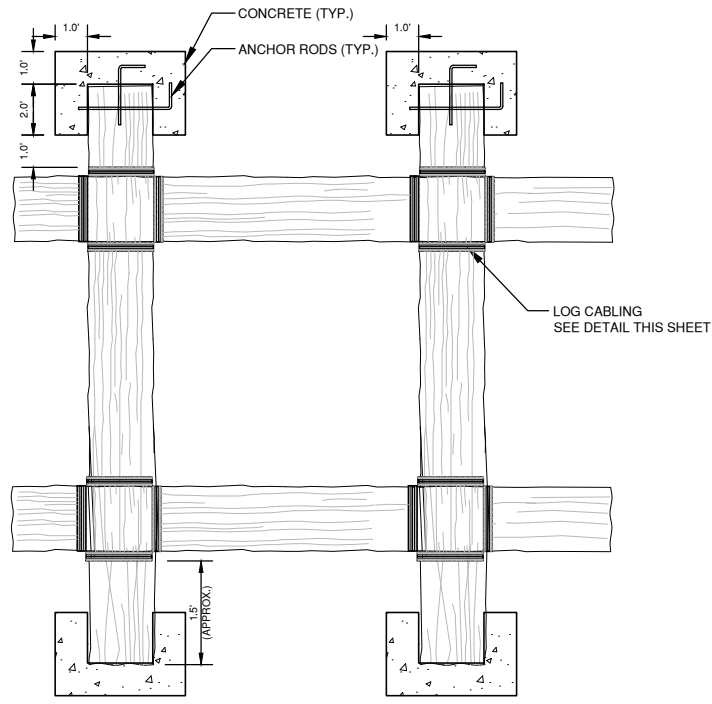
BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

MISCELLANEOUS DETAILS

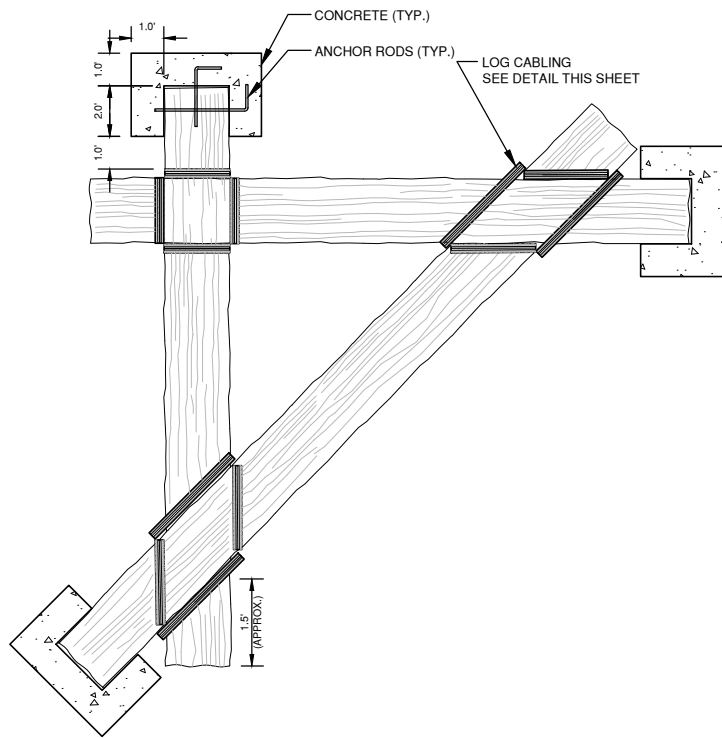
DATE	04/20/21
FILE	DETAILS
JOB NO.	6004001



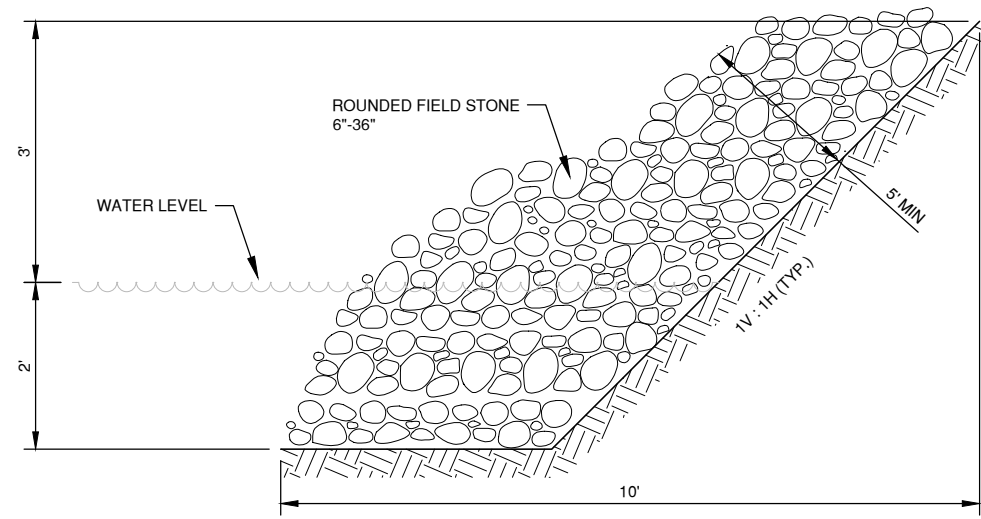
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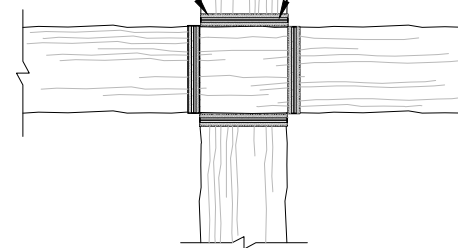
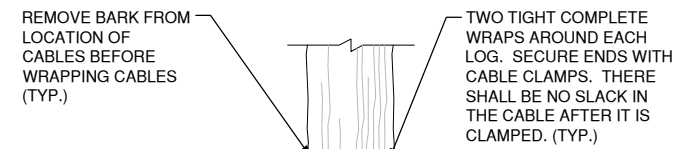
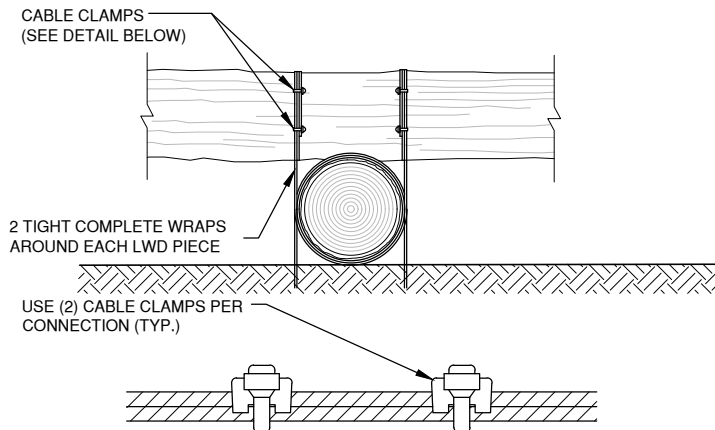
LOG STRUCTURE DETAIL  
(FOUR OVERLAPPING LOGS)



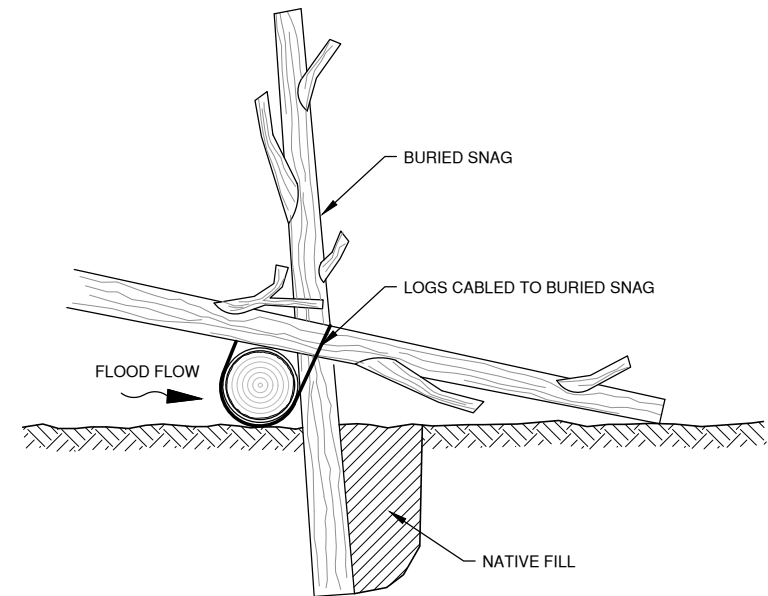
LOG STRUCTURE DETAIL  
(THREE OVERLAPPING LOGS)



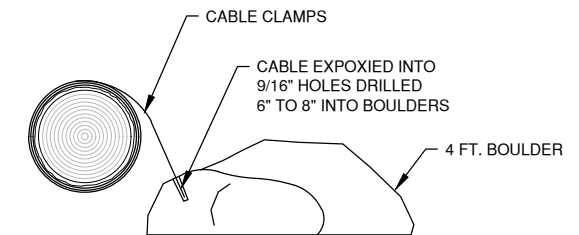
ROCK PILE DETAIL



LOG CABLING DETAIL



BURIED LOG SECURING DETAIL



SINGLE BOULDER / LOG SECURING DETAIL

LARGE WOODY DEBRIS SECURING DETAILS

File: R:\WOOD\LOGS\WOODLOG1\WOODLOG1.DWG  
 Plot Date: Dec 2021 - 11:58am  
 LAYOUT: DETAILS 3

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/30/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN: EMK  
 CHECKED: JGS  
 DESIGNED: PHK

BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

MISCELLANEOUS DETAILS

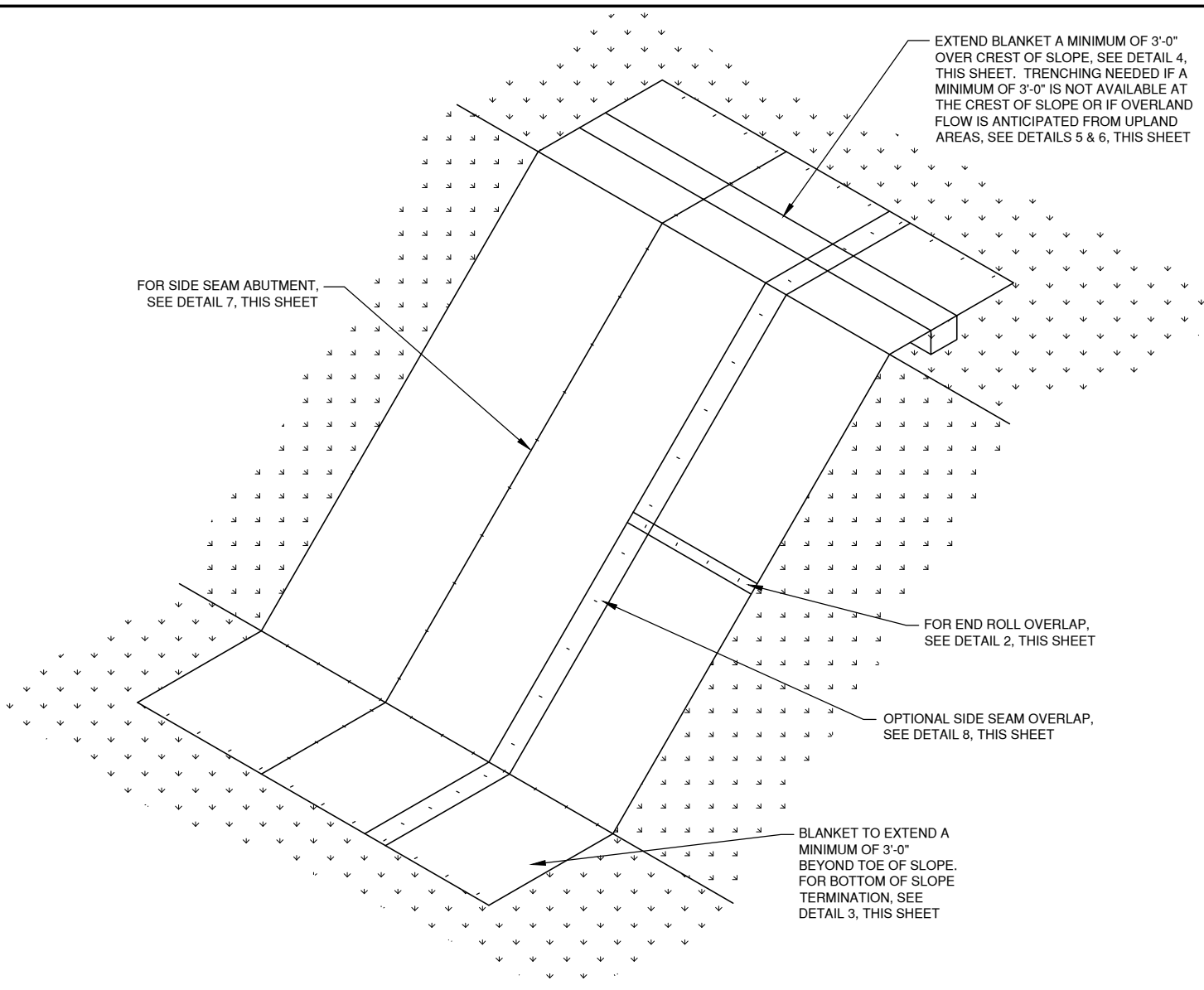
DATE	09/20/19
FILE	DETAILS
JOB NO.	6004001



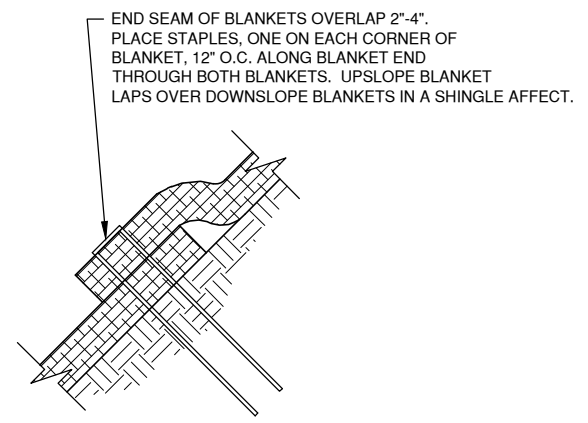
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SHEET NO.  
 17

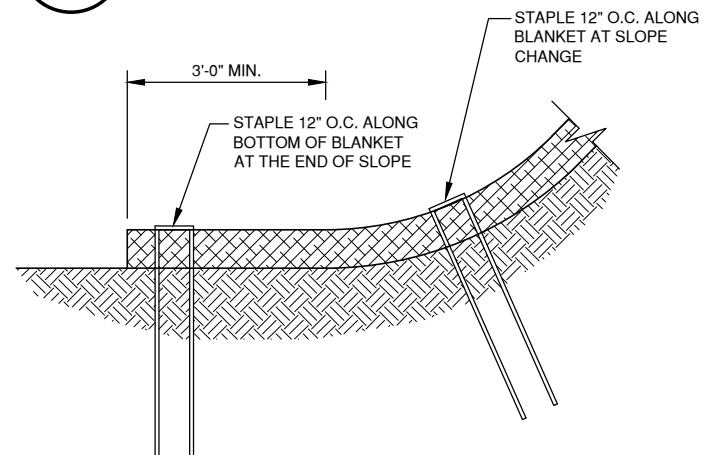
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 EROSION MAT  
 LAYOUT



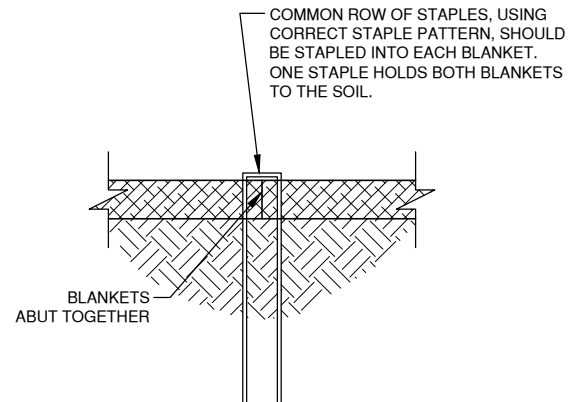
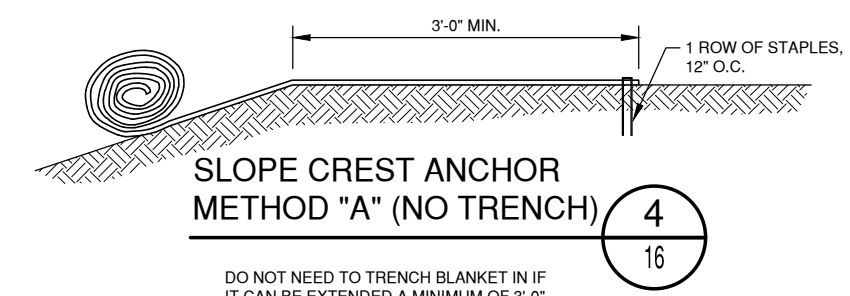
**SLOPE DETAIL** 1  
16



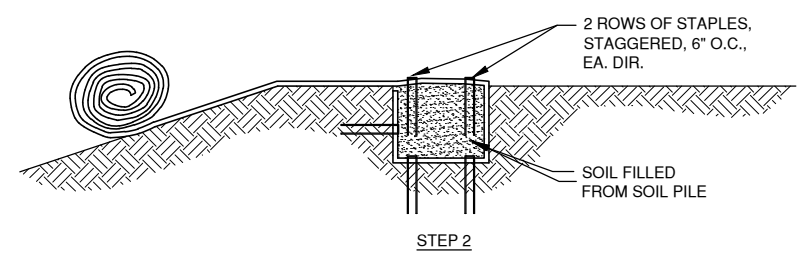
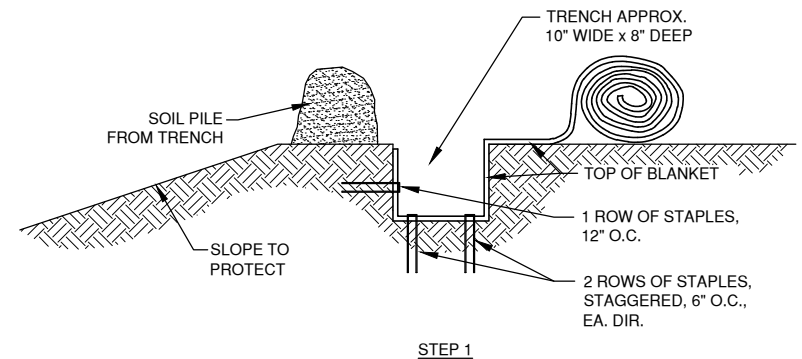
**END ROLL OVERLAP** 2  
16



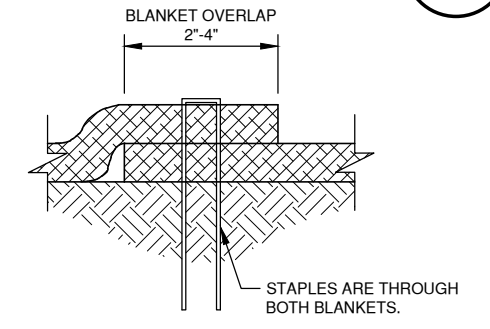
**BOTTOM OF SLOPE TERMINATION** 3  
16



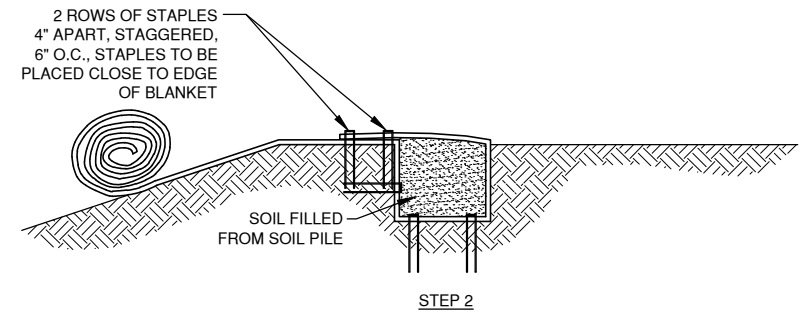
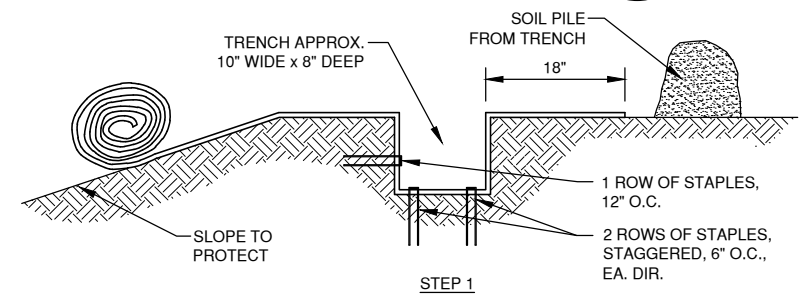
**SIDE SEAM ABUT STAPLE DETAIL** 7  
16



**SLOPE TRENCHING METHOD "B"** 5  
16



**SIDE SEAM OVERLAP STAPLE DETAIL** 8  
16



**SLOPE TRENCHING METHOD "C"** 6  
16

**NOTES:**  
 1. STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS. SEE MANUFACTURER STAPLE PATTERN GUIDE FOR DETAILS.

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/30/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN LLP  
 CHECKED JGS  
 DESIGNED PHK

**BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT**  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

EROSION MAT  
 SLOPE APPLICATION DETAILS

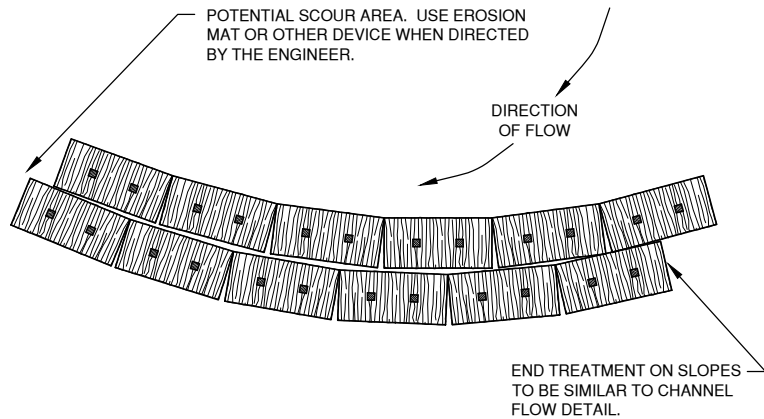
DATE 04/20/21  
 FILE EROSION MAT  
 JOB NO. 6004001

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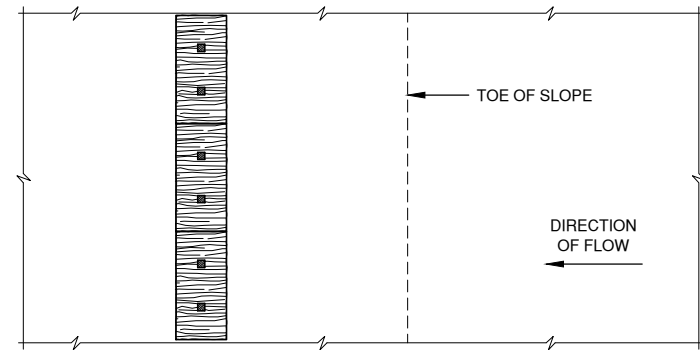
SHEET NO. **18**



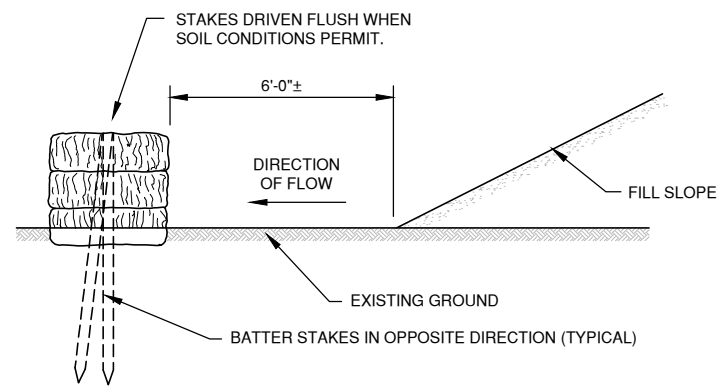
File: R:\V000\0004\000001\000\erosion\_control.dwg  
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 LAYOUT: 3 BATCH CHECKS



**PLAN VIEW**  
(WHEN ALTERING THE DIRECTION OF FLOW)

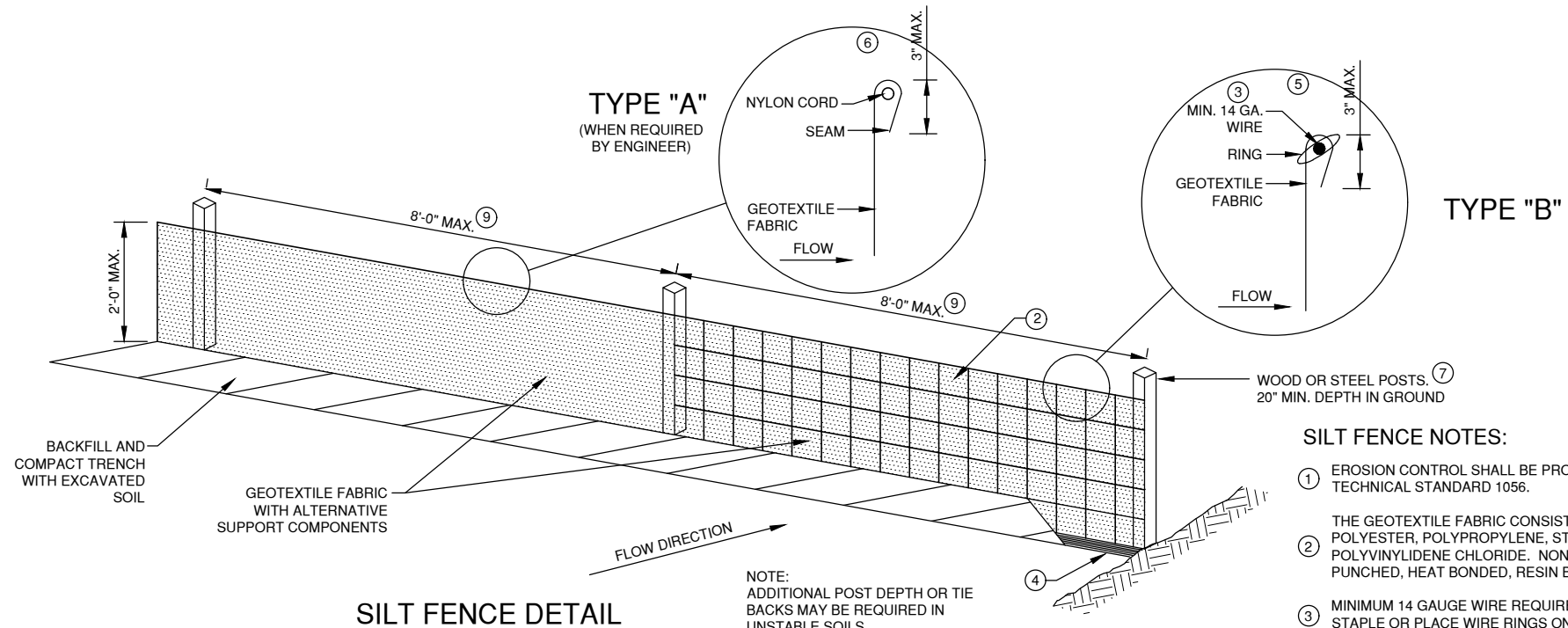


**PLAN VIEW**

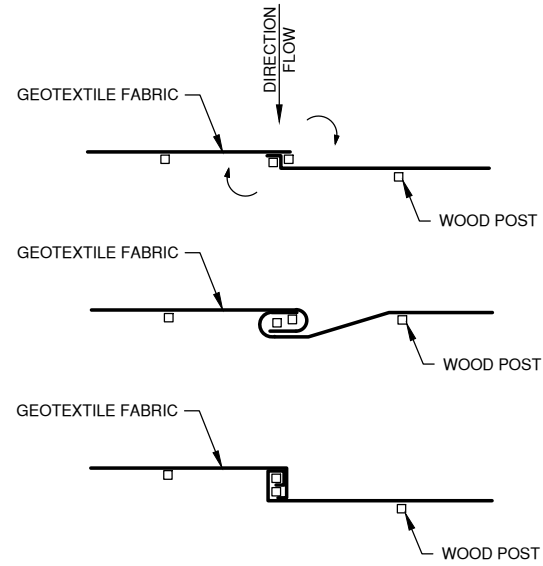


**FRONT ELEVATION**  
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

**EROSION BALES FOR SHEET FLOW**



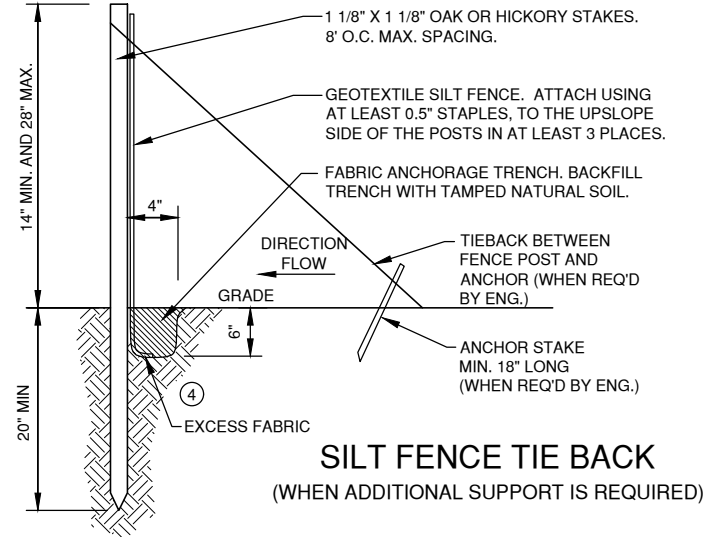
**SILT FENCE DETAIL**



**TWIST METHOD** ⑧

**HOOK METHOD** ⑧

**JOINING TWO LENGTHS OF SILT FENCE**



**SILT FENCE TIE BACK**  
(WHEN ADDITIONAL SUPPORT IS REQUIRED)

**EROSION CONTROL SHEET FLOW NOTES:**

1. ANY SOIL STOCKPILED THAT REMAINS FOR MORE THAN 7 DAYS, SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING.
2. A MINIMUM OF 4" OF TOPSOIL MUST BE APPLIED TO ALL AREAS TO BE SEEDDED OR SODDED.
3. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
4. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH DAY. **FLUSHING SHALL NOT BE ALLOWED.**
5. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR THE APPLICATION OF STABILIZATION MEASURES MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
6. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING.
7. ALL TEMPORARY EROSION CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED WITH 70% VEGETATION AND A NOTICE OF TERMINATION HAS BEEN APPROVED BY THE WDNR.
8. WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH OR A TACKING AGENT MAY NEED TO BE UTILIZED TO PROTECT NEARBY RESIDENCES/WATER RESOURCES.
9. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL THE EROSION CONTROL MEASURES IN CONFORMANCE WITH THE WDNR CONSERVATION PRACTICE STANDARDS LATEST EDITION.
10. UPON COMPLETION OF STORM INLET CONSTRUCTION, INSTALL STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITE AS SPECIFIED.
11. FINE SEDIMENT ACCUMULATIONS SHALL BE CLEANED FROM STREETS, PRIVATE DRIVES, OR PARKING AREAS BY MANUAL OR MECHANICAL SWEEPING A MINIMUM OF ONCE A WEEK AND BEFORE ALL IMMINENT RAINS
12. EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF RAINFALL OF 0.5" OR MORE.

**SILT FENCE NOTES:**

- ① EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1056.
- ② THE GEOTEXTILE FABRIC CONSISTS OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE OR POLYVINYLIDENE CHLORIDE. NON-WOVEN FABRIC MAY BE NEEDLE PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATIONS THEREOF.
- ③ MINIMUM 14 GAUGE WIRE REQUIRED, FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C.C.
- ④ EXCAVATE A TRENCH A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL
- ⑤ WIRE SUPPORT FENCE SHALL BE 14 GAUGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C.C. (TYPE B)
- ⑥ GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED. (TYPE A)
- ⑦ STEEL POSTS SHALL BE 5' LONG WITH A MINIMUM STRENGTH OF 1.33 LBS PER FOOT. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY. THE POSTS SHALL BE A MINIMUM OF 3' LONG FOR 24" SILT FENCE AND 4' LONG FOR 36" SILT FENCE.
- ⑧ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL, IF POSSIBLE, BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE FOLLOWING TWO METHODS: A.) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B.) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.
- ⑨ THE MAXIMUM SPACING OF POSTS FOR WOVEN FABRIC SILT FENCE SHALL BE 8 FEET AND FOR NON-WOVEN FABRIC, 3 FEET.

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
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2	11/01/21	PHK	ISSUED FOR BID				

**BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN**

**EROSION CONTROL  
 SHEET FLOW DETAILS**

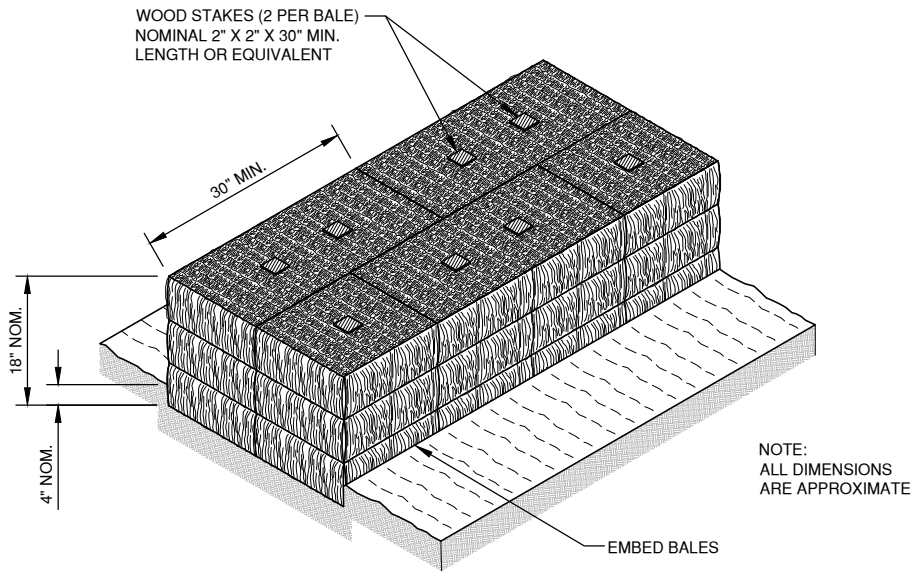
DATE  
04/20/21  
 FILE  
EROSION CONTROL  
 JOB NO.  
6004001



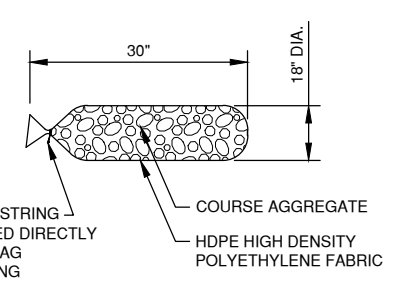
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SHEET NO.  
**19**

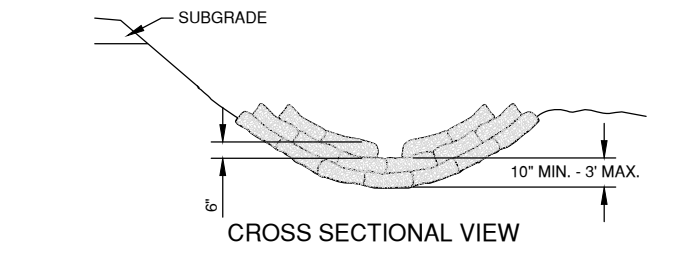




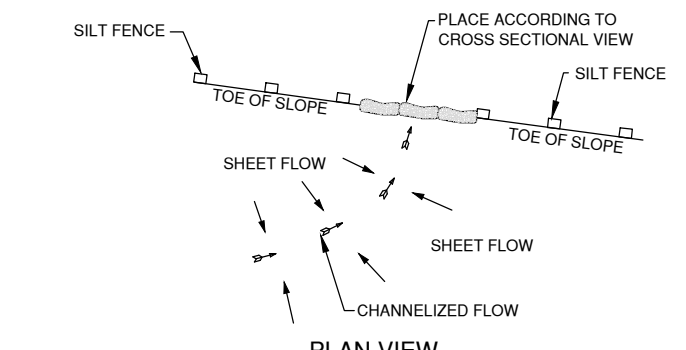
SECTION A-A



FILTER BAG DETAIL



CROSS SECTIONAL VIEW



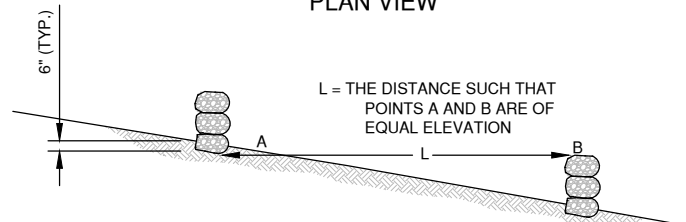
PLAN VIEW

NOTES:

- 18" X 30" ROCK FILLED FILTER BAG SHALL BE COMPRISED OF THE FOLLOWING:
  - HDPE HIGH DENSITY POLYETHYLENE
  - HDPE HIGH DENSITY POLYETHYLENE DRAW STRING KNITTED DIRECTLY INTO BAG OPENING.
  - 80% FABRIC CLOSURE WITH APPARENT OPENING SIZE NO LARGER THAN 1/8" X 1/8"
  - ROLLED SEAM USING A MINIMUM OF 480 DENIER POLYESTER SEWING YARN FOR STRENGTH AND DURABILITY.
- USE WELL GRADED COURSE AGGREGATE CONFORMING TO THE FOLLOWING GRADATION REQUIREMENTS

SIEVE SIZE	SIZE NO.
2 INCH (50 mm)	AASHTO No. 67 (1)
1 1/2 INCH (37.5mm)	-
1 INCH (25.0 mm)	100
3/4 INCH (19.0mm)	90-100
3/8 INCH (9.5mm)	20-55
No. 4 (4.75mm)	0-10
No. 8 (2.36mm)	0-5

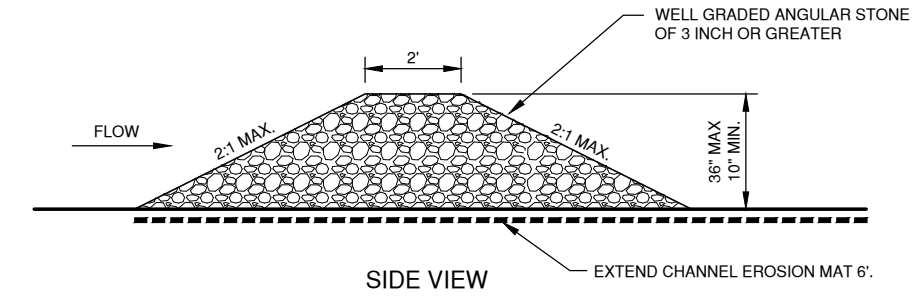
(1) SIZE No. ACCORDING TO AASHTO M 43



SIDE VIEW

DITCH CHECK DETAIL

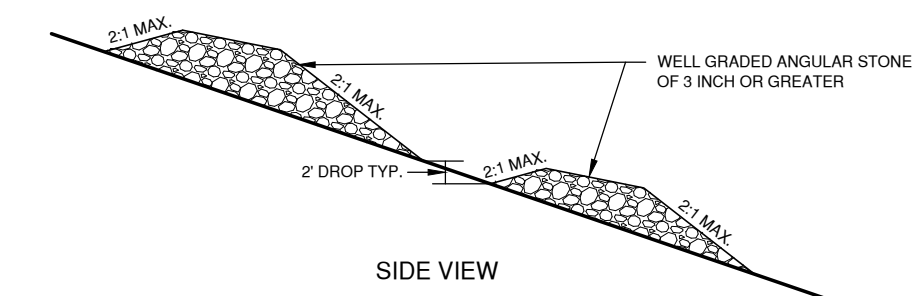
ROCK FILLED EROSION CONTROL BAGS  
TYPE B



SIDE VIEW

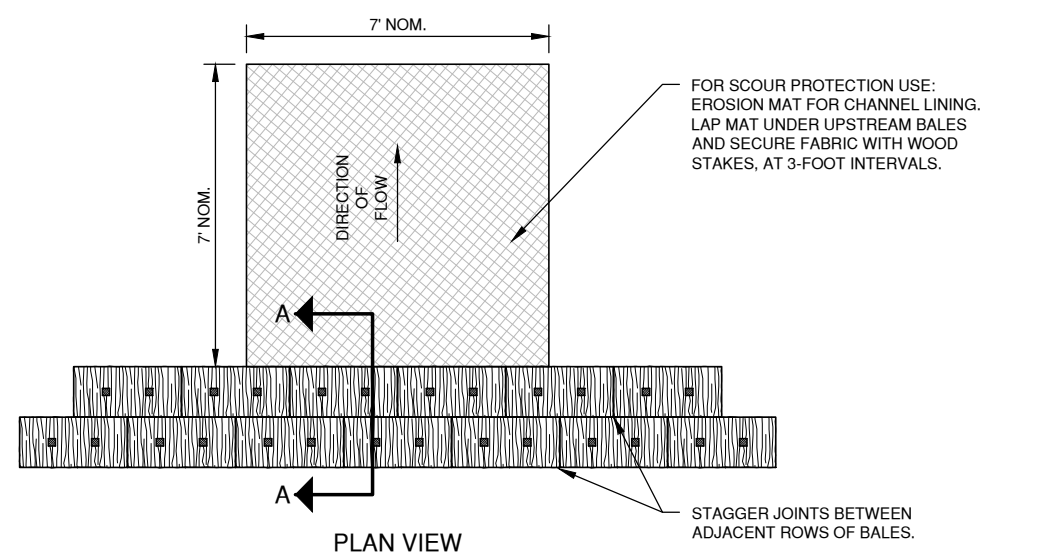
DITCH CHECK GENERAL NOTES:

- DITCH CHECKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1062.
- AT A MINIMUM, INSTALL ONE DITCH CHECK FOR EVERY 2 FEET OF VERTICAL DROP.
- DITCH CHECKS SHALL BE PLACED SUCH THAT THE RESULTING PONDING WILL NOT CAUSE AN INCONVENIENCE OR DAMAGE TO ADJACENT AREAS.

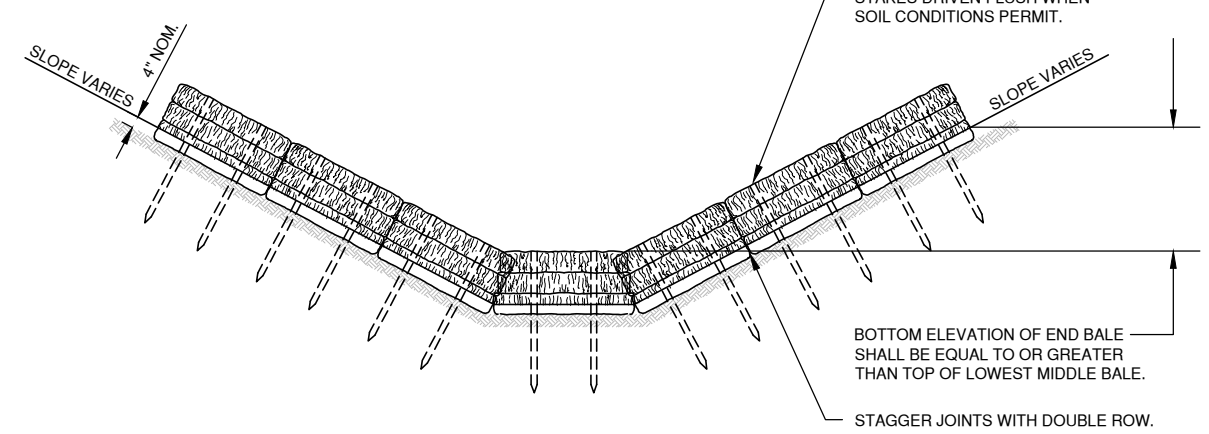


SIDE VIEW

TEMPORARY DITCH CHECK USING STONE  
TYPE C



PLAN VIEW



FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES  
TYPE A

File: R:\Users\pca\OneDrive\Working\EROSION CONTROL.dwg  
PLOT DATE: OCT 22, 2021 10:30am  
LAYOUT: 3 DITCH CHECKS

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION	DRAWN	CHECKED	DESIGNED
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2	11/01/21	PHK	ISSUED FOR BID							

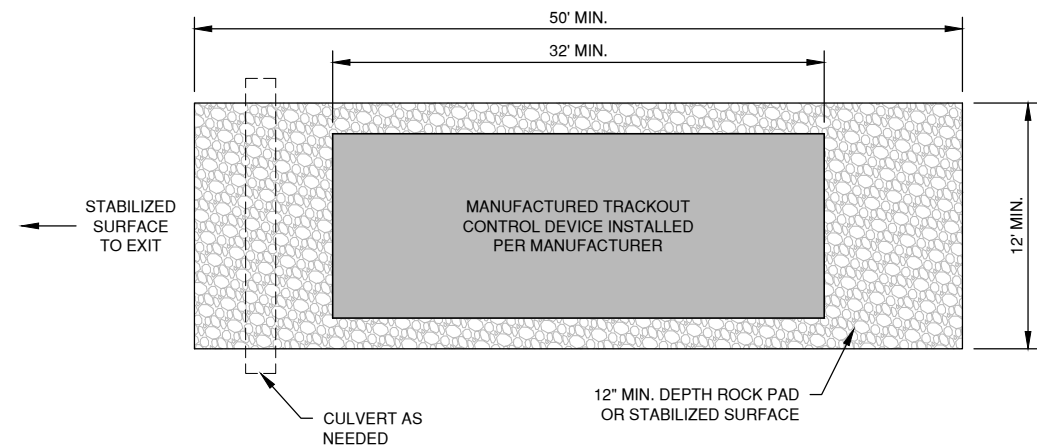
BANK STABILIZATION AND  
INVASIVE SPECIES MANAGEMENT  
DE PER GREENWOOD CEMETERY  
TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

EROSION CONTROL  
DITCH CHECKS

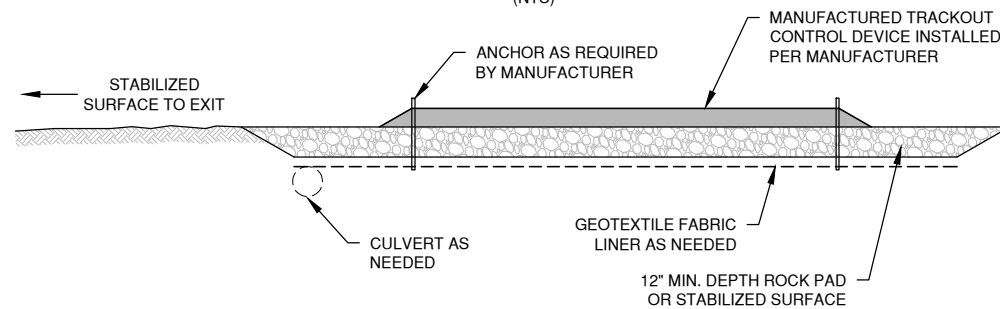
DATE	04/29/21
FILE	EROSION CONTROL
JOB NO.	6004001

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\* TRACKOUT CONTROL TO BE PROVIDED PER DETAILS BELOW AND IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1057



PLAN VIEW  
(NTS)

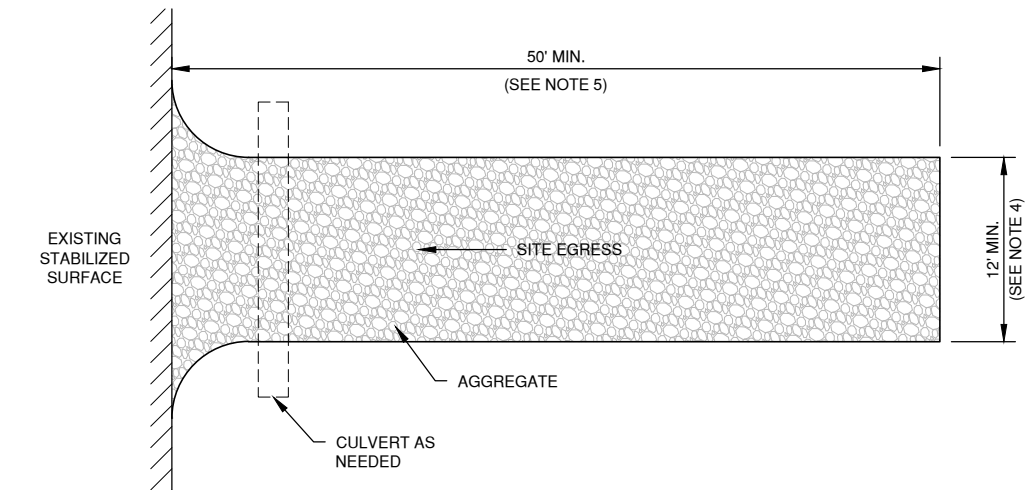


SECTION VIEW

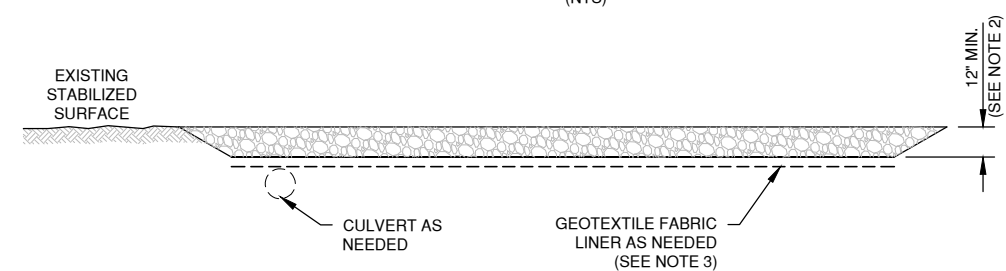
NOTES:

1. THIS DETAIL IS PROVIDED AS AN EXAMPLE. COMPLY WITH MANUFACTURER'S SPECIFICATIONS WHILE ALSO MEETING THE MINIMUM MANUFACTURED TRACKING PAD LENGTH AND WIDTH DESCRIBED IN THIS TECHNICAL STANDARD.
2. INSTALL SUCH THAT RUNOFF FLOWS TO AN APPROVED TREATMENT PRACTICE.
3. A THINNER STONE LAYER OR OTHER STABLE SURFACE MAY BE ACCEPTABLE SUCH THAT RUTTING IS MINIMIZED AS VEHICLES MOUNT OR DISMOUNT FROM THE MANUFACTURERS TRACKOUT CONTROL DEVICE.
4. SELECT FABRIC TYPE BASED ON SOIL CONDITIONS AND VEHICLES LOADING.
5. DIRECT ALL EXISTING VEHICLES OVER MANUFACTURED TRACKOUT CONTROL DEVICE. STONE TRACKING PAD INSTALLATION ACROSS REMAINING ACCESS WIDTH IS RECOMMENDED. A 12' MINIMUM CAN BE USED WHEN EXITING TRAFFIC IS RESTRICTED TO A DEDICATED EGRESS LANE.
6. IF MINIMUM INSTALLATION LENGTH IS NOT POSSIBLE DUE TO SITE GEOMETRY, INSTALL THE MAXIMUM LENGTH PRACTICABLE AND SUPPLEMENT WITH ADDITIONAL PRACTICES AS NEEDED.
7. ACCOMMODATE EXITING VEHICLES IN EXCESS OF MANUFACTURED TRACKOUT CONTROL DEVICE WEIGHT CAPACITY WITH OTHER TREATMENT PRACTICES.

MANUFACTURED TRACKOUT CONTROL DETAIL



PLAN VIEW  
(NTS)



SECTION VIEW

NOTES:

1. USE HARD, DURABLE, ANGULAR STONE OR RECYCLED CONCRETE, MEETING THE FOLLOWING GRADATION:

SIEVE SIZE:	PERCENT BY WEIGHT PASSING:
3"	100
2 1/2"	90-100
1 1/2"	25-60
3/4"	0-20
3/8"	0-5
2. SLOPE THE STONE TRACKING PAD IN A MANNER TO DIRECT RUNOFF TO AN APPROVED TREATMENT PRACTICE.
3. SELECT FABRIC TYPE BASED ON SOIL CONDITIONS AND VEHICLES LOADING.
4. INSTALL TRACKING PAD ACROSS FULL WIDTH OF THE ACCESS POINT, OR RESTRICT EXISTING TRAFFIC TO A DEDICATED EGRESS LANE AT LEAST 12 FEET WIDE ACROSS THE TOP OF THE PAD.
5. IF A 50' PAD LENGTH IS NOT POSSIBLE DUE TO SITE GEOMETRY, INSTALL THE MAXIMUM LENGTH PRACTICABLE AND SUPPLEMENT WITH ADDITIONAL PRACTICES AS NEEDED.

STONE TRACKING PAD DETAIL

File: R:\Vero\1004\1004001\_Vero\1004001\_Vero\EROSION CONTROL.dwg  
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 Layer: 4 INLET PROTECTION

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/30/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

DRAWN: EMK  
 CHECKED: JGS  
 DESIGNED: PHK

BANK STABILIZATION AND  
 INVASIVE SPECIES MANAGEMENT  
 DE PERE GREENWOOD CEMETERY  
 TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

EROSION CONTROL  
 INLET PROTECTION

DATE: 04/20/21  
 FILE: EROSION CONTROL  
 JOB NO.: 6004001



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SHEET NO.  
**21**

**INLET PROTECTION NOTES:**

INLET PROTECTION DEVICES SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1060, STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE WDOT PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

**MAINTENANCE NOTES:**

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED IN THE FABRIC DOES NOT FALL INTO THE STRUCTURE. MATERIAL THAT HAS FALLEN INTO THE INLET SHALL BE IMMEDIATELY REMOVED.

**INSTALLATION NOTES:**  
TYPE "B" AND "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE "D"**

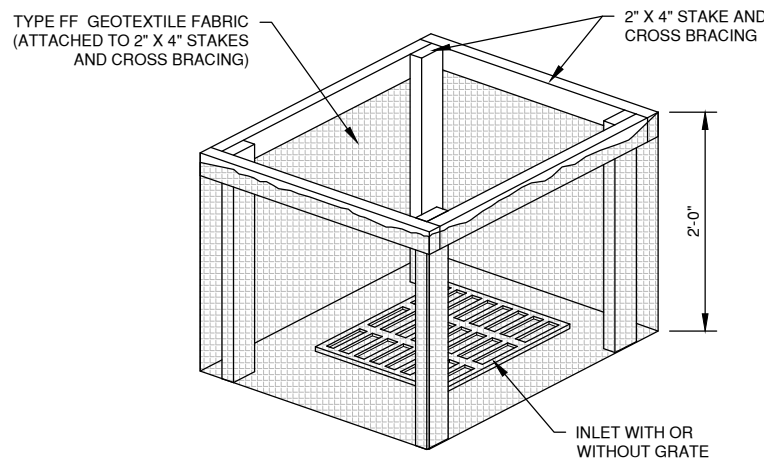
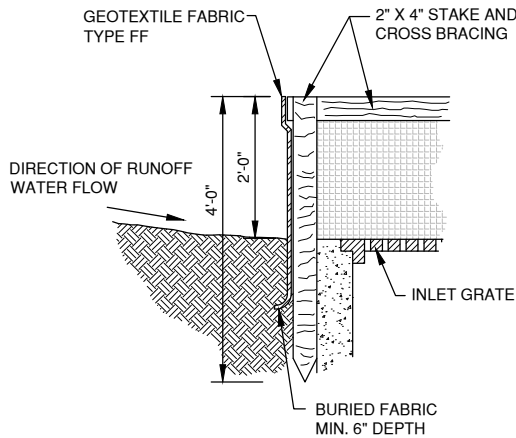
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30" MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

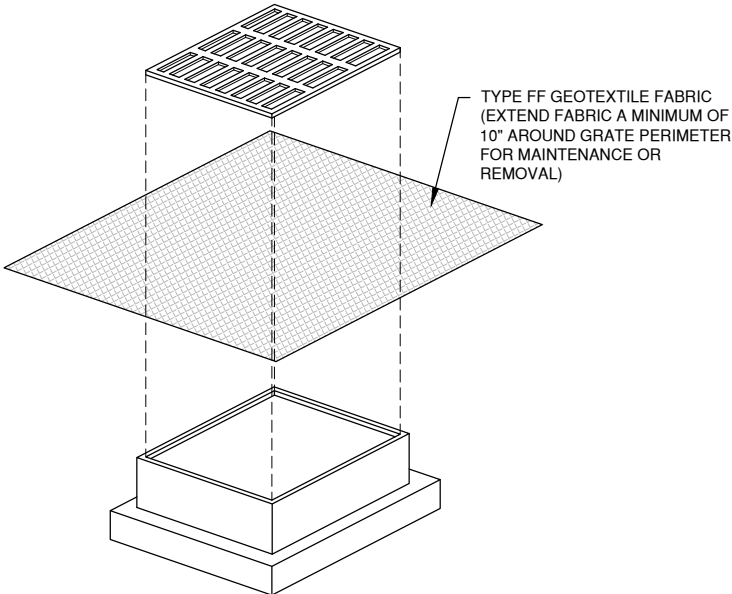
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY, CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE, THE TIES SHALL BE PLACED AT THE MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

**NOTES:**

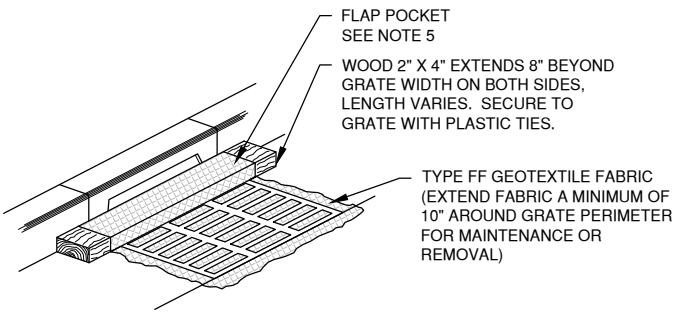
1. TAPER BOTTOM OF BAG TO MAINTAIN THREE INCHES OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.
2. GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF THE OUTSIDE OF FILTER BAG. FRONT, BACK AND BOTTOM OF FILTER BAG BEING ONE PIECE.
3. FRONT LIFTING FLAP IS TO BE USED WHEN REMOVING AND MAINTAINING FILTER BAG.
4. SIDE FLAPS SHALL BE A MAXIMUM OF TWO INCHES LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.
5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2" X 4". THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.



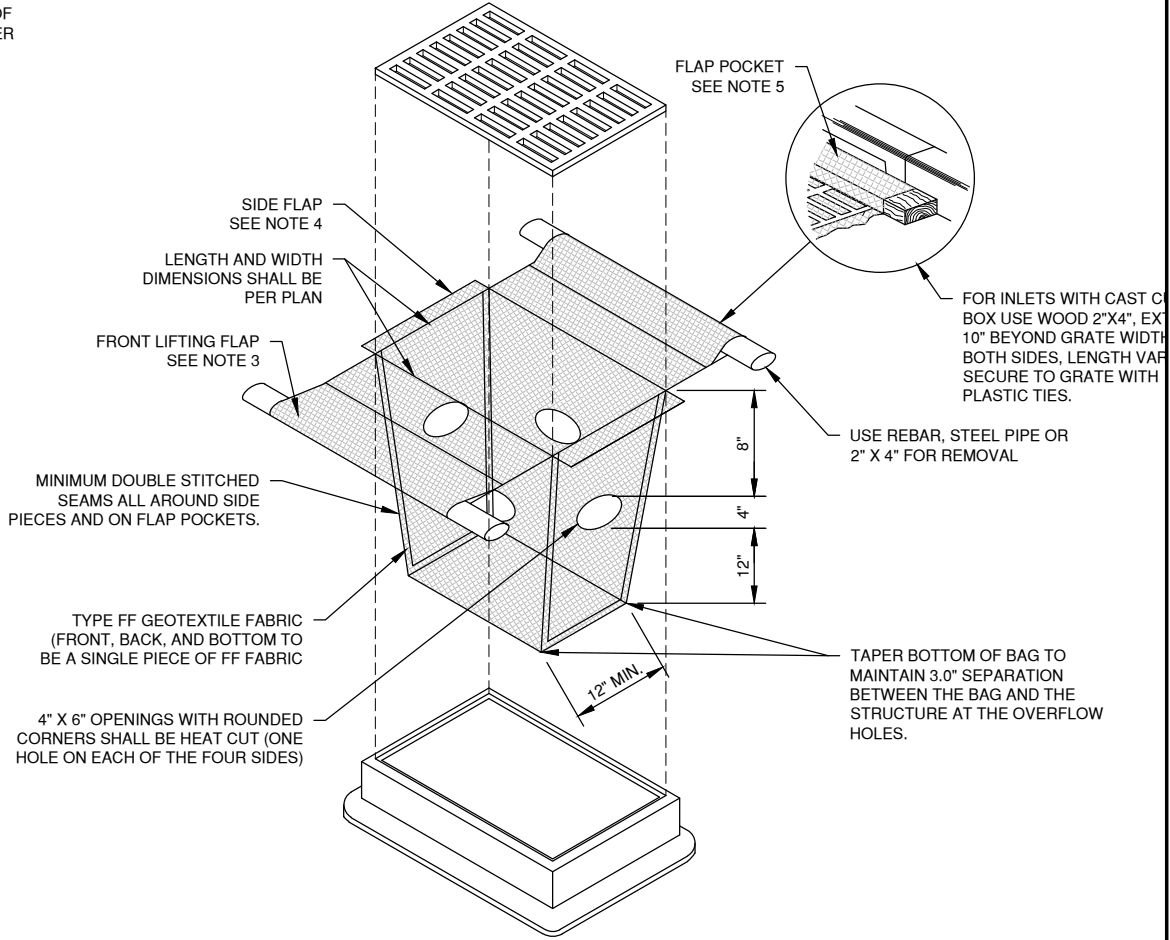
**INLET PROTECTION, TYPE A**



**INLET PROTECTION, TYPE B (WITHOUT CURB BOX)**  
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**



**INLET PROTECTION, TYPE D**  
(CAN BE INSTALLED IN INLETS WITH OR WITHOUT CURB BOXES)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	4/30/21	PHK	REVISED PER WDNR COMMENTS				
2	11/01/21	PHK	ISSUED FOR BID				

BANK STABILIZATION AND INVASIVE SPECIES MANAGEMENT DE PERE GREENWOOD CEMETERY TOWN OF LEDGEVIEW, BROWN COUNTY, WISCONSIN

EROSION CONTROL TRACKOUT CONTROL PRACTICES

DATE 04/28/21
FILE EROSION CONTROL
JOB NO. 8004001



**Robert E. Lee & Associates, Inc.**  
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES  
1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 53155  
920-662-9641 www.releeinc.com

## **LABELED TAB – ADDENDUM**

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**\*Place labeled tab BEFORE back spec cover.**

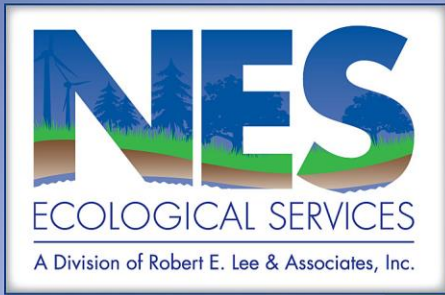


**State of Wisconsin  
Department of Safety & Professional Services**

**AGENDA REQUEST FORM**

1) Name and Title of Person Submitting the Request:  <b>Will Johnson, Executive Director</b>		2) Date When Request Submitted: 09/14/2023  Items will be considered late if submitted after 4:30 p.m. and less than: <ul style="list-style-type: none"> <li>▪ 10 work days before the meeting for Medical Board</li> <li>▪ 14 work days before the meeting for all others</li> </ul>	
3) Name of Board, Committee, Council, Sections:  <b>Cemetery Board</b>			
4) Meeting Date:  <b>9/20/2023</b>	5) Attachments: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6) How should the item be titled on the agenda page? <b>Erosion and Remediation Assistance for the De Pere Greenwood Cemetery: Discussion and Consideration of 2023 Wis. Act 19, Section 9138(1) provision.</b>	
7) Place Item in: <input checked="" type="checkbox"/> Open Session <input type="checkbox"/> Closed Session <input type="checkbox"/> Both	8) Is an appearance before the Board being scheduled?  <input type="checkbox"/> Yes ( <a href="#">Fill out Board Appearance Request</a> ) <input checked="" type="checkbox"/> No	9) Name of Case Advisor(s), if required: <b>N/A</b>	
10) Describe the issue and action that should be addressed:			
11) <b>Authorization</b>			
<i>William Johnson</i>		<i>09/14/2023</i>	
Signature of person making this request		Date	
Supervisor (if required)		Date	
Executive Director signature (indicates approval to add post agenda deadline item to agenda)		Date	
<b>Directions for including supporting documents:</b> 1. This form should be attached to any documents submitted to the agenda. 2. Post Agenda Deadline items must be authorized by a Supervisor and the Policy Development Executive Director. 3. If necessary, Provide original documents needing Board Chairperson signature to the Bureau Assistant prior to the start of a meeting.			

NES Ecological Services	Woodland Restoration & Maintenance Proposal	\$35,100.00
Robert E Lee	Embankment Stabilization Construction Services Proposal;	\$14,500.00
Highway Landscaping	Embankment Stabilization and Invasive Species Management	\$900,564.56
	10% unforeseen expenditures & duration of the construction	\$95,000.00
		\$1,045,164.56



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Serving **Wisconsin, Michigan, Minnesota** and **Illinois**



# Woodland Restoration & Maintenance Proposal

*Prepared for*

**Greenwood Cemetery**

P.O. Box 353

De Pere, WI 54115

*Prepared By:*

**James Havel**

August 1, 2023

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## INTRODUCTION – NARRATIVE SUMMARY

NES Ecological Services, A Division of Robert E. Lee & Associates, Inc., is pleased to submit this proposal to remove woody invasive species and assist with the installation and maintenance of native vegetation at the Greenwood Cemetery in De Pere, Wisconsin. The proposal prioritizes the recommended activities to be conducted for installation and two years of maintenance to meet warranty requirements.

NES ecologists will be responsible for providing the following services:

- Meetings, Consultations, Correspondence and/or Reports, if necessary
- Provide Professional Oversight Regarding Tree Removal
- Apply Herbicide to Control Terrestrial Invasive and Aggressive Plant Species
- Submit Proper Herbicide Treatment Documentation to Greenwood Cemetery
- Invasive Woody Vegetation Removal
- Mowing Activities for Vegetation Management
- Provide & Install Savanna/Woodland Opening Seed Mix
- Provide & Install Erosion Control

## PROJECT TEAM

The primary contact person to coordinate the project for NES will be James Havel, Senior Ecologist and Project Manager, while Nick Kintopf, Restoration Ecologist, will be the lead field ecologist for the project. The Greenwood Cemetery and Jewels Sowers will be a key part of the project team.

NES's ecological staff have extensive experience in monitoring native landscapes; site preparation; installing seeds, live plants, biologists, herbivore fencing, and erosion control measures; and maintenance through mowing, prescribed burns and herbicide applications. Our team will strive to conduct the proposed work in an efficient manner to reduce project costs while achieving the desired goals.

As mentioned above, James Havel will be the project leader. Mr. Havel will be the prime contact person for the Cemetery. Mr. Kintopf will be in charge of the annual field operations. He will be the manager of, and a participant in, the field work. Mr. Kintopf along with Dustin Sablich (Restoration Ecologist) and Steven Essex (Restoration Ecologist) will also participate in site preparation work, installation and maintenance activities. NES/REL also has several full-time and seasonal staff that have worked with our ecologists and are available when needed. These individuals include: Thomas Gerbyshak, Mark Linder, Shannon McClusky, Ian Mueller, Noelle Vallee and Wess Willette.

## PROJECT RECOMMENDATIONS

### ***Task 1. Provide Miscellaneous Consultations and Meetings***

This task will be performed by either James Havel or Nick Kintopf, when the need for special consultations and meetings arise. Prior to conducting this task, NES will coordinate with Greenwood Cemetery personnel, and any other parties needing to attend, to determine a mutually convenient date to meet/consult. NES will only perform this task with special authorization and request by the Greenwood Cemetery/Jewels Sowers.

NES ecologists have worked with clients from all sector types. These include private landowners, residential clients, municipal officials, commercial property managers, business owners, government officials, and many others. We have experienced many situations with individuals that require significant communication, partnership, and education as to the reasons for utilizing functional native landscapes. Often the native landscapes are utilized in conjunction with traditional lawns and hardscapes, both for functionality and traditional landscape values. Our ecologists are very qualified and comfortable in these situations. If and when these meetings occur, NES will come prepared to each with appropriate background information from past visits, field efforts, and up-to-date information for the situation at hand. NES will also provide a written memo to Jewels Sowers documenting discussions and any recommendations made during the meeting/consultation. The ecologist involved will provide this information within one week.

Due to the spontaneous nature of this item, a specific schedule does not apply. NES will be responsive and meet the required timeframes for this task when it arises.

### **Task 2. Professional Oversight – Tree Removal**

This task will be performed by either James Havel or Steven Essex. Trees outside the zone to be cleared and grubbed will be selectively harvested by the contractor to eliminate undesirable species such as boxelder (*Acer negundo*) and green ash (*Fraxinus pennsylvanica*) while improving growing conditions for desirable species such as bur oak (*Quercus macrocarpa*) and shagbark hickory (*Carya ovata*). NES ecologists will mark the trees to be removed prior to the contractor beginning on-site work. Our staff will coordinate with the contractor to oversee the tree removal and address issues, if they arise.

### **Task 3. Cut, Treat & Chip Invasive Woody Vegetation**

Invasive woody species, primarily common buckthorn (*Rhamnus cathartica*) within the project area will be cut, treated with herbicide and chipped. Unwanted buckthorn seedlings will be addressed under future maintenance activities - Task 7.

### **Task 4. Site Preparation**

Site preparation activities will occur within the identified disturbed areas located along the shoreline of the Fox River. These activities will ensure the invasive species found within these areas are controlled and the site restored to a community dominated by native vegetation that will assist with slope erosion.

### **Task 5. Furnish and Install Savanna/Woodland Opening Seed Mix**

A native seed mix will be installed per NES recommendations. This task will focus on addressing the regraded areas to be restored on the side slopes of the site.

### **Task 6. Furnish and Install Erosion Control**

NES staff will install erosion control blanket in areas that will be regraded and seeded. Class I, Urban, Type A blanket and bio-degradable stakes will be utilized as they are more environmentally friendly. Product used will be WintersStraw Bio or an approved equal listed on the WI DOT PAL list.

### **Task 7. Develop Maintenance Plan**

NES staff will author a comprehensive maintenance plan that addresses invasive species control to ensure the restored areas develop into a plant community dominated by native vegetation.

### **Task 8. Apply Herbicide**

Invasive species within the project area at the Cemetery will be treated with herbicide through various methods. NES has accounted for all of the possible treatment methods and herbicides that could be used for this project.

### **Task 9. Mow Vegetation to 6"-8" Height & Spot Mowing**

Mowing activities will be conducted to control undesirable vegetation and to assist with renewal of the native plantings.

## **RESPONSE TIME**

Any problems that may arise will be addressed by NES within five days or less. We will work with the Greenwood Cemetery/Jewels Sowers to achieve desired results while providing quality work in a timely manner.

## **COST ESTIMATE**

An itemized cost breakdown (Tables 1-4) for anticipated installation/oversight and maintenance services at the Greenwood Cemetery is located below. To help with budget decisions, an annual cost estimate for each anticipated task is provided.

### **Installation**

Prioritized tasks for 2023 are as follows:

- 1) Tree Removal Oversight (Task #2)
- 2) Invasive Woody Species Control (Task #3)
- 3) Install Native Seed Mix/Erosion Control (Tasks #4, #5 & #6)

**Table 1. Cost Estimate for 2023.**

<b>Task</b>	<b>Estimated Cost</b>
<i>#2 – Tree Removal Oversight</i>	\$ 4,500
<i>#3 – Cut &amp; Treat Woody Invasive Species</i>	\$ 8,000
<i>#4 &amp; #5 – Site Prep/Install Native Seed Mix</i>	\$ 5,000
<i>#6 – Furnish and Install Erosion Control</i>	\$ 9,500
<b>Total Cost</b>	<b>\$27,000</b>

## Maintenance

Prioritized tasks for 2024 & 2025 are as follows:

- 1) Selective Herbicide Applications & Mowing (Tasks #7 & #8)

**Table 2. Cost Estimate for 2024.**

Task	Estimated Cost
#7 – Develop Maintenance Plan	\$1,400
#8 & #9 - Herbicide Applications/Mowing Activities	\$3,600
<b>Total Cost</b>	<b>\$5,000</b>

**Table 3. Cost Estimate for 2025.**

Task	Estimated Cost
#8 & #9 - Herbicide Applications/Mowing Activities	\$3,100
<b>Total Cost</b>	<b>\$3,100</b>

## Cost Summary

**Table 4. Total Estimated Installation & Maintenance Costs – 2023 through 2025.**

	Yearly Cost
Installation (2023)	\$27,000
Maintenance (2024)	\$ 5,000
Maintenance (2025)	\$ 3,100
<b>GRAND TOTAL</b>	<b>\$35,100</b>

If you have any questions or there are other items you wish to include, please contact me. Enclosed and made part of this proposal are our Standard Terms. If the proposal and the attached terms are acceptable, please sign the proposal and send a copy to NES. We look forward to working with you.

Sincerely,

NES ECOLOGICAL SERVICES



James Havel  
Division Manager  
jhavel@releeinc.com

## PROFESSIONAL SERVICES AGREEMENT

AUGUST 1, 2023

THIS AGREEMENT is made and entered into this 1<sup>st</sup> day of August 2023, by and between Greenwood Cemetery hereinafter referred to as the “Client”, and NES Ecological Services, A Division of Robert E. Lee & Associates, Inc., 1250 Centennial Centre Boulevard, Hobart, Wisconsin 54155, hereinafter referred to as “NES”.

### SCOPE OF SERVICES

The Project Scope outlined in the attached project proposal shall serve as the Scope of Services for this contract.

### COMPENSATION

Compensation for the project will be a lump sum of \$35,100.00. Costs include all labor, travel costs, materials, and equipment necessary to complete the project.

### TERMS

A. Consulting fees and work items will be billed monthly as incurred. Payments are due within 30 days of invoice date. Amounts unpaid at due date are subject to a service charge of 1.5% per month until paid.

B. NES shall exercise due care in performing professional services, but NES makes no warranty, express or implied, with respect to any services performed by NES. NES shall not be liable for any claim, damage, cost or expense (including attorney's fees) or any other liability or loss or damage to the Client not directly and solely caused by acts, errors, or omissions by NES. In no event shall NES' liability for incidental or consequential loss to the Client in connection with performance of this Agreement exceed the aggregate of all fees paid to NES by Client for these services.

C. NES reserves the right to suspend or terminate this contract, should any invoice not be paid in full within 30 days of the date of the invoice. Should collection litigation be necessary, client acknowledges NES will include attorney's fees and all related costs as a part of the legal action.

D. The Client shall indemnify and hold harmless NES, NES' officers, directors, partners, employees and agents from and against any and all costs, losses and damages caused solely by the negligent acts or omissions of the Client, Client's officers, directors, partners, employees and agents in the performance and furnishing of the Client's services under this Agreement.

NES shall indemnify and hold harmless the Client, the Client's officers, directors, partners, employees and agents from and against any and all costs, losses and damages caused solely by the negligent acts or omissions of NES, NES' officers, directors, partners, employees and agents with respect to this Agreement or the associated Project.

NES' total liability to the Client and any party claiming by, through or under the Client for any cost, loss or damages caused in part by the negligence of NES and in part by the negligence of the Client or any other negligent entity or individual shall not exceed the percentage share that NES' negligence bears to the total negligence of NES, the Client, and all other negligent entities and individuals.

E. By acceptance of this Agreement, it is agreed that NES has permission to go on site and can perform any reasonable and necessary investigation in the course of completing the services described in this agreement. Client is solely responsible for site security and for obtaining permission from any affected third party property owners for use of their lands.

F. The work performed by NES is the confidential property of the client and will not be released to any other party without the Client's permission.

G. All regulatory determinations are subject to review and concurrence by the Wisconsin Department of Natural Resources and/or the U.S. Corps of Engineers, or other agency as appropriate.

H. This Agreement shall be administered and interpreted under the laws of the state of Wisconsin. Jurisdiction of litigation arising from the Agreement shall be in the state of Wisconsin. If any part of the Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of the Agreement shall be in full force and effect.

I. Upon execution of the Agreement, the services described herein shall begin as soon as possible and site investigation (if required) will be completed as weather and scheduling permit.

J. This Agreement must be executed by the Client within 30 days of the day and year first above written.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first written above and hereby authorize NES to initiate work on the project.

**ROBERT E. LEE & ASSOCIATES**

**GREENWOOD CEMETERY**

By: 

JARED SCHMIDT  
PRINCIPAL

\_\_\_\_\_

AUTHORIZED REPRESENTATIVE

**NES ECOLOGICAL SERVICES**

Date: \_\_\_\_\_

By: 

JAMES HAVEL  
DIVISION MANAGER

DATE: AUGUST 1, 2023