

## GILES ENGINEERING OSSOCIATES, INC.

GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

· Atlanta, GA

· Baltimore/Wash. DC

· Dallas, TX

Los Angeles, CA

Milwaukee, WI

Orlando Fl.

November 30, 2010

Wisconsin Department of Natural Resources Southeast Region Headquarters 2300 N. Dr. Martin Luther King Jr. Drive Milwaukee, Wisconsin 53212-3128

Attention:

Ms. Rachel Sabre

Subject:

Bishop's Creek Community Development Corporation

4759 North 32<sup>nd</sup> Street Milwaukee, Wisconsin FID No. 341055770

BRRTS No. 02-41-306192 BRRTS No. 02-41-553373 Giles Project No. 1E-0912014

Dear Ms. Sabre:

Giles has prepared this revised correspondence in response to address the questions presented in the Wisconsin Department of Natural Resources (WDNR) correspondence dated November 11, 2010, which provided notification of receipt of the WDNR Dredging Permit Application 3500-53J for the above referenced property ("Site"). The following correspondence provides additional information, responses/clarifications, and supporting documentation to assist with the WDNRs review of the permit application. Giles responses to your inquiries are included below.

1). ..."Provide a plan sheet that shows the location of the temporary access road, and removal limits within Lincoln Creek"...

Please see the attached Figure 1 for the referenced temporary access road and removal limits within Lincoln Creek.

2). ..."Provide a detailed construction sequence for the removal of the accumulated debris in Lincoln Creek. This sequence must reflect the proper installation of sediment control practices in relation to the removal of the accumulated debris in Lincoln Creek"...

Giles anticipates the following chronology of events to be carried out in association with the removal of the accumulated debris in Lincoln Creek including:

 Establish temporary sediment dredging erosion control measures within Lincoln Creek. The sediment dredging erosion control measures will consist of the placement of a 3-foot high turbidity barrier parallel to the direction of flow in between the debris and sediment and the creek base flow, in accordance with the WDNR Conservation Standard 1069 (See Attached Engineering Drawings C-1A and C-2A). Supplemental Remedial Action Plan Milwaukee, Wisconsin Project No. 1E-0912014 Page 2



The up-gradient leading edge of the turbidity barrier will be anchored to the gabion baskets with rebar rod and sand bag ballast, and to the railroad bridge wall.

- Construct the temporary road by grading the bank for truck ingress and egress; place #3 stone over the graded road; and, establish temporary #3 stone ramps constructed over the existing building footing/wall within the creek by-pass and from the by-pass into the northern-most shoulder of the creek. At no time will the equipment or truck enter the water of the creek, with the exception of the back hoe bucket, during the final removal of sediment from the creek bottom.
- Establish a staging area for materials removed from the Lincoln Creek on Lot 3. A
  geotextile filter fabric will be placed on the ground surface within the staging area
  and silt fencing will be placed around the perimeter of the staging area to control
  sediment runoff. A plastic-lined 10 to 20 cubic yard plastic-lined roll-off container will
  also be established near the staging area for staging of wet sediment materials,
  should they be encountered.
- On a daily basis, enter the creek-by-pass, and track the backhoe onto the
  accumulated debris on the northern most shoulder of Lincoln Creek. The operator
  will track the backhoe across the debris to avoid further damage to the gabion
  baskets and will maintain it on the non-saturated north shoulder of the creek. Also,
  the backhoe will be equipped with a toothless bucket to minimize damage to the
  gabion basket surface of the creek.
- Enter the creek by-pass with a 5 ton, single axle dump truck and onto the accumulated debris on the northern most shoulder of Lincoln Creek to transport materials to the staging area. The operator will travel the dump truck across the debris to avoid further damage to the gabion baskets. An estimated 250 to 300 cubic yards or 380 to 500 tons of debris and sediment will be removed from the Creek.
- Repair/replace gabion basket surfaces. As the backhoe egresses the Creek, the areas where storm-damaged gabions exist will either be repaired or removed/replaced or a concrete slurry mat will be poured and bedded with #6 stone.
- Removal of the temporary Stone Ramps. The stone ramps in the Lincoln Creek flow way and by-pass would be removed subsequent to the debris removal and gabion basket repair.
- Removal of the temporary sediment dredging erosion control measures. Upon completion of the repairs and accordance with Conservation Practice Standard 1069, the sediment control measures would be removed.
- Overnight staging of equipment. The backhoe and dump truck will be removed from the Lincoln Creek flow way and by-pass at the conclusion of each work day and parked on Lot 3 near the debris staging area.
- Staged material segregation activities. Wall block materials deemed salvageable will be segregated and returned to the MSSD property for re-use. Unusable debris deemed exempt from chapter NR 500 regulation (asphalt, concrete piping, curb sections, riprap, and/or damaged keystone pavers) may also be segregated (if practical) for recycling.

Supplemental Remedial Action Plan Milwaukee, Wisconsin Project No. 1E-0912014 Page 3



• Materials management, sampling and disposal. Sediment samples from the debris staging area and roll-off container will be collected for disposal characterization. Up to ten sediment samples will be collected for disposal characterization and submitted to a state certified laboratory for analysis of volatile organic compounds (VOCs) by EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310, metals (arsenic, chromium, and lead) by EPA Method 6000/7000 Series, and polychlorinated biphenyls (PCBs) by EPA Method 8082. One water sample will be collected from the roll-off (if free liquids are present) and tested for the presence of VOCs (8260B), and dissolved arsenic, lead, and chromium.

Sediment generated during the creek debris removal will be managed and disposed of in accordance with applicable Sections of Wisconsin Administrative Code (WAC), Chapter NR 718. Sediment will be transported by a licensed waste hauler, and disposed of at a WDNR approved, licensed facility. If the results of the roll-off free liquids indicate the presence of VOCs or metals above applicable Wisconsin Administrative Code (WAC), Chapter NR 140 Preventative Action Limits, the water will be transported by a licensed waste hauler and disposed of at a licensed facility.

- Staging area dismantling. Subsequent to the completion of the segregation activities, the staging area will be dismantled. The geotextile fabric of the staging area may be reused on the by-pass bank if it is salvageable.
- Creek by-pass bank stabilization. Upon completion of the debris removal activities, the temporary road area and bank will be filled with crushed aggregate, graded to sub-grade, and compacted; protruding rebar rods of the remaining foundation along the by-pass will be cut and removed. The a heavy geotextile filter fabric will be installed over the crushed concrete surface and heavy rip rap (6.5 inches to 20 inches in size) will be placed over the fabric.
- 3). ..."Provide an erosion control plan that meets or exceeds the State of Wisconsin's Construction Erosion and Sediment Control Technical Standards for the removal of the accumulated debris in Lincoln Creek. These standards are found at"..."Show the location of all the practices to be installed and provide details for each practice"...

The contractor will implement temporary silt fencing (WDNR Conservation Practice Standard 1056) around the perimeter of the debris staging area as shown in Figure 1. In addition, a filter fabric pad will be placed within the staging area.

The contractor will implement temporary sediment dredging erosion control measures consisting of the placement of a turbidity barrier parallel to the direction of flow in between the debris and sediment and the creek base flow, in accordance with the WDNR Conservation Practice Standard 1069 (See Attached Engineering Drawings C-1A and C-2A).

4). ..."Provide a dewatering plan for the treatment of any water encountered during the removal of the accumulated debris in Lincoln Creek"...

As indicated above, the contractor will implement temporary silt fencing (WDNR Conservation Practice Standard 1056) around the perimeter of the debris staging area. In addition, a filter fabric pad will be placed within the staging area. The majority of the debris to be removed exists on the flank of the stream bed and is above the Creek's

Supplemental Remedial Action Plan Milwaukee, Wisconsin Project No. 1E-0912014 Page 4



base flow (i.e. saturated conditions). The existing base flow conditions of the Creek consist of a channel approximately 4 feet wide by 4 to 6 inches deep. We anticipate a small fraction of the debris material to be wet when removed. This material will be placed in a plastic-lined roll-off container for staging, sampling, transport, and disposal.

5). ..."Provide a more detail on the amount of material that will be removed as part of the proposed project"...

Based upon our current understanding of the overall dimensions of the debris pile, an estimated 255 to 300 cubic yards or 380 to 500 tons of debris and sediment will be removed from the creek.

We hope this information meets your needs. If there are additional questions regarding the information contained herein, or if we can be of any additional service, please contact the undersigned at your convenience.

Very truly yours,

GILES ENGINEERING ASSOCIATES, INC.

Kevin T. Bugel, P.G., C.P.G.

**Environmental Division Manager** 

Thomas J. Bauman, P.G.

Project Hydrogeologist

Distribution: Bishop's Creek Community Development Corporation

Attn: Mr. Daren Daniels (1 PDF copy)

Wisconsin Department of Natural Resources

Attn: Ms. Rachel Sabre (1 PDF copy & one mailed copy)

Mr. John Hnat (1 PDF copy)

Mr. Travis Schroeder (1 PDF copy)

Ms. Melissa Enoch (1 PDF copy)

Quarles & Brady, sc

Attn: Mr. George J. Marek (1 PDF copy)

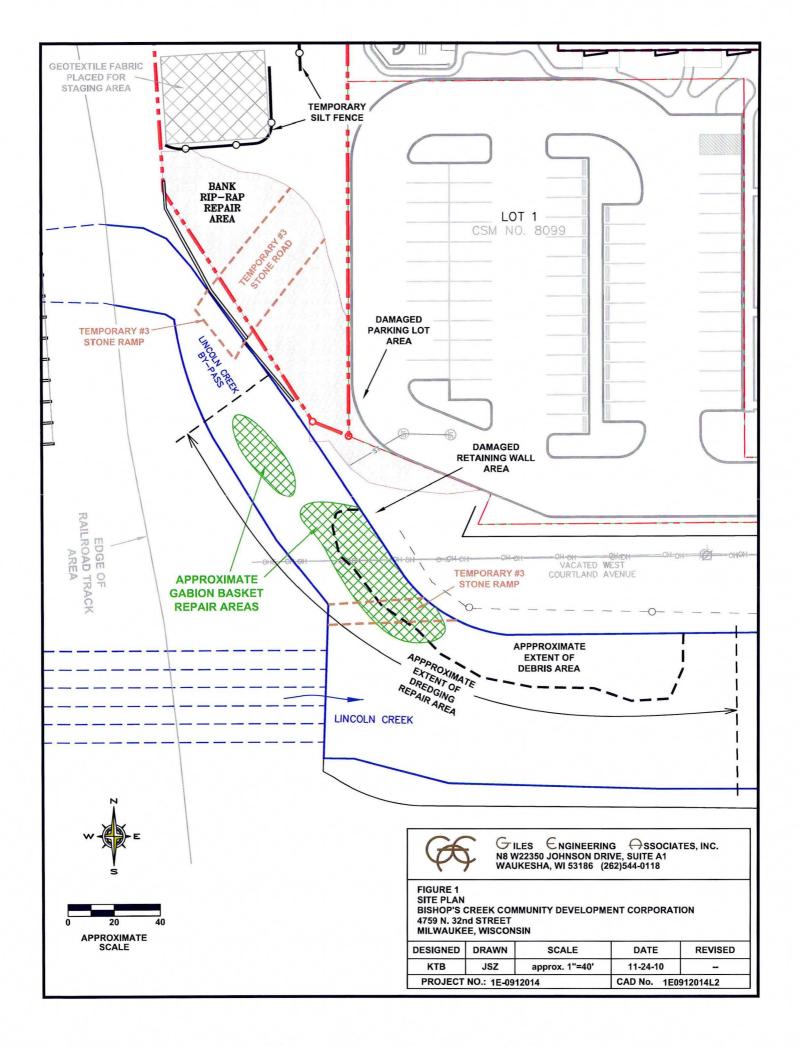
Attachments: Figure 1

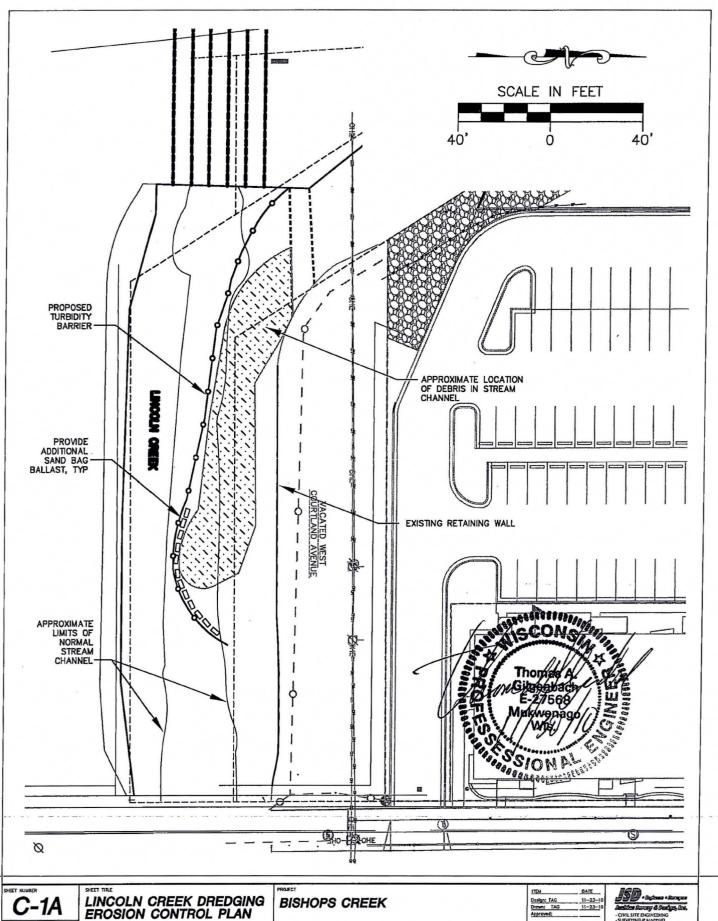
Figure C1

Figure C2

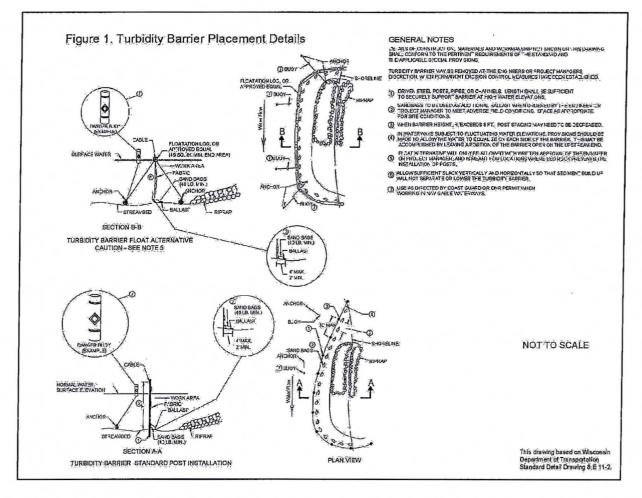
© Giles Engineering Associates, Inc. 2010

1E-0912014 (BC CDC Supplemental RAP Milwaukee WI) FINAL/109envr04/ktb/mmj





OP 3500 1"=40'



## NOTES

INSTALL TURBIDITY BARRIER PRIOR TO COMMENCING DREDGING OPERATIONS.
TURBIDITY BARRIER SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH WONR TECHNICAL

MAINTAINED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1069
TURBIDITY BARRIER SHALL BE INSPECTED DAILY AND MAINTAINED AS NECESSARY
TURBIDITY BARRIER SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF DREDGING OPERATIONS AND THE WATER BEHIND THE BARRIER HAS EQUAL OR GREATER CLARIY THAN THE CREEK.
FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 628.2.10 OF THE STATE OF MISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION



PROJECT NUMBER 09 3500 1"=40"

LINCOLN CREEK DREDGING **EROSION CONTROL DETAILS** 

**BISHOPS CREEK**