To all interested parties:

This letter shall serve as a formal notice of the receipt of an application for Section 401 Water Quality Certification by the Indiana Department of Environmental Management (IDEM). The purpose of the notice is to inform the public of active applications submitted for water quality certification under Section 401 of the Clean Water Act (33 U.S.C. § 1341) and to solicit comments and information on any impacts to water quality related to the proposed project. IDEM will evaluate whether the project complies with Indiana’s water quality standards as set forth at 327 IAC 2.

1. Applicant:  Barry Eppley  
   Wabash County Board of Commissioners  
   One W. Hill Street, Suite 102  
   Wabash, IN 46992

2. Agent:  Neal Bennett  
   Butler, Fairman, & Seufert, Inc.  
   8450 Westfield Blvd., Suite 300  
   Indianapolis, IN 46240

3. Project location:  Section 30, Township 26 North, Range 7 East, Wabash County. The project is located along CR 1050 S where County Bridge 144 spans Grant Creek.

4. Affected waterbody:  Grant Creek

5. Project Description:  The purpose of the project is to correct eroding banks along Grant Creek, immediately upstream and passing through the southeast approach road of CR 1050 S to County Bridge 144. Approximately 360 feet of the south (downstream river left) streambank will be stabilized with toe-wood to protect the bank from further erosion. Approximately 135 linear feet of the south streambank will be stabilized with riprap beneath county bridge 144 to provide scour protection along the newly formed bank. Live staking and tree plantings will be completed atop the toe-wood treatment areas. For more information on the project and its plan details visit [https://www.in.gov/idem/6397.htm](https://www.in.gov/idem/6397.htm).

Comment period:  Any person or entity who wishes to submit comments or information relevant to the aforementioned project may do so by the closing date noted above. Only comments or information related to water quality or potential impacts of the project on water quality can be considered by IDEM in the water quality certification review process.

Public Hearing:  Any person may submit a written request that a public hearing be held to consider issues related to water quality in connection with the project detailed in this notice. The request for a hearing should be submitted within the comment period to be considered timely. The request should also state the reason for the public hearing as specifically as possible to assist IDEM in determining whether a public hearing is warranted.

Questions?  Additional information may be obtained from Wes Hauser, Project Manager, by phone at 317-233-4606 or by e-mail at WHauser@idem.IN.gov. Please address all correspondence to the project manager and reference the IDEM project identification number listed on this notice. Indicate if you wish to receive a copy of IDEM’s final decision. Written comments and inquiries may be forwarded to:

Indiana Department of Environmental Management  
100 North Senate Avenue  
MC65-42 WQS IGCN 1255  
Indianapolis, Indiana 46204-2251 FAX: 317/232-8406

Version 1.0 – 12/7/06
Looking at the bank erosion and road washout

Looking at debris pile on the bridge piers

Looking upstream at the bank toe-wood stabilization

Looking at debris pile up
WABASH BRIDGE 144/CR 1050 GRANT CREEK RESTORATION SITE

Description
This work shall include the furnishing and installing of seed mixtures, tree material and all necessary incidentals to re-create a riparian corridor and enhance the habitat at the Wabash County Bridge 144 over Grant Creek Site.

Materials
Seed Mixture, Graminoids (Seed Mix #1):
The graminoids seed mix shall be installed from the top-of-bank elevation to the edge of the planting zone. This mixture shall be applied at 52.0 lbs/acre ratio. The seed mix shall be comprised of the species listed below:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Wetland Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calamagrostis canadensis</td>
<td>Bluejoint grass</td>
<td>OBL</td>
</tr>
<tr>
<td>Carex emoryi</td>
<td>Riverbank tussock sedge</td>
<td>OBL</td>
</tr>
<tr>
<td>Carex frankii</td>
<td>Frank’s sedge</td>
<td>OBL</td>
</tr>
<tr>
<td>Carex grayi</td>
<td>Gray’s sedge</td>
<td>FACW</td>
</tr>
<tr>
<td>Carex vulpinoidea</td>
<td>Fox sedge</td>
<td>FACW</td>
</tr>
<tr>
<td>Cinna arundinacea</td>
<td>Sweet wood reed</td>
<td>FACW</td>
</tr>
<tr>
<td>Elymus riparius</td>
<td>Riverbank wild rye</td>
<td>FACW</td>
</tr>
<tr>
<td>Elymus virginicus</td>
<td>Virginia wild rye</td>
<td>FACW</td>
</tr>
<tr>
<td>Spartina pectinata</td>
<td>Prairie cord grass</td>
<td>FACW</td>
</tr>
</tbody>
</table>

Note: Wetland Indicator Status (WIS) is for Midwest Region only.

Wildflower Seed Mix (Seed Mix #2):
The riparian seed mixture shall contain wet-to-mesic species that reduce weed competition and establish a permanent shaded herbaceous layer as the trees mature over time. This seed mix shall be installed in accordance to INDOT standards 621.04 and 621.05 Method B. This seed mix shall be used from the top-of-bank out to the construction limits and shall be applied at a rate of 10.5 lbs/acre. The species composition within the planting scheme is as follows:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Wetland Indicator Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aster lateriflorus</td>
<td>Calico aster</td>
<td>FACW</td>
</tr>
<tr>
<td>Aster simplex</td>
<td>Panicled aster</td>
<td>FACW</td>
</tr>
<tr>
<td>Helianthus annuus</td>
<td>Sneeze weed</td>
<td>FACW</td>
</tr>
<tr>
<td>Geum canadense</td>
<td>White avens</td>
<td>FAC</td>
</tr>
<tr>
<td>Mertensia virginica</td>
<td>Virginia bluebells</td>
<td>FACW</td>
</tr>
<tr>
<td>Rudbeckia laciniata</td>
<td>Green-headed coneflower</td>
<td>FACW</td>
</tr>
<tr>
<td>Silphium perfoliatum</td>
<td>Cupplant</td>
<td>FACW</td>
</tr>
<tr>
<td>Solidago gigantea</td>
<td>Late goldenrod</td>
<td>FACW</td>
</tr>
<tr>
<td>Verbesina alternifolia</td>
<td>Wingstem</td>
<td>FACW</td>
</tr>
</tbody>
</table>

Note: Wetland Indicator Status (WIS) is for Midwest only.
### WABASH COUNTY

**BRIDGE NO. 144 PLANS**

**CR 1050 S. OVER GRANT CREEK**

Bank Stabilization At Bridge 144 Carrying County Road 1050 South Over Grant Creek. Located 0.30 miles South of C.R. 1000 South, Section 30, Township 26 North, Range 7 East, Liberty Township, Wabash County, Indiana.

**Utilities**

- **Communications:** Century Link
  - 141 W Center St.
  - Warsaw, Indiana 46580
  - PH: 574-372-2750
  - ATTN: Bill Sanner
  - EMAIL: William.Lasser@centurylink.com

**Title, Index & Estimate of Quantities**

<table>
<thead>
<tr>
<th>No.</th>
<th>Designation</th>
<th>QTY.</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction Engineering</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mobilization and Demobilization</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Lighting of Right of Way</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Debris, Residue</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Present Structure, Remove Portions</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Resurfacing</td>
<td>1 SQ</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Excavation, Uncovered</td>
<td>500 CY</td>
<td>YD</td>
</tr>
<tr>
<td>8</td>
<td>Borrow</td>
<td>600 CY</td>
<td>YD</td>
</tr>
<tr>
<td>9</td>
<td>Roroed Fillment</td>
<td>3600 FT</td>
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</tr>
<tr>
<td>10</td>
<td>Geotechnical for Riprap, Type 2B</td>
<td>150 SY</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Compacted Aggregate, No. 2</td>
<td>200 RON</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Compacted Aggregate, No. 8</td>
<td>190 YS</td>
<td></td>
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<tr>
<td>13</td>
<td>Compacted Aggregate, No. 53</td>
<td>290 YS</td>
<td></td>
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<tr>
<td>14</td>
<td>Riprap, Class I</td>
<td>150 RON</td>
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</tr>
<tr>
<td>15</td>
<td>HMA Surfacing, Type B</td>
<td>10 MON</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>HMA Interim Pavement, Type B</td>
<td>17 MON</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Guardrail, W-Beam, 6 ft 3 in. Spacing, Modified</td>
<td>45 RLF</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Guardrail, W-Beam, 6 ft 3 in. Spacing</td>
<td>175 RLF</td>
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<tr>
<td>19</td>
<td>Guardrail End Treatment, Type I</td>
<td>28 EACH</td>
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<td>20</td>
<td>Intermediate Sealing</td>
<td>150 SY</td>
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<tr>
<td>21</td>
<td>Line Plant Sealing</td>
<td>925 EACH</td>
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<tr>
<td>22</td>
<td>Steel, Deck Boxes, Single Strand, 1.25 in. or Under</td>
<td>500 LAC</td>
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</tr>
<tr>
<td>23</td>
<td>Concrete, A. Substructure</td>
<td>500 YS</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Concrete, B. Footing</td>
<td>275 YS</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Reinforcing Bars</td>
<td>16400 lbrs</td>
<td></td>
</tr>
</tbody>
</table>

**Full Size Plans Have Been Prepared Using Standard Engineering Scales. Reduced SIZED Plans Will Not Conform To Standard Scales.**
Root balls shall be spaced with no more than 2'-0" clear spacing.

Foundation Logs shall be trenched into existing soil. Annular space of the trench shall be backfilled with the excavation spoils.

Root Wad Logs shall be placed with the trunk below the Winter Ordinary High Water Mark.

NOTES:

Space between Root Wad Logs to be filled with Wood Debris.

Root Balls shall be spaced with no more than 2'-0" clear spacing.

Foundation Logs Shall be trenched into existing soil. Annular space of the trench shall be backfilled with the excavation spoils.

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Log Dimensions

<table>
<thead>
<tr>
<th>Length</th>
<th>Diameter</th>
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<tbody>
<tr>
<td>2'-6&quot;</td>
<td>1'-0&quot;</td>
</tr>
<tr>
<td>5'-0&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>15'-0&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>&gt; 31'</td>
<td>&gt; 24&quot;</td>
</tr>
</tbody>
</table>

Legends:

- B-Borrow
- Top Soil
- Wood Fill
- Class 1 Riprap
- # - Number

Typical Section

- Winter OHW El. 732.5
- Summer Pool El. 737.0
- Mississinewa Reservoir
- Line "TS-1"
- Slope Break

BANK STABILIZATION DETAILS

- Trench Foundation Log Into Existing Ground
- Live Stake (Typ.)
- Coir Mat

Legends:

- B-Borrow
- Top Soil
- Wood Fill

NOTES:

Foundation Logs Shall be trenched into existing soil. Annular space of the trench shall be backfilled with the excavation spoils.

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- B-Borrow
- Top Soil
- Wood Fill
- Class 1 Riprap
- # - Number

Typical Section

- Winter OHW El. 732.5
- Summer Pool El. 737.0
- Mississinewa Reservoir
- Line "TS-1"
- Slope Break
GENERAL NOTES

Tree species shall selected from the following:

- River Birch (Betula nigra)
- Bald Cypress (Taxodium distichum)
- Pin Oak (Quercus palustris)
- Black Willow (Salix nigra)
- American Sycamore (Platanus occidentalis)
- Silver Maple (Acer saccharinum)
- Swamp White Oak (Quercus bicolor)

No more than five trees from any single species shall be planted.

Tree spacing shall be 15' minimum.

Live stakes shall be spaced at 3'.

All disturbed areas above the Mississinewa Reservoir Summer Pool Elevation shall be stabilized with mulched seeding (See Special Provisions), unless otherwise noted.

All disturbed areas below the Mississinewa Reservoir Summer Pool Elevation shall be stabilized with coir erosion control mat (See Special Provisions), unless otherwise noted.

Bench Limits

LINE "A" 608 Sys. Live Staking (Approximately 775 Live Stakes Required)

LINE "TS-1" 350 Sys. Mulched Seeding

Construction Limits

10'-0" 810 Sys. Mulched Seeding

Grading Limits

Grading Limits

PLANTING PLAN

Scale: 1" = 20'

PLANTING
* Note: Cut all reinforcing bars or adjust spacing as required to clear existing piles at top and bottom of footing.
SECTION "B-B"

Scale: 3" = 1'-0"

WINGWALL ELEVATION

Scale: 3" = 1'-0"

WINGWALL DETAILS

NOTES:
- For nesting and reinforcing, see Sheet 7.
- For bar bending details and bill of materials.

Existing Bent Cap

32#6x12'-0" (16 e.f.)

32#6x40'-0" (16 e.f.)

10#6x14'-6" (5 e.f.)

16#6x18'-3" Wing "B"

16#6x17'-6" Wing "A"

MATCH TOP OF BRIDGE DECK ELEVATION

WING "A" OR WING "B"

WING "A" EL. 741.96

WING "B" EL. 742.10

±

Top of Existing Curb

CIVIL ENGINEERS

B. BUTZ

D. SHEETZ

FOR APPROVAL:

checked:

designed:

DATE

CONTRACT

SURVEY BOOK

PROJECT SHEET

VERTICAL SCALE BRIDGE FILE

BFS NO.

BRIDGE NO. 144

C.R. 1050 S. OVER GRANT CREEK

WABASH COUNTY

AS NOTED

AS NOTED

WABASH 144

N/A

6307.0201

NOTES

See Sheet 7 for Bar Bending Details and Bill of Materials.
BRIDGE NO. 144
C.R. 1050 S. OVER GRANT CREEK
WABASH COUNTY

VERTICAL SCALE = 1" = 5'

RECOMMENDED FOR APPROVAL:
BRIDGE NO. 144
C.R. 1050 S. OVER GRANT CREEK
WABASH COUNTY

B. BUTZ
D. PIERCEFIELD

CIVIL ENGINEERS

CHECKED: DESIGN ENGINEER
CHECKED: DESIGNED:
FOR APPROVAL:
DRAWN:
RECOMMENDED DATE
CONTRACT
VERTICAL SCALE
SURVEY BOOK
PROJECT SHEET
DESIGNATION
OF HORIZONTAL SCALE
BRIDGE FILE
BFS NO.
6307.0201

WABASH 144

6307.0201