**Addendum**

Iowa Department of Transportation               Date of Letting: February 15, 2011  
Office of Contracts                              Date of Addendum: February 4, 2011  

<table>
<thead>
<tr>
<th>B.O.</th>
<th>Proposal ID</th>
<th>Proposal Work Type</th>
<th>County</th>
<th>Project Number</th>
<th>Addendum</th>
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<tr>
<td>014</td>
<td>78-0061-114</td>
<td>Bridge and Approaches - Other</td>
<td>Pottawattamie</td>
<td>BRF-006-1(114)--38-78</td>
<td>15feb014.a01</td>
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Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

Make the following change to the ESTIMATING PROPOSAL, PAGE 1:

Change the DBE Goal from 2.5 % to 0.0 %.

Make the following change to the BIDDING DOCUMENT, PAGE 1:

Change the DBE Goal from 2.50 % to 0.00 %.

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

For Line No. 0020 change the Item Number and Item Description from 2401-6745650 REMOVAL OF EXISTING STRUCTURES to **2401-6745625 REMOVAL OF EXISTING BRIDGE**.

The Item Quantity and Unit remain the same.

Attached is the 404 permit for this project.

Make the following change to the PLAN:

Add the following statement to the General Notes on Sheet 2:

Given the research nature of this project and the need to limit road closure to 14 days, Iowa DOT (and HNTB) will work closely with the contractor and the UHPC supplier to explore the most cost effective methods to meet the specified design.
TO OFFICE: District 4

DATE: May 10, 2010

ATTENTION: George Feazell

REF.: Pottawattamie County

BRF-006-1(114)—38-78

05-78-006-020

FROM: Mark Sloppy

OFFICE: Location and Environment – Water Resources Section

SUBJECT: Clean Water Act Section 404 Permit

Please find enclosed the Department of Army Section 404 Permit authorizing all work in conjunction with the replacement of the U.S. 6 bridge that spans Keg Creek, located approximately 5.9 miles east of Council Bluffs in Pottawattamie County.

PERMIT INFORMATION

404 Permit Number: 2010-368
Permit Type: Nationwide Permit 14
Effective Date: April 21, 2010
Expiration Date: April 21, 2012
Standard Notes for Plans: 281-1, 213-1
General Specifications: 1105.14, 2547

PERMIT CONDITIONS

General and Special Conditions of the Permit:
Conditions specific to this project are in the attached permit. For Nationwide Permits, the general conditions listed in the Corps Fact Sheet No. 6(IA) must also be adhered to. The fact sheet can be found at:

W:\Highway\EnvServices\WaterResources\CommonFiles\404 Clearance Tool Box\Fact Sheet 6 – IA.pdf

Native Grass Seeding: Must be included for all disturbed areas.

Temporary Stream Crossings: Authorized and must be constructed according to Standard Road Plan RL-16 and General Specification 2547.

Dredging: Not authorized.

MITIGATION INFORMATION

There will be two types of mitigation required for the project impacts. To compensate for the wetland impacts, DOT will buy 0.36 acres of wetland credits at the G. William Coulthard Trust Mitigation Bank in Harrison County. To compensate for stream impacts, the DOT will construct a rip rap grade control / splash basin at the outlet of the 8’ x 5’ x 79’ concrete flume.
Mitigation Sites:

**Wetland Mitigation Site** – G. William Coulthard Trust Mitigation Bank - Township 78 North, Range 45 West, Section 3&4 in Harrison County.

**Stream Mitigation Site** – 1 rip rap grade control / splash basin within the permanent easement boundary of project BRF-006-1(14)—38-78, Pottawattamie County. Please refer to Sheet S.1 in the project plans for stream mitigation information.

**Wetland Mitigation Site Ownership:** Thien Farm Management, Inc.

**Stream Mitigation Site Ownership:** IA DOT

**Mitigation Site Agreements:** A purchase agreement with Thien Farm Management, Inc. is pending.

**Mitigation Site Maintenance:** District 4 maintenance staff will provide routine maintenance within DOT ROW.

Please notify me immediately should the road design change or should wetland-related issues arise. Also notify me when the project work is complete. If there are any questions, please contact me by email at mark.sloppy@dot.iowa.gov or by phone at 515-233-7862.

---

MS

**cc:** M. J. Dillavou (Highway Division)
M. A. Swenson (Highway Division)
M. J. Kennerly (Design)
D. E. Ohman (Design)
N. L. McDonald (Bridges and Structures)
G. A. Novey (Bridges and Structures)
J. M. Smythe (Construction)
J. W. Smith (Contracts)
R. Bierbaum (Contracts)
M. Sankey (ROW)
J. P. Rost (Location and Environment)
R. A. Boydston (Location and Environment)
D. Newell (Location and Environment)
S. C. Marler (Location and Environment)
M. Sloppy (Location and Environment - file)
J. Selmer (District 4)
D. Stevens (District 4)
J. Bane (District 4)
M. LaPietra (Federal Highway Administration)
Records Center
Operations Division

SUBJECT: CEMVR-OD-P-2010-368

Mr. Jim Rost
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Rost:

Our office reviewed your application dated April 9, 2010, concerning the proposed replacement of the U.S. 6 Bridge that spans Keg Creek in Sections 15 and 22, Township 75 North, Range 42 West, Pottawattamie County, Iowa.

Your application indicated that 0.24 acres of regulated wetland will be impacted by this project through the placement of fill material. You will be required to provide proof of purchase of 0.36 acres of wetland credits from the William G. Coulthard Trust Mitigation Bank prior to placing fill material in the wetlands. In addition to the wetland mitigation bank purchase, you will be required to mitigate the stream impacts as discussed in your application package.

Your project is covered under Nationwide Permit No. 14, as published in the Enclosed Fact Sheet No. 6(IA), provided you meet the permit conditions for the nationwide permits which are also included in the Fact Sheet. The Corps has also made a determination of no impact on federally threatened and endangered species or critical habitat. The Iowa Department of Natural Resources (IADNR) has also issued Section 401 Water Quality Certification for this nationwide permit. The decision regarding this action is based on information found in the administrative record, which documents the District’s decision-making process, the basis for the decision, and the final decision.

You are encouraged to conduct your construction activities during a period of low flow. You are required to remove all fill material used as a temporary crossing or coffer dam to an upland, non-wetland site, to seed all disturbed areas with native grasses, and to implement appropriate measures to insure that sediments are not introduced into waters of the United States during construction of this project.

This verification is valid for two years from the date of this letter, unless the nationwide permit is modified, reissued or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from this date to complete your activity under the present terms and conditions of this nationwide permit.
Although an individual Department of the Army permit will not be required for this project, this does not eliminate the requirement that you must still acquire other applicable federal, state and local permits. If you have not already coordinated your project with the IADNR, please contact Mr. Kelly Stone in writing or telephone 515/281-8693 to determine if a floodplain development permit is required for your project. You should also contact the Manager of the IADNR Sovereign Lands Division in writing or telephone 515/281-8967 to determine if a sovereign lands construction permit is required or if this project may adversely impact Iowa threatened or endangered species or their habitat.

You are required to complete and return the enclosed “Completed Work Certification” upon completion of your project in accordance with General Condition No. 26 of the nationwide permits.

This letter contains an approved jurisdictional determination for the subject site. If you object to this jurisdictional determination, you may request an administrative appeal under Corps regulations found at 33 CFR Part 331. Enclosed is a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this approved jurisdictional determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the following address:

Mr. James B. Wiseman, Jr.
Administrative Appeals Officer
U.S. Army Corps of Engineers
Mississippi Valley Division
ATTN: CEMVD-PD-KM
Post Office Box 80
Vicksburg, Mississippi 39181-0080

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by June 21, 2010.

It is not necessary to submit an RFA form to the Division Office if you do not object to the approved jurisdictional determination contained in this letter.

The Rock Island District Regulatory Branch is committed to providing quality and timely service to our customers. To help us know how well we are doing and to improve our service where needed, we request that you take a few minutes to complete the “Customer Service Survey” questionnaire found on the following website: http://per2.nwp.usace.army.mil/survey.html. (Be sure to select “Rock Island District” under the area entitled: Which Corps office did you deal with?) If you would prefer to complete a hard copy of this survey, please contact our office and we will mail you a copy of the survey with a return envelope.
Should you have any questions, please contact our Regulatory Branch by letter, or telephone Mr. Albert Frohlich at 309/794-5859.

Sincerely,

[Signature]
Donna M. Jones, P.E.
Chief, Enforcement Section
Regulatory Branch

When the structure 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 are still in existence at the time the property is transferred, the terms and 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

Enclosures

Copies Furnished: (w/o enclosures)

Chris Schwake (3)
Iowa Department of Natural Resources
Water Resources Section
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa  50319-0034

Ms. Martha S. Chieply (E-Mail)
Regulatory Branch
U.S. Army Engineer District, Omaha
12565 West Center Road
Omaha, Nebraska  68144-3869
Minutes for Pottawattamie County, Pre-Bid Meeting
ABC Demo Project US 6 over Keg Creek

- Letting Date is February 15, 2011. Bids must be received 10:00 AM and may only be submitted at the Office of Contracts in Ames.

- Requests for bidding documents must be submitted by noon the day before the letting, February 15, 2011 to the Contracts Engineer or the Assistant Contracts Engineer.

- There are currently 12 bid holders for bid order 014:
  1. CHRISTENSEN BROS., INC.
  2. CRAMER AND ASSOC., INC.
  3. CUNNINGHAM-REIS CO.
  4. GODBERSEN-SMITH CONSTRUCTION CO. & SUBSID.
  5. GRAVES CONSTRUCTION CO., INC.
  6. HAWKINS CONSTRUCTION CO.
  7. JENSEN CONSTRUCTION CO.
  8. MCC, L.L.C.
  9. MURPHY HEAVY CONTRACTING CORP.
  10. PETERSON CONTRACTORS INC.
  11. UNITED CONTRACTORS INC. AND SUBSIDIARIES
  12. CHARLES VRANA & SON CONSTRUCTION COMPANY

  There is 2.5% 0.0% DBE Goal. (Changed by addendum)

- The Contract Period on page 2 of the Proposal Details

- Design Information – Mike LaViolette, from HNTB

During the contract period explanation a question was asked about the approximate start dates not being as flexible as late start dates. George Feazell responded the intent was not to restrict the contractor. If the long-range forecast indicated an August start would work, the contractor could ask the district to start earlier. The DOT will work with the contractor to make this project successful.

Q: Is the tolerance on the superstructure 2" gap behind the abutment enough?
A: Yes, based upon various tempatures the 2" gap is sufficient.

Q: Is the barrier precast?
A: Yes, the intent of the plan is that the barrier is in place prior to setting the superstructure module.

Q: What are the typical cure times for UHPC, self consolidating concrete, and grout?
A: 3-4 days for UHPC, 18 hours for SCC, and 12 hours for grout.

Q: What date is rolled steel needed?
A: It depends on the contractor’s schedule and whether they self perform or not.

Q: Will there be a web cam on site?
A: The DOT is working on that issue.

Q: What the maximum weight of the units?
A: The weights are shown on sheet 4 of the plans.

Q: Will there be flexibility on the DBE goal?
A: The goal was eliminated by addendum.

Q: Is there an opportunity to set the precast columns prior to demolishing the existing bridge?
A: Yes, but damage to the columns could be a problem.

Q: Can the 404 permit be included in the addendum?
A: Yes.

Q: Can precasting be done locally?
A: Yes, you can self perform. There are notes in the plan for that option.
<table>
<thead>
<tr>
<th>NAME</th>
<th>COMPANY</th>
<th>E-Mail Address</th>
<th>PHONE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayne A. Sunday</td>
<td>Iowa DOT Construction</td>
<td><a href="mailto:waynesunday@dot.iowa.gov">waynesunday@dot.iowa.gov</a></td>
<td>515-239-1185</td>
</tr>
<tr>
<td>Kurt Estrem</td>
<td>IDOT Contracts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bruce Flippin</td>
<td>District A Construction</td>
<td><a href="mailto:Bruce.Flippin@iowadot.gov">Bruce.Flippin@iowadot.gov</a></td>
<td>712-366-0566</td>
</tr>
<tr>
<td>Orest Techmanka</td>
<td>IDOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calvin Schrage</td>
<td>NSBA</td>
<td><a href="mailto:schrage@streetbridges.org">schrage@streetbridges.org</a></td>
<td>462-466-1007</td>
</tr>
<tr>
<td>Mike Laviolette</td>
<td>HNTB</td>
<td><a href="mailto:laviolette@hntb.com">laviolette@hntb.com</a></td>
<td>515-291-9035</td>
</tr>
<tr>
<td>Geo. Feazell</td>
<td>Iowa DOT</td>
<td></td>
<td>712-243-7628</td>
</tr>
<tr>
<td>Dan Graves</td>
<td>Graves Const.</td>
<td><a href="mailto:dan@gravesconst.com">dan@gravesconst.com</a></td>
<td>712-202-2401</td>
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<tr>
<td>Jordan Muller</td>
<td>PCI</td>
<td><a href="mailto:jordan.epeterson@pci.com">jordan.epeterson@pci.com</a></td>
<td>319.269.5916</td>
</tr>
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# Pottawattamie County
## ABC Demonstration Project
### BRF-006-1(114)--38-78

<table>
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<th>NAME</th>
<th>COMPANY</th>
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<tr>
<td>Andy Stone</td>
<td>United Contractor</td>
<td>andystone @ unitedcontractors.net</td>
<td>(515) 276-6162</td>
</tr>
<tr>
<td>Dan Henning</td>
<td>Kiewit</td>
<td>Dan.Hening63 @ Kiewit.com</td>
<td>(402) 333-92000</td>
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<tr>
<td>Jim Nelson</td>
<td>Iowa DOT</td>
<td>James.S.Nelson @ dot.iowa.gov</td>
<td>515 239-1193</td>
</tr>
<tr>
<td>Mark Freier</td>
<td>Goepper-Smith Coner</td>
<td>mfreier @ gos-cone.com</td>
<td>712-364-3389</td>
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<tr>
<td>David Evans</td>
<td>Iowa DOT</td>
<td>David.Evans @ dot.iowa.gov</td>
<td>515 239-1905</td>
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<tr>
<td>Brian Jacob</td>
<td>Cannon &amp; Assoe</td>
<td><a href="mailto:Jacob@cannonandassociates.com">Jacob@cannonandassociates.com</a></td>
<td>265 144-7</td>
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<tr>
<td>Brian Cheesman</td>
<td>Jensen</td>
<td>rcheeseman @ jensencoast.com</td>
<td>515 - 266 - 5173</td>
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<tr>
<td>Dan Redmond</td>
<td>IDOT</td>
<td>daniel.redmond @ dot.iowa.gov</td>
<td>712-243-7829</td>
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<tr>
<td>Kyle Framez</td>
<td>IDOT</td>
<td>kyle.frame @ dot.iowa.gov</td>
<td>515 239-1619</td>
</tr>
<tr>
<td>Ahmad Abu Hamsh</td>
<td>IDOT</td>
<td>ahmad.abu-hamsh @ dot.iowa.gov</td>
<td>515 - 239-1393</td>
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SHRP 2 - R04 Innovative Bridge Designs for Rapid Renewal

Pre-Bid Meeting
Ames, IA

January 21, 2011

R04 Team Members

- HNTB - Prime Contractor
- Structural Engineering Associates
- Iowa State University
- Genesis Structures
Project cost $???
Conventional construction 6 months
Duration for ABC 2 weeks

Incremental Innovation

- Completed projects
- Integrating diverse structural systems
- = Innovation
- Incremental improvements in a number of specific bridge details to fully leverage previously successful work.
**Project Innovations**

- Complete bridge system
- Precast
- Superstructure units create a semi-integral abutment for rapid construction
- HPC
- UHPC joints
- Durable, moment-resisting joint between deck panels and approach slab panels.

The proposed project will be the first in the US to use UHPC to provide a full, moment-resisting transverse joint at the piers.

---

**Project Innovations**

- No open deck joints
- UHPC concrete for continuity
- A Structural Health Monitoring System
- SCC will be used to improve consolidation and increase the speed of construction for abutment piles.
- Use of fully contained flooded backfill
Iowa ABC Demonstration Project
Tier 2 - Two Week Closure

US 6
Bridge over Keg Creek
Council Bluffs
Iowa
Concrete girder bridge
Built in 1953

Existing Bridge

- Replacement design by Iowa DOT
- Spans 81 ft – 48 ft – 81 ft
- SHRP R-04 team has redesigned as an ABC system and will provide some onsite construction assistance
Stage 1 –
Work Outside Existing Footprint

Stage 1 work (Prior to bridge closure)
- Construct drilled shafts to ground level
- Construct wingwalls on piles

Stage 2 work (14-day “ABC” period)
- Close bridge / Demolish existing bridge
- Assemble precast piers
- Assemble semi-integral abutments

Stage 3 work (14-day “ABC” period)
- Assemble modular superstructure
- Assemble precast approach slabs
- Cast UHPC closure joints and grind deck
- Re-open bridge to traffic – end ABC period
Foundation Construction

Outside existing footprint

Stage 1 Work (prior to closure)
- Construct drilled shafts to ground level
Grouted Spice Couplers

Modular Superstructure

Stage 3
Leveling Procedure for Adjacent Modules

- Adjust for Differential Camber
- Fill Joints with UHPC
- Diamond grind top ½"
- Open to traffic

Demo Bridge Features

- UHPC closure joints (longitudinal & transverse over piers) in superstructure
- UHPC connections in precast approach slabs
- Jointless bridge
- Contractor to submit assembly plan
- Only the time of traffic disruption needs to be accelerated
- 14 day traffic interruption
- High enough I / D Clause in contract
ABC SUPPLEMENTAL SPECIFICATIONS

- Precast Concrete Substructure Elements
- Prefabricated Superstructure Modules
- Precast Approach Slab Elements
- UHPC Infill Joints
- Removal of Existing Structure

VERIFY TITLES
### Stage 1 and 2 Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
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<tr>
<td>Phase 1 Close bridge and enact detours</td>
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<tr>
<td>Phase 1 Demolish existing Superstructure &amp; Abutments</td>
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<tr>
<td>Phase 1 Remove concrete substructure to 1' below grade</td>
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<td>Phase 2 Drive abutment &amp; wingwall H piles</td>
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<td>Phase 2 Assemble abutment stem</td>
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<td>Phase 2 Assemble abutment wingwalls and cheekwalls</td>
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<td>Phase 2 Place closure pours between abutment / wingwall</td>
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<tr>
<td>Phase 2 Assemble precast columns</td>
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<tr>
<td>Phase 2 Assemble precast pier cap beams</td>
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### Stage 3 Schedule

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<tr>
<td>Phase 3 Assemble modular superstructure</td>
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<tr>
<td>Phase 3 Construct closure pours in superstructure</td>
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<tr>
<td>Phase 3 Backfill abutment &amp; install subbase</td>
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### Activity Day 10 – Day 14

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<th>Day 12</th>
<th>Day 13</th>
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<tr>
<td>Phase 3 Assemble precast approach slabs</td>
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<td>Phase 3 Construct closure pours in approach slabs</td>
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<tr>
<td>Phase 3 Grind deck to final profile &amp; groove</td>
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<tr>
<td>Phase 3 Grind approach slabs to final profile</td>
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<tr>
<td>Phase 3 Open bridge to traffic</td>
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