

OFFICE OF THE  
LOGAN COUNTY ENGINEER  
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SCOTT C. COLEMAN, P.E., P.S.  
LOGAN COUNTY ENGINEER

Telephone: (937) 592-2791  
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October 2, 2012

Mr. Daniel G. Bucher, P.E.  
Kohli & Kaliher Associates, Inc.  
2244 Baton Rouge Ave  
Lima, OH 45805

**Re: Request for Proposal  
Load Rating #5, PID 93896**

Dear Mr. Bucher:

Enclosed are bridge load rating task performance request check sheets for Load Rating #5, PID 93896, with a summary provided below. Please submit a proposal to perform these tasks using the proposal template provided by the County Engineers Association of Ohio. **Please submit your proposal to this office by Thursday, October 4, 2012.** I realize this is very short notice, however our application for funding is due by the following Friday, October 5, 2012. The below bridges will require load ratings for an HS20-44 truck at inventory and operating levels, as well as the four Ohio Legal Loads (2F1, 3F1, 4F1, 5C1) at operating level.

Each structure has plans, shop drawings, or notes on file at this office to determine structural member sizes. Section loss measurements and/or prestressing strand contribution determination will be required on some of the bridges due to deterioration. The current inspection general appraisal has been provided. The load ratings shall be provided in a format that can be easily updated by the County using hand calculations and a summary spreadsheet. The summary spreadsheet shall include the required input for Items 83, 84, 92, and 93 on the BR-87 form and shall be signed and stamped by the load rater. All input and output files for the software used, as well as the report contents and any spreadsheets shall be provided on a separate CD for each bridge. All spreadsheets shall be compatible with Excel 2000.

This project consists of 47 bridges total – 45 simple span prestressed box beam bridges, and 2 timber covered bridges. Please provide a separate proposal for the covered bridges. A summary of each is provided below:

**Concrete Box Beam Simple, Type 131**

SFN 4630386, LOG-4-3.03: 173 ft., three span, non-composite box beam, built 1994, 9A.  
SFN 4644522, LOG-154-0.11: 56 ft., single span, non-composite box beam, built 1996, 9A.  
SFN 4630386, LOG-87-0.76: 98 ft., two span, non-composite box beam, built 1999, 9A.

### Prestressed Concrete Box Beam Simple, Type 231

SFN 4634438, LOG-49-4.22: 65 ft., single span, non-composite box beam, no skew, built 1994, 9A  
SFN 4641051, LOG-117-0.94: 100 ft., single span, non-composite box beam, 45° skew, built 2000, 9A  
SFN 4654528, LOG-271-0.12: 74 ft., single span, non-composite box beam, 20° skew, built 1994, 9A  
SFN 4640098, LOG-107-1.61: 54 ft., single span, non-composite box beam, 8° skew, built 1992, 9A  
SFN 4642139, LOG-129-3.14: 65 ft., single span, non-composite box beam, no skew, built 1998, 9A  
SFN 4649664, LOG-208-0.91: 70 ft., single span, non-composite box beam, 35° skew, built 1995, 9A  
SFN 4649958, LOG-211-1.22: 55 ft., single span, non-composite box beam, 45° skew, built 1997, 9A  
SFN 4652010, LOG-238-0.43: 43 ft., single span, non-composite box beam, no skew, built 2000, 9A  
SFN 4631889, LOG-21-4.63: 59 ft., single span, non-composite box beam, no skew, built 2003, 9A  
SFN 4633199, LOG-35-5.40: 47 ft., single span, non-composite box beam, 13° skew, built 2007, 9A  
SFN 4634977, LOG-54-6.38: 45 ft., single span, non-composite box beam, no skew, built 2002, 9A  
SFN 4635337, LOG-58-3.67: 68 ft., single span, non-composite box beam, no skew, built 1998, 9A  
SFN 4635434, LOG-59-0.28: 94 ft. three span, non-composite box beam, 4° skew, built 1995, 9A  
SFN 4636007, LOG-65-0.02: 60 ft., single span, non-composite box beam, no skew, built 2000, 9A  
SFN 4636864, LOG-74-0.83: 42 ft., single span, non-composite box beam, no skew, built 2001, 9A  
SFN 4638158, LOG-88-0.47: 81 ft., single span, non-composite box beam, no skew, built 2001, 9A  
SFN 4638913, LOG-96-2.70: 123 ft., single span, non-composite box beam, 30° skew, built 2004, 9A  
SFN 4644506, LOG-153-0.22: 85 ft., single span, non-composite box beam, no skew, built 2006, 9A  
SFN 4655389, LOG-286-0.71: 33 ft., single span, non-composite box beam, no skew, built 1994, 9A  
SFN 4655354, LOG-286-0.46: 58 ft., single span, non-composite box beam, no skew, built 2003, 9A  
SFN 4655281, LOG-286-0.15: 67 ft., single span, non-composite box beam, 19° skew, built 1994, 9A  
SFN 4638174, LOG-88-1.27: 37 ft., single span, non-composite box beam, no skew, built 2005, 9A  
SFN 4632567, LOG-29-8.56: 48 ft., single span, non-composite box beam, no skew, built 2002, 9A  
SFN 4632591, LOG-29-8.84: 65 ft., single span, non-composite box beam, no skew, built 2002, 9A  
SFN 4632923, LOG-33-2.66: 56 ft., single span, non-composite box beam, 20° skew, built 2005, 9A  
SFN 4633105, LOG-35-2.97: 35 ft., single span, non-composite box beam, no skew, built 2005, 9A  
SFN 4633172, LOG-35-4.24: 80 ft., single span, non-composite box beam, no skew, built 2006, 9A  
SFN 4634144, LOG-46-4.31: 65 ft., single span, non-composite box beam, no skew, built 2005, 9A  
SFN 4635167, LOG-56-5.79: 75 ft., single span, non-composite box beam, no skew, built 2005, 9A  
SFN 4637046, LOG-76-1.27: 40 ft., single span, non-composite box beam, 22° skew, built 2005, 9A  
SFN 4637852, LOG-85-0.26: 95 ft., single span, non-composite box beam, no skew, built 2006, 9A  
SFN 4638271, LOG-89-1.25: 64 ft., single span, non-composite box beam, no skew, built 2007, 9A  
SFN 4638778, LOG-94-1.40: 83 ft., single span, non-composite box beam, no skew, built 2004, 9A  
SFN 4639278, LOG-99-0.87: 74 ft., single span, non-composite box beam, 20° skew, built 2006, 9A  
SFN 4640039, LOG-107-0.94: 49 ft., single span, non-composite box beam, no skew, built 2004, 9A  
SFN 4640918, LOG-116-0.55: 73 ft., single span, non-composite box beam, 30° skew, built 2004, 9A  
SFN 4642945, LOG-137-0.49: 75 ft., single span, non-composite box beam, 20° skew, built 2007, 9A  
SFN 4644824, LOG-157-0.60: 35 ft., single span, non-composite box beam, no skew, built 2007, 9A  
SFN 4644840, LOG-157-0.91: 63 ft., single span, non-composite box beam, 30° skew, built 2004, 9A  
SFN 4644794, LOG-157-1.61: 69 ft., single span, non-composite box beam, no skew, built 2000, 9A  
SFN 4649680, LOG-208-3.23: 31 ft., single span, non-composite box beam, no skew, built 1997, 9A  
SFN 4631501, LOG-17-0.13: 65 ft., single span, non-composite box beam, no skew, built 1966, 6A

### Timber Truss Thru, Type 444

SFN 4631137, LOG-13-1.56 (**McColly Bridge**) is a 135 ft. timber Howe truss covered bridge built in 1876. A major rehabilitation was completed in 2000. The rehabilitation plans and an engineering summary report are enclosed.

SFN 4633431, LOG-38-0.29 (**Bickham Bridge**) is a 106 ft. timber Howe truss covered bridge built in 1877. A major rehabilitation was completed in 2002. The rehabilitation plans and a load rating report are enclosed.

We look forward to your proposal to perform the above work. Should you have any questions or require additional information on any of the bridges, please contact this office at (937) 592-2791.

Sincerely,

A handwritten signature in blue ink, appearing to read "BDH", with a long horizontal flourish extending to the right.

Bryan D. Dhume, P.E.  
Assistant Engineer

Enclosures

cc: File

**CEAO BRIDGE LOAD RATING**  
**TASK PERFORMANCE REQUEST CHECK SHEET**  
 All NBIS Bridges

COUNTY:

BRIDGE SFN:

**TASK 1 - Bridge Inspection**

Task 1.1 records search

Task 1.2 Identify missing records  
 1.2.1 Past inspection review   
 1.2.2 Inventory review

Task 1.3 Mobilization  
 (Included if any item in this task is performed)

Task 1.4 Inspection/Inventory  
 1.4.1 Bridge Inspection   
 1.4.2 Bridge Inventory Update

Task 1.5 Technical Report

Task 1.6 Project Management for Task 1  
 (Included if any item in this task is performed)

**TASK 2 - Field Measurements for load rating**

Task 2.1 Site Visit

Task 2.2 Measurements  
 2.2.1 Main Member Measurements   
 2.2.2 Gusset Plate Measurements   
 2.2.3. Shape/deflection measurements   
 2.2.4 Section Loss measurements   
 2.2.5 Backfill testing (ex. culverts or arches)

Task 2.3 Technical Drawings

Task 2.4 Project Management for Task 2  
 (Included if any item in this task is performed)

**TASK 3 - Fracture Critical Plan**

Task 3.1 Plan preparation  
 3.1.1 FCM Identification and Evaluation   
 3.1.2 Fatigue Prone Detail   
 3.1.3 Inspection Procedures

Task 3.2 Technical Report

Task 3.3 Project Management for Task 3  
 (Included if any item in this task is performed)

**TASK 4 - Analysis of Gusset Plates**

Task 4.1 Information Review  
 4.1.1 Plan review   
 4.1.2 Inspection Review

Task 4.2 Analysis

Task 4.3 Technical Report

Task 4.4 Project Management for Task 4  
 (Included if any item in this task is performed)

**TASK 5 - Load Rating and Analysis for All Bridges Except Culverts**

Task 5.1 Information Review  
 5.1.1 Plan review   
 5.1.2 Inspection Review

Task 5.2 Analysis  
 5.2.1 Deck, Slab, Arch or Frame Analysis   
 5.2.2 Beam, Box beam, Floor Beam or Girder Analysis   
 5.2.3 Truss Analysis   
 5.2.4 "Other" Structure Type Analysis

Task 5.3 Technical Report

Task 5.4 Project Management for Task 5  
 (Included if any item in this task is performed)

**TASK 6 - Load Rating and Analysis for Culverts**

Task 6.1 Information Review  
 6.1.1 Plan review   
 6.1.2 Inspection Review

Task 6.2 Analysis  
 6.2.1 Rigid structure Analysis (including slab, arch or frame analysis)   
 6.2.2 Flexible Structure Analysis (steel, aluminum, etc)

Task 6.3 Technical Report

Task 6.4 Project Management for Task 6  
 (Included if any item in this task is performed)

NOTE: The County Engineer will check each task box above that should be completed by the Consultant. The Consultant shall then fill in the electronic spreadsheet for each task requested and return a copy of this back to the County Engineer to file with their application. Please refer to the electronic spreadsheet for additional information.

**CEAO BRIDGE LOAD RATING**  
**TASK PERFORMANCE REQUEST CHECK SHEET**  
**All NBIS Bridges**

COUNTY:

BRIDGE SFN:

**TASK 1 - Bridge Inspection**

Task 1.1 records search

Task 1.2 Identify missing records  
 1.2.1 Past inspection review   
 1.2.2 Inventory review

Task 1.3 Mobilization  
 (Included if any item in this task is performed)

Task 1.4 Inspection/Inventory  
 1.4.1 Bridge Inspection   
 1.4.2 Bridge Inventory Update

Task 1.5 Technical Report

Task 1.6 Project Management for Task 1  
 (Included if any item in this task is performed)

**TASK 2 - Field Measurements for load rating**

Task 2.1 Site Visit

Task 2.2 Measurements  
 2.2.1 Main Member Measurements   
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Task 2.3 Technical Drawings

Task 2.4 Project Management for Task 2  
 (Included if any item in this task is performed)

**TASK 3 - Fracture Critical Plan**

Task 3.1 Plan preparation  
 3.1.1 FCM Identification and Evaluation   
 3.1.2 Fatigue Prone Detail   
 3.1.3 Inspection Procedures

Task 3.2 Technical Report

Task 3.3 Project Management for Task 3  
 (Included if any item in this task is performed)

**TASK 4 - Analysis of Gusset Plates**

Task 4.1 Information Review  
 4.1.1 Plan review   
 4.1.2 Inspection Review

Task 4.2 Analysis

Task 4.3 Technical Report

Task 4.4 Project Management for Task 4  
 (Included if any item in this task is performed)

**TASK 5 - Load Rating and Analysis for All Bridges Except Culverts**

Task 5.1 Information Review  
 5.1.1 Plan review   
 5.1.2 Inspection Review

Task 5.2 Analysis  
 5.2.1 Deck, Slab, Arch or Frame Analysis   
 5.2.2 Beam, Box beam, Floor Beam or Girder Analysis   
 5.2.3 Truss Analysis   
 5.2.4 "Other" Structure Type Analysis

Task 5.3 Technical Report

Task 5.4 Project Management for Task 5  
 (Included if any item in this task is performed)

**TASK 6 - Load Rating and Analysis for Culverts**

Task 6.1 Information Review  
 6.1.1 Plan review   
 6.1.2 Inspection Review

Task 6.2 Analysis  
 6.2.1 Rigid structure Analysis (including slab, arch or frame analysis)   
 6.2.2 Flexible Structure Analysis (steel, aluminum, etc)

Task 6.3 Technical Report

Task 6.4 Project Management for Task 6  
 (Included if any item in this task is performed)

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**CEAO BRIDGE LOAD RATING**  
**TASK PERFORMANCE REQUEST CHECK SHEET**  
 All NBIS Bridges

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Task 1.3 Mobilization  
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Task 1.4 Inspection/Inventory  
 1.4.1 Bridge Inspection   
 1.4.2 Bridge Inventory Update

Task 1.5 Technical Report

Task 1.6 Project Management for Task 1  
 (Included if any item in this task is performed)

**TASK 2 - Field Measurements for load rating**

Task 2.1 Site Visit

Task 2.2 Measurements  
 2.2.1 Main Member Measurements   
 2.2.2 Gusset Plate Measurements   
 2.2.3. Shape/deflection measurements   
 2.2.4 Section Loss measurements   
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 (Included if any item in this task is performed)

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 3.1.3 Inspection Procedures

Task 3.2 Technical Report

Task 3.3 Project Management for Task 3  
 (Included if any item in this task is performed)

**TASK 4 - Analysis of Gusset Plates**

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 4.1.1 Plan review   
 4.1.2 Inspection Review

Task 4.2 Analysis

Task 4.3 Technical Report

Task 4.4 Project Management for Task 4  
 (Included if any item in this task is performed)

**TASK 5 - Load Rating and Analysis for All Bridges Except Culverts**

Task 5.1 Information Review  
 5.1.1 Plan review   
 5.1.2 Inspection Review

Task 5.2 Analysis  
 5.2.1 Deck, Slab, Arch or Frame Analysis   
 5.2.2 Beam, Box beam, Floor Beam or Girder Analysis   
 5.2.3 Truss Analysis   
 5.2.4 "Other" Structure Type Analysis

Task 5.3 Technical Report

Task 5.4 Project Management for Task 5  
 (Included if any item in this task is performed)

**TASK 6 - Load Rating and Analysis for Culverts**

Task 6.1 Information Review  
 6.1.1 Plan review   
 6.1.2 Inspection Review

Task 6.2 Analysis  
 6.2.1 Rigid structure Analysis (including slab, arch or frame analysis)   
 6.2.2 Flexible Structure Analysis (steel, aluminum, etc)

Task 6.3 Technical Report

Task 6.4 Project Management for Task 6  
 (Included if any item in this task is performed)

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