

MEMORANDUM

August 15, 2017

TO: ACEC-INDOT Bridge Inspection Committee Members

FROM: Cheryl Folz, Lochmueller Group

RE: ACEC-INDOT Bridge Inspection Committee Meeting Minutes  
(Meeting held August 11, 2017)

The following were in attendance:

Merril Dougherty, INDOT	A.J. Wortkoetter, INDOT
Bill Dittrich, INDOT	Jeremy Hunter, INDOT
Travis Underhill, INDOT	Sean Hankins, INDOT
Jose Ortiz, FHWA	Scott Minnich, United
Rob Coop, USI Consultants	John Lukac, BLN
Bobby Chandler, Clark Dietz	Jonathan Olson, BF&S
Cheryl Folz, Lochmueller Group	

Item #1

Training Update.

- NHI Courses:
  - o 130055 2 Week Bridge Inspection class: Scheduled 1/22/2018 - 2/2/2018.
  - o 130053 3 Day Refresher Course: Scheduled 2/27/2018 - 3/1/2018.
  - o 130078 3.5 Day Fracture Critical Class: Scheduled 11/6/2017 - 11/9/2017.
  - o 135047 1 Day Scour at Highway Bridges: LTAP to host 2 sessions at County Bridge Conference 10/18/2017. Register through the conference registration, not through the NHI website. If additional seats are needed, notify Merrill Dougherty.
  - o 130056 1 Week Class for PE's: expected to be offered in the fall, Bridge Inspection Manual (BIM) needs to be changed to accept this class. This class is for PE's only.
- S-BRITE Certification Inspecting Steel Bridges for Fatigue: If additional courses are needed, notify Merrill. INDOT plans to modify BIM to change Fracture Critical (F.C.) course requirements. Inspectors needing new F.C. certification will be required to take NHI Course 130078 and S-BRITE class to become certified. Refresher training will only require S-BRITE class.

Item #2

Load Rating Policy.

- Status of Updated Load Rating Chapter
  - o INDOT is updating the Load Rating chapters per comments received from consultant review. They plan to have final draft out for review soon.
  - o Emergency vehicles are currently being evaluated and will need to be added to legal loads to be checked.
  - o A consistent comment was regarding the timeframe to upload load ratings to BIAS. As of right now, the expected timeframe corresponds to the 30/60/90 day requirements for inspections.
- BRADIN
  - o On track to implement later this year.
  - o It will be similar to older versions in BIAS, but will add trucks.
  - o INDOT will look into bulk uploads for initial uploads. After initial uploads, individual uploads will likely be required.

- Bridge Load Ratings - prior to opening to traffic
  - BIM and IDM do not match regarding who is responsible for this. Likely, the LPA will decide whether they'd prefer the Engineer of Record or the Load Rating Engineer.
- Software
  - CANDE
    - Other programs and spreadsheets are acceptable for load rating culverts. Some scenarios may warrant use of CANDE.
    - Spreadsheets, Mathcad, etc are acceptable for these load ratings; the BIM has been written to allow use of these formats.
    - MDOT and ODOT have developed spreadsheets for culvert load ratings. ODOT may be more transferable for INDOT (MDOT uses heavier loads).
  - AASHTOWare BrR
    - If BrR is not used, Jeremy Hunter should be notified, he should be told what is recommended using in place of BrR.
    - If any issues are found with BrR, Jeremy should be notified so that he can let Michael Baker know.
  - INDOT would like to provide information regarding programs and tips for load ratings. The intent is to help Load Rating Engineers, they expect it to be a liquid document.
- Timeframe to complete BrR Load Ratings
  - Ultimate deadline for FHWA compliance is the end of 2019.
  - If load rating is included in "Office Work" in the contract, consultant cannot bill as complete until load ratings are also done. It was understood that the consultant has the full two-year phase to complete the load ratings.
  - INDOT is hoping to add a line item to the contracts for Load Ratings so that this work would not be required to be done within the same timeframe as the office work.

### Item #3

Invoice Issues and Delays to LPA in Reimbursements.

- At times, issues with BIAS (scheduler) provides inaccurate data to INDOT when INDOT reviews invoices, this results in invoices being denied. INDOT stresses the importance with making sure BIAS is updated and correct to avoid this problem. AJ reviews invoices 3 months after the work month and feels that the information in BIAS should be correct. AJ reminded that it is important to make sure inspections are coded correctly in BIAS.
- Considering many issues with BIAS, it was requested that instead of denying invoices, that INDOT contact the consultant before sending denied invoices to LPA. This would allow resolution if BIAS were the problem, and avoid causing problems in the relationship between the LPA and the Consultant.
- Travis Underhill stated that: 1) There will be no more denied invoices, only collaborative discussion. 2) INDOT wants to go back to Lump Sum contracts. Supplemental invoices would be required to provide justification for billing. He feels that INDOT could still accomplish their goals with Lump Sum contracts and supplemental invoicing.

### Item #4

Extending Phase II Contract Time 30 Days to Be the Same as Phase I.

- AJ is looking into revising the boilerplate contract. In the meantime, the Consultants can modify the Phase II timeframes to match the Phase I timeframe. AJ recommended that the Consultant highlight that the boilerplate contract was modified when they submit contracts.

#### Item #5

##### Initial Bridge Inspections in Contracts.

- It can be challenging to get a supplemental for initial bridge inspections, it is recommended that initial bridge inspections be included in the original bridge inspection contracts. Many times, a supplemental cannot be secured within the timeframe required to do the initial inspection.
- AJ stressed the importance of LPA's having a bridge asset management plan so that they can plan ahead and get this work into the contract. Contingencies are not allowed due to limited funding for bridge inspection.
- As long as there is a unit price for this type of inspection in a contract and there is enough money in the contract, the additional work could be billed without a supplemental.
- If the LPA changes which bridge is replaced after the contract is written, it would be acceptable to perform the inspection and invoice for a different bridge than was in the contract.

#### Item #6

##### Extended Frequency Review by FHWA.

- Jose Ortiz is sending drafts of the extended frequency process to FHWA Headquarters to review.
- INDOT and Jose are working on a list of bridges (state and county owned) that would be eligible.
  - During the next inspection for eligible bridges, a checklist would be filled out and information sent to Merrill and Jose. Upon their review, they would determine if the bridge should be on an extended inspection cycle (i.e. 48 months instead of 24 months).
  - More thorough documentation will be required.
  - Based on initial estimates, approximately 8500 bridges in Indiana may meet the requirements to be eligible. 6500 of these are on the county system. Further review will filter out bridges that should be inspected at 24 month frequency.
- The timeframe for review by FHWA Headquarters is unknown. They would have to review and approve both the process and the recommended list of bridges.

#### Item #7

##### BIAS Updates.

- Updated iPad app. INDOT sent out an email on 8/10/2017 with information on the updated app. This update should have fixed problems related to report uploads timing out when many pictures were attached.
- County Summary Reports. Corrections have been made in BIAS to fix the major problems. The pictures should now be printing by default.
- Bentley Reorganization. Bentley is going through a total reorganization of their management structure. The changes appear to be good, INDOT is receiving quicker resolution to problems.
- Timely Resolution of BIAS issues.
- Report any issues to Mona.

#### Item #8

##### Inspection Types for RR Flat Cars.

- Some RR flat car bridges have redundancy and should not be required to be classified as fracture critical.
  - For RR flat car bridges with obvious redundancy, a memo could be prepared by the inspector and placed in the bridge file.

- o If redundancy is questionable, Merrill and Jose will need to approve any recommendation to NOT consider the structure fracture critical.
- Scott Minnich stated that a Purdue research study was done that said that composite action could be assumed for riveted RR flat car bridges with concrete decks. The Purdue research papers are available on LTAP's website.
  - o Jose will review this research to determine if composite action can be assumed on riveted RR flat car bridges.
- Currently, it is not in the BIM or in the Bridge Inspection Memos that RR flat car bridges are considered fracture critical. This information and guidance on what INDOT would like to see in the fracture critical reports needs to be sent out to all inspectors in Indiana.

Item #9

Policy Items.

- Late inspection reports. INDOT will do monthly reports to look for late inspections. They recommend that after an inspection has been done, that the consultant open a report in BIAS so that INDOT and FHWA can know that the inspection was done.  
For large counties with multiple months of inspections, the first inspection cycle will set the compliance month for each bridge.  
Phase IA and IIA inspections have to be kept in the compliance month for each bridge. If a county with multiple months of inspections does Phase IA or IIA inspections the month earlier than that bridge's compliance month, the compliance month changes for that bridge.
- Use of Scheduler. Keep the BIAS Scheduler updated. Bill Dittrich recommended that everyone look at filters occasionally to look for multiple reports, open reports, etc.
- Reports in BIAS. INDOT does not want consultants to do reports in programs other than BIAS. They want all reports to be prepared in BIAS.
- Bill mentioned that some older reports (i.e. underwater reports) are missing in BIAS. He asked that if available, that we upload them to BIAS.

Item #10

Other Topics.

- AJ reminded the group some items to watch for:
  - o Closed bridges should be on a 24 month frequency (not 12 months).
  - o A fracture critical inspection should only be required at a 12 month frequency if a majority of the elements are in poor condition (otherwise, a special inspection should be done).
  - o Other types of inspections (other than routine) should not be part of Phases IA or IIA unless approved by Merrill. Underwater inspections may occasionally be in Phase IA or IIA (depending on frequency).
  - o Inspection of pedestrian bridges do not qualify for federal funding unless an MOA requires the inspection. If this is the case, the MOA should be included in the bridge file.
  - o Documentation/inspection of closed bridges does not qualify for federal funding. The group was unsure if a closed bridge over a roadway would qualify.
- Indiana State Code (IC 8-23-7-26 and IC 8-3-15-3) provides the right of entry for bridge inspectors. See attachment.
- Specialty Inspections. Rob Coop asked that INDOT consider putting specialty inspections, such as pin and hanger or movable bridges, onto one statewide contract.
- Scour Assessment Due Dates. Large counties with major waterways can take additional time due to the need for the HEC-18 analyses. Merrill said that

if the scour assessments cannot be done within 60 days of the inspection, to notify him of the situation.

- INDOT will post minutes from this committee to the INDOT website.

Item #11

Next Meeting Date. The next committee meeting will be held on Friday, November 3, 2017 at 9:00am in INDOT N642 conference room.

### **IC 8-23-7-26 Surveys and investigations; right of entry**

Sec. 26. An authorized employee or representative of the department [INDOT] engaged in a survey or investigation authorized by the commissioner or the commissioner's designee may enter upon, over, or under any land or property within Indiana to conduct the survey or investigation by manual or mechanical means, which include the following:

- (1) Inspecting.
- (2) Measuring.
- (3) Leveling.
- (4) Boring.
- (5) Trenching.
- (6) Sample-taking.
- (7) Archeological digging.
- (8) Investigating soil and foundation.
- (9) Transporting equipment.
- (10) Any other work necessary to carry out the survey or investigation.

*As added by P.L. 18-1990, SEC. 216.*

### **IC 8-3-15-3 Riding, driving, or walking on right-of-way or yard a misdemeanor; definitions; exceptions**

Sec. 3. (a) A person who rides, drives, or walks on or along the right-of-way or yard of a railroad company at a place other than a public crossing commits a Class B misdemeanor.

(b) "Right-of-way" means the track or roadbed owned or leased by a railroad which is located on either side of its tracks and which is readily recognizable to a reasonable person as being railroad property or is reasonably identified as such by fencing or appropriate signs.

(c) "Yard" means a system of parallel tracks, cross-overs, and switches where cars are switched and made up into trains, and where cars, locomotives, and other rolling stock are kept when not in use or awaiting repairs.

(d) This section does not apply to:

- (1) passengers on trains or employees of a railroad company while engaged in the performance of their duties;
- (2) picketing by railroad employees in the vicinity of entrances to railroad company property;
- (3) an authorized representative of the railroad employees;
- (4) a person going upon the right-of-way or into the yard to save human life or to protect property;
- (5) a person being on the station grounds or in the depot of the railroad company as a passenger or for the purpose of transacting business;
- (6) a person, or the person's family or employees going upon the right-of-way for the purpose of crossing from one (1) part to another part of a farm the person owns or leases, where the farm lies on both sides of the right-of-way;
- (7) a person having written permission from the railroad company to go upon the right-of-way;
- (8) representatives of the Indiana department of transportation;
- (9) representatives of the federal Surface Transportation Board; or
- (10) a registered land surveyor or a land surveyor's employees who are on the right-of-way or in the yard for the purpose of making land surveys.