

ACEC/NCDOT  
STRUCTURES SUBCOMMITTEE

Structures Conference Room C  
October 28, 2024, 10:30 AM

**MEETING MINUTES**

1) **Attendees**

- |                            |                           |
|----------------------------|---------------------------|
| a) <del>Brian Hanks</del>  | g) Liz Lawes - WSP        |
| b) Gichuru Muchane         | h) Greg Cols - AECOM      |
| c) <del>Trey Carroll</del> | i) Jeff Loftus – M&N      |
| d) David Stutts            | j) Emily Murray - Volkert |
| e) Hoang Dieu              | k) Tony Laws – RS&H       |
| f) Terre Peterson          | l) Joshua Gentry – RK&K   |

2) **Meeting Kick-off**

- a) Previously approved minutes were published and available on ACEC website.
  - i) Committee will check with ACEC on the availability of past minutes (only goes back the past 5 or so meeting minutes).
- b) ACEC Sharepoint site for meeting minutes, agendas, and other materials.

3) **Bridge Design Workshop Series**

- i) Scheduled November 12, 2024 – Construction update from Aaron Earwood & Perquiman’s Movable Bridge (H&H).
  - Committee to check with presenters on agenda.
- ii) Targeting either January or March 2025 – CMGC (Division 14 with Benesch)
  - Needs to include a short introduction to CMGC process.
  - Need to determine a date. Extra time may be needed due to Helene response.
- iii) February 27, 2025 – Steel Bridge Forum
- iv) May/June 2025 – Corrosion Policy Refresher/Updates – still preferred.
- v) Additional topics further out are discussed in the tracking worksheet. Some topics could be shifted to a conference.

4) **Training/Professional Development Opportunities**

- a) Discuss topics for NSBA Raleigh Steel Bridge Forum spring of 2025.
  - i) Liz connected with Chris Garrell at AISC and he and Brandon Chavel have met with ACEC and are working on the agenda for the Steel Bridge Forum in the coming weeks.
- b) Other training opportunities – none anticipated through end of the year.

## 5) **Anticipated PEF Opportunities**

- a) Western NC hurricane response
  - NCDOT appreciates all the firms who have reached out to help. Anticipated that everyone will have the opportunity to help.
  - Alternative Delivery Unit is handling much of the work so far. Divisions have been driving on-the-spot repairs.
  - SMU has been focused on inventory of bridges. As of today's meeting, 78 structures completely gone, 11 are missing spans, 102 have approaches washed out. 55 have scour/drift or substructure damage, 2300 have been inspected. SMU working on prioritizing. Consideration given for temporary or permanent repairs.
  - Helene response is not going to stop the bridge program, but the total impacts are unknown at this time to NCDOT.
  - Where streams in the mountains were realigned due to flooding, the USACE's general decision has been to put back streams into place to avoid property line issues.
- b) SMU is working with PMU to match bridge projects with firms. Structures LSC is still used for bridge program projects.
- c) SMU has not decided if they will extend the LSC. This will be decided early 2025.

## 6) **Technical Topics**

- a) Timber Superstructure Standard Plans are completed and available by request from SMU / Nick Pierce. Substructure standard plans are in-progress. An "In-Kind Timber Bridge Replacement" manual is being developed. Generally the substructure will be concrete (or other robust material), the superstructure can be easily replaced. LRFR will be included. Steel beams are painted (not WS or Galv). Most bridges will include AWS, so the deck will be level.
- b) Manual Revision: Discussions around using more GFRP reinforcement in decks. SMU is developing deck design tables. Priority will be given for coastal and mountain bridges with heavy road salting.
- c) OBD Manual updates include Project Management tasks, aligning to PDN for submittals, ProjectWise expectations.
- d) No research project updates shared.
- e) Strip Seals – current P-joint shape is not currently produced, and existing stock/inventory is expensive. Another steel mill is going to start producing it sometime soon. Contractor may substitute for EJS if material is unavailable. Continue detailing Strip Seal for future projects.

## 7) **Open Discussion/Other Topics**

- i) Request for SMU to setup an alert system for PEFs to subscribe to for announcements, such as for updates to SMU Manuals, standard drawings, release of Policy Memos, etc. Currently, email David Stutts to get added to the distribution list.

- ii) Use of AI: The committee discussed use of AI in bridge engineering. There are concerns over sharing proprietary information, concerns over Garbage-in/Garbage-out idea, and how to validate results.

8) **Next Subcommittee Meeting:**

- a) February 10<sup>th</sup>

Meeting adjourned at 11:45am.