The ACES/Caltrans DES Structures Liaison Committee meeting was held in person on Friday, August 2, 2024 from 10:00 AM to 12:00 PM PST in Room 102 of the Farmers Market Building (#1) at 1801 30th Street in Sacramento, CA. A virtual link to attend the meeting was also made available through Microsoft Teams.

#### I. Call to Order

Posted meeting minutes are available on the Caltrans website linked below:

https://dot.ca.gov/programs/engineering-services/special-funded-projects-and-local-assistance

#### A. Self Introductions

The meeting began with self-introductions for those present in Sacramento.

#### B. Changes to the Agenda

Garrett Dekker asked for proposed changes to the agenda; no changes were requested.

### C. Review Previous Meeting Minutes (February 2, 2024)

The previous meeting minutes were distributed prior to the meeting. No comments were received on the minutes.

#### II. DES/ACEC Updates

#### A. General: Rich Foley/Jim Foster

Jim Foster reported on focused meetings Caltrans held to discuss progress on Structure Technical Policy (STP) 2.6.

## B. Technical: Structures Technical Policies, Technical Research: Don Nguyen-Tan/Chris Traina

#### STP Updates: Don Nguyen-Tan

- There is a new California Amendment that will capture lagging loads for cantilever and soldier pile walls. The new equations and factors will result in more cost-effective designs.
- New Standard Detail sheets have been posted for precast prestressed concrete deck panels.
- Some Standard Details sheets now have engineering calculations to support the details. Calculations will be available for the Project Engineer to evaluate and include with the

project calculation package. It will be the Project Engineer's responsibility to take ownership of the Standard Detail sheets and calculations.

- Bridge Design Aids (BDA) Section 2 (Footings) will be moved to Bridge Design Memos (BDM) 10.4.
- Deactivated Memos:
  - MTD 1-31: Covers constructability reviews for structure projects. It will be moved to the Bridge Design Practice Manual (BDPM).
  - MTD 2-11: Bridge Numbering System will be moved into the BDPM and Office of Special Funded Projects (OSFP) Information and Procedures Guide.
  - MTD 2-12: Earth Retaining Systems (ERS) Numbering will be moved to the OSFP Information and Procedures Guide.
  - o MTD 9-6: Will be superseded by the Caltrans Bridge Load Rating Manual.
  - MTD 10-1: Reinforced concrete strength requirement is being removed.

#### <u>Technical Research Updates: Chris Traina</u>

- Seismic Design Criteria (SDC) 2.1 will be released soon, potentially within the next three months. Caltrans will provide an overview of changes shortly after the release.
- The OSFP Information and Procedures Guide is expected to be updated within the next three months.

#### C. Contracting Opportunities: Hamid Sadraie/Sid Pedaballi

#### Contracting Updates: Sid Pedaballi

- DPAC Look Ahead Report Summary:
  - All new bridge contracts will require the bridge to be load rated. For bridges that were not originally load rated, the load rating will be performed through a specific load rating contract with District 56.
  - o A photogrammetry contract will be advertised in District 7 soon.
  - The District 4 On-Call Design contract is estimated to be valued at \$8M. The contract may be advertised in approximately one month.
  - There are three upcoming material engineering contracts valued at \$17M, \$18M, and \$27M. The contracts will be managed by the Southern California Office, San

Francisco Bay Area Office, and Sacramento Office. The first of the contracts is expected to be advertised in August, and the other two will be advertised later in the year.

 Two Structure Construction contracts, valued at \$30M and \$21M, are pending in District 4. The contracts were advertised July 18<sup>th</sup> and July 19<sup>th</sup>, 2024.

### D. Local Assistance: Robert Peterson/Andy Chou

Andy Chou provided the Local Assistance and Highway Bridge Program (HBP) update:

- Caltrans Headquarters announced a staffing update for the HBP team. Linda Newton, Local Highway Bridge Program Manager, retired at the end of March. Karen Nguyen, who was the HBP coordinator in District 8, has filled this position.
- The end of the fiscal year is approaching, and approximately two weeks remain for Headquarters to receive requests for authorizations to obligate of federal funds. The Federal Highway Administration (FHWA) typically closes operations in the last month of the fiscal year, urging immediate action for those who have not yet secured their funds.
- The upcoming federal fiscal year '24-'25 marks the fourth year of the five-year Transportation Act, emphasizing the need for timely project delivery.
- The HBP has experienced a significant increase in funding from the Infrastructure Investment and Jobs Act (IIJA), jumping from \$289M to \$560M annually. The future of HBP funding beyond IIJA remains uncertain, especially with the upcoming election year.
- The Bridge Preventive Maintenance Program (BPMP) guidelines have been updated to provide clearer eligibility criteria and project delivery requirements.
- For project cost increases, agencies must submit standard LAPG 6-A or 6-D forms. The
  primary purpose of the status reports is to facilitate the rescheduling of funds. The
  monthly delivery status report shows E-76 status, linked below:

https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hbp/2024/projectstatussummaries-20240904.xlsx

#### E. Statewide ACEC Committee: Garrett Dekker

Garrett Dekker shared updates from the Statewide ACEC Committee.

- Caltrans is assessing how potential legislative changes to prevailing wage rates will impact their contracts and is preparing to offer training on these changes once they are enacted.
- A new cost proposal spreadsheet for specific contracts has been introduced by DPAC, which promises improved user experience and efficiency in review processes.
- Discussions are ongoing regarding the negotiation of fair and reasonable wages, with
  efforts to align consultant cost proposals with original estimates and establish what is
  considered fair and reasonable. Caltrans is considering adopting an in-house cost data

spreadsheet for consultant rates, similar to a method used in Colorado, to assist in determining fair and reasonable wages.

 A section of the Standard Specifications includes provisions that release Caltrans from certain responsibilities related to contractor staffs at job sites. A&E contracts moving forward will reflect these changes, ensuring that consultant inspectors are also relieved of responsibilities tied to contractor staff on job sites.

## F. Construction Management and Inspection Updates: John Lammers/Frank Martin/Jon Rohrer

John Lammers reported that the next Winter Training will be focused on structure foundations. Caltrans and the ACEC Committee will look for opportunities for consultants to participate as presenters in future Winter Trainings.

#### III. Sub-committees

### A. ABC (Accelerated Bridge Construction): Garrett Dekker/Habib Hotaki

Habib Hotaki gave the ABC update:

- Caltrans celebrated the ribbon-cutting for the Kings River project in District 6, which featured pocket connections based on research from the University of Nevada, Reno.
- Caltrans is conducting three studies with lowa State University, including a completed test focusing on UHPC deck overlays. The current focus is on data analysis and visualization.
- Habib is working on a project with the Office of Earthquake Engineering to enhance UHPC pocket connections in high seismic zones with an emphasis on vertical ground motions. Caltrans is preparing documentation for a research request package.
- Sebastian Varela reported that AASHTO released the first edition of the "Guide Specification for Structural Design with UHPC" in March 2024. The guide specification includes sections covering longer/lighter spans, capacity protected elements, and material specification language.

### B. Alternative Project Delivery Methods: Mark Reno/Jason Chou

Mark Reno is preparing a presentation that focuses on the use of alternative delivery processes by Caltrans and local agencies. The aim is to consolidate views from Caltrans and local agency consultants. Mark plans to share the presentation in the first or second quarterly meeting of 2025.

#### C. BIM (Building Information Model): Doug Dunrud/Bobby Zermeno

Bobby Zermeno provided the BIM update:

- Bobby will coordinate with Mina Pezeshpour to schedule an end-of-year BIM webinar with an outside consultant. Bobby is working with Doug Dunrud to finalize the details and schedule for the webinar.
- Doug suggested the possibility of having the speakers in 2024 International Building Code (IBC) give a presentation on digital delivery.
- Mina Pezeshpour added that an AASHTO publication discussing BIM use for bridges, TPF-5(372), was forwarded to Lance, Bobby, and Doug.
  - Official website: https://bimforbridgesus.com/
  - o Phase 1 study:
    - <u>TPF-5(372)-Building Information Modeling (BIM) for Bridges and Structures-</u> Final Report.pdf
  - Caltrans is involved in Phase 2, which focuses on information delivery specifications.

#### D. Technical Subcommittee: Garrett Dekker (Jack Abcarius)/Jason Chou

Garrett stated that no new technical questions have been submitted to the subcommittee.

### E. Education Training/Seminar/Webinar: Michael Van Duyn/Lance Schrey

Mark Reno may prepare a presentation on the Mosquito Creek Bridge Replacement Project for an upcoming DES Education Committee event.

#### IV. Discussion Items

#### A. STP 2.6 Update: Don Nguyen-Tan

Don reported that a draft of STP 2.6 was presented to the Structure Policy Board, with subsequent discussions leading to another draft shared with the ACEC team. Feedback was received from ACEC, and Caltrans feels they have a good understanding of the main concerns posed by ACEC. Decisions are pending on requirements for waterway conveyance and the two feet freeboard requirement. A subsequent meeting has been scheduled to discuss action items.

#### **B.** Construction Inflation

Christa Siegenthaler provided an overview of construction inflation. The Structure Office Engineer (SOE) annual report on construction statistics for 2023 provides a comprehensive overview of bridge statistics from the previous year. This data is crucial for reporting to FHWA and helps determine the comparative bridge cost analysis, aiding in planning and preliminary cost estimation using unit costs per square foot. The report includes a graph illustrating the impact of the number of bidders on project costs. Typically, a higher number of bidders correlates with bids closer to or below the engineer's estimate. Recent bid results indicate fluctuations in monthly low bids compared to the engineer's estimates, with some months showing bids

exceeding the estimates, which is an undesirable trend. This information is valuable for future project planning and budgeting.

The Bridge Cost Index is a metric calculated quarterly to track the average costs in bridge construction, primarily influenced by the prices of concrete and rebar. While it offers a historical perspective on cost trends and assists in preliminary estimate updates, it has limitations on unit costs for bid items. The index can be skewed by the volume and size of projects within a quarter, necessitating cautious interpretation. Despite these limitations, recent comparisons between estimates and the index suggest it remains a valuable tool, reflecting significant cost increases in recent years. Due to ADA compliance, detailed construction statistics are not publicly available but can be provided upon request.

V. Miscellaneous Questions: Open Forum

None.

### VI. 2024 Meeting Schedule:

Q1: February 2, 2024 (1st Friday) Q3: August 2, 2024 (1st Friday) Q4: November 1, 2024 (1st Friday) Q2: May 3, 2024 (1st Friday)

#### VII. **Distribution:**

#### A. Caltrans:

Rich Foley	Caltrans DES	Sid Pedaballi	Caltrans PD & SCM
Jason Chou	Caltrans SES	Robert Peterson	Caltrans HQ/LA
Jim Foster	Caltrans SES	John Lammers	Caltrans SC
Nina Choy	Caltrans GS	Don Nguyen-Tan	Caltrans BD
Tim Greutert	Caltrans METS	Chris Traina	Caltrans EE
Sudhakar Vatti	Caltrans BD	Mike Lee	Caltrans SM&I
Vaccil Simoonov	Caltrana SM21		

Vassil Simeonov Caltrans SM&I Hamid Sadraie Caltrans PPM & Caltrans PPM & OE

### **B. ACEC Regular Committee Members:**

Member No.:	District(s):	Contact:
1	1, 2, 3, 9, 10	Mark Reno, Co <i>nsor</i>
2	11	Jack Abcarius, <i>NV5</i>
3	4	Garrett Dekker, <i>Moffatt &amp; Nichol</i>
4	7, 8, 12	Miguel Carbuccia (acting for Mike Van Duyn), HNTB
5	5, 6	Bobby Zermeno, Cornerstone Structural Engineering
		Group
6 (CM&I)	1-6, 9-10	Frank Martin, <i>Psomas</i>
7 (CM&I)	7-8, 11-12	Jon Rohrer, <i>HDR</i>

#### **Attachments:**

None