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**Hospital Building Safety Board  
Ad Hoc Educational Opportunities to Advance Structural Health  
Monitoring by Hospitals Subcommittee**

**January 29, 2026  
10:00 a.m. – 4:00 p.m.**

**Locations:**

2020 West El Camino Ave, Conference Room 930, Sacramento, CA 95833  
355 South Grand Avenue, Conference Room 2000, Los Angeles, CA 90071

**Committee Members Present**

Martin Hudson, Subcommittee Chair  
Courtney Johnson, Subcommittee Vice-Chair  
Janice Cheung  
Jim Malley  
Farzad Naeim

**HCAI Staff Present**

Chris Tokas  
Richard Tannahill  
Roy Lobo  
Geoff Trautman

**HBSB Staff Present**

Veronica Yuke, Executive Director  
Marcus Palmer  
Eve Torres

**1. Call to Order and Welcome**

**Facilitator:** Martin Hudson, PhD, PE, GE, Principal Geotechnical Engineer, Hudson Geotechnics, Inc.; Subcommittee Chair

Martin Hudson called the Ad hoc Committee: Educational Opportunities to Advance Structural Health Monitoring by Hospitals Subcommittee meeting to order on January 29, 2026, at 10:00 a.m. He noted that this Ad hoc Subcommittee is connected to both the Instrumentation Committee and the Education Committee.

1 **2. Roll Call and Meeting Advisories/Expectations**

2 **Facilitator:** Veronica Yuke, HCAI; HBSB Executive Director

3 Veronica Yuke conducted the official roll call for subcommittee members. She confirmed  
4 that a quorum was established.

5

6 **3. Review of introductory materials**

7 **Facilitator:** Martin Hudson

8 **Discussion and Input**

9 Martin Hudson opened the discussion by outlining the purpose of the agenda item. He  
10 presented a PowerPoint overview, beginning with a review of the subcommittee's goals  
11 and objectives as discussed at the December 2025 Full Subcommittee meeting.

12 Key objectives included:

- 13 • Evaluating whether the Seismic Instrumentation of Healthcare Facilities white  
14 paper requires a full rewrite or an addendum, with consideration leaning toward a  
15 rewrite.
- 16 • Incorporating recent implementations and technological advancements not  
17 covered in the original 2023 white paper.
- 18 • Enhancing public and stakeholder accessibility to the white paper, especially for  
19 non-engineers, aligning with educational outreach objectives.

20 Farzad Naeim supported the educational focus and emphasized the need to make  
21 content accessible to broader audiences with help from the Education Committee.

22 Martin Hudson affirmed that the initiative is primarily educational but includes content  
23 development to support that goal.

24 Martin Hudson reviewed outcomes from the October 2025 Instrumentation Committee  
25 meeting, highlighting:

- 26 • Implementation of real-time data streaming stations at new hospitals (Santa  
27 Rosa Kaiser and Antelope Valley) and their educational utility.
- 28 • Importance of data visualization efforts by HCAI and relevance for public  
29 engagement.
- 30 • Effectiveness of working prototypes, such as Antelope Valley and non-hospital  
31 examples like the Golden Gate Bridge, in communicating system capabilities.

1 Courtney Johnson recalled an action item from the previous meeting to conduct  
2 outreach to hospital owners to understand their specific informational needs.  
3 Martin Hudson confirmed that as a key early deliverable of the subcommittee.

4 Martin Hudson then transitioned to a structured walkthrough of the Seismic  
5 Instrumentation of Healthcare Facilities white paper:

- 6 • He summarized the purpose of structural health monitoring, which aims to reduce  
7 inspection time post-earthquake and assist hospital decision-making regarding  
8 operations or evacuation.
- 9 • He emphasized the paper's point that the cost of instrumentation has dropped  
10 while the return on investment has increased.
- 11 • He presented examples from the white paper showing historical earthquake  
12 damage to hospitals and the distinction between structural and non-structural  
13 vulnerabilities.
- 14 • The Olive View Medical Center's performance during the 1994 Northridge  
15 earthquake was used to illustrate how instrumentation could predict both  
16 structural and non-structural damage with high accuracy.
- 17 • He introduced future implementation methods, such as cloud-based systems and  
18 on-site "black box" processors and compared traditional (Path A) and modern  
19 low-cost (Path B) instruments.
- 20 • He outlined the paper's concluding action points, including emphasizing benefits,  
21 promoting low-cost technology, and advocating for broader instrumentation  
22 deployment.

23 Roy Lobo added that access to real-time structural health data is only possible if  
24 hospitals have installed instrumentation. He stressed the importance of communicating  
25 return on investment to stakeholders.

- 26 • Martin Hudson agreed and incorporated that into the action summary.

## 27 **Subcommittee and Public Comments**

- 28 • Courtney Johnson reiterated the importance of targeted hospital outreach to  
29 identify stakeholder-specific information needs.
- 30 • Public comment was provided by Wendy Bohan of the California Geological  
31 Survey. She questioned whether a full rewrite of the white paper was the most  
32 effective output. Instead, she suggested a shorter summary document, such as a  
33 two-pager, that links to the white paper for more detail.
  - 34 ○ Martin Hudson acknowledged the suggestion as aligned with previous  
35 discussions and a viable deliverable for the subcommittee.

1 **Informational and Action Items**

- 2 • Evaluate whether to rewrite or supplement the white paper.
- 3 • Update educational content with examples of real-time monitoring at Santa Rosa  
4 Kaiser and Antelope Valley hospitals.
- 5 • Clarify HCAI’s data visualization practices for use in public education.
- 6 • Explore development of a short-form outreach document summarizing key white  
7 paper findings.
- 8 • Conduct targeted outreach to hospital owners to assess their educational and  
9 operational needs.
- 10 • Consider including real-world case studies, such as the Golden Gate Bridge, as  
11 communication tools.
- 12 • Review feasibility of including simplified communication materials for non-  
13 engineer stakeholders.
- 14 • Reconfirm interest in potential implementation of on-site “black box”  
15 instrumentation systems.

16

17 **4. Discuss approach to address goals and objectives of the ad hoc**  
18 **subcommittee**

19 **Facilitator:** Courtney Johnson, PG, CEG, Principal Geologist, Slate Geotechnical  
20 Consultants; Subcommittee Vice-Chair

21 **Discussion and Input**

22 Courtney Johnson initiated the discussion by presenting the subcommittee’s sole  
23 objective, as defined in the December 2025, Full Board meeting: “to develop  
24 educational opportunities to advance utilization of structural health monitoring by  
25 hospitals using seismic instrumentation.” Johnson invited subcommittee members to  
26 evaluate whether this objective was sufficiently defined and to propose appropriate  
27 deliverables.

28 Farzad Naeim suggested developing a series of short, accessible webinars instead of a  
29 written white paper to engage a broader audience.

- 30 • James Malley recommended collecting testimonials from representatives of  
31 hospitals that had already implemented instrumentation, such as Sutter Health  
32 and the University of California system, to highlight benefits, including reduced  
33 insurance costs.

- 1 • Janice Cheung raised the need to clearly identify the intended audience and  
2 stakeholders and tailor deliverables accordingly.
- 3 • Roy Lobo and James Malley discussed leveraging insights from hospital  
4 administrators or corporate-level planners involved in recent seismic  
5 instrumentation implementation.
- 6 • Martin Hudson suggested including vendors like SafeHub in future meetings to  
7 educate the subcommittee on technologies and costs.
- 8 • Janice Cheung emphasized creating a “how-to” guide for stakeholders, citing the  
9 need to assist hospitals with implementation steps.
- 10 • Martin Hudson referenced joint research from UCLA and Caltech supporting the  
11 efficacy of MEMS instruments and reiterated the importance of understanding  
12 and communicating sensor limitations.
- 13 • James Malley confirmed SafeHub’s use of MEMS systems, suggesting their  
14 potential to address practical and cost concerns.

15 Courtney Johnson summarized consensus around three deliverables: a public-facing  
16 summary document, a webinar series, and an addendum to the 2023 white paper with  
17 recent case studies.

- 18 • Martin Hudson volunteered to draft the summary. James Malley offered to create  
19 a first draft of the how-to guide using input from existing implementations.  
20 Johnson volunteered to begin outlining the webinar structure.
- 21 • Janice Cheung agreed to support content development with a user-focused  
22 perspective.

23 Martin Hudson proposed using the summary paper and a targeted list of stakeholder  
24 questions to guide outreach efforts.

- 25 • Roy Lobo supported this approach and suggested outlining clear benefits of  
26 instrumentation to facilitate stakeholder feedback.
- 27 • James Malley referenced section three of the current white paper as a starting  
28 point for articulating those benefits.

29 The subcommittee discussed identifying specific stakeholders, including hospital facility  
30 administrators and emergency response planners at large health systems like Kaiser  
31 and Sutter, who are critical decision-makers for implementing seismic instrumentation.

32 Martin Hudson reiterated that engaging experienced systems like Sutter could inform  
33 broader educational outreach by providing insight into practical benefits and decision-  
34 making criteria.

1 Courtney Johnson confirmed the assigned leads and deliverables as follows:

- 2 • Martin Hudson: Draft the summary/public overview
- 3 • Courtney Johnson: Outline for webinar series
- 4 • James Malley: Draft how-to implementation guide
- 5 • Webinar content and white paper addendum: To proceed following future
- 6 education on current instrumentation technologies

7 Martin Hudson emphasized the need to identify and engage stakeholders and develop  
8 structured questions to guide those conversations.

9 Janice Cheung and Roy Lobo discussed targeting both on-site facility administrators  
10 and higher-level corporate planners within hospital systems as the appropriate  
11 stakeholders for outreach and feedback.

## 12 **Subcommittee and Public Comments**

- 13 • Farzad Naeim, James Malley, Janice Cheung, Roy Lobo, and Martin Hudson  
14 provided extensive input on goals, deliverables, audience identification,  
15 implementation barriers, and instrumentation case studies.

## 16 **Informational and Action Items**

- 17 • Martin Hudson will draft a summary document outlining benefits of seismic  
18 instrumentation.
- 19 • Courtney Johnson will outline the structure and goals of the webinar series.
- 20 • James Malley will draft a how-to guide for hospital stakeholders, referencing  
21 practical examples.
- 22 • The subcommittee will delay work on the white paper addendum until they  
23 receive updated educational presentations on current technologies.
- 24 • Future agenda will include identifying stakeholders and defining interview  
25 questions.

## 26 **5. Determine schedule and plan for future meetings**

27 **Facilitator:** Courtney Johnson (or designee)

## 28 **Discussion and Input**

29 Courtney Johnson initiated the discussion by referencing the deliverables identified  
30 under the prior agenda item and proposed that the next subcommittee meeting be used  
31 to receive status updates, review drafts, and resolve outstanding questions. She asked  
32 the group whether a meeting should be scheduled before or after the April Full Board  
33 meeting.

1 Veronica Yuke confirmed that the next Instrumentation Committee meeting is scheduled  
2 for February 26, 2026, and clarified that this subcommittee does not formally report to  
3 that committee. However, because members such as Courtney Johnson, Martin  
4 Hudson, and James Malley also serve on the Instrumentation Committee, they can  
5 provide an update there.

- 6 • James Malley supported placing this update on the Instrumentation Committee  
7 agenda, noting that seismic instrumentation is a more aligned focus for that body  
8 than the broader education committee.

9 Veronica Yuke confirmed there was still time to add an agenda item to the  
10 Instrumentation Committee meeting.

11 Courtney Johnson then raised the need to schedule the next Ad Hoc Subcommittee  
12 meeting.

- 13 • Martin Hudson recommended scheduling a meeting before the April Full Board  
14 meeting to review learnings from the Instrumentation Committee and assess  
15 progress on deliverables such as the summary document.

16 Veronica Yuke advised that the next Full Board meeting is scheduled for April 9, 2026,  
17 and recommended scheduling the subcommittee meeting in early March to allow  
18 sufficient time to prepare any updates.

19 After confirming availability, the subcommittee tentatively scheduled its next meeting for  
20 March 10, 2026. All subcommittee members confirmed availability for this date and  
21 time.

22 James Malley asked whether the February Instrumentation Committee agenda should  
23 be discussed further. Veronica Yuke clarified that such discussion falls under the  
24 authority of the Instrumentation Committee, and as its chair, Martin Hudson confirmed  
25 he would add an update from this subcommittee to that agenda.

26 James Malley noted that if the SafeHub representative is to be invited to present, Martin  
27 Hudson should coordinate with him directly.

28 Courtney Johnson confirmed the planned report to the Instrumentation Committee and  
29 the scheduling of the next subcommittee meeting. She asked if there were any  
30 remaining questions regarding scheduling, meeting assignments, or the path forward.

### 31 **Subcommittee and Public Comments**

- 32 • None.

### 33 **Informational and Action Items**

- 1 • The subcommittee will report on its progress during the Instrumentation  
2 Committee meeting on February 26, 2026.
- 3 • The next Ad Hoc Subcommittee meeting is scheduled for March 10, 2026, to  
4 review progress on assigned deliverables.
- 5 • Martin Hudson will ensure that an update from this subcommittee is added to the  
6 February Instrumentation Committee meeting agenda.
- 7 • Members confirmed individual commitments to work on assigned deliverables  
8 between meetings.

9

## 10 **6. Comments from the Public/Subcommittee Members on Issues not on this** 11 **Agenda**

12 **Facilitator:** Martin Hudson (or designee)

13 Martin Hudson opened the floor to subcommittee members for any comments regarding  
14 matters not listed on the agenda.

## 15 **Subcommittee and Public Comments**

- 16 • None.

## 17 **Informational and Action Items**

- 18 • None.

19

## 20 **7. Adjournment**

### 21 **Discussion and Input**

22 Martin Hudson formally announced the adjournment of the meeting at 12:04 p.m.  
23 following the conclusion of all scheduled agenda items.