



CHARLES D. BAKER
GOVERNOR

KARYN E. POLITO
LIEUTENANT GOVERNOR

MIKE KENNEALY
SECRETARY OF HOUSING AND
ECONOMIC DEVELOPMENT

Commonwealth of Massachusetts
Division of Professional Licensure
Office of Public Safety and Inspections
1000 Washington Street • Boston • Massachusetts • 02118

EDWARD A. PALLESCHI
UNDERSECRETARY OF CONSUMER
AFFAIRS AND BUSINESS
REGULATION

LAYLA R. D'EMILIA
COMMISSIONER, DIVISION OF
PROFESSIONAL LICENSURE

BOARD OF BUILDING REGULATIONS AND STANDARDS

Geotechnical Advisory Committee (GAC) Meeting Minutes

May 12, 2021

The Division of Professional Licensure Office
1000 Washington Street - Boston, MA 02118

This was a virtual Microsoft Teams meeting.

Roll Call, by GAC Chair:

Chris Erikson, Chair
Scott DiFiore
John Roma
Michael Oakland
Damian Siebert

☒ present ☐ absent
☒ present ☐ absent
☒ present ☐ absent
☐ present ☒ absent
☒ present ☐ absent

Martin Rodick
Jake McManus
James Christensen
William Solberg
Rob Anderson

☒ present ☐ absent
☐ present ☒ absent
☒ present ☐ absent
☒ present ☐ absent
☒ present ☐ absent

General notes on format of these minutes

- *These minutes represent general points discussed during the meeting. The minutes are **not** intended to be a verbatim account of discussions.*
- *Topics as numbered may\ may not be in the same order as they appear on the meeting agenda.*
- *The meeting agenda is listed as **EXHIBIT A**; others are listed sequentially as addresses during the meeting.*

1. Review minutes for the GAC April 14, 2021 meeting (EXHIBIT B).

On a **MOTION** by Damian Siebert, seconded by Scott DiFiore, it was unanimously agreed, by **Roll Call Vote**, to approve the minutes with the following **revisions** to page 1; add the word **NOT** to the 2nd paragraph under Item 1 (*excerpted below*).

James Christensen clarifies that he did **NOT** say that updating blow count figures would *likely cause fairly significant increases in project costs* as indicated on page 2 of the minutes (*excerpted below*). There may be some cost increase, but should not be labeled as significant.

2. Discuss proposed amendments and new content of 2021 IBC, Chapter 18, for inclusion in the Tenth Edition of the Massachusetts Building Code (780 CMR).

Rob Anderson provided an update about the schedule, goals and objectives for the tenth edition code indicating that it is still unknown whether or not it will be a *blended code* (sold as a unique Massachusetts code with amendments incorporated in the 2021 I-Code) or an *amended code* (where the reader purchases the 2021 I-Code and has access to an amendment package issued by the state – like the ninth edition code). Either way, Rob explained, it does not affect current efforts of the committee. If it is determined that the tenth edition



will be *amended*, Rob will simply need to excerpt approved changes from Chapter 18 to make part of an amendment package, like the ninth edition.

In terms of schedule, the *Energy, Structural, Existing Buildings*, and *Fire Protection Advisory Committees* as well as varied Office of Public Safety & Inspections (OPSI) staff are reviewing other portions of the code to determine whether or not revision is warranted. Rob indicated that he is reviewing 23 other chapters, along with Chapter 18. Staff has begun presenting possible changes to BBRS members and will continue to do so for several months. Ideally, Board members had hoped that all review would be completed by May. However, it is recognized that it is a large effort that may continue a while longer. Nonetheless, GAC members should target a date for concluding their review of geotechnical requirements.

Chairman Erikson requested members to complete the Chapter 18 review process by June and target the July BBRS meeting for presentation to Board members. Chairman Erikson indicated that he would be available to make the presentation. Rob indicated that it has been challenging for BBRS members to review possible code content\change during the course of a regular meeting, typically held on the 2nd Tuesday of each month beginning @ 10:00 a.m., due to other agenda demands. Board members are considering other, additional meeting dates to complete code content presentations. Consequently, Rob identified that the GAC presentation may\may not be included on the July regular business agenda.

3. **Continued Report on Assignment Number 2 from 2/10/2021 Meeting & Follow-up Meeting(s).** As indicated during the March meeting, *“Following lengthy discussion (relating to liquefaction susceptibility figures), James suggested that the further study of the matter is warranted and suggested convening an interim (subgroup) meeting prior to the next regularly scheduled meeting on April 14th dedicated to the topic”*.

James Christensen provided a memorandum dated May 12, 2021, titled *Liquefaction Screening Figure 1806.4 Massachusetts State Building Code, 10th Ed. (EXHIBIT D)*. The purpose of the memorandum is to document the input parameters and assumptions used in the calculation to develop revised Liquefaction Susceptibility Screening Plot for the Massachusetts State Building Code, 10th Edition (Figure 1806.4). James indicated that, although progress has been made, a bit more study is necessary. James suggested inviting subject matter experts to another meeting of the subgroup and soliciting input from BBRS Structural Advisory Committee chair regarding concepts described in the memo.

Martin Rodick questions whether or not open meeting laws allowed the participation of others. Rob Anderson explained that invitees are fine, but committee members need to be cognizant that the group cannot comprise a majority of GAC members. Reports of the group, as James has done today, satisfies open meeting requirements since discussions are detailed in these meeting minutes.

Following discussion, Chairman Erikson thanked James in particular, and all involved, for their efforts and detailed analysis of the matter. Discussions will continue next meeting.

4. **Section Review: 1810 – Deep Foundations.**

- **1810.1.2 Use of existing deep foundation elements.** John Roma asked if a seismic reference could be included in the paragraph for clarity (*as identified in the screen shot below*).

1810.1.2 Use of existing deep foundation elements.

Deep foundation elements left in place ~~that have previously supported a partially or fully where a structure has been demolished~~ structure may ~~shall not~~ be used for the support of new construction if ~~unless~~ satisfactory evidence is submitted by a registered design professional to the building official, which indicates that the foundation elements have not been adversely impacted by the demolition, are structurally sound, have adequate load-bearing capacity to support the new design loads, and meet all of the requirements of 780 CMR. ~~are sound and meet the requirements of this code. Such elements shall be load-tested or redriven to verify their capacities. The design load applied to such elements shall be the lowest allowable load as determined by tests or redriving data.~~ The load-bearing capacities of the deep foundation elements shall be determined by one of the following methods:

1. Analyses to determine the actual sustained load that the foundations supported satisfactorily in the previous structure.

water or fluid soils, it shall be permitted to be laterally supported at a point 5 feet (1524 mm) into soft soil or 10 feet (3048 mm) into soft soil, as approved by the building official and a geotechnical investigation by a professional.

1810.2.2 Stability. Deep foundation elements shall be braced to provide lateral stability in all directions. Two or more elements connected by a brace shall be considered to be braced, provided the brace is located in radial directions from the center of the group not less than 60 degrees (1 rad) apart. A group in a rigid cap shall be considered to be braced. The axis connecting the two elements shall be the brace. Deep foundation elements shall be braced in accordance with the approval of the building official.

, including seismic requirements.

- **Section 1810.3.3.1 - Allowable axial loads.** Damian Siebert indicated that some consider the requirement of piles “ . . . tested to a minimum factor of safety of 2.5 . . . ” is a bit conservative and leads to cost increases.

John Roma suggested that committee members invite stakeholders into a meeting to discuss possibly reducing the factor of safety requirement.

Following a lengthy discussion, committee members decided it would be difficult to address this issue in any great depth considering the number of sections left to review. However, members indicated that, if time allowed, they may reconsider. In order to prepare for a future discussion, John and Martin will reach out to GZA and other interested parties to solicit opinions.

5. **Discuss:** **Matters not reasonably anticipated 2 business days in advance of meeting.**
None.
6. **Approve:** **Adjourning the meeting.**
On a **MOTION** by Chris Erikson seconded by Martin Rodick, **by Roll Call Vote**, it was unanimously agreed to adjourn the meeting @ approximately 12:00 pm.

Exhibits.

- A. Meeting Agenda
- B. April 14, 2021 GAC Draft Meeting Minutes.
- C. International Building Code (IBC), Chapter 18 January Draft.
- D. Liquefaction Screening Figure 1806.4 Massachusetts State Building Code, 10th Ed memo and attachment.