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Board of Building Regulations and Standards (BBRS)

**COASTAL SUBGROUP MEETING**

**February 17, 2021 Meeting Minutes**

**10:00 a.m.**

**Via Teleconference**

**Roll Call:**

BBRS Richard Crowley, Group Chair	√ present 0 absent	HBRA John Bologna	√ present 0 absent
CZM Lisa Berry Engler	0 present √ absent	PJM David Macartney	√ present 0 absent
CZM Rebecca Haney	√ present 0 absent	Steve Mague	0 present √ absent
DCR Joy Duperault	√ present 0 absent	AIA Andrew Kollar	√ present 0 absent
DCR Eric Carlson	0 present √ absent	SEMBOA Mike Clancy	0 present √ absent
DEP Lealdon Langley	√ present 0 absent	NAIOP Katie T. Moniz	√ present 0 absent
Construction Rep.	0 present √ absent	NAIOP Jamie M. Fay	√ present 0 absent
FEMA Coastal Engineer John Grace	0 present √ absent	ISD Jim Kennedy	√ present 0 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.*
- *Agenda topics as numbered 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.*

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1. **Roll call.** Chairman Crowley opened the meeting about 10:05 am with roll call. Each Subgroup member noted as present above responded as to his or her in attendance.

**Vote/Discuss Draft Meeting Minutes.** On a **MOTION** by Joy Duperault, 2nd by Andrew Kollar, it was unanimous VOTE by ROLL CALL to approve the January 6, 2021 draft meeting minutes (**EXHIBIT B**).

2. **Review** Building Codes Save study presentation by a FEMA representative. Chairman Crowley recognized Dr. Shane Parson, an Analyst with AECOM Germantown, and Jonathan Westcott, a Civil Engineer with the FEMA Building Science Branch, to present a PowerPoint on the Building Codes Save: A Nationwide Study (**EXHIBIT C**). A summary of the presentation includes natural disasters that are responsible for a broad range of devastating losses provided by FEMA and forwarded to staff by Rebecca Haney:

*“The FEMA Building Codes Saves (BCS) Study was a nationwide analysis that looked at estimating avoided losses due to the adoption of building codes. Specifically, the study modeled for flood, hurricane wind, and seismic hazards the impacts of I-Code adoption for new construction post-2000. Total losses avoided nationwide were \$1.6 billion per year, with \$1.1 billion from hurricane wind, \$484 million from flood, and \$60 million*



*from seismic. The analysis used the FEMA Hazus model to predict avoided damages to buildings and their contents. For flood, the FEMA BCS Study focused on freeboard adoption.*

*Nationwide, of the roughly 18 million structures built since 2000, around 786 thousand were in mapped floodplains and around 400 thousand had freeboard, about 51%. The average national losses avoided for flooding was around \$1,200/structure with freeboard. In Massachusetts, there were roughly 150 thousand structures built since 2000, with 4,738 built in the mapped floodplain and approximately 540 with freeboard, or around 11%. Average losses avoided in MA was \$1,860/structure with freeboard. The low percentage with freeboard was a product of MA only adopting statewide freeboard requirements in 2018 and only a handful of communities in the CRS with recorded freeboard in years prior to 2018. The presentation included information on the Town of Hull with freeboard since at least 2013 through the use of an incentive program.*

*This study did not look at the cost of code adoption, but did cite the 2019 Natural Hazard Mitigation Saves Study from the National Institute of Building Sciences (NIBS), that estimated that adding 1 foot of freeboard would increase construction costs by 1.2% to 1.7%. The NIBS Study also noted that the sales price of a building is nearly double the construction cost, making the percentage impact of financing the codes about half of these values when considering land value and developments (e.g., road, utility, grading, fencing, landscaping). These small percentages were stated as arguably affordable for mortgages compared to other home features commonly included in homes.*

*Follow-up studies plan to look at additional sources of losses avoided besides structure and contents damages. These may include displacement during events, disruption associated with repairs, damages to residential and nonresidential areas with associated impacts on business and employment, life safety (including injuries, loss of life, and mental health), and broader regional economic impacts”.*

3. **Discuss** proposed amendments and new content in the 2021 International Building Code, Appendix G. Chairman Crowley explained that the BBRS has requested this group review flood standard the 2021 IBC and IRC, along with the 9<sup>th</sup> edition Mass. Amendments pertaining to the flood standards. The group will begin reviewing the IBC 2021 next meeting.
  4. **Adjourn.** On a **MOTION** by John Bolongna, seconded by Andrew Kollar, it was unanimous to adjourn about 12:10 pm. Roll call, Richard Crowley, Lealdon Langley, Rebecca Haney, Joy Duperrault, Eric Carlson, David Macartney, Andrew Kollar, and Jamie Fay all responded in the affirmative. Lisa Engler and Katie Moniz left the meeting prior to the motion.
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## **Exhibits**

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- A. Meeting agenda.
- B. Meeting minutes, January 6, 2021.
- C. Building Codes Save: A Nationwide Study.