

Facade collapses are not unusual

Weather, age are often to blame







PAT GREENHOUSE/GLOBE STAFF

The aftermath of the Allston facade collapsel By Matt Rocheleau

GLOBE STAFF NOVEMBER 16, 2018

Building facade collapses — like the one in Allston last month — are more common than you may imagine.

Facades have fallen without warning from at least a half-dozen other Boston-area buildings in just the past 15 months, sending heavy debris crashing onto sidewalks.

The most recent case, which crushed and seriously injured one woman, is raising questions about

whether more steps should be taken to prevent such incidents.

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Boston City Councilor Mark Ciommo said that when he saw the aftermath of the recent collapse along busy Harvard Avenue, he was surprised and grateful the outcome wasn't worse.

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"If you saw the rubble, it had the potential to maybe even be fatal," said Ciommo, who represents the Allston neighborhood. "When I saw the size of the concrete chunks, if that hit someone on the head, I couldn't imagine the damage it could have done."

Such <u>collapses</u> have <u>killed</u> people <u>around the country</u> over the years and left others with serious injuries, prompting at least a dozen cities, including Boston, to require buildings above a certain height to have their facades inspected every so often.

But shorter buildings, like the one-story one in Allston, are exempt from those rules. Instead, it's up to the owners of smaller buildings to inspect their properties and make repairs when needed.

Ciommo said he plans to talk to city officials about whether that should change.

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"With buildings getting older and older, we might need to be a little more proactive," he said. "Pedestrian safety has got to be a priority for all of our buildings and all of our neighborhoods." Indeed, experts say building facades in this region are particularly susceptible to collapse, not only because of their advanced age, but also because they must endure a climate, particularly the freeze-thaw cycle, that can speed deterioration.

Structural engineers who waded through debris after the Allston collapse <u>concluded</u> that years of deterioration had weakened the building's facade. The decay was believed to be from water that got into the structure and expanded during the freeze-thaw cycle.

Then, strong winds and rain, which hit the area during the weekend of the collapse and the weekend prior, dealt the final blow to the structure, triggering the collapse, engineers said in a report released by the city.

The Allston collapse involved the building's parapet, the low wall typically along the front edge of the roof. The parapet in Allston had a sign anchored to it, which caught the wind, the engineers said. Michael Petermann, an architect and cochair of the facade inspection task group for ASTM, formerly known as the American Society for Testing and Materials, said he's not aware of any cities that require facade inspections for low-rise buildings.

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But he said there should be "because there's enough of these events that happen."

Petermann, a principal at Wiss, Janney, Elstner Associates Inc., has <u>closely tracked</u> media reports about facade collapses, finding there are typically about four to five occurrences nationwide each month. Often, he said, no one gets hit. Of the half-dozen other collapses in the Boston area since September 2017 — one apiece in Dorchester and the Back Bay as well as two apiece in Quincy and Brookline — none caused injuries, according to a Globe review of media reports.

But when people are struck by plummeting debris, it can have devastating consequences, even if it only falls from a single-story building.

"Stuff falling from low heights also results in death and destruction of property," Petermann said. In the Allston case, one witness, Susanne Maher, a nurse practitioner from Needham who helped pull the victim from the rubble, told the Globe that the woman remained conscious and alert until EMTs arrived and took her to a hospital.

But Maher said the woman's right hand had been crushed by the debris, and a man who was with the woman said she was a pianist.

"He kept asking if she's going to be able to play again," Maher recalled. "He was clearly heartbroken." Petermann said cities have resisted requiring regular inspections of low-rise facades for several reasons, including pushback from landlords who oppose the extra hassle and cost of such a mandate and because injuries from such collapses are still viewed as a relatively rare.

Another major complication: Low-rise buildings are far more plentiful than high-rises, creating a challenge for resource-strapped municipal governments to enforce such a new rule.

"The problem comes down to: How do you administer it?" Petermann said.

Still, he said, cities should be able to figure out a way to add some sort of oversight for shorter buildings. "If it's done smartly and to the point, it doesn't have to be burdensome," said Petermann.

Petermann said one way to make such a requirement manageable might be to limit it to inspection of parapets. Ciommo also suggested inspections of low-rise buildings could be limited to structures over a certain age.

In Boston, only buildings 70 feet or taller are required to get their facades inspected every five years — a rule enacted in 1995, according to Peterman. He did not know if a specific incident had prompted the regulation.

Officials from Mayor Martin J. Walsh's office and the city's Inspectional Services Department declined to say whether new measures should be considered to try to prevent facade collapses.

In Brookline, following a facade collapse in <u>September 2017</u>, the city began requiring facade inspections every five years for buildings three stories or taller that have parapets or facades made of masonry or concrete, said town building commissioner Daniel F. Bennett.

In Somerville, the facade over a single-story building that houses two restaurants <u>collapsed</u> in September 2013.

In response, the city deployed inspectors to look for similar problems, according to media reports at the time. It also issued letters to commercial landlords and made a public announcement urging them to maintain their facades, and reminding them they're liable for failures, city spokeswoman Denise Taylor said.

Since then, the city has ordered its inspectors keep their eyes peeled for potential issues with facades as they drive around the city and visit buildings for other reasons. The city can require landlords to have a formal inspection done if concerns arise.

Bob Freel, the Hanover-based engineer who authored the report about the cause of the Allston collapse, said there are thousands of similar low-rise buildings in the area and requiring them to undergo facade

inspections might help reduce the frequency of collapses, "but even with that, it's not a guarantee."

Freel said, as he noted in his report, that deterioration can be hard for inspectors to notice since facades are often covered over by flashing and waterproofing materials.

"It's difficult to evaluate," he said.

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