Damaged and deteriorated building facades are a serious public safety concern. When facade elements fail, there is a chance that the component could fall to the ground — putting people and property at risk. As a result, many cities, including Boston, Chicago, and New York, have adopted facade ordinances.

The City of San Francisco also recognizes this potential hazard and wants to reduce damage during earthquakes. With a proposed ordinance planned for adoption in 2016, the City will add Chapter 16E as a local amendment to the California Building Code outlining the City’s requirements for inspecting and maintaining existing building facades. While the purpose of this ordinance is to help make sure that buildings are maintained and continue to meet approved design and construction requirements, it does not require upgrades to meet modern structural and seismic standards.

Facade deterioration can also damage both the appearance and structure of buildings that play significant roles in the culture and history of San Francisco. To address this, the facade inspection and maintenance ordinance will be accompanied by Administrative Bulletin (AB) 110, issued by the Department of Building Inspection. AB 110 details the application of the ordinance, including inspection and maintenance procedures to protect historic building elements.

**ORDINANCE REQUIREMENTS**

The ordinance has the following requirements:

- **Basis:** The ordinance is based on ASTM E2270 – Standard Practice for Periodic Inspection of Building Facades for Unsafe Conditions, as revised and interpreted by AB 110.

- **Scope:** All buildings equal to or more than five stories high that front publicly accessible areas (wood-framed buildings and buildings less than 30 yrs old are exceptions) must be inspected for unsafe conditions, movement, significant deterioration, and watertightness.

- **Frequency:** Buildings, as defined above, must be inspected once every 10 yrs or within 60 days of a facade failure. The first inspections are due between 2018 and 2024, depending on the building’s initial construction date and when Chapter 16E is adopted.

- **Inspector:** The inspector must be a California-licensed architect or engineer retained by the property owner. For buildings considered to be historic resources, the qualified professional must have expertise inspecting and maintaining historic resources.

- **Report:** The inspector must prepare a written inspection report documenting the condition of the exterior walls and submit the inspection report to the Department of Building Inspection.

- **Fees:** The City will charge their standard hourly rates for report review, evaluation, and processing to administer the ordinance.
BUILDING FACADES (continued)

CONDUCTING INSPECTIONS

A facade inspection may include the following activities:

- Reviewing available plans and specifications for general understanding and to help focus survey to problem areas
- Determining if the building is a historic resource, as listed by the Planning Department
- Using binoculars to scan walls for large-scale problems
- Conducting a hands-on inspection of representative areas on each face of the facade, which may require swing stage or industrial rope access
- Sounding materials to evaluate internal cohesion and attachment
- Surveying interior areas for signs of water damage and interviewing maintenance personnel about leakage history
- Making observations at exploratory openings, if necessary
- Preparing and submitting a report to the Department of Building Inspection

DEVELOPING A PROTECTION AND MAINTENANCE PLAN

If the inspector identifies unsafe conditions, the owner must submit a stabilization or protection plan to the Department of Building Inspection within 72 hrs. The inspector can help the owner determine necessary stabilization measures and prioritize repairs to fit within financial plans. Owners must undertake repairs within an established timeframe, which varies based on condition. Facade repairs addressing ordinary maintenance need to be submitted through the normal permitting process. The process to develop and execute repairs often includes the following services performed by the designer of record:

- Plans for additional observations or exploratory openings as required to understand construction details and conditions
- Produces construction drawings and specifications clearly communicating repairs work for bidding, permitting, and construction
- Assists the owner during bidding
- Works with contractors to develop budgets, schedules, and phasing plans
- Interfaces with the City for permitting under requirements of the ordinance
- Observes as-built construction for comparison with the design intent

Carolyn Searls, P.E. (CA and 6 others), LEED AP BD+C has thirty years of experience investigating and designing building enclosure repairs on historic and contemporary structures throughout the United States. Carolyn has been recognized through speaking engagements, project commissions, and written papers as an expert in preserving masonry and concrete on historic buildings, in addition to her work in cladding and waterproofing systems on contemporary buildings. Carolyn is head of SGH’s Building Technology Division in San Francisco. For more information on building facade inspection, maintenance, or preservation. E-mail Carolyn at clsearls@sgh.com.

Simpson Gumpertz & Heger (SGH) is a national engineering firm that designs, investigates, and rehabilitates structures and building enclosures. Our award-winning work encompasses building, transportation, nuclear, water/wastewater, and science/defense projects throughout the United States and in more than thirty other countries.

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