

# FAÇADE INSPECTION ORDINANCES

*Safety is everyone's responsibility*

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## ABOUT THE AUTHOR

Rebecca Gutierrez currently manages the Boston office of FEA, and is a graduate of Virginia Polytechnic Institute and State University (Virginia Tech)'s five-year ABET accredited professional degree program in Mechanical Engineering, with an emphasis on material science engineering. As an undergraduate student, Rebecca gained experience working for Honeywell International in Chester, Virginia, for a total of one year in the plastics and fibers manufacturing plant.

She has been involved in the mechanical, electrical, and plumbing aspects of condition assessment projects and reserve studies during her years at FEA. Project experience includes condition assessments for Reagan National Airport, implementation services for the Architect of the Capitol, parametric evaluations for the National Nuclear Security Administration, and comprehensive condition assessments and cost estimating for the National Park Service and the Maryland-National Capital Park and Planning Commission. Rebecca has also completed more than 50 reserve studies, and is designated as a Reserve Specialist by Community Associations Institute (CAI). Rebecca has been a member of Association for Facilities Engineering (AFE) since 2003, and was nominated in 2004 as the Treasurer of AFE Chapter 168.

Ms. Gutierrez currently manages and executes projects for FEA, including condition assessments, due diligence evaluations, reserve studies, and roof and façade evaluations. She manages projects which include the collection and organization of large sums of equipment inventory, opinions of costs, and budget projections for property management. Other tasks have involved the design and development of operational and maintenance plans for equipment and managing personnel, as well as project manuals and specifications for repair projects. Continuous project work often includes assisting building owners and managers during bidding processes and construction administration.

*Chicago, 1974.* Debris rained down on the street from a partial façade failure, killing a passing pedestrian.

*New York City, 1979.* A partial building façade failure resulted in an 18-year-old's fatality.

*Columbus, 1984.* A piece of a building façade fell and significantly injured a City Councilman.

Unfortunately, the recognition for the need of many city façade ordinances resulted from injury or death. As building age, they deteriorate. The deterioration of a building façade (or exterior wall system) often results in overhead hazardous, which puts the safety of those below at risk. Façade ordinances date back to Hammurabi's Code of Laws, and in the U.S. started with a Chicago ordinance in 1976 (although it was technically repealed until 1996), with the longest current ordinance existing in New York City since 1980. Currently, nine U.S. cities (see table below) have adopted regulations or ordinances mandating the periodic inspection of their buildings; it is estimated that this equals close to 15,000 buildings. Several more cities are currently considering such legislation but have not acted, including major metropolitan areas and older historic cities. Numerous cities in seismic zones already have façade inspection requirements built in to their regulatory requirements after seismic events. With approximately 50 cities in the U.S. being considered major national cities, this leaves a significant number of buildings (close to 70,000) requiring no regular façade inspections.

Location	Which Buildings	Frequency	Subject Walls
<b>Boston, MA</b>	H > 70 feet	5 yrs (1 yr if unoccupied)	All walls
<b>Chicago, IL</b>	H > 80 feet	2 yrs (Critical exam every 4, 8, or 12 yrs)	50% all walls, 100% corners, all terra cotta
<b>Detroit, MI</b>	H ≥ 5 stories	5 yrs	Cornices and projections
<b>Columbus, OH</b>	Age ≥ 20 yrs w/in 10 feet of right-of-way	5 yrs	All walls
<b>Milwaukee, WI</b>	H > 5 stories Age > 15 yrs	5, 8, or 12 yrs (Based on age)	All walls
<b>New York, NY</b>	H ≥ 6 stories	5 yrs	All walls (except w/in 12" of adjacent walls)
<b>Philadelphia, PA</b>	H > 6 stories	5 yrs*	All walls and appurtenances
<b>Pittsburgh, PA</b>	All buildings (per Section 304)	5 yrs	All walls
<b>St. Louis, MO</b>	H > 6 stories	5 yrs	All walls

\* Philadelphia façade ordinance (2010) initial inspection deadline depends on construction date of building.

## WHAT'S THE POINT?

A façade ordinance is a law adopted by local municipalities requiring inspections. Façade inspections are intended to identify unsafe conditions, such as loose components or exterior building material, that without repair, risk dislodging and falling, causing property damage, injury, or death. Routine inspections provide a method of alerting facility manager and owners, and local municipalities, of potential façade safety hazards, with the objective of identifying and correcting problems before any accidents occur.

## WHO IS RESPONSIBLE?

The safety of any facility is the responsibility of the facility manager, and in the end, the facility owner. On-going maintenance, routine inspections, and repairs of facility components are essential for the longevity of any building and its assets.

ASTM International is one of the largest voluntary standards development organizations in the world, and a trusted source for technical standards for materials, products, systems, and services. In 2005, this organization developed and issued the *ASTM E2270-05 Standard Practice for Periodic Inspection of Building Facades for Unsafe Conditions*, which focuses on recommended requirements and procedures for façade inspections, benchmarking the best existing façade ordinances from U.S. cities. The intent of the standard was to assist cities that do not have an ordinance with adopting one, or to help those with existing ordinances implement revisions in-line with current standards.

***International Property Maintenance Code,  
304.6 Exterior walls.***

*All exterior walls shall be free from holes, breaks, and loose or rotting materials; and maintained weatherproof and properly surface*

In addition, the *International Property Maintenance Code (IPMC)*, which was designed to meet the need for a modern, up-to-date code governing the maintenance of existing buildings, was updated with a new edition in 2003. The code contains specific property maintenance requirements with required property improvement provisions. This 2003 edition is fully compatible with all the *International Codes* published by the International Code Council (ICC), and is largely

contributing to the driving force behind the spread of façade ordinances, such as the newly (2010) adopted ordinance for the City of Philadelphia.

One may argue that the responsibility of façade inspections, to any degree, lies within code adoption and enforcement of local municipalities. If my city doesn't require it, why do it?

Aging buildings will have issues. With more activity surrounding the adoption of façade inspection ordinances (five of the nine cities have been enacted since 2000), and publications such as the *ASTM* standard and the *IPMC*, facility managers and owners who choose to ignore façade deficiencies will not be able to claim ignorance as their defense against the resulting litigation from an injury or death.

If deficiencies are left unrepaired, consider the worst-case scenario of a masonry section falling from a building striking a pedestrian, resulting in death. Currently, the average wrongful death lawsuit award is between \$500,000 and \$800,000 in many states, with some states such as New York and Florida showing averages of over \$1,000,000. Additionally, these numbers do not include attorney or trial expenses, or the subsequent embarrassment from media coverage. Like any common building component, management and/or ownership is liable for proper maintenance, repairs, and safety. Furthermore, managers or owners of entities with a national presence, and within cities with established façade ordinances, may be held to an even higher standard. A firm that is required to conduct routine façade inspections in one city, puts a significant duty on being proactive in doing the same across their entire portfolio, regardless of the buildings' locations.

So, although most city or local governments do not require façade inspections, facility managers and owners should understand the risks and consequences of potential hazards associated with deteriorating building exterior systems.

## **NO ORDINANCE?**

Within the past 10 to 15 years, the focus on safety and inspections at facilities has grown. More cities are adopting façade ordinances, and there have been efforts to amend laws for tighter conformance and increased penalties for violators.

FEA recommends that façade inspections be performed regularly on all buildings, at all elevations, even when not required by a city or local municipality. If no ordinance is in effect, the *ASTM* standard or the *IPMC* should be used as the basis for requirements and procedures. The inspections should be performed by experienced, registered personnel who understand how façade systems function, what the indications of distress or damage may be, and what causes failures for the specific components being inspected. Routine inspections will help identify safety hazards and conditions warranting repairs, such as sources of water infiltration, before they become critical situations. Recognizing such conditions before failure is not only more cost efficient from a life-cycle standpoint, but can also save someone's life.



Façade Inspection in Columbus, OH

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