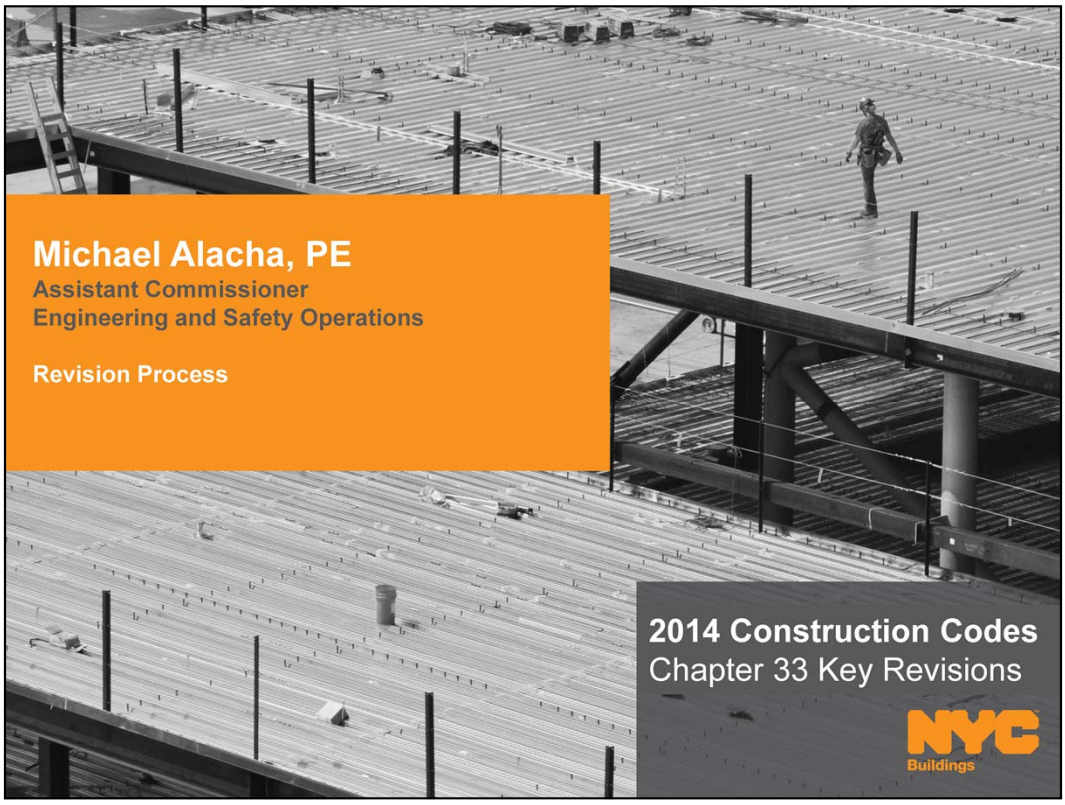

Welcome
Pfizer Auditorium
NYU Polytechnic School of Engineering
2014 Construction Codes
Chapter 33 Key Revisions
NYC
Buildings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Revision Process
2014 Construction Codes
Chapter 33 Key Revisions
NYC
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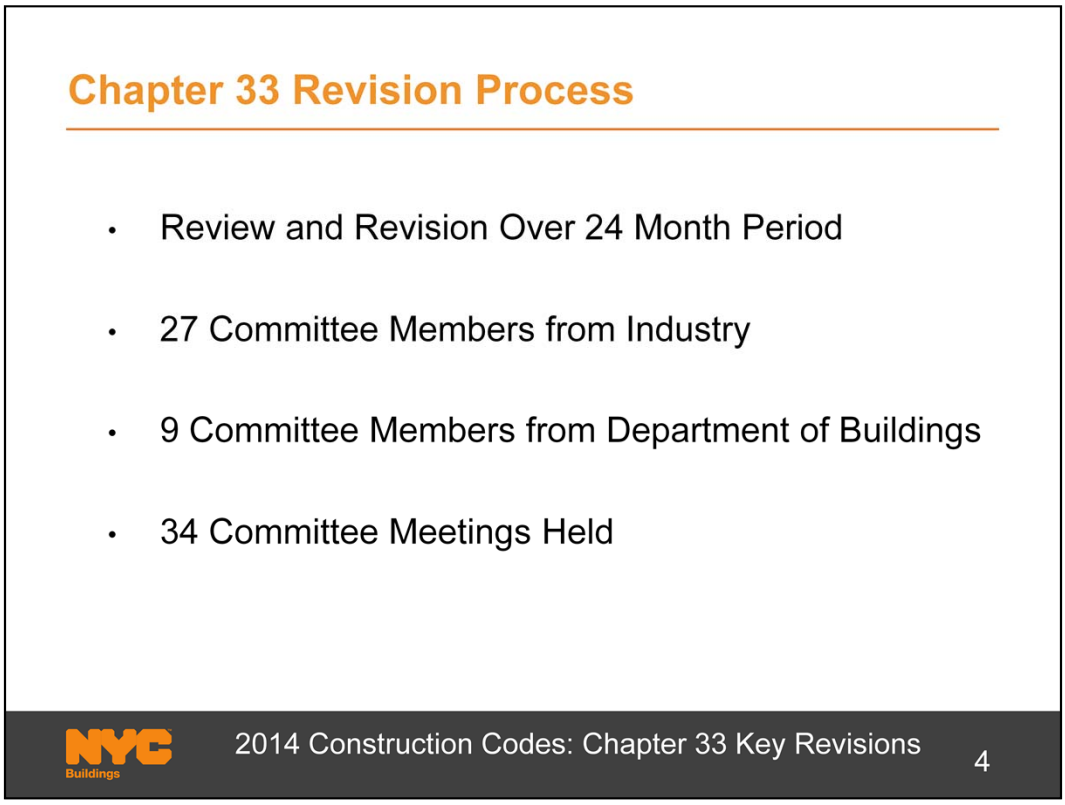


The revision of Chapter 33 took place over a period of 24 months.

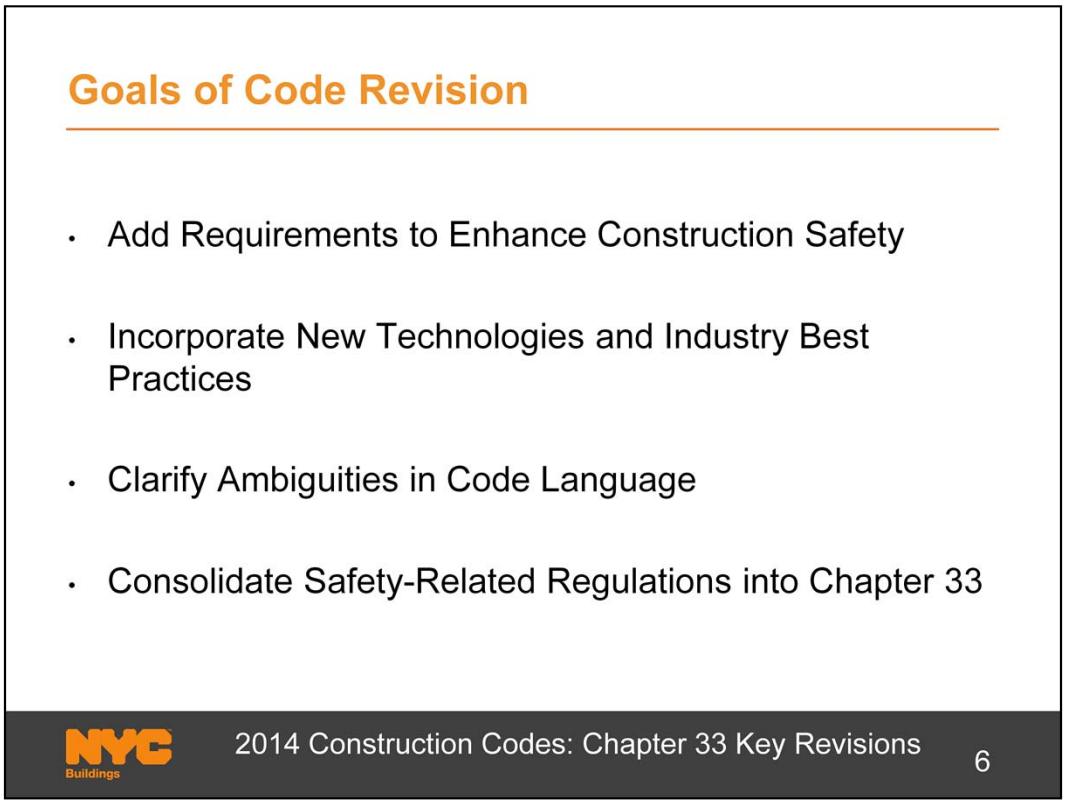
The Code Committee had 27 members from the industry and 9 members from the Department.

Over 34 committee meetings were held.

The code committees were formed based on the responses we received to our industry outreach.

Our focus was on ensuring broad representation.

The code committees were formed of industry experts from design, contracting, and safety fields, as well as experts from the technical and enforcement units of the Department.



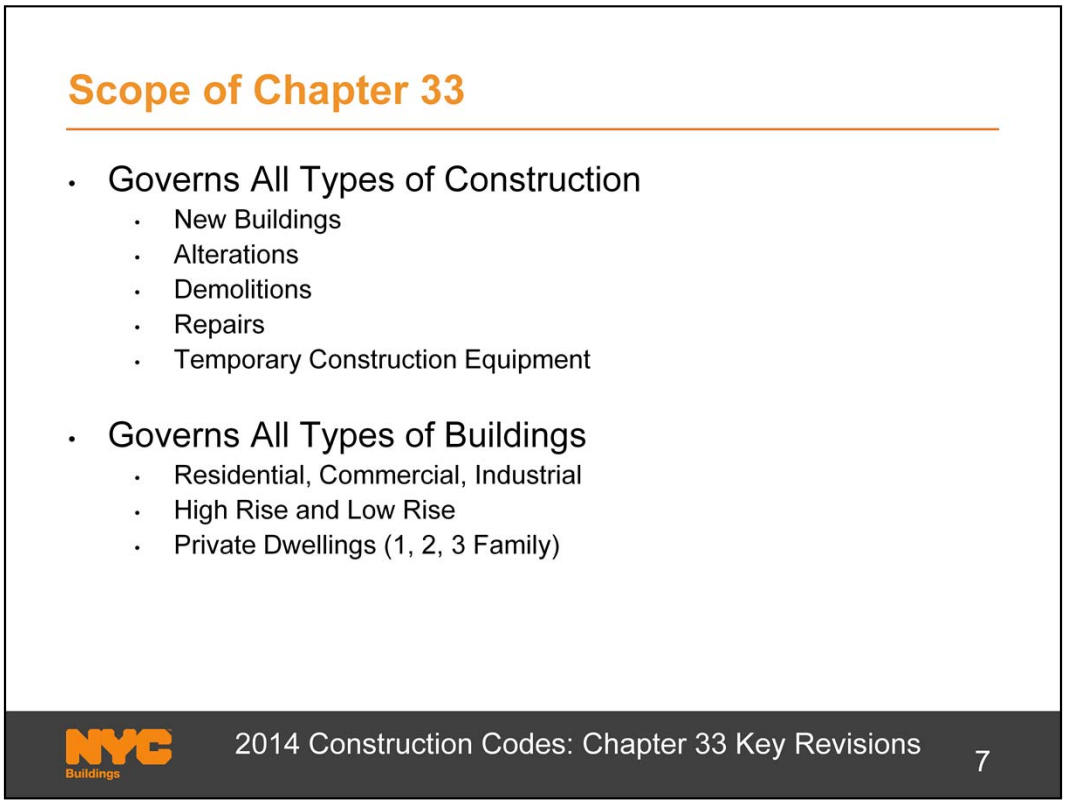
Goals of Code Revision:

Enhance Construction Safety

Incorporate New Technologies and Industry Best Practices

Clarify Ambiguities in Code Language

Consolidate Safety-Related Regulations Into Chapter 33



We tend to think of Chapter 33 as governing only high-rise construction, the so-called “site safety jobs”, but this chapter governs all types of buildings and construction work.

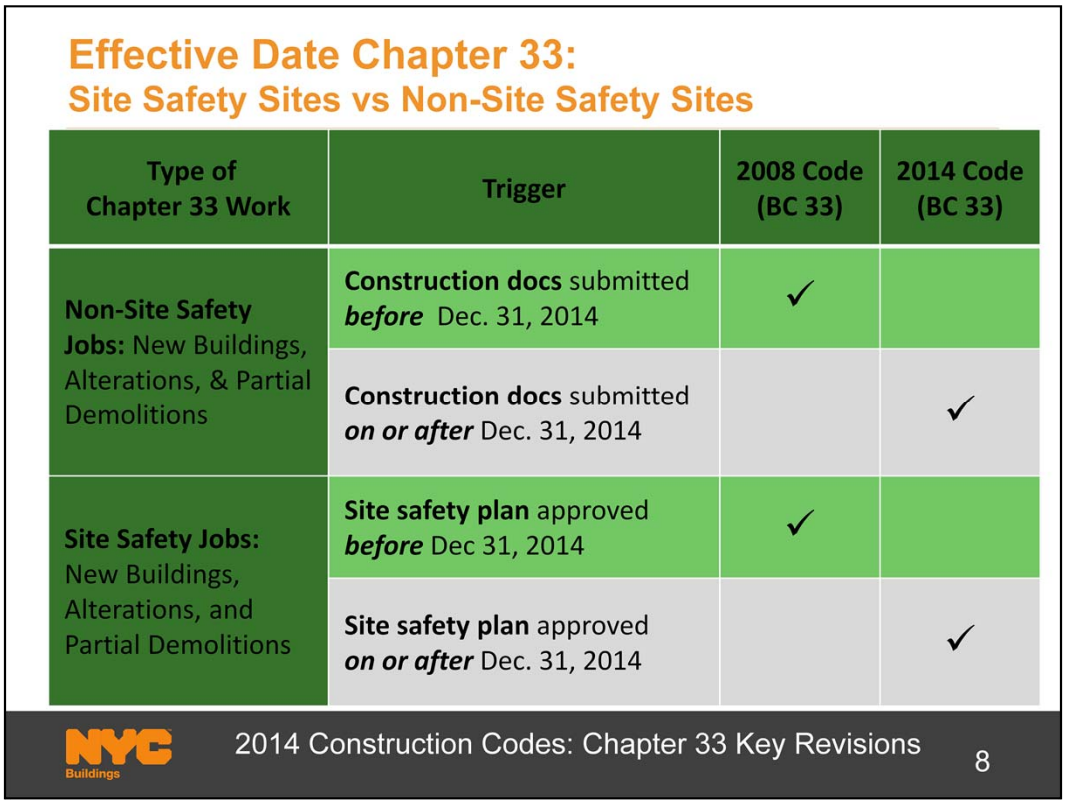
•Governs All Types of Construction

- New Buildings
- Alterations
- Demolitions
- Repairs
- Temporary Construction Equipment

•Governs All Types of Buildings

- Residential, Commercial, Industrial
- High Rise and Low Rise

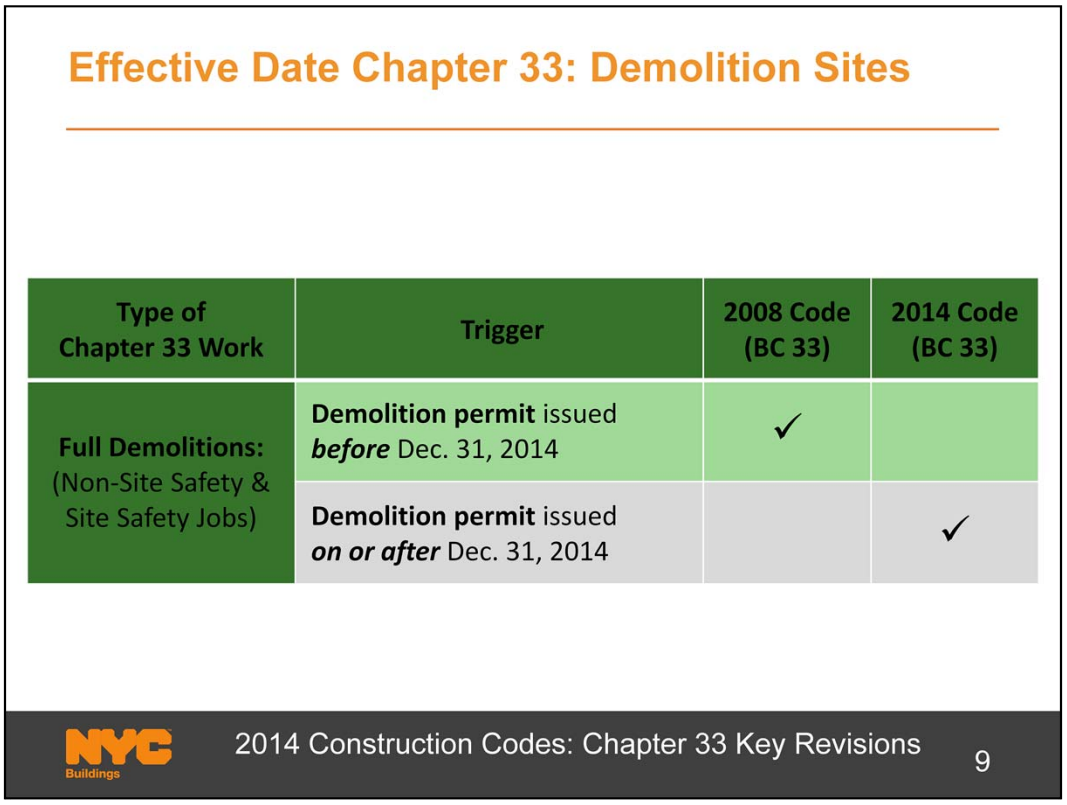
- Private Dwellings (1, 2, 3 Family)



1. 2014 Chapter 33 should be followed for all site safety sites where the Site Safety Plan is approved on or after December 31, 2014.

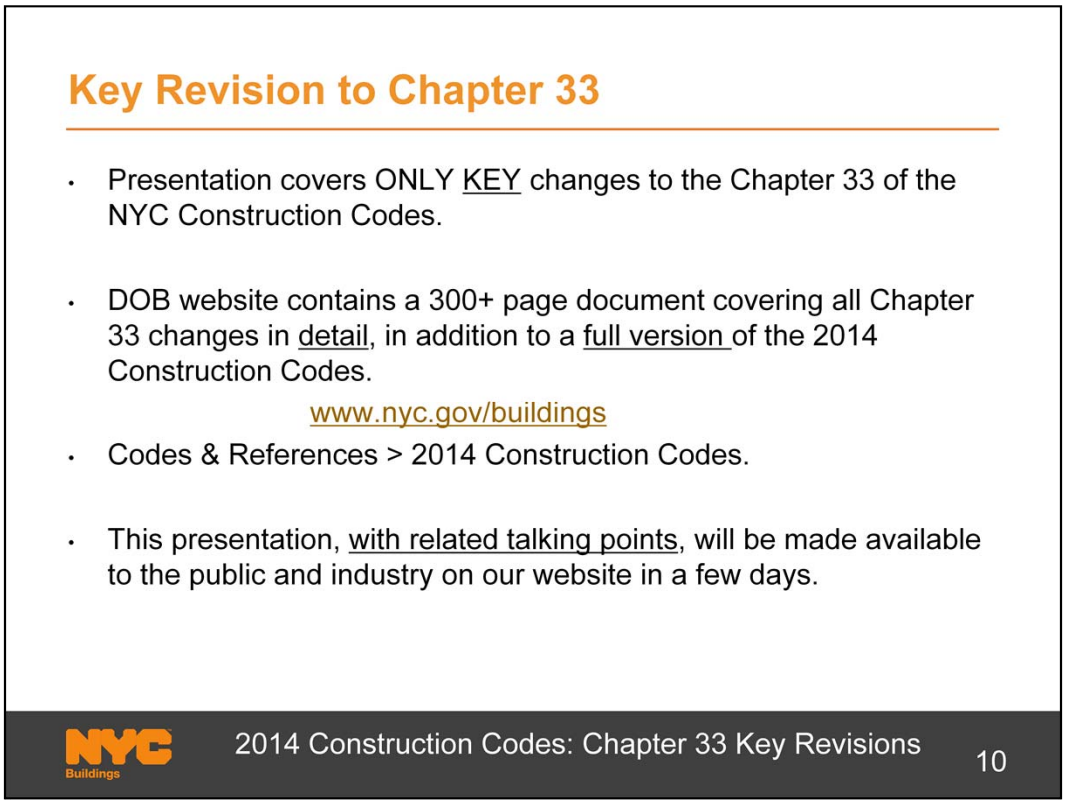
2. 2014 Chapter 33 should be followed for all NON-site safety sites where the underlying work application (NB, ALT, etc.) is filed on or after December 31, 2014.

NOTE: The effective date was originally October 1, 2014; it subsequently has been changed and is now December 31, 2014.



2014 Chapter 33 should be followed for all FULL demolition sites (DM) where the DM application is permitted on or after December 31, 2014.

NOTE: The effective date was originally October 1, 2014; it subsequently has been changed and is now December 31, 2014.



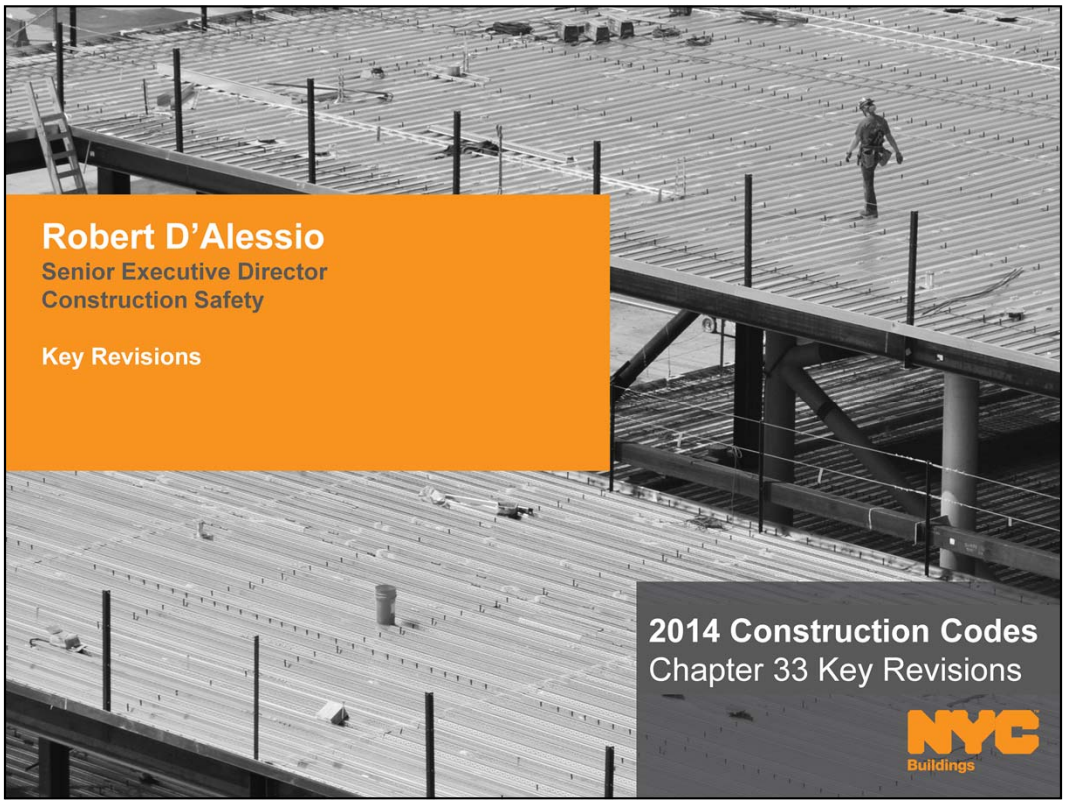
- Presentation covers only KEY changes to Chapter 33.

- DOB website contains a 300-page document covering all Chapter 33 changes in detail, in addition to a full version of the 2014 Construction Codes. The web address and links appear on this slide.

  www.nyc.gov/buildings

  Codes & References > 2014 Construction Codes

- This presentation, with related talking points, will be made available to the public and industry on our website in a few days.


Robert D'Alessio
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2014 Construction Codes
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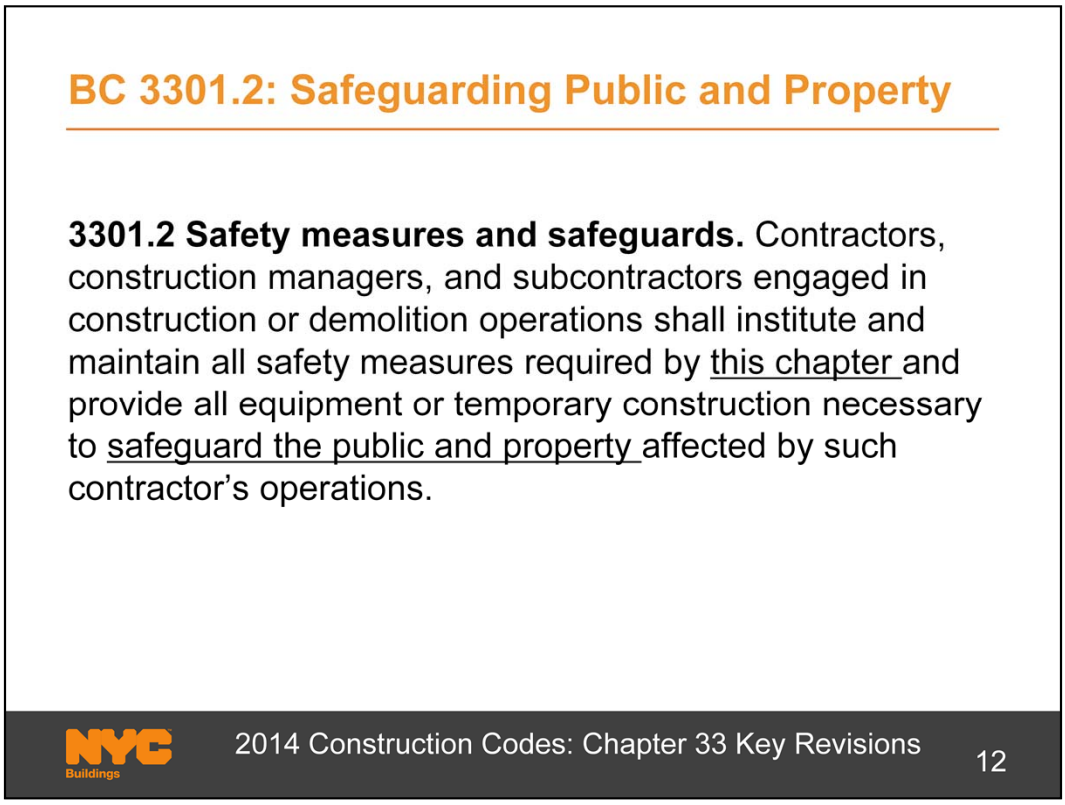
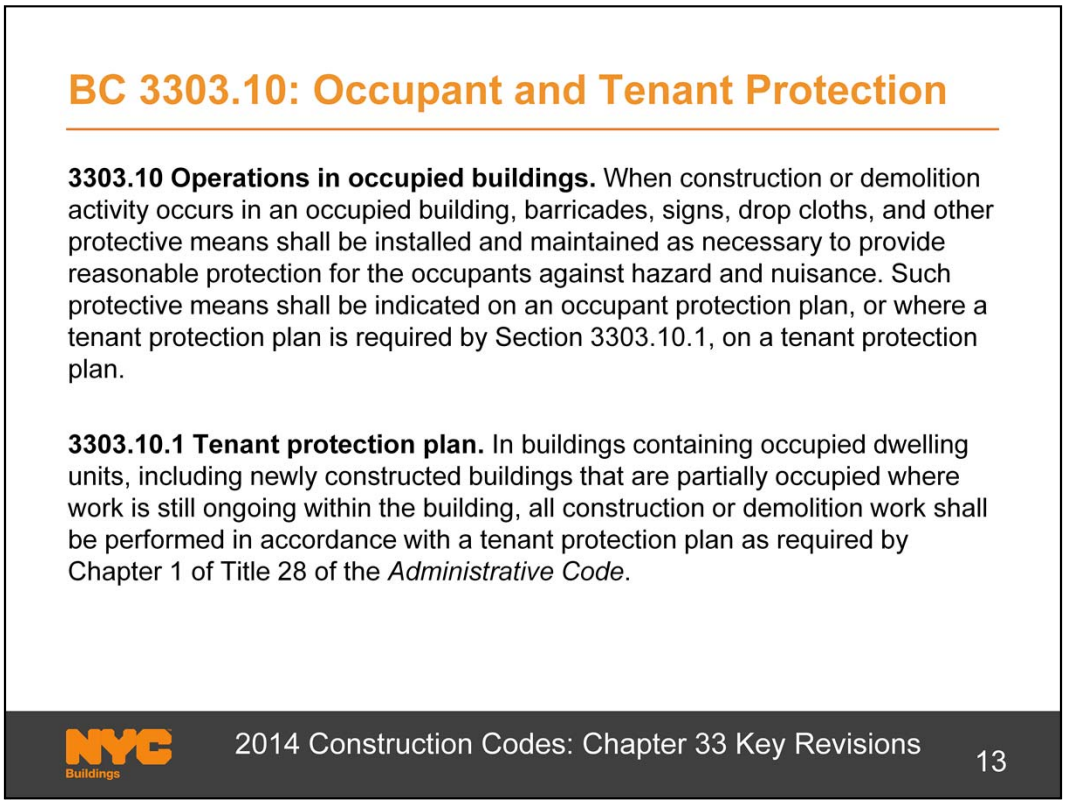


The language in this section was only tweaked a bit, but is important at the start to highlight this broad mandate to safeguard public and property affected by a contractor's operations.

The obligation to safeguard is placed squarely upon general contractors, construction managers, and subcontractors.



3303.10 adds a requirement for an “occupancy protection plan” during construction, similar to the requirement of a “tenant protection plan” (TPP), but applying to non-residential buildings. Submission of this plan is not required, but it must be developed and kept on site by the contractor. TPPs, however, are required to be submitted with the underlying work application (NB, ALT, etc.).

3303.10.1 reiterates that the “tenant protection plan” (as defined in the Administrative Code , Chapter 1 of Title 28) is required when work takes place in an occupied residential building, but also makes clear that a “tenant protection plan” is required when a newly constructed residential building receives a TCO (partial) and work will continue during occupancy.

BC 3301.1.3: Manufacturer's Specifications

3301.1.3 Manufacturer specifications. All equipment shall be used in accordance with the specifications of the manufacturer, where such specifications exist, and the requirements of this code. Where there is a discrepancy, the stricter requirement shall apply.

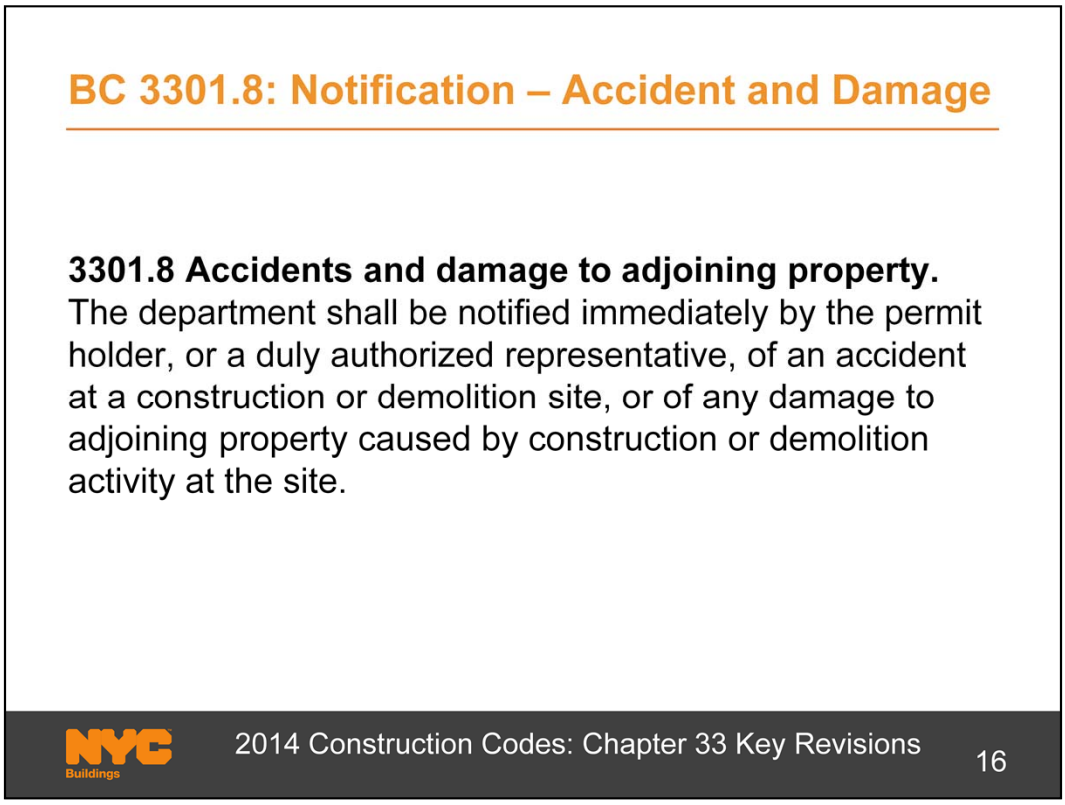
This new section makes clear that all equipment "affecting public or property" must be used in accordance with manufacturer's specification, when those specifications exist.

Where there is a discrepancy between a code requirement and the manufacturer's specification, the stricter standard shall apply.

Contractors must review manufacturer's specifications and make certain they are implemented on site.

Examples of typical construction equipment: power buggies, concrete pumping equipment, scaffolding, scaffold hoist motors, power concrete floats, chain falls, etc.

Accidents and Damage to Adjoining Property



This new section codifies the reporting of accidents and damage to adjoining property, formerly contained in various advisory documents. Reporting of damage to adjoining property is often overlooked and it bears emphasis here.

This sections requires immediate notification to DOB of accidents and any damage to adjoining property caused by construction or demolition work.

Section 3302.1 (Definitions) now clearly defines an accident, removing some of the confusion concerning when the contractor needs to notify the Department.

In another section of the code, the SSM's obligation to notify the department in the event of an accident is mandated.

BC 3302.1: Definition of Accident

3302.1 Definitions. The following words and terms shall, for the purposes of this chapter, have the following meanings.

ACCIDENT. An occurrence directly caused by construction or demolition activity or site conditions that result in one or more of the following:

1. A fatality to a member of the public, or
2. Any type of injury to a member of the public; or
3. A fatality to a worker; or
4. **An injury to a worker that requires transport by emergency medical services or requires immediate emergency care at a hospital or offsite medical clinic; or**
5. Any complete or partial structural collapse or material failure; or
6. Any complete or partial collapse or failure of pedestrian protection, scaffolding, hoisting equipment, or material handling equipment; or
7. Any material fall exterior to the building or structure.

Here is a clear definition of “accident”. This should help guide the contractor and site safety manager in his duty to notify.

When in doubt, NOTIFY!

Protocol requires notification by phone to DOB’s Emergency Operations Center (EOC).

BC 3301.8.1: Accidents – Tampering Prohibited

3301.8.1 Use and tampering prohibited. Following an accident, no person shall permit any of the following without the permission of the commissioner, or without a lawful order from the New York City Police or Fire Department:

Use or operation of any equipment or structure damaged or involved in the accident; or

Removal or alteration of any equipment, structure, material, or evidence related to the accident.

Exception: Immediate emergency procedures taken to secure structures, temporary construction, operations, or equipment that pose a continued imminent danger or to facilitate assistance for persons who are trapped or who have sustained bodily injury.

This new section makes clear that persons shall not use, tamper with, or remove equipment or structure damaged or involved in an accident, with exceptions noted for emergency operations.

It is important to preserve evidence for subsequent investigation by DOB or other agencies with jurisdiction.

Stalled or “Abandoned” Sites

BC 3303.13.2: Monitoring Plan for Stalled Sites

3303.13.2 Safety monitoring plan. Where work has been interrupted or abandoned and discontinued for a period of at least three months, a safety monitoring plan shall be prepared and submitted to the department. Such safety monitoring plan shall be specific to the site, shall identify safeguards to be instituted and maintained to secure the site, and shall specify monitoring to be performed during the duration of suspension of work. The site shall be monitored in accordance with such plan.

This new requirement was added to address “stalled sites” or what we used to call “abandoned” sites.

When a construction site is abandoned (“stalled”) for 3 months or greater, a “safety monitoring plan” must be developed and periodic monitoring performed by owner/developer. The goal of the safety program is to keep the public and adjoining property safe while construction operations have temporarily ceased.

Buildings Bulletin 2010-001, issued on January 15, 2010, is a good template for drafting the Safety Monitoring Plan.

BC 3303.13.3: Backfill – Abandoned Sites

3303.13.3 Filling and grading. Where work has been interrupted or abandoned and discontinued for a period of at least three months, all open excavations shall be filled and graded to eliminate all steep slopes, holes, obstructions or similar sources of hazard. Fill shall consist of clean, noncombustible material. The final surface shall be graded in such a manner as to drain the lot, eliminate pockets in the fill, and prevent the accumulation of water without damaging any foundations on the premises or on adjoining property.

Exception: Filling and grading is not required for abandoned, discontinued, or interrupted excavations that are:

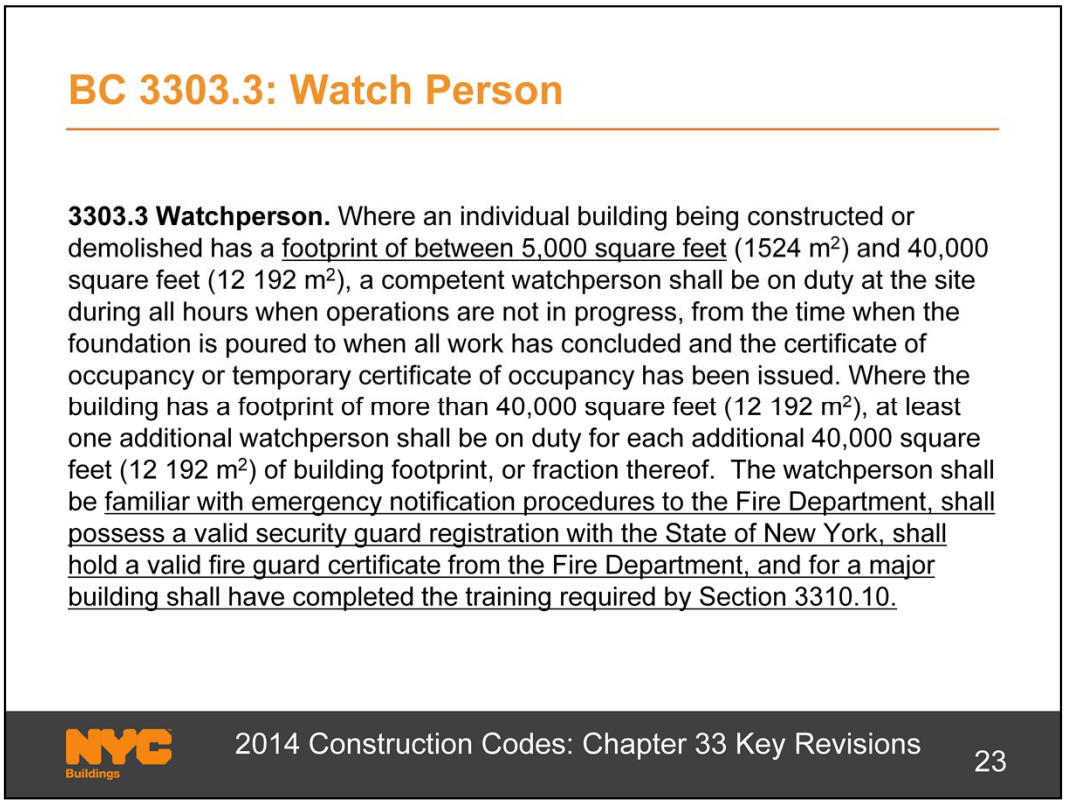
Secured in accordance with Section 3303.13.2, and

Inspected periodically by an engineer to verify continued stability of the excavation, with a record of such inspections signed, sealed, and dated by the engineer.

This section has been revised to make the trigger for backfilling an “abandoned” excavation the number of months (3) the work has been abandoned, NOT the issuance date or expiration date of the new building permit.

Exceptions to the requirement for backfill are provided for sites where the owner has implemented a Stalled Site Safety Monitoring Plan, discussed in the previous slide.

Fire Safety



Revision to this section make clear that watch persons are required based on building footprint (5000 square feet) and NOT lot coverage, cumulative floor area, or height. Watch persons are required during off hours (construction operations are NOT in progress).

The section also requires the watch person to be certified and certifications are indicated. The watchperson shall be familiar with emergency notification procedures to the Fire Department, shall possess a valid security guard registration with the State of New York, shall hold a valid fire guard certificate from the Fire Department, and for a major building shall have completed the training required by Section 3310.10 (Site Training and Orientation).

The section also contains exceptions, allowing for reduction in required watch persons based on criteria provided.

BC 3303.7.1.1:
Water Supply – Large Footprint Buildings

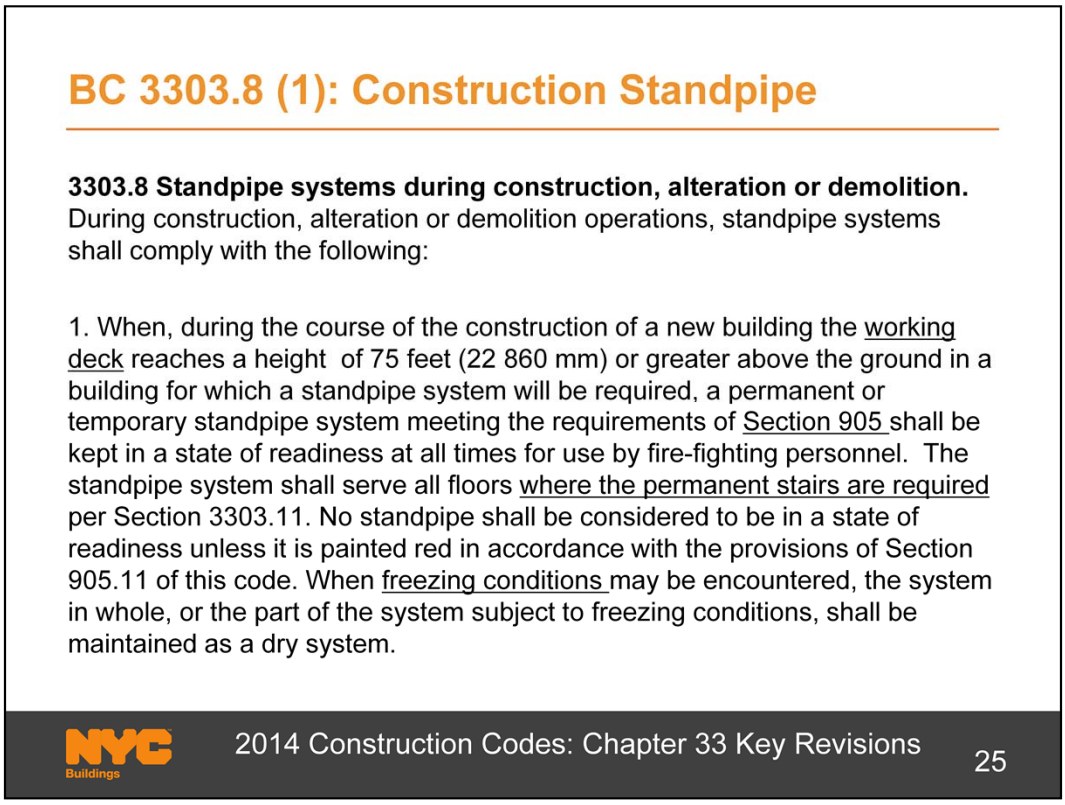
3303.7.1.1 Large footprint construction. For a building that has a footprint of 100,000 square feet (30 480 m^2) or more, regardless of the height of the building, and the building is substantially enclosed, permanent or temporary fire hydrants available for fire department use shall be provided during the course of construction:

Within 50 feet (15 240 mm) of the main entrance; and

Along the perimeter of the building, with the hydrants located so that there is at least one hydrant along every 250 feet (76 200 mm) of building perimeter, and with no hydrant more than 50 feet (15 240 mm) from the exterior wall.

This section adds a new requirement for fire hydrants to be available for FDNY use during construction of buildings with a footprint of 100,000 square feet or more, regardless of building height, when the building is substantially enclosed.

Such buildings do not currently require construction standpipes based on their height, which is often under 75 feet. This section was geared to “big box construction”, often built in areas without adequate existing infrastructure.



This section has been revised to require a temporary standpipe system when the working deck (as defined in code) reaches a height of 75 feet or greater, rather than the trigger being the general height of the building.

The upper hose outlet must be maintained within 40 feet or 4 stories of the working deck (as defined in code). This is the same trigger for maintenance of the permanent stairs.

Code requires all permanent risers to be brought up as a temporary system during construction, not just one riser of a multi-riser system.

BC 3303.8 (3): Construction Standpipe

3303.8 Standpipe systems during construction, alteration or demolition. During construction, alteration or demolition operations, standpipe systems shall comply with the following:

3. When, during the course of the construction of a new building which will have a occupiable space at a depth of 75 feet (22 860 mm) or greater below the level of the ground in a building for which a standpipe system will be required, a permanent or temporary standpipe system meeting the requirements of Section 905 shall be installed and shall be kept in a state of readiness at all times for use by fire-fighting personnel. The standpipe system shall serve all stories below grade and shall be installed as soon as a temporary or permanent stair is installed below grade. No standpipe shall be considered to be in a state of readiness unless it is painted red in accordance with the provisions of Section 905.11 of this code. When freezing conditions may be encountered, the system in whole, or the part of the system subject to freezing conditions, shall be maintained as a dry system.

This sections adds a new requirement for a temporary construction standpipe when a proposed occupiable space will be constructed 75 feet or more below grade.

The requirement kicks in when the temporary or permanent stairs are installed.

It is the intent of this section that the standpipe system be installed when the excavation has bottomed out and the foundation systems is nearing completion, but prior to the completion of at-grade or sub-grade decks.

BC 3303.8.1.4.13: Standpipe Pressure Gauges

4.13 Pressure gauges. A system of pressure gauges shall be installed at the compressor and at the most remote points of the system from the compressor.

Section now requires multiple pressure gauges, one at compressor and additional at most remote section of riser (s).

BC 3303.12.2: Elevator or Hoist In Readiness

3303.12.2 Floors closed to the public. All floors closed to the public in a new or existing building undergoing construction or demolition work shall be served by, at least, either:

An elevator meeting the requirements of Chapter 30, which shall be kept in readiness at all times for Fire Department use; or

A hoist meeting the requirements of Section 3318, which shall be available at all times for fire department use.

Exceptions: An elevator or hoist is not required during the course of construction or demolition for:

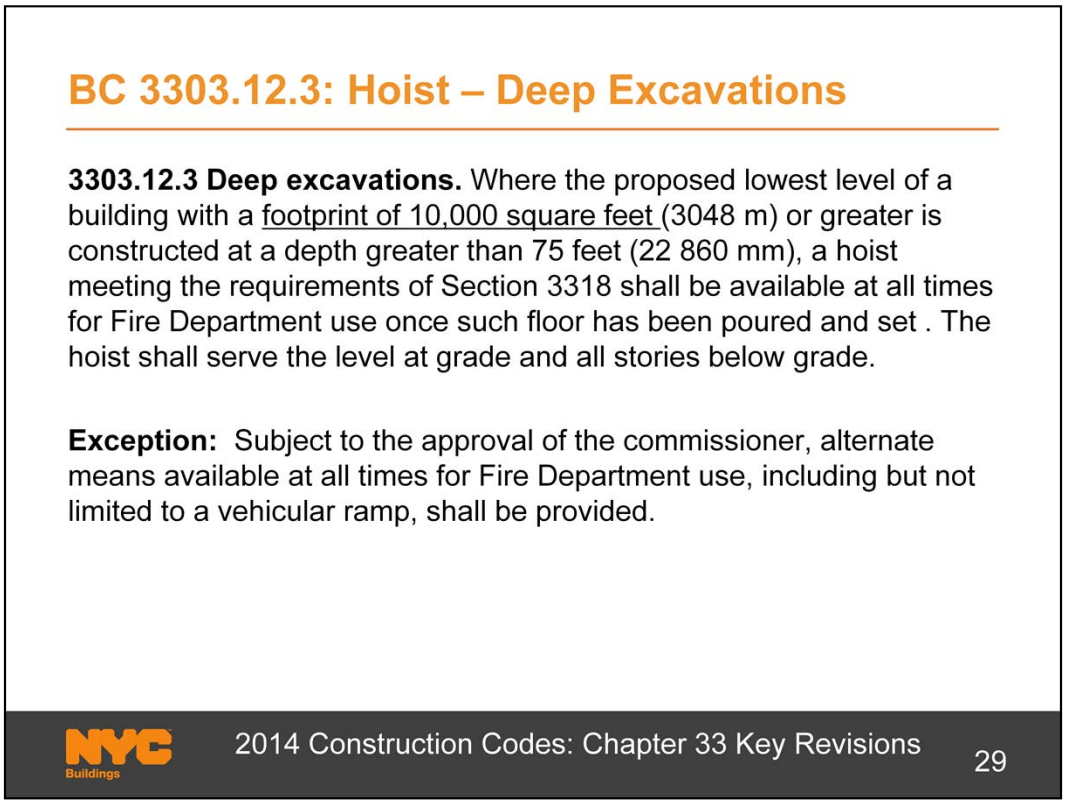
A building that does not require a permanent elevator.

Floors that are located within a vertical distance of seven stories or 75 feet (22 860 mm) or less from the working deck.

This section sets the requirement for an elevator in readiness/hoist in buildings under construction, alteration, or demolition.

The trigger for the hoist requirement is when a construction floor is more than 7 stories or 75 feet from the working deck .

Once installed, the elevator in readiness/hoist must serve floors within that distance from the working deck.



This new section requires an hoist when the proposed lowest level of a new building with a footprint of 10K has a floor greater than 75 feet from grade.

It is the Department's intent that this hoist should be installed when excavation bottoms out and foundation work and SOG is nearing completion, but prior to installation of 1st floor or sub-cellar floor decks.

Contractors may proposed an alternative to the hoist installation or may request to vary the time at which the hoist is installed. Such proposals are to be submitted in the form of a variance at time of Site Safety Plan submission, or for jobs not requiring a Site Safety Plan, prior to permit of underlying work application.

BC 3303.16: Contractor Shanties

3303.16 Contractors sheds and offices. Contractors sheds and offices located within 30 feet (9144 mm) of new construction, existing buildings, or another contractor shed or office shall be made of metal or other noncombustible material.

Exception: Contractor sheds and offices located within a building and protected from weather may use fire retardant treated wood, provided the shed does not exceed one story in height and 120 square feet (36.58 square meters) in area and is at least 30 feet (9144 mm) from another shed.

This section has been revised to require non-combustible shanty construction whenever a contractor's shanty/office is within 30 feet of another shanty/office or within 30 feet of new construction or existing buildings.

We are trying to move the industry toward non-combustible construction in the majority of installations.

Certain exceptions have been made (allowing use of fire-retardant treated wood), but they do not apply in the majority of cases, given the other restrictions.

Soil and Foundation Work

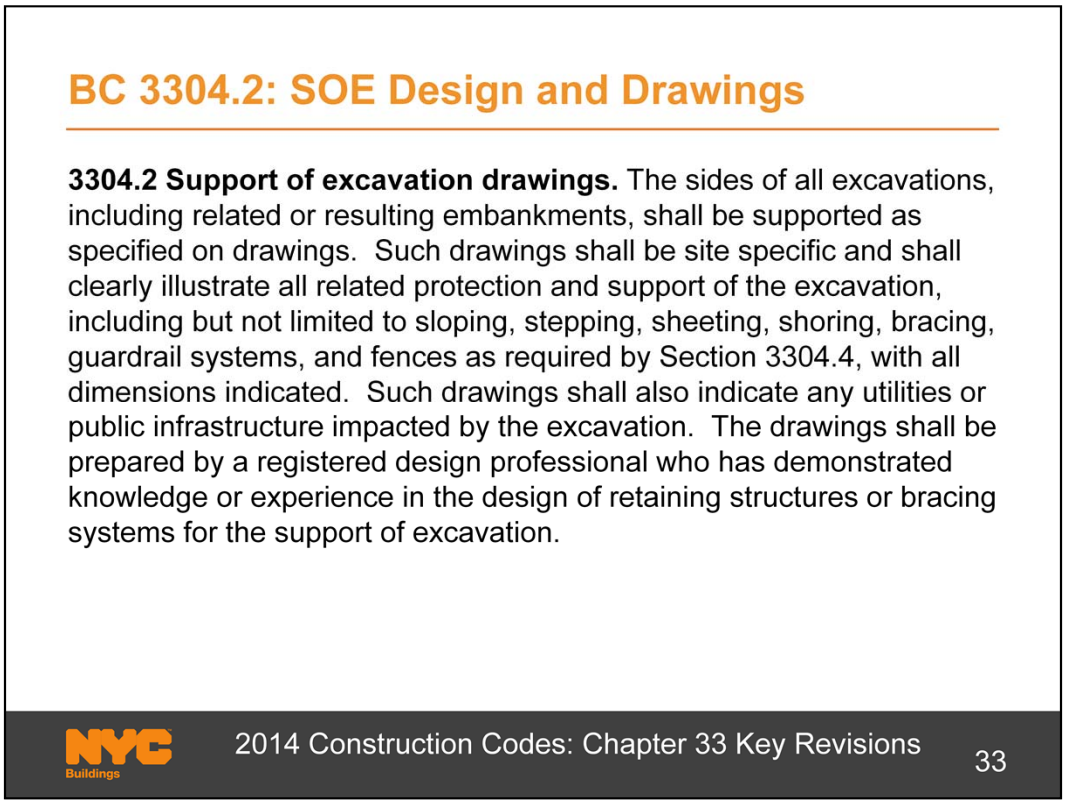
BC 3302: Definitions:
Excavation & Soil and Foundation Work

EXCAVATION. The removal of earth from its natural position; except for any incidental removal that occurs during the course of auguring, drilling, vibrating, or driving.

SOIL AND FOUNDATION WORK. Excavation, fill, grading, auguring, or drilling, whether in soil or rock; or the installation or removal of foundations, piles, underpinning, sheeting, shoring, or supports of excavation.

Whenever a provision of this section is limited to excavation, the term “excavation” is used and is defined narrowly as the removal of earth from its natural position.

When a provision extends beyond excavation, the term “soil and foundation work” is used and is defined broadly to include excavation proper, fill placement, grading, auguring, drilling, foundations installation/removal, piling, underpinning, sheeting and shoring, etc. .



This section makes clear what was implied in other versions of the code and related memoranda: S**upport of excavation design is required and must be submitted to the department for approval .** Current protocol (since 2009) requires the design to be submitted as part of the underlying work application, for example the NB or ALT I application.

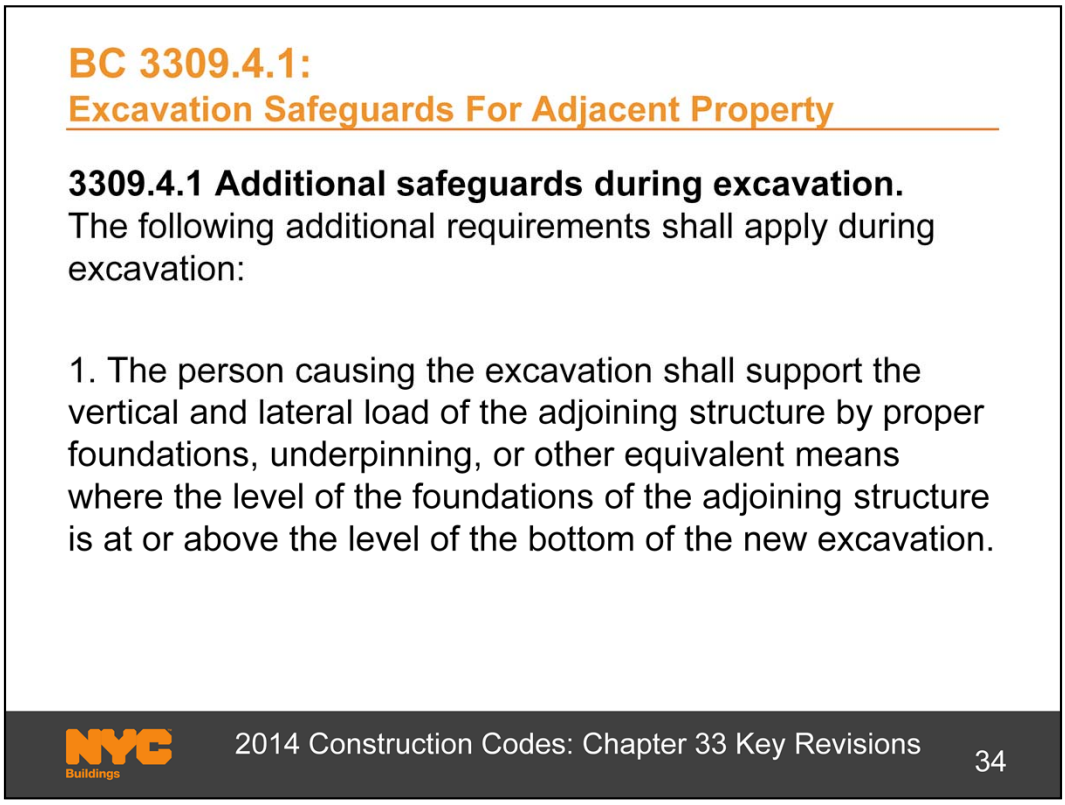
Some basic exceptions to the design requirement:

1.Excavation is 5 feet or less and offset more than 5 feet from adjoining footings.

2.Sides of excavation are sloped no steeper than 45 degrees and slope begins at least 5 feet from adjoining footings.

3.A pre-engineered trench box is used in accordance with manufacturer's recommendations.

NOTE: The prescriptive shoring table in the 1968 and 2008 Code has been deleted, as all excavation greater than 5 feet requires design.



This section has been revised to make clear that the person causing excavation shall support both the vertical and lateral loads of the adjoining structure (s).

This also makes clear that the protection systems (SOE, underpinning, foundations) must take vertical and lateral load into consideration in the design.

Failure to take horizontal loads into consideration (or failure to analyze the horizontal loads properly) has led to adjoining property damage.

BC 3309.6:
Subsurface Operations – Precautions

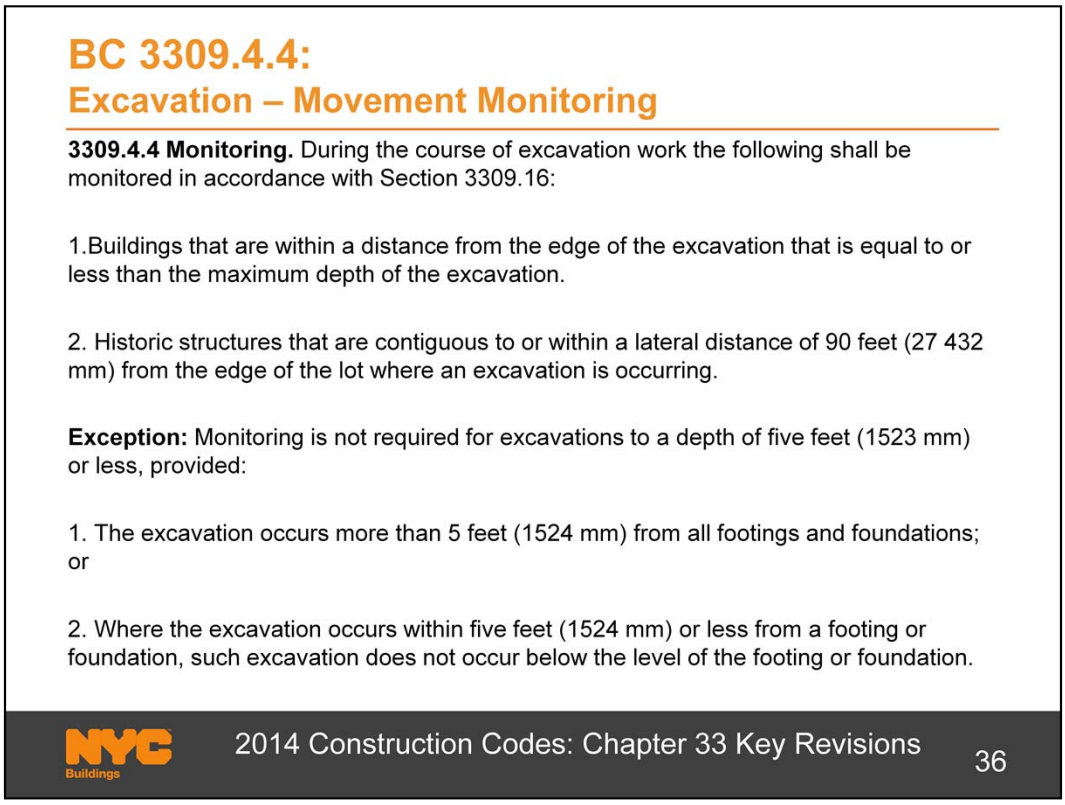
3309.6 Subsurface operations affecting adjacent properties. Whenever subsurface operations, other than excavation or fill, are conducted that may impose loads or movements on adjoining property, including but not limited to the driving of piles, compaction of soils, or soil solidification, the effects of such operations on adjoining property and structures shall be monitored in accordance with Section 3309.16.

Exception: Monitoring during underpinning shall be in accordance with Section 1814.

This section establishes that all sub-surface work, not just excavation proper, must be evaluated for its potential adverse impact on adjoining property and structures and those adjoining structures must be monitored for movement.

Examples of sub-surface work include, but are not limited to, “driving of piles, compaction of soils, soil solidification”. Other examples not mentioned would be dewatering, “soil nailing”, ground “freezing”, slurry wall/shaft installation, etc.

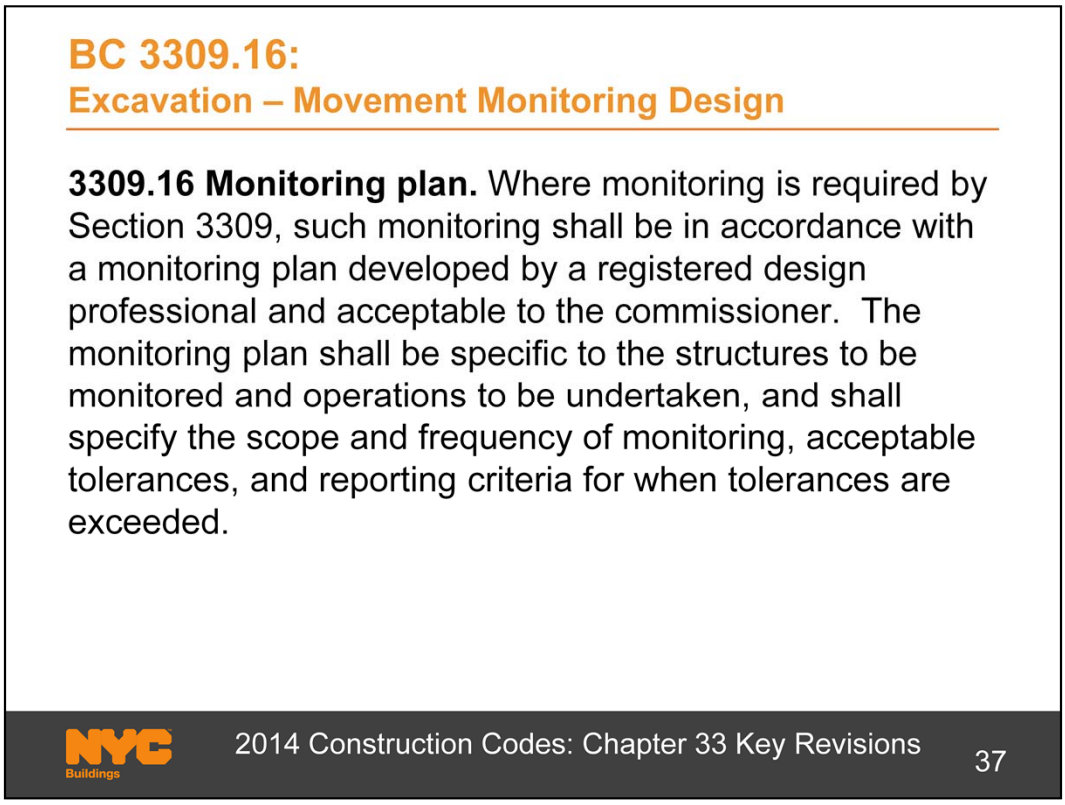
Specific requirements for monitoring during underpinning operations are detailed in Section 1814.



This section has been revised to make clear that movement monitoring of adjoining structures is required, with minor exceptions (related to excavation depth and horizontal offset from adjoining structures).

It also imports the trigger from TPPN 10/88 (Monitoring of LM Structures), requiring monitoring of all LM structures within 90 feet of the area of excavation work, regardless of whether the structures are on contiguous lots. The thresholds for vibration and movement are provided in TPPN 10/88, along with other details

NOTE: Movement in adjoining structures and property is a leading indicator of the performance of the support of excavation systems employed by the contractor and designed by the licensed professional. As such, monitoring is intricately related to protection of adjoining property and structures.



This new section lays out basic requirements for the monitoring plan previously discussed and requires that it be developed by a licensed professional.

At a minimum, the monitoring plan shall:

1. Specify the scope and frequency of monitoring
2. Set acceptable tolerances for movement and vibration
3. Establish reporting criteria for when tolerances are approached, reached, or exceeded.

NOTE: Chapter 17 requires movement monitoring be under Special Inspection

BC 3304.10: Excavation Dewatering

3304.10 Dewatering. The person causing the soil or foundation work to be performed shall dewater the site, as needed, for the progress of the work. Measures shall be taken to prevent settlement, slope failure, and damage to adjacent buildings, structures, and property affected by dewatering operations.

This new section makes clear that a contractor is required to dewater and that measures must be taken to prevent settlement, slope failure, and damage to adjacent buildings, structures, and property affected by dewatering operations.

The analysis of the effect of dewatering on the stability of adjoining

property and structures must be made by a licensed professional.

BC 3304.12: Excavation – Slurry Operations

3304.12 Slurry. Where slurry is utilized to support an excavation, trench, or drill or bore hole, slurry mix proportions and installation procedures shall be provided by a registered design professional on signed and sealed design and installation procedures. The installation procedures shall account for all imposed loads, including those from the earth, adjacent structures, and adjacent equipment. The use of slurry to support excavations shall be subject to special inspection in accordance with Section 1704.20. Where such construction methods are used to install foundation elements, the new foundation elements installed as part of such operations shall be subject to special inspection as a permanent installation in accordance with the applicable sections of this chapter, including but not limited to special inspection for concrete, and welding.

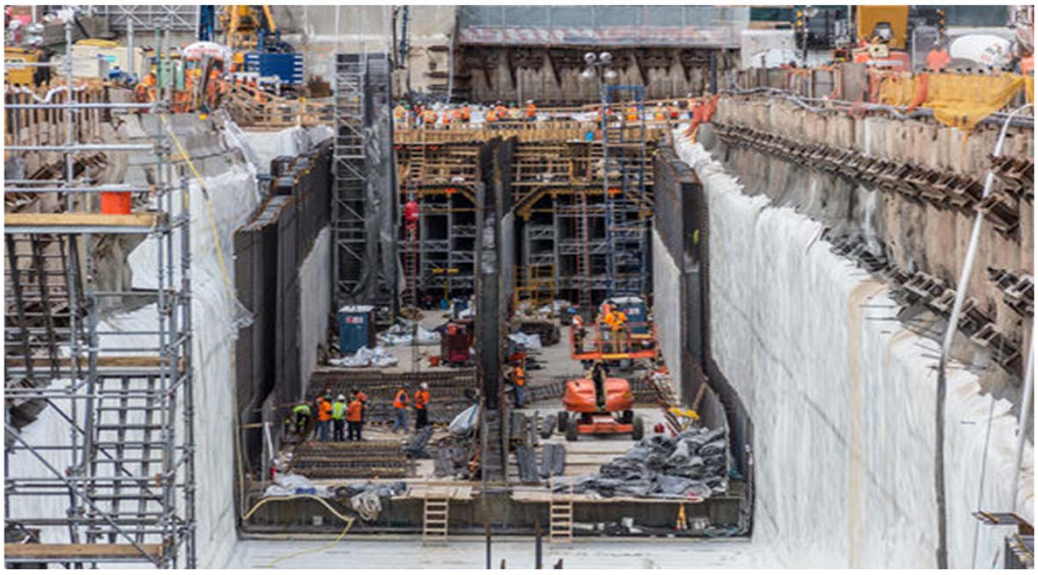
We have recently seen an increase in the use of slurry to support trench and shaft excavations, most notable for the Columbia University Manhattanville Project.

This new section requires that “slurry” (bentonite or other) used to support a trench or a drilled or augered shaft be designed by a licensed professional.

Use of slurry requires special inspection in accordance with Section 1704.20 (a new requirement).

When the slurry structure serves both as support of excavation and ultimately as a foundation for the new building, the special inspection requirements for both SOE and foundation apply.

Concrete Form Work



BC 3305.3.2.1:
Form Work – New Design Triggers

3305.3.2.1 Design drawings. (New Design Triggers Only)

1. For concrete formwork is in a structure classified as a major building; or

6. Wherever the slab thicknesses or beam heights equal or exceed 10 inches; or

7. Wherever there are concentrated loads exceeding 2000 lbs. imposed on the formwork; or

8. Wherever there are loads imposed on existing structures in accordance with Section 3305.3.1.2.1.

This section is not new but has been modified somewhat and new triggers for design requirements have been established. Form work design must now be site-specific and not generic.

The new design triggers are contained in paragraphs 1, 6, 7, and 8.

1.All form work in a Major Building (defined by the code) requires design.

2.Wherever the slab thickness or beam heights equal or exceed 10”

3.Wherever there are concentrated loads exceeding 2000 lbs.

4.And wherever loads are imposed on existing structures.

Note: Exceptions from the requirement for form work design by a licensed professional have also been provided.

1. NOT required for formwork installed in conjunction with slabs supported directly on grade and NOT imposing load on adjoining property.

2. Not required for footings where footing does NOT impart any load on an adjacent structure.

BC 3305.3.1.2.1:
Concrete Load On Exist Structures

3305.3.1.2.1 Use of existing structures to support vertical or lateral loads. The use of existing structures to support vertical or lateral loads imposed by concrete construction operations shall require an evaluation of the existing structure for the loads imposed by a registered design professional. The registered design professional shall prepare design drawings documenting the findings of the evaluation, indicate the location of formwork elements, and the interface between the formwork and the existing structure.

This new section incorporates the requirements of an existing Buildings Bulletin 2009-011.

The imposition of concrete or concrete form work load on an adjoining property requires evaluation of the adjoining structure by a licensed professional and the preparation of design drawings. Any limitations on the rate of pour should be a part of the drawings and reports.

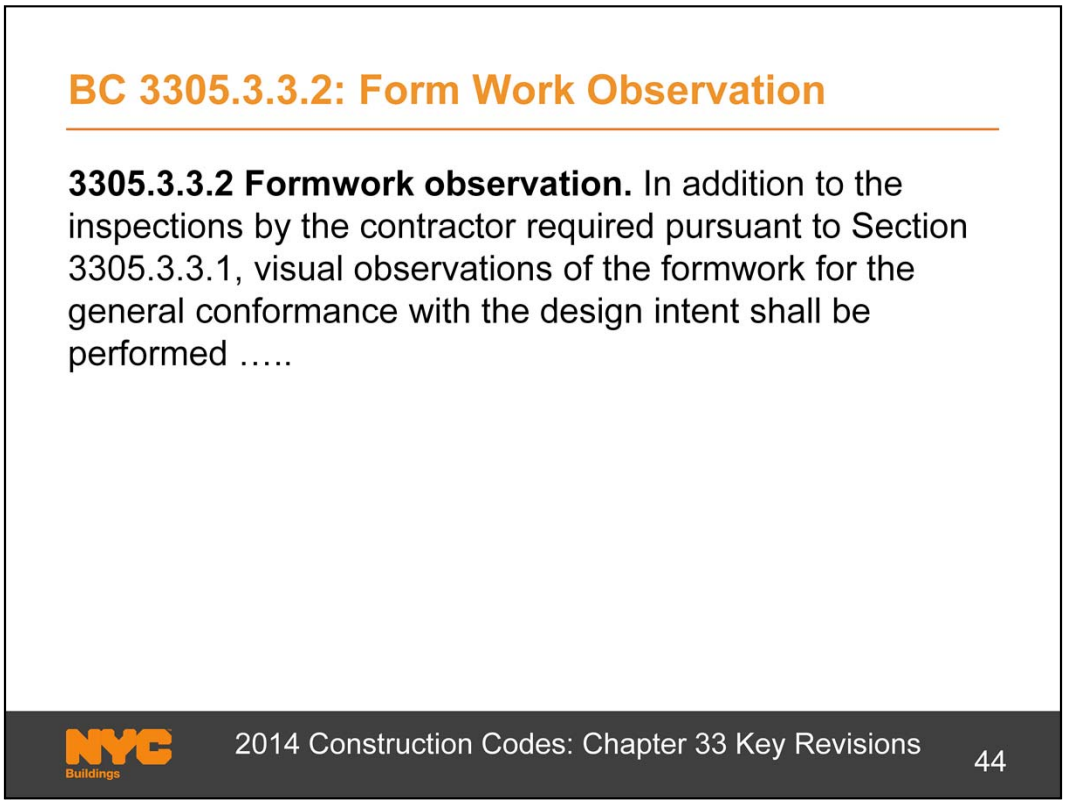
Design drawings shall be kept on site, including inspection reports for the adjoining property, and made available upon request.

BC 3305.3.4.5: Perimeter Form Work

3305.3.4.5 Perimeter formwork. Horizontal formwork deck panels and beam formwork located within 16 feet (4877 mm) from the building perimeter shall be positively attached to all formwork support systems at a minimum.

A collapse of perimeter form work has the increased risk of impacting the public and adjoining property.

To address this, this new section was added requiring positive attachment of all form work within 16 feet of the perimeter of the building to all form work support systems inboard of the perimeter.



This is a new requirement for formwork “observation” by the form work designer or his designee. This is in addition to the existing inspection requirements by the competent person designated by the contractor (BC 3305.3.3.1).

Exceptions are provided for form work not requiring design and for form work in association with 1,2 and 3 family dwellings.

The “observations” shall take place periodically, permitting the observation of representative configurations, as well as atypical configurations.

In addition, observation is also required following form work incidents or violations.

DOB must be notified whenever form work discrepancies and hazards are identified that are not immediately corrected by the contractor.

BC 3305.3.6.8: Concrete Formwork Reshoring

3305.3.6.8 Reshoring Schedule. A signed and sealed reshoring schedule shall be provided and maintained at the construction site whenever reshoring is employed.

Exception: A separate reshoring schedule is not required when the required reshoring information is covered on the approved construction documents prepared by the applicant of record

This is a new section requiring a signed and sealed reshoring schedule when reshores are used.

A separate reshoring schedule is NOT needed when it is incorporated into the form work design drawings.

Demolition Operations

BC 3306.2.1: Demolition Safety Zone

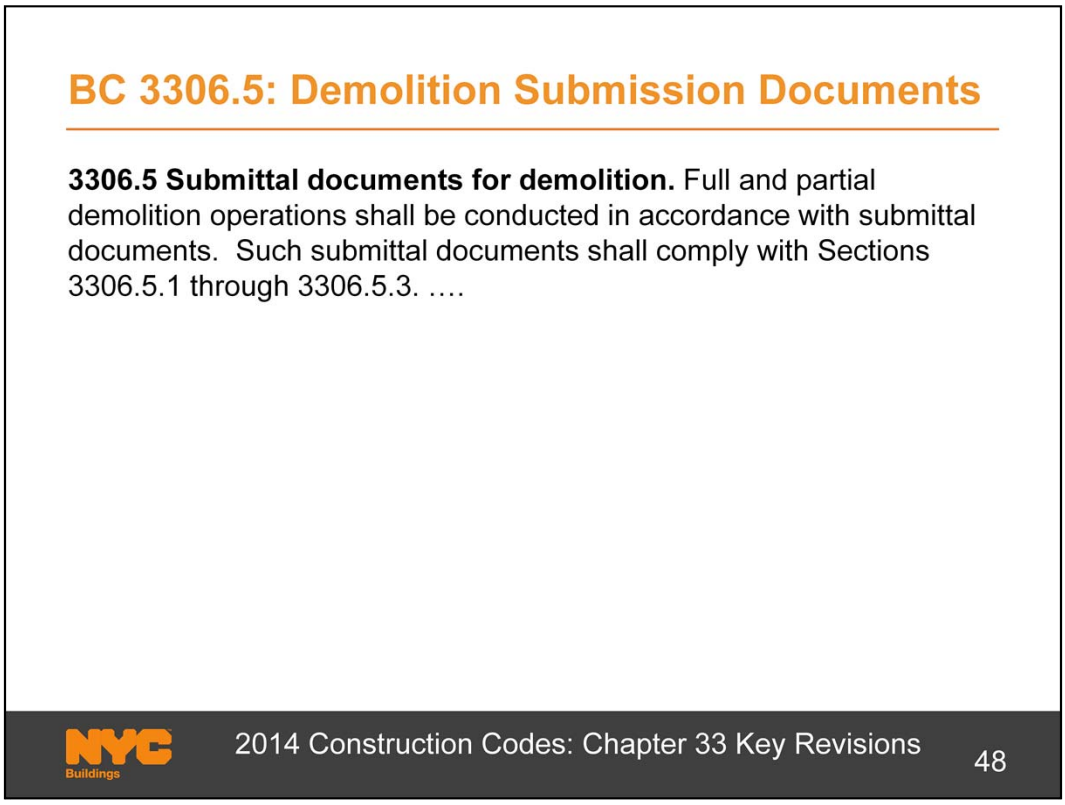
3306.2.1 Safety zone. A safety zone shall be provided around all demolition areas to prevent persons other than workers from entering such zone. Where demolition occurs on the exterior of a building, such zone shall be approved by the commissioner prior to the commencement of demolition. Where mechanical demolition equipment, other than handheld devices, is to be used for the full demolition of a building, the safety zone shall be equal to or greater than half the height of the building to be demolished; such safety zone may be reduced by the same ratio as the building is being demolished.

Exception: Approval of the commissioner is not required for a safety zone established for demolition on the exterior of a building, provided the work is a minor alteration or ordinary repair and is accomplished without any mechanical demolition equipment, other than handheld devices.

This section makes clear that safety zones are required for all demolitions, interior and exterior.

For mechanical demolitions, however, a minimum safety zone of ½ the building height is required, which may be contracted as demolition advances and height of structure is reduced.

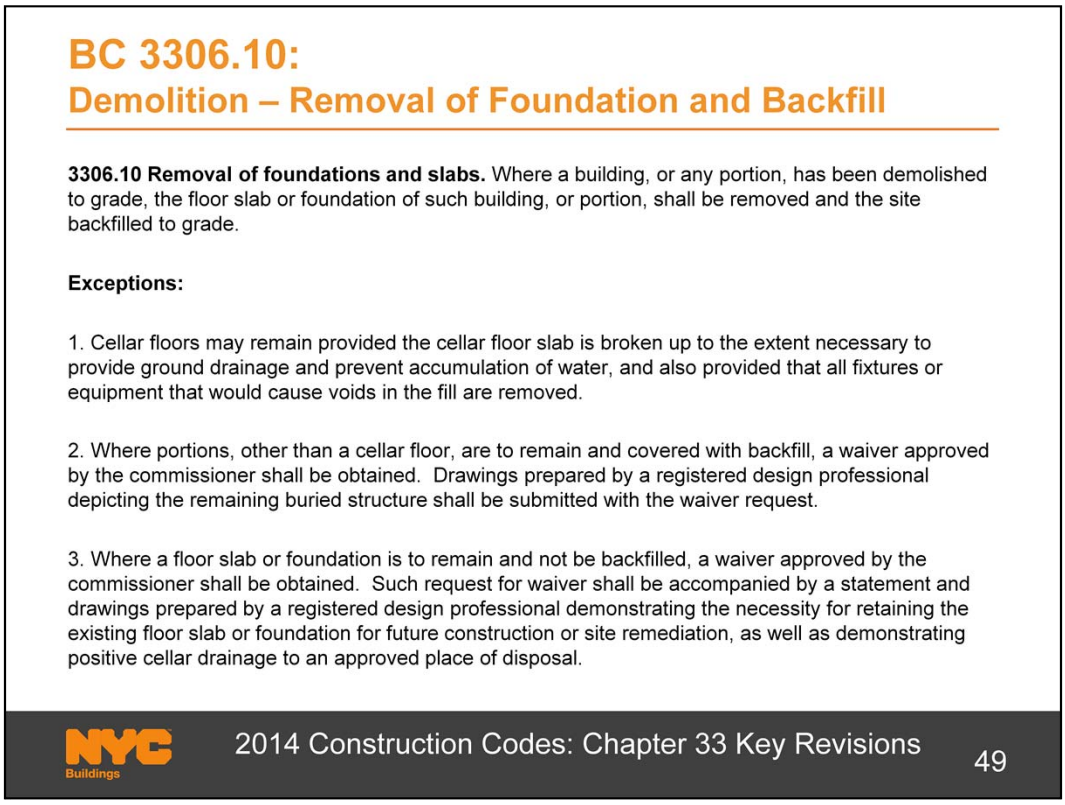
Safety zones must be illustrated on demolition plans/documents when plans are required.



The requirement for submission of demolition documents is not new. However, a key exception has been made permitting the removal by mechanical equipment of foundation elements, concrete slabs, stoops, accessory pools, etc. without the requirement for submission of demolition plans.

This allows for the full hand-held demolition of the superstructure of detached 1, 2, or 3 family dwellings (of 3 stories or less in height) WITHOUT the need to file demolition plans.

The revision also allows both RA and PEs to file mechanical demolition plans, where previously only a PE could file.



This new section makes clear that at completion of demolition operations all structure, including footings, foundations, and slabs are required to be removed and site backfilled to grade with clean fill.

Exceptions have been provided:

1.SOG may be left in place and site backfilled, provided slab is cracked for drainage.

2.SOG and fdtns may remain and site fully backfilled, with commissioner's approval and remaining elements indicated on the DM design drawings.

3.SOG and fdtns may remain without backfill, with commissioner's approval and remaining elements indicated on the DM design drawings. DM applicant must demonstrate stability of remaining foundation elements. Periodic inspection may be required for sites that remain without backfill for periods in excess of 3 months.

Sidewalk Sheds and Temporary Walkways

BC 3307.2.3:
Temporary Public Walkways Within Constuction Site

3307.2.3 Temporary public walkway within the site. Where authorized by the commissioner, a temporary walkway open to the public may be provided through a site that is otherwise fenced and closed to the public. Such temporary walkway shall be:

Protected by a sidewalk shed, or where acceptable to the commissioner, provided with overhead protection and lighting equivalent to that afforded by a sidewalk shed;

Enclosed along the side facing the site with a solid fence that meets the requirements of Section 3307.7. Where the sidewalk shed or equivalent overhead protection extends beyond the height of the fence, the gap shall be enclosed with a wire screen comprised of not less than number 18 gage wire mesh, or equivalent synthetic netting, with openings in the wire or synthetic mesh no larger than ½ inch (13 mm); and

Enclosed along the side facing the street with a wire screen comprised of not less than number 18 gage wire mesh, or equivalent synthetic netting, with openings in the wire or synthetic mesh no larger than ½ inch (13 mm), or where a special hazard exists, protected in accordance with Section 3307.4.7.

This new section addresses temporary walkways that are located within the construction site.

Contractors occasionally route the sidewalk traffic through their site (when the NB structures is in place for 3 or 4 floors), in order to free up the sidewalk real estate for their operations.

If a DOT sidewalk closing permit has been obtained, the Department does not take exception to this, provided the overhead protection afforded is the equivalent to 150 PSF or 300 PSF sidewalk shed, with adequate lighting.

BC 3307.4.7: Storage Zones Adjacent to SWS

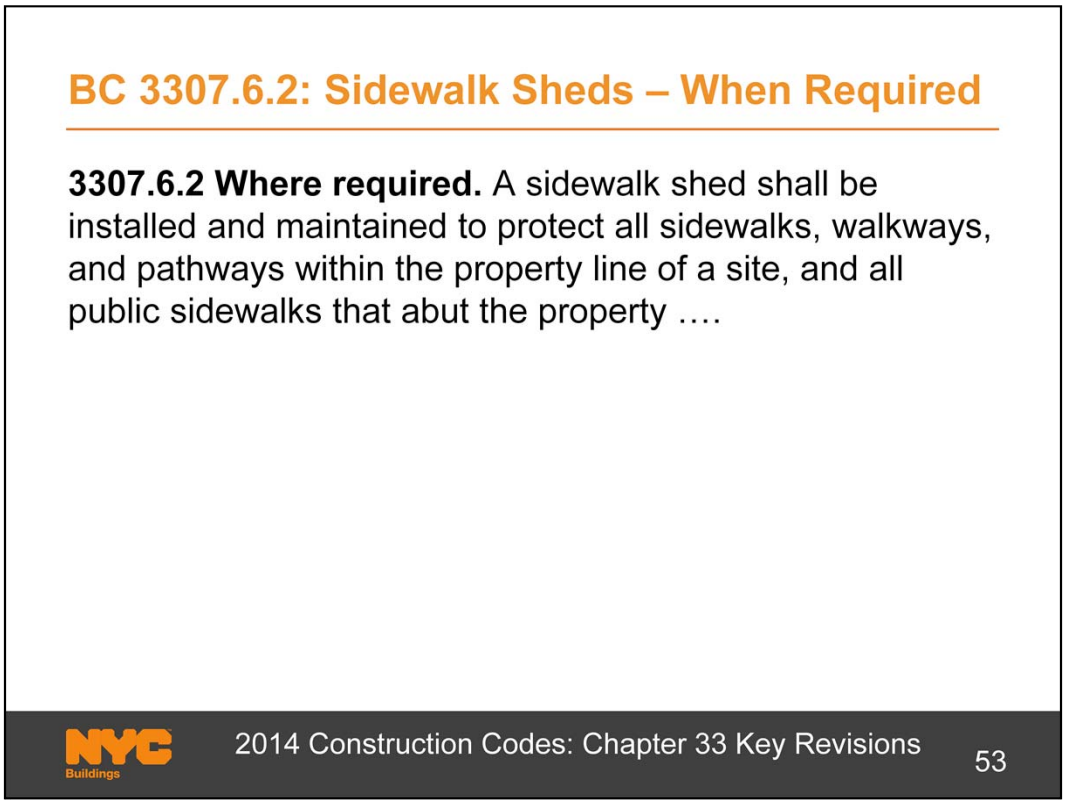
3307.4.7 Work or storage zones. Where work or storage related to the construction or demolition of a building or structure is occurring adjacent to a sidewalk shed or equivalent overhead protection, and such area is not closed with a fence in accordance with Section 3307.7 or a permanent facade, a solid barrier extending at least 4 feet (1219 mm) in height from the level of the ground shall be provided. The space between the top of the barrier and the deck of the overhead protection shall be enclosed with a wire screen comprised of not less than number 18 gage wire mesh, or equivalent synthetic netting, with openings in the wire or synthetic mesh no larger than ½ inch (13 mm).

Exception: In the area where a material hoist, personnel hoist, hoistway, or chute is located, the solid barrier shall extend from level of the ground to the deck of the overhead protection.

This is a new section and a current “best practice” by many contractors.

This section requires protection of public from areas used as work or storage zones adjacent to side walk sheds (usually lane closures).

The requirement is for a 4-foot high solid fence surmounted by meshing taken to the underside of the SWS, effectively shielding pedestrians from the contractors operations in the lane closure.



It is important to emphasizes that the primary trigger for the protection of sidewalks and walkways is still when such sidewalk/walkway lies within a perpendicular distance equal to or less than ½ the height of the structure. This applies to sidewalks/walkways CONTIGUOUS with the work site (NOT across the street).

Temporary walkways located in the street and abutting the construction site require overhead protection. The industry has been slow to grasp this.

The following items are the significant changes in SWS requirements:

•SWS will now be required to be installed when the NB exceeds the proposed height of the SWS. This means that most SWS will be installed when the building reaches a height of approximately 12 feet, rather than the current 40 feet.

•Pedestrian traffic must be stopped when lifting over a sidewalk shed.

•Key exceptions to SWS requirement:

1.Facade inspection where no work is performed and flagmen and barriers are provided.

2.Sign hanging, where a licensed sign hanger supervises and flagmen and barriers are provided.

3.Roof work, where a 42” parapet or guardrail/netting are provided.

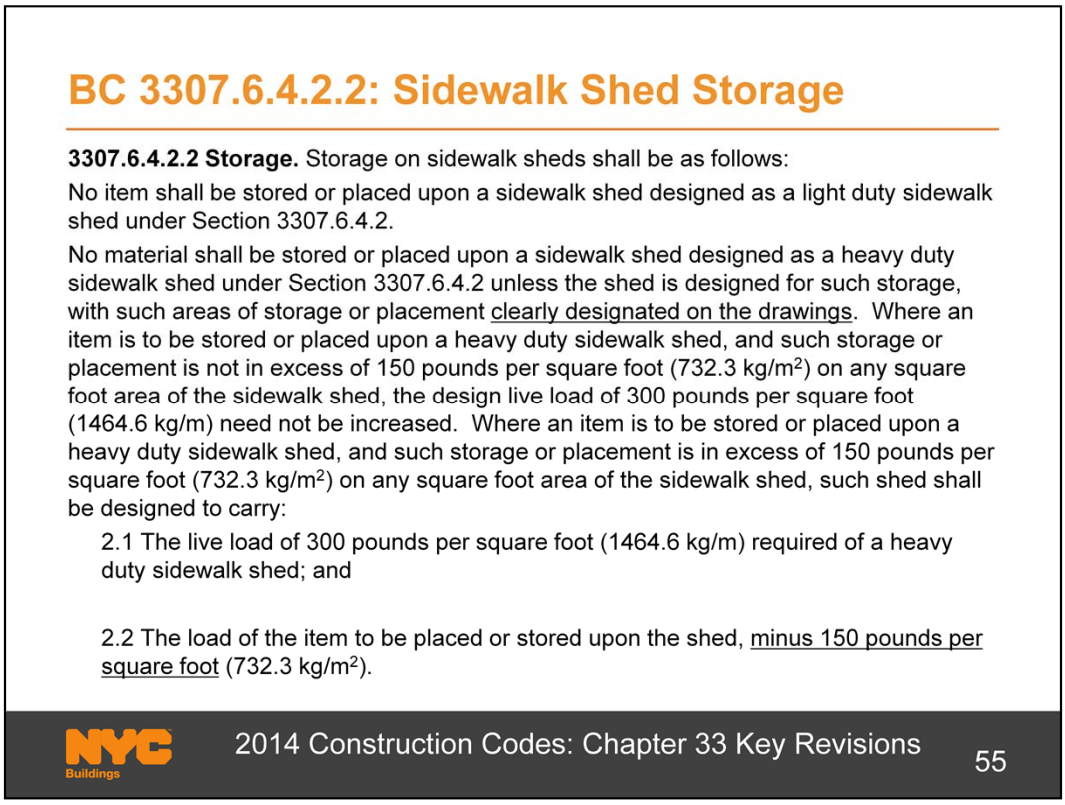
4.By variance, for limited scope/duration façade work, where flagmen and barriers are present, provided façade is left safe and fully enclosed at end of work shift.

BC 3307.6.3: Sidewalk Shed Decking

3307.6.3 Area to be protected. The decking of the sidewalk shed shall extend the full length of the area that falls within the zone specified in Section 3307.6.2, plus an additional 5 feet (1524 mm) beyond such length, or to within 18 inches (457 mm) of curb line, whichever is less. The decking of the sidewalk shed shall also extend the full width of the sidewalk, walkway, or pathway that remains open to the public, except for a clearance to avoid existing obstructions, not to exceed 18 inches (457 mm) along the curb and not to exceed 1 inch (25 mm) along the face of the building or structure.

Revision makes clear that a SWS decking must cover the full width and length of the sidewalk area required to be protected, with a maximum 18" clearance at the curb. The 2008 Code required protection of only a 5-foot width of the sidewalk.

The 18' maximum clearance at curb is necessary to avoid obstructions (hydrants, light poles, DOT signs), but limited to avoid creating an unprotected zone where pedestrians can loiter. It also reduces the likelihood of contact between the SWS and vehicular traffic.



This section regarding storage on sidewalk sheds (including contractor's sheds, supported scaffolds, materials, etc.) has been rewritten.

Key elements are as follows:

1.Storage area to be designated on design drawings. This is important if the SWS is not designed for the same uniform loading throughout.

2.No storage is permitted on light duty SWSs (150 PSF capacity)

3. Heavy duty SWSs (300 PSF capacity) allow for storage of up to 149 PSF. The heavy duty SWS must be designed to 300 PSF + any added load above 149 PSF imposed by the storage.

BC 3307.6.5.2 and 6.5.3:
Sidewalk Shed – Installation and Maintenance

3307.6.5.2 Supervision of installation, adjustment, repair, and removal. The installation, adjustment, repair, or removal of a sidewalk shed shall be performed under the supervision of a competent person designated by the permit holder for the sidewalk shed.

3307.6.5.3 Responsibility for maintenance and use. Sidewalk sheds shall be maintained and used by the general contractor, or where there is no general contractor, the contractor causing the work to be performed, or where there is no active work, the building owner.

Two new section added to address responsibility for installation and maintenance of SWSs:

1.A “competent” person designated by the SWS permit holder must supervise the installation, adjustment, repair, and removal of the SWS. This competent person is responsible for safety to public during these operations.

2.Responsibility for maintenance and use of the SWS falls to the contractor causing the work to be performed, or, when no work is being performed, the building owner.

BC 3307.6.5.10:
Sidewalk Sheds – Daily Inspections

3307.6.5.10 Daily inspection. Sidewalk sheds shall be visually inspected daily by a person designated by the general contractor, or where there is no general contractor, the contractor causing the work to be performed, or where there is no active work, by the building owner to verify:

The lights are functioning;

No brace or rail is hanging unattached at one or more ends;

No portions of the support structure are disconnected;

No section of parapet is missing; and

All legs remain on their support and are supported to the ground.

Exception: The inspections for a scaffold suspended or supported above a sidewalk shed shall be in accordance with Section 3314.

This new section requires a daily safety inspection of the SWS. The record of that inspection must be kept on site. Items to be inspected are listed.

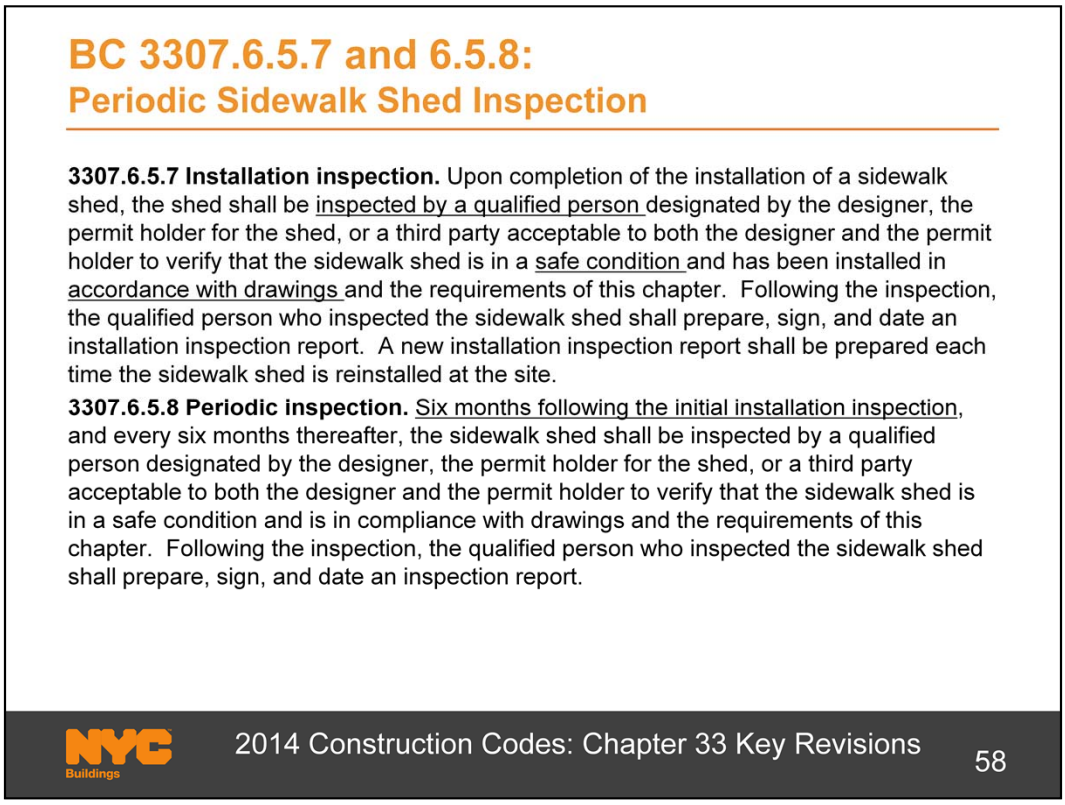
The lights are functioning;

No brace or rail is hanging unattached

No portions of the support structure are disconnected;

No section of parapet is missing; and

All legs remain on their supports



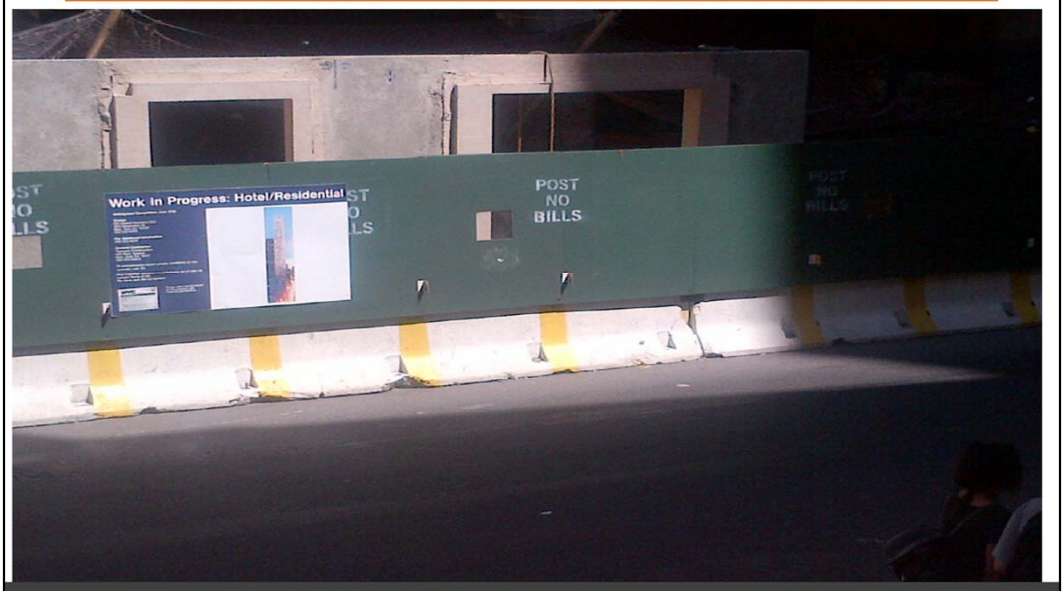
These sections are intended to eliminate the prevalent problem of SWSs being erected contrary to design documents and SWSs deteriorating to the point of becoming unsafe.

These sections require a post-installation safety and plan conformance inspection by a qualified person designated by the designer, or by the permit holder, or by a 3rd party acceptable to both designer and permit holder.

The inspections are required immediately following installation and at 6-month intervals thereafter.

Documentation of the inspections is required and must be kept on site and available upon request.

Construction Fences



Construction fences must: be painted Hunter Green; have the Construction Information Panel installed; have 12” square viewing panels every 25 feet; and have no other construction-related signs or messaging (including “Post No Bills) affixed.

BC 3307.7: Construction Fences

3307.7 Fences. All sites where a new building is being constructed, or a building is being demolished to grade, shall be enclosed with a fence. Fences shall also be installed to fully or partially enclose sites, as necessary, where there exists an open excavation, an unenclosed portion of a building accessible at grade, or other hazard to the public. Such fences shall be at least 8 feet (2438 mm) high, built solid for their entire length out of wood or other suitable material, and shall be returned at the ends to the extent necessary to effectively close off the site.

Exceptions: The commissioner may approve the use of a chain link fence to:

1. Secure a site where work has been interrupted or abandoned and discontinued, and a registered design professional has certified that all construction or demolition equipment and material that pose a hazard to the safety of the public and property have been removed from the site or safely secured. Prior to the resumption of work, the chain link fence shall be replaced by a solid fence meeting the requirements of this section.

2. Secure portions of a site where a one- two- or three-family building, or a commercial building 40 feet (12 192 mm) or less in height, is being constructed or demolished and such building is setback at least 15 feet (4572 mm) from sidewalks or spaces accessible to the public and 5 feet (1524 mm) from adjoining buildings or structures.

This section establishes fencing requirements for construction and demolition sites. The exceptions are new, but in keeping with current practice and bulletin.

The chain link fencing will now be allowed in following cases:

1.Stalled sites where all construction activity has ceased.

2.Buildings (1,2,3 F or commercial 40 ‘ or less) being constructed or demolished that are set back at least 15 feet from public and at least 5 feet from adjoining properties. This will be as-of-right and not require a variance.

BC 3307.7.5: Construction Fence Design

3307.7.5 Design of fences. Fence installations shall be designed by a registered design professional. The effect of wind on the fence shall be considered in the design in accordance with Chapter 16.

Exceptions:

1. Fences installed in connection with the construction or demolition of a one- two- or three-family building.

2. Fences that conform to a standard design approved by the commissioner provided the fence is installed at the site in accordance with the standard design.

This new section requires that construction fences be designed by a registered design professional, in accordance with wind loading requirements of Chapter 16 (temporary structures).

Fence design should be included in the underlying work application or available on site upon request as a stamped shop drawing.

Exceptions have been provided for 1, 2, 3 family New Buildings or demolitions and for standard approved fence designs.

This section is meant to address the problem of poorly designed and installed fences that routinely collapse in even moderate wind events

Safety Netting and Guardrails

BC 3302.1:
Key Definitions – Walkable Floor and Working Deck

WALKABLE FLOOR (CONCRETE CONSTRUCTION). A floor where the concrete slab has been poured and the formwork stripped.

WALKABLE FLOOR (PRECAST CONCRETE CONSTRUCTION). A floor where the frame is erected and the precast concrete floor is fixed in place.

WALKABLE FLOOR (STEEL CONSTRUCTION). A floor where the frame is erected and the deck is tack welded or fixed in place.

WORKING DECK (CONCRETE CONSTRUCTION). The level where the floor is being formed.

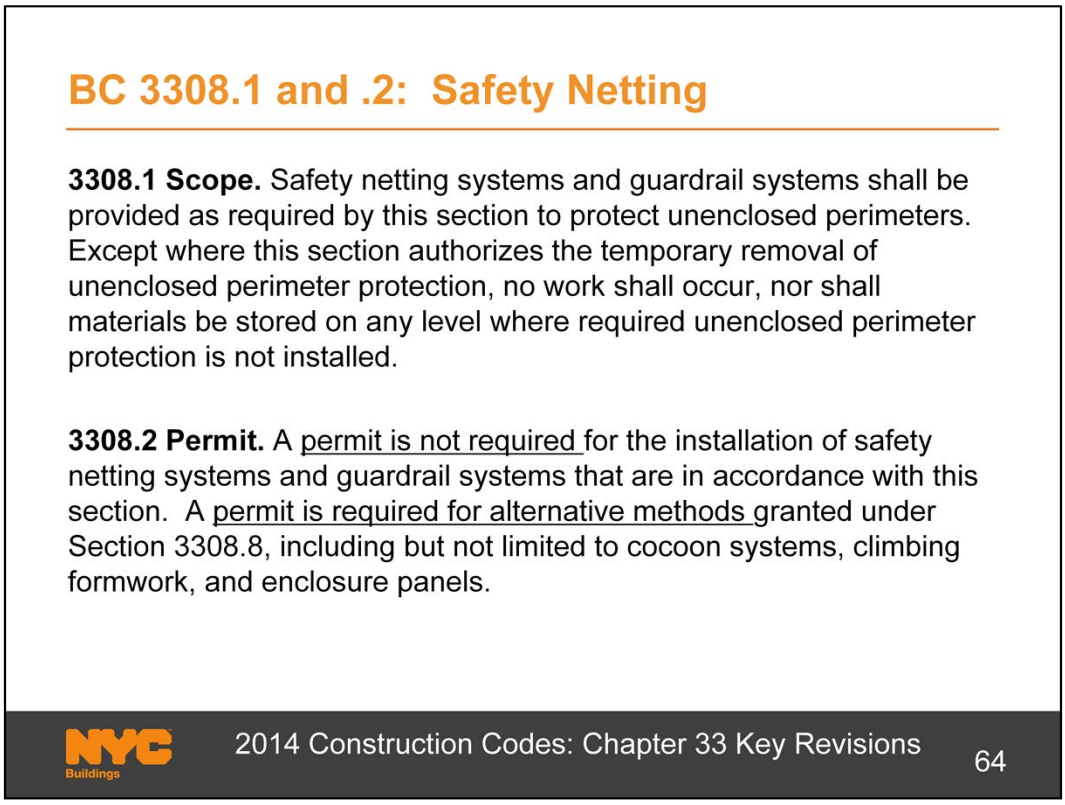
WORKING DECK (DEMOLITION). The level where the floor is being broken up.

WORKING DECK (PRECAST CONCRETE CONSTRUCTION). The level where the floor is being placed.

WORKING DECK (STEEL CONSTRUCTION). The floor where the metal decking and steel components are being placed before concrete is poured.

The terms “walkable floor” and “working deck” have been clearly defined for the most common types of construction: cast-in-place concrete, pre-cast concrete, and steel.

These definitions are used throughout the code in determining, for example, where a standpipe, elevator in readiness, horizontal netting system, or permanent stair must be maintained. These topics will be discussed in later slides.

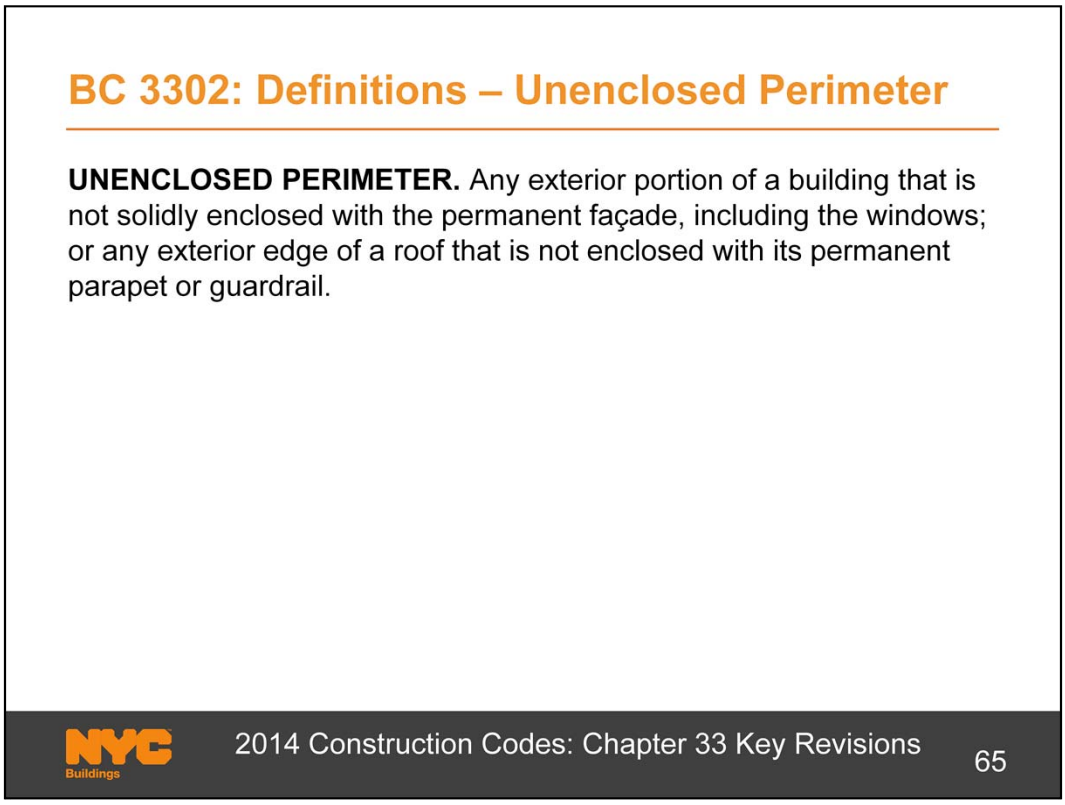


The scope language of the netting/guardrail section has been tweaked to apply to all “unenclosed perimeters” and the term has been defined.

The new permit section makes clear that standard netting and guardrail systems do not require permit, only “alternate systems” (such as cocoons, climbing formwork) do. This is in keeping with current practice.

However, while permit is not required for standard systems, all safety netting requires design by a licensed design professional, as per 3308.3.1. Wind loading requirements of Chapter 16 apply.

Design drawings should be kept on site and available upon request.



Here we have the definitions of “unenclosed perimeter” referred to in the previous slide.

It is defined as “any exterior portion of a building that is not solidly enclosed with the permanent façade, including the windows; or any exterior edge of a roof that is not enclosed with its permanent parapet or guardrail.”

BC 3308.5.6:
Vertical Safety Netting – Temporary Removal

3308.5.6 Temporary removal. Vertical safety netting may be temporarily removed in the immediate area where active loading or unloading operations are occurring, or where perimeter work is occurring, provided that:

1. A controlled access zone is established to prevent unauthorized personnel from entering the area where the nets are removed; and

2. Immediately prior to the removal of the nets the floor is broom swept and cleared of all material, equipment, and debris to a distance of at least 10 feet (3048 mm), in all directions, from the area where the vertical nets will be removed.

Exceptions: The following material does not have to be removed to a distance of at least 10 feet (3048 mm), in all directions:

1. Material and equipment related to the loading or unloading operation or perimeter work.

2. Stored materials in accordance with Section 3303.4.5.2.

This section sets requirements that must prevail when vertical netting is temporarily removed to facilitate loading/unloading or other work.

Temporary removal of guardrails requires the same pre-cautions and is covered in BC 3308.7.7.

Basically, the area must be cleared of all debris/material that could fall from the unenclosed deck and the area must be a Controlled Access Zone (CAZ), preventing unauthorized persons from entering the unprotected area.

NOTE: The temporary removal of ANY required safety device must be well thought out by the contractor and alternate means of protection provided.

BC 3308.6.1.1: Horizontal Netting

3308.6.1.1 During construction. When, during the course of new building construction, or during the vertical or horizontal enlargement of an existing building, the uppermost walkable floor reaches a height of six stories or 75 feet (22 860 mm) above the level of the ground or an adjoining roof, horizontal safety netting shall be provided at a level not more than two stories or 30 feet (9144 mm) below:

1. In concrete structures: the stripping floor; or

2. In steel structures: at the uppermost story where the concrete floor slab has been poured.

Exception: When tarpaulins encase one or more floors immediately below the finished concrete floor in order to maintain temporary heat, the horizontal netting may be located no more than three floors below the finished concrete floor.

This section has been revised to make the trigger for the installation of horizontal “jumping” nets the height of the uppermost “walkable floor”, a term defined in the code, rather than simply building height or number of stories. Now, when the uppermost “walkable floor” reaches a height of 6 stories or 75 feet, horizontal netting is required.

Once required, the horizontal “jumping” nets must be maintained, for example, no more than 2 stories below the stripping floor in concrete structures.

NOTE: Horizontal netting is now required to be in accordance with ANSI/ASSE standards. The minimum horizontal projection of the nets will now be 15 feet, rather than 10 feet. Most contractors already provide the longer net.

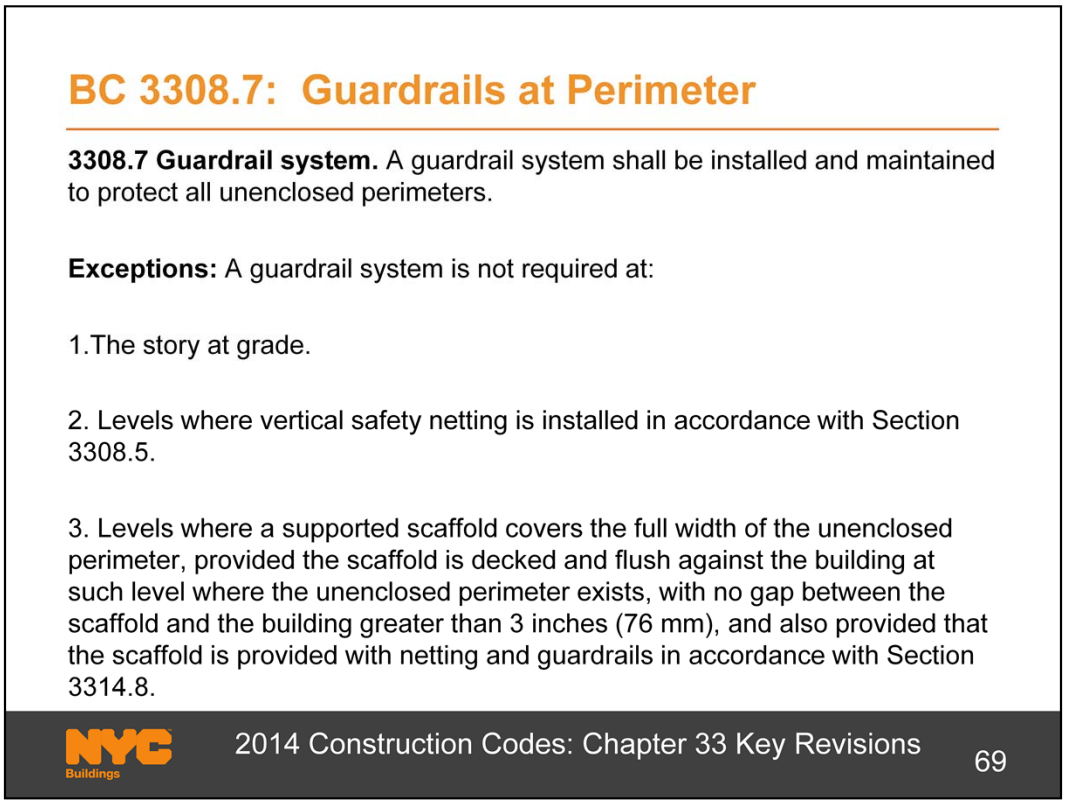
BC 3308.6.1.3:
Horizontal Netting – Façade Work

3308.6.1.3 During façade construction, alteration, maintenance, or repair. Where unique hazards associated with the construction, alteration, maintenance, or repair of a façade exist to the public and property, horizontal safety netting shall be provided as required by the commissioner.

This section has been rewritten to require horizontal safety netting during façade work only when "unique hazards exist" and when required by the commissioner.

This brings the code in line with current practice and acknowledges the practical difficulty in maintaining horizontal jump nets during façade or curtain wall installation and repair.

Contractors should institute "unenclosed perimeter safety programs" for all work at unenclosed perimeters. Such "safety programs" often include establishment of controlled access zones (CAZ), full tie offs, tethering of tools, and other precautions.



This new section makes clear that even when vertical netting is not required (less than 40 feet in height), the unenclosed perimeter of a building still requires protection by guard rail and toeboard to prevent material from falling off of the unenclosed perimeter.

The exceptions to this requirement are noted and straight forward:

1.The story at grade (no elevation).

2.Levels where vertical netting is installed, which itself serves as a guard rail.

3.Levels where a supported scaffold and netting are provided, with a planked deck tight to the building perimeter.

BC 3308.7.2: Guardrail Specifications

3308.7.2 Height of railings and toeboard. Toprails, midrails, and toeboards shall be located as follows:

1.The top of the toprail shall be located at a height of 39 to 45 inches (991 and 1143 mm) above the floor.

2. The midrail shall be located at a height approximately midway between the toprail and the floor, or where more than one midrail is utilized, each shall be located equidistant from each other, the floor, and the toprail.

2. The toeboard shall be at least 3 ½ inches (89 mm) high and shall be installed so that there is not more than a ¼ inch (6 mm) gap between the floor and the bottom of the toeboard.

Exception: When conditions warrant, the height of the toprail may exceed the 45-inch (1143 mm) height provided additional midrails are installed so that there is no vertical gap larger than 24 inches (610 mm) between any toeboard, midrail, or toprail.

This new section provides specifications for the location of toprail, midrail, and toe board of a guardrail system.

It provides for some flexibility in the placement of the toprail (39” to 45”) and is in line with OSHA. An exception to the toprail placement is also provided “when conditions warrant”, as long as the space between rails and between rail and toeboard does not exceed 24”.

BC 3308.7.3:
Guardrail Specs: Material and Dimensions

3308.7.3 Dimensions and materials. Toprails, midrails, toeboards, and posts shall have the following dimensions and be constructed out of the following materials:

.....

Exceptions:

1. Guardrail systems designed by a registered design professional capable of withstanding, without failure:

1.1 A force of at least 200 pounds (890 n) applied within 2 inches (51 mm) of the top edge, in any outward or downward direction, at any point along the top edge. Where the force is applied in a downward direction, the top edge shall not deflect more than 6 inches (152 mm) and in no case to a height less than 39 inches (991 mm) above the floor; and

1.2 A load of at least 50 pounds (222 n) applied in any downward or horizontal direction at any point along the toeboard.

This is a new section that provides specifications for a typical guardrail system. If constructed in accordance with these specifications, the guard rail system does not require design.

An exception (Exception 1) is provided allowing variation from the guardrail design specifications, provided the guardrail system is designed by a licensed professional and meets the load criteria provided in the exception.

Stamped design documents must be available on site and provided upon request.

BC 3308.8 and .8.1: Alternate Safety Systems

3308.8 Modifications and alternative systems. The commissioner may, based upon a written request from a registered design professional, modify the requirements for safety netting systems and guardrail systems required by this section, including but not limited to the installation of alternative systems, provided such modification or alternative system meets or exceeds the level of safety afforded to the public and property by safety netting systems and guardrail systems installed in accordance with this section.

3308.8.1 Request content. A request submitted under Section 3308.8 shall include ……..

This is an important new section that allows, upon request and the commission's approval, modification to the requirements for safety netting and guard rail systems, when it can be established that the alternative system meets or exceeds the level of safety afforded to the public and property by systems installed in accordance with code section. Such systems must be designed by a licensed professional.

Similar sections (see for example 3309.15) have been added to other parts of Chapter 33, allowing for some flexibility, as long as the intent of the code is met.

An example of an alternate safety system is a “cocoon”.

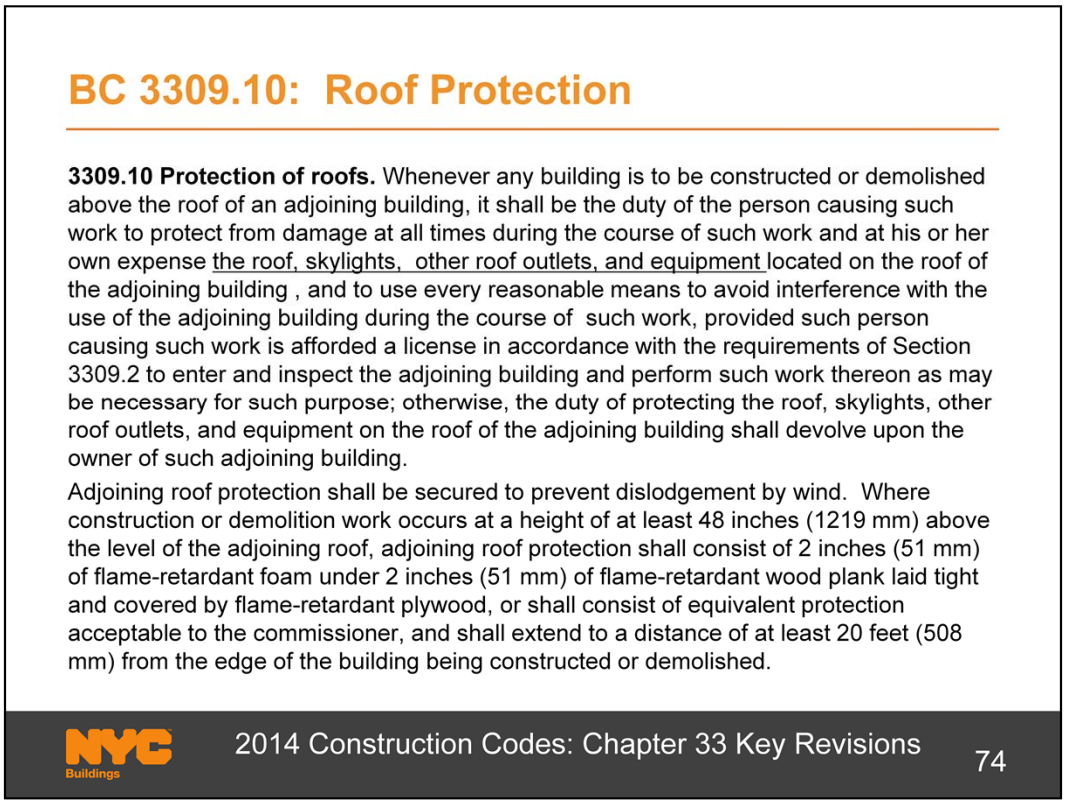
BC 3309.1.1:
Notification to Adjoining Property Owner

3309.1.1 Notification. Where a construction or demolition project will require access to adjoining property in accordance with this section, written notification shall be provided to the adjoining property owner at least 60 calendar days prior to the commencement of work. Such notification shall describe the nature of work, estimated schedule and duration, details of inspections or monitoring to be performed on the adjoining property, protection to be installed on the adjoining property, and contact information for the project. Where no response is received, a second written notification shall be made no more than 45 calendar days, and not less than 30 calendar days, prior to the commencement of work.

To adequately protect “adjoining property and persons thereon”, access to the adjoining property is often required.

This new section acknowledges that fact and sets out requirements for prior written notification to adjoining property owners of the need for access in order to comply with the Building Code, as it relates to mandated protection.

This section does not waive the rights of any property owner to deny access to any person. Disputes must be resolved through negotiation and/or civil proceedings pursuant to Section 881 of the *Real Property Actions and Proceedings Law*.



This section governing protection of adjoining roofs and related roof-top structures has been revised. 4 important changes:

1. Standard roof protection is required when work is 48" or more above adjoining roof.

2. Specifications are now provided for standard roof protection: 2" flame-retardant foam; 2" flame-retardant planks, flame-retardant plywood (thickness not specified).

3. Standard roof protection must extend a minimum of 20 feet from edge of building being constructed or demolished.

4. Adjoining roof protection shall be secured to prevent dislodgement by wind.

BC 3309.13:
Overhead Protection – Adjacent Spaces and Equipment

3309.13 Protection of adjoining equipment and spaces. Whenever a major building is constructed or demolished, and provided such work requires a site safety plan in accordance with Section 3310, it shall be the duty of the person causing such work to protect from damage, at all times during the course of such work and at his or her own expense, all mechanical, electrical, and similar equipment on the adjoining property that are within 20 feet (508 mm) from an unenclosed perimeter of the major building, and to protect all publically accessible spaces on the adjoining property that are within 20 feet (508 mm) from an unenclosed perimeter of the major building, and also to use every reasonable means to avoid interference with the use of such equipment and spaces during the course of such construction or demolition work, provided such person causing such work is afforded a license in accordance with the requirements of Section 3309.2 to enter and inspect the adjoining property and perform such work thereon as may be necessary for such purpose; otherwise, the duty of protecting such adjoining equipment and spaces shall devolve upon the owner of such adjoining property.

Exception: Equipment on an adjoining roof shall be protected in accordance with Section 3309.10.

This new sections codifies current practice and applies not to protection of roofs and related structures (covered by 3309.10) but to adjoining equipment and spaces, such as adjoining yards, mechanical equipment located on adjoining walls or in adjoining yards, etc.

The protection shall extend a minimum of 20 feet from the area of work.

NOTE: This section applies only to unenclosed perimeters associated with the construction or demolition of “major buildings” that require a site safety plan.

NOTE: Types of protection are not specified, but typical protection is my means of catchalls, horizontal nets, and supported scaffolds and wood decking.

BC 3309.14: Protection of Adjacent Windows

3309.14 Protection of windows. Whenever exterior construction or demolition work occurs, and such work results in an unenclosed perimeter, it shall be the duty of the person causing such work to protect from damage, at all times during the course of such work and at his or her own expense, all windows on adjoining private property that face such work and are 20 feet (508 mm) or less from an unenclosed perimeter, provided such person causing such work is afforded a license in accordance with the requirements of Section 3309.2 to enter and inspect the adjoining property and perform such work thereon as may be necessary for such purpose; otherwise, the duty of protecting the adjoining windows shall devolve upon the owner of such adjoining building.

Where the window provides required means of lighting, ventilation, or egress, such protection shall not be allowed to interfere with such required means.

Exceptions: Window protection is not required for:

1.Minor alterations and ordinary repairs.

2.Work performed on a 1-, 2- or 3-family detached house or accessory use to such.

3.Where all unenclosed perimeters are protected by vertical netting that meets the requirements of Section 3308.5, or an approved alternate system, that extends to cover the full height and width of the unenclosed perimeter; or a supported scaffold covers the full width of the unenclosed perimeter, provided the scaffold is decked and flush against the building at such level where the unenclosed perimeter exists, with no gap between the scaffold and the building greater than 3 inches (76 mm), and also provided that the scaffold is provided with netting and guardrails in accordance with Section 3314

This is a new section that codifies current practice and requires the protection of windows that face an unenclosed perimeter of a construction or demolition site.

All windows facing the unenclosed perimeter within a horizontal distance of 20 feet must be protected.

The functioning of any window providing required lighting, ventilation, or egress must not be diminished by the required protection.

Typical types of protection are plywood covering or netting.

Major Buildings

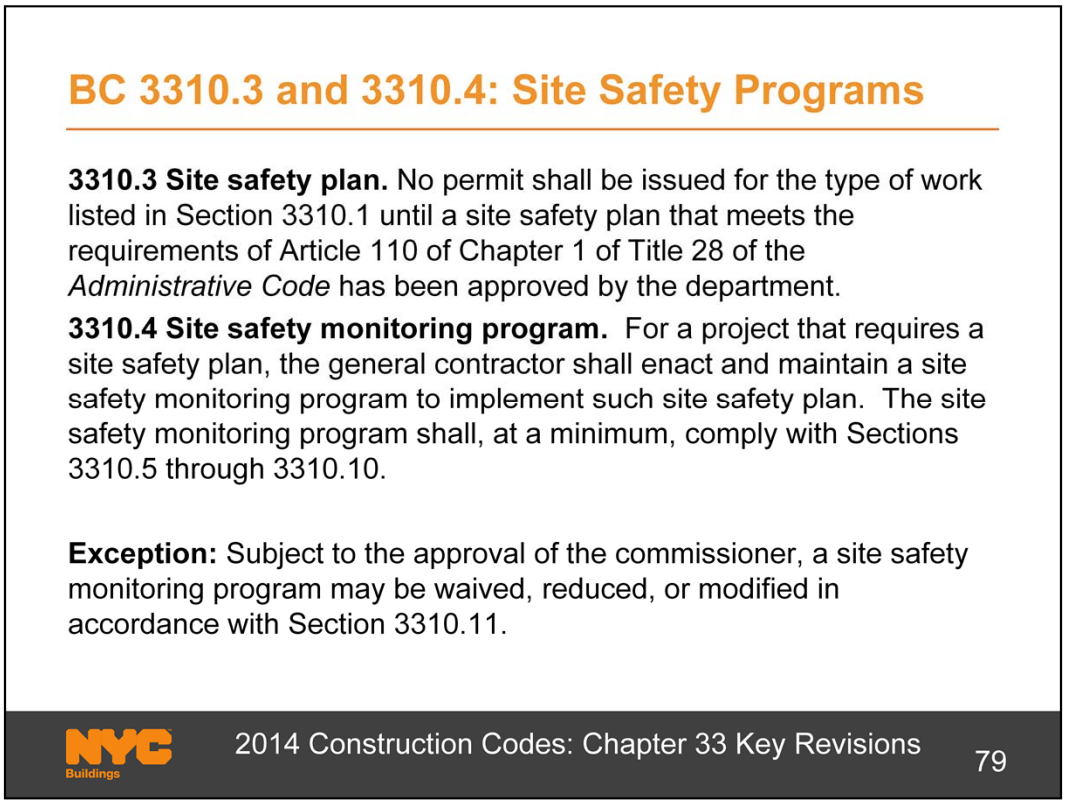
BC 3302.1: Key Definitions – Major Building

MAJOR BUILDING. An existing or proposed building 10 or more stories or 125 feet (38 100 mm) or more in height, or an existing or proposed building with a building footprint of 100,000 square feet (30 480 m^2) or more regardless of height, or an existing or proposed building so designated by the commissioner due to unique hazards associated with the construction or demolition of the structure.

This is a new definition that formerly was in a requirements section of the code.

It is important to emphasize that the 100,000 square foot trigger refers to building footprint and NOT lot area or cumulative floor area of the building.

This definition is important as it is one of the triggers for site safety program requirements.



These two sections have been revised. They establish Site Safety Plan and Site Safety Monitoring Program requirements for “major buildings”, as the code defines them.

Note: Requirements for a SSP and SS Monitoring Program are predicated upon the construction or demolition of a “major building” or, for façade alterations, a “major building” greater than 14 stories or 200 feet.

In addition, for façade alterations to require SSP and Site Safety Monitoring Program, the work must require a side walk shed and require a permit. Façade permit exemptions are contained in Rule 101-14 and should be consulted and frequently apply to typical façade rehabilitation.

An important exception has been added to allow (upon request and approval by commissioner) for modification of the requirement for a SSP and SS Monitoring Program, including the on-site hours of the SSM.

BC 3310.5.1: Site Safety Manager (SSM-SSC) Designation and Notification of Withdrawal

3310.5.1 Notification to the department of the primary manager or coordinator. The department shall be notified of the primary site safety manager or coordinator prior to the commencement of work. In the event that an alternate site safety manager or coordinator will be acting as the primary site safety manager or coordinator for a period longer than two consecutive weeks, the department must be so notified. Any permanent change of the primary site safety manager or coordinator requires immediate notification to the department.

This section has been revised and makes clear that the Department only needs to be notified of the use of an “alternate” SSM when that “alternate” will be on the site longer than 2 consecutive weeks.

The Department has recently issued an Industry Notice outlining a new procedure for the contractor and SSM to notify the Department of withdrawal or use of an alternate beyond the two week limit. Email notifications are now permitted.

BC 3310.8.2.1:
SSM-SSC Notification Requirements

3310.8.2.1 Notification of conditions to the department. The site safety manager or coordinator shall immediately notify the department directly if he or she discovers any of the following conditions in the routine performance of the job:

This section has been revised and the requirements of Rule 3310-01(d) have been added. This section specifies when the SSM must notify the Department directly of various site conditions.

The conditions requiring notification have not changes, except that the requirement to notify DOB in the event of an accident has been cross referenced to the definition of an accident.

BC 3310.8.3: SSM-SSC Inspection Duties

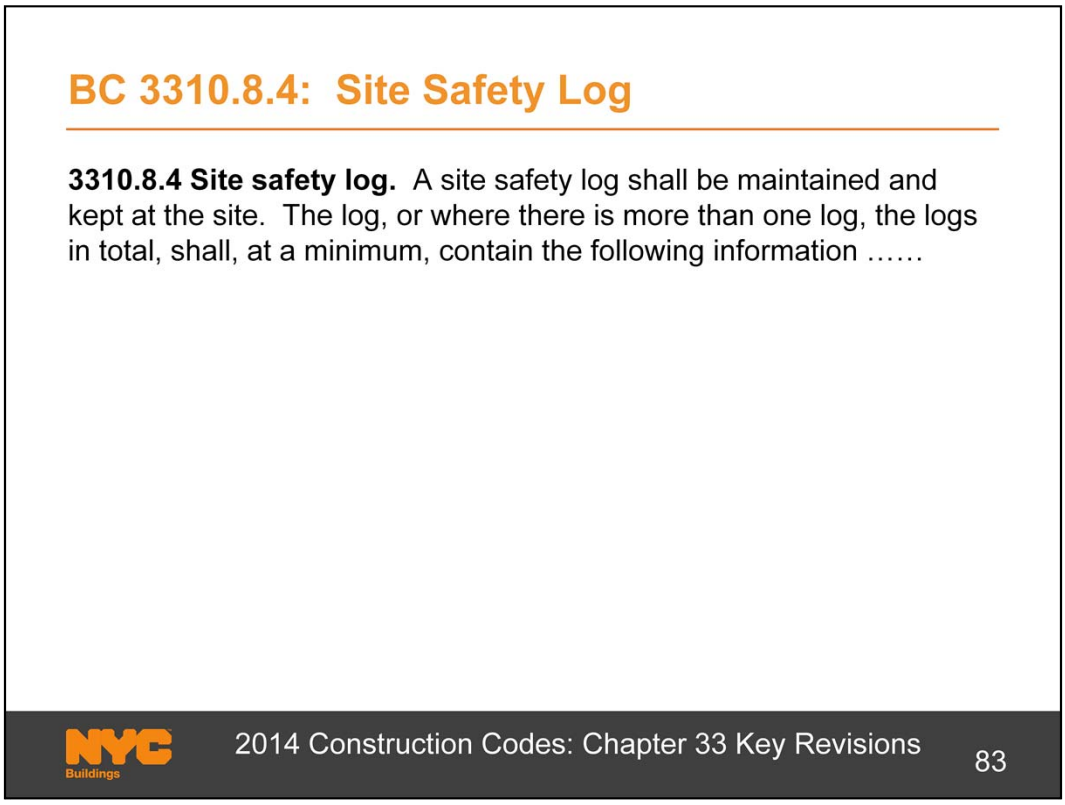
3310.8.3 Inspections. It shall be the responsibility of the site safety manager or coordinator to inspect personally, on a regular basis throughout the day while active work is occurring, the site to ensure compliance with the requirements of this chapter. At a minimum, inspections shall consist of those prescribed in rules promulgated by the commissioner, with such inspections performed personally by an individual certified by Chapter 4 of Title 28 of the *Administrative Code* as a site safety manager or coordinator.

This section has been revised to cross reference Rule 3310-01 that specifies the type and frequency of SSM inspections.

It also clarifies that an SSM must personally make those inspections.

However, the language allows for someone other than the **designated** SSM to perform these inspections, as long as that person is a licensed SSM.

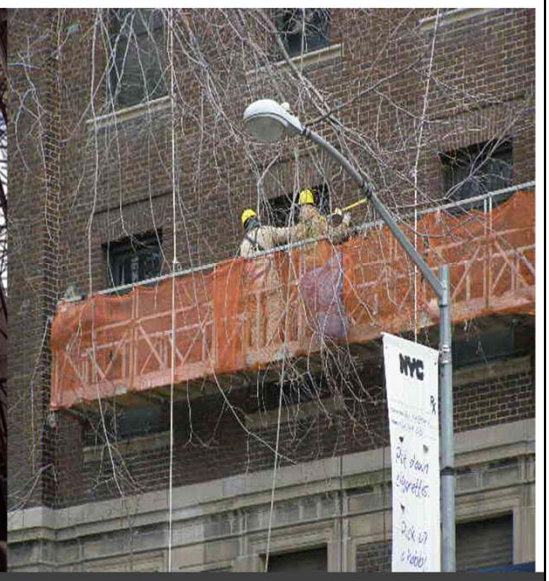
This allows for non-primary SSMs to assist in the inspection process, provided the primary and non-primary SSM sign the log.



The site safety log requirements from Rule 3310-01(b) have been incorporated into this section, but the requirements remain basically the same with two significant changes:

1. SSM logs must now be completed by the **end of day**.
2. On sites where a modification of SSMs on-site hours has been approved by the commissioner, the SSM must sign the log **upon arrival and departure,** to document his on-site presence.

Scaffolding: Suspended and Supported

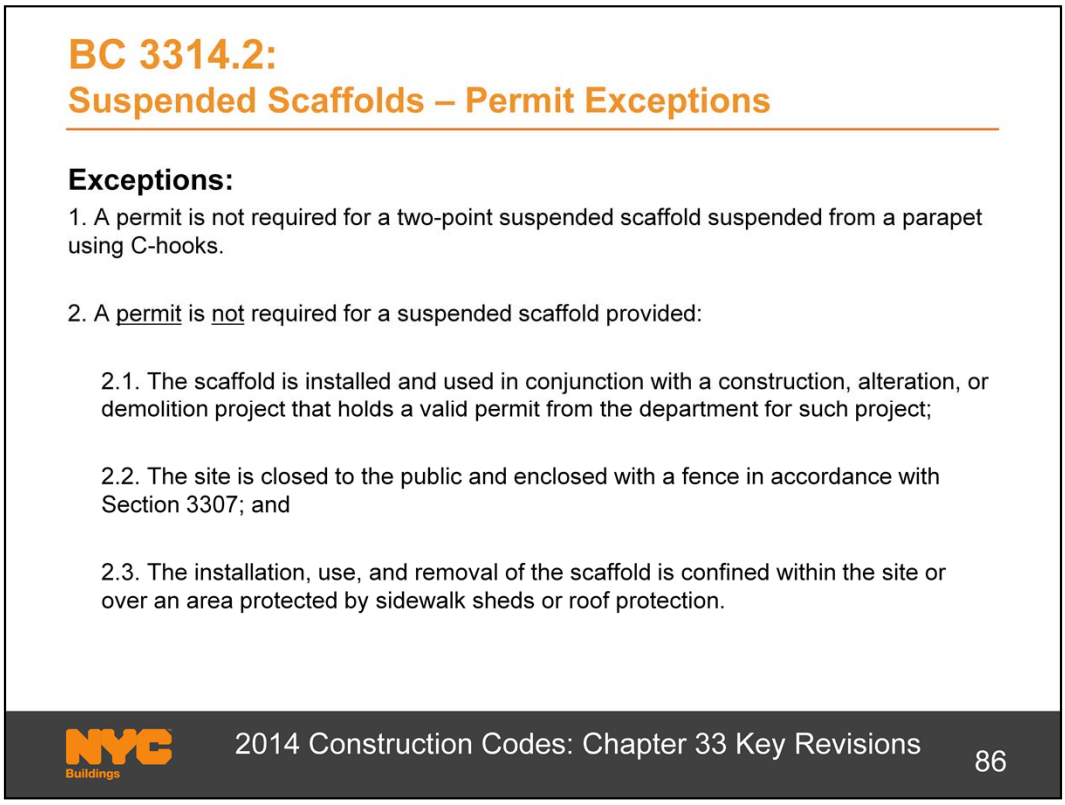


BC 3314.4.4.6: Scaffolds – Wind Restrictions

3314.4.4.6 Winds. Where sustained winds or wind gusts at the site exceed 30 miles per hour, the use and operation of scaffolds located on the roof of a building, exterior to a building or structure, on a working deck, or in an area with an unenclosed perimeter shall cease. If the manufacturer or designer of the scaffold recommends work to cease at a lower wind speed, such recommendation shall instead apply. Wind speed shall be determined based on data from the nearest United States weather bureau reporting station, or an anemometer located at the site, freely exposed to the wind, and calibrated in accordance with ASTM D5096-02.

This is a new section that provides a wind speed threshold above which scaffold use on the exterior or on the interior near an unenclosed perimeter must cease.

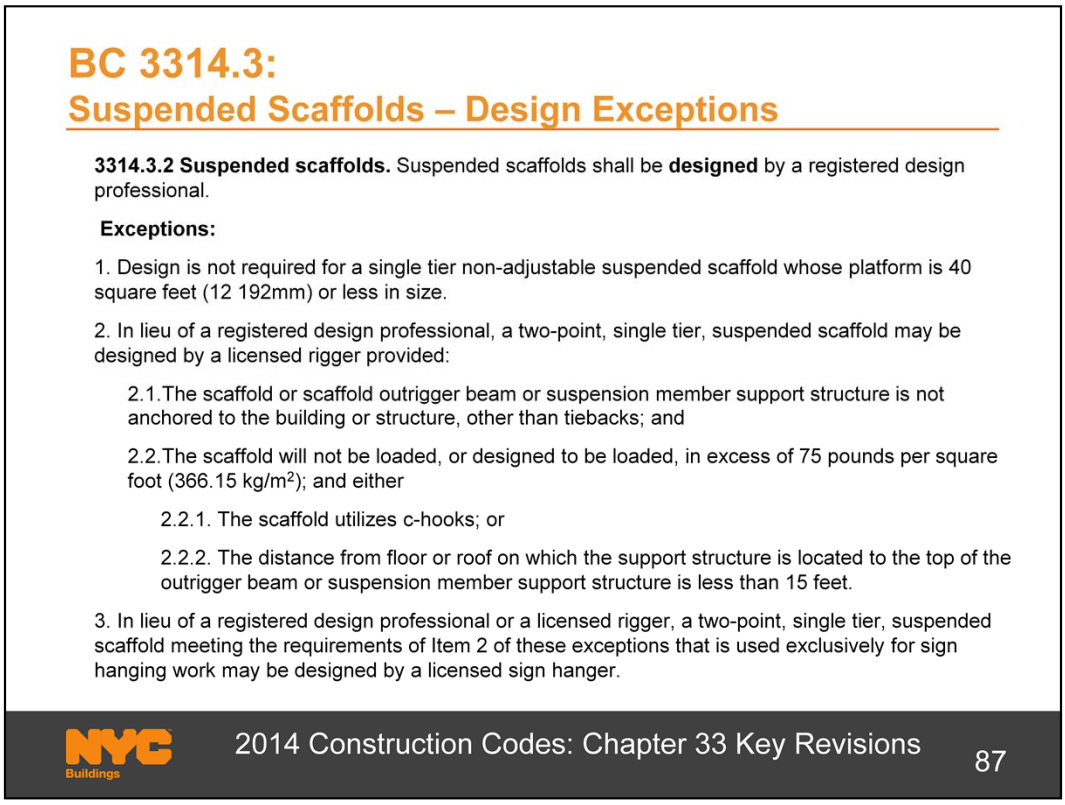
The threshold for sustained winds or wind gusts has been set at greater than 30 MPH, the same as the requirement for operation of a crane.



For a suspended scaffolds to be exempt from permit, the suspended scaffold must comply with the following:

1. 2-point scaffold suspended by C-Hooks; OR
2. The scaffold must be used in conjunction with a construction, alteration, or demolition permit; AND
3. The site must closed to the public and enclosed with a fence; AND
4. Installation, use, or removal of the scaffold must take place within the closed site, or over an area protected by a SWS or roof protection.

NOTE: This section governs permit requirements NOT design requirements.



This section establishes that all suspended scaffolds shall be designed by a registered design professional, with the following exceptions.

1.Non-adjustable single-tier suspended scaffolds 40 sq. feet or less in area (your typical iron worker “floats”).

2.Two-point suspended scaffolds can be “designed” by a licensed rigger provided

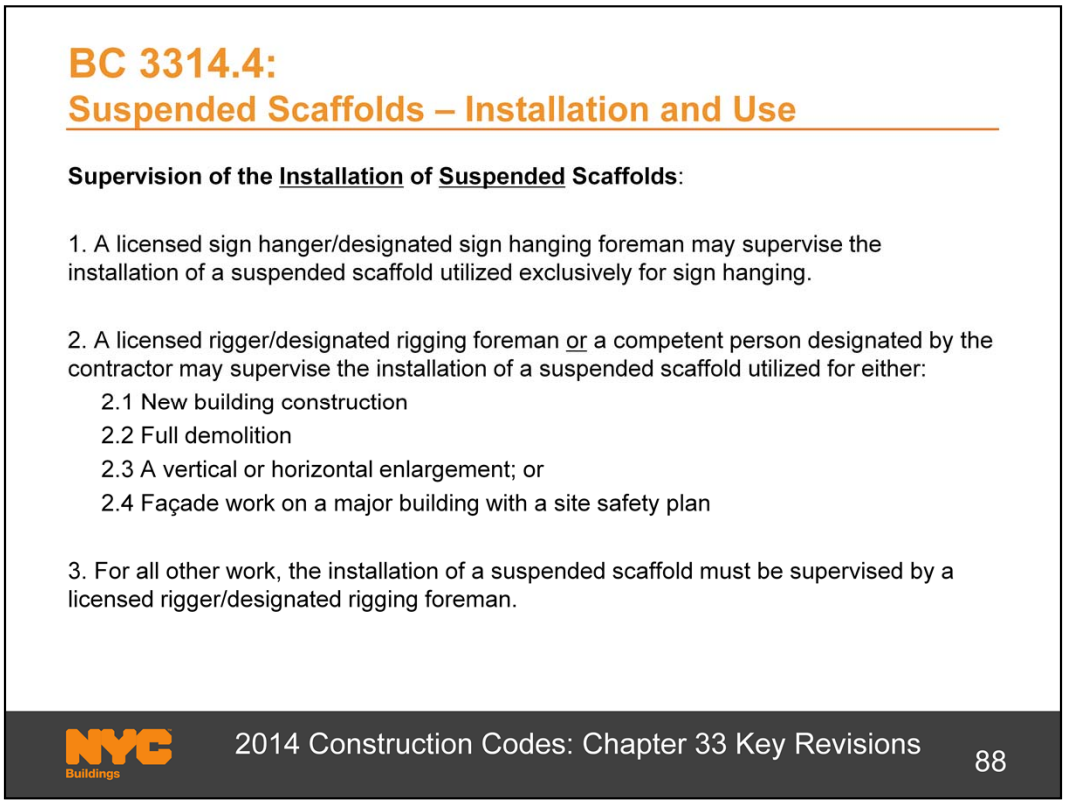
A. Scaffold is not anchored to building structure other than by typical “tiebacks”, AND

B. Scaffold will not be loaded or designed for loads in excess of 75 PSF, AND EITHER

C. Scaffold is suspended by C-Hooks, or

D. Scaffold is suspended on outrigger beams with a shore height under 15 feet.

3. A licensed sign hanger may “design” a two-point, single tier, suspended scaffold if the requirements of a, b, c, d above are met and scaffold is used exclusively for sign hanging.



Supervision of the Installation and Use of Suspended Scaffolds:

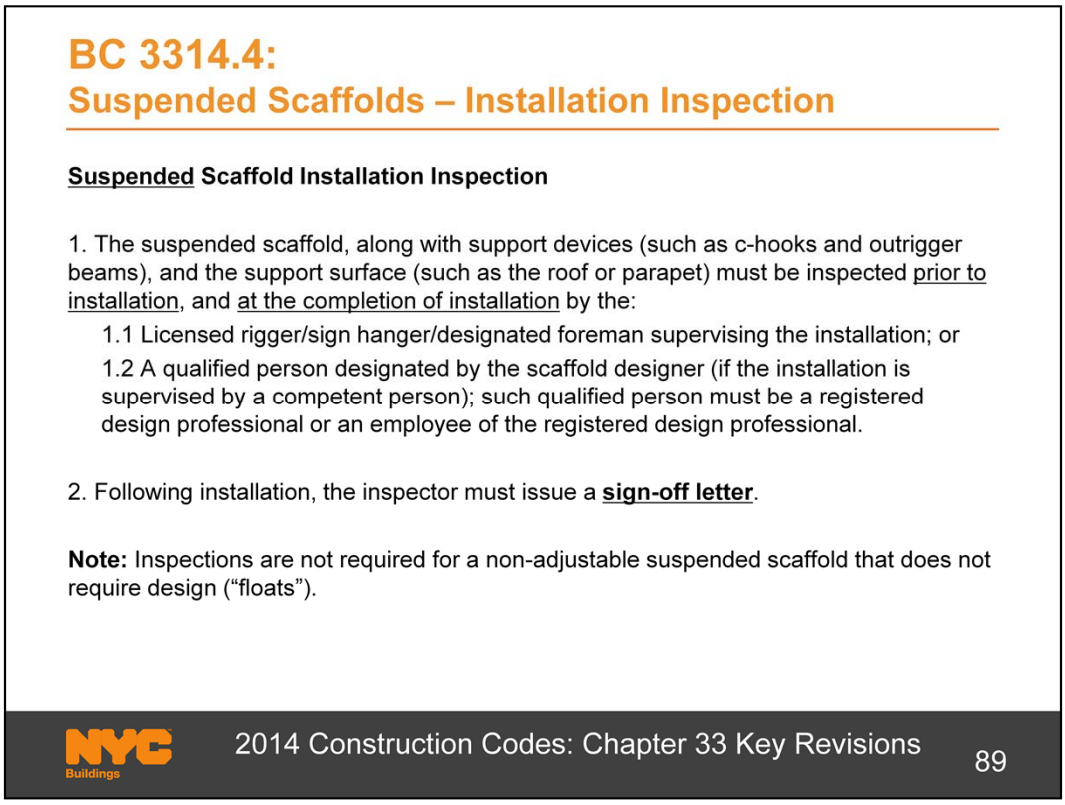
1. A licensed sign hanger may supervise the installation and use of a suspended scaffold utilized exclusively for sign hanging.

2. A licensed rigger, the rigger's designated foreman, OR a "competent person" designated by the contractor may supervise the installation and use of a suspended scaffold in conjunction with:

- New Building Construction
- Full Demolition
- Vertical or Horizontal Enlargements
- Façade Work on a Major Building with a site safety plan

3. For all other work, the installation and use of the suspended scaffold must be supervised by a licensed rigger or rigger's designated foreman.

For all adjustable suspended scaffolds, the licensee, rigging foreman or "competent person" supervising the installation must possess the requisite 32H supervisor training and the installation crew must possess the 16H crew training.
Training is NOT required for licensed design professionals provided they perform no work and do not operate the scaffold, but merely inspect the façade.



Suspended Scaffold Installation Inspection:

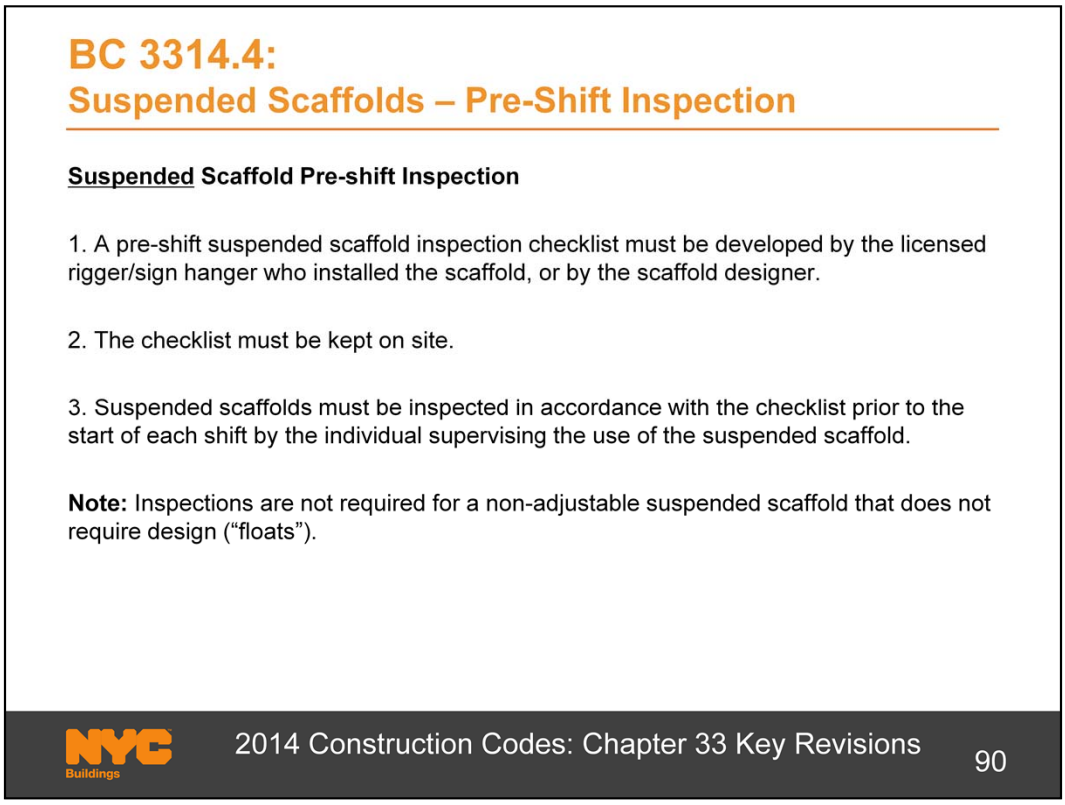
1. The suspended scaffold and related equipment and support structure must be inspected prior to installation and at the completion of installation by the following persons:

Licensed rigger/sign hanger/designated rigging foreman supervising the installation; OR

A qualified person designated by the scaffold designer (if the installation is supervised by a competent person); such qualified person must be a registered design professional or an employee of the registered design professional.

2. Following installation, the inspector must issue a sign-off letter to be made available on site.

Note: Inspections are not required for non-adjustable suspended scaffolds that do not require design (AKA "floats").



Suspended Scaffold Pre-Shift Inspection

1. A pre-shift suspended scaffold inspection checklist must be developed by the licensed rigger/sign hanger who installed the scaffold, or by the scaffold designer.

2. The checklist must be kept on site.

3. Suspended scaffolds must be inspected prior to the start of each shift in accordance with the checklist by the individual supervising the use of the suspended scaffold.

Note: Inspections are not required for a non-adjustable suspended scaffold that does not require design (“floats”).

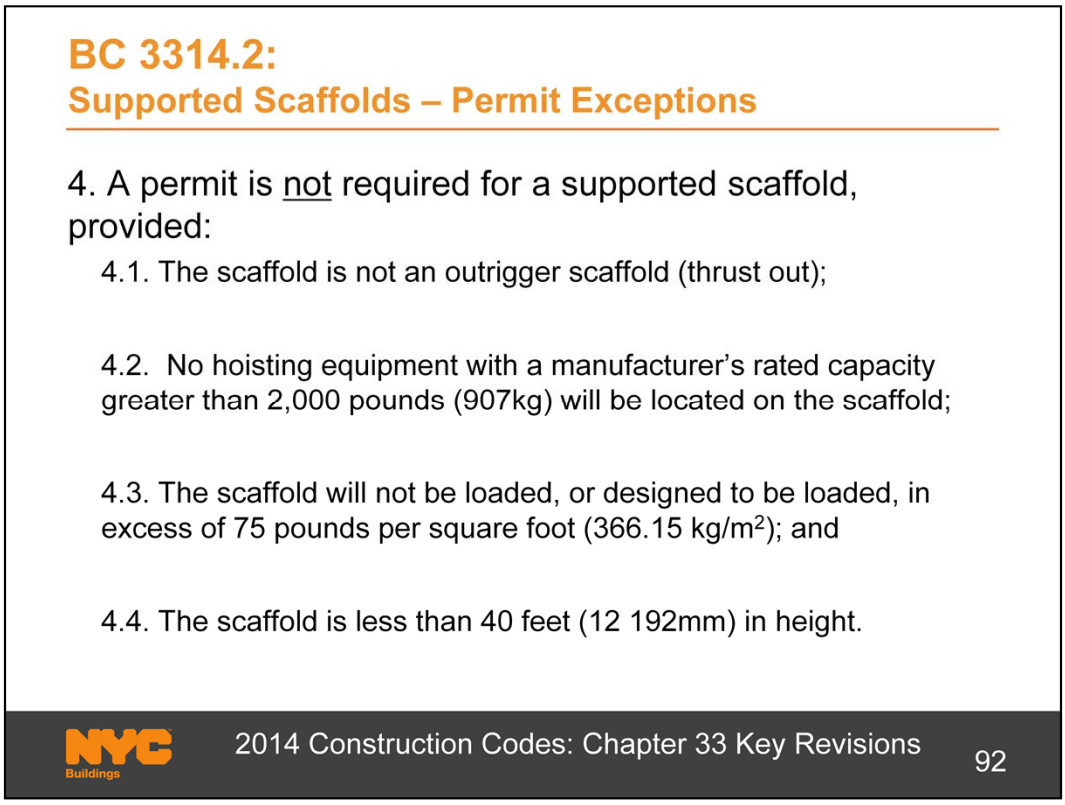
BC 3314.4.1.5:
Suspended Scaffold – Notification

3314.4.1.5 Notification of adjustable suspended scaffold installation and removal. Prior to the initial installation of the adjustable suspended scaffold at a site, and prior to the final removal of the adjustable suspended scaffold at a site, the department shall be notified at least 24 hours, but not more than 48 hours, prior to such installation or removal.

This section has been revised to require notification to DOB of both the installation and removal of all suspended scaffolds.

Prior to this, notification was required only upon installation and every 60 days there after.

The notification can be made by the licensee who is supervising the installation or removal of the scaffold, or if a competent person is supervising, the scaffold designer can make the notification.



This section covers the supported scaffold permit exemptions.

1. The scaffold is not an outrigger scaffold (thrust out); AND

2. No hoisting equipment with a manufacturer's rated capacity greater than 2,000 pounds (907kg) will be located on the scaffold; AND

3. The scaffold will not be loaded, or designed to be loaded, in excess of 75 pounds per square foot (366.15 kg/m^2); AND

4. The scaffold is less than 40 feet (12 192mm) in height (height as established in 3314.1.1.). The height of a supported scaffold includes temporary construction equipment it stands upon (such as a SWS) but does NOT include any permanent structure.

BC 3314.3:
Supported Scaffolds – Design Exceptions

Exception: Design is not required for a **supported scaffold**, provided:

1. The scaffold is not an outrigger scaffold (thrust out);
2. No hoisting equipment with a manufacturer's rated capacity greater than 2,000 pounds (907kg) will be located on the scaffold;
3. The scaffold will not be loaded, or designed to be loaded, in excess of 75 pounds per square foot (366.15 kg/m^2);
4. The scaffold is less than 40 feet (12 192mm) in height;
5. Side-arm or end-arm scaffold brackets are used exclusively for the support of workers; and
6. The scaffold is a light duty scaffold, a medium duty scaffold, or a heavy duty scaffold.

A supported scaffold will NOT require design, if it meets all of the following 6 conditions.

1. The scaffold is not an outrigger scaffold (thrust out); AND

2. No hoisting equipment with a manufacturer's rated capacity greater than 2,000 pounds (907kg) will be located on the scaffold; AND

3. The scaffold will not be loaded, or designed to be loaded, in excess of 75 pounds per square foot (366.15 kg/m^2); AND

4. The scaffold is less than 40 feet (12 192mm) in height;

5. Side-arm or end-arm scaffold brackets are used exclusively for the support of workers (**not materials**); AND

6. The scaffold is a light duty scaffold, a medium duty scaffold, or a heavy duty scaffold, not an "Extra Heavy Duty" scaffold with loading in excess of 75 PSF.

BC 3314.4.1.2: Supported Scaffold – Installation

3314.4.1.2 Supervision of supported scaffold installation and removal. The installation and removal of a supported scaffold shall be supervised by a competent person designated by the contractor installing or removing the scaffold.

This is a new section that codifies current practice and makes clear that a “competent person” designated by the contractor (with requisite 32H supported scaffold training) must supervise the installation and removal of supported scaffolds.

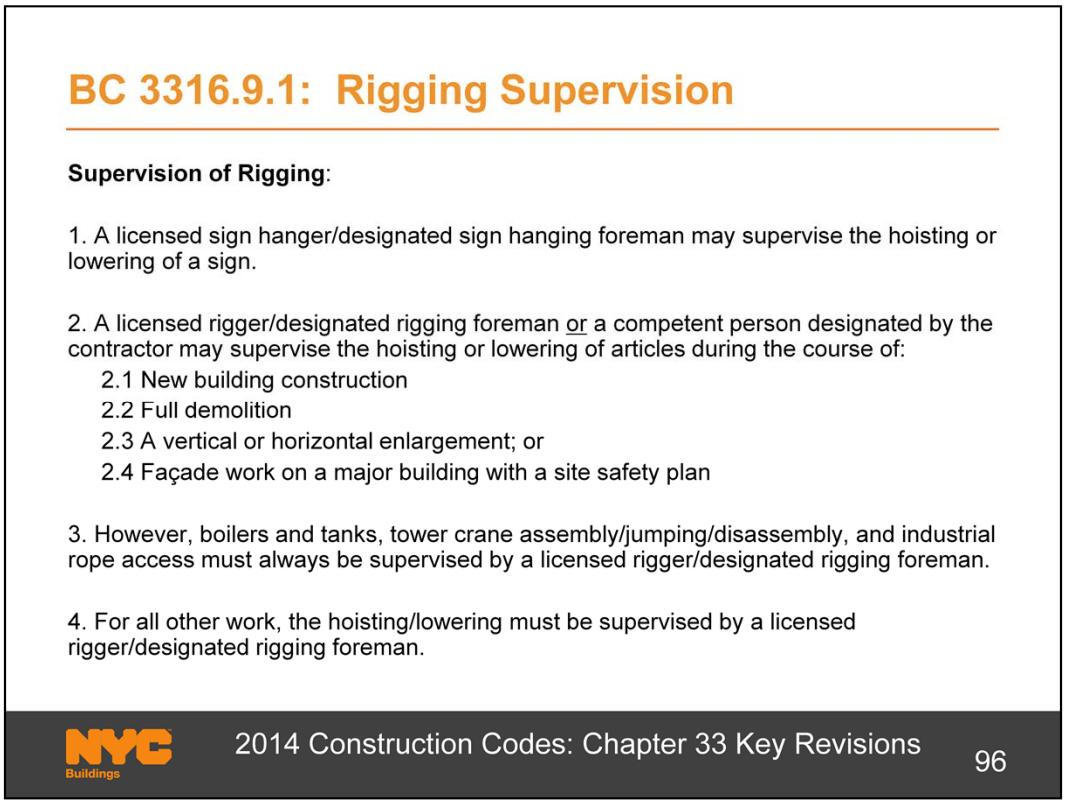
BC 3314.4.2.2: Supported Scaffold Use

3314.4.2.2 Supervision of supported scaffold use. The use of a supported scaffold shall be supervised by a competent person designated by the scaffold controlling entity.

Scaffold Controlling Entity: The contractor or other entity that exercises responsibility for the site where scaffold is located.

This is a new section that codifies current practice and requires the use of a supported scaffold to be supervised by a competent person designated by the scaffold controlling entity.

The Scaffold Controlling Entity, a new term, is defined in the code as the contractor or other entity that exercises responsibility for the site where the supported scaffold is located.



The following provisions apply to hoisting or lowering on the outside of a building.

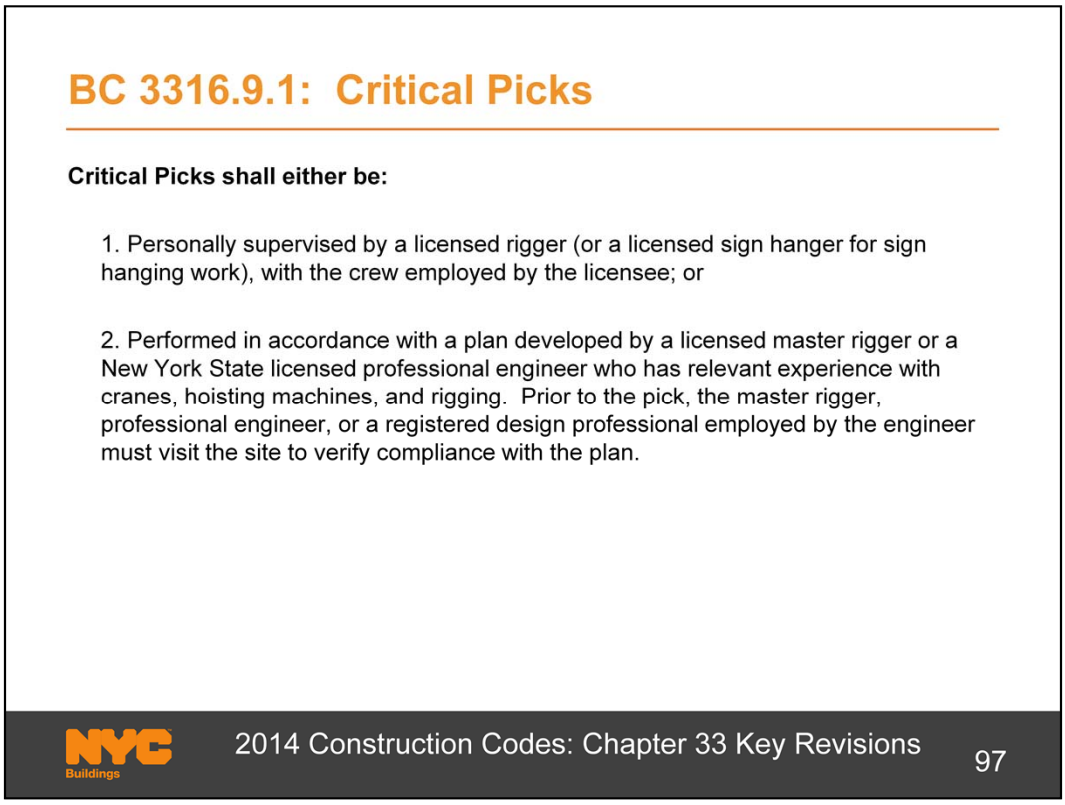
1. A licensed sign hanger/designated sign hanging foreman may supervise the hoisting or lowering of a sign.

2. A licensed rigger/designated rigging foreman or a competent person designated by the contractor may supervise the hoisting or lowering of articles during the course of:

- New Building Construction
- Full Demolition
- Vertical or Horizontal Enlargement;
- Façade work on a Major Building with a site safety plan

3. However, boilers and tanks and industrial rope access must always be supervised by a licensed rigger/designated rigging foreman. Tower crane assembly/jumping/disassembly must be supervised by a licensed rigger ONLY. (Foreman not allowed to supervise.)

Where the crew is not employed by a licensed rigger/sign hanger, beginning April 1, 2016, all members of the crew must possess national rigging certification or have completed DOB approved rigging training course. Information on acceptable certification/training will be posted by the department soon.



The definition of a critical pick has been revised:

1.An article that is at or above 95% of approved rated capacity of the hoisting equipment or rigging equipment;

2.An article that is asymmetrical and is **NOT** provided with standard rigging ears;

3.An article that has a wind sail area exceeding 500 square feet;

4.A pick that may present an added risk because of clearance, drift, or other interference;

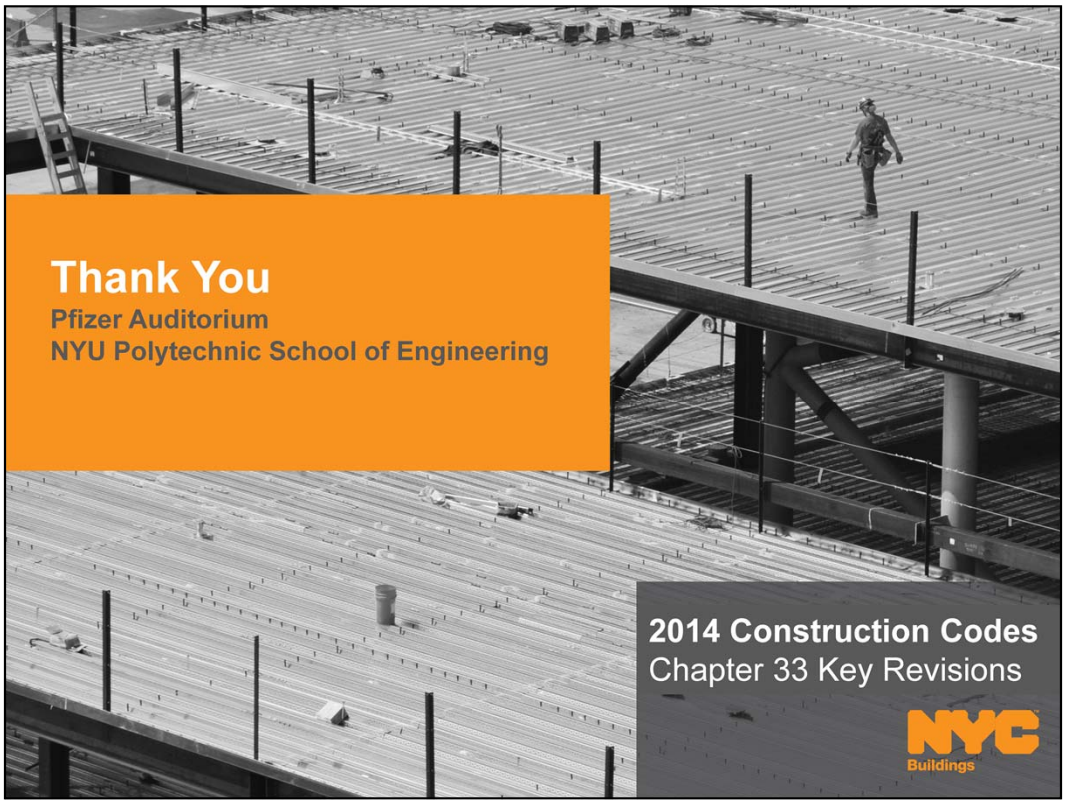
5.An article that is fragile or of thin shell construction and is **NOT** provided with standard rigging ears;

6.A pick that requires the use of multiple power-operated hoisting devices (tandem pick); or

7.A pick that requires out of the ordinary rigging equipment, methods, or setup.

Critical Picks shall be supervised by a licensed rigger (or a licensed sign hanger for sign hanging work), with the crew employed by the licensee; or performed in accordance with a plan developed by a licensed master rigger or a New York State licensed professional engineer.

Prior to the pick, the master rigger, professional engineer, or a registered design professional employed by the engineer must visit the site to verify compliance with the rigging plan.


Thank You
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