

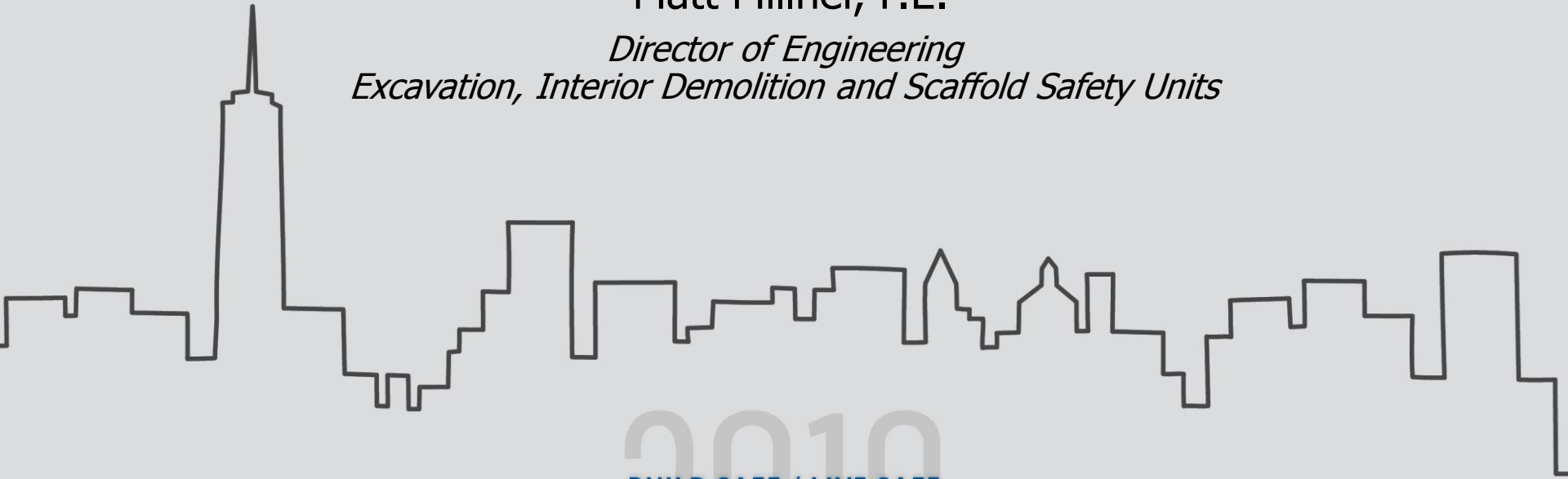
EXCAVATION, INTERIOR DEMOLITION and SCAFFOLD SAFETY: *Code Requirements & Construction Implementation*

presented by

Matt Millner, P.E.

Director of Engineering

Excavation, Interior Demolition and Scaffold Safety Units



**BUILD SAFE / LIVE SAFE
CONFERENCE**
2010

Credit(s) earned on completion of this course will be reported to **AIA CES** for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with **AIA CES** for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

COPYRIGHT MATERIALS

The information in this document is only a summary and overview and is not intended to substitute for the full text and meaning of any law, rule or regulation. The City disclaims any liability for errors that may be contained in this document and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this document and/or the information contained herein. The City reserves the right to take action at variance with this document. This document shall not be construed to create a substantive or procedural right or benefit enforceable by any person. The information contained in this document is current only as of the publication date of this document.

© 2018 City of New York by and through the Department of Buildings. All rights reserved.

COURSE DESCRIPTION

- This course will provide an overview of the NYC Administrative Code, NYCBC Chapter 17, NYCBC Chapter 18, and NYCBC Chapter 33, governing excavation, interior demolition, and scaffold safety. It will discuss how properties are impacted during construction and partial demolition. Participants will also be shown how to identify common errors in the design and construction of sidewalk shed and scaffolds and discuss how these errors impact public safety.

LEARNING OBJECTIVES

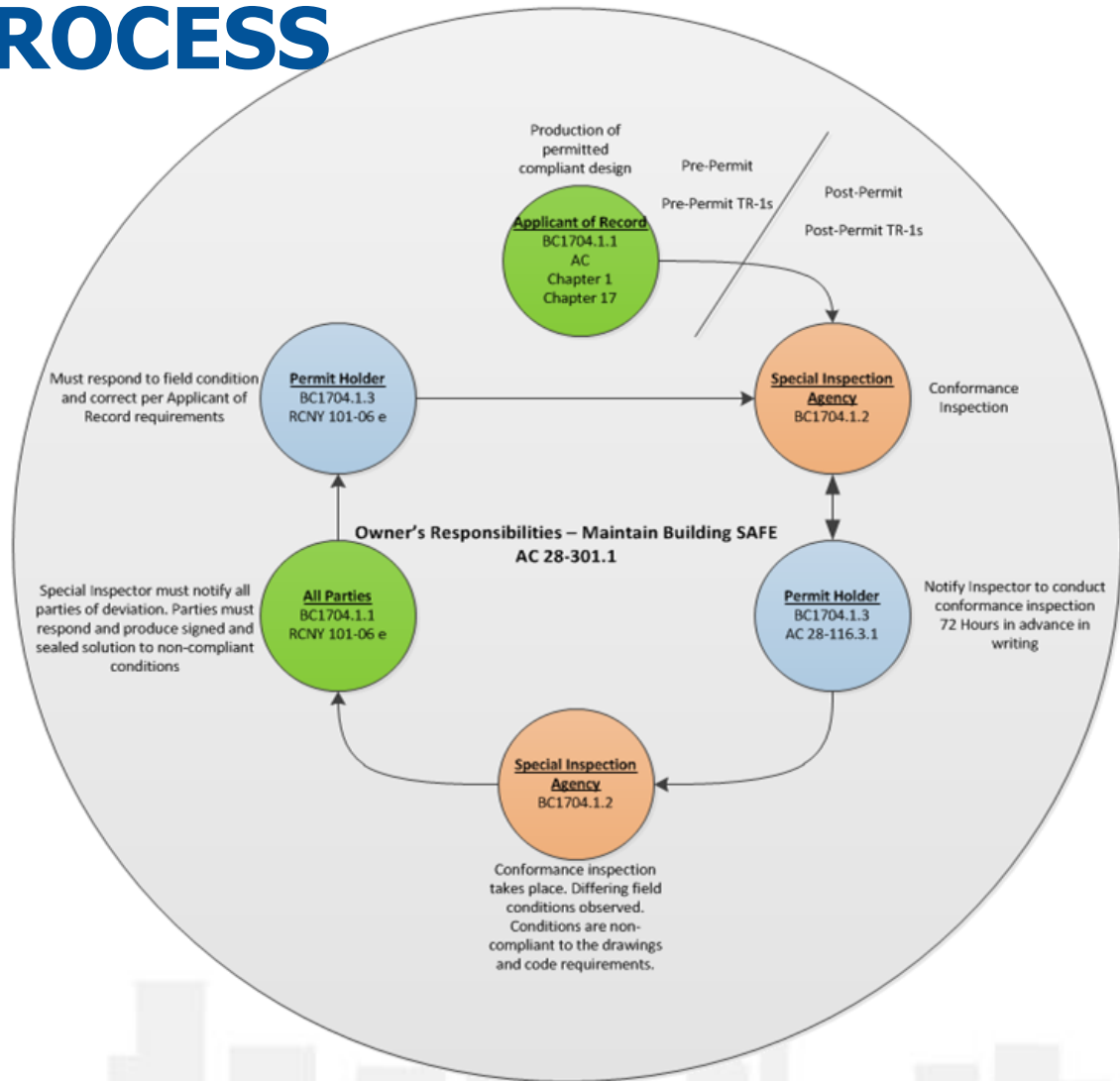
At the end of the this course, participants will be able to:

1. Participants will review and be able to identify Code requirements, as they relate to excavation, interior demolition and scaffold safety.
2. Participants will discuss common design, construction errors and omissions that compromise egress and construction loading which impact public safety.
3. Participants will examine various excavation and interior demolition case studies with a focus on the protection of adjacent properties.
4. Participants will review sidewalk shed and scaffold design, drawing and inspection requirements; and will be able to identify common errors and omissions.

AGENDA

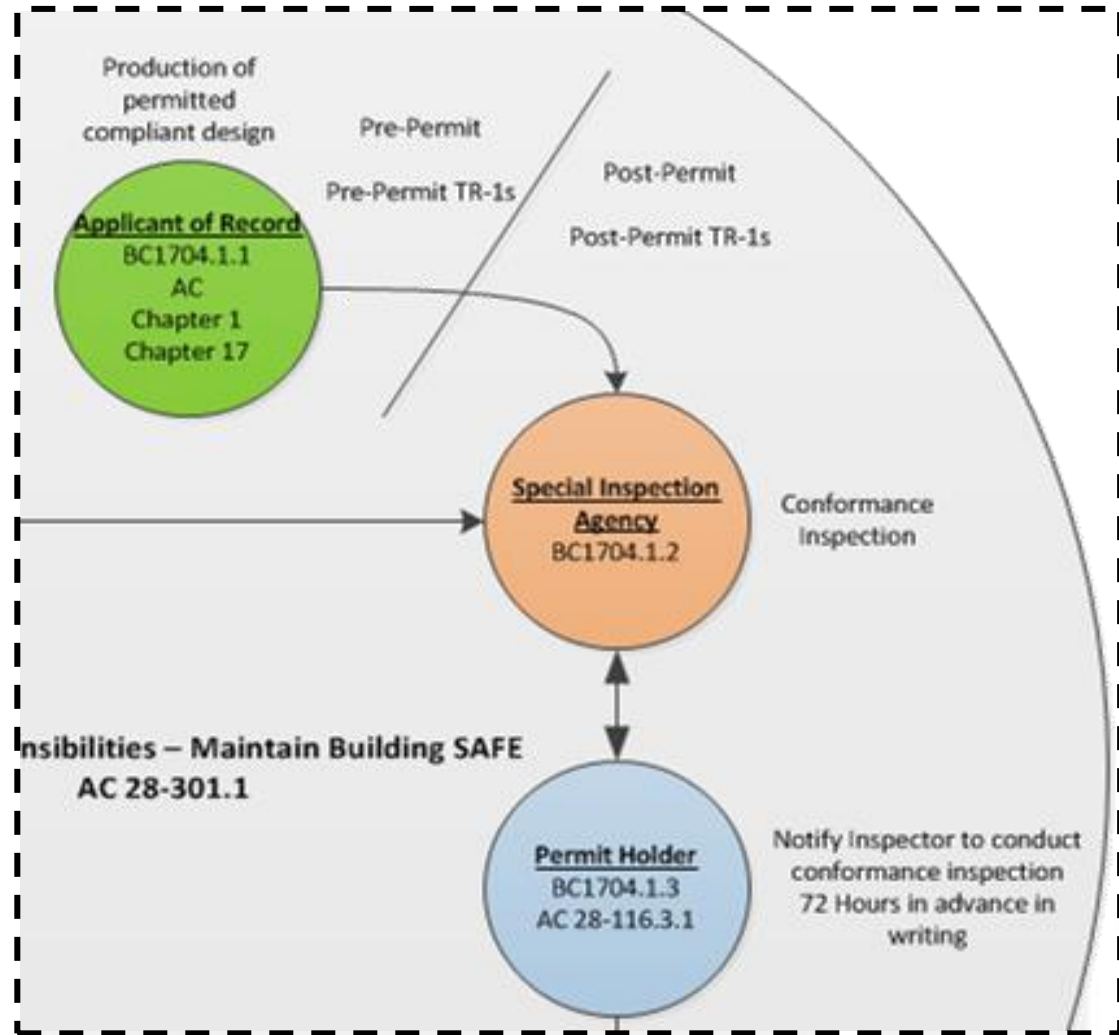
- **PROJECT PROCESS**
- **GENERAL GOVERNING CODES**
- **EXCAVATION NOTABLE CODES & CASE STUDIES**
- **INTERIOR DEMOLITION NOTABLE CODES & CASE STUDIES**
- **SCAFFOLD/SIDEWALK SHED NOTABLE CODES & CASE STUDIES**

PROJECT PROCESS



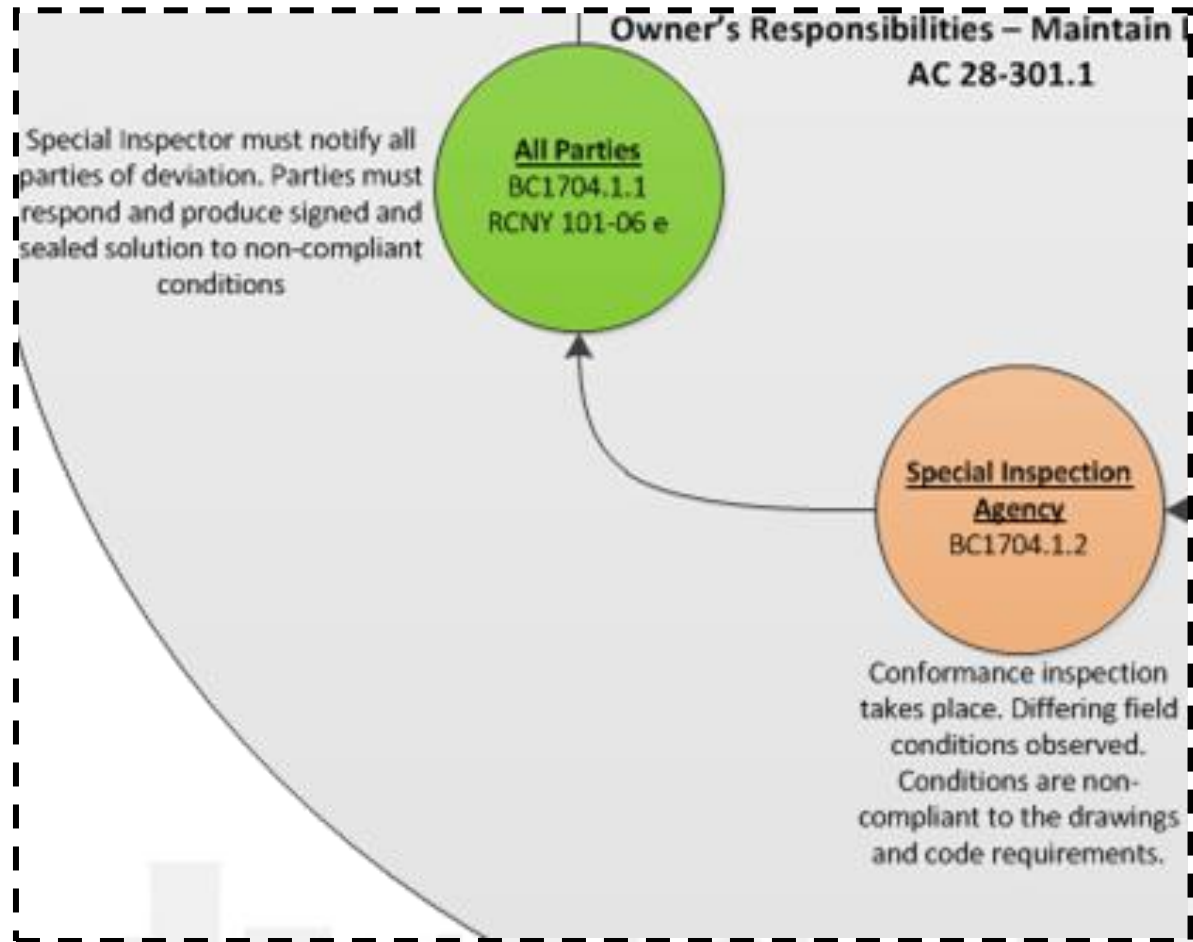
(1 of 6)

PROJECT PROCESS



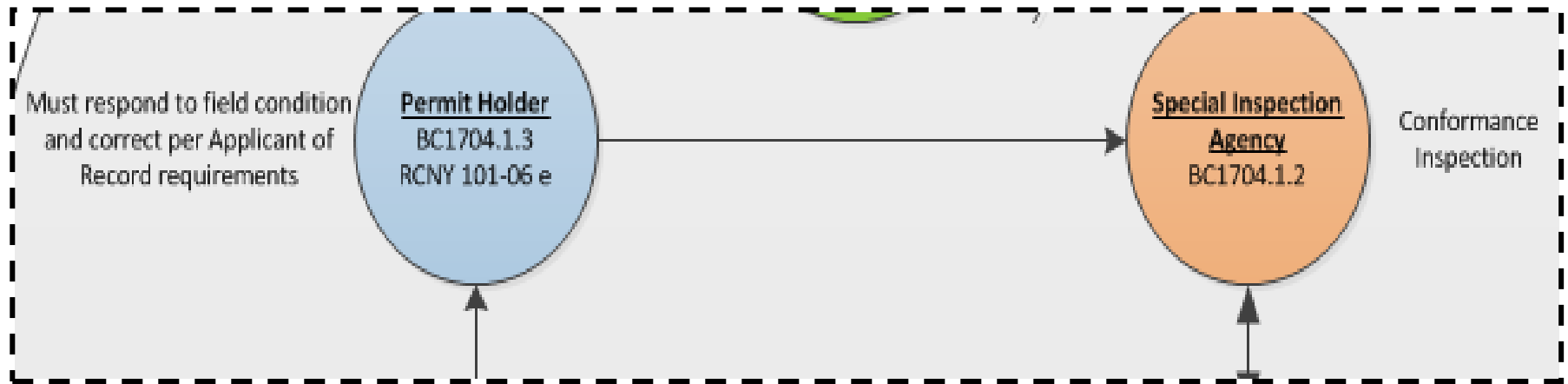
(2 of 6)

PROJECT PROCESS



(3 of 6)

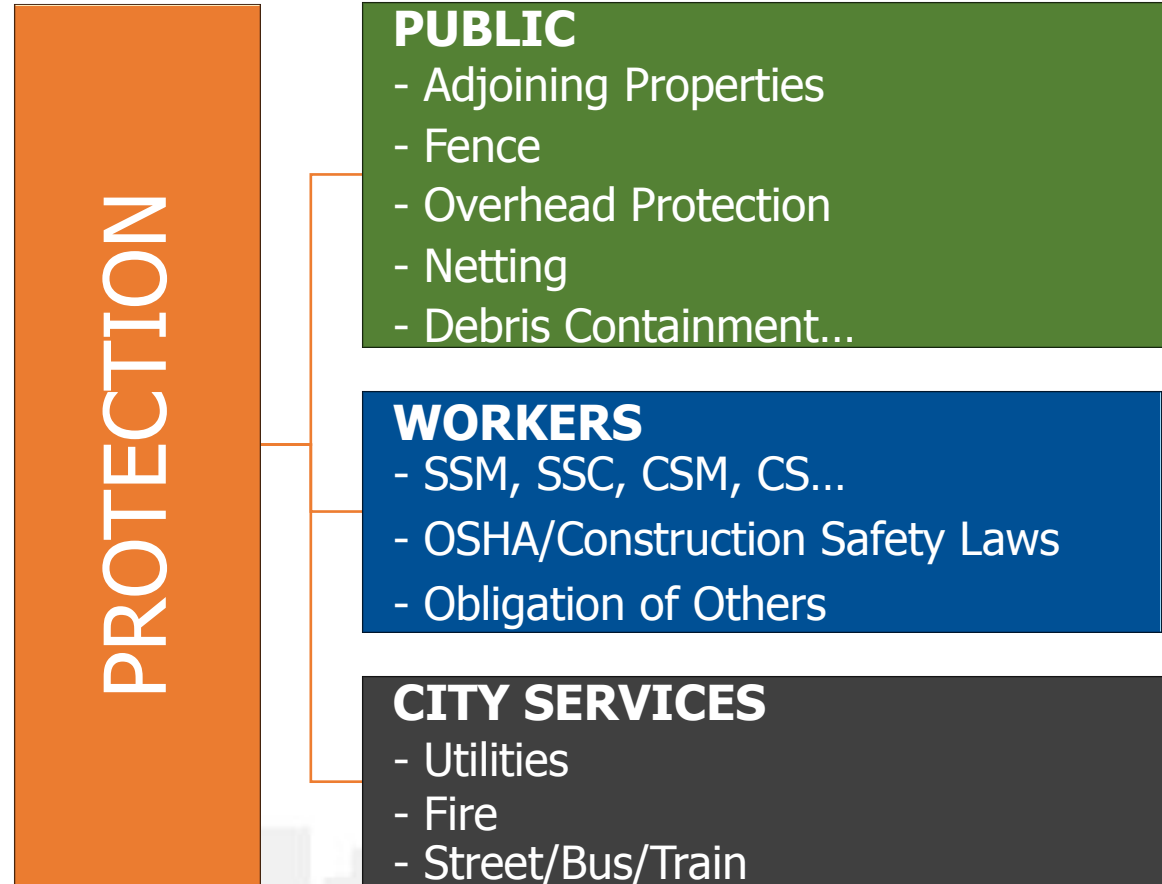
PROJECT PROCESS



(4 of 6)

PROJECT PROCESS

(5 of 6)



PROJECT PROCESS

We don't live in a bubble...

Regulators

- DOB
- FDNY
- NYPD
- DOT
- MTA
- LPC...
- DEP

(6 of 6)

GENERAL GOVERNING CODES & NOTABLE PROVISIONS



BUILD SAFE / LIVE SAFE
CONFERENCE

2010

NYC
Buildings

GOVERNING CODES

- **NYC Administrative Code** (2014)
- **NYC Building Codes** (2014, Optional Use of Prior)

Prior Codes still govern the use of existing buildings

NYC Building Codes:

- | | | | |
|--------|--------|--------|--------|
| – 1860 | – 1887 | – 1896 | – 1899 |
| – 1906 | – 1916 | – 1922 | – 1938 |
| – 1968 | – 2008 | – 2014 | |

- **NYC Rules** (1RCNY 101-06, 1RCNY 101-07, 1RCNY 3301-02)
- **NYC Building Bulletins** (BB 2016-12, BB 2016-005)
- **Important to know** - **Industry Notices** (DOB Website)

NOTABLE PROVISIONS

ADMINISTRATIVE CODE (1/3)

- **AC28–301.1 Owner’s responsibilities** - All buildings and all parts thereof and all other structures shall be maintained in a [safe](#) condition...
 - In addition this governs notification to DOB of hazardous conditions.

NOTABLE PROVISIONS

ADMINISTRATIVE CODE (2/3)

- **AC28-101.2** – Intent – Establish reasonable **minimum** requirements
(concept dates back to 1860)
- **AC28-103.2** – **Interpretation**
(first occurrence 1866)
- **AC28-104.7.1** – Construction documents to be of sufficient clarity

NOTABLE PROVISIONS

ADMINISTRATIVE CODE (3/3)

§28-101.4.4 Reductions of fire safety or structural safety of prior code buildings prohibited. Notwithstanding any other provision of this code, where the alteration of any prior code building or structure in accordance with a provision of this code would result in a reduction of the fire safety or structural safety of such building, relevant provisions of the 1968 building code shall apply to such alteration unless there is full compliance with those provisions of this code that would mitigate or offset such reduction of fire protection or structural safety. Where the owner, having a choice to elect the 1968 building code or this code, chooses this code, the applicant shall submit a comparative analysis acceptable to the commissioner of the relevant fire safety and structural safety provisions under the 1968 building code and this code, demonstrating that the alteration does not result in a reduction to the fire and life safety of the building.

Exception: The use of automatic-closing by smoke detection for doors serving vertical exit enclosures in accordance with section 708.7 of the New York city building code in a prior code building shall not be deemed to result in a reduction of the fire safety or structural safety of such a building.

- **AC 28-101.4.4** – Reductions of fire and structural safety is prohibited

EXCAVATION

Notable Codes & Case Studies



2010
BUILD SAFE / LIVE SAFE
CONFERENCE

NYC
Buildings

NOTABLE CODES

EXCAVATION (1/4)

SECTION BC 1814 UNDERPINNING AND SUPPORT OF ADJACENT PROPERTY

1814.1 General. Where the protection and/or support of a structure or property adjacent to an excavation is required, an engineer shall prepare a preconstruction report summarizing the condition of the structure or property. The preconstruction report shall be prepared based on an examination of the structure or property, the review of available documents and, if necessary, the excavation of test pits. The engineer shall determine the requirements for underpinning or other protection and prepare site and structure-specific plans, including details and sequence of work for submission to the commissioner. Such protection may be provided by underpinning, sheeting, and bracing, or by other means acceptable to the commissioner.

§1814.1 – Preconstruction report required by a P.E.

- Basis of structural stability
 - Support of excavation;
 - Underpinning; and
 - Support of adjacent properties
- Pre-permit critical requirement
- This has to be provided upon Department request

NOTABLE CODES

EXCAVATION (2/4)

1704.20.6 Inspection program. Prior to commencement of work, the special inspector shall review the contractor's proposed sequence of operations and determine the areas of work that require design. A written statement shall be prepared, mutually acceptable to the contractor and the special inspector, indicating:

1. The portions of work requiring design documents in accordance with Section 1704.20.7.
2. The names and addresses of the licensed professionals that have been engaged to supply design documents for applicable work.
3. The approximate dates for delivery of design documents.
4. A schedule of periodic special inspections, at agreed intervals, including adequate frequency to assure the contractor's continued compliance with the proposed designs and sequence of construction operations. At a minimum, the site must be inspected twice, once at a pre-construction meeting with the contractor and once during construction operations.

§1704.20.6 – Inspection programs are required prior to commencement

- **Must** indicate if additional items require *design
- Critical post-permit, pre-construction requirement
- Inspection schedule to be established prior to construction.
- Structural stability requires a minimum of two (2) inspections; however, applicant of record can specify more stringent requirements

NOTABLE CODES

EXCAVATION (3/4)

1704.20.7 Design documents. Design documents, including shop drawings, sketches and written descriptions of proposed work regarding structural stability in construction operations shall be prepared by a registered design professional in the employ of the owner or the contractor. Such designs may be revised at any time by the registered design professional. Copies of the special inspection log book, the design documents and revisions thereof, shall be maintained at the job site, and at the office of the special inspector, available for use and review at all reasonable times, until the work subject to special inspection is complete. In the case of alteration to existing structures, the structural stability design documents shall be reviewed by the registered design professional of record.

1704.20.7.1 Monitoring. The design documents shall include any requirements for monitoring of the subject structure and/or adjacent structures, as determined by the registered design professional responsible for the design. The monitoring plan shall be specific to the buildings to be monitored and operations to be undertaken, and shall specify the scope and frequency of monitoring, acceptable tolerances, and reporting criteria for when tolerances are exceeded.

§1704.20.7 – Design Document

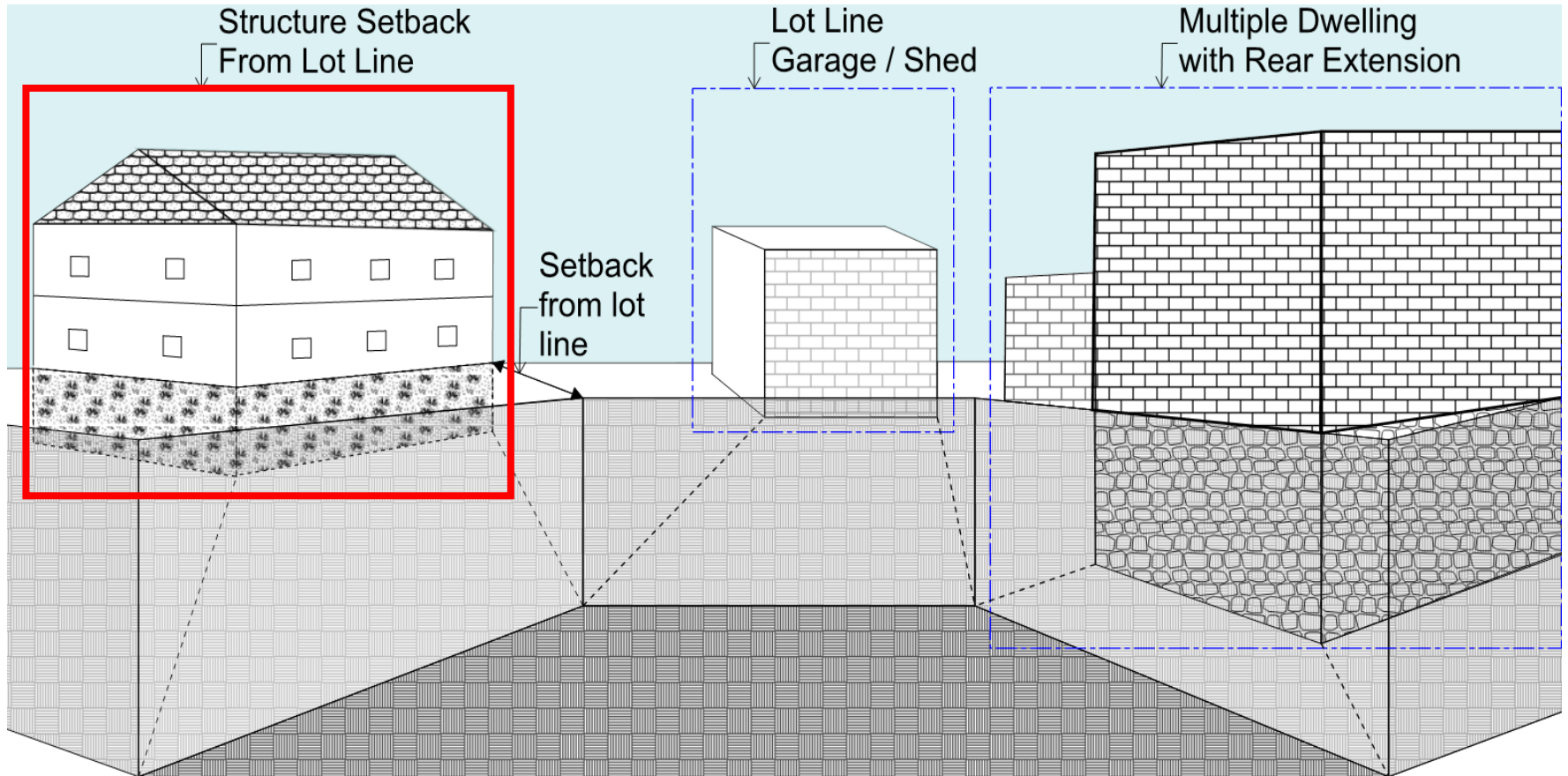
- Pre-permit and pre-construction
- Design applicants responsibility does not end pre-permit.
 - **Must** review shop drawings, sketches, structural stability documents signed by owner/permit holder's professionals.
- Monitoring protocol **must** be on filed drawings with the Department

NOTABLE CODES

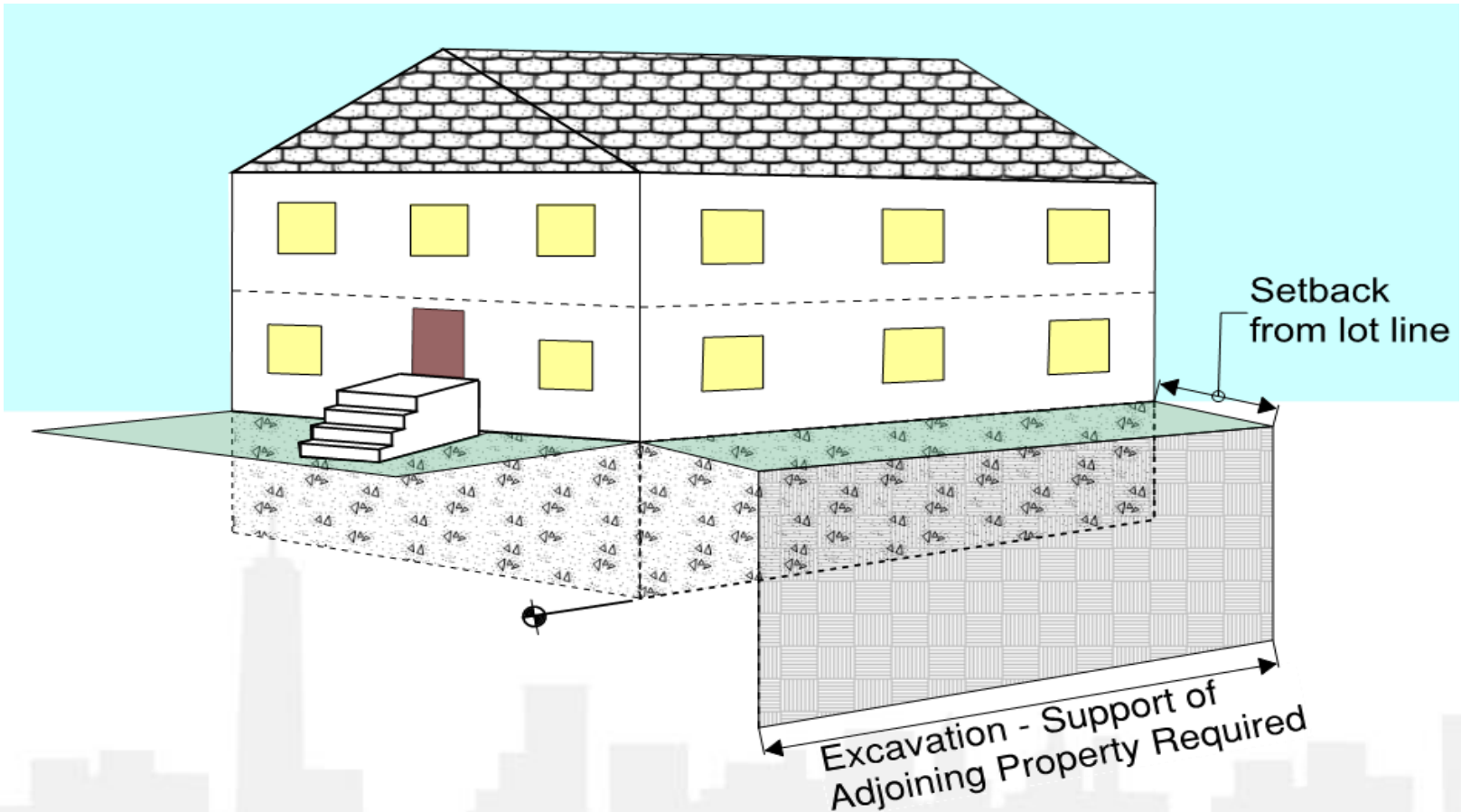
EXCAVATION (4/4)

- **§107.3** – Lot diagram
- **§107.7.1** – Foundation plans
- **§107.7.3** – Detailed drawings
- **§107.8** – Earthwork plans
- **§3304.2** – Support of excavation drawings
- **§3304.4** – Protection of sides of excavations

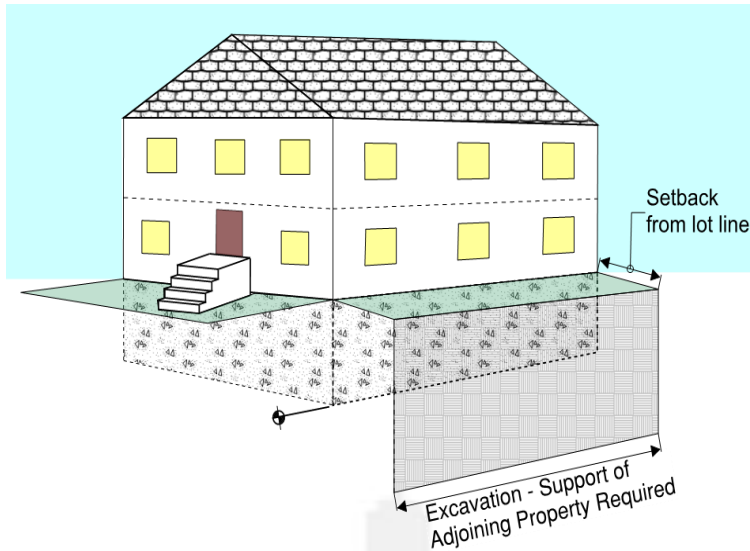
EXCAVATION



EXCAVATION STRUCTURE SETBACK FROM LOT LINE



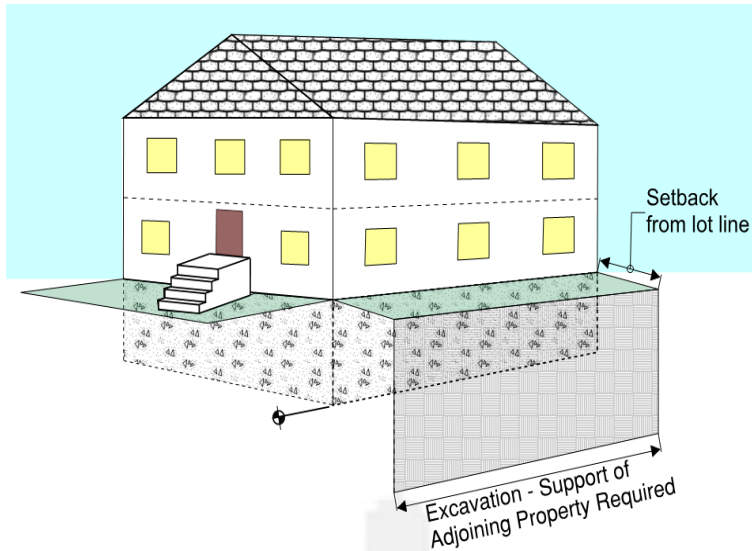
EXCAVATION STRUCTURE SETBACK FROM LOT LINE



Pre-permit Considerations

- Investigation (Building Research)
 - Test pits/Borings §1802.2; §1802.4
 - Bottom of footing elevation §1814; §107.8
- Support of Adjacent Properties (P.E.) §1814
 - Preconstruction Report (P.E.) §1814.1
- Monitoring
 - §1704.20.7.1 – §3309.4.4 – §3309.6
 - §1814.3 – §3309.16

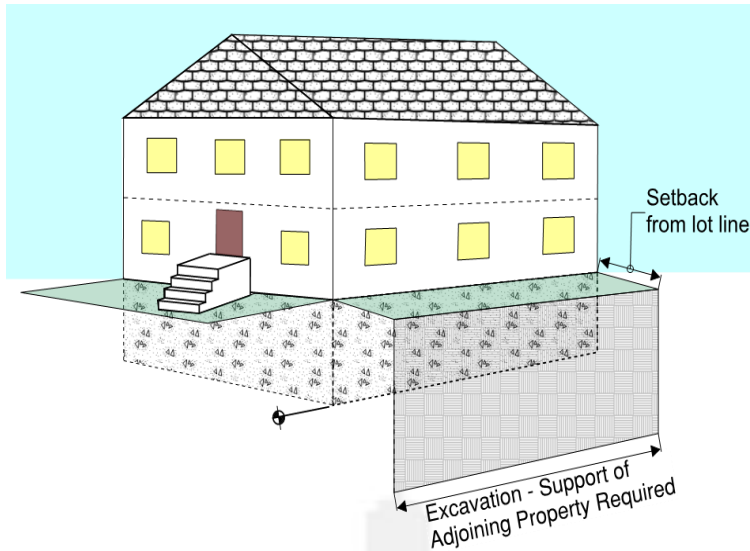
EXCAVATION STRUCTURE SETBACK FROM LOT LINE



Pre-permit Considerations (Continued)

- Adherence to Lot AC28-105.12.3
- Structural Stability Inspection Protocol §1704.20.7
- Drawing Requirements / sequence §1814; §107.8; §3304.2

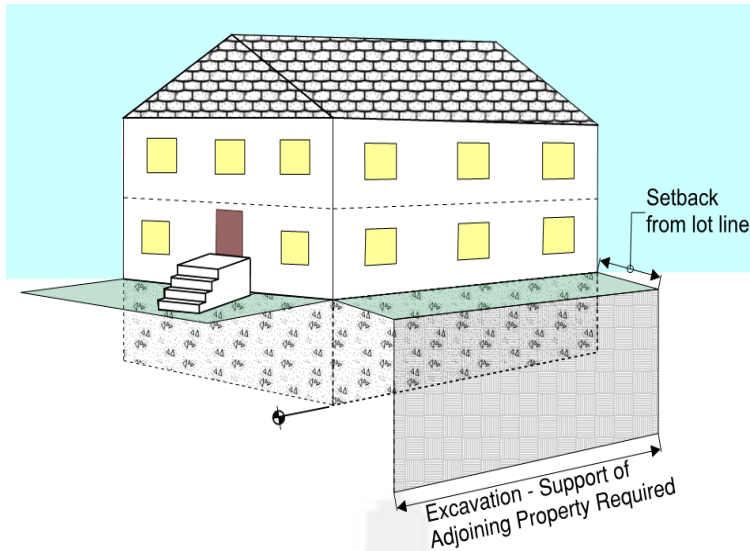
EXCAVATION STRUCTURE SETBACK FROM LOT LINE



Post-permit Considerations

- Preconstruction Survey §3309.4.3
- Monitoring
 - §1704.20.7.1 – §3309.16
 - §1814.3 – §3309.6
 - §3309.4.4
- Adherence to Lot AC28-105.12.3
- Inspection Program §1704.20.6
- SOE Affecting Adjoining Property §3309.4
- Notifications (DOB, Neighbors, etc.) §3304.3

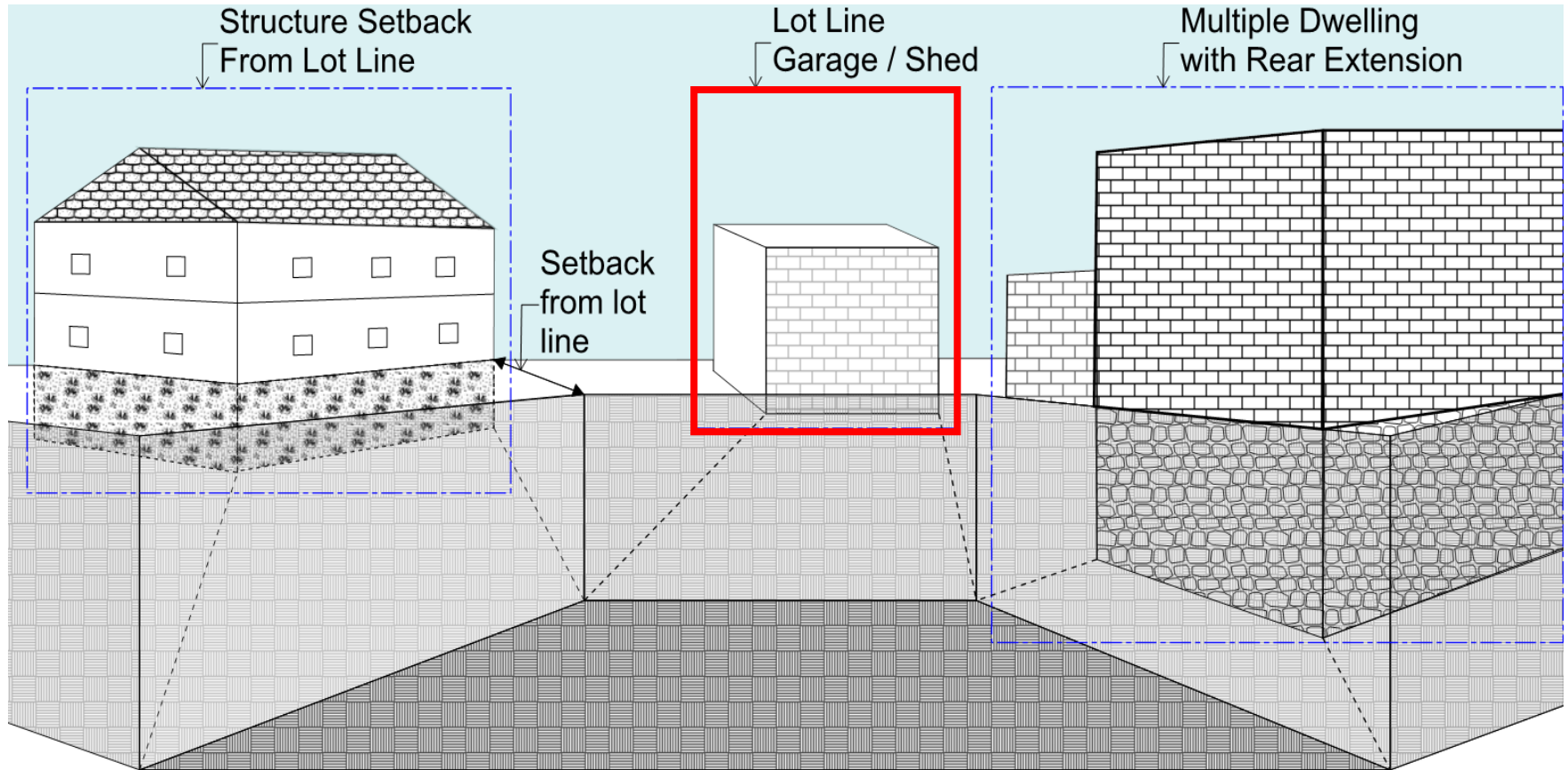
EXCAVATION STRUCTURE SETBACK FROM LOT LINE



Tenant Protection Considerations

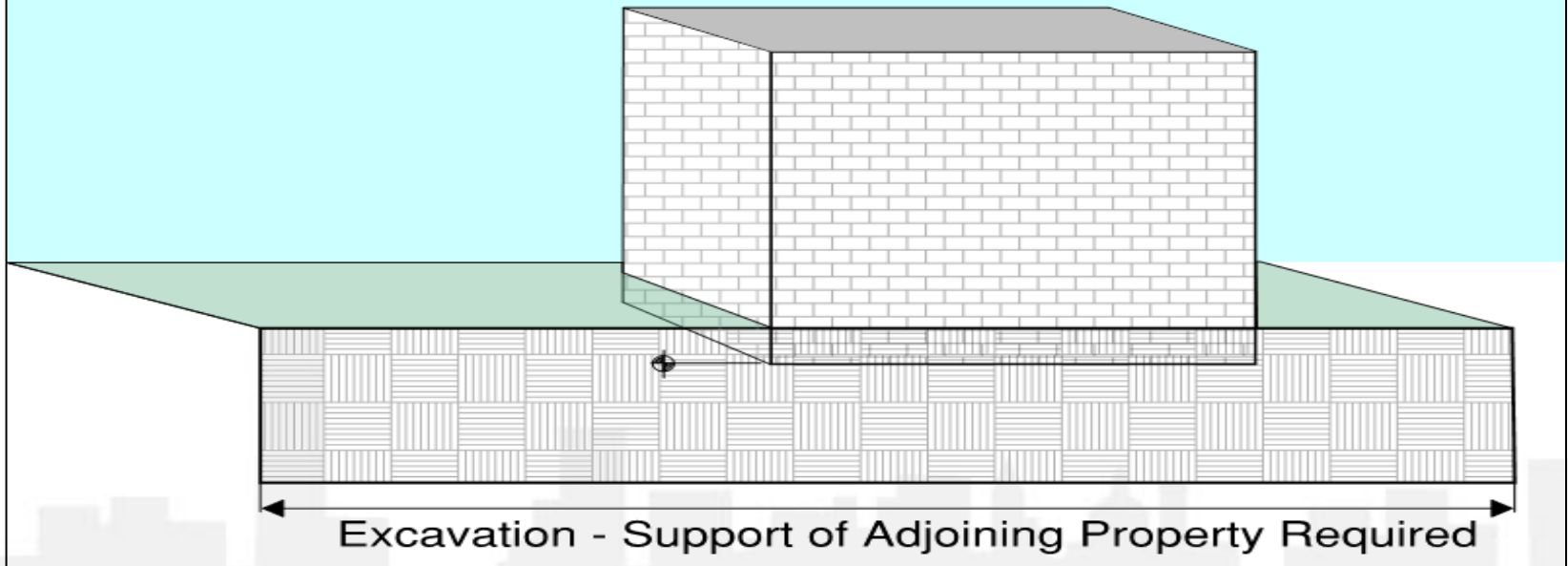
- Fence Maintenance §3307.7
- Overhead Protection
 - §3309.10 (Roofs)
 - §3309.12 (Chimneys)
- Lot line windows §3309.14
- Protect and maintain egress
- SSP
 - 11/06/17 required in all jobs with Construction Super

EXCAVATION



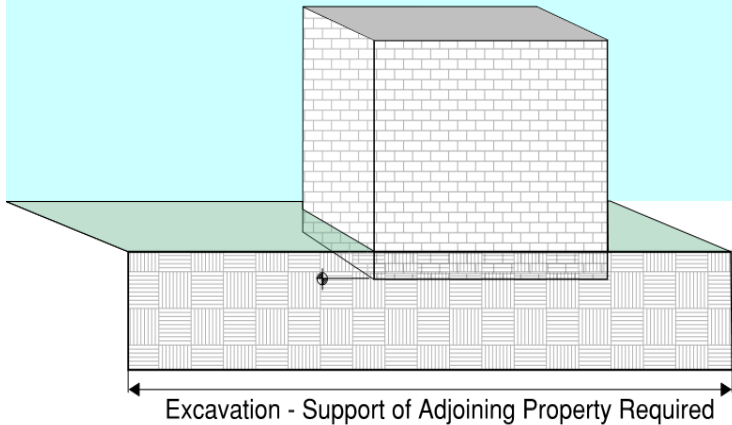
EXCAVATION STRUCTURE SETBACK FROM LOT LINE

Note: Use **EXTREME CAUTION** with these sheds and garages. Rarely have foundations and will require double height support. May require supplemental bracing.



EXCAVATION LOT LINE GARAGE/SHED

Note: Use **EXTREME CAUTION** with these sheds and garages. Rarely have foundations and will require double height support. May require supplemental bracing.

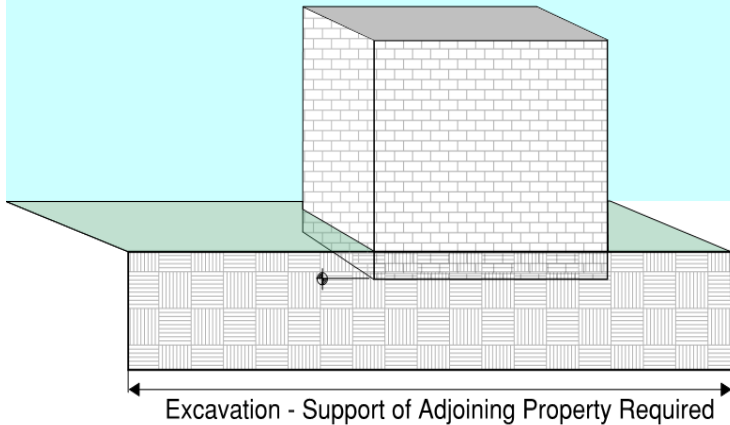


Pre-permit Considerations

- Investigation (Building Research)
 - Test pits/Borings §1802.2; §1802.4
 - Bottom of footing elevation §1814; §107.8
- Support of Adjacent Properties (P.E.) §1814
 - Preconstruction Report (P.E.) §1814.1
- Monitoring
 - §1704.20.7.1 – §3309.4.4 – §3309.6
 - §1814.3 – §3309.16

EXCAVATION LOT LINE GARAGE/SHED

Note: Use **EXTREME CAUTION** with these sheds and garages. Rarely have foundations and will require double height support. May require supplemental bracing.

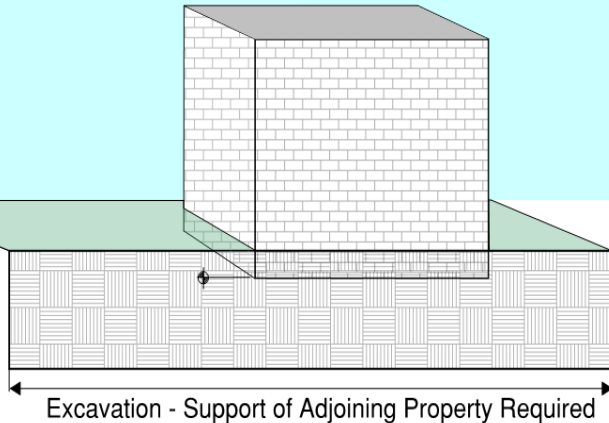


Pre-permit Considerations (Continued)

- Adherence to Lot [AC28-105.12.3](#)
- Structural Stability Inspection Protocol [§1704.20.7](#)
- Drawing Requirements / Sequence [§1814](#); [§107.8](#); [§3304.2](#)

EXCAVATION LOT LINE GARAGE/SHED

Note: Use **EXTREME CAUTION** with these sheds and garages. Rarely have foundations and will require double height support. May require supplemental bracing.

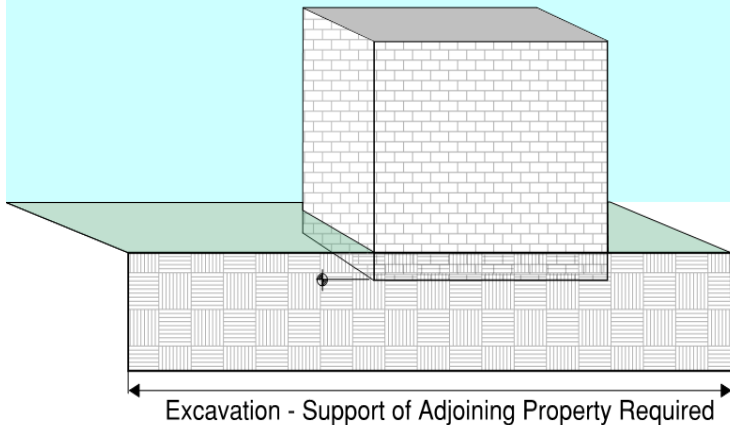


Post-permit Considerations

- Preconstruction Survey §3309.4.3
- Monitoring
 - §1704.20.7.1 – §3309.16
 - §1814.3 – §3309.6
 - §3309.4.4
- Adherence to Lot AC28-105.12.3
- Weatherproof Integrity §3309.9
- Inspection Program §1704.20.6
- SOE Affecting Adjoining Property §3309.4
- Notifications (DOB, Neighbors, etc.) §3304.3

EXCAVATION LOT LINE GARAGE/SHED

Note: Use **EXTREME CAUTION** with these sheds and garages. Rarely have foundations and will require double height support. May require supplemental bracing.



Tenant Protection Considerations

- Fence Maintenance §3307.7
- Overhead Protection
–§3309.10 (Roofs)
- Lot line windows §3309.14
- SSP
 - 11/06/17 required in all jobs with Construction Super

EXCAVATION

LOT LINE GARAGE/SHED



Why is this important?

- Vertical / lateral failure at lot line support of excavation
- Partial Collapse
- Vacate Orders
- Danger to the public

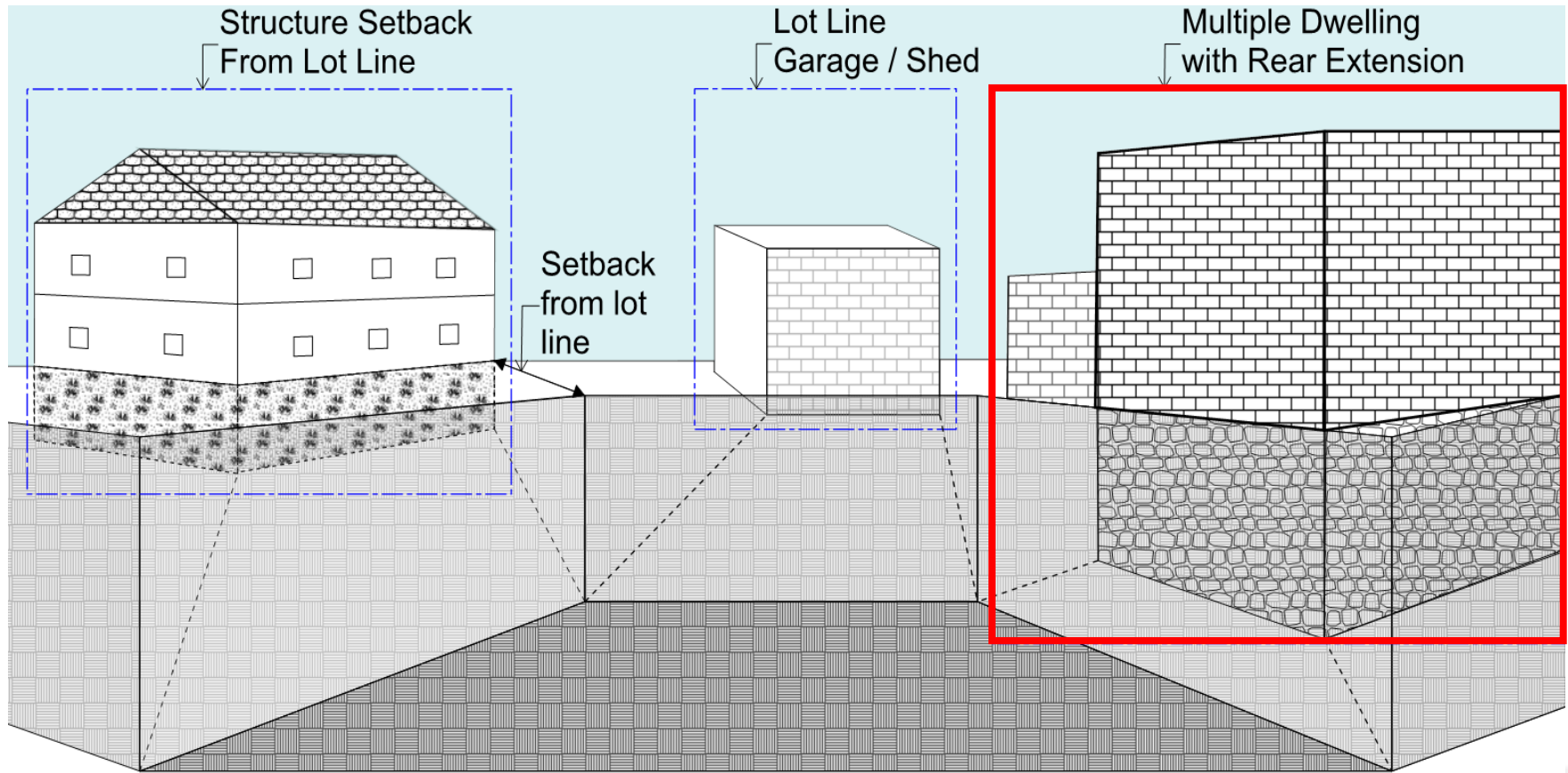
EXCAVATION LOT LINE GARAGE/SHED



Why is this important?

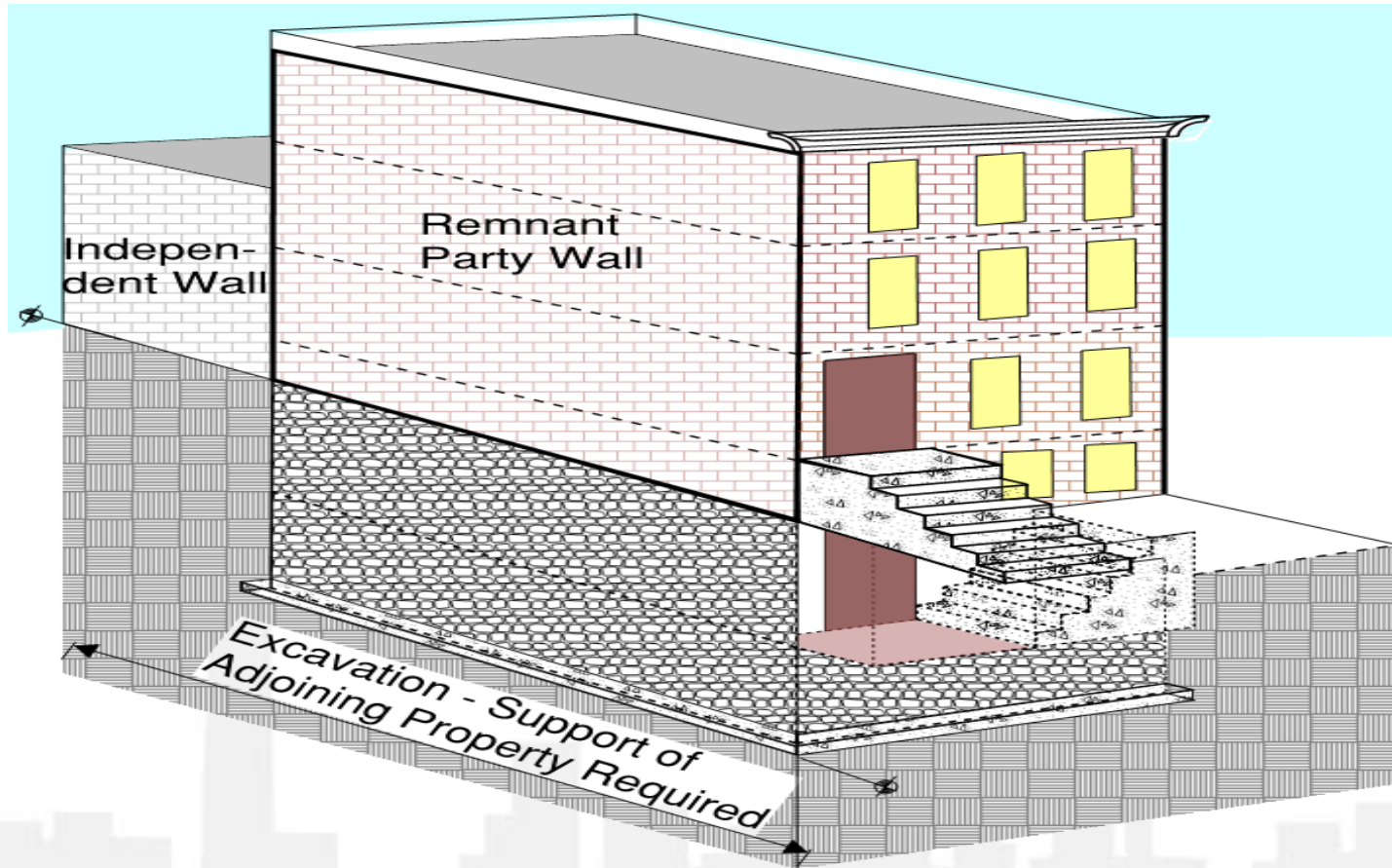
- Vertical / lateral failure at lot line support of excavation
- Partial Collapse
- Vacate Orders
- Danger to the public

EXCAVATION



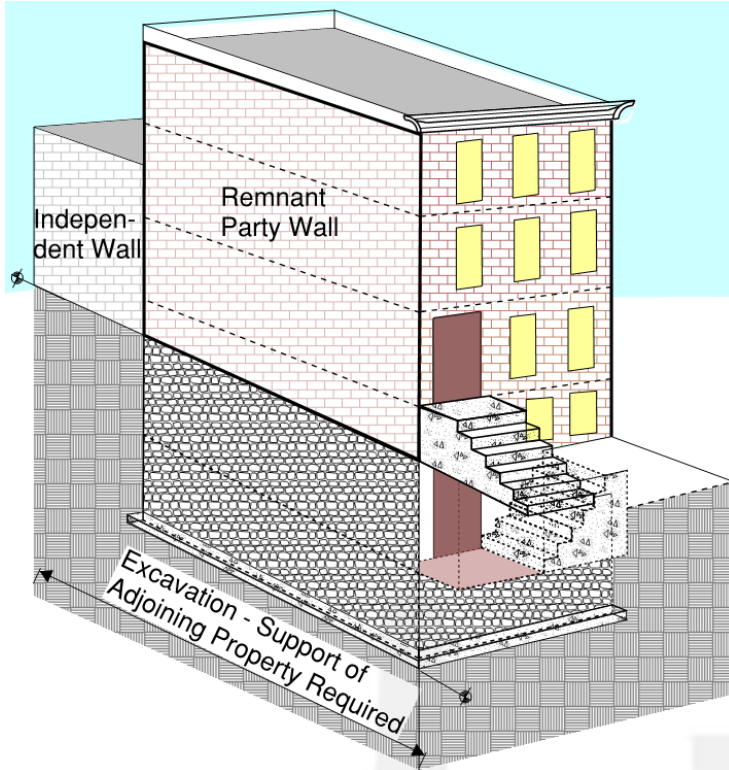
EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION



EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION

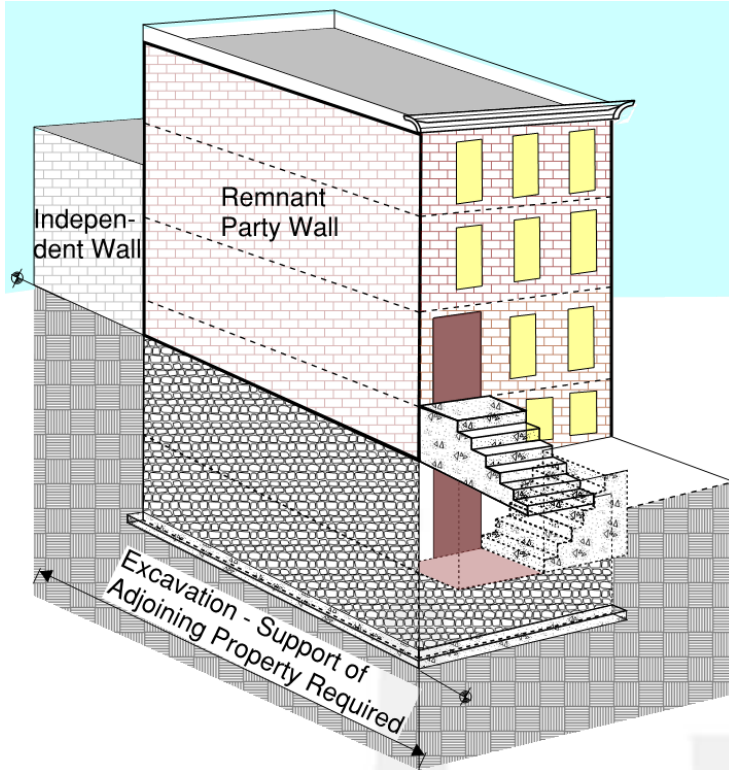


Pre-permit Considerations

- Investigation (Building Research)
 - Test pits/Borings §1802.2; §1802.4
 - Bottom of footing elevation §1814; §107.8
 - Prior Alteration History
- Drawing Requirements / Sequence §1814; §107.8; §3304.2
- Structural Stability Inspection Protocol §1704.20.7
- Lot Diagram §107.3
 - Are the walls plumb?
 - Adherence to diagram AC28-105.12.3

EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION

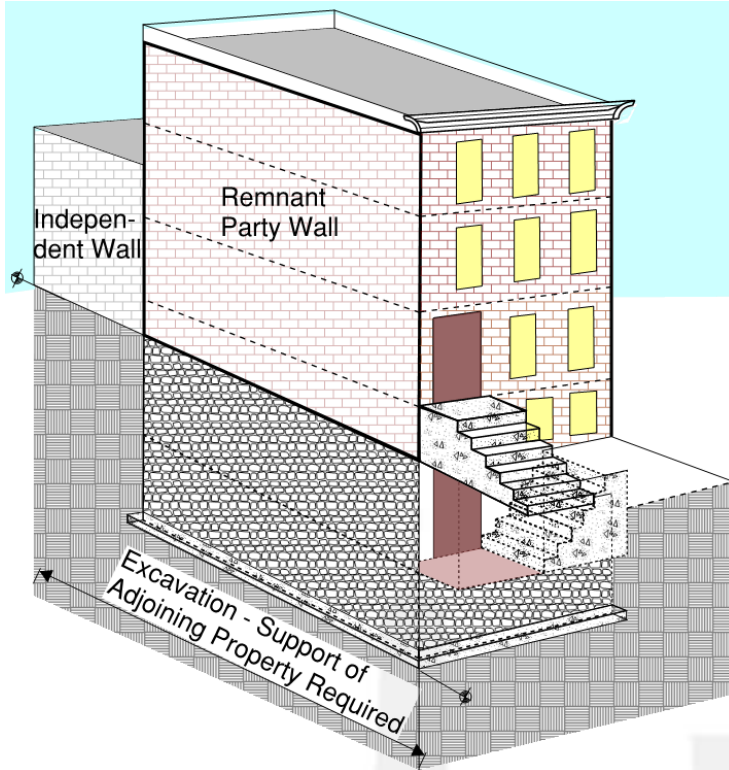


Pre-permit Considerations (Continued)

- Support of Adjoining Properties §1814
- Pre-construction Report (P.E.) §1814.1
 - §3309.8 – Are existing joists tied to the independent/party wall?
 - §107.3 – Design account for eccentricity?
 - Be mindful of cutting existing projections
- Use of Existing Walls §2104.10; §3309.8
 - Are existing joists tied to the independent / party wall?
- Monitoring: §1704.20.7.1, §1814.3, §3309.4.4, §3309.16, §3309.6

EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION

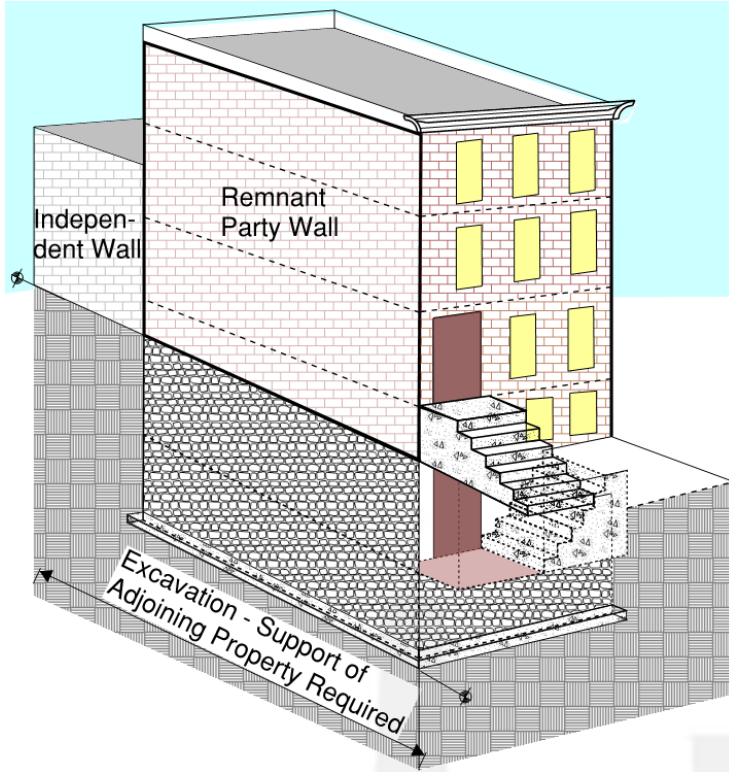


Post-permit Considerations

- Notifications (DOB, Neighbors, etc.) §3304.3
- Inspection Program §1704.20.6
- Review of Design Documents §1704.20.7
- Preconstruction Survey §3309.4.3
- Monitoring: §1704.20.7.1, §1814.3
§3309.4.4, §3309.16, §3309.6

EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION

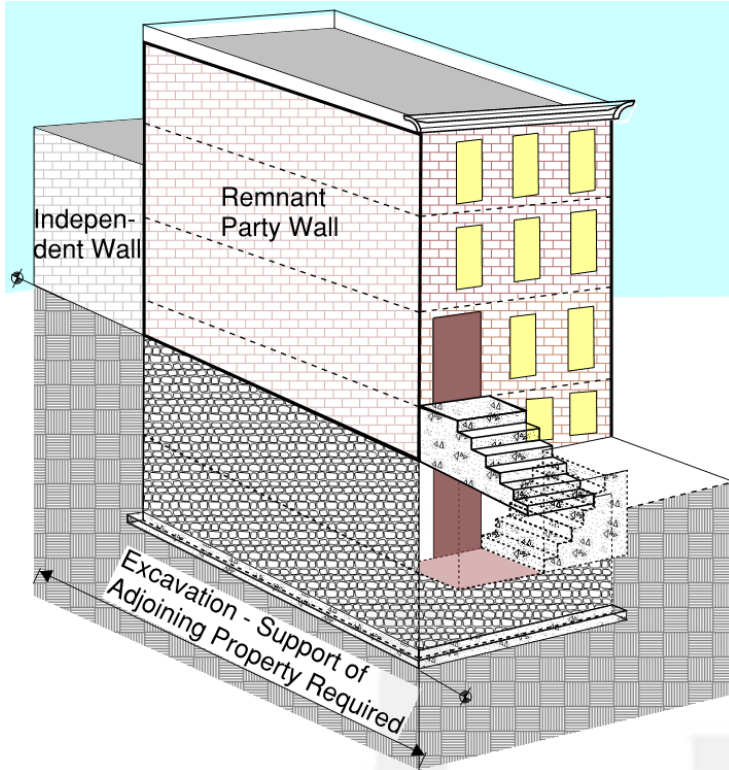


Post-permit Considerations (Continued)

- Adherence to Lot AC28-105.12.3
- SOE Affecting Adjoining Property §3309.4
- Existing Joists Tied/Beam Pockets Closed §3309.8
- Weatherproof Integrity §3309.9

EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION



Tenant Protection Considerations

- Fence Maintenance §3307.7
- Overhead Protection §3309.10 (Roofs)
- Chimney Protection §3309.12
- Lot Line Windows
 - §3309.14 – typically seen in old/new law tenement
- SSP
 - 11/06/17 required in all jobs with Construction Super

EXCAVATION

MULTIPLE DWELLING WITH REAR EXTENSION



Why is this important?

- Vertical / lateral failure at lot line support of excavation
- Vacate Orders
- Danger to the public

INTERIOR DEMOLITION

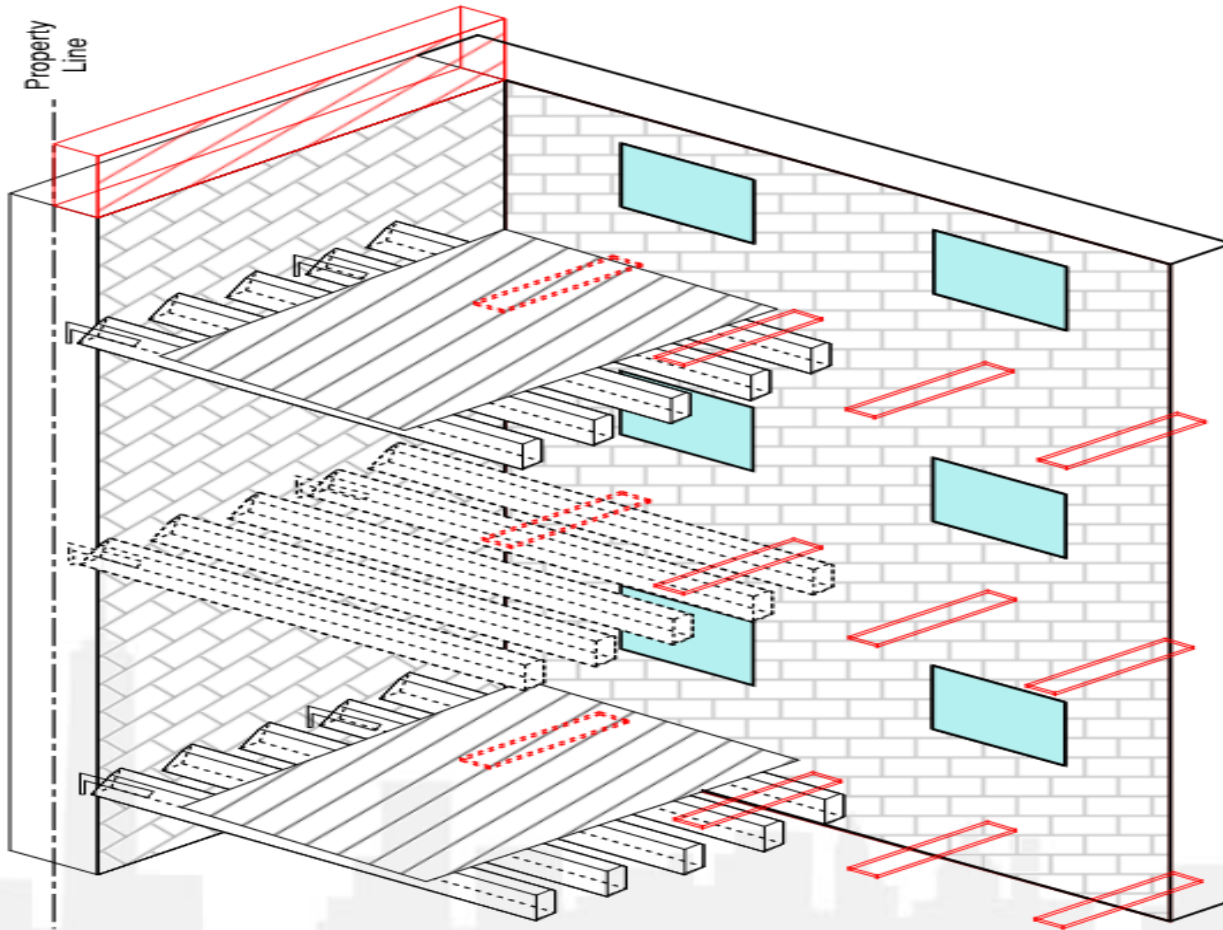
Notable Codes & Case Studies



**BUILD SAFE / LIVE SAFE
CONFERENCE**

NYC
Buildings

INTERIOR DEMOLITION NOTABLE CODE (1/9)



BUILD SAFE / LIVE SAFE
CONFERENCE

NYC
Buildings

INTERIOR DEMOLITION

NOTABLE CODE (2/9)

Masonry Erection Tolerances

- All walls shall be carried up plumb and straight, and shall be built with close joints.

NYCBC 1860-1916



- Masonry shall be plumb and true.

NYCBC 1916 - 1968



- Masonry shall be laid plumb.

NYCBC 1968 - 2008



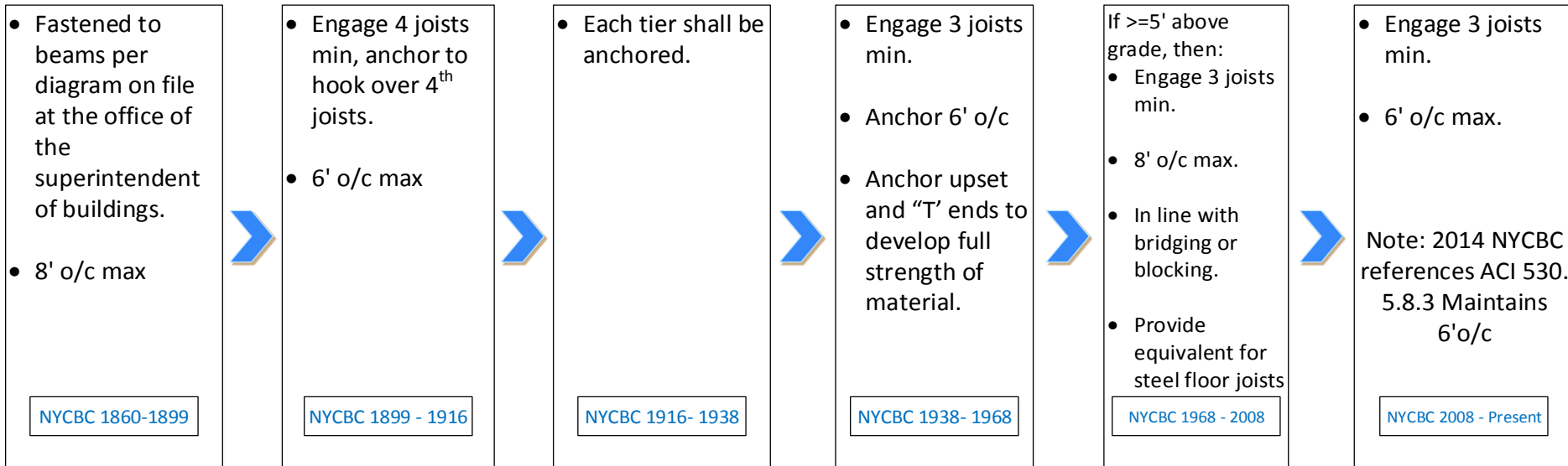
- Masonry shall be within the ACI 530.1 tolerances.

NYCBC 2008 - Present

INTERIOR DEMOLITION

NOTABLE CODE (3/9)

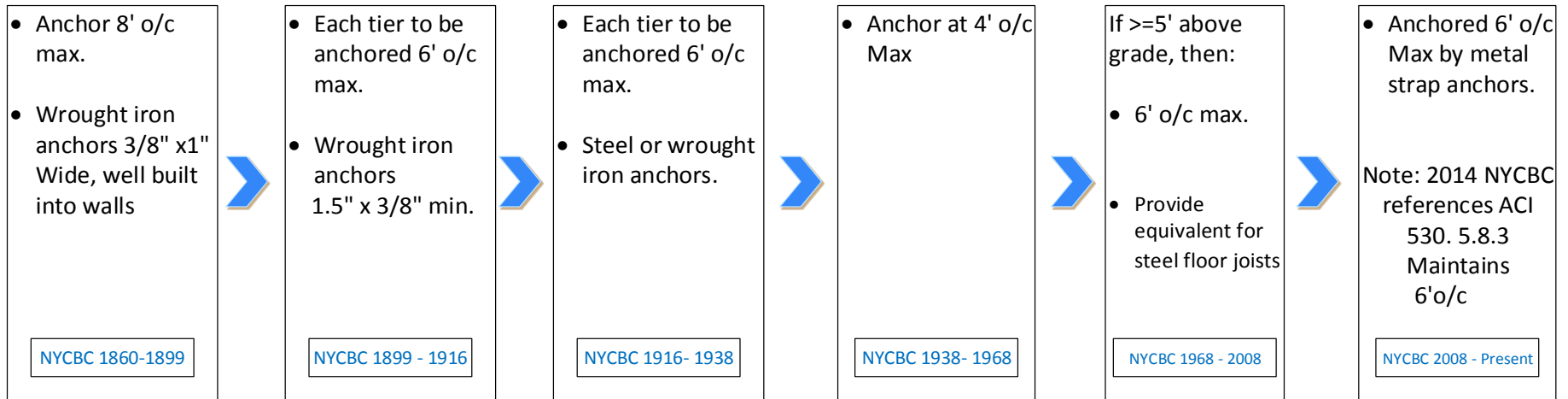
Anchorage to Masonry Walls When Joists are Parallel



INTERIOR DEMOLITION

NOTABLE CODE (4/9)

Anchorage to Masonry Walls When Joists are Perpendicular



INTERIOR DEMOLITION

NOTABLE CODE (5/9)

706.2 Structural stability. Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required fire-resistance rating.

- **§706.2** – Structural Stability. Fire wall cannot collapse with collapse of construction on either side.

INTERIOR DEMOLITION

NOTABLE CODE (6/9)

1704.20.6 Inspection program. Prior to commencement of work, the special inspector shall review the contractor's proposed sequence of operations and determine the areas of work that require design. A written statement shall be prepared, mutually acceptable to the contractor and the special inspector, indicating:

1. The portions of work requiring design documents in accordance with Section 1704.20.7.
2. The names and addresses of the licensed professionals that have been engaged to supply design documents for applicable work.
3. The approximate dates for delivery of design documents.
4. A schedule of periodic special inspections, at agreed intervals, including adequate frequency to assure the contractor's continued compliance with the proposed designs and sequence of construction operations. At a minimum, the site must be inspected twice, once at a pre-construction meeting with the contractor and once during construction operations.

§1704.20.6 – Inspection programs are required prior to commencement

- **Must** indicate if additional items require *design
- Critical post-permit, pre-construction requirement
- Inspection schedule to be established prior to construction.
- Structural stability requires a minimum of two (2) inspections; however, applicant of record can specify more stringent requirement

INTERIOR DEMOLITION

NOTABLE CODE (7/9)

1704.20.7 Design documents. Design documents, including shop drawings, sketches and written descriptions of proposed work regarding structural stability in construction operations shall be prepared by a registered design professional in the employ of the owner or the contractor. Such designs may be revised at any time by the registered design professional. Copies of the special inspection log book, the design documents and revisions thereof, shall be maintained at the job site, and at the office of the special inspector, available for use and review at all reasonable times, until the work subject to special inspection is complete. In the case of alteration to existing structures, the structural stability design documents shall be reviewed by the registered design professional of record.

1704.20.7.1 Monitoring. The design documents shall include any requirements for monitoring of the subject structure and/or adjacent structures, as determined by the registered design professional responsible for the design. The monitoring plan shall be specific to the buildings to be monitored and operations to be undertaken, and shall specify the scope and frequency of monitoring, acceptable tolerances, and reporting criteria for when tolerances are exceeded.

§1704.20.7 – Design Documents

- Pre-permit and pre-construction
- Design applicants responsibility does not end pre-permit
 - **Must** review shop drawings, sketches, structural stability documents signed by owner/permit holder's professionals.
- Monitoring protocol must be on filed drawings with the Department

INTERIOR DEMOLITION

NOTABLE CODE (8/9)

Wall bracing relates to demolition sequence and permanent structure:

- **§3306.8.2**

No section of wall with a height more than 22 times its thickness shall be permitted to stand without bracing designed by a registered design professional.

** Simply supported, does not apply to cantilevers

** Effective thickness

** Further guidance in ACI 530 and OSHA

- **§2104.10.1**

2104.10.1 Use of existing walls. An existing masonry wall may be used in the alteration or extension of a building provided that it meets the requirements of this code.

*What is the condition of the masonry walls?

INTERIOR DEMOLITION NOTABLE CODE (9/9)

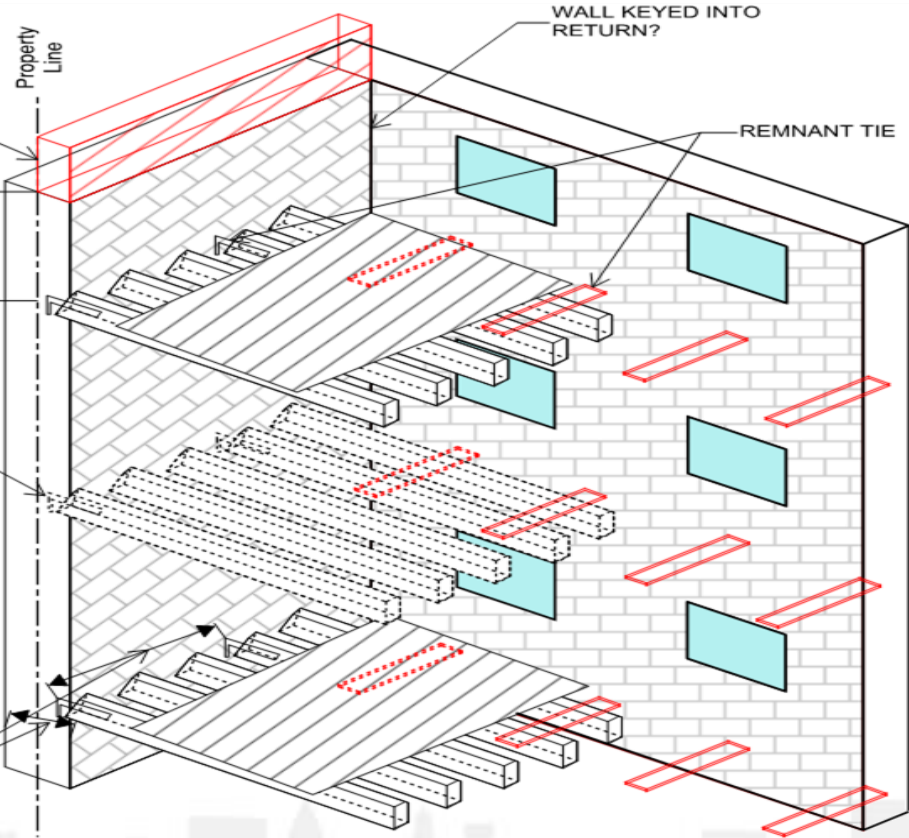
Adherence to Diagram. AC28-105.12.3

*Sequence of partial demolition. BC3306.5.1
*Use of existing walls. BC2104.10.1

*Restoration of wall bracing at front, rear and side walls. BC3309.8
*Are you changing floor levels? Bending over adjacent building anchors. BC3309.8
*Restoring/protection the condition of the wall. AC28-101.4.4; BC3309.8
*Alt or NB? AC28-101.4.5

*Sequence of partial demolition. BC3306.5.1
*Unbraced wall length. BC3306.8.2
*Repair scope shown in drawings. BC3309.8; BC2104.10.1

*Is the existing structure compliant? IE date the building. AC28-102.4



SCAFFOLD/SIDEWALK SHED

Notable Codes & Case Studies

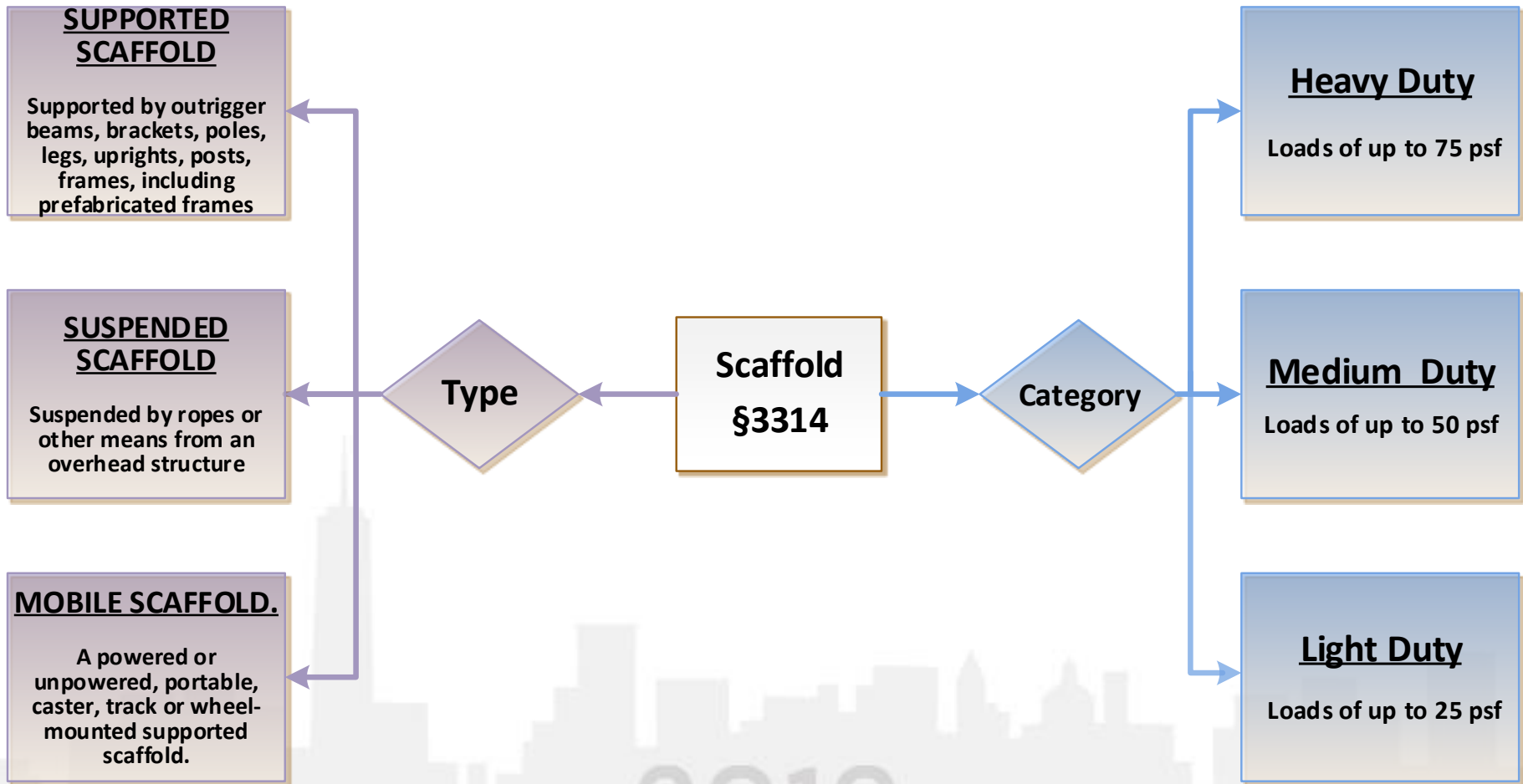


2010
BUILD SAFE / LIVE SAFE
CONFERENCE

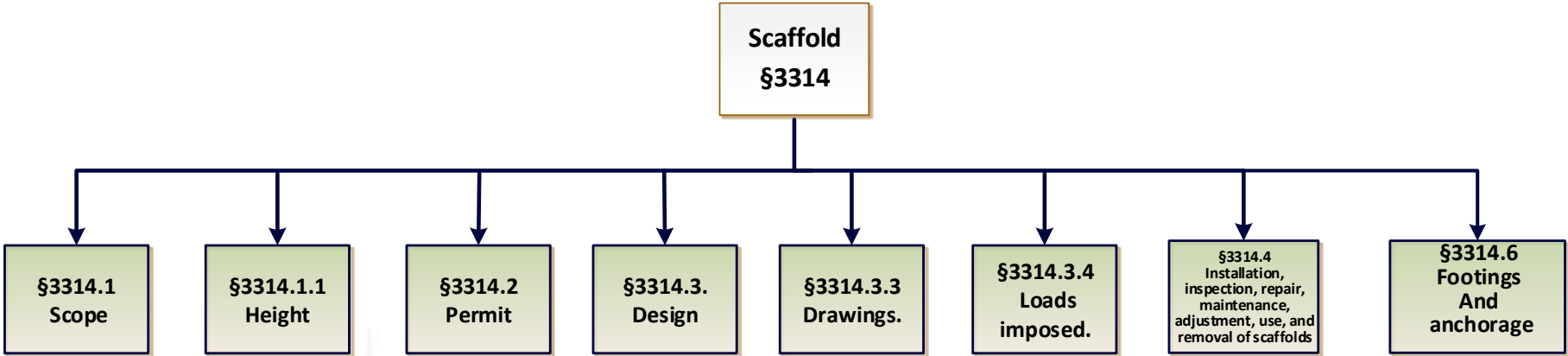
NYC
Buildings

NOTABLE SCAFFOLD CODES

SCAFFOLD TYPES & CATEGORIES (1/7)

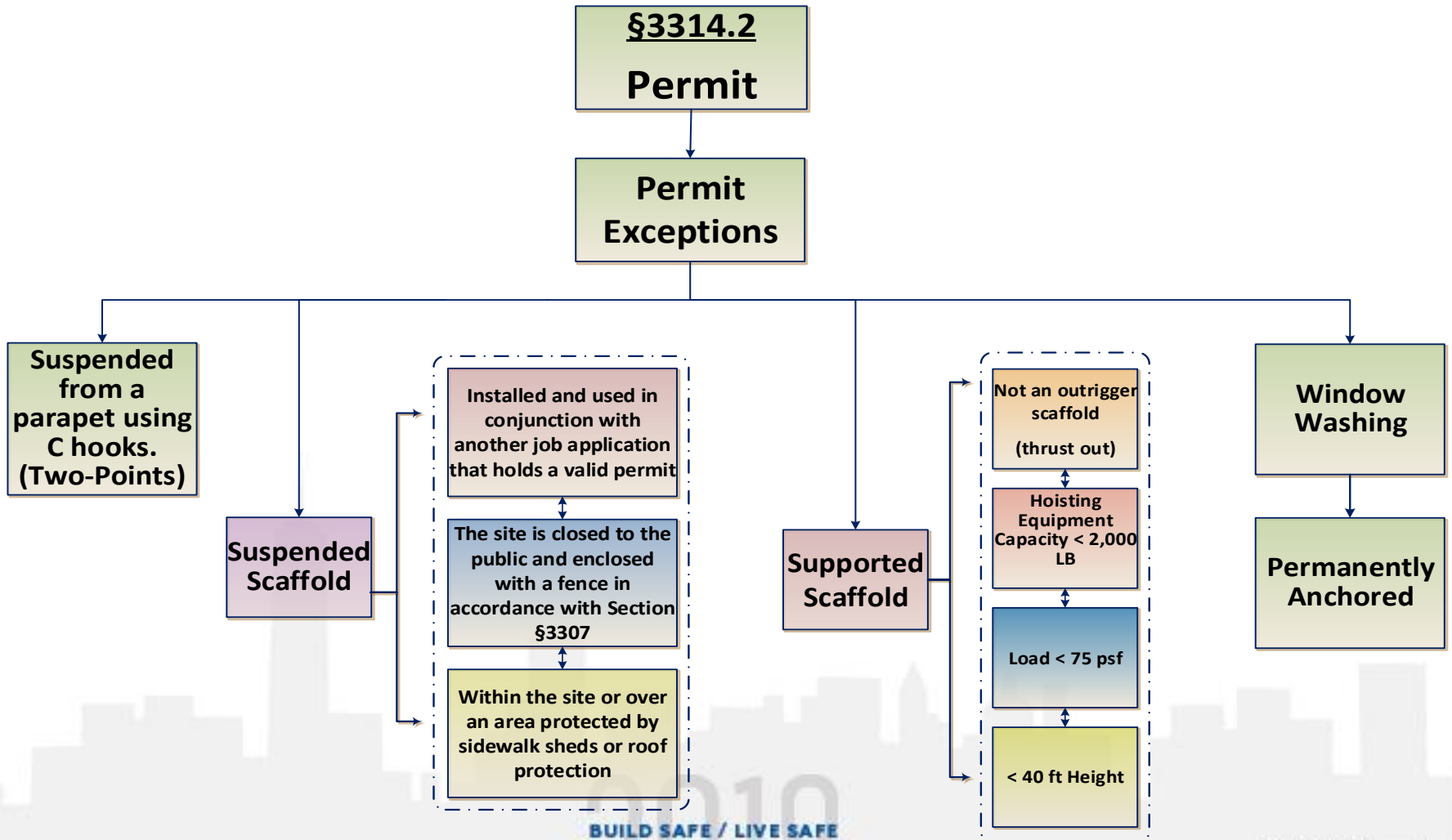


NOTABLE SCAFFOLD CODES (2/7)



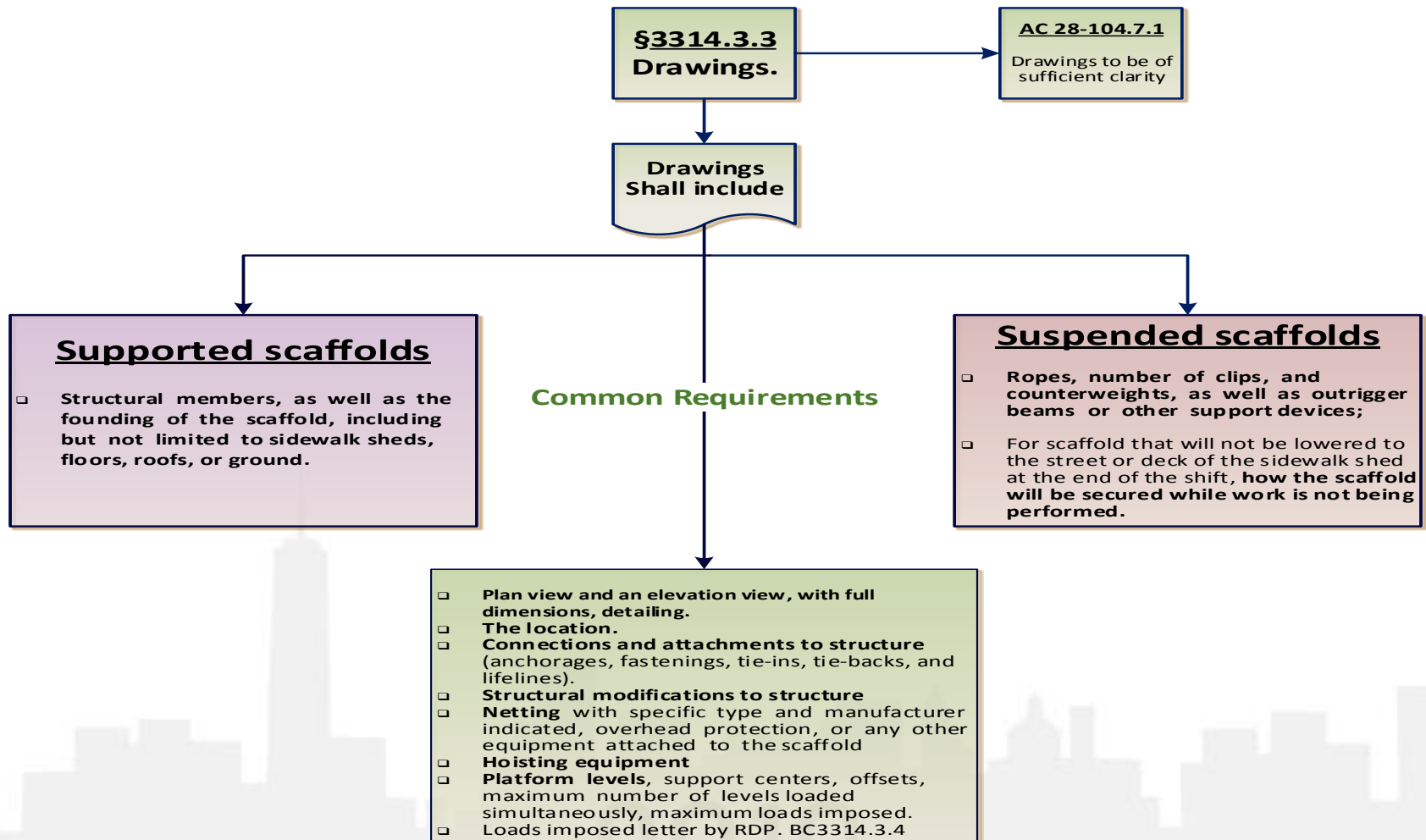
NOTABLE SCAFFOLD CODES

REQUIRED PERMITS (3/7)

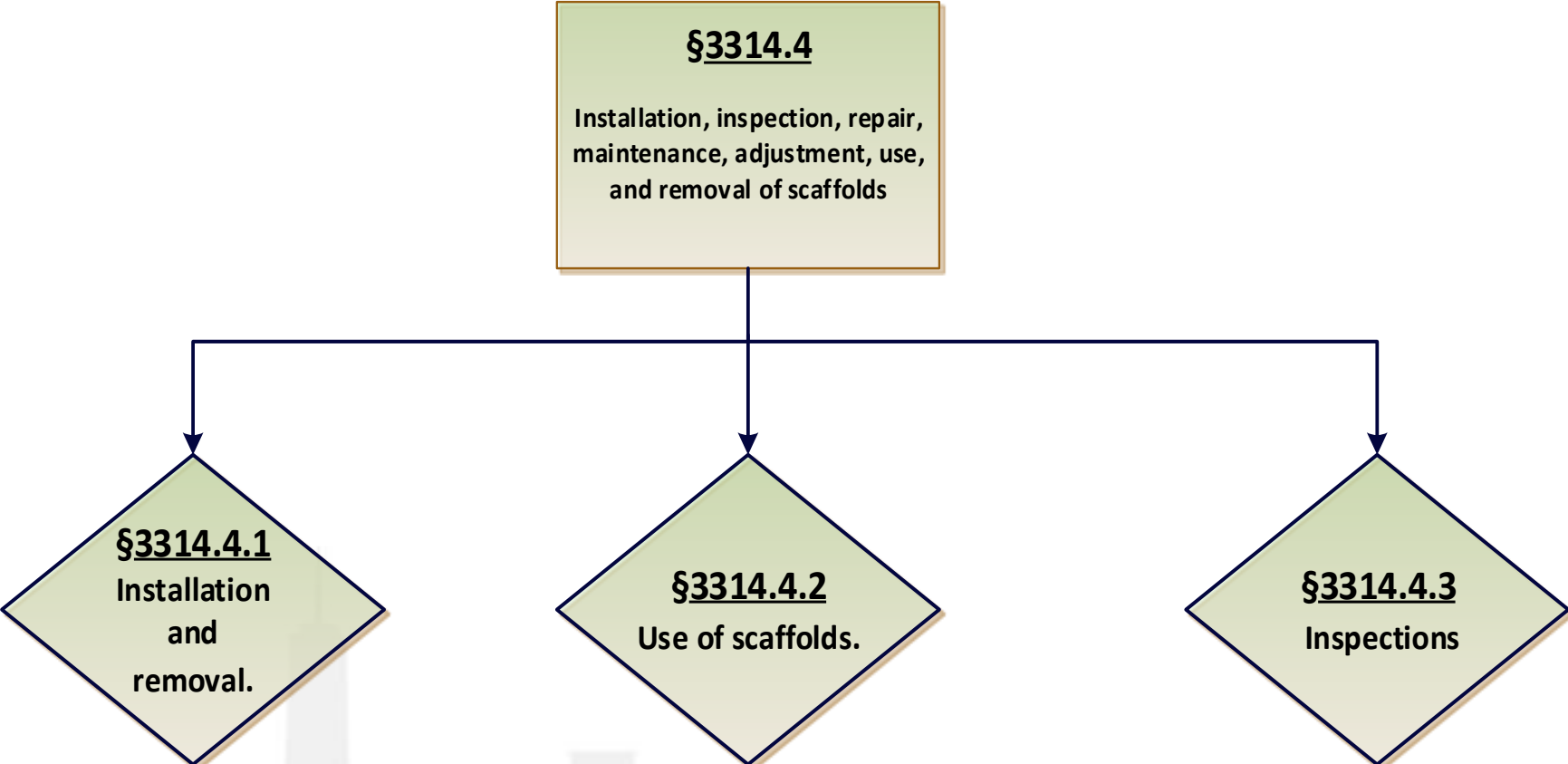


NOTABLE SCAFFOLD CODES

DRAWING REQUIREMENTS (4/7)

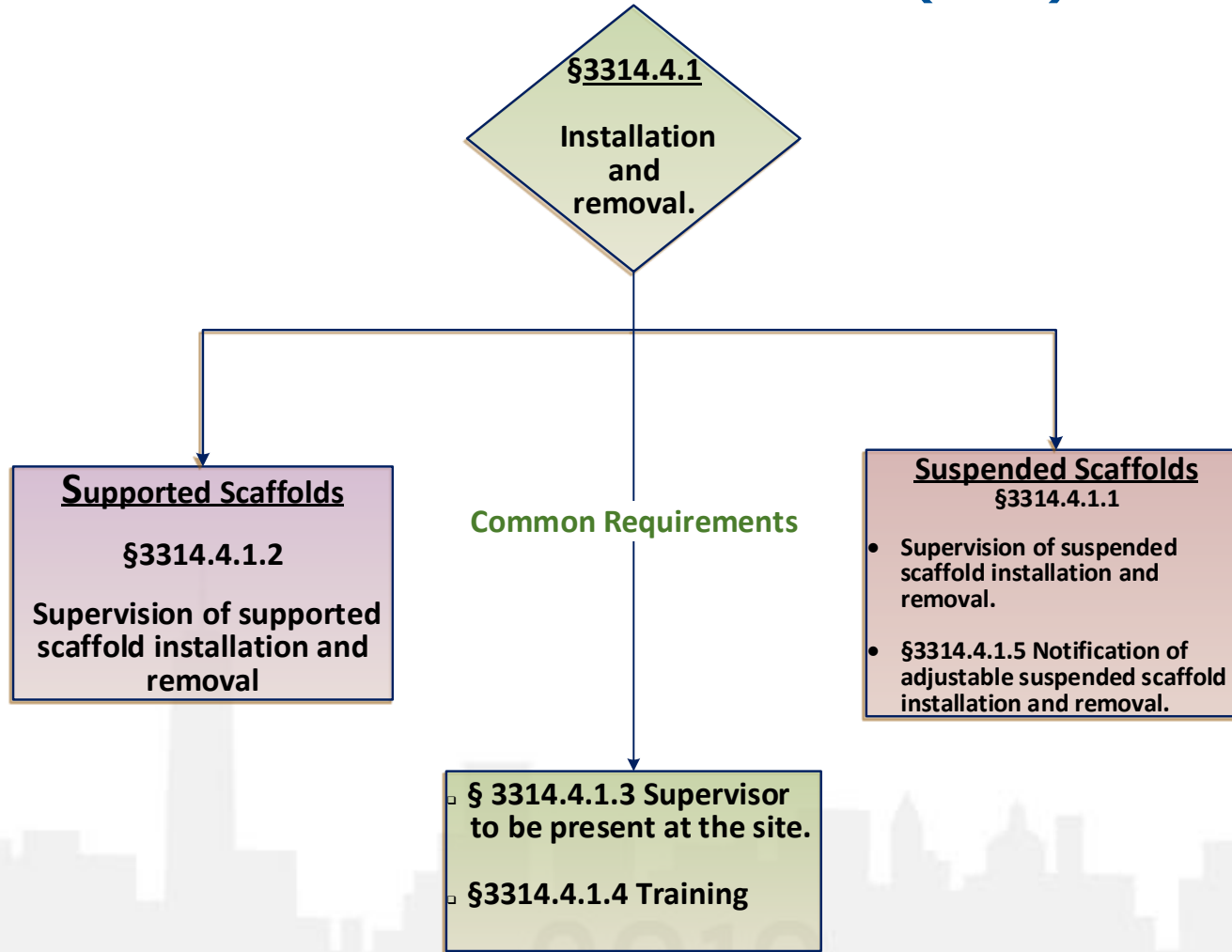


NOTABLE SCAFFOLD CODES (5/7)



NOTABLE SCAFFOLD CODES

INSTALLATION AND REMOVAL (6/7)



NOTABLE SCAFFOLD CODES INSPECTIONS (7/7)



Supported scaffolds

- §3314.4.3.3** Installation inspection .
- §3314.4.3.5** Pre-shift inspection.
- §3314.4.3.6** Inspection following a site repair or adjustment.

Suspended scaffolds

- §3314.4.3.1** Inspection prior to the installation.
- §3314.4.3.1.1** Special provision for parapet clamps (RDP)
- §3314.4.3.2** Installation inspection.
- §3314.4.3.2.1** Installation inspection report.
- §3314.4.3.4** Pre-shift inspection.
- §3314.4.3.4.1** Responsibility for performing the inspection and signing the checklist.
- §3314.4.3.4.2** Pre-shift inspection checklist contents.
- §3314.4.3.6** Inspection following a site repair or adjustment.

SUPPORTED SCAFFOLD

COMMON VIOLATING CONDITIONS

Permit Holder/Owner

Work contrary to approved plans –

1. **AC28-105.12.2**
 - Greater number of working platforms than allowed.
 - Missing diagonal and cross bracing
2. Planks not tied down (dislodgement) **§3314.9.4**
3. Working platform not fully planked **§3314.5**

SUPPORTED SCAFFOLD COMMON VIOLATING CONDITIONS

Design Professional

Work contrary to approved plans –

1. Plans weren't project specific – **AC28-104.7.1**
 - Did not account for building geometry.
2. Scaffold support not coordinated with sidewalk shed - **§3314.3.3 – 9**
3. Anchorage to compromised walls - **§3314.3.3 - 2**
4. Anchorage to walls not tested - **§1704.32; BB2016-005**
5. Netting/enclosures not identified - **§3314.3.3 - 4**

SUSPENDED SCAFFOLD

COMMON VIOLATING CONDITIONS

Permit Holder/Owner

1. Work contrary to approved plans – **AC28-105.12.2**
2. Inadequate anchor points – **§3314.6**
3. Tiebacks at angles without opposing lines – **§3314.10.9**
4. Stirrups installed at wrong locations (contrary to manufacturer specifications) – **§3314.15.2**
5. Failure to adequately lower and secure – **§3314.10.11**

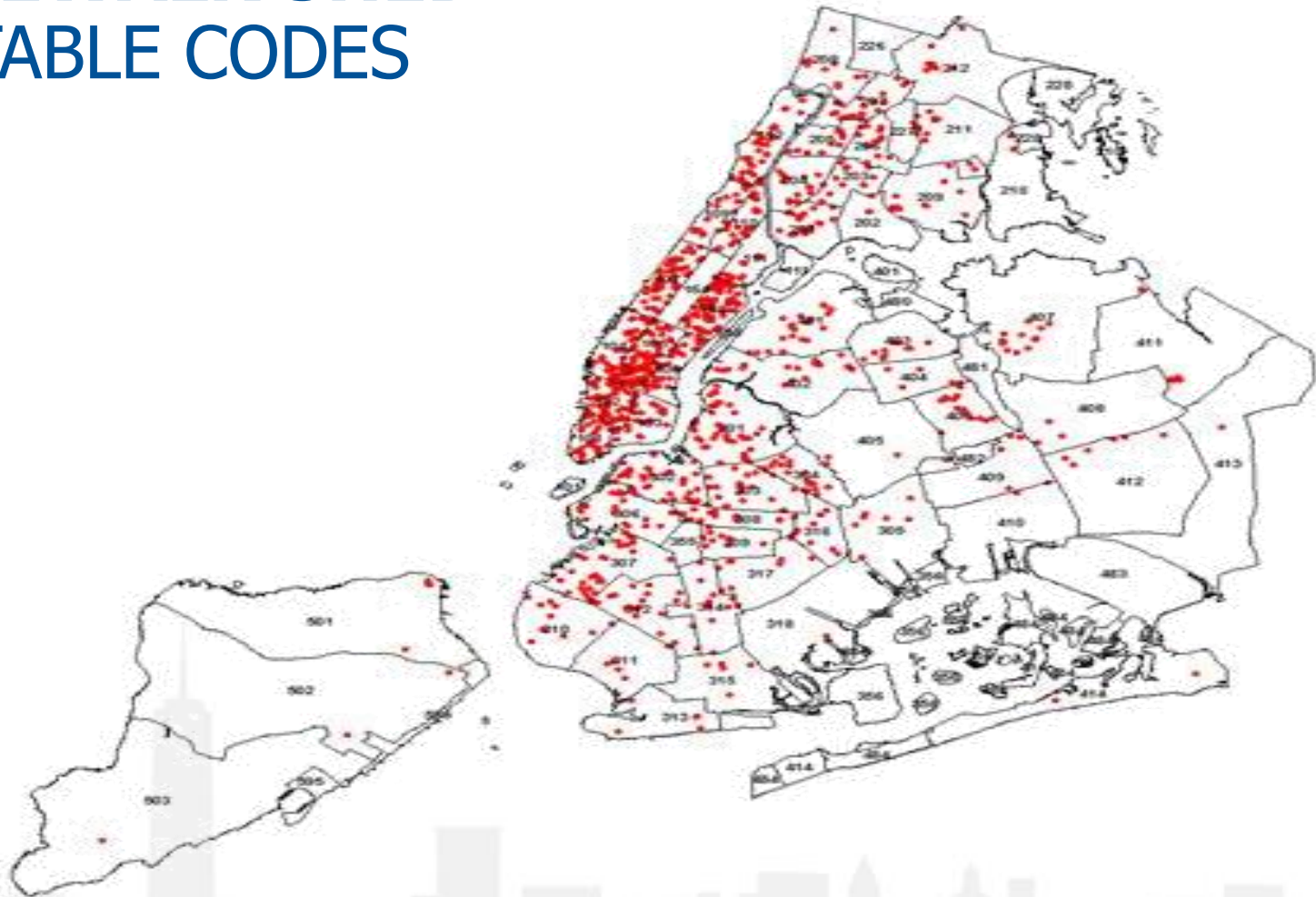
SUSPENDED SCAFFOLD

COMMON VIOLATING CONDITIONS

Design Professional

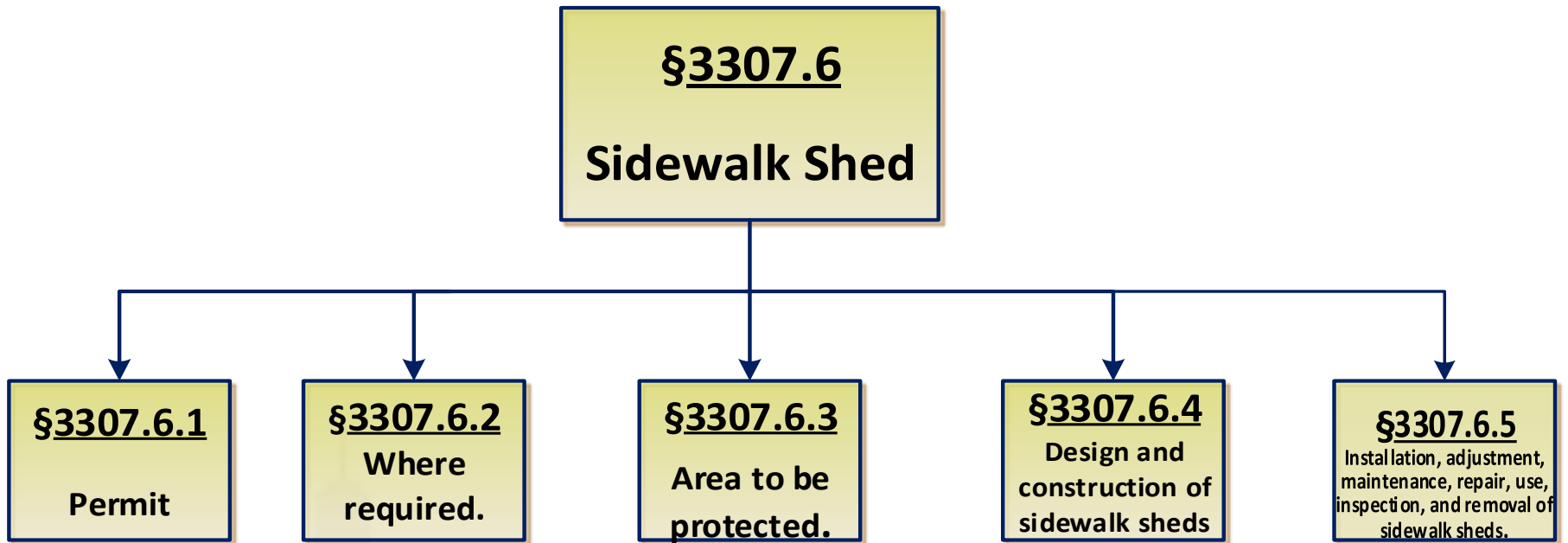
1. Plans weren't project specific – **AC28-104.7.1**
 - a. Did not account for building geometry.
2. Deficient Drawings- **§3314.3.3**
 - a. Base structure not accessed
 - b. Connections not sufficiently detailed
 - c. Maintained in place - method of securement not specified
3. Anchorage testing not specified in compliance with -
§1704.32; BB2016-005

SIDEWALK SHED NOTABLE CODES



SIDEWALK SHED

NOTABLE CODES (1/11)



SIDEWALK SHED

NOTABLE CODES – WHERE REQUIRED (2/11)

§3307.6.2

**Where
required.**

**Installed and maintained to protect
Sidewalks, walkways, and pathways
within the property line of a site,
and all public sidewalks that abut
the property**

**Structure higher than
25' is to undergo a full
demolition.**

**Façades over 40'
above curb level.**

**Structures higher than
40'.**

**Below a scaffold,
mast climber, or
chute.**

SIDEWALK SHED

NOTABLE CODES – PROTECTED AREAS (3/11)

§3307.6.3

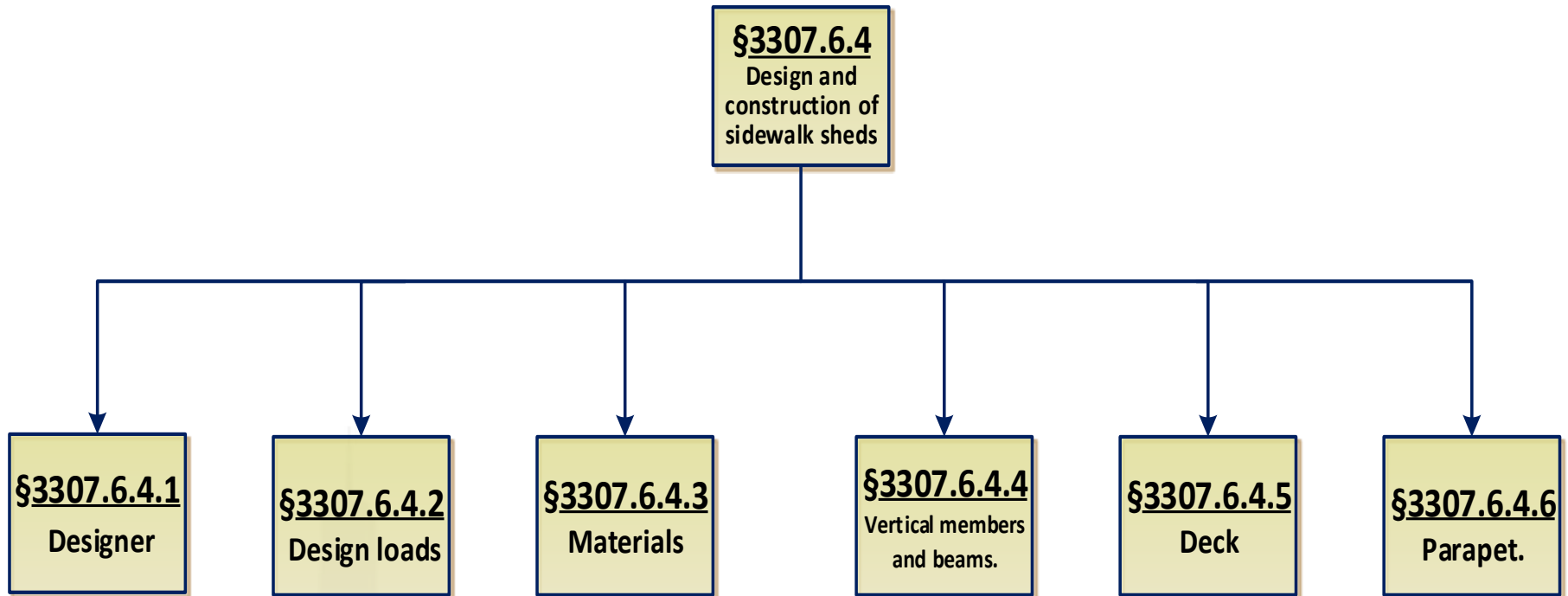
Area to be protected.

The decking of the sidewalk shed shall extend the full length of the area that falls within the zone Where required, plus an additional **5 feet beyond** such length, or to **within 18 inches of curb**.

Where the sidewalk shed is installed to protect against an **unenclosed façade, work, or equipment** that is **greater than 100 feet** above the ground, the shed shall protect the full length of the area Where required **plus an additional 20 feet on both sides** beyond such length, or to the curb line

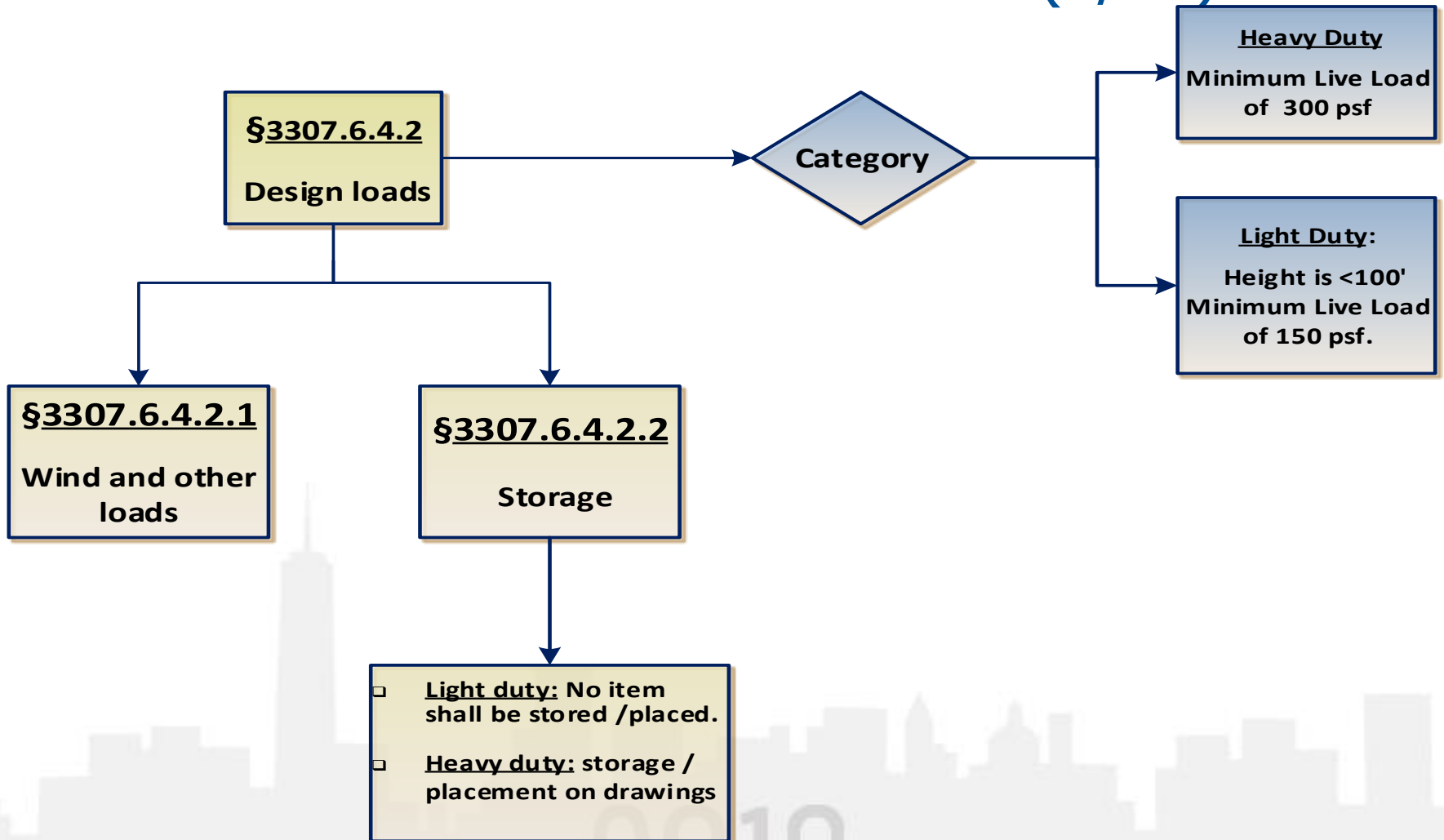
SIDEWALK SHED

NOTABLE CODES – DESIGN & CONSTRUCTION (4/11)



SIDEWALK SHED

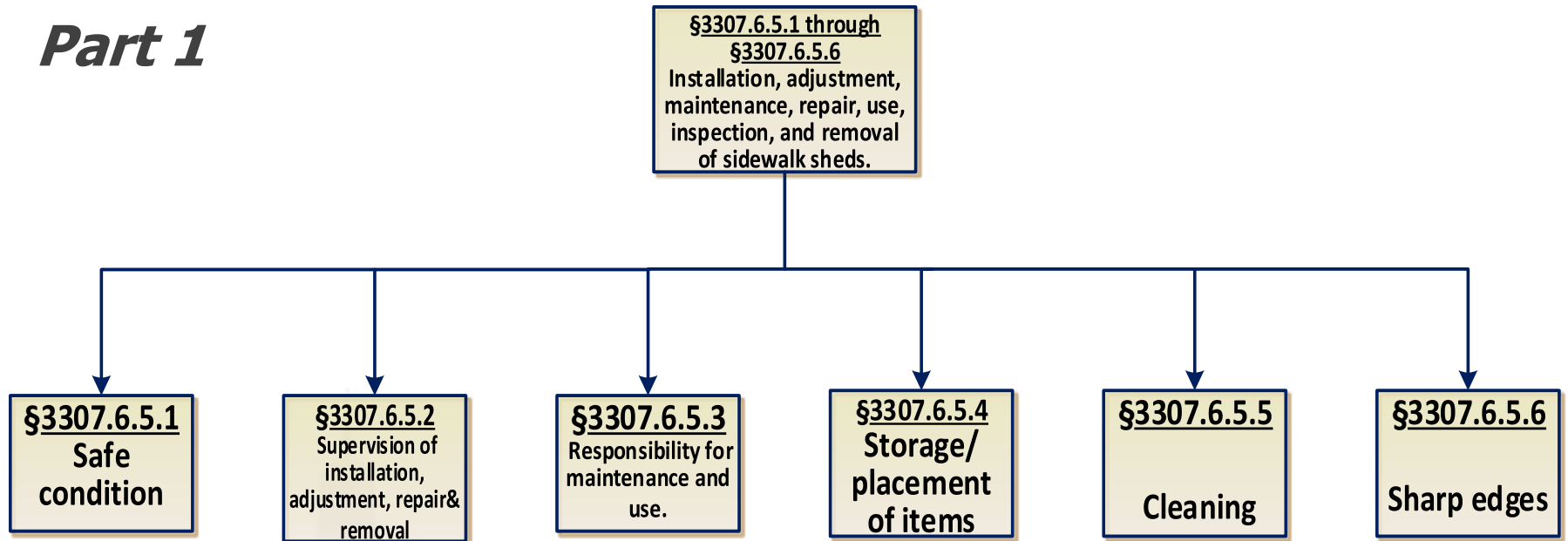
NOTABLE CODES – DESIGN LOADS (5/11)



SIDEWALK SHED: NOTABLE CODES

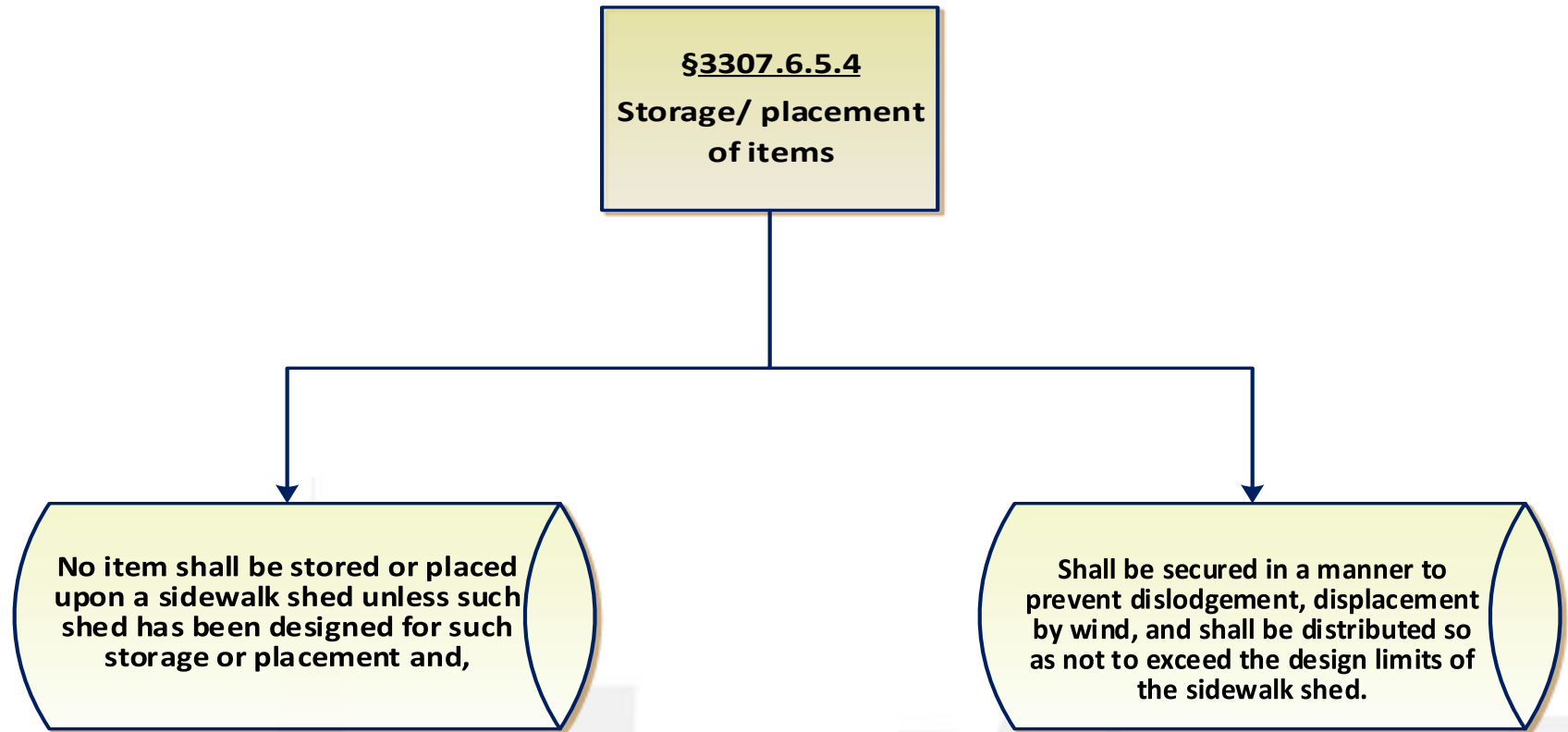
INSTALLATION | ADJUSTMENT | MAINTENANCE | REPAIR
USE | INSPECTION | REMOVAL (6/11)

Part 1



SIDEWALK SHED

NOTABLE CODES – STORAGE/PLACEMENT (7/11)



SIDEWALK SHED

NOTABLE CODES – CLEANING (8/11)

§3307.6.5.5

Cleaning

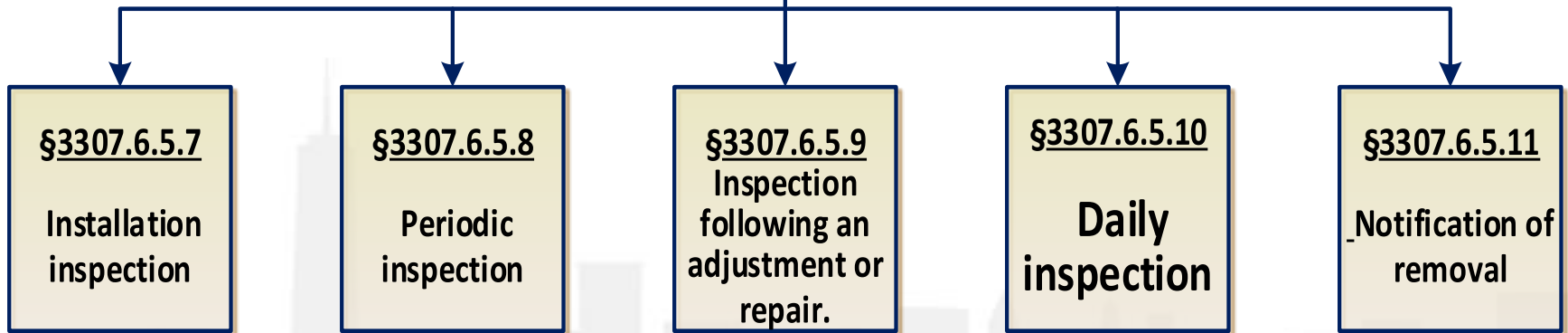
**Must be cleaned
daily of any
material**

SIDEWALK SHED: NOTABLE CODES

INSTALLATION | ADJUSTMENT | MAINTENANCE | REPAIR
USE | INSPECTION | REMOVAL (9/11)

Part 2

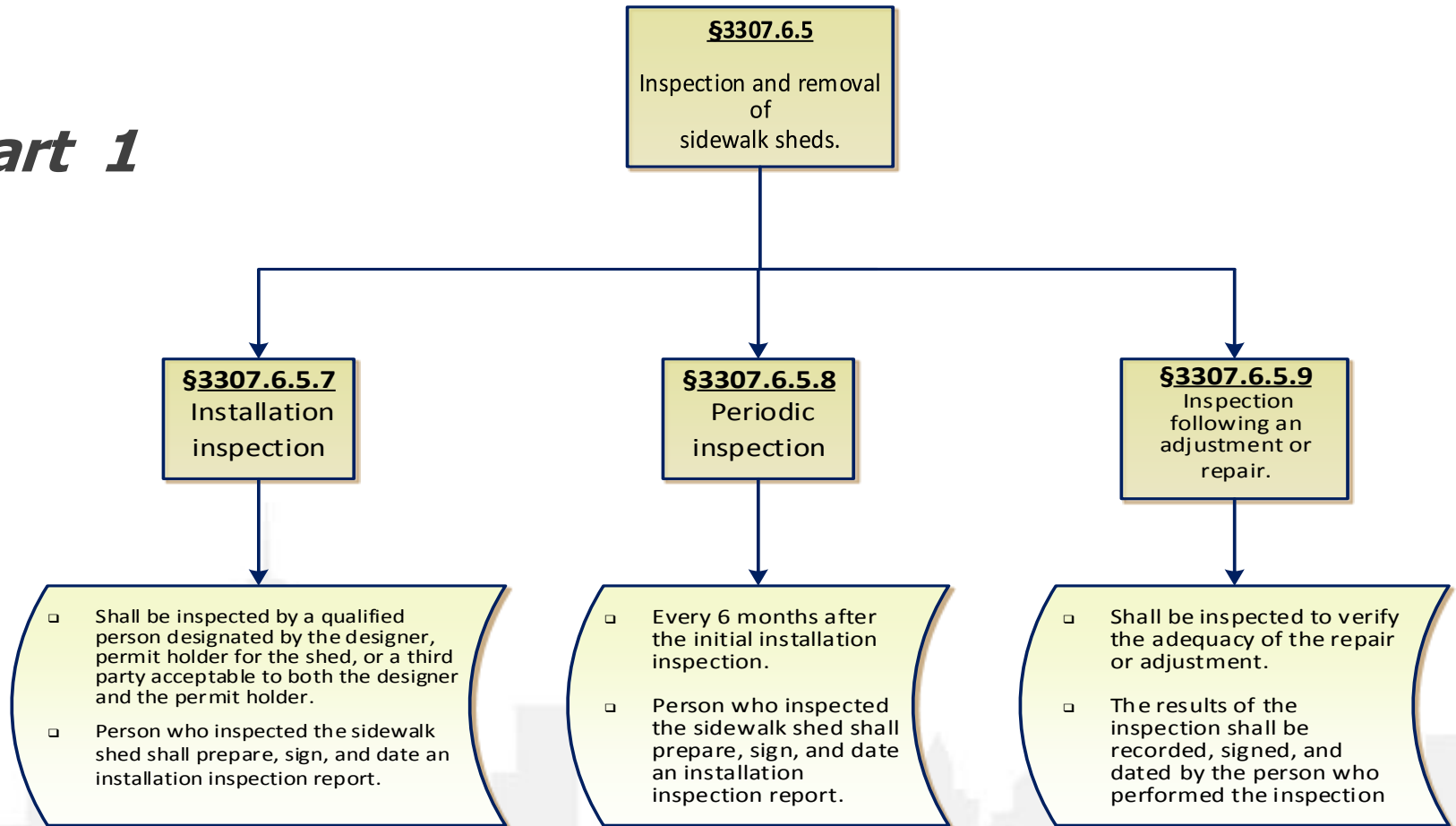
§3307.6.5.7 through
§3307.6.5.11
Installation, adjustment,
maintenance, repair, use,
inspection, and removal of
sidewalk sheds.



SIDEWALK SHED

NOTABLE CODES – INSPECTION & REMOVAL (10/11)

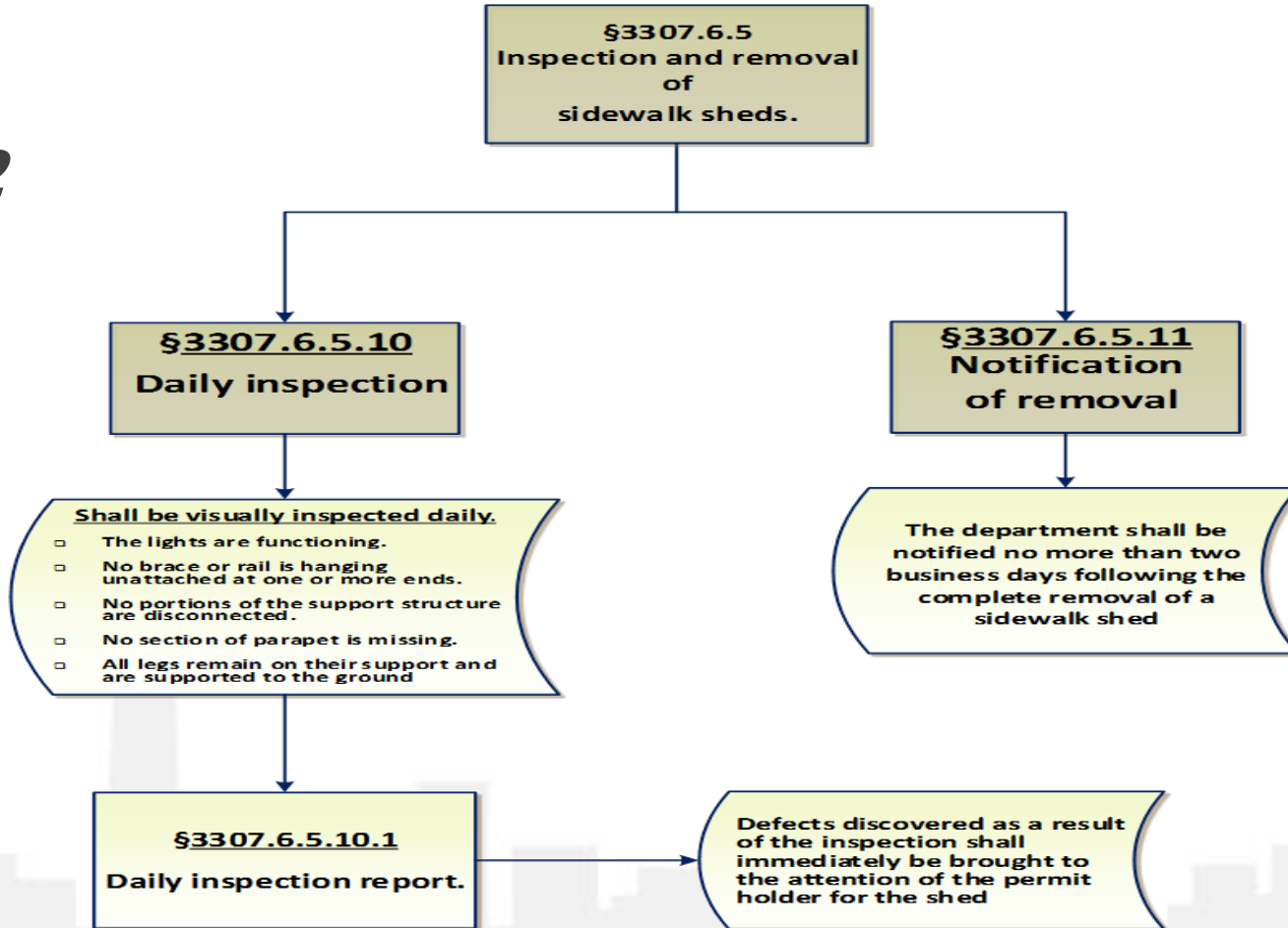
Part 1



SIDEWALK SHED

NOTABLE CODES – INSPECTION & REMOVAL (11/11)

Part 2



SIDEWALK SHED

COMMON VIOLATING CONDITIONS

Permit Holder/Owner

1. Work contrary to approved plans – **AC28-105.12.2**
2. Parapets and extensions missing – **§3307.6.4.6**
3. Failure to maintain – **AC28-301.1**, Misc. Chapter 33 Mud sills rotten, caps for bolts missing, no lighting – **§3314.10.9**
4. Signage missing – **§3301.9.2, §3301.9.2.6**
5. No installation inspection report – **§3307.6.5.7**
6. No daily inspection reports – **§3307.6.5.10.1**
7. No six-month periodic inspection report – **§3307.6.5.8**

SIDEWALK SHED

COMMON VIOLATING CONDITIONS

Design Professional

1. Plans are not project specific and lack sufficient detail – **AC28-104.7.1**
2. Main beams and junior beams are not sufficiently sized for gravity loads – **§3307.6.4.2**
 - a. Generic load tables – all spans not addressed
 - b. Storage of materials/scaffold not addressed
 - c. Un-braced top flange condition not addressed
3. Lateral system is insufficient for overturning/sliding – **§3307.6.4.2.1**
4. Materials not identified - **§3307.6.5.4; AC28-104.7.8**
5. Storage loads not identified - **§3307.6.5.4**
 - a. Associated shed application and load not identified

**This concludes the
American Institute of Architects
Continuing Education Systems Course.**

NYC Department of Buildings Contact for AIA:

Melanie Guzman

Melaguzman@buildings.nyc.gov

(212) 393-2163

© 2018 New York City Department of Buildings



**BUILD SAFE / LIVE SAFE
CONFERENCE**

2010