

SITE SAFETY & DEMOLITION PLANS:

Code Requirements & Alternative Provisions

PRESENTED BY

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PRESENTATION DESCRIPTION

- This presentation will provide an overview of submittal document requirements of the NYC Building Code and safety considerations pertaining to site safety and demolition plans and clarify the necessary detail expected to be provided by design professionals on the plans.
- Highlight variance requests to modify construction safety Code requirements; discuss the Administrative and Building Code sections applicable to site safety and demolition plans and be able to identify the required content to be provided on the documents per these sections.
- Review examples of common plan submittal errors and omissions to help identify deficiencies, demonstrate compliance with the code, and prevent potential safety hazards.
- Examine construction safety requirements of the NYC Building Code and common requests to modify these requirements where there is a practical difficulty of complying with the Code. Learn and define relevant construction safety terms of Chapter 33





FOCUS

- Definitions and Key Terms: Demolition & Site Safety
- Demolition Plans
 - Code Requirements
 - Minimum Content
- Site Safety Plans
 - Code Requirements
 - Minimum Content
- Construction Code Determination (CCD1)
 - Documents and Forms
 - How to File





Demolition, Site Safety







Major Building

 An existing or proposed building 10 or more stories or 125 feet or more in height

- OR -

 An existing or proposed building with a building footprint of 100,000 square feet 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.





DEFINITIONS & KEY TERMS Per the Building Code: 3302

DEMOLITION: Full or partial demolition

■ Full Demolition – The dismantling, razing, or removal of all of a building or structure, including all operations incidental thereto.

Partial Demolition – The dismantling, razing, or removal of structural members, floors, interior bearing walls, and/or exterior walls or portions thereof, including all operations incidental thereto.







Construction Code Determination (CCD1)

- Applications which are submitted to request a waiver from following Chapter 33 of the Building Code.
 - Applicants are providing an alternate means which are comparable to the existing Code

Full Demolition application (DM)

- Plans, sections, and details of the building or portion thereof to be demolished clearly showing the extent and sequence of the demolition.
 - Submittal documents must be approved by the Department before demolition work begins.
 - Such submittal documents must be signed, sealed, and submitted by a registered design professional.







Handheld Device

- Equipment, mechanical or non-mechanical, utilized to physically demolish a building or structure, or elements of a building or structure, that is held, lifted, moved, and operated by a single person.
 - A handheld device shall also include any item accessory to such equipment, including but not limited to a compressor, regardless of if such accessory item is held, lifted, moved, and operated by a single person.

Note: Remote controls or remote-controlled equipment are not considered handheld devices.







Mechanical Demo Equipment

- Mechanically driven or powered equipment that is utilized to physically demolish a building or structure, or elements of a building or structure, either within or exterior to the building or structure, or that is utilized to move debris or material within the building or structure
 - Mechanical demolition equipment shall not include mechanically driven or powered equipment that is utilized to move debris or material outside of the building or structure.





DEMOLITION PLANS

Code Requirements, Minimum Content





- 1. File application in the borough
 - Pay all required fees
- 2. Submit plans to CSC Plan Exam for review.
 - Review is conducted by CSC Plan Exam
- 3. Upon approval, submit request for Pre-Demolition Inspection
- 4. CSC enters Pre-Demo PASS in BIS, now permit can be issued
- 5. Obtain permit at the borough





- 6. Call (212) 393-2550 to notify DOB at least 24 hours in advance of Demo
- 7. Demo work starts
- 8. Upon completion, submit request for Sign-off Inspection
- 9. CSC performs Sign-off Inspection
- 10. CSC enters Sign-off in BIS





Demolition Examination: Where to find demolition requirements

Per BC 3306.5.1: Submittal documents for full or partial demolition using mechanical equipment other than handheld.

Submittal documents shall be approved by the department before demolition work begins. Such submittal documents shall be signed, sealed, and submitted by a registered design professional and shall contain, at a minimum, the following:

- 1. Plans, sections, and details of the building or portion thereof, to be demolished clearly showing the extent and sequence of the demolition
- 2. Bracing and shoring necessary to support all demolition operations, and adjoining ground or structures as needed, through all sequences of the demolition





Demolition Examination: Where to find demolition requirements (continued) **Per BC 3306.5.1: Submittal documents for full or partial demolition using**

mechanical equipment other than handheld.

- 3. Where mechanical demolition equipment, other than handheld devices, is to be used, a listing and description of all such proposed equipment to be used in the demolition, including the scope of equipment work and positioning of equipment on the existing structure. The description of the equipment shall include calculations showing the adequacy of the existing structure to support loads imposed by such equipment. If more than one piece of demolition equipment is proposed to be used at the same time, the effect of the simultaneous loads imposed on the existing structure shall be described and investigated
- 4. A description of compliance with the applicable provisions of Section 3306.9 (Demolition Safeguards) of this code.





Demolition Examination: Where to find demolition requirements (continued)

Per BC 3306.5.1: Submittal documents for full or partial demolition using mechanical equipment other than handheld.

Exceptions: The requirements of section 3306.5 shall not apply to:

- Emergency work
- The full demolition of a detached one, two, or three-family dwelling.
- Mechanical removal of certain elements related to detached one-, two-, or three-family dwelling.
- The full demolition of a fully detached building that is three stories or fewer and with a floor area of 5,000 square feet or less per story.
- Partial demolition operations accomplished without any mechanical demolition equipment, other than handheld devices, provided such work is a minor alteration or ordinary repair.





Demolition Examination: Where to find demolition requirements

DEMOLITION CHECKLIST 02/01/2019						
CODE	DESCRIPTION	STATUS				
A01	PRE-DEMO INSPECTOR'S REPORT	FILED				
A02	WORKMEN'S COMPENSATION INSURANCE	FILED				
A03	DISABILITY BENEFITS INSURANCE	FILED				
A04	STREET OBSTRUCTION BOND	FILED				
A05	RODENT CONTROL	FILED				
A06	GAS CUT-OFF	FILED				
A07	ELECTRIC CUT-OFF	FILED				
A08	SEWER CUT-OFF	FILED				
A09	WATER CUT-OFF	FILED				
A10	SRO INTAKE FORM (SR01) / HPD3 CHECKLIST	FILED				
A11	5 DAY PRIOR NOTICE TO ADJOINING OWNERS	FILED				
A12	COMMUNITY BOARD NOTIFICATION	FILED				
A13	ASBESTOS REPORT (ACP5/ASB4)	FILED				
A14	PHOTOGRAPHS	FILED				
A15	PW1 APPLICATION FOR FENCE OR NB	FILED				
A16	APPOINTMENT CARD FROM B.E.S.T	FILED				
A17	LANDMARK LETTER RE NO DESIGNATION OR CAL	FILED				
A18	TITLE SEARCH	FILED				
A19	DEED FOR TRANSFER OF UNIMPROVED PROPERTY	WAIVED				
A20	ECB VIOLATIONS(S) FOR ILLEGAL DEMOLITION	WAIVED				
A21	HPD CONH PILOT	WAIVED				

 Documents required for permit received waived by the borough







Minimum Content of Demolition Plan Submissions

Plan formatting and naming shall be in accordance with B-Scan Requirements document published October 2010. Plans must be in accordance with Article 104 (Construction Documents) of the Administrative Code; 3306.5.1, 3306.9 of the Chapter 33 of the BC, and the following:

- 1. A site plan showing the property to be demolished and all adjoining property. Building stories and heights must be provided for both the building being demolished, as well as all adjoining buildings. This site plan must also provide horizontal offset dimensions of all adjacent structures from the property lines of structure being demolished and from the structure itself. All addresses and block & lot numbers must be provided and the property lines must be bold and clear
- 2. Basic structure of the building being demolished must be provided, including general sizes and types of main structural members. A general structural lateral system must be identified as well. Due diligence on the part of the Applicant of Record is required (both research and field survey) to provide as much information as necessary to produce a thorough representation of the structure.
- 3. A statement must be provided on the cover page of the plans stating that the condition of the existing structure to be demolished has been assessed and whether it has been determined to be weakened or not (per BC 3306.7 demolition of weakened structures) AND whether it requires shoring/bracing or remedial work to be installed prior to demolition
- NOTE: This condition assessment should be documented by a signed and sealed report available
- 4. All construction fencing/gates, including types, locations and dimensions must be clearly identified. The location of the projects information sign must also be shown. A section detail of the fence must be provided. (All fences require design as per 2014 Code and the design must be available on site or included in the DM filing.)
- 5. The demolition safety zone must be shown and the method of defining that zone (fencing, barriers, etc.) must be provided. The safety zone must be determined by the Applicant of Record based on

Bill de Blasio, Mayor Rtok D. Chandler, P.E., Commissioner

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1. A site plan showing the property to be demolished and all adjoining property. Building stories and heights must be provided for both the building being demolished, as well as all adjoining buildings. This site plan must also provide horizontal offset dimensions of all adjacent structures from the property lines of structure being demolished and from the structure itself. All addresses and block & lot numbers must be provided and the property lines must be bold and clear.

NOTE: This notice can be found at

https://www1.nyc.gov/assets/buildings/pdf/demo_minimum_plan.pdf





(continued)

- 2. Basic structure of the building being demolished must be provided, including general sizes and types of main structural members. A general structural lateral system must be identified as well. Due diligence on the part of the Applicant of Record is required (both research and field survey) to provide as much information as necessary to produce a thorough representation of the structure.
- 3. A statement must be provided on the cover page of the plans stating that the condition of the existing structure to be demolished has been assessed and whether it has been determined to be weakened or not (per BC 3306.7 demolition of weakened structures) AND whether it requires shoring/bracing or remedial work to be installed prior to demolition.

NOTE: This condition assessment should be documented by a signed and sealed report available upon DOB request.





- 4. All construction fencing/gates, including types, locations and dimensions must be clearly identified. The location of the projects information sign must also be shown. A section detail of the fence must be provided. (All fences require design as per 2014 Code and the design must be available on site or included in the DM filing.)
- 5. The demolition safety zone must be shown and the method of defining that zone (fencing, barriers, etc.) must be provided. The safety zone must be determined by the Applicant of Record based on the height of the building being demolished, the means/methods of demolition (mechanical, hand, etc.), and the type of protection. Safety zones for full mechanical demolition from outside the structure must be a minimum of half the height of the building.





- 6. All adjoining roof, yard, walkway and sidewalk protection must be clearly illustrated (with dimensions), including any sidewalk sheds. The design of these temporary installations may be provided on the DM plans or under a separate application (ALT 2, 3). Horizontal netting/catch-alls must be illustrated, if used.
- 7. Supported scaffolding and netting must be shown, including heights above the building being demolished (minimum of 42 inches), details of anchorage to building and netting type. Design for these may be provided on the DM plans or under a separate application (ALT 2, 3).
- 8. Any encroachments on adjoining property (fencing, barriers, safety zone, etc.) must be clearly shown and a note provided stating that permission shall be obtained from the adjoining property owner.





- 9. A clear and detailed demolition sequence must be provided in narrative and illustrated in the plans. All phases should be designated by a number or letter designation to clearly depict the required sequence of the work. Structural stability must be demonstrated through all phases of demolition. A "preparation phase" must be included indicating but not limited to the following: glass removal, sealing of windows, removal of equipment/fixtures, cutting of services, etc. A note must indicate that any required permits for termination of services will be obtained, including FDNY variances for SP and SD removal (DOB variance also required.
- 10. If shoring, bracing, or other stabilization measures must be taken prior to demolition, a clear and detailed sequence of this work must be provided in the plans. The work required to be performed prior to the start of any demolition work must be clearly identified.





- 11. All means and methods of debris removal from the point of demolition to the public roadway (carting) must be clearly defined including openings in floors, chutes, etc. Any debris sorting operation must be indicated and enclosed by barriers and kept separate from all other demolition activity. All structures must be lowered in a controlled manner and means, methods and measures to ensure their safe removal shall be provided. The method of removal of any structural member shall not destabilize any remaining members and shall not allow unaccounted impact loads on the structure. Uncontrolled dropping of material is forbidden.
- 12. Plans must show mechanical equipment (non-handheld) to be used and the gross weight of the equipment. The Applicant of Record may designate use of a specific piece of equipment but allow for alternates within the same weight range and type. Alternatives must be listed on plans. A list of cranes must also be provided, including their location and a note that any permits required from the DOB Cranes and Derricks Unit will be obtained. Calculations must be provided demonstrating safe support of mechanical equipment and any conditions imposed on its use or position on the floor.





- 13. All means of egress must be indicated for all phases of the demolition.
- 14. Elevator in readiness, if required, must be shown.
- 15. Water supply for suppressing dust must be indicated and the source for the water must be provided. (Use of a hydrant requires a DEP permit. This permit shall be kept on site at all times.) The location of hydrants must be shown.
- 16. All means of fire detection and suppression must be shown (i.e. fire extinguishers, fire watch, hot works program, etc.). A note must indicate all will be in accordance with FDNY rules and regulations.
- 17. The methods of remediating adjoining lot line walls must be shown, including weatherproofing, repair, floor-to-wall anchorage, etc.





(continued)

18. The end-of-demolition conditions must be clearly illustrated in plan and section, including any remaining foundation elements and means of stabilizing those elements and the adjoining property (via complete backfill, berms, shoring/bracing, etc.). A detailed section must show the elevation of the footing of the building being demolished as it relates to the adjoining property footing. This detail is required to determine if the foundation of the building being demolished is providing support (vertical or lateral) for the adjoining property that may require shoring. If so, shoring/underpinning/berming/backfill/etc. must be provided on the DM application (or related ALT 2 referenced on the DM application).

If all foundation elements are NOT being removed and/or site is NOT being completely backfilled, follow the requirements of the notice from July 2014 titled "Demolition Filings + 2014 Construction Codes: Waiver of Backfill and/or Foundation Removal."

19. All required special inspections must be listed.





WEAKENED STRUCTURES

Demolition Examination: Emergency Declarations

Buildings		EMEI	RGENC	Y DECLA	RATION		
When signed by the Borough Commissioner, this document confirms the declaration of an Emergency condition pursuant to Section 28-215.1 of the NYC Administrative Code.							
Immediate Emergency Declaration Emergency Declaration							
Premises Information							
Bldg No.:	Street Name:		<u> </u>		Borough: BX		
BIN:	Block:	Lot:26	C.B. No.:206	Const. Class: III, NFP	No. Stories: 4 + C		
Occupancy Class:	Residential			Occupied 🔀 Unoccupie	Vecated: 12/11/2019		
Owner Information	on .						
Name:							
Bldg. No.:	- Street Name:			City: Bronx	State: NY Zip: 10460		
Condition of Structure and Recommended Remedy							
by x 85 feet deep partially collapsed inadequately brace into the adjacent p feet by 8 ft deept Sloping and deter floor structurally c stair at risk of colla	on an Interior lot app I and is at risk of furth sed. Chimneys at Exp properties. 1st floor in Exp 4 well at 1st, 2nd iorated first floor joist compromised with par	roximately 22 ner collapse. I o 2 and 4 are o nadequately s d, and 3rd floo is at various a trially detache advance state	rest wide by 97 the Parapet walls nead cracked, leaning, supported by non-sits. Various holes ireas throughout, it wood framing e	eet deep. Exposure 1 fact r Exp 1/2 and 1/4 comers have loose cap stones, are engineered shoring. Partic in 1st floor with severely of Interior wood stair along E and partially collapsed mass	severely deteriorated and are at risk of collapse at floor collapse approx 8 deteriorated flooring. Exp 4 from 1st floor to 4th		
REMEDY: Fully de	emolish entire 4 stor	y plus cellar b	uilding, and grade	site.			

A statement must be provided on the cover page of the plans stating that the condition of the existing structure to be demolished has been assessed and whether it has been determined to be weakened or not (per BC 3306.7 demolition of weakened structures) AND whether it requires shoring/bracing or remedial work to be installed prior to demolition.

NOTE: This condition assessment should be documented by a signed and sealed report available upon DOB request.

DEMOLITION OF WEAKENED STRUCTURES:

THIS BUILDING IS NOT A WEAKENED STRUCTURE, THE STRUCTURAL STABILITY OF THIS BUILDING HAS BEEN EVALUATED, NECESSARY PROBING HAS BEEN PERFORMED AND IT'S SUITABLE FOR WORKERS TO SAFELY WORK INSIDE THE BUILDING.

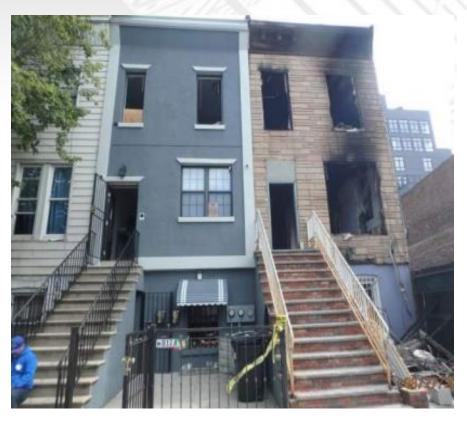
REFER TO STRUCTURAL STABILITY REPORT ISSUED ON 02-18-2020.





ASSESSMENT OF ADJOINING STRUCTURES

Demolition Examination: Emergency Declarations



- Structural evaluation of adjacent/adjoining buildings and shared features such as party walls, staircases and common supporting structures.
- Information on any structures that require special attention, such as cantilevered structures, prestressed concrete, precast concrete, steel composite structures, cladding walls, stressed skin structures, hanging structures etc.
- An assessment shall be performed by or under the direction of the registered design professional who prepared the submittal documents. The assessment shall consist of an interior and exterior physical inspection of the attached or abutting structure, as well as a review of all pertinent plans and records of the structure.





COMMON ERRORS & OMISSIONS

Demolition Examination: Common Errors



- Structure not accurately represented in the plans
- Items such as chimneys and other appurtenances shown in photos not depicted in the plans
- Subgrade spaces not identified
- Damaged or collapsed areas not described
- Party walls not correctly documented
- Noggin Walls





COMMON ERRORS & OMISSIONS

Demolition Examination: Wood 'Noggin' Party Wall Buildings: Adjacent/Adjoining Structures



Citation Link: https://www.carpentry-tips-and-tricks.com/noggins.html

"Noggins, sometimes called bridging or blocking are timbers used all over the place during first fix/structural carpentry to strengthen and stiffen wall, floor and other timber structures.

Noggins help to straighten out wall studs and floor joists and they are also used to provide a strong fixing for something that will be later fixed to the structure."

- 1. Load capacity of walls
- 2. Fire separation
- 3. Temporary weather protection





DEMOLITION SEQUENCE:

2. HAND TOOL REMOVAL OF 2nd FLOOR

- 2.1 REMOVE WOOD DECK
- 2.2 REMOVE WOOD STAIRS.
- 2.3 REMOVE FRONT NON BEARING FACADE WALL.
- 2.4 FROM FRONT (42nd STREET) TO BACK REMOVE WOOD JOISTS IN 10'-0" INTERVALS ASSISTED WITH MOVABLE SCAFFOLD 2.4.1 JOISTS MUST BE SAW CUT 12" AWAY FROM WALL AND LOWERED TO FLOOR BELOW.
- 2.5 FOR THE PARTY WALL AT THE BUILDING 1257 42nd STREET & 1261 42nd STREET:
 - 2.5.1. REMOVE STUB ENDS WITHOUT WEAKENING EXISTING MASONRY,
 - 2.5.2. CLEAN BEAM POCKETS OF LOOSE MORTAR,
 2.5.3. BEND OVER ALL WALL ANCHORS AT THE BEAM ENDS IN THE
 STANDING WALL, AND BRICK-UP ALL OPEN BEAM HOLES WITH
 SOUND BRICK AND CEMENT MORTAR
 2.5.4. INSTALL THE TIE-BACK AS SHOWN ON DETAIL #4 ON
 DM-200.
- 2.6 REPEAT STEPS 2.4 TO 2.5 IN NUMERICAL SEQUENCE UNTIL REMOVAL OF JOISTS AND WALLS ARE COMPLETE WITH THE EXCEPTION OF THE LAST 10'-0" INTERVAL.
- 2.7 REMOVE REAR NON BEARING MASONRY WALL.
- 2.7 REMOVE REMAINING WOOD JOISTS INTERVALS & CORRESPONDING REMAINING MASONRY WALLS.
- 2.8 PARGE AND WEATHERPROOF ALL EXPOSED WALLS (SEE DETAIL #3 ON DM-200).

Demolition Plan Development-Plans

- A clear and detailed demolition sequence must be provided in narrative and illustrated in the plans.
- All phases should be designated by a number or letter designation to clearly depict the required sequence of the work.
- Structural stability must be demonstrated through all phases of demolition.
- A preparation phase must be included indicating but not limited to the following: glass removal, sealing of windows, removal of equipment/fixtures, cutting of services, etc.
- A note must indicate that any required permits for termination of services will be obtained, including FDNY variances for SP and SD removal (DOB variance also required).







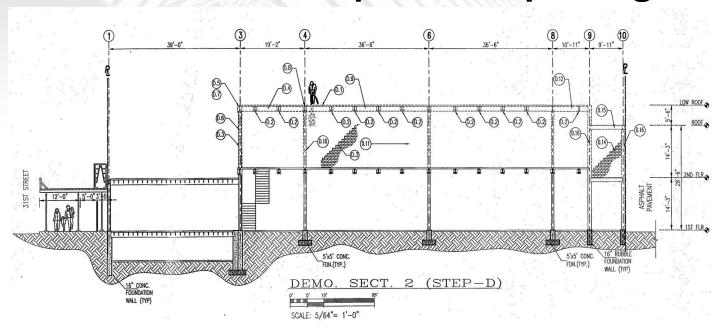
Per BC 3306.8: Demolition sequence.

Any structural member that is being dismembered shall not support any load other than its own weight. No wall, chimney, or other structural part shall be left in such condition that it may collapse or be toppled by wind, vibration or any other cause. The method of removal of any structural member shall not destabilize remaining members. All handling and movement of material or debris shall be controlled such that it will not develop unaccounted impact loads on the structure.





Demolition Plan Development: Sequencing



Exception: Where the design applicant has demonstrated the adequacy of alternate means of demolition through plans, calculations, or the establishment of safety zones, as appropriate, the commissioner may accept such alternative means of demolition.

Per BC 3306.8.1; Structural steel, reinforced concrete, and heavy timber buildings.

Structural steel, reinforced concrete, and heavy timber buildings, or portions thereof, shall be demolished column length-by-column length and tierby-tier. Structural members shall be chained or lashed in place to prevent any uncontrolled swing or drop.

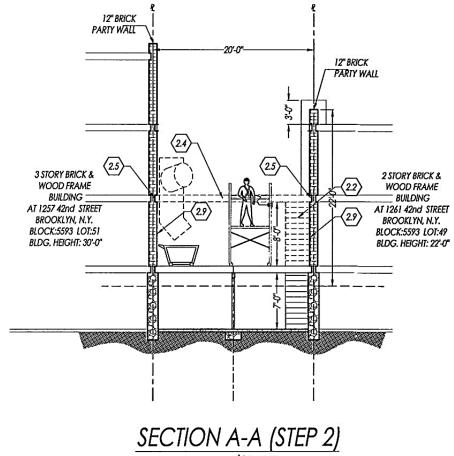




Demolition Plan Development: Structural Load

Per BC 3306.8.2: Masonry buildings with wooden floors.

- Demolition of masonry buildings with wooden floors shall comply with the following requirements:
 - Demolition of walls and partitions shall proceed in a systematic manner, and all work above each tier of floor beams shall be completed before any of the supporting structural members are disturbed.
 - Sections of masonry walls shall not be loosened or permitted to fall in such masses as to affect the carrying capacity of floors or the stability of structural supports.
 - 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.



SCALE: 1/8"=1'-0"





Demolition Plan Development: Typical Plan Notes

PREPARATION WORK NOTES:

- A. INSTALL SOLID FENCE 8' HIGH AROUND THE PERIMETER OF THE JOB SITE, INSTALL OVERHEAD PROTECTION WITH SCAFFOLD & NET PROTECTION AS SHOWN AND ON THE SAFETY ZONE PLAN DM-100.
- B. THE EXITS AND ANY OTHER MEAN OF EGRESS SHOWN ON SAFETY ZONE PLAN SHOULD BE CLEARED OF ANY OBSTRUCTION OR DEBRIS AT ALL TIMES.
- C. REMOVE ALL FIXTURES, CABINETS, CLOSETS, DOORS, WINDOWS ETC.ALL OPENINGS SHELL BE BOARDER-UP
- ASBESTOS ABATEMENT IF REQUIRED MUST BE PERFORMED PRIOR
 TO COMMENCEMENT OF DEMOLITION OPERATIONS.
- E. REMOVE ALL HAZARDS, SUCH AS DOORS, WINDOWS, ETC.
- F. NEIGHBOR'S BUILDINGS CONSENT AND D.O.T APPROVAL SHALL BE OBTAINED PRIOR TO INSTALL PROTECTIONS.
- G. EXTERIOR FIRE STAIRS ON FRONT FACADE TO BE REPLACED BY SCAFFOLD STAIRS BEFORE COMMENCEMENT OF DEMOLITION OPERATIONS.
- H. INSTALL PROVISIONAL SHORING FROM BASEMENT TO THE ROOF, IN ORDER TO PROVIDE A SOLID WORK SURFACE BEFORE DEMOLITION CAN BEGIN.

DEMOLITION SEQUENCE:

1. HAND TOOL REMOVAL OF ROOF:

- 1.1. REMOVE BULKHEAD DOWN TO ROOF LEVEL AS FOLLOW:
 1.1.1. FROM NORTH TO SOUTH REMOVE WOOD JOISTS ASSISTED
 WITH MOVABLE SCAFFOLD.
 1.1.2. REMOVE MASONRY WALLS DOWN TO ROOF LEVEL
 ASSISTED WITH MOVABLE SCAFFOLD
- 1.2. REMOVE BRICK CHIMNEY DOWN TO ROOF LEVEL AS FOLLOW:
 1.2.1. REMOVE THE BRICK CHIMNEY BY HAND, DROPPING DOWN
 SMALL PORTION OF BRICK THRU THE CHIMNEY DOWN TO
 GROUND.
 1.2.2. NO PORTION OF BRICK WALL BIGGER THAN 12"x12"x12
 SHALL BE DROPPED ON FLOOR AT ANY TIME.
- 1.3. REMOVE PARAPET.
- 1.4. REMOVE WEATHERPROOFING & SHEATHING MATERIAL.
- 1.5. REMOVE WOOD STAIRS.
- 1.6. REMOVE FRONT NON BEARING FACADE WALL.
- 1.7. FROM FRONT (MAPES AVENUE) TO BACK REMOVE WOOD JOISTS IN 10'-0" INTERVALS ASSISTED WITH MOVABLE SCAFFOLD 1.7.1. JOISTS MUST BE SAW CUT 12" AWAY FROM WALL AND LOWERED TO FLOOR BELOW.
- 1.8. REMOVE 10'-0" INTERVAL OF SIDE MASONRY BEARING WALLS DOWN TO FLOOR BELOW ASSISTED WITH MOVABLE SCAFFOLD. 1.8.1. 45° DIAG. SLOPE MUST BE LEFT IN PLACE TO ASSURE THE STABILITY OF THE REMAINING PORTION OF WALL AS WALL DEMOLITION PROGRESSES.
 1.8.2. NO PORTION OF BRICK WALL BIGGER THAN 12"x12"x12 SHALL BE DROPPED ON FLOOR AT ANY TIME.
- 1.9. REPEAT STEPS 1.7 & 1.8 IN NUMERICAL SEQUENCE UNTIL REMOVAL OF JOISTS AND MASONRY SIDE WALLS ARE COMPLETE WITH THE EXCEPTION OF THE LAST 10"-0" INTERVAL.
- 1.10. REMOVE FIRE ESCAPE AT REAR OF BUILDING
- 1.11. REMOVE REAR NON BEARING WALL.
- 1.12. REMOVE REMAINING WOOD JOISTS INTERVALS & CORRESPONDING REMAINING MASONRY WALLS.





END OF DEMOLITION

Demolition Plan Development: Demolition Plans

- The end-of-demolition conditions must be clearly illustrated in plan and section, including any remaining foundation elements and means of stabilizing those elements and the adjoining property (via complete backfill, berms, shoring/bracing, etc.).
- A detailed section must show the elevation of the footing of the building being demolished as it relates to the adjoining property footing. This detail is required to determine if the foundation of the building being demolished is providing support (vertical or lateral) for the adjoining property that may require shoring. If so, shoring/underpinning/berming/backfill, etc. must be provided on the DM application (or related ALT2 referenced on the DM application).
- If all foundation elements are NOT being removed and/or site is NOT being completely backfilled, follow the requirements of the notice from July 2014 titled **Demolition Filings + 2014 Construction Codes: Waiver of Backfill and/or Foundation Removal.**





Demolition Plan Development: Removals

Per BC 3306.10: Removal of foundation and slab.

Where a building, or any portion, has been demolished to grade, the floor slab or foundation of such building, or portion, shall be removed and the site backfilled to grade.

- Exceptions:

- 1. Cellar floors may remain provided the cellar floor slab is broken up to the extent necessary to provide ground drainage and prevent accumulation of water, and also provided that all fixtures or equipment that would cause voids in the fill are removed.
- 2. Where portions, other than a cellar floor, are to remain and covered with backfill, a waiver approved by the commissioner shall be obtained. Drawings prepared by a registered design professional depicting the remaining buried structure shall be submitted with the waiver request.





Demolition Plan Development: Removals

Per BC 3306.10: Removal of foundation and slab.

- Exceptions: (continued)
 - 3. Where a floor slab or foundation is to remain and not be backfilled, a waiver approved by the commissioner shall be obtained. Such request for waiver shall be accompanied by a statement and drawings prepared by a registered design professional demonstrating the necessity for retaining the existing floor slab or foundation for future construction or site remediation, as well as demonstrating positive cellar drainage to an approved place of disposal.





Demolition Plan Development: Bulletin



JULY 2014

UPCOMING CHANGE

Demolition Filings + 2014 Construction Codes: Waiver of Backfill and/or Foundation Removal

After a full demolition of a building, the requirement to remove the foundation and backfill a site may be waived. The below information outlines when a waiver may be possible under the 2014 Building Code, which goes into effect October 1, 2014. This waiver option:

- . Applies to demolitions with DM permits issued on or after October 1;
- Does not apply to the removal of existing structures other than

The below information outlines when a waiver may be possible under the 2014 Building Code, which goes into effect October 1, 2014. This waiver option:

Applies to demolitions with DM permits issued on or after October 1;

Does not apply to the removal of existing structures other than foundations, slabs, vaults, etc.; and Requires approval from the Buildings Commissioner.

Requests to Waive Full Backfill ONLY; All Structure Completely Removed

1. Include the waiver request on the demolition plan. For sites exempt from a demolition plan, provide a plan – prepared by a licensed, professional engineer or registered architect – that indicates the site conditions at completion of demolition operations. The demolition or alternative site condition plan must include the following requirements.





Demolition Plan Development: Bulletin

(continued)

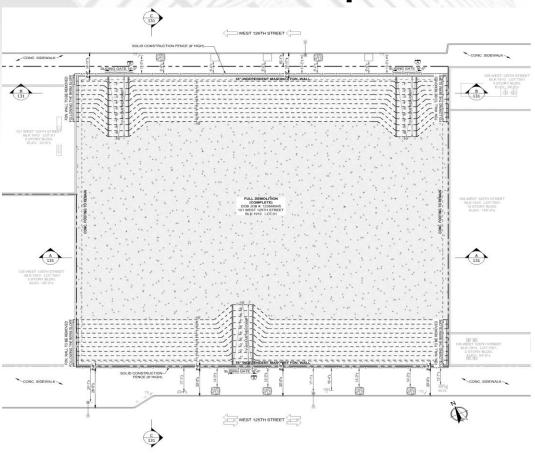
- 2. Provide a justification for waiving a complete backfill in the demolition plan's notes. If earthwork for new development will not begin within three months of completion of demolition operations, periodic inspections by an engineer are required and must be included with the plan. See 2014 Building Code §3303.13.3.
- 3. The plan with plan view and section details must indicate the site conditions upon cessation of demolition operations and include (among other key factors):
 - Any berming of soil/masonry debris;
 - Shoring/bracing needed to support adjoining property and structures (including sidewalks, retaining walls, walkways, yards, buildings, etc.) and any necessary shoring must be designed by a licensed professional;
 - Required fences; and
 - Site drainage.

NOTE: After a full demolition of a building, the requirements to remove the foundation and backfill a site may be waved.





Demolition Plan Development: Bulletin



(continued)

- State on the plan that the request for waiver of foundation/slab removal and backfill satisfies the requirements of this notice.
- 5. A qualified person must periodically inspect the site to ensure stability until earthwork commences. Records of inspections and maintenance must be kept on site and made available to the Department upon request.
- 6. Provide the owner with plans that indicate site conditions at completion of demolition operations so that they will be incorporated into the support-of excavation design for new a development.





SITE SAFETY PLANS

Code Requirements, Minimum Content





SITE SAFETY PLAN REQUIREMENTS

Per BC Section 3310: Requirements for the Construction Or Demolition of Major Buildings:

- 1. The construction of a new major building;
- 2. The vertical or horizontal enlargement of a major building;
- The full or partial demolition of a major building;
- 4. The alteration, maintenance, or repair of a façade of a major building, provided the building is more than 14 stories or 200 feet (60 960 mm) in height and also provided the facade work requires a sidewalk shed to be installed; and
- 5. Any construction or demolition work, including the alteration, maintenance, or repair of a façade, in a building so designated by the commissioner.
 - Exception: The requirements of this section shall not apply to partial demolition operations limited to the
 interior components of a major building provided no mechanical demolition equipment, other than
 handheld devices, are used.





SITE SAFETY PLAN REQUIREMENTS: MAJOR BUIDINGS

No permit shall be issued for the type of work listed in Section 3310.1 until a site safety plan which meets the requirements of Article 110 of Chapter 1 of Title 28 of the Administrative Code has been approved by the Department.

16 TOTAL ITEMS REQUIRED FOR JOB		WHO	PRI	REQUIRED		RECEIVED		DATE CERTIFIE D	WAIVED	AUTO POPULATED
		RECV ⁺	ТО	ID	DATE	ID	DATE	D		
RA0228	ASBESTOS: COMPLETION OR CLOSEOUT (ACP20/21/5)	N	PER	TGA	2/13/2018					Yes
RB0003	SITE SAFETY PLAN: BEST APPROVAL REQUIRED	Т	PER	TGA	2/13/2018					Yes
RB0016	MICROFILM/SCAN: INITIAL	N	PER	TGA	2/13/2018					Yes





Per Article §28-110.1; Site Safety Plan

- Where a site safety plan is required by chapter 33 of the New York City Building Code, such plan shall include the following:
 - 1. Location of all construction fences around work site;
 - Location of all gates in construction fences;
 - 3. Location of standard guardrails around excavations, when required;
 - 4. Horizontal and vertical netting program, including details of the initial installation, schedule of horizontal jumps and vertical installations, and designated crane and derrick lifting areas where horizontal netting is omitted. The program shall include as an attachment any Department approval obtained regarding required safety netting during construction or demolition operations; the revised site safety plan shall be approved;





- Location of all sidewalk sheds, including appropriate Department application numbers and Department of Transportation permit numbers and expiration dates;
- 6. Location of all temporary walkways, including appropriate Department application numbers and Department of Transportation permit numbers and expiration dates;
- Location of foot bridges and motor vehicle ramps, including appropriate
 Department application numbers and Department of Transportation permit
 numbers and expiration dates;
- 8. Protection of side of excavation, when required, including appropriate Department application numbers and Department of Transportation permit numbers and expiration dates;





- Location of all street and sidewalk closing(s), including appropriate
 Department application numbers and Department of Transportation permit numbers and expiration dates;
- 10. Approximate location of material and personnel hoist(s) and loading areas, including appropriate Department application numbers and Department of Transportation permit numbers and expiration dates;
- 11. Approximate location of all crane and derrick loading areas;
- 12. Location of all surrounding buildings, indicating occupancy, height and type of any required roof protection;
- 13. Location of all standpipe system and Siamese hose connections;





- 14. Location of all temporary elevators for fire department use when building is above 75 feet (22 860 mm) in height;
- 15. Location of all exterior contractors' sheds;
- 16. All required safety netting and scaffolding;
- 17. Widths of all sidewalks and roadways; all traffic information; all exits from the work site;
- 18. A copy of the proposed site safety manager or site safety coordinator's certificate, as applicable, including the certificate for any alternate site safety manager or site safety coordinator;





- 19. Such features requiring special sequencing in order to maintain safe conditions with a written description of those sequences;
- 20. A statement that prior to performing any work on the project all workers have successfully completed the training required by section 3310.10.2 of the New York City Building Code; and
- 21. A statement that all workers employed on the construction site will receive a site-specific orientation program required by section 3310.10.1 of the New York City Building Code.
 - 28-110.2 Phased site safety plans. Multiple layouts of the site safety features enumerated in section 28-110.1 may be submitted at any time during construction operations to show phased site safety designs consistent with the phase of anticipated work.





Site Safety Filing Process: DOB NOW

DOB NOW: Build - SITE SAFETY PLAN OVERVIEW



- Site Safety Plans (SSPs) can be triggered by the following work types: GC, ST, FO, SOE, and EA.
- Applicability of the SSP is determined by the system based on answers given to certain questions on the Job Filing after it is Approved.
- The system will not allow Users to file Professional
 Certification with PW2 until the Site Safety requirement has been determined.
- SSPs will exist at the Job Filing level.



The Site Safety Plan can be waived. Waivers must be approved by DOB.

DOB NOW: Build - SITE SAFETY PLAN CURRENT STATE



- The SSP or SS Waiver is submitted to DOB as a PDF email attachment.
- DOB reviews the SSP or the Waiver and either approves it or raises objections to be met before approval.



DOB NOW SSP Training Link: https://www1.nyc.gov/assets/buildings/pdf/tpp_and_ssp_training_presentation.pdf





Site Safety Filing Process: DOB NOW

DOB NOW: Build - SITE SAFETY PLAN - KEY STAKEHOLDERS





Applicants of Record

- Registered Architects
- Professional Engineers
- Licensee



Site Safety Personnel

- Site Safety Managers
- Site Safety Coordinators
- Construction Superintendents

Property Owners

- ..., ...,
- Job Filing Representatives
- Licensees
- Site Safety personnel will hold the following license types: Construction Superintendent (CS), Site Safety Coordinator (SSC), or Site Safety Manager (SSM). A "higher" level role can substitute for a "lower" level role.
- If the Site Safety trigger calls for an SSC or SSM, either is acceptable. If more than one trigger is applicable, the more stringent requirements are applied.
- If the required role is Construction Superintendent, the Site Safety Plan does not need approval. However, Site Safety Waivers always need approval.
- Construction Superintendents can supervise a maximum of 10 Job Sites.

DOB NOW: Build – SITE SAFETY REQUIREMENT TRIGGERS ALTERATION JOB TYPE



	Building Stories (Existing or Proposed)				Building Height (Exis		Structural Footprint		
	Any	1-9	10-14	≥15	125-199	≥200	≥100,001sq. ft.	≤100k sq. ft.	
Horizontal Enlargement	CS	N/A	SSC or SSM	SSM	SSC or SSM	SSM	SSM	SSC or SSM	
Vertical Enlargement	CS	N/A	SSC or SSM	SSM	SSC or SSM	SSM	SSM	SSC or SSM	
Façade Alteration	N/A	N/A	N/A	SSM	N/A	SSM	SSM	N/A	
Demolishing more than 50% of floor area of building	cs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Altering more than 50% of the floor area of the building	CS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Removing one or more floors	CS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Partial Demolition work limited to interior components of the building and no mechanical demolition equipment, other than handheld devices, is used	N/A	N/A	SSC or SCM	SSM	SSC or SSM	SSM	SSM	SSC or SSM	
TR1 Inspection: Underpinning RC1022	CS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
TR1 Inspection: Excavations- Sheeting, Shoring, and Bracing RC1033	CS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

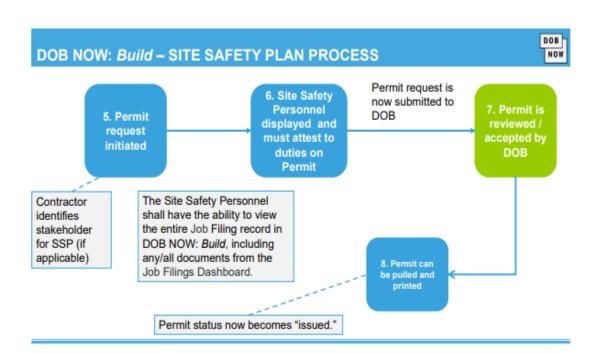
DOB NOW SSP Training Link: https://www1.nyc.gov/assets/buildings/pdf/tpp and ssp_training presentation.pdf





Site Safety Filing Process: DOB NOW



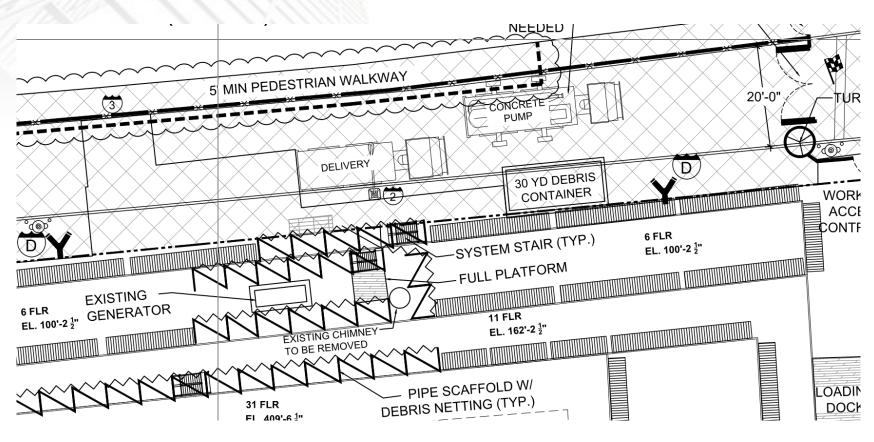


DOB NOW SSP Training Link: https://www1.nyc.gov/assets/buildings/pdf/tpp and ssp_training presentation.pdf





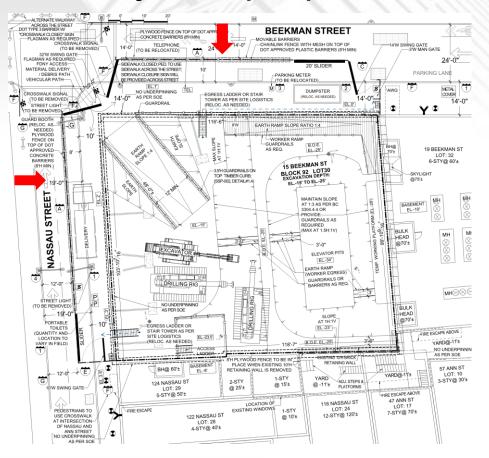
Site Safety Filing Process: Where to find SSP Requirements







Site Safety Plans (SSP): Construction Fence





Per AC 28-110.1; Site Safety Plan.

 Location of all construction fences around work site

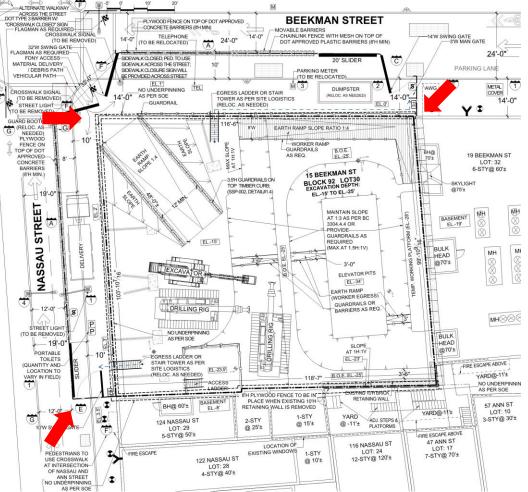




Site Safety Plans (SSP): Construction Gates Per AC 28-110.1; Site Safety Plan.

Location of all gates in construction fences.





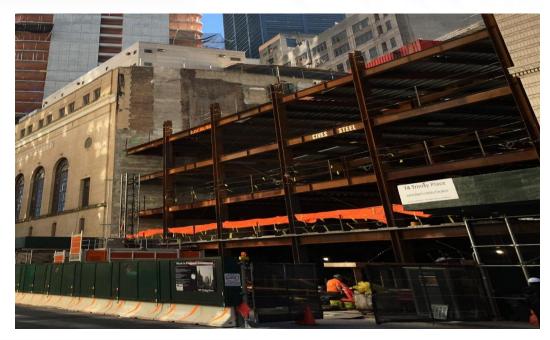


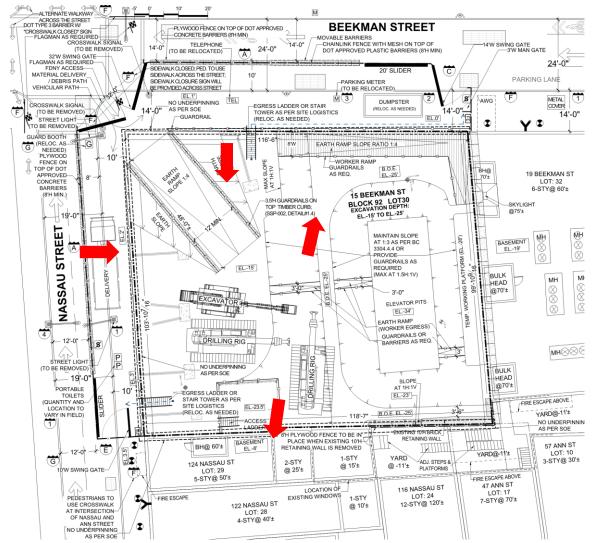


Site Safety Plans (SSP): Guardrails

Per AC 28-110.1; Site Safety Plan.

Location of standard guardrails around excavations, when required.







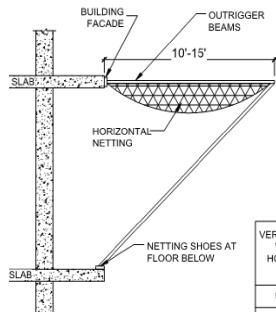


Site Safety Plans (SSP): Horizontal & Vertical Netting

Per AC 28-110.1; Site Safety Plan.

Horizontal and vertical netting program, including details of the initial installation, schedule of horizontal jumps and vertical installations, and designated crane and derrick lifting areas where horizontal netting is omitted. The program shall include as an attachment any department approval obtained regarding required safety netting during construction or demolition operations; the revised site safety plan shall be approved.





HORIZONTAL NETTING TO COMPLY WITH SECTION BC 3308 PROTECTION OF UNENCLOSED PERIMETERS. 3308.6.2.6 PROJECTION OF NETS/ HORIZONTAL DISTANCE OF OUTER EDGE OF NETS FROM EDGE OF WORKING SURFACE IN COMPLIANCE WITH ANSI/ ASSE 10.6 REQUIREMENTS.

10.6 FOR THE APPLICABLE FALL DISTANCE, PERIMETER NET SYSTEMS SHALL EXTEND OUTWARD HORIZONTALLY FROM THE OUTERMOST WORKING SURFACE OF THE STRUCTURE A DISTANCE EQUAL TO OR GREATER THAN THE DISTANCE LISTED IN THE FOLLOWING TABLE:

VERTICAL DISTANCE FROM WORKING LEVEL TO HORIZONTAL PLANE OF PERSONNEL NET	MINIMUM REQUIRED HORIZONTAL DISTANCE OF OUTER EDGE OF NET FROM EDGE OF WORKING SURFACE
UP TO 5 FEET (1.5M)	8 FEET (2.4M)
MORE THAN 5 FEET (1.5M) UP TO 10 FEET (3.0M)	10 FEET (3.0M)
MORE THAN 10 FEET (3.0M)	13 FEET (3.9M)

THE NETS SHALL BE INSTALLED WITH SUFFICIENT SAG AND IN SUCH A WAY AS TO CAPTURE FALLING PERSONNEL OR DEBRIS AND MINIMIZE BOUNCE.





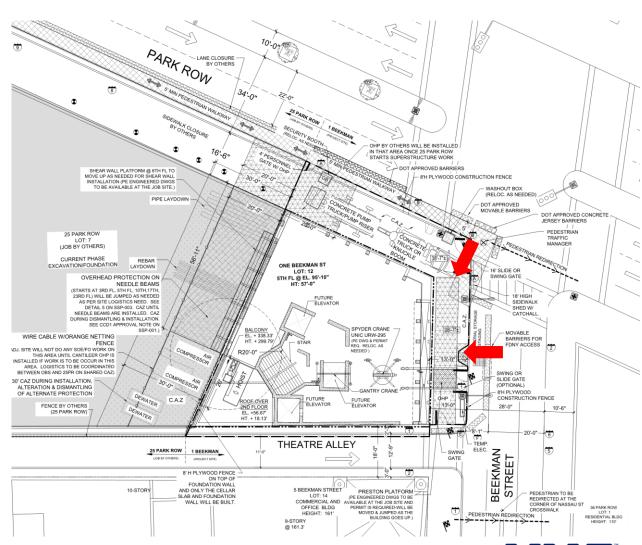
Minimum Content of Site Safety Plan Submissions

Site Safety Plans (SSP): Sidewalk Sheds Per AC 28-110.1; Site Safety Plan.

 Location of all sidewalk sheds, including appropriate department application numbers and department of transportation permit numbers and expiration dates.







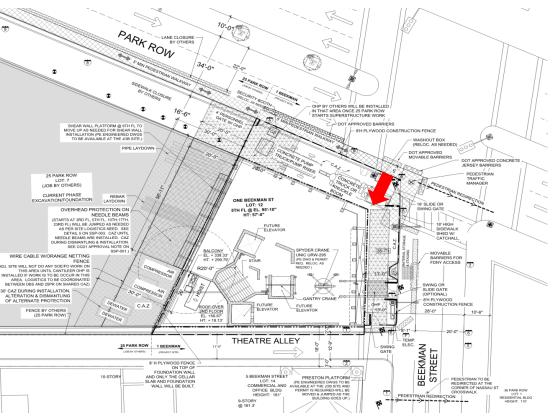


Site Safety Plans (SSP): Temporary Walkways

Per AC 28-110.1; Site Safety Plan.

Location of all sidewalk sheds, including appropriate department application numbers and department of transportation permit numbers and expiration dates.





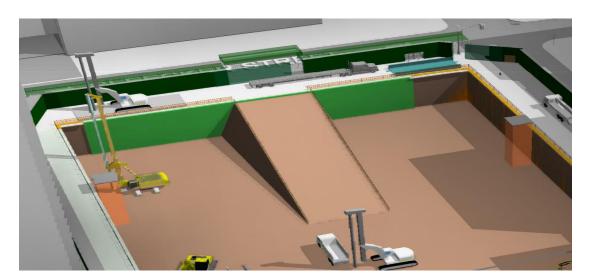


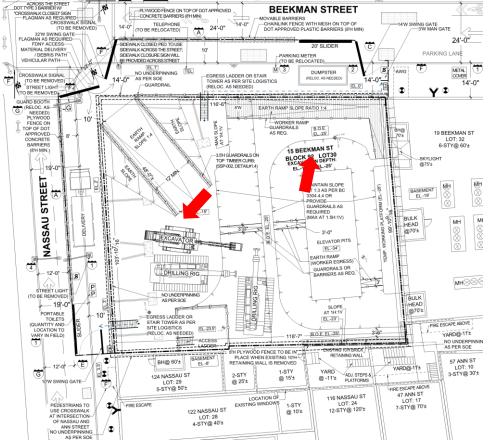


Site Safety Plans (SSP): Foot Bridge and Motor Vehicle Ramps

Per AC 28-110.1; Site Safety Plan.

 Location of foot bridges and motor vehicle ramps, including appropriate Department application numbers and Department of Transportation permit numbers and expiration dates







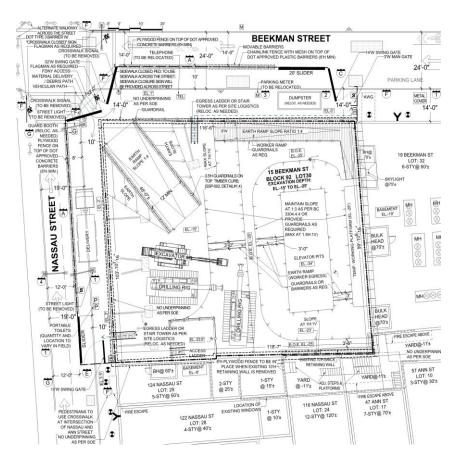


Site Safety Plans (SSP): Protection of Excavation

Per AC 28-110.1; Site Safety Plan.

Protection of side of excavation, when required, including appropriate department application numbers and Department of Transportation permit numbers and expiration dates.







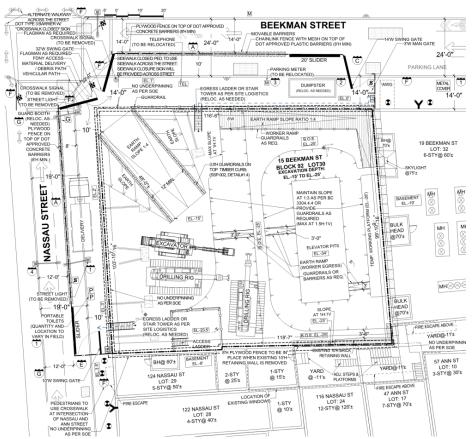


Site Safety Plans (SSP): Street and Sidewalk Closings

Per AC 28-110.1; Site Safety Plan.

Protection of side of excavation, when required, including appropriate Department application numbers and department of transportation permit numbers and expiration dates.







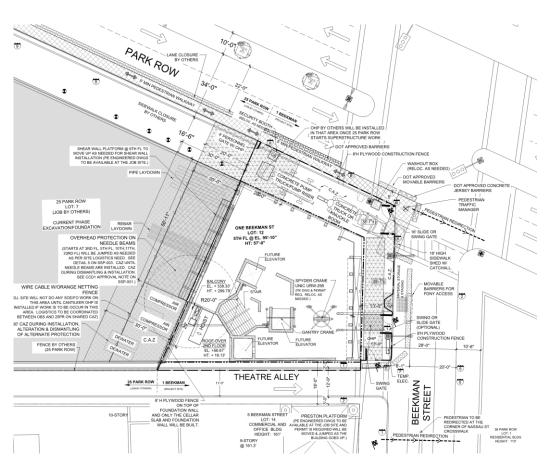


Site Safety Plans (SSP): Hoists

Per AC 28-110.1; Site Safety Plan.

Approximate location of material and personnel hoist(s) and loading areas, including appropriate Department application numbers and department of transportation permit numbers and expiration dates







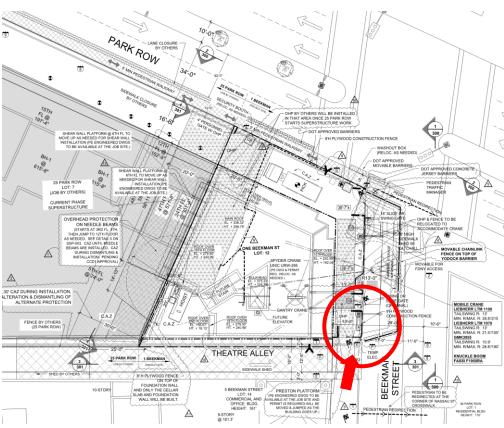


Site Safety Plans (SSP): Crane and Derrick Loading Areas

Per AC 28-110.1; Site Safety Plan.

Approximate location of all crane and derrick loading areas.







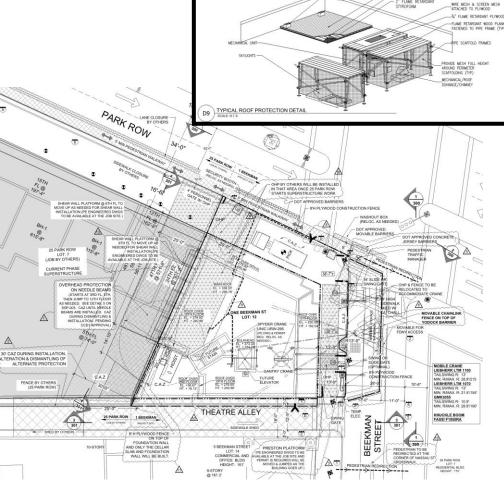


Site Safety Plans (SSP): Surrounding Buildings

Per AC 28-110.1; Site Safety Plan.

Location of all surrounding buildings, indicating occupancy, height and type of any required roof protection.



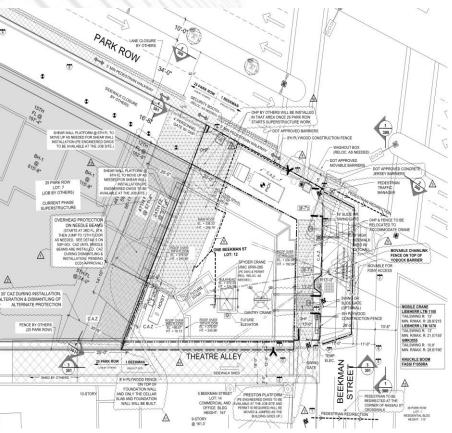






Site Safety Plans (SSP): Standpipe and FD Connections





Per AC 28-110.1; Site Safety Plan.

 Location of all standpipe system and Siamese hose connections. (FD Connections)

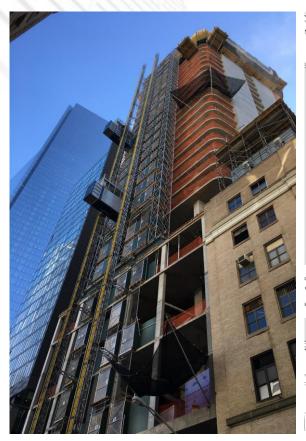


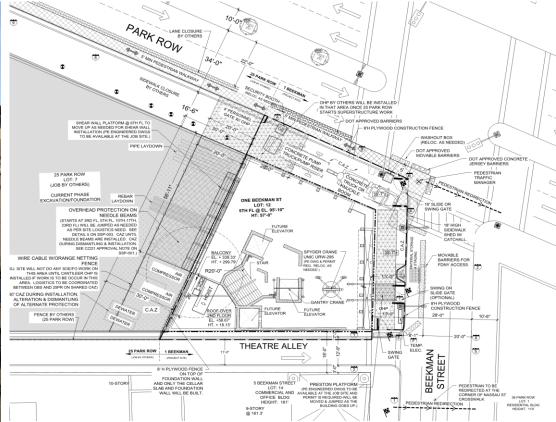


Site Safety Plans (SSP): Temporary Elevator for Fire Department Use

Per AC 28-110.1; Site Safety Plan.

Location of all temporary elevators for fire department use when building is above 75 feet (22 860 mm) in height.







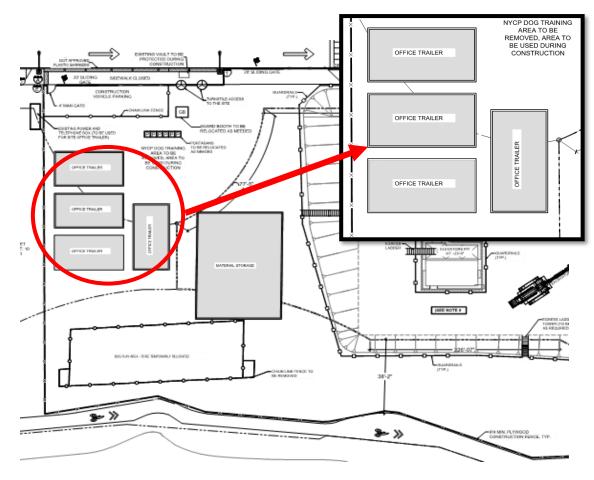


Site Safety Plans (SSP): Shanties

Per AC 28-110.1; Site Safety Plan.

Location of all contractors' sheds.







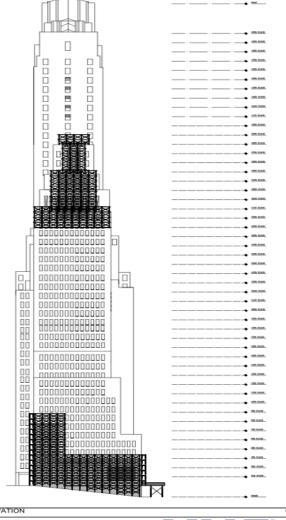


Site Safety Plans (SSP): Safety Netting and Scaffold

Per AC 28-110.1; Site Safety Plan.

 All required safety netting and scaffolding





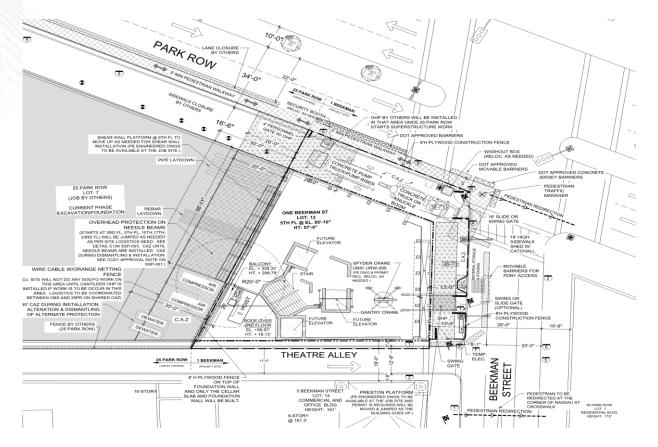




Site Safety Plans (SSP): 17. Sidewalks and Roadways

Per AC 28-110.1; Site Safety Plan.

Widths of all sidewalks and roadways; all traffic information; all exits from the work site.







Site Safety Plans (SSP): Sequencing

Per AC 28-110.1; Site Safety Plan.

Such features
 requiring special
 sequencing in order to
 maintain safe
 conditions with a
 written description of
 those sequences.

SEQUENCE OF OPERATIONS

A) BROADWAY FACADE

 PRIOR TO STARTING DEMOLITION OF THIS FACADE INSTALL BRACING AS SHOWING ON THIS DRAWING AND SEE REMARKS BELOW.

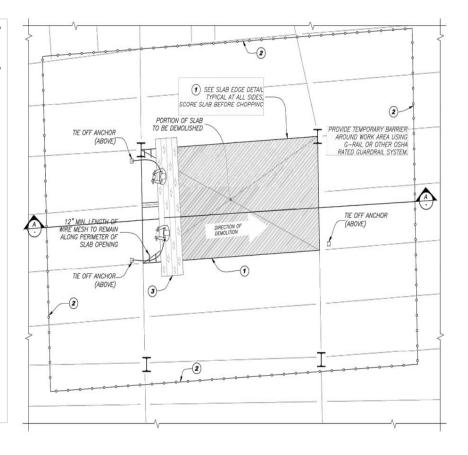
B) EXCHANGE PLACE FACADE

- PRIOR TO START DEMOLITION OF THIS FACADE, THE FOLLOWING WORK IS REQUIRED TO BE COMPLETED:
- a) THE 2ND FLOOR IS CONSTRUCTED (REFERENCE STRUCTURAL DRAWINGS)
- b) COLUMN SIZES AND MOMENT FRAMES ARE TO BE VERIFIED AS EQUIVALENT TO THOSE SHOWN ON THE EXISTING STRUCTURAL DRAWINGS.
- c) NEW SHEAR WALLS 1, 2, AND 3 SHALL BE COMPLETED FROM SUB-CELLAR 2 TO THE 4TH FLOOR.
- d) NEW PLAN TRUSSES AT THE 4TH FLOOR ARE INSTALLED
- e) THE EXISTING 3RD FLOOR SHALL REMAIN IN-PLACE
- f) SEE REMARKS BELOW.

REMARKS:

1- AFTER STONE WYTHE IS REMOVED BY OTHERS
BACK UP WALL CAN BE REMOVED FROM TOP TO BOTTOM

2-AT THE END OF EACH WORKING DAY NO FREE STANDING PORTION OF WALL TO BE MORE THAN 4' HIGH.







Site Safety Plans (SSP): Minor Revisions



Site Safety Plan (SSP): Minor Revisions

Beginning July 1, 2017, <u>minor</u> revisions to the approved Site Safety Plan (SSP) need not be submitted to BEST Plan Exam Unit for review and approval. Instead, the contractor (permit holder) may revise the approved SSP, highlight the revisions, and sign the plan next to each revision.

The licensed Site Safety Manager or Coordinator (SSM-SSC) **must** also initial the revision. All revisions **must** be in compliance with Chapter 33 of NYC Building Code and other applicable rules and regulations, including the NYC Construction Codes, and create no unsafe condition.

Doc Link: https://www1.nyc.gov/assets/buildings/pdf/cs_industry_notice_ssp_minor_revision.pdf

Signed copies of the revised SSP must be kept on-site, with this Industry Notice, and be made available to Department inspectors upon request. The Licensed SSM or SSC must log the changes in his log book. Examples of minor revisions are as follows:

- Reconfiguration of construction fencing at perimeter of site or internal to site.
- In earthwork/foundation phase, ramp or egress reconfiguration.
- In earthwork/foundation phase, reconfiguration of shanties, trailers, storage.
- Revision to underpinning and/or support of excavation.





MINIMUM CONTENT OF SITE SAFETY PLAN SUBMISSIONS

Site Safety Plans (SSP): Minor Revisions (continued)



INDUSTRY NOTICE

Site Safety Plan (SSP): Minor Revisions

Beginning July 1, 2017, minor revisions to the approved Site Safety Plan (SSP) need not be submitted to BEST Plan Exam Unit for review and approval. Instead, the contractor (permit holder) may revise the approved SSP, highlight the revisions, and sign the plan next to each revision.

• All changes must be initialed and dated. This does not waive responsibility of the applicant and/or project team to revise the construction documents. Revisions to the Site Safety Plan resulting in a substantial increase in the overall scope of work shall not constitute minor revisions.

- Revision to the location of a temporary generator inside site.
- Revision to debris containers inside the site.
- Addition to equipment on equipment list (not including hoisting equipment and/ or cranes).
- Relocation of ramp(s).
- Change in pedestrian walkway or configuration of sidewalk/lane closures as per DOT stipulations/permits.
- Modification to ladders or stair towers in New Buildings and Full Demolition applications.
- Addition/removal of scaffolding.





MINIMUM CONTENT OF SITE SAFETY PLAN SUBMISSIONS

Site Safety Plans (SSP): Minor Revisions (continued)



INDUSTRY NOTICE

Site Safety Plan (SSP): Minor Revisions

Beginning July 1, 2017, minor revisions to the approved Site Safety Plan (SSP) need not be submitted to BEST Plan Exam Unit for review and approval. Instead, the contractor (permit holder) may revise the approved SSP, highlight the revisions, and sign the plan next to each revision.

 NOTE: If you are unsure if the proposed revision constitutes a minor revision, please inquiry at email address below

Doc Link: https://www1.nyc.gov/assets/buildings/pdf/cs_industry_notice_ssp_minor_revision.pdf

- Change in contact person/information on title block.
- Addition or revisions to construction gates.
- Change to material storage area inside site.
- Relocation or addition of guard booth inside site.
- Sidewalk Shed Removal as approved by a DOB Inspector.
- Storage of combustible materials.
- Horizontal netting jump schedule modification.
- Addition of hoist cars at mast/ runback structure platform.
- Increase in height to vertical netting as coordinated with the design drawings.





ALTERNATIVE SYSTEMS

Industry Notice, Alternative Code Requirements, Cocoons & Climbing Concrete Formwork, Adjacent/Adjoining Properties





ALTERNATIVE SYSTEMS: CCD1 BULLETIN



DECEMBER 2016

REMINDER

Alternative Safety Systems: Cocoon and Climbing Concrete Form Used as Cocoon – CCD1 No Longer Required

Construction Code Determination (CCD1) forms are not required for use of typical cocoons and climbing concrete form work (alternative systems), provided the following conditions are met:

Cocoon System

- Although CCD1's are no longer required to be filed.
- Per BC 3308.2, permits are required for alternative netting systems.
- Design drawings must be submitted when filing or a permit.

Industry Notice

- 1. This notice applies to alternate netting ('cocoon') or climbing form work systems used in lieu of typical vertical and horizontal netting systems required by the Code, hereafter referred to as alternative systems.
- 2.The alternative systems must comply with all applicable sections of Chapter 33 of the NYC Building Code 3308.8 (entire), in addition to design requirements of the NYC Building Code, including, but not limited to, Chapter 16.
- 3. The alternative system must be designed to retain any wind-born concrete aggregate or cement 'cream' swept from the pouring deck.





ALTERNATIVE SYSTEMS: CCD1 BULLETIN

- 4. Typical vertical and horizontal netting must be provided for all areas not protected by the cocoon or climbing form work or to cover any gaps (temporary or permanent) in those systems. Vertical and horizontal netting systems must be in place until the cocoon or climbing concrete form work is fully deployed, inspected, and signed off.
- 5. The alternative system design must be reviewed and approved by BEST according to current policy. The design must include a Letter of No Objection (LNO) from the Engineer of Record (EOR) for the base building, addressing the loads imposed by the alternative system. Design must be filed at borough as an Alteration Type 2 and permit obtained prior to installation.
- 6. The alternative system must be illustrated on the approved Site Safety Plan when such plan is required by NYC Building Code.
- 7. Plans must include the following note: This 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 Chapter 33 of the NYC Building Code.

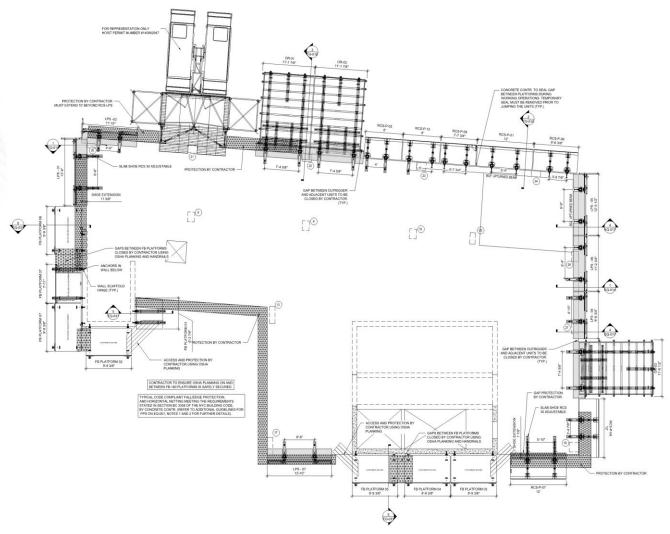




ALTERNATIVE SYSTEMS: NETTING

Per BC 3308.8: Modification 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.







ALTERNATIVE SYSTEMS: NETTING

Per BC 3308.8.1: Request content.

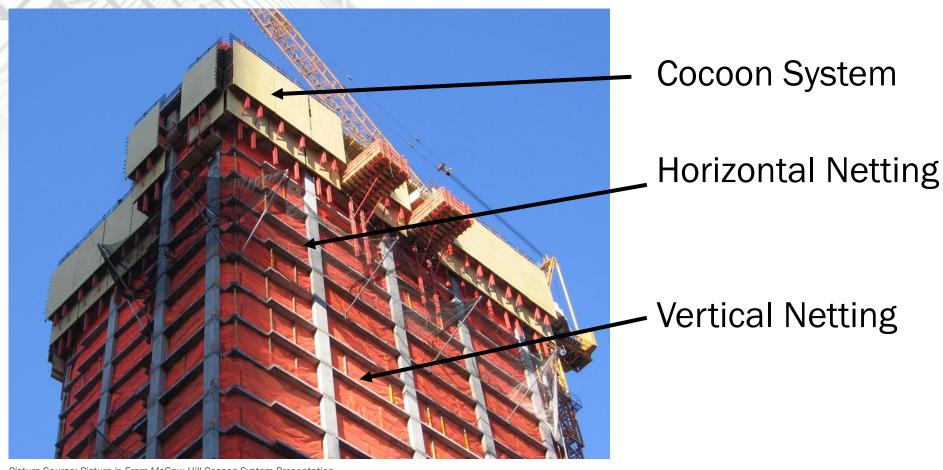
A request submitted under Section 3308.8 shall include:

- 1. Details of the modification or alternative system to be utilized;
- 2. Any stipulations;
- 3. Demonstration that the request 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;
- 4. Where applicable, a description of the practical difficulty of complying with code requirements;
- 5. Where applicable, a reference to the site safety monitoring program; and
- 6. Where an alternative system is proposed, a minimum level of inspection in accordance with the recommendations of the manufacturer of the alternative system.





WHAT IS AN ALTERNATIVE NETTING SYSTEM?



Picture Source: Picture is From McGaw-Hill Cocoon System Presentation





CONSTRUCTION CODE DETERMINATION (CCD1)

When is a CCD1 is needed, CCD1 Requirements, Minimum Content of CCD1 Submissions





WHEN IS A CCD1 NEEDED?



- CCD1 is filed when there is a practical difficulty in following the requirements of the buildings code with respect to installation or alteration of service equipment or methods of construction.
- CCD1 will only be approved when equally safe and proper materials or forms of construction may be employed.
- In a specific case, the Department of Buildings may permit the use of such materials or form of construction.
- Laws and the safe of the workers, public and property must be preserved.





CCD1 REQUIREMENTS: SUBMISSIONS

CHAPTER 26/DEPARTMENT OF BUILDINGS

§645. Offices of the department; powers and duties.

- (b) With respect to buildings and structures, the commissioner shall have the following powers and duties exclusively, subject to review only by the board of standards and appeals as provided by law:
- (2) to require that the construction or alteration of any building or structure, including the installation or alteration of any service equipment therein, shall be in accordance with the provisions of law and the rules, regulations and orders applicable thereto; but where there is a practical difficulty in the way of carrying out the strict letter of any provision of law relating to buildings in respect to the use of prescribed materials, or the installation or alteration of service equipment, or methods of construction and where equally safe and proper materials or forms of construction may be employed in a specific case, he may permit the use of such materials or of such forms of construction, provided that the spirit of the law shall be observed, safety secured and substantial justice done, but he shall have no power to allow any variance from the provisions of any law in any respect except as expressly allowed therein, or from any appellate ruling of the board of standards and appeals;





3303.7.4.3 Removal of damaged sprinklers. Requests for a variance from the sprinkler requirements of this section shall be limited to requests to remove a damaged or inoperable sprinkler system or a portion of such system in connection with demolitions or gut rehabilitations. Applications for construction document approvals for such requests shall be filed with the department by a registered design professional in accordance with the following procedure:

- 1. The filed application shall include a complete report prepared by the professional describing the extent of the damage and attesting as to why the system cannot be restored; and
- 2. The variance shall not be approved by the department without the concurrence of the Fire Department as follows:
 - 2.1. The applicant shall file the request for variance with the Fire Department;
 - **2.2.** The Fire Department shall review and recommend any necessary safety measures required as a condition of granting the variance; and
 - **2.3.** The applicant shall submit the Fire Department's recommendation to the department along with proof of satisfactory implementation of such safety measures.





3303.9 Elements to be maintained in existing buildings. Required means of egress, existing structural elements, fire protection devices, and sanitary safeguards shall be maintained at all times during construction or demolition operations in existing buildings. Required means of egress shall not be obstructed in any manner that would destroy the full effectiveness of such means of egress.

Exception: Where adequate alternate provisions are provided in accordance with the requirements of this code, or where the element is temporarily or permanently disconnected, removed, or demolished in accordance with the requirements of this code and of the agency or authority having jurisdiction to temporarily or permanently disconnect, remove, or demolish such element. Such alternative means, disconnection, removal, or demolition shall be shown on the approved plans. Fire protection systems, including but not limited to sprinklers, standpipes, and fire alarms, shall only be taken out of service in accordance with the requirements of the New York City Fire Code.





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:

- 1. Details of the modification or alternative system to be utilized;
- 2. Any stipulations;
- 3. Demonstration that the request 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;
- 4. Where applicable, a description of the practical difficulty of complying with code requirements;
- 5. Where applicable, a reference to the site safety monitoring program; and
- 6. Where an alternative system is proposed, a minimum level of inspection in accordance with the recommendations of the manufacturer of the alternative system.





3310.11 Modifications to the site safety monitoring program. The commissioner may, based upon a written request from a registered design professional, waive, reduce, or modify the requirements for the site safety monitoring program for a job of a limited scope or duration, provided such waiver, reduction, or modification is not detrimental to the safety of the public and property, or that alternative means of protection for the public and property meeting or exceeding those afforded by this section are provided. A submission under this section may include, but not be limited to, a request to reduce or modify the type or frequency of inspections performed by the site safety manager or coordinator, or to allow a part time site safety manager or coordinator, or to waive the requirement for a site safety manager or coordinator.





3310.11.1 Request content. A request submitted under Section 3310.11 shall include:

- 1. Details of the modification or alternative methods to be utilized;
- 2. Any stipulations;
- **3.** A description of the work to be undertaken, for example:
 - **3.1** Type of work;
 - 3.2 Anticipated sequence and schedule;
 - **3.3** The anticipated number of suspended scaffold drops;
 - **3.4** Material handling and hoisting activities to be undertaken and equipment to be utilized;
 - **3.5** The extent of demolition activities and equipment to be utilized;
 - **3.6** Impact on the standpipe or sprinklers;
 - **3.7** Use of welding, torches, or similar equipment;
 - 3.8 Proximity to adjoining buildings or areas accessible to the public.





- **4.** Demonstration that the request is not detrimental to the safety of the public and property, or that alternative means of protection for the public and property meet or exceed those afforded by this section are provided;
- **5.** A description of the practical difficulty of complying with the site safety monitoring program requirements set forth in Section 3310;
- **6.** Where the request is to reduce or modify the type or frequency of inspections performed by the site safety manager or coordinator, a proposed alternative list of site safety inspections;
- 7. Where the request is to allow a part time site safety manager or coordinator, a proposed schedule for the site safety manager or coordinator, as well as a proposed list of duties and site safety inspections to be performed by the site safety manager or coordinator while he or she is present at the site; and





8. Where the request involves a waiver of the site safety monitoring program or a request to allow a part time site safety manager or coordinator, a signed, dated, and notarized affidavit from a contractor or licensee stating he or she will be responsible for ensuring compliance with the site safety provisions of this code at the site at all times the site safety manager or coordinator is not present, with emergency contact information for such contractor or licensee provided.





- 7. Where the request is to allow a part time site safety manager or coordinator, a proposed schedule for the site safety manager or coordinator, as well as a proposed list of duties and site safety inspections to be performed by the site safety manager or coordinator while he or she is present at the site; and
- 8. Where the request involves a waiver of the site safety monitoring program or a request to allow a part time site safety manager or coordinator, a signed, dated, and notarized affidavit from a contractor or licensee stating he or she will be responsible for ensuring compliance with the site safety provisions of this code at the site at all times the site safety manager or coordinator is not present, with emergency contact information for such contractor or licensee provided.





CCD1 REQUIREMENTS: SUBMISSIONS

- Submitted to explain why the work activity cannot be performed meeting Code requirements
- Applicants will provide an alternate means of operations which is comparable to existing Code requirements
- A waiver or interpretation of a Building Code may be requested to allow work to continue
- CCD1 shall be submitted for review by the applicant or attendee
- CCD1 approval is based on the following:
 - Historical Knowledge
 - Experience
 - If there is an inability to meet current code requirements
 - If the alternate method will provide equivalent or exceed current safety Building Code protocols





CCD1 REQUIREMENTS: DETERMINATIONS

Applicants may request Department determinations of the Zoning Resolution and Construction Codes (2014 Construction Code, 1968 Building Code, and Multiple Dwelling Law).

Determination requests may be submitted to the Department for:

- A possible future objection for an application not yet filed
- Appeal of an affirmation of objection after second plan review

Effective January 28, 2018, Construction Codes Determination (CCD1) requests and Zoning Resolution Determination (ZRD1) requests submitted to the Department for review are subject to the following fees per §28-112.2 of the NYC Administrative Code, and the Rules of the Department <u>1 RCNY 101-03</u>.





CCD1 REQUIREMENTS: DETERMINATIONS

CCD1 or ZRD1 request for Determination - \$1,000

- Pre-Determination (pre-filed job) Request
- Request for variation of a Code or Zoning requirement or MDL section 277.16
- Appeal of an affirmation of an objection after a second plan examination review

Appeal of CCD1 or ZRD1 Determination - \$2,500

EXEMPTIONS: Properties that are exempt from fees per §28-112.1 and 1 RCNY 101-03.

Effective July 11, 2019, Electrical Special Permission requests will be required to be submitted using the CCD1 process. See 1 RCNY 4000-01 for more information.

- CCD1 request for Electrical Code Variance \$350 paid where objection was issued
- Appeal of CCD1 Electrical Code Variations \$350 paid where objection was issued





CCD1 REQUIREMENTS: DETERMINATIONS

Requesting a Determination

- To request a Zoning Determination, file a <u>Zoning Resolution Determination Form</u> (<u>ZRD1</u>) (<u>Instructions</u>)
- To request a Construction Code Determination, file a <u>Construction Code</u> <u>Determination Form (CCD1) (Instructions)</u>
- All submissions **must** include a copy of the invoice from the borough office where the fee was paid, except properties that are exempt from fees per §28-112.1 and this rule. Forms **must** be signed and sealed by a professional.
- Requests are limited to one per form and must cite all related Code or zoning sections. Any attachments (drawings or other documents) must be formatted on 11" x 17" paper or smaller. See Determination FAQ for additional information.





- Form (CCD1)
- Payment Proof
- Drawings (Size: XXX)
- Summary (Al-1)
- Photos
- Approvals from other agencies (DEP, FDNY, DOT, etc)
- Adjacent property research/review





Common Variance Request Topics

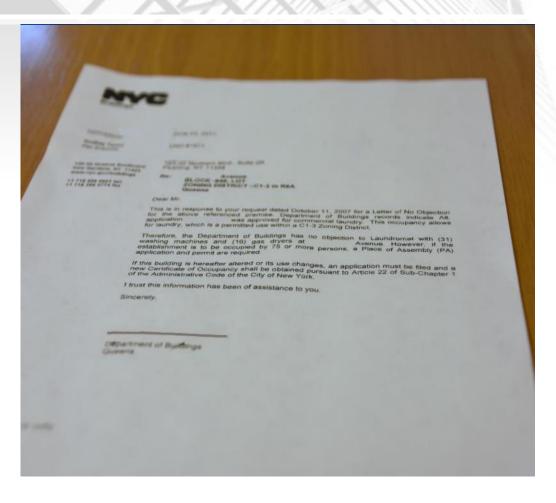
- Adjoining Property Protection
- Safety Zone
- Waiver of FD Hoist
- Sprinkler Removal
- Egress Stair
- Permanent Stair
- SSM / SSC Reduction

- Sidewalk Shed
- Watchperson Reduction
- Dropping of Steel
- Use of Chain Link Fence





CCD1 REQUIREMENTS: SPRINKLER SUBMISSIONS



- For the Removal of Damaged Sprinklers, you will also need a CCD1 and a Letter of No Objection from FDNY
- Important to remember if the building has an existing Standpipe(SD) System the system must be maintain in a state of readiness, you will need:
 - SD Permit
 - Air Pressurized Alarm System for All Existing Standpipes (SD)
 - Application submitted by Registered Design Professional
 - Electrical Permit





- More Information on CCD1, please go to:
 https://www1.nyc.gov/site/buildings/business/determinations.page
- Requests to waive, reduce, or modify requirements of the site safety monitoring program must be submitted to: ccd1const-safety@buildings.nyc.gov

NOTE: All requests must address the content of BC 3310.11 and are subject to the to the review fees of the Administrative Code and 1 RCNY 101-03.





THANK YOU



