



Plan Examination Guidelines

Minimum Requirement for Review of Design Drawings

Information and details required for a complete submission will vary by project. Not every project will require all the items outlined in the guidelines and some projects may require additional items not specifically identified here

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SECTION 1: APPLICATION SUBMISSION FOR CONSTRUCTION PROJECTS

The administrative provisions in Chapter 1 of Title 28 of the NYC Administrative Code (Admin. Code) that govern the NYC Construction Codes including the NYC Building Code (BC) require that construction documents must be complete when a project application is submitted by the applicant. Chapter 1 of Title 28 of the Administrative Code states that “Construction documents shall be complete and of sufficient clarity to indicate the location and entire nature and extent of work proposed, and shall show in detail that they conform to the provisions of this code and other applicable laws and rules...” (Admin Code §28-104.7; See also BC 106).

SECTION 1.1: PURPOSE OF THESE GUIDELINES

The purpose of this document is to outline the minimum information requirements that must be met before the department’s examiners will review the construction documents for compliance with applicable code and zoning requirements. In general, the types of construction plans required will depend on the size and type of the project for which the application is being submitted. For example, new building project requirements may vary significantly from requirements for applications submitted for alteration work on existing buildings. Items listed in this document are a summary of the minimum requirements as applicable*, and must be included when submitting an application.

For new building and alteration work projects, plans must show all of the intended work and have enough detail to clearly convey the entire scope of work and thereby have the information needed to support the construction process.

Compliance with relevant NYC Building Code, Zoning and all other applicable Federal, New York State and City requirements must also be addressed. Final approval of these documents is contingent on a complete set of drawings demonstrating full compliance with Code, Zoning, and all other applicable laws and rules, whether or not such information is identified in this document.

**Information and details required for a complete submission will vary by project. Not every project will require all the items outlined in the guidelines and some projects may require additional items not specifically identified here.*

SECTION 1.2: INCOMPLETE APPLICATIONS

The Department’s review of construction documents, to ensure compliance with Building Code, Zoning and all other applicable laws shall not effectively begin until the construction documents submitted include these minimum requirements. It is the responsibility of the applicant to submit a complete set of plans.

The Department’s plan exam staff will not begin the plan examination process if the construction documents are not complete; the application will be marked “Incomplete”

and this status will be recorded in the Buildings Information System (BIS). If the application is assigned an “Incomplete” status, the plan examiner will not issue objections, but will instead provide a general checklist of missing information required for complete drawings and a complete submission. The applicant will receive an official notice of his/her “Incomplete Submission”, which will be appended with a checklist of information missing on the drawings.

SECTION 2: DRAWING REQUIREMENTS FOR CONSTRUCTION PROJECTS

Complete drawings (also referred to as “plans”) are required with every application for approval and building permit. The purpose of minimum required information, including scope, details, calculations, zoning and code references, etc. is to ensure that pertinent information is shown on the drawings prior to the commencement of formal plan examination. This will result in the issuance of specific and accurate objections, efficiently leading to approval of the application.

As mentioned earlier, the amount of information and detail required for a complete submission will vary by project, and *not every project will require all the items outlined in this document.* The applicant must clearly show enough detail to allow an effective assessment of the proposed work before the examiner can consider the application complete. After it is complete, only then can the examiner properly conduct a review and either approve the application or disapprove it and issue pertinent technical and/or administrative objections. For example, an objection may cite the relevant NYC Building Code requirements that were not met.

The drawings submitted must include the information outlined in the following sections of this document prior to the examiner’s review for compliance with applicable code and zoning requirements.

SECTION 2.1: APPLICABLE TO ALL DRAWINGS

The following must be included on all drawings:

- Compliance with DOB *Graphic Standards**
- Title Block, discipline designators and revision numbers as per DOB requirements*
- Scale of each drawing or detail
- North Arrow on plans
- Dimensions – related to scope and area of work
- Drawing Title
- Notes and details – only pertaining to the scope of work
- Clear description of the proposed scope of work, include construction and/or demolition work
- All drawings submitted to support the architectural plans must be in accordance with NYC Code and must be signed and sealed by a design professional.

In addition, details shown on the drawings must be, clear, legible, and specific to the proposed construction project. All unrelated and unnecessary “boilerplate” details must be deleted from the templates used prior to submitting drawings to the Department. Notes and schedules shown on the drawings must be relevant to the plans, and details be properly referenced to the plan drawings, cross sections, etc. For example, to avoid clutter and confusion, general construction notes, specifications, progress inspections, or schedules, critical to the construction process and completion of the project, must be shown separately on the General Notes drawing(s).

* Available online:

Graphic Standards www.nyc.gov/html/dob/downloads/pdf/drawing_standards_08132010.pdf

Discipline Designators www.nyc.gov/html/artcom/downloads/pdf/bscan_plan_011509.pdf

SECTION 2.2: ZONING

The zoning details graphically summarize information such as the proposed zoning bulk, yards, and street plantings with detailed drawings, including site plans and projections describing vertical dimensions*. Minimum zoning information required for drawings include, but are not limited to, the following:

Zoning Information

- Block and Lot Number
- Zoning lot dimensions
- Height and number of stories
- Zoning District designation and adjacent Zoning District within 50'
- Other site designations (special purpose districts, waterfront area or block, etc.)

Zoning Analysis

- Full zoning analysis: use, bulk, parking, street trees and plantings if dictated by zoning
- Floor area calculations in tabular (box) form, including box diagrams with area totals for each floor

*A Zoning Diagram (ZD1) may also be required. Refer to the Zoning Diagram Guide for more information, <http://www1.nyc.gov/site/buildings/homeowner/challenges.page>.

SECTION 2.3: SITE PLANS

A site plan identifies buildings and other physical features in relation to the property boundaries. It must identify existing buildings, structures, and features on the property, including a general overview of the project’s proposed changes to both the property and

building. Much of the required information for existing site conditions can be found on the property survey, a copy of which must be included.

Minimum information required for site plans include, but are not limited to, the following:

Supporting Documents

- All grades and elevations must indicate elevations above sea level using NAVD 1988 as the primary datum
- Copy of a survey or DOB records

Site Background Information

- Property Lot Lines with lengths of each segment
- Street Name(s), and Address(es)
- Abutting streets and lanes
- Rights-of-way and Easements
- Distance of lot to nearest corner street intersection and name of corner street
- Distance to nearest fire hydrant
- Street width
- Street widening areas
- Flood Insurance Rate Map (FIRM), special flood hazard area type, and base and design flood elevations
- Wetland areas and adjacent areas maps and information; coastal erosion hazard area boundaries
- 200-foot limit from transit authority or railroad infrastructure
- Little E designations
- Landmark or historic district designations

Site Improvements

- Impervious Surface Area, currently existing and proposed
- Services to the building infrastructure – underground water service, gas, steam, sanitary and storm service etc. – new or alterations to utility services
- Proposed and existing location of drywells, septic systems, detention tanks or other underground structures
- Existing and proposed curb cuts, driveways, and open space parking
- Existing and proposed street trees and planting
- Front yard planting area

Building Related Information

- Building footprint (dimensioned) with upper story projections, entrance, existing and proposed should be indicated (porches, balconies, etc.)
- Setbacks from all property lines and from existing and proposed structure(s), and street lines

- All existing buildings and structures (indicating bulk and overall dimensions)
- Building Code designation: occupancy group, and construction classification
- Height and number of stories per Building Code
- Proposed area of work showing new construction and/or area of demolition
- Distances between all buildings and structures on the property, distance from nearest street corners
- Curb level and elevation marks at site and building corners
- Legal grade at curb level
- Air conditioning unit locations with dimensions to property lines

SECTION 2.4: ARCHITECTURAL DRAWINGS

SECTION 2.4.1: FLOOR PLANS

Floor plans provide a snap-shot of the different floor levels of the project. They show scaled dimensions of the project, and include rooms, spaces and other features. Walls and partitions shall be shown at the appropriate width for the scale used (single line wall and partition drawings are not acceptable).

Minimum information required for floor plans include, but are not limited to, the following:

General

- Floor level plans for areas of work - including roof plans identifying bulkheads and parapets
- Standard legend to distinguish proposed work from existing plans
- Partial Demolition Plan – clearly demarcate load bearing partitions planned for removal, relocation or repair
- Exterior, interior and partition wall layouts
- Door / window sizes, locations and schedules, unless shown elsewhere
- Legend indicating existing and proposed work

Egress

- Room names and proposed uses, square foot area, and occupant load
- Fixed furnishing and equipment layouts
- Exit signs and emergency lights, escape windows (where applicable), exit widths and capacities, occupancy load and maximum travel distances, including dead-end and common path of egress.
- Attic / crawl access panels, pull-down ladders, or other types of entry/exit paths
- Stair plans and details, including stair sections, handrail steps, and guard details
- Roof Plans, including parapets, location of dunnage to support HVAC equipment, skylights, tanks, roof appurtenances, fire code mandated roof access, travel paths etc.
- Seating (fixed and not fixed) layouts for place of assembly occupancies (e.g. restaurants, nightclubs and churches)

Fire safety / Code Analysis

- Fire-resistance ratings of building components (walls, roofs, floors, doors, etc.)
- CO and smoke detectors and/or alarms

Flood Zone Requirements

- Details of wet flood-proofed enclosures (flood resistant materials and flood vents)
- Details of dry flood-proofed spaces (walls that are substantially impermeable to water and slabs, walls and flood shields designed to resist hydrostatic and hydrodynamic forces)
- Alteration applications, regardless of cost, must include an applicant's statement: "Work proposed in this application (is/is not) included in substantial improvement as defined by section BC G201.2 and 1 RCNY 3606-01."
- Alteration applications that exceed \$40,000 must include a calculation to support an applicant's statement that a building (is/is not) substantially improved (see RCNY 3606-01)
- Identification of flood related special inspections
- Flood related certifications

Accessibility

- Demonstrate Accessibility compliance
- Show accessible entrances and components of accessible routes such as accessible doors, ramps, elevators, and wheelchair lifts.

Miscellaneous Code Items

- Minor structural components, including all headers / lintels
- Plumbing fixtures locations (proposed and existing) - show water service distribution, drain and vent piping sizes, water service meter location(s), all fixtures, water heaters, clothes washers, laundry sinks, etc.
- Locations and sizes of vertical shafts through the floor, including garbage and linen chutes; include fire rating details
- All major structural components, including floor/ceiling joists, rafters, beams, columns, wall construction, foundation / footings, etc.

To clearly document changes to the existing building, applicants must submit drawings that visibly delineate **existing** conditions and **proposed** changes in the floor plans.

SECTION 2.4.2: BUILDING ELEVATIONS

A building elevation drawing shows the exterior views of the building, for each building face. The drawings show height relationships and exterior finish information. A building elevation drawing is required for each building face.

Minimum information required for building elevations include, but are not limited to, the following:

- All grades and elevations must indicate elevations above sea level using NAVD 1988 as the primary datum
- Top of Plate, top of Ridge
- Mean curb level or base plane
- Grade elevation, first floor elevation
- Design flood elevation, Flood Resistant Construction Elevation using NAVD 1988 as the primary datum.
- Floor-to-floor height dimensions, building total height
- Top of floor/roof elevations
- Exterior finishes and materials designation
- Exterior stairs
- Roof slope/pitch
- Chimney location
- Bulkhead analysis
- Exterior building components (walls, roof, doors, window locations types, openings, projections etc.)
- Exterior Facades, balconies, awnings and dimensions
- Attachment/relationship of existing buildings (where applicable)
- FDNY Code required access, in particular roof access
- Heights of Antennae
- Sign Locations

SECTION 2.4.3: BUILDING SECTIONS

Building section drawings, longitudinal and/or cross sections, show a view along an imaginary line cut through the building, indicating its structural and construction elements. These drawings expose and identify the construction elements of the roof, walls, floors, and foundations.

Minimum information required for building section drawings include, but are not limited to, the following:

- All grades and elevations must indicate elevations above sea level using NAVD 1988 as the primary datum
- Detail cut symbols – plans and sections must clearly reference each other
- Room names
- Top of finish grade elevation
- Height dimensions
- Top of floor/roof elevations
- Identification of materials – size and type
- Fire ratings of floors, walls, roof, etc.
- Bottom of footing elevation
- Roof slope/pitch
- Building components (walls, roof, floors, foundations, etc.)
- Stair sections and guardrail and handrail details for balconies and atriums, etc.

SECTION 2.4.4: DETAIL DRAWINGS

- Floor, wall and ceiling and roof assemblies details, including R-Values for Energy Code compliance
- Firestopping details
- Energy Code compliance supporting documentation, including details, insulation R-values on building components

SECTION 2.5: STRUCTURAL DRAWINGS

Structural drawings show the structural support components and details of the proposed project, from the foundation to the rooftop.

Minimum information required for structural drawings include, but are not limited to, the following:

General:

- Indicate the location and extent of the structural work proposed
- Identify all structural materials proposed to be used
- Identification of special inspections

Subgrade and Foundations

- Foundation plans shall show footings, piers, foundation walls, pile groups, and pile caps
- The levels of footings of adjacent structures, or if they are pile supported, underpinning of adjacent structures
- Slab-on-grade and slab plans, sections and details
- Retaining walls – provide foundation, bottom of footing elevation, top of grade elevation and top of wall elevation and plan (location) drawings

Superstructure

- Floor and Roof framing plans, sections and details. Framing plans should include span direction, beam size, spacing of beams and location of cross or lateral bracing, and connection details for all components
- Column schedule
- Design loads: Floor live load, roof live load, roof snow load, wind design data, earthquake design data, flood loads
- Pre-engineered building design certificates and drawings
- Load-bearing walls, pads, columns, beams, joists and lintels
- Pre-cast concrete plans, details and sections
- Party walls
- Pedestrian bridges, runways, and other special structures
- Top of slab or rough floor elevations

Other Structures

- Sign structures
- Building mounted antennas, including connection details and any supplemental structural supports

Notes

- A list of all Progress Inspections
- TR-2 and TR-3 Waiver statements, if applicable

Details

- Details of façade, roof, and parapet repairs, together with areas of replacement, reinforcing lintels, relief angles, expansion joints and control joints and details concerning restoration including materials to be used etc.

SECTION 2.6: MECHANICAL/PLUMBING/SPRINKLER DRAWINGS

Mechanical drawings show the building systems that provide for the heating, ventilation, air conditioning, plumbing and fire protection needs for the proposed project.

Minimum information required for mechanical drawings include, but are not limited to, the following:

Mechanical

- Heating systems
- Ventilation systems
- Air conditioning systems
- Exhaust Air Systems, including Kitchen exhaust hoods and Fire suppression systems, Ventilation and fire suppression systems for spray coating or powder coating operations, etc.
- Piping layout and shaft locations including duct insulation and construction details and supports
- Locations of return-air plenums
- Location and heights of exhaust and vents above roof
- Equipment schedules, including UL Numbers
- Equipment support steel dunnage on roof
- Repair and storage garage ventilation systems, including CO and NO2 detectors
- Fresh Air intakes and exhaust air termination locations
- Chimney and termination location, if applicable
- Energy Code compliance supporting documentation

Plumbing

- Plumbing fixtures and piping (including material specifications)
- Plumbing riser diagrams
- Interceptor pits, sumps, drainage pit details
- Energy Code compliance supporting documentation

Fire Protection: Automatic Sprinkler Systems

- Location and size of water supplies and size of all feed mains, valves and other essential features
- Location, spacing, number, and type of sprinkler heads to be used
- For hydraulically calculated systems, hydraulic data substantiating pipe sizes, as well as hydraulic reference points and areas
- Diagram showing the proposed sprinkler system in relation to principal construction features of the building (such as walls, columns, partitions) and other information as may be necessary for the evaluation of the system
- Location, number, and type of any electrical or automatic devices
- Location, number, and type of any alarms
- In buildings where a new separate fire sprinkler system is required, the available water pressure at the top and bottom floors of each zone (shown on riser diagram)
- For street pressure-fed systems and fire pumps, a statement from NYC DEP giving the minimum water pressure in the main serving the building

Fire Protection: Standpipe Systems

- Locations and sizes of all risers, cross-connections, hose racks, valves, Fire Department connections, sources of water supply, piping, and other essential features
- A floor plan for each group of floors that have typical riser locations and no special features within such group of floor levels, with title block indicating the floors described
- Riser diagram showing risers, cross-connections, valves, Fire Department connections, tanks, pumps, sources of water supply, pipe sizes, capacities, floor heights, zone pressures, and other essential data and features
- On the same riser diagram, available water pressure at the top and bottom floors of each zone, and at each floor where the weight pipe fittings change
- For street pressure-fed systems and fire pumps, a statement from NYC DEP giving the minimum water pressure in the main serving the building

Fire Protection: Fire Alarm and Detection Systems

- Floor plan indicating the use of all rooms
- Locations of alarm-initiating and notification appliances
- Alarm control and trouble signaling equipment
- Annunciation
- Power connection
- Fire alarm riser diagram and fire alarm devices indicated on floor plans
- Quantities of devices on the floor plans match the quantities indicated on the riser diagram
- Copies of any variances granted by the department or the Fire Department
- Legend of all fire alarm symbols and abbreviations used
- Plans indicating design criteria for fire alarm audibility in various occupancies
- Fire alarm sequence of operation for the fire alarm control panel and the central station transmitter
- Interface of fire safety control functions

SECTION 2.7: ELECTRICAL DRAWINGS

Electrical drawings show the materials, systems and equipment necessary to provide for the lighting, electrical power, fire alarm and electrical equipment needs for the proposed project.

Minimum information required for electrical drawings include, but are not limited to, the following:

- Light fixtures, fixture locations, and fixture schedules
- Reflective ceiling plan
- Exit and emergency lighting
- Emergency back-up and power systems
- Energy Code compliance supporting documentation

SECTION 2.8: THE NEW YORK CITY ENERGY CONSERVATION CODE

The New York City Energy Conservation Code (NYCECC) sets energy-efficiency standards for new construction and alterations to existing buildings. For more information see Energy Code Guidelines*. To demonstrate compliance with the NYCECC, all New Building and Alteration applications require the following:

- Professional Statement
- Energy Progress Inspection requirements (TR-8)
- Energy Analysis in EN drawings with clear references to supporting documentation found elsewhere in the application
- Supporting Documentation should be shown as applicable in the drawings stated above, or may be included in the EN Set

**Available online:*

Energy Code Guidelines

<http://www1.nyc.gov/site/buildings/codes/energy-conservation-code.page>

http://www1.nyc.gov/assets/buildings/pdf/energy_analysis_how2guide.pdf

http://www1.nyc.gov/assets/buildings/pdf/energy_code_tabular_analysis_all.pdf

SECTION 2.9: OTHER BUILDING CODE REQUIREMENTS

In addition to the minimum information required to deem the application complete as outlined above, where necessary, the applicant must also submit additional plans, surveys, computations, analyses, certifications, test reports, list of materials and special inspections, and other documents necessary to ascertain compliance with the code, zoning regulation and laws.