



STATE OF NEW YORK  
DEPARTMENT OF STATE  
DIVISION OF CODE ENFORCEMENT AND ADMINISTRATION

**Modular Third Party Review  
Document Submission Standards**

In order to obtain plan approval pursuant to the **Modular Third Party Review Program** it is the manufacturer's responsibility to provide the required documentation in the format and style described below. The documents consist of plans, specifications, calculations, test results, and/or other documentation which describe in detail the product and manufacturing processes employed to produce factory manufactured (modular) buildings or components. The documents are to also include plans/details for site completed portions of the project which require direct interface with the modular completed portions.

**(A) General Requirements**

- (1) All plans, specifications, calculations, and other documentation shall be submitted in triplicate. Each sheet shall bear the signature and seal of a New York State registered architect or of a professional engineer registered to practice in New York State. Each sheet shall bear the approval seal granted by the Quality Assurance Agency. See the end of this document regarding acceptable drawing scale and lettering size.
- (2) All documents submitted with the application shall be identified to indicate the manufacturer's name and location.
- (3) A minimum 3"x 6" clear box must be provided on all sheets of plans near the title box for the stamp(s) of approval. Provide the following note in small type along one edge of the box: "Space Reserved for the New York State Stamp of Approval." In a similar manner, provide an appropriately sized clear box for the approval seal granted by the Quality Assurance Agency and for the design professional's seal.
- (4) The following information shall be included on the drawings cover sheet:
  - (a) List all design firms and professionals used for the project. Include the business address phone number and fax number with the listing.
  - (b) Provide an index for the drawing set.
  - (c) State the name and address of project.
  - (d) State the use and occupancy classification.
- (5) The manufacturer shall submit plans showing all elements relating to specific systems on identifiable drawing sheets. The set of drawings shall be organized in a fashion that enables a review. In general, each design discipline should have its own individual sheet labeling. Detail sheets shall be separate from plan views, schedules, sections and elevations within each separate discipline.
- (6) Drawings shall indicate the location of the *insignia of approval*.
- (7) The bound calculations cover page shall be dated, identified with the project information, and include an index which can be used to determine that the package is complete.

**(B) Required Drawing Details**

The drawings for factory-manufactured (modular) projects shall be detailed in the manner described below. Possible design alternatives or bid-alternate arrangements shall be included and fully described on the drawings.

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(1) General Building and Architectural

- (a) Provide a table, schedule and/or schematic identifying the use and occupancy classification(s), type of construction, building area, building height in feet and stories, the fire-rating requirements for the building elements, and any minimum separation distance requirements.
- (b) Provide floor plan(s) and typical elevation(s) with dimensions and notations showing compliance with space requirements including but not limited to: minimum room areas, minimum horizontal dimensions, location of space relative to finished grade level, minimum ceiling height, and allowable areas to be considered under sloping roof areas.
- (c) Provide cross sections as necessary to identify all major building components.
- (d) Provide details of all finished materials. For example, identify flashing, such as at openings and at penetrations through roofs. Indicate flashing material and gauge to be used.
- (e) Provide attic access and attic ventilation, when required by the code. Where attic access is provided, indicate attic floor loading criteria.
- (f) Provide information on exterior wall, roof, and soffit material including, any required rated assemblies.
- (g) Provide information on interior wall and floor/ceiling material including any required fire-resistance rated assemblies.
- (h) Provide a door and window schedule which identifies the following:
  - 1. Dimensions. (Example: emergency escape and rescue requirements)
  - 2. Required and provided light and ventilation.
  - 3. Data satisfying the Energy Conservation Construction Code of New York State.
  - 4. Required and provided design pressure.
  - 5. Wind-borne debris protection.
- (i) Details of any elevator or escalator system, including method of emergency operation, when provided by the manufacturer as part of the factory installed portion of the project.

(2). Accessibility. Provide typical detail sheets for all required accessible features and facilities for the modular portions of the project. Refer to Building Code New York State (BCNYS) Chapter 11 and Appendix E. If accessibility provisions are not a requirement for the project provide a statement identifying the code qualifying exception.

(3) Fire Safety

- (a) Provide a separate sheet that shows detail for all fire-resistance rated assemblies. Include reference to listing, test report or show methodology used to determine the fire-resistance rating.
- (b) Provide a separate life safety plan to describe the means of egress pursuant to Chapter 10 of BCNYS. Include details that describe aisles, exits, corridors, passageways, and stairway enclosures. Provide calculations for exit requirements on the drawings.
- (c) Provide flame spread and smoke developed classifications for interior finish materials.
- (d) Provide locations of required draftstops and fire blocking. Identify how provisions are satisfied.
- (e) Provide details for opening protectives in fire resistance rated systems and assemblies. Include reference to listings for required doors, windows, frames and hardware to complete the opening protective requirements.
- (f) Provide drawings for all fire protection systems including but not limited to sprinkler systems, standpipes, fire alarms, and detection systems when required in modular portions of the project. Provide supporting design calculations and riser diagrams for all included systems. Provide

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manufacturers specifications and referenced listing for pre-engineered systems. Coordinate information with electrical drawings to provide consistent and concise information.

(4) Structural Detail Requirements

(a) Provide listing of all loads upon which design is based. At a minimum, the listing shall include:

1. Dead Loads
2. Live Loads
3. Ground Snow Load
4. Seismic Design Category and assumed soil site classification
5. Wind Speed and exposure category

(b) Provide **engineering analysis** to support the selection of all structural members and connections in compliance with applicable codes. Design calculations must; identify reference standard(s) and/or code tables, present design methodology in a step-by-step reviewable format, including all applicable design loads and load paths. Demonstrate compliance with maximum load parameters, alternatively, provide calculations for varying design parameters/varying load conditions. If the design is by the use of prescriptive method of design clearly identify the source utilized (e.g. BCNYS Section 2308).

(c) Specifications of materials. Identify the grade, species, and **specifications of materials**.

(d) Provide **details of structural elements** and subsystems, including framing details, spacing, size, connections and fasteners. This includes but is not limited to:

1. Engineered roof details
2. Truss specifications data sheet
3. Truss (rafter) uplift connections provided
4. Ice shield underlayment
5. Attachment of roof coverings
6. Braced wall lines identified on the drawings
7. Specifications for shear walls
8. Structural adequacy of shear walls confirmed
9. Locations and specifications for hold down devices
10. Column (post) schedule
11. Header (beam) schedule
12. Continuity of uplift resistance confirmed
13. Details of module integration
14. Wind-borne debris protection, as applicable

(e) **Foundation layout plans**. Provide schematic **foundation layout plans** and details of connections of modular structure to foundations. Identify the assumptions made in preparing the suggested foundations plan. This information includes but is not limited to:

1. Concrete strength (appropriate for specified holddown device)
2. Locations and specifications for holddown devices
3. Location, size and spacing of sill plate and anchor bolts
4. Location and spacing of lally columns

(f) **Loads imposed by modules**. Provide the resulting uniform and concentrated **load vectors (magnitude and direction) imposed by the modules** on suggested foundations plan. All loads, both gravity and due to wind or seismic, need to be identified. This information is critical for the design professional(s) to properly design supporting structure for the modular construction.

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- (5) Mechanical Systems Detail Requirements
- (a) Provide the location, size, and material specifications for all equipment and components provided by the manufacturer as part of the factory installed portion of the project. This typically includes, but is not limited to electric heating systems; hydronic heating systems; all air heating, ventilating and air-conditioning systems and appliances.
  - (b) Provide design calculations. Include a room by room heat loss calculation. Identify sizes and type of duct work, registers, piping, radiation, etc., required to meet the required heating and/or cooling demands.
  - (c) Submit input/output ratings and manufacturer's listings requirements for all equipment and appliances provided by the manufacturer as part of the factory installed portion of the project.□
  - (d) Identify the components intended to supply combustion air.
  - (e) Identify the components for providing ventilation air.
  - (f) Identify the components for providing make-up air.
  - (g) Show the location of flues, vents, and chimneys. Identify the clearances from air intakes, combustible materials, and other vents and flues.
  - (h) Provide manufacturers data, installation instructions and listing information for the installation of fuel burning equipment. Provide specific details on the drawings.
- (6) Plumbing Drawings Detail Requirements
- (a) Provide drawings of the plumbing system including, but not limited to, size of piping; fitting locations; traps and vents; cleanouts and valves.
  - (b) Identify the plumbing materials.
  - (c) Show locations of all equipment, appliances, and safety controls to be installed.
  - (d) Provide floor plans showing the locations of fixtures, equipment and connecting piping.
- (7) Electrical Drawings Detail Requirements
- (a) **General:** Provide details of service equipment provided by the manufacturer as part of the factory installed components of the project.
  - (b) Show the means of grounding service equipment.
  - (c) Provide load calculations for service and feeders.
  - (d) Identify the sizes of branch circuit conductors.
  - (e) Show and identify the size, rating, and location of the main disconnect and over current protective devices.
  - (f) Show the locations of outlets, junction boxes, fixtures, and appliances. Indicate all required locations of GFCI protected circuitry, and waterproof circuitry. Show compliance with the BCNYS or the referenced edition of the National Electric Code.
  - (g) Provide a single line diagram of the entire electrical installation.
  - (h) Provide a lighting plan. Show all exterior and interior lighting locations. Indicate all required smoke detecting alarm device locations and circuitry.
  - (i) Indicate provisions for emergency power generation and connection to required circuitry, where applicable and where provided by the manufacturer as part of the factory installed components.
- (8) Energy Conservation Submission Requirements
- (a) Identify the path of compliance used. Include schedules and calculations used. When checklists are provided with the compliance documentation, provide supporting information that meets the requirements of the checklist.

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- (b) Provide drawings and details of materials and assemblies which describe the building envelope.
- (c) Provide equipment efficiencies and control methods.

**Building Drawing Set - Minimum Scales**

**Sheet Size:**

- 11" x 17" Minimum size to provide room for drawing information, manufacturer's title block, and a minimum 3"x 6" space for the Department of State approval stamp on every sheet.
- 30" x 42" Maximum size allowable for file storage purposes.

**Key Plans:**

- 1/16" = 1'-0" Minimum for small scale key plans of larger buildings that will not fit on the sheet otherwise. *Larger scale partial plans must be provided, since interior dimensions and notes will not be legible as this scale.*

**Floor Plans:**

- 3/16" = 1'-0" Minimum scale for floor plans or partial plans (enlarged from Key Plans), where interior dimensions and notes are provided.

**Partial Plans:**

- 1/4" = 1'-0" Minimum scale for partial plans, enlarge as needed to show increased detail and information.

**Building Elevations:**

- 1/8" = 1'-0" Minimum scale for building elevations, enlarge as needed to show increased detail and information.

**Building Sections:**

- 1/4" = 1'-0" Minimum scale for building sections, enlarge as needed to show increased detail and information. *Smaller scales may be allowed for large multi-story building sections.*

**Wall Sections:**

- 1/4" = 1'-0" Minimum scale for wall sections, enlarge as needed to show increased detail and information.

**Details:**

- As needed As needed to clearly communicate the required information.

**Lettering:**

- 3/32" High Minimum height for Notes and Dimensions.
- 1/16" Minimum spacing between text lines.