Ontario's 2024 Building Code

Modular Housing and Tiny Homes

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Building and Development Branch
Planning and Growth Division

Disclaimer

- The information contained within this slide deck is intended for general information purposes only. It only highlights certain aspects as they apply to modular housing, factory-built homes and tiny homes. It is not intended as legal or technical advice, and it should not be relied on as such. Code users are strongly advised to consult the official records for specific legislative and regulatory requirements, including Ontario's 2024 Building Code, O. Reg. 163/24 as amended by O. Reg. 203/24, 2020 National Building Code and Ontario Amendment Document (May 15, 2024) for the full extent and the exact wording of the provisions.

Purpose

- To inform code users, ministry partners and stakeholders about the Code requirements, permit process and requirements for certifying and inspecting:
  - Modular Housing/Factory-Built Housing
  - Tiny Homes

Content

The following topics will be covered:

- ❑ Modular Housing
  - What is a modular house?
  - Building permit application
  - Building Code requirements
  - Inspections
- ❑ Tiny Homes
  - What is a tiny home?
  - Two-permit system for tiny homes

What is a Modular House?

What is a Modular House?

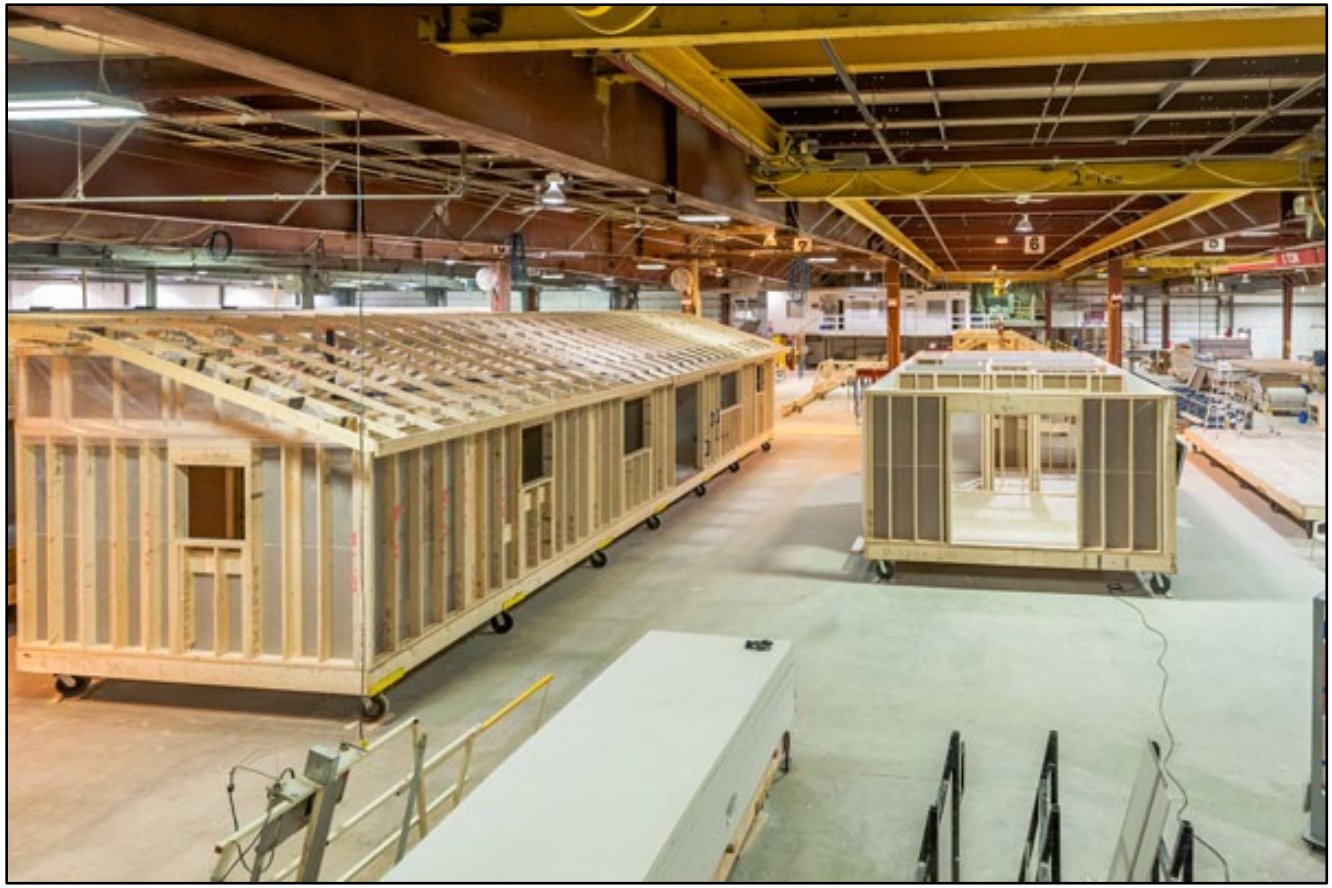
Defining a Modular House

- A modular house is built using one or more prefabricated, three-dimensional components or modules. It is constructed partially or completely off-site in a manufacturing facility then transported to a property and assembled there, like building blocks.

- Often, the interior of a modular house is finished or almost finished at the manufacturing facility. For example, wiring and plumbing can be installed in the modules before being moved to the building site.

What is a Modular House?

Partially completed modules at a manufacturing facility



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What is a Modular House?

Module being lowered by crane onto a foundation

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Building Permit Application

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Building Permit Application

Building Permit Application

- When building a modular house, the builder or owner must apply for a building permit from the municipality where the house will be located.

- At a minimum, the following must be submitted to apply for a building permit:
  - a completed application form and any other forms and supporting documents requested by the municipality
  - construction drawings (most municipalities require at least two sets of drawings)
  - payment of the building permit fee and other applicable fees

Building Permit Application

Building Permit Application (Cont'd)

- The permit applicant will need to demonstrate that the project will meet the technical requirements of the Building Code as well as other "applicable laws" listed in the Building Code. An example of applicable law is a municipal zoning by-law.
- If the proposed house does not meet local zoning requirements, or other applicable law, a building permit cannot be issued.
- Both the factory-built modules and the construction activities performed on site (for example, construction of the foundation, site services, site preparation and grading) must also be covered in the building permit.

Building Permit Application

Building Permit Application (Cont'd)

- It is beneficial for everyone if the building permit drawings and other information clearly show which parts of the house are to be completed and certified in the factory and which parts will be constructed or completed on-site and require inspection by the local authorities.

Building Code Requirements

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Building Code Requirements

Site Assembled and Factory-Built Buildings (Article 9.1.1.9.)

- Modular buildings are deemed to comply with the Code if designed and constructed in compliance with:
  - CSA Z240.2.1, "Structural requirements for manufactured homes," and properly selected energy efficiency option, if the building is constructed in sections **not wider than 4.88 m**, or
  - CSA A277, "Procedure for certification of prefabricated buildings, modules, and panels."
- Still, the compliance with the following is required to be confirmed at the site through municipal inspections as apart of a building permit:
  - building components designed and constructed on-site (i.e., outside the manufacturing factory), and
  - site installation of such building components.

Building Code Requirements

Site Assembled and Factory-Built Buildings (Div. C, Section 1.12.)

- Modular buildings within the scope of Part 3 are deemed to comply with the Code if designed and constructed in compliance with CSA A277, “Procedure for certification of prefabricated buildings, modules, and panels.”
- Once again, the compliance with the following is required to be confirmed at the municipal inspections as apart of a building permit:
  - building components designed and constructed on-site (i.e., outside the manufacturing factory), and
  - site installation of such building components.

Building Code Requirements

Canadian Standards Association (CSA Group)

- If the modules for the house are being built in a factory certified by an accredited certification body, the factory must maintain strict quality control measures according to CSA A277, “Procedure for certification of prefabricated buildings, modules and panels”.
- The CSA A277 standard provides requirements for:
  - certification of the factory quality control program
  - certification of the modules
  - auditing the factory quality control program
  - in-factory inspection of the modules

Prefabricated buildings, prefabricated modules, and prefabricated panels shall still be designed and constructed to comply with the Building Code and regulations as applicable.

Building Code Requirements

Canadian Standards Association - CSA Group (Cont'd)

- To meet applicable CSA standards for modules, factories must be accredited by a certification organization that is authorized by the Standards Council of Canada (SCC) to perform compliance inspections in the manufacturing facility.
- A house built in a certified factory will have a label, often on the electrical panel, indicating the building code(s) the home meets, as well as that it meets the CSA A277 Standard.
- The portions of a house built and certified in the factory are deemed to comply with the Building Code and are not subject to local municipal inspections, whereas the portions of a building constructed on site such as the foundation and service connections would be inspected at the local level.

Building Code

Modular Units being stacked on top of each other

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Inspections

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Inspections

Module Inspections

- Modules constructed in a factory would be inspected in the factory to ensure that they meet Building Code requirements, either by:
  - In-house or third-party inspectors accredited by the Standards Council of Canada (as part of a certification process), or
  - At their discretion, building officials from the municipality where the house will be installed, who may agree to come to the factory to inspect (or appoint representatives to do so)

Inspections

Roof structure being constructed in a factory

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Inspections

Municipality-led Module Inspections

- If modules are not certified, one should have discussions with the municipality whether the municipality has a mechanism to approve the building permit prior to committing to the project.
- Modules that are not built in a certified factory, if possible and subject to chief building official's discretion, may be reviewed and approved through a municipality-led module inspection process by the municipality that the building will be installed.

Inspections

Municipality-led Module Inspections (Cont'd)

- The following are some options that the municipality, at their discretion, may agree to, based on their risk management plans, if they deem it appropriate:
  - Allowing their building officials to travel to the factory to inspect the modules at the project's expense.
  - Appointing a representative to inspect the modules to determine if they meet Building Code requirements.
  - Accepting reports by consultants (such as engineers or architects) retained by the building permit holder, demonstrating how the project meets Building Code requirements.
  - Using alternative means of inspection, such as live video.

What is a Tiny Home?

What is a Tiny Home?

What is a Tiny Home?

- A tiny home is a small, private, and self-contained dwelling unit intended for year-round use, containing kitchen, dining, living, sleeping, and sanitary facilities.
- For a home to be considered a tiny home, it must meet the size threshold, ranging from a minimum of 17.5 m^2 (188 ft^2) (based on minimum room or combined room sizes in Section 9.5) to a maximum of 37 m^2 (400 ft^2).
- Types of tiny homes:
  - Factory-built tiny homes
  - Site-built tiny homes
  - Tiny homes on wheels

What is a Tiny Home?

Examples of Tiny Homes

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Two-Permit System for Tiny Homes

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.)

- Effective January 1, 2022, amendments were made to Ontario's Building Code to address the off-site construction of tiny homes when a tiny home is constructed in one municipality but is intended to be located and occupied in another (excluding CSA A277 certified buildings).
- In a two-permit system, a building permit must be applied for in both municipalities:
  - The originating municipality where the tiny home is being constructed.
  - The receiving municipality where the tiny home will be located and occupied.
- Under the two-permit system, the first building permit would be obtained from the municipality where the tiny home is primarily constructed.

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.) Cont'd

- The second building permit from the receiving municipality would focus on compliance with "applicable law" (e.g., zoning, local by-laws, and non-Building Code related permits), as well as siting issues such as servicing, ingress/egress, foundation/slab-on-grade construction, anchoring, and grading around the tiny home.
- Since the tiny home will be built in one location and moved to another, the two-permit system addresses varying structural, fire safety (limiting distances), and energy efficiency requirements, depending on the climatic and seismic conditions of the area where the tiny home will be located.

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.) Cont'd

- Where the receiving municipality is known by the builder/manufacturer
  - This scenario applies when the builder knows where the tiny home will be located. In this case, the builder should work with both municipalities involved to ensure that the structural and energy efficiency requirements of the receiving municipality are incorporated into the design and construction, as reviewed and inspected by the originating municipality.
  - The builder is responsible for advising the originating municipality's building department of the specific requirements needed for installation in the receiving municipality.

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.) Cont'd

- Where the receiving municipality is not known by the builder/manufacturer
  - This scenario applies when the receiving municipality, or the municipality in which the tiny home will be located and occupied, may not be known at the time of construction.
  - This scenario allows a company to manufacture several different models of tiny homes that could be sold and located in different areas of Ontario, with the various models matching differing climatic and seismic zones and other local conditions.
  - In this case, it is important to ensure that the home is suitable for its final destination.

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.) Cont'd

- Manufacturers must clearly indicate the location-based assumptions (e.g., seismic and climatic conditions) made for each design so that buyers can make informed decisions about the tiny home they purchase.
- The two-permit system does not apply to tiny homes built and moved to Ontario from other provinces or the United States.
- The two-permit system ensures compliance with the technical requirements of Ontario's Building Code and that reviews and inspections are conducted by qualified building officials and inspectors in Ontario.

Two-Permit System for Tiny Homes

Tiny Houses (Div. C, Section 1.11.) – Good Practices

- Applicants should clearly declare, and municipalities should have a system in place to clearly identify, whether the application is for an initial permit, a second permit, or if all permits are included in one application within one municipality.
- It is good practice for the originating municipality to link the permit issued to the actual tiny home by using markings such as a label or stamp on the house.
- It is also good practice for the receiving municipality to accept an application parallel to the first permit and begin their review of the site-related requirements, provided that the applicant understands that their application will only be complete once the first permit is closed, and the remote tiny house construction is finished.

Questions?

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