

Evolution to Modern-Day Factory-Built Homes

INFORMATION GUIDE

2021



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PURPOSE OF THIS DOCUMENT

This document is intended to educate, enlighten, inform and clarify issues related to off-site manufactured housing in the Prairie Provinces.

Disclaimer: *The Modular Housing Association Prairie Provinces is supplying this manual containing illustrations, information, pictures, and other material that are provided solely as sample documents for illustrative purposes. If any of the information in this information guide is contrary to legislation, the Provincial legislation applies.*

For more information about today's housing go to the MHAPP's website at www.mhaprairies.ca

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I. Introduction and Purpose:

Likely, if you are reading this article it is because you are a professional in your field and wish to be informed, enlightened and seek to be accurate in your communication. This document was created to provide the most up-to-date and accurate information available regarding the various facets of off-site built housing in Western Canada. The industry is often hindered by attitudes and perceptions that affect the products, approvals, lending and other related aspects. Hopefully, after reviewing this document, you might find a few items that you hadn't considered before and that might change your previous understandings of what a factory built home really is.

Words are important so when we apply them incorrectly it can affect the outcome of a given situation. As an example, if we used the term "Trailer" or "Mobile Home" in the photos below, we might not be using our words correctly. What it does show though is that all homes can be mobile and almost anything can be on a trailer.



We also see that each of these buildings are homes however each has its own purpose and needs to be cited in an appropriate location. Each home is built to different standards and Codes. So how does this apply to factory-built homes today?

Here is what we need to understand:

1. All homes can be mobile, and any home can be relocated on a trailer.
2. Modular Homes are simply homes where a different method of construction was used.
3. Modular Homes are constructed to the same National and Provincial Building Codes as site-built homes. *There is no free ride or exemptions.*
4. Regardless of the term, (Mobile, Manufactured and Modular) these homes must be placed on Code compliant foundations. *Built properly, an "at grade" foundation is still deemed to be permanent under the National Building Code as a permanent foundation.*
5. Any Code compliant home placed on owned land or leased land is considered to be real estate:
 - If the home is on owned land, it is sold just like any other home.
 - If the home is on leased land, the home is sold as a chattel. It can be financed by most lending institutions however, the loan insurance is provided by CMHC (C.L.I.P).
6. Using correct terminology is critical to ensure appropriate treatment of factory-built homes by planners, building officials, realtors, assessors, lenders and insurers.

For more information about today's housing go to the MHAPP's website at www.mhaprairies.ca

II. Terminology

FACT – Using the most accurate terminology shows that you are a professional in your field.

- The definitions provided here are the most current and accurate industry terms used in Canada. They may however not always align with what other institutions might use (banks, municipalities, insurance, realtors etc.) The reason for this is that many organizations have simply not maintained and updated their terminology. This document is a tool to encourage that to happen.

Off-Site Built Definitions:

1. **Trailer** – A colloquial term used to define older off-site built homes prior to CSA conformance. *This is an inaccurate and out-dated term. Today it is used to define a towed vehicle generally used for work, freight or construction purposes and does not define a housing form.*
2. **Mobile Home** – a residential dwelling unit built off-site to the CSA Z240 MH Standard prior to 1976. *Homes were easily relocatable as they included their own running gear and was superseded by the modern-day manufactured home in the early 90's.*
3. **Manufactured Home** – a home constructed to the CSA-Z240 MH (Manufactured Home) Standard (generally after 1976) a one-storey building providing a single dwelling unit only, constructed in a factory in one or more modules in conformance with CSA Z240 MH Series and is ready for occupancy on completion of installation on a foundation, connection of services, and other set-up in accordance with the manufacturer's installation instructions.
4. **Modular Home** – means a building providing a single dwelling unit only, constructed in a factory in one or more modules in accordance with the applicable provincial/territorial/municipal building code/regulation (CSA A277) and is ready for occupancy on completion of installation on a foundation, connection of services and other set-up in accordance with the manufacturer's installation instructions.
5. **Modular Multi-Residential Building** – means a building comprising multiple dwelling units that may be served by common or separate entrances from an exterior open space and may or may not include common spaces and services where the modules are constructed in a manufacturing facility to the municipal building code/regulation (CSA A277).
6. **Ready-to-Move (RTM)** – means a modular building providing a single dwelling unit only, constructed as a single module in accordance with the applicable provincial/territorial/municipal building code/regulation (CSA A277) and ready for occupancy on completion of installation on a foundation, connection of services. *Generally, these are not built in a factory.*

7. **Park Model Trailer** – means a recreational product constructed in accordance with CSA Z241 to provide seasonal accommodation.

NOTE: CSA Z241 specifies size limitations and may include that these products must be built on a chassis mounted on wheels and are intended for seasonal camping and not for year-round use.

8. **Recreational Vehicle** – means a vehicular-type product constructed in accordance with CSA Z240 RV Series to provide seasonal accommodation.

NOTE: CSA Z240 RV Series specifies, among other criteria, that these products must have their own motive power or be mounted on or towed by another vehicle, are intended to provide temporary living quarters for recreational camping, or seasonal use, not year-round use.

III. Understanding Factory-Built Homes - Modular

The term modular simply describes a method of constructing a home in large sections, away from the home site, in a manufacturing facility. The type of housing constructed is determined by the building code to which it complies and definitively described using the following common housing configurations: Single detached, multi-family, single level, multi-storey, bungalow, etc.

The term modular does not describe a type of home, just as the term site-built does not describe a type of home. They both describe alternative construction methods. Therefore, a type of home is commonly described as a single family, townhome, duplex, 2-storey, etc., can be site built or modular built, or built using a combination of both construction methods.

FACT – A home having a CSA A277 label, is built to the same Building Code standards as any site-built home.



IV. Evolutionary Timeline

This section deals with the evolution of Building Code changes, size increases and feature improvements. Multi-section homes were available throughout this timeline, but for purposes of recognition we are focusing solely on single section homes.

Note- "Common characteristics" noted below describe the original construction and existing homes may have had upgrades and improvements added over time.

A. 1955-1965 Mobile Home - 400 sq. ft.

- In these formative years, homes were typically referred to as "Trailers" as in many cases, it was possible for the homeowner to tow their home from one location to another. The upper size limit at that time, was typically 10'x48'. This was before CSA Standards were in place and typically the homes were built to the American Mobile Home Standards which was accepted by Canadian Jurisdictions.



Common characteristics included: 2" exterior walls, bow truss rafters, metal roofing, oil furnace, wood wall panels, 6'6" ceiling height, and jalousie windows.

B. 1966-1971 Mobile Home - 576 sq.

ft. The upper size limit was usually 12'x60' and while this was pre the structural CSA Standards, homes typically were built to American Mobile Home Standards but did require an "Electrical Only" CSA label that was secured to the exterior of the home generally in the area where the services were connected.



Common characteristics included: Oil or a gas furnace, 3" exterior walls, 2x2 bow truss roof, jalousie or aluminum slider windows, exterior wood hollow core doors, metal siding, ceiling height was 7' or 7'6".

C. **1972-1975 Mobile Home -952 sq. ft.** The upper size limit was generally 14'x68'. At this point, the CSA certification process had evolved to the place where it was now available to Canadian factories and was become common place. Homes were generally being produced to meet the CSA Z240 MH standard across Canada.

Common characteristics included: 2x3, or 2x4 walls, gas or propane furnace, metal bow truss roof, metal slider windows, increased insulation, fibreboard ceiling tile, R-7 in the walls and R10 to 14 in the ceiling, metal siding, ceiling height of 7'6".



D. **1976-1977 Mobile Home - 952 sq. ft.**

The upper limit of available module at that time was still generally 14'x68'. The CSA factory certification process was now mandatory and applied through the CSA-Z240 MH Standard.

Common characteristics included: 2 x 4 walls standard, slider windows, R-12 wall insulation, 2/12 metal roof or a pitched asphalt shingle roof was being introduced, metal exterior doors standard, end of metal bow truss roof, metal siding and a 7'6" ceiling height.



E. **1978-1981 Mobile and Modular Home - 952 sq. ft.** Upper size limits didn't change in this period although a few manufacturers were now producing 72' long homes. By this time, the CSA-Z240 MH Standard was the norm across Canada; however, CSA was now offering an in-plant inspection program to ensure homes conformed with the National Building Code. This was referred to as CSA A-277. In Alberta, homes were required to also carry the Alberta Building Code label.

Common characteristics included: 2 x 4 walls, insulation R-12, asphalt 2/12 pitched roof, metal exterior doors, metal slider windows, metal exterior storm doors, metal siding and generally 7'6" ceiling height.



F. 1981-1984 Mobile and Modular Home - 1008 sq. ft. 14'x72' was typically the upper limit however 16' wide homes were starting to appear as the Provincial road restrictions were modified.

Common characteristics included: 2 x 4 walls, pitched asphalt roof, metal slider windows, R-12 insulation, stippled gyproc ceilings, 980 sq. ft. home (14'x70') still popular because of Land Lease Community sizes, wood and vinyl siding introduced.



G. 1985–1988 Mobile Home or Modular or Manufactured Home -1216 sq. ft. The length and width had now expanded to 16'x76' as the norm.

Common characteristics included: 2x4 walls, some 2x6 walls, much higher insulation levels, increased attic ventilation, introduction of the 16 wheel bogey-style transport systems, asphalt pitched roof, metal thermal pane windows, more vinyl and wood siding, skylights introduced, Vinyl coated Gyproc interior wall panels, cathedral ceilings.



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H. 1989-1991 Modular or Manufactured Home– 1248 sq. ft. Due to the increased sizes, weights and Code standards, the term “Mobile Home” no longer applied so the industry replaces the term with “Manufactured Home which more accurately defined the type of structure.

Common characteristics included: 2 x 6 walls, stippled ceilings now standard, introduced PVC vinyl double pane windows, improved ventilation systems, skylights and vinyl or wood siding standard, no more metal siding.



I. 1992-1996 Modular or Manufactured Home– 1248 sq. ft.

In 1992, the Alberta Government mandated all new homes would be required to comply with Part 9 of the Alberta Building Code (ABC). That ruling mandated that all homes, whether built on-site or off-site, must meet the same standards. The labelling then changed to state that homes meeting these standards were defined as Modular.

Saskatchewan and Manitoba continue to accept both homes built to the CSA-A277 and the CSA-Z240 MH Standards under the National Building Code (NBC).

Common characteristics included: 2×6 walls, stippled ceilings, PVC vinyl double pane windows, improved ventilation systems, residential eaves optional and vinyl siding standard.



J. 1997–2000 Modular Home– 1248 sq. ft.

Homes are now built to the ABC using CSA-A277 Certification Process required by the Alberta Building Code (ABC) or greater, different building facilities build to different building specifications; however, the homes are always built at least to, the minimum standard required by the Province where the home will be sited. This includes CSA-A277 and or CSA-Z240 MH in Saskatchewan and Manitoba under the National Building Code (NBC). 20' width homes plus attached 12" residential eaves are now becoming available.



K. 2001–present Modular Homes– 1700 sq. ft. and greater. In Alberta, homes continue to be built and certified using the CSA-A277 Certification Process as required by the National Building Code. While different building facilities build to different building specifications, they must always be built to at least the minimum standard required by the Province where the home will be sited. This includes CSA-A277 and or CSA-Z240 MH in Saskatchewan and Manitoba under the National Building Code (NBC). Shipping restrictions have continually been modified in all provinces and today much greater sizes are permitted. The Prairie Provinces typically allow



modules of 20', 22' and 24' widths with even wider dimensions that can be moved when using house moving equipment.

Common characteristics are now much more varied. While 2×6 walls, stippled ceilings, PVC vinyl double pane windows, residential eaves and vinyl siding are all generally the new standard, the available features become highly varied with features such as 9' sidewalls, stone exterior accents, solid surface counters, painted drywall interiors and tiled showers. Many options to customize homes (similar to site-built) are now available.

Take the Challenge . . .

Can you tell which of the following were factory-built as opposed to site built? *(Answers on the last page)*



V. Financing of Factory-Built Homes

A factory-built home can be financed in numerous ways depending on how it is associated with land. Below are the two most common methods (chattel and real property)

A. Chattel

Canadian Mortgage & Housing Corporation (CMHC) Chattel Loan Insurance Program (CLIP) provides loan insurance for loans to purchase or refinance movable homes secured by a chattel mortgage (commonly understood as a mortgage). Maximum loan-to-values for purchase are 95% and 90% for refinance. Other CMHC underwriting policies and product-specific requirements apply unless otherwise noted.



1. Terms and Conditions: New or existing one-unit (single family) dwellings that are designed to be transportable and meet maximum road widths as prescribed by provincial/territorial authorities. In addition, the following is applicable:

- a) New homes must be certified in accordance with the CAN/CSA-Z240 MH Series-16 of standards (for Provinces that allow this standard).

NOTE: New homes built to this Standard are not allowed to be placed in Alberta, although some municipalities' land-use bylaws continue to state the home must have a CAN/CSA-Z240 MH label; in which case, the home is built to the higher CSA-A277 Standard and could have both labels.

- b) New factory-built homes must be constructed in a manufacturing facility certified in accordance with CSA-A277 (modular), "Procedure for Certification of Factory Built Houses" and conforming to the construction standards referenced therein.
- c) The borrower and the owner of the site must have entered into a site lease, tenancy agreement, or the borrower must have a letter of consent from the owner. The lease may be a short-term lease or a long-term lease if the unit is not permanently affixed.
- d) Compliance with provincial, territorial or municipal/local requirements with respect to the use of the site for residential purposes.
- e) Homes must be setup and anchored to meet provincial/territorial or local requirements. In the absence of these requirements, new homes must be set to comply with CSA standard CAN/CSA-Z240.10.1-16 or Schedule 10. Existing homes do not have to comply with this standard but may use it as a guide.
- f) If substantiated, lending value may include normal set-up costs and the value of attachments (i.e., garages, porches, decks) as long as they are included in the purchase transaction and secured by the chattel loan document. The overall impact that attaching and removing these attachments will have on the home (damage, warranty, etc.) should also be considered.

- g) When a new unit is purchased in Alberta, the mandatory New Home Protection Act applies. This is a 10-year warranty that is provided through one of several Insurance providers through the selling agent.
- h) In Saskatchewan and Manitoba, the home must have a one-year warranty against defects in material and workmanship and may have additional warranty. Please consult the Retail Sales Centre to confirm the warranty terms for Saskatchewan and Manitoba.
- i) The Approved Lender must register a form of chattel security that is valid and enforceable both as to remedies against the security and for the collection of loan repayments, in accordance with the Personal Property Registry.
- j) The Approved Lender should obtain an assignment or sublease of the borrower's site lease, tenancy agreement, or letter of consent, as additional security. The assignment must allow the Approved Lenders to keep the payments current, so the unit may remain on the site in the event of borrower default on the chattel loan. An assignment is not necessary when the owner of the site does not agree to the unit being resold on the site. In such case, it is expected that the unit will be relocated prior to resale.
- k) Approved Lenders should note that specific loan servicing requirements apply to these loans which are in addition to or different from those requirements which apply to loans secured through a real estate mortgage. Contact CMHC Servicing Policy. Chattel Loan Insurance cannot be used in conjunction with:
 - a. CMHC Income Property (1-4 Unit Rental Properties)
 - b. CMHC Line of Credit
 - c. CMHC Self-Employed Simplified
 - d. Extended amortized periods
 - e. Non-traditional down payment sources

NOTE: Under progress advance processing only two advances are permitted (up to 85% of the outstanding balance on the delivery of the home for the first advance and the remainder upon setup). The manufacturer of the home is not eligible for the Homebuilder Presold feature under progress advance processing policy.

B. Homes in Land Lease Communities



1. Model Assignment of Lease Consent Agreement

- a) This document was developed as a coordinated effort with the Canadian Bankers' Association and the factory-built housing land lease communities in relation to a site lease agreement. (See Addendums for a sample of this document)
- b) Please refer to the Mobile Home Site Tenancies Act (AB) The Residential Tenancies Act, 2005 (SK) and the Residential Tenancies Act (MB) for more information regarding the sale of a home in a land lease community.

- c) Notice to terminate a monthly tenancy by a Resident, it must be served on his landlord on or before the first day of a notice period of two consecutive tenancy months to be effective on the last day of the notice period in the case of AB. One Rental Period Notice in MB and in the case of SK; not earlier than one month after the date the notice is received; and the day before the day in the month, or in the other period on which the tenancy is based, that rent is payable under the tenancy agreement.



NOTE: It is recommended the landlord review the Provincial Legislation in the Province your community resides.

- d) The Real Estate agent or potential purchaser must be aware of the following forms that must be filled out and executed before the new tenant takes possession of the site.
- (1) Tenancy Application
 - (2) Landlords / Residents' Registration & Information Sheet
 - (3) Policies & Regulations
 - (4) Mobile Home Site Lease Agreement

*Please check with the specific Community as each Community's policies and procedures vary.

2. Procedures for Listing and Selling within Land Leased Communities

Although some communities may vary, the following is a guideline to follow when listing and selling within a land lease community.

- a) The Landlord requires notification when a home is listed within the community, therefore a "Notice of Listing" is to be completed, signed by the resident and submitted to the community office.
- b) Once the "Notice of Listing" is received, the Landlord does a maintenance inspection of the lot and exterior of home to ensure that it is to community standards.
- c) After the inspection, a Maintenance Memo detailing the required work to be done (if any) will be issued to the resident and a copy forwarded to the Real Estate Agent. It is important to note items detailed during the inspection must be completed prior to the sale of the home.
- d) Customers interested in buying must be approved to live in the community; therefore, a lease application must be submitted to the community office prior to finalizing the sale. Although processing times vary, it is important to provide the Landlord with as much time as possible to approve the customer.
- e) Each community may have their own set of "Community Guidelines"; therefore, it is important to check with the community office to arrange for a copy of those

policies provided to the Real Estate Agent and/or customer.

- f) Once a customer is approved, notification will be sent to the customer and/or Real Estate Agent.

C. Real Property (Homes affixed to Land)

A factory-built home (constructed to the National/Provincial Building Code through the CSA-A277 Certification Standard sometimes referred to as Modular, affixed permanently to land becomes real estate and therefore should be processed as a conventional mortgage loan. If a real estate mortgage is used to secure the loan then the home qualifies for Canadian Mortgage and Housing Corporation's mortgage loan insurance products, as a real estate mortgage is secured by the land as well as any structures on the property. Some lenders offer varying payment schedules. As well, lenders can choose to offer any, all or no CMHC programs.



D. Appreciation and Depreciation

The appreciation in value of factory-built (modular or manufactured) homes comes back to the old real estate axiom - location, location, location. Factory-built homes will appreciate at the same rate as other homes in surrounding neighborhoods when properly sited and maintained.

This common misunderstanding about depreciation comes from the movable nature of some types of factory-built homes. Some consumers look for used factory-built homes and will pay a depreciated value to move it to a different location not unlike they would if they purchased a used site-built home and removed it from its foundation to move to another location.

In the context regarding homes appreciation/depreciation value, cost of homes is site specific, market value and importance of maintenance will impact on the price of the home. In some circumstances, a factory-built home could be more valuable because the home was constructed so that it could be moved.

E. Life Span

Due to building code specifications, the CSA certification standards, the weather-controlled building environment and quality of construction materials, factory-built housing has an equal or longer life span than site-built homes. Proper maintenance is the key to longevity in all housing types.



1. **Features of Factory-Built Adding to the Life Span.** Benefits resulting due to homes being built under climate-controlled factory conditions:
 - a. Assembly line procedures optimize insulation & air/vapour barrier installation, resulting in a tighter and better insulated envelope which requires less energy to heat & cool.
 - b. Ensures framing materials, sheathing, floor & roof decking are all installed dry and remain dry; therefore, moisture is not built into a structure during construction and that reduces potential for mould formation and moisture related performance and durability degradation.
 - c. Factory-built homes/buildings usually carry total roof loads on the exterior walls of each module. This means most interior walls are not load bearing and can be easily removed or repositioned at any time to accommodate changing space needs which occur as children leave home, as adults' age, and for many other reasons.

FACT- A factory-built home has an equivalent life span to any other home.

F. Confirming the Size of Homes

Today, homes are sold and defined by the actual footprint of the home. Historically however, factory built, movable homes were defined by the total length of the structure including the towing hitch on homes equipped with a steel frame. The typical hitch length of 4' would then cause confusion regarding the square footage of the home. Therefore, you should ensure the size of the home is the footprint of the home by physically measuring the home.

VI. Building Code Requirements

In the case of factory-built homes (*CSA-A277*) vs. site-built, the factory-built home is inspected throughout the production process, whereas site-built homes are inspected only at certain critical stages. Both factory-built and site-built homes must comply with the same Building Code that relates to its destination. The evolution of site-built homes has been greatly influenced by changes made to building codes and factory-built homes have evolved in the same manner.

A. **Alberta** - All factory-built homes must comply with the Part 9 of the *National Building Code (NBC)* and be certified compliant to the (NBC) under the *CSA-A277 Certification Standard*. This means there is no distinction or allowance for Factory Built housing to be different than any other form of housing construction.

B. **Saskatchewan** - In the case of Saskatchewan, all factory-built homes must comply with the *National Building Code (NBC)* and be certified compliant to the *National/Provincial Building Code* under the *CSA-A277 Certification Standard*.

Saskatchewan also allows homes to be constructed to the *CSA-Z240 MH Code* for certain applications. Sales Centres are encouraged to check with the individual municipality where the home will be located to ensure which standard is permitted or required.

C. **Manitoba** – The same guidelines apply to Manitoba as in Saskatchewan. Both homes built to the National Building Code under the A277 certification process and those built to the *CSA-Z240* are permitted.

E. **High Intensity Residential Fires (H.I.R.F.)** – When locating or relocating any home in any jurisdiction, there could be structural requirements pertaining to special separation. This will normally be assessed at the time the Building Permit is acquired. Homes closer than 4' (1.2m) to the property line (not another structure), may require: vented eaves to be blocked; siding to be fire rated; reduced fenestration. **Check with your local Building Inspector.**



VII. Understanding Labels

To verify that an off-site constructed home has met the Code requirements and has been duly inspected under the CSA certification process, the appropriate labels will be affixed to the home.

A. Alberta: The requirement for both site-built and factory-built homes to bear the AMA label (shown to the right) has been in affect since 1977. As of December 19, 2019, this label is no longer required as the Province now only requires the CSA, A277 label for factory-built homes. The home must bear the CSA-A277 label as inspected by one of 3 governing agencies (see below). Site-built homes must undergo a series of inspections by the local municipal inspectors and be granted final inspection approval.

B. Saskatchewan: requires the home to be CSA certified and have the appropriate label affixed to the home.

C. Manitoba: requires the home to be CSA certified and have the appropriate label affixed to the home.

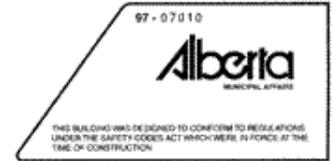
D. Certification Organizations: At the time of issuing this document were 3 organizations approved to ensure compliance to the *National Building Code (NBC)* under the CSA procedures standards:

1. CSA
2. Intertek
3. QAI

E. CSA Certification

The CSA-A277 certification standard along with many other CSA standards can be enforced by any standards council accredited agency. In this case, CSA (Canadian Standards Association), Intertek and Quality Auditing Institute (QAI) are the only accredited agencies that can enforce the CSA-A277 certification standard at the time of publication of this document.

To ensure the home has been built to the Provincial Building Code, the building inspector looks for the Label (CSA, QAI or Intertek) certifying compliance to the specific Province's Building Code and as certified under the *CSA-A277* standard.



1. **The CSA-Z240 MH Standard** is a separate building code heavily based on the NBC, but not fully compliant. It was initiated to create a national standard that would allow for homes to be transported from sea to sea. Effective in late 1976, compliance to CSA-Z240 MH standard became mandatory however many manufacturers had been complying to CSA-Z240 since the early 70's.
2. **Alberta and A277:** The CSA-A277 compliance standard certifies full compliance to the National Building Code (NBC). Prior to the advent of the CSA-A277 standard, all factory-built (modular) homes were inspected for code compliance in the same manner as site-built homes. The CSA-A277 standard was fully implemented by the late 1970's and was acknowledged in all the Provinces in conjunction with CSA-Z240 MH until 1992.
3. **Alberta and CSA-Z240:** By 1992 the Alberta government mandated that ALL housing meet full compliance to the ABC, which resulted in the CSA-Z240 standard no longer being accepted in Alberta for homes that were built post 1992. However, all the other provinces in Canada (including Saskatchewan and Manitoba) accept homes certified to the CSA-Z240 MH standard.
4. **Homes not complete in Factory:** Many off-site constructed homes are sold as incomplete units where owners opt to have them completed on-site. These units are manufactured using the CSA-A277 standard (see also STANDATA 97-13-037). Because these units leave the plant at varying degrees of completion the owner must obtain all necessary permits for the remaining work to be completed.

Manufactured housing units in this category will not receive an Alberta Municipal Affairs label; however, will be provided with a CSA-A277 label signifying that construction completed in the factory meets the ABC 1997. This work is contracted out under an agreement between Alberta Municipal Affairs and the certification organization (CSA QAI or Intertek) whereby the certification organization reviews the construction plans, distribute labels, and conducts periodic plant inspections. In Saskatchewan and Manitoba, the certification organization provides similar services; however, these two provinces do not provide a provincial label.

For each unit the manufacturer will also provide the purchaser with written confirmation of the work completed in the factory. This is then provided to the local Safety Codes Officer (SCO) to support the release or permits for the on-site construction necessary to complete the home. (see Article 1.2.1.1)

5. **Relocating an Existing Manufactured Homes in Alberta** - When an existing factory-built home is to be relocated, it may have an AMA label attached giving the local SCO assurance it was constructed in conformance with the Alberta Building Code in force at the time of manufacture. The first two numbers on the label will designate the Alberta Building Code edition. For example, "85" confirms it was constructed or has been upgraded to comply with the Alberta Building Code 1985. The unit may also have a CSA-A277 or CSA-Z240 label.
 - a. The local SCO may wish to perform an inspection of a home before relocation to determine if any changes have been made to the unit since construction. If this is the case, the SCO may require the owner to obtain permits and perform upgrades should deficiencies be identified.
 - b. Homes without Alberta Municipal Affairs Labels (with CSA Label)
When an existing factory-built home is to be relocated in Alberta and does not have an AMA label, but has a CSA label, the unit should be inspected by an SCO. In this case, the SCO will issue a report to the owner or any safety deficiencies to be addressed before the unit is moved. Items may include bedroom window sizing, smoke alarms, exit doors, solid fuel fired appliances, and protection of wall surfaces around kitchen ranges. The permit will also cover the siting issues dealt with above.
6. **Relocating in all Jurisdictions:** In all three prairie provinces and whether or not the unit requires upgrading, a permit will normally be required to site the home at the new location. This permit will cover items such as limiting distance (spatial separation), the foundation/anchorage system, entrance stairs, deck additions and site grading (see Article 1.2.1.1).



F. Certification Inspection Procedures

The manufacturing facility constructing factory-built homes are certified by a certification body (CSA, Intertek or QAI) that certifies the homes comply with Canadian Standards. This procedure enables each manufacturing facility to build fully finished homes, place a certification label on the manufactured (mobile) home certifying compliance to the *CSA-Z240 MH* National Mobile Home Standard, and place a certification label certifying compliance to the *NBCC*, or Provincial Building Code.

CSA certification ensures each manufacturing facility maintains strict quality control and inspection programs and utilized well trained labour, a design staff with thorough building code knowledge, and skilled inspectors that monitor and inspect each home at each stage of production process. In addition, Certification personnel conduct periodic inspection of the homes being produced in the factory. The Certification Label placed on each home is numbered and a serial number is assigned to each home. A permanent record of the Certification Label number, the serial number and the specifications of each home produced is maintained by the manufacturer.

Labels to look for:



G. The Certification Data Sheet Includes:

- Manufacturer's name and address
- Model Identifier
- Serial Number
- Year of Manufacture
- Ground snow load and design snow load
- Thermal resistance of insulation and outdoor design temperature for heat loss calculations
- Factory installed appliances with make, model and energy source
- Complete electrical rating of circuitry (voltage, frequency, input current)

H. Built to the CSA Standard:

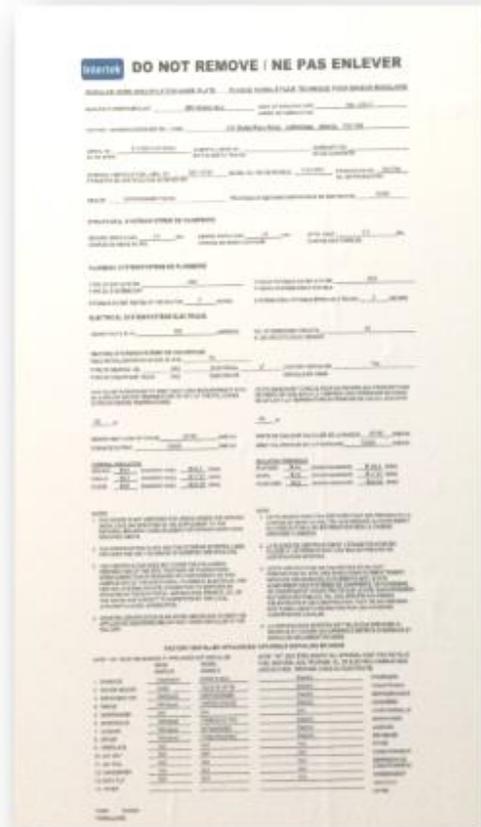
The *CSA-A277 Standard* is a Certification Standard (not a building code). This Standard is used to certify a residential, commercial or industrial building for compliance to the building code as well as in the jurisdiction where the building will be sited.

In the case of Alberta, all homes must meet the *National Building Code* and therefore, the *CSA-A277 Standard* has been applied. Whenever a home is constructed in a manufacturing facility for placement in Alberta, compliance to the *National Building Code* is confirmed by a modular label placed in each home certifying compliance under the *CSA-A277 Standard*. This includes single section homes, multi section homes and multi-family dwellings.

From a building inspection perspective, the Provinces of *Alberta, Saskatchewan and Manitoba* subordinates all building inspection responsibilities associated with the modules built in a manufacturing facility certified to produce homes/buildings to the *CSA-A277 Standard*, to any inspection agency that is accredited to certify to the CSA Standard.

I. Where Labels are Typically Found:

1. **Older Homes prior to 1985** - If the homes were CSA certified, they would generally have a data sheet either in the utility area (electrical panel or inside a kitchen cabinet (normally under the kitchen sink). The actual label was affixed to the siding at the front entry door.
2. **Newer Homes built after 1985** - Most of these homes will have the SPECIFICATION SHEET on the inside of the door that covers the electrical panel. However, there is no specification for where the labels are



to be posted other than they shall be placed in a readily accessible area. Generally, the Specification Sheet, *CSA-A277* Label (and/or the *CSA-Z240 MH* Label for Saskatchewan and Manitoba) and (the *AMA* Label *in* the case of Alberta) will be found close together. There are many numbers on this Specification Sheet including; Serial Number, *AMA* Label Number (in the case of Alberta), Make and Model, Size, etc. (SCHEDULE 8)

3. **Older Homes built before 1985** - Many homes built in the early 1980's should have the serial number in the same location as described above (Newer homes). Older homes also had most of the information on a specification sheet. The main difference is where this specification sheet is placed. Older homes usually had the specification sheet mounted on the inside of a door on one of the kitchen cabinets. The first location to check is the cabinet under the sink. If it is not found there, it is recommended you check the inside door of all the cabinets. Remember that the specification sheet could still be on the inside of the door covering the electrical panel.
4. **If all Else Fails** - If no serial number or specification sheet can be found inside the home the next place to look is on the exterior of the home. First, look for any label or sticker that may have information regarding the home on it. If no such label is found, the most common place to find the serial number is on the front cross member of the home. Some homes may have a label or a small steel plate and others may have the numbers stamped into the metal of the cross member.

NOTE: See the MHAPP's Frequently Asked Questions (FAQ) for more information.



VIII. Foundations

Factory constructed buildings may be designed to be placed on basements, crawl spaces, pilings, surface level foundations and other foundations compliant with the National and Provincial Building Codes related to the home's destination. Buildings incorporating steel or wood longitudinal sub-frame rails may be placed on permanent surface foundation systems that comply with ABC or NBC foundation requirements under the provisions of the CSA-Z240.10.1 National Standard.

FACT- A surface foundation conforming to CSA-Z240.10,1 is considered to be a permanent foundation.

NOTE: CSA-Z240.10.1 & Local Building Inspectors

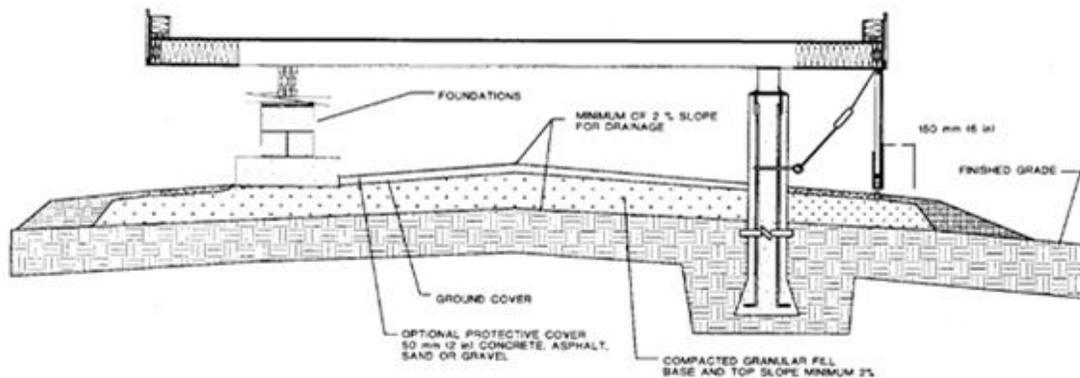
Even though the CSA-Z240.10.1 is referenced in both the National Standard, and the NBCC, local building inspectors have the authority to reject its use or add additional requirements to its use in their jurisdiction.

Appendix A Site Preparation

Note: *This Appendix is not a mandatory part of this Standard.*

A1.

Typical site preparation for concrete pile or surface pier foundation systems is depicted in Figure A1.



Notes:

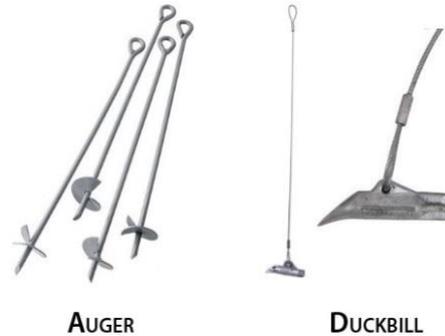
- (1) Ground cover to extend at least 150 mm (6 in) past the sides of the mobile home.
- (2) Backfill base and ground cover to be graded centre to outside or from side to side with a minimum slope of 2%.
- (3) Surrounding finished grade to slope away from home.

A. Ground Preparation for Surface Foundations

Surface level foundations designed in conformance with CSA-Z240.10.1 are considered permanent and are designed to provide excellent performance and durability, but that outcome is contingent upon proper site preparation. All foundations in *CSA-Z240.10.1* for permanent building code are not limited to factory-built homes.

- 1. About the Standard** - *CSA-Z240.10.1* is a National Standard covering site preparation, foundations, and anchorage of factory-built homes and other homes/buildings that are deformation resistant foundations allowable under *CSA-Z240.10.1* and are uniquely designed to bear on surface footings and offer excellent performance and durability. (*The Foundation Standard should not to be confused with the CSA Standard CSA-Z240 MH, the Manufactured Home Standard*). These surface foundations differ considerably from traditional foundations that must generally extend below the level of expected frost penetration and are far more costly. Highly cost-effective *CSA-Z240.10.1* foundations provide major cost savings.
- 2. Ground Preparation** - Top soil and all organic material must be removed from the home site below the footprint of the home. The base of the excavated site must be graded from the centre to the outside with a minimum slope of 2% to prevent water accumulation under the home, and then filled with gravel or other granular material to a level that is above the surrounding grade. If backfill is used where footing pads will be placed, it must be compacted and graded to a minimum 2% slope. Where soils under the home are free draining and the water table is such that water will not accumulate under the home, the base of the excavated site can be below the level of the finished grade of the site.
- 3. Ground Cover** - Where normal soil conditions exist, a *National Building Code of Canada* (NBCC) compliant ground cover must be placed over the entire area under the home and extend 6" beyond the perimeter to prevent migration of moisture into the space beneath the home. Where unique soil conditions such as expansive clay exist, which may contribute to water pooling beneath surface foundation footings, alternate means of preventing water vapour from entering the home through the floor system may be used.
- 4. Ground Clearance** - Under typical conditions, vertical clearance of at least 24" must be maintained between the finished grade under the home and the bottom of the floor joists. Where a home has a lowered section such as a sunken kitchen or living room, or the home is placed on a sloping site, the vertical clearance between the top of the finished grade and the and the bottom of the floor joists of the lowest point must be at least 12". In all cases vertical clearance must be sufficient to provide ready access to service and replace heating, plumbing and other equipment.

5. **Anchorage** - CSA-Z240.10.1 describes the conditions under which ground anchorage is required and that requirement is based on the ability of each home to resist 1/50 wind pressures found in the area where each home is sited. Those wind pressures are found in a Table in *National Building Code* (NBC). *CSA-Z240.10.1* also describes the types of anchorage that can be used when it is required and goes on to indicate: 'When wind-overturn calculations or local regulations require factory-built homes to be anchored, the anchorage system should be based on the manufacturer's anchorage instructions. In practice, under the provisions of *CSA-Z240.10.1*, except for a couple of very high wind zones in the Crowsnest Pass area of Alberta, anchorage is not required to resist the regional wind pressures on any homes 16 feet wide or greater and set on surface piers no higher than 20 inches, with a 'footprint' of no less than 24 inches. Local building code inspectors and / or lenders might require specific foundation and anchorage requirements. For the provinces of Saskatchewan and Manitoba, refer to the *National Building Code* (NBC) and review any appropriate Provincial Legislation. Anchorage Requirements (to foundation and anchorage below frost line).



B. Types of Foundation Permitted

While *CSA-Z240.10.1* accommodates foundation options other than concrete block and wood cribbing, the latter (as described below) is the most cost-effective and most commonly used. Here are a few examples:

1. Wood Cribbing Piers

Wood Cribbing Piers are constructed of sound lumber that is stacked with each layer placed at right angles and fastened securely to the one beneath. Unless the top surface of the footing under the crib is at least 2" above the adjacent ground surface, and the crib is separated from the footing by at least 0.15 mm-thick poly film, the first 6" of the crib must use lumber that has been pressure treated with a preservative. The top layer of the crib must use curbing or other means of restraint to prevent lateral sliding of the home.



2. Concrete Block Piers

Concrete block piers must utilize 8" minimum masonry units placed with concrete or

the masonry units may be dry-stacked. The top layer of block must use curbing or other means of restraint to prevent lateral sliding of the home.

3. **Metal Screw Piles**

Helical, steel pipe, screw pilings have become more and more common over the past few years. They are reasonably priced, can be placed in a variety of soil conditions and can reduce set up costs by eliminating the need for cranes or rollers.



4. **Other Considerations in cases above:**

- a) the foundation must always support the home by way of the frame rails
- b) the foundation pier spacing must comply with the manufacturers blocking plan.

The height of the foundation piers above the footings should not exceed their horizontal dimension measured at right angles to the length of the home.



5. **Foundations on older homes** - The foundation used in Leased Land Communities might have homes which were set up prior to 1998. In these cases, all preparation was set up according to the CSA Standard in place at the time the home was originally set up. As in any situation where major renovating has been undertaken, it must be updated to current code. If only minor changes are undertaken on a home, updating to the current standard is not required.

C. **Types of Footings Permitted** - When wood cribbing or cement blocks are used for support, they must be placed on a suitable footing.

1. **Unreinforced Concrete** - If the column footings are designed using unreinforced concrete, the minimum allowable thickness is 100 mm (4 in.) according to Clause 9.15.3.6.(1). This thickness may have to be increased to be not less than the projection of the footing beyond the column base plate.
2. **Reinforced Concrete** - whether cast in place, or pre-cast, concrete must provide equivalent strength and meet the same conditions applicable to unreinforced concrete (1. above).
3. **Wood** - Wood footings must be at least 3.5" thick and pressure treated with a wood preservative.
4. **Other** - Plastic waffle pads and other materials can only be used if it can be demonstrated on a case by case basis that strength and durability is at least equivalent to concrete alternatives above.

***NOTE:** Use of the above footing pad options is limited to pile type foundations that most commonly consist of wood cribbing or concrete block. Detailed guidance pertaining to soil conditions, footing footprint dimensions, and footing spacing is contained in the CSA-Z240.10.1 Standard.*

D. Skirting and Crawl Space Ventilation

1. Skirting

Skirting should be designed to accommodate a minimum of 2" of vertical movement. Components of skirting in contact with the ground should be corrosion resistant or made to be corrosion resistant by way of a preservative coating. Skirting exterior surfaces should be painted or otherwise made weather resistant. Some typical skirting solutions commonly used:

- a) **Vinyl** – Vertical vinyl panels are premanufactured specifically for this purpose and can be purchased in a variety of colors and finishes. It comes with a ground starting rail and upper rail with a built-in expansion flange.
- b) **Insulated vinyl panels** – These are becoming more popular in recent years and are made from rigid Styrofoam panels with a vinyl over panel. The system also has a built-in expansion rail to allow for frost movement.
- c) **Plywood** – Requires a wood framework for support and be painted or finished with parging or acrylic stucco for protection. This type of skirting must include provision of frost movement to prevent damage to the skirting and the home.
- d) **Other** – There are many other products and methods that are used as skirting for buildings. Most are acceptable provided that they include proper venting; they allow for frost movement and are suitably finished to provide protection from the elements.



2. **Ventilation** of crawl space should be provided by installing screened grills in the skirting of at least 1 square foot of unobstructed venting for each 500 square feet of floor area of the home. The grills should be uniformly spaced on opposite sides of the home and positioned to minimize the prospects of obstruction by snow, leaves, etc.
3. **Access** - To facilitate inspections and maintenance at least one access panel of not less than 20" x 28" should be provided to the crawl space in an area that is close to water and sewer connections.

CAUTION: Appliances or clothes dryers should never be vented into the crawl space.

IX. Model Architectural Compatibility Guidelines

This information below is intended for inclusion with land use bylaws to help ensure the “look” of the factory-built home conforms to that of the community where it is sited.

Model Architectural Compatibility Guidelines

ADDRESSING DESIGN, CHARACTER AND APPEARANCE OF OFF-SITE BUILT HOMES

Applicable to: A277 Labeled Modular Homes, 20’ or greater in width, placed in urban, suburban and rural residential communities.

1. **Height of the main floor** above grade shall be consistent with the height of the main floor of dwelling units in the immediate and general area;
2. **Roof pitch, style, and features** such as gables shall be consistent with the roofs of dwelling units in the immediate and general area;
3. **Roof overhang/eaves** shall be a minimum of 30 cm from surface of each side wall;
4. **Finishing materials** used on the roof and exterior walls shall be consistent with the materials used on dwelling units in the immediate and general area;
5. **Design** of each modular dwelling unit shall ensure the side facing the street on which the home fronts contains a prominently placed ‘front door’ and windows in quantity and size that are consistent with dwelling units in the immediate area;
6. **Foundations** shall be full perimeter and compliant with NBCC provisions contained in 9.15.2. Alternatively, homes designed to be supported on longitudinal floor beams using piling foundations and skirted perimeter enclosures must comply with provisions contained in NBCC 9.15.1.3;
7. **Skirting enclosures** shall be parged or finished similarly in appearance to that customarily found on basements of other detached dwellings in the immediate and general area.

What is a Modular Home?

Off-site built housing is defined under A277 certification normally as a Modular Home; however, may also be termed as a factory-built or Ready to Move (RTM) home. These terms simply describe a method of constructing a dwelling unit in one or more sections in a factory, away from the home site. The type of housing constructed is determined by the building code to which it complies and definitively described using the following common housing configurations: single detached, semi-detached or multi-family, single level or multi-storey. These terms do not describe a type of dwelling unit, just as the term site-built does not describe a type of dwelling unit, instead describes alternative construction methods. Therefore, type of dwelling units commonly described as a single family, town-home, duplex, two-storey, etc., can be site-built, factory-built, (modular-built, off-site built) or built using a combination of any of these construction methods.

X. Warranty

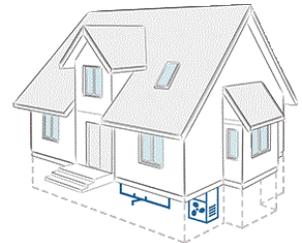
All new homes in all provinces must carry a minimum of a 1-year manufacturer's warranty in all provinces. At the time of this publication, Alberta requires extended warranties. Here are some things to understand:

- A. **Manufacturer's Warranty** – All new homes come with 1 year's full protection. This is normally accessed through the Retailer who originally sold the home however the manufacturer can also be approached to handle claims.
- B. **Optional Extended Warranty**- Many manufacturers offer extended warranty and if the home was built within the last 10 years, there is a chance that it is still covered for structural deficiencies. This warranty is normally offered by 3rd party insurance companies and the home owner would need to review their policy and approach the insurer with their claim. This warranty is often transferrable from one home owner to another. Consult the policy for details.
- C. **Mandated Warranty** – Since February 1, 2014, the Province of Alberta has introduced legislation for all new homes to carry a comprehensive 10-year warranty through a 3rd party insurance company. This warranty must be transferrable. For more information, go to www.anhwp.com

a) **1 Year Labour & Materials** - Mandatory warranty includes one year's coverage for defects in materials and labour. This addresses issues with the way your home was built or the materials it was built with. It includes such items as flooring, trim and fixtures.



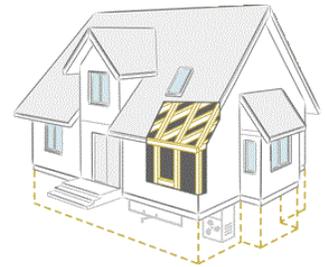
b) **2 Year Distribution Systems** - A new home warranty must cover defects in labour and materials related to heating, electrical and plumbing systems for two years from the warranty commencement date. This applies to single-family homes, multi-family units and warrantable multi-family common property.



c) **5 Year Building Envelope** - Homebuilders in Alberta must provide five years' coverage for defects in the building envelope, which the *New Home Buyer Protection Act* defines as the system of components that separate the controlled interior air from the exterior (for example, the wall framing and cladding, roof and window installation). This coverage spans five years from the warranty commencement date for a single-family home or for multi-family common property. Warranty providers must offer an optional two-year extension on building envelope coverage for a total of seven years' coverage.



d) **10 Year Structural Integrity** - Mandatory warranty covers the key structural components (for example, the frame and foundation) of single-family homes and multi-family dwellings for 10 years from the warranty commencement date. Coverage applies to defects in material and labour that result in the failure of a load-bearing part of the new home or cause structural damage that materially and adversely affects the owners' ability to use and safely occupy the home.



XI. Energy Codes

All provinces have now adopted the National Energy Code for Buildings (NECB) 2011 edition and energy efficiency requirements for housing and small buildings under section 9.36 of their respective Building Code editions.

Both the NECB and section 9.36 under the National Building Code provided an in-force date and a transition period. The coming into force date is the date on which the codes apply or may be enforced. The transition period is to allow construction under the previous Building Code to adapt to the new energy efficiency requirements. All coming into force dates have a standard 6-month transition period to construct in the previous code provided a permit has been issued prior to the end of the transition period; or the safety codes officer is satisfied that the preparation of the plans and specifications for the project commenced prior to the coming into force date. The objective of this section is to prevent unnecessary and costly changes to construction already underway or plans that have been substantially developed for construction.

The timelines for the adoption of the Energy Codes for *Alberta* codes were:

Codes	Coming into force or Implementation Date	Transition Period End Date
National Energy Code of Canada for Buildings 2011	November 1, 2015	May 1, 2016
Section 9.36 Energy Efficiency, Alberta Building Code 2014	May 1, 2016	November 1, 2016



B. What components of a building did energy efficiency requirements affect?

The Energy Codes deal with the following building components:

1. **Building Envelope:** Is the separation between the interior and the exterior environments of a building, comprising of its exterior walls, roof, foundation and slab on ground.
2. **Lighting:** Includes interior and exterior lighting components and systems connected to the buildings electrical service.
3. **HVAC:** Heating, ventilating and air-conditioning covers items such as ducting and piping, controls, ventilation and related equipment.
4. **Service Water Heating:** Is concerned with systems used for the supply of water for purposes other than space heating.

C. **Will the Energy Codes dictate how a home must be built?** No, whether considering a large commercial complex or a single-family house you will have several approaches to select from to suit the needs of the owner, the budget, and the location. The approaches can be described as follows:

1. **Performance.** The expected energy performance characteristics for the building are met using a design prepared by a qualified professional. This approach offers the greatest possible design flexibility while still meeting energy efficiency goals.
2. **Performance using Simple Trade-Off.** The expected energy performance characteristics for the various building elements are met; however, within each building element, i.e. exterior windows, it is possible to 'trade-off' increased performance in one element for reduced performance in another (i.e. increase wall insulation to allow more less efficient windows). This can be done by the builder without needing to engage a professional designer.
3. **Prescriptive.** The expected energy performance characteristics for the various building elements are met by following the prescribed approach set out in the Code. For example, by following the prescribed level of thermal insulation and number of windows for the region where the building is to be constructed.



- D. **How energy efficient is a new Factory Built home?** - All Canadian jurisdictions have agreed that the minimum energy efficiency level of homes should be comparable to the EnerGuide 80 standard. Many Albertans are familiar with the Built Green program and EnerGuide 80 is comparable to the Gold level under that program. Establishing the minimum energy efficiency standard for a home does not prevent homebuilders or owners from striving for even greater energy efficiency levels (i.e. a 'net zero' home).



XII. Addendums, Schedules, Supporting Data

A. Factory-Constructed Homes Comply with ABC

BUILDING CODE VARIANCE



May 2017

14-BCV-005
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CSA-A277-16 PROCEDURE FOR CERTIFICATION OF PREFABRICATED BUILDINGS, MODULES, AND PANELS

PURPOSE

To recognize the acceptability of CSA-A277-16 "Procedure for certification of prefabricated buildings, modules, and panels".

DISCUSSION

The Alberta Building Code 2014 (ABC 2014) applies the same requirements to site-built and factory-constructed buildings. It may be difficult to determine whether a factory-constructed building complies with the ABC 2014 once it has been delivered to the construction site because many of the wall, roof and floor assemblies are closed in and their components cannot be inspected. CSA A277-16, "Procedure for Certification of Prefabricated Buildings, Modules, and Panels," was developed to address this problem with regard to residential, commercial and industrial buildings.

CSA-A277-08 "Procedure for factory certification of buildings" is the current standard referenced in ABC 2014, and was recently updated to CSA-A277-16.

CSA-A277-16 has updated criteria that is aligned with the requirements of the ABC 2014 and provides greater safety performance than the currently referenced CSA-A277-08 edition.

- CSA-A277-16 includes but is not limited to the following categories: Energy Performance
- Thermal Performance
- Trade-offs related to Thermal Resistance Performance
- Occupancy Classifications
- Part 10 of the ABC

CODE REFERENCE

Division C, Article 2.4.5.1. states:

2.4.5.1. Factory-Built Assemblies

1) Where a component of a *building* is assembled off the *building* site in such a manner that it cannot be reviewed on site, off-site reviews shall be carried out to determine compliance with this Code.

2) Except as provided in Sentence (3), factory-constructed and other off-site-constructed *buildings* that are constructed after 01 May 2015 shall be certified in accordance with CSA A277, "Procedure for Factory Certification of Buildings," by an organization accredited for this purpose by the Standards Council of Canada, to confirm that the *building* complies with the technical requirements, or objectives and functional statements, of this Code.

Unless stated otherwise, all Code references in this STANDATA are to Division B of the Alberta Building Code 2014.

Issue of this STANDATA is authorized by
the Building Administrator

[Original Signed]
Paul Chang



Alberta Municipal Affairs – Community & Technical Support, 16th Floor, 10155 – 102nd Street, Edmonton, Alberta, Canada, T5J 4L4
Phone: 1-866-421-6929 Email: safety.services@gov.ab.ca Website: www.municipalaffairs.alberta.ca

3) Every relocatable industrial camp *building* that is constructed after 01 May 2015 shall be certified by an organization approved for this purpose by the *Chief Building Administrator*, to confirm that the *building* complies with the objectives and functional statements of this Code.

VARIANCE

This variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the Safety Codes Act. Under section 38 of the Safety Codes Act, a written variance may apply to any thing, process or activity to which the Act applies, including any code, standards or body of rules declared in force by this Act. The Act is paramount to the ABC 2014, which is why variances may be issued related to Division C of the ABC 2014.

Certification in conformance with CSA A277-16, "Procedure for Certification of Prefabricated Buildings, Modules, and Panels," is considered to comply with ABC 2014 Division C, Article 2.4.5.1. Factory-Built Assemblies.

CSA A277-16, "Procedure for Certification of Prefabricated Buildings, Modules, and Panels," ISBN : 978-1-4883-0209-1 published and distributed by:

CSA Group
178 Rexdale Boulevard,
Toronto, Ontario
Canada M9W 1R3
Toll-Free Phone Number: 1-800-463-6727
Phone Number: (416)-747-4044
Web: shop.csa.ca

This VARIANCE is applicable throughout the province of Alberta.

B. Alberta Municipal Affairs Label

Note- as of January, 2020, Alberta no longer requires this label to be applied to the home and relies solely on the CSA certification label.

INFORMATION BULLETIN

STANDATA

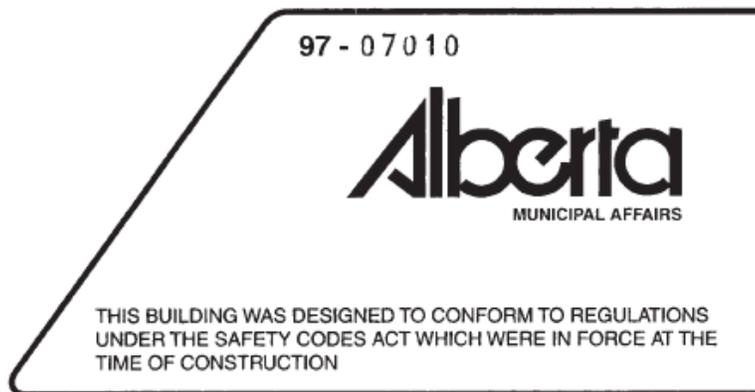
June 2005 97-IB-003R3
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MANUFACTURED HOMES AND RELOCATABLE INDUSTRIAL ACCOMMODATION

Alberta Municipal Affairs issues three labels for two types of manufactured structures; manufactured homes (mobile homes, off-site manufactured homes and ready-to-move (RTM) homes) and relocatable industrial accommodation. The labelling program is used to show compliance with the Alberta Building Code 1997 (ABC 1997) and associated regulations. Label facsimiles together with comments on their use are given below.

1. New Manufactured Homes

Alberta Municipal Affairs labels are only applied to manufactured housing units that have been fully completed in the factory. Typically, these units are manufactured to the CSA-Z240 MH series of standards and must also comply with the ABC 1997. Units will then be eligible for both CSA and Alberta Municipal Affairs labels. A sample of the Alberta Municipal Affairs label for factory completed units follows:



ISSUE OF THIS INFORMATION
BULLETIN IS AUTHORIZED BY
THE DIRECTOR/ADMINISTRATOR

C.M. TYE



SAFETY CODES COUNCIL



Alberta Municipal Affairs, 16th Floor, Commerce Place, 10155-102 Street, Edmonton, Alberta, Canada, T5J 4L4

C. Manufacturers Data Sheet



SPECIFICATION NAMEPLATE PLAQUE SIGNALÉTIQUE

MANUFACTURER INFORMATION/ INFORMATION DU MANUFACTURIER

MANUFACTURER/ Fabricant:	PROJECT NAME OR MODEL NUMBER : Nom du projet ou numéro de modèle
DATE OF MANUFACTURE/ Date du fabricant:	MODULE SERIAL NUMBER OR PRODUCT CODE : Numéro de série du module ou code de produit
FACTORY ADDRESS/ Adresse de l'usine:	CSA A277 CERTIFICATION LABEL NUMBER : / CSA A277 étiquette de certification QAI numéro:

DESIGN DATA/ DONNÉES DE CONCEPTION

PRODUCT TYPE: Type de produit (choisir un seul)	<input type="checkbox"/> PREFABRICATED BUILDING/Bâtiment Modulaire <input type="checkbox"/> (PART B) <input type="checkbox"/> (PART 4) <input type="checkbox"/> PREFABRICATED MODULE / Module Préfabriqué <input type="checkbox"/> PREFABRICATED PANELS / Panneaux <input type="checkbox"/> ELECTRICAL FEATURES ONLY/ Structures des seules caractéristiques électriques <input type="checkbox"/> RELOCATABLE UNIT (ALBERTA PART 10) / Unité Relocalisable
FOUNDATION TYPE/ CHECK ONE: Type de Fondation (choisir un seul):	FLOOR LIVE LOAD/ charge au plancher _____ (kPa)
<input type="checkbox"/> PERIMETER FOUNDATION WALL/ Mur de fondation périmétrique <input type="checkbox"/> PIERS/ Pieux, piliers: 1/50 WIND PRESSURE/Pression du vent: _____ (kPa) <small>(For resistance to overturning without anchorage) (Pour résistance au renversement sans ancrages)</small> ANCHORAGE/ Ancrage: (YES/NO): _____	SPECIFIED SNOW LOAD/ (1/50): _____ (kPa) Charge de neige spécifiée SEISMIC RESPONSE S_{0.2}: _____ Réponse sismique
(The building installed on piers was evaluated for the deformation resistance test in accordance with CSA Z240.2.1) Ce bâtiment est installé sur des pieux se qualifiant pour un test de déformation et de résistance en conformité avec la norme CSA Z240.2.1)	HOURLY WIND PRESSURE (1/50): _____ (kPa) <small>(For resistance to racking & uplift / Pour la résistance au soulèvement par le vent)</small>
ENVELOPE EFFECTIVE THERMAL RESISTANCE: (CHECK ONE) Enveloppe résistance thermique effective (choisir un seul)	WINDOWS/DOORS/SKYLIGHTS THERMAL CHARACTERISTICS: Caractéristiques thermiques des fenêtres, portes, et portes de lumière:
<input type="checkbox"/> PRESCRIBED/Imposé WALLS / Mur: _____ (RSI) FLOORS / Plancher: _____ (RSI) CEILING / Plafond: _____ (RSI)	MAX. U-VALUE: _____ W/(m ² .K) coefficient U de transfert thermique ENERGY RATING: _____ Cote énergétique
<input type="checkbox"/> TRADE OFF/ Compromis: ASSEMBLIES AFFECTED/ Zones affectées: _____ AREA AFFECTED/ Zones affectées (m ²): _____	OUTSIDE DESIGN TEMPERATURE: Température extérieure de conception: _____ HEAT LOSS/ Perte thermique: _____ (°C) HEAT GAIN/ Gain thermique: _____ (°C)
CAPILLARY BREAK IN CLADDING: Fuite capillaire dans le parement (YES/NO): _____	
CLIMATE ZONE: PROVINCE: _____ ZONE: _____ Zone Climatique:	

FACTORY INSTALLED APPLIANCES / APPAREILS INSTALLÉS À L'USINE

APPLIANCE TYPE	MAKE / MARQUE	MODEL / MODÈLE	FUEL / COMBUSTIBLE

SITE INSTALLED COMPONENTS, ASSEMBLIES, AND SYSTEMS COMPOSANTES, ASSEMBLAGES ET SYSTÈMES INSTALLÉS SUR PLACE

--

COMPLIANCE / CONFORMITÉ

Units bearing this label were manufactured in the above indicated factory address and have been constructed to the following building code(s) and standards:
Unités portant cette étiquette a été fabriquée à l'adresse de l'usine apparaissant plus haut et a été construite en conformité aux normes et codes du bâtiment

--

ELECTRICAL SYSTEM / ÉLECTRIQUE: Volts: _____ V Hertz: 60 Hz Amps: _____ A

PLUMBING SYSTEM / PLOMBERIE: Supply water system tested at 700 kPa (100 PSI) / Installation sous pression éprouvée à 700 kPa (100 PSI)
Drainage system tested at 35 kPa (5 PSI) / Installation sous pression éprouvée à 35 kPa (5 PSI)

- NOTES:**
- Any additions or modifications to factory installed systems must be authorized by the appropriate provincial or municipal authorities having jurisdiction. Toute adjonction ou modification aux installations dont le placement est effectué à l'usine doit être approuvée par les autorités provinciales ou municipales compétentes.
 - QAI Listing only covers the systems noted above only when installed by the manufacturer in a factory. L'inscription de QAI ne couvre que les systèmes mentionnés ci-dessus et seulement lorsque installés en usine par le fabricant.
 - (NA) Under the heading "Factory Installed Appliances" indicates that appliances are not factory installed. (NA) Sous l'en-tête « Appareils installés à l'usine » indique des appareils non installés à l'usine.
 - This specification nameplate and the exterior QAI label provide the only evidence of Listing. Cette plaque signalétique ainsi que l'étiquette extérieure QAI constituent les seules preuves de la certification QAI.
 - Those portions of the Modular Building to be completed on site are subject to inspection by local building inspectors (A277 A1.2). Les parties du bâtiment modulaire qui doivent être achevées sur l'emplacement sont sujettes à l'inspection par les inspecteurs des bâtiments locaux (A277 A1.2).
 - It is recommended that highway authorities be consulted on regulations applicable in areas into which this unit may be moved, especially in regard to permits and maximum allowable lengths and widths. Il est recommandé de consulter les autorités routières au sujet des règlements applicables dans les régions à l'intérieur desquelles cette unité peut être transportée, particulièrement en ce qui concerne les longueurs maximales admissibles.
 - Nameplate must be applied to a location that is readily visible after completion of the building. / Doit être appliqué à toutes les parties encore visibles après la fin du bâtiment.
 - In the case of multi-unit or multi-suite buildings, each unit or suite shall have this label. / Dans le cas de bâtiments à unités multiples ou à suites multiples, chaque unité ou suite devra recevoir cette étiquette.

**DO NOT REMOVE
NE PAS ENLEVER**

NAMEPLATE SERIAL # :

D. **Calculating Life Span on a Home** (for more information contact the MHAPP office directly as MHI Canada is no longer operating)

MHI Canada
Trade Association to the Manufactured Housing Industry

99 Bank Street, Suite #409, Ottawa, Ontario K1P 6B9
Ph: (613) 747-7083 Fax: (613) 747-6264 E-mail: mhicanada@cw.ca

Re: Serviceable life expectancy of mobile homes

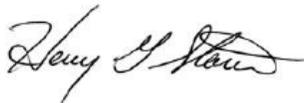
While there are no formal Canadian statistics addressing the serviceable life of mobile homes, from the late 1950's to the mid 1970's more than 225,000 mobile homes were sold in Canada and the vast majority of those homes are still occupied. Much like traditional site-built homes, mobile homes require routine maintenance and this is the single most important factor in their longevity. From a practical perspective most mobile homes produced prior to 1972 used lighter framing materials than those used in traditional site built homes, so theoretically the ultimate serviceable life could be less.

In 1972 the Canadian Standards Association developed a National Construction Standard for Mobile Homes (CSA Z240 MH) and in all important areas related to health, safety and durability the structure of mobile homes built in compliance to this Standard were fully comparable to site built homes of that period. By 1976 all 10 Provinces made that CSA Standard mandatory, and the modern day mobile home was formally born. Since 1976 each time the National Building Code of Canada is revised, CSA examines those revisions and those related to basic health and safety are adopted in a new edition of the Z240 MH Standard.

Unrelated to the code comment above, when mobile homes do suffer a shortened serviceable life expectancy it is generally related to foundation related problems resulting from poor installation and/or poor maintenance. The very same problems shorten the serviceable life of site built homes.

In summary, there is much evidence to suggest that since 1976, mobile homes set on properly installed foundations that are properly maintained will last as long as site built homes constructed during the same period. Reinforcing the latter is the fact that when CMHC now underwrites mortgages on resale mobile homes, rather than using the year of manufacture as the determinant of condition as they did in the past, condition now is determined by an appraisal in the same manner it is for resale site built homes.

Sincerely,



Hank Starno,
President

E. CSA-Z240.10.1 Site Preparation, Foundation, and Anchorage of Manufactured Homes

Preface

This is the third edition of *CSA-Z240.10.1*, Site preparation, foundation, and anchorage of manufactured homes. It supersedes the previous editions, published in 1994 and 1986 under the title Site Preparation, Foundation, and Anchorage of Mobile Homes.

1. Scope

1.1 This Standard applies to manufactured and modular-built homes designed to be supported on longitudinal floor beams. **NOTE:** For simplicity, the term "manufactured home" is used in this Standard to refer to both manufactured homes and modular-built homes.

1.2 This Standard includes requirements for the following aspects of manufactured home installation: (a) site preparation; (b) foundations for single- and multiple-section single-storey units; (c) anchorage; (d) connection of multiple-section units; and (e) skirting.

1.3 This Standard is intended to be used by installers, inspectors, and owners of manufactured homes.

1.4 Foundation systems designed and constructed in accordance with this Standard are permanent installations.

1.5 In CSA Standards, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; "should" is used to express a recommendation or that which is advised but not required; "may" is used to express an option or that which is permissible within the limits of the standard; and "can" is used to express possibility or capability. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.6 The values given in SI (metric) units are the standard. The values given in parentheses are for information only.

Click for the most recent [CSA Z240.10.1-16 Standard](#)

F. Assignment of Lease Agreement.

This agreement is endorsed by the Canadian Manufactured Housing Institute and the Canadian Bankers' Association.

MODEL ASSIGNMENT OF LEASE CONSENT AGREEMENT FOR MANUFACTURED HOMES

ENDORSED DECEMBER 2002

This Agreement is subject to all the rights and obligations of the tenant and landlord in the Site Lease Agreement.

TO: _____ (the "Lender")¹
 ADDRESS _____
 TELEPHONE: _____ FAX: _____ E-MAIL: _____
 Re: _____² ("Tenant")

Lease of Land _____³ (the "Site")
 Manufactured Home Site No. _____ LOT _____ BLK _____⁴ ("Site Lease")
 from _____⁵ ("Landlord")
 located at _____⁶ ("Community")
& Security Interest /Mortgage of Lender over Tenant's Rights in manufactured homes ("Home")/Site Lease.

By signing below, the Landlord agrees with the Lender and with each other person who has signed this consent as follows:

1. The Landlord confirms that:
 - a) The Tenant is about to or has entered into the Site Lease with the Landlord for a _____⁷ term, commencing on _____⁸ at a current rental of \$ _____⁹ payable **1st OF EACH MONTH** _____¹⁰.
 - b) The Site Lease, once executed, and / or the rules and regulations of the Community, if any, are attached as Schedule "A" to this Consent.
 - c) The Site Lease constitutes a valid and binding obligation of the Landlord and Tenant and neither the Landlord nor the Tenant is in default under the Site Lease as of the date of this Agreement.
2. The Home, including all attachments to it, is now and will at all times remain the property of the Tenant. The Home is not and will not become a fixture of the Community or the Site. The Landlord shall have no interest in the Home.
3. The Landlord acknowledges and consents to the Lender's security interest over the Tenant's personal property, including the Home, and to the mortgage of or assignment to the Lender of the Tenant's interest in the Site Lease and in any renewals, extensions, replacements or amendments of the Site Lease.
4. If the Tenant defaults under the Site Lease, before terminating the Site Lease or commencing eviction proceedings, the Landlord will advise the Lender in writing at the above address of the Tenant's default, within a reasonable time frame (within 90 days) and allow the Lender a reasonable amount of time (within 45 days after receipt of the notice) to cure the default, including payment of all arrears. The Lender will not be liable for any of the Tenant's covenants including payment of rent, prior to such notice, or until the Lender takes possession of the Home, whichever occurs first.
5. So long as all arrears are paid and obligations under the Site Lease are upheld, and ongoing rental payments are made when due then, upon default of the Tenant under the Lender's security, the Lender (including its employees and agents, but subject to the terms of the mortgage and/or other security agreed between the Lender and the Tenant) may enter the Community and take possession of or sell the Home (other than by on-site auction) while it is in the Community, or the Lender may remove the Home from the Community, on condition that the Lender promptly repairs any damage to the Community caused by such removal. Upon such removal or sale of the Home, the Lender will have no further obligations to the Landlord.
6. If the Lender sells the Home to a purchaser approved by the Landlord (which approval shall not be unreasonably withheld) and if the purchaser wishes the Home to remain in the Community, then the Lender may assign to the purchaser the Site Lease (for the remaining term, if any) or the Landlord will enter into a new lease with the purchaser on substantially the same terms and conditions as the Site Lease, whichever the Landlord chooses. ¹¹
7. The Consent is binding upon the parties hereto and their respective successors, assigns, executors and administrators. The Landlord warrants that the persons signing below are duly authorized to sign this consent. The Lender signs this agreement to acknowledge receipt of a copy of this agreement and this agreement shall not impose any additional obligations on the Lender other than those stipulated in this agreement.

DATED THE _____, DAY OF _____, 200____, ¹².

Signature of Landlord

Signature of Tenant

Signature of Lender

Print Name of Landlord

Print Name of Tenant

Print Name of Lender

¹ Insert branch address ² Insert name of borrower(s) ³ Insert description of site on which the Home is located and boundaries measured from fixed point of reference ⁴ Insert site # ⁵ Insert name of Landlord ⁶ Insert name and description of Community ⁷ Insert term of Site Lease (e.g. month to month, one year) ⁸ Insert date Site Lease commences ⁹ Insert rental ¹⁰ Insert frequency of rental payments (e.g. monthly) ¹¹ Providing the physical condition of the home meets community standards ¹² Insert day, month and year.

G. NATIONAL BUILDING CODE of CANADA

1. Quick Links

New Edition

To choose the right Code, check with the [Authority Having Jurisdiction](#).

Order the NBC 2015, NFC 2015 and NPC 2015 on the [NRC Virtual Store](#) or contact NRC's Client Services to place your order by **phone, fax or regular mail** using the [order form](#) (PDF, 1 MB).

H. Codes and Guides

1. 2015



- [National Building Code of Canada 2015](#)
- [National Fire Code of Canada 2015](#)
- [National Plumbing Code of Canada 2015](#)
- [National Energy Code of Canada for Buildings 2015](#)

2. 2011



- [National Energy Code of Canada for Buildings 2011](#)

3. 2010



- [National Building Code of Canada 2010](#)
- [National Fire Code of Canada 2010](#)
- [National Plumbing Code of Canada 2010](#)



4. 2005

- [National Building Code of Canada 2005](#)
- [National Fire Code of Canada 2005](#)
- [National Plumbing Code of Canada 2005](#)

5. 1941-1998

- [National Farm Building Code of Canada 1995](#)
- [Historical Editions of the National Construction Codes \(1941-1998\)](#)
These older codes can also be borrowed from the [National Science Library](#).

I. Provincial Codes

- [Alberta Building Code 2014](#)
- [Alberta Fire Code 2014](#)
- [Saskatchewan Building and Fire Code Information](#)
- [Manitoba Building and Fire Code Information](#)

J. Supplementary documents - User's guides

- [Illustrated User's Guide – NBC 2010 Part 9 Housing and Small Buildings](#)
- [User's Guide – National Energy Code of Canada for Buildings 2011](#)
- [User's Guide – NBC 2010, Structural Commentaries \(Part 4 of Division B\)](#)
- [User's Guide – NBC 2005, Structural Commentaries \(Part 4 of Division B\)](#)

1. Intent Statements

- [Supplement to the NECB 2011: Intent Statements](#)
- [Supplement to the NBC 2010: Intent Statements \(2012\)](#)
- [Supplement to the NFC 2010: Intent Statements \(2011\)](#)
- [Supplement to the NPC 2010: Intent Statements \(2011\)](#)
- [User's Guide – NBC 2005, Application and Intent Statements](#)
- [User's Guide – NFC 2005, Application and Intent Statements](#)
- [User's Guide – NPC 2005, Application and Intent Statements](#)

2. Other

- [Adaptation Guidelines for the National Energy Code of Canada for Buildings 2011](#)

TAKE THE CHALLENGE Quiz from Page 11

Answer – All of the examples shown were factory built