

Clarification of Modular Construction

PURPOSE/DISCUSSION

This report has been developed to provide clarification on the differences between modular building construction and how it relates to the National Building Code of Canada in Saskatchewan. There are a number of different standards for modular construction. Some standards are applicable to permanent structures that can be used for housing, commercial/industrial buildings. Other standards are applicable to recreational, temporary or seasonally used buildings. Modular or manufactured structures are constructed in a certified plant setting with specific design and criteria for each specific standard.

The following standards are applicable to structures that can be used for permanent structures and housing. These structures are designed and built to withstand the winter conditions, structural movement, fresh air requirements, etc and be placed on specified foundations.

CSA Z240MH—Manufactured Home (Mobile Home)

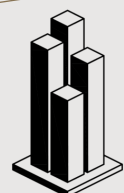
This standard of home is specific to what is referred to as a “mobile home”. These structures are specific to a residential use and designed as a transportable single or multiple-section, one storey dwelling that is ready for occupancy on completion of set-up. Frame assemblies for mobile homes are design with a deformation resistant frame which allows them to be placed on a surface riding foundation. Typical foundations include wood cribbing, piles or concrete slab. Anchorage is typically required for these units to prevent over-turning. The CSA Z240 standard has been around since 1978 and as such, some municipalities have limited the age of structure permitted in the municipality.

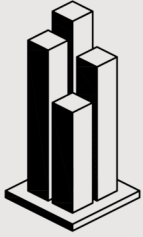
CSA A277—Modular/RTM Structures

This standard covers a range of factory built structures. This standard allows for the construction of housing as well as commercial and industrial buildings and have a wide range of both size and height/stories. However commercial and industrial buildings constructed in a CSA A277 plant must be designed by an engineer or architect.

There is a mis-understood notion that modular homes are the same as mobile homes, many zoning bylaws refer to modular the same as mobile homes. As some modular homes do look like mobiles because of length and width the standards are different, as well the CSA A277 standard covers modular homes and RTM’s(Ready-to-move homes).

Foundation requirements for this standard are to meet the requirements of the National Building Code of Canada and are typically constructed with crawl spaces or basements. However there is permission in this standard to allow CSA A277 homes to be constructed on a CSA Z240.10.1 Deformation Resistant Frame. This is typically seen on narrower bodied homes that look similar to mobile homes.





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Discussion...

The following Standards are applicable to structures that can only be used for recreational, temporary or seasonal use. These structures are **not permitted** as a permanent house or building and a building permit cannot be issued for such.

CSA Z241— Park Model Trailers

Park model trailers are designed as living quarters for seasonal camping and may be connected to those utilities. They are trailers, and as designed to facilitate relocation from time to time. They are not designed to handle winter conditions, structural movement, fresh air requirements and many more items required by the National Building Code of Canada.

CSA Z240RV— Recreational Vehicles

This standard covers vehicle-type units that are primarily designed as temporary living quarters for recreational, camping or seasonal use. Has its own motive power or is towed by another vehicle and can be easily transported and set up on a daily basis. They are not designed to handle winter conditions, structural movement, fresh air requirements and many more items required by the National Building Code of Canada.

The following Standards are applicable to structures that can be used for permanent structures and housing. These structures are designed and built to withstand the winter conditions, structural movement, fresh air requirements, etc and be placed on specified foundation.

Items to Keep in Mind

Fire Protection—These standards do not take items like spatial separations into account because it is impossible to provide assumptions on where the units will be placed on the building lot. It would be best to confirm with your Building Official as to what amount(if any) of glazing is permitted to be exposed to the side yard.

Foundations—There is a wide variety of foundations that can be used. There is also some local regulations that may not permit certain foundations such as wood cribbing. Be sure to contact your local administrator or planner if possible.

Park Model Trailers/Recreational Vehicles—These are not permanent structures, nor can they be upgraded to be permanent structures. There is no provision in the National Building Code of Canada to be able to issue a building permit for these structures. In some circumstances there may be a requirement for a temporary permit, however this is only for a limited amount of time and can be canceled without notice.

