

# **Manufactured Homes**

# To be completed and attached to the Building Permit Application Form

| ☐ Make/Model of Unit  |                  |
|---|------------------|
| ☐ Manufacturer  |                  |
| ☐ Year built  |                  |
| ☐ C.S.A. Label No   |                  |
| ☐ Alberta Labour Label No   |                  |
| Foundation Type:  Blocking or Piles Screw Piles (must include Engineered shop drawings) Concrete Foundation (must include foundation details) PWF ( must include engineer's stamped drawings) |                  |
| Below: Draw a site plan that shows dimension and placement of stairs  | s and/or deck(s) |
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# **General Requirements for Mobile Homes**

Mobile homes shall conform in all respects to the CAN/CSA-Z240 MH Series of Standards and shall be complete structurally with the entire plumbing, electrical, and heating services installed.

The following information shall be marked in English in a permanent and readily visible manner in the interior of the mobile home:

Manufacturer's name and address, model, serial number, year of manufacture, gross vehicle weight rating (GVWR), ground snow load and roof design snow load, design wind pressures without anchorage. CSA Number.

Instructions shall be provided with each mobile home in English indicating:

- a) the maximum pier loading and spacing;
- b) printed anchorage instructions specifying the location and required capacity of the anchorage devices;
- c) in the case of a mobile home made up of more than one section, the method of maintaining the integrity of the vapour barrier at the joints between each section.

## Site preparation

Site preparation, foundation, and anchorage of manufactured homes shall comply with the CSA-Z240.10.1-08 Standard and the National Building Code of Canada, specifically Section 9.12, Excavation, and Section 9.18, Crawl Spaces.

- 1. The top soil and all organic material shall be removed from the site below the mobile home location.
- The base of the excavated site area shall be graded from the center to the outside, or from side to side and filled with gravel or other suitable granular inorganic material to a level above the surrounding finished grade.
- 3. A CGSB 6-mil poly ground cover sheet shall be placed over the entire area below the mobile home and shall extend 6 inches beyond the perimeter and any joints must be overlapped at least 4 inches and be weighted down.

#### Clearance

- 1. A vertical clearance of at least 600 mm (24") shall be maintained between the top of the finished grade under the home and the bottom of the floor joists.
- 2. Where the home is installed on a sloping site, the vertical clearance between the top of the finished grade and the bottom of the joists of the lowest section shall be at least 300 mm (12").

## **Foundation**

Foundations are to be designed in accordance to the requirements of Section 4 of CSA-Z240.10, and:

- 1. If supported on longitudinal floor beams, foundation units shall be located in accordance with the manufacturer's instructions.
- 2. If designed to be supported by perimeter foundation walls, the foundation shall conform to the requirements of the National Building Code of Canada.
- 3. Pile foundations or reinforced concrete slab-on-ground foundations shall be designed for existing soil conditions by a designer competent in such design.

## **Footings**

- When supported on pier foundations, the piers shall bear on footings designed to carry all design live loads and dead loads without excessive soil settlement or failure of the footing.
- 2. Unreinforced concrete footings beneath piers shall be at least 100 mm (4") thick and shall not project beyond the pier by a distance greater than their thickness.
- 3. Wood footings beneath piers shall be at least 89 mm (3.5") thick and pressure treated.

# Pier and Pile Foundations

- 1. The height of piers above footings shall not exceed their horizontal dimension measured at right angles to the length of the manufactured home.
- Blocking or another form of lateral restraint shall be provided at the top of each pier on the exterior side of the longitudinal beams to prevent lateral sliding of the longitudinal beams.
- 3. Concrete masonry piers shall be constructed with 200 mm (8") minimum concrete masonry units placed with their hollow cores in the vertical position.
- 4. Wood crib piers shall be supported on concrete or wood footings constructed for the first 150 mm (6") of pressure treated wood.
- 5. Reinforced concrete piles shall be at least 200 mm (8") in diameter.

# **Anchorage**

- 1. Ground anchorage shall be provided in accordance with the manufacturer's instructions, or need not be provided if it can be shown by calculation is not required.
- 2. Ground anchors, where required shall be constructed of materials resistant to corrosion and decay, and be spaced not more than 12 m (40') apart.

3. Ground anchors shall be installed at a depth sufficient to preclude movement due to frost action and to develop the required pullout resistance.

## **Skirting**

Skirting where installed, shall conform to the following:

- 1. Skirting, where installed shall be designed to accommodate at least 50 mm (2") vertical movement of the soil surface due to frost action.
- 2. Skirting, where installed and in contact with the ground shall be corrosion resistant or if wood must be pressure treated.
- 3. The exterior surface of the skirting assembly shall be painted or otherwise made resistant to the weather.

# **Ventilation of Crawl Space**

- 1. Year-round ventilation of the crawl space shall be provided.
- 2. Crawl space ventilation shall be provided by installing screened louvres or grilles of at least 1 ft<sup>2</sup> of unobstructed venting for every 50 ft<sup>2</sup> of floor area of the home and must be uniformly spaced on opposite sides of the home.
- 3. Appliances or clothes dryers shall not be vented into the crawl space.
- 4. An access panel of not less than 500 x 700 mm (20" x 28") shall be provided in the skirting and shall be located close to the sewer and water connections.

#### **Smoke Alarms**

- 1. Sufficient smoke alarms shall be installed so that there is at least one smoke alarm on each floor level and each bedroom is protected by a smoke alarm either inside the bedroom or, if outside, within 5 m, measured following corridors and doorways, of the bedroom door. (9.10.19.2.(1) Div. "B" of NBC 2005)
- 2. Smoke alarms shall be installed by permanent connections to an electrical circuit and shall have no disconnect switch between the overcurrent device and the smoke alarm. (9.10.19.3.(1) Div. "B" of NBC 2005)
- 3. Where more than one smoke alarm is required in a dwelling unit, the smoke alarms shall be wired so that the activation of one alarm will cause all alarms within the dwelling unit to sound. (9.10.19.4.(1) Div. "B" of NBC 2005)
- 4. The interior wall finishes must have a flame spread rating not exceeding 150.

5. Due to the dangerous flame spread ratings for most interior wood paneling used prior to 1982, old paneling must either be changed or coated with a flame retardant paint that will achieve a flame spread rating of 150 or less. **Another alternative** is to install a smoke alarm in each bedroom and in the bedroom corridor.

#### **Exit Doors**

1. Mobile Home units shall have a minimum of two exterior doors located remotely from each other.

## **Solid Fuel-Fired Appliances**

 All solid fuel-burning appliances shall be installed in accordance with the installation instructions that are supplied with each appliance, and also in accordance with CSA Standard CAN/CSA-B365.

# <u>Plumbing</u>

- 1. A plumbing system in a mobile home shall be complete in every detail, including a potable water supply system and a drain, waste, and vent (DWV) system.
- 2. A mobile home shall be equipped with at least a kitchen sink, lavatory, water closet, a bathtub or shower enclosure, and a properly connected service water heater.

## **Furnaces**

1. Furnaces shall be certified for use in mobile homes.

#### Water Heaters

1. Water Heaters shall be certified for use in mobile homes.

#### Oil-Fired Appliances

1. All oil-fired appliances shall be certified for use in mobile homes.

#### **Bathrooms**

1. Bathrooms are to have an operable window or an exhaust fan vented to the exterior.

#### Landings

1. Landings shall be provided at all entrances to the mobile home.

#### **Stairs**

1. Handrails and guards must be provided to all exterior landings and stairs.