MANUFACTURED (MOBILE) HOMES

A "mobile home" is a prefabricated structure, built to specific engineering requirements in a factory on a permanently attached chassis. It is then transported to a permanent site (either by being towed or on a trailer).

The provisions outlined here are applicable only to a manufactured mobile home used as a single dwelling unit installed on a privately owned (non-rental) lot.



- > This handout is intended only as a guide. It shall not be considered a complete set of requirements.
- > Building permits are required <u>PRIOR</u> to moving a mobile home onto the site.
- Building permit fees are usually a fixed fee and a state surcharge. The fees are designed to cover the cost of the plan review and the field inspections that will be performed during construction.
- All "used" mobile homes shall be in compliance with the code under which it was built before any installation can be approved.
- Homes manufactured after June 14, 1976 must have a state construction label attached in accordance with MN Statute 327.32.
- MN Rules, Chapter 1350.0400 Subpart 1: Construction seals; code compliance; construction compliance certificates or labels. "After July 1, 1972, no person shall sell or offer for sale in this state any manufactured home manufactured after July 1, 1972; manufacture any manufactured home in this state; or install for occupancy any manufactured home manufactured after July 1, 1972; manufactured after July 1, 1972, in any manufactured home park in this state, unless the manufactured home complies with the code and the commissioner's revisions to it, bears a construction seal issued by the commissioner, and is accompanied by a construction compliance certificate by the manufacturer or dealer, on a form issued by the commissioner, both evidencing that it complies with the code, or if manufactured after June 14, 1976, bears a label as required by the secretary."
- MN Rules, Chapter 1350.3800 Subpart 1: Any alteration of the construction, plumbing, heating, cooling, fuel-burning system, electrical equipment, installation, or fire safety in a manufactured home that bears a seal or label, prior to receiving review and approval, and prior to obtaining permits, which include necessary inspections, shall void the approval, and the seal or label shall be returned to the commissioner.
- The applicant is responsible for securing all other local permits, fees, inspections and approvals for, but not limited to, zoning, sewer and water access, wells, and on-site sewage disposal systems.

BUILDING Permit Submittal shall include:

- Building Permit Application, completed in its entirety, including signature and valuation.
- A site plan (or Certificate of Survey if required by municipality) drawn to scale and dimensioned, identifying lot size; property lines including any easements; building size(s) for all structures on the property; set-backs of the home to the property lines and other structures on the site; existing and proposed elevations of the area where the home is to be installed; and grading and drainage plans for the site. Check with your municipality to determine setback requirements for the property.

A plan showing designs and materials of foundation/support system.

A frost depth pier section drawing, if applicable, that best fits the pier that will be constructed at the site of installation.

- A frame support pier section drawing. The information required for the frame height will need to be obtained from the home manufacturer. The frame pier must provide a minimum 12" from the lowest frame member to the grade or slab under the home.
 -] A detailed plan of the deck/landing/stair.
 - Show the location of plumbing fixtures.

Describe any changes to existing heating and ventilation and air conditioning, along with the location(s) of these changes.

-] The completed Specification Sheet (attached).
- Additional information may be required by the plan reviewer.

PERMIT CARD AND APPROVED PLANS (throughout the project) shall be:

POSTED prior to start of work - **VISIBLE** from street or driveway - **ACCESSIBLE** to the inspector

INSPECTION REQUIREMENTS:

Inspections **MUST** be scheduled during office hours **AT LEAST** one business day prior to inspection. If a specific date and time is required, additional notice may be needed. <u>Failure to cancel a scheduled</u> inspection may result in a reinspection fee.

- Solution Office Hours: Monday Friday 8:00 a.m. 4:30 p.m.
- Phone: (952) 442-7520 or (888) 446-1801

Inspections: (Refer to your permit card regarding project-specific inspections)

- Footings: After forming and steel reinforcement is in place, but PRIOR TO POURING CONCRETE.
- **Support/anchors:** Home shall be on approved location with all approved blocking and anchoring in place.
- Gas line air test: When all the gas lines have been run, gas lines are capped off, and air test is on the system line. The gauge needs to hold 25 lbs. for 24 hours or ½ the gauge for 10 minutes (minimum 30 pounds).
- **Utility connections:** Electrical sticker in box showing electric was inspected, utilities properly connected.
- Steps and landings: Completed according to approved plans.
- **Gas line/manometer final:** After all mechanical equipment is installed. Manufacturer's installation instructions must be on site.
- Final: When the manufactured home installation is complete, including the installation of all required building service equipment. All life safety items must be complete, including smoke and carbon monoxide alarms. Skirting should be on and grading completed. House numbers or address shall be plainly visible and legible from the street or road fronting the property. We must be met for this inspection and permit package must be on site.

NOTICE: Construction or work for which a permit is required shall be subject to inspection by the Building Official, and such **construction or work shall remain accessible and exposed for inspection purposes until approved.** It is the responsibility of the permit applicant to be in attendance on site and provide access to the Building Official for all required inspections. If work is concealed and/or work is not complete at time of inspection, an additional inspection is required and a **reinspection fee may apply**.

- Note: The State of Minnesota requires all residential building contractors, remodelers, roofers, plumbers, and electricians to obtain a state license, unless they qualify for a specific exemption. Any person claiming an exemption must provide a copy of a Certificate of Exemption from the Department of Labor & Industry to the Municipality before a permit will be issued.
- Note: To determine contractor requirements, or to check the licensing status of a contractor, please call the Minnesota Department of Labor & Industry at 651-284-5065 or toll free 1-800-342-5354.

Note: For specific code requirements, contact the Building Inspection Department at 952-442-7520 or 888-446-1801 or e-mail: info@mnspect.com.

PROJECT CHECKLIST:

The following is a guideline to assist in compliance with the requirements of the MN State Building Code.

The home address must be visible from the street.

BEFORE YOU DIG, contact Gopher State One Call to locate buried utilities: (651) 454-0002 or (800) 252-1166. <u>www.gopherstateonecall.org</u>.

A minimum clearance of 12" shall be maintained beneath the underside of the main frame I-beam and earth.

- Supports shall be placed not more than 10' apart for mobile homes 12' wide or less, and not more than 8' apart for mobile homes over 12' wide. Doublewide homes will require additional supports under the centerline at each wall end and at the support columns located at the sides of center wall openings eight feet in width or greater.
- The supports for the doublewide homes shall be constructed to withstand the weight calculated by multiplying one-half the width of the opening (in feet) times one-half the width of the home (in feet) multiplied by 37.5 pounds per square foot (30-pound snow load and 7.5 pound roof load).

- Footings and piers shall be placed level on firm, undisturbed soil free of grass and organic materials with minimum load bearing capacity of 2,000 pounds per square foot.
- ☐ Footings shall be of adequate size to withstand combined live and dead loads of 65 psf and any concentrated loads of the mobile home. Footings shall be at least 16" x 16" x 4" solid concrete or two 8" x 16" x 4" solid concrete blocks.

Piers less than 40" in height shall be constructed of open or closed cell 8" x 16" concrete blocks, installed perpendicular and centered under main (I-beam) frame. Piers 40"-80" high and all corner piers over 3 blocks high shall be double blocked with blocks interlocked and capped with a minimum 4"x16"x16" solid concrete block. Subject to the limitations of the section covering piers 40"-80", piers over 80 inches in height shall be constructed in compliance with that section, and they shall be laid in concrete mortar and steel reinforcing bars inserted in block cells filled with concrete. When more than one fourth of the area of a mobile home is installed so that the bottom of the main frame member is more than 3' above grade, the home's stabilizing system shall be designed by a qualified registered engineer and approved by the Building Inspector.

Wood plates used for blocking shall not exceed 2" in thickness and wood shims shall not exceed 1". Shims must be at least 4" wide and 6" long and made from a hardwood (not cedar). 2" or 4" solid concrete blocks may be used to fill the remainder of the gap between the pier and the wood blocking.

Site-installed and manufacturer-constructed water piping, drain waste piping and fuel supply piping are required to be pressure tested in accordance with the home manufacturer's requirements and MN Rules Chapter 1350.3400, prior to connecting them to the site's utility services.

- ☐ Water piping installed below the bottom board of the home is to be protected from freezing. If heat tapes are used, they must be listed for this use and installed according to their installation instructions. When the home is installed on a support system that is subject to movement due to freezing and thawing, an approved flexible connector or semi-rigid copper shall be used.
- Drain waste fittings and piping that are "shipped loose" (provided by the manufacturer) are to be installed and supported as detailed in the designs or instructions provided by the manufactured and the requirements of 24 CFR 3280.608. When the shipped loose fittings and piping are not installed in accordance with the manufacturer's instructions, the piping shall then be installed and supported in accordance with MN Rules Chapter 4714 the MN State Plumbing Code.

Approved flexible connectors shall be used on waste piping for homes installed on a support system subject to ground movement. Waste piping shall be of approved material properly supported.

Gas piping to the manufactured home shall be of adequate capacity rating to supply the connected load. When the manufactured home is installed on a support system subject to ground movement, semi-rigid copper pipe or a listed manufactured home gas connector for exterior use only, shall be installed. Gas piping shall be protected from physical damage.

- Crawl spaces must meet the requirements of the MN State Building code for the footing depth, size, foundation wall size, reinforcement, insulation R-value, and venting requirements. Other specific requirements from the manufacturer must also be met (special load points, pilasters, or bulkheads).
- When the under-floor area is enclosed or "skirted" it must be ventilated at a rate of 1/150; and provided with a minimum 18" wide by 24" high access opening.
- Mobile home skirting shall be properly vented, constructed so as not to prevent frost movement and resistant to decay within 6" of grade.
- Smoke alarms and carbon monoxide alarms must installed and operational. (See handout regarding smoke and CO alarms for requirements.)
- Anchoring of the mobile home, when required by manufacturer, park or municipality ordinance, must be done according to manufacturer's instructions or shall comply with the Building Code.
- All exterior stairs and landings shall be built with materials that are resistant to decay. Stair risers and treads shall have a maximum 7³/₄" rise and a minimum 10" run. Stairs with four risers or more shall have a grippable handrail fastened 34-38" above the tread nosing, running continuously the full length of the stairs and returned at the ends.
- A landing must be provided on the exterior of all entrance/exit doors. The length and width of such landings shall be no less than 36". If the landing is more than 30" above grade or floor, a 36" high guardrail must be provided with intermediate rails spaced so that a sphere 4" in diameter cannot pass through.

The Certification Label (also known as an HUD tag) is a metal plate that is affixed to the outside of the manufactured home. 24 CFR Section 3280.11(b) states, "The label shall be approximately 2 in. by 4 in. in size and shall be permanently attached to the manufactured home by means of 4 blind rivets, drive screws, or other means that render it difficult to remove without defacing it. It shall be etched on 0.32 in. thick aluminum plate. The label number shall be etched or stamped with a 3 letter designation which identifies the production inspection primary inspection agency and which the Secretary shall assign. Each label shall be marked with a 6 digit number which the label supplier shall furnish. The labels shall be stamped with numbers sequentially."

The **Data Plate** is a paper label affixed inside the home and is located in a kitchen cabinet, an electrical panel, or a bedroom closet. The Data Plate will contain the following information: (a) the name and address of the manufacturing plant in which the home was manufactured, (b) the serial numbers and model designation, and the date the unit was manufactured, (c) a statement which references that the home was built in accordance to the Manufactured Home Construction and Safety Standards, (d) a list of the certification label number(s), (e) a list of factory-installed equipment, including the manufacturer's name and the model designation of each appliance, (f) a reference to the Roof Load Zone and Wind Zone to which the home was designed, (h) and the name of the agency that approved the design.

Additional Resources:

https://www.revisor.mn.gov/statutes/?id=327.32#stat.327.32.1

MANUFACTURED HOMES Specification Sheet

| | Spaces @' |
|---------------------------------------|------------------------|
| | I-Beam Blocking |
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| Manufacturer's Name: | |
| Model Designation: | |
| Size of Manufactured Home: | |
| Data Plate Information | |
| Serial Number: | |
| Unit Manufacture Date: | |
| Structural Wind Zone: Heat Zone: | |
| | |
| Anchoring | |
| Type of Anchoring System (Manufactur | re Model): |
| Anchor Spacing: | |
| Support System | |
| Support System | |
| Type of Supports: (ChBlocks: | Piers: |
| Size of Supports: Support Spacing: | |
| | |
| Name and Licence number of Install | er: |

**All Manufactured Home installation to be completed by a Licenced/Registered MN. Installer

Code Verification Sign-Off

Following is a list of the most common manufactured home code non-compliant items found in used or altered manufactured homes. These are only the most commonly found items, and non-compliances are not limited to the items in this list. The items listed usually happen after the home was labeled/certified and left the manufacturer's production facility.

This form must be completed by a certified building inspector or a licensed manufactured home dealer in the State of MN. Dates should be entered in areas of compliance, correction required, correction completed for each item. This form is required to be completed and submitted with application for a manufactured replacement construction label in the State of MN.

1. Exterior receptacles require weatherproof protector covers; this includes heat tape receptacles mounted under the home. CFR 3280.808 (a) and NEC 406.8 (a) or (b).

Complies Correction Required Correction Completed

2. NM-cable type wiring that is added under or on the exterior of the home shall be protected by rigid metal conduit and the conductors shall be suitable for wet locations. CFR 3280.808 (k) and NEC 550.15 (h).

Complies ____ Correction Required ___ Correction Completed _

3. Electrical boxes, fittings, and cables shall be securely fastened in place and supported by a structural member or a substantial brace. Common examples are duplex receptacle boxes, electric range and clothes dryer receptacles that have been added. CFR 3280.808 (n) and NEC 550.15 (I).

Complies ____ Correction Required ___ Correction Completed __

4. NM-type cable located within 15" or less above the floor or in areas where storage is used shall be protected from physical damage. Common examples are wiring added for range or clothes dryer, and NM-type cable run in closets or cabinet storage areas. CFR 3280.808 (c) and NEC 550.15 (B).

Complies ____ Correction Required ____ Correction Completed ____

5. Electric ranges and clothes dryers shall have 4 conductor cord and 4 wire grounding type plugs. CFR 3280.809 (b) (2) and NEC 250.140.

Complies ____ Correction Required ____ Correction Completed ____

6. Solid fuel-burning fireplaces or stoves shall be listed for use in manufactured homes and installed in accordance with the listing or standards (i.e. chimney, doors, hearth, combustion air intake, etc.). CFR 3280.707 and CFR 3280.709 (g).

Complies _____ Correction Required ____ Correction Completed ____

 Replacement gas water heaters or furnaces must be listed for use in manufactured homes. If listed for use, verify compliance for separation of combustion system from the interior atmosphere of the home. (This includes the vents, roof jacks, and chimneys) and installed according to the listings. CFR 3280.707 (a), CFR 3280.709 (a & d), and CFR 3280.710 (a).

Complies ____ Correction Required ____ Correction Completed ___

8. Clothes dryer ducts shall not terminate beneath the manufactured home and shall be constructed of metal and shall not be connected with screws or other fasteners which extend into the interior of the duct. CFR 3280.708 (a)(3 & 4) (applies only in HUD Regulated Parks, private lots follow IMC 504.8.2)

Complies ____ Correction Required ____ Correction Completed ____

9. Gas appliances (i.e. range, furnace, clothes dryer, water heater, etc.) are required to have shutoff valves upstream of the union or connector. Shutoff within 6' of any cooking appliance and within 3' of any other appliance. CFR 3280.705 (k) (3).

Complies____ Correction Required___ Correction Completed ___

10. Plastic pipe materials and fittings used for drain lines must be of approved materials and correctly installed. A common non-compliant item is ABS drain materials/fittings glued together with PVC drain material/fittings. CFR 3280.610 (b).

Complies ____ Correction Required ___ Correction Completed __

11. Exterior hose bibs (water faucets) must be installed with a backflow prevention device (vacuum breaker). The installation of potable water supply piping or fixture or appliance connections shall be made in a manner to preclude the possibility of backflow. CFR 3280.609 (b) (2 & 7).

Complies ____ Correction Required ____ Correction Completed ___

12. Water heaters must have a pressure-temperature relief valve which will activate at 150 psi and at or below a water temperature of 210 degrees F. There must also be a full size drain line with a cross section area equal to that of the relief valve, extended to discharge beneath the manufactured home. CFR 3280.609 (c) (ii & iii).

Complies Correction Required Correction Completed

13. Fire blocking (fire stop collars) must be installed around all openings for pipes, vents, flue stacks, and other penetrations in walls, floors, and ceilings of furnace and water heater spaces. CFR 3280.206 (c). Common areas found that are non-compliant are flue locations at the ceiling line.

Complies ____ Correction Required ____ Correction Completed ____

14. Cooking appliances shall be ventilated by a metal duct not less than 12.5 square inches in area located above the appliance and terminating outside of the home, or by listed mechanical ventilating equipment installed in accordance with the listing installed not more than 10' horizontal distance from the appliance. CFR 3280.710 (e) and NFPA 501B section 6.4.5.

Complies ____ Correction Required ____ Correction Completed ____

15. Vertical clearance of 24" to the bottom of combustible cabinets must be maintained above the cooking top. CFR 3280.204 (e).

Complies ____ Correction Required ____ Correction Completed ____

- 16. Smoke alarms must be installed in manufactured homes.
 - Homes manufactured after July 31, 2002, must have hard wired alarms in each sleeping room and in an area to protect the living area and kitchen space. CFR 3280.208 (b).
 - Homes manufactured from June 14, 1976 to July 31, 2002, must have hard wired alarms located between the bedroom areas and living areas of the home. CFR 3280.208 (b). If homes have bedrooms at each end of the home two alarms minimum are required.
 - Homes manufactured from July 1, 1972 to June 14, 1976, must have either hard wired or battery operated alarms located between the bedroom areas and living areas of the home. NFPA 501B, sections 9.1 & 9.2. If homes have bedrooms at each end of the home two alarms minimum are required.

Complies ____ Correction Required ____ Correction Completed ____

17. Floors are required to support 40 lbs. per square foot live load and a 200 lbs concentrated load on a 1' diameter disk where deflection is not to exceed 1/8". CFR 3280.305 (g). Common examples of not code compliant locations are in bathroom, laundry areas, water heater rooms, and by front or rear entry doors where floor decking is been exposed to water and softened the decking.

Complies ____ Correction Required ____ Correction Completed ____

18. Floor decking in kitchens, bathrooms, laundry areas, water heater compartments is required to be protected from moisture. CFR 3280.305 (g) (2) allows for protection by sealing with an approved sealer or an overlay of nonabsorbent material and all penetrations are to be protected with a sealant.

Complies ____ Correction Required ____ Correction Completed ____

19. Homes manufactured after November 30, 2005 (see data plate-date of manufacture) are required to have corrosion-resistant water drip collection and drain pan installed under each water heater CFR 3280.709 (h).

Complies____ Correction Required____ Correction Completed ____

20. Bottom board materials (belly board) must be sealed to resist the entrance of rodents around pipes, ducts, repairs, etc. CFR 3280.307 (d) and 3280.705 (a). Complies Correction Required Correction Completed 21. Exterior coverings and exterior doors/windows shall prevent allowing the elements (rain, snow, etc.) from exposed interior materials. CFR 3280.307 (a & b). This would include joints between dissimilar materials. Complies Correction Required Correction Completed 22. Rooms in homes are required to have windows for minimum natural light and ventilation. Each habitable room shall have 8% light and 4% ventilation on HUD labeled units built after June 14, 1976. CFR 3280.103. Complies Correction Required Correction Completed Each habitable room shall have 10% light and 5% ventilation on State labeled units built from July 1, 1972, through June 14, 1976. NFPA 501B section 8.1 Complies Correction Required Correction Completed Kitchen and bathrooms may be provided with artificial light and mechanical ventilation. NFPA 501B section 8.1 and CFR 3280.103. Complies Correction Required Correction Completed Each bathroom must have ventilation by either mechanical method (1 air change every 12 minutes) or by means of 1.5 square foot of openable window in State labeled homes (7/1/72 - 6/14/76) and HUD labeled homes (6/15/76 - 10/25/93). NFPA 501B section 8.1.2 and CFR 3280.103 Complies Correction Required Correction Completed Each bathroom must have a mechanical ventilation system capable of exhausting 50 cfm to the outside of the home on HUD labeled units (1026/93 – current date of manufacture). CFR 3280.103 (c) (3). Complies Correction Required Correction Completed 23. Homes must have one egress window in each bedroom. State labeled homes 7/1/1972 through 6/14/1976, clear opening of 22" in width and height and 5 square • feet in area. Sill height not more than 48' above the floor. NFPA 501B section 8.3.1 (c). Complies Correction Required Correction Completed HUD labeled homes 6/14/1976 to the current date of manufacture, net clear opening of 20" wide and 24" high, 5 square feet in area, with sill height of window opening no more than 36" above the floor, and tabs or other operational devices shall not be located more than 54" above the finished floor. CFR 3280.106 Complies Correction Required Correction Completed HUD labeled homes located in Minnesota shall be equipped with storm windows or insulated glass. CFR 3280.506 (c). Complies Correction Required Correction Completed 24. Manufactured homes shall have two exit doors located remote from each other. NFPA 501B section 8.3.1 (a) and CFR 3280.105 (a). Manufactured homes exterior exit doors must be at least 12' from each other in single section homes and must be at least 20' from each other in multi-section homes. CFR 3280.105 (a) (2). Complies Correction Required Correction Completed 25. In HUD labeled homes (6/15/76 to present date of manufacture) an exit door shall not be more than 35' from each bedroom doorway. CFR 3280.105 (a) (2) (IV). Complies Correction Required Correction Completed 26. Glazing in all entrance doors, sliding glass doors, unbacked mirrored wardrobe doors, shower and bathtub enclosures to a height of 6' above the floor, and sidelights within 12" of either side of an entrance door must be safety glazing materials which comply with ANSI Z97.1-1984. Complies Correction Required Correction Completed

Page 8 of 9

27. Gas line piping shall not be used for electrical ground. CFR 3280.705 (I)(5).

Complies Correction Required Correction Completed

28. Electrical distribution panel boards shall not be located in bathrooms. There shall be 6" of clearance from easily ignitable materials maintained in front of the panel board. There shall be a clear working space of 30" wide and 30" in front of the panel board. CFR 3280.804 (f).

Complies ____ Correction Required ____ Correction Completed ____

29. Manufactured homes built and labeled under the State program (7/1/1972 through 6/14/1976) must have a State issued construction label on the exterior of the home. MSBC 1350.0400 subpart 1.

Complies ____ Correction Required ____ Correction Completed ____

30. Manufactured homes built and labeled in accordance with the HUD program June 15, 1976 and to present date of manufacture must have a construction label on each exterior section of the home. CFR 3280.11. Each manufactured home with HUD certification labels must have a data plate permanently located in the home. CFR 3280.5. The data plate must contain the manufacturer's name and production address, date of manufacture of the home, roof design load, wind design load, heating design, and list all major factory installed appliances.

Complies ____ Correction Required ____ Correction Completed ____

31. Manufactured homes with proposed alterations or additions added on must have plans/specifications approved by LAHJ or CCLD with all permits and inspections required. MSBC 1350.3800. If the home is a new manufactured home covered under warranty (MS 327B.02 and 327B.03) written permission from the manufacturer for the alteration or addition must also be obtained.

Complies ____ Correction Required ___ Correction Completed _

I have inspected the above items to verify compliance to the manufactured home construction codes to which the home was required to be constructed.

Signature of Certified Building Official/Inspector Date

OR

Signature of Licensed Manufactured Dealer Date

G/word/ms/manufactured Information effective date 3/24/09