STATE OF MAINE

MANUFACTURED HOME

INSTALLATION STANDARD

CHAPTER 900 MANUFACTURED HOME INSTALLATION STANDARD

SUMMARY; ESTABLISHES STANDARDS FOR THE INSTALLATION OF MOBILE HOMES TO MEET THE REQUIREMENTS OF RESOLVE 26 OF 1989. THE RULES DEFINE INSTALLATION AS THE PROCESS OF AFFIXING OR ASSEMBLING OR SETTING UP MANUFACTURED HOUSING ON FOUNDATIONS OR SUPPORTS AT A BUILDING SITE, AND INCLUDES THE CONNECTION OF EXISTING ELECTRICAL, OIL BURNER, GAS, WATER, SEWAGE AND SIMILAR SYSTEMS .

SUBPART 1

SCOPE AND INTENT OF STANDARD, ORGANIZATION OF STANDARD, AND DEFINITIONS

1-1 SCOPE This standard covers the installation of manufactured homes, wherever located.

1-2 INTENDED USAGE OF MANUFACTURED HOMES COVERED UNDER THIS STANDARD. The provisions of this standard are intended to apply to manufactured homes (single section, multiple section or expanded types) for use as a single family dwelling+. The following homes are included :

Note 1: the standard does not apply to manufactured housing used for other than dwelling purposes.

Note 2: The provisions of this standard shall not apply to recreation vehicles as defined in the NFPA 501C, **Standard for Recreation Vehicles,** or to park model trailers as defined in the **ANSI A119.5, Standards for Park Trailers.**

1-2.1 TYPES OF STRUCTURE COVERED.

(a) **Manufactured Homes.** The manufactured homes covered under this Standard are as follows:

(1) Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the HUD standard, meaning structures, transportable in one or more sections, which in the traveling mode, are 8 body feet or more in width and 40 body feet or more in length or, when erected on site, are 320 or more square feet, and which are built on a permanent chassis and designed to be used as dwellings, with or without permanent foundations, when connected to the required utilities, including plumbing, heating, air conditioning and electrical systems contained therein; except that such term shall include any structure which meets all the requirements of this paragraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the Secretary of the United States Department of Housing and Urban Development and complies with the standards established under the National Manufactured Housing Construction and Safety Standards Act of 1974.

(2) Those units constructed prior to June 15, 1976, meaning mobile homes , transportable in one or more sections, which are built on a permanent chassis and designed to be used as dwellings, with or without permanent foundations when connected to the required utilities, including the plumbing, heating, air-conditioning or electrical systems contained therein.

1-2.2 APPLICABILITY. This standard is applicable only for new or used mobile homes and is not intended for modular or other types of manufactured dwellings. The standard is designed for the safety and health of mobile home users. It is intended to apply to all mobile homes. Where this standard provides useful technical data for improvements to existing sites falling within its scope and such is encouraged. However, mobile home park pads which are now licensed and all homes currently installed on private lots and may not comply with all design and construction standards of these rules, shall be deemed acceptable if capable of being maintained and operated in a safe and sanitary condition.

This standard shall not be construed as relieving the installers of a manufactured home of responsibility for compliance with the manufacturer's installation instructions, state and local ordinances, codes, and regulations. This standard does not relieve the manufactured home owner or occupant from responsibilities for the proper use and maintenance of a manufactured home.

1-3 DEFINITIONS

ANCHORING EQUIPMENT (TIES). Straps, cables, turnbuckles, and chains, including tensioning devices, which are used to secure a manufactured home.

ANCHORING SYSTEM. A method of construction which when properly designed and installed will resist overturning and lateral movement of the manufactured home.

APPROVED. Acceptable to the Board.

NOTE: THE BOARD DOES NOT APPROVE OR CERTIFY ANY INSTALLATION, PROCEDURES, EQUIPMENT, OR MATERIAL, NOR APPROVE OR EVALUATE TESTING LABORATORIES. IN DETERMINING THE ACCEPTABILITY OF INSTALLATION OR PROCEDURES, EQUIPMENT OR MATERIALS, THE BOARD'S ACCEPTANCE MAY BE BASED ON A SITE INSPECTION BY BOARD PERSONNEL OR AGENTS OF THE BOARD. THE BOARD REFERS TO THE LISTING OR LABELING PRACTICES TO AN ORGANIZATION CONCERNED WITH PRODUCT EVALUATIONS WHICH IS IN A POSITION TO DETERMINE COMPLIANCE WITH APPROPRIATE STANDARDS FOR THE CURRENT PRODUCTION OF LISTED ITEMS.

DIAGONAL TIE. A tie intended to primarily resist horizontal or shear forces and which may secondarily resist vertical, uplift, and overturning forces.

FOUNDATION, MANUFACTURED HOME. A site-built or site assembled system of stabilizing devices which is:

(a) Capable of transferring design dead loads and live loads required by Federal Regulations and other design loads unique to local home sites due to wind, seismic, and water conditions, that are imposed by or upon the structure into the underlying soil bedrock without failure.

GROUND ANCHOR. A device at the manufactured home stand designed to transfer manufactured home anchoring loads to the ground.

HURRICANE-RESISTIVE MANUFACTURED HOME. A manufactured home which meets the wind design load requirements for Zone II in Subpart D, Section 3280.305(c)(2) of the Federal Standard or the applicable hurricane-resistive design requirements of the **Standard for Mobile Homes, NFPA 501B/ ANSIA119.1** edition in effect at the time of manufacture.

INSTALLER. Any licensed dealer or an employee of a licensed dealer , or a person licensed as a mechanic' who engages in the process of affixing or assembling or setting up of manufactured housing on foundations or supports at a building site.

INSTALLATION. The process of affixing or assembling or setting up manufactured housing on foundation or supports at the building site.

Mechanic. For the purposes of these rules, any licensed individual who engages in the process of installing manufactured housing. Meaning the process of affixing or assembling or setting up a home on foundations or supports at the building site.

PAD. That area which has been established for the placement of a home.

PIER. That portion of the support system between the footing and the manufactured home, exclusive of caps and shims.

SET-UP. The work performed and operations involved in the placement and securing of a manufactured home or any portion thereof.

SHALL. Indicates a mandatory requirement.

SHOULD. Indicates a recommendation or that which is advised but not required.

SITE. A designated parcel of land designed for the accommodation of one manufactured home, its accessory buildings or structures, and accessory equipment for the exclusive use of the occupants.

SKIRTING. A weather-resistant material to enclose the space from the bottom of the manufactured home to grade.

STABILIZING DEVICES. All components of the anchoring and support systems such as piers, footings, ties, anchoring equipment, ground anchors, or any other materials and methods of construction which supports and secures the manufactured home to the ground.

STAND. That area of a manufactured home site which has been reserved for the placement of a manufactured home.

SUPPORT SYSTEM. A combination of footings, piers, caps, and shims that will, when properly installed, support the manufactured home.

TIE. See anchoring equipment.

VERTICAL TIE. A tie intended to resist the uplifting and overturning forces.

SUBPART 2

SITING AND FOUNDATION SYSTEMS

2.1 Siting and Foundation Systems

2-1.1 GENERAL. This chapter prescribes standards for siting, design and installation of manufactured home foundation systems. It identifies acceptable foundations systems. This chapter is applicable to all new and relocated manufactured homes, when and wherevever newly installed at a home site. Homes which are designated 30 PSF snow zone in the manufacturer's data plate shall not be installed in 40 PSF roof load zones designated in Appendix B. Homes designated 20 PSf snow zone in the manufacturer's data plate shall not be installed in the State Of Maine. Homes which are designated 15 PSF wind zone on the manufacturer's data plate shall not be installed in a 25 PSF wind load zone as identified in Appendix B.

2-1.2 A MANUFACTURED HOME FOUNDATION SYSTEM shall be constructed on each manufactured home site..

EXCEPTION: Sites which have beebn licensed by Manufactured Housing Board in accordance with rules governing the licensing of mobile home parks prior to the adoption of this Installation Standard.

2-1.3 A Manufactured Home Foundation System shall be constructed in accordance with one of the following;

(a) the manufacturer's installation instructions,

(b) Appendix C of the Installation Standard

(c) a foundation design prepared by a Registered professional engineer or architect for the site.

2-2 SITE CONSIDERATIONS.

2-2.1 GENERAL

2-2.1.1 EVALUATION. Each site shall be evaluated by the person assuming responsibility to determine if it is suitable for its intended use and if such hazards as flood erosion, sediment deposition, , or other hazards exist that might impair the use or utility of the site. When, during preparation of the site, such unforeseen factors as rock formation, high groundwater levels, springs, biologically generated gases, etc.,are encountered, corrective works shall be taken to siting of the manufactured home.

2-2.1.2 PROTECTIVE SLOPES OF UNPAVED AREAS AROUND MANUFACTURED HOME STANDS. Grades shall slope away from stands, from walls, skirting, and foundations, and from water supply wells to adequate outfalls or to drainage swales discharging to adequate outfalls.

2-3 Soil Considerations

2-3.1 FOOTINGS. It shall be determined when natural soils or controlled fill (free of grass and organic material) are used,that the footing shall support the loads imposed by the support system of the manufactured home placed thereon.

2-3.2. ANCHORING

2-3.2.1 ANCHOR DESIGN AND INSTALLATION. Homes installed on sites in the 25 psf wind zone as identified in Appendix B of this standard and which are occupied by other than the home owner shall be installed with an anchoring system properly designed and constructed to resist sliding an overturning of the home.

2-4 PLACEMENT

2-4.1 Clearances.

2-4.1.1 Clearance Under Home. A minimum clearance of 12 in. shall be maintained beneath the lowest member of the main frame (I-beam or channel beam).ons.

2-4.1.2 **Elevated Manufactured Homes.** When the manufactured home is installed on a basement or split entry type foundation over a habitable lower-level area, or when more than one-fourth of the area of the manufactured home is installed so that the bottom of the main frame members are more than 3 ft. above ground level, the foundation system shall be designed by a registered professional engineer or architect. Appendix C can not be used for any elevated installation **or in combination with the manufacturers instructions.**

2-4.1.3 **Removal of Manufactured Home Transportation Components at the Time of Installation.** No portion of a manufactured home shall be removed when located on its home site unless it is designed to be removed in accordance with HUD's and the manufacturer's instruction.

2-5.1 VENTILATION

2-5.1.1 Access to and Ventilation of Underfloor Areas.

(a) Provisions shall be made to minimize condensation in underfloor areas through ventilation openings or other suitable means.

(b) If combustion air for heat appliance(s) is taken from within the underfloor areas. Ventilation shall be adequate to assure proper operation of the appliance(s). This requirement shall take precedence over the provisions of 2-6-2.1 (a).

(c) A minimum of four ventilation openings shall be provided from the underfloor space to the exterior> One shall be placed at or near each corner as high as practicable. Their total net free area shall be calculated by:

1. a = A/150 or

2. a = A/600 if the home is installed on a concrete slab or with a ground cover in accordance with 2-6.2.4.

where:

A = the area of the crawl space, square feet

a = the total net free vent area

Openings shall provide cross ventilation on at least two opposite sides. The openings shall be covered with corrosion resistant wire mesh not less than 1/8 in. and not more than 1/2 in. in any dimension or with openings designed to retard entry of dry vegetation, waste material, or rodents.

2-6.2.2. Intake air for ventilation purposes shall <u>not</u> be drawn from underfloor spaces of the home.

2-6.2.3. Moisture producing devices, such as dryers, shall be vented to the atmosphere in such a manner to insure that moisture laden air is carried beyond the perimeter of the home.

2-6.2.4 Under floor Continuous Ground Cover/Vapor Retarder.

If a ground cover is required, a uniform 4 to 6 mil. polyethylene sheet material or other acceptable membrane materials shall be installed for this purpose.

2-6.2.5 Skirting

(a) Materials. Skirting, if used, shall be of durable materials suitable for exterior exposures.

General Installation. Skirting, if used, shall be installed in accordance with the manufacturer's installation instructions. It shall be secured, as necessary, to assure stability, to minimize vibrations, to minimize susceptibility to wind damage, and to compensate for possible frost heaves. Access opening(s) not less than 18 in any dimension and not less than 3 sq. ft. in area shall be provided and shall be located so that any water supply and sewer drain connections located under the manufactured home are accessible for inspection. Such access panel(s) or door(s) shall not be fastened in a manner requiring the use of a special tool to remove or open same. On-site fabrication of skirting shall meet the objectives cited herein.

SUBPART 3

PLUMBING

3-1 General Requirements

NOTE: Where this standard differs from the State of Maine Plumbing Code, the standard adopted by the State of Maine shall prevail.

3-1.1 Need for Plumbing and Utility Connections. Each manufactured home stand shall be provided with water supply and sewer located and arranged to permit attachment to the manufactured home in a workmanlike manner.

3-1.2 Location of Plumbing Utility Connections. The plumbing utility connection shall be located under the mobile home stand.

3-2 Water Supply.

3-2.1 Water -Riser Pipes, Size, and Protection. Water-riser pipes shall be a minimum of 3/4 in. nominal diameter. Water-riser pipes shall extend a minimum of 6 in. above ground elevation. Water riser pipes shall be terminated with a threaded plug, hose bib, or cap when a manufactured home does not occupy a site. Surface drainage shall be diverted from the location of the riser pipe.

3-2.1.1. **Water Supply Shutoff Valves.** An accessible shutoff valve shall be provided on the water-riser pipe serving the manufactured home. The system shall be protected from backflow **for single family residences on** shared **wells.**

3-2.1.2. **Protection Against Freezing.** Provision shall be made to protect the water supply piping and valves, including the riser.

(a) Frost-proof valves shall be installed where necessary and shall be listed for backflow protection.

(b) In areas subject to heaving and thawing, the piping shall be adequately protected to prevent damage.

(c) Heat cables and tapes, when used for protection of plumbing components against freezing, shall be listed and labeled.

(d)

3-3 Wells as a Source of Supply.

3-3.1 **Location of Wells.** A well shall not be located within the boundaries of a manufactured home stand.

SUBPART 4

MECHANICAL EQUIPMENT

(HEATING and COOLING)

4-1 Exterior Mechanical Equipment.

4-1.1 Mechanical Equipment shall not be installed in a manner that would obstruct any means of required egress. Mechanical equipment shall not be installed in window openings which are part of an exiting system and shall not obstruct sidewalks or other means of egress from the home.

SUBPART 5

FUEL SUPPLY

5-1 General. All fuel piping systems serving manufactured homes, which are not part of the manufactured home shall be designed and constructed in compliance with all applicable local , state and Federal codes

SUBPART 6

ELECTRICAL

6-1 Site Electrical Equipment and Installations. Sites provided with an electrical service shall have all electrical equipment and installations designed and constructed, and maintained in accordance with the applicable provisions of NFPA 70, National Electrical Code.

SUBPART 7

LIFE AND FIRE SAFETY

7-1 For life and fire safety requirements, see NFPA 501A, Standard for Firesafety Criteria for Manufactured Home Installation, Sites and Communities (1987) and NFPA 101, Life Safety Code (1988).

APPRNDIX A

PREVENTIVE MAINTENANCE

APPENDIX A

Use and Preventive Maintenance of Manufactured Home Installations

This Appendix is not part of the requirements of this document, but is included for information purposes only.

A-1 Responsibilities of the Manufactured Home Resident.

A-1.1 The resident should comply with all applicable requirements of this standard and should maintain his manufactured home site, its facilities, and its equipment in good repair and in a firesafe condition.

A-2 Storage Practices Beneath Manufactured Homes

A-2.1 Periodic inspections of the enclosed space are recommended to assure that all utility and other connections are secured and no fire hazards exist

A-2.2 Homeowner should keep site free of an accumulation of combustible materials such as rubbish, paper, leaves. and brush

APPENDIX B

WIND ZONE and ROOF LOAD ZONE

PREFACE TO APPENDIX C

THE PURPOSE OF THIS APPENDIX IS TO PROVIDE INSTALLATION INSTRUCTIONS WHICH MAY BE LESS EXPENSIVE TO IMPLIMENT THAN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE METHODS USED IN THIS APPENDIX WILL PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR HOMES IN ALL BUT THE MOST EXTREME WINTER TEMPERATURE CONDITIONS. DURING EXTREME TEMPERATURE CONDITIONS, FOUNDATIONS DETAILED IN THESE INSTRUCTIONS MAY BE SUBJECT TO FROST HEAVE. OWNERS WHO CHOOSE TO HAVE HOMES INSTALLED IN ACCORDANCE WITH THESE INSTRUCTIONS MUST UNDERSTAND THAT THEY ACCEPT RESPONSIBILITY FOR MAINTAINING THE HOME IN A LEVEL CONDITION. FAILURE TO MAINTAIN THE HOME IN A LEVEL CONDITION. FAILURE TO MAINTAIN THE HOME IN A LEVEL CONDITION MAY RESULT IN THE MANUFACTURER"S WARRANTY BEING VOIDED. MECHANICS INSTALLING NEW HOMES AND PARK OWNERS RENTING PADS TO HOME OWNERS SHOULD INSURE THAT HOMEOWNERS UNDERSTAND THE RISKS AND THEIR RESPONSIBILITY WHEN HOMES ARE INSTALLED ON SITES CONSTRUCTED IN ACCORDANCE WITH THESE INSTRUCTIONS.

GENERAL REQUIREMENTS

1. HOME SITE SELECTION

   Home sites shall not be constructed on mud, organic silt or filled sites. Home sites shall not be constructed in any naturally occuring seasonal dainage swail.

2. HOME SITE PREPARATION

   Sitew soil conditions shall be evaluated. Home sites shall be prepared as required by SITE PREPARATION DETAILS I and the GENERAL SPECIFICATIONS FOR SITE PREPARATION.

3. LOCATION OF SUPPORTS

   A. New homes shall be supported where required by the manufacturer's installation instructions.

   B. Used homes for which installation instructions are available shall be supported where required by those instructions.

C. Used homes for which installation instructions are not available shall be supported at locations indicated in SUPPORT LOCATION DETAILS V

D. Each unit in multi unit homes shall be supported as a seperate unit in accordance with this these instructions For purposes of these instructions, equired marraiage wall support shall be the same as required for perimeter blocking support.

4. FOOTING REQUIREMENTS

A. Footings shall consist of a concrete pad constructed in accordance with CONCRETE SLAB DETAIL IV-A when;
1) The home requires perimeter support, or
2) The home is located in the Coastal Zone shown in Appendix B and the home is rented or occupied by someone other than the home owner.

B. Footings for homes other than those identified in Requirement 4.A-1 shall be constructed in accordance with FOOTING DETAIL II or CONCRETE SLAB DETAIL IV-A.

C. A footing shall be installed at each support location.

D. Footings shall be centered within 1" of the support location.

E. Footing surface shall be leveled within 1/4" of the top surface after the home has been installed.

5. PIER REQUIREMENTS

A. Piers shall be constructed at all locations of support under the main steel frame of the home.

B. Piers constructed under the main frame shall be constructed in accordance with pier details.

C. Perimeter blocking or support, where required shall be constructed in accordance with perimeter blocking details.

D. Piers shall be centered under the main frame within 1" of required support location.

6. LEVELING REQUIREMENTS

After the home is set, the home shall be leveled so that all doors and windows operate as intended and waste water plumbing systems function in a safe manner. Specifically leveling shall be adequate to maintain plumbing trap seals and prevent the buildup of solid waste in drain piping.

A. THE FLOOR SHOULD BE NOT MORE THAN 3/8" out of level in any 8' span.

B. THE FLOOR SHOULD NOT BE MORE THAN 2" out of level along the entire length of the home.

7. TIE DOWN REQUIREMENTS

Tie downs shall be installed in accordance with the Concrete Slab Detail IV-A on all homes which:

A. Are located in the Coastal Zone as defined in Appendix B of this standard.

B. Which are rented or otherwise occupied by other than the home owner.

GENERAL SPECIFICATIONS FOR SITE PREPARATION

1. COMPACTED FILL SHALL CONSIST OF GRAVEL OR SAND WHICH CONTAINS LESS THAN 5% (BY WEIGHT) GRAINS THAT WILL PASS A #200 SEIVE. GRAVEL FILL SHALL CONTAIN NO ROCKS OR BOULDERS LARGER THAN 3 INCHES IN DIAMETER. COMPACTED FILL SHALL CONTAIN NO ORGANIC MATTER. COMPACTED FILL SHALL NOT BE FROZEN WHEN PLACED OR COMPACTED.

OR

COMPACTED FILL SHGALL CONSIST OF SAND OR GRAVEL OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES MEETING THE CURRENT TYPE B AGGREGATE REQUIREMENTS OF TH STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS HIGHWAY AND BRIDGES. TYPE B AGGREGATE SHALL NOT CONTAIN PARTICLES OF ROCK WHICH WILL NOT PASS THE FOUR (4) INCH SQUARE MESH SIEVE.

2. COMPACTED FILL SHALL BE COMPACTED IN A MAXIMUM OF 6 INCH LIFTS. EACH LIFT SHALL BE COMPACTED SUFFICIENTLY SO THAT WHEN 1000 LBS. IS APPLIED TO A 3 1/2 X 3 1/2 BLOCK PLACED ON TOP OF THE FILL, THE BLOCK WILL NOT SINK MORE THAN 3/8 INTO THE FILL. (SEE RECOMMENDED COMPACTION TEST PROCEDURE ON PAGE NEXT PAGE).

3. COMPACTED FILL SHALL BE PLACED ON UNDISTURBED AND UNFROZEN SOIL. THE SITE SHALL BE FREE OF TOPSOIL AND ORGANIC MATTER PRIOR TO THE PLACEMENT OF FILL.

4. CRUSHED ROCK SHALL CONSIST OF CLEAN,WASHED ROCK, AND MAY RANGE IN SIZE FROM PEA GRAVEL TO 3/4 INCH.ALL CRUSHED ROCK SHALL BE RETAINED BY A #4 SEIVE.

5. THE PERIMETER FOUNDATION SITES SHALL BE GRADED TO PREVENT THE FLOW OF SURFACE WATER UNDER THE HOME AND TO PREVENT THE ACCUMULATION OF SURFACE WATER UNDER THE HOME AND TO PREVENT THE ACCUMULATION OF SURFACE WATEWE WITHIN TEN (10) FEET OF THE PERIMETER OF THE HOME.

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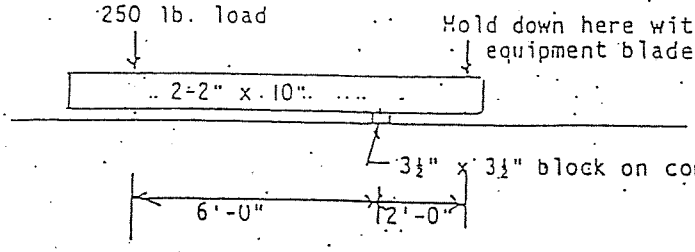
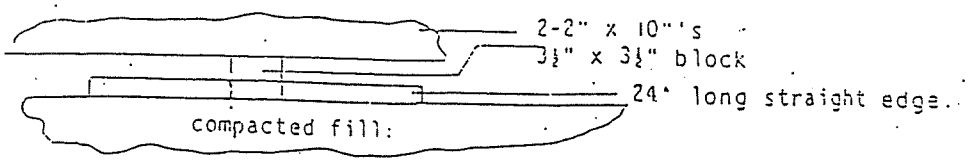
RECOMMENDED COMPACTION TEST PROCEEDURE



Test set-up

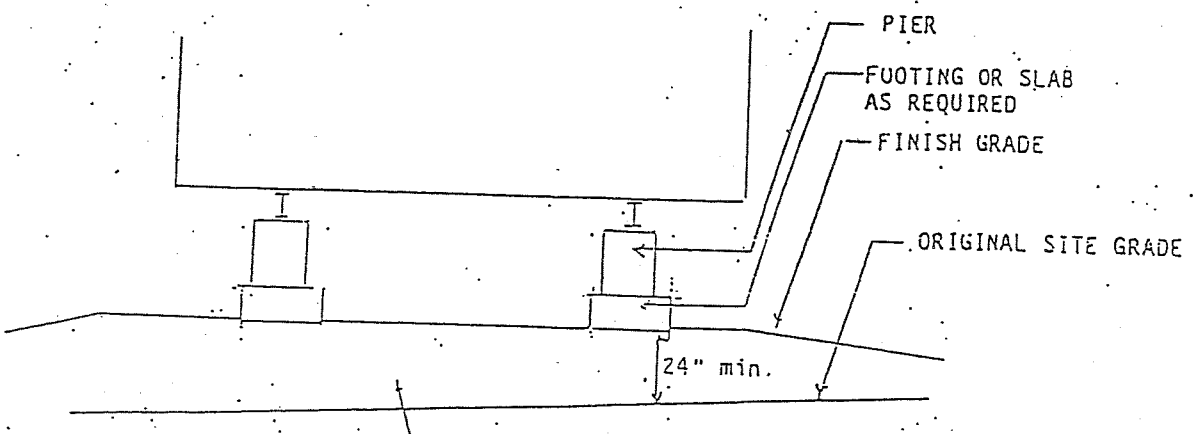
Place a 24" long straight edge or level on fill beside block. Center the straight edge on the block.



If the block sinks more than 3/8" with respect to the straight edge when the 250 lb. load is applied, more compaction is required.

NOTES:

1. This detail may be used on any foundation site that does not contain mud, organic silt or uncontrolled fill.
2. Sites prepared in the coastal Zone as defined in Appendix B require 18" where 24" is specified in this detail.
3. Finish grade shall be loamed and seeded with grass or otherwise finished to prevent erosion of compacted fill.
4. Compacted fill may be placed below the original site grade only if a drainage system is installed in the fill to prevent the accumulation of water within 24" of the bottom of the footing.



Minimum of 24" of compacted fill under footings. fill shall meet the General Specifications for Site Preparation for gravel and compaction.

NOTES:

1. This detail may be used when:
   a. the foundation site is overlain with at least 24" of naturally occuring gravel or sand with less than 7% (by weight) passing a #200 seive, and
   b. the highest ground water table is more than 24" below the finish grade.
2. Sites prepared in the Southern Zone as defined in Appendix B require 18" where 24" is specified in Note 1.
3. Construction may be placed on naturally occuring soils after all organic material has been removed from the construction site.

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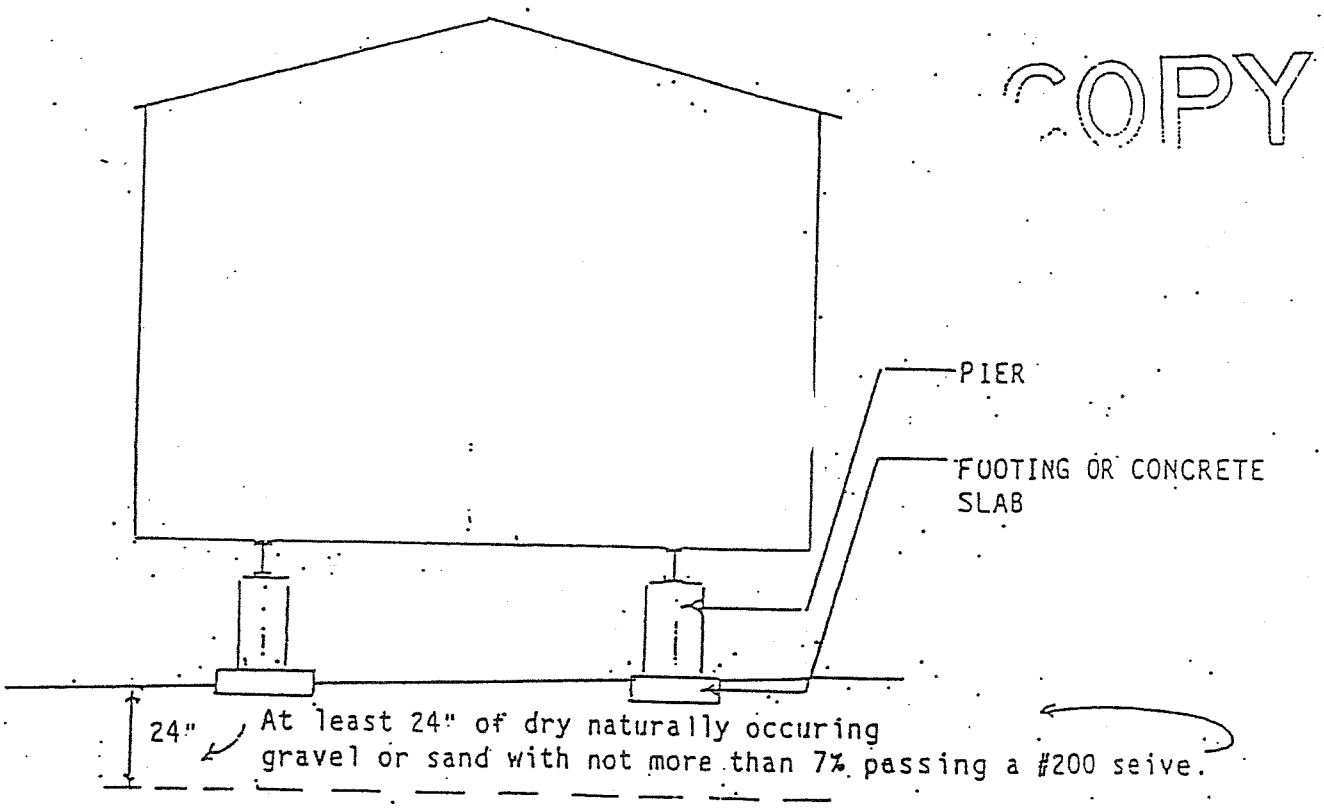
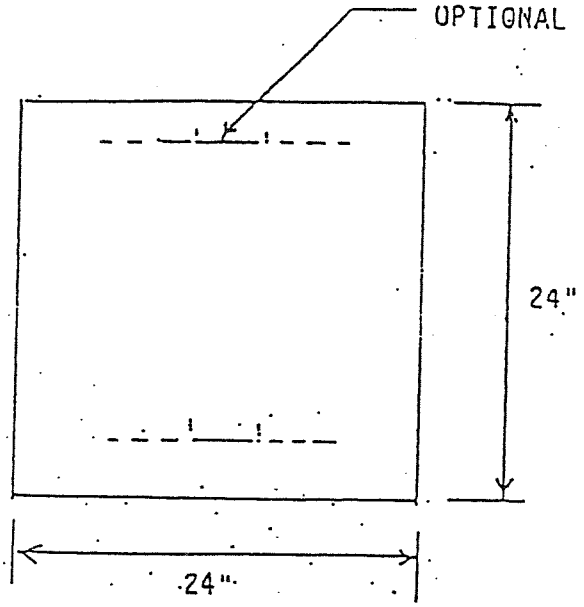


NOTES:

1. Concrete shall have a minimum compressive strength of 3000 psi at 28 days.
2. Concrete shall be protected from freezing for the first 7 days after it has been cast.
3. Footing pads may be cast on in situ or precast and delivered to the site for placing.
4. Footing pads which are precast for later placement shall be cured at least 7 days prior to handling.



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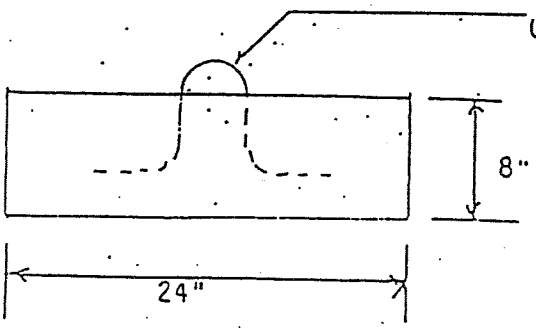

SECTION

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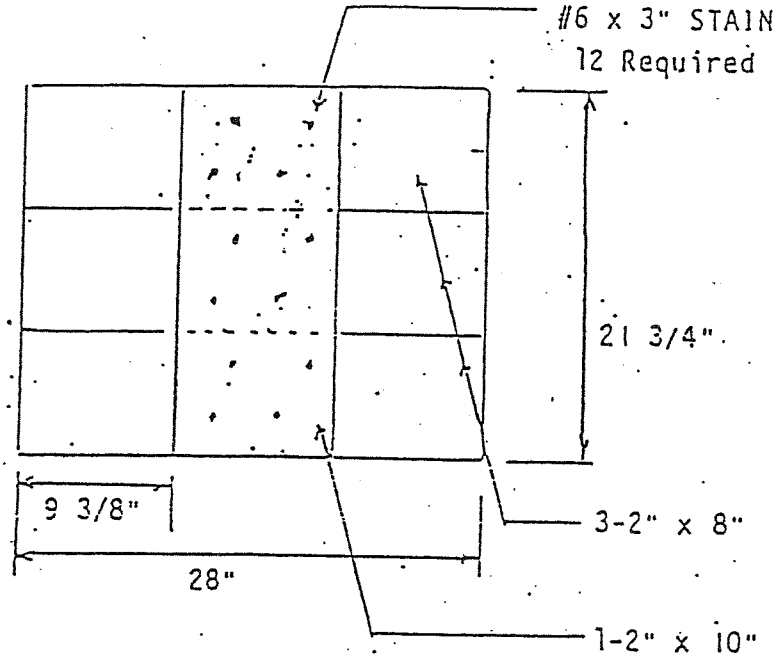
FOOTING DETAIL II- 8 | REV.

NOTES:

1. This detail is of a wood isolated footing to be placed on a prepared site. This detail may be used when pier height does not exceed 24".
2. Wood used in this detail must be Southern Yellow Pine, #2, pressture treated with water-borne preservatives in accordance with AWPA C2 or C9. The AWPA stamp must indicate that the treatment is for use in contact with ground.



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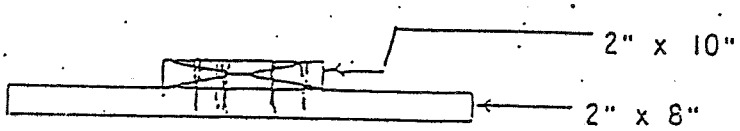
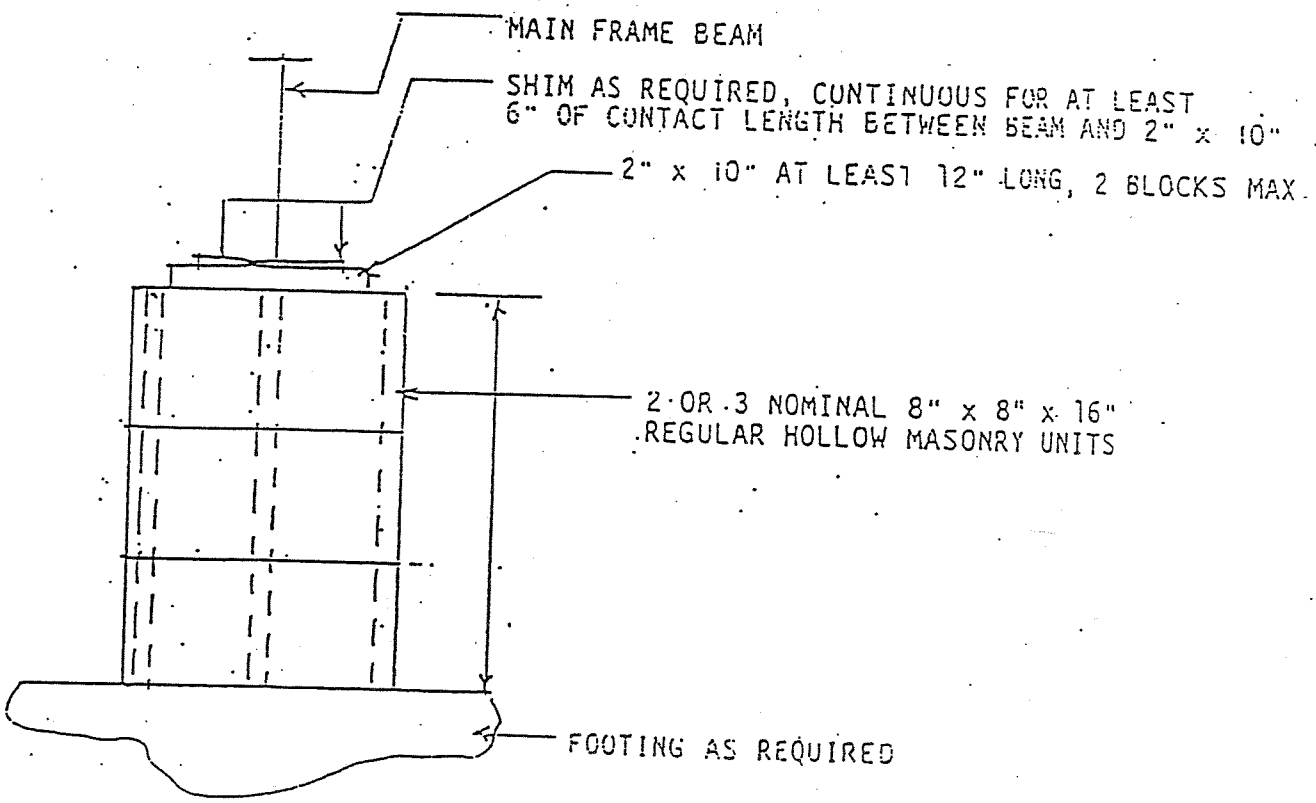


SECTION

NOTE: Pier cement blocks shall be centered on the wood footing with the 16" dimension parallel to the 2" x 10".

NOTES:

1. This detail applies to piers which are a maximum of 24" high from the top of footing.
2. Masonry units in this detail shall comply with ASTM C90, Grades N-I or N-II.
3. Wood block shall be of a structurally graded lumber with the 12" dimension centered under the main frame. No more than 2 wood blocks may be stacked.
4. Shims shall provide contact between main frame and 2" x 10" for at least 6".



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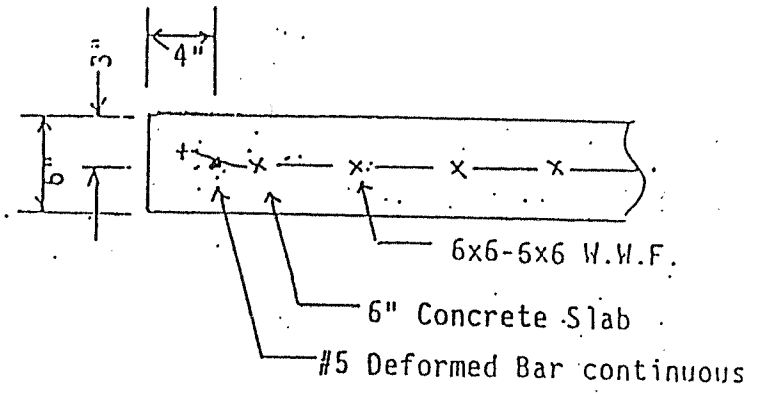
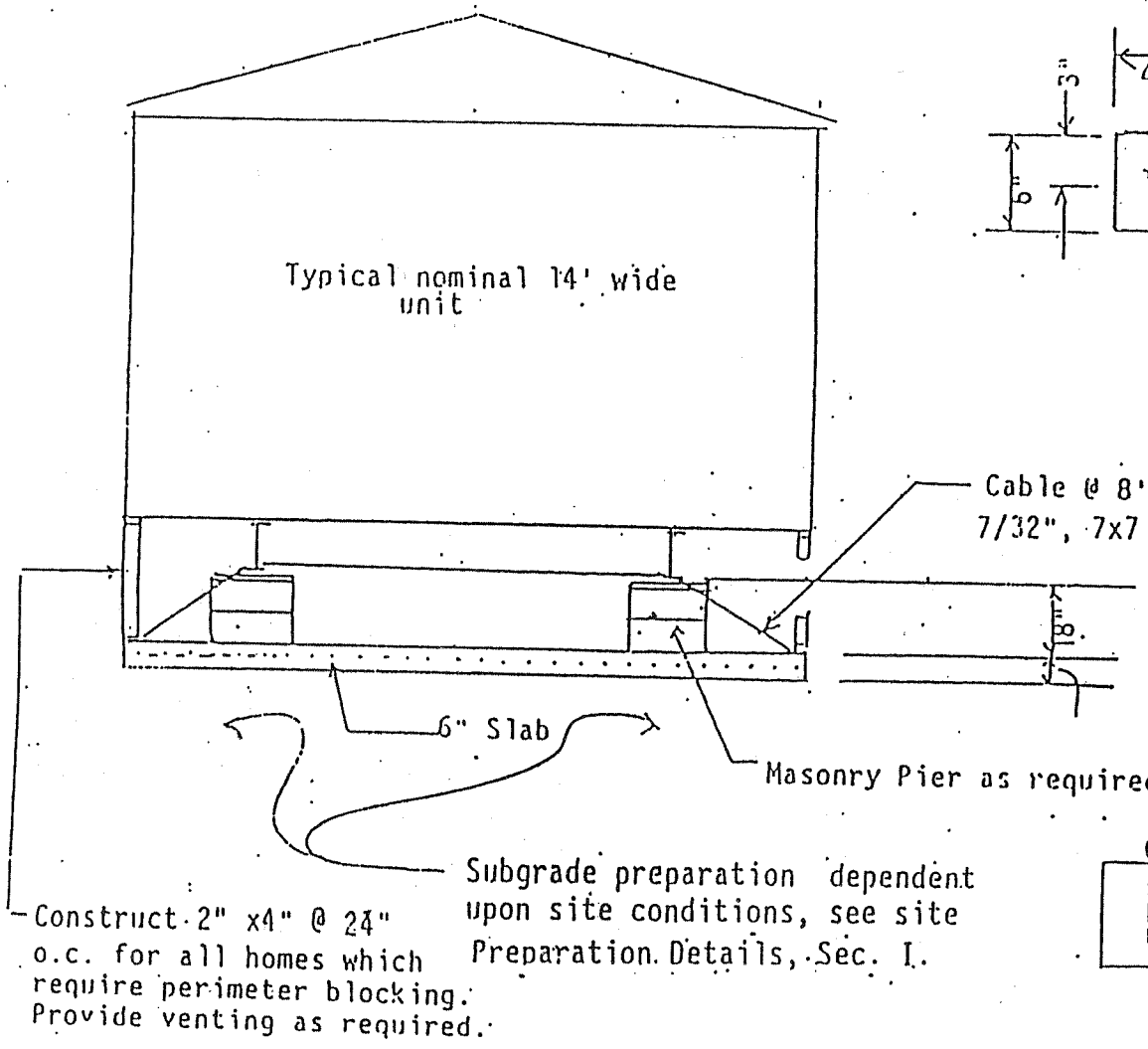
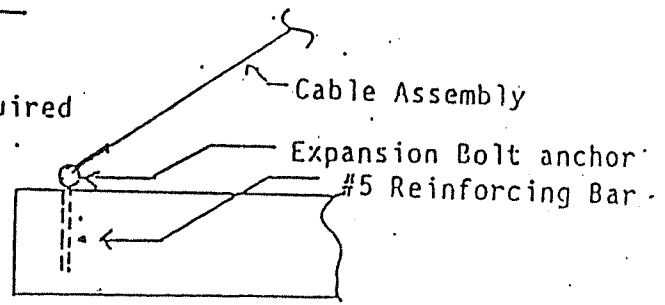
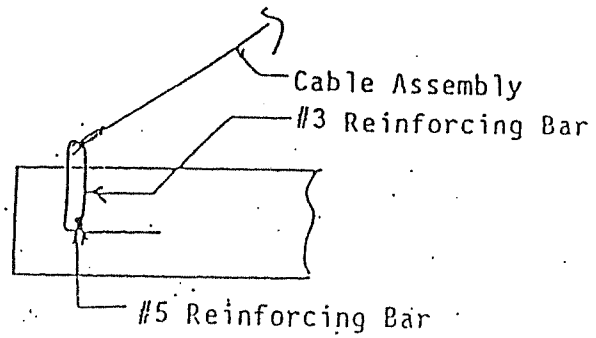


SLAB DETAILS







ANCHORING DETAILS

NOTES:

1. This slab and tie down system is suitable for use in Hurricane Zones.
2. Concrete is 3000 psi at 28 days.
3. Reinforcing Bar is ASTM A615, Grade 40 minimum, deformed. Lap splice #5 bars 50" min.

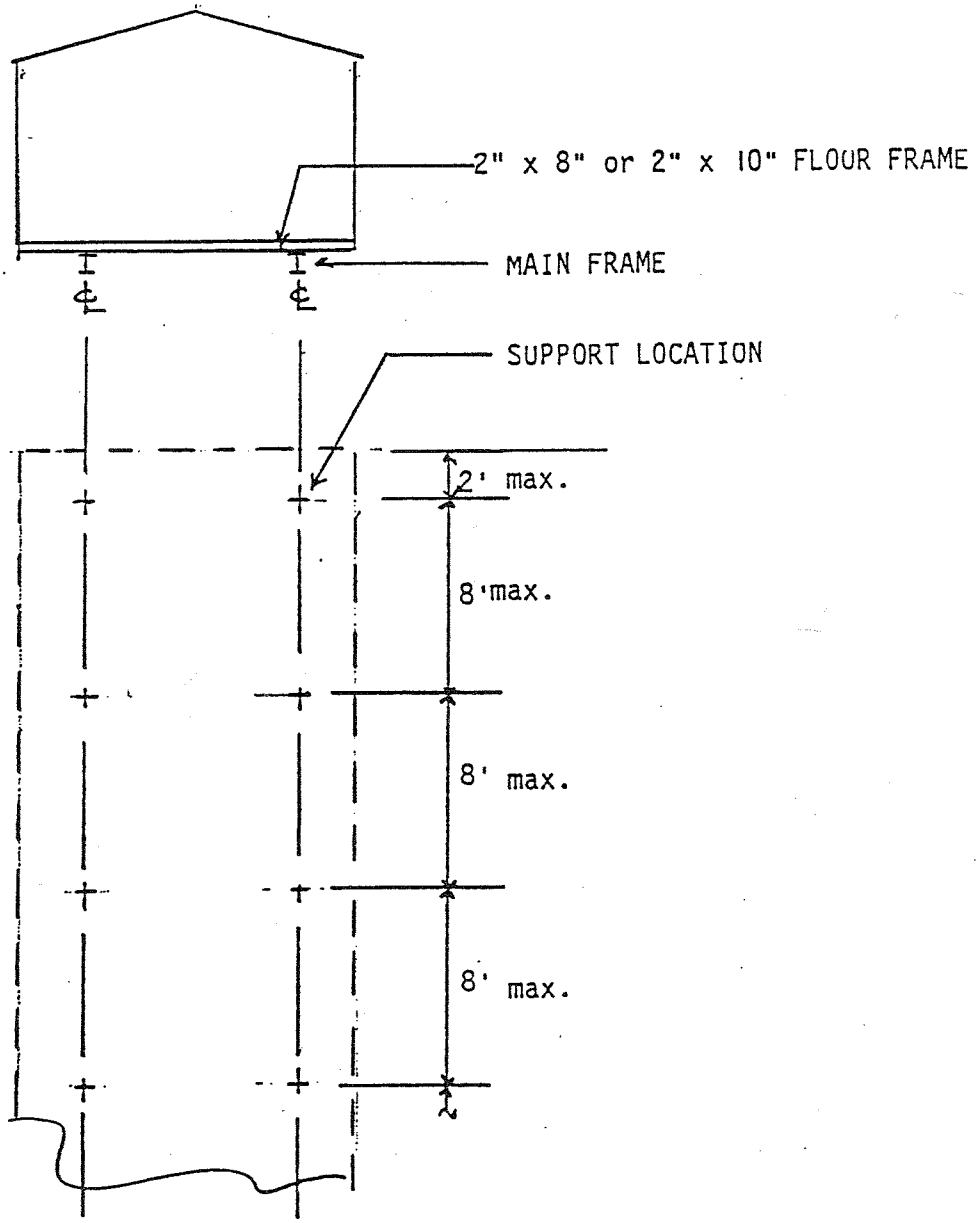
ASTM A185, F_y=65 ksi.

Note: Cable assembly to carry 1864 lbs

SUPPORT LOCATION DETAIL V-A	REV.

NOTES:

1. This detail applies to homes ;
   A. which are used, and
   B. for which no manufacturer's installation instructions are available, and
   C. which have floor frames constructed with 2" x 8" or deeper floor joists or are 12' or less wide.
2. Support locations are required within 2' of the end of the main frame and at no more than 8' o.c. under the main frame.

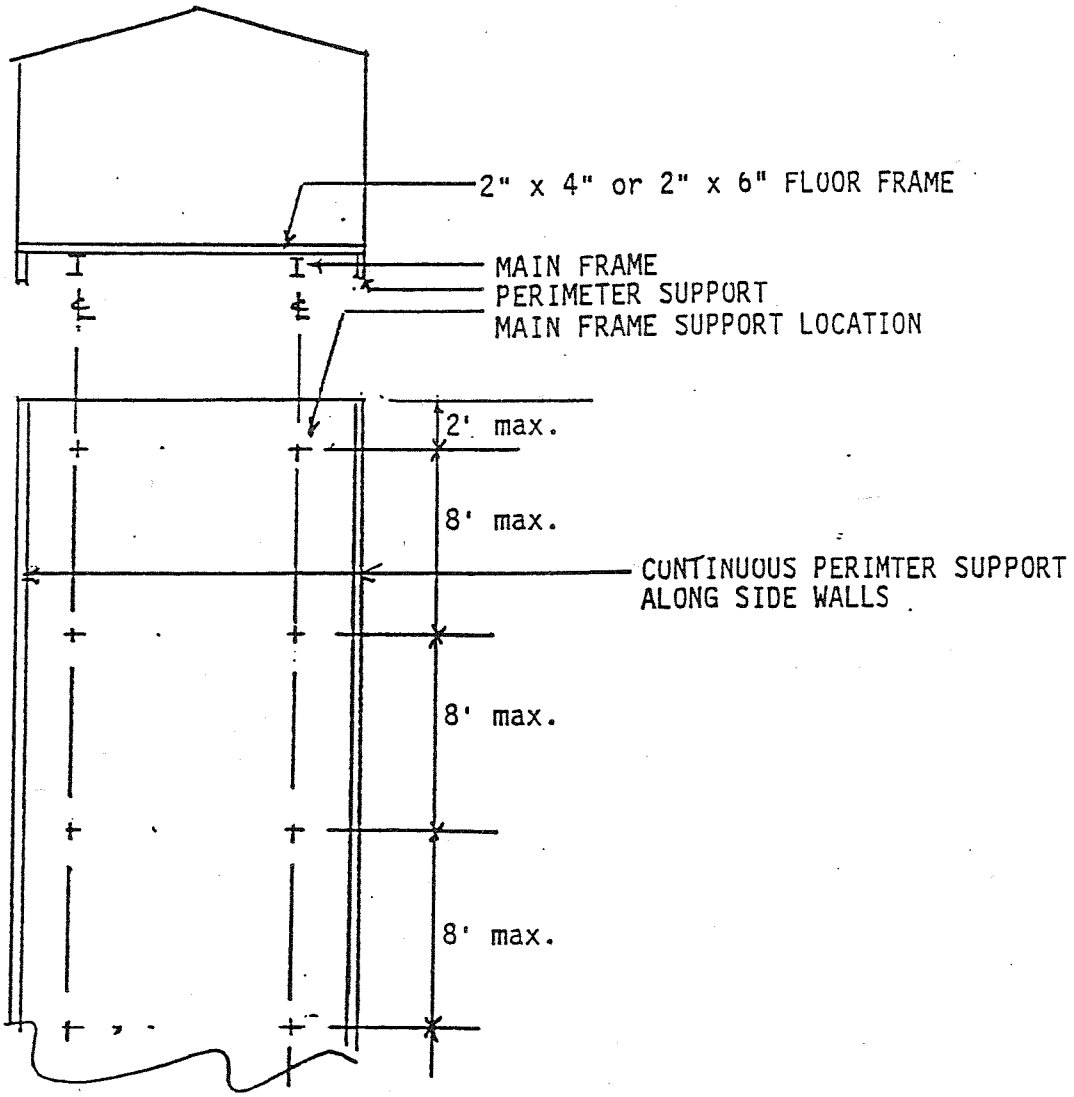


LOCATION PLAN

SUPPORT LOCATION DETAIL V-B	REV.

NOTES:

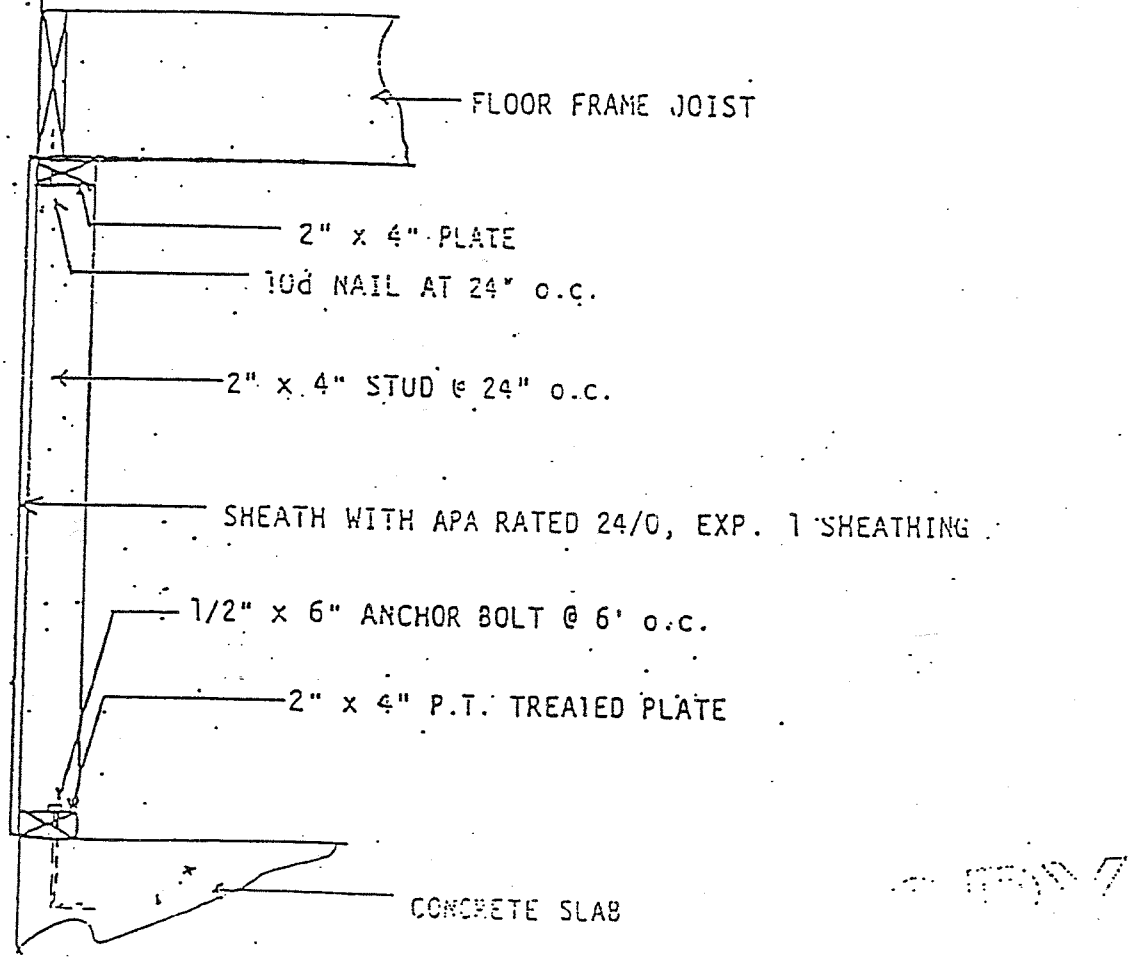
1. This detail applies to homes:
   - A. which are used, and
   - B. for which no manufacturer's installation instructions are available, and
   - C. which have floor frames constructed with 2"x4" or 2"x6" floor joists and
   - D. have not been previously installed in the roof load zone which it will be installed.
2. Support locations are required within 2' of the end of the main frame and at no more than 8' o.c. under the main frame.



LOCATION PLAN

PERIMETER BLOCKING DETAIL V1-A | REV.

NOTES:
1. This detail applies where perimeter blocking or support is required.
2. Provide venting thru sheathing as required by this standard.
3. Provide an acces door to the underside of the home as required by other portions of this standard.
4. P.T. treated lumber shall be treated per AWPA C-2 or C-9 for use above grade.
5. Provide a weather protective covering for the sheathing.



APPENDIX D

APPENDIX D

Ground Level Installation of Manufactured Homes

(Floor at Grade)

D-1 General. Ground level installations refer to manufactured homes installed over an open excavation where the supporting foundations are below finished ground level.

D-1.1 Grading Permit Requirements. All required permits will be obtained.

D-1.2 Retaining Walls. Retaining walls to resist the lateral displacement of soil and other materials should be designed to resist the lateral pressure of the retained material in accordance with accepted engineering practice. Retaining walls, if fastened to the manufactured home at the time of installation, should not degrade the stabilizing system of the home. When a retaining wall is not used as a foundation, it should not be attached to the home. Retaining walls should be constructed of treated foundation grade wood, concrete, masonry, other approved materials or combinations of these materials.

D-1.3 Backfill, Fill and Grading. All fill and backfill soil surrounding the home should be compacted. Grading around the home should be done in such a manner that water will drain from the unit at a slope of 1/2 ft. vertical for every 12 ft. horizontal.