



Building Department
507-437-9950
Fax: 507-437-7101
City of Austin
500 4th Ave NE
Austin, MN 55912

MANUFACTURED HOMES

Manufactured Home Installation Requirements

1. A manufactured home permit is required prior to the installation of the manufactured home.
2. The following information is required at time of permit application.
 - a. Brand name of manufactured home, size, serial number and size of electrical service.
3. Provide support and anchoring plans (forms attached)
4. Skirting must be completed within 30 days of installation. Skirting shall be of metal, fiberglass, or comparable non-combustible materials and approved by the City of Austin Building Department. Skirting material to be painted to match the appropriate unit thus that it will enhance the appearance of the home.
5. Utilities Connection
 - a. **Water connections.** Water piping to manufactured homes shall comply with the Minnesota Plumbing Code, chapter 4715. Pipes shall be protected from freezing. Heat tape, when installed, shall be listed and installed in conformance with its listing and the manufacturer's instructions. . When the manufactured home is installed on a support system subject to ground movement due to freezing and thawing, approved flexible connectors or semirigid copper tubing shall be used to prevent pipe breakage after connection
 - b. **Sewer connections.** Waste piping to manufactured homes shall comply with the Minnesota Plumbing Code, chapter 4715. When a manufactured home is installed on a support system subject to ground movement due to freezing and thawing, offsets or approved flexible connectors, or both, shall be used to prevent pipe breakage.
 - c. **Gas piping.** Gas piping to the manufactured home shall be of adequate capacity rating to supply the connected load. It shall be installed in compliance with the Minnesota State Mechanical Code, chapter 1346. When the manufactured home is installed on a support system subject to ground movement because of freezing and thawing, semirigid copper pipe or a listed manufactured home gas connector for exterior use only shall be installed to prevent pipe breakage. Gas piping shall be protected from physical damage.
 - d. **Tests for gas piping.** The manufactured home fuel gas piping system shall be tested before it is connected to the gas supply. Only air shall be used for the test. The manufactured home gas piping system shall be subjected to a pressure test with all appliance shutoff valves, except those ahead of fuel gas cooking appliances, in the open position. Appliance shutoff valves ahead of fuel gas cooking appliances shall be closed.

The test shall consist of air pressure at not less than ten inches or more than 14 inches water column (six ounces to eight ounces per square inch). The system shall be isolated from the air pressure source and maintain this pressure for not less than ten minutes without perceptible leakage. Upon satisfactory completion of the test, the appliance valves ahead of fuel gas cooking appliances shall be opened, and the gas cooking appliance connectors tested with soapy water or bubble solution while tinder the pressure remaining in the piping system. Solutions used for testing for leakage shall not contain corrosive chemicals, Pressure shall be measured with either a manometer, slope gage, or gage calibrated in either water inches or pounds per square inch with increments of either one-tenth inch or one-tenth pounds per square inch, as applicable. Upon satisfactory completion of the test, the manufactured home gas supply connector shall be installed and the connections tested with soapy water or bubble solution.

- e. **Electrical connections.** On-site electrical connections to the manufactured home and any on-site electrical wiring required to prepare the manufactured home for occupancy shall be done in conformance with the manufactured home building code and shall be

installed and inspected as required by the Minnesota Electrical Act, Minnesota Statutes, sections 326.241 to 326.248.

STAT AUTH: MS § 327.33; 32713.01 to 327B.12

HIST: 24 SR 1846

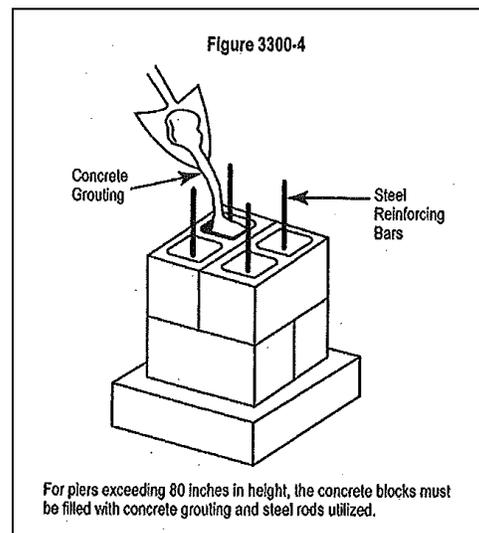
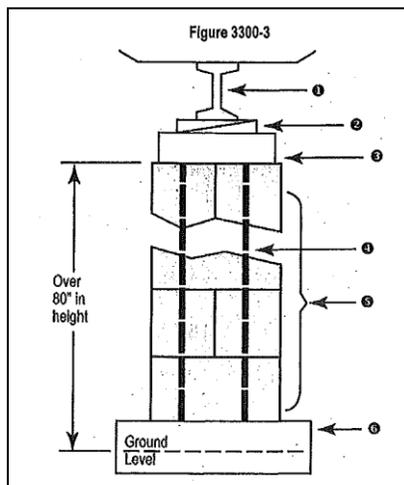
1350.3500 OBTAINING APPROVAL OF QUALITY CONTROL.

Subpart 1. **Procedure.** To obtain quality control approval for an accessory structure manufacturing facility, a manufacturer shall submit a quality control manual pursuant to subpart 2, item A, and consent to investigations and inspections at reasonable hours by the commissioner for field verification of satisfactory quality control.

Subp. 2. **Applications.** Applications for approval of quality control manuals shall contain the following:

- A. an application in letter form to be accompanied by two copies of the quality control manual containing those items required by item B; and
- B. an outline of the procedure which will direct the manufacturer to construct accessory structures according to the approved plans specifying:
 1. scope and purpose;
 2. receiving inspection procedure for basic materials;
 3. material storage and stock rotation

Manufactured Home Anchoring System



1. I-beam frame
2. Gap between top of pier and main frame may be a wood plate (not exceeding 2" in thickness) and shims (not exceeding 1" in thickness). Shims shall be at least 4" wide and 6" long, fitted and driven tight between wood plate or pier and main frame. Two inch or four inch solid concrete block may fill remainder of any gap.
3. Cap – solid concrete block or equivalent, 4" x 16" x 16"
4. Reinforcing rods (normally 3/8" diameter steel rods placed in the pier corners, for per tier).
5. Double concrete blacks with any block cell filled with concrete, laid in concrete mortar with steel reinforcing bars inserted in the block cells.
6. Footing – 16" x 16" x 4" solid concrete or other product approved for the purpose or, alternately, two 8' x 16' 4" solid concrete blocks with joint between blocks parallel to the steel I-beam frame.

Footing placed on firm undisturbed soil or on controlled fill free of grass or organic materials compacted to a minimum load-bearing capacity of 2000 PSF.

For piers exceeding 80 inches in height. Piers shall be securely attached to the frame of the mobile home or shall extend at least 6 inches from the centerline of the frame member.

Subp. 4. **Piers over 80 inches tall reinforcement.** (refer to figure 3300-4)

Approved support system for manufactured homes without specific footing as anchoring requirements.

1. Footing shall be at least 16" x 16" x 4" or other product approved for the use intended. As an alternate two 8" by 16" by 4" can be used as footing provided the joists between the blocks is parallel to the steel I-beam frame.
2. Piers less than 40 inches in height shall be constructed of open and closed cell, eight-Inch by 16-inch concrete blocks (with open cells vertically placed upon the footing). Single-stacked block piers shall be installed with 16-inch dimension perpendicular to the main (I-beam) frame. The piers shall be covered with a two-inch by eight-inch by 16-inch wood or concrete cap.

Piers between 40 to 80 inches in height and all corner piers over three blocks high shall be double blocked with blocks interlocked and capped with a four-inch by 16-inch by 16-inch solid concrete block, or equivalent. (See part 1350.3300, subpart2).

Piers over 80 inches in height shall be laid in concrete mortar and steel reinforcing bars inserted in block cells filled with concrete.

Elevated manufactured homes. When more than one-fourth of the area of a manufactured home is installed so that the bottom of the main frame members is more than three feet above ground level, the manufactured home stabilizing system shall be designed by a qualified registered professional engineer and the installation shall be approved prior to installing by the authority having jurisdiction.

Plates and hardwood shims. A cushion of wood plate not exceeding two inches in thickness and hardwood shims not exceeding one inch in thickness may be used to fill any gap between the top of the pier and the main frame. Two-inch or four-inch solid concrete blocks may be used to fill the remainder of any gap. Hardwood shims shall be at least four inches wide and six inches long and shall be fitted and driven tight between the wood plate or pier and main frame.

3. **Clearance Above Ground.** A minimum clearance of 12 inches shall be maintained beneath the underside of the main frame (I-beam or channel beam) in the area of utility connections when the manufactured home is not installed on a foundation system.

PLOT PLAN

ADDRESS: _____

LEGAL

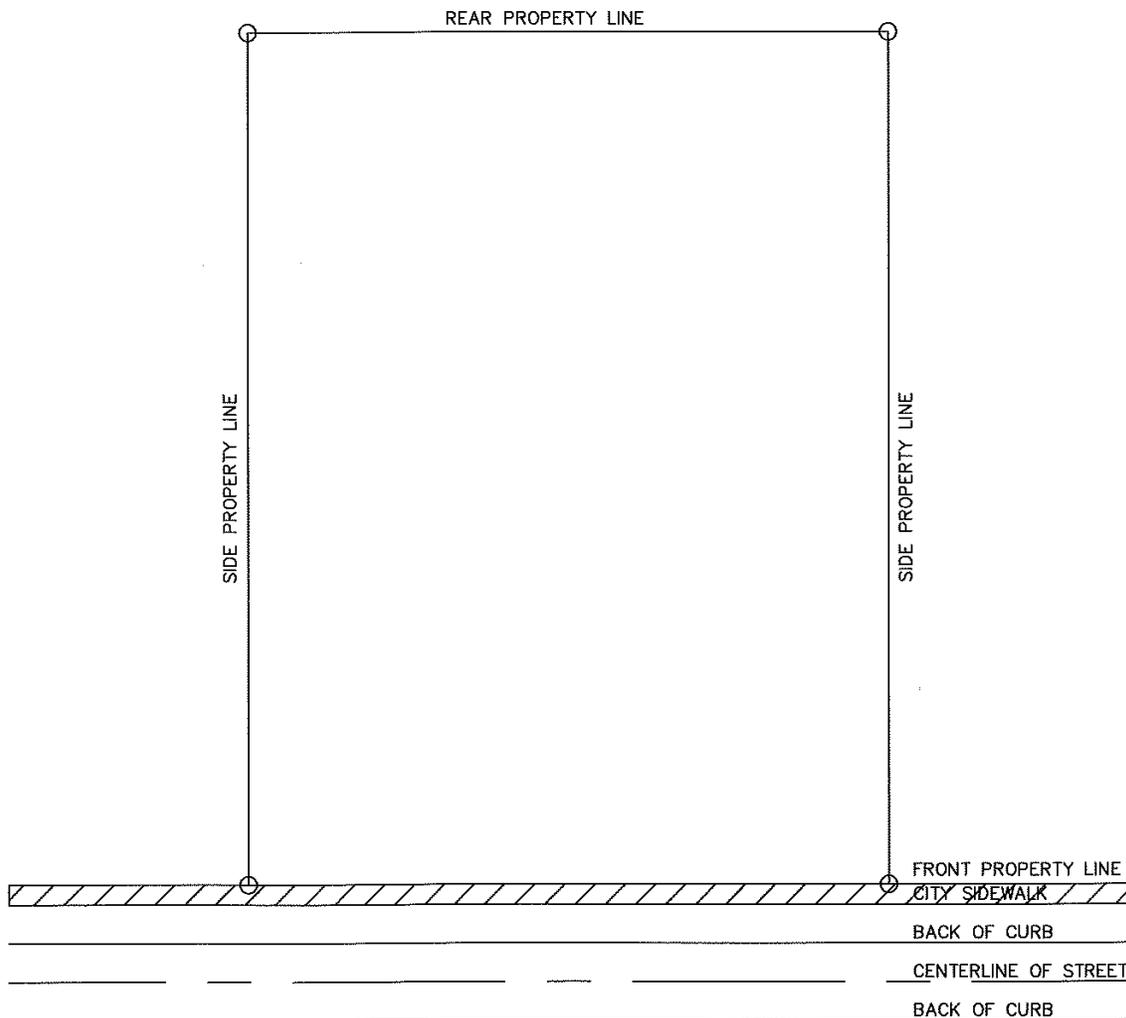
DESCRIPTION: _____
LOT BLOCK ADDITION

SITE AREA: _____ SQ. FT. AREA OF SITE OCCUPIED BY BUILDING: _____ SQ. FT.

INSTRUCTIONS TO APPLICANT: _____ COVERAGE PERCENTAGE: _____%

FOR NEW BUILDINGS AND BUILDING ADDITIONS THE FOLLOWING INFORMATION MUST BE PROVIDED IN THE SPACE BELOW:

- 1) Location of proposed construction and existing improvements.
- 2) Show buildings (square footage) and setback distances of existing buildings and new structures.
 - a) How far the new building will be away from the front property line.
 - b) How far the new building will be away from the side property line.
 - c) How far the new building will be away from the rear property line.
 - d) How far the new building will be away from existing structures.
- 3) Show easements.
- 4) Indicate whether property is a corner lot.
- 5) Show street and avenue location.



SIGNATURE OF OWNER OR AUTHORIZED REPRESENTATIVE: _____

1350.3200 NUMBER OF TIES REQUIRED.

Number of Ties Required Per Side of Single Wide¹ Manufactured Homes².

This table is based on a minimum working load per anchor of 3,150 pounds with a 50 percent overload (4,725 pounds total).

1	2	3	4	5
			Alternate Method ⁴	
Length of Manufactured Home ³ (Feet)	No. of Vertical Ties	No. of Diagonal Ties ⁵	No. of Baling Straps	No. of Diagonal Ties ⁶
up to 40	2	3	2	3
40-46	2	3	2	3
46-49	2	3	2	3
49-54	2	3	2	3
54-58	2	4	2	4
58-64	2	4	2	4
64-70	2	4	2	5
70-73	2	4	2	5
73-84	2	5	2	5

¹Double-wide manufactured homes require only the diagonal ties specified in column 3, and these shall be placed along the outer side walls.

²Except when the anchoring system is designed and approved by a registered professional engineer.

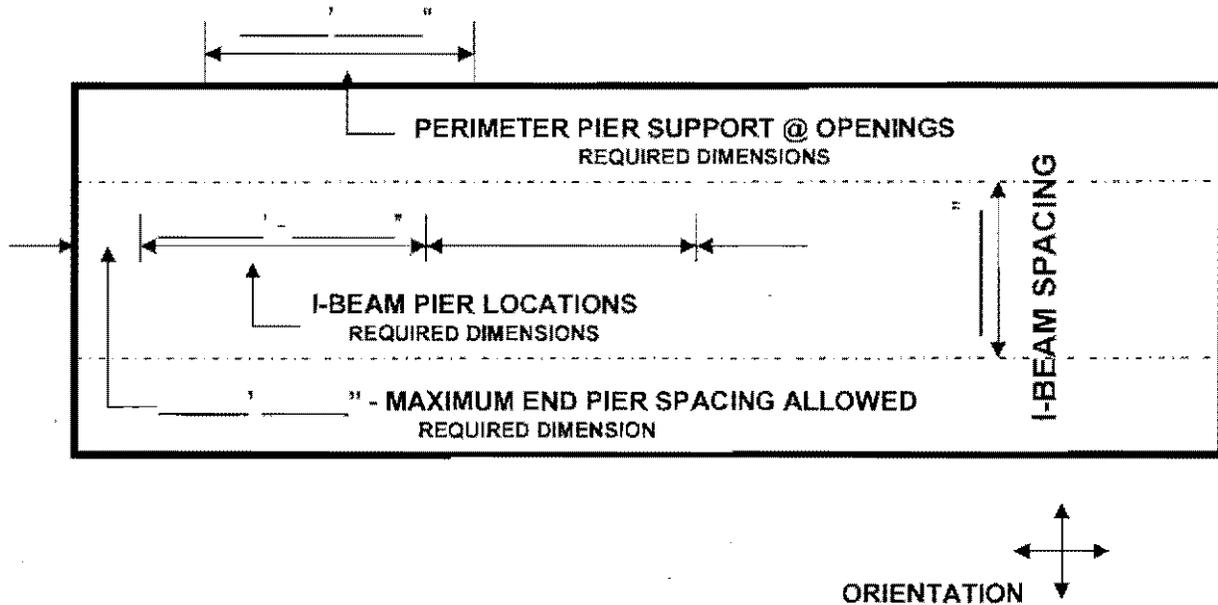
³Length of manufactured home (as used in this table) means length excluding draw bar.

⁴Alternate method. When this method is used, an approved reinforcement means shall be provided. If baling is used to accomplish this reinforcement, part 1350.2600, subpart 2, item F, applies.

⁵Diagonal ties in this method shall deviate at least 40 degrees from vertical.

⁶Diagonal ties in this method shall be 45 degrees + 5 degrees from vertical and shall be attached to the nearest main frame member.

SINGLE-WIDE SUPPORT PIER PLAN (TYPICAL)



MANUFACTURER INFORMATION

SOIL INFORMATION

Name _____ Classification No. _____

Home Size _____ Soil Bearing Capacity _____

Maximum I-Beam Spacing _____ **FOOTING INFORMATION**

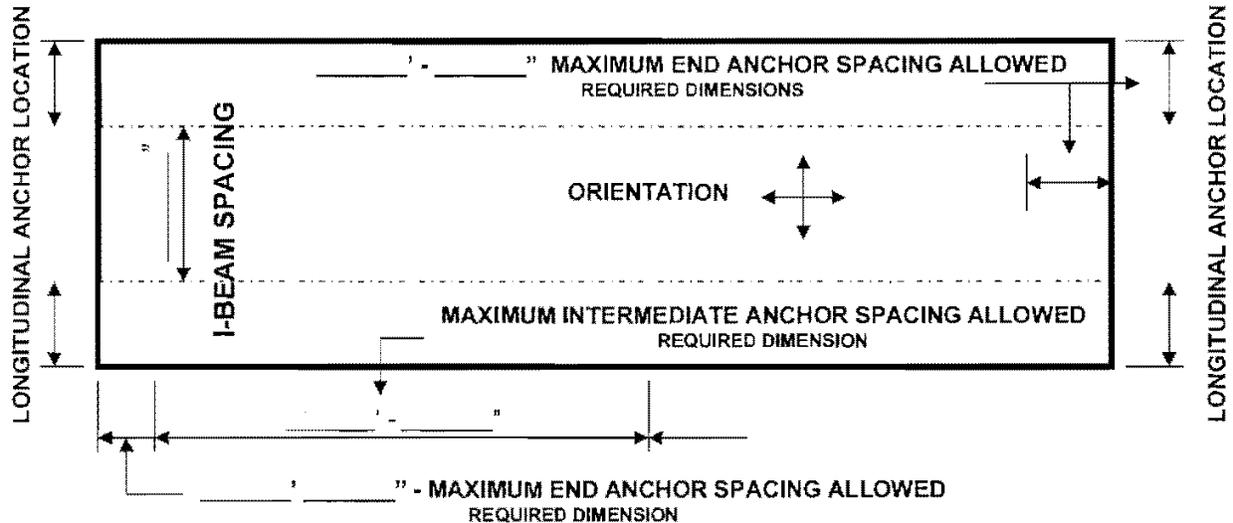
Door Openings _____ I-Beam _____ X _____ X _____

I-Beam Loading PLF _____

Maximum End Support (I-Beam) _____

Grading to Slope **AWAY** From Home _____

SINGLE-WIDE ANCHORING PLAN (TYPICAL)



MANUFACTURER INFORMATION

ANCHORING INFORMATION (con't)

Name _____ Anchor Manufacturer _____

Home Size _____ Lateral Anchors Req'd **YES or NO**

Maximum I-Beam Spacing _____ Anchor P.N. _____

Maximum Anchor Spacing _____ Connector P.N. _____

SOIL INFORMATION

Longitudinal Anchors Req'd **YES or NO**

Classification No. _____ Anchor P.N. _____

Soil Bearing Capacity _____ Connector P.N. _____

ANCHORING INFORMATION

No. Per End _____

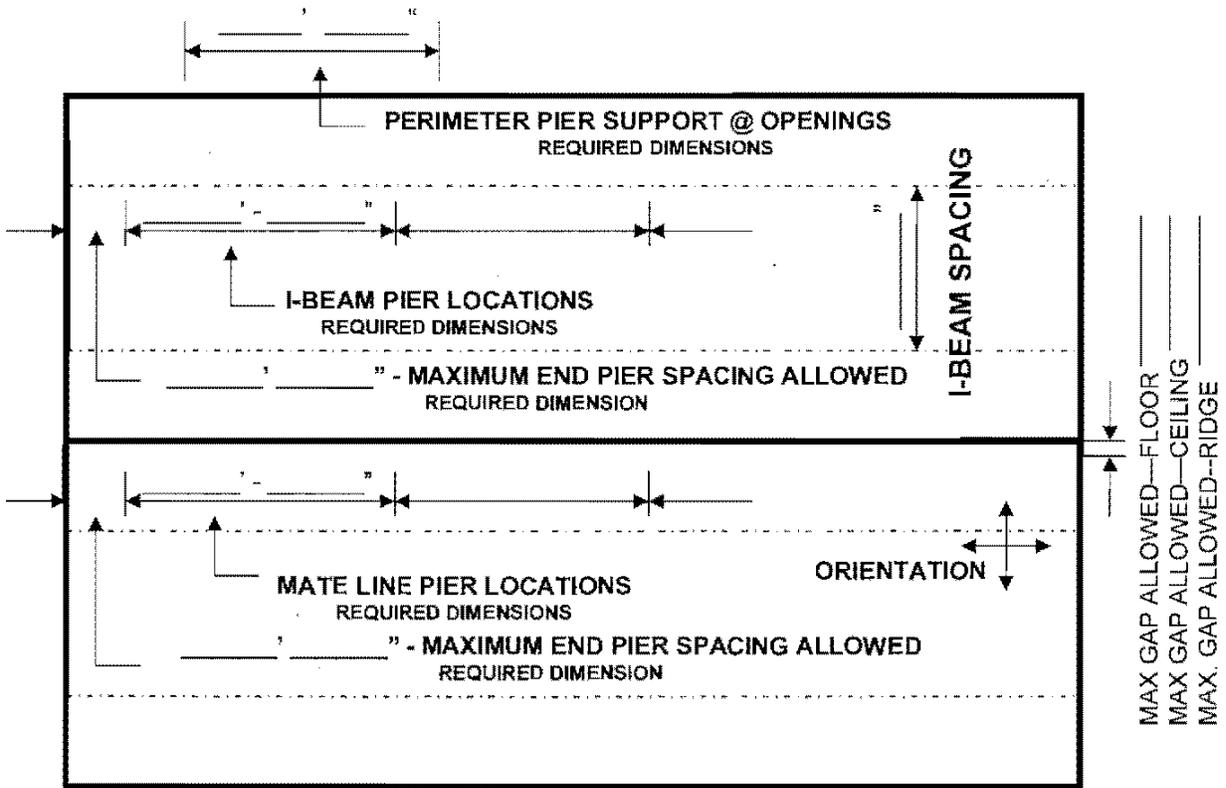
Ext. Wall Height _____

Roof Pitch _____ *P.N. = Part or Product Number

Height From Ground to _____

Frame Connection _____

DOUBLE-WIDE SUPPORT PIER PLAN (TYPICAL)



MANUFACTURER INFORMATION

SOIL INFORMATION

Name _____ Classification No. _____

Home Size _____ Soil Bearing Capacity _____

Maximum I-Beam Spacing _____ **FOOTING INFORMATION**

Door Openings _____ I-Beam _____ X _____ X _____

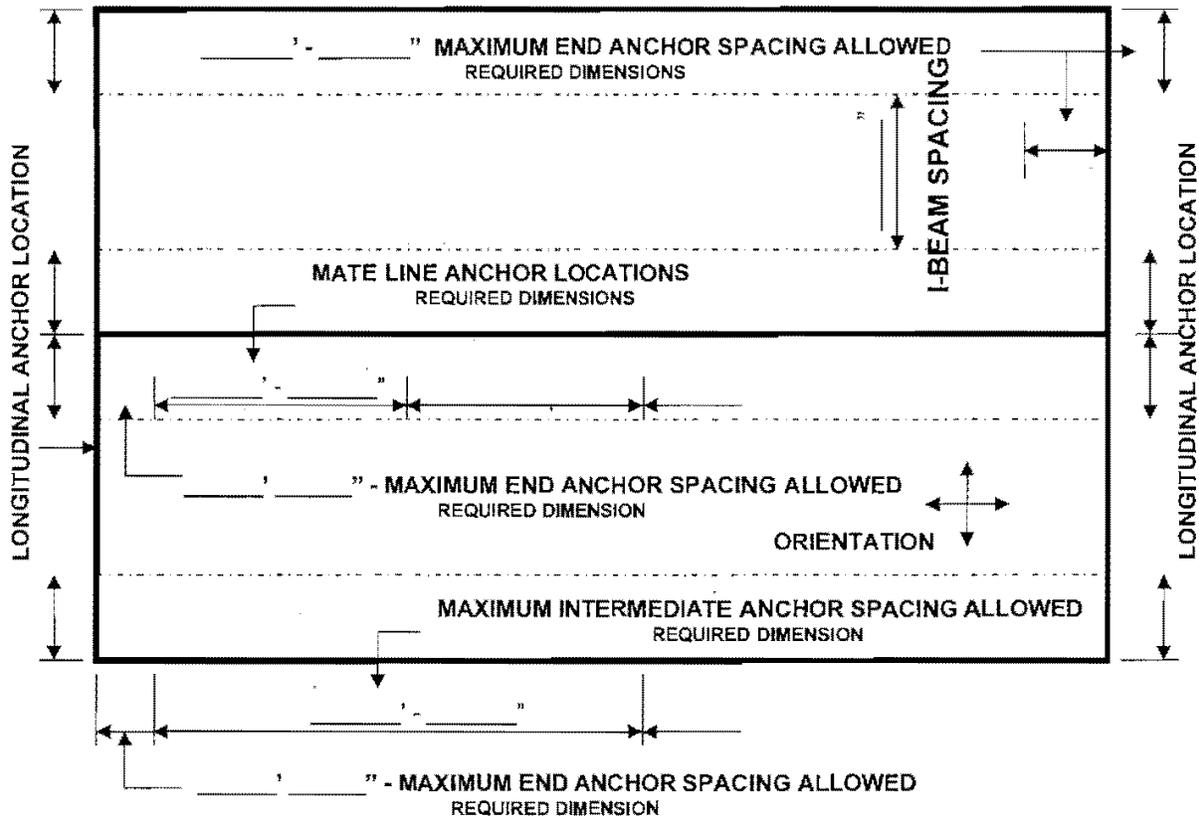
I-Beam Loading PLF _____ Mate Line _____ X _____ X _____

Maximum End Support (I-Beam) _____

Mate Line Loads _____

Grading to Slope **AWAY** From Home _____

DOUBLE-WIDE ANCHORING PLAN (TYPICAL)



MANUFACTURER INFORMATION

ANCHORING INFORMATION (con't)

Name _____ Anchor Manufacturer _____

Home Size _____ Lateral Anchors Req'd **YES or NO**

Maximum I-Beam Spacing _____ Anchor P.N. _____

Maximum Anchor Spacing _____ Connector P.N. _____

SOIL INFORMATION

Longitudinal Anchors Req'd YES or NO

Classification No. _____ Anchor P.N. _____

Soil Bearing Capacity _____ Connector P.N. _____

ANCHORING INFORMATION

No. Per End _____

Ext. Wall Height _____ Mate Line

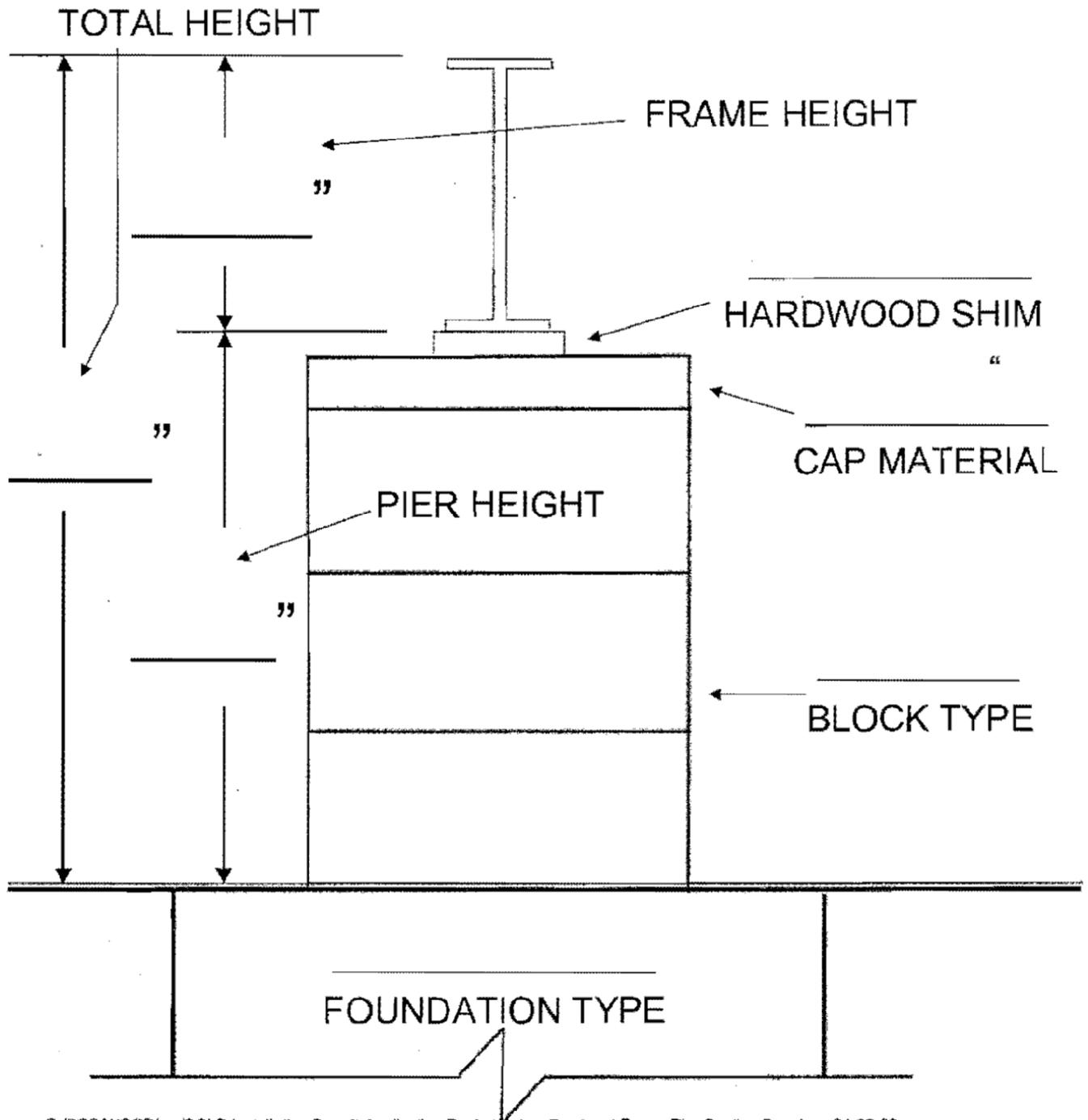
Roof Pitch _____ Lateral Anchors Req'd **YES or NO**

Height From Ground to _____ Anchor P.N. _____

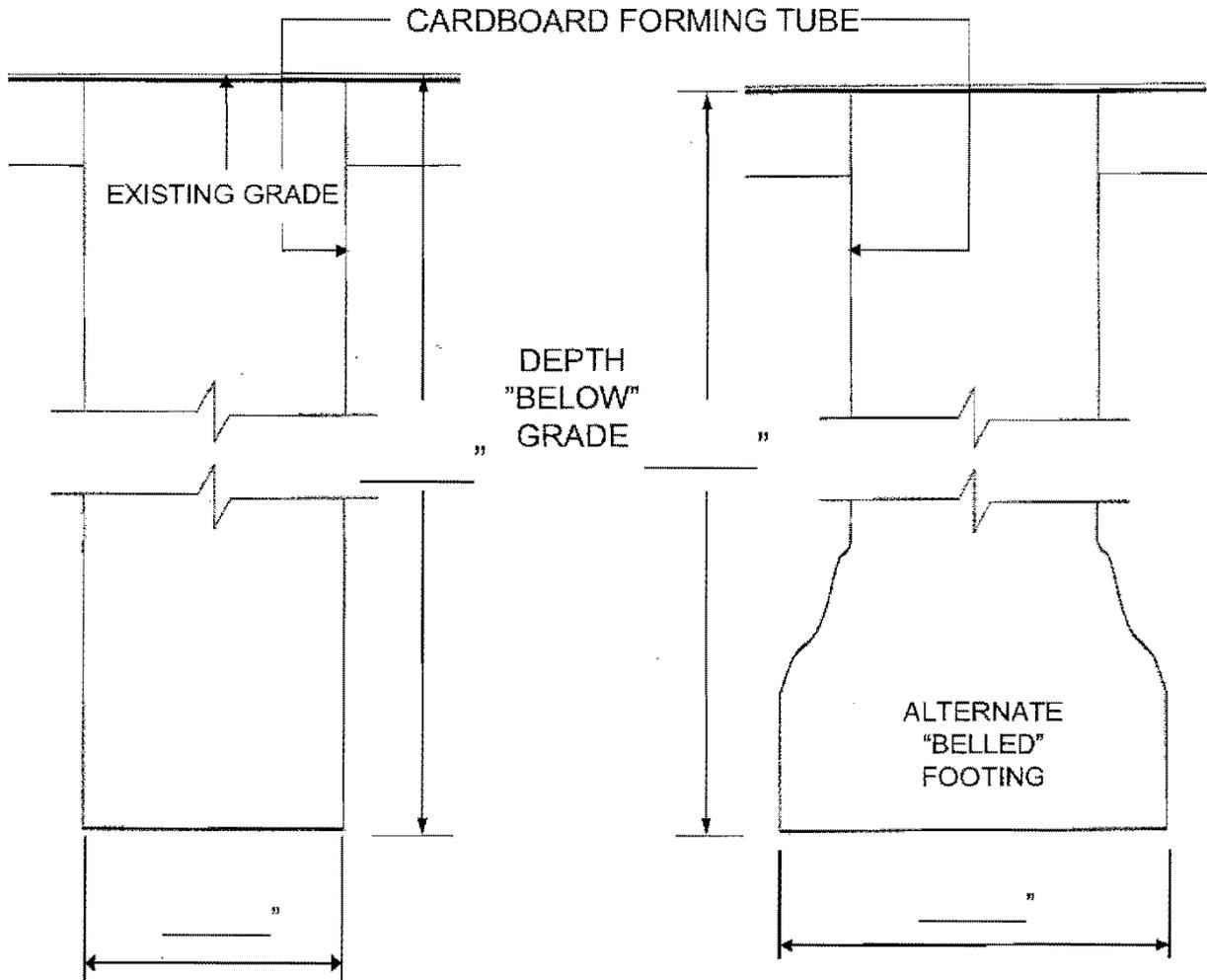
Frame Connection _____ Connector P.N. _____

*P.N. = Part or Product Number

FRAME PIER SECTION VIEW



FROST DEPTH PIER SECTION VIEW



Soil Classification _____

Soil Bearing Capacity _____ PSF

Footing Area _____ sq. in.

Soils Total Load Capacity _____

PSI Concrete _____