PERMIT NO. 06-0297

MULTI - WIDE SETUP MANUAL

CUST.: Elliott

ANY Questions Please Call:

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Homes of Merit

APPROVED
MAY 5 2006
General Mobile Home Construction And Safety Standards
APPROVED

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SU-M-1

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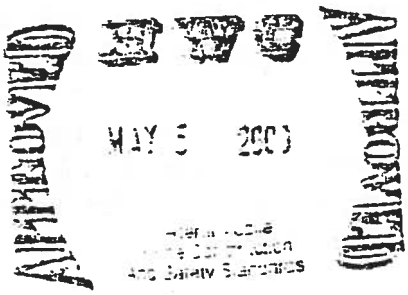


"ATTENTION"

The instructions in this manual are designed to aid experienced setup personnel with the installation procedures of homes constructed by Homes of Merit, Inc. It is not intended for the use of instructing inexperienced and/or unqualified personnel. Many states require licensing of setup personnel. Check with your local governmental agencies for requirements in your area. **Prior to the beginning any setup procedures, check the addendum pages for any changes that may have occurred to this manual.*

Special Note for homes installed in the State of Florida

Federal law requires the home producer to provide a method of installing the home. One such method is outlined in the set-up manual provided with your home. Florida State law requires the home to comply with The Department of Highway Safety and Motor Vehicles Rule 15C. This state rule mandates that all homes located within the state of Florida comply with the requirements of this document. Anytime the 15C document exceeds the requirements of this manual, the 15C guidelines are to be followed in order to comply with State of Florida Laws.

The published set-up instructions outline one method of installing a home. Any changes to the set-up instructions must be evaluated by qualified individuals.

Agencies should be familiar with the requirement of the state law and can advise you on any of the state required changes to the published set-up instructions or if any licensing requirements exist in your area.

ATTACHMENTS TO THE HOME:

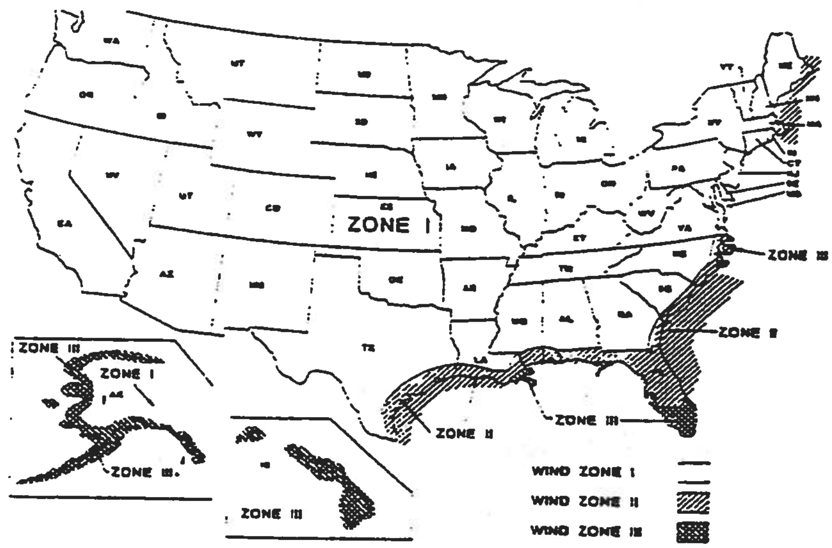
Prior to the installation of any attachments to the home such as decks, carports, additions, etc., check the levelness of the floor and correct (if necessary.) All attachments must be freestanding, and in no way apply any load to the walls, roof systems, or foundation system.

**All floor leveling conditions and/or problems arising from, or associated with, the addition or the installation procedure(s) will be the responsibility of the Homeowner.*

ZONE MAPS:

The following three Wind Zone Maps outline the different requirements for structural roof design, heating and cooling, and structural wind design. Determine the location of the home on each of the maps and compare the areas with what is shown on the Data Plate.

**The zone for which the home was designed will affect the installation requirements.*



WIND ZONE DESIGN MAP

WIND ZONE I: All areas of the United States and its Territories that are not identified on the above map as being located in either Wind Zone II or Wind Zone III.

WIND ZONE II: The following areas are deemed to be within WIND ZONE II (100 mph) of the above Basic Wind Zone Map:

FLORIDA:
all counties except:
Broward Lee
Charlotte Martin
Collier Manatee
Dade Monroe
Franklin Palm Beach
Gulf Pinellas
Hendry Sarasota

MAINE:
Hancock
Washington

TEXAS:
Aransas Kleberg
Brazoria Matagorda
Calhoun Nueces
Cameron Orange
Chambers Refugio
Galveston San Patricio
Jefferson Willacy
Kenedy

ALABAMA:
Baldwin
Mobile

GEORGIA:
Bryan
Camden
Chatham
Glynn
Liberty
McIntosh

VIRGINIA:
The cities of:
Chesapeake
Norfolk
Portsmouth
Princess Anne
Virginia Beach

MASSACHUSETTS:
Barnstable
Bristol
Dukes
Nantucket
Plymouth

MISSISSIPPI:
George
Hancock
Harrison
Jackson
Pearl River
Stone

NORTH CAROLINA:
Beaufort Pender
Brunswick Perquimans
Camden Tyrell
Chowan Washington
Columbus
Craven
Currituck
Jones
New Hanover
Onslow
Pamlico
Pasquotank

SOUTH CAROLINA:
Beaufort Georgetown
Berkeley Horry
Charleston Jasper
Colleton Williamsburg
Dorchester

LOUISIANA:
Acadia Livingston
Allen Pointe Coupee
Ascension St.Helena
Assumption St.James
Calcasieu St. John the Baptist
Cameron St.Landry
Davis St.Martin
East Baton Rouge
West Baton Rouge
East Feliciana West Feliciana
Evangeline St.Tammany
Iberia Tangipahoa
Iberville Vermillion
Jefferson Washington
LaFayette

WIND ZONE III: The following areas are deemed to be within WIND ZONE III (110 mph) of the above Basic Wind Zone Map:

FLORIDA:
Broward Lee
Charlotte Martin
Collier Manatee
Dade Monroe
Franklin Palm Beach
Gulf Pinellas
Hendry Sarasota

HAWAII:
The entire State

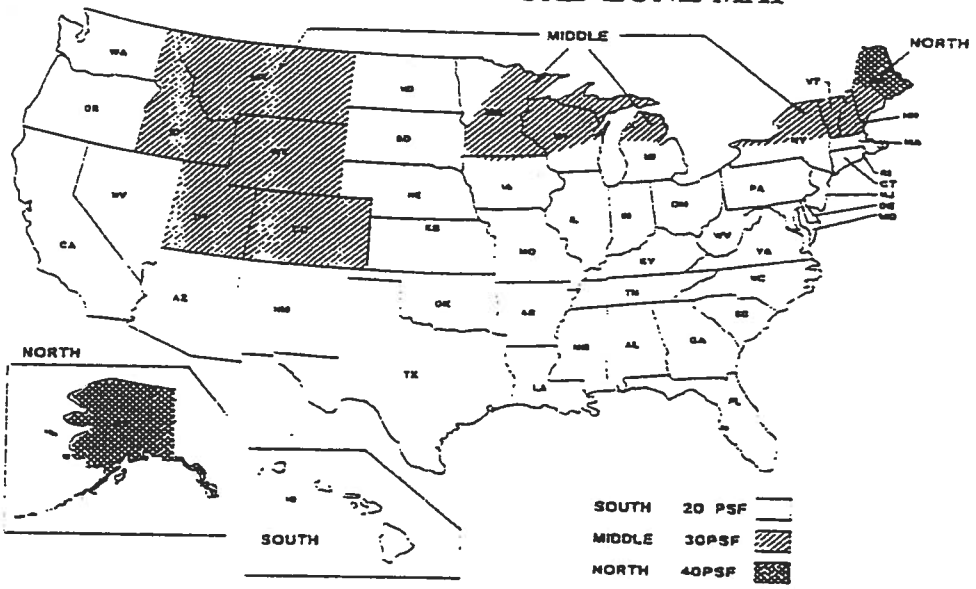
LOUISIANA:
Jefferson St Bernard
LaFourche St.Charles
Orleans St.Mary
Plaquemines Terrebonne

NORTH CAROLINA:
Carteret
Dare
Hyde

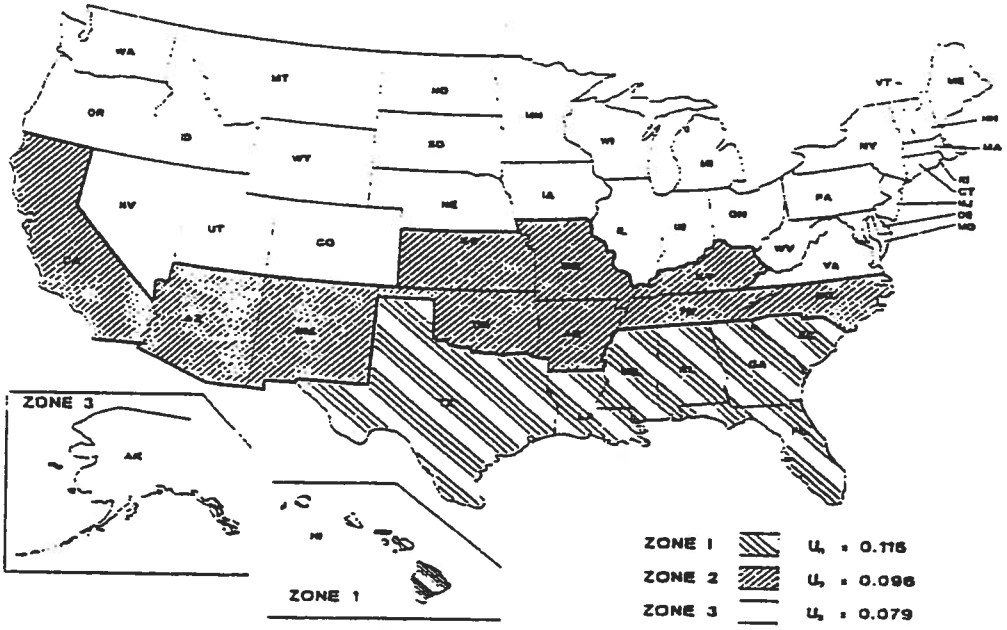
ALASKA:
The coastal regions of ALASKA as determined
by the 90 mph isotach of the ANSI/ASCE 7-88 map.

U.S. TERRITORIES:
American Samoa Puerto Rico
Guam U.S. Virgin Islands
Northern Mariana Islands
Trust Territory of the Pacific Islands

DESIGN ROOF LOAD ZONE MAP



HEATING & COOLING DESIGN ZONE MAP



SITE PREPARATION
Prior to the arrival of the home, the following items must be considered.

THERMAL DESIGN INFORMATION:
The Thermal Zone Map on page 4 divides the United States into three climatic zones. The home has been built for one or more of these zones. To determine the climatic zone for which the home was designed, refer to the Data Plate (typically located in the closet of the Master bedroom.)

If the home was built for one particular zone, do not ship the home to a location outside of the designated geographic area.

LOT DRAINAGE:
Clean the area under the home. It should be free of any vegetation or organic material. The grading needs to be done so water will drain *away* from the home and will not pool or collect.

Any water that flows under the home could result in erosion under the pad blocks and destroy the integrity of the pier system.

If the home is to be installed in an area where the ground tends to stay moist, cover the area under the home with a 4mil polyethyl sheet (or equivalent material.)

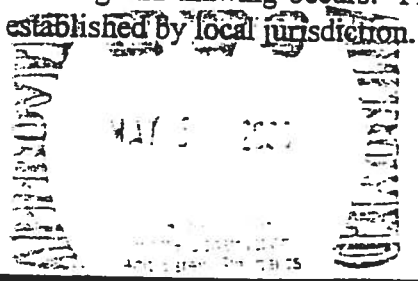
SOIL BEARING CAPACITY:
The I-Beam Blocking Tables on pages 8 and 9 reflects various Soil Bearing Capacities. If the actual Soil Bearing Capacity of the site is unknown, contact your Local Code Agency for recommended soil bearing capacity.

Failure to comply with the correct soil bearing conditions could result in excessive settling of the home. *Contact your local Code Official to confirm the allowable soil bearing pressures in your area.

VENTILATION UNDER HOME:
The area under the home must be properly ventilated to avoid the accumulation of moisture. It is recommended that a minimum of one square foot of clear ventilation space be provided for each 150 square foot of floor space. The required ventilation space should be evenly spaced along the skirting. Provide an access panel, in the event it becomes necessary to gain entry under the home. The access door should be a minimum of 4 square feet with the smaller dimension of no less than 18". Check with local building officials for any other special requirements.

PIER AND FOOTING MATERIAL:
The piers are to be constructed of 8" x 8" x 16"open or closed cell blocks with a solid concrete pad acting as the footing. The thickness of the footings may vary with local requirements. It is required that the thickness of the footing be no thinner than 1/4 of the maximum dimension of the footing and no less than 4" (unless otherwise noted.) In no case should the length to width ratio of the footer exceed 2-1. All footings shall have concrete with a minimum compression strength (fc') of 2500 PSI. All piers must be centered on the footings with the long dimension of the pier parallel with the long dimension of the footing. ***See pages 10 and 11 for pier details.***

The area under the piers or footings must be free of any questionable soil or organic soil. Footing must be installed below frost line in areas where freezing and thawing occurs. Frost line depth established by local jurisdiction.



SU-M-7

SITE PREPARATION

Prior to the arrival of the home, the following items must be considered.

THERMAL DESIGN INFORMATION:

The Thermal Zone Map on page 4 divides the United States into three climatic zones. The home has been built for one or more of these zones. To determine the climatic zone for which the home was designed, refer to the Data Plate (typically located in the closet of the Master bedroom.)

If the home was built for one particular zone, do not ship the home to a location outside of the designated geographic area.

LOT DRAINAGE:

Clean the area under each pier (footing). It should be free of any vegetation or organic material. The grading needs to be done so water will drain ***away*** from the home and will not pool or collect.

Any water that flows under the home could result in erosion under the pad blocks and destroy the integrity of the pier system.

If the home is to be installed in an area where the ground tends to stay moist, the entire area under the home should be free of any vegetation or organic material. Cover the area under the home with a 4mil polyethyl sheet (or equivalent material.)

SOIL BEARING CAPACITY:

The I-Beam Blocking Tables on pages 8 and 9 reflects various Soil Bearing Capacities. If the actual Soil Bearing Capacity of the site is unknown, contact your Local Code Agency for recommended soil bearing capacity.

Failure to comply with the correct soil bearing conditions could result in excessive settling of the home. *Contact your local Code Official to confirm the allowable soil bearing pressures in your area.

VENTILATION UNDER HOME:

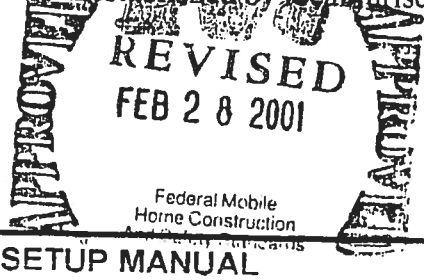
The area under the home must be properly ventilated to avoid the accumulation of moisture. It is recommended that a minimum of one square foot of clear ventilation space be provided for each 150 square foot of floor space. The required ventilation space should be evenly spaced along the skirting. Provide an access panel, in the event it becomes necessary to gain entry under the home. The access door should be a minimum of 4 square feet with the smaller dimension of no less than 18". Check with local building officials for any other special requirements.

PIER AND FOOTING MATERIAL:

The piers are to be constructed of 8" x 8" x 16"open or closed cell blocks with a solid concrete pad acting as the footing. The thickness of the footings may vary with local requirements. It is required that the thickness of the footing be no thinner than 1/4 of the maximum dimension of the footing and no less than 4" (unless otherwise noted.) In no case should the length to width ratio of the footer exceed 2-1. All footings shall have concrete with a minimum compression strength (fc') of 2500 PSI. All piers must be centered on the footings with the long dimension of the pier parallel with the long dimension of the footing.

See pages 10 and 11 for pier details.

The area under the piers or footings must be free of any questionable soil or organic soil. Footing must be installed below frost line in areas where freezing and thawing occurs. Frost line depth established by local jurisdiction.



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PIER SPACING:

The Roof Load Maps on page 4 show three different Roof Load Zones. **The home has been designed for the South Zone only. The placement of the home in any other area is not permitted.*

Less-stable soils require larger pad sizes to maintain stability.

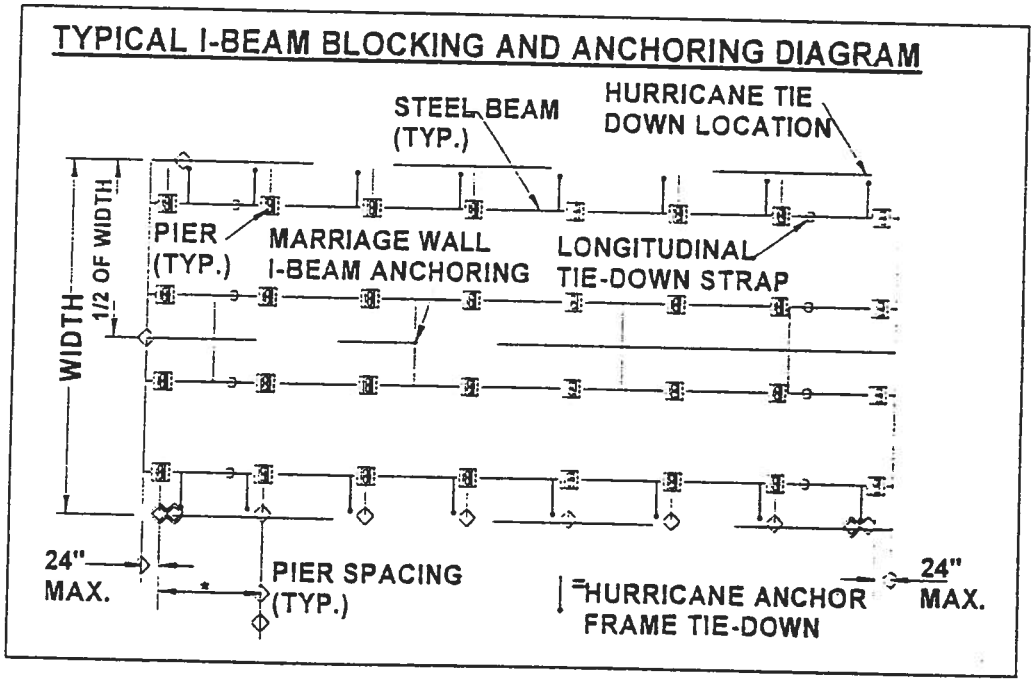
To determine the spacing the piers are to be set at, see tables on pages 8 and 9. The tables are based on given Soil Bearing Capacities.

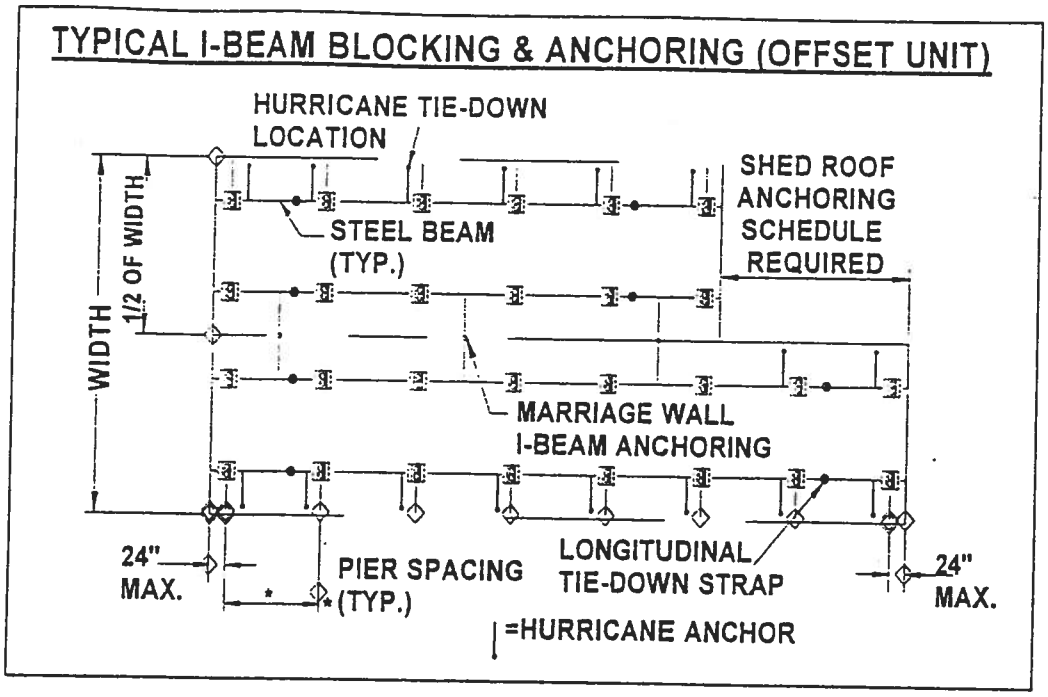
Once the maximum pier spacing is determined, place the piers along the length of the home starting a maximum of 24 inches from the front or rear and ending a maximum of 24 inches from the opposite end. The blocks are to be spaced along the two main I-Beam rails that run the length of the home. Perimeter blocks are required under sidewall rim joists at each end of recessed entries, floor projections, and fireplaces. Other areas prone to high local floor loads such as freezers, closets, washers, dryers, waterbeds, etc. will, also, need such blocking.

TYPICAL I-BEAM BLOCKING:

The diagram below shows a typical I-Beam Blocking and Anchoring plan for a doublewide home.

****It is to be used only as a reference for general location. *All blocking dimensions are to be determined from the Pier Spacing Tables on pages 8 and 9.***

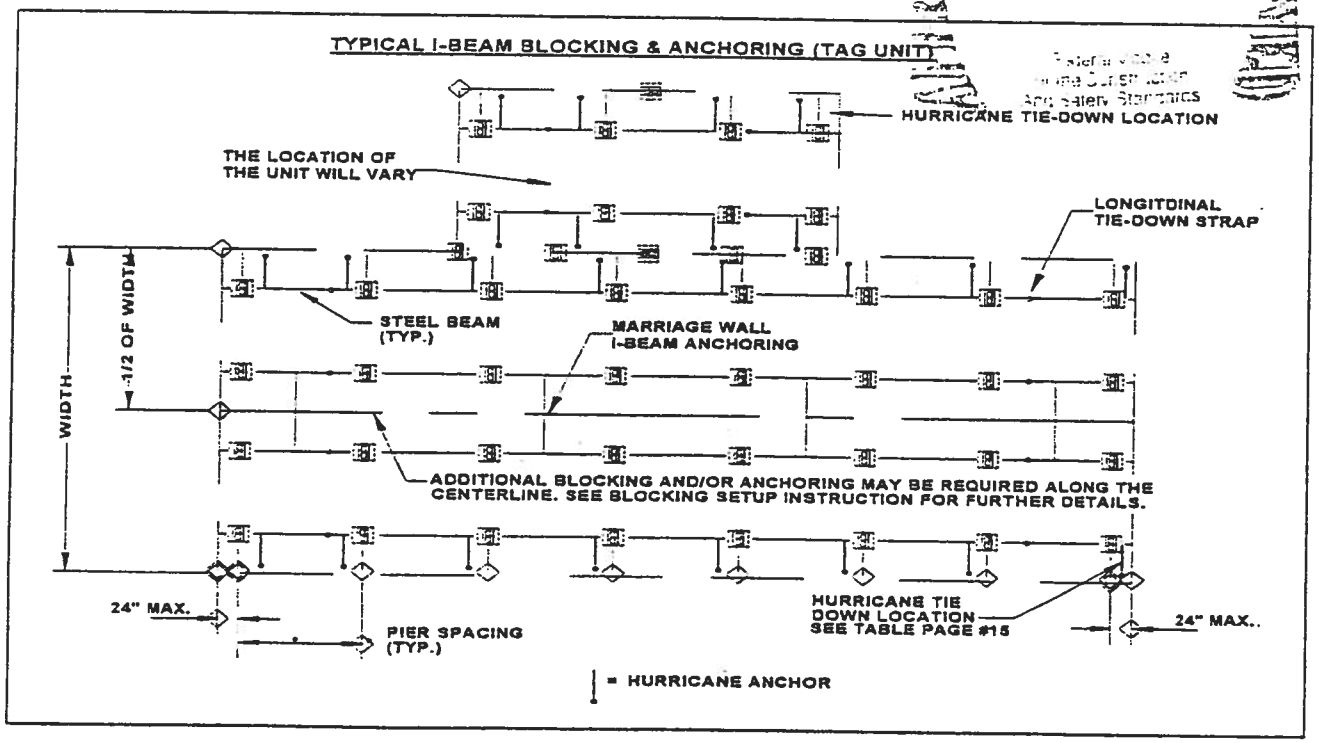




TAG UNIT HOMES:

Tag unit homes are set in the same manner as doublewide homes. Once the two larger units are set and leveled, the tag unit may be attached. The tag unit is to be attached to the floor and roof ; per details on page 33.

Blocking along the marriage line of the tag unit is done in the same as the marriage wall blocking in doublewide homes. See the diagram below for typical blocking of tag unit homes.



MAIN I-BEAM BLOCKING

ZONE SOUTH

MAX. 140" FLOOR WITH MAX. 12" O.H.
(MINIMUM FOOTING AREA IN SQUARE INCHES)

ALLOWABLE SOIL BEARING PRESSURE IN PSF / PIER SPACING	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
1000	399	487	575	663	750	838	926
1500	257	313	370	426	483	539	595
2000	190	231	273	314	355	397	438
2500	150	183	216	248	282	315	347
3000	125	152	178	206	233	260	288

WILLIAM J. KALKER, JR
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STATE OF FLORIDA
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Bartow Air Base
Bartow, Florida 33831

Revisions

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: ANC 140" FL I-BEAM BLOCKING
Date: 09/29/99 | Appv'd: | Print #: ANC - 38 | Det: 1915

MAIN I-BEAM BLOCKING

ZONE SOUTH

MAX. 160" FLOOR WITH MAX. 12" O.H.
(MINIMUM FOOTING AREA IN SQUARE INCHES)

ALLOWABLE SOIL BEARING PRESSURE IN PSF / PIER SPACING	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
1000	443	541	639	738	836	935	1034
1500	284	348	411	474	538	602	665
2000	210	256	304	350	396	444	490
2500	166	204	240	277	314	351	388
3000	138	168	199	229	260	290	321

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Home Construction and Safety Standards

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PROFESSIONAL
11/19/99

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Bartow Air Base
Bartow, Florida 33831

Revisions

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: ANC 160" FL I-BEAM BLOCKING
Date: 09/29/99 | Appv'd: | Print #: ANC - 39 | Det: 1915

REF. CALC #: 223 DEC 28 1999

MAIN I-BEAM BLOCKING

MAX. 184" FLOOR WITH MAX. 12" O.H.
(MINIMUM FOOTING AREA IN SQUARE INCHES)

ZONE SOUTH

ALLOWABLE SOIL BEARING PRESSURE IN PSF	PIER SPACING 4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
1000	494	605	716	827	939	1050	1162
1500	318	389	460	532	604	675	747
2000	234	287	339	392	445	497	550
2500	186	228	269	311	353	394	436
3000	154	188	223	257	292	326	361

WILLIAM J. KALKER, JR. CERTIFICATE No 00338[illegible] STATE OF FLORIDA PROFESSIONAL ENGINEER

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Revisions

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: ANC 184" =L I-BEAM BLOCKING

Date: 09/29/99 | Appv'd: | Print #: ANC-40 | Det: 1917

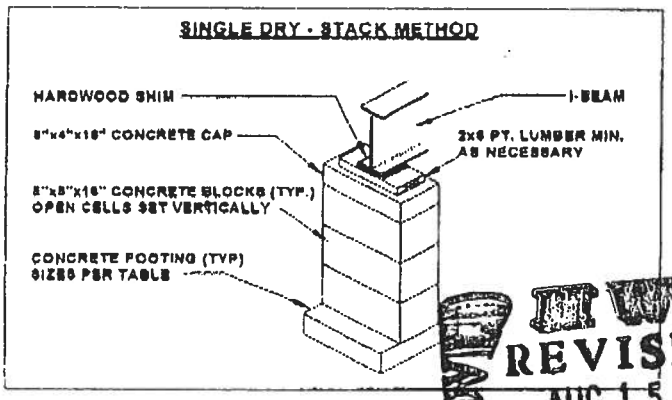
REF. CALC # 1 DEC 23 1999

MAY 5 2001

"ATTENTION"
The tables, charts, and other details in this manual must be used and followed to ensure proper installation of the home.

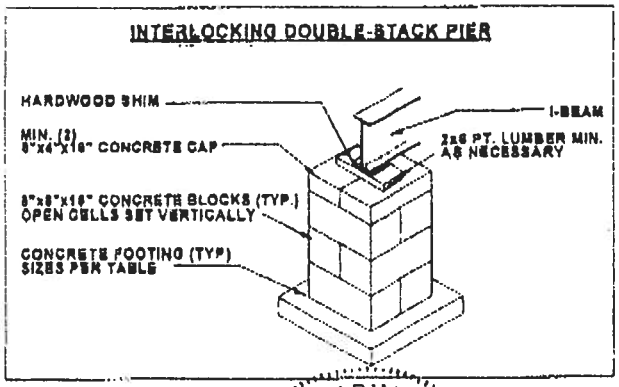
PIER HEIGHT OF 36 INCHES OR LESS:

A single stack of 8" x 8" x 16" open or closed cell concrete block must be used in a dry stack form so as not to exceed a maximum height of 36" from grade.



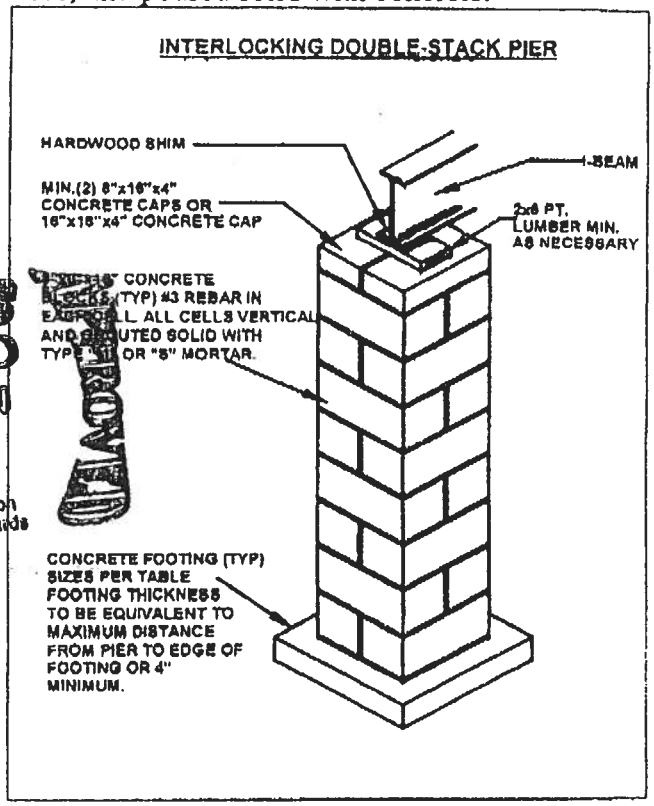
PIER HEIGHT OF 60 INCHES MAXIMUM:

In areas requiring a pier height greater than 36" and max. 60" from finish grade use a double stack of 8" x 8" x 16" open or closed cell concrete block.



PIER HEIGHT OVER 60 INCHES AND MAXIMUM 80 INCHES:

In areas requiring a pier height greater than 60" and max. 80" from finish grade use a double stack of 8" x 8" x 16" open cell concrete block set with mortar, reinforced with steel reinforcing bar, and poured solid with concrete.



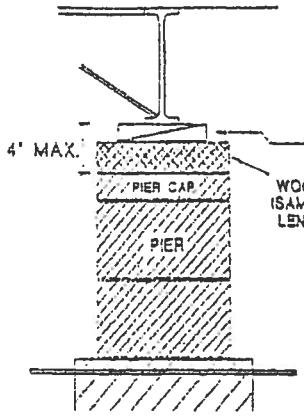
SPECIAL BLOCKING AND LEVELING EXTERIOR WALLS: The home will have special blocking requirements at all recess entries, exterior door openings, walk-in bay windows, bed bays, etc. All such blocking requires leveling and adjustment, and is considered part of the normal setup procedure. See the following diagrams for the locations and blocking requirements. See table on page 11 for required footing at sidewall openings. ***Any opening in sidewall greater than 48" requires perimeter blocking.***

SU-M-12.1

HOMES OF MERIT

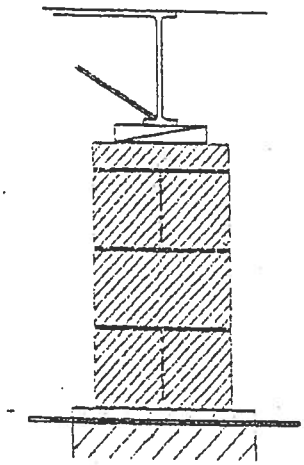
TYPICAL FOOTING AND PIER INSTALLATION

PIER 1



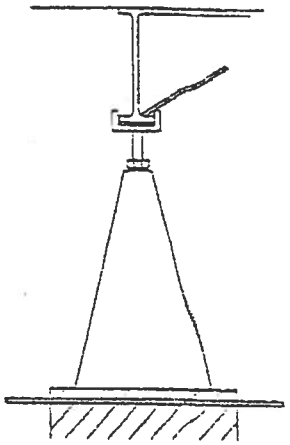
SINGLE BLOCKS
MAX. HEIGHT IS 36 INCHES.
(MAX. LOAD 8,000 LBS)

PIER 2



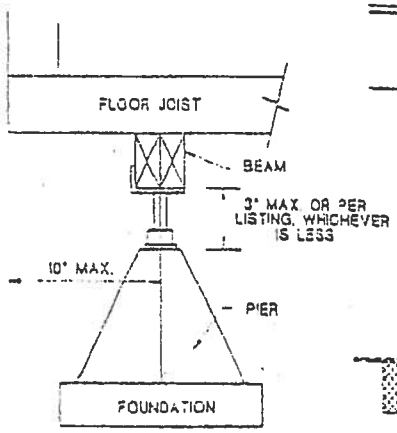
DOUBLE INTERLOCKED BLOCKS
MAX. HEIGHT IS 80 INCHES.
(MAX. LOAD 16,000 LBS)

PIER 3

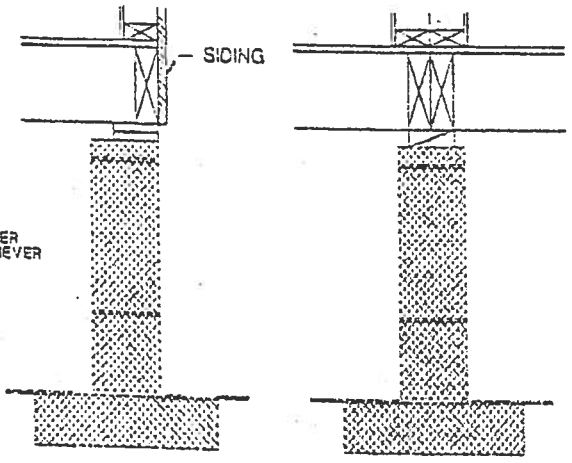


STEEL OR CONCRETE MANUFACTURED PIER.
MAX. HEIGHT IS 16 INCHES
MIN. BASE IS 12 INCHES
(MAX. LOAD LISTED BY MANUFACTURER)

PIER 4



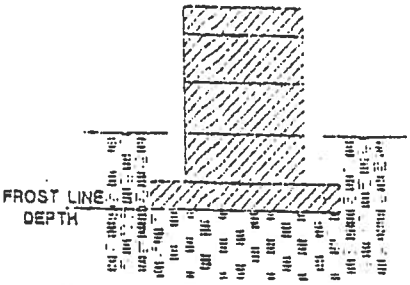
PIER 5



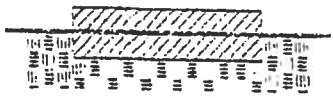
PERIMETER

CENTERLINE

FOOTING FOR FROST AREAS



FOOTING ABOVE GROUND



STEEL OR CONCRETE MANUFACTURED PIERS.

1. A BEAM OF (2) SPF #3 2X8X24' IS TO BE PLACED ON THE ADJUSTING SCREW AND SHALL BARE ON (2) FLOOR JOISTS.
2. PIERS ARE TO BE LOCATED NOT MORE THAN 48' ON CENTER AND 10' FROM THE EDGE OF THE FLOOR.
3. FOOTING SHALL BE SIZED FOR A PIER CAPACITY OF 2500 POUNDS.

SELECT MANUFACTURED PIER HEIGHTS SO THAT THEIR ADJUSTABLE RISERS DO NOT EXTEND MORE THAN 3 INCHES WHEN AT THEIR MAXIMUM HEIGHT.

ALL CONCRETE BLOCKS SHALL BE ASTM C.90,GRADE N MIN.

APPROVED

APR 2 9 2003

Federal Mobile Home Construction And Safety Standards

APPROVED

DAVID R. KELLER
REGISTERED
8803593
STATE OF
INDIANA
PROFESSIONAL ENGINEER

Professional Engineer's Seal

9911

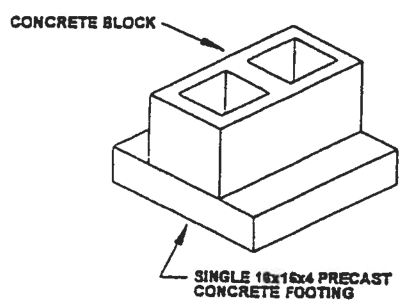
SU-M-12A

NOTE

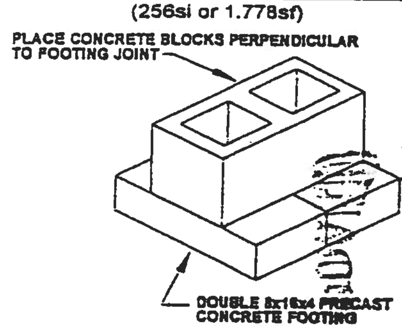
Two 4"x8"x16" solid pre-cast footings may be used as an equal replacement for a single 16"x16"x4" pre-cast footing. All other requirements of the installation remain in effect. This detail pertains only to the use of Two 4"x8"x16" solid pre-cast footings in lieu of a single 16"x16"x4" pre-cast footing.

ABS pads may be used to replace Pre-cast Concrete Footings provided they are listed for use with Manufactured Homes and meet all design load requirements as specified in this manual and must comply with any local or state approval requirements.

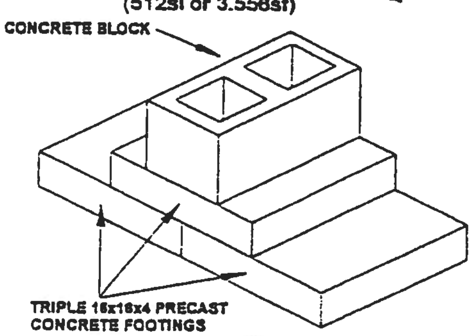
SINGLE 16x16x4 FOOTING
(256si or 1.778sf)



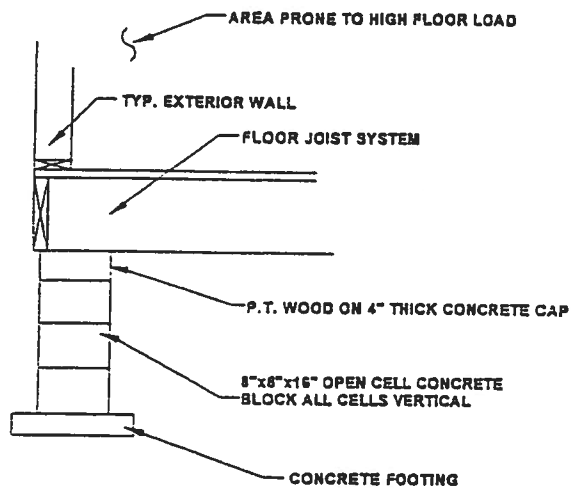
DOUBLE 8x16x4 FOOTING
(256si or 1.778sf)



TRIPLE 16x16x4 FOOTING
(512si or 3.556sf)

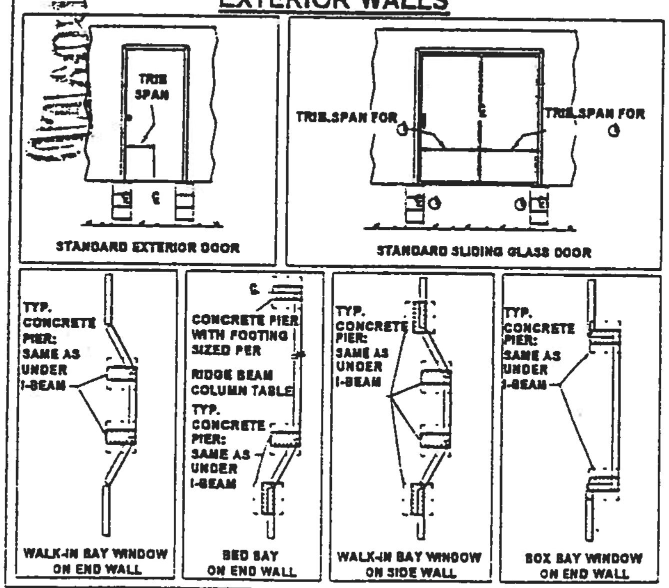


TYPICAL BLOCKING DETAIL IN AREA OF HIGHER FLOOR LOAD



MAY 5 2003

SPECIAL BLOCKING AND LEVELING EXTERIOR WALLS



J. A. CARNICELLI NO. 19727

COLUMN BLOCKING:

All openings along the center line of the home four foot (4'-0") or greater will be required to be supported at the floor. The table below will provide the numerous footing sizes required for the various floor widths and soil bearing conditions. Spans of 4'-0" or less will not require ground anchors. However, spans greater than 4'-0" must be anchored.

ZONE SOUTH

MARRIAGE WALL/COLUMN BLOCKING 140" FLOOR

REQUIRED FOOTING AREA IN SQUARE INCHES **

ALLOWABLE SOIL BEARING PRESSURE IN PSF	TRIB. SPAN *	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'
	1000	160	216	273	328	384	440	496	553	608	664	720	776	832	888
	1500	103	140	175	212	247	283	319	355	392	427	463	499	535	572
	2000	76	103	129	156	183	209	235	262	288	315	342	368	394	421
	2500	61	82	103	123	144	165	186	208	229	249	270	291	312	334
	3000	50	68	85	102	119	137	155	172	189	206	224	242	258	276

* TRIB SPAN: ONE HALF THE TOTAL OPEN SPAN BETWEEEN COLUMNS IN MARRIAGE WALLS.

** REQUIRED FOOTING AREA IS FOR ONE HALF OF DOUBLE WIDE ONLY. IF COLUMNS ALIGN ON BOTH HALVES, REQUIRED TRIB. SPANS MUST BE ADDED TOGETHER.

WILLIAM J. KALKER JR — CERTIFICATE No 0033841 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

Homes of Merit
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Bartow, Florida 33831

Revisions: 11/10/99

Zone I — Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: COL 140" BLOCKING FLOOR
Date: 09/29/99 | Appv'd: | Print #: ANC - 35 | Dcr: 1911

ZONE SOUTH

MARRIAGE WALL/COLUMN BLOCKING 160" FLOOR

REQUIRED FOOTING AREA IN SQUARE INCHES **

ALLOWABLE SOIL BEARING PRESSURE IN PSF	TRIB. SPAN *	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'
	1000	178	241	305	368	433	497	561	625	688	753	817	881	945	1009
	1500	114	155	196	237	278	320	361	402	443	484	525	566	608	649
	2000	84	114	145	175	205	235	266	296	327	357	387	417	448	478
	2500	66	90	114	139	163	187	211	235	259	283	307	331	355	379
	3000	55	75	95	114	135	155	174	194	214	234	254	274	293	314

* TRIB SPAN: ONE HALF THE TOTAL OPEN SPAN BETWEEEN COLUMNS IN MARRIAGE WALLS.

** REQUIRED FOOTING AREA IS FOR ONE HALF OF DOUBLE WIDE ONLY. IF COLUMNS ALIGN ON BOTH HALVES, REQUIRED TRIB. SPANS MUST BE ADDED TOGETHER.

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Revisions: 11/10/99

Zone I — Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: ANC 160 BLOCKING FLOOR
Date: 09/29/99 | Appv'd: | Print #: ANC - 36 | Dcr: 1911

REF. CALC # 236 DEC 28 1999

ZONE SOUTH

REF. CALC # 1 DEC 28 1999

MARRIAGE WALL/COLUMN BLOCKING 184" FLOOR

REQUIRED FOOTING AREA IN SQUARE INCHES **

ALLOWABLE SOIL BEARING PRESSURE IN PSF / TRIB. SPAN *	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'
1000	196	269	343	417	490	554	637	712	785	858	932	1006	1079	1153
1500	126	173	221	268	315	363	410	457	505	552	599	647	694	741
2000	93	128	163	197	232	268	303	337	372	407	442	476	511	547
2500	73	102	129	157	184	212	239	257	294	322	349	378	405	433
3000	52	84	107	130	153	175	198	221	244	266	289	313	336	358

* TRIB SPAN: ONE HALF THE TOTAL OPEN SPAN BETWEEEN COLUMNS IN MARRIAGE WALLS.

** REQUIRED FOOTING AREA IS FOR ONE HALF OF DOUBLE WIDE ONLY, IF COLUMNS ALIGN ON BOTH HALVES, REQUIRED TRIB. SPANS MUST BE ADDED TOGETHER.

WILLIAM J. KALKER, JR. CERTIFICATE No 0033841 STATE OF FLORIDA PROFESSIONAL ENGINEER 11/1/99

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P.O. Box 1606
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Bartow, Florida 33831

Revisions
11/10/99

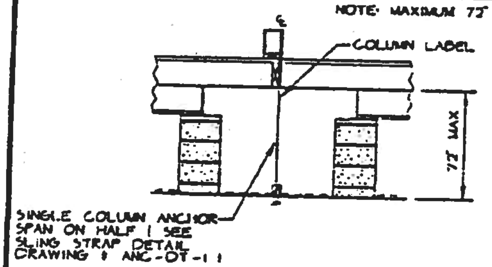
Zone I — Zone II (100 MPH) Zone III (110 MPH)

Scale: N/A | Drawn: | Description: ANC 184" BLOCKING FLOOR
Date: 09/24/99 | Appr'd: | Print #: ANC-37 | Dct: 1914

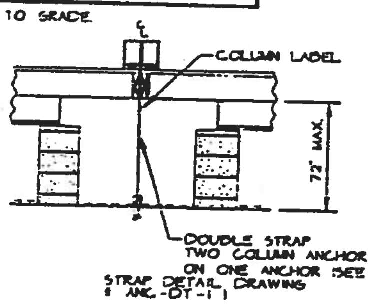
COLUMN ANCHORING REQUIREMENTS
MAXIMUM COLUMN TRIBUTARY SPAN
GROUND ANCHOR 3150# DESIGN LOAD

		ZONE	140"	160"	184"
CASE 1	SPAN ON 1/2 OF HOME	I 15 PSF	720	720	34.75
		II 100 MPH	28.42	24.87	2162
		III 110 MPH	2250	1909	17.2
CASE 2	SPAN ON BOTH HALVES OF HOME	I 15 PSF	THE SUM OF THE SPANS FOR BOTH HALFS CANNOT EXCEED THE CASE 1 SPANS NOTED ABOVE.		
		II 100 MPH			
		III 110 MPH			

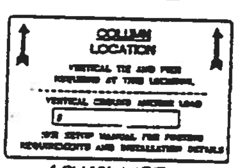
NOTE: MAXIMUM 72" FROM JOIST TO GRADE.



COLUMN LOCATED ON ONE HALF
CASE 1



COLUMN LOCATED ON BOTH HALVES AND ALINED WITH EACH OTHER
CASE 2



COLUMN LABEL

NOTE: ALL ANCHORING REQUIREMENTS BASED ON 3150# ANCHOR DESIGN LOAD CAPACITY

STATE OF FLORIDA PROFESSIONAL ENGINEER 5/11/99

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Zone I — Zone II (100 MPH) Zone III (110 MPH)

Revisions
04/27/99
05/11/99

Scale: N/A | Drawn:
Date: 09/24/97 | Appr'd:
Description: ANC COLUMN ANCHORING REQUIREMENTS
Print #: ANC-DT-5 | Dct: 1574

REF. CALC. NO. 1 APRIL 26, 1999

SOUTH ZONE — FOOTING AT SIDEWALL OPENING — MAX. 12" OVERHANG

REQUIRED FOOTING AREA IN SQUARE INCHES

SIDEWALL OPENING TRIB SPAN (FEET)	MAX. 12' OVERHANG 140" FLOOR WIDTH PSF SOIL BEARING					MAX. 12' OVERHANG 160" FLOOR WIDTH PSF SOIL BEARING					MAX. 12' OVERHANG 184" FLOOR WIDTH PSF SOIL BEARING				
	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000	1000	1500	2000	2500	3000
4'	179	115	86	67	56	196	126	93	73	62	215	139	103	81	67
6'	245	158	116	92	76	269	173	128	102	84	298	192	142	112	93
8'	311	200	148	117	97	343	221	163	129	107	382	246	181	143	118
10'	376	243	178	141	117	417	268	197	157	130	465	298	220	174	144
12'	442	284	210	166	137	490	315	232	184	153	548	352	259	206	170
14'	507	326	241	191	158	564	363	268	212	175	632	406	299	237	196
16'	573	369	272	215	178	637	410	303	239	198	714	459	338	268	222
18'	638	411	303	240	198	712	457	337	267	221	797	513	378	299	248
20'	704	453	334	264	219	785	505	372	294	244	881	566	417	331	274

REF. CALC # 1-3 DEC 23 1999

MAY 5 20

...Construction And Safety Standards

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12/1/99

Homes of Merit
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Bartow, Florida 33830

Zone I	Zone II (100 MPH) Zone III (110 MPH)

Revisions

Scale: N/A	Drawn:
Date: 10/04/99	Appr'd:
Description: ANC FOOTING AT SIDEWALL OPENING 12" OH	
Print #: ANC. - 14	Dec: 1999

ANCHOR INSTALLATION REQUIREMENTS

The anchoring system for the home is designed as a NEAR BEAM or as a FAR BEAM application. Many times the design limitations will require the home to be installed using the only FAR BEAM method. Anytime the FAR BEAM method is required on a home located in Florida, an aftermarket hurricane strap to main I-Beam attachment device must be purchased. These devices are readily available at local manufactured home supply outlets.

It is important to check the vertical and main I-Beam diagonal tie down spacing requirements on the enclosed tables to assure proper spacing and code compliance.

Please note: *The installation requirements will vary between the NEAR BEAM and FAR BEAM set-up. Please take care to assure that the proper instructions are being followed.*

FRAME TIE DOWN:

The map on page 3 show three areas designated as Wind Zone I, Wind Zone II, and Wind Zone III. Determine the location of the home and use, for reference, the appropriate columns within the tables.

The Foundation System and the Hurricane Anchoring System work together to resist the sliding and overturning of loads often experienced during high winds. There are many types of anchoring systems available on the market. Ground type anchors are the most commonly used method to secure the homes. Consult with the home dealer or a licensed setup company for their recommendations. See page 15 for a detail of a typical installation.

The anchors and strapping materials are not provided; however, they may be purchased from a variety of companies. The Vertical Tie-Down

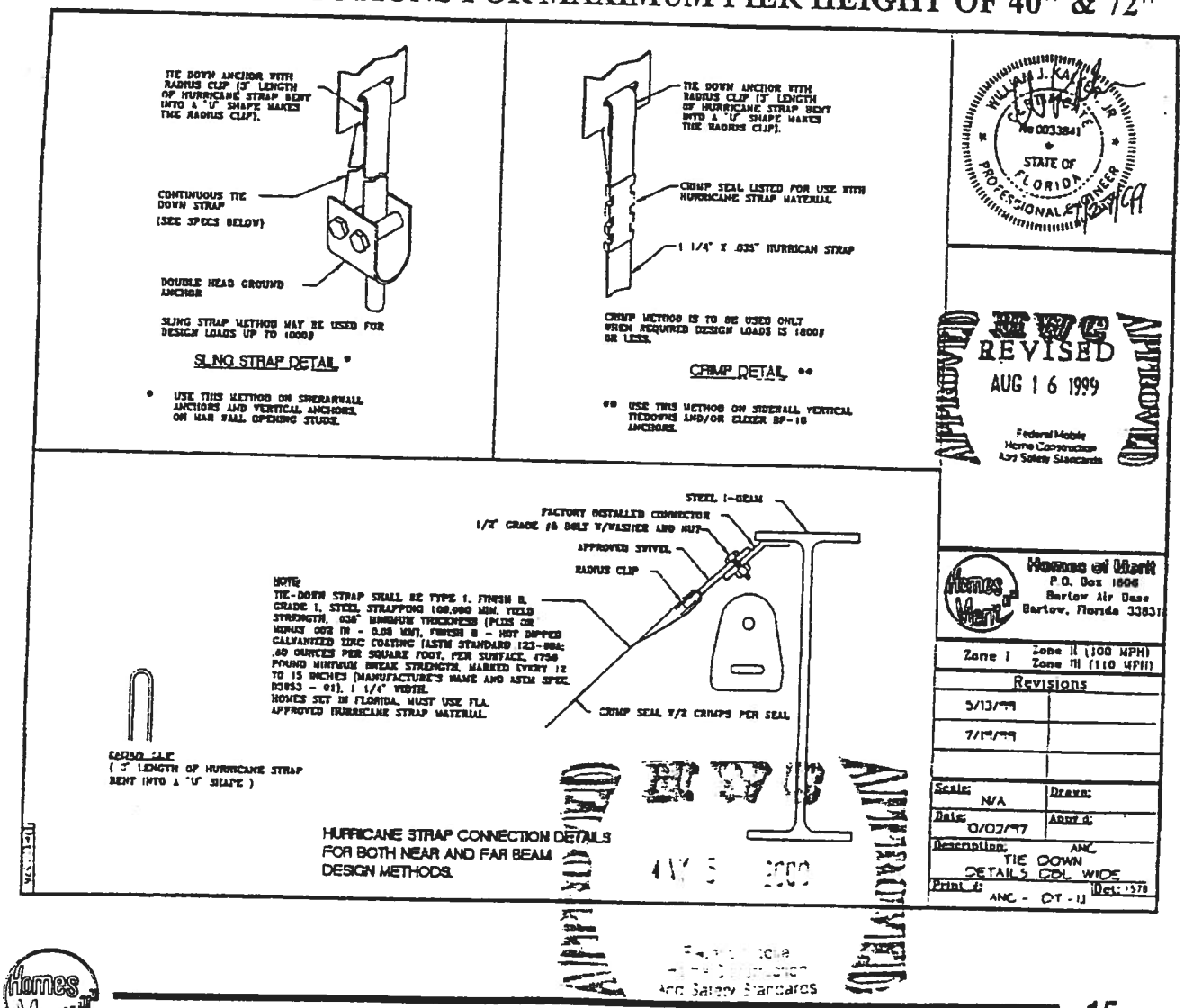
shown in the Sidewall Tie-Down detail on pages 20 and 24 is not required for homes in Wind Zone I.

Homes of Merit, Inc. requires that all homes must be anchored. Failure to comply would endanger the safety and security of the occupants and could result in excessive wind damage to the home. The Tie-Downs outlined in the following tables page 16 and 17 are the minimum number required to maintain the stability of the home during the designated wind conditions. These tables assume that the Tie-Downs are spaced no more than 2'-0" from each end wall and at given strap angles.

ATTENTION

All Tie-Down Straps and connecting hardware must be certified by a professional engineer or a recognized testing laboratory to adequately support a 3150 pound allowable load minimum (ultimate load 4725 pound minimum) and/or comply with ASTM D3953-91. All Ground Anchors must be certified by a professional engineer or a recognized testing laboratory to adequately support a 3150 pound allowable load minimum (ultimate load 4725 pound minimum) when loaded parallel with the anchor shaft and at a 45° angle from the anchor shaft.

TYPICAL CONNECTIONS FOR MAXIMUM PIER HEIGHT OF 40" & 72"



Vertical Sidewall and Diagonal Main I-Beam Anchor Spacing For:

Near Beam and Far Beam

* represents Near Beam Spacing
** represents Far Beam Spacing

Note:

1) In Florida The Maximum Vertical and Diagonal Main I-Beam Tie-Down can not exceed 5'-4" regardless of the spacing indicated on the table.

2) Shearwall Vertical Anchor locations do not require a Diagonal Main I-Beam connection.

DOUBLE WIDE SIDEWALL HURRICANE ANCHOR SPACING

I-BEAM SPACED AT 15 1/2" — WITH ROOF SLOPE LESS THAN 20°

WALL HEIGHT 90" — PIER HIEGHT 24" TO 40"

FLOOR WIDTH	SIDEWALL OVERHANG	ZONE I 115 MPH ANCHOR * SPACING	ZONE I 115 MPH ANCHOR * ANGLE	ZONE II 100 MPH ANCHOR * SPACING	ZONE II 100 MPH ANCHOR * ANGLE	ZONE III 110 MPH ANCHOR * SPACING	ZONE III 110 MPH ANCHOR * ANGLE
140"	12"	14'	0	8.25'	0	6.25'	0
150"	12"	16'	0	9.75'	0	7.0'	0
154"	6"	16'	0	10.25'	0	8.0'	0

DOUBLE WIDE SIDEWALL HURRICANE ANCHOR SPACING

I-BEAM SPACED AT 15 1/2" — WITH ROOF SLOPE LESS THAN 20°

WALL HEIGHT 90" — PIER HIEGHT 40" TO 72"

FLOOR WIDTH	SIDEWALL OVERHANG	ZONE I 115 MPH ANCHOR * SPACING	ZONE I 115 MPH ANCHOR * ANGLE	ZONE II 100 MPH ANCHOR ** SPACING	ZONE II 100 MPH ANCHOR ** ANGLE	ZONE III 110 MPH ANCHOR ** SPACING	ZONE III 110 MPH ANCHOR ** ANGLE
140"	12"	7.5'	0	8.25'	20°	6.25'	20°
150"	12"	10'	0	9.75'	20°	7.0'	20°
154"	6"	16'	0	10.25'	20°	8.0'	20°

* NEAR BEAM METHOD
** FAR BEAM METHOD

SEE OTHER DRAWINGS FOR MARRIAGE WALL FRAME TIEDOWN SPACINGS.

PIER HIEGHT = DISTANCE FROM GROUND TO TOP OF STEEL BEAM.

NOTE:

1. GROUND ANCHORS TO BE APPROVED FOR 3150# DESIGN LOAD AT 45° AND 3150# AT VERTICAL.
2. FOR WIND ZONE II 100 MPH AND WIND ZONE III 110 MPH VERTICAL TIE IS REQUIRED AT EACH DIAGONAL FRAME TIE.
3. FOR OFFSET UNITS, PORCHES, SHED ROOF ETC. SEE SINGLE WIDE GROUND ANCHOR SPACING FOR WALL HEIGHT AND FLOOR WIDTH CONDITIONS.
4. FOR CONNECTION REQUIREMENTS SEE DRAWING ANC-OT-1

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Federal Mobile Home Construction Safety Standards

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5/13/99

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Zone I	Zone II (100 MPH) Zone III (110 MPH)
Revisions	
10/20/98	
04/26/99	
Scale: N/A	Drawn:
Date: 03/24/98	Appv'd:
Description: ANC ROOF SLOPE<20° DOUBLE WIDE 90°	
Print #: ANC-OT-2	Date: 1995

REF. CALC. NO. 1 APRIL 26, 1999

SU-M-18

DOUBLE WIDE SIDEWALL HURRICANE ANCHOR SPACING

I-BEAM SPACED AT 95 1/2" — WITH ROOF SLOPE LESS THAN 20°

WALL HEIGHT 90" — PIER HEIGHT 24" TO 40"

FLOOR WIDTH	SIDEWALL OVERHANG	ZONE I (15 PSI) ANCHOR SPACING	ZONE I (15 PSI) ANCHOR ANGLE	ZONE II (100 MPH) ANCHOR SPACING	ZONE II (100 MPH) ANCHOR ANGLE	ZONE III (110 MPH) ANCHOR ●● SPACING	ZONE III (110 MPH) ANCHOR ●● ANGLE
140"	0"	N/A	N/A	N/A	N/A	● N/A	N/A
140"	0"	N/A	N/A	N/A	N/A	●● 7	20°

EXPOSURE "D"

● NEAR BEAM METHOD

●● FAR BEAM METHOD

SEE OTHER DRAWINGS FOR MARRIAGE WALL FRAME TIEDOWN SPACINGS.

PIER HIEGHT = DISTANCE FROM GROUND TO TOP OF STEEL BEAM.

NOTE:

1. GROUND ANCHORS TO BE APPROVED FOR 3150# DESIGN LOAD AT 45° AND 4000# AT VERTICAL.
2. FOR WIND ZONE II (100 MPH) AND WIND ZONE III (110 MPH) VERTICAL TIE IS REQUIRED AT EACH DIAGONAL FRAME TIE.
3. FOR OFFSET UNITS, PORCHES, SHED ROOF ETC. SEE SINGLE WIDE GROUND ANCHOR SPACING FOR WALL HEIGHT AND FLOOR WIDTH CONDITIONS.
4. FOR CONNECTION REQUIRMENTS SEE DRAWING ANC-DT-3
5. WHEN GROUND ANCHOR EXCEEDING 3150 # DESIGN LOAD CANNOT BE PURCHASED LOCALLY, TIE DOWN SYSTEM MUST BE DESIGNED BY OTHERS.

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5/13/99

Homes of Merit
P.O. Box 1606
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Bartow, Florida 33831

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions

Scale: N/A | Drawn:

Date: 04/27/99 | Appr'd:

Description: ANC. ROOF SLOPE 20° < DOUBLE WIDE "D" EXPOSURE D

Print #: ANC-DT-3

REF. CALC. NO. 1 APRIL 26, 1999

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Federal Mobile Home ... Safety Standards

SINGLE WIDE HURRICANE ANCHOR SPACING (FT)

I-BEAM SPACED AT 95 1/2" — SHED ROOF

WALL HEIGHT 108" AND MAX. 24" KING POST — WITH ROOF SLOPE LESS THAN 20°

PIER HEIGHT 24" TO 40"

FLOOR WIDTH	SIDEWALL OVERHANG	ZONE I (15 PSI) ANCHOR ● SPACING	ZONE I (15 PSI) ANCHOR ● ANGLE	ZONE II (100 MPH) ANCHOR ●● SPACING	ZONE II (100 MPH) ANCHOR ●● ANGLE	ZONE III (110 MPH) ANCHOR ●● SPACING	ZONE III (110 MPH) ANCHOR ●● ANGLE
140"	12"	7.75'	0	7.25	20°	6'	20°
160"	12"	9'	0	7'	20°	6'	20°
164"	12"	10'	0	7'	20°	5.75'	20°

● NEAR BEAM METHOD

●● FAR BEAM METHOD

PIER HIEGHT = DISTANCE FROM GROUND TO TOP OF STEEL BEAM

NOTE:

1. GROUND ANCHORS TO BE APPROVED FOR 3150# DESIGN LOAD AT 45° AND 3150# AT VERTICAL.
2. FOR WIND ZONE II 100 MPH AND WIND ZONE III 110 MPH VERTICAL TIE IS REQUIRED AT EACH DIAGONAL FRAME TIE.
3. FOR OFFSET UNITS, PORCHES, SHED ROOF ETC. SEE SINGLE WIDE GROUND ANCHOR SPACING FOR WALL HEIGHT AND FLOOR WIDTH CONDITIONS.
4. FOR CONNECTION REQUIRMENTS SEE DRAWING ANC-ST-1

WILLIAM J. KALKER, JR. CERTIFICATE No 0073841 STATE OF FLORIDA PROFESSIONAL ENGINEER

5/13/99

Homes of Merit
P.O. Box 1606
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Bartow, Florida 33831

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions

10/21/98

04/28/99

03/11/99

Scale: N/A | Drawn:

Date: 03/24/98 | Appr'd:

Description: ANC. ROOF SLOPE 20° SINGLE WIDE 108"

Print #: ANC-ST-3

REF. CALC. NO. 1 APRIL 26, 1999

NEAR BEAM ANCHORING SYSTEMS

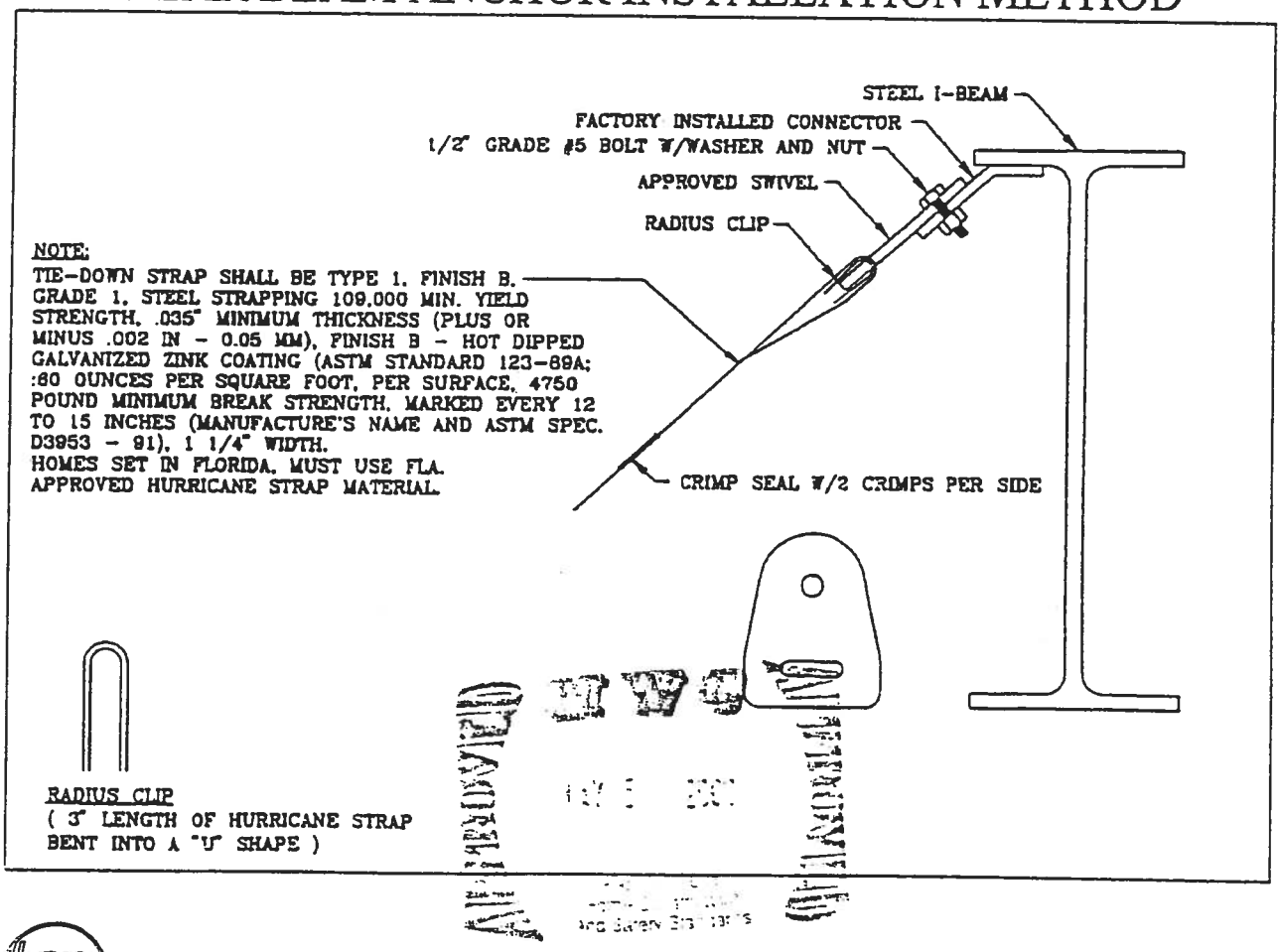
The instructions on the following page are for NEAR BEAM ANCHOR Design.

Please take special care to understand the requirement for proper installation on the following systems:

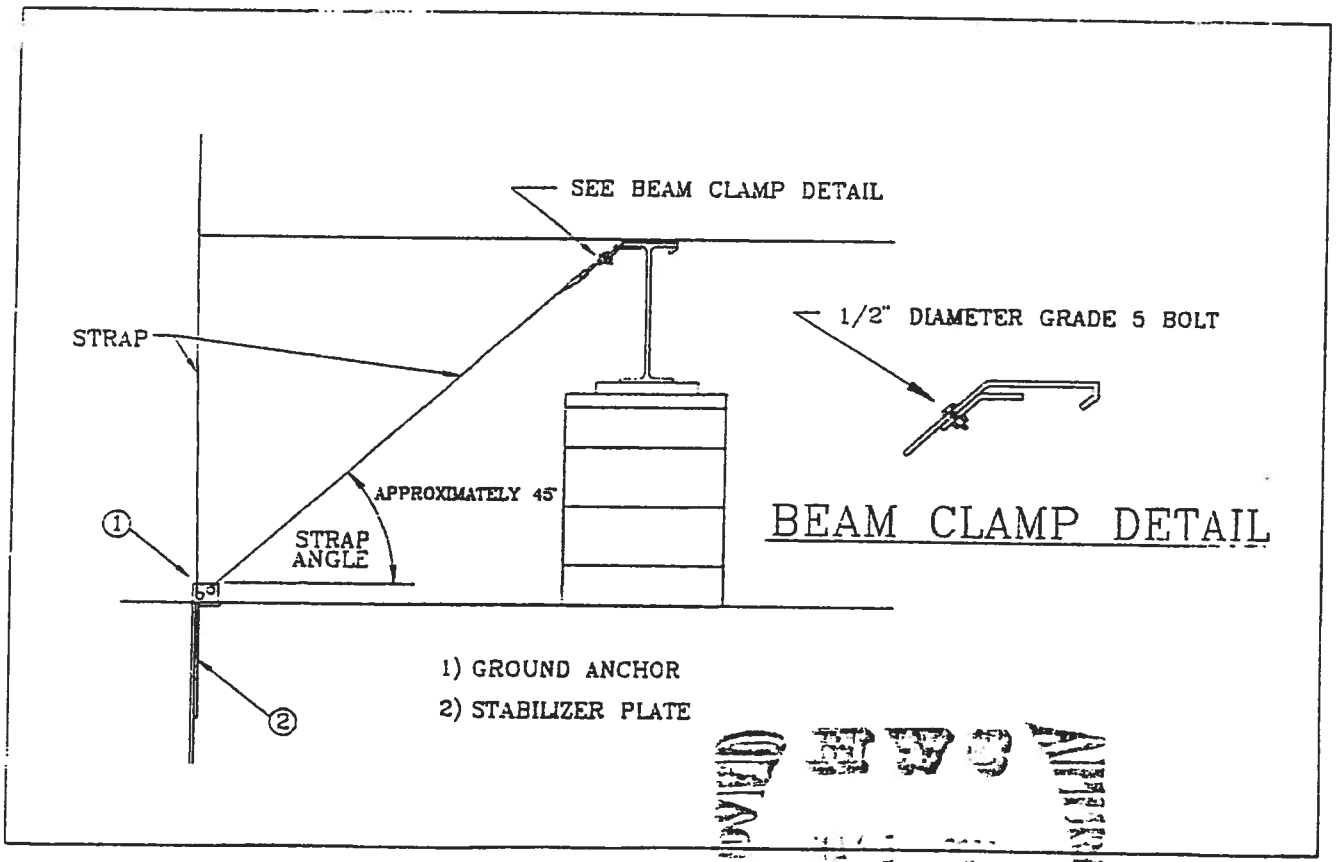
- VERTICAL SIDEWALL ANCHORAGE
- DIAGONAL MAIN I-BEAM ANCHORAGE
- SHEARWALL ANCHORAGE AND SUPPORT BLOCKING
- LONGITUDIAL FRAME ANCHORAGE

If you are unsure of any of the requirements of this manual, please contact Homes of Merit, Inc. for clarification.

NEAR BEAM ANCHOR INSTALLATION METHOD



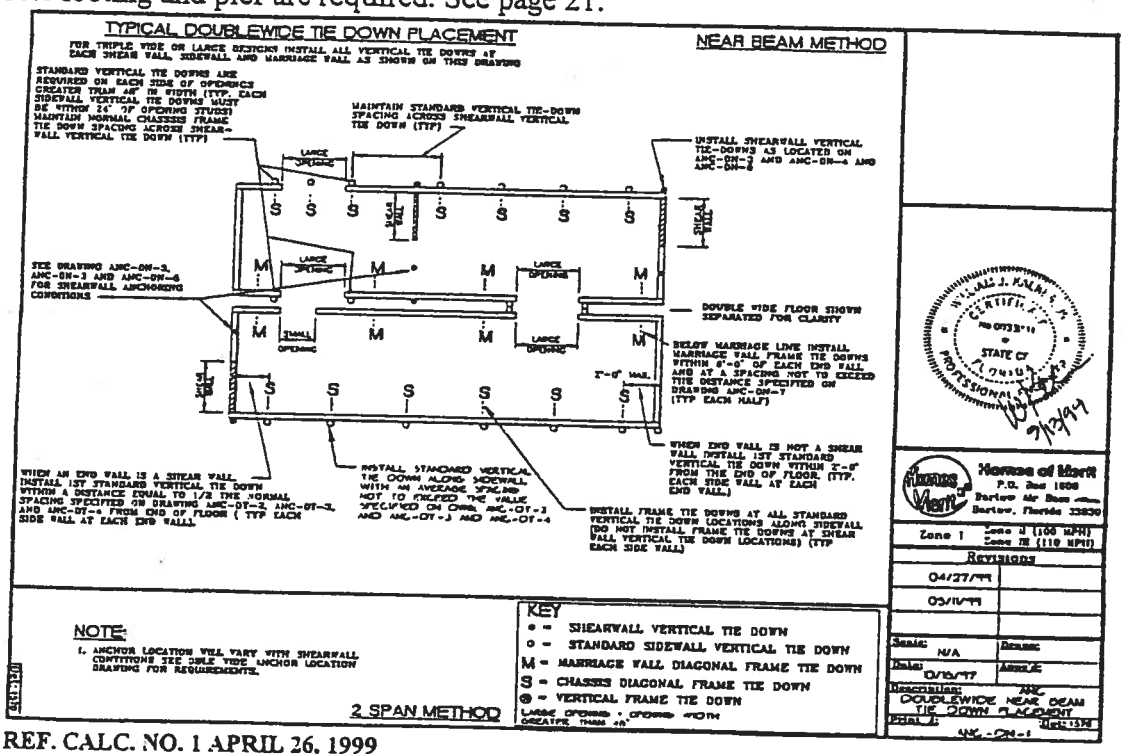
NEAR BEAM ALTERNATE ANCHOR INSTALLATION METHOD



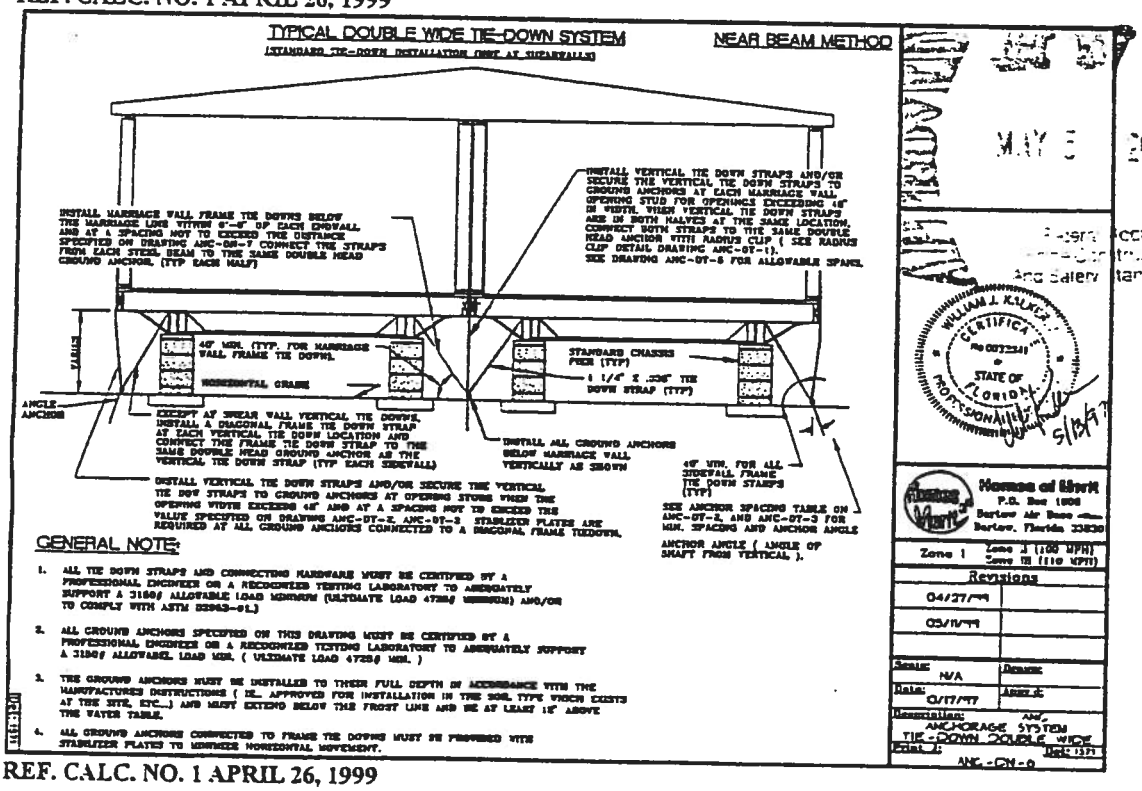
SLM-21

SHEARWALL LOCATION LABELS:

The yellow Shearwall Location Labels are placed along the sidewalls near the floor line. Typically, these labels are attached to the steel members that extend below the floor line. This label indicates where the Shearwalls were placed during the construction of the home. Wherever this label is placed, attach a vertical ground anchor to the steel member that extends below the floor line. In addition to the anchor, a concrete footing and pier are required. See page 21.



REF. CALC. NO. 1 APRIL 26, 1999

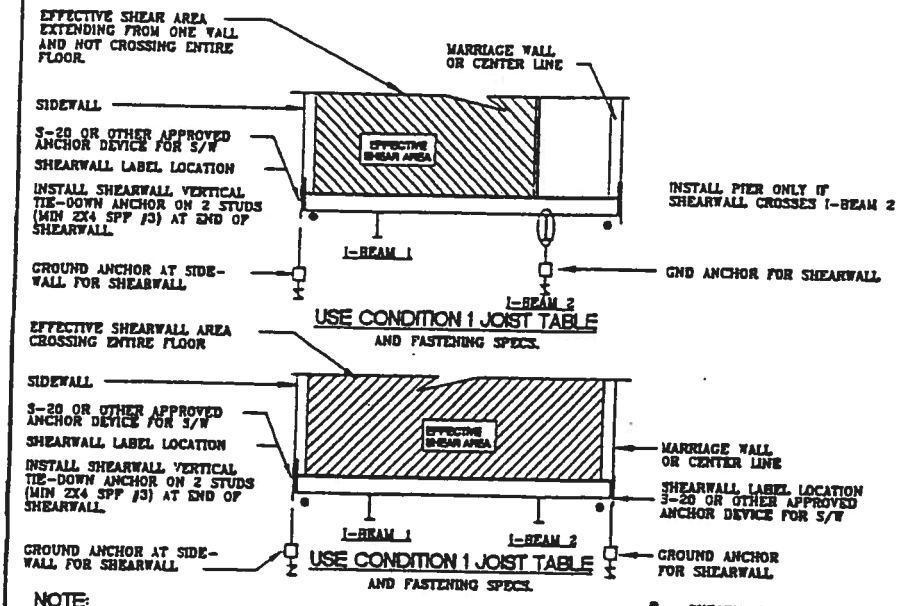


REF. CALC. NO. 1 APRIL 26, 1999

NEAR BEAM METHOD
2 SPAN METHOD

DOUBLE WIDE ANCHOR LOCATION

"SHEARWALL NOT AT COLUMN"
SHEARWALL JOIST CONTITION 1



● = SHEARWALL PIER LOCATION

NOTE:

1. THIS DETAIL IS FOR SHOWING SHEARWALL ANCHOR LOCATIONS ONLY. SEE DETAILS FOR ALL OTHER REQUIREMENTS.
2. ALL SHEARWALL GROUND ANCHORS SPECIFIED ON THIS DRAWING MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER OR A RECOGNIZED TESTING LABRATORY TO ADEQUATELY SUPPORT DESIGN LOADS WITH A MIN. (ULTIMATE LOAD OF 1.5 X DESIGN LOADS). SEE ANC-ON-2 FOR MIN. ANCHORS REQUIREMENTS FOR WALL PLF CONDITIONS.

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5/13/99

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Zone I | Zone II (100 MPH) Zone III (110 MPH)

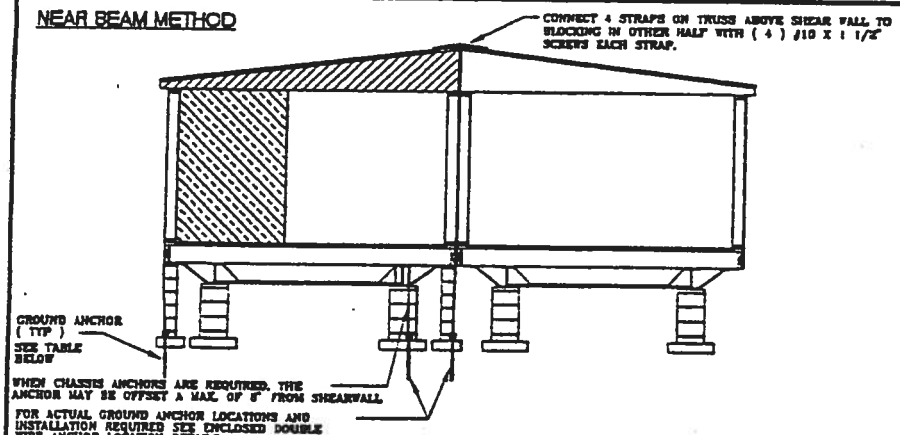
Revisions

04/27/99	
05/13/99	

Scale: N/A | Drawn:
Date: 04/26/99 | Appr'd:
Description: ANC
DOUBLE WIDE NEAR BEAM ANCHOR ATTACHMENT
Print #: | Dwg: 939
ANC-ON-1

REF. CALC. NO. 1 APRIL 26, 1999

NEAR BEAM METHOD



DOUBLE WIDE SHEARWALL TIEDOWN SYSTEM

GROUND ANCHOR REQUIRMENTS FOR SHEARWALLS		
PLF OF SHEARWALL	MIN. ANCHOR DESIGN LOAD	MIN. ANCHOR ULTIMATE LOAD
UP TO 500 PLF	3150#	4725#

NOTE:

ALL TIEDOWN STRAPS AND CONNECTING HARDWARE MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER OR A RECOGNIZED TESTING LABORATORY TO ADEQUATELY SUPPORT A 3150# ALLOWABLE LOAD MINIMUM (ULTIMATE LOAD 4725# MIN.) AND / OR TO COMPLY WITH ASTM D3953-91.

ALL GROUND ANCHORS SPECIFIED ON THIS DRAWING MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER OR A RECOGNIZED TESTING LABORATORY TO ADEQUATELY SUPPORT THE REQUIRED DESIGN LOADS WITH A MINIMUM. (ULTIMATE LOAD OF 1.5 X DESIGN LOADS).

2 SPAN METHOD

RECEIVED MAY 3 2000

WILLIAM J. WALKER JR. CERTIFICATE No 0033341 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/13/99

Homes of Merit
P.O. Box 1000
Barlow Air Base
Barlow, Florida 32830

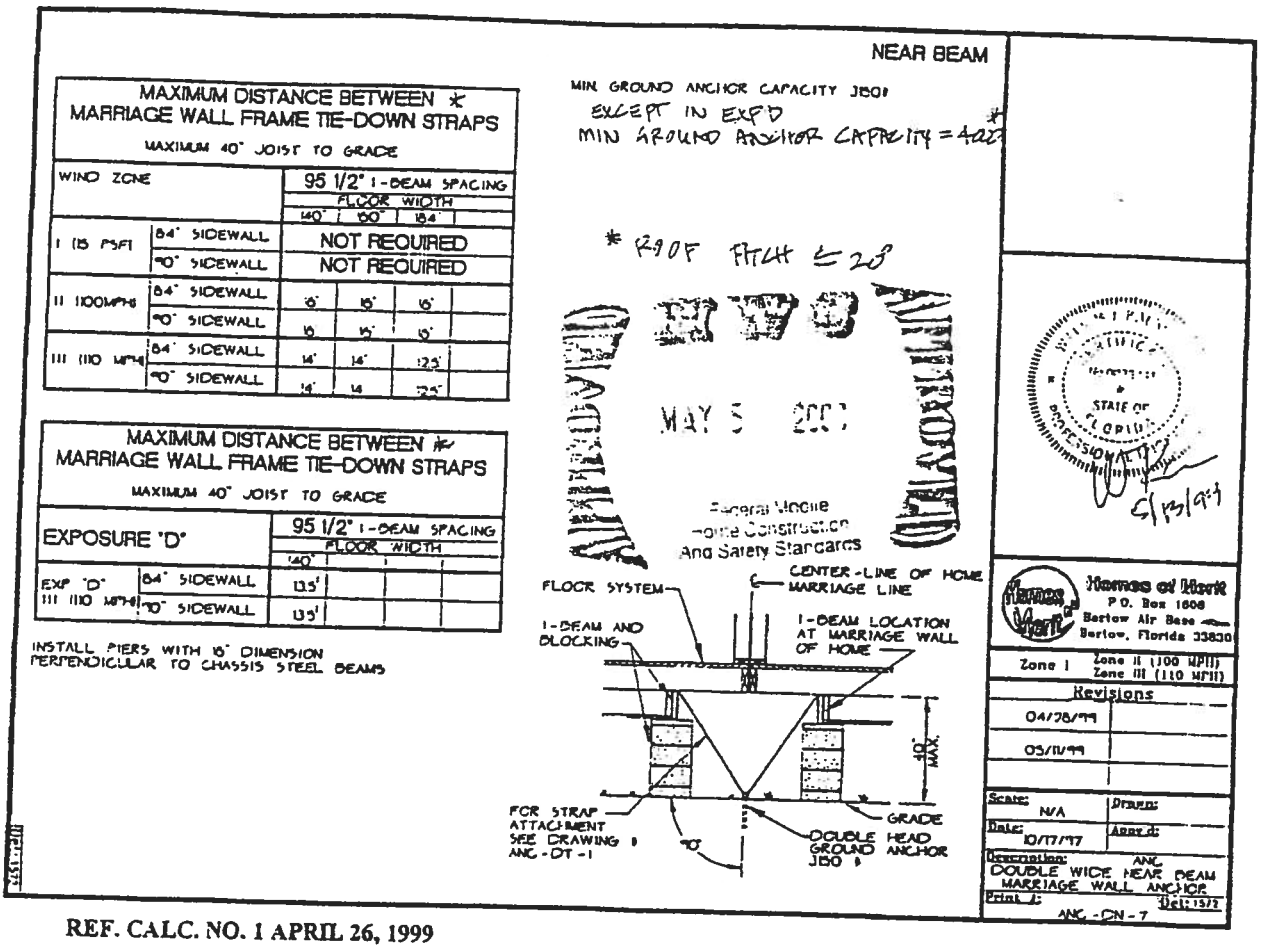
Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions

04/27/99	
05/13/99	

Scale: N/A | Drawn:
Date: 04/26/99 | Appr'd:
Description: SHW
SHEARWALL TIEDOWN DOUBLE WIDE NEAR BEAM
Print #: | Dwg: 1483
ANC-ON-2

REF. CALC. NO. 1 APRIL 26, 1999



NEAR BEAM

MAXIMUM DISTANCE BETWEEN * MARRIAGE WALL FRAME TIE-DOWN STRAPS

MAXIMUM 40" JOIST TO GRADE

WIND ZONE		95 1/2" I-BEAM SPACING FLOOR WIDTH			
		140"	160"	184"	
I 115 PSFI	84" SIDEWALL	NOT REQUIRED			
	90" SIDEWALL	NOT REQUIRED			
II 100MPH	84" SIDEWALL	16'	16'	16'	
	90" SIDEWALL	16'	16'	16'	
III (110 MPH)	84" SIDEWALL	14'	14'	12.5'	
	90" SIDEWALL	14'	14	12.5'	

MAXIMUM DISTANCE BETWEEN * MARRIAGE WALL FRAME TIE-DOWN STRAPS

MAXIMUM 40" JOIST TO GRADE

EXPOSURE "D"		95 1/2" I-BEAM SPACING FLOOR WIDTH			
		140"			
EXP "D" III (110 MPH)	84" SIDEWALL	13.5'			
	90" SIDEWALL	13.5'			

INSTALL PIERS WITH 16" DIMENSION PERPENDICULAR TO CHASSIS STEEL BEAMS

MIN GROUND ANCHOR CAPACITY 3600# EXCEPT IN EXP'D MIN GROUND ANCHOR CAPACITY = 4200#*

* ROOF PITCH ≤ 20°

APPROVED MAY 5 2000 Federal Mobile Home Construction And Safety Standards

STATE OF FLORIDA PROFESSIONAL ENGINEER

5/13/99

Homes of Merit
P.O. Box 1608
Bartow Air Base
Bartow, Florida 33830

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions
04/28/99
05/11/99

Scale: N/A | Drawn:
Date: 10/17/97 | Appr'd:
Description: ANC. DOUBLE WIDE NEAR BEAM MARRIAGE WALL ANCHOR
Print #: ANC.-DN-7 | Del: 10/7

REF. CALC. NO. 1 APRIL 26, 1999

FAR BEAM ANCHORING SYSTEMS

The instructions on the following page are for FAR BEAM ANCHOR Design.

Please take special care to understand the requirement for proper installation on the following systems:

- **VERTICAL SIDEWALL ANCHORAGE**
- **DIAGONAL MAIN I-BEAM ANCHORAGE**
- **SHEARWALL ANCHORAGE AND SUPPORT BLOCKING**
- **LONGITUDIAL FRAME ANCHORAGE**

If you are unsure of any of the requirements of this manual, please contact Homes of Merit, Inc. for clarification.

DIAGONAL MAIN I-BEAM CONNECTION TO GROUND ANCHOR

(For FAR BEAM METHOD of Anchorage only)

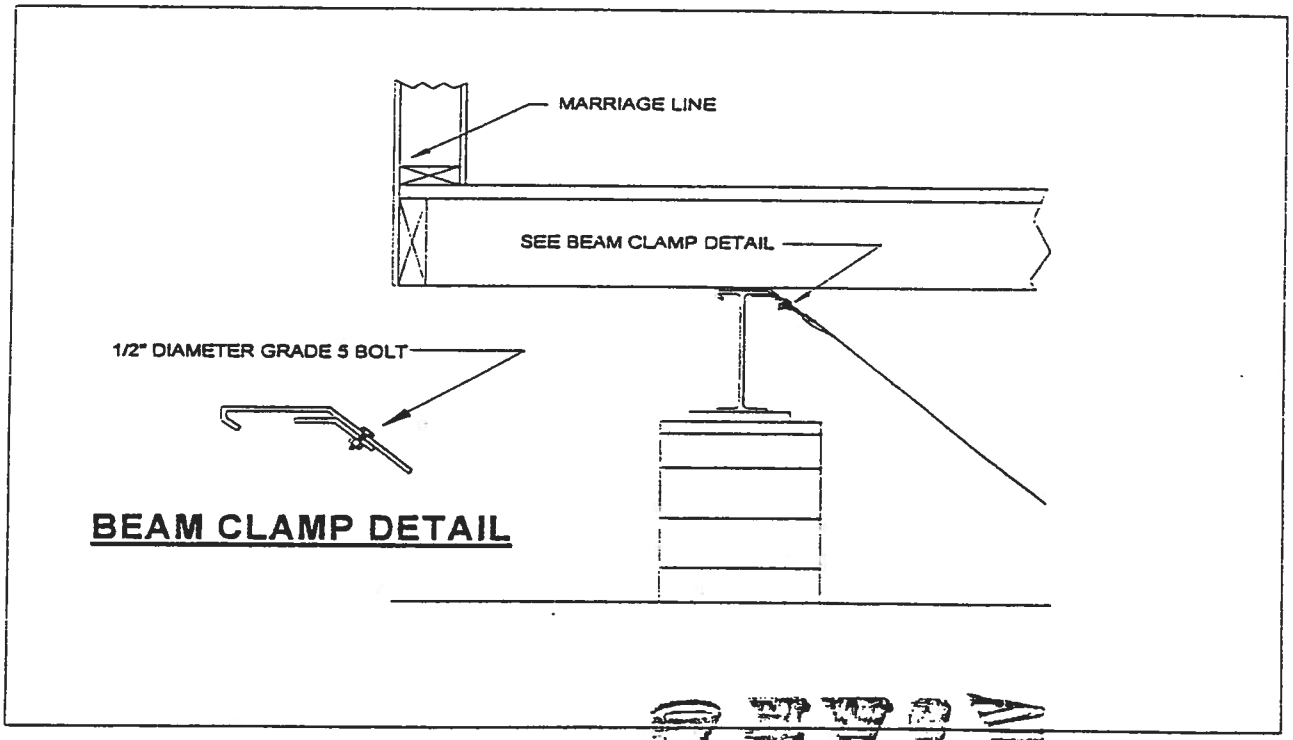
Many times the design limitations will require the home to be installed using the only FAR BEAM method. Anytime the FAR BEAM method is required on a home located in Florida, an aftermarket hurricane strap to main I-Beam attachment device must be purchased. These devices are readily available at local manufactured home supply outlets.

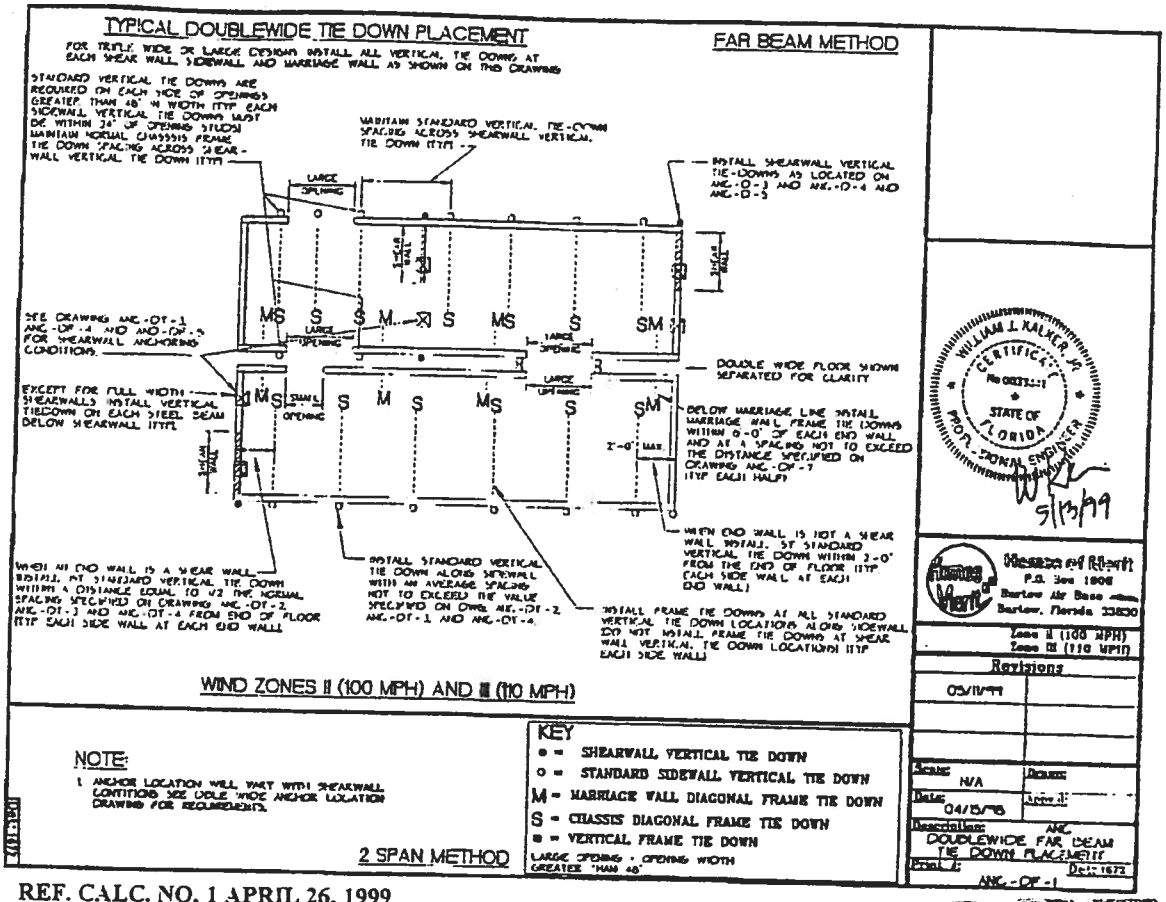
Approved products that are listed by the State of Florida and installed in accordance with the product listing can be used. Some of these connectors are designed to attach to the Main I-Beam of the home and then connect to a swivel device and then to a hurricane strap with a ground anchor. This type of product can be purchased at local manufactured home supply stores. When purchasing anchoring products, please remember that all products must be approved for a (3150 pound) working load.

All hurricane strap material, connection hardware and method of installation must comply with the State of Florida Rule 15C.

For homes located outside of Florida, the specifications in this manual must be followed.

FAR BEAM ANCHORING METHOD





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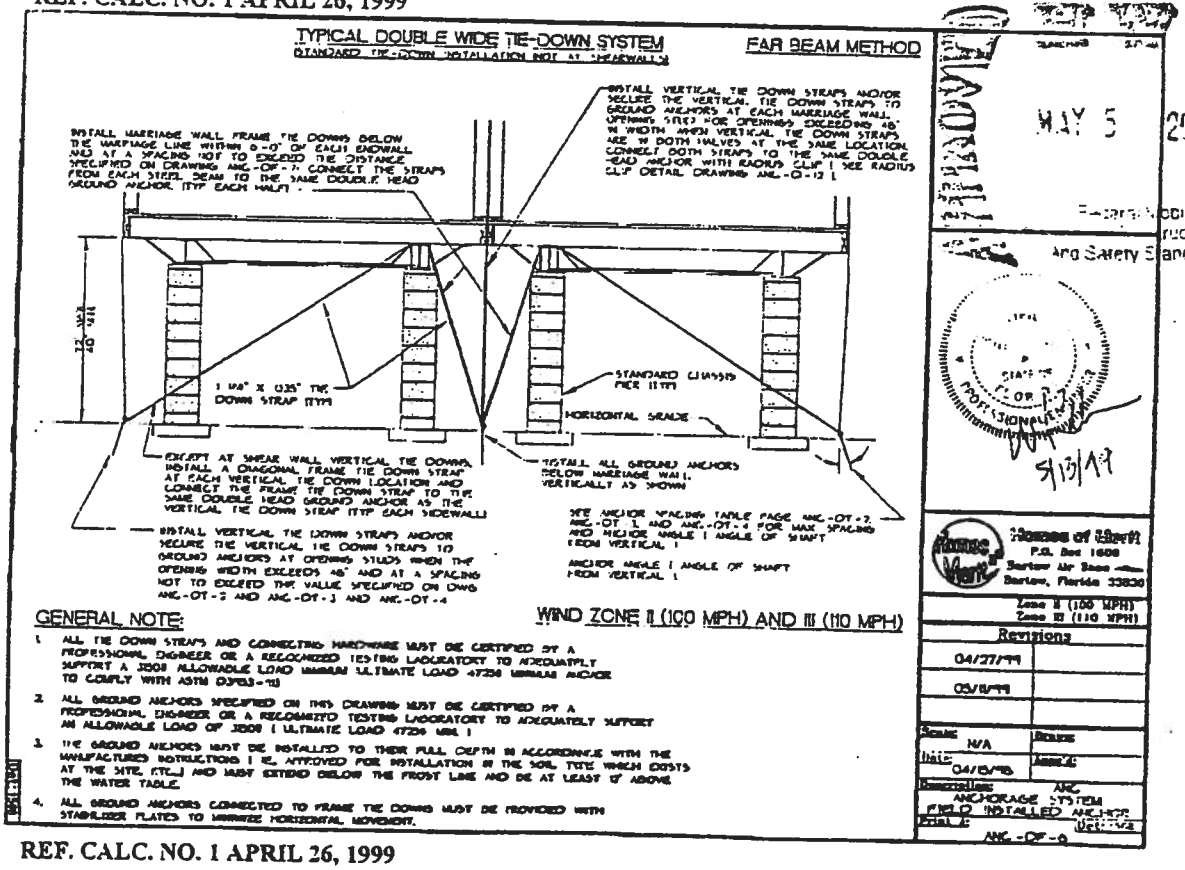
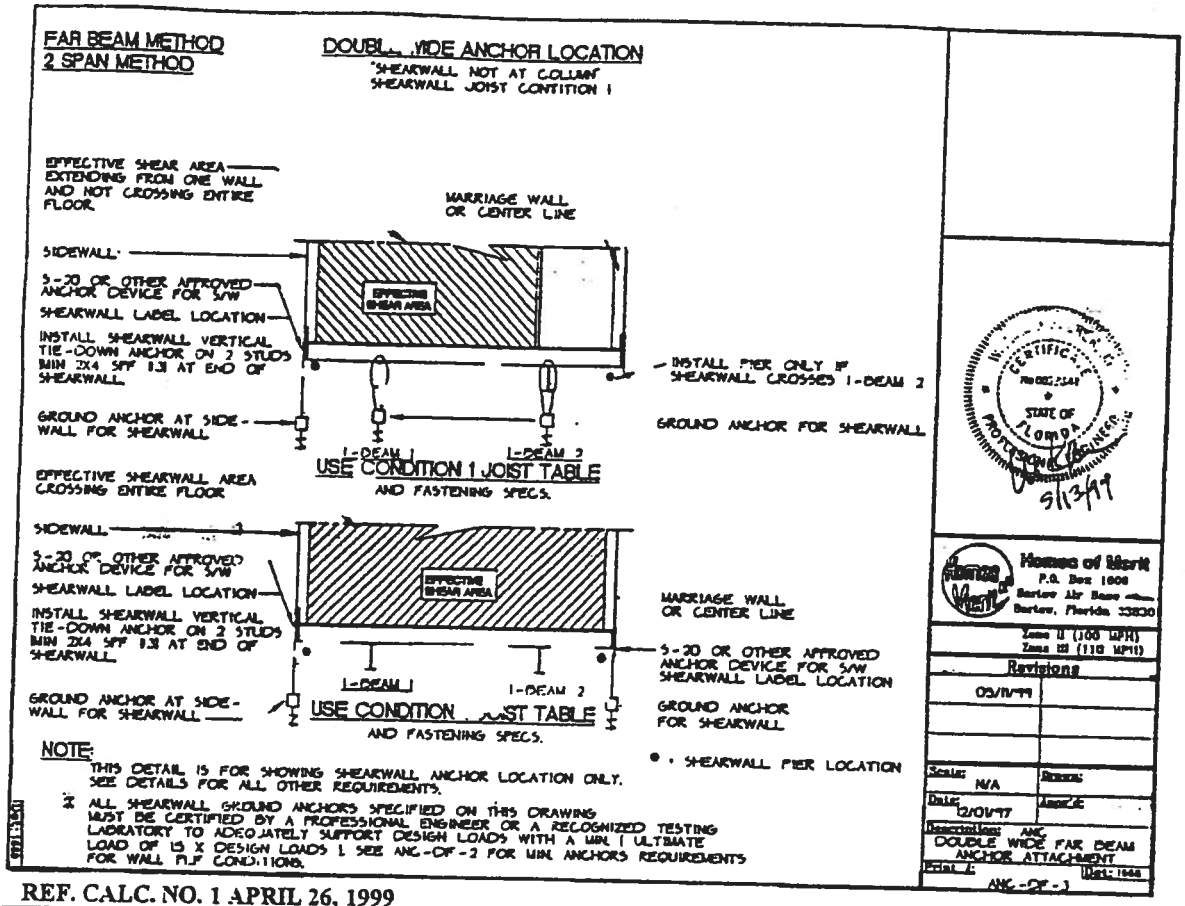
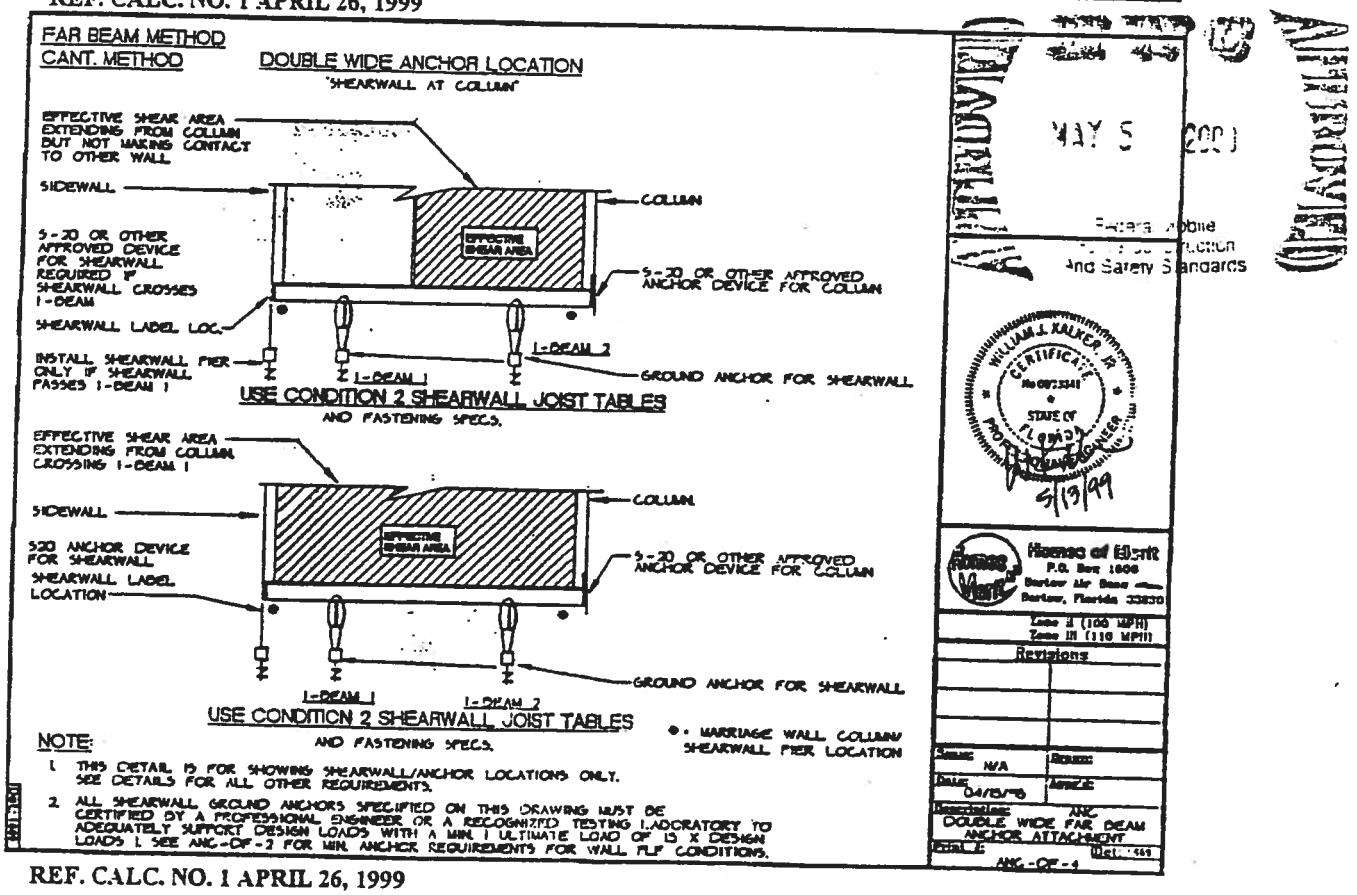


REF. CALC. NO. 1 APRIL 26, 1999

SILM-26



REF. CALC. NO. 1 APRIL 26, 1999



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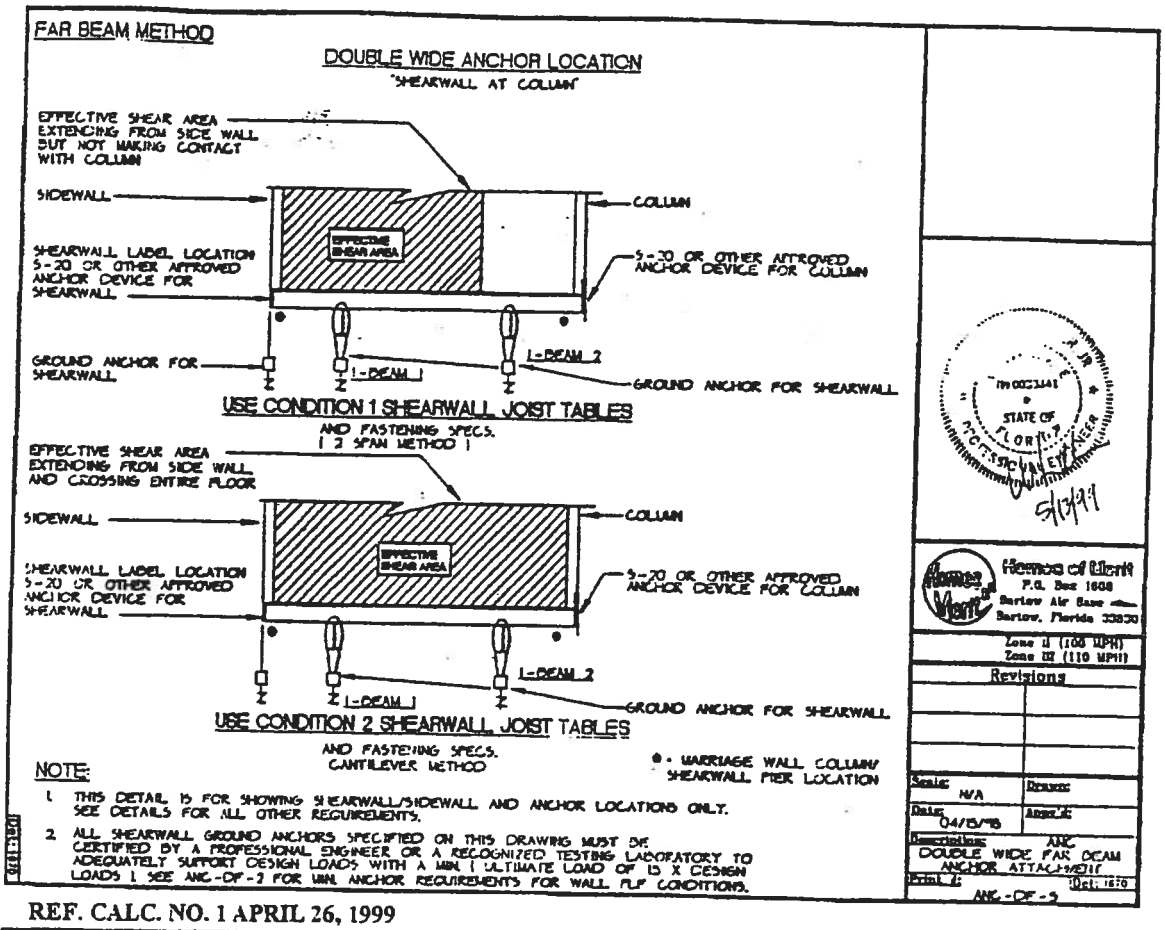
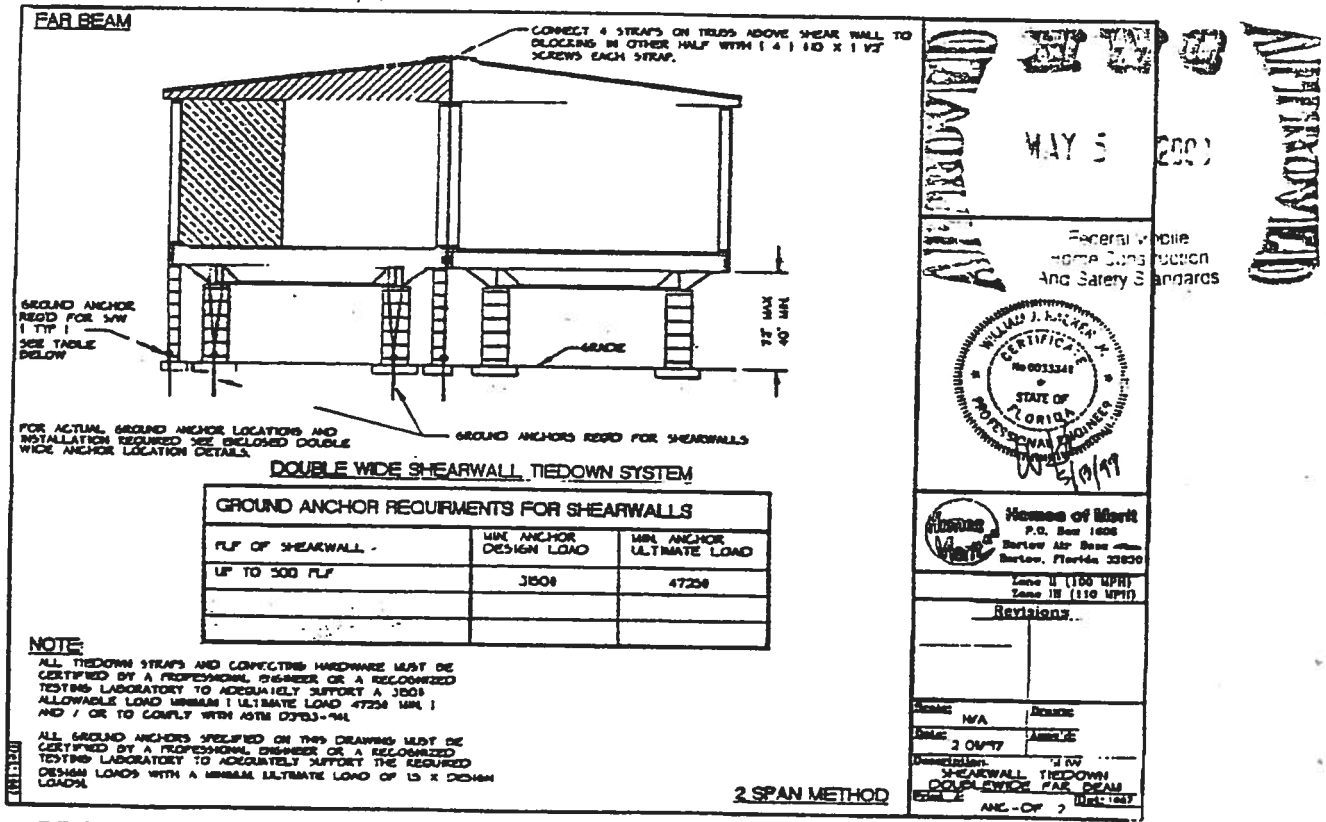


REF. CALC. NO. 1 APRIL 26, 1999



REF. CALC. NO. 1 APRIL 26, 1999

FAR BEAM

MIN GROUND ANCHOR CAPACITY 3500
EXCEPT IN EXPO
MIN GROUND ANCHOR CAPACITY
=4000#

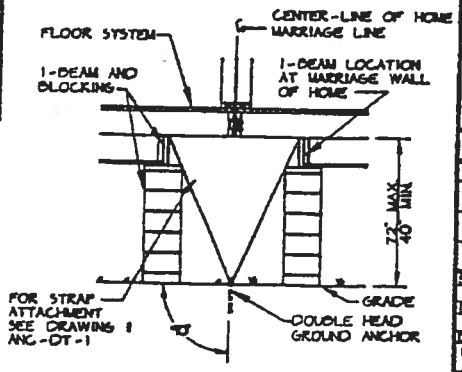
* ROOF PITCH ≤ 20

MAXIMUM DISTANCE BETWEEN * MARRIAGE WALL FRAME TIE-DOWN STRAPS
MAXIMUM 72' JOIST TO GRADE

FLOOR WIDTH					
WIND ZONE		95 1/2" I-BEAM SPACING FLOOR WIDTH			
		40'	60'	84'	
I 115 MPH	84" SIDEWALL	NOT REQUIRED			
	70" SIDEWALL	NOT REQUIRED			
II 100MPH	84" SIDEWALL	15'	15'	15'	
	70" SIDEWALL	15'	15'	15'	
III 110 MPH	84" SIDEWALL	14'	14'	12.5'	
	70" SIDEWALL	14'	14'	12.5'	

MAXIMUM DISTANCE BETWEEN * MARRIAGE WALL FRAME TIE-DOWN STRAPS
MAXIMUM 72' JOIST TO GRADE

FLOOR WIDTH					
EXPOSURE "D"		95 1/2" I-BEAM SPACING FLOOR WIDTH			
		40'			
EXP "D" III 110 MPH	84" SIDEWALL	13.5'			
	70" SIDEWALL	13.5'			



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4/26/99

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Zone I — Zone I (100 MPH) Zone II (110 MPH)

Revisions
04/26/99
05/11/99

Scale: N/A	Design:
Date: 12/08/97	Appr'd:
Description: ANC. DOUBLE WIDE FAR BEAMS MARRIAGE WALL ANCHORS	
Print #:	Dwg: 1593

ANC.-DF-7

REF. CALC. NO. 1 APRIL 26, 1999

APPROVED HUD MAY 5 2000 APPROVED
Federal Mobile Home Construction and Safety Standards

Longitudinal Main I-Beam Anchorage

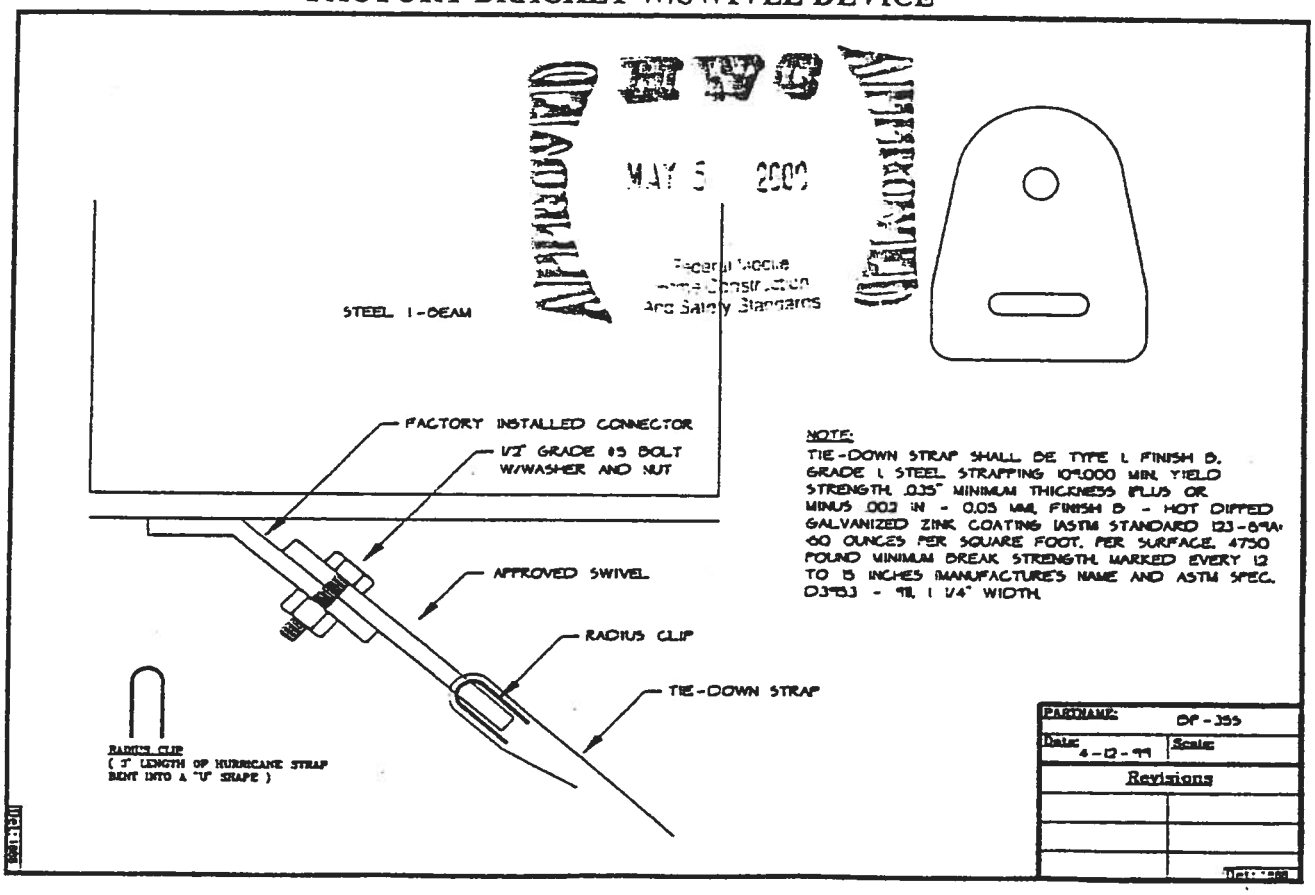
Each end of all I-Beams must be anchored to the ground. An attachment bracket has been welded to the bottom flange of each end of each I-Beam. We recommend that a swivel device be attached to the factory-installed bracket. However, a slot is also provided in the event the swivel method is not desired. Regardless of the desired method of installation, compliance with the enclosed details is required.

(Florida Requirements)

The State of Florida, in the State Rule 15C, does have special requirements for the longitudinal Main I-Beam anchorage. Though the State requirements may differ from the recommended method of this manual, State of Florida Rule 15C must be complied with in all aspects where this rule is more stringent than the requirements of this manual.

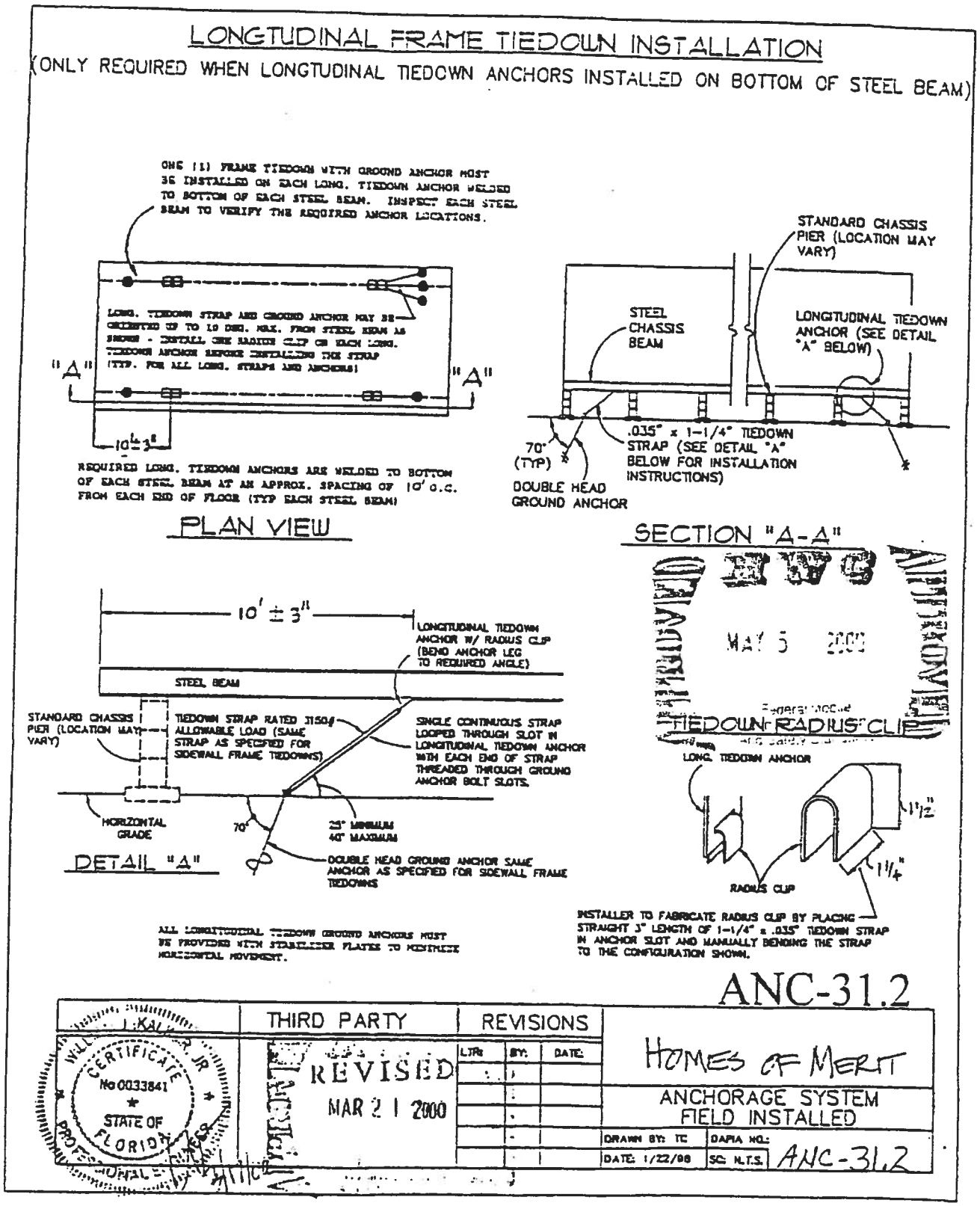
LONGITUDINAL MAIN I-BEAM ANCHORAGE

FACTORY BRACKET W/SWIVEL DEVICE



LONGITUDINAL TIE-DOWN STRAPS:

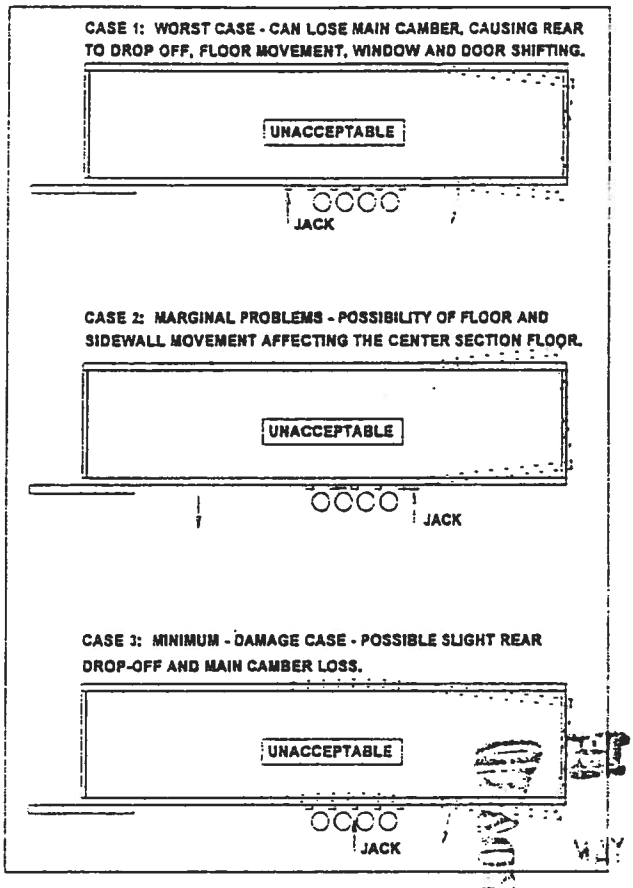
The Longitudinal Tie-Down Straps are located at the front and rear of the home. Connect them to the brackets on each of the main I-Beams. A stabilizer plate is required at all longitudinal ground anchors.

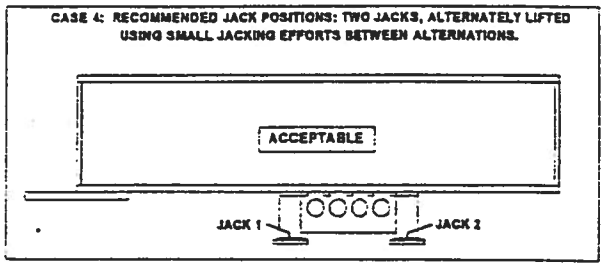


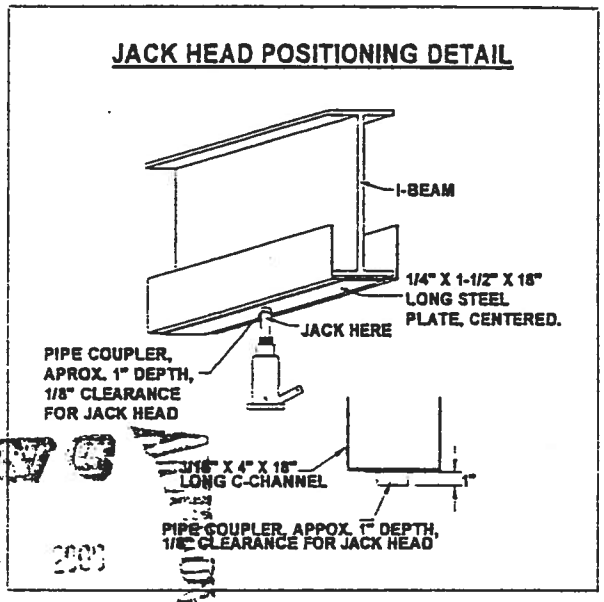
WIND ZONE 1,2, & 3 AND EXP 'D'

SETTING THE HOME

Extreme care must be taken to avoid serious injury to personnel or damage to the home. Untrained people should not attempt to block or set any home.

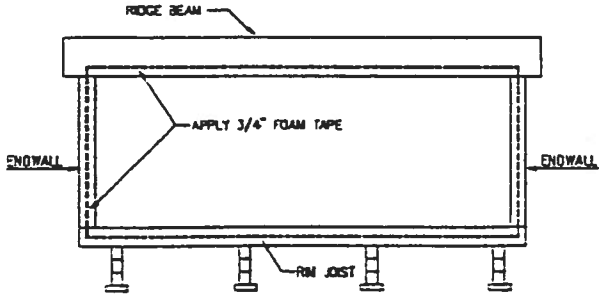






LEVELING THE HOME:

Extreme care must be taken to avoid twisting or racking the home during the leveling process. When jacking the home, a reinforced jack plate should be used to avoid distorting the frame; see diagram above. The heavy half of the home should be set first; the light half is brought to the heavy half and set next. Foam tape (3/4 inch) is provided as part of the setup kit. Other equivalent material may be used. The foam tape is placed along the floor, roofline and both end walls. The foam tape will limit the amount of air that is allowed to pass between the building materials. Once the home is level, the floor must be leveled from one half to another, and the walls set plumb. The ceiling lines may need to be jacked and set true. As the roof is set, the two halves are fastened together. See details on page 32 for roof and floor fastening details. All doors needing adjusting are adjusted at this time and all windows should be tested for operation. In the setting process, interior doors may come out of square and require adjustment. The adjustment is considered part of the setup procedure.



SETTLING OF HOME:

As with any building there is always the possibility that a manufactured home may settle after it has been in position for a time. When settling does occur, it can affect the proper functioning of locks, closing of doors, windows and cabinets, and place undue stress on the structural portions of the home. It can even cause wall panels to come loose and floor covering to separate. Should this problem occur, corrective measures should be taken to relevel the home. It is recommended that your Homes of Merit Dealer or a manufactured home service be engaged to do this work.

MAINTAINING ANCHORING SYSTEM:

Tie-down strap tension should be checked periodically and adjusted when necessary to prevent damage to the manufactured home from settling or other unforeseen movements, such as frost heave.

CENTERLINE LEVELING AND BLOCKING:

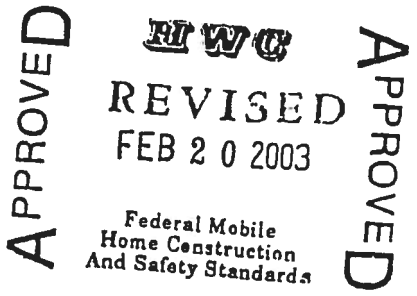
Double wide homes will require centerline blocking to be placed at all column locations. The size of the pad will be based on Soil Bearing Capacity as well as Column Load. To determine the proper pad size, see the tables titled "Column blocking" on pages 12 and 13. The floor along the centerline must be checked for levelness at the time of blocking.

FROST HEAVE:

A heavy frost buildup can adversely affect your home through displacement of the anchor and blocking systems. If your home resides in a area subjected to frost heave, one of the following additional steps should be considered.

A.) Footing and the load carrying portion of the ground anchors should extend below the frost line, or

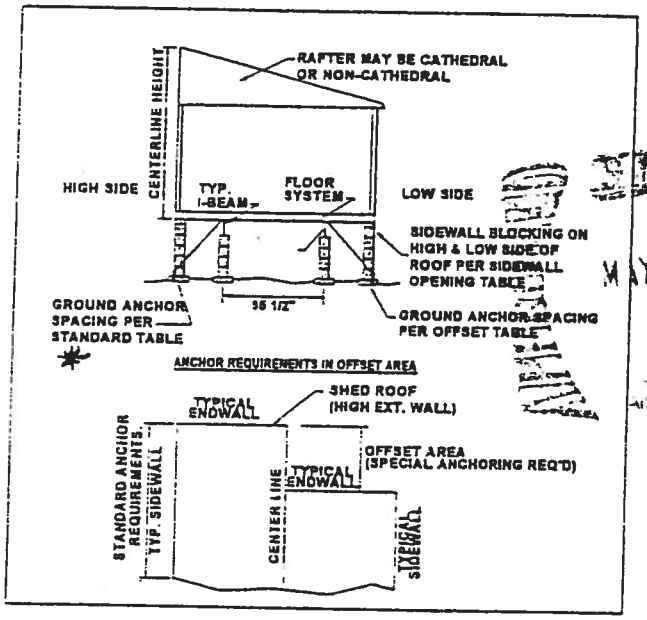
B.) The manufactured home should be placed on a reinforced concrete pad.



SU-M-33.1

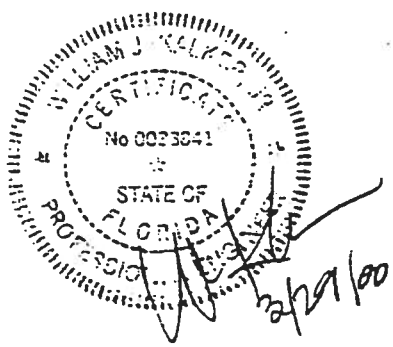
OFFSET UNITS (SHED ROOF):

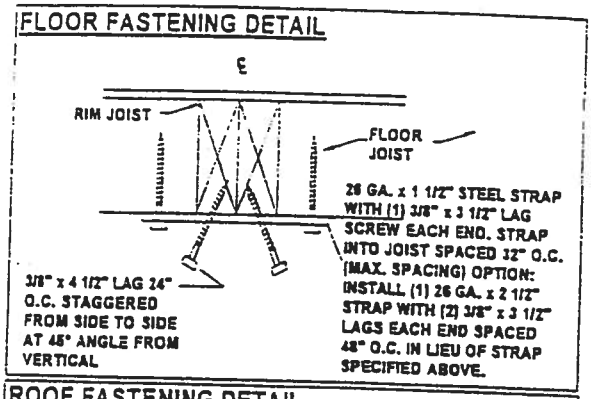
Offset units will require special anchoring. Use the appropriate Anchor Table to determine the proper anchor spacing. Please note that ground anchors will be required at both sidewalls of the offset portion as well as at perimeter blocking. The Hurricane Tie-Down Table applies to units with offsets on either half that forms a mono-pitch (shed) roof condition at the high side. The Tie-Down requirements apply only to the high side of the unit; the low side will require the standard Hurricane Anchor Spacing. See Shed Roof Tie-Down requirements on page 17 for maximum anchor spacing.

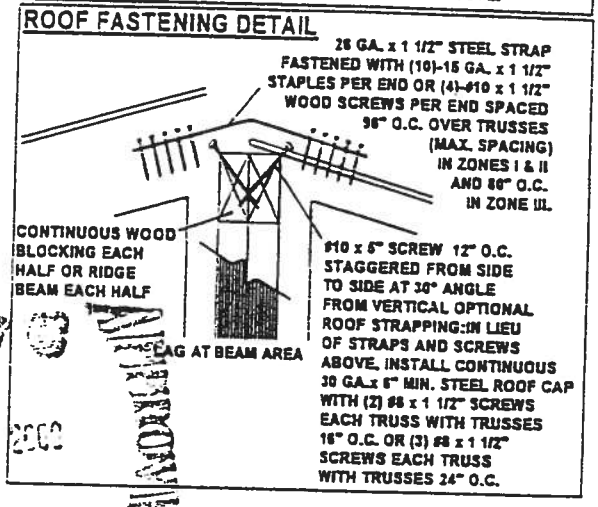


ROOF AND FLOOR STRAPPING OF MULTI-SECTION HOME:

The roof and the floor must be connected in the field. The following details show proper installation of fasteners and steel straps.





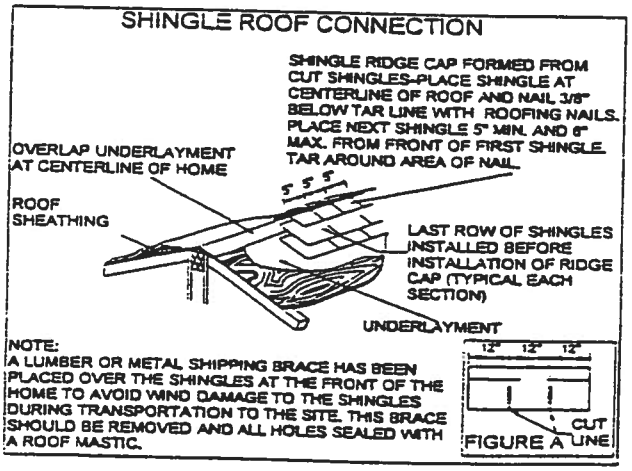


MAY 5 2000

ROOF CLOSE-UP:

The wood member fastened at the front (hitch end) of the roof is to be removed. All nail holes must be sealed with a shingle sealant The shingles shipped with the home must be installed along the center ridge of the home. The following details show the proper method of installing the shingles.

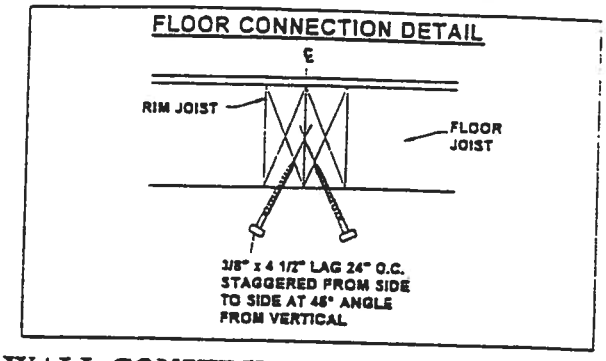
TAG UNIT CONNECTION:



*MAY BE FAR BEAM INSTALLATION

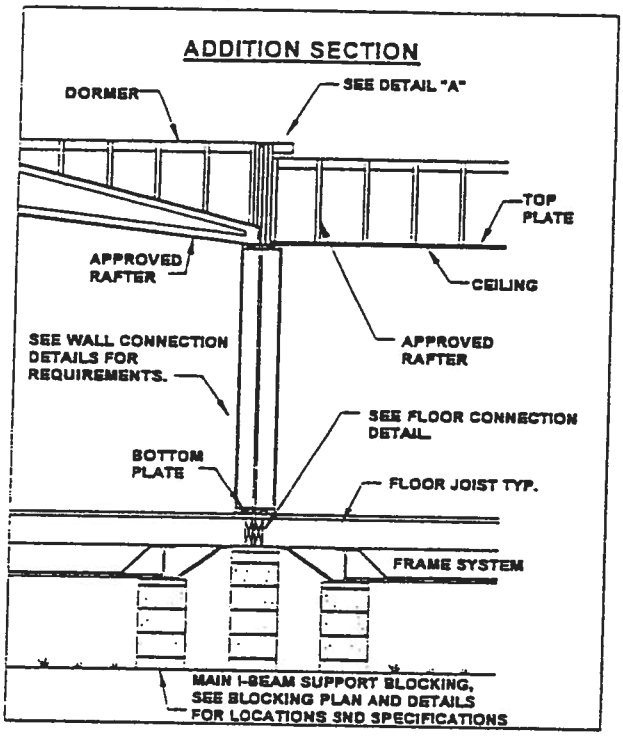
SU-M-34

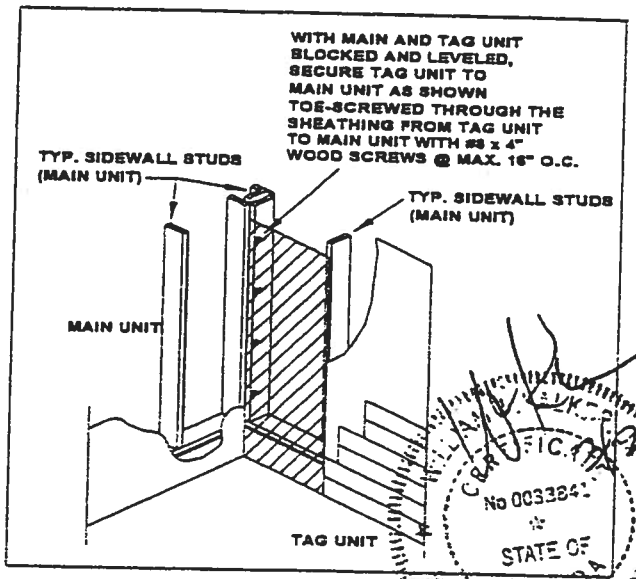
The larger two sections of the double wide home are to be set and attached as described in the standard double wide installation procedure. The smaller, third section is to be attached in the manner described below. All anchoring and blocking will comply with the tables in this manual. All utility connections are to be made as detailed in the standard doublewide connection details.

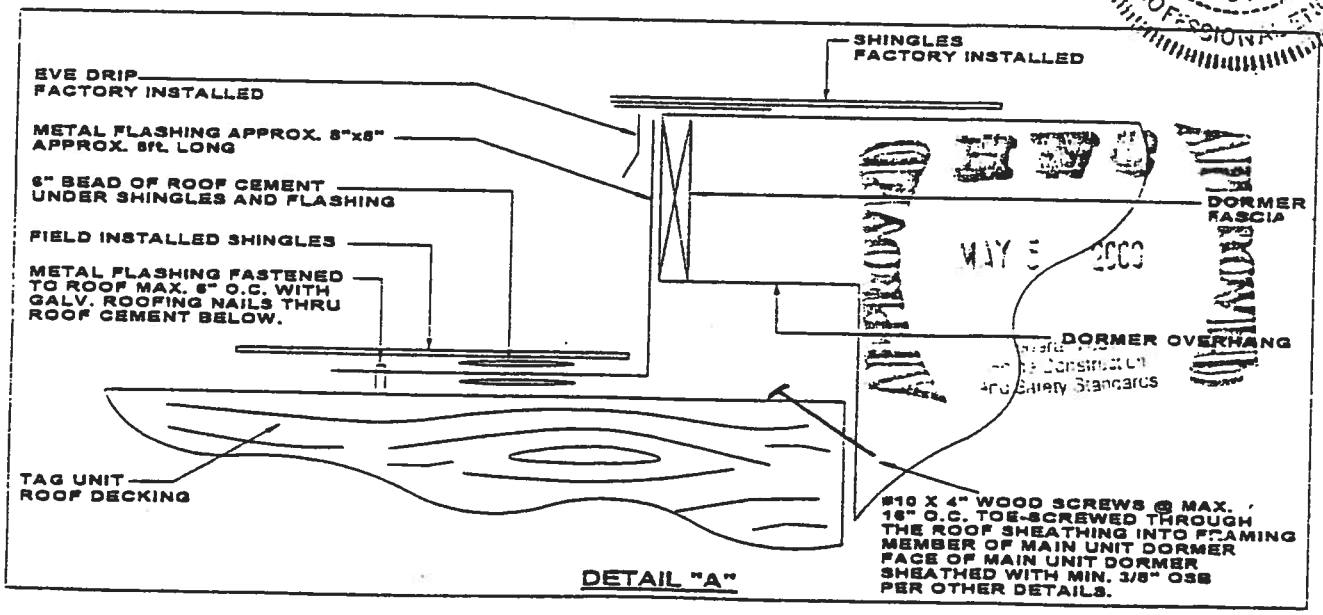


WALL CONSTRUCTION DETAIL:

Secure the tag unit end wall to the main unit sidewall per the following detail.







ZONES 1,2,3 13'4" MAX x 23'4" MIN TAG in 90" SIDEWALL

"ATTENTION"

Plumbing, water, gas and electrical systems were tested before leaving the factory. After all connections have been made and prior to occupancy, it is important to retest these systems to correct any problems that may have been caused during set-up procedures or in transit stress.

MAIN PANEL CONDUCTORS:

FLEX. CONDUIT (IN.)	PANEL SIZE SIZE	RED & BLACK (POWER)	WHITE (NEUTRAL)	GREEN (GROUNDING)	JUNCTION BOX (IN.)
1"	50	# 6 THW	# 6 THW	#8 THW	10x10x4
1 1/2"	100	# 2 THW	# 2 THW	#8 THW	12x12x6
2"	125	# 1/0 THW	# 2 THW	#6 THW	16x16x6
2"	150	# 1/0 THW	# 2 THW	#6 THW	16x16x6
2"	200	# 2/0 THW-2 90°C	# 1 THW	#6 THW	16x16x6

ALT. ALUMINUM CONDUCTOR / SIZES:

FLEX. CONDUIT (IN.)	PANEL SIZE SIZE	RED & BLACK (POWER)	WHITE (NEUTRAL)	GREEN (GROUNDING)	JUNCTION BOX (IN.)	MAX CALCULATED NETURAL FEEDER LOAD (AMPS)
1"	50	# 6 THW	# 6 THW	# 8 THW	10x10x4	50
1 1/2"	100	# 1 THW	# 1 THW	# 6 THW	12x12x6	100
2"	125	#2/0 THW	# 1/0 THW	# 4 THW	16x16x6	115
2"	150	#3/0 THW	# 1/0 THW	# 4 THW	16x16x6	115
2"	200	#4/0 THW-2 90 C	# 2/0 THW	# 4 THW	16x16x6	115

NOTES:

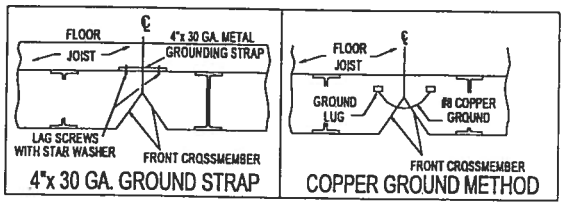
1. All conductors must have outer sheathing labeled THW or equivalent. Larger conductors and/or higher rated sheathing may be substituted. Reference the applicable National Electrical Code for appropriate substitutions. ***It is required that only qualified personnel do all electrical work.***

2. #2/0 may be substituted for #1/0 and #4/0 may be substituted for #3/0. Conductor sizes are in accordance with 1993 **N.E.C.** (National Electric Code) table 310-16, and do not take voltage drop into consideration.

GROUNDING HOME SECTIONS:

Each section of the home must be grounded together with a 4" metal strap included in the setup kit. To do this, remove the cross member lag screws closest to the centerline of the home. Next, slip the 4" metal strap between the bottom of the floor joist and the cross member. Place the star washer on each of the removed lag screws and reinstall through the metal straps into the joist. In lieu of the 4" metal strap, a copper ground wire and lug connection may be used. See the diagram below for details.

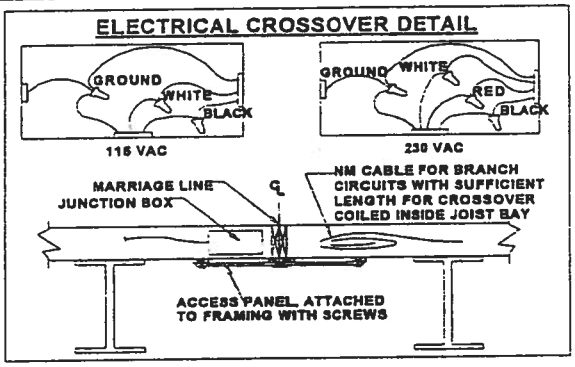
ELECTRICAL CROSSOVER:



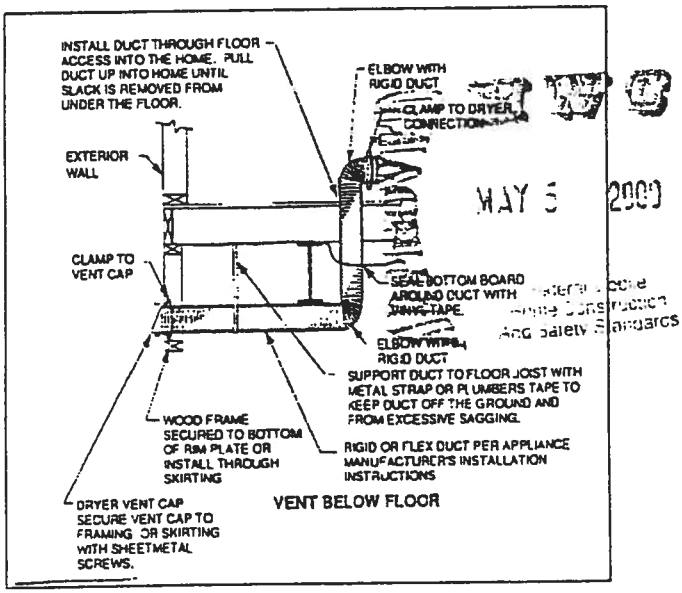
***Prior to starting any electrical installations, make sure all electrical circuits are off.** An Electrical Crossover Junction Box is provided with the home. This crossover is located in the rear or front and rear undersides of your home. All matching colors or numbers are to be joined together using a wire-nut(s). All connections are to be made within an Electrical Junction Box or other approved Self- Contained Device. The following table is from the NEC and

notes the minimum cubic inches of box required with various wire sizes. Consult with your local governmental agency for any licensing requirements. ***It is required that only qualified personnel do all electrical work.*** The diagram below shows the method of connection for the crossover box:

ELECTRICAL CROSSOVER DETAIL CHART	
SIZE OF CONDUCTOR	FREE SPACE WITHIN BOX FOR EACH CONDUCTOR
#14	2.0 CU. IN.
#12	2.25 CU. IN.
#10	2.50 CU. IN.
#8	3.0 CU. IN.
#6	5.0 CU. IN.



DRYER VENT INSTALLATION:



"CAUTION"
UNDER FLOOR DRYER DUCT MUST BE CONTINUOUS AND TERMINATE OUTSIDE THE PERIMETER OF THE HOME, OUTSIDE OF ANY SKIRTING OR FOUNDATION INSTALLED AROUND THE HOME.

WATER INLET FREEZING PROTECTION:

If the home is in an area where prolonged periods of freezing temperatures may occur, the water supply lines should be protected. Listed below are two possible methods to provide freezing protection:

1. Install the water supply line below frost line, with the insulated pipe riser above the frost line.

2. Heat Tape, a thermostatically controlled electrical heating device, can be installed at the main water supply line. ***Any Heat Tape devices used must be listed as***

"Approved for Manufactured Homes." Failure to comply with these standards could result in serious injury. An electrical outlet is provided and is located within two feet of the water inlet. ***This outlet is for use with the heat tape device only. A GFI circuit does not protect this electrical device.***

DUCT SYSTEM:

Proper air conditioning and heating installation is critical. The ducts and registers have been sized to allow more heating and cooling into the larger rooms for equal distribution. This type of system makes the entire home more comfortable and energy-efficient. There are, however, a few guidelines that should be followed:

1. All exterior ducts should be, at minimum, R4 and be listed by an approved testing agency.

2. Duct runs are to be as short as possible. ***Do not bend the duct in any way that would restrict airflow.***

3. The branch lines are to be a Wye (straight T's are not permitted.)

4. Return air ducts should be 14" in diameter.

5. The supply line from the air conditioner to the Wye should be 14" in diameter, at minimum.

6. The supply line from the Wye branch to the air conditioner dropouts should be 12", at minimum.

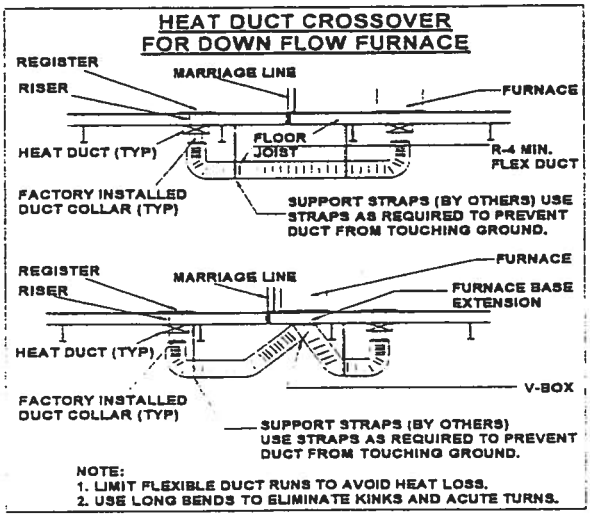
7. Ducts should be supported off the ground unless the duct is approved for ground contact.

8. Supports should be metal straps (or equivalent) attached to the I-Beam or Floor Joist. Ducts may, also, be blocked off the ground.

9. On some models, removing the axles to obtain the minimum clearance for duct connections may be necessary.

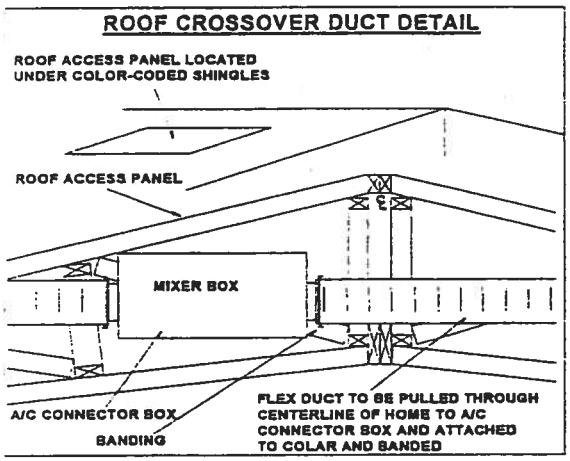
FLOOR CROSSOVER DUCT INSTALLATION:

For homes with a factory-installed furnace, connect the 10"or 12"diameter crossover duct to the dropouts provided. The duct must be supported so that it does not come in contact with the ground. Such supports may be metal straps or other approved supporting material. Straps may be attached to the I-Beam or Floor System. Blocking material may also be used to support ductwork off the ground. See the diagram below for details.



ROOF CROSSOVER:

Some homes may be built with a duct crossover located in the Roof System. With this type of system it will be necessary to open a section of the roof identified as the access way and make the required duct connections. See the diagram below for details.



GAS SYSTEM:

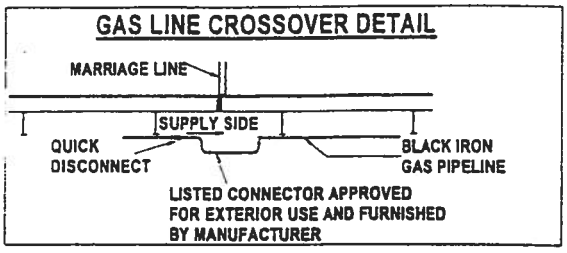
The Gas System is tested before leaving the factory. ****After all connections have been made and prior to occupancy, it is important to retest the gas system to correct any problems that may have been caused by in-transit stress.***

On the exterior of the home, near the gas inlet, is the label indicating the BTU capacity of the gas system. The Gas System is designed to operate at pressures between 1/2 psig and 1/4 psig. All appliance orifices must be checked to assure the proper type for the fuel used. Some appliances are delivered from the manufacturer equipped for natural gas. ****If the home is connected to an LP source, it is necessary to change the orifices of the appliances for compatibility. Consult your local gas contractor prior to service hookup.***

****Licensed gas personnel should make all connections to the gas supply.***

GAS CROSSOVER:

If the home is equipped with gas appliances on each half, a quick disconnect is to be installed in the home. The disconnect must be installed in compliance with the tag attached to the disconnect device. This device is designed to be installed without the use of any tools.



"ATTENTION"

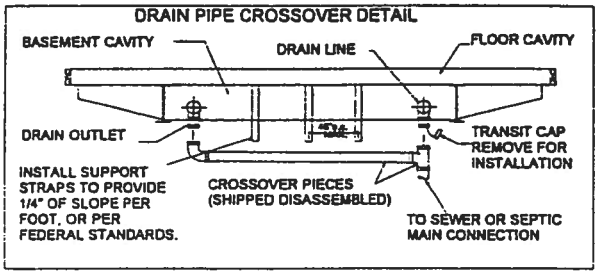
All connections must be installed with the correct cleaners, primers, and cements to avoid complications or damage. It is important that the methods shown in the diagrams are followed precisely to assure proper ventilation and to comply with applicable Federal Standards.

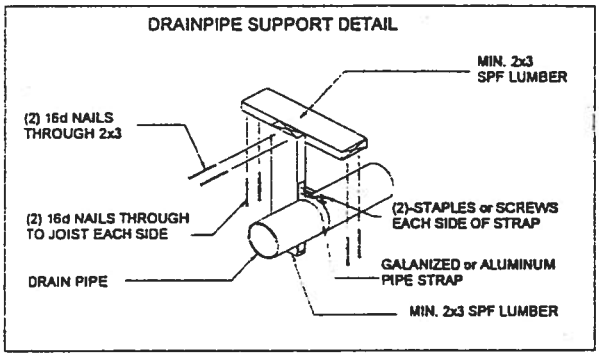
FIELD PLUMBING INSTALLATION:

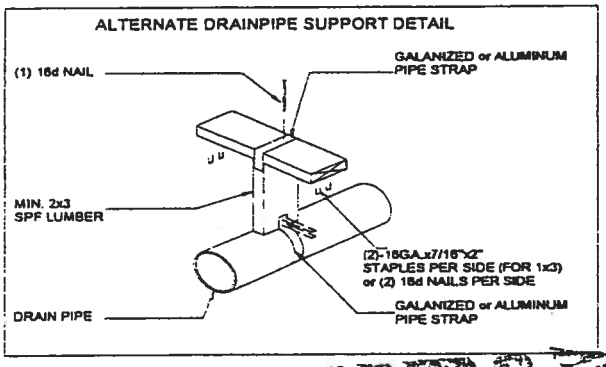
The home is constructed with PVC or ABS plumbing lines. To avoid damage to the home while in transit, parts of the drain system may have been shipped unassembled. In such cases, field installation of loose plumbing components is necessary.

Sufficient plumbing fittings and piping have been supplied with the home to bring all drain lines to a single drop. **(See DWV plan shipped inside home)** The Homeowner or the setup contractor must furnish drainage fittings and piping (required to connect the single drop to the site sewer or septic system).

All drain lines are to be supported a maximum of 4' on center with a minimum of a 1/4" slope per foot.







WATER LINE CHECK VALVE:

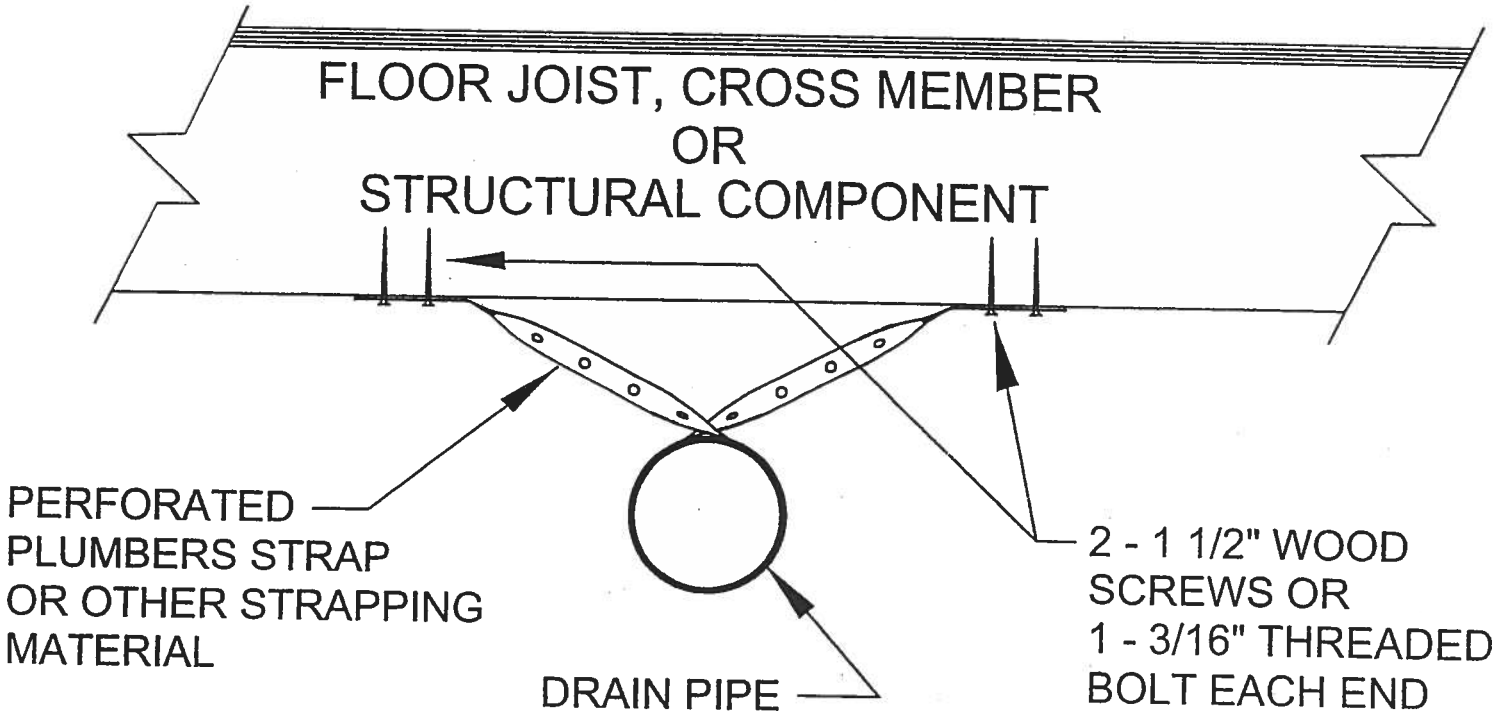
A Check Valve, at the water line entrance, is required to prevent accidental drainage of the water heater. ***Failure to install the check valve could damage the water heater and void the water heater warranty.***

WATER LINE SHUT-OFF VALVE:

A main water shut-off valve for the water system must be installed at the inlet of the water system.

WATER LINE PRESSURE REGULATOR:

A pressure regulator must be installed if water pressure exceeds 80 psi.



NOTE:

1). SECURELY WRAPPED AROUND DRAIN PIPE TWICE WITH CARE NOT TO DISTORT DRAIN PIPE.

2). SLOPE AND SUPPORT SPACING PER APPROVED SET-UP MANUAL.

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RWG

APR - 2 2004

Federal Mobile Home Construction And Safety Standards

APPROVED

Homes of Merit

P.O. Box 1606
Bartow Air Base
Bartow, Florida 33831

Revisions	

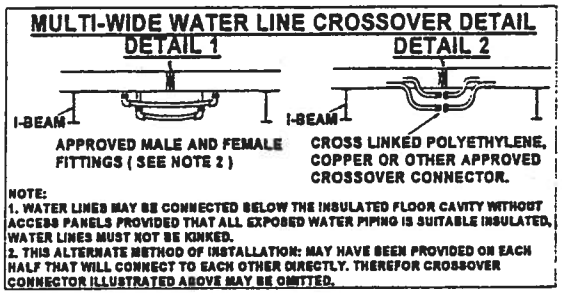
Scale: N.T.S.	Drawn: FP.
Date: 04/01/04	Appv'd:

Description: DRAIN PIPE SECURITY

Print #: SU-M-39A Det:

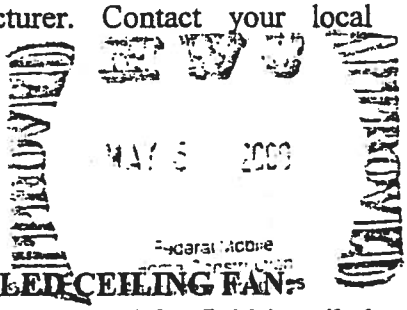
WATER CROSSOVER

If the home requires a Water Crossover, it will be located under the home at the centerline. An aluminum or other type of cover may have to be removed to make the connection. The hot and cold water lines are identified by a color code.



COOLING SYSTEM ADDED TO HOME WITH FACTORY HEAT:

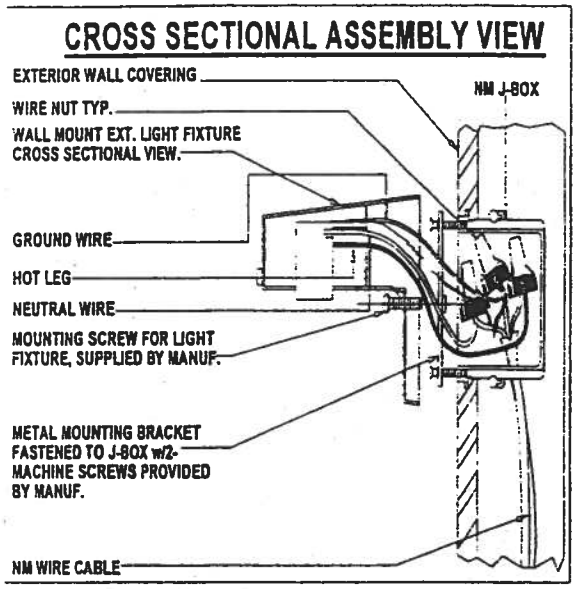
If an air conditioner, which does not use the furnace blower for air distribution and operates independently of the furnace, is installed, the thermostat system must have an Interlock. The Interlock has a heat/cool switch that prevents the two systems from operating simultaneously. The furnace must be equipped with an automatic damper. The damper prevents the cold air from being distributed to the heat exchanger. A damper is available from the furnace manufacturer. Contact your local representative.



FIELD INSTALLED CEILING FAN:

If the home was constructed for field-installed ceiling fans, all necessary preparations were completed; however, please note that the ***maximum fan weight cannot exceed 50 pounds and it must be fully self-contained. *The factory-installed wiring method will not work with fans that require a wall-mounted speed controller.*** To install the ceiling fan, remove the junction box cover and follow ceiling fan manufacturer instructions.

FIELD INSTALLED LIGHTING:



FIREPLACE INSTALLATION:

If a fireplace is installed in the home, the installation will be complete except for the chimney and perhaps combustion air intake ducts.

"WARNING"
BOTH THE CHIMNEY AND THE COMBUSTION AIR INTAKE DUCTS MUST BE INSTALLED BEFORE THE FIREPLACE CAN BE USED.

To install the chimney, remove the protective materials covering the roof opening or flashing. Remove any foreign material from the installed part of the chimney. All parts and instructions necessary for the installation of the chimney section are provided in the home, located either inside the fireplace or with the chimney parts shipped with the home.

Read all warnings and caution statements carefully.

Refer to the instructions mentioned above for the location of combustion air ducts. If applicable, this duct must be extended to the outside of the home. The combustion air inlet shall not allow material from the hearth to drop beneath the home. Typically, these ducts are

factory installed. However, all instructions necessary for the installation of the combustion air ductwork are provided in the home. Located either inside the fireplace or with the chimney parts shipped with the home. When extension of these ducts is not necessary, make sure to remove any protective covering installed for shipment (i.e.: tape, caps, etc.), before using the fireplace.

MULTIWIDE SECTIONS
EXTERIOR CLOSE UP:
Remove transportation shipping strips installed at the factory, seal all holes in siding with a non-hardening caulk such as Acrylic latex or silicone, follow the manufacture's instructions carefully.

The exterior siding on the front and rear end walls and exposed mating line walls may have been shipped loose by the manufacturing facility with the home. The insulation and vapor retardant have been installed at the manufacturing facility. Exterior siding shall be installed in accordance with the manufacturer's installation instructions. When the rear wall exterior siding is site installed, the H.U.D. tag has been relocated on the sidewall at the manufacturing facility.

CAUTION
THE POLYETHYLENE SHEATHING COVERING EXTERIOR WALLS MUST BE COMPLETELY REMOVED PRIOR TO INSTALLING THE SIDING. FAILURE TO DO SO CAN CAUSE CONDENSATION TO BUILD UP IN THE WALLS AND DAMAGE THE HOME.

MULTI WIDE SECTIONS
INTERIOR CLOSE UP:
Remove all shipping blocking, strapping or bracing from appliances, windows, and doors. Install all loose items packaged or attached for shipping.
All interior wall paneling omitted at the manufacturing facility and shipped loose to facilitate interior close up shall be installed with a ¼" bead of PVA adhesive on all framing members and fastened with min. 1" long staples or nails at 6" on center along all panel edges and at 12" on center on field framing members.

For tape and texture homes, interior wall paneling shall be fastened to wall framing members with drywall screws or nails.

Additional molding has been provided to finish the close up at ceiling, mating line walls, front and rear end walls and in some cases molding around passageway doors. Molding and trim work requiring special attention has been detailed by the manufacturing facility and is provided in this manual. All molding and trim work should be installed with fine gauge wire staples or pin nails. Attention should be made to any mitered corners and seam work to assure a tight fit.

INTERIOR DOOR ADJUSTMENT:
Prior to final trim installation, all interior doors should be checked for proper operation. All interior door-framing adjustments should be performed at this time. Door adjustments are part of normal setup and are the responsibility of the setup contractor.

UNFINISHED GYPSUM BOARD:
Homes shipped with unfinished gypsum board walls and/or ceilings shall be finished on site. The interior finished shall have the following maximum flame spread rating measured in accordance with ASTM E84-91a:

Ceilings:.....75
Walls: General.....200
Adjacent to cooking range.....50
Adjacent to or enclosing a Furnace or water heater.....25

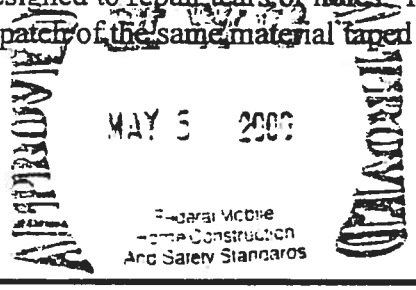
SU-M-41.1

BOTTOMBOARD REPAIR:

Fastened to the underside of the floor of the home is a special covering designed to protect against rodents and moisture as well as to isolate the floor cavity from outside air. This covering was inspected before the home left the manufacturing facility. It is important that any areas damaged or torn during transportation or installation be resealed.

Entry of outside air into the home's floor cavity is one of the most frequent causes of water piping freeze-up. The bottom covering of the home should be closely inspected to determine that there has not been any loosening of its attachment or tears. Opening around the perimeter of the floor covering, around pipes or pipe hangers, splits or tears should be sealed with tape. Check also to ensure that plumbing p-traps are well insulated and covered. It is important that this inspection is made and any necessary repairs completed whether skirting is to be installed around the perimeter or the home or not.

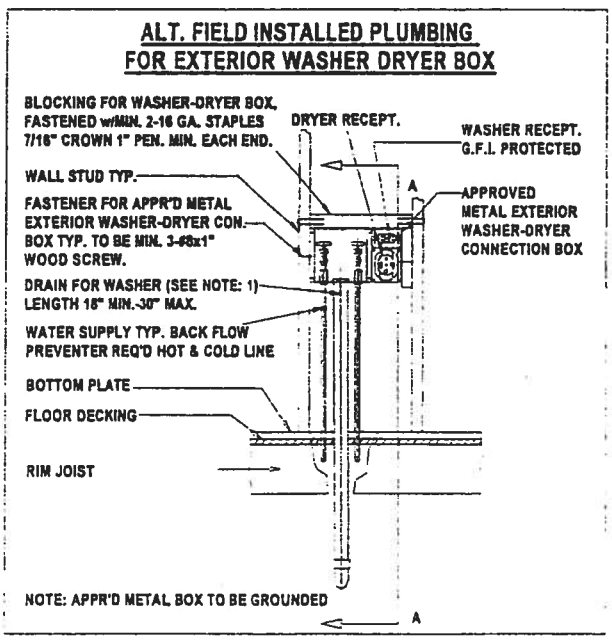
For bottom covering repair use vinyl tape especially designed to repair tears or holes. Pull torn edges together then cover, as necessary, with tape or apply a patch of the same material taped all four sides.

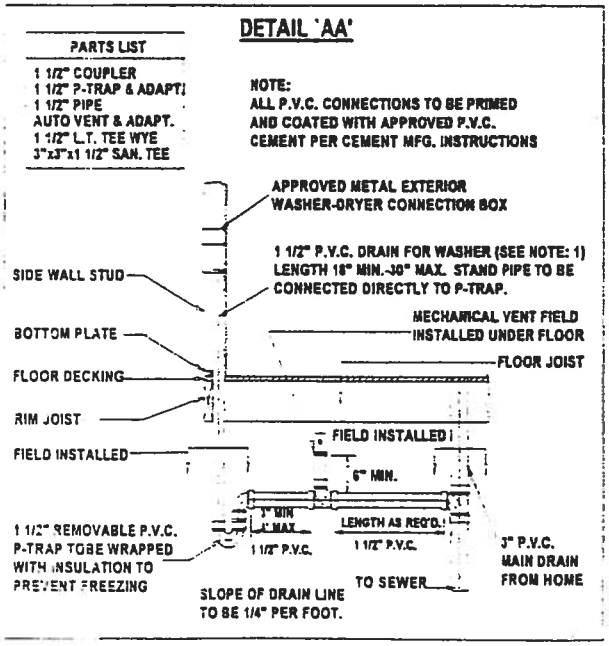


"ATTENTION"

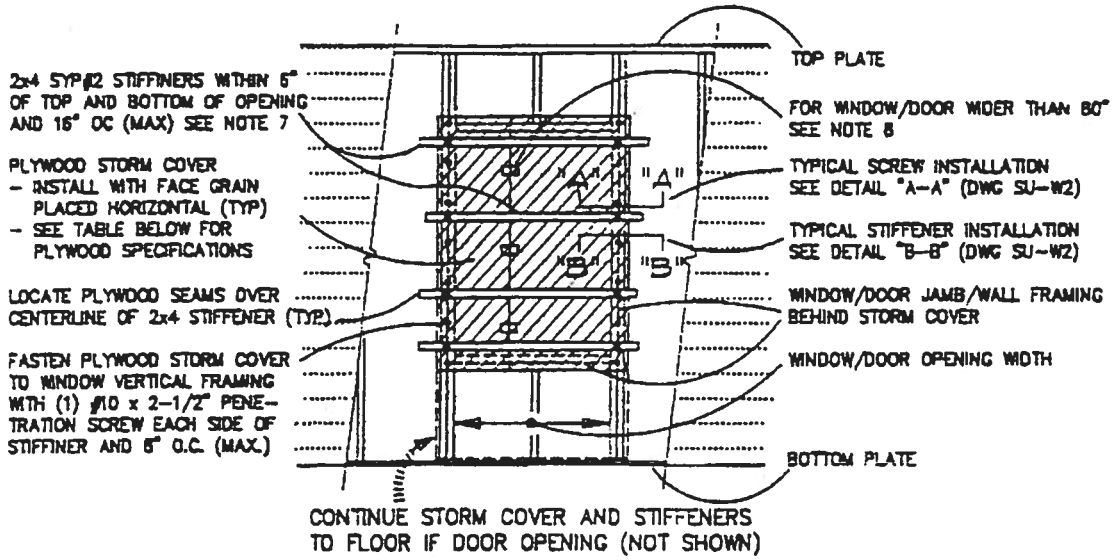
After final installation, all water lines and fittings should be tested for leaks. Proper sizing of wire and breaker are important to eliminate nuisance breaker tripping and electrical damage. Make sure the water heater tank is full of water before turning on the water heater breaker. Failure to comply could result in element damage.

FIELD INSTALLED WASHER AND DRYER BOX:





WINDOW / DOOR STORM PROTECTION



STORM PROTECTION FOR WINDOWS AND DOORS

PLYWOOD STORM COVER SPECIFICATIONS

USE EXTERIOR GRADE RATED SHEATHING PLYWOOD WITH THE MINIMUM THICKNESS AND SPAN INDEX SPECIFIED BELOW:

MAX OPENING WIDTH	MINIMUM THICKNESS	SPAN INDEX
48"	1/2"	24/0
84"	5/8"	32/16

SEE NOTE 7 WHEN OPENING WIDTH EXCEEDS 84"

STORM PROTECTION FOR WINDOWS

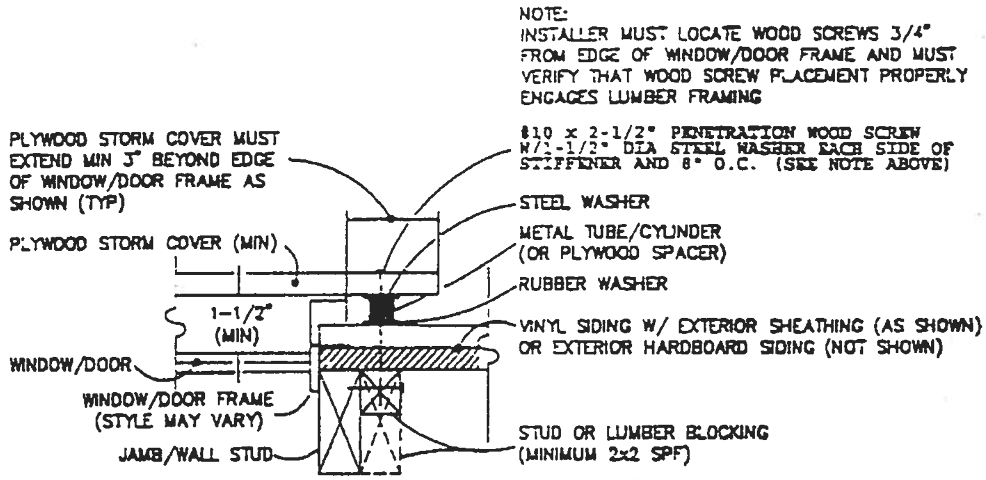
GENERAL NOTES:

1. INSTALLER MUST REMOVE ALL DECORATIVE SHUTTERS FROM WINDOWS AND DOORS PRIOR TO INSTALLING THE STORM COVERS SPECIFIED ON THIS DRAWING.
2. WHEN HURRICANE OR SEVERE WIND STORMS APPROACH, THE WINDOW AND DOOR PROTECTION COVERS SPECIFIED ON THIS DRAWING SHOULD BE INSTALLED.
3. IMMEDIATLY AFTER INSTALLING THESE COVERS THE BUILDING MUST BE VACATED AND/OR NO OCCPANTS SHOULD REMAIN IN THE STRUCTURE.
4. NOTE: THIS STORM PROTECTION SYSTEM DOES NOT PERMIT EGRESS FROM THE BUILDING UNDER FIRE OR OTHER EMERGENCY CONDITIONS.
5. AS SOON AS THE STORM HAS SUBSIDED, ALL STORM PROTECTION COVERS MUST IMMEDIATELY REMOVED BEFORE OCCUPANCY OF THE BUILDING IS PERMITTED.
6. ALL WOOD SCREW HOLES RESULTING FROM THE STORM COVER INSTALLATION MUST BE FILLED WITH GOOD QUALITY EXTERIOR GRADE CAULK.
7. WHEN OPENING WIDTH EXCEEDS 84" UP TO A MAXIMUM OF 120", REPLACE 2x4 STIFFENERS WITH 2x6 SPF #2 AND USE 3/4" PLYWOOD WITH SPAN INDEX OF 48/24. ALL OTHER INSTALLATION SPECIFICATIONS REMAIN UNCHANGED.
8. FOR OPENING WIDER THAN 80", LOCATE STORM COVER BUTT JOINT WITHIN 30" OF VERTICAL STUDS AND INSTALL "H" CLIPS BETWEEN LUMBER STIFFENERS AS SHOWN.

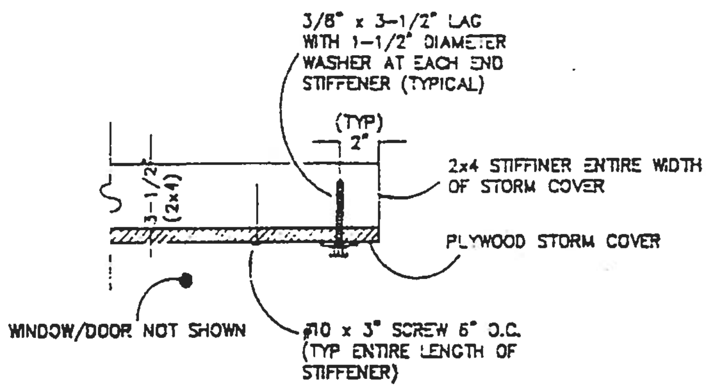
P.E. SEAL	THIRD PARTY	REVISIONS	HOMES OF MERIT
		LTR: BY: DATE:	WINDOW/DOOR STORM PROTECTION FIELD INSTALLED
		DRAWN BY: TC DATE: 1/28/98	DWG NO.: SU-W1 SC: N.T.S.

Federal Mobile Home Construction and Safety Standards

WINDOW / DOOR STORM PROTECTION



SECTION "A-A"
(TYPICAL SCREW INSTALLATION)



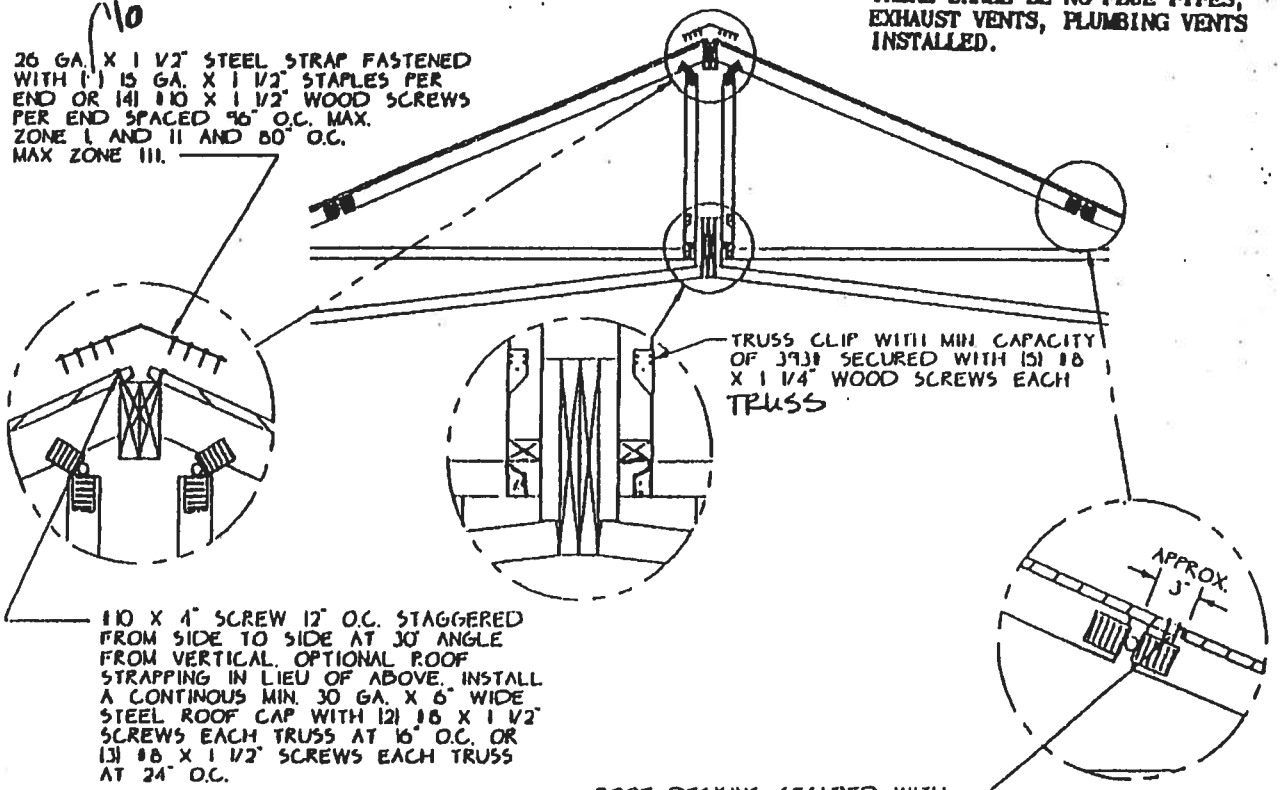
SECTION "B-B"
(TYPICAL STIFFINER INSTALLATION)

P.E. SEAL	THIRD PARTY	REVISIONS			Homes of Merit
		LTR:	BY:	DATE:	
				11/14/99	WINDOW/DOOR STORM PROTECTION FIELD INSTALLED
					DRAWN BY: TC · DAPIA NO: SU-W2
					DATE: 1/28/98 · SC: N.T.S.

Federal Mobile Home Construction And Safety Standards

ROOF FASTENING DETAIL ROOF SLOPE OVER 20°

IN THE HINGED TRUSS AREA, THERE SHALL BE NO FLUE PIPES, EXHAUST VENTS, PLUMBING VENTS INSTALLED.



D-97

REF CALC NO 1 JUNE 4 1998

HINGED TRUSS

REF. UNIVERSAL FOREST PRODUCTS TRUSS DWG HZ0795R01

APPROVED
MAY 5 2000
Federal Mobile Home Construction And Safety Standards

APPROVED
HWC
JUN 4 1998
Federal Mobile Home Construction

CERTIFICATE OF AUTHORIZATION * STATE OF FLORIDA * PROFESSIONAL ENGINEER
4/20/98

Homes of Merit
P.O. Box 1806
Barlow Air Base
Barlow, Florida 33831
EMPLOYEE OWNED

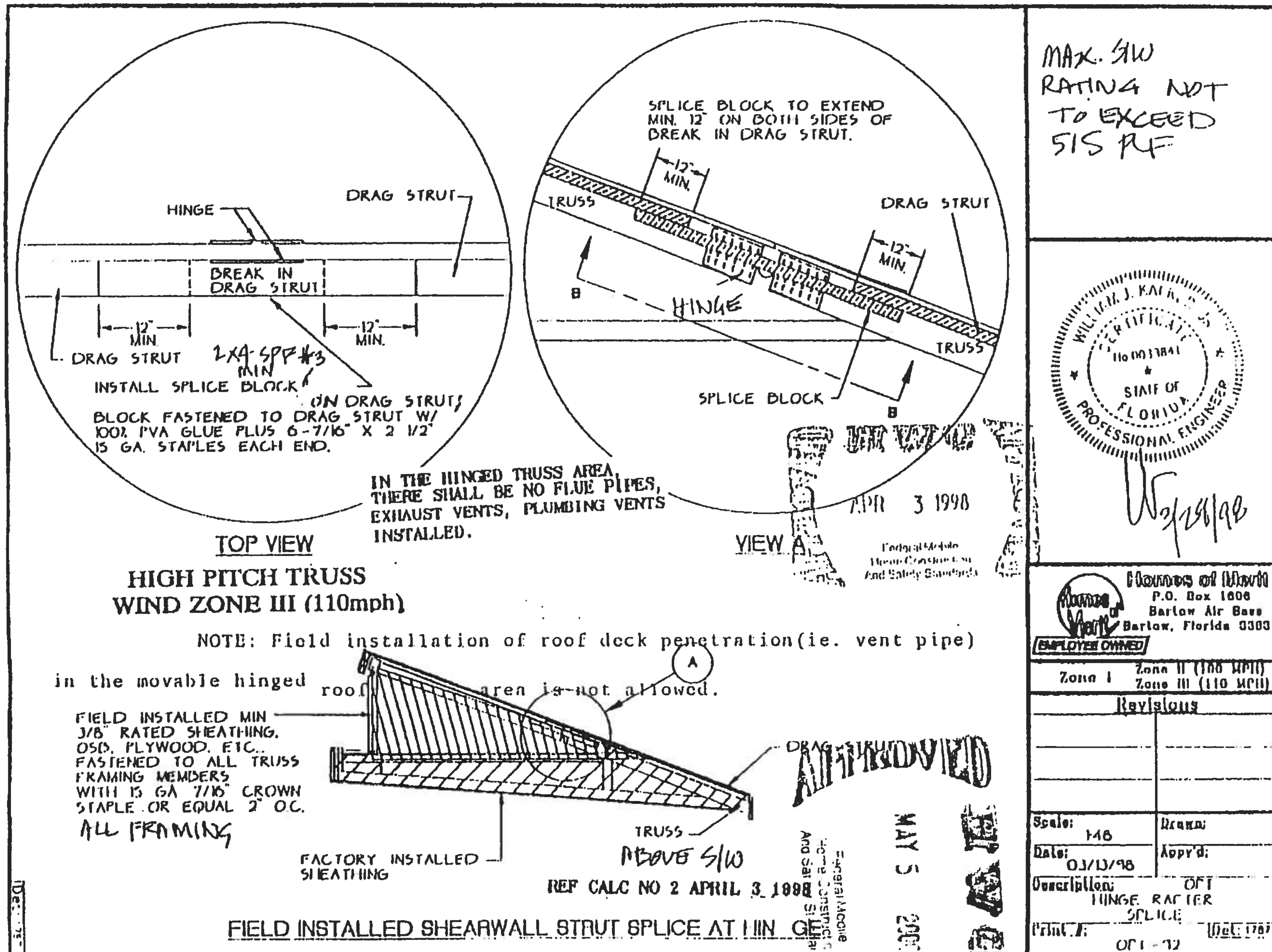
Zone I	Zone II (100 MPH) Zone III (110 MPH)

Revisions

Scale: 1:36	Drawn:
Date: 04/17/98	Appv'd:

Description: ROOF SLOPES OVER 20° FASTENING DETAIL

Print #: D-97 Del: 1821


TOP VIEW
HINGE
DRAG STRUT
BREAK IN DRAG STRUT
12" MIN
12" MIN.
DRAG STRUT
2X4 SPF #3 MIN
INSTALL SPLICE BLOCK ON DRAG STRUTS
BLOCK FASTENED TO DRAG STRUT W/ 100% PVA GLUE PLUS 6-7/16" X 2 1/2" 15 GA. STAPLES EACH END.
VIEW A
SPLICE BLOCK TO EXTEND MIN. 12" ON BOTH SIDES OF BREAK IN DRAG STRUT.
12" MIN.
TRUSS
DRAG STRUT
HINGE
SPLICE BLOCK
B
IN THE HINGED TRUSS AREA, THERE SHALL BE NO FLUE PIPES, EXHAUST VENTS, PLUMBING VENTS INSTALLED.
HIGH PITCH TRUSS
WIND ZONE III (110mph)
NOTE: Field installation of roof deck penetration(ie. vent pipe) in the movable hinged roof area is not allowed.
A
FIELD INSTALLED MIN 3/8" RATED SHEATHING, OSB, PLYWOOD, ETC., FASTENED TO ALL TRUSS FRAMING MEMBERS WITH 15 GA 7/16" CROWN STAPLE OR EQUAL 2" O.C.
ALL FRAMING
FACTORY INSTALLED SHEATHING
DRAG STRUT
TRUSS
ABOVE S/W
REF CALC NO 2 APRIL 3 1998
FIELD INSTALLED SHEARWALL STRUT SPLICE AT HINGE
APPROVED
APR 3 1998
APPROVED
MAY 5
Federal Mobile Home Construction And Safety Standards
MAX. S/W RATING NOT TO EXCEED 515 PLF
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Homes of Merit
P.O. Box 1606
Bartow Air Base
Bartow, Florida 33831
EMPLOYEE OWNED
Zone I
Zone II (100 MPH)
Zone III (110 MPH)
Revisions
Scale: 1-48
Drawn:
Date: 03/13/98
Appr'd:
Description: OFT HINGE RAFTER SPLICE

ROOF OVER 20'
MAX. KING POST 7'1" W/12" O.H.

MAXIMUM DISTANCE BETWEEN MARRIAGE WALL FRAME TIE-DOWN STRAPS

MAXIMUM 40" JOIST TO GRADE

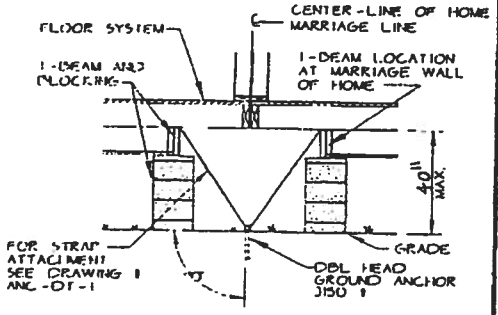
WIND ZONE		95 1/2" I-BEAM SPACING 60' FLOOR WIDTH			
I 115 PSF	84" SIDEWALL	NOT REQUIRED			
	90" SIDEWALL	NOT REQUIRED			
II 100MPH	84" SIDEWALL	N/A	N/A	N/A	N/A
	90" SIDEWALL	12'-0"	N/A	N/A	N/A
III 110 MPH	84" SIDEWALL	N/A	N/A	N/A	N/A
	90" SIDEWALL	10'-0"	N/A	N/A	N/A

INSTALL PIERS WITH 15" DIMENSION PERPENDICULAR TO CHASSIS STEEL BEAMS

REF. CALC # 2 - APRIL 3, 1998

HIGH PITCH TRUSS

MIN. GROUND ANCHOR CAPACITY 3150#
MAX RAFTER KING POST HEIGHT 7'
MAX 12" OH



APPROVED
MAY 5 2000
Federal Mobile Home Construction And Safety Standards

Homes of Merit
P.O. Box 1606
Bartow Air Base
Bartow, Florida 33830

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions	
5/11/99	

Scale: N/A | Drawn:
Date: 01/17/98 | Appr'd:
Description: AIR, MARRIAGE WALL ANCHORING REQUIREMENTS
Print #: ANC-DT-6 | Rel: 1625

SPACING FOR SIDEWALL HURRICANE GROUND ANCHORS
ROOF SLOPES OVER 20'

GROUND ANCHOR DESIGN LOAD 3150#

MAX RAFTER KING POST HEIGHT 7'

INSTALL PIERS WITH 15" DIMENSION PERPENDICULAR TO CHASSIS STELL FRAME

MAX 12" OH

DOUBLE WIDE HURRICANE ANCHOR SPACING (FT)

I-BEAM SPACED AT 95 1/2" WITH ROOF SLOPE GREATER THAN 20°

WALL HEIGHT 90" PIER HEIGHT 24" TO 40"

FLOOR WIDTH	SIDEWALL OVERHANG	ZONE I 115 PSF ANCHOR * SPACING	ZONE I 115 PSF ANCHOR * ANGLE	ZONE II 100 MPH ANCHOR ** SPACING	ZONE II 100 MPH ANCHOR ** ANGLE	ZONE III 110 MPH ANCHOR ** SPACING	ZONE III 110 MPH ANCHOR ** ANGLE
60'	12"	8'	0	8'	20	6.5'	20

* NEAR BEAM METHOD

** FAR BEAM METHOD

SEE OTHER DRAWINGS FOR MARRIAGE WALL FRAME TIEDOWN SPACINGS

PIER HEIGHT - DISTANCE FROM GROUND TO TOP OF STEEL BEAM

NOTE:

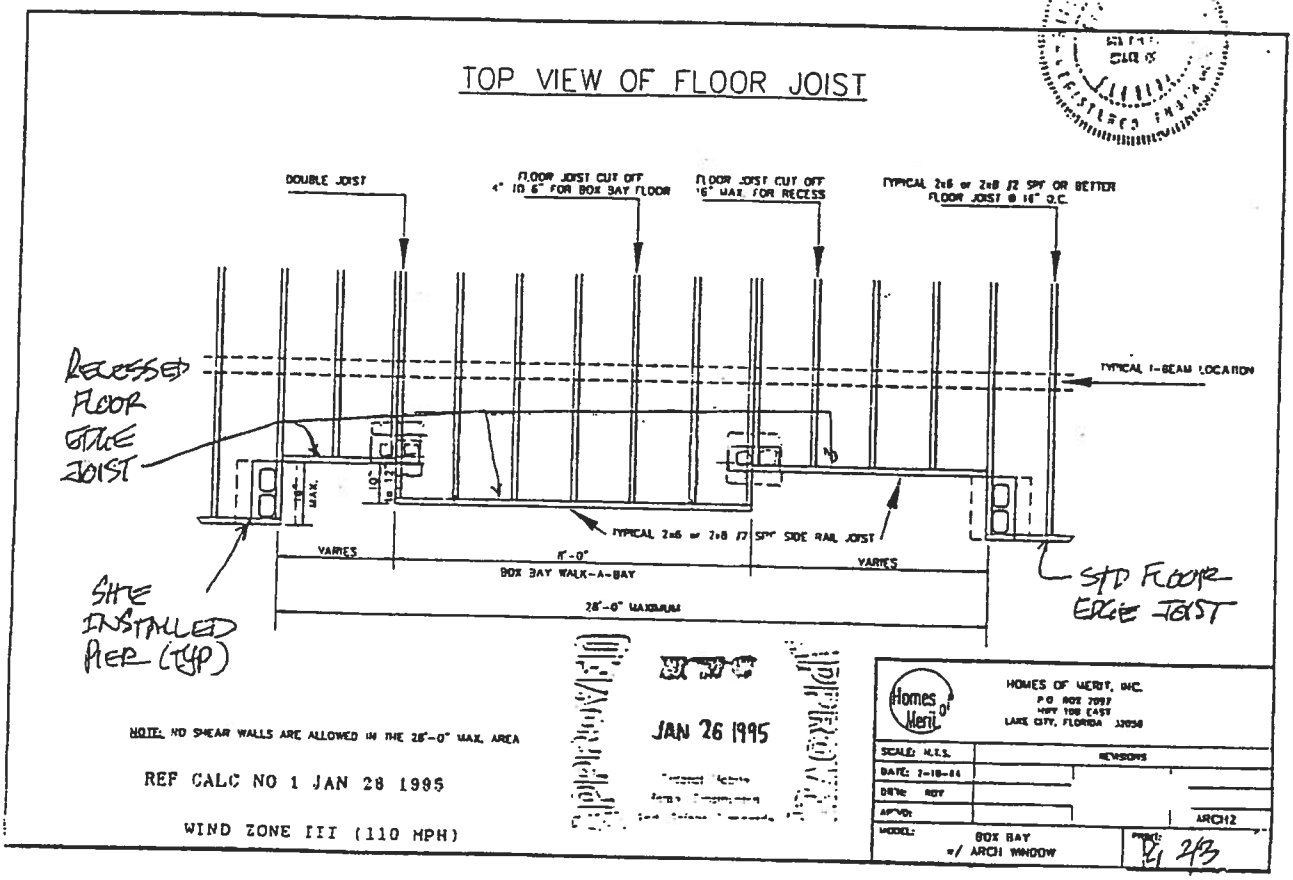
1. GROUND ANCHORS TO BE APPROVED FOR 3150# DESIGN LOAD AT 45° AND 3150# AT VERTICAL
2. FOR WIND ZONE II 100 MPH AND WIND ZONE III 110 MPH VERTICAL TIE IS REQUIRED AT EACH DIAGONAL FRAME TIE.
3. FOR OFFSET UNITS, PORCHES, SHED ROOF ETC. SEE SINGLE WIDE GROUND ANCHOR SPACING FOR WALL HEIGHT AND FLOOR WIDTH CONDITIONS.
4. FOR CONNECTION REQUIREMENTS SEE DRAWING ANC-DT-1

Homes of Merit
P.O. Box 1606
Bartow Air Base
Bartow, Florida 33831

Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions	
10/21/98	5/8/99
4-19-99	
04/28/99	

Scale: N/A | Drawn:
Date: 03/17/98 | Appr'd:
Description: AIR, SPACING FOR HURRICANE GROUND ANCHOR
Print #: ANC-DT-4 | Rel: 1626



MAY 5 2003

Federal Mobile Home Construction And Safety Standards

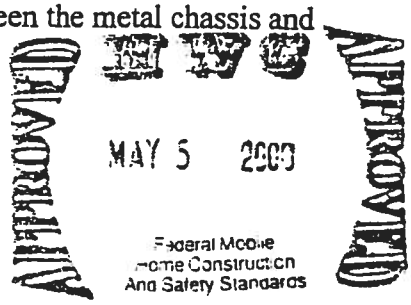
SU-M-48

TESTING OF THE ELECTRICAL SYSTEM:

After your home has been completely assembled and all accessories installed, it should be tested to ensure that no damage occurred during transit and that all electrical connections were properly performed. ***Qualified personnel familiar with the local codes and required test procedures should perform these tests.*** It is recommended that a polarity test and continuity test of the grounding system and circuit conductors be performed.

1. All exposed non-current carrying metal parts that may become energized must be effectively grounded. A test to confirm this should be made prior to connecting the electrical service to the home.
2. The following checks should be made using a continuity tester or equivalent. Any indication of an inadequate ground requires investigation and correction.

    a. Using the tester, clip to a convenient ground and touch the other clip to each light canopy. If the fixture is properly grounded the light on the tester will come. On.
    b. Using the tester, check all appliance or fan.
    c. Using the same procedure as above, check the grounding between the metal chassis and the following:
        1. Metal gas piping.
        2. Metal water piping.
        3. Metal roof and metal exterior skin.
        4. Metal raceway below the distribution panel.
        5. One metal register boot to a convenient ground.



Note: Grounding is not required on plumbing fixtures such as tubs, faucets, shower risers and metal sinks when connected to plastic water and drain piping.

TESTING OF WATER SYSTEM

Testing of the water system can be performed using a hydrostatic test. The system should be subjected to a hydrostatic pressure of 80psi for fifteen minutes without a loss of pressure.

WARNING

THE WATER HEATER MUST BE ISOLATED FROM THE SYSTEM BY DISCONNECTING THE HOT AND COLD WATER LINES AND JOINING THEM TOGETHER. FAILURE TO DO THIS COULD SEVERELY DAMAGE THE HEATER OR CAUSE AN EXPLOSION.

DRAINAGE SYSTEM TEST

1. Before the system is connected, ensure and outlet caps are securely installed and fill the entire system to the rim of the toilet and release excess air in the system. Tubs and showers should be plugged.
2. Test should be maintained for a period of 15 minutes without the water level dropping. If the water level drops find the leaks and repair them. Retest the system until evidence of all leaks are eliminated.
3. After the system is connected, all fixtures should be filled with water and allowed to drain. Check all joints for visible leaks and ensure all fixtures drain easily.

WARNING

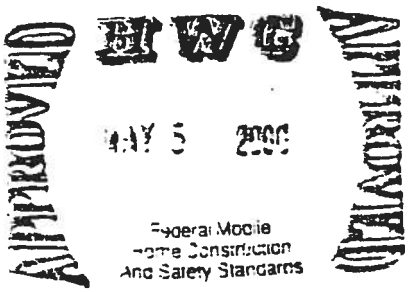
IT IS HIGHLY RECOMMENDED THAT YOUR GAS SSYTEM BE INSTALLED BY A QUALIFIED INDIVIDUAL. DO NOT LIGHT THE PILOT LIGHT ON ANY APPLIANCE THAT HAS NOT BEEN THOROUGHLY CHECKED TO INCLUDE THE SINSTALLATION OF ANY VENTS AND/OR FLUES THAT MAY HAVE BEEN SHIPPED WITH THE HOME.

GAS SYSTEM TESTS

Before your system is connected to your gas supply line perform the following checks.

1. To check the gas system for leaks, consult your appliance manufacture's instructions to determine how to close all appliance controls and pilot light valves.
2. Open the gas shut off valve to each appliance.
3. Attach an ounce gauge to the main gas inlet to the home.
4. Pressurize the system to not more than a maximum or 8 ounces of pressure. More than 8 ounces of pressure may damage your appliances or gas supply lines.
5. Apply an ammonia-free soapy water solution to the joints at the ends of the appliance connector. If bubbles form, tighten the connection and recheck with soapy water. ***NOTE: DO NOT CHECK BRASS FITTINGS WITH SOAPS THAT CONTAIN AMMONIA.***

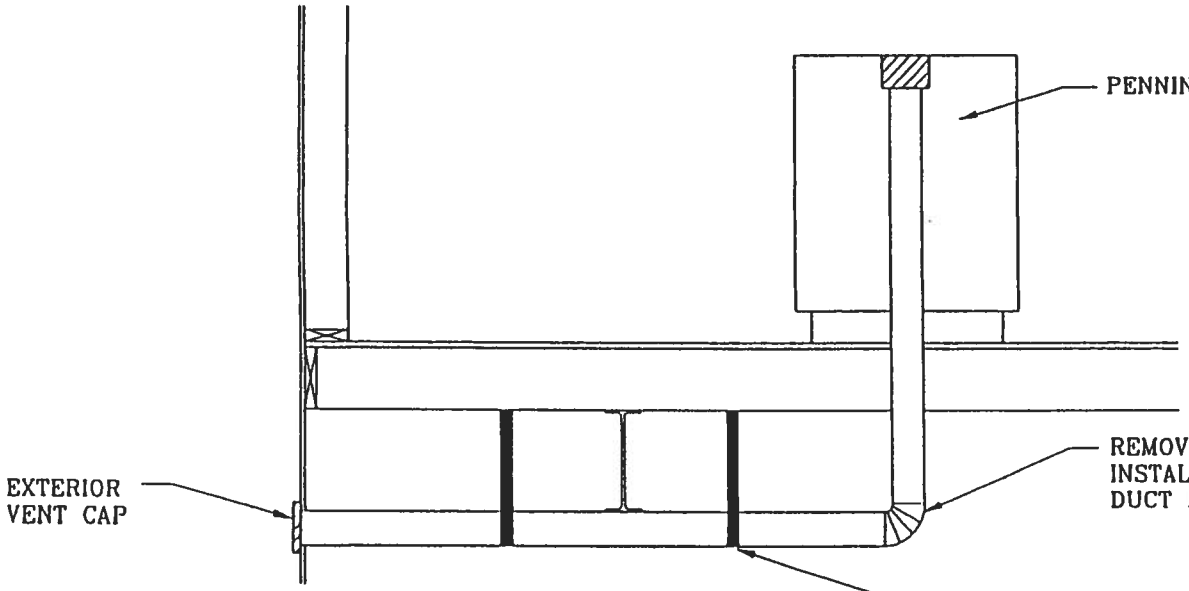
After completion of the above checks, have your home connected to the gas supply lines. Check the connections as described above for leaks. Ensure water heater is filled before lighting the pilot light.



SU-M-50

RANGE VENT DUCT INSTALLATION

THIS HOME MAY BE EQUIPPED WITH A DUCTED, "NO HOOD" VENTILATION SYSTEM FOR THE KITCHEN RANGE. THE DUCT IS BELOW THE FLOOR AND MUST TERMINATE OUTSIDE THE PERIMETER OF THE HOME. INSTALL THE DUCT AND SURFACE WALL CAP, WHICH ARE PROVIDED, IN ACCORDANCE WITH THE RANGE MANUFACTURER'S INSTALLATION INSTRUCTIONS.



NOTE:

RANGE BLOWER MUST BE OPERATED AFTER DUCT INSTALLATION TO CHECK FOR ADEQUATE AIRFLOW. IF AIRFLOW IS INADEQUATE CHECK FOR RESTRICTIONS AND/OR REFER TO THE MANUFACTURED INSTALLATION INSTRUCTIONS FOR MAX. LENGTH OF DUCT AND NUMBER OF TURNS RECOMMEND.

SU-M-51

Det: 3002

APPROVED HUD APPROVED

JUL 2 5 2001

Federal Mobile Home Construction And Safety Standards

Homes of Merit

Homes of Merit
P.O. Box 1606
Bartow Air Base
Bartow, Florida 33831

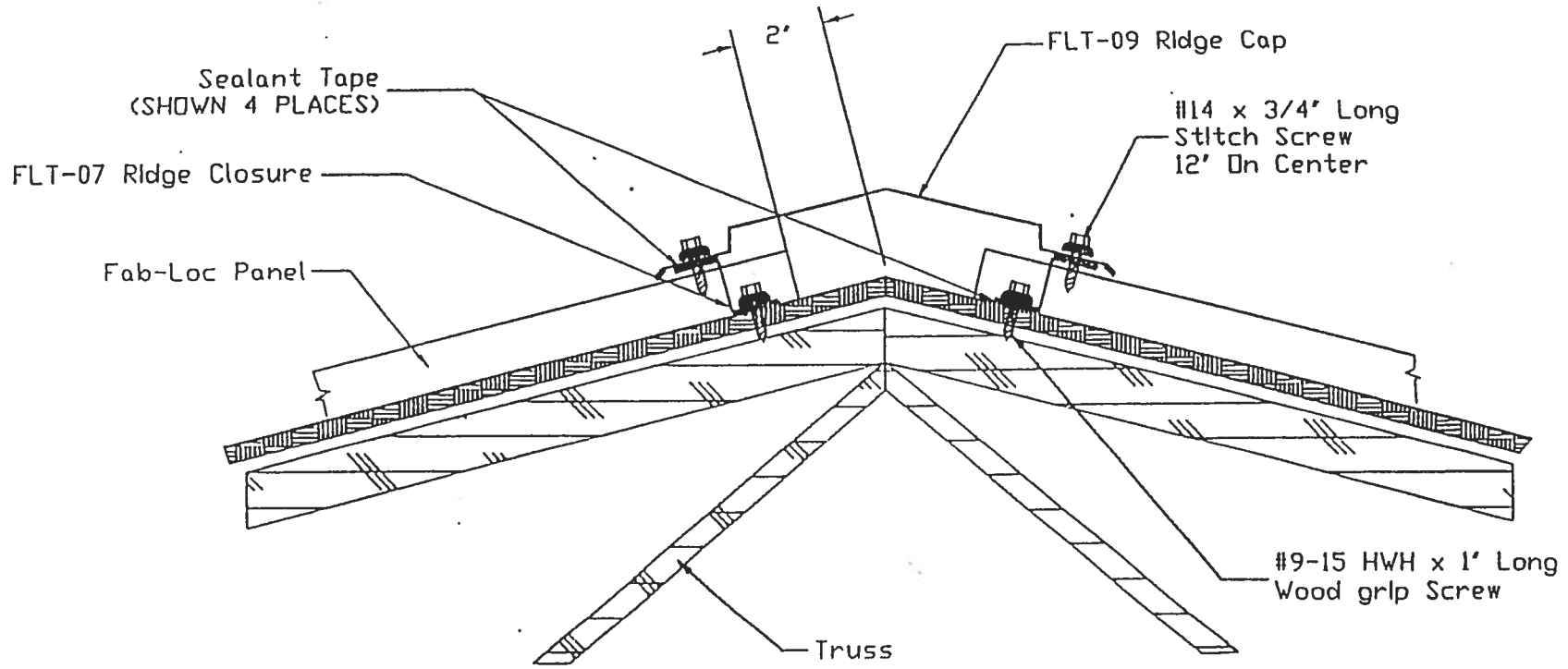
Zone I | Zone II (100 MPH) Zone III (110 MPH)

Revisions

Scale: 1-24	Drawn:
Date: 07/16/01	Appv'd:

Description: VNT RANGE VENT DUCT INSTALLATION

Print #: SU-M-51 | Det: 3002



Installation Procedure:

1. Insure that all panels are placed properly, insuring that panels end 2' down from the ridge.

2. Begin the ridge cap installation by installing a bead of 7/8' wide sealant tape 3' down from the ridge across all panels. Insure that the sealant tape follows the panel's contour.

3. Place the metal Z ridge closure FLT-07 on top of the sealant tape and fasten into place using two (2) #9-15 x 1' wood grip screws per panel.

4. After all Z closures have be installed, place a second layer of 7/8' wide sealant tape on the top of the closure. Sealant tape should extend the entire length of the house.

5. Place the ridge cap FLT-09 over the metal Z closures and fasten to the closure using a #14 x 3/4' long stitch screw placed every 12' on each side of the ridge. Ridge cap trims should be end lapped a minimum of 3'.

APPROVED
MAR 1 2001
Federal Mobile
Home Construction
And Safety Standards

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9013
DAVID A. HAINES

Rev.	Revision Note	Date	Signature	Approved
2	CHANGED INSTALLATION INSTRUCTIONS	12/17/97		
1	Redesign Ridge Cap	6/10/97		

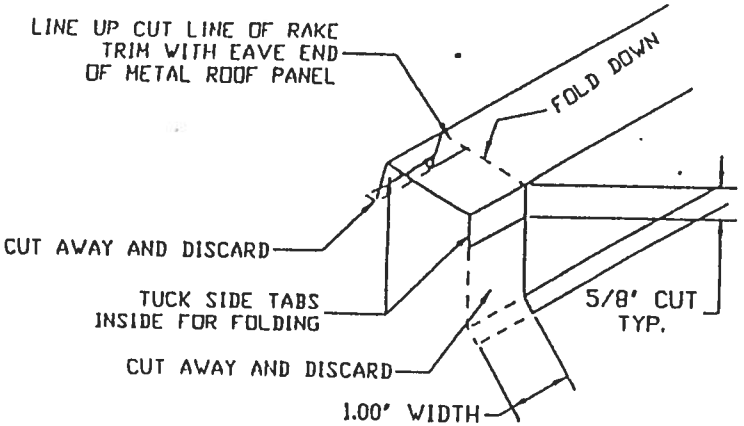
Designed By	Checked By	Approved By - Date	Project No.	Date	Scale
D. Haines				4/24/97	

FABWEL, Inc.

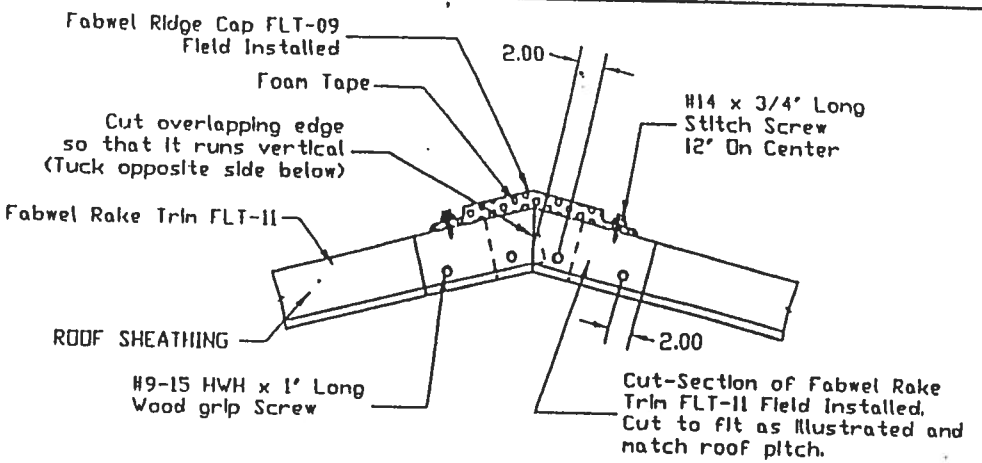
Fab-Loc Installation
Ridge Cap Detail

Drawing Number: FL-06-A

SEE FL. DWGS.



RAKE TRIM CUT OUT DETAIL FOR EAVE ENDS ILLUSTRATION NO. 1



RAKE DETAIL FOR DOUBLE WIDE PEAK ILLUSTRATION NO. 2

INSTALLATION INSTRUCTIONS

1. The rake trim should be installed after all panels, but prior to installation of the ridge cap.

2. To deter the likelihood of insects and small animals from nesting within the open cavities of the Fabwel rake trim and ridge cap the above options of closure are offered.

3. Illustration No.1 depicts a commonly used methods of enclosing the rake trim at the eave end. Trim and fold rake trim as illustrated. Take care to leave enough excess length for trimming.

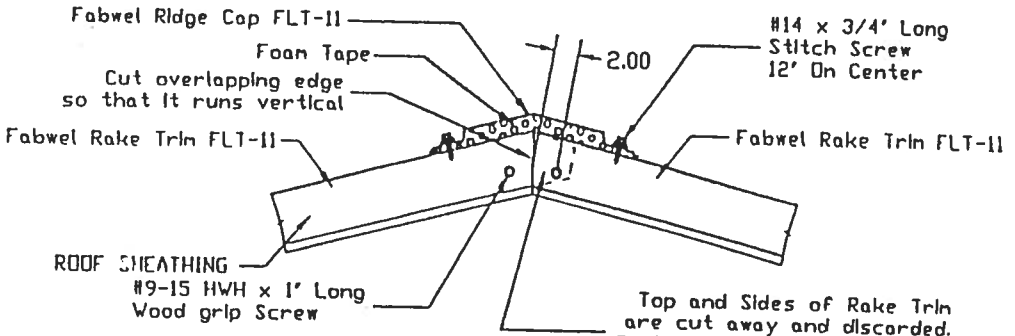
4. Illustration No. 2 depicts a commonly used method for trimming out the peak where the rake and ridge meet on double wide models. The factory installed rake trim is brought up to the ridge line as describe in your installation package. A cut section, adequate in length to cover the splice of the two halves, is trimmed to follow the pitch of the roof. Take care to trim overlapping half of cut section to allow for a vertical cut line at center of trim piece. The fabrication of the rake trim cut section will likely be done in the field.

5. Illustration No. 3 depicts a commonly used method for trimming out the peak where the rake and ridge meet on single wide models. The front side of the rake trim is trimmed to created a under lap tab. The back side rake trim is trimmed to overlap the front trim with a vertical cut line at the ridge peak.

6. It is recommended that a cell type foam tape be used to enclose the opening between the ridge cap and the finished rake trim pieces.

7. All lapping joints shall be sealed with 1" x 3/32" butyl tape or a gun grade 20 year sealant. All trim pieces should end lap a minimun of 3 inches.

8. Use only specified fasteners.



RAKE DETAIL FOR SINGLE WIDE PEAK ILLUSTRATION NO.3

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9013 DAVID A. HAINES

APPROVED MAR 1 2001 Federal Mobile Home Construction And Safety Standards

Designed By:	Checked By:	Approved By - Date:	Project No:	Date: 12/24/97	Scale:

FABWEL, Inc.

Fab-Loc Installation

Cut Out Illustration for Rake Trim

Drawing Number: FL-08C

Sheet: 3 of 3

Cleaning Painted Surfaces

While factory applied finishes for metal building panels are so durable that they will last many years longer than ordinary paints, it is desirable to clean them thoroughly on a routine basis. Over time, dirt-laden atmospheres or slight chalking, which is normal, may cause building panels to appear changed or discolored. A good cleaning will generally restore panel appearance and render repainting or other remedial action unnecessary.

Annual washing with a mild detergent, as explained below, is recommended to maintain the original finish appearance of factory finished building panels. Mild solutions of household soap and water will usually produce the desired results. Either of the following solutions are recommended:

A. One cup of Tide®, or other common non-abrasive detergent which contains less than 0.5% phosphate, dissolved in five gallons of warm water, or,

NOTE: The use of detergents containing greater than 0.5% phosphate are not recommended for general cleaning of building panels. NEVER BLEND STRONG CLEANERS AND BLEACH, except as detailed below.

B. One cup of household ammonia dissolved in five gallons of room temperature water.

Work from top to bottom of the panel surface. Use a well soaked soft cloth, sponge, very soft bristle brush or low pressure spray washer. Do not use scouring powders, industrial strength cleaners or solvents, since these chemical agents may damage the film. However, household cleaners containing small amounts of solvent, such as Fantastic®, may often be used successfully. If mildew or other fungal growth is observed and cannot be removed as above, mix one gallon of household bleach in five gallons of water along with one cup of mild soap (e.g. Ivory® liquid) to aid wetting. Do not allow the cleaning solution to dry on the panel being cleaned.

The final step of any cleaning procedure is thorough clear water rinse to remove dirt and/or cleaning agent residue. Such residues may affect repaint adhesion or otherwise damage the paint finish.

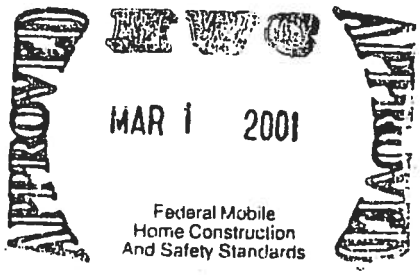
It is recommended that you "test clean" a small area to be certain that satisfactory results are achieved with whatever combination of cleaning solutions and procedures you use before starting on the entire area or building.

15-FAB-4523

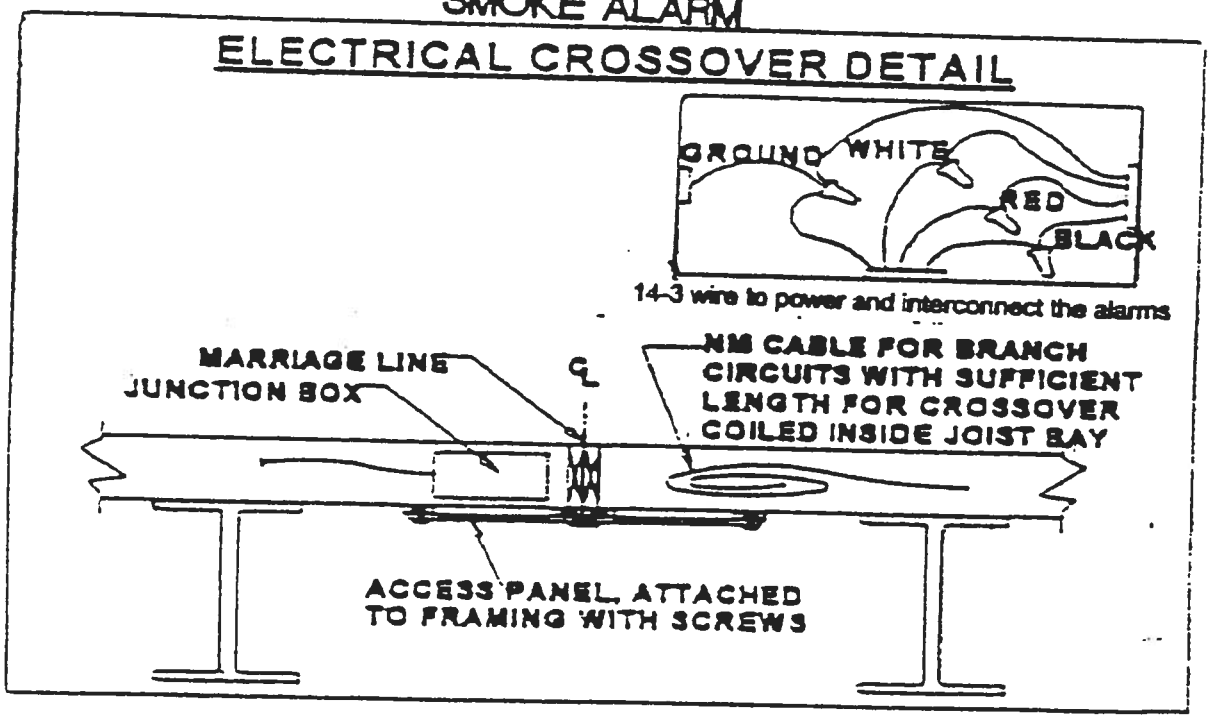
FABWEL
AN OWENS CORNING COMPANY

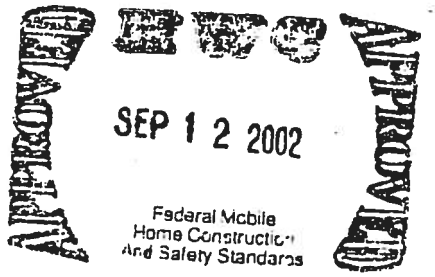
Limited Warranty
Architectural Steel Roofing Systems

Fab*LOC* – TRU-Rib – 5V
Painted
- Ceram-A-Star™
Silicone Polyester Finishes



SMOKE ALARM
ELECTRICAL CROSSOVER DETAIL





SU-M-55

SMOKE ALARM TESTING PROCEDURE

The following test is to be performed on the smoke alarm system.

Smoke Alarm Operational Test

Test Procedure:

1. All interconnected smoke alarms must be tested individually, one at a time. Assure that all units are connected and that each sounds an alarm while each is tested.

2. Once connections are made, press and hold the test button on the cover of the smoke alarm until the alarm sounds. Verify all other smoke alarms interconnected will sound the alarm. Note: When installed, make sure visual alarm (strobe light) is operating as well during testing.

3. Step 2 above is to be performed on each smoke alarm installed.

4. If an error is indicated in the fixture(s), it must be repaired as required and retest. If the alarm does not function correctly on the retest, the defective alarm must be replaced with a new alarm and the new alarm retested.