						marriage wall piers within 2' of end of home per Rule 15C								longitudinal (use dark lines to show these locations)	Show locations of Longitudinal and Lateral Systems	Typical pier spacing	If home is a triple or quad wide sketch in remainder of home I understand Lateral Arm Systems cannot be used on any home (new or used)	E. if home is a single wild fill and half after Math	Manufacturer TownHomes	being installed	Address of home 124 SE Silky Ct High Springs, FL	Installar. Robort Shonnord
Longitudinal Stabilizing Device (LSD)  Manufacturer  Longitudinal Stabilizing Device w/ Lateral Arms  Manufacturer  O Nycr   10010	TIEDOWN COMPONENTS 0	within 2' spaced a		Opening Pier pad size 4 ft		Il marriage wall openings	mate locations of marriage oot or greater. Use this	Other pier pad sizes (required by the mfg.)	Perimeter pier pad size	I-beam pier pad size    I   I   I   I   I   I   I   I   I	ER PAD SIZES	15C-1 pier spacing table.	8	δ	1000 psf 3' 4' 5' 6' 7' 8'	6" 18 1/2" x 18 20" x 20" 22" x 22" 1/2" (342) (400) (484)*	PIER SPACING TABLE FOR USED HOMES	Triple/Quad Serial #	Double wide	Single wide	Home installed to the Manufacturer's Installation Manual Home is installed in accordance with Rule 15-C	Used Home
1 do la	THER TIES	of end of home at 5' 4" oc	FRAME TIES	5ft	ANCHORS	× × × × × × × × × × × × × × × × × × ×	× 20	× 22.5	× × 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	× 1	LAR PAD SIZES				7' 8' 8'	24" 26" 3)* (6			60	È		

Mobil

Home

Permit Worksheet

te:

26" x 26" (676)

# Mobile Tome Permi Worksheet

pplication

Skirting to be installed. Yes No Dryer vent installed outside of skirting. Yes N/A Range downflow vent installed outside of skirting. Yes N/A Drain lines supported at 4 foot intervals. Yes Electrical crossovers protected. Yes Other:
Miscellaneous
The bottomboard will be repaired and/or taped. Yes . Pg. Siding on units is installed to manufacturer's specifications. Yes Fireplace chimney installed so as not to allow intrusion of rain water. Yes
Weatherproofing
Type gasket 1 com Installed:  Between Floors Yes  Between Walls Yes  Bottom of ridgebeam Yes
Installer's initials
I understand a properly installed gasket is a requirement of all new and used homes and that condensation, mold, meldew and buckled marriage walls are a result of a poorly installed or no gasket being installed. I understand a strip of tape will not serve as a gasket.
Gasket (weatherproofing requirement)
Floor: Type Fastener: 1955 Length: Spacing: 16 19 S
Fastening multi wide units
Debris and organic material removed Water drainage: Natural Swale Pad Other
Site Preparation

manufacturer's installation instructions aller verifies s all information given with this permit worksheet is accurate and true based on the and or Rule 15C-1 & 2

Installer Signature Date

Connect all potable water supply piping to independent water supply systems. Pg.

source.

This

includes

the

bonding wire

multi-wide units, but not between mult-wide units.

ð

the

main

power

Pg.

Electrical

Connect

electrical conductors between

Date

Tested

Installer Name

Der

ICENSED INSTALLER

w

Connect

<u>a</u>

sewer drains

to an existing

sewer tap

9

septic

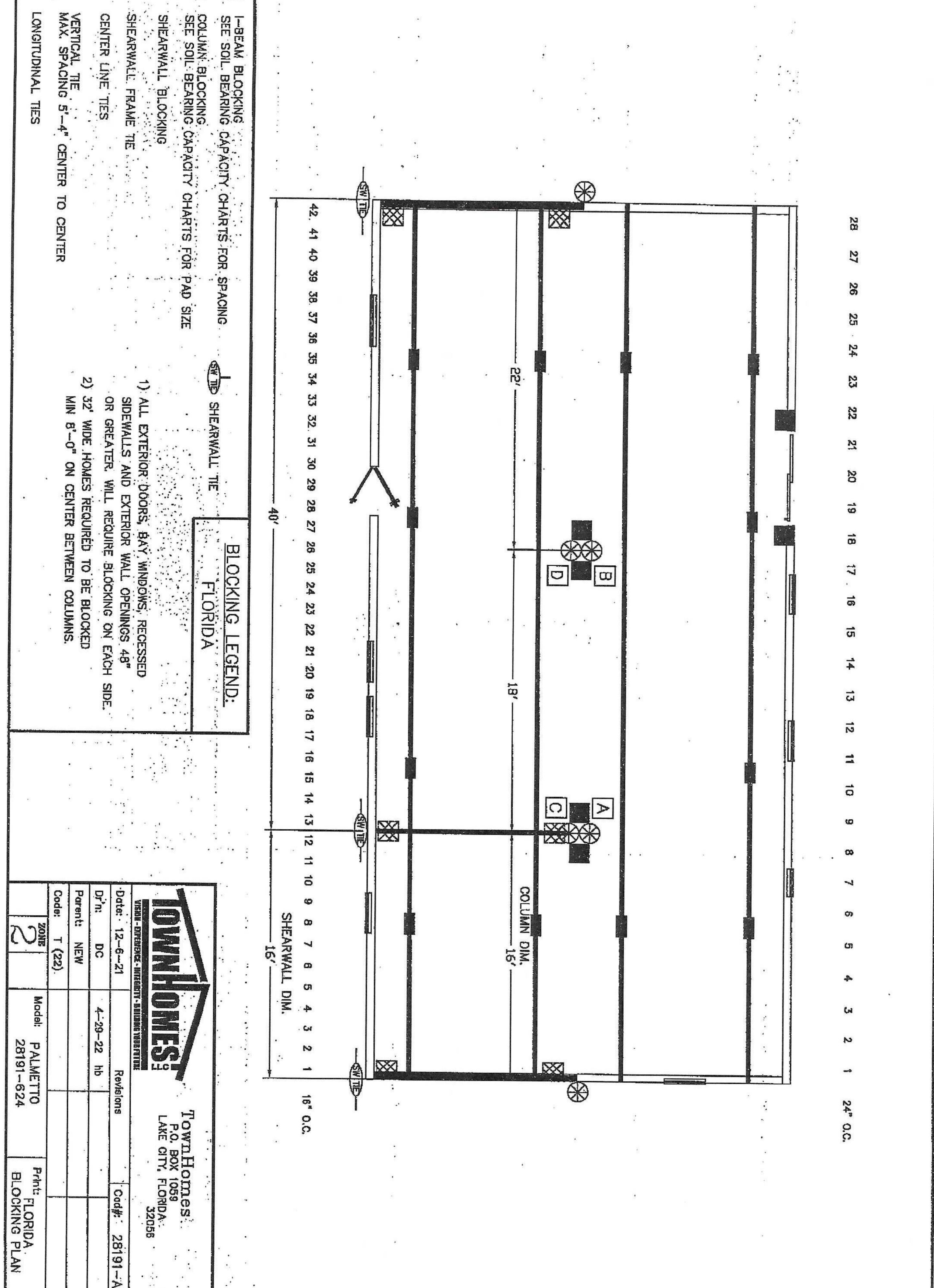
tank.

Pg.

an existing water meter, water tap,

or other

Plumbing



O Me Ho



. 107

467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

## OLIVER TECHNOLOGIES, INC. INSTALLATION INSTRUCTIONS FOR FLORIDA MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM PAN & CONCRETE (revision 5/18)

PATENT# 6634150 & OTHER PATENT PENDING





467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

#### **OLIVER TECHNOLOGIES, INC.** FLORIDA INSTALLATION INSTRUCTIONS FOR THE MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM

MODEL 1101"V" (Steps 1-14) **LONGITUDINAL ONLY: Follow Steps 1-9** LATERAL ONLY: Follow Steps 1-3 and Steps 10-14 FOR CONCRETE APPLICATIONS: Follow Steps 15-18

**ENGINEERS STAMP** 

**ENGINEERS STAMP** 

1.50"

#### SPECIAL CIRCUMSTANCES: If the following conditions occur - STOP! Contact Oliver Technologies at 1-800-284-7437:

a) Pier height exceeds 48"

PIER HEIGHT

- c) Roof eaves exceed 16"
- e) Location is within 1500 feet of coast

- b) length of home exceeds 76'
- d) Sidewall height exceed 96"

#### INSTALLATION OF GROUND PAN

2. Remove weeds and debris in an approximate two foot square to expose firm soil for each ground pan (C).

1.50"

3. Place ground pan (C) directly below chassis I-beam. Press or drive pan firmly into soil until flush or below soil then install pier per manufacturer's instructions or per Florida Regs.

SPECIAL NOTE: The longitudinal "V" brace system may also serve as a pier under the home and should be loaded as any other pier. It is recommended that after leveling piers, and one-third inch (1/3") before home is lowered completely on to piers, complete steps 4 through 9 below then remove jacks.

#### INSTALLATION OF LONGITUDINAL "V" BRACE SYSTEM (Model 1101 L "V")

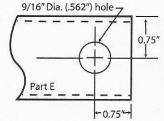
NOTE: WHEN INSTALLING THE LONGITUDINAL SYSTEM ONLY, A MINIMUM OF 2 SYSTEMS PER FLOOR SECTION IS REQUIRED. SOIL TEST PROBE SHOULD BE USED TO DETERMINE CORRECT TYPE OF ANCHOR PER SOIL CLASSIFICATION. IF PROBE TEST READINGS ARE BETWEEN 175 & 275 A 5 FOOT ANCHOR MUST BE USED. IF PROBE TEST READINGS ARE BETWEEN 276 & 350 A 4 FOOT ANCHOR MAY BE USED. USE GROUND ANCHORS WITH DIAGONAL TIES AND STABILIZER PLATES EVERY 5'4". VERTICAL TIES ARE ALSO REQUIRED ON HOMES SUPPLIED WITH VERTICAL TIE CONNECTION POINTS (PER FLORIDA REG.).

4. Choose one of the approved longitudinal tube installations; either Diagram A or B. Then select the correct square tube (E) length from the diagram for appropriate pier height at support location or cut and drill 1.5" square tube to achieve appropriate length.

(40° Min 45° Max.)	Tube Length	Tube Length				
7 3/4" to 25"	22"	18"				
24 3/4" to 32 1 /4"	32"	18"				
33" to 41"	44"	18"				
40" to 48"	54"	18"				

1.25"

Diagram A



(40° Min 60° Max.)	Tube Length
14" to 18"	20"
18" to 25"	28"
24" to 35"	39"
30" to 40"	44"
36" to 48"	54"

Diagram B

- 5. Install (2) of the 1.50" square tubes (E) into the "U" bracket (J), insert carriage bolt and leave nut loose for final adjustment.
- 6. Place I-beam connector (F) loosely on the bottom flange of the I-beam.
- 7. (For Diagram A installation) Slide the selected 1.25" tube (E) into a 1.50" tube (E) and attach to I-beam connectors (F) and fasten loosely with bolt and nut. (For Diagram B installation) Attach the selected 1.5" tubes (E) to the I-beam connectors (F) and fasten loosely with bolts and nuts.
- 8. Repeat steps 6 through 7 to create the "V" pattern of the square tubes loosely in place.
- 9. Using standard hand tools tighten all nuts and bolts. (For Diagram A installation only, secure 1.25" and 1.50" tubes using four(4) 1 /4"-14 x 3/4" self-tapping screws in pre-drilled holes.)

#### INSTALLATION OF LATERAL TELESCOPING TRANSVERSE ARM SYSTEM (Model 1101 T "V")

THE MODEL 1101 "V" (LONGITUDINAL & LATERAL PROTECTION) ELIMINATES THE NEED FOR STABILIZER PLATES & FRAME TIES. NOTE: THE USE OF THIS SYSTEM REQUIRES VERTICAL TIES SPACED AT 5'4".

FOUR FOOT (4') GROUND ANCHOR MAY BE USED EXCEPT WHERE THE HOME MANUFACTURER SPECIFIES DIFFERENT.

- 10. Install remaining vertical tie-down straps and 4' ground anchors per home manufacturer's instructions. NOTE: Centerline anchors to be sized according to soil torque condition. Any manufacturer's specifications for sidewall anchor loads in excess of 4,000 lbs. require a 5' anchor per Florida Code.
- 11. Select the correct square tube brace (H) length for set-up lateral transverse at support location. The lengths come in either 60" or 72" lengths. (With the 1.50" tube as the bottom tube, and the 1.25" tube as the inserted tube.)
- 12. Install the 1.50 transverse brace (H) to the ground pan connector (D) with bolt and nut.
- 13. Slide 1.25" transverse brace into the 1.50" brace and attach to adjacent I-beam connector (I) with bolt and nut.
- 14. Secure 1.50" transverse arm to 1.25" transverse arm using four (4) 1 /4" 14 x 3/4" self-tapping screws in pre-drilled holes.

Page

### DUNIER Technologies, Inc.



467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

#### INSTALLATION USING CONCRETE RUNNER/ FOOTER

- 15. A concrete runner, footer or slab may be used in place of the steel ground pan.
  - a) The concrete shall be minimum 2500 psi mix
  - b) A concrete runner may be either longitudinal or transverse, and must be a minimum of 8" deep with a minimum width of 16 inches longitudinally or 18 inches transverse to allow proper distance between the concrete bolt and the edge of the concrete (see below).
  - c) Footers must have minimum surface area of 441 sq. in. (I.e. 21" square), and must be a minimum of 8" deep.
  - d) If a full slab is used, the depth must be a 4" minimum . Special inspection of the system bracket installation is not required. Footers must allow for at least 4" from the concrete bolt to the edge of the concrete.

NOTE: The bottom of all footings, pads, slabs and runners must be per local jurisdiction.

#### LONGITUDINAL: (Model 1101 LC "V")

16. When using Part# 1101-W-CPCA (wetset) simply install the bracket in runner/footer OR When installing in cured concrete use Part# 101-D-CPCA (dryset). The 1101 (dryset) CA bracket is attached to the concrete using (2) 5/8"x3" concrete wedge bolts (Simpson part # S162300H 5/8" X 3" or Powers equivalent). Place the CA bracket in desired location. Mark bolt hole locations, then using a 5/8" diameter masonry bit, drill a hole to a minimum depth of 3". Make sure all dust and concrete is blown out of the holes. Place wedge bolts into drille holes, then place 1101 (dry set) CA bracket onto wedge bolts and start wedge bolt nuts. Take a hammer and lightly drive the wedge bolts down by hitting the nut (making sure not to hit the top of threads on bolt). The sleeve of concrete wedge bolt needs to be at or below th top of concrete. Complete by tightening nuts.

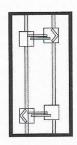
#### LATERAL: (Model 1101 TC "V")

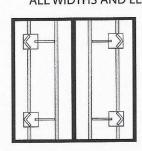
- 17. For wet set (part # 1101-W-TACA) installation simply install the anchor bolt into runner/footer. For dry set installation (part # 1101-D-TACA) mark bolt hole locations, then using a 5/8" diam. masonry bit. drill a hole to a minimum depth of 3". Make sure all dust and concrete is blown out of the hole. Place wedge bolts (Simpson part #S162300H 5/8" X 3" or Powers equivalent) into (D) concrete dry transverse connector and into drilled hole. If needed, take a hammer and lightly drive the wedge bolts down by hitting the nut (making sure not to hit the top of threads on bolt), then remove the nut. The sleeve of concrete wedge bolt needs to be at or below the top of concrete.
- 18. When using part# 1101 CVW (wetset) or 1101 CVD (dryset), install per steps 17 & 18.

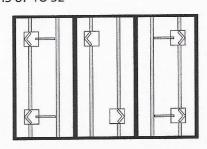
#### Notes:

- 1. LENGTH OF HOUSE IS THE ACTUAL BOX SIZE
- 2. —= LOCATION OF TRANSVERSE BRACING ONLY
- 3 🛛 = LOCATION OF LONGITUDINAL BRACING ONLY
- 4. F- = TRANSVERSE AND LONGITUDINAL LOCATIONS

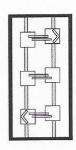
#### ALL WIDTHS AND LENGTHS UP TO 52'

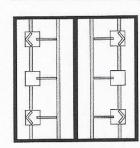


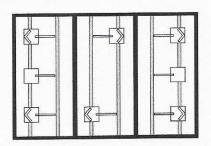




ALL WIDTHS AND LENGTHS OVER 52' TO 80"

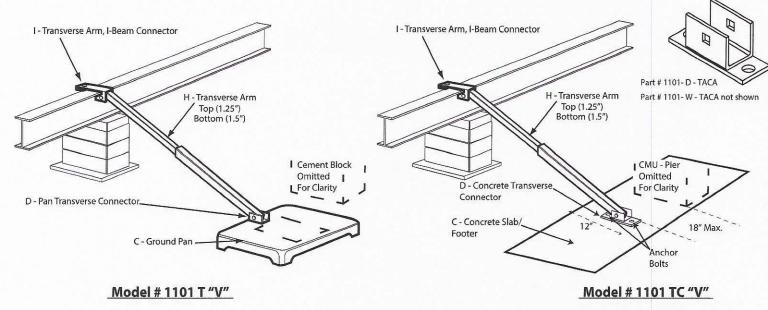






HOMES WITH 5/12 ROOF PITCH REQUIRE: PER FLORIDA REGULATIONS 6 systems for home lengths up to 52' and 8 systems for homes over 52' and up 80'.

PATENT# 6634150 & OTHER PATENT PENDING



Florida approved 4' ground anchors may be used in all locations except where home manufacturers specifications for sidewall straps are in excess of 4,000 lbs. These locations require a 5' anchor. Per Florida code.

C = GROUND PAN / CONCRETE FOOTER OR RUNNER

D = GROUND PAN / CONCRETE U BRACKETS TRANSVERSE CONNECTOR (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)

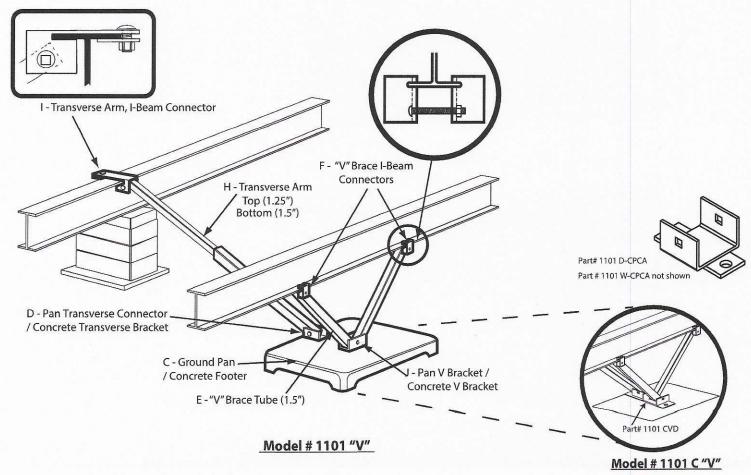
E = TELESCOPING V BRACE TUBE ASSEMBLY (1.5" TUBE BOTTOM AND 1.25" TUBE INSERT) OR 1.5" TUBE

F = "V" BRACE I-BEAM CONNECTOR ASSEMBLY

H = TELESCOPING TRANSVERSE ARM ASSEMBLY

I = TRANSVERSE ARM I-BEAM CONNECTOR (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)

J = V PAN BRACKET (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)





## State of Florida DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III

October 27, 1999

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems
A Division of Oliver Technologies
562 Glenheather Drive
San Marcos, California 92069

Dear Mr. Larson:

We wish to acknowledge receipt of your print specifications and test results certifying your Adjustable Outrigger listed below complies with the Federal Manufactured Construction and Safety Standards, § 3280.305 and § 3280.401 and with the rules and regulations set forth by the Department of Highway Safety and Motor Vehicles, Florida Administrative Rule Code 15C-1.01105.

Based on the information submitted to the bureau, the following product is listed for use in Florida when the installation instructions showing the way the outrigger was tested, are provided.

MODEL#	INDENTIFICATION	DESCRIPTION
1055-11	Adjustable Outrigger	Bracket, Pipe, & Screw Adjustment

NOTE: The outrigger was tested on September 19, 1999, for an allowable load of 1700 pounds.

If you have any questions, please advise at (850) 413-7600.

Sincerely,

Phil Bergelt, Program Manager
Bureau of Mobile Home and

Recreational Vehicle Construction

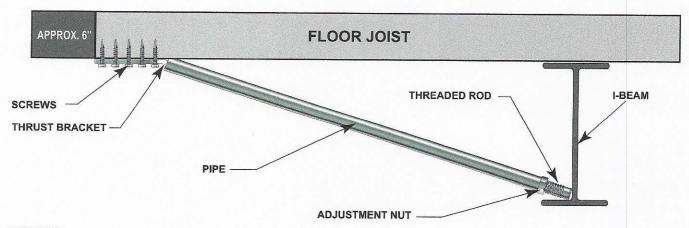
Division of Motor Vehicles

PB:bsc

#### **OLIVER TECHNOLOGIES, INC.**

Adjustable Outrigger Installation Instructions MODEL # 1055-11

- 1. Locate the floor joist that requires support.
- 2. Mark the I-Beam directly under the floor joist to align the outrigger.
- 3. Adjust the nut on the threaded rod so it clears the frame flange for easy adjustment.
- 4. Set the threaded rod in the pipe and against the frame.
- 5. Set the notched end of the thrust bracket into the end of the pipe and secure it with 5 # 12 x 2" screws to the floor joist. The thrust bracket should be approximately 6" from the outside rim joist.
- 6. Bottom board and insulation should be between the bracket and the joist.
- 7. For minor adjustments align the door and window openings by tightening or loosening the adjustment nut. For all other adjustments use a hydraulic jack to raise the floor joist before installation of the outrigger.



#### NOTES:

\*REMOVE OUTRIGGER WHEN HOME IS BEING TRANSPORTED

\*SPECIFY WIDTH OF HOME WHEN ORDERING OUTRIGGER. PIPE MAY BE CUT TO FIT

\*THE ADJUSTABLE OUTRIGGERS SHALL ONLY BE USED ON HOMES FOR OPENINGS UP TO:

Listing # 1055-11 Patent # 6.334.279

6' ON 20 LB ROOF LOAD

4' ON 30 LB ROOF LOAD

3' ON 40 LB ROOF LOAD

\*WHEN ADJUSTABLE OUTRIGGERS ARE USED FOR DOOR AND WINDOW SUPPORTS, THEY MUST BE INSTALLED ON THE CLOSEST FLOOR JOIST UP TO 16" FROM THE OUTSIDE EDGE OF THE OPENING

\*DO NOT INSTALL ADJUSTABLE OUTRIGGER AT LOCATIONS WHERE THE HOME MANUFACTURER INDICATES A LOAD IN EXCESS OF 1,700 LBS.
\*THE ADJUSTABLE OUTRIGGER MUST BE USED ON A MINIMUM 10" I-BEAM AND BE PLACED WITHIN 4' OF A MAIN FRAME SUPPORT PIER OR FRAME CROSSMEMBER.

Horsia Building Code

Residential Section

R311 and R312

#### SINRETAINS

R311.7.2 Headroom

R311.7.5.1 Riser Height

R311.7.5.2 Tread Depth

R3117.8 Handralls

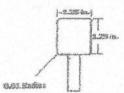
R311\_7.B.2 Continuity

R311.7.8.3 Handrail Grip Size

R312.1.2 Guards

R312.1.3 Guard Opening Limits

#### Nenciscalar Handreit



bourgipulli final de part cheurine remut Levre de graffinalise of 4 ML Film and c. 25 ML film white a comme reasique cheumalise of 2.20 Mathew

