CO

PGM Inc
TIE DOWNS
ENGINEERED TIE DOWN SYSTEM

GENERAL NOTES

DESIGN LOADS:

DESIGN LOADS:

* WIND ——— 15 PSF (70 MPH EXPOSURE "C") CAC T-25 and COMPLIES WITH 2006 IBC 85 MPH EXP. C
* SOIL BEARING ——— 1000 PSF
* TIE DOWN STRAP ——— 3150# WORKING LOAD
* SEISMIC ZONE ——— 4 CAC T-25 AND 2006 IBC S_s=1.5 Fa=1.4 S_{oo}1.41 Site Class D

TIE DOWN STRAPS TO BE MIN. 1 1/4" WIDE x 0.035 THICKNESS ZINC PLATED AND MEET ASTM D-3953-97

* EARTH AUGERS ——— 2962 # (TESTED TO 4750# MIN.)
* CROSS DRIVES ——— 2962 # (TESTED TO 4750# MIN.)
* CONCRETE SLAB ANCHORS ——— 1390 # (CALCULATED)

1. THE CHARTS SHOW THE REQUIRED NUMBER OF TIE DOWNS ON THE SIDES AND ENDS OF THE MANUFACTURED HOME.
2. COMBINATIONS OF THE DIFFERENT TYPES OF TIE DOWNS CAN BE USED.
3. FOR ALL TIE DOWN INSTALLATIONS, THE MANUFACTURED HOME CHASSIS MEMBERS ARE SHOWN AS "I" BEAMS, (FOR ILLUSTRATION PURPOSE ONLY) CHASSIS BEAMS
4. SIDE TIE DOWNS ARE REQUIRED ALONG THE OUTSIDE CHASSIS BEAMS. END TIE DOWNS ARE REQUIRED AT EACH END OF EACH TRANSPORTABLE SECTION OF THE MANUFACTURED HOME.
5. END TIE DOWNS CAN BE LOCATED WITHIN 18" OF EITHER SIDE OF CHASSIS BEAM

6. THE SIZES, TYPES, LENGTHS, ECT, OF MATERIALS SHOWN HEREON ARE MINIMUM, LARGER, LONGER, HEAVIER MATERIALS SUPPLIED BY SAC INDUSTRIES, INC. MAY BE USED AT THE SAME SPACING AND LOCATION SHOWN.
7. ALL PARTS ARE COATED WITH RUST RESISTANT INDUSTRIAL SHOP PRIMER

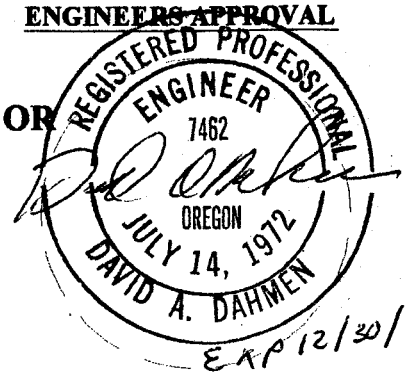
STATE APPROVAL

PGM Inc
21822 Old Hwy 99
Centralia, WA 98532
888-265-8981

PACIFIC CONSULTING ENGINEERS
2150 BELL AVE. SUITE 145
SACRAMENTO, CA. 95838
Ph: (916)-564-8028

ENGINEERS APPROVAL

OR



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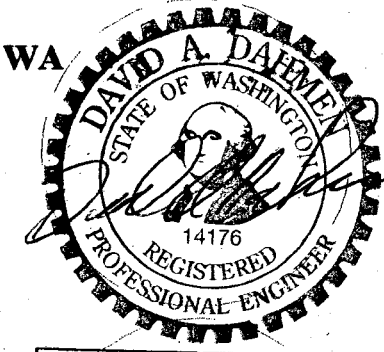

ID EXPIRES: 7/17/11

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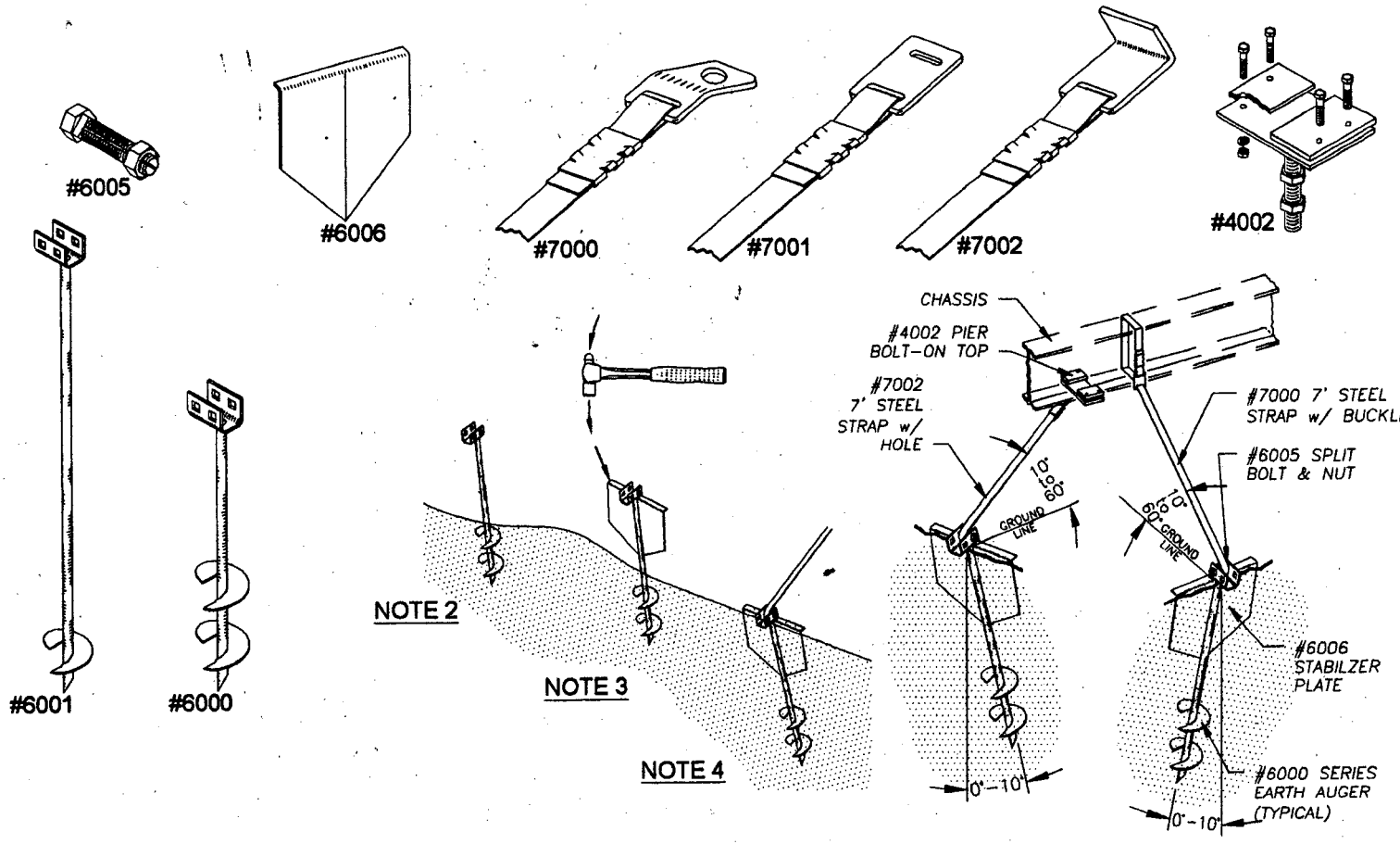
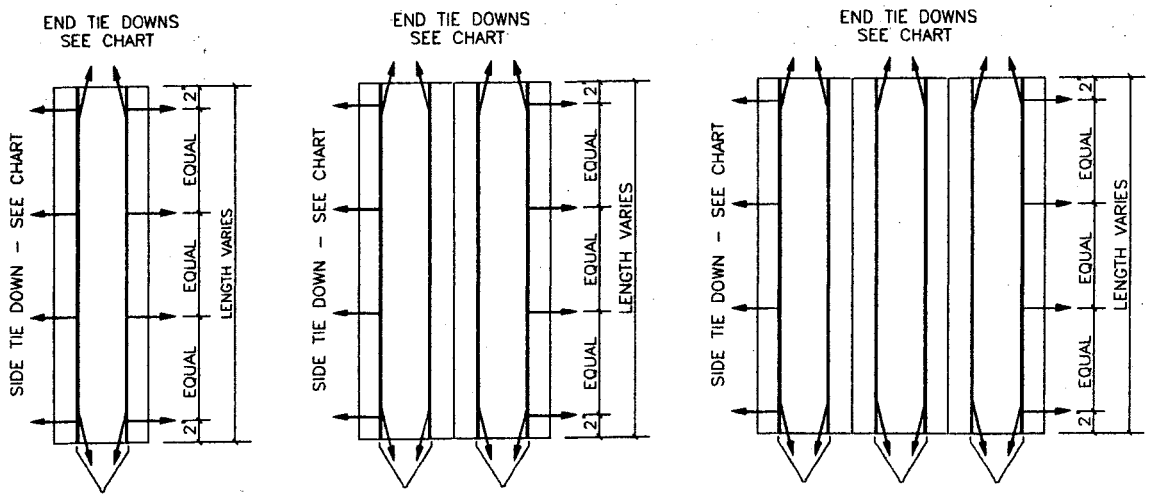


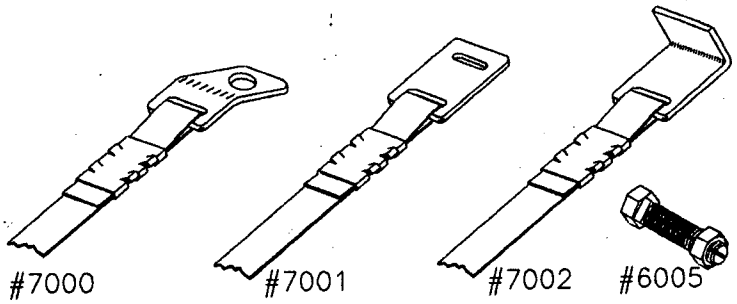
INSTALLATION INSTRUCTIONS

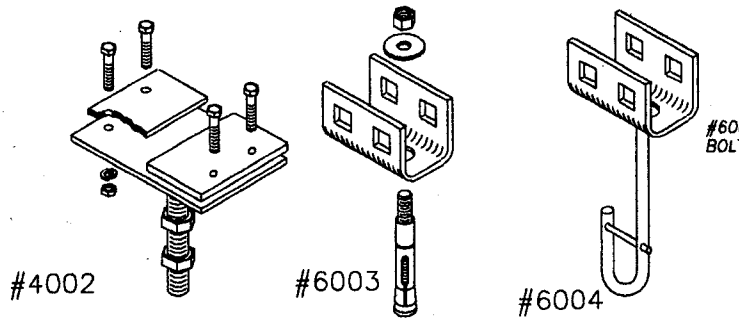
1. CONTRACTORS WARNING: CHECK FIRST FOR UNDERGROUND UTILITIES.
2. INSTALL GROUND ANCHORS INTO GROUND LEAVING 12"-14" OF SHAFT EXPOSED.
3. PLACE STABILIZER PLATE NEXT TO SHAFT BETWEEN THE ANCHOR AND CHASSIS BEAM, AND DRIVE INTO GROUND.
4. FINISH TURNING ANCHOR INTO GROUND APPLYING CONSTANT DOWNWARD PRESSURE TO MINIMIZE SOIL DISTURBANCE UNTIL ANCHOR HEAD IS FLUSH WITH STABILIZER PLATE.
5. ATTACH STRAPS TO CHASSIS BEAM IN MANNER SHOWN.
6. IF ANGLE OF SIDE STRAP IS GREATER THAN 60°, STRAP CONNECTION CAN BE MADE FROM ANCHOR TO OPPOSITE CHASSIS BEAM.
7. INSERT STRAP THROUGH SPLIT BOLT. CUT OFF EXCESS STRAP AND TIGHTEN BOLT UNTIL STRAP IS SNUG.

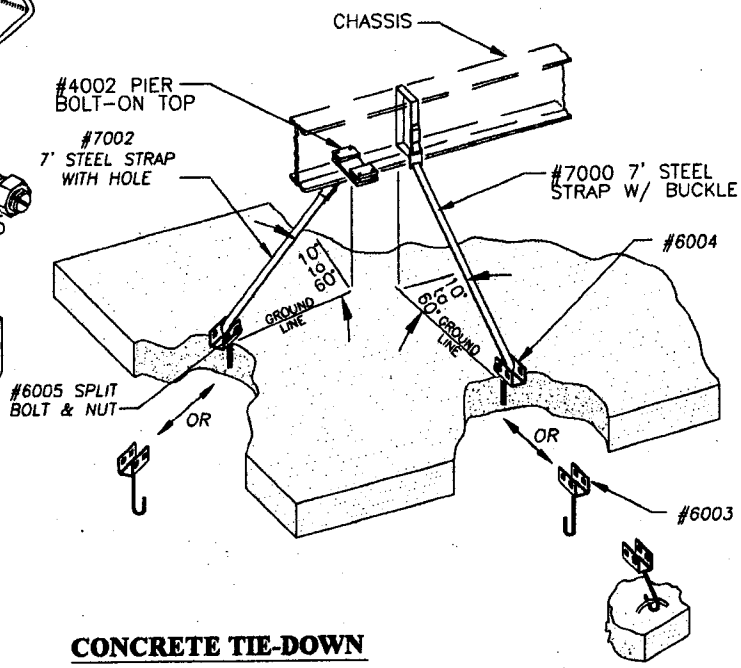


SINGLE WIDE DOUBLE WIDE TRIPLE WIDE

SAC IND. CONCRETE TIE DOWN ANCHORS







CONCRETE TIE-DOWN

ALTERNATE CONNECTION

INSTALLATION INSTRUCTIONS

NEW CONCRETE - #6004

1. PLACE CONCRETE ANCHOR INTO WET CONCRETE, AND ALLOW TO PROPERLY CURE.
2. ALTERNATE CONNECTION REQUIRES #5 REBAR PROPERLY EMBEDDED IN CONCRETE.

EXSISTING CONCRETE - #6003

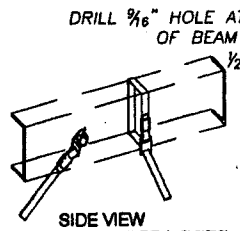
1. CONCRETE MUST BE A MINIMUM 3½" THICK AND IN GOOD CONDITION.
2. MINIMUM SLAB AREA OF EACH ANCHOR IS 28 SQUARE FEET.
3. DRILL PROPER SIZE HOLE IN SLAB, A MINIMUM OF 12" FROM ANY SIDE.
4. EXPANSION BOLT IS ⅝" x 3½" WITH MINIMUM 2¾" EMBEDMENT AND 6,180 POUNDS PULL OUT, 7,160 POUNDS SHEAR.

CHASSIS CONNECTION

1. ATTACH STRAPS TO CHASSIS BEAM IN MANNER SHOWN.
2. IF ANGLE OF SIDE STRAP IS GREATER THAN 60°, STRAP CONNECTION CAN BE MADE FROM ANCHOR TO OPPOSITE CHASSIS BEAM.
3. INSERT STRAP THROUGH SPLIT BOLT, CUT OFF EXCESS STRAP AND TIGHTEN BOLT UNTIL STRAP IS SNUG.

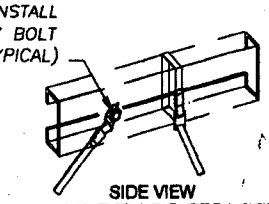
NOTE: SIDE TIE DOWNS ARE REQUIRED ALONG THE OUTSIDE CHASSIS BEAMS. END TIE DOWNS ARE REQUIRED AT EACH END OF EACH TRANSPORTABLE SECTION OF THE MANUFACTURED HOME.

NOTE: A COMBINATION OF DIFFERENT TYPES OF TIE DOWNS CAN BE USED.



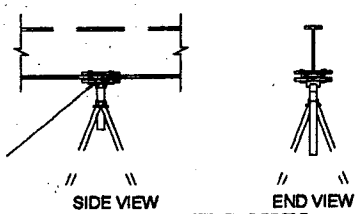
"C" BEAM CHASSIS

SEE GENERAL NOTE #3



"RFC" BEAM CHASSIS

SEE GENERAL NOTE #3



END TIE DOWN

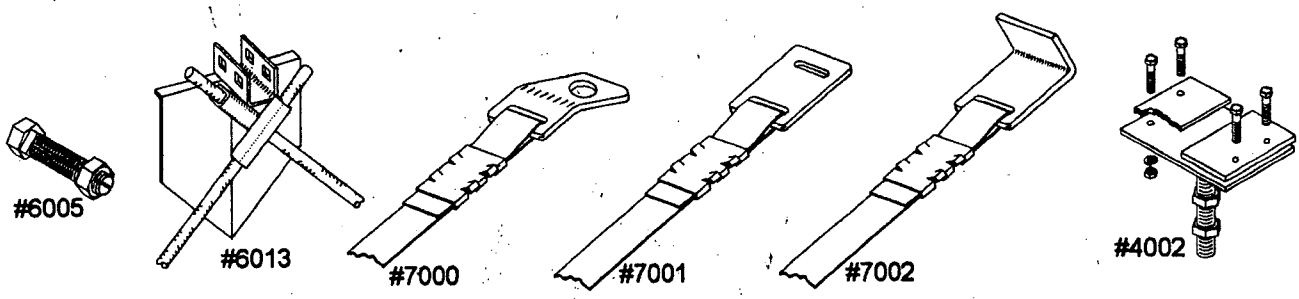
NOTE: END TIE DOWN CAN BE LOCATED WITHIN 18" OF EITHER SIDE OF CHASSI BEAM AXIS.

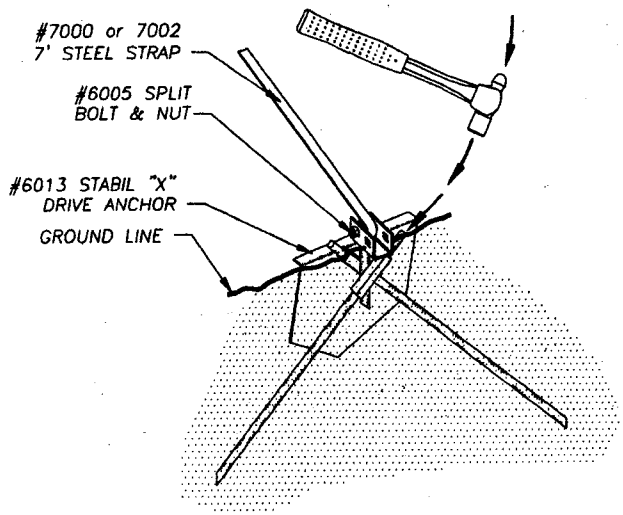
CONTRACTORS CERTIFICATION

I CERTIFY THAT I HAVE INSTALLED THE SAC IND., INC. ANCHORING SYSTEM AS PER THE INSTALLATION INSTRUCTIONS. I HAVE MADE NO MODIFICATIONS TO THE ANCHORING SYSTEM OR THE BUILDING STRUCTURE.

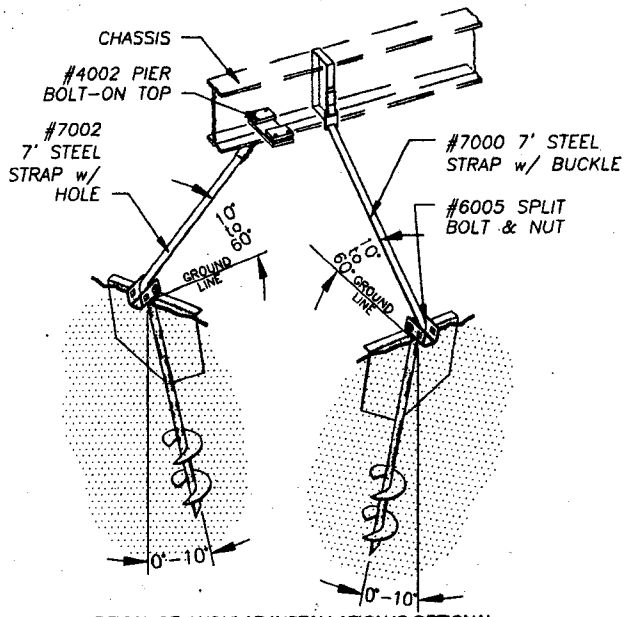
COMPANY NAME: _____ CONTRACTORS LIC. # _____

SAC IND. STABIL-X DRIVE TIE DOWN ANCHORS





DETAIL "A"

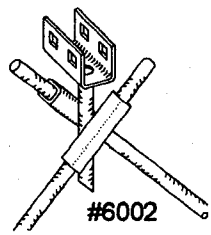


VERTICAL OR ANGULAR INSTALLATION IS OPTIONAL

STABIL-X DRIVE TIE DOWN
SEE DETAIL "A"

INSTALLATION INSTRUCTIONS

1. CONTRACTORS WARNING: CHECK FIRST FOR UNDERGROUND UTILITIES.
2. DRIVE STABILIZER PLATE INTO GROUND.
3. DRIVE CROSS RODS THROUGH HEAD TUBES INTO SOIL AS SHOWN.
4. ATTACH STRAPS TO CHASSIS BEAM IN MANNER SHOWN.
5. IF ANGLE OF SIDE STRAP IS GREATER THEN 60°, STRAP CONNECTION CAN BE MADE FROM ANCHOR TO OPPOSITE CHASSIS BEAM.
6. INSERT STRAP THROUGH SPLIT BOLT. CUT OFF EXCESS STRAP AND TIGHTEN BOLT UNTIL STRAP IS SNUG.
7. #6002 ANCHOR CAN BE USED WHERE HARD OR ROCKY SOIL OCCURS. IF THE GROUND SURFACE IS OTHER THAN ROCKY SOIL OR MINIMUM 2" ASPHALT, USE STABIL-X ANCHOR OR ENCASE ANCHOR WITH 12"x12"x12" CUBE OF CONCRETE.
8. WHEN #6002 ANCHOR IS USED FOR ANY REQUIRED ANCHOR -- (2) ANCHORS MUST BE USED AT THAT LOCATION.



SEE NOTE #7
AND NOTE #8

EARTH AUGERS						CROSS DRIVE ANCHORS						CONCRETE SLAB ANCHORS					
MAX. LENGTH OF MFG'D HOME	36'	54'	72'			MAX. LENGTH OF MFG'D HOME	36'	54'	72'			MAX. LENGTH OF MFG'D HOME	34'	42'	50'	59'	68'
MAX. NO. OF SIDE TIE DOWNS	2	3	4			MAX. NO. OF SIDE TIE DOWNS	2	3	4			MAX. NO. OF SIDE TIE DOWNS	4	5	6	7	8

NOTE:

SIDE TIE-DOWNS: MUST BE WITHIN 24" OF THE END OF THE CHASSIS BEAM.

END TIE-DOWNS: CAN BE LOCATED WITHIN 24" OF EITHER SIDE OF CHASSIS BEAM ONE TIE-DOWN IS MANDATORY AT EACH END OF "I"BEAM (SEE PAGE #1 GENERAL NOTE #5).

IF SIDE WALL TIE-DOWN GROUND ANCHOR LOCATION IS SUCH THAT THE ANGLE BETWEEN THE GROUND AND STRAP EXCEEDS 60°, CONNECT THE TIE STRAP TO THE INSIDE CHASSIS BEAM ON DOUBLE AND TRIPLE WIDES AND THE OPPOSITE CHASSIS BEAM ON SINGLE WIDES.