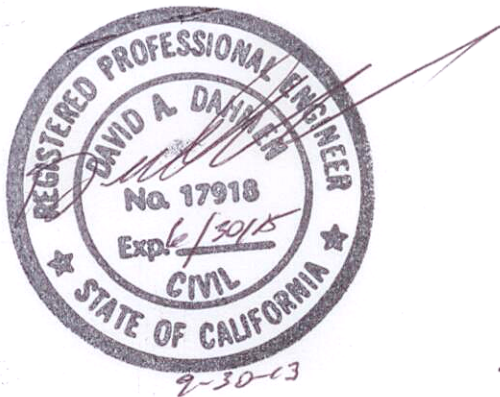


# ABESCO COMMERCIAL STANDARD CHASSIS PLAN

## GENERAL NOTES

1. THIS FOUNDATION PLAN IS DESIGNED TO BE USED WITH A STANDARD CHASSIS COMMERCIAL BUILDING.
2. THIS PERMANENT FOUNDATION PLAN IS DESIGNED PER **2010 CBC**  
DESIGN LOADS: SEISMIC Ss=1.5, Fa=1.4, Sps=1.41, SITE CLASS D  
Simplified Design Method  
100 MPH WIND EXPOSURE C  
WIND SPEED  
\* FLOOR LIVE LOAD -- 50PSF      \* ROOF LIVE LOAD -- 20PSF  
--125PSF
- THE DESIGN LOADS SHALL BE CONSISTANT WITH ROOF LIVE LOAD, WIND LOAD, AND SEISMIC ESTABLISHED FOR PERMANENT BUILDINGS WITHIN A SPECIFIC LOCAL AREA.
3. THIS FOUNDATION IS FOR PLACING COMMERCIAL BUILDINGS CONSTRUCTED WITH LONGITUDINAL OR CROSS FLOOR JOISTS.
4. THIS FOUNDATION PLAN IS DESIGNED TO BE CONSTRUCTED ON A FAIRLY LEVEL SITE WITH NO EXISTING SOIL PROBLEMS.
5. FOUNDATION FOOTINGS FOR RIDGE BEAM SUPPORTS SHALL BE LOCATED AND SIZED FOR THE LOADS AS SHOWN IN THE COMMERCIAL BUILDING INSTALLATION INSTRUCTIONS.
6. IN AREAS WHERE DIFFERENTIAL SETTLEMENT (D.S.) CAN OCCUR, COMMERCIAL BUILDING SHALL BE READJUSTED WHEN (D.S.) EXCEEDS 1/4", OR WHEN IT ADVERSELY AFFECTS THE UNITS.
7. CARRY ALL FOOTINGS DOWN TO FIRM, UNDISTURBED SOIL. FOOTINGS SHALL EXTEND BELOW PREVAILING FROST LINE WHERE REQUIRED BY LOCAL AND STATE ORDINANCES AND CODES. FOOTINGS ARE DESIGNED FOR 1500 PSF TOTAL SOIL BEARING PRESSURE AND SHALL BE COMPATIBLE WITH LOCAL SOIL CONDITIONS.  
\* CONCRETE = 2,500 PSI @ 28 DAYS.
8. \* STRUCTURAL STEEL \* FABRICATE ACCORDING TO 1986 AISC SPECS. \* WELD ACCORDING TO 1990 AWS SPECS. \* ELECTRODES E70 \* PLATES ASTM A36 \* ANCHOR BOLTS ASTM A307 \* BOLTS SAE GR. 5 ASTM A449, ASTM A325 \* #12 SMS TO BE 12-24 x 7/8" HEX HEAD TEKS/4 BY BUILDEX OR EQUIV.
9. MOBIL-UP SHALL BE COATED WITH RUST RESISTANT SHERWIN WILLIAMS R61-RC2 OR EQUIVALENT, AND BE LISTED AND LABELED BY TESTING ENGINEERS INC. FOR THE FOLLOWING LOADS:  
\* VERTICAL = 5,000 LBS. MAX.  
\* LATERAL MAJOR AXIS = 800 LBS. MAX.  
\* LATERAL MINOR AXIS = 450 LBS. MAX.
10. UNDER FLOOR VENTILATION OPENINGS IN EXTERIOR PERIMETER ENCLOSURE WALLS SHALL BE NOT LESS THAN ONE SQUARE FOOT FOR EACH 150 SQUARE FOOT OF FLOOR AREA.
11. NOTICE TO CONTRACTORS: IT IS THE FOUNDATION CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS I.E. ACTUAL WIDTH AND LENGTH OF UNIT, CHASSIS SPACING AND RIDGE BEAM SUPPORT LOCATIONS WHERE APPLICABLE BEFORE CONSTRUCTING FOUNDATION.

### ENGINEER APPROVAL



### STATE APPROVAL

COMMERCIAL/MODULAR/COMMERCIAL COACH  
FOUNDATION SYSTEM  
HEALTH AND SAFETY CODE, SECTION 18551  
APPROVED

SUBJECT TO CORRECTIONS NOTED

APPROVAL DOES NOT AUTHORIZE OR APPROVE ANY  
OMISSIONS OR DEVIATION FROM REQUIREMENTS OF  
APPLICABLE STATE LAWS AND REGULATIONS

STATE OF CALIFORNIA  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

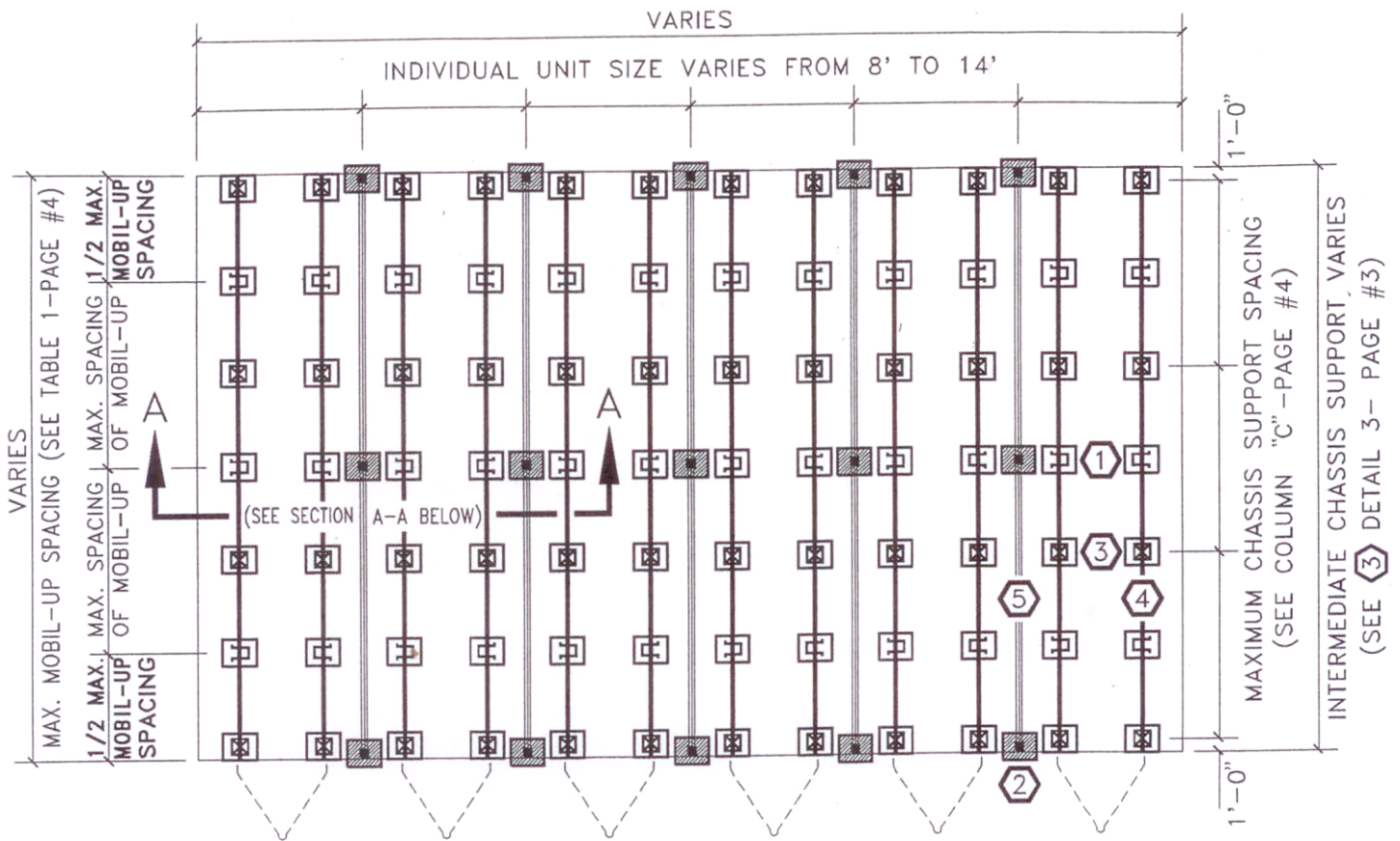
DIVISION OF CODES AND STANDARDS

BY R. Meyer DATE 10/14/13  
 SPA NO. 27-9F  
 THIS PLAN APPROVAL EXPIRES 9/8/15

ABESCO FOUNDATION DWG. 1 of 4

PACIFIC CONSULTING ENGINEERS  
2150 BELL AVE. SUITE 145  
SAC. CA. 95838 PH: 916-564-6028

ABESCO  
5851 FLORIN-PERKINS ROAD  
SAC. CA. 95828 PH: 916-383-8831

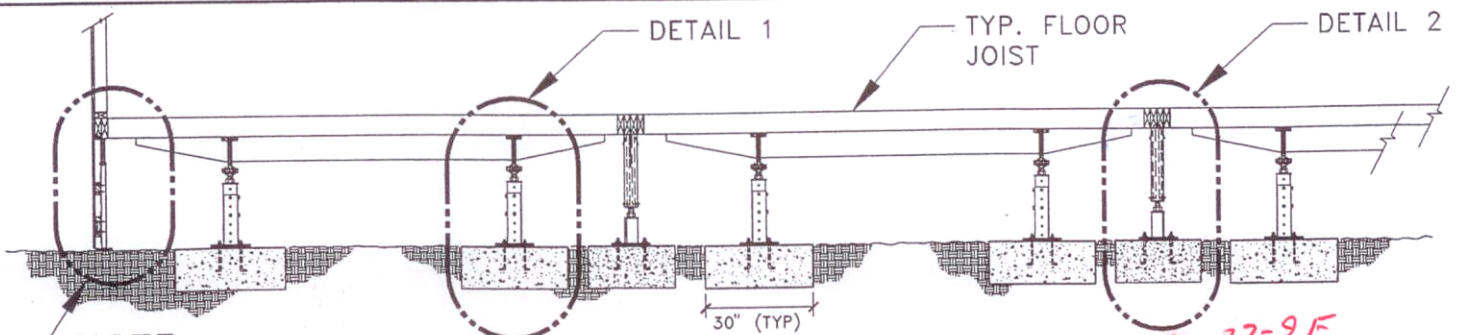


## FOUNDATION PLAN

**THIS PLAN CANNOT BE USED FOR PLACEMENT OF COMMERCIAL MODULAR BUILDINGS IN FLOOD HAZARD AREAS. A SEPARATE PLAN IS REQUIRED**

### COMMERCIAL STANDARD CHASSIS SUPPORT SCHEDULE

<p><b>1</b> TYP. CHASSIS SUPPORT FTG.</p> <p>24" 30"</p> <p>24" x 30" x 12" DEEP POURED IN PLACE CONCRETE FOOTING WITH ABESCO MOBIL-UP MODEL #100 SEE NOTE #7 OF GENERAL NOTES SEE DETAIL 1 FOR SPECS.</p>	<p><b>2</b> TYP. RIDGE BEAM SUPPORT</p> <p>(CONSULT COMMERCIAL COACH MFG'R. FOR LOAD AND LOCATIONS)</p> <p><b>NOTE:</b> RIDGE BEAM SUPPORT IS REQ'D AT EACH END OF EACH UNIT AT MARRIAGE LINE. SEE DETAIL 2 FOR SPECIFICATIONS</p>	<p><b>3</b> INTERMEDIATE CHASSIS SUPPORT (SEE DETAIL 3 - PAGE #3)</p> <p><b>4</b> TYPICAL CHASSIS FRAME</p> <p><b>5</b> TYPICAL MARRIAGE LINE</p>
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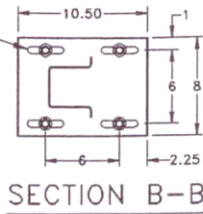
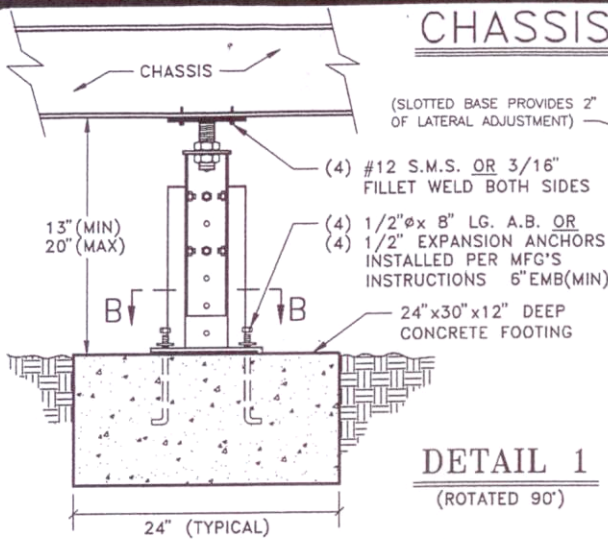
**NOTE:**  
TYPICAL PERIMETER ENCLOSURE SUPPLIED BY OTHERS

### SECTION A-A

HCD

27-9 F  
NOW 10/16/13

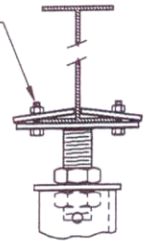
# CHASSIS SUPPORT DETAIL



## FRAME STIFFNER DETAIL

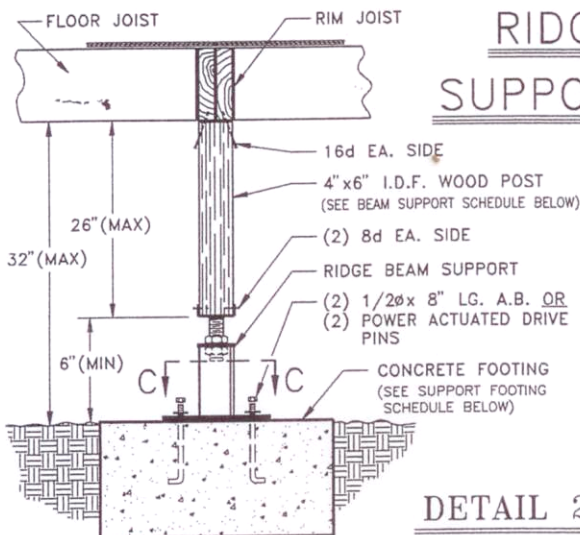


3/8-16UNC-  
1 1/2 LONG  
BOLT & NUT  
(4) EA. REQ'D.

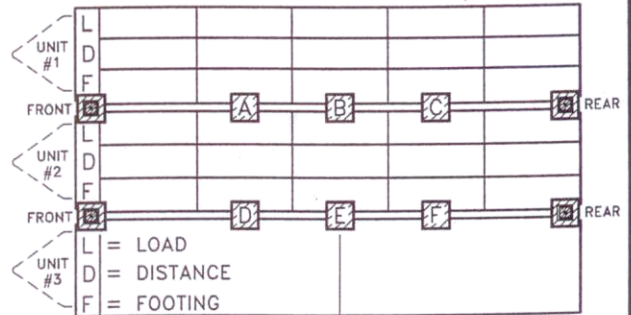
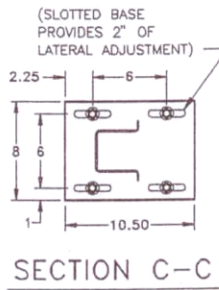


## ALTERNATIVE BOLT-ON TOP

**NOTE:** USE STIFFNER IF OUTRIGGER OR CROSS MEMBER DO NOT OCCUR WITHIN 12" OF MOBIL-UP (TYP)



# RIDGE BEAM SUPPORT DETAIL



**NOTE:**  
OR AS PER COMMERCIAL COACH MANUFACTURERS INSTALLATION MANUAL (SEE NOTE #5 OF GENERAL NOTES)

**NOTE:**  
3 WIDE COMPLEX SHOWN—  
COMPLEXES OF MORE THAN  
3 UNITS MAY USE AN  
EXPANDED VERSION OF THIS  
CHART.

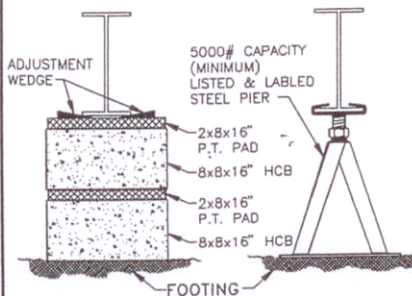
BEAM SUPPORT SCHEDULE		
(MAXIMUM LOAD PER RIDGE BEAM SUPPORT)		
ABESCO MODEL NUMBER	NUMBER OF POSTS	MAXIMUM LOAD (lbs)
104	1	6000
105	2	12000

**NOTE:** (a) ALL POSTS TO BE 4" x 6" #3H.F. OR BETTER  
(b) IF LOAD EXCEEDS 12000 LB.--THEN USE A COMBINATION OF MODELS #104 AND #105

SUPPORT FOOTING SCHEDULE					
(RIDGE BEAM SUPPORT FOOTING)					
LOAD TO FOOTING (lbs)	FOOTING SIZE ("x"x12"dp)	LOAD TO FOOTING (lbs)	FOOTING SIZE ("x"x12"dp)	LOAD TO FOOTING (lbs)	FOOTING SIZE ("x"x12"dp)
1000	12" x 12"	7000	32" x 32"	13000	44" x 44"
2000	17" x 17"	8000	34" x 34"	14000	45" x 45"
3000	21" x 21"	9000	36" x 36"	15000	47" x 47"
4000	24" x 24"	10000	38" x 38"	16000	48" x 48"
5000	27" x 27"	11000	40" x 40"	17000	50" x 50"
6000	30" x 30"	12000	42" x 42"	18000	51" x 51"

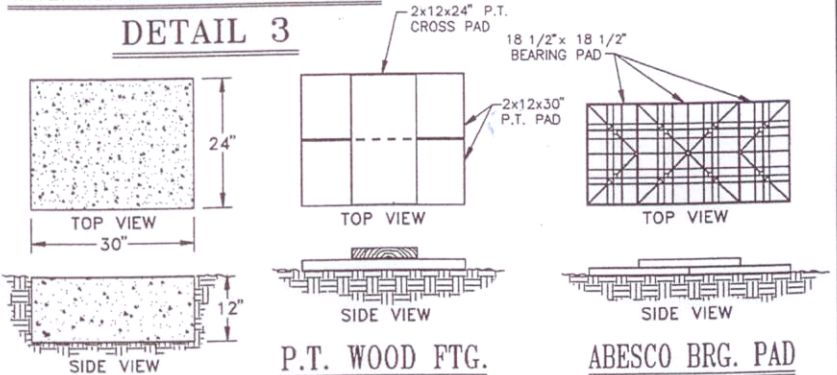
**NOTE:** (a) IF FOOTING SIZE IS 36" x 36" x 12" OR BIGGER USE (3)-#4 REBAR E.W.  
(b) IF FOOTING SIZE IS 48" x 48" x 12" OR BIGGER USE (4)-#4 REBAR E.W.

# INTERMEDIATE CHASSIS SUPPORTS



## INTERMEDIATE SUPPORT TYPES

### DETAIL 3



**CONC. FOOTING** (CHOOSE ONE OR ANY COMBINATION APPROVED)

27-512 Rev 10/16/13

# TABLE 1: CHASSIS SUPPORT SPACING - STANDARD CHASSIS

No. of units in complex	Widest units in complex	50 PSF -- Floor Live Load			125 PSF -- Floor Live Load		
		Column "A" Minimum No. of Mobil-Ups per Chassis Beam.	Column "B" Maximum Spacing of Mobil-Ups	Column "C" Maximum Spacing of Chassis Supports	Column "A" Minimum No. of Mobil-Ups per Chassis Beam.	Column "B" Maximum Spacing of Mobil-Ups	Column "C" Maximum Spacing of Chassis Supports
1	8'/10'	30' 40' 50' 60'	6'-5"	8'-0"	30' 40' 50' 60'	6'-5"	5'-5"
	12'	3 3 3 3	6'-5"	7'-10"	4 5 6 7	6'-5"	4'-7"
	14'	4 4 4 4	6'-5"	6'-10"	5 6 7 8	6'-5"	4'-0"
2	8'/10'	3 3 3 3	12'-10"	8'-0"	4 5 6 7	12'-3"	5'-5"
	12'	4 4 4 4	12'-10"	7'-10"	5 6 7 8	10'-9"	4'-7"
	14'	4 4 4 4	12'-10"	6'-10"	5 7 8 9	9'-6"	4'-0"
3 to 12	8'/10'	3 3 3 3	16'-8"	8'-0"	4 5 6 7	12'-3"	5'-5"
	12'	4 4 4 4	14'-10"	7'-10"	5 6 7 8	10'-9"	4'-7"
	14'	4 4 4 4	13'-4"	6'-10"	5 7 8 9	9'-6"	4'-0"

**Notes:**

- Column "A" -- "Minimum No. of Mobil-Ups per Chassis Beam" -- This column shows the minimum number of Mobil-Ups per chassis beam based on the length of the unit. They shall never be spaced farther apart than the dimension shown in Column "B". This column is based on lateral loads parallel to the chassis beams of the units.
- Column "B" -- "Maximum Spacing of Mobil-Ups" -- This column shows the maximum spacing of Mobil-Ups. This maximum spacing will, on occasion, require more Mobil-Ups than the minimum number shown in Column "A" -- "Minimum No. of Mobil-Ups per Chassis Beam". This spacing is based on loads perpendicular to the chassis beams of the unit. If the maximum spacing of the Mobil-Ups is greater than the maximum spacing of the chassis supports as shown in Column "C", then intermediate chassis supports must be placed between the Mobil-Ups, or the Mobil-Ups must be spaced as shown in Column "C" -- "Maximum Spacing of Chassis Supports". First and last Mobil-Up location is 1/2 maximum Mobil-Up spacing.
- Column "C" -- "Maximum Spacing of Chassis Supports" -- This column shows the maximum spacing that the chassis beam can be supported. The support may be a Mobil-Up or another type of support (steel pier or concrete block) and footing that has a vertical working load capacity of 4,000#. This column does not change the minimum number nor the maximum spacing of the Mobil-Ups as shown in Columns "A" & "B". If the maximum spacing of the Mobil-Ups is less than the maximum spacing of the chassis supports, then no additional chassis supports are required between the Mobil-Ups.

**EXAMPLE:** (3) 12' wide units @ 60' long with 50 PSF Floor Live Load. Set first and last Mobil-Up and concrete footing no further than 7'-5" from end of chassis. You will need (4) more Mobil-Ups evenly spaced between the end supports. Then evenly space piers or blocks between Mobil-Ups. (However no further than 7'-10")

MCD → 27-91F  
 RW 10/19/13