



DEGENKOLB ENGINEERS

300 South Grand Ave. #1115, Los Angeles, CA 90071

(213) 596-5000 (phone)

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www.degenkolb.com

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Office Of Statewide Health Planning And Development  
ANCHORAGE PRE-APPROVAL

OPA - 2149 - 07

PRODUCT MANUFACTURER: PETER PEPPER PRODUCTS

PRODUCT NAME/TYPE/MODEL: PARALLEL [Models H6020-3, H7216-3, H7220-3]

GENERAL NOTES:

- FORCES ARE DETERMINED PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 11, 12 AND 13 USING THE FOLLOWING EQUATION (EQ. 13.3-2):

$$F_p = 1.6 S_Ds I_p W_p = 4.62 W_p$$

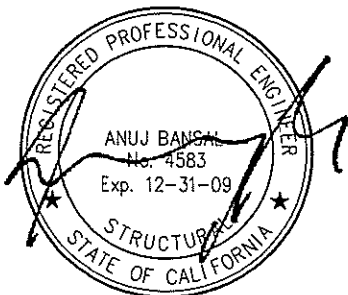
$$F_v = 0.2 S_Ds W_p = 0.39 W_p \text{ WHERE,}$$

$$S_Ds = 2/3 F_a S_s = 1.927g \text{ (EQ. 11.4-3)}$$

- $I_p$  1.50
- $F_a$  1.00
- $S_s$  2.89 g
- $W_p$  MAXIMUM OPERATING WEIGHT


NOTE THAT THE FORCE LEVEL IS FOR STRENGTH DESIGN

- THIS PRE-APPROVAL CONFORMS TO THE 2007 CALIFORNIA BUILDING CODE.
- THE DETAILS IN THIS PRE-APPROVAL MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA.
- THE DETAILS MAY BE USED FOR ANY LEVEL OF THE BUILDING WHERE THE ABOVE STATED PRODUCT IS LOCATED.



**A P P R O V E D**  
Fixed Equipment Anchorage  
Office of Statewide Health Planning and Development

**OPA-2149-07**  
Pre-approval Program Manager  
Anthony R. Pike  
(915) 440-8470

  
*George Zhu* July 8, 2009  
Reviewed By: George Zhu Date



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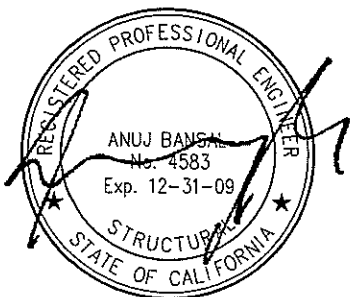
PRODUCT NAME/TYPE/MODEL: PARALLEL [Models H6020-3, H7216-3, H7220-3]

GENERAL NOTES (CONT'D):

- 5. ALL LOADS SHOWN ON THE CALCULATIONS ARE BASED ON STRENGTH DESIGN.
- 6. THIS UNIT DOES NOT REQUIRE SEISMIC CERTIFICATION.
- 7. TYPICAL DIMENSIONAL TOLERANCE IS  $\pm \frac{1}{4}$ ".

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD:

- 1. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS.
- 2. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY WALL OPENINGS.
- 3. VERIFY THE INSTALLATION IS IN CONFORMANCE WITH THE 2007 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN IN THIS PRE-APPROVAL.
- 4. VERIFY THAT THE CONCRETE WALL / CMU WALL WHICH THE UNIT IS ANCHORED IS NOT CRACKED.
- 5. DESIGN ANY SUPPLEMENTARY MEMBERS AND THEIR ATTACHMENTS WHICH THE UNIT IS ANCHORED TO. VERIFY THE ADEQUACY OF ANY EXISTING MEMBERS AND THEIR ATTACHMENTS WHICH THE UNIT IS ANCHORED TO, FOR THE FORCES EXERTED ON THEM BY THE UNIT IN ADDITION TO ALL OTHER LOADS AND FORCES.



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ANCHORAGE PRE-APPROVAL

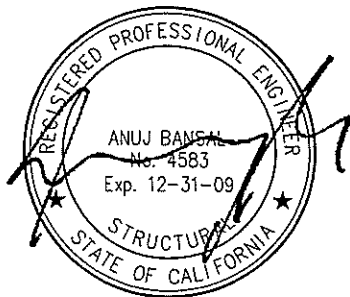
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PRODUCT NAME/TYPE/MODEL: PARALLEL [Models H6020-3, H7216-3, H7220-3]

MATERIAL SPECIFIC NOTES FOR SUPPORTING STRUCTURAL MEMBERS:

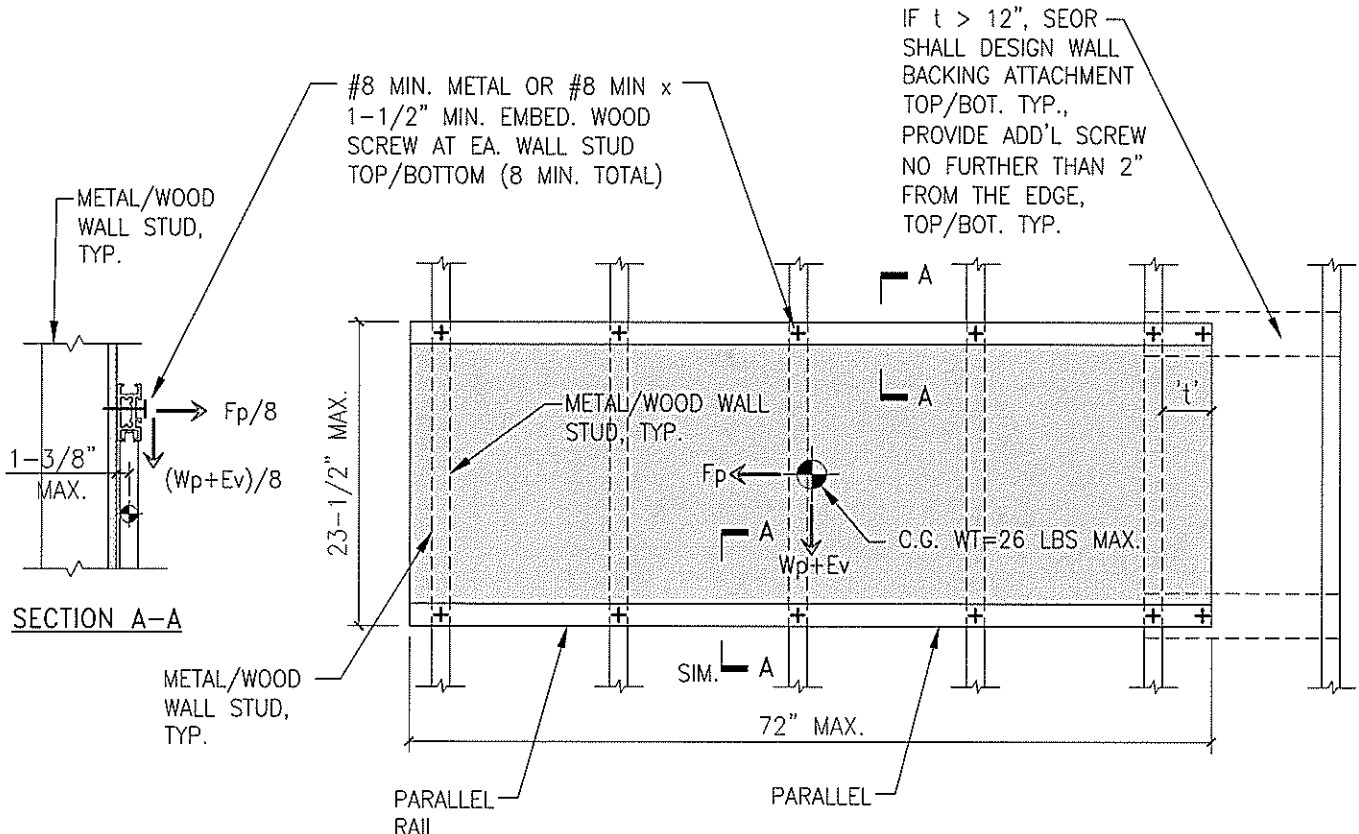
1. LIGHT GAGE METAL:  
MINIMUM GAGE: 20 GA.  
MINIMUM YIELD STRENGTH ( $f_y$ ) = 33 KSI
2. WOOD:  
MINIMUM GRADE: DOUGLAS FIR NO.3 OR BETTER  
MINIMUM SPECIFIC GRAVITY (G) = 0.46
3. CONCRETE:  
MINIMUM UNIT WEIGHT = 110 pcf (LIGHT WEIGHT CONCRETE)  
MINIMUM UNIT WEIGHT = 145 pcf (NORMAL WEIGHT CONCRETE)  
MINIMUM COMPRESSIVE STRENGTH ( $f_c$ ) = 2000 PSI
4. MASONRY:  
MINIMUM COMPRESSIVE STRENGTH ( $f_m$ ) = 1500 PSI
5. SEE 2007 CALIFORNIA BUILDING CODE FOR MORE INFORMATION AND OTHER REQUIREMENTS.
6. IF THE WOOD MATERIAL USED HAS A LOWER QUALITY THAN WHAT IS SPECIFIED ABOVE, SEOR SHALL EVALUATE THE BACKING SUPPORT DESIGN.



**PETER PEPPER PRODUCTS**  
**PARALLEL**  
**MODELS H6020-3, H7216-3, H7220-3**

Designed By	TY
Project #	A8621021.00
Date	10/24/2008

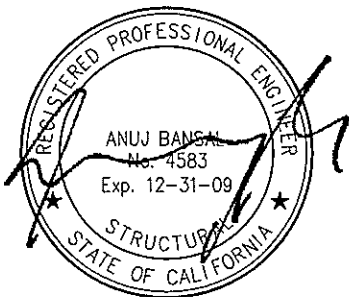
PARALLEL - METAL/WOOD STUDWALL ATTACHMENT



ELEVATION

**MAXIMUM DEMANDS AT WALL SCREWS**

<b>CASE 1: EQ FORCE PERPEND. TO WALL</b>	
TENSION = 16.2 LBS	SHEAR = 5.2 LBS
<b>CASE 2: EQ FORCE PARALLEL TO WALL</b>	
TENSION = 2.4 LBS	SHEAR = 15.9 LBS



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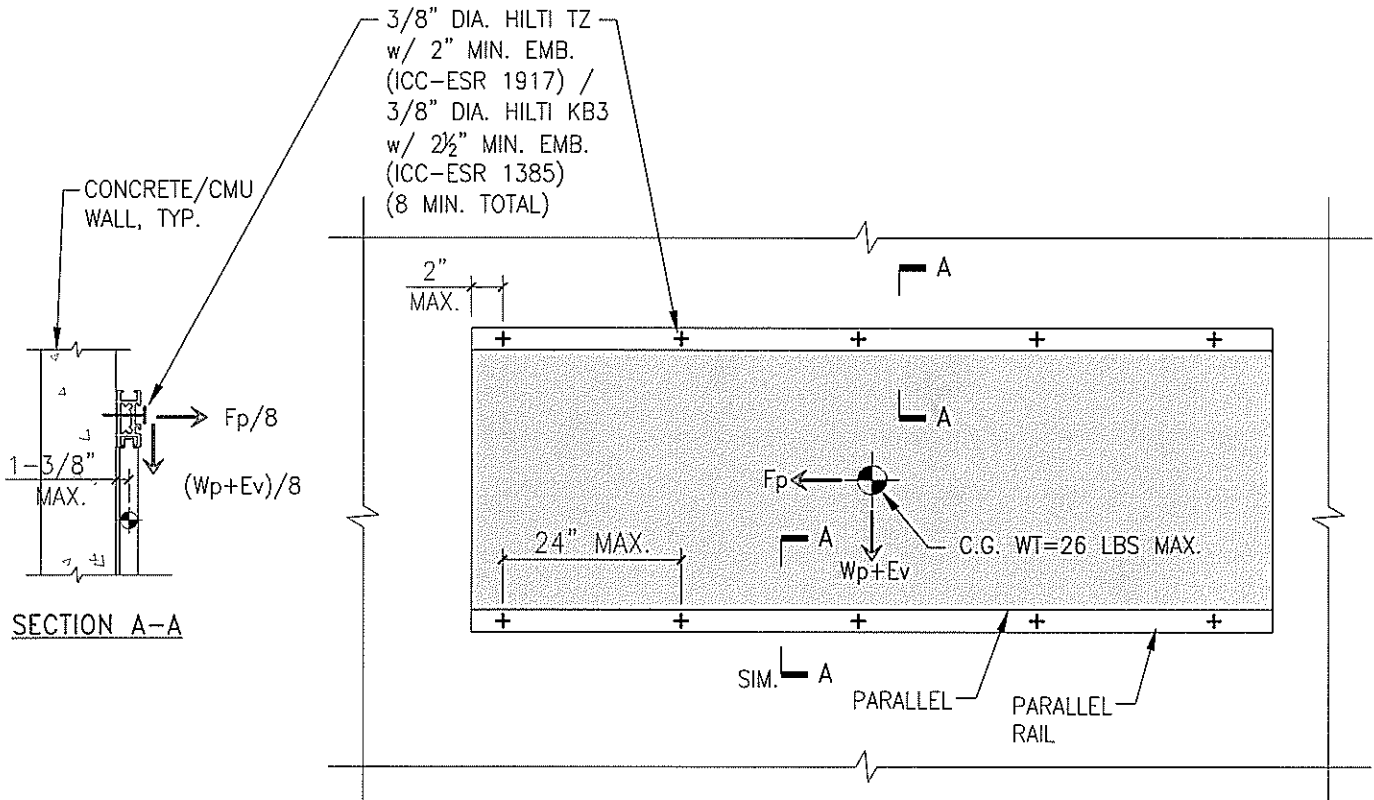
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 Pre-approval Program Manager:  
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*George Zhu*  
 Reviewed By: **George Zhu**      Date: **July 8, 2009**

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**PARALLEL**  
**MODELS H6020-3, H7216-3, H7220-3**

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PARALLEL - CONCRETE/CMU WALL ATTACHMENT



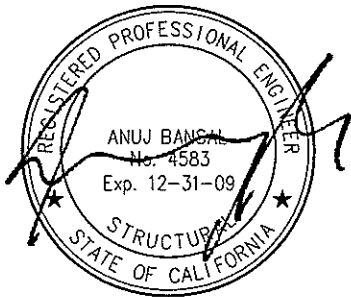
ELEVATION

**MAXIMUM DEMANDS AT WALL ANCHORS**

<b>CASE 1: EQ FORCE PERPEND. TO WALL</b>	
TENSION = 21.1 LBS	SHEAR = 6.7 LBS
<b>CASE 2: EQ FORCE PARALLEL TO WALL</b>	
TENSION = 3.1 LBS	SHEAR = 20.6 LBS

**NOTES:**

1. SEE PAGE 4 FOR INFO NOT SHOWN



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