CITY OF SACRAMENTO

1231 I Street, Sacramento, CA 95814

Permit No: **0514461**
Insp Area: 1
Thos Bros: 297F6

Site Address: **2828 Q ST SAC**
Parcel No: 007-0344-002 SUITE A

Sub-Type: REM
Housing (Y/N): N

CONTRACTOR
ALLEN EDWARDS
P.O. BOX 834
LOOMIS, CA 95650

OWNER
SCHMIDT THOMAS T/BARBARA L
1824 TRIBUTE RD STE D
SACRAMENTO, CA 95815

ARCHITECT

Nature of Work: INT. RMDL OF (E) SPACE FOR NEW TENANT, I.C.I. PAINTS

CONSTRUCTION LENDING AGENCY : I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name A Lender'sAddress

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class B License Number 755849 Date 11-30-05 Contractor Signature

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500.00);

_____ I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

_____ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

_____ I am exempt under Sec._____ B & PC for this reason:_____

Date_____ Owner Signature_____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 11-30-05 Applicant/Agent Signature

ISSUED
CITY OF SACRAMENTO
NOV 30 2005
DOWNTOWN PERMIT CENTER

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:
_____ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

_____ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier Policy Number Exp Date

AE (This section need not be completed if the permit is for $100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 11-30-05 Applicant Signature

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

~~**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**~~

BY G. OHANIAN
DATE 12-29-04
SUBJECT

RACK DESIGN & ENGINEERING CO.
412 WEST BROADWAY, SUITE #204
GLENDALE, CA. 91204
TEL:(818)240-3810 FAX:(818)240-3813

SHEET NO. 1
JOB NO. RD-9411

05144161

2828 Q. Street

STRUCTURAL CALCULATIONS OF STORAGE RACKS FOR:

I.C.I. PAINT
1625 INDUSTRIAL PKWY
HAYWARD, CA.

MICROFILM AT FINAL

PER CBC 2001 EDITION

STORAGE RACKS CAPACITY:

3000 # / LEVEL

CALCS. 1 THRU 4

DRAWINGS: RD-9411

REGISTERED PROFESSIONAL ENGINEER
GARNIK OHANIAN
No. C053524
EXP.: 6/30/07
CIVIL
STATE OF CALIFORNIA

This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.

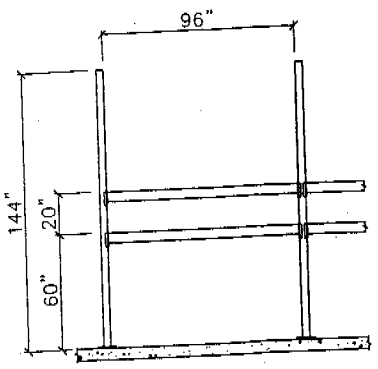
The approval of this plan and specifications SHALL NOT be held to permit or approve the violation of any City ordinance or the State Code.

APPROVED
UNDER TITLE 15 CITY CODE
CITY OF SACRAMENTO, CALIF.
DEPT. OF PLANNING & DEVELOPMENT
BUILDING INSPECTION DIVISION

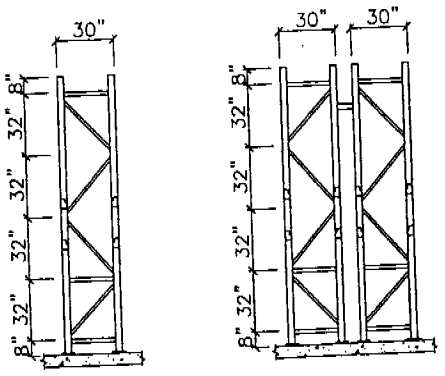
CITY OF SACRAMENTO
NORTH PERMIT CENTER
OCT 19 2005
RECEIVED

BY G. OHANIAN
DATE 12-29-04
SUBJECT

RACK DESIGN & ENGINEERING CO.
412 WEST BROADWAY, SUITE #204
GLENDALE, CA. 91204
TEL:(818)240-3810 FAX:(818)240-3813

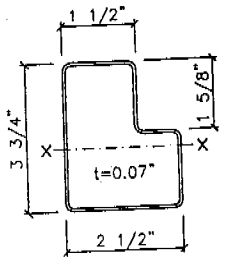


FRONT VIEW



SIDE VIEW

BEAM



$I_x = 1.56$

$S_x = .77$

$F_Y = 50$ KSI.

3000 # / LEVEL + 25% IMPACT LOAD

1700 # / BEAM

$$M = \frac{96" \times 1.7^K}{8} = 20^{"K}$$

$$S_R = \frac{20^{"K}}{30} = .67 < .77$$

$$\Delta = \frac{5 \times W \times L^3}{384 \times I_x \times E} = .38" < \frac{96}{180} = .53"$$

SEISMIC DESIGN

$$V = \frac{2.5 \times Ca \times I}{R \times 1.4_{\text{WORKING STRESS}}} \times W$$

CBC 2001 SEC. 2222

I=1

R=5.6 DOWN AISLE (MOM. CONN.)

R=4.4 CROSS AISLE (BRACED)

Ca=.53

W=D.L.+L.L./2 DOWN AISLE MORE THAN 4 COLUMNS

W=D.L.+L.L. CROSS AISLE

LOAD PER COLUMN

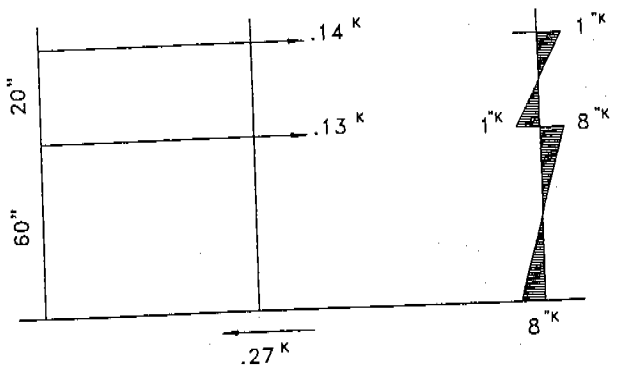
$$P = \frac{2 \times 3^K}{2_{\text{COL.}}} = 3^K$$

$$W = .1_{\text{D.L.}} + \frac{3}{2_{\text{L.L.}}} = 1.6^K$$

$$V_{\text{LONGIT.}} = \frac{2.5 \times .53 \times 1.6}{5.6 \times 1.4} = .27^K$$

$$V_{\text{TRANS.}} = \frac{2.5 \times .53 \times 3.1}{4.4 \times 1.4} = .66^K$$

LONGIT. SEISMIC



BY G. OHANIAN
DATE 12-29-04
SUBJECT

RACK DESIGN & ENGINEERING CO.
412 WEST BROADWAY, SUITE #204
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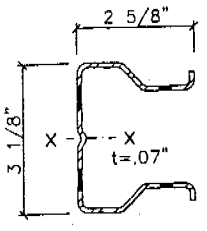
COLUMN ANALYSIS



$F_Y = 50^{KSI}$
$A = .58$
$S_x = .56$
$r_x = 1.2$
$r_y = .91$

$\frac{Kl}{r_x} = \frac{60}{1.2} = 50$

$\frac{Kl}{r_y} = \frac{32}{.91} = 35$

$M_{ax} = S_x \cdot F_b = 17^{"K}$

$Fe = \frac{\pi^2 x E}{(\frac{Kl}{r_x})^2} = 114$

$F_n = F_y(1 - \frac{F_Y}{4F_e}) = 44^{KSI}$

$P_n = F_n x A = 25^K$

$P_a = \frac{Pn}{1.92} = 13^K$

COMBINED STRESS RATIO

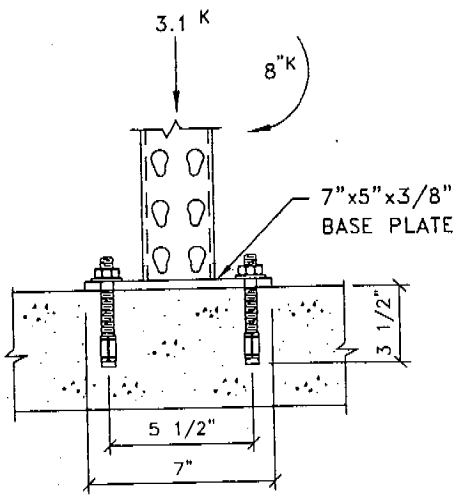
$\frac{P}{P_a} + \frac{M}{M_{ax}} = \frac{3.1}{13} + \frac{8}{17} = .71 < 1.33$

BASE PLATE

ANCH. TENSION $= \frac{8^{"K} - (1.6^K x 3")}{6"} = .5^K$

ANCHOR SHEAR $= \frac{.27}{2} = .14^K$

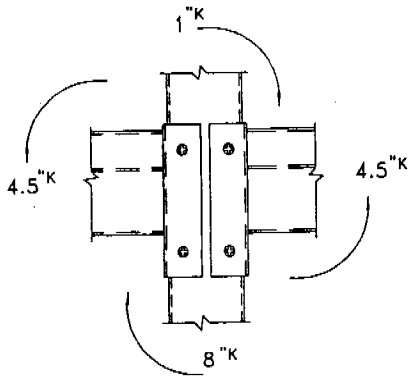
(2)-1/2"ø WEDGE TYPE ANCHORS
ICBO #4627, OR #1372. (NO INSPECTION REQ'D)
DESIGNED FOR 1/2 STRESS

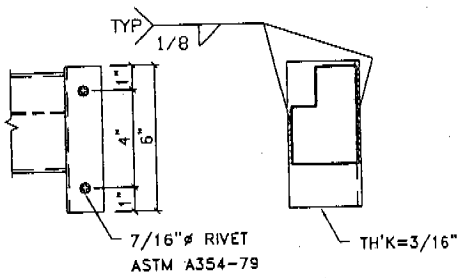


RACK COLUMNS DESIGNED SUCH THAT IF THE FRONT COL. IS DAMAGED THE REAR COL. HAS EXTRA CAPACITY TO SUPPORT THE FULL LOAD OF THAT BAY, (SEC. 2222-5)

MOMENT AT BEAM CONNECTION

$M_1 = \frac{8+1}{2} = 4.5^{"K}$





2 PIN CONNECTOR

7/16"ø RIVET
$A = .1$ $Fy = 79^{KSI}$
$Va = .095 x 79 x .4 = 3.0^K$
$Ma_{CONN.} = 3.0^K x 4" x 1.33 = 16^{"K}$

BY G. GHANIAN
DATE 12-29-04
SUBJECT

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TRANSVERSE SEISMIC
(OVERTURNING)

$M_{OT} = .66^{K} x 2 x 80" x .5 x 1.15 = 60"^{K}$

$M_R = 3.1^{K} x 30" = 93"^{K}$

NO UPLIFT

TOP LEVEL LOADING

$M_{OT} = .33^{K} x 2_{COL.} x 80" = 53"^{K}$

$M_R = 1.6^{K} x 30" = 48"^{K}$

$\text{UPLIFT} = \frac{53"^{K} - 48"^{K}}{30"} = .16^{K}$

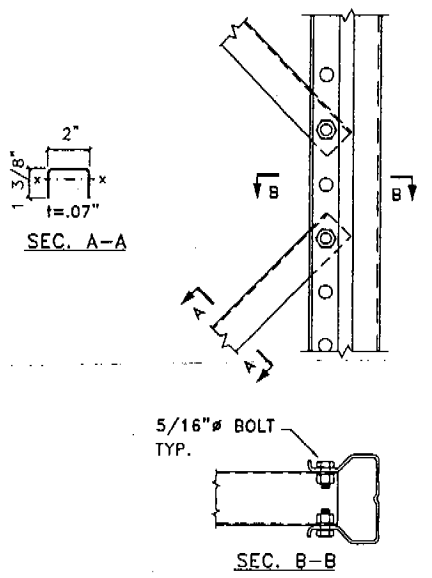
LOAD TO DIAGONAL

$P = .66 x 2_{COL.} \times \frac{46}{30} = 1^{K}$

$F_Y = 50^{KSI}$
$A = .29$
$r_x = .48$
$Q = .74$
$L = 34"$

$F_a = 16^{KSI}$

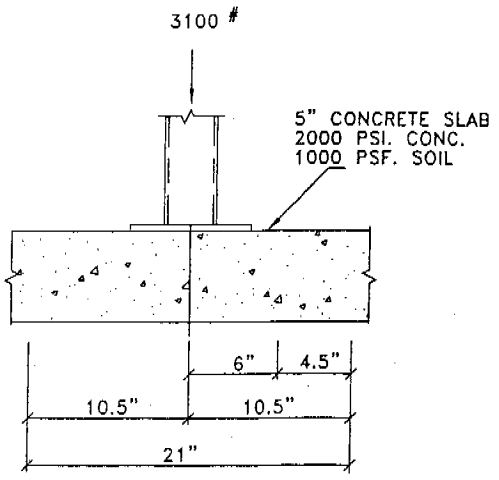
$P_a = 5^{K}$



5/16"ø BOLT

$V_a = 1.5^{K} x 2 = 3.0$

CHECK SLAB



$\frac{3800}{1000} = 3.1^{\square'}$ $\quad 3.1 x 144 = 446^{\square"}$

$\sqrt{446} = 21"$

$M = \left(\frac{4.5}{12}\right)^2 x 1000 x \frac{1}{2} x 12 = 843"^{\#}$

$S = \frac{12 x 5^2}{6} = 50$

$\frac{843}{50} = 17 < 1.6\sqrt{2000} = 72$

Sun Devil H/A INC

AIR BALANCING WORKSHEET
DIFFUSER READINGS

JOB NAME: TCI Paints 2828 Q St SYSTEM: Tran 4 Ton

1	2	3	4	5	6	7	8
ROOM LOCATION OR DIFFUSER NO.	SUPPLY OR RETURN MODEL SIZE	FLOW FACTORS OR NET CORE AREA Ft^2	DESIGN AIR FLOW CFM	DESIGN OUTLET VELOCITY FPM	MEASURED AVERAGE VELOCITY READING -- FPM	MEASURED AIR FLOW CFM	REMARKS
Roof Top Unit			1350		600	1385	OSA at Unit
Return air 1	16		850			950	
Return air 2	10		400			350	
Supply 1	10		400			450	
2	10		400			425	
3	10		400			400	
4	10		400			410	
Total Supply air						1685	
Total Return air						1300	
OUT Side air						385	

INSTRUMENT: _____ BY: _____

REPORT PAGE: _____