

**Structural Calculations**

**For the**

**Pedestrian Bridge Structure**

**At**

**Coral Reef Park  
For The  
Village of Palmetto Bay**

**100% SUBMITTAL**

**Santiago Aranegui P.E.**

6431 SW 145 street  
Coral Gables, Florida 33158  
Voice: 305.431-6747 Fax: 786-573-3538.

**October 2, 2009**



**Santiago Aranegui, P.E.  
Structural Engineer #48106**

ANALYZE BRIDGE STRUCTURE

EXISTING BRIDGE STRUCTURE:

GRIDIRZ DIMENSION: Depth = 35", Width = 11 3/4" KE2'D'

GRIDIRZ IS A GLUE-CASTED BEAM  
Assume Grade II spacers; Specific Gravity = 0.55

$$W_{GRIDIRZ} = (35/12) \times (11.75/12) \times (52') \times (0.55) \times (62.4) = 5101 \# / \text{GRIDIRZ}$$

NEW BRIDGE STRUCTURE:

Live Load = 90 psf

D.N. FLOOR 2x6(2) = 9 psf

Steel Beam (J.S 4x4x 1/4 spacers) #4" B.C.

$$12.21 \text{ psf} (4') / 2.63' = 17.25 \text{ psf}$$

$$116.25 \text{ psf}$$

$$W = 116.25 \text{ psf} (4') = 465 \text{ lbf}$$

PANEL POINTS DISTANCE 34"

$$\text{JOINT LOAD} = 465 \text{ lbf} (34/12) = 1317.5 \#$$

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JOB Coral Reef Park Redeveloped

SHEET NO. 2 OF 49

PROJECT NO. \_\_\_\_\_

CALCULATED BY SN2

DATE 10-2-03

Wt of FINISHING:

$5/8" \text{ PLYWOOD (2 LAYERS)} = 3.6 \text{ Pcf}$

$Wt = 3.6 \text{ Pcf} (3') = 10.73 \text{ Pcf}$

$A_s \text{ Panel Panel (Joist)} = 10.73 \text{ Pcf} (31\frac{1}{2}') = 30.4 \text{ Pounds}$

$9/8 \text{ GYPSUM} = 1.125 \text{ Pcf} (145') (3') (36\frac{1}{2}') = 115 \text{ Pcf}$

$\text{Total Load to Joist} = 1317.5 \text{ Pcf} + 30.4 \text{ Pcf} + 115 \text{ Pcf} = 1463 \text{ Pcf}$

Use 1500 Pcf

Refer to spans of joist

ANALYZE FLOOR STRUCTURE:

Floor Joist spacing = 31"

$2 \times 6 \quad S_y = \frac{(5.5')(11.5')^2}{6} = 2.06 \text{ IN}^3$

$M = \frac{90 \text{ Pcf} (31')^2}{8} = 120 \text{ Ft-lb}$

$f_b = \frac{120 \text{ Ft-lb} (12)}{(2.06 \text{ IN}^3)} = 700 \text{ Pcf}$

FLOOR BRG: 1x6  $S_y = \frac{(5.5')(0.75')^2}{6} = 0.52 \text{ IN}^3$

$M = \frac{90 \text{ Pcf} (16\frac{1}{2}')^2}{8} = 20 \text{ Ft-lb}$   
 $f_b = \frac{20 \text{ Ft-lb}}{0.52 \text{ IN}^3} = 461 \text{ Pcf}$

ANALYSIS TRUSS BRACE:

T-S 4x4x1/4" 3x =

$$W_b = 110 \text{ lbs/ft} (2.833) = 311.6 \text{ lbs} + 12.21 = 323.81 \text{ lbs}$$

$$S = 4.11 \text{ in}^3$$

$$M = \frac{W_b L^2}{8} = \frac{323.81 (8)^2}{8} = 2590.48 \text{ ft-lb}$$

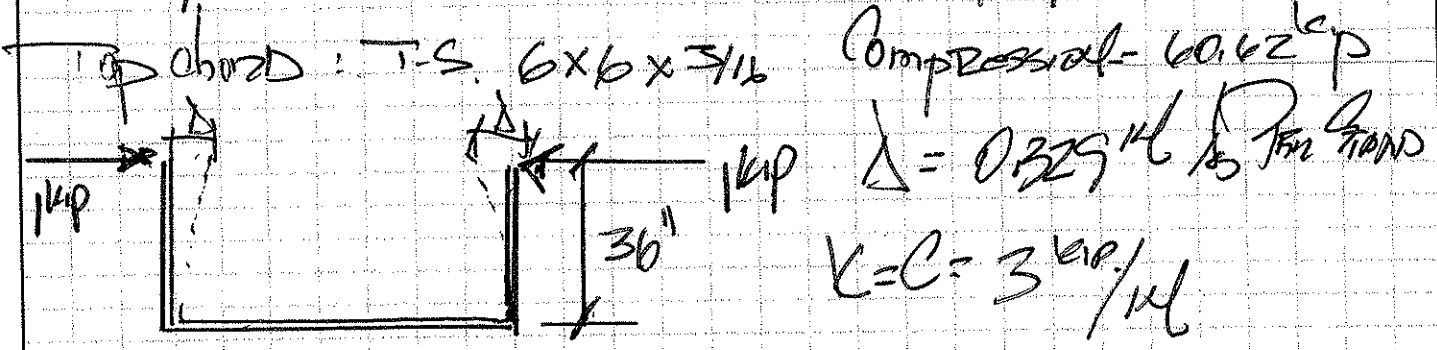
$$f_b = \frac{2590.48 (12)}{4.11 \text{ in}^3} = 7563.4 \text{ psi}$$

$$T_b = 0.66 (46 \text{ ksi}) = 30.36 \text{ ksi}$$

ANALYSIS TRUSS STRUCTURE:

Refer to STAAD output

ANALYZE TOP CHORD (DETERMINE  $K/r$ )



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JOB Coral Gables + 2nd Repositioning

SHEET NO. 4 OF 49

PROJECT NO. \_\_\_\_\_

CALCULATED BY \_\_\_\_\_

DATE \_\_\_\_\_

$C = 3 \frac{kip}{ft}$

$P = 1 \frac{kip}{ft}$

$\Delta = 0.328$

$L = 34 \text{ ft}$

$P_C = 60.62 \frac{kip}{ft} (1.75) (1.33) = 141 \frac{kip}{ft}$

$n = 18$

$\frac{CL}{P_C} = \frac{(3 \frac{kip}{ft})(34 \text{ ft})}{141} = 0.723$

1/4 IN 18 BAR  $\frac{1}{2} = 0.55$

$KL = 1.02$

CONS. USE 2

$\phi \frac{KL}{r} \text{ FOR } 1-S. 6 \times 6 \times 3/16 = \frac{(2)(34 \text{ ft})}{2.36} = 28.8$

REFER TO MANUAL FOR COLUMN DESIGN ANALYSIS

TRUSS DEFLECTION:  $1.193 \text{ in}$

$\frac{L}{500} = \frac{50 \times 12}{500} = 1.2 = 1.19 \text{ in} \Rightarrow \text{OK}$

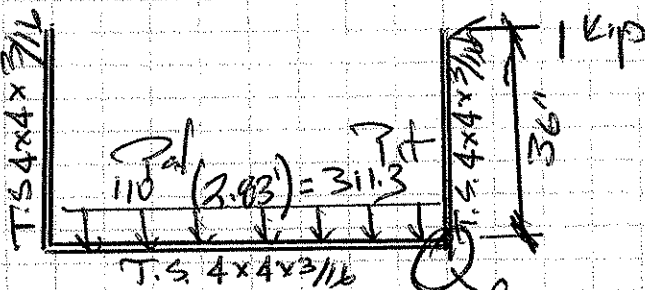
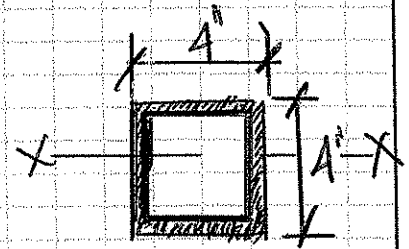
FREQUENCY =  $3.214 > 3.0 \Rightarrow \text{OK}$

ANALYSIS

U-TYPE CONNECTIONS:

$$M = 1 \text{ kip} (36 \text{ in}) = 36 \text{ kip in}$$

$$V = 110 \text{ Tcf} (2.83) (4 \text{ in}) = 1.24 \text{ kip}$$



$$S_x = (4 \text{ in})(4 \text{ in}) + (4 \text{ in})^2$$

$$= 21.33 \text{ in}^3$$

Connection  $A = 16 \text{ in}^2$

$$f_v = 1.24 \text{ kip} / 16 \text{ in}^2 = 0.0775 \text{ ksi}$$

$$f_b = 36 \text{ kip in} / 21.33 \text{ in}^3 = 1.687 \text{ ksi}$$

$$f_r = \sqrt{(0.0775 \text{ ksi})^2 + (1.687 \text{ ksi})^2}$$

$$= 1.69 \text{ ksi}$$

Weld Size  $\tau_{weld} = \frac{1.69 \text{ ksi}}{(0.707)(0.30)(70 \text{ ksi})} = 0.1135 \text{ in}$

Use  $\frac{1}{4}$  in Fillet Weld

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JOB \_\_\_\_\_

SHEET NO. \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

CALCULATED BY \_\_\_\_\_

DATE \_\_\_\_\_

**ANALYSIS WELDS ON TRUSS MEMBERS:**

Max. J ELONGATION ON WELDS  $\sigma_{weld} = 18.9 \text{ ksi}$

$A_{weld} = 16 \text{ in}^2$

$J = \frac{18.9 \text{ ksi}}{16 \text{ in}^2} = 1.18 \text{ ksi/in}$

Required thickness =  $\frac{1.18 \text{ ksi/in}}{(0.707)(0.3)(70 \text{ ksi})} = 0.08 \text{ in}$   
USE 1/4" CWS.

**ANALYSIS WELDS ON CHORD MEMBERS:**

$J = C = 62 \text{ kips}$

$A_{weld} = 16 \text{ in}^2$

$J = \frac{62 \text{ kips}}{16 \text{ in}^2} = 3.9 \text{ ksi/in}$

Required Weld to space =  $\frac{3.9 \text{ ksi/in}}{(0.707)(0.3)(70 \text{ ksi})} = 0.26 \text{ in}$

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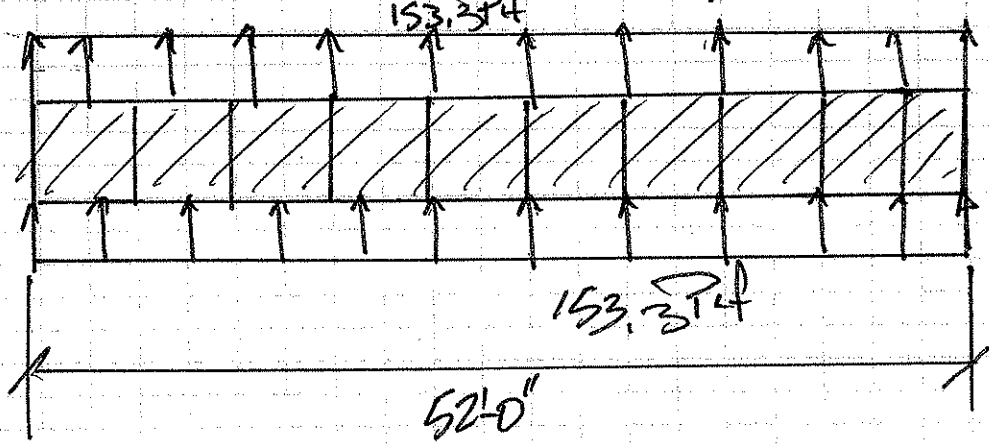
Fax: (786) 573-3538

JOB Coral Gables Park  
 SHEET NO. 6 OF 45  
 PROJECT NO. \_\_\_\_\_  
 CALCULATED BY \_\_\_\_\_  
 DATE \_\_\_\_\_

ANALYZE BRIDGE FOR LATERAL WIND LOADS:

WIND PRESSURE ON BRIDGE DECK =  $43.5 \text{ psf}$

DISTRIBUTED LATERAL LOAD =  $43.5 \text{ psf} (3.5') = 153.3 \text{ psf}$



LATERAL LOAD AT SUPPORTS:  $(2)(153.3 \text{ psf})(52'/2) = 7971.6 \text{ \#}$

ANALYZE LATERAL SUPPORTS:

LOAD AT EACH SUPPORT =  $\frac{7971.6}{2} = 3986 \text{ \#}$

SHEAR LOAD ON  $3/4" \phi$  BOUL =  $\frac{3986 \text{ \#}}{2 \text{ BOULS}} = 1993 \text{ \#}$

ALLOW SHEAR =  $4.4 \text{ ksi}$   
BOUL

ANALYZE  $L8 \times 4 \times 1/2$   
 LATERAL LOAD =  $3986 \text{ \#}$   $H = 3986(4") = 16 \text{ ksi}$

$$S_x = (2)(8")^2(1/2) / 6 = 0.667 \text{ in}^3$$

$$f_b = 16 \text{ ksi} / 0.667 \text{ in}^3 = 24 \text{ ksi}$$

$f_b = 0.66(36 \text{ ksi}) = 23.8 \text{ ksi}$  @ Since  $1.33$  Allow for WIND



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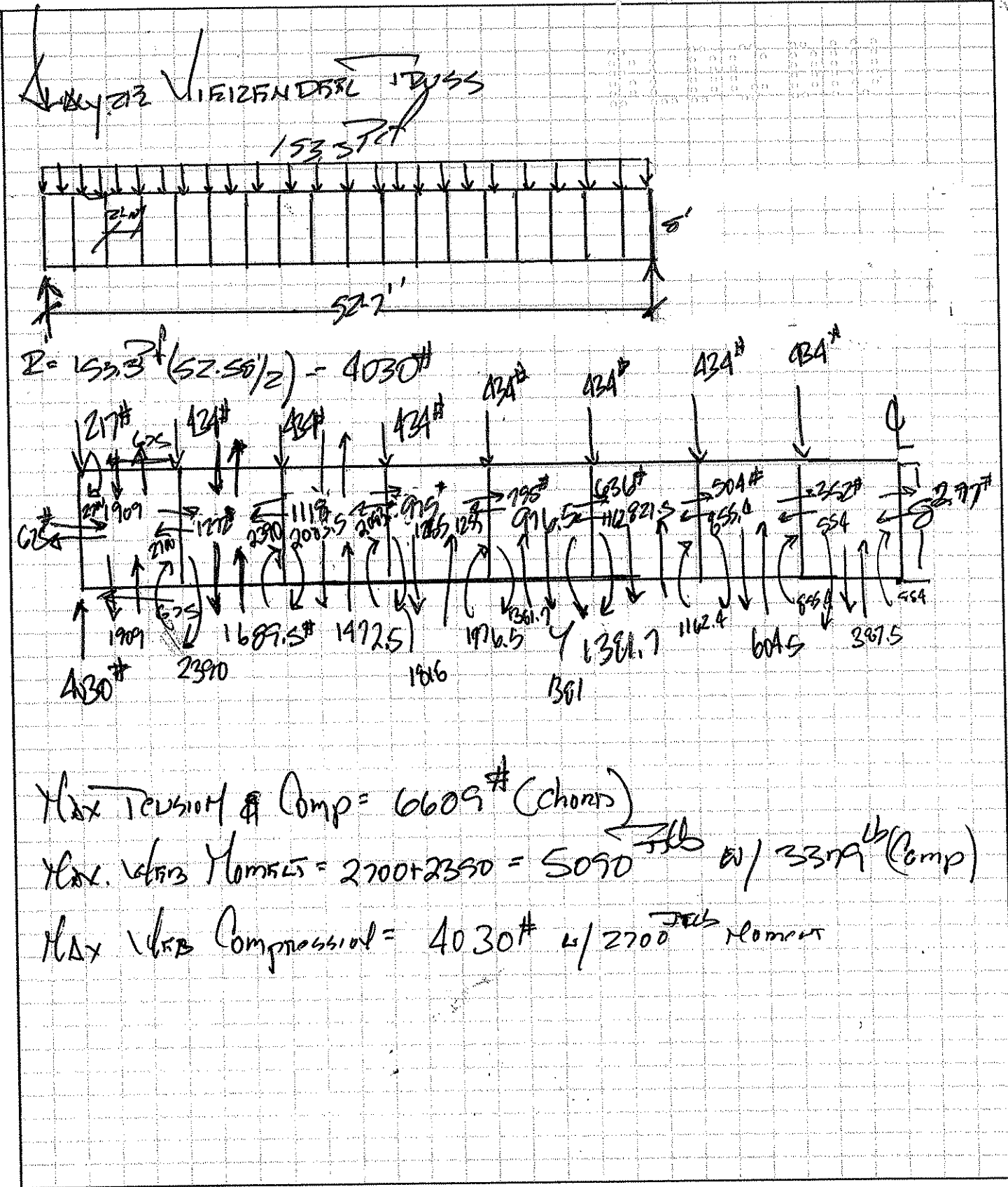
JOB \_\_\_\_\_

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

CALCULATED BY \_\_\_\_\_

DATE \_\_\_\_\_



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PROJECT NO. \_\_\_\_\_

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DATE \_\_\_\_\_

ANALYZE WFB

T-S.  $4 \times 4 \times \frac{1}{4} \times 8'$  (LONG)  $S_x = 4.11$   $I_x = 3.55 \text{ in}^2$   
 $5090 \text{ FT-LB}$  &  $3379 \text{ LBS}$  WAVE COMP.  $r = 1.51 \text{ in}$

$$f_b = \frac{5090 \text{ FT-LB (12)}}{4.11 \text{ in}^2} = 14.86 \text{ ksi} \quad T_b = 0.6(46 \text{ ksi}) = 27.6 \text{ ksi}$$

$$f_a = \frac{3379 \text{ LBS}}{3.55 \text{ in}^2} = 941 \text{ LBS/in}^2 \quad T_a = \frac{K_y(12)}{1.51} = 63.6 \text{ ksi}$$

$F_a = 20 \text{ ksi}$

$$I.R. = \frac{14.86}{27.6} + \frac{0.941}{20 \text{ ksi}} = 0.58 < 1.0 \text{ (OK)}$$

ANALYZE WBS:

$$f_c = \frac{5090 \text{ FT-LB}}{21.33 \text{ in}^3} = 238.5 \text{ ksi/in}^3$$

$S_{WBS} = 21.33 \text{ in}^3$   $A = 16 \text{ in}^2$

$$\text{Required WBS Size} = \frac{238.5 \text{ ksi/in}^3}{(0.707)(0.5)(70 \text{ ksi})} = 0.193 \text{ in}^2$$

Including Comp & Shock

Comp:  $3379 \text{ LBS}$   $f = \frac{3379}{16 \text{ in}^2} = 211.2 \text{ ksi}$

Shock:  $1272 \text{ LBS}$   $f = \frac{1272}{16 \text{ in}^2} = 79.5 \text{ ksi}$

$$f_r = \sqrt{(238.5)^2 + (211.2)^2 + (79.5)^2} = 287.1 \text{ ksi}$$

$$\text{Req. WBS} = \frac{287.1 \text{ ksi}}{(0.707)(0.5)(70 \text{ ksi})} = 0.193 \text{ in}^2$$

WIND LOAD TABLE  
Sheet 7

**MECAWind Version 2.0.2.8 per ASCE 7-05**

Developed by MECA Enterprises, Inc. Copyright 2009 [www.mecaenterprises.com](http://www.mecaenterprises.com)

Date	: 9/24/2009	Project No.	:
Company Name	:	Designed By	:
Address	:	Description	:
City	:	Customer Name	:
State	:	Proj Location	:
File Location	: C:\Program Files\MECAWind\Default.wnd		

**Detailed Wind Load Design(Method 2) per ASCE 7-05**

Basic Wind Speed(V)	= 146.00 mph	Structure Type	= Other
Structural Category	= II	Exposure Category	= C
Natural Frequency	= N/A	Flexible Structure	= No
Importance Factor	= 1.00	Kd Directional Factor	= 0.85
Alpha	= 9.50	Zg	= 900.00 ft
At	= 0.11	Bt	= 1.00
Am	= 0.15	Bm	= 0.65
Cc	= 0.20	l	= 500.00 ft
Epsilon	= 0.20	Zmin	= 15.00 ft
B - Horizontal Dim.	= 50.00 ft	Ht- Grade to Top of Sign	= 3.50 ft
W - Sign Depth	= 0.67 ft	S - Vertical Sign Dim.	= 3.50 ft
Bs- Ratio of B / S	= 14.29	Sh- Ratio of S / Ht	= 1.00
E - Solidity Ratio	= 100.00 %		

**Gust Factor Category I Rigid Structures - Simplified Method**  
 Gust1: For Rigid Structures (Nat. Freq.>1 Hz) use 0.85 = 0.85

**Gust Factor Category II Rigid Structures - Complete Analysis**

Zm:	0.6*Ht	= 15.00 ft
lzm:	Cc*(33/Zm)^0.167	= 0.23
Lzm:	1*(Zm/33)^Epsilon	= 427.06 ft
Q:	(1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5	= 0.92
Gust2:	0.925*((1+1.7*lzm*3.4*Q)/(1+1.7*3.4*lzm))	= 0.89

**Gust Factor Summary**  
 Not a Flexible Structure use the Lessor of Gust1 or Gust2 = 0.85

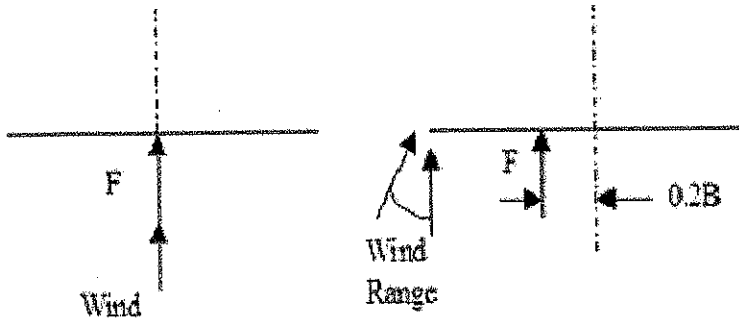
**Design Wind Pressure - Other Structures**

Elev ft	Kz	Kzt	qz psf	W_Pres_Cf( 1.30) psf
3.50	0.85	1.00	39.374	43.51

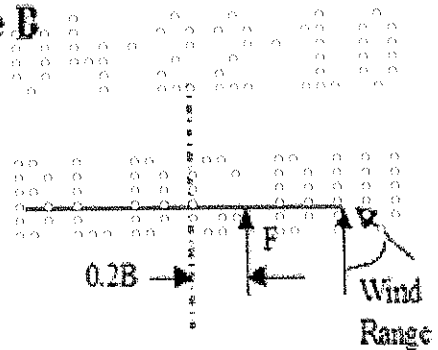
Note: W\_Pres\_Cf is Wind Pressure based on Cf(Force Coefficient)

**Figure 6-20: Wind Loads for Solid Signs & Freestanding Walls**

**Case A**



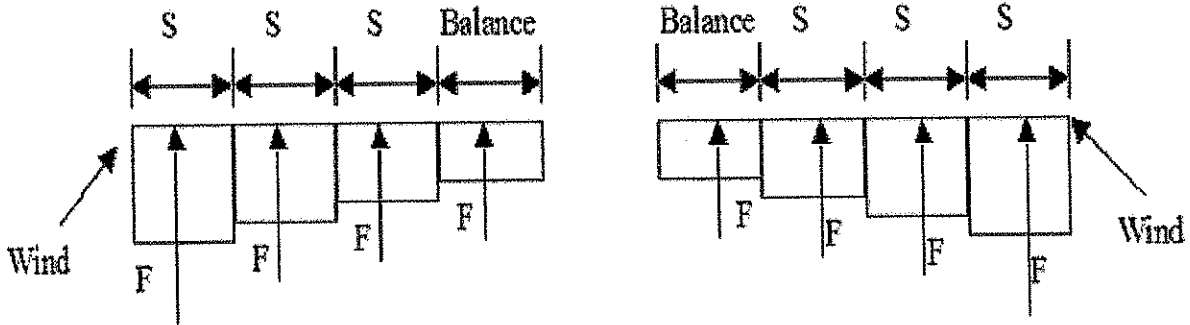
**Case B**



$C_f$  - Force Coefficient = 1.30  
 $R_d$  - Reduction Factor  $(1 - (1 - E)^{1.5})$  = 1.00  
 $K_z$  = 0.85  
 $K_{zt}$  = 1.00  
 $Q_z$  = 39.374 psf  
**Wind Pressure at Elevation 3.5 ft** = 43.509 psf

- Notes: 1) Signs with openings comprising < 30% of gross area are considered solid signs  
 2) Force Coefficients for solid signs with openings shall be multiplied by  $R_d$   
 3) Case C only applies when  $B_s \geq 2$

**Case C**



Distance from leading edge ft	$C_f$ Force Coeff.	$K_z$	$K_{zt}$	$Q_h$ psf	Wind Pressure @ Distance psf
From 0 to 3.5	3.21	0.85	1.00	39.37	107.37
From 3.5 to 7.0	2.08	0.85	1.00	39.37	69.61
From 7.0 to 10.5	1.60	0.85	1.00	39.37	53.55
From 10.5 to 14.0	1.21	0.85	1.00	39.37	40.43
From 14.0 to 17.5	1.10	0.85	1.00	39.37	36.68
From 17.5 to 35.0	0.73	0.85	1.00	39.37	24.36
> 35.0	0.44	0.85	1.00	39.37	14.73

$R_{dC}$  - Reduction Factor for Case C  $(1.8 - S / H_t)$  = 0.80

Note: When  $S / H_t > 0.8$  then  $C_f$  must be multiplied by  $R_{dC}$ .

Title : *Coast Road Project* Job #  
 Dsgnr: *Sherry* Date: 4:07PM, 23 SEP 09  
 Description : *Sherry*

Scope :

Rev: 580008  
 User: KW-0606795, Ver 5.8.0, 1-Dec-2003  
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**Steel Column**

Page 1  
 .ecw:Calculations

**Description** TRUSS TOP CHORD ANALYSIS

**General Information**

Code Ref: AISC 9th ASD, 1997 UBC, 2003 IBC, 2003 NFPA 5000

<b>Steel Section</b>	TS6X6X3/16	<b>Fy</b>	46.00 ksi	<b>X-X Sidesway</b>	Sway Allowed
		<b>Duration Factor</b>	1.330	<b>Y-Y Sidesway :</b>	Sway Allowed
<b>Column Height</b>	6.000 ft	<b>Elastic Modulus</b>	29,000.00 ksi		
<b>End Fixity</b>	Pin-Pin	<b>X-X Unbraced</b>	6.000 ft	<b>Kxx</b>	2.000
<b>Live &amp; Short Term Loads Combined</b>		<b>Y-Y Unbraced</b>	6.000 ft	<b>Kyy</b>	2.000

**Loads**

<b>Axial Load...</b>				
<b>Dead Load</b>	k	<b>Ecc. for X-X Axis Moments</b>	0.000 in	
<b>Live Load</b>	62.00 k	<b>Ecc. for Y-Y Axis Moments</b>	0.000 in	
<b>Short Term Load</b>	k			

**Summary**

**Column Design OK**

Section : TS6X6X3/16, Height = 6.00ft, Axial Loads: DL = 0.00, LL = 62.00, ST = 0.00k, Ecc. = 0.000in  
 Unbraced Lengths: X-X = 6.00ft, Y-Y = 6.00ft

Combined Stress Ratios	Dead	Live	DL + LL	DL + ST + (LL if Chosen)
AISC Formula H1 - 1		0.6871	0.6871	0.5166
AISC Formula H1 - 2		0.5261	0.5261	0.3956
AISC Formula H1 - 3				

**XX Axis : Fa calc'd per Eq. E2-1, K\*L/r < Cc**  
**YY Axis : Fa calc'd per Eq. E2-1, K\*L/r < Cc**

**Stresses**

Allowable & Actual Stresses	Dead	Live	DL + LL	DL + Short
<b>Fa : Allowable</b>	21.13 ksi	21.13 ksi	21.13 ksi	28.11 ksi
<b>fa : Actual</b>	0.00 ksi	14.52 ksi	14.52 ksi	14.52 ksi
<b>Fb:xx : Allow [F1-6]</b>	27.60 ksi	27.60 ksi	27.60 ksi	36.71 ksi
<b>Fb:xx : Allow [F1-7] &amp; [F1-8]</b>	27.60 ksi	27.60 ksi	27.60 ksi	36.71 ksi
<b>fb : xx Actual</b>	0.00 ksi	0.00 ksi	0.00 ksi	0.00 ksi
<b>Fb:yy : Allow [F1-6]</b>	27.60 ksi	27.60 ksi	27.60 ksi	36.71 ksi
<b>Fb:yy : Allow [F1-7] &amp; [F1-8]</b>	27.60 ksi	27.60 ksi	27.60 ksi	36.71 ksi
<b>fb : yy Actual</b>	0.00 ksi	0.00 ksi	0.00 ksi	0.00 ksi

**Analysis Values**

<b>F'ex : DL+LL</b>	40,140 psi	<b>Cm:x DL+LL</b>	0.85	<b>Cb:x DL+LL</b>	1.75
<b>F'ey : DL+LL</b>	40,140 psi	<b>Cm:y DL+LL</b>	0.85	<b>Cb:y DL+LL</b>	1.75
<b>F'ex : DL+LL+ST</b>	53,386 psi	<b>Cm:x DL+LL+ST</b>	0.85	<b>Cb:x DL+LL+ST</b>	1.75
<b>F'ey : DL+LL+ST</b>	53,386 psi	<b>Cm:y DL+LL+ST</b>	0.85	<b>Cb:y DL+LL+ST</b>	1.75
<b>Max X-X Axis Deflection</b>	0.000 in at	0.000 ft	<b>Max Y-Y Axis Deflection</b>	0.000 in at	0.000 ft

Corral Red Park  
Job #

Title :  
Dsgnr :  
Description :

Date: 4:57PM, 23 SEP 09

Sheet 10

Scope :

Rev: 580008  
User: KVV-0606795, Ver 5.8.0, 1-Dec-2003  
(c)1983-2003 ENERCALC Engineering Software

### Steel Column

Description TRUSS TOP CHORD ANALYSIS

### Section Properties TS6X6X3/16

Property	Value	Property	Value	Property	Value
Depth	6.000 in	Weight	14.50 #/ft	Values for LRFD Design...	
Thickness	0.188 in	Ixx	23.800 in4	J	37.500 in4
Width	6.000 in	Iyy	23.800 in4		0.00
		Sxx	7.930 in3	Zx	9.240 in3
Area	4.27 in2	Syy	7.930 in3	Zy	9.240 in3
Rt	3.000 in	Rxx	2.360 in		0.000
		Ryy	2.360 in		

Section Type = TS-Square

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*          Version 2007      Build 04
*          Proprietary Program of
*          Research Engineers, Intl.
*          Date=   APR 6, 2010
*          Time=   15:19:34
*
*          USER ID: C3TS
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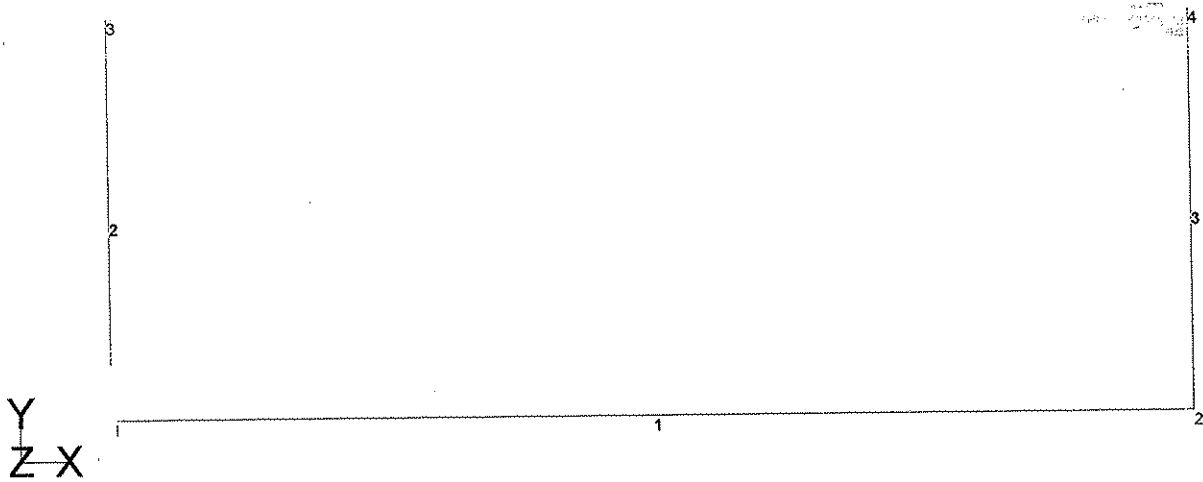
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- 1. STAAD PLANE
- INPUT FILE: Structure2.STD
- 2. START JOB INFORMATION
- 3. ENGINEER DATE 27-AUG-09
- 4. END JOB INFORMATION
- 5. INPUT WIDTH 79
- 6. UNIT FEET KIP
- 7. JOINT COORDINATES
- 8. 1 0 0 0; 2 8 0 0; 3 0 3 0; 4 8 3 0
- 9. MEMBER INCIDENCES
- 10. 1 1 2; 2 1 3; 3 2 4
- 11. DEFINE MATERIAL START
- 12. ISOTROPIC STEEL
- 13. E 4.176E+006
- 14. POISSON 0.3
- 15. DENSITY 0.489024
- 16. ALPHA 6.5E-006
- 17. DAMP 0.03
- 18. END DEFINE MATERIAL
- 19. MEMBER PROPERTY AMERICAN
- 20. 1 TO 3 TABLE ST TUB40404
- 21. CONSTANTS
- 22. MATERIAL STEEL ALL
- 23. SUPPORTS
- 24. 1 2 PINNED
- 25. LOAD 1 LOAD CASE 1
- 26. JOINT LOAD
- 27. 3 FX 1
- 28. 4 FX -1.
- 29. PERFORM ANALYSIS PRINT ALL



Software licensed to C3TS

Job No	Sheet No	Rev
	1	
Part		
Ref		
Ly	Date	Chd
	27-Aug-09	
Client	File	Date/Time
	Structure2.sta	23-Sep-2009 16:25



Load 1



PROBLEM STATISTICS

NUMBER OF JOINTS/MEMBER+ELEMENTS/SUPPORTS = 4/ 3/ 2

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

ORIGINAL/FINAL BAND-WIDTH= 2/ 2/ 7 DOF
TOTAL PRIMARY LOAD CASES = 1, TOTAL DEGREES OF FREEDOM = 8
SIZE OF STIFFNESS MATRIX = 1 DOUBLE KILO-WORDS
REQD/AVAIL. DISK SPACE = 12.0/ 3060.1 MB

0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0

STAAD PLANE

-- PAGE NO. 3

LOADING 1 LOAD CASE 1

JOINT LOAD - UNIT KIP FEET

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
3	1.00	0.00	0.00	0.00	0.00	0.00
4	-1.00	0.00	0.00	0.00	0.00	0.00

FOR LOADING - 1  
APPLIED JOINT EQUIVALENT LOADS

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
3	1.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4	-1.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

STATIC LOAD/REACTION/EQUILIBRIUM SUMMARY FOR CASE NO. 1  
LOAD CASE 1

\*\*\*TOTAL APPLIED LOAD ( KIP FEET ) SUMMARY (LOADING 1 )

SUMMATION FORCE-X = 0.0000000E+00  
SUMMATION FORCE-Y = 0.0000000E+00  
SUMMATION FORCE-Z = 0.0000000E+00

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.0000000E+00 MY= 0.0000000E+00 MZ= 0.0000000E+00

\*\*\*TOTAL REACTION LOAD( KIP FEET ) SUMMARY (LOADING 1 )

SUMMATION FORCE-X = -1.7763568E-15  
SUMMATION FORCE-Y = 0.0000000E+00  
SUMMATION FORCE-Z = 0.0000000E+00

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.0000000E+00 MY= 0.0000000E+00 MZ= 0.0000000E+00

MAXIMUM DISPLACEMENTS ( INCH /RADIANS) (LOADING 1)

MAXIMUMS AT NODE

X =	3.28611E-01	3
Y =	0.00000E+00	0
Z =	0.00000E+00	0
RX=	0.00000E+00	0
RY=	0.00000E+00	0
RZ=	-9.99159E-03	3

STAAD PLANE

-- PAGE NO. 4

EXTERNAL AND INTERNAL JOINT LOAD SUMMARY ( KIP FEET )-

JT	EXT FX/ INT FX	EXT FY/ INT FY	EXT FZ/ INT FZ	EXT MX/ INT MX	EXT MY/ INT MY	EXT MZ/ INT MZ
						SUPPORT=1
1	0.00 1.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00 111110
2	0.00 -1.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00 111110

\*\*\*\*\* END OF DATA FROM INTERNAL STORAGE \*\*\*\*\*

30. PDELTA ANALYSIS PRINT ALL

\*\*WARNING- CONSECUTIVE ANALYSIS COMMANDS. ONLY FIRST USED.

31. FINISH

\*\*\*\*\* END OF THE STAAD.Pro RUN \*\*\*\*\*

\*\*\*\* DATE= APR 6,2010 TIME= 15:19:34 \*\*\*\*



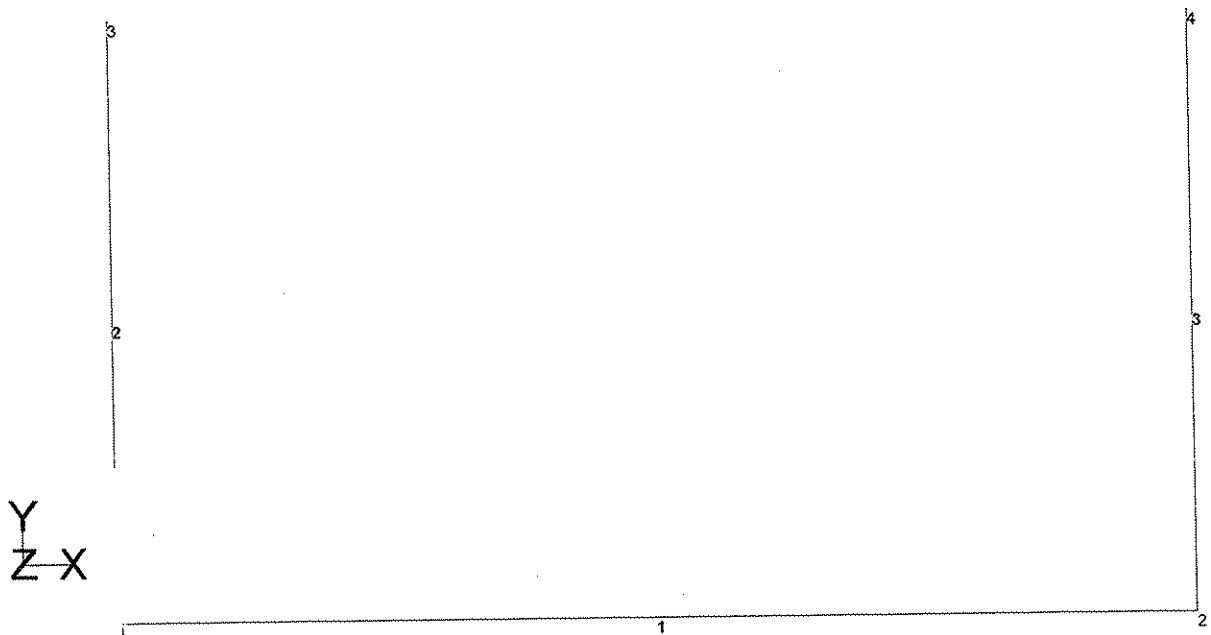
Software licensed to C3TS

Job No	Sheet No	Rev
	1	
Part		
Ref		
By	Date	Chg
	27-Aug-09	
File	Date/Time	
Structure3.std	27-Aug-2009 15:26	

Job Title

Client

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 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0



Load 1

```

*****
*
*          STAAD.Pro
*      Version 2006   Bld 1002.US
*      Proprietary Program of
*      Research Engineers, Intl.
*      Date=   SEP 23, 2009
*      Time=   14:32:50
*
*      USER ID: santiago aranegui
*****

```

```

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0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0

```

```

1. STAAD TRUSS DXF IMPORT OF STAAD.DXF
INPUT FILE: Str1.STD
2. START JOB INFORMATION
3. ENGINEER DATE 25-AUG-09
4. JOB NAME CORAL REEF PARK
5. JOB CLIENT VILLAGE OF PALMETTO BAY
6. JOB NO 2009-116
7. ENGINEER NAME SAA
8. CHECKER NAME SAA
9. END JOB INFORMATION
10. INPUT WIDTH 79
11. UNIT INCHES KIP
12. JOINT COORDINATES
13. 1 -9206.34 325.348 0; 2 -9206.34 361.348 0; 3 -9477.7 342.633 0
14. 4 -9472.76 306.973 0; 5 -9443.78 347.035 0; 6 -9439.45 311.296 0
15. 7 -9409.86 350.843 0; 8 -9406.15 315.034 0; 9 -9375.94 354.059 0
16. 10 -9372.85 318.191 0; 11 -9342.02 356.686 0; 12 -9339.55 320.771 0
17. 13 -9308.1 358.727 0; 14 -9306.25 322.775 0; 15 -9274.18 360.184 0
18. 16 -9272.94 324.205 0; 17 -9240.26 361.057 0; 18 -9239.64 325.063 0
19. 19 -9510.6 337.791 0; 20 -9505.05 302.22 0; 21 -8934.98 342.633 0
20. 22 -8939.92 306.973 0; 23 -8968.9 347.035 0; 24 -8973.22 311.296 0
21. 25 -9002.82 350.843 0; 26 -9006.53 315.034 0; 27 -9036.74 354.059 0
22. 28 -9039.83 318.191 0; 29 -9070.66 356.686 0; 30 -9073.13 320.771 0
23. 31 -9104.58 358.727 0; 32 -9106.43 322.775 0; 33 -9138.5 360.184 0
24. 34 -9139.73 324.205 0; 35 -8902.08 337.791 0; 36 -8907.62 302.22 0
25. 37 -9173.04 325.063 0; 38 -9172.42 361.057 0
26. MEMBER INCIDENCES
27. 1 1 2; 2 3 4; 3 5 6; 4 7 8; 5 9 10; 6 11 12; 7 13 14; 8 15 16; 9 17 18
28. 10 19 20; 11 4 19; 12 6 3; 13 8 5; 14 10 7; 15 12 9; 16 14 11; 17 16 13
29. 18 18 15; 19 17 1; 20 21 22; 21 23 24; 22 25 26; 23 27 28; 24 29 30; 25 31 32
30. 26 33 34; 27 35 36; 28 22 35; 29 24 21; 30 26 23; 31 28 25; 32 30 27; 33 32 29
31. 34 34 31; 35 37 33; 36 37 38; 37 1 38; 38 19 3; 39 3 5; 40 5 7; 41 7 9
32. 42 9 11; 43 11 13; 44 13 15; 45 15 17; 46 17 2; 47 2 38; 48 38 33; 49 33 31
33. 50 31 29; 51 29 27; 52 27 25; 53 25 23; 54 23 21; 55 21 35; 56 36 22; 57 22 24
34. 58 24 26; 59 26 28; 60 28 30; 61 30 32; 62 32 34; 63 34 37; 64 37 1; 65 1 18
35. 66 18 16; 67 16 14; 68 14 12; 69 12 10; 70 10 8; 71 8 6; 72 6 4; 73 4 20
36. DEFINE MATERIAL START
37. ISOTROPIC STEEL
38. E 29000
39. POISSON 0.3
40. DENSITY 0.000283

```



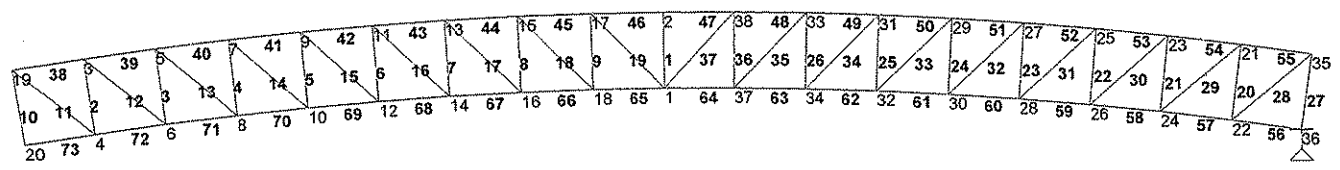
Software licensed to C3TS

Job No <b>2009-106</b>	Sheet No <b>1</b>	Rev
Part		
Ref		
By SAA	Date 25-Aug-09	Chg SAA
File Str1.std	Date/Time 03-Sep-2009 23:58	

Job Title **CORAL REEF PARK**

Client **VILLAGE OF PALMETTO BAY**

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 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0  
 0 0 0 0 0 0 0 0 0 0



Y  
 Z-X

Load 1



LOADING 1 LOADTYPE NONE TITLE LOAD CASE 1

SELFWEIGHT Y -1.000

ACTUAL WEIGHT OF THE STRUCTURE = 2.932 KIP

JOINT LOAD - UNIT KIP INCH

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
2	0.00	-1.50	0.00	0.00	0.00	0.00
3	0.00	-1.50	0.00	0.00	0.00	0.00
5	0.00	-1.50	0.00	0.00	0.00	0.00
7	0.00	-1.50	0.00	0.00	0.00	0.00
9	0.00	-1.50	0.00	0.00	0.00	0.00
11	0.00	-1.50	0.00	0.00	0.00	0.00
13	0.00	-1.50	0.00	0.00	0.00	0.00
15	0.00	-1.50	0.00	0.00	0.00	0.00
17	0.00	-1.50	0.00	0.00	0.00	0.00
19	0.00	-1.50	0.00	0.00	0.00	0.00
21	0.00	-1.50	0.00	0.00	0.00	0.00
23	0.00	-1.50	0.00	0.00	0.00	0.00
25	0.00	-1.50	0.00	0.00	0.00	0.00
27	0.00	-1.50	0.00	0.00	0.00	0.00
29	0.00	-1.50	0.00	0.00	0.00	0.00
31	0.00	-1.50	0.00	0.00	0.00	0.00
33	0.00	-1.50	0.00	0.00	0.00	0.00
35	0.00	-1.50	0.00	0.00	0.00	0.00
38	0.00	-1.50	0.00	0.00	0.00	0.00

LOADING 2

SELFWEIGHT Y -1.000

ACTUAL WEIGHT OF THE STRUCTURE = 2.932 KIP

JOINT LOAD - UNIT KIP INCH

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
2	0.00	-0.30	0.00	0.00	0.00	0.00
3	0.00	-0.30	0.00	0.00	0.00	0.00
5	0.00	-0.30	0.00	0.00	0.00	0.00
7	0.00	-0.30	0.00	0.00	0.00	0.00
9	0.00	-0.30	0.00	0.00	0.00	0.00
11	0.00	-0.30	0.00	0.00	0.00	0.00
13	0.00	-0.30	0.00	0.00	0.00	0.00
15	0.00	-0.30	0.00	0.00	0.00	0.00
17	0.00	-0.30	0.00	0.00	0.00	0.00



DXF IMPORT OF STAAD.DXF

-- PAGE NO. 4

19	0.00	-0.30	0.00	0.00	0.00	0.00
21	0.00	-0.30	0.00	0.00	0.00	0.00
23	0.00	-0.30	0.00	0.00	0.00	0.00
25	0.00	-0.30	0.00	0.00	0.00	0.00
27	0.00	-0.30	0.00	0.00	0.00	0.00
29	0.00	-0.30	0.00	0.00	0.00	0.00
31	0.00	-0.30	0.00	0.00	0.00	0.00
33	0.00	-0.30	0.00	0.00	0.00	0.00
35	0.00	-0.30	0.00	0.00	0.00	0.00
38	0.00	-0.30	0.00	0.00	0.00	0.00

\*\*\*\*\*  
 \*  
 \* RAYLEIGH FREQUENCY FOR LOADING 1 = 3.21493 CPS \*  
 \* MAX DEFLECTION = 1.19229 INCH GLO Y, AT JOINT 2 \*  
 \*  
 \*\*\*\*\*

\*\*\*\*\*  
 \*  
 \* RAYLEIGH FREQUENCY FOR LOADING 2 = 6.09790 CPS \*  
 \* MAX DEFLECTION = 0.33155 INCH GLO Y, AT JOINT 2 \*  
 \*  
 \*\*\*\*\*

FOR LOADING - 1  
 APPLIED JOINT EQUIVALENT LOADS

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
1	0.00000E+00	-1.01498E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	0.00000E+00	-1.55928E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
3	-1.00706E-09	-1.58417E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4	-5.70049E-10	-7.60646E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
5	8.28533E-10	-1.58467E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
6	-1.00518E-09	-7.68264E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	9.29220E-10	-1.58457E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
8	5.58681E-10	-7.67317E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
9	-2.75329E-10	-1.58448E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
10	8.37988E-10	-7.66562E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
11	1.68518E-10	-1.58441E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
12	-9.17413E-11	-7.65924E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
13	3.99789E-10	-1.58436E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
14	1.19935E-10	-7.65474E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
15	5.28242E-10	-1.58433E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
16	3.51863E-10	-7.65162E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
17	-9.77852E-10	-1.58430E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
18	4.28089E-10	-7.64888E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
19	-4.42021E-10	-1.56317E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
20	2.48350E-11	-3.45445E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
21	-7.61091E-10	-1.58416E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
22	7.04963E-10	-7.60645E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
23	-5.78934E-10	-1.58467E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

APPLIED JOINT EQUIVALENT LOADS

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
24	-8.08170E-10	-7.68220E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
25	-5.22025E-10	-1.58457E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
26	-6.84400E-10	-7.67366E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
27	-7.33178E-10	-1.58448E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
28	-5.37623E-10	-7.66553E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
29	-2.52574E-10	-1.58441E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
30	-7.50026E-10	-7.65920E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
31	-4.33672E-10	-1.58436E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
32	-1.96963E-10	-7.65431E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
33	-5.18196E-10	-1.58433E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
34	-4.41397E-10	-7.65129E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
35	5.22915E-10	-1.56317E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
36	1.76887E-10	-3.45485E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
37	-4.16758E-10	-7.64931E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
38	9.77852E-10	-1.58430E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

STATIC LOAD/REACTION/EQUILIBRIUM SUMMARY FOR CASE NO. 1  
LOADTYPE NONE TITLE LOAD CASE 1

\*\*\*TOTAL APPLIED LOAD ( KIP INCH ) SUMMARY (LOADING 1 )  
SUMMATION FORCE-X = 0.00  
SUMMATION FORCE-Y = -31.43  
SUMMATION FORCE-Z = 0.00

SUMMATION OF MOMENTS AROUND THE ORIGIN-  
MX= 0.00 MY= 0.00 MZ= 289370.30

\*\*\*TOTAL REACTION LOAD( KIP INCH ) SUMMARY (LOADING 1 )  
SUMMATION FORCE-X = 0.00  
SUMMATION FORCE-Y = 31.43  
SUMMATION FORCE-Z = 0.00

SUMMATION OF MOMENTS AROUND THE ORIGIN-  
MX= 0.00 MY= 0.00 MZ= -289370.30

MAXIMUM DISPLACEMENTS ( INCH /RADIANS) (LOADING 1)  
MAXIMUMS AT NODE  
X = 4.48696E-01 36  
Y = -1.19229E+00 2  
Z = 0.00000E+00 0  
RX= 0.00000E+00 0  
RY= 0.00000E+00 0  
RZ= 0.00000E+00 0

EXTERNAL AND INTERNAL JOINT LOAD SUMMARY ( KIP INCH )-

JOINT	EXT FX/	EXT FY/	EXT FZ/	EXT MX/	EXT MY/	EXT MZ/
	INT FX	INT FY	INT FZ	INT MX	INT MY	INT MZ

SUPPORT=1

DXF IMPORT OF STAAD.DXF

--- PAGE NO. 6

20	0.00	-0.03	0.00	0.00	0.00	0.00	0.00	111111
	0.00	-15.68	0.00	0.00	0.00	0.00	0.00	
36	0.00	-0.03	0.00	0.00	0.00	0.00	0.00	011111
	0.00	-15.68	0.00	0.00	0.00	0.00	0.00	

FOR LOADING - 2  
APPLIED JOINT EQUIVALENT LOADS

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
1	0.00000E+00	-1.01498E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2	0.00000E+00	-3.59278E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
3	-1.00706E-09	-3.84165E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4	-5.70049E-10	-7.60646E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
5	8.28533E-10	-3.84670E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
6	-1.00518E-09	-7.68264E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	9.29220E-10	-3.84569E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
8	5.58681E-10	-7.67317E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
9	-2.75329E-10	-3.84484E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
10	8.37988E-10	-7.66562E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
11	1.68518E-10	-3.84414E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
12	-9.17413E-11	-7.65924E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
13	3.99789E-10	-3.84363E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
14	1.19935E-10	-7.65474E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
15	5.28242E-10	-3.84326E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
16	3.51863E-10	-7.65162E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
17	-9.77852E-10	-3.84303E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
18	4.28089E-10	-7.64888E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
19	-4.42021E-10	-3.63171E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
20	2.48350E-11	-3.45445E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
21	-7.61091E-10	-3.84161E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
22	7.04963E-10	-7.60645E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
23	-5.78934E-10	-3.84670E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
24	-8.08170E-10	-7.68220E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
25	-5.22025E-10	-3.84569E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
26	-6.84400E-10	-7.67366E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
27	-7.33178E-10	-3.84483E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
28	-5.37623E-10	-7.66553E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
29	-2.52574E-10	-3.84413E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
30	-7.50026E-10	-7.65920E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
31	-4.33672E-10	-3.84360E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
32	-1.96963E-10	-7.65431E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
33	-5.18196E-10	-3.84325E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
34	-4.41397E-10	-7.65129E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
35	5.22915E-10	-3.63171E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
36	1.76887E-10	-3.45485E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
37	-4.16758E-10	-7.64931E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
38	9.77852E-10	-3.84303E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

STATIC LOAD/REACTION/EQUILIBRIUM SUMMARY FOR CASE NO. 2

\*\*\*TOTAL APPLIED LOAD ( KIP INCH ) SUMMARY (LOADING 2 )  
 SUMMATION FORCE-X = 0.00  
 SUMMATION FORCE-Y = -8.63  
 SUMMATION FORCE-Z = 0.00

DXF IMPORT OF STAAD.DXF

-- PAGE NO. 7

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.00 MY= 0.00 MZ= 79465.75

\*\*\*TOTAL REACTION LOAD( KIP INCH ) SUMMARY (LOADING 2 )

SUMMATION FORCE-X = 0.00  
 SUMMATION FORCE-Y = 8.63  
 SUMMATION FORCE-Z = 0.00

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.00 MY= 0.00 MZ= -79465.75

MAXIMUM DISPLACEMENTS ( INCH /RADIANS) (LOADING 2)

MAXIMUMS AT NODE  
 X = 1.24861E-01 36  
 Y = -3.31550E-01 2  
 Z = 0.00000E+00 0  
 RX= 0.00000E+00 0  
 RY= 0.00000E+00 0  
 RZ= 0.00000E+00 0

EXTERNAL AND INTERNAL JOINT LOAD SUMMARY ( KIP INCH )-

JT	EXT FX/	EXT FY/	EXT FZ/	EXT MX/	EXT MY/	EXT MZ/	
	INT FX	INT FY	INT FZ	INT MX	INT MY	INT MZ	
							SUPPORT=1
20	0.00	-0.03	0.00	0.00	0.00	0.00	
	0.00	-4.28	0.00	0.00	0.00	0.00	111111
36	0.00	-0.03	0.00	0.00	0.00	0.00	
	0.00	-4.28	0.00	0.00	0.00	0.00	011111

\*\*\*\*\* END OF DATA FROM INTERNAL STORAGE \*\*\*\*\*

64. CHECK CODE ALL

STAAD.PRO CODE CHECKING - (AISC 9TH EDITION)

\*\*\*\*\*

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
1	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.007	1
		0.54 C	0.00	0.00	0.00
2	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.188	1
		13.73 C	0.00	0.00	36.00
3	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.163	1
		11.91 C	0.00	0.00	36.00
4	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.138	1
		10.11 C	0.00	0.00	36.00
5	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.114	1
		8.33 C	0.00	0.00	36.00
6	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.090	1
		6.57 C	0.00	0.00	36.00
7	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.066	1
		4.82 C	0.00	0.00	36.00
8	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.042	1
		3.10 C	0.00	0.00	36.00
9	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.019	1
		1.40 C	0.00	0.00	36.00
10	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.213	1
		15.53 C	0.00	0.00	36.00
11	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.244	1
		18.95 T	0.00	0.00	48.80
12	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.219	1
		16.99 T	0.00	0.00	49.45
13	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.190	1
		14.74 T	0.00	0.00	49.40
14	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.161	1
		12.48 T	0.00	0.00	49.36

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
15	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.132	1
		10.23 T	0.00	0.00	49.32
16	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.103	1
		7.96 T	0.00	0.00	49.29
17	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.073	1
		5.69 T	0.00	0.00	49.27
18	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.044	1
		3.43 T	0.00	0.00	49.26
19	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.015	1
		1.15 T	0.00	0.00	0.00
20	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.188	1
		13.73 C	0.00	0.00	36.00
21	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.163	1
		11.91 C	0.00	0.00	36.00
22	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.138	1
		10.11 C	0.00	0.00	36.00
23	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.114	1
		8.33 C	0.00	0.00	36.00
24	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.090	1
		6.57 C	0.00	0.00	36.00
25	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.066	1
		4.82 C	0.00	0.00	36.00
26	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.042	1
		3.10 C	0.00	0.00	36.00
27	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.213	1
		15.53 C	0.00	0.00	36.00
28	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.244	1
		18.95 T	0.00	0.00	48.80
29	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.219	1
		16.98 T	0.00	0.00	49.44

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
30	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.190	1
		14.74 T	0.00	0.00	49.40
31	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.161	1
		12.48 T	0.00	0.00	49.35
32	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.132	1
		10.23 T	0.00	0.00	49.32
33	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.103	1
		7.96 T	0.00	0.00	49.29
34	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.073	1
		5.69 T	0.00	0.00	49.27
35	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.044	1
		3.43 T	0.00	0.00	49.26
36	ST TUB40404		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.019	1
		1.40 C	0.00	0.00	0.00
37	ST TUB40404		(AISC SECTIONS)		
		PASS	TENSION	0.015	1
		1.15 T	0.00	0.00	49.25
38	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.139	1
		12.43 C	0.00	0.00	0.00
39	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.266	1
		23.74 C	0.00	0.00	0.00
40	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.375	1
		33.53 C	0.00	0.00	0.00
41	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.468	1
		41.82 C	0.00	0.00	0.00
42	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.544	1
		48.60 C	0.00	0.00	0.00
43	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.603	1
		53.87 C	0.00	0.00	0.00
44	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.645	1
		57.62 C	0.00	0.00	0.00

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
45	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.670	1
		59.88 C	0.00	0.00	0.00
46	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.678	1
		60.62 C	0.00	0.00	0.00
47	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.678	1
		60.62 C	0.00	0.00	0.00
48	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.670	1
		59.88 C	0.00	0.00	33.93
49	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.645	1
		57.63 C	0.00	0.00	33.95
50	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.603	1
		53.87 C	0.00	0.00	33.98
51	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.544	1
		48.60 C	0.00	0.00	34.02
52	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.468	1
		41.82 C	0.00	0.00	34.07
53	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.375	1
		33.53 C	0.00	0.00	34.13
54	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.266	1
		23.74 C	0.00	0.00	34.20
55	ST TUB60603		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.139	1
		12.43 C	0.00	0.00	33.25
56	ST TUB60403		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.033	1
		2.42 C	0.00	0.00	0.00
57	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.138	1
		10.50 T	0.00	0.00	33.58
58	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.293	1
		22.25 T	0.00	0.00	33.52
59	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.427	1
		32.43 T	0.00	0.00	33.45



ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
60	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.540	1
		41.04 T	0.00	0.00	33.40
61	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.633	1
		48.09 T	0.00	0.00	33.36
62	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.705	1
		53.57 T	0.00	0.00	33.33
63	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.756	1
		57.49 T	0.00	0.00	33.32
64	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.787	1
		59.83 T	0.00	0.00	0.00
65	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.787	1
		59.83 T	0.00	0.00	0.00
66	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.756	1
		57.48 T	0.00	0.00	0.00
67	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.705	1
		53.57 T	0.00	0.00	0.00
68	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.632	1
		48.09 T	0.00	0.00	0.00
69	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.540	1
		41.04 T	0.00	0.00	0.00
70	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.426	1
		32.43 T	0.00	0.00	0.00
71	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.293	1
		22.25 T	0.00	0.00	0.00
72	ST TUB60403		(AISC SECTIONS)		
		PASS	TENSION	0.138	1
		10.50 T	0.00	0.00	0.00
73	ST TUB60403		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.033	1
		2.42 C	0.00	0.00	32.64

65. PRINT SUPPORT REACTION ALL

SUPPORT REACTIONS -UNIT KIP INCH STRUCTURE TYPE = TRUSS

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
20	1	0.00	15.72	0.00	0.00	0.00	0.00
	2	0.00	4.32	0.00	0.00	0.00	0.00
36	1	0.00	15.72	0.00	0.00	0.00	0.00
	2	0.00	4.32	0.00	0.00	0.00	0.00

\*\*\*\*\* END OF LATEST ANALYSIS RESULT \*\*\*\*\*

66. PRINT MEMBER FORCES

MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP    INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
1	1	1	0.54	0.00	0.00	0.00	0.00	0.00
		2	-0.50	0.00	0.00	0.00	0.00	0.00
	2	1	0.09	0.00	0.00	0.00	0.00	0.00
		2	-0.05	0.00	0.00	0.00	0.00	0.00
2	1	3	13.70	0.00	0.00	0.00	0.00	0.00
		4	-13.73	0.00	0.00	0.00	0.00	0.00
	2	3	3.73	0.00	0.00	0.00	0.00	0.00
		4	-3.77	0.00	0.00	0.00	0.00	0.00
3	1	5	11.88	0.00	0.00	0.00	0.00	0.00
		6	-11.91	0.00	0.00	0.00	0.00	0.00
	2	5	3.23	0.00	0.00	0.00	0.00	0.00
		6	-3.26	0.00	0.00	0.00	0.00	0.00
4	1	7	10.08	0.00	0.00	0.00	0.00	0.00
		8	-10.11	0.00	0.00	0.00	0.00	0.00
	2	7	2.73	0.00	0.00	0.00	0.00	0.00
		8	-2.76	0.00	0.00	0.00	0.00	0.00
5	1	9	8.29	0.00	0.00	0.00	0.00	0.00
		10	-8.33	0.00	0.00	0.00	0.00	0.00
	2	9	2.23	0.00	0.00	0.00	0.00	0.00
		10	-2.27	0.00	0.00	0.00	0.00	0.00
6	1	11	6.53	0.00	0.00	0.00	0.00	0.00
		12	-6.57	0.00	0.00	0.00	0.00	0.00
	2	11	1.74	0.00	0.00	0.00	0.00	0.00
		12	-1.78	0.00	0.00	0.00	0.00	0.00
7	1	13	4.79	0.00	0.00	0.00	0.00	0.00
		14	-4.82	0.00	0.00	0.00	0.00	0.00
	2	13	1.26	0.00	0.00	0.00	0.00	0.00
		14	-1.30	0.00	0.00	0.00	0.00	0.00
8	1	15	3.07	0.00	0.00	0.00	0.00	0.00
		16	-3.10	0.00	0.00	0.00	0.00	0.00
	2	15	0.78	0.00	0.00	0.00	0.00	0.00
		16	-0.82	0.00	0.00	0.00	0.00	0.00
9	1	17	1.37	0.00	0.00	0.00	0.00	0.00
		18	-1.40	0.00	0.00	0.00	0.00	0.00
	2	17	0.31	0.00	0.00	0.00	0.00	0.00
		18	-0.35	0.00	0.00	0.00	0.00	0.00

MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
10	1	19	15.50	0.00	0.00	0.00	0.00	0.00
		20	-15.53	0.00	0.00	0.00	0.00	0.00
	2	19	4.22	0.00	0.00	0.00	0.00	0.00
		20	-4.25	0.00	0.00	0.00	0.00	0.00
11	1	4	-18.92	0.02	0.00	0.00	0.00	0.00
		19	18.95	0.02	0.00	0.00	0.00	0.00
	2	4	-5.24	0.02	0.00	0.00	0.00	0.00
		19	5.27	0.02	0.00	0.00	0.00	0.00
12	1	6	-16.95	0.02	0.00	0.00	0.00	0.00
		3	16.99	0.02	0.00	0.00	0.00	0.00
	2	6	-4.69	0.02	0.00	0.00	0.00	0.00
		3	4.73	0.02	0.00	0.00	0.00	0.00
13	1	8	-14.71	0.02	0.00	0.00	0.00	0.00
		5	14.74	0.02	0.00	0.00	0.00	0.00
	2	8	-4.07	0.02	0.00	0.00	0.00	0.00
		5	4.10	0.02	0.00	0.00	0.00	0.00
14	1	10	-12.45	0.02	0.00	0.00	0.00	0.00
		7	12.48	0.02	0.00	0.00	0.00	0.00
	2	10	-3.44	0.02	0.00	0.00	0.00	0.00
		7	3.48	0.02	0.00	0.00	0.00	0.00
15	1	12	-10.19	0.02	0.00	0.00	0.00	0.00
		9	10.23	0.02	0.00	0.00	0.00	0.00
	2	12	-2.82	0.02	0.00	0.00	0.00	0.00
		9	2.85	0.02	0.00	0.00	0.00	0.00
16	1	14	-7.93	0.02	0.00	0.00	0.00	0.00
		11	7.96	0.02	0.00	0.00	0.00	0.00
	2	14	-2.19	0.02	0.00	0.00	0.00	0.00
		11	2.22	0.02	0.00	0.00	0.00	0.00
17	1	16	-5.66	0.02	0.00	0.00	0.00	0.00
		13	5.69	0.02	0.00	0.00	0.00	0.00
	2	16	-1.56	0.02	0.00	0.00	0.00	0.00
		13	1.59	0.02	0.00	0.00	0.00	0.00
18	1	18	-3.39	0.02	0.00	0.00	0.00	0.00
		15	3.43	0.02	0.00	0.00	0.00	0.00
	2	18	-0.93	0.02	0.00	0.00	0.00	0.00
		15	0.96	0.02	0.00	0.00	0.00	0.00
19	1	17	-1.15	0.02	0.00	0.00	0.00	0.00
		1	1.12	0.02	0.00	0.00	0.00	0.00

MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP    INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MCM-Y	MCM-Z
	2	17	-0.33	0.02	0.00	0.00	0.00	0.00
		1	0.30	0.02	0.00	0.00	0.00	0.00
20	1	21	13.70	0.00	0.00	0.00	0.00	0.00
		22	-13.73	0.00	0.00	0.00	0.00	0.00
	2	21	3.73	0.00	0.00	0.00	0.00	0.00
		22	-3.77	0.00	0.00	0.00	0.00	0.00
21	1	23	11.88	0.00	0.00	0.00	0.00	0.00
		24	-11.91	0.00	0.00	0.00	0.00	0.00
	2	23	3.23	0.00	0.00	0.00	0.00	0.00
		24	-3.26	0.00	0.00	0.00	0.00	0.00
22	1	25	10.07	0.00	0.00	0.00	0.00	0.00
		26	-10.11	0.00	0.00	0.00	0.00	0.00
	2	25	2.73	0.00	0.00	0.00	0.00	0.00
		26	-2.76	0.00	0.00	0.00	0.00	0.00
23	1	27	8.29	0.00	0.00	0.00	0.00	0.00
		28	-8.33	0.00	0.00	0.00	0.00	0.00
	2	27	2.23	0.00	0.00	0.00	0.00	0.00
		28	-2.27	0.00	0.00	0.00	0.00	0.00
24	1	29	6.53	0.00	0.00	0.00	0.00	0.00
		30	-6.57	0.00	0.00	0.00	0.00	0.00
	2	29	1.74	0.00	0.00	0.00	0.00	0.00
		30	-1.78	0.00	0.00	0.00	0.00	0.00
25	1	31	4.79	0.00	0.00	0.00	0.00	0.00
		32	-4.82	0.00	0.00	0.00	0.00	0.00
	2	31	1.26	0.00	0.00	0.00	0.00	0.00
		32	-1.30	0.00	0.00	0.00	0.00	0.00
26	1	33	3.07	0.00	0.00	0.00	0.00	0.00
		34	-3.10	0.00	0.00	0.00	0.00	0.00
	2	33	0.78	0.00	0.00	0.00	0.00	0.00
		34	-0.82	0.00	0.00	0.00	0.00	0.00
27	1	35	15.50	0.00	0.00	0.00	0.00	0.00
		36	-15.53	0.00	0.00	0.00	0.00	0.00
	2	35	4.22	0.00	0.00	0.00	0.00	0.00
		36	-4.25	0.00	0.00	0.00	0.00	0.00
28	1	22	-18.92	0.02	0.00	0.00	0.00	0.00
		35	18.95	0.02	0.00	0.00	0.00	0.00
	2	22	-5.24	0.02	0.00	0.00	0.00	0.00
		35	5.27	0.02	0.00	0.00	0.00	0.00

MEMBER END FORCES        STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP INCH        (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-X	MOM-Y	MOM-Z
29	1	24	-16.95	0.02	0.00	0.00	0.00	0.00	0.00
		21	16.98	0.02	0.00	0.00	0.00	0.00	0.00
	2	24	-4.69	0.02	0.00	0.00	0.00	0.00	0.00
		21	4.73	0.02	0.00	0.00	0.00	0.00	0.00
30	1	26	-14.70	0.02	0.00	0.00	0.00	0.00	0.00
		23	14.74	0.02	0.00	0.00	0.00	0.00	0.00
	2	26	-4.07	0.02	0.00	0.00	0.00	0.00	0.00
		23	4.10	0.02	0.00	0.00	0.00	0.00	0.00
31	1	28	-12.45	0.02	0.00	0.00	0.00	0.00	0.00
		25	12.48	0.02	0.00	0.00	0.00	0.00	0.00
	2	28	-3.44	0.02	0.00	0.00	0.00	0.00	0.00
		25	3.48	0.02	0.00	0.00	0.00	0.00	0.00
32	1	30	-10.19	0.02	0.00	0.00	0.00	0.00	0.00
		27	10.23	0.02	0.00	0.00	0.00	0.00	0.00
	2	30	-2.82	0.02	0.00	0.00	0.00	0.00	0.00
		27	2.85	0.02	0.00	0.00	0.00	0.00	0.00
33	1	32	-7.93	0.02	0.00	0.00	0.00	0.00	0.00
		29	7.96	0.02	0.00	0.00	0.00	0.00	0.00
	2	32	-2.19	0.02	0.00	0.00	0.00	0.00	0.00
		29	2.22	0.02	0.00	0.00	0.00	0.00	0.00
34	1	34	-5.66	0.02	0.00	0.00	0.00	0.00	0.00
		31	5.69	0.02	0.00	0.00	0.00	0.00	0.00
	2	34	-1.56	0.02	0.00	0.00	0.00	0.00	0.00
		31	1.59	0.02	0.00	0.00	0.00	0.00	0.00
35	1	37	-3.39	0.02	0.00	0.00	0.00	0.00	0.00
		33	3.43	0.02	0.00	0.00	0.00	0.00	0.00
	2	37	-0.93	0.02	0.00	0.00	0.00	0.00	0.00
		33	0.96	0.02	0.00	0.00	0.00	0.00	0.00
36	1	37	1.40	0.00	0.00	0.00	0.00	0.00	0.00
		38	-1.37	0.00	0.00	0.00	0.00	0.00	0.00
	2	37	0.35	0.00	0.00	0.00	0.00	0.00	0.00
		38	-0.31	0.00	0.00	0.00	0.00	0.00	0.00
37	1	1	-1.12	0.02	0.00	0.00	0.00	0.00	0.00
		38	1.15	0.02	0.00	0.00	0.00	0.00	0.00
	2	1	-0.30	0.02	0.00	0.00	0.00	0.00	0.00
		38	0.33	0.02	0.00	0.00	0.00	0.00	0.00
38	1	19	12.43	0.02	0.00	0.00	0.00	0.00	0.00
		3	-12.42	0.02	0.00	0.00	0.00	0.00	0.00

MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP    INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
	2	19	3.46	0.02	0.00	0.00	0.00	0.00
		3	-3.46	0.02	0.00	0.00	0.00	0.00
39	1	3	23.74	0.02	0.00	0.00	0.00	0.00
		5	-23.73	0.02	0.00	0.00	0.00	0.00
	2	3	6.61	0.02	0.00	0.00	0.00	0.00
		5	-6.60	0.02	0.00	0.00	0.00	0.00
40	1	5	33.53	0.02	0.00	0.00	0.00	0.00
		7	-33.53	0.02	0.00	0.00	0.00	0.00
	2	5	9.33	0.02	0.00	0.00	0.00	0.00
		7	-9.33	0.02	0.00	0.00	0.00	0.00
41	1	7	41.82	0.02	0.00	0.00	0.00	0.00
		9	-41.81	0.02	0.00	0.00	0.00	0.00
	2	7	11.64	0.02	0.00	0.00	0.00	0.00
		9	-11.63	0.02	0.00	0.00	0.00	0.00
42	1	9	48.60	0.02	0.00	0.00	0.00	0.00
		11	-48.59	0.02	0.00	0.00	0.00	0.00
	2	9	13.52	0.02	0.00	0.00	0.00	0.00
		11	-13.52	0.02	0.00	0.00	0.00	0.00
43	1	11	53.87	0.02	0.00	0.00	0.00	0.00
		13	-53.86	0.02	0.00	0.00	0.00	0.00
	2	11	14.99	0.02	0.00	0.00	0.00	0.00
		13	-14.99	0.02	0.00	0.00	0.00	0.00
44	1	13	57.62	0.02	0.00	0.00	0.00	0.00
		15	-57.62	0.02	0.00	0.00	0.00	0.00
	2	13	16.03	0.02	0.00	0.00	0.00	0.00
		15	-16.03	0.02	0.00	0.00	0.00	0.00
45	1	15	59.88	0.02	0.00	0.00	0.00	0.00
		17	-59.87	0.02	0.00	0.00	0.00	0.00
	2	15	16.66	0.02	0.00	0.00	0.00	0.00
		17	-16.66	0.02	0.00	0.00	0.00	0.00
46	1	17	60.62	0.02	0.00	0.00	0.00	0.00
		2	-60.62	0.02	0.00	0.00	0.00	0.00
	2	17	16.87	0.02	0.00	0.00	0.00	0.00
		2	-16.87	0.02	0.00	0.00	0.00	0.00
47	1	2	60.62	0.02	0.00	0.00	0.00	0.00
		38	-60.62	0.02	0.00	0.00	0.00	0.00
	2	2	16.87	0.02	0.00	0.00	0.00	0.00
		38	-16.87	0.02	0.00	0.00	0.00	0.00

MEMBER END FORCES          STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP    INCH          (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
48	1	38	59.88	0.02	0.00	0.00	0.00	0.00
		33	-59.88	0.02	0.00	0.00	0.00	0.00
	2	38	16.66	0.02	0.00	0.00	0.00	0.00
		33	-16.66	0.02	0.00	0.00	0.00	0.00
49	1	33	57.62	0.02	0.00	0.00	0.00	0.00
		31	-57.63	0.02	0.00	0.00	0.00	0.00
	2	33	16.03	0.02	0.00	0.00	0.00	0.00
		31	-16.03	0.02	0.00	0.00	0.00	0.00
50	1	31	53.86	0.02	0.00	0.00	0.00	0.00
		29	-53.87	0.02	0.00	0.00	0.00	0.00
	2	31	14.99	0.02	0.00	0.00	0.00	0.00
		29	-14.99	0.02	0.00	0.00	0.00	0.00
51	1	29	48.60	0.02	0.00	0.00	0.00	0.00
		27	-48.60	0.02	0.00	0.00	0.00	0.00
	2	29	13.52	0.02	0.00	0.00	0.00	0.00
		27	-13.52	0.02	0.00	0.00	0.00	0.00
52	1	27	41.82	0.02	0.00	0.00	0.00	0.00
		25	-41.82	0.02	0.00	0.00	0.00	0.00
	2	27	11.63	0.02	0.00	0.00	0.00	0.00
		25	-11.64	0.02	0.00	0.00	0.00	0.00
53	1	25	33.53	0.02	0.00	0.00	0.00	0.00
		23	-33.53	0.02	0.00	0.00	0.00	0.00
	2	25	9.33	0.02	0.00	0.00	0.00	0.00
		23	-9.33	0.02	0.00	0.00	0.00	0.00
54	1	23	23.73	0.02	0.00	0.00	0.00	0.00
		21	-23.74	0.02	0.00	0.00	0.00	0.00
	2	23	6.60	0.02	0.00	0.00	0.00	0.00
		21	-6.61	0.02	0.00	0.00	0.00	0.00
55	1	21	12.42	0.02	0.00	0.00	0.00	0.00
		35	-12.43	0.02	0.00	0.00	0.00	0.00
	2	21	3.46	0.02	0.00	0.00	0.00	0.00
		35	-3.46	0.02	0.00	0.00	0.00	0.00
56	1	36	2.42	0.02	0.00	0.00	0.00	0.00
		22	-2.41	0.02	0.00	0.00	0.00	0.00
	2	36	0.66	0.02	0.00	0.00	0.00	0.00
		22	-0.66	0.02	0.00	0.00	0.00	0.00
57	1	22	-10.50	0.02	0.00	0.00	0.00	0.00
		24	10.50	0.02	0.00	0.00	0.00	0.00



MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
	2	22	-2.93	0.02	0.00	0.00	0.00	0.00
		24	2.93	0.02	0.00	0.00	0.00	0.00
58	1	24	-22.25	0.02	0.00	0.00	0.00	0.00
		26	22.25	0.02	0.00	0.00	0.00	0.00
	2	24	-6.20	0.02	0.00	0.00	0.00	0.00
		26	6.20	0.02	0.00	0.00	0.00	0.00
59	1	26	-32.43	0.02	0.00	0.00	0.00	0.00
		28	32.43	0.02	0.00	0.00	0.00	0.00
	2	26	-9.03	0.02	0.00	0.00	0.00	0.00
		28	9.03	0.02	0.00	0.00	0.00	0.00
60	1	28	-41.04	0.02	0.00	0.00	0.00	0.00
		30	41.04	0.02	0.00	0.00	0.00	0.00
	2	28	-11.42	0.02	0.00	0.00	0.00	0.00
		30	11.43	0.02	0.00	0.00	0.00	0.00
61	1	30	-48.09	0.02	0.00	0.00	0.00	0.00
		32	48.09	0.02	0.00	0.00	0.00	0.00
	2	30	-13.38	0.02	0.00	0.00	0.00	0.00
		32	13.39	0.02	0.00	0.00	0.00	0.00
62	1	32	-53.57	0.02	0.00	0.00	0.00	0.00
		34	53.57	0.02	0.00	0.00	0.00	0.00
	2	32	-14.91	0.02	0.00	0.00	0.00	0.00
		34	14.91	0.02	0.00	0.00	0.00	0.00
63	1	34	-57.48	0.02	0.00	0.00	0.00	0.00
		37	57.49	0.02	0.00	0.00	0.00	0.00
	2	34	-16.00	0.02	0.00	0.00	0.00	0.00
		37	16.00	0.02	0.00	0.00	0.00	0.00
64	1	37	-59.83	0.02	0.00	0.00	0.00	0.00
		1	59.83	0.02	0.00	0.00	0.00	0.00
	2	37	-16.65	0.02	0.00	0.00	0.00	0.00
		1	16.65	0.02	0.00	0.00	0.00	0.00
65	1	1	-59.83	0.02	0.00	0.00	0.00	0.00
		18	59.83	0.02	0.00	0.00	0.00	0.00
	2	1	-16.65	0.02	0.00	0.00	0.00	0.00
		18	16.65	0.02	0.00	0.00	0.00	0.00
66	1	18	-57.48	0.02	0.00	0.00	0.00	0.00
		16	57.48	0.02	0.00	0.00	0.00	0.00
	2	18	-16.00	0.02	0.00	0.00	0.00	0.00
		16	16.00	0.02	0.00	0.00	0.00	0.00

DXF IMPORT OF STAAD.DXF

PAGE NO. 21

MEMBER END FORCES      STRUCTURE TYPE = TRUSS

ALL UNITS ARE -- KIP    INCH      (LOCAL )

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
67	1	16	-53.57	0.02	0.00	0.00	0.00	0.00
		14	53.57	0.02	0.00	0.00	0.00	0.00
	2	16	-14.91	0.02	0.00	0.00	0.00	0.00
		14	14.91	0.02	0.00	0.00	0.00	0.00
68	1	14	-48.09	0.02	0.00	0.00	0.00	0.00
		12	48.09	0.02	0.00	0.00	0.00	0.00
	2	14	-13.39	0.02	0.00	0.00	0.00	0.00
		12	13.38	0.02	0.00	0.00	0.00	0.00
69	1	12	-41.04	0.02	0.00	0.00	0.00	0.00
		10	41.04	0.02	0.00	0.00	0.00	0.00
	2	12	-11.43	0.02	0.00	0.00	0.00	0.00
		10	11.42	0.02	0.00	0.00	0.00	0.00
70	1	10	-32.43	0.02	0.00	0.00	0.00	0.00
		8	32.42	0.02	0.00	0.00	0.00	0.00
	2	10	-9.03	0.02	0.00	0.00	0.00	0.00
		8	9.03	0.02	0.00	0.00	0.00	0.00
71	1	8	-22.25	0.02	0.00	0.00	0.00	0.00
		6	22.24	0.02	0.00	0.00	0.00	0.00
	2	8	-6.20	0.02	0.00	0.00	0.00	0.00
		6	6.20	0.02	0.00	0.00	0.00	0.00
72	1	6	-10.50	0.02	0.00	0.00	0.00	0.00
		4	10.49	0.02	0.00	0.00	0.00	0.00
	2	6	-2.93	0.02	0.00	0.00	0.00	0.00
		4	2.93	0.02	0.00	0.00	0.00	0.00
73	1	4	2.42	0.02	0.00	0.00	0.00	0.00
		20	-2.42	0.02	0.00	0.00	0.00	0.00
	2	4	0.66	0.02	0.00	0.00	0.00	0.00
		20	-0.66	0.02	0.00	0.00	0.00	0.00

\*\*\*\*\* END OF LATEST ANALYSIS RESULT \*\*\*\*\*

- 67. PARAMETER 1
- 68. CODE AISC
- 69. SELECT ALL

STAAD.PRO MEMBER SELECTION - (AISC 9TH EDITION)

\*\*\*\*\*

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
1	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.023	1
		0.54 C	0.00	0.00	0.00
2	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.585	1
		13.73 C	0.00	0.00	36.00
3	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.508	1
		11.91 C	0.00	0.00	36.00
4	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.431	1
		10.11 C	0.00	0.00	36.00
5	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.355	1
		8.33 C	0.00	0.00	36.00
6	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.280	1
		6.57 C	0.00	0.00	36.00
7	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.205	1
		4.82 C	0.00	0.00	36.00
8	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.132	1
		3.10 C	0.00	0.00	36.00
9	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.060	1
		1.40 C	0.00	0.00	36.00
10	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.662	1
		15.53 C	0.00	0.00	36.00
11	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.691	1
		18.95 T	0.00	0.00	48.80
12	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.619	1
		16.99 T	0.00	0.00	49.45
13	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.537	1
		14.74 T	0.00	0.00	49.40
14	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.455	1
		12.48 T	0.00	0.00	49.36

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
15	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.373	1
		10.23 T	0.00	0.00	49.32
16	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.290	1
		7.96 T	0.00	0.00	49.29
17	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.208	1
		5.69 T	0.00	0.00	49.27
18	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.125	1
		3.43 T	0.00	0.00	49.26
19	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.042	1
		1.15 T	0.00	0.00	0.00
20	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.585	1
		13.73 C	0.00	0.00	36.00
21	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.507	1
		11.91 C	0.00	0.00	36.00
22	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.431	1
		10.11 C	0.00	0.00	36.00
23	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.355	1
		8.33 C	0.00	0.00	36.00
24	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.280	1
		6.57 C	0.00	0.00	36.00
25	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.206	1
		4.82 C	0.00	0.00	36.00
26	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.132	1
		3.10 C	0.00	0.00	36.00
27	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.662	1
		15.53 C	0.00	0.00	36.00
28	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.691	1
		18.95 T	0.00	0.00	48.80
29	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.619	1
		16.98 T	0.00	0.00	49.44

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
30	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.537	1
		14.74 T	0.00	0.00	49.40
31	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.455	1
		12.48 T	0.00	0.00	49.35
32	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.373	1
		10.23 T	0.00	0.00	49.32
33	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.290	1
		7.96 T	0.00	0.00	49.29
34	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.208	1
		5.69 T	0.00	0.00	49.27
35	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.125	1
		3.43 T	0.00	0.00	49.26
36	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.060	1
		1.40 C	0.00	0.00	0.00
37	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.042	1
		1.15 T	0.00	0.00	49.25
38	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.520	1
		12.43 C	0.00	0.00	0.00
39	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	1.000	1
		23.74 C	0.00	0.00	0.00
40	ST TUB30303		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.833	1
		33.53 C	0.00	0.00	0.00
41	ST TUB35353		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.864	1
		41.82 C	0.00	0.00	0.00
42	ST TUB30304		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.943	1
		48.60 C	0.00	0.00	0.00
43	ST TUB40403		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.950	1
		53.87 C	0.00	0.00	0.00
44	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.922	1
		57.62 C	0.00	0.00	0.00

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
45	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.958	1
		59.88 C	0.00	0.00	0.00
46	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.970	1
		60.62 C	0.00	0.00	0.00
47	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.970	1
		60.62 C	0.00	0.00	0.00
48	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.958	1
		59.88 C	0.00	0.00	33.93
49	ST TUB35354		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.922	1
		57.63 C	0.00	0.00	33.95
50	ST TUB40403		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.950	1
		53.87 C	0.00	0.00	33.98
51	ST TUB30304		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.943	1
		48.60 C	0.00	0.00	34.02
52	ST TUB35353		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.864	1
		41.82 C	0.00	0.00	34.07
53	ST TUB30303		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.833	1
		33.53 C	0.00	0.00	34.13
54	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	1.000	1
		23.74 C	0.00	0.00	34.20
55	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-1	0.521	1
		12.43 C	0.00	0.00	33.25
56	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.101	1
		2.42 C	0.00	0.00	0.00
57	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.383	1
		10.50 T	0.00	0.00	33.58
58	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.811	1
		22.25 T	0.00	0.00	33.52
59	ST TUB20204		(AISC SECTIONS)		
		PASS	TENSION	0.944	1
		32.43 T	0.00	0.00	33.45

ALL UNITS ARE - KIP INCH (UNLESS OTHERWISE NOTED)

MEMBER	TABLE	RESULT/ FX	CRITICAL COND/ MY	RATIO/ MZ	LOADING/ LOCATION
60	ST TUB30303		(AISC SECTIONS)		
		PASS	TENSION	0.941	1
		41.04 T	0.00	0.00	33.40
61	ST TUB35353		(AISC SECTIONS)		
		PASS	TENSION	0.932	1
		48.09 T	0.00	0.00	33.36
62	ST TUB30304		(AISC SECTIONS)		
		PASS	TENSION	0.958	1
		53.57 T	0.00	0.00	33.33
63	ST TUB40403		(AISC SECTIONS)		
		PASS	TENSION	0.961	1
		57.49 T	0.00	0.00	33.32
64	ST TUB35354		(AISC SECTIONS)		
		PASS	TENSION	0.896	1
		59.83 T	0.00	0.00	0.00
65	ST TUB35354		(AISC SECTIONS)		
		PASS	TENSION	0.896	1
		59.83 T	0.00	0.00	0.00
66	ST TUB40403		(AISC SECTIONS)		
		PASS	TENSION	0.961	1
		57.48 T	0.00	0.00	0.00
67	ST TUB30304		(AISC SECTIONS)		
		PASS	TENSION	0.958	1
		53.57 T	0.00	0.00	0.00
68	ST TUB35353		(AISC SECTIONS)		
		PASS	TENSION	0.932	1
		48.09 T	0.00	0.00	0.00
69	ST TUB30303		(AISC SECTIONS)		
		PASS	TENSION	0.941	1
		41.04 T	0.00	0.00	0.00
70	ST TUB20204		(AISC SECTIONS)		
		PASS	TENSION	0.944	1
		32.43 T	0.00	0.00	0.00
71	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.811	1
		22.25 T	0.00	0.00	0.00
72	ST TUB20203		(AISC SECTIONS)		
		PASS	TENSION	0.383	1
		10.50 T	0.00	0.00	0.00
73	ST TUB20203		(AISC SECTIONS)		
		PASS	AISC- H1-3	0.101	1
		2.42 C	0.00	0.00	32.64

70. PERFORM ANALYSIS

.DXF IMPORT OF STAAD.DXF

-- PAGE NO. 27

```

*****
*
* RAYLEIGH FREQUENCY FOR LOADING      1 =      2.60777 CPS *
* MAX DEFLECTION = 1.78807 INCH GLO Y, AT JOINT      2 *
*
*****

```

```

*****
*
* RAYLEIGH FREQUENCY FOR LOADING      2 =      5.30794 CPS *
* MAX DEFLECTION = 0.42959 INCH GLO Y, AT JOINT      2 *
*
*****

```

71. FINISH

\*\*\*\*\* END OF THE STAAD.Pro RUN \*\*\*\*\*

\*\*\*\* DATE= SEP 23,2009 TIME= 14:33: 0 \*\*\*\*



```

*****
*
*          STAAD.Pro
*          Version 2006   Bld 1002.US
*          Proprietary Program of
*          Research Engineers, Intl.
*          Date=   AUG 27, 2009
*          Time=   15:26:46
*
*          USER ID: santiago aranegui
*****

```

1. STAAD PLANE
- INPUT FILE: Structure3.STD
2. START JOB INFORMATION
3. ENGINEER DATE 27-AUG-09
4. END JOB INFORMATION
5. INPUT WIDTH 79
6. UNIT FEET KIP
7. JOINT COORDINATES
8. 1 0 0 0; 2 8 0 0; 3 0 4.5 0; 4 8 4.5 0
9. MEMBER INCIDENCES
10. 1 1 2; 2 1 3; 3 2 4
11. DEFINE MATERIAL START
12. ISOTROPIC STEEL
13. E 4.176E+006
14. POISSON 0.3
15. DENSITY 0.489024
16. ALPHA 6.5E-006
17. DAMP 0.03
18. END DEFINE MATERIAL
19. MEMBER PROPERTY AMERICAN
20. 1 TO 3 TABLE ST TUB40404
21. CONSTANTS
22. MATERIAL STEEL ALL
23. SUPPORTS
24. 1 2 PINNED
25. LOAD 1 LOAD CASE 1
26. MEMBER LOAD
27. 2 3 UNI GX .200
28. PERFORM ANALYSIS PRINT ALL

STAAD PLANE

PAGE NO. 2

PROBLEM STATISTICS

NUMBER OF JOINTS/MEMBER+ELEMENTS/SUPPORTS = 4/ 3/ 2  
 ORIGINAL/FINAL BAND-WIDTH= 2/ 2/ 7 DOF  
 TOTAL PRIMARY LOAD CASES = 1, TOTAL DEGREES OF FREEDOM = 8  
 SIZE OF STIFFNESS MATRIX = 1 DOUBLE KILO-WORDS  
 REQRD/AVAIL. DISK SPACE = 12.0/ 69050.7 MB

STAAD PLANE

PAGE NO. 3

LOADING 1 LOAD CASE 1

MEMBER LOAD - UNIT KIP FEET

MEMBER	UDL	L1	L2	CON	L
2	0.2000 GX	0.00	4.50		
3	0.2000 GX	0.00	4.50		

MEMBER	UDL	L1	L2	CON	L	LINE1	LINE2
2	0.2000 GX	0.00	4.50				
3	0.2000 GX	0.00	4.50				

FOR LOADING - 1

APPLIED JOINT EQUIVALENT LOADS

JOINT	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM-Z
1	4.50000E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	-3.37500E-01
2	4.50000E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	-3.37500E-01
3	4.50000E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	3.37500E-01
4	4.50000E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	3.37500E-01

STATIC LOAD/REACTION/EQUILIBRIUM SUMMARY FOR CASE NO. 1  
LOAD CASE 1

\*\*\*TOTAL APPLIED LOAD ( KIP FEET ) SUMMARY (LOADING 1 )

SUMMATION FORCE-X = 1.80  
SUMMATION FORCE-Y = 0.00  
SUMMATION FORCE-Z = 0.00

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.00 MY= 0.00 MZ= -4.05

\*\*\*TOTAL REACTION LOAD( KIP FEET ) SUMMARY (LOADING 1 )

SUMMATION FORCE-X = -1.80  
SUMMATION FORCE-Y = 0.00  
SUMMATION FORCE-Z = 0.00

SUMMATION OF MOMENTS AROUND THE ORIGIN-

MX= 0.00 MY= 0.00 MZ= 4.05

MAXIMUM DISPLACEMENTS ( INCH /RADIANS) (LOADING 1)

MAXIMUMS AT NODE  
X = 1.65098E-01 4  
Y = 0.00000E+00 0  
Z = 0.00000E+00 0  
RX= 0.00000E+00 0  
RY= 0.00000E+00 0  
RZ= -3.49704E-03 3

STAAD PLANE

EXTERNAL AND INTERNAL JOINT LOAD SUMMARY ( KIP FEET )

JT	EXT FX/ INT FX	EXT FY/ INT FY	EXT FZ/ INT FZ	EXT MX/ INT MX	EXT MY/ INT MY	EXT MZ/ INT MZ
1	0.45 0.45	0.00 0.51	0.00 0.00	0.00 0.00	0.00 0.00	-0.34 0.34 111110
2	0.45 0.45	0.00 -0.51	0.00 0.00	0.00 0.00	0.00 0.00	-0.34 0.34 111110

\*\*\*\*\* END OF DATA FROM INTERNAL STORAGE \*\*\*\*\*

29. PDELTA ANALYSIS PRINT ALL

\*\*WARNING- CONSECUTIVE ANALYSIS COMMANDS. ONLY FIRST USED.

30. FINISH

\*\*\*\*\* END OF THE STAAD.Pro RUN \*\*\*\*\*

\*\*\*\* DATE= AUG 27,2009 TIME= 15:26:48 \*\*\*\*