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ENGINEERING DATA TRANSMITTAL

Page 1 of 1
 1. EDT 622225

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				12. Major Assm. Dwg. No.: n/a	
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				14. Required Response Date:	

16. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	HNF-2467	-	0	Project W-320, 241-C-106 Sluicing, Civil/Structural Calculations, Vol. 7	NA			-

17. KEY						
Approval Designator (F)		Reason for Transmittal (G)			Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)		1. Approval	4. Review	1. Approved		4. Reviewed no/comment
		2. Release	5. Post-Review	2. Approved w/comment		5. Reviewed w/comment
		3. Information	6. Dist. (Receipt Acknow. Required)	3. Disapproved w/comment		6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
2	1	Design Authority	JW Bailey	7/20/98	S2-48						
2	1	Design Agent	MC DAVENPORT	7/19/98	S2-48						
2	1	Cog. Eng.	JW Bailey	7/20/98	S2-48						
		QA									
		Safety									
		Env.									

18. Signature of EDT Originator MC DAVENPORT C. D. Grew 7/19/98		19. Authorized Representative Date for Receiving Organization		20. Design Authority/ Cognizant Manager J.W. Bailey 7/20/98		21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments	
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Project W-320, 241-C-106 Sluicing Civil/Structural Calculations, Vol. 7

John W. Bailey
Numatec Hanford Co., Richland, WA 99352
U.S. Department of Energy Contract DE-AC09-96RL13200

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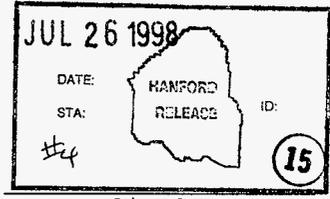
Key Words: W-320, Sluicing, Tank 241-C-106, Tank 241-AY-102, WRSS,
calculations, civil/structural.

Abstract: This supporting document has been prepared to make the FDNW
calculations for Project W-320, readily retrievable.

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Kara Broz 7/24/98
Release Approval Date



Approved for Public Release

Project W-320, 241-C-106 Sluicing Civil/Structural Calculations, Vol. 7

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W320-24-019

Prefiltration/Recirculation Skid,
Structural Design (Process Control Building)

INTEROFFICE MEMORANDUM

TO R. W. Davidson

DATE February 24, 1995

FROM G. L. Hopkins

COPIES TO
M. R. Custer
D. L. Evans
M. S. Ruben

JOB NO. W-320

SUBJECT INDEPENDENT SEISMIC REVIEW - PROJECT W-320, TANK 241-C-106,
PREFILTRATION/RECIRCULATION SKID

Input design documents:

- (1) FDC WHC-SD-W320-FDC-001, Rev 2, For Tank 241-C-1-106, Waste Retrieval, Project W-320.
- (2) LOI 9360642, Rev 2 - Project W-320, Tank 241-C-106, Sluicing Letter of Instruction, Removal of In-Tank Equipment - Definitive Design, Procurement, Fabrication, Training, and Testing.
- (3) LOI KGS-94-013, 3/1 Analysis Requirements for Project W-320 Equipment Removal System.
- (4) SDC-4.1 Rev 12, Design Loads for Facilities
- (5) WHC-SD-WM-SEL-033 Rev 1 - Safety Classifications, Project W-320

Output design documents:

- (1) Calc. No. W320-24-019 - Prefiltration/Recirculation Skid
- (2) Drawings H-2-18455, Sht 1-5

A review of the noted output design documents for compliance with the input design documents was completed on February 24, 1995 relative to the seismic design requirements. The output design documents were correct and no changes have to be made as a result of the review.

GLH:lbw

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HANFORD**

	CALCULATION IDENTIFICATION AND INDEX		Page i of iii
			Date 05/16/94
This sheet shows the status and description of the attached Design Analysis sheets.			
Discipline	Civil	WO/Job No. W-320/ER4319	Calculation No. W320-24-019
Project No. & Name	PROJECT W-320, TANK 241-C-106		
Calculation Item	Prefiltration/Recirculation Skid, Structural Design (Process Control Bldg)		
These calculations apply to:			
Dwg. No. H-2-818455 Sht.	1, 2, 3, 4, & 5		Rev. No. 0, 0, 0, 0, 0
Dwg. No.			Rev. No.
Other (Study, CDR)			Rev. No.
The status of these calculations is:			
<input type="checkbox"/>	Preliminary Calculations		
<input checked="" type="checkbox"/>	Final Calculations		
<input type="checkbox"/>	Check Calculations (On Calculation Dated)		
<input type="checkbox"/>	Void Calculation (Reason Voided)		
Incorporated in Final Drawings?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>
This calculation verified by independent "check" calculations?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>
Original and Revised Calculation Approvals:			
	Rev. 0 Signature/Date	Rev. 1 Signature/Date	Rev. 2 Signature/Date
Originator	<i>Michael R. Curtis</i> 2/17/95	<i>Michael R. Curtis</i> 6/28/96	
Checked by	<i>George J. Long</i> 2/17/95	<i>Bob D... 7/17/94</i>	
Approved by	<i>Bob D... 2/28/95</i>	<i>Bob D... 7/17/94</i>	
Checked Against Approved Vendor Data		<i>Ann Langwin</i> 7/7/98	
REV 1: REPLACED PAGES 2, 3, 4 & 27.			
Design Analysis Page No.		INDEX Description	
i	Calculation Identification and Index		
ii	Calculation Cross Index		
iii	Design Verification Screening Criteria		
1,2	OBJECTIVES; CRITERIA; DATA; ASSUMPTIONS; METHODS; REFERENCES; CALCULATIONS; CONCLUSIONS		
3-36	DESIGN CALCULATIONS		
APPENDIX A	DRAWING H-2-818455 SHTS. 1, 2, 3, 4 and 5		
APPENDIX B	STATIC ANALYSIS - "IMAGES" COMPUTER PROGRAM: SHIELD PLATE/ SUPPORTS (Run ID=MN6173)		

DESIGN VERIFICATION SCREENING CRITERIA

Project/Document No. W-320/CALCULATION W320-24-019,
REV. 0

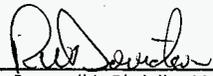
When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|---------|--|
| _____ | _____ ✓ | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | _____ ✓ | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | _____ ✓ | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | _____ ✓ | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |



 Assigned Lead Engineer

 2/28/95
 Date



 Responsible Discipline Manager

 2/28/95
 Date

Original Design Package Distribution:

Project Engineer

Chief Design Engineer

Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

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Calc. No. W320-24-019

Revision 0

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Prefiltration/Recirculation Skid
Structural Design (Process Control
Bldg.)

Date 05/16/94

By M.R Custer *MRC*

Checked 02/17/95

By G.J Zyn *GJZ*

Location TANK 241-C-106

Revised

By

OBJECTIVE:

The objective of this calculation is to provide the detailed, structural design of the Prefiltration/ Recirculation skid, including a radiation shield and details for anchorage to a reinforced concrete foundation.

CRITERIA:

1. DOE ORDER 6430.1A (04/06/89)
2. HANFORD PLANT STANDARDS, STANDARD ARCH./CIVIL DESIGN CRITERIA, SDC-4.1, REV.11
3. FUNCTIONAL DESIGN CRITERIA, WHC-SD-W320-FDC-001, REV.2
4. LETTERS OF INSTRUCTION:

DATA:

1. Equipment supported on the skid is Safety Class 3 per Reference 6, therefore the skid is Safety Class 3.

ASSUMPTIONS:

1. None

METHODS:

Hand calculations and "IMAGES 3D" (version 2.0), computer program

REFERENCES:

1. AISC Manual of Steel Construction, Ninth Edition
2. Uniform Building Code (UBC), 1991 Edition
3. American Welding Society (AWS), Standard D1.1, Structural Welding Code
4. ASTM A 36-91
5. HANFORD PLANT STANDARDS, STANDARD ARCH./ CIVIL DESIGN CRITERIA, SDC-4.1, REV. 11.
6. WHC-SD-WM-SEL-033, REV.0-C, Interim Safety Equipment List for 241-C-106 WASTE RETRIEVAL
7. DESIGN OF WELDED STRUCTURES, BLODGETT (Eighth Edition)
8. ASCE 7-93, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

Calc. No. W320-24-019

Revision 1

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DESIGN ANALYSIS

Client WHC

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Control Bldg.)

WO/Job No. W-320/ER-4319

Date 06/21/96

By M.R. Custer

Checked 7/17/96

By *[Signature]* MRC

Location TANK 241-C-106

Revised

By

CALCULATIONS:

REFER TO DESIGN CALCULATIONS SECTION

CONCLUSIONS:

The structural skid supporting the Process Building and equipment is designed based on the criteria, codes and standards, referenced in the calculation. The final members and the associated elements satisfy the design requirements of the structure. Refer to drawing H-2-818455 shts. 1, 2, 3, 4 and 5 for design drawing information.

REVISION 1:

CONCLUSION:

Revision 1 incorporates vendor data for the weight of the individual equipment/ components. The updated information does not affect the original conclusion of the calculation, since the overall effect is a reduction in the total weight of the equipment and a nominal relocation of the center of gravity for the skid assembly.

Revision 1 also provides an assessment of the current calculation to determine potential impact due to changes, as documented in the following ECNs. No changes to the calculation is required based on the following:

- 1) ECN W-320-161: Provides location and anchorage details for equipment numbers HME-1361 and HMF-1361 for attachment to the Process Skid. The reactions from these equipment were considered in the original design and the bolting details, as provided exceeds the required capacity indicated on the vendor drawings.
- 2) ECN W-320-174: The ECN resolves conflicting detail/section numbering and provides minor dimensional changes. These changes do not impact the original design in the calculation. Detail 20 and Section T were added by this ECN to provide support for electrical/ instrumentation equipment. The support detail for the electrical equipment is based on the detail for the lifting lugs on the skid assembly. Since the capacity of the lifting lugs greatly exceeds the loads applied by the electrical equipment, the original calculation adequately addresses the design of the equipment supports.
- 3) ECN W-320-351: The ECN removes the existing 1" diameter anchor bolts and replaces them with a 3/16" fillet weld, 2" long at each existing embed plate location. The combined shear and tension which exists at the equipment anchorage is distributed to the embedded plates. The maximum resultant force due to combined shear and tension on the weld is:

$$R = [(2.5)^2 + (2.85)^2]^{1/2} = 3.79 \text{ kips}$$

The total shear capacity of each weld is: (.707) (3/16") (21 ksi) (2) = 5.57 kips > 3.79 kips....OK.

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Revision 1

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DESIGN ANALYSIS

Client WHC

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

WO/Job No. W-320/ER4319

Date 06/28/96

By M.R Custer *MRC*Checked *7/17/96*By *[Signature]*

Location TANK 241-C-106

Revised

By

DESIGN CALCULATIONS:

The design and analysis of the skid, consists of developing conservative weight estimates for the major equipment, design of the skid support system to integrate the equipment as a module, design of a 1" plate, shielding wall, evaluate the equipment anchorage to the skid and design of the skid anchorage system to a reinforced concrete foundation. The equipment module will be constructed outside the C-Farm area, transported and placed on a concrete foundation at the project site. A prefabricated metal building enclosure will be assembled outside the C-farm area and placed on the foundation, following the skid installation. All the equipment supported on the skid is Safety Class 3 per Reference 6, therefore the design of the skid is Safety Class 3.

DESIGN LOADS:DEAD LOADS

- Mechanical equipment, piping/supports and instrumentation cabinet, tubing and supports:
 - Recirculation Fan, 642 lbs
 - Heat Exchanger, 2740 lbs (Wt dry = 1976 lbs)
 - Heating Coil, 180 lbs
 - Air Receiver Tank, 150 lbs
 - (1) Metal Filter, 1430 lbs + 3360 lb
 - Piping and pipe supports, 1300 lbs
 - (1) Instrumentation cabinets/
tubing/ supports 1657 lbs (Installed after transport)
 - HEME, Mist Eliminator, 21920 (Wt dry = 21540 lbs)
 - Moisture Separator, 264 lbs

Total Equipment Weight(dry) = **30,842 lbs or 30.8 Kips**Total Equipment Weight(wet) = **33,643 lbs or 33.6 Kips**

- Room shielding plate (1 " thick):

Wt. of plate = 11 ft. x 21.28 ft. x 40.8 lbs/sq.ft. = 9551 lbs or **9.60 Kips**

- Estimated weight of structural steel on skid:

$$\begin{aligned} \text{Wt.skid} &= (21.0 \text{ ft} \times 2 \times 40 \text{ lb/ft}) + (11.0 \text{ ft} \times 6 \times 40 \text{ lb/ft}) + (23.6 \times 40 \text{ lb/ft}) \\ &+ (4.83 \text{ ft} \times 40 \text{ lb/ft}) + (2.41 \text{ ft} \times 20 \text{ lb/ft}) + 2 (4.25 \text{ ft.} \times 20 \text{ lb/ft}) + 2 (3.5 \text{ ft} \times 40 \text{ lb/ft}) \\ &+ 2 (1.67 \times 40 \text{ lb/ft}) = \end{aligned}$$
Wt.skid = 6089 lbs, say **6.1 Kips**

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Revision 1

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 06/28/96

By M.R. Custer *MRC*Checked *7/17/96*By *Red Southern*

Location TANK 241-C-106

Revised

By

- Estimated weight TS shield frame:

$$\begin{aligned} \text{Wt Frame} &= (11.0 \text{ ft} - 4''/12) [5(12.21) + (19.02)] + [1.67 * 2 + 3.42 \\ &+ 7.75 + 7.58 + (11^2 + 4.67^2)^{1/2} + (11^2 + 3.42^2)^{1/2} + (3.21^2 \\ &+ 7.75^2)^{1/2} + (7.75^2 + 7.79^2)^{1/2}] (12.21) = 1646 \text{ lbs} = \underline{1.7 \text{ Kips}} \end{aligned}$$

- Estimated weight of 1/2" skid cover plate:

$$\text{Wt. 1/2" cover plate} = 21.0 \text{ ft} \times 11.7 \text{ ft} \times 20.4 \text{ lbs/ft}^2 = 5012 \text{ lbs or } \underline{5.0 \text{ Kips}}$$

TOTAL DEAD LOADS (dry) = 30.8 + 9.6 + 6.1 + 1.7 + 5.0 = **53.2 Kips (Transport Weight)**

NOTE: Actual as-built transport weight = 55 kip, (See ECN W-320-351)

TOTAL DEAD LOADS (max) = 33.6 + 9.6 + 6.1 + 1.7 + 5.0 = **56.0 Kips (Design Weight)**LIVE LOADS:

- Live Load, LL = 0
- Equipment Live Load, LL_e = Equip. Live Load x 1.5

$$\text{LL}_e = 213 \text{ lb} \times 1.5 / 13.5 = 23.7 \text{ lbs force on bolt (where Torque is 213 lbs-in)}$$

Equipment live load is negligibleEARTHQUAKE LOADS:

- Lateral Seismic Force (Equipment Skid), F_p = ZIC_pW_p, where:

$$Z = 0.20 \text{ (Zone 2B)} \quad (\text{Reference 2})$$

$$I = 1.25 \quad (\text{Reference 5})$$

$$C_p = .75 \times 2 = 1.5 \quad (\text{Reference 2})$$

$$F_p = (0.20)(1.25)(1.5) W_p = 0.375 W_p$$

$$E_{n-s} = V_{n-s} \text{ (100\% max.)} \quad (\text{Reference 2})$$

$$E_{o-w} = V_{o-w} \text{ (30\% max.)} \quad (\text{Reference 2})$$

$$E_{n-s} = V_{n-s} = 0.375 W_p \text{ skid} = 0.375 (61.3) = \underline{23.0 \text{ Kips}}$$

$$E_{o-w} = V_{o-w} = 0.375 W_p \text{ skid} (0.3) = 0.375 (61.3)(0.3) = \underline{6.9 \text{ Kips}}$$

$$E_{(SRSS)} = [23.0^2 + 6.9^2]^{1/2} = \underline{24.0 \text{ Kips}} \text{ (Apply force in direction providing maximum load condition)}$$

$$\text{OR } E = 0.375 (1.3) W_p = 0.488 (61.3) = 29.9 \text{ Kips (conservative)}$$

Use E_{MAX} = 30.0 Kips (conservative)

DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R. Custer *MRC*

Checked 02/17/95

By G.J. Zyn *GJZ*

Location TANK 241-C-106

Revised

By

• Distribution of Seismic forces by Component:

Total weight of skid and components = **61.3 Kips**
 Total lateral seismic load = **30.0 Kips**

LOAD IDENTIFIER	VERTICAL COMP. / RATIO	HORIZ. COMPONENT
a) Recirculation Fan,	(350) (30000)/61300	= 171 lbs
b) Heat Exchanger, Wet	(5000) (30000)/61300	= 2447 lbs
Dry	(1200)	= 586
c) Heating Coil,	(150) (30000)/61300	= 73 lbs
d) Air Receiver Tank,	(150) (30000)/61300	= 73 lbs
e) HEME (Mist Eliminator), Wet	(30000) (30000)/61300	= 14682 lbs
Dry	(27000)	13176
f) Metal Filter,	(1135) (30000)/61300	= 553 lbs
g) Moisture Separator	(400) (30000)/61300	= 195 lbs
h) Piping and supports,	(1000) (30000)/61300	= 487 lbs
i) Instrumentation cabinet,	(700) (30000)/61300	= 341 lbs
j) 1" Shield Plate,	(9551) (30000)/61300	= 4674 lbs
k) Weight of Skid,	(6089) (30000)/61300	= 2965 lbs
l) Weight of 1/2" cover Pl	(5000) (30000)/61300	= 2435 lbs
m) Weight of TS Frame	(1646) (30000)/61300	= 802 lbs
TOTAL WEIGHT =	61171 lbs/ 61.3 Kips	29898 lbs/ 30.0 Kips
TOTAL WEIGHT =	54371 LBS/ 54.4 Kips	

WIND LOAD: (Maximum affects in the North-South direction) (Reference 8)

F (due to wind loading) = $q_z G_z C_f A_f$

where: $q_z = 0.00256 K_z (IV)^2 = 0.00256 (0.80) (1.02 \times 70)^2 = 10.4$ psf

$G_z = 1.32$
 $C_f = 1.2$

$F = 10.4 (1.32) (1.2) (11 \text{ ft})^2 = 1.99$ Kips < 30.0 Kips (seismic load governs)

Note: Equipment exposed to wind loading only during the rigging operation. The equipment is to be housed in a building enclosure therefore, there is no wind loading during normal operations.

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R. Custer *MRC*

Checked 02/17/95

By G.J. Zyn *GJZ*

Location TANK 241-C-106

Revised

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LOCATE THE CENTER OF GRAVITY OF THE SKID ASSEMBLY:**COMPONENT WEIGHTS AND LOCATIONS:**

Component Description	Weight (lbs)	X-distance, (ft.)	Z-Distance, (ft.)	H-Distance (ft.)
a) Recirculation Fan (FN-1361)	350	0.92	9.25	2.76
b) Heat Exchanger (HX-1361)	1200 Dry 5000 Wet	4.17	6.70	2.71
c) Heating Coil (HC-1361)	150	4.08	0.75	2.76
d) Air Receiver Tank (TK-1361)	150	7.75	9.50	2.25
e) HEME (Mist Eliminator) (HME-1361)	27000 Dry 30000 Wet	10.75	5.25	6.45
f) Metal Filter (HMF-1361)	1135	14.09	4.75	3.29
g) Moisture Separator	400	7.25	4.47	4.42
h) Piping/supports	1000	10.20	3.18	3.50
i) Instrumentation/ cabinet/supports	700	18.34	3.79	3.50
j) 1" Shield Plate	9874	13.39	6.22	6.04
k) Skid Frame	6089	10.41	5.42	0.00
l) 1/2" Cover Plate	5000	10.17	5.50	0.52
m) TS support frame	1646	12.38	6.17	7.16

Reference points for the x, z, and h distances are as follows:

- 1) x-distance, dimension from centerline of W12x40 at the west end of the skid to the center of the component.
- 2) z-distance, dimension from centerline of W12x40 at the south end of the skid to the center of the component.
- 3) h-distance, dimension from centerline of W12x40 skid to centerline of component.

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HANFORD

Calc. No. W320-24-019

Revision 0

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R Custer *MCC*

Checked 02/17/95

By G.J Zyn *GJZ*

Location TANK 241-C-106

Revised

By

CENTER OF GRAVITY OF THE SKID FRAME: (Reference Figure 1)

• Component weights:

- (2) Primary framing beams, (W12 X 40):
(21.00 ft)(40) = 840 lbs each Total = 1680 lbs
- (6) Secondary framing beams (W12 x 40):
(11.0 ft)(40) = 440 lbs each Total = 2640 lbs
- (4) Diagonal beams (W12 x 40): Total = 944 lbs
 - a) 251 lbs
 - b) 234 lbs
 - c) 239 lbs
 - d) 220 lbs
- (1) Moisture Separator beam, (W12 x 40):
4.83 ft x 40 lb/ft Total = 193 lbs
- (1) Moisture Separator support beam, (W12 x 16):
2.41 ft x 20 lb/ft Total = 48 lbs
- (2) Metal Filter support beams, (W12 x 16):
4.25 ft x 20 lb/ft = 85 lbs/each Total = 170 lbs
- (2) HEME support beams (W12 x 40),
3.5 ft x 40 = 140 lbs/ each Total = 280 lbs
- (2) Shield wall support beams (W12 x 40)
1.1 ft x 40 lb/ft = 44 lbs/ each Total = 88 lbs

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HANFORD

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R Custer *MRC*

Checked 02/17/95

By G.J Zyn *GJZ*

Location TANK 241-C-106

Revised

By

- Center Gravity, East-West direction

$$\begin{aligned} EPx &= [440 \text{ lbs (4.17 ft)} + 440 \text{ lbs (9.00 ft)} + 440 \text{ lbs (12.50 ft)} \\ &+ 440 \text{ lbs (16.75 ft)} + 440 \text{ lbs (20.33 ft)} + 251 \text{ lbs (6.58 ft)} \\ &+ 234 \text{ lbs (14.63 ft)} + 239 \text{ lbs (6.58 ft)} + 220 \text{ lbs (14.63 ft)} \\ &+ 140 \text{ lbs (10.75 ft)(2)} + 840 \text{ lbs (10.17 ft)(2)} + 85 \text{ lbs (14.63 ft)(2)} \\ &+ 193 \text{ lbs (6.58 ft)} + 48 \text{ lbs (7.25 ft)} + 44 \text{ lbs (16.75 ft + 9.00 ft)}] / 6089 \text{ lbs} \\ \underline{x} &= \underline{10.32 \text{ ft, approx. } 1 \frac{3}{4} \text{ " east of the centerline of the skid}} \end{aligned}$$

- Center of Gravity, North-South direction

$$\begin{aligned} EPz &= [440 \text{ lbs (5.50 ft)} (6) + 251 \text{ lbs (9.00 ft)} + 234 \text{ lbs (9.00 ft)} \\ &+ 239 \text{ lbs (1.75 ft)} + 220 \text{ lbs (1.75 ft)} + 140 \text{ lbs (3.50 ft)} \\ &+ 140 \text{ lbs (7.00 ft)} + 840 \text{ lbs (11.00 ft)} + 85 \text{ lbs (5.50 ft)} + 85 \text{ lbs (4.08 ft)} \\ &+ 193 \text{ lbs (4.5 ft)} + 48 \text{ lbs (3.36 ft)} + 44 \text{ lbs (11.92 ft - 0.58 ft)}] / 6089 \text{ lbs} = \\ \underline{z} &= \underline{5.38 \text{ ft, approx. } 1 \frac{1}{2} \text{ " south of the centerline of the skid}} \end{aligned}$$

CENTER OF GRAVITY OF THE SHIELD PLATE: (Reference Figures 3, 4 & 5)

- Component Weights:

$$\begin{aligned} - \text{Shield Plate 1, Wt} &= 40.8 \text{ lbs/ft}^2 (11 \text{ ft})(8.79 \text{ ft}) = 3946 \text{ lbs} \\ - \text{Shield Plate 2, Wt} &= 40.8 \text{ lbs/ft}^2 (11 \text{ ft})(7.83 \text{ ft}) = 3514 \text{ lbs} \\ - \text{Shield Plate 3, Wt} &= 40.8 \text{ lbs/ft}^2 (11 \text{ ft})(4.66 \text{ ft}) = 2091 \text{ lbs} \\ \text{TOTAL} &= 9551 \text{ lbs} \end{aligned}$$

- Center of Gravity, East-West

$$\begin{aligned} x &= 3946 \text{ lbs (16.54 ft)} + 3514 \text{ lbs (12.67 ft)} + 2091 \text{ lbs (8.79 ft)} / 9551 \text{ lbs} = \\ \underline{x} &= \underline{13.42 \text{ ft}} \end{aligned}$$

- Center of Gravity, North-South

$$\begin{aligned} z &= 3946 \text{ lbs (3.50 ft)} + 3514 \text{ lbs (7.59 ft)} + 2091 \text{ lbs (9.94 ft)} / 9551 \text{ lbs} = \\ \underline{z} &= \underline{6.42 \text{ ft}} \end{aligned}$$

- Center of Gravity, Height

$$\begin{aligned} h &= 11.0 \text{ ft} / 2 + (12" / 2 + 0.50") / 12 \\ \underline{h} &= \underline{6.04 \text{ ft}} \end{aligned}$$

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Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R Custer *MRC*

checked 02/17/95

By G.J Zyn *JR*

Location TANK 241-C-106

Revised

By

CENTER OF GRAVITY OF THE SKID ASSEMBLY: (Dry) (Ref. Figures 1,3,4 & 5)

• Center of Gravity, East-West direction:

EPx = Sum vertical loads about the centerline of the W12x40 at west end of the skid.

EPx = [0.92 ft (350 lbs) + 4.17 ft (1200 lbs) + 4.08 ft (150 lbs)

+ 7.75 ft (150 lbs) + 10.75 ft (27000 lbs) + 14.09 ft (1135 lbs)

+ 7.25 ft (400) + 10.20 ft (1000 lbs) + 18.34 ft (700 lbs)

+ 13.39 ft (9551 lbs) + 10.41 ft (6089 lbs) + 10.17 ft (5000 lbs)

+ 12.38 ft (1646 lbs)]/ 54371 lbs =

Use x = 11.08 ft., east of the reference line (11.0 inches east of skid centerline)

• Center of Gravity, North - South direction:

EPz = Sum vertical loads about the centerline of W12x40 at south end of skid.

EPz = [9.25 ft (350 lbs) + 6.70 ft (1200 lbs) + 0.75 ft (150 lbs)

+ 9.50 ft (150 lbs) + 5.25 ft (27000 lbs) + 4.75 ft (1135 lbs)

+ 4.47 ft (400) + 3.18 ft (1000 lbs) + 3.79 ft (700 lbs) + 6.22 ft (9551 lbs)

+ 5.42 ft (6089 lbs) + 5.50 ft (5000 lbs) + 6.17 ft (1646 lbs)]/ 54371 lbs =

Use z = 5.47 ft., north of the reference line (approx. @ the skid centerline)CENTER OF GRAVITY OF THE SKID ASSEMBLY: Design Location (Wet)(Ref. Figures 1, 3, 4 & 5)

• Center of Gravity, East- West direction:

x = 11.08 ft + [30000 lbs (10.75 ft) + 5000 lbs (4.17 ft)]/ 61171 lbs

- [27000 lbs (10.75 ft) + 1200 (4.17 ft)]/ 54371 lbs =

x = 11.08 ft + 5.61 ft - 5.43 ft

Use x = 11.26 ft. or approx. 13 1/8" east of the skid centerline

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- Center of Gravity, North-South direction:

$$z = 5.48 \text{ ft} + [30000 \text{ lbs (5.25 ft)} + 5000 \text{ lbs (6.70 ft)}] / 61171 \text{ lbs}$$

$$- [27000 \text{ lbs (5.25 ft)} + 1200 \text{ lbs (6.70 ft)}] / 54371 \text{ lbs}$$

$$z = 5.48 \text{ ft} + 3.12 \text{ ft} - 2.75 \text{ ft}$$

Use z = 5.85 ft. or approx. 4 1/8" north of the skid centerline

- Eccentricity, East - West direction: (Seismic Loads)

EPx = Sum horizontal loads about centerline of W12x40 at west end of skid.

$$EPx = [0.92 \text{ ft (171 lbs)} + 4.17 \text{ ft (2435 lbs)} + 4.08 \text{ ft (73 lbs)}$$

$$+ 7.75 \text{ ft (73 lbs)} + 10.75 \text{ ft (14610 lbs)} + 14.09 \text{ ft (553 lbs)}$$

$$+ 7.25 \text{ ft (195 lbs)} + 10.20 \text{ ft (487 lbs)} + 18.34 \text{ ft (342 lbs)}$$

$$+ 13.39 \text{ ft (4809 lbs)} + 10.41 \text{ ft (2965 lbs)} + 10.17 \text{ ft (2435 lbs)}$$

$$+ 12.38 \text{ ft (802 lbs)}] / 29898 =$$

Use x = 10.64 ft; e(x) = 0.47 ft or approx. 5 5/8 " east of the skid centerline

- Eccentricity, North - South direction: (Seismic Loads)

EPz = Sum horizontal loads about centerline of the W12x40 at south end of skid.

$$EPz = [9.25 \text{ ft (171 lbs)} + 6.70 \text{ ft (2435 lbs)} + 0.75 \text{ ft (73 lbs)}$$

$$+ 9.50 \text{ ft (73 lbs)} + 5.25 \text{ ft (14610 lbs)} + 4.75 \text{ ft (553 lbs)}$$

$$+ 4.47 \text{ ft (195 lbs)} + 3.18 \text{ ft (487 lbs)} + 3.79 \text{ ft (342 lbs)}$$

$$+ 6.22 \text{ ft (4660 lbs)} + 5.42 \text{ ft (2965 lbs)} + 5.50 \text{ ft (2435 lbs)}$$

$$+ 6.17 \text{ ft (802 lbs)}] / 29898 \text{ lbs} =$$

Use z = 5.54 ft. e(z) = 0.04 ft. or 0.50 " north of the skid centerline

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- Eccentricity, Vertical Direction: (Reference Figures 4, 5 & 6)

EPh = Sum horizontal loads about the centerline (elevation) of the W12x40

EPh = [2.76 ft (171 lbs) + 2.71 ft (2435 lbs) + 2.75 ft (73 lbs)

+ 2.25 ft (73 lbs) + 6.45 (14610) + 3.29 ft (553 lbs)

+ 4.42 ft (195 lbs) + 3.50 ft (487 lbs) + 3.50 ft (342 lbs)

+ 6.04 ft (4660 lbs) + 0.00 ft (2965 lbs) + 0.52 ft (2435 lbs)

+ 7.16 ft (802 lbs)]/ 29898 lbs =

Use h = 4.79 ft or approximately 57 1/2", above the centerline of the W12 beam**DETERMINE GOVERNING LOAD COMBINATION AND LOADS FOR STRUCTURAL SKID:**Load Combinations:

- 1) D
- 2) D + L + (Lr or S or R); Lr, S and R = 0, then D + L
- 3) D + (W or E), W = 0, then D + E
- 4) D + L + (Lr or S or R) + (W or E); Lr, S, R and W = 0, then D + L + E

Load combination governing the design is: D + L + E

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SKID DESIGN:• DESIGN OF PRIMARY/ SECONDARY FRAMING BEAMS:

The structural frame consists of two wide-flange beams with secondary members provided at the major equipment support locations. These members in addition to diagonal braces and the skid cover plate, provides the required support system. The design of the equipment skid considers two basic design conditions. The first condition involves the design of the skid considering the dead load of the equipment during the loading, transport and unloading of the equipment at the site. The second condition involves the design of the skid at the final design location, where it will be subjected to the live and seismic loads associated with the functioning system.

The beams shall be designed and the beam deflections checked, using both the design load conditions at design location and the rigging/transport loads during the transport operations to consider all load scenarios. The primary differences in the load conditions are (1) the additional seismic load at the design location and (2) the supports and stability concerns for the skid during the rigging operation.

• Beam design - Rigging operation: (Reference Figures 1,2 & 4)

The primary/ secondary beams are designed as simply supported with a span of 13.33 ft or 11.0 ft respectively, as shown in Figure 2. The beams supporting the HEME equipment will govern the design, since the maximum loads are supported by these members. The maximum moment for either the primary and secondary beams is determined as shown in Figure 2 is:

$$M_{max} = 910 \text{ k-in}$$

$$S_{req} = M_{max} / f_b, \text{ assume } f_b = 24 \text{ ksi, based on an unbraced length of 5.00 ft}$$

$$S_{req} = 910 \text{ k-in} / 24 \text{ ksi} = 37.9 \text{ in}^3$$

• Determine the section properties of the 1/2" pl and the W12 x 40 beams:

$$I_x = 310 \text{ in}^4 \text{ (W12x40),} \quad A = 11.8 \text{ in}^2 \text{ (W12 x 40)}$$

I_T , includes 1/2" PL and W12 x 40 beam:

$$I_x = I_c + A d^2, \quad I_c = b d^3 / 12$$

$$I_c \text{ (plate)} = 24.0 (0.5)^3 / 12 = 0.25 \text{ in}^4$$

$$I_c \text{ (beam)} = 310 \text{ in}^4$$

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$$\bar{x} = [0.50 (24) (12.25) + 11.8 (6.0)] / 11.8 + 0.5 (24) = 9.15 \text{ in.}$$

$$c_T = 9.15 \text{ ", } c_c = 3.35 \text{ "}$$

$$I_T = [I_c + Ad^2] + [I_c + Ad^2]$$

$$I_T = [0.25 + 0.5(24)(3.10)^2]_{1/2" \text{ PL}} + [310 + 11.8 (3.15)^2]_{W12 \text{ beam}}$$

$$I_T = 543 \text{ in}^4, c = 59.3 \text{ in}^3 (c = 9.15 \text{ in})$$

$$S_x (\text{total}) = 543 \text{ in}^4 / 9.15 \text{ in.} = 59.3 \text{ in}^3 > 37.9 \text{ ok}$$

DETERMINE INTERMITTANT WELDS ATTACHING 1/2 " COVER PLATE TO W12 BEAMS

- Minimum weld size required per AISC is 3/16" (1/2" cover plate and 1/2" beam flange)
- Minimum length of intermittent weld is 1.5"
- Determine weld requirements for W 12 x 40 and W 12 x 16:

$$f_h = V a y / I_x n$$

$$V = 16.4 \text{ kips}$$

(Reference 7)

(Figure 2)

$$f_h = 16400 \text{ k} (0.5) (24) (3.10) / 543 (2) = 562 \text{ lb/in}$$

$$f_h = 562 \text{ lbs/in} (8) / 1.5 = 2997 \text{ lbs/in}$$

$$w (\text{required weld size}) = 2997 / 14850 = 0.20", 3/16" = 0.19"$$

Use minimum weld, 3/16", Adequate, based on the conservative design loads used.

Use 3/16" fillet weld, 1.5" long @ 8" on center with 3" at each end and each side of the beam flange (minimum). Additional weld length will be provided at each equipment attachment point at the 1/2" plate, as required.

DESIGN CONNECTIONS FOR THE PRIMARY AND SECONDARY FRAMING MEMBERS

The connections for the primary and secondary members consist of a coped and welded beam to beam shear and moment resisting connection. The web and beam flanges of the secondary beams will be cut to provide the required fitup for welding the web, using fillet welds each side of the web and full penetration welds connecting the flanges to the primary beams.

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- Check moment capacity of the W 12x 40 section:

Applied moment, (M) = 910 k-in,

$$M = T \times d, d = 12", T = P_{\max} = f_b A, .66 F_y (.515)(8) = 97.9 \text{ k} \dots \text{ok}$$

$$M (\text{section}) = 97.9 \text{ k} \times 12" = 1175 \text{ k-in} > 910 \text{ k-in} \dots \text{ok}$$

- Check web shear capacity of the W12 x 40:

$$V_{\max} = 16.4 \text{ k},$$

$$A_w = d_w \times t_w; d_w = 9.5 \text{ in}, t_w = 0.295 \text{ in}$$

$$F_v = .40 F_y = 14.4 \text{ ksi}, \text{ where } F_y = 36 \text{ ksi}$$

$$f_v = V_{\max} / A_w$$

$$f_v = 16.4 \text{ kips} / 9.5 \text{ in} \times 0.295 \text{ in} = 5.85 \text{ ksi} < F_v = 14.4 \text{ ksi} \dots \text{ok}$$

Required weld (web to web): Minimum weld required is 3/16" per Reference 1:

- Check shear stress on 3/16" fillet weld each side of the web, 9.5" long

$$F_v = 0.707 \times 70 \text{ ksi} \times 0.30 \times 3/16" = 2.8 \text{ k/ in}$$

$$f_v = V/A, 16.4 \text{ kips} / (9.5")(2) = 0.86 \text{ k/ in}$$

$$f_v = 0.86 \text{ k/ in} < 2.8 \text{ k/ in} \dots \text{ok}$$

DESIGN SKID FRAME BRACING SYSTEM AND CONNECTIONS

The braced, secondary members in addition to the skid cover plate provides the required lateral bracing of the compression flange of the primary framing beams. The skid cover plate is designed to support the smaller equipment and piping supports with direct attachment or with the addition of members as required to transfer the loads to the primary structural frame. The larger equipment is supported directly by secondary framing members, provided at the specific equipment locations. The primary function of the bracing members is to distribute the horizontal seismic loads from the HEME (mist eliminator) supports to the primary beams and the foundation anchorage. The maximum brace load consists of the 30.0 kip horizontal seismic load, distributed approximately 50% to each brace, with one pair of braces assumed effective. The critical loading on the braces is the compression load. The load per brace used in the design is 15.0 k, with the brace fixed at each end.

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- Check the W12 x 40 brace member as a column:

Member W12 x 40, Assume 1/2 seismic load is applied to each brace

$$P = 15.0 \text{ kips, } f_a = P/A = 15.0 \text{ k} / 11.8 \text{ in}^2 = 1.27 \text{ ksi}$$

Determine KL/r , where $K = 1.0$, $L = 6.3 \text{ ft}$, $r = 1.93 \text{ in}$.

$$KL/r = 1.0 (6.3)(12\text{")}/ 1.93 \text{ in} = 39.2 < C_c = 126.1, F_a = 19.27$$

$$f_a / F_a = 1.27 \text{ ksi} / 19.27 \text{ ksi} = 0.07 < 0.15 \dots \text{ok}$$

The connections of the bracing members to the primary framing members consist of welding the web and flanges of the W12 x 40 brace to the web and flanges of the W12 x 40 primary and secondary beams. Since the loads supported by the braces are significantly less than the loads on either the primary or secondary beams, the connections are acceptable based on the design of primary/secondary beam connections.

DESIGN THE RADIATION SHIELD/ HEME SUPPORT SYSTEM (Ref. Figures 4 & 5)

The radiation shield is analyzed in conjunction with the HEME support system as an integrated system. The objective in utilizing this approach is to maximize the inherent, structural capacity of the braced, shield plate structure in providing lateral support to the HEME and minimize the overall volume of supporting structures on the skid. This objective was accomplished using Version 2.0 of the "IMAGES" computer program, a finite element analysis program. The input/output data for the analysis is provided in Appendix A, which includes the member stresses, forces, deflections and reactions. The results of the analysis provides the required input for the design of the shield supports and associated connections and the HEME base support, bracing members and connections. Four load cases were analyzed based on the D + L + E load combination. Each load case consists of dead loads of the components, accelerated in two directions in addition to the dead load of the HEME and the horizontal seismic components, applied at the center of gravity of the HEME. The load cases are described by the direction of the seismic load, e.g North-South or East-West directions. Load Case 2 consists of the dead loads only. (Note: The live load in this analysis is negligible)

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ANALYSIS SUMMARY:

The following is a summary of the results of the analysis performed, defined by physical location/ structural interface. The summary provides the maximum forces or stresses as shown in the program output. Maximum force components or stresses required at other locations in the structure are developed by extracting and summarizing the information from the program output data. The following are maximum values as provided by the program:

• CONNECTION OF 1" SHIELD PLATE TO 1" SHIELD PLATE:

PLATE NO.	NODE	FX	FY	FZ	MX	MY	MZ	CASE NO.	DIRECTION
40-55	60	-146	28	122	101	-2091	0	3	X
39-54	60	99	12	-171	0	1786	-63	3	Z

• CONNECTION OF BEAM OR 1" SHIELD PLATE TO 1/2" COVER PLATE:

MEMBER/ NO.	NODE	REACTIONS			MOMENTS		MZ	LOAD CASE	MEMBER	
		X	Y	Z	MX	MY				
(GLOBAL)										
BEAM	23	5	-447	2916	-509	-429	-147	404	1	TS 4x4
BEAM	29	11	293	752	-91	-289	4519	-741	4	TS 8x4
BEAM	1	1	-22	316	-137	-	-	-	1	TS 4X4
BEAM	2	18	-20	217	34	-	-	-	1	TS 4X4
PLATE	9/10	11	483	2303	470	415	-90	-561	3	1" PLATE

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(LOCAL)

MEMBER/ NO.	MAX. STRESS	FORCES			COMBSHEAR	BENDING	LOAD CASE	
		AXIAL	YSHEAR	ZSHEAR		Y	Z	
BEAM 56	1381	440	458	-202	691	288	654	1,3,4,5
PLATE 40	349	-	-	-	-	-	-	3

• CONNECTION OF TS TO 1" SHIELD PLATE:

BEAM NO.	NODE	AXIAL LOAD	SHEAR Y	Z	TORSION	BENDING Y	Z	LOAD CASE	REMARKS
31/32	60	5	12	-16	1786	-32	5	5	TS 8X4
38/39	82	-21	20	1.5	-3806	29	0	4	TS 4x4
5	98	-807	69	949	-1633	1000	-1180	4	TS 4x4

• CONNECTION OF TS TO TS:

BEAM NO.	NODE	AXIAL LOAD	SHEAR Y	Z	TORSION	BENDING Y	Z	LOAD CASE	REMARKS
44	102	125	30	-17	-510	1517	502	4	HORIZONTAL

The analysis of the structure reveals that the initial member sizes and associated, final stress levels are structurally adequate for the design loads. Additional structural design and evaluation is required, primarily for the welds inter-connecting the individual components of the structure.

The required design/ evaluations are as follows:

- Design connection between 1" the shield wall plates:

Maximum loads @ node no. 60 (plates 40-55): (Load Case 3)

$$F_x = 0.146 \text{ k}, \quad F_y = 0.03 \text{ k}, \quad F_z = 0.122 \text{ k}$$

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$$M_x = 0.10 \text{ k-in}, \quad M_y = 2.09 \text{ k-in} \quad M_z = 0$$

$$A = 1", \quad S = 1" / 3 \text{ in}^2 = 0.333 \text{ in}^2$$

$$f_a = 0.03 / 1 + 0.1 / 0.33 = 0.33 \text{ ksi}$$

$$f_s = [(2.09 + 0.146)^2 + (0.122)^2]^{1/2} = 2.24 \text{ ksi}$$

$$W_o = [(0.33)^2 + (2.24)^2]^{1/2} / 14.85 = 0.15" \text{ or } 3/16,$$

$$\text{Use } 5/16" \text{ fillet weld (min. weld)} = 0.313"$$

- Design connection between the 1" shield plate and the 1/2" cover plate:

Maximum loads @ node no. 11 (global reactions of plates 9 and 10): (Load Case 3)

$$F_x = 0.483 \text{ k} \quad F_y = 2.30 \text{ k} \quad F_z = 0.470 \text{ k}$$

$$M_x = 0.415 \text{ k-in} \quad M_y = -0.09 \text{ k-in} \quad M_z = -0.561 \text{ k-in}$$

$$S_x = d^2 / 3 = 0.33 \text{ in}^2, \quad S_y = bd = 1"(1") = 1 \text{ in}^2$$

$$f_x = 0.483 / 2 + 0.09 / 1 = 0.332 \text{ k}$$

$$f_y = 2.30 / 2 = 1.15 \text{ k}$$

$$f_z = 0.470 / 2 = 0.235 \text{ k}$$

$$W_o = [(0.332)^2 + (1.15)^2 + (0.235)^2]^{1/2} / 14.85 = 0.08"$$

$$W = (0.08" \times 12) / 3 = 0.32"$$

Use 5/16" fillet weld, (Weld size is conservative, since the loads used to size the welds are located at the corner at the TS 8 x 4 column. The column acting as a composite section with the plates will significantly, reduce the applied loads on the plate welds).

- Design connection between the TS 4 x 4 brace and the 1/2" cover plate:

Maximum loads @ nodes no. 1 and 18 (Beams 1 and 2): (Load Case 4)

$$F_x = 0.02 \text{ k} \quad F_y = .316 \text{ k} \quad F_z = -0.137 \text{ k}$$

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Client WHC

WO/Job No. W-320/ER4319

Subject Prefiltration/Recirculation Skid,
Structural Design (Process Building)

Date 05/17/94

By M.R Custer *MRC*

Checked 02/17/95

By G.J Zyn *GJZ*

Location TANK 241-C-106

Revised

By

$$M_x = 0 \quad M_y = 0 \quad M_z = 0$$

Area of the weld, $A = 1.5" \times 2 = 3"$

$$W = \{[(0.316/3)^2 + (0.02/3)^2 + (0.137/3)^2]^{1/2}\} / 14.85 = 0.008"$$

Use 3/16" fillet weld, 1.5" long minimum, each side of TS

- Design connection between horizontal TS to horizontal TS:

Maximum loads @ node no. 102 (Beam 44): (Load Case 4)

$$F_x = 0.125 \text{ k} \quad F_y = 0.03 \text{ k} \quad F_z = 0.017 \text{ k}$$

$$M_x = 0.51 \text{ k-in} \quad M_y = 1.52 \text{ k-in} \quad M_z = 0.51 \text{ k-in}$$

Area, $A = 4 \times 1.5" = 6"$

$$S = d^2/3 + bd = (1.5)^2/3 + 4(1.5) = 6.75 \text{ in}^2$$

$$J_w = 1.5/6(3 \times 4^2 + 1.5^2) + 4/6(4^2 + 3 \times 1.5^2) = 27.73 \text{ in}^3,$$

$$c = (2)^{1/2} (2) = 2.828$$

$$f_x = 0.125/6 + (1.52 + 0.510)/6.75 = 0.32 \text{ ksi}$$

$$f_h = [(0.03/3)^2 + (0.017/3)^2]^{1/2} + [0.51(2.828)/27.73] = 0.06 \text{ ksi}$$

$$W = \{[(0.32)^2 + (0.06)^2]^{1/2}\} / 14.85 = 0.022"$$

Use 3/16" weld = 0.19" > 0.022"

- Design connection TS 4 x 4 column to 1/2" plate:

Maximum loads at node no. 5 (Beam B23): (Load Case 1)

$$F_x = 0.45 \text{ k} \quad F_y = 2.92 \text{ k} \quad F_z = -0.51 \text{ k}$$

$$M_x = -0.43 \text{ k} \quad M_y = -0.147 \text{ k} \quad M_z = 0.404 \text{ k}$$

Welds to be provided all around the TS member at attachment to the 1/2" plate.

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Loads and moments resolved to the centerline of the TS and the perimeter weld will be designed:

$$A = 2(4) + 2(3) = 14", \quad A_1 = 2(4) = 8", \quad A_2 = 2(3) = 6"$$

$$d = (2)^{1/2} (2) = 2.83"$$

$$S_x = 4^2/3 + 3 \times 4 = 17.33 \text{ in}^2, \quad S_y = 3^2/3 + 4 \times 4 = 10.9 \text{ in}^2$$

$$J_w = [4/6 (3 \times 4^2 + 4^2)] + [3/6 (3^2 + 3 \times 4^2)] = 71.17 \text{ in}^3$$

$$a = 2.0 + 0.5 = 2.50"$$

$$F_x = 0.45 \text{ k} \quad F_y = 2.92 \text{ k} \quad F_z = 0.51 \text{ k}$$

$$M_x = 2.92 \text{ k} (2.50") + 0.43 = 7.73 \text{ k-in}$$

$$M_y = 0.15 \text{ k-in} + (0.45 + 0.51) 2.50" = 2.55 \text{ k-in}$$

$$M_z = 2.92 \text{ k} (2.50") + 0.40 = 7.70 \text{ k-in}$$

$$f_a = 2.92/14 + (7.73/17.0 + 7.70/19.0) = 1.06 \text{ ksi}$$

$$f_s = [(0.45/14)^2 + (0.51/14)^2]^{1/2} + (2.55 \times 2.83)/71.17 = 0.15 \text{ ksi}$$

$$W = \{[(1.06)^2 + (0.15)^2]^{1/2}\} / 14.85 = 0.072"$$

Use 3/16" weld (typ.)

- Design connection TS 8 x 4 column to 1/2" plate:

Maximum loads @ node no. 11 (Beam 29): (Load Case 4)

$$F_x = 0.293 \text{ k} \quad F_y = 0.752 \text{ k} \quad F_z = 0.091 \text{ k}$$

$$M_x = 0.289 \text{ k-in} \quad M_y = 4.519 \text{ k-in} \quad M_z = 0.741 \text{ k-in}$$

Forces applied to centerline of TS 8 x 4 same as above except:

$$M_x = 0.29 + 0.752 (2.5") = 2.17 \text{ k-in}$$

$$M_y = 4.52 + 0.293 (2.5") = 5.25 \text{ k-in}$$

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Weld properties:

$$A = 2(8 + 4) = 24 \quad S_z = 4(8) + (8)^2/3 = 53.3 \text{ in}^2$$

$$S_x = 4(8) + (4)^2/3 = 37.3 \text{ in}^2$$

$$S_T = [(4 + 8)^3/6] / [(2)^2 + (4)^2]^{1/2} = 64.4 \text{ in}$$

$$f_a = 0.752/24 + 0.741/53.3 + 2.17/37.3 = 0.10 \text{ ksi}$$

$$f_s = [(0.293/24)^2 + (0.091/24)^2]^{1/2} + 5.25/64.4 = 0.094 \text{ ksi}$$

$$W = \{[(0.10)^2 + (0.094)^2]^{1/2}\} / 14.85 = 0.009"$$

Use 3/16" weld (typical)

- Design vertical connection between TS 8 x 4 to 1" shield:

Maximum loads @ node no. 60 (Beam B31 and B32): (Load Case 5)

$$F_x = 0 \quad F_y = 0.012 \text{ k} \quad F_z = 0.016 \text{ k}$$

$$M_x = 1.79 \text{ k-in} \quad M_y = 0.032 \text{ k-in} \quad M_z = 0$$

$$A = 2(1) = 2$$

$$S_x = 1 \times 4 = 4 \text{ in}^2, \quad S_z = 1/3 = 0.33$$

$$M_x = M_{\text{TORSION}} = 1.79 + 0.016 \times 2 = 1.82 \text{ k-in}$$

$$V = 1.82/4 + 0.032/0.33 = 0.55 \text{ k}$$

$$W_o = 0.55/14.85 = 0.037, \quad 0.037(12)/3 = 0.148"$$

Use 3/16" weld, 3" @ 12" on center

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- Design connection between the HEME support and the 1" shield plate:

Maximum loads @ node no. 98 (Beam B5): (Load Case 4)

$$F_x = -0.807 \text{ k}$$

$$F_y = 0.069 \text{ k}$$

$$F_z = 0.949 \text{ k}$$

$$M_x = -1.63 \text{ k-in}$$

$$M_y = 1.00 \text{ k-in}$$

$$M_z = 1.18 \text{ k-in}$$

Weld section properties:

$$S_w = d^2/3 = 6^2/3 = 12 \text{ in}^2, \quad S_w = bd = 0.5(6) = 3 \text{ in}^2, \quad C_h = 0.25"$$

$$J_w = (b^3 + 3bd^2)/6 = [6.0^3 + 3(6)(0.50)^2]/6 = 36.75 \text{ in}^3$$

$$f_a = 0.807/2 + 1.0/12 + 1.18/3 = 0.88 \text{ ksi}$$

$$f_s = \{(0.069/2)^2 + [0.949 + 1.63(0.25)/36.75]^2\}^{1/2} = 0.96 \text{ ksi}$$

$$W_o = [(0.88^2 + 0.96^2) 1/2] / 14.58 = 0.089"$$

Use 3/16" weld all-around connection plate and 3/16", 4" long between the TS and the connection plate at the (4) sides of the slot (typ.)

CHECK LOCAL STRESSES IN THE W12 X 40 BEAMS: (Reference 1, Sections K1.1 and K1.8)EQ. K1-1, Stiffeners req'd if $t_f < 0.4 (P_{bf}/F_{yc})^{1/2}$,

$$t_f = 0.515", \quad 0.4 [12 \text{ k} (4/3)/36]^{1/2} = 0.27 \dots \text{No stiffeners required}$$

EQ. K1-8, Stiffeners req'd if $d_c > [4100 t_{wc}^3 (F_{yc})^{1/2}] / P_{bf}$

$$d_c = 12" - 2(1.25") = 9.5" > [4100 (0.295)^3 (36)^{1/2}] 12 (4/3) = 39.5"$$

.... No stiffeners required

Provide 3/8" stiffener plates, full height between the flanges at each side of W12 beam web at all TS columns, except at framing intersections of the W12 beams. Provide 1/4" fillet weld at (3) sides, each side at each stiffener plate.

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Checked 02/17/95

By G.J Zyn **87.2**

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CHECK THE 1/2" SKID COVER PLATE AT EACH EQUIPMENT ATTACHMENT LOCATION:

The 1/2" skid cover plate, provides the structural support for the minor equipment located on the equipment skid. The major equipment, such as the HEME, condenser and the moisture separator are supported directly by the primary/ secondary beams as part of the basic skid structure. The support/ anchorage system for the smaller equipment and miscellaneous supports (i.e pipe, electrical and instrumentation as listed), will be evaluated for direct attachment to the 1/2" plate. Supplemental, structural members will be provided as required. The supplemental, structural steel includes the support of the 1/2" plate to be provided to span the 10" gap between the equipment skid and the concrete curb.

DESCRIPTION	LOAD (kips)	HEIGHT (ft.)	SUPPORT LOCATION(S)		PLATE SPAN (ft.)
	Vert./Horiz.		x (ft.)	z (ft.)	
1) Recirc fan (FN-1361)	0.35/ 0.17	2.26	9.25	0.92	4.20/BM
2) Heat Coil (HC-1361)	0.15/ 0.07	2.26	0.75	4.08	4.08/BM
3) Air Receiver Tank (TK-1361)	0.15/ 0.07	1.50	9.50	7.75	4.83/BM
4) Rad. Monitor (RE-1362)	0.80/ 0.32	2.00	9.71	9.83	3.50

Support attachments ...ok based on the small magnitude of the applied loads.

- Design supplemental support beams at the perimeter of the skid to support the Mini Power panel/ Instrument Panel at the 10" gap:
The support beams are W12 x 40 wide-flange beams, cantilevered from the W12 primary and secondary members. The loading on the W12 beams includes the dead weight of the plate and the greater of a 100 lb/sf live load or the equipment weight (Mini Power Panel or Instrument Panel). Design of the W12 x 40 beams is adequate based on the previous calculations for the W12 beams.

NOTE:

- 1) Mini Power Panel: (Ref. Section E, drawing H-2-818678), Total weight, Wt.= 275 lbs, area occupied, 32" x 32".
- 2) Instrument Panel: (Reference drawing H-2-818588), Total Wt.= 300 lbs, area occupied is 24" x 30".

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CHECK DESIGN OF EQUIPMENT SUPPORTS: (Reference drawing H-2-818480, sht. 3 of 7)

- Recirculation Fan base support (FN-1361):

$$P_v = 350 \text{ lbs, } P_h \text{ (seismic)} = 171 \text{ lbs}$$

- Heating Coil base support (HC-1361): Critical check, individual TS 2x2 as column

$$P_v = 150 \text{ lbs, } P_h \text{ (seismic)} = 73 \text{ lbs}$$

Base supports for the Recirculation fan and the Heating Coil are acceptable by engineering judgment based on the small magnitude of the loads.

- Heat Exchanger (Condenser, HX-1361):

$$P_v = 5000 \text{ lbs, } P_h \text{ (seismic)} = 2447 \text{ lbs}$$

$$M_{\max} = 5.0 \text{ k/ } 4 + 2.45 \text{ (27")/13 (2)} = 3.79 \text{ k (1.5)} = 5.69 \text{ k}$$

$$M_{\max} = [2.45 \text{ k (2.25 ft x 12")}] / 4 = 16.54 \text{ k-in (1.5)} = 24.8 \text{ k-in}$$

$$kl/r = 1.0 \text{ (11")/ } 1.45 = 7.6, \text{ use 8, } F_a = 21.3 \text{ ksi}$$

$$f_a/F_a = (5.69 / 5.08) / 21.3 = 0.053 < 0.15 \dots \text{ok}$$

$$f_b = 24.8 / 5.35 = 4.6 \text{ ksi} \dots \text{negligible}$$

Check weld at leg support:

$$S_x = S_y = bd + d^2/3 = (4 \times 4) + 4^2/3 = 21.33 \text{ in}^2$$

$$f_w = [(2.45 \text{ k/ } 4 \times 16")^2 + (24.8 \text{ k-in/ } 21.33)^2]^{1/2} = 1.16 \text{ k/in}$$

$$f_w = 1.16 \text{ k/in} < f = 0.707 \text{ (1/4") } 14.85 \text{ ksi} = 2.62 \text{ k/in} \dots \text{weld ok}$$

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DESIGN LIFTING LUGS:

The rigging of the skid for transport to the design location will be accomplished using manufactured lifting rings at (4) specific locations on the primary beams of the equipment skid. The lifting rings are designed to accommodate rigging slings used in conjunction with a lifting frame for lifting the equipment skid for transport and placement at the design location. The lifted load at each of the (4) attachment points, as shown on drawing H-2-818455, sht. 1, is a maximum of 16,500 lbs per location. Pre-manufactured, heavy-duty, safety hoist rings (item HR-125) by the Crosby group, Inc., per page 101, catalog dated April 1994 (stock no. 1016986), with a work load limit of 24,000 lbs will be used. The hoist rings shall be provided each with a heavy hex nut per ASTM A-561 (grade 8) with UNC-3A thread.

Design lifting lug support at the skid:

Check tension on the 1/2" flange plates:

$$P_{max} \text{ (maximum load per lug)} = 16500 \text{ lbs}$$

$$M_{max} \text{ (applied)} = 16500 \text{ lbs} \times 7" = 116 \text{ k-in}$$

$$d, \text{ depth of member} = 12"$$

$$T = P_{max} = M_{max} / d = 116 / 12" = 9.7 \text{ kips}$$

$$A, \text{ (area of flange req'd)} = P_{max} / f_b = 9.7 / 24 \text{ ksi} = 0.40 \text{ in}^2$$

$$A \text{ provided} = 10" \times 1.0" = 10.0 \text{ in}^2 > 0.44 \text{ in}^2 \dots \text{ok}$$

Use flange plates, 1" x 10", top plate

Check tension on (2), 1/2" web plates:

$$P \text{ (axial load on each plate)} = 16500 \text{ lbs} / 2 = 8300 \text{ lbs} = 8.3 \text{ kips}$$

$$A, \text{ area req'd} = 8.3 \text{ k} / 24 \text{ ksi} = 0.35 \text{ in}^2$$

$$A \text{ provided} = 0.5" \times (3.75") = 1.88 \text{ in}^2 > 0.35 \text{ in}^2 \dots \text{ok}$$

Use (2)- 1/2" x 3 3/4" web plates

Check bending on built-up section: Note: Built-up section includes (2), 1/2" web plates and (1), 1" top flange plate.

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Determine centroid of the area at the critical section, 7" from the W12 centerline:

$$\bar{x} = \frac{[(5.25)(2)(0.5)(10.5)]_{A1} + [1(10)(11.0)]_{A2} + [3/8(6)(10.31)]_{A3}}{2(0.5)(10.5) + 1.0(10) + 3/8(6)}$$

$$\bar{x} = 8.28"$$

$$I_x = 2 [bd^3/12 + Ad^2]_{A1} + [bd^3/12 + Ad^2]_{A2} + [bd_3^3/12 + Ad^2]_{A3}$$

$$I_x = 2 [(0.5)(10.5)^3/12 + 10.5(0.5)(3.03)^2] + [(10)(1.0)^3/12 + (10)(1.0)(2.72)^2] + [(6)(3/8)^3/12 + (6)(3/8)(2.03)^2] =$$

$$I_x = 192.9 + 74.8 + 9.3 = 277 \text{ in}^4, \quad c = 8.28"$$

$$S_x = 277 / 8.28 = 33.5 \text{ in}^3$$

$$F_b = M_{max} / S_x = 116 / 33.5 = 3.47 \text{ ksi} < f_b = .6 (36 \text{ ksi}) = 21.6 \text{ ksi} \dots \text{ok}$$

Check critical welds as follows:

1) Web plates to the W12 web:

$$F_v = .707(.25)(70)(0.30) = 3.71 \text{ k/in} \times 2 = 7.42 \text{ k/in}$$

$$f_v = 8.3 \text{ k} / 10''(2) = 0.42 \text{ k/in} < 7.42 \dots \text{ok (conservative)}$$

2) Web plates to the flange plates:

$$f_h = V A_y / I_x n = 16.5 \text{ k} (1.0'')(10'')(2.72'') / 277 \text{ in}^4 (4)$$

$$f_h = 0.41 \text{ k/in} < 3.71 \text{ k/in} \dots \text{ok}$$

3) Full penetration flange to flange welds adequate, based on the previous design of the flange, since the welds are higher strength than the base material with equal thickness.

Provide built-up lugs at each lift point on the skid as shown per Attachment A, per drawing H-2-818455, sheets 1 of 5).

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Date 06/28/96

By M.R. Custer *MRC*Checked *7/17/96*By *[Signature]*

Location TANK 241-C-106

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DESIGN SKID ANCHORAGE:

The anchorage system for the HVAC skid assembly is provided through the use of 1.0 ft x 1.0 ft leveling plates and 1" dia. embedded anchor bolts. The design of the embedded anchor bolts are based on the use of (12) anchors and the following:

- Total horizontal shear force (global) on the skid = 30.0 kips
Shear force per anchor is $30.0 / 12 = 2.5$ kips

- Maximum vertical force (global) on the skid anchors, results from the 30 kip horizontal, seismic component (East-West direction), acting at the center of gravity of the skid assembly, 4.79 ft above the centerline of the W12 skid beams (Figure 5). The tension force/ anchor is determined as follows:

- Forces on anchor bolts:

$$F + 0.63 F + 0.22 F = 0.14 F_1 + 0.59 F_1 + F_1$$

$$1.85 F = 1.73 F_1$$

$$F_1 = 1.069 F$$

Summation of moments about the Center of Gravity: $DL = 61.3 \text{ k} / 20.33 \text{ ft} = 3.03 \text{ k}$

$$30 \text{ k} (4.79 \text{ ft}) / 2 + 3.03 \text{ k} (12.39 \text{ ft}) / 2 - 3.03 \text{ k} (7.94 \text{ ft}) / 2 = F (11.26 \text{ ft})$$

$$+ 0.63F (7.09 \text{ ft}) + 0.22F (2.43 \text{ ft}) + 0.16F (1.24 \text{ ft}) + 0.63F (5.32 \text{ ft})$$

$$+ 1.07F (9.07 \text{ ft})$$

$$78.59 = 11.26F + 4.47F + 0.54F + 0.20F + 3.35F + 9.71F$$

$$F = 78.59 / 29.53 = 2.66 \text{ k}, F_1 = 1.07 (2.66 \text{ k}) = 2.85 \text{ k}$$

- Summary of the applied anchor loads: Shear = 2.50 k, Tension = 2.85 k

- Allowable anchor loads for 1" dia. A 307 embedded anchors per Reference 2, Table 26-E, page 547 (UBC 1991 Edition)

$$\text{Shear} = 4150 \text{ lbs}$$

$$\text{Tension} = 3200 \text{ lbs} \times 2 = 6400 \text{ lbs}$$

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- Check Combined Load equation:

$$[V/V(\text{allowable})]^{5/3} + [T/T(\text{allowable})]^{5/3} < \text{or} = 1.0 \quad (\text{Reference 2})$$

$$\text{then: } (2.5/4.15)^{5/3} + (2.85/6.4)^{5/3} = 0.43 + 0.26 = 0.69 < 1.0 \quad \dots \text{ok}$$

Use 12 - 1 " Dia. A 307 embedded anchor bolts w/ minimum 7" embedment,
minimum edge distance is 6" and minimum spacing of 12" with special inspection.

- Check pullout capacity of the concrete and compare to the maximum bolt capacity:

$$P_u(\text{concrete}) = A_e (4) (0.65) (4000)^{1/2}$$

$$\text{where, } A_e = 3.1416 [7^2 + 1.63(7)] = 189.8 \text{ in}^2$$

$$P_u(\text{concrete}) = 189.8 (4) (0.65) (63.25) = 31.2 \text{ k}$$

$$P_u(\text{steel}) = F_y A_t, A_t = 0.606 \text{ in}^2$$

$$P_u = 36 \text{ ksi } (0.606) = 21.8 \text{ k} < 31.2 \text{ k} \quad \dots \text{ok, Bolt will yield before concrete}$$

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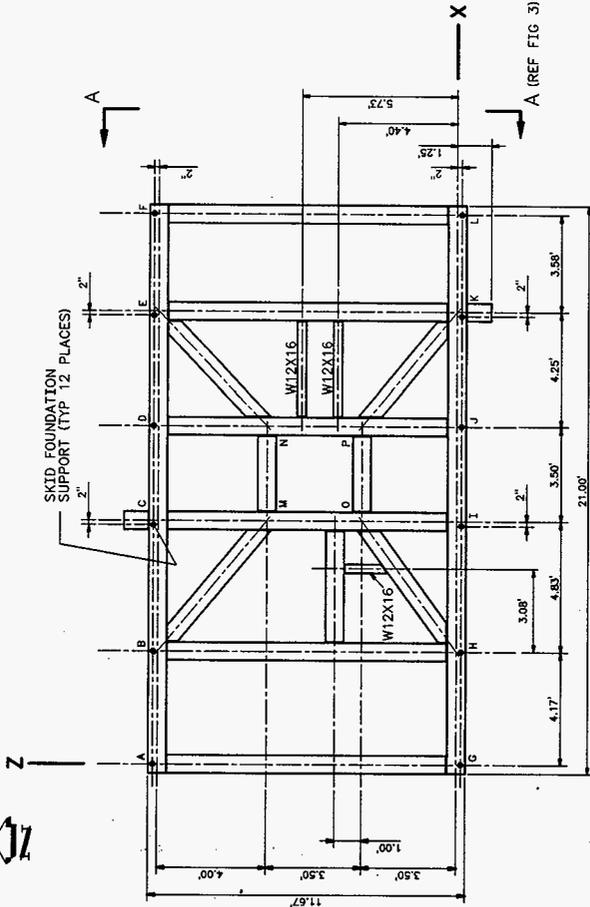
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Date: 05/17/94

Checked: 2/17/95

Revised:

By: M.R. Custer *MRC*
By: George J. Zyn *George J. Zyn*
By:



NOTE: ALL BEAMS ARE
W12X40 UNLESS NOTED

PLAN
FIGURE 1
(SKID FRAME CONFIGURATION)

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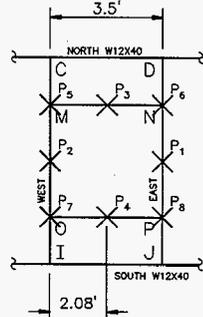
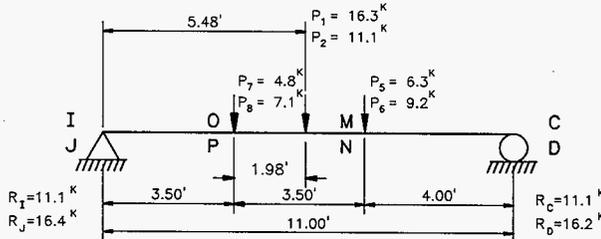
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 By: George P. Zyr *GPZ*
 By:

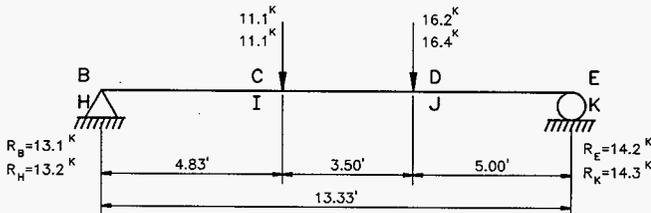
BEAM/LOAD CONFIGURATION FOR PRIMARY/
 SECONDARY BEAMS (RIGGING PHASE).

RIGGING LOAD (D.L.) = 54.8^K



SECONDARY BEAMS

$P = 54.8^K$
 $P_1 = (2.08'/3.5')(0.5)54.8^K = 16.3^K$
 $P_2 = (1.42'/3.5')(0.5)54.8^K = 11.1^K$
 $P_3 = (1.98'/3.5')(0.5)54.8^K = 15.5^K$
 $P_4 = (1.52'/3.5')(0.5)54.8^K = 11.9^K$
 $P_5 = (1.42'/3.5')P_3 = 6.3^K$
 $P_6 = (2.08'/3.5')P_3 = 9.2^K$
 $P_7 = (1.42'/3.5')P_4 = 4.8^K$
 $P_8 = (2.08'/3.5')P_4 = 7.1^K$
 $M_{MAX (I,P,N,D)} = 16.4^K(3.5 \text{ FT}) + (16.4^K - 7.1^K)(1.98\text{FT})$
 $M_{MAX (J,P,N,D)} = 75.8^K\text{-FT} = 910^K\text{-in}$



PRIMARY BEAMS

$M_{MAX (H,I,J,K)} = 13.2^K(4.83\text{FT}) + (13.2^K - 11.1^K)(3.5\text{FT})$
 $M_{MAX (H,I,J,K)} = 71.1^K\text{-FT} = 853^K\text{-in}$
 $M_{MAX (B,C,D,E)} = 70.3^K\text{-FT} = 843^K\text{-in}$

FIGURE 2

ICF KAISER HANFORD

DESIGN ANALYSIS

Calc. No.: W320-24-019

Revision: 0

Page No.: **31** of **36**

Client: WHC

Subject: Prefiltration/Recirculation Skid
Structural Design (Process Building)

Location: TANK 241-C-106

WO/Job No.: W-320/ER4319

Date: 05/17/94

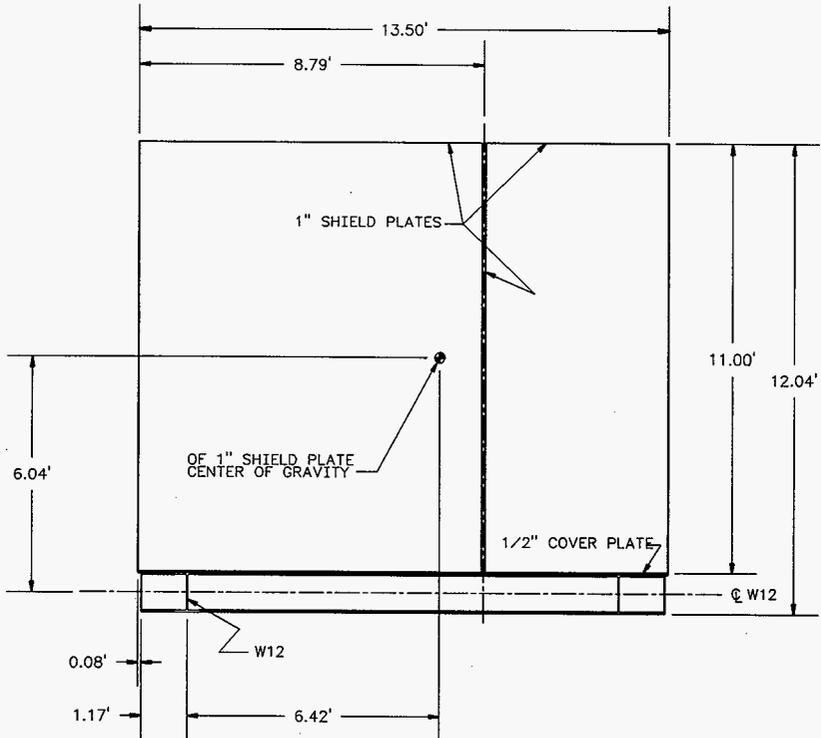
Checked: *2/17/95*

Revised:

By: M.R. Custer *MRC*

By: *George J. Dyer*

By:



ELEVATION A-A (REF FIG 1)

FIGURE 3

ICF KAISER HANFORD

DESIGN ANALYSIS

Calc. No.: W320-24-019

Revision: 0

Page No.: 32 of 36

Client: WHC

Subject: Prefiltration/Recirculation Skid

Structural Design (Process Building)

Location: TANK 241-C-106

WO/Job No.: W-320/ER4319

Date: 05/17/94

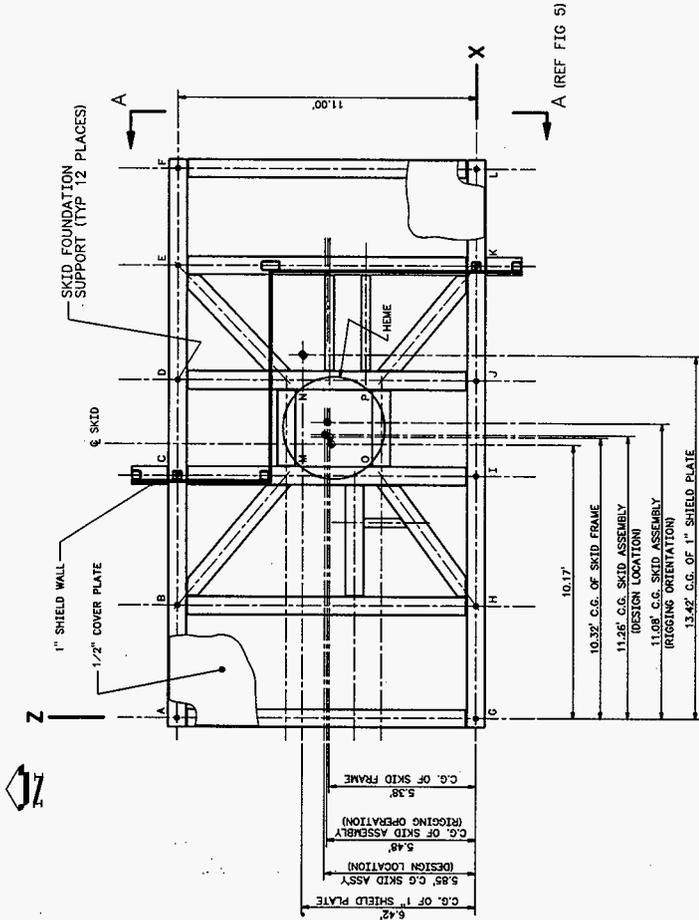
Checked: 2/17/95

Revised:

By: M.R. Custer *MRC*

By: *George J. Zyl*

By:



PLAN
FIGURE 4
 (SKID ASSEMBLY)

ICF KAISER HANFORD

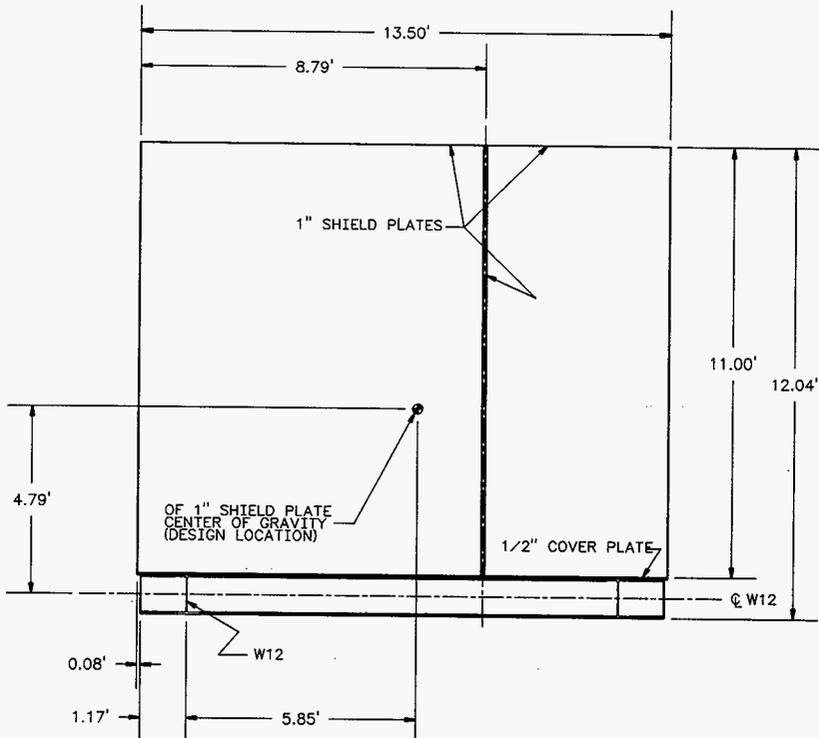
DESIGN ANALYSIS

Calc. No.: W320-24-019
 Revision: 0
 Page No.: **33** of **36**

Client: WHC
 Subject: Prefiltration/Recirculation Skid
 Structural Design (Process Building)
 Location: TANK 241-C-106

WO/Job No.: W-320/ER4319
 Date: 05/17/94
 Checked: *2/17/95*
 Revised:

By: M.R. Custer *MRC*
 By: *George J. Zym*
 By:



ELEVATION A-A (REF FIG 4)

FIGURE 5

ICF KAISER HANFORD

DESIGN ANALYSIS

Calc. No.: W320-24-019

Revision: 0

Page No.: 34 of 36

Client: WHC

Subject: Filtration/Recirculation Skid

Structural Design (Process Building)

Location: TANK 241-C-106

WO/Job No.: W-320/ER4319

Date: 05/17/94

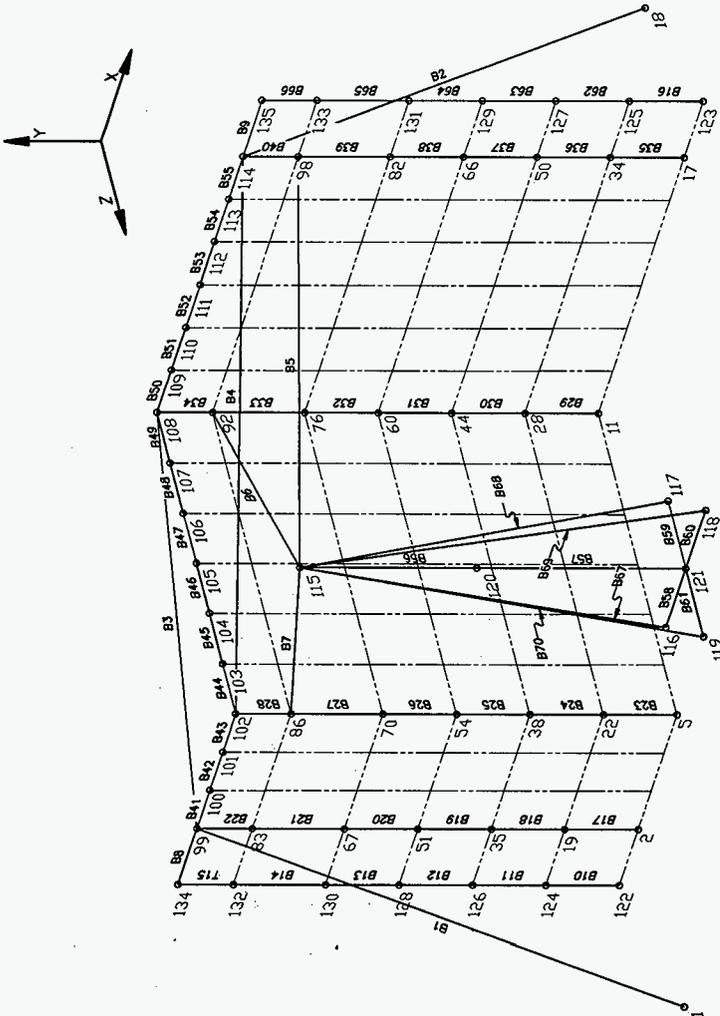
Checked: 2/17/95

Revised:

By: M.R. Custer

By: *George J. Custer*

By:



MEMBER CONNECTIVITY FOR FRAMING BEAMS

(BEAM AND TRUSS MEMBERS ONLY)

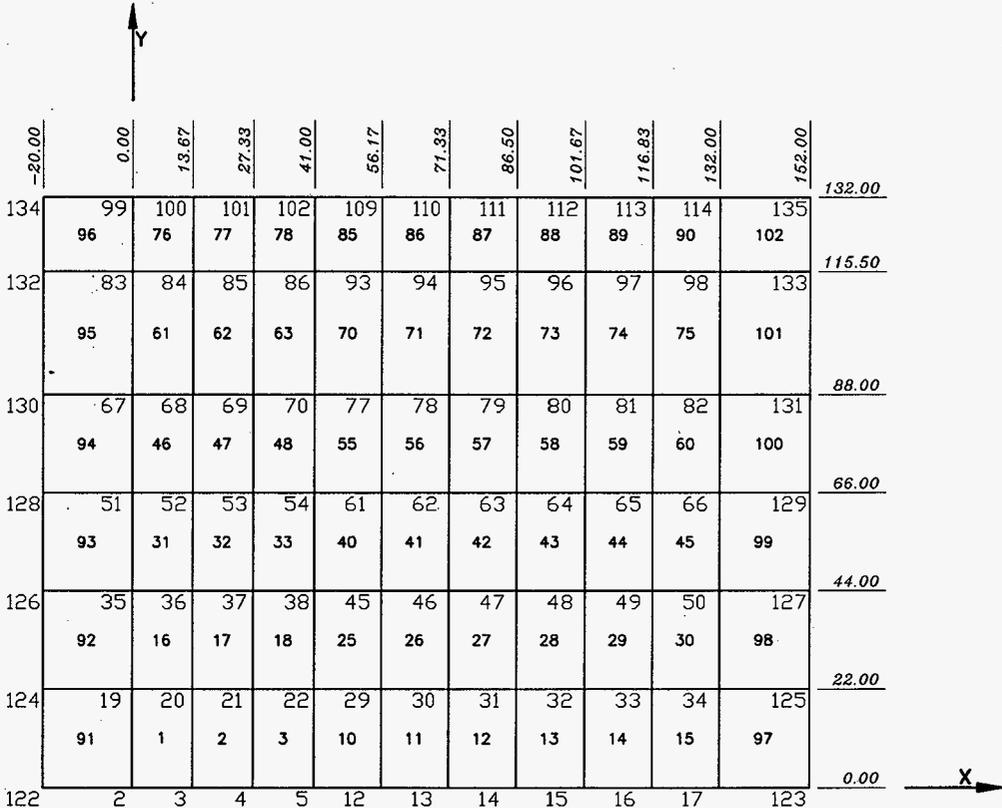
ICF KAISER HANFORD

DESIGN ANALYSIS

Client: WHC
 Subject: Perforation/Recirculation Skid
 Structural Design (Process Building)
 Location: TANK 241-C-106

WO/Job No.: W-320/ER4319
 Date: 05/17/94
 Checked: *2/17/95*
 Revised:

Calc. No.: W320-24-019
 Revision: 0
 Page No.: **35** of **36**
 By: M.R. Custer
 By: *page 35*
 By: *MLC*



NODE LOCATION AND ELEMENT CONNECTIVITY 46.0<Z<139.0

(SHIELD PLATE ONLY)

ICF KAISER HANFORD

DESIGN ANALYSIS

Calc. No.: W320-24-019

Revision: 0

Page No.: **36** of **36**

Client: WHC

Subject: Prefiltration/Recirculation Skid
Structural Design (Process Building)

Location: TANK 241-C-106

WO/Job No.: W-320/ER4319

Date: 05/17/94

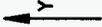
Checked: *2/17/95*

Revised:

By: M.R. Custer *MRC*

By: *George J. Coy*

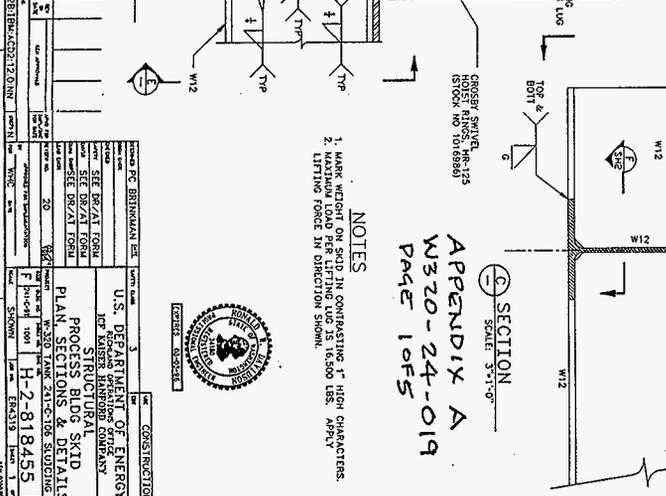
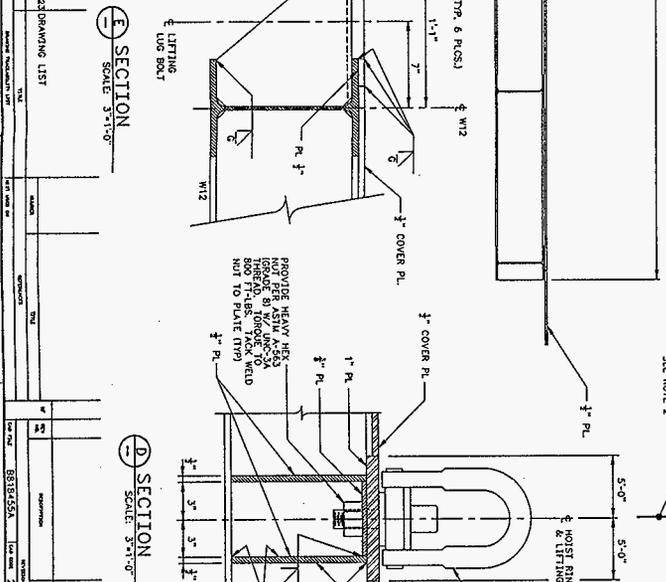
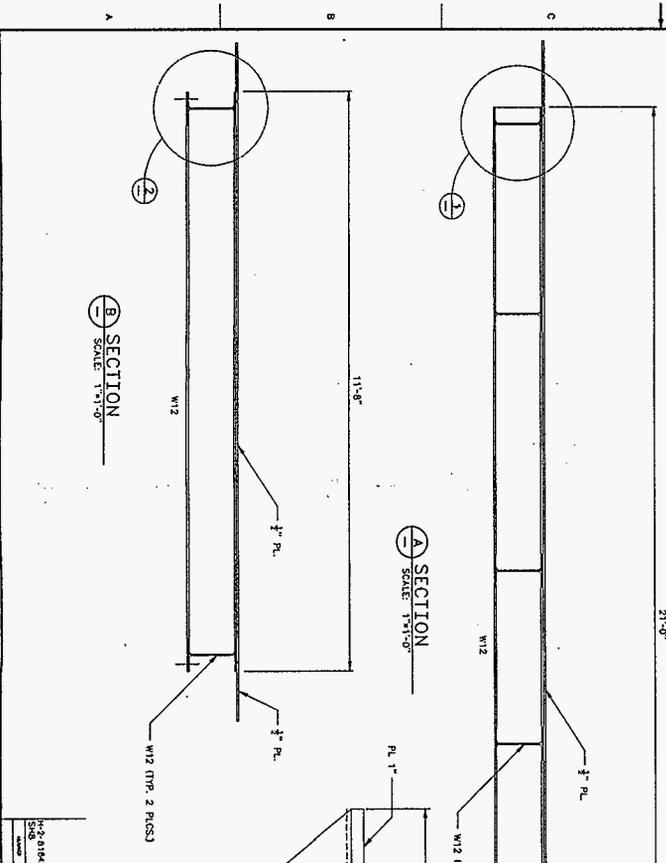
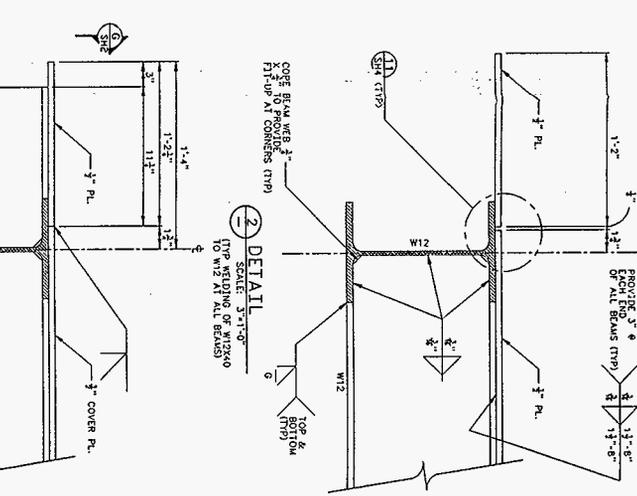
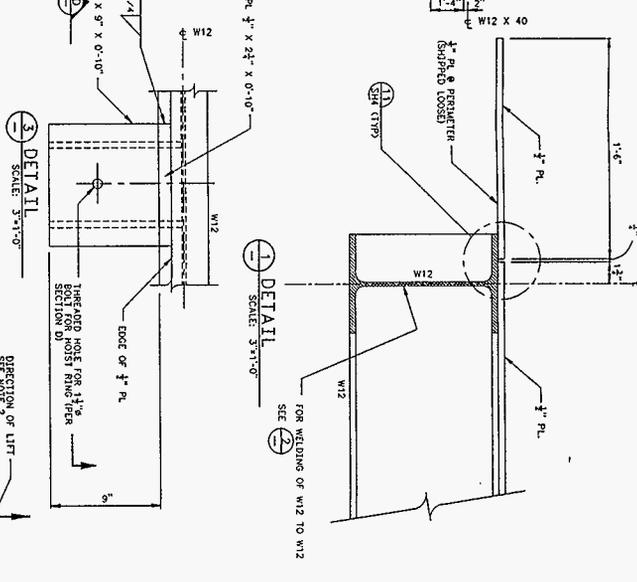
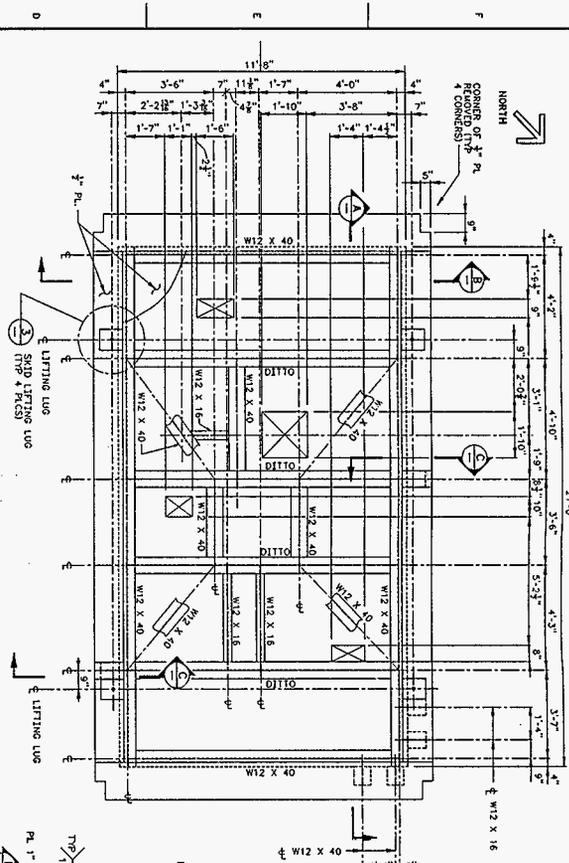
By:



139.00	102	103	104	105	106	107	108	46.00
	79	80	81	82	83	84		
	86	87	88	89	90	91	92	115.50
		64	65	66	67	68	69	
	70	71	72	73	74	75	76	88.00
		49	50	51	52	53	54	
	54	55	56	57	58	59	60	66.00
		34	35	36	37	38	39	
	38	39	40	41	42	43	44	44.00
		19	20	21	22	23	24	
	22	23	24	25	26	27	28	22.00
		4	5	6	7	8	9	
	5	6	7	8	9	10	11	0.00

NODE LOCATION AND ELEMENT CONNECTIVITY AT X=41.0
(SHIELD PLATE ONLY)



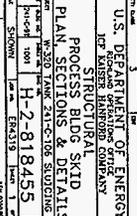


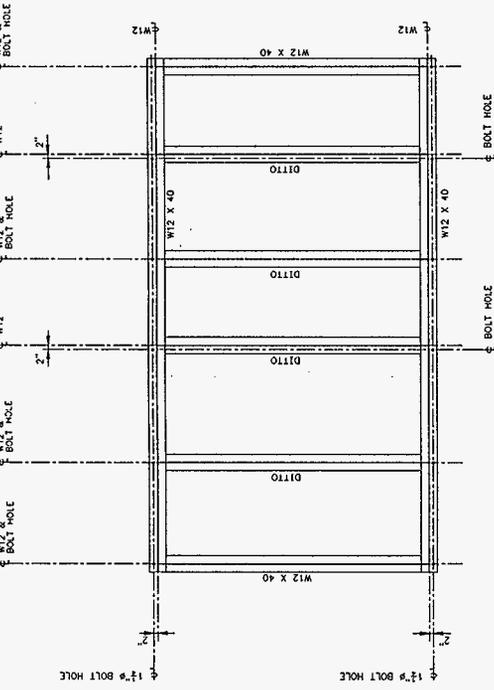
- NOTES**
1. MARK WEIGHT ON SHOP IN CONTRASTING 1" HIGH CHARACTERS.
 2. MAXIMUM LOAD PER LIFTING LEG IS 16,500 LBS. APPLY LIFTING FORCE IN OPPOSITE SENSE.

APPENDIX A
W320-24-019
PAGE 10FS

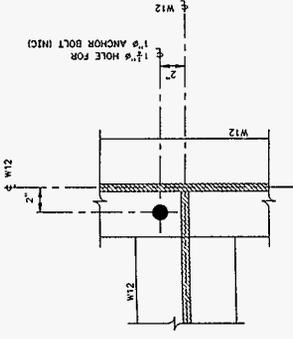
NO.	REVISION	DATE	BY	CHKD.	DESCRIPTION
1					ISSUED FOR CONSTRUCTION
2					FOR WELDING OF W12 TO W12

DESIGNED BY	PC BRINNAMAN	DATE	11/20/73
CHECKED BY	SEE DRAWING	DATE	11/20/73
APPROVED BY	SEE DRAWING	DATE	11/20/73
PROJECT NO.	W320-24-019	DATE	11/20/73
SCALE	AS SHOWN	DATE	11/20/73
PLANT NO.	H-2-818455	DATE	11/20/73
PROJECT TITLE	CONSTRUCTION	DATE	11/20/73
CLIENT	U.S. DEPARTMENT OF ENERGY	DATE	11/20/73
CONTRACT NO.	2818M(L)2312-019	DATE	11/20/73
PROJECT LOCATION	SEE DRAWING	DATE	11/20/73
PROJECT STATUS	CONSTRUCTION	DATE	11/20/73
PROJECT NO.	W320-24-019	DATE	11/20/73
PROJECT TITLE	CONSTRUCTION	DATE	11/20/73
CLIENT	U.S. DEPARTMENT OF ENERGY	DATE	11/20/73
CONTRACT NO.	2818M(L)2312-019	DATE	11/20/73
PROJECT LOCATION	SEE DRAWING	DATE	11/20/73
PROJECT STATUS	CONSTRUCTION	DATE	11/20/73

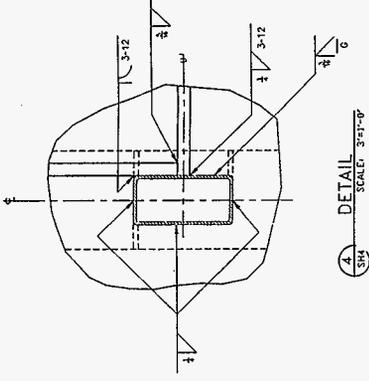




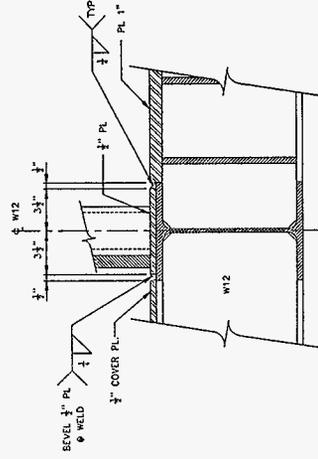
PLAN-SKID ANCHOR BOLT HOLE LOCATIONS-BOTT FLG.
SCALE: 1/2"=1'-0"



E SECTION
SCALE: 3/4"=1'-0"



A DETAIL
SCALE: 3/4"=1'-0"



G SECTION
SCALE: 3/4"=1'-0"

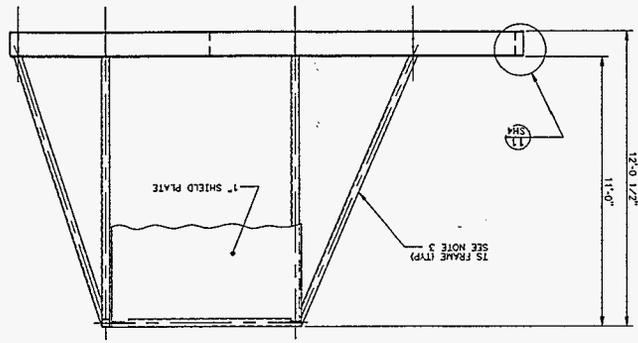
APPENDIX A
W320-24-019
PAGE 2 OF 5

NOTES
1. ANCHOR BOLTS FOR BOTT FLANGE OF SKID ARE INCLUDED IN OTHER CONTRACT PACKAGE.

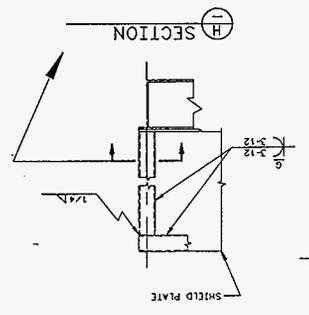
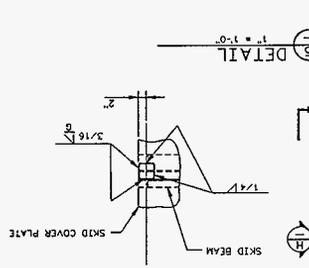
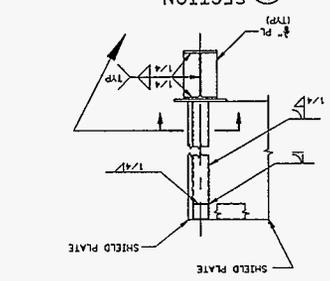
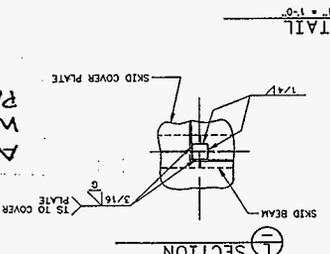
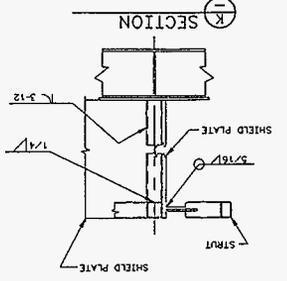
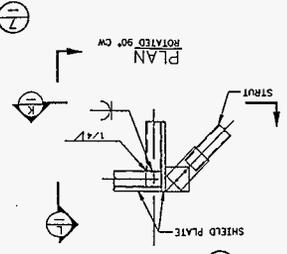
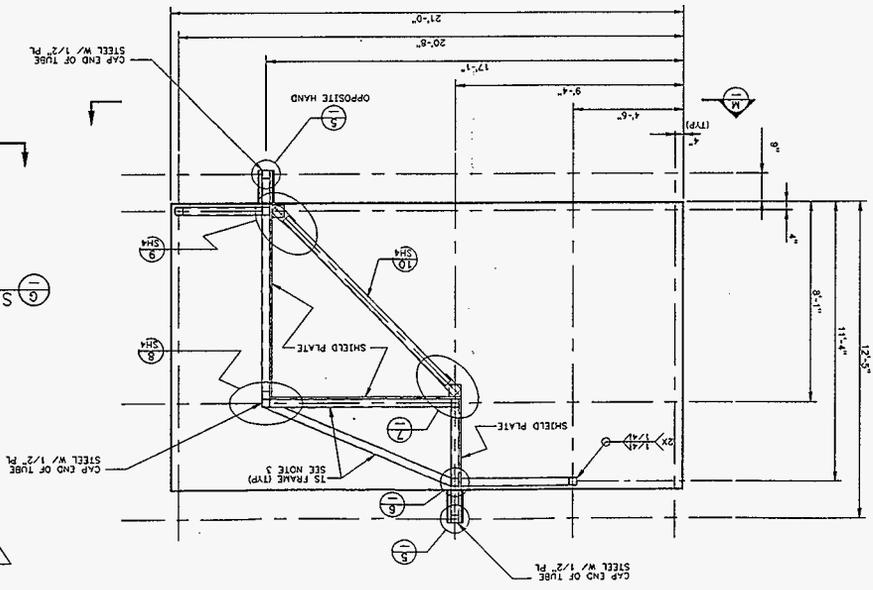


DESIGNED BY	PC BERTHOUDAN	DATE	11/20/23
CHECKED BY		DATE	
CONSTRUCTION			
U.S. DEPARTMENT OF ENERGY			
JOE KUBER HANNOB COMPANY			
PROCESS BLOC SKID			
PLAN SECTIONS & DETAILS			
PROJECT NO.	W-200 BANK 241-C-106 BUILDINGS	DATE	11/20/23
REV.		BY	
1		PC	
2		PC	
3		PC	
4		PC	
5		PC	
6		PC	
7		PC	
8		PC	
9		PC	
10		PC	
11		PC	
12		PC	
13		PC	
14		PC	
15		PC	
16		PC	
17		PC	
18		PC	
19		PC	
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21		PC	
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89		PC	
90		PC	
91		PC	
92		PC	
93		PC	
94		PC	
95		PC	
96		PC	
97		PC	
98		PC	
99		PC	
100		PC	

M ELEVATION-TS FRAME/SHIELD PLATE
SCALE 1/2" = 1'-0"



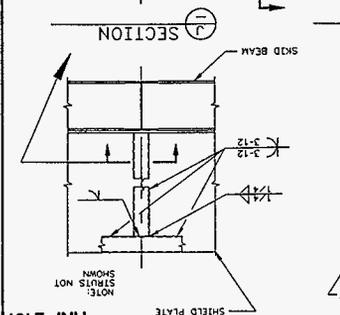
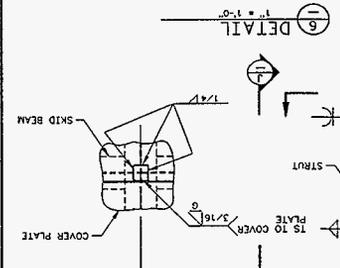
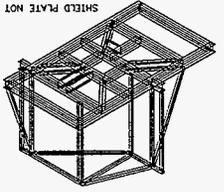
PLAN VIEW
SCALE 1/2" = 1'-0"



APPENDIX A
W320-24-019
PAGE 3 OF 5

- NOTES:
1. ALL MATERIALS AND FABRICATION ARE IN ACCORDANCE WITH SPECIFICATION W-320-CB.
 2. BOLTS ARE A325 WITH 81/16" HOLES. ALLOW 1/4" EDGE DISTANCE MINIMUM FOR HOLES.
 3. ALL FRAMING MEMBERS FURNISHED SHALL BE 15" X 15" X 1/4". EXCEPT AS NOTED ON SHM DETAIL 101.

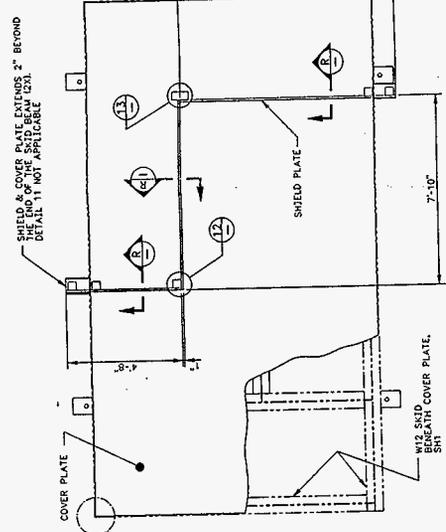
3-D VIEW NE
SCALE 3/16" = 1'-0"



NO.	REV.	DATE	BY	CHKD.	DESCRIPTION
1					CONSTRUCTION

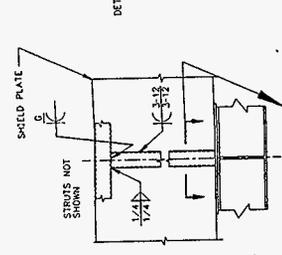
U.S. DEPARTMENT OF ENERGY
Kaiser Energy Service
JCP KAISER HARBOR COMPANY
STRUCTURAL
PROCESS BLDG SKID
PLAN, ELEV, SECTIONS & DETAILS
W-320-24-019
W-320-24-019-106
H-2-818455



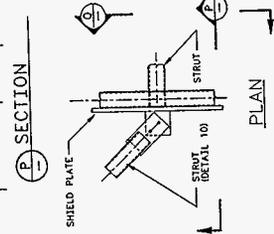


NOTE: SHIELD & COVER PLATE EXTENDS 2" BEYOND THE END OF THE SKID BEAM (23). DETAIL 11 NOT APPLICABLE.

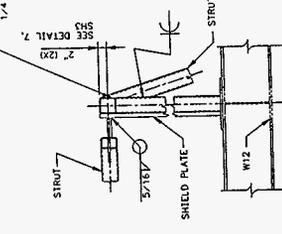
PLAN SHIELD PLATE
SCALE: 1/2" = 1'-0"



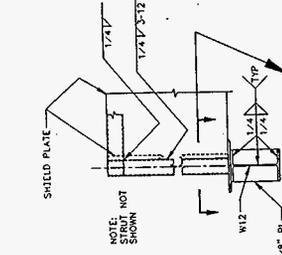
SECTION A-A
SCALE: 1" = 1'-0"



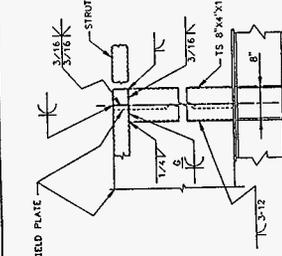
SECTION B-B
SCALE: 1" = 1'-0"



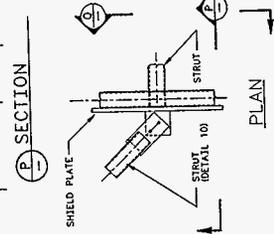
SECTION C-C
SCALE: 1" = 1'-0"



SECTION D-D
SCALE: 1" = 1'-0"



SECTION E-E
SCALE: 1" = 1'-0"



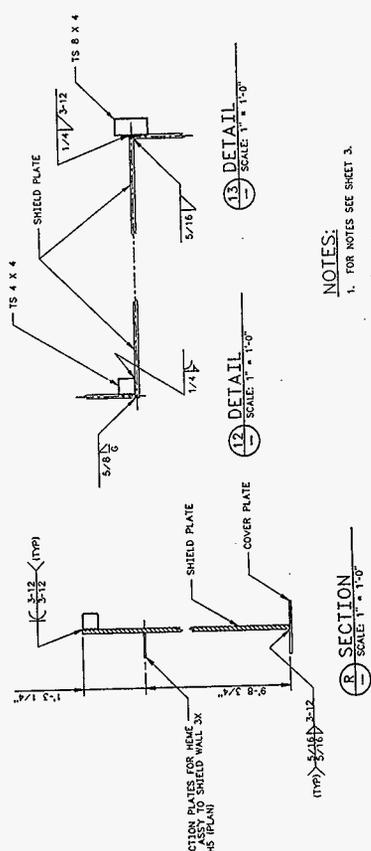
PLAN ROTATED 90° CW
SCALE: 1" = 1'-0"

DETAIL 8
SCALE: 1" = 1'-0"

DETAIL 9
SCALE: 1" = 1'-0"

DETAIL 12
SCALE: 1" = 1'-0"

DETAIL 13
SCALE: 1" = 1'-0"



SECTION R-R
SCALE: 1" = 1'-0"

NOTES:
1. FOR NOTES SEE SHEET 3.

APPENDIX A
W320-24-019
PAGE 4 OF 5

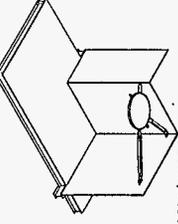


NO.	DATE	BY	CHKD.	CONSTRUCTION
1				
2				
3				

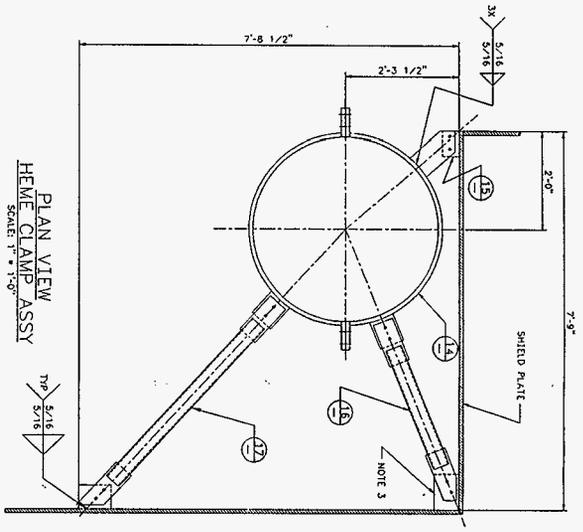
U.S. DEPARTMENT OF ENERGY
DOE KANSAS CITY OFFICE
PROCESS BLDG. SKID
PLAN, SECTIONS & DETAILS
NO. W-320 JANU. 241-C-106 BUILDING
JOB NO. H-2-818455
SHEET NO. 4 OF 5
DATE: 11/23/83
BY: [Signature]
CHKD.: [Signature]

DETAIL 10
SCALE: 1" = 1'-0"

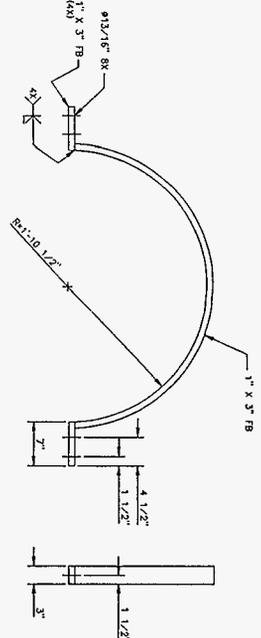
DETAIL 11
SCALE: 1" = 1'-0"



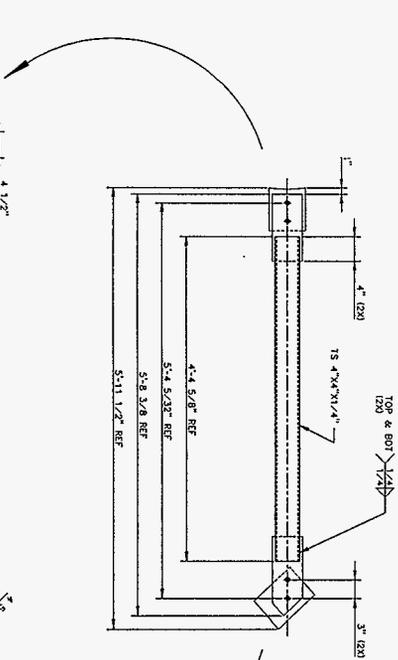
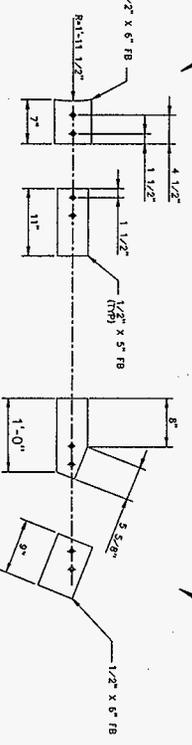
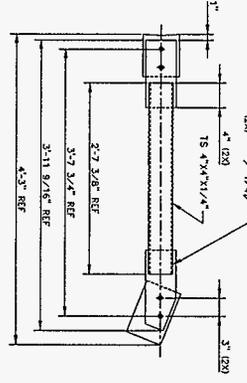
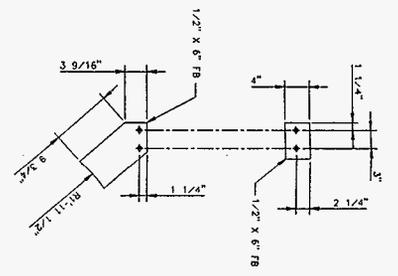
3-D VIEW NE
SCALE 3/16" = 1'-0"



14 DETAIL
SCALE 1 1/2" = 1'-0"
(2 ROUNDED)



15 DETAIL
SCALE 1/2" = 1'-0"



- NOTES:
1. FOR ADDITIONAL NOTES, SEE SHEET 3.
 2. FOR TYPICAL ELEVATION OF CLAMP ASSEMBLY CONNECTION PLATES TO SHIELD PLATE SEE VERBOR DRAWINGS.
 3. VERIFY BRACE LENGTHS AND LOCATIONS WITH VERBOR DRAWINGS PRIOR TO BRACE FABRICATION AND FIT-UP.

APPENDIX A
W320-24-019
PAGE 5 OF 5



REGISTERED PROFESSIONAL ENGINEER
STATE OF TENNESSEE
NO. 32323

NO.	DATE	DESCRIPTION	BY	CHKD.
1	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
2	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
3	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
4	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
5	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
6	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
7	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
8	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
9	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
10	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
11	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
12	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
13	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
14	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
15	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
16	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
17	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
18	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
19	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT
20	11/11/03	ISSUED FOR PERMITS	W. J. RUPERT	W. J. RUPERT

16 DETAIL
SCALE 1 1/2" = 1'-0"

17 DETAIL
SCALE 1 1/2" = 1'-0"

U.S. DEPARTMENT OF ENERGY
KBR KANSAS BARRON COMPANY
STRUCTURAL
PROCESS BLDG SKID
PLAN & DETAILS
H-2-818455
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MATERIAL PROPERTIES

Material No	Modulus of Elasticity	Weight Density	Coeff of Thermal Exp.	Poisson's Ratio	Shear Web Modulus
1	3.00000E+07	2.83000E-01	0.00000E+00	3.00E-01	1.12000E+07

NODE COORDINATES

Node	X-Coord.	Y-Coord.	Z-Coord.
1	0.00000E+00	0.00000E+00	1.94000E+02
2	0.00000E+00	0.00000E+00	1.39000E+02
3	1.36667E+01	0.00000E+00	1.39000E+02
4	2.73333E+01	0.00000E+00	1.39000E+02
5	4.10000E+01	0.00000E+00	1.39000E+02
6	4.10000E+01	0.00000E+00	1.23500E+02
7	4.10000E+01	0.00000E+00	1.08000E+02
8	4.10000E+01	0.00000E+00	9.25000E+01
9	4.10000E+01	0.00000E+00	7.70000E+01
10	4.10000E+01	0.00000E+00	6.15000E+01
11	4.10000E+01	0.00000E+00	4.60000E+01
12	5.61667E+01	0.00000E+00	4.60000E+01
13	7.13333E+01	0.00000E+00	4.60000E+01
14	8.65000E+01	0.00000E+00	4.60000E+01
15	1.01667E+02	0.00000E+00	4.60000E+01
16	1.16833E+02	0.00000E+00	4.60000E+01
17	1.32000E+02	0.00000E+00	4.60000E+01
18	1.32000E+02	0.00000E+00	0.00000E+00
19	0.00000E+00	2.20000E+01	1.39000E+02
20	1.36667E+01	2.20000E+01	4.60000E+01
21	2.73333E+01	2.20000E+01	1.39000E+02
22	4.10000E+01	2.20000E+01	1.39000E+02
23	4.10000E+01	2.20000E+01	1.23500E+02
24	4.10000E+01	2.20000E+01	1.08000E+02
25	4.10000E+01	2.20000E+01	9.25000E+01
26	4.10000E+01	2.20000E+01	7.70000E+01
27	4.10000E+01	2.20000E+01	6.15000E+01
28	4.10000E+01	2.20000E+01	4.60000E+01
29	5.61667E+01	2.20000E+01	4.60000E+01
30	7.13333E+01	2.20000E+01	4.60000E+01

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Node	X-Coord.	Y-Coord.	Z-Coord.
31	8.65000E+01	4.20000E+01	4.60000E+01
32	1.01667E+02	2.20000E+01	4.60000E+01
33	1.16833E+02	2.20000E+01	4.60000E+01
34	1.32000E+02	2.20000E+01	4.60000E+01
35	0.00000E+00	4.40000E+01	1.39000E+02
36	1.36667E+01	4.40000E+01	1.39000E+02
37	2.73333E+01	4.40000E+01	1.39000E+02
38	4.10000E+01	4.40000E+01	1.39000E+02
39	4.10000E+01	4.40000E+01	1.23500E+02
40	4.10000E+01	4.40000E+01	1.08000E+02
41	4.10000E+01	4.40000E+01	9.25000E+01
42	4.10000E+01	4.40000E+01	7.70000E+01
43	4.10000E+01	4.40000E+01	6.15000E+01
44	4.10000E+01	4.40000E+01	4.60000E+01
45	5.61667E+01	4.40000E+01	4.60000E+01
46	7.13333E+01	4.40000E+01	4.60000E+01
47	8.65000E+01	4.40000E+01	4.60000E+01
48	1.01667E+02	4.40000E+01	4.60000E+01
49	1.16833E+02	4.40000E+01	4.60000E+01
50	1.32000E+02	4.40000E+01	4.60000E+01
51	0.00000E+00	6.60000E+01	1.39000E+02
52	1.36667E+01	6.60000E+01	1.39000E+02
53	2.73333E+01	6.60000E+01	1.39000E+02
54	4.10000E+01	6.60000E+01	1.39000E+02
55	4.10000E+01	6.60000E+01	1.23500E+02
56	4.10000E+01	6.60000E+01	1.08000E+02
57	4.10000E+01	6.60000E+01	9.25000E+01
58	4.10000E+01	6.60000E+01	7.70000E+01
59	4.10000E+01	6.60000E+01	6.15000E+01
60	4.10000E+01	6.60000E+01	4.60000E+01
61	5.61667E+01	6.60000E+01	4.60000E+01
62	7.13333E+01	6.60000E+01	4.60000E+01
63	8.65000E+01	6.60000E+01	4.60000E+01
64	1.01667E+02	6.60000E+01	4.60000E+01
65	1.16833E+02	6.60000E+01	4.60000E+01
66	1.32000E+02	6.60000E+01	4.60000E+01
67	0.00000E+00	8.80000E+01	1.39000E+02
68	1.36667E+01	8.80000E+01	1.39000E+02
69	2.73333E+01	8.80000E+01	1.39000E+02
70	4.10000E+01	8.80000E+01	1.39000E+02
71	4.10000E+01	8.80000E+01	1.23500E+02
72	4.10000E+01	8.80000E+01	1.08000E+02

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CHECK GEOMETRY

Z-Coord. Y-Coord. X-Coord.

115	6.9000E+01	1.15500E+02	1.18000E+02
116	4.8000E+00	1.39000E+02	1.18000E+02
117	6.9000E+00	0.08000E+00	9.70000E+01
118	9.00000E+01	0.00000E+00	1.18000E+02
119	6.90000E+01	0.00000E+00	1.39000E+02
120	6.90000E+01	6.25000E+01	1.18000E+02
121	6.90000E+01	0.00000E+00	1.18000E+02
122	-2.90000E+01	0.00000E+00	4.60000E+01
123	-2.90000E+01	2.20000E+01	1.39000E+02
124	-2.00000E+01	2.20000E+01	4.60000E+01
125	1.52000E+02	2.20000E+01	4.60000E+01
126	2.00000E+01	4.20000E+01	1.39000E+02
127	-1.52000E+02	4.45000E+01	4.60000E+01
128	-2.00000E+01	6.60000E+01	1.39000E+02
129	-1.52000E+02	8.80000E+01	1.39000E+02
130	-1.00000E+01	8.80000E+01	4.60000E+01
131	1.55000E+02	8.80000E+01	4.60000E+01
132	-2.00000E+01	1.15500E+02	1.39000E+02
133	1.52000E+02	1.15500E+02	4.60000E+01
134	-2.00000E+01	1.32000E+02	1.39000E+02
135	1.52000E+02	1.32000E+02	4.60000E+01

BEAM PROPERTIES

Multiplier = 1 (For AISC database properties only)

No	Area	Iy	Iz	Torsional
Prop	X-section	Moment	Moment of Inertia	
1	3.599E+00	8.220E+00	1.318E+01	
2	5.599E+00	4.510E+01	3.672E+01	
3	3.520E+01	8.798E+03	1.760E+04	

Pro	Max. Fiber Dist	Shear Shape Factor	Cy / Cx	Sy / Sx	Sy / Sx	Sy / Sx
1	2.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	2.00E+00
2	4.00E+00	3.11E+00	2.80E+00	1.00E+00	3.11E+00	2.00E+00
3	2.24E+01	2.24E+01	2.00E+00	2.00E+00	1.00E+00	2.00E+00

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CHECK GEOMETRY

Z-Coord. Y-Coord. X-Coord.

73	4.10000E+01	8.50000E+01	9.25000E+01	4.60000E+01
74	4.10000E+01	8.80000E+01	7.70000E+01	4.60000E+01
75	4.10000E+01	8.80000E+01	4.60000E+01	4.60000E+01
76	5.61667E+01	8.80000E+01	4.60000E+01	4.60000E+01
77	4.10000E+01	8.80000E+01	4.60000E+01	4.60000E+01
78	8.65000E+01	8.80000E+01	4.60000E+01	4.60000E+01
79	7.13333E+01	8.80000E+01	4.60000E+01	4.60000E+01
80	1.01667E+02	8.80000E+01	4.60000E+01	4.60000E+01
81	1.16833E+02	8.80000E+01	4.60000E+01	4.60000E+01
82	1.32000E+02	1.15500E+02	1.15500E+02	4.60000E+01
83	1.36667E+01	1.15500E+02	1.15500E+02	4.60000E+01
84	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
85	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
86	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
87	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
88	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
89	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
90	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
91	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
92	4.10000E+01	1.15500E+02	1.15500E+02	4.60000E+01
93	5.61667E+01	1.15500E+02	1.15500E+02	4.60000E+01
94	7.13333E+01	1.15500E+02	1.15500E+02	4.60000E+01
95	8.65000E+01	1.15500E+02	1.15500E+02	4.60000E+01
96	1.01667E+02	1.15500E+02	1.15500E+02	4.60000E+01
97	1.16833E+02	1.15500E+02	1.15500E+02	4.60000E+01
98	1.32000E+02	1.15500E+02	1.15500E+02	4.60000E+01
99	0.00000E+00	1.15500E+02	1.15500E+02	1.15500E+02
100	1.36667E+01	1.32000E+02	1.32000E+02	1.32000E+02
101	2.73333E+01	1.32000E+02	1.32000E+02	1.32000E+02
102	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
103	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
104	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
105	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
106	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
107	4.10000E+01	1.32000E+02	1.32000E+02	1.32000E+02
108	4.10000E+01	4.60000E+01	4.60000E+01	4.60000E+01
109	5.61667E+01	4.60000E+01	4.60000E+01	4.60000E+01
110	7.13333E+01	4.60000E+01	4.60000E+01	4.60000E+01
111	8.65000E+01	4.60000E+01	4.60000E+01	4.60000E+01
112	1.01683E+02	4.60000E+01	4.60000E+01	4.60000E+01
113	1.16833E+02	4.60000E+01	4.60000E+01	4.60000E+01
114	1.32000E+02	4.60000E+01	4.60000E+01	4.60000E+01

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BEAM CONNECTIVITY

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid End I / J	Offset I / J	Length	Beam Type
1	1 99 2	1	1		0.00E+00	0.00E+00	0.14E+03	Beam
2	18 114 17	1	1		0.00E+00	0.00E+00	0.14E+03	Beam
3	99 108 92	1	1		0.00E+00	0.00E+00	0.10E+03	Beam
4	114 102 86	1	1		0.00E+00	0.00E+00	0.13E+03	Beam
5	98 115 120	1	1		0.00E+00	0.00E+00	0.95E+02	Beam
6	92 115 120	1	1		0.00E+00	0.00E+00	0.77E+02	Beam
7	86 115 120	1	1		0.00E+00	0.00E+00	0.35E+02	Beam
8	134 99 2	1	1		0.00E+00	0.00E+00	0.20E+02	Beam
9	135 114 17	1	1		0.00E+00	0.00E+00	0.20E+02	Beam
10	122 124 19	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
11	124 126 35	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
12	126 128 51	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
13	128 130 67	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
14	130 132 83	1	1		0.00E+00	0.00E+00	0.28E+02	Beam
15	132 134 99	1	1	NA NA	NA NA	NA	0.17E+02	Truss
16	123 125 34	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
17	2 19 20	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
18	19 35 36	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
19	35 51 52	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
20	51 67 68	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
21	67 83 84	1	1		0.00E+00	0.00E+00	0.28E+02	Beam
22	83 99 102	1	1		0.00E+00	0.00E+00	0.17E+02	Beam
23	5 22 21	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
24	22 38 37	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
25	38 54 53	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
26	54 73 69	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
27	70 86 85	1	1		0.00E+00	0.00E+00	0.28E+02	Beam
28	86 102 99	1	1		0.00E+00	0.00E+00	0.17E+02	Beam
29	11 28 27	2	1		0.00E+00	0.00E+00	0.22E+02	Beam
30	28 44 43	2	1		0.00E+00	0.00E+00	0.22E+02	Beam
31	44 60 59	2	1		0.00E+00	0.00E+00	0.22E+02	Beam
32	60 76 75	2	1		0.00E+00	0.00E+00	0.22E+02	Beam
33	76 92 91	2	1		0.00E+00	0.00E+00	0.28E+02	Beam
34	92 108 102	2	1		0.00E+00	0.00E+00	0.17E+02	Beam
35	17 34 33	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
36	34 50 49	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
37	50 66 65	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
38	66 82 81	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
39	82 98 97	1	1		0.00E+00	0.00E+00	0.28E+02	Beam
40	98 114 113	1	1		0.00E+00	0.00E+00	0.17E+02	Beam
41	99 101 84	1	1		0.00E+00	0.00E+00	0.14E+02	Beam
42	100 101 85	1	1		0.00E+00	0.00E+00	0.14E+02	Beam
43	101 102 86	1	1		0.00E+00	0.00E+00	0.14E+02	Beam

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Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid End I / J	Offset I / J	Length	Beam Type
44	102 103 87	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
45	103 104 88	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
46	104 105 89	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
47	105 106 90	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
48	106 107 91	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
49	107 108 92	1	1		0.00E+00	0.00E+00	0.16E+02	Beam
50	108 109 93	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
51	109 110 94	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
52	110 111 95	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
53	111 112 96	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
54	112 113 97	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
55	113 114 98	1	1		0.00E+00	0.00E+00	0.15E+02	Beam
56	115 120 92	3	1		0.00E+00	0.00E+00	0.53E+02	Beam
57	120 121 92	3	1		0.00E+00	0.00E+00	0.63E+02	Beam
58	116 121 115	3	1		0.00E+00	0.00E+00	0.21E+02	Beam
59	117 121 115	3	1		0.00E+00	0.00E+00	0.21E+02	Beam
60	118 121 115	3	1		0.00E+00	0.00E+00	0.21E+02	Beam
61	119 121 115	3	1		0.00E+00	0.00E+00	0.21E+02	Beam
62	125 127 50	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
63	127 129 66	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
64	129 131 82	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
65	131 133 98	1	1		0.00E+00	0.00E+00	0.22E+02	Beam
66	133 135 114	1	1		0.00E+00	0.00E+00	0.17E+02	Beam
67	115 116 121	3	1		0.00E+00	0.00E+00	0.12E+03	Beam
68	115 117 121	3	1		0.00E+00	0.00E+00	0.12E+03	Beam
69	115 118 121	3	1		0.00E+00	0.00E+00	0.12E+03	Beam
70	115 119 121	3	1		0.00E+00	0.00E+00	0.12E+03	Beam

PLATE ELEMENT CONNECTIVITY

Plate No.	I	Nodes J K	Mat L	Thickness	Area	Shear Web Thickness	Aspect Ratio	Plate Type
QUAD 1	2	3 20 19	1	1.000E+00	3.007E+02		6.212E-01	M+B
QUAD 2	3	4 21 20	1	1.000E+00	3.007E+02		6.212E-01	M+B
QUAD 3	4	5 22 21	1	1.000E+00	3.007E+02		6.212E-01	M+B
QUAD 4	5	6 23 22	1	1.000E+00	3.410E+02		7.045E-01	M+B
QUAD 5	6	7 24 23	1	1.000E+00	3.410E+02		7.045E-01	M+B

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Plate No.	Nodes			Mat No.	Thickness	Area	Shear Web Thickness	Aspect Ratio	Plate Type
	I	J	K						
QJAD 6	7	8	25	24	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 7	8	9	26	25	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 8	9	10	27	26	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 9	10	11	28	27	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 10	11	12	29	28	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 11	12	13	30	29	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 12	13	14	31	30	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 13	14	15	32	31	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 14	15	16	33	32	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 15	16	17	34	33	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 16	19	20	36	35	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 17	20	21	37	36	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 18	21	22	38	37	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 19	22	23	39	38	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 20	23	24	40	39	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 21	24	25	41	40	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 22	25	26	42	41	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 23	26	27	43	42	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 24	27	28	44	43	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 25	28	29	45	44	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 26	29	30	46	45	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 27	30	31	47	46	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 28	31	32	48	47	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 29	32	33	49	48	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 30	33	34	50	49	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 31	35	36	52	51	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 32	36	37	53	52	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 33	37	38	54	53	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 34	38	39	55	54	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 35	39	40	56	55	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 36	40	41	57	56	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 37	41	42	58	57	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 38	42	43	59	58	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 39	43	44	60	59	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 40	44	45	61	60	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 41	45	46	62	61	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 42	46	47	63	62	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 43	47	48	64	63	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 44	48	49	65	64	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 45	49	50	66	65	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 46	51	52	68	67	1.000E+00	3.007E+02	6.212E-01	M+B	

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Plate No.	Nodes			Mat No.	Thickness	Area	Shear Web Thickness	Aspect Ratio	Plate Type
	I	J	K						
QJAD 47	52	53	69	68	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 48	53	54	70	69	1.000E+00	3.007E+02	6.212E-01	M+B	
QJAD 49	54	55	71	70	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 50	55	56	72	71	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 51	56	57	73	72	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 52	57	58	74	73	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 53	58	59	75	74	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 54	59	60	76	75	1.000E+00	3.410E+02	7.045E-01	M+B	
QJAD 55	60	61	77	76	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 56	61	62	78	77	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 57	62	63	79	78	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 58	63	64	80	79	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 59	64	65	81	80	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 60	65	66	82	81	1.000E+00	3.337E+02	6.894E-01	M+B	
QJAD 61	67	68	84	83	1.000E+00	3.758E+02	4.970E-01	M+B	
QJAD 62	68	69	85	84	1.000E+00	3.758E+02	4.970E-01	M+B	
QJAD 63	69	70	86	85	1.000E+00	3.758E+02	4.970E-01	M+B	
QJAD 64	70	71	87	86	1.000E+00	4.263E+02	5.636E-01	M+B	
QJAD 65	71	72	88	87	1.000E+00	4.263E+02	5.636E-01	M+B	
QJAD 66	72	73	89	88	1.000E+00	4.263E+02	5.636E-01	M+B	
QJAD 67	73	74	90	89	1.000E+00	4.263E+02	5.636E-01	M+B	
QJAD 68	74	75	91	90	1.000E+00	4.263E+02	5.636E-01	M+B	
QJAD 69	75	76	92	91	1.000E+00	2.653E+02	5.636E-01	M+B	
QJAD 70	76	77	93	92	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 71	77	78	94	93	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 72	78	79	95	94	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 73	79	80	96	95	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 74	80	81	97	96	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 75	81	82	98	97	1.000E+00	4.171E+02	5.515E-01	M+B	
QJAD 76	83	84	100	99	1.000E+00	2.255E+02	8.283E-01	M+B	
QJAD 77	84	85	101	100	1.000E+00	2.255E+02	8.283E-01	M+B	
QJAD 78	85	86	102	101	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 79	86	87	103	102	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 80	87	88	104	103	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 81	88	89	105	104	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 82	89	90	106	105	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 83	90	91	107	106	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 84	91	92	108	107	1.000E+00	2.558E+02	9.394E-01	M+B	
QJAD 85	92	93	109	108	1.000E+00	2.503E+02	9.192E-01	M+B	
QJAD 86	93	94	110	109	1.000E+00	2.503E+02	9.192E-01	M+B	
QJAD 87	94	95	111	110	1.000E+00	2.502E+02	9.192E-01	M+B	

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Plate No.	Nodes			Mat L	No. Thickness	Area	Shear Web Thickness	Aspect Ratio	Plate Type
	I	J	K						
QUAD 88	95	96	112	111	1	1.000E+00	2.503E+02	9.192E-01	M+B
QUAD 89	96	97	113	112	1	1.000E+00	2.502E+02	9.192E-01	M+B
QUAD 90	97	98	114	113	1	1.000E+00	2.503E+02	9.192E-01	M+B
QUAD 91	122	2	19	124	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 92	124	19	35	126	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 93	126	35	51	128	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 94	128	51	67	130	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 95	130	67	83	132	1	1.000E+00	5.500E+02	7.273E-01	M+B
QUAD 96	132	83	99	134	1	1.000E+00	3.300E+02	1.212E+00	M+B
QUAD 97	17	123	125	34	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 98	34	125	127	50	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 99	50	127	129	66	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 100	66	129	131	82	1	1.000E+00	4.400E+02	9.091E-01	M+B
QUAD 101	82	131	133	98	1	1.000E+00	5.500E+02	7.273E-01	M+B
QUAD 102	98	133	135	114	1	1.000E+00	3.300E+02	1.212E+00	M+B

RESTRAINTS

Node No	Global/Local	Restraint Directions		
		X	Y	Z
1	GLOBAL	X	Y	Z
2	GLOBAL	X	Y	Z
3	GLOBAL	X	Y	Z
4	GLOBAL	X	Y	Z
5	GLOBAL	X	Y	Z
6	GLOBAL	X	Y	Z
7	GLOBAL	X	Y	Z
8	GLOBAL	X	Y	Z
9	GLOBAL	X	Y	Z
10	GLOBAL	X	Y	Z
11	GLOBAL	X	Y	Z
12	GLOBAL	X	Y	Z
13	GLOBAL	X	Y	Z
14	GLOBAL	X	Y	Z
15	GLOBAL	X	Y	Z
16	GLOBAL	X	Y	Z
17	GLOBAL	X	Y	Z
18	GLOBAL	X	Y	Z
115	GLOBAL	X	Y	Z

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Node No	Global/Local	Restraint Directions		
		X	Y	Z
116	GLOBAL	X	Y	Z
117	GLOBAL	X	Y	Z
118	GLOBAL	X	Y	Z
119	GLOBAL	X	Y	Z
122	GLOBAL	X	Y	Z
123	GLOBAL	X	Y	Z

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L

LOAD CASE 1

UBC SEISMIC LOAD - NS & EW DIR.

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.3750E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.3750E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

CONCENTRATED LOADS

Node	Fx	Fy	Fz	Mx	My	Mz
120	.1125E+05	-.3000E+05	.1125E+05	.0000E+00	.0000E+00	.0000E+00

REFERENCE TEMPERATURE = .0000E+00

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LOAD CASE 2

GRAVITY LOAD

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.0000E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.0000E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

CONCENTRATED LOADS

Node	Fx	Fy	Fz	Mx	My	Mz
120	.0000E+00	-.3000E+05	.0000E+00	.0000E+00	.0000E+00	.0000E+00

REFERENCE TEMPERATURE = .0000E+00

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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	-.3750E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	-.3750E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

CONCENTRATED LOADS

Node	Fx	Fy	Fz	Mx	My	Mz
120	-.1125E+05	-.3000E+05	-.1125E+05	.0000E+00	.0000E+00	.0000E+00

REFERENCE TEMPERATURE = .0000E+00

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LOAD CASE 4

UBC SEISMIC LOAD - SN & EW DIR.

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	-.3750E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.3750E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

CONCENTRATED LOADS

Node	Fx	Fy	Fz	Mx	My	Mz
120	-.1125E+05	-.3000E+05	.1125E+05	.0000E+00	.0000E+00	.0000E+00

REFERENCE TEMPERATURE = .0000E+00

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LOAD CASE 5
 UBC SEISMIC LOAD - NS & WE

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.3750E+00	-1000E+01
Y	-.1000E+01	-1000E+01
Z	-.3750E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

CONCENTRATED LOADS

Node	Fx	Fy	Fz	Mx	My	Mz
120	.1125E+05	-.3000E+05	-.1125E+05	.0000E+00	.0000E+00	.0000E+00

REFERENCE TEMPERATURE = .0000E+00

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LOAD CASE 1
 UBC SEISMIC LOAD - NS & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
1	.2724E+02	-.7264E+02	.2724E+02	-.6659E+02	-.2697E+03	-.5993E+03
2	.2384E+02	-.6358E+02	.2384E+02	.1537E+02	.0000E+00	-.1537E+02
3	.1595E+02	-.4254E+02	.1595E+02	.0000E+00	.0000E+00	.0000E+00
4	.1595E+02	-.4254E+02	.1595E+02	.0000E+00	.0000E+00	.0000E+00
5	.2122E+02	-.5657E+02	.2122E+02	.1537E+02	.0000E+00	-.1537E+02
6	.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
7	.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
8	.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
9	.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
10	.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
11	.2443E+02	-.6513E+02	.2443E+02	.2395E+02	.0000E+00	-.2395E+02
12	.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
13	.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
14	.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
15	.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
16	.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
17	.2472E+02	-.6591E+02	.2472E+02	.1537E+02	.0000E+00	-.1537E+02
18	.2663E+02	-.7101E+02	.2663E+02	.1130E+04	.2042E+03	-.5858E+03
19	.4768E+02	-.1272E+02	.4768E+02	.0000E+00	.0000E+00	.0000E+00
20	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
21	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
22	.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
23	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
24	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
25	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
26	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
27	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
28	.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
29	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
30	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
31	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
32	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
33	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
34	.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
35	.4768E+02	-.1272E+03	.4768E+02	.0000E+00	.0000E+00	.0000E+00

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L
LOAD CASE 1
UBC SEISMIC LOAD - NS & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
37	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
38	.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
39	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
40	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
41	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
42	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
43	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
44	.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
45	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
46	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
47	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
48	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
49	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
50	.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
51	.4768E+02	-.1272E+03	.4768E+02	.0000E+00	.0000E+00	.0000E+00
52	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
53	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
54	.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
55	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
56	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
57	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
58	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
59	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
60	.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
61	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
62	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
63	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
64	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
65	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
66	.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
67	.5364E+02	-.1431E+03	.5364E+02	.8644E+01	.0000E+00	-.8644E+01
68	.3590E+02	-.9572E+02	.3590E+02	.0000E+00	.0000E+00	.0000E+00
69	.3590E+02	-.9572E+02	.3590E+02	.0000E+00	.0000E+00	.0000E+00
70	.4773E+02	-.1273E+03	.4773E+02	.8644E+01	.0000E+00	-.8644E+01
71	.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
72	.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
73	.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
74	.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
75	.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00

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L
LOAD CASE 1
UBC SEISMIC LOAD - NS & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	.5496E+02	-.1466E+03	.5496E+02	-.1346E+02	.0000E+00	-.1346E+02
77	.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
78	.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
79	.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
80	.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
81	.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
82	.5561E+02	-.1483E+03	.5561E+02	.8644E+01	.0000E+00	-.8644E+01
83	.4768E+02	-.1272E+03	.4768E+02	-.1537E+02	.0000E+00	.1537E+02
84	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
85	.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
86	.4910E+02	-.1309E+03	.4910E+02	.0000E+00	.0000E+00	.0000E+00
87	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
88	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
89	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
90	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
91	.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
92	.6357E+02	-.1695E+03	.6357E+02	.4470E+03	.1079E+03	-.1592E+03
93	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
94	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
95	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
96	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
97	.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
98	.6766E+02	-.1804E+03	.6766E+02	.5678E+03	.4101E+03	.5257E+03
99	.7090E+02	-.1891E+03	.7090E+02	.7423E+03	.1759E+03	.2727E+03
100	.1171E+02	-.4379E+02	.1171E+02	.0000E+00	.0000E+00	.0000E+00
101	.1171E+02	-.4379E+02	.1171E+02	.0000E+00	.0000E+00	.0000E+00
102	.4625E+02	-.1233E+03	.4625E+02	-.1053E+04	-.7618E+03	.9780E+03
103	.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
104	.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
105	.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
106	.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
107	.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
108	.4352E+02	-.1161E+03	.4352E+02	.8071E+03	.4327E+03	.3648E+03
109	.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
110	.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
111	.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
112	.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
113	.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
114	.7665E+02	-.2044E+03	.7665E+02	-.1144E+02	.5506E+03	.1583E+04
115	.1016E+04	-.2708E+04	.1016E+04	-.1875E+05	-.4635E+03	.1751E+05

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

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LOAD CASE 1

UBC SEISMIC LOAD - NS & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
116	.2585E+03	-.6893E+03	.2585E+03	.4221E+04	-.9047E+03	-.6633E+04
117	.2585E+03	-.6893E+03	.2585E+03	.6633E+04	.9047E+03	-.4221E+04
118	.2585E+03	-.6893E+03	.2585E+03	.4221E+04	-.9047E+03	-.1808E+04
119	.2585E+03	-.6893E+03	.2585E+03	.1808E+04	.9047E+03	-.4221E+04
120	-.1147E+05	-.3058E+05	-.1147E+05	-.3416E+03	.0000E+00	-.3416E+03
121	-.2734E+03	-.7297E+03	.2734E+03	.1216E+04	.0000E+00	-.1216E+04
122	.1586E+02	-.4231E+02	.1586E+02	.1537E+02	.0000E+00	-.1537E+02
123	.1586E+02	-.4231E+02	.1586E+02	.1537E+02	.0000E+00	-.1537E+02
124	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
125	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
126	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
127	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
128	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
129	.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
130	.3570E+02	-.9519E+02	.3570E+02	.8644E+01	.0000E+00	-.8644E+01
131	.3570E+02	-.9519E+02	.3570E+02	.8644E+01	.0000E+00	-.8644E+01
132	.3173E+02	-.8461E+02	.3173E+02	-.2401E+02	.0000E+00	.2401E+02
133	.3173E+02	-.8461E+02	.3173E+02	-.1537E+02	.0000E+00	.1537E+02
134	.1571E+02	-.4189E+02	.1571E+02	.0000E+00	-.1270E+02	-.3358E+02
135	.1571E+02	-.4189E+02	.1571E+02	-.8644E+01	-.1270E+02	.4251E+02

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

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LOAD CASE 1

UBC SEISMIC LOAD - NS & EW DIR.

DISPLACEMENTS

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
1	.0000E+00	.0000E+00	.0000E+00	.9036E-04	.2967E-04	-.1421E-03
2	.0000E+00	.0000E+00	.0000E+00	.2799E-03	.0000E+00	.0000E+00
3	.0000E+00	.0000E+00	.0000E+00	.1873E-03	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.7113E-04	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	.1021E-03	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	.2853E-03	.0000E+00	.0000E+00
14	.0000E+00	.0000E+00	.0000E+00	.4188E-03	.0000E+00	.0000E+00
15	.0000E+00	.0000E+00	.0000E+00	.4930E-03	.0000E+00	.0000E+00
16	.0000E+00	.0000E+00	.0000E+00	.4800E-03	.0000E+00	.0000E+00
17	.0000E+00	.0000E+00	.0000E+00	.4312E-03	.0000E+00	.0000E+00
18	.0000E+00	.0000E+00	.0000E+00	.1966E-03	.1100E-03	-.5184E-04
19	.6141E-04	-.5134E-05	.5645E-02	.2328E-03	.1149E-03	-.4276E-05
20	.6450E-04	-.2924E-04	.3702E-02	.1490E-03	.1694E-03	.0000E+00
21	.7194E-04	-.5586E-04	.1380E-02	.5482E-04	.1700E-03	.0000E+00
22	.8822E-04	-.1036E-03	.8813E-04	.6994E-05	.1839E-04	-.7063E-05
23	.9607E-03	-.5998E-04	.7040E-04	.3824E-04	.1302E-03	.0000E+00
24	.2714E-02	-.4131E-04	.6303E-04	.9819E-04	.9576E-04	.0000E+00
25	.4537E-02	-.2574E-02	.2574E-02	.5325E-04	.2602E-04	.0000E+00
26	.2634E-02	.1261E-04	.5720E-04	.9583E-04	.1006E-03	.0000E+00
27	.8452E-03	.4775E-05	.5726E-04	.3261E-04	.1302E-03	.0000E+00
28	.5722E-04	.3974E-04	.6337E-04	.5282E-05	.2925E-04	-.3999E-05
29	.5172E-04	.7937E-05	.2011E-02	.8111E-04	.2267E-03	.0000E+00
30	.5142E-04	-.6418E-05	.5435E-02	.2084E-03	.2245E-03	.0000E+00
31	.5247E-04	-.1682E-04	.8219E-02	.3281E-03	.1423E-03	.0000E+00
32	.5400E-04	-.2586E-04	.9566E-02	.3760E-03	.3323E-04	.0000E+00
33	.5619E-04	-.9428E-04	.9428E-02	.3771E-03	.1334E-04	.0000E+00
34	.6029E-04	-.4777E-04	.8487E-02	.3389E-03	.7048E-04	-.3576E-05
35	.1681E-03	-.8006E-05	.9549E-02	.1220E-03	.2045E-03	-.5338E-05
36	.1716E-03	-.5585E-04	.6145E-02	.7311E-04	.2934E-03	.0000E+00
37	.1807E-03	-.1074E-03	.2267E-02	.2570E-04	.2734E-03	.0000E+00
38	.1921E-03	-.1672E-03	.1714E-03	.1619E-05	.3235E-04	-.3181E-05
39	.1493E-02	-.1168E-03	.1582E-03	.1002E-04	-.1994E-03	.0000E+00
40	.4256E-02	-.7949E-04	.1467E-03	.4205E-04	-.1564E-03	.0000E+00

SOLVE DISPLACEMENTS Version 2.0 07/01/90

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 UBC SEISMIC LOAD - NS & EW DIR.
 LOAD CASE 1

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
41	.5421E-02	-.5082E-04	.1405E-03	.4641E-04	.6131E-05	.0000E+00
42	.4106E-02	-.2334E-04	.1385E-03	.3790E-04	.1634E-03	.0000E+00
43	.1298E-02	-.1055E-04	.1404E-03	.8509E-05	.1984E-03	.0000E+00
44	.1298E-03	.5745E-04	.1449E-03	.2730E-05	.4863E-04	-.3055E-05
45	.1251E-03	.1675E-04	.3214E-02	.2923E-04	.3551E-03	.0000E+00
46	.1220E-03	-.1066E-04	.8656E-02	.8443E-04	.3618E-03	.0000E+00
47	.9216E-03	.3047E-04	.1313E-01	.1179E-03	-.2275E-03	.0000E+00
48	.1234E-03	-.4852E-04	.1528E-01	.1430E-03	.5577E-04	.0000E+00
49	.1274E-03	-.6765E-04	.1504E-01	.1333E-03	.8621E-04	.0000E+00
50	.1344E-03	-.9293E-04	.1351E-01	.1169E-03	.1161E-03	-.3487E-05
51	.2937E-03	-.1256E-04	.1080E-01	-.8598E-05	.2439E-03	-.5981E-05
52	.2968E-03	-.7684E-04	.6841E-02	-.9825E-05	.3343E-03	.0000E+00
53	.3031E-03	-.1406E-03	.2515E-02	.3016E-05	.2981E-03	.0000E+00
54	.3106E-03	.2102E-03	.2546E-05	.5673E-05	.3171E-04	-.7283E-05
55	.1746E-02	-.1562E-03	.2443E-03	.1323E-04	-.2159E-03	.0000E+00
56	.4736E-02	-.1108E-03	.2361E-03	.1487E-05	-.1696E-03	.0000E+00
57	.6008E-02	-.7113E-04	.2299E-03	.7137E-05	.5689E-05	.0000E+00
58	.4550E-02	-.3173E-04	.2276E-03	.2365E-05	.1822E-03	.0000E+00
59	.1448E-02	.1056E-04	.2295E-03	.7119E-05	.2151E-03	.0000E+00
60	.2046E-03	.6252E-04	.2544E-03	.5344E-05	-.3694E-05	.0000E+00
61	.1280E-03	-.1981E-04	.2503E-02	-.1820E-05	.3771E-03	.0000E+00
62	.1986E-03	-.1330E-04	.9262E-02	-.2944E-04	-.3819E-03	.0000E+00
63	.1980E-03	-.4106E-04	.1385E-01	-.5219E-04	-.2223E-03	.0000E+00
64	.1999E-03	-.6643E-04	.1573E-01	-.1019E-03	-.2594E-04	.0000E+00
65	.2037E-03	-.9389E-04	.1513E-01	-.1252E-03	.1047E-03	.0000E+00
66	.2096E-03	-.1253E-03	.1334E-01	-.1315E-03	.1307E-03	-.2741E-05
67	.4274E-03	-.1637E-04	.9214E-02	-.1352E-03	.2260E-03	-.6094E-05
68	.4280E-03	-.1637E-04	.9214E-02	-.1352E-03	.2260E-03	.0000E+00
69	.4309E-03	-.1636E-03	.2176E-02	-.2784E-04	.2476E-03	.0000E+00
70	.4388E-03	-.2367E-03	.3352E-03	.1412E-05	.2095E-04	-.4385E-05
71	.1798E-02	-.1806E-03	.3317E-03	-.8810E-05	.1956E-03	.0000E+00
72	.4549E-02	-.1332E-03	.3244E-03	-.1829E-04	.1585E-03	.0000E+00
73	.5703E-02	-.8747E-04	.3184E-03	-.3505E-04	.9665E-05	.0000E+00
74	.4330E-02	-.4122E-04	.3143E-03	-.2224E-04	.1673E-03	.0000E+00
75	.1491E-02	.9768E-05	.3124E-03	.1116E-05	.1983E-03	.0000E+00
76	.2749E-03	.5948E-04	.3171E-03	.1662E-05	.4232E-04	-.2357E-05
77	.2730E-03	.1970E-04	.3047E-02	-.3974E-04	-.3167E-03	.0000E+00
78	.2721E-03	-.1647E-04	.7821E-02	-.1014E-03	-.3119E-03	.0000E+00
79	.2732E-03	-.4967E-04	.1136E-01	-.1744E-03	.1542E-03	.0000E+00
80	.2747E-03	-.8056E-04	.1213E-01	-.2249E-03	.5215E-04	.0000E+00
81	.2819E-03	-.1111E-03	.1040E-01	-.3047E-03	.1752E-03	.0000E+00

SOLVE DISPLACEMENTS Version 2.0 07/01/90

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 UBC SEISMIC LOAD - NS & EW DIR.
 LOAD CASE 1

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
82	.2854E-03	-.1473E-03	.8352E-02	-.3219E-03	.9438E-04	-.6844E-05
83	.5977E-03	-.1684E-04	.4268E-02	-.2238E-03	.1461E-03	-.7510E-05
84	.5958E-03	-.9390E-04	.2470E-02	-.1524E-03	.1168E-03	.0000E+00
85	.5915E-03	-.1712E-03	.1053E-02	-.5400E-04	.9033E-04	.0000E+00
86	.5802E-03	-.2542E-03	.4525E-03	.7303E-05	.2821E-05	-.5995E-05
87	.1717E-02	.2038E-03	.4349E-03	.3031E-05	.1430E-03	.0000E+00
88	.3447E-02	-.1511E-03	.4267E-03	-.6202E-04	.8058E-04	.0000E+00
89	.3962E-02	-.1008E-03	.4224E-03	-.9135E-04	.1425E-04	.0000E+00
90	.3041E-02	-.5280E-04	.4188E-03	-.7155E-04	.1046E-03	.0000E+00
91	.1227E-02	-.3041E-05	.4116E-03	-.1423E-04	.1298E-03	.0000E+00
92	.3502E-03	.6692E-04	.3926E-03	.4492E-05	.1683E-04	-.3798E-05
93	.3524E-03	-.1681E-04	.1882E-02	-.4363E-04	.1792E-03	.0000E+00
94	.3549E-03	.2173E-04	.4382E-02	-.1487E-03	.1508E-03	.0000E+00
95	.3581E-03	-.5793E-04	.5890E-02	-.2229E-03	.4813E-04	.0000E+00
96	.3629E-03	-.9397E-04	.5698E-02	-.2428E-03	.7326E-04	.0000E+00
97	.3722E-03	-.1300E-03	.3654E-02	-.1867E-03	.1969E-03	.0000E+00
98	.3900E-03	-.1647E-03	.1705E-02	-.1565E-03	.5861E-04	.1109E-04
99	.7001E-03	-.1390E-04	.8891E-03	-.1840E-03	.8959E-04	.1506E-05
100	.6981E-03	-.9337E-04	.9357E-03	-.1536E-03	.2902E-04	-.6732E-05
101	.7009E-03	-.1703E-03	.8530E-05	-.7300E-04	.1431E-04	-.5265E-05
102	.7130E-03	-.2576E-03	.4732E-03	-.9672E-05	.5526E-04	-.1148E-04
103	.1707E-02	-.2117E-03	.4835E-03	.5312E-05	-.7175E-04	.5263E-05
104	.2605E-02	-.1549E-03	.4830E-03	.3223E-05	-.4208E-04	.3914E-04
105	.2775E-02	-.1042E-03	.4798E-03	.3208E-05	.2041E-04	.5234E-04
106	.2049E-02	-.5575E-04	.4786E-03	.3112E-05	.7216E-04	.4821E-04
107	.9179E-03	-.8916E-05	.4835E-03	.2702E-05	.7894E-04	.2504E-04
108	.8961E-03	-.1061E-04	.5031E-04	.1061E-04	.4639E-05	.3504E-06
109	.3978E-03	.1491E-04	.1148E-02	-.4482E-04	.7592E-04	-.3208E-05
110	.3996E-03	-.2388E-04	.2286E-02	-.1044E-03	.7129E-04	-.2041E-05
111	.4026E-03	-.6092E-04	.2919E-02	-.1371E-03	.1101E-04	-.2455E-05
112	.4068E-03	-.9749E-04	.2524E-02	-.1412E-03	.6275E-04	-.2264E-05
113	.4103E-03	-.1389E-03	.1272E-02	-.1013E-03	.9926E-04	-.4758E-05
114	.4078E-03	-.1673E-03	-.1435E-03	-.7316E-04	.8703E-04	.1412E-04
115	.0000E+00	-.5297E-03	.0000E+00	-.8086E-04	.1908E-05	-.6806E-05
116	.0000E+00	.0000E+00	.0000E+00	.5573E-05	.3687E-06	-.7858E-05
117	.0000E+00	.0000E+00	.0000E+00	.7861E-05	.3548E-06	-.5572E-05
118	.0000E+00	.0000E+00	.0000E+00	.5575E-05	.3555E-06	-.2478E-05
119	.0000E+00	.0000E+00	.0000E+00	.2481E-05	.3680E-06	-.5570E-05
120	.2206E-02	-.1320E-02	.2207E-02	-.1706E-05	-.1334E-07	.7501E-05
121	.4596E-04	-.4419E-03	.4597E-04	.7520E-05	-.8606E-08	.1717E-05
122	.0000E+00	.0000E+00	.0000E+00	.3711E-03	.0000E+00	.0000E+00

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

L

LOAD CASE 1
 UBC SEISMIC LOAD - NS & EW DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
123	.0000E+00	.0000E+00	.0000E+00	-.3755E-03	.0000E+00	.0000E+00
124	.6776E-04	.4831E-04	.7697E-02	.3208E-03	.9038E-04	-.4368E-05
125	.7736E-04	.8661E-04	.7392E-02	.2947E-03	.3874E-04	-.4036E-05
126	.1698E-03	.7691E-04	.1322E-01	-.1806E-03	.1631E-03	-.5151E-05
127	.1457E-03	-.1428E-03	-.1172E-01	-.9764E-04	.6252E-04	-.2968E-05
128	.2941E-03	.9151E-04	.1529E-01	.6719E-05	.2055E-03	-.5882E-05
129	.2173E-03	-.1812E-03	.1147E-01	-.1200E-03	.5647E-04	-.3400E-05
130	.4278E-03	.9769E-04	.1366E-01	-.1540E-03	.2185E-03	-.6492E-05
131	.2949E-03	-.2060E-03	.7505E-02	-.2377E-03	-.9127E-05	-.3775E-05
132	.5993E-03	.9931E-04	.7807E-02	-.2706E-03	.2083E-03	-.5362E-05
133	.3814E-03	-.2105E-03	.1441E-02	-.2039E-03	.3025E-04	-.1787E-05
134	.6976E-03	.9745E-04	.3395E-02	-.2627E-03	.1917E-03	-.9112E-05
135	.4165E-03	-.2072E-03	-.1501E-02	-.1512E-03	.4722E-04	-.4481E-05

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LOAD CASE 2
 GRAVITY LOAD

Node	APPLIED LOAD VECTOR					
	Fx	Fy	Fz	Mx	My	Mz
1	.0000E+00	-.7264E+02	-.1705E-14	-.6659E+03	.0000E+00	.0000E+00
2	.0000E+00	-.6358E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
3	.0000E+00	-.4254E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
4	.0000E+00	-.4254E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
5	.0000E+00	-.5657E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	-.4825E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
7	.0000E+00	-.4825E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
8	.0000E+00	-.4825E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	-.4825E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	-.4825E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	-.6513E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	-.4721E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	-.4721E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
14	.0000E+00	-.4721E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
15	.0000E+00	-.4721E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
16	.0000E+00	-.4721E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
17	.0000E+00	-.6591E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
18	.0000E+00	-.7101E+02	-.4351E-14	.5444E+03	.0000E+00	.0000E+00
19	.0000E+00	.1272E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
20	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
21	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
22	.0000E+00	-.1131E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
23	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
24	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
25	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
26	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
27	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
28	.0000E+00	-.1303E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
29	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
30	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
31	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
32	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
33	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
34	.0000E+00	-.1318E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
35	.0000E+00	-.1272E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00

SOLVE DISPLACEMENTS Version 2.0 07/01/90

L

GRAVITY LOAD

LOAD CASE 2

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
37	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
38	.0000E+00	-.1131E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
39	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
40	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
41	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
42	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
43	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
44	.0000E+00	-.1303E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
45	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
46	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
47	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
48	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
49	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
50	.0000E+00	-.1318E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
51	.0000E+00	-.1272E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
52	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
53	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
54	.0000E+00	-.1131E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
55	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
56	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
57	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
58	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
59	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
60	.0000E+00	-.1303E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
61	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
62	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
63	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
64	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
65	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
66	.0000E+00	-.1318E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
67	.0000E+00	-.1431E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
68	.0000E+00	-.9372E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
69	.0000E+00	-.9372E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
70	.0000E+00	-.1273E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
71	.0000E+00	-.1086E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
72	.0000E+00	-.1086E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
73	.0000E+00	-.1086E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	-.1086E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
75	.0000E+00	-.1086E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00

SOLVE DISPLACEMENTS Version 2.0 07/01/90

L

GRAVITY LOAD

LOAD CASE 2

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	.0000E+00	-.1466E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
77	.0000E+00	-.1062E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
78	.0000E+00	-.1062E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
79	.0000E+00	-.1062E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
80	.0000E+00	-.1062E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
81	.0000E+00	-.1062E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
82	.0000E+00	-.1483E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
83	.0000E+00	-.1272E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
84	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
85	.0000E+00	-.8509E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
86	.0000E+00	-.1309E+03	.0000E+00	-.6223E+02	.0000E+00	-.8297E+02
87	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
88	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
89	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
90	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
91	.0000E+00	-.9650E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
92	.0000E+00	-.1695E+03	.0000E+00	.4709E+03	.0000E+00	-.1831E+03
93	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
94	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
95	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
96	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
97	.0000E+00	-.9443E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
98	.0000E+00	-.1804E+03	.0000E+00	.5832E+03	.0000E+00	.5103E+03
99	.0000E+00	-.1891E+03	-.1705E-14	-.1344E+03	.0000E+00	-.3348E+03
100	.0000E+00	-.4579E+02	.0000E+00	.0000E+00	.0000E+00	-.2207E-04
101	.0000E+00	-.4579E+02	.0000E+00	.0000E+00	.0000E+00	-.2207E-04
102	.0000E+00	-.5194E+02	.0000E+00	-.1155E+04	.0000E+00	-.9657E+03
103	.0000E+00	-.5194E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
104	.0000E+00	-.5194E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
105	.0000E+00	-.5194E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
106	.0000E+00	-.5194E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
107	.0000E+00	-.5194E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
108	.0000E+00	-.1161E+03	.0000E+00	.8206E+03	.0000E+00	.3333E+03
109	.0000E+00	-.5082E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
110	.0000E+00	-.5082E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
111	.0000E+00	-.5082E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
112	.0000E+00	-.5082E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
113	.0000E+00	-.5082E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
114	.0000E+00	-.2044E+03	-.4351E-14	.4801E+03	.0000E+00	.9881E+03
115	.0000E+00	-.2708E+04	.0000E+00	-.9919E+03	.0000E+00	-.2442E+03

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

L

GRAVITY LOAD

LOAD CASE 2

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
116	.2108E-13	-.6893E+03	.0000E+00	.0000E+00	.0000E+00	-.2413E+04
117	.0000E+00	-.6893E+03	.2108E-13	.2413E+04	.0000E+00	.0000E+00
118	-.2108E-13	-.6893E+03	.0000E+00	.0000E+00	.0000E+00	.2413E+04
119	.0000E+00	-.6893E+03	-.2108E-13	-.2413E+04	.0000E+00	.0000E+00
120	.0000E+00	-.3058E+05	.0000E+00	.0000E+00	.0000E+00	.0000E+00
121	.0000E+00	-.7297E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00
122	.0000E+00	-.4231E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
123	.0000E+00	-.4231E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
124	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
125	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
126	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
127	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
128	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
129	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
130	.0000E+00	-.9519E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
131	.0000E+00	-.9519E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
132	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
133	.0000E+00	-.8461E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
134	.0000E+00	-.4189E+02	.0000E+00	.0000E+00	.0000E+00	-.3387E+02
135	.0000E+00	-.4189E+02	.0000E+00	.0000E+00	.0000E+00	-.3387E+02

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

L

GRAVITY LOAD

LOAD CASE 2

DISPLACEMENTS

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
1	.0000E+00	.0000E+00	.0000E+00	-.1001E-03	.6827E-06	.1309E-05
2	.0000E+00	.0000E+00	.0000E+00	-.1036E-05	.0000E+00	.0000E+00
3	.0000E+00	.0000E+00	.0000E+00	-.2893E-06	.0000E+00	.0000E+00
4	.0000E+00	.0000E+00	.0000E+00	.2399E-06	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.9445E-06
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.3678E-06
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.4882E-06
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.1254E-06
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.4059E-06
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	-.1127E-05	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	-.1991E-05	.0000E+00	.0000E+00
14	.0000E+00	.0000E+00	.0000E+00	-.2552E-05	.0000E+00	.0000E+00
15	.0000E+00	.0000E+00	.0000E+00	-.4026E-05	.0000E+00	.0000E+00
16	.0000E+00	.0000E+00	.0000E+00	-.4270E-05	.0000E+00	.0000E+00
17	.0000E+00	.0000E+00	.0000E+00	-.5154E-05	.0000E+00	.0000E+00
18	.0000E+00	.0000E+00	.0000E+00	-.4707E-04	.3303E-05	-.2352E-05
19	-.3816E-05	-.2551E-04	-.2279E-04	-.1032E-05	-.1702E-06	-.1775E-06
20	-.1960E-06	-.2522E-04	-.1130E-04	-.7550E-06	-.9328E-06	.0000E+00
21	.3580E-05	-.2506E-04	.1990E-05	.9417E-08	-.1009E-05	.0000E+00
22	.8342E-05	-.2717E-04	.1202E-04	.8662E-06	-.4574E-06	-.4668E-06
23	.1167E-04	.2475E-04	.6650E-05	.1908E-06	.2374E-07	.0000E+00
24	.1079E-04	.2459E-04	.2983E-05	.5959E-06	.9170E-07	.0000E+00
25	.7918E-05	-.249E-04	-.4208E-07	.2266E-06	.2771E-06	.0000E+00
26	.3410E-05	.2424E-04	.303E-05	.2185E-06	.3051E-06	.0000E+00
27	-.3274E-05	-.2408E-04	-.6454E-05	-.2278E-07	.5572E-06	.0000E+00
28	-.1119E-04	-.2663E-04	-.1134E-04	-.6444E-06	.4625E-06	.5223E-06
29	-.6556E-05	-.2417E-04	-.2138E-04	-.9211E-06	.8604E-06	.0000E+00
30	-.3356E-05	-.2438E-04	-.3778E-04	-.1415E-05	.1303E-05	.0000E+00
31	-.7700E-06	-.2460E-04	-.5802E-04	-.2731E-05	.1362E-05	.0000E+00
32	.1650E-05	-.2489E-04	-.7850E-04	-.3105E-05	.1342E-05	.0000E+00
33	.6219E-05	-.2526E-04	-.9631E-04	-.4487E-05	.1000E-05	.0000E+00
34	.7379E-05	-.2577E-04	-.1080E-03	-.4657E-05	.5458E-06	-.3380E-06
35	-.5850E-05	-.4890E-04	-.4616E-04	-.1097E-05	-.1417E-05	.4151E-07
36	-.1536E-05	-.4826E-04	-.2475E-04	-.4561E-06	-.1709E-05	.0000E+00
37	.2794E-05	-.4831E-04	-.3493E-05	-.5360E-06	-.1405E-05	.0000E+00
38	.6739E-05	-.4732E-04	.1256E-04	-.7223E-06	-.9394E-06	.3802E-06
39	.1623E-04	-.6760E-04	.8637E-05	-.1651E-06	-.2808E-06	.0000E+00
40	.1699E-04	-.4688E-04	.4247E-05	-.2134E-07	.1771E-06	.0000E+00

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GRAVITY LOAD LOAD CASE 2

Node	Translations			/	Rotations		
	X	Y	Z		X	Y	Z
41	.1373E-04	-.4645E-04	-.1701E-06	/	.3040E-06	.2464E-06	.0000E+00
42	-.7531E-05	-.4609E-04	-.3864E-05	/	.1395E-06	.5515E-06	.0000E+00
43	-.1305E-05	-.4618E-04	-.8200E-05	/	.2634E-06	.5879E-06	.0000E+00
44	-.183E-04	-.4556E-04	-.1228E-04	/	.295E-06	.770E-06	-.231E-06
45	-.784E-05	-.4626E-04	-.3244E-04	/	.1183E-07	.1891E-05	.0000E+00
46	-.3824E-05	-.4626E-04	-.6549E-04	/	-.1126E-05	.2461E-05	.0000E+00
47	-.1503E-06	-.4673E-04	-.1047E-03	/	-.1500E-05	.2710E-05	.0000E+00
48	.3452E-05	-.4729E-04	-.1427E-03	/	-.2734E-05	.2291E-05	.0000E+00
49	.7199E-05	-.4804E-04	-.1743E-03	/	-.2590E-05	.1882E-05	.0000E+00
50	-.1141E-04	-.693E-04	-.1959E-03	/	-.3334E-05	.9623E-06	-.1220E-06
51	-.658E-05	-.6704E-04	-.6887E-04	/	.9609E-06	-.1760E-05	.5204E-07
52	-.3524E-05	-.6699E-04	-.4147E-04	/	-.1069E-05	.2254E-05	.0000E+00
53	-.4930E-06	-.6613E-04	-.1122E-04	/	-.1745E-06	-.2161E-05	.0000E+00
54	.2121E-05	-.6454E-04	-.1116E-04	/	.6482E-06	-.1118E-05	.2227E-06
55	.1428E-04	-.6543E-04	.7525E-05	/	-.2989E-06	-.4565E-06	.0000E+00
56	.1800E-04	-.6518E-04	.4188E-05	/	.1065E-06	.1619E-07	.0000E+00
57	-.1482E-04	-.6456E-04	.7129E-06	/	-.2080E-06	.4209E-06	.0000E+00
58	.9501E-05	-.6392E-04	-.2725E-05	/	.4727E-07	.2669E-06	.0000E+00
59	.3558E-05	-.6302E-04	-.5830E-05	/	.1532E-06	.5005E-06	.0000E+00
60	-.724E-05	-.6101E-04	-.8652E-05	/	.2131E-06	.8950E-06	-.2742E-06
61	-.4583E-05	-.6309E-04	-.3301E-04	/	-.9528E-07	.2305E-05	.0000E+00
62	-.1516E-05	-.6423E-04	-.7374E-04	/	.3971E-06	.3071E-05	.0000E+00
63	.1771E-05	-.6503E-04	-.1238E-03	/	-.2476E-06	.3516E-05	.0000E+00
64	.5161E-05	-.6593E-04	-.1774E-03	/	-.4130E-06	.3563E-05	.0000E+00
65	-.8661E-05	-.670E-04	-.2201E-03	/	-.1588E-05	.2043E-05	.0000E+00
66	.1203E-04	-.678E-04	-.178E-04	/	.826E-06	.890E-06	.2086E-06
67	-.7234E-05	-.8014E-04	-.8714E-04	/	-.7044E-06	-.1853E-05	.0000E+00
68	-.5375E-05	-.8025E-04	-.5609E-04	/	-.2597E-06	.2683E-05	.0000E+00
69	-.3385E-05	-.8003E-04	-.1946E-04	/	-.5278E-06	-.2687E-05	.0000E+00
70	-.6548E-06	-.7816E-04	.7942E-05	/	-.1161E-05	.1305E-05	-.1636E-06
71	.1054E-04	-.7867E-04	.6357E-05	/	-.8483E-07	-.1316E-06	.0000E+00
72	.1000E-04	-.7851E-04	.4094E-05	/	-.8289E-06	.1874E-06	.0000E+00
73	.1005E-04	-.782E-04	.479E-05	/	-.2208E-06	-.184E-06	.0000E+00
74	.9522E-05	-.784E-04	-.6998E-06	/	-.517E-07	-.2479E-06	.0000E+00
75	.5095E-05	-.7519E-04	-.3130E-05	/	.2928E-07	.3224E-06	.0000E+00
76	-.2578E-05	-.7304E-04	-.5084E-05	/	-.8546E-07	.6477E-06	.5200E-08
77	-.7647E-07	-.7562E-04	-.2491E-04	/	.8955E-06	.1959E-05	.0000E+00
78	.2095E-05	-.7716E-04	-.6020E-04	/	.8077E-06	.2682E-05	.0000E+00
79	.4316E-05	-.783E-04	-.1019E-03	/	.2255E-05	.2822E-05	.0000E+00
80	.6774E-05	-.7991E-04	-.1477E-03	/	.3101E-05	.3210E-05	.0000E+00
81	.9505E-05	-.811E-04	-.1996E-03	/	.3473E-05	.3647E-05	.0000E+00

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GRAVITY LOAD LOAD CASE 2

Node	Translations			/	Rotations		
	X	Y	Z		X	Y	Z
82	-.1243E-04	-.8163E-04	-.2277E-03	/	.2094E-05	.2196E-07	-.1092E-05
83	-.7259E-05	-.9046E-04	-.7995E-04	/	.1260E-05	-.1563E-05	.4777E-06
84	-.6021E-05	-.8991E-04	-.4443E-04	/	.1113E-05	-.3621E-05	.0000E+00
85	-.5979E-05	-.8932E-04	-.5228E-05	/	.1482E-05	-.2083E-05	.0000E+00
86	-.6834E-05	-.9043E-04	-.1016E-04	/	.1680E-05	-.1920E-06	.8189E-06
87	-.4233E-05	-.8957E-04	.6731E-05	/	-.9425E-06	.1684E-06	.0000E+00
88	.2896E-05	-.8835E-04	.5031E-05	/	.3111E-06	-.7291E-06	.0000E+00
89	.7638E-05	-.8731E-04	.3773E-05	/	.3896E-07	-.1112E-06	.0000E+00
90	.7837E-05	-.8652E-04	.2469E-05	/	-.4159E-07	-.1315E-06	.0000E+00
91	.7857E-05	-.8541E-04	.6982E-06	/	.9172E-07	.1332E-06	.0000E+00
92	.5232E-05	-.8299E-04	-.2519E-05	/	.4920E-06	.1680E-06	-.8940E-06
93	.5943E-05	-.8441E-04	-.8875E-05	/	.2014E-06	.6333E-06	.0000E+00
94	.6734E-05	-.8634E-04	-.1140E-04	/	.2773E-05	-.2850E-06	.0000E+00
95	.7822E-05	-.8807E-04	-.1012E-04	/	.4400E-05	.1038E-06	.0000E+00
96	.8924E-05	-.9005E-04	-.1398E-04	/	.6643E-05	.4122E-06	.0000E+00
97	.1024E-04	-.9239E-04	-.2209E-04	/	.9382E-05	.6409E-06	.0000E+00
98	.1235E-04	-.9416E-04	-.2891E-04	/	.1250E-04	.2519E-06	.5212E-05
99	-.6342E-05	-.9429E-04	-.3016E-04	/	.4889E-05	-.9686E-06	.2655E-05
100	-.6342E-05	-.9429E-04	-.3016E-04	/	.4889E-05	-.9686E-06	.2655E-05
101	-.4480E-05	-.9032E-04	-.1140E-04	/	-.9464E-06	.1712E-06	.4669E-06
102	-.1977E-05	-.9408E-04	-.5974E-05	/	-.5572E-05	-.1075E-05	-.6445E-05
103	.1103E-04	-.9280E-04	.6896E-05	/	.1013E-05	-.5618E-06	-.1965E-05
104	.1492E-04	-.9035E-04	.6146E-05	/	-.2539E-07	.2704E-07	-.1350E-05
105	.1289E-04	-.8949E-04	.5058E-05	/	.6435E-07	.2353E-06	-.5559E-06
106	.8480E-05	-.8854E-04	.4213E-05	/	.1030E-06	.3196E-06	.1054E-06
107	.5216E-05	-.8815E-04	.4150E-05	/	-.3669E-06	.8767E-07	.3129E-06
108	-.4480E-05	-.9032E-04	-.1140E-04	/	-.9464E-06	.1712E-06	.4669E-06
109	.8325E-05	-.8631E-04	.1994E-04	/	.2620E-05	-.1346E-05	-.2692E-06
110	.9090E-05	-.8835E-04	.4223E-04	/	.3893E-05	-.1597E-05	-.1053E-06
111	.9991E-05	-.9019E-04	.6795E-04	/	.5018E-05	-.1766E-05	-.1383E-06
112	.1099E-04	-.9199E-04	.9437E-04	/	.6534E-05	-.1710E-05	-.1226E-07
113	.1165E-04	-.9543E-04	.1175E-03	/	.7348E-05	-.1300E-05	-.1282E-05
114	.1128E-04	-.9832E-04	.1269E-03	/	.7048E-05	-.1239E-06	.6790E-05
115	.0000E+00	-.520E-03	.000E+00	/	-.4494E-07	.6986E-09	-.2597E-07
116	.0000E+00	.000E+00	.000E+00	/	.5903E-05	-.991E-05	-.2687E-05
117	.0000E+00	.000E+00	.000E+00	/	.2694E-05	-.4764E-09	.3424E-08
118	.0000E+00	.000E+00	.000E+00	/	.5839E-08	.1473E-08	.2694E-05
119	.0000E+00	.000E+00	.000E+00	/	-.2685E-05	.9517E-09	.3360E-08
120	-.4340E-06	.1320E-02	.7510E-06	/	-.8391E-08	.4776E-09	-.4849E-08
121	-.1159E-07	-.4420E-03	.2005E-07	/	-.5306E-08	.2170E-09	.3066E-08
122	.0000E+00	.000E+00	.000E+00	/	-.1655E-05	.0000E+00	.0000E+00

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LOAD CASE 2

GRAVITY LOAD

Node	Translations /			Rotations		
	X	Y	Z	X	Y	Z
123	.0000E+00	.0000E+00	.0000E+00	-.5581E-05	.0000E+00	.0000E+00
124	-.1109E-04	-.2789E-04	-.3613E-04	-.1628E-05	-.5820E-06	.3745E-06
125	.1445E-04	.2930E-04	-.1171E-03	-.5047E-05	.3587E-06	-.5342E-06
126	-.1131E-04	-.4945E-04	-.7043E-04	-.1483E-05	.1011E-05	-.7833E-07
127	-.1659E-04	-.5085E-04	-.2099E-03	-.3367E-05	.4388E-06	.3801E-07
128	-.1086E-04	-.6683E-04	-.9921E-04	-.1131E-05	-.1269E-05	-.1638E-07
129	-.1645E-04	-.6819E-04	-.2525E-03	-.4945E-06	.1871E-06	.2161E-07
130	-.1003E-04	-.7969E-04	-.1148E-03	-.2734E-06	.9220E-06	-.4336E-07
131	-.1570E-04	-.8153E-04	-.2121E-03	-.4210E-05	-.1532E-05	-.3954E-08
132	-.8944E-05	-.8860E-04	-.1041E-03	.1031E-05	-.8664E-06	-.3776E-07
133	-.1432E-04	-.9055E-04	-.3315E-04	.8683E-05	.1710E-06	.2932E-06
134	-.6165E-05	-.8951E-04	-.5572E-04	.4762E-05	-.1561E-05	-.1837E-06
135	-.1061E-04	-.9120E-04	-.1155E-03	.8984E-05	.9466E-06	-.4654E-06

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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

APPLIED LOAD VECTOR

Node	APPLIED LOAD VECTOR					
	Fx	Fy	Fz	Hx	Hy	Hz
1	-.2724E+02	-.7264E+02	-.2724E+02	-.1265E+04	.2497E+03	.5993E+03
2	-.2384E+02	-.6358E+02	-.2384E+02	-.1537E+02	.0000E+00	.1537E+02
3	-.1595E+02	-.4254E+02	-.1595E+02	.0000E+00	.0000E+00	.0000E+00
4	-.1595E+02	-.4254E+02	-.1595E+02	.0000E+00	.0000E+00	.0000E+00
5	-.2122E+02	-.5657E+02	-.2122E+02	-.1537E+02	.0000E+00	.1537E+02
6	-.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
7	-.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
8	-.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
9	-.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
10	-.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
11	-.2443E+02	-.6513E+02	-.2443E+02	-.2399E+02	.0000E+00	.2393E+02
12	-.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
13	-.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
14	-.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
15	-.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
16	-.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
17	-.2472E+02	-.6591E+02	-.2472E+02	-.1537E+02	.0000E+00	.1537E+02
18	-.2663E+02	-.7101E+02	-.2663E+02	-.4142E+02	-.2042E+03	.5858E+03
19	-.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00
20	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
21	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
22	-.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
23	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
24	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
25	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
26	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
27	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
28	-.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
29	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
30	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
31	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
32	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
33	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
34	-.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
35	-.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00

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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Hx	My	Mz
36	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
37	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
38	-.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
39	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
40	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
41	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
42	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
43	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
44	-.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
45	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
46	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
47	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
48	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
49	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
50	-.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
51	-.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00
52	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
53	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
54	-.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
55	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
56	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
57	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
58	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
59	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
60	-.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
61	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
62	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
63	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
64	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
65	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
66	-.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
67	-.5364E+02	-.1431E+03	-.5364E+02	-.8644E+01	.0000E+00	.8644E+01
68	-.3590E+02	-.9572E+02	-.3590E+02	.0000E+00	.0000E+00	.0000E+00
69	-.3590E+02	-.9572E+02	-.3590E+02	.0000E+00	.0000E+00	.0000E+00
70	-.4773E+02	-.1273E+03	-.4773E+02	-.8644E+01	.0000E+00	.8644E+01
71	-.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
72	-.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
73	-.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
74	-.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
75	-.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00

SOLVE DISPLACEMENTS Version 2.0 07/01/90

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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Hx	My	Mz
76	-.5496E+02	-.1466E+03	-.5496E+02	-.1346E+02	.0000E+00	-.1346E+02
77	-.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
78	-.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
79	-.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
80	-.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
81	-.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
82	-.5561E+02	-.1483E+03	-.5561E+02	-.8644E+01	.0000E+00	.8644E+01
83	-.4768E+02	-.1272E+03	-.4768E+02	-.1537E+02	.0000E+00	-.1537E+02
84	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
85	-.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
86	-.4910E+02	-.1309E+03	-.4910E+02	-.4686E+02	.0000E+00	-.4686E+02
87	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
88	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
89	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
90	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
91	-.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
92	-.6357E+02	-.1695E+03	-.6357E+02	-.4948E+03	-.1079E+03	-.2071E+03
93	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
94	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
95	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
96	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
97	-.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
98	-.6766E+02	-.1804E+03	-.6766E+02	-.5986E+03	-.4101E+03	-.4949E+03
99	-.7090E+02	-.1891E+03	-.7090E+02	-.4736E+03	-.1759E+03	-.9427E+03
100	-.1717E+02	-.4579E+02	-.1717E+02	.0000E+00	-.8276E-05	-.2207E-04
101	-.1717E+02	-.4579E+02	-.1717E+02	.0000E+00	.8276E-05	-.2207E-04
102	-.4625E+02	-.1233E+03	-.4625E+02	-.1036E+04	.7618E+03	-.9953E+03
103	-.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
104	-.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
105	-.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
106	-.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
107	-.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
108	-.4352E+02	-.1161E+03	-.4352E+02	-.8341E+03	-.4327E+03	-.3199E+03
109	-.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	.0000E+00	.0000E+00
110	-.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.1470E-04	-.3919E-04
111	-.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.4409E-04	-.1176E-03
112	-.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.1029E-03	-.274E-03
113	-.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.1029E-03	-.274E-03
114	-.7665E+02	-.2044E+03	-.7665E+02	-.1075E+04	-.5506E+03	-.3936E+03
115	-.1016E+04	-.2708E+04	-.1016E+04	-.1677E+05	-.4635E+03	-.1800E+05

Run ID=MM61973
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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
116	-.2585E+03	-.6893E+03	-.2585E+03	-.4221E+04	.9047E+03	-.1808E+04
117	-.2585E+03	-.6893E+03	-.2585E+03	-.1808E+04	.9047E+03	.4221E+04
118	-.2585E+03	-.6893E+03	-.2585E+03	-.4221E+04	.9047E+03	.6633E+04
119	-.2585E+03	-.6893E+03	-.2585E+03	-.6633E+04	.9047E+03	-.4221E+04
120	-.1147E+05	-.3058E+05	-.1147E+05	-.3416E+03	.0000E+00	-.3416E+03
121	-.2736E+03	-.7297E+03	-.2736E+03	-.1216E+04	.0000E+00	.1216E+04
122	-.1586E+02	-.4231E+02	-.1586E+02	-.1537E+02	.0000E+00	.1537E+02
123	-.1586E+02	-.4231E+02	-.1586E+02	-.1537E+02	.0000E+00	.1537E+02
124	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
125	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
126	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
127	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
128	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
129	-.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
130	-.3570E+02	-.9519E+02	-.3570E+02	-.8644E+01	.0000E+00	-.8644E+01
131	-.3570E+02	-.9519E+02	-.3570E+02	-.8644E+01	.0000E+00	-.8644E+01
132	-.3173E+02	-.8461E+02	-.3173E+02	.2401E+02	.0000E+00	-.2401E+02
133	-.3173E+02	-.8461E+02	-.3173E+02	.1537E+02	.0000E+00	-.1537E+02
134	-.1571E+02	-.4189E+02	-.1571E+02	.1270E+02	.0000E+00	-.3387E+02
135	-.1571E+02	-.4189E+02	-.1571E+02	-.8644E+01	-.1270E+02	-.2522E+02

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LOAD CASE 3

UBC SEISMIC LOAD - SN & WE DIR.

DISPLACEMENTS

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
1	.0000E+00	.0000E+00	.0000E+00	-.2906E-03	-.2831E-04	.1448E-03
2	.0000E+00	.0000E+00	.0000E+00	-.2820E-03	.0000E+00	.0000E+00
3	.0000E+00	.0000E+00	.0000E+00	-.1879E-03	.0000E+00	.0000E+00
4	.0000E+00	.0000E+00	.0000E+00	-.7067E-04	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.4764E-04
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1474E-03
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.1775E-03
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.1432E-03
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	-.4555E-04
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	-.1043E-03	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	-.2893E-03	.0000E+00	.0000E+00
14	.0000E+00	.0000E+00	.0000E+00	-.4239E-03	.0000E+00	.0000E+00
15	.0000E+00	.0000E+00	.0000E+00	-.5010E-03	.0000E+00	.0000E+00
16	.0000E+00	.0000E+00	.0000E+00	-.4885E-03	.0000E+00	.0000E+00
17	.0000E+00	.0000E+00	.0000E+00	-.4415E-03	.0000E+00	.0000E+00
18	.0000E+00	.0000E+00	.0000E+00	-.4571E-04	-.1034E-03	.4717E-04
19	-.6905E-04	-.4588E-04	-.5290E-02	-.2348E-03	-.1164E-03	-.4631E-05
20	-.6490E-04	-.2120E-04	-.3724E-02	-.1505E-03	-.1713E-03	.0000E+00
21	-.6478E-04	.5742E-05	-.1376E-02	-.5480E-04	-.1720E-03	.0000E+00
22	-.7154E-04	.4926E-04	-.6409E-04	-.5261E-05	-.1930E-04	.6130E-05
23	-.9374E-03	.1048E-04	-.5710E-04	-.3786E-04	.1303E-03	.0000E+00
24	-.2693E-02	.7869E-05	-.5706E-04	-.9700E-04	.9594E-04	.0000E+00
25	-.3421E-02	-.2201E-04	-.5937E-04	-.1333E-03	-.2050E-05	.0000E+00
26	-.5259E-02	-.3587E-02	-.5290E-02	-.9539E-03	-.1000E-03	.0000E+00
27	-.8517E-03	-.5295E-04	.7017E-04	-.3265E-04	-.1291E-03	.0000E+00
28	-.7960E-04	-.9301E-04	-.8606E-04	-.6571E-05	.3017E-04	.5044E-05
29	-.6483E-04	-.5627E-04	-.2054E-02	-.8295E-04	.2284E-03	.0000E+00
30	-.5813E-04	-.4234E-04	-.5511E-02	-.2113E-03	.2271E-03	.0000E+00
31	-.5401E-04	-.3238E-04	-.8335E-02	-.3335E-03	.1451E-03	.0000E+00
32	-.5070E-04	-.2393E-04	-.9725E-02	-.3823E-03	.3791E-04	.0000E+00
33	-.4775E-04	-.1480E-04	-.9621E-02	-.3861E-03	-.5133E-04	.0000E+00
34	-.4553E-04	-.3767E-05	-.8703E-02	-.3482E-03	-.6930E-04	.2900E-05
35	-.1798E-03	-.8979E-04	-.9641E-02	-.1242E-03	-.2073E-03	.5421E-05
36	-.1747E-03	-.4066E-04	-.6194E-02	-.7402E-04	-.2969E-03	.0000E+00
37	-.1751E-03	.1082E-04	-.2274E-02	-.2677E-04	-.2762E-03	.0000E+00
38	-.1786E-03	.7255E-04	-.1463E-03	-.3063E-05	-.3423E-04	.3942E-05
39	-.1461E-02	.2162E-04	-.1409E-03	-.9694E-05	-.1988E-03	.0000E+00
40	-.4222E-02	-.1426E-04	-.1382E-03	-.4209E-04	-.1568E-03	.0000E+00

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 UBC SEISMIC LOAD - SN & WE DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
41	-5393E-02	-4208E-04	-1402E-03	-4580E-04	-5638E-05	.0000E+00
42	-4091E-02	-6885E-04	-1462E-03	-3762E-04	-1623E-03	.0000E+00
43	-1300E-02	-1029E-03	-1568E-03	-7982E-05	-1973E-03	.0000E+00
44	-1534E-03	-1486E-03	-1695E-03	-2139E-05	-5017E-04	-2592E-05
45	-1409E-03	-1093E-03	-3279E-02	-2825E-04	-3589E-03	.0000E+00
46	-1296E-03	-8186E-04	-8787E-02	-8668E-04	-3667E-03	.0000E+00
47	-1219E-03	-6299E-04	-1334E-01	-1209E-03	-2329E-03	.0000E+00
48	-1165E-03	-4607E-04	-1956E-01	-1484E-03	-6035E-04	.0000E+00
49	-1130E-03	-2843E-04	-1539E-01	-1385E-03	-8244E-04	.0000E+00
50	-1116E-03	-5743E-05	-1390E-01	-1236E-03	-1142E-03	-3243E-05
51	-3068E-03	-1215E-03	-1093E-01	-6676E-05	-2474E-03	-6086E-05
52	-3039E-03	-5713E-04	-6382E-02	-7687E-05	-3389E-03	.0000E+00
53	-3041E-03	-8302E-05	-2538E-02	-2667E-05	-3024E-03	.0000E+00
54	-3064E-03	-8107E-04	-2232E-03	-4377E-05	-3395E-04	-7729E-05
55	-1718E-02	-2535E-04	-2262E-03	-1383E-04	-2190E-03	.0000E+00
56	-4700E-02	-1950E-04	-2278E-03	-1274E-05	-1695E-03	.0000E+00
57	-5979E-02	-5800E-04	-2285E-03	-7553E-05	-4847E-05	.0000E+00
58	-4531E-02	-9611E-04	-2330E-03	-2270E-05	-1817E-03	.0000E+00
59	-1461E-02	-1366E-03	-2411E-03	-6813E-05	-2141E-03	.0000E+00
60	-2190E-03	-1845E-03	-2697E-03	-4918E-05	-5485E-04	-3147E-05
61	-2104E-03	-1460E-03	-3569E-02	-1629E-05	-3817E-03	.0000E+00
62	-2016E-03	-359E-03	-810E-02	-3010E-03	-8900E-04	.0000E+00
63	-1945E-03	-8901E-04	-1409E-01	-5169E-04	-2293E-03	.0000E+00
64	-1896E-03	-6543E-04	-1608E-01	-1010E-03	-3306E-04	.0000E+00
65	-1864E-03	-3990E-04	-1557E-01	-1221E-03	-1006E-03	.0000E+00
66	-1856E-03	-1022E-04	-1383E-01	-1298E-03	-4290E-03	-3199E-05
67	-4419E-03	-1439E-03	-9388E-02	-1338E-03	-2298E-03	-5851E-05
68	-4388E-03	-7115E-04	-5882E-02	-8699E-04	-2832E-03	.0000E+00
69	-4377E-03	-35E-03	-25E-02	-2470E-03	-2147E-03	.0000E+00
70	-401E-03	-8034E-04	-194E-03	-3734E-05	-2356E-04	-4058E-05
71	-1777E-02	-3282E-04	-3189E-03	-8641E-05	-1954E-03	.0000E+00
72	-4529E-02	-2380E-04	-3162E-03	-1663E-04	-1589E-03	.0000E+00
73	-5683E-02	-6824E-04	-3149E-03	-3461E-04	-1003E-04	.0000E+00
74	-4311E-02	-1125E-03	-3157E-03	-2213E-04	-1668E-03	.0000E+00
75	-1481E-02	-1601E-03	-3187E-03	-5175E-05	-1978E-03	.0000E+00
76	-2800E-03	-2056E-03	-3275E-03	-1832E-05	-4365E-04	-2367E-05
77	-2731E-03	-1709E-03	-3097E-02	-4153E-04	-3206E-03	.0000E+00
78	-2679E-03	-1376E-03	-7941E-02	-1030E-03	-3173E-03	.0000E+00
79	-2646E-03	-1074E-03	-1156E-01	-1789E-03	-1598E-03	.0000E+00
80	-2632E-03	-9726E-04	-124E-01	-2311E-03	-4573E-04	.0000E+00
81	-2629E-03	-5111E-04	-1080E-01	-3116E-03	-1679E-03	.0000E+00

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 UBC SEISMIC LOAD - SN & WE DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
82	-2605E-03	-1594E-04	-8808E-02	-3261E-03	-9433E-04	-4661E-05
83	-6122E-03	-1641E-03	-4428E-02	-2263E-03	-1493E-03	-8466E-05
84	-6078E-03	-8592E-04	-2559E-02	-1547E-03	-1241E-03	.0000E+00
85	-6035E-03	-7483E-05	-1064E-02	-5696E-04	-9450E-04	.0000E+00
86	-5938E-03	-7332E-04	-4321E-03	-3942E-05	-2437E-05	-7632E-05
87	-1725E-02	-2469E-04	-4214E-03	-4916E-05	-1427E-03	.0000E+00
88	-3441E-02	-2535E-04	-4164E-04	-6264E-04	-7913E-04	.0000E+00
89	-3946E-02	-7383E-04	-4169E-03	-9142E-04	-1403E-04	.0000E+00
90	-3025E-02	-1202E-03	-4139E-03	-7147E-04	-1049E-03	.0000E+00
91	-1211E-02	-1678E-03	-4102E-03	-1442E-04	-1296E-03	.0000E+00
92	-3392E-03	-2229E-03	-3977E-03	-3508E-05	-1716E-04	-2010E-05
93	-3406E-03	-1860E-03	-1900E-02	-4549E-04	-1805E-03	.0000E+00
94	-3414E-03	-1599E-03	-4404E-02	-1543E-03	-1503E-03	.0000E+00
95	-3424E-03	-1182E-03	-5910E-02	-2317E-03	-4834E-04	.0000E+00
96	-3450E-03	-8613E-04	-2726E-02	-2561E-03	-7243E-04	.0000E+00
97	-3518E-03	-5476E-04	-3698E-02	-2054E-03	-1956E-03	.0000E+00
98	-3653E-03	-2360E-04	-1763E-02	-1815E-03	-5810E-04	-6642E-06
99	-7128E-03	-1747E-03	-9494E-03	-1939E-03	-9149E-04	-6872E-05
100	-7099E-03	-9126E-04	-1288E-03	-1398E-03	-3044E-04	-7665E-05
101	-7099E-03	-1037E-04	-1134E-04	-7111E-04	-1247E-04	-6126E-05
102	-7169E-03	-696E-04	-1112E-03	-1471E-03	-2193E-04	.0000E+00
103	-6689E-02	-2609E-04	-4697E-03	-3286E-05	-7043E-04	-9193E-05
104	-2576E-02	-2579E-04	-4677E-03	-3274E-05	-6214E-04	-4184E-04
105	-2749E-02	-7474E-04	-4709E-03	-3080E-05	-1993E-04	-5345E-04
106	-2032E-02	-1213E-03	-4701E-03	-2906E-05	-7152E-04	-4842E-04
107	-9075E-03	-1674E-03	-4752E-03	-3436E-05	-7076E-04	-2241E-04
108	-3807E-03	-2287E-03	-4911E-03	-4209E-05	-5701E-05	-1690E-05
109	-3811E-03	-1875E-03	-108E-02	-5006E-05	-7332E-04	-2670E-05
110	-3811E-03	-1875E-03	-108E-02	-5006E-05	-7332E-04	-2670E-05
111	-3826E-03	-1195E-03	-2785E-02	-1472E-03	-7473E-05	-2178E-05
112	-3849E-03	-8650E-04	-2336E-02	-1543E-03	-6617E-04	-2239E-05
113	-3870E-03	-5191E-04	-1041E-02	-1160E-03	-1019E-03	-2194E-05
114	-3852E-03	-2931E-04	-3973E-03	-8726E-04	-8678E-04	-5355E-06
115	.0000E+00	-5303E-03	.0000E+00	-7996E-05	-2091E-07	-8112E-05
116	.0000E+00	.0000E+00	.0000E+00	-4562E-05	-3676E-06	-2493E-05
117	.0000E+00	.0000E+00	.0000E+00	-2469E-05	-4876E-06	-5579E-05
118	.0000E+00	.0000E+00	.0000E+00	-5564E-05	-3525E-06	-7865E-05
119	.0000E+00	.0000E+00	.0000E+00	-7851E-05	-3699E-06	-5577E-05
120	-2207E-02	-1320E-02	-2205E-02	-1689E-05	-1430E-07	-1711E-05
121	-4598E-04	-4421E-03	-4593E-04	-7509E-05	-6494E-08	-7523E-05
122	.0000E+00	.0000E+00	.0000E+00	-3804E-03	.0000E+00	.0000E+00

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

L
 UBC SEISMIC LOAD - SN & WE DIR. LOAD CASE 3

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
123	.0000E+00	.0000E+00	.0000E+00	-.3866E-03	.0000E+00	.0000E+00
124	-.8993E-04	-.1041E-03	-.7769E-02	-.3240E-03	-.9155E-04	.5117E-05
125	-.4847E-04	.2800E-04	-.7627E-02	-.3048E-03	.3803E-04	.2967E-05
126	-.1924E-03	-.1758E-03	-.1337E-01	-.1836E-03	-.1651E-03	.4995E-05
127	-.1125E-03	.4105E-04	-.1214E-01	-.1044E-03	-.6164E-04	.3044E-05
128	-.3158E-03	-.2252E-03	-.1549E-01	-.8982E-05	.2080E-03	.5849E-05
129	-.1844E-03	.4485E-04	-.1197E-01	-.1190E-03	-.5610E-04	.3443E-05
130	-.4479E-03	-.2571E-03	-.1389E-01	-.1535E-03	-.2203E-03	.6405E-05
131	-.2635E-03	.4291E-04	-.7929E-02	.2461E-03	.6064E-05	.3767E-05
132	-.6171E-03	.2765E-03	-.8015E-02	.2727E-03	.2100E-03	.5286E-05
133	-.3528E-03	.2941E-04	-.1507E-02	.2213E-03	.3059E-04	.2373E-05
134	-.7100E-03	.2765E-03	-.3506E-02	.2722E-03	-.1608E-03	.8745E-05
135	-.3953E-03	.2483E-04	.1732E-02	.1692E-03	-.4532E-04	.3550E-05

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 UBC SEISMIC LOAD - SN & EW DIR. LOAD CASE 4

Node	APPLIED LOAD VECTOR					
	Fx	Fy	Fz	Mx	My	Mz
1	-.2724E+02	-.7264E+02	.2724E+02	-.6659E+02	.2497E+03	-.5993E+03
2	-.2384E+02	-.6358E+02	.2384E+02	.1537E+02	.0000E+00	.1537E+02
3	-.1595E+02	-.4254E+02	.1595E+02	.0000E+00	.0000E+00	.0000E+00
4	-.1595E+02	-.4254E+02	.1595E+02	.0000E+00	.0000E+00	.0000E+00
5	-.2122E+02	-.5657E+02	-.2122E+02	.1537E+02	.0000E+00	.1537E+02
6	-.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
7	-.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
8	-.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
9	-.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
10	-.1809E+02	-.4825E+02	.1809E+02	.0000E+00	.0000E+00	.0000E+00
11	-.2443E+02	-.6513E+02	.2443E+02	.2395E+02	.0000E+00	.2395E+02
12	-.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
13	-.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
14	-.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
15	-.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
16	-.1771E+02	-.4721E+02	.1771E+02	.0000E+00	.0000E+00	.0000E+00
17	-.2472E+02	-.6591E+02	.2472E+02	.1537E+02	.0000E+00	.1537E+02
18	-.2665E+02	-.7101E+02	.2665E+02	.1130E+04	-.2042E+03	.5858E+03
19	-.4768E+02	-.1272E+03	.4768E+02	.0000E+00	.0000E+00	.0000E+00
20	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
21	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
22	-.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
23	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
24	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
25	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
26	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
27	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
28	-.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
29	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
30	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
31	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
32	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
33	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
34	-.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
35	-.4768E+02	-.1272E+03	.4768E+02	.0000E+00	.0000E+00	.0000E+00

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LOAD CASE 4

UBC SEISMIC LOAD - SN & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
37	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
38	-.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
39	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
40	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
41	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
42	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
43	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
44	-.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
45	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
46	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
47	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
48	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
49	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
50	-.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
51	-.4768E+02	-.1272E+03	.4768E+02	.0000E+00	.0000E+00	.0000E+00
52	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
53	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
54	-.4243E+02	-.1131E+03	.4243E+02	.0000E+00	.0000E+00	.0000E+00
55	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
56	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
57	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
58	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
59	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
60	-.4885E+02	-.1303E+03	.4885E+02	.0000E+00	.0000E+00	.0000E+00
61	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
62	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
63	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
64	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
65	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
66	-.4943E+02	-.1318E+03	.4943E+02	.0000E+00	.0000E+00	.0000E+00
67	-.5364E+02	-.1431E+03	.5364E+02	.8644E+01	.0000E+00	.8644E+01
68	-.3590E+02	-.9572E+02	.3590E+02	.0000E+00	.0000E+00	.0000E+00
69	-.3590E+02	-.9572E+02	.3590E+02	.0000E+00	.0000E+00	.0000E+00
70	-.4773E+02	-.1273E+03	.4773E+02	.8644E+01	.0000E+00	.8644E+01
71	-.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
72	-.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
73	-.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
74	-.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00
75	-.4071E+02	-.1086E+03	.4071E+02	.0000E+00	.0000E+00	.0000E+00

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LOAD CASE 4

UBC SEISMIC LOAD - SN & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	-.5496E+02	-.1466E+03	.5496E+02	-.1346E+02	.0000E+00	.1346E+02
77	-.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
78	-.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
79	-.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
80	-.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
81	-.3984E+02	-.1062E+03	.3984E+02	.0000E+00	.0000E+00	.0000E+00
82	-.5561E+02	-.1483E+03	.5561E+02	.8644E+01	.0000E+00	.8644E+01
83	-.4768E+02	-.1272E+03	.4768E+02	-.1537E+02	.0000E+00	-.1537E+02
84	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
85	-.3191E+02	-.8509E+02	.3191E+02	.0000E+00	.0000E+00	.0000E+00
86	-.4910E+02	-.1309E+03	.4910E+02	-.7779E+02	.0000E+00	-.7779E+02
87	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
88	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
89	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
90	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
91	-.3619E+02	-.9650E+02	.3619E+02	.0000E+00	.0000E+00	.0000E+00
92	-.6357E+02	-.1699E+03	.6357E+02	.4470E+03	-.2453E+03	-.2071E+03
93	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
94	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
95	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
96	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
97	-.3541E+02	-.9443E+02	.3541E+02	.0000E+00	.0000E+00	.0000E+00
98	-.6766E+02	-.1806E+03	.6766E+02	.5678E+03	-.2734E+02	.4949E+03
99	-.7090E+02	-.1891E+03	.7090E+02	-.7423E+03	-.7514E+02	-.9427E+03
100	-.1717E+02	-.4579E+02	.1717E+02	.0000E+00	.8276E+05	.2207E-04
101	-.1717E+02	-.4579E+02	.1717E+02	.0000E+00	-.8276E+05	-.2207E-04
102	-.4625E+02	-.1203E+03	.4625E+02	.0000E+00	-.653E+04	.925E+03
103	-.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
104	-.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
105	-.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
106	-.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
107	-.1948E+02	-.5194E+02	.1948E+02	.0000E+00	.0000E+00	.0000E+00
108	-.4352E+02	-.1161E+03	.4352E+02	.8071E+03	-.1827E+03	.3199E+03
109	-.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
110	-.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
111	-.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
112	-.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
113	-.1906E+02	-.5082E+02	.1906E+02	.0000E+00	.0000E+00	.0000E+00
114	-.7665E+02	-.2044E+03	.7665E+02	-.1144E+03	-.1929E+03	.3936E+03
115	-.1016E+04	-.2708E+04	.1016E+04	-.1875E+05	.2804E+03	-.1800E+05

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LOAD CASE 4
 UBC SEISMIC LOAD - SN & EW DIR.

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
116	-.2585E+03	-.6893E+03	.2585E+03	.4221E+04	-.9047E+03	.1808E+04
117	-.2585E+03	-.6893E+03	.2585E+03	.6633E+04	-.9047E+03	.4221E+04
118	-.2585E+03	-.6893E+03	.2585E+03	.4221E+04	.9047E+03	-.6633E+04
119	-.2585E+03	-.6893E+03	.2585E+03	.1808E+04	.9047E+03	-.4221E+04
120	-.1147E+05	.3058E+05	.1147E+05	-.3416E+03	.0000E+00	-.3416E+03
121	-.2736E+03	-.7297E+03	.2736E+03	.1216E+04	.0000E+00	.1216E+04
122	-.1586E+02	-.4231E+02	.1586E+02	.1537E+02	.0000E+00	-.1537E+02
123	-.1586E+02	-.4231E+02	.1586E+02	.1537E+02	.0000E+00	.1537E+02
124	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
125	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
126	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
127	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
128	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
129	-.3173E+02	-.8461E+02	.3173E+02	.0000E+00	.0000E+00	.0000E+00
130	-.3570E+02	-.9519E+02	.3570E+02	.8644E+01	.0000E+00	.8644E+01
131	-.3570E+02	-.9519E+02	.3570E+02	.8644E+01	.0000E+00	.8644E+01
132	-.3173E+02	-.8461E+02	.3173E+02	-.2401E+02	.0000E+00	-.2401E+02
133	-.3173E+02	-.8461E+02	.3173E+02	-.1537E+02	.0000E+00	-.1537E+02
134	-.1571E+02	-.4189E+02	.1571E+02	-.1270E+02	-.3387E+02	.0000E+00
135	-.1571E+02	-.4189E+02	.1571E+02	-.8644E+01	.1270E+02	-.2522E+02

Run ID=MM61973
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LOAD CASE 4
 UBC SEISMIC LOAD - SN & EW DIR.

DISPLACEMENTS

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
1	.0000E+00	.0000E+00	.0000E+00	.1206E-03	.9226E-04	.5297E-04
2	.0000E+00	.0000E+00	.0000E+00	.3972E-03	.0000E+00	.0000E+00
3	.0000E+00	.0000E+00	.0000E+00	.3187E-03	.0000E+00	.0000E+00
4	.0000E+00	.0000E+00	.0000E+00	.1646E-03	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1897E-03
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3543E-03
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3946E-03
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.3426E-03
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.1769E-03
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	.1880E-03	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	.3962E-03	.0000E+00	.0000E+00
14	.0000E+00	.0000E+00	.0000E+00	.5164E-03	.0000E+00	.0000E+00
15	.0000E+00	.0000E+00	.0000E+00	.5678E-03	.0000E+00	.0000E+00
16	.0000E+00	.0000E+00	.0000E+00	.5232E-03	.0000E+00	.0000E+00
17	.0000E+00	.0000E+00	.0000E+00	.4514E-03	.0000E+00	.0000E+00
18	.0000E+00	.0000E+00	.0000E+00	.1900E-03	.6774E-04	-.1365E-03
19	-.3067E-04	-.2837E-04	.8036E-02	.3326E-03	.9525E-04	.1519E-05
20	-.2797E-04	-.2996E-04	.6212E-02	.2458E-03	.1716E-03	.0000E+00
21	-.2469E-04	-.3283E-04	.3379E-02	.1425E-03	.2429E-03	.0000E+00
22	-.1935E-04	-.4065E-04	.6205E-04	.5597E-05	.2420E-03	.2563E-05
23	-.3829E-02	-.3218E-04	.5355E-04	-.1581E-03	.2690E-03	.0000E+00
24	-.6847E-02	-.2973E-04	.4852E-04	-.2878E-03	.1402E-03	.0000E+00
25	-.7881E-02	-.2788E-04	.4491E-04	-.3867E-04	-.6867E-05	.0000E+00
26	-.6650E-02	-.2616E-04	.4192E-04	-.2614E-03	-.1519E-03	.0000E+00
27	-.3557E-02	-.2408E-04	.3905E-04	-.1466E-03	-.2471E-03	.0000E+00
28	-.4537E-04	-.2197E-04	.3566E-04	.3453E-05	-.2054E-03	.3177E-05
29	-.4052E-04	-.2022E-04	.3780E-02	-.1556E-03	-.2877E-03	.0000E+00
30	-.3666E-04	-.2011E-04	.6747E-02	.3010E-03	-.2254E-03	.0000E+00
31	-.3340E-04	-.1968E-04	.1024E-01	.4144E-03	-.1131E-03	.0000E+00
32	-.3044E-04	-.1890E-04	.1106E-01	.4370E-03	.5387E-05	.0000E+00
33	-.2755E-04	-.1755E-04	.1032E-01	.4148E-03	.0000E+00	.0000E+00
34	-.2449E-04	-.1523E-04	.8875E-02	.3539E-03	.9749E-04	.1468E-05
35	-.5112E-04	-.5361E-04	.1358E-01	.1712E-03	.1690E-03	.5238E-06
36	-.4694E-04	-.5628E-04	.1038E-01	.1336E-03	.2991E-03	.0000E+00
37	-.4298E-04	-.6264E-04	.5583E-02	.5731E-04	.4030E-03	.0000E+00
38	-.3957E-04	-.6966E-04	.1062E-03	-.3293E-06	.3982E-03	-.1594E-06
39	-.6285E-02	-.6302E-04	.9898E-04	-.6490E-04	.4072E-03	.0000E+00
40	-.1127E-01	-.5764E-04	.9201E-04	-.1346E-03	.2358E-03	.0000E+00

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LOAD CASE 4

UBC SEISMIC LOAD - SN & EW DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
41	-.1301E-01	-.5361E-04	.8676E-04	-.1438E-03	-.1167E-04	.0000E+00
42	-.1098E-01	-.4986E-04	.8287E-04	-.1319E-03	-.2508E-03	.0000E+00
43	-.5904E-02	-.4566E-04	.8009E-04	-.6636E-04	.4031E-03	.0000E+00
44	-.7904E-04	-.3924E-04	.7909E-04	-.1377E-05	-.3478E-03	.9984E-06
45	-.7260E-04	-.3951E-04	.6241E-02	-.6781E-04	-.4659E-03	.0000E+00
46	-.6699E-04	-.3860E-04	.1252E-01	-.1397E-03	.3635E-03	.0000E+00
47	-.6231E-04	-.3740E-04	.1661E-01	-.1640E-03	-.1753E-03	.0000E+00
48	-.5839E-04	-.3573E-04	.1781E-01	-.1770E-03	.1638E-04	.0000E+00
49	-.5498E-04	-.3308E-04	.1651E-01	-.1480E-03	.1555E-03	.0000E+00
50	-.5252E-04	-.2841E-04	.1409E-01	-.1193E-03	.1634E-03	.1006E-05
51	-.5603E-04	-.7050E-04	.1521E-01	-.2299E-04	.2052E-03	-.1008E-06
52	-.5351E-04	-.7638E-04	.1152E-01	-.3045E-04	.3341E-03	.0000E+00
53	-.5169E-04	-.8408E-04	.6221E-02	.9007E-04	.4418E-03	.0000E+00
54	-.5066E-04	-.9343E-04	.1405E-03	.3531E-05	.4471E-03	.1576E-05
55	-.7018E-02	-.8745E-04	.1332E-03	-.1774E-05	.4510E-03	.0000E+00
56	-.1256E-01	-.8140E-04	.1277E-03	-.1795E-04	.2640E-03	.0000E+00
57	-.1457E-01	-.7586E-04	.1228E-03	-.1738E-05	-.4721E-05	.0000E+00
58	-.1238E-01	-.6955E-04	.1192E-03	-.4669E-05	-.2779E-03	.0000E+00
59	-.6731E-04	-.6274E-04	.1176E-03	-.8986E-05	-.4504E-03	.0000E+00
60	-.9998E-04	-.5430E-04	.2179E-03	-.1093E-03	.0000E+00	.0000E+00
61	-.9498E-04	-.5494E-04	.7050E-02	.3994E-05	-.5062E-03	.0000E+00
62	-.9012E-04	-.5392E-04	.1377E-01	-.2633E-04	-.3823E-03	.0000E+00
63	-.8553E-04	-.5202E-04	.1786E-01	-.4975E-04	-.1569E-03	.0000E+00
64	-.8144E-04	-.4917E-04	.1857E-01	-.1084E-03	.6326E-04	.0000E+00
65	-.7851E-04	-.4560E-04	.1666E-01	-.1338E-03	.1882E-03	.0000E+00
66	-.7585E-04	-.3969E-04	.1381E-01	-.1441E-03	.1871E-03	.1674E-05
67	-.4721E-04	-.3430E-04	.1068E-03	-.2064E-03	.1903E-03	-.6413E-06
68	-.4564E-04	-.3859E-04	.9427E-02	-.1596E-03	.0000E+00	.0000E+00
69	-.4420E-04	-.3830E-04	.5052E-02	-.1074E-03	.3525E-03	.0000E+00
70	-.4298E-04	-.1115E-03	.1610E-03	-.2411E-03	.3365E-03	-.3048E-05
71	-.5915E-02	-.1047E-03	.1589E-03	.1021E-03	.3936E-03	.0000E+00
72	-.1098E-01	-.9987E-04	.1550E-03	.1249E-03	.2595E-03	.0000E+00
73	-.1303E-01	-.9345E-04	.1520E-03	.1384E-03	.4743E-05	.0000E+00
74	-.1155E-01	-.8582E-04	.1495E-03	.1066E-03	-.2476E-03	.0000E+00
75	-.6102E-02	-.7572E-04	.1472E-03	-.6645E-04	-.4031E-03	.0000E+00
76	-.1158E-03	-.6644E-04	.1482E-03	.3435E-06	-.3688E-03	.7119E-06
77	-.1116E-03	-.6594E-04	.6261E-02	-.7411E-04	-.4367E-03	.0000E+00
78	-.1077E-03	-.6488E-04	.1197E-01	-.1327E-03	-.3152E-03	.0000E+00
79	-.1033E-03	-.6342E-04	.1503E-01	-.2076E-03	-.8907E-04	.0000E+00
80	-.9832E-04	-.6039E-04	.1459E-01	-.2528E-03	.1474E-03	.0000E+00
81	-.9358E-04	-.5456E-04	.1149E-01	-.3366E-03	-.2609E-03	.0000E+00

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LOAD CASE 4

UBC SEISMIC LOAD - SN & EW DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
82	-.9225E-04	-.4934E-04	.8422E-02	-.3455E-03	.1426E-03	-.3086E-05
83	-.2328E-04	-.8548E-04	.5432E-02	-.3199E-03	.1238E-03	-.4367E-06
84	-.2099E-04	-.9712E-04	.3907E-02	-.2423E-03	.9829E-04	.0000E+00
85	-.1755E-04	-.1087E-03	.2111E-02	-.1057E-03	.1643E-03	.0000E+00
86	-.1429E-04	-.1224E-03	.1824E-03	-.3927E-05	.1157E-03	.1081E-05
87	-.3073E-02	-.1209E-03	.1763E-03	.1040E-03	.2782E-03	.0000E+00
88	-.6571E-02	-.1133E-03	.1765E-03	-.1953E-03	.1741E-03	.0000E+00
89	-.8138E-02	-.1055E-03	.1793E-03	-.2170E-03	.2813E-04	.0000E+00
90	-.7266E-02	-.9856E-04	.1824E-03	-.1760E-03	-.1405E-03	.0000E+00
91	-.4046E-02	-.9089E-04	.1832E-03	-.8256E-04	-.2765E-03	.0000E+00
92	-.1308E-03	.7422E-04	.1760E-03	-.1541E-05	-.2291E-03	-.2905E-06
93	-.1283E-03	-.7299E-04	.6073E-02	-.8468E-04	-.2842E-03	.0000E+00
94	-.1237E-03	-.7365E-04	.7428E-02	-.1932E-03	-.1587E-03	.0000E+00
95	-.1189E-03	-.7323E-04	.8608E-02	-.2593E-03	.3220E-05	.0000E+00
96	-.1138E-03	-.7188E-04	.7433E-02	-.2676E-03	.1516E-03	.0000E+00
97	-.1060E-03	-.6861E-04	.4172E-02	-.1960E-03	.2792E-03	.0000E+00
98	-.9013E-04	-.6012E-04	.1422E-02	-.1581E-03	.8185E-04	.1694E-04
99	-.3084E-05	-.8283E-04	.7193E-03	-.2486E-03	.6774E-04	-.5866E-05
100	-.2801E-05	-.1010E-03	.3662E-03	-.1867E-03	-.1034E-04	.5458E-06
101	-.1194E-06	-.1110E-03	.3152E-03	-.8734E-04	-.8047E-05	.7505E-07
102	-.4789E-05	-.7908E-04	.2911E-02	-.1231E-04	-.652E-05	.7772E-05
103	-.1719E-02	-.1246E-03	.1766E-03	-.2176E-05	.1535E-03	-.5976E-04
104	-.3979E-02	-.1143E-03	.1845E-03	.3516E-06	.1338E-03	-.1170E-03
105	-.5300E-02	-.1065E-03	.1906E-03	.4902E-06	.3504E-04	-.1269E-03
106	-.4924E-02	-.9945E-04	.1975E-03	.5211E-06	-.8364E-04	.1070E-03
107	-.2949E-02	-.9340E-04	.2095E-03	-.2769E-06	-.1690E-03	-.5090E-04
108	-.1450E-03	-.7476E-04	.2344E-03	.8090E-05	-.1906E-03	.2055E-05
109	-.1346E-03	-.7098E-04	.2344E-03	-.5311E-04	-.1659E-03	.3923E-06
110	-.1281E-03	-.7663E-04	.4841E-02	-.1193E-03	-.689E-04	.3731E-07
111	-.1236E-03	-.7634E-04	.5225E-02	-.1507E-03	.3199E-04	.3984E-07
112	-.1205E-03	-.7526E-04	.3976E-02	-.1505E-03	.1312E-03	.8896E-07
113	-.1205E-03	-.7422E-04	.1729E-02	-.9988E-04	.1610E-03	-.2696E-07
114	-.1290E-03	-.6218E-04	.3695E-03	-.6531E-04	.1140E-03	.3845E-05
115	.0000E+00	-.5298E-03	.0000E+00	-.8085E-05	-.6391E-08	-.8059E-05
116	.0000E+00	.0000E+00	.0000E+00	.5574E-05	-.3642E-06	.2477E-05
117	.0000E+00	.0000E+00	.0000E+00	.7861E-05	-.826E-06	.5731E-07
118	.0000E+00	.0000E+00	.0000E+00	.5574E-05	.3599E-06	.7588E-05
119	.0000E+00	.0000E+00	.0000E+00	-.2481E-05	.3592E-06	.5571E-05
120	-.2206E-02	-.1320E-02	.2207E-02	-.1705E-05	-.4369E-08	-.1701E-05
121	-.4596E-04	-.4420E-03	.4597E-04	.7520E-05	-.1985E-08	.7516E-05
122	.0000E+00	.0000E+00	.0000E+00	.4766E-03	.0000E+00	.0000E+00

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LOAD CASE 4
 UBC SEISMIC LOAD - SN & EW DIR.

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
123	.0000E+00	.0000E+00	.0000E+00	-.3740E-03	.0000E+00	.0000E+00
124	-.3829E-04	-.3843E-04	.9711E-02	-.4040E-03	.7232E-04	.1694E-05
125	-.2152E-04	-.3180E-05	.7335E-02	-.2909E-03	.5629E-04	.1320E-05
126	-.5556E-04	-.3706E-04	.1640E-01	-.2211E-03	.1328E-03	.3502E-06
127	-.4927E-04	-.1344E-04	.1152E-01	-.6828E-04	.9351E-04	.1225E-05
128	-.5867E-04	-.6568E-04	.1895E-01	-.7897E-05	.1691E-03	-.1987E-06
129	-.7542E-04	-.2697E-04	.1101E-01	-.1337E-03	.9254E-04	.7922E-06
130	-.4897E-04	-.6855E-04	.1648E-01	-.2160E-03	.1885E-03	-.4039E-06
131	-.8546E-04	-.4010E-04	.6792E-02	-.2470E-03	.2099E-04	.5695E-06
132	-.2280E-04	-.6871E-04	.8575E-02	-.3573E-03	.1909E-03	-.1948E-05
133	-.1002E-03	-.4071E-04	.6137E-03	-.2035E-03	.8344E-06	.7679E-06
134	-.6945E-05	-.6994E-04	.2829E-02	-.3379E-03	.1397E-03	-.4688E-06
135	-.1209E-03	-.3802E-04	-.2295E-02	-.1475E-03	.7692E-04	-.1148E-05

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LOAD CASE 5
 UBC SEISMIC LOAD - NS & WE

Node	APPLIED LOAD VECTOR					
	Fx	Fy	Fz	Mx	My	Mz
1	.2724E+02	.7264E+02	-.2724E+02	-.1265E+04	-.2497E+03	-.5993E+03
2	.2384E+02	-.6358E+02	-.2384E+02	-.1537E+02	.0000E+00	-.1537E+02
3	.1595E+02	-.4254E+02	-.1595E+02	.0000E+00	.0000E+00	.0000E+00
4	.1595E+02	-.4254E+02	-.1595E+02	.0000E+00	.0000E+00	.0000E+00
5	.2122E+02	-.5675E+02	-.2122E+02	-.1537E+02	.0000E+00	-.1537E+02
6	.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
7	.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
8	.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
9	.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
10	.1809E+02	-.4825E+02	-.1809E+02	.0000E+00	.0000E+00	.0000E+00
11	.2443E+02	-.6513E+02	-.2443E+02	-.2393E+02	.0000E+00	-.2393E+02
12	.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
13	.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
14	.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
15	.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
16	.1771E+02	-.4721E+02	-.1771E+02	.0000E+00	.0000E+00	.0000E+00
17	.2472E+02	-.6591E+02	-.2472E+02	-.1537E+02	.0000E+00	-.1537E+02
18	.2463E+02	-.7105E+02	-.2463E+02	-.4142E+02	.2042E+03	-.5858E+03
19	.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00
20	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
21	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
22	.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
23	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
24	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
25	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
26	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
27	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
28	.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
29	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
30	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
31	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
32	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
33	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
34	.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
35	.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00

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 LOAD CASE 5
 UBC SEISMIC LOAD - NS & WE

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
37	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
38	.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
40	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
41	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
42	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
43	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
44	.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
45	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
46	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
47	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
48	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
49	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
50	.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
51	.4768E+02	-.1272E+03	-.4768E+02	.0000E+00	.0000E+00	.0000E+00
52	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
53	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
54	.4243E+02	-.1131E+03	-.4243E+02	.0000E+00	.0000E+00	.0000E+00
55	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
56	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
57	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
58	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
59	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
60	.4885E+02	-.1303E+03	-.4885E+02	.0000E+00	.0000E+00	.0000E+00
61	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
62	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
63	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
64	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
65	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
66	.4943E+02	-.1318E+03	-.4943E+02	.0000E+00	.0000E+00	.0000E+00
67	.5364E+02	-.1431E+03	-.5364E+02	.0000E+00	.0000E+00	-.8644E+01
68	.3590E+02	-.9732E+02	-.3590E+02	.0000E+00	.0000E+00	.0000E+00
69	.3590E+02	-.9732E+02	-.3590E+02	.0000E+00	.0000E+00	.0000E+00
70	.4773E+02	-.1273E+03	-.4773E+02	.0000E+00	.0000E+00	-.8644E+01
71	.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
72	.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
73	.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
74	.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00
75	.4071E+02	-.1086E+03	-.4071E+02	.0000E+00	.0000E+00	.0000E+00

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 LOAD CASE 5
 UBC SEISMIC LOAD - NS & WE

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	.5496E+02	-.1466E+03	-.5496E+02	-.1346E+02	.0000E+00	-.1346E+02
77	.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
78	.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
79	.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
80	.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
81	.3984E+02	-.1062E+03	-.3984E+02	.0000E+00	.0000E+00	.0000E+00
82	.5561E+02	-.1483E+03	-.5561E+02	-.8644E+01	.0000E+00	-.8644E+01
83	.4768E+02	-.1272E+03	-.4768E+02	-.1537E+02	.0000E+00	.1537E+02
84	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
85	.3191E+02	-.8509E+02	-.3191E+02	.0000E+00	.0000E+00	.0000E+00
86	.4910E+02	-.1309E+03	-.4910E+02	-.4686E+02	.7779E+01	-.6760E+02
87	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
88	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
89	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
90	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
91	.3619E+02	-.9650E+02	-.3619E+02	.0000E+00	.0000E+00	.0000E+00
92	.6357E+02	-.1695E+03	-.6357E+02	.4948E+03	.2453E+03	-.1592E+03
93	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
94	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
95	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
96	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
97	.3541E+02	-.9443E+02	-.3541E+02	.0000E+00	.0000E+00	.0000E+00
98	.6766E+02	-.1804E+03	-.6766E+02	.5986E+03	.2734E+02	.5275E+03
99	.7090E+02	-.1891E+03	-.7090E+02	.4736E+03	.7514E+02	.2272E+03
100	.1717E+02	-.4579E+02	-.1717E+02	.0000E+00	-.8276E-05	.2207E-04
101	.1717E+02	-.4579E+02	-.1717E+02	.0000E+00	-.8276E-05	.2207E-04
102	.4625E+02	-.1233E+03	-.4625E+02	-.1036E+04	-.1282E+02	-.9780E+03
103	.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
104	.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
105	.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
106	.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
107	.1948E+02	-.5194E+02	-.1948E+02	.0000E+00	.0000E+00	.0000E+00
108	.4352E+02	-.1161E+03	-.4352E+02	.8341E+03	.1827E+03	-.3468E+03
109	.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	.0000E+00	.0000E+00
110	.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.1470E-04	.3919E-04
111	.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.4409E-04	.1176E-03
112	.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	-.1029E-03	.2743E-03
113	.1906E+02	-.5082E+02	-.1906E+02	.0000E+00	.0000E+00	.0000E+00
114	.7665E+02	-.2044E+03	-.7665E+02	-.1075E+04	-.1905E+03	.1583E+04
115	.1016E+04	-.2708E+04	-.1016E+04	-.1677E+05	-.2804E+03	-.1751E+05

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LOAD CASE 5

UBC SEISMIC LOAD - NS & WE

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
116	.2585E+03	-.6893E+03	-.2585E+03	-.4221E+04	.9047E+03	-.6633E+04
117	.2585E+03	-.6893E+03	-.2585E+03	-.1808E+04	.9047E+03	-.4221E+04
118	.2585E+03	-.6893E+03	-.2585E+03	-.4221E+04	-.9047E+03	-.1808E+04
119	.2585E+03	-.6893E+03	-.2585E+03	-.6535E+04	-.9047E+03	-.4221E+04
120	.1147E+05	.3058E+05	-.1147E+05	.3416E+03	.0000E+00	.3416E+03
121	-.2736E+03	-.2797E+03	-.2736E+03	-.1216E+04	.0000E+00	-.1216E+04
122	.1586E+02	-.4231E+02	-.1586E+02	-.1537E+02	.0000E+00	-.1537E+02
123	.1586E+02	-.4231E+02	-.1586E+02	-.1537E+02	.0000E+00	-.1537E+02
124	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
125	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
126	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
127	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
128	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
129	.3173E+02	-.8461E+02	-.3173E+02	.0000E+00	.0000E+00	.0000E+00
130	.3570E+02	-.9519E+02	-.3570E+02	-.8644E+01	.0000E+00	-.8644E+01
131	.3570E+02	-.9519E+02	-.3570E+02	-.8644E+01	.0000E+00	-.8644E+01
132	.3173E+02	-.8461E+02	-.3173E+02	.2401E+02	.0000E+00	.2401E+02
133	.3173E+02	-.8461E+02	-.3173E+02	.1537E+02	.0000E+00	.1537E+02
134	.1571E+02	-.4189E+02	-.1571E+02	.0000E+00	-.1270E+02	-.3387E+02
135	.1571E+02	-.4189E+02	-.1571E+02	.8644E+01	-.1270E+02	-.4251E+02

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LOAD CASE 5

UBC SEISMIC LOAD - NS & WE

DISPLACEMENTS

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
1	.0000E+00	.0000E+00	.0000E+00	-.3209E-03	-.9089E-04	-.5055E-04
2	.0000E+00	.0000E+00	.0000E+00	-.3992E-03	.0000E+00	.0000E+00
3	.0000E+00	.0000E+00	.0000E+00	-.3193E-03	.0000E+00	.0000E+00
4	.0000E+00	.0000E+00	.0000E+00	-.1641E-03	.0000E+00	.0000E+00
5	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
6	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
7	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
8	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	.0000E+00	.0000E+00	-.1903E-03	.0000E+00	.0000E+00
13	.0000E+00	.0000E+00	.0000E+00	-.4002E-03	.0000E+00	.0000E+00
14	.0000E+00	.0000E+00	.0000E+00	-.5215E-03	.0000E+00	.0000E+00
15	.0000E+00	.0000E+00	.0000E+00	-.5759E-03	.0000E+00	.0000E+00
16	.0000E+00	.0000E+00	.0000E+00	-.5317E-03	.0000E+00	.0000E+00
17	.0000E+00	.0000E+00	.0000E+00	-.4617E-03	.0000E+00	.0000E+00
18	.0000E+00	.0000E+00	.0000E+00	-.3861E-04	-.6114E-04	-.1412E-03
19	.2304E-04	-.2265E-04	-.8082E-02	-.3346E-03	-.9675E-04	-.1164E-05
20	.2758E-04	-.2048E-04	-.6235E-02	-.2473E-03	-.1734E-03	.0000E+00
21	.3185E-04	-.1730E-04	-.3375E-02	-.1425E-03	-.2449E-03	.0000E+00
22	.3604E-04	-.1370E-04	-.3800E-04	-.3865E-05	-.2429E-03	.3496E-05
23	.3853E-02	-.1732E-04	-.4025E-04	-.1585E-03	-.2489E-03	.0000E+00
24	.6848E-04	-.2998E-04	-.2490E-04	-.2490E-03	-.1400E-03	.0000E+00
25	.7897E-02	.2088E-04	-.4499E-04	.3225E-03	.7421E-05	.0000E+00
26	.6657E-02	-.2232E-04	-.4793E-04	.2618E-03	.1525E-03	.0000E+00
27	.3550E-02	.2408E-04	-.5196E-04	.1466E-03	.2482E-03	.0000E+00
28	.2299E-04	-.3129E-04	-.5834E-04	-.4742E-05	.2063E-03	-.2133E-05
29	.2741E-04	-.2812E-04	-.3823E-02	-.1574E-03	.2894E-03	.0000E+00
30	.2995E-04	-.2865E-04	-.7749E-02	-.3038E-03	.2280E-03	.0000E+00
31	.3186E-04	-.2933E-04	-.1036E-01	-.4190E-03	-.1158E-03	.0000E+00
32	.3374E-04	-.3098E-04	-.1122E-01	-.4433E-03	-.2702E-05	.0000E+00
33	.3599E-04	-.3296E-04	-.1051E-01	-.4238E-03	-.9034E-04	.0000E+00
34	.3925E-04	-.3631E-04	-.9091E-02	-.3632E-03	-.9640E-04	-.2144E-05
35	.3942E-04	-.4418E-04	-.1367E-01	-.1734E-03	-.1719E-03	-.4407E-06
36	.4387E-04	-.4024E-04	-.1043E-01	-.1346E-03	-.3025E-03	.0000E+00
37	.4857E-04	-.3397E-04	-.5590E-02	-.5839E-04	-.4058E-03	.0000E+00
38	.5304E-04	-.2498E-04	-.8111E-04	-.1115E-05	-.4000E-03	.9198E-06
39	.6318E-02	-.3218E-04	-.6523E-02	-.6523E-02	-.4077E-06	.0000E+00
40	-.1131E-01	-.3612E-04	-.8352E-04	-.1346E-03	-.2355E-03	.0000E+00

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SOLVE DISPLACEMENTS
Version 2.0 07/01/90

LOAD CASE 5
UBC SEISMIC LOAD - NS & WE

Node	X	Y	Z	X	Y	Z	X	Y	Z
82	1171E-03	1139E-03	8878E-02	3496E-03	1246E-03	9035E-04			
83	8765E-05	9545E-04	5592E-02	3226E-03	270E-03	1332E-05			
84	8949E-05	8271E-04	5962E-02	2443E-03	1053E-03	0000E+00			
85	5602E-05	6994E-04	2121E-02	1087E-03	1685E-03	0000E+00			
86	6180E-06	5895E-04	1616E-03	5665E-06	1161E-03	5568E-06			
87	3094E-02	2825E-04	1628E-03	1059E-03	2789E-03	0000E+00			
88	8159E-02	6935E-04	1875E-03	1929E-03	1793E-03	0000E+00			
89	8732E-02	7448E-04	1775E-03	1261E-03	1401E-03	0000E+00			
90	4052E-02	7992E-04	1818E-03	8237E-04	2759E-03	0000E+00			
91	1419E-03	9175E-04	1810E-03	5566E-06	2594E-03	1697E-05			
92	1372E-03	9903E-04	4090E-02	6508E-04	2855E-03	0000E+00			
93	1372E-03	9903E-04	7450E-02	1987E-03	1581E-03	0000E+00			
94	1372E-03	9903E-04	9423E-02	2861E-03	1012E-03	0000E+00			
95	1372E-03	9903E-04	9423E-02	2861E-03	1012E-03	0000E+00			
96	1372E-03	9903E-04	9423E-02	2861E-03	1012E-03	0000E+00			
97	1265E-03	1162E-03	4276E-02	1648E-03	2799E-03	0000E+00			
98	1148E-03	1282E-03	1479E-02	2183E-03	2799E-03	0000E+00			
99	9601E-05	1057E-03	7796E-03	2584E-03	6968E-04	5564E-06			
100	9083E-05	8561E-04	4038E-03	1902E-03	8917E-05	1480E-05			
101	8696E-05	6957E-04	5311E-03	8545E-04	6204E-05	8500E-06			
102	174E-02	6101E-04	1466E-03	1592E-03	6744E-04	1519E-05			
103	4009E-02	6645E-04	1722E-03	4024E-06	1337E-03	0000E+00			
104	5326E-02	7245E-04	1804E-03	3615E-06	3457E-04	1257E-03			
105	4294E-02	7764E-04	1891E-03	3151E-06	8428E-04	1068E-03			
106	2959E-02	8599E-04	2014E-03	4569E-06	1692E-03	5152E-03			
107	1695E-03	9573E-04	2224E-03	1686E-03	1899E-03	1483E-07			
108	1695E-03	9573E-04	2224E-03	1686E-03	1899E-03	1483E-07			
109	1695E-03	9573E-04	2224E-03	1686E-03	1899E-03	1483E-07			
110	1436E-03	1006E-04	5089E-02	1607E-03	3539E-04	5142E-06			
111	1436E-03	1006E-04	5089E-02	1607E-03	3539E-04	5142E-06			
112	1436E-03	1006E-04	5089E-02	1607E-03	3539E-04	5142E-06			
113	1436E-03	1006E-04	5089E-02	1607E-03	3539E-04	5142E-06			
114	1515E-03	1164E-03	6233E-03	1146E-03	1636E-03	2337E-05			
115	0000E+00	5302E-03	0000E+00	7995E-03	7789E-08	8007E-05			
116	0000E+00	0000E+00	0000E+00	5562E-05	3622E-06	7852E-05			
117	0000E+00	0000E+00	0000E+00	5562E-05	3622E-06	7852E-05			
118	0000E+00	0000E+00	0000E+00	5562E-05	3622E-06	7852E-05			
119	0000E+00	0000E+00	0000E+00	7851E-05	5375E-06	5564E-06			
120	2204E-02	1320E-02	2205E-02	1689E-05	5324E-08	1691E-05			
121	0000E+00	0000E+00	0000E+00	4421E-04	7599E-05	2418E-08			
122	0000E+00	0000E+00	0000E+00	4799E-03	0000E+00	0000E+00			

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SOLVE DISPLACEMENTS
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LOAD CASE 5
UBC SEISMIC LOAD - NS & WE

Node	X	Y	Z	X	Y	Z	X	Y	Z
41	1304E-01	3929E-04	8642E-04	1444E-03	1217E-04	0000E+00			
42	1095E-01	4233E-04	9606E-04	1322E-03	2519E-03	0000E+00			
43	5901E-02	1642E-04	6689E-04	6042E-03	6494E-03	0000E+00			
44	3538E-04	2180E-04	1037E-03	7861E-04	3494E-03	1461E-05			
45	5892E-04	3305E-02	6780E-04	4677E-03	0000E+00	0000E+00			
46	5892E-04	3305E-02	6780E-04	4677E-03	0000E+00	0000E+00			
47	6292E-04	5605E-04	1620E-03	1870E-03	3808E-03	0000E+00			
48	6292E-04	5605E-04	1620E-03	1870E-03	3808E-03	0000E+00			
49	6958E-04	1810E-01	1179E-03	1179E-03	1179E-03	0000E+00			
50	7534E-04	6300E-04	1686E-01	1532E-03	1517E-03	0000E+00			
51	4292E-04	7026E-04	1448E-01	1260E-03	1250E-03	0000E+00			
52	5079E-04	6358E-04	1535E-01	2107E-04	2049E-06	0000E+00			
53	5079E-04	6358E-04	1535E-01	2107E-04	2049E-06	0000E+00			
54	5079E-04	6358E-04	1535E-01	2107E-04	2049E-06	0000E+00			
55	5491E-04	3541E-04	1183E-03	2230E-05	1493E-03	1130E-06			
56	7048E-02	4341E-04	1174E-03	1174E-03	2640E-03	0000E+00			
57	1260E-01	4896E-04	1193E-03	2154E-05	5563E-05	0000E+00			
58	1240E-01	3527E-04	1214E-03	4274E-05	2795E-03	0000E+00			
59	8478E-02	6301E-04	1295E-03	9292E-05	4514E-03	0000E+00			
60	8582E-02	6301E-04	1295E-03	9292E-05	4514E-03	0000E+00			
61	8582E-02	6301E-04	1295E-03	9292E-05	4514E-03	0000E+00			
62	8709E-04	7124E-04	7096E-02	4189E-05	5108E-03	0000E+00			
63	8709E-04	7124E-04	7096E-02	4189E-05	5108E-03	0000E+00			
64	8709E-04	7124E-04	7096E-02	4189E-05	5108E-03	0000E+00			
65	9178E-04	8265E-04	1892E-01	4292E-04	3889E-03	0000E+00			
66	9178E-04	8265E-04	1892E-01	4292E-04	3889E-03	0000E+00			
67	9178E-04	8265E-04	1892E-01	4292E-04	3889E-03	0000E+00			
68	9178E-04	8265E-04	1892E-01	4292E-04	3889E-03	0000E+00			
69	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
70	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
71	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
72	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
73	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
74	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
75	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
76	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
77	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
78	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
79	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
80	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			
81	9583E-04	8820E-04	1710E-01	1306E-03	1842E-03	1257E-05			

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LOAD CASE 5
 UBC SEISMIC LOAD - NS & WE

Node	Translations			Rotations		
	X	Y	Z	X	Y	Z
123	.0000E+00	.0000E+00	.0000E+00	-.3852E-03	.0000E+00	.0000E+00
124	.1612E-04	-.1734E-04	-.9783E-02	-.4072E-03	-.7349E-04	-.9455E-06
125	.5041E-04	-.5543E-04	-.7569E-02	-.3010E-03	-.5557E-04	-.2389E-05
126	.3295E-04	-.1855E-04	-.1674E-01	-.2241E-03	-.1348E-03	-.5069E-06
127	.8244E-04	-.8826E-04	-.1194E-01	-.9502E-04	-.9264E-04	-.1153E-05
128	.3696E-04	-.6798E-04	.1915E-01	.5634E-05	-.1716E-03	.1659E-06
129	-.1063E-03	-.1094E-03	-.1151E-01	.1327E-03	.9216E-04	-.7490E-06
130	.2891E-04	-.9084E-04	-.1671E-01	.1255E-03	-.1903E-03	-.3172E-06
131	-.1169E-03	-.1230E-03	-.7216E-02	.2555E-03	-.2405E-04	-.5774E-06
132	.4916E-05	-.1085E-03	-.8783E-02	.3594E-03	.1926E-03	-.1873E-05
133	.1289E-03	-.1404E-03	-.6800E-03	.2206E-03	-.4924E-06	-.1815E-06
134	-.5384E-05	-.1091E-03	-.2940E-02	.3475E-03	-.1428E-03	-.8361E-06
135	-.1421E-03	-.1444E-03	-.2526E-02	.1654E-03	-.7503E-04	-.2079E-05

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

BEAM LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 1							
Gloads	1	-2192E+02	3164E+03	-1370E+03	-1279E-12	-5684E-13	-1137E-12
Gloads	99	3257E+02	-1711E+03	8250E+02	-1079E+04	-2929E+03	-7030E+03
Lloads	1	3447E+03	4755E+01	2192E+02	9620E-13	8308E-13	1279E-12
Lloads	99	-1897E+03	-1034E+02	3257E+02	3497E-13	7615E+03	1079E+04
BEAM NO. 2							
Gloads	18	-1952E+02	2173E+03	3425E+02	-4547E-12	-2842E-13	-1137E-12
Gloads	114	3374E+02	-7523E+02	-8751E+02	1309E+04	3272E+03	-9389E+03
Lloads	18	2164E+03	-1952E+02	1952E+02	1057E-13	1167E-12	4547E-12
Lloads	114	-9984E+02	-5788E+02	-3374E+02	1629E-13	-9943E+03	1309E+04
BEAM NO. 3							
Gloads	99	-1276E+03	.2912E+02	2000E+03	-.6887E+03	1200E+04	-.1734E+03
Gloads	108	.8883E+02	.7414E+02	-2387E+03	-.1405E+04	-1309E+03	-.7494E+03
Lloads	99	2344E+03	-.2912E+02	3605E+02	-.1191E+03	-1200E+04	7002E+03
Lloads	108	2542E+03	-.7414E+02	1500E+02	-.1191E+03	1309E+03	1587E+04
BEAM NO. 4							
Gloads	114	1082E+03	7119E+02	-1580E+03	-.1350E+04	-.3676E+03	-.1218E+04
Gloads	102	-1578E+03	6101E+02	1084E+03	8762E+03	6133E+03	7548E+03
Lloads	114	-1886E+03	-7119E+02	-3316E+02	7328E+02	3676E+03	-1817E+04
Lloads	102	1878E+03	-.6101E+02	3694E+02	7328E+02	6133E+03	1154E+04
BEAM NO. 5							
Gloads	98	-7686E+03	6752E+02	8607E+03	-.1582E+04	4126E+03	-.1173E+04
Gloads	115	7321E+03	2968E+02	-8971E+03	2195E+03	9305E+03	1929E+02
Lloads	98	1154E+02	-.6752E+02	-1168E+02	1590E+03	-4126E+03	1963E+04
Lloads	115	-1157E+04	-.2968E+02	-3975E+02	-1590E+03	-9305E+03	1525E+03
BEAM NO. 6							
Gloads	92	2316E+03	4411E+02	6268E+03	-.6029E+03	-.2745E+03	2208E+03
Gloads	115	2610E+03	3438E+02	6562E+03	2528E+03	4860E+02	-8461E+02
Lloads	92	6681E+03	-.4411E+02	-1131E+02	-1278E+02	2745E+03	6420E+03
Lloads	115	7062E+03	-.3438E+02	5457E+01	1278E+02	-4860E+02	2663E+03
BEAM NO. 7							
Gloads	86	4958E+03	3609E+02	-3248E+03	3181E+03	-.7871E+03	2739E+03
Gloads	115	5091E+03	5310E+00	3115E+03	6643E+02	-8566E+03	2388E+03
Lloads	86	5915E+03	-.3609E+02	3763E+02	9013E+02	7871E+03	-4100E+03
Lloads	115	5942E+03	5310E+00	5630E+02	9013E+02	8566E+03	-2309E+03
BEAM NO. 8							
Gloads	134	-.1713E+02	.1994E+02	5319E+01	-.5984E+03	.7612E+03	.2700E-12

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	99	.9513E+01	.3843E+00	-.1294E+02	.5984E+03	-.9438E+03	.1955E+03
Lloads	134	-.1713E+02	-.1994E+02	.5319E+01	-.5984E+03	-.7612E+03	-.2700E-12
Lloads	99	.9513E+01	-.3843E+00	.1294E+02	.5984E+03	.9438E+03	-.1955E+03
BEAM NO. 9							
Gloads	135	.4312E+02	-.2697E+02	-.7990E+01	-.5935E+03	-.5454E+03	.1082E+03
Gloads	114	-.5074E+02	.4772E+02	.3702E+00	.5935E+03	.4618E+03	.6345E+03
Lloads	135	-.4312E+02	.2697E+02	-.7990E+01	-.5935E+03	-.5454E+03	-.1082E+03
Lloads	114	.5074E+02	-.4772E+02	.3702E+00	-.5935E+03	-.4618E+03	-.6345E+03
BEAM NO. 10							
Gloads	122	-.8420E+01	-.2235E+01	-.8650E+01	-.5672E+03	-.6248E+03	.1109E+03
Lloads	124	.3839E+01	.2477E+03	.2838E+01	.6453E+03	.6248E+03	-.1781E+02
Lloads	122	.2235E+01	-.8420E+01	.8650E+01	-.6248E+03	.5672E+03	-.1109E+03
Lloads	124	.2477E+03	-.3839E-01	-.2682E+00	.6248E+03	-.6653E+03	-.1781E+02
BEAM NO. 11							
Gloads	124	-.3615E+01	-.1289E+03	-.6823E+01	.1526E+04	-.5026E+03	.1781E+02
Gloads	126	-.4767E+01	.1512E+03	-.1559E+01	.1584E+04	.5026E+03	-.3048E+02
Lloads	124	.1289E+03	-.3615E+01	.6823E+01	-.1526E+04	.1781E+02	-.1781E+02
Lloads	126	.1512E+03	-.4767E+01	.1559E+01	-.5026E+03	-.1584E+04	.3048E+02
BEAM NO. 12							
Gloads	126	-.4820E+01	-.6027E+02	-.4888E+01	.1926E+04	-.2928E+03	.3048E+02
Gloads	128	-.3562E+01	.8262E+02	-.3493E+01	-.1942E+04	.2928E+03	-.1664E+02
Lloads	126	.6027E+02	-.4820E+01	.4888E+01	-.2928E+03	.1926E+04	-.3048E+02
Lloads	128	.8262E+02	-.3562E+01	.3493E+01	.2928E+03	-.1942E+04	.1664E+02
BEAM NO. 13							
Gloads	128	-.3685E+01	-.1911E+02	.2738E+01	-.1802E+04	-.9003E+02	.1664E+02
Gloads	130	-.4696E+01	.4144E+02	-.5644E+01	.1770E+04	.9003E+02	-.2776E+02
Lloads	128	.1911E+02	-.3685E+01	.2738E+01	-.9003E+02	.1802E+04	-.1664E+02
Lloads	130	.4144E+02	-.4696E+01	.5644E+01	.9003E+02	-.1770E+04	.2776E+02
BEAM NO. 14							
Gloads	130	-.6248E+01	.7646E+01	-.3302E+01	.1049E+04	.5650E+02	-.2776E+02
Gloads	132	-.4229E+01	.2029E+02	-.7175E+01	-.9954E+03	-.5650E+02	-.3979E-12
Lloads	130	.7646E+01	-.6248E+01	.3302E+01	-.1049E+04	-.5650E+02	-.2776E+02
Lloads	132	.2029E+02	-.4229E+01	.7175E+01	-.9954E+03	-.3979E-12	
TRUSS NO. 15							
Gloads	132	.0000E+00	.1212E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Gloads	134	.0000E+00	-.1212E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Lloads	132	-.1212E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Lloads	134	-.1212E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
BEAM NO. 16							
Gloads	123	-.1126E+02	.4352E+03	-.8641E+01	.8411E+03	-.2678E+03	.1384E+03

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	125	.2883E+01	-.4128E+03	.2591E+00	-.9390E+03	.2678E+03	.1721E+02
Lloads	123	-.4352E+03	.1126E+02	-.8641E+01	-.2678E+03	-.8411E+03	.1384E+03
Lloads	125	-.4128E+03	-.2883E+01	.2591E+00	.2678E+03	.9390E+03	.1721E+02
BEAM NO. 17							
Gloads	2	-.7275E+01	.3631E+02	-.5452E+01	.4990E+03	-.7940E+03	.9723E+02
Gloads	19	-.1107E+01	-.1396E+02	-.2930E+01	-.5267E+03	-.7940E+03	-.2937E+02
Lloads	2	.3631E+02	-.7275E+01	.5452E+01	-.4990E+03	.7940E+03	-.9723E+02
Lloads	19	.1396E+02	-.1107E+01	.2930E+01	.5267E+03	-.7940E+03	.2937E+02
BEAM NO. 18							
Gloads	19	-.4383E+01	.2523E+02	-.4525E+01	.1223E+04	-.6193E+03	.2937E+02
Gloads	35	-.3999E+01	-.2883E+01	-.3856E+01	-.1230E+04	.6193E+03	-.2515E+02
Lloads	19	.2523E+02	-.4383E+01	.4525E+01	-.1223E+04	.6193E+03	-.2937E+02
Lloads	35	.2883E+01	-.3999E+01	.3856E+01	.6193E+03	-.1230E+04	.2515E+02
BEAM NO. 19							
Gloads	35	-.4425E+01	.3346E+02	-.4085E+01	.1450E+04	-.2727E+03	.2515E+02
Gloads	51	-.3957E+01	-.1111E+02	-.4296E+01	-.1447E+04	.2727E+03	-.2001E+02
Lloads	35	.3346E+02	-.4425E+01	.4085E+01	-.2727E+03	.1450E+04	-.2515E+02
Lloads	51	.1111E+02	-.3957E+01	.4296E+01	.2727E+03	-.1447E+04	.2001E+02
BEAM NO. 20							
Gloads	51	-.4579E+01	.2984E+02	-.4115E+01	.1404E+04	.1235E+03	.2001E+02
Gloads	67	-.3803E+01	-.7488E+01	-.4267E+01	-.1402E+04	-.1235E+03	-.1148E+02
Lloads	51	.2984E+02	-.4579E+01	.4115E+01	.1235E+03	-.1404E+04	.2001E+02
Lloads	67	.7488E+01	-.3803E+01	.4267E+01	-.1235E+03	-.1402E+04	.1148E+02
BEAM NO. 21							
Gloads	67	-.3352E+01	.1581E+02	-.4105E+01	.7864E+03	.4420E+03	.1148E+02
Gloads	83	.7125E+01	-.5012E+02	-.6372E+01	-.7202E+03	-.4420E+03	-.1148E+02
Lloads	67	.1581E+02	-.3352E+01	.4105E+01	.4420E+03	.7864E+03	.1148E+02
Lloads	83	.1213E+02	-.7125E+01	.6372E+01	-.4420E+03	-.7552E+03	.6336E+02
BEAM NO. 22							
Gloads	83	-.2621E+02	-.1078E+02	.3305E+01	-.5499E+03	.5214E+03	.6336E+02
Gloads	99	.1993E+02	.2754E+02	-.9591E+01	.6563E+03	-.5214E+03	.3173E+03
Lloads	83	.1078E+02	-.2621E+02	.3305E+01	.5214E+03	-.5499E+03	-.6336E+02
Lloads	99	.2754E+02	-.1993E+02	-.9591E+01	-.5214E+03	.6563E+03	-.3173E+03
BEAM NO. 23							
Gloads	5	-.6450E+01	.5184E+03	-.6594E+01	-.1202E+03	-.1271E+03	.1194E+03
Gloads	22	-.1932E+01	-.4960E+03	-.1787E+01	.6732E+02	.1271E+03	-.6969E+02
Lloads	5	.5184E+03	.6450E+01	-.6594E+01	-.1271E+03	.1202E+03	.1194E+03
Lloads	22	.4960E+03	.1932E+01	.1787E+01	-.1271E+03	-.6732E+02	-.6969E+02
BEAM NO. 24							
Gloads	22	-.2303E+01	.3225E+03	-.1739E+01	.7186E+02	-.9654E+02	-.4892E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx Axial	Fy Y-Shear	Fz Z-Shear	Mx Torsion	My Y-Bending	Mz Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Loads	38	-.6079E+01	-.3001E+03	-.6643E+01	-.1791E+02	-.9654E+02	-.7380E+01
Loads	22	-.3225E+03	-.2303E+01	-.1739E+01	-.9654E+02	-.7186E+02	-.4892E+02
Loads	38	-.3001E+03	-.6079E+01	-.6643E+01	-.9654E+02	-.1791E+02	-.7380E+01
BEAM NO. 25							
Loads	38	-.4916E+01	-.2214E+03	-.4830E+01	-.6784E+02	-.4413E+01	-.6932E+02
Loads	54	-.3466E+01	-.1991E+03	-.3552E+01	-.5378E+02	-.4413E+01	-.5338E+02
Loads	38	-.2214E+03	-.4916E+01	-.4830E+01	-.4413E+01	-.6784E+02	-.6932E+02
Loads	54	-.1991E+03	-.3466E+01	-.3552E+01	-.4413E+01	-.5378E+02	-.5338E+02
BEAM NO. 26							
Loads	54	-.4162E+01	-.1409E+03	-.4764E+01	-.2609E+02	-.7442E+02	-.1744E+02
Loads	70	-.4220E+01	-.1186E+03	-.3618E+01	-.3869E+02	-.7442E+02	-.1680E+02
Loads	54	-.1409E+03	-.4162E+01	-.4764E+01	-.7442E+02	-.2609E+02	-.1744E+02
Loads	70	-.1186E+03	-.4220E+01	-.3618E+01	-.7442E+02	-.3869E+02	-.1680E+02
BEAM NO. 27							
Loads	70	-.5075E+01	-.8262E+02	-.4926E+01	-.7252E+02	-.1314E+03	-.3619E+02
Loads	86	-.5402E+01	-.5468E+02	-.5552E+01	-.8113E+02	-.1314E+03	-.4069E+02
Loads	70	-.8262E+02	-.5075E+01	-.4926E+01	-.1314E+03	-.7252E+02	-.3619E+02
Loads	86	-.5468E+02	-.5402E+01	-.5552E+01	-.1314E+03	-.8113E+02	-.4069E+02
BEAM NO. 28							
Loads	86	-.1790E+01	-.3074E+02	-.2055E+02	-.1015E+03	-.4833E+03	-.4998E+02
Loads	102	-.8073E+02	-.1564E+02	-.1879E+02	-.3897E+02	-.4833E+03	-.4998E+02
Loads	86	-.3074E+02	-.1790E+01	-.2055E+02	-.4833E+03	-.1015E+03	-.4998E+02
Loads	102	-.1398E+02	-.8076E+01	-.1426E+02	-.4833E+03	-.3887E+03	-.1314E+03
BEAM NO. 29							
Loads	11	-.1475E+02	-.2855E+03	-.8286E+01	-.1535E+03	-.5633E+03	-.3603E+03
Loads	28	-.1697E+01	-.3204E+03	-.4765E+01	-.1148E+03	-.5633E+03	-.1794E+03
Loads	11	-.2855E+03	-.8286E+01	-.1475E+02	-.5633E+03	-.1535E+03	-.3603E+03
Loads	28	-.3204E+03	-.4765E+01	-.1697E+01	-.5633E+03	-.1794E+03	-.1148E+03
BEAM NO. 30							
Loads	28	-.3384E+01	-.1175E+03	-.4314E+01	-.5366E+02	-.3734E+03	-.6870E+02
Loads	44	-.9667E+01	-.1523E+03	-.8737E+01	-.5007E+01	-.3734E+03	-.4122E+00
Loads	28	-.1175E+03	-.3384E+01	-.4314E+01	-.3734E+03	-.6870E+02	-.5366E+02
Loads	44	-.1523E+03	-.8737E+01	-.9667E+01	-.3734E+03	-.4122E+00	-.5007E+01
BEAM NO. 31							
Loads	44	-.6844E+01	-.2127E+02	-.6098E+01	-.7378E+02	-.8524E+02	-.6708E+02
Loads	60	-.6198E+01	-.5607E+02	-.6953E+01	-.8319E+02	-.8524E+02	-.5965E+02
Loads	44	-.2127E+02	-.6098E+01	-.6844E+01	-.8524E+02	-.6708E+02	-.7378E+02
Loads	60	-.5607E+02	-.6953E+01	-.6188E+01	-.8524E+02	-.5965E+02	-.8319E+02
BEAM NO. 32							
Loads	60	-.8834E+01	-.4057E+02	-.9079E+01	-.2483E+02	-.2069E+03	-.3302E+02

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx Axial	Fy Y-Shear	Fz Z-Shear	Mx Torsion	My Y-Bending	Mz Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Loads	76	-.4217E+01	-.5767E+01	-.3972E+01	-.8100E+02	-.2069E+03	-.8381E+02
Loads	60	-.4057E+02	-.9079E+01	-.8834E+01	-.2069E+03	-.3302E+02	-.2483E+02
Loads	76	-.5767E+01	-.3972E+01	-.4217E+01	-.2069E+03	-.8381E+02	-.8100E+02
BEAM NO. 33							
Loads	76	-.4421E+01	-.3735E+02	-.6374E+01	-.6010E+02	-.3928E+03	-.5691E+02
Loads	92	-.1189E+02	-.6156E+01	-.9940E+01	-.1091E+03	-.3928E+03	-.1597E+03
Loads	76	-.3735E+02	-.6374E+01	-.4421E+01	-.3928E+03	-.5691E+02	-.6010E+02
Loads	92	-.6156E+01	-.9940E+01	-.1189E+02	-.3928E+03	-.1597E+03	-.1091E+03
BEAM NO. 34							
Loads	92	-.2247E+02	-.1211E+00	-.3890E+01	-.1113E+03	-.2642E+03	-.1817E+03
Loads	108	-.1269E+02	-.2622E+02	-.1368E+02	-.2562E+03	-.2642E+03	-.4718E+03
Loads	92	-.1211E+00	-.3890E+01	-.2247E+02	-.2642E+03	-.1817E+03	-.1113E+03
Loads	108	-.2622E+02	-.1368E+02	-.1269E+02	-.2642E+03	-.4718E+03	-.2562E+03
BEAM NO. 35							
Loads	17	-.8687E+01	-.2451E+03	-.7520E+01	-.9834E+03	-.4872E+03	-.1049E+03
Loads	34	-.3048E+00	-.2227E+03	-.8616E+00	-.1057E+04	-.4872E+03	-.5997E+01
Loads	17	-.2451E+03	-.8687E+01	-.7520E+01	-.4872E+03	-.9834E+03	-.1049E+03
Loads	34	-.2227E+03	-.3048E+00	-.8616E+00	-.4872E+03	-.1057E+04	-.5997E+01
BEAM NO. 36							
Loads	34	-.3429E+01	-.2322E+03	-.5511E+01	-.2458E+04	-.3156E+03	-.5997E+01
Loads	50	-.4992E+01	-.2099E+03	-.4833E+01	-.2487E+04	-.2487E+04	-.2575E+02
Loads	34	-.2322E+03	-.3429E+01	-.5511E+01	-.3156E+03	-.2487E+04	-.5997E+01
Loads	50	-.2099E+03	-.4952E+01	-.2871E+01	-.3156E+03	-.2487E+04	-.2275E+02
BEAM NO. 37							
Loads	50	-.5622E+01	-.1699E+03	-.3870E+01	-.2772E+04	-.1005E+03	-.2275E+02
Loads	66	-.2760E+01	-.1475E+03	-.4512E+01	-.2765E+04	-.1005E+03	-.8738E+01
Loads	50	-.1699E+03	-.5622E+01	-.3870E+01	-.1005E+03	-.2772E+04	-.2275E+02
Loads	66	-.1475E+03	-.2760E+01	-.4512E+01	-.1005E+03	-.2765E+04	-.8738E+01
BEAM NO. 38							
Loads	66	-.2181E+01	-.1780E+03	-.3142E+01	-.2130E+04	-.2510E+03	-.8738E+01
Loads	82	-.1056E+02	-.9635E+02	-.5240E+01	-.2107E+04	-.2510E+03	-.1315E+03
Loads	66	-.1187E+03	-.2181E+01	-.3142E+01	-.2510E+03	-.2130E+04	-.8738E+01
Loads	82	-.9635E+02	-.1056E+02	-.5240E+01	-.2510E+03	-.2107E+04	-.1315E+03
BEAM NO. 39							
Loads	82	-.2475E+02	-.8218E+02	-.3058E+01	-.1393E+04	-.1978E+03	-.1315E+03
Loads	98	-.1427E+02	-.5424E+02	-.1354E+02	-.1621E+04	-.1978E+03	-.4050E+03
Loads	82	-.8218E+02	-.2475E+02	-.3058E+01	-.1978E+03	-.1393E+04	-.1315E+03
Loads	98	-.5424E+02	-.1427E+02	-.1354E+02	-.1978E+03	-.1621E+04	-.4050E+03
BEAM NO. 40							
Loads	98	-.1007E+03	-.2541E+02	-.2302E+02	-.1418E+04	-.2619E+03	-.7679E+03

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb.	Shear		
Loads	114	.9437E+02	-.8642E+01	.1673E+02	-.1090E+04	.2619E+03	-.8411E+03
Loads	98	.2541E+02	.1007E+03	-.2302E+02	-.2619E+03	-.1418E+04	.7679E+03
Loads	114	-.8642E+01	-.9437E+02	-.1673E+02	-.2619E+03	-.1090E+04	-.8411E+03
BEAM NO. 41							
Loads	99	-.1365E+02	.3594E+02	-.1069E+02	-.5308E+03	-.1153E+04	.3636E+03
Loads	100	-.1886E+02	-.2205E+02	.5483E+01	-.5308E+03	-.1043E+04	.3264E+02
Loads	99	-.1365E+02	-.3594E+02	.1069E+02	-.5308E+03	-.1153E+04	-.3636E+03
Loads	100	-.1886E+02	.2205E+02	-.5483E+01	-.5308E+03	-.1043E+04	-.3264E+02
BEAM NO. 42							
Loads	100	-.2540E+02	.3880E+01	-.5736E+01	-.7045E+03	-.8092E+03	-.3264E+02
Loads	101	-.2019E+02	-.1000E+02	.5296E+00	-.7045E+03	-.7664E+03	-.9205E+01
Loads	100	-.2540E+02	-.3880E+01	.5736E+01	-.7045E+03	-.8092E+03	.3264E+02
Loads	101	-.2019E+02	.1000E+02	-.5296E+00	-.7045E+03	-.7664E+03	.9205E+01
BEAM NO. 43							
Loads	101	-.9720E+02	-.1060E+02	-.4147E+01	-.7047E+03	-.7553E+03	-.9205E+01
Loads	102	.9199E+02	.2449E+02	-.1060E+01	.7047E+03	-.7553E+03	-.9205E+01
Loads	101	-.9720E+02	.1060E+02	.4147E+01	-.7047E+03	-.7553E+03	.9205E+01
Loads	102	.9199E+02	-.2449E+02	-.1060E+01	.7047E+03	.7553E+03	.9205E+01
BEAM NO. 44							
Loads	102	-.7984E+01	-.3185E+02	-.7453E+02	-.5259E+03	-.3091E+03	-.1643E+03
Loads	103	.2078E+01	.4759E+02	.6862E+02	-.8978E+02	-.2311E+03	.1643E+03
Loads	102	.7453E+02	-.3185E+02	.7984E+01	.1643E+03	-.3091E+03	.5259E+03
Loads	103	-.6862E+02	-.4759E+02	-.2078E+01	-.1643E+03	-.2311E+03	-.8978E+02
BEAM NO. 45							
Loads	103	-.1084E+02	.1254E+02	.7803E+00	-.8978E+02	-.4031E+03	-.3324E+03
Loads	104	.4955E+01	-.3203E+01	-.6868E+01	-.8978E+02	-.5273E+03	.3324E+03
Loads	103	-.7805E+00	-.1254E+02	-.1084E+02	-.3324E+03	.4031E+03	-.8978E+02
Loads	104	.6686E+01	-.3203E+01	-.4955E+01	-.3324E+03	-.5273E+03	-.1739E+02
BEAM NO. 46							
Loads	104	-.3824E+01	.7463E+01	-.1882E+02	-.1739E+02	-.9798E+03	-.1295E+03
Loads	105	.2081E+01	-.8284E+01	-.2472E+02	-.2375E+02	.9933E+03	.1295E+03
Loads	104	-.1882E+02	-.7463E+01	.3824E+01	.1295E+03	.9798E+03	-.1739E+02
Loads	105	.2472E+02	-.2081E+01	.2081E+01	.1295E+03	-.9933E+03	.2375E+02
BEAM NO. 47							
Loads	105	.1436E+01	-.8117E+01	.5753E+01	-.2375E+02	-.8498E+03	.4053E+02
Loads	106	-.7341E+01	.7631E+01	-.1166E+02	-.1999E+02	.7818E+03	-.4053E+02
Loads	105	-.5753E+01	-.8117E+01	-.1436E+01	-.4053E+02	.8498E+03	-.2375E+02
Loads	106	.1166E+02	-.7631E+01	.7341E+01	.4053E+02	-.7818E+03	.1999E+02
BEAM NO. 48							
Loads	106	.8036E+01	.6987E+01	-.3745E+02	-.1999E+02	-.5799E+02	.2470E+03

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Loads	107	-.1394E+02	.8760E+01	.3155E+02	-.3373E+02	-.1123E+03	-.2470E+03
Loads	106	.3745E+02	-.6987E+01	-.8036E+01	-.2470E+03	.5799E+02	-.1999E+02
Loads	107	-.3155E+02	-.8760E+01	-.1394E+02	.2470E+03	-.1123E+03	.3373E+02
BEAM NO. 49							
Loads	107	-.8381E+01	.2584E+02	-.1389E+03	.3373E+02	-.1125E+04	.2226E+03
Loads	108	-.1429E+02	-.1009E+02	.1330E+03	.3448E+03	-.1328E+04	-.2226E+03
Loads	107	-.1389E+03	-.2584E+02	-.8381E+01	-.2226E+03	-.1125E+04	-.3373E+02
Loads	108	-.1330E+03	.1009E+02	.1429E+02	.2226E+03	.1328E+04	-.2448E+03
BEAM NO. 50							
Loads	108	-.1447E+02	-.1903E+02	-.1329E+02	.5558E+03	.1214E+04	.1632E+03
Loads	109	.8690E+01	-.3617E+01	.7507E+01	.5558E+03	-.1057E+04	.8519E+01
Loads	108	-.1447E+02	.1903E+02	.1329E+02	.5558E+03	-.1214E+04	-.1632E+03
Loads	109	.8690E+01	.3617E+01	-.7507E+01	.5558E+03	.1057E+04	-.8519E+01
BEAM NO. 51							
Loads	109	-.1618E+02	.5744E+01	-.1428E+02	.5977E+03	.1829E+02	-.8519E+01
Loads	110	.1040E+02	-.9665E+01	.8505E+01	-.5977E+03	.1545E+03	-.2121E+02
Loads	109	-.1618E+02	-.5744E+01	.1428E+02	.5977E+03	-.1829E+02	.8519E+01
Loads	110	.1040E+02	-.9665E+01	-.8505E+01	-.5977E+03	-.1545E+03	.2121E+02
BEAM NO. 52							
Loads	110	-.2385E+02	.7818E+01	-.7282E+01	.3280E+03	-.9395E+03	.2121E+02
Loads	111	.1807E+02	-.7591E+01	-.1504E+01	-.3280E+03	.1006E+04	-.1950E+02
Loads	110	-.2385E+02	-.7818E+01	.7282E+01	.3280E+03	.9395E+03	-.2121E+02
Loads	111	.1807E+02	.7591E+01	.1504E+01	-.3280E+03	-.1006E+04	.1950E+02
BEAM NO. 53							
Loads	111	-.3305E+02	.8116E+01	-.1750E+01	.4089E+02	-.1200E+04	.1950E+02
Loads	112	.2727E+02	.7293E+01	-.4028E+01	.4089E+02	.1185E+04	-.1325E+02
Loads	111	-.3305E+02	-.8116E+01	.1750E+01	.4089E+02	-.1200E+04	-.1950E+02
Loads	112	.2727E+02	-.7293E+01	.4028E+01	.4089E+02	.1185E+04	.1325E+02
BEAM NO. 54							
Loads	112	-.2783E+02	.1536E+01	.7412E+01	-.4007E+03	-.6646E+03	.1325E+02
Loads	113	.2205E+02	-.1387E+02	-.1319E+02	.4007E+03	.5083E+03	-.1068E+03
Loads	112	-.2783E+02	-.1536E+01	-.7412E+01	-.4007E+03	.6646E+03	-.1325E+02
Loads	113	.2205E+02	-.1387E+02	.1319E+02	.4007E+03	-.5083E+03	.1068E+03
BEAM NO. 55							
Loads	113	.1515E+02	.5969E+02	.7410E+00	-.2817E+03	.1787E+03	.1068E+03
Loads	114	-.2093E+02	-.4428E+02	-.6519E+01	.2817E+03	-.2338E+03	.6816E+03
Loads	113	.1515E+02	-.5969E+02	-.7410E+00	-.2817E+03	.1787E+03	-.1068E+03
Loads	114	-.2093E+02	.4428E+02	.6519E+01	.2817E+03	-.2338E+03	-.6816E+03
BEAM NO. 56							
Loads	115	-.6423E+04	.1601E+05	-.6422E+04	.1367E+06	-.2365E+02	-.1368E+06

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
 WITHIN SPECIFIED RANGE 1- 70

Maximum (absolute) Stress = .1381E+04 at BEAM 56

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
56	.4397E+03	.4578E+03	.2015E+03	-.1344E-02	.2876E+03	.6540E+03
	Maximum	Minimum	Com. Shear			
	.1381E+04	-.5019E+03	.6907E+03			

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SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

PLATE LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
*****PLATE 1***							
Gloads	2	-.9970E+02	-.1204E+03	-.1178E+02	.3846E+02	-.1515E+03	.0000E+00
Gloads	3	-.2125E+03	.4571E+03	-.1160E+02	-.2002E+03	-.4130E+02	.0000E+00
Gloads	20	.1246E+03	.4555E+02	.6526E+01	-.2909E+03	.1624E+03	.0000E+00
Gloads	19	.1877E+03	-.3822E+03	.1685E+02	-.6171E+02	-.3900E+02	.0000E+00
*****PLATE 2***							
Gloads	3	-.2597E+02	.1060E+03	.6897E+01	.2002E+03	-.1552E+03	.0000E+00
Gloads	4	-.3094E+03	.7286E+03	.1585E+01	-.6005E+02	-.1318E+03	.0000E+00
Gloads	21	.8580E+02	-.1887E+03	-.2014E+02	-.9498E+02	.2888E+02	.0000E+00
Gloads	20	.2496E+03	-.6459E+03	.1166E+02	.1414E+03	.4559E+01	.0000E+00
*****PLATE 3***							
Gloads	4	.9448E+02	.4618E+03	.1165E+02	.6005E+02	-.4049E+02	.0000E+00
Gloads	5	-.3930E+03	.1091E+04	-.2930E+02	-.3087E+03	-.2450E+03	.0000E+00
Gloads	22	.3661E+02	-.6100E+03	-.8475E+01	-.2415E+03	-.3444E+03	.0000E+00
Gloads	21	.2620E+03	-.9424E+03	.2612E+02	.1019E+03	.1137E+03	.0000E+00
*****PLATE 4***							
Gloads	5	-.3072E+02	.1262E+04	-.4563E+03	.0000E+00	.2254E+03	-.2844E+03
Gloads	6	.1178E+02	.5505E+03	.6360E+02	.0000E+00	.5075E+02	-.1891E+02
Gloads	23	.2683E+02	-.1108E+04	.3304E+03	.6596E+02	-.3956E+02	.0000E+00
Gloads	22	-.7886E+01	-.7042E+03	.6226E+02	.0000E+00	.3618E+03	-.2172E+03
*****PLATE 5***							
Gloads	6	.1143E+01	.9113E+03	-.4077E+03	.0000E+00	.7913E+02	-.1891E+02
Gloads	7	.4777E+00	.2286E+03	-.2698E+02	.0000E+00	.1453E+03	-.1102E+03
Gloads	24	.1339E+02	-.8455E+03	.3554E+03	.1546E+02	.5461E+02	.0000E+00
Gloads	23	-.1501E+02	-.2943E+03	.7931E+02	-.7113E+02	-.6412E+02	.0000E+00
*****PLATE 6***							
Gloads	7	-.1440E+02	.7048E+03	.3444E+03	.0000E+00	-.2831E+02	.1102E+03
Gloads	8	-.7791E+01	.6710E+02	-.6875E+02	.0000E+00	.1274E+03	.1687E+01
Gloads	25	.1474E+02	-.6535E+03	.3179E+03	-.1309E+03	.1572E+03	.0000E+00
Gloads	24	.7448E+01	-.1184E+03	.9528E+02	-.2453E+03	-.1486E+03	.0000E+00
*****PLATE 7***							
Gloads	8	-.7880E+01	.5264E+03	-.2763E+03	.0000E+00	-.1301E+03	-.1687E+01
Gloads	9	.1455E+02	-.7970E+02	-.1157E+03	.0000E+00	.2426E+02	.1180E+03
Gloads	26	.7626E+01	-.4764E+03	.2615E+03	-.2501E+03	-.1512E+03	.0000E+00
Gloads	25	.1481E+02	.2988E+02	.1305E+03	.1264E+03	-.1527E+03	.0000E+00
*****PLATE 8***							
Gloads	9	.1762E+01	.3352E+03	-.2023E+03	.0000E+00	-.1474E+03	-.1188E+03
Gloads	10	.2527E+01	-.2440E+03	-.1627E+03	.0000E+00	-.8768E+02	.1600E+01
Gloads	27	-.1782E+02	-.2740E+03	.2027E+03	-.5207E+02	.5135E+02	.0000E+00
Gloads	26	.1355E+02	.1828E+03	.1623E+03	.2928E+02	-.5340E+02	.0000E+00

LOAD CASE

GLD	Node	FX	FY	FZ	MX	MY	MZ
GLD	10	-1.525E+03	-5.098E+02	-4.136E+02	0.000E+00	0.000E+00	0.000E+00
GLD	11	1.355E+03	-5.098E+02	-4.136E+02	0.000E+00	0.000E+00	0.000E+00
GLD	12	-1.669E+03	-2.701E+03	-1.933E+03	1.770E+03	1.333E+03	1.000E+00
GLD	13	-1.625E+03	-2.524E+03	-1.220E+03	2.200E+03	2.888E+03	0.000E+00
GLD	14	-1.625E+03	-2.701E+03	-1.933E+03	1.770E+03	1.333E+03	1.000E+00
GLD	15	1.276E+03	-2.206E+03	-1.520E+03	-1.046E+03	-2.800E+03	0.000E+00
GLD	16	1.276E+03	-2.084E+02	-1.744E+02	0.000E+00	0.000E+00	0.000E+00
GLD	17	1.625E+03	-1.525E+03	-1.525E+02	1.680E+02	1.801E+02	1.456E+03
GLD	18	1.625E+03	-1.525E+03	-1.525E+02	1.680E+02	1.801E+02	1.456E+03
GLD	19	1.893E+03	-1.629E+03	-1.270E+03	1.829E+03	1.426E+03	1.162E+02
GLD	20	-1.810E+03	-1.629E+03	-1.270E+03	1.829E+03	1.426E+03	1.162E+02
GLD	21	1.423E+03	-5.727E+03	-1.423E+03	5.727E+03	1.423E+03	1.423E+03
GLD	22	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	23	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	24	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	25	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	26	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	27	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	28	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	29	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	30	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	31	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	32	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	33	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	34	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	35	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	36	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	37	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	38	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	39	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	40	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	41	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	42	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	43	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	44	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	45	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00

Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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I M A G E S 3 D
Run ID=MN61975

GLD	Node	FX	FY	FZ	MX	MY	MZ
GLD	10	-1.525E+03	-5.098E+02	-4.136E+02	0.000E+00	0.000E+00	0.000E+00
GLD	11	1.355E+03	-5.098E+02	-4.136E+02	0.000E+00	0.000E+00	0.000E+00
GLD	12	-1.669E+03	-2.701E+03	-1.933E+03	1.770E+03	1.333E+03	1.000E+00
GLD	13	-1.625E+03	-2.524E+03	-1.220E+03	2.200E+03	2.888E+03	0.000E+00
GLD	14	-1.625E+03	-2.701E+03	-1.933E+03	1.770E+03	1.333E+03	1.000E+00
GLD	15	1.276E+03	-2.206E+03	-1.520E+03	-1.046E+03	-2.800E+03	0.000E+00
GLD	16	1.276E+03	-2.084E+02	-1.744E+02	0.000E+00	0.000E+00	0.000E+00
GLD	17	1.625E+03	-1.525E+03	-1.525E+02	1.680E+02	1.801E+02	1.456E+03
GLD	18	1.625E+03	-1.525E+03	-1.525E+02	1.680E+02	1.801E+02	1.456E+03
GLD	19	1.893E+03	-1.629E+03	-1.270E+03	1.829E+03	1.426E+03	1.162E+02
GLD	20	-1.810E+03	-1.629E+03	-1.270E+03	1.829E+03	1.426E+03	1.162E+02
GLD	21	1.423E+03	-5.727E+03	-1.423E+03	5.727E+03	1.423E+03	1.423E+03
GLD	22	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	23	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	24	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	25	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	26	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	27	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	28	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	29	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	30	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	31	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	32	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	33	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	34	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	35	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	36	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	37	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	38	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	39	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	40	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	41	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	42	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	43	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	44	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00
GLD	45	1.345E+03	-4.255E+03	-6.617E+02	2.476E+03	7.078E+03	0.000E+00

Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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I M A G E S 3 D
Run ID=MN61975

Node	X	Y	Z	U	V	W	MX	MY	MZ
44	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
29	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
30	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
46	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
31	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
32	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
47	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
48	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
33	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
49	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
34	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
50	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
49	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
35	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
51	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
52	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
37	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
38	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
39	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
40	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
46	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
47	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
48	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
49	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
50	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
51	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
52	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
53	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
54	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
55	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
56	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
57	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
58	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
59	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
60	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
61	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
62	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
63	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
64	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
65	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
66	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
67	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
68	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
69	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
70	Fz	Fz	Fz	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

LOAD CASE 1:UBC SEISMIC LOAD - NS & EW DIR.

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	62	.2111E+03	-.3058E+03	-.1873E+02	-.1972E+03	-.2169E+03	.0000E+00
		****PLATE 43****					
Loads	47	-.1514E+03	-.1192E+03	-.1317E+01	.3028E+03	-.4209E+03	.0000E+00
Loads	48	-.2064E+03	.4251E+03	.4565E+01	.2775E+03	.4644E+03	.0000E+00
Loads	64	.1526E+03	.9398E+02	.4059E+00	-.3080E+03	.4716E+03	.0000E+00
Loads	63	.2052E+03	-.3998E+03	-.2842E+01	-.2008E+03	-.4519E+03	.0000E+00
		****PLATE 44****					
Loads	48	-.1552E+03	-.2896E+02	.6996E+01	-.3029E+03	-.4563E+03	.0000E+00
Loads	49	-.1840E+03	.4919E+03	-.2718E+01	.2837E+03	.3031E+03	.0000E+00
Loads	65	.1535E+03	.2326E+00	-.4746E+01	-.3129E+03	.3568E+03	.0000E+00
Loads	64	.1857E+03	-.4631E+03	.4968E+01	-.2786E+03	-.3851E+03	.0000E+00
		****PLATE 45****					
Loads	49	-.1511E+03	.9107E+02	.2263E+02	-.3066E+03	-.3191E+03	.0000E+00
Loads	50	-.1243E+03	.5118E+03	-.1835E+02	.2766E+03	.4288E+01	.0000E+00
Loads	66	.1428E+03	-.1124E+03	-.2250E+02	-.2199E+03	.2976E+02	.0000E+00
Loads	65	.1325E+03	-.4905E+03	.1513E+02	-.2021E+03	-.2875E+03	.0000E+00
		****PLATE 46****					
Loads	51	-.9881E+02	-.6626E+02	.1709E+02	.1116E+03	-.2990E+03	.0000E+00
Loads	52	-.5896E+02	.2147E+03	-.1327E+02	.1632E+03	.1320E+03	.0000E+00
Loads	68	.7809E+02	.3927E+02	-.1199E+02	-.4131E+02	.9403E+02	.0000E+00
Loads	67	.7958E+02	-.1877E+03	.8179E+01	-.4478E+03	-.2724E+03	.0000E+00
		****PLATE 47****					
Loads	52	-.1128E+03	.3636E+02	.3166E+02	-.1155E+02	-.1179E+03	.0000E+00
Loads	53	-.1955E+02	.2821E+03	-.2937E+02	.7372E+02	-.2278E+03	.0000E+00
Loads	69	.8558E+02	-.6897E+02	-.2786E+02	.4236E+02	-.2682E+03	.0000E+00
Loads	68	.4682E+02	-.2495E+03	.2557E+02	-.7716E+02	-.1683E+03	.0000E+00
		****PLATE 48****					
Loads	53	-.1283E+03	.1337E+02	.4516E+02	-.1450E+03	.2425E+03	.0000E+00
Loads	54	.3385E+02	.2967E+03	-.5384E+02	.1239E+03	-.8690E+03	.0000E+00
Loads	70	.1316E+03	-.1446E+03	-.4084E+02	.6560E+02	-.8562E+03	.0000E+00
Loads	69	-.3716E+02	-.2858E+03	.4907E+02	.2217E+02	-.1887E+03	.0000E+00
		****PLATE 49****					
Loads	54	-.5153E+02	.2991E+03	.3676E+02	.0000E+00	.8334E+03	.1150E+03
Loads	55	.4265E+02	-.2233E+03	-.8499E+02	-.1498E+03	-.8494E+02	.0000E+00
Loads	71	.4748E+02	-.2917E+03	-.1120E+02	.6796E+01	-.1112E+03	.0000E+00
Loads	70	-.3860E+02	-.2307E+03	.3702E+02	.0000E+00	.7598E+03	-.6267E+02
		****PLATE 50****					
Loads	55	-.2950E+02	.3637E+03	-.2084E+02	.1384E+02	.9735E+02	.0000E+00
Loads	56	.2820E+02	.1041E+03	-.1572E+03	.4670E+02	.2842E+03	.0000E+00
Loads	72	.3173E+02	-.3568E+03	.2694E+02	-.2689E+02	.3601E+03	.0000E+00
Loads	71	-.3043E+02	-.1109E+03	.1511E+03	.6225E+02	-.1873E+03	.0000E+00
		****PLATE 51****					
Loads	56	-.7117E+01	.3661E+03	-.6546E+02	.1391E+03	-.2741E+03	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	57	.9224E+01	.2431E+02	-.1602E+03	.8554E+02	.4264E+03	.0000E+00
Loads	73	.8044E+01	-.3445E+03	.6703E+02	-.1283E+03	.4026E+03	.0000E+00
Loads	72	-.1015E+02	-.4588E+02	.1586E+03	-.5003E+02	-.2872E+03	.0000E+00
		****PLATE 52****					
Loads	57	.8979E+01	.3006E+03	-.1035E+03	.7399E+02	-.4313E+03	.0000E+00
Loads	58	-.1033E+02	-.3250E+02	-.1142E+03	.1135E+03	.2621E+03	.0000E+00
Loads	74	-.1073E+02	-.2765E+03	.9101E+02	-.7919E+02	.2537E+03	.0000E+00
Loads	73	-.1208E+02	.8358E+01	.1267E+03	-.1380E+03	-.4110E+03	.0000E+00
		****PLATE 53****					
Loads	58	.3039E+02	.1828E+03	-.1152E+03	.4345E+02	-.2784E+03	.0000E+00
Loads	59	-.2837E+02	-.6282E+02	-.3622E+02	.4072E+02	-.1373E+03	.0000E+00
Loads	75	-.3404E+02	-.1522E+03	.8886E+02	-.1445E+02	-.2067E+03	.0000E+00
Loads	74	.3202E+02	.3220E+02	.6261E+02	-.2532E+02	-.3449E+03	.0000E+00
		****PLATE 54****					
Loads	59	.4465E+02	.1046E+03	-.1401E+03	-.1616E+03	.1149E+03	.0000E+00
Loads	60	-.5941E+02	-.2227E+02	.4511E+02	.0000E+00	-.8924E+03	.1973E+03
Loads	76	-.4064E+02	-.1125E+03	.1524E+03	.0000E+00	-.8693E+03	-.5184E+01
Loads	75	.5541E+02	.3015E+02	-.5744E+02	.2894E+02	.9594E+02	.0000E+00
		****PLATE 55****					
Loads	60	.3032E+02	-.2886E+02	-.7369E+02	-.2668E+03	-.1013E+04	.0000E+00
Loads	61	-.1194E+03	.902E+02	.475E+02	-.235E+03	-.208E+03	.0000E+00
Loads	77	.1978E+02	.3894E+02	.6169E+02	.4596E+02	-.1697E+03	.0000E+00
Loads	76	.1088E+03	-.1003E+03	-.3504E+02	-.4082E+02	.9870E+03	.0000E+00
		****PLATE 56****					
Loads	61	-.3039E+02	-.1049E+03	-.3291E+02	.1149E+03	.1943E+03	.0000E+00
Loads	62	-.1463E+03	.1629E+03	.3763E+02	.4108E+02	.2321E+03	.0000E+00
Loads	78	.4353E+02	.9340E+02	.3663E+02	-.8167E+02	.3763E+03	.0000E+00
Loads	77	.1332E+03	-.1515E+03	-.4135E+02	.2951E+02	.3236E+03	.0000E+00
		****PLATE 57****					
Loads	62	-.9175E+02	-.1170E+03	-.1629E+02	.2617E+03	-.2574E+03	.0000E+00
Loads	63	-.1498E+03	.2512E+03	.1812E+02	.9302E+02	.4562E+03	.0000E+00
Loads	79	.1037E+03	.9921E+02	.1652E+02	-.2491E+03	.5187E+03	.0000E+00
Loads	78	.1379E+03	-.2334E+03	-.1835E+02	.4544E+02	-.1921E+03	.0000E+00
		****PLATE 58****					
Loads	63	-.1427E+03	-.9680E+02	.3015E+01	.2829E+03	-.5094E+03	.0000E+00
Loads	64	-.1376E+03	.3284E+03	.510E+01	.2117E+03	.3863E+03	.0000E+00
Loads	80	.1543E+03	-.7778E+02	-.608E+01	-.1869E+03	.5146E+03	.0000E+00
Loads	79	.1257E+03	-.3094E+03	-.2685E+01	-.1148E+03	-.3965E+03	.0000E+00
		****PLATE 59****					
Loads	64	-.1656E+03	-.5366E+02	.2510E+02	.3750E+03	-.4728E+03	.0000E+00
Loads	65	-.1160E+03	.3654E+03	-.5201E+01	.2348E+03	.1632E+03	.0000E+00
Loads	81	.1753E+03	.4305E+02	-.3653E+02	-.1870E+03	.1504E+03	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	80	-1063E+03	-3548E+03	.1664E+02	-.1497E+02	-.4738E+03	.0000E+00
			****PLATE	60****			
Gloads	65	-.1347E+03	.3041E+02	-.3023E+02	-.2801E+03	-.2325E+03	.0000E+00
Gloads	66	-.8696E+02	.3683E+03	-.8331E+01	-.2884E+03	-.1067E+03	.0000E+00
Gloads	82	-.1173E+03	-.4682E+02	-.3673E+02	-.4525E+02	-.1920E+03	.0000E+00
Gloads	81	-.1043E+03	-.3519E+03	-.1483E+02	-.4146E+02	-.1523E+03	.0000E+00
			****PLATE	61****			
Gloads	67	-.3048E+02	-.8538E+02	-.2280E+02	-.1509E+03	-.1010E+03	.0000E+00
Gloads	68	-.7294E+02	-.1329E+03	-.5066E+00	-.2697E+03	-.1058E+03	.0000E+00
Gloads	84	-.5673E+01	-.7521E+02	-.1850E+02	-.1686E+03	-.1101E+03	.0000E+00
Gloads	83	-.9774E+02	-.1227E+03	-.3795E+01	-.2380E+02	-.1544E+03	.0000E+00
			****PLATE	62****			
Gloads	68	-.1608E+02	-.1839E+02	-.2283E+02	-.1494E+03	-.3151E+02	.0000E+00
Gloads	69	-.5142E+02	-.1250E+03	-.1824E+02	-.1042E+03	-.1548E+03	.0000E+00
Gloads	85	-.5566E+02	-.1083E+02	-.1462E+02	-.8671E+02	-.2624E+03	.0000E+00
Gloads	84	-.1232E+03	-.1174E+03	-.2074E+02	-.2096E+03	-.1468E+03	.0000E+00
			****PLATE	63****			
Gloads	69	-.3890E+02	-.1340E+03	-.4363E+02	-.1687E+03	-.2343E+03	.0000E+00
Gloads	70	-.4070E+01	-.8861E+02	-.4400E+02	-.4562E+02	-.7748E+03	.0000E+00
Gloads	86	-.2327E+03	-.1587E+03	-.3895E+02	-.1812E+03	-.6674E+03	.0000E+00
Gloads	85	-.1979E+03	-.6594E+02	-.3980E+02	-.6840E+02	-.7452E+02	.0000E+00
			****PLATE	64****			
Gloads	70	-.4133E+02	-.2205E+03	-.9467E+02	.0000E+00	-.8141E+03	-.9675E+01
Gloads	71	-.4919E+02	-.5368E+02	-.1978E+03	-.3980E+02	-.1299E+03	.0000E+00
Gloads	87	-.4363E+02	-.2366E+03	-.2186E+03	-.1232E+03	-.2588E+02	.0000E+00
Gloads	86	-.5148E+02	-.3761E+02	-.3217E+03	.0000E+00	-.7803E+03	-.1422E+03
			****PLATE	65****			
Gloads	71	-.2553E+02	-.2404E+03	-.7612E+02	-.9526E+02	-.5384E+02	.0000E+00
Gloads	72	-.2439E+02	-.6448E+02	-.1667E+03	-.4521E+02	-.2867E+03	.0000E+00
Gloads	88	-.2828E+01	-.2252E+03	-.8417E+02	-.1411E+03	-.1800E+03	.0000E+00
Gloads	87	-.1688E+01	-.7966E+02	-.1748E+03	-.5968E+02	-.9871E+02	.0000E+00
			****PLATE	66****			
Gloads	72	-.5254E+01	-.2297E+03	-.2188E+02	-.1221E+03	-.3597E+03	.0000E+00
Gloads	73	-.9155E+01	-.9123E+01	-.1390E+03	-.1173E+03	-.3888E+03	.0000E+00
Gloads	89	-.1294E+01	-.2169E+03	-.6977E+01	-.7531E+02	-.3744E+03	.0000E+00
Gloads	88	-.5195E+01	-.2189E+02	-.1238E+03	-.5688E+02	-.2416E+03	.0000E+00
			****PLATE	67****			
Gloads	73	-.1143E+02	-.2185E+03	-.1404E+02	-.1490E+03	-.3804E+03	.0000E+00
Gloads	74	-.2626E+01	-.2533E+02	-.1206E+03	-.1560E+03	-.3283E+03	.0000E+00
Gloads	90	-.3658E+01	-.2136E+03	-.1866E+02	-.2415E+02	-.2710E+03	.0000E+00
Gloads	89	-.5145E+01	-.2042E+02	-.1160E+03	-.3877E+02	-.3162E+03	.0000E+00
			****PLATE	68****			
Gloads	74	-.2205E+02	-.1611E+03	-.7698E+01	-.5151E+02	-.2370E+03	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	75	-.2882E+02	-.2048E+02	-.8891E+02	-.2678E+02	-.7095E+02	.0000E+00
Gloads	91	-.5704E+01	-.1646E+03	-.5582E+02	-.1979E+02	-.5270E+02	.0000E+00
Gloads	90	-.1067E+01	-.1701E+02	-.1370E+03	-.1417E+03	-.1030E+03	.0000E+00
			****PLATE	69****			
Gloads	75	-.4816E+02	-.7029E+01	-.9820E+02	-.4127E+02	-.1817E+03	.0000E+00
Gloads	76	-.3014E+02	-.7918E+02	-.3334E+02	.0000E+00	-.8436E+03	-.1355E+03
Gloads	92	-.4154E+02	-.3589E+02	-.3078E+03	.0000E+00	-.6524E+03	-.2949E+03
Gloads	91	-.2351E+02	-.1081E+03	-.2429E+03	-.1066E+03	-.2034E+03	.0000E+00
			****PLATE	70****			
Gloads	76	-.1085E+02	-.5327E+01	-.3339E+02	-.1819E+03	-.9118E+03	.0000E+00
Gloads	77	-.4260E+02	-.5315E+02	-.5239E+02	-.9881E+02	-.2797E+03	.0000E+00
Gloads	93	-.2592E+02	-.4410E+01	-.1308E+02	-.7483E+02	-.1779E+03	.0000E+00
Gloads	92	-.5820E+01	-.5223E+02	-.1967E+02	-.3644E+03	-.8049E+03	.0000E+00
			****PLATE	71****			
Gloads	77	-.3098E+02	-.4686E+02	-.3288E+02	-.1144E+03	-.1040E+03	.0000E+00
Gloads	78	-.5269E+02	-.1106E+03	-.2751E+02	-.1347E+03	-.1866E+03	.0000E+00
Gloads	94	-.6130E+02	-.4106E+02	-.2430E+01	-.2111E+03	-.1447E+03	.0000E+00
Gloads	93	-.2237E+02	-.1048E+03	-.2947E+01	-.8357E+02	-.1871E+02	.0000E+00
			****PLATE	72****			
Gloads	78	-.8890E+02	-.7689E+02	-.5566E+01	-.2618E+03	-.3708E+03	.0000E+00
Gloads	95	-.4576E+02	-.1763E+03	-.1649E+02	-.6298E+02	-.3680E+03	.0000E+00
Gloads	95	-.1075E+03	-.6788E+02	-.3801E+01	-.1176E+03	-.4165E+03	.0000E+00
Gloads	94	-.2714E+02	-.1673E+03	-.6736E+01	-.8258E+02	-.2211E+03	.0000E+00
			****PLATE	73****			
Gloads	79	-.1438E+03	-.7236E+02	-.9505E+01	-.3009E+03	-.4902E+03	.0000E+00
Gloads	80	-.1418E+02	-.2835E+03	-.9248E+01	-.1423E+03	-.4314E+03	.0000E+00
Gloads	96	-.3536E+03	-.5813E+02	-.1933E+02	-.2642E+02	-.3620E+03	.0000E+00
Gloads	95	-.2332E+01	-.2140E+03	-.5525E+01	-.9890E+02	-.3836E+03	.0000E+00
			****PLATE	74****			
Gloads	80	-.2066E+03	-.5749E+02	-.2003E+02	-.2962E+02	-.4722E+03	.0000E+00
Gloads	81	-.2902E+02	-.2796E+03	-.3619E+02	-.2260E+03	-.1005E+03	.0000E+00
Gloads	97	-.2449E+03	-.4233E+02	-.1943E+02	-.1780E+03	-.3456E+03	.0000E+00
Gloads	96	-.6729E+02	-.2645E+03	-.3266E+01	-.7003E+02	-.2828E+03	.0000E+00
			****PLATE	75****			
Gloads	81	-.2688E+03	-.7698E+02	-.5232E+02	-.4545E+03	-.9841E+02	.0000E+00
Gloads	82	-.5739E+02	-.3022E+03	-.5728E+02	-.1372E+04	-.7084E+03	.0000E+00
Gloads	98	-.3982E+03	-.8111E+02	-.1845E+03	-.1703E+04	-.9188E+03	.0000E+00
Gloads	97	-.1868E+03	-.3063E+03	-.2947E+02	-.7338E+03	-.2034E+03	.0000E+00
			****PLATE	76****			
Gloads	83	-.7677E+01	-.6441E+02	-.1677E+02	-.1570E+03	-.2528E+03	.0000E+00
Gloads	84	-.6767E+02	-.3649E+02	-.2875E+02	-.1164E+03	-.1021E+03	.0000E+00
Gloads	100	-.6528E+01	-.5447E+02	-.3248E+02	-.2035E+03	-.1430E+03	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	99	.6881E+02	-.2655E+02	-.7781E+02	.2712E+03	.3364E+03	.0000E+00
		PLATE 77					
Loads	84	-.2927E+02	-.7935E+02	.1100E+01	-.7548E+02	.1548E+03	.0000E+00
Loads	85	-.9295E+02	.6674E+02	.2599E+02	.2735E+03	.5173E+02	.0000E+00
Loads	101	.7252E+02	.8082E+02	-.6836E+01	.2789E+03	-.3542E+02	.0000E+00
Loads	100	-.4969E+02	-.6821E+02	-.2026E+02	-.2986E+02	.9072E+02	.0000E+00
		PLATE 78					
Loads	85	-.1735E+02	-.9871E+02	-.1876E+02	-.2918E+03	-.1361E+03	.0000E+00
Loads	86	-.1573E+03	.1300E+03	-.9752E+02	-.6819E+03	-.1073E+03	.0000E+00
Loads	102	-.1582E+03	.8085E+02	.9387E+02	-.6644E+03	-.1253E+03	.0000E+00
Loads	101	.1644E+02	-.1121E+03	.2242E+02	-.2787E+03	.4648E+02	.0000E+00
		PLATE 79					
Loads	86	-.1667E+02	-.3664E+02	.1997E+03	.0000E+00	.4296E+03	-.1410E+03
Loads	87	.2698E+02	-.1753E+03	-.2007E+02	-.1169E+03	.1227E+03	.0000E+00
Loads	103	.5328E+02	.1587E+02	-.5143E+02	.0000E+00	.2714E+03	.6417E+02
Loads	102	-.6360E+02	-.1546E+03	-.1282E+03	.0000E+00	.4205E+03	-.2102E+03
		PLATE 80					
Loads	87	-.3274E+02	.4440E+02	.1002E+03	-.6603E+02	.1916E+01	.0000E+00
Loads	88	.2278E+02	.9342E+02	-.3647E+02	.3034E+01	.1515E+03	.0000E+00
Loads	104	.4089E+02	-.2562E+02	-.5929E+02	.0000E+00	.4706E+03	-.2607E+01
Loads	103	-.3093E+02	-.1122E+03	-.4403E+01	.0000E+00	.3628E+03	.1039E+03
		PLATE 81					
Loads	88	.1578E+02	.5716E+02	-.3302E+02	.1943E+03	-.8988E+02	.0000E+00
Loads	89	.1892E+02	-.6017E+02	-.7129E+02	.7223E+02	.1353E+03	.0000E+00
Loads	105	-.5732E+01	-.5534E+02	-.2697E+02	.0000E+00	.1674E+03	-.9693E+02
Loads	104	-.2845E+02	-.2123E+02	.6072E+02	.0000E+00	-.1647E+02	-.2002E+03
		PLATE 82					
Loads	89	.2162E+02	.8057E+02	-.6332E+01	.4186E+02	-.1935E+03	.0000E+00
Loads	90	-.5969E+00	-.1133E+01	.7194E+02	.1097E+03	.1325E+02	.0000E+00
Loads	106	-.4099E+02	-.7820E+02	.1875E+02	.0000E+00	-.1534E+03	-.1221E+03
Loads	105	-.1997E+02	.2751E+03	.5918E+02	.0000E+00	-.3109E+03	-.7314E+02
		PLATE 83					
Loads	90	.3938E+02	.1392E+03	-.4756E+02	.5614E+02	-.1812E+03	.0000E+00
Loads	91	-.1478E+02	-.1369E+02	-.1089E+03	.1379E+03	-.1353E+03	.0000E+00
Loads	107	-.7846E+02	-.1529E+03	.1126E+03	.0000E+00	-.5582E+03	-.1275E+03
Loads	106	.5386E+02	.2740E+02	.4393E+02	.0000E+00	-.5704E+03	-.8435E+02
		PLATE 84					
Loads	91	.2174E+02	.1898E+03	-.4422E+02	-.2247E+03	-.1207E+03	.0000E+00
Loads	92	-.9019E+02	-.1158E+03	.2134E+03	.0000E+00	-.4873E+03	.4155E+03
Loads	108	-.2916E+02	-.1561E+03	-.2470E+03	.0000E+00	-.7601E+03	.3370E+03
Loads	107	.9759E+02	.8210E+02	.8400E+01	.0000E+00	-.4818E+03	.1519E+03
		PLATE 85					
Loads	92	-.3554E+02	-.1348E+02	-.1403E+02	.2406E+03	.4806E+03	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	93	.3328E+02	.3663E+01	.4042E+02	-.1265E+03	-.7157E+02	.0000E+00
Loads	109	.3244E+02	-.1204E+01	.7459E+02	-.2640E+02	.4516E+03	.0000E+00
Loads	108	-.3018E+02	-.1102E+02	-.1010E+03	-.3477E+03	.7405E+03	.0000E+00
		PLATE 86					
Loads	93	-.4616E+02	.2343E+01	-.3863E+02	-.3190E+02	.8873E+02	.0000E+00
Loads	94	.1492E+02	.3747E+02	.3279E+02	-.5892E+02	-.1351E+03	.0000E+00
Loads	110	.4291E+02	-.3478E+01	.6037E+02	.9933E+01	.6024E+03	.0000E+00
Loads	109	-.1167E+02	-.3633E+02	-.5454E+02	-.1545E+02	.5686E+03	.0000E+00
		PLATE 87					
Loads	94	-.6795E+02	-.5685E+01	.6927E+01	-.1874E+03	-.5864E+02	.0000E+00
Loads	95	.1730E+02	.5330E+02	.2557E+02	-.1631E+02	.1587E+03	.0000E+00
Loads	111	.6683E+02	.1801E+01	.1582E+02	.1054E+03	.3451E+03	.0000E+00
Loads	110	-.1619E+02	-.4941E+02	-.4832E+02	.2598E+03	.1826E+03	.0000E+00
		PLATE 88					
Loads	95	-.9174E+02	-.1578E+01	.1916E+02	.3503E+02	-.1916E+03	.0000E+00
Loads	96	.4165E+02	.5532E+02	.1157E+02	.6249E+02	.5359E+02	.0000E+00
Loads	112	.8867E+02	-.8277E+00	-.2845E+02	.2280E+03	.3290E+02	.0000E+00
Loads	111	-.3857E+02	-.5292E+02	-.2292E+01	.1817E+03	-.1508E+03	.0000E+00
		PLATE 89					
Loads	96	-.9456E+02	.5659E+02	.4033E+02	.3396E+02	-.2073E+03	.0000E+00
Loads	97	.1067E+03	.6832E+02	-.3401E+01	.1006E+03	-.1121E+02	.0000E+00
Loads	113	.6272E+02	-.8150E+02	-.7527E+02	.2611E+03	-.4455E+03	.0000E+00
Loads	112	-.7483E+02	-.4341E+02	-.2135E+02	-.2136E+03	-.5515E+03	.0000E+00
		PLATE 90					
Loads	97	-.1293E+03	-.1012E+03	-.1009E+02	-.6564E+03	-.1533E+03	.0000E+00
Loads	98	.1971E+03	-.1609E+01	-.1770E+03	-.1162E+04	-.5292E+03	.0000E+00
Loads	114	.1886E+02	-.2713E+02	.8611E+02	.8885E+03	-.4547E+03	.0000E+00
Loads	113	-.8664E+02	-.7246E+02	-.1010E+03	-.3801E+03	-.2416E+03	.0000E+00
		PLATE 91					
Loads	122	-.2513E+03	-.6323E+03	-.7322E+02	-.5672E+03	-.1189E+03	.0000E+00
Loads	2	-.1179E+03	-.1669E+02	-.4577E+02	-.5375E+03	-.5515E+02	.0000E+00
Loads	19	.2164E+03	.3894E+03	.4648E+02	-.6713E+03	.1418E+03	.0000E+00
Loads	124	.1528E+03	.2262E+03	.6661E+02	-.7120E+03	.4633E+02	.0000E+00
		PLATE 92					
Loads	124	-.1259E+03	-.4073E+03	-.3671E+02	-.1491E+03	-.1685E+03	.0000E+00
Loads	19	-.1703E+03	.6161E+02	-.2193E+02	-.1556E+03	.2343E+02	.0000E+00
Loads	35	.1513E+03	.2642E+03	.2048E+02	-.4706E+03	-.1466E+03	.0000E+00
Loads	126	.1449E+03	.8146E+02	.7796E+02	.5070E+03	-.4688E+02	.0000E+00
		PLATE 93					
Loads	126	-.1120E+03	-.2347E+03	-.8166E+01	.1651E+03	-.1630E+03	.0000E+00
Loads	35	-.1084E+03	.9479E+02	-.3539E+01	-.1192E+03	.8499E+02	.0000E+00
Loads	51	.1191E+03	.1476E+03	.4495E+01	-.2682E+03	-.1706E+03	.0000E+00

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SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	128	.1012E+03	-.7753E+01	.7210E+01	-.2737E+03	-.7355E+02	.0000E+00
			PLATE	94			
Gloads	128	-.7064E+02	-.1180E+03	.2237E+02	.4131E+03	-.1292E+03	.0000E+00
Gloads	51	-.7402E+02	.8655E+02	.7867E+01	.2972E+03	.7877E+02	.0000E+00
Gloads	67	.7072E+02	.7257E+02	-.1892E+02	-.6027E+02	-.1326E+01	.0000E+00
Gloads	130	.7394E+02	-.4111E+02	-.1132E+02	.1515E+02	-.1692E+03	.0000E+00
			PLATE	95			
Gloads	130	-.3673E+02	-.7804E+02	.4653E+02	.7063E+03	.2264E+02	.0000E+00
Gloads	67	-.6854E+02	.7429E+02	.4052E+02	.6733E+03	.5620E+02	.0000E+00
Gloads	83	-.2846E+02	.7047E+02	-.2071E+02	.5062E+03	.1235E+03	.0000E+00
Gloads	132	.7682E+02	-.6671E+02	-.6635E+02	.5082E+03	.1939E+03	.0000E+00
			PLATE	96			
Gloads	132	-.4610E+02	-.3634E+02	.1000E+03	.4872E+03	-.1374E+03	.0000E+00
Gloads	83	-.4588E+02	.1051E+02	.5010E+02	.6182E+03	-.3013E+03	.0000E+00
Gloads	99	.6295E+02	.6538E+02	-.1567E+03	.7732E+03	-.9319E+03	.0000E+00
Gloads	134	-.2903E+02	-.3955E+02	.6580E+01	.5984E+03	-.7612E+03	.0000E+00
			PLATE	97			
Gloads	17	-.2450E+02	.6026E+03	-.7013E+02	-.6476E+03	-.1007E+03	.0000E+00
Gloads	123	-.4734E+03	-.1327E+04	-.8368E+02	-.8411E+03	-.5672E+02	.0000E+00
Gloads	125	.1184E+03	-.7791E+03	.7443E+02	-.1037E+04	-.1238E+02	.0000E+00
Gloads	34	.3795E+03	-.1150E+04	.7938E+02	-.8577E+03	-.1516E+02	.0000E+00
			PLATE	98			
Gloads	34	-.1400E+03	.5344E+03	-.2455E+02	-.5733E+02	-.1489E+03	.0000E+00
Gloads	125	-.9561E+02	.8436E+03	-.4507E+02	-.1941E+03	-.9105E+02	.0000E+00
Gloads	127	.1079E+03	-.5843E+03	.2745E+02	-.6674E+03	-.4149E+02	.0000E+00
Gloads	50	.1277E+03	-.7936E+03	.3977E+02	-.5601E+03	-.7097E+02	.0000E+00
			PLATE	99			
Gloads	50	-.8628E+02	.3824E+03	.2875E+02	.4103E+03	-.1770E+03	.0000E+00
Gloads	127	-.7400E+02	.5863E+03	.1015E+01	.4464E+03	-.1647E+03	.0000E+00
Gloads	139	.6687E+02	-.4099E+02	-.4478E+02	-.6432E+02	-.2640E+02	.0000E+00
Gloads	66	.9341E+02	-.5587E+03	.1301E+02	-.1372E+03	-.2395E+03	.0000E+00
			PLATE	100			
Gloads	66	-.1076E+03	.2221E+03	.6652E+02	.7035E+03	-.3502E+02	.0000E+00
Gloads	129	-.3577E+02	.3925E+03	.6984E+02	.1108E+04	-.1576E+03	.0000E+00
Gloads	131	.1178E+03	-.2348E+03	-.7892E+02	.8396E+03	-.7481E+02	.0000E+00
Gloads	82	.2558E+02	-.3798E+03	-.5744E+02	.3490E+03	.8579E+02	.0000E+00
			PLATE	101			
Gloads	82	-.1188E+03	.1552E+02	.8526E+02	.1825E+04	.8677E+03	.0000E+00
Gloads	131	-.8062E+02	.2430E+03	.1215E+03	.7399E+03	.4114E+03	.0000E+00
Gloads	133	-.5906E+01	.3128E+02	.3438E+02	.9452E+03	.7017E+03	.0000E+00
Gloads	98	.2053E+03	-.2898E+03	-.2411E+03	.2176E+04	.1136E+04	.0000E+00
			PLATE	102			
Gloads	98	.9540E+02	.6209E+02	-.1804E+03	-.1337E+04	.3590E+03	.0000E+00

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SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	133	.2925E+02	-.7655E+02	-.9062E+01	-.5060E+03	.1291E+03	.0000E+00
Gloads	135	-.2404E+02	-.2629E+02	.2529E+02	-.2475E+03	-.1686E+03	.0000E+00
Gloads	114	-.1006E+03	.4075E+02	.1642E+03	-.10356E+04	.5211E+01	.0000E+00

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

MAXIMUM STRESS SUMMARY FOR PLATES
 WITHIN SPECIFIED RANGE 1- 102

Maximum (absolute) Stress = .3463E+03 at Plate 40

Plate	Sigma X	Sigma Y	Tau XY	Von Mises
40	-.3463E+03	-.8900E+02	.9047E+00	.3115E+03

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SOLVE REACTIONS Version 2.0 07/01/90

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Load Case 1:UBC SEISMIC LOAD - NS & EW DIR.

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
1	-.2192E+02	.3164E+03	-.1370E+03	.0000E+00	.0000E+00	.0000E+00
2	-.2445E+03	-.1501E+02	-.8265E+02	.0000E+00	-.1001E+04	.9723E+02
3	-.2545E+03	.6056E+03	-.2066E+02	.0000E+00	-.1963E+03	.0000E+00
4	-.2309E+03	-.1233E+04	-.2717E+01	.0000E+00	-.1723E+03	.0000E+00
5	-.4472E+03	.2916E+04	-.5092E+03	-.4289E+03	-.1467E+03	.4038E+03
6	-.5173E+01	-.1510E+04	-.3622E+03	.0000E+00	.1299E+03	.0000E+00
7	-.3201E+02	.9816E+03	-.3895E+03	.0000E+00	.1170E+03	.0000E+00
8	-.3377E+02	.6417E+03	-.3631E+03	.0000E+00	-.2667E+01	.0000E+00
9	-.3089E+02	.3038E+03	-.3361E+03	.0000E+00	-.1231E+03	.0000E+00
10	-.4831E+01	-.1728E+03	-.2648E+03	.0000E+00	-.1290E+03	.0000E+00
11	-.2653E+03	-.1241E+04	-.2522E+03	-.3918E+03	.6500E+03	.6938E+03
12	-.2354E+03	.2442E+03	.1463E+01	.0000E+00	.2569E+03	.0000E+00
13	-.3081E+03	.1569E+03	-.3334E+02	.0000E+00	.2904E+03	.0000E+00
14	-.3359E+03	.4046E+03	-.4115E+02	.0000E+00	.1914E+03	.0000E+00
15	-.3528E+03	.6217E+03	-.4799E+02	.0000E+00	.5407E+02	.0000E+00
16	-.3670E+03	.8432E+03	-.3759E+02	.0000E+00	-.5095E+02	.0000E+00
17	-.4229E+03	.1673E+04	-.1374E+03	.0000E+00	-.6221E+03	.1049E+03
18	-.1952E+02	.2173E+03	.3425E+02	.0000E+00	.0000E+00	.0000E+00
115	-.6774E+04	.0000E+00	-.7972E+04	.0000E+00	.0000E+00	.0000E+00
116	-.1827E+04	.7957E+04	-.7833E+03	.0000E+00	.0000E+00	.0000E+00
117	-.7850E+03	.7957E+04	-.1829E+04	.0000E+00	.0000E+00	.0000E+00
118	-.3619E+04	.1041E+05	-.7862E+03	.0000E+00	.0000E+00	.0000E+00
119	-.7821E+03	.1041E+05	-.3620E+04	.0000E+00	.0000E+00	.0000E+00
122	-.2714E+03	.8265E+03	-.8764E+02	.0000E+00	-.7437E+03	.1109E+03
123	-.4963E+03	.1793E+04	-.1040E+03	.0000E+00	-.3245E+03	.1384E+03

SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 2:GRAVITY LOAD

BEAM LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
BEAM NO. 1							
Gloads	99	-1.036E+00	-1.225E-03	-2.811E+02	-1.137E-12	-1.1779E-14	-4.814E-16
Gloads	99	-1.036E+00	-1.2281E+02	-2.811E+02	-9.695E+03	-5.695E+01	-1.3367E+02
Gloads	1	1.239E+03	-2.116E+02	-1.036E+00	-1.624E-14	7.287E-15	-1.137E-12
Lloads	99	-1.024E+02	-3.672E+02	-1.036E+00	1.367E-14	1.481E+02	9.695E+03
BEAM NO. 2							
Gloads	18	-2.438E+00	1.062E+03	1.867E+02	-1.137E-12	-3.649E-14	3.140E-15
Gloads	114	-2.438E+00	3.583E+02	-1.867E+02	8.466E+03	-1.122E+02	3.218E+02
Lloads	18	-1.044E+03	-1.731E+02	2.438E+00	3.172E-14	1.438E-14	-1.137E-12
Lloads	114	-2.679E+02	-2.942E+02	2.438E+00	2.621E-15	3.408E+02	8.466E+03
BEAM NO. 3							
Gloads	99	1.182E+02	5.256E+02	-2.652E+02	8.846E+03	-7.417E+01	3.663E+03
Gloads	108	-1.182E+02	-5.070E+02	2.652E+02	-7.597E+03	-4.750E+01	-3.283E+03
Lloads	99	2.904E+02	-5.256E+02	-1.197E+00	6.049E+01	7.417E+01	-9.219E+03
Lloads	108	-2.904E+02	-5.070E+02	1.197E+00	-6.049E+01	-4.750E+01	8.276E+03
BEAM NO. 4							
Gloads	114	-4.444E+02	4.658E+02	4.568E+02	-9.904E+03	5.060E+01	-9.701E+03
Gloads	102	4.444E+02	-6.632E+02	-4.568E+02	1.011E+04	5.164E+00	9.908E+03
Lloads	114	-6.387E+02	-6.587E+02	4.288E-01	-7.628E+00	-5.060E+01	-1.386E+04
Lloads	102	-6.387E+02	-6.632E+02	-4.288E-01	7.628E+00	-5.164E+00	1.416E+04
BEAM NO. 5							
Gloads	98	2.216E+02	4.801E+02	-2.552E+02	5.326E+03	-1.020E+01	-4.752E+03
Gloads	115	-2.216E+02	-4.918E+02	2.552E+02	-5.374E+03	1.275E+00	5.120E+03
Lloads	98	3.356E+02	-4.801E+02	7.782E-02	-6.844E+01	-1.020E+01	-7.137E+03
Lloads	115	-3.356E+02	-4.918E+02	-7.782E-02	6.844E+01	1.275E+00	7.697E+03
BEAM NO. 6							
Gloads	92	-1.012E+00	4.186E+02	-4.776E+00	-5.633E+03	3.580E+01	2.178E+03
Gloads	115	1.012E+00	-3.662E+02	4.776E+00	5.374E+03	-2.511E+01	-1.444E+03
Lloads	92	-4.818E+00	-4.186E+02	7.884E-01	-3.580E+01	-3.580E+01	-6.039E+03
Lloads	115	4.818E+00	-3.662E+02	-7.884E-01	1.209E+01	2.511E+01	4.015E+03
BEAM NO. 7							
Gloads	86	-2.819E+02	4.670E+02	-2.172E+02	3.761E+03	-9.938E-01	4.952E+03
Gloads	115	2.819E+02	-1.114E+02	2.172E+02	-2.311E+03	-6.622E+01	-3.165E+03
Lloads	86	-3.559E+02	-4.670E+02	4.560E+00	3.794E+01	9.938E+01	-6.218E+03
Lloads	115	3.559E+02	1.114E+02	-4.560E+00	-3.794E+01	-6.622E+01	-3.908E+03
BEAM NO. 8							
Gloads	134	.9554E+00	3.726E+01	-7.167E-01	-9.602E+00	-6.593E+01	2.487E-12

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
BEAM NO. 9							
Gloads	99	-.9554E+00	-.1659E+02	7.167E-01	-.9602E+00	8.026E+01	-.1287E+03
Lloads	134	.9554E+00	-.3726E+01	7.167E-01	-.9602E+00	6.593E+01	-.2487E-12
Lloads	99	-.9554E+00	-.1659E+02	-7.167E-01	9.602E+00	-8.026E+01	1.287E+03
BEAM NO. 10							
Gloads	135	-3.588E+01	-5.135E+01	-1.876E+00	-1.472E+02	-8.267E+01	2.963E+02
Gloads	114	3.588E+01	2.254E+02	1.876E+00	-1.472E+02	-1.202E+02	2.763E+03
Lloads	135	3.588E+01	5.135E+01	-1.876E+00	-1.472E+02	-8.267E+01	2.963E+02
Lloads	114	-3.588E+01	-2.254E+02	1.876E+00	1.472E+02	1.202E+02	2.763E+03
BEAM NO. 10							
Gloads	122	1.495E+01	-1.477E+03	2.842E-02	2.668E+00	4.023E+01	-2.064E+02
Gloads	124	-1.495E+01	1.225E+03	-2.842E-02	-2.939E+00	-4.023E+01	1.224E+02
Lloads	122	1.477E+03	1.495E+01	2.842E-02	4.023E+01	2.668E+00	-2.064E+02
Lloads	124	-1.253E+03	-1.495E+01	-2.842E-02	-4.023E+01	-3.293E+00	1.224E+02
BEAM NO. 11							
Gloads	124	-.6518E+00	-1.168E+03	1.603E-01	-1.449E+01	2.967E+01	1.224E+02
Gloads	126	6.518E+00	-.9440E+02	-1.603E-01	1.802E+01	-2.967E+01	2.094E+01
Lloads	124	1.168E+03	-.6518E+00	1.603E-01	2.967E+01	-1.449E+01	1.224E+02
Lloads	126	-.9440E+02	6.518E+00	1.603E-01	-2.967E+01	2.967E+01	-2.094E+01
BEAM NO. 12							
Gloads	126	1.273E+00	9.624E-02	4.966E-02	3.892E+01	1.179E+01	-2.094E+01
Gloads	128	-1.273E+00	-7.389E+02	-4.966E-02	4.001E+01	-1.179E+01	2.094E+00
Lloads	126	9.624E+02	1.273E+00	4.966E-02	1.179E+01	-3.892E+01	2.094E+01
Lloads	128	-7.389E+02	-1.273E+00	4.966E-02	-1.179E+01	4.001E+01	-2.094E+00
BEAM NO. 13							
Gloads	128	-3.643E-01	-7.415E+02	3.596E-01	-9.219E+01	-2.396E+01	7.053E+00
Gloads	134	3.643E-01	5.180E+02	-3.596E-01	9.219E+01	2.396E+01	-7.053E+00
Lloads	128	7.415E+02	-3.643E-01	-3.596E-01	-2.396E+01	9.219E+01	-7.053E+00
Lloads	134	-5.180E+02	3.643E-01	3.596E-01	2.396E+01	-9.219E+01	7.053E+00
BEAM NO. 14							
Gloads	130	3.652E-02	4.885E+02	-3.157E-01	-1.213E+02	-3.075E+00	-1.004E+00
Gloads	132	-3.652E-02	-2.091E+02	3.157E-01	1.126E+02	3.075E+00	-4.900E-13
Lloads	130	4.885E+02	-3.652E-02	-3.157E-01	-3.075E+00	-1.213E+02	1.004E+00
Lloads	132	-2.091E+02	3.652E-02	3.157E-01	3.075E+00	1.126E+02	4.900E-13
TRUSS NO. 15							
Gloads	132	0.000E+00	5.923E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Gloads	134	0.000E+00	-5.923E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Lloads	132	5.923E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Lloads	134	-5.923E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BEAM NO. 16							
Gloads	123	-1.839E+01	1.546E+03	3.765E-01	-5.571E+01	-2.479E+01	2.622E+02

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	125	.1839E+01	-.1323E+03	-.3765E-01	.6399E+01	-.2479E+01	.1622E+02
LLoads	123	-.1546E+03	-.1839E+01	-.3765E-01	-.2479E+01	-.5571E+01	-.2424E+02
LLoads	125	-.1323E+03	-.1839E+01	-.3765E-01	-.2479E+01	-.6399E+01	-.1424E+02
BEAM NO. 17							
GLoads	2	.3998E+00	-.1361E+03	-.7676E-02	.4171E+01	-.5186E+01	-.6387E+01
LLoads	19	-.3998E+00	-.1137E+03	-.7676E-02	-.1272E+00	-.5186E+01	-.2409E+01
LLoads	2	-.1361E+03	-.3998E+00	-.7676E-02	.5186E+01	-.4171E-01	-.6387E+01
LLoads	19	-.1137E+03	-.3998E+00	-.7676E-02	-.5186E+01	-.1272E+00	-.2409E+01
BEAM NO. 18							
GLoads	19	-.8043E-01	.1257E+03	-.1156E-01	.5961E+00	-.4608E+01	-.2409E+01
LLoads	35	.8043E-01	-.1033E+03	-.1156E-01	-.8504E+00	-.4608E+01	-.6393E+00
LLoads	19	.1257E+03	-.8043E-01	-.1156E-01	.5961E+00	-.4608E+01	-.2409E+01
LLoads	35	-.1033E+03	-.8043E-01	-.1156E-01	-.4608E+01	-.8504E+00	-.6393E+00
BEAM NO. 19							
GLoads	35	-.6885E-01	.9999E+02	-.1409E-01	-.1370E+01	-.2373E+01	-.6393E+00
LLoads	51	.6885E-01	-.7746E+02	-.1409E-01	-.1680E+01	-.2373E+01	-.6393E+00
LLoads	35	.9999E+02	-.6885E-01	-.1409E-01	-.2373E+01	-.1370E+01	-.6393E+00
LLoads	51	-.7746E+02	-.6885E-01	-.1409E-01	-.2373E+01	-.1680E+01	-.6393E+00
BEAM NO. 20							
GLoads	51	.2164E+00	-.7529E+02	-.1328E-01	.2999E+01	-.6387E+00	-.8753E+00
LLoads	67	-.2164E+00	-.5297E+02	-.1328E-01	-.2706E+01	-.6387E+00	-.3886E+01
LLoads	51	.7529E+02	-.2164E+00	-.1328E-01	-.6387E+00	-.2999E+01	-.8753E+00
LLoads	67	-.5297E+02	-.2164E+00	-.1328E-01	-.6387E+00	-.2706E+01	-.3886E+01
BEAM NO. 21							
GLoads	67	-.6478E+00	.5439E+02	-.4936E-01	-.1695E+02	-.1599E+01	.3886E+01
LLoads	83	.6478E+00	-.2645E+02	-.4936E-01	-.1811E+02	-.1599E+01	-.1393E+02
LLoads	67	.5439E+02	-.6478E+00	-.4936E-01	-.1599E+01	.1695E+02	-.3886E+01
LLoads	83	-.2645E+02	-.6478E+00	-.4936E-01	-.1599E+01	-.1811E+02	-.1393E+02
BEAM NO. 22							
GLoads	83	.7363E+01	-.3332E+02	.4037E+00	-.5090E+02	-.5482E+01	-.1393E+02
LLoads	99	-.7363E+01	-.1656E+02	.4037E+00	.5757E+02	.5482E+01	-.1076E+03
LLoads	83	.3332E+02	.7363E+01	-.4037E+00	-.5482E+01	-.5090E+02	-.1393E+02
LLoads	99	-.1656E+02	-.7363E+01	-.4037E+00	.5482E+01	.5757E+02	-.1076E+03
BEAM NO. 23							
GLoads	5	-.6881E+00	.1442E+03	-.5354E+00	-.1460E+02	.3162E+01	-.1280E+02
LLoads	22	.6881E+00	-.1219E+03	.5354E+00	.3820E+01	-.3162E+01	.2336E+01
LLoads	5	.1442E+03	-.6881E+00	-.5354E+00	-.3162E+01	-.1460E+02	-.1280E+02
LLoads	22	-.1219E+03	-.6881E+00	.5354E+00	-.3162E+01	-.3820E+01	-.2336E+01
BEAM NO. 24							
GLoads	22	.5486E+00	-.1098E+03	.2257E+00	-.2029E+02	.3332E+01	-.1553E+02

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	38	-.5486E+00	-.8747E+02	-.2257E+00	-.1532E+02	-.3332E+01	.3460E+01
LLoads	22	.1098E+03	-.5486E+00	.2257E+00	.3332E+01	-.2029E+02	-.1553E+02
LLoads	38	-.8747E+02	.5486E+00	-.2257E+00	-.3332E+01	.1532E+02	.3460E+01
BEAM NO. 25							
GLoads	38	-.4321E+00	.9545E+02	-.1246E+00	-.1399E+02	-.1237E+01	.6518E+01
LLoads	54	.4321E+00	-.7510E+02	-.1246E+00	.1673E+02	-.1237E+01	-.2988E+01
LLoads	38	.9545E+02	-.4321E+00	.1246E+00	-.1237E+01	-.1399E+02	.6518E+01
LLoads	54	-.7510E+02	-.4321E+00	-.1246E+00	-.1237E+01	-.1673E+02	-.2988E+01
BEAM NO. 26							
GLoads	54	.4563E+00	.7785E+02	-.5193E+00	.1456E+02	.1291E+01	-.6885E+00
LLoads	70	-.4563E+00	-.5550E+02	.5193E+00	-.2599E+02	.1291E+01	-.9350E+01
LLoads	54	.7785E+02	-.4563E+00	.5193E+00	.1291E+01	-.1456E+02	-.6885E+00
LLoads	70	-.5550E+02	.4563E+00	.5193E+00	.1291E+01	.2599E+02	-.9350E+01
BEAM NO. 27							
GLoads	70	-.3387E+00	-.6204E+02	.5889E+00	-.1738E+02	-.6156E+01	-.4153E+01
LLoads	86	.3387E+00	-.3410E+02	-.5889E+00	.3357E+02	.6156E+01	.1347E+02
LLoads	70	.6204E+02	.3387E+00	.5889E+00	-.6156E+01	-.1738E+02	-.4153E+01
LLoads	86	-.3410E+02	-.3387E+00	-.5889E+00	.6156E+01	-.3357E+02	.1347E+02
BEAM NO. 28							
GLoads	86	.1154E+02	-.3216E+02	-.1206E+02	.8880E+01	-.8137E+01	-.1354E+02
LLoads	102	-.1154E+02	-.1540E+02	.1206E+02	-.2079E+03	-.8137E+01	-.1769E+03
LLoads	86	.3216E+02	-.1154E+02	-.1206E+02	.8137E+01	-.8880E+01	-.1354E+02
LLoads	102	-.1540E+02	.1154E+02	.1206E+02	-.8137E+01	-.2079E+03	-.1769E+03
BEAM NO. 29							
GLoads	11	.3384E+01	-.2204E+03	.1421E+01	.2908E+02	-.8908E+01	-.6935E+02
LLoads	28	-.3384E+01	-.1856E+03	-.1421E+01	.2191E+01	.8908E+01	-.5104E+01
LLoads	11	.2204E+03	.1421E+01	.3384E+01	-.8908E+01	-.6935E+02	-.2908E+02
LLoads	28	-.1856E+03	-.1421E+01	-.3384E+01	.8908E+01	-.5104E+01	.2191E+01
BEAM NO. 30							
GLoads	28	-.1594E+01	.1617E+03	-.9686E+00	-.3026E+02	-.5922E+01	-.6389E+02
LLoads	44	.1594E+01	-.1269E+03	.9686E+00	.8951E+01	.5922E+01	-.2882E+02
LLoads	28	.1617E+03	-.9686E+00	-.1594E+01	-.5922E+01	.6389E+02	-.3026E+02
LLoads	44	-.1269E+03	.9686E+00	.1594E+01	.5922E+01	-.2882E+02	.8951E+01
BEAM NO. 31							
GLoads	44	.6104E+00	-.1352E+03	-.6550E+00	.8919E+01	-.2409E+01	-.4078E+01
LLoads	60	-.6104E+00	-.1004E+03	-.6550E+00	.5492E+01	.2409E+01	-.9350E+01
LLoads	44	.1352E+03	.6550E+00	.6104E+00	-.2409E+01	-.4078E+01	.8919E+01
LLoads	60	-.1004E+03	-.6550E+00	-.6104E+00	.2409E+01	.9350E+01	.5492E+01
BEAM NO. 32							
GLoads	60	-.1063E+01	.1091E+03	-.7227E+00	-.1720E+01	.4378E+01	-.5489E+01

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Load Case 2:GRAVITY LOAD

Loads Node	Fx	Fy	Fz	Mx	My	Mz
Stress Node	Max	Min	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Loads 76	.1063E+01	-.7427E+02	-.7227E+00	-.1418E+02	-.4378E+01	.2888E+02
Loads 60	.1091E+03	-.7227E+00	-.1063E+01	-.4378E+01	-.5489E+01	-.1720E+01
Loads 76	-.7427E+02	-.7227E+00	-.1063E+01	-.4378E+01	-.2888E+02	-.1418E+02
BEAM NO. 33						
Loads 76	-.1666E+01	.8242E+02	.5929E+00	-.1485E+01	-.7699E+01	-.2133E+02
Loads 92	-.1666E+01	-.3892E+02	-.5929E+00	-.1779E+02	-.7699E+01	-.6715E+02
Loads 76	.8242E+02	.5929E+00	.1666E+01	-.7699E+01	-.2133E+02	-.1485E+01
Loads 92	-.3892E+02	-.5929E+00	-.1666E+01	-.7699E+01	-.6715E+02	-.1779E+02
BEAM NO. 34						
Loads 92	-.3275E+01	.3607E+02	.1364E+02	.3714E+02	-.1508E+02	-.1299E+03
Loads 108	.3275E+01	-.9967E+01	-.1364E+02	-.1879E+03	-.1508E+02	-.1840E+03
Loads 92	.3607E+02	-.1364E+02	-.3275E+01	-.1508E+02	-.1299E+03	.3714E+02
Loads 108	-.9967E+01	-.1364E+02	.3275E+01	-.1508E+02	-.1840E+03	-.1879E+03
BEAM NO. 35						
Loads 17	-.7855E+00	-.1373E+03	-.1708E-01	-.5394E+01	-.3773E+01	-.1243E+02
Loads 34	.7855E+00	-.1150E+03	-.1708E-01	-.5769E+01	.3773E+01	-.4851E+01
Loads 17	-.1373E+03	.7855E+00	-.1708E-01	-.3773E+01	-.5394E+01	-.1243E+02
Loads 34	-.1150E+03	-.7855E+00	-.1708E-01	-.5769E+01	.3773E+01	-.4851E+01
BEAM NO. 36						
Loads 34	.2209E+00	-.1265E+03	-.3068E-02	-.1479E+02	-.2879E+01	-.4851E+01
Loads 50	-.2209E+00	-.1042E+03	-.3068E-02	-.1486E+02	-.2879E+01	-.4851E+01
Loads 34	.1265E+03	-.2209E+00	-.3068E-02	-.2879E+01	-.1479E+02	-.4851E+01
Loads 50	-.1042E+03	-.2209E+00	-.3068E-02	-.2879E+01	-.1486E+02	-.8537E-02
BEAM NO. 37						
Loads 50	-.3377E+00	.1015E+02	-.4007E-01	-.2767E+02	-.7762E+00	.8537E-02
Loads 66	.3377E+00	-.7915E+02	-.4007E-01	-.2855E+02	-.7762E+00	-.7421E+01
Loads 50	.1015E+03	-.3377E+00	-.4007E-01	-.7762E+00	-.2767E+02	.8537E-02
Loads 66	-.7915E+02	-.3377E+00	-.4007E-01	-.2855E+02	-.7421E+01	-.7762E+00
BEAM NO. 38						
Loads 66	.2000E+01	-.7893E+02	-.5136E-01	-.3330E+02	.5724E+01	-.7421E+01
Loads 82	-.2000E+01	-.5658E+02	-.5136E-01	-.3217E+02	-.5724E+01	-.3657E+02
Loads 66	.7893E+02	-.2000E+01	-.5136E-01	.5724E+01	-.3330E+02	-.7421E+01
Loads 82	-.5658E+02	-.2000E+01	-.5136E-01	-.3217E+02	-.5724E+01	-.3657E+02
BEAM NO. 39						
Loads 82	-.6771E+01	.6307E+02	.2247E+00	-.9021E+02	-.1272E+01	.3657E+02
Loads 98	.6771E+01	-.3513E+02	-.2247E+00	.9639E+02	-.1272E+01	.1496E+03
Loads 82	.6307E+02	.6771E+01	.2247E+00	-.1272E+01	.9021E+02	.3657E+02
Loads 98	-.3513E+02	-.6771E+01	-.2247E+00	-.1272E+01	-.9639E+02	.1496E+03
BEAM NO. 40						
Loads 98	-.4232E+02	.3556E+02	.2354E+01	.1009E+03	.1180E+01	.3255E+03

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Load Case 2:GRAVITY LOAD

Loads Node	Fx	Fy	Fz	Mx	My	Mz
Stress Node	Max	Min	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Loads 114	.4232E+02	-.1879E+02	-.2354E+01	-.6204E+02	-.1180E+01	.3727E+03
Loads 98	.3556E+02	.2326E+02	.2354E+01	.1180E+01	-.1009E+03	.3255E+03
Loads 114	-.1879E+02	-.4232E+02	-.2354E+01	-.1180E+01	-.6204E+02	.3727E+03
BEAM NO. 41						
Loads 99	-.3153E+01	-.4171E+01	.8993E-01	.3484E+02	-.5241E+01	-.1165E+03
Loads 100	.3153E+01	.1806E+02	.8993E-01	-.3484E+02	.4012E+01	-.3543E+02
Loads 99	-.3153E+01	.4171E+01	-.8993E-01	-.3484E+02	.5241E+01	.1165E+03
Loads 100	.3153E+01	-.1806E+02	.8993E-01	-.3484E+02	-.4012E+01	.3543E+02
BEAM NO. 42						
Loads 100	-.1152E+02	.9794E+01	.1894E+00	.3009E+02	-.2477E+01	.3543E+02
Loads 101	.1152E+02	.4088E+01	-.1894E+00	.3009E+02	-.5065E+01	-.3569E+01
Loads 100	-.1152E+02	-.9794E+01	-.1894E+00	.3009E+02	-.2477E+01	-.3543E+02
Loads 101	.1152E+02	-.4088E+01	.1894E+00	-.3009E+02	.5065E+01	-.3569E+01
BEAM NO. 43						
Loads 101	-.1972E+02	-.9375E+01	-.1771E+00	.5147E+02	.3984E+01	-.3569E+01
Loads 102	.1972E+02	.2326E+02	.1771E+00	-.5147E+02	-.1563E+01	-.2194E+03
Loads 101	-.1972E+02	.9375E+01	.1771E+00	.5147E+02	-.3984E+01	.3569E+01
Loads 102	.1972E+02	-.2326E+02	-.1771E+00	-.5147E+02	.1563E+01	.2194E+03
BEAM NO. 44						
Loads 102	-.1595E+00	-.1037E+02	-.6407E+01	-.2258E+03	-.6927E+01	-.2630E+02
Loads 103	.1595E+00	.2611E+02	.6407E+01	-.2595E+02	.9399E+01	.2630E+02
Loads 102	.6407E+01	.1037E+02	-.1595E+00	.2630E+02	.6927E+01	.2258E+03
Loads 103	-.6407E+01	-.2611E+02	-.1595E+00	-.2630E+02	-.9399E+01	.2630E+02
BEAM NO. 45						
Loads 103	.1277E+00	.1047E+01	.5208E+01	.5695E+02	-.1036E+02	-.6033E+01
Loads 104	-.1277E+00	-.5281E+01	-.5208E+01	-.1677E+02	.8379E+01	.6033E+01
Loads 103	-.5208E+01	-.1047E+02	-.1277E+00	.6033E+01	.1036E+02	-.5695E+02
Loads 104	.5208E+01	-.5281E+01	.1277E+00	-.6033E+01	-.8379E+01	.1677E+02
BEAM NO. 46						
Loads 104	-.2903E-02	.7597E+01	.7560E+01	.1677E+02	-.3291E+01	-.7790E+01
Loads 105	.2903E-02	.8151E+01	-.7560E+01	-.2106E+02	.3336E+01	.7790E+01
Loads 104	.7560E+01	-.7597E+01	-.2903E-02	.7790E+01	-.3291E+01	-.1677E+02
Loads 105	-.7560E+01	-.8151E+01	.2903E-02	.7790E+01	-.3336E+01	.2106E+02
BEAM NO. 47						
Loads 105	.5381E-01	.8046E+01	.5874E+01	.2106E+02	-.1759E+01	-.4421E+01
Loads 106	-.5381E-01	.7702E+01	-.5874E+01	-.1839E+02	.9247E+00	.4421E+01
Loads 105	-.874E+01	-.8046E+01	-.5381E-01	.4421E+01	.1759E+01	-.2106E+02
Loads 106	.874E+01	-.7702E+01	.5381E-01	-.4421E+01	-.9247E+00	.1839E+02
BEAM NO. 48						
Loads 106	.5334E-01	.6658E+01	.4365E+00	.1839E+02	.3277E+01	-.4104E+01

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Load Case 2:GRAVITY LOAD

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
GLoads	107	-5334E-01	.9090E+01	-.4365E+00	-.3724E+02	-.4104E+01	-.4104E+01
LLoads	106	-.4365E+00	-.6658E+01	-.5334E-01	-.4104E+01	-.3277E+01	-.1839E+02
LLoads	107	-.4365E+00	-.9090E+01	-.5334E-01	-.4104E+01	-.4104E+01	-.3724E+02
BEAM NO. 49							
GLoads	107	-.2706E-01	-.1738E+02	-.1282E+02	-.3724E+02	-.7852E+01	-.6940E+01
LLoads	108	-.2706E-01	-.1633E+01	-.1282E+02	-.1101E+03	-.8271E+01	-.6940E+01
LLoads	107	-.1282E+02	-.1738E+02	-.2706E-01	-.6940E+01	-.7852E+01	-.3724E+02
LLoads	108	-.1282E+02	-.1633E+01	-.2706E-01	-.6940E+01	-.8271E+01	-.1101E+03
BEAM NO. 50							
GLoads	108	-.4228E+01	-.1124E+02	-.2946E+00	-.5832E+01	-.1731E+02	-.6724E+02
LLoads	109	-.4228E+01	-.4171E+01	-.2946E+00	-.5832E+01	-.1284E+02	-.1364E+02
LLoads	108	-.4228E+01	-.1124E+02	-.2946E+00	-.5832E+01	-.1731E+02	-.6724E+02
LLoads	109	-.4228E+01	-.4171E+01	-.2946E+00	-.5832E+01	-.1284E+02	-.1364E+02
BEAM NO. 51							
GLoads	109	-.5430E+01	.7287E+01	.2044E-01	-.1276E+02	.3927E+01	-.1364E+02
LLoads	110	-.5430E+01	-.8122E+01	-.2044E-01	-.1276E+02	-.4237E+01	-.1998E+02
LLoads	109	-.5430E+01	-.7287E+01	-.2044E-01	-.1276E+02	-.3927E+01	-.1364E+02
LLoads	110	-.5430E+01	-.8122E+01	-.2044E-01	-.1276E+02	-.4237E+01	-.1998E+02
BEAM NO. 52							
GLoads	110	-.6401E+01	-.7700E+01	-.1102E+00	-.1128E+02	-.3583E+01	-.1998E+02
LLoads	111	-.6401E+01	-.7709E+01	-.1102E+00	-.1128E+02	-.1912E+01	-.2005E+02
LLoads	110	-.6401E+01	-.7700E+01	-.1102E+00	-.1128E+02	-.3583E+01	-.1998E+02
LLoads	111	-.6401E+01	-.7709E+01	-.1102E+00	-.1128E+02	-.1912E+01	-.2005E+02
BEAM NO. 53							
GLoads	111	-.7059E+01	.8050E+01	-.2935E-01	-.1520E+02	-.6891E+00	-.2005E+02
LLoads	112	-.7059E+01	-.7359E+01	-.2935E-01	-.1520E+02	-.1134E+01	-.1480E+02
LLoads	111	-.7059E+01	-.8050E+01	-.2935E-01	-.1520E+02	-.6891E+00	-.2005E+02
LLoads	112	-.7059E+01	-.7359E+01	-.2935E-01	-.1520E+02	-.1134E+01	-.1480E+02
BEAM NO. 54							
GLoads	112	-.4718E+01	.4366E+01	-.1672E+00	-.8167E+01	-.5408E+01	-.1480E+02
LLoads	113	-.4718E+01	-.1104E+02	-.1672E+00	-.8167E+01	-.7944E+01	-.6544E+02
LLoads	112	-.4718E+01	-.4366E+01	-.1672E+00	-.8167E+01	-.5408E+01	-.1480E+02
LLoads	113	-.4718E+01	-.1104E+02	-.1672E+00	-.8167E+01	-.7944E+01	-.6544E+02
BEAM NO. 55							
GLoads	113	-.2645E+01	-.3107E+02	-.2471E+00	-.3011E+01	-.2127E+02	-.6544E+02
LLoads	114	-.2645E+01	-.1566E+02	-.2471E+00	-.3011E+01	-.2502E+02	-.2890E+03
LLoads	113	-.2645E+01	-.3107E+02	-.2471E+00	-.3011E+01	-.2127E+02	-.6544E+02
LLoads	114	-.2645E+01	-.1566E+02	-.2471E+00	-.3011E+01	-.2502E+02	-.2890E+03
BEAM NO. 56							
GLoads	115	-.1242E+01	-.1600E+05	-.2150E+01	-.2390E+03	.8467E+00	-.1381E+03

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Load Case 2:GRAVITY LOAD

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
GLoads	120	-.1242E+01	-.1548E+05	-.2150E+01	-.1250E+03	-.8467E+00	-.7224E+02
LLoads	115	-.1600E+05	-.1553E+01	-.1937E+01	-.8467E+00	-.2153E+03	-.1727E+03
LLoads	120	-.1548E+05	-.1553E+01	-.1937E+01	-.8467E+00	-.1126E+03	-.9034E+02
BEAM NO. 57							
GLoads	120	-.1242E+01	-.1452E+05	-.2150E+01	-.1250E+03	-.8467E+00	-.7224E+02
LLoads	121	-.1242E+01	-.1515E+05	-.2150E+01	-.9342E+01	-.8467E+00	-.5399E+02
LLoads	120	-.1452E+05	-.1553E+01	-.1937E+01	-.8467E+00	-.1126E+03	-.9034E+02
LLoads	121	-.1515E+05	-.1553E+01	-.1937E+01	-.8467E+00	-.8418E+01	-.6751E+01
BEAM NO. 58							
GLoads	116	-.5827E+00	-.3787E+04	-.1114E+00	-.5773E+01	-.1410E+02	-.7412E+04
LLoads	121	-.5827E+00	-.3996E+04	-.1114E+00	-.5773E+01	-.1644E+02	-.7431E+04
LLoads	116	-.5827E+00	-.3787E+04	-.1114E+00	-.5773E+01	-.1410E+02	-.7412E+04
LLoads	121	-.5827E+00	-.3996E+04	-.1114E+00	-.5773E+01	-.1644E+02	-.7431E+04
BEAM NO. 59							
GLoads	117	.8335E-01	-.3995E+04	-.1008E+01	-.7394E+05	-.7840E+01	-.3467E+01
LLoads	121	.8335E-01	-.3785E+04	-.1008E+01	-.7430E+05	-.9500E+01	-.3467E+01
LLoads	117	-.1008E+01	-.3995E+04	-.8335E-01	-.3467E+01	-.7840E+01	-.7394E+04
LLoads	121	-.1008E+01	-.3785E+04	-.8335E-01	-.3467E+01	-.9500E+01	-.7430E+05
BEAM NO. 60							
GLoads	118	-.5827E+00	-.3995E+04	-.2167E-01	-.5153E+01	-.1556E+02	-.7399E+04
LLoads	121	-.5827E+00	-.3786E+04	-.2167E-01	-.5153E+01	-.1602E+02	-.7430E+05
LLoads	118	-.5827E+00	-.3995E+04	-.2167E-01	-.5153E+01	-.1556E+02	-.7399E+04
LLoads	121	-.5827E+00	-.3786E+04	-.2167E-01	-.5153E+01	-.1602E+02	-.7430E+05
BEAM NO. 61							
GLoads	119	-.6425E-02	-.3997E+04	-.1008E+01	-.7418E+04	-.9302E+01	-.2847E+01
LLoads	121	-.6425E-02	-.3788E+04	-.1008E+01	-.7432E+05	-.9176E+01	-.2847E+01
LLoads	119	-.1008E+01	-.3997E+04	-.6425E-02	-.2847E+01	-.9302E+01	-.7418E+04
LLoads	121	-.1008E+01	-.3788E+04	-.6425E-02	-.2847E+01	-.9176E+01	-.7432E+05
BEAM NO. 62							
GLoads	125	.7116E+00	-.1166E+03	.4874E-01	-.1829E+02	-.5538E+00	-.1424E+02
LLoads	127	.7116E+00	-.9428E+02	-.4874E-01	-.1936E+02	-.5538E+00	-.1413E+01
LLoads	125	-.1166E+03	-.7116E+00	-.4874E-01	-.5538E+00	-.1829E+02	-.1424E+02
LLoads	127	-.9428E+02	-.7116E+00	-.4874E-01	-.5538E+00	-.1936E+02	-.1413E+01
BEAM NO. 63							
GLoads	127	-.1118E+00	-.9606E+02	-.2753E-01	-.3190E+02	-.1740E+01	-.1413E+01
LLoads	129	-.1118E+00	-.7371E+02	-.2753E-01	-.3250E+02	-.1740E+01	-.1046E+01
LLoads	127	-.9606E+02	-.1118E+00	-.2753E-01	-.1740E+01	-.3190E+02	-.1413E+01
LLoads	129	-.7371E+02	-.1118E+00	-.2753E-01	-.1740E+01	-.3250E+02	-.1046E+01
BEAM NO. 64							
GLoads	129	-.1211E+00	-.7650E+02	-.1132E+00	-.5148E+02	-.1188E+02	-.1046E+01

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Load Case 2:GRAVITY LOAD

GLoads Node	Fx	Fy	Fz	Mx	My	Mz
LLoads Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Maximum	Minimum	Cmb. Shear			
GLoads 131	-.1211E+00	-.5415E+02	-.1132E+00	.5398E+02	-.1188E+02	-.1619E+01
LLoads 129	-.7650E+02	-.1211E+00	.1132E+00	.1188E+02	.5148E+02	-.1046E+01
LLoads 131	-.5415E+02	.1211E+00	-.1132E+00	-.1188E+02	-.5398E+02	-.1619E+01
BEAM NO. 65						
GLoads 131	-.3115E+00	.4931E+02	-.2032E+00	-.4290E+02	-.9416E+01	.1619E+01
GLoads 133	.3115E+00	-.2137E+02	.2032E+00	.3731E+02	.9416E+01	.6948E+01
LLoads 131	.4931E+02	.3115E+00	-.2032E+00	-.9416E+01	.4290E+02	.1619E+01
LLoads 133	-.2137E+02	-.3115E+00	.2032E+00	.9416E+01	-.3731E+02	.6948E+01
BEAM NO. 66						
GLoads 133	.2217E+01	.1259E+02	-.1258E+01	-.1488E+02	-.7148E+01	-.6948E+01
GLoads 135	-.2217E+01	.4172E+01	.1258E+01	-.5877E+01	.7148E+01	-.2963E+02
LLoads 133	.1259E+02	-.2217E+01	-.1258E+01	-.7148E+01	.1488E+02	-.6948E+01
LLoads 135	.4172E+01	.2217E+01	.1258E+01	.7148E+01	.5877E+01	-.2963E+02
BEAM NO. 67						
GLoads 115	-.8973E+03	-.4020E+04	.2067E+01	-.2330E+03	.2931E+02	.4625E+03
GLoads 116	.8973E+03	.5189E+04	-.2067E+01	-.5773E+01	.1410E+02	-.7412E+04
LLoads 115	.4115E+04	-.1638E+03	.2067E+01	.1284E+02	-.2345E+03	.4625E+03
LLoads 116	-.5266E+04	-.4537E+02	-.2067E+01	-.1284E+02	-.8202E+01	-.7412E+04
BEAM NO. 68						
GLoads 115	-.1198E+01	-.4020E+04	-.8940E+03	-.8385E+03	.1731E+02	-.1349E+03
GLoads 117	.1198E+01	.5190E+04	.8940E+03	.7394E+04	.7840E+01	-.3467E+01
LLoads 115	.4115E+04	-.1604E+03	.1198E+01	.7093E+01	-.1358E+03	.8385E+03
LLoads 117	-.5266E+04	-.4876E+02	-.1198E+01	-.7093E+01	-.4813E+01	-.7394E+04
BEAM NO. 69						
GLoads 115	.8949E+03	-.4020E+04	.2033E+01	.2319E+03	-.2754E+02	-.7379E+03
GLoads 118	-.8949E+03	.5189E+04	-.2033E+01	-.5153E+01	-.1556E+02	.7399E+04
LLoads 115	.4115E+04	-.1613E+03	-.2033E+01	-.1439E+02	.2331E+03	.7379E+03
LLoads 118	-.5266E+04	-.4786E+02	.2033E+01	.1439E+02	.7854E+01	-.7399E+04
BEAM NO. 70						
GLoads 115	-.1183E+01	-.4019E+04	.8982E+03	.3619E+03	-.1554E+02	-.1338E+03
GLoads 119	.1183E+01	.5189E+04	-.8982E+03	-.7418E+04	-.9302E+01	-.2847E+01
LLoads 115	.4115E+04	-.1647E+02	-.1183E+01	.8642E+01	.1344E+03	.3619E+03
LLoads 119	-.5266E+04	-.4449E+02	.1183E+01	.8642E+01	.4465E+01	-.7418E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 2:GRAVITY LOAD

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
 WITHIN SPECIFIED RANGE 1- 70

Maximum (absolute) Stress = .4557E+03 at BEAM 56						
Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
56	.4547E+03	-.8826E-01	-.1101E+00	.4812E-04	-.5482E+00	.4396E+00
	Maximum	Minimum	Cmb. Shear			
	.4557E+03	.4537E+03	.2278E+03			

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 2:GRAVITY LOAD

PLATE LOADS AND/OR STRESSES							
Gloads	Node	Fx	Fy	Fz	Mx	My	Nz
****PLATE 1****							
Gloads	2	.9833E+02	.2615E+03	-.7696E-01	-.1955E+01	.3168E+00	.0000E+00
Gloads	3	-.8562E+02	.2401E+03	-.3503E+00	-.2426E+01	.2563E+00	.0000E+00
Gloads	20	-.6920E+02	-.2606E+03	.2376E+00	-.2999E+01	-.1103E+01	.0000E+00
Gloads	19	.5648E+02	-.2410E+03	.1696E+00	.2019E+01	-.7367E+00	.0000E+00
****PLATE 2****							
Gloads	5	.8289E+02	.2378E+03	.2165E+00	.2426E+01	-.9224E+00	.0000E+00
Gloads	4	-.9594E+02	.2583E+03	.1145E+01	-.1311E+02	.1101E+01	.0000E+00
Gloads	21	-.2520E+02	-.2373E+03	-.9639E+00	.1268E+02	.2518E+00	.0000E+00
Gloads	20	.6554E+02	-.2588E+03	-.3977E+00	-.1738E+01	.2014E+00	.0000E+00
****PLATE 3****							
Gloads	4	.6987E+02	.2278E+03	-.1179E+01	-.1311E+02	.3266E+00	.0000E+00
Gloads	5	-.1004E+03	.2835E+03	-.4162E+01	-.4597E+02	.8193E+00	.0000E+00
Gloads	22	-.3154E+02	-.2344E+03	.4251E+01	-.4506E+02	-.7454E+00	.0000E+00
Gloads	21	.6208E+02	-.2770E+03	.1090E+01	-.1337E+02	-.6705E+00	.0000E+00
****PLATE 4****							
Gloads	5	-.6061E+01	.3364E+03	-.1155E+03	.0000E+00	-.6701E+00	.6790E+02
Gloads	6	-.1795E+01	.400E+03	.5363E+02	.0000E+00	-.1916E-01	.1804E+02
Gloads	23	.1578E+01	-.3273E+03	.714E-02	.0000E+00	-.6417E+00	.0000E+00
Gloads	22	.6278E+01	-.2485E+03	-.1549E+02	.0000E+00	-.2065E+01	-.6770E+02
****PLATE 5****							
Gloads	6	.1548E+01	.3049E+03	-.1112E+03	.0000E+00	.6312E-01	-.1804E+02
Gloads	7	.5131E+00	.2500E+03	.7299E+02	.0000E+00	.3603E+00	-.5170E+01
Gloads	24	-.4077E+00	-.3043E+03	.8521E+02	.5173E+01	.8063E+00	.0000E+00
Gloads	23	-.1654E+01	-.2506E+03	-.4696E+02	.1696E+02	.4054E+00	.0000E+00
****PLATE 6****							
Gloads	7	.4444E+00	.2849E+03	-.1018E+03	.0000E+00	-.5035E+00	.5170E+01
Gloads	8	-.3637E+00	.2689E+03	.9106E+02	.0000E+00	-.2697E+00	.3610E+01
Gloads	25	.2614E+00	-.2841E+03	.8032E+02	-.3989E+01	-.1479E+00	.0000E+00
Gloads	24	.5467E+00	-.2696E+03	-.6959E+02	-.5009E+01	-.6646E+00	.0000E+00
****PLATE 7****							
Gloads	8	.2774E+00	.2659E+03	-.8947E+02	.0000E+00	-.1632E+00	-.3610E+01
Gloads	9	.7649E+00	.2841E+03	.1167E+03	.0000E+00	-.6047E-01	-.8036E+01
Gloads	26	-.7355E+00	-.2654E+03	.6846E+02	.805E+00	.4125E+00	.0000E+00
Gloads	25	-.3068E+00	-.2846E+03	-.8165E+02	.3241E+01	-.2669E+00	.0000E+00
****PLATE 8****							
Gloads	9	-.7604E+00	.2444E+03	-.7167E+02	.0000E+00	-.4094E+00	.8030E+01
Gloads	10	-.2754E+01	.2997E+03	.1110E+03	.0000E+00	-.3065E+00	.3099E+02
Gloads	27	.2744E+01	-.2438E+03	.4718E+02	-.3047E+02	.5230E+00	.0000E+00
Gloads	26	.7706E+00	-.3002E+03	-.8653E+02	-.7832E+01	.3560E-01	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
****PLATE 9****							
Gloads	10	.2842E+01	.2370E+03	-.5675E+02	.0000E+00	-.4176E+00	-.3099E+02
Gloads	11	.1033E+02	.3278E+03	.1144E+03	.0000E+00	-.4726E+00	-.1140E+03
Gloads	28	-.1042E+02	-.2460E+03	.2206E+02	.0000E+00	-.4044E+00	-.1134E+03
Gloads	27	-.2746E+01	-.3188E+03	-.7966E+02	.3139E+02	-.2049E+00	.0000E+00
****PLATE 10****							
Gloads	11	.1152E+03	.3223E+03	.7919E+01	.8818E+02	-.1066E+01	.0000E+00
Gloads	12	-.5882E+02	.2320E+03	.2083E+01	.2242E+02	-.4008E+00	.0000E+00
Gloads	29	-.8155E+02	-.2338E+03	-.2153E+01	.2231E+02	-.8440E+00	.0000E+00
Gloads	28	.2519E+02	-.2405E+03	-.7849E+01	.8714E+02	-.4377E+00	.0000E+00
****PLATE 11****							
Gloads	12	.1137E+03	.2970E+03	-.2135E+01	-.2242E+02	-.6202E+00	.0000E+00
Gloads	13	-.7305E+02	.2388E+03	-.5190E+00	.7334E+01	-.4024E+00	.0000E+00
Gloads	30	.9049E+02	-.2977E+03	.887E+00	-.6575E+01	-.1484E+01	.0000E+00
Gloads	29	.4984E+02	-.2381E+03	.2067E+01	-.2206E+02	.5802E+00	.0000E+00
****PLATE 12****							
Gloads	13	.1084E+03	.2844E+03	.6341E+00	.7334E+01	-.1228E+01	.0000E+00
Gloads	14	-.9071E+02	.2954E+03	.8864E+01	.2649E+00	-.1321E+01	.0000E+00
Gloads	31	-.8966E+02	-.2845E+03	-.2397E+00	.2023E+00	.1281E+00	.0000E+00
Gloads	30	.7196E+02	-.2587E+03	.4831E+00	.8099E+01	.1307E+00	.0000E+00
****PLATE 13****							
Gloads	14	.1013E+03	.2736E+03	-.1721E+00	.2649E+00	-.4611E+00	.0000E+00
Gloads	15	-.1031E+03	.2771E+03	.6721E-01	-.1598E+01	-.7898E+00	.0000E+00
Gloads	32	-.8377E+02	-.2744E+03	.3837E+01	-.2862E+00	.1247E+01	.0000E+00
Gloads	31	.8559E+02	-.2761E+03	.6651E-01	-.1580E+00	.1605E+01	.0000E+00
****PLATE 14****							
Gloads	15	.9198E+02	.2626E+03	.1687E+00	-.1598E+01	-.1041E+01	.0000E+00
Gloads	16	-.1132E+03	.2638E+03	-.1764E+00	-.8831E+00	.1069E+01	.0000E+00
Gloads	33	-.7334E+02	-.2638E+03	-.1764E+00	-.8831E+00	.1069E+01	.0000E+00
Gloads	32	.9458E+02	-.2934E+03	.5474E-01	.3028E+01	.1663E+00	.0000E+00
****PLATE 15****							
Gloads	16	.7827E+02	.2649E+03	-.3677E-01	.1066E+01	.3508E+00	.0000E+00
Gloads	17	-.1214E+03	.3143E+03	.2136E+00	.4260E+00	-.3187E+00	.0000E+00
Gloads	34	.5536E+02	-.2517E+03	-.5721E+02	.1271E+00	.8738E+00	.0000E+00
Gloads	33	.9853E+02	-.3126E+03	.1712E+00	-.1128E+01	.2248E+01	.0000E+00
****PLATE 16****							
Gloads	19	.1569E+02	.2240E+03	-.4399E-01	-.6140E+00	.1381E+01	.0000E+00
Gloads	20	-.8955E+01	.2121E+03	.2513E+00	.2499E+01	.3259E+00	.0000E+00
Gloads	36	-.1010E+02	-.2292E+03	.2448E-01	.3092E+01	.4117E+00	.0000E+00
Gloads	35	.3366E+01	-.2123E+03	-.2318E+00	-.4154E+00	.1651E+01	.0000E+00
****PLATE 17****							
Gloads	20	.1261E+02	.2222E+03	-.1133E+00	-.1238E+01	.5753E+00	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads	21	-.5621E+01	-.2116E+03	-.4195E+00	-.4298E+01	-.8619E+00	-.0000E+00
GLoads	37	-.8152E+01	-.2229E+03	-.4048E+00	-.5040E+01	-.3583E+00	-.0000E+00
GLoads	36	-.1168E+01	-.2110E+03	-.1261E+00	-.1084E+01	-.1281E+01	-.0000E+00
*****PLATE 18****							
GLoads	21	-.3963E+01	-.2176E+03	-.2934E+00	-.4987E+01	-.4433E+00	-.0000E+00
GLoads	22	-.1905E+02	-.1837E+03	-.1861E+01	-.2095E+02	-.2758E+01	-.0000E+00
GLoads	38	-.2611E+01	-.2080E+03	-.1571E+01	-.1815E+02	-.2357E+01	-.0000E+00
GLoads	37	-.1248E+02	-.1933E+03	-.5839E+00	-.3313E+01	-.7014E+00	-.0000E+00
*****PLATE 19****							
GLoads	22	-.4976E+01	-.2204E+03	-.8618E+01	-.0000E+00	-.1608E+01	-.5451E+02
GLoads	23	-.1320E+01	-.2330E+03	-.6465E+01	-.1606E+02	-.8382E+00	-.0000E+00
GLoads	39	-.1329E+01	-.2300E+03	-.1708E+01	-.1520E+02	-.1674E+01	-.0000E+00
GLoads	38	-.4967E+01	-.2235E+03	-.3862E+01	-.0000E+00	-.1043E+01	-.5274E+02
*****PLATE 20****							
GLoads	23	-.1244E+01	-.2489E+03	-.2398E+02	-.1384E+02	-.6019E+00	-.0000E+00
GLoads	24	-.4546E+00	-.2354E+03	-.1585E+02	-.4014E+01	-.3910E+00	-.0000E+00
GLoads	40	-.2736E+00	-.2469E+03	-.1884E+02	-.5179E+01	-.5036E+00	-.0000E+00
GLoads	39	-.1426E+01	-.2374E+03	-.1072E+02	-.1435E+02	-.2091E+01	-.0000E+00
*****PLATE 21****							
GLoads	24	-.3156E+00	-.2420E+03	-.3148E+02	-.3850E+01	-.5326E+00	-.0000E+00
GLoads	25	-.1782E+00	-.2380E+03	-.2916E+02	-.2209E+01	-.2751E+00	-.0000E+00
GLoads	41	-.1181E+00	-.2413E+03	-.2413E+02	-.1964E+01	-.9102E+00	-.0000E+00
GLoads	40	-.3757E+00	-.2387E+03	-.2170E+02	-.2840E+01	-.2796E+00	-.0000E+00
*****PLATE 22****							
GLoads	25	-.1329E+00	-.2342E+03	-.2783E+02	-.1461E+01	-.3941E+00	-.0000E+00
GLoads	26	-.3861E+00	-.2413E+03	-.3333E+02	-.4108E+01	-.4477E-01	-.0000E+00
GLoads	42	-.3193E+00	-.2335E+03	-.2022E+02	-.4333E+01	-.8769E-01	-.0000E+00
GLoads	41	-.1997E+00	-.2421E+03	-.2572E+02	-.1514E+01	-.0000E+00	-.0000E+00
*****PLATE 23****							
GLoads	26	-.3510E+00	-.2278E+03	-.1526E+02	-.3890E+01	-.4928E+00	-.0000E+00
GLoads	27	-.1266E+01	-.2443E+03	-.2624E+02	-.1382E+02	-.1486E+00	-.0000E+00
GLoads	43	-.1294E+01	-.2287E+03	-.8974E+01	-.1410E+02	-.1161E+00	-.0000E+00
GLoads	42	-.3237E+00	-.2434E+03	-.1996E+02	-.3771E+01	-.1964E+00	-.0000E+00
*****PLATE 24****							
GLoads	27	-.1265E+01	-.2218E+03	-.6244E+01	-.1474E+02	-.4667E+00	-.0000E+00
GLoads	28	-.4949E+01	-.2037E+03	-.6435E+01	-.0000E+00	-.9360E+00	-.5458E+02
GLoads	44	-.4844E+01	-.2106E+03	-.5361E+00	-.0000E+00	-.1214E+01	-.5335E+02
GLoads	43	-.1368E+01	-.2215E+03	-.7675E+00	-.1403E+02	-.7428E-01	-.0000E+00
*****PLATE 25****							
GLoads	28	-.4844E+01	-.2047E+03	-.5367E+01	-.5907E+02	-.1208E+01	-.0000E+00
GLoads	29	-.2449E+01	-.2191E+03	-.1406E+01	-.1655E+02	-.4960E+00	-.0000E+00
GLoads	45	-.1772E+00	-.2156E+03	-.1478E+01	-.1544E+02	-.2316E+01	-.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads	44	-.2573E+01	-.2081E+03	-.3294E+01	-.5793E+02	-.5075E+00	-.0000E+00
*****PLATE 26****							
GLoads	29	-.2925E+02	-.2384E+03	-.1492E+01	-.1631E+02	-.1920E+01	-.0000E+00
GLoads	30	-.2087E+02	-.2255E+03	-.2506E+00	-.2144E+01	-.4928E+00	-.0000E+00
GLoads	46	-.2301E+02	-.2376E+03	-.5002E+00	-.2521E+01	-.1265E+00	-.0000E+00
GLoads	45	-.1464E+02	-.2262E+03	-.1243E+01	-.1737E+02	-.1498E+01	-.0000E+00
*****PLATE 27****							
GLoads	30	-.3941E+02	-.2365E+03	-.3552E+00	-.3669E+01	-.1122E+01	-.0000E+00
GLoads	31	-.3610E+02	-.2325E+03	-.5159E-01	-.2119E+01	-.1285E+01	-.0000E+00
GLoads	47	-.3138E+02	-.2373E+03	-.5139E-01	-.2900E+00	-.1268E+01	-.0000E+00
GLoads	46	-.2807E+02	-.2317E+03	-.3354E+00	-.2872E+01	-.1136E+01	-.0000E+00
*****PLATE 28****							
GLoads	31	-.4017E+02	-.2342E+03	-.2247E+00	-.2075E+01	-.4484E+00	-.0000E+00
GLoads	32	-.4495E+02	-.2421E+03	-.6981E-01	-.2069E+01	-.1672E+01	-.0000E+00
GLoads	48	-.3174E+02	-.2352E+03	-.1518E+00	-.8416E+00	-.1542E+01	-.0000E+00
GLoads	47	-.3052E+02	-.2411E+03	-.3141E-02	-.4244E+01	-.3017E+00	-.0000E+00
*****PLATE 29****							
GLoads	32	-.3415E+02	-.2313E+03	-.2330E-01	-.6726E+00	-.2593E+00	-.0000E+00
GLoads	33	-.4675E+02	-.2509E+03	-.7158E-01	-.1254E+01	-.2119E+01	-.0000E+00
GLoads	49	-.2560E+02	-.2326E+03	-.4169E-01	-.2040E+01	-.5477E+00	-.0000E+00
GLoads	48	-.3821E+02	-.2496E+03	-.8996E-01	-.9493E+00	-.3030E+01	-.0000E+00
*****PLATE 30****							
GLoads	33	-.2156E+02	-.2311E+03	-.2760E+00	-.1009E+01	-.9408E+00	-.0000E+00
GLoads	34	-.3902E+02	-.2591E+03	-.6662E-01	-.8357E+00	-.2764E+01	-.0000E+00
GLoads	50	-.1394E+02	-.2338E+03	-.4633E+00	-.2445E+01	-.4309E+01	-.0000E+00
GLoads	49	-.3140E+02	-.2546E+03	-.1207E+00	-.4939E+01	-.1165E+00	-.0000E+00
*****PLATE 31****							
GLoads	35	-.8625E+01	-.1743E+03	-.7110E-01	-.2522E+00	-.1952E+01	-.0000E+00
GLoads	36	-.1408E+02	-.1670E+03	-.1082E+00	-.2385E+00	-.5775E+00	-.0000E+00
GLoads	52	-.1683E+01	-.1751E+03	-.3991E-01	-.2507E+00	-.1625E+01	-.0000E+00
GLoads	51	-.3991E+01	-.1651E+03	-.1168E-02	-.5758E+00	-.8504E-01	-.0000E+00
*****PLATE 32****							
GLoads	36	-.5366E+01	-.1819E+03	-.2587E+00	-.2246E+01	-.2921E+00	-.0000E+00
GLoads	37	-.1963E+02	-.1561E+03	-.1530E+00	-.1905E+01	-.1450E+01	-.0000E+00
GLoads	53	-.5083E+01	-.1790E+03	-.5602E+00	-.1755E+01	-.2314E+01	-.0000E+00
GLoads	52	-.9178E+01	-.1589E+03	-.1485E+00	-.3153E+01	-.1509E+01	-.0000E+00
*****PLATE 33****							
GLoads	37	-.1001E+01	-.1750E+03	-.3322E+00	-.3652E+01	-.3903E+00	-.0000E+00
GLoads	38	-.1247E+02	-.1514E+03	-.1093E+01	-.1117E+02	-.1750E+01	-.0000E+00
GLoads	54	-.1171E+02	-.1731E+03	-.1124E+01	-.1257E+02	-.6599E+00	-.0000E+00
GLoads	53	-.1762E+01	-.1533E+03	-.3010E+00	-.3961E+01	-.2446E+01	-.0000E+00
*****PLATE 34****							
GLoads	38	-.3915E+01	-.1813E+03	-.4441E+01	-.0000E+00	-.9682E+00	-.4276E+02

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	39	-1129E+01	.1884E+03	-.9873E+00	-.1187E+02	-.1730E+01	.0000E+00
Gloads	55	-1002E+01	-.1835E+03	-.2429E+01	-.1306E+02	-.1395E-01	.0000E+00
Gloads	54	.4042E+01	-.1862E+03	-.1025E+01	.0000E+00	-.2717E+01	.4326E+02
****PLATE 35****							
Gloads	39	-1032E+01	.1825E+03	-.9996E+01	-.1103E+02	-.1312E+01	.0000E+00
Gloads	40	-3033E+00	.1989E+03	-.4079E+00	.4360E+01	.5911E+00	.0000E+00
Gloads	56	-.2009E+00	-.1841E+03	-.2518E+01	.3990E+01	-.2092E+01	.0000E+00
Gloads	55	-.1135E+01	-.1973E+03	-.7886E+01	.1001E+02	-.2160E+00	.0000E+00
****PLATE 36****							
Gloads	40	-.2011E+00	.1903E+03	.2451E+01	-.1222E+01	-.3671E+00	.0000E+00
Gloads	41	-.1377E+00	.1953E+03	.1576E+01	-.1125E+01	-.4979E+00	.0000E+00
Gloads	57	-.1695E-02	-.1896E+03	-.1816E+01	-.2057E+01	-.4326E+00	.0000E+00
Gloads	56	.3405E+00	-.1960E+03	-.1843E+01	.2250E+01	-.1859E+01	.0000E+00
****PLATE 37****							
Gloads	41	-.5608E-01	.1915E+03	.1294E+00	-.6749E+00	-.6343E+00	.0000E+00
Gloads	42	-.1213E+00	.1890E+03	-.1188E+01	.1923E+01	-.2594E+00	.0000E+00
Gloads	58	-.1133E+00	-.1905E+03	.4105E+01	.1507E+01	.3460E+00	.0000E+00
Gloads	57	-.6408E-01	-.1900E+03	-.3046E+01	-.2029E+00	-.1527E+00	.0000E+00
****PLATE 38****							
Gloads	42	-.1169E+00	.1914E+03	.1361E+01	-.1508E+00	.0000E+00	.0000E+00
Gloads	43	-.5237E+00	.1743E+03	-.1052E+02	.3378E+01	.3084E+00	.0000E+00
Gloads	59	.5257E+00	-.1879E+03	.9806E+01	-.5695E+01	.3167E+00	.0000E+00
Gloads	58	-.1149E+00	-.1778E+03	.1790E+01	-.1658E+01	-.4435E+00	.0000E+00
****PLATE 39****							
Gloads	43	-.4496E+00	.1794E+03	.8033E+00	.5301E+01	-.3505E+00	.0000E+00
Gloads	44	-.1864E+01	.1614E+03	-.1005E+02	.0000E+00	.6394E+00	-.2046E+02
Gloads	60	-.1808E+01	-.1745E+03	-.1855E+01	.0000E+00	.9503E+00	-.2024E+02
Gloads	59	-.5060E+00	-.1663E+03	.1090E+01	.4914E+01	-.3638E+00	.0000E+00
****PLATE 40****							
Gloads	44	-.1149E+02	.1536E+03	.3667E+01	.4006E+02	-.3524E+01	.0000E+00
Gloads	45	-.3856E+01	.1806E+03	.6939E+00	.9111E+01	.1363E+01	.0000E+00
Gloads	61	.2215E+01	-.1583E+03	-.1170E+01	.7911E+01	.1411E+00	.0000E+00
Gloads	60	.1313E+02	-.1758E+03	-.3191E+01	-.3886E+02	-.5195E+01	.0000E+00
****PLATE 41****							
Gloads	45	-.1040E+02	.1648E+03	.9293E+00	-.1103E+02	-.2181E+01	.0000E+00
Gloads	46	-.5096E+01	.1935E+03	-.2701E+00	-.2972E+01	-.2633E+00	.0000E+00
Gloads	62	.3405E+01	-.1707E+03	.2312E+00	-.1278E+01	-.2037E+01	.0000E+00
Gloads	61	-.1229E+02	-.1895E+03	.9683E+00	-.1110E+02	-.1833E+00	.0000E+00
****PLATE 42****							
Gloads	46	-.4412E-01	.1814E+03	.4149E+00	.3322E+01	-.9992E+00	.0000E+00
Gloads	47	-.9484E+01	.1963E+03	-.1050E+00	-.2257E+01	-.9127E+00	.0000E+00
Gloads	63	-.2995E+01	-.1826E+03	-.2343E+00	-.6234E-01	-.1421E+01	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	62	.1243E+02	-.1951E+03	-.7957E-01	.5814E+01	-.1813E+01	.0000E+00
****PLATE 43****							
Gloads	47	.4339E+01	.1878E+03	.5675E-01	-.1698E+01	-.6574E+00	.0000E+00
Gloads	48	-.1027E+02	.1975E+03	.4985E-01	-.6668E+00	-.3232E+01	.0000E+00
Gloads	64	-.5736E+01	-.1889E+03	-.2227E+00	.3456E+01	-.2928E+00	.0000E+00
Gloads	63	.1166E+02	-.1964E+03	.1161E+00	.1254E+01	-.1560E+01	.0000E+00
****PLATE 44****							
Gloads	48	.3797E+01	.1928E+03	.1919E+00	.5592E+00	-.1743E+01	.0000E+00
Gloads	49	-.6529E+01	.1975E+03	-.1384E+00	-.3912E+01	-.2609E+01	.0000E+00
Gloads	65	-.5591E+01	-.1935E+03	-.1975E+00	-.6927E+00	-.5151E+01	.0000E+00
Gloads	64	.8323E+01	-.1967E+03	.1440E+00	.5224E+01	.9229E+00	.0000E+00
****PLATE 45****							
Gloads	49	.347E+00	.1971E+03	-.2401E-01	-.3066E+01	-.1945E+01	.0000E+00
Gloads	50	.3571E+01	.1894E+03	.1353E+00	.9516E-01	-.3500E+01	.0000E+00
Gloads	66	-.6832E+01	-.1973E+03	.1632E+00	.5115E+01	.1067E+00	.0000E+00
Gloads	65	.2527E+01	-.1908E+03	-.2744E+00	.3039E+00	.5975E+01	.0000E+00
****PLATE 46****							
Gloads	51	.2216E+00	.1302E+03	-.7403E-01	-.2118E+01	-.1409E+01	.0000E+00
Gloads	52	.9130E+01	-.1156E+03	-.9715E-01	-.1218E+01	-.1676E+01	.0000E+00
Gloads	68	-.9675E+01	-.1306E+03	-.2647E+00	.5363E+00	-.5453E+00	.0000E+00
Gloads	67	.3237E+00	-.1151E+03	-.9357E-01	-.9658E+00	.3103E+01	.0000E+00
****PLATE 47****							
Gloads	52	.1732E+01	.1343E+03	.2815E+00	.4622E+01	.1794E+01	.0000E+00
Gloads	53	.9084E+01	.1189E+03	.1233E+01	.1169E+02	.1884E+01	.0000E+00
Gloads	69	-.1011E+02	-.1363E+03	-.1158E+01	.1141E+02	-.1360E+01	.0000E+00
Gloads	68	-.7051E+00	-.1169E+03	-.3570E+00	.5605E+01	-.1287E+01	.0000E+00
****PLATE 48****							
Gloads	53	-.2239E+01	.1284E+03	-.1493E+01	-.1390E+02	-.1752E+01	.0000E+00
Gloads	54	-.2573E+01	.1270E+03	-.4017E+01	-.4387E+01	.4218E+01	.0000E+00
Gloads	70	.3171E+01	-.1275E+03	.4724E+01	-.6795E+02	.0000E+00	.0000E+00
Gloads	69	-.3505E+01	-.1278E+03	.7857E+00	-.1595E+02	.3290E+00	.0000E+00
****PLATE 49****							
Gloads	54	.4208E+01	.1368E+03	.6810E+01	.0000E+00	-.2215E+01	-.4556E+02
Gloads	55	.1176E+01	.1493E+03	.2943E+01	.1384E+02	.7262E+00	.0000E+00
Gloads	71	-.1090E+01	-.1354E+03	.7744E+01	.1357E+02	.3270E+01	.0000E+00
Gloads	70	-.4294E+01	-.1506E+03	-.1750E+02	.0000E+00	-.4512E+00	-.4548E+02
****PLATE 50****							
Gloads	55	-.1043E+01	.1349E+03	.7371E+01	-.1079E+02	-.9282E+00	.0000E+00
Gloads	56	-.4105E+00	.1459E+03	.1251E+00	-.4189E+01	.9418E+00	.0000E+00
Gloads	72	.9038E-01	-.1353E+03	.2492E+00	-.5832E+01	-.1646E+01	.0000E+00
Gloads	71	.1363E+01	-.1456E+03	-.7745E+01	-.1117E+02	-.3330E+01	.0000E+00
****PLATE 51****							
Gloads	56	.2709E+00	.1377E+03	.8237E+01	.2449E+01	+.1175E+01	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	57	-.9948E-01	-.1426E+03	-.4664E+01	-.2570E+01	-.4072E-01	.0000E+00
Gloads	73	-.8671E-01	-.1375E+03	-.3695E+00	-.2132E+01	-.6572E+00	.0000E+00
Gloads	72	-.2837E+00	-.1428E+03	-.3203E+01	-.9977E+00	-.7570E+00	.0000E+00
*****PLATE 52****							
Gloads	57	-.3371E-01	-.1405E+03	-.5895E+01	-.3096E+00	-.3205E+00	.0000E+00
Gloads	58	-.2123E+00	-.1352E+03	-.8776E+01	-.2167E+01	-.4650E+00	.0000E+00
Gloads	74	-.1803E+00	-.1392E+03	-.1275E+01	-.2448E+01	-.1211E+00	.0000E+00
Gloads	73	-.6572E-01	-.1364E+03	-.1607E+01	-.4881E+00	-.1161E+01	.0000E+03
*****PLATE 53****							
Gloads	58	.2107E+00	-.1366E+03	-.2881E+01	-.2319E+01	-.3674E+00	.0000E+00
Gloads	59	.8694E+00	-.1277E+03	-.7252E+01	-.9912E+01	-.4492E+00	.0000E+00
Gloads	75	-.9038E+00	-.1339E+03	-.1909E+01	-.9553E+01	-.2003E-01	.0000E+00
Gloads	74	-.1764E+00	-.1304E+03	-.2462E+01	-.1980E+01	-.5939E+00	.0000E+00
*****PLATE 54****							
Gloads	59	-.8891E+00	-.1300E+03	-.1644E+01	-.9131E+01	-.4021E+00	.0000E+00
Gloads	60	-.3193E+01	-.1273E+03	-.1176E+00	.0000E+00	-.1244E+01	.3508E+02
Gloads	76	.3259E+01	-.1295E+03	.7800E+01	.0000E+00	.8722E+00	.3586E+02
Gloads	75	.8236E+00	-.1279E+03	-.6273E+01	-.9741E+01	-.6991E+00	.0000E+00
*****PLATE 55****							
Gloads	60	-.6453E+01	-.1189E+03	-.3704E+01	-.4263E+02	-.3787E+01	.0000E+00
Gloads	77	-.3179E+01	-.132E+03	-.112E+01	-.88E+01	-.1404E+01	.0000E+00
Gloads	77	.5265E+01	-.1206E+03	.1067E+01	.8645E+01	.4035E+01	.0000E+00
Gloads	76	.4367E+01	-.1329E+03	.3659E+01	-.4379E+02	-.9701E+00	.0000E+00
*****PLATE 56****							
Gloads	61	-.1133E+02	-.1188E+03	.1223E+01	-.1209E+02	-.1361E+01	.0000E+00
Gloads	62	-.5467E+01	-.1446E+03	.6776E-01	-.1402E+01	.1060E+01	.0000E+00
Gloads	78	.4836E+01	-.142E+03	-.4934E+00	.1798E+01	-.1900E+01	.0000E+00
Gloads	77	-.1196E+02	-.1382E+03	.7976E+00	.1312E+02	-.4254E+01	.0000E+00
*****PLATE 57****							
Gloads	62	-.1037E+02	-.1268E+03	-.2233E+00	-.5938E+01	-.1284E+01	.0000E+00
Gloads	63	-.1621E+01	-.1462E+03	-.1204E+00	-.3608E+00	-.1081E+01	.0000E+00
Gloads	79	.2638E+01	-.1288E+03	-.4570E-02	.3303E+01	.9976E-01	.0000E+00
Gloads	78	.9356E+01	-.1442E+03	.3484E+00	-.4567E+01	.3689E+00	.0000E+00
*****PLATE 58****							
Gloads	63	-.7047E+01	-.1384E+03	-.2386E+00	-.8309E+00	.9419E+00	.0000E+00
Gloads	64	.3640E+01	-.1449E+03	-.2325E+00	-.6840E+01	-.9357E+00	.0000E+00
Gloads	80	.2934E+00	-.1400E+03	-.3394E-01	.1232E+01	-.2850E+01	.0000E+00
Gloads	79	.3094E+01	-.1433E+03	.4768E-01	.4133E+01	-.1501E+01	.0000E+00
*****PLATE 59****							
Gloads	64	-.6247E+01	-.1463E+03	.3313E+00	-.3839E+01	.3056E+00	.0000E+00
Gloads	65	.8950E+01	-.1432E+03	.1275E+00	.3197E+00	-.6902E+01	.0000E+00
Gloads	81	.6688E+00	-.1471E+03	-.5816E+00	.9734E+01	-.2233E+01	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	80	-.3372E+01	-.1424E+03	.1228E+00	.3879E+01	-.1942E+01	.0000E+00
*****PLATE 60****							
Gloads	65	-.5886E+01	-.1468E+03	.3444E+00	.6901E-01	.6078E+01	.0000E+00
Gloads	66	.9071E+01	-.1409E+03	-.4418E-01	-.6310E+01	-.4927E+01	.0000E+00
Gloads	82	.2629E+01	-.1455E+03	-.5215E+00	.2060E+01	-.1225E+02	.0000E+00
Gloads	81	-.5814E+01	-.1421E+03	.2213E+00	.1079E+02	.2521E+01	.0000E+00
*****PLATE 61****							
Gloads	67	-.5400E+01	.7435E+02	.4224E-01	.7428E+01	-.8711E+01	.0000E+00
Gloads	68	.4728E+01	.7407E+02	.1102E+01	.4833E+01	.5804E+00	.0000E+00
Gloads	84	-.8437E+00	-.7272E+02	.2923E+00	.7977E+01	-.4132E+00	.0000E+00
Gloads	83	.1516E+01	-.7570E+02	-.1436E+01	.1122E+02	.1018E+02	.0000E+00
*****PLATE 62****							
Gloads	68	.5652E+01	.7776E+02	-.1010E+01	-.1097E+02	.1252E+01	.0000E+00
Gloads	69	-.1011E+01	-.6750E+02	-.1400E+01	-.2336E+02	.2554E+01	.0000E+00
Gloads	85	-.2522E+02	-.7684E+02	.2366E+01	.2180E+02	.1032E+02	.0000E+00
Gloads	84	.2058E+02	-.6842E+02	-.4573E+00	.9647E+01	.5925E+01	.0000E+00
*****PLATE 63****							
Gloads	69	.1463E+02	-.1009E+03	.1772E+01	.2837E+02	-.1523E+01	.0000E+00
Gloads	70	.6132E+01	.6654E+02	.7043E+01	.9087E+02	.5014E+01	.0000E+00
Gloads	86	.5073E+02	-.1083E+03	-.7314E+01	.9329E+02	.1754E+00	.0000E+00
Gloads	85	.2998E+02	-.5914E+02	-.1500E+01	.2987E+02	-.7381E+01	.0000E+00
*****PLATE 64****							
Gloads	70	-.4213E+01	-.1029E+03	.4623E+01	.0000E+00	-.3982E+01	.5898E+02
Gloads	71	-.1519E+01	-.8768E+02	-.1102E+02	-.1792E+02	.7318E+00	.0000E+00
Gloads	87	.4556E+00	-.9904E+02	-.2100E+02	-.1977E+02	-.5299E+01	.0000E+00
Gloads	86	.5277E+01	-.9154E+02	.2740E+02	.0000E+00	-.7937E+01	.6097E+02
*****PLATE 65****							
Gloads	71	.1246E+01	.8476E+02	.1102E+02	.1551E+02	-.6714E+00	.0000E+00
Gloads	72	.4399E+00	.833E+02	-.7201E+01	.733E+01	-.5829E+00	.0000E+00
Gloads	88	.1063E+00	-.8174E+02	-.0346E+01	.875E+01	-.4110E+01	.0000E+00
Gloads	87	-.1792E+01	-.9137E+02	.2311E+01	.1475E+02	-.5610E+01	.0000E+00
*****PLATE 66****							
Gloads	72	-.2466E+00	-.8113E+02	.1026E+02	-.2519E+01	.1471E+01	.0000E+00
Gloads	73	.6362E-01	.8017E+02	-.1019E+02	-.2637E+01	.9412E+00	.0000E+00
Gloads	89	.7354E+01	-.8006E+02	-.4714E+00	-.2242E+01	-.3002E+00	.0000E+00
Gloads	88	.2367E+00	-.8125E+02	.3491E+00	-.1151E+01	-.1959E+01	.0000E+00
*****PLATE 67****							
Gloads	73	.8461E-01	.8518E+02	.8952E+01	.9928E+00	-.4378E+00	.0000E+00
Gloads	74	.4571E+00	.7396E+02	-.1560E+02	.6320E+01	-.5207E+00	.0000E+00
Gloads	90	-.2828E+00	-.8576E+02	.1016E+01	.6323E+01	-.1179E+01	.0000E+00
Gloads	89	-.2589E+00	-.7338E+02	.5636E+01	.1261E+01	.1440E+01	.0000E+00
*****PLATE 68****							
Gloads	74	-.4610E+00	.8710E+02	-.1187E+02	-.5852E+01	.1943E+00	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
Gloads 75	-1.602E+01	.7680E+02	-.1856E+02	-.2244E+02	.8166E+00	.0000E+00
Gloads 91	-.1815E+01	-.8867E+02	-.6020E+01	-.2249E+02	.1622E+01	.0000E+00
Gloads 90	.2487E+00	-.7523E+02	.1271E+02	-.5955E+01	.6568E+00	.0000E+00
*****PLATE 69****						
Gloads 75	.1682E+01	.7634E+02	-.2292E+02	.2263E+02	-.9745E-01	.0000E+00
Gloads 76	.4265E+01	.8943E+02	-.1738E+02	.0000E+00	.7131E+00	.8607E+02
Gloads 92	-.6257E+01	-.7560E+02	-.3412E+02	.0000E+00	-.1185E+00	-.8717E+02
Gloads 91	-.1691E+01	-.8619E+02	.2858E+02	.2276E+02	-.3684E+00	.0000E+00
*****PLATE 70****						
Gloads 76	-.1662E+02	.6140E+02	.4605E+01	.5946E+02	-.3936E+01	.0000E+00
Gloads 77	-.4078E+01	.9628E+02	.7336E+00	.1476E+02	.1245E+01	.0000E+00
Gloads 93	-.2248E+01	-.5875E+02	-.2256E+01	.1325E+02	-.8367E+01	.0000E+00
Gloads 92	-.2295E+02	-.9893E+02	.3035E+01	.5934E+02	-.1203E+02	.0000E+00
*****PLATE 71****						
Gloads 77	-.1315E+02	.6134E+02	-.1003E+01	-.1262E+02	-.1026E+01	.0000E+00
Gloads 78	-.1879E+01	.8912E+02	-.3310E+00	-.1553E+00	-.5301E+00	.0000E+00
Gloads 94	.6340E+00	-.6187E+02	.4430E+00	.2333E+01	.3686E+00	.0000E+00
Gloads 93	-.1439E+02	-.8859E+02	.8909E+00	-.1963E+02	.2887E+01	.0000E+00
*****PLATE 72****						
Gloads 78	-.1231E+02	.6910E+02	.4760E+00	.2925E+01	.2061E+01	.0000E+00
Gloads 79	-.4251E+01	.8472E+02	-.5241E-01	.6845E+02	.1458E+01	.0000E+00
Gloads 95	.2039E+01	-.7010E+02	-.2983E+00	.2998E+01	-.4493E+01	.0000E+00
Gloads 94	.6023E+01	-.8371E+02	-.1253E+00	.5723E+01	-.4346E+01	.0000E+00
*****PLATE 73****						
Gloads 79	-.9983E+01	.8111E+02	.9119E+02	-.7440E+01	-.5679E-01	.0000E+00
Gloads 80	-.1139E+02	.8021E+02	-.6996E-02	.3448E+01	-.5940E+00	.0000E+00
Gloads 96	-.2398E+01	-.8277E+02	-.1938E+00	.8228E+01	-.1235E+01	.0000E+00
Gloads 95	.9009E+00	-.7856E+02	.1517E+00	.1178E+01	-.5525E+00	.0000E+00
*****PLATE 74****						
Gloads 80	-.8313E+01	.9596E+02	-.8185E-01	-.8559E+01	-.1502E+01	.0000E+00
Gloads 81	-.1952E+02	.7879E+02	-.1263E+01	-.1682E+02	-.5431E+00	.0000E+00
Gloads 97	-.4529E+01	-.9911E+02	.5543E+00	.8647E+01	-.7068E+01	.0000E+00
Gloads 96	-.6677E+01	-.7564E+02	.7906E+00	-.2595E+01	-.4640E+01	.0000E+00
*****PLATE 75****						
Gloads 81	-.1437E+02	.1042E+03	.1623E+01	-.3702E+01	.2553E+00	.0000E+00
Gloads 82	-.2552E+02	.8746E+02	.1175E+01	.2817E+02	-.1944E+02	.0000E+00
Gloads 98	.7015E+01	-.1077E+03	-.3444E+01	.4463E+02	-.1449E+02	.0000E+00
Gloads 97	-.1816E+02	-.8400E+02	.6455E+00	.7869E+01	-.7418E+00	.0000E+00
*****PLATE 76****						
Gloads 83	-.1310E+02	.2971E+02	-.1551E+00	-.2577E+01	.2151E+01	.0000E+00
Gloads 84	-.6218E+01	.4716E+02	-.3716E+01	-.3496E+02	-.4184E+01	.0000E+00
Gloads 100	.8044E+01	-.2384E+02	.3433E+01	-.3107E+02	-.2497E+01	.0000E+00

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Load Case 2:GRAVITY LOAD

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
Gloads 99	-.1128E+02	-.5304E+02	.4378E+00	.4737E+01	.6655E+00	.0000E+00
*****PLATE 77****						
Gloads 84	-.1352E+02	.8886E+01	.3881E+01	.3663E+02	-.1328E+01	.0000E+00
Gloads 85	-.8880E+01	.3011E+02	.1617E+02	-.1314E+03	.2810E+01	.0000E+00
Gloads 101	.2207E+02	-.3075E+01	-.1652E+02	.1270E+03	-.2250E+01	.0000E+00
Gloads 100	.3277E+00	-.3592E+02	-.3533E+01	.5582E+02	-.3992E+01	.0000E+00
*****PLATE 78****						
Gloads 85	.4122E+01	.2077E+02	-.1754E+02	-.1395E+03	-.5747E+01	.0000E+00
Gloads 86	-.6419E+01	.3450E+02	-.6283E+02	-.5119E+03	.2524E+01	.0000E+00
Gloads 102	.1617E+02	-.3172E+02	.6348E+02	-.5263E+03	.8798E+01	.0000E+00
Gloads 101	-.1387E+02	-.2355E+02	.1689E+02	-.1484E+03	.3331E+01	.0000E+00
*****PLATE 79****						
Gloads 86	.6819E+02	-.2980E+02	.3367E+02	.0000E+00	.2831E+00	-.5561E+03
Gloads 87	.1898E+02	.6419E+02	.4626E+01	.1525E+03	-.2694E+01	.0000E+00
Gloads 103	.1834E+02	-.2785E+02	-.1050E+02	.0000E+00	.4961E+01	-.1615E+03
Gloads 102	-.6883E+02	-.6614E+02	-.2363E+02	.0000E+00	.7313E+01	-.5682E+03
*****PLATE 80****						
Gloads 87	-.1764E+02	.2972E+02	.1823E+02	-.1475E+03	.2383E+01	.0000E+00
Gloads 88	-.4906E+01	.3918E+02	-.3950E+01	.4361E+02	.6486E-01	.0000E+00
Gloads 104	.4493E+01	-.2392E+02	-.1317E+02	.0000E+00	-.4484E+01	.3965E+02
Gloads 103	.1805E+02	-.4492E+02	-.1111E+01	.0000E+00	-.4025E+01	.1413E+03
*****PLATE 81****						
Gloads 88	.4563E+01	.2731E+02	.9635E+01	.3600E+02	-.2216E+01	.0000E+00
Gloads 89	.1316E+01	.2593E+02	-.1172E+02	.1092E+02	.9210E+00	.0000E+00
Gloads 105	-.1517E+01	-.2815E+02	-.8733E+01	.0000E+00	.2548E+00	-.1219E+02
Gloads 104	-.4362E+01	-.2509E+02	.1082E+02	.0000E+00	-.2341E+00	-.3789E+02
*****PLATE 82****						
Gloads 89	-.1130E+01	.3101E+02	.6497E-01	.9961E+01	-.2184E+00	.0000E+00
Gloads 90	-.8828E+00	.2348E+02	-.1286E+02	.9215E+01	-.921E+00	.0000E+00
Gloads 106	.5531E+00	-.3025E+02	-.4058E+01	.0000E+00	-.2128E+01	.6869E+01
Gloads 105	.1460E+01	-.2424E+02	.1042E+02	.0000E+00	-.1832E+01	.8817E+01
*****PLATE 83****						
Gloads 90	.9168E+00	.4101E+02	-.8678E+00	.7201E+01	-.9036E+00	.0000E+00
Gloads 91	.2149E+01	.2367E+02	-.1859E+02	.1844E+02	-.4328E+00	.0000E+00
Gloads 107	-.2513E+01	-.4439E+02	.9961E+01	.0000E+00	-.2236E+01	-.1776E+02
Gloads 96	.5526E+00	-.2030E+02	.9496E+01	.0000E+00	-.2073E+01	-.1718E+01
*****PLATE 84****						
Gloads 91	-.2273E+01	.5469E+02	-.3972E+01	-.1871E+02	-.8212E+00	.0000E+00
Gloads 92	-.8388E+01	.1604E+02	-.3024E+02	.0000E+00	-.2102E+00	.6645E+02
Gloads 108	.8121E+01	-.5245E+02	.3091E+02	.0000E+00	-.1592E+01	.7015E+02
Gloads 107	.2540E+01	-.1827E+02	.3294E+01	.0000E+00	-.1512E+01	.2060E+02
*****PLATE 85****						
Gloads 92	-.3259E+01	.2401E+02	.5487E+02	.4490E+03	.1404E+01	.0000E+00

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Load Case 2:GRAVITY LOAD

Loads	Node	Fx	Fy	Fz	Hx	Hy	Hz
Loads	93	-.5638E+01	-.3111E+02	-.1558E+02	-.1255E+03	-.5016E+00	-.0000E+00
Loads	109	-.4214E+01	-.2144E+02	-.1413E+02	-.1320E+03	-.8675E+01	-.0000E+00
Loads	108	-.4682E+01	-.3369E+02	-.5632E+02	-.4558E+03	-.1238E+02	-.0000E+00
		PLATE 86					
Loads	93	-.6507E+01	-.2179E+02	-.1421E+02	-.1192E+03	-.5981E+01	-.0000E+00
Loads	94	-.3159E+01	-.2685E+02	-.3673E+01	-.3333E+02	-.2345E+01	-.0000E+00
Loads	110	-.6360E+01	-.2321E+02	-.4071E+01	-.2915E+02	-.2535E+01	-.0000E+00
Loads	109	-.3013E+01	-.2543E+02	-.1381E+02	-.1134E+03	-.2398E+00	-.0000E+00
		PLATE 87					
Loads	94	-.9816E+01	-.2431E+02	-.3356E+01	-.2528E+02	-.1633E+01	-.0000E+00
Loads	95	-.6400E+01	-.2853E+02	-.9407E+00	-.8066E+01	-.1605E+01	-.0000E+00
Loads	111	-.8806E+01	-.2481E+02	-.350E+00	-.9873E+01	-.2441E+01	-.0000E+00
Loads	110	-.5390E+01	-.2802E+02	-.2940E+01	-.2768E+02	-.3189E+01	-.0000E+00
		PLATE 88					
Loads	95	-.9340E+01	-.2570E+02	-.7941E+00	-.6886E+01	-.3441E+01	-.0000E+00
Loads	96	-.8735E+01	-.2554E+02	-.7396E+00	-.5943E+01	-.3938E+01	-.0000E+00
Loads	112	-.8751E+01	-.2488E+02	-.2207E+00	-.6004E+01	-.3315E+00	-.0000E+00
Loads	111	-.8147E+01	-.2636E+02	-.2752E+00	-.5960E+01	-.1599E+00	-.0000E+00
		PLATE 89					
Loads	96	-.2507E+00	-.3844E+02	-.1376E+01	-.1121E+02	-.1938E+01	-.0000E+00
Loads	97	-.1463E+02	-.2730E+02	-.3859E+01	-.2901E+02	-.3659E+01	-.0000E+00
Loads	113	-.3789E+01	-.4349E+02	-.4877E+01	-.3313E+02	-.5898E+01	-.0000E+00
Loads	112	-.1109E+02	-.2225E+02	-.358E+00	-.1303E+02	-.3943E+01	-.0000E+00
		PLATE 90					
Loads	97	-.8061E+01	-.6138E+02	-.2660E+01	-.2979E+02	-.4151E+01	-.0000E+00
Loads	98	-.1707E+02	-.3919E+02	-.1395E+02	-.1171E+03	-.7611E+01	-.0000E+00
Loads	114	-.2562E+02	-.1853E+02	-.1022E+02	-.1023E+03	-.123E+02	-.0000E+00
Loads	113	-.3574E+01	-.3404E+02	-.4797E+01	-.2195E+02	-.7430E+01	-.0000E+00
		PLATE 91					
Loads	122	-.1183E+03	-.4229E+03	-.6628E-01	-.2668E+00	-.8795E+00	-.0000E+00
Loads	2	-.5389E+02	-.3413E+03	-.1417E+00	-.1913E+01	-.7220E+00	-.0000E+00
Loads	19	-.7834E+02	-.4121E+03	-.7637E-01	-.2007E+01	-.3356E+00	-.0000E+00
Loads	124	-.1391E+02	-.3521E+03	-.1516E+00	-.5876E+00	-.4040E-01	-.0000E+00
		PLATE 92					
Loads	124	-.1176E+02	-.2984E+03	-.1184E+00	-.7232E+00	-.1015E+01	-.0000E+00
Loads	19	-.6648E+01	-.3123E+03	-.3003E-01	-.9710E-01	-.2693E+00	-.0000E+00
Loads	35	-.1785E+01	-.3067E+03	-.1476E-01	-.1157E+00	-.1322E+01	-.0000E+00
Loads	126	-.3331E+01	-.3040E+03	-.1031E-01	-.1194E+01	-.2679E+00	-.0000E+00
		PLATE 93					
Loads	126	-.4110E+01	-.2399E+03	-.1142E+00	-.8961E+00	-.1456E+01	-.0000E+00
Loads	35	-.3462E+01	-.2441E+03	-.2625E+00	-.2268E+01	-.4454E-01	-.0000E+00
Loads	51	-.2254E+01	-.2434E+03	-.4963E-01	-.3120E+01	-.6164E+00	-.0000E+00

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Load Case 2:GRAVITY LOAD

Loads	Node	Fx	Fy	Fz	Hx	Hy	Hz
Loads	128	-.2901E+01	-.2406E+03	-.3271E+00	-.2003E+01	-.2229E+01	-.0000E+00
		PLATE 94					
Loads	128	-.2737E+01	-.1781E+03	-.2961E+00	-.3215E+01	-.1946E+01	-.0000E+00
Loads	51	-.5737E+01	-.1759E+03	-.1522E+00	-.2587E+00	-.3765E+00	-.0000E+00
Loads	67	-.5536E+01	-.1792E+03	-.1747E+00	-.1359E+01	-.2456E+01	-.0000E+00
Loads	130	-.2536E+01	-.1748E+03	-.2756E+00	-.5547E+01	-.4366E+00	-.0000E+00
		PLATE 95					
Loads	130	-.2576E+01	-.1077E+03	-.3411E+00	-.3426E+01	-.2525E+01	-.0000E+00
Loads	67	-.1148E+02	-.1006E+03	-.1634E+00	-.6425E+01	-.7121E+01	-.0000E+00
Loads	83	-.5056E+01	-.1129E+03	-.1182E+01	-.1073E+02	-.7492E+01	-.0000E+00
Loads	132	-.3844E+01	-.9549E+02	-.6780E+00	-.1455E+00	-.3244E+01	-.0000E+00
		PLATE 96					
Loads	132	-.3848E+01	-.3983E+02	-.7096E+00	-.1141E+02	-.2937E+01	-.0000E+00
Loads	83	-.8634E+01	-.4719E+02	-.242E+01	-.1322E+02	-.9519E+00	-.0000E+00
Loads	99	-.1153E+02	-.5749E+02	-.1782E+01	-.2545E+02	-.4180E+01	-.0000E+00
Loads	134	-.9554E+00	-.2953E+02	-.7167E-01	-.9602E+00	-.6593E+01	-.0000E+00
		PLATE 97					
Loads	17	-.4450E+02	-.3354E+03	-.5200E+00	-.4968E+01	-.5668E+00	-.0000E+00
Loads	123	-.1386E+03	-.4550E+03	-.5623E+00	-.5571E+01	-.1153E+01	-.0000E+00
Loads	125	-.5622E+01	-.3515E+03	-.7021E+00	-.6958E+01	-.9534E+00	-.0000E+00
Loads	34	-.9970E+00	-.4389E+03	-.331E+00	-.6312E+01	-.1239E+00	-.0000E+00
		PLATE 98					
Loads	34	-.6332E+01	-.3105E+03	-.3332E+00	-.2294E+01	-.1120E+01	-.0000E+00
Loads	125	-.3071E+01	-.3049E+03	-.6911E+00	-.4931E+01	-.9721E+00	-.0000E+00
Loads	127	-.4057E+01	-.3013E+03	-.4659E+00	-.9184E+01	-.9129E+00	-.0000E+00
Loads	50	-.7318E+01	-.3141E+03	-.6584E+00	-.6124E+01	-.3442E+01	-.0000E+00
		PLATE 99					
Loads	50	-.3610E+01	-.2516E+03	-.8494E+00	-.4143E+01	-.7125E+00	-.0000E+00
Loads	127	-.4880E+01	-.2372E+03	-.4871E+00	-.3351E+01	-.3207E+01	-.0000E+00
Loads	129	-.7767E+01	-.2466E+03	-.1272E+01	-.1077E+02	-.8649E+01	-.0000E+00
Loads	66	-.7231E+00	-.2423E+03	-.6482E-01	-.1113E+02	-.4549E+01	-.0000E+00
		PLATE 100					
Loads	66	-.3854E+01	-.1878E+03	-.3727E-01	-.5187E+01	-.4421E+01	-.0000E+00
Loads	129	-.7534E+01	-.1815E+03	-.1186E+01	-.8028E+01	-.1492E+01	-.0000E+00
Loads	131	-.2493E+01	-.1856E+03	-.5951E-01	-.1970E+02	-.7456E+01	-.0000E+00
Loads	82	-.1188E+01	-.1838E+03	-.283E-01	-.4191E+01	-.1453E+02	-.0000E+00
		PLATE 101					
Loads	82	-.1819E+02	-.1122E+03	-.3527E+00	-.2362E+02	-.2416E+02	-.0000E+00
Loads	131	-.2925E+01	-.1204E+03	-.2569E+00	-.3077E+02	-.1384E+02	-.0000E+00
Loads	133	-.9280E+01	-.9938E+02	-.2673E+01	-.1852E+02	-.6240E+01	-.0000E+00
Loads	98	-.5985E+01	-.1331E+03	-.3283E+01	-.4244E+02	-.1436E+02	-.0000E+00
		PLATE 102					
Loads	98	-.1609E+02	-.4371E+02	-.1596E+02	-.1311E+03	-.1095E+02	-.0000E+00

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Load Case 2:GRAVITY LOAD

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads	133	-.1181E+02	.4590E+02	-.1618E+01	-.3916E+01	-.8508E+01	.0000E+00
GLoads	135	.5804E+01	-.2238E+02	-.1070E+01	-.8842E+01	-.1542E+02	.0000E+00
GLoads	114	.2270E+02	-.6722E+02	-.1327E+02	.1183E+03	-.1889E+02	.0000E+00

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Load Case 2:GRAVITY LOAD

MAXIMUM STRESS SUMMARY FOR PLATES
WITHIN SPECIFIED RANGE 1- 102

Maximum (absolute) Stress = .3993E+02 at Plate 97

Plate	Sigma X	Sigma Y	Tau XY	Von Mises
97	-.6748E+01	-.3993E+02	.4940E+01	.3799E+02

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Load Case 2:GRAVITY LOAD

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
1	-.1036E+00	.1225E+03	-.2811E+02	.0000E+00	.0000E+00	.0000E+00
2	-.4483E+02	.7912E+03	-.7240E-01	.0000E+00	.6223E+01	-.6387E+01
3	-.2724E+01	.5205E+03	-.1338E+00	.0000E+00	.1179E+01	.0000E+00
4	-.2607E+02	.5287E+03	-.3428E-01	.0000E+00	.1427E+01	.0000E+00
5	-.1072E+03	.8095E+03	-.1202E+03	-.6157E+02	.3311E+01	.8070E+02
6	-.2465E+00	.5931E+03	-.5761E+02	.0000E+00	.8228E-01	.0000E+00
7	-.6879E-01	.5831E+03	-.2880E+02	.0000E+00	.1432E+00	.0000E+00
8	-.8635E-01	.5830E+03	-.1586E+01	.0000E+00	.4329E+00	.0000E+00
9	.4517E-02	.5767E+03	.3100E+02	.0000E+00	.4699E+00	.0000E+00
10	.8825E-01	.5849E+03	.5427E+02	.0000E+00	.7242E-01	.0000E+00
11	.1289E+03	.9182E+03	.1913E+03	.1173E+03	.1045E+02	-.1833E+03
12	.5488E+02	.5743E+03	-.5215E-01	.0000E+00	.1021E+01	.0000E+00
13	.3537E+02	.5704E+03	-.1151E+00	.0000E+00	.1631E+01	.0000E+00
14	.1061E+02	.5801E+03	-.8346E-01	.0000E+00	.1782E+01	.0000E+00
15	-.1116E+02	.5868E+03	.2559E+00	.0000E+00	.1831E+01	.0000E+00
16	-.3494E+02	.5918E+03	-.1038E+00	.0000E+00	.1397E+01	.0000E+00
17	-.7774E+02	.8418E+03	.7507E+00	.0000E+00	.4658E+01	.1243E+02
18	-.2438E+00	.1042E+03	.187E+02	.0000E+00	.0000E+00	.0000E+00
115	.8533E-01	.0000E+00	.1454E+02	.0000E+00	.0000E+00	.0000E+00
116	.8979E+03	.9185E+04	-.2179E+01	.0000E+00	.0000E+00	.0000E+00
117	.1281E+01	.9184E+04	.8930E+03	.0000E+00	.0000E+00	.0000E+00
118	-.8943E+03	.9185E+04	-.2074E+01	.0000E+00	.0000E+00	.0000E+00
119	-.1177E+01	.9186E+04	-.8992E+03	.0000E+00	.0000E+00	.0000E+00
122	-.1198E+03	.6018E+03	.6912E-01	.0000E+00	.4903E+01	-.2044E+02
123	-.1404E+03	.6407E+03	.3999E+00	.0000E+00	-.3633E+01	-.2622E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

BEAM LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Y-Shear	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
*****BEAM NO. 1***							
Gloads	1	.2212E+02	-.7145E+02	.8077E+02	.2274E-12	-.5684E-13	.0000E+00
Gloads	99	.3236E+02	-.2167E+03	-.2629E+02	-.8595E+03	.2815E+03	-.6756E+03
Lloads	1	-.9702E+02	-.4707E+02	-.2212E+02	-.5247E-13	.2186E-13	-.2274E-12
Lloads	99	.2102E+03	-.5910E+02	-.3236E+02	-.1749E-13	-.7319E+03	.8595E+03
*****BEAM NO. 2***							
Gloads	18	.1903E+02	-.4880E+01	.3094E+01	.2842E-13	-.2842E-13	.0000E+00
Gloads	114	.3423E+02	.1669E+03	.5016E+02	.3844E+03	.3496E+03	.1003E+04
Lloads	18	-.3589E+01	.4528E+01	.1903E+02	-.2684E-13	.9353E-14	.2842E-13
Lloads	114	.1552E+03	-.9719E+00	.3423E+02	-.1782E-13	.1062E+04	.3844E+03
*****BEAM NO. 3***							
Gloads	99	.1512E+03	.7599E+02	-.2530E+03	.2381E+04	-.1215E+04	.9061E+03
Gloads	108	-.1125E+03	.2727E+02	.2917E+03	-.1149E+03	.1214E+03	.9278E+02
Lloads	99	.2925E+03	-.7599E+02	-.3629E+02	.1312E+03	-.1215E+04	-.2544E+04
Lloads	108	-.3123E+03	-.2727E+02	.1477E+02	-.1312E+03	-.1214E+03	.6768E+02
*****BEAM NO. 4***							
Gloads	114	-.1975E+03	.6055E+02	.2493E+03	-.6310E+03	.3777E+03	-.7221E+03
Gloads	102	.2470E+03	.7164E+02	-.1998E+03	.1147E+04	-.6123E+03	-.1227E+04
Lloads	114	.3163E+03	-.6055E+02	.3325E+02	.7481E+02	-.3777E+03	-.9560E+03
Lloads	102	-.3156E+03	-.7164E+02	.3685E+02	.7481E+02	-.6123E+03	-.1678E+04
*****BEAM NO. 5***							
Gloads	98	.8129E+03	.2851E+02	.9113E+03	.5167E+03	-.4105E+03	.2226E+03
Gloads	115	-.7765E+03	.6869E+02	.9477E+03	.9300E+03	-.9310E+03	.1043E+04
Lloads	98	-.1221E+04	-.2851E+02	.1169E+02	-.1727E+03	.4105E+03	.5355E+03
Lloads	115	.1225E+04	-.6869E+02	.3974E+02	.1727E+03	-.9310E+03	.1387E+04
*****BEAM NO. 6***							
Gloads	92	.2318E+03	.3962E+02	-.6277E+03	-.5236E+03	.2817E+03	-.2147E+03
Gloads	115	.2612E+03	.3887E+02	.6572E+03	.4964E+03	-.4398E+03	-.2041E+03
Lloads	92	-.6691E+02	-.3962E+02	.1145E+02	.1036E+02	-.2817E+03	-.5658E+03
Lloads	115	.7072E+03	-.3887E+02	.5300E+01	.1036E+02	.4398E+02	.5366E+03
*****BEAM NO. 7***							
Gloads	86	-.5522E+03	.5730E+02	.3683E+03	.4341E+03	.7685E+03	.7164E+03
Gloads	115	.5655E+03	-.2174E+02	-.3549E+03	.3958E+03	.8433E+03	.3902E+03
Lloads	86	-.6627E+03	-.5730E+02	.3672E+02	-.8255E+02	-.7685E+03	-.8336E+03
Lloads	115	.6654E+03	.2174E+02	-.5538E+02	.8255E+02	-.8433E+03	-.5496E+03
*****BEAM NO. 8***							
Gloads	134	.1904E+02	-.1248E+02	-.5462E+01	.5965E+03	-.7744E+03	.1990E-12

SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
Gloads	99	-1142E+02	3280E+02	1308E+02	-5965E+03	9598E+03	-4528E+03
Lloads	134	-1904E+02	1248E+02	5462E+01	5965E+03	7744E+03	-1990E-12
Lloads	99	-1142E+02	-3280E+02	-7615E+02	-5965E+03	-9598E+03	-4528E+03
BEAM NO. 9							
Gloads	135	-5030E+02	-1670E+02	1750E+01	6230E+03	-5619E+03	-4890E+02
Lloads	114	-5792E+02	-3619E+01	5043E-02	-6230E+03	-4858E+03	-8191E+02
Lloads	135	5030E+02	-1670E+02	7615E+01	-6230E+03	-5619E+03	-4890E+02
Lloads	114	-5792E+02	-3619E+01	5043E-02	6230E+03	4858E+03	-8191E+02
BEAM NO. 10							
Gloads	122	-1141E+02	-5207E+03	8655E+01	-5678E+03	6328E+03	-1521E+02
Lloads	124	3028E+01	-4920E+03	-2739E+03	6683E+03	-6683E+01	
Lloads	122	-5207E+03	1141E+02	-8655E+01	6328E+03	-5678E+03	-1521E+02
Lloads	124	-4984E+03	-3028E+01	-2739E+03	-6328E+03	6660E+03	6683E+01
BEAM NO. 11							
Gloads	124	2311E+01	3624E+03	6855E+01	-1529E+04	5086E+03	6683E+01
Lloads	126	6071E+01	-3400E+03	1527E+01	1588E+04	-5086E+03	3467E+02
Lloads	124	-3624E+03	2311E+01	-6855E+01	5086E+03	-1529E+04	-6683E+01
Lloads	126	-3400E+03	6071E+01	-1527E+01	-5086E+03	1588E+04	-3467E+02
BEAM NO. 12							
Gloads	126	5075E+01	2528E+03	4898E+01	-1934E+04	2963E+03	-3467E+02
Lloads	128	3307E+01	-2304E+03	3483E+01	1950E+04	-2963E+03	1523E+02
Lloads	126	2528E+03	5075E+01	-4898E+01	2963E+03	-1934E+04	3467E+02
Lloads	128	-2304E+03	3307E+01	-3483E+01	-2963E+03	1950E+04	-1523E+02
BEAM NO. 13							
Gloads	128	3612E+01	-1674E+03	2810E+01	-1821E+04	8524E+02	-1523E+02
Lloads	130	4770E+01	-1451E+03	5522E+01	1790E+04	-8524E+02	2796E+02
Lloads	128	-1674E+03	3612E+01	-2810E+01	8524E+02	-1821E+04	-1523E+02
Lloads	130	-1451E+03	4770E+01	-5522E+01	-8524E+02	1790E+04	2796E+02
BEAM NO. 14							
Gloads	130	6255E+01	9005E+02	3239E+01	-1073E+04	-5711E+02	-2796E+02
Lloads	132	4222E+01	-6211E+02	7235E+01	1018E+04	5711E+02	5151E-12
Lloads	130	9005E+02	6255E+01	-3239E+01	-5711E+02	-1073E+04	2796E+02
Lloads	132	-6211E+02	4222E+01	7235E+01	5711E+02	1018E+04	-5151E-12
TRUSS NO. 15							
Gloads	132	0000E+00	-2710E+00	0000E+00	0000E+00	0000E+00	0000E+00
Lloads	134	0000E+00	2710E+00	0000E+00	0000E+00	0000E+00	0000E+00
Lloads	132	-2710E+00	0000E+00	0000E+00	0000E+00	0000E+00	0000E+00
Lloads	134	2710E+00	0000E+00	0000E+00	0000E+00	0000E+00	0000E+00
BEAM NO. 16							
Gloads	123	7586E+01	-1259E+03	8716E+01	-8523E+03	2629E+03	-8598E+02

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Max	Min	Cmb.	Torsion	Y-Bending	Z-Bending
Gloads	125	-7954E+00	-1482E+03	-3345E+00	9518E+03	-2629E+03	-1128E+02
Lloads	123	-1259E+03	-7586E+01	8716E+01	2629E+03	8523E+03	-8598E+02
Lloads	125	-1482E+03	-7954E+00	-3345E+00	-9518E+03	-2629E+03	-1128E+02
BEAM NO. 17							
Gloads	2	8075E+01	-2358E+03	5467E+01	-4989E+03	8043E+03	-1100E+03
Lloads	19	-3070E+00	-2134E+03	2915E+01	5270E+03	-8043E+03	2456E+02
Lloads	2	2358E+03	8075E+01	-5467E+01	8043E+03	-4989E+03	1100E+03
Lloads	19	-2134E+03	3070E+00	-2915E+01	-8043E+03	5270E+03	-2456E+02
BEAM NO. 18							
Gloads	35	4222E+01	-2038E+03	4502E+01	-1221E+04	6285E+03	-2456E+02
Lloads	19	221E+03	-4222E+01	-3879E+01	1228E+04	-6285E+03	2387E+02
Lloads	35	-2038E+03	4160E+01	-3879E+01	-6285E+03	1228E+04	-2387E+02
BEAM NO. 19							
Gloads	35	4287E+01	-1665E+03	4113E+01	-1452E+04	2775E+03	-2387E+02
Lloads	51	4095E+01	-1442E+03	4268E+01	1451E+04	-2775E+03	2176E+02
Lloads	35	1665E+03	4287E+01	-4113E+01	-2775E+03	-1452E+04	2387E+02
Lloads	51	-1442E+03	4095E+01	-4268E+01	2775E+03	1451E+04	-2176E+02
BEAM NO. 20							
Gloads	51	5011E+01	-1208E+03	4088E+01	-1410E+04	-1222E+03	-2176E+02
Lloads	67	3370E+01	-9845E+02	4293E+01	1408E+04	1222E+03	3708E+01
Lloads	51	1208E+03	5011E+01	-4088E+01	-1222E+03	-1410E+04	2176E+02
Lloads	67	-9845E+02	3370E+01	-4293E+01	1222E+03	1408E+04	-3708E+01
BEAM NO. 21							
Gloads	67	2057E+01	-9298E+02	4204E+01	-8203E+03	-4452E+03	-3708E+01
Lloads	83	8421E+01	-6504E+02	6273E+01	7918E+03	4452E+03	4452E+02
Lloads	67	9298E+02	2057E+01	-4204E+01	-4452E+03	8203E+03	3708E+01
Lloads	83	-6504E+02	8421E+01	-6273E+01	4452E+03	-7918E+03	-9122E+02
BEAM NO. 22							
Gloads	83	4094E+02	7743E+02	-2498E+01	4481E+03	-5324E+03	-9122E+02
Lloads	99	3465E+02	-6066E+02	8784E+01	5412E+03	5324E+03	-5324E+03
Lloads	83	7743E+02	4094E+02	2498E+01	-5324E+03	4481E+03	9122E+02
Lloads	99	-6066E+02	-3465E+02	8784E+01	5324E+03	-5412E+03	5324E+03
BEAM NO. 23							
Gloads	5	5073E+01	-2300E+03	5524E+01	8900E+02	-1334E+03	-9378E+02
Lloads	22	3308E+01	-2523E+03	2858E+01	-5968E+02	-1334E+03	7437E+02
Lloads	5	-2300E+03	-5073E+01	5524E+01	1334E+03	-8900E+02	-9378E+02
Lloads	22	2523E+03	-3308E+01	2858E+01	-1334E+03	5968E+02	7437E+02
BEAM NO. 24							
Gloads	22	3400E+01	-1028E+03	2190E+01	-3128E+02	1032E+03	-1786E+02

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	Node	AXIAL	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	AXIAL	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	38	.4982E+01	.1252E+03	.6192E+01	-.1273E+02	-.1032E+03	-.4604E+00
Loads	22	-.1028E+03	-.3400E+01	.2190E+01	-.1032E+03	-.3128E+02	.1786E+02
Loads	38	-.1252E+03	-.4982E+01	.6192E+01	.1032E+03	.1273E+02	-.4604E+00
		BEAM NO. 25					
Gloads	38	.4051E+01	-.3054E+02	.5079E+02	-.1939E+01	-.5628E+02	-.4604E+00
Loads	54	.4330E+01	.5289E+02	.3303E+01	-.2032E+02	.1939E+01	.5935E+02
Loads	38	-.3054E+02	-.4051E+01	.5079E+02	-.1939E+01	-.3986E+02	-.5628E+02
Loads	54	.5289E+02	-.4330E+01	.3303E+01	.1939E+01	.2032E+02	.5935E+02
		BEAM NO. 26					
Gloads	54	.5074E+01	.1477E+02	.372E+01	.3039E+01	-.7184E+02	.1606E+02
Loads	70	.3308E+01	.7579E+01	.4657E+01	.1329E+02	.7184E+02	-.3550E+02
Loads	54	-.1477E+02	-.5074E+01	.372E+01	-.7184E+02	-.3039E+01	.1606E+02
Loads	70	.7579E+01	-.3308E+01	.4657E+01	.7184E+02	.1329E+02	-.3550E+02
		BEAM NO. 27					
Gloads	70	.4398E+01	-.4147E+02	.6103E+01	-.3777E+02	-.1438E+03	-.4450E+02
Loads	86	.6080E+01	-.1353E+02	.4374E+01	-.1599E+02	.1438E+03	.6763E+02
Loads	70	-.4147E+02	-.6080E+01	.6103E+01	-.1438E+03	-.3777E+02	-.4450E+02
Loads	86	-.1353E+02	-.6080E+01	.4374E+01	-.1599E+03	.1438E+03	.6763E+02
		BEAM NO. 28					
Gloads	86	.2129E+02	-.3359E+02	-.3572E+01	-.8369E+02	-.4670E+03	-.7705E+02
Loads	102	-.1500E+02	-.1683E+02	.9858E+01	-.2710E+02	.4670E+03	-.2224E+03
Loads	86	.3359E+02	-.2129E+02	-.3572E+01	-.4670E+03	.8369E+02	-.7705E+02
Loads	102	-.1683E+02	-.1500E+02	.9858E+01	.4670E+03	.2710E+02	-.2224E+03
		BEAM NO. 29					
Gloads	11	.2152E+02	-.7264E+01	.113E+01	.2117E+03	-.5811E+03	-.4990E+03
Loads	28	-.8466E+01	-.6916E+03	.1922E+01	-.1104E+03	.5811E+03	.1692E+03
Loads	11	.7264E+03	-.113E+02	.2152E+02	-.5811E+03	-.4990E+03	.2117E+03
Loads	28	-.6916E+03	.1922E+01	-.8466E+01	.5811E+03	.1692E+03	-.1104E+03
		BEAM NO. 30					
Gloads	28	.1965E+00	.4409E+03	.2377E+01	-.1142E+03	-.3853E+03	.1965E+03
Loads	44	.1285E+02	-.4061E+03	.1067E+02	.2291E+02	.3853E+03	-.5723E+02
Loads	28	.4409E+03	.2377E+01	.1285E+02	-.3853E+03	.1965E+03	-.1142E+03
Loads	44	-.4061E+03	.1067E+02	.1285E+02	.3853E+03	-.5723E+02	.2291E+02
		BEAM NO. 31					
Gloads	44	.8084E+01	.2917E+03	.7408E+01	.9162E+02	-.9005E+02	-.7524E+02
Loads	60	.4967E+01	-.2569E+03	.5643E+01	-.7220E+02	.9005E+02	.4095E+02
Loads	44	.2917E+03	.7408E+01	.8084E+01	.9005E+02	-.7524E+02	.9162E+02
Loads	60	-.2569E+03	.5643E+01	.4967E+01	.9005E+02	.4095E+02	-.7220E+02
		BEAM NO. 32					
Gloads	60	.6708E+01	.1776E+03	.7633E+01	-.2827E+02	.2157E+03	.2204E+03

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Tors	My	Mz
Loads	Node	AXIAL	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	AXIAL	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	76	.6344E+01	-.1428E+03	.5418E+01	.5264E+02	-.2157E+03	-.2604E+02
Loads	60	-.1776E+03	.7633E+01	.6708E+01	.2157E+03	.2204E+02	-.2827E+02
Loads	76	-.1428E+03	.5418E+01	.6344E+01	-.2157E+03	-.2604E+02	.5264E+02
		BEAM NO. 33					
Gloads	76	.7753E+01	.1275E+03	.7560E+01	.5713E+02	.4082E+03	-.1425E+02
Loads	92	.8561E+01	-.8399E+02	.8754E+01	-.7354E+02	-.4082E+03	.2536E+02
Loads	76	-.1275E+03	.7560E+01	.7753E+01	.4082E+03	-.1425E+02	.5713E+02
Loads	92	-.8399E+02	.8754E+01	.8561E+01	-.4082E+03	.2536E+02	-.7356E+02
		BEAM NO. 34					
Gloads	92	.1592E+02	-.7226E+02	.2339E+02	.1856E+03	.2943E+03	-.7819E+02
Loads	108	-.6135E+01	-.4616E+02	-.1360E+02	.1196E+03	-.2943E+03	-.1038E+03
Loads	92	.7226E+02	.2339E+02	.1592E+02	.2943E+03	-.7819E+02	.1856E+03
Loads	108	-.4616E+02	-.1360E+02	-.6135E+01	-.2943E+03	-.1038E+03	.1196E+03
		BEAM NO. 35					
Gloads	17	.7116E+01	.2962E+02	.7554E+01	-.9942E+03	.4797E+03	-.8004E+02
Loads	34	.1266E+01	-.7264E+01	.8274E+01	.1068E+04	-.4797E+03	.1570E+02
Loads	17	.2962E+02	-.7116E+01	.7554E+01	.4797E+03	.9942E+03	-.8004E+02
Loads	34	-.7264E+01	-.1266E+01	.8274E+01	-.4797E+03	-.1068E+04	.1570E+02
		BEAM NO. 36					
Gloads	34	.3871E+01	.2085E+02	.5517E+01	.2488E+04	.3099E+03	-.1570E+02
Loads	50	.4510E+01	.1503E+01	.2864E+01	.2517E+04	-.3099E+03	.2273E+02
Loads	34	.2085E+02	-.3871E+01	.5517E+01	.3099E+03	.2488E+04	-.1570E+02
Loads	50	.1503E+01	-.4510E+01	.2864E+01	-.3099E+03	-.2517E+04	.2273E+02
		BEAM NO. 37					
Gloads	50	.4947E+01	-.3311E+02	.3950E+01	-.2828E+04	.1020E+03	-.2273E+02
Loads	66	.3435E+01	.1076E+02	.4432E+01	.282E+04	-.1020E+03	.6103E+01
Loads	50	.3311E+02	-.4947E+01	.3950E+01	.1020E+03	.2828E+04	-.2273E+02
Loads	66	-.1076E+02	-.3435E+01	.4432E+01	-.1020E+03	-.2822E+04	.6103E+01
		BEAM NO. 38					
Gloads	66	.1818E+01	.3916E+02	.3039E+01	-.2197E+04	-.2395E+03	-.6103E+01
Loads	82	.6564E+01	-.1681E+02	.5342E+01	.2172E+04	.2395E+03	.5831E+02
Loads	66	.3916E+02	-.1818E+01	.3039E+01	-.2395E+03	-.2197E+04	-.6103E+01
Loads	82	-.1681E+02	-.6564E+01	.5342E+01	.2395E+03	.2172E+04	.5831E+02
		BEAM NO. 39					
Gloads	82	.1121E+02	.4395E+02	-.2609E+01	.1212E+04	-.2003E+03	-.5831E+02
Loads	98	-.7283E+00	-.1602E+02	.1309E+02	-.1428E+04	.2003E+03	-.1058E+03
Loads	82	.4395E+02	-.1121E+02	-.2609E+01	-.2003E+03	-.1212E+04	-.5831E+02
Loads	98	-.1602E+02	.7283E+00	.1309E+02	.2003E+03	.1428E+04	-.1058E+03
		BEAM NO. 40					
Gloads	98	.1603E+02	.4571E+02	.2773E+02	.1620E+04	.2643E+03	-.1168E+03

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	120	-.6223E+04	-.1547E+05	-.6228E+04	-.1982E+06	-.2535E+02	-.1985E+06
Lloads	115	-.1600E+05	-.8316E+04	-.3652E+04	-.2535E+02	-.7753E+05	-.1773E+06
Lloads	120	-.1547E+05	.8066E+04	-.3542E+04	.2535E+02	-.1132E+06	-.2956E+06
BEAM NO. 57							
Gloads	120	-.5027E+04	-.1453E+05	-.5022E+04	-.1982E+06	-.2535E+02	-.1985E+06
Lloads	121	-.5261E+04	-.1515E+05	-.5255E+04	-.1230E+06	-.2535E+02	-.1230E+06
Lloads	120	-.1453E+05	.6502E+04	-.2865E+04	-.2535E+02	-.1132E+06	-.2567E+06
Lloads	121	-.1515E+05	-.6805E+04	-.2998E+04	.2535E+02	.7005E+05	.1592E+06
BEAM NO. 58							
Gloads	116	.2351E+04	.5250E+04	.443E+03	.1883E+05	.2420E+03	.8949E+04
Lloads	121	-.2273E+04	-.5041E+04	-.3559E+03	.1883E+05	-.8539E+04	-.1170E+06
Lloads	116	.2351E+04	.5250E+04	.4343E+03	.1883E+05	-.2420E+03	-.8949E+04
Lloads	121	-.2273E+04	-.5041E+04	-.3559E+03	.1883E+05	-.8539E+04	-.1170E+06
BEAM NO. 59							
Gloads	117	.4372E+03	-.5247E+04	.2349E+04	.8981E+04	-.2366E+03	-.1879E+05
Lloads	121	-.3587E+03	-.5038E+04	-.2270E+04	-.1170E+06	.8594E+04	.1879E+05
Lloads	117	.2349E+04	-.5247E+04	-.4572E+03	.1879E+05	-.2366E+03	-.8981E+04
Lloads	121	-.2270E+04	-.5038E+04	-.3587E+03	-.799E+05	.8594E+04	-.1170E+06
BEAM NO. 60							
Gloads	118	.2351E+04	-.2742E+04	.4370E+03	.1881E+05	-.1982E+03	-.2376E+05
Lloads	121	-.2273E+04	-.2533E+04	-.3586E+03	-.1881E+05	.8552E+04	-.3163E+05
Lloads	118	.2351E+04	-.2742E+04	.4370E+03	.1881E+05	-.1982E+03	-.2376E+05
Lloads	121	-.2273E+04	-.2533E+04	-.3586E+03	-.1881E+05	.8552E+04	-.3163E+05
BEAM NO. 61							
Gloads	119	.4345E+03	-.2745E+04	.2349E+04	.2379E+05	-.2803E+03	-.1881E+05
Lloads	121	-.3560E+03	-.2536E+04	-.2270E+04	.3166E+05	-.8581E+04	.1881E+05
Lloads	119	-.2349E+04	.2745E+04	.4345E+03	.1881E+05	-.2803E+03	-.2379E+05
Lloads	121	-.2270E+04	-.2536E+04	-.3560E+03	-.1881E+05	-.8581E+04	.3166E+05
BEAM NO. 62							
Gloads	125	.3741E+01	-.5277E+02	.6368E+01	-.2207E+04	-.1633E+03	-.1128E+02
Lloads	127	.4641E+01	.7513E+02	.2014E+01	.2207E+04	-.1633E+03	-.1128E+02
Lloads	125	-.5277E+02	-.3741E+01	-.6368E+01	-.1633E+03	-.2207E+04	-.1128E+02
Lloads	127	.7513E+02	-.4641E+01	-.2014E+01	-.1633E+03	-.2255E+04	-.2117E+02
BEAM NO. 63							
Gloads	127	.4312E+01	-.7391E+01	.3062E+01	-.2501E+04	-.3836E+02	-.2117E+02
Lloads	129	.4070E+01	-.2974E+02	.5320E+01	.2476E+04	.3836E+02	.1852E+02
Lloads	127	-.7391E+01	-.4312E+01	.3062E+01	-.3836E+02	-.2501E+04	-.2117E+02
Lloads	129	-.2974E+02	-.4070E+01	.5320E+01	.3836E+02	-.2476E+04	.1852E+02
BEAM NO. 64							
Gloads	129	.4148E+01	.2067E+02	-.1431E+01	-.1471E+04	-.4297E+03	-.1852E+02

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Gloads	131	.4234E+01	-.1679E+01	.9813E+01	-.1347E+04	.4297E+03	-.1947E+02
Lloads	129	.2067E+02	-.4148E+01	-.1431E+01	-.4297E+03	.1471E+04	-.1852E+02
Lloads	131	-.1679E+01	-.4234E+01	.9813E+01	.4297E+03	-.1347E+04	-.1947E+02
BEAM NO. 65							
Gloads	131	.5817E+01	-.6684E+02	.5839E+01	-.2545E+03	-.1376E+03	-.1947E+02
Lloads	133	.4660E+01	-.3890E+02	.4638E+01	-.2380E+03	-.1356E+03	-.1947E+02
Lloads	131	.6684E+02	-.5817E+01	.5839E+01	-.1356E+03	-.2545E+03	-.1947E+02
Lloads	133	-.3890E+02	-.4660E+01	.4638E+01	.1356E+03	.2380E+03	.3554E+01
BEAM NO. 66							
Gloads	133	.3947E+00	.3833E+02	-.4779E+01	.7221E+03	.6997E+03	-.3554E+01
Lloads	135	.5892E+01	-.2157E+02	.1107E+02	-.8528E+03	.6997E+03	.4890E+02
Lloads	133	.3833E+02	-.3947E+00	-.4779E+01	.6997E+03	.7221E+03	-.3554E+01
Lloads	135	-.2157E+02	-.5892E+01	.1107E+02	-.6997E+03	.8528E+03	.4890E+02
BEAM NO. 67							
Gloads	115	-.8331E+03	-.3994E+04	.9389E+02	.3331E+05	-.2391E+04	-.3435E+05
Lloads	116	.1272E+04	.5163E+04	.3446E+03	-.1883E+05	-.2420E+03	.8949E+02
Lloads	115	.4078E+04	-.1052E+03	.9389E+02	-.3606E+04	.3320E+05	-.3435E+05
Lloads	116	-.5307E+04	.3275E+03	.3446E+03	-.3606E+04	-.1848E+05	.8949E+04
BEAM NO. 68							
Gloads	115	.8813E+02	-.3995E+04	-.8276E+03	.3373E+05	-.2517E+04	-.3394E+05
Lloads	117	.3504E+03	.5164E+04	.1266E+04	-.8981E+04	.2366E+03	.1879E+05
Lloads	115	.4078E+04	-.9969E+02	-.8813E+02	.3595E+04	-.3384E+05	-.3373E+05
Lloads	117	-.5307E+04	.3202E+03	-.3504E+03	-.3595E+04	.1845E+05	.8981E+04
BEAM NO. 69							
Gloads	115	.9599E+03	-.4050E+04	.9545E+02	-.3334E+05	.2444E+04	-.3555E+05
Lloads	118	-.5214E+03	.5220E+04	.3651E+03	-.1881E+05	-.192E+03	-.2376E+05
Lloads	115	.4157E+04	-.2199E+03	-.9345E+02	.3560E+04	-.3324E+05	.3555E+05
Lloads	118	-.5229E+04	-.4208E+03	-.3451E+03	-.3560E+04	.1847E+05	-.2376E+05
BEAM NO. 70							
Gloads	115	.8857E+02	-.4049E+04	.9654E+03	.3493E+05	-.2464E+04	-.3391E+05
Lloads	119	.3500E+03	.5219E+04	-.5268E+03	-.2379E+05	.2803E+03	.1881E+05
Lloads	115	.4157E+04	-.2254E+03	.8857E+02	-.3641E+04	.3380E+05	.3493E+05
Lloads	119	-.5229E+04	-.4153E+03	.3500E+03	.3641E+04	-.1846E+05	-.2379E+05

SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
 WITHIN SPECIFIED RANGE 1- 70

Maximum (absolute) Stress = .1381E+04 at BEAM 56

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
56	.4396E+03	-.4580E+03	.2013E+03	.1440E-02	-.2882E+03	-.6535E+03
	Maximum	Minimum	Cmb. Shear			
	.1381E+04	-.5021E+03	.6907E+03			

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

PLATE LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz

PLATE 1							
GLoads	2	.2964E+03	.6433E+03	.1163E+02	-.4237E+02	-.1521E+03	.0000E+00
GLoads	3	.4130E+02	.2312E+02	.1090E+02	.1954E+03	.4181E+02	.0000E+00
GLoads	20	-.2630E+03	-.5667E+03	-.6010E+01	.2849E+03	-.1646E+03	.0000E+00
GLoads	19	-.7470E+02	-.9978E+02	-.1651E+02	.5767E+02	-.3753E+02	.0000E+00
PLATE 2							
GLoads	3	.1918E+03	.3696E+03	-.6464E+01	-.1954E+03	.1570E+03	.0000E+00
GLoads	4	.1175E+03	-.2119E+03	.7053E+00	.8626E+02	.1341E+03	.0000E+00
GLoads	21	-.1908E+03	-.2859E+03	.1821E+02	.1204E+03	-.2838E+02	.0000E+00
GLoads	20	-.1185E+03	.1282E+03	-.1245E+02	-.1379E+03	-.4156E+01	.0000E+00
PLATE 3							
GLoads	4	.4526E+02	-.6158E+01	-.1401E+02	-.8626E+02	.4115E+02	.0000E+00
GLoads	5	.1922E+03	-.5236E+03	-.2097E+02	.2167E+03	.2467E+03	.0000E+00
GLoads	22	-.9969E+02	.1413E+03	.1698E+02	.1514E+03	.3459E+03	.0000E+00
GLoads	21	-.1378E+03	.3884E+03	-.2394E+02	-.1287E+03	-.1151E+03	.0000E+00
PLATE 4							
GLoads	5	-.1860E+02	-.5887E+03	.2252E+03	.0000E+00	-.2267E+03	-.1486E+03
GLoads	6	-.1537E+02	-.7051E+02	.4366E+02	.0000E+00	-.5072E+02	.5499E+02
GLoads	23	-.2367E+02	.4521E+03	-.1756E+03	-.1043E+03	.3827E+02	.0000E+00
GLoads	22	.2044E+02	.2071E+03	-.9324E+02	.0000E+00	-.3659E+03	-.8176E+02
PLATE 5							
GLoads	6	.1954E+01	-.3016E+03	.1852E+03	.0000E+00	-.7901E+02	-.5499E+02
GLoads	7	.5485E+00	.2714E+03	.1730E+03	.0000E+00	-.1446E+03	.9988E+02
GLoads	24	-.1420E+02	.2369E+03	-.1849E+03	-.5115E+01	-.5299E+02	.0000E+00
GLoads	23	.1170E+02	-.2068E+03	-.1732E+03	.1051E+03	.6493E+02	.0000E+00
PLATE 6							
GLoads	7	.1351E+02	-.1351E+03	.1408E+03	.0000E+00	.2730E+02	-.9988E+02
GLoads	8	.7064E+01	.4707E+03	.2509E+03	.0000E+00	-.1280E+03	.5534E+01
GLoads	25	-.1422E+02	.8527E+02	-.1572E+03	.1230E+03	-.1575E+03	.0000E+00
GLoads	24	-.6354E+01	-.4208E+03	-.2345E+03	.2353E+03	.1473E+03	.0000E+00
PLATE 7							
GLoads	8	.8435E+01	.5331E+01	.9731E+02	.0000E+00	.1298E+03	-.5534E+01
GLoads	9	.1608E+02	.6479E+03	.3210E+03	.0000E+00	-.2438E+02	-.1348E+03
GLoads	26	.9097E+01	-.5415E+02	-.1245E+03	.2662E+03	-.1504E+03	.0000E+00
GLoads	25	-.1542E+02	-.5991E+03	-.2538E+03	.1329E+03	.1532E+03	.0000E+00
PLATE 8							
GLoads	9	-.3283E+01	.1535E+03	.5899E+02	.0000E+00	-.1465E+03	.1348E+03
GLoads	10	-.8035E+01	.8434E+03	.3847E+03	.0000E+00	.8707E+02	.6037E+02
GLoads	27	.2331E+02	-.2136E+03	-.1084E+03	-.8872E+01	-.5031E+02	.0000E+00
GLoads	26	-.1199E+02	-.7833E+03	-.3353E+03	-.4494E+02	.5347E+02	.0000E+00

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SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Hx	Hy	Mz
PLATE 9						
Gloads 10	-.5051E+01	.4510E+03	-.2945E+02	.0000E+00	.4052E+02	-.6037E+02
Gloads 11	.5631E+02	-.1165E+04	.4333E+03	.0000E+00	.2263E+03	-.5614E+03
Gloads 28	-.1796E+02	-.5922E+03	-.8332E+02	.0000E+00	.3781E+03	-.4936E+03
Gloads 27	-.3329E+02	-.1024E+04	-.3205E+03	.1225E+02	-.5054E+02	.0000E+00
PLATE 10						
Gloads 11	-.4273E+03	.1138E+04	-.3733E+02	-.4147E+03	-.3161E+03	.0000E+00
Gloads 12	-.6483E+02	.4854E+03	-.1401E+02	-.9048E+02	-.8074E+02	.0000E+00
Gloads 29	-.3202E+03	-.1011E+04	-.3034E+02	-.1428E+03	-.1333E+03	.0000E+00
Gloads 28	-.4230E+02	-.6121E+03	.7022E+01	-.3317E+03	-.4092E+03	.0000E+00
PLATE 11						
Gloads 12	.3923E+03	.8641E+03	-.2338E+01	.9048E+02	-.1782E+03	.0000E+00
Gloads 13	-.1635E+02	.2233E+03	-.2964E+01	-.2435E+03	-.2208E+03	.0000E+00
Gloads 30	-.3437E+03	-.8161E+03	-.1632E+02	-.178E+03	.3097E+02	.0000E+00
Gloads 29	-.6496E+02	-.2713E+03	.2162E+02	-.1541E+03	.7562E+02	.0000E+00
PLATE 12						
Gloads 13	.3447E+03	.7133E+03	.1883E+02	.2435E+03	-.7281E+02	.0000E+00
Gloads 14	.4384E+02	-.1154E+03	.8492E+01	-.1363E+03	-.2421E+03	.0000E+00
Gloads 31	-.3149E+03	-.6790E+03	-.2196E+02	.6377E+02	-.9285E+02	.0000E+00
Gloads 30	-.7371E+02	-.1497E+03	-.5361E+02	.4300E+03	.2035E+03	.0000E+00
PLATE 13						
Gloads 14	.2955E+03	.5930E+03	.1478E+02	.1363E+03	.4714E+02	.0000E+00
Gloads 15	.7220E+02	.3049E+02	.1770E+02	-.2120E+02	-.1696E+03	.0000E+00
Gloads 32	-.2715E+03	-.5639E+03	-.1795E+02	.2366E+03	-.1320E+03	.0000E+00
Gloads 31	-.9620E+02	-.5963E+02	-.1454E+02	.3629E+03	.2507E+03	.0000E+00
PLATE 14						
Gloads 15	.2406E+03	.4724E+03	.1310E+02	.2120E+02	-.118E+03	.0000E+00
Gloads 16	.9831E+02	-.4880E+02	.8338E+01	.2164E+02	.8802E+02	.0000E+00
Gloads 33	-.2191E+03	-.4428E+03	-.5338E+01	.2056E+03	-.1582E+03	.0000E+00
Gloads 32	-.1197E+03	.1732E+02	-.1610E+02	.2764E+03	.1799E+03	.0000E+00
PLATE 15						
Gloads 16	.1811E+03	.3419E+03	.1133E+02	.3164E+02	.1362E+03	.0000E+00
Gloads 17	.1262E+03	-.1419E+03	.3967E+02	.3366E+03	.3352E+02	.0000E+00
Gloads 34	-.1650E+03	-.3039E+03	-.2209E+02	.5245E+03	-.1685E+02	.0000E+00
Gloads 33	-.1423E+03	.1039E+03	-.2891E+01	.2294E+03	.1138E+03	.0000E+00
PLATE 16						
Gloads 19	.2203E+03	.6329E+03	-.5448E+01	-.1939E+03	.3037E+03	.0000E+00
Gloads 20	.1442E+03	-.2975E+02	.9154E+01	.1550E+02	-.6386E+02	.0000E+00
Gloads 36	-.2128E+03	-.5570E+03	.1021E+02	.2162E+03	-.2003E+03	.0000E+00
Gloads 35	-.1517E+03	-.4418E+02	-.1392E+02	.4380E+02	.2252E+03	.0000E+00
PLATE 17						
Gloads 20	.2053E+03	.3831E+03	-.2260E+02	-.1625E+03	.2326E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Hx	Hy	Mz
PLATE 18						
Gloads 21	-.1311E+03	-.2345E+03	.2357E+02	.9219E+02	.2157E+03	.0000E+00
Gloads 37	-.2094E+03	-.3069E+03	.2578E+02	.1469E+03	.1225E+03	.0000E+00
Gloads 36	-.1269E+03	.1583E+03	-.2675E+02	-.5520E+02	.1036E+03	.0000E+00
PLATE 18						
Gloads 21	.1656E+03	.4695E+02	-.4975E+02	-.8387E+02	-.7225E+02	.0000E+00
Gloads 22	.6348E+01	-.2864E+03	.2420E+02	-.6042E+02	.7133E+03	.0000E+00
Gloads 38	-.1398E+03	.9625E+01	.6303E+02	.2113E+03	.7430E+03	.0000E+00
Gloads 37	-.3219E+02	-.2292E+03	-.3474E+02	-.2067E+03	-.1919E+03	.0000E+00
PLATE 19						
Gloads 22	.3215E+02	-.3023E+03	.1297E+02	.0000E+00	-.6631E+03	-.1047E+02
Gloads 23	-.4362E+02	-.3616E+02	.1444E+03	.8400E+01	.6730E+01	.0000E+00
Gloads 39	-.3737E+02	.2595E+03	-.2397E+02	-.1224E+03	.9908E+02	.0000E+00
Gloads 38	.4885E+02	.7896E+02	-.1354E+03	.0000E+00	-.6981E+03	.1321E+03
PLATE 20						
Gloads 23	.1940E+02	-.3056E+03	.1683E+03	.7684E+01	-.1099E+03	.0000E+00
Gloads 24	-.2170E+02	.2638E+03	.1894E+03	-.1448E+03	-.2872E+03	.0000E+00
Gloads 40	-.2451E+02	.2439E+03	-.1497E+03	-.1825E+02	-.2541E+03	.0000E+00
Gloads 39	.2681E+02	-.2021E+03	-.2080E+03	.1049E+03	-.6501E+02	.0000E+00
PLATE 21						
Gloads 24	.6048E+01	-.1764E+03	.1935E+03	-.8530E+02	-.1929E+03	.0000E+00
Gloads 27	.2886E+01	.464E+03	.228E+03	-.11E+03	.3243E+03	.0000E+00
Gloads 41	-.7925E+01	.1282E+03	-.1911E+03	.1382E+03	-.3258E+03	.0000E+00
Gloads 40	.4742E+01	-.4144E+03	-.2251E+03	.1419E+03	.2897E+03	.0000E+00
PLATE 22						
Gloads 25	-.3666E+01	-.4533E+02	.1923E+03	-.1310E+03	.3286E+03	.0000E+00
Gloads 26	.6132E+01	.6125E+03	.2391E+03	-.8738E+02	-.1829E+03	.0000E+00
Gloads 42	.6468E+01	-.1487E+00	-.2080E+03	.1418E+03	-.2757E+03	.0000E+00
Gloads 41	-.8935E+01	-.5670E+03	-.2335E+03	-.1309E+03	.3253E+03	.0000E+00
PLATE 23						
Gloads 26	-.2123E+02	.1284E+03	.1845E+03	-.1338E+03	.2798E+03	.0000E+00
Gloads 27	.2250E+02	.7483E+03	.2100E+03	.4160E+02	.1255E+03	.0000E+00
Gloads 43	.2353E+02	-.1883E+03	-.2103E+03	.1296E+03	.7240E+02	.0000E+00
Gloads 42	.2480E+02	-.6884E+03	-.1843E+03	-.9456E+01	.2357E+03	.0000E+00
PLATE 24						
Gloads 27	-.4870E+02	.3930E+03	.1827E+03	.4496E+02	-.2470E+02	.0000E+00
Gloads 28	.2014E+02	.6916E+03	.1390E+02	.0000E+00	.6897E+03	.1279E+03
Gloads 44	.6399E+02	-.4126E+03	-.1597E+03	.0000E+00	.7440E+03	.2814E+03
Gloads 43	-.3542E+02	-.6720E+03	-.3690E+02	-.1741E+03	-.1050E+03	.0000E+00
PLATE 25						
Gloads 28	.1259E+02	.6678E+03	.2230E+02	-.1071E+03	-.8544E+03	.0000E+00
Gloads 29	.1447E+03	.4308E+03	-.5580E+02	-.1084E+03	.4577E+02	.0000E+00
Gloads 45	-.2885E+02	-.6590E+03	-.4019E+02	-.2338E+03	.2120E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Hx	Hy	Hz
Loads	44	-1285E+03	-4396E+03	-7369E+02	-2876E+03	-8592E+03	.0000E+00
		PLATE 26					
Loads	29	.2050E+03	.7573E+03	.2911E+02	.9709E+02	-.2547E+03	.0000E+00
Loads	30	.1434E+03	.2054E+03	-.2698E+02	-.2407E+03	-.3227E+03	.0000E+00
Loads	46	-.1722E+03	-.7108E+03	-.3249E+02	-.3533E+02	-.1891E+03	.0000E+00
Loads	45	-.1762E+03	-.2519E+03	-.3036E+02	-.2259E+03	-.1354E+03	.0000E+00
		PLATE 27					
Loads	30	.2386E+03	.6659E+03	.1325E+02	-.7151E+02	.8819E+02	.0000E+00
Loads	31	.1495E+03	.7224E+02	-.9132E+01	-.2915E+03	-.4407E+03	.0000E+00
Loads	47	-.2122E+03	-.6352E+03	-.1735E+02	.1615E+03	-.3291E+03	.0000E+00
Loads	46	-.1759E+03	-.1030E+03	.1323E+02	.2885E+03	.2800E+03	.0000E+00
		PLATE 28					
Loads	31	.2262E+03	.5720E+03	.1022E+02	-.1352E+03	.2829E+03	.0000E+00
Loads	32	.1598E+03	.1583E+02	.1788E+01	-.2708E+03	-.4078E+03	.0000E+00
Loads	48	-.2108E+03	-.5428E+03	-.1175E+02	.2788E+03	-.4091E+03	.0000E+00
Loads	47	-.1743E+03	-.1336E+02	-.2502E+00	.3913E+03	.3829E+03	.0000E+00
		PLATE 29					
Loads	32	.1970E+03	.6480E+03	-.3155E+01	-.2422E+03	.3599E+03	.0000E+00
Loads	33	.1697E+03	-.9320E+02	.8850E+01	.2467E+03	-.2594E+03	.0000E+00
Loads	49	-.1934E+03	-.4386E+03	.6885E+01	.3124E+03	-.2820E+03	.0000E+00
Loads	48	-.1735E+03	.6387E+02	-.1258E+02	.5108E+03	.4202E+03	.0000E+00
		PLATE 30					
Loads	33	.1564E+03	.3376E+03	-.1001E+02	-.1884E+03	.3038E+03	.0000E+00
Loads	34	.1715E+03	-.1782E+03	.3201E+02	-.3724E+02	.2055E+02	.0000E+00
Loads	50	-.1623E+03	-.2975E+03	.4555E+01	.4178E+03	-.3710E+02	.0000E+00
Loads	49	-.1656E+03	.1380E+03	-.2656E+02	.2919E+03	.2674E+03	.0000E+00
		PLATE 31					
Loads	35	.1343E+03	.6428E+03	-.1678E+02	.1839E+03	.3805E+03	.0000E+00
Loads	36	.1270E+03	-.8565E+01	.1700E+02	.6945E+02	.1058E+03	.0000E+00
Loads	52	-.1538E+03	-.4153E+03	.1804E+02	.1597E+03	-.1426E+03	.0000E+00
Loads	51	-.1095E+03	-.3884E+02	-.1826E+02	.9874E+02	.3468E+03	.0000E+00
		PLATE 32					
Loads	36	.1808E+03	.3221E+03	-.3238E+02	-.9134E+02	.2025E+03	.0000E+00
Loads	37	.6991E+02	-.1248E+03	.2872E+02	-.2021E+02	.2698E+03	.0000E+00
Loads	53	-.1791E+03	-.2788E+03	.3559E+02	.2273E+02	.2501E+03	.0000E+00
Loads	52	-.7161E+02	.8149E+02	-.3193E+02	.5329E+01	.1565E+03	.0000E+00
		PLATE 33					
Loads	37	.1398E+03	.1168E+03	-.4893E+02	.8003E+02	-.2003E+03	.0000E+00
Loads	38	.4208E+01	-.1493E+03	.5601E+02	.1841E+03	.8946E+03	.0000E+00
Loads	54	-.1297E+03	-.8251E+02	.4367E+02	-.1888E+02	.9036E+03	.0000E+00
Loads	53	-.1431E+02	.1151E+03	-.5074E+02	.8964E+02	-.2357E+03	.0000E+00
		PLATE 34					
Loads	38	.4363E+02	-.1247E+03	-.3098E+02	.0000E+00	-.8343E+03	-.7538E+02

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Hx	Hy	Hz
Loads	39	-.5121E+02	-.2453E+02	.1242E+03	-.4745E+02	.9658E+02	.0000E+00
Loads	55	-.4744E+02	-.1078E+03	.1415E+02	-.1590E+03	.8183E+02	.0000E+00
Loads	54	.5503E+02	-.7644E+01	-.1074E+03	.0000E+00	-.8732E+03	.1307E+03
		PLATE 35					
Loads	39	.2559E+02	-.1785E+03	.7157E+02	-.2989E+02	-.1306E+03	.0000E+00
Loads	40	-.2565E+02	.2178E+03	.1851E+03	.4227E+02	-.3138E+03	.0000E+00
Loads	56	-.2408E+02	.1465E+03	-.7986E+02	.5400E+02	-.2573E+03	.0000E+00
Loads	55	.2413E+02	-.1858E+03	-.1768E+03	.1694E+02	-.6901E+02	.0000E+00
		PLATE 36					
Loads	40	.9224E+01	-.1437E+03	.1535E+03	-.8139E+02	.2782E+03	.0000E+00
Loads	41	-.9082E+01	.3735E+03	.1873E+03	.1324E+03	-.4301E+03	.0000E+00
Loads	57	.9396E+01	.1067E+03	-.1451E+03	.8154E+02	-.4019E+03	.0000E+00
Loads	56	.9254E+01	-.3401E+03	.1958E+03	-.1353E+03	.2678E+03	.0000E+00
		PLATE 37					
Loads	41	-.1025E+02	-.3498E+02	.1911E+03	-.1368E+03	.4024E+03	.0000E+00
Loads	42	.9339E+01	.4841E+03	.1465E+03	-.8186E+02	-.2626E+03	.0000E+00
Loads	58	.9628E+01	-.4971E+01	-.1803E+03	.1252E+03	-.2708E+03	.0000E+00
Loads	57	-.8720E+01	-.4442E+03	-.1572E+03	.7347E+02	.4250E+03	.0000E+00
		PLATE 38					
Loads	42	-.2720E+02	.1079E+03	.2096E+03	-.5047E+02	.3026E+03	.0000E+00
Loads	43	.249E+02	.5010E+03	.55E+02	.15E+03	.0000E+00	.0000E+00
Loads	59	.2799E+02	-.1306E+03	-.1920E+03	.7167E+01	.1097E+03	.0000E+00
Loads	58	-.2576E+02	-.4847E+03	-.7352E+02	.3146E+02	.2543E+03	.0000E+00
		PLATE 39					
Loads	43	-.4927E+02	.2564E+03	.1551E+03	.8166E+02	-.1217E+03	.0000E+00
Loads	44	.5094E+02	.4476E+03	-.2608E+02	.0000E+00	.8684E+03	-.1490E+03
Loads	60	.4618E+02	-.2645E+03	-.1263E+03	.0000E+00	.8907E+03	.6418E+02
Loads	59	-.4785E+02	-.4959E+03	-.2726E+01	.1296E+03	-.1322E+03	.0000E+00
		PLATE 40					
Loads	44	-.4320E+02	.4236E+03	.5817E+02	.1731E+03	-.1048E+04	.0000E+00
Loads	45	.1316E+03	.2979E+03	-.5778E+02	.6742E+02	.1926E+03	.0000E+00
Loads	61	.1501E+02	-.4262E+03	-.5621E+02	-.1509E+03	-.1980E+03	.0000E+00
Loads	60	-.1034E+03	-.2953E+03	.5582E+02	-.8104E+02	-.1171E+04	.0000E+00
		PLATE 41					
Loads	45	.3804E+02	.5186E+03	.3221E+02	.5953E+02	-.2692E+03	.0000E+00
Loads	46	.1887E+03	.1700E+03	-.218E+02	-.9785E+02	-.3035E+03	.0000E+00
Loads	62	-.5552E+02	-.5069E+03	-.3234E+02	.8302E+02	-.2381E+03	.0000E+00
Loads	61	-.1712E+03	-.1898E+03	.3454E+02	.2593E+02	-.2047E+03	.0000E+00
		PLATE 42					
Loads	46	.1240E+03	.5413E+03	.1826E+02	-.1533E+03	.2094E+03	.0000E+00
Loads	47	.1910E+03	.5931E+02	-.1924E+02	-.2502E+03	-.4734E+03	.0000E+00
Loads	63	-.1287E+03	-.5162E+03	-.1759E+02	.1750E+03	-.5079E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	62	-.1863E+03	-.8445E+02	.1858E+02	.2088E+03	.2133E+03	.0000E+00
			****PLATE	43****			
Loads	47	.1601E+03	.4948E+03	.1431E+01	-.3062E+03	.4196E+03	.0000E+00
Loads	48	.1859E+03	-.2999E+02	-.4465E+01	-.2788E+03	-.4708E+03	.0000E+00
Loads	64	-.1641E+03	-.4719E+03	-.3954E-01	.3149E+03	-.4722E+03	.0000E+00
Loads	63	-.1819E+03	.7056E+01	.3074E+01	.2033E+03	.4550E+03	.0000E+00
			****PLATE	44****			
Loads	48	.1628E+03	.4145E+03	-.6612E+01	-.3018E+03	.4598E+03	.0000E+00
Loads	49	.1710E+03	-.9687E+02	.6341E+01	-.2915E+03	-.3084E+03	.0000E+00
Loads	65	-.1647E+03	-.3873E+03	.4951E-01	.3115E+03	-.3671E+03	.0000E+00
Loads	64	-.1691E+03	.6968E+02	-.4680E+01	.2819E+03	.3869E+03	.0000E+00
			****PLATE	45****			
Loads	49	.1526E+03	.3031E+03	-.2267E+02	-.3217E+03	.3230E+03	.0000E+00
Loads	50	.1314E+03	-.1329E+03	.1552E+02	-.2774E+03	-.1129E+02	.0000E+00
Loads	66	-.1565E+03	-.2790E+03	.2282E+02	.2301E+03	-.2955E+02	.0000E+00
Loads	65	-.1275E+03	.1088E+03	-.1567E+02	.2027E+03	.2994E+03	.0000E+00
			****PLATE	46****			
Loads	51	.9925E+02	.3266E+03	-.1724E+02	-.1159E+03	.3018E+03	.0000E+00
Loads	52	.7722E+02	.1648E+02	.1308E+02	-.1657E+03	-.1354E+03	.0000E+00
Loads	68	-.9746E+02	-.3004E+02	.1282E+02	.4421E+02	-.9513E+02	.0000E+00
Loads	67	-.7903E+02	-.4250E+02	-.8564E+01	.1459E+03	.2786E+03	.0000E+00
			****PLATE	47****			
Loads	52	.1163E+03	.2323E+03	-.3110E+02	-.2302E+01	.1215E+03	.0000E+00
Loads	53	.3772E+02	-.4431E+02	.3183E+02	.5034E+02	.2315E+03	.0000E+00
Loads	69	-.1058E+03	-.2036E+03	.2555E+02	-.1953E+02	.2655E+03	.0000E+00
Loads	68	-.4823E+02	.1566E+02	-.2628E+02	.8837E+02	.1657E+03	.0000E+00
			****PLATE	48****			
Loads	53	.1238E+03	.1230E+03	-.4859E+02	.1172E+03	-.2460E+03	.0000E+00
Loads	54	-.2871E+02	-.4275E+02	.4580E+02	.3616E+02	.8774E+03	.0000E+00
Loads	70	-.1253E+03	-.1104E+03	.5029E+02	-.1606E+03	.8699E+03	.0000E+00
Loads	69	.3015E+02	.3014E+02	-.4575E+02	-.5407E+02	-.1880E+03	.0000E+00
			****PLATE	49****			
Loads	54	.5995E+02	-.2554E+02	-.2314E+02	.0000E+00	-.8378E+03	-.2061E+03
Loads	55	-.4008E+02	.7530E+02	.9088E+02	.1175E+03	.8639E+02	.0000E+00
Loads	71	.4966E+02	.2084E+02	.2286E+01	.1178E+03	.0000E+00	.0000E+00
Loads	70	.3001E+02	-.7059E+02	-.7202E+02	.0000E+00	-.7607E+03	-.2830E+02
			****PLATE	50****			
Loads	55	.2742E+02	-.9378E+02	.3558E+02	-.3542E+02	-.9921E+02	.0000E+00
Loads	56	.2902E+02	.1878E+03	.1575E+03	.5508E+02	-.2824E+03	.0000E+00
Loads	72	.3155E+02	.8627E+02	-.2644E+02	.1523E+02	-.3634E+03	.0000E+00
Loads	71	.3316E+02	-.1803E+03	-.1666E+03	.3992E+02	-.1939E+03	.0000E+00
			****PLATE	51****			
Loads	56	.7659E+01	-.9074E+02	.8194E+02	-.1342E+03	.2718E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	57	-.9025E+01	.2609E+03	.1508E+03	-.8040E+02	-.4265E+03	.0000E+00
Loads	73	-.8217E+01	.6947E+02	-.6777E+02	.1326E+03	-.4013E+03	.0000E+00
Loads	72	.9584E+01	-.2396E+03	-.1650E+03	.5202E+02	.2887E+03	.0000E+00
			****PLATE	52****			
Loads	57	-.9047E+01	-.1970E+02	.1153E+03	-.7461E+02	.4319E+03	.0000E+00
Loads	58	.9906E+01	.3028E+03	.9667E+02	-.1178E+03	-.2612E+03	.0000E+00
Loads	74	.1109E+02	-.1960E+01	.8846E+02	.7429E+02	-.2539E+03	.0000E+00
Loads	73	-.1195E+02	-.2812E+03	-.1235E+03	.1371E+03	.4086E+03	.0000E+00
			****PLATE	53****			
Loads	58	-.2996E+02	.9038E+02	.1210E+03	-.3882E+02	.2777E+03	.0000E+00
Loads	59	.3011E+02	.3181E+03	.2171E+02	.2089E+02	.1382E+03	.0000E+00
Loads	75	.3223E+02	-.1156E+03	-.8504E+02	.3355E+02	.2067E+03	.0000E+00
Loads	74	-.3237E+02	-.2930E+03	.5768E+02	.2928E+02	.3437E+03	.0000E+00
			****PLATE	54****			
Loads	59	-.4643E+02	.1554E+03	.1368E+03	.1433E+03	-.1157E+03	.0000E+00
Loads	60	.5303E+02	.2770E+03	-.4488E+02	.0000E+00	.8949E+03	-.1272E+03
Loads	76	.4716E+02	-.1465E+03	-.1368E+03	.0000E+00	.8711E+03	.7690E+02
Loads	75	-.5376E+02	-.2859E+03	.4490E+02	-.4842E+02	-.9734E+02	.0000E+00
			****PLATE	55****			
Loads	60	-.4323E+02	.2667E+03	.6629E+02	.1815E+03	-.1020E+04	.0000E+00
Loads	61	.1130E+03	.1790E+03	-.4538E+02	.2137E+03	.2033E+03	.0000E+00
Loads	77	.3030E+02	-.2802E+03	-.5955E+02	.2777E+02	.1577E+03	.0000E+00
Loads	76	-.1001E+03	-.1654E+03	.4256E+02	.4677E+02	-.9890E+03	.0000E+00
			****PLATE	56****			
Loads	61	.7734E+01	.3426E+03	.3536E+02	.9074E+02	-.1970E+03	.0000E+00
Loads	62	.1554E+03	.1262E+03	-.3749E+02	.3827E+02	-.2300E+03	.0000E+00
Loads	78	.3385E+02	-.3338E+03	.3762E+02	.8526E+02	-.3801E+03	.0000E+00
Loads	77	-.1093E+03	-.1350E+03	.3976E+02	.3278E+01	-.3321E+03	.0000E+00
			****PLATE	57****			
Loads	62	.7100E+02	.3707E+03	.1584E+02	-.2535E+03	.2548E+03	.0000E+00
Loads	63	.1466E+03	-.4120E+02	-.1836E+02	-.9374E+02	-.4584E+03	.0000E+00
Loads	79	.9838E+02	-.3568E+03	-.1653E+02	.2557E+02	-.5185E+03	.0000E+00
Loads	78	-.1192E+03	-.5510E+02	.1905E+02	.3630E+02	.1929E+03	.0000E+00
			****PLATE	58****			
Loads	63	.1286E+03	.3735E+03	.2538E+02	.2845E+03	.5113E+03	.0000E+00
Loads	64	.1446E+03	-.3852E+02	-.6255E+01	.2123E+03	-.3882E+03	.0000E+00
Loads	80	-.1537E+03	-.3578E+03	.6012E+01	.1894E+03	-.5203E+03	.0000E+00
Loads	79	-.1195E+03	.2283E+02	.2781E+01	.1230E+03	.3935E+03	.0000E+00
			****PLATE	59****			
Loads	64	.1531E+03	.3463E+03	-.2444E+02	-.3827E+03	.4734E+03	.0000E+00
Loads	65	.1339E+03	-.7904E+02	.5456E+01	-.2342E+03	-.1770E+03	.0000E+00
Loads	81	-.1739E+03	-.3372E+03	.3537E+02	.2065E+03	-.1549E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
GLoads 80	-.1131E+03	.7001E+02	-.1639E+02	-.7210E+01	.4777E+03	.0000E+00
		****PLATE 60****				
GLoads 65	.1229E+03	.2631E+03	-.2954E+02	-.2800E+03	.2447E+03	.0000E+00
GLoads 66	.6610E+03	-.8661E+02	.8242E+01	-.3010E+03	.9680E+02	.0000E+00
GLoads 82	-.1121E+03	-.2442E+02	-.3569E+02	.4937E+02	-.1675E+03	.0000E+00
GLoads 81	-.1159E+03	.6767E+02	-.1439E+02	-.6303E+02	-.1574E+03	.0000E+00
		****PLATE 61****				
GLoads 67	.1968E+02	.2341E+03	-.2272E+02	-.1361E+03	-.1184E+03	.0000E+00
GLoads 68	.8239E+02	-.1526E+02	.2710E+01	-.2601E+03	-.1046E+03	.0000E+00
GLoads 84	-.7361E+01	-.2207E+03	.1908E+02	-.1527E+03	.1093E+03	.0000E+00
GLoads 83	-.9471E+02	-.2868E+02	-.9225E+00	-.1350E+01	-.1748E+03	.0000E+00
		****PLATE 61****				
GLoads 68	.2738E+02	.1739E+03	-.2485E+02	.1275E+03	-.3402E+02	.0000E+00
GLoads 69	.4940E+02	.9995E+01	.2614E+02	-.1518E+03	.1599E+03	.0000E+00
GLoads 85	-.5228E+01	-.1645E+03	.2036E+02	-.1303E+03	.2830E+03	.0000E+00
GLoads 84	-.8201E+02	-.1940E+02	-.2165E+02	-.1903E+03	-.1586E+03	.0000E+00
		****PLATE 63****				
GLoads 69	-.9648E+01	.6779E+02	-.4008E+02	.2254E+03	-.2373E+03	.0000E+00
GLoads 70	.1633E+02	.4448E+02	.5809E+02	-.1361E+03	.7848E+03	.0000E+00
GLoads 86	.131E+03	-.5793E+02	.2430E+02	.6394E+01	-.8477E+03	.0000E+00
GLoads 85	-.1379E+03	-.5433E+02	-.4230E+02	.1281E+03	-.8929E+02	.0000E+00
		****PLATE 64****				
GLoads 70	.3291E+02	-.1472E+02	-.8542E+02	.0000E+00	-.8221E+03	.1083E+03
GLoads 71	-.5223E+02	-.1217E+03	.1757E+03	.3966E+01	.1314E+03	.0000E+00
GLoads 87	-.4272E+02	-.3850E+02	-.1766E+03	-.1627E+03	.1528E+02	.0000E+00
GLoads 86	.6204E+02	-.1455E+03	-.2669E+03	.0000E+00	-.7962E+03	.2642E+03
		****PLATE 65****				
GLoads 71	.2802E+02	-.7084E+02	-.5407E+02	-.6423E+02	-.5519E+02	.0000E+00
GLoads 72	-.2351E+02	.1122E+03	.1521E+03	.5992E+02	-.2879E+03	.0000E+00
GLoads 88	-.2615E+01	.6170E+02	.7201E+02	.1586E+03	-.1717E+03	.0000E+00
GLoads 87	-.1897E+01	-.1031E+03	-.1701E+03	-.3019E+02	.1099E+03	.0000E+00
		****PLATE 66****				
GLoads 72	.4761E+01	-.6741E+02	-.1370E+01	-.1272E+03	-.3626E+03	.0000E+00
GLoads 73	-.923E+01	.1512E+03	-.1226E+03	-.3869E+03	.0000E+00	.0000E+00
GLoads 89	-.1147E+01	.5678E+02	-.5891E+01	.7087E+02	-.3750E+03	.0000E+00
GLoads 88	-.5648E+01	-.1406E+03	-.1231E+03	.5458E+02	-.2377E+03	.0000E+00
		****PLATE 67****				
GLoads 73	-.1126E+02	-.4811E+02	.3195E+02	-.1470E+03	.3796E+03	.0000E+00
GLoads 74	.3540E+01	.1732E+03	.8940E+02	-.1434E+03	-.3272E+03	.0000E+00
GLoads 90	.3092E+01	.4204E+02	-.1663E+02	.3680E+02	-.2686E+03	.0000E+00
GLoads 89	.4627E+01	-.1672E+03	-.1047E+03	.4129E+02	.3191E+03	.0000E+00
		****PLATE 68****				
GLoads 74	-.2297E+02	.1311E+02	-.1604E+02	.3981E+02	-.2374E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
GLoads 75	.2562E+02	.1331E+03	.5179E+02	-.7166E+02	.7259E+02	.0000E+00
GLoads 91	-.2075E+01	-.1279E+02	.4378E+02	-.2520E+02	-.4946E+02	.0000E+00
GLoads 90	-.5695E+00	-.1334E+03	-.1116E+03	.1298E+03	.1043E+03	.0000E+00
		****PLATE 69****				
GLoads 75	-.4480E+02	.1597E+03	-.5236E+02	.8653E+02	-.1819E+03	.0000E+00
GLoads 76	.4267E+02	.9168E+02	-.1420E+01	.0000E+00	.8451E+03	-.3660E+02
GLoads 92	.2902E+02	-.6473E+03	.2396E+03	.0000E+00	.6521E+03	-.1207E+03
GLoads 91	-.2689E+02	-.1833E+02	-.1858E+03	-.6111E+02	-.2041E+03	.0000E+00
		****PLATE 70****				
GLoads 76	-.4410E+02	.1281E+03	.4260E+02	-.6300E+02	-.9197E+03	.0000E+00
GLoads 77	.3444E+02	.1394E+03	-.5092E+02	-.1283E+03	.2804E+03	.0000E+00
GLoads 93	-.3042E+02	-.1219E+03	-.3519E+02	-.4832E+02	-.1623E+03	.0000E+00
GLoads 92	.4007E+02	-.1456E+03	.4351E+02	.2458E+03	-.8290E+03	.0000E+00
		****PLATE 71****				
GLoads 77	.6480E+01	.1695E+03	.3088E+02	-.1528E+03	-.1060E+03	.0000E+00
GLoads 78	.4893E+02	-.6760E+02	-.2817E+02	.1344E+03	-.1877E+03	.0000E+00
GLoads 94	.6003E+02	-.1648E+03	-.1543E+01	.2157E+03	-.1440E+03	.0000E+00
GLoads 93	.6416E+01	-.7233E+02	-.1165E+01	.1228E+03	-.1294E+02	.0000E+00
		****PLATE 72****				
GLoads 78	.6427E+02	.2151E+03	.908E+01	-.2560E+03	.3749E+03	.0000E+00
GLoads 79	.5427E+02	-.6848E+01	-.1660E+02	.6297E+02	-.3650E+03	.0000E+00
GLoads 95	-.1034E+03	-.2081E+03	.3204E+01	.1236E+03	-.4254E+03	.0000E+00
GLoads 94	-.1510E+02	-.1516E+00	.6485E+01	-.7113E+02	.2124E+03	.0000E+00
		****PLATE 73****				
GLoads 79	.1238E+03	.2346E+03	-.9487E+01	-.3158E+03	.4900E+03	.0000E+00
GLoads 80	.3696E+02	-.6783E+02	-.992E+01	-.1354E+03	-.4326E+03	.0000E+00
GLoads 96	-.1602E+03	-.2371E+03	.1592E+02	.4287E+02	-.3844E+03	.0000E+00
GLoads 95	-.5306E+00	.5692E+02	.5829E+01	-.1073E+03	.3825E+03	.0000E+00
		****PLATE 74****				
GLoads 80	.1900E+03	.2494E+03	-.2020E+02	-.4674E+02	.4752E+03	.0000E+00
GLoads 81	.1001E+02	-.1221E+03	.3367E+02	.1924E+03	-.1016E+03	.0000E+00
GLoads 97	.2539E+02	-.2405E+03	-.1832E+02	.1607E+03	-.3597E+03	.0000E+00
GLoads 96	.5393E+02	.1132E+03	.4847E+01	-.6411E+02	.2189E+03	.0000E+00
		****PLATE 75****				
GLoads 81	.2400E+03	.2854E+03	-.9448E+02	-.4619E+03	.9912E+02	.0000E+00
GLoads 82	-.6350E+01	-.1272E+03	.5493E+02	-.1316E+04	.6695E+03	.0000E+00
GLoads 98	-.3842E+03	-.2964E+03	.1776E+03	-.1613E+04	.8898E+03	.0000E+00
GLoads 97	.1505E+03	.1383E+03	-.2818E+02	-.7180E+03	.2020E+03	.0000E+00
		****PLATE 76****				
GLoads 83	-.1853E+02	.1238E+03	-.1708E+02	-.1621E+03	-.2485E+03	.0000E+00
GLoads 84	.5323E+02	.5784E+02	-.3660E+02	-.1863E+03	-.1105E+03	.0000E+00
GLoads 100	.9560E+01	-.1021E+03	-.2561E+02	-.2656E+03	-.1480E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads 99		-.4626E+02	-.7953E+02	-.7869E+02	-.2617E+03	-.3351E+03	.0000E+00
			****PLATE 77****				
Loads 84		.2235E+01	.9712E+02	.6662E+01	.1488E+03	-.1574E+03	.0000E+00
Loads 85		.7519E+02	-.6512E+01	.6352E+01	.1074E+02	-.4611E+02	.0000E+00
Loads 101		-.2839E+02	-.8697E+02	-.2620E+02	-.2479E+02	-.3092E+02	.0000E+00
Loads 100		-.4904E+02	-.3641E+01	.1319E+02	.1015E+03	-.9871E+02	.0000E+00
			****PLATE 78****				
Loads 85		-.2560E+02	.1403E+03	-.1632E+02	.1291E+02	-.1476E+03	.0000E+00
Loads 86		-.1444E+03	-.6101E+02	-.2814E+02	-.3418E+03	.1123E+03	.0000E+00
Loads 102		-.1259E+03	-.1443E+03	.3310E+02	-.3863E+03	.1429E+03	.0000E+00
Loads 101		-.4419E+02	.6504E+02	.1136E+02	-.1819E+02	-.3981E+02	.0000E+00
			****PLATE 79****				
Loads 86		.1531E+03	.9825E+02	-.1235E+03	.0000E+00	-.4291E+03	-.9712E+03
Loads 87		.1097E+02	-.4696E+02	.2100E+02	.4218E+03	.1281E+03	.0000E+00
Loads 103		-.8996E+02	-.7157E+02	.3042E+02	.0000E+00	-.2615E+03	-.3872E+03
Loads 102		-.7406E+02	.2228E+02	.8092E+02	.0000E+00	-.4058E+03	-.9262E+03
			****PLATE 80****				
Loads 87		-.2542E+01	-.1504E+02	-.6370E+02	-.2289E+03	.2851E+01	.0000E+00
Loads 88		-.3259E+02	-.1506E+02	.2857E+02	.9025E+02	-.1514E+03	.0000E+00
Loads 104		-.3190E+02	-.2235E+02	.3295E+02	.0000E+00	-.4803E+03	.8190E+02
Loads 103		.6704E+02	-.2236E+02	.2180E+01	.0000E+00	-.3708E+03	-.1784E+03
			****PLATE 81****				
Loads 88		-.6651E+01	-.2543E+01	-.1375E+02	-.1229E+03	.8545E+02	.0000E+00
Loads 89		-.1579E+02	.3245E+02	.4333E+02	-.5038E+02	-.1371E+03	.0000E+00
Loads 105		.2718E+01	-.9578E+00	.9508E+01	.0000E+00	-.1669E+03	.7255E+02
Loads 104		.1972E+02	-.2895E+02	-.3909E+02	.0000E+00	-.1600E+02	-.1245E+02
			****PLATE 82****				
Loads 89		-.2388E+02	-.1855E+02	.1933E+02	-.6178E+02	.1931E+03	.0000E+00
Loads 90		-.1169E+01	.5207E+02	.4622E+02	-.1248E+03	-.1511E+02	.0000E+00
Loads 106		.4209E+02	.1770E+02	-.2687E+02	.0000E+00	.1491E+03	.1359E+03
Loads 105		-.1705E+02	-.5122E+02	-.3868E+02	.0000E+00	.3072E+03	-.9078E+02
			****PLATE 83****				
Loads 90		-.3754E+02	-.5717E+02	.4583E+02	-.4174E+02	.1794E+03	.0000E+00
Loads 91		.1908E+02	-.6104E+02	.1715E+02	-.1010E+03	.1345E+03	.0000E+00
Loads 107		-.7317E+02	.6412E+02	.9241E+02	.0000E+00	.5538E+03	.9194E+02
Loads 106		-.5497E+02	-.6799E+02	-.2493E+02	.0000E+00	.5663E+03	.6996E+02
			****PLATE 84****				
Loads 91		-.2630E+02	-.8042E+02	.3407E+02	.1873E+03	-.1191E+03	.0000E+00
Loads 92		.7341E+02	.1479E+03	.1529E+03	.0000E+00	.4868E+03	-.2826E+03
Loads 108		.4540E+02	.5121E+02	-.1852E+03	.0000E+00	.7569E+03	-.1967E+03
Loads 107		-.9251E+02	-.1187E+03	-.1811E+01	.0000E+00	.4788E+03	-.1107E+03
			****PLATE 85****				
Loads 92		.2902E+02	.6150E+02	.1238E+03	.6574E+03	-.4778E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads 93		-.4455E+02	.5857E+02	-.9263E+01	.3776E+03	-.7257E+02	.0000E+00
Loads 109		-.2401E+02	-.4167E+02	-.1028E+03	.2905E+03	-.4342E+03	.0000E+00
Loads 108		.3954E+02	-.7839E+02	-.1166E+02	.5640E+03	-.7158E+03	.0000E+00
			****PLATE 86****				
Loads 93		.3315E+02	.4124E+02	.0202E+02	-.2064E+03	-.7677E+02	.0000E+00
Loads 94		-.8597E+01	.1623E+02	-.4014E+02	-.7740E+01	-.1304E+03	.0000E+00
Loads 110		-.3019E+02	-.4294E+02	-.5223E+02	-.6824E+02	-.6075E+03	.0000E+00
Loads 109		.5644E+01	-.1453E+02	.8216E+02	-.2114E+03	-.5863E+03	.0000E+00
			****PLATE 87****				
Loads 94		.4831E+02	.5430E+02	-.2154E+00	-.1368E+03	.6190E+02	.0000E+00
Loads 95		-.4499E+01	.3752E+01	-.2369E+02	.3244E+02	-.1555E+03	.0000E+00
Loads 110		-.4922E+02	-.5142E+02	-.1653E+02	.8564E+02	-.3403E+03	.0000E+00
Loads 110		.5408E+01	-.6633E+01	.4044E+02	-.2044E+03	-.1762E+03	.0000E+00
			****PLATE 88****				
Loads 95		.7306E+02	.5298E+02	-.2075E+02	-.4880E+02	.1985E+03	.0000E+00
Loads 96		-.2417E+02	-.4248E+01	-.1101E+02	.5060E+02	-.4572E+02	.0000E+00
Loads 112		-.7116E+02	-.4893E+02	-.2800E+02	-.2160E+03	-.3223E+02	.0000E+00
Loads 111		.2228E+02	-.1975E+00	.2843E+01	-.1936E+03	.1511E+03	.0000E+00
			****PLATE 89****				
Loads 96		.9506E+02	.2029E+02	-.4308E+02	-.5639E+02	-.2112E+03	.0000E+00
Loads 97		-.7742E+02	-.1372E+02	-.4318E+01	-.1587E+03	-.3895E+01	.0000E+00
Loads 113		-.7029E+02	-.5474E+01	.8502E+02	-.3274E+03	.4573E+03	.0000E+00
Loads 112		.5265E+02	-.1096E+01	-.3762E+02	.2397E+03	.5594E+03	.0000E+00
			****PLATE 90****				
Loads 97		.1454E+03	.2154E+02	-.1541E+03	.1166E+03	.0000E+00	.0000E+00
Loads 98		-.1629E+03	.7999E+02	.2049E+03	.1397E+04	.5444E+03	.0000E+00
Loads 114		.6198E+02	-.6094E+02	-.1097E+03	.7190E+04	.4812E+03	.0000E+00
Loads 113		.7949E+02	-.4061E+02	-.1106E+03	.4240E+03	.2564E+03	.0000E+00
			****PLATE 91****				
Loads 122		.4879E+03	-.1478E+04	.6745E+02	.5678E+03	.1206E+03	.0000E+00
Loads 2		.1012E+02	.6658E+03	.4605E+02	.5413E+03	.5660E+02	.0000E+00
Loads 19		-.3730E+03	-.1214E+04	-.4663E+02	.6753E+03	-.1425E+03	.0000E+00
Loads 124		-.1250E+03	-.9304E+03	-.6808E+02	.1178E+03	-.4625E+02	.0000E+00
			****PLATE 92****				
Loads 124		.1024E+03	.1004E+04	.3695E+02	.1506E+03	.1705E+03	.0000E+00
Loads 19		.1836E+03	.5630E+03	.2187E+02	.1554E+03	-.2289E+02	.0000E+00
Loads 35		-.1477E+03	-.8776E+03	-.2066E+02	.4788E+03	-.1696E+03	.0000E+00
Loads 126		-.1383E+03	-.6895E+03	-.3817E+02	.5093E+03	.4635E+02	.0000E+00
			****PLATE 93****				
Loads 126		.1038E+03	.7145E+03	.8394E+02	-.1633E+03	.1659E+03	.0000E+00
Loads 35		.1153E+03	.3934E+03	.1064E+01	.1147E+03	-.8507E+02	.0000E+00
Loads 51		-.1236E+03	-.6344E+03	-.4594E+01	.2744E+03	-.1694E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Hx	Hy	Hz
Gloads 128	-.9543E+02	-.4735E+03	-.7864E+01	.2777E+03	.7800E+02	.0000E+00
		PLATE 94				
Gloads 128	.6516E+02	.4743E+03	-.2178E+02	-.4067E+03	-.1331E+03	.0000E+00
Gloads 51	.8550E+02	.2653E+03	-.7563E+01	-.2977E+03	-.7953E+02	.0000E+00
Gloads 67	-.8179E+02	-.4310E+03	-.1857E+02	.6299E+02	-.3585E+01	.0000E+00
Gloads 130	-.6887E+02	-.3085E+03	.1077E+02	-.4056E+01	.1701E+03	.0000E+00
		PLATE 95				
Gloads 130	.3158E+02	.2935E+03	-.4585E+02	-.7132E+03	-.2771E+02	.0000E+00
Gloads 67	.9150E+02	.1270E+03	-.4019E+02	-.6604E+03	-.7044E+02	.0000E+00
Gloads 83	-.3857E+02	-.2962E+03	.1834E+02	-.4847E+03	-.1384E+03	.0000E+00
Gloads 132	-.8451E+02	-.1243E+03	.6770E+02	-.5079E+03	-.2004E+03	.0000E+00
		PLATE 96				
Gloads 132	.5380E+02	.1160E+03	-.1014E+03	-.5100E+03	.1433E+03	.0000E+00
Gloads 83	.6315E+02	.8388E+02	-.4326E+02	.5917E+03	.2994E+03	.0000E+00
Gloads 99	-.8601E+02	-.1804E+03	-.1531E+03	-.7223E+03	.9402E+03	.0000E+00
Gloads 134	-.3094E+02	-.1952E+02	-.6437E+01	-.5965E+03	.7744E+03	.0000E+00
		PLATE 97				
Gloads 17	-.1135E+03	.6825E+02	.7117E+02	.6576E+03	.9959E+02	.0000E+00
Gloads 123	-.1962E+03	-.4168E+03	.8481E+02	.8523E+03	.5442E+02	.0000E+00
Gloads 125	-.1296E+03	.7615E+02	-.7584E+02	.1051E+04	.1047E+02	.0000E+00
Gloads 34	-.1801E+03	.2724E+03	.8014E+02	-.8703E+03	.1491E+02	.0000E+00
		PLATE 98				
Gloads 34	.1274E+03	.8656E+02	.2282E+02	.6192E+02	-.1512E+03	.0000E+00
Gloads 125	.1018E+03	-.2338E+03	.4645E+02	.2039E+03	.8911E+02	.0000E+00
Gloads 127	-.1161E+03	-.1820E+02	-.2838E+02	.6858E+03	.4332E+02	.0000E+00
Gloads 50	-.1131E+03	.1655E+03	-.4089E+02	.5724E+03	.7785E+02	.0000E+00
		PLATE 99				
Gloads 50	.9350E+02	.1208E+03	-.2705E+02	-.4020E+03	.1784E+03	.0000E+00
Gloads 127	.8376E+02	-.1118E+03	.4100E+01	-.4397E+03	.1583E+03	.0000E+00
Gloads 129	-.8240E+02	-.8320E+02	.4024E+02	.8617E+02	.2367E+03	.0000E+00
Gloads 66	-.9486E+02	.7419E+02	-.1314E+02	.1595E+03	.2304E+03	.0000E+00
		PLATE 100				
Gloads 66	.9991E+02	.1535E+03	.6645E+02	-.7139E+03	.4386E+02	.0000E+00
Gloads 129	.5084E+02	-.2948E+02	.6747E+02	-.1092E+04	.1545E+03	.0000E+00
Gloads 131	-.1228E+03	-.1363E+03	.7994E+02	-.8002E+03	.8972E+02	.0000E+00
Gloads 82	-.2796E+02	.1231E+02	.5488E+02	.3406E+03	-.5674E+02	.0000E+00
		PLATE 101				
Gloads 82	.8244E+02	.2088E+03	-.8456E+02	-.1777E+04	-.8194E+03	.0000E+00
Gloads 131	.8647E+02	-.2213E+01	-.1210E+03	-.8014E+03	-.3838E+03	.0000E+00
Gloads 133	.2446E+02	-.2300E+03	-.2903E+02	-.9822E+03	-.6892E+03	.0000E+00
Gloads 98	-.1934E+03	-.2346E+02	.2345E+03	-.2091E+04	-.1107E+04	.0000E+00
		PLATE 102				
Gloads 98	-.1288E+03	.2532E+02	.2123E+03	.1599E+04	-.3809E+03	.0000E+00

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

Gloads Node	Fx	Fy	Fz	Hx	Hy	Hz
Gloads 133	-.5287E+02	.1683E+03	.5826E+01	.4982E+03	-.1461E+03	.0000E+00
Gloads 135	.3565E+02	-.1848E+02	-.2744E+02	.2298E+03	.1378E+03	.0000E+00
Gloads 114	.1460E+03	-.1752E+03	-.1907E+03	.1273E+04	-.4300E+02	.0000E+00

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LOADS.MPL

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

MAXIMUM STRESS SUMMARY FOR PLATES
 WITHIN SPECIFIED RANGE 1- 102

Maximum (absolute) Stress = .3490E+03 at Plate 40

Plate	Sigma X	Sigma Y	Tau XY	Von Mises
40	.3490E+03	.4588E+02	.1494E+01	.3284E+03

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Load Case 3:UBC SEISMIC LOAD - SN & WE DIR.

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
1	.2212E+02	.7145E+02	.8077E+02	.0000E+00	.0000E+00	.0000E+00
2	.3342E+03	.1597E+04	.8280E+02	.0000E+00	.1013E+04	-.1100E+03
3	.2490E+03	.4353E+03	.2039E+02	.0000E+00	-.1988E+03	.0000E+00
4	.1787E+03	-.1755E+03	-.2648E+01	.0000E+00	.0000E+00	.1752E+03
5	.2529E+03	-.1297E+04	.2687E+03	.3057E+03	.1534E+03	-.2424E+03
6	.4680E+01	-.3238E+03	.2470E+03	.0000E+00	-.1297E+03	.0000E+00
7	.3215E+02	.1846E+03	.3319E+03	.0000E+00	-.1173E+03	.0000E+00
8	.3359E+02	.5242E+03	.3663E+03	.0000E+00	.1801E+01	.0000E+00
9	.3089E+02	.8496E+03	.3981E+03	.0000E+00	.1222E+03	.0000E+00
10	.5008E+01	.1343E+04	.3734E+03	.0000E+00	.1276E+03	.0000E+00
11	.5230E+02	.3077E+03	.4994E+03	.6264E+03	.6709E+03	-.1066E+04
12	.3452E+03	.1397E+04	.1358E+01	.0000E+00	-.2590E+03	.0000E+00
13	.3788E+03	.9838E+03	.3357E+02	.0000E+00	-.2956E+03	.0000E+00
14	.3571E+03	.7556E+03	.4098E+02	.0000E+00	-.1950E+03	.0000E+00
15	.3305E+03	.5520E+03	.4850E+02	.0000E+00	-.5773E+02	.0000E+00
16	.2971E+03	.3403E+03	.3738E+02	.0000E+00	.4816E+02	.0000E+00
17	.2674E+03	.1067E+02	.1589E+03	.0000E+00	.6128E+03	-.8004E+02
18	.1903E+02	-.4880E+01	.3094E+01	.0000E+00	.0000E+00	.0000E+00
115	.6775E+04	.0000E+00	.8001E+04	.0000E+00	.0000E+00	.0000E+00
116	.3623E+04	.1041E+05	.7790E+03	.0000E+00	.0000E+00	.0000E+00
117	.7876E+03	.1041E+05	.3615E+04	.0000E+00	.0000E+00	.0000E+00
118	.1830E+04	.7962E+04	.7821E+03	.0000E+00	.0000E+00	.0000E+00
119	.7845E+03	.7964E+04	.1822E+04	.0000E+00	.0000E+00	.0000E+00
122	.5110E+03	.2030E+04	.8778E+02	.0000E+00	-.7535E+03	-.1521E+03
123	.2155E+03	-.5116E+03	.1052E+03	.0000E+00	.3173E+03	-.8598E+02

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

BEAM LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 1							
Gloads	99	-1.970E+02	.3143E+03	-.1386E+03	-.1421E+12	-.2842E-13	.0000E+00
Gloads	99	3.478E+02	-.1690E+03	.8412E+02	-.1407E+04	.6169E+03	.9957E+03
Lloads	1	-.3435E+03	.7042E+01	-.1970E+02	-.2624E-13	.1093E-13	.1421E-12
Lloads	99	-.1884E+03	-.1262E+02	-.3478E+02	.8743E-14	-.1079E+04	.1407E+04
BEAM NO. 2							
Gloads	18	.2130E+02	-.1990E+03	.2827E+02	-.2274E-12	-.2842E-13	.1137E-12
Gloads	114	.3196E+02	-.5698E+02	.8153E+02	.1360E+04	-.2452E+03	.7035E+03
Lloads	18	1.972E+03	-.2130E+02	-.1990E+02	-.1057E-13	.1167E-12	-.2274E-12
Lloads	114	-.8064E+02	-.5824E+02	.1196E+02	-.2320E-13	.7450E+03	.1360E+04
BEAM NO. 3							
Gloads	99	-.1291E+03	.2029E+02	.3627E+03	-.1244E+04	-.4692E+03	-.3908E+03
Gloads	108	-.1678E+03	.8297E+02	-.4014E+03	-.1671E+04	-.1388E+04	-.8940E+03
Lloads	99	-.3839E+03	-.2029E+02	-.2817E+02	-.1441E+03	.4692E+03	.1296E+04
Lloads	108	-.4350E+03	-.8297E+02	.8363E+01	.1441E+03	-.1388E+04	-.1889E+04
BEAM NO. 4							
Gloads	114	.1996E+03	.7122E+02	-.1821E+03	-.1340E+04	.1071E+04	-.1237E+04
Gloads	102	-.1500E+03	.6098E+02	.1325E+03	.8640E+03	.8699E+03	.7711E+03
Lloads	114	-.2697E+03	-.7122E+02	.1530E+02	.5312E+02	-.1071E+04	-.1823E+04
Lloads	102	-.1996E+03	-.6098E+02	-.1454E+02	-.5312E+02	-.8699E+03	.1157E+04
BEAM NO. 5							
Gloads	98	-.8068E+03	.6914E+02	.9489E+03	-.1635E+04	.9997E+03	-.1180E+04
Gloads	115	.8432E+03	-.2806E+02	.9853E+03	.1539E+03	.5230E-03	-.1138E+03
Lloads	98	1.245E+04	-.6914E+02	-.1743E+02	-.1870E+03	-.9997E+03	-.2006E+04
Lloads	115	-.1297E+04	-.2806E+02	-.1420E+02	-.1870E+03	-.5230E+03	.4088E+02
BEAM NO. 6							
Gloads	92	.2086E+02	.4284E+02	.1575E+03	-.5745E+03	-.2673E+04	.2461E+03
Gloads	115	.8568E+01	.3564E+02	-.1868E+03	.3154E+03	-.1701E+04	-.1453E+03
Lloads	92	.1542E+03	-.4284E+02	-.3758E+02	.2112E+02	.2673E+04	-.6247E+03
Lloads	115	-.1710E+03	-.3564E+02	.7567E+02	-.2112E+02	.1701E+04	.3466E+03
BEAM NO. 7							
Gloads	86	-.3609E+03	.3422E+02	.1222E+03	.3106E+03	-.2865E+04	.3843E+03
Gloads	115	.3743E+03	-.1335E+01	-.1366E+03	.3473E+02	.1218E+04	.7617E+02
Lloads	86	-.3627E+03	-.3422E+02	.1180E+03	-.1792E+02	-.2865E+04	-.4938E+03
Lloads	115	.3814E+03	-.1335E+01	-.1153E+03	.1792E+02	-.1218E+04	-.8177E+02
BEAM NO. 8							
Gloads	134	-.1698E+02	-.1037E+01	.5749E+01	-.6790E+03	.8045E+03	-.6395E-13

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 9							
Gloads	99	.2460E+02	.2136E+02	-.1337E+02	.6790E+03	-.9957E+03	-.2239E+03
Lloads	134	-.1698E+02	.1037E+01	-.5749E+01	-.6790E+03	-.8045E+03	.6395E-13
Lloads	99	.2460E+02	-.2136E+02	-.1337E+02	.6790E+03	.9957E+03	.2239E+03
BEAM NO. 9							
Gloads	135	.4738E+02	.3137E+01	-.8164E+01	-.6247E+03	-.5132E+03	.3116E+01
Gloads	114	-.3976E+02	-.1718E+02	.5444E+00	.6247E+03	.4261E+03	.1373E+03
Lloads	135	-.4738E+02	-.3137E+01	-.8164E+01	-.6247E+03	.5132E+03	.3116E+01
Lloads	114	.3976E+02	-.1718E+02	.5444E+00	-.6247E+03	-.4261E+03	.1373E+03
BEAM NO. 10							
Gloads	122	-.8408E+01	-.1993E+03	-.9500E+01	.7406E+03	-.4999E+03	-.8074E+02
Gloads	124	-.2592E-01	-.1770E-03	.1188E+01	-.8574E+03	.7499E+03	-.1202E+02
Lloads	122	.1993E+03	.8408E+01	.9500E+01	-.4999E+03	.7406E+03	.8074E+02
Lloads	124	-.1770E+03	-.2592E-01	-.1188E+01	.4999E+03	-.8574E+03	.1202E+02
BEAM NO. 11							
Gloads	124	.3071E+01	.1024E+03	-.7818E+01	.2001E+04	-.4182E+03	.1202E+02
Gloads	126	.5311E+01	-.8003E+02	-.1201E+01	.2067E+04	.4182E+03	.1262E+02
Lloads	124	.1024E+03	.3071E+01	.7818E+01	-.4182E+03	.2001E+04	-.1202E+02
Lloads	126	-.8003E+02	.5311E+01	-.1201E+01	-.4182E+03	-.2067E+04	-.1262E+02
BEAM NO. 12							
Gloads	126	.4501E+01	-.5337E+02	-.5178E+01	.2541E+04	-.2506E+03	-.1262E+02
Gloads	128	.3881E+01	-.3102E+02	-.3204E+01	-.2563E+04	.2506E+03	.5805E+01
Lloads	126	.5337E+02	.4501E+01	.5178E+01	-.2506E+03	.2541E+04	.1262E+02
Lloads	128	-.3102E+02	.3881E+01	.3204E+01	.2506E+03	-.2563E+04	-.5805E+01
BEAM NO. 13							
Gloads	128	.3531E+01	.2523E+02	-.1902E+01	.2343E+04	-.1339E+03	-.5805E+01
Gloads	130	.4851E+01	-.2878E+01	-.2293E+04	-.1339E+03	.2033E+02	-.2033E+02
Lloads	128	.2523E+02	.3531E+01	.1902E+01	-.1339E+03	.2343E+04	.5805E+01
Lloads	130	-.2878E+01	.4851E+01	.6480E+01	.1339E+03	-.2293E+04	-.2033E+02
BEAM NO. 14							
Gloads	130	.5978E+01	-.1459E+02	-.3025E+01	.1274E+04	-.1363E+02	-.2033E+02
Gloads	132	.4499E+01	.1335E+02	-.7452E+01	-.1213E+04	.1363E+02	.3908E-13
Lloads	130	.1459E+02	.5978E+01	.3025E+01	-.1363E+02	.1274E+04	-.2033E+02
Lloads	132	.1335E+02	.4499E+01	.7452E+01	.1363E+02	-.1213E+04	-.3908E-13
TRUSS NO. 15							
Gloads	132	.0000E+00	.8031E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Gloads	134	.0000E+00	-.8031E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Lloads	132	.8031E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Lloads	134	-.8031E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
BEAM NO. 16							
Gloads	123	.5691E+01	.2674E+02	-.8575E+01	.6680E+03	-.3891E+03	-.4667E+02

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Maxium	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maxium	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Loads	76	.7321E+01	-.7509E+02	-.5378E+01	-.2700E+02	-.6849E+03	-.2468E+02
LLoads	60	-.1099E+03	-.7673E+01	-.5730E+01	-.6849E+03	-.7172E+01	-.1755E+01
LLoads	76	-.7509E+02	-.5378E+01	.7321E+01	-.6849E+03	-.2468E+02	-.2700E+02
BEAM NO. 33							
Loads	76	-.1189E+02	.6924E+02	-.8527E+01	-.6246E+02	-.2153E+04	-.3939E+02
LLoads	92	-.4424E+01	-.2574E+02	-.7787E+01	-.5227E+02	-.2153E+04	-.6326E+02
LLoads	76	.6924E+02	-.8527E+01	-.1189E+02	-.2153E+04	-.3939E+02	-.6246E+02
LLoads	92	-.2574E+02	-.7787E+01	-.4424E+01	-.2153E+04	-.6326E+02	-.5227E+02
BEAM NO. 34							
Loads	92	.4534E+01	-.1849E+02	-.8182E+01	-.8777E+02	-.9863E+03	-.2028E+03
LLoads	108	-.525E+01	.7615E+01	-.1797E+02	-.3035E+03	-.9863E+03	-.2088E+03
LLoads	92	-.1849E+02	-.8182E+01	-.4534E+01	-.9863E+03	-.2028E+03	-.8777E+02
LLoads	108	.7615E+01	-.1797E+02	-.525E+01	-.9863E+03	-.2088E+03	-.3035E+03
BEAM NO. 35							
Loads	17	-.5983E+01	-.8572E+02	-.7754E+01	-.1039E+04	-.6739E+03	-.1512E+02
LLoads	34	-.2399E+01	-.6337E+02	-.6277E+00	-.1117E+04	-.6739E+03	-.1211E+02
LLoads	17	-.8572E+02	-.5983E+01	-.7754E+01	-.6739E+03	-.1039E+04	-.1512E+02
LLoads	34	-.6337E+02	-.2399E+01	-.6277E+00	-.6739E+03	-.1117E+04	-.1211E+02
BEAM NO. 36							
Loads	34	.4365E+01	-.7571E+02	-.5605E+01	-.2598E+04	-.4558E+03	-.1211E+02
LLoads	50	.4017E+01	-.5336E+02	-.2776E+01	-.2629E+04	-.4558E+03	-.8284E+01
LLoads	34	-.7571E+02	-.4365E+01	-.5605E+01	-.4558E+03	-.2598E+04	-.1211E+02
LLoads	50	-.5336E+02	-.4017E+01	-.2776E+01	-.4558E+03	-.2629E+04	-.8284E+01
BEAM NO. 37							
Loads	50	.2867E+01	-.6395E+02	-.3940E+01	-.2940E+04	-.1636E+03	-.8284E+01
LLoads	66	.5518E+01	-.4404E+02	-.4442E+01	-.2935E+04	-.1636E+03	-.3742E+02
LLoads	50	-.6395E+02	-.2867E+01	-.3940E+01	-.1636E+03	-.2940E+04	-.8284E+01
LLoads	66	-.4404E+02	-.5518E+01	-.4442E+01	-.1636E+03	-.2935E+04	-.3742E+02
BEAM NO. 38							
Loads	66	-.1105E+02	.5842E+02	-.3002E+01	-.2254E+04	-.3072E+03	-.3742E+02
LLoads	82	-.2664E+01	-.3607E+02	-.5380E+01	-.2228E+04	-.3072E+03	-.1134E+03
LLoads	66	.5842E+02	-.1105E+02	-.3002E+01	-.3072E+03	-.2254E+04	-.3742E+02
LLoads	82	-.3607E+02	-.2664E+01	-.5380E+01	-.3072E+03	-.2228E+04	-.1134E+03
BEAM NO. 39							
Loads	82	-.1782E+02	.5618E+02	-.3876E+01	-.1578E+04	-.3362E+03	-.1134E+03
LLoads	98	-.2829E+02	-.2824E+02	-.1435E+02	-.1829E+04	-.3362E+03	-.5206E+03
LLoads	82	.5618E+02	-.1782E+02	-.3876E+01	-.3362E+03	-.1578E+04	-.1134E+03
LLoads	98	-.2824E+02	-.2829E+02	-.1435E+02	-.3362E+03	-.1829E+04	-.5206E+03
BEAM NO. 40							
Loads	98	-.5415E+02	.2185E+02	-.2581E+02	-.1583E+04	-.2961E+03	.6598E+03

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Maxium	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maxium	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Loads	114	.6044E+02	-.5089E+01	-.1953E+02	-.1209E+04	-.2961E+03	.2856E+03
LLoads	98	-.2185E+02	.5415E+02	-.2581E+02	-.2961E+03	-.1583E+04	.6598E+03
LLoads	114	-.5089E+01	-.6044E+02	-.1953E+02	-.2961E+03	-.1209E+04	.2856E+03
BEAM NO. 41							
Loads	99	.3784E+00	-.9884E+01	-.2831E+02	-.6894E+03	-.1591E+04	-.1952E+03
LLoads	100	-.4828E+01	-.2377E+02	-.2310E+02	-.6894E+03	-.1239E+04	-.3481E+02
LLoads	99	.3784E+00	.9884E+01	-.2831E+02	-.6894E+03	-.1591E+04	-.1952E+03
LLoads	100	-.4828E+01	-.2377E+02	-.2310E+02	-.6894E+03	-.1239E+04	-.3481E+02
BEAM NO. 42							
Loads	100	-.1853E+02	-.1135E+02	-.1797E+02	-.1105E+04	-.6956E+02	.3481E+02
LLoads	101	-.2374E+02	-.2536E+02	-.1277E+02	-.1105E+04	-.1405E+03	.2542E+02
LLoads	100	-.1853E+02	-.1135E+02	-.1797E+02	-.1105E+04	-.6956E+02	.3481E+02
LLoads	101	-.2374E+02	-.2536E+02	-.1277E+02	-.1105E+04	-.1405E+03	-.2542E+02
BEAM NO. 43							
Loads	101	-.3608E+02	-.1980E+02	-.2497E+02	-.8361E+03	-.1164E+04	-.2542E+02
LLoads	102	-.4129E+02	-.3368E+02	-.1976E+02	-.8361E+03	-.1470E+04	-.3401E+03
LLoads	101	-.3608E+02	-.1980E+02	-.2497E+02	-.8361E+03	-.1164E+04	-.2542E+02
LLoads	102	-.4129E+02	-.3368E+02	-.1976E+02	-.8361E+03	-.1470E+04	-.3401E+03
BEAM NO. 44							
Loads	102	-.1658E+02	-.3001E+02	-.1246E+03	-.5020E+03	-.1517E+04	.5100E+03
LLoads	103	-.1067E+02	.4576E+02	-.1187E+03	-.8518E+02	-.1306E+04	-.5100E+03
LLoads	102	-.1658E+02	-.3001E+02	-.1246E+03	-.5020E+03	-.1517E+04	.5100E+03
LLoads	103	-.1067E+02	-.4576E+02	-.1187E+03	-.8518E+02	-.1306E+04	-.5100E+03
BEAM NO. 45							
Loads	103	.1963E+02	-.1250E+02	-.6495E+02	.8518E+02	-.1772E+03	.5614E+03
LLoads	104	.1373E+02	.3202E+02	-.3355E+02	-.4358E+02	-.1355E+02	-.5614E+03
LLoads	103	-.1250E+02	-.1963E+02	-.6495E+02	-.8518E+02	-.1772E+03	-.8518E+02
LLoads	104	-.5905E+02	-.3252E+01	-.1373E+02	-.5614E+03	-.4358E+03	-.1355E+02
BEAM NO. 46							
Loads	104	.9112E+01	-.7282E+01	-.4481E+02	-.1355E+02	-.1516E+04	.9698E+02
LLoads	105	-.3206E+01	.8465E+01	.3891E+02	-.2272E+02	-.1611E+04	-.9698E+02
LLoads	104	.9112E+01	-.7282E+01	-.4481E+02	-.1355E+02	-.1516E+04	-.9698E+02
LLoads	105	-.3891E+02	-.8465E+01	.3891E+02	-.2272E+02	-.1611E+04	-.9698E+02
BEAM NO. 47							
Loads	105	.3258E+01	-.8244E+01	-.5128E+02	-.2272E+02	-.1878E+04	-.1949E+03
LLoads	106	-.2647E+01	.7503E+01	.4538E+02	-.1698E+02	-.1883E+04	.1949E+03
LLoads	105	-.8244E+01	-.3258E+01	-.5128E+02	-.1698E+02	-.1878E+04	-.2272E+02
LLoads	106	-.4538E+02	-.7503E+01	-.2647E+01	-.1949E+03	-.1883E+04	.1698E+02
BEAM NO. 48							
Loads	106	-.5688E+01	.5802E+01	-.8729E+02	-.1698E+02	-.1417E+04	-.5504E+03

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 Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

G/LLoads	Node	Fx Axial	Fy Y-Shear	Fz Z-Shear	Mx Torsion	My Y-Bending	Mz Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
G/LLoads	107	-1159E+02	9946E+01	-8139E+02	-4910E+02	-1283E+04	5504E+03
LLoads	106	-8729E+02	-5802E+01	5688E+01	-5504E+03	-1417E+04	-1698E+02
LLoads	107	-8139E+02	-9946E+01	-1159E+02	-5504E+03	1283E+04	-4910E+02
BEAM NO. 49							
G/LLoads	107	-5290E+01	-2876E+02	-1748E+03	4910E+02	4010E+03	-5195E+03
LLoads	108	-1120E+02	-1301E+02	1689E+03	2746E+03	-2732E+03	5195E+03
LLoads	107	-1748E+03	-2876E+02	-5290E+01	5195E+03	4010E+03	-4910E+02
LLoads	108	-1689E+03	1301E+02	-1120E+02	-5195E+03	-2732E+03	-2746E+03
BEAM NO. 50							
G/LLoads	108	-7109E+02	-1494E+02	-1010E+02	6137E+03	-3535E+03	1142E+03
LLoads	109	-7687E+02	4657E+02	4326E+01	-6137E+03	4629E+03	-4377E+01
LLoads	108	-7109E+02	-1494E+02	-1010E+02	6137E+03	-3535E+03	1142E+03
LLoads	109	-7687E+02	-4657E+02	-4326E+01	-6137E+03	-4629E+03	4377E+01
BEAM NO. 51							
G/LLoads	109	-4310E+02	6635E+01	-1120E+02	6637E+03	-1269E+04	4377E+01
LLoads	110	-4888E+02	-8774E+01	5422E+01	-6637E+03	1395E+04	-2060E+02
LLoads	109	-4310E+02	6635E+01	-1120E+02	6637E+03	-1269E+04	4377E+01
LLoads	110	-4888E+02	-8774E+01	5422E+01	-6637E+03	-1395E+04	2060E+02
BEAM NO. 52							
G/LLoads	110	-2936E+02	7858E+01	-2622E+01	3148E+03	-1859E+04	2060E+02
LLoads	111	3513E+02	-7550E+01	-3157E+01	-3148E+03	1855E+04	-1827E+02
LLoads	110	-2936E+02	7858E+01	-2622E+01	3148E+03	-1859E+04	2060E+02
LLoads	111	3513E+02	-7550E+01	-3157E+01	-3148E+03	-1855E+04	1827E+02
BEAM NO. 53							
G/LLoads	111	-1917E+02	7650E+01	2922E+01	-1984E+01	-1650E+04	1827E+02
LLoads	112	2495E+02	-7795E+01	-8700E+01	1984E+01	1562E+04	-1190E+02
LLoads	111	-1917E+02	7650E+01	2922E+01	-1984E+01	-1650E+04	1827E+02
LLoads	112	2495E+02	-7795E+01	-8700E+01	1984E+01	1562E+04	-1190E+02
BEAM NO. 54							
G/LLoads	112	2918E+01	-7406E+01	-1300E+02	-5076E+03	-5977E+03	1910E+02
LLoads	113	2861E+01	8002E+01	-1878E+02	5076E+03	3567E+03	-2362E+02
LLoads	112	2918E+01	-7406E+01	-1300E+02	-5076E+03	-5977E+03	1910E+02
LLoads	113	2861E+01	8002E+01	-1878E+02	5076E+03	-3567E+03	2362E+02
BEAM NO. 55							
G/LLoads	113	6345E+02	1655E+02	3991E+01	-3466E+03	-7201E+03	2362E+02
LLoads	114	-5767E+02	-1143E+01	-976E+01	3466E+03	-8245E+03	-1106E+03
LLoads	113	6345E+02	1655E+02	3991E+01	-3466E+03	-7201E+03	2362E+02
LLoads	114	-5767E+02	-1143E+01	-976E+01	3466E+03	-8245E+03	-1106E+03
BEAM NO. 56							
G/LLoads	115	.6423E+04	.1601E+05	-.6422E+04	.1367E+06	-.7745E+01	.1368E+06

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 Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

G/LLoads	Node	Fx Axial	Fy Y-Shear	Fz Z-Shear	Mx Torsion	My Y-Bending	Mz Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
G/LLoads	120	-6225E+04	-1548E+05	6224E+04	1985E+06	-7745E+01	-1984E+06
LLoads	115	-1601E+05	3657E+04	-8314E+04	7745E+01	-1770E+06	7779E+05
LLoads	120	1548E+05	-3544E+04	-8314E+04	-7745E+01	-2568E+06	-1131E+06
BEAM NO. 57							
G/LLoads	120	-5025E+04	-1452E+05	5026E+04	-1985E+06	-7745E+01	-1984E+06
LLoads	121	5258E+04	1514E+05	-5260E+04	-1230E+06	7745E+01	-1230E+06
LLoads	120	1452E+05	-2863E+04	-6505E+04	7745E+01	-2568E+06	-1131E+06
LLoads	121	-1514E+05	2996E+04	6807E+04	-7745E+01	1592E+06	-7004E+05
BEAM NO. 58							
G/LLoads	116	2350E+04	5248E+04	-4354E+03	-1881E+05	-2560E+03	-8963E+04
LLoads	121	-2272E+04	-5039E+04	3569E+03	1881E+05	8575E+04	-1170E+06
LLoads	116	2350E+04	5248E+04	-4354E+03	-1881E+05	-2560E+03	-8963E+04
LLoads	121	-2272E+04	-5039E+04	3569E+03	1881E+05	8575E+04	-1170E+06
BEAM NO. 59							
G/LLoads	117	4353E+03	-2742E+04	2351E+04	-2377E+05	-2474E+03	-1881E+05
LLoads	121	-3569E+03	-2533E+04	-2272E+04	-3162E+05	8566E+04	1881E+05
LLoads	117	4353E+03	-2742E+04	2351E+04	-2377E+05	-2474E+03	-1881E+05
LLoads	121	-2272E+04	-2533E+04	3569E+03	1881E+05	8566E+04	3162E+05
BEAM NO. 60							
G/LLoads	118	2350E+04	2743E+04	-4362E+03	-1880E+05	2426E+03	-2377E+05
LLoads	121	-2272E+04	-2534E+04	3578E+03	1880E+05	-8579E+04	-3163E+05
LLoads	118	2350E+04	2743E+04	-4362E+03	-1880E+05	2426E+03	-2377E+05
LLoads	121	-2272E+04	-2534E+04	3578E+03	1880E+05	-8579E+04	-3163E+05
BEAM NO. 61							
G/LLoads	119	4362E+03	5248E+04	-2351E+04	-8956E+04	2340E+03	-1881E+05
LLoads	121	-3577E+03	-5039E+04	2272E+04	1170E+06	-8570E+04	1881E+05
LLoads	119	4362E+03	5248E+04	-2351E+04	-8956E+04	2340E+03	-1881E+05
LLoads	121	-3577E+03	-5039E+04	2272E+04	1170E+06	-8570E+04	1881E+05
BEAM NO. 62							
G/LLoads	125	4129E+01	-6138E+02	-6192E+01	2234E+04	-2573E+03	-1366E+02
LLoads	127	4253E+01	-3903E+02	-2190E+01	-2278E+04	2573E+03	-1502E+02
LLoads	125	4129E+01	-6138E+02	-6192E+01	2234E+04	-2573E+03	-1366E+02
LLoads	127	-3903E+02	-4253E+01	-2190E+01	-2573E+03	2278E+04	1502E+02
BEAM NO. 63							
G/LLoads	127	4604E+01	7744E+02	-2755E+01	-2489E+04	6745E+01	-1502E+02
LLoads	129	3778E+01	-3595E+02	-5627E+01	-2457E+04	-6745E+01	5932E+01
LLoads	127	4604E+01	7744E+02	-2755E+01	-2489E+04	6745E+01	-1502E+02
LLoads	129	-5509E+02	-3778E+01	-5627E+01	-6745E+01	2457E+04	5932E+01
BEAM NO. 64							
G/LLoads	129	.3560E+01	.7547E+02	.2060E+01	.1324E+04	.4946E+03	-.5932E+01

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

GLoads	Node	Fx	Fy	Fz	Hx	Hy	Hz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	131	.4822E+01	-.5312E+02	-.1044E+02	-.1186E+04	-.4946E+03	.1981E+02
LLoads	129	.7547E+02	-.3560E+01	-.2060E+01	.4946E+03	-.1324E+04	-.5932E+01
LLoads	131	-.5312E+02	-.4822E+01	-.1044E+02	-.4946E+03	.1186E+04	.1981E+02
BEAM NO. 65							
GLoads	131	.4804E+01	.1634E+02	-.6791E+01	-.4379E+03	.1115E+03	-.1981E+02
GLoads	135	.5674E+01	-.1160E+02	-.3686E+01	.3952E+03	-.1115E+03	.3177E+02
LLoads	131	.1634E+02	-.4804E+01	-.6791E+01	.1115E+03	.4379E+03	-.1981E+02
LLoads	133	-.1160E+02	-.5674E+01	-.3686E+01	-.1115E+03	-.3952E+03	.3177E+02
BEAM NO. 66							
GLoads	133	.5257E+01	-.9183E+01	-.3265E+01	-.7896E+03	-.7013E+03	-.3177E+02
GLoads	135	-.1029E+01	-.5257E+02	-.9515E+01	.8953E+03	.7013E+03	-.3116E+01
LLoads	133	-.9183E+01	-.5257E+01	-.3265E+01	-.7013E+03	.7896E+03	-.3177E+02
LLoads	135	.2595E+02	-.1029E+01	-.9515E+01	.7013E+03	-.8953E+03	-.3116E+01
BEAM NO. 67							
GLoads	115	-.8298E+03	-.3990E+04	-.8968E+02	-.3378E+05	.2465E+04	-.3406E+05
GLoads	116	.1268E+04	.5159E+04	-.3489E+03	.1881E+05	.2560E+03	.8963E+04
LLoads	115	.4074E+04	-.1027E+03	-.8968E+02	.3617E+04	-.3367E+05	-.3406E+05
LLoads	116	-.5303E+04	.3250E+03	-.3489E+03	-.3617E+04	.1846E+05	.8963E+04
BEAM NO. 68							
GLoads	115	.9088E+02	-.4046E+04	-.9605E+03	-.3540E+05	.2449E+04	-.3364E+05
GLoads	117	.3477E+03	.5215E+04	.5220E+03	.2377E+05	.2474E+03	.1881E+05
LLoads	115	.4152E+04	-.2212E+03	-.9088E+02	.3609E+04	-.3354E+05	.3540E+05
LLoads	117	-.5225E+04	-.4194E+03	-.3477E+03	.3609E+04	.1847E+05	-.2377E+05
BEAM NO. 69							
GLoads	115	.9617E+03	-.4046E+04	-.8955E+02	-.3379E+05	-.2428E+04	-.3526E+05
GLoads	118	-.5232E+03	.5215E+04	-.3490E+03	.1880E+05	-.2426E+03	.2377E+05
LLoads	115	.4152E+04	-.2225E+03	-.8955E+02	-.3603E+04	.3369E+05	.3526E+05
LLoads	118	-.5225E+04	-.4182E+03	.3490E+03	.3603E+04	-.1846E+05	-.2377E+05
BEAM NO. 70							
GLoads	115	.9075E+02	-.3990E+04	-.8310E+03	-.3420E+05	-.2465E+04	-.3365E+05
GLoads	119	.3478E+03	.5159E+04	-.1270E+04	.8956E+04	-.2340E+03	.1881E+05
LLoads	115	.4078E+04	-.1039E+03	-.9075E+02	.3595E+04	-.3355E+05	-.3420E+05
LLoads	119	-.5303E+04	.3262E+03	.3478E+03	.3595E+04	-.1846E+05	.8956E+04

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
 WITHIN SPECIFIED RANGE 1- 70

Maximum (absolute) Stress = .1381E+04 at BEAM 56							
Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending	
56	.4397E+03	.2014E+03	.4578E+03	-.4402E-03	-.6539E+03	.2878E+03	
	Maximum	Minimum	Cmb. Shear				
	.1381E+04	-.5020E+03	.6907E+03				

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

PLATE LOADS AND/OR STRESSES							
Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
*****PLATE 1****							
Gloads	2	.2290E+03	.4661E+03	-.1931E+02	-.2234E+02	-.1666E+03	.0000E+00
Gloads	3	-.9616E+01	-.1179E+03	-.1458E+02	.2017E+03	-.5040E+01	.0000E+00
Gloads	20	-.2073E+03	-.4710E+03	-.1182E+02	-.3549E+03	-.2116E+03	.0000E+00
Gloads	19	-.1209E+02	-.1129E+03	.2207E+02	-.1666E+03	-.7765E+02	.0000E+00
*****PLATE 2****							
Gloads	5	.2275E+03	.4741E+03	-.4334E+01	.2017E+03	-.2041E+03	.0000E+00
Gloads	4	-.2227E+02	.1526E+03	-.6742E+01	-.2131E+03	-.6695E+02	.0000E+00
Gloads	21	-.2011E+03	-.4830E+03	.1584E+01	-.2959E+03	-.2285E+03	.0000E+00
Gloads	20	-.4149E+01	-.1437E+03	.9492E+01	.6369E+02	-.2797E+02	.0000E+00
*****PLATE 3****							
Gloads	4	.2338E+03	.5142E+03	.6601E+01	.2131E+03	-.2141E+03	.0000E+00
Gloads	5	-.3085E+02	.2118E+03	-.1200E+02	-.2588E+03	-.2086E+03	.0000E+00
Gloads	22	-.1909E+03	-.5385E+03	-.1719E+02	-.2575E+03	-.1388E+02	.0000E+00
Gloads	21	-.1211E+02	-.1875E+03	.2259E+02	.1845E+03	.9922E+01	.0000E+00
*****PLATE 4****							
Gloads	5	-.4562E+01	.7156E+03	-.3214E+03	.0000E+00	-.2465E+03	-.6575E+02
Gloads	6	-.1189E+02	.8818E+02	-.9969E+02	.0000E+00	-.2501E+03	.2720E+03
Gloads	25	-.1992E+02	-.6858E+02	.2611E+03	-.2286E+03	-.5272E+01	.0000E+00
Gloads	22	.3638E+02	-.1180E+03	.1600E+03	.0000E+00	-.1745E+01	-.2718E+02
*****PLATE 5****							
Gloads	6	.1639E+02	.6358E+03	-.3124E+03	.0000E+00	-.6480E+02	-.2720E+03
Gloads	7	-.1174E+02	.5832E+02	-.8832E+02	.0000E+00	-.2425E+03	.1217E+03
Gloads	24	-.2018E+02	-.6271E+03	.2767E+03	.6760E+02	-.8363E+02	.0000E+00
Gloads	23	-.7940E+01	-.6697E+02	.1240E+03	.4099E+03	.2600E+03	.0000E+00
*****PLATE 6****							
Gloads	7	.1746E+02	.5908E+03	-.2975E+03	.0000E+00	-.5661E+02	-.1217E+03
Gloads	8	-.1277E+02	.6036E+02	-.7155E+02	.0000E+00	-.1833E+03	.1001E+01
Gloads	25	-.1978E+02	-.5842E+03	.2719E+03	.2050E+03	-.2232E+03	.0000E+00
Gloads	24	-.1064E+02	-.6688E+02	.9718E+02	.3437E+03	.2411E+03	.0000E+00
*****PLATE 7****							
Gloads	8	.1362E+02	.5528E+03	-.2808E+03	.0000E+00	-.1919E+03	-.1001E+01
Gloads	9	.2027E+02	.5992E+02	-.6226E+02	.0000E+00	-.4334E+02	-.1637E+03
Gloads	26	-.1235E+02	-.5148E+03	.2506E+03	.3769E+03	-.2411E+03	.0000E+00
Gloads	25	-.2154E+02	-.6597E+02	.8346E+02	.2039E+03	-.2153E+03	.0000E+00
*****PLATE 8****							
Gloads	9	.6644E+01	.5134E+03	-.2594E+03	.0000E+00	-.2443E+03	.1637E+03
Gloads	10	.5843E+01	.5590E+02	-.5776E+02	.0000E+00	.8537E+02	-.1539E+03
Gloads	27	.5712E+01	-.5060E+03	.2390E+03	.2731E+03	-.2274E+03	.0000E+00
Gloads	26	-.1820E+02	-.6322E+02	.7815E+02	.1144E+02	.7680E+02	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
*****PLATE 9****							
Gloads	10	-.4248E+01	.4696E+03	-.2320E+03	.0000E+00	.2223E+03	-.1539E+03
Gloads	11	.3199E+02	.4846E+02	-.5951E+02	.0000E+00	.2606E+03	-.4501E+03
Gloads	28	.1983E+01	-.4622E+03	.2079E+03	.0000E+00	.7285E+02	-.4407E+03
Gloads	27	-.2973E+02	-.5589E+02	.8357E+02	-.1265E+03	-.2904E+02	.0000E+00
*****PLATE 10****							
Gloads	11	.2297E+03	.4712E+03	-.8093E+01	-.2012E+03	.3028E+03	.0000E+00
Gloads	12	.1018E+03	-.1572E+02	-.1398E+02	.2594E+03	-.2145E+03	.0000E+00
Gloads	29	-.1945E+03	-.4651E+03	.2367E+02	.2463E+03	-.8106E+02	.0000E+00
Gloads	28	-.1370E+03	.9661E+01	-.2956E+02	-.1750E+03	-.1348E+03	.0000E+00
*****PLATE 11****							
Gloads	12	.2207E+03	.4419E+03	-.1095E+02	-.2594E+03	.1415E+03	.0000E+00
Gloads	13	.8565E+02	-.2803E+01	.6222E+02	.2169E+03	.2699E+03	.0000E+00
Gloads	30	.1927E+03	-.4416E+03	.2033E+02	.3599E+02	-.1373E+02	.0000E+00
Gloads	29	-.1137E+03	.2432E+01	-.3142E+01	-.3716E+03	-.2111E+03	.0000E+00
*****PLATE 12****							
Gloads	13	.2093E+03	.4190E+03	-.1895E+02	-.2169E+03	.3056E+02	.0000E+00
Gloads	14	.6683E+02	.1697E+02	-.1149E+02	.1152E+03	.2486E+03	.0000E+00
Gloads	31	.1857E+03	-.4175E+03	.2231E+02	-.1216E+03	.1385E+03	.0000E+00
Gloads	30	-.9044E+02	-.1846E+02	.8130E+02	.4462E+03	-.2536E+03	.0000E+00
*****PLATE 13****							
Gloads	14	.1954E+03	.3941E+03	-.1637E+02	-.1152E+03	-.9153E+02	.0000E+00
Gloads	15	.5402E+02	.2960E+02	-.2067E+02	.2284E+02	.1488E+03	.0000E+00
Gloads	32	-.1739E+03	-.3914E+03	.1788E+02	-.3080E+03	-.1622E+03	.0000E+00
Gloads	31	-.7552E+02	-.3229E+02	.1915E+02	-.3687E+03	-.2617E+03	.0000E+00
*****PLATE 14****							
Gloads	15	.1776E+03	.3640E+03	-.1833E+02	.2284E+02	-.1461E+03	.0000E+00
Gloads	16	.4533E+02	.3599E+02	-.8673E+01	.3111E+00	.5837E+02	.0000E+00
Gloads	33	-.1567E+03	-.3593E+03	.4078E+01	-.2504E+03	.1786E+03	.0000E+00
Gloads	32	-.6623E+02	-.4062E+02	.1773E+02	.2519E+03	-.1606E+03	.0000E+00
*****PLATE 15****							
Gloads	16	.1523E+03	.3231E+03	-.1098E+02	.3111E+00	-.1588E+03	.0000E+00
Gloads	17	.4125E+02	.3427E+02	-.4207E+02	-.3867E+03	-.6766E+02	.0000E+00
Gloads	34	-.1301E+03	-.4129E+03	.2534E+02	.2799E+03	-.1317E+02	.0000E+00
Gloads	33	-.6347E+02	-.3252E+02	.1211E+02	.2027E+03	-.8595E+02	.0000E+00
*****PLATE 16****							
Gloads	19	.1252E+03	.3788E+03	-.8675E+01	.1806E+03	-.3177E+03	.0000E+00
Gloads	20	.4066E+02	.1152E+03	-.2531E+00	.3968E+02	.2065E+03	.0000E+00
Gloads	36	-.1133E+03	-.3821E+03	.4907E+01	-.2521E+03	.3945E+03	.0000E+00
Gloads	35	-.5258E+02	-.1119E+03	.4021E+01	-.1646E+03	-.2197E+03	.0000E+00
*****PLATE 17****							
Gloads	20	.1389E+03	.4144E+03	.1085E+02	.2516E+03	-.3901E+03	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	21	.4794E+02	.1264E+03	-.2113E+02	-.1241E+03	-.5134E+02	.0000E+00
Loads	37	-.1334E+03	-.4253E+03	-.1027E+02	-.3501E+03	-.2028E+03	.0000E+00
Loads	36	-.5338E+02	-.1137E+03	-.2055E+02	-.3700E+01	-.2931E+03	.0000E+00
		****PLATE 18****					
Loads	21	.1334E+03	.4608E+03	.2887E+02	.2355E+03	-.2898E+03	.0000E+00
Loads	22	.9024E+02	.9835E+02	-.5498E+01	.9697E+02	-.2617E+03	.0000E+00
Loads	38	-.1488E+03	-.4583E+03	-.4510E+02	-.6473E+02	-.5919E+02	.0000E+00
Loads	37	-.7480E+02	-.1008E+03	.2173E+02	-.1171E+03	-.8082E+02	.0000E+00
		****PLATE 19****					
Loads	22	.2127E+02	.5020E+03	-.9793E+02	.0000E+00	-.3437E+03	-.2259E+02
Loads	23	-.3081E+02	-.1153E+03	-.1791E+03	-.2138E+03	-.3535E+03	.0000E+00
Loads	39	-.3118E+02	-.5084E+03	.1068E+03	-.7779E+02	-.1352E+03	.0000E+00
Loads	38	.4072E+02	-.1088E+03	-.1702E+03	.0000E+00	-.1284E+03	-.5905E+02
		****PLATE 20****					
Loads	23	.2248E+02	.5410E+03	-.1698E+03	.4087E+02	.8822E+02	.0000E+00
Loads	24	-.1297E+02	.8191E+02	-.1444E+03	-.2707E+03	-.5034E+03	.0000E+00
Loads	40	-.2560E+02	-.5307E+03	.1561E+03	.8567E+02	-.4349E+03	.0000E+00
Loads	39	-.1609E+02	-.9223E+02	.1601E+03	.3533E+03	-.2522E+03	.0000E+00
		****PLATE 21****					
Loads	24	.7611E+01	.5156E+03	-.1913E+03	-.1405E+03	-.3459E+03	.0000E+00
Loads	25	.3407E+01	-.631E+02	-.1217E+03	.2032E+03	-.4751E+03	.0000E+00
Loads	41	-.9612E+01	-.5079E+03	-.1911E+03	-.4700E+03	.0000E+00	.0000E+00
Loads	40	-.1487E+01	-.7127E+02	.1333E+03	.2985E+03	-.5042E+03	.0000E+00
		****PLATE 22****					
Loads	25	.1648E+01	.4901E+03	-.1975E+03	-.2076E+03	.4830E+03	.0000E+00
Loads	26	.8618E+01	.5000E+02	-.1075E+03	-.1355E+03	-.3209E+03	.0000E+00
Loads	42	.1292E+01	-.4829E+03	.1911E+03	.2938E+03	-.4780E+03	.0000E+00
Loads	41	-.1156E+02	-.5717E+02	-.1139E+03	.2753E+03	.4694E+03	.0000E+00
		****PLATE 23****					
Loads	26	-.1426E+02	.6435E+03	-.1940E+03	-.2528E+03	.4852E+03	.0000E+00
Loads	27	.2634E+02	-.3437E+02	-.1031E+03	.8065E+02	-.4028E+02	.0000E+00
Loads	43	.1472E+02	-.4560E+03	.1945E+03	.3586E+02	-.2105E+03	.0000E+00
Loads	42	-.2680E+02	-.4184E+02	.1025E+03	.7933E+02	-.4021E+03	.0000E+00
		****PLATE 24****					
Loads	27	-.3851E+02	.4311E+03	-.1833E+03	-.2272E+03	.2967E+03	.0000E+00
Loads	28	.1250E+02	.1618E+02	-.1138E+03	.0000E+00	.4413E+03	.9870E+02
Loads	44	.5737E+02	-.4159E+03	.2003E+03	.0000E+00	.2532E+03	.1018E+03
Loads	43	-.3136E+02	-.1357E+02	.9386E+02	-.1444E+03	.8984E+02	.0000E+00
		****PLATE 25****					
Loads	28	.8772E+02	.3598E+03	-.2113E+02	.1548E+02	.5627E+03	.0000E+00
Loads	29	-.1652E+03	-.1084E+00	.4179E+02	.2152E+03	.2306E+03	.0000E+00
Loads	45	-.7621E+02	-.3667E+03	.3579E+02	.1649E+03	-.5494E+00	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	44	-.1767E+03	.7087E+01	-.5646E+02	.5913E+02	.3840E+03	.0000E+00
		****PLATE 26****					
Loads	29	.1076E+03	.3684E+03	-.2691E+02	-.8986E+02	.6164E+02	.0000E+00
Loads	30	-.1347E+03	-.1408E+02	.1839E+02	.2990E+03	.4589E+03	.0000E+00
Loads	46	-.9491E+02	-.3665E+03	.2920E+02	-.4419E+02	.3288E+03	.0000E+00
Loads	45	-.1474E+03	-.1685E+02	-.2067E+02	.3525E+03	-.1276E+03	.0000E+00
		****PLATE 27****					
Loads	30	.1130E+03	.3515E+03	-.1144E+02	.1113E+03	-.2190E+03	.0000E+00
Loads	31	-.1132E+03	-.2076E+02	.2626E+01	.3054E+03	.4905E+03	.0000E+00
Loads	47	-.1027E+03	-.3489E+03	.1405E+02	-.2570E+03	.4042E+03	.0000E+00
Loads	46	-.1235E+03	-.2340E+02	-.5243E+01	.3535E+03	-.4228E+03	.0000E+00
		****PLATE 28****					
Loads	31	.1126E+03	.3346E+03	-.8672E+01	.1849E+03	-.3673E+03	.0000E+00
Loads	32	.9944E+02	.2404E+02	-.5958E+01	.2652E+03	.4044E+03	.0000E+00
Loads	48	.1036E+03	-.3316E+03	.9319E+01	.3511E+03	.4495E+03	.0000E+00
Loads	47	-.1064E+03	-.2707E+02	.5310E+01	.4209E+03	-.4356E+03	.0000E+00
		****PLATE 29****					
Loads	32	.1053E+03	.3136E+03	.7575E+01	.2946E+03	-.4060E+03	.0000E+00
Loads	33	.9188E+02	.2304E+02	-.1152E+02	.2339E+03	.2211E+03	.0000E+00
Loads	49	-.1074E+03	-.3090E+03	.1014E+02	-.3618E+03	.2706E+03	.0000E+00
Loads	48	-.9572E+02	-.2737E+02	.1651E+02	.2936E+03	-.4303E+03	.0000E+00
		****PLATE 30****					
Loads	33	.9285E+02	.2842E+03	.1215E+02	.2192E+03	-.3137E+03	.0000E+00
Loads	34	.8733E+02	.1473E+02	-.3530E+02	.6369E+01	-.8318E+02	.0000E+00
Loads	50	-.9721E+02	-.2761E+03	.6512E+01	.4561E+03	-.1140E+01	.0000E+00
Loads	49	-.8297E+02	-.2280E+02	.2966E+02	.2787E+03	-.2361E+03	.0000E+00
		****PLATE 31****					
Loads	35	.4112E+02	.2406E+03	.2145E+01	.2493E+03	-.3965E+03	.0000E+00
Loads	36	.4032E+02	.2406E+03	.2145E+01	.2493E+03	-.3965E+03	.0000E+00
Loads	52	-.5442E+02	-.2506E+03	-.6319E+01	.2910E+03	.3016E+03	.0000E+00
Loads	51	-.3601E+02	-.9505E+02	.1160E+02	-.1795E+03	-.4178E+03	.0000E+00
		****PLATE 32****					
Loads	36	.8541E+02	.3057E+03	.1387E+02	.1507E+03	-.4262E+03	.0000E+00
Loads	37	.5047E+02	.9112E+02	-.1720E+02	.8806E+02	.1292E+03	.0000E+00
Loads	53	.1026E+03	-.3098E+03	-.1217E+02	.1289E+03	.2288E+03	.0000E+00
Loads	52	.3326E+02	-.8698E+02	.1549E+02	-.1830E+03	-.3331E+03	.0000E+00
		****PLATE 33****					
Loads	37	.1259E+03	.3499E+03	.3765E+02	.1449E+03	-.2511E+03	.0000E+00
Loads	38	.3952E+02	.9093E+02	-.2762E+02	.1043E+02	-.2369E+03	.0000E+00
Loads	54	-.1451E+03	-.3571E+03	.4654E+02	-.1922E+01	-.2472E+03	.0000E+00
Loads	53	-.2024E+02	-.8371E+02	.3652E+02	.6719E+02	-.2783E+03	.0000E+00
		****PLATE 34****					
Loads	38	.2578E+02	.3888E+03	-.5229E+02	.0000E+00	-.3170E+03	.8375E+02

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Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	39	4353E+02	9905E+02	-1355E+03	3132E+03	16556E+03	0.000E+00
Gloads	54	3612E+02	3911E+03	5202E+02	3042E+03	7708E+02	0.000E+00
Gloads	55	5586E+02	-9670E+02	1538E+02	3001E+03	6533E+03	0.000E+00
Gloads	39	2243E+02	4051E+03	-772E+02	1100E+03	1963E+03	0.000E+00
Gloads	40	1689E+02	9235E+02	641E+03	1855E+03	5795E+03	0.000E+00
Gloads	41	1746E+02	9518E+02	1308E+02	1972E+03	3228E+03	0.000E+00
Gloads	55	1228E+02	-9518E+02	1308E+02	1972E+03	3228E+03	0.000E+00
Gloads	40	7788E+01	4126E+03	1121E+03	1987E+03	5100E+03	0.000E+00
Gloads	41	6310E+01	7151E+02	1245E+03	2863E+03	6030E+03	0.000E+00
Gloads	57	7920E+01	4073E+03	1146E+03	2111E+03	6365E+03	0.000E+00
Gloads	56	6442E+01	-7684E+02	1220E+03	3064E+03	5089E+03	0.000E+00
Gloads	41	8709E+01	3971E+03	1350E+03	2764E+03	6036E+03	0.000E+00
Gloads	42	9800E+01	5285E+02	1032E+03	1957E+03	4855E+03	0.000E+00
Gloads	58	8356E+01	3881E+03	1349E+03	2835E+03	4889E+03	0.000E+00
Gloads	57	9446E+01	-6186E+02	1013E+03	2172E+03	6522E+03	0.000E+00
Gloads	42	2048E+02	3754E+03	1542E+03	1774E+03	5614E+03	0.000E+00
Gloads	55	2344E+02	3429E+02	1820E+02	1445E+03	4616E+03	0.000E+00
Gloads	58	2257E+02	-3928E+02	7395E+02	1877E+03	4853E+03	0.000E+00
Gloads	43	4290E+02	3430E+03	1696E+03	1025E+03	2570E+03	0.000E+00
Gloads	44	4007E+02	2213E+02	1548E+02	0.000E+00	4378E+03	5650E+02
Gloads	60	4487E+02	3560E+03	1722E+03	0.000E+00	5942E+03	3896E+02
Gloads	59	4195E+02	-2921E+02	1489E+02	5710E+02	2275E+03	0.000E+00
Gloads	44	2255E+02	2733E+03	4665E+02	3909E+02	5792E+02	0.000E+00
Gloads	45	1552E+02	1691E+02	4805E+02	9037E+02	1597E+03	0.000E+00
Gloads	61	3280E+02	2512E+03	4521E+02	8512E+02	3390E+03	0.000E+00
Gloads	60	1448E+03	1562E+02	-5261E+02	2650E+02	3365E+03	0.000E+00
Gloads	45	3301E+02	2722E+03	-277E+02	9723E+02	3155E+02	0.000E+00
Gloads	46	3496E+03	2718E+02	6645E+02	1936E+03	5423E+03	0.000E+00
Gloads	62	1314E+03	-2585E+02	2188E+02	1508E+03	4537E+03	0.000E+00
Gloads	61	-1314E+03	2585E+02	-2188E+02	1508E+03	4537E+03	0.000E+00
Gloads	46	6616E+02	2691E+03	1258E+02	2258E+02	3980E+03	0.000E+00
Gloads	47	1203E+03	2521E+02	1284E+02	3072E+03	5537E+03	0.000E+00
Gloads	63	4672E+02	-2667E+03	1200E+02	-2649E+03	6153E+03	0.000E+00

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SOLVE PLATE LOADS/STRESSES Version 2.0
Load Case 4:UBC SEISMIC LOAD - SN & EM DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	62	1198E+03	-2763E+02	-1226E+02	-2781E+03	-3943E+03	0.000E+00
Gloads	47	5335E+02	2563E+03	3205E+01	3707E+03	5224E+03	0.000E+00
Gloads	48	1047E+03	2298E+02	5286E+01	3011E+03	4819E+03	0.000E+00
Gloads	64	5228E+02	-2233E+03	4997E+01	3806E+03	5025E+03	0.000E+00
Gloads	63	1056E+03	-2710E+02	-1215E+02	-2346E+03	-3458E+03	0.000E+00
Gloads	48	6123E+02	2417E+03	1011E+02	3435E+03	5012E+03	0.000E+00
Gloads	49	6818E+02	2185E+02	1029E+02	3004E+03	2696E+03	0.000E+00
Gloads	65	6461E+02	2386E+03	7445E+01	3435E+03	3558E+03	0.000E+00
Gloads	64	8479E+02	-2502E+02	-7623E+01	3044E+03	3932E+03	0.000E+00
Gloads	49	6081E+02	2155E+03	2818E+02	2701E+03	3111E+03	0.000E+00
Gloads	50	3704E+02	1136E+03	2877E+02	2548E+03	3775E+02	0.000E+00
Gloads	66	5919E+02	-2135E+03	-2677E+02	-2548E+03	-3775E+02	0.000E+00
Gloads	65	6613E+02	-3375E+02	1830E+02	-1897E+03	-2689E+03	0.000E+00
Gloads	51	7027E+01	1172E+03	9505E+01	2122E+03	3425E+03	0.000E+00
Gloads	52	1256E+02	1922E+02	5248E+01	3069E+03	3127E+03	0.000E+00
Gloads	68	1472E+02	1232E+03	1191E+01	2304E+02	3294E+03	0.000E+00
Gloads	67	4875E+01	-8770E+02	1146E+01	1741E+03	2421E+03	0.000E+00
Gloads	52	4321E+02	1606E+03	1749E+02	1671E+03	2813E+03	0.000E+00
Gloads	53	2191E+01	9376E+02	8771E+01	2026E+03	2343E+03	0.000E+00
Gloads	69	4623E+02	1648E+03	1615E+02	5992E+02	7537E+02	0.000E+00
Gloads	68	8284E+02	-8751E+02	-7430E+01	1180E+03	3690E+03	0.000E+00
Gloads	53	8875E+02	1417E+03	6699E+02	1610E+03	1847E+03	0.000E+00
Gloads	54	1304E+02	1146E+03	4699E+02	9046E+02	1062E+03	0.000E+00
Gloads	70	8722E+02	-2267E+03	1310E+02	1397E+03	4124E+03	0.000E+00
Gloads	69	1153E+02	9284E+02	1746E+02	3008E+03	1296E+03	0.000E+00
Gloads	54	5911E+02	2637E+03	1595E+02	0.000E+00	2612E+03	-1271E+03
Gloads	55	2905E+02	9968E+02	9744E+02	1126E+03	2588E+03	0.000E+00
Gloads	71	4075E+02	2606E+03	5282E+02	2502E+03	3294E+03	0.000E+00
Gloads	70	1069E+02	-1028E+03	108E+02	0.000E+00	-3011E+03	-1632E+03
Gloads	55	1677E+02	2001E+03	4971E+02	2340E+03	2411E+03	0.000E+00
Gloads	56	2902E+02	7788E+02	1035E+02	2370E+03	5123E+03	0.000E+00
Gloads	72	2697E+02	2946E+03	6087E+02	1010E+03	6347E+03	0.000E+00
Gloads	71	3921E+02	-7340E+02	9183E+02	1007E+03	3807E+02	0.000E+00
Gloads	56	4128E+01	3052E+03	-6990E+02	-2896E+03	4800E+03	0.000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads	57	-1.004E+02	-7.433E+02	-9.058E+02	-2.269E+03	-6.515E+03	.0000E+00
GLoads	73	-7.441E+01	-3.021E+03	8.308E+02	2.408E+03	-6.048E+03	.0000E+00
GLoads	72	-1.336E+02	-7.744E+02	.7740E+02	1.455E+03	5.053E+03	.0000E+00
		PLATE 52					
GLoads	57	-8.779E+01	2.983E+03	-8.905E+02	-1.969E+03	6.357E+03	.0000E+00
GLoads	58	5.013E+01	6.485E+02	-7.218E+02	-2.920E+03	-5.031E+03	.0000E+00
GLoads	74	9.788E+01	-2.937E+03	9.719E+02	-1.363E+03	-5.051E+03	.0000E+00
GLoads	73	-6.021E+01	-6.949E+02	6.404E+02	2.696E+03	6.019E+03	.0000E+00
		PLATE 53					
GLoads	58	-2.699E+02	2.660E+03	-1.005E+03	-1.792E+03	5.066E+03	.0000E+00
GLoads	59	2.400E+02	4.957E+02	-4.269E+02	-1.604E+03	-2.188E+03	.0000E+00
GLoads	75	2.827E+02	-2.528E+03	9.536E+02	-1.318E+03	-8.863E+02	.0000E+00
GLoads	74	-2.528E+02	-6.275E+02	4.783E+02	-1.421E+03	6.109E+03	.0000E+00
		PLATE 54					
GLoads	59	-3.785E+02	2.649E+03	-1.329E+03	5.119E+02	2.344E+03	.0000E+00
GLoads	60	4.282E+02	3.878E+02	-1.446E+02	0.000E+00	3.689E+03	3.658E+02
GLoads	76	3.584E+02	-2.479E+03	1.443E+03	0.000E+00	3.662E+03	3.799E+02
GLoads	75	-4.081E+02	-4.019E+02	3.036E+01	-1.326E+03	2.496E+03	.0000E+00
		PLATE 55					
GLoads	60	9.444E+01	2.049E+03	-5.475E+02	-1.732E+02	4.731E+03	.0000E+00
GLoads	61	1.204E+03	1.262E+02	3.690E+02	-7.700E+02	14.12E+03	.0000E+00
GLoads	77	-1.528E+02	-2.101E+03	4.508E+02	1.645E+03	1.749E+03	.0000E+00
GLoads	76	-1.146E+03	-1.652E+02	-7.726E+02	3.722E+02	4.542E+03	.0000E+00
		PLATE 56					
GLoads	61	8.375E+01	1.933E+03	-2.481E+02	1.888E+03	-4.466E+03	.0000E+00
GLoads	62	1.157E+03	1.319E+02	2.949E+02	1.428E+03	4.221E+03	.0000E+00
GLoads	78	-1.555E+02	-1.931E+03	2.668E+02	-1.552E+03	5.708E+03	.0000E+00
GLoads	77	-1.085E+03	-1.331E+02	-3.135E+02	-7.344E+02	5.628E+01	.0000E+00
		PLATE 57					
GLoads	62	7.168E+01	1.918E+03	-7.34E+01	3.297E+03	-4.541E+03	.0000E+00
GLoads	63	1.140E+03	1.175E+02	1.157E+02	1.563E+03	5.558E+03	.0000E+00
GLoads	79	-8.183E+01	-1.933E+03	-7.347E+01	-3.100E+03	5.980E+03	.0000E+00
GLoads	78	-1.130E+03	-1.605E+02	-1.114E+02	-8.503E+02	-4.129E+03	.0000E+00
		PLATE 58					
GLoads	63	3.065E+01	1.818E+03	9.531E+01	3.251E+03	-6.253E+03	.0000E+00
GLoads	64	1.007E+03	3.059E+02	9.939E+02	2.644E+03	3.963E+03	.0000E+00
GLoads	80	-3.374E+01	-1.811E+03	1.972E+02	2.026E+03	5.334E+03	.0000E+00
GLoads	79	-1.072E+03	-3.122E+02	4.250E+01	1.566E+03	-5.135E+03	.0000E+00
		PLATE 59					
GLoads	64	9.452E+00	1.523E+03	3.184E+02	4.207E+03	-5.057E+03	.0000E+00
GLoads	65	7.176E+02	3.903E+02	-9.437E+01	2.528E+03	1.215E+03	.0000E+00
GLoads	81	1.203E+02	-1.445E+03	-4.582E+02	-2.063E+03	7.779E+02	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads	80	-8.473E+02	-4.681E+02	2.342E+02	2.563E+02	-5.317E+03	.0000E+00
		PLATE 60					
GLoads	65	2.358E+02	1.389E+03	3.400E+02	2.798E+03	-2.084E+03	.0000E+00
GLoads	66	3.748E+02	5.269E+02	-1.156E+02	3.005E+03	-1.891E+03	.0000E+00
GLoads	82	-3.335E+02	-1.413E+03	4.039E+02	3.219E+02	-2.763E+03	.0000E+00
GLoads	81	-2.771E+02	-5.031E+02	1.796E+02	5.452E+02	-1.142E+03	.0000E+00
		PLATE 61					
GLoads	67	-4.083E+02	1.348E+02	2.239E+02	2.928E+03	-1.321E+03	.0000E+00
GLoads	68	1.420E+02	7.641E+02	6.122E+01	2.627E+03	2.692E+03	.0000E+00
GLoads	84	4.811E+02	-2.228E+02	-3.705E+02	1.163E+03	-2.020E+03	.0000E+00
GLoads	83	-2.148E+02	-6.707E+02	8.535E+01	1.124E+03	-3.578E+03	.0000E+00
		PLATE 62					
GLoads	68	-3.621E+02	3.883E+02	2.115E+02	-1.211E+03	-2.601E+03	.0000E+00
GLoads	69	1.201E+02	9.218E+02	-1.115E+02	3.680E+03	-1.549E+03	.0000E+00
GLoads	85	5.627E+02	-4.350E+02	2.877E+02	3.050E+03	1.184E+02	.0000E+00
GLoads	84	-3.208E+02	-8.751E+02	1.878E+02	-2.769E+03	-4.087E+03	.0000E+00
		PLATE 63					
GLoads	69	-1.321E+02	7.180E+02	4.574E+02	-7.271E+01	-8.069E+02	.0000E+00
GLoads	70	9.540E+01	8.033E+02	-2.351E+02	2.920E+03	-1.278E+03	.0000E+00
GLoads	86	3.386E+02	-7.294E+02	9.148E+02	3.155E+03	-7.650E+03	.0000E+00
GLoads	85	3.019E+02	-7.791E+02	6.925E+02	1.112E+02	-5.982E+03	.0000E+00
		PLATE 64					
GLoads	70	2.128E+02	1.678E+03	-4.081E+01	0.000E+00	-3.243E+03	2.784E+03
GLoads	71	-4.885E+02	4.351E+02	-7.449E+02	-1.960E+02	2.617E+02	.0000E+00
GLoads	87	-2.148E+02	-1.829E+03	3.192E+02	-9.744E+02	-1.012E+03	.0000E+00
GLoads	86	4.905E+02	-2.835E+02	1.105E+03	0.000E+00	-6.099E+03	3.628E+03
		PLATE 65					
GLoads	71	9.682E+01	1.819E+03	-2.944E+02	3.392E+03	-1.954E+03	.0000E+00
GLoads	72	2.62E+02	7.500E+02	1.640E+02	5.650E+02	4.425E+03	.0000E+00
GLoads	88	2.174E+02	-1.174E+03	6.524E+02	1.467E+03	-2.048E+03	.0000E+00
GLoads	87	-4.994E+01	-8.384E+02	-9.977E+01	-2.220E+03	3.791E+03	.0000E+00
		PLATE 66					
GLoads	72	-6.704E+00	1.875E+03	-7.717E+02	-2.005E+03	5.719E+03	.0000E+00
GLoads	73	-1.287E+02	4.816E+02	4.504E+01	2.670E+03	-5.646E+03	.0000E+00
GLoads	89	1.079E+02	-1.834E+03	1.236E+03	1.825E+02	-4.898E+03	.0000E+00
GLoads	88	2.750E+01	-5.225E+02	-4.738E+02	7.694E+02	4.503E+03	.0000E+00
		PLATE 67					
GLoads	73	-1.438E+02	2.149E+03	-1.019E+03	-2.435E+03	5.676E+03	.0000E+00
GLoads	74	-3.642E+00	1.832E+02	-1.002E+02	-2.474E+03	-5.194E+03	.0000E+00
GLoads	90	1.044E+02	-2.169E+03	1.515E+03	3.574E+02	-4.138E+03	.0000E+00
GLoads	89	4.307E+01	-1.631E+02	-3.962E+02	4.954E+02	5.972E+03	.0000E+00
		PLATE 68					
GLoads	74	-2.486E+02	2.295E+03	-9.429E+02	-3.114E+02	4.889E+03	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads 75	-1149E+02	-2660E+02	-2469E+02	-3386E+03	-2732E+03	.0000E+00	.0000E+00
Gloads 91	6595E+01	-2377E+03	1216E+03	-1815E+03	-3304E+03	.0000E+00	.0000E+00
Gloads 90	.6768E+01	-.1845E+02	-.2635E+01	-.1838E+03	.3951E+03	.0000E+00	.0000E+00
PLATE 69							
Gloads 75	-.3966E+02	.1578E+03	-.3300E+02	.7423E+02	-.1122E+03	.0000E+00	.0000E+00
Gloads 76	.4529E+02	.2878E+02	-.2729E+02	.0000E+00	.2911E+03	-.2327E+02	.0000E+00
Gloads 92	.2366E+02	-.1357E+03	-.3972E+02	.0000E+00	.4333E+03	.5005E+01	.0000E+00
Gloads 91	-.2929E+02	-.5087E+02	-.1000E+03	-.6234E+02	.2321E+03	.0000E+00	.0000E+00
PLATE 70							
Gloads 76	-.2606E+02	.1341E+03	-.3560E+02	.1267E+03	.3562E+03	.0000E+00	.0000E+00
Gloads 77	-.1169E+03	-.3264E+02	.4295E+02	-.6925E+02	.4160E+02	.0000E+00	.0000E+00
Gloads 93	.1123E+02	-.1321E+03	.3051E+02	-.3200E+02	.2126E+03	.0000E+00	.0000E+00
Gloads 92	-.1021E+03	.3059E+02	-.3786E+02	.1767E+03	.5037E+03	.0000E+00	.0000E+00
PLATE 71							
Gloads 77	-.3295E+02	.1407E+03	-.1684E+02	.3071E+03	-.2222E+03	.0000E+00	.0000E+00
Gloads 78	.1345E+02	-.3863E+02	.2519E+02	-.3992E+02	.4171E+03	.0000E+00	.0000E+00
Gloads 94	.3913E+02	-.1454E+03	-.4119E+01	-.2169E+03	.3856E+03	.0000E+00	.0000E+00
Gloads 93	-.1406E+03	.4337E+02	-.4239E+01	.1795E+03	-.2609E+03	.0000E+00	.0000E+00
PLATE 72							
Gloads 78	-.4573E+02	.1416E+03	-.5539E+00	.2802E+03	-.5750E+03	.0000E+00	.0000E+00
Gloads 79	.1355E+03	-.1836E+02	-.1291E+02	.1312E+03	.4947E+03	.0000E+00	.0000E+00
Gloads 95	.4869E+02	-.1445E+03	.3674E+02	.1080E+03	.5936E+03	.0000E+00	.0000E+00
Gloads 94	-.1385E+03	-.2126E+02	-.9686E+01	.3636E+02	-.3581E+03	.0000E+00	.0000E+00
PLATE 73							
Gloads 79	-.6004E+02	.1367E+03	.1533E+02	.3354E+03	-.5793E+03	.0000E+00	.0000E+00
Gloads 80	.1340E+03	.7271E+01	.6486E+01	-.1737E+03	.4876E+03	.0000E+00	.0000E+00
Gloads 96	.6132E+02	-.1413E+03	-.1182E+02	-.1531E+02	.4580E+03	.0000E+00	.0000E+00
Gloads 95	-.1353E+03	-.2642E+01	-.1000E+02	.1063E+03	-.4472E+03	.0000E+00	.0000E+00
PLATE 74							
Gloads 80	-.9246E+02	.1144E+03	.2466E+02	.3232E+01	-.4893E+03	.0000E+00	.0000E+00
Gloads 81	.1288E+03	.5569E+02	-.4157E+02	-.2317E+03	.4647E+02	.0000E+00	.0000E+00
Gloads 97	.1206E+03	-.1215E+03	.2529E+02	-.1513E+03	.3788E+03	.0000E+00	.0000E+00
Gloads 96	-.1569E+03	-.4862E+02	-.8378E+01	-.8530E+02	-.1828E+03	.0000E+00	.0000E+00
PLATE 75							
Gloads 81	-.1529E+03	.3287E+02	.1093E+03	.4942E+03	-.1008E+02	.0000E+00	.0000E+00
Gloads 82	.1064E+03	.1079E+03	.6423E+03	.1514E+04	-.8587E+03	.0000E+00	.0000E+00
Gloads 98	.2846E+03	-.2382E+02	-.2048E+03	.1918E+04	-.1129E+04	.0000E+00	.0000E+00
Gloads 97	-.2382E+03	-.1169E+03	.3136E+02	.8456E+03	-.1351E+03	.0000E+00	.0000E+00
PLATE 76							
Gloads 83	-.3426E+02	-.1822E+02	.1149E+02	.3071E+03	.4838E+03	.0000E+00	.0000E+00
Gloads 84	.2294E+02	.2258E+02	.8039E+02	.2638E+03	.2957E+03	.0000E+00	.0000E+00
Gloads 100	.2212E+02	-.8911E+01	.1009E+03	.4419E+03	.7186E+03	.0000E+00	.0000E+00

SOLVE PLATE LOADS/STRESSES Version 2.0 07/01/90

Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads 99	-.1080E+02	.4556E+01	-.1927E+03	.5032E+03	.9788E+03	.0000E+00	.0000E+00
PLATE 77							
Gloads 84	-.7088E+02	.2663E+01	-.3021E+02	-.1032E+03	.3150E+03	.0000E+00	.0000E+00
Gloads 85	.2495E+02	.5137E+02	.4890E+02	.2014E+03	.4416E+03	.0000E+00	.0000E+00
Gloads 101	.6632E+02	.4086E+01	.7532E+02	.2361E+03	.4902E+03	.0000E+00	.0000E+00
Gloads 100	-.2039E+02	-.5812E+02	-.9402E+02	.2587E+02	.4510E+03	.0000E+00	.0000E+00
PLATE 78							
Gloads 85	-.8294E+02	-.1377E+02	-.5747E+02	-.5176E+03	.1684E+03	.0000E+00	.0000E+00
Gloads 86	.5602E+02	.1148E+02	-.1009E+03	-.7817E+03	.1248E+03	.0000E+00	.0000E+00
Gloads 102	.9286E+02	.2102E+02	.2096E+03	-.8091E+03	.6575E+03	.0000E+00	.0000E+00
Gloads 101	-.6594E+02	-.1873E+02	-.5115E+02	-.5054E+03	.5338E+03	.0000E+00	.0000E+00
PLATE 79							
Gloads 86	.1638E+03	-.1841E+02	.2004E+02	.0000E+00	-.6271E+03	-.8057E+03	.0000E+00
Gloads 87	.2052E+02	-.1395E+03	.1144E+03	.0000E+00	.5251E+03	-.1985E+03	.0000E+00
Gloads 103	.1422E+03	.3631E+01	.1059E+03	.0000E+00	-.6817E+03	-.3443E+03	.0000E+00
Gloads 102	-.1013E+01	-.1247E+03	-.2403E+03	.0000E+00	-.1016E+04	-.6886E+03	.0000E+00
PLATE 80							
Gloads 87	-.1080E+02	.3078E+02	-.3631E+02	-.2056E+03	-.7943E+02	.0000E+00	.0000E+00
Gloads 88	.5800E+02	.8513E+02	.9953E+02	-.7538E+02	.2635E+03	.0000E+00	.0000E+00
Gloads 104	.7251E+02	-.1784E+02	.8284E+02	.0000E+00	-.8782E+03	.2048E+03	.0000E+00
Gloads 103	.1197E+03	-.9807E+02	-.1461E+03	.0000E+00	-.8018E+03	.2929E+03	.0000E+00
PLATE 81							
Gloads 88	-.2681E+01	.4471E+02	-.8123E+02	-.1483E+03	.1802E+02	.0000E+00	.0000E+00
Gloads 89	-.3363E+02	.2962E+02	.6637E+02	-.3345E+02	-.3001E+03	.0000E+00	.0000E+00
Gloads 105	-.2725E+02	-.4544E+02	.9836E+02	.0000E+00	-.4597E+03	.1578E+03	.0000E+00
Gloads 104	.6356E+02	-.2889E+02	-.8350E+02	.0000E+00	-.2018E+03	.2596E+03	.0000E+00
PLATE 82							
Gloads 89	-.1765E+02	.7358E+02	-.7141E+03	-.3434E+02	.1927E+03	.0000E+00	.0000E+00
Gloads 90	.1998E+02	.6623E+01	.5203E+02	-.1890E+03	-.1934E+03	.0000E+00	.0000E+00
Gloads 106	.2400E+02	-.7275E+02	.1345E+03	.0000E+00	-.1297E+03	.2634E+03	.0000E+00
Gloads 105	.1362E+02	-.7454E+01	-.7242E+02	.0000E+00	-.1928E+03	-.1341E+03	.0000E+00
PLATE 83							
Gloads 90	-.3342E+02	.1322E+03	-.1647E+03	-.3058E+02	.2122E+03	.0000E+00	.0000E+00
Gloads 91	.1632E+02	-.1569E+02	.1870E+02	-.7147E+02	-.1007E+03	.0000E+00	.0000E+00
Gloads 107	.5163E+02	-.1398E+03	.2511E+03	.0000E+00	.3436E+03	.8806E+02	.0000E+00
Gloads 106	.3453E+02	.2325E+02	-.7905E+02	.0000E+00	.5955E+03	.9207E+02	.0000E+00
PLATE 84							
Gloads 91	-.2982E+02	.2077E+03	-.2041E+03	.1907E+03	.1990E+03	.0000E+00	.0000E+00
Gloads 92	.4455E+02	-.7413E+02	-.5197E+02	.0000E+00	.2930E+03	.1500E+02	.0000E+00
Gloads 108	.5678E+02	-.1985E+03	.3742E+03	.0000E+00	.5427E+03	.1514E+02	.0000E+00
Gloads 107	-.7151E+02	.6489E+02	-.1181E+03	.0000E+00	.5359E+03	-.1189E+03	.0000E+00
PLATE 85							
Gloads 92	-.3175E+02	.4823E+02	-.7630E+01	.4333E+03	.2769E+03	.0000E+00	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	93	.1406E+03	-.5888E+02	.4010E+02	-.9987E+02	-.1648E+03	.0000E+00
Loads	109	.7454E+02	-.5954E+02	.5248E+02	-.2466E+02	-.4773E+03	.0000E+00
Loads	108	-.1834E+03	.7019E+02	-.1002E+03	.4788E+03	.4852E+03	.0000E+00
PLATE 86							
GLoads	93	-.4660E+02	.5317E+02	-.3096E+02	-.4766E+02	-.1166E+03	.0000E+00
GLoads	94	.1111E+03	-.1706E+02	.2659E+02	-.3580E+02	-.1786E+03	.0000E+00
GLoads	110	.5707E+02	.3313E+02	.3669E+02	.3682E+02	.5687E+03	.0000E+00
GLoads	109	-.1216E+03	-.1703E+02	-.3233E+02	-.2514E+02	.3292E+03	.0000E+00
PLATE 87							
GLoads	94	-.4717E+02	.4679E+02	.2262E+02	-.2163E+03	-.2061E+03	.0000E+00
GLoads	95	.9118E+02	-.5223E+00	.1681E+02	-.7492E+01	.1624E+03	.0000E+00
GLoads	111	.4586E+02	-.4736E+02	-.1321E+02	.1296E+03	.2029E+03	.0000E+00
GLoads	110	-.8987E+02	.1086E+01	.2621E+02	-.3121E+03	-.1047E+03	.0000E+00
PLATE 88							
GLoads	95	-.4001E+02	.5322E+02	.3127E+02	.9247E+01	-.3089E+03	.0000E+00
GLoads	96	.8594E+02	.4485E+01	.1724E+01	.7997E+02	-.8175E-01	.0000E+00
GLoads	112	.2917E+02	-.5445E+02	-.5972E+02	.2680E+03	-.1627E+03	.0000E+00
GLoads	111	-.7510E+02	-.3254E+01	.2673E+02	.1872E+03	-.4080E+03	.0000E+00
PLATE 89							
GLoads	96	-.2575E+02	.9104E+02	.3588E+02	.2043E+02	-.2751E+03	.0000E+00
GLoads	97	.1130E+03	.6386E+01	-.1498E+02	.9587E+02	-.6472E+02	.0000E+00
GLoads	113	-.1692E+02	-.1013E+03	-.1076E+03	.2878E+03	-.7176E+03	.0000E+00
GLoads	112	-.7032E+02	.3872E+01	.6870E+02	.2376E+03	-.8017E+03	.0000E+00
PLATE 90							
GLoads	97	-.3082E+02	.1376E+03	-.6261E+01	-.7901E+03	-.1790E+03	.0000E+00
GLoads	98	.1953E+03	-.5763E+02	-.2117E+03	-.1347E+04	-.7191E+03	.0000E+00
GLoads	114	-.1018E+03	-.1213E+03	.8229E+02	-.1010E+04	-.7033E+03	.0000E+00
GLoads	113	-.6267E+02	.4133E+02	.1327E+03	.4488E+03	-.3592E+03	.0000E+00
PLATE 91							
GLoads	122	.2688E+03	.6715E+03	-.8468E+02	-.7406E+03	-.9483E+02	.0000E+00
GLoads	2	.3480E+02	.2918E+03	-.5952E+02	-.6647E+03	-.1851E+02	.0000E+00
GLoads	19	-.2269E+03	.6258E+03	.6438E+02	-.8406E+03	.1584E+03	.0000E+00
GLoads	124	-.7671E+02	-.3375E+03	.7981E+02	-.9263E+03	.5225E+02	.0000E+00
PLATE 92							
GLoads	124	.5032E+02	.3498E+03	-.5040E+02	-.2173E+03	-.1340E+03	.0000E+00
GLoads	19	.6957E+02	.2680E+03	-.3095E+02	-.2235E+03	.8857E+02	.0000E+00
GLoads	35	-.6781E+02	-.3799E+03	.3683E+02	-.6650E+03	.2014E+03	.0000E+00
GLoads	126	-.5209E+02	-.2179E+03	.4453E+02	-.6841E+03	-.3843E+02	.0000E+00
PLATE 93							
GLoads	126	.1893E+02	-.1823E+03	-.1480E+02	-.2098E+03	-.1291E+03	.0000E+00
GLoads	35	-.3110E+02	-.1649E+03	.3164E+01	.2204E+03	-.1546E+03	.0000E+00
GLoads	51	-.2884E+02	-.2199E+03	.9078E+01	-.3172E+03	.2515E+03	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	128	-.2118E+02	-.1273E+03	.2560E+01	-.3691E+03	-.3208E+02	.0000E+00
PLATE 94							
GLoads	128	-.9575E+01	.7083E+02	.2589E+02	.5889E+03	-.8463E+02	.0000E+00
GLoads	51	.1034E+02	.1033E+03	.1797E+02	.3982E+03	-.1563E+03	.0000E+00
GLoads	67	.4779E+01	-.1042E+03	-.1776E+02	-.9184E+02	.6451E+02	.0000E+00
GLoads	130	-.3485E+01	-.6999E+02	.2610E+02	.6969E+02	-.1319E+03	.0000E+00
PLATE 95							
GLoads	130	-.3161E+02	-.1177E+02	.6188E+02	.9493E+03	.1164E+02	.0000E+00
GLoads	67	-.1171E+02	.6457E+02	.6270E+02	.9913E+03	.4485E+02	.0000E+00
GLoads	83	.1623E+02	-.5013E+01	-.4720E+02	.7790E+03	.9319E+02	.0000E+00
GLoads	132	.2709E+02	-.4779E+02	-.7738E+02	.7065E+03	.1616E+03	.0000E+00
PLATE 96							
GLoads	132	-.5808E+02	-.4423E+02	.1113E+03	.5064E+03	-.1752E+03	.0000E+00
GLoads	83	-.2300E+02	-.8578E+00	.6759E+02	.7613E+03	-.3674E+03	.0000E+00
GLoads	99	.7599E+02	.6775E+02	-.1851E+03	.1005E+04	-.1002E+04	.0000E+00
GLoads	134	.5086E+01	-.2266E+02	.6149E+01	.6790E+03	-.8045E+03	.0000E+00
PLATE 97							
GLoads	17	.1126E+03	.2524E+03	.7256E+02	-.6518E+03	-.1198E+03	.0000E+00
GLoads	123	.5919E+02	.8692E+02	.2882E+02	-.8680E+03	-.8090E+02	.0000E+00
GLoads	125	.9623E+02	-.1977E+03	.7466E+02	-.1068E+04	-.5995E+01	.0000E+00
GLoads	34	-.7575E+02	-.6346E+02	.8246E+02	-.8689E+03	.8583E+01	.0000E+00
PLATE 98							
GLoads	34	.7055E+02	.2420E+03	.2222E+02	-.4096E+02	-.1568E+03	.0000E+00
GLoads	125	.6606E+02	.7842E+02	.4531E+02	-.2017E+03	-.1258E+03	.0000E+00
GLoads	127	-.6905E+02	-.2287E+03	.2637E+02	-.6830E+03	-.5128E+02	.0000E+00
GLoads	50	-.6756E+02	-.9173E+02	.4136E+02	-.5600E+03	-.4492E+02	.0000E+00
PLATE 99							
GLoads	50	.5233E+02	.2158E+03	.3143E+02	.4329E+03	-.1803E+03	.0000E+00
GLoads	127	.3684E+02	.1280E+03	.1918E+01	.4724E+03	-.2128E+03	.0000E+00
GLoads	129	-.5696E+02	-.2261E+03	-.4887E+02	-.4147E+02	.3052E+03	.0000E+00
GLoads	66	-.3221E+02	-.1178E+03	.1552E+02	-.1301E+03	-.2407E+03	.0000E+00
PLATE 100							
GLoads	66	-.3686E+01	.1525E+03	.731E+02	.7469E+03	-.3211E+01	.0000E+00
GLoads	129	.2627E+02	.1435E+03	.7578E+02	.1175E+04	-.1826E+03	.0000E+00
GLoads	131	.2776E+02	-.1683E+03	-.8119E+02	.9233E+03	-.6850E+02	.0000E+00
GLoads	82	-.6503E+02	-.1276E+03	-.6590E+02	.3909E+03	.1461E+03	.0000E+00
PLATE 101							
GLoads	82	-.4856E+02	.1774E+02	.8976E+02	-.1934E+04	.9600E+03	.0000E+00
GLoads	131	-.6356E+02	.1350E+03	.1247E+03	.7007E+03	.4516E+03	.0000E+00
GLoads	133	-.6742E+02	-.1925E+02	.3832E+02	.9357E+03	.7095E+03	.0000E+00
GLoads	98	.1796E+03	-.1720E+03	-.2528E+03	.2327E+04	.1148E+04	.0000E+00
PLATE 102							
GLoads	98	.1321E+03	.8125E+02	-.1984E+03	-.1511E+04	.3325E+03	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
GLoads 133		.3314E+02	-.8392E+02	-.1455E+02	-.5413E+03	-.1123E+03	.0000E+00
GLoads 135		-.5716E+02	-.5243E+02	.2647E+02	-.2707E+03	-.1881E+03	.0000E+00
GLoads 114		-.1081E+03	.5510E+02	.1864E+03	-.1190E+04	-.1822E+02	.0000E+00

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

MAXIMUM STRESS SUMMARY FOR PLATES
WITHIN SPECIFIED RANGE 1- 102

Maximum (absolute) Stress = .3084E+03 at Plate 36

Plate	Sigma X	Sigma Y	Tau XY	Von Mises
36	.3084E+03	.1628E+03	-.2459E+02	.2706E+03

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Load Case 4:UBC SEISMIC LOAD - SN & EW DIR.

REACTIONS

Node	Fx	Fy	Fz	Hx	Hy	Hz
1	-.1970E+02	.3143E+03	-.1386E+03	.0000E+00	.0000E+00	.0000E+00
2	.2906E+03	.9603E+03	-.1047E+03	.0000E+00	-.8436E+03	-.6534E+02
3	.2339E+03	.6345E+03	-.3486E+02	.0000E+00	.2092E+03	.0000E+00
4	.2275E+03	.7093E+03	-.1610E+02	.0000E+00	-.2811E+03	.0000E+00
5	-.1609E+02	.1183E+04	-.3547E+03	-.3581E+03	-.2128E+04	-.8899E+02
6	.2259E+02	.7722E+03	-.4302E+03	.0000E+00	-.3149E+03	.0000E+00
7	-.4749E+02	.6973E+03	-.4040E+03	.0000E+00	-.1859E+03	.0000E+00
8	.4448E+02	.6615E+03	-.3704E+03	.0000E+00	.8609E+01	.0000E+00
9	.4501E+02	.6215E+03	-.3397E+03	.0000E+00	.2010E+03	.0000E+00
10	.1969E+02	.5738E+03	-.3078E+03	.0000E+00	.3076E+03	.0000E+00
11	.2926E+03	.7523E+03	-.9125E+02	-.2886E+03	.4519E+04	-.7406E+03
12	.3402E+03	.4734E+03	-.1469E+02	.0000E+00	-.3560E+03	.0000E+00
13	.3127E+03	.6354E+03	-.4237E+02	.0000E+00	.3005E+03	.0000E+00
14	.2799E+03	.4583E+03	-.4556E+02	.0000E+00	.1571E+03	.0000E+00
15	.2493E+03	.4408E+03	-.5150E+02	.0000E+00	.2651E+01	.0000E+00
16	.2154E+03	.4063E+03	-.3736E+02	.0000E+00	-.1004E+03	.0000E+00
17	.1804E+03	.4272E+03	-.1429E+03	.0000E+00	-.8614E+03	-.5152E+02
18	.2130E+02	.1990E+03	.2827E+02	.0000E+00	.0000E+00	.0000E+00
115	.7963E+04	.0000E+00	-.8039E+04	.0000E+00	.0000E+00	.0000E+00
116	-.3619E+04	.1041E+05	-.7829E+03	.0000E+00	.0000E+00	.0000E+00
117	.7830E+03	.7957E+04	-.1829E+03	.0000E+00	.0000E+00	.0000E+00
118	-.1827E+04	.7958E+04	-.7852E+03	.0000E+00	.0000E+00	.0000E+00
119	.7840E+03	.1041E+05	-.3620E+04	.0000E+00	.0000E+00	.0000E+00
122	.2889E+03	.9019E+03	-.1059E+03	.0000E+00	-.5948E+03	-.8074E+02
123	.7655E+02	.6657E+02	-.1048E+03	.0000E+00	-.4700E+03	-.4667E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

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Load Case 5:UBC SEISMIC LOAD - NS & WE

BEAM LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Hx	My	Hz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb.	Shear		

BEAM NO. 1							
Gloads	1	-.1949E+02	-.6938E+02	.8238E+02	.4547E-12	-.2842E-13	-.1137E-12
Gloads	99	.3499E+02	-.2147E+03	-.2790E+02	.5325E+03	-.4263E+03	-.1023E+04
Lloads	1	.9973E+02	-.4936E+02	.1949E+02	-.1749E-13	.1159E-12	-.4547E-12
Lloads	99	.2089E+03	-.5681E+02	.3499E+02	-.3497E-13	.1108E+04	.5325E+03

BEAM NO. 2							
Gloads	18	-.2179E+02	.1337E+02	.9071E+01	.6395E-13	.0000E+00	.0000E+00
Gloads	114	-.3147E+02	-.1286E+03	.4419E+02	.3336E+03	.2227E+03	-.6392E+03
Lloads	18	.1561E+02	.4164E+01	-.2179E+02	.0000E+00	.0000E+00	.6395E-13
Lloads	114	.1360E+03	-.6003E+00	-.3147E+02	.5426E-14	-.6769E+03	.3336E+03

BEAM NO. 3							
Gloads	99	.1527E+03	-.8482E+02	-.4157E+03	.2936E+04	.4544E+03	.1123E+04
Gloads	108	-.1915E+03	-.1844E+02	.4544E+03	.1512E+03	.1378E+04	.2374E+03
Lloads	99	.4420E+03	-.8482E+02	.2793E+02	.1562E+03	.4544E+03	-.3139E+04
Lloads	108	-.4931E+03	-.1844E+02	-.8123E+01	-.1562E+03	-.1378E+04	-.2341E+03

BEAM NO. 4							
Gloads	114	-.2880E+03	.6029E+02	.2735E+03	-.6405E+03	-.1061E+04	-.7032E+03
Gloads	102	.2393E+03	.7167E+02	.1036E+04	.115E+04	-.8649E+03	.1211E+04
Lloads	114	.3975E+03	-.6052E+02	-.1521E+02	-.5444E+02	.1061E+04	-.0696E+03
Lloads	102	-.3274E+03	-.7167E+02	.1445E+02	.5444E+02	.8689E+03	.1675E+04

BEAM NO. 5							
Gloads	98	.8512E+03	.2689E+02	-.9995E+03	.5678E+03	-.9977E+03	.2301E+03
Gloads	115	-.8876E+03	.7031E+02	.1036E+04	.9956E+03	.5236E+03	.1138E+04
Lloads	98	-.1313E+04	-.2689E+02	-.1762E+02	-.2007E+03	.9977E+03	.5789E+03
Lloads	115	.1364E+04	-.7031E+02	.149E+02	-.2007E+03	.5236E+03	.1499E+04

BEAM NO. 6							
Gloads	92	-.2107E+02	.4088E+02	-.1583E+03	-.5520E+03	.2680E+04	.1894E+03
Gloads	115	-.8365E+01	-.3760E+02	.1877E+03	.4338E+03	.1706E+04	-.1435E+03
Lloads	92	-.1552E+03	-.4088E+02	.3773E+02	-.2354E+02	-.2680E+04	-.5831E+03
Lloads	115	.1719E+03	-.3760E+02	-.7583E+02	.2354E+02	-.1706E+04	.4563E+03

BEAM NO. 7							
Gloads	86	.3046E+03	.5917E+02	-.7979E+02	.4416E+03	-.2883E+04	.6061E+03
Gloads	115	-.3179E+03	-.2361E+02	.9318E+02	.4275E+03	-.1232E+04	.5528E+03
Lloads	86	.2915E+03	-.5917E+02	-.189E+03	-.1034E+02	.2883E+04	-.7498E+03
Lloads	115	-.3102E+03	.2361E+02	.1162E+03	.1034E+02	.1232E+04	-.6988E+03

BEAM NO. 8							
Gloads	134	.1889E+02	.8490E+01	-.5893E+01	.6771E+03	-.8177E+03	-.1208E-12

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
Lloads Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Maximum	Minimum	Cmb. Shear			
GLoads 99	-.2651E+02	-.1183E+02	1.355E+02	-.6771E+03	.1012E+04	-.3339E+02
LLoads 134	-.1889E+02	-.8490E+01	-.5985E+01	-.6771E+03	-.8177E+03	-.1208E-12
LLoads 99	-.2651E+02	-.1183E+02	1.355E+02	-.6771E+03	-.1012E+04	-.3339E+02
BEAM NO. 9						
GLoads 135	-.5455E+02	-.1341E+02	-.7789E+01	-.6541E+03	-.5297E+03	-.5613E+02
GLoads 114	-.4693E+02	-.3373E+02	-.1692E+00	-.6541E+03	-.4501E+03	-.4512E+03
LLoads 135	-.5455E+02	-.1341E+02	-.7789E+01	-.6541E+03	-.5297E+03	-.5613E+02
LLoads 114	-.4693E+02	-.3373E+02	-.1692E+00	-.6541E+03	-.4501E+03	-.4512E+03
BEAM NO. 10						
GLoads 122	-.5418E+01	-.9609E+02	9.206E+01	-.7412E+03	-.5080E+03	-.3947E+02
GLoads 124	-.2964E+01	-.7574E+02	-.1124E+01	-.5818E+03	-.5080E+03	-.1246E+02
LLoads 122	-.9609E+02	-.5418E+01	-.9206E+01	-.5080E+03	-.7412E+03	-.3947E+02
LLoads 124	-.7374E+02	-.2964E+01	-.1124E+01	-.5080E+03	-.8581E+03	-.1246E+02
BEAM NO. 11						
GLoads 124	-.4374E+01	-.1311E+03	-.7213E+01	-.2004E+04	-.4241E+03	-.1246E+02
GLoads 126	-.4008E+01	-.1088E+03	-.1169E+01	-.2070E+04	-.8434E+01	-.8434E+01
LLoads 124	-.1311E+03	-.4374E+01	-.7213E+01	-.4241E+03	-.2004E+04	-.1246E+02
LLoads 126	-.1088E+03	-.4008E+01	-.1169E+01	-.2070E+04	-.8434E+01	-.8434E+01
BEAM NO. 12						
GLoads 126	-.4246E+01	-.1391E+03	-.5188E+01	-.2549E+04	-.2542E+03	-.8434E+01
GLoads 128	-.4136E+01	-.1168E+03	-.3194E+01	-.2571E+04	-.2542E+03	-.7216E+01
LLoads 126	-.1391E+03	-.4246E+01	-.5188E+01	-.2542E+03	-.2549E+04	-.8434E+01
LLoads 128	-.1168E+03	-.4136E+01	-.3194E+01	-.2542E+03	-.2571E+04	-.7216E+01
BEAM NO. 13						
GLoads 128	-.3604E+01	-.1231E+02	-.1974E+01	-.2361E+04	-.1291E+03	-.7216E+01
GLoads 130	-.4778E+01	-.1007E+03	-.6408E+01	-.2313E+04	-.1291E+03	-.2013E+02
LLoads 128	-.1231E+02	-.3604E+01	-.1974E+01	-.1291E+03	-.2361E+04	-.7216E+01
LLoads 130	-.1007E+03	-.4778E+01	-.6408E+01	-.1291E+03	-.2313E+04	-.2013E+02
BEAM NO. 14						
GLoads 130	-.5970E+01	-.8311E+02	-.2962E+01	-.1298E+04	-.1301E+02	-.2013E+02
GLoads 132	-.4507E+01	-.5517E+02	-.7515E+01	-.1235E+04	-.1301E+02	-.8882E-13
LLoads 130	-.8311E+02	-.5970E+01	-.2962E+01	-.1301E+02	-.1298E+04	-.1301E+02
LLoads 132	-.5517E+02	-.4507E+01	-.7515E+01	-.1235E+04	-.8882E-13	-.8882E-13
TRUSS NO. 15						
GLoads 132	.0000E+00	-.3814E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads 134	.0000E+00	-.3814E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads 132	-.3814E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads 134	-.3814E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
BEAM NO. 16						
GLoads 123	-.9369E+01	-.2825E+03	-.8650E+01	-.8791E+03	-.3842E+03	-.9910E+02

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads Node	Fx	Fy	Fz	Mx	My	Mz
Lloads Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Maximum	Minimum	Cmb. Shear			
GLoads 125	-.9875E+00	-.2602E+03	-.2681E+00	-.9772E+03	-.3842E+03	-.1482E+02
LLoads 125	-.2825E+03	-.9369E+01	-.8650E+01	-.3842E+03	-.8791E+03	-.9910E+02
LLoads 125	-.2602E+03	-.9875E+00	-.2681E+00	-.3842E+03	-.9772E+03	-.1482E+02
BEAM NO. 17						
GLoads 2	-.6387E+01	-.1221E+03	-.6190E+01	-.6869E+03	-.6688E+03	-.5257E+02
GLoads 19	-.1995E+01	-.9970E+02	-.2192E+01	-.7309E+03	-.6688E+03	-.4259E+01
LLoads 2	-.1221E+03	-.6387E+01	-.6190E+01	-.6688E+03	-.6869E+03	-.5257E+02
LLoads 19	-.9970E+02	-.1995E+01	-.2192E+01	-.6688E+03	-.7309E+03	-.4259E+01
BEAM NO. 18						
GLoads 19	-.3918E+01	-.1166E+03	-.5293E+01	-.1780E+04	-.5192E+03	-.4259E+01
GLoads 35	-.4464E+01	-.9422E+02	-.3089E+01	-.1804E+04	-.5192E+03	-.1026E+02
LLoads 19	-.1166E+03	-.3918E+01	-.5293E+01	-.5192E+03	-.1780E+04	-.4259E+01
LLoads 35	-.9422E+02	-.4464E+01	-.3089E+01	-.5192E+03	-.1804E+04	-.1026E+02
BEAM NO. 19						
GLoads 35	-.4384E+01	-.1061E+03	-.3821E+01	-.2168E+04	-.2545E+03	-.1026E+02
GLoads 51	-.3977E+01	-.8379E+02	-.4561E+01	-.2160E+04	-.2545E+03	-.6001E+01
LLoads 35	-.1061E+03	-.4384E+01	-.3821E+01	-.2545E+03	-.2168E+04	-.1026E+02
LLoads 51	-.8379E+02	-.3977E+01	-.4561E+01	-.2545E+03	-.2160E+04	-.6001E+01
BEAM NO. 20						
GLoads 51	-.3617E+01	-.8953E+02	-.4235E+01	-.2046E+04	-.1015E+03	-.6001E+01
GLoads 67	-.4765E+01	-.6718E+02	-.4147E+01	-.2047E+04	-.1015E+03	-.1864E+02
LLoads 51	-.8953E+02	-.3617E+01	-.4235E+01	-.1015E+03	-.2046E+04	-.6001E+01
LLoads 67	-.6718E+02	-.4765E+01	-.4147E+01	-.1015E+03	-.2047E+04	-.1864E+02
BEAM NO. 21						
GLoads 67	-.5445E+01	-.7613E+02	-.3158E+01	-.1058E+04	-.3707E+03	-.1864E+02
GLoads 83	-.5033E+01	-.4819E+02	-.7319E+01	-.1000E+04	-.3707E+03	-.1297E+02
LLoads 67	-.7613E+02	-.5445E+01	-.3158E+01	-.3707E+03	-.1058E+04	-.1864E+02
LLoads 83	-.4819E+02	-.5033E+01	-.7319E+01	-.3707E+03	-.1000E+04	-.1297E+02
BEAM NO. 22						
GLoads 83	-.2154E+01	-.7506E+02	-.5502E+01	-.8943E+03	-.5279E+03	-.1297E+02
GLoads 99	-.4133E+01	-.5800E+01	-.1170E+02	-.1037E+04	-.5279E+03	-.2930E+02
LLoads 83	-.7506E+02	-.2154E+01	-.5502E+01	-.5279E+03	-.8943E+03	-.1297E+02
LLoads 99	-.5800E+01	-.4133E+01	-.1179E+02	-.5279E+03	-.1037E+04	-.2930E+02
BEAM NO. 23						
GLoads 5	-.3672E+01	-.7823E+02	-.3224E+01	-.4805E+02	-.1679E+04	-.4884E+02
GLoads 22	-.4710E+01	-.5588E+02	-.5158E+01	-.6932E+02	-.1679E+04	-.6027E+02
LLoads 5	-.7823E+02	-.3672E+01	-.3224E+01	-.1679E+04	-.4805E+02	-.4884E+02
LLoads 22	-.5588E+02	-.4710E+01	-.5158E+01	-.6932E+02	-.1679E+04	-.6027E+02
BEAM NO. 24						
GLoads 22	-.1759E+01	-.6643E+02	-.1687E+01	-.4299E+02	-.1086E+04	-.6089E+02

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Gloads	38	-.6623E+01	-.4407E+02	.6695E+01	-.1209E+02	-.1086E+04	.7377E+01
Lloads	22	-.6643E+02	-.1795E+01	.1687E+01	-.1086E+04	.4299E+02	-.6089E+02
Lloads	38	-.4407E+02	-.6623E+01	.6695E+01	-.1086E+04	-.1209E+02	.7377E+01
BEAM NO. 25							
Gloads	38	-.4093E+01	.6341E+02	.4241E+01	-.3405E+03	-.3405E+03	.3728E+02
Gloads	54	-.4288E+01	-.4106E+02	.4141E+01	-.2736E+02	-.3405E+03	-.3942E+02
Lloads	38	.6341E+02	-.4093E+01	.4241E+01	-.3405E+03	-.2846E+02	.3728E+02
Lloads	54	-.4106E+02	.4288E+01	.4141E+01	-.3405E+03	-.2736E+02	-.3942E+02
BEAM NO. 26							
Gloads	54	-.5105E+01	.5604E+02	.4897E+01	-.2909E+01	-.5741E+03	-.1774E+02
Lloads	38	-.3276E+01	-.3369E+02	.3485E+01	-.1844E+02	.5741E+03	.3786E+02
Lloads	54	.5604E+02	-.5105E+01	.4897E+01	-.5741E+03	.2909E+01	-.1774E+02
Lloads	70	-.3369E+02	.3276E+01	.3485E+01	-.5741E+03	-.1844E+02	.3786E+02
BEAM NO. 27							
Gloads	70	-.5719E+01	.6756E+02	.6493E+01	-.1274E+02	-.1383E+04	.5002E+02
Gloads	86	-.4758E+02	-.3962E+02	.3984E+01	-.4646E+02	-.1383E+04	-.3681E+02
Lloads	70	-.6762E+02	.5719E+01	.6493E+01	-.1383E+04	-.4714E+02	.5002E+02
Lloads	86	-.3962E+02	.4758E+01	.3984E+01	-.4646E+02	.1264E+02	-.3681E+02
BEAM NO. 28							
Gloads	86	.4329E+01	.5255E+02	-.1999E+01	-.5807E+02	-.4484E+03	-.2199E+02
Gloads	102	-.1062E+02	-.3578E+02	.8285E+01	-.2677E+02	-.4484E+03	-.1013E+03
Lloads	86	.5255E+02	-.4329E+01	-.1999E+01	-.4484E+03	.5807E+02	-.2199E+02
Lloads	102	-.3578E+02	.1062E+02	.8285E+01	-.4484E+03	-.2677E+02	-.1013E+03
BEAM NO. 29							
Gloads	11	-.6232E+01	.2559E+03	.8391E+01	-.1456E+03	-.3973E+04	.1519E+03
Gloads	28	-.6819E+01	-.2211E+03	.4460E+01	-.1001E+03	.3973E+04	-.1583E+03
Lloads	11	.2559E+03	.8391E+01	-.6232E+01	-.3973E+04	.1519E+03	.1456E+03
Lloads	28	-.2211E+03	-.6819E+01	.4460E+01	-.1001E+03	-.1583E+03	-.1001E+03
BEAM NO. 30							
Gloads	28	-.2091E+01	.1744E+03	.1349E+01	-.1155E+03	-.2756E+04	-.6615E+02
Gloads	44	-.1096E+02	-.1395E+02	.1170E+02	.1665E+01	-.2756E+04	-.3142E+02
Lloads	28	.1744E+03	-.1096E+02	.1395E+01	-.1155E+03	-.2756E+04	-.6615E+02
Lloads	44	-.1395E+03	.1170E+02	-.1096E+02	.2756E+04	-.3142E+02	.1665E+01
BEAM NO. 31							
Gloads	44	-.5738E+01	.1382E+03	.7436E+01	.5412E+02	-.1093E+04	.1092E+02
Gloads	60	-.7314E+01	-.1034E+03	.5615E+01	-.3408E+02	.1093E+04	-.2825E+02
Lloads	44	.1382E+03	.7436E+01	-.5738E+01	.1093E+04	.1092E+02	.5412E+02
Lloads	60	-.1034E+03	.5615E+01	-.7314E+01	.1093E+04	-.2825E+02	-.3408E+02
BEAM NO. 32							
Gloads	60	-.7856E+01	.1082E+03	.6228E+01	-.5194E+01	.6936E+03	-.3807E+01

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear	Torsion	Y-Bending	Z-Bending
Gloads	76	-.5195E+01	-.7344E+02	.6824E+01	-.1364E+01	-.6936E+03	.3309E+02
Lloads	60	.1082E+03	.6228E+01	-.7856E+01	.6936E+03	-.3807E+01	-.5194E+01
Lloads	76	-.7344E+02	.6824E+01	-.5195E+01	-.6936E+03	.3309E+02	-.1364E+01
BEAM NO. 33							
Gloads	76	-.8558E+01	.9560E+02	.9713E+01	.5949E+02	-.2168E+04	.8205E+02
Gloads	92	-.7756E+01	-.5209E+02	.6601E+01	-.1649E+02	-.2168E+04	-.7104E+02
Lloads	76	.9560E+02	.9713E+01	-.8558E+01	-.2168E+04	.8205E+02	.5949E+02
Lloads	92	-.5209E+02	.6601E+01	-.7756E+01	-.2168E+04	-.7104E+02	-.1649E+02
BEAM NO. 34							
Gloads	92	-.1108E+02	.5365E+02	.1910E+02	.1621E+03	-.1016E+04	-.5704E+02
Gloads	108	-.1296E+01	-.2755E+02	.9309E+01	.7230E+02	-.1016E+04	-.1592E+03
Lloads	92	.5365E+02	.1910E+02	-.1108E+02	.1016E+04	-.5704E+02	.1621E+03
Lloads	108	-.2755E+02	-.9309E+01	.1296E+01	-.1016E+04	.1592E+03	.7230E+02
BEAM NO. 35							
Gloads	17	-.7553E+01	-.1889E+03	.7788E+01	-.1049E+04	.6664E+03	.7638E+02
Gloads	34	-.8283E+00	-.1666E+03	.5935E+00	.1128E+04	-.6664E+03	-.2406E+01
Lloads	17	.1889E+03	.7553E+01	.7788E+01	-.1049E+04	.6664E+03	.7638E+02
Lloads	34	-.1666E+03	.8283E+00	.5935E+00	.1128E+04	-.6664E+03	-.2406E+01
BEAM NO. 36							
Gloads	34	-.3923E+01	-.1753E+03	.5611E+01	-.2628E+04	-.4500E+03	.2406E+01
Gloads	50	-.4459E+01	-.1500E+03	.2770E+01	-.2659E+04	-.4500E+03	-.8301E+01
Lloads	34	.1753E+03	.3923E+01	.5611E+01	-.4500E+03	.2628E+04	.2406E+01
Lloads	50	-.1550E+03	.4459E+01	.2770E+01	-.4500E+03	-.2659E+04	-.8301E+01
BEAM NO. 37							
Gloads	50	-.3542E+01	.1366E+03	.4020E+01	.2996E+04	-.1651E+03	.8301E+01
Gloads	66	.4840E+01	-.1143E+03	.4362E+01	.2992E+04	-.1651E+03	-.258E+02
Lloads	50	.1366E+03	.3542E+01	.4020E+01	.1651E+03	.2996E+04	.8301E+01
Lloads	66	-.1143E+03	.4840E+01	.4362E+01	-.1651E+03	-.2992E+04	-.2258E+02
BEAM NO. 38							
Gloads	66	-.7047E+01	.9944E+02	.2899E+01	-.2321E+04	-.2958E+03	.2258E+02
Gloads	82	-.1335E+01	-.7709E+02	.5483E+01	.2293E+04	.2958E+03	.4025E+02
Lloads	66	.9944E+02	.7047E+01	-.2899E+01	-.2958E+03	.2321E+04	.2258E+02
Lloads	82	-.7709E+02	.1335E+01	.5483E+01	-.2958E+03	-.2293E+04	.4025E+02
BEAM NO. 39							
Gloads	82	.4275E+01	.6996E+02	-.3426E+01	.1398E+04	-.3387E+03	-.4025E+02
Gloads	98	-.1475E+02	-.4202E+02	.1390E+02	-.1636E+04	.3387E+03	-.2214E+03
Lloads	82	.6996E+02	-.4275E+01	-.3426E+01	-.3387E+03	-.1398E+04	-.4025E+02
Lloads	98	-.4202E+02	.1475E+02	.1390E+02	-.3387E+03	.1636E+04	-.2214E+03
BEAM NO. 40							
Gloads	98	-.3048E+02	.4926E+02	.3052E+02	.1785E+04	.2985E+03	-.8759E+01

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Hx	My	Mz
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Loads	114	.2419E+02	-.3250E+02	-.2423E+02	-.1333E+04	-.2985E+03	.4598E+03
Lloads	98	.4926E+02	-.3048E+02	-.3052E+02	-.2985E+03	-.1785E+04	-.8759E+01
Lloads	114	-.3250E+02	-.2419E+02	-.2423E+02	-.2985E+03	-.1333E+04	-.4598E+03
BEAM NO. 41							
Loads	99	-.6684E+01	.1541E+01	.2849E+02	.7591E+03	-.1601E+04	-.3775E+02
Lloads	100	.1477E+01	-.1234E+02	-.2328E+02	-.7591E+03	-.1247E+04	-.3606E+02
Lloads	99	-.6684E+01	-.1541E+01	-.2849E+02	.7591E+03	.1601E+04	.3775E+02
Lloads	100	.1477E+01	-.1234E+02	-.2328E+02	-.7591E+03	-.1247E+04	-.3606E+02
BEAM NO. 42							
Loads	100	-.4519E+01	.8244E+01	.1835E+02	-.1166E+04	-.6460E+02	.3606E+02
Lloads	101	-.6803E+00	-.5641E+01	-.1314E+02	-.1166E+04	-.1506E+03	-.1828E+02
Lloads	100	-.4519E+01	.8244E+01	.1835E+02	-.1166E+04	-.6460E+02	.3606E+02
Lloads	101	-.6803E+00	-.5641E+01	-.1314E+02	-.1166E+04	-.1506E+03	-.1828E+02
BEAM NO. 43							
Loads	101	-.3361E+01	.1049E+01	.2462E+02	.9390E+03	-.1172E+04	-.1828E+02
Lloads	102	-.1846E+01	-.1284E+02	-.1941E+02	-.9390E+03	-.1473E+04	-.9882E+02
Lloads	101	-.3361E+01	.1049E+01	.2462E+02	.9390E+03	-.1172E+04	-.1828E+02
Lloads	102	-.1846E+01	-.1284E+02	-.1941E+02	-.9390E+03	-.1473E+04	-.9882E+02
BEAM NO. 44							
Loads	102	-.1689E+02	.9275E+01	.1181E+03	.5044E+02	.1503E+04	-.5626E+03
Lloads	103	.1099E+02	-.6473E+01	-.1059E+03	-.2872E+02	-.1287E+04	-.5626E+03
Lloads	102	-.1689E+02	.9275E+01	.1181E+03	.5044E+02	.1503E+04	-.5626E+03
Lloads	103	.1059E+03	-.6473E+01	-.1059E+02	-.5626E+03	-.1287E+04	-.2872E+02
BEAM NO. 45							
Loads	103	-.1938E+02	.8438E+01	.7537E+02	.2872E+02	-.1980E+03	-.5735E+03
Lloads	104	.1347E+02	-.7310E+01	-.6566E+02	-.1998E+02	-.4526E+03	-.1998E+02
Lloads	103	-.1938E+02	.8438E+01	.7537E+02	.2872E+02	-.1980E+03	-.5735E+03
Lloads	104	.6946E+02	-.7310E+01	-.1347E+02	-.5735E+03	-.4526E+03	-.2872E+02
BEAM NO. 46							
Loads	104	-.9117E+01	.7912E+01	.5994E+02	.1998E+02	-.1522E+04	-.1126E+03
Lloads	105	.3212E+01	-.7836E+01	-.5403E+02	-.1940E+02	.1618E+04	-.1126E+03
Lloads	104	-.9117E+01	.7912E+01	.5994E+02	.1998E+02	-.1522E+04	-.1126E+03
Lloads	105	.5403E+02	-.7836E+01	-.3212E+01	-.1126E+03	-.1618E+04	-.1940E+02
BEAM NO. 47							
Loads	105	-.3150E+01	.7847E+01	.6303E+02	.1940E+02	-.1882E+04	.1861E+03
Lloads	106	-.2755E+01	.7900E+01	-.5712E+02	-.1981E+02	.1885E+04	-.1861E+03
Lloads	105	-.3150E+01	.7847E+01	.6303E+02	.1940E+02	-.1882E+04	.1861E+03
Lloads	106	.5712E+02	-.7900E+01	-.2755E+01	-.1861E+03	-.1885E+04	-.1981E+02
BEAM NO. 48							
Loads	106	.5795E+01	-.7514E+01	.8817E+02	-.1981E+02	-.1411E+04	.5422E+03

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Hx	My	Mz
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Stress	Node	Max	Min	Cmb	Torsion	Y-Bending	Z-Bending
Loads	107	-.1170E+02	.8233E+01	-.8226E+02	-.2538E+02	.1275E+04	-.5422E+03
Lloads	106	-.8817E+02	-.7514E+01	-.5795E+01	.5422E+03	.1411E+04	-.1981E+02
Lloads	107	.8226E+02	-.8233E+01	.1170E+02	.5422E+03	-.1275E+04	.2538E+02
BEAM NO. 49							
Loads	107	.5344E+01	.6001E+01	.1492E+03	.2538E+02	-.3853E+03	.5056E+03
Lloads	108	-.1125E+02	.9747E+01	-.1433E+03	-.5441E+02	.2567E+03	-.5056E+03
Lloads	107	.5344E+01	.6001E+01	.1492E+03	.2538E+02	-.3853E+03	.5056E+03
Lloads	108	-.1433E+03	-.9747E+01	.1125E+02	.5056E+03	-.2567E+03	.5441E+02
BEAM NO. 50							
Loads	108	.6263E+02	.7533E+01	.9515E+01	.6020E+03	.3881E+03	.2031E+02
Lloads	109	-.6841E+02	.7876E+01	-.3755E+01	-.4806E+03	-.2291E+02	.3881E+03
Lloads	108	.6263E+02	.7533E+01	.9515E+01	.6020E+03	.3881E+03	.2031E+02
Lloads	109	-.6841E+02	.7876E+01	-.3755E+01	-.6020E+03	-.4866E+03	.2291E+02
BEAM NO. 51							
Loads	109	.3224E+02	.7939E+01	.1124E+02	.6892E+03	.1277E+04	.2291E+02
Lloads	110	-.3802E+02	.7470E+01	-.5463E+01	-.6892E+03	-.1404E+04	-.1935E+02
Lloads	109	.3224E+02	.7939E+01	.1124E+02	.6892E+03	.1277E+04	.2291E+02
Lloads	110	-.3802E+02	-.7470E+01	.5463E+01	-.6892E+03	-.1404E+04	.1935E+02
BEAM NO. 52							
Loads	110	.1656E+02	.7541E+01	.2401E+01	.3374E+03	.1867E+04	.1935E+02
Lloads	111	-.2233E+02	.7686E+01	-.3377E+01	-.3374E+03	-.1859E+04	-.2183E+02
Lloads	110	.1656E+02	.7541E+01	.2401E+01	.3374E+03	.1867E+04	.1935E+02
Lloads	111	-.2233E+02	-.7686E+01	-.3377E+01	-.3374E+03	-.1859E+04	.2183E+02
BEAM NO. 53							
Loads	111	.5056E+01	.8451E+01	.2901E+01	.2841E+02	.1649E+04	.2183E+02
Lloads	112	.1083E+02	-.6958E+01	.879E+01	.2841E+02	.1560E+04	-.1051E+02
Lloads	111	.5056E+01	.8451E+01	.2901E+01	.2841E+02	.1649E+04	.2183E+02
Lloads	112	-.1083E+02	-.6958E+01	-.8759E+01	.2841E+02	.1560E+04	-.1051E+02
BEAM NO. 54							
Loads	112	-.1235E+02	.1325E+01	-.1333E+02	.6913E+03	.5869E+03	.1051E+02
Lloads	113	.6575E+01	-.1408E+02	.1912E+02	-.6913E+03	-.3408E+03	-.1073E+03
Lloads	112	-.1235E+02	-.1325E+01	.1333E+02	.6913E+03	.5869E+03	.1051E+02
Lloads	113	.6575E+01	-.1408E+02	.1912E+02	-.6913E+03	-.3408E+03	-.1073E+03
BEAM NO. 55							
Loads	113	-.5816E+02	.4559E+02	-.4485E+01	.3526E+03	-.7627E+03	.1073E+03
Lloads	114	.5238E+02	-.3019E+02	.1026E+02	-.3526E+03	.8745E+03	.4674E+03
Lloads	113	-.5816E+02	.4559E+02	-.4485E+01	.3526E+03	-.7627E+03	.1073E+03
Lloads	114	.5238E+02	-.3019E+02	.1026E+02	-.3526E+03	.8745E+03	.4674E+03
BEAM NO. 56							
Loads	115	-.6426E+04	.1600E+05	.6426E+04	-.1371E+06	.9438E+01	-.1371E+06

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads Node	Fx	Fy	Fz	Mx	My	Mz
Loads Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Maximum	Minimum	Cmb. Shear			
Loads 120	.6228E+04	-.1547E+05	-.6228E+04	-.1982E+06	-.9438E+01	-.1982E+06
Loads 115	-.1600E+05	-.3660E+04	-.8318E+04	-.9438E+01	.1775E+06	-.7813E+05
Loads 120	-.1547E+05	.3548E+04	.8062E+04	.9438E+01	.2566E+06	-.1129E+06
BEAM NO. 57						
Loads 120	.5022E+04	-.1453E+05	-.5022E+04	.1982E+06	.9438E+01	-.1982E+06
Loads 121	-.5256E+04	.1515E+05	.5255E+04	.1230E+06	-.9438E+01	.1230E+06
Loads 120	.1453E+05	-.2860E+04	.6501E+04	-.9438E+01	-.2566E+06	.1129E+06
Loads 121	-.1515E+05	-.2993E+04	-.6803E+04	.9438E+01	-.1592E+06	.7003E+05
BEAM NO. 58						
Loads 116	-.2349E+04	.2745E+04	.4252E+03	.1882E+05	.2278E+03	.2379E+05
Loads 121	.2271E+04	-.2536E+04	-.3567E+03	.1882E+05	-.8542E+04	.3166E+05
Loads 116	-.2349E+04	.2745E+04	.4352E+03	.1882E+05	.2278E+03	.2379E+05
Loads 121	.2271E+04	-.2536E+04	-.3567E+03	.1882E+05	-.8542E+04	.3166E+05
BEAM NO. 59						
Loads 117	-.4352E+03	.5247E+04	.2349E+04	.8981E+04	.2317E+03	.1882E+05
Loads 121	.3567E+03	-.5038E+04	-.2270E+04	-.1170E+06	-.8547E+04	-.1882E+05
Loads 117	-.2349E+04	.5247E+04	.4352E+03	.1882E+05	.2317E+03	.8981E+04
Loads 121	-.2270E+04	-.5038E+04	-.3567E+03	-.1882E+05	-.8547E+04	-.1170E+06
BEAM NO. 60						
Loads 118	-.2349E+04	.5247E+04	.4352E+03	.1881E+05	-.2115E+03	.8978E+04
Loads 121	.2271E+04	-.5038E+04	-.3577E+03	-.1881E+05	.8547E+04	-.1170E+06
Loads 118	-.2349E+04	.5247E+04	.4352E+03	.1881E+05	-.2115E+03	.8978E+04
Loads 121	-.2271E+04	-.5038E+04	-.3577E+03	-.1881E+05	.8547E+04	-.1170E+06
BEAM NO. 61						
Loads 119	-.4362E+03	.2745E+04	.2292E+04	.2379E+05	-.2154E+03	.1881E+05
Loads 121	.3577E+03	-.2536E+04	-.2270E+04	.3166E+05	.8551E+04	-.1881E+05
Loads 119	-.2349E+04	.2745E+04	.4362E+03	.1881E+05	-.2154E+03	.2379E+05
Loads 121	-.2270E+04	-.2536E+04	-.3577E+03	.1881E+05	.8551E+04	-.3166E+05
BEAM NO. 62						
Loads 125	-.2706E+01	.1719E+03	.6289E+01	-.2271E+04	.2562E+03	-.1482E+02
Loads 127	.5676E+01	-.1495E+03	.2092E+01	.2317E+04	-.2562E+03	-.1784E+02
Loads 125	-.1719E+03	.2706E+01	.629E+01	.252E+03	.2271E+04	-.1482E+02
Loads 127	-.1495E+03	.5676E+01	.2092E+01	-.2562E+03	-.2317E+04	-.1784E+02
BEAM NO. 63						
Loads 127	-.4827E+01	.1147E+03	.2810E+01	-.2535E+04	-.3265E+01	-.1784E+02
Loads 129	.3554E+01	-.9234E+02	.5571E+01	.2522E+04	.3265E+01	-.3841E+01
Loads 127	-.1147E+03	.4827E+01	.2810E+01	-.3265E+01	.2535E+04	-.1784E+02
Loads 129	-.9234E+02	.3554E+01	.5571E+01	.3265E+01	-.2522E+04	-.3841E+01
BEAM NO. 64						
Loads 129	-.3318E+01	.7754E+02	-.1833E+01	-.1427E+04	-.4708E+03	.3841E+01

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads Node	Fx	Fy	Fz	Mx	My	Mz
Loads Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress Node	Maximum	Minimum	Cmb. Shear			
Loads 131	-.5064E+01	-.5519E+02	.1021E+02	.1294E+04	.4708E+03	-.2305E+02
Loads 129	.7754E+02	.3318E+01	-.1833E+01	-.4708E+03	.1427E+04	.3841E+01
Loads 131	-.5519E+02	.5064E+01	.1021E+02	.4708E+03	-.1294E+04	-.2305E+02
BEAM NO. 65						
Loads 131	-.5427E+01	.8227E+02	.6384E+01	.3521E+03	-.1303E+03	.2305E+02
Loads 133	-.5051E+01	-.5433E+02	.4093E+01	-.3206E+03	.1303E+03	-.1787E+02
Loads 131	.8227E+02	.5427E+01	.6384E+01	-.1303E+03	-.3521E+03	.2305E+02
Loads 133	-.5433E+02	.5051E+01	.4093E+01	.1303E+03	.3206E+03	-.1787E+02
BEAM NO. 66						
Loads 133	-.8243E+00	.3437E+02	-.5781E+01	.7598E+03	.6870E+03	.1787E+02
Loads 135	.3462E+01	-.1760E+02	.1207E+02	.9071E+03	-.6870E+03	-.5613E+02
Loads 133	.3437E+02	.8243E+00	-.5781E+01	-.6870E+03	-.7598E+03	.1787E+02
Loads 135	-.1760E+02	.5462E+01	.1207E+02	.6870E+03	.9071E+03	-.5613E+02
BEAM NO. 67						
Loads 115	-.9648E+03	-.4049E+04	.9382E+02	.3331E+05	-.2407E+04	.3499E+05
Loads 116	.5263E+03	.5219E+04	.3447E+03	-.1882E+05	-.2278E+03	-.2379E+05
Loads 115	.4157E+04	-.2249E+03	.9382E+02	-.3591E+04	.3420E+05	.3499E+05
Loads 116	-.5229E+04	-.4157E+03	.3447E+03	.3591E+04	-.1882E+05	-.2379E+05
BEAM NO. 68						
Loads 115	-.9327E+02	-.3994E+04	-.8275E+03	.3372E+05	-.2614E+04	.3337E+05
Loads 117	.3453E+03	.5164E+04	.1266E+04	-.8981E+04	-.2317E+03	-.1882E+05
Loads 115	.4078E+04	-.9963E+02	.9327E+02	-.3595E+04	.3372E+05	-.3372E+05
Loads 117	-.5307E+04	.3219E+03	.3453E+03	.3595E+04	-.1848E+05	.8981E+04
BEAM NO. 69						
Loads 115	.8281E+03	-.3994E+04	.9656E+02	.3332E+05	.2126E+04	.3379E+05
Loads 118	-.1267E+04	.5164E+04	.349E+03	-.1881E+05	.2154E+03	-.8978E+04
Loads 115	.4078E+04	-.1002E+03	-.9365E+02	.3574E+04	-.3322E+05	-.3379E+05
Loads 118	-.5307E+04	.3225E+03	-.3449E+03	.3574E+04	-.1847E+05	.8978E+04
BEAM NO. 70						
Loads 115	-.9311E+02	-.4049E+04	.9654E+03	.3493E+05	.2434E+04	.3338E+05
Loads 119	.3434E+03	.5219E+04	.5268E+03	-.2379E+05	.2154E+03	-.1881E+05
Loads 115	.4157E+04	-.2255E+03	-.9311E+02	.3577E+04	.3328E+05	.3493E+05
Loads 119	-.5229E+04	-.4152E+03	-.3454E+03	-.3577E+04	-.1847E+05	-.2379E+05

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Load Case 5:UBC SEISMIC LOAD - NS & WE

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
WITHIN SPECIFIED RANGE 1- 70

Maximum (absolute) Stress = .1380E+04 at BEAM 56

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
56	.4396E+03	-.2016E+03	-.4580E+03	.5364E-03	.6533E+03	-.2874E+03
	Maximum	Minimum	Cmb. Shear			
	.1380E+04	-.5011E+03	.6902E+03			

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Load Case 5:UBC SEISMIC LOAD - NS & WE

PLATE LOADS AND/OR STRESSES

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
*****PLATE 1****							
Gloads	2	-.3233E+02	.5685E+02	.1916E+02	.1843E+02	.1673E+03	.0000E+00
Gloads	3	-.1616E+03	.3623E+03	.1388E+02	.1968E+03	.5553E+01	.0000E+00
Gloads	20	.6889E+02	-.5011E+02	-.1130E+02	.3489E+03	-.2138E+03	.0000E+00
Gloads	19	.1251E+03	-.3691E+03	-.2173E+02	.1626E+03	.7618E+02	.0000E+00
*****PLATE 2****							
Gloads	3	-.6176E+02	.1558E+01	.4767E+01	-.1968E+03	.2060E+03	.0000E+00
Gloads	4	-.1696E+03	.3641E+03	.9033E+01	.2393E+03	.6915E+02	.0000E+00
Gloads	21	.9613E+02	.8331E+01	-.3512E+01	.3213E+03	-.2280E+03	.0000E+00
Gloads	20	.1352E+03	-.3740E+03	-.1029E+02	.6021E+02	.2838E+02	.0000E+00
*****PLATE 3****							
Gloads	4	-.9410E+02	-.5863E+02	-.8959E+01	-.2393E+03	.2148E+03	.0000E+00
Gloads	5	-.1700E+03	.3553E+03	.3674E+01	.1669E+03	-.2103E+03	.0000E+00
Gloads	22	.1278E+03	.6980E+02	.2570E+02	.1674E+03	-.1239E+02	.0000E+00
Gloads	21	.1363E+03	-.3665E+03	-.2041E+02	-.2112E+03	-.1126E+02	.0000E+00
*****PLATE 4****							
Gloads	5	-.7560E+01	-.4279E+02	.9027E+02	.0000E+00	.2451E+03	-.2015E+03
Gloads	6	.8304E+01	-.3918E+03	.2106E+03	.0000E+00	-.2502E+03	-.2359E+03
Gloads	23	.2308E+02	.3004E+02	-.1062E+03	.1894E+03	.6555E+01	.0000E+00
Gloads	22	-.2382E+02	-.3791E+03	-.1910E+03	.0000E+00	-.2385E+01	.2076E+03
*****PLATE 5****							
Gloads	6	-.1329E+02	-.2605E+02	.8995E+02	.0000E+00	.6492E+02	.2359E+03
Gloads	7	-.1071E+02	.4417E+03	.2343E+03	.0000E+00	.2433E+03	-.1320E+03
Gloads	24	.1937E+02	.1851E+02	-.1063E+03	-.5726E+02	.8524E+02	.0000E+00
Gloads	23	.4633E+01	-.4342E+03	-.2180E+03	.3669E+03	-.2592E+03	.0000E+00
*****PLATE 6****							
Gloads	7	-.1855E+02	-.2103E+02	.9396E+02	.0000E+00	-.5762E+02	.1320E+03
Gloads	8	-.1349E+02	.4774E+03	.2537E+03	.0000E+00	.1827E+03	.6219E+01
Gloads	25	.2031E+02	.1600E+02	-.1113E+03	-.2130E+03	.2229E+03	.0000E+00
Gloads	24	.1173E+02	-.4724E+03	-.2364E+03	-.3537E+03	-.2424E+03	.0000E+00
*****PLATE 7****							
Gloads	8	-.1306E+02	-.2113E+02	.1018E+03	.0000E+00	-.1922E+03	-.6219E+01
Gloads	9	-.1874E+02	.5083E+03	.2676E+03	.0000E+00	.4321E+03	-.1677E+03
Gloads	26	.1088E+02	.1607E+02	-.1227E+03	.3608E+03	.2419E+03	.0000E+00
Gloads	25	.2093E+02	-.5032E+03	-.2468E+03	-.1975E+03	-.2148E+03	.0000E+00
*****PLATE 8****							
Gloads	9	-.8164E+01	-.2460E+02	.1160E+03	.0000E+00	-.2451E+03	-.1477E+03
Gloads	10	-.1135E+02	.5434E+03	.2798E+03	.0000E+00	-.8598E+02	.2159E+03
Gloads	27	.2239E+00	.1840E+02	-.1446E+03	-.3340E+03	.2284E+03	.0000E+00
Gloads	26	.1974E+02	-.5372E+03	-.2512E+03	-.2710E+02	-.7673E+02	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
PLATE 9							
Gloads	10	.9932E+01	.4391E+01	.1185E+03	.0000E+00	-.2231E+03	-.2159E+03
Gloads	11	-.1134E+02	.6071E+03	.2882E+03	.0000E+00	-.2615E+03	.2222E+03
Gloads	28	-.2283E+02	-.2981E+02	-.1638E+03	.0000E+00	-.7366E+02	.2140E+03
Gloads	27	.2424E+02	-.5816E+03	.2429E+03	.1893E+03	.2863E+02	.0000E+00
PLATE 10							
Gloads	11	-.6552E+00	.1734E+03	.2393E+02	-.3775E+03	-.3049E+03	.0000E+00
Gloads	12	-.2194E+03	.4798E+03	.9812E+01	-.2146E+03	-.2153E+03	.0000E+00
Gloads	29	-.3143E+02	-.1625E+03	-.2798E+02	-.2016E+03	-.8275E+02	.0000E+00
Gloads	28	-.1873E+03	-.4908E+03	.1386E+02	.3493E+03	-.1357E+03	.0000E+00
PLATE 11							
Gloads	12	.6701E+01	.1521E+03	.6694E+01	.2146E+03	-.1427E+03	.0000E+00
Gloads	13	-.2318E+03	.4804E+03	.5184E+01	-.2316E+03	-.2707E+03	.0000E+00
Gloads	30	-.1169E+02	-.1359E+03	.1915E+02	-.4914E+02	-.1076E+02	.0000E+00
Gloads	29	-.2134E+03	-.4786E+03	.7275E+01	.3274E+03	-.2123E+03	.0000E+00
PLATE 12							
Gloads	13	.7509E+01	.1497E+03	.2021E+02	.2316E+03	-.3302E+02	.0000E+00
Gloads	14	-.2483E+03	.5019E+03	.1167E+02	-.1146E+03	-.2513E+03	.0000E+00
Gloads	31	-.6389E+01	-.1527E+03	.2279E+02	.1220E+03	-.1382E+03	.0000E+00
Gloads	30	.2344E+03	-.4989E+03	-.9097E+01	.4624E+03	.2539E+03	.0000E+00
PLATE 13							
Gloads	14	.7248E+01	.1528E+03	.4782E+02	.1146E+03	.9061E+02	.0000E+00
Gloads	15	-.2603E+03	.5245E+03	.2080E+02	.1965E+02	-.1503E+03	.0000E+00
Gloads	32	-.6349E+01	-.1575E+03	.1781E+02	.3074E+03	-.1597E+03	.0000E+00
Gloads	31	-.2467E+03	-.5198E+03	-.1902E+02	.3684E+03	.2649E+03	.0000E+00
PLATE 14							
Gloads	15	.6383E+01	.1612E+03	.1351E+02	-.1965E+02	.1440E+03	.0000E+00
Gloads	16	-.2718E+03	.5533E+03	.8539E+01	-.1822E+01	-.6187E+02	.0000E+00
Gloads	33	-.9929E+01	-.1683E+03	.4306E+01	.2466E+03	-.1808E+03	.0000E+00
Gloads	32	.2554E+03	-.5461E+03	.1762E+02	.2579E+03	-.1609E+03	.0000E+00
PLATE 15							
Gloads	16	-.4197E+01	.1768E+03	.1091E+02	.1822E+01	-.1595E+03	.0000E+00
Gloads	17	-.2841E+03	.5944E+03	.4249E+02	.3876E+03	.6702E+02	.0000E+00
Gloads	34	-.1942E+02	-.1883E+03	-.2235E+02	.5804E+03	-.1142E+02	.0000E+00
Gloads	33	.2605E+03	-.5828E+03	-.3105E+02	.2050E+03	.9043E+02	.0000E+00
PLATE 16							
Gloads	19	-.9380E+02	.6926E+03	.8376E+01	-.1818E+03	.3205E+03	.0000E+00
Gloads	20	-.5857E+02	.3090E+03	.7575E+00	-.3468E+02	-.2058E+03	.0000E+00
Gloads	36	-.9305E+02	-.6376E+02	-.4485E+01	.2583E+03	-.3937E+03	.0000E+00
Gloads	35	-.5931E+02	-.3145E+03	-.485E+01	.1637E+03	.2230E+03	.0000E+00
PLATE 17							
Gloads	20	-.1137E+03	.3000E+02	-.1107E+02	-.2540E+03	.3913E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	21	-.5919E+02	.2986E+03	.2030E+02	-.1155E+03	-.4961E+02	.0000E+00
Gloads	37	-.1171E+03	-.2042E+02	-.1108E+02	-.3399E+03	-.2035E+03	.0000E+00
Gloads	36	.5571E+02	-.3082E+03	-.2030E+02	.1533E+01	.2906E+03	.0000E+00
PLATE 18							
Gloads	21	-.1413E+03	-.2561E+02	-.2828E+02	-.2255E+03	.2889E+03	.0000E+00
Gloads	22	-.5214E+02	.2691E+03	.9220E+01	-.5507E+02	.6272E+03	.0000E+00
Gloads	38	.1436E+03	.4234E+02	.4196E+02	-.2828E+02	.6391E+02	.0000E+00
Gloads	37	.4985E+02	-.2858E+03	.2290E+02	-.1105E+03	.7942E+02	.0000E+00
PLATE 19							
Gloads	22	-.1132E+02	-.6114E+02	.1152E+03	.0000E+00	.3404E+03	-.8642E+02
Gloads	23	.3345E+02	.3508E+03	.1662E+03	.2459E+03	.3552E+03	.0000E+00
Gloads	39	.2852E+02	.4854E+02	-.1034E+03	.1082E+03	.1386E+03	.0000E+00
Gloads	38	-.5066E+02	-.3382E+03	-.1779E+03	.0000E+00	.1264E+03	-.4643E+02
PLATE 20							
Gloads	23	-.2497E+02	-.4314E+02	.1219E+03	-.6855E+02	-.8943E+02	.0000E+00
Gloads	24	.1207E+02	.3889E+03	.1781E+03	.2627E+03	.5042E+03	.0000E+00
Gloads	40	.2615E+02	.3681E+02	-.1184E+03	-.9630E+02	.4339E+03	.0000E+00
Gloads	39	-.1324E+02	-.3826E+03	-.1815E+03	-.3820E+03	-.2564E+03	.0000E+00
PLATE 21							
Gloads	24	-.6980E+01	-.3154E+02	.1284E+03	.1482E+03	-.3470E+03	.0000E+00
Gloads	25	-.3131E+01	.4123E+03	.1800E+03	.2057E+03	.4756E+03	.0000E+00
Gloads	41	.9376E+01	.2540E+02	.1317E+03	-.2828E+02	.4718E+03	.0000E+00
Gloads	40	.7351E+00	-.4062E+03	-.1767E+03	.2929E+03	-.5036E+03	.0000E+00
PLATE 22							
Gloads	25	-.1913E+01	-.2162E+02	.1418E+03	.2047E+03	-.4838E+03	.0000E+00
Gloads	26	-.9390E+01	.4326E+03	.1742E+03	.1273E+03	.3209E+03	.0000E+00
Gloads	42	-.6534E+00	.1596E+02	-.1506E+03	.3024E+03	.4782E+03	.0000E+00
Gloads	41	.1196E+02	-.4269E+03	-.1654E+03	-.2783E+03	-.4710E+03	.0000E+00
PLATE 23							
Gloads	26	.1496E+02	-.7928E+01	.1635E+03	.2606E+03	-.4861E+03	.0000E+00
Gloads	27	-.2381E+02	.4541E+03	.1556E+03	-.5301E+02	.4058E+02	.0000E+00
Gloads	43	-.1731E+02	-.1294E+01	-.1767E+03	-.3304E+03	.2107E+03	.0000E+00
Gloads	42	.2615E+02	-.4449E+03	-.1424E+03	-.7178E+02	-.4025E+03	.0000E+00
PLATE 24							
Gloads	27	.3598E+02	.1260E+02	.1958E+03	.1978E+03	-.2976E+03	.0000E+00
Gloads	28	-.2240E+02	.4223E+03	.9794E+02	.0000E+00	-.4432E+03	-.1046E+02
Gloads	44	-.4768E+02	-.5414E+01	.2013E+03	.0000E+00	-.2554E+03	.4906E+01
Gloads	43	.3410E+02	-.4295E+03	.9327E+02	.1164E+03	-.8999E+02	.0000E+00
PLATE 25							
Gloads	28	-.9741E+02	.4959E+02	.1039E+02	-.1336E+03	-.5651E+03	.0000E+00
Gloads	29	-.1603E+03	.4382E+03	-.4460E+02	-.2483E+03	-.2296E+03	.0000E+00
Gloads	45	.7585E+02	-.6444E+02	-.3284E+02	-.1958E+03	.5182E+01	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	44	.1818E+03	-.4234E+03	.6705E+02	-.1750E+03	-.3850E+03	.0000E+00
		*****PLATE 26****					
Loads	29	-.4910E+02	.1084E+03	.2990E+02	.1225E+03	-.6548E+02	.0000E+00
Loads	30	-.1765E+03	.4369E+03	-.1789E+02	-.2947E+03	-.4599E+03	.0000E+00
Loads	46	.4888E+02	-.1097E+03	-.3020E+02	.4923E+02	-.3285E+03	.0000E+00
Loads	45	-.1767E+03	-.4356E+03	-.1818E+02	.3872E+03	-.1246E+03	.0000E+00
		*****PLATE 27****					
Loads	30	-.3416E+02	.1215E+03	.1072E+02	-.1186E+03	.2168E+03	.0000E+00
Loads	31	-.1854E+03	.4443E+03	-.2729E+01	-.3097E+03	-.4931E+03	.0000E+00
Loads	47	-.3994E+02	-.1258E+03	-.1395E+02	-.2564E+03	-.4017E+03	.0000E+00
Loads	46	-.1796E+03	-.4400E+03	.5955E+01	-.3478E+03	.4251E+03	.0000E+00
		*****PLATE 28****					
Loads	31	-.3225E+02	.1338E+03	.9121E+01	-.1808E+03	-.3664E+03	.0000E+00
Loads	32	-.1893E+03	.4602E+03	.5818E+01	-.2694E+03	-.4077E+03	.0000E+00
Loads	48	.4215E+02	-.1387E+03	-.9623E+01	.3494E+03	-.4526E+03	.0000E+00
Loads	47	-.1794E+03	-.4552E+03	-.5316E+01	.4294E+03	-.4362E+03	.0000E+00
		*****PLATE 29****					
Loads	32	-.3698E+02	.1490E+03	-.5803E+01	-.2960E+03	-.4065E+03	.0000E+00
Loads	33	-.1854E+03	.4787E+03	.1167E+02	-.2364E+03	-.2253E+03	.0000E+00
Loads	49	.5023E+02	-.1562E+03	.1082E+02	-.2765E+03	.0000E+00	.0000E+00
Loads	48	-.1716E+03	-.4716E+03	-.1699E+02	.2955E+03	-.4363E+03	.0000E+00
		*****PLATE 30****					
Loads	33	-.4972E+02	.1780E+03	-.1160E+02	-.2172E+03	.3156E+03	.0000E+00
Loads	34	-.1654E+03	.5035E+03	.3543E+02	-.8081E+01	.7765E+02	.0000E+00
Loads	50	.6933E+02	-.1915E+03	.5586E+01	.4610E+03	-.7479E+01	.0000E+00
Loads	49	-.1458E+03	-.4900E+03	-.2942E+02	.2886E+03	-.2363E+03	.0000E+00
		*****PLATE 31****					
Loads	35	-.5837E+02	.1079E+03	-.2287E+01	-.2488E+03	.4005E+03	.0000E+00
Loads	36	-.2039E+03	.4289E+03	.7644E+01	-.2694E+03	-.3237E+03	.0000E+00
Loads	52	.5105E+02	-.1016E+03	.6247E+01	.2905E+03	-.3049E+03	.0000E+00
Loads	51	.2803E+02	-.2352E+03	-.1160E+02	.1807E+03	-.4179E+03	.0000E+00
		*****PLATE 32****					
Loads	36	-.9614E+02	.5800E+02	-.1439E+02	-.1552E+03	.4268E+03	.0000E+00
Loads	37	-.1121E+02	.2211E+03	.1689E+02	.9187E+02	-.1263E+03	.0000E+00
Loads	53	.9245E+02	-.4825E+02	-.1329E+02	.1254E+03	-.2241E+03	.0000E+00
Loads	52	-.1490E+02	-.2308E+03	-.1579E+02	.1176E+03	-.3361E+03	.0000E+00
		*****PLATE 33****					
Loads	37	-.1238E+03	.6531E+01	-.3698E+02	-.1376E+03	.2504E+03	.0000E+00
Loads	38	-.1457E+02	.2119E+03	.2980E+02	.1191E+02	.2404E+03	.0000E+00
Loads	54	.1217E+03	-.1095E+02	.4430E+02	-.2706E+02	.2485E+03	.0000E+00
Loads	53	-.1671E+02	-.2229E+03	-.3712E+02	-.5927E+02	-.2735E+03	.0000E+00
		*****PLATE 34****					
Loads	38	-.3361E+02	-.2618E+02	.6117E+02	.0000E+00	.3150E+03	.1777E+01

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	39	.4127E+02	-.2777E+03	.1515E+03	.1418E+03	.3167E+03	.0000E+00
Loads	55	.3812E+02	-.2420E+02	-.5688E+02	.4967E+02	.3041E+03	.0000E+00
Loads	54	-.4578E+02	-.2757E+03	-.1558E+03	.0000E+00	.2947E+03	.2119E+02
		*****PLATE 35****					
Loads	39	-.2036E+02	-.4014E+02	.9722E+02	-.1320E+03	-.1989E+03	.0000E+00
Loads	40	.1790E+02	.3050E+03	.1420E+03	.1943E+03	.5805E+03	.0000E+00
Loads	56	.1734E+02	.3448E+02	-.9264E+02	-.2122E+03	-.4808E+03	.0000E+00
Loads	55	-.1447E+02	-.2993E+03	-.1456E+03	-.1772E+03	-.3224E+03	.0000E+00
		*****PLATE 36****					
Loads	40	-.8190E+01	-.3211E+02	.1170E+03	.1946E+03	-.5108E+03	.0000E+00
Loads	41	.6035E+01	.3189E+02	.1276E+03	.2841E+03	.6040E+03	.0000E+00
Loads	57	.7917E+01	-.2099E+02	-.1109E+03	-.2152E+03	.6356E+03	.0000E+00
Loads	56	-.5761E+01	-.1315E+03	-.1337E+03	-.3109E+03	-.5126E+03	.0000E+00
		*****PLATE 37****					
Loads	41	.8822E+01	-.4140E+02	.1532E+03	.2778E+03	-.6048E+03	.0000E+00
Loads	42	-.9557E+01	.3251E+03	.1008E+03	.1996E+03	.4860E+03	.0000E+00
Loads	58	-.8582E+01	.7142E+01	-.1267E+03	-.2804E+03	.4896E+03	.0000E+00
Loads	57	.9318E+01	-.3181E+03	-.1073E+03	-.2131E+03	-.6519E+03	.0000E+00
		*****PLATE 38****					
Loads	42	.2024E+02	.3787E+01	.1560E+03	.1746E+03	-.5617E+03	.0000E+00
Loads	43	-.2448E+02	-.2185E+02	.6162E+02	.1009E+03	-.1370E+03	.0000E+00
Loads	59	-.1856E+02	-.9818E+01	-.1313E+03	-.1777E+03	.2437E+03	.0000E+00
Loads	58	-.2280E+02	-.3163E+03	-.7037E+02	-.1910E+03	-.4862E+03	.0000E+00
		*****PLATE 39****					
Loads	43	.4388E+02	.1576E+02	.1712E+03	.1131E+03	-.2577E+03	.0000E+00
Loads	44	-.3634E+02	.3007E+03	.3138E+02	.0000E+00	-.4365E+03	.1559E+02
Loads	60	.4848E+02	-.1313E+02	-.1559E+03	.0000E+00	-.3923E+03	-.1510E+01
Loads	59	.4094E+02	-.3033E+03	.4673E+02	.6696E+02	-.2282E+03	.0000E+00
		*****PLATE 40****					
Loads	44	-.4532E+02	.3401E+02	.4798E+02	.1192E+03	-.5862E+03	.0000E+00
Loads	45	-.1629E+03	.3443E+03	-.4667E+02	-.7215E+02	-.1570E+03	.0000E+00
Loads	61	.3723E+02	-.4222E+02	-.4754E+02	-.6930E+02	-.1388E+03	.0000E+00
Loads	60	.1710E+03	-.3361E+03	.4623E+02	-.5121E+02	-.5469E+03	.0000E+00
		*****PLATE 41****					
Loads	45	-.5422E+02	.6129E+02	.2591E+02	-.1193E+03	.2719E+02	.0000E+00
Loads	46	-.1470E+03	.3415E+02	-.2777E+02	-.1778E+03	-.4926E+03	.0000E+00
Loads	62	.4630E+02	-.6957E+02	-.2519E+02	.1918E+03	-.4221E+03	.0000E+00
Loads	61	.1560E+03	-.3532E+03	.2382E+02	.1347E+03	.1333E+03	.0000E+00
		*****PLATE 42****					
Loads	46	-.4607E+02	.9376E+02	.1340E+02	-.2192E+03	.3960E+03	.0000E+00
Loads	47	-.1393E+03	.3673E+03	-.1305E+02	-.3117E+03	-.5556E+03	.0000E+00
Loads	63	.4073E+02	-.9846E+02	-.1246E+02	.2489E+03	-.6181E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	62	-1446E+03	-3626E+03	.1211E+02	.2897E+03	.3906E+03	.0000E+00
			****PLATE	43****			
Loads	47	-4467E+02	-1193E+03	-.3091E+01	-.3741E+03	-.5211E+03	.0000E+00
Loads	48	-1253E+03	.3721E+03	-.6283E+03	-.3025E+03	-.4884E+03	.0000E+00
Loads	64	.4081E+02	-.1256E+03	.4546E+01	.3875E+03	-.5031E+03	.0000E+00
Loads	63	-1291E+03	-.3657E+03	-.2083E+01	-.2349E+03	-.5489E+03	.0000E+00
			****PLATE	44****			
Loads	48	-.5363E+02	-.1438E+03	-.9729E+01	-.3424E+03	-.5047E+03	.0000E+00
Loads	49	-.1012E+03	.3731E+03	.1001E+02	-.3083E+03	-.2749E+03	.0000E+00
Loads	65	.5343E+02	-.1485E+03	.7050E+01	-.3421E+03	-.3661E+03	.0000E+00
Loads	64	-.1014E+03	-.3684E+03	-.7335E+01	-.3149E+03	-.3951E+03	.0000E+00
			****PLATE	45****			
Loads	49	-.5934E+02	-1.785E+03	-.1283E+02	-.3462E+03	-.3150E+03	.0000E+00
Loads	50	-.5737E+02	.3694E+03	.1858E+02	-.2721E+03	-.5883E+02	.0000E+00
Loads	66	.4553E+02	-.1801E+03	-.2709E+02	.2471E+03	.3797E+02	.0000E+00
Loads	65	-.7119E+02	-.3479E+03	-.1884E+02	-.1897E+03	-.2809E+03	.0000E+00
			****PLATE	46****			
Loads	51	-.6584E+01	-.1431E+03	-.9653E+01	-.2195E+03	-.3453E+03	.0000E+00
Loads	52	-.5695E+01	.1393E+03	-.5442E+01	-.3094E+03	-.3161E+03	.0000E+00
Loads	68	-.4633E+01	-.1378E+03	-.612E+00	.2487E+02	-.3609E+03	.0000E+00
Loads	67	-.5522E+01	-.1445E+03	-.1576E+02	.1722E+03	-.2483E+03	.0000E+00
			****PLATE	47****			
Loads	52	-.3974E+02	-.1081E+03	-.1693E+02	-.1579E+03	-.2849E+03	.0000E+00
Loads	53	-.1598E+02	-.1440E+03	-.1124E+02	-.1793E+03	-.2306E+03	.0000E+00
Loads	69	-.2600E+02	-.1058E+03	-.1383E+02	-.8275E+02	-.7890E+02	.0000E+00
Loads	68	-.2239E+01	-.1463E+03	-.8144E+01	-.1293E+03	-.3664E+03	.0000E+00
			****PLATE	48****			
Loads	53	-.9323E+02	.4202E+02	-.1932E+02	-.1132E+03	-.1812E+03	.0000E+00
Loads	54	-.1821E+02	.1491E+03	-.3886E+02	.3202E+01	-.1146E+03	.0000E+00
Loads	70	.9356E+02	-.2830E+02	-.3657E+01	.4468E+02	.5497E+02	.0000E+00
Loads	69	-.1854E+02	-.1628E+03	-.1588E+02	-.2689E+03	-.1302E+03	.0000E+00
			****PLATE	49****			
Loads	54	-.5069E+02	-.9888E+01	-.2956E+02	-.0000E+00	-.2568E+03	.3597E+02
Loads	55	-.3140E+02	.1989E+01	-.1033E+03	-.8487E+02	-.2612E+03	.0000E+00
Loads	71	-.3857E+02	-.1026E+02	-.6733E+02	.2310E+03	-.2464E+03	.0000E+00
Loads	70	-.1928E+02	-.1985E+03	-.9555E+02	.0000E+00	-.3002E+03	.7257E+02
			****PLATE	50****			
Loads	55	-.1886E+02	-.2024E+02	-.6391E+02	-.2124E+03	-.2429E+03	.0000E+00
Loads	56	-.2819E+02	-.2140E+03	.1038E+03	.2286E+03	-.5141E+03	.0000E+00
Loads	72	-.2715E+02	-.2403E+02	-.6037E+02	-.1127E+03	-.6314E+03	.0000E+00
Loads	71	-.3649E+02	-.2178E+03	-.1073E+03	-.1230E+03	-.4473E+02	.0000E+00
			****PLATE	51****			
Loads	56	-.3586E+01	-.2984E+02	-.8637E+02	-.2945E+03	-.4824E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	57	.1024E+02	.2109E+03	.8126E+02	.2320E+03	.6514E+03	.0000E+00
Loads	73	.7267E+01	.2704E+02	-.8382E+02	-.2366E+03	.6062E+03	.0000E+00
Loads	72	-.1392E+02	-.2081E+03	-.8381E+02	-.1435E+03	-.5038E+03	.0000E+00
			****PLATE	52****			
Loads	57	.8712E+01	-.1737E+02	.1008E+03	.1943E+03	-.6351E+03	.0000E+00
Loads	58	-.5438E+01	.2055E+03	.5462E+02	.2878E+03	.5040E+03	.0000E+00
Loads	74	-.9427E+01	.1519E+02	-.9464E+02	-.1412E+03	.5048E+03	.0000E+00
Loads	73	.6153E+01	-.2033E+03	-.6082E+02	-.2706E+03	-.6042E+03	.0000E+00
			****PLATE	53****			
Loads	58	.2741E+02	.7180E+01	.1063E+03	.1838E+03	-.5074E+03	.0000E+00
Loads	59	-.2226E+02	.2058E+03	.2819E+02	.1803E+03	.2197E+03	.0000E+00
Loads	75	-.3007E+02	-.1492E+02	-.9154E+02	-.1127E+03	-.8859E+02	.0000E+00
Loads	74	.2493E+02	-.1980E+03	.2911E+02	-.1382E+03	-.6121E+03	.0000E+00
			****PLATE	54****			
Loads	59	.3607E+02	-.1070E+02	.1296E+03	-.6945E+02	-.2352E+03	.0000E+00
Loads	60	-.4920E+02	-.2159E+03	.1469E+02	.0000E+00	-.3664E+03	.3357E+02
Loads	76	-.2932E+02	-.1190E+02	-.1287E+03	.0000E+00	-.3645E+03	.3373E+02
Loads	75	.4245E+02	-.2155E+03	-.1558E+02	-.1521E+02	-.2510E+03	.0000E+00
			****PLATE	55****			
Loads	60	-.2235E+02	.3293E+02	-.442E+02	-.1294E+03	-.4806E+03	.0000E+00
Loads	61	-.1268E+03	.2566E+03	-.3895E+02	.9924E+02	-.1384E+03	.0000E+00
Loads	77	.2581E+02	-.4032E+02	-.4295E+02	.1472E+03	-.1669E+03	.0000E+00
Loads	76	-.1233E+03	-.2492E+03	.3458E+02	-.5037E+02	-.4561E+03	.0000E+00
			****PLATE	56****			
Loads	61	-.3104E+02	.4442E+02	.2726E+02	-.1646E+03	.1439E+03	.0000E+00
Loads	62	-.1266E+03	.2760E+03	-.2956E+02	.1399E+03	-.4200E+03	.0000E+00
Loads	78	.252E+02	-.473E+02	.2767E+02	-.158E+03	-.574E+03	.0000E+00
Loads	77	.1324E+03	-.2731E+03	-.2012E+02	.9958E+02	-.1414E+02	.0000E+00
			****PLATE	57****			
Loads	62	-.2791E+02	-.6183E+02	.6988E+01	-.3416E+03	.4515E+03	.0000E+00
Loads	63	-.1173E+03	.2748E+03	-.1181E+02	-.1570E+03	-.5580E+03	.0000E+00
Loads	79	.1346E+02	-.6424E+02	-.7355E+01	-.3166E+03	-.5978E+03	.0000E+00
Loads	78	.1317E+03	-.1274E+03	-.1218E+02	.7590E+02	-.4136E+03	.0000E+00
			****PLATE	58****			
Loads	63	-.1716E+02	.9494E+02	-.4054E+01	-.3268E+03	.6272E+03	.0000E+00
Loads	64	-.9340E+02	.2593E+03	-.1445E+01	-.2740E+03	-.3982E+03	.0000E+00
Loads	80	-.2878E+01	-.9891E+02	.1465E+02	.2050E+03	-.5391E+03	.0000E+00
Loads	79	-.1133E+03	-.2553E+03	-.4154E+01	.1648E+03	.5105E+03	.0000E+00
			****PLATE	59****			
Loads	64	-.1344E+02	-.1403E+03	-.3118E+02	-.4283E+03	.5063E+03	.0000E+00
Loads	65	-.5386E+02	-.2473E+03	.9692E+01	-.2522E+03	-.1353E+03	.0000E+00
Loads	81	-.1069E+02	-.1497E+03	.4465E+02	.2257E+03	-.8226E+02	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	80	.7799E+02	-.2380E+03	-.2317E+02	-.1787E+02	.5356E+03	.0000E+00
			PLATE	60			
Gloads	65	-.3535E+02	-.1546E+03	-.3331E+02	-.2796E+03	.2205E+03	.0000E+00
Gloads	66	-.1934E+02	.2290E+03	.1147E+02	-.3131E+03	.1792E+03	.0000E+00
Gloads	82	-.3860E+02	-.1497E+03	.3935E+02	.3631E+02	.2518E+03	.0000E+00
Gloads	81	-.1608E+02	-.2340E+03	-.1752E+02	-.7610E+02	-.1192E+03	.0000E+00
			PLATE	61			
Gloads	67	.3003E+02	-.1352E+03	-.2231E+02	-.2779E+03	.1495E+03	.0000E+00
Gloads	68	-.4741E+01	.7175E+02	.3918E+01	-.2530E+03	-.2681E+03	.0000E+00
Gloads	84	-.4980E+02	-.1226E+03	.3763E+02	-.1003E+03	.2012E+03	.0000E+00
Gloads	83	-.2451E+02	-.8433E+02	-.1141E+02	-.8999E+02	.3782E+03	.0000E+00
			PLATE	62			
Gloads	68	.4751E+02	-.1167E+03	-.2317E+02	.9919E+02	.2626E+03	.0000E+00
Gloads	69	-.1404E+02	.4282E+02	.8355E+01	-.4156E+03	-.1298E+03	.0000E+00
Gloads	85	-.1067E+03	-.1102E+03	.3451E+02	.3486E+03	.3247E+02	.0000E+00
Gloads	84	.7523E+02	-.4933E+02	-.1969E+02	.2576E+03	.4206E+03	.0000E+00
			PLATE	63			
Gloads	69	.4247E+02	-.1300E+03	-.4220E+02	.6401E+02	.7764E+02	.0000E+00
Gloads	70	.2723E+01	.5275E+02	.3760E+02	-.1103E+03	.1378E+03	.0000E+00
Gloads	86	-.1353E+03	-.1437E+03	.7686E+02	-.1289E+03	.7653E+03	.0000E+00
Gloads	85	.9014E+02	-.3909E+02	-.7225E+02	.4863E+02	.5834E+03	.0000E+00
			PLATE	64			
Gloads	70	-.2971E+02	.3804E+02	.1333E+02	.0000E+00	.3163E+03	-.1605E+03
Gloads	71	.4582E+02	.1319E+03	.5245E+02	-.1623E+02	-.2470E+02	.0000E+00
Gloads	87	.2239E+02	-.1516E+02	-.1009E+02	.5791E+02	.9056E+02	.0000E+00
Gloads	86	-.3850E+02	-.1547E+03	-.5568E+02	.0000E+00	.6750E+03	-.2408E+03
			PLATE	65			
Gloads	71	-.7189E+01	-.1240E+02	.5149E+02	.3703E+03	-.1969E+03	.0000E+00
Gloads	72	.2731E+02	-.1007E+03	.1124E+02	.6069E+02	.4414E+03	.0000E+00
Gloads	88	-.2133E+02	.1040E+02	.1275E+02	-.1292E+03	-.2130E+03	.0000E+00
Gloads	87	-.1409E+01	-.9890E+02	.1460E+02	.2515E+03	-.3679E+03	.0000E+00
			PLATE	66			
Gloads	72	.1773E+00	-.2522E+02	.9222E+02	.1954E+03	-.5689E+03	.0000E+00
Gloads	73	.1274E+02	-.1122E+03	-.1588E+02	.2617E+03	.5665E+03	.0000E+00
Gloads	89	-.1064E+02	.2327E+02	-.1244E+03	.2270E+02	.4892E+03	.0000E+00
Gloads	88	-.2277E+01	-.1102E+03	.4807E+02	-.7924E+02	-.4542E+03	.0000E+00
			PLATE	67			
Gloads	73	.1455E+02	-.4451E+02	.1198E+03	.2455E+03	-.5685E+03	.0000E+00
Gloads	74	.1278E+01	.1296E+03	-.2119E+02	.2600E+03	.5957E+03	.0000E+00
Gloads	90	-.1101E+02	.4537E+02	-.1495E+03	-.2309E+02	.4162E+03	.0000E+00
Gloads	89	-.4825E+01	-.1305E+03	.5089E+02	-.4702E+02	-.5943E+03	.0000E+00
			PLATE	68			
Gloads	74	.2393E+02	-.5534E+02	-.1180E+03	.1943E+02	-.4885E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Gloads	75	-.1470E+02	-.1270E+03	-.1243E+02	.2938E+03	.2748E+03	.0000E+00
Gloads	91	-.2966E+01	.6034E+02	-.1535E+03	.1366E+03	.3337E+03	.0000E+00
Gloads	90	-.6270E+01	-.1320E+03	.2805E+02	-.1958E+03	-.3938E+03	.0000E+00
			PLATE	69			
Gloads	75	.4303E+02	-.5116E+01	.7884E+02	-.2898E+02	-.1124E+03	.0000E+00
Gloads	76	-.3276E+02	.1421E+03	-.7465E+01	.0000E+00	-.2897E+03	-.1489E+03
Gloads	92	-.3617E+02	-.1545E+02	-.2853E+02	.0000E+00	-.4335E+03	-.1792E+03
Gloads	91	.2590E+02	-.1215E+03	-.4285E+02	-.1682E+02	-.2329E+03	.0000E+00
			PLATE	70			
Gloads	76	-.7186E+01	-.1133E+02	.4481E+02	-.7751E+01	-.3640E+03	.0000E+00
Gloads	77	-.1251E+03	.2252E+03	-.4148E+02	.9877E+02	-.3911E+02	.0000E+00
Gloads	93	-.1572E+02	.1459E+02	-.3502E+02	.5851E+02	-.2294E+03	.0000E+00
Gloads	92	.1480E+03	-.2285E+03	.3169E+02	-.5802E+02	-.5277E+03	.0000E+00
			PLATE	71			
Gloads	77	.6657E+01	-.1800E+02	.1483E+02	-.3456E+03	.2201E+03	.0000E+00
Gloads	78	-.1382E+03	.2169E+03	-.2586E+02	.3961E+02	-.4181E+03	.0000E+00
Gloads	94	.3786E+02	.2168E+02	.5005E+01	.2215E+03	-.3849E+03	.0000E+00
Gloads	93	.1694E+03	-.2205E+03	.6021E+01	-.2188E+03	.2667E+03	.0000E+00
			PLATE	72			
Gloads	78	.2111E+02	-.3388E+01	.1506E+01	-.2744E+03	.5791E+03	.0000E+00
Gloads	79	-.1270E+03	.1878E+03	-.1301E+02	-.1311E+03	-.4918E+03	.0000E+00
Gloads	95	.4461E+02	-.4283E+01	.2070E+01	-.1140E+03	.6026E+03	.0000E+00
Gloads	94	.1505E+03	-.1887E+02	.9435E+01	-.2492E+02	.3494E+03	.0000E+00
			PLATE	73			
Gloads	79	.4008E+02	.2552E+02	-.1532E+02	-.3502E+03	.5792E+03	.0000E+00
Gloads	80	-.1112E+03	.1532E+03	-.6500E+01	-.1668E+03	-.4888E+03	.0000E+00
Gloads	96	-.6594E+02	-.2420E+02	.1151E+02	.3176E+02	-.4605E+03	.0000E+00
Gloads	95	.1371E+03	-.1545E+03	.1031E+02	-.1146E+03	.4461E+03	.0000E+00
			PLATE	74			
Gloads	80	.7583E+02	.7748E+02	-.2482E+02	-.2035E+02	.4923E+03	.0000E+00
Gloads	81	-.8973E+02	.1148E+03	-.1980E+02	.1980E+03	-.4764E+03	.0000E+00
Gloads	97	-.1297E+03	-.7670E+02	-.2418E+02	.1340E+03	-.3929E+03	.0000E+00
Gloads	96	.1436E+03	-.1027E+03	.9959E+01	.7938E+02	.1735E+03	.0000E+00
			PLATE	75			
Gloads	81	.1242E+03	.1755E+03	-.1060E+03	-.4999E+03	.1059E+02	.0000E+00
Gloads	82	.5551E+02	.6702E+02	-.6187E+02	-.1458E+04	.8198E+03	.0000E+00
Gloads	98	.2705E+03	-.1915E+03	.1980E+03	-.1829E+04	.1100E+04	.0000E+00
Gloads	97	.2019E+03	-.5106E+03	.3007E+02	.8298E+03	.1356E+03	.0000E+00
			PLATE	76			
Gloads	83	.8052E+01	.7764E+02	-.1180E+02	-.3122E+03	-.4795E+03	.0000E+00
Gloads	84	-.3537E+02	.7175E+02	-.8782E+02	-.3337E+03	-.3041E+03	.0000E+00
Gloads	100	-.6034E+01	-.3876E+02	-.9399E+02	-.5040E+03	-.7236E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	99	.3336E+02	-.1106E+03	.1936E+03	-.4937E+03	-.9775E+03	.0000E+00
			PLATE	77			
Loads	84	.4385E+02	-.1511E+02	.3797E+02	-.1765E+03	-.3177E+03	.0000E+00
Loads	85	-.4271E+02	.8860E+01	-.1656E+02	.6135E+02	-.4360E+03	.0000E+00
Loads	101	-.2218E+02	-.1026E+02	-.1084E+03	.1799E+02	-.4947E+03	.0000E+00
Loads	100	.2104E+02	-.1373E+02	.8695E+02	.9750E+02	-.4590E+03	.0000E+00
			PLATE	78			
Loads	85	.9119E+02	.5532E+02	.2240E+02	.2387E+03	-.1799E+03	.0000E+00
Loads	86	-.6886E+02	.5751E+02	-.2472E+02	-.2420E+03	-.1198E+03	.0000E+00
Loads	102	-.6052E+02	-.8447E+02	-.8260E+02	-.2436E+03	-.6399E+03	.0000E+00
Loads	101	.3820E+02	-.2836E+02	.8493E+02	.2086E+03	-.5272E+03	.0000E+00
			PLATE	79			
Loads	86	-.2739E+02	.7801E+02	.4730E+02	.0000E+00	.6277E+03	-.3064E+03
Loads	87	.5847E+02	-.1118E+02	-.1358E+02	.2201E+03	.1931E+03	.0000E+00
Loads	103	.1056E+03	-.8029E+02	-.1269E+03	.0000E+00	.6916E+03	-.2119E+02
Loads	102	-.1366E+03	-.7578E+01	.1930E+03	.0000E+00	.1030E+04	-.4478E+03
			PLATE	80			
Loads	87	-.4608E+02	.2866E+02	.7277E+02	-.8931E+02	.8420E+02	.0000E+00
Loads	88	.4819E+02	-.6779E+01	-.1074E+03	-.1183E+02	.2636E+03	.0000E+00
Loads	104	.8150E+02	-.3011E+02	-.1092E+03	.0000E+00	.8885E+03	-.1255E+03
Loads	103	-.8360E+02	.8229E+01	.1438E+03	.0000E+00	.7938E+03	-.1034E+02
			PLATE	81			
Loads	88	.1181E+02	.9913E+01	.1005E+03	.2203E+03	-.2245E+02	.0000E+00
Loads	89	.3626E+02	.2224E+02	-.8980E+02	.5530E+02	.2982E+03	.0000E+00
Loads	105	.2421E+02	-.1085E+02	-.1158E+03	.0000E+00	.4602E+03	-.1822E+03
Loads	104	-.7228E+02	-.2130E+02	.1051E+03	.0000E+00	.2014E+03	-.3354E+03
			PLATE	82			
Loads	89	.1539E+02	-.1156E+02	.1271E+03	.1442E+02	-.1932E+03	.0000E+00
Loads	90	.1821E+02	.4036E+02	-.1735E+02	.1739E+03	.1915E+03	.0000E+00
Loads	106	-.2290E+02	.1225E+02	-.1427E+03	.0000E+00	.1255E+03	-.2496E+03
Loads	105	-.1070E+02	-.4102E+02	.9326E+02	.0000E+00	-.1965E+03	-.1165E+03
			PLATE	83			
Loads	90	.3526E+02	-.5020E+02	.1630E+03	.4498E+02	-.2140E+03	.0000E+00
Loads	91	-.1202E+02	.6304E+02	-.5588E+02	.1084E+03	.9986E+02	.0000E+00
Loads	107	.5646E+02	.5101E+02	-.2052E+03	.0000E+00	-.3508E+03	-.1236E+03
Loads	106	.3343E+02	-.6395E+01	.906E+02	.0000E+00	-.5997E+03	-.1064E+03
			PLATE	84			
Loads	91	.2527E+02	-.9836E+02	.1962E+03	-.2281E+03	-.2006E+03	.0000E+00
Loads	92	-.6132E+02	.1062E+03	-.8498E+01	.0000E+00	-.2943E+03	-.1179E+03
Loads	108	-.4054E+02	.9359E+02	-.3124E+03	.0000E+00	.5459E+03	.8877E+02
Loads	107	.7659E+02	-.1014E+03	.1247E+03	.0000E+00	-.5389E+03	-.1601E+03
			PLATE	85			
Loads	92	.2524E+02	-.2088E+00	.1021E+03	.4647E+03	-.2741E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Loads	Node	Fx	Fy	Fz	Mx	My	Mz
Loads	93	.1519E+03	-.1211E+03	-.8949E+01	.3510E+03	-.1458E+03	.0000E+00
Loads	109	-.6611E+02	.1666E+02	-.8074E+02	.2887E+01	-.4600E+03	.0000E+00
Loads	108	.1928E+03	-.1376E+03	-.1243E+02	.4329E+03	-.4604E+03	.0000E+00
			PLATE	86			
Loads	93	.3359E+02	-.9588E+01	.2538E+01	-.1907E+03	.1285E+03	.0000E+00
Loads	94	-.1048E+03	.7077E+02	-.3394E+02	-.3086E+02	-.1739E+03	.0000E+00
Loads	110	.4435E+02	.6712E+01	-.2855E+02	-.9512E+02	-.5737E+03	.0000E+00
Loads	109	.1156E+03	-.6789E+02	.5996E+02	-.2015E+03	-.3287E+03	.0000E+00
			PLATE	87			
Loads	94	.2753E+02	.1821E+01	-.1591E+02	-.1658E+03	.2094E+03	.0000E+00
Loads	95	-.7838E+02	.5757E+02	-.1493E+02	.2362E+02	-.1592E+03	.0000E+00
Loads	111	-.2825E+02	-.2261E+01	.1250E+02	-.1099E+03	-.1980E+03	.0000E+00
Loads	110	.7909E+02	-.5713E+02	.1833E+02	-.2567E+03	.1111E+03	.0000E+00
			PLATE	88			
Loads	95	.2133E+02	-.1810E+01	-.3286E+02	.2302E+02	.3158E+03	.0000E+00
Loads	96	-.6847E+02	.4659E+02	-.2445E+00	-.6809E+02	.7957E+01	.0000E+00
Loads	112	-.1167E+02	.4686E+01	.5928E+02	-.2560E+03	.1633E+03	.0000E+00
Loads	111	.5880E+02	-.4947E+02	.2618E+02	-.1991E+03	.4083E+03	.0000E+00
			PLATE	89			
Loads	96	.2625E+02	-.1415E+02	-.5663E+02	-.4305E+02	.2790E+03	.0000E+00
Loads	97	.8372E+02	.4821E+02	.7261E+01	-.1539E+03	.7203E+02	.0000E+00
Loads	113	.9340E+01	.1432E+02	.1174E+03	.3541E+03	.7294E+03	.0000E+00
Loads	112	.4813E+02	-.4838E+02	-.798E+02	-.2635E+03	.8096E+03	.0000E+00
			PLATE	90			
Loads	97	.4694E+02	-.1488E+02	-.1158E+02	.8497E+03	-.1873E+03	.0000E+00
Loads	98	-.1612E+03	.1360E+03	.2396E+03	.1582E+04	.7343E+03	.0000E+00
Loads	114	.5872E+02	-.1172E+02	-.1059E+03	.1221E+04	.7318E+03	.0000E+00
Loads	113	.5553E+02	-.1094E+03	-.1653E+03	.4927E+03	.3741E+03	.0000E+00
			PLATE	91			
Loads	122	-.3219E+02	.1744E+03	.8481E+02	.7412E+03	.9659E+02	.0000E+00
Loads	2	-.1426E+03	.3907E+03	.5980E+02	.6685E+03	.1995E+02	.0000E+00
Loads	19	.7024E+02	-.1985E+03	-.6454E+02	.8448E+03	-.1590E+03	.0000E+00
Loads	124	.1045E+03	-.3666E+03	-.8008E+02	.9270E+03	-.5217E+02	.0000E+00
			PLATE	92			
Loads	124	-.7385E+02	.2470E+03	.5064E+02	.2187E+03	.1360E+03	.0000E+00
Loads	19	.5628E+02	.5766E+03	.3089E+02	.2235E+03	-.8803E+02	.0000E+00
Loads	35	.7138E+02	-.2351E+03	-.3480E+02	.6452E+03	-.2940E+03	.0000E+00
Loads	126	.5875E+02	-.3901E+03	-.4473E+02	.6865E+03	.5790E+02	.0000E+00
			PLATE	93			
Loads	126	-.2715E+02	.2975E+03	.1503E+02	-.2081E+03	.1320E+03	.0000E+00
Loads	35	-.2417E+02	.3233E+03	-.2639E+01	-.2159E+03	-.1547E+03	.0000E+00
Loads	51	.2433E+02	-.2669E+03	-.9177E+01	.3234E+03	-.2502E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Hx	Hy	Mz
Gloads	128	.2699E+02	-.3540E+03	-.3214E+01	.3731E+03	.3654E+02	.0000E+00
			PLATE	94			
Gloads	128	.4101E+01	.2854E+03	-.2530E+02	-.5825E+03	.8852E+02	.0000E+00
Gloads	51	-.1133E+01	.2485E+03	-.1766E+02	-.3987E+03	-.1570E+03	.0000E+00
Gloads	67	-.1579E+02	-.2543E+03	.1741E+02	.9456E+02	-.6942E+02	.0000E+00
Gloads	130	.1056E+02	-.2797E+03	-.2556E+02	-.5859E+02	.1328E+03	.0000E+00
			PLATE	95			
Gloads	130	.2646E+02	.2272E+03	-.6119E+02	-.9562E+03	-.1669E+02	.0000E+00
Gloads	67	.3466E+02	.1367E+03	-.6237E+02	-.9784E+03	-.5909E+02	.0000E+00
Gloads	83	-.2634E+02	-.2207E+03	.4484E+02	-.7576E+03	-.1069E+03	.0000E+00
Gloads	132	-.3478E+02	-.1432E+03	.7873E+02	-.7060E+03	-.1681E+03	.0000E+00
			PLATE	96			
Gloads	132	.6577E+02	.1239E+03	-.1127E+03	-.5292E+03	-.1811E+03	.0000E+00
Gloads	83	-.4027E+02	-.9524E+02	.6273E+02	-.7549E+03	.3655E+03	.0000E+00
Gloads	99	-.9904E+02	-.1827E+03	.1813E+03	-.9544E+03	-.1011E+04	.0000E+00
Gloads	134	-.6996E+01	-.3641E+02	-.6006E+01	-.6771E+03	.8177E+03	.0000E+00
			PLATE	97			
Gloads	17	-.2362E+02	.4184E+03	.7360E+02	.6617E+03	.1187E+03	.0000E+00
Gloads	123	-.3363E+03	.9012E+03	.8569E+02	.8791E+03	.7859E+02	.0000E+00
Gloads	125	.8499E+02	-.5053E+03	-.7606E+02	.1082E+04	.4089E+01	.0000E+00
Gloads	34	.2750E+03	-.8143E+03	-.8322E+02	.8815E+03	-.8830E+01	.0000E+00
			PLATE	98			
Gloads	34	-.8321E+02	.3789E+03	.2288E+02	.4555E+02	.1590E+03	.0000E+00
Gloads	125	-.5992E+02	.5313E+03	.4670E+02	.2116E+03	.1239E+03	.0000E+00
Gloads	127	.6093E+02	-.3739E+03	-.2731E+02	.7013E+03	.5311E+02	.0000E+00
Gloads	50	.8220E+02	-.5364E+03	-.4227E+02	.5723E+03	.5180E+02	.0000E+00
			PLATE	99			
Gloads	50	-.4511E+02	.2874E+03	-.2873E+02	.4246E+03	.1817E+03	.0000E+00
Gloads	127	.2708E+02	.3644E+03	.9438E+02	.4657E+03	.2063E+03	.0000E+00
Gloads	129	.4142E+02	-.2670E+03	.4632E+02	.6302E+02	.2879E+03	.0000E+00
Gloads	66	.3077E+02	-.3668E+03	-.1565E+02	.1524E+03	.2316E+03	.0000E+00
			PLATE	100			
Gloads	66	-.4021E+01	.2232E+03	-.7123E+02	-.7572E+03	.1205E+02	.0000E+00
Gloads	129	-.1120E+02	.2196E+03	-.7341E+02	.1159E+04	.1796E+03	.0000E+00
Gloads	131	-.3275E+02	-.2028E+03	.1813E+02	.8839E+03	.8341E+02	.0000E+00
Gloads	82	.4797E+02	-.2399E+03	.6333E+02	.3825E+03	-.1171E+03	.0000E+00
			PLATE	101			
Gloads	82	.1218E+02	.2066E+03	-.8905E+02	-.1886E+04	-.9116E+03	.0000E+00
Gloads	131	.6950E+02	.1057E+03	-.1242E+03	-.7623E+03	-.4239E+03	.0000E+00
Gloads	133	.8598E+02	-.2180E+03	-.3297E+02	-.9727E+03	-.6880E+03	.0000E+00
Gloads	98	-.1677E+03	-.9426E+02	.2462E+03	.2243E+04	-.1119E+04	.0000E+00
			PLATE	102			
Gloads	98	-.1655E+03	.6165E+01	.2303E+03	.1774E+04	-.3544E+03	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

Gloads	Node	Fx	Fy	Fz	Hx	My	Mz
Gloads	133	-.5676E+02	-.1757E+03	.1132E+02	.5335E+03	-.1293E+03	.0000E+00
Gloads	135	.6877E+02	.7663E+01	-.2861E+02	.2530E+03	.1573E+03	.0000E+00
Gloads	114	.1535E+03	-.1895E+03	-.2130E+03	.1426E+04	-.1957E+02	.0000E+00

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Load Case 5:UBC SEISMIC LOAD - NS & WE

MAXIMUM STRESS SUMMARY FOR PLATES
 WITHIN SPECIFIED RANGE 1- 102

Maximum (absolute) Stress = .3094E+03 at Plate 36

Plate	Sigma X	Sigma Y	Tau XY	Von Mises
36	-.3094E+03	-.2130E+03	.2512E+02	.2776E+03

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Load Case 5:UBC SEISMIC LOAD - NS & WE

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
1	-.1949E+02	-.6938E+02	.8238E+02	.0000E+00	.0000E+00	.0000E+00
2	-.2009E+03	.6220E+03	.1048E+03	.0000E+00	.8560E+03	.5257E+02
3	-.2393E+03	.4064E+03	.3460E+02	.0000E+00	.2115E+03	.0000E+00
4	-.2797E+03	.3480E+03	.1603E+02	.0000E+00	.2839E+03	.0000E+00
5	-.1982E+03	.4361E+03	.1142E+03	.2149E+03	.2134E+04	.2504E+03
6	-.2308E+02	.4140E+03	.3150E+03	.0000E+00	.3151E+03	.0000E+00
7	-.4735E+02	.4689E+03	.3463E+03	.0000E+00	.1856E+03	.0000E+00
8	-.4465E+02	.5045E+03	.3736E+03	.0000E+00	-.9475E+01	.0000E+00
9	-.4500E+02	.5319E+03	.4017E+03	.0000E+00	-.2019E+03	.0000E+00
10	-.1951E+02	.5961E+03	.4164E+03	.0000E+00	-.3091E+03	.0000E+00
11	-.3482E+02	.1084E+04	.3586E+03	.5231E+03	-.4540E+04	.3740E+03
12	-.2504E+03	.6791E+03	.1459E+02	.0000E+00	.3580E+03	.0000E+00
13	-.2420E+03	.6773E+03	.4310E+02	.0000E+00	-.3037E+03	.0000E+00
14	-.2587E+03	.7019E+03	.4540E+02	.0000E+00	-.1607E+03	.0000E+00
15	-.2716E+03	.7329E+03	.5201E+02	.0000E+00	-.6314E+01	.0000E+00
16	-.2853E+03	.7772E+03	.3715E+02	.0000E+00	.9761E+02	.0000E+00
17	-.3358E+03	.1256E+04	.1444E+03	.0000E+00	.8521E+03	.7638E+02
18	-.2179E+02	.1337E+02	.9071E+01	.0000E+00	.0000E+00	.0000E+00
115	-.7963E+04	.0000E+00	.8059E+04	.0000E+00	.0000E+00	.0000E+00
116	-.1823E+04	.7963E+04	.7799E+03	.0000E+00	.0000E+00	.0000E+00
117	-.7804E+03	.1041E+05	.3615E+04	.0000E+00	.0000E+00	.0000E+00
118	-.3616E+04	.1041E+05	.7810E+03	.0000E+00	.0000E+00	.0000E+00
119	-.7816E+03	.7964E+04	.1822E+04	.0000E+00	.0000E+00	.0000E+00
122	-.4928E+02	.3016E+03	.1060E+03	.0000E+00	.6046E+03	.3947E+02
123	-.3574E+03	.1215E+04	.1060E+03	.0000E+00	.4628E+03	.9910E+02

W320-24-020

Intake Air Filter Pad and
Cooling Coil Support Frame Analysis

**KAISER ENGINEERS
HANFORD**

**CALCULATION IDENTIFICATION AND
INDEX**

Page i of iii
Date
9-2-94

This sheet shows the status and description of the attached Design Analysis sheets.

Discipline **Structural** WO/Job No. **ER4319/W-320** Calculation No. **W320-24-020**
 Project No. & Name **Project W-320, Tank 241-C-106 Sluicing**
 Calculation Item **INTAKE AIR FILTER PAD AND COOLING COIL SUPPORT FRAME ANALYSIS**

These calculations apply to:

Dwg. No. **H-2-818458 sh. 3** Rev. No. **0**
 Dwg. No. **H-2-818473 sh. 1** Rev. No. **0**
 Other (Study, CDR) **N/A** Rev. No. **NA**

The status of these calculations is:

- Preliminary Calculations
 - Final Calculations
 - Check Calculations (On Calculation Dated)
 - Void Calculation (Reason Voided)
- Incorporated in Final Drawings? Yes No
 This calculation verified by independent "check" calculations? Yes No

Original and Revised Calculation Approvals:

	Rev. 0 Signature/Date	Rev. 1 Signature/Date	Rev. 2 Signature/Date
Originator	James R. Booth <i>JR Booth</i> 3-16-95	<i>Rev. 1</i> 5/20/95	
Checked by	<i>L.W. Fuhl</i> 3/17/95	<i>Rev. 1</i> 6/12/95	
Approved by	<i>JR Booth</i> 5/18/95	<i>Rev. 1</i> 6/13/95	
Checked Against Approved Vendor Data		<i>Ann Chang</i> 4/7/95	

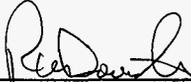
	<u>INDEX</u>
Design Analysis Page No.	Description
1-2	Objective, Criteria, Data, Assumptions, Method, References, and Conclusion.
3-10	Calculations
Attach. A	Sketches and Vendor Data
Attach. B	Tables for Equal Single Angles in Compression

DESIGN VERIFICATION SCREENING CRITERIA

Project/Document No. W-320/W320-24-020

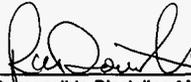
When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|---|--|
| _____ | _____ <input checked="" type="checkbox"/> | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | _____ <input checked="" type="checkbox"/> | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | _____ <input checked="" type="checkbox"/> | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | _____ <input checked="" type="checkbox"/> | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |



 Assigned Lead Engineer

 5/18/95
 Date



 Responsible Discipline Manager

 5/18/95
 Date

Original Design Package Distribution:

- Project Manager
- Design Verification Officer
- Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

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Calc. No. W320-24-020

Revision 0

Page No. 1 of 10

DESIGN ANALYSIS

Client WHC

WO/Job No. ER4319/W-320

Subject Intake Air Filter Pad and Cooling Coil
Support Frame Analysis

Date 9-2-94

By J.R. Booth *GRB*

Checked 3/17/95

By *f.w. Fink*

Location C-Farm, Tank 241-C-106

Revised

By

OBJECTIVE: The objective of this calculation is to design a SC3 structural concrete pad and analyze the expansion anchor bolt requirements to support and secure the Intake Air Filter and Cooling Coil located at riser 15 of C-106. Additionally, this calculation will size the support frame members required to support the Cooling Coil.

CRITERIA:

1. SDC 4.1, Rev. 11.
2. UCRL 15910, June 1990.
3. DOE order 6430.1a
4. Functional Design Criteria (FDC) for Tank 241-C-106 Waste Retrieval, Project W-320, DOC. NO. WHC-SD-W320-FDC-001, REV.2.

DATA:

1. $f'c=4000$ psi
2. $f_y=60$ ksi for rebar
3. 3/8" dia. expansion anchor bolts with 1 5/8" minimum embedment.
4. A-36 Structural Steel.

ASSUMPTIONS: See body of calc.

METHOD: MATHCAD 4.0

REFERENCES:

1. American Concrete Institute (ACI). ACI 318-89 (Revised 1992).
2. American Concrete Institute (ACI). ACI SP-17(91).
3. American Society of Civil Engineers (ASCE). ASCE 7-88.
4. Standard Arch-Civil Design Criteria, SDC-4.1.Design Loads for Facilities. Rev. 11.
5. International Conference of Building Officials (ICBO). Report No. 4627. March 1989.
6. Uniform Building Code (UBC-91).
7. Design and Evaluation Guidelines for Department of Energy Facilities Subjected to Natural Phenomena Hazards. UCRL 15910, June 1990.
8. American Institute of Steel Construction (AISC). Manual of Steel Construction, Allowable Stress Design. 9th Edition.

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Calc. No. W320-24-020

Revision 01

Page No. 2 of 10

DESIGN ANALYSIS

Client WHC

WO/Job No. ER4319/W-320

Subject Intake Air Filter Pad and Cooling Coil
Support Frame Analysis

Date 9-2-94

By J.R. Booth *JRB*

Location C-Farm, Tank 241-C-106

Checked 3/17/95

By *J.R. Booth*

Revised 5/30/94

By *R. Sauter***CONCLUSION:**

Intake Air Filter pad & anchorage for cooling coil frame are adequate as detailed on Dwg H-2-818458, SH 3 and as modified by ECN's W-320-288, 351. For frame support details see Dwg H-2-818473, SH 1 (PS-205) and modifications provided in ECN W-320-225.


RJM
6/12/94

KAISER ENGINEERS

HANFORD

DESIGN ANALYSIS

Calc. No. W320-24-020Revision 0Page No. 3 of 10Client: Westinghouse Hanford CompanyWO/Job No. ER4319W-320Subject: Intake Air Filter Pad and Cooling CoilDate 9/2/94By JR BSupport Frame AnalysisChecked 3/17/95By J. W. F. L.Location: C-Farm, Tank 241-C-106

Revised

By

SEE H-2-95451 SH. 5 FOR DETAIL IV OF AIR INTAKE FILTER

Determine Design Loads:

1. Snow (REF. ASCE 7-88, pg. 23-27)

$$C_e = 0.9$$

$$C_t = 1.1$$

$$I = 1.2$$

$$p_g = 15 \frac{\text{lb}}{\text{ft}^2}$$

Ref. SDC 4.1

$$p_f = 0.7 \cdot C_e \cdot C_t \cdot I \cdot p_g$$

$$p_f = 12.474 \frac{\text{lb}}{\text{ft}^2} \quad \text{Use } p_f = 20 \frac{\text{lb}}{\text{ft}^2}$$

(Minimum Snow Load per SDC 4.1)

$$S = p_f (9\text{-ft} \cdot 9\text{-ft})$$

Include as Live Load to be conservative

$$S = 1.62 \cdot 10^3 \text{ } \cdot \text{lb}$$

2. Wind: (Ref. SDC 4.1 and ASCE 7-88, section 6)

Dimensions: 9'-0" X 9'-0" X 6'-0" high, envelope dimensions (See H-2-95451, sh.5)Exposure Class=C (SDC 4.1, pg.13)Wind Speed=70 mph (SDC 4.1, pg.13)Importance Factor=1.07 (SDC 4.1, pg.13)

$$I = 1.07$$

$$V = 70$$

$$K_z = 0.80$$

(Table 6 of ASCE 7-88)

$$q_z = 0.00256 \cdot K_z \cdot (I \cdot V)^2 \frac{\text{lb}}{\text{ft}^2}$$

(Velocity pressure, Eq.3 of ASCE 7-88)

$$q_z = 11.489 \frac{\text{lb}}{\text{ft}^2}$$

$$G_h = 1.32$$

(Gust response factor, Table 8 of ASCE 7-88)

$$C_f = 1.2$$

(Force Coeff. for Solid Signs, Table 13 of ASCE 7-88)

$$A_f = 9\text{-ft} \cdot 6\text{-ft}$$

(Projected area normal to wind in sq. ft)

$$W = q_z \cdot G_h \cdot C_f \cdot A_f$$

(Design Wind Force from Table 4, ASCE 7-88)

$$W = 982.749 \cdot \text{lb}$$

Note: Wind force acting on filter will be the same in both the N-S and E-W directions.

3. Live Floor Load. Use snow load.

$$L = S$$

$$L = 1.62 \cdot 10^3 \text{ } \cdot \text{lb}$$

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HNF-2467, Rev.0

DESIGN ANALYSIS

Calc. No. W320-24-020

Revision 0

Page No. 4 of 10

Client: Westinghouse Hanford Company

WO/Job No. ER4319/W-320

Subject: Intake Air Filter Pad and Cooling Coil

Date 9/2/94

By JR Booth

Support Frame

Checked 3/17/95

By J. W. F...

Location: C-Farm, Tank 241-C-106

Revised

By

4. Dead Loads: See H-2-95451 sh. 5, Detail IV and Section A-A of sh. 4.

Intake Ductwork

$$D_1 := ((5\text{-ft}\cdot 8\text{-ft}) + (5\text{-ft}\cdot 2.17\text{-ft}))\cdot 2 + (2.17\text{-ft}\cdot 8\text{-ft})\cdot 2.66 \cdot \frac{\text{lb}}{\text{ft}^2}$$

$$D_1 = 316.7 \cdot \text{lb}$$

Transition Piece

$$D_2 := 2 \cdot (2\text{-ft}\cdot 8\text{-ft} + 2\text{-ft}\cdot 2\text{-ft})\cdot 3.28 \cdot \frac{\text{lb}}{\text{ft}^2}$$

$$D_2 = 131.2 \cdot \text{lb}$$

Round Duct (Estimated Weight)

$$D_3 := 4\text{-ft}\cdot 9.6 \cdot \frac{\text{lb}}{\text{ft}} + 10 \cdot \text{lb}$$

Add 10 lb for Damper

$$D_3 = 48.4 \cdot \text{lb}$$

Pre-Filter and Filter Housing Weight from vendor data and P. Langowski, see page A-3.

$$D_4 := 600 \cdot \text{lb}$$

Angle Support Frame

$$L_1 := (2\cdot 3.25\text{-ft} + 4\cdot 3\text{-ft} + 8.4\text{-ft} + 3.4\text{-ft} + 2\cdot 3.53\text{-ft})\cdot 4.9 \cdot \frac{\text{lb}}{\text{ft}}$$

$$L_2 := (3\cdot 8\text{-ft} + 2\cdot 3\text{-ft})\cdot 6.6 \cdot \frac{\text{lb}}{\text{ft}}$$

$$L_3 := (2\cdot 15.8\text{-ft})\cdot 2.75 \cdot \frac{\text{lb}}{\text{ft}}$$

$$L_4 := (4\cdot 15.8\text{-ft})\cdot 1.863 \cdot \frac{\text{lb}}{\text{ft}}$$

$$D_5 := L_1 + L_2 + L_3 + L_4$$

$$D_5 = 585.706 \cdot \text{lb}$$

Steel Plates (1/4" Steel Plate)

$$D_6 := 6\cdot 0.34\text{-ft}^2\cdot 10.21 \cdot \frac{\text{lb}}{\text{ft}^2}$$

$$D_6 = 20.828 \cdot \text{lb}$$

Weight of Cooling Coil

$$D_{cc} := 1500 \cdot \text{lb}$$

(Vendor provided wet weight, see pg. A-1)

Total estimated weight of Air Inlet Filter & Cooling Coil

$$D := D_1 + D_2 + D_3 + D_4 + D_5 + D_6 + D_{cc}$$

$$D = 3.203 \cdot 10^3 \cdot \text{lb}$$

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DESIGN ANALYSIS

Calc. No. W320-24-020Revision 0Page No. 5 of 10Client: Westinghouse Hanford CompanyWO/Job No. ER4319/W-320Subject Intake Air Filter Pad and Cooling CoilDate 9/2/94By JR BoothSupport Frame AnalysisChecked 3/17/95By J.W. FLLLocation: C-Farm, Tank 241-C-106

Revised

By

5. Seismic: Ref. SDC 4.1, UCRL 15910, and UBC-91.

Ground motion shall be taken 100% in one perpendicular direction plus 30% in the other direction combined in a SRSS basis.

Critical Damping = 5% for Safety class 3 per SDC 4.1.

$$Z := 0.2$$

Peak Ground Acceleration (UBC 91, Zone 2b)

$$I := 1.25$$

Importance Factor (SDC 4.1)

$$C_p := 2(0.75)$$

Horizontal Force Factor (UBC 91, Table No. 23-P). Factor multiplied by 2 per UBC sec. 2336(b).

$$W_p := D$$

Weight of filter acting on foundations.

$$F_p := Z \cdot I \cdot C_p \cdot W_p$$

Lateral Force per UBC sec.2336(b).

$$F_p = 1.201 \cdot 10^3 \cdot \text{IN} - \text{S}$$

$$F_{p2} := 0.3 \cdot F_p$$

$$F_{p2} = 360.319 \cdot \text{lb}$$

$$E := \sqrt{F_p^2 + F_{p2}^2}$$

$$E = 1.254 \cdot 10^3 \cdot \text{lb}$$

6. Load Combinations

a. UBC 91 load combinations, sec. 2609(c) and sec. 2625(c)4. The zero loads below are to make the MathCAD equations work.

$$W_v := 0 \cdot \text{lb}$$

$$E_v := 0 \cdot \text{lb}$$

$$1. U_1 := 1.4 \cdot D + 1.7 \cdot L$$

$$U_1 = 7.238 \cdot 10^3 \cdot \text{lb}$$

Controlling Load Case

$$2. U_2 := 0.75 \cdot (1.4 \cdot D + 1.7 \cdot L + 1.7 \cdot W_v)$$

$$U_2 = 5.428 \cdot 10^3 \cdot \text{lb}$$

$$3. U_3 := 0.9 \cdot D + 1.3 \cdot W_v$$

$$U_3 = 2.883 \cdot 10^3 \cdot \text{lb}$$

$$4. U_4 := 0.75 \cdot (1.4 \cdot D + 1.7 \cdot L + 1.87 \cdot E_v)$$

$$U_4 = 5.428 \cdot 10^3 \cdot \text{lb}$$

$$5. U_5 := 0.9 \cdot D + 1.43 \cdot E_v$$

$$U_5 = 2.883 \cdot 10^3 \cdot \text{lb}$$

$$6. U_6 := 1.4 \cdot (D + L + E_v)$$

$$U_6 = 6.752 \cdot 10^3 \cdot \text{lb}$$

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DESIGN ANALYSIS

HNF-2467, Rev.0

Calc. No. W320-24-020

Revision 0

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Client: Westinghouse Hanford Company

WO/Job No. ER4319/W-320

Subject: Intake Air Filter Pad and Cooling Coil

Date 9/2/94

By JR Boeth

Support Frame Analysis

Checked 5/18/95

By [Signature]

Location: C-Farm, Tank 241-C-106

Revised

By

$$7. U_7 = 0.9 \cdot D + 1.4 \cdot E_v$$

$$U_7 = 2.883 \cdot 10^3 \cdot \text{lb}$$

7. Check Soil Loading.

$$q_a := 2000 \cdot \frac{\text{lb}}{\text{ft}^2}$$

UBC-91, Table No. 29-B

$$D_c := 150 \cdot \frac{\text{lb}}{\text{ft}^3} \cdot (9 \cdot \text{ft} \cdot 9 \cdot \text{ft} \cdot 0.5 \cdot \text{ft})$$

Weight of 9'-0" x 9'-0" x 0'-6" THK Concrete Pad

$$D_c = 6.075 \cdot 10^3 \cdot \text{lb}$$

$$D_t := D + D_c$$

Total Dead Load on Soil

$$D_t = 9.278 \cdot 10^3 \cdot \text{lb}$$

$$q_{\text{applied}} := \frac{D_t}{9 \cdot \text{ft} \cdot 9 \cdot \text{ft}}$$

$$q_{\text{applied}} = 114.541 \cdot \frac{\text{lb}}{\text{ft}^2}$$

Soil loading not a concern

8. Check overturning.

$$M_{\text{ot}} := E \cdot (4.71 \cdot \text{ft})$$

Conservative. See page A1.

$$M_{\text{ot}} = 5.906 \cdot 10^3 \cdot \text{lb} \cdot \text{ft}$$

$$M_r := D_t \cdot (3.79 \cdot \text{ft})$$

See page A5.

$$M_r = 3.516 \cdot 10^4 \cdot \text{lb} \cdot \text{ft}$$

$$\frac{M_{\text{ot}}}{M_r} = 0.168$$

Resistance to overturning OK.

9. Determine factored upward soil pressure.

$$q_u := 1.7 \cdot q_a \cdot 1 \cdot \text{ft}$$

Conservative

$$q_u = 3.4 \cdot 10^3 \cdot \frac{\text{lb}}{\text{ft}}$$

Net factored upward pressure per lineal foot

DESIGN ANALYSIS

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Revision 0

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Client: <u>Westinghouse Hanford Company</u>	WO/Job No. <u>ER4319/W-320</u>	By <u>JR South</u>
Subject: <u>Intake Air Filter Pad and Cooling Coil</u>	Date <u>9/2/94</u>	By <u>JR South</u>
Support: <u>Frame Analysis</u>	Checked <u>5/18/95</u>	By <u>JR South</u>
Location: <u>C-Farm, Tank 241-C-106</u>	Revised	By

10. Determine Flexural Steel Requirements. Assume the distance from the outside edge of slab to the HVAC support will act as a cantilever beam. See page A-5.

$l := 1\text{-ft}$

$$M_u := \frac{q_u \cdot l^2}{2} = \frac{1000\text{-lb} \cdot 1\text{-ft}}{2}$$

$M_u = 1.7 \quad \text{ft - kips}$

Using the design procedures of ACI SP-17(91), Vol. 1, pg.29.

$f_c := 4000 \text{ psi} \quad f_y := 60000 \text{ psi}$

$b := 12 \quad \text{Width of beam}$
 $h := 6$

$d := h - 3 = 0.25 \quad \text{Effective depth. Try \#4 bars}$

$d = 2.75$

$F := \frac{d^2}{1000} \quad F = 0.008$

$K_n := \frac{M_u}{F} \quad K_n = 224.793$

$a_n := 4.31$

$A_s := \left(\frac{M_u}{d \cdot a_n} \right) \cdot \text{in}^2$

$A_s = 0.143 \cdot \text{in}^2 \quad \text{Area of steel required, sq. in/ft. CONTROLS.}$

$\rho_{\min} := 0.0018 \quad \text{For grade 60 steel, per Ref. 1, sec. 7.12.2.1}$

$A_{s\min} := \rho_{\min} \cdot b \cdot h$

$A_{s\min} = 0.13 \text{ in}^2$

$S_{\max} \leq 18\text{-in} \quad \text{Max spacing per Ref. 1, sec. 7.12.2.2.}$

$S := 0.2 \cdot \text{in}^2 \cdot \left(\frac{12}{A_s} \right)$

$S = 16.733$

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DESIGN ANALYSIS

Calc. No. W320-24-020Revision 0Page No. 8 of 10Client: Westinghouse Hanford CompanyWO/Job No. ER4319/W-320Subject: Intake Air Filter Pad and Cooling CoilDate 9/2/94By JR Booth

Support Frame Analysis

Checked 3/17/95By J.W. FeltLocation: C-Farm, Tank 241-C-106

Revised

By

Check Flexural Shear

$$V_u := q_u \cdot l$$

$$V_u = 3.4 \cdot 10^3 \cdot \text{lb}$$

$$b_w := 12 \text{ in} \quad \phi = 0.85$$

$$V_c := \phi \left(2 \cdot \sqrt{f_c} \right) \cdot b_w \cdot d$$

$$V_c = 3.548 \cdot 10^3 \text{ lb}$$

Ok

Check Punching Shear

$$V_u := \frac{U_1}{4}$$

Conservative

$$V_u = 1.809 \cdot 10^3 \cdot \text{lb}$$

$$b_o := 4 \cdot \left(7 + \frac{d}{2} \right)$$

$$b_o = 33.5$$

$$V_c := \phi \cdot 4 \cdot \sqrt{4000} \cdot b_o \cdot d$$

$$V_c = 1.981 \cdot 10^4 \text{ lb}$$

OK

Provide #4 bars @ 12" O/C E.W.

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HANFORD**

DESIGN ANALYSIS

HNF-2467, Rev.0

Calc. No. W320-24-020

Revision 8

Page No. 9 of 10

Client: <u>Westinghouse Hanford Company</u>	WO/Job No. <u>ER4319/W-320</u>
Subject: <u>Intake Air Filter Pad and Cooling Coil</u>	Date <u>9/2/94</u> By <u>JR Booth</u>
Support Frame Analysis	Checked <u>3/17/95</u> By <u>[Signature]</u>
Location: <u>C-Farm, Tank 241-C-106</u>	Revised <u>5/30/94</u> By <u>[Signature]</u>

10. Expansion Anchor Design: Check expansion anchors for seismic load perpendicular to cooling coil frame. Due to fit-up problems in field, the seismic loading is assumed to be resisted by only (2) expansion anchors in each baseplate.

$$\begin{aligned} \text{Shear per bolt} &= E/(4 \text{ legs}) * 2 \text{ bolts per plate} \\ &= 1254 \text{ lbs} / 8 = 157 \text{ lbs per exp anchor} \end{aligned}$$

$$\begin{aligned} \text{Torsional shear} &= 157 \text{ lbs} * 2 (3.25" / (6.5")) \\ &= 157 \text{ lbs} \end{aligned}$$

$$\begin{aligned} \text{Resultant shear per bolt} &= \sqrt{(157^2 + 157^2)} \\ &= 222 \text{ lbs} \end{aligned}$$

$$\begin{aligned} \text{Uplift} &= E(4.71') / 2(3.58')^2 - D(.85) / 4(2) \\ &= 1254 \text{ lbs} (4.71') / (3.58')^2 - 3203 \text{ lbs} (.85) / 8 \\ &= 72 \text{ lbs uplift per bolt} \end{aligned}$$

$$\begin{aligned} \text{Tension due to prying action} &= 72 \text{ lbs} * 3.25" / \text{say } 1" \\ &= 234 \text{ lbs per bolt} \end{aligned}$$

$$\text{Total tension per bolt} = 72 \text{ lbs} + 234 \text{ lbs} = 306 \text{ lbs}$$

Try: 3/8" dia exp anchors w/ 1-5/8" min emb

$$\begin{aligned} \text{Shear allow} &= 710 \text{ lbs} \\ \text{Tension allow} &= 875 \text{ lbs} \end{aligned}$$

$$IF = 222/710 + 306/875 = .66 < 1.0 \quad \text{OK}$$

11. Check L 3 x 3 x 3/8" angles for use on Cooling Coil Support Frame. See page A-4.

Assumptions

- The support frame for the Air Inlet Filter will resist the seismic force in the direction parallel to the ducting.
- The dimensions shown are approximate and are intended to envelope the dimensions of the actual support frame.

a. Check angle for bending. Assume simply supported beam with concentrated load at center. See page A-4, Section A.

$$\text{kip} := 1000\text{-lb} \quad \text{ksi} := \frac{1000\text{-lb}}{\text{in}^2} \quad D_A := D_1 + D_2 + D_3 + D_{cc}$$

$$P := \frac{D_A}{2} + \left(20 \cdot \frac{\text{lb}}{\text{ft}^2} \right) \cdot 2\text{-ft} \cdot 4.5\text{-ft} \quad \text{Point load acting on angle}$$

$$P = 1.178 \cdot \text{kip}$$

$$L := 54\text{-in} \quad \text{Angle length}$$

$$M := \frac{P \cdot L}{4}$$

$$M = 15.905 \cdot \text{kip-in}$$

↑
wjt
6/12

**KAISER ENGINEERS
HANFORD****DESIGN ANALYSIS**Calc. No. W320-24-020Revision 0Page No. 10 of 10Client: Westinghouse Hanford CompanyWO/Job No. ER4319W-320Subject: Intake Air Filter Pad and Cooling CoilDate 9/2/94By JR Booth *DRB*

Support Frame Analysis

Checked 3/17/95By J.W. FluhLocation: C-Farm, Tank 241-C-106

Revised

By

Use method on Ref. 8, pg. 5-311 section 5.1.1. Assume lateral-torsion restraint along length.

$$F_y := 36 \text{ ksi}$$

$$\text{Try: } F_b := 0.66 \cdot F_y \quad F_b = 23.76 \text{ ksi}$$

$$S := \frac{M}{F_b}$$

$$S = 0.669 \cdot \text{in}^3 \quad \text{Minimum required section modulus}$$

$$S_y := 0.833 \cdot \text{in}^3 \quad \text{Section modulus of L } 3 \times 3 \times 3/8$$

$$b := 3.0 \text{ in} \quad t := \frac{3}{8} \text{ in}$$

$$\frac{b}{t} = 8$$

$$\frac{65}{\sqrt{36}} = 10.833$$

$$\frac{b}{t} \leq \frac{65}{\sqrt{F_y}}$$

Therefore, assumption for allowable bending stress is good.

$$f_b := \frac{M}{S_y} \quad f_b = 19.094 \text{ ksi} \quad \text{OK}$$

b. Check angle under compression. See attachmet B.

$$KL := 3.5 \text{ ft} \quad \text{Assume simply supported attachments, conservative.}$$

$$P_a := 10.3 \text{ kip} \quad \text{Allowable Axial Load for L } 3 \times 3 \times 3/8 \text{ angles.}$$

Since the allowable axial load far exceeds the weight of the Cooling Coil compression will not be a problem.

c. Determine allowable tensile load for L 3 x 3 x 3/8 angles.

$$A_e := 0.88 \cdot \text{in}^2 \quad \text{Area of one leg of angle connected to support per Ref. 8, pg.5-310 section 2.c.}$$

$$F_u := 58 \text{ ksi}$$

$$P_{at} := 0.5 \cdot F_u \cdot A_e \quad \text{Ref. 8, pg. 5-310 section 2.}$$

$$P_{at} = 25.52 \cdot \text{kip} \quad \text{By inspection it can be seen that tensile force in the diagonal member will be far less than the allowable.}$$

12. Design weld adequate to support any load of this design.

$$R_w := \frac{1}{4} \text{ in} \cdot (0.707 \cdot 0.3 \cdot 70 \text{ ksi})$$

$$R_w = 3.712 \cdot \frac{\text{kip}}{\text{in}}$$

Welding along one leg of angle (MIN) will be sufficient to support any load in this design.

7/95 FRI 13:54 FAX 6128204650
13:54 13:54 13:54 13:54 13:54 13:54

SUPER RADIATOR COILS
TEL 11/30288

W320-24-020
Page A-1 of A-5

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0001

Transmittal Memo 7672

Jim St. Martin

To: Peter Langowski

No. of Pages: 1 Today's Date: 1-19-95 Time:

Company: Location: Dept. Charge:

Telephone #: Fax #: Telephone #:

Original Disposition: Destroy Return Call for pickup

Jim, thanks for your prompt reply. It looks good. Please verify/provide the following (at your leisure).

- That the 30x48-12R-58/168 is 12 ft? I couldnt remember what the last number means in the model number.

- what is the dry and water-filled weight of the coil & casing?

Peter Langowski

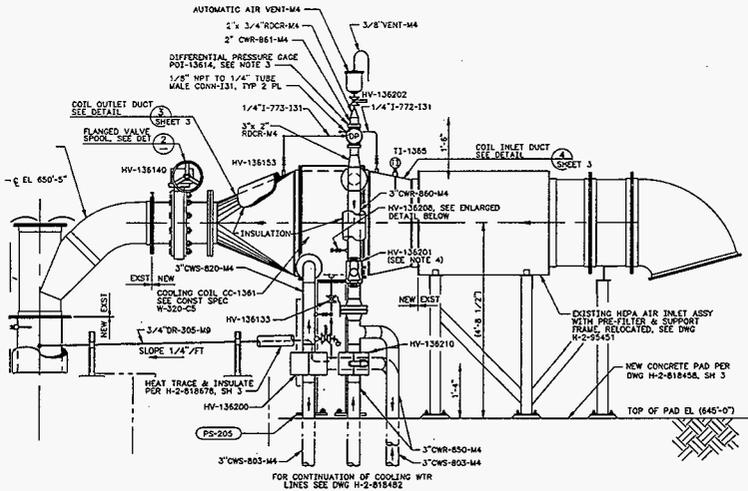
Approx. weights

DRY 1,350 lbs

WET 1,500 lbs

Sincerely,

Jim St. Martin
1-27-95



SECTION B OF H-2-818470, SH-2

DESIGN ANALYSIS

Client <u>WAC</u>	WO/Job No. <u>ER4319/W-320</u>
Subject <u>Intake Air Filter Foundation</u>	Date _____ By <u>JR Booth</u>
	Checked _____ By _____
Location <u>C-Farm</u>	Revised _____ By _____

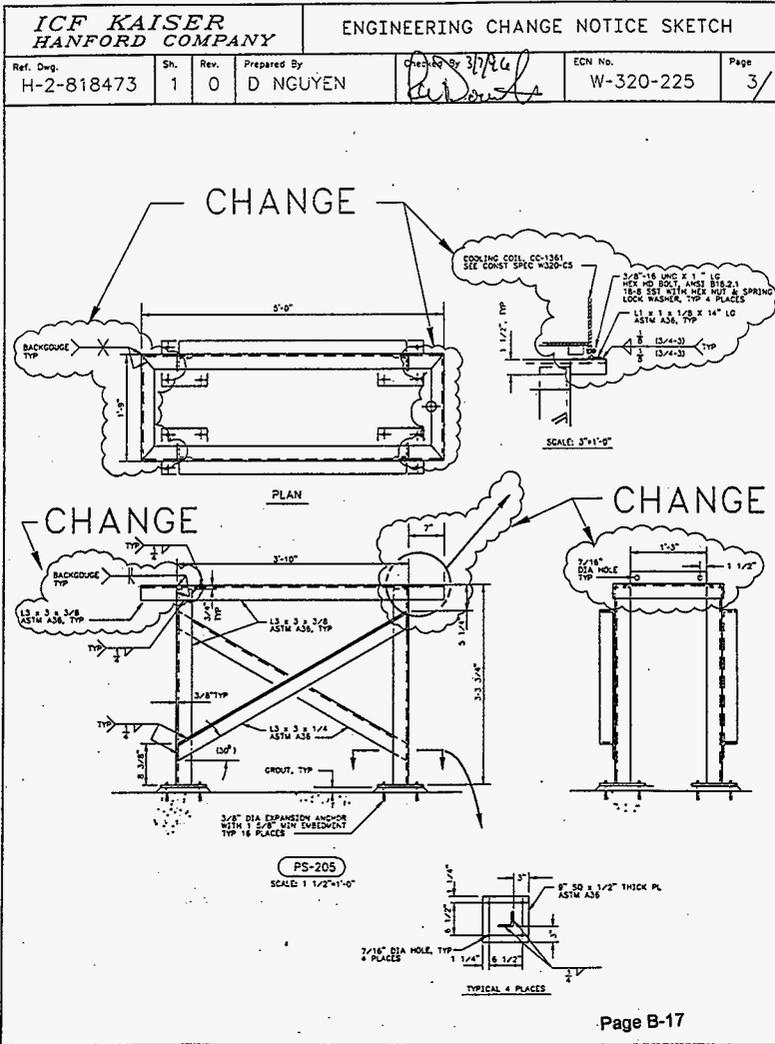
Telecon with Air Commodities 1-206-766-4815

Bob Roy

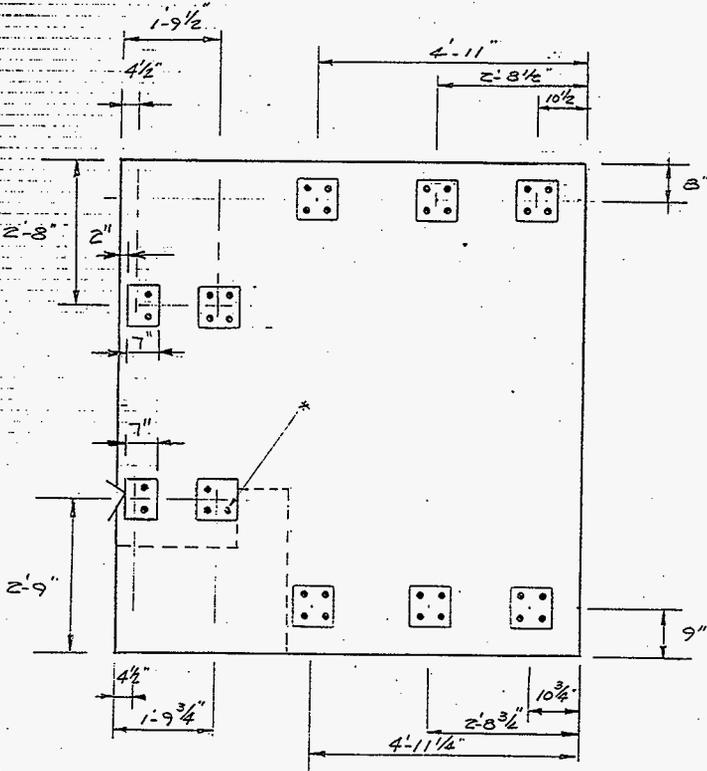
1x3 Flanders E6-GG-F6

approximate weight: 600 lbs. max.

by Peter H Langowski 9-1-94



4. Jm
6/12/96



* THIS ANCHOR WILL BE SET
AFTER BLOCKOUT POUR BACK

INTAKE PAD
P2 PLAN
AS-BUILT

NTS

SS WOLD
6/3/96

△
WJA
6/12/96

Tables for Equal Single Angles in Compression

WAYNE W. WALKER

HNF-2467, Rev.0

The design of single angles in compression is a time consuming, iterative procedure. A computer program was developed to perform these time consuming calculations and generate tables for grades 36 ksi and 50 ksi equal leg angles. The program uses the recently published allowable stresses given in Reference 1.

The tables are generated using the following criteria:

1. The angle is pinned at the support points. ($K = 1.0$)
2. The common loading case where the axial load is applied on one side by a gusset plate. (See Fig. 1.)
3. No axial load is given when L/r exceeds 200.

The following example will illustrate the procedure used by the program:

Given:

Determine the maximum axial load that can be applied as shown in Fig. 1 for an $L4 \times 4 \times \frac{1}{4}$ grade 36 ksi with an unbraced length of 5 ft 0 in.

Angle Properties:

- $A = 1.94 \text{ in.}^2$
- $I_x = 3.04 \text{ in.}^4$
- $Y = 1.09 \text{ in.}$
- $r_x = .795 \text{ in.}$
- $J = .0438 \text{ in.}^4$
- $r_y = 2.23 \text{ in.}$
- $I = .627$
- $F_y = 36 \text{ ksi}$
- $E = 29,000 \text{ ksi}$
- $G = 11,200 \text{ ksi}$
- $t_x = \frac{1}{4} \text{ in.}$

Solution:

Determine Q

$$\frac{b}{t} = \frac{4}{\frac{1}{4}} = 16 \quad \frac{76}{\sqrt{F_y}} = \frac{76}{\sqrt{36}} = 12.7 \quad \frac{155}{\sqrt{F_y}} = \frac{155}{\sqrt{36}} = 25.8$$

since $12.7 < 16 < 25.8$, use $Q = 1.340 - .00447 \left(\frac{b}{t}\right) \sqrt{F_y}$

$$Q = 1.340 - .00447(16)\sqrt{36} = .911$$

Wayne W. Walker is structural engineer, Lockwood Greene Engineers, Atlanta, GA.

Determine angle properties with respect to the W and Z axes.

$$I_x = Ar_x^2 = 1.94(.795)^2 = 1.23 \text{ in.}^4$$

$$I_w = I_x + I_y - I_x = 2(3.04) - 1.23 = 4.85 \text{ in.}^4$$

$$r_w = \sqrt{\frac{I_w}{A}} = \sqrt{\frac{4.85}{1.94}} = 1.58 \text{ in.}$$

$$E_w = \frac{.7071}{2} (L_x + t_x) = \frac{.7071}{2} (4 + .375) = 1.55 \text{ in.}$$

$$E_z = y\sqrt{2} - \frac{.7071}{2} (L_x - t_x) = 1.09\sqrt{2} - \frac{.7071}{2} (4 - .375) = .260 \text{ in.}$$

$$C_w = .7071(L_x) = .7071(4) = 2.83 \text{ in.}$$

$$C_z = y\sqrt{2} = 1.09\sqrt{2} = 1.54 \text{ in.}$$

$$S_w = \frac{I_w}{C_w} = \frac{4.85}{2.83} = 1.71 \text{ in.}^3$$

$$S_z = \frac{I_z}{C_z} = \frac{1.23}{1.54} = .799 \text{ in.}^3$$

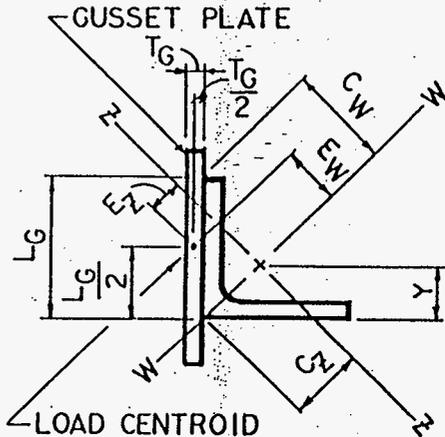


Fig. 1. Angle plan view.

Determine the Equivalent L/r for flexural-torsional buckling.

$$F_y = \frac{GJ}{Ar^2} = \frac{11,200(.0438)}{1.94(.23)^2} = 50.8 \text{ ksi}$$

$$F_{tw} = \frac{\pi^2 E}{\left(\frac{L}{r_w}\right)^2} = \frac{\pi^2(29,000)}{\left(\frac{5(12)}{1.58}\right)^2} = 198.5 \text{ ksi}$$

$$F_t = \frac{F_{tw} + F_y}{2H} \left(1 - \sqrt{1 - \frac{4(F_{tw})(F_y)H^2}{(F_{tw} + F_y)^2}}\right)$$

$$F_t = \frac{198.5 + 50.8}{2(.627)} \left(1 - \sqrt{1 - \frac{4(198.5)(50.8)(.627)^2}{(198.5 + 50.8)^2}}\right) = 45.7 \text{ ksi}$$

$$\left(\frac{L}{r}\right)_{\text{equiv}} = \pi \sqrt{\frac{E}{F_t}} = \pi \sqrt{\frac{29,000}{45.7}} = 79.1$$

$$\frac{L}{r_t} = \frac{5(12)}{.795} = 75.5$$

since $79.1 > 75.5$, flexural-torsional buckling controls.

Determine E_s .

$$C_s = \sqrt{\frac{2\pi^2 E}{QF_y}} = \sqrt{\frac{2\pi^2(29,000)}{.91(36)}} = 132.1$$

$$\frac{L/r}{C_s} = \frac{79.1}{132.1} = .60 \text{ using Ref. 1 Table 3 } C_n = .440$$

$$F_n = C_n QF_y = .440(.91)36 = 14.4 \text{ ksi}$$

Determine F_{bn} .

$$F_{bn} = \frac{28,250}{\frac{L}{t}} = \frac{28,250}{.25} = 117.7 \text{ ksi}$$

since $117.7 \text{ ksi} > 36 \text{ ksi}$, use $F_{bn} = (0.95 - .50 \sqrt{\frac{F_y}{F_{bn}}})F_y \leq .66 F_y$

W320-24-020
P₉₀-B-2

$$F_w = (0.95 - .50 \sqrt{\frac{36}{117.7}})36 = 24.2 \text{ ksi}$$

$$.66(36) = 23.8 \text{ ksi}$$

Check b/t provisions.

since $b/t > \frac{76}{\sqrt{F_y}}$, use $F_w = .60QF_y$

$$F_w = .60(.91)36 = 19.7 \text{ ksi} \text{ -- governs}$$

Determine F_{bt} .

since $b/t > \frac{76}{\sqrt{F_y}}$, use $F_{bt} = .60QF_y = 19.7 \text{ ksi}$

Solve for the maximum allowable axial load using:

$$\frac{P}{AF_n} + \frac{PE_w}{\left(1 - \frac{P}{AF_w}\right)S_w F_w} + \frac{PE_t}{\left(1 - \frac{P}{AF_t}\right)S_t F_t} \leq 1.0$$

$$F_w = 103.4 \text{ ksi } F_t = 26.2 \text{ ksi using Ref. 1 Table 8}$$

$$\frac{P}{1.94(14.4)} + \frac{P(1.55)}{\left(1 - \frac{P}{1.94(103.4)}\right)1.71(19.7)} + \frac{P(.260)}{\left(1 - \frac{P}{1.94(26.2)}\right).799(19.7)} \leq 1.0$$

$$P = 9.6 \text{ kips}$$

REFERENCES

1. American Institute of Steel Construction, *Manual of Steel Construction*, 9th ed., (Chicago: AISC, 1989).

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Pg. B-3

Allowable Axial Load in Kips

L6.0x6.0

KL (ft)	Grade 36.0 ksi								Grade 50.0 ksi							
	1½	1	¾	¾	¾	¾	¾	¾	1½	1	¾	¾	¾	¾	¾	¾
1	99.9	92.0	83.7	73.8	69.2	61.7	43.9	137.7	128.6	114.8	94.7	75.8	65.3	54.4	44.4	34.3
2	99.8	91.8	83.4	73.6	69.0	61.6	43.8	137.3	128.1	114.4	94.4	75.2	64.9	54.1	44.3	34.2
3	99.2	91.3	83.1	73.2	68.9	61.4	43.8	136.4	125.3	113.7	93.8	74.6	64.5	53.8	44.1	34.1
4	98.6	90.7	82.6	72.8	68.5	61.2	43.5	135.0	124.2	112.7	93.2	74.0	63.9	53.4	44.0	34.0
5	97.3	89.9	81.9	72.3	68.1	60.9	43.2	132.9	122.7	111.5	92.2	73.2	63.3	52.9	43.9	33.9
6	95.4	88.3	81.1	71.8	67.6	60.4	42.8	129.5	119.8	109.8	91.0	72.2	62.5	52.3	43.8	33.8
7	93.4	86.4	79.2	70.7	67.0	49.9	42.5	125.6	116.2	106.8	89.6	71.0	61.6	51.6	43.7	33.7
8	91.0	84.3	77.3	69.0	66.2	49.4	42.1	121.4	112.2	102.9	88.6	69.2	60.5	50.9	43.6	33.6
9	88.5	81.9	76.1	67.1	65.2	48.7	41.6	116.7	108.0	99.1	84.8	60.3	66.5	59.0	43.5	33.5
10	85.8	79.3	72.8	65.0	63.6	47.7	41.0	111.8	103.3	94.4	80.2	76.6	63.7	56.8	43.4	33.4
11	82.9	76.6	70.3	62.8	61.8	46.3	40.2	106.8	99.4	91.1	85.4	72.7	60.7	54.1	43.3	33.3
12	79.8	73.7	67.6	60.5	49.9	44.7	38.9	101.0	93.1	85.4	80.3	68.5	67.4	51.4	43.2	33.2
13	76.6	70.7	64.9	58.0	48.0	43.0	37.5	95.0	87.6	80.3	68.5	67.4	51.4	43.1	43.1	33.1
14	73.2	67.6	62.0	56.4	45.9	41.2	36.1	88.6	81.6	74.8	69.1	64.0	54.0	48.5	43.0	33.0
15	69.6	64.2	58.8	52.7	43.6	39.3	34.5	82.4	75.8	69.1	64.0	54.0	48.5	42.9	42.9	32.9
16	65.7	60.6	55.6	49.7	41.3	37.3	32.9	76.6	70.4	63.9	55.3	46.7	42.2	37.2	42.8	32.8
17	61.8	56.9	52.2	46.8	38.9	35.2	31.1	71.4	65.3	59.2	51.5	43.6	39.4	34.6	42.7	32.7
18	58.1	53.5	48.9	43.5	36.4	33.1	29.3	66.5	60.7	55.0	47.9	40.6	36.8	32.4	42.6	32.6
19	54.6	50.2	46.0	40.7	34.2	31.1	27.5	62.0	56.5	51.2	44.6	37.7	34.2	30.3	42.5	32.5
20	51.5	47.2	43.1	38.1	32.2	29.2	25.9	57.9	52.7	47.8	41.5	35.2	31.9	28.2	42.4	32.4
21	48.5	44.5	40.5	35.8	30.2	27.5	24.5	54.2	49.3	44.6	38.8	32.8	29.6	26.4	42.3	32.3
22	45.8	42.5	38.1	33.7	28.4	25.8	23.0	50.8	46.2	41.8	36.3	30.7	27.9	24.7	42.2	32.2
23	43.2	39.5	35.8	31.6	26.7	24.3	21.6	47.6	43.3	39.1	34.0	28.8	26.1	23.1	42.1	32.1
24	40.8	37.3	33.8	29.9	25.2	22.9	20.3	44.7	40.7	36.8	32.0	27.1	24.5	21.7	42.0	32.0
25	38.6	35.3	31.9	28.2	23.7	21.6	19.2	42.1	38.4	34.6	30.1	25.4	23.0	20.3	41.9	31.9
26	36.6	33.3	30.1	26.6	22.4	20.4	18.1	39.8	36.1	32.6	28.3	23.9	21.7	18.1	41.8	31.8

L6.0x6.0

KL (ft)	Grade 36.0 ksi										Grade 50.0 ksi									
	1	¾	¾	¾	¾	¾	¾	¾	¾	¾	1	¾	¾	¾	¾	¾	¾	¾	¾	¾
1	61.3	56.2	50.5	44.4	40.8	34.7	29.9	24.2	19.2	84.7	77.5	69.5	57.0	52.1	45.5	37.9	30.0	21.8	17.6	13.4
2	61.0	55.9	50.3	44.1	40.5	34.5	29.8	24.1	19.2	84.1	77.0	69.0	56.6	51.8	45.2	37.8	29.9	21.7	17.5	13.3
3	60.3	55.5	49.9	43.7	40.1	34.3	29.6	24.0	19.1	82.9	76.0	68.2	56.1	51.3	44.8	37.5	29.7	21.6	17.4	13.2
4	59.0	54.3	49.2	43.3	39.7	33.9	29.3	23.7	17.9	80.5	74.0	67.0	55.2	50.5	44.2	37.0	29.3	21.4	17.3	13.1
5	57.5	52.9	47.8	42.5	39.1	33.4	29.0	23.5	17.8	77.6	71.4	64.6	54.0	49.6	43.5	36.5	28.9	21.1	17.2	13.0
6	55.7	51.2	46.3	41.1	38.6	31.7	27.9	22.8	17.3	70.8	64.9	58.6	49.1	45.4	40.4	34.8	27.9	20.9	16.9	12.9
7	53.6	49.3	44.6	39.6	36.0	30.3	26.8	22.3	17.1	66.8	61.1	55.1	46.4	42.8	38.1	33.0	27.2	20.2	16.8	12.8
8	51.4	47.2	42.6	37.9	35.2	29.0	25.6	21.4	16.7	62.2	57.0	51.4	43.4	39.9	35.7	31.1	25.7	19.7	16.7	12.7
9	49.1	45.0	40.6	36.1	33.0	27.4	24.3	20.4	16.2	57.4	52.5	47.3	40.0	36.9	33.1	28.9	24.2	18.9	16.6	12.6
10	46.4	42.8	38.4	34.1	31.4	27.4	22.9	19.2	15.6	52.3	47.8	42.9	36.4	33.5	30.2	26.8	22.4	17.8	16.5	12.5
11	43.8	40.0	36.0	32.0	29.4	25.7	22.9	19.2	15.5	48.2	43.9	39.1	33.1	30.6	27.4	24.2	20.5	16.5	16.4	12.4
12	40.7	37.2	33.4	29.7	27.4	23.9	21.4	18.1	14.8	43.7	43.4	38.9	33.1	30.6	27.4	24.2	20.5	16.5	16.4	12.4
13	37.5	34.3	30.7	27.3	25.1	22.0	19.7	16.8	13.7	47.5	39.6	35.2	30.1	27.7	24.9	22.2	20.1	17.1	13.9	13.9
14	34.7	31.7	28.3	25.1	22.9	20.3	18.1	15.4	12.7	39.8	36.2	32.0	27.5	25.2	22.9	20.6	18.3	15.6	12.9	13.8
15	32.1	29.2	26.1	23.0	21.0	18.7	16.7	14.3	11.8	36.5	33.0	29.2	25.1	23.0	20.9	18.8	16.7	14.2	11.7	13.7
16	29.7	27.1	24.1	21.2	19.3	17.2	15.4	13.2	10.9	33.8	30.3	26.7	23.0	21.1	19.2	17.3	15.3	13.0	10.7	13.6
17	27.6	25.0	22.4	19.5	17.8	15.9	14.2	12.1	10.2	30.8	27.8	24.6	21.1	19.2	17.3	15.3	13.0	10.7	13.5	13.5
18	25.7	23.3	20.7	18.0	16.4	14.7	13.1	11.2	9.4	28.5	25.6	22.8	19.4	17.6	15.9	14.0	12.0	9.9	13.4	13.4
19	23.9	21.7	19.2	16.8	15.3	13.6	12.2	10.4	8.7	26.3	23.7	20.9	18.0	16.3	14.6	13.0	11.0	9.1	13.3	13.3
20									8.0											13.2

L5.0x5.0

KL (ft)	Grade 36.0 ksi							Grade 50.0 ksi								
	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾
1	42.8	39.1	34.6	29.5	24.6	21.0	16.4	59.2	54.0	47.6	37.8	32.8	26.9	20.5	16.7	12.9
2	42.5	38.8	34.4	29.2	24.4	20.7	16.4	58.5	53.5	47.1	37.5	32.6	26.7	20.3	16.6	12.8
3	41.8	38.2	33.9	28.9	24.2	20.1	16.3	56.9	52.3	46.4	36.9	32.1	26.3	20.1	16.5	12.7
4	40.3	37.1	33.0	28.4	23.7	20.4	16.0	54.6	50.2	44.6	36.1	31.4	25.9	19.8	16.4	12.6
5	38.8	35.6	31.7	27.4	23.2	20.1	15.8	51.9	47.7	42.3	34.4	30.4	25.3	19.4	16.3	12.5
6	37.2	34.1	30.3	26.1	22.2	19.4	15.4	48.9	44.7	39.8	32.4	28.7	24.2	18.9	16.2	12.4
7	35.3	32.4	28.8	24.8	21.1	18.5	14.9	45.4	41.6	36.9	30.1	26.7	22.8	18.1	16.1	12.3
8	33.2	30.4	27.0	23.2	19.6	17.4	14.2	41.6	38.0	33.6	27.5	24.5	20.8	16.8	16.0	12.2
9	31.0	28.3	25.0	21.6	18.4	16.2	13.3	37.4	34.1	30.1	24.7	22.0	19.0	15.5	15.9	12.1
10	28.6	26.0	23.0	19.7	17.0	14.9	12.3	33.5	30.4	26.8	22.1	19.6	17.0	13.9	15.8	12.0
11	26.0	23.6	20.8	17.9	15.4	13.8	11.2	30.1	27.3	23.8	19.7	17.6	15.6	13.6	11.5	11.9
12	23.6	21.6	18.9	16.0	14.0	12.3	10.2	27.1	24.5	21.3	17.6	15.6	13.6	11.5	11.4	11.8
13	21.6	19.6	17.2	14.5	12.6	11.2	9.3	24.5	22.1	19.1	15.8	14.0	12.2	10.1	11.3	11.7
14	19.8	17.8	15.6	13.2	11.6	10.1	8.5	22.2	19.9	17.2	14.2	12.6	11.0	9.1	11.2	11.6
15	18.2	16.3	14.3	12.0	10.6	9.1	7.7	20.2	18.0	15.7	12.9	11.4	9.8	8.2	11.1	11.5
16	16.7	15.0	13.1	11.0	9.7	8.4	7.0	18.4	16.5	14.3	11.7	10.4	9.0	7.4	11.0	11.4

Allowable Axial Load in Kips (cont.)

L4.0x4.0														
(h)	Grade 36.0 ksi							Grade 50.0 ksi						
	3/4	1	1 1/8	1 1/4	1 3/8	1 1/2	1 5/8	3/4	1	1 1/8	1 1/4	1 1/2		
1	27.7	24.9	21.8	19.5	17.2	13.7	10.3	38.4	34.4	29.7	26.9	22.1	17.6	12.8
2	27.3	24.5	21.4	19.3	17.1	13.6	10.2	37.6	33.8	29.3	26.4	21.8	17.4	12.7
3	26.5	23.8	20.8	18.9	16.7	13.4	10.1	36.0	32.2	28.3	25.8	21.3	17.0	12.5
4	25.3	22.7	19.9	18.1	16.2	13.0	9.9	33.8	30.4	26.5	24.1	20.3	16.5	12.2
5	23.9	21.4	18.7	17.1	15.2	12.4	9.6	31.3	28.1	24.5	22.3	18.8	15.5	11.8
6	22.4	20.0	17.5	15.9	14.2	11.6	9.1	28.5	25.4	22.2	20.2	17.1	14.1	11.0
7	20.7	18.4	16.1	14.6	13.0	10.6	8.5	25.2	22.5	19.5	17.7	15.1	12.6	10.0
8	18.7	16.7	14.4	13.2	11.7	9.7	7.7	22.1	19.6	16.9	15.2	13.1	11.0	8.8
9	16.6	14.8	12.8	11.6	10.3	8.6	7.0	19.3	17.1	14.8	13.2	11.4	9.6	7.7
10	14.9	13.2	11.3	10.2	9.0	7.8	6.2	17.0	15.0	12.7	11.4	9.9	8.4	6.7
11	13.4	11.8	10.1	9.1	8.0	6.7	5.4	15.1	13.2	11.2	10.1	8.7	7.3	5.9
12	12.0	10.5	9.0	8.1	7.1	6.0	4.9	13.5	11.7	9.9	8.9	7.6	6.5	5.2
13			8.1	7.2	6.3	5.4	4.3			8.8	7.9	6.8	5.7	4.6

L3.5x3.5												
KL (ft)	Grade 36.0 ksi						Grade 50.0 ksi					
	3/4	1	1 1/8	1 1/4	1 3/8	1 1/2	3/4	1	1 1/8	1 1/4	1 1/2	
1	17.7	16.1	14.5	11.7	9.3	24.3	22.1	18.6	15.7	11.7		
2	17.4	15.8	14.3	11.5	9.1	23.8	21.7	18.3	15.5	11.6		
3	16.7	15.2	13.8	11.2	8.9	22.5	20.6	17.5	15.0	11.3		
4	15.7	14.3	13.0	10.6	8.7	20.7	18.9	16.2	14.0	10.9		
5	14.6	13.3	12.1	9.9	8.1	18.7	17.0	14.6	12.6	9.9		
6	13.3	12.1	11.0	9.1	7.4	16.3	14.9	12.8	11.1	8.8		
7	11.9	10.8	9.8	8.1	6.7	14.0	12.6	10.9	9.4	7.6		
8	10.4	9.4	8.5	7.1	5.9	12.0	10.7	9.4	8.1	6.6		
9	9.0	8.3	7.4	6.2	5.1	10.2	9.3	8.1	6.9	5.5		
10	8.0	7.2	6.4	5.5	4.5	8.9	7.9	7.0	6.0	4.9		
11	7.1	6.3	5.6	4.7	3.9	7.8	6.9	6.0	5.2	4.2		

L3.0x3.0												
KL (ft)	Grade 36.0 ksi						Grade 50.0 ksi					
	3/4	1	1 1/8	1 1/4	1 3/8	1 1/2	3/4	1	1 1/8	1 1/4	1 1/2	
1	14.0	12.8	11.6	10.1	7.9	5.5	19.2	17.7	15.9	13.0	10.3	8.9
2	13.5	12.4	11.3	9.9	7.7	5.4	18.5	17.0	15.4	12.6	10.1	8.8
3	12.8	11.8	10.7	9.4	7.5	5.3	17.2	15.7	14.3	11.9	9.6	8.5
4	11.8	10.9	9.9	8.7	7.0	5.1	15.4	14.2	12.8	10.6	8.8	6.2
5	10.8	9.9	8.9	7.8	6.3	4.7	13.3	12.2	11.1	8.2	7.6	5.5
6	9.5	8.6	7.8	6.9	5.5	4.1	11.2	10.2	9.2	7.7	6.3	4.7
7	8.1	7.4	6.7	5.9	4.7	3.6	9.4	8.6	7.6	6.5	5.3	4.0
8	7.0	6.4	5.7	4.9	4.0	3.1	8.0	7.2	6.4	5.4	4.4	3.3
9	6.0	5.5	4.9	4.2	3.5	2.6	6.8	6.1	5.4	4.6	3.8	2.8

L2.5x2.5												
KL (ft)	Grade 36.0 ksi						Grade 50.0 ksi					
	3/4	1	1 1/8	1 1/4	1 3/8	1 1/2	3/4	1	1 1/8	1 1/4	1 1/2	
1	10.4	8.8	7.7	6.5	4.7	14.3	12.1	10.8	8.4	6.0		
2	9.8	8.4	7.4	6.3	4.6	13.4	11.4	10.1	8.0	5.8		
3	9.1	7.8	6.8	5.9	4.4	12.1	10.2	9.1	7.2	5.4		
4	8.3	6.9	6.1	5.2	3.9	10.5	8.7	7.7	6.2	4.7		
5	7.2	6.0	5.3	4.5	3.4	8.5	7.0	6.2	5.0	3.9		
6	6.0	5.0	4.3	3.7	2.8	7.0	5.8	4.9	4.1	3.1		
7	5.0	4.1	3.6	3.1	2.3	5.7	4.6	4.0	3.4	2.5		
8	4.3	3.5	3.1	2.6	2.0	4.8	3.9	3.3	2.7	2.1		

L2.0x2.0												
KL (ft)	Grade 36.0 ksi						Grade 50.0 ksi					
	3/4	1	1 1/8	1 1/4	1 3/8	1 1/2	3/4	1	1 1/8	1 1/4	1 1/2	
1	6.0	5.4	4.7	3.7	2.2	8.3	7.5	6.6	4.8	2.8		
2	5.6	5.1	4.4	3.5	2.2	7.6	6.8	5.9	4.5	2.7		
3	5.0	4.5	3.9	3.1	2.0	6.4	5.7	5.0	3.8	2.4		
4	4.3	3.9	3.2	2.6	1.7	5.1	4.5	3.8	3.0	2.0		
5	3.4	3.0	2.6	2.1	1.4	3.9	3.5	3.0	2.3	1.5		
6	2.8	2.5	2.1	1.7	1.1	3.1	2.7	2.3	1.8	1.2		

W320-24-021

Misc. Mechanical (HVAC) Equipment Foundation
Exhaust Air Cleanup Train Skid

DESIGN VERIFICATION SCREENING CRITERIA

Project/Document No. W320/CALCULATION, W320-24-021,
REV. 0

When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|---------|--|
| _____ | _____ ✓ | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | _____ ✓ | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | _____ ✓ | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | _____ ✓ | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |

Red Dornick
Assigned Lead Engineer

6/11/95
Date

Red Dornick
Responsible Discipline Manager

6/11/95
Date

Original Design Package Distribution:

Project Engineer

Chief Design Engineer

Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-021

Revision 0

Page No. 1 of 18

DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations - Exhaust Air
Cleanup Train Skid

Date 07/21/94

By M.R Custer

Checked 9/27/94

By JRB

Location TANK 241-C-106

Revised

By

OBJECTIVE:

The objective of this calculation is to provide the detailed design for the Exhaust Air Cleanup Train foundation. The design of the foundation shall be performed in accordance with ACI-318 (Strength Design) and the Uniform Building Code (1991), as required by the project design criteria, SDC-4.4, Rev.11. Since definitive information regarding the weights and geometry of the equipment will not be available, due to long lead time for purchase, conservative estimates of the weights and equipment geometry will be used to perform the analysis and design. The foundation for the Exhaust Air Cleanup Train Skid is located inside the tank farm.

CRITERIA:

1. DOE ORDER 6430.1A (04/06/89)
2. HANFORD PLANT STANDARDS, STANDARD ARCH./CIVIL DESIGN CRITERIA, SDC-4.1, REV.11
3. FUNCTIONAL DESIGN CRITERIA, WHC-SD-W320-FDC-001, REV.2
4. LETTERS OF INSTRUCTION:
5. ASCE 7-88

DATA:

1. The equipment and foundations for the equipment in this calculation are Safety Class 3 per Reference 4.

ASSUMPTIONS: Weights and equipment geometry will be conservatively assumed and will be verified on receipt and review of the vendor drawings.

METHODS: Hand calculations

REFERENCES:

1. ACI 318-91, Building Code Requirements for Reinforced Concrete.
2. Uniform Building Code (UBC), (1991 Edition).
3. HANFORD PLANT STANDARDS, STANDARD ARCH./ CIVIL DESIGN CRITERIA, SDC-4.1, REV.11.
4. WHC-SD-WM-SEL-033, REV.0-C, Interm Safety Equipment List for 241-C-106 WASTE RETRIEVAL.
5. Foundation Analysis and Design, Joesph E. Bowles (1st Edition).
6. ASCE 7-88 (American Society of Civil Engineers Standard), Minimum Design Loads for Buildings and Other Structures.

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client WHC

WO/Job No. W-320/ER-4319

subject Miscellaneous Mechanical (HVAC)
Equipment Foundations - Exhaust Air
Cleanup Train Skid

Date 07/21/94 By M.R Custer

checked 9/27/94 By JRB

Location TANK 241-C-106

Revised By

CALCULATIONS:

Refer to Design Calculation section

CONCLUSIONS:

The foundation for the Exhaust Skid is designed as a slab on grade. The loads developed in the calculation, while conservative are minimal, based on the physical area required by the piping and equipment configuration. The design satisfies the design requirements for the foundation.

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DESIGN CALCULATIONS:

The design and analysis of the Exhaust skid foundation consists of developing conservative estimates for the weights of the major equipment, determine relative locations for each equipment on the foundation and design of the concrete foundation to support the load configuration. All equipment supported on the foundation is Safety Class 3 per Reference 4, therefore the design of the foundation is Safety Class 3.

DESIGN REQUIREMENTS:

- Allowable soil pressure for foundation design, 2000 lb/sq.ft. (Reference 2)
- Coefficient of Sliding = 0.25 (Reference 2)
- Minimum footing dimensions, (Reference 2)
 - Thickness of foundation wall, 6"
 - Width of footing, 12"
 - Thickness of footing, 6" (Above the reinforcement)
 - Depth of footing below undisturbed ground, 12"
 - Minimum slab thickness (plain concrete), 3 1/2"
- Snow/Roof Live Load, 20 lbs/sq.ft. (Reference 3)
- Wind Load, (Reference 3)
 - Basic wind speed, 70 mph
 - Importance Factor, 1.07
 - Exposure Category, C

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DESIGN LOADS:DEAD LOADS

- Mechanical equipment (i.e. the exhaust fan, stack, HVAC duct/ filters, duct supports, electrical panels and structural skid. Estimated weights for each equipment are:

<u>EQUIPMENT</u>	<u>WEIGHT</u>
a) Exhaust Fan	800 lbs
b) Exhaust Stack	800 lbs
c) (3) Elect. Panels	1200 lbs
d) HVAC Filter Assembly	3200 lbs
e) Equipment Container and Structural framing	2800 lbs
f) Structural Skid	10000 lbs
Total Equipment Weight =	18800 lbs

- Dead Load - Foundation (assume 12 " thick slab):

$$\text{Wt. slab} = 7.5 \text{ ft} \times 27.0 \text{ ft} \times 1.0 \text{ ft} \times 150 \text{ lbs/ft}^3 =$$

$$\text{Total Concrete Weight} = 30375 \text{ lbs} = 30.4 \text{ Kips}$$

EQUIPMENT LIVE LOAD:

- Equipment Live Load, LLr = Equip. Live Load x 1.5 (Reference 2)

The equipment live load for this design is considered negligible due to the extremely, small magnitude of the loads transmitted by the rotating equipment (fan unit). An accepted, simplified approach to determine adequacy of a foundation is a comparison of the masses (mass ratio). The mass of the foundation should be 3 to 5 times the weight of the rotating equipment. For this case the ratio is: (Reference 5, page 601)

$$\text{Mass Ratio} = 30.4 / 4.0 \text{ (equipment contributing)} = 7.6 \text{ (conservative)}$$

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WIND LOAD:

- Determine wind load (general):

$$qz = 0.00256 Kz (IV)^2, \text{ where} \quad (\text{Reference 6})$$

$$Kz = 0.80 \text{ (Exposure C)} \quad (\text{Reference 3})$$

$$I = 1.07$$

$$V = 70 \text{ mph}$$

$$qz = 0.00256 (0.80)[(1.07)70]^2 = 11.5 \text{ lb/ft}^2$$

$$F = qz Gh Cf Af, \text{ where:} \quad (\text{Reference 6})$$

$$Gh = 1.32 \quad (\text{Ref. 6, Table 8})$$

$$Cf = 2.0 \quad (\text{Ref. 6, Table 12})$$

$$F = 11.5 (1.32) (2.0) Af,$$

$$Fw = 30.4 \text{ lbs/ft}^2 \times Af$$

$$Fw = 30.4 \text{ lbs/ft}^2 (4.0 \text{ ft} \times 26.0 \text{ ft}) = 3162 \text{ lbs} = 3.2 \text{ k}$$

SNOW LOAD: 20 lbs/sf. ft. (Reference 3)

- Equipment:

$$S = 6.5 \text{ ft} \times 26.0 \text{ ft} \times 20 \text{ lbs/ft}^2 =$$

$$S = 3380 \text{ lbs} = 3.4 \text{ k}$$

- Foundation:

$$S = 7.5 \text{ ft} \times 27.0 \text{ ft} \times 20 \text{ lbs/ft}^2 = 4050 \text{ lbs}$$

$$S = 4050 \text{ lbs} = 4.1 \text{ k}$$

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EARTHQUAKE LOADS:

- Lateral Seismic Force, $F_p = ZICp W_p$, where: (Reference 2)
 - $Z = 0.20$ (Reference 2)
 - $I = 1.25$ (Reference 3)
 - $C_p = .75 \times 2 = 1.5$ (Reference 3)
 - $F_p = (0.20)(1.25)(1.5) W_p = 0.375 W_p$
 - $E_{n-s} = V_{n-s}$ (100% max.) (Reference 2)
 - $E_{e-w} = V_{e-w}$ (30% max.) (Reference 2)
 - $E_{n-s} = V_{n-s} = 0.375 W_p = 0.375 (18800) = 7050 \text{ lbs} = 7.1 \text{ Kips}$
 - $E_{e-w} = V_{n-s} = 0.375 W_p (0.3) = 0.375 (18800)(0.3) = 2115 \text{ lbs} = 2.1 \text{ Kips}$
 - $E \text{ (SRSS)} = [7.1^2 + 2.1^2]^{1/2}$ (Reference 2 & 3)
 - $E \text{ (SRSS)} = 7.4 \text{ Kips}$ (Apply force in direction providing maximum load conditions)

- Distribution of seismic forces by component:

<u>LOAD IDENTIFIER</u>	<u>VERTICAL COMP.* RATIO</u>	<u>HORIZ. COMPONENT</u>
a) Exhaust Fan	800 (7400/18800)	315 lbs
b) Exhaust Stack	800 "	315 lbs
c) (3) Elect. Panels	1200 "	472 lbs
d) HVAC Filter Assembly	3200 "	1260 lbs
e) Equip. Container	2800 "	1102 lbs
f) Structural Skid	10000 "	3936 lbs
TOTAL WEIGHT =	18800 lbs	7400 lbs

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LOCATE THE CENTER OF GRAVITY/CENTER OF MASS FOR THE EQUIPMENT/COMPONENTS:

<u>Component Description</u>	Weight, lbs	X-distance,	Z-Distance,	H-Distance, (ft.)
a) Exhaust Fan	800 lbs	23.5 ft	3.5 ft	3.0 ft
b) Exhaust Stack	800 lbs	22.5 ft	4.0 ft	11.0 ft
c) (3) Elect. Panels	1200 lbs	16.5 ft	4.5 ft	4.0 ft
d) HVAC Filter Assembly	3200 lbs	13.5 ft	3.5 ft	4.5 ft
e) Equip. Container	2800 lbs	13.5 ft	3.8 ft	5.0 ft
f) Structural Skid	10000 lbs	13.5 ft	3.8 ft	0.5 ft

Reference points for the x, z, and h distances are as follows:

- 1) x-distance, dimension from the west edge of the slab to the approximate center of mass of the component in the east-west direction.
- 2) z-distance, dimension from the south edge of the slab to the approximate center of mass of the component in the north-south direction.
- 3) h-distance, dimension from the top of the slab to the approximate center of mass of the component in the vertical direction.

CENTER OF GRAVITY: (Ref. sketch, Figure 1, page 16)

- Center Gravity, East-West direction

$$\bar{x} = \Sigma P(x) / \Sigma P = 272600 \text{ ft-lb} / 18800 \text{ lbs}$$

$$\bar{x} = 14.5 \text{ ft}$$

- Center of Gravity, North-South direction

$$\bar{z} = \Sigma P(z) / \Sigma P = 71240 \text{ ft-lb} / 18800 \text{ lbs}$$

$$\bar{z} = 3.8 \text{ ft}$$

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CENTER OF MASS: (Above the top of the foundation) (Ref. sketch, Figure 1, page 16)

• Eccentricity (\bar{h}):

$$\bar{h} = \Sigma P(h) / \Sigma P = 19446 \text{ lb-ft} / 7400 \text{ lbs}$$

$$\bar{h} = 2.6 \text{ ft, (Center of mass above the top of the foundation)}$$

DETERMINE GOVERNING LOAD COMBINATION: (Equipment support design)

• Load Combinations:

(Reference 2)

Abbreviations:

D = Dead Load
L = Live Load (Floor)
W = Wind Load
S = Snow Load
E = Earthquake Load
LLr = Roof Live Load

1) $U = D + L + (LLr \text{ or } S)$

2) $U = D + L + W \text{ or } E$

3) $U = D + L + W + S/2$

4) $U = D + L + S + W/2$

5) $U = D + L + S + E$

• The evaluation of each load combination is required to determine the maximum reactions for each equipment/ component for design of the supports:

• L is constant; LLr = 0.0

• **BOLD** - designates load combination governing support design

ITEM:	D	W	S	E	Load Combination:				
					1)	2)	3)	4)	5)
a)	0.8	0.0	0.0	0.3	0.80	1.10	0.80	0.80	1.10
b)	0.8	0.0	0.0	0.3	0.08	1.10	0.80	0.80	1.10
c)	1.2	0.0	0.0	0.5	1.20	1.70	1.20	1.20	1.70
d)	3.2	0.0	0.0	1.3	3.20	4.50	3.20	3.20	4.50
e)	2.8	3.2	3.4	1.1	6.20	6.00	7.70	7.80	7.30
f)	10.0	0.0	0.0	3.9	10.0	13.9	10.0	10.0	13.9

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DETERMINE THE GOVERNING LOAD COMBINATION: (Foundation design)

- Load Combinations: (Reference 1,2 & 3)

D = DEAD LOAD, L = LIVE LOAD, W = WIND LOAD, E = EARTHQUAKE LOAD

- 1) $U = 1.4D + 1.7L$ (Minimum design requirements)
- 2) $U = 0.75 (1.4D + 1.7L + 1.7W)$
- 3) $U = 0.9D + 1.3 W$

In addition, if earthquake loads are included in the design, load combinations of section 2609(c)(2), (Reference 3) apply, except (1.1E) is substituted for (W), as follows:

- 4) $U = 0.75 (1.4D + 1.7L + 1.87E)$
- 5) $U = 0.9D + 1.43E$

also for earthquake loading, use the following:

- 6) $U = 1.4 (D + L + E)$
- 7) $U = 0.9D +/- 1.4E$

- Evaluate Load Combinations:

- 1) $U = 1.4 (18.8) + 1.7 (4.1) = 33.3$ kips
- 2) $U = 0.75 [1.4 (18.8) + 1.7 (4.1) + 1.7 (3.2)2.5/6.5] = 26.5$ kips
- 3) $U = 0.9 (18.8) + 1.3 [(3.2)(2.5)/6.5] = 18.5$ kips
- 4) $U = 0.75 [1.4 (18.8) + 1.7 (4.1) + 1.87 (7.4)(2.5)/6.5] = 28.9$ kips
- 5) $U = 0.9 (18.8) + [1.43 (7.4)(2.5)/6.5] = 21.0$ kips
- 6) $U = 1.4 (18.8 + 4.1 + [(7.4)(2.5)/6.5]) = 36.1$ kips <****
- 7) $U = 0.9 (18.8) +/- 1.4 [(7.4)(2.5)/6.5] = 20.9$ kips

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FOUNDATION DESIGN:

The foundation required is a mat type on grade. The size of foundation has been predetermined by the physical layout required for the equipment and components.

The foundation dimensions are: 7.5 ft x 27.0 ft, estimated 12" thick
(Reference Figures 1,2 & 3 for loads and locations)

- Check foundation size: (Reference sketch, Figures 2,3 page 17)

$$q_e(\text{effective}) = 2 \text{ k/ft}^2 - 12/12 (150 \text{ lb/ft}^3) (1 \text{ k/1000 lb}) = 1.85 \text{ k/ft}^2$$

$$A_{\text{req}} = (D.L + L.L) / q_e = (22.8) / 1.85 \text{ k/ft}^2$$

$$A_{\text{req}} = 12 \text{ ft}^2 < 169 \text{ ft}^2 \dots\dots\text{OK}$$

- Check foundation stability:

Safety Factor (Overturning):

$$S.F. (\text{ot}) = [3.75 \text{ ft} (30.4 \text{ k}) + 3.75 \text{ ft} (18.8 \text{ k})] / 2.6 \text{ ft} (7.4 \text{ k})$$

$$S.F. (\text{ot}) = 9.6 > 1.5 \dots\text{OK}$$

Safety Factor (Sliding):

$$S.F. (\text{sliding}) = [.25 (30.4 + 18.8)] / 7.4 = 1.7 > 1.5 \dots\text{OK (Loads were doubled)}$$

- Determine the center of gravity of the loads relative to the kern:

$$e(x), (\text{length}) = 27.0 \text{ ft} / 6 = 4.5 \text{ ft}$$

$$e(z), (\text{width}) = 7.5 \text{ ft} / 6 = 1.3 \text{ ft}$$

$$\bar{x} = 14.5 \text{ ft and } \bar{z} = 3.8 \text{ ft (per page 7):}$$

$$e(x) = 14.5 - 13.5 = 1.0 \text{ ft.} < 4.5 / 2 = 2.25 \text{ ft.}$$

Load in middle 1/3 of slab....OK

$$e(z) = 3.8 \text{ ft.} - 3.75 \text{ ft.} = 0.05 \text{ ft} < 0.65 \text{ ft.,}$$

Load in the middle 1/3 of slab....OK

Use $q = P/A (+/-) Mc/I$ approach (two directions) to determine maximum soil bearing pressures

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- Determine maximum soil bearing pressure:

$$M_x(e)(n-s) = 3.6 \text{ ft (7.1 k)} = 25.6 \text{ k-ft}$$

$$P_1 = 18.8 \text{ k (Load eccentric with foundation centerline x-direction)}$$

$$P_2 = 4.1 \text{ k}$$

$$M_z(ex) = 18.8 \text{ k (1.0 ft)} = 18.8 \text{ k-ft}$$

$$M_z(e)(n-s) = 3.6 \text{ ft (2.1 k)} = 7.56 \text{ k-ft}$$

Maximum soil pressures:

$$q = P/A (+/-) \Sigma M_x e(z) / I_x (+/-) \Sigma M_z e(x) / I_z, \text{ where:}$$

$$I_x = bd^3 / 12 = [7.5 (27.0)^3] / 12 = 12302 \text{ ft}^4$$

$$I_z = bd^3 / 12 = [27.0 (7.5)^3] / 12 = 949 \text{ ft}^4$$

$$q = (18.8 \text{ k} + 4.1 \text{ k}) / 7.5 \text{ ft (27.0 ft)} +/- [(25.6 \text{ k-ft})(0.05 \text{ ft})] / 12302 \text{ ft}^4$$

$$+/- [(18.8 \text{ k-ft} + 7.56 \text{ k-ft})(1.0 \text{ ft})] / 949 \text{ ft}^4$$

$$q = 0.11 \text{ k/ft}^2 (+/-) 0.0001 \text{ k/ft}^2 (+/-) .028 \text{ k/ft}^2, q(M_x) = 0$$

$$q = (+) 0.11 (+) 0.028 = + 0.138 \text{ k/ft}^2 \quad (\text{maximum})$$

$$q = (+) 0.11 (-) 0.028 = + 0.082 \text{ k/ft}^2 \quad (\text{minimum})$$

$$q (\text{maximum}) = 0.138 \text{ k/ft}^2 + 0.15 (\text{conc.}) = 0.29 \text{ k/ft}^2$$

$$q (\text{minimum}) = 0.082 \text{ k/ft}^2 + 0.15 (\text{conc.}) = 0.23 \text{ k/ft}^2$$

$$q (\text{average}) = (0.29 \text{ k/ft}^2 + 0.23 \text{ k-ft}^2) / 2 = 0.26 \text{ k/ft}^2$$

$$q (\text{average}) = 0.26 \text{ k/ft}^2 < q (\text{allow.}) = 2.0 \text{ k/ft}^2 \quad \dots \text{ok}$$

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• Check slab two way shear:

The critical area for punching shear on the foundation will be at the equipment skid, embedded baseplates, located at each corner of the foundation. The equipment loads are conservatively assumed concentrated at these locations.

Assumed depth of slab, $d = 12$ ", then d effective = $(12$ " - 3 " - 0.5) = 8.5 "

bo , (punching shear) = $(12$ " + 12 " + 8.5 " / 2) = 28.25 " = 2.35 ft

$qu = 1.7 \times 0.26$ k/ft = 0.44 k/ft

$V_u = [(7.5 \text{ ft})(27.0 \text{ ft}) - (2.35 \text{ ft})^2(4)] (0.44 \text{ k/ft}) = 85.0 \text{ k}$

$d(\text{req'd}) = 85000 / (0.85 (4) (4000))^{1/2} (28.25)(8.5) = 0.82$ "

$d = 0.82$ " + 3 " + 0.5 " = 4.32 " < 12 " ok

• Check slab one way shear:

$V_u = (7.5 \text{ ft}) (12.8 \text{ ft}) (0.44 \text{ k/ft}) = 42.2 \text{ k}$

$d = 42200 \text{ lbs} / (.85) (2) (4000))^{1/2} (90 \text{ "}) = 4.36$ "

$d = 4.36$ " + 3 " + 0.5 " = 7.86 " < 12 ok

• Determine slab flexural reinforcement requirements: (Long Direction)

$M_u = (7.5 \text{ ft}) (6.75 \text{ ft}) (0.44 \text{ k/ft}) (6.75 \text{ ft} / 2) = 75.2 \text{ k-ft}$

$M_u = 75.2 \text{ k-ft} = 75200 \text{ lb-ft}$

$M_u / 0.90 b d = 12 (75200) / 0.90 (90) (8.5)^2 = 154$, $p < p_{\text{min}} = 0.0033$ (flexural)

$p(\text{max}) = 0.0285$, $p(\text{min}) = 0.0018$ (slab of uniform thickness on grade),

Use $p_{\text{min}} = 0.0018$

$As = 0.0018 (90 \text{ "}) (8.5 \text{ "}) = 1.38 \text{ in}^2$, $As = 0.21 \text{ in}^2 / \text{ft}$ (Use width of 6.5 ft.)

Use #5 @ 12" o.c., $As = 0.31 \text{ in}^2 / \text{ft}$ ok

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- Determine slab flexural reinforcement requirements: (Short Direction)

$$M_u = (3.75 \text{ ft}) (27 \text{ ft}) (0.44 \text{ k/ft}) (3.75 \text{ ft} / 2) = 83.5 \text{ k-ft}$$

$$M_u = 83500 \text{ lb-ft}$$

$$M_u / 0.90 b d^2 = 12 (83500 \text{ lb-ft}) / (0.90) (324") (8.5)^2 = 47.6,$$

p design < p min = 0.0033 (flexural), Use p min = 0.0018 (slab of uniform thickness on grade)

$$A_s = 0.0018 (324") (8.5") = 5.0 \text{ in}^2, A_s = 0.19 \text{ in}^2 / \text{ft} \text{ (Use length of 26.0 ft)}$$

$$\text{Use } \# 5 \text{ @ } 12" \text{ o.c.}, A_s = 0.31 \text{ in}^2 / \text{ft} \dots \text{ok}$$

- Check reinforcement bar development length requirements:

$$l(d_b) = [0.04 A_b f(y)] / (f'c)^{1/2} \quad (\text{Reference 2, section 2612(c), page 469})$$

$$l(d_b) = 0.04 (0.44) (60000) / (4000)^{1/2} = 16.7" (1.0)(0.8) = 13.4",$$

$$\text{but not } < 0.03 (d_b)(f_y) / f'c = 0.03 (0.75)(60000) / 4000^{1/2} = 21.3"$$

$$l(d_{\text{provided}}) = 12" + 12" - 2" = 22" > 21.3 \dots \text{ok}$$

The critical section for both the long and short spans is 24" from the section to the free edge of the slab.

$$l(d_{\text{min}}), \text{ per UBC} = 12" < 22" \dots \text{ok}$$

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- Determine equipment anchorage requirements: (Loads multiplied by a factor of 2.25 to address the equipment live load for rotating equipment and a conservatism adder.

<u>Equipment</u>	<u>Horizontal Force/ Type</u>	<u>Shear Force</u>	<u>Tension Force</u>
a) Exhaust Fan	0.3 k / E	$0.30(2.25)/4 = 0.17 \text{ k}$	$0.30(2.25)(24)/24 = 0.68 \text{ k}$
b) Exhaust Stack	0.30 k / E	$0.30(2.25)/4 = 0.17 \text{ k}$	$0.30 (2.25)(96)/(24) = 2.7 \text{ k}$
c) Elect. Panel/ea.	0.20 k / E	$0.20(2.25)/4 = 0.11 \text{ k}$	$0.20(2.25)(36)/(18) = 0.9 \text{ k}$
d) HVAC Filter Assembly	1.30 k / E	$1.3(2.25)/4 = 0.73 \text{ k}$	$1.3 (2.25)(42)/(24) = 5.1 \text{ k}$
e) Equipment Container	3.20 k / W	$3.2(2.25)/4 = 1.8 \text{ k}$	$3.2 (2.25)(30)/(72) = 3.0 \text{ k}$
f) Structural Skid	7.4 k / E	$7.4(2.25)/10 = 1.7 \text{ k}$	$7.4 (2.25)(30)/(78) = 6.4 \text{ k}$

LEGEND:

- (E), Indicates earthquake load governs horizontal loading
(W), Indicates wind load governs horizontal loading

NOTES:

- 1) Shear loads are assuming a minimum of (4) bolts per each equipment or as indicated.
- 2) Tension Loads indicated are total reactions per side of each equipment. Anchorage shall be uniformly distributed along each side of each equipment.

**KAISER ENGINEERS
HANFORD**

Calc. No. W320-24-021

Revision **81**

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations - Exhaust Air
Cleanup Train Skid

Date 07/21/94

By M.R. Custer **MRC**Checked **9/27/94**By **JRB**

Location TANK 241-C-106

Revised **2/13/96**By **RWD**Anchor Bolt requirements:

The use of anchor bolts with sleeves requires a thickened slab at each anchor bolt location, with a minimum of 12" beyond the bolt centerlines in all directions.

- Determine size and number of anchor bolts required for the structural skid attachment to the foundation:

BOLT LOADS:

Tension load = 6.4 kips/ 5 bolts = 1.3 k/ anchor bolt

Shear load = 1.7 kips/ 1 bolt = 1.7 k/ anchor bolt

Try 3/4" dia. anchor w/ 5" embedment:

Allowable tension load = 4500 lbs = 4.50 k

(Reference 2, Table No. 26-E)

Allowable shear load = 3560 lbs = 3.56 k

(Reference 2, Table No. 26-E)

Check unity equation:

 $1.3/ 4.50 + 1.7/3.56 (<) \text{ or } (=) \text{ to } 1.0$ $0.29 + 0.48 = 0.77 < 1.0 \dots \text{ok}$

Provide a minimum of 5 - 3/4" dia. A 307 anchor bolts w/ 5" embedment, evenly spaced starting 2" from the edge of the equipment skid. Provide a minimum of 1.25" from the edge of the steel base, typical each side of the skid.

Provide (2), 1/4" stiffener plates between the flanges of the skid beams at each anchor bolt location.

Alternate Anchor Bolt Design:

Provide a minimum of (10) 1/2" dia. expansion anchors w/ 3-1/2" minimum embedment.

Per GC-ANCR-01, Rev 0, Table 21:

Allow. shear = 1,470 lbs > 7,400 lbs /10 bolts = 740 lbs/bolt

Allow. tension = 2,250 lbs No Uplift (See Below)

Net uplift(+) = -18,800 * 0.85/ 10 bolts + 7,400 *30/78*5bolts

= -1,589 + 573 = -1016 lbs down

MRC
5/13/96
①

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HANFORD

Calc. No. W320-24-021

Revision 0

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DESIGN ANALYSIS

Client WHC

WO/Job No. W320/ER-4319

Subject MISC. MECHANICAL (HVAC) EQUIP.

Date 7/27/94 By M.R. COSTER MLC

FOUNDATION - EXHAUST AIR CLEANUP TRAIN

Checked 9/27/94 By J.R.B.

Location TANIS 241-C-106

Revised

By

SUMMARY - FOUNDATION LOADS & LOCATIONS :

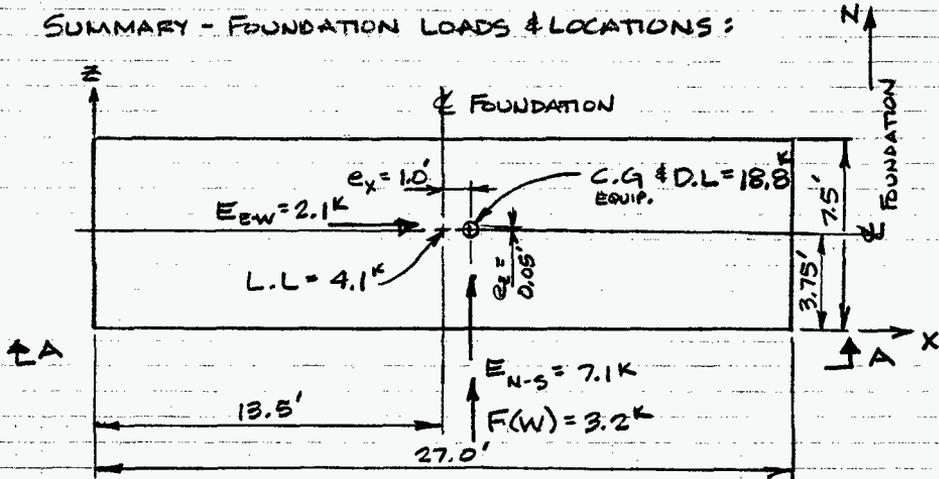
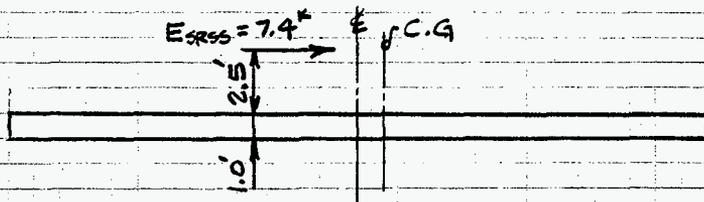


FIGURE 1



SECTION A-A

DESIGN ANALYSIS

Client WHC

WO/Job No. W320/ER-4319

Subject MISC. MECHANICAL (HVAC) EQUIP.

Date 7/27/94 By M.E. CUSTER MRC

FOUNDATION - EXHAUST AIR CLEANUP TRAIN

Checked 9/27/94 By J. OLB

Location TANK 24-C-106

Revised By

LOADS ON FOUNDATION:

DEAD, LIVE AND SEISMIC LOADS

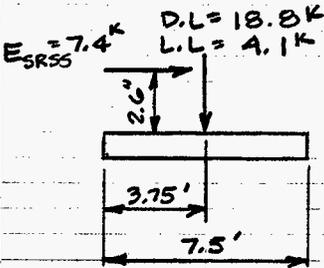


FIGURE 2

DEAD, LIVE AND WIND LOADS

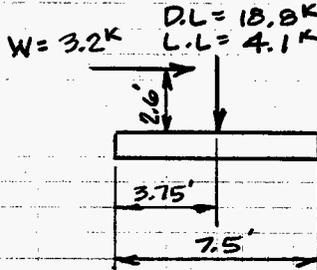
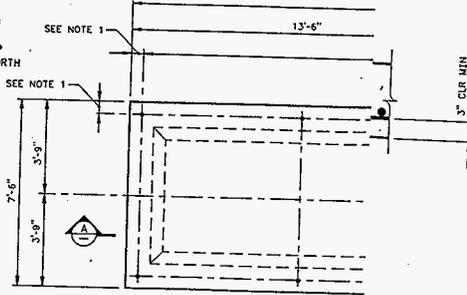
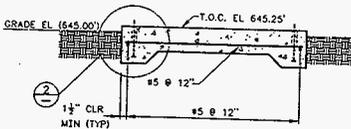
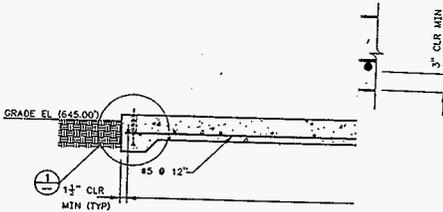


FIGURE 3



PLAN - I



B SECTION
SCALE: 1/2"=1'-0"

NOTES:

1. VERIFY FOUNDATION SIZE WITH VENDOR EQUIPMENT DRAWINGS AND PROVIDE A MINIMUM 6" CLEARANCE FROM EDGE OF CONCRETE.
2. VERIFY LOCATION/ANCHOR BOLT SIZE W/ VENDOR INFORMATION/DRAWINGS PRIOR TO CONCRETE PLACEMENT.



EXPIRES: 03-31-11

DESIGNED BY	PC BRINKMAN	DATE	03-21-11	SCALE	AS SHOWN
CHECKED BY		REVISIONS	3	DATE	
PROJECT	U.S. DEPARTMENT OF ENERGY RICHLAND OPERATING OFFICE ICF KAISER HANFORD COMPANY				
CONTRACT NO.	STRUCTURAL MISC HVAV, ELECT CONC PADS PLANS, SECTS & DETS				
DATE	SEE DR/AT FORM	PROJECT NO.	W-320 TANK 2411C-106 SLIDING	DATE	
REVISED DATE	SEE DR/AT FORM	CONTRACT NO.	F 2006 0900	DATE	
REVISED DATE	SEE DR/AT FORM	CONTRACT NO.	H-2-818458	DATE	10
DATE	W320	CONTRACT NO.	ER4319	DATE	2 of 3

FLUOR DANIEL NORTHWEST, INC.

Calc. No. W320-24-021Revision 2Page No. 19 of —

DESIGN ANALYSIS

Client	<u>Numatec</u>	WO/Job No.	<u>W-320</u>
Subject	<u>Misc Mechanical (HVAC)</u>	Date	<u>2/5/98</u> By <u>Ann Mangerin</u>
Equip Fdn -	<u>Vacuum Pump Cabinet</u>	Checked	<u>2/6/98</u> By <u>Mitchell Duster</u>
Location	<u>Tank 241-C-106</u>	Revised	By

The Vacuum Pump Cabinet Pad was added at the end of the exhaust air cleanup pad by ECN W-320-692, due to insufficient space on the main slab.
Analyze the foundation and anchorage.

Equipment
Dead load = 600 lb Air Monitor Corp.
Sketch W31912AA

$$\text{Slab DL} = (3.5')(4.5')(0.67')(150 \text{ lb/ft}^3) = 1583 \text{ lb}$$

$$\text{Seismic} = 0.375 (W_p) = 0.375 (600) = 225 \text{ lb} \quad (\text{see p. 6})$$

$$\text{Factor for SRSS} = 225 \left(\frac{7.4}{7.1} \right) = 235 \text{ lb} \quad (\text{see p. 6})$$

$$\text{Wind} = 30.4 \text{ lb/ft}^2 (44')(28.5') / 144 = 264 \text{ lb}$$

Wind Controls.

$$\text{Snow} = 20 \text{ lbs/ft}^2 (36')(30') / 144 = 150 \text{ lb}$$

Worst case load combination for anchorage and foundation design is

$$DL + WL$$

FLUOR DANIEL NORTHWEST, INC.

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DESIGN ANALYSIS

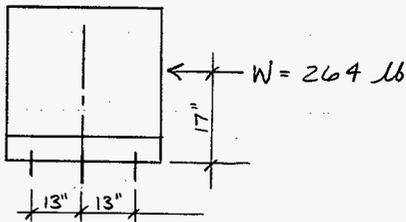
Client	<u>Numatec</u>	WO/Job No.	<u>W-320</u>
Subject	<u>Misc Mechanical (HVAC)</u>	Date	<u>2/5/98</u> By <u>AS Langwin</u>
Equip	<u>Fdn - Vacuum Pump Cabinet</u>	Checked	<u>2/6/98</u> By <u>Michael R. Curtis</u>
Location		Revised	By

Vacuum Pump Cabinet - Check Anchorage due to Wind in worst case Direction.
Anchorage.

Neglect DL - conservative

$$T = \frac{264 \text{ lb}(17")}{(26")(2 \text{ bolts})}$$

$$T = 86 \text{ lb/bolt}$$



$$V = 264 \text{ lb} / 6 \text{ bolt} = 44 \text{ lb/bolt}$$

Bolts are $\frac{1}{2}" \phi$ w/ $2\frac{1}{4}"$ min embedment

$$T_a = 1358 \text{ lb}$$

$$V_a = 1468 \text{ lb}$$

→ GC-ANCR-01
Table 21

$$\frac{T}{T_a} + \frac{V}{V_a} = \frac{86}{1358} + \frac{44}{1468} = 0.09 < 1.0$$

Loads on anchor bolts are very small
 \therefore Anchorage OK

(6) $\frac{1}{2}" \phi$ exp anchors with $2\frac{1}{4}"$ min emb.

DESIGN ANALYSIS

Client	Numatec	WO/Job No.	W-320
Subject	Misc. Mechanical (HVAC)	Date	2/5/98
Equip	Edn - Vacuum Pump Cabinet	Checked	2/6/98
Location	Tank 241-C-106	Revised	
		By	Ann Shangerum
		By	Michael R. Kuster

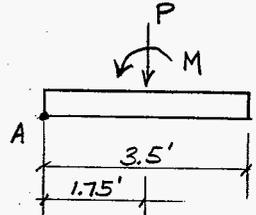
Vacuum Pump Cabinet Slab

Check for overturning

$$M = 264 \text{ lb} \left(\frac{17''}{12}\right) = 374 \text{ lb-ft}$$

$$P = (600 \text{ lb} + 1583 \text{ lb})$$

$$P = 2183 \text{ lb}$$



Overturning about pt. A:

$$SF = \frac{(0.85)P(1.75')}{M} = \frac{1855(1.75)}{374} = 8.7 > 1.5 \text{ OK}$$

$$e = \frac{M}{P} = \frac{374}{2183} = 0.17' = 2'' \therefore \text{Result is within the middle third OK}$$

Max Soil Pressure:

$$p_{max} = \frac{M}{S} + \frac{P}{A} = \frac{374 \text{ lb-ft}}{(4.5)(3.5)^2/6} + \frac{2183 \text{ lb} + 150 \text{ lb}}{(3.5)(4.5)} \rightarrow \text{include snow}$$

$$= 41 + 148$$

$$p_{max} = 190 \text{ psf} \quad \text{soil pressure very small - OK}$$

Slab Bending Moment:

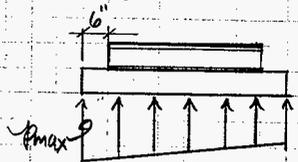
$$M_f = (190 \text{ psf})(0.5')^2/2$$

$$= 24 \text{ ft-lb very small}$$

In other direction - (use same p_{max})

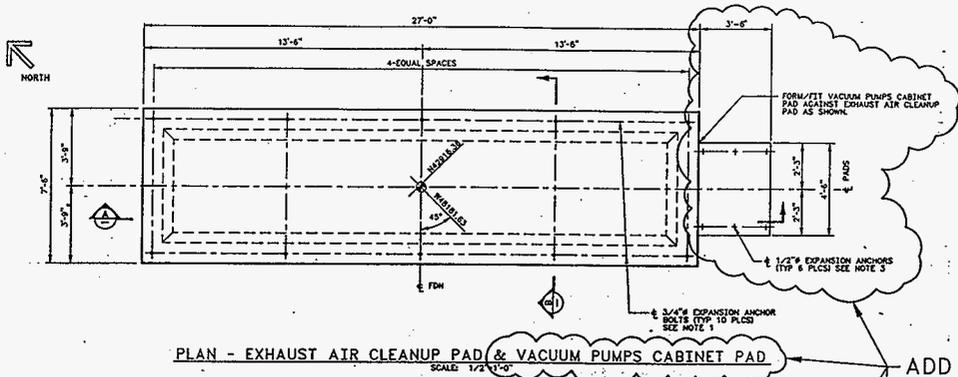
$$M_2 = (190)(3')^2/2 = 143 \text{ ft-lb - also very small}$$

→ span between supports



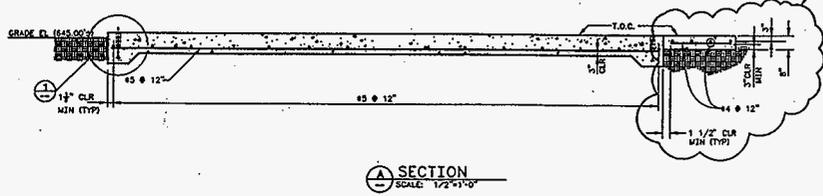
Use min steel #4@12 $\rho = \frac{(0.20)}{12(8)} = 0.002 > 0.0018 \text{ OK}$

FLUOR DANIEL NORTHWEST, INC.		ENGINEERING CHANGE NOTICE SKETCH			
Dwg No -2-818458	Sh 2	Rev 1	Prepared By BA MEYER	Checked By <i>[Signature]</i>	ECN No W-320-692
					Rev 8/13



PLAN - EXHAUST AIR CLEANUP PAD & VACUUM PUMPS CABINET PAD

SCALE: 1/2"=1'-0"



SECTION
SCALE: 1/2"=1'-0"

- NOTES:**
1. 10-1/4" DIA EXP. ANCHORS W/3/8" MIN EMBEDMENT. INSTALL EXP ANCHORS IN ACCORDANCE WITH SPEC. SECTION 05050.
 2. SLEEVES SHALL BE 18 GA. MINIMUM SHEET METAL OR PLASTIC. SLEEVES MANUFACTURED FOR THE PURPOSE. FILL WITH GROUT BEFORE FINAL PAVEMENT.
 3. 8-1/2" EXPANSION ANCHORS W/ 2 1/4" MIN EMBEDMENT SHALL BE USED TO INSTALL VACUUM PUMPS CABINET SKID ON PAVE. MATCH HOLE LOCATIONS ON VACUUM PUMPS CABINET SKID FRAME. MAINTAIN 8 3/4" MIN. JOSE DISTANCE. INSTALL ANCHORS IN ACCORDANCE WITH SPEC. SECTION 05055.

ADD

Originator: Allamanna
 Checker: Malia Spradley
 2/5/98
 2/6/98

W320-34-021
 REV: 32
 Page 22

HNF-2467, Rev.0

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W320-24-022

Service Building Foundation

**KAISER ENGINEERS
HANFORD**

	CALCULATION IDENTIFICATION AND INDEX	Page <i>i</i> of <i>iii</i>
		Date 03/28/94

This sheet shows the status and description of the attached Design Analysis sheets.
 Discipline **Civil** W0/Job No. **W-320/ER4319** Calculation No. **W320-24-022**
 Project No. & Name **PROJECT W-320, TANK 241-C-106 WASTE RETRIEVAL**
 Calculation Item **Service Building Foundation**

These calculations apply to:

Dwg. No. **H-2-818452 (2 SH)**

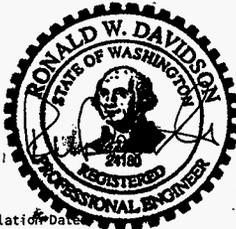
Rev. No. **0**

Dwg. No.

Rev. No.

Other (Study, CDR)

Rev. No.



The status of these calculations is:

- Preliminary Calculations
- Final Calculations
- Check Calculations (On Calculation Date)
- Void Calculation (Reason Voice **APPROVED 03/03/94**)

Incorporated in Final Drawings? Yes No

This calculation verified by independent "check" calculations? Yes No

Original and Revised Calculation Approvals:

	Rev. 0 Signature/Date	Rev. 1 Signature/Date	Rev. 2 Signature/Date
Originator	<i>Michael R Carter 4/19/94</i>	<i>RWD Davidson 8/13/95</i>	
Checked by	<i>James R Booth 4/26/94</i>	<i>James R Booth 2/3/95</i>	
Approved by	<i>RWD Davidson 4/29/94</i>	<i>RWD Davidson 8/13/95</i>	
Checked Against Approved Vendor Data	<i>RWD Davidson 4/29/94</i>	<i>RWD Davidson 8/13/95</i>	

INDEX

Design Analysis Page No.	Description
i	Calculation Identification and Index
ii	Calculation Cross Index
iii	Design Verification Screening Criteria
1-2	OBJECTIVES; CRITERIA; DATA; ASSUMPTIONS; METHODS; REFERENCES; CALCULATIONS; CONCLUSIONS
3-16	DESIGN CALCULATIONS
APPENDICES	Attachment A- BUTLER, Panel Line Bldg Base Channel Install.

REV 1: CONCLUSION REVISED FOR FDN MODS BASED ON VENDOR APPROVAL DATA FOR BUILDING FRAME INSTALLATION. ATTACHMENT "A" ADDED. REPLACED SH 16
 SEE ECN # W-320-103.

DESIGN VERIFICATION SCREENING CRITERIA

Project/Document No. W-320, CALCULATION W320-24-022

When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|------------|--|
| _____ | ✓
_____ | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | ✓
_____ | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | ✓
_____ | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | ✓
_____ | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |



Assigned Lead Engineer

4/29/94

Date



Responsible Discipline Manager

4/29/94

Date

Original Design Package Distribution:

Project Engineer

Chief Design Engineer

Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

Page D-3

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-022

Revision 0

Page No. 1 of 16

DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Service Building Foundation

Date 03/28/94

By M.R Custer

Checked 4/26/94

By JR Booth

Location TANK 241-C-106

Revised

By

OBJECTIVE:

The objective of this calculation is to provide the detailed design of the building foundation for the Service Building. The design of the foundation shall be performed in accordance with ACI-318 (strength design) and the Uniform Building Code (1991), as required by the project design criteria, SDC-4.1, Rev. 11. In order for the foundation design to proceed, a conservative estimate of the building loads and reactions will be developed, since the building enclosure will be provided later, under a separate purchase specification.

CRITERIA:

1. DOE ORDER 6430.1A (04/06/89)
2. HANFORD PLANT STANDARDS, STANDARD ARCH./CIVIL DESIGN CRITERIA, SDC-4.1, REV.11
3. FUNCTIONAL DESIGN CRITERIA, WHC-SD-W320-FDC-001, REV.2
4. LETTERS OF INSTRUCTION:
5. ASCE 7-88

DATA:

1. The equipment, structure and foundation for the Service Building is Safety Class 3 per Reference 7.

ASSUMPTIONS: NONE**METHODS:**

Hand calculations

REFERENCES:

1. ACI 318-91, Building Code Requirements for Reinforced Concrete
2. Uniform Building Code (UBC), (1991 Edition)
3. ASTM A36-91
4. HANFORD PLANT STANDARDS, STANDARD ARCH./ CIVIL DESIGN CRITERIA, SDC-4.1, REV.11.
5. WHC-SD-WM-SEL-033, REV.0-C, Interm Safety Equipment List for 241-C-106 WASTE RETRIEVAL
6. AWS D1.1-92
7. Foundation Analysis and Design, Joesph E. Bowles (1st Edition)
8. ASCE 7-88 (American Society of Civil Engineers Standard), Minimum Design Loads for Buildings and Other Structures

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-022

Revision **#1**

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DESIGN ANALYSIS

client WHC

WO/Job No. W-320/ER

subject Service Building Foundation

Date 03/28/94

By M.R Custer **MRC**Checked **4/26/94**By JR Booth **JRB**

Location TANK 241-C-106

Revised **8/3/95**By **R. W. Davidson RWD****CALCULATIONS:**

Refer to the Design Calculations section

CONCLUSIONS:

The foundation for the Service Building is designed as a mat type foundation, however, the UBC code as well as the Hanford Plant Standards (SDC-4.1) requires that a foundation wall be provided, which extends below the frost line to a minimum depth of 30 inches. This requirement has been incorporated in the final design. The foundation loads developed in the calculation are minimal, based on the large, physical area required by the piping and equipment, housed inside the building enclosure. The design satisfies the design requirements for the structure.

Based on a review of vendor approval data of building erection instructions, the current fdn design does not match vendor proposed pre-engineered bldg type. Fdn calculations were based on use of a Butler Panel Frame building system. Vendor has discontinued this line and proposes use of a Panel Line-1 self-framing building system.

Fdn dimensions will match outside dimensions of building footprint. Width of fdn now 9'-4" was 8'-6" and length now 10'-8" was 10'-0". Other modifications to fdn design require deletion of base plate pedestal and anchor bolts. Panel frame system is to be attached with vendor supplied hardware to fdn curb with 3/8" dia x 2 1/2" long expansion anchors at 1'-6" intervals along top face of 8" curb using a base channel/flashing system. Calculations provided adequately envelope above changes to fdn design. No further analysis is required.

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HANFORD

Calc. No. W320-24-022Revision 0Page No. 3 of 16

DESIGN ANALYSIS

Client WHCWO/Job No. W320/ER-4319 MR.Subject SERVICE BUILDING FOUNDATIONDate 4/11/94 By MICHAEL R. CUSTERChecked 4/26/94 By JRBLocation TANK 241-C-106

Revised By

FOUNDATION DESIGN REQUIREMENTS

- MINIMUM DEPTH TO THE BOTTOM OF FOUNDATION OF PERMANENT STRUCTURES BELOW FINISHED GRADE IS 2'-6". (REFERENCE 4)
- ALLOWABLE SOIL PRESSURE PER CHAPTER 29 UBC, (REFERENCE 2), 1500 LB/FT²
- COEFFICIENT OF SLIDING = 0.25 (REFERENCE 2)
- MINIMUM FOOTING DIMENSIONS PER REFERENCE 2 AS FOLLOWS:

- THICKNESS OF CONCRETE FOUNDATION WALL, 6"
- WIDTH OF FOOTING, 12"
- THICKNESS OF FOOTING, 6"
- DEPTH BELOW UNDISTURBED GROUND, 12"
- MINIMUM SLAB THICKNESS (PLAIN CONCRETE), 3 1/2" REFERENCE 2.

- LOAD COMBINATIONS: (REFERENCE 2 & 4)

$$U = 1.4D + 1.7L \quad (\text{MINIMUM DESIGN REQUIREMENTS})$$

$$U = 0.75(1.4D + 1.7L + 1.7W) \quad (\text{WIND})$$

$$U = 0.9D + 1.3W$$

$$U = 0.75(1.4D + 1.7L + 1.87E) \quad (\text{SEISMIC})$$

IN ADDITION: IF EARTHQUAKE LOADS INCLUDED IN DESIGN, LOAD COMBINATIONS OF SECTION 2609 (L)(2), REFERENCE 2, APPLY EXCEPT (1.1E) IS SUBSTITUTED FOR (1W).

$$U = 0.75(1.4D + 1.7L + 1.87E)$$

$$U = 0.9D + 1.43E$$

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-022

Revision 0

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DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MRL
Subject	SERVICE BUILDING FOUNDATION	Date	4/11/94	By MICHAEL R. CUSTER
Location	TANK 241-C-106	Checked	4/26/94	By JRB
		Revised		By

ALSO, FOR EARTHQUAKE LOADING, USE THE FOLLOWING:

$$U = 1.4(D + L + E)$$

$$U = 0.9D \pm 1.4E$$

BUILDING DESIGN REQUIREMENTS/LOADS

- ROOF DEAD LOAD, 20 lb/ft² (REFERENCE 4)
 - ROOF COVERING, 50 lb/ft² OR 200 lb CONCENTRATED LOAD.
 - PRIMARY FRAMING AND PURLINS, 20 lb/ft²
- SNOW / LIVE LOAD, 20 lb/ft² (REFERENCE 4)
- WIND LOAD,

BASIC WIND SPEED, 70 mi/h
IMPORTANCE FACTOR, 1.07
EXPOSURE CATEGORY, C

$$q_z = 0.00256 K_z (IV)^2 \quad \text{(REFERENCE 8)}$$

$$q_z = 0.00256 (0.80) [1.07 (70)]^2$$

$$q_z = 11.5$$

CONSERVATIVELY, $F = q_z G_h C_f A_f$ { NORMALLY, FORCES DETERMINED USING $p = q_z G_h C_p - q_h$ (GCP), HOWEVER SINCE ROOF PITCH IS NEGLIGIBLE RESULTS ARE BASICALLY THE SAME AS REQ'D BY THIS

$$= 11.5 (1.32) (1.4) A_f$$

$$F = 21.3 A_f, F_v = 21.3 (8' \times 10') = 1704, F_h = 21.3 (10' \times 10') = 2130$$

ESTIMATE DEAD LOAD OF BUILDING ENCLOSURE:

$$W_{DL} = [30(2)(5^{1/2}/ft)] + [(8 \times 10')(2^{1/2}/ft) + (8 \times 8')(2^{1/2}/ft)] + [5](10')(2^{1/2}/ft) + [2(10')(10') + 2(10')(8') + (8 \times 10')] 1.5^{1/2}/ft^2 = 1348 \#, \text{ SAY } 1.5^k$$

ROOF LIVE LOAD:

$$LR = 20^{1/2}/ft^2 (10 \times 8) = 1600^{1/2} \text{ OR } 1.6^k$$

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-022Revision 0Page No. 5 of 16

DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MRC
Subject	SERVICE BUILDING FOUNDATION	Date	4/11/94	By MICHAEL R. CUSTER
Location	TANK 241-C-106	Checked	4/26/94	By JRB
		Revised		By

DEAD LOAD, EQUIPMENT & PIPING:

- AIR COMPRESSOR , 780 lb
- AIR ORYER , 70 lb

$$W_{DL} = W_{AC} + W_{AO} + W_{PIPE} =$$

$$W_{DL} = 780 + 70 + (4 \text{ lb/ft} \times 14) = 906 \text{ lb} \text{ SAY } 1 \text{ K}$$

DEAD LOAD, FOUNDATION (BASED ON 8'x10' BLDG DIM.)

$$t_c = 3'' \text{ COVER} + 5'' = 8'' \quad (\text{MIN. THICKNESS } 3\frac{1}{2}, \text{ PER REFERENCE 2})$$

$$W_c = 8 \frac{1}{2} \times 8 \times 10 \times 150 \text{ lb/ft}^3 =$$

$$W_c = 8000 \text{ lb} = 8.0 \text{ K}$$

$$W_c = 2 [(2.3' \times 1.0' \times 10') + (2.3 \times 1.0' \times 6.0')] 150 \text{ lb/ft}^3 =$$

$$W_c = 11,040 \text{ lb}, \text{ SAY } 11 \text{ K}$$

$$W_{FC} = 8 \text{ K} + 11 \text{ K} = 19 \text{ K}$$

TOTAL DEAD LOADS

$$W_T = W_{BLDG} + W_{FNDG} + W_{EQUIP} =$$

$$= 1.5 \text{ K} + 19.0 \text{ K} + 1 \text{ K}$$

$$W_T = 21.5 \text{ K}, \text{ SAY } 22 \text{ K}$$

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HANFORD

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DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MRL
Subject	SERVICE BUILDING FOUNDATION	Date	4/11/94	By MICHAEL R. CUSTER
Location	TANK 241-C-106	Checked	4/26/94	By <u>MRB</u>
		Revised		By

EARTHQUAKE LOADS (BLDG)

BUILDING, SAFETY CLASS 3

BASE SHEAR, $V = \frac{ZIC}{R_w} W$ WHERE,

$$Z = 0.20$$

$$I = 1.25$$

$$C = 2.12$$

$$R_w = 6$$

(REFERENCE 2)

(REFERENCE 4)

(REFERENCE 4)

(REFERENCE 2)

$$E_{N-S} = V_{N-S} \text{ (100% MAX.)}$$

$$E_{E-W} = V_{E-W} \text{ (30% MAX.)}$$

} (REFERENCE 2)

$$SRSS = \sqrt{E_{N-S}^2 + E_{E-W}^2}$$

WEIGHT OF BLDG = 1.5 K

$$E_{N-S} = V_{N-S} = \left[\frac{0.20(1.25)(2.12)}{6} \right] W_{BLDG} = 0.13 K$$

$$E_{E-W} = V_{E-W} = \left[\frac{0.20(1.25)(2.12)}{6} \right] W_{BLDG} (.3) = 0.03 K$$

$$E_{BLDG}^{SRSS} = \sqrt{0.13^2 + 0.03^2} = 0.13 K$$

EARTHQUAKE LOADS (BLDG & FOUND.)

$$E_{N-S} = V_{N-S} = \left[\frac{0.20(1.25)(2.12)}{6} \right] W_{BLDG \& FOUND.} = 2.0 K$$

$$E_{E-W} = V_{E-W} = \left[\frac{0.20(1.25)(2.12)}{6} \right] W_{BLDG \& FOUND.} (.3) = 0.60 K$$

$$E_{SRSS} = \sqrt{2.0^2 + 0.60^2} = 2.1 K$$

KAISER ENGINEERS
HANFORD

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DESIGN ANALYSIS

Client	<u>WHC</u>	WO/Job No.	<u>W320/ER-4319</u>	<u>MRC</u>
Subject	<u>SERVICE BUILDING</u>	Date	<u>4/11/94</u>	By <u>MICHAEL R. CUSTER</u>
	<u>FOUNDATIONS</u>	Checked	<u>4/26/94</u>	By <u>HEB</u>
Location	<u>TANK 241-C-106</u>	Revised		By

DETERMINE GOVERNING LOAD COMBINATION FOR BLDG:

- 1) D + L + (ROOF LIVE LOAD OR SNOW LOAD)
- 2) D + L + W OR E
- 3) D + L + W + SNOW/2
- 4) D + L + SNOW + W/2
- 5) D + L + SNOW + E

$$\begin{aligned}
 1) \quad U &= 1.7 + 1.6 & &= 3.3 \\
 2) \quad U &= 1.7 + 1.7 + 2.1(10/8) \text{ OR } .13(10/10) & &= 6.0 \text{ OR } 3.5 \\
 3) \quad U &= 1.7 + 1.7 + 2.1(10/8) + 1.6/2 & &= 6.8 \leftarrow \\
 4) \quad U &= 1.7 + 1.6 + [1.7 + 2.1(10/8)/2] & &= 6.3 \\
 5) \quad U &= 1.7 + 1.6 + 0.16(10/10) & &= 3.5
 \end{aligned}$$

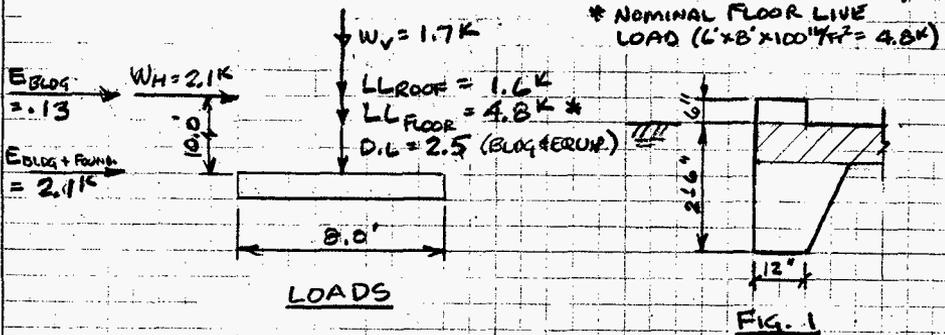
MAX. BUILDING REACTIONS. LOAD COMBINATION (3)

FOUNDATION DESIGN:

THE BUILDING LOADS MAY BE SUPPORTED AT THE FOUR CORNERS ON INDEPENDENT FOUNDATIONS OR ON A MAT FOUNDATION. DUE TO THE MAGNITUDE AND SYMMETRY OF THE LOADS AND REQUIRED CONFIGURATION BY UBC.

THE MINIMUM SIZE OF THE FOUNDATION SLAB HAS BEEN DEFINED, BASED ON THE REQUIRED PHYSICAL AREA, 8'X10'. (EAVE HEIGHT OF BLDG. 10 FT)

THE FOUNDATION DESIGN WILL BE A MAT DESIGN WITH A PERIMETER WALL TO A DEPTH OF 2'-6" (FIG. 1)



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HANFORD
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DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MRC
Subject	SERVICE BUILDING	Date	4/11/94	By MICHAEL R. CUSTER
	FOUNDATION	Checked	4/26/94	By JRB
Location	TANK 241-C-106	Revised		

FOUNDATION DESIGN (CONT.)

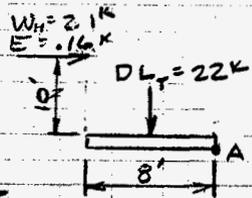
FOUNDATION STABILITY:

A) SLIDING: COEFFICIENT = 0.25 (REFERENCE 2, pg 590)

$$SF_{\text{SLIDING (WIND)}} = \frac{R_{LS}}{F_H} = \frac{.25(22)}{2.1} = 2.6 > 1.5 \dots \text{O.K.}$$

OR

$$SF_{\text{SLIDING (SEISMIC)}} = \frac{.25(22)}{2.1} = 2.6 > 1.5 \dots \text{O.K.}$$

FIG. 2NOTE: FOUNDATION WALL PORTION NOT
REQUIRED FOR LATERAL SUPPORT

B) OVERTURNING (OT):

$$S.F._{OT} = \frac{22K(4')}{2.1K(10')} = 4.2 > 1.5 \dots \text{O.K.}$$

OR

$$S.F._{OT} = \frac{22K(4')}{.16K(10')} = 55.0 > 1.5 \dots \dots \text{NEGLECTIBLE}$$

LOAD COMBINATIONS (FACTORED LOADS): FOUNDATION DESIGN

- 1) $U = 1.4D + 1.7L$
- 2) $U = 0.75(1.4D + 1.7L + 1.7W)$
- 3) $U = 0.9D + 1.3W$

4) MODIFIED FORMULA 9-2, PER REFERENCE 2,
SECTION 2609.C.3

$$U = 0.75(1.4D + 1.7L + 1.7E)$$

5) MODIFIED FORMULA 9-2, PER REFERENCE 2,
SECTION 2625.4, pg. 522.

$$U = 1.4(D + L + E)$$

KAISER ENGINEERS
HANFORD

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DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MRC
Subject	SERVICE BUILDING	Date	4/11/94	By MICHAEL R. CUSTER
	FOUNDATION	Checked	4/26/94	By JLB
Location	TANK 241-C-106	Revised		By

FOUNDATION LOADS: (CONT.)

6) MODIFIED 9-3, PER REFERENCE 2,
SECTION 2625.4, PG. 522

$$U = 0.90 \pm 1.4E$$

$$W = \frac{2.1(10)}{8} + 1.7K$$

$$W = 4.3K$$

$$E = \frac{.13(10')}{8} = 0.16K$$

DETERMINE MAXIMUM DESIGN VALUE
FOR "U":

$$D.L = (8'/12)(8')(10')(150 \text{ lb/ft}^2) + 1.5 + 1.0 = 10.5K \text{ SAY } 11K$$

EVALUATE:

- 1) $U = 1.4(11) + 1.7(1.6 + 4.8) = 26.3K \leftarrow \text{GOVERNS}$
- 2) $U = 0.75[1.4(11) + 1.7(6.4) + 1.7(4.3)] = 25.2K$
- 3) $U = 0.9(11) + 1.3(4.3) = 15.5K$
- 4) $U = 0.75[1.4(11) + 1.7(6.4) + 1.1(1.6)] = 19.8K$
- 5) $U = 1.4(11 + 6.4 + 1.6) = 24.6K$
- 6) $U = 0.9(11) \pm 1.4(1.6) = 10.1K$

DETERMINE FOUNDATION SIZE (CHECK):

$$q_e = 24 \text{ k/ft}^2 \times \frac{8'}{12} (150 \text{ lb/ft}^2) \left(\frac{14}{1000 \text{ lb}} \right) = 1.9 \text{ KSF}$$

$$A_{\text{req'd}} = \frac{D.L + L.L}{q_e} = \frac{(1.0 + 1.5) + (1.6 + 4.8)}{1.9} = 4.7 \text{ FT}^2 < 80 \text{ FT}^2, \text{ OK}$$

$$M = 2.1 \times 10 = 21 \text{ K-FT (WIND MOMENT)}$$

$$P = 8.9K \quad (D+L) \text{ FROM PG. 7}$$

DETERMINE BEARING PRESSURE CONSIDERING
LOCATION OF KERN:

$$e = \frac{M}{V} = \frac{21 \text{ K-FT}}{8.9K} = 2.36 \text{ FT}, \quad \frac{W}{6} = \frac{8}{6} = 1.3' \text{ (LOCATION OF KERN)}$$

SINCE $e = 2.36' > 1.3'$, RESULTANT IS OUTSIDE KERN

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DESIGN ANALYSIS

Client WHC
Subject SERVICE BUILDING
FOUNDATION
Location TANK 241-C-106

WO/Job No. W320/ER-4319 MNC
Date 4/11/94 By MICHAEL E. CUSTER
Checked 4/26/94 By JLB
Revised By

DETERMINE q_{max} FROM THE
FOLLOWING (SEE FIG. 3)

$$R(l/2 + e) = 8.9k(4ft) + 21k \cdot 1$$

$$R(4 + 2.36') = 56.6k \cdot 1$$

$$R = 8.9k @ 6.36ft FROM POINT A$$

$$q_{max} = \frac{2P}{3ab} = \frac{2(8.9k)}{3(1.64 \times 10)} = 0.36 \text{ KSF} < 1.9 \text{ KSF} \dots OK$$

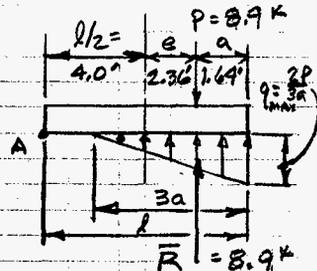


FIG. 3

CHECK BEAM AND PUNCHING SHEARS AND
DESIGN REINFORCING REQUIREMENTS:
(REF. FIG. 4)

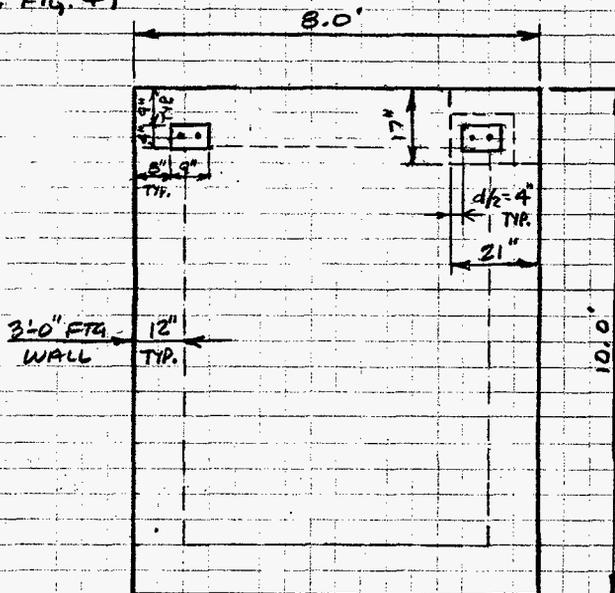


FIG. 4

DESIGN ANALYSIS

Client **WHC**
 Subject **SERVICE BUILDING
 FOUNDATION**
 Location **TANK 241-C-106**

WO/Job No. **W320/ER-4319**
 Date **4/11/94** By **MICHAEL R. CUSTER**
 Checked **4/26/94** By **JRB**
 Revised By

CHECK PUNCHING SHEAR: (TYP. SEE FIG. 5)

DEPTH OF SLAB = 8" - (3" COVER) = 5"
 PERIMETER AT EACH CORNER = $2b_1 + 2b_2$

$$b_1 = 2 \left[2 \left(\frac{5}{2} \right) + 9 \right] = 28" = 2.3 \text{ FT}$$

$$b_2 = 2 \left[2 \left(\frac{9}{2} \right) + 4 \right] = 18" = 1.5 \text{ FT}$$

$$A_{\text{PUNCHING}} = 2.3 \times 1.5 = 3.45 \text{ FT}^2$$

$$q_u = \frac{26.3 \text{ K}}{8 \times 10} = 0.33 \text{ KSF}$$

$$V_u = (80.0 - 3.45 \text{ FT}^2)(0.33 \text{ KSF}) = 25.3 \text{ K}$$

$$d_{\text{REQ'D}} = \frac{V_u}{\phi 4 \sqrt{f_c} b_o} = \frac{25,300 \text{ lb}}{.85(4) \sqrt{4000}(46")}$$

$$d_{\text{REQ'D}} = 2.6" < 5.0", \dots \text{OK}$$

CHECK BEAM SHEAR: (SEE FIG. 6)

WIDTH OF FOUNDATION = 8'
 LENGTH OF FOUNDATION = 10'

$$V_u = (8.0')(3.2')(0.33 \text{ KSF}) = 8.5 \text{ K}$$

$$d = \frac{V_u}{\phi 2 \sqrt{f_c} b_o} = \frac{8500 \text{ lb}}{.85(2) \sqrt{4000}(46")}$$

$$d = 0.82" < 5.0", \dots \text{OK}$$

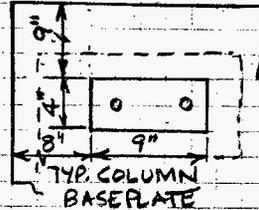


FIG. 5

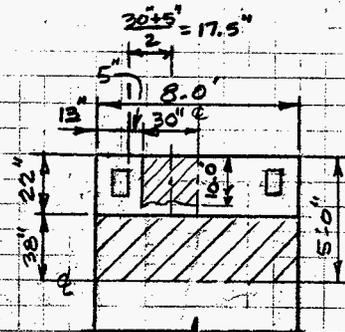


FIG. 6

DETERMINE SLAB REINFORCEMENT REQUIREMENTS:

M_u ; SHORT DIMENSION

$$M_u = \frac{38}{12} (8.0)(.33 \text{ KSF}) \left[\frac{38}{12}(2) \right] = 13.2 \text{ K-ft}$$

$$\text{OR } M_u = \frac{w_u l^2}{8} = \frac{16.5 \text{ K/ft} (8.0')^2}{8} = 13.2 \text{ K-ft}$$

BASED SHEAR / MOMENT DIAGRAM: (FIG. 7)

$$M_u = \frac{1}{2} (3.17')(5.23 \text{ K}) - \frac{1}{2} (1.36 \text{ K})(8.3') =$$

$$M_u = 7.73 \text{ K-ft}$$

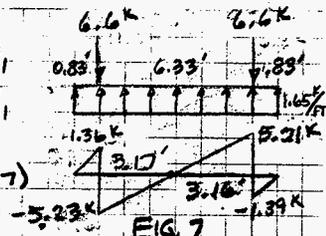


FIG. 7

DESIGN ANALYSIS

Client <u>WHC</u>	WO/Job No. <u>W320/ER-4319</u>	<u>MRC</u>
Subject <u>SERVICE BUILDING</u>	Date <u>4/11/94</u>	By <u>MICHAEL R. CUSTEK</u>
<u>FOUNDATION</u>	Checked <u>4/26/94</u>	By <u>J.R.B.</u>
Location <u>TANK 241-C-106</u>	Revised	By

M_u , LONG DIMENSION:

$$M_u = \frac{w_u l^2}{8} = \frac{1.32 \text{ K/FT} (8')^2}{8} = 13.2 \text{ K-ft}$$

(where $w_u = q_{max}(A)$
 $w_u = (30+5+13/12)(.33 \text{ KSF})$
 $w_u = 1.32 \text{ K/FT}$)

$$M_u = \frac{(30''+5'')(10.0')(.33 \text{ KSF}) \left(\frac{35''}{12(2)}\right)}{12} = 14.0 \text{ K-ft}$$

(SEE FIG. 6,
MOMENT M FROM
FACE OF SUPPORT)

$$\frac{M_u}{\phi b d^2} = \frac{14,000(12)}{0.9(20)(2.5)^2} = 248 \quad \left(\frac{M_u}{\phi b d^2} = 248, \rho = 0.0043 \right)$$

- 1) If $A_s < \text{REQ'D BY } \rho_{min}$, MAY PROVIDE $1.33 A_s$ DESIGN ($\rho_{min} = .0033$)
- 2) $\rho = 0.0043(25'')(96'') = 1.0 \text{ in}^2 / \text{WIDTH OF 8 FT}$
OR $0.13 \text{ in}^2 / \text{FT}$, (#5 @ 18" PROVIDES $0.21 \text{ in}^2 / \text{FT}$)
- 3) TEMP / SHRINKAGE, $\rho = 0.0018$, $A_s = 0.43 \text{ in}^2 / \text{WIDTH 8.0 FT}$

USE #5 @ 18", 0.21 in²/FT

WALL REINFORCEMENT: (FIG. 8) (WALL REIN. NOT REQ'D FOR HORIZONTAL LOADS, HOWEVER MINIMAL A_s WILL BE PROVIDED)

$$M_e = 2.1 \text{ K} (4'') = 8.4 \text{ K-in}$$

$$R(2/2 + e) = 8.4''$$

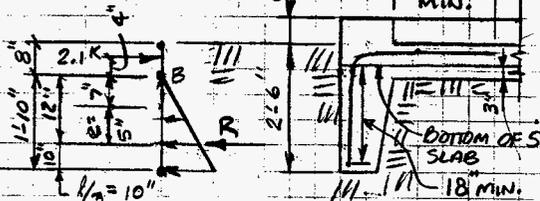
$$R(15'' + 5'') = 8.4 \text{ K-in}$$

$$R = 0.42 \text{ K}$$

$$q_{max} = \frac{2(42 \text{ K})}{3(10)(120)} =$$

$$q_{max} = 0.0002 \text{ KSI}$$

$$q_{max} = 0.03 \text{ KSF} < 1.9, \text{ OK}$$



$$M_u = 0.03 \text{ KSF} (1.83 \text{ FT}) (10.0 \text{ FT}) (1.0 \text{ FT}) = 0.55 \text{ K-ft} / 10 \text{ FT LENGTH}$$

$$M_u = 0.55 \text{ K-ft} (1.4) = 0.77 \text{ K-ft}, \quad \frac{M_u}{\phi b d^2} = \frac{770(12)}{0.9(96)(6)^2} = 2.97, \rho < \rho_{min}$$

USE $A_s = \rho b d$, where $\rho = 0.0012$

$$A_s = (22'')(8'')(0.0012) = 0.21 \text{ in}^2 / \text{FT} \#5 @ 18", A_s \geq .21 \text{ in}^2 / \text{FT} \dots \text{OK}$$

KAISER ENGINEERS
HANFORD

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DESIGN ANALYSIS

Client	WHC	WO/Job No.	W320/ER-4319	MNC
Subject	SERVICE BUILDING	Date	4/11/94	By MICHAEL R. CUSTER
Location	FOUNDATION	Checked	4/26/94	By JRB
	TANK 241-C-106	Revised		By

DETERMINE DEVELOPMENT LENGTH OF SLAB REINF.
FOR BOTH POSITIVE AND NEGATIVE MOMENTS:

$$l_{db} = \frac{0.04 A_b f_y}{\sqrt{f'_c}}$$

(REFERENCE 2, SECTION 2612(C)
Pg. 469)

$$M_u = 16.5 \text{ K-FT} = 198 \text{ K-IN}$$

$$M_n = \frac{M_u}{0.9} = 220 \text{ K-IN}$$

$$l_{db} = \frac{0.04 (307) (60,000)}{\sqrt{4000}}$$

$$l_{db} = 11.6", \text{ providing } 22"$$

$$l_{db, \min} = 12"$$

$$l_d \leq \frac{M_n}{V_u} + l_a, l_a = 12d_b$$

$$l_d = \frac{220 \text{ K-IN}}{8.5 \text{ K}} + 12(0.625)$$

$$l_{db} = 11.6, \text{ provided } 22 < 33", \dots \text{ OK}$$

$$l_d = 33" \left\{ \begin{array}{l} \text{REFERENCE 2} \\ \text{FORMULA 12-2} \end{array} \right.$$

$$l_{db} = 0.0004 d_s f_y =$$

$$= 0.0004 (6.25) (60,000) = 15"$$

$$l_{db, \min} = 15" < 22" < l_{d, \max} = 33", \dots \text{ OK, PROVIDE } l_{d, \min} = 22"$$

DESIGN GRADE BEAM:

$$W_u (\text{WT. OF BEAM}) = 3.5 \text{ FT} (1 \text{ FT}) (150 \text{ LB/FT}^3) / 1000 (1.4) = 0.7 \text{ K/FT}$$

$$M_u = 14.0 \text{ K-1} + \frac{w_l l^2}{8} = 14.0 \text{ K-1} + \frac{0.7 (10')^2}{8} = 22.8 \text{ K-FT}$$

$$P_{\min} = 200 / f_y = 0.0033, P_{\max} = 0.0214$$

$$\frac{M_u}{\phi b d^2} = \frac{22,800 (12)}{0.90 (6") (19")^2} = 140 < 192.2, P_{\min} = 0.0033$$

$$A_s = 0.0033 (8) (19) = 0.50 \text{ in}^2, 2\text{-}\#5, A_s = 0.62 \text{ in}^2$$

REMAINING AREA, DISTRIBUTE $A_s = .1 A_s = .1 (0.88) = 0.09 \text{ in}^2$
(PROVIDE 2-#4s @ TOP & MID-DEPTH)

DESIGN ANALYSIS

Calc. No. W320-24-022
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Client	UJC
Subject	SERVICE BUILDING
Location	FOUNDATION
Location	TANK 241-C-106
WO/Job No.	W320/ER-4319
Date	4/11/94
Checked	4/12/94 BY MICHAEL R. GUSTRE
Revised	4/26/94 BY gkb

BUILDING ANCHORAGE

- REQUIREMENTS:**
- ANCHOR TYPE, A-307
 - MINIMUM EDGE DISTANCE, 6" (w/o REDUCTION)
 - 3/4" ϕ , SHEAR = 3560 lbs (w/o INSPECTION)
 - TENSION = 2250 lbs (w/o INSPECTION)
 - SPACING, 12 X 0.9 = 12 (.75) = 9" (w/o REDUCTION)
 - MINIMUM EMBEDMENT, 5" + 2" = 7"

ANCHORS WITH INSPECTION:

$V = 3560 \times 2 = 7120 \#$ (w/INSPECTION)
 $T = 2250 \times 2 = 4500 \#$ (w/INSPECTION)

FOR SPACING OF 3" :

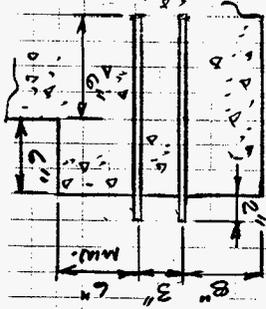
$V_{REDUCED} = \frac{9}{3} \times 7120 \# = 2373 \#$
 $T_{REDUCED} = \frac{9}{3} \times 4500 \# = 1500 \#$

Provide 12" EMBEDMENT

DESIGN REACTIONS:

VERTICAL, $T = 6.8K/2(2) = 1.7K$
 HORIZONTAL, $V = 2.1K/2(2) = 0.5K$

$V_{ACT} = 0.5K$, $V_{ALLOW} = 2.3K \times 2 = 4.6K$
 $T_{ACT} = 1.7K < T_{ALLOW} = 1.5K \times 2 = 3.0K$

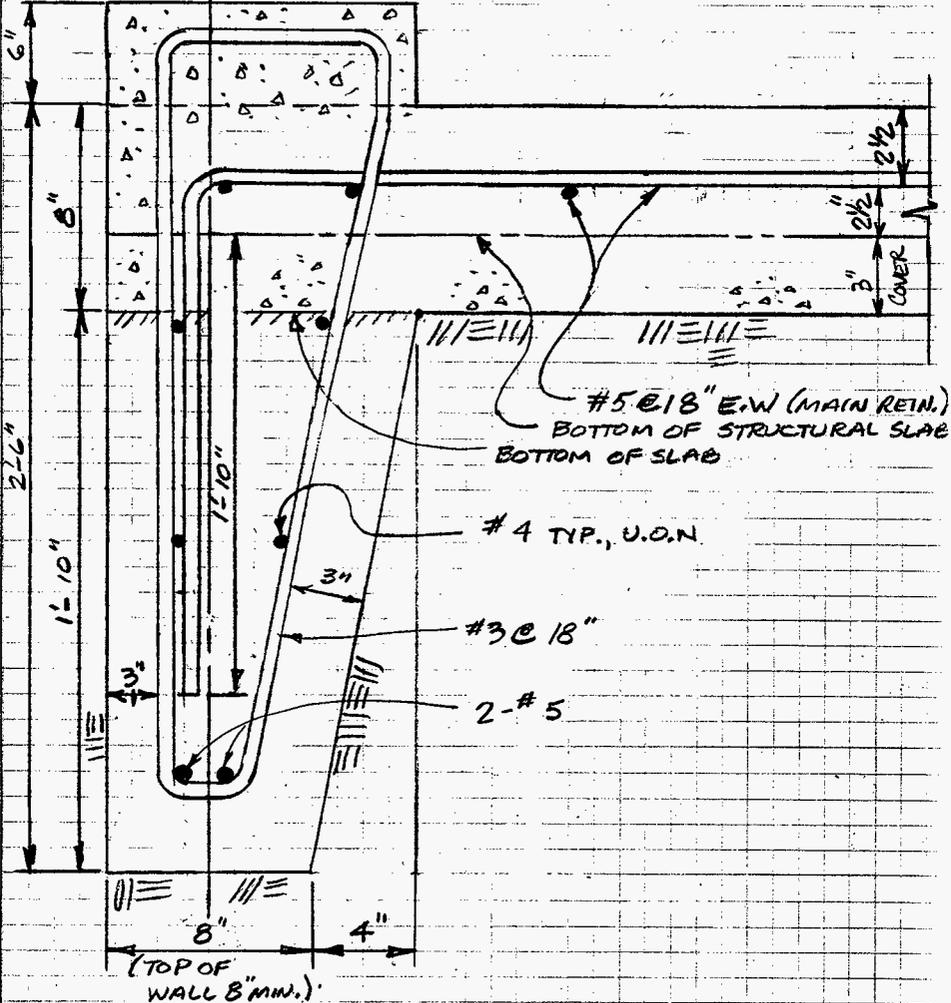


USE 2-3/4" ϕ ANCHORS w/ 12" EMBEDMENT AT EACH OF (4) CORNERS OF THE FOUNDATION. BOLT TYPE, A-307

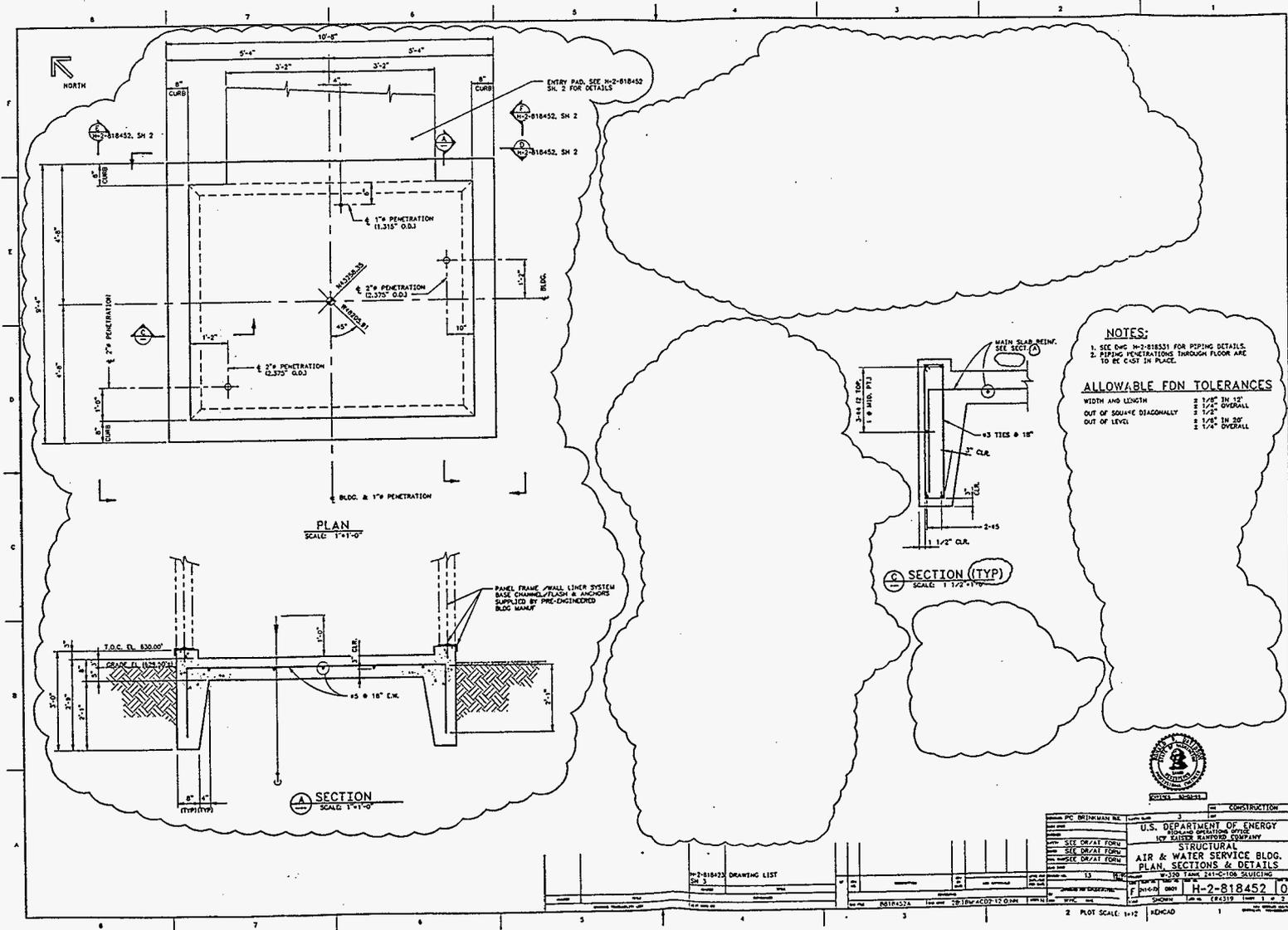
DESIGN ANALYSIS

Client WHC
Subject SERVICE BUILDING
FOUNDATION
Location TANK 241-C-106

WO/Job No. W320/ER-4319 MKC
Date 4/11/94 By MICHAEL R. CUSTER
Checked 4/26/94 By DRB
Revised By



Ref. Dwg. H-2-818452	Sh. 1	Rev. 0	Prepared By PB	Checked By <i>James R. Booth</i> 7/13/95	ECN No. W-320-103	Page 9/11
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NOTES:
 1. SEE DWG H-2-818531 FOR PIPING DETAILS.
 2. PIPING PENETRATIONS THROUGH FLOOR ARE TO BE C-57 IN PLACE.

ALLOWABLE FDN TOLERANCES

WIDTH AND LENGTH	± 1/8" IN 12'
OUT OF SQUARE DIAGONALLY	± 1/8" OVERALL
OUT OF LEVEL	± 1/8" IN 30'
	± 1/4" OVERALL

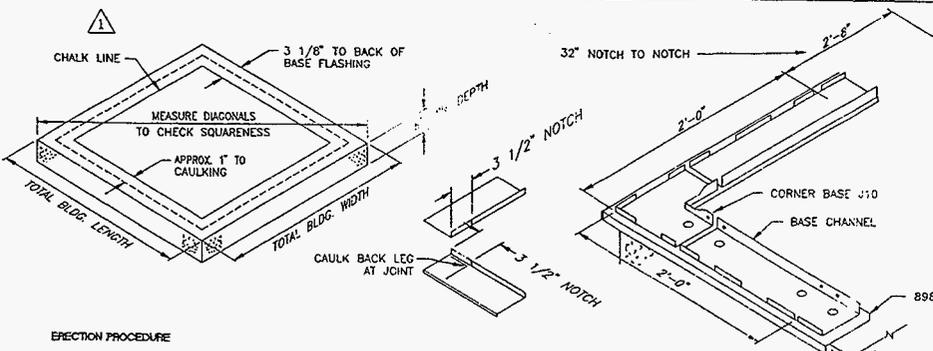


NO.	DESCRIPTION	DATE	BY	CHECKED
1	W-320-103	7/13/95	J.R. BOOTH	
2	H-2-818452	7/13/95	J.R. BOOTH	
3	H-2-818452	7/13/95	J.R. BOOTH	

2 PLOT SCALE: 1/4" = 1'-0" 1/4" = 1'-0" 1/4" = 1'-0"

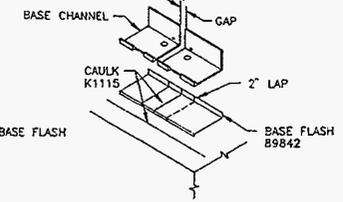
ATTACHMENT A

DRB
3/13/95



NOTE: MEASURE 32" C/C OF PANEL NOTCH IN BASE CHANNEL THROUGH BASE CHANNEL JOINT. GAP SHOULD OCCUR AT JOINT.

DO NOT BUTT CHANNELS



ERECTION PROCEDURE

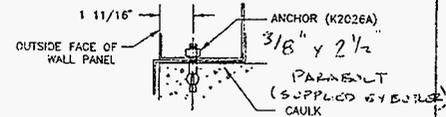
- CHECK FOUNDATION SQUARENESS.
- SNAP CHALKLINE AS SHOWN. CAULK AS SHOWN ABOVE, OMITTING CAULK AT ALL OVERHEAD DOOR OPENINGS.

NOTE: CONCRETE MUST BE CLEAN AND DRY BEFORE APPLYING K1115 CAULKING.

- NOTCH FLASHING CORNER AS SHOWN ABOVE.
- POSITION BASE FLASHING WITH BACK EDGE AT CHALKLINE. OMIT FLASHING AT OVERHEAD DOOR OPENINGS. CAULK LAPS IN FLASHING AS SHOWN.
- ANCHOR CORNER BASE USING HOLE AS TEMPLATE AND DRILLING THROUGH FLASHING. SEE ABOVE DETAIL FOR POSITIONING.

NOTE: USE HAMMER DRILL FOR DRILLING OF ANCHOR HOLES. USE BASE CHANNELS AS TEMPLATES AND DRILL THROUGH FLASHING.

- CONTINUE AROUND PERIMETER OF SLAB. BASE CHANNEL REQUIRES AN ANCHOR AT EACH END. SEE CHART "A" FOR MAXIMUM SPACE BETWEEN ANCHORS
- PLACE SHIMS UNDER BASE FLASHING WHERE NECESSARY TO KEEP BASE CHANNEL LEVEL.



SEE FLYER WITH ANCHORS FOR INSTALLATION PROCEDURE (RECOMMENDED EMBEDMENT IN CONCRETE: 3/4")

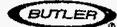
BASE CHANNEL PARTS	
PART NO.	LENGTH
J1	1'-3 7/8"
J2	2'-7 7/8"
J3	3'-11 7/8"
J4	5'-3 7/8"
J5	6'-7 7/8"
J6	7'-11 7/8"
J7	9'-3 7/8"
J8	10'-7 7/8"
J9	11'-11 7/8"

ALLOWABLE FOUNDATION TOLERANCES

WIDTH AND LENGTH	± 1/8" in 12'
	± 1/4" OVERALL
OUT OF SQUARE DIAGONALLY	± 1/2"
OUT OF LEVEL	± 1/8" in 20'
	± 1/4" OVERALL

CHART 'A'	
2'-0" MAX. ANCHOR SPACING	
2'-8" MAX. ANCHOR SPACING	
3'-4" MAX. ANCHOR SPACING	

REVISION NO. 1	REVISION NO. 2	REVISION :
DATE 11-18-92	DATE 3-4-93	SCALE :
DRAWN BY : DC	CHECKED BY : RLJ	
CHECKED : LW	CHECKED :	


BUTLER
 Butler Manufacturing Company
 Kansas City, MO, USA Burlington, ONT, Canada

DRAWING TITLE
PANEL - LINE BUILDING
BASE CHANNEL INSTALLATION

GROUP :	DATE :
DRAWING NUMBER :	REV. 2
B-002	

W320-24-023

Misc. Mechanical (HVAC) Equipment Foundation
Chiller and Pumps

DESIGN VERIFICATION SCREENING CRITERIA

Project/Document No. W-320 / CALCULATION W320-24-023,
REV. 6

When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|---|--|
| _____ | _____ <input checked="" type="checkbox"/> | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | _____ <input checked="" type="checkbox"/> | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | _____ <input checked="" type="checkbox"/> | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | _____ <input checked="" type="checkbox"/> | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |



 Assigned Lead Engineer

 10/20/94
 Date



 Responsible Discipline Manager

 10/20/94
 Date

Original Design Package Distribution:

Project Engineer

Chief Design Engineer

Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

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HANFORD

Calc. No. W320-24-023

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R. Custer *MRC*

Checked 10/14/94

By M.B. LASOTA *KLJ*

Location TANK 241-C-106

Revised

By

OBJECTIVE:

The objective of this calculation is to provide the detailed design for the Chiller and Pump, equipment foundation. The design of the foundation shall be performed in accordance with ACI-318 (Strength Design) and the Uniform Building Code (1991), as required by the project design criteria, SDC-4.4, Rev.11. Since definitive information regarding the weights and geometry of the equipment will not be available, due to long lead time for purchase, conservative estimates of the weights and equipment geometry will be used to perform the analysis and design. This calculation provides the Chiller and Pump foundation part of the active ventilation system (Outside tank farm).

CRITERIA:

1. DOE ORDER 6430.1A (04/06/89)
2. HANFORD PLANT STANDARDS, STANDARD ARCH./CIVIL DESIGN CRITERIA, SDC-4.1, REV.11
3. FUNCTIONAL DESIGN CRITERIA, WHC-SD-W320-FDC-001, REV.2
4. WHC-SD-WM-SEL-033, REV.0-C, Interim Safety Equipment List for 241-C-106 WASTE RETRIEVAL
5. ASCE 7-88

DATA:

1. The equipment and foundation for the equipment in this calculation are Safety Class 3 per Criteria 4. (See Active Ventilation System classification)

ASSUMPTIONS: Weights and equipment geometry will be conservatively assumed and will be verified on receipt and review of the vendor drawings.

METHODS: Hand calculations

REFERENCES:

1. ACI 318-91, Building Code Requirements for Reinforced Concrete.
2. Uniform Building Code (UBC), (1991 Edition).
3. HANFORD PLANT STANDARDS, STANDARD ARCH./ CIVIL DESIGN CRITERIA, SDC-4.1, REV.11.
4. Foundation Analysis and Design, Joseph E. Bowles (1st Edition).
5. ASCE 7-88 (American Society of Civil Engineers Standard), Minimum Design Loads for Buildings and Other Structures.

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R. Custer *MRC*

Checked 10/14/94

By H.B. LASOTA *HBL*

Location TANK 241-C-106

Revised

By

CALCULATIONS:

Refer to Design Calculation Section

CONCLUSIONS:

The foundation for the chiller and pumps is designed as a slab on grade. The loads developed in the calculation, while conservative are minimal, based on the extensive, physical area required by the piping and equipment configuration. The design satisfies the design requirements for the foundation.

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Client WHC

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Checked 10/14/94

By M.B. LASOTA *Mjrl*

Location TANK 241-C-106

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DESIGN CALCULATIONS:

The design and analysis of the chiller and pump foundation consists of developing conservative estimates for the weights of the major equipment, determine relative locations for each equipment on the foundation and design of the concrete foundation to support the load configuration. All equipment supported on the foundation is Safety Class 3 per Reference 4, therefore the design of the foundation is Safety Class 3.

DESIGN REQUIREMENTS:

- Soil Category reference drawings: H-2-70495 and H-2-70498

Soil slightly silty, very coarse to coarse sand

- Allowable soil pressure (foundation design), 1500 lb/ft². (Reference 2, Table 29-B)
- Coefficient of Sliding = 0.25 (Reference 2, Table 29-B)
- Minimum footing dimensions, (Reference 2, Table 29-B)
- Snow/Roof Live Load, 20 lbs/ ft² (Reference 3)
- Wind Load, (Reference 3)
 - Basic wind speed, 70 mph
 - Importance Factor, 1.07
 - Exposure Category, C

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DESIGN ANALYSIS

client WHC

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Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R Custer **MRC**

Checked 10/14/94

By M.B. LASOTA *ljs*

Location TANK 241-C-106

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DESIGN LOADS:DEAD LOADS

- Mechanical equipment (i.e the chiller, expansion tanks, air separator and pumps), piping/supports and an electrical distribution panel. Estimated weights for each equipment are:

<u>EQUIPMENT</u>	<u>WEIGHT</u>	<u>AREA (sf.ft)</u>	<u>LOAD/(lb/sf.ft)</u>
a) Chiller (CH-1)	10,000 lbs	54	185
b) Expansion Tank (ET-1)	1000 lbs	100	35
c) Expansion Tank (ET-2)	500 lbs	Totaled in (b)	Totaled in (b)
d) Pump (P-1)	500 lbs	"	"
e) Pump (P-2)	500 lbs	"	"
f) Air Separator Tank	200 lbs	"	"
g) Elect. Dist. Panel	300 lbs	"	"
h) Piping/Supports	500 lbs	N/A	N/A

Total Equipment Weight = 13500 lbs

NOTE: Slab critical area for loading is located under the Chiller

- Dead Load - Foundation (assume 12 " thick slab):

$$\text{Wt. slab} = 10.0 \text{ ft} \times 25.5 \text{ ft} \times 1.0 \text{ ft} \times 150 \text{ lbs/ft}^3 =$$

$$\text{Total Concrete Weight} = 38250 \text{ lbs/ } 38.3 \text{ Kips}$$

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DESIGN ANALYSIS

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Checked 10/14/94

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Location TANK 241-C-106

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LIVE LOAD: L.L = 60 psf

$$L.L = 0.06 (10 \text{ ft.}) (25.5 \text{ ft.}) = 15.3 \text{ k}$$

(Reference 5)

EQUIPMENT LIVE LOAD:

- Equipment Live Load, $LL_e = \text{Equip. Live Load} \times 1.5$

(Reference 2)

The equipment live load for this design is considered negligible due to the extremely, small magnitude of the loads transmitted by the rotating equipment (pumps) and chiller unit in addition to consideration of the orientation of the fan units of the chiller. An accepted, simplified approach to determine adequacy of a foundation is a comparison of the masses (mass ratio). The weight of the foundation should be 3 to 5 times the weight of the rotating equipment. For this case the ratio is: (Reference 5, page 601)

Mass Ratio = $40.6 / 11.2$ (equipment contributing) = 3.6 (conservative)

Actual equipment loads transmitted to the foundation are considered in addition to the other loads on the equipment to design the equipment supports.

WIND LOAD:

- Determine wind load (general):

$$q_z = 0.00256 K_z (IV)^2, \text{ where}$$

(Reference 6)

$$K_z = 0.80 \text{ (Exposure C)}$$

(Reference 3)

$$I = 1.07$$

$$V = 70 \text{ mph}$$

$$q_z = 0.00256 (0.80) [(1.07)70]^2 = 11.5 \text{ lb/ft}^2$$

$$F = q_z G_h C_f A_f, \text{ where:}$$

(Reference 5)

$$G_h = 1.32$$

(Ref. 5, Table 8)

$$C_f = 1.4$$

(Ref. 5, Table 12)

$$F = 11.5 (1.32) (1.4) A_f,$$

$$F = 21.25 \text{ lbs/ft}^2 \times A_f$$

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
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Date 06/27/94

By M.R Custer *MRC*

Checked 10/14/94

By M.B. LASOTA *ML*

Location TANK 241-C-106

Revised

By

- Wind forces on major equipment:

<u>Equipment Item</u>	<u>Projected Area</u>	<u>Wind Force</u>
Chiller	6.5 ft x 7.5 ft = 48.8 sq.ft	1036 lbs
Tank, TK-1	4.2 ft x 2.0 ft = 8.3 sq.ft	177 lbs
Tank, TK-2	1.0 ft x 2.0 ft = 2.0 sq.ft	43 lbs
Pumps (similiar to TK-2), x (2)		86 lbs
Elect.Distr.Pnl	4.0 ft x 6.0 ft = 24 sf.ft	510 lbs

Total = 1852 lbs or 1.9 k

The location of the lateral wind force is reasonably close to the center of gravity of the equipment, therefore the wind forces will coincide with the seismic forces.

NOTE: C-CW-TK-3 not considered since it is sheltered by TK-1 in the critical wind direction.

SNOW LOAD: 20 lbs/ ft²

(Reference 3)

$$S = 10.0 \text{ ft} \times 25.5 \text{ ft} \times 20 \text{ lbs/ ft}^2$$

$$S = 5100 \text{ lbs} = 5.1 \text{ k}$$

EARTHQUAKE LOADS:

- Lateral Seismic Force, $F_p = ZIC_p W_p$, where:

(Reference 2, Eq.36-1)

$Z = 0.20$

(Reference 2, Table 23-I)

$I = 1.25$

(Reference 3)

$C_p = .75 \times 2 = 1.5$, (for non-rigid equipment)

(Reference 3, Table 23-P)

$F_p = (0.20)(1.25)(1.5) W_p = 0.375 W_p$

$E_{n-s} = V_{n-s}$ (100% max.)

(Reference 2)

$E_{e-w} = V_{e-w}$ (30% max.)

(Reference 2)

$E_{n-s} = V_{n-s} = 0.375 W_p = 0.375 (13500) = 5063 \text{ lbs} = 5.1 \text{ Kips}$

$E_{e-w} = V_{n-s} = 0.375 W_p (0.3) = 0.375 (13500)(0.3) = 1518 \text{ lbs} = 1.5 \text{ Kips}$

$E_{(SRSS)} = [5.1^2 + 1.5^2]^{1/2} =$

(Reference 2 & 3)

$E_{(SRSS)} = 5.3 \text{ Kips}$ (Apply force in direction providing maximum load conditions)

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Checked 10/14/94

By H.B. LASOTA *HBL*

Location TANK 241-C-106

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- Distribution of seismic forces by component:

<u>LOAD IDENTIFIER</u>	<u>VERTICAL COMP. / RATIO</u>	<u>HORIZ. COMPONENT</u>
a) Chiller (R-1)	10,000 (5300/13500)	3925 lbs/ 3.90 Kips
b) Expansion Tank (TK-1)	1000 "	393 " 0.39
c) Expansion Tank (TK-2)	500 "	196 " 0.20
d) Pump (P-1)	500 "	196 " 0.20
e) Pump (P-2)	500 "	196 " 0.20
f) Air Separator Tank (TK-3)	200 "	79 " 0.08
g) Elect. Dist. Panel	300 "	118 " 0.12
h) Piping/Supports	500 "	196 " 0.20
TOTAL WEIGHT =	13,500 lbs	5300 lbs/ 5.3 Kips

LOCATE THE CENTER OF GRAVITY/CENTER OF MASS FOR THE EQUIPMENT/COMPONENTS:

<u>Component Description</u>	<u>Weight, lbs</u>	<u>[X-distance,</u>	<u>Z-Distance,</u>	<u>H-Distance, (ft.)</u>
a) Chiller, R-1	10000 lbs	5.67 ft	5.83 ft	4.0 ft
b) Tank, TK-1	1000 lbs	14.42 ft	5.25 ft	2.0 ft
c) Tank, TK-2	500 lbs	17.58 ft	3.25 ft	1.5 ft
d) Pump, P-1	500 lbs	18.83 ft	6.50 ft	1.5 ft
e) Pump, P-2	500 lbs	22.33 ft	6.50 ft	1.5 ft
f) Air Sep. Tank TK-3	200 lbs	14.42 ft	1.25 ft	2.0 ft
g) Elect. Panel	300 lbs	15.58 ft	7.42 ft	3.5 ft
h) Pipe/Supports	500 lbs	16.25 ft	3.00 ft	3.0 ft

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DESIGN ANALYSIS

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Location TANK 241-C-106

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Reference points for the x, z, and h distances are as follows:

- 1) x-distance, dimension from the west edge of the slab to the approximate center of mass of the component in the east-west direction.
- 2) z-distance, dimension from the south edge of the slab to the approximate center of mass of the component in the north-south direction.
- 3) h-distance, dimension from the top of the slab to the approximate center of mass of the component in the vertical direction.

CENTER OF GRAVITY: (Ref. sketch, Figure 1, page 16)

- Center Gravity, East-West direction

$$\bar{x} = \Sigma P_x / \Sigma P = 116273 \text{ ft-lb} / 13500 \text{ lbs}$$

$$\bar{x} = 8.61 \text{ ft, eccentricity, } e(x) = 25.5/2 - 8.61 = 4.14$$

- Center of Gravity, North-South direction

$$\bar{z} = \Sigma P_z / \Sigma P = 75651 \text{ ft-lbs} / 13500 \text{ lbs}$$

$$\bar{z} = 5.60 \text{ ft, eccentricity, } e(z) = 10.0/2 - 5.60 = -0.60$$

CENTER OF GRAVITY: (Above the top of the foundation) (Ref. sketch, Figure 1, page 16)

- Eccentricity (\bar{h}):

$$\bar{h} = \Sigma P_h / \Sigma P = 47200 \text{ ft-lbs} / 13500 \text{ lbs}$$

$$\bar{h} = 3.50 \text{ ft, Center of Gravity above the top of the foundation}$$

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Date 06/27/94

By M.R. Custer *MRC*

Checked 10/14/94

By M.B. LASOTA *MJL*

Location TANK 241-C-106

Revised

By

DETERMINE GOVERNING LOAD COMBINATION: (Equipment support design)

• Load Combinations:

(Reference 2)

- 1) $U = D + L + (LLr \text{ or } S)$
- 2) $U = D + L + W \text{ or } E$
- 3) $U = D + L + W + S/2$
- 4) $U = D + L + S + W/2$
- 5) $U = D + L + S + E$

Abbreviations:

D = Dead Load
 L = Live Load (floor)
 W = Wind Load
 S = Snow Load
 E = Earthquake Load
 LLr = Roof Live Load

- The evaluation of each load combination is required to determine the maximum reactions for each equipment/ component for design of the supports:
- L is constant; $LL_r = 0.0$
- UNDERLINE - designates load combination governing support design

ITEM:	SQ	FT	D	W	S	E	L	Load Combination:				
								1)	2)	3)	4)	5)
a)	115	10.0	1.04	2.30	3.90	6.90	19.20/ 0.00	16.90/ 3.90	18.05/ 1.04	19.20/ 0.52	<u>19.20/ 3.90</u>	
b)	21	1.0	0.18	0.42	0.39	1.26	2.68/ 0.00	2.26/ 0.39	2.47/ 0.18	2.68/ 0.09	<u>2.68/ 0.39</u>	
c)	12	0.5	0.04	0.24	0.20	0.72	1.46/ 0.00	1.22/ 0.20	1.34/ 0.04	1.46/ 0.02	<u>1.46/ 0.20</u>	
d)	21	0.5	0.04	0.42	0.20	1.26	2.18/ 0.00	1.76/ 0.20	1.97/ 0.04	2.18/ 0.02	<u>2.18/ 0.20</u>	
e)	21	0.5	0.04	0.42	0.20	1.26	2.18/ 0.00	1.76/ 0.20	1.97/ 0.04	2.18/ 0.02	<u>2.18/ 0.20</u>	
f)	14	0.2	0.00	0.28	0.08	0.84	1.32/ 0.00	1.04/ 0.08	1.18/ 0.00	1.32/ 0.00	<u>1.32/ 0.08</u>	
g)	21	0.3	0.51	0.42	0.12	1.26	1.98/ 0.00	1.56/ <u>0.51</u>	1.77/ <u>0.51</u>	1.98/ 0.26	<u>1.98/ 0.12</u>	
h)	30	0.5	0.20	0.60	0.20	1.80	2.90/ 0.00	2.30/ 0.20	2.60/ 0.20	2.90/ 0.10	<u>2.90/ 0.20</u>	
								TOTAL = 33.9/ 5.29				

KAISER ENGINEERS
HANFORD

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DESIGN ANALYSIS

client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R Custer *MRC*

Checked 10/14/94

By M.B. LASOTA *ML*

Location TANK 241-C-106

Revised

By

DETERMINE THE GOVERNING LOAD COMBINATION: (Foundation design)

• Load Combinations:

(Reference 1)

(D = DEAD LOAD, L = LIVE LOAD, W = WIND LOAD, E = EARTHQUAKE LOAD)

- 1) $U = 1.4D + 1.7L$ (Minimum design requirements)
- 2) $U = 0.75 (1.4D + 1.7L + 1.7W)$
- 3) $U = 0.9D + 1.3 W$

In addition, if earthquake loads are included in the design, load combinations of section 2609(c)(2), (Reference 3) apply, except (1.E) is substituted for (W), as follows:

4) $U = 0.75 (1.4D + 1.7L + 1.87E)$

5) $U = 0.9D + 1.43E$

also for earthquake loading, use the following:

6) $U = 1.4 (D + L + E)$

7) $U = 0.9D +/- 1.4E$

• Evaluate Load Combinations:

- 1) $U = 1.4 (13.5) + 1.7 (15.3) = 44.9$ kips
- 2) $U_{(VERT.)} = 0.75 [1.4 (13.5) + 1.7 (15.3)] = 33.7$ kips
 $U_{(HORIZ.)} = 0.75 [1.7 (1.9)] = 2.4$ kips
- 3) $U_{(VERT.)} = 0.9 (13.5) = 12.2$ kips
 $U_{(HORIZ.)} = 1.3 (1.9) = 2.5$ kips
- 4) $U_{(VERT.)} = 0.75 [1.4 (13.5) + 1.7 (15.3)] = 33.7$ kips
 $U_{(HORIZ.)} = 0.75 [1.87 (5.3)] = 7.4$ kips
- 5) $U_{(VERT.)} = 0.9 (13.5) = 12.2$ kips
 $U_{(HORIZ.)} = 1.43 (5.3) = 7.6$ kips
- 6) $U_{(VERT.)} = 1.4 (13.5 + 15.3) = 40.3$ kips
 $U_{(HORIZ.)} = 1.4 (5.3) = 7.4$ kips
- 7) $U_{(HORIZ.)} = 0.9 (13.5) (SEE EQUATION 5) = 12.2$ kips
 $U_{(HORIZ.)} = (+/-) 1.4 (5.3) = (+/-) 7.4$ kips

Equation 6: Maximum design load value to be applied to develop foundation design.

KAISER ENGINEERS
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DESIGN ANALYSIS

Client WHC

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Checked 10/14/94

By H. B. LASOTA *HBL*

Location TANK 241-C-106

Revised

By

FOUNDATION DESIGN:

The foundation required is a mat type on grade. The size of foundation has been predetermined by the physical layout required for the equipment and components.

The foundation dimensions are: 10.0 ft x 25.5 ft, estimated 12" thick
(Reference Figures 1, 2 & 3 for loads and locations)

- Check foundation size: (Reference sketch, Figures 2,3 page 17)

$$q_e(\text{effective}) = 1.5 \text{ k/ft}^2 - 12"/12" (150 \text{ lb/ft}^3 (1 \text{ k/1000 lb}) = 1.35 \text{ k/ft}^2$$

$$A \text{ req} = (D.L + L.L)/ q_e = (13.5 + 15.3)/ 1.35 \text{ k/ft}^2$$

$$A \text{ req} = \underline{21 \text{ ft}^2} < 255 \text{ ft}^2 \quad \dots\dots\text{OK}$$

- Check foundation stability:

Safety Factor (Overturning):

$$S.F (ot) = [5.0 \text{ ft} (38.3 \text{ k})(0.85) + 4.5 \text{ ft} (13.5 \text{ k})(0.85)] / (\text{Ref.2, Section 2337})$$

$$4.5 \text{ ft} (5.3 \text{ k})$$

$$S.F (ot) = \underline{8.99} > 1.5 \quad \dots\text{ok}$$

Safety Factor (Sliding):

$$S.F (sliding) = [0.25(0.85)(38.3 + 13.5)] / 5.3 = \underline{2.08} > 1.5 \quad \dots\text{ok}$$

- Determine the center of gravity of the loads relative to the kern:

$$k_x, (\text{length}) = 25.5 \text{ ft} / 6 = 4.25 \text{ ft}$$

$$k_z, (\text{width}) = 10.0 \text{ ft} / 6 = 1.67 \text{ ft}$$

$$e_x = 4.14 \text{ ft and } e(z) = 0.60 \text{ ft (per page 8),}$$

$$k_x = 4.25 \text{ ft} > \bar{x} = 4.14 \text{ ft., Load in middle 1/3 of slab....OK}$$

$$k_z = 1.67 \text{ ft} > \bar{z} = 0.60 \text{ ft., Load in the middle 1/3 of slab....OK}$$

Use $q = P/A (+/-) M_c/I$ approach (two directions) to determine maximum soil bearing pressures.

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-023

Revision 0

Page No. 12 of 20

DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R Custer *MRC*

Checked 10/14/94

By H.B. LASOTA *HL*

Location TANK 241-C-106

Revised

By

- Determine maximum soil bearing pressure:

$P_1 = 13.5$ k (Equipment load, eccentric with foundation centerlines, n-s/e-w)

$P_2 = 15.3$ k (Live load at centerline of foundation)

$P_3 = 38.3$ k (Dead weight of concrete at centerline of foundation)

$M_x = 13.5$ k (0.60 ft) = 8.1 k-ft (Moment due to eccentric equipment load)

$M_z = 13.5$ k (4.14 ft) = 55.9 k-ft (Moment due to eccentric equipment load)

$M_{e(x)} = 4.5$ ft (5.1 k) = 23.0 k-ft (Moment due to n-s seismic load)

$M_{e(z)} = 4.5$ ft (1.5 k) = 6.8 k-ft (Moment due to e-w seismic load)

Maximum soil pressures:

$q = \Sigma P/A (+/-) \Sigma M_x (c)/ I_x (+/-) \Sigma M_z (c)/ I_z$, where:

$$I_x = bd^3 / 12 = [25.5 (10)^3] / 12 = 2125 \text{ ft}^4$$

$$I_z = bd^3 / 12 = [10 (25.5)^3] / 12 = 13818 \text{ ft}^4$$

$$q = (13.5 \text{ k} + 15.3 \text{ k} + 38.3 \text{ k}) / 10 \text{ ft} (25.5 \text{ ft})$$

$$+/- [(55.9 \text{ k-ft} + 6.8 \text{ k-ft}) (12.75 \text{ ft}) / 13818 \text{ ft}^4$$

$$+/- [(8.1 \text{ k-ft} + 23.0 \text{ k-ft}) (5.0 \text{ ft}) / 2125 \text{ ft}^4$$

$$q = 0.263 \text{ k/ft}^2 (+/-) 0.058 \text{ k/ft}^2 (+/-) 0.073 \text{ k/ft}^2$$

$$q_a = (+) 0.263 (+) 0.058 (+) 0.073 = + 0.394 \text{ k/ft}^2 \text{ (maximum)}$$

$$q_b = (+) 0.263 (-) 0.058 (+) 0.073 = + 0.278 \text{ k/ft}^2$$

$$q_c = (+) 0.263 (+) 0.058 (-) 0.073 = + 0.248 \text{ k/ft}^2$$

$$q_d = (+) 0.263 (-) 0.058 (-) 0.073 = + 0.132 \text{ k/ft}^2 \text{ (minimum)}$$

$$q \text{ (maximum)} = 0.394 \text{ k/ft}^2$$

$$q \text{ (minimum)} = 0.132 \text{ k/ft}^2$$

$$q \text{ (maximum)} = 0.394 \text{ k/ft}^2 < q \text{ (allow.)} = 1.5 \text{ k/ft}^2 \text{ ok}$$

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-023

Revision 0

Page No. 13 of 20

DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R Custer *MRC*checked 10/14/94 By M. B. LASOTA *MBL*

Location TANK 241-C-106

Revised

By

- Check slab two way shear:

The critical area for punching shear is located at the Chiller unit, since this equipment represents approximately 80 % of the load on the foundation.

$$q(\text{ultimate}) = 1.7 (0.394 \text{ k/ft})^2 = 0.67 \text{ k/ft}^2$$

Assumed depth of slab, $d = 12$ ", then d effective = 12 " - 3 " = 9 "

$$b_o, (\text{punching shear}) = 4(7.33 + d/2) = 4(7.33 \text{ ft} + 9"/2 (12") \text{ ft}) = 30.8 \text{ ft}$$

$$V_u = [(10.0 \text{ ft}) (25.5 \text{ ft}) - 7.7 \text{ ft}^2] (0.67 \text{ k/ft}^2) = 131 \text{ k}$$

$$d = 131000 \text{ lbs} / [0.85 (4) (4000)^{1/2} (30.8 \text{ ft} \times 12")] = 1.65 \text{ "}$$

$$d = 1.65 \text{ "} + 3 \text{ " + 1 " = 5.65 \text{ " < 12 ".... ok}$$

- Check slab one way shear:

$$V_u = (10.0 \text{ ft}) (2.0 \text{ ft}) (0.67 \text{ k/ft}^2) = 13.4 \text{ k}$$

$$d = 13400 \text{ lbs} / (.85) (2) (4000)^{1/2} (120 \text{ "}) = 1.04 \text{ "}$$

$$d = 1.04 \text{ " + 3 " + 1 " = 5.04 \text{ " < 12ok}$$

- Determine slab flexural reinforcement requirements: (Long Dimension)

$$M_u = (2.00 \text{ ft}) (10.0 \text{ ft}) (0.67 \text{ k/ft}^2) (2.00 \text{ ft}/2) = 13.4 \text{ k-ft}$$

$$M_u = 13.4 \text{ k-ft} = 13400 \text{ lb-ft}$$

$$M_u / 0.90 b d^2 = 12 (13400) / 0.90 (120) (8.5)^2 = 20.6, \text{ Use } p(\text{min}) = 0.0018$$

$$A_s = 0.0018 (120 \text{ "}) (8.5 \text{ "}) = 1.84 \text{ in}^2, 1.84 \text{ in}^2 / 10 \text{ ft} = 0.18 \text{ in}^2 / 1 \text{ ft width}$$

$$\text{Use } \#4 \text{ @ } 12 \text{ " o.c., (0.20 in}^2 / 1 \text{ ft. width),ok}$$

Page E-16

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-023

Revision 0

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R. Custer *MRC*

Checked 10/14/94

By M.B. LASOTA *Yjel*

Location TANK 241-C-106

Revised

By

- Determine slab flexural reinforcement requirements: (Short dimension)

$$M_u = (2.17 \text{ ft}) (25.5 \text{ ft}) (0.67 \text{ k/ft}^2) (2.17 \text{ ft}/2) = 40.2 \text{ k-ft}$$

$$M_u = 40200 \text{ lb-ft}$$

$$M_u / 0.90 b d^2 = 12 (40200 \text{ lb-ft}) / (0.90) (306") (8.5")^2 = 24.2, \text{ Use } p(\text{min}) = 0.0018$$

$$A_s = 0.0018 (306") (8.5") = 4.7 \text{ in}^2, 4.7 \text{ in}^2 / 25.5 \text{ ft} = 0.18 \text{ in}^2 / 1 \text{ ft width}$$

$$\text{Use } \# 4 @ 12" \text{ o.c.}, (0.20 \text{ in}^2 / 1 \text{ ft. width}), \dots \text{ok}$$

- Check reinforcement bar development length requirements:

$$l(d_b) = [0.04 A_b f(y)] / (f'c)^{1/2} \quad (\text{Reference 2, section 2612(c), page 469})$$

$$l(d_b) = 0.04 (.20) (60000) / (4000)^{1/2} = 7.6 "$$

$$l(d \text{ provided}) = (2.17 \text{ ft} \times 12") - 3" = 23" > 7.6" \dots \text{ok}$$

$$l(d \text{ min}), \text{ per UBC} = 12" < 23" \dots \text{ok}$$

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-023

Revision 0

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DESIGN ANALYSIS

Client WHC

WO/Job No. W-320/ER-4319

Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations

Date 06/27/94

By M.R Custer *MRC*Checked 10/14/94 By H. B. LASTA *H. B. LASTA*

Location TANK 241-C-106

Revised

By

• Determine individual equipment anchorage requirements (equipment to skid): (Loads are multiplied by a factor of 2.5 to address equipment Live Load and an increase factor of 1.5 for rotating equipment).

<u>Equipment</u>	<u>Horizontal Force/Type</u>	<u>Shear Force</u>	<u>Tension Force</u>
a) Chiller (R-1)	3.9 k / E	$3.9 (2.5)/4 = 2.4 \text{ k}$	$3.9 (2.5)(3.5)/(7.3)(2) = 2.3 \text{ k}$
b) Exp. Tank (TK-1)	0.39 k / E	$0.39 (2.5)/4 = 0.24 \text{ k}$	$0.39 (2.5)(2.0)/(2)(2) = 0.49 \text{ k}$
c) Exp. Tank (TK-2)	0.20 k / E	$0.20 (2.5)/4 = 0.125 \text{ k}$	$0.20 (2.5)(1.0)/(0.75)(2) = 0.33 \text{ k}$
d) Pump (P-1)	0.20 k / E	"	"
e) Pump (P-2)	0.20 k / E	"	"
f) Air Separator Tank	0.08 k / E	$0.08 (2.5)/4 = 0.05 \text{ k}$	$0.08 (2.5)(2)/(2)(0.75) = 0.27 \text{ k}$
g) Elect. Dist. Panel	0.51 k / W	$0.51 (2.5)/4 = 0.32 \text{ k}$	$0.51 (2.5)(3.5)/(2)(1.25) = 1.79 \text{ k}$

(E), Earthquake load governs; (W), Wind load governs

- Anchorage requirements: Cast-in-place anchor bolts or an equivalent capacity embedded plate w/welded studs, as required by the equipment vendor.

Anchor Bolt requirements (Skid to Foundation): The anchor bolts will be located 9.0 ft center to center (6" from the edge of the foundation). The shear and tension loads on the anchors are: (Special inspection of the anchor bolts required)

- Shear, $V = 5.3 \text{ kips (total)}$, providing 10 anchors; $5.3 \text{ k} / 10 = 0.53 \text{ k} / \text{anchor}$
- Tension, $T = (5.3 \text{ k})(3.5 \text{ ft.}) / 9.0 \text{ ft} = 2.1 \text{ k}$, or $2.1 \text{ k} / 5 = 0.42 \text{ k} / \text{anchor}$

Try 1/2 dia. cast-in-place anchors, ASTM A 307 w/ 4" min. embedment:

(Reference 2, Table No. 26-E), Allowable loads: Shear, $V_a = 2 \text{ k}$, Tension, $T_a = 1.9 \text{ k}$

$$V / V_a + T / T_a < 1.0,$$

$$0.53 / 2.0 + 0.42 / 1.9 = 0.26 \text{ k} + 0.22 \text{ k} = 0.48 < 1.0 \text{ok}$$

Provide 10 - 1/2" dia. A 307 anchor bolts, 5 bolts each side along the 25.5 ft dimension w/ 6" min. edge distance and 4" min. embedment depth, beyond the bottom of the anchor sleeve.

DESIGN ANALYSIS

Client WMC

WO/Job No. W-320/ER-4319

Subject MISC. MECHANICAL (HVAC)

Date 6/29/94 By M.R. CUSTER MRC

EQUIPMENT FOUNDATIONS

Checked 10/14/94 By M.B. LASOTA Jgm

Location TANIC 241-C-106

Revised By

SUMMARY - FOUNDATION LOADS/LOCATIONS

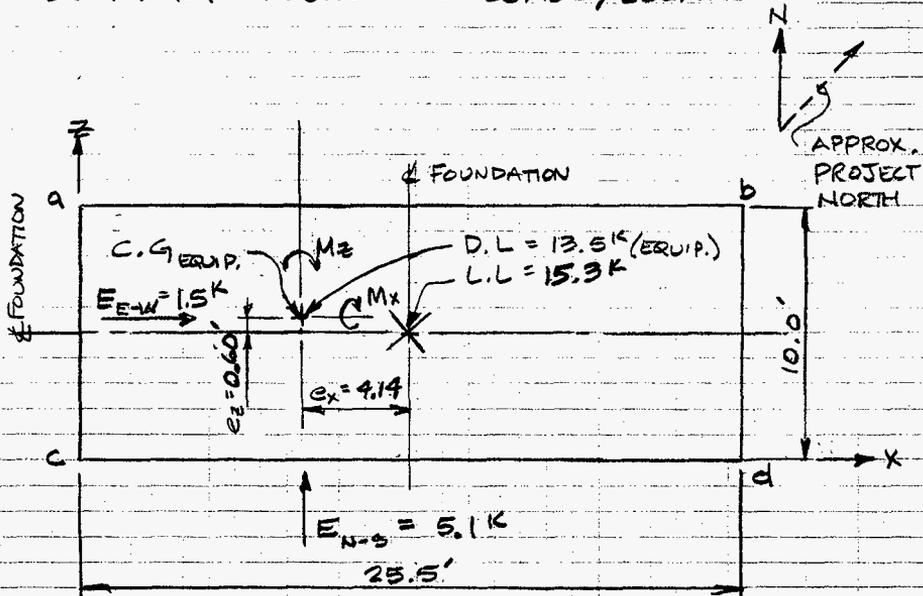
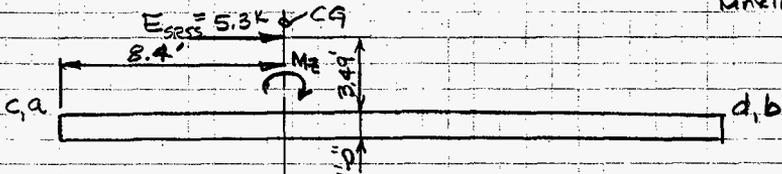


FIGURE 1

$E_{SRSS} = 5.3K$ (DIRECTION OF MAXIMUM LOADS)



KAISER ENGINEERS
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DESIGN ANALYSIS

Calc. No. W320-24-023Revision 0Page No. 17 of 20Client WHC

WO/Job No.

Subject MISCELLANEOUS MECHANICAL
(HVAC) EQUIPMENT FOUNDATIONSDate 6/29/94 By M.R. CUSTER MRCChecked 10/14/94 By M.B. LASOTA MBLLocation TANK 241-C-106

Revised By

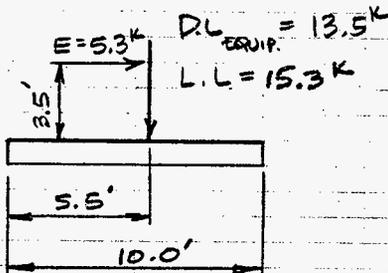
LOADS ON FOUNDATION:DEAD, LIVE & SEISMIC
LOADS

FIGURE 2

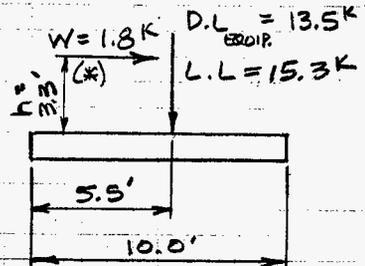
DEAD, LIVE & WIND
LOADS

FIGURE 3

(*) LOCATION OF THE RESULTANT WIND FORCES
IS DETERMINED AS FOLLOWS:

$$\sum F_w h = [4.0'(0.912\text{k}) + 1.0'(1.12\text{k}) + 1.0'(0.06\text{k}) + 3.0'(0.734\text{k})]$$

$$\sum F_w h = 6.02, \text{ IF } \sum F_w = 1.8\text{k}$$

$$h = \frac{6.02}{1.8} = 3.3 \text{ FT.}$$

ICF KAISER HANFORD

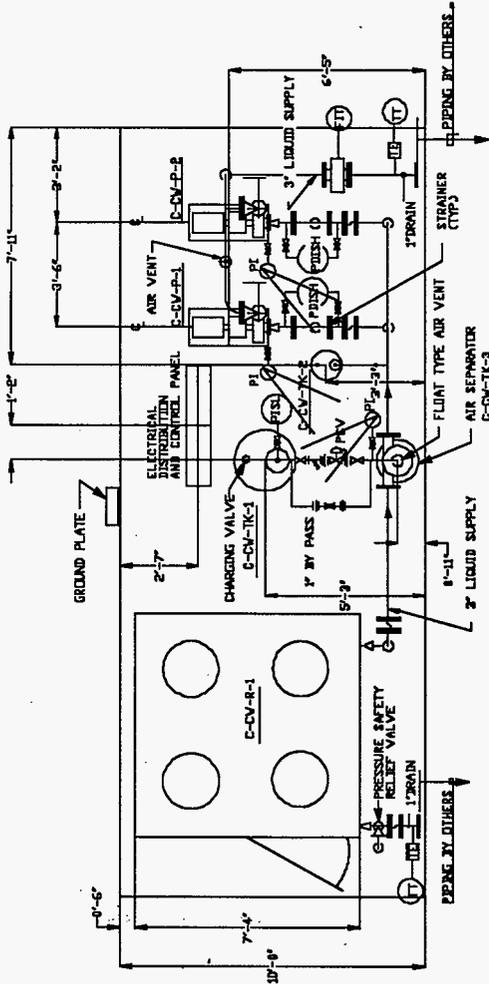
DESIGN ANALYSIS

Calc. No. W320-24-023
Revision 0
Page No. 18 of 20

Client WHC
Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations
Location: Tank Farm 241-C

WO/Job No. ER-4319
Date 9/28/94
Checked 10/14/94
Revised

By M.R. CUSTER MKC
By M.B. LASOTA ML



PLAN

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DESIGN ANALYSIS

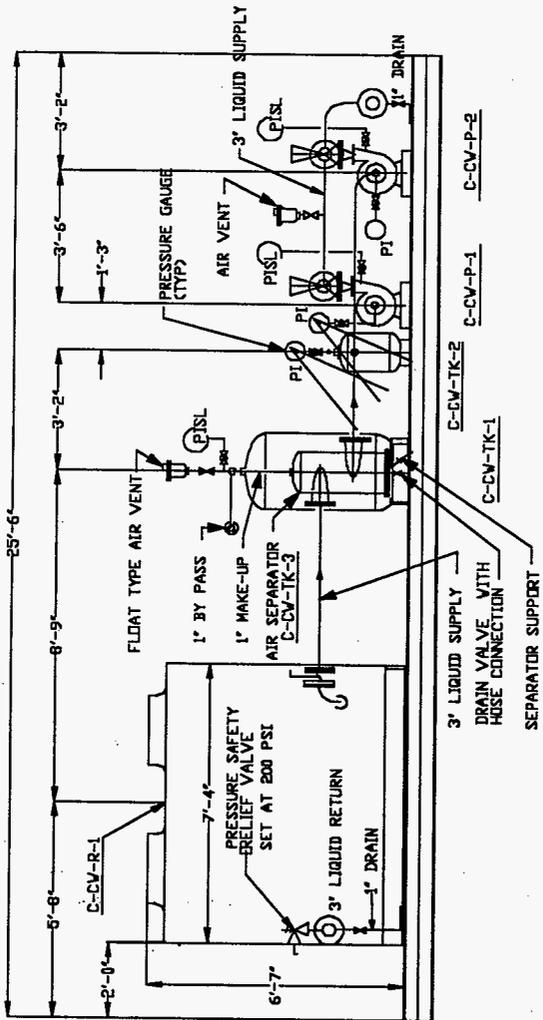
Calc. No. W320-24-023
Revision 0
Page No. 19 of 20

Client WHC
Subject Miscellaneous Mechanical (HVAC)
Equipment Foundations
Location: Tank Farm 241-C

WO/Job No. ER-4319

Date 9/28/94
Checked 10/14/94
Revised

By M.R. CUSTER ARC
By H.B. LASOTA Jyk
By

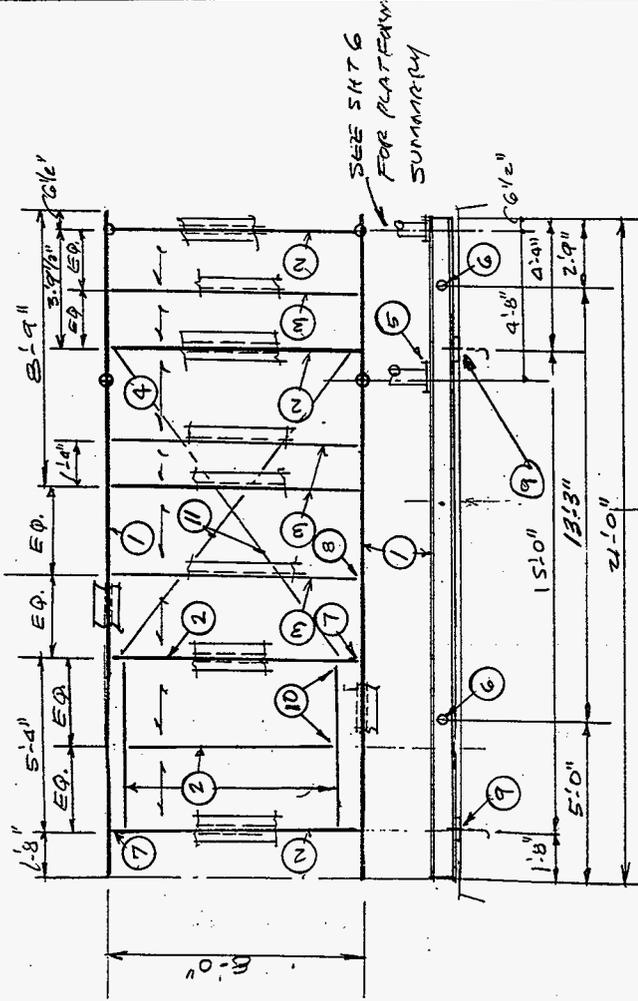


ELEVATION

JOHN TUNISON
STRUCTURAL ENGINEER

PHONE (509) 826-4345
SOUTH 4122 CONIFER COURT
SPOKANE, WASH. 99206

PROJECT CHILLER SKIP BY JST DATE 1/29/90
Mc Gowan Const. Services CHKD. BY _____ DATE _____
BASE SUMMARY JOB NO. 9532 SHT. 1/1

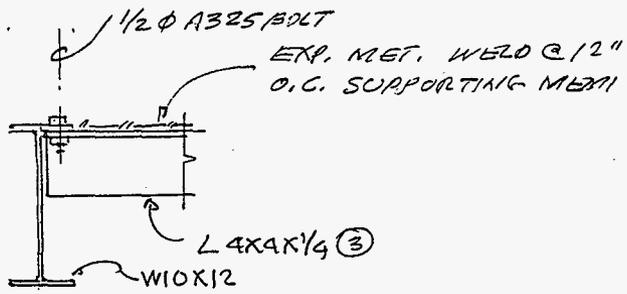


- ⑦ BASE DETAIL SEE SHT. 15
 - ⑩ END DETAIL SEE SHT. 14
 - ⑪ 1/2" φ X BRACING PERIOD ③
 - OR TRUSS W/EB OR ④ W/
 - ALL SIZES UNLESS NOTED
 - ⑫ FOR RIGGING
-
- ① WID X 12
 - ② W 6 X 9
 - ③ L 4 X 4 X 1/4
 - ④ RYEX 3-1/4 EXP. MET.
 - ⑤ SEE SHT. 13 FOR DETAIL
 - ⑥ 2 1/2" φ STD. LIFTING PIPE SEE SHT. 12
 - ⑦ END DETAIL ② SEE SHT. 14
 - ⑧ END DETAIL ③ SEE SHT. 15

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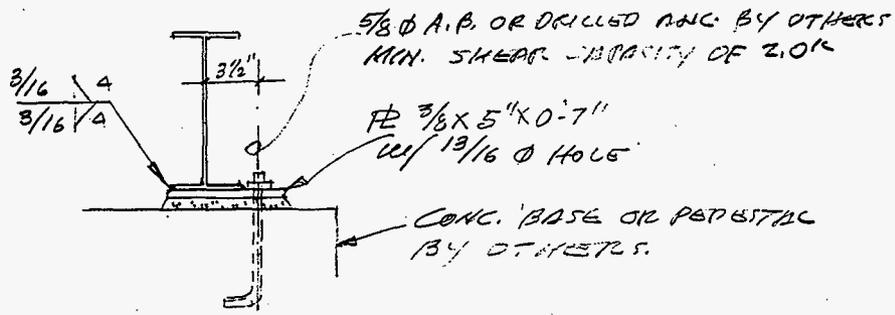
PROJECT CHILLER SKID BY JST DATE 7/30/95
MC SOWAN CONET. SERVICES CHKD. BY _____ DATE _____
DETAILS JOB NO. 9532 SHT. 1ST



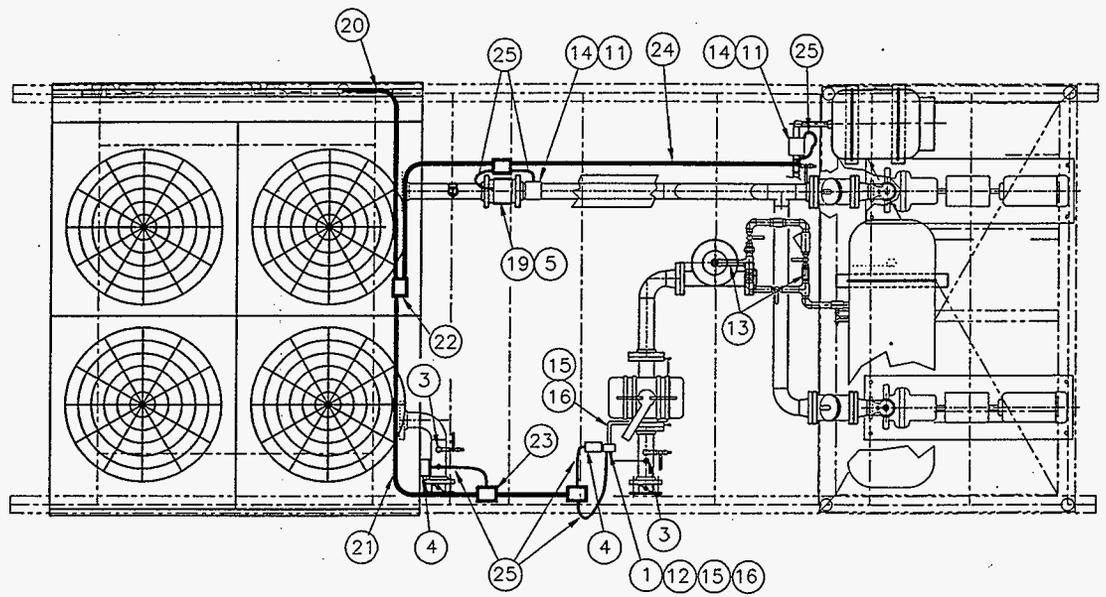
END CONN. FOR (3)

$$V = \sqrt{1.00^2 + (.33 \times 1.14)^2} = 1.154K$$

USE 5/8" Ø MIN. BOLT.



BASE CONNECTION



BILL OF MATERIALS

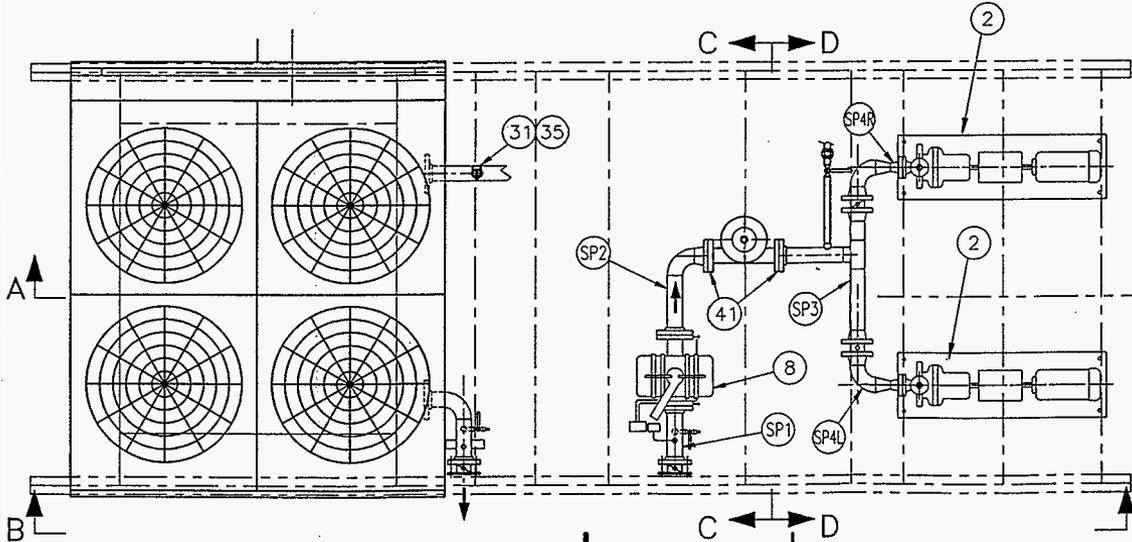
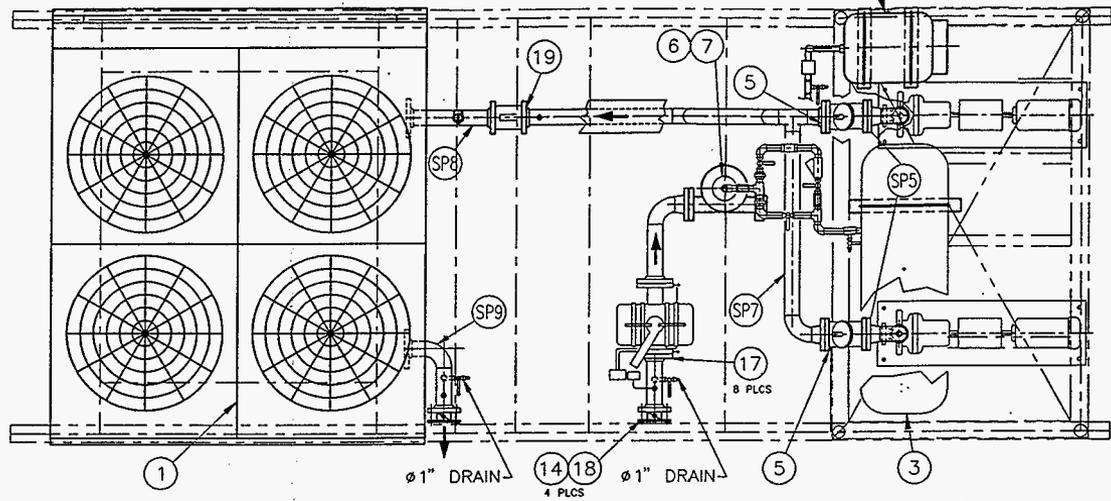
ITEM	QTY	DESCRIPTION	REMARKS
1	1	DIFFERENTIAL PRESSURE SWITCH DWYER CAPSU PHOTO HELIC	SERIES 43000 PDISH 1369
2			
3	2	CHROMOLOX CPWC-1 PROTECTIVE WELL	TSH 13618,13619
4	2	CHROMOLOX PIT-15 TEMPERATURE CONTROLLER	TSH 13618,13619
5	1	MAGNETIC FLOW METER FM625-03-4-8-1-0-0 (120 VOLT POWER SUPPLY)	SPARKING PRODUCTS FT 1364 FE 1364
6	40	1/2" RGD CONDUIT	WW GRAINGER 5XC30
7	1	1/2" TEE	WW GRAINGER 5XC70
8	21	1/2" SEALTIGHT CONNECTION	WW GRAINGER
9	QTY	#14 THHN/THWN MTW STRANDED COPPER CONDUCTOR	WW GRAINGER 5XC21
10	QTY	1/2" JIFFY STRAP	WW GRAINGER 5XC41
11	4	2 VALVE MANIFOLD M507-CMT ASSEMBLY	PRECISION GENERAL
12	1	5 VALVE MANIFOLD M2 573CDT ASSEMBLY	PRECISION GENERAL
13	2	PRESSURE GAUGE (PI 1368) PGS-25L-100 (PI 1367)	OMEGA VOL.29 PG C-15 0-100 PSIG
14	2	LOW PRESSURE SWITCH PSL 1366 SERIES PSW 108 (PSL 13610)	OMEGA VOL.29 PG H-14
15	2	Ø1/2" NPT TO Ø.375" COMP. FIT ASTM A269 TYPE 304	
16	2	Ø.375" SS TUBING ASTM A269 TYPE 304	
17			
18			
19	QTY	8000 SERIES TWISTED SHEILED PAIR	BELDEN INDUSTRIES
20	QTY	1" RIGID CONDUIT	WW GRAINGER
21	QTY	3/4" RIGID CONDUIT	WW GRAINGER
22	1	1 X 3/4 X 1/2 LB TEE	WW GRAINGER
23	2	3/4 X 1/2 LB TEE	WW GRAINGER
24	QTY	1/2" RIGID CONDUIT	WW GRAINGER
25	QTY	1/2" SEALTIGHT FLEX	WW GRAINGER
26	QTY	-	-
27	QTY	-	-

NOTE: SEE DWG. DIAGRAM-WIRING ACDR45B 200,230,460 V. DWG. No 593440101 SHT 1 THROUGH 4 FOR WIRING DIAGRAM.

REV NO	DESCRIPTION	REV BY DATE	CHK BY DATE	APP'D DATE	APP'D DATE
B	REVISED PER FIELD CONDITIONS "AS BUILT"				
REVISIONS					
CADFILE S1E-AB		CADCODE 1E:IBM:ACD2:12:SS			
DRAWN RLN	DWG 08-08-95	McGowan Construction Services Richland, WA 99352			
CHECKED W. PYKUS	DWG 11-17-95				
APPROVED X		CHILLER SKID INSTRUMENTATION CONDUIT RUN			
APPROVED X					
PROJECT NO. 9503		SIZE B	DWG NO 9503-SKID-INST	REV B	
SCALE NONE		SHEET 1E OF 15			

DRAWING NO	DRAWING TITLE
	REFERENCE DRAWINGS

NOTE: INSULATE PIPING WITH 2" GLASS-FIBER (ASTM C573) R-24 BTU/IN/HT/FT² @ 75°F. OPERATING SURFACE TEMPERATURE OF -20 TO 115°F. UNLISTED VAPOR RETARDING JACKETING: REINFORCED WHITE KRAFT AND ALUMINUM FOIL LAMINATE. 0.02 PERM/IN. BEACH PUNCTURE RESISTANCE OF 50 UNITS. EXTERIOR SUITABLE FOR PAINTING WITH LATEX. METAL JACKET: ASTM B209, 0.020" THICK; INSULATION BANDS: 3/4"-IN WIDE, 0.015"-IN THICK GALVANIZED STEEL. METAL JACKET BANDS: 3/8" WIDE, 0.015" THICK ALUMINUM. INSULATING CEMENT: ASTM C195 HYDRAULIC-SETTING MINERAL WOOL FINISHING CEMENT: ASTM C449, FIBROUS GLASS CLOTH: UNTREATED, 9 OZ/YD-YD WEIGHT. ADHESIVES: COMPATIBLE WITH INSULATION, EXPANSION TANK AND STORAGE TANK INSULATION AND JACKET. INSULATION ASTM C553, UNLISTED. JACKET: ASTM B209, 0.020" THICK; BEDDING COMPOUNDS: NONSHRINKING, PERMANENTLY FLEXIBLE, VAPOR-BARRIER COATING: NONFLAMMABLE, FIRE RESISTANT, POLYMERIC RESIN. INSULATING CEMENT: ASTM C195, HYDRAULIC-SETTING MINERAL WOOL WIRE MESH: CORROSION-RESISTANT METAL; HEXAGONAL PATTERN.



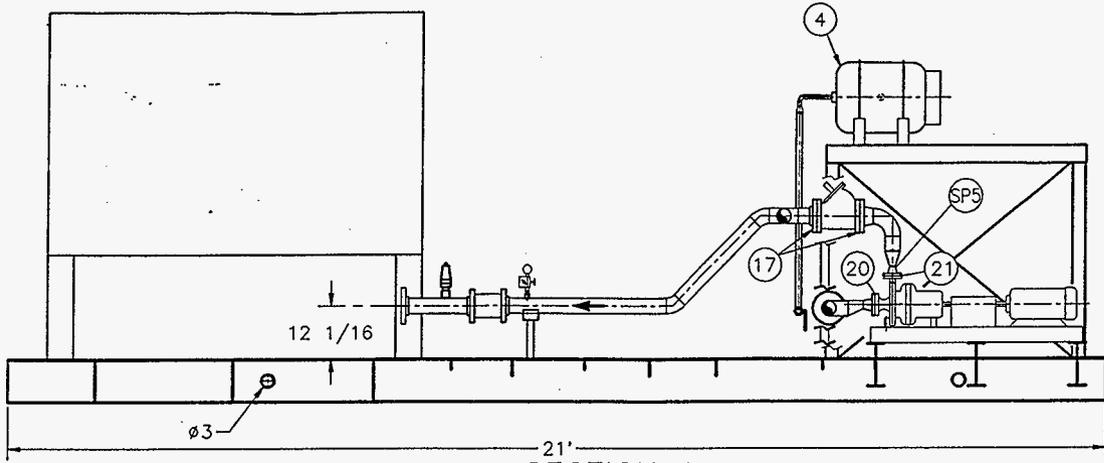
BILL OF MATERIALS				
ITEM	QTY	DESCRIPTION	REMARKS	EQUIP NOS
1	1	DUNHAM-BUSH/MCS ACRD 045	DB/MCS	R1361
2	2	PUMPS 734 PLUS 15 HP	ITT AC	P1364, P1365
3	1	80 GAL BYPASS FEEDER #20"x2.5"	BRUNER ASSE	TK-1361
4	1	17.5 GAL EXP TANK	AMISOL SI-42VC	TK-1362
5	2	3" TRIPLEDUTY VALVE	BELL&OSSETT NO 30E-35	HV13622,13624
6	1	AIR RELEASE VALVE	BELL&OSSETT NO 107A	HV13630
7	1	AIR SEPARATOR	BELL&OSSETT NO IR-3	TK-1363
8	1	3" DUPLEX STRAINER 125# C.I. 20 MESH SS	FLIGHT STRAIN MODEL 170	F-1364
9	6	3" SO RF FLANGE CS	ANSI B16.5	
10	7	3" 90° LR ELBOW CS BW	ANSI B16.9	
11	2	3" 45° LR ELBOW CS BW	ANSI B16.9	
12	8	3" WN RF FLANGE CS	ANSI B16.5	
13	30	3" SCH 40 PIPE CS	ASTM A53 GR B PIPE S OR	
14	4	3" BUTTERFLY VALVE LUG	NIBCO INC ID 3010	HV13620-13625
15	2	3" TEE CS BW	ANSI B16.9	
16	2	3" RF FLANGE 300# CS	ANSI B16.5	
17	10	3" NBG SETS FLG TO FLG	ASTM A307	
18	4	3" NBG SETS FLG TO VALVE	ASTM A325	
19	1	3" NBG SETS FLG TO FLW MTR	ASTM A307	
20	2	1 1/2" NBG SETS FLG TO FLG	ASTM A307	
21	2	1" NBG SETS FLG TO FLG	ASTM A307	
22	2	3"x1-1/2" CS SCH40 ECC RDR	ANSI B16.9	
23	2	1-1/2" WN RF FLG CS	ANSI B16.5	
24	2	1" WN RF FLG CS	ANSI B16.5	
25	2	3"x1" CS SCH 40 CONC RDR	ANSI B16.9	
26	4	1" 3000# THREDOLET	ANSI B16.3 FROD SIL	
27	4	1/2" 3000# THREDOLET	ANSI B16.3 FROD SIL	
28	5	1" UNION	ASTM A105	
29	5	1"x1" THRD TEE MI 150#	ANSI B16.11	
30	9	1" 90 ELL MI 150# BLK	ANSI B16.11	
31	1	1" CS SCH 40 NIPPLES	ASTM A53 GR B	
32	2	1/2" BALL VALVE	WATIS B8000	HV13627-13630
33	8	1" BALL VALVE	WATIS B8000	13634,136115,-16
34	1	1" WYE STRAINER (7775)	HW DRAINER CAT NO 3P849	HV 13631
35	1	1" SAFETY RELIEF VALVE	KUNKLE 913 BOEM 01	PSV 1362
36	4	1"x1" THRD TEE MI 150#	ANSI B16.11	
37	1	1" PRESSURE REDUCING VALVE	WATIS USIP	PCV 1368
38	1	1" x 1-1/4" RED. BUSHING	ANSI B16.11	
39	11	1 1/2" CS SCH 40 NIPPLES	ASTM A53 GR B	
40	5	1 1/2" 90 ELL MI 150# BLK	ANSI B16.11	
41	2	3" THREAD 150# RF FLANGE MI	ANSI B16.11	
42	2	3/8" U-BOLT, 16" ID		
43	2	3/8" U-BOLT, 20" ID		
44	8	3/8" HEX NUTS		
45	2	6" x 3" ST x .120 WALL x 22" L	ASTM A500	
46	2	6" x 3" ST x .120 WALL x 18" L	ASTM A500	
47	2	1" x 3/4" RED. 150# MI	ANSI B16.11	
48	1	3/4" 90 ELL 150# MI	ANSI B16.11	
49	2	4"x3" REDUCING FLANGE 150#	ANSI B16.5	

REV NO	DESCRIPTION	REV DATE	APP DATE
B	REVISED PER FIELD CONDITIONS "AS BUILT"		

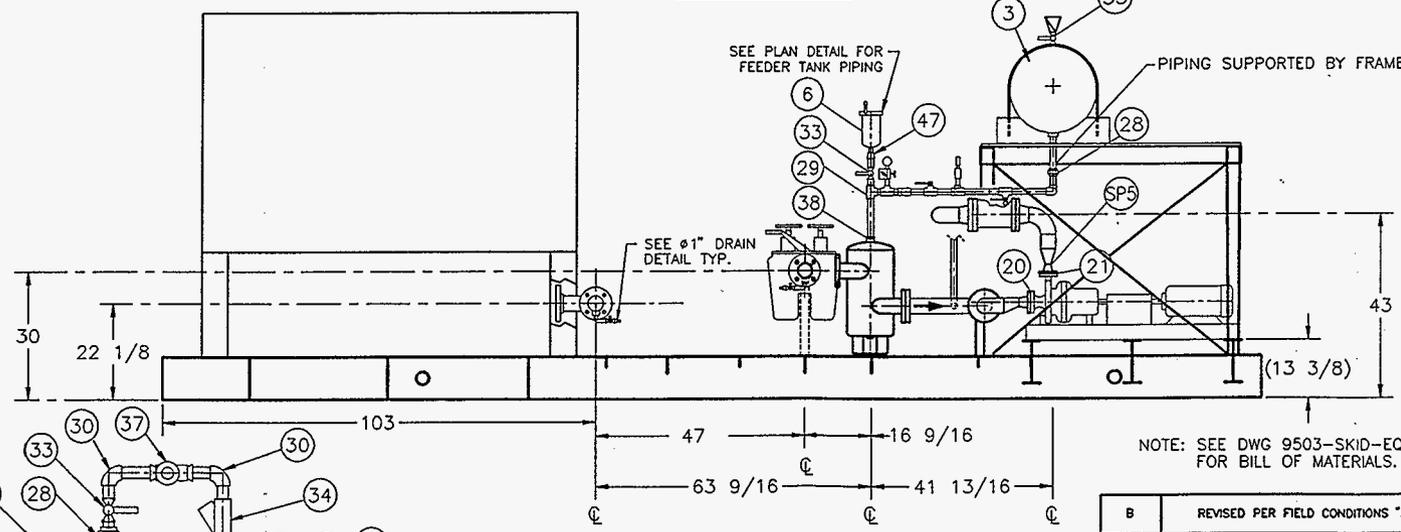
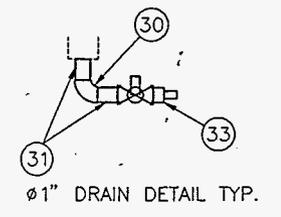
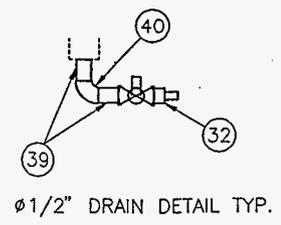
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	REFERENCE DRAWINGS

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DRAWN RLN	11-17-95	McGowan Construction Services Richland, WA 99352
CHECKED W. PYKUS		
APPROVED X	X	CHILLER SKID CHILLER PIPING PLAN VIEWS
APPROVED X	X	
PROJECT NO. 9503	SCALE NONE	REV B
		SHEET 1A OF 15

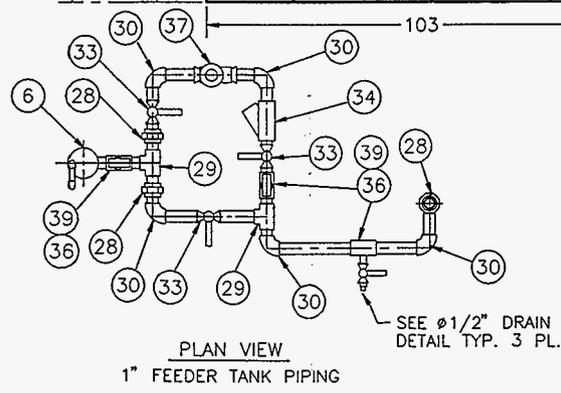
HNF-2467, Rev.0



SECTION A



SECTION B

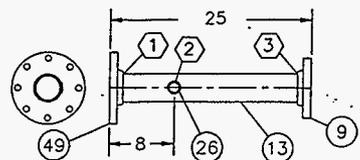


PLAN VIEW
1" FEEDER TANK PIPING

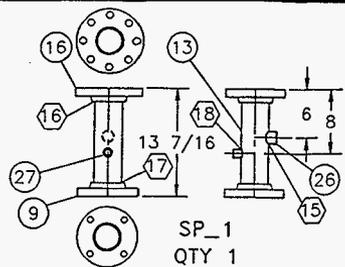
NOTE: SEE DWG 9503-SKID-EQUIP-A FOR BILL OF MATERIALS.

B		REVISED PER FIELD CONDITIONS "AS BUILT"			
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REVISIONS					
CADFILE	S1B-AB	CADCODE	1E:IBM/ACD2:12:SS		
DRAWN	RLN	DATE	08-08-95		
CHECKED	W. PYKUS	DATE	11-17-95		
APPROVED	X				
APPROVED	X				
PROJECT NO.		9503		CHILLER SKID CHILLER PIPING ELEVATIONS	
SIZE	DWG NO.	REV			
B	9503-SKID-EQUIP-B	B			
SCALE	NONE	SHEET	1B OF 15		

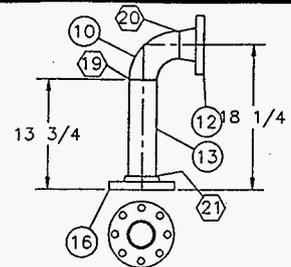
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	REFERENCE DRAWINGS



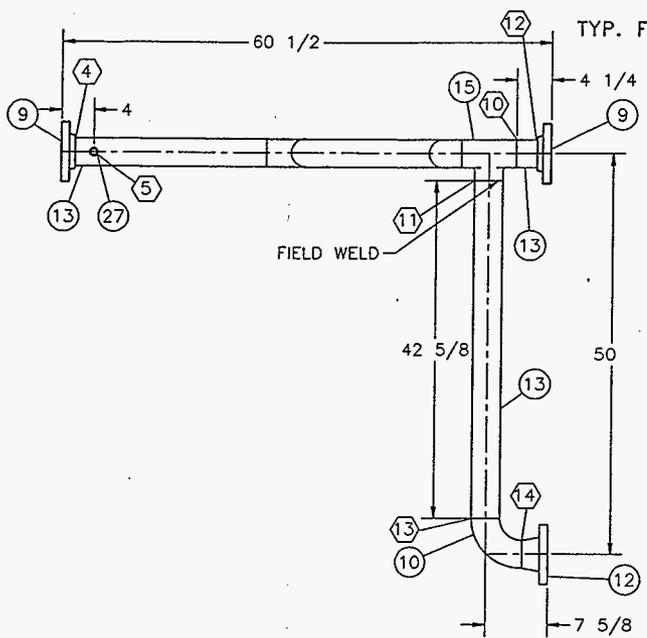
SP_8
QTY 1



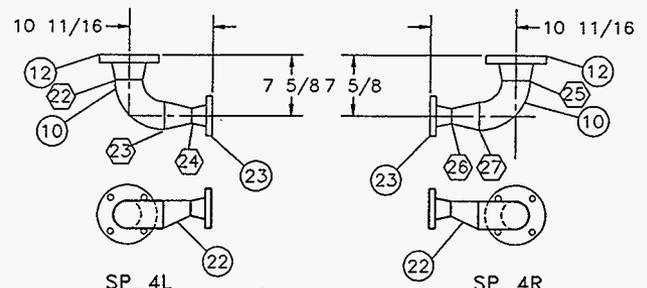
SP_1
QTY 1



SP_2
QTY 1

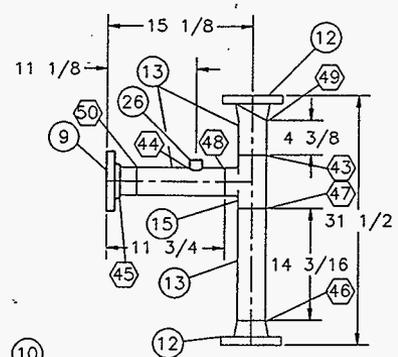


SP_7
QTY 1

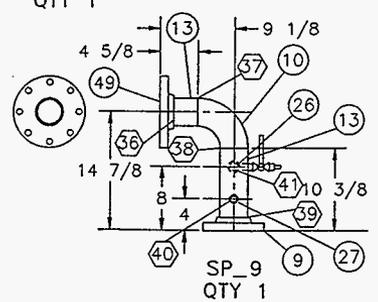


SP_4L
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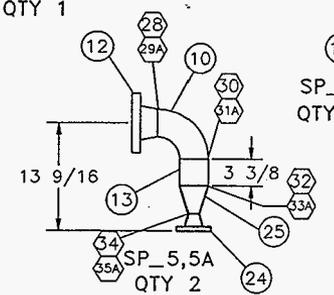
SP_4R
QTY 1



SP_3
QTY 1



SP_9
QTY 1



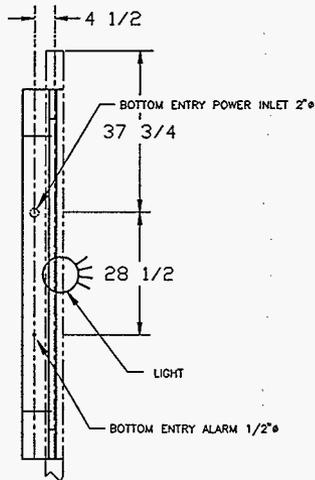
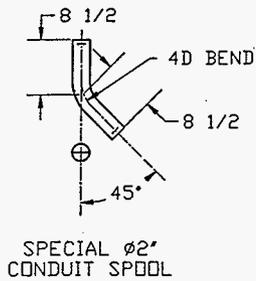
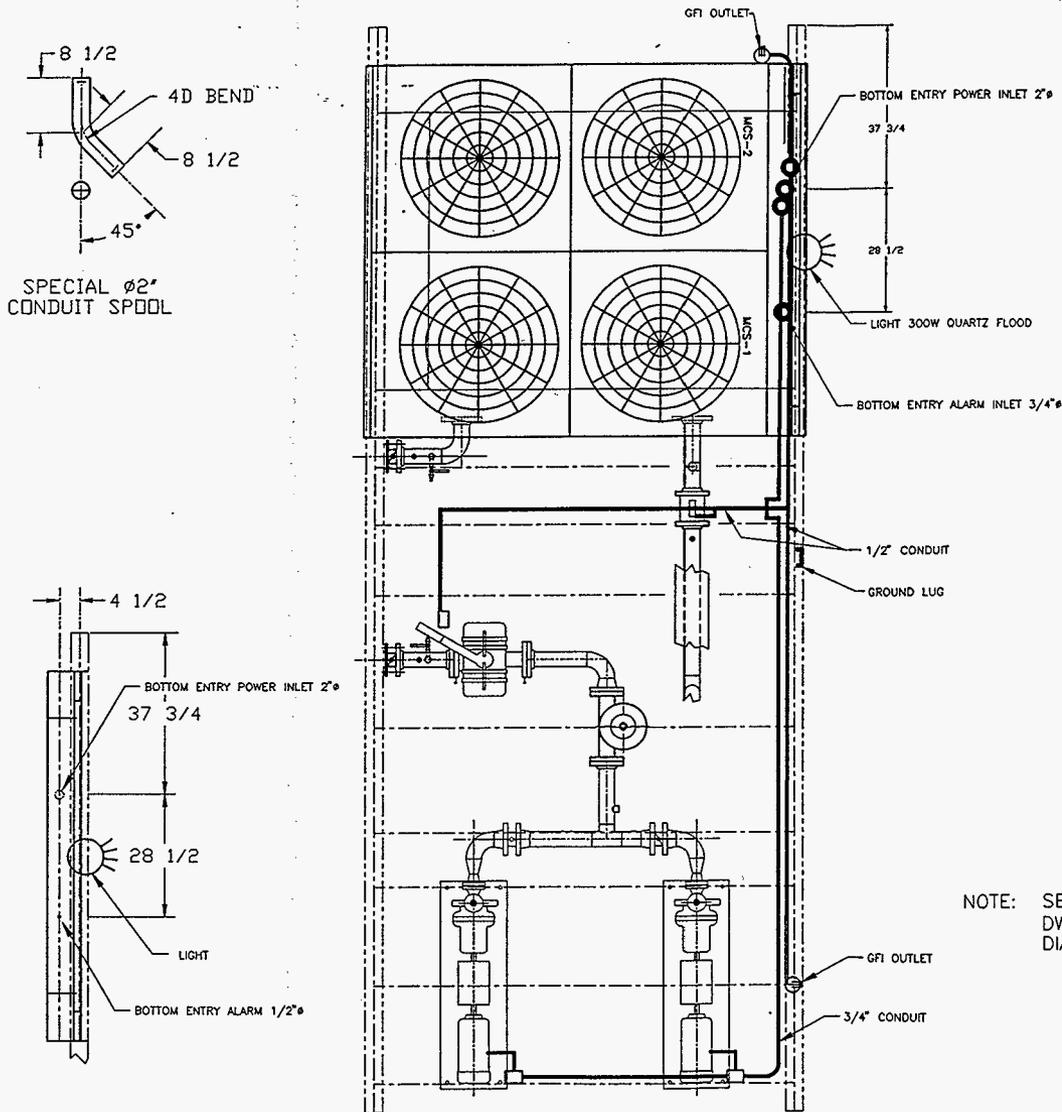
SP_5,5A
QTY 2

NOTE: SEE DWG. 9503-SKID-EQUIP-A FOR BILL OF MATERIALS.

WELD PROCEDURE	WELD PER MCS-001
INSPECTION PROCEDURE	INSPECT PER ASME B31.3
ACCEPTANCE CRITERIA	100% VISUAL - FINAL WELD

DRAWING NO.	DRAWING TITLE
	REFERENCE DRAWINGS

B		REVISED PER FIELD CONDITIONS "AS BUILT"			
REV NO	DESCRIPTION	REV BY DATE	CHK BY DATE	APP'D BY DATE	APP'D DATE
REVISIONS					
CADFILE SIC-AB		CADCODE 1E:IBM:ACD2:12:SS			
DRAWN W. PYKUS 11/04/95		McGowan Construction Services			
CHECKED W. PYKUS 11/16/95		Richland, WA 99352			
APPROVED X	x	CHILLER SKID LARGE BORE PIPING SPOOL			
APPROVED X	x				
PROJECT NO.	9503	SIZE	B 9503-SKID-SPOOLS		REV B
		SCALE	NONE		SHEET 1C OF 15



CONDUIT OPENINGS FOR
POWER AND ALARM

BILL OF MATERIALS			
ITEM	QTY	DISCRIPTION	REMARKS
1	30	1/2" RGD, CONDUIT	WW GRAINGER 6XC30
2	30	3/4" RGD, CONDUIT	WW GRAINGER 6XC31
3	3	1/2" TEE	WW GRAINGER 5XC70
4	1	3/4" TEE	WW GRAINGER 5XC71
5	11	1/2" FLEX X THRD CONNECTOR	WW GRAINGER 5XC18
6	5	3/4" FLEX X THRD CONNECTOR	WW GRAINGER 5XC19
7	3	1/2" COUPLING	WW GRAINGER 5XC21
8	3	3/4" COUPLING	WW GRAINGER 5XC22
9	2	RECT SAL GANG BOX (5758)	WW GRAINGER CAT NO 384
10	2	VERT RAINPROOF GFCI COVER(5738)	WW GRAINGER PG 510
11	QTY	1/2" JIFFY STRAP	WW GRAINGER 6XC41
12	QTY	3/4" JIFFY STRAP	WW GRAINGER 6XC42
13	2	GFCI OUTLETS (DUPLX) (52752)	WW GRAINGER PG 514
14	350LF	#10 THHN/TWN STRANDED COPPER CONDUCTOR	WW GRAINGER
15	140LF	#14 MTW/TWN STRANDED COPPER CONDUCTOR	WW GRAINGER
16	20LF	#8THHN/STRANDED COPPER WIRE	WW GRAINGER
17	QTY	GROUND LUGS	WW GRAINGER
18	1	300 WATT QUARTZ FLOOD LIGHT W/OPTIONAL SURFACE ADAPTER	STONCO EQ500L
19	QTY	1/2" SEALTIGHT FLEX	WW GRAINGER
20	QTY	3/4" SEALTIGHT FLEX	WW GRAINGER
21	1	2" CONDUIT SPOOL - (TBE)	-

NOTE: SEE DWG. DIAGRAM-WIRING ACDR45B 200,230,460 V.
DWG. No 593440101 SHT 1 THROUGH 4 FOR WIRING
DIAGRAM.

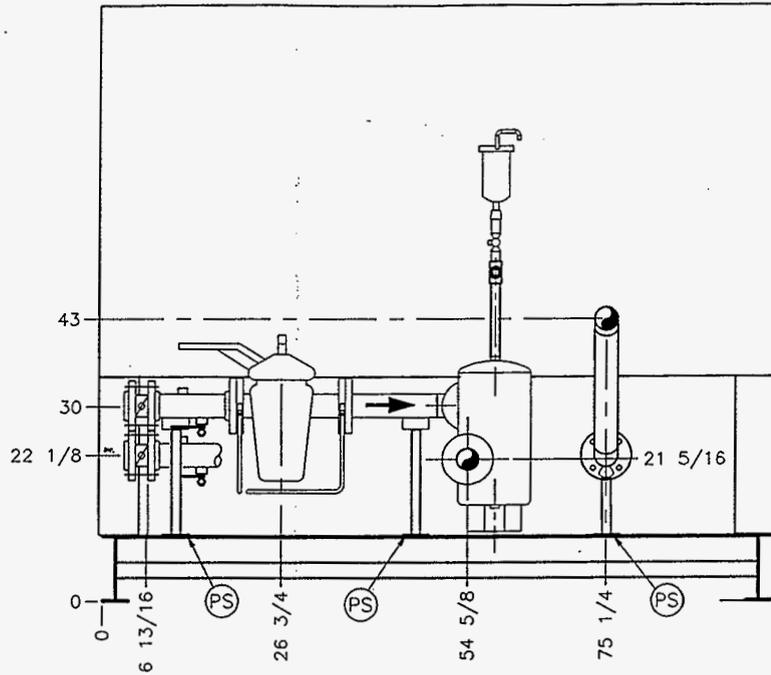
DRAWING NO	DRAWING TITLE

REFERENCE DRAWINGS

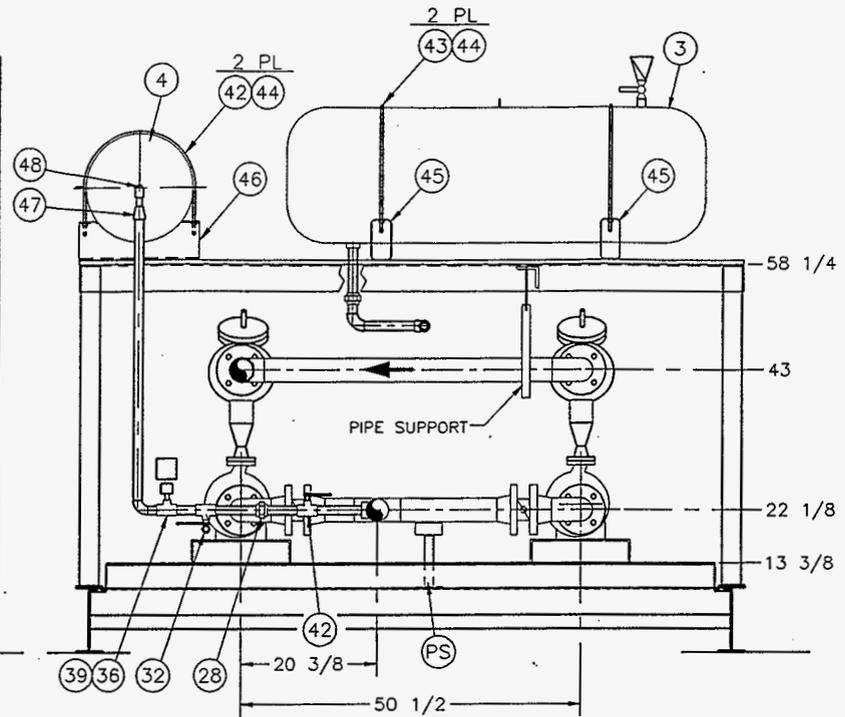
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B	REVISED PER FIELD CONDITIONS "AS BUILT"				

CADFILE		S1D-AB	CADCODE	1E1B1M:ACD2:12:SS
DRAWN	RLN	DATE	08-08-95	McGowan Construction Services Richland, WA 99352
CHECKED	W. PYKUS	DATE	11-15-95	
APPROVED	X			CHILLER SKID POWER CONDUIT RUN
APPROVED	X			
PROJECT NO.	9503	SIZE	DWG NO	REV
		B	9503-SKID-ELECT	B
		SCALE	NONE	SHEET
				10 of 15

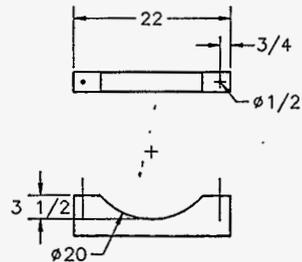
HNF-2467, Rev. 0



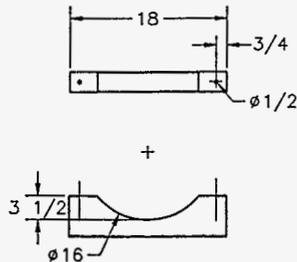
SECTION C



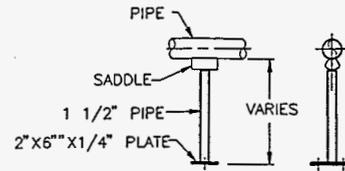
SECTION D



(45) TANK SUPPORT



(46) TANK SUPPORT

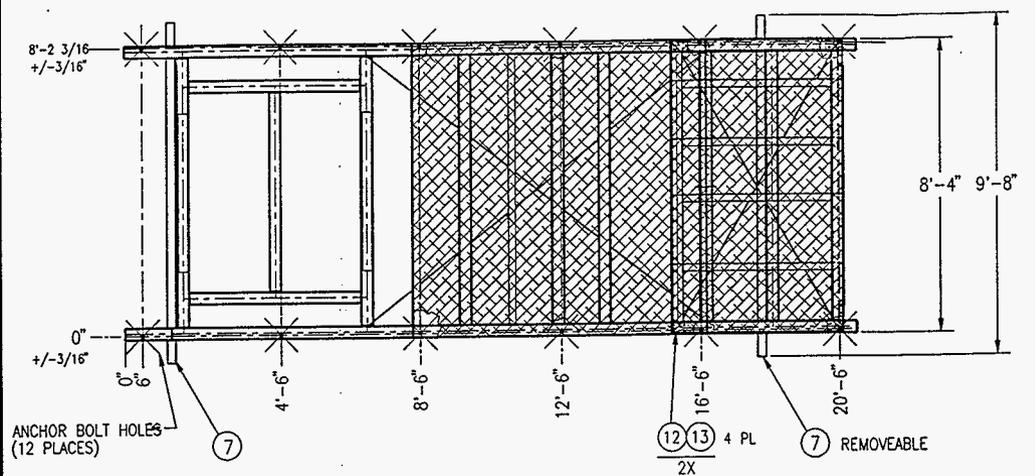


(PS) TYPICAL PIPE SUPPORT
(4 PLACES)

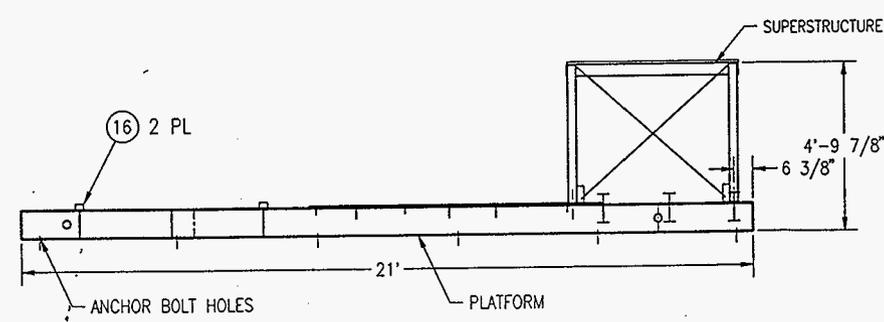
NOTE: SEE DWG. 9503-SKID-EQUIP-A FOR BILL OF MATERIALS.

B	REVISED PER FIELD CONDITIONS "AS BUILT"				
REV NO	DESCRIPTION	REV DATE	CHK DATE	APP DATE	APP DATE
REVISIONS					
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CHECKED	W. PYKUS	11-17-95	Richland, WA 99352		
APPROVED X			CHILLER SKID CHILLER PIPING SECTIONS & DETAILS		
APPROVED X					
APPROVED X					
PROJECT NO.	9503	SCALE	NONE	SHEET	1F OF 15

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
REFERENCE DRAWINGS	



PLAN VIEW
AS BUILT
(ALL DIM. +/- 3/16")



CHILLER SKID
PLATFORM ASSEMBLY & ANCHOR BOLT LOCATION

NOTE: USE WILSON SLEEVE ON ALL ANCHOR BOLTS

WELD PROCEDURE	WELD PER MCS-001
INSPECTION PROCEDURE	INSPECT PER AWS D1.1
ACCEPTANCE CRITERIA	100% VISUAL - FINAL WELD
DRAWING NO.	ISSUANCE DATE
REFERENCE DRAWINGS	

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	
1	2	W10 x 12# x 21'-0" LONG	ASTM A36
2	3	W10 x 12# x 7'-11 5/16" LONG, COPE AS SHOWN	ASTM A36
3	2	W10 x 12# x 7'-11 5/16" LONG, COPE TO FIT W10 x 12#	ASTM A36
4	1	W10 x 12# x 5'-11 5/16" LONG, COPE TO FIT W10 x 12#	ASTM A36
5	2	W10 x 12# x 5'-3 5/16" LONG, COPE TO FIT W10 x 12#	ASTM A36
6	3	ANGLE 4" x 4" x 1/4" x 7'-11 5/16"	ASTM A36
7	2	PIPE Ø 1/2" SCH 40 x 9'-8" L	ASTM A53 TYPE F
8	16	ANGLE 3" x 3" x 3/8" x 5" LONG, W/4 Ø9/16" HOLES	ASTM A36
9	2	ROD Ø 1/2" x 12'-4" LONG	ASTM A36
10	6	ANGLE 3" x 3" x 3/8" x 3 1/2" LONG, W/4 Ø9/16" HOLES	ASTM A36
11	-	EXPANDED METAL FLOORING	ASTM A36
12	126	BOLT, HEX HD Ø 1/2"-12 NC x 1 1/2" L	ASTM A325
13	126	NUT, HEX Ø 1/2"-12 NC	ASTM A325
14	4	ANGLE 2 1/2" x 2 1/2" x 1/4" x 7'-11 5/16"	ASTM A36
15	8	ANGLE CLIP 2 1/2" x 2 1/2" x 1/4" x 2 1/2" LONG	ASTM A36
16	2	SPECIAL CHANNEL 3" x 2" x .180" WALL x 54" LONG	ASTM A36

ANCHOR POINT REACTIONS IN LBS.

CONSTRUCTION POINT	CASE (I) ⁽¹⁾		CASE (II) ⁽²⁾		CASE (III) ⁽²⁾	
	VERT	SHEAR ⁽³⁾	VERT	SHEAR ⁽³⁾	VERT	SHEAR ⁽³⁾
1	1330	-	2076	586	584	586
2	1330	-	2076	586	584	586
3	1732	-	2454	546	1010	546
4	1330	-	584	586	2076	586
5	1330	-	584	586	2076	586
6	1732	-	1010	546	2454	546

- SHEAR FORCES ARE THE RESULTANT OF THE TRANSVERSE FORCE COMBINED WITH 30% LONGITUDINAL FORCE
- LOAD CASES- P= VERTICAL WEIGHT
F⁽³¹⁾ = TRANSVERSE FORCE
F⁽³²⁾ = OPPOSITE DIRECTED TRANSVERSE FORCE
CASE (I) = P
CASE (II) = P+F⁽³¹⁾
CASE (III) = P+F⁽³²⁾
- INCREASING NUMBER OF ANCHOR POINTS FROM THOSE SHOWN WILL REDUCE ALL REACTIONS

B	REVISED PER FIELD CONDITIONS "AS BUILT"			
REV NO	DESCRIPTION	REV BY DATE	CHK BY DATE	APVD DATE
REVISIONS				
CADFILE S1J-AB		CADCODE 1E:IBM:ACD2:12:SS		
DRAWN W. PYKUS	DATE 10-25-95	McGowan Construction Services Richland, WA 99352		
CHECKED W. PYKUS	DATE 11-16-95	CHILLER SKID PLATFORM ASSEMBLY & BOM		
APPROVED X				
APPROVED X		PROJECT NO. 9503		REV B
DRAWING NO.		SCALE NONE		REV B
		SCALE 1/4" = 1'-0"		REV B

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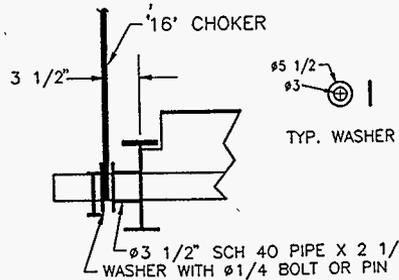
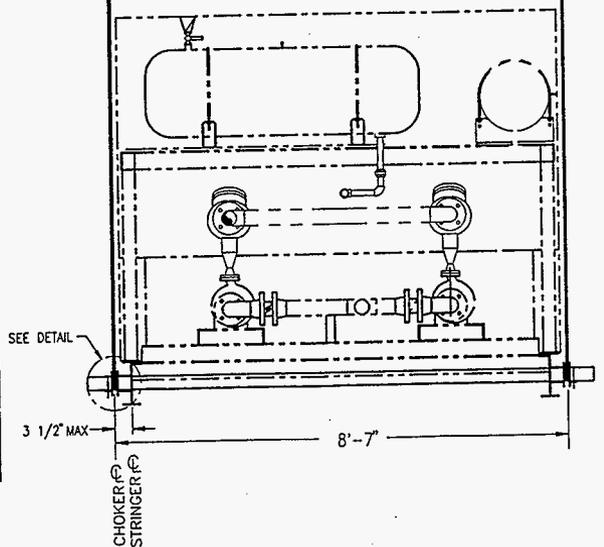
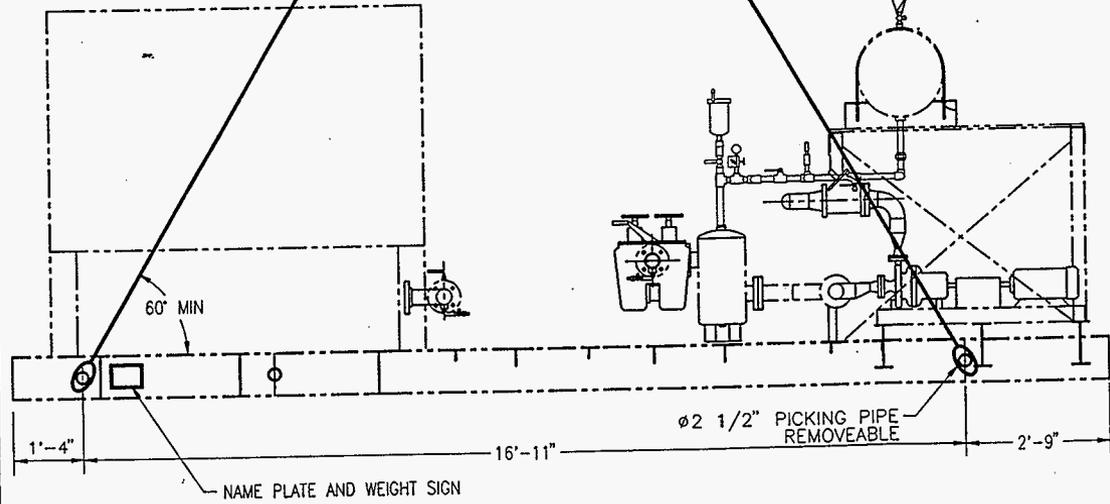
TOTAL LIFTING WEIGHT
9050 POUNDS

TYP. WEIGHT PLATE

FORCE/CHOKER
EQUALS 2666#

16' CHOKER

SPREADER BAR



LIFTING CONFIGURATION

DRAWING NO.	DRAWING DATE

REFERENCE DRAWINGS

REV. NO.	DESCRIPTION	REV. BY DATE	CHK. BY DATE	APLD. DATE	APRD. DATE
B	REVISED PER FIELD CONDITIONS "AS BUILT"				
REVISIONS					
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CHECKED	W. PYKUS	11-17-95			
APPROVED	X	X			
APPROVED	X	X			
PROJECT NO.		9503		SIZE	B
				DWG NO.	9503-SKID-LIFTING
				SCALE	NONE
				SHEET	1G OF 15

W320-24-024

Electrical Equipment Pad (241-C-51)

KAISER ENGINEERS HANFORD	CALCULATION IDENTIFICATION AND INDEX	Page i of iii
		Date 7-29-94

This sheet shows the status and description of the attached Design Analysis sheets.
 Discipline **Structural** WO/Job No. **ER4319/W-320** Calculation No. **W320-24-024**
 Project No. & Name **Project W-320, Tank 241-C-106 Sluicing**
 Calculation Item **Electrical Equipment Pad (241-C-51)**

These calculations apply to:
 Dwg. No. **H-2-818458 sh. 1 & H-2-818461** Rev. No. **0**
 Dwg. No. **N/A** Rev. No.
 Other (Study, CDR) **N/A** Rev. No.

The status of these calculations is:

Preliminary Calculations
 Final Calculations
 Check Calculations (On Calculation Dated)
 Void Calculation (Reason Voided)

Incorporated in Final Drawings? Yes No
 This calculation verified by independent "check" calculations? Yes No

	Rev. 0 Signature/Date	Rev. 1 Signature/Date	Rev. 2 Signature/Date
Originator	<i>R. Booth 8-17-94</i>	<i>RWD</i>	<i>3/25/96</i>
Checked by	<i>RWD 2/2/95</i> <i>J. A. Rupert 8/23/94</i>	<i>J. Magr 5/13/96</i>	
Approved by	<i>RWD 2/10/95</i>	<i>RWD</i>	<i>5/13/96</i>
Checked Against Approved Vendor Data		<i>Ann Langvin 7/7/96</i>	

	<u>INDEX</u> Description
1-2	Objective, Criteria, Data, Assumptions, Method, References, and Conclusion.
3-9, 9a	Calculations
Attach 1	H-2-818458, STRUCTURAL C-FARM MISC. CONCRETE PADS & H-2-818461 (AY -Farm)
Attach 2	Ref 9- Original Design Justification Calcs
Attach 3	AY-Farm Skid Floor Frame Mods (ECN W-320-230)
Attach 4	Vendor Data - VSD

1
 7/13/96

JM
 7/13/96

REV 1: Add Page 9a, Attach 2,3,4; Revise Page 1, 2, 4, 9

CALCULATION CROSS INDEX (Typical)

Subject Calculation No. W320-24-024

Subject Calculation Revision No.	Superseded by Calculation No.	These interfacing calculation/documents provide input to the subject calculation, and if revised may require revision of the subject calculation.		Results and conclusions of the subject calculation are used in these interfacing calculations and/or documents.		Does the output interface calculation/documents require revision?		Has the output interface calculation/documents been revised?		Discipline manager's signature and date indicating evaluation complete.
		Calculation/Document No.	Revision No.	Calculation/Document No.	Revision No.	Yes	No	Yes	No	
0	-	H-2-818458 SH.1	0	N/A	-		✓		N/A	<i>Red Daichen</i> 2/10/95 ↓
0	-	H-2-818461	0	N/A	-		✓		N/A	

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DESIGN VERIFICATION SCREENING CRITERIA

iii of iii

Project/Document No. W-320/W320-24-024

When the design or design change affects hardware, formal design verification must be performed if one or more of the following questions must be answered affirmatively (YES).

- | YES | NO | |
|-------|---------|--|
| _____ | _____ ✓ | 1. Does the design or design change involved meet the established criteria to be considered Safety Class 1 or 2? |
| _____ | _____ ✓ | 2. Does this design or design change cause or permit changes to Safety Class 1 or 2 instrument or alarm setpoints outside of previously approved operational limits? |
| _____ | _____ ✓ | 3. Does this design or design change significantly affect the nuclear safety consequences of a malfunction or failure of the structure, system, or component? |
| _____ | _____ ✓ | 4. Does this design or design change involve or change design that has previously undergone formal design verification? |

R. D. Donahue
Assigned Lead Engineer

2/10/95
Date

R. D. Donahue
Responsible Discipline Manager

2/10/95
Date

Original Design Package Distribution:

Project Manager
Design Verification Officer
Engineering Document Control

Design Change Distribution:

Attach to Engineering Change Notice

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-024

Revision 01

Page No. 1 of 9

DESIGN ANALYSIS

Client WHC

Subject Electrical Equipment Pad (241-C-51)

Location 200E

WO/Job No. ER4319/W-320

Date 7-29-94

Checked

Revised 3-25-96

By J.R. Booth *JRB*By *[Signature]*By *[Signature]*

- OBJECTIVE:** The objective of this calculation is to design SC3 structural concrete pads and determine expansion anchor requirements to support and secure SC3 Electrical Enclosures.
- CRITERIA:**
1. Functional Design Criteria for Tank 241-C-106 Waste Retrieval, Project W-320; Document No. WHC-W320-FDC-001, Rev.2.
 2. SDC 4.1, Rev. 11.
 3. DOE order 6430.1a
- DATA:**
1. $f'_c=4000$ psi
 2. $f_y=60$ ksi for rebar
 3. 1/2" dia. expansion anchors with 2 1/4" minimum embedment. Values for tension and shear assumed from SDC 4.2 are conservative.
- ASSUMPTIONS:** See body of calc.
- METHOD:** MATHCAD 4.0
- REFERENCES:**
1. American Concrete Institute (ACI). ACI 318-89 (Revised 1992).
 2. American Concrete Institute (ACI). ACI SP-17(91).
 3. American Society of Civil Engineers (ASCE). ASCE 7-88.
 4. Standard ARCH-Civil Design Criteria, SDC-4.1. Design Loads for Facilities. Rev. 11.
 5. Standard Arch-Civil Design Criteria, SDC-4.2. Design and Installation of Expansion Anchors. Rev. 0.
 6. Uniform Building Code (UBC-91).
 7. Design and Evaluation Guidelines for Department of Energy Facilities Subjected to Natural Phenomena Hazards. UCRL 15910, June 1990.
 8. Final Report of Geotechnical Engineering Studies, W-320 Waste Retrieval and Sluicing System, 200 East Area, Hanford Site. Prepared by Shannon and Wilson, Inc. for Kaiser Engineers Hanford Company. April 1994.
 9. Vendor Information File: Olympic Tool & Engineering (AY-Farm Electrical Equipment Skid/Enclosure- Dwgs 51001, Sht 1-3 & Calculations.

WJM
5/1/96

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-024

Revision 01

Page No. 2 of 9

DESIGN ANALYSIS

Client WHC

WO/Job No. ER4319/W-320

Subject Electrical Equipment Pad (241-C-51)

Date 7-29-94

By J.R. Booth *JRB*

Checked

By *[Signature]*

Location 200E

Revised 3-25-94

By *[Signature]***CONCLUSION:**

The concrete slab will be 8" thick and be reinforced with #5 rebar distributed as shown on H-2-818458, sh. 1 (Equivalent to 0.31 sq. in./ft). ~~Four 1/2" dia. expansion anchors with 2 1/4" min. embed, one at each corner, will be sufficient to anchor the skid to the slab. Two 1/2" dia. exp anchors with 2 1/4" min embed. on all (4) sides will be used to anchor skid to the slab.~~

~~A smaller Electrical Equipment Pad will be located outside AY Farm (See Dwg's H 2-818461 and H 2-818695 SH. 3). The design is similar and the loads are smaller; therefore, a Pad with the same rebar requirement will be adequate by inspection. The new Electrical Equipment Pad for AY Farm is shown on H 2-818461.~~

A similar Electrical Equipment Pad will be required outside AY-Farm (See Dwg's H-2-818461 and H-2-818695 SH 3) Loading conditions are similar. Calculations for C-Farm Electrical Equipment Pad adequately envelope loads for AY-Farm Pad. Provide same pad thickness and rebar size/pattern as C-farm.

See page 9a for an evaluation of required field modifications to the AY-Farm Electrical Equipment Skid floor framing. The Ay-Farm Electrical Equipment Skid/Enclosure design/fabrication was provided by Olympic Tool & Engineering.

WJM
SIRAL 

**KAISER ENGINEERS
HANFORD****DESIGN ANALYSIS**Calc. No. W320-24-024Revision 0Page No. 3 of 9Client: Westinghouse Hanford CompanyWO/Job No. ER4319/W-320Subject: Electrical Equipment PadDate 6/24/94By JR B

(241-C-51)

Checked 8/23/94By J.S. RupertLocation: 200E

Revised

By

DESIGN MCC CONCRETE PAD

Determine Design Loads:

1. Snow (REF. ASCE 7-88, pg. 23-27)

$$C_e := 0.9$$

$$C_t := 1.1$$

$$I := 1.2$$

$$p_g := 15 \frac{\text{lb}}{\text{ft}^2}$$

Ref. SDC 4.1

$$p_f := 0.7 \cdot C_e \cdot C_t \cdot I \cdot p_g$$

$$p_f = 12.474 \frac{\text{lb}}{\text{ft}^2} \quad \text{Use } p_f := 20 \frac{\text{lb}}{\text{ft}^2}$$

(Minimum Snow Load per SDC 4.1)

$$S := p_f (10 \text{ ft} \cdot 12 \text{ ft})$$

2. Wind: (Ref. SDC 4.1 and ASCE 7-88, section 6)

Gross dimensions: 12' wide X 10' wide X 10' Eve height.

Exposure Class=C (SDC 4.1, pg.13)

Wind Speed=70 mph (SDC 4.1, pg.13)

Importance Factor=1.07 (SDC 4.1, pg.13)

Sign convention: + pressure acting on surface, - pressure acting away from surface.

qz=qh

$$I := 1.07$$

$$V := 70$$

$$K_z := 0.80$$

(Table 6 of ASCE 7-88)

$$q_z := 0.00256 \cdot K_z \cdot (I \cdot V)^2 \frac{\text{lb}}{\text{ft}^2}$$

(Velocity pressure, Eq.3 of ASCE 7-88)

$$q_z = 11.489 \frac{\text{lb}}{\text{ft}^2}$$

$$G_h := 1.32$$

(Gust Response Factor, Table 8)

$$C_{pw} := 0.8 \quad \text{Windward}$$

(External Pressure Coeff., Fig. 2)

$$C_{pl} := -0.5 \quad \text{Leeward}$$

$$C_{ps} := -0.7 \quad \text{Sidewall}$$

$$GC_{piw} := 0.75$$

(Internal Pressure Coeff., Table 9 windward)

$$GC_{pil} := -0.25$$

(Internal Pressure Coeff., Table 9 leeward)

Wall Pressure

$$W_{ww1} := q_z \cdot G_h \cdot C_{pw} - q_z \cdot GC_{piw}$$

(Windward Wall Pressure, Table 4)

$$W_{ww1} = 3.516 \frac{\text{lb}}{\text{ft}^2}$$

$$W_{ww2} := q_z \cdot G_h \cdot C_{pw} - q_z \cdot GC_{pil}$$

$$W_{ww2} = 15.005 \frac{\text{lb}}{\text{ft}^2}$$

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HNF-2487, Rev.0

Calc. No. W320-24-024

Revision 81

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DESIGN ANALYSIS

Client: Westinghouse Hanford Company

WO/Job No. ER4319/W-320

Subject Electrical Equipment Pad

Date 7/29/94

By JR Booth

(241-C-51)

Checked

By

Location: 200E

Revised 3-23-96

By

$$W_{lw1} := q_z \cdot G_h \cdot C_{pl} - q_z \cdot GC_{piw} \quad W_{lw1} = -16.2 \cdot \frac{\text{lb}}{\text{ft}^2} \quad (\text{Leeward Wall Pressure})$$

$$W_{lw2} := q_z \cdot G_h \cdot C_{pl} - q_z \cdot GC_{pil} \quad W_{lw2} = -4.711 \cdot \frac{\text{lb}}{\text{ft}^2}$$

$$W_{sw} := q_z \cdot G_h \cdot C_{ps} - q_z \cdot GC_{piw} \quad W_{sw} = -19.233 \cdot \frac{\text{lb}}{\text{ft}^2} \quad (\text{Sidewall Pressure})$$

$$W := W_{ww2} - W_{lw2} \quad W = 19.716 \cdot \frac{\text{lb}}{\text{ft}^2} \quad (\text{Windload in either direction})$$

Roof Pressure

$h := 10\text{-ft}$

Eave HT.

$L := 12\text{-ft}$

Length

$\frac{h}{L} = 0.833$

$C_{pr} := -0.7$

Roof pressure coeff. same for both directions since roof slope = 0 deg.

$W_r := q_z \cdot G_h \cdot C_{pr} - q_z \cdot GC_{piw}$

$W_r = -19.233 \cdot \frac{\text{lb}}{\text{ft}^2}$ Pressure acting away from surface

3. Live Floor Load

$L = \left(100 \cdot \frac{\text{lb}}{\text{ft}^2}\right) \cdot (10\text{-ft} \cdot 12\text{-ft})$ (Nominal floor load)

$L = 1.2 \cdot 10^4 \cdot \text{lb}$

4. Dead Loads.

a. C-Farm: Slab dimensions 13'-6" x 11'-6" x 0'-8" (H-2-818458, sh)

$W_c := 150 \cdot \frac{\text{lb}}{\text{ft}^3} \cdot \left(13.5\text{-ft} \cdot 11.5\text{-ft} \cdot \frac{8}{12}\text{-ft}\right)$ $W_c = 1.552 \cdot 10^4 \cdot \text{lb}$ (Weight of concrete slab)

$W_e := 3073\text{-lb}$ (Weight of electrical equipment in enclosure per electrical estimated weights)

$W_s := 3425\text{-lb}$ (Weight of skid and attached enclosure, estimated)

$D := W_e + W_s$

(Total dead load acting on slab at C-Farm controls dead loading and shall be used for load cases)

$D = 6.498 \cdot 10^3 \cdot \text{lb}$

b. AY-Farm: Slab dimensions 15'-0" x ~~9'-0"~~ 13'-0" x 0'-8" (H-2-818461)

$W_{ay} := 150 \cdot \frac{\text{lb}}{\text{ft}^3} \cdot \left(15\text{-ft} \cdot \frac{9}{12}\text{-ft} \cdot \frac{8}{12}\text{-ft}\right)$ $W_{ay} = 9 \cdot 10^3 \cdot \text{lb}$ 13,500 lbs (Weight of concrete slab)

$W_{eay} = 1000 \cdot \text{lb}$ 2800 lbs. (Weight of electrical equipment in enclosure per electrical estimated weights)

$W_{say} := 3200\text{-lb}$ (Weight of skid and attached enclosure, estimated. Reduced based on smaller overall dimensions)

$D_{ay} := W_{eay} + W_{say}$

$D_{ay} = 4.2 \cdot 10^3 \cdot \text{lb}$ 6000 lbs

WJM
5/12/96
▲

Client: <u>Westinghouse Hanford Company</u>	WO/Job No. <u>ER4319/W-320</u>
Subject: <u>Electrical Equipment Pad (241-C-51)</u>	Date <u>7/29/94</u> By <u>JR Booth</u>
Location: <u>200E</u>	Checked <u>8/23/94</u> By <u>J.A. Ripert</u>
	Revised _____ By _____

5. Seismic: Ref. SDC 4.1, UCRL 15910, and UBC-91.

Ground motion shall be taken 100% in one perpendicular direction plus 30% in the other direction combined in a SRSS basis.

Critical Damping = 5% for Safety class 3 per SDC 4.1.

Z := 0.12

Peak Ground Acceleration (SDC 4.1)

I := 1.25

Importance Factor (SDC 4.1)

C := 2.12

Spectral amplification factor (SCD 4.1)

W_s := D

Weight of enclosure acting on slab.

R_w := 6

Reduction Factor (UBC 91, Table No. 23-0)

$$V := \frac{Z \cdot I \cdot C \cdot W_s}{R_w}$$

Base Shear

V_{ew} := V

V_{ew} = 344.394 · lb

V_{ns} := 0.3 · V

V_{ns} = 103.318 · lb

$$E := \sqrt{V_{ew}^2 + V_{ns}^2}$$

E = 359.558 · lb

Earthquake Load

6. Load Combinations

a. UBC 91 load combinations, pg. 148. The zero loads below are to make the MathCAD equations work.

D = 6.498 · 10³ · lb

Dead Load

D₁ := 0 · lb

Dead Load (horizontal)

L_r := 0 · lb

Snow Load and Ashfall-Roof Live Load

L_r = 0 · lb

L₁ := 0 · lb

Horizontal live load

E₁ := 0 · lb

Vertical seismic

S₁ := 0 · lb

0 snow load horizontal

1. U := D + L + L_r

U = 1.85 · 10⁴ · lb

2. U := D + L + W_r · (10 · ft · 12 · ft)

U = 1.619 · 10⁴ · lb

U₁₁ := D₁ + L₁ + W · (10 · ft · 10 · ft)

(Wind controls horizontal loading)

U₁₁ = 1.972 · 10³ · lb

U₁₂ := D₁ + L₁ + W · (10 · ft · 12 · ft)

U₁₂ = 2.366 · 10³ · lb

U := D₁ + L₁ + E

U = 359.558 · lb

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HANFORD**

DESIGN ANALYSIS

HNF-2467, Rev. 0

Calc. No. W320-24-024

Revision 0

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Client: <u>Westinghouse Hanford Company</u>	WO/Job No. <u>ER4319/W-320</u>
Subject: <u>Electrical Equipment Pad</u> (241-C-51)	Date <u>7/29/94</u> By <u>JRB</u>
Location: <u>200E</u>	Checked <u>8/23/94</u> By <u>J.A. Ruffert</u>
	Revised _____ By _____

$$3. U = D + L + W_r(12\text{-ft } 10\text{-ft}) + \frac{S}{2}$$

$$U = 1.739 \cdot 10^4 \cdot \text{lb}$$

$$4. U_{13} = D + L + S + \frac{W_r(12\text{-ft } 10\text{-ft})}{2} \quad (\text{Controls vertical loading})$$

$$U_{13} = 1.974 \cdot 10^4 \cdot \text{lb}$$

$$5. U = D_1 + L_1 + S + E_1$$

$$U = 2.4 \cdot 10^3 \cdot \text{lb}$$

b. Strength Design load cases. ASCE 7-88.

$$1. U = 1.4 \cdot D$$

$$U = 9.097 \cdot 10^3 \cdot \text{lb}$$

$$2. U_{21} = 1.2 \cdot D + 1.6 \cdot L + 0.5 \cdot S \quad (\text{Controlling vertical case})$$

$$U_{21} = 2.82 \cdot 10^4 \cdot \text{lb}$$

$$3. U = 1.2 \cdot D + 1.6 \cdot S + 0.5 \cdot L$$

$$U = 1.764 \cdot 10^4 \cdot \text{lb}$$

$$4. U_{22} = 1.2 \cdot D_1 + 1.3 \cdot W_r(12\text{-ft } 10\text{-ft}) + 0.5 \cdot L_1 + 0.5 \cdot S_1 \quad (\text{Controlling side loads})$$

$$U_{22} = 3.076 \cdot 10^3 \cdot \text{lb}$$

$$U_{23} = 1.2 \cdot D_1 + 1.3 \cdot W_r(10\text{-ft } 10\text{-ft}) + 0.5 \cdot L_1 + 0.5 \cdot S_1$$

$$U_{23} = 2.563 \cdot 10^3 \cdot \text{lb}$$

$$5. U = 1.2 \cdot D_1 + 1.5 \cdot E + 0.5 \cdot L$$

$$U = 6.539 \cdot 10^3 \cdot \text{lb}$$

$$6. U = 0.9 \cdot D_1 - 1.3 \cdot W_r(12\text{-ft } 10\text{-ft})$$

$$U = -3.076 \cdot 10^3 \cdot \text{lb}$$

c. Determine controlling vertical ACI load case.

$$1. U_{31} = 1.4 \cdot D + 1.7 \cdot L$$

$$U_{31} = 2.95 \cdot 10^4 \cdot \text{lb}$$

7. Check Soil Bearing Properties

a. Check Qmax against Qapplied.

$$Q_{\max} = 4000 \cdot \frac{\text{lb}}{\text{ft}^2} \quad (\text{Shannon an Wilson Report pg. 10})$$

$$Q_{\text{applied}} = \frac{U_{13} + W_c}{(13.5\text{-ft} \cdot 11.5\text{-ft})}$$

$$Q_{\text{applied}} = 227.176 \cdot \frac{\text{lb}}{\text{ft}^2} \quad \text{Foundation Bearing pressure OK.}$$

Note: Due to the low bearing pressure and minimal overturning moment, eccentric fondation loading is not considered.

DESIGN ANALYSIS

Client: Westinghouse Hanford Company	WO/Job No. ER4319/W-320	
Subject: Electrical Equipment Pad (241-C-51)	Date 7/29/94	By JR Booth <i>ARB</i>
Location: 200E	Checked 8/23/94	By <i>f. A. Ruffert</i>
	Revised	By

b. Check longitudinal sliding.

$$F_f = 0.35 \cdot (D + W_c) \quad (\text{Lateral Sliding coefficient given in UBC, pg. 590})$$

$$F_f = 7.708 \cdot 10^3 \cdot \text{lb} \quad \text{Resistance to sliding by friction is sufficient in both directions.}$$

8. Check overturning moment (See figure below)

$$M_{ot} = (W \cdot 12 \cdot \text{ft} \cdot 10 \cdot \text{ft}) \cdot 5 \cdot \text{ft} \quad \text{Overturning moment applied at the estimated mid-height of the enclosure.}$$

$$M_{ot} = 1.183 \cdot 10^4 \cdot \text{lb} \cdot \text{ft}$$

$$M_r = D \cdot 5.75 \cdot \text{ft} \quad \text{Resisting moment to overturning}$$

$$M_r = 3.736 \cdot 10^4 \cdot \text{lb} \cdot \text{ft}$$

$$\frac{M_{ot}}{M_r} = 0.317 \quad \text{OK, since less than 2/3.}$$

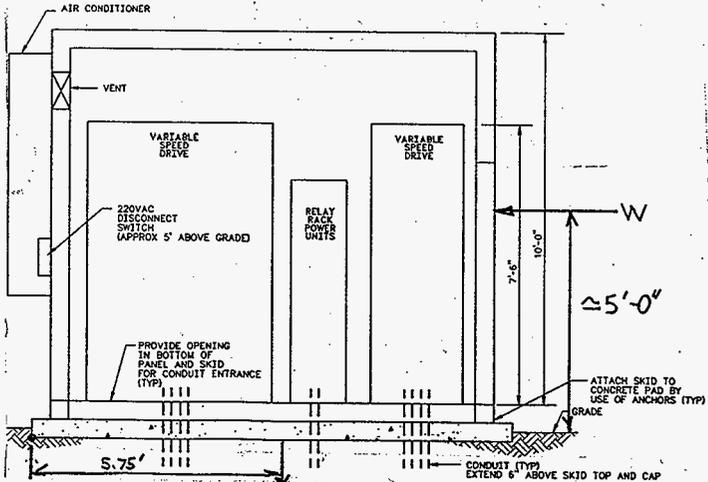


Figure 1 D

9. Concrete Slab Design. Using the design procedures of ACI SP-17(91).

$$k_{ip} = 1000 \cdot \text{lb} \quad f_c = 4000 \text{ psi} \quad f_y = 60000 \text{ psi}$$

$$l = 11.5 \cdot \text{ft} \quad \text{Length of slab in ft.}$$

$$w_u = 1.4 \cdot \left(150 \cdot \frac{\text{lb}}{\text{ft}^3} \cdot \frac{8}{12} \cdot \text{ft} \cdot 1 \cdot \text{ft} \right)$$

$$w_u = 140 \cdot \frac{\text{lb}}{\text{ft}}$$

Client: <u>Westinghouse Hanford Company</u>	WO/Job No. <u>ER4319/W-320</u>
Subject: <u>Electrical Equipment Pad (241-C-51)</u>	Date <u>7/29/94</u> By <u>JR Booth</u>
Location: <u>200E</u>	Checked <u>8/23/94</u> By <u>J.A. Rupert</u>
	Revised _____ By _____

$$M_u := \left(\frac{U_{31} \cdot 9}{8 \cdot 12} \cdot \text{ft} \right) + \frac{w_u \cdot (l)^2}{8}$$

$M_u := 5.08$

$h := 8$

$d := h - 3 - 0.625 \quad d = 4.375$

$b := 12$

$\rho_{max} := 0.0214$

$$F := \frac{d^2}{1000}$$

$F = 0.019$

$$K_n := \frac{M_u}{F} \quad K_n = 265.39$$

$a_n := 4.29$

$$A_s := \frac{M_u}{d \cdot a_n}$$

$A_s = 0.271 \text{ in}^2$

$\rho_{min} := 0.0018$

$A_{smin} := \rho_{min} \cdot b \cdot h$

$A_{smin} = 0.173 \text{ in}^2$

Check shear

$$V_u := \frac{U_{13}}{8} + w_u \cdot \frac{l}{2}$$

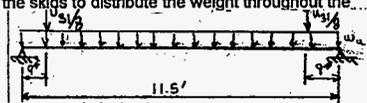
$V_u = 3.273 \cdot 10^3 \text{ lb}$

$b_w := 12 \text{ in} \quad \phi := 0.85$

$$V_c := \phi \cdot \left(2 \cdot \sqrt{f_c} \right) \cdot b_w \cdot d$$

$V_c = 5.645 \cdot 10^3 \text{ lb}$

The skid will rest on a total of 8 plates welded along the bottom of the slabs to distribute the weight throughout the slab.



(Estimated Slab thickness in inches)

(Effective depth of slab with 3" min. cover for rebar)

(Unit width of slab in inches)

SP17, Flexure 2.2

Area of steel required per 12" strip of concrete, sq. in

For grade 60 steel

Required steel area is greater than minimum required.

Ok

Use #5 bars spaced 12" O.C. See H-2-818458 for sketch of reinforcing.

**KAISER ENGINEERS
HANFORD**

DESIGN ANALYSIS

Calc. No. W320-24-024
Revision 01
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Client: Westinghouse Hanford Company W/O/Job No. ER4319/W-320
Subject: Electrical Equipment Pad (241-C-51) Date 7/29/94 By JR Booth
Location: 200E Checked 8/22/94 By J.R. Rupert
Revised 3/25/94 By [Signature]

10. Expansion Anchor Design. Per SDC 4.2, Rev. 0

$$V_{\text{applied}} := \frac{\sqrt{U_{11}^2 + U_{12}^2}}{4}$$

Factored shear force per corner of enclosure.(conservative)

$$V_{\text{applied}} = 0.77 \cdot \text{kip}$$

$$T_{\text{applied}} := \frac{U_{12} \cdot 5 \text{ ft}}{11.5 \text{ ft}} = 0.5$$

Tension couple divided by 2 caused from overturning.

$$T_{\text{applied}} = 0.514 \cdot \text{kip}$$

Try 1/2" HILTI KWIK-BOLT II with min. embed of 2 1/4".

$$T := 1.36 \cdot \text{kip} \quad (\text{Allowable})$$

$$V := 1.47 \cdot \text{kip} \quad (\text{Allowable})$$

$$\frac{V_{\text{applied}}}{V} + \frac{T_{\text{applied}}}{T} \leq 1.0$$

$$\frac{V_{\text{applied}}}{V} + \frac{T_{\text{applied}}}{T} = 0.902 \quad \text{ok}$$

5/13/94

Final: Provide a minimum of 2-1/2" exp anchors on all (4) sides of each skid.

KAISER ENGINEERS
HANFORD

Calc. No. W320-24-024

Revision 1

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DESIGN ANALYSIS

client WHC

WO/Job No. ER6159/W-320

Subject AY-Farm Electrical Equipment Pad/Skid
Modifications

date 03-11-96

By RW Davidson

Location 200E/ 241-AY

Checked

By

Revised

By

AY -Farm Electrical Equipment Pad Mods:

- a. Reinforcement details modified to add diagonal rebars at blockouts and clarify rebar configuration. (See ECN No. W-320-123)
- b. Expansion anchoring requirements for skid increased and overall dimensions of pad increased by 6-inches in each direction to satisfy expansion anchor edge distances. (See ECN No. W-320-125)

The structural integrity of AY-farm Electrical Equipment Pad not affected by these changes. No further calculations required.

AY-Farm Electrical Equipment Skid Modifications:

Modifications to floor framing are needed to clear conduit stub-up's through equipment pad blockouts. (See ECN W-320-230)

Additionally the weight of the VSD has gone from 1300 lbs to 3000 lbs.

Assume 80% of the weight is contained in cabinets A & B. Cabinet C is separate for AY Farm.

Ref 9: (See Attach 2 for Original Design Justification Calc, Page 5)

Chk floor loading: Assume max equip load over 3 beams due to framing mods

$$M \text{ max} = 3000 * .8 * 2 * 6/8 * 12 = 43,200 \text{ in-lbs}$$

$$fb = 43,200 / 3 * 1.02 = 14,118 \text{ psi} > 12,667 < \text{NG} > \text{ using SF} = 3, F_y = 38 \text{ ksi}$$

Try load distributed over 3.5 beams:

$$fb = 43,200 / 3.5 * 1.02 = 12,590 < 12,667 < \text{OK} >$$

Chk shear @ coped formed channel: Use max shear, conserv.

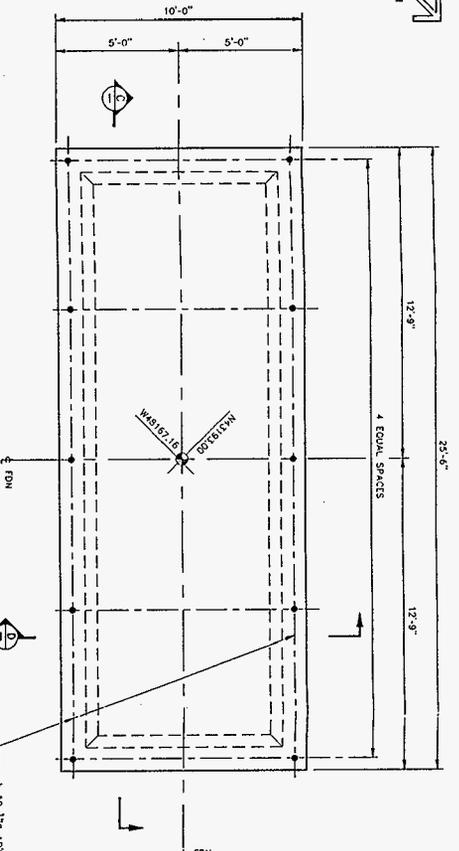
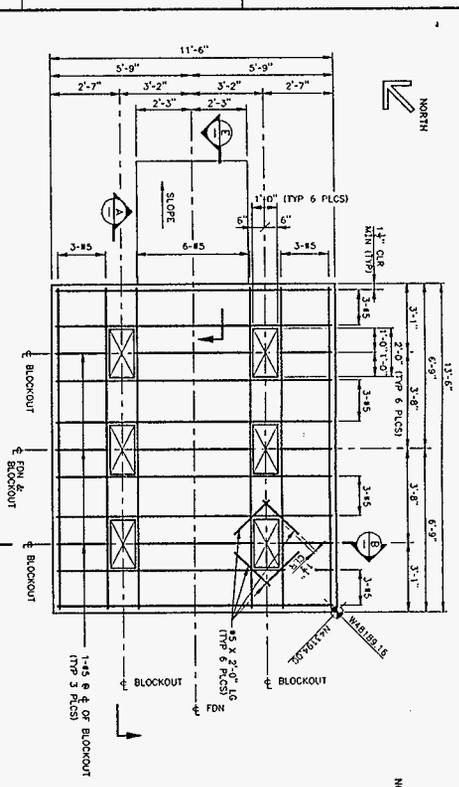
$$\text{Cross-section, 14 ga} = .0747 * 6 = .45 \text{ sq in}$$

$$v = 3000 * .8 / 3 * 6/8 = 600 \text{ lbs}$$

$$fv = 600 / .45 = 1333 \text{ psi OK}$$

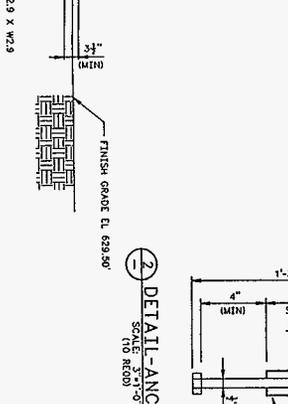
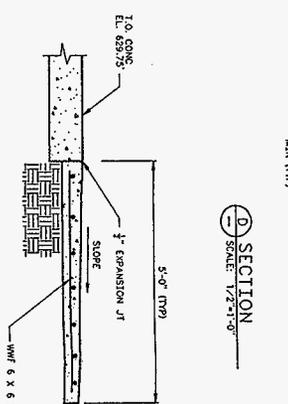
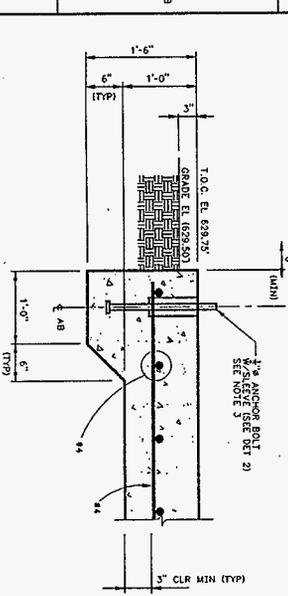
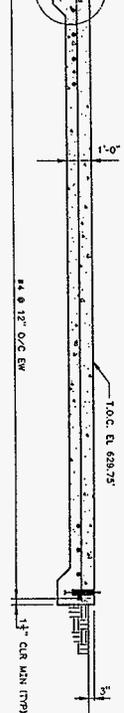
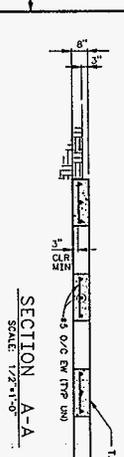
Notes:

1. Provide C6 x 8.2 cross braces @ coped formed channels, both sides.
2. Provide C6 x 8.2 beams/braces @ cut formed channels, both sides.
3. Provide 1/2" dia plug weld between perimeter top plate and formed channels (5 plcs)
4. Use min 1/8" fillet weld for beam/brace connections
5. Perform all work per Constr Spec W-320-C7, Section 05500.
6. See Attach 3 for required mods.
7. As a precaution, add a nameplate on bldg. to remove VSD cabinets before lifting skid/housing enclosure.



PLAN - ELECTRICAL EQUIPMENT PAD
SCALE: 1/2"=1'-0"

PLAN - CHILLER PAD
SCALE: 1/2"=1'-0"

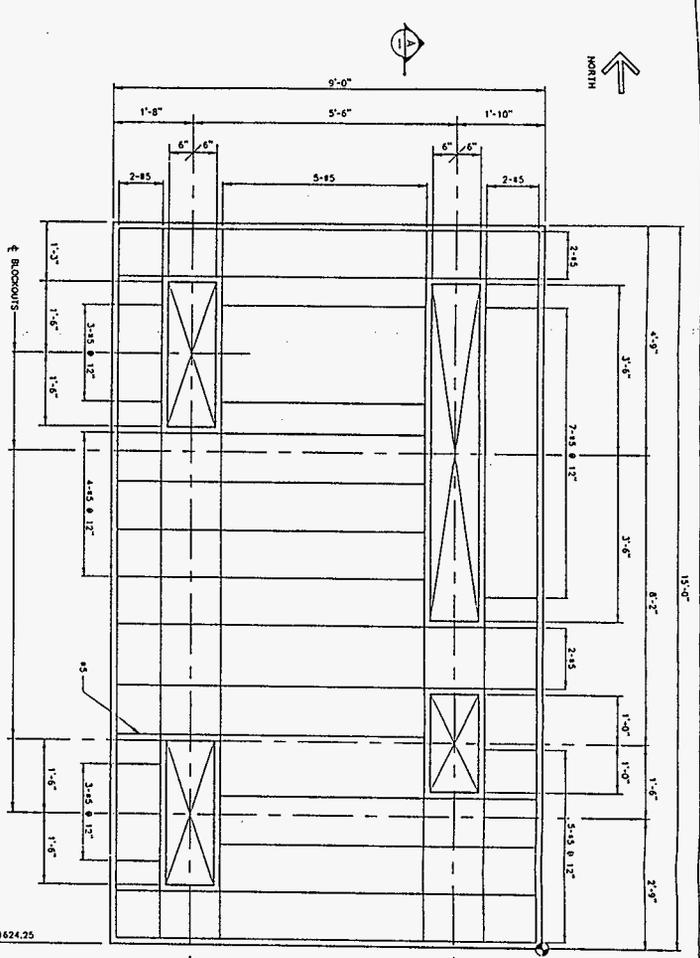


ATTACH 1
TOTAL OF 2 PAGES

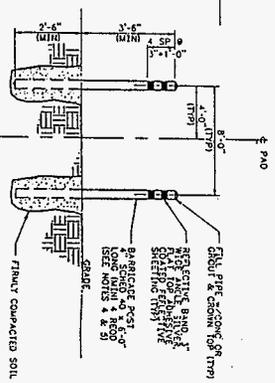
- NOTES:
1. CONCRETE COMPRESSIVE STRENGTH (FC) IS 4000 PSI (MIN).
 2. FIELD TO LOCATE & INSTALL 4-1/2" DIA ANCHORS WITH 2-1/2" DIA BERTHOLD FOR ELEC EQUIP PAD IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 3. VERIFY LOCATION & ANCHOR SIZE FOR CHILLER PAD W/ PERSONNEL FROM OPERATIONS/MAINTENANCE PRIOR TO CONCRETE POUR.



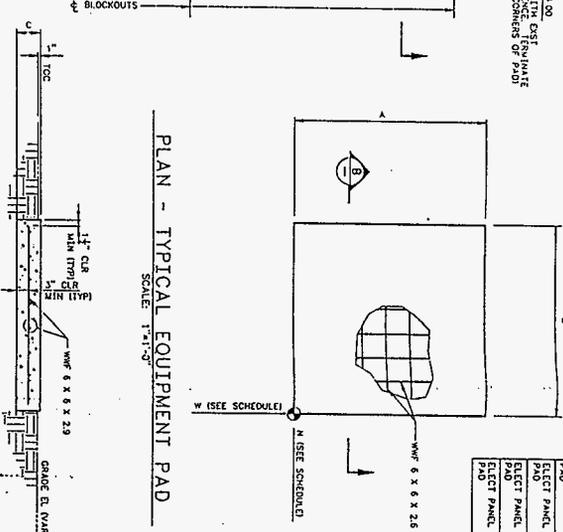
PROJECT NO.	DATE	BY	CHKD
HNF-2467	11/21/00	RS	RS
PROJECT NAME	DESCRIPTION	SCALE	DATE
U.S. DEPARTMENT OF ENERGY KBR ROSSER HANFORD COMPANY STRUCTURAL MISC HVAC, ELEC CONC PADS PLANS, SECTS & DETS	CHILLER PAD	1/2"=1'-0"	11/21/00
DESIGNER	CHECKER	DATE	SCALE
RS	RS	11/21/00	1/2"=1'-0"
PROJECT NO.	DATE	BY	CHKD
HNF-2467	11/21/00	RS	RS
PROJECT NAME	DESCRIPTION	SCALE	DATE
U.S. DEPARTMENT OF ENERGY KBR ROSSER HANFORD COMPANY STRUCTURAL MISC HVAC, ELEC CONC PADS PLANS, SECTS & DETS	CHILLER PAD	1/2"=1'-0"	11/21/00
DESIGNER	CHECKER	DATE	SCALE
RS	RS	11/21/00	1/2"=1'-0"



PLAN - ELECTRICAL EQUIPMENT PAD (FOR BLOC 311-4X-51)
SCALE: 1/4" = 1'-0"



BARRICADE POST DETAIL
SCALE: THIS PAD ONLY
(CATHODIC PROTECTION PAD ONLY)



PLAN - TYPICAL EQUIPMENT PAD
SCALE: 1/4" = 1'-0"

MISC. PAD SCHEDULE

PAD TITLE	CORDIMENTS	ORIENTATION	DIRECTIONS
	NORTH	WEST	A B C
RECTIFIER PAD	4289100	4797300	↑ ↓ ↓ ↓
PIT CHASING CHILLER PAD	4162050	4786834	↑ ↓ ↓ ↓
ELECT PNL	4162325	4796200	↑ ↓ ↓ ↓
ELECT PNL	4163050	4786450	↑ ↓ ↓ ↓
ELECT PNL	4163050	4789800	↑ ↓ ↓ ↓
ELECT PNL	4162550	4786450	↑ ↓ ↓ ↓

NOTES:

1. CONCRETE COMPRESSIVE STRENGTH (F'CD) IS 4000 PSI (MIN).
2. FOLD TO LOCATE & INSTALL A MIN OF 4 #4 E.P.C ANCHORS PER PAD. INSTALL IN ACCORDANCE WITH SPEC. SECTION 05053.
3. APPLY CONCRETE SEALER/WATERPROOFER TO TOP SURFACE SECTION 05050.
4. PRIOR TO PAINTING BARRICADE POST, PIPE, SHIELD, RUST AND OTHER FORMING MATERIALS, OIL, GREASE, AND SIMILAR TO BE REMOVED WITH SOLVENTS PROPER TO BE REMOVED.
5. PAINT ENTIRE LENGTH OF EACH BARRICADE POST WITH YELLOW PAINT IN ACCORDANCE WITH AIA-51.
6. PAINT - FS TT-C-488, CLASS A, COMPOSITION C.



U.S. DEPARTMENT OF ENERGY
STRUCTURAL
MISC ELEC CONCRETE PADS
PLANS & SECTIONS

W-330 JUNE 21-1-C-108 SCHEDULE
H-2-81846110

DATE: 12/31/88

CONSTRUCTION

DESIGNER: [Signature]

SCALE: 1/4" = 1'-0"

2 FOOT SCALE: 1:12

KIPCAD

DESIGN JUSTIFICATION CALCULATIONS

REF: KAISER HANFORD SPEC W 320 P33 REV 1

INDEX

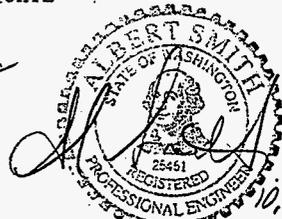
PAGE	CONTENTS
2	WIND LOADING, WIND OVERTURNING
3	WIND SHEAR STRESSES
4	ROOF STRUCTURAL STRESSES & DEFLECTION
5	FLOOR LOADING, STRESSES
6	SEISMIC LOADS
7	HEAT LOAD CHECK
8	WEIGHT CALCULATION

ATTACH 2
TOTAL OF 8 PAGES

CONCLUSIONS:

1. STRUCTURE WILL EXCEED THE SPEC REQUIREMENTS
2. HEAT PUMP SYSTEM WILL BE ADEQUATE

Total of 8
pages



EXPIRES 7/9/97

WIND LOADING

(UBC method)

By examination worst case is full face exposure to 70 mph wind.

$$P(\text{pressure psf}) = C_e C_q q_s I$$

$$C_e = 1.06 \text{ (0-15 ft high)}$$

$$C_q = .8 \text{ worst-case}$$

$$\text{Stag. pressure } q_s = 12.6 \text{ psf @ 70 mph}$$

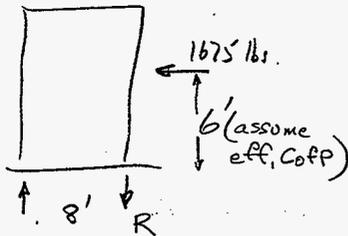
$$I = 1.07 \text{ constant}$$

$$\text{Then } P = 11.4 \text{ psf.}$$

$$\begin{aligned} \text{Exposed area} &= 10.5 \times 14 \\ &= 147 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{Total wind load} &= 147 \times 11.4 \\ &= 1675 \text{ lbs.} \end{aligned}$$

WIND OVERTURNING



$$R_{\text{front 2 corners}} = \frac{1675 \times 6}{2 \times 8}$$

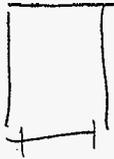
$$R = 628$$

$$\therefore R < \frac{wt}{4} \quad (wt = 4000 \text{ lbs})$$

will not lift

AL

WIND SHEAR



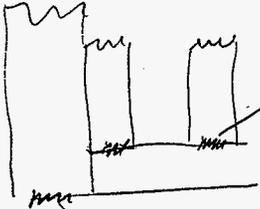
←
← 1675 lbs.
←

4 tie-down $\frac{1}{2}$ " bolts.

$$f_s = \frac{1675}{4 \times \pi \cdot 2.5^2}$$

$$= 2132 \text{ psi} \text{ — OK}$$

all.



$\frac{1}{8} \times \frac{1}{2}$
(8 ples)

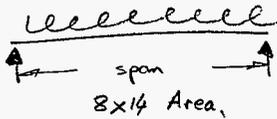
Total weld in shear $\approx 2 \text{ inch}^2$

$$f_s = 837 \text{ psi} \text{ — OK}$$

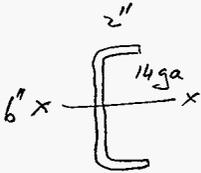
all.

$\frac{1}{8} \times 1$ (4 ples)

ROOF STRUCTURE



LOADING. $50 \text{ lb/ft}^2 + 20 \text{ lb/ft}^2 + 10 \text{ lb/ft}^2$
 live snow aux.
 $= 80 \text{ lb/ft}^2$



JOIST
 $S = 1.07 \text{ in}^3$
 Material: A569 OR BETTER.
 $f_y = 38,000 \text{ psi.}$

$\phi \text{ S.F.} \geq 3.$
 $f_{\text{allowable}} = 12,000 \text{ psi.}$

Max. B.M. = $f_d \times S$
 $= 12,840 \text{ lb in.}$

$\phi \text{ span} = 8'$

B.M. = $80 \text{ lb/ft}^2 \times \frac{4}{3} \times \frac{8}{8} \times 12 \text{ (16" o.c.)}$
 $= 10,240 \text{ lb.in.}$ OK
(10,240 < 12,840.)

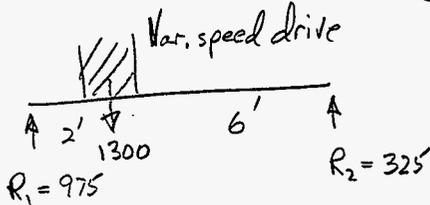
Deflection

$\Delta_{\text{max}} = \frac{5Wl^3}{384EI}$ $E = 29 \times 10^6$
 $I = 1.07 \times 3$
 $W = wl.$
 $= \frac{5 \times 80 \times 4 \times 8^4 \times 12^3}{384 \times 3 \times 29 \times 10^6 \times 1.07 \times 3}$
 $= .1056 \text{ in.}$
 $= \frac{1}{900} \times \text{span.} \text{ — OK}$

$(\Delta_{\text{max}} < \frac{1}{180})$

FLOOR LOADING

Worst case - sling into position.



$$\begin{aligned} \text{Max BM} &= 975 \times 2 \times 12 \\ &= 23400 \text{ lb. in.} \end{aligned}$$

Carried on 4 joists.

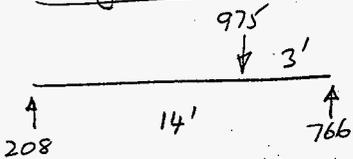
Section in bending

$$6 \times \begin{array}{c} 2 \\ \times \\ 14 \text{ ga.} \\ \times \\ 2 \end{array} \quad S_x = 1.02 \text{ in}^3$$

$$f_b = \frac{23400}{4 \times 1.02} = 5735 \text{ psi.} \quad \text{--- OK}$$

Sl.

lengthwise channel.



$$\begin{aligned} \text{BM}_{(\text{max})} &= 27576 \text{ lb. in.} \\ S_x &= 4.38 \text{ in}^3 \text{ (C6x8.2)} \\ f_b &= 6295 \text{ psi.} \quad \text{--- OK} \end{aligned}$$

Sl.

Seismic Shear < Wind Shear
 ∴ no structural problem.
 CUSTOMER MUST EXAMINE CAPABILITY
 OF CABINET FASTENERS - NOT LIKELY
 TO BE A PROBLEM.

negligible

Then $V_{lbs} = \frac{.2 \times 2.75 \times 4500}{6} = 410 \text{ lbs.}$

- Z = zone factor .2
- I = str. importance 1.
- C = 2.75 max value
- W = dead load $\approx 4500 \text{ lb}$
- $R_w =$ construction factor use 6 (light-st)

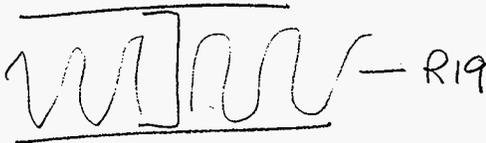
$$\text{LATERAL SHEAR } V = \frac{ZICW}{R_w}$$

STATIC LATERAL EQUIV FORCE PROCEDURE

SEISMIC LOADING (SEA (California) 1988)

Heat Load.

Check of Customer Spec



$$U = \frac{1}{R} \text{ BTU/ft}^2/\text{°F/hrs.}$$

$$\text{Total Area} \approx (8+14+16) \times 10 + 8 \times 14 \\ \approx 500 \text{ ft}^2 \text{ insulated wall.}$$

$$\text{Therefore, } U = \frac{500}{19} + \text{loss thru door} + \text{loss thru studs+joists.}$$

$$U_{\text{studs}} = \underbrace{0.12 \times 26 \times \frac{0.75}{6}}_{\text{Coeff } U} \underbrace{\left(\frac{25 \times 10 + 24 \times 8 \right)}_{\text{Area of steel webs}} \quad (\text{no wind}) \\ = 1.44 \text{ BTU/hrs/°F}$$

$$\Sigma U = 27.8 + \text{door loss BTU/hrs/°F}$$

Heating

$$\text{load} = (50-2) \times (27.8 + U_{\text{dl}}) \\ = 1332 \text{ BTU/hrs} + \text{door losses} + \text{wind.} \\ (\text{8,000 available})$$

Cooling

$$\text{load} = (101-85) (27.8 + U_{\text{dl}}) \\ = 444 + \text{BTU/hrs} \quad (\text{16,000 available})$$

→ Performance margin looks OK all.

WEIGHT CALCULATION

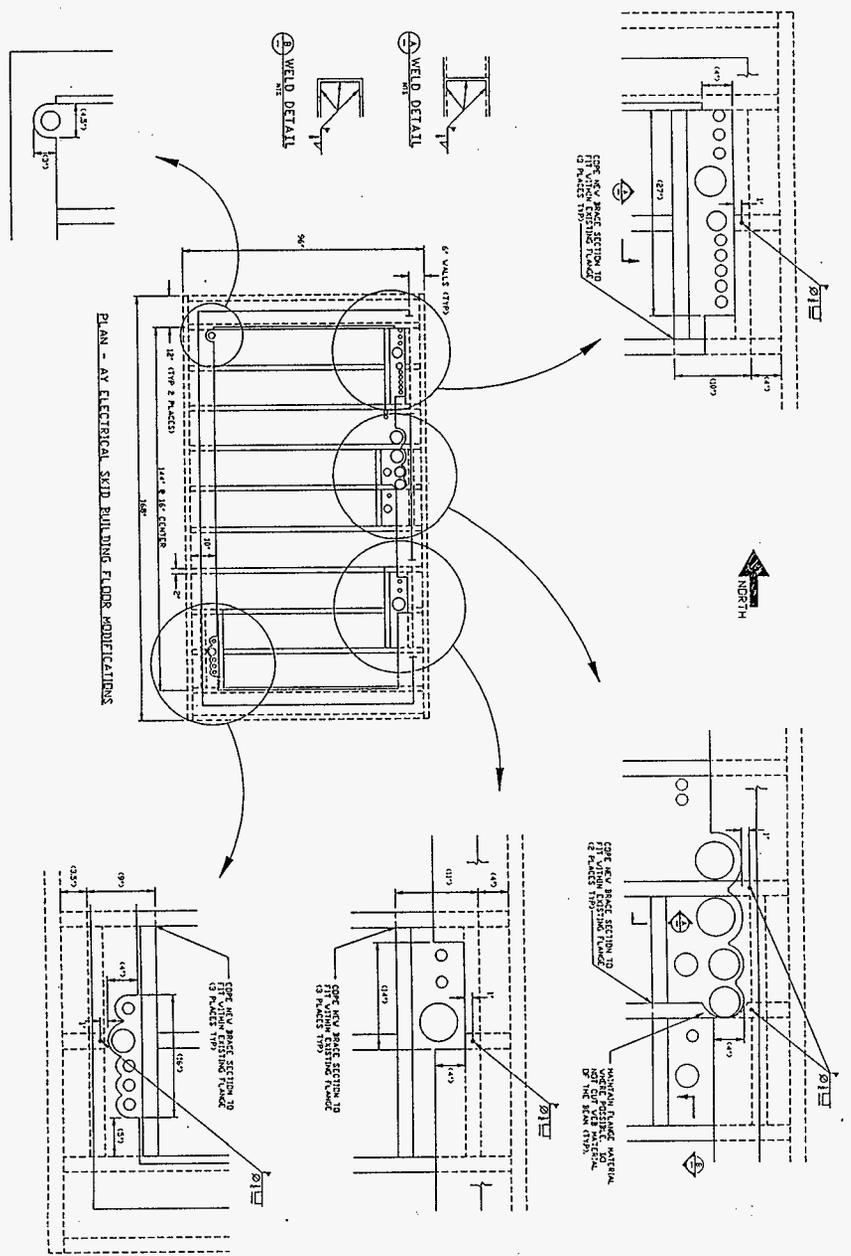
Use bill of material - see dwg S1001.sht 1.

F/W		
1	channel	230 lbs.
2-4	channels	1370
5	girts	60
6	floor	974
7	tie-downs	10
11	heat pump	300
15'	roofing	120
16	wall kit	300
22	liner	375
17	door	150 est.
	misc	150 (grounding pads, wiring, paint, etc)
		<u>4039 lbs. bare.</u>

all

ICF KAISER HANFORD		ENGINEERING CHANGE NOTICE SKETCH	
Rev Dwg	Sh	Rev	Prepared By
H-2-818695	5	1	DA MORASCH
		Checked By	RV DAVIDSON
		ECN No	W320-230
		Page	3/

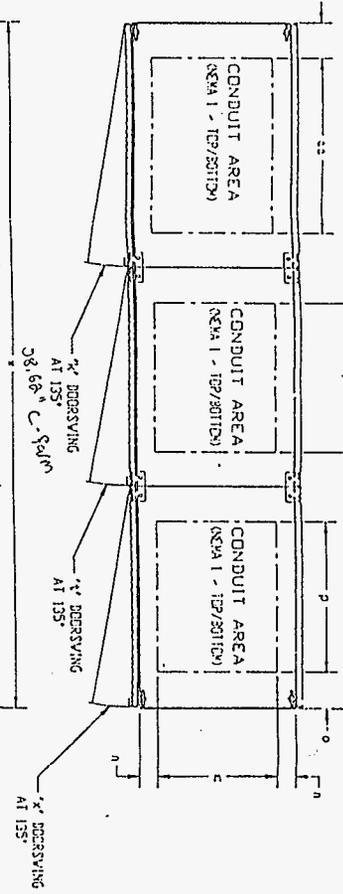
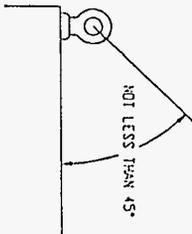
HNF-2467, Rev. 0



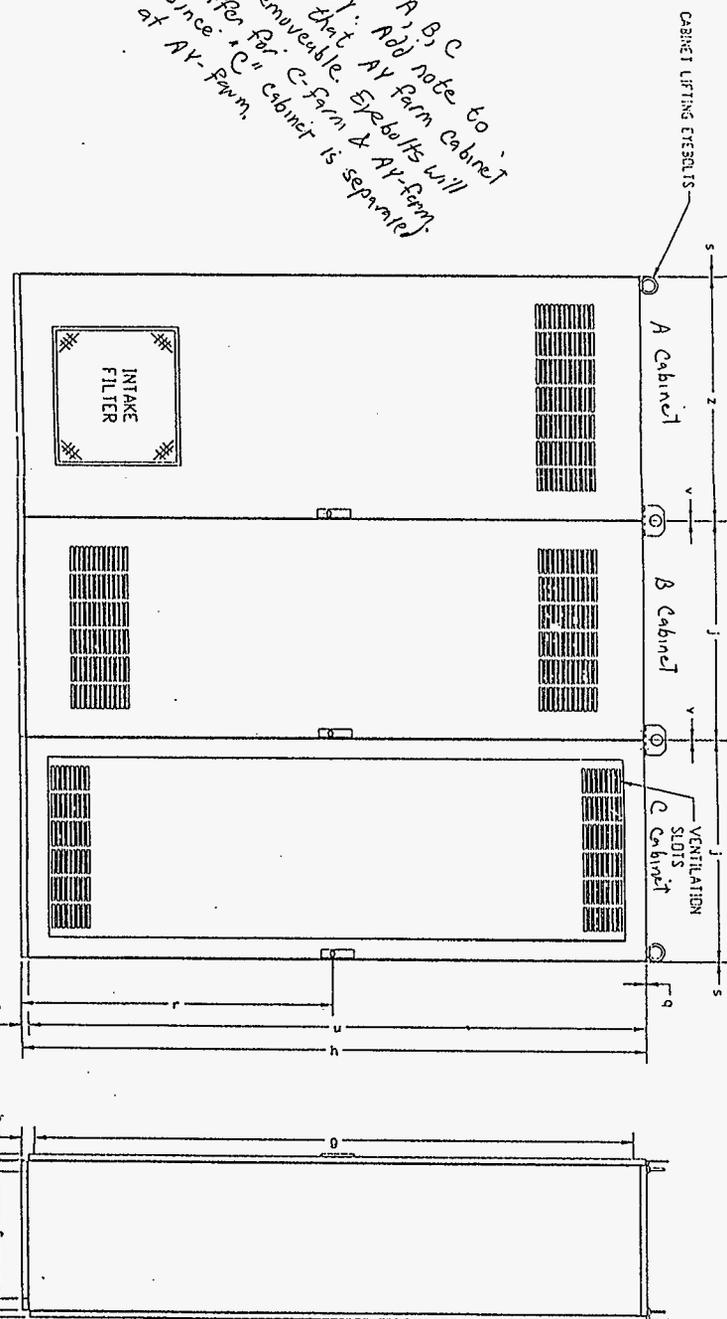
- NOTES:
1. REFER TO ARCHITECT'S REPORT
 2. VERIFY IF 3/4\"/>
 - 3. USE SA - 82 CHANNEL FOR NEW BRACING MATERIAL.
 - 4. ALL ELECTRICAL EQUIPMENT TO BE RELOCATED WITH THIS E.C.N.

ATTACH 3
PAGE 1 OF 1

CAUTION - LIFTING INSTRUCTIONS FOR EREBUS PRICE: SINK IN A HANGER THAT WILL EQUALIZE LOAD AT ALL POINTS. FINITE USE SPREADER BARS WHEN RIGID. MINIMUM ANGLE OF SINK TO BE 45°. DO NOT JOLT WHEN LIFTING.



Please label cabinets as A, B, C to clarify. Add note to clarify that AY farm cabinet is removable. Eye-balls will differ for C-farm & AY-farm. Since "C" cabinet is separate at AY-farm.



THESE DIMENSIONS SUBJECT TO CHANGE UNLESS CERTIFIED

D I M E N S I O N S

INCHES	a	b	c	d	e	f	g	h	i	j	k	n	n	o	p	q	r	s	t	u	v	w	x	y	z
MM	23.70	1.76	1.00	0.78	21.62	19.45	83.14	86.76		31.45	35.12	15.62	2.50	5.12	21.45	0.12	43.22	0.12	31.18	95.42	0.51	98.62	31.18		35.10
INCHES	aa	ah																							
MM	6.4500	9.2000																							

WEIGHT
 LBS. 3500.00
 KG. 1560.00

DIMENSIONS ARE IN INCHES x 25.4 = MILLIMETERS
 APPROX WEIGHT IN METRIC - POUNDS
 POUNDS x .453 = KILOGRAMS

ATTACH 4
 PAGE 1 OF 1

DISTRIBUTION SHEET

To	From	Page 1 of 1			
Distribution	JW Bailey	Date 19 July 1998			
Project Title/Work Order		EDT No. 622225			
Project W-320 Tank 106-C, HNF-2467, Civil/Structural Calculations, Vol. 7		ECN No. n/a			
Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
JW Bailey	S2-48				
W-320 Project Files	RI-29				